FINAL
TECHNICAL MEMORANDUM 2019
LONG TERM MONITORING OF
LANDFILL AREAS OF CONCERN
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

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INTRODUCTION AND OBJECTIVES

Bhate Environmental Associates, Inc. (Bhate) was retained by the Air Force Civil Engineer Center (AFCEC), under Contract Number FA8903-16-F-0012, to conduct environmental remediation activities to achieve performance objective goals at multiple sites at the former Griffiss Air Force Base (AFB) and the former Plattsburgh AFB. Under this contract, Bhate has prepared this Technical Memorandum (Tech Memo) for the landfill areas of concern (AOCs) at Griffiss AFB, which include:

- LF001 – Landfill 1 AOC
- LF002 – Landfill 2/3 AOC
- LF003 – Landfill 7 AOC
- LF007 – Landfill 5 AOC
- LF009 – Landfill 6 AOC

The long term monitoring (LTM) program was developed for each Landfill AOC using the New York Codes of Rules and Regulations (NYCRR) Part 360 Regulations (New York State Department of Environmental Conservation [NYSDEC], December 2016). The purpose of this Tech Memo is to document LTM completed at these landfills in May and October 2019. Bhate documented previous LTM events completed under this contract in the Technical Memorandum 2018 Long Term Monitoring of Landfill Areas of Concern (Bhate, May 2019), Technical Memorandum 2017 Long Term Monitoring of Landfill Areas of Concern (Bhate, June 2018), and Technical Memorandum [Fall of 2016] Long Term Monitoring of Landfill Areas of Concern (Bhate, May 2017). All activities performed at the Landfill AOCs in 2019 are based on the elements provided in each Landfill AOC individual work plan as referenced in the following sections. Locations of the Former Griffiss AFB and the five landfill AOCs are presented on **Attachment A-Figure 1**.

All of the former Griffiss AFB landfills implemented a presumptive remedy alternative. The presumptive remedy implemented at these landfills includes the use of engineering controls, institutional controls, and monitoring. The remedial action objectives (RAOs) presented within the Record of Decisions (RODs) for the landfills are the same and have been met through implementation of the presumptive remedy. Specifically, the RAOs are:

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass;
- Reduce infiltration of rainwater and snowmelt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination;
- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site; and
- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit use of the area and groundwater.

Per Title 6 of the Codes, Rules, and Regulations of New York (CRR-NY) Part 360, the gas monitoring points at LF001, LF002, and LF009 must be maintained and sampled during the post-closure period for a minimum of 30 years. Since each of these landfills have been monitored for over 5 years, modifications to sampling and analysis requirements may be requested. Under 6 CRR-NY 360, the concentration of methane and other explosive gases generated by the facility must not exceed 25 percent (%) of the lower explosive limit (LEL) for gases in structures on or off-site, excluding gas control or recovery system components; and the LEL for the gases at or beyond the property boundary. Therefore, further optimization is based upon no detection of either methane or LEL in the landfill gas vent or gas monitoring probe for at least four consecutive years.

LF001 – LANDFILL 1 AOC

LF001 (Landfill 1 AOC) is located in the northern portion of the former Griffiss AFB and is approximately 22 acres in size. **Attachment A-Figure 2** presents the LF001 (Landfill 1 AOC) site map. The wastes disposed within LF001 consisted of general refuse, hard-fill, and boiler ash, buried using trench and cover methods. An estimated 90,000 to 100,000 cubic yards (CY) of wastes were disposed of at the site from 1960 to 1973. Groundwater flow rate at LF001 is approximately 2,000 feet per year, and groundwater flows to the southwest (FPM Remediations, Inc. [FPM]/CAPE, December 2015). The ROD for LF001 was signed by the United States Environmental Protection Agency (USEPA) on June 5, 2000, which required landfill capping. In accordance with the ROD, the landfill was re-graded and capped in 2003. The cap components include a gas venting layer, a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer.

Landfill Gas Monitoring

Landfill gas monitoring is performed at LF001 (Landfill 1 AOC) to identify the presence and concentration of methane at or near the landfill. There were originally 31 gas vents installed when the landfill was capped. One vent, LF1GV-23, was abandoned in 2005 during installation of the passive gas trench (Air Force Real Property Agency [AFRPA], April 2010). The current

monitoring schedule includes gas monitoring at the following 23 remaining vents: LF1GV-01 through -14, -17 through 22, -24, -25, and -27. On October 2, 2019, Bhate completed landfill gas monitoring at LF001 (Landfill 1 AOC), including a total of 9 gas monitoring probes and 23 landfill gas vents (**Attachment B-Table 1**). During the gas sampling event at LF001 (Landfill 1 AOC), methane was detected above 0.1% in 4 of the 9 probes but not at the 23 vents.

The highest methane concentration in a gas monitoring probe was recorded at LF1GMP-4 at 56.2%. This probe is located just north of the landfill boundary near the northwestern corner of the landfill. Probes LF1GMP-02, LF1GMP-06, and LF1GMP-09 had methane concentrations measured at approximately 23.4%, 24.6%, and 0.3% respectively. Methane concentrations at the remaining monitored probes were at or below 0.1% during the October 2019 measuring event.

The methane concentration in each gas vent was recorded at < 0.1%. The locations of gas monitoring probes and gas vents are shown on **Attachment A-Figure 2**.

Landfill Inspections

Since April 2005, landfill inspections and cover maintenance have been performed at LF001 (Landfill 1 AOC). Inspections and maintenance were optimized following the Spring 2010 sampling event and are now conducted on a semiannual basis with annual landfill cover mowing (Fall). Land Use Control/Institutional Controls (LUC/ICs) were implemented in accordance with the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF001 on May 17, 2019 (Spring inspection), and October 2, 2019 (Fall inspection). The October 2019 inspection was performed in conjunction with the landfill gas monitoring. The landfill inspection reports for May and October 2019 are presented in **Attachment C**. The locations of photos taken during the two LF001 inspections are presented on **Attachment A-Figure 2**.

On October 2, 2019, standing water was observed near LF001 Vent-6. Rain had occurred that day and the previous day. A revisit to the Vent-6 area the following day showed that the water had drained. The fan on Vent 25 was found to be present but not able to spin due to the presence of a mass of sticks inside the fan that appears to have been placed there by small animals. One downed tree, observed in 2017, laying on the perimeter fence on the north side of the landfill was removed in May 2019.

Groundwater and Surface Water Sampling

Water samples are collected biennially from select locations at LF001 (Landfill 1 AOC). In July 2018, water samples were collected from five groundwater monitoring wells and three surface water locations as part of the biennial sampling (Bhate, May 2019). Samples were also scheduled to be collected from monitoring wells LF1P-5, LF1MW-5, LF1MW-6, and LF1MW-1R. However, wells LF1P-5, LF1MW-5, and LF1MW-6 are within the marsh area of Six Mile Creek and field personnel were unable to access the area due to a large amount of standing water and difficult vegetation. Although the given coordinates for well LF1MW-1R were accessible, an extensive search in 2018 and an additional search of the surrounding area in May 2019 did not locate the well. In May 2019 additional efforts were made to sample LF1P-5, LF1MW-5, and LF1MW-6 in order to complete the 2018 data set. Monitoring wells LF1P-5 and LF1MW-5 were sampled on

May 16, 2019. Monitoring well LF1MW-6 was not sampled due to the conversion, by the local beaver population, of the area surrounding the well into an extensive pond network.

Depth to water was measured in each well before purging by low-flow methods. Water samples were collected in laboratory provided containers, immediately packed on ice, and shipped to Eurofins TestAmerica, Denver (Eurofins) for analysis. Groundwater samples were analyzed for Volatile Organic Compounds (VOCs) using U.S. Environmental Protection Agency (USEPA) Method SW8260B and leachate indicators. Groundwater quality assurance/quality control (QA/QC) samples, including duplicate samples, and trip-blanks were collected to document QA/QC procedures.

Groundwater and surface water analytical results for the chemicals of concern were compared to the screening criteria found in NYCRR Title 6 Part 703.5 *Water Quality Standards Surface Waters and Groundwater,* Table 1 and the Division of Water Technical and Operational Guidance Series (1.1.1) Table 1 (NYSDEC, June 1998).

Analytical reports and Data Validation Reports are included in **Attachment D**.

Groundwater and Surface Water Analytical Results

Sampling results for selected VOC analytes, leachate indicators, and their corresponding concentrations and screening criteria exceedances for groundwater samples are presented in **Attachment B-Table 2**. One VOC analyte, benzene (detected at 1.7 micrograms per liter [µg/L]), was reported above the screening level of 1 µg/L in the groundwater sample collected from monitoring well LF1MW-5. This is similar to the range of benzene concentrations detected (1.1 µg/L to 1.8 µg/L) at LF1MW-5 since 2011 (FPM/CAPE, December 2015). The leachate parameter color is measured in platinum-cobalt units (PCU) and was also reported in exceedance of the groundwater screening criteria of 15 PCU in samples taken from monitoring wells LF1P-5 and LF1MW-5 (200 diluted [D] PCU and 150 estimated and diluted [J D] PCU, respectively). This is similar to the range of historically reported values for color at each of these wells (not detected to 160 PCU and not detected to 180 PCU, respectively) (FPM/CAPE, December 2015).

Conclusions and Recommendations

The inspections did not identify any major deficiencies that would jeopardize the integrity of the cover, and there is optimal vegetation cover present on the cap. Based on the *Final Optimization Plan for Landfill Areas of Concern Long-Term Management Program* (Bhate, November 2016), it is recommended that the frequency of landfill cap inspections continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing and landfill gas monitoring. To address the minor items identified in 2019, the following activities are recommended to be performed in 2020:

- The top fan on Vent-25 needs to be replaced due to numerous sticks that have been placed inside by animal activity.

Based on historical landfill gas monitoring coupled with the 2019 gas monitoring results, the passive gas trench along the northwest side of the landfill is operating properly. No changes are recommended at LF001 for the 2020 landfill gas monitoring locations.

The water sampling results did not identify issues which require action. The sole VOC detected in exceedance, benzene, was within one order of magnitude of the NYS Class GA Groundwater Standards and are similar to previous groundwater monitoring results. The exceedance of the leachate parameter of color is attributed to the normal design drainage of rainwater and snow melt that has percolated through the landfill cap cover soils. The percolation causes the dissolution of minerals, including iron, from the clean cover soils. The leachate exceedance is not caused by leaching of material from within the landfill itself as evidenced by the absence of VOC exceedances (or absence of increasing trends in the case of benzene) in site groundwater and surface waters as well as the absence of exceedances of other leachate parameters. Historically a Monitoring and Remediation Optimization System (MAROS) analysis has been applied to analytical data from seven groundwater samples. The current optimized sampling plan calls for five of the seven wells to be sampled. During 2018 and 2019 however, due to the beaver pond preventing the sampling of one well, only four of the five wells used in the previous MAROS analysis were sampled. Analytical results for these four wells were non-detect for all analytes, except for benzene in one well, making the MAROS analysis moot. Measures to control the beaver activities along Six Mile Creek at the toe of the landfill are recommended in 2020 so as to regain access to LF1MW-6. Following beaver control efforts, an evaluation will be made regarding the water levels and whether the current optimization of the monitoring well network is appropriate.

LF002 – LANDFILL 2/3 AOC

LF002 (Landfill 2/3 AOC) is approximately 13 acres in size and is located in the northeastern portion of the base. **Attachment A-Figure 3** presents the LF002 (Landfill 2/3 AOC) site map. The wastes at LF002 consisted of hard-fill in the southern portion of Landfill 2, on-board aircraft wastes in the northern portion of Landfill 2 and approximately 1 ton of wetted and double-bagged asbestos waste in Landfill 3, located in the eastern portion of Landfill 2. The ROD for LF002 was signed by the USEPA on June 5, 2000. In accordance with the ROD, the landfill was re-graded and capped during the summer of 2003. The cap components include a gas venting layer, a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer. LTM was initiated at LF002 in December 2003.

Landfill Gas Monitoring

Landfill gas monitoring has been performed at LF002 (Landfill 2/3 AOC) to identify the presence and concentration of methane at or near the landfill. On October 2, 2019, Bhate completed landfill gas monitoring including four gas monitoring probes and eight landfill gas vents (**Attachment B-Table 3**). Results from the gas sampling events at LF002 (Landfill 2/3 AOC) continue to show site-wide stabilization of methane concentrations. The greatest methane concentration measured at the four monitoring probes was 3.6% at GMP-05. The greatest methane concentration measured at the eight vents was 2.2% at Vent-05.

Landfill Inspections

Since April 2005, landfill inspections and cover maintenance have been performed at LF002 (Landfill 2/3 AOC). Inspections and maintenance were conducted on a quarterly basis and optimized following the Spring 2010 sampling event to a semiannual basis. Landfill cover mowing

is conducted on an annual basis (Fall). LUC/ICs have been implemented by the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF002 on May 17, 2019 (Spring inspection), and October 2, 2019 (Fall inspection). The 2019 Fall inspections were performed in conjunction with the annual landfill gas monitoring. The landfill inspection reports for May and October 2019 are presented in **Attachment C**. The location of photos taken during the LF002 inspections are presented on **Figure 3** within **Attachment A**. No animal burrows or cap damage were observed during either Spring or Fall 2019 inspection events. Standing water was not observed on the landfill cap during either inspection, despite rain preceding and during each inspection. The locks on GMP-01 and GMP-02 were replaced and the locks on each of the other GMPs that were sampled were in good working order. On May 17, 2019, downed trees and dead branches were removed from the fence line. There were no holdover maintenance items from the 2018 inspections.

Groundwater and Surface Water Sampling

Water samples are collected every 5 years from select locations at LF002 (Landfill 2/3 AOC). On May 16 and 17, 2019, water samples were collected from four groundwater monitoring wells (LF2MW2-1, LF2MW-4, -12, and -13) and three surface water locations (LF2SW-1, -2, and -3). Depth to water was measured in each well before purging by low-flow methods. Water samples were collected in laboratory provided containers, immediately packed on ice, and shipped to Eurofins for analysis. Groundwater and surface water samples were analyzed for leachate indicators. Groundwater QA/QC samples were collected to document QA/QC procedures.

Groundwater and surface water analytical results were compared to the screening criteria found in NYCRR Title 6 Part 703.5 *Water Quality Standards Surface Waters and Groundwater,* Table 1 and the Division of Water Technical and Operational Guidance Series (1.1.1) Table 1 (NYSDEC, June 1998).

Sampling field forms, laboratory analytical reports, and Data Validation Reports are included in **Attachment D**.

Groundwater and Surface Water Analytical Results

Sampling results for leachate indicators, and their corresponding concentrations and screening criteria exceedances for groundwater and surface water samples are presented in **Attachment B-Table 4**. The leachate parameter of color was reported in exceedance of the groundwater screening criteria of 15 PCU in each of the groundwater and surface water samples: 50 D PCU at LF2MW2-1; 200 D PCU at LF2MW-4; 20 PCU at LF2MW-12; 25 PCU at LF2MW-13; 150 D PCU at LF2SW-1; 75 D at LF2SW-2; and 100 D at LF2SW-3. These values are similar to the range of exceedances for color reported during the prior (2015) sampling event at the site (20 PCU to 200 PCU) (FPM/CAPE, December 2015). Additionally, the leachate parameter Total Dissolved Solids (TDS) was detected at the NYSDEC standard of 500 milligrams per liter (mg/L) in one well, LF2MW-4, and in exceedance (540 mg/L) of the standard at one sampling location, LF2MW-12. These values represent a decrease from the prior sampling round (2015) which produced two exceedances of TDS, 660 mg/L at LF2MW-12 and 5,300 mg/L at LF2MW-100 (FPM/CAPE, December 2015). The following leachate parameters were reported in exceedance of their

respective NYSDEC standards in 2015 but not during the 2019 sampling round: ammonia, Total Kjeldahl Nitrogen (TKN), bromide, and chloride (FPM/CAPE, December 2015).

Conclusions and Recommendations

The inspections did not identify any major deficiencies that would jeopardize the integrity of the cover and there is optimal vegetation cover present on the cap. No significant weather events occurred in 2019 that warranted additional inspections. The exceedance of the leachate parameters of color and TDS are attributed to the normal design drainage of rainwater and snow melt that has percolated through the landfill cap cover soils. The percolation causes the dissolution of minerals, including iron, from the clean cover soils. The leachate exceedances are not caused by leaching of material from within the landfill itself as evidenced by the absence of exceedances and the decreasing trends of other leachate parameters in site groundwater and surface waters. The following minor issue should be addressed in 2020:

- The Spring inspection should include removal of any downed trees and dead branches that have fallen on the fence line over the winter as numerous snags exist on the opposite side of the fence line.

Based on the *Final Optimization Plan for Landfill Areas of Concern Long-Term Management Program* (Bhate, November 2016), it is recommended that the frequency continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing and landfill gas monitoring. Results from the gas sampling events at LF002 (Landfill 2/3 AOC) continue to show site-wide stabilization of methane concentrations. Based upon historical data (FPM/CAPE, December 2015) and the Fall 2017 and Fall 2018 readings, GMP-03, VENT-02, and VENT-08 were eliminated from future monitoring. These locations were not monitored in 2019 and will not be sampled in 2020. Currently abandonment is not recommended in case future monitoring becomes necessary.

LF003 – LANDFILL 7 AOC AND LF007 – LANDFILL 5 AOC

LF003 (Landfill 7 AOC) is approximately 11 acres in size, was active from 1950 through 1954, and is located northeast of Runway 15/33 (**Attachment A-Figure 4**). The wastes disposed of at this landfill consisted of domestic refuse, solid waste, liquid wastes, petroleum products, and miscellaneous Base operations waste (such as airplane parts). Waste was placed into four trenches in the landfill area and subsequently burned. The ROD for LF003 (Landfill 7 AOC) was signed by the USEPA on June 6, 2000. In accordance with the ROD, the landfill was re-graded and capped in 2002. The landfill was capped with an 18-inch low permeability soil layer, covered by a 6-inch layer of topsoil, and seeded with grass (FPM/CAPE, December 2015).

LF007 (Landfill 5 AOC) is approximately 4 acres in size and is located in the south-central portion of the base (**Attachment A-Figure 5**). The waste at LF007 consisted of domestic wastes, reportedly having been burned and then buried. Approximately 18,000 CY of wastes were disposed of at the site from 1950 through 1960. The ROD for LF007 was signed by the USEPA on June 5, 2000. In accordance with the ROD, the landfill was re-graded and capped in 2002. The cap components include a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer. LTM was initiated in February 2003.

Landfill Gas Monitoring

Landfill gas monitoring is not required at LF003 (Landfill 7 AOC) or LF007 (Landfill 5 AOC).

Landfill Inspections

Since September 2003, landfill inspections and cover maintenance have been performed at LF003 (Landfill 7 AOC) and LF007 (Landfill 5 AOC). Inspections and maintenance were conducted on a quarterly basis and optimized following the Spring 2010 sampling event to a semiannual basis. Landfill cover mowing is conducted on an annual basis (Fall). LUC/ICs have been implemented by the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF003 and LF007 on May 17, 2019 (Spring inspection), and October 2, 2019 (Fall inspection). The landfill inspection reports (including photos) for May and October 2019 are presented in **Attachment C**. The location of photos taken during the LF003 and LF007 inspections are presented on **Figures 4 and 5,** respectively, within **Attachment A**. Only minor issues were noted during the 2019 inspection events at LF003 and LF007:

- At LF003, the 2-inch stainless steel well casing at monitoring well LF7MW-27 protrudes several inches higher than the outer protective casing and prevents closure of the outer casing lid.
- At LF007, the access gate located to the northwest of the landfill is being bypassed by vehicle traffic which has resulted in the creation of a new de-facto roadway that provides unauthorized access to the vicinity of the landfill. The gate being bypassed serves an access road and is not part of the landfill boundary or operation. While the gate serving the access road is being bypassed, a ditch and berm separating the access road from the landfill, remain intact and prevent vehicular traffic onto the landfill cap thus ensuring that the remedy remains protective. Additionally, the signage at the boundary of the landfill along the access road is present and conspicuous.

Groundwater and Surface Water Sampling

Water samples are collected every 5 years from select locations at LF003 (Landfill 7 AOC). On May 17, 2019, water samples were collected from six groundwater monitoring wells and two wetlands surface water locations.

Water samples are collected every 5 years from select locations at LF007 (Landfill 5 AOC). On May 14 and 15, 2019, water samples were collected from five groundwater monitoring wells and three surface water locations.

Depth to water was measured in each well before purging by low-flow methods. Water samples were collected in laboratory provided containers, immediately packed on ice, and shipped to Eurofins for analysis. Groundwater and surface water samples were analyzed for leachate indicators. Groundwater QA/QC samples were collected to document QA/QC procedures.

Groundwater and surface water analytical results were compared to the screening criteria found in New York Codes, Rules, and Regulations Title 6 Part 703.5 *Water Quality Standards Surface Waters and Groundwater,* Table 1 and the Division of Water Technical and Operational Guidance Series (1.1.1) Table 1 (NYSDEC, June 1998).

Field sampling forms, laboratory analytical reports, and Data Validation Reports are included in **Attachment D**.

Groundwater and Surface Water Analytical Results

Sampling results for leachate indicators, and their corresponding concentrations and screening criteria exceedances for groundwater and surface water samples are presented in **Attachment B-Table 5** for LF003 and in **Attachment B-Table 6** for LF007.

At LF003, the leachate parameter of color was reported at or in exceedance of the NYSDEC standard of 15 PCU in two of the six groundwater sampling locations and each of the two wetlands surface water sampling locations: 75 D PCU at LF7MW-22; 15 J PCU at LF7MW-26; 30 PCU at LF7WL-3; and 20 PCU at LF7WL-4. These values are similar to the range of exceedances for color reported during the prior (2015) sampling event at the site (20 PCU to 180 PCU) (FPM/CAPE, December 2015). The leachate parameter TDS was detected above the NYSDEC standard of 500 mg/L in one groundwater sampling location, LF7MW-22 (520 mg/L). This value represents a slight decrease from the prior sampling round (2015) which produced an exceedance of TDS of 630 mg/L at LF7MW-22 (FPM/CAPE, December 2015).

At LF007, the leachate parameter of color was reported in exceedance of the NYSDEC standard in three of the five groundwater sampling locations and two of the three surface water sampling locations: 50 D PCU at MW49D07; 100 D PCU at LF5MW-3; 130 D PCU at LF5MW-5; 25 PCU at LF5SW-2; and 20 PCU at LF5SW-3. These values are lower than the range of exceedances for color reported during the prior (2015) sampling event at the site (80 PCU to 300 PCU) (FPM/CAPE, December 2015). The leachate parameter TDS was detected at or above the NYSDEC standard of 500 mg/L in four groundwater sampling locations and each of the surface water sampling locations: 550 mg/L at LF5MW-1A; 4,700 mg/L at LF5MW-100R; 500 mg/L at MW49D07; 610 mg/L at LF5MW-3; 790 mg/L at LF5SW-1; 810 mg/L at LF5SW-2; and 800 mg/L at LF5SW-3. These values are lower than the range of exceedances for TDS reported during the prior (2015) sampling event at the site (560 mg/L to 16,000 mg/L), however exceedances were not reported in the surface water samples from 2015 (FPM/CAPE, December 2015). Additionally, the leachate parameter chloride was detected in exceedance of the NYSDEC standard of 250 mg/L at one groundwater sampling location and each of the surface water sampling locations: 2,200 D mg/L at LF5MW-100R; 300 D mg/L at LF5SW-1; 310 D mg/L at LF5SW-2; and 310 D mg/L at LF5SW-3. These values are a decrease from the exceedance reported in 2015 (10,000 mg/L at LF5MW-100R), however exceedances were not reported in the surface water samples from 2015 (FPM/CAPE, December 2015). The leachate parameter bromide was detected above the NYSDEC standard of 2 mg/L at one groundwater sampling location, LF5MW-100R at 26 D mg/L, which indicates a decrease from the reported exceedance in 2015 of 99 mg/L at the same sampling location (FPM/CAPE, December 2015).

Conclusions and Recommendations

The 2019 inspections did not identify any major deficiencies that would jeopardize the integrity of the cover at either landfill and there is optimal vegetation cover present on the caps at both LF003 and LF007. The exceedances of the leachate parameters at both landfills are attributed to the normal design drainage of rainwater and snow melt that has percolated through the landfill

cap cover soils. The percolation causes the dissolution of minerals, including iron, from the clean cover soils. The leachate exceedances are not caused by leaching of material from within the landfill itself as evidenced by the generally decreasing trend of other leachate parameters in site groundwater. However, several minor items are recommended to be addressed in 2020 as follows:

- An outer casing extension should be added to LF7MW-27, at LF003, so that the well casing is within the outer casing and the lid can be closed and locked.

Iron staining was noted during the spring 2017 inspection in and near the creek west of LF007. Similar staining was noted in water near LF001 in 2017. Investigations at LF001 in 2018 showed this staining to be associated with rainwater percolating through the landfill cover soil and draining to areas around the landfill. At LF001, design outfalls were the primary areas of staining. This same process appears to be occurring at LF007. The cover at LF007 (landfill 5) consists of an impermeable layer overlain by cover soil. Although no drain system is built into the cover as at LF001, rainwater still percolates through the cover soil, leaches minerals (including iron), and exits the cap on top of the impermeable layer. When oxidized, this water leaves red staining. Similar to LF001 and as supported by the 2019 analytical data for leachate parameters, it does not appear that landfill leachate is the cause of the iron staining noted at LF007 during the spring 2017 inspection.

No significant weather events occurred in 2019 that warranted additional inspections. Based on the *Final Optimization Plan for Landfill Areas of Concern Long-Term Management Program* (Bhate, November 2016), it is recommended that the frequency continue semiannually with a limited landfill inspection in the spring and the more comprehensive inspection in the fall to coincide with annual mowing at both LF003 and LF007.

LF009-LANDFILL 6 AOC

LF009 (Landfill 6 AOC) is approximately 15.7 acres in size and is located near the southern boundary of the base. **Attachment A-Figure 6** presents the LF009 (Landfill 6 AOC) site map. The wastes disposed at the landfill include general refuse and hard-fill that was buried and some of which was burned at the site. An estimated 38,000 to 62,000 CY of wastes were disposed at the site from 1955 to 1959. During the 1980s, although the landfill was no longer active, an unknown quantity of fuel-contaminated soil from the tank excavations at Tank Farms 1 and 3 was disposed of in the southern portion of LF009 (Landfill 6 AOC). In 1986, a clay cap was constructed over the fuel-contaminated soils area. The ROD for LF009 was signed by the USEPA on June 7, 2001, which required a landfill cap. The cap was completed in 2004 and includes a gas venting layer, a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer.

Site SD052-02 borders LF009 (Landfill 6 AOC) to the north (**Attachment A-Figure 6**), and is associated with a plume that is located downgradient of former maintenance facilities in Buildings 774 and 776, and former fuel pump house Building 775. Site SD052-04 is the LF009 (Landfill 6 AOC) trichloroethylene (TCE) Site plume, located immediately downgradient to the south of LF009 (Landfill 6 AOC). The most contaminated portion of the plume is located southwest of the landfill beneath the floodplain of Three Mile Creek. Monitoring of chlorinated VOCs in groundwater at LF009 (Landfill 6 AOC) is completed as part of remedial efforts at Site

SD052-04. The approximate groundwater flow direction is shown with an arrow on **Attachment A-Figure 6**. This direction is a change from past long term monitoring reports that have shown multiple flow directions across the landfill. These varying directions appear to show topographical surface water flow across the landfill and not groundwater flow which should be predominantly one direction. In addition, without wells through the landfill, it is impossible to know groundwater flow direction under the landfill. **Attachment A-Figure 6** reflects the generalized groundwater flow known from Site SD052-02, just upgradient of the landfill.

Landfill Gas Monitoring

Landfill gas monitoring has been performed at the site to identify the presence and concentration of methane at or near the landfill. On October 2, 2019, four scheduled landfill gas vents (LF6VENT-02, LF6VENT-03, LF6VENT-04, and LF6VENT-06) were monitored (**Attachment B-Table 7**). Methane measurements were below 0.1% at each of the vents.

Landfill Inspections

Landfill inspections and cover maintenance have been performed at the site since 2006. Inspections and maintenance were conducted on a quarterly basis and optimized following the Spring 2010 sampling event to a semiannual basis. Landfill cover mowing is conducted on an annual basis (Fall). LUC/ICs have been implemented by the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF009 on May 17, 2019 (Spring inspection), and October 2, 2019 (Fall inspection). The 2019 Fall inspection was performed in conjunction with the landfill gas monitoring. The landfill inspection reports (including photos) for May and October 2019 are presented in **Attachment C.** The location of photos taken during the LF009 inspections are presented on **Attachment A-Figure 6.**

No significant issues were observed during the 2019 inspections. There were no holdover maintenance items from the 2018 inspections.

Groundwater, Leachate, and Surface Water Sampling

Water samples are collected every 5 years from select locations at LF009 (Landfill 6 AOC). On May 15 and 16, 2019, water samples were collected from 10 groundwater monitoring wells, two leachate sample locations, and four surface water locations.

Depth to water was measured in each well before purging by low-flow methods. Water samples were collected in laboratory provided containers, immediately packed on ice, and shipped to Eurofins for analysis. Groundwater samples were analyzed for leachate indicators. Groundwater QA/QC samples were collected to document QA/QC procedures.

Analytical results were compared to the screening criteria found in New York Codes, Rules, and Regulations Title 6 Part 703.5 *Water Quality Standards Surface Waters and Groundwater,* Table 1 and the Division of Water Technical and Operational Guidance Series (1.1.1) Table 1 (NYSDEC, June 1998).

Analytical reports and Data Validation Reports are included in **Attachment D**.

Groundwater, Leachate, and Surface Water Analytical Results

Sampling results for leachate indicators, and their corresponding concentrations and screening criteria exceedances for groundwater samples are presented in **Attachment B-Table 8**.

At LF009, the leachate parameter of color was reported at or in exceedance of the NYSDEC standard of 15 PCU in five of the groundwater sampling locations, both of the leachate sampling locations, and at each of the four surface water sampling locations: 15 PCU at LF6MW-1; 75 D PCU at LF6MW-12; 20 PCU at 775VMW-18R; 30 J PCU at LF6VMW-21; 15 PCU at LF6VMW-22; 40 PCU at LF6LH-1; 30 PCU at LF6H-2; 25 PCU at LF6/TMCSW-1; 30 PCU at LF6/TMCSW-2; 40 PCU at LF6/TMCSW-3; and 50 PCU at LF6W-1. These values are significantly lower than the range of exceedances for color reported during the prior (2015) sampling event at the site (50 PCU to 500 PCU) (FPM/CAPE, December 2015). The leachate parameter TDS was detected above the NYSDEC standard of 500 mg/L in five groundwater sampling locations, one leachate sampling location, and in three of the surface water sampling locations: 1,700 mg/L at LF6MW-1; 580 mg/L at LF6MW-12; 1,500 mg/L at 775VMW-18R; 660 mg/L at LF6VMW-24; 520 mg/L at TMCMW-9; 670 mg/L at LF6H-2; 730 mg/L at LF6/TMCSW-1; 700 mg/L at LF6/TMCSW-2; and 650 mg/L at LF6/TMCSW-3. These values are lower than the range of exceedances for TDS reported during the prior (2015) sampling event at the site (550 mg/L to 2,600 mg/L) (FPM/CAPE, December 2015). The leachate parameter chloride was detected above the NYSDEC standard at three groundwater sampling locations: 680 D mg/L at LF6MW-1; 690 D mg/L at 775VMW-18R; and 290 D mg/L at LF6VMW-24. These values are lower than the range of exceedances for chloride reported during the prior (2015) sampling event at the same site wells (330 mg/L to 1,400 mg/L) (FPM/CAPE, December 2015). The leachate parameter bromide was detected just above the NYSDEC standard of 2 mg/L at one groundwater sampling location, LF6VMW-26 at 2.1 mg/L. Bromide had not been detected in exceedance of the NYSDEC groundwater standard during the prior (2015) sampling event (FPM/CAPE, December 2015). One leachate parameter, TKN, was reported in exceedance during the prior (2015) sampling round but not during the 2019 sampling event (FPM/CAPE, December 2015).

Conclusions and Recommendations

The inspections did not identify any major deficiencies that would jeopardize the integrity of the cover, and there is optimal vegetation cover on the cap. No significant weather events occurred in 2019 that warranted additional inspections. The exceedances of the leachate parameters are attributed to the normal design drainage of rainwater and snow melt that has percolated through the landfill cap cover soils. The percolation causes the dissolution of minerals, including iron, from the clean cover soils. The leachate exceedances are not caused by leaching of material from within the landfill itself as evidenced by the absence of exceedances of other leachate parameters in site groundwater and surface waters. Based on the *Final Optimization Plan for Landfill Areas of Concern Long-Term Management Program* (Bhate, November 2016), it is recommended that the frequency continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing and landfill gas monitoring. Landfill gas monitoring from 2011 to 2019 shows that methane levels were stable or absent at monitored gas probes. Based upon historical data (FPM/CAPE, December 2015) coupled with the Fall 2019 readings, Bhate recommends that landfill gas

monitoring for the Fall of 2020 continue to only include the following four LF009 vents: VENT-02, VENT-03, VENT-04, and VENT-06. This is the same recommendation presented in the 2018 Technical Memorandum LTM of Landfill AOCs (Bhate, May 2019).

REFERENCES

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Bhate. June 2018. *Final Technical Memorandum 2017 Long Term Monitoring of Landfill Areas of Concern, Former Griffiss Air Force Base Rome, New York*.

Bhate. May 2019. *Final Technical Memorandum 2018 Long Term Monitoring of Landfill Areas of Concern, Former Griffiss Air Force Base Rome, New York*.

FPM/CAPE. December 2015. *Final 2015 Annual Long Term Monitoring Report/Optimized Exit Strategy Report Landfill Areas of Concern (LF001 (Landfill 1 AOC), LF002 (Landfill 2/3 AOC), LF003 (Landfill 7 AOC), LF007 (Landfill 5 AOC), and LF009 (Landfill 6 AOC)) Former Griffiss Air Force Base Rome, New York*. (AR 459955)

FPM. July 2016. *Final 2016 Semiannual Long-Term Monitoring Report Landfill Areas of Concerns (LF001 (Landfill 1 AOC), LF002 (Landfill 2/3 AOC), LF003 (Landfill 7 AOC), LF007 (Landfill 5 AOC), and LF009 (Landfill 6 AOC) Former Griffiss Air Force Base Rome, New York.*

NYSDEC. June 1998. *Division of Water Technical and Operational Guidance Series (1.1.1) Table 1.*

NYSDEC. December 2016. *Title 6 of the Codes, Rules and Regulations of New York (CRR-NY) Subpart 360-2 Landfills.*

ATTACHMENT A – FIGURES

Former Griffiss Air Force Base
Landfill AOC Sites Location Map

Figure 1

Technical Memorandum 2019 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

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DATE: 1/10/2020

SCALE: As Shown

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Figure 2

LF001 (Landfill 1 AOC) 2019 Inspections

Technical Memorandum 2019 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

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DATE: 1/10/2020

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PROJECT NO: AFCGSA3.0012

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Passive Gas Collection Trench Location

Approximate Direction of Groundwater Flow

NEADS

Gulf Road

Perimeter Road

Pistol Range

Six Mile Creek

Intermittent Stream

Intermittent Stream

LF001

F10C

F10B

A1A

SS062

5936

5950

6028

0854 6025

0738

0900

0901

0902

0903

0904

0905

0906

0907

0930

0912

0913

Vent-1 Vent-2 Vent-3 Vent-4 Vent-5 Vent-6 Vent-7 Vent-8 Vent-9 Vent-10 Vent-11 Vent-12 Vent-13 Vent-14 Vent-15 Vent-16 Vent-17 Vent-18 Vent-19 Vent-20 Vent-21 Vent-22 Vent-24 Vent-25 Vent-26 Vent-27 Vent-28 Vent-29 Vent-30 Vent-31

LF1GMP-1 LF1GMP-2 LF1GMP-3 LF1GMP-4 LF1GMP-6 LF1GMP-8 LF1GMP-9 LF1GMP-10 LF1GMP-11 LF1GMP-12 LF1GMP-13 LF1GMP-14 LF1GMP-15 LF1GMP-16 LF1GMP-17 LF1GMP-18 LF1GMP-19 LF1GMP-20

1F 2F 3F 4F 5F 6F 7F 8F 9F

1S 2S 3S 4S 5S 6S 7S 8S 9S

LF1MW-1R LF1MW-6 LF1MW-11 LF1MW-13 LF1MW-103 MWSAR03

LF1P-2 LF1P-5 LF1MW-5

LF1SW-1 LF1SW-2SMC LF1SW-3

SEEP-1 SEEP-2 SEEP-3

Notes:
This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

0 150 300 600 Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend:

- Vent-3 — Vent and GMP Locations Monitored during Fall 2019 Event
- LF1MW-5 — Groundwater and Surface Water Sample Locations Monitored during 2019 Events
- LF1P-2 — Groundwater and Surface Water Sample Locations Monitored during 2018 Events
- Monitoring Well Location
- Surface Water Sample Location
- Gas Monitoring Probe Location
- Gas Vent Location
- Design Drainage Outfall Location
- Photo Orientation
- Installation Restoration Program (IRP) Area
- Base Boundary
- Parcel Boundary
- 5657 — Building Number
- Wetland Area
- Rich Sloping Fen
- Surface Water Location

GMP-03
GMP-04
VENT-01
VENT-02
1S
GMP-08
VENT-03
LF2MW-14
GMP-02
LF002
Approximate Direction of Groundwater Flow
GMP-05
VENT-04
LF2SW-3
VENT-13
LF2MW2-1
GMP-09
VENT-07
VENT-14
VENT-05
2F
3F
4F
1F
GMP-01
VENT-10
VENT-11
VENT-12
VENT-06
GMP-06
A6
LF2MW-13
LF2MW-4
VENT-09
VENT-08
LF2SW-2
GMP-07
Perimeter Road
LF2MW-12
LF2SW-1
LF2MW-100
A1A
AFRL 7
N0797
0762

Notes:
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0 100 200 400 Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend:

- VENT-12 — Vent and GMP Locations Monitored during Fall 2019 Event
- LF2MW-12 — Groundwater and Surface Water Sample Locations Monitored during 2019 Events
- Monitoring Well Location
- Surface Water Sample Location
- Gas Monitoring Probe Location
- Gas Vent Location
- Photo Orientation
- Installation Restoration Program (IRP) Area
- Base Boundary
- Parcel Boundary
- 5657 — Building Number
- Culvert / Stormwater Drain
- Wetland Area

LF002 (Landfill 2/3 AOC) 2019 Inspections

Figure 3

Technical Memorandum 2019 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

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LF003 (Landfill 7 AOC) 2019 Inspections

Figure 4

Technical Memorandum 2019 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

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SCALE: As Shown

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F10B

Pond

Pond

LF7WL-4

LF7MW-27

LF7MW-22

LF7WL-3

LF7MW-100

LF7MW-26

LF7MW-28

LF7MW-29

LF7MW-30

LF7MW-23

6S

11F

10F

Approximate Direction of Groundwater Flow

LF003

7F

8F

9F

5S

12F

4S

3S

13F

Perimeter Road

4F

3F

5F

6F

2S

1S

2F

1F

5960

0802

5945

6235

5986

6242

5985

5525

A6

A1A

A1A

Notes:
This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

0 100 200 400 Feet

Legend:

- LF7MW-30 — Groundwater and Surface Water Sample Locations Monitored during 2019 Events
- Monitoring Well Location
- Surface Water Sample Location
- Photo Orientation
- Installation Restoration Program (IRP) Area
- Base Boundary
- Parcel Boundary
- 5657 — Building Number
- Culvert / Stormwater Drain
- Wetland Area
- Surface Water Location

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LF007 (Landfill 5 AOC) 2019 Inspections

Figure 5

F2A
F11C
F11B
F11A
F11Da
NEADS
0700
LF007
Perimeter Road
Three Mile Creek
Approximate Direction of Groundwater Flow
1F
2F
3F
4F
5F
6F
7F
1S
2S
3S
4S
LF5MW-1A
LF5MW-3
LF5MW-100R
LF5MW-5
MW49D07
LF5SW-1
LF5SW-2
LF5SW-3

Notes:
This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

0 50 100 200 Feet

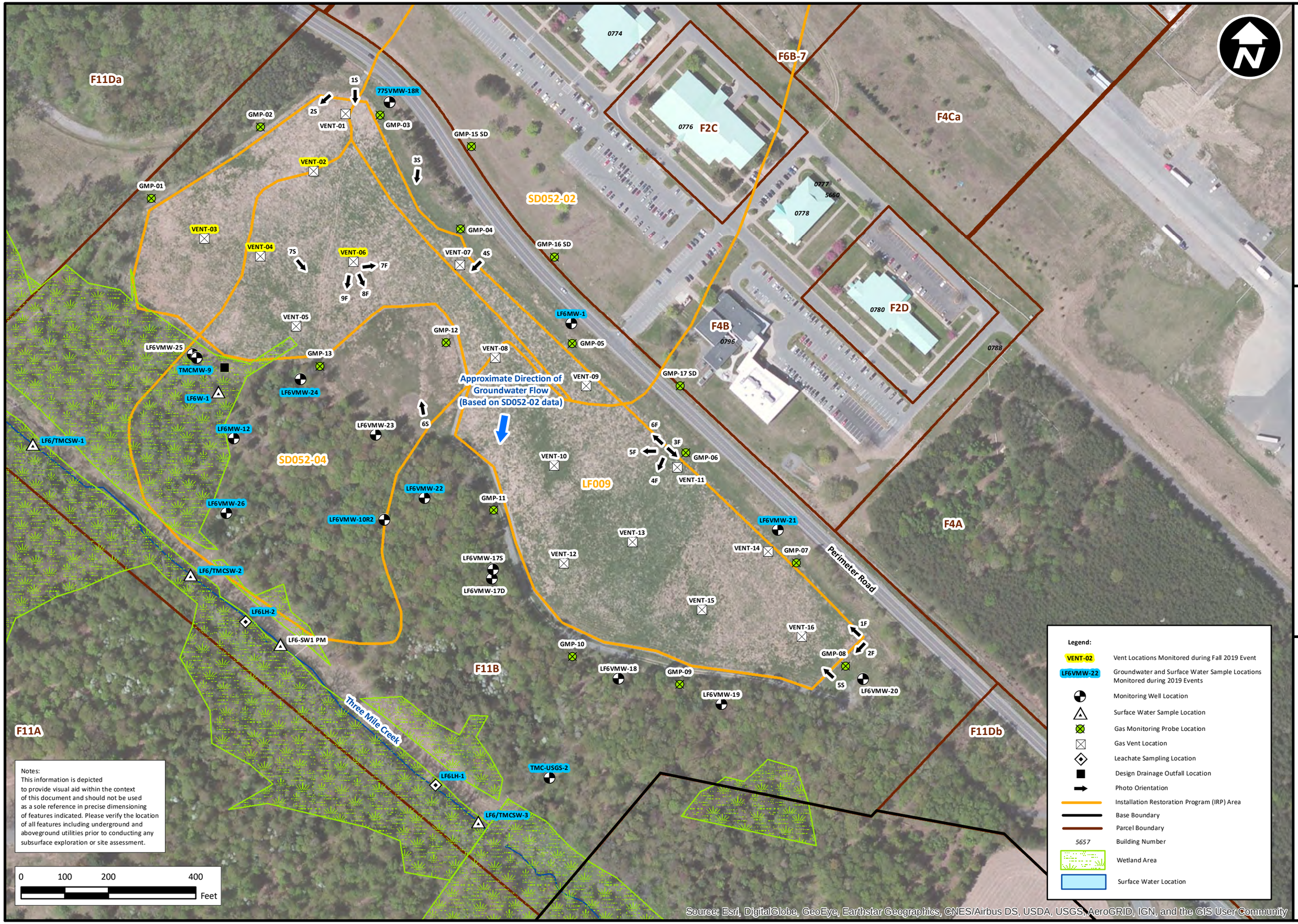
Legend:
- LF5MW-5 — Groundwater and Surface Water Sample Locations Monitored during 2019 Events
- Monitoring Well Location
- Surface Water Sample Location
- Photo Orientation
- Installation Restoration Program (IRP) Area
- Base Boundary
- Parcel Boundary
- 5657 — Building Number
- Wetland Area
- Surface Water Location

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Technical Memorandum 2019 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

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LF009 (Landfill 6 AOC) 2019 Inspections

Figure 6

Technical Memorandum 2019 Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

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ATTACHMENT B – TABLES

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	1-Feb-10				5-May-10				31-Aug-10			
	Barometric Pressure (in.) =			29.45-29.50	Barometric Pressure (in.) =			29.04-29.23	Barometric Pressure (in.) =			29.40-29.29
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	>100	45.5	2.1	20.6	>100	32.4	2.5	18.8	>100	52.5	0.9	24.6
LF1GMP-02	0	0.0	14.4	2.1	>100	8.1	0.0	12.8	>100	28.6	0.1	18.1
LF1GMP-03	>100	5.7	8.1	8.1	>100	18.2	0.0	22.1	>100	43.7	0.1	34.6
LF1GMP-04	10	0.5	14.3	4.5	>100	17.6	0.0	24.2	>100	53.8	0.1	40.9
LF1GMP-06	>100	70.8	0.0	4.3	>100	44.8	0.0	6.3	>100	79.5	0.3	8.9
LF1GMP-08	0	0.0	20.5	1.1	0	0.0	16.3	2.5	0	0.0	7.4	8.4
LF1GMP-09	47	2.4	7.7	4.0	>100	11.2	0.0	12.5	>100	45.7	0.3	22.9
LF1GMP-10	>100	9.0	6.8	10.7	>100	10.2	0.5	15.1	>100	18.1	0.3	21.6
LF1GMP-11	0	0.0	23.8	0.1	0	0.0	16.1	2.3	0	0.0	15.2	3.3
LF1GMP-12	0	0.0	21.4	1.5	0	0.0	18.5	1.5	0	0.0	17.9	2.3
LF1GMP-13	0	0.0	18.1	1.3	0	0.0	15.1	2.2	0	0.0	7.4	7.1
LF1GMP-14	0	0.0	21.6	0.6	0	0.0	19.0	0.5	0	0.0	15.6	2.0
LF1GMP-15	0	0.0	22.3	0.1	0	0.0	19.2	0.5	0	0.0	18.6	1.3
LF1GMP-16	0	0.0	19.9	1.5	0	0.0	19.1	1.6	0	0.0	17.7	2.5
LF1GMP-17	0	0.0	19.6	1.5	0	0.0	19.4	1.5	0	0.0	17.5	2.5
LF1GMP-18	0	0.0	22.0	0.1	0	0.0	19.6	0.2	0	0.0	17.5	2.4
LF1GMP-19	0	0.0	22.0	0.3	0	0.0	18.6	0.7	53	2.6	7.1	5.2
LF1GMP-20	2	0.1	22.7	0.1	0	0.0	19.6	0.0	0	0.0	20.1	0.0
LF1GV-01	0	0.0	22.1	0.2	>100	8.0	13.6	8.1	>100	26.3	8.8	23.2
LF1GV-02	2	0.1	21.3	0.5	>100	7.6	12.5	9.8	>100	11.8	14.7	9.6
LF1GV-03	3	0.1	21.0	0.7	>100	5.4	14.0	6.8	>100	27.5	8.0	21.0
LF1GV-04	0	0.0	22.0	0.3	>100	15.2	0.3	20.9	>100	24.2	5.5	22.2
LF1GV-05	>100	6.1	19.5	8.8	>100	5.7	14.8	6.7	>100	23.7	10.0	19.3
LF1GV-06	>100	7.4	2.9	17.1	>100	8.2	6.8	12.2	>100	32.8	4.3	25.3
LF1GV-07	>100	6.6	14.6	7.3	3	0.1	20.9	0.1	>100	16.1	13.6	14.2
LF1GV-08	>100	6.5	17.0	4.8	13	0.6	20.6	0.5	>100	9.5	16.7	6.2
LF1GV-09	47	2.3	19.2	2.1	16	0.8	20.6	0.7	>100	9.8	16.4	6.8
LF1GV-10	>100	5.0	8.4	11.8	2	0.1	20.7	0.2	>100	15.4	13.4	13.0
LF1GV-11	79	3.9	18.4	3.1	3	0.1	20.8	0.2	>100	5.2	18.0	3.9
LF1GV-12	60	3.0	16.9	4.2	3	0.2	20.6	0.3	>100	14.5	13.1	12.4
LF1GV-13	>100	20.4	0.4	22.5	2	0.1	20.3	0.9	>100	13.5	12.8	11.4
LF1GV-14	>100	5.0	17.5	3.9	46	2.3	19.7	1.3	>100	5.0	18.2	3.5
LF1GV-15	24	1.2	17.9	2.8	5	0.2	20.6	0.4	>100	6.5	16.6	6.9
LF1GV-16	6	0.3	18.3	1.9	0	0.0	20.9	0.0	>100	8.8	14.0	7.5
LF1GV-17	31	1.5	21.1	1.3	37	1.7	19.9	1.4	>100	5.8	17.5	5.1
LF1GV-18	22	1.1	20.6	1.4	21	1.0	20.0	0.9	>100	9.3	15.9	6.9
LF1GV-19	52	2.5	17.5	3.3	8	0.3	20.5	0.5	>100	15.4	12.5	10.3
LF1GV-20	58	2.9	18.7	1.9	28	1.4	20.1	0.6	>100	10.1	13.5	6.5
LF1GV-21	>100	5.9	18.9	2.4	76	3.8	19.6	1.1	>100	17.5	14.0	6.7
LF1GV-22	>100	7.3	16.0	5.5	12	0.6	20.6	0.5	>100	8.6	15.9	6.8
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0	0.0	22.3	0.1	0	0.0	14.9	1.9	>100	18.9	0.4	21.3
LF1GV-25	0	0.0	22.2	0.1	0	0.0	16.1	2.8	>100	26.9	0.2	26.5
LF1GV-26	0	0.0	22.1	0.2	0	0.0	19.8	0.1	>100	10.8	12.0	10.4
LF1GV-27	0	0.0	21.8	0.1	0	0.0	19.6	0.2	33	1.7	18.7	2.9
LF1GV-28	0	0.0	22.0	0.1	0	0.0	17.7	1.4	5	0.2	19.7	0.3
LF1GV-29	0	0.0	19.6	1.6	0	0.0	19.9	0.1	26	1.3	17.8	2.4
LF1GV-30	0	0.0	21.9	0.1	0	0.0	19.6	0.3	>100	8.6	10.4	11.7
LF1GV-31	0	0.0	21.8	0.1	0	0.0	14.2	4.1	>100	5.6	9.5	9.0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	26-Oct-10				12-May-11				18-Oct-11			
	Barometric Pressure (in.) =			29.13-29.20	Barometric Pressure (in.) =			29.41-29.21	Barometric Pressure (in.) =			29.11-29.14
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	>100	48.4	2.4	24.7	>100	36.9	0.8	22.2	0	0.0	21.2	0.0
LF1GMP-02	26	1.3	7.9	3.6	>100	11.7	2.6	12.9	0	0.0	21.2	0.0
LF1GMP-03	>100	46.1	0.8	34.0	>100	25.9	0.0	25.4	>100	44.3	0.6	35.2
LF1GMP-04	>100	24.8	8.6	20.4	>100	32.7	0.0	27.4	>100	44.6	0.4	39.5
LF1GMP-06	>100	24.2	12.9	3.5	>100	70.1	0.0	3.5	0	0.0	20.8	0.2
LF1GMP-08	0	0.0	18.8	0.8	0	0.0	14.4	3.4	0	0.0	20.0	1.0
LF1GMP-09	60	3.0	17.5	1.8	>100	20.5	1.1	7.6	59	2.8	17.4	1.8
LF1GMP-10	0	0.0	18.8	0.5	>100	11.2	0.6	15.9	>100	16.2	2.1	18.1
LF1GMP-11	0	0.0	20.1	0.4	0	0.0	17.1	1.1	0	0.0	20.3	0.8
LF1GMP-12	0	0.0	19.9	0.7	0	0.0	19.1	0.5	0	0.0	20.2	1.6
LF1GMP-13	0	0.0	19.1	0.4	0	0.0	13.5	1.7	0	0.0	12.4	4.4
LF1GMP-14	0	0.0	18.9	0.4	0	0.0	18.4	0.4	0	0.0	19.6	0.6
LF1GMP-15	0	0.0	18.6	0.8	0	0.0	18.8	1.3	0	0.0	20.6	0.6
LF1GMP-16	0	0.0	18.7	1.7	0	0.0	18.7	1.4	0	0.0	21.1	0.0
LF1GMP-17	1	0.1	19.7	0.8	0	0.0	18.4	1.4	0	0.0	21.1	0.0
LF1GMP-18	0	0.0	19.6	1.0	0	0.0	19.7	0.0	0	0.0	21.0	0.5
LF1GMP-19	0	0.0	20.2	0.3	0	0.0	17.0	0.4	0	0.0	21.2	0.1
LF1GMP-20	0	0.0	20.3	0.3	0	0.0	19.9	0.0	0	0.0	21.4	0.0
LF1GV-01	9	0.5	15.4	6.4	>100	7.2	15.9	5.9	0	0.0	21.5	0.1
LF1GV-02	32	1.6	15.3	6.7	>100	14.0	10.5	12.7	0	0.0	20.2	1.6
LF1GV-03	>100	8.5	12.9	9.1	>100	32.7	0.0	28.6	0	0.0	21.0	0.4
LF1GV-04	>100	10.3	9.7	13.3	>100	20.8	4.4	20.4	0	0.0	21.2	0.3
LF1GV-05	17	0.9	14.8	7.6	>100	14.5	13.5	12.3	0	0.0	21.2	0.6
LF1GV-06	56	2.8	10.8	13.2	>100	20.3	7.9	17.8	0	0.0	21.4	0.2
LF1GV-07	15	0.9	15.7	6.4	>100	12.6	15.0	8.4	0	0.0	21.9	0.0
LF1GV-08	14	0.7	15.7	5.1	>100	6.6	17.8	4.3	0	0.0	21.8	0.0
LF1GV-09	8	0.4	15.4	5.7	>100	10.7	16.6	4.6	0	0.0	21.8	0.0
LF1GV-10	76	3.8	11.8	13.4	>100	11.3	14.0	9.6	0	0.0	21.6	0.1
LF1GV-11	11	0.6	15.9	5.6	>100	8.4	17.2	4.5	0	0.0	22.0	0.0
LF1GV-12	28	1.4	14.4	8.0	81	4.0	18.3	4.1	0	0.0	22.0	0.0
LF1GV-13	90	4.3	9.8	14.6	>100	13.0	11.3	10.7	19	0.9	17.0	4.1
LF1GV-14	11	0.6	15.2	5.9	>100	6.7	16.9	4.3	6	0.3	21.1	0.7
LF1GV-15	0	0.0	16.8	3.4	77	4.0	17.5	3.6	0	0.0	21.8	0.1
LF1GV-16	34	1.7	11.2	9.6	62	3.5	15.1	4.7	0	0.0	21.9	0.0
LF1GV-17	17	0.9	15.4	6.2	>100	6.0	17.7	4.0	10	0.5	20.2	1.4
LF1GV-18	13	0.7	15.7	4.8	74	3.7	18.4	2.9	0	0.0	21.6	0.1
LF1GV-19	63	3.1	10.8	10.0	>100	9.9	14.2	7.2	0	0.0	20.0	1.8
LF1GV-20	62	3.1	9.9	9.5	>100	11.2	11.8	7.0	0	0.0	21.4	0.1
LF1GV-21	47	2.4	13.0	6.6	>100	19.5	12.5	7.1	0	0.0	21.3	0.1
LF1GV-22	34	1.9	13.7	8.2	>100	7.6	15.7	5.2	0	0.0	21.3	0.3
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0	0.0	19.6	0.5	0	0.0	2.6	10.9	0	0.0	21.1	0.0
LF1GV-25	39	1.9	17.0	3.2	5	0.8	13.1	4.4	0	0.0	21.5	0.0
LF1GV-26	68	3.4	17.8	3.2	0	0.0	20.5	0.0	0	0.0	21.6	0.0
LF1GV-27	>100	10.7	13.6	8.0	53	2.2	15.8	4.4	0	0.0	21.3	0.3
LF1GV-28	11	0.6	20.2	0.4	0	0.0	20.4	0.0	0	0.0	21.6	0.0
LF1GV-29	>100	8.8	11.4	8.2	0	0.0	20.4	0.0	0	0.0	21.6	0.0
LF1GV-30	0	0.0	20.2	0.4	0	0.0	20.6	0.0	0	0.0	21.5	0.5
LF1GV-31	0	0.0	19.5	0.7	0	0.0	19.3	1.2	0	0.0	20.1	1.3

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	7-May-12				4-Oct-12				29-Apr-13			
	Barometric Pressure (in.) =			29.02-29.34	Barometric Pressure (in.) =			29.49-29.56	Barometric Pressure (in.) =			29.59-29.63
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	>100	20.4	0.9	22.5	>100	30.5	3.9	19.4	0	0.0	20.8	0.1
LF1GMP-02	>100	21.7	0.0	13.9	>100	16.3	2.3	9.7	0	0.0	20.9	0.1
LF1GMP-03	>100	24.3	0.0	28.1	>100	38.2	1.3	30.8	0	0.0	20.9	0.0
LF1GMP-04	>100	31.4	0.0	28.4	56	2.8	19.3	3.1	0	0.0	20.8	0.2
LF1GMP-06	>100	52.9	0.0	5.0	>100	77.3	0.2	8.7	>100	25.0	9.2	3.1
LF1GMP-08	0	0.0	13.4	3.4	0	0.0	20.6	0.4	0	0.0	18.8	1.6
LF1GMP-09	>100	19.2	0.0	11.5	>100	43.5	1.5	24.4	3	0.1	20.7	0.2
LF1GMP-10	>100	13.0	0.2	15.1	53	2.5	17.1	4.1	25	1.2	18.8	0.5
LF1GMP-11	0	0.0	17.4	2.7	0	0.0	20.9	0.2	0	0.0	18.6	1.9
LF1GMP-12	0	0.0	20.5	1.6	0	0.0	20.7	0.6	0	0.0	19.7	1.2
LF1GMP-13	0	0.0	18.3	1.7	0	0.0	20.5	0.3	0	0.0	19.9	0.8
LF1GMP-14	0	0.0	21.5	0.3	0	0.0	20.7	0.7	0	0.0	20.9	0.0
LF1GMP-15	0	0.0	21.2	0.6	0	0.0	20.0	0.9	0	0.0	17.5	1.6
LF1GMP-16	0	0.0	22.0	0.0	0	0.0	20.7	0.2	0	0.0	19.8	1.3
LF1GMP-17	0	0.0	18.3	1.7	0	0.0	20.7	0.1	0	0.0	19.7	1.3
LF1GMP-18	0	0.0	20.5	1.7	0	0.0	15.0	3.4	0	0.0	20.8	0.1
LF1GMP-19	0	0.0	20.4	0.5	0	0.0	17.9	1.9	0	0.0	20.9	0.0
LF1GMP-20	0	0.0	21.9	0.0	0	0.0	21.2	0.0	0	0.0	20.8	0.0
LF1GV-01	>100	6.0	18.9	5.0	>100	18.9	4.4	21.7	0	0.0	20.9	0.0
LF1GV-02	>100	7.4	17.9	6.4	>100	25.4	2.6	26.3	0	0.0	20.8	0.0
LF1GV-03	74	3.8	19.8	3.0	>100	24.9	6.2	23.8	0	0.0	20.7	0.0
LF1GV-04	0	0.0	22.0	0.1	>100	17.0	12.9	14.7	0	0.0	20.7	0.0
LF1GV-05	>100	24.9	8.5	21.6	>100	26.7	6.6	25.2	0	0.0	21.1	0.0
LF1GV-06	>100	25.5	2.3	26.0	>100	20.7	3.1	23.9	0	0.0	21.1	0.0
LF1GV-07	>100	9.5	17.4	7.3	>100	20.4	10.7	18.5	0	0.0	21.1	0.0
LF1GV-08	>100	22.4	11.8	12.4	>100	13.2	14.4	8.4	5	0.2	21.1	0.1
LF1GV-09	>100	28.4	9.1	18.0	>100	12.3	13.4	10.2	2	0.1	21.1	0.1
LF1GV-10	>100	17.8	11.9	16.9	>100	33.3	2.5	31.5	0	0.0	20.9	0.0
LF1GV-11	>100	7.3	18.3	5.4	>100	18.5	9.2	16.2	0	0.0	20.9	0.0
LF1GV-12	>100	32.6	8.5	23.7	>100	15.0	9.7	15.8	0	0.0	21.1	0.0
LF1GV-13	>100	18.6	11.4	14.7	>100	21.0	8.2	18.5	1	0.1	21.0	0.0
LF1GV-14	>100	9.8	16.4	6.8	62	3.0	18.8	3.0	0	0.0	21.0	0.0
LF1GV-15	>100	8.3	17.3	4.7	25	1.2	19.5	1.5	0	0.0	21.0	0.0
LF1GV-16	>100	8.5	15.7	5.7	0	0.0	21.1	0.0	0	0.0	21.2	0.0
LF1GV-17	>100	23.2	10.9	14.9	0	0.0	21.2	0.0	0	0.0	21.1	0.0
LF1GV-18	>100	6.4	18.5	4.1	0	0.0	21.0	0.1	0	0.0	21.3	0.0
LF1GV-19	>100	7.7	17.8	4.4	0	0.0	21.2	0.0	0	0.0	21.2	0.0
LF1GV-20	>100	6.0	18.3	2.8	0	0.0	21.2	0.0	0	0.0	21.2	0.0
LF1GV-21	>100	10.3	18.5	2.7	0	0.1	21.1	0.0	2	0.1	21.1	0.0
LF1GV-22	>100	17.2	11.6	13.2	0	0.0	21.2	0.0	0	0.0	21.1	0.0
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	>100	5.8	6.1	7.6	>100	14.7	1.6	22.7	0	0.0	19.3	0.9
LF1GV-25	2	0.1	22.0	0.1	6	0.3	20.9	0.3	0	0.0	20.9	0.1
LF1GV-26	0	0.0	21.9	0.0	0	0.0	21.1	0.0	0	0.0	21.1	0.0
LF1GV-27	>100	12.2	12.3	8.8	0	0.0	21.1	0.0	0	0.0	20.4	0.4
LF1GV-28	0	0.0	21.9	0.0	0	0.0	21.1	0.0	0	0.0	21.2	0.0
LF1GV-29	0	0.0	22.0	0.0	0	0.0	21.1	0.0	0	0.0	21.1	0.0
LF1GV-30	2	0.2	21.9	0.0	0	0.0	21.2	0.0	0	0.0	21.1	0.0
LF1GV-31	0	0.0	20.5	0.2	4	0.2	20.5	0.6	0	0.0	19.9	0.6

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	21-Oct-13				7-May-14				18-Nov-14			
	Barometric Pressure (in.) =			29.35-29.41	Barometric Pressure (in.) =			29.51-29.62	Barometric Pressure (in.) =			29.49-29.51
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	>100	23.5	4.9	16.7	0	0.0	20.8	0.0	>100	23.0	4.1	17.2
LF1GMP-02	61	3.0	16.9	3.0	0	0.0	20.8	0.0	0	0.0	14.8	2.4
LF1GMP-03	>100	21.9	8.2	15.8	55	2.7	8.6	6.0	>100	25.6	0.0	16.1
LF1GMP-04	>100	21.8	0.2	25.6	0	0.0	20.8	0.0	>100	36.1	1.4	14.8
LF1GMP-06	>100	7.8	11.4	2.4	3	0.1	20.5	0.1	0	0.0	19.7	0.6
LF1GMP-08	28	1.3	0.9	13.2	0	0.0	20.5	0.1	0	0.0	20.1	0.1
LF1GMP-09	>100	44.2	0.4	18.5	43	2.1	17.8	0.7	>100	8.1	12.3	5.8
LF1GMP-10	>100	13.9	2.1	11.7	29	1.4	16.8	0.3	>100	10.3	0.9	14.4
LF1GMP-11	0	0.0	18.5	1.8	0	0.0	20.3	0.4	0	0.0	20.9	0.6
LF1GMP-12	0	0.0	19.7	1.2	0	0.0	19.6	1.5	0	0.0	20.9	0.2
LF1GMP-13	0	0.0	20.0	1.3	0	0.0	19.5	0.7	0	0.0	20.7	1.3
LF1GMP-14	0	0.0	13.1	4.5	0	0.0	16.7	1.8	0	0.0	18.8	0.7
LF1GMP-15	0	0.0	18.8	1.1	0	0.0	19.7	0.6	0	0.0	19.1	0.0
LF1GMP-16	0	0.0	19.2	1.2	0	0.0	20.1	1.0	0	0.0	19.4	0.1
LF1GMP-17	0	0.0	20.8	0.7	0	0.0	20.8	0.2	0	0.0	18.7	0.5
LF1GMP-18	0	0.0	19.6	1.9	0	0.0	20.9	0.0	0	0.0	18.0	1.1
LF1GMP-19	0	0.0	20.8	0.4	0	0.0	20.7	0.0	0	0.0	20.1	0.0
LF1GMP-20	0	0.0	20.7	0.0	0	0.0	20.7	0.0	0	0.0	19.9	1.2
LF1GV-01	79	3.9	16.2	6.3	3	0.1	20.0	0.3	>100	8.2	13.4	7.2
LF1GV-02	>100	6.4	12.1	10.5	7	0.3	19.0	1.3	>100	6.2	16.8	5.0
LF1GV-03	59	3.0	15.4	5.8	7	0.4	17.9	2.5	14	0.7	20.1	0.6
LF1GV-04	>100	6.7	8.8	12.5	14	0.7	15.2	6.4	0	0.0	20.3	0.0
LF1GV-05	>100	6.2	15.2	7.6	5	0.2	19.7	0.4	0	0.0	19.9	0.1
LF1GV-06	>100	6.8	8.2	12.8	9	0.4	10.3	7.2	0	0.0	21.2	0.0
LF1GV-07	68	3.9	17.9	4.2	>100	5.2	11.7	9.2	0	0.0	21.1	0.0
LF1GV-08	>100	7.3	16.0	6.9	46	2.3	17.6	2.9	22	1.5	14.8	5.3
LF1GV-09	79	4.0	15.8	3.7	63	3.1	15.7	4.0	0	0.0	19.9	0.0
LF1GV-10	>100	9.0	9.7	12.4	3	0.1	16.1	2.8	0	0.0	19.7	0.1
LF1GV-11	>100	6.0	16.6	4.0	29	1.4	17.9	1.4	0	0.0	19.8	0.1
LF1GV-12	>100	5.2	9.5	11.1	7	0.3	16.9	2.4	0	0.0	20.1	0.0
LF1GV-13	>100	5.3	16.8	4.6	82	4.1	13.6	5.7	51	2.6	2.4	13.8
LF1GV-14	47	2.4	19.0	2.1	87	4.4	13.9	5.2	0	0.0	20.1	0.0
LF1GV-15	20	1.0	20.4	1.0	5	0.2	18.1	1.3	0	0.0	18.8	0.5
LF1GV-16	65	3.3	9.1	8.6	0	0.0	16.8	1.9	0	0.0	19.1	0.0
LF1GV-17	80	4.2	17.9	3.7	75	4.0	17.1	2.7	0	0.0	20.3	0.0
LF1GV-18	93	4.7	15.5	5.3	>100	8.0	5.7	11.7	0	0.0	18.9	0.7
LF1GV-19	>100	10.5	5.3	14.9	45	2.3	8.3	9.7	0	0.0	19.5	0.0
LF1GV-20	>100	5.3	16.6	3.7	30	1.5	17.5	1.3	0	0.0	19.4	0.0
LF1GV-21	>100	9.7	15.3	4.9	>100	6.0	14.8	3.6	0	0.0	19.5	0.0
LF1GV-22	>100	6.2	15.1	6.9	>100	7.9	9.3	9.1	0	0.0	20.2	0.0
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0	0.0	17.2	2.0	0	0.0	19.1	1.2	0	0.0	20.1	0.0
LF1GV-25	3	0.2	20.9	0.4	0	0.0	20.8	0.0	0	0.0	20.0	0.9
LF1GV-26	9	0.5	20.4	0.4	0	0.0	20.8	0.0	0	0.0	20.0	0.0
LF1GV-27	0	0.0	20.5	1.1	0	0.0	20.9	0.0	0	0.0	18.7	0.8
LF1GV-28	0	0.0	21.4	0.1	0	0.0	20.9	0.0	0	0.0	18.8	1.5
LF1GV-29	0	0.0	17.9	1.8	0	0.0	20.8	0.2	0	0.0	21.0	0.0
LF1GV-30	0	0.0	21.3	0.1	0	0.0	20.3	0.5	0	0.0	19.5	1.0
LF1GV-31	0	0.0	20.5	0.5	0	0.0	20.6	0.4	0	0.0	20.0	0.0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	18-May-15				14-Sep-15				6-Dec-16			
	Barometric Pressure (in.) =			29.28-29.62	Barometric Pressure (in.) =			29.36-29.54	Barometric Pressure (in.) =			29.54-29.53
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	0	0 0	20.8	0.0	> 100	25.4	0.1	24.1	0	0	21.1	0.1
LF1GMP-02	0	0.0	20.2	0.0	> 100	31.6	0.0	15.2	43	2.1	1	10.1
LF1GMP-03	31	18	18.5	3.7	> 100	40.8	0.0	36.6	> 100	9.4	6.3	15.3
LF1GMP-04	0	0 0	21.1	0.0	> 100	47.3	0.0	41.5	0	0	21.1	0.4
LF1GMP-06	> 100	32.2	8.1	3.6	> 100	77.0	0.1	7.3	> 100	9.1	14.6	3.2
LF1GMP-08	0	0 0	21.3	0.0	0	0.0	15.3	4.4	- -	- -	- -	- -
LF1GMP-09	0	0 0	21.0	0.0	> 100	34.9	0.1	20.6	> 100	22.7	7.7	7.5
LF1GMP-10	0	0 0	20.8	0.0	> 100	14.1	2.0	18.5	21	1	19.3	0.4
LF1GMP-11	0	0 0	21.2	0.0	1	0.0	1 4.2	6.4	- -	- -	- -	- -
LF1GMP-12	0	0. 0	20.4	0.8	2	0.1	20.0	0.7	- -	- -	- -	- -
LF1GMP-13	0	0 0	19.8	1.0	1	0.0	19.6	1.0	0	0	18.7	1.5
LF1GMP-14	0	0 0	20.9	0.0	0	0.0	17.4	2.9	- -	- -	- -	- -
LF1GMP-15	0	0 0	20.8	0.1	0	0.0	19.6	1.2	- -	- -	- -	- -
LF1GMP-16	0	0 0	20.3	1.0	0	0.0	20.3	0.2	0	0	19.8	1.7
LF1GMP-17	0	0 0	20.0	1.5	1	0.0	20.4	0.1	- -	- -	- -	- -
LF1GMP-18	0	0 0	20.9	0.0	1	0.0	13.1	0.8	- -	- -	- -	- -
LF1GMP-19	0	0 0	21.2	0.0	3	0.1	18.7	1.5	- -	- -	- -	- -
LF1GMP-20	0	0. 0	21.3	0.0	1	0.0	20.4	0.1	- -	- -	- -	- -
LF1GV-01	> 100	31.7	1.5	31.7	0	0.0	20.6	0.1	0	0	21.3	0.1
LF1GV-02	> 100	5.7	16.6	6.7	0	0.0	20.7	0.0	0	0	21.2	0.4
LF1GV-03	> 100	7.5	15.7	5.9	0	0.0	20.7	0.0	0	0	21.3	0.1
LF1GV-04	0	0 0	21.2	0.0	0	0.0	20.7	0.0	0	0	21.4	0
LF1GV-05	5	0.3	21.1	0.1	0	0.0	21	0.0	0	0	20.5	1
LF1GV-06	> 100	18.9	7.3	20.3	1	0.0	20.5	0.0	0	0	20.9	0.2
LF1GV-07	64	3.5	19.5	3.7	0	0.0	21.0	0.0	0	0	20.6	0.7
LF1GV-08	> 100	14.8	15.5	10.3	0	0.0	21.3	0.0	0	0	20.7	0.5
LF1GV-09	> 100	13.9	11.7	10.5	0	0.0	21.2	0.0	0	0	21.1	0.1
LF1GV-10	> 100	5 3	17.8	5.7	1	0.1	21.1	0.0	0	0	0.8	20
LF1GV-11	> 100	4.3	18.9	4.9	0	0.0	21.1	0.0	5	0.2	2.6	18.4
LF1GV-12	> 100	6.5	17.6	6.8	0	0.0	20.5	0.0	0	0	20.9	0.1
LF1GV-13	> 100	12.2	13.8	12.3	1	0.0	21.0	0.0	0	0	20.7	1
LF1GV-14	> 100	11.4	14.7	8.4	0	0.0	20.7	0.0	8	0.4	14.6	7.4
LF1GV-15	63	3.1	19.3	4.2	1	0.0	20.7	0.0	- -	- -	- -	- -
LF1GV-16	17	0.9	20.1	2.6	0	0.0	20.7	0.0	- -	- -	- -	- -
LF1GV-17	> 100	13.70	15.3	8.6	1	0.0	20.5	0.0	13	0.6	17.6	1.9
LF1GV-18	> 100	15.4	16.4	7.2	1	0.0	20.6	0.0	0	0	21	0.1
LF1GV-19	> 100	8.6	17.9	5.9	0	0.0	20.6	0.0	1	0	17	4.7
LF1GV-20	> 100	17.9	9.5	9.3	0	0.0	20.6	0.0	9	0.4	18.9	1.7
LF1GV-21	> 100	11.1	18.5	4.3	0	0.0	20.7	0.0	3	0.1	20.2	0.7
LF1GV-22	> 100	10.6	16.5	6.6	1	0.0	20.5	0.0	0	0	19.2	2
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	> 100	5.5	1.1	11.7	14	0.3	19.4	2.3	0	0	21.2	0
LF1GV-25	> 100	10.5	5.2	8.9	0	0.1	20.2	0.0	0	0	20.8	0.6
LF1GV-26	0	0.0	21.7	0.1	0	0.0	20.1	0.0	- -	- -	- -	- -
LF1GV-27	> 100	9.5	9.3	12.4	5	0.7	21.3	0.0	0	0	19.8	0.9
LF1GV-28	0	0.0	21.7	0.0	0	0.0	21.3	0.0	0	0	20.3	0.4
LF1GV-29	2	0.1	21.5	0.0	0	0.0	21.2	0.0	- -	- -	- -	- -
LF1GV-30	0	0 0	21.1	2.5	0	0.0	21.3	0.0	- -	- -	- -	- -
LF1GV-31	0	0 0	17.3	3.0	0	0.0	20.1	0.9	- -	- -	- -	- -

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 1
LF001 (Landfill 1 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	7-Nov-17				20-Oct-18				2-Oct-19			
	Barometric Pressure (in.) =			29.51 - 29.51	Barometric Pressure (in.) =			29.58-29.57	Barometric Pressure (in.) =			29.34-29.38
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	0.0	0.0	21.4	0.1	0	>5	15.98	0	3.0	<0.1	21.0	0.1
LF1GMP-02	> 100	25.2	0.7	15.3	0	<0.1	20.9	0	<100	23.4	8.9	5.6
LF1GMP-03	> 100	19.6	9.0	17.8	0	<0.1	20.9	0	2.0	<0.1	21.2	0.0
LF1GMP-04	14.0	0.7	16.5	1.9	0	0.2	20.9	0	<100	56.2	2.6	5.6
LF1GMP-06	> 100	40.0	2.6	5.0	0	0.25	20.9	0	<100	24.6	8.2	4.7
LF1GMP-08	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-09	0.0	0.0	21.2	0.0	0	<0.1	20.9	0	7	0.3	20.6	0.2
LF1GMP-10	0.0	0.0	21.2	0.0	0	<0.1	20.9	0	2.0	<0.1	20.8	0.0
LF1GMP-11	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-13	0.0	0.0	19.4	1.6	0	<0.1	20.9	0	1	<0.1	19.2	1.4
LF1GMP-14	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-15	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-16	0.0	0.0	21.5	0.0	0	<0.1	19.6	0	2	<0.1	21	0.0
LF1GMP-17	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-18	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-19	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GMP-20	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-01	0.0	0.0	21.4	0.1	0	<0.1	20.9	0	2	<0.1	21.3	0.0
LF1GV-02	0.0	0.0	21.3	0.2	0	<0.1	20.9	0	2	<0.1	21.2	0.0
LF1GV-03	0.0	0.0	21.3	0.1	0	<0.1	20.9	0	2	<0.1	21.2	0.0
LF1GV-04	0.0	0.0	21.2	0.0	0	<0.1	20.9	0	2	<0.1	21.0	0.0
LF1GV-05	0.0	0.0	21.5	0.0	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-06	0.0	0.0	21.4	0.0	0	<0.1	20.9	0	2	<0.1	20.9	0.0
LF1GV-07	0.0	0.0	21.5	0.1	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-08	0.0	0.0	21.5	0.0	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-09	0.0	0.0	21.3	0.1	0	0.1	20.9	0	2	<0.1	20.9	0.0
LF1GV-10	0.0	0.0	21.4	0.1	0	0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-11	0.0	0.0	21.5	0.1	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-12	0.0	0.0	21.2	0.0	0	<0.1	20.9	0	2	<0.1	20.9	0.0
LF1GV-13	0.0	0.0	21.4	0.1	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-14	0.0	0.0	21.4	0.2	0	0.2	20.9	0	2	<0.1	21.1	0.0
LF1GV-15	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-16	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-17	0.0	0.0	21.3	0.3	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-18	0.0	0.0	21.4	0.1	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-19	0.0	0.0	21.3	0.2	0	<0.1	20.9	0	2	<0.1	21.00	0.0
LF1GV-20	0.0	0.0	21.3	0.2	0	<0.1	20.9	0	2	<0.1	20.9	0.0
LF1GV-21	1.0	0.0	21.3	0.1	0	<0.1	20.9	0	2	<0.1	21.0	0.0
LF1GV-22	0.0	0.0	21.4	0.1	0	<0.1	20.9	0	2	<0.1	21.2	0.0
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0.0	0.0	21.5	0.0	0	<0.1	20.9	0	2	<0.1	21.2	0.0
LF1GV-25	0.0	0.0	20.6	1.0	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-26	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-27	0.0	0.0	21.5	0.0	0	<0.1	20.9	0	2	<0.1	21.1	0.0
LF1GV-28	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-30	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF1GV-31	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
- - = Not Monitored

Table 2
LF001 (Landfill 1 AOC) Groundwater Sampling Results 2019
Former Griffiss Air Force Base
Rome, New York

Location Identification	NYSDEC Class GA Groundwater Standards	LF1MW-5		LF1P-5
Date of Collection		05/16/2019	05/16/2019	05/16/2019
Sample Identification		LF1MW-5_0519	LF1MW-5_0519-a	LF1P-5_0519
Lab Package		280-123922		
Volatile Organic Compounds (µg/L)				
1,1,1-Trichloroethane	5*	0.40 U	0.40 U	NA
1,1,2-Trichloroethane	1	0.80 U	0.80 U	NA
1,1-Dichloroethane	5*	0.80 U	0.80 U	NA
1,2,3-Trichlorobenzene	5*	0.80 U	0.80 U	NA
1,2,4-Trimethylbenzene	5*	0.40 U	0.40 U	NA
1,2-Dichloroethane	0.6	0.40 UJ	0.40 UJ	NA
1,2-Dichlorobenzene	3	0.40 U	0.40 U	NA
1,2-Dibromo-3-chloropropane	0.04	1.6 U	1.6 U	NA
1,3,5-Trimethylbenzene	5*	0.40 U	0.40 U	NA
1,3-Dichlorobenzene	3	0.40 U	0.40 U	NA
1,4-Dichlorobenzene	3	**0.43 J**	**0.42 J**	NA
Acetone	50	6.4 U	6.4 U	NA
Benzene	1	**1.7**	**1.7**	NA
Bromodichloromethane	50	0.40 U	0.40 U	NA
Bromoform	50	1 U	1 U	NA
Carbon disulfide	60	0.80 U	0.80 U	NA
Chlorobenzene	5*	**1.2**	**1.3**	NA
Chloroethane	5*	1.6 U	1.6 U	NA
Chloroform	7	0.40 U	0.40 U	NA
Chloromethane	5	0.80 U	0.80 U	NA
cis-1,2-Dichloroethene	5*	**0.25 J**	**0.24 J**	NA
Dichlorodifluoromethane	5*	0.80 U	0.80 U	NA
Ethylbenzene	5*	0.40 U	0.40 U	NA
Isopropylbenzene	5*	0.40 U	0.40 U	NA
Methylene chloride	5*	2 U	2 U	NA
Methyl iodide	5*	0.80 U	0.80 U	NA
n-Propylbenzene	5*	0.40 U	0.40 U	NA
m,p-Xylene	5*	0.80 U	0.80 U	NA
Naphthalene	10	0.80 UJ	0.80 UJ	NA
o-Xylene	5*	0.40 U	0.40 U	NA
4-Isopropyltoluene	5*	0.40 U	0.40 U	NA
sec-Butylbenzene	5*	0.40 U	0.40 U	NA
Tetrachloroethene	5*	0.40 U	0.40 U	NA
tert-Butylbenzene	5*	0.40 U	0.40 U	NA
Trichloroethene (TCE)	5*	0.40 U	0.40 U	NA
Toluene	5*	0.40 U	0.40 U	NA
Trichlorofluoromethane	5*	0.80 U	0.80 U	NA
Vinyl chloride	2	0.20 U	0.20 U	NA
Leachate Indicators (mg/L)				
Alkalinity, Total	NV	**420**	**420**	**380**
Ammonia	2	**1.50**	**1.70**	**0.84**
Biochemical Oxygen Demand	NV	2.3 UB	2 UB	0.59 U
Bromide	2	**0.56**	**0.57**	**0.14 J**
Boron (µg/L)	1,000	**58 J**	**56 J**	**24 J**
Chemical Oxygen Demand	NV	40 U	40 U	40 U
Chloride	250	**7.5 J**	**7.5**	**6.5**
Color (in Platinum-Cobalt Units [PCU])	15	**100 J D**	**150 J D**	**200 D**
Fluoride	2	0.10 U	0.10 U	0.10 U
Hardness	NV	**400**	**410**	**370**

Table 2

LF001 (Landfill 1 AOC) Groundwater Sampling Results 2019

Former Griffiss Air Force Base

Rome, New York

Location Identification	NYSDEC Class GA Groundwater Standards	LF1MW-5		LF1P-5
Date of Collection		05/16/2019	05/16/2019	05/16/2019
Sample Identification		LF1MW-5_0519	LF1MW-5_0519-a	LF1P-5_0519
Lab Package		280-123922		
Nitrate	10	0.10 U	0.10 U	0.10 U
Nitrite	1	0.10 U	0.10 U	0.1 U
Nitrate Nitrite as N	10	0.10 U	0.10 U	0.10 U
Nitrogen, Kjeldahl	NV	0.50 U	**1.4**	**1.6**
Orthophosphate	NV	**1.9**	**1.8**	**1.4 J**
Sulfate	250	3 U	3 U	3 U
Total Dissolved Solids	500	**470**	**450**	**370**
Total Phenols	1	0.02 U	0.02 U	**0.0069 J**
Total Organic Carbon	NV	**2.0**	**2.1**	**2.2**

Notes:

Screening Criteria: Results are compared to the New York Codes, Rules, and Regulations Title 6 Part 703.5 Water Quality Standards Surface Waters and Groundwater, Table 1 and to the New York State Department of Environmental Conservation Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

* - The principal organic contaminant standard for groundwater of 5 micrograms per liter (µg/L) applies to this substance.

mg/L = milligrams per liter

U = not detected, value presented is the limit of detection

J = Estimated, the analyte was positively identified; the quantitation is an estimation

UJ = The analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria.

UB = Considered and artifact of blank contamination

D = Dilution

NV = No value

NA = Not analyzed

-a = Field duplicate

Shaded values are above the screening criteria.

Bold values are detected results.

Table 3
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	3-Feb-10				6-May-10				26-Oct-10				11-May-11			
	Barometric Pressure (in.) = 29.34				Barometric Pressure (in.) = 29.05-29.06				Barometric Pressure (in.) = 29.24				Barometric Pressure (in.) = 29.21			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF2GMP-01	0	0.0	21.1	0.1	0	0.0	16.9	2.2	0	0.0	18.5	1.6	0	0.0	20.2	0.5
LF2GMP-02	0	0.0	21.5	0.0	>100	5.4	1.0	16.3	0	0.0	15.8	4.8	4	0.2	18.4	1.4
LF2GMP-03	3	0.1	21.1	0.4	0	0.0	21.0	0.0	0	0.0	17.4	2.5	0	0.0	19.5	1.3
LF2GMP-04	14	0.7	19.1	1.9	0	0.0	21.0	0.0	0	0.0	18.1	1.8	0	0.0	20.6	0.0
LF2GMP-05	0	0.0	22.0	0.1	0	0.0	21.0	0.0	0	0.0	18.4	1.5	0	0.0	11.7	2.1
LF2GMP-06	0	0.0	10.3	6.9	0	0.0	21.3	0.0	3	0.2	17.4	2.2	0	0.0	8.8	5.3
LF2GMP-07	0	0.0	21.3	1.2	0	0.0	20.9	0.5	5	0.3	18.1	2.3	0	0.0	18.7	1.5
LF2GMP-08	0	0.0	21.8	0.4	0	0.0	20.5	0.6	0	0.0	18.4	1.8	0	0.0	19.9	0.8
LF2GMP-09	0	0.0	21.9	0.3	0	0.0	21.0	0.3	0	0.0	18.9	1.3	0	0.0	20.3	0.3
LF2VENT-01	34	1.7	19.9	0.9	43	2.1	18.4	1.1	0	0.0	19.5	0.6	51	2.5	17.0	1.1
LF2VENT-02	0	0.0	21.9	0.2	0	0.0	21.0	0.0	0	0.0	19.4	0.6	2	0.1	20.0	0.0
LF2VENT-03	55	2.8	19.9	1.0	7	0.3	20.4	0.3	0	0.0	19.4	0.7	16	0.7	19.1	0.4
LF2VENT-04	11	0.5	19.4	1.7	41	2.0	14.2	5.2	1	0.0	19.1	0.9	86	5.2	16.6	1.2
LF2VENT-05	11	0.6	21.6	0.5	77	3.8	16.7	3.8	0	0.0	19.1	0.9	45	2.6	18.2	1.4
LF2VENT-06	>100	6.8	14.7	6.8	>100	7.1	12.0	7.9	0	0.0	18.8	1.3	>100	9.5	9.5	8.5
LF2VENT-07	0	0.0	22.0	0.1	2	0.1	17.2	1.1	0	0.0	19.5	0.6	5	0.3	17.7	0.5
LF2VENT-08	0	0.0	22.1	0.1	0	0.0	19.0	1.0	6	0.3	19.1	1.1	3	0.1	16.0	1.6
LF2VENT-09	0	0.0	22.1	0.1	0	0.0	18.4	1.8	7	0.4	19.4	0.8	3	0.1	12.7	2.1
LF2VENT-10	0	0.0	22.0	0.1	0	0.0	20.8	0.1	0	0.0	19.5	0.7	0	0.0	18.2	0.3
LF2VENT-11	2	0.1	21.5	0.3	6	0.3	17.5	1.4	0	0.0	19.5	0.7	12	0.6	14.7	1.5
LF2VENT-12	4	0.2	21.3	0.4	15	0.7	18.4	1.4	0	0.0	19.5	0.7	76	4.0	14.9	1.0
LF2VENT-13	9	0.4	21.0	0.4	36	1.8	18.4	0.9	0	0.0	19.4	0.6	37	1.8	17.3	0.7
LF2VENT-14	92	4.6	16.4	1.7	34	1.7	14.5	2.5	0	0.0	19.5	0.6	76	4.0	14.9	1.0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 3
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	19-Oct-11				9-May-12				4-Oct-12				1-May-13			
	Barometric Pressure (in.) = 29.11-29.14				Barometric Pressure (in.) = 28.89-28.95				Barometric Pressure (in.) = 29.43-29.57				Barometric Pressure (in.) = 29.71-29.81			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF2GMP-01	0	0.0	16.3	2.8	0	0.0	21.7	0.0	0	0.0	17.3	2.4	0	0.0	18.5	1.6
LF2GMP-02	>100	7.6	4.6	16.6	0	0.0	22.0	0.0	>100	8.4	0.0	21.7	0	0.0	21.0	0.0
LF2GMP-03	0	0.0	19.0	2.3	0	0.0	22.0	0.0	0	0.0	20.8	0.0	0	0.0	20.8	0.0
LF2GMP-04	0	0.0	21.2	0.2	31	1.6	20.8	0.4	0	0.0	20.8	0.0	0	0.0	20.8	0.0
LF2GMP-05	>100	7.6	0.5	12.3	9	0.4	21.4	0.2	63	3.0	3.3	13.9	0	0.0	20.9	0.0
LF2GMP-06	0	0.0	6.2	10.2	>100	12.9	10.8	9.4	0	0.0	20.6	0.5	0	0.0	20.7	0.1
LF2GMP-07	0	0.0	19.2	2.9	0	0.0	21.5	0.1	0	0.0	19.0	2.3	0	0.0	20.7	0.3
LF2GMP-08	0	0.0	21.1	0.9	32	1.9	18.1	1.2	0	0.0	20.6	0.5	0	0.0	20.2	0.6
LF2GMP-09	0	0.0	21.8	0.0	0	0.0	22.3	0.1	0	0.0	20.6	0.3	0	0.0	20.7	0.3
LF2VENT-01	33	1.6	18.8	1.4	0	0.0	22.1	0.0	0	0.0	20.9	0.0	4	0.2	20.7	0.1
LF2VENT-02	0	0.0	21.9	0.0	0	0.0	22.3	0.1	0	0.0	21.0	0.0	0	0.0	20.9	0.0
LF2VENT-03	0	0.0	21.8	0.0	0	0.0	22.6	0.1	0	0.0	21.0	0.0	0	0.0	20.9	0.0
LF2VENT-04	60	2.8	17.6	1.9	2	0.1	22.1	0.1	4	0.2	18.7	1.1	2	0.1	20.8	0.0
LF2VENT-05	20	1.0	18.8	1.6	0	0.0	22.3	0.1	12	0.6	20.3	0.7	3	0.1	20.8	0.0
LF2VENT-06	>100	13.2	12.2	9.3	0	0.0	17.1	3.0	92	4.6	10.3	10.3	10	0.4	19.4	0.4
LF2VENT-07	0	0.0	22.0	0.0	75	3.6	3.8	14.2	0	0.0	21.0	0.0	2	0.1	20.8	0.0
LF2VENT-08	0	0.0	16.3	2.3	0	0.0	21.7	0.1	0	0.0	21.0	0.0	2	0.1	20.4	0.1
LF2VENT-09	10	0.5	11.1	4.1	4	0.2	21.5	0.4	0	0.0	21.0	0.0	0	0.0	19.3	0.4
LF2VENT-10	0	0.0	20.3	0.4	0	0.0	22.2	0.1	0	0.0	21.0	0.0	0	0.0	20.6	0.0
LF2VENT-11	0	0.0	20.0	0.6	0	0.0	22.7	0.0	0	0.0	21.0	0.0	0	0.0	20.7	0.0
LF2VENT-12	0	0.0	21.7	0.1	0	0.0	21.0	1.9	2	0.1	20.0	0.2	0	0.0	20.7	0.0
LF2VENT-13	13	0.6	19.1	0.9	0	0.0	21.2	1.0	0	0.0	21.0	0.0	0	0.0	20.9	0.0
LF2VENT-14	2	0.1	21.4	0.1	0	0.0	22.1	0.4	0	0.0	20.9	0.0	0	0.0	20.8	0.0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 3
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	15-Oct-13				8-May-14				18-Nov-14				27-May-15			
	Barometric Pressure (in.) = 29.48-29.65				Barometric Pressure (in.) = 29.48-29.51				Barometric Pressure (in.) = 29.57				Barometric Pressure (in.) = 29.42-29.49			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF2GMP-01	0	0.0	20.3	0.4	0	0.0	20.4	0.3	0	0.0	20.1	1.2	0	0.0	18.6	2.0
LF2GMP-02	>100	10.2	0.2	19.4	17	0.9	1.5	12.6	0	0.0	20.2	0.1	0	0.0	21.4	0.0
LF2GMP-03	0	0.0	20.4	0.9	0	0.0	19.4	0.0	0	0.0	18.9	0.6	0	0.0	21.6	0.0
LF2GMP-04	0	0.0	20.9	0.3	0	0.0	19.2	0.0	0	0.0	19.5	0.0	0	0.0	21.7	0.0
LF2GMP-05	>100	7.6	0.0	10.3	0	0.0	14.9	1.2	12	0.7	16.1	0.9	0	0.0	21.8	0.0
LF2GMP-06	0	0.0	8.0	0.9	0	0.0	19.0	0.0	20	1.0	15.0	1.2	10	0.8	18.7	0.9
LF2GMP-07	0	0.0	18.9	2.5	0	0.0	19.1	1.2	0	0.0	19.7	0.3	0	0.0	20.1	0.1
LF2GMP-08	0	0.0	20.7	0.7	0	0.0	20.1	0.5	0	0.0	19.9	0.0	0	0.0	21.2	0.0
LF2GMP-09	0	0.0	21.0	0.4	0	0.0	20.7	0.3	0	0.0	19.9	0.0	0	0.0	20.4	0.0
LF2VENT-01	2	0.2	20.8	0.4	7	0.4	19.2	0.1	0	0.0	20.1	0.1	0	0.0	21.5	0.0
LF2VENT-02	1	0.1	21.5	0.0	0	0.0	19.5	0.0	0	0.0	20.2	0.0	0	0.0	21.5	0.0
LF2VENT-03	0	0.0	21.3	0.0	0	0.0	20.5	0.1	0	0.0	20.1	0.2	0	0.0	21.4	0.0
LF2VENT-04	35	1.8	19.8	0.8	0	0.0	20.8	0.1	0	0.0	19.9	0.6	0	0.0	21.2	0.0
LF2VENT-05	15	0.8	20.3	0.7	0	0.0	19.3	0.0	0	0.0	19.6	0.0	0	0.0	21.6	0.0
LF2VENT-06	>100	15.2	10.9	10.3	0	0.0	11.3	5.9	0	0.1	20.1	0.3	4	0.3	16	3.2
LF2VENT-07	0	0.0	21.5	0.0	0	0.0	20.5	0.0	6	0.3	18.1	0.6	0	0.0	20.7	0.2
LF2VENT-08	0	0.0	21.1	0.1	0	0.0	20.9	0.0	0	0.0	18.9	0.0	0	0.0	21.6	0.0
LF2VENT-09	0	0.0	18.8	1.4	0	0.0	12.7	1.9	0	0.0	19.5	0.0	0	0.0	21.5	0.0
LF2VENT-10	0	0.0	21.2	0.2	0	0.0	20.5	0.1	0	0.0	19.5	0.0	0	0.0	21.5	0.0
LF2VENT-11	0	0.0	19.6	0.7	0	0.0	20.2	0.0	0	0.0	20.1	0.0	0	0.0	21.5	0.0
LF2VENT-12	5	0.3	18.8	1.4	0	0.0	20.6	0.0	0	0.0	19.7	0.1	0	0.0	21.5	0.0
LF2VENT-13	5	0.3	20.4	0.3	2	0.1	19.4	0.0	18	0.8	14.2	2.4	3	0.2	21.1	0.0
LF2VENT-14	86	4.3	15.7	1.8	0	0.0	20.5	0.0	12	0.5	15.1	1.7	0	0.0	11.2	4.4

Notes:
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Table 3
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	9-Sep-15				6-Dec-16				7-Nov-17				20-Oct-18			
	Barometric Pressure (in.) = 29.33-29.42				Barometric Pressure (in.) = 29.48-29.46				Barometric Pressure (in.) = 29.51 - 29.51				Barometric Pressure (in.) = 29.54-29.55			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)
LF2GMP-01	0	0.0	20.4	0.1	0	0	20.1	0.1	--	--	--	--	--	--	--	--
LF2GMP-02	> 100	8.4	0.1	20.0	15	0.7	8.1	11.7	0.0	0.0	19.0	3.1	0	<0.1	20.9	0
LF2GMP-03	0	0.0	20.6	0.0	0	0	19.3	0.9	0.0	0.0	21.4	0.0	0	<0.1	20.9	0
LF2GMP-04	0	0.0	20.6	0.0	0	0	20.6	0.3	--	--	--	--	--	--	--	--
LF2GMP-05	> 100	11.4	0.3	10	0	0	13.9	5.5	0.0	0.0	10.3	4.5	0	<0.1	20.9	0
LF2GMP-06	0	0.0	18.8	1.4	0	0	7.5	8.6	0.0	0.0	9.5	4.7	0	<0.1	20.9	0
LF2GMP-07	0	0.0	20.4	00	0	0	19.5	1.2	--	--	--	--	--	--	--	--
LF2GMP-08	0	0.1	20.4	0.3	3	0.1	18.2	1.9	0.0	0.0	21.2	0.0	0	<0.1	20.9	0
LF2GMP-09	0	0.0	20.7	0.0	0	0	20.7	0.3	--	--	--	--	--	--	--	--
LF2VENT-01	0	0.0	20.8	0.0	7	0.3	19.7	0.4	2.0	0.1	19.6	0.6	0	<0.1	20.9	0
LF2VENT-02	0	0.0	20.8	0.0	0	0	20.8	0	0.0	0.0	21.2	0.1	0	<0.1	20.9	0
LF2VENT-03	0	0.0	20.8	0.0	0	0	21	0	--	--	--	--	--	--	--	--
LF2VENT-04	0	0.0	20.8	0.0	28	1.4	19.2	0.6	40.0	1.1	20.3	0.7	0	<0.1	20.9	0
LF2VENT-05	0	0.0	20.7	0.0	5	0.2	20	0.4	60.0	2.7	16.4	2.5	0	<0.1	20.9	0
LF2VENT-06	0	0.0	20.8	0.0	90	4.5	17.2	3.1	> 100	17.6	7.8	12.0	0	<0.1	20.9	0
LF2VENT-07	0	0.0	20.8	0.0	0	0	20.3	0.9	0.0	0.0	21.3	0.1	0	<0.1	20.9	0
LF2VENT-08	0	0.0	20.8	0.0	0	0	20.5	0	0.0	0.0	20.6	0.3	0	<0.1	20.9	0
LF2VENT-09	0	0.0	20.8	0.0	0	0	14	2	--	--	--	--	--	--	--	--
LF2VENT-10	0	0.0	20.8	0.0	0	0	20.4	0.1	--	--	--	--	--	--	--	--
LF2VENT-11	0	0.0	20.8	0.0	0	0	19.7	0.2	--	--	--	--	--	--	--	--
LF2VENT-12	0	0.0	20.8	0.0	0	0	19.9	0.2	0.0	0.0	20.2	0.8	0	<0.1	20.9	0
LF2VENT-13	0	0.0	20.8	0.0	5	0.3	18.9	0.5	0.0	0.0	20.0	0.4	0	<0.1	20.9	0
LF2VENT-14	0	0.0	20.8	0.0	0	0	20.9	0	0.0	0.0	21.3	0.0	0	<0.1	20.9	0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 3
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	2-Oct-19			
	Barometric Pressure (in.) = 29.22 - 29.25			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF2GMP-01	--	--	--	--
LF2GMP-02	17	0.8	18.7	1.7
LF2GMP-03	--	--	--	--
LF2GMP-04	--	--	--	--
LF2GMP-05	73	3.6	13.6	3.0
LF2GMP-06	2	<0.1	21.1	0.0
LF2GMP-07	--	--	--	--
LF2GMP-08	2	<0.1	20.5	0.8
LF2GMP-09	--	--	--	--
LF2VENT-01	2	<0.1	20.6	0.0
LF2VENT-02	--	--	--	--
LF2VENT-03	--	--	--	--
LF2VENT-04	31	1.5	20.1	0.9
LF2VENT-05	43	2.2	19.0	1.8
LF2VENT-06	8	0.4	20.8	0.1
LF2VENT-07	2	<0.1	20.8	0.0
LF2VENT-08	--	--	--	--
LF2VENT-09	--	--	--	--
LF2VENT-10	--	--	--	--
LF2VENT-11	--	--	--	--
LF2VENT-12	7	0.3	20.6	0.2
LF2VENT-13	2	<0.1	20.6	0.0
LF2VENT-14	2	<0.1	20.8	0.0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 4
LF002 (Landfill 2/3 AOC) Groundwater Sampling Results 2019
Former Griffiss Air Force Base
Rome, New York

Location Identification	NYSDEC Class GA Groundwater Standards	LF2MW2-1	LF2MW-4	LF2MW-12		LF2MW-13	LF2SW-1	LF2SW-2	LF2SW-3
Date of Collection		5/16/2019	5/16/2019	5/16/2019	5/16/2019	5/16/2019	5/17/2019	5/17/2019	5/17/2019
Sample Identification		LF2MW2-1_0519	LF2MW-4_0519	LF2MW-12_0519	LF2MW-12_0519-a	LF2MW-13_0519	LF2SW-1_0519	LF2SW-2_0519	LF2SW-3_0519
Lab Package		280-123930					280-123983		
Leachate Indicators (mg/L)									
Alkalinity, Total	NV	**250**	**480**	**490**	**490**	**160**	**81**	**160**	**130**
Ammonia	2	**0.64**	**0.18**	**0.12**	**0.13**	**0.058 J**	**0.042 J**	**0.048 J**	**0.43**
Biochemical Oxygen Demand	NV	0.59 U	**8.6**	0.59 U	0.59 U	0.59 U	3 UB	2 UB	**6.3**
Bromide	2	**0.19 J**	**0.61**	**0.57**	**0.63**	0.2 U	0.2 U	0.2 U	0.2 U
Boron (µg/L)	1,000	**38 J**	**12 J**	**56 J**	**57 J**	**11 J**	**9.7 J**	**14 J**	**99 J**
Chemical Oxygen Demand	NV	**26 J**	**21**	**13 J**	**13 J**	**16 J**	**68**	**20**	**1,400 D**
Chloride	250	**10**	**5.3**	**1.3 J**	**1.3 J**	**1 J**	**1.3 J**	**1.1 J**	**4.6**
Color (in Platinum-Cobalt Units [PCU])	15	**50 D**	**200 D**	**20**	**20**	**25**	**150 D**	**75 D**	**100 D**
Fluoride	2	0.12 UB	0.47 UB	0.067 UB	0.1 UB	0.079 UB	0.1 U	0.074 UB	0.067 UB
Hardness	NV	**260**	**480**	**480**	**450**	**160**	**80**	**150**	**1,100**
Nitrate	10	**0.077 J**	**0.23 J**	0.1 U	**1.1**	**0.1 J**	**0.051 J**	0.1 U	**0.077 J**
Nitrite	1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrate Nitrite as N	10	**0.077 J**	**0.23 J**	0.1 U	**1.1**	**0.1 J**	**0.051 J**	0.1 U	**0.077 J**
Nitrogen, Kjeldahl	NV	0.5 U	0.5 U	0.5 U	0.5 UJ	**5.4 J**	**0.93 J**	0.5 U	13 U
Orthophosphate	NV	**0.81**	0.2 UJ	**2.2 J**	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	**0.35 J**
Sulfate	250	**11**	**3.1 J**	**18**	**18**	3 U	**1.8 J**	**1.2 J**	**32**
Total Dissolved Solids	500	**290**	**500**	**530**	**540**	**160**	**110**	**180**	**230**
Total Phenols	1	**0.0093 J**	**0.015 J**	**0.011 J**	**0.012 J**	**0.0078 J**	0.027 UB	0.012 UB	**0.32 J**
Total Organic Carbon	NV	**1.1**	**6.9**	**6.2**	**6.3**	**6.6**	**12**	**10**	**70**

Notes:
Screening Criteria: Results are compared to the New York Codes, Rules, and Regulations Title 6 Part 703.5 Water Quality Standards Surface Waters and Groundwater, Table 1 and to the New York State Department of Environmental Conservation Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

µg/L = micrograms per liter

mg/L = milligrams per liter

U = not detected, value presented is the limit of detection

J = Estimated, the analyte was positively identified; the quantitation is an estimation

UJ = The analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria.

UB = Considered and artifact of blank contamination

D = Dilution

NV = No value

-a = Field duplicate

Shaded values are above the screening criteria.

Bold values are detected results.

Table 5
LF003 (Landfill 7 AOC) Groundwater Sampling Results 2019
Former Griffiss Air Force Base Rome, New York

Location Identification	NYSDEC Class GA Groundwater Standards	LF7MW-22	LF7MW-23	LF7MW-26	LF7MW-26	LF7MW-27	LF7MW-28	LF7MW-30	LF7WL-3	LF7WL-4
Date of Collection		5/17/2019	5/17/2019	5/17/2019	5/17/2019	5/17/2019	5/17/2019	5/17/2019	5/17/2019	5/17/2019
Sample Identification		LF7MW-22_0519	LF7MW-23_0519	LF7MW-26_0519	LF7MW-26_0519-a	LF7MW-27_0519	LF7MW-28_0519	LF7MW-30_0519	LF7WL-3_0519	LF7WL-4_0519
Lab Package		280-123981								
Leachate Indicators (mg/L)										
Alkalinity, Total	NV	**480**	**150**	**220 J**	**330 J**	**170**	**240**	**320**	**200**	**210**
Ammonia	2	**0.61**	**0.22**	0.05 U	0.05 U	0.05 U	**0.032 J**	0.05 U	0.05 U	0.05 U
Biochemical Oxygen Demand	NV	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	1.9 UB
Bromide	2	**0.34 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Boron (µg/L)	1,000	**190**	**17 J**	**8.2 J**	**8.7 J**	**8.5 J**	**52 J**	**5.9 J**	**13 J**	**42 J**
Chemical Oxygen Demand	NV	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Chloride	250	**19**	**4.3**	**1.4 J**	3 U	3 U	**2.1 J**	**5.5**	**1.8 J**	3 U
Color (in Platinum-Cobalt Units [PCU])	15	**75 D**	**10**	**5 J**	**15 J**	**15**	5 U	5 U	**30**	**20**
Fluoride	2	0.5 U	0.071 UB	0.086 UB	0.071 UB	0.089 UB	0.084 UB	0.086 UB	0.069 UB	0.1 U
Hardness	NV	**470**	**150**	**200**	**220**	**150**	**310**	**320**	**190**	**200**
Nitrate	10	**0.073 J**	0.1 U	**0.11 J**	**0.052 J**	**0.27 J**	**0.11 J**	**1.3**	**0.051 J**	**0.05 J**
Nitrite	1	**0.063 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrate Nitrite as N	10	**0.14 J**	0.1 U	**0.11 J**	**0.052 J**	**0.27 J**	**0.11 J**	**1.3**	**0.051 J**	**0.05 J**
Nitrogen, Kjeldahl	NV	**0.8 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Orthophosphate	NV	**0.3 J**	0.2 UJ	**0.43 J**	**0.85 J**	**0.38 J**	**0.58 J**	**0.44 J**	**0.5 J**	**0.48 J**
Sulfate	250	**29**	**14**	**1.9 J**	**2.2 J**	**2.1 J**	**2 J**	**12**	**1.9 J**	**2.6 J**
Total Dissolved Solids	500	**520**	**180**	**230 J**	**340 J**	**180**	**250**	**370**	**220**	**230**
Total Phenols	1	**0.2**	0.013 UB	0.011 UB	0.012 UB	0.0099 UB	0.0099 UB	0.011 UB	0.01 UB	0.008 UB
Total Organic Carbon	NV	**1.9**	**1.2**	**1.1**	**1.3**	**2.4**	**1.3**	**1.3**	**4.9**	**3.8**

Notes:

Screening Criteria: Results are compared to the New York Codes, Rules, and Regulations Title 6 Part 703.5 Water Quality Standards Surface Waters and Groundwater, Table 1 and to the New York State Department of Environmental Conservation Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

µg/L = micrograms per liter

mg/L = milligrams per liter

U = not detected, value presented is the limit of detection

J = Estimated, the analyte was positively identified; the quantitation is an estimation

UJ = The analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria.

UB = Considered and artifact of blank contamination

D = Dilution

NV = No value

Shaded values are above the screening criteria.

Bold values are detected results.

Table 6
LF007 (Landfill 5 AOC) Groundwater Sampling Results 2019
Former Griffiss Air Force Base, Rome, New York

Location Identification	NYSDEC Class GA Groundwater Standards	LF5MW-1A	LF5MW-3	LF5MW-5	LF5MW-5	LF5MW-100R	MW49D07	LF5SW-1	LF5SW-2	LF5SW-3
Date of Collection		5/15/2019	5/14/2019	5/14/2019	5/14/2019	5/15/2019	5/15/2019	5/15/2019	5/15/2019	5/15/2019
Sample Identification		LF5MW-1A_0519	LF5MW-3_0519	LF5MW-5_0519	LF5MW-5_0519-a	LF5MW-100R_0519	MW49D07_0519	LF5SW-1_0519	LF5SW-2_0519	LF5SW-3_0519
Lab Package		280-123855	280-123814	280-123814	280-123814	280-123855	280-123855	280-123855	280-123855	280-123855
Leachate Indicators (mg/L)										
Alkalinity, Total	NV	**240**	**210**	**39**	**41**	**110**	**370**	**220**	**220**	**220**
Ammonia	2	0.05 U	0.05 U	0.05 U	0.05 U	**18**	**0.033 J**	0.05 U	0.05 U	0.05 U
Biochemical Oxygen Demand	NV	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
Bromide	2	0.2 U	0.2 U	0.2 U	0.2 U	**26 D**	**0.74**	0.2 U	0.2 U	0.2 U
Boron (µg/L)	1,000	**6.6 J**	**220**	**6.3 J**	**5.8 J**	**160**	**30 J**	**15 J**	**16 J**	**15 J**
Chemical Oxygen Demand	NV	20 U	20 U	**30**	**29**	100 U	**10 J**	40 U	40 U	40 U
Chloride	250	**170 D**	**1.3 J**	**1.9 J**	**1.8 J**	**2,200 D**	**31**	**300 D**	**310 D**	**310 D**
Color (in Platinum-Cobalt Units [PCU])	15	**5**	**100 D**	**100 D**	**130 D**	**5**	**50 D**	**5**	**25**	**20**
Fluoride	2	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U	0.1 U
Hardness	NV	**170**	**450**	**46**	**45**	**560**	**380**	**280**	**270**	**280**
Nitrate	10	**0.059 J**	**0.081 J**	**1.2 J**	**0.09 J**	0.5 U	0.1 U	**0.89**	**0.84**	**0.86**
Nitrite	1	0.1 U	**0.068 J**	0.1 U	0.1 U	0.5 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrate Nitrite as N	10	**0.059 J**	**0.15 J**	**1.2 J**	**0.09 J**	0.5 U	0.1 U	**0.89**	**0.84**	**0.86**
Nitrogen, Kjeldahl	NV	0.5 U	0.5 U	0.5 U	0.5 U	**20**	0.5 UJ	0.5 U	0.5 U	0.5 U
Orthophosphate	NV	**1.2**	**0.53**	**0.34 J**	**0.32 J**	1 U	**0.98**	**0.4 J**	**0.39 J**	**0.39 J**
Sulfate	250	**9.3**	**230 D**	**5.3**	**5.4 J**	**5.9 J D**	**9.1**	**25**	**27**	**25**
Total Dissolved Solids	500	**550**	**610**	**110**	**94**	**4,700**	**500**	**790**	**810**	**800**
Total Phenols	1	**0.01 J**	0.02 U	**0.0078 J**	**0.0092 J**	**0.0071 J**	**0.015 J**	**0.0068 J**	**0.0092 J**	0.02 U
Total Organic Carbon	NV	**2.8**	**11**	**16**	**16**	**0.39 J**	**3.1**	**1.2**	**2.9**	**2**

Notes:

Screening Criteria: Results are compared to the New York Codes, Rules, and Regulations Title 6 Part 703.5 Water Quality Standards Surface Waters and Groundwater, Table 1 and to the New York State Department of Environmental Conservation Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

mg/L = milligrams per liter

U = not detected, value presented is the limit of detection

J = Estimated, the analyte was positively identified; the quantitation is an estimation

UJ = The analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria.

D = Dilution

NV = No value

-a = Field duplicate

Shaded values are above the screening criteria.

Bold values are detected results.

Table 7
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	2-Feb-10				7-May-10				26-Oct-10				16-May-11			
	Barometric Pressure (in.) =			NS	Barometric Pressure (in.) =			29.18-29.38	Barometric Pressure (in.) =			29.19-29.20	Barometric Pressure (in.) =			29.14-29.19
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	NS	NS	NS	NS	0	0.0	20.6	0.1	0	0.0	19.4	0.5	0	0.0	19.4	0.3
LF6GMP-02	NS	NS	NS	NS	0	0.0	20.9	0.1	0	0.0	11.8	6.6	0	0.0	20.9	0.1
LF6GMP-03	NS	NS	NS	NS	0	0.0	20.9	0.0	0	0.0	15.6	2.7	0	0.0	20.6	0.1
LF6GMP-04	NS	NS	NS	NS	0	0.0	20.9	0.0	0	0.0	19.4	1.0	0	0.0	20.8	0.0
LF6GMP-05	NS	NS	NS	NS	0	0.0	20.9	0.0	0	0.0	20.6	0.2	0	0.0	20.8	0.0
LF6GMP-06	NS	NS	NS	NS	0	0.0	19.7	0.9	0	0.0	20.4	0.4	0	0.0	20.8	0.1
LF6GMP-07	NS	NS	NS	NS	0	0.0	17.6	3.4	0	0.0	16.3	4.6	0	0.0	20.8	0.0
LF6GMP-08	NS	NS	NS	NS	0	0.0	10.2	9.2	0	0.0	5.4	13.8	0	0.0	12.7	5.5
LF6GMP-09	NS	NS	NS	NS	0	0.0	17.4	3.1	0	0.0	14.2	5.9	0	0.0	14.6	5.2
LF6GMP-10	NS	NS	NS	NS	0	0.0	19.8	1.0	0	0.0	19.7	1.0	0	0.0	20.8	0.0
LF6GMP-11	NS	NS	NS	NS	0	0.0	19.9	1.1	0	0.0	18.0	2.7	0	0.0	18.9	2.1
LF6GMP-12	NS	NS	NS	NS	0	0.0	20.3	0.6	0	0.0	18.8	1.9	0	0.0	18.2	2.1
LF6GMP-13	NS	NS	NS	NS	0	0.0	20.2	0.7	0	0.0	18.9	1.5	0	0.0	18.5	2.5
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LF6GMP-15S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-01	NS	NS	NS	NS	0	0.0	19.7	0.7	0	0.0	20.7	0.1	0	0.0	20.3	0.6
LF6VENT-02	NS	NS	NS	NS	0	0.0	20.4	0.1	0	0.0	20.6	0.0	0	0.0	20.7	0.0
LF6VENT-03	NS	NS	NS	NS	0	0.0	20.2	0.5	0	0.0	20.6	0.1	0	0.0	20.7	0.2
LF6VENT-04	NS	NS	NS	NS	0	0.0	18.5	1.6	0	0.0	20.7	0.0	0	0.0	20.8	0.1
LF6VENT-05	NS	NS	NS	NS	0	0.0	20.1	0.8	0	0.0	20.2	0.2	0	0.0	20.9	0.0
LF6VENT-06	NS	NS	NS	NS	0	0.0	20.2	0.4	0	0.0	20.7	0.0	0	0.0	20.8	0.0
LF6VENT-07	NS	NS	NS	NS	0	0.0	19.4	0.8	0	0.0	20.2	0.0	0	0.0	20.4	0.0
LF6VENT-08	NS	NS	NS	NS	0	0.0	19.8	0.6	0	0.0	20.3	0.0	0	0.0	20.4	0.0
LF6VENT-09	NS	NS	NS	NS	0	0.0	19.5	0.7	0	0.0	20.4	0.0	0	0.0	19.9	0.6
LF6VENT-10	NS	NS	NS	NS	0	0.0	19.6	0.9	0	0.0	20.4	0.1	0	0.0	20.5	0.0
LF6VENT-11	NS	NS	NS	NS	0	0.0	19.5	0.9	0	0.0	20.6	0.0	0	0.0	20.7	0.0
LF6VENT-12	NS	NS	NS	NS	0	0.0	20.1	0.7	0	0.0	20.5	0.0	0	0.0	20.3	0.5
LF6VENT-13	NS	NS	NS	NS	0	0.0	17.3	2.0	0	0.0	20.6	0.0	0	0.0	20.4	0.3
LF6VENT-14	NS	NS	NS	NS	0	0.0	19.2	1.4	0	0.0	20.6	0.0	0	0.0	20.5	0.4
LF6VENT-15	NS	NS	NS	NS	0	0.0	18.7	1.5	0	0.0	20.6	0.0	0	0.0	18.3	2.8
LF6VENT-16	NS	NS	NS	NS	0	0.0	15.7	4.1	0	0.0	20.7	0.0	0	0.0	13.4	5.7

Notes:
NI = Not Installed
NS = Not Sampled
- - = Not Monitored
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 7
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	19-Oct-11				10-May-12				5-Oct-12				2-May-13			
	Barometric Pressure (in.) =			29.11-29.14	Barometric Pressure (in.) =			28.99-29.32	Barometric Pressure (in.) =			29.44	Barometric Pressure (in.) = 29.73-29.85			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	0	0.0	12.0	7.0	0	0.0	19.3	0.8	0	0.0	11.0	2.4	0	0.0	20.6	0.0
LF6GMP-02	0	0.0	19.7	0.8	0	0.0	22.8	0.1	0	0.0	12.4	6.7	0	0.0	20.3	0.0
LF6GMP-03	0	0.0	16.1	3.0	0	0.0	22.2	0.1	0	0.0	16.3	2.7	0	0.0	20.6	0.0
LF6GMP-04	0	0.0	14.8	5.7	0	0.0	22.4	0.1	0	0.0	15.3	5.4	0	0.0	20.6	0.0
LF6GMP-05	0	0.0	18.8	2.7	0	0.0	22.7	0.1	0	0.0	18.8	2.0	0	0.0	20.6	0.0
LF6GMP-06	0	0.0	19.0	2.6	0	0.0	22.8	0.2	0	0.0	18.6	2.4	0	0.0	20.5	0.1
LF6GMP-07	0	0.0	16.6	5.2	0	0.0	23.0	0.1	0	0.0	17.0	4.2	0	0.0	20.0	0.5
LF6GMP-08	0	0.0	4.6	14.7	0	0.0	23.0	0.1	0	0.0	11.4	8.5	0	0.0	12.2	5.8
LF6GMP-09	0	0.0	14.1	6.2	0	0.0	20.2	1.8	0	0.0	15.3	5.2	0	0.0	18	1.7
LF6GMP-10	0	0.0	20.5	1.4	0	0.0	22.9	0.1	0	0.0	19.5	1.2	0	0.0	20.3	0.0
LF6GMP-11	0	0.0	18.5	3.0	0	0.0	23.0	0.1	0	0.0	18.5	2.5	0	0.0	20.0	0.7
LF6GMP-12	0	0.0	18.4	3.4	0	0.0	22.8	0.2	0	0.0	18.3	2.6	0	0.0	18.6	1.3
LF6GMP-13	0	0.0	18.3	3.4	0	0.0	22.2	0.7	0	0.0	17.8	3.0	0	0.0	19.0	1.3
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LF6GMP-15S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
LF6VENT-01	0	0.0	14.0	2.2	0	0.0	21.9	0.2	0	0.0	11.0	2.4	0	0.0	20.1	0.3
LF6VENT-02	24	1.2	6.2	0.4	0	0.0	21.4	0.7	35	1.7	4.1	0.6	0	0.0	19.6	0.0
LF6VENT-03	14	0.7	4.7	8.1	0	0.0	20.5	1.0	16	0.8	4.4	9.2	5	0.2	17.8	1.1
LF6VENT-04	>100	10.7	0.3	6.0	0	0.0	19.4	1.6	>100	8.1	0.7	7.4	0	0.0	19.6	0.7
LF6VENT-05	0	0.0	9.9	6.8	0	0.0	21.6	0.6	0	0.0	8.1	8.7	0	0.0	19.9	0.6
LF6VENT-06	2	0.0	8.9	1.3	0	0.0	22.4	0.0	0	0.0	8.5	0.8	0	0.0	20.0	0.2
LF6VENT-07	0	0.0	14.5	5.9	0	0.0	20.6	0.7	0	0.0	13.6	5.3	0	0.0	20.5	0.5
LF6VENT-08	0	0.0	16.2	4.5	0	0.0	19.7	1.8	0	0.0	15.5	3.7	0	0.0	20.7	0.4
LF6VENT-09	0	0.0	17.7	2.9	0	0.0	21.5	0.9	0	0.0	16.7	3.0	0	0.0	20.4	0.4
LF6VENT-10	0	0.0	14.6	5.2	0	0.0	21.1	0.8	0	0.0	11.0	6.4	0	0.0	20.3	0.6
LF6VENT-11	0	0.0	16.7	3.7	0	0.0	22.5	0.1	0	0.0	16.0	3.8	0	0.0	20.5	0.5
LF6VENT-12	0	0.0	14.6	5.2	0	0.0	22.2	0.2	0	0.0	11.6	5.7	0	0.0	19.0	1.3
LF6VENT-13	0	0.0	13.8	6.4	0	0.0	20.3	1.5	0	0.0	12.1	7.1	0	0.0	20.4	0.6
LF6VENT-14	0	0.0	16.3	4.0	0	0.0	22.2	0.1	0	0.0	16.4	3.3	0	0.0	20.2	0.5
LF6VENT-15	0	0.0	10.7	7.0	0	0.0	21.9	0.4	0	0.0	5.8	9.7	0	0.0	19.4	1.1
LF6VENT-16	0	0.0	10.0	7.7	0	0.0	16.4	3.0	0	0.0	8.3	7.3	0	0.0	18.2	1.9

Notes:
NI = Not Installed
NS = Not Sampled
- - = Not Monitored
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 7
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	15-Oct-13				8-May-14				19-Nov-14				5-May-15			
	Barometric Pressure (in.) =			29.47-29.58	Barometric Pressure (in.) =			29.48-29.57	Barometric Pressure (in.) =			29.52-29.60	Barometric Pressure (in.) =			29.67-29.75
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	0	0.0	14.4	4.4	0	0.0	19.5	0.2	0	0.0	19.5	2.0	0	0.0	19.9	0.7
LF6GMP-02	0	0.0	11.6	7.1	0	0.0	13.0	4.3	0	0.0	15.7	4.8	0	0.0	15.8	3.7
LF6GMP-03	0	0.0	16.5	2.7	0	0.0	17.2	1.6	0	0.0	18.1	1.7	0	0.0	20.9	0.2
LF6GMP-04	0	0.0	15.6	5.4	0	0.0	17.1	2.8	0	0.0	17.8	3.3	0	0.0	18.4	2.9
LF6GMP-05	0	0.0	19.0	2.0	0	0.0	19.5	8.0	0	0.0	16.2	3.7	0	0.0	20.5	0.9
LF6GMP-06	0	0.0	18.7	2.5	0	0.0	19.0	12.0	0	0.0	18.5	2.9	0	0.0	20.3	1.4
LF6GMP-07	0	0.0	17.1	4.6	0	0.0	20.3	0.1	0	0.0	19.1	2.1	0	0.0	20.2	1.3
LF6GMP-08	0	0.0	7.3	12.7	0	0.0	20.0	0.2	0	0.0	11.0	9.5	0	0.0	14.0	5.8
LF6GMP-09	0	0.0	16.5	4.6	0	0.0	17.8	1.9	0	0.0	18.2	3.7	0	0.0	20.1	1.4
LF6GMP-10	0	0.0	19.4	2.2	0	0.0	20.5	0.0	0	0.0	16.1	3.8	0	0.0	21.4	0.0
LF6GMP-11	0	0.0	19.2	2.2	0	0.0	19.7	0.9	0	0.0	14.5	4.0	0	0.0	20.9	1.2
LF6GMP-12	0	0.0	18.3	2.9	0	0.0	18.3	1.7	0	0.0	19.4	2.1	0	0.0	19.8	l.8
LF6GMP-13	0	0.0	18.5	2.9	0	0.0	19.0	1.3	0	0.0	20.0	1.8	0	0.0	20.5	1.5
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LF6GMP-15S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-15D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6VENT-01	0	0.0	12.3	2.5	0	0.0	17.4	1.1	0	0.0	19.1	1.5	0	0.1	19.8	1.1
LF6VENT-02	58	2.9	4.5	0.4	0	0.0	12.3	0.0	0	0.0	19.8	0.2	0	0.0	20.9	0.0
LF6VENT-03	58	2.9	5.4	9.2	0	0.0	13.8	3.1	0	0.0	19.9	0.6	0	0.1	20.5	0.9
LF6VENT-04	>100	10.5	4.8	4.5	80	4.0	5.3	3.3	0	0.0	19.9	0.5	0	0.0	20.3	0.5
LF6VENT-05	0	0.0	10.1	6.8	0	0.0	13.9	3.1	0	0.0	20.0	0.5	0	0.0	19.7	1.7
LF6VENT-06	17	0.9	5.2	1.1	0	0.0	12.4	0.7	0	0.0	20.6	0.2	0	0.2	20.8	0.0
LF6VENT-07	0	0.0	13.4	5.8	0	0.0	17.7	2.1	0	0.0	20.6	0.3	0	0.1	20.7	0.9
LF6VENT-08	0	0.0	12.4	6.1	0	0.0	15.8	2.9	0	0.0	20.7	0.3	0	0.1	20.9	0.6
LF6VENT-09	0	0.0	17.2	3.0	0	0.0	18.8	1.3	0	0.0	20.6	0.3	0	0.0	20.9	0.3
LF6VENT-10	0	0.0	9.2	8.5	0	0.0	16.6	2.6	0	0.0	20.5	0.2	0	0.1	20.6	0.7
LF6VENT-11	0	0.0	17.3	3.3	0	0.0	19.1	1.3	0	0.0	20.7	0.2	0	0.1	20.6	0.5
LF6VENT-12	0	0.0	8.4	9.4	0	0.0	15.7	2.7	0	0.0	20.2	0.2	0	0.0	20.5	1.0
LF6VENT-13	0	0.0	13.8	6.7	0	0.0	16.6	3.6	0	0.0	19.8	0.5	0	0.0	18.9	2.3
LF6VENT-14	0	0.0	16.6	3.5	0	0.0	18.8	1.6	0	0.0	19.5	0.2	0	0.1	20.4	1.2
LF6VENT-15	0	0.0	18.6	2.5	0	0.0	15.3	4.2	0	0.0	19.6	0.2	0	0.0	19.0	3.2
LF6VENT-16	0	0.0	12.5	6.6	0	0.0	14.9	4.8	0	0.0	19.4	0.5	0	0.0	18.1	3.7

Notes:
NI = Not Installed
NS = Not Sampled
- - = Not Monitored
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 7
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	9-Sep-15				30-Nov-16				7-Nov-17				19-Oct-18			
	Barometric Pressure (in.) =			29.32-29.48	Barometric Pressure (in.) =			29.87-29.75	Barometric Pressure (in.) =			29.49 - 29.49	Barometric Pressure (in.) =			30.03 - 29.96
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	Hydrogen Sulfide (ppm)	Methane (%)	Oxygen (%)	Carbon Monoxide (ppm)
LF6GMP-01	0	0.0	18.9	1.5	0	0	20.7	0.2	--	--	--	--	--	--	--	--
LF6GMP-02	0	0.0	20.6	0.1	0	0	13.2	6.4	--	--	--	--	--	--	--	--
LF6GMP-03	0	0.0	20.7	0.0	0	0	20.4	0.5	--	--	--	--	--	--	--	--
LF6GMP-04	0	0.0	20.7	0.0	0	0	16.6	4.9	--	--	--	--	--	--	--	--
LF6GMP-05	0	0.0	20.6	0.0	0	0	18.7	2.6	--	--	--	--	--	--	--	--
LF6GMP-06	0	0.0	20.5	0.1	0	0	18.3	3.3	--	--	--	--	--	--	--	--
LF6GMP-07	0	0.0	20.5	0.1	0	0	20.7	0.3	--	--	--	--	--	--	--	--
LF6GMP-08	0	0.0	20.1	0.8	0	0	8.8	11.1	--	--	--	--	--	--	--	--
LF6GMP-09	0	0.0	20.0	0.9	0	0	20	1.1	--	--	--	--	--	--	--	--
LF6GMP-10	0	0.0	20.3	0.4	0	0	20.3	1.2	--	--	--	--	--	--	--	--
LF6GMP-11	0	0.0	20.7	0.1	0	0	20.1	1.4	--	--	--	--	--	--	--	--
LF6GMP-12	0	0.0	20.7	0.1	0	0	18.6	2.9	--	--	--	--	--	--	--	--
LF6GMP-13	0	0.0	20.4	0.4	0	0	20.2	1	--	--	--	--	--	--	--	--
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	--	--	--	--	--	--	--	--
LF6GMP-15S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-15D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6VENT-01	1	0.0	20.9	0.0	0	0	16.7	2.4	--	--	--	--	--	--	--	--
LF6VENT-02	0	0.0	20.8	0.0	3	0.1	13.4	0.4	0.0	0.0	18.8	0.4	0	1	7	0
LF6VENT-03	0	0.0	20.7	0.0	0	0	15.1	4.3	0.0	0.0	18.5	2.2	0	0.2	9.5	0
LF6VENT-04	0	0.0	20.8	0.0	3	0.1	12.8	2.6	0.0	0.0	19.1	1.7	0	3.4	8.8	0
LF6VENT-05	1	0.0	20.8	0.0	0	0	17	3.3	--	--	--	--	--	--	--	--
LF6VENT-06	0	0.2	20.8	0.0	0	0	16.3	0.9	0.0	0.0	19.7	0.6	0	<0.1	14.8	0
LF6VENT-07	1	0.0	20.8	0.0	0	0	16.4	4.4	--	--	--	--	--	--	--	--
LF6VENT-08	1	0.0	20.7	0.0	0	0	21	0.1	--	--	--	--	--	--	--	--
LF6VENT-09	1	0.0	19.9	0.7	0	0	17.5	3.3	--	--	--	--	--	--	--	--
LF6VENT-10	1	0.0	12.8	5.9	0	0	11.1	7.5	--	--	--	--	--	--	--	--
LF6VENT-11	1	0.0	18.2	2.2	0	0	17.4	3.7	--	--	--	--	--	--	--	--
LF6VENT-12	0	0.0	12.3	7.4	0	0	14.5	5	--	--	--	--	--	--	--	--
LF6VENT-13	0	0.0	13.7	6.2	0	0	14.4	5.6	--	--	--	--	--	--	--	--
LF6VENT-14	0	0.0	17.4	2.4	0	0	20.8	0.1	--	--	--	--	--	--	--	--
LF6VENT-15	2	0.1	3.8	17.4	0	0	9.2	10.2	--	--	--	--	--	--	--	--
LF6VENT-16	2	0.1	5.7	12.6	0	0	9.7	9.9	--	--	--	--	--	--	--	--

Notes:
NI = Not Installed
NS = Not Sampled
- - = Not Monitored
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 7
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2019)
Former Griffiss Air Force Base
Rome, New York

Sample Location	2-Oct-19			
	Barometric Pressure (in.) =			29.38
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	- -	- -	- -	- -
LF6GMP-02	- -	- -	- -	- -
LF6GMP-03	- -	- -	- -	- -
LF6GMP-04	- -	- -	- -	- -
LF6GMP-05	- -	- -	- -	- -
LF6GMP-06	- -	- -	- -	- -
LF6GMP-07	- -	- -	- -	- -
LF6GMP-08	- -	- -	- -	- -
LF6GMP-09	- -	- -	- -	- -
LF6GMP-10	- -	- -	- -	- -
LF6GMP-11	- -	- -	- -	- -
LF6GMP-12	- -	- -	- -	- -
LF6GMP-13	- -	- -	- -	- -
LF6GMP-14	- -	- -	- -	- -
LF6GMP-15S	- -	- -	- -	- -
LF6GMP-15D	- -	- -	- -	- -
LF6GMP-16S	- -	- -	- -	- -
LF6GMP-16D	- -	- -	- -	- -
LF6GMP-17S	- -	- -	- -	- -
LF6GMP-17D	- -	- -	- -	- -
LF6VENT-01	- -	- -	- -	- -
LF6VENT-02	2	<0.1	20.8	0.0
LF6VENT-03	2	<0.1	20.6	0.0
LF6VENT-04	2	<0.1	20.7	0.0
LF6VENT-05	- -	- -	- -	- -
LF6VENT-06	2	<0.1	20.7	0.0
LF6VENT-07	- -	- -	- -	- -
LF6VENT-08	- -	- -	- -	- -
LF6VENT-09	- -	- -	- -	- -
LF6VENT-10	- -	- -	- -	- -
LF6VENT-11	- -	- -	- -	- -
LF6VENT-12	- -	- -	- -	- -
LF6VENT-13	- -	- -	- -	- -
LF6VENT-14	- -	- -	- -	- -
LF6VENT-15	- -	- -	- -	- -
LF6VENT-16	- -	- -	- -	- -

Notes:
NI = Not Installed
NS = Not Sampled
- - = Not Monitored
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 8
LF009 (Landfill 6 AOC) Groundwater Sampling Results 2019
Former Griffiss Air Force Base Rome, New York

Location Identification	NYSDEC Class GA Groundwater Standards	LF6MW-1	LF6MW-12	LF6VMW-10R2	775VMW-18R	LF6VMW-21		LF6VMW-22	LF6VMW-24	LF6VMW-26
Date of Collection		5/15/2019	5/16/2019	5/16/2019	5/15/2019	5/15/2019	5/15/2019	5/16/2019	5/16/2019	5/16/2019
Sample Identification		LF6MW-1_0519	LF6MW-12_0519	LF6VMW-10R2_0519	775VMW-18R_0519	LF6VMW-21_0519	LF6VMW-21_0519-a	LF6VMW-22_0519	LF6VMW-24_0519	LF6VMW-26_0519
Lab Package		280-123853	280-123924	280-123924	280-123853	280-123853	280-123853	280-123924	280-123924	280-123924
Leachate Indicators (mg/L)		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Alkalinity, Total	NV	**270**	**370**	**110**	**150**	**70**	**71**	**160**	**160**	**220**
Ammonia	2	0.05 U	**0.29**	**0.077 J**	0.05 U	0.05 U	0.05 U	0.05 U	**0.15**	0.05 U
Biochemical Oxygen Demand	NV	0.59 U	**57**	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
Bromide	2	0.2 U	**1.7**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**2.1**
Boron (µg/L)	1,000	**12 J**	**37 J**	**6.1 J**	**23 J**	**6 J**	**6.6 J**	**8.3 J**	**15 J**	**53 J**
Chemical Oxygen Demand	NV	40 U	**50**	20 U	40 U	20 U	20 U	41 U	40 U	40 U
Chloride	250	**680 D**	**120**	**4 J**	**690 D**	**150**	**150**	**4.7**	**290 D**	**170**
Color (in Platinum-Cobalt Units [PCU])	15	**15**	**75 D**	**5**	**20**	**20 J**	**30 J**	**15**	**5**	**10**
Fluoride	2	0.94 UB	0.59 UB	0.066 UB	0.9 UB	0.1 U	0.1 U	0.1 U	0.98 UB	0.67 UB
Hardness	NV	**360**	**460**	**130**	**510**	**190**	**190**	**160**	**240**	**300**
Nitrate	10	**0.78**	0.1 UJ	**0.65**	**2.8**	**0.62**	**0.62**	**0.64 J**	**0.92 J**	0.1 U
Nitrite	1	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U
Nitrate Nitrite as N	10	**0.78**	0.1 UJ	**0.65**	**2.8**	**0.62**	**0.62**	**1.64**	**0.92 J**	0.1 U
Nitrogen, Kjeldahl	NV	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	**0.81 J**	**3.4**	0.5 U
Orthophosphate	NV	**0.41 J**	0.2 UJ	**0.26 J**	**0.27 J**	**0.2 J**	**0.19 J**	**0.32 J**	**1.2 J D**	0.2 UJ
Sulfate	250	**14**	**13**	**10 J**	**45**	**6.5**	**6.4**	**8.3**	**18**	**24**
Total Dissolved Solids	500	**1,700**	**580**	**160 J**	**1,500**	**350**	**360**	**180**	**660**	**490**
Total Phenols	1	0.02 U	0.021 UB	0.0095 UB	**0.0071 J**	**0.0091 J**	**0.0076 J**	0.0075 UB	0.015 UB	0.026 UB
Total Organic Carbon	NV	**0.77 J**	**4.6**	**0.53 J**	**0.8 J**	**0.37 J**	**0.32 J**	**0.66 J**	**0.64 J**	**0.63 J**

Notes:

Screening Criteria: Results are compared to the New York Codes, Rules, and Regulations Title 6 Part 703.5 Water Quality Standards Surface Waters and Groundwater, Table 1 and to the New York State Department of Environmental Conservation Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

mg/L = milligrams per liter

U = not detected, value presented is the limit of detection

J = Estimated, the analyte was positively identified; the quantitation is an estimation

UJ = The analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria.

UB = Considered and artifact of blank contamination

D = Dilution

NV = No value

Shaded values are above the screening criteria.

Bold values are detected results.

-a = field duplicate

Table 8
LF009 (Landfill 6 AOC) Groundwater Sampling Results 2019
Former Griffiss Air Force Base Rome, New York

Location Identification	NYSDEC Class GA Groundwater Standards	TMCMW-9	TMC-USGS-2	LF6LH-1	LF6H-2	LF6/TMCSW-1	LF6/TMCSW-2		LF6/TMCSW-3	LF6W-1
Date of Collection		5/16/2019	5/15/2019	5/16/2019	5/16/2019	5/16/2019	5/16/2019	5/16/2019	5/15/2019	5/16/2019
Sample Identification		TMCMW-9_0519	TMC-USGS-2_0519	LF6LH-1_0519	LF6H-2_0519	LF6/TMCSW-1_0519	LF6/TMCSW-2_0519	LF6/TMCSW-2_0519-a	LF6/TMCSW-3_0519	LF6W-1_0519
Lab Package		280-123924	280-123853	280-123924	280-123924	280-123924	280-123924	280-123924	280-123853	280-123924
Leachate Indicators (mg/L)		Groundwater	Groundwater	Leachate	Leachate	Surface water	Surface water	Surface water	Surface water	Wetland/Surface water
Alkalinity, Total	NV	**410**	**160**	**90**	**210**	**220**	**210**	**210**	**200**	**87**
Ammonia	2	**0.6**	**0.051 J**	0.05 U	**0.035 J**	**0.03 J**	**0.032 J**	**0.032 J**	**0.033 J**	**0.025 J**
Biochemical Oxygen Demand	NV	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	2.8 UB
Bromide	2	0.2 U	**0.25 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**1.1**	0.2 U
Boron (µg/L)	1,000	**110**	**14 J**	**8.4 J**	**14 J**	**15 J**	**15 J**	**15 J**	**17 J**	**4.7 J**
Chemical Oxygen Demand	NV	40 U	20 U	**40**	40 U	40 U	**9.3 J**	40 U	40 U	**68**
Chloride	250	**34**	**45**	**1.7 J**	3 U	3 U	3 U	3 U	**220 D**	**1.1 J**
Color (in Platinum-Cobalt Units [PCU])	15	5 U	**10 D**	**40**	**30**	**25**	**30**	**30**	**40**	**50**
Fluoride	2	0.46 UB	0.1 U	0.085 UB	0.066 UB	0.061 UB	0.064 UB	0.86 UB	0.1 U	0.088 UB
Hardness	NV	**420**	**230**	**110**	**270**	**270**	**270**	**260**	**250**	**72**
Nitrate	10	**0.77 J**	**0.86**	0.1 UJ	**0.71 J**	**0.23 J**	**0.71 J**	**0.71 J**	**0.59**	0.1 UJ
Nitrite	1	0.1 UJ	0.1 U	0.1 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.1 U	0.1 UJ
Nitrate Nitrite as N	10	**0.77 J**	**0.86**	0.1 UJ	**190 J**	**200 J**	**190 J**	**190 J**	**0.59**	0.1 UJ
Nitrogen, Kjeldahl	NV	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Orthophosphate	NV	0.2 UJ	**0.34 J**	**0.38 J**	0.2 UJ	1 UJ	0.2 UJ	0.2 UJ	**0.38 J**	0.2 UJ
Sulfate	250	**44**	**24**	**6.7**	**24**	**24**	**23**	**23**	**22**	**1.2 J**
Total Dissolved Solids	500	**520**	**330**	**120 J**	**670**	**730**	**670**	**700**	**650**	**100 J**
Total Phenols	1	0.015 UB	0.02 U	0.0071 UB	0.0094 UB	0.012 UB	0.015 UB	0.01 UB	0.02 U	0.012 UB
Total Organic Carbon	NV	**2.5**	**0.61 J**	**11**	**3.5**	**3.1**	**3.6**	**3.6**	**4.3**	**9.5**

Notes:

Screening Criteria: Results are compared to the New York Codes, Rules, and Regulations Title 6 Part 703.5 Water Quality Standards Surface Waters and Groundwater, Table 1 and to the New York State Department of Environmental Conservation Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

mg/L = milligrams per liter

U = not detected, value presented is the limit of detection

J = Estimated, the analyte was positively identified; the quantitation is an estimation

UJ = The analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria.

UB = Considered and artifact of blank contamination

D = Dilution

NV = No value

Shaded values are above the screening criteria.

Bold values are detected results.

-a = field duplicate

ATTACHMENT C – LANDFILL INSPECTION REPORTS

Attachment C-1
Spring 2019 Landfill Inspection Reports

LANDFILL LF001
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring Response to Storm Event? no
Date of Inspection: 5/17/19
Personnel Present: J. Dawud
Weather Conditions: low 60s Partial clouds

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: Good. no exposed areas or subsidence observed

Slopes: Good

Cover Vegetation: Good. Grasses are growing well

Leachate Breakouts: no leachate observed

Vectors: none observed

Drainage: good. Rains in the previous few days made for saturated soils but water was observed draining at riprap outflows.

Institutional Controls: Signs in place.

Monitoring Wells: not inspected. However, LF1P-5 & LF1MW-5 were just sampled. LF1MW-6 is within a beaver pond. LF1MW-1R not found. LF1MW-103 & LF1P-2 present and locked. none others visited.

Gas Probes:

not monitored. (good - no damage found)

Gas Vents:

not monitored.

Security Fencing/Gates:

Main Gate functioning well, gate near NW corner is good.

Comments/Follow Up Needs:

LEOs present in large numbers at pistol range early in the week.

LANDFILL LF002 (Landfills 2/3 Aoc)
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring Response to Storm Event? no
Date of Inspection: 5/17/19
Personnel Present: J. Dawud
Weather Conditions: low 60's, Partial clouds

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: Good, no damaged areas observed.

Slopes: good

Cover Vegetation: Good grass growth. no bare areas observed.

Leachate Breakouts: no leachate observed

Vectors: none observed

Drainage: Seems good. Rains in previous week so there were some areas that were still wet, mostly well drained.

Institutional Controls:
good. Signs & gates in good condition

Monitoring Wells: not inspected. ECC sampled this week and did not report well issues. ~~tree removed from fence~~

Gas Probes:
not monitored

Gas Vents:
not monitored

Security Fencing/Gates:
Good / locked. downed trees on fence removed.

Comments/Follow Up Needs:

LANDFILL LF003 (landfill 7)
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring
Response to Storm Event? no
Date of Inspection: 5/17/19
Personnel Present: J. Dawud
Weather Conditions: low 60s Partial Clouds

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good. no damage observed

Slopes: good

Cover Vegetation: grasses growing well

Leachate Breakouts: none observed

Vectors: none observed

Drainage: Good. Rains previous week & soil cap was well drained

Institutional Controls:
Signs & locks on gate are good.

Monitoring Wells:
not inspected

Gas Probes:
not monitored

Gas Vents:
not monitored

Security Fencing/Gates:
Gate locked and good

Comments/Follow Up Needs:

LANDFILL LF007 (Landfill 5)
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring
Response to Storm Event? no
Date of Inspection: 5/17/19
Personnel Present: J. Dawd
Weather Conditions: low 60's Partial clouds

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: Good.

Slopes: Good.

Cover Vegetation: Grasses growing well

Leachate Breakouts: none observed

Vectors: none observed

Drainage: good. Rains in previous week.

Institutional Controls: Signs in place.

Monitoring Wells: not inspected. However, located LF5MW-H. ECC sampled this week and no issues reported.

Gas Probes: not monitored

Gas Vents: not monitored

Security Fencing/Gates: Gate good, lock present.

Comments/Follow Up Needs:

LANDFILL LF009 (Landfill 6)
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Spring
Response to Storm Event? no
Date of Inspection: 5/17/19
Personnel Present: J. Dawud
Weather Conditions: 60s Partial clouds

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good. no damage observed

Slopes: good

Cover Vegetation: grasses growing well

Leachate Breakouts: none observed

Vectors:
none observed

Drainage: good. rain in previous week but well drained

Institutional Controls:
Signs good

Monitoring Wells: not inspected. However ECC sampled this week and no issues reported

Gas Probes:
not monitored

Gas Vents:
not monitored

Security Fencing/Gates:
good.

Comments/Follow Up Needs:



LF001 - Spring 2019 – Pic 1



LF001 - Spring 2019 – Pic 2



LF001 - Spring 2019 – Pic 3



LF001 - Spring 2019 – Pic 4



LF001 - Spring 2019 – Pic 5



LF001 - Spring 2019 – Pic 6



LF001 - Spring 2019 – Pic 7



LF001 - Spring 2019 – Pic 8



LF001 - Spring 2019 – Pic 9



LF002 - Spring 2019 – Pic 1



LF003 - Spring 2019 – Pic 1



LF003 - Spring 2019 – Pic 2



LF003 - Spring 2019 – Pic 3



LF003 - Spring 2019 – Pic 4



LF003 - Spring 2019 – Pic 5



LF003 - Spring 2019 – Pic 6



LF007 - Spring 2019 – Pic 1



LF007 - Spring 2019 – Pic 2



LF007 - Spring 2019 – Pic 3



LF007 - Spring 2019 – Pic 4



LF009 Spring 2019 – Pic 1



LF009 Spring 2019 – Pic 2



LF009 Spring 2019 – Pic 3



LF009 Spring 2019 – Pic 4



LF009 Spring 2019 – Pic 5



LF009 Spring 2019 – Pic 6



LF009 Spring 2019 – Pic 7

Attachment C-2
Fall 2019 Landfill Inspection Reports

LANDFILL 001
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Response to Storm Event? NO
Date of Inspection: 10/2/19
Personnel Present: J. Dawud
Weather Conditions: overcast. low 60's.

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: good

Cover Vegetation: good

Leachate Breakouts: good

Vectors: good

Drainage: good (Vent-6 has small area of slow drainage)

Institutional Controls: hunter tree stand found & removed near Vent-24 in the NW corner of the landfill

Monitoring Wells: good

Gas Probes: good

Gas Vents: Vent-25 needs cleaned/new top fan - rat sticks jam

Security Fencing/Gates: the first of the two entry gates is unhinged Secondary gate is functional. tree on N. fence previously removed.

Comments/Follow Up Needs:

LANDFILL LF002 (Landfill 2/3 AOC)
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Response to Storm Event?
Date of Inspection: 10/2/2019
Personnel Present: Junaid Dawud
Weather Conditions: intermittent light rain, overcast, 69°F No

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: good

Cover Vegetation: good

Leachate Breakouts: good

Vectors: good

Drainage: good

Institutional Controls: good

Monitoring Wells: N/A

Gas Probes: good

Gas Vents: good

Security Fencing/Gates: good. Some branches & trees previously cleared from N. fence line

Comments/Follow Up Needs:

LANDFILL LF003 (Landfill 7 AOC)
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Response to Storm Event?
Date of Inspection: 10/2/2019
Personnel Present: Junord Dawud /NO
Weather Conditions: overcast. int light rain. 69°F

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: good

Cover Vegetation: good

Leachate Breakouts: none observed

Vectors: none observed

Drainage: Good

Institutional Controls: Good

Monitoring Wells: LF7MW-30 is good
MW-27 needs protective casing replace

Gas Probes: N/A

Gas Vents: N/A

Security Fencing/Gates: good

Comments/Follow Up Needs:

LANDFILL 007 (landfill 5 AOC)
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Response to Storm Event?
Date of Inspection: 10/2/19 No
Personnel Present: Junaid Dawud
Weather Conditions: overcast, light rain, 60°F

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good.

Slopes: good

Cover Vegetation: good

Leachate Breakouts: good

Vectors: good

Drainage: good

Institutional Controls: good

Monitoring Wells: good

Gas Probes: N/A

Gas Vents: N/A

Security Fencing/Gates: Front gate is being bypassed, a new road has been defacto formed to the left of the gate

Comments/Follow Up Needs: need to put up a fence

LANDFILL LF6 NOTE: LF009
INSPECTION REPORT

2019

FORMER GRIFFISS AIR FORCE BASE

Type of Inspection: Response to Storm Event?
Date of Inspection: 10/2/19
Personnel Present: Junaid Dawud
Weather Conditions: Overcast. 62°F

No

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity: good

Slopes: good

Cover Vegetation: good

Leachate Breakouts: good

Vectors: good

Drainage: good

Institutional Controls: good

Monitoring Wells: good

Gas Probes: good

Gas Vents: good

Security Fencing/Gates: good

Comments/Follow Up Needs:



LF001 - Fall 2019 – Pic 1



LF001 - Fall 2019 – Pic 2



LF001 - Fall 2019 – Pic 3



LF001 - Fall 2019 – Pic 4



LF001 - Fall 2019 – Pic 5



LF001 - Fall 2019 – Pic 6



LF001 - Fall 2019 – Pic 7



LF001 - Fall 2019 – Pic 8



LF001 - Fall 2019 – Pic 9



LF001 - Fall 2019 – Pic “Vent 25 Fan”



LF002 - Fall 2019 – Pic 1



LF002 - Fall 2019 – Pic 2



LF002 - Fall 2019 – Pic 3



LF002 - Fall 2019 – Pic 4



LF003 - Fall 2019 – Pic 1



LF003 - Fall 2019 – Pic 2



LF003 - Fall 2019 – Pic 3



LF003 - Fall 2019 – Pic 4



LF003 - Fall 2019 – Pic 5



LF003 - Fall 2019 – Pic 6



LF003 - Fall 2019 – Pic 7



LF003 - Fall 2019 – Pic 8



LF003 - Fall 2019 – Pic 9



LF003 - Fall 2019 – Pic 10



LF003 - Fall 2019 – Pic 11



LF003 - Fall 2019 – Pic 12



LF003 - Fall 2019 – Pic 13



LF007 - Fall 2019 – Pic 1



LF007 - Fall 2019 – Pic 2



LF007 - Fall 2019 – Pic 3



LF007 - Fall 2019 – Pic 4



LF007 - Fall 2019 – Pic 5



LF007 - Fall 2019 – Pic 6



LF007 - Fall 2019 – Pic 7



LF009 Fall 2019 – Pic 1



LF009 Fall 2019 – Pic 2



LF009 Fall 2019 – Pic 3



LF009 Fall 2019 – Pic 4



LF009 Fall 2019 – Pic 5



LF009 Fall 2019 – Pic 6



LF009 Fall 2019 – Pic 7



LF009 Fall 2019 – Pic 8



LF009 Fall 2019 – Pic 9

ATTACHMENT D - ANALYTICAL RESULTS, DATA VALIDATION REPORTS, FIELD FORMS

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 280-123922-1

Job Description: Griffiss AFB, LF001 - 3342

For:
Bhate Environmental
445 Union Blvd Ste.129
Lakewood, CO 80226

Attention: Marcia Olive



Approved for release.
Kayse 1 Zalmai
Project Manager I
6/14/2019 2:32 PM

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06/14/2019

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Bhate Environmental
Job ID: 280-123922-1
Project/Site: Griffiss AFB, LF001 - 3342

Client Sample ID: LF1MW-5_0519
Lab Sample ID: 280-123922-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethene, Total	0.25	J	1.0	0.15	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.43	J	1.0	0.16	ug/L	1		8260B	Total/NA
Benzene	1.7		1.0	0.16	ug/L	1		8260B	Total/NA
Chlorobenzene	1.2		1.0	0.17	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.25	J	1.0	0.15	ug/L	1		8260B	Total/NA
Boron	58	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	1.5		0.10	0.022	mg/L	1		350.1	Total/NA
Bromide	0.56		0.50	0.11	mg/L	1		9056A	Total/NA
Chloride	7.5		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	1.9		0.50	0.19	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	2.0		1.0	0.16	mg/L	1		9060A	Total/NA
Color	100	D	50	50	PCU	10		SM 2120B	Total/NA
Alkalinity	420		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	400		6.0	0.60	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	470		10	4.7	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	2.3	J	2.5	0.30	mg/L	1		SM5210B	Total/NA

Client Sample ID: LF1MW-5_0519-a
Lab Sample ID: 280-123922-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethene, Total	0.24	J	1.0	0.15	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.42	J	1.0	0.16	ug/L	1		8260B	Total/NA
Benzene	1.7		1.0	0.16	ug/L	1		8260B	Total/NA
Chlorobenzene	1.3		1.0	0.17	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.24	J	1.0	0.15	ug/L	1		8260B	Total/NA
Boron	56	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	1.7		0.10	0.022	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	1.4		1.0	0.69	mg/L	1		351.2	Total/NA
Bromide	0.57		0.50	0.11	mg/L	1		9056A	Total/NA
Chloride	7.5		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	1.8		0.50	0.19	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	2.1		1.0	0.16	mg/L	1		9060A	Total/NA
Color	150	D	50	50	PCU	10		SM 2120B	Total/NA
Alkalinity	420		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	410		6.0	0.60	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	450		10	4.7	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	2.0	J	2.5	0.30	mg/L	1		SM5210B	Total/NA

Client Sample ID: LF1P-5_0519
Lab Sample ID: 280-123922-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	24	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.84		0.10	0.022	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	1.6		1.0	0.69	mg/L	1		351.2	Total/NA
Bromide	0.14	J M	0.50	0.11	mg/L	1		9056A	Total/NA
Chloride	6.5	M	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	1.4	J1	0.50	0.19	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	2.2		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0069	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	200	D	50	50	PCU	10		SM 2120B	Total/NA
Alkalinity	380		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	370		6.0	0.60	mg/L	1		SM 2340C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF1P-5_0519 (Continued)
Lab Sample ID: 280-123922-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids (TDS)	370		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF1-TB1_051619
Lab Sample ID: 280-123922-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF1MW-5_0519
Lab Sample ID: 280-123922-1

Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.21	ug/L			05/30/19 11:21	1
1,1,1-Trichloroethane	0.40	U	1.0	0.16	ug/L			05/30/19 11:21	1
1,1,2,2-Tetrachloroethane	0.80	U Q	1.0	0.21	ug/L			05/30/19 11:21	1
1,1,2-Trichloroethane	0.80	U M	1.0	0.27	ug/L			05/30/19 11:21	1
1,1-Dichloroethane	0.80	U	1.0	0.22	ug/L			05/30/19 11:21	1
1,1-Dichloroethene	0.80	U	1.0	0.23	ug/L			05/30/19 11:21	1
1,1-Dichloropropene	0.40	U	1.0	0.19	ug/L			05/30/19 11:21	1
1,2,3-Trichlorobenzene	0.80	U	1.0	0.21	ug/L			05/30/19 11:21	1
1,2,3-Trichloropropane	0.80	U Q	3.0	0.33	ug/L			05/30/19 11:21	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.21	ug/L			05/30/19 11:21	1
1,2,4-Trimethylbenzene	0.40	U	1.0	0.15	ug/L			05/30/19 11:21	1
1,2-Dibromo-3-Chloropropane	1.6	U	5.0	0.47	ug/L			05/30/19 11:21	1
1,2-Dibromoethane	0.40	U	1.0	0.18	ug/L			05/30/19 11:21	1
1,2-Dichlorobenzene	0.40	U	1.0	0.15	ug/L			05/30/19 11:21	1
1,2-Dichloroethane	0.40	U M Q	1.0	0.13	ug/L			05/30/19 11:21	1
1,2-Dichloroethene, Total	**0.25**	**J**	1.0	0.15	ug/L			05/30/19 11:21	1
1,2-Dichloropropane	0.40	U M	1.0	0.18	ug/L			05/30/19 11:21	1
1,3,5-Trimethylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:21	1
1,3-Dichlorobenzene	0.40	U	1.0	0.13	ug/L			05/30/19 11:21	1
1,3-Dichloropropane	0.20	U	1.0	0.090	ug/L			05/30/19 11:21	1
1,4-Dichlorobenzene	**0.43**	**J**	1.0	0.16	ug/L			05/30/19 11:21	1
2,2-Dichloropropane	0.80	U Q	1.0	0.38	ug/L			05/30/19 11:21	1
2-Butanone (MEK)	4.0	U Q	6.0	2.0	ug/L			05/30/19 11:21	1
2-Chlorotoluene	0.40	U	1.0	0.17	ug/L			05/30/19 11:21	1
2-Hexanone	4.0	U Q	5.0	1.7	ug/L			05/30/19 11:21	1
4-Chlorotoluene	0.80	U	1.0	0.21	ug/L			05/30/19 11:21	1
4-Isopropyltoluene	0.40	U	1.0	0.20	ug/L			05/30/19 11:21	1
4-Methyl-2-pentanone (MIBK)	3.2	U Q	5.0	0.98	ug/L			05/30/19 11:21	1
Acetone	6.4	U M Q	10	1.9	ug/L			05/30/19 11:21	1
Benzene	**1.7**		1.0	0.16	ug/L			05/30/19 11:21	1
Bromobenzene	0.40	U	1.0	0.17	ug/L			05/30/19 11:21	1
Bromochloromethane	0.20	U	1.0	0.10	ug/L			05/30/19 11:21	1
Bromodichloromethane	0.40	U	1.0	0.17	ug/L			05/30/19 11:21	1
Bromoform	1.0	U	1.0	0.46	ug/L			05/30/19 11:21	1
Bromomethane	0.80	U	2.0	0.21	ug/L			05/30/19 11:21	1
Carbon disulfide	0.80	U	2.0	0.17	ug/L			05/30/19 11:21	1
Carbon tetrachloride	0.40	U	2.0	0.19	ug/L			05/30/19 11:21	1
Chlorobenzene	**1.2**		1.0	0.17	ug/L			05/30/19 11:21	1
Chloroethane	1.6	U M	2.0	0.41	ug/L			05/30/19 11:21	1
Chloroform	0.40	U	1.0	0.16	ug/L			05/30/19 11:21	1
Chloromethane	0.80	U	2.0	0.30	ug/L			05/30/19 11:21	1
cis-1,2-Dichloroethene	**0.25**	**J**	1.0	0.15	ug/L			05/30/19 11:21	1
cis-1,3-Dichloropropene	0.40	U Q	1.0	0.16	ug/L			05/30/19 11:21	1
Dibromochloromethane	0.40	U	1.0	0.17	ug/L			05/30/19 11:21	1
Dibromomethane	0.40	U	1.0	0.17	ug/L			05/30/19 11:21	1
Dichlorodifluoromethane	0.80	U	2.0	0.31	ug/L			05/30/19 11:21	1
Diisopropyl ether	0.40	U	10	0.13	ug/L			05/30/19 11:21	1
Ethylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:21	1
Hexachlorobutadiene	0.80	U	1.0	0.36	ug/L			05/30/19 11:21	1

Client Sample ID: LF1MW-5_0519
Lab Sample ID: 280-123922-1

Date Collected: 05/16/19 12:50
Matrix: Water

Date Received: 05/17/19 08:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	0.40	U	1.0	0.19	ug/L			05/30/19 11:21	1
m,p-Xylene	0.80	U	2.0	0.15	ug/L			05/30/19 11:21	1
Methyl iodide	0.80	U	2.0	0.23	ug/L			05/30/19 11:21	1
Methyl tert-butyl ether	0.80	U	5.0	0.25	ug/L			05/30/19 11:21	1
Methylene Chloride	2.0	U	5.0	0.94	ug/L			05/30/19 11:21	1
Naphthalene	0.80	U Q	1.0	0.22	ug/L			05/30/19 11:21	1
n-Butylbenzene	0.80	U	1.0	0.14	ug/L			05/30/19 11:21	1
N-Propylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:21	1
o-Xylene	0.40	U	1.0	0.19	ug/L			05/30/19 11:21	1
sec-Butylbenzene	0.40	U	1.0	0.17	ug/L			05/30/19 11:21	1
Styrene	0.80	U	1.0	0.36	ug/L			05/30/19 11:21	1
tert-Butylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:21	1
Tetrachloroethene	0.40	U	1.0	0.20	ug/L			05/30/19 11:21	1
Toluene	0.40	U	1.0	0.17	ug/L			05/30/19 11:21	1
trans-1,2-Dichloroethene	0.40	U	1.0	0.15	ug/L			05/30/19 11:21	1
trans-1,3-Dichloropropene	0.40	U Q	1.0	0.19	ug/L			05/30/19 11:21	1
Trichloroethene	0.40	U M	1.0	0.16	ug/L			05/30/19 11:21	1
Trichlorofluoromethane	0.80	U	2.0	0.29	ug/L			05/30/19 11:21	1
Vinyl acetate	2.0	U Q	3.0	0.94	ug/L			05/30/19 11:21	1
Vinyl chloride	0.20	U	1.5	0.10	ug/L			05/30/19 11:21	1
Xylenes, Total	0.80	U	1.0	0.19	ug/L			05/30/19 11:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*05/30/19 11:21*	*1*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*05/30/19 11:21*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 119*		*05/30/19 11:21*	*1*
Toluene-d8 (Surr)	*99*		*89 - 112*		*05/30/19 11:21*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**58**	**J**	100	4.4	ug/L		05/24/19 06:00	05/24/19 23:20	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**1.5**		0.10	0.022	mg/L			05/30/19 12:08	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:25	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/07/19 09:42	2
Bromide	**0.56**		0.50	0.11	mg/L			05/18/19 01:53	1
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/18/19 01:53	1
Chloride	**7.5**		3.0	1.0	mg/L			05/18/19 01:53	1
Orthophosphate as P	**1.9**		0.50	0.19	mg/L			05/18/19 01:53	1
Fluoride	0.10	U	1.0	0.060	mg/L			06/11/19 15:33	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/18/19 01:53	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 01:53	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/18/19 01:53	1
Total Organic Carbon - Quad	**2.0**		1.0	0.16	mg/L			06/11/19 09:37	1
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 15:28	1
Color	**100**	**D**	50	50	PCU			05/17/19 23:18	10
Alkalinity	**420**		10	3.1	mg/L			05/24/19 21:29	1
Hardness	**400**		6.0	0.60	mg/L			05/24/19 15:23	1

Client Sample ID: LF1MW-5_0519
Lab Sample ID: 280-123922-1

Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	**470**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	**2.3**	**J**	2.5	0.30	mg/L			05/17/19 15:43	1

Client Sample ID: LF1MW-5_0519-a
Lab Sample ID: 280-123922-2

Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.21	ug/L			05/30/19 11:43	1
1,1,1-Trichloroethane	0.40	U	1.0	0.16	ug/L			05/30/19 11:43	1
1,1,2,2-Tetrachloroethane	0.80	U Q	1.0	0.21	ug/L			05/30/19 11:43	1
1,1,2-Trichloroethane	0.80	U M	1.0	0.27	ug/L			05/30/19 11:43	1
1,1-Dichloroethane	0.80	U	1.0	0.22	ug/L			05/30/19 11:43	1
1,1-Dichloroethene	0.80	U	1.0	0.23	ug/L			05/30/19 11:43	1
1,1-Dichloropropene	0.40	U	1.0	0.19	ug/L			05/30/19 11:43	1
1,2,3-Trichlorobenzene	0.80	U	1.0	0.21	ug/L			05/30/19 11:43	1
1,2,3-Trichloropropane	0.80	U Q	3.0	0.33	ug/L			05/30/19 11:43	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.21	ug/L			05/30/19 11:43	1
1,2,4-Trimethylbenzene	0.40	U	1.0	0.15	ug/L			05/30/19 11:43	1
1,2-Dibromo-3-Chloropropane	1.6	U	5.0	0.47	ug/L			05/30/19 11:43	1
1,2-Dibromoethane	0.40	U	1.0	0.18	ug/L			05/30/19 11:43	1
1,2-Dichlorobenzene	0.40	U	1.0	0.15	ug/L			05/30/19 11:43	1
1,2-Dichloroethane	0.40	U Q	1.0	0.13	ug/L			05/30/19 11:43	1
1,2-Dichloroethene, Total	**0.24**	**J**	1.0	0.15	ug/L			05/30/19 11:43	1
1,2-Dichloropropane	0.40	U M	1.0	0.18	ug/L			05/30/19 11:43	1
1,3,5-Trimethylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:43	1
1,3-Dichlorobenzene	0.40	U M	1.0	0.13	ug/L			05/30/19 11:43	1
1,3-Dichloropropane	0.20	U	1.0	0.090	ug/L			05/30/19 11:43	1
1,4-Dichlorobenzene	**0.42**	**J**	1.0	0.16	ug/L			05/30/19 11:43	1
2,2-Dichloropropane	0.80	U Q	1.0	0.38	ug/L			05/30/19 11:43	1
2-Butanone (MEK)	4.0	U Q	6.0	2.0	ug/L			05/30/19 11:43	1
2-Chlorotoluene	0.40	U	1.0	0.17	ug/L			05/30/19 11:43	1
2-Hexanone	4.0	U Q	5.0	1.7	ug/L			05/30/19 11:43	1
4-Chlorotoluene	0.80	U	1.0	0.21	ug/L			05/30/19 11:43	1
4-Isopropyltoluene	0.40	U	1.0	0.20	ug/L			05/30/19 11:43	1
4-Methyl-2-pentanone (MIBK)	3.2	U Q	5.0	0.98	ug/L			05/30/19 11:43	1
Acetone	6.4	U M Q	10	1.9	ug/L			05/30/19 11:43	1
Benzene	**1.7**		1.0	0.16	ug/L			05/30/19 11:43	1
Bromobenzene	0.40	U	1.0	0.17	ug/L			05/30/19 11:43	1
Bromochloromethane	0.20	U	1.0	0.10	ug/L			05/30/19 11:43	1
Bromodichloromethane	0.40	U	1.0	0.17	ug/L			05/30/19 11:43	1
Bromoform	1.0	U	1.0	0.46	ug/L			05/30/19 11:43	1
Bromomethane	0.80	U	2.0	0.21	ug/L			05/30/19 11:43	1
Carbon disulfide	0.80	U	2.0	0.17	ug/L			05/30/19 11:43	1
Carbon tetrachloride	0.40	U	2.0	0.19	ug/L			05/30/19 11:43	1
Chlorobenzene	**1.3**		1.0	0.17	ug/L			05/30/19 11:43	1
Chloroethane	1.6	U M	2.0	0.41	ug/L			05/30/19 11:43	1
Chloroform	0.40	U	1.0	0.16	ug/L			05/30/19 11:43	1
Chloromethane	0.80	U	2.0	0.30	ug/L			05/30/19 11:43	1

Client Sample ID: LF1MW-5_0519-a
Lab Sample ID: 280-123922-2

Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**0.24**	**J**	1.0	0.15	ug/L			05/30/19 11:43	1
cis-1,3-Dichloropropene	0.40	U Q	1.0	0.16	ug/L			05/30/19 11:43	1
Dibromochloromethane	0.40	U	1.0	0.17	ug/L			05/30/19 11:43	1
Dibromomethane	0.40	U	1.0	0.17	ug/L			05/30/19 11:43	1
Dichlorodifluoromethane	0.80	U	2.0	0.31	ug/L			05/30/19 11:43	1
Diisopropyl ether	0.40	U	10	0.13	ug/L			05/30/19 11:43	1
Ethylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:43	1
Hexachlorobutadiene	0.80	U	1.0	0.36	ug/L			05/30/19 11:43	1
Isopropylbenzene	0.40	U	1.0	0.19	ug/L			05/30/19 11:43	1
m,p-Xylene	0.80	U	2.0	0.15	ug/L			05/30/19 11:43	1
Methyl iodide	0.80	U	2.0	0.23	ug/L			05/30/19 11:43	1
Methyl tert-butyl ether	0.80	U	5.0	0.25	ug/L			05/30/19 11:43	1
Methylene Chloride	2.0	U	5.0	0.94	ug/L			05/30/19 11:43	1
Naphthalene	0.80	U Q	1.0	0.22	ug/L			05/30/19 11:43	1
n-Butylbenzene	0.80	U	1.0	0.14	ug/L			05/30/19 11:43	1
N-Propylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:43	1
o-Xylene	0.40	U	1.0	0.19	ug/L			05/30/19 11:43	1
sec-Butylbenzene	0.40	U	1.0	0.17	ug/L			05/30/19 11:43	1
Styrene	0.80	U	1.0	0.36	ug/L			05/30/19 11:43	1
tert-Butylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:43	1
Tetrachloroethene	0.40	U	1.0	0.20	ug/L			05/30/19 11:43	1
Toluene	0.40	U	1.0	0.17	ug/L			05/30/19 11:43	1
trans-1,2-Dichloroethene	0.40	U	1.0	0.15	ug/L			05/30/19 11:43	1
trans-1,3-Dichloropropene	0.40	U Q	1.0	0.19	ug/L			05/30/19 11:43	1
Trichloroethene	0.40	U	1.0	0.16	ug/L			05/30/19 11:43	1
Trichlorofluoromethane	0.80	U	2.0	0.29	ug/L			05/30/19 11:43	1
Vinyl acetate	2.0	U Q	3.0	0.94	ug/L			05/30/19 11:43	1
Vinyl chloride	0.20	U	1.5	0.10	ug/L			05/30/19 11:43	1
Xylenes, Total	0.80	U	1.0	0.19	ug/L			05/30/19 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*		*05/30/19 11:43*	*1*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*05/30/19 11:43*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*05/30/19 11:43*	*1*
Toluene-d8 (Surr)	*98*		*89 - 112*		*05/30/19 11:43*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**56**	**J**	100	4.4	ug/L		05/24/19 06:00	05/24/19 23:24	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**1.7**		0.10	0.022	mg/L			05/30/19 12:10	1
Nitrogen, Kjeldahl	**1.4**		1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:28	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/07/19 09:42	2
Bromide	**0.57**		0.50	0.11	mg/L			05/18/19 02:26	1
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/18/19 02:26	1
Chloride	**7.5**		3.0	1.0	mg/L			05/18/19 02:26	1
Orthophosphate as P	**1.8**		0.50	0.19	mg/L			05/18/19 02:26	1
Fluoride	0.10	U	1.0	0.060	mg/L			06/11/19 16:48	1

Client Sample ID: LF1MW-5_0519-a
Lab Sample ID: 280-123922-2
Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate	0.10	U	0.50	0.042	mg/L			05/18/19 02:26	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 02:26	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/18/19 02:26	1
Total Organic Carbon - Quad	**2.1**		1.0	0.16	mg/L			06/11/19 10:24	1
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 15:31	1
Color	**150**	**D**	50	50	PCU			05/17/19 23:18	10
Alkalinity	**420**		10	3.1	mg/L			05/24/19 21:43	1
Hardness	**410**		6.0	0.60	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**450**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	**2.0**	**J**	2.5	0.30	mg/L			05/17/19 15:43	1

Client Sample ID: LF1P-5_0519
Lab Sample ID: 280-123922-3
Date Collected: 05/16/19 16:20
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**24**	**J**	100	4.4	ug/L		05/24/19 06:00	05/24/19 23:27	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.84**		0.10	0.022	mg/L			05/30/19 12:12	1
Nitrogen, Kjeldahl	**1.6**		1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:30	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/07/19 09:42	2
Bromide	**0.14**	**J M**	0.50	0.11	mg/L			05/18/19 00:47	1
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/18/19 00:47	1
Chloride	**6.5**	**M**	3.0	1.0	mg/L			05/18/19 00:47	1
Orthophosphate as P	**1.4**	**J1**	0.50	0.19	mg/L			05/18/19 00:47	1
Fluoride	0.10	U	1.0	0.060	mg/L			06/11/19 17:07	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/18/19 00:47	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/18/19 00:47	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/18/19 00:47	1
Total Organic Carbon - Quad	**2.2**		1.0	0.16	mg/L			06/11/19 10:38	1
Phenols, Total	**0.0069**	**J**	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 15:34	1
Color	**200**	**D**	50	50	PCU			05/17/19 23:18	10
Alkalinity	**380**		10	3.1	mg/L			05/24/19 21:36	1
Hardness	**370**		6.0	0.60	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**370**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF1-TB1_051619
Lab Sample ID: 280-123922-4
Date Collected: 05/16/19 16:20
Matrix: Water
Date Received: 05/17/19 08:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.21	ug/L			05/30/19 12:04	1
1,1,1-Trichloroethane	0.40	U	1.0	0.16	ug/L			05/30/19 12:04	1
1,1,2,2-Tetrachloroethane	0.80	U Q	1.0	0.21	ug/L			05/30/19 12:04	1
1,1,2-Trichloroethane	0.80	U	1.0	0.27	ug/L			05/30/19 12:04	1
1,1-Dichloroethane	0.80	U	1.0	0.22	ug/L			05/30/19 12:04	1

Client Sample ID: LF1-TB1_051619
Lab Sample ID: 280-123922-4

Date Collected: 05/16/19 16:20
Matrix: Water

Date Received: 05/17/19 08:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.80	U	1.0	0.23	ug/L			05/30/19 12:04	1
1,1-Dichloropropene	0.40	U	1.0	0.19	ug/L			05/30/19 12:04	1
1,2,3-Trichlorobenzene	0.80	U	1.0	0.21	ug/L			05/30/19 12:04	1
1,2,3-Trichloropropane	0.80	U Q	3.0	0.33	ug/L			05/30/19 12:04	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.21	ug/L			05/30/19 12:04	1
1,2,4-Trimethylbenzene	0.40	U	1.0	0.15	ug/L			05/30/19 12:04	1
1,2-Dibromo-3-Chloropropane	1.6	U	5.0	0.47	ug/L			05/30/19 12:04	1
1,2-Dibromoethane	0.40	U	1.0	0.18	ug/L			05/30/19 12:04	1
1,2-Dichlorobenzene	0.40	U	1.0	0.15	ug/L			05/30/19 12:04	1
1,2-Dichloroethane	0.40	U Q	1.0	0.13	ug/L			05/30/19 12:04	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.15	ug/L			05/30/19 12:04	1
1,2-Dichloropropane	0.40	U	1.0	0.18	ug/L			05/30/19 12:04	1
1,3,5-Trimethylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 12:04	1
1,3-Dichlorobenzene	0.40	U	1.0	0.13	ug/L			05/30/19 12:04	1
1,3-Dichloropropane	0.20	U	1.0	0.090	ug/L			05/30/19 12:04	1
1,4-Dichlorobenzene	0.40	U	1.0	0.16	ug/L			05/30/19 12:04	1
2,2-Dichloropropane	0.80	U Q	1.0	0.38	ug/L			05/30/19 12:04	1
2-Butanone (MEK)	4.0	U Q	6.0	2.0	ug/L			05/30/19 12:04	1
2-Chlorotoluene	0.40	U	1.0	0.17	ug/L			05/30/19 12:04	1
2-Hexanone	4.0	U Q	5.0	1.7	ug/L			05/30/19 12:04	1
4-Chlorotoluene	0.80	U	1.0	0.21	ug/L			05/30/19 12:04	1
4-Isopropyltoluene	0.40	U	1.0	0.20	ug/L			05/30/19 12:04	1
4-Methyl-2-pentanone (MIBK)	3.2	U Q	5.0	0.98	ug/L			05/30/19 12:04	1
Acetone	6.4	U M Q	10	1.9	ug/L			05/30/19 12:04	1
Benzene	0.40	U	1.0	0.16	ug/L			05/30/19 12:04	1
Bromobenzene	0.40	U	1.0	0.17	ug/L			05/30/19 12:04	1
Bromochloromethane	0.20	U	1.0	0.10	ug/L			05/30/19 12:04	1
Bromodichloromethane	0.40	U	1.0	0.17	ug/L			05/30/19 12:04	1
Bromoform	1.0	U	1.0	0.46	ug/L			05/30/19 12:04	1
Bromomethane	0.80	U	2.0	0.21	ug/L			05/30/19 12:04	1
Carbon disulfide	0.80	U	2.0	0.17	ug/L			05/30/19 12:04	1
Carbon tetrachloride	0.40	U	2.0	0.19	ug/L			05/30/19 12:04	1
Chlorobenzene	0.40	U	1.0	0.17	ug/L			05/30/19 12:04	1
Chloroethane	1.6	U	2.0	0.41	ug/L			05/30/19 12:04	1
Chloroform	0.40	U	1.0	0.16	ug/L			05/30/19 12:04	1
Chloromethane	0.80	U	2.0	0.30	ug/L			05/30/19 12:04	1
cis-1,2-Dichloroethene	0.40	U	1.0	0.15	ug/L			05/30/19 12:04	1
cis-1,3-Dichloropropene	0.40	U Q	1.0	0.16	ug/L			05/30/19 12:04	1
Dibromochloromethane	0.40	U	1.0	0.17	ug/L			05/30/19 12:04	1
Dibromomethane	0.40	U	1.0	0.17	ug/L			05/30/19 12:04	1
Dichlorodifluoromethane	0.80	U	2.0	0.31	ug/L			05/30/19 12:04	1
Diisopropyl ether	0.40	U	10	0.13	ug/L			05/30/19 12:04	1
Ethylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 12:04	1
Hexachlorobutadiene	0.80	U	1.0	0.36	ug/L			05/30/19 12:04	1
Isopropylbenzene	0.40	U	1.0	0.19	ug/L			05/30/19 12:04	1
m,p-Xylene	0.80	U	2.0	0.15	ug/L			05/30/19 12:04	1
Methyl iodide	0.80	U	2.0	0.23	ug/L			05/30/19 12:04	1
Methyl tert-butyl ether	0.80	U	5.0	0.25	ug/L			05/30/19 12:04	1
Methylene Chloride	2.0	U	5.0	0.94	ug/L			05/30/19 12:04	1

Client Sample ID: LF1-TB1_051619
Lab Sample ID: 280-123922-4

Date Collected: 05/16/19 16:20
Matrix: Water

Date Received: 05/17/19 08:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.80	U Q	1.0	0.22	ug/L			05/30/19 12:04	1
n-Butylbenzene	0.80	U	1.0	0.14	ug/L			05/30/19 12:04	1
N-Propylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 12:04	1
o-Xylene	0.40	U	1.0	0.19	ug/L			05/30/19 12:04	1
sec-Butylbenzene	0.40	U	1.0	0.17	ug/L			05/30/19 12:04	1
Styrene	0.80	U	1.0	0.36	ug/L			05/30/19 12:04	1
tert-Butylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 12:04	1
Tetrachloroethene	0.40	U	1.0	0.20	ug/L			05/30/19 12:04	1
Toluene	0.40	U	1.0	0.17	ug/L			05/30/19 12:04	1
trans-1,2-Dichloroethene	0.40	U	1.0	0.15	ug/L			05/30/19 12:04	1
trans-1,3-Dichloropropene	0.40	U Q	1.0	0.19	ug/L			05/30/19 12:04	1
Trichloroethene	0.40	U	1.0	0.16	ug/L			05/30/19 12:04	1
Trichlorofluoromethane	0.80	U	2.0	0.29	ug/L			05/30/19 12:04	1
Vinyl acetate	2.0	U Q	3.0	0.94	ug/L			05/30/19 12:04	1
Vinyl chloride	0.20	U	1.5	0.10	ug/L			05/30/19 12:04	1
Xylenes, Total	0.80	U	1.0	0.19	ug/L			05/30/19 12:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*05/30/19 12:04*	*1*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*05/30/19 12:04*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 119*		*05/30/19 12:04*	*1*
Toluene-d8 (Surr)	*100*		*89 - 112*		*05/30/19 12:04*	*1*

Default Detection Limits

Client: Bhate Environmental
Job ID: 280-123922-1
Project/Site: Griffiss AFB, LF001 - 3342

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	LOQ	DL	Units
1,1,1,2-Tetrachloroethane	1.0	0.21	ug/L
1,1,1-Trichloroethane	1.0	0.16	ug/L
1,1,2,2-Tetrachloroethane	1.0	0.21	ug/L
1,1,2-Trichloroethane	1.0	0.27	ug/L
1,1-Dichloroethane	1.0	0.22	ug/L
1,1-Dichloroethene	1.0	0.23	ug/L
1,1-Dichloropropene	1.0	0.19	ug/L
1,2,3-Trichlorobenzene	1.0	0.21	ug/L
1,2,3-Trichloropropane	3.0	0.33	ug/L
1,2,4-Trichlorobenzene	1.0	0.21	ug/L
1,2,4-Trimethylbenzene	1.0	0.15	ug/L
1,2-Dibromo-3-Chloropropane	5.0	0.47	ug/L
1,2-Dibromoethane	1.0	0.18	ug/L
1,2-Dichlorobenzene	1.0	0.15	ug/L
1,2-Dichloroethane	1.0	0.13	ug/L
1,2-Dichloroethene, Total	1.0	0.15	ug/L
1,2-Dichloropropane	1.0	0.18	ug/L
1,3,5-Trimethylbenzene	1.0	0.16	ug/L
1,3-Dichlorobenzene	1.0	0.13	ug/L
1,3-Dichloropropane	1.0	0.090	ug/L
1,4-Dichlorobenzene	1.0	0.16	ug/L
2,2-Dichloropropane	1.0	0.38	ug/L
2-Butanone (MEK)	6.0	2.0	ug/L
2-Chlorotoluene	1.0	0.17	ug/L
2-Hexanone	5.0	1.7	ug/L
4-Chlorotoluene	1.0	0.21	ug/L
4-Isopropyltoluene	1.0	0.20	ug/L
4-Methyl-2-pentanone (MIBK)	5.0	0.98	ug/L
Acetone	10	1.9	ug/L
Benzene	1.0	0.16	ug/L
Bromobenzene	1.0	0.17	ug/L
Bromochloromethane	1.0	0.10	ug/L
Bromodichloromethane	1.0	0.17	ug/L
Bromoform	1.0	0.46	ug/L
Bromomethane	2.0	0.21	ug/L
Carbon disulfide	2.0	0.17	ug/L
Carbon tetrachloride	2.0	0.19	ug/L
Chlorobenzene	1.0	0.17	ug/L
Chloroethane	2.0	0.41	ug/L
Chloroform	1.0	0.16	ug/L
Chloromethane	2.0	0.30	ug/L
cis-1,2-Dichloroethene	1.0	0.15	ug/L
cis-1,3-Dichloropropene	1.0	0.16	ug/L
Dibromochloromethane	1.0	0.17	ug/L
Dibromomethane	1.0	0.17	ug/L
Dichlorodifluoromethane	2.0	0.31	ug/L
Diisopropyl ether	10	0.13	ug/L
Ethylbenzene	1.0	0.16	ug/L
Hexachlorobutadiene	1.0	0.36	ug/L
Isopropylbenzene	1.0	0.19	ug/L
m,p-Xylene	2.0	0.15	ug/L
Methyl iodide	2.0	0.23	ug/L
Methyl tert-butyl ether	5.0	0.25	ug/L

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	LOQ	DL	Units
Methylene Chloride	5.0	0.94	ug/L
Naphthalene	1.0	0.22	ug/L
n-Butylbenzene	1.0	0.14	ug/L
N-Propylbenzene	1.0	0.16	ug/L
o-Xylene	1.0	0.19	ug/L
sec-Butylbenzene	1.0	0.17	ug/L
Styrene	1.0	0.36	ug/L
tert-Butylbenzene	1.0	0.16	ug/L
Tetrachloroethene	1.0	0.20	ug/L
Toluene	1.0	0.17	ug/L
trans-1,2-Dichloroethene	1.0	0.15	ug/L
trans-1,3-Dichloropropene	1.0	0.19	ug/L
Trichloroethene	1.0	0.16	ug/L
Trichlorofluoromethane	2.0	0.29	ug/L
Vinyl acetate	3.0	0.94	ug/L
Vinyl chloride	1.5	0.10	ug/L
Xylenes, Total	1.0	0.19	ug/L

Method: 6010C - Metals (ICP)

Prep: 3010A

Analyte	LOQ	DL	Units
Boron	100	4.4	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Chemical Oxygen Demand (COD)	20	8.7	mg/L
Bromide	0.50	0.11	mg/L
Chloride	3.0	1.0	mg/L
Fluoride	1.0	0.060	mg/L
Nitrate	0.50	0.042	mg/L
Nitrate Nitrite as N	0.50	0.042	mg/L
Nitrite	0.50	0.049	mg/L
Orthophosphate as P	0.50	0.19	mg/L
Sulfate	5.0	1.0	mg/L
Total Organic Carbon - Quad	1.0	0.16	mg/L
Color	5.0	5.0	PCU
Alkalinity	10	3.1	mg/L
Hardness	3.0	0.30	mg/L
Total Dissolved Solids (TDS)	10	4.7	mg/L
Biochemical Oxygen Demand	2.0	0.24	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: Distill/Phenol

Analyte	LOQ	DL	Units
Phenols, Total	0.020	0.0068	mg/L

Surrogate Summary

Client: Bhate Environmental
Job ID: 280-123922-1
Project/Site: Griffiss AFB, LF001 - 3342

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(81-118)	(85-114)	(80-119)	(89-112)
280-123922-1	LF1MW-5_0519	100	101	99	99
280-123922-2	LF1MW-5_0519-a	101	101	98	98
280-123922-4	LF1-TB1_051619	100	102	100	100
LCS 280-459872/4	Lab Control Sample	103	101	100	99
LCS 280-459872/5	Lab Control Sample	100	103	100	99
LCSD 280-459872/6	Lab Control Sample Dup	101	104	100	100
MB 280-459872/7	Method Blank	100	103	99	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-459872/7
Matrix: Water
Analysis Batch: 459872

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.21	ug/L			05/30/19 11:00	1
1,1,1-Trichloroethane	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.21	ug/L			05/30/19 11:00	1
1,1,2-Trichloroethane	0.80	U	1.0	0.27	ug/L			05/30/19 11:00	1
1,1-Dichloroethane	0.80	U	1.0	0.22	ug/L			05/30/19 11:00	1
1,1-Dichloroethene	0.80	U	1.0	0.23	ug/L			05/30/19 11:00	1
1,1-Dichloropropene	0.40	U	1.0	0.19	ug/L			05/30/19 11:00	1
1,2,3-Trichlorobenzene	0.80	U	1.0	0.21	ug/L			05/30/19 11:00	1
1,2,3-Trichloropropane	0.80	U	3.0	0.33	ug/L			05/30/19 11:00	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.21	ug/L			05/30/19 11:00	1
1,2,4-Trimethylbenzene	0.40	U	1.0	0.15	ug/L			05/30/19 11:00	1
1,2-Dibromo-3-Chloropropane	1.6	U	5.0	0.47	ug/L			05/30/19 11:00	1
1,2-Dibromoethane	0.40	U	1.0	0.18	ug/L			05/30/19 11:00	1
1,2-Dichlorobenzene	0.40	U	1.0	0.15	ug/L			05/30/19 11:00	1
1,2-Dichloroethane	0.40	U	1.0	0.13	ug/L			05/30/19 11:00	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.15	ug/L			05/30/19 11:00	1
1,2-Dichloropropane	0.40	U	1.0	0.18	ug/L			05/30/19 11:00	1
1,3,5-Trimethylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1
1,3-Dichlorobenzene	0.40	U	1.0	0.13	ug/L			05/30/19 11:00	1
1,3-Dichloropropane	0.20	U	1.0	0.090	ug/L			05/30/19 11:00	1
1,4-Dichlorobenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1
2,2-Dichloropropane	0.80	U	1.0	0.38	ug/L			05/30/19 11:00	1
2-Butanone (MEK)	4.0	U	6.0	2.0	ug/L			05/30/19 11:00	1
2-Chlorotoluene	0.40	U	1.0	0.17	ug/L			05/30/19 11:00	1
2-Hexanone	4.0	U	5.0	1.7	ug/L			05/30/19 11:00	1
4-Chlorotoluene	0.80	U	1.0	0.21	ug/L			05/30/19 11:00	1
4-Isopropyltoluene	0.40	U	1.0	0.20	ug/L			05/30/19 11:00	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	0.98	ug/L			05/30/19 11:00	1
Acetone	6.4	U M	10	1.9	ug/L			05/30/19 11:00	1
Benzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1
Bromobenzene	0.40	U	1.0	0.17	ug/L			05/30/19 11:00	1
Bromochloromethane	0.20	U	1.0	0.10	ug/L			05/30/19 11:00	1
Bromodichloromethane	0.40	U	1.0	0.17	ug/L			05/30/19 11:00	1
Bromoform	1.0	U	1.0	0.46	ug/L			05/30/19 11:00	1
Bromomethane	0.80	U	2.0	0.21	ug/L			05/30/19 11:00	1
Carbon disulfide	0.80	U	2.0	0.17	ug/L			05/30/19 11:00	1
Carbon tetrachloride	0.40	U	2.0	0.19	ug/L			05/30/19 11:00	1
Chlorobenzene	0.40	U	1.0	0.17	ug/L			05/30/19 11:00	1
Chloroethane	1.6	U	2.0	0.41	ug/L			05/30/19 11:00	1
Chloroform	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1
Chloromethane	0.80	U	2.0	0.30	ug/L			05/30/19 11:00	1
cis-1,2-Dichloroethene	0.40	U	1.0	0.15	ug/L			05/30/19 11:00	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1
Dibromochloromethane	0.40	U	1.0	0.17	ug/L			05/30/19 11:00	1
Dibromomethane	0.40	U	1.0	0.17	ug/L			05/30/19 11:00	1
Dichlorodifluoromethane	0.80	U	2.0	0.31	ug/L			05/30/19 11:00	1
Diisopropyl ether	0.40	U	10	0.13	ug/L			05/30/19 11:00	1
Ethylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-459872/7
Matrix: Water
Analysis Batch: 459872

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.80	U	1.0	0.36	ug/L			05/30/19 11:00	1
Isopropylbenzene	0.40	U	1.0	0.19	ug/L			05/30/19 11:00	1
m,p-Xylene	0.80	U	2.0	0.15	ug/L			05/30/19 11:00	1
Methyl iodide	0.80	U	2.0	0.23	ug/L			05/30/19 11:00	1
Methyl tert-butyl ether	0.80	U	5.0	0.25	ug/L			05/30/19 11:00	1
Methylene Chloride	2.0	U	5.0	0.94	ug/L			05/30/19 11:00	1
Naphthalene	0.80	U	1.0	0.22	ug/L			05/30/19 11:00	1
n-Butylbenzene	0.80	U	1.0	0.14	ug/L			05/30/19 11:00	1
N-Propylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1
o-Xylene	0.40	U	1.0	0.19	ug/L			05/30/19 11:00	1
sec-Butylbenzene	0.40	U	1.0	0.17	ug/L			05/30/19 11:00	1
Styrene	0.80	U	1.0	0.36	ug/L			05/30/19 11:00	1
tert-Butylbenzene	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1
Tetrachloroethene	0.40	U	1.0	0.20	ug/L			05/30/19 11:00	1
Toluene	0.40	U	1.0	0.17	ug/L			05/30/19 11:00	1
trans-1,2-Dichloroethene	0.40	U	1.0	0.15	ug/L			05/30/19 11:00	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.19	ug/L			05/30/19 11:00	1
Trichloroethene	0.40	U	1.0	0.16	ug/L			05/30/19 11:00	1
Trichlorofluoromethane	0.80	U	2.0	0.29	ug/L			05/30/19 11:00	1
Vinyl acetate	2.0	U	3.0	0.94	ug/L			05/30/19 11:00	1
Vinyl chloride	0.20	U M	1.5	0.10	ug/L			05/30/19 11:00	1
Xylenes, Total	0.80	U	1.0	0.19	ug/L			05/30/19 11:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*05/30/19 11:00*	*1*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*05/30/19 11:00*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 119*		*05/30/19 11:00*	*1*
Toluene-d8 (Surr)	*101*		*89 - 112*		*05/30/19 11:00*	*1*

Lab Sample ID: LCS 280-459872/4
Matrix: Water
Analysis Batch: 459872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	27.1		ug/L		109	78 - 124
1,1,1-Trichloroethane	25.0	29.7		ug/L		119	74 - 131
1,1,2,2-Tetrachloroethane	25.0	30.0		ug/L		120	71 - 121
1,1,2-Trichloroethane	25.0	28.8		ug/L		115	80 - 119
1,1-Dichloroethane	25.0	29.3		ug/L		117	77 - 125
1,1-Dichloroethene	25.0	31.2		ug/L		125	71 - 131
1,1-Dichloropropene	25.0	27.8		ug/L		111	79 - 125
1,2,3-Trichlorobenzene	25.0	29.1		ug/L		117	69 - 129
1,2,3-Trichloropropane	25.0	30.9	Q	ug/L		124	73 - 122
1,2,4-Trichlorobenzene	25.0	28.1		ug/L		113	69 - 130
1,2,4-Trimethylbenzene	25.0	28.2		ug/L		113	76 - 124
1,2-Dibromo-3-Chloropropane	25.0	27.0		ug/L		108	62 - 128
1,2-Dibromoethane	25.0	28.6		ug/L		115	77 - 121
1,2-Dichlorobenzene	25.0	26.9		ug/L		108	80 - 119

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-459872/4
Matrix: Water
Analysis Batch: 459872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	25.0	28.8		ug/L		115	73 - 128
1,2-Dichloroethene, Total	50.0	59.2		ug/L		118	79 - 121
1,2-Dichloropropane	25.0	29.1		ug/L		116	78 - 122
1,3,5-Trimethylbenzene	25.0	28.8		ug/L		115	75 - 124
1,3-Dichlorobenzene	25.0	28.2		ug/L		113	80 - 119
1,3-Dichloropropane	25.0	28.0		ug/L		112	80 - 119
1,4-Dichlorobenzene	25.0	27.9		ug/L		112	79 - 118
2,2-Dichloropropane	25.0	30.2		ug/L		121	60 - 139
2-Butanone (MEK)	100	121		ug/L		121	56 - 143
2-Chlorotoluene	25.0	28.3		ug/L		113	79 - 122
2-Hexanone	100	123		ug/L		123	57 - 139
4-Chlorotoluene	25.0	28.2		ug/L		113	78 - 122
4-Isopropyltoluene	25.0	28.4		ug/L		113	77 - 127
4-Methyl-2-pentanone (MIBK)	100	129		ug/L		129	67 - 130
Acetone	100	164	Q	ug/L		164	39 - 160
Benzene	25.0	28.6		ug/L		114	79 - 120
Bromobenzene	25.0	29.7		ug/L		119	80 - 120
Bromochloromethane	25.0	28.8		ug/L		115	78 - 123
Bromodichloromethane	25.0	27.1		ug/L		108	79 - 125
Bromoform	25.0	23.4		ug/L		94	66 - 130
Bromomethane	25.0	26.8		ug/L		107	53 - 141
Carbon disulfide	25.0	24.1		ug/L		96	64 - 133
Carbon tetrachloride	25.0	26.4		ug/L		106	72 - 136
Chlorobenzene	25.0	27.7		ug/L		111	82 - 118
Chloroethane	25.0	25.0		ug/L		100	60 - 138
Chloroform	25.0	29.1		ug/L		116	79 - 124
Chloromethane	25.0	23.0		ug/L		92	50 - 139
cis-1,2-Dichloroethene	25.0	29.6		ug/L		118	78 - 123
cis-1,3-Dichloropropene	25.0	30.2		ug/L		121	75 - 124
Dibromochloromethane	25.0	25.6		ug/L		102	74 - 126
Dibromomethane	25.0	29.1		ug/L		117	79 - 123
Dichlorodifluoromethane	25.0	24.7		ug/L		99	32 - 152
Ethylbenzene	25.0	28.3		ug/L		113	79 - 121
Hexachlorobutadiene	25.0	26.7		ug/L		107	66 - 134
Isopropylbenzene	25.0	30.2		ug/L		121	72 - 131
m,p-Xylene	25.0	28.7		ug/L		115	80 - 121
Methyl iodide	25.0	30.5		ug/L		122	69 - 131
Methyl tert-butyl ether	25.0	29.0		ug/L		116	71 - 124
Methylene Chloride	25.0	28.8		ug/L		115	74 - 124
Naphthalene	25.0	31.3		ug/L		125	61 - 128
n-Butylbenzene	25.0	28.5		ug/L		114	75 - 128
N-Propylbenzene	25.0	28.2		ug/L		113	76 - 126
o-Xylene	25.0	28.4		ug/L		114	78 - 122
sec-Butylbenzene	25.0	28.4		ug/L		113	77 - 126
Styrene	25.0	30.0		ug/L		120	78 - 123
tert-Butylbenzene	25.0	27.8		ug/L		111	78 - 124
Tetrachloroethene	25.0	29.4		ug/L		117	74 - 129
Toluene	25.0	28.9		ug/L		116	80 - 121
trans-1,2-Dichloroethene	25.0	29.6		ug/L		118	75 - 124

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-459872/4
Matrix: Water
Analysis Batch: 459872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	25.0	28.1		ug/L		112	73 - 127
Trichloroethene	25.0	29.0		ug/L		116	79 - 123
Trichlorofluoromethane	25.0	22.7		ug/L		91	65 - 141
Vinyl acetate	50.0	62.4		ug/L		125	54 - 146
Vinyl chloride	25.0	22.8		ug/L		91	58 - 137
Xylenes, Total	50.0	57.1		ug/L		114	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*81 - 118*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*
Dibromofluoromethane (Surr)	*100*		*80 - 119*
Toluene-d8 (Surr)	*99*		*89 - 112*

Lab Sample ID: LCS 280-459872/5
Matrix: Water
Analysis Batch: 459872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diisopropyl ether	25.0	27.2		ug/L		109	67 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*
Dibromofluoromethane (Surr)	*100*		*80 - 119*
Toluene-d8 (Surr)	*99*		*89 - 112*

Lab Sample ID: LCSD 280-459872/6
Matrix: Water
Analysis Batch: 459872

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diisopropyl ether	25.0	26.1		ug/L		105	67 - 128	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*
Dibromofluoromethane (Surr)	*100*		*80 - 119*
Toluene-d8 (Surr)	*100*		*89 - 112*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-459136/1-A
Matrix: Water
Analysis Batch: 459449

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 459136

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15	U	100	4.4	ug/L		05/24/19 06:00	05/24/19 22:20	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-459136/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459136

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	950		ug/L		95	85 - 113

Lab Sample ID: LCSD 280-459136/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459136

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	956		ug/L		96	85 - 113	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-459963/27
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 11:56	1

Lab Sample ID: LCS 280-459963/25
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.55		mg/L		102	90 - 110

Lab Sample ID: LCSD 280-459963/26
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.54		mg/L		102	90 - 110	0	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-460760/28-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460878
Prep Batch: 460760

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:08	1

Lab Sample ID: LCS 280-460760/27-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460878
Prep Batch: 460760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	6.00	5.92		mg/L		99	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 280-460807/5
Matrix: Water
Analysis Batch: 460807
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/07/19 09:42	1

Lab Sample ID: LCS 280-460807/3
Matrix: Water
Analysis Batch: 460807
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	99.0		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-460807/4
Matrix: Water
Analysis Batch: 460807
Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	100	98.4		mg/L		98	90 - 110	1	11

Lab Sample ID: 280-123922-2 MS
Matrix: Water
Analysis Batch: 460807
Client Sample ID: LF1MW-5_0519-a
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	40	U	100	104	D	mg/L		104	90 - 110

Lab Sample ID: 280-123922-2 MSD
Matrix: Water
Analysis Batch: 460807
Client Sample ID: LF1MW-5_0519-a
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	40	U	100	97.5	D	mg/L		97	90 - 110	7	11

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-458552/6
Matrix: Water
Analysis Batch: 458552
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/17/19 11:08	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			05/17/19 11:08	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/17/19 11:08	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/17/19 11:08	1

Lab Sample ID: LCS 280-458552/4
Matrix: Water
Analysis Batch: 458552
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	10.0	9.95		mg/L		100	80 - 120
Orthophosphate as P	5.00	5.10		mg/L		102	80 - 116
Nitrate	5.00	5.00		mg/L		100	88 - 111

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 280-458552/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite	5.00	4.95		mg/L		99	87 - 111

Lab Sample ID: LCSD 280-458552/5
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458552

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	10.0		mg/L		100	80 - 120	1	10
Orthophosphate as P	5.00	5.17		mg/L		103	80 - 116	1	10
Nitrate	5.00	5.04		mg/L		101	88 - 111	1	10
Nitrite	5.00	4.99		mg/L		100	87 - 111	1	10

Lab Sample ID: MRL 280-458552/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458552

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.445	J	mg/L		111	50 - 150
Orthophosphate as P	0.200	0.204	J	mg/L		102	50 - 150
Nitrate	0.200	0.229	J	mg/L		115	50 - 150
Nitrite	0.200	0.216	J	mg/L		108	50 - 150

Lab Sample ID: 280-123922-3 MS
Client Sample ID: LF1P-5_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458552

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.10	U	10.0	10.0		mg/L		100	80 - 120
Orthophosphate as P	1.4	J1	5.00	2.08	J1	mg/L		14	80 - 116
Nitrate	0.10	U	5.00	5.05		mg/L		101	88 - 111
Nitrite	0.10	U M	5.00	4.96		mg/L		99	87 - 111

Lab Sample ID: 280-123922-3 MSD
Client Sample ID: LF1P-5_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458552

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U	10.0	10.3		mg/L		103	80 - 120	3	10
Orthophosphate as P	1.4	J1	5.00	2.05	J1	mg/L		13	80 - 116	2	10
Nitrate	0.10	U	5.00	5.19		mg/L		104	88 - 111	3	10
Nitrite	0.10	U M	5.00	5.10		mg/L		102	87 - 111	3	10

Lab Sample ID: 280-123922-3 DU
Client Sample ID: LF1P-5_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458552

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U	0.10	U	mg/L		NC	10
Orthophosphate as P	1.4	J1	1.36		mg/L		3	10
Nitrate	0.10	U	0.10	U	mg/L		NC	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123922-3 DU
Client Sample ID: LF1P-5_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458552

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrite	0.10	U M		0.10	U M	mg/L				NC	10

Lab Sample ID: MB 280-458553/6
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458553

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/17/19 11:08	1
Chloride	3.0	U M	3.0	1.0	mg/L			05/17/19 11:08	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/17/19 11:08	1

Lab Sample ID: LCS 280-458553/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458553

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			5.00	5.25		mg/L		105	91 - 110		
Chloride			100	95.5		mg/L		95	87 - 111		
Sulfate			100	93.6		mg/L		94	87 - 112		

Lab Sample ID: LCSD 280-458553/5
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458553

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide			5.00	5.29		mg/L		106	91 - 110	1	10
Chloride			100	96.2		mg/L		96	87 - 111	1	10
Sulfate			100	94.3		mg/L		94	87 - 112	1	10

Lab Sample ID: MRL 280-458553/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458553

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			0.200	0.216	J	mg/L		108	50 - 150		
Chloride			2.50	2.28	J	mg/L		91	50 - 150		
Sulfate			2.50	2.31	J	mg/L		92	50 - 150		

Lab Sample ID: 280-123922-3 MS
Client Sample ID: LF1P-5_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458553

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide	0.14	J M	5.00	5.43		mg/L		106	91 - 110		
Chloride	6.5	M	25.0	28.5		mg/L		88	87 - 111		
Sulfate	3.0	U	25.0	21.8		mg/L		87	87 - 112		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123922-3 MSD
Client Sample ID: LF1P-5_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458553

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.14	J M	5.00	5.56		mg/L		108	91 - 110	2	10
Chloride	6.5	M	25.0	29.1		mg/L		91	87 - 111	2	10
Sulfate	3.0	U	25.0	22.4		mg/L		90	87 - 112	3	10

Lab Sample ID: 280-123922-3 DU
Client Sample ID: LF1P-5_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458553

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.14	J M	0.143	J M	mg/L		3	10
Chloride	6.5	M	6.50	M	mg/L		0.1	10
Sulfate	3.0	U	3.0	U	mg/L		NC	10

Lab Sample ID: MB 280-461105/6
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461105

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			06/11/19 10:17	1
Chloride	3.0	U	3.0	1.0	mg/L			06/11/19 10:17	1
Fluoride	0.10	U	1.0	0.060	mg/L			06/11/19 10:17	1
Sulfate	3.0	U	5.0	1.0	mg/L			06/11/19 10:17	1

Lab Sample ID: LCS 280-461105/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	104		mg/L		104	87 - 111
Fluoride	5.00	5.03		mg/L		101	88 - 112
Sulfate	100	102	M	mg/L		102	87 - 112

Lab Sample ID: LCSD 280-461105/5
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	105		mg/L		105	87 - 111	1	10
Fluoride	5.00	5.07		mg/L		101	88 - 112	1	10
Sulfate	100	101	M	mg/L		101	87 - 112	1	10

Lab Sample ID: MRL 280-461105/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461105

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.50	2.58	J	mg/L		103	50 - 150
Fluoride	0.200	0.154	J	mg/L		77	50 - 150
Sulfate	2.50	2.30	J M	mg/L		92	50 - 150

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123922-1 MS
Matrix: Water
Analysis Batch: 461105

Client Sample ID: LF1MW-5_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	10	J1	25.0	38.3	J1	mg/L		113	87 - 111		
Fluoride	0.10	U	5.00	4.75		mg/L		95	88 - 112		
Sulfate	3.0	U	25.0	26.9	M	mg/L		108	87 - 112		

Lab Sample ID: 280-123922-1 MSD
Matrix: Water
Analysis Batch: 461105

Client Sample ID: LF1MW-5_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10	J1	25.0	37.5		mg/L		110	87 - 111	2	10
Fluoride	0.10	U	5.00	4.65		mg/L		93	88 - 112	2	10
Sulfate	3.0	U	25.0	26.7	M	mg/L		107	87 - 112	1	10

Lab Sample ID: 280-123922-1 DU
Matrix: Water
Analysis Batch: 461105

Client Sample ID: LF1MW-5_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.20	U Q	0.20	U Q	mg/L		NC	10
Chloride	10	J1	9.97		mg/L		0.2	10
Fluoride	0.10	U	0.10	U	mg/L		NC	10
Sulfate	3.0	U	3.0	U	mg/L		NC	10

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-461179/42
Matrix: Water
Analysis Batch: 461179

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/11/19 04:03	1

Lab Sample ID: LCS 280-461179/41
Matrix: Water
Analysis Batch: 461179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	25.4		mg/L		102	88 - 112

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 280-460948/2-A
Matrix: Water
Analysis Batch: 460979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460948

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/08/19 14:11	06/09/19 15:22	1

Method: 9066 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 280-460948/1-A
Matrix: Water
Analysis Batch: 460979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460948

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.195		mg/L		97	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-458642/1
Matrix: Water
Analysis Batch: 458642

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0	U	5.0	5.0	PCU			05/17/19 23:18	1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-459576/31
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/24/19 20:47	1

Lab Sample ID: LCS 280-459576/30
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	199		mg/L		99	89 - 109

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 280-459401/2
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness	0.81	U	3.0	0.30	mg/L			05/24/19 15:23	1

Lab Sample ID: LCS 280-459401/1
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness	398	398		mg/L		100	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-459268/1
Matrix: Water
Analysis Batch: 459268

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			05/23/19 16:24	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 280-459268/2
Matrix: Water
Analysis Batch: 459268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids (TDS)			500	503		mg/L		101	93 - 110		

Lab Sample ID: 280-123922-3 DU
Matrix: Water
Analysis Batch: 459268

Client Sample ID: LF1P-5_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids (TDS)	370			402		mg/L				8	10

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-458606/4
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Lab Sample ID: SCB 280-458606/1
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.611	J	2.0	0.24	mg/L			05/17/19 15:43	1

Lab Sample ID: USB 280-458606/2
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Lab Sample ID: LCS 280-458606/3
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	202		mg/L		102	85 - 115		

GC/MS VOA

Analysis Batch: 459872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	8260B	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	8260B	
280-123922-4	LF1-TB1_051619	Total/NA	Water	8260B	
MB 280-459872/7	Method Blank	Total/NA	Water	8260B	
LCS 280-459872/4	Lab Control Sample	Total/NA	Water	8260B	
LCS 280-459872/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-459872/6	Lab Control Sample Dup	Total/NA	Water	8260B	

Metals

Prep Batch: 459136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	3010A	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	3010A	
280-123922-3	LF1P-5_0519	Total/NA	Water	3010A	
MB 280-459136/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-459136/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-459136/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 459449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	6010C	459136
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	6010C	459136
280-123922-3	LF1P-5_0519	Total/NA	Water	6010C	459136
MB 280-459136/1-A	Method Blank	Total/NA	Water	6010C	459136
LCS 280-459136/2-A	Lab Control Sample	Total/NA	Water	6010C	459136
LCSD 280-459136/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	459136

General Chemistry

Analysis Batch: 458552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	9056A	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	9056A	
280-123922-3	LF1P-5_0519	Total/NA	Water	9056A	
MB 280-458552/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458552/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458552/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458552/3	Lab Control Sample	Total/NA	Water	9056A	
280-123922-3 MS	LF1P-5_0519	Total/NA	Water	9056A	
280-123922-3 MSD	LF1P-5_0519	Total/NA	Water	9056A	
280-123922-3 DU	LF1P-5_0519	Total/NA	Water	9056A	

Analysis Batch: 458553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	9056A	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	9056A	
280-123922-3	LF1P-5_0519	Total/NA	Water	9056A	
MB 280-458553/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458553/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458553/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458553/3	Lab Control Sample	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 458553 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-3 MS	LF1P-5_0519	Total/NA	Water	9056A	
280-123922-3 MSD	LF1P-5_0519	Total/NA	Water	9056A	
280-123922-3 DU	LF1P-5_0519	Total/NA	Water	9056A	

Analysis Batch: 458606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	SM5210B	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	SM5210B	
280-123922-3	LF1P-5_0519	Total/NA	Water	SM5210B	
MB 280-458606/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-458606/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-458606/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-458606/3	Lab Control Sample	Total/NA	Water	SM5210B	

Analysis Batch: 458642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	SM 2120B	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	SM 2120B	
280-123922-3	LF1P-5_0519	Total/NA	Water	SM 2120B	
MB 280-458642/1	Method Blank	Total/NA	Water	SM 2120B	

Analysis Batch: 459268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	SM 2540C	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	SM 2540C	
280-123922-3	LF1P-5_0519	Total/NA	Water	SM 2540C	
MB 280-459268/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-459268/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-123922-3 DU	LF1P-5_0519	Total/NA	Water	SM 2540C	

Analysis Batch: 459401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	SM 2340C	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	SM 2340C	
280-123922-3	LF1P-5_0519	Total/NA	Water	SM 2340C	
MB 280-459401/2	Method Blank	Total/NA	Water	SM 2340C	
LCS 280-459401/1	Lab Control Sample	Total/NA	Water	SM 2340C	

Analysis Batch: 459576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	SM 2320B	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	SM 2320B	
280-123922-3	LF1P-5_0519	Total/NA	Water	SM 2320B	
MB 280-459576/31	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-459576/30	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 459963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	350.1	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	350.1	
280-123922-3	LF1P-5_0519	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 459963 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-459963/27	Method Blank	Total/NA	Water	350.1	
LCS 280-459963/25	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-459963/26	Lab Control Sample Dup	Total/NA	Water	350.1	

Prep Batch: 460760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	351.2	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	351.2	
280-123922-3	LF1P-5_0519	Total/NA	Water	351.2	
MB 280-460760/28-A	Method Blank	Total/NA	Water	351.2	
LCS 280-460760/27-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 460807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	410.4	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	410.4	
280-123922-3	LF1P-5_0519	Total/NA	Water	410.4	
MB 280-460807/5	Method Blank	Total/NA	Water	410.4	
LCS 280-460807/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-460807/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-123922-2 MS	LF1MW-5_0519-a	Total/NA	Water	410.4	
280-123922-2 MSD	LF1MW-5_0519-a	Total/NA	Water	410.4	

Prep Batch: 460843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	Distill/Phenol	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	Distill/Phenol	
280-123922-3	LF1P-5_0519	Total/NA	Water	Distill/Phenol	

Analysis Batch: 460878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	351.2	460760
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	351.2	460760
280-123922-3	LF1P-5_0519	Total/NA	Water	351.2	460760
MB 280-460760/28-A	Method Blank	Total/NA	Water	351.2	460760
LCS 280-460760/27-A	Lab Control Sample	Total/NA	Water	351.2	460760

Prep Batch: 460948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-460948/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460948/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 460979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	9066	460843
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	9066	460843
280-123922-3	LF1P-5_0519	Total/NA	Water	9066	460843
MB 280-460948/2-A	Method Blank	Total/NA	Water	9066	460948
LCS 280-460948/1-A	Lab Control Sample	Total/NA	Water	9066	460948

QC Association Summary

Client: Bhate Environmental
Job ID: 280-123922-1
Project/Site: Griffiss AFB, LF001 - 3342

General Chemistry

Analysis Batch: 461105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	9056A	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	9056A	
280-123922-3	LF1P-5_0519	Total/NA	Water	9056A	
MB 280-461105/6	Method Blank	Total/NA	Water	9056A	
LCS 280-461105/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-461105/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-461105/3	Lab Control Sample	Total/NA	Water	9056A	
280-123922-1 MS	LF1MW-5_0519	Total/NA	Water	9056A	
280-123922-1 MSD	LF1MW-5_0519	Total/NA	Water	9056A	
280-123922-1 DU	LF1MW-5_0519	Total/NA	Water	9056A	

Analysis Batch: 461179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123922-1	LF1MW-5_0519	Total/NA	Water	9060A	
280-123922-2	LF1MW-5_0519-a	Total/NA	Water	9060A	
280-123922-3	LF1P-5_0519	Total/NA	Water	9060A	
MB 280-461179/42	Method Blank	Total/NA	Water	9060A	
LCS 280-461179/41	Lab Control Sample	Total/NA	Water	9060A	

Client Sample ID: LF1MW-5_0519
Lab Sample ID: 280-123922-1

Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	459872	05/30/19 11:21	GO	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	459136	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 23:20	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:08	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:25	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460807	06/07/19 09:42	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 01:53	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 01:53	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	461105	06/11/19 15:33	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 09:37	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 15:28	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		10	5 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 21:29	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	12.5 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF1MW-5_0519-a
Lab Sample ID: 280-123922-2

Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	459872	05/30/19 11:43	GO	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	459136	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 23:24	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:10	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:28	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460807	06/07/19 09:42	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 02:26	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 02:26	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	461105	06/11/19 16:48	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 10:24	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 15:31	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		10	5 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 21:43	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	12.5 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF1P-5_0519
Lab Sample ID: 280-123922-3

Date Collected: 05/16/19 16:20
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459136	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 23:27	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:12	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:30	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460807	06/07/19 09:42	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 00:47	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 00:47	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	461105	06/11/19 17:07	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 10:38	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 15:34	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		10	5 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 21:36	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	12.5 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF1-TB1_051619
Lab Sample ID: 280-123922-4

Date Collected: 05/16/19 16:20
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	459872	05/30/19 12:04	GO	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Bhate Environmental
Job ID: 280-123922-1
Project/Site: Griffiss AFB, LF001 - 3342

Laboratory: Eurofins TestAmerica, Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD		2907.01	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2120B		Water	Color
SM 2340C		Water	Hardness

New York	NELAP	2	11964	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3010A	Water	Boron
8260B		Water	1,1,1,2-Tetrachloroethane
8260B		Water	1,1,1-Trichloroethane
8260B		Water	1,1,2,2-Tetrachloroethane
8260B		Water	1,1,2-Trichloroethane
8260B		Water	1,1-Dichloroethane
8260B		Water	1,1-Dichloroethene
8260B		Water	1,1-Dichloropropene
8260B		Water	1,2,3-Trichlorobenzene
8260B		Water	1,2,3-Trichloropropane
8260B		Water	1,2,4-Trichlorobenzene
8260B		Water	1,2,4-Trimethylbenzene
8260B		Water	1,2-Dibromo-3-Chloropropane
8260B		Water	1,2-Dibromoethane
8260B		Water	1,2-Dichlorobenzene
8260B		Water	1,2-Dichloroethane
8260B		Water	1,2-Dichloroethene, Total
8260B		Water	1,2-Dichloropropane
8260B		Water	1,3,5-Trimethylbenzene
8260B		Water	1,3-Dichlorobenzene
8260B		Water	1,3-Dichloropropane
8260B		Water	1,4-Dichlorobenzene
8260B		Water	2,2-Dichloropropane
8260B		Water	2-Butanone (MEK)
8260B		Water	2-Chlorotoluene
8260B		Water	2-Hexanone
8260B		Water	4-Chlorotoluene
8260B		Water	4-Isopropyltoluene
8260B		Water	4-Methyl-2-pentanone (MIBK)
8260B		Water	Acetone
8260B		Water	Benzene
8260B		Water	Bromobenzene
8260B		Water	Bromochloromethane
8260B		Water	Bromodichloromethane
8260B		Water	Bromoform
8260B		Water	Bromomethane
8260B		Water	Carbon disulfide
8260B		Water	Carbon tetrachloride
8260B		Water	Chlorobenzene

Laboratory: Eurofins TestAmerica, Denver (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11964	04-01-20

8260B	Water	Chloroethane
8260B	Water	Chloroform
8260B	Water	Chloromethane
8260B	Water	cis-1,2-Dichloroethene
8260B	Water	cis-1,3-Dichloropropene
8260B	Water	Dibromochloromethane
8260B	Water	Dibromomethane
8260B	Water	Dichlorodifluoromethane
8260B	Water	Diisopropyl ether
8260B	Water	Ethylbenzene
8260B	Water	Hexachlorobutadiene
8260B	Water	Isopropylbenzene
8260B	Water	m,p-Xylene
8260B	Water	Methyl iodide
8260B	Water	Methyl tert-butyl ether
8260B	Water	Methylene Chloride
8260B	Water	Naphthalene
8260B	Water	n-Butylbenzene
8260B	Water	N-Propylbenzene
8260B	Water	o-Xylene
8260B	Water	sec-Butylbenzene
8260B	Water	Styrene
8260B	Water	tert-Butylbenzene
8260B	Water	Tetrachloroethene
8260B	Water	Toluene
8260B	Water	trans-1,2-Dichloroethene
8260B	Water	trans-1,3-Dichloropropene
8260B	Water	Trichloroethene
8260B	Water	Trichlorofluoromethane
8260B	Water	Vinyl acetate
8260B	Water	Vinyl chloride
8260B	Water	Xylenes, Total
9056A	Water	Bromide
9056A	Water	Chloride
9056A	Water	Fluoride
9056A	Water	Nitrate
9056A	Water	Nitrate Nitrite as N
9056A	Water	Nitrite
9056A	Water	Orthophosphate as P
9056A	Water	Sulfate
9060A	Water	Total Organic Carbon - Quad

Method Summary

Client: Bhate Environmental
Job ID: 280-123922-1
Project/Site: Griffiss AFB, LF001 - 3342

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
6010C	Metals (ICP)	SW846	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
9066	Phenolics, Total Recoverable	SW846	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
5030B	Purge and Trap	SW846	TAL DEN
Distill/Phenol	Distillation, Phenolics	None	TAL DEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Bhate Environmental
Job ID: 280-123922-1
Project/Site: Griffiss AFB, LF001 - 3342

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-123922-1	LF1MW-5_0519	Water	05/16/19 12:50	05/17/19 08:50	
280-123922-2	LF1MW-5_0519-a	Water	05/16/19 12:50	05/17/19 08:50	
280-123922-3	LF1P-5_0519	Water	05/16/19 16:20	05/17/19 08:50	
280-123922-4	LF1-TB1_051619	Water	05/16/19 16:20	05/17/19 08:50	

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: VMS_G2 Analysis Batch Number: 458654

Lab Sample ID: IC 280-458654/7 Client Sample ID:

Date Analyzed: 05/18/19 11:43 Lab File ID: g2_5203.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	4.60	Assign Peak	meierg	05/18/19 12:35

Lab Sample ID: IC 280-458654/8 Client Sample ID:

Date Analyzed: 05/18/19 12:07 Lab File ID: g2_5204.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	4.60	Assign Peak	meierg	05/18/19 12:34

Lab Sample ID: IC 280-458654/14 Client Sample ID:

Date Analyzed: 05/18/19 14:31 Lab File ID: g2_5210.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.28	Assign Peak	meierg	05/18/19 15:06

Lab Sample ID: IC 280-458654/15 Client Sample ID:

Date Analyzed: 05/18/19 14:55 Lab File ID: g2_5211.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.51	Assign Peak	meierg	05/18/19 15:12
Trichlorofluoromethane	2.28	Assign Peak	meierg	05/18/19 15:12

Lab Sample ID: IC 280-458654/21 Client Sample ID:

Date Analyzed: 05/18/19 17:19 Lab File ID: g2_5217.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	2.78	Assign Peak	meierg	05/20/19 11:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: VMS_G2 Analysis Batch Number: 458654

Lab Sample ID: IC 280-458654/22 Client Sample ID:

Date Analyzed: 05/18/19 17:43 Lab File ID: g2_5218.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene oxide	1.97	Baseline	meierg	05/20/19 11:25
Isopropyl alcohol	2.78	Assign Peak	meierg	05/20/19 11:30

Lab Sample ID: IC 280-458654/23 Client Sample ID:

Date Analyzed: 05/18/19 18:07 Lab File ID: g2_5219.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene oxide	1.97	Baseline	meierg	05/20/19 11:26

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: VMS_G2 Analysis Batch Number: 459545

Lab Sample ID: IC 280-459545/6 Client Sample ID:

Date Analyzed: 05/27/19 11:59 Lab File ID: g2_5536.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	1.90	Assign Peak	meierg	05/28/19 10:44

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: VMS_G2 Analysis Batch Number: 459872

Lab Sample ID: CCV 280-459872/3 Client Sample ID:

Date Analyzed: 05/30/19 09:34 Lab File ID: g2_5673.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	2.47	Split Peak	meierg	05/30/19 09:50
Acetonitrile	2.98	Wrong peak	meierg	05/30/19 13:36
Tert-butyl ethyl ether	3.87	Assign Peak	meierg	05/30/19 09:52
Ethyl acetate	4.01	Assign Peak	meierg	05/30/19 13:36
Tert-amyl methyl ether	4.71	Wrong peak	meierg	05/30/19 09:53
1,2,3-Trimethylbenzene	9.60	Wrong peak	meierg	05/30/19 13:37

Lab Sample ID: MB 280-459872/7 Client Sample ID:

Date Analyzed: 05/30/19 11:00 Lab File ID: g2_5677.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone		Invalid Compound ID	meierg	05/30/19 12:09
Vinyl chloride		Invalid Compound ID	meierg	05/30/19 12:09

Lab Sample ID: 280-123922-1 Client Sample ID: LF1MW-5_0519

Date Analyzed: 05/30/19 11:21 Lab File ID: g2_5678.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2-Trichloroethane		Invalid Compound ID	meierg	05/30/19 12:10
1,2-Dichloroethane		Invalid Compound ID	meierg	05/30/19 12:10
1,2-Dichloropropane		Invalid Compound ID	meierg	05/30/19 12:10
Acetone		Invalid Compound ID	meierg	05/30/19 12:10
Chloroethane		Invalid Compound ID	meierg	05/30/19 12:10
Trichloroethene		Invalid Compound ID	meierg	05/30/19 12:10

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: VMS_G2 Analysis Batch Number: 459872

Lab Sample ID: 280-123922-2 Client Sample ID: LF1MW-5_0519-a

Date Analyzed: 05/30/19 11:43 Lab File ID: g2_5679.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2-Trichloroethane		Invalid Compound ID	meierg	05/30/19 12:11
1,2-Dichloropropane		Invalid Compound ID	meierg	05/30/19 12:11
1,3-Dichlorobenzene		Invalid Compound ID	meierg	05/30/19 12:11
Acetone		Invalid Compound ID	meierg	05/30/19 12:11
Chloroethane		Invalid Compound ID	meierg	05/30/19 12:11

Lab Sample ID: 280-123922-4 Client Sample ID: LF1-TB1_051619

Date Analyzed: 05/30/19 12:04 Lab File ID: g2_5680.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone		Invalid Compound ID	meierg	05/30/19 13:25

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:04
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:04
Orthophosphate as P	5.68	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458327/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:05
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:06
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:07
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:07
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:08
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:08
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/15/19 19:10
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458328/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458328/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:07
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:07

Lab Sample ID: STD 280-458328/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	pedrickj	05/16/19 08:31
Sulfate	6.43	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:08
Sulfate	6.46	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458552

Lab Sample ID: 280-123922-3 Client Sample ID: LF1P-5_0519

Date Analyzed: 05/18/19 00:47 Lab File ID: 0030.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.78	Incomplete Integration	pedrickj	05/20/19 08:00

Lab Sample ID: 280-123922-3 DU Client Sample ID: LF1P-5_0519 DU

Date Analyzed: 05/18/19 01:04 Lab File ID: 0031.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.80	Incomplete Integration	pedrickj	05/20/19 08:01

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458553

Lab Sample ID: CCB 280-458553/2 Client Sample ID:

Date Analyzed: 05/17/19 10:03 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Peak not integrated	pedrickj	05/20/19 07:53

Lab Sample ID: MB 280-458553/6 Client Sample ID:

Date Analyzed: 05/17/19 11:08 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Peak not integrated	pedrickj	05/20/19 07:54

Lab Sample ID: CCB 280-458553/18 Client Sample ID:

Date Analyzed: 05/17/19 21:30 Lab File ID: 0018.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Incomplete Integration	pedrickj	05/20/19 07:56

Lab Sample ID: CCB 280-458553/29 Client Sample ID:

Date Analyzed: 05/18/19 00:31 Lab File ID: 0029.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Peak not integrated	pedrickj	05/20/19 08:00

Lab Sample ID: 280-123922-3 Client Sample ID: LF1P-5_0519

Date Analyzed: 05/18/19 00:47 Lab File ID: 0030.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Incomplete Integration	pedrickj	05/20/19 08:00
Bromide	4.64	Incomplete Integration	pedrickj	05/20/19 08:00

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458553

Lab Sample ID: 280-123922-3 DU Client Sample ID: LF1P-5_0519 DU

Date Analyzed: 05/18/19 01:04 Lab File ID: 0031.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Incomplete Integration	pedrickj	05/20/19 08:01
Bromide	4.63	Incomplete Integration	pedrickj	05/20/19 08:01

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom8 Analysis Batch Number: 460239

Lab Sample ID: STD 280-460239/2 IC Client Sample ID:

Date Analyzed: 06/03/19 10:41 Lab File ID: 02.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.01	Incomplete Integration	pedrickj	06/03/19 13:00
Chloride	2.95	Incomplete Integration	pedrickj	06/03/19 13:00
Sulfate	10.94	Peak not integrated	pedrickj	06/03/19 13:00

Lab Sample ID: STD 280-460239/3 IC Client Sample ID:

Date Analyzed: 06/03/19 11:00 Lab File ID: 03.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.01	Incomplete Integration	pedrickj	06/03/19 13:00
Chloride	2.95	Incomplete Integration	pedrickj	06/03/19 13:00
Sulfate	11.04	Incomplete Integration	pedrickj	06/03/19 13:01

Lab Sample ID: STD 280-460239/4 IC Client Sample ID:

Date Analyzed: 06/03/19 11:19 Lab File ID: 04.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.03	Incomplete Integration	pedrickj	06/03/19 13:02
Chloride	2.99	Incomplete Integration	pedrickj	06/03/19 13:01
Bromide	5.15	Incomplete Integration	pedrickj	06/03/19 13:01
Sulfate	11.16	Incomplete Integration	pedrickj	06/03/19 13:01

Lab Sample ID: STD 280-460239/5 IC Client Sample ID:

Date Analyzed: 06/03/19 11:38 Lab File ID: 05.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	2.92	Incomplete Integration	pedrickj	06/03/19 13:02
Sulfate	11.05	Incomplete Integration	pedrickj	06/03/19 13:02

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom8 Analysis Batch Number: 460239

Lab Sample ID: STD 280-460239/6 IC Client Sample ID:

Date Analyzed: 06/03/19 11:56 Lab File ID: 06.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	2.86	Incomplete Integration	pedrickj	06/03/19 13:02
Sulfate	10.60	Peak not integrated	pedrickj	06/03/19 13:02

Lab Sample ID: STD 280-460239/7 IC Client Sample ID:

Date Analyzed: 06/03/19 12:15 Lab File ID: 07.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	2.84	Incomplete Integration	pedrickj	06/03/19 13:03
Bromide	4.73	Peak assignment corrected	pedrickj	06/03/19 13:03
Sulfate	10.30	Peak not integrated	pedrickj	06/03/19 13:03

Lab Sample ID: ICV 280-460239/8 Client Sample ID:

Date Analyzed: 06/03/19 12:34 Lab File ID: 08.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	2.93	Incomplete Integration	pedrickj	06/03/19 13:04
Sulfate	10.79	Peak not integrated	pedrickj	06/03/19 13:03

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom8 Analysis Batch Number: 461105

Lab Sample ID: CCV 280-461105/1 Client Sample ID:

Date Analyzed: 06/11/19 08:44 Lab File ID: 01.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.63	Peak not integrated	pedrickj	06/11/19 09:33

Lab Sample ID: MRL 280-461105/3 Client Sample ID:

Date Analyzed: 06/11/19 09:21 Lab File ID: 03.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	11.03	Incomplete Integration	pedrickj	06/11/19 10:11

Lab Sample ID: LCS 280-461105/4 Client Sample ID:

Date Analyzed: 06/11/19 09:39 Lab File ID: 04.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.75	Peak not integrated	pedrickj	06/11/19 10:11

Lab Sample ID: LCSD 280-461105/5 Client Sample ID:

Date Analyzed: 06/11/19 09:58 Lab File ID: 05.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.74	Peak not integrated	pedrickj	06/11/19 13:04

Lab Sample ID: 280-123922-1 MS Client Sample ID: LF1MW-5_0519 MS

Date Analyzed: 06/11/19 16:10 Lab File ID: 13.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.98	Peak not integrated	pedrickj	06/12/19 08:31

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom8 Analysis Batch Number: 461105

Lab Sample ID: 280-123922-1 MSD Client Sample ID: LF1MW-5_0519 MSD

Date Analyzed: 06/11/19 16:29 Lab File ID: 14.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.83	Peak not integrated	pedrickj	06/12/19 08:32

Lab Sample ID: CCV 280-461105/17 Client Sample ID:

Date Analyzed: 06/11/19 17:25 Lab File ID: 17.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.13	Peak not integrated	pedrickj	06/12/19 08:33

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00367	06/04/19	05/28/19	Di Water, Lot na	100 mL	NH3 CAL STD_00030	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00030	02/28/20		Ricca, Lot 1808L28		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00350	06/04/19	05/28/19	na, Lot na	100 mL	NH3 ICV STD_00026	10 mL	Ammonia	99.6 mg/L
.NH3 ICV STD_00026	04/01/20		Inorganic Ventures, Lot M2-NH662533		(Purchased Reagent)		Ammonia	996 mg/L
Alk daily lcs_00821	05/27/19	05/20/19	Di Water, Lot na	1000 mL	Alk stk std_00016	4 mL	Alkalinity	200 mg/L
.Alk stk std_00016	06/30/20		Fischer, Lot 182564		(Purchased Reagent)		Alkalinity	50 g/L
BOD Std_00001_00046	02/15/24		HACH, Lot A9046		(Purchased Reagent)		Biochemical Oxygen Demand	198 mg/L
COD cal std_00048	09/01/20		Ricca, Lot 1904987		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1000 mg/L
COD icv std_00034	02/01/20		HACH, Lot A9057		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1005 mg/L
cod ms/msd_00022	09/30/19		Chemetrics, Lot 90427		(Purchased Reagent)		Chemical Oxygen Demand (COD)	10000 mg/L
Hard lcs std_00050	06/13/20		Lab Chem, Lot H159-16		(Purchased Reagent)		Hardness	0.996 mg/mL
IC CAL cl/so4_00254	05/03/19	04/26/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00256	05/17/19	05/10/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00257	05/24/19	05/17/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00259	06/07/19	05/31/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00260	06/14/19	06/07/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00455	05/03/19	04/26/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
IC Cal low_00458	05/18/19	05/11/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00462	06/05/19	05/29/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
IC Cal low_00464	06/15/19	06/08/19	Di Water, Lot NA	100 mL	IC FL cal_00013	5 mL	Fluoride	50 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
IC CL ICV_00016	10/31/19		ERA, Lot 091017		(Purchased Reagent)		Chloride	1000 mg/L
IC ICV 5_00232	05/09/19	05/02/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
IC ICV 5_00235	06/07/19	05/31/19	Di Water, Lot na	10 mL	IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L
IC LCS_01578	05/18/19	05/17/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC LCS_01579	05/19/19	05/18/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC LCS_01601	06/12/19	06/11/19	Di Water, Lot 27	200 mL	IC Cal low_00464	20 mL	Fluoride	5 mg/L as N
					IC CL cal_00058	20 mL	Chloride	100 mg/L as N
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L as N
.IC Cal low_00464	06/15/19	06/08/19	Di Water, Lot NA	100 mL	IC FL cal_00013	5 mL	Fluoride	50 mg/L
..IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00017	06/30/19		ERA, Lot 210617		(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00592	05/21/19	05/14/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Bromide	499.924 mg/L
							Chloride	2499.92 mg/L
							Nitrate	500.003 mg/L
							Orthophosphate as P	500.058 mg/L
							Sulfate	2500.26 mg/L
					IC SPK N02SOL_00013	5 mL	Nitrite	499.973 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD Br_00003	1.2876 g	Bromide	999.847 mg/L
					IC MS/MSD CL_00002	8.2424 g	Chloride	4999.84 mg/L
					IC MS/MSD N03_00005	6.068 g	Nitrate	1000.01 mg/L
					IC MS/MSD P04_00002	4.3936 g	Orthophosphate as P	1000.12 mg/L
					IC MS/MSD S04_00005	9.0704 g	Sulfate	5000.51 mg/L
..IC MS/MSD Br_00003	09/29/21		FISHER, Lot 110569		(Purchased Reagent)		Bromide	0.77652 g/g
..IC MS/MSD CL_00002	01/13/21		FISHER, Lot 091363		(Purchased Reagent)		Chloride	0.6066 g/g
..IC MS/MSD N03_00005	09/27/28		FISHER, Lot 176192		(Purchased Reagent)		Nitrate	0.1648 g/g
..IC MS/MSD P04_00002	09/06/22		FISHER, Lot 112841		(Purchased Reagent)		Orthophosphate as P	0.22763 g/g
..IC MS/MSD S04_00005	09/29/20		FISHER, Lot 147276		(Purchased Reagent)		Sulfate	0.5513 g/g
.IC SPK N02SOL_00013	06/05/19	06/05/18	Di Water, Lot na	500 mL	IC MS/MSD N02_00002	2.4628 g	Nitrite	999.946 mg/L
..IC MS/MSD N02_00002	01/12/27		fisher, Lot 164254		(Purchased Reagent)		Nitrite	0.20301 g/g
ICMS/MSD WEEK_00599	06/18/19	06/11/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Chloride	2499.92 mg/L
							Fluoride	499.957 mg/L
							Sulfate	2500.26 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD CL_00002	8.2424 g	Chloride	4999.84 mg/L
					IC MS/MSD F_00002	2.21 g	Fluoride	999.914 mg/L
					IC MS/MSD S04_00005	9.0704 g	Sulfate	5000.51 mg/L
..IC MS/MSD CL_00002	01/13/21		FISHER, Lot 091363		(Purchased Reagent)		Chloride	0.6066 g/g
..IC MS/MSD F_00002	09/29/21		FISHER, Lot 110901		(Purchased Reagent)		Fluoride	0.45245 g/g
..IC MS/MSD S04_00005	09/29/20		FISHER, Lot 147276		(Purchased Reagent)		Sulfate	0.5513 g/g
ICP CCV_00382	06/25/20	05/21/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00843	250 mL	Boron	0.5 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICP ICAL1A_00843	06/25/20	05/23/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	1000 mL	ICP CAL STD 4_00003	10 mL	Boron	1 mg/L
..ICP CAL STD 4_00003	09/22/20	CPI, Lot 10094465-3			(Purchased Reagent)		Boron	100 mg/L
ICP ICSA_00186	03/18/20	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.Icp stk ICSA_00029	03/18/20	CPI, Lot 982821-1			(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICSAB_00213	06/03/19	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Li_00040	0.25 mL	Li	1 mg/L
					ICP ICSAB 1_00001	2.5 mL	Mo	1 mg/L
							Sb	1 mg/L
							Si	10 mg/L
							Sn	1 mg/L
							Ti	1 mg/L
					ICP ICSAB 2_00001	2.5 mL	Ag	1 mg/L
							As	1 mg/L
							Ba	1 mg/L
							Be	0.5 mg/L
							Boron	10 mg/L
							Cd	1 mg/L
							Co	1 mg/L
							Cr	1 mg/L
							Cu	1 mg/L
							K	10 mg/L
							Mn	1 mg/L
							Na	10 mg/L
							Ni	1 mg/L
							P	10 mg/L
							Pb	1 mg/L
							Se	1 mg/L
							Sr	1 mg/L
							Tl	1 mg/L
							V	1 mg/L
							Zn	1 mg/L
					Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.1000 Li_00040	05/16/20	CPI, Lot 751942-43			(Purchased Reagent)		Li	1000 mg/L
.ICP ICSAB 1_00001	06/03/19	CPI, Lot 990624-2			(Purchased Reagent)		Mo	100 mg/L
							Sb	100 mg/L
							Si	1000 mg/L
							Sn	100 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ti	100 mg/L
.ICP ICSAB 2_00001	06/03/19	CPI, Lot 990626-2			(Purchased Reagent)		Ag	100 mg/L
							As	100 mg/L
							Ba	100 mg/L
							Be	50 mg/L
							Boron	1000 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							K	1000 mg/L
							Mn	100 mg/L
							Na	1000 mg/L
							Ni	100 mg/L
							P	1000 mg/L
							Pb	100 mg/L
							Se	100 mg/L
							Sr	100 mg/L
							Tl	100 mg/L
							V	100 mg/L
							Zn	100 mg/L
.Icp stk ICSA_00029	03/18/20	CPI, Lot 982821-1			(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICV_00822	10/16/19	05/24/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP CAL STD 4_00002	0.25 mL	Boron	0.25 ppm
.ICP CAL STD 4_00002	09/22/20	CPI, Lot 10094465-2			(Purchased Reagent)		Boron	100 mg/L
ICP LLCCV_02550	05/25/19	05/24/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV-2a_00010	1 mL	Boron	100 ppb
.ICP LLCCV-2a_00010	06/18/19	CPI, Lot 10090185-1			(Purchased Reagent)		Boron	10 mg/L
MV-BFB_00028							1,2-Dichloroethene, Total	
							1,2-Dichloroethene, Total (URS)	
							1,3-Dichloropropene, Total	
							TAH	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
							Xylenes, Total (URS)	
					MV-STS110N1_00066	1.25 mL	BFB	25 ug/mL
.MV-STS110N1_00066	10/31/19	Ultra Scientific, Lot CH-3248Z			(Purchased Reagent)		BFB	2000 ug/mL
mv-Cent IS/SS_00002	03/26/20	03/07/19	P&T Methanol, Lot 1996628	5 mL	mv-8260 IS/SS_00001	1 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							1,4-Dichlorobenzene-d4	50 ug/mL

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Fluorobenzene	50 ug/mL
							TBA-d9 (IS)	1000 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.mv-8260 IS/SS_00001	10/31/22		Restek, Lot A0131478		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							1,4-Dichlorobenzene-d4	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Fluorobenzene	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
mv-Cent IS_00003	07/31/23	05/15/19	P&T Methanol, Lot 1996628	5 mL	MV-568718-D_00016	1 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
							TBA-d9 (IS)	1000 ug/mL
.MV-568718-D_00016	07/31/23		RESTEK, Lot A0139459		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
MV-Gas A_00025	05/24/19	05/14/19	P&T Methanol, Lot 198123	50 mL	MV-569722_00010	1000 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
					MV-569723_00005	1000 uL	2-Chloroethyl vinyl ether	50 ug/mL
.MV-569722_00010	11/30/21		RESTEK, Lot A0143158		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.MV-569723_00005	10/31/21		RESTEK, Lot A0142584		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
MV-Gas A_00026	06/07/19	05/23/19	P&T Methanol, Lot 198123	50 mL	MV-569722_00010	1000 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
					MV-569723_00005	1000 uL	2-Chloroethyl vinyl ether	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MV-569722_00010	11/30/21		RESTEK, Lot A0143158		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.MV-569723_00005	10/31/21		RESTEK, Lot A0142584		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
MV-Gas B_00029	06/07/19	05/23/19	P&T Methanol, Lot 198123	50 mL	MV-569722.sec_00010	1000 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MV-569722.sec_00010	10/31/21		RESTEK, Lot A0142594		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
MV-MegaMain B_00012	05/31/19	04/10/19	P&T Methanol, Lot 181124	50 mL	MV-569721.sec_00005	800 uL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					MV-569724.sec_00022	1000 uL	Vinyl acetate	100 ug/mL
					MV-571992.sec_00002	1000 uL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloroethene, Total	100 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m,p-Xylene	50 ug/mL
							Methyl iodide	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.MV-569721.sec_00005	01/31/20		RESTEK, Lot A0113880		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MV-569724.sec_00022	06/30/19		RESTEK, Lot A0144188		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
.MV-571992.sec_00002	06/30/19		RESTEK, Lot A0123775		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloroethene, Total	5000 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m,p-Xylene	2500 ug/mL
							Methyl iodide	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
MV-MegaMainA_00014	05/31/19	04/18/19	P&T Methanol, Lot 181124	50 mL	MV-568720_00024	1250 uL	Acrolein	493.75 ug/mL
					MV-569721_00006	800 uL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					MV-569724_00019	1000 uL	Vinyl acetate	100 ug/mL
					MV-569727_00008	4000 uL	Cyclohexanone	2000 ug/mL
					MV-571992_00002	1000 uL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m,p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl iodide	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					MV-CUS17739_00004	2500 uL	1-Chlorohexane	50 ug/mL
							2-Pentanone	200 ug/mL
							sec-Butyl Alcohol	1500 ug/mL
.MV-568720_00024	05/31/19		RESTEK, Lot A01413013		(Purchased Reagent)		Acrolein	19750 ug/mL
.MV-569721_00006	10/31/20		RESTEK, Lot A0131486		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MV-569724_00019	07/31/19		RESTEK, Lot A0144661		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
.MV-569727_00008	08/31/21		RESTEK, Lot A0140237		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
.MV-571992_00002	08/31/19		RESTEK, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isopropylbenzene	2500 ug/mL
							m,p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl iodide	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.MV-CUS17739_00004	10/31/20		Ultra, Lot CS-4707		(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-MegaMainA_00014	05/31/19	04/18/19	P&T Methanol, Lot 181124	50 mL	MV-571992_00002	1000 uL	1,2-Dichloroethene, Total	100 ug/mL
							Xylenes, Total	100 ug/mL
.MV-571992_00002	08/31/19		RESTEK, Lot A0123711		(Purchased Reagent)		1,2-Dichloroethene, Total	5000 ug/mL
							Xylenes, Total	5000 ug/mL
MV-Supp A_00035	07/28/19	04/22/19	P&T Methanol, Lot 199628	20 mL	mv-570808_00005	400 uL	1,2,3-Trimethylbenzene	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Isopropyl alcohol	500 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
					mv-570809_00005	400 uL	Ethyl acetate	100 ug/mL
							Methyl methacrylate	100 ug/mL
					mv-571993_00003	400 uL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					mv-571994_00002	600 uL	Ethanol	3000 ug/mL
					mv-VO-TAOH-5_00007	2000 uL	cis-1,4-Dichloro-2-butene	100 ug/mL
							Ethylene oxide	5000 ug/mL
.mv-570808_00005	09/30/19		Restek, Lot A0135915		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitropropane	5000 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
.mv-570809_00005	08/31/19		Restek, Lot A0135442		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Methyl methacrylate	5000 ug/mL
.mv-571993_00003	07/31/20		RESTEK, Lot A0139911		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Diisopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL
.mv-571994_00002	11/30/20		RESTEK, Lot A0132270		(Purchased Reagent)		Ethanol	100000 ug/mL
.mv-VO-TAOH-5_00007	07/28/19		SPEX, Lot EN190128019		(Purchased Reagent)		cis-1,4-Dichloro-2-butene	1000 ug/mL
							Ethylene oxide	50000 ug/mL
MV-Supp B_00024	07/29/19	04/01/19	P&T Methanol, Lot 127999	20 mL	mv-571993.sec_00003	400 uL	Diisopropyl ether	50 ug/mL
.mv-571993.sec_00003	06/30/20		RESTEK, Lot A0139245		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
Phenol CAL 10_00730	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol CAL_00012	1 mL	Phenolics, Total Recoverable	10.07 mg/L
							Phenols, Total	10.07 mg/L
.Phenol CAL_00012	12/07/19		Lab Chem, Lot G341-02		(Purchased Reagent)		Phenolics, Total Recoverable	1007 mg/L
							Phenols, Total	1007 mg/L
Phenol ICV 10_00605	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol ICV_00013	1 mL	Phenols, Total	10 mg/L
.Phenol ICV_00013	02/29/20		ERA, Lot 090817		(Purchased Reagent)		Phenols, Total	1000 mg/L
PREP SPK 1_00008	05/13/20		CPI, Lot 993218-1		(Purchased Reagent)		As	200 mg/L
							Ba	200 mg/L
							Be	100 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							Li	100 mg/L
							Mn	100 mg/L
							Mo	100 mg/L
							Ni	100 mg/L
							Pb	100 mg/L
							Se	200 mg/L
							Si	200 mg/L
							SiO2	428 mg/L
							Sn	200 mg/L
							Sr	100 mg/L
							Ti	100 mg/L
							Tl	200 mg/L
							V	100 mg/L
PREP SPK 2_00004	05/13/20		CPI, Lot 992745-2		(Purchased Reagent)		Al	1000 mg/L
							Ca	5000 mg/L
							Fe	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							K	5000 mg/L
							Mg	5000 mg/L
							Na	5000 mg/L
PREP SPK 3_00004	05/13/20	CPI, Lot 992746-1			(Purchased Reagent)		P	2000 mg/L
							Sulfur	1000 mg/L
							U	200 mg/L
							W	100 mg/L
PREP SPK 4_00004	05/08/20	CPI, Lot 10094085-3			(Purchased Reagent)		Bi	200 mg/L
							Boron	100 mg/L
							Th	100 mg/L
							Zn	50 mg/L
							Zr	50 mg/L
TDS LCS_00537_00055	08/22/19	05/22/19	Di Water, Lot na	1000 mL	NaCl f_00004	0.5 g	Total Dissolved Solids (TDS)	500 mg/L
.NaCl f_00004	04/14/21	JT Baker, Lot J48622			(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g
TKN 25ppm_00794	07/01/19	05/31/19	Di Water, Lot 1	100 mL	TKN 100PPM_00108	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN 100PPM_00108	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21	nsi lab solutions, Lot 010617			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TKN ICV 25_00078	07/01/19	05/31/19	DI water, Lot 1	100 mL	TKN ICV 100_00070	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN ICV 100_00070	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20	ERA, Lot 281018			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TOC ICV Std_00037	01/31/20	Ricca, Lot 1807G06			(Purchased Reagent)		TOC Result 1	1000 ppm
							TOC Result 2	1000 ppm
							TOC Result 3	1000 ppm
							TOC Result 4	1000 ppm
							Total Organic Carbon - Quad	1000 ppm
TOC LCS Std_00046	03/31/21	Ultra Scientific, Lot CT-0920			(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm

Reagent

1000 Li_00040

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000291

SE Std Lithium (Li) – 1000 µg/mL

Lot #: 751942-43

Matrix: 5% HNO_3

5658289
ID: 1000 Li_00040
Exp:05/16/20 Prpd:CRR Opn:03/26/19
1000 Li CPI

Element	Certified Concentration & Uncertainty
Li	1002 ± 3 µg/mL (w/v)
	993 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	35	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<100	V	<1
Al	9	Cs	7	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	30	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	2	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Zn	<2
Ba	2	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	MAJOR	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

November 16, 2018
Certification Date

Chuck Goudreau, Certifying Officer

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

Alk stk std_00016

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Quality Test / Release Date	06/05/2018
Lot Number	182564	Expiration Date	Jun/2020
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
COLOR	APHA	<= 5	<5
NORMALITY		Inclusive Between 0.995 - 1.000	1.000
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

BOD Std_00001_00046

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY: **ez GGA for BOD Test**
COMMODITY NUMBER: **2514420**
LOT NUMBER: **A9046**

MANUFACTURE DATE: **2/25/2019**

DATE OF ANALYSIS: **2/28/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
Confirmation test to ensure glutamic acid has been added.	To Pass	Passed
COD Concentration used to confirm the total concentration of Glucose-Glutamic Acid is correct.	884 to 956 mg/l	911.0 mg/l

The expiration date is Feb 2024

After preparation following the instruction sheet the BOD concentration is 198 mg/L.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

COD cal std_00048

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Potassium Acid Phthalate Standard, 1000 ppm Chemical Oxygen Demand (COD)

Lot Number: 1904987 **Product Number:** 5868

Manufacture Date: APR 05, 2019
Expiration Date: SEP 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is estimated based upon the volumetric method of preparation. It is certified that a COD of 500 mg/L should be obtained on a 25.0 mL aliquot of this standard solution diluted to 50 mL. The manufacturing specification for this product is Chemical Oxygen Demand (COD) = 1.000 ± 0.005 mg per mL at 20°C. This is the equivalent quantity of Oxygen that this standard solution will consume, based on the reduction of a Potassium Dichromate Standard Solution under the specified conditions in the ASTM D 1252-95 test methods.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Chemical Oxygen Demand (COD)	995-1005 ppm	1000 ppm

Specification	Reference
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg COD)	ASTM (D 1252 A)
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg/L)	ASTM (D 1252 B)
Stock Potassium Acid Phthalate	EPA (410.4)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5868-16	500 mL natural poly	18 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (04/05/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

COD icv std_00034

Certificate of Analysis List

For request number 1116752

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
2253929	9057	N/A	N/A	Chemical Oxygen Demand Standard Solution 1000 mg/l COD

Total Enclosures: 1

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY:**Chemical Oxygen Demand Standard Solution 1000 mg/l COD**

COMMODITY NUMBER: **2253929**	MANUFACTURE DATE:	DATE OF ANALYSIS:
LOT NUMBER: **A9057**	**3/2/2019**	**3/3/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
COD Concentration	950 to 1050 ppm	986.0 ppm

The expiration date is Feb 2020

The item 2253929 is traceable to NIST standards SRM 84L Potassium Hydrogen Phthalate LOT N/A.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

cod ms/msd_00022

CHEMetrics Simplicity in Water Analysis

January 2, 2019

CERTIFICATE OF ANALYSIS

CHEMetrics Inc., certifies that the following COD Standard Solution has been manufactured from Primary Standard Grade (99.99+% purity) Potassium Hydrogen Phthalate (CAS No. 877-24-7). The reported standard solution concentration is calculated from wt/vol measurements obtained using analytical balances (readable to 0.0001 gram and calibrated with NIST traceable weights) and ASTM Class A volumetric glassware.

To maintain the stated accuracy for the duration of the established shelf-life, store this solution under refrigeration 2°C - 8°C (36°F - 46°F).

Cat. No.	Lot No.	Accuracy	Date of Manufacture	Product Description
A-7310	90427	10,000 ± 500	Sept. 2018	10,000 ppm COD Standard

Sincerely,

Teresa A. Neale
Vice President of Operations & Product Support

4295 Catlett Road, Midland, VA 22728 ■ P: [illegible] ■ F: 540.788.4856 ■ www.chemetrics.com

Reagent

Hard lcs std_00050

LabChem
performance through
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CALCIUM CARBONATE STANDARD 1mL = 1mg CaCO3 (0.01M)

Catalog Number: LC12700
Lot Number: H159-16

Mfg Date: 06/13/2018
Expiration Date: 06/13/2020

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Molarity	0.0100M +/- 0.0001M	0.0100M
Concentration mg CaCO3/mL	1.000 +/- 0.010mg CaCO3/mL	1.000 mg CaCO3/mL
Traceable to NIST	Calcium Carbonate	915b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted By: Greg Albright, Chemist Supervisor



An ISO9001:2008 certified company. Registration # 0306-01

07/05/2018 9:24:43 AM

Reagent

IC BR ICV_00012

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 1804F11 **Product Number:** 1180

Manufacture Date: APR 06, 2018
Expiration Date: SEP 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Israel Alamudun (04/06/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC BR ICV_00014

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Bromide
CATALOG NUMBER:	046 -125 mL; 987 - 500 mL
LOT NUMBER:	450817
ISSUE DATE:	September 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Bromide (KBr)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	1.2%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3184 Bromide
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 8/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC CL cal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-101CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018 Certifying Officer: Kathleen Cullin

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Reagent

IC CL cal_00058

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-154CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 997 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 996 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: APR - - 2019

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials -- Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep
Your Science is Our Passion®

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www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647

Reagent

IC CL ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Chloride
CATALOG NUMBER:	047 -125 mL; 988 - 500 mL
LOT NUMBER:	091017
ISSUE DATE:	October 17, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Chloride (NaCl)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9984 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3182 Chloride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC F ICV_00012

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Fluoride
CATALOG NUMBER:	050 -125 mL; 989 - 500 mL
LOT NUMBER:	230918
ISSUE DATE:	October 11, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Fluoride (KF)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9995 ± 0.0008 g/mL at 20.6°C and 752 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	3183 Fluoride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 9/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC FL cal_00013

RICCA CHEMICAL COMPANY®

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customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F-

Lot Number: 4805C89 **Product Number:** 3173

Manufacture Date: MAY 07, 2018
Expiration Date: OCT 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1000 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC MS/MSD Br_00003

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S255	Mfg. Date 3/3/2011	
Lot Number	110569		
Description	SODIUM BROMIDE, A.C.S.		
Country of Origin	China	Recommended Retest Date	Mar-2016
Chemical Origin	Inorganic-non animal		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE GRANULATING POWDER
ASSAY	%	>= 99	99.5
BARIUM (Ba)	%	<= 0.002	<0.0020
BROMATE	%	<= 0.001	<0.0010
CALCIUM	%	<= 0.002	<0.0020
CHLORIDE	%	<= 0.2	0.09
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.001	<0.0010
PH 5% SOLN @ 25 DEG C		Inclusive Between 5.0 8.8	7.1
POTASSIUM (K)	%	<= 0.1	<0.10
SULFATE (SO4)	%	<= 0.002	<0.0020



Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD F_00002

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB.

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Catalog Number	**S299**	**Mfg. Date**	**3/18/2011**
Lot Number	**110901**		
Description	**SODIUM FLUORIDE, A.C.S.**		
Country of Origin	**India**	**Recommended Retest Date**	**Mar-2016**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE POWDER
ASSAY	%	>= 99	99.2
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.003	<0.0030
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.02	0.010
IRON (Fe)	%	<= 0.003	<0.0030
LOSS ON DRYING @ 105 C	%	<= 0.3	0.30
POTASSIUM (K)	%	<= 0.02	0.003
SODIUM FLUOSILICATE	%	<= 0.1	0.01
SULFATE (SO4)	%	<= 0.03	<0.030
SULFITE	%	<= 0.005	0.003
TITRATABLE ACID	mEq/g	<= 0.03	0.020
TITRATABLE BASE	mEq/g	<= 0.01	0.001



Edgar E. Hau

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD N02_00002

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

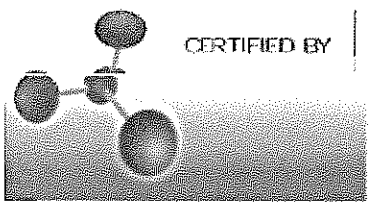
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

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Catalog Number	**S347**	**Quality Test / Release Date**	**9/9/2016**
Lot Number	**164254**		
Description	**SODIUM NITRITE, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Sep-2021**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	yELLOW-WHITE CRYSTALS
ASSAY	%	>= 97	98.6
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.001	<0.0010
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	%	<= 0.001	<0.0010
POTASSIUM (K)	%	<= 0.005	<0.0010
SULFATE (SO4)	%	<= 0.01	<0.010



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC MS/MSD N03_00005

Scientific

Reagent Lane
ıir Lawn, NJ 07410
)1.796.7100 tel
)1.796.1329 fax

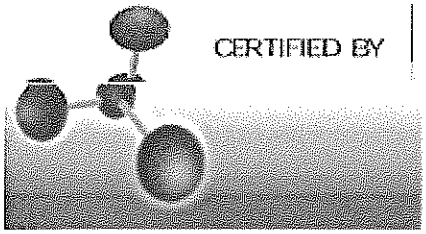
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

s is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been plied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability l fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. ıer does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

ıtalog Number	**S343**	**Quality Test / Release Date**	**8/23/2017**
)t Number	**176192**		
escription	**SODIUM NITRATE, A.C.S.**		
)untry of Origin	**Mexico**	*** Suggested Retest Date**	**Aug-2022**
ıemical Origin	**Inorganic-non animal**		
SE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

sult name	Units	Specifications	Test Value
PEARANCE		REPORT	Clear to white crystals.
SAY	%	>= 99	99.7
LCIUM	%	<= 0.005	0.001
LORIDE	%	<= 0.001	<0.0010
AVY METALS (as Pb)	ppm	<= 5	<5.0
ENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
SOLUBLE MATTER	%	<= 0.005	<0.005
)ATE	ppm	<= 5	<5.0
)N (Fe)	ppm	<= 3	<3.0
.GNESIUM	%	<= 0.002	0.0002
TRITE (NO2)	%	<= 0.001	<0.0010
5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.3	6.7
OSPHATE (PO4)	ppm	<= 5	<5.0
LFATE (SO4)	%	<= 0.003	<0.0030



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Reagent

IC MS/MSD P04_00002

Fisher Scientific

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Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

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Catalog Number	**P386**	**Mfg. Date**	**9/19/2011**
Lot Number	**112841**		
Description	**POTASSIUM PHOSPHATE MONOBASIC NF/FCC/EP/BP**		
Country of Origin	**United States**		
Chemical Origin	**Inorganic**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

FCC Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	MG/KG	<= 3	<3
ASSAY	%	>= 98.0	99.7
FLUORIDES	MG/KG	<= 10	<5
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD (Pb)	MG/KG	<= 2	<2.0
LOSS ON DRYING PER FCC	%	<= 1	<1.0

NF Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	ppm	<= 3	<3
ASSAY	%	Inclusive Between 98.0 100.5	99.7
ENDOTOXINS	EU/Mg	<= 1	<0.02000
FLUORIDES	%	<= 0.001	<0.0005
HEAVY METALS (as PB)	%	<= 0.002	<0.002
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD	ppm	<= 5	<5
LOSS ON DRYING	%	<= 1.0	<1.0
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS

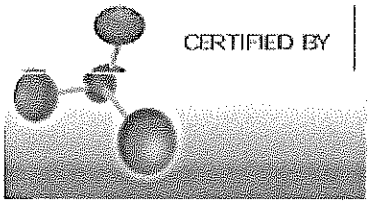
EP Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS

ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
BACTERIAL ENDOTOXINS	EU/Mg	<= 1	<0.02000
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER EP	%	<= 2.0	<1.0
PH (5 % SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

British Pharmacopela Grade Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS
ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER BP	%	<= 2.0	<1.0
PH (5% SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

Residual Solvents	No Class 1, Class 2, or Class 3 solvents, or any other solvents, are used in the manufacturing, handling, or storage of this storage, or in any cleaning process.



Elgan E. Hans

Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD S04_00005

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

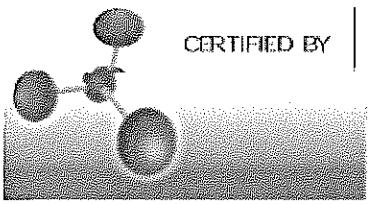
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P304**	**Quality Test / Release Date**	**3/2/2015**
Lot Number	**147276**		
Description	**POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Feb-2020**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99	99.4
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.005	<0.0050
NITROGEN COMPOUNDS	ppm	<= 5	<5
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.5	5.5
SODIUM (Na)	%	<= 0.02	<0.020



CERTIFIED BY

Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC N02 CAL_00045

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
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customerservice@riccachemical.com

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2)

Lot Number: 1902672 **Product Number:** R5444900

Manufacture Date: FEB 04, 2019
Expiration Date: JUL 2019

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	995 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (02/04/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC N03 cal_00019

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Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2807E96 **Product Number:** 5459

Manufacture Date: JUL 24, 2018
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Andy Baumgartner (07/24/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC P04 cal_00019

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Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H_2O

Lot Number: 4902D52 **Product Number:** AP1KW

Manufacture Date: FEB 08, 2019
Expiration Date: JAN 2021

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs (02/08/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC SO4 ICV_00017

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	210617
ISSUE DATE:	June 27, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9987 ± 0.0008 g/mL at 22.5°C and 757 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC sulfatecal_00053

ACCREDITED
Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

ilac-MRA ACCREDITED
Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: AUG - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC sulfatecal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

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Element	µg/mL	Element	µg/mL
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F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

ICP CAL STD 4_00002

CPI INTERNATIONAL

5617886
ID: ICP CAL STD 4_00002
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 SECONDARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-SS

Custom ISO G34 Second Source Standard

Lot #: 10094465-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 µg/mL	Ca	999.9 ± 5.0 µg/mL	Na	5000 ± 25 µg/mL
Al	99.98 ± 0.50 µg/mL	Fe	500.1 ± 2.5 µg/mL	Zn	100.0 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	10,000 ± 50 µg/mL	Zr	100.0 ± 0.5 µg/mL
Bi	200.0 ± 1.0 µg/mL	Mg	4000 ± 20 µg/mL		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP CAL STD 4_00003

CPI INTERNATIONAL

5617860
ID: ICP CAL STD 4_00001
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 PRIMARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-500

Custom ISO G34 Standard

Lot #: 10094465-3

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.1 ± 0.5 µg/mL	Ca	1000 ± 5 µg/mL	Na	5000 ± 25 µg/mL
Al	100.1 ± 0.5 µg/mL	Fe	500.3 ± 2.5 µg/mL	Zn	100.1 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	9999 ± 50 µg/mL	Zr	99.98 ± 0.50 µg/mL
Bi	200.2 ± 1.0 µg/mL	Mg	4001 ± 20 µg/mL		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP ICSAB 1_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

5471540
ID: ICP ICSAB 1_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 1 CPI

Lot #: 990624-2

Matrix: 5% HNO_3/0.5% HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.0 ± 0.5 mg/L
Sb	100.0 ± 0.5 mg/L	Sn	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-1		
Vendor	CPI		
Lot number	990624-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICPICSAB1_00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CR	Instrument ID	MT-025
Verification Date	1/30/19	Method Reference	6010B
ID of Standard Used for Verification	5528932/5528182	Batch # / Chrom Work List #	445975

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:

Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	N/A

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

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Reagent ID: ICP ICSAB 1_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 1 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990624-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-1
Open Date:	01/29/2019		
Container(s):	5471540		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Mo					100.00000	mg/L
Sb					100.00000	mg/L
Si					1000.00000	mg/L
Sn					100.00000	mg/L
Ti					100.00000	mg/L

Sample Name: xICSAB sol 1 100x Acquired: 1/30/2019 11:16:24 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: reagent bottle check

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.02433**	**.01266**	**.01718**	**.01887**	**.00044**	**.02174**	**.47181**	**.00071**
Stddev	.00004	.00024	.00489	.00084	.00010	.00012	.00685	.00076	.00006
%RSD	7.0663	.98064	38.631	4.8888	.52301	27.840	31.508	.16192	8.4479
#1	.00053	.02450	.01612	.01658	.01880	.00035	.02659	.47235	.00067
#2	.00058	.02416	.00920	.01777	.01894	.00052	.01690	.47127	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00242**	**.00153**	**.02006**	**.56757**	**.01037**	**.47512**	**.00496**	**1.0133**
Stddev	.00010	.00025	.00005	.00110	.03642	.00435	.00725	.00001	.0039
%RSD	2.5510	10.211	3.1263	5.4797	6.4175	42.012	1.5261	.23393	.38063
#1	.00417	.00225	.00150	.02084	.54181	.00729	.47000	.00497	1.0160
#2	.00403	.00260	.00157	.01928	.59333	.01345	.48025	.00496	1.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49431**	**.00430**	**.08410**	**.01084**	**.03507**	**.99570**	**.01580**	**9.9173**	**21.223**
Stddev	.00501	.00053	.00063	.00088	.00283	.00482	.00254	.0370	.079
%RSD	1.0130	12.416	.75155	8.1609	8.0821	.48413	16.067	.37264	.37264
#1	.49077	.00468	.08455	.01146	.03707	.99230	.01760	9.8912	21.167
#2	.49785	.00392	.08365	.01021	.03306	.99911	.01401	9.9434	21.279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0648**	**.00964**	**.01036**	**1.0237**	**.01971**	**.02237**	**.00551**	**.00635**	**.00546**
Stddev	.0013	.00014	.00233	.0003	.00077	.01226	.00033	.00030	.00002
%RSD	.12116	1.4717	22.449	.02853	3.9220	54.809	6.0687	4.7932	.32279
#1	1.0658	.00954	.00871	1.0239	.02026	.03104	.00575	.00656	.00548
#2	1.0639	.00974	.01200	1.0235	.01916	.01370	.00527	.00613	.00545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4001.5**	**55629.**	**4846.2**
Stddev	8.9	65.	20.9
%RSD	.22316	.11631	.43220
#1	3995.2	55583.	4861.0
#2	4007.8	55674.	4831.4

Reagent

ICP ICSAB 2_00001

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-2		
Vendor	CPI		
Lot number	990626-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICP ICSAB 2-00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CL/CR	Instrument ID	MT_052 MT_025
Verification Date	1/21/19 1/29/19	Method Reference	L0103
ID of Standard Used for Verification	Calibration STDS	Batch # / Chrom Work List #	4449758/4455894

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

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ICP ICSAB 2 _ 00001

Reagent ID: ICP ICSAB 2_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 2 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990626-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-2
Open Date:	01/29/2019		
Container(s):	5471537		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
As					100.00000	mg/L
B					1000.00000	mg/L
Ba					100.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					100.00000	mg/L
Cr					100.00000	mg/L
Cu					100.00000	mg/L
K					1000.00000	mg/L
Mn					100.00000	mg/L
Na					1000.00000	mg/L
Ni					100.00000	mg/L
P					1000.00000	mg/L
Pb					100.00000	mg/L
Se					100.00000	mg/L
Sr					100.00000	mg/L
Tl					100.00000	mg/L
V					100.00000	mg/L
Zn					100.00000	mg/L

52A012119.esws

Tuesday, January 22, 2019 7:50 AM

User: denmet

Workstation: DENPC507

Sample Name: ICSAB 2 100X

Date: 1/21/2019 2:07:16 PM

Rack:Tube: 1:90

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.966867	ppm	0.002732	0.28	27113.200000	Y 377.433
Al (394.401 nm)	-0.018589 u	ppm	0.000377	2.03	120.753000	Y 377.433
Al H (396.152 nm)	-0.080631 u	ppm	0.000855	1.06	12.478800	Y_R 377.433
As (188.980 nm)	0.937518	ppm	0.002548	0.27	1229.410000	Y 242.219
B (249.678 nm)	9.446880	ppm	0.011734	0.12	33938.900000	Y 242.219
Ba (493.408 nm)	0.969569	ppm	0.001606	0.17	87740.300000	Y_R 488.368
Be (234.861 nm)	0.466384	ppm	0.000072	0.02	26151.800000	Y_R 488.368
Bi (223.061 nm)	0.001837	ppm	0.002483	> 100.00	44.091400	Y 377.433
Ca (315.887 nm)	-0.003106 u	ppm	0.007441	> 100.00	18.818785	Y_R 377.433
Cd (214.439 nm)	0.974802	ppm	0.002985	0.31	25402.900000	Y 377.433
Co (228.615 nm)	0.978758	ppm	0.004920	0.50	20392.400000	Y 242.219
Cr (205.560 nm)	0.948655	ppm	0.001917	0.20	3826.770000	Y 377.433
Cu (324.754 nm)	0.971137	ppm	0.002614	0.27	45503.100000	Y 377.433
Fe (238.204 nm)	-0.000041 u	ppm	0.005163	> 100.00	10.116548	Y_R 377.433
Fe H (259.940 nm)	-0.222218 u	ppm	0.000618	0.28	1.482800	Y_R 377.433
K (766.491 nm)	9.955440	ppm	0.046489	0.47	11734.600000	Y_R2 488.368
Li (670.783 nm)	0.002338	ppm	0.002398	> 100.00	-636.367000	Y_R2 488.368
Mg (279.078 nm)	-0.004893 u	ppm	0.001386	28.33	1.042300	Y 377.433
Mn (257.610 nm)	0.984512	ppm	0.002227	0.23	189159.000000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000717	> 100.00	21.118500	Y 377.433
Na (589.592 nm)	9.389940	ppm	0.127054	1.35	4480.750000	Y_R2 488.368
Na H (589.593 nm)	7.370639 u	ppm	0.011086	0.15	3061.539033	Y_R4
Ni (231.604 nm)	0.972725	ppm	0.002305	0.24	3493.420000	Y 377.433
P (213.618 nm)	9.363070	ppm	0.023289	0.25	9381.970000	Y 242.219
Pb (220.353 nm)	0.994713	ppm	0.002048	0.21	2187.470000	Y 242.219
S (181.972 nm)	-0.017508 u	ppm	0.000015	0.09	2.280092	Y 377.433
Sb (206.834 nm)	0.001746 u	ppm	0.003005	> 100.00	29.044800	Y 377.433
Se (196.026 nm)	0.894485	ppm	0.006733	0.75	1281.770000	Y 242.219
Si (288.158 nm)	-0.001748 u	ppm	0.000507	29.01	377.617000	Y 377.433
Sn (189.925 nm)	-0.004588 u	ppm	0.000168	3.65	-1.654320	Y 377.433
Sr (421.552 nm)	0.967161	ppm	0.001611	0.17	106421.982008	Y_R 488.368
Th (288.505 nm)	-0.048933 u	ppm	0.005261	10.75	-112.903000	Y 377.433
Ti (336.122 nm)	0.000456	ppm	0.000097	21.34	-304.249000	Y 377.433
Tl (190.794 nm)	0.993837	ppm	0.000436	0.04	568.452000	Y 377.433
U (409.013 nm)	0.002082 u	ppm	0.006736	> 100.00	238.011000	Y 377.433
V (292.401 nm)	0.964201	ppm	0.002968	0.31	41257.400000	Y 377.433
Zn (206.200 nm)	0.992230	ppm	0.004980	0.50	3092.660000	Y 377.433
Zr (343.823 nm)	0.000098 u	ppm	0.000260	> 100.00	-51.254600	Y 377.433

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Sample Name: ICSAB Sol 2 Acquired: 1/29/2019 15:38:12 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 100x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.96906**	**-.00340**	**1.0112**	**9.4842**	**1.0100**	**.49999**	**.00175**	**-.06604**	**.95028**
Stddev	.00070	.00005	.0084	.0140	.0002	.00072	.00805	.00493	.00089
%RSD	.07261	1.5359	.83124	.14767	.02300	.14445	460.44	7.4694	.09328
#1	.96857	-.00336	1.0053	9.4941	1.0102	.50051	.00744	-.06255	.95091
#2	.96956	-.00344	1.0172	9.4743	1.0099	.49948	-.00394	-.06953	.94966
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.02000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97510**	**.98255**	**1.0095**	**-.00152**	**10.088**	**.00379**	**-.00580**	**.91712**	**.00092**
Stddev	.00391	.00157	.0019	.00267	.030	.00092	.00435	.00154	.00057
%RSD	.40132	.16023	.18807	175.43	.29831	24.241	75.007	.16823	61.615
#1	.97787	.98367	1.0108	-.00342	10.109	.00443	-.00887	.91821	.00052
#2	.97233	.98144	1.0081	.00037	10.067	.00314	-.00272	.91603	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.062**	W **10.363**	**.97101**	**9.3122**	**.99342**	**.01022**	**-.00250**	**1.0041**	**-.01800**
Stddev	.003	.128	.00214	.0214	.00289	.00320	.00030	.0007	.00696
%RSD	.02670	1.2361	.22005	.22968	.29093	31.312	12.156	.06617	38.635
#1	10.060	10.273	.97252	9.3273	.99546	.01248	-.00271	1.0037	-.02292
#2	10.064	10.454	.96950	9.2970	.99137	.00795	-.00228	1.0046	-.01309
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.03853**	**-.00056**	**1.0257**	**.00369**	**.00020**	**1.0532**	**.01005**	**.92759**	**.89480**
Stddev	.01489	.00053	.0020	.00219	.00018	.0029	.01643	.00224	.00413
%RSD	38.635	93.658	.19274	59.457	90.526	.27479	163.59	.24111	.46200
#1	-.04905	-.00019	1.0271	.00524	.00032	1.0552	-.00157	.92917	.89772
#2	-.02800	-.00094	1.0243	.00214	.00007	1.0511	.02166	.92601	.89188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.00366**
Stddev	.00163
%RSD	44.615
#1	.00251
#2	.00482
Check ?	Chk Pass
High Limit	
Low Limit	

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

5471537
ID: ICP ICSAB 2_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 2 CPI

Lot #: 990626-2

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	99.98 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L
As	100.0 ± 0.5 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	100.1 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.1 ± 0.5 mg/L	Zn	100.1 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP LLCCV-2a_00010

Standard Verification Form TA-CM-OCT18-DENSR-500

Standard Information			
Vendor Standard Name	ICP LLCCV-2A		
Vendor	CPI International		
Lot number	# 10090185-1		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID ICP LLCCV-4-00010	
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	SS/CR	Instrument ID	MT-25/MT51
Verification Date	1/30/19	Method Reference	6010C
ID of Standard Used for Verification	ICP LLCCV4-00010	Batch # / Chrom Work List #	446036 446039
Attach to this form: formulary report , COA and data used for verification Attach to standard in TALS: this form and all supporting documentation including the original CoA			
See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐
New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.			
New Expiration Date:	5/19/19		

1st Level Review SS Date: 1/30/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00255**	**.00036**	**1.0047**	**.00032**
Stddev	.00007	.00061	.00058	.0085	.00017
%RSD	22.249	24.069	160.98	.84480	52.650
#1	.00038	.00212	-.00005	1.0107	.00020
#2	.00028	.00298	.00077	.99868	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00000**	**-.00048**	**-.00028**	**-.00042**
Stddev	.00001	.00553	.00256	.00005	.00010
%RSD	17.443	748150.	537.38	16.632	24.554
#1	.00003	-.00391	-.00229	-.00024	-.00035
#2	.00004	.00391	.00134	-.00031	-.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00130**	**.00088**	**.04958**	**.00161**
Stddev	.00008	.00040	.00450	.00732	.00228
%RSD	36.641	30.925	510.71	14.755	141.15
#1	.00028	-.00102	.00406	.05476	.00322
#2	.00017	-.00159	-.00230	.04441	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00017**	**.20636**	**.06243**	**-.00068**
Stddev	.00621	.00002	.00144	.00668	.00007
%RSD	704.64	12.859	.69592	10.708	10.347
#1	.00527	.00016	.20737	.06715	-.00073
#2	-.00351	.00019	.20534	.05770	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W **28.602**	**.00941**	**.93219**	**.20441**	**-.00477**
Stddev	.231	.00080	.00830	.00111	.00057
%RSD	.80679	8.5162	.89068	.54438	11.917
#1	28.765	.00998	.93806	.20519	-.00518
#2	28.439	.00885	.92632	.20362	-.00437
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000				
Low Limit	-6.0000				

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837
Line	288.158 {117}	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**6.9653**	**14.906**	**1.0635**	**.00005**	**.00074**
Stddev	.5657	1.211	.0080	.00010	.00128
%RSD	8.1224	8.1224	.75098	204.33	172.19
#1	6.5652	14.050	1.0691	.00012	-.00016
#2	7.3653	15.762	1.0578	-.00002	.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.10301**	**-.00165**	**-.01130**	**.00045**	**.00148**
Stddev	.00039	.00056	.00796	.00022	.00019
%RSD	.37486	34.177	70.407	49.618	12.553
#1	.10274	-.00125	-.00568	.00060	.00161
#2	.10328	-.00205	-.01693	.00029	.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.10737**
Stddev	.00304
%RSD	2.8315
#1	.10952
#2	.10522
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3890.6**	**54764.**	**4797.3**
Stddev	19.3	21.	3.8
%RSD	.49699	.03853	.07876
#1	3904.3	54779.	4794.6
#2	3876.9	54749.	4799.9

Sample Name: IIccv 2a

Date: 1/30/2019 2:27:53 PM

Rack:Tube: 3:12

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000048	3.81	-339.440000	Y 377.433
Al (167.019 nm)	0.001696	ppm	0.000845	49.83	1.871810	Y_R 377.433
Al H (396.152 nm)	-0.020587 u	ppm	0.002888	14.03	32.631734	Y_R 377.433
As (188.980 nm)	0.000723 u	ppm	0.002356	> 100.00	-0.970725	Y 242.219
B (249.678 nm)	0.813216	ppm	0.047006	5.78	21874.000000	Y 242.219
Ba (493.408 nm)	-0.000896 u	ppm	0.000024	2.69	598.598000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000016	> 100.00	-47.571600	Y_R 488.368
Bi (223.061 nm)	-0.004182 u	ppm	0.000579	13.85	11.245000	Y 377.433
Ca (315.887 nm)	0.022497	ppm	0.007400	32.89	-56.854280	Y_R 377.433
Cd (214.439 nm)	-0.000023 u	ppm	0.000024	> 100.00	5.258060	Y 377.433
Co (228.615 nm)	0.000071	ppm	0.000056	78.59	-38.009000	Y 242.219
Cr (205.560 nm)	0.000045	ppm	0.000039	86.68	-3.139690	Y 377.433
Cu (324.754 nm)	0.001245	ppm	0.000109	8.79	622.379000	Y 377.433
Fe (238.204 nm)	0.000681	ppm	0.000210	30.84	21.007438	Y_R 377.433
Fe H (259.940 nm)	-0.161781 u	ppm	0.002169	1.34	15.721500	Y_R 377.433
K (766.491 nm)	0.111372	ppm	0.057292	51.44	-830.133000	Y_R2 488.368
Li (670.783 nm)	0.009646	ppm	0.000473	4.90	-1348.180000	Y_R2 488.368
Mg (279.078 nm)	0.000264	ppm	0.000066	24.84	60.535800	Y 377.433
Mn (257.610 nm)	-0.000023 u	ppm	0.000008	35.49	70.205200	Y 377.433
Mo (202.032 nm)	0.169223	ppm	0.010445	6.17	1702.140000	Y 377.433
Na (589.592 nm)	-0.029006 u	ppm	0.010864	37.45	385.781000	Y_R2 488.368
Na H (589.593 nm)	-0.896086 u	ppm	0.020122	2.25	2225.768499	Y_R 488.368
Ni (231.604 nm)	0.000372 u	ppm	0.000677	> 100.00	0.134162	Y 377.433
P (213.618 nm)	23.045500 o	ppm	1.330770	5.77	58100.800000	Y 242.219
Pb (220.353 nm)	-0.001310 u	ppm	0.000331	25.30	-1.855490	Y 242.219
S (181.972 nm)	0.728365	ppm	0.040987	5.63	417.926408	Y 377.433
Sb (206.834 nm)	0.165059	ppm	0.009553	5.79	476.065000	Y 377.433
Se (196.026 nm)	-0.002999 u	ppm	0.001270	42.36	11.827200	Y 242.219
Si (288.158 nm)	5.208390	ppm	0.502562	9.65	48419.800000	Y 377.433
Sn (189.925 nm)	0.837532	ppm	0.048034	5.74	2234.630000	Y 377.433
Sr (421.552 nm)	0.000133	ppm	0.000061	46.11	158.521803	Y_R 488.368
Th (288.505 nm)	0.003026	ppm	0.000486	16.08	69.191200	Y 377.433
Ti (336.122 nm)	0.083021	ppm	0.004935	5.94	12374.600000	Y 377.433
Tl (190.794 nm)	0.000337	ppm	0.000105	31.25	-9.290920	Y 377.433
U (409.013 nm)	0.001927	ppm	0.000273	14.16	-152.923000	Y 377.433
V (292.401 nm)	-0.000419 u	ppm	0.000023	5.46	15.573700	Y 377.433
Zn (206.200 nm)	0.000466	ppm	0.000052	11.15	2.238410	Y 377.433
Zr (343.823 nm)	0.085063	ppm	0.005356	6.30	12032.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.937661	19025.790936	0.001064	0.11
Y 377.433	0.960036	985122.681103	0.000581	0.06
Y_R 377.433	1.006470	69104.000000	0.004101	0.41
Y_R 488.368	1.019670	40383.200000	0.014164	1.39
Y_R2 488.368	1.053637	81193.558986	0.004178	0.40

5500073
ID: ICP LLCCV-2a_00010
Exp: 05/18/18 Prpd: SJS
ICP LLCCV-2A CPI

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN5R-500

Custom ISO Guide 34 ICP LLCCV-2A

Lot #: 10090185-1

Matrix: 2% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
B	10.01 ± 0.05 µg/mL	S	10.01 ± 0.05 µg/mL	Sn	10.01 ± 0.05 µg/mL
Mo	2.01 ± 0.01 µg/mL	Sb	2.02 ± 0.01 µg/mL	Ti	1.00 ± 0.01 µg/mL
P	300.0 ± 1.5 µg/mL	Si	49.19 ± 0.25 µg/mL	Zr	1.01 ± 0.01 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 18, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

Icp stk ICSA_00029

CPI INTERNATIONAL

5514208
ID: lcp stk ICSA_00027
Exp: 07/08/19 Prpd: SJS
ICP stock ICSA solution

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 982821-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 8, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0123890

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 0°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	12,517.5 µg/mL	+/- 72.7778 µg/mL	Gravimetric
	CAS # 67-64-1 (Lot SHBH0922V)		+/- 755.2362 µg/mL	Unstressed
	Purity 99%		+/- 757.0293 µg/mL	Stressed
2	2-Butanone (MEK)	12,521.8 µg/mL	+/- 72.8025 µg/mL	Gravimetric
	CAS # 78-93-3 (Lot SHBF2461V)		+/- 755.4927 µg/mL	Unstressed
	Purity 99%		+/- 757.2863 µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,519.8 µg/mL	+/- 72.7909 µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBG3630V)		+/- 755.3720 µg/mL	Unstressed
	Purity 99%		+/- 757.1654 µg/mL	Stressed
4	2-Hexanone	12,508.5 µg/mL	+/- 72.7255 µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKBW0198V)		+/- 754.6932 µg/mL	Unstressed
	Purity 99%		+/- 756.4850 µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

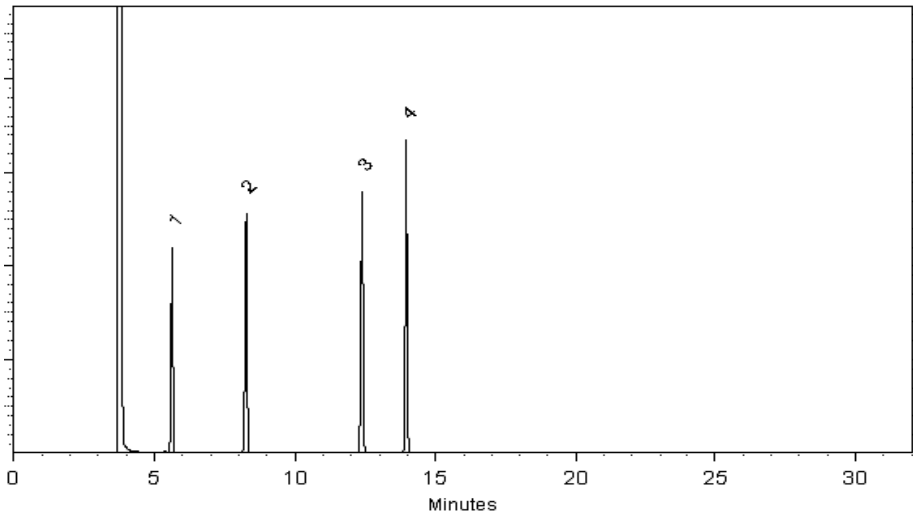
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician

Date Mixed: 03-Jan-2017 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 05-Jan-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0131486

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2020 **Storage:** 0°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone		12,466.0 µg/mL	+/- 72.9912 µg/mL	Gravimetric
	CAS # 67-64-1	(Lot SHBG8398V)		+/- 752.1786 µg/mL	Unstressed
	Purity 99%			+/- 753.9642 µg/mL	Stressed
2	2-Butanone (MEK)		12,475.5 µg/mL	+/- 73.0468 µg/mL	Gravimetric
	CAS # 78-93-3	(Lot SHBF2461V)		+/- 752.7518 µg/mL	Unstressed
	Purity 99%			+/- 754.5387 µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)		12,539.0 µg/mL	+/- 73.4186 µg/mL	Gravimetric
	CAS # 108-10-1	(Lot SHBG7318V)		+/- 756.5833 µg/mL	Unstressed
	Purity 99%			+/- 758.3793 µg/mL	Stressed
4	2-Hexanone		12,496.0 µg/mL	+/- 73.1668 µg/mL	Gravimetric
	CAS # 591-78-6	(Lot MKBW0198V)		+/- 753.9888 µg/mL	Unstressed
	Purity 99%			+/- 755.7786 µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

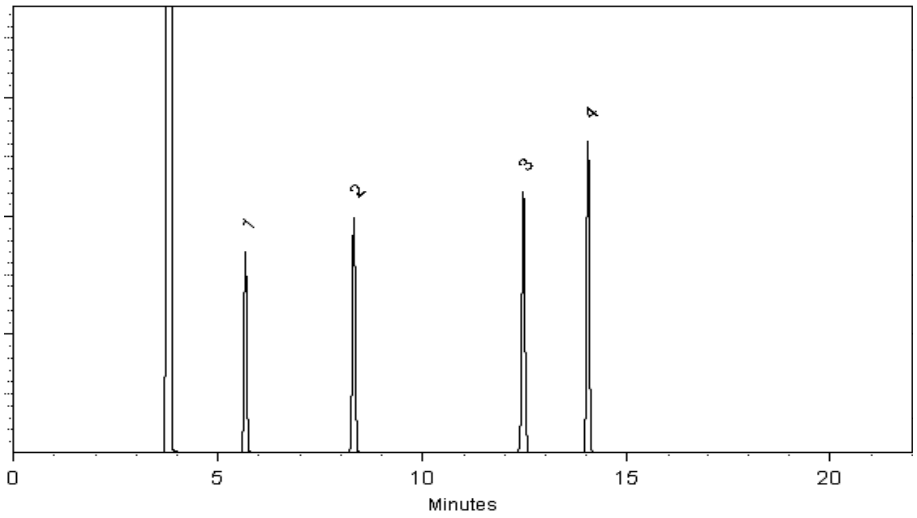
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust - Mix Technician

Date Mixed: 09-Oct-2017 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 11-Oct-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722.SEC **Lot No.:** A0142594

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,499.3 µg/mL	+/- 25.7724 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 24847)		+/- 141.7384 µg/mL	Unstressed
	Purity 99%		+/- 144.9810 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,506.0 µg/mL	+/- 21.8612 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 141.4482 µg/mL	Unstressed
	Purity 99%		+/- 144.7145 µg/mL	Stressed
3	Vinyl chloride	2,505.4 µg/mL	+/- 25.4396 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 142.0168 µg/mL	Unstressed
	Purity 99%		+/- 145.2689 µg/mL	Stressed
4	1,3-Butadiene	2,500.1 µg/mL	+/- 22.0034 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 22331)		+/- 141.1491 µg/mL	Unstressed
	Purity 99%		+/- 144.4071 µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,511.9 µg/mL	+/- 23.0453 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 141.9646 µg/mL	Unstressed
	Purity 99%		+/- 145.2346 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,498.5 µg/mL	+/- 23.5866 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/- 141.3133 µg/mL	Unstressed
	Purity 99%		+/- 144.5633 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,450.0 µg/mL	+/- 14.3780 µg/mL	Gravimetric
	CAS # 75-43-4 * (Lot 7766400)		+/- 137.3830 µg/mL	Unstressed
	Purity 97%		+/- 140.5969 µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)		2,502.5	µg/mL	+/-	22.2947	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot 253600)			+/-	141.3276	µg/mL	Unstressed
	Purity 99%				+/-	144.5877	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

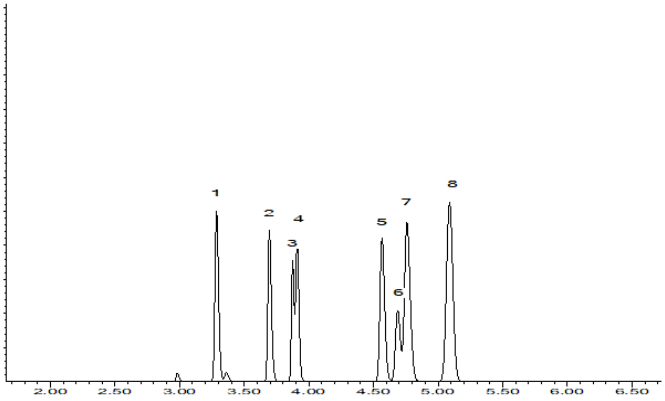
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 24-Oct-2018 **Balance:** 1127510105

Justine Albertson - Operations Tech-ARM QC

Date Passed: 05-Nov-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MV-569722_00010

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0143158

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,500.9 µg/mL	+/- 17.2023 µg/mL +/- 140.5234 µg/mL +/- 143.7976 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBJ6334) **Purity** 99%	2,500.4 µg/mL	+/- 17.0791 µg/mL +/- 140.4796 µg/mL +/- 143.7534 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00012557) **Purity** 99%	2,500.4 µg/mL	+/- 16.5693 µg/mL +/- 140.4224 µg/mL +/- 143.6977 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBK2299) **Purity** 99%	2,500.1 µg/mL	+/- 17.0785 µg/mL +/- 140.4623 µg/mL +/- 143.7357 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,500.9 µg/mL	+/- 16.5511 µg/mL +/- 140.4457 µg/mL +/- 143.7217 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,502.0 µg/mL	+/- 16.0409 µg/mL +/- 140.4480 µg/mL +/- 143.7268 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot 7766400) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 140.1725 µg/mL +/- 143.4524 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,500.8	µg/mL	+/-	17.8012	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBH4155V)			+/-	140.5946	µg/mL	Unstressed
	Purity 99%				+/-	143.8670	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

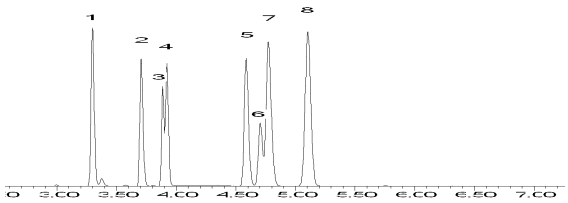
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician

Date Mixed: 12-Nov-2018 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 11-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MV-569723_00005

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723 **Lot No.:** A0142584

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Chloroethyl vinyl ether	2,506.0 µg/mL	+/- 14.7066 µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBK2735V)		+/- 53.6910 µg/mL	Unstressed
	Purity 99%		+/- 55.2497 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

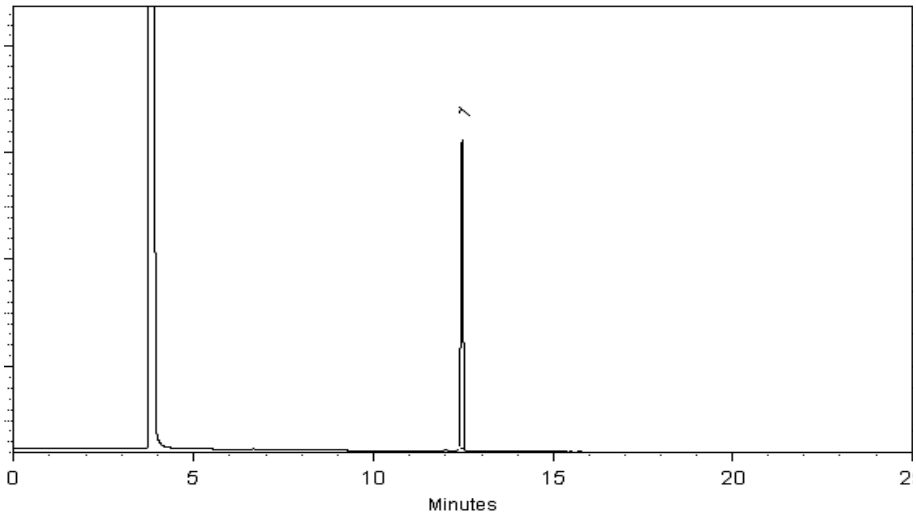
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 24-Oct-2018 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 26-Oct-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MV-569724.sec_00022

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Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724.SEC **Lot No.:** A0144188

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2019 **Storage:** 0°C or colder

Handling: This product is photosensitive.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Vinyl acetate	5,031.0 µg/mL	+/- 29.5247 µg/mL	Gravimetric
	CAS # 108-05-4.SEC (Lot F3Z5C)		+/- 303.5691 µg/mL	Unstressed
	Purity 99%		+/- 304.2897 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

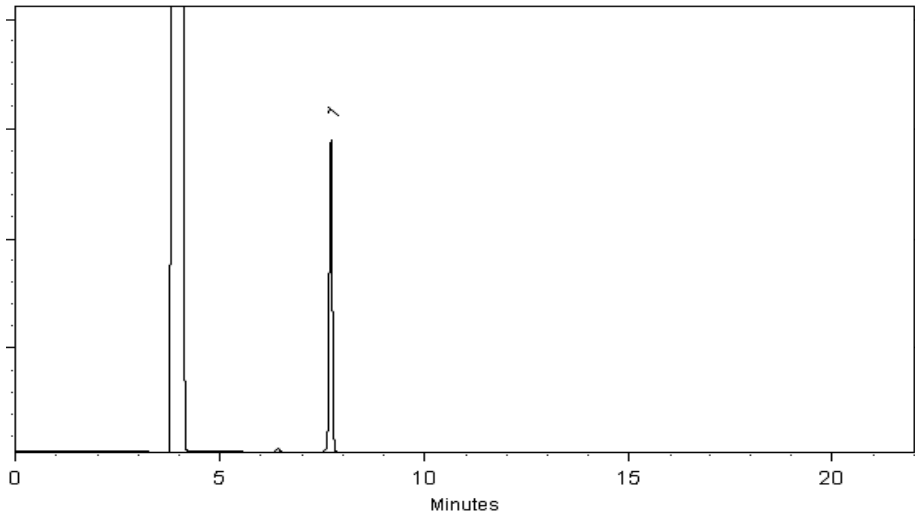
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 17-Dec-2018 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 19-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MV-569724_00019

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Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724 **Lot No.:** A0145775

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2019 **Storage:** 0°C or colder

Handling: This product is photosensitive.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Vinyl acetate	5,030.0 µg/mL	+/- 29.5189 µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBD7333V)		+/- 303.5087 µg/mL	Unstressed
	Purity 99%		+/- 304.2292 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution , and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

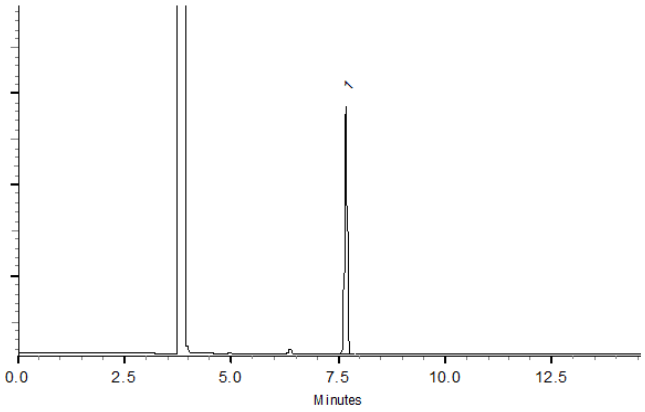
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician

Date Mixed: 06-Feb-2019 **Balance:** B707717271

Justine Albertson - Operations Tech-ARM QC

Date Passed: 08-Feb-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MV-569727_00008

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569727 **Lot No.:** A0140237

Description : 8260 List 2/ Std #3 Cyclohexanone (2015)

8260 List 2/ Std #3 Cyclohexanone (2015) 25,000µg/mL, Water, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2021 **Storage:** 10°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Cyclohexanone	25,148.7 µg/mL	+/- 147.2510 µg/mL	Gravimetric
	CAS # 108-94-1 (Lot MKBS9093V)		+/- 1,517.4305 µg/mL	Unstressed
	Purity 99%		+/- 1,521.0327 µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

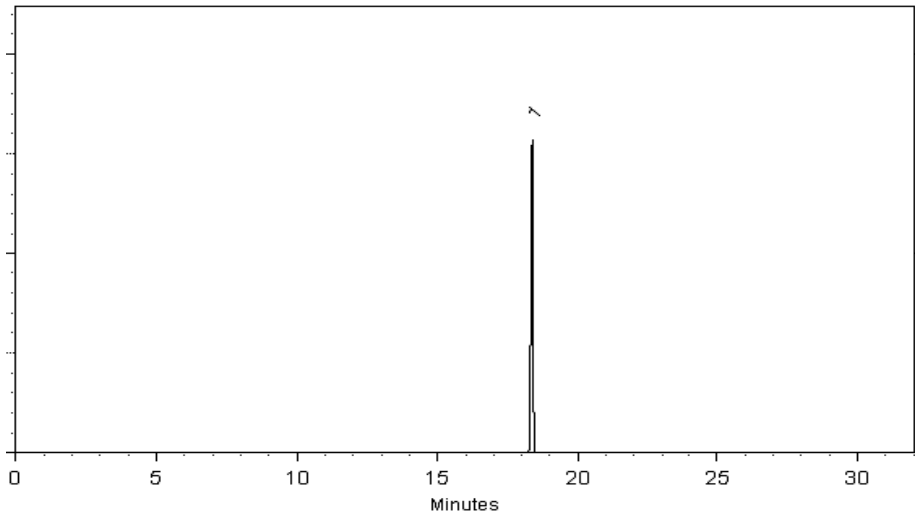
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 01-Aug-2018 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 03-Aug-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

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MV-571992.sec_00002

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.sec **Lot No.:** A0123775

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 98%	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 150.9088 µg/mL +/- 151.2671 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,501.1 µg/mL	+/- 14.5418 µg/mL +/- 150.9040 µg/mL +/- 151.2622 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 2767000) **Purity** 99%	2,500.5 µg/mL	+/- 14.5381 µg/mL +/- 150.8662 µg/mL +/- 151.2244 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,003.1 µg/mL	+/- 145.3626 µg/mL +/- 1,508.5475 µg/mL +/- 1,512.1291 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot YDGVD) **Purity** 99%	5,000.4 µg/mL	+/- 29.0726 µg/mL +/- 301.6948 µg/mL +/- 302.4111 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,500.4 µg/mL	+/- 14.5374 µg/mL +/- 150.8587 µg/mL +/- 151.2169 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot VEBOC) **Purity** 98%	2,500.1 µg/mL	+/- 14.5358 µg/mL +/- 150.8423 µg/mL +/- 151.2004 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 75-09-2.SEC	(Lot FGM02)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
9	Carbon disulfide		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
10	Acrylonitrile		25,000.9	µg/mL	+/-	145.3496	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot UERIL)			+/-	1,508.4128	µg/mL	Unstressed
	Purity 99%				+/-	1,511.9941	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZAQTA-MS)			+/-	150.8361	µg/mL	Unstressed
	Purity 99%				+/-	151.1942	µg/mL	Stressed
12	cis-1,2-Dichloroethene		2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 156-59-2.SEC	(Lot HGC01-BLKT)			+/-	150.8792	µg/mL	Unstressed
	Purity 98%				+/-	151.2374	µg/mL	Stressed
13	n-Hexane (C6)		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot 10188491)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
14	1,1-Dichloroethane		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 75-34-3.SEC	(Lot 5379000)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%				+/-	151.2093	µg/mL	Stressed
15	2,2-Dichloropropane		2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 594-20-7.SEC	(Lot I7E8E)			+/-	150.8423	µg/mL	Unstressed
	Purity 98%				+/-	151.2004	µg/mL	Stressed
16	trans-1,2-Dichloroethene		2,500.2	µg/mL	+/-	14.5362	µg/mL	Gravimetric
	CAS # 156-60-5.SEC	(Lot TS5UB)			+/-	150.8466	µg/mL	Unstressed
	Purity 97%				+/-	151.2048	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		62,506.9	µg/mL	+/-	363.4014	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot 83NHH)			+/-	3,771.3149	µg/mL	Unstressed
	Purity 99%				+/-	3,780.2687	µg/mL	Stressed
18	Chloroform		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 67-66-3.SEC	(Lot 1297547)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
19	Bromochloromethane		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 5670200)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
20	Tetrahydrofuran		5,002.3	µg/mL	+/-	29.0835	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot K3V7J-SJ)			+/-	301.8079	µg/mL	Unstressed
	Purity 99%				+/-	302.5245	µg/mL	Stressed
21	1,1,1-Trichloroethane		2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 71-55-6.SEC	(Lot CS160712)			+/-	150.8792	µg/mL	Unstressed
	Purity 98%				+/-	151.2374	µg/mL	Stressed
22	Cyclohexane		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
23	1,1-Dichloropropene		2,501.3	µg/mL	+/-	14.5427	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 5221100)			+/-	150.9133	µg/mL	Unstressed
	Purity 96%				+/-	151.2716	µg/mL	Stressed

24	Carbon tetrachloride		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
25	n-Heptane (C7)		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot OGM01)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
26	1,2-Dichloroethane		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot FO6PK)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
27	Benzene		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
28	Trichloroethene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
29	Methylcyclohexane		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot 24MSD-CD)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
30	1,2-Dichloropropane		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot OGG01)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
31	1,4-Dioxane		50,007.1	µg/mL	+/-	290.7305	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot MUFZH)			+/-	3,017.1500	µg/mL	Unstressed
	Purity 99%				+/-	3,024.3132	µg/mL	Stressed
32	Dibromomethane		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot FGI01-OICH)			+/-	150.9341	µg/mL	Unstressed
	Purity 99%				+/-	151.2925	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
34	Toluene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	150.8361	µg/mL	Unstressed
	Purity 99%				+/-	151.1942	µg/mL	Stressed
35	Ethyl methacrylate		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,500.8	µg/mL	+/-	14.5401	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 5034600)			+/-	150.8866	µg/mL	Unstressed
	Purity 98%				+/-	151.2448	µg/mL	Stressed
38	1,3-Dichloropropane		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
39	Tetrachloroethene		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	150.9115	µg/mL	Unstressed
	Purity 99%				+/-	151.2698	µg/mL	Stressed

40	Dibromochloromethane		2,500.4	µg/mL	+/-	14.5376	µg/mL	Gravimetric
	CAS # 124-48-1.SEC	(Lot 10181507)			+/-	150.8613	µg/mL	Unstressed
	Purity 97%				+/-	151.2194	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 3505900)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
42	Chlorobenzene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
43	m-Xylene		1,250.9	µg/mL	+/-	7.2727	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)			+/-	75.4708	µg/mL	Unstressed
	Purity 99%				+/-	75.6500	µg/mL	Stressed
44	p-Xylene		1,250.5	µg/mL	+/-	7.2705	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)			+/-	75.4482	µg/mL	Unstressed
	Purity 99%				+/-	75.6273	µg/mL	Stressed
45	Ethylbenzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
46	1,1,1,2-Tetrachloroethane		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
47	o-Xylene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01-KTPK)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
48	Styrene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot OFIOL-IA)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot 2PHXG-IH)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
50	Bromoform		2,502.3	µg/mL	+/-	14.5483	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 5139000)			+/-	150.9718	µg/mL	Unstressed
	Purity 99%				+/-	151.3303	µg/mL	Stressed
51	Bromodichloromethane		2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 13780)			+/-	150.8423	µg/mL	Unstressed
	Purity 98%				+/-	151.2004	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)			+/-	150.9115	µg/mL	Unstressed
	Purity 99%				+/-	151.2698	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot OGI01)			+/-	150.8423	µg/mL	Unstressed
	Purity 98%				+/-	151.2004	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,501.0	µg/mL	+/-	14.5408	µg/mL	Gravimetric
	CAS # 110-57-6.SEC	(Lot 100700-3)			+/-	150.8940	µg/mL	Unstressed
	Purity 98%				+/-	151.2522	µg/mL	Stressed
55	n-Propylbenzene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC-IT)			+/-	150.8361	µg/mL	Unstressed
	Purity 99%				+/-	151.1942	µg/mL	Stressed

56	Bromobenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot TOOOF)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%				+/-	151.2093	µg/mL	Stressed
58	2-Chlorotoluene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot SW8QG-AO)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
59	4-Chlorotoluene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot P4XHJ-AO)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
60	tert-Butylbenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot OGN01-CAI)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot SC7LO-QA)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
62	sec-Butylbenzene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot OGN01-IMA)			+/-	150.9190	µg/mL	Unstressed
	Purity 99%				+/-	151.2773	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 5221800)			+/-	150.9115	µg/mL	Unstressed
	Purity 99%				+/-	151.2698	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot 4Y5DC)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
66	n-Butylbenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot OGN01-PNP)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%				+/-	151.2395	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot R6QDM)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,501.5	µg/mL	+/-	14.5436	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot LC00408V)			+/-	150.9236	µg/mL	Unstressed
	Purity 98%				+/-	151.2819	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot 3LYYC)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed
70	Hexachlorobutadiene		2,501.4	µg/mL	+/-	14.5433	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 5526800)			+/-	150.9198	µg/mL	Unstressed
	Purity 97%				+/-	151.2781	µg/mL	Stressed
71	Naphthalene		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot SKZ5N)			+/-	150.9417	µg/mL	Unstressed
	Purity 99%				+/-	151.3000	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,500.7 µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

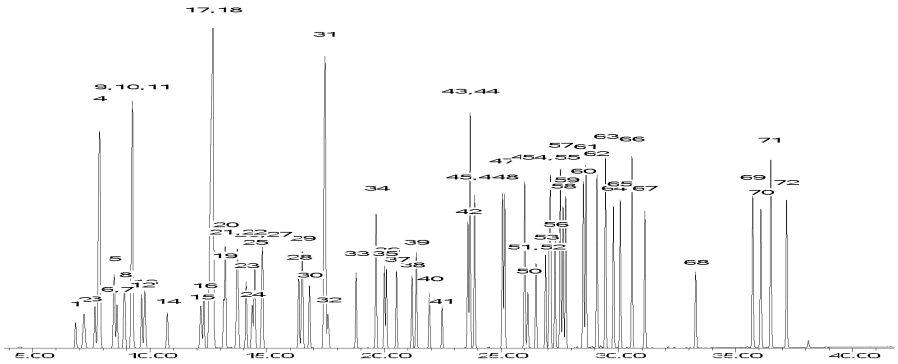
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

Date Mixed: 28-Dec-2016 **Balance:** 1127510105

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MV-571992_00002

Reagent

mv-571993_00003

Reagent

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mv-571994_00002

Reagent

mv-8260 IS/SS_00001

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www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570812 **Lot No.:** A0131478

Description : 8260 IS/Surrogate Mix (2016)

8260 IS/Surrogate Mix (2016) 250-5,000µg/mL, P&T Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : October 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol **CAS #** 25725-11-5 **Purity** 98%	(Lot CD-107)	5,017.3 µg/mL	+/- 29.1695 µg/mL +/- 107.4207 µg/mL +/- 110.5436 µg/mL		Gravimetric Unstressed Stressed
2	Dibromofluoromethane **CAS #** 1868-53-7 **Purity** 99.8%	(Lot 0012017)	249.0 µg/mL	+/- 1.4511 µg/mL +/- 5.3320 µg/mL +/- 5.4870 µg/mL		Gravimetric Unstressed Stressed
3	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 **Purity** 99%	(Lot PR-26748)	249.6 µg/mL	+/- 1.4545 µg/mL +/- 5.3449 µg/mL +/- 5.5002 µg/mL		Gravimetric Unstressed Stressed
4	1,4-Dioxane-d8 **CAS #** 17647-74-4 **Purity** 99%	(Lot I-19942)	4,979.2 µg/mL	+/- 28.9478 µg/mL +/- 106.6041 µg/mL +/- 109.7033 µg/mL		Gravimetric Unstressed Stressed
5	Fluorobenzene **CAS #** 462-06-6 **Purity** 99%	(Lot BCBK8171V)	250.0 µg/mL	+/- 1.4567 µg/mL +/- 5.3527 µg/mL +/- 5.5083 µg/mL		Gravimetric Unstressed Stressed
6	Toluene-d8 **CAS #** 2037-26-5 **Purity** 99%	(Lot PR-26623)	249.2 µg/mL	+/- 1.4522 µg/mL +/- 5.3363 µg/mL +/- 5.4914 µg/mL		Gravimetric Unstressed Stressed
7	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-23926)	249.6 µg/mL	+/- 1.4545 µg/mL +/- 5.3449 µg/mL +/- 5.5002 µg/mL		Gravimetric Unstressed Stressed

8	1-Bromo-4-fluorobenzene (BFB)		248.5	µg/mL	+/-	1.4481	µg/mL	Gravimetric
	CAS # 460-00-4	(Lot 20401KOV)			+/-	5.3213	µg/mL	Unstressed
	Purity 99%				+/-	5.4760	µg/mL	Stressed
9	1,4-Dichlorobenzene-d4		249.5	µg/mL	+/-	1.4540	µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)			+/-	5.3427	µg/mL	Unstressed
	Purity 99%				+/-	5.4980	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

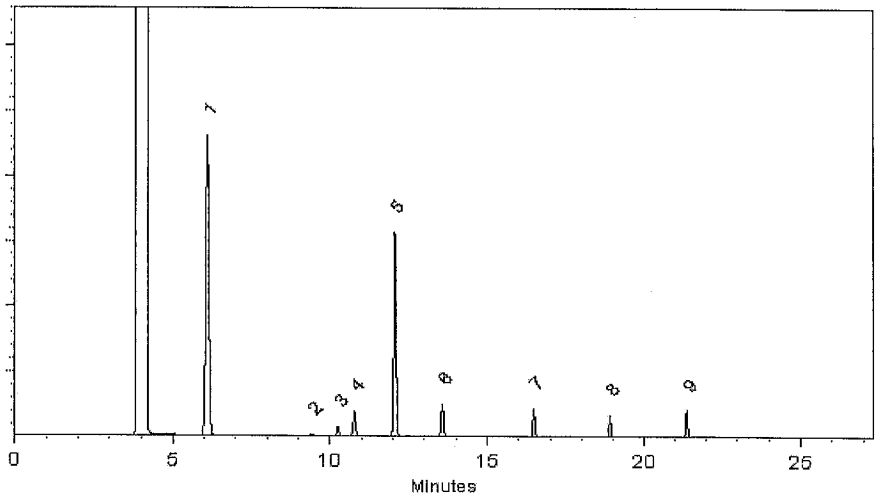
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 09-Oct-2017 **Balance:** B707717271

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 24-Oct-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MV-CUS17739_00004

Certificate of Analysis
ISO Guide 34

Custom Standard

Product Number: CUS-17739 **Page:** 1 of 1

Lot Number: CS-4707 **Lot Issue Date:** 24-Sep-2018 **Expiration Date:** 31-Oct-2020

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
1-chlorohexane	000544-10-5	RM12893	1005 ± 5 µg/mL
2-pentanone	000107-87-9	RM03775	4016 ± 20 µg/mL
sec-butanol	000078-92-2	RM01299	30108 ± 151 µg/mL

Matrix: methanol (purge & trap grade)

Storage: Store Frozen (-25° to -10°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Managment System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No. AT-1937

ver 1.1

250 Smith Street North Kingstown, Rhode Island 02852 www.ultrasci.com

Reagent

MV-MegaMainA_00014

Reagent

MV-STS110N1_00066

Certificate of Analysis

4-Bromofluorobenzene Solution

Product Number: STS-110N **Page:** 1 of 1

Lot Number: CH-3248Z **Lot Issue Date:** 31-Aug-2016 **Expiration Date:** 31-Oct-2019

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
4-bromofluorobenzene	000460-00-4	RM03365	2005 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store Frozen (-25° to -10°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Vincent Wang, Ph.D.
Director of QA/RA

ISO 9001
Registered
TUV USA, Inc.

250 SMITH STREET • NORTH KINGSTOWN, RHODE ISLAND 02852 • WWW.ULTRASCI.COM

Reagent

NaCl f_00004

Sodium Chloride, Crystal

`BAKER ANALYZED´® A.C.S. Reagent

Product No. 3624
Lot No. J48622
Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO_3)	0.003 % max.	0.002 %
Phosphate (PO_4)	5 ppm max.	< 3 ppm
Sulfate (SO_4)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %
For Laboratory, Research or Manufacturing Use		
Country of Origin: USA		

ISO
Phillipsburg, NJ 9001.2008, 14001.2004
Paris, KY 9001.2008
Mexico City, Mexico 9001.2008
Deventer, The Netherlands 9001.2008, 14001.2004, 13485.2003
Selangor, Malaysia 9001.2008
Panoli, India 9001.2008
Gliwice, Poland 9001.2008, 17025.2005

Marcy M. Matlosz
Director of QA & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151
Avantor ™ Performance Materials. Inc. (formerly Mallinckrodt Baker, Inc.)
222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Reagent

NH3 CAL STD_00030

RICCA CHEMICAL COMPANY®

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Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 1808L28 **Product Number:** 5455

Manufacture Date: AUG 29, 2018
Expiration Date: FEB 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (08/29/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00026

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	M2-NH662533
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium Chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 996 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **993 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **997 ± 2 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\ (u_{char\ a})^2 + (w_b)^2\ (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

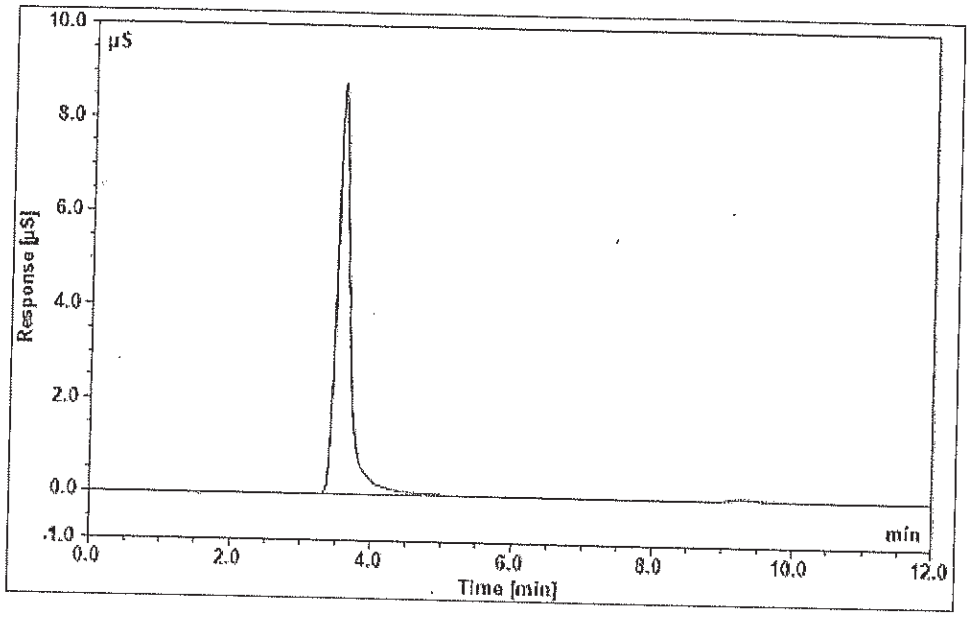
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS12A-5µm 3x150mm	**Eluent:**	20 mM MSA
Guard Column:	IonPac CG12A-5µm 3x30mm	**Eluent Flow Rate:**	0.50 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35° C
		Cell Temp:	35° C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	10 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	30 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 03, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- November 03, 2021

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

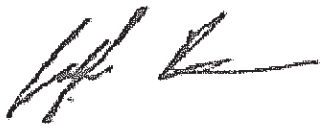
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

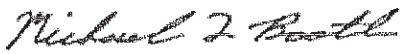
Certificate Prepared By:

Joseph Burns
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

Phenol CAL_00012

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: PHENOL STANDARD, 1000ppm (1mL = 1mg)

Mfg. Date: 12/07/2017

Catalog Number: LC18330

Exp. Date: 12/07/2019

Lot Number: G341-02

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm Phenol	1000ppm +/- 10ppm	1007 ppm
Concentration mg Phenol / L	1.000 + / - 0.010 mg/mL	1.007 mg/mL
Traceable to NIST	Potassium Dichromate	136f

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor

Greg Albright

An ISO9001:2008 certified company. Registration # 0306-01

03/23/2018 5:05 PM

Form #17.13 07/28/2016

Reagent

Phenol ICV_00013

ERA

A Waters Company

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www.spexcsp.com

Certificate of Analysis

PRODUCT:	1000 mg/L Phenol
CATALOG NUMBER:	982
LOT NUMBER:	090817
ISSUE DATE:	August 18, 2017
REVISION DATE:	August 2, 2018
STARTING MATERIAL:	Phenol (C_6H_5OH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.8%
MATRIX:	18 megohm deionized water and 1% (v/v) H_2SO_4
DENSITY:	1.0085 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	NA
VERIFICATION METHOD:	Spectrophotometry
STORAGE:	Store at 4 ± 2°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

PREP SPK 1_00008

CPI INTERNATIONAL

5643174
ID: PREP SPK 1_00008
Exp: 05/21/20 Prpd: MRJ
Metals Prep Spike Mix 1 C

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 993218-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.1 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.1 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 21, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

TKN CAL STD_00017

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Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Catalog Number: IS-009, IS-009-500
Lot Number: 010617

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00011

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00037

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customerservice@riccachemical.com

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 4901G09 **Product Number:** 1847

Manufacture Date: JAN 22, 2019
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-32	1 L amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jim Gibbs (01/22/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00046

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1000 ± 5 µg/mL	NAA00089; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No.
AT-1937

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 (60. ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
LF1MW-5_0519	280-123922-1	99	100	99	101
LF1MW-5_0519-a	280-123922-2	98	101	98	101
LF1-TB1_051619	280-123922-4	100	100	100	102
	MB 280-459872/7	99	100	101	103
	LCS 280-459872/4	100	103	99	101
	LCS 280-459872/5	100	100	99	103
	LCSD 280-459872/6	100	101	100	104

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-119
DCA = 1,2-Dichloroethane-d4 (Surr)	81-118
TOL = Toluene-d8 (Surr)	89-112
BFB = 4-Bromofluorobenzene (Surr)	85-114

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water Level: Low Lab File ID: g2_5674.D

Lab ID: LCS 280-459872/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	25.0	27.1	109	78-124	
1,1,1-Trichloroethane	25.0	29.7	119	74-131	
1,1,2,2-Tetrachloroethane	25.0	30.0	120	71-121	
1,1,2-Trichloroethane	25.0	28.8	115	80-119	
1,1-Dichloroethane	25.0	29.3	117	77-125	
1,1-Dichloroethene	25.0	31.2	125	71-131	
1,1-Dichloropropene	25.0	27.8	111	79-125	
1,2,3-Trichlorobenzene	25.0	29.1	117	69-129	
1,2,3-Trichloropropane	25.0	30.9	124	73-122	Q
1,2,4-Trichlorobenzene	25.0	28.1	113	69-130	
1,2,4-Trimethylbenzene	25.0	28.2	113	76-124	
1,2-Dibromo-3-Chloropropane	25.0	27.0	108	62-128	
1,2-Dibromoethane	25.0	28.6	115	77-121	
1,2-Dichlorobenzene	25.0	26.9	108	80-119	
1,2-Dichloroethane	25.0	28.8	115	73-128	
1,2-Dichloroethene, Total	50.0	59.2	118	79-121	
1,2-Dichloropropane	25.0	29.1	116	78-122	
1,3,5-Trimethylbenzene	25.0	28.8	115	75-124	
1,3-Dichlorobenzene	25.0	28.2	113	80-119	
1,3-Dichloropropane	25.0	28.0	112	80-119	
1,4-Dichlorobenzene	25.0	27.9	112	79-118	
2,2-Dichloropropane	25.0	30.2	121	60-139	
2-Butanone (MEK)	100	121	121	56-143	
2-Chlorotoluene	25.0	28.3	113	79-122	
2-Hexanone	100	123	123	57-139	
4-Chlorotoluene	25.0	28.2	113	78-122	
4-Isopropyltoluene	25.0	28.4	113	77-127	
4-Methyl-2-pentanone (MIBK)	100	129	129	67-130	
Acetone	100	164	164	39-160	Q
Benzene	25.0	28.6	114	79-120	
Bromobenzene	25.0	29.7	119	80-120	
Bromochloromethane	25.0	28.8	115	78-123	
Bromodichloromethane	25.0	27.1	108	79-125	
Bromoform	25.0	23.4	94	66-130	
Bromomethane	25.0	26.8	107	53-141	
Carbon disulfide	25.0	24.1	96	64-133	
Carbon tetrachloride	25.0	26.4	106	72-136	
Chlorobenzene	25.0	27.7	111	82-118	
Chloroethane	25.0	25.0	100	60-138	
Chloroform	25.0	29.1	116	79-124	
Chloromethane	25.0	23.0	92	50-139	
cis-1,2-Dichloroethene	25.0	29.6	118	78-123	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water Level: Low Lab File ID: g2_5674.D

Lab ID: LCS 280-459872/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
cis-1,3-Dichloropropene	25.0	30.2	121	75-124	
Dibromochloromethane	25.0	25.6	102	74-126	
Dibromomethane	25.0	29.1	117	79-123	
Dichlorodifluoromethane	25.0	24.7	99	32-152	
Ethylbenzene	25.0	28.3	113	79-121	
Hexachlorobutadiene	25.0	26.7	107	66-134	
Isopropylbenzene	25.0	30.2	121	72-131	
m,p-Xylene	25.0	28.7	115	80-121	
Methyl iodide	25.0	30.5	122	69-131	
Methyl tert-butyl ether	25.0	29.0	116	71-124	
Methylene Chloride	25.0	28.8	115	74-124	
Naphthalene	25.0	31.3	125	61-128	
n-Butylbenzene	25.0	28.5	114	75-128	
N-Propylbenzene	25.0	28.2	113	76-126	
o-Xylene	25.0	28.4	114	78-122	
sec-Butylbenzene	25.0	28.4	113	77-126	
Styrene	25.0	30.0	120	78-123	
tert-Butylbenzene	25.0	27.8	111	78-124	
Tetrachloroethene	25.0	29.4	117	74-129	
Toluene	25.0	28.9	116	80-121	
trans-1,2-Dichloroethene	25.0	29.6	118	75-124	
trans-1,3-Dichloropropene	25.0	28.1	112	73-127	
Trichloroethene	25.0	29.0	116	79-123	
Trichlorofluoromethane	25.0	22.7	91	65-141	
Vinyl acetate	50.0	62.4	125	54-146	
Vinyl chloride	25.0	22.8	91	58-137	
Xylenes, Total	50.0	57.1	114	79-121	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water Level: Low Lab File ID: g2_5675.D

Lab ID: LCS 280-459872/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diisopropyl ether	25.0	27.2	109	67-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water Level: Low Lab File ID: g2_5676.D

Lab ID: LCSD 280-459872/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Diisopropyl ether	25.0	26.1	105	4	20	67-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab File ID: g2_5677.D Lab Sample ID: MB 280-459872/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: VMS_G2 Date Analyzed: 05/30/2019 11:00

GC Column: DB-624 (60.25) ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-459872/4	g2_5674.D	05/30/2019 09:55
	LCS 280-459872/5	g2_5675.D	05/30/2019 10:17
	LCSD 280-459872/6	g2_5676.D	05/30/2019 10:38
LF1MW-5_0519	280-123922-1	g2_5678.D	05/30/2019 11:21
LF1MW-5_0519-a	280-123922-2	g2_5679.D	05/30/2019 11:43
LF1-TB1_051619	280-123922-4	g2_5680.D	05/30/2019 12:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab File ID: g2_5197.D BFB Injection Date: 05/18/2019

Instrument ID: VMS_G2 BFB Injection Time: 09:14

Analysis Batch No.: 458654

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.7	
75	30.0 - 60.0 % of mass 95	47.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	79.3	
175	5.0 - 9.0 % of mass 174	5.6	(7.1) 1
176	95.0 - 101.0 % of mass 174	77.3	(97.5) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-458654/2	g2_5198.D	05/18/2019	09:44
	IC 280-458654/3	g2_5199.D	05/18/2019	10:08
	IC 280-458654/4	g2_5200.D	05/18/2019	10:31
	IC 280-458654/5	g2_5201.D	05/18/2019	10:55
	IC 280-458654/6	g2_5202.D	05/18/2019	11:19
	IC 280-458654/7	g2_5203.D	05/18/2019	11:43
	IC 280-458654/8	g2_5204.D	05/18/2019	12:07
	IC 280-458654/10	g2_5206.D	05/18/2019	12:55
	IC 280-458654/11	g2_5207.D	05/18/2019	13:19
	ICIS 280-458654/12	g2_5208.D	05/18/2019	13:43
	IC 280-458654/13	g2_5209.D	05/18/2019	14:07
	IC 280-458654/14	g2_5210.D	05/18/2019	14:31
	IC 280-458654/15	g2_5211.D	05/18/2019	14:55
	IC 280-458654/16	g2_5212.D	05/18/2019	15:19
	IC 280-458654/18	g2_5214.D	05/18/2019	16:07
	IC 280-458654/19	g2_5215.D	05/18/2019	16:31
	IC 280-458654/20	g2_5216.D	05/18/2019	16:55
	IC 280-458654/21	g2_5217.D	05/18/2019	17:19
	IC 280-458654/22	g2_5218.D	05/18/2019	17:43
	IC 280-458654/23	g2_5219.D	05/18/2019	18:07

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab File ID: g2_5531.D BFB Injection Date: 05/27/2019

Instrument ID: VMS_G2 BFB Injection Time: 10:12

Analysis Batch No.: 459545

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.2	
75	30.0 - 60.0 % of mass 95	51.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.8	(7.3) 1
176	95.0 - 101.0 % of mass 174	77.1	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-459545/2	g2_5532.D	05/27/2019	10:34
	IC 280-459545/3	g2_5533.D	05/27/2019	10:55
	ICIS 280-459545/4	g2_5534.D	05/27/2019	11:16
	IC 280-459545/5	g2_5535.D	05/27/2019	11:38
	IC 280-459545/6	g2_5536.D	05/27/2019	11:59
	IC 280-459545/7	g2_5537.D	05/27/2019	12:21
	IC 280-459545/8	g2_5538.D	05/27/2019	12:42
	ICV 280-459545/9	g2_5539.D	05/27/2019	13:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab File ID: g2_5569.D BFB Injection Date: 05/28/2019

Instrument ID: VMS_G2 BFB Injection Time: 11:31

Analysis Batch No.: 459588

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.2	
75	30.0 - 60.0 % of mass 95	51.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	79.3	
175	5.0 - 9.0 % of mass 174	6.1	(7.7) 1
176	95.0 - 101.0 % of mass 174	76.8	(96.9) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-459588/2	g2_5570.D	05/28/2019	11:52
	IC 280-459588/3	g2_5571.D	05/28/2019	12:14
	ICIS 280-459588/4	g2_5572.D	05/28/2019	12:35
	IC 280-459588/5	g2_5573.D	05/28/2019	12:56
	IC 280-459588/6	g2_5574.D	05/28/2019	13:18
	IC 280-459588/7	g2_5575.D	05/28/2019	13:39
	IC 280-459588/8	g2_5576.D	05/28/2019	14:00
	ICV 280-459588/9	g2_5577.D	05/28/2019	14:22

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab File ID: g2_5671.D BFB Injection Date: 05/30/2019

Instrument ID: VMS_G2 BFB Injection Time: 08:51

Analysis Batch No.: 459872

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	52.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.1	(0.2) 1
174	50.0 - 120.00 % of mass 95	74.9	
175	5.0 - 9.0 % of mass 174	6.5	(8.7) 1
176	95.0 - 101.0 % of mass 174	75.3	(100.5) 1
177	5.0 - 9.0 % of mass 176	4.5	(5.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-459872/2	g2_5672.D	05/30/2019	09:12
	CCV 280-459872/3	g2_5673.D	05/30/2019	09:34
	LCS 280-459872/4	g2_5674.D	05/30/2019	09:55
	LCS 280-459872/5	g2_5675.D	05/30/2019	10:17
	LCSD 280-459872/6	g2_5676.D	05/30/2019	10:38
	MB 280-459872/7	g2_5677.D	05/30/2019	11:00
LF1MW-5_0519	280-123922-1	g2_5678.D	05/30/2019	11:21
LF1MW-5_0519-a	280-123922-2	g2_5679.D	05/30/2019	11:43
LF1-TB1_051619	280-123922-4	g2_5680.D	05/30/2019	12:04
	CCVC 280-459872/31	g2_5701.D	05/30/2019	19:34
	CCVC 280-459872/32	g2_5702.D	05/30/2019	19:53

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Sample No.: ICIS 280-459545/4 Date Analyzed: 05/27/2019 11:16

Instrument ID: VMS_G2 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): g2_5534.D Heated Purge: (Y/N) N

Calibration ID: 36570

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		3051532	3.09	5227981	4.86	1167362	7.36
UPPER LIMIT		6103064	3.59	10455962	5.36	2334724	7.86
LOWER LIMIT		1525766	2.59	2613991	4.36	583681	6.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-459545/9		2845678	3.09	5003605	4.86	1116133	7.36

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Sample No.: ICIS 280-459545/4 Date Analyzed: 05/27/2019 11:16

Instrument ID: VMS_G2 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): g2_5534.D Heated Purge: (Y/N) N

Calibration ID: 36570

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1906854	9.56				
UPPER LIMIT		3813708	10.06				
LOWER LIMIT		953427	9.06				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-459545/9		1841678	9.56				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Sample No.: ICIS 280-459588/4 Date Analyzed: 05/28/2019 12:35

Instrument ID: VMS_G2 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): g2_5572.D Heated Purge: (Y/N) N

Calibration ID: 36582

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		2760879	3.09	4786311	4.86	1069793	7.36
UPPER LIMIT		5521758	3.59	9572622	5.36	2139586	7.86
LOWER LIMIT		1380440	2.59	2393156	4.36	534897	6.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-459588/9		2765843	3.09	4756462	4.86	1057392	7.36
CCV 280-459872/2		2636812	3.09	4187765	4.85	947837	7.36
CCV 280-459872/3		2790529	3.09	4273546	4.86	953235	7.36
LCS 280-459872/4		2939827	3.09	4298787	4.86	966787	7.36
280-123922-1	LF1MW-5_0519	2550719	3.09	4253968	4.85	945860	7.36
280-123922-2	LF1MW-5_0519-a	2517488	3.09	4085622	4.86	918067	7.36
280-123922-4	LF1-TB1_051619	2408508	3.09	3971746	4.85	885652	7.36
CCVC 280-459872/31		2026243	3.09	3569697	4.85	807378	7.36
CCVC 280-459872/32		2280982	3.09	3665693	4.85	832450	7.36

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Sample No.: ICIS 280-459588/4 Date Analyzed: 05/28/2019 12:35

Instrument ID: VMS_G2 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): g2_5572.D Heated Purge: (Y/N) N

Calibration ID: 36582

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1772209	9.56				
UPPER LIMIT		3544418	10.06				
LOWER LIMIT		886105	9.06				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-459588/9		1767723	9.56				
CCV 280-459872/2		1563182	9.56				
CCV 280-459872/3		1542159	9.56				
LCS 280-459872/4		1581411	9.56				
280-123922-1	LF1MW-5_0519	1527520	9.56				
280-123922-2	LF1MW-5_0519-a	1473943	9.56				
280-123922-4	LF1-TB1_051619	1415049	9.56				
CCVC 280-459872/31		1345661	9.56				
CCVC 280-459872/32		1326589	9.55				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: LF1MW-5_0519 Lab Sample ID: 280-123922-1

Matrix: Water Lab File ID: g2_5678.D

Analysis Method: 8260B Date Collected: 05/16/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 11:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U Q	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	0.80	U M	1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.23
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.19
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.21
96-18-4	1,2,3-Trichloropropane	0.80	U Q	3.0	0.80	0.33
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.21
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.15
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.47
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.15
107-06-2	1,2-Dichloroethane	0.40	U M Q	1.0	0.40	0.13
540-59-0	1,2-Dichloroethene, Total	0.25	J	1.0	0.40	0.15
78-87-5	1,2-Dichloropropane	0.40	U M	1.0	0.40	0.18
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.16
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.13
142-28-9	1,3-Dichloropropane	0.20	U	1.0	0.20	0.090
106-46-7	1,4-Dichlorobenzene	0.43	J	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.80	U Q	1.0	0.80	0.38
78-93-3	2-Butanone (MEK)	4.0	U Q	6.0	4.0	2.0
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U Q	5.0	4.0	1.7
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.21
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.20
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U Q	5.0	3.2	0.98
67-64-1	Acetone	6.4	U M Q	10	6.4	1.9
71-43-2	Benzene	1.7		1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	1.0	U	1.0	1.0	0.46
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: LF1MW-5_0519 Lab Sample ID: 280-123922-1

Matrix: Water Lab File ID: g2_5678.D

Analysis Method: 8260B Date Collected: 05/16/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 11:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	1.2		1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U M	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.25	J	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U Q	1.0	0.40	0.16
124-48-1	Dibromochloromethane	0.40	U	1.0	0.40	0.17
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
108-20-3	Diisopropyl ether	0.40	U	10	0.40	0.13
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
179601-23-1	m,p-Xylene	0.80	U	2.0	0.80	0.15
74-88-4	Methyl iodide	0.80	U	2.0	0.80	0.23
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	2.0	U	5.0	2.0	0.94
91-20-3	Naphthalene	0.80	U Q	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.14
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.80	U	1.0	0.80	0.36
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U Q	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U M	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
108-05-4	Vinyl acetate	2.0	U Q	3.0	2.0	0.94
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10
1330-20-7	Xylenes, Total	0.80	U	1.0	0.80	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: LF1MW-5_0519 Lab Sample ID: 280-123922-1

Matrix: Water Lab File ID: g2_5678.D

Analysis Method: 8260B Date Collected: 05/16/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 11:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		81-118
460-00-4	4-Bromofluorobenzene (Surr)	101		85-114
1868-53-7	Dibromofluoromethane (Surr)	99		80-119
2037-26-5	Toluene-d8 (Surr)	99		89-112

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D
Lims ID: 280-123922-K-1
Client ID: LF1MW-5_0519
Sample Type: Client
Inject. Date: 30-May-2019 11:21:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-123922-k-1
Misc. Info.: 280-0082377-008
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 12:11:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2550719	1000.0	
* 2 Fluorobenzene	96	4.847	4.861	-0.014	99	4253968	50.0	
* 3 Chlorobenzene-d5	119	7.357	7.358	-0.001	87	945860	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1527520	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	92	983626	49.3	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.609	4.610	-0.001	99	1383934	50.2	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3868791	49.7	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1425957	50.6	
12 Dichlorodifluoromethane	85		1.607				ND	
14 Chloromethane	50		1.789				ND	
15 Vinyl chloride	62		1.900				ND	
17 Bromomethane	94		2.124				ND	
18 Chloroethane	64		2.166				ND	U
20 Trichlorofluoromethane	101		2.403				ND	
25 1,1-Dichloroethene	96		2.766				ND	
27 Acetone	43		2.766				ND	U
28 Iodomethane	142		2.878				ND	
30 Carbon disulfide	76		3.004				ND	
35 Methylene Chloride	84		3.115				ND	
41 Methyl tert-butyl ether	73		3.283				ND	
40 trans-1,2-Dichloroethene	96		3.297				ND	
46 Vinyl acetate	43		3.590				ND	
47 Isopropyl ether	87		3.604				ND	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	90	5499	0.1616	
52 2-Butanone (MEK)	43		3.981				ND	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	78	4983	0.2495	
50 2,2-Dichloropropane	77		4.023				ND	
56 Chlorobromomethane	128		4.191				ND	
59 Chloroform	83		4.247				ND	
60 1,1,1-Trichloroethane	97		4.386				ND	
63 1,1-Dichloropropene	75		4.484				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Carbon tetrachloride	117		4.498				ND	
64 Benzene	78	4.637	4.638	-0.001	92	130664	1.69	
65 1,2-Dichloroethane	62		4.666				ND	U
69 Trichloroethene	95		5.126				ND	U
72 1,2-Dichloropropane	63		5.322				ND	U
75 Dibromomethane	93		5.406				ND	
76 Dichlorobromomethane	83		5.518				ND	
79 cis-1,3-Dichloropropene	75		5.867				ND	
81 4-Methyl-2-pentanone (MIBK	43		5.978				ND	
82 Toluene	91		6.156				ND	
83 trans-1,3-Dichloropropene	75		6.335				ND	
85 1,1,2-Trichloroethane	97		6.507				ND	U
86 Tetrachloroethene	164		6.593				ND	
87 1,3-Dichloropropane	76		6.650				ND	
88 2-Hexanone	43		6.678				ND	
89 Chlorodibromomethane	129		6.843				ND	
90 Ethylene Dibromide	107		6.957				ND	
92 Chlorobenzene	112	7.379	7.386	-0.007	95	65060	1.25	
93 1,1,1,2-Tetrachloroethane	131		7.458				ND	
94 Ethylbenzene	106		7.465				ND	
95 m-Xylene & p-Xylene	106		7.579				ND	
96 o-Xylene	106		7.937				ND	
97 Styrene	104		7.951				ND	
98 Bromoform	173		8.130				ND	
99 Isopropylbenzene	105		8.273				ND	
102 1,1,2,2-Tetrachloroethane	83		8.559				ND	
103 Bromobenzene	156		8.588				ND	
104 1,2,3-Trichloropropane	110		8.623				ND	
106 N-Propylbenzene	120		8.666				ND	
107 2-Chlorotoluene	126		8.759				ND	
108 1,3,5-Trimethylbenzene	105		8.838				ND	
109 4-Chlorotoluene	126		8.874				ND	
110 tert-Butylbenzene	119		9.145				ND	
111 1,2,4-Trimethylbenzene	105		9.202				ND	
112 sec-Butylbenzene	134		9.360				ND	
113 1,3-Dichlorobenzene	146		9.481				ND	
114 4-Isopropyltoluene	119		9.510				ND	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	86	17760	0.4275	
117 n-Butylbenzene	91		9.903				ND	
118 1,2-Dichlorobenzene	146		9.932				ND	
119 1,2-Dibromo-3-Chloropropan	157		10.704				ND	
121 1,2,4-Trichlorobenzene	180		11.519				ND	
122 Hexachlorobutadiene	225		11.662				ND	
123 Naphthalene	128		11.784				ND	
124 1,2,3-Trichlorobenzene	180		12.005				ND	
S 143 Xylenes, Total	106		0.000				ND	
S 144 1,2-Dichloroethene, Total	1				0		0.2495	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

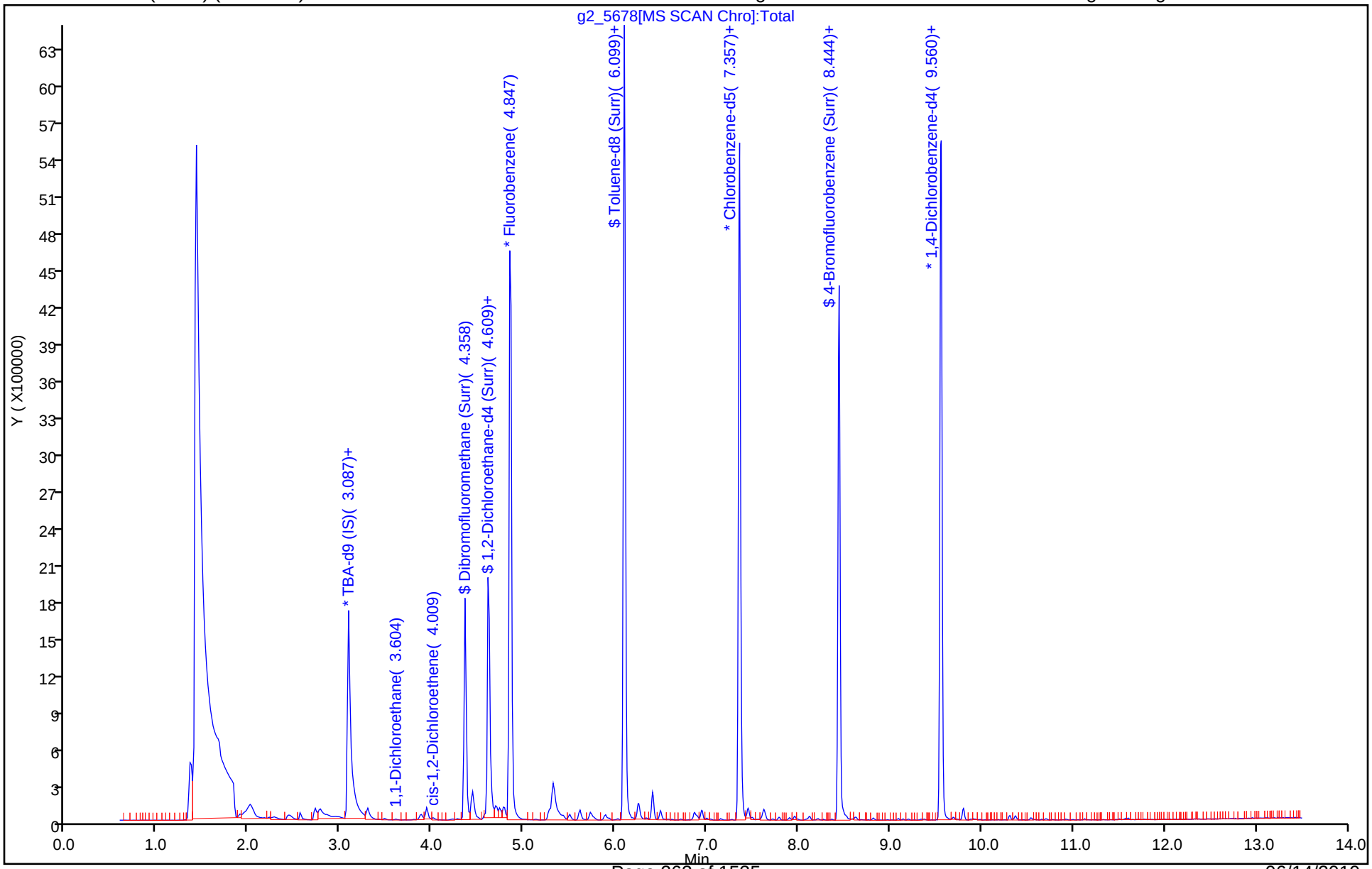
Report Date: 31-May-2019 00:37:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D

Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1	Worklist Smp#:	8
Client ID:	LF1MW-5_0519				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D
Lims ID: 280-123922-K-1
Client ID: LF1MW-5_0519
Sample Type: Client
Inject. Date: 30-May-2019 11:21:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-123922-k-1
Misc. Info.: 280-0082377-008
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 12:11:01

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 Dibromofluoromethane (Surr)	50.0	49.3	98.50
$ 7 1,2-Dichloroethane-d4 (Surr)	50.0	50.2	100.32
$ 8 Toluene-d8 (Surr)	50.0	49.7	99.35
$ 9 4-Bromofluorobenzene (Surr)	50.0	50.6	101.17

Report Date: 31-May-2019 00:37:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D

Injection Date: 30-May-2019 11:21:30 Instrument ID: VMS_G2

Lims ID: 280-123922-K-1 Lab Sample ID: 280-123922-1

Client ID: LF1MW-5_0519

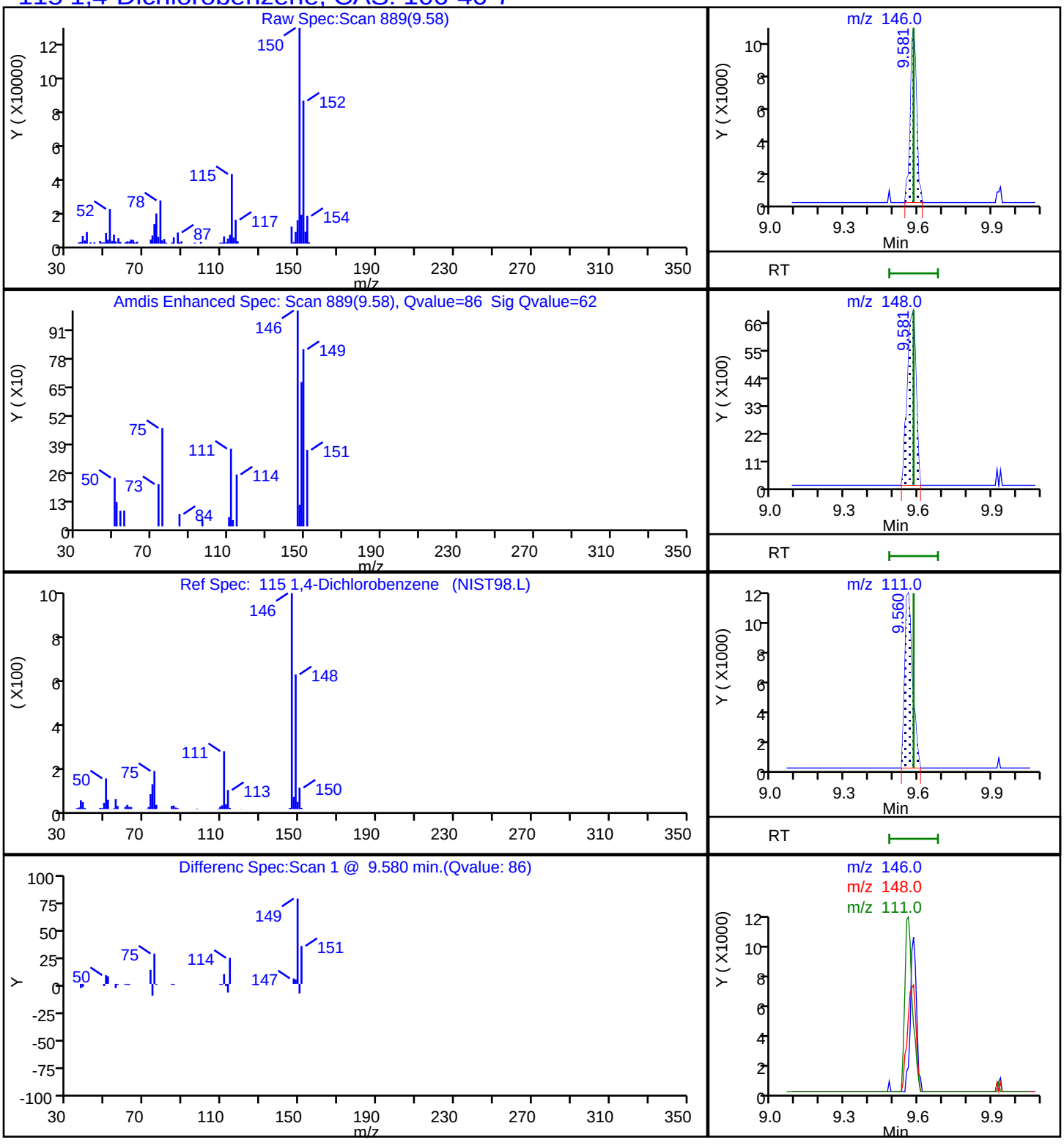
Operator ID: meierg ALS Bottle#: 7 Worklist Smp#: 8

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

115 1,4-Dichlorobenzene, CAS: 106-46-7

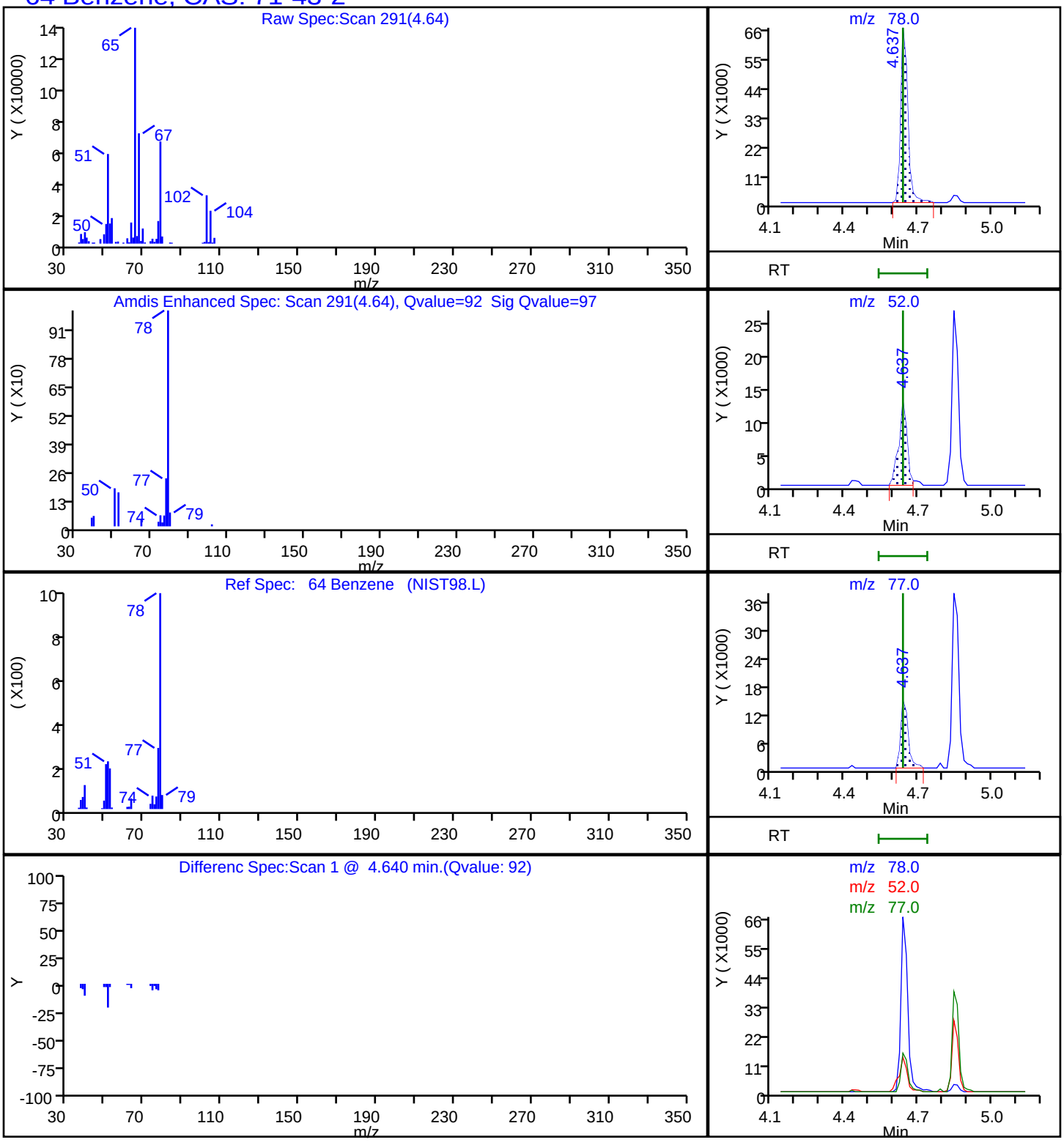


Report Date: 31-May-2019 00:37:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D		
Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1
Client ID:	LF1MW-5_0519		
Operator ID:	meierg	ALS Bottle#:	7 Worklist Smp#: 8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN

64 Benzene, CAS: 71-43-2



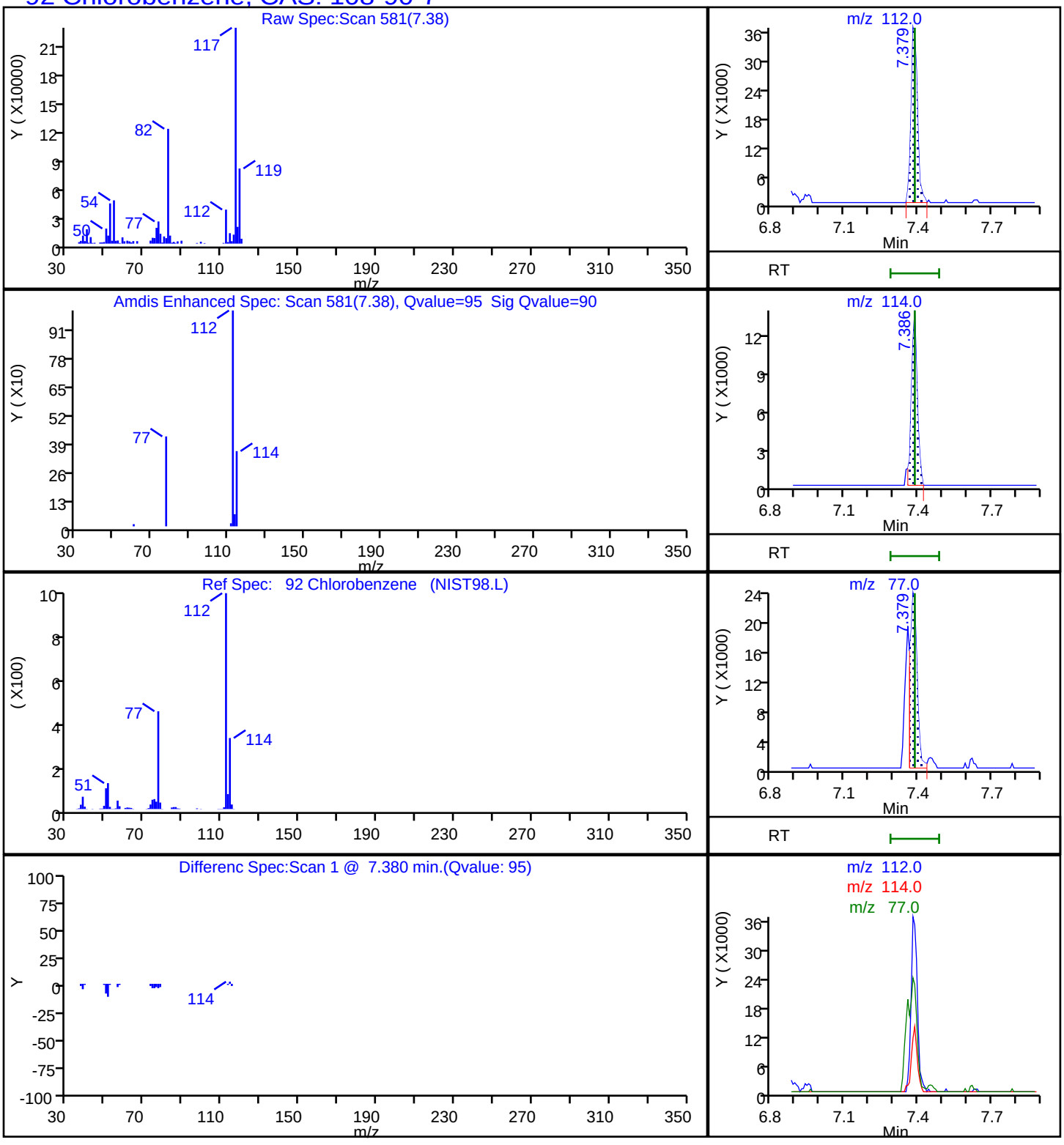
Report Date: 31-May-2019 00:37:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D

Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1
Client ID:	LF1MW-5_0519		
Operator ID:	meierg	ALS Bottle#:	7 Worklist Smp#: 8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN

92 Chlorobenzene, CAS: 108-90-7



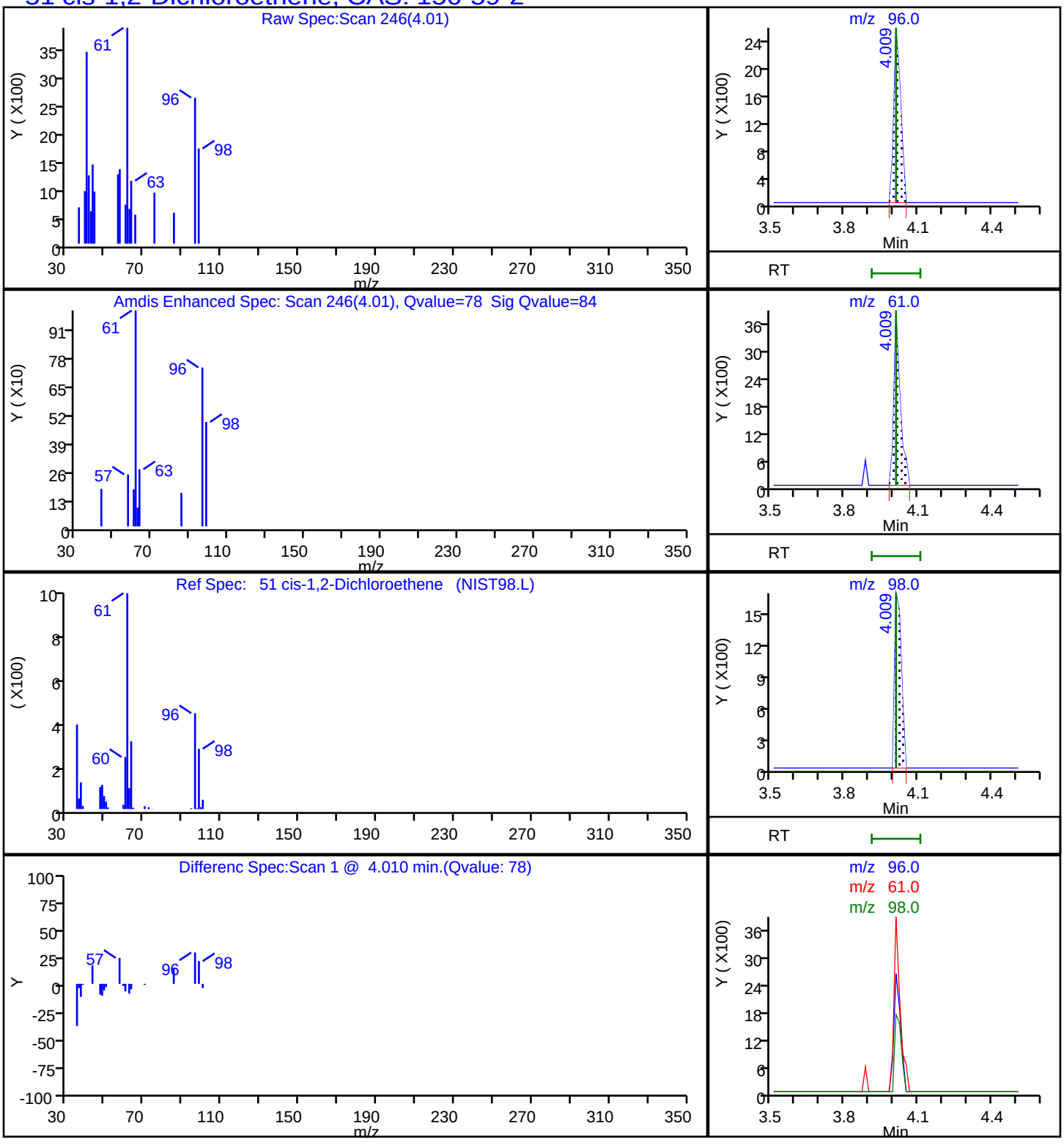
Report Date: 31-May-2019 00:37:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D

Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1
Client ID:	LF1MW-5_0519		
Operator ID:	meierg	ALS Bottle#:	7 Worklist Smp#: 8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN

51 cis-1,2-Dichloroethene, CAS: 156-59-2



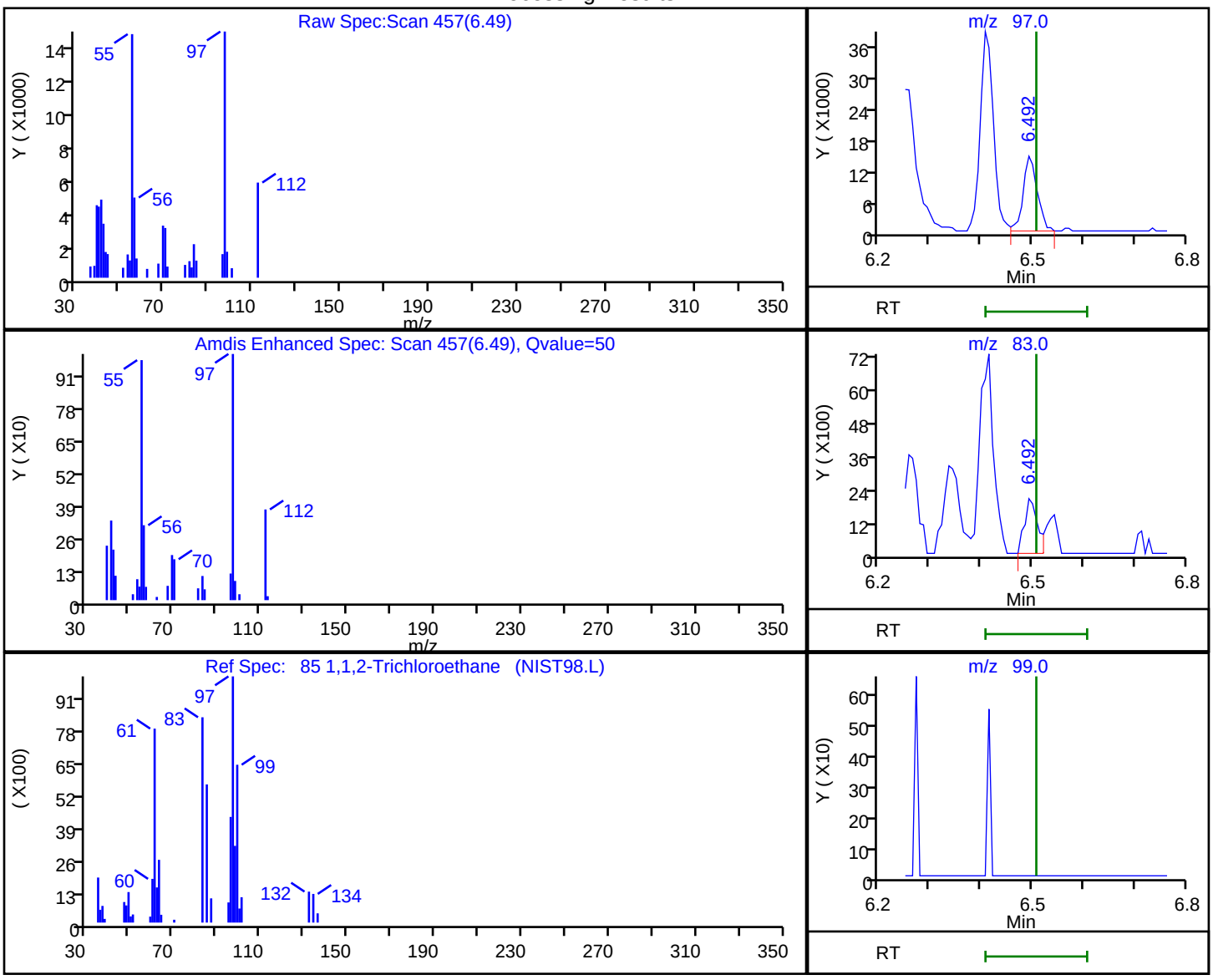
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D				
Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1		
Client ID:	LF1MW-5_0519				
Operator ID:	meierg	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

85 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
6.49	97.00	28238	1.820060
6.49	83.00	3571	
6.51	99.00	0	

Reviewer: meierg, 30-May-2019 12:10:55

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

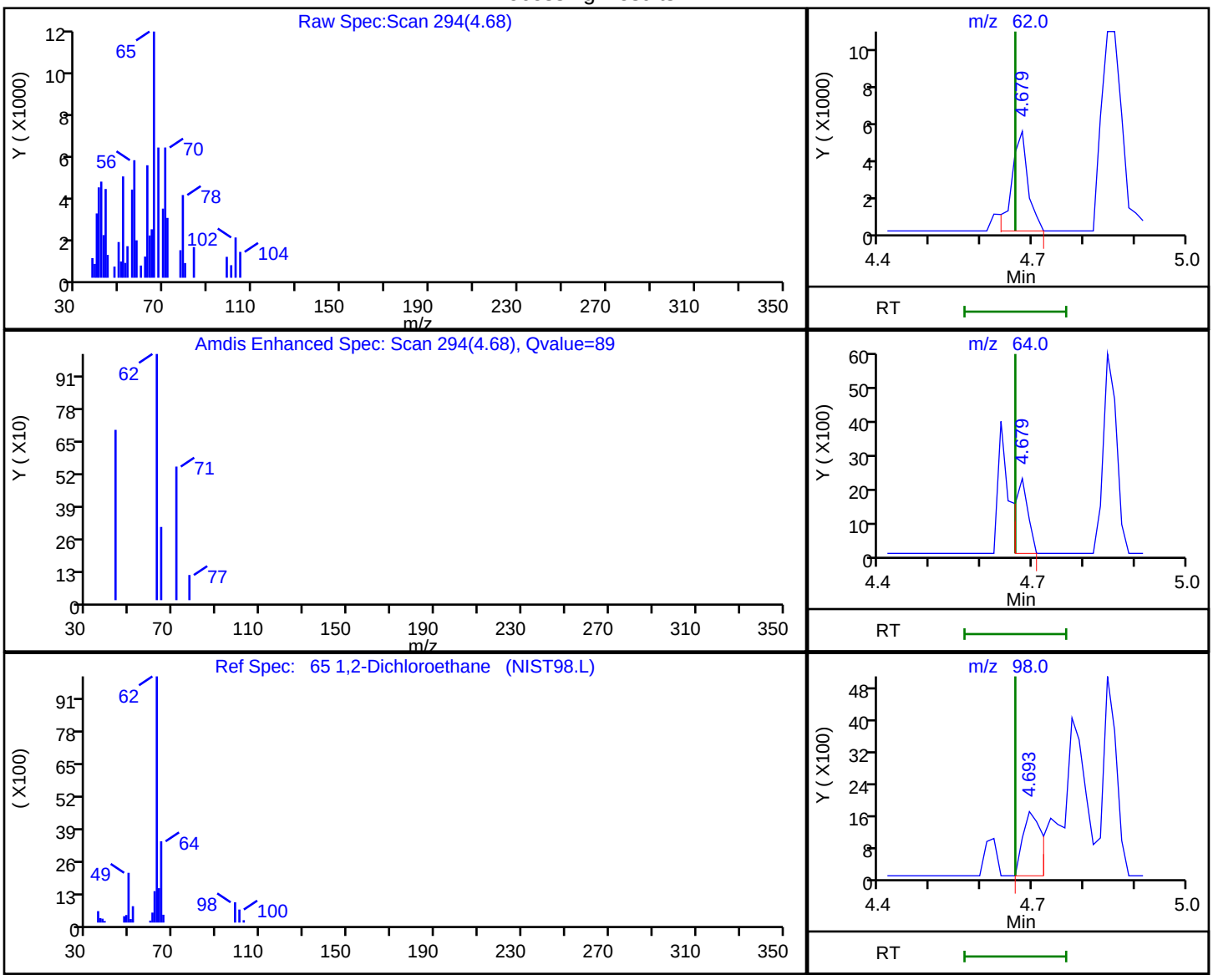
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D				
Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1		
Client ID:	LF1MW-5_0519				
Operator ID:	meierg	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

65 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
4.68	62.00	11359	0.130783
4.68	64.00	3916	
4.69	98.00	4132	

Reviewer: meierg, 30-May-2019 12:10:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

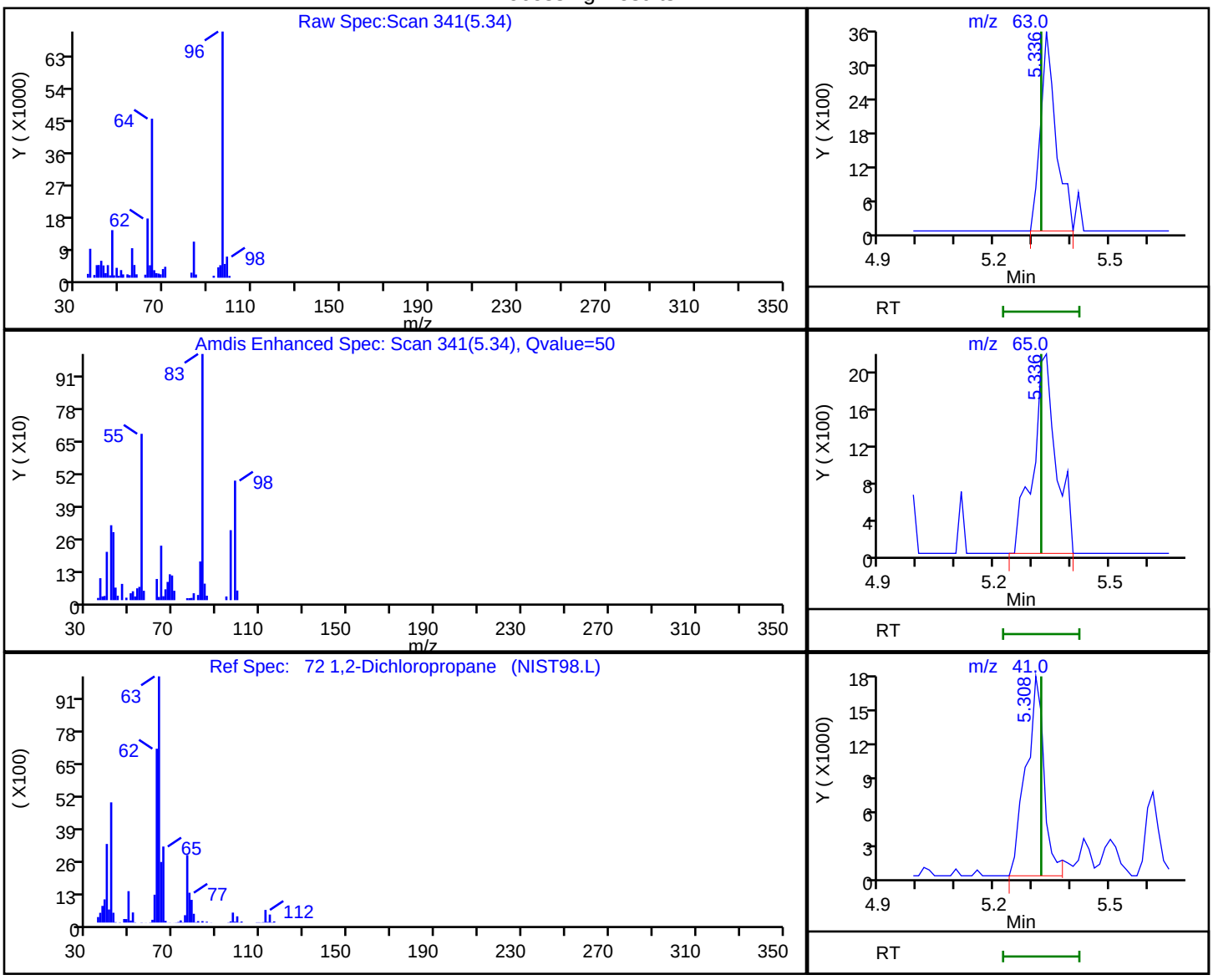
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D				
Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1		
Client ID:	LF1MW-5_0519				
Operator ID:	meierg	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

72 1,2-Dichloropropane, CAS: 78-87-5

Processing Results



RT	Mass	Response	Amount
5.34	63.00	9888	0.103985
5.34	65.00	8942	
5.31	41.00	59088	

Reviewer: meierg, 30-May-2019 12:10:52

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

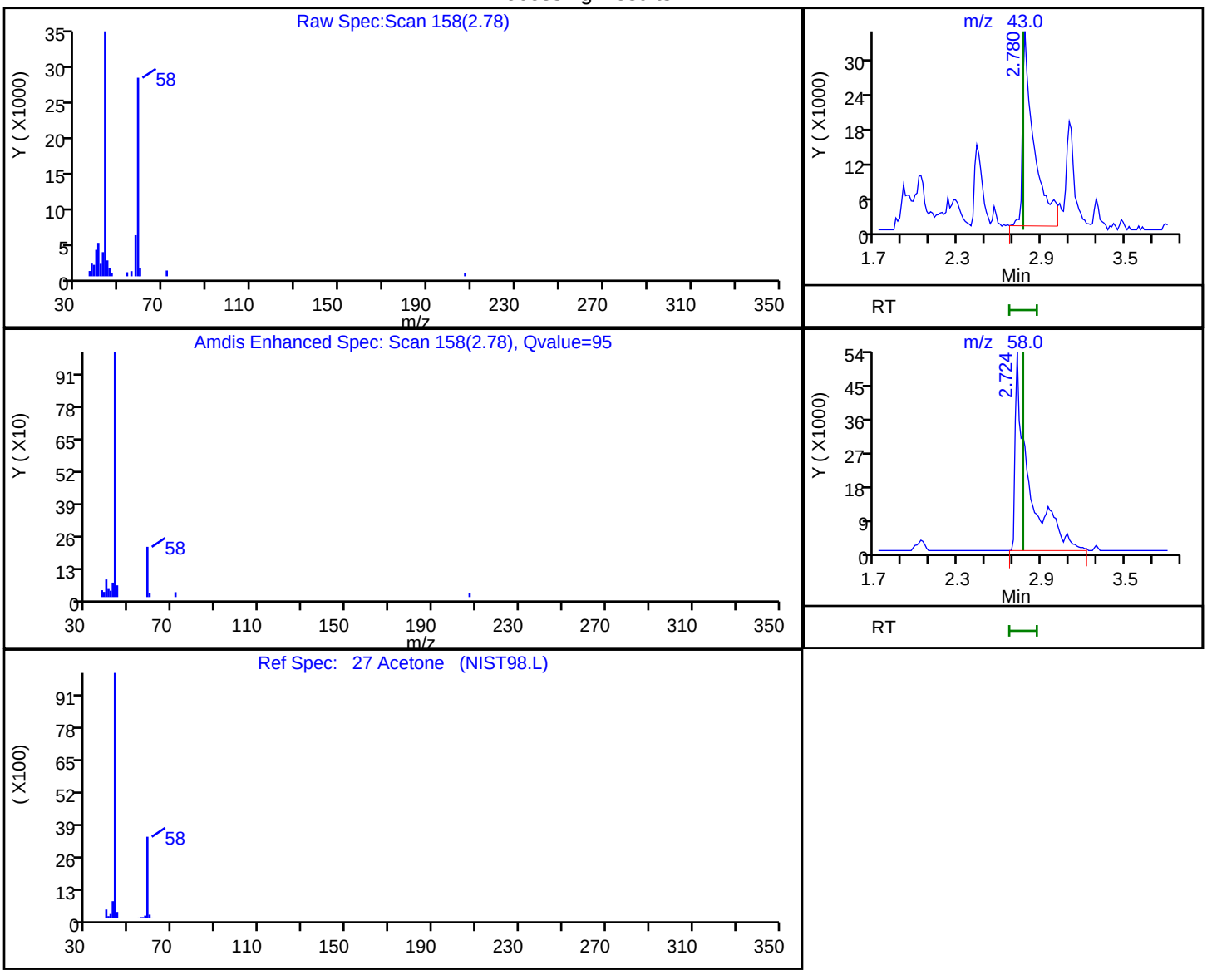
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D				
Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1		
Client ID:	LF1MW-5_0519				
Operator ID:	meierg	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

27 Acetone, CAS: 67-64-1

Processing Results



RT	Mass	Response	Amount
2.78	43.00	196419	25.376633
2.72	58.00	366177	

Reviewer: meierg, 30-May-2019 12:10:29

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

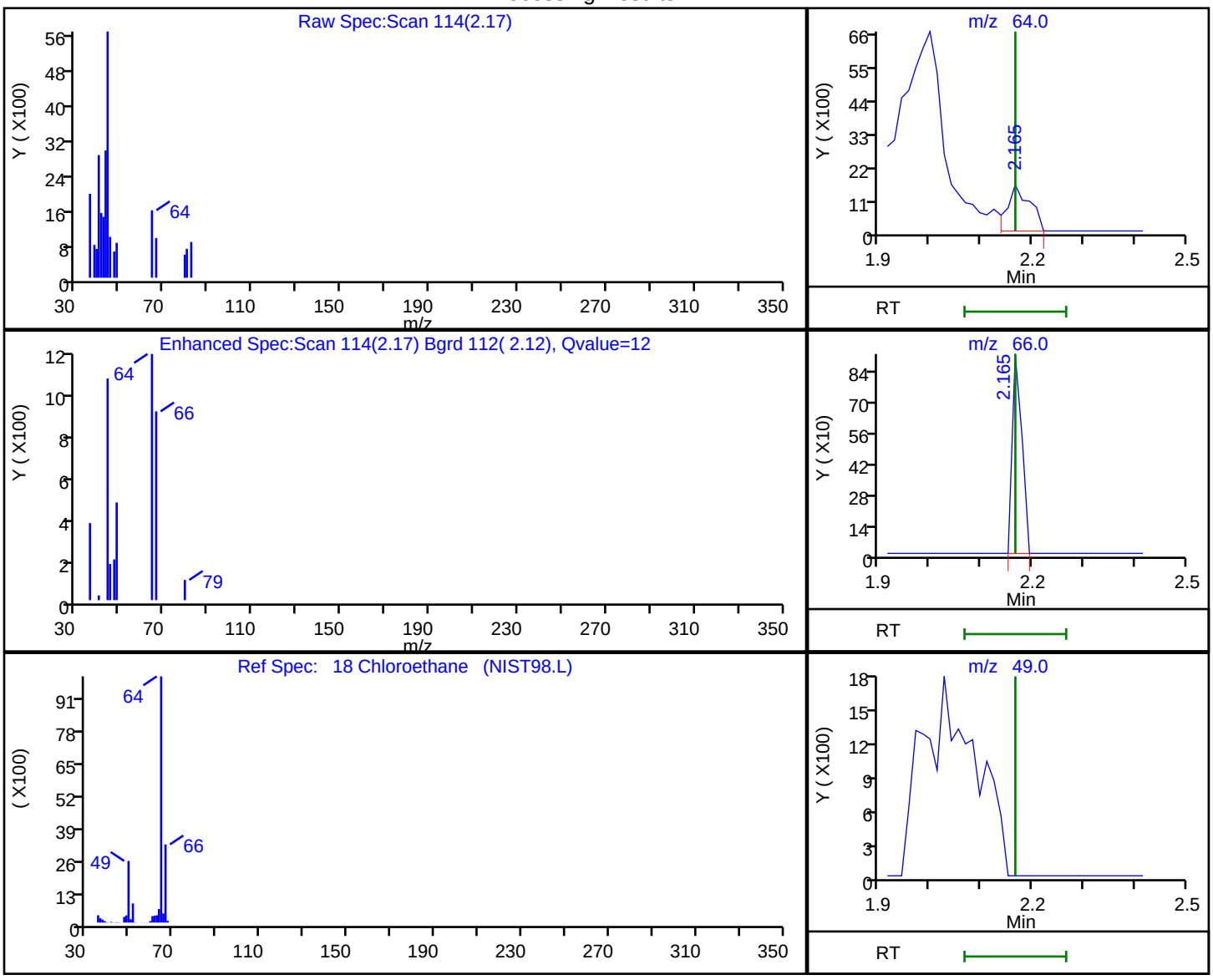
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D				
Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1		
Client ID:	LF1MW-5_0519				
Operator ID:	meierg	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

18 Chloroethane, CAS: 75-00-3

Processing Results



RT	Mass	Response	Amount
2.17	64.00	4747	0.321597
2.17	66.00	1202	
2.17	49.00	0	

Reviewer: meierg, 30-May-2019 12:10:33

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

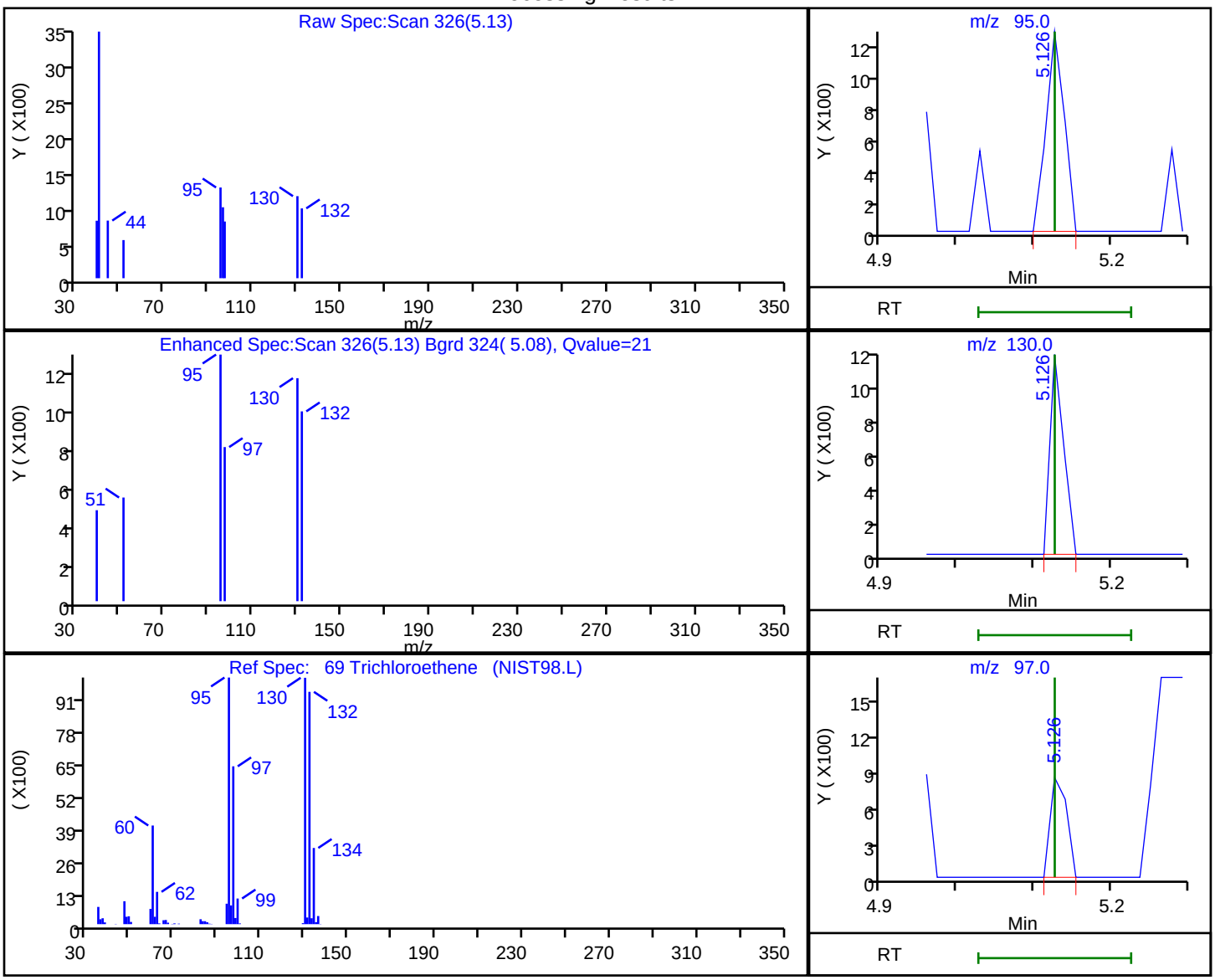
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5678.D				
Injection Date:	30-May-2019 11:21:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-K-1	Lab Sample ID:	280-123922-1		
Client ID:	LF1MW-5_0519				
Operator ID:	meierg	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

69 Trichloroethene, CAS: 79-01-6

Processing Results



RT	Mass	Response	Amount
5.13	95.00	2111	0.108780
5.13	130.00	1435	
5.13	97.00	1198	

Reviewer: meierg, 30-May-2019 12:10:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: LF1MW-5_0519-a Lab Sample ID: 280-123922-2

Matrix: Water Lab File ID: g2_5679.D

Analysis Method: 8260B Date Collected: 05/16/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 11:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U Q	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	0.80	U M	1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.23
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.19
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.21
96-18-4	1,2,3-Trichloropropane	0.80	U Q	3.0	0.80	0.33
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.21
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.15
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.47
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.15
107-06-2	1,2-Dichloroethane	0.40	U Q	1.0	0.40	0.13
540-59-0	1,2-Dichloroethene, Total	0.24	J	1.0	0.40	0.15
78-87-5	1,2-Dichloropropane	0.40	U M	1.0	0.40	0.18
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.16
541-73-1	1,3-Dichlorobenzene	0.40	U M	1.0	0.40	0.13
142-28-9	1,3-Dichloropropane	0.20	U	1.0	0.20	0.090
106-46-7	1,4-Dichlorobenzene	0.42	J	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.80	U Q	1.0	0.80	0.38
78-93-3	2-Butanone (MEK)	4.0	U Q	6.0	4.0	2.0
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U Q	5.0	4.0	1.7
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.21
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.20
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U Q	5.0	3.2	0.98
67-64-1	Acetone	6.4	U M Q	10	6.4	1.9
71-43-2	Benzene	1.7		1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	1.0	U	1.0	1.0	0.46
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: LF1MW-5_0519-a Lab Sample ID: 280-123922-2

Matrix: Water Lab File ID: g2_5679.D

Analysis Method: 8260B Date Collected: 05/16/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 11:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	1.3		1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U M	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.24	J	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U Q	1.0	0.40	0.16
124-48-1	Dibromochloromethane	0.40	U	1.0	0.40	0.17
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
108-20-3	Diisopropyl ether	0.40	U	10	0.40	0.13
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
179601-23-1	m,p-Xylene	0.80	U	2.0	0.80	0.15
74-88-4	Methyl iodide	0.80	U	2.0	0.80	0.23
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	2.0	U	5.0	2.0	0.94
91-20-3	Naphthalene	0.80	U Q	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.14
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.80	U	1.0	0.80	0.36
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U Q	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
108-05-4	Vinyl acetate	2.0	U Q	3.0	2.0	0.94
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10
1330-20-7	Xylenes, Total	0.80	U	1.0	0.80	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: LF1MW-5_0519-a Lab Sample ID: 280-123922-2

Matrix: Water Lab File ID: g2_5679.D

Analysis Method: 8260B Date Collected: 05/16/2019 12:50

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 11:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		81-118
460-00-4	4-Bromofluorobenzene (Surr)	101		85-114
1868-53-7	Dibromofluoromethane (Surr)	98		80-119
2037-26-5	Toluene-d8 (Surr)	98		89-112

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D
Lims ID: 280-123922-M-2
Client ID: LF1MW-5_0519-a
Sample Type: Client
Inject. Date: 30-May-2019 11:43:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-123922-m-2
Misc. Info.: 280-0082377-009
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 13:25:01

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2517488	1000.0	
*	2 Fluorobenzene	96	4.861	4.861	0.000	99	4085622	50.0	
*	3 Chlorobenzene-d5	119	7.358	7.358	0.000	87	918067	50.0	
*	4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1473943	50.0	
$	6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	940856	49.1	
$	7 1,2-Dichloroethane-d4 (Sur	65	4.609	4.610	-0.001	99	1333263	50.3	
$	8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	95	3715084	49.1	
$	9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	89	1379118	50.7	
	12 Dichlorodifluoromethane	85		1.607				ND	
	14 Chloromethane	50		1.789				ND	
	15 Vinyl chloride	62		1.900				ND	
	17 Bromomethane	94		2.124				ND	
	18 Chloroethane	64		2.166				ND	U
	20 Trichlorofluoromethane	101		2.403				ND	
	25 1,1-Dichloroethene	96		2.766				ND	
	27 Acetone	43		2.766				ND	U
	28 Iodomethane	142		2.878				ND	
	30 Carbon disulfide	76		3.004				ND	
	35 Methylene Chloride	84		3.115				ND	
	41 Methyl tert-butyl ether	73		3.283				ND	
	40 trans-1,2-Dichloroethene	96		3.297				ND	
	46 Vinyl acetate	43		3.590				ND	
	47 Isopropyl ether	87		3.604				ND	
	45 1,1-Dichloroethane	63	3.604	3.604	0.000	90	4985	0.1526	
	52 2-Butanone (MEK)	43		3.981				ND	
	51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	78	4575	0.2385	
	50 2,2-Dichloropropane	77		4.023				ND	
	56 Chlorobromomethane	128		4.191				ND	
	59 Chloroform	83		4.247				ND	
	60 1,1,1-Trichloroethane	97		4.386				ND	
	63 1,1-Dichloropropene	75		4.484				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Carbon tetrachloride	117		4.498				ND	
64 Benzene	78	4.637	4.638	-0.001	92	123127	1.66	
65 1,2-Dichloroethane	62		4.666				ND	
69 Trichloroethene	95		5.126				ND	
72 1,2-Dichloropropane	63		5.322				ND	U
75 Dibromomethane	93		5.406				ND	
76 Dichlorobromomethane	83		5.518				ND	
79 cis-1,3-Dichloropropene	75		5.867				ND	
81 4-Methyl-2-pentanone (MIBK	43		5.978				ND	
82 Toluene	91		6.156				ND	
83 trans-1,3-Dichloropropene	75		6.335				ND	
85 1,1,2-Trichloroethane	97		6.507				ND	U
86 Tetrachloroethene	164		6.593				ND	
87 1,3-Dichloropropane	76		6.650				ND	
88 2-Hexanone	43		6.678				ND	
89 Chlorodibromomethane	129		6.843				ND	
90 Ethylene Dibromide	107		6.957				ND	
92 Chlorobenzene	112	7.386	7.386	0.000	94	63490	1.25	
93 1,1,1,2-Tetrachloroethane	131		7.458				ND	
94 Ethylbenzene	106		7.465				ND	
95 m-Xylene & p-Xylene	106		7.579				ND	
96 o-Xylene	106		7.937				ND	
97 Styrene	104		7.951				ND	
98 Bromoform	173		8.130				ND	
99 Isopropylbenzene	105		8.273				ND	
102 1,1,2,2-Tetrachloroethane	83		8.559				ND	
103 Bromobenzene	156		8.588				ND	
104 1,2,3-Trichloropropane	110		8.623				ND	
106 N-Propylbenzene	120		8.666				ND	
107 2-Chlorotoluene	126		8.759				ND	
108 1,3,5-Trimethylbenzene	105		8.838				ND	
109 4-Chlorotoluene	126		8.874				ND	
110 tert-Butylbenzene	119		9.145				ND	
111 1,2,4-Trimethylbenzene	105		9.202				ND	
112 sec-Butylbenzene	134		9.360				ND	
113 1,3-Dichlorobenzene	146		9.481				ND	U
114 4-Isopropyltoluene	119		9.510				ND	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	88	16916	0.4219	
117 n-Butylbenzene	91		9.903				ND	
118 1,2-Dichlorobenzene	146		9.932				ND	
119 1,2-Dibromo-3-Chloropropan	157		10.704				ND	
121 1,2,4-Trichlorobenzene	180		11.519				ND	
122 Hexachlorobutadiene	225		11.662				ND	
123 Naphthalene	128		11.784				ND	
124 1,2,3-Trichlorobenzene	180		12.005				ND	
S 143 Xylenes, Total	106		0.000				ND	
S 144 1,2-Dichloroethene, Total	1				0		0.2385	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

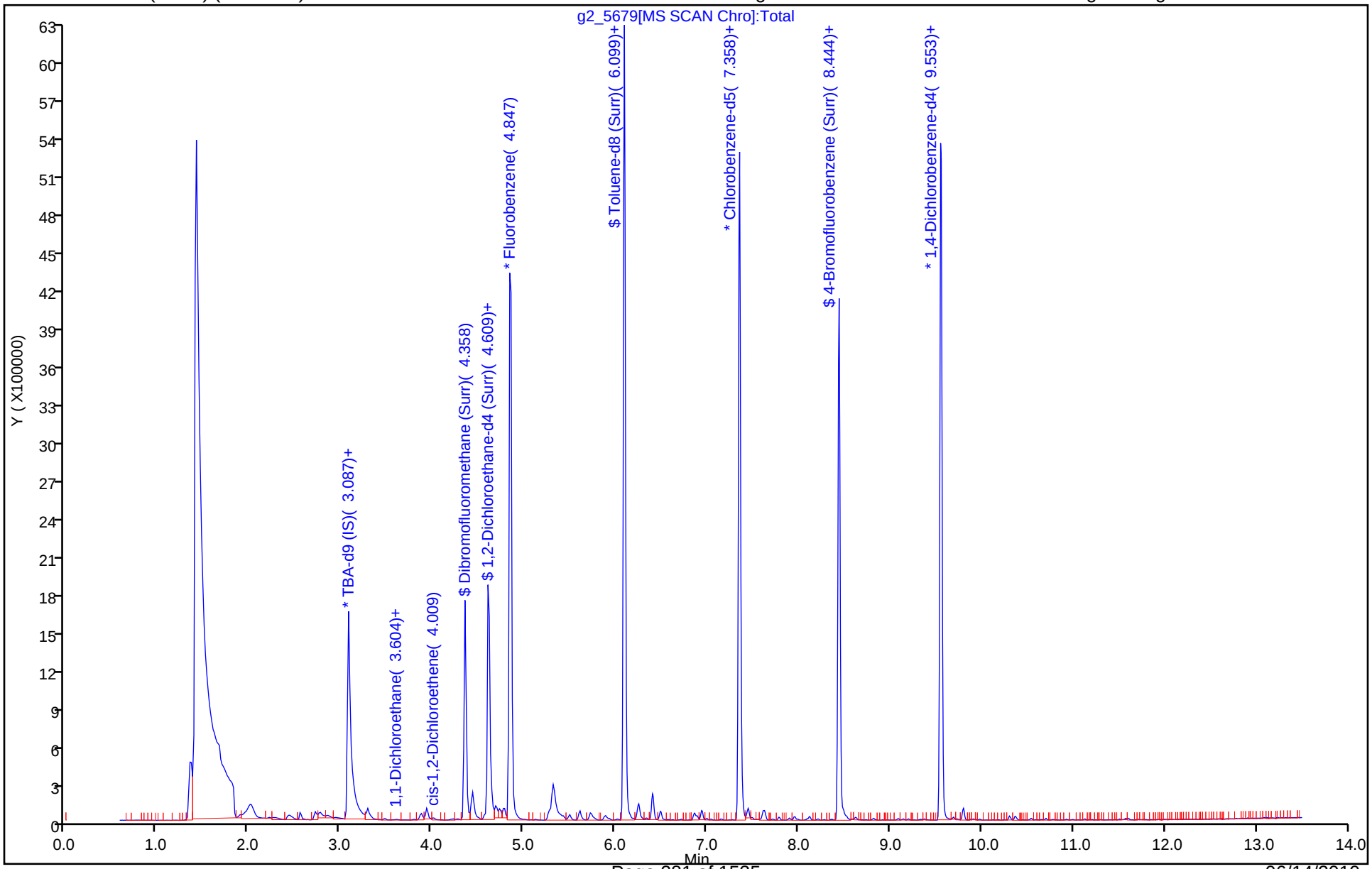
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 31-May-2019 00:37:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D				
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2	Worklist Smp#:	9
Client ID:	LF1MW-5_0519-a				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D
Lims ID: 280-123922-M-2
Client ID: LF1MW-5_0519-a
Sample Type: Client
Inject. Date: 30-May-2019 11:43:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-123922-m-2
Misc. Info.: 280-0082377-009
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 13:25:01

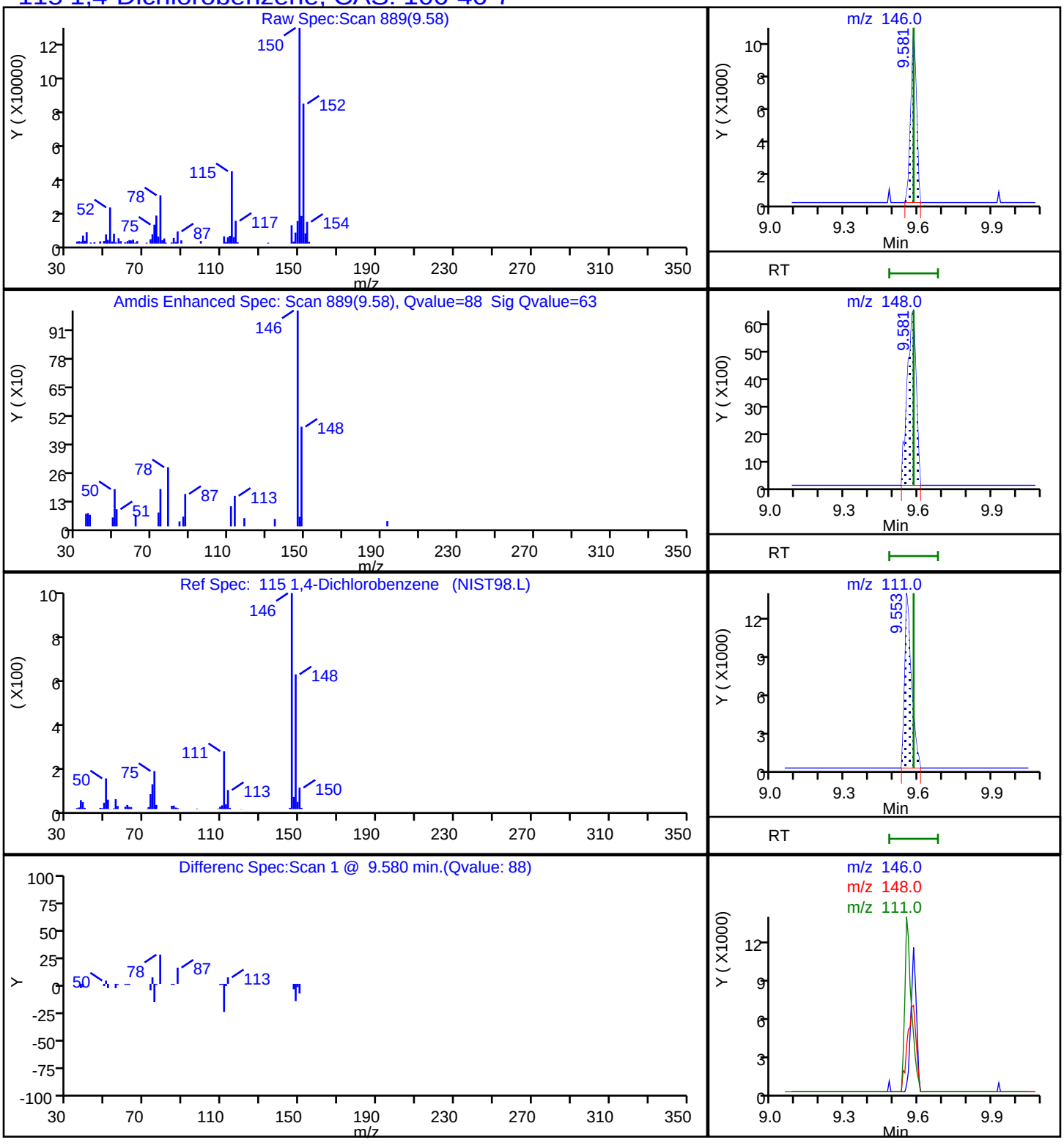
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 Dibromofluoromethane (Surr)	50.0	49.1	98.10
$ 7 1,2-Dichloroethane-d4 (Surr)	50.0	50.3	100.63
$ 8 Toluene-d8 (Surr)	50.0	49.1	98.29
$ 9 4-Bromofluorobenzene (Surr)	50.0	50.7	101.41

Report Date: 31-May-2019 00:37:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D				
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2		
Client ID:	LF1MW-5_0519-a				
Operator ID:	meierg	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

115 1,4-Dichlorobenzene, CAS: 106-46-7

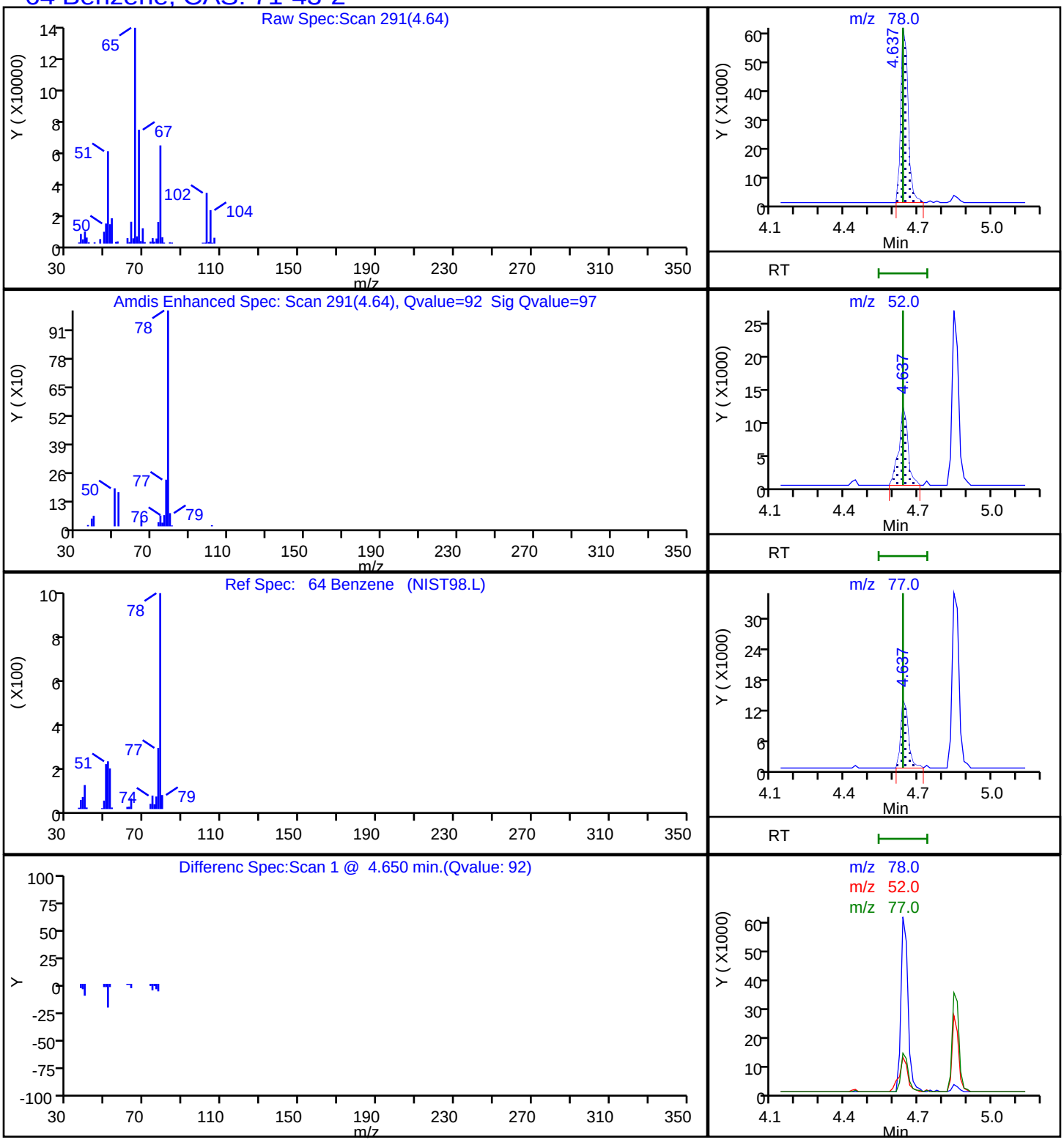


Report Date: 31-May-2019 00:37:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D				
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2		
Client ID:	LF1MW-5_0519-a				
Operator ID:	meierg	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

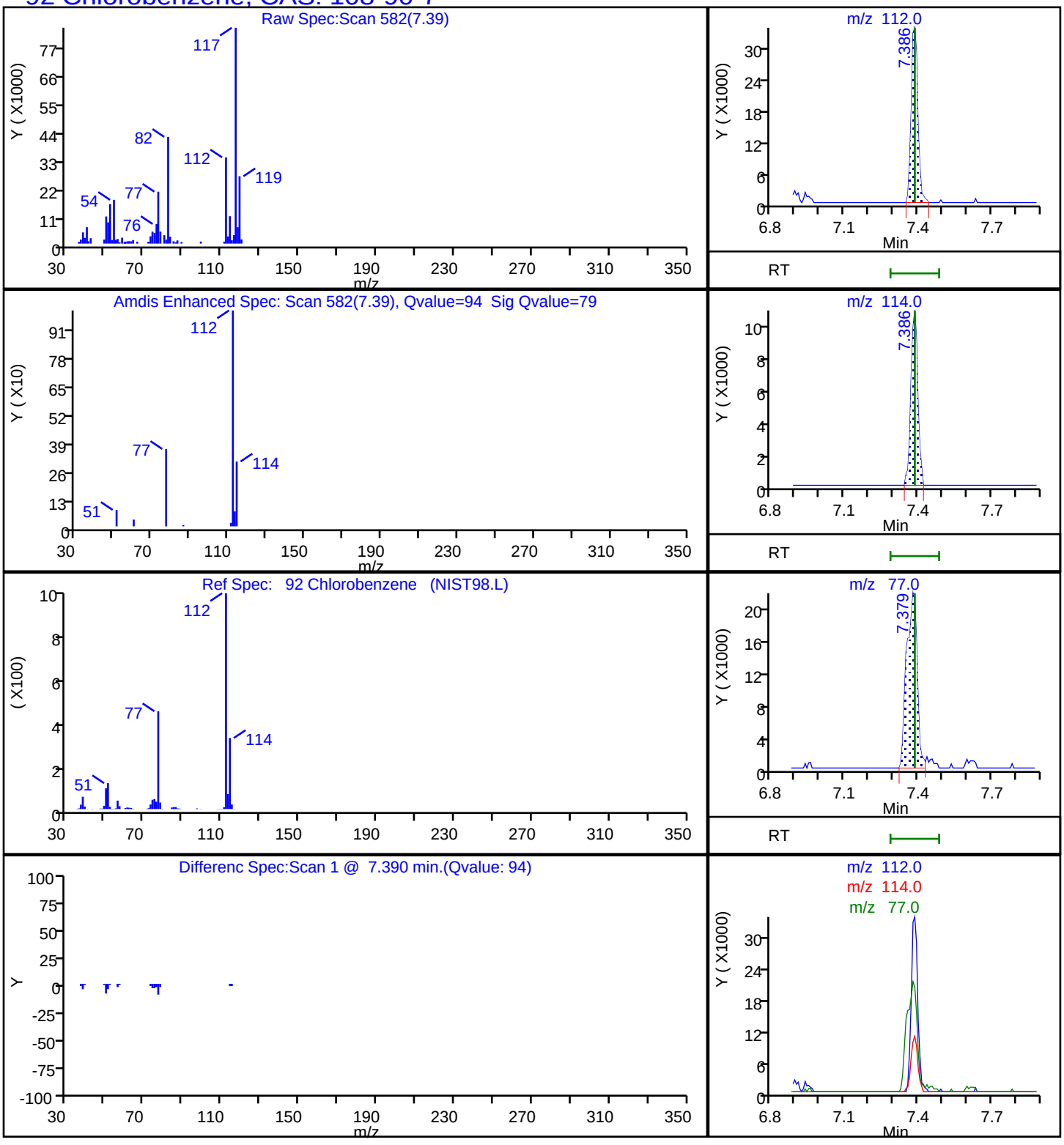
64 Benzene, CAS: 71-43-2



Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D		
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2
Client ID:	LF1MW-5_0519-a		
Operator ID:	meierg	ALS Bottle#:	8 Worklist Smp#: 9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN

92 Chlorobenzene, CAS: 108-90-7

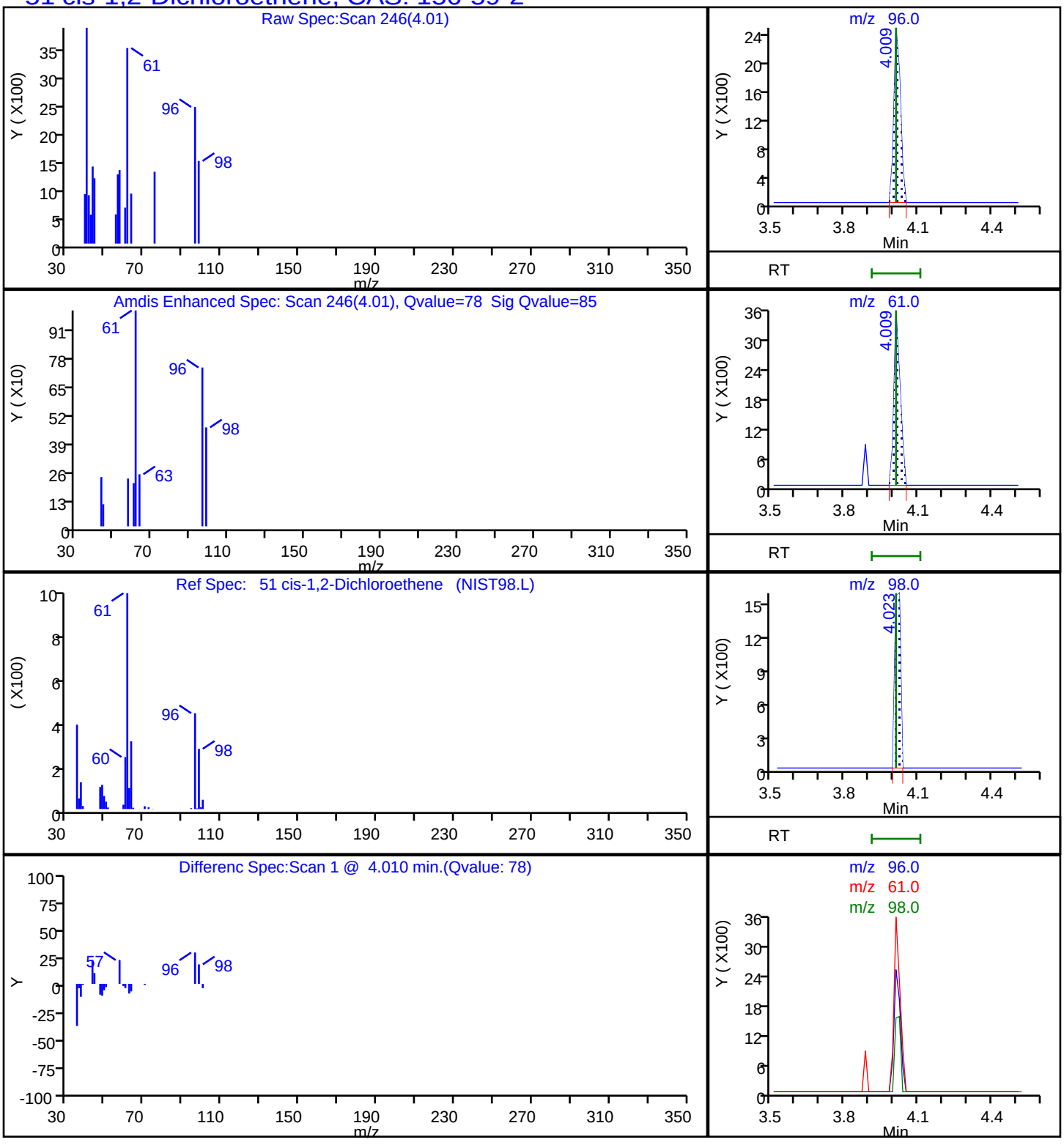


Report Date: 31-May-2019 00:37:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D				
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2		
Client ID:	LF1MW-5_0519-a				
Operator ID:	meierg	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

51 cis-1,2-Dichloroethene, CAS: 156-59-2



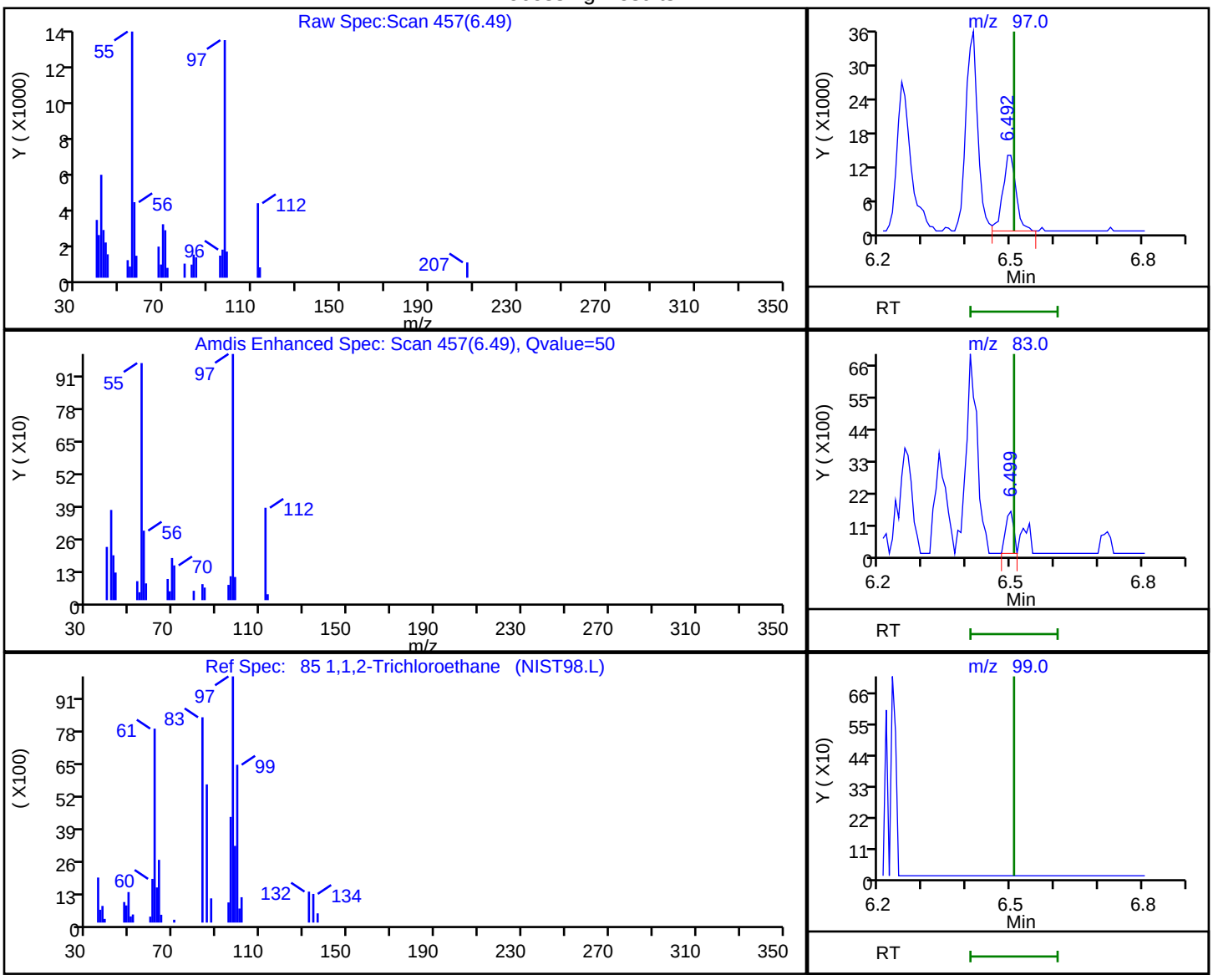
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D				
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2		
Client ID:	LF1MW-5_0519-a				
Operator ID:	meierg	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

85 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
6.49	97.00	28069	1.883713
6.50	83.00	1828	
6.51	99.00	0	

Reviewer: meierg, 30-May-2019 12:11:23

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

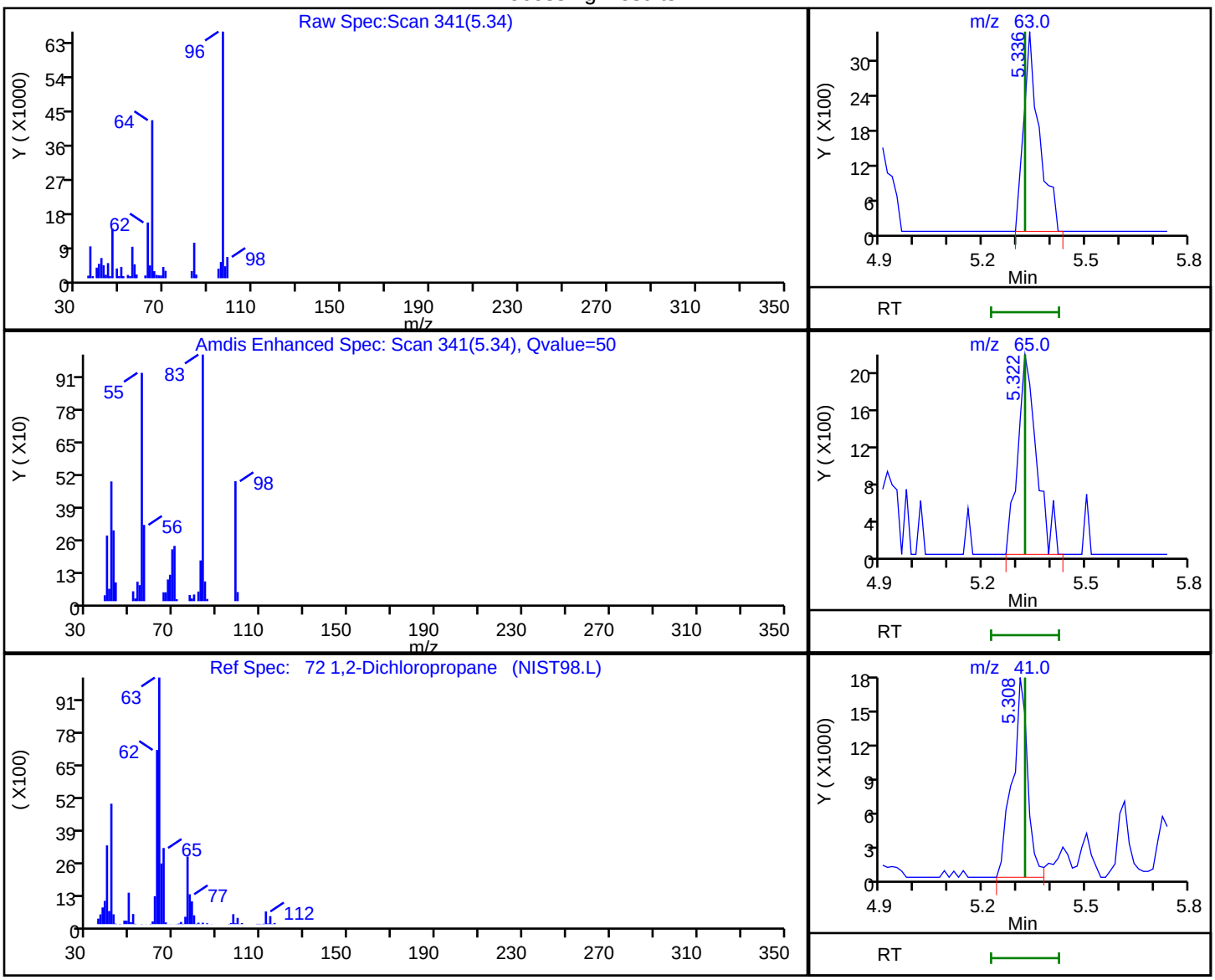
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D				
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2		
Client ID:	LF1MW-5_0519-a				
Operator ID:	meierg	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

72 1,2-Dichloropropane, CAS: 78-87-5

Processing Results



RT	Mass	Response	Amount
5.34	63.00	10810	0.173694
5.32	65.00	8451	
5.31	41.00	54481	

Reviewer: meierg, 30-May-2019 12:11:22

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

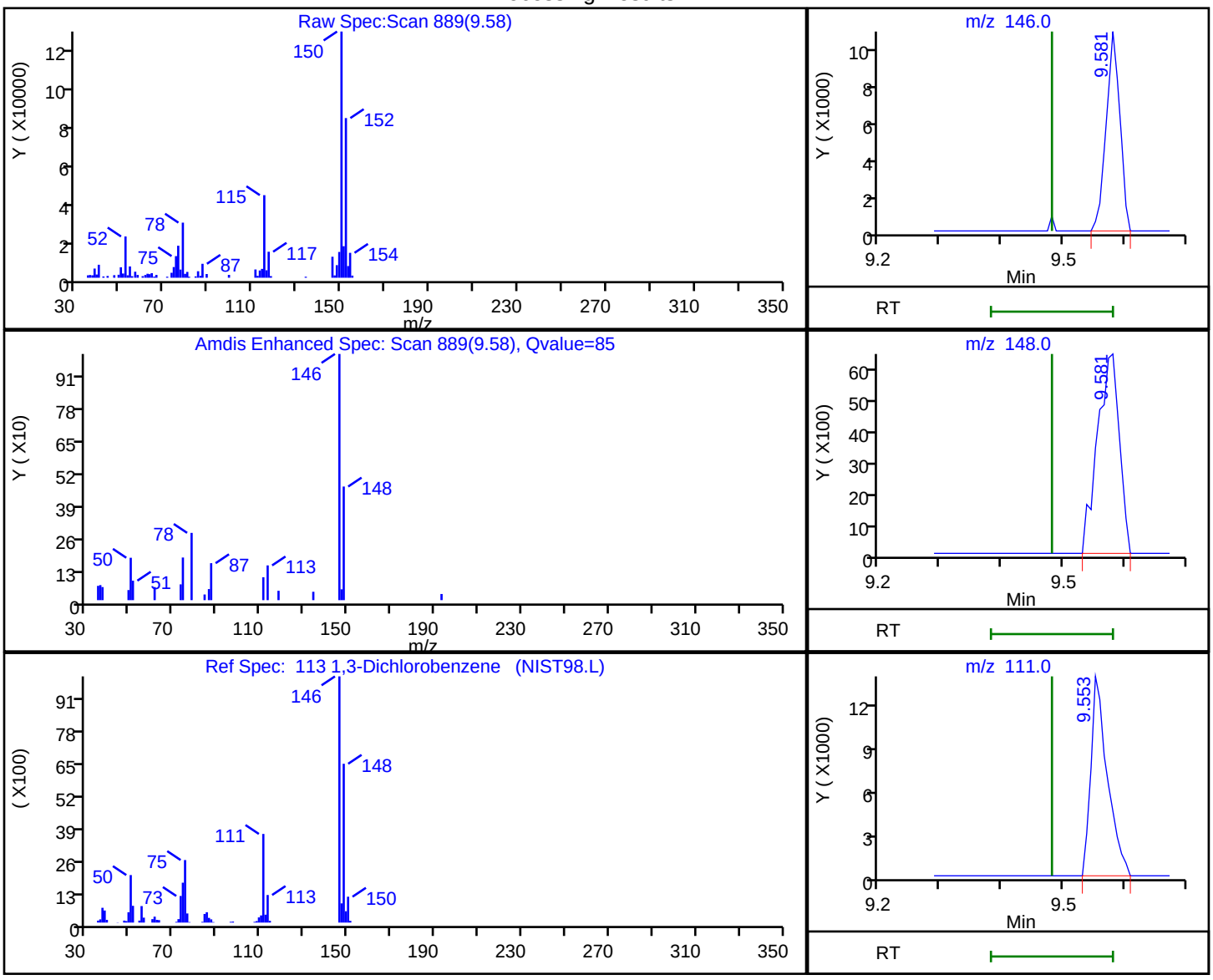
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D				
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2		
Client ID:	LF1MW-5_0519-a				
Operator ID:	meierg	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

113 1,3-Dichlorobenzene, CAS: 541-73-1

Processing Results



RT	Mass	Response	Amount
9.58	146.00	16916	0.442916
9.58	148.00	16115	
9.55	111.00	24770	

Reviewer: meierg, 30-May-2019 12:11:28

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

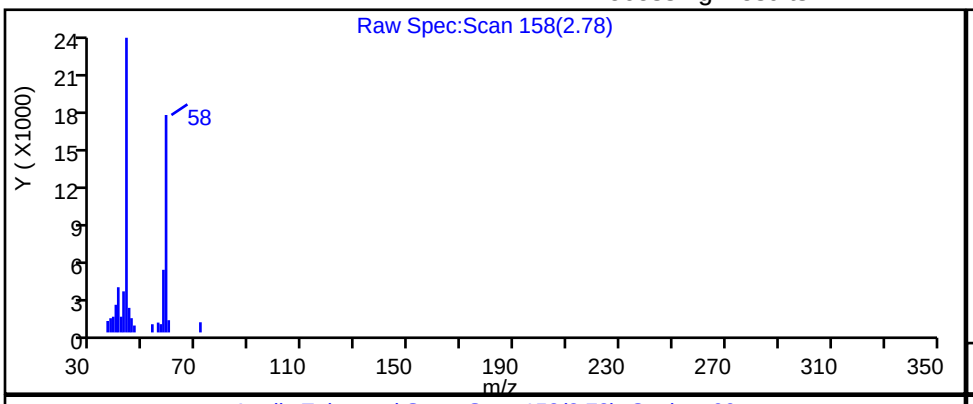
User Disabled Compound Report

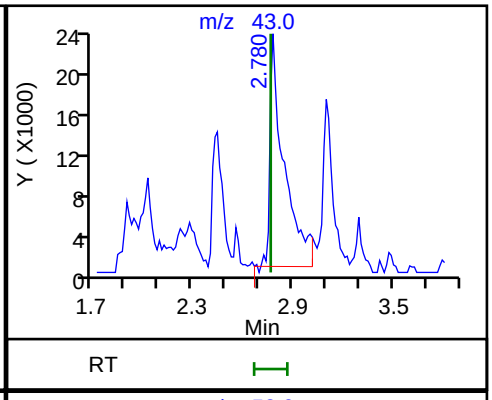
Eurofins TestAmerica, Denver

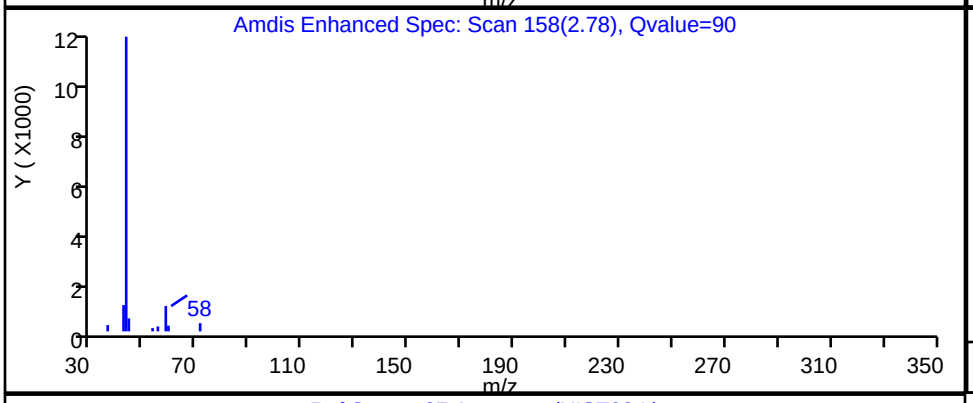
Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D				
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2		
Client ID:	LF1MW-5_0519-a				
Operator ID:	meierg	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

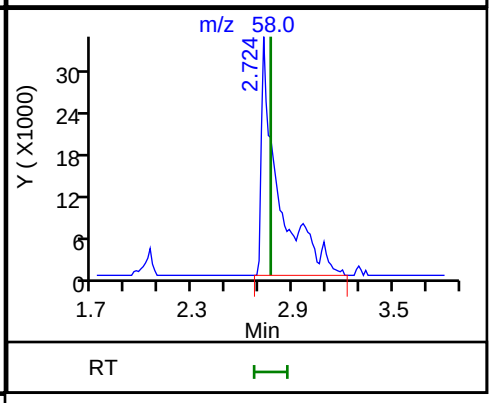
27 Acetone, CAS: 67-64-1

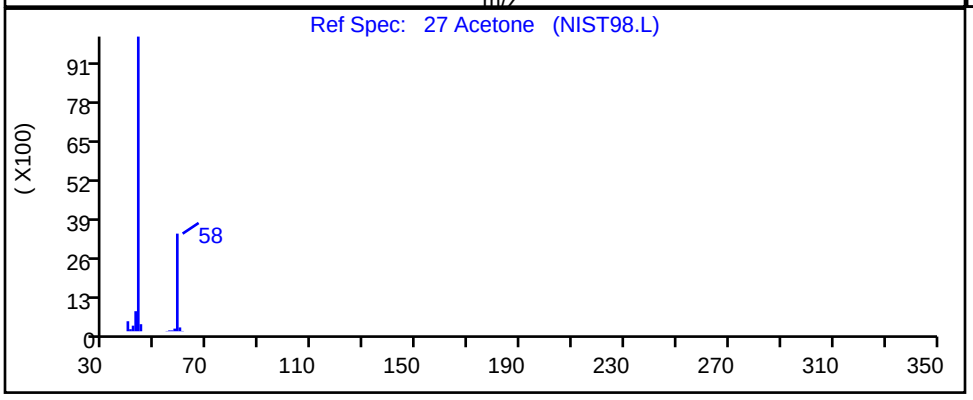
Processing Results











RT	Mass	Response	Amount
2.78	43.00	132858	15.885179
2.72	58.00	242696	

Reviewer: meierg, 30-May-2019 12:11:12

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

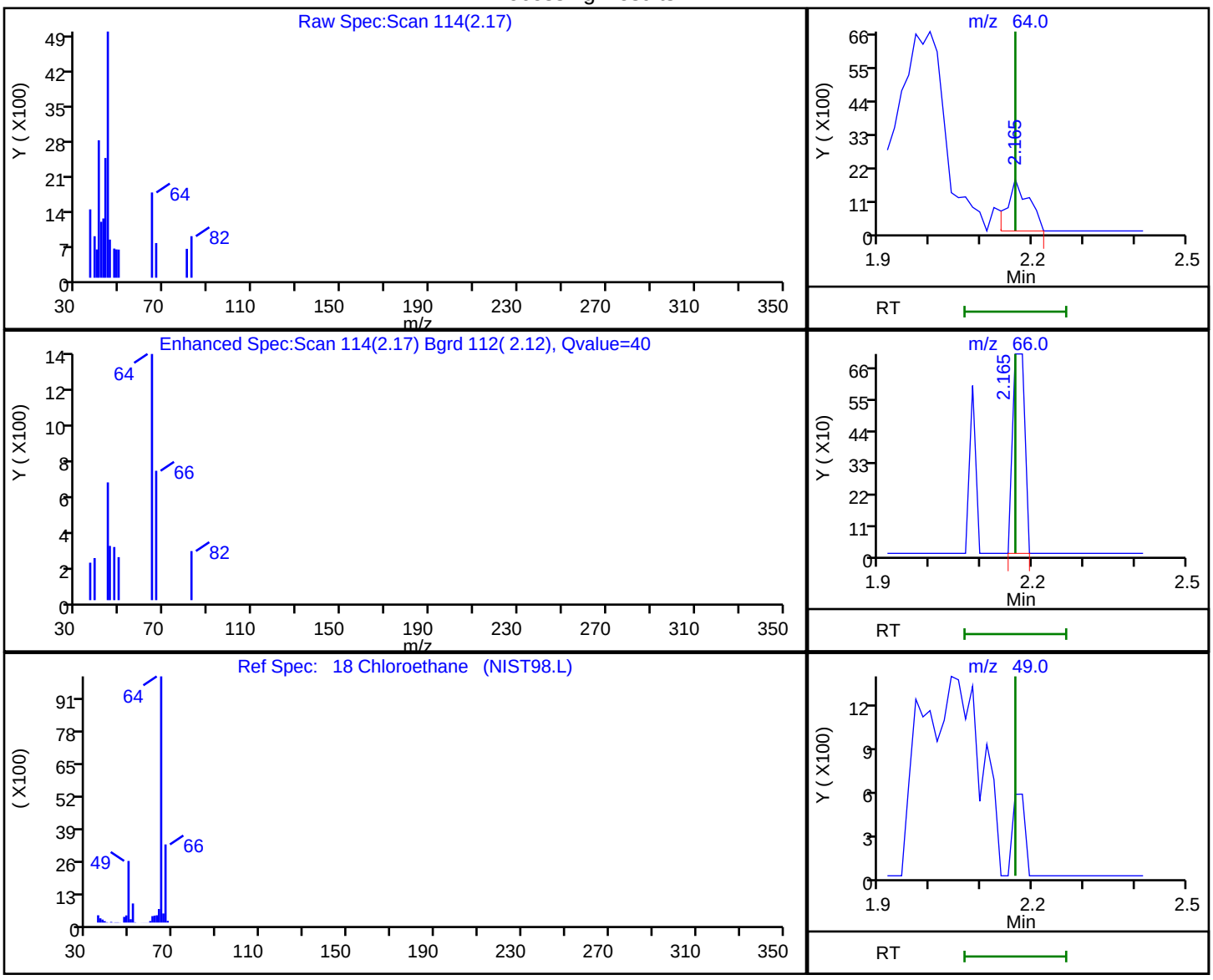
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5679.D				
Injection Date:	30-May-2019 11:43:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-M-2	Lab Sample ID:	280-123922-2		
Client ID:	LF1MW-5_0519-a				
Operator ID:	meierg	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

18 Chloroethane, CAS: 75-00-3

Processing Results



RT	Mass	Response	Amount
2.17	64.00	5036	0.355234
2.17	66.00	1175	
2.17	49.00	0	

Reviewer: meierg, 30-May-2019 12:11:10

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: LF1-TB1_051619 Lab Sample ID: 280-123922-4

Matrix: Water Lab File ID: g2_5680.D

Analysis Method: 8260B Date Collected: 05/16/2019 16:20

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 12:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U Q	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.23
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.19
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.21
96-18-4	1,2,3-Trichloropropane	0.80	U Q	3.0	0.80	0.33
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.21
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.15
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.47
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.15
107-06-2	1,2-Dichloroethane	0.40	U Q	1.0	0.40	0.13
540-59-0	1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.15
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.18
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.16
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.13
142-28-9	1,3-Dichloropropane	0.20	U	1.0	0.20	0.090
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.80	U Q	1.0	0.80	0.38
78-93-3	2-Butanone (MEK)	4.0	U Q	6.0	4.0	2.0
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U Q	5.0	4.0	1.7
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.21
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.20
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U Q	5.0	3.2	0.98
67-64-1	Acetone	6.4	U M Q	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	1.0	U	1.0	1.0	0.46
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: LF1-TB1_051619 Lab Sample ID: 280-123922-4

Matrix: Water Lab File ID: g2_5680.D

Analysis Method: 8260B Date Collected: 05/16/2019 16:20

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 12:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U Q	1.0	0.40	0.16
124-48-1	Dibromochloromethane	0.40	U	1.0	0.40	0.17
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
108-20-3	Diisopropyl ether	0.40	U	10	0.40	0.13
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
179601-23-1	m,p-Xylene	0.80	U	2.0	0.80	0.15
74-88-4	Methyl iodide	0.80	U	2.0	0.80	0.23
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	2.0	U	5.0	2.0	0.94
91-20-3	Naphthalene	0.80	U Q	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.14
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.80	U	1.0	0.80	0.36
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U Q	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
108-05-4	Vinyl acetate	2.0	U Q	3.0	2.0	0.94
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10
1330-20-7	Xylenes, Total	0.80	U	1.0	0.80	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: LF1-TB1_051619 Lab Sample ID: 280-123922-4

Matrix: Water Lab File ID: g2_5680.D

Analysis Method: 8260B Date Collected: 05/16/2019 16:20

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 12:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		81-118
460-00-4	4-Bromofluorobenzene (Surr)	102		85-114
1868-53-7	Dibromofluoromethane (Surr)	100		80-119
2037-26-5	Toluene-d8 (Surr)	100		89-112

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5680.D
Lims ID: 280-123922-B-4
Client ID: LF1-TB1_051619
Sample Type: Client
Inject. Date: 30-May-2019 12:04:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-123922-b-4
Misc. Info.: 280-0082377-010
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 13:25:21

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2408508	1000.0	
*	2 Fluorobenzene	96	4.847	4.861	-0.014	99	3971746	50.0	
*	3 Chlorobenzene-d5	119	7.358	7.358	0.000	87	885652	50.0	
*	4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1415049	50.0	
$	6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	930534	49.9	
$	7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	100	1292625	50.2	
$	8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3637549	49.9	
$	9 4-Bromofluorobenzene (Surr	95	8.445	8.444	0.001	89	1336453	51.2	
	12 Dichlorodifluoromethane	85		1.607				ND	
	14 Chloromethane	50		1.789				ND	
	15 Vinyl chloride	62		1.900				ND	
	17 Bromomethane	94		2.124				ND	
	18 Chloroethane	64		2.166				ND	
	20 Trichlorofluoromethane	101		2.403				ND	
	25 1,1-Dichloroethene	96		2.766				ND	
	27 Acetone	43		2.766				ND	U
	28 Iodomethane	142		2.878				ND	
	30 Carbon disulfide	76		3.004				ND	
	35 Methylene Chloride	84		3.115				ND	
	41 Methyl tert-butyl ether	73		3.283				ND	
	40 trans-1,2-Dichloroethene	96		3.297				ND	
	46 Vinyl acetate	43		3.590				ND	
	47 Isopropyl ether	87		3.604				ND	
	45 1,1-Dichloroethane	63		3.604				ND	
	52 2-Butanone (MEK)	43		3.981				ND	
	51 cis-1,2-Dichloroethene	96		4.009				ND	
	50 2,2-Dichloropropane	77		4.023				ND	
	56 Chlorobromomethane	128		4.191				ND	
	59 Chloroform	83		4.247				ND	
	60 1,1,1-Trichloroethane	97		4.386				ND	
	63 1,1-Dichloropropene	75		4.484				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Carbon tetrachloride	117		4.498				ND	
64 Benzene	78		4.638				ND	
65 1,2-Dichloroethane	62		4.666				ND	
69 Trichloroethene	95		5.126				ND	
72 1,2-Dichloropropane	63		5.322				ND	
75 Dibromomethane	93		5.406				ND	
76 Dichlorobromomethane	83		5.518				ND	
79 cis-1,3-Dichloropropene	75		5.867				ND	
81 4-Methyl-2-pentanone (MIBK	43		5.978				ND	
82 Toluene	91		6.156				ND	
83 trans-1,3-Dichloropropene	75		6.335				ND	
85 1,1,2-Trichloroethane	97		6.507				ND	
86 Tetrachloroethene	164		6.593				ND	
87 1,3-Dichloropropane	76		6.650				ND	
88 2-Hexanone	43		6.678				ND	
89 Chlorodibromomethane	129		6.843				ND	
90 Ethylene Dibromide	107		6.957				ND	
92 Chlorobenzene	112		7.386				ND	
93 1,1,1,2-Tetrachloroethane	131		7.458				ND	
94 Ethylbenzene	106		7.465				ND	
95 m-Xylene & p-Xylene	106		7.579				ND	
96 o-Xylene	106		7.937				ND	
97 Styrene	104		7.951				ND	
98 Bromoform	173		8.130				ND	
99 Isopropylbenzene	105		8.273				ND	
102 1,1,2,2-Tetrachloroethane	83		8.559				ND	
103 Bromobenzene	156		8.588				ND	
104 1,2,3-Trichloropropane	110		8.623				ND	
106 N-Propylbenzene	120		8.666				ND	
107 2-Chlorotoluene	126		8.759				ND	
108 1,3,5-Trimethylbenzene	105		8.838				ND	
109 4-Chlorotoluene	126		8.874				ND	
110 tert-Butylbenzene	119		9.145				ND	
111 1,2,4-Trimethylbenzene	105		9.202				ND	
112 sec-Butylbenzene	134		9.360				ND	
113 1,3-Dichlorobenzene	146		9.481				ND	
114 4-Isopropyltoluene	119		9.510				ND	
115 1,4-Dichlorobenzene	146		9.581				ND	
117 n-Butylbenzene	91		9.903				ND	
118 1,2-Dichlorobenzene	146		9.932				ND	
119 1,2-Dibromo-3-Chloropropan	157		10.704				ND	
121 1,2,4-Trichlorobenzene	180		11.519				ND	
122 Hexachlorobutadiene	225		11.662				ND	
123 Naphthalene	128		11.784				ND	
124 1,2,3-Trichlorobenzene	180		12.005				ND	
S 143 Xylenes, Total	106		0.000				ND	
S 144 1,2-Dichloroethene, Total	1		0.000				ND	

QC Flag Legend

Review Flags

U - Marked Undetected

Reagents:

mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

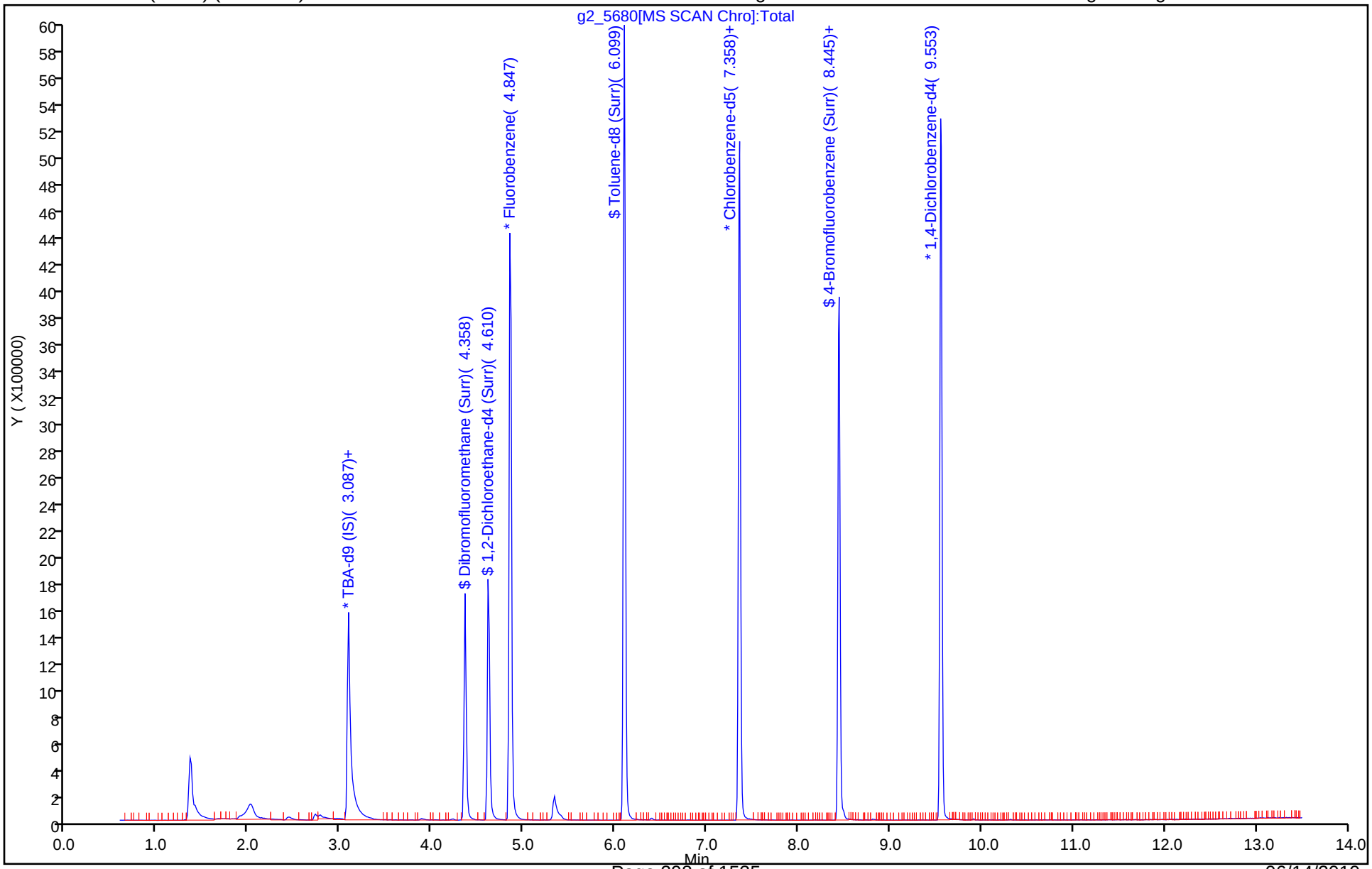
Report Date: 31-May-2019 00:37:53 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5680.D

Injection Date:	30-May-2019 12:04:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	280-123922-B-4	Lab Sample ID:	280-123922-4	Worklist Smp#:	10
Client ID:	LF1-TB1_051619				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5680.D
Lims ID: 280-123922-B-4
Client ID: LF1-TB1_051619
Sample Type: Client
Inject. Date: 30-May-2019 12:04:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-123922-b-4
Misc. Info.: 280-0082377-010
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 13:25:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 Dibromofluoromethane (Surr)	50.0	49.9	99.81
$ 7 1,2-Dichloroethane-d4 (Surr)	50.0	50.2	100.36
$ 8 Toluene-d8 (Surr)	50.0	49.9	99.76
$ 9 4-Bromofluorobenzene (Surr)	50.0	51.2	102.36

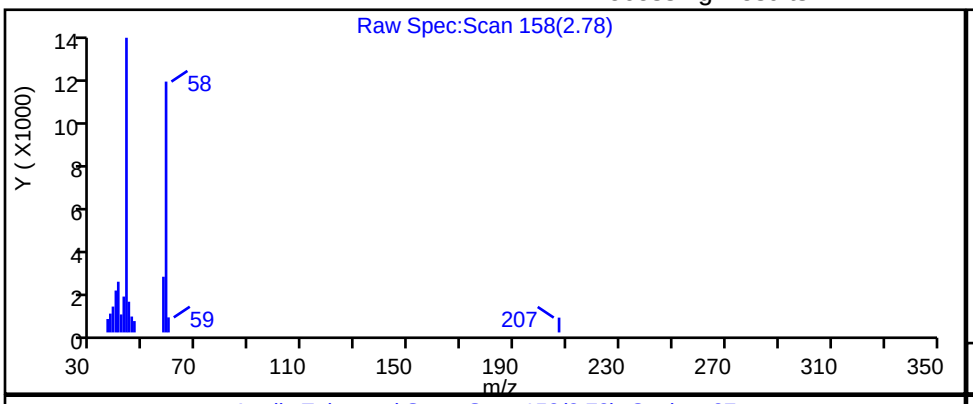
User Disabled Compound Report

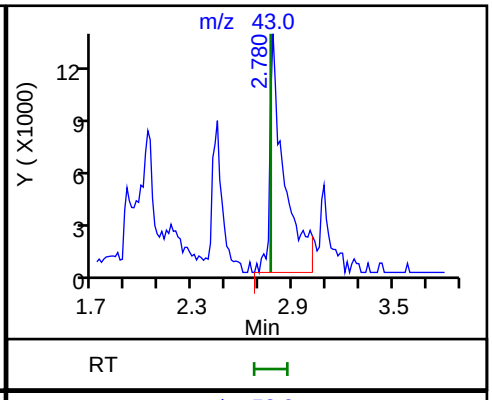
Eurofins TestAmerica, Denver

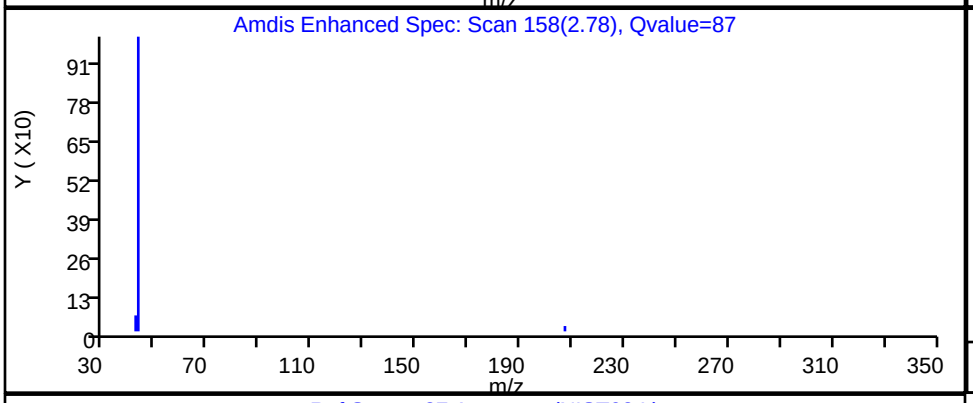
Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5680.D				
Injection Date:	30-May-2019 12:04:30	Instrument ID:	VMS_G2		
Lims ID:	280-123922-B-4	Lab Sample ID:	280-123922-4		
Client ID:	LF1-TB1_051619				
Operator ID:	meierg	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

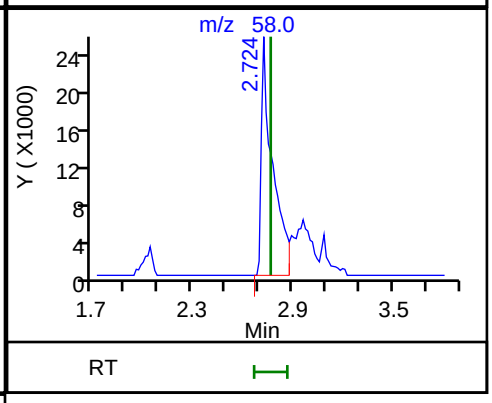
27 Acetone, CAS: 67-64-1

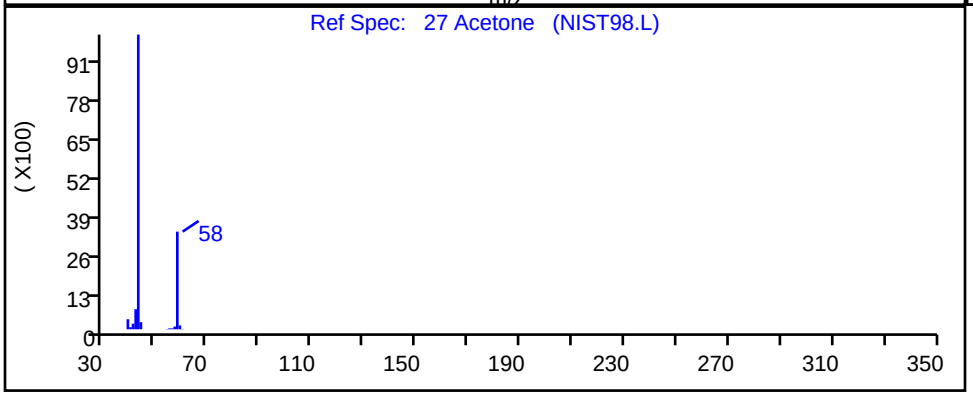
Processing Results











RT	Mass	Response	Amount
2.78	43.00	84037	7.988976
2.72	58.00	120302	

Reviewer: meierg, 30-May-2019 13:25:19

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-458654/8	g2_5204.D
Level 2	IC 280-458654/16	g2_5212.D
Level 3	IC 280-458654/7	g2_5203.D
Level 4	IC 280-458654/15	g2_5211.D
Level 5	IC 280-458654/23	g2_5219.D
Level 6	IC 280-458654/6	g2_5202.D
Level 7	IC 280-458654/14	g2_5210.D
Level 8	IC 280-458654/22	g2_5218.D
Level 9	IC 280-458654/5	g2_5201.D
Level 10	IC 280-458654/13	g2_5209.D
Level 11	IC 280-458654/21	g2_5217.D
Level 12	IC 280-458654/4	g2_5200.D
Level 13	ICIS 280-458654/12	g2_5208.D
Level 14	IC 280-458654/20	g2_5216.D
Level 15	IC 280-458654/3	g2_5199.D
Level 16	IC 280-458654/11	g2_5207.D
Level 17	IC 280-458654/19	g2_5215.D
Level 18	IC 280-458654/2	g2_5198.D
Level 19	IC 280-458654/10	g2_5206.D
Level 20	IC 280-458654/18	g2_5214.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
Dichlorodifluoromethane	0.2426	+++++ 0.2077	0.2506	0.2053 0.2605	0.2422	Lin2	-0.051	0.2488							0.9980		0.9900
Chloromethane	0.2079	0.3086 0.2086	0.1998	0.2668 0.2212	0.1857	Lin2	0.0545	0.2001			0.1000				0.9920		0.9900
Vinyl chloride	0.2677	+++++ 0.2000	0.2718	0.2006 0.2749	0.2632	Lin2	-0.081	0.2686							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
Ethylene oxide	0.0049	0.0030	0.0046	0.0035	0.0045 0.0022	Qua	0.4566	0.0038	0						0.9990		0.9900
Bromomethane	0.1523	0.1642 0.1470	0.1574	0.1700 0.1396	0.1556	Ave		0.1551				6.6		15.0			
Chloroethane	0.1578	0.1541 0.1539	0.1688	0.1504 0.1492	0.1746	Ave		0.1584				6.1		15.0			
Trichlorofluoromethane	0.0938	+++++ 0.0562	0.0830	0.0487 0.1047	0.0726	Qua	-0.080	0.0817	0.0001179						1.0000		0.9900
Ethanol	0.0052	0.0045	0.0089	0.0046	0.0050 0.0040	Lin1	0.2500	0.0042							0.9920		0.9900
Ethyl ether	0.1870 0.1877	0.2063	0.1781 0.1779	0.2113	0.1882	Ave		0.1909				6.8		15.0			
Acrolein	0.0214 0.0343	0.0433	0.0338 0.0384	0.0392	0.0428	Lin2	-0.094	0.0411							0.9970		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1473 0.1558	0.1829	0.1641 0.1714	0.1842	0.1790	Ave		0.1692				8.4		15.0			
1,1-Dichloroethene	0.2046 0.2102	0.2436	0.1938 0.2333	0.2320	0.2444	Ave		0.2231				9.0		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
Acetone	0.3277 0.1569	0.0809	0.2040 0.0709	0.0982	0.0799	Qua	0.4650	0.0851	-0.000018						1.0000		0.9900
Iodomethane	0.3080 0.3076	0.3394	0.3329 0.3094	0.3343	0.3376	Ave		0.3242				4.6		15.0			
Isopropyl alcohol	0.0219	0.0200	0.0240	0.0198	+++++ 0.0197	Ave		0.0211				9.0		15.0			
Carbon disulfide	0.3394 0.4366	0.6033	0.4254 0.6170	0.5532	0.6068	Lin2	-0.137	0.5826							0.9930		0.9900
Acetonitrile	0.0463	0.0467	0.0371	0.0447	0.0470 0.0462	Ave		0.0447				8.5		15.0			
Methyl acetate	0.2842 0.2134	0.2021	0.2327 0.1874	0.1839	0.2017	Lin2	0.0898	0.1917							0.9980		0.9900
3-Chloro-1-propene	0.3442 0.3202	0.3495	0.3478 0.3354	0.3352	0.3477	Ave		0.3400				3.1		15.0			
Methylene Chloride	0.2770 0.2477	0.2653	0.2620 0.2431	0.2537	0.2626	Ave		0.2588				4.4		15.0			
t-Butyl alcohol	0.0393 0.0274	0.0236	0.0340 0.0209	0.0242	0.0229	Lin2	0.0879	0.0229							0.9950		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
Acrylonitrile	0.0954 0.0986	0.1059	0.0997 0.0943	0.1038	0.1046	Ave		0.1003				4.5		15.0			
Methyl tert-butyl ether	0.3956 0.3592	0.3970	0.3851 0.3327	0.3915	0.3761	Ave		0.3768				6.2		15.0			
trans-1,2-Dichloroethene	0.1847 0.1977	0.2276	0.1979 0.2164	0.2179	0.2313	Ave		0.2105				8.2		15.0			
Hexane	1.5540 1.5195	1.4403	1.5030 1.3181	1.5253	1.4112	Ave		1.4674				5.6		15.0			
1,1-Dichloroethane	0.3761 0.3681	0.3990	0.3851 0.3767	0.3991	0.3981	Ave		0.3860			0.1000	3.3		15.0			
Diisopropyl ether	0.2054	0.2122	0.1887	0.2079	0.1932 0.2031	Ave		0.2018				4.5		15.0			
Vinyl acetate	0.4703 0.4824	0.5061	0.4704 0.4672	0.4954	0.5023	Ave		0.4849				3.4		15.0			
2-Chloro-1,3-butadiene	0.4009	0.4178	0.3564	0.4145	0.3857 0.4155	Ave		0.3985				6.0		15.0			
Tert-butyl ethyl ether	0.5813	0.5389	0.5365	0.5573	0.5995 0.4986	Ave		0.5520				6.5		15.0			

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GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
2-Butanone (MEK)	0.1665 0.1252	0.1171	0.1373 0.1116	0.1153	0.1182	Lin2	0.1016	0.1141							0.9990		0.9900
cis-1,2-Dichloroethene	0.2398 0.2077	0.2398	0.2097 0.2273	0.2318	0.2403	Ave		0.2281				6.2		15.0			
Ethyl acetate	0.2934	0.2849	0.3139	0.2727	0.3339 0.2826	Ave		0.2969				7.7		15.0			
2,2-Dichloropropane	+++++ 0.1749	0.2067	0.1783 0.1832	0.1956	0.2004	Ave		0.1899				6.8		15.0			
Propionitrile	0.0484	0.0444	0.0411	0.0475	0.0413 0.0445	Ave		0.0445				6.8		15.0			
sec-Butyl Alcohol	0.0314 0.0236	0.0248	0.0277 0.0237	0.0232	0.0254	Ave		0.0257				11.5		15.0			
Methacrylonitrile	0.1798	0.1639	0.1676	0.1658	0.1751 0.1475	Ave		0.1666				6.7		15.0			
Bromochloromethane	0.0770 0.0821	0.1068	0.0836 0.1038	0.1008	0.1096	Lin2	-0.015	0.1029							0.9940		0.9900
Tetrahydrofuran	0.0818 0.0839	0.0883	0.0928 0.0833	0.0891	0.0882	Ave		0.0868				4.5		15.0			

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GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
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ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
Chloroform	0.4628 0.3831	0.3699	0.4238 0.3560	0.3723	0.3712	Ave		0.3913				9.7		30.0			
1,1,1-Trichloroethane	0.2929 0.2655	0.3021	0.2735 0.2874	0.2927	0.3015	Ave		0.2879				4.8		15.0			
Cyclohexane	0.5021 0.4546	0.4865	0.4565 0.4593	0.4797	0.4782	Ave		0.4738				3.7		15.0			
1,1-Dichloropropene	0.2705 0.2862	0.3205	0.2674 0.3132	0.3120	0.3201	Ave		0.2986				7.8		15.0			
Carbon tetrachloride	0.2046 0.2092	0.2576	0.2033 0.2667	0.2336	0.2681	Lin2	-0.031	0.2507							0.9930		0.9900
Isobutyl alcohol	0.0132 0.0094	0.0090	0.0124 0.0085	0.0085	0.0091	Lin2	0.0617	0.0087							0.9930		0.9900
Benzene	0.9730 0.9198	0.9517	0.9288 0.8759	0.9395	0.9462	Ave		0.9335				3.3		15.0			
1,2-Dichloroethane	0.3576 0.2802	0.3023	0.3129 0.2921	0.2996	0.2982	Ave		0.3061				8.1		15.0			
Tert-amyl methyl ether	0.5724	0.5330	0.5236	0.5352	0.5525 0.4978	Ave		0.5358				4.7		15.0			

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Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
n-Butanol	0.0064	0.0087	0.0046	0.0079	0.0042 0.0091	Lin1	-0.188	0.0089							0.9960		0.9900
Trichloroethene	0.2202 0.2123	0.2339	0.2166 0.2314	0.2209	0.2346	Ave		0.2243				4.0		15.0			
2-Pentanone	0.1792 0.1903	0.1962	0.2274 0.1863	0.1800	0.1997	Ave		0.1941				8.5		15.0			
Methylcyclohexane	0.3770 0.3328	0.3753	0.3555 0.3651	0.3676	0.3713	Ave		0.3635				4.2		15.0			
1,2-Dichloropropane	+++++ 0.2692	0.2539	0.3290 0.2409	0.2433	0.2519	Lin2	0.0784	0.2433							0.9980		0.9900
Methyl methacrylate	0.0715	0.0781	0.0534	0.0736	0.0576 0.0800	Lin2	-0.046	0.0753							0.9920		0.9900
1,4-Dioxane	+++++ 0.0031	0.0029	0.0016 0.0028	0.0030	0.0029	Lin1	-0.011	0.0029							0.9990		0.9900
Dibromomethane	0.1185 0.1126	0.1290	0.1036 0.1281	0.1233	0.1283	Ave		0.1205				7.9		15.0			
Bromodichloromethane	0.2204 0.2217	0.2788	0.2190 0.2905	0.2462	0.2858	Lin2	-0.033	0.2687							0.9910		0.9900

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	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
2-Nitropropane	0.0500	0.0530	0.0354	0.0453	0.0361 0.0579	Lin1	-0.064	0.0550							0.9940		0.9900
2-Chloroethyl vinyl ether	0.1602	0.1009 0.1282	0.1589	0.1211 0.1680	0.1517	Lin2	-0.031	0.1576							0.9970		0.9900
cis-1,3-Dichloropropene	+++++ 1.2832	1.5324	1.2940 1.4998	1.4418	1.5366	Ave		1.4313				8.1		15.0			
4-Methyl-2-pentanone (MIBK)	0.2447 0.2447	0.2701	0.2684 0.2561	0.2569	0.2739	Ave		0.2592				4.6		15.0			
Toluene	1.0081 0.9174	1.0202	0.9637 0.9760	0.9707	1.0217	Ave		0.9825				3.8		30.0			
trans-1,3-Dichloropropene	0.2173 0.2456	0.3477	0.2488 0.3621	0.3009	0.3552	Lin1	-0.117	0.3576							0.9990		0.9900
Ethyl methacrylate	+++++ 0.9982	1.2788	1.0087 1.2837	1.1782	1.3081	Lin2	-0.309	1.2602							0.9970		0.9900
1,1,2-Trichloroethane	0.1591 0.1639	0.2026	0.1774 0.2037	0.1850	0.2058	Lin2	-0.021	0.1962							0.9950		0.9900
Tetrachloroethene	0.7262 0.7020	0.7880	0.7406 0.7627	0.7742	0.7889	Ave		0.7546				4.4		15.0			

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FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
1,3-Dichloropropane	1.3740 1.3446	1.4443	1.4082 1.4124	1.4145	1.4484	Ave		1.4066				2.6		15.0			
2-Hexanone	0.7545 0.6717	0.7518	0.7677 0.6988	0.7356	0.7628	Ave		0.7347				4.9		15.0			
Dibromochloromethane	0.4760 0.5375	0.7832	0.5568 0.8327	0.6616	0.8189	Lin1	-0.296	0.8202							0.9990		0.9900
1,2-Dibromoethane (EDB)	0.6523 0.6627	0.8069	0.7315 0.7899	0.7580	0.8136	Ave		0.7450				8.9		15.0			
1-Chlorohexane	+++++ 1.4891	1.4945	1.6944 1.4415	1.4428	1.5048	Ave		1.5112				6.2		15.0			
Chlorobenzene	2.8904 2.5575	2.7429	2.6397 2.5486	2.6565	2.7439	Ave		2.6828			0.3000	4.5		15.0			
1,1,1,2-Tetrachloroethane	+++++ 0.7202	0.9173	0.7510 0.8741	0.8355	0.9343	Lin1	-0.217	0.8980							0.9990		0.9900
Ethylbenzene	1.4161 1.3650	1.5494	1.4449 1.4819	1.4560	1.5875	Ave		1.4715				5.2		30.0			
m-Xylene & p-Xylene	1.8500 1.7230	1.9399	1.8306 1.8171	1.8545	1.9512	Ave		1.8523				4.2		15.0			

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	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
o-Xylene	1.7687 1.6646	1.9042	1.8729 1.6883	1.8506	1.8596	Ave		1.8013				5.3		15.0			
Styrene	2.8073 2.6345	3.1503	2.7201 2.8293	3.0111	3.1268	Ave		2.8971				6.9		15.0			
Bromoform	+++++ 0.3392	0.4742	0.3330 0.4958	0.3963	0.5085	Lin2	-0.165	0.4696			0.1000				0.9900		0.9900
Isopropylbenzene	2.8326 2.5811	3.0652	2.6333 2.7397	2.8580	3.0455	Ave		2.8222				6.6		15.0			
cis-1,4-Dichloro-2-butene	0.2045	0.2441	0.1697	0.2190	0.1850 0.2491	Lin1	-0.233	0.2436							0.9980		0.9900
Cyclohexanone	0.0598 0.0419	0.0375	0.0538 0.0348	0.0398	0.0376	Lin2	0.4891	0.0372							0.9950		0.9900
1,1,2,2-Tetrachloroethane	0.6485 0.6349	0.7202	0.6735 0.6708	0.6726	0.7116	Ave		0.6760			0.3000	4.6		15.0			
Bromobenzene	0.6331 0.5985	0.6914	0.6007 0.6605	0.6399	0.6980	Ave		0.6460				6.2		15.0			
trans-1,4-Dichloro-2-butene	0.1487 0.1693	0.2335	0.1762 0.2258	0.2063	0.2373	Lin2	-0.041	0.2209							0.9920		0.9900

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GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

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	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
1,2,3-Trichloropropane	+++++ 0.2019	0.2263	0.2193 0.2109	0.2104	0.2233	Ave		0.2154				4.3		15.0			
N-Propylbenzene	0.7476 0.7204	0.8638	0.7727 0.8180	0.8037	0.8698	Ave		0.7994				7.1		15.0			
2-Chlorotoluene	0.6712 0.6164	0.7054	0.6468 0.6590	0.6602	0.7114	Ave		0.6672				4.9		15.0			
1,3,5-Trimethylbenzene	2.2800 2.2602	2.4664	2.2231 2.2736	2.3892	2.4424	Ave		2.3335				4.2		15.0			
4-Chlorotoluene	0.6245 0.6411	0.7270	0.6305 0.6896	0.6802	0.7229	Ave		0.6737				6.3		15.0			
tert-Butylbenzene	2.1970 2.0306	2.2125	2.0604 2.0491	2.1872	2.1960	Ave		2.1333				3.8		15.0			
1,2,4-Trimethylbenzene	2.2494 2.2293	2.4373	2.1986 2.2743	2.3983	2.4195	Ave		2.3152				4.3		15.0			
sec-Butylbenzene	0.5699 0.6062	0.6520	0.5967 0.6260	0.6532	0.6483	Ave		0.6218				5.2		15.0			
1,3-Dichlorobenzene	1.3002 1.2062	1.3101	1.1833 1.2723	1.2546	1.3131	Ave		1.2628				4.1		15.0			

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4-Isopropyltoluene	2.4789 2.5974	2.7829	2.5809 2.5951	2.7746	2.7686	Ave		2.6541				4.5		15.0			
1,4-Dichlorobenzene	1.4156 1.2536	1.3371	1.3697 1.2871	1.2843	1.3183	Ave		1.3237				4.2		15.0			
1,2,3-Trimethylbenzene	2.6134	2.7168	2.3873	2.6036	2.5532 2.5635	Ave		2.5730				4.2		15.0			
n-Butylbenzene	2.4783 2.4417	2.5599	2.3112 2.4513	2.5409	2.5682	Ave		2.4788				3.6		15.0			
1,2-Dichlorobenzene	1.3101 1.1810	1.2415	1.2253 1.2229	1.2209	1.2388	Ave		1.2344				3.1		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0970	0.1356	0.1021 0.1501	0.1129	0.1458	Lin1	-0.084	0.1469							0.9980		0.9900
1,2,4-Trichlorobenzene	0.9007 0.8121	0.8413	0.8220 0.8525	0.8326	0.8496	Ave		0.8444				3.4		15.0			
Hexachlorobutadiene	0.4027 0.4000	0.4277	0.4090 0.4473	0.4205	0.4422	Ave		0.4213				4.4		15.0			
Naphthalene	2.5002 2.3985	2.3779	2.5516 2.3015	2.4500	2.4134	Ave		2.4276				3.4		15.0			

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GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
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Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

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Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20		B	M1	M2								
1,2,3-Trichlorobenzene	0.8698 0.7852	0.7730	0.8443 0.7674	0.7752	0.7870	Ave		0.8003				5.0		15.0			
Dibromofluoromethane (Surr)	0.2144	0.2168 0.2165	0.2098	0.2165 0.2168	0.2150	Ave		0.2151				1.2		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2798	0.2849 0.2824	0.2787	0.2814 0.2805	0.2817	Ave		0.2813				0.7		15.0			
Toluene-d8 (Surr)	4.3543	4.2522 4.3493	4.2929	4.2920 4.3980	4.2359	Ave		4.3107				1.4		15.0			
4-Bromofluorobenzene (Surr)	0.9112	0.9365 0.9610	0.9190	0.9651 0.9193	0.9476	Ave		0.9371				2.3		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-458654/8	g2_5204.D
Level 2	IC 280-458654/16	g2_5212.D
Level 3	IC 280-458654/7	g2_5203.D
Level 4	IC 280-458654/15	g2_5211.D
Level 5	IC 280-458654/23	g2_5219.D
Level 6	IC 280-458654/6	g2_5202.D
Level 7	IC 280-458654/14	g2_5210.D
Level 8	IC 280-458654/22	g2_5218.D
Level 9	IC 280-458654/5	g2_5201.D
Level 10	IC 280-458654/13	g2_5209.D
Level 11	IC 280-458654/21	g2_5217.D
Level 12	IC 280-458654/4	g2_5200.D
Level 13	ICIS 280-458654/12	g2_5208.D
Level 14	IC 280-458654/20	g2_5216.D
Level 15	IC 280-458654/3	g2_5199.D
Level 16	IC 280-458654/11	g2_5207.D
Level 17	IC 280-458654/19	g2_5215.D
Level 18	IC 280-458654/2	g2_5198.D
Level 19	IC 280-458654/10	g2_5206.D
Level 20	IC 280-458654/18	g2_5214.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20	LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20
Dichlorodifluoromethane	FB	Lin2	1052377	+++++ 18122	531659	8517 2277171	102183	100	+++++ 2.00	50.0	1.00 200	10.0
Chloromethane	FB	Lin2	901775	6294 18204	423876	11070 1933721	78362	100	0.500 2.00	50.0	1.00 200	10.0
Vinyl chloride	FB	Lin2	1161129	+++++ 17452	576613	8323 2403017	111037	100	+++++ 2.00	50.0	1.00 200	10.0
Ethylene oxide	FB	Qua	204888	1303927	36973	740993	18220 1898398	1000	10000	200	5000	100 20000

FORM VI
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RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20	LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20
Bromomethane	FB	Ave	660473	3348 12829	334014	7052 1219858	65646	100	0.500 2.00	50.0	1.00 200	10.0
Chloroethane	FB	Ave	684274	3143 13432	358035	6241 1303946	73654	100	0.500 2.00	50.0	1.00 200	10.0
Trichlorofluoromethane	FB	Qua	406759	+++++ 4907	176050	2021 915542	30638	100	+++++ 2.00	50.0	1.00 200	10.0
Ethanol	FB	Lin1	130058	1163857	42930	578136	12067 2052577	600	6000	120	3000	60.0 12000
Ethyl ether	FB	Ave	4001 16324	475861	7749 1854561	93593	905358	0.500 2.00	50.0	1.00 200	10.0	100
Acrolein	FB	Lin2	4525 29427	985434	14525 3954943	171478	2031641	4.94 19.8	494	9.88 1975	98.8	988
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	3151 13554	421754	7139 1787000	81594	861186	0.500 2.00	50.0	1.00 200	10.0	100
1,1-Dichloroethene	FB	Ave	4379 18281	561715	8432 2432907	102728	1175711	0.500 2.00	50.0	1.00 200	10.0	100
Acetone	FB	Qua	28045 54592	746452	35491 2956456	173960	1538022	2.00 8.00	200	4.00 800	40.0	400
Iodomethane	FB	Ave	6591 26755	782883	14483 3226610	148056	1624357	0.500 2.00	50.0	1.00 200	10.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

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ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20	LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20
Isopropyl alcohol	FB	Ave	90665	857251	19406	415751	+++++ 1675223	100	1000	20.0	500	+++++ 2000
Carbon disulfide	FB	Lin2	7262 37974	1391470	18508 6433848	244996	2919331	0.500 2.00	50.0	1.00 200	10.0	100
Acetonitrile	FB	Ave	192241	2003754	29911	939886	19047 3933724	100	1000	20.0	500	10.0 2000
Methyl acetate	FB	Lin2	12162 37117	932001	20244 3908359	162903	1940332	1.00 4.00	100	2.00 400	20.0	200
3-Chloro-1-propene	FB	Ave	7365 27846	806051	15130 3496975	148438	1672711	0.500 2.00	50.0	1.00 200	10.0	100
Methylene Chloride	FB	Ave	5928 21544	611953	11397 2534772	112377	1263416	0.500 2.00	50.0	1.00 200	10.0	100
t-Butyl alcohol	FB	Lin2	8411 23834	545308	14802 2180764	107353	1102441	5.00 20.0	500	10.0 2000	100	1000
Acrylonitrile	FB	Ave	20419 85726	2442159	43375 9836741	459613	5034608	5.00 20.0	500	10.0 2000	100	1000
Methyl tert-butyl ether	FB	Ave	8466 31242	915621	16754 3469552	173374	1809326	0.500 2.00	50.0	1.00 200	10.0	100
trans-1,2-Dichloroethene	FB	Ave	3952 17199	524869	8610 2256980	96514	1112738	0.500 2.00	50.0	1.00 200	10.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

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SDG No.:

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			LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20
Hexane	CBNZ d5	Ave	7764 30790	831783	15184 3573059	160708	1734782	0.500 2.00	50.0	1.00 200	10.0	100
1,1-Dichloroethane	FB	Ave	8047 32018	920152	16753 3927473	176754	1915360	0.500 2.00	50.0	1.00 200	10.0	100
Diisopropyl ether	FB	Ave	85213	911164	15233	436697	7826 1729719	10.0	100	2.00	50.0	1.00 200
Vinyl acetate	FB	Ave	20125 83906	2334537	40924 9742604	438814	4833152	1.00 4.00	100	2.00 400	20.0	200
2-Chloro-1,3-butadiene	FB	Ave	166326	1793733	28769	870693	15623 3539386	10.0	100	2.00	50.0	1.00 200
Tert-butyl ethyl ether	FB	Ave	241153	2313576	43310	1170720	24284 4246963	10.0	100	2.00	50.0	1.00 200
2-Butanone (MEK)	FB	Lin2	14249 43573	1080757	23888 4654651	204278	2275200	2.00 8.00	200	4.00 800	40.0	400
cis-1,2-Dichloroethene	FB	Ave	5131 18068	552991	9123 2369662	102645	1156238	0.500 2.00	50.0	1.00 200	10.0	100
Ethyl acetate	FB	Ave	243409	2445778	50678	1145511	27051 4813438	20.0	200	4.00	100	2.00 400
2,2-Dichloropropane	FB	Ave	+++++ 15212	476735	7756 1910479	86618	964287	+++++ 2.00	50.0	1.00 200	10.0	100

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GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
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			LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20	LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20
Propionitrile	FB	Ave	200849	1906580	33191	997622	16726 3793614	100	1000	20.0	500	10.0 2000
sec-Butyl Alcohol	FB	Ave	20168 61480	1717748	36177 7425501	308213	3668149	15.0 60.0	1500	30.0 6000	300	3000
Methacrylonitrile	FB	Ave	745787	7037369	135278	3483784	70932 12559989	100	1000	20.0	500	10.0 2000
Bromochloromethane	FB	Lin2	1647 7143	246267	3639 1082453	44657	527372	0.500 2.00	50.0	1.00 200	10.0	100
Tetrahydrofuran	FB	Ave	3500 14601	407400	8073 1736403	78898	848280	1.00 4.00	100	2.00 400	20.0	200
Chloroform	FB	Ave	9902 33322	853013	18435 3711803	164897	1786069	0.500 2.00	50.0	1.00 200	10.0	100
1,1,1-Trichloroethane	FB	Ave	6267 23093	696838	11899 2996622	129644	1450368	0.500 2.00	50.0	1.00 200	10.0	100
Cyclohexane	FB	Ave	10743 39538	1121982	19860 4789799	212443	2300532	0.500 2.00	50.0	1.00 200	10.0	100
1,1-Dichloropropene	FB	Ave	5789 24896	739177	11633 3265989	138164	1539791	0.500 2.00	50.0	1.00 200	10.0	100
Carbon tetrachloride	FB	Lin2	4377 18192	594167	8844 2780486	103446	1289630	0.500 2.00	50.0	1.00 200	10.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
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Isobutyl alcohol	FB	Lin2	7084 20544	518834	13479 2215382	93706	1096602	12.5 50.0	1250	25.0 5000	250	2500
Benzene	FB	Ave	20820 79996	2194890	40405 9133322	416080	4552302	0.500 2.00	50.0	1.00 200	10.0	100
1,2-Dichloroethane	FB	Ave	7652 24368	697127	13614 3046339	132694	1434676	0.500 2.00	50.0	1.00 200	10.0	100
Tert-amyl methyl ether	FB	Ave	237471	2288175	42274	1124164	22380 4239905	10.0	100	2.00	50.0	1.00 200
n-Butanol	FB	Lin1	66090	937212	9324	412565	4203 1946410	250	2500	50.0	1250	25.0 5000
Trichloroethene	FB	Ave	4712 18464	539462	9425 2413015	97824	1128655	0.500 2.00	50.0	1.00 200	10.0	100
2-Pentanone	FB	Ave	15335 66199	1809814	39570 7769824	318866	3842343	2.00 8.00	200	4.00 800	40.0	400
Methylcyclohexane	FB	Ave	8067 28945	865535	15466 3806839	162790	1786158	0.500 2.00	50.0	1.00 200	10.0	100
1,2-Dichloropropane	FB	Lin2	+++++ 23409	585590	14311 2511724	107758	1211934	+++++ 2.00	50.0	1.00 200	10.0	100
Methyl methacrylate	FB	Lin2	59297	670893	8626	309323	4668 1362982	20.0	200	4.00	100	2.00 400

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1,4-Dioxane	FB	Lin1	+++++ 5380	134264	1406 586419	26198	283260	+++++ 40.0	1000	20.0 4000	200	2000
Dibromomethane	FB	Ave	2535 9790	297534	4509 1335473	54592	617143	0.500 2.00	50.0	1.00 200	10.0	100
Bromodichloromethane	FB	Lin2	4717 19278	642980	9526 3029520	109041	1375130	0.500 2.00	50.0	1.00 200	10.0	100
2-Nitropropane	FB	Lin1	41478	455352	5711	190324	2926 987141	20.0	200	4.00	100	2.00 400
2-Chloroethyl vinyl ether	FB	Lin2	694953	2057 11183	337194	5024 1468272	64015	100	0.500 2.00	50.0	1.00 200	10.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	+++++ 26001	884928	13073 4065697	151905	1888857	+++++ 2.00	50.0	1.00 200	10.0	100
4-Methyl-2-pentanone (MIBK)	FB	Ave	20941 85121	2491730	46714 10680828	455119	5270212	2.00 8.00	200	4.00 800	40.0	400
Toluene	FB	Ave	21572 79791	2352893	41925 10177132	429882	4915479	0.500 2.00	50.0	1.00 200	10.0	100
trans-1,3-Dichloropropene	FB	Lin1	4649 21359	802026	10824 3775838	133262	1708695	0.500 2.00	50.0	1.00 200	10.0	100
Ethyl methacrylate	CBNZ d5	Lin2	+++++ 20226	738472	10190 3479979	124131	1607996	+++++ 2.00	50.0	1.00 200	10.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
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1,1,2-Trichloroethane	FB	Lin2	3404 14257	467233	7716 2123861	81918	989921	0.500 2.00	50.0	1.00 200	10.0	100
Tetrachloroethene	CBNZ d5	Ave	3628 14224	455059	7482 2067430	81572	969794	0.500 2.00	50.0	1.00 200	10.0	100
1,3-Dichloropropane	CBNZ d5	Ave	6865 27245	834059	14226 3828918	149026	1780417	0.500 2.00	50.0	1.00 200	10.0	100
2-Hexanone	CBNZ d5	Ave	15078 54441	1736713	31022 7577662	310001	3750507	2.00 8.00	200	4.00 800	40.0	400
Dibromochloromethane	CBNZ d5	Lin1	2378 10891	452274	5625 2257362	69703	1006687	0.500 2.00	50.0	1.00 200	10.0	100
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	3259 13428	465948	7390 2141249	79863	1000153	0.500 2.00	50.0	1.00 200	10.0	100
1-Chlorohexane	CBNZ d5	Ave	+++++ 30174	863030	17118 3907655	152014	1849772	+++++ 2.00	50.0	1.00 200	10.0	100
Chlorobenzene	CBNZ d5	Ave	14441 51822	1583991	26668 6908944	279887	3373013	0.500 2.00	50.0	1.00 200	10.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Lin1	+++++ 14593	529736	7587 2369514	88031	1148532	+++++ 2.00	50.0	1.00 200	10.0	100
Ethylbenzene	CBNZ d5	Ave	7075 27658	894770	14597 4017064	153406	1951486	0.500 2.00	50.0	1.00 200	10.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20
m-Xylene & p-Xylene	CBNZ d5	Ave	9243 34912	1120269	18494 4925740	195390	2398583	0.500 2.00	50.0	1.00 200	10.0	100
o-Xylene	CBNZ d5	Ave	8837 33730	1099634	18921 4576648	194978	2285975	0.500 2.00	50.0	1.00 200	10.0	100
Styrene	CBNZ d5	Ave	14026 53382	1819264	27480 7669800	317248	3843604	0.500 2.00	50.0	1.00 200	10.0	100
Bromoform	CBNZ d5	Lin2	+++++ 6873	273873	3364 1344084	41752	625133	+++++ 2.00	50.0	1.00 200	10.0	100
Isopropylbenzene	DCBd 4	Ave	25604 95954	2911757	48905 11563550	537107	5994021	0.500 2.00	50.0	1.00 200	10.0	100
cis-1,4-Dichloro-2-butene	DCBd 4	Lin1	71449	864022	11535	388029	6226 1753205	20.0	200	4.00	100	2.00 400
Cyclohexanone	CBNZ d5	Lin2	11957 33964	865154	21752 3768979	167586	1850824	20.0 80.0	2000	40.0 8000	400	4000
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5862 23603	684154	12508 2831127	126396	1400524	0.500 2.00	50.0	1.00 200	10.0	100
Bromobenzene	DCBd 4	Ave	5723 22248	656800	11156 2787715	120252	1373875	0.500 2.00	50.0	1.00 200	10.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Lin2	1344 6293	221846	3273 952863	38774	466958	0.500 2.00	50.0	1.00 200	10.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20
1,2,3-Trichloropropane	DCBd 4	Ave	+++++ 7506	215014	4072 890245	39534	439571	+++++ 2.00	50.0	1.00 200	10.0	100
N-Propylbenzene	DCBd 4	Ave	6758 26783	820562	14351 3452585	151042	1711836	0.500 2.00	50.0	1.00 200	10.0	100
2-Chlorotoluene	DCBd 4	Ave	6067 22915	670050	12013 2781655	124078	1400165	0.500 2.00	50.0	1.00 200	10.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	20609 84023	2342937	41286 9596466	448993	4807147	0.500 2.00	50.0	1.00 200	10.0	100
4-Chlorotoluene	DCBd 4	Ave	5645 23833	690602	11710 2910515	127821	1422774	0.500 2.00	50.0	1.00 200	10.0	100
tert-Butylbenzene	DCBd 4	Ave	19859 75489	2101807	38265 8648644	411038	4322123	0.500 2.00	50.0	1.00 200	10.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	20333 82877	2315300	40831 9599307	450700	4761914	0.500 2.00	50.0	1.00 200	10.0	100
sec-Butylbenzene	DCBd 4	Ave	5151 22537	619403	11081 2642347	122760	1275965	0.500 2.00	50.0	1.00 200	10.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	11753 44840	1244554	21976 5370145	235774	2584439	0.500 2.00	50.0	1.00 200	10.0	100
4-Isopropyltoluene	DCBd 4	Ave	22407 96561	2643631	47932 10953255	521434	5449062	0.500 2.00	50.0	1.00 200	10.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20	LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20
1,4-Dichlorobenzene	DCBd 4	Ave	12796 46604	1270218	25437 5432374	241358	2594616	0.500 2.00	50.0	1.00 200	10.0	100
1,2,3-Trimethylbenzene	DCBd 4	Ave	456603	4808099	81145	2306767	42959 9022698	10.0	100	2.00	50.0	1.00 200
n-Butylbenzene	DCBd 4	Ave	22402 90773	2431798	42924 10346318	477499	5054617	0.500 2.00	50.0	1.00 200	10.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	11842 43906	1179374	22756 5161467	229439	2438203	0.500 2.00	50.0	1.00 200	10.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 3605	128773	1896 633474	21209	287055	+++++ 2.00	50.0	1.00 200	10.0	100
1,2,4-Trichlorobenzene	DCBd 4	Ave	8142 30189	799221	15266 3598385	156469	1672151	0.500 2.00	50.0	1.00 200	10.0	100
Hexachlorobutadiene	DCBd 4	Ave	3640 14871	406311	7595 1887797	79016	870296	0.500 2.00	50.0	1.00 200	10.0	100
Naphthalene	DCBd 4	Ave	22600 89167	2258874	47388 9714239	460415	4750041	0.500 2.00	50.0	1.00 200	10.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	7862 29190	734312	15681 3238839	145685	1548894	0.500 2.00	50.0	1.00 200	10.0	100
Dibromofluoromethane (Surr)	FB	Ave	464870	442131 472225	445180	449033 473741	453619	50.0	50.0 50.0	50.0	50.0 50.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 458654

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/18/2019 09:44 Calibration End Date: 05/18/2019 18:07 Calibration ID: 36443

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20	LVL 6 LVL 11 LVL 16	LVL 2 LVL 7 LVL 12 LVL 17	LVL 3 LVL 8 LVL 13 LVL 18	LVL 4 LVL 9 LVL 14 LVL 19	LVL 5 LVL 10 LVL 15 LVL 20
1,2-Dichloroethane-d4 (Surr)	FB	Ave	606730	580891 615982	591211	613025	583723 594270	50.0	50.0 50.0	50.0	50.0	50.0 50.0
Toluene-d8 (Surr)	CBNZ d5	Ave	2162891	2067326 2220278	2086166	2188606	2087492 2120252	50.0	50.0 50.0	50.0	50.0	50.0 50.0
4-Bromofluorobenzene (Surr)	DCBd 4	Ave	838092	811811 838184	820697	849744	828271 832554	50.0	50.0 50.0	50.0	50.0	50.0 50.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5198.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-May-2019 09:44:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:32:50 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.017	3.003	0.014	29	1284703	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	95	2606840	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	67	677709	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	63	1055194	50.0	50.0	
22 Ethyl ether	59	2.487	2.487	0.000	89	1854561	200.0	186.3	
24 Acrolein	56	2.584	2.584	0.000	91	3954943	1975.0	1846.6	
26 1,1,2-Trichloro-1,2,2-trif	151	2.668	2.668	0.000	53	1787000	200.0	202.5	
25 1,1-Dichloroethene	96	2.668	2.668	0.000	86	2432907	200.0	209.1	
27 Acetone	43	2.682	2.682	0.000	95	2956456	800.0	798.8	
28 Iodomethane	142	2.780	2.780	0.000	99	3226610	200.0	190.9	
30 Carbon disulfide	76	2.850	2.864	-0.014	89	6433848	200.0	212.0	
32 Methyl acetate	43	2.906	2.906	0.000	91	3908359	400.0	390.5	
33 3-Chloro-1-propene	41	2.920	2.920	0.000	57	3496975	200.0	197.3	
35 Methylene Chloride	84	3.017	3.017	0.000	90	2534772	200.0	187.9	
37 2-Methyl-2-propanol	59	3.073	3.073	0.000	6	2180764	2000.0	1820.3	
39 Acrylonitrile	53	3.171	3.171	0.000	98	9836741	2000.0	1880.4	
41 Methyl tert-butyl ether	73	3.199	3.199	0.000	88	3469552	200.0	176.6	
40 trans-1,2-Dichloroethene	96	3.213	3.213	0.000	96	2256980	200.0	205.6	
42 Hexane	57	3.394	3.395	-0.001	70	3573059	200.0	179.7	
46 Vinyl acetate	43	3.548	3.506	0.042	91	9742604	400.0	385.4	
45 1,1-Dichloroethane	63	3.520	3.520	0.000	85	3927473	200.0	195.1	
52 2-Butanone (MEK)	43	3.897	3.911	-0.014	100	4654651	800.0	781.3	
51 cis-1,2-Dichloroethene	96	3.925	3.925	0.000	64	2369662	200.0	199.3	
50 2,2-Dichloropropane	77	3.925	3.925	0.000	44	1910479	200.0	193.0	
55 sec-Butyl Alcohol	45	4.023	4.023	0.000	96	7425501	6000.0	5542.5	
56 Chlorobromomethane	128	4.093	4.093	0.000	91	1082453	200.0	202.0	
57 Tetrahydrofuran	42	4.107	4.107	0.000	88	1736403	400.0	383.9	
59 Chloroform	83	4.163	4.163	0.000	69	3711803	200.0	181.9	
60 1,1,1-Trichloroethane	97	4.288	4.288	0.000	54	2996622	200.0	199.6	
61 Cyclohexane	56	4.344	4.344	0.000	77	4789799	200.0	193.9	
63 1,1-Dichloropropene	75	4.400	4.400	0.000	88	3265989	200.0	209.8	
62 Carbon tetrachloride	117	4.414	4.414	0.000	68	2780486	200.0	212.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 Isobutyl alcohol	41	4.442	4.442	0.000	84	2215382	5000.0	4854.2	
64 Benzene	78	4.554	4.554	0.000	96	9133322	200.0	187.6	
65 1,2-Dichloroethane	62	4.582	4.582	0.000	89	3046339	200.0	190.9	
67 n-Heptane	43	4.749	4.749	0.000	90	3848209	200.0	179.3	
69 Trichloroethene	95	5.042	5.043	-0.001	91	2413015	200.0	206.4	
70 2-Pentanone	43	5.154	5.154	0.000	97	7769824	800.0	767.6	
71 Methylcyclohexane	55	5.224	5.224	0.000	88	3806839	200.0	200.9	
72 1,2-Dichloropropane	63	5.238	5.238	0.000	82	2511724	200.0	197.7	
74 1,4-Dioxane	88	5.294	5.294	0.000	63	586419	4000.0	3918.4	
75 Dibromomethane	93	5.322	5.322	0.000	87	1335473	200.0	212.6	
76 Dichlorobromomethane	83	5.433	5.434	-0.001	93	3029520	200.0	216.4	
79 cis-1,3-Dichloropropene	75	5.783	5.783	0.000	90	4065697	200.0	209.6	
81 4-Methyl-2-pentanone (MIBK	43	5.894	5.894	0.000	95	10680828	800.0	790.2	
82 Toluene	91	6.078	6.078	0.000	98	10177132	200.0	198.7	
83 trans-1,3-Dichloropropene	75	6.256	6.256	0.000	90	3775838	200.0	202.8	
84 Ethyl methacrylate	69	6.285	6.285	0.000	88	3479979	200.0	204.0	
85 1,1,2-Trichloroethane	97	6.428	6.428	0.000	80	2123861	200.0	207.7	
86 Tetrachloroethene	164	6.514	6.514	0.000	92	2067430	200.0	202.1	
87 1,3-Dichloropropane	76	6.571	6.571	0.000	90	3828918	200.0	200.8	
88 2-Hexanone	43	6.600	6.600	0.000	94	7577662	800.0	760.9	
89 Chlorodibromomethane	129	6.764	6.764	0.000	88	2257362	200.0	203.4	
90 Ethylene Dibromide	107	6.871	6.871	0.000	99	2141249	200.0	212.1	
91 1-Chlorohexane	91	7.272	7.272	0.000	98	3907655	200.0	190.8	
92 Chlorobenzene	112	7.307	7.308	-0.001	92	6908944	200.0	190.0	
93 1,1,1,2-Tetrachloroethane	131	7.379	7.379	0.000	42	2369514	200.0	194.9	
94 Ethylbenzene	106	7.386	7.386	0.000	98	4017064	200.0	201.4	
95 m-Xylene & p-Xylene	106	7.501	7.501	-0.001	99	4925740	200.0	196.2	
96 o-Xylene	106	7.858	7.858	0.000	95	4576648	200.0	187.5	
97 Styrene	104	7.879	7.872	0.007	95	7669800	200.0	195.3	
98 Bromoform	173	8.051	8.051	0.000	97	1344084	200.0	211.5	
99 Isopropylbenzene	105	8.201	8.194	0.007	96	11563550	200.0	194.2	
100 Cyclohexanone	55	8.294	8.294	0.000	92	3768979	8000.0	7452.2	
102 1,1,2,2-Tetrachloroethane	83	8.487	8.487	0.000	76	2831127	200.0	198.4	
103 Bromobenzene	156	8.509	8.509	0.000	95	2787715	200.0	204.5	
105 trans-1,4-Dichloro-2-buten	53	8.530	8.530	0.000	78	952863	200.0	204.6	
104 1,2,3-Trichloropropane	110	8.552	8.552	0.000	51	890245	200.0	195.9	
106 N-Propylbenzene	120	8.594	8.595	-0.001	94	3452585	200.0	204.6	
107 2-Chlorotoluene	126	8.687	8.688	-0.001	96	2781655	200.0	197.6	
108 1,3,5-Trimethylbenzene	105	8.766	8.766	0.000	94	9596466	200.0	194.9	
109 4-Chlorotoluene	126	8.802	8.802	0.000	97	2910515	200.0	204.7	
110 tert-Butylbenzene	119	9.074	9.074	0.000	84	8648644	200.0	192.1	
111 1,2,4-Trimethylbenzene	105	9.131	9.131	0.000	86	9599307	200.0	196.5	
112 sec-Butylbenzene	134	9.288	9.288	0.000	95	2642347	200.0	201.4	
113 1,3-Dichlorobenzene	146	9.410	9.410	0.000	96	5370145	200.0	201.5	
114 4-Isopropyltoluene	119	9.438	9.438	0.000	88	10953255	200.0	195.6	
115 1,4-Dichlorobenzene	146	9.510	9.510	0.000	93	5432374	200.0	194.5	
117 n-Butylbenzene	91	9.839	9.839	0.000	94	10346318	200.0	197.8	
118 1,2-Dichlorobenzene	146	9.860	9.860	0.000	96	5161467	200.0	198.1	
119 1,2-Dibromo-3-Chloropropan	157	10.639	10.632	0.007	86	633474	200.0	205.0	
121 1,2,4-Trichlorobenzene	180	11.455	11.455	0.000	93	3598385	200.0	201.9	
122 Hexachlorobutadiene	225	11.598	11.598	0.000	96	1887797	200.0	212.3	
123 Naphthalene	128	11.712	11.712	0.000	98	9714239	200.0	189.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
124 1,2,3-Trichlorobenzene	180	11.934	11.934	0.000	92	3238839	200.0	191.8	
S 137 1,2-Dichloroethene, Total	96				0		400.0	404.9	
S 144 1,2-Dichloroethene, Total	1				0		400.0	404.9	
S 143 Xylenes, Total	106				0		400.0	383.6	
S 139 Total BTEX	1				0			971.4	
S 138 Xylenes, Total (URS)	1				0		400.0	383.6	
S 140 1,3-Dichloropropene, Total	1				0		400.0	412.4	
S 142 Trihalomethanes, Total	1				0		800.0	813.2	

Reagents:

MV-MegaMainA_00014	Amount Added: 200.00	Units: uL
mv-Cent IS_00003	Amount Added: 5.00	Units: uL

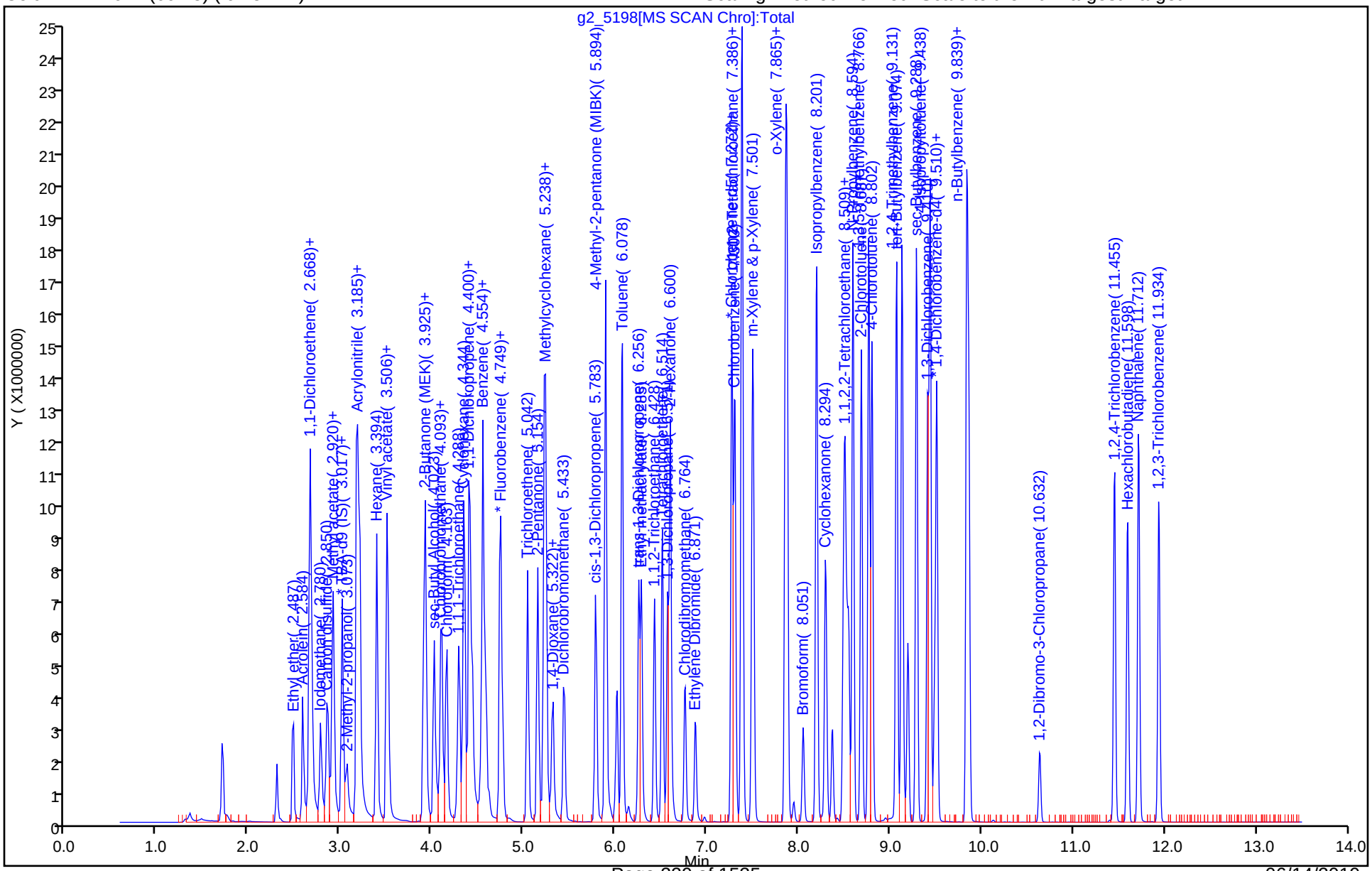
Report Date: 20-May-2019 11:32:54 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5198.D

Injection Date:	18-May-2019 09:44:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5199.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-May-2019 10:08:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-003
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:33:09 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	83	1337362	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2405518	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	86	614629	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	95	984085	50.0	50.0	
22 Ethyl ether	59	2.487	2.487	0.000	92	905358	100.0	98.6	
24 Acrolein	56	2.584	2.584	0.000	99	2031641	987.5	1029.0	
26 1,1,2-Trichloro-1,2,2-trif	151	2.668	2.668	0.000	69	861186	100.0	105.8	
25 1,1-Dichloroethene	96	2.668	2.668	0.000	97	1175711	100.0	109.5	
27 Acetone	43	2.682	2.682	0.000	100	1538022	400.0	405.8	
28 Iodomethane	142	2.780	2.780	0.000	99	1624357	100.0	104.1	
30 Carbon disulfide	76	2.864	2.864	0.000	99	2919331	100.0	104.4	
32 Methyl acetate	43	2.906	2.906	0.000	98	1940332	200.0	209.9	
33 3-Chloro-1-propene	41	2.920	2.920	0.000	91	1672711	100.0	102.3	
35 Methylene Chloride	84	3.017	3.017	0.000	95	1263416	100.0	101.5	
37 2-Methyl-2-propanol	59	3.073	3.073	0.000	99	1102441	1000.0	995.5	
39 Acrylonitrile	53	3.171	3.171	0.000	99	5034608	1000.0	1043.0	
41 Methyl tert-butyl ether	73	3.199	3.199	0.000	95	1809326	100.0	99.8	
40 trans-1,2-Dichloroethene	96	3.213	3.213	0.000	99	1112738	100.0	109.9	
42 Hexane	57	3.395	3.395	0.000	91	1734782	100.0	96.2	
46 Vinyl acetate	43	3.506	3.506	0.000	97	4833152	200.0	207.2	
45 1,1-Dichloroethane	63	3.520	3.520	0.000	96	1915360	100.0	103.1	
52 2-Butanone (MEK)	43	3.897	3.911	-0.014	100	2275200	400.0	413.4	
51 cis-1,2-Dichloroethene	96	3.925	3.925	0.000	82	1156238	100.0	105.4	
50 2,2-Dichloropropane	77	3.925	3.925	0.000	86	964287	100.0	105.6	
55 sec-Butyl Alcohol	45	4.023	4.023	0.000	99	3668149	3000.0	2967.1	
56 Chlorobromomethane	128	4.093	4.093	0.000	97	527372	100.0	106.7	
57 Tetrahydrofuran	42	4.107	4.107	0.000	90	848280	200.0	203.2	
59 Chloroform	83	4.163	4.163	0.000	93	1786069	100.0	94.9	
60 1,1,1-Trichloroethane	97	4.288	4.288	0.000	98	1450368	100.0	104.7	
61 Cyclohexane	56	4.344	4.344	0.000	91	2300532	100.0	100.9	
63 1,1-Dichloropropene	75	4.400	4.400	0.000	97	1539791	100.0	107.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 Carbon tetrachloride	117	4.414	4.414	0.000	95	1289630	100.0	107.1	
66 Isobutyl alcohol	41	4.442	4.442	0.000	96	1096602	2500.0	2600.6	
64 Benzene	78	4.554	4.554	0.000	96	4552302	100.0	101.4	
65 1,2-Dichloroethane	62	4.582	4.582	0.000	97	1434676	100.0	97.4	
67 n-Heptane	43	4.749	4.749	0.000	92	1886421	100.0	95.2	
69 Trichloroethene	95	5.043	5.043	0.000	98	1128655	100.0	104.6	
70 2-Pentanone	43	5.154	5.154	0.000	99	3842343	400.0	411.4	
71 Methylcyclohexane	55	5.224	5.224	0.000	93	1786158	100.0	102.1	
72 1,2-Dichloropropane	63	5.238	5.238	0.000	97	1211934	100.0	103.2	
74 1,4-Dioxane	88	5.294	5.294	0.000	93	283260	2000.0	2053.0	
75 Dibromomethane	93	5.322	5.322	0.000	97	617143	100.0	106.5	
76 Dichlorobromomethane	83	5.434	5.434	0.000	99	1375130	100.0	106.5	
79 cis-1,3-Dichloropropene	75	5.783	5.783	0.000	95	1888857	100.0	107.4	
81 4-Methyl-2-pentanone (MIBK	43	5.894	5.894	0.000	95	5270212	400.0	422.5	
82 Toluene	91	6.078	6.078	0.000	99	4915479	100.0	104.0	
83 trans-1,3-Dichloropropene	75	6.256	6.256	0.000	94	1708695	100.0	99.6	
84 Ethyl methacrylate	69	6.285	6.285	0.000	91	1607996	100.0	104.0	
85 1,1,2-Trichloroethane	97	6.428	6.428	0.000	91	989921	100.0	105.0	
86 Tetrachloroethene	164	6.514	6.514	0.000	97	969794	100.0	104.5	
87 1,3-Dichloropropane	76	6.571	6.571	0.000	90	1780417	100.0	103.0	
88 2-Hexanone	43	6.600	6.600	0.000	95	3750507	400.0	415.3	
89 Chlorodibromomethane	129	6.764	6.764	0.000	90	1006687	100.0	100.2	
90 Ethylene Dibromide	107	6.871	6.871	0.000	99	1000153	100.0	109.2	
91 1-Chlorohexane	91	7.272	7.272	0.000	98	1849772	100.0	99.6	
92 Chlorobenzene	112	7.308	7.308	0.000	94	3373013	100.0	102.3	
93 1,1,1,2-Tetrachloroethane	131	7.379	7.379	0.000	95	1148532	100.0	104.3	
94 Ethylbenzene	106	7.386	7.386	0.000	98	1951486	100.0	107.9	
95 m-Xylene & p-Xylene	106	7.501	7.501	0.000	99	2398583	100.0	105.3	
96 o-Xylene	106	7.858	7.858	0.000	97	2285975	100.0	103.2	
97 Styrene	104	7.872	7.872	0.000	95	3843604	100.0	107.9	
98 Bromoform	173	8.051	8.051	0.000	97	625133	100.0	108.6	
99 Isopropylbenzene	105	8.194	8.194	0.000	97	5994021	100.0	107.9	
100 Cyclohexanone	55	8.294	8.294	0.000	92	1850824	4000.0	4029.1	
102 1,1,2,2-Tetrachloroethane	83	8.487	8.487	0.000	95	1400524	100.0	105.3	
103 Bromobenzene	156	8.509	8.509	0.000	96	1373875	100.0	108.1	
105 trans-1,4-Dichloro-2-buten	53	8.530	8.530	0.000	78	466958	100.0	107.6	
104 1,2,3-Trichloropropane	110	8.552	8.552	0.000	81	439571	100.0	103.7	
106 N-Propylbenzene	120	8.595	8.595	0.000	99	1711836	100.0	108.8	
107 2-Chlorotoluene	126	8.688	8.688	0.000	96	1400165	100.0	106.6	
108 1,3,5-Trimethylbenzene	105	8.766	8.766	0.000	95	4807147	100.0	104.7	
109 4-Chlorotoluene	126	8.802	8.802	0.000	97	1422774	100.0	107.3	
110 tert-Butylbenzene	119	9.074	9.074	0.000	94	4322123	100.0	102.9	
111 1,2,4-Trimethylbenzene	105	9.131	9.131	0.000	97	4761914	100.0	104.5	
112 sec-Butylbenzene	134	9.288	9.288	0.000	94	1275965	100.0	104.3	
113 1,3-Dichlorobenzene	146	9.410	9.410	0.000	98	2584439	100.0	104.0	
114 4-Isopropyltoluene	119	9.438	9.438	0.000	97	5449062	100.0	104.3	
115 1,4-Dichlorobenzene	146	9.510	9.510	0.000	94	2594616	100.0	99.6	
117 n-Butylbenzene	91	9.839	9.839	0.000	98	5054617	100.0	103.6	
118 1,2-Dichlorobenzene	146	9.860	9.860	0.000	97	2438203	100.0	100.4	
119 1,2-Dibromo-3-Chloropropan	157	10.640	10.632	0.008	85	287055	100.0	99.9	
121 1,2,4-Trichlorobenzene	180	11.455	11.455	0.000	94	1672151	100.0	100.6	
122 Hexachlorobutadiene	225	11.598	11.598	0.000	98	870296	100.0	105.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
123 Naphthalene	128	11.712	11.712	0.000	97	4750041	100.0	99.4	
124 1,2,3-Trichlorobenzene	180	11.934	11.934	0.000	95	1548894	100.0	98.3	
S 137 1,2-Dichloroethene, Total	96				0		200.0	215.3	
S 142 Trihalomethanes, Total	1				0		400.0	410.2	
S 140 1,3-Dichloropropene, Total	1				0		200.0	207.0	
S 138 Xylenes, Total (URS)	1				0		200.0	208.6	
S 139 Total BTEX	1				0			521.8	
S 143 Xylenes, Total	106				0		200.0	208.6	
S 144 1,2-Dichloroethene, Total	1				0		200.0	215.3	

Reagents:

MV-MegaMainA_00014	Amount Added: 100.00	Units: uL
mv-Cent IS_00003	Amount Added: 5.00	Units: uL

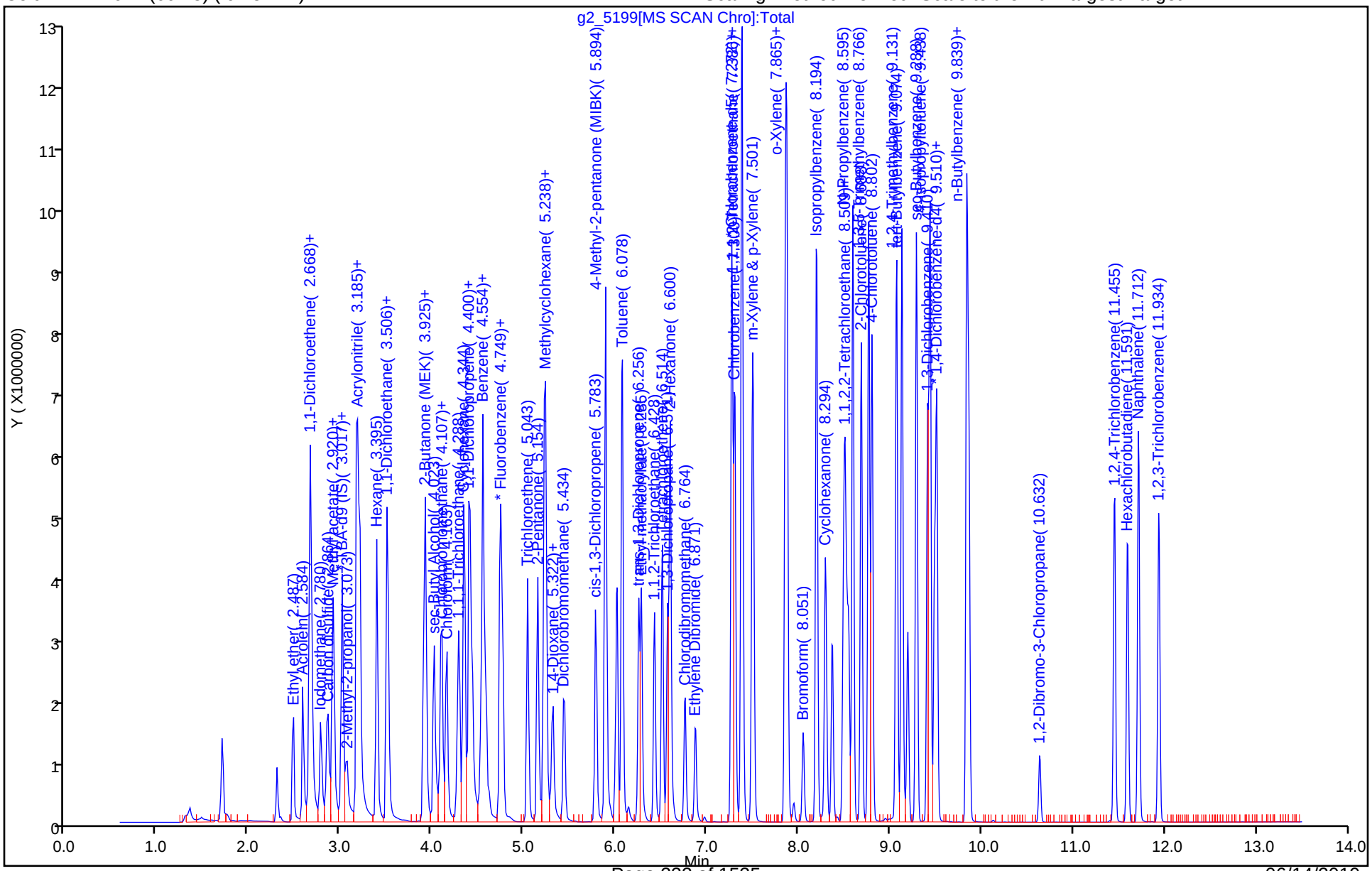
Report Date: 20-May-2019 11:33:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5199.D

Injection Date:	18-May-2019 10:08:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5200.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 18-May-2019 10:31:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-004
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:33:27 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	95	1294378	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2306359	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	86	577488	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	949952	50.0	50.0	
22 Ethyl ether	59	2.487	2.487	0.000	92	475861	50.0	54.0	
24 Acrolein	56	2.584	2.584	0.000	100	985434	493.8	521.7	
26 1,1,2-Trichloro-1,2,2-trif	151	2.668	2.668	0.000	70	421754	50.0	54.0	
25 1,1-Dichloroethene	96	2.668	2.668	0.000	97	561715	50.0	54.6	
27 Acetone	43	2.682	2.682	0.000	100	746452	200.0	192.7	
28 Iodomethane	142	2.780	2.780	0.000	99	782883	50.0	52.4	
30 Carbon disulfide	76	2.864	2.864	0.000	99	1391470	50.0	52.0	
32 Methyl acetate	43	2.906	2.906	0.000	98	932001	100.0	104.9	
33 3-Chloro-1-propene	41	2.920	2.920	0.000	92	806051	50.0	51.4	
35 Methylene Chloride	84	3.017	3.017	0.000	96	611953	50.0	51.3	
37 2-Methyl-2-propanol	59	3.073	3.073	0.000	99	545308	500.0	511.7	
39 Acrylonitrile	53	3.171	3.171	0.000	100	2442159	500.0	527.7	
41 Methyl tert-butyl ether	73	3.199	3.199	0.000	95	915621	50.0	52.7	
40 trans-1,2-Dichloroethene	96	3.213	3.213	0.000	99	524869	50.0	54.1	
42 Hexane	57	3.395	3.395	0.000	91	831783	50.0	49.1	
46 Vinyl acetate	43	3.506	3.506	0.000	97	2334537	100.0	104.4	
45 1,1-Dichloroethane	63	3.520	3.520	0.000	96	920152	50.0	51.7	
52 2-Butanone (MEK)	43	3.911	3.911	0.000	100	1080757	200.0	204.4	
51 cis-1,2-Dichloroethene	96	3.925	3.925	0.000	82	552991	50.0	52.6	
50 2,2-Dichloropropane	77	3.925	3.925	0.000	86	476735	50.0	54.4	
55 sec-Butyl Alcohol	45	4.023	4.023	0.000	99	1717748	1500.0	1449.2	
56 Chlorobromomethane	128	4.093	4.093	0.000	96	246267	50.0	52.1	
57 Tetrahydrofuran	42	4.107	4.107	0.000	90	407400	100.0	101.8	
59 Chloroform	83	4.163	4.163	0.000	93	853013	50.0	47.3	
60 1,1,1-Trichloroethane	97	4.288	4.288	0.000	98	696838	50.0	52.5	
61 Cyclohexane	56	4.344	4.344	0.000	90	1121982	50.0	51.3	
63 1,1-Dichloropropene	75	4.400	4.400	0.000	97	739177	50.0	53.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 Carbon tetrachloride	117	4.414	4.414	0.000	95	594167	50.0	51.5	
66 Isobutyl alcohol	41	4.442	4.442	0.000	96	518834	1250.0	1279.8	
64 Benzene	78	4.554	4.554	0.000	97	2194890	50.0	51.0	
65 1,2-Dichloroethane	62	4.582	4.582	0.000	97	697127	50.0	49.4	
67 n-Heptane	43	4.749	4.749	0.000	93	897375	50.0	47.2	
69 Trichloroethene	95	5.043	5.043	0.000	98	539462	50.0	52.1	
70 2-Pentanone	43	5.154	5.154	0.000	99	1809814	200.0	202.1	
71 Methylcyclohexane	55	5.224	5.224	0.000	93	865535	50.0	51.6	
72 1,2-Dichloropropane	63	5.238	5.238	0.000	97	585590	50.0	51.9	
74 1,4-Dioxane	88	5.294	5.294	0.000	94	134264	1000.0	1016.9	
75 Dibromomethane	93	5.322	5.322	0.000	98	297534	50.0	53.5	
76 Dichlorobromomethane	83	5.434	5.434	0.000	99	642980	50.0	52.0	
79 cis-1,3-Dichloropropene	75	5.783	5.783	0.000	95	884928	50.0	53.5	
81 4-Methyl-2-pentanone (MIBK	43	5.894	5.894	0.000	95	2491730	200.0	208.4	
82 Toluene	91	6.078	6.078	0.000	99	2352893	50.0	51.9	
83 trans-1,3-Dichloropropene	75	6.256	6.256	0.000	94	802026	50.0	48.9	
84 Ethyl methacrylate	69	6.285	6.285	0.000	88	738472	50.0	51.0	
85 1,1,2-Trichloroethane	97	6.428	6.428	0.000	91	467233	50.0	51.7	
86 Tetrachloroethene	164	6.514	6.514	0.000	98	455059	50.0	52.2	
87 1,3-Dichloropropane	76	6.571	6.571	0.000	90	834059	50.0	51.3	
88 2-Hexanone	43	6.600	6.600	0.000	95	1736713	200.0	204.7	
89 Chlorodibromomethane	129	6.764	6.764	0.000	90	452274	50.0	48.1	
90 Ethylene Dibromide	107	6.871	6.871	0.000	99	465948	50.0	54.2	
91 1-Chlorohexane	91	7.272	7.272	0.000	98	863030	50.0	49.4	
92 Chlorobenzene	112	7.308	7.308	0.000	94	1583991	50.0	51.1	
93 1,1,1,2-Tetrachloroethane	131	7.379	7.379	0.000	93	529736	50.0	51.3	
94 Ethylbenzene	106	7.386	7.386	0.000	98	894770	50.0	52.6	
95 m-Xylene & p-Xylene	106	7.501	7.501	0.000	100	1120269	50.0	52.4	
96 o-Xylene	106	7.858	7.858	0.000	96	1099634	50.0	52.9	
97 Styrene	104	7.872	7.872	0.000	95	1819264	50.0	54.4	
98 Bromoform	173	8.051	8.051	0.000	97	273873	50.0	50.8	
99 Isopropylbenzene	105	8.194	8.194	0.000	96	2911757	50.0	54.3	
100 Cyclohexanone	55	8.294	8.294	0.000	93	865154	2000.0	1997.9	
102 1,1,2,2-Tetrachloroethane	83	8.487	8.487	0.000	94	684154	50.0	53.3	
103 Bromobenzene	156	8.509	8.509	0.000	96	656800	50.0	53.5	
105 trans-1,4-Dichloro-2-buten	53	8.530	8.530	0.000	74	221846	50.0	53.0	
104 1,2,3-Trichloropropane	110	8.552	8.552	0.000	83	215014	50.0	52.6	
106 N-Propylbenzene	120	8.595	8.595	0.000	99	820562	50.0	54.0	
107 2-Chlorotoluene	126	8.688	8.688	0.000	96	670050	50.0	52.9	
108 1,3,5-Trimethylbenzene	105	8.766	8.766	0.000	94	2342937	50.0	52.8	
109 4-Chlorotoluene	126	8.802	8.802	0.000	97	690602	50.0	54.0	
110 tert-Butylbenzene	119	9.074	9.074	0.000	93	2101807	50.0	51.9	
111 1,2,4-Trimethylbenzene	105	9.131	9.131	0.000	97	2315300	50.0	52.6	
112 sec-Butylbenzene	134	9.288	9.288	0.000	94	619403	50.0	52.4	
113 1,3-Dichlorobenzene	146	9.410	9.410	0.000	98	1244554	50.0	51.9	
114 4-Isopropyltoluene	119	9.438	9.438	0.000	97	2643631	50.0	52.4	
115 1,4-Dichlorobenzene	146	9.510	9.510	0.000	95	1270218	50.0	50.5	
117 n-Butylbenzene	91	9.839	9.839	0.000	98	2431798	50.0	51.6	
118 1,2-Dichlorobenzene	146	9.860	9.860	0.000	97	1179374	50.0	50.3	
119 1,2-Dibromo-3-Chloropropan	157	10.632	10.632	0.000	84	128773	50.0	46.7	
121 1,2,4-Trichlorobenzene	180	11.455	11.455	0.000	94	799221	50.0	49.8	
122 Hexachlorobutadiene	225	11.598	11.598	0.000	98	406311	50.0	50.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
123 Naphthalene	128	11.712	11.712	0.000	97	2258874	50.0	49.0	
124 1,2,3-Trichlorobenzene	180	11.934	11.934	0.000	95	734312	50.0	48.3	
S 137 1,2-Dichloroethene, Total	96				0		100.0	106.6	
S 144 1,2-Dichloroethene, Total	1				0		100.0	106.6	
S 143 Xylenes, Total	106				0		100.0	105.2	
S 138 Xylenes, Total (URS)	1				0		100.0	105.2	
S 140 1,3-Dichloropropene, Total	1				0		100.0	102.5	
S 142 Trihalomethanes, Total	1				0		200.0	198.2	

Reagents:

MV-MegaMainA_00014	Amount Added:	50.00	Units: uL
mv-Cent IS_00003	Amount Added:	5.00	Units: uL

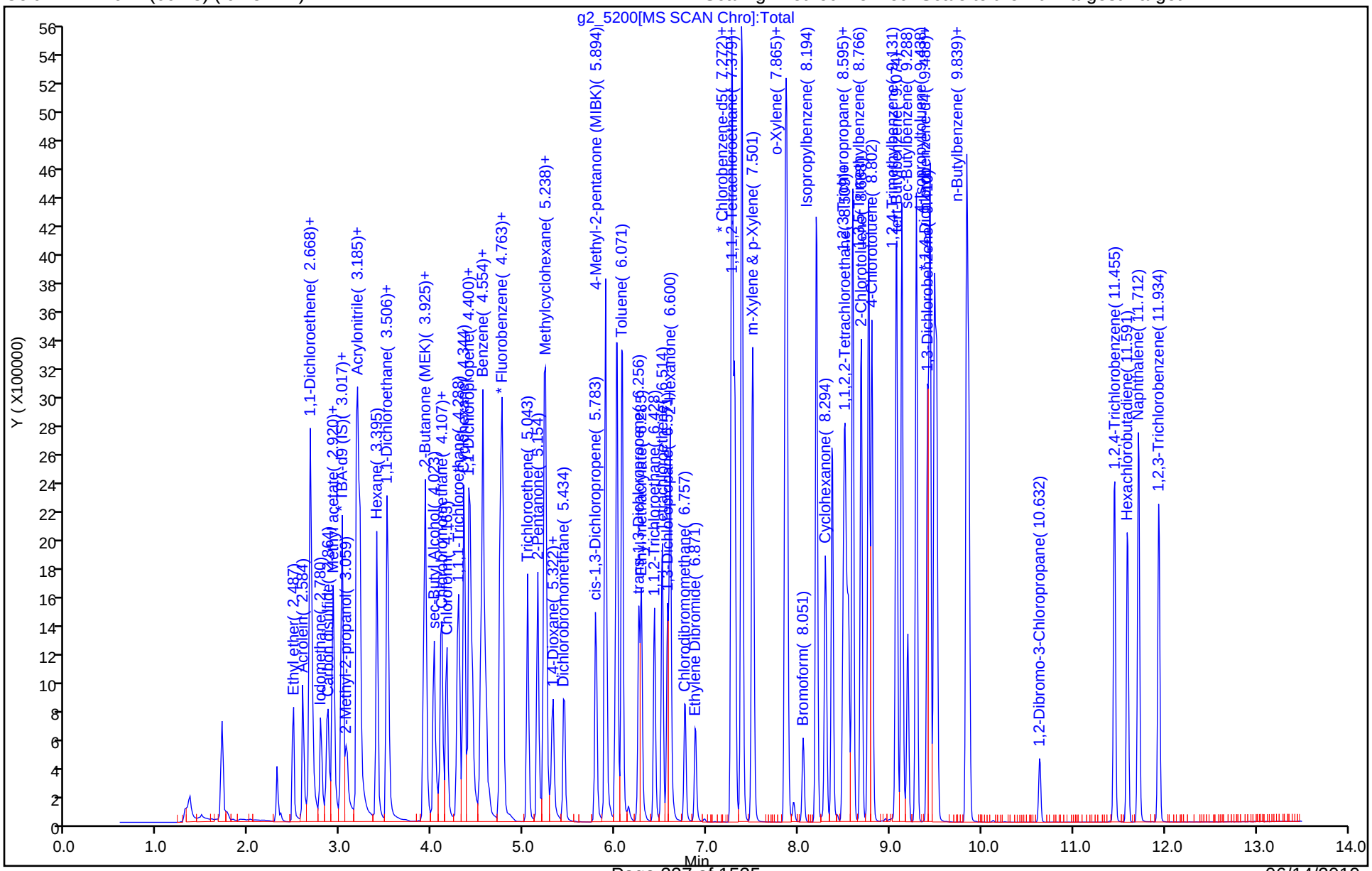
Report Date: 20-May-2019 11:33:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5200.D

Injection Date:	18-May-2019 10:31:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5201.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 18-May-2019 10:55:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-005
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:33:51 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	87	1244009	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2214360	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	88	526792	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	939640	50.0	50.0	
22 Ethyl ether	59	2.487	2.487	0.000	93	93593	10.0	11.1	
24 Acrolein	56	2.584	2.584	0.000	100	171478	98.8	96.4	
26 1,1,2-Trichloro-1,2,2-trif	151	2.668	2.668	0.000	70	81594	10.0	10.9	
25 1,1-Dichloroethene	96	2.668	2.668	0.000	97	102728	10.0	10.4	
27 Acetone	43	2.682	2.682	0.000	100	173960	40.0	41.1	
28 Iodomethane	142	2.780	2.780	0.000	99	148056	10.0	10.3	
30 Carbon disulfide	76	2.864	2.864	0.000	99	244996	10.0	9.73	
32 Methyl acetate	43	2.906	2.906	0.000	98	162903	20.0	18.7	
33 3-Chloro-1-propene	41	2.920	2.920	0.000	93	148438	10.0	9.86	
35 Methylene Chloride	84	3.017	3.017	0.000	97	112377	10.0	9.81	
37 2-Methyl-2-propanol	59	3.073	3.073	0.000	99	107353	100.0	101.9	
39 Acrylonitrile	53	3.185	3.171	0.014	99	459613	100.0	103.4	
41 Methyl tert-butyl ether	73	3.199	3.199	0.000	96	173374	10.0	10.4	
40 trans-1,2-Dichloroethene	96	3.213	3.213	0.000	98	96514	10.0	10.4	
42 Hexane	57	3.395	3.395	0.000	91	160708	10.0	10.4	
46 Vinyl acetate	43	3.548	3.506	0.042	97	438814	20.0	20.4	
45 1,1-Dichloroethane	63	3.520	3.520	0.000	96	176754	10.0	10.3	
52 2-Butanone (MEK)	43	3.911	3.911	0.000	100	204278	40.0	39.5	
51 cis-1,2-Dichloroethene	96	3.925	3.925	0.000	82	102645	10.0	10.2	
50 2,2-Dichloropropane	77	3.925	3.925	0.000	86	86618	10.0	10.3	
55 sec-Butyl Alcohol	45	4.023	4.023	0.000	99	308213	300.0	270.8	
56 Chlorobromomethane	128	4.093	4.093	0.000	96	44657	10.0	9.95	
57 Tetrahydrofuran	42	4.107	4.107	0.000	90	78898	20.0	20.5	
59 Chloroform	83	4.163	4.163	0.000	93	164897	10.0	9.52	
60 1,1,1-Trichloroethane	97	4.288	4.288	0.000	98	129644	10.0	10.2	
61 Cyclohexane	56	4.344	4.344	0.000	92	212443	10.0	10.1	
63 1,1-Dichloropropene	75	4.400	4.400	0.000	97	138164	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 Carbon tetrachloride	117	4.414	4.414	0.000	81	103446	10.0	9.44	
66 Isobutyl alcohol	41	4.442	4.442	0.000	94	93706	250.0	235.0	
64 Benzene	78	4.554	4.554	0.000	92	416080	10.0	10.1	
65 1,2-Dichloroethane	62	4.582	4.582	0.000	96	132694	10.0	9.79	
67 n-Heptane	43	4.749	4.749	0.000	93	170877	10.0	9.37	
69 Trichloroethene	95	5.043	5.043	0.000	98	97824	10.0	9.85	
70 2-Pentanone	43	5.154	5.154	0.000	99	318866	40.0	37.1	
71 Methylcyclohexane	55	5.224	5.224	0.000	94	162790	10.0	10.1	
72 1,2-Dichloropropane	63	5.238	5.238	0.000	93	107758	10.0	9.68	
74 1,4-Dioxane	88	5.294	5.294	0.000	65	26198	200.0	209.7	
75 Dibromomethane	93	5.322	5.322	0.000	97	54592	10.0	10.2	
76 Dichlorobromomethane	83	5.448	5.434	0.014	99	109041	10.0	9.28	
79 cis-1,3-Dichloropropene	75	5.783	5.783	0.000	95	151905	10.0	10.1	
81 4-Methyl-2-pentanone (MIBK	43	5.894	5.894	0.000	96	455119	40.0	39.6	
82 Toluene	91	6.078	6.078	0.000	99	429882	10.0	9.88	
83 trans-1,3-Dichloropropene	75	6.256	6.256	0.000	95	133262	10.0	8.74	
84 Ethyl methacrylate	69	6.285	6.285	0.000	91	124131	10.0	9.59	
85 1,1,2-Trichloroethane	97	6.428	6.428	0.000	92	81918	10.0	9.53	
86 Tetrachloroethene	164	6.514	6.514	0.000	96	81572	10.0	10.3	
87 1,3-Dichloropropane	76	6.571	6.571	0.000	90	149026	10.0	10.1	
88 2-Hexanone	43	6.600	6.600	0.000	96	310001	40.0	40.0	
89 Chlorodibromomethane	129	6.764	6.764	0.000	91	69703	10.0	8.43	
90 Ethylene Dibromide	107	6.879	6.871	0.008	98	79863	10.0	10.2	
91 1-Chlorohexane	91	7.272	7.272	0.000	97	152014	10.0	9.55	
92 Chlorobenzene	112	7.308	7.308	0.000	95	279887	10.0	9.90	
93 1,1,1,2-Tetrachloroethane	131	7.379	7.379	0.000	93	88031	10.0	9.55	
94 Ethylbenzene	106	7.386	7.386	0.000	99	153406	10.0	9.89	
95 m-Xylene & p-Xylene	106	7.501	7.501	0.000	99	195390	10.0	10.0	
96 o-Xylene	106	7.858	7.858	0.000	97	194978	10.0	10.3	
97 Styrene	104	7.880	7.872	0.008	96	317248	10.0	10.4	
98 Bromoform	173	8.051	8.051	0.000	96	41752	10.0	8.79	
99 Isopropylbenzene	105	8.194	8.194	0.000	96	537107	10.0	10.1	
100 Cyclohexanone	55	8.294	8.294	0.000	93	167586	400.0	413.9	
102 1,1,2,2-Tetrachloroethane	83	8.487	8.487	0.000	95	126396	10.0	9.95	
103 Bromobenzene	156	8.509	8.509	0.000	95	120252	10.0	9.91	
105 trans-1,4-Dichloro-2-buten	53	8.530	8.530	0.000	83	38774	10.0	9.53	
104 1,2,3-Trichloropropane	110	8.545	8.552	-0.007	83	39534	10.0	9.77	
106 N-Propylbenzene	120	8.595	8.595	0.000	99	151042	10.0	10.1	
107 2-Chlorotoluene	126	8.688	8.688	0.000	96	124078	10.0	9.90	
108 1,3,5-Trimethylbenzene	105	8.766	8.766	0.000	94	448993	10.0	10.2	
109 4-Chlorotoluene	126	8.802	8.802	0.000	97	127821	10.0	10.1	
110 tert-Butylbenzene	119	9.074	9.074	0.000	93	411038	10.0	10.3	
111 1,2,4-Trimethylbenzene	105	9.131	9.131	0.000	97	450700	10.0	10.4	
112 sec-Butylbenzene	134	9.288	9.288	0.000	94	122760	10.0	10.5	
113 1,3-Dichlorobenzene	146	9.410	9.410	0.000	98	235774	10.0	9.93	
114 4-Isopropyltoluene	119	9.438	9.438	0.000	97	521434	10.0	10.5	
115 1,4-Dichlorobenzene	146	9.510	9.510	0.000	94	241358	10.0	9.70	
117 n-Butylbenzene	91	9.839	9.839	0.000	98	477499	10.0	10.3	
118 1,2-Dichlorobenzene	146	9.860	9.860	0.000	97	229439	10.0	9.89	
119 1,2-Dibromo-3-Chloropropan	157	10.640	10.632	0.008	80	21209	10.0	8.26	
121 1,2,4-Trichlorobenzene	180	11.455	11.455	0.000	94	156469	10.0	9.86	
122 Hexachlorobutadiene	225	11.598	11.598	0.000	98	79016	10.0	9.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
123 Naphthalene	128	11.719	11.712	0.007	97	460415	10.0	10.1	
124 1,2,3-Trichlorobenzene	180	11.941	11.934	0.007	95	145685	10.0	9.69	
S 137 1,2-Dichloroethene, Total	96				0		20.0	20.5	
S 142 Trihalomethanes, Total	1				0		40.0	36.0	
S 140 1,3-Dichloropropene, Total	1				0		20.0	18.8	
S 138 Xylenes, Total (URS)	1				0		20.0	20.3	
S 139 Total BTEX	1				0			50.1	
S 143 Xylenes, Total	106				0		20.0	20.3	
S 144 1,2-Dichloroethene, Total	1				0		20.0	20.5	

Reagents:

MV-MegaMainA_00014	Amount Added: 10.00	Units: uL
mv-Cent IS_00003	Amount Added: 5.00	Units: uL

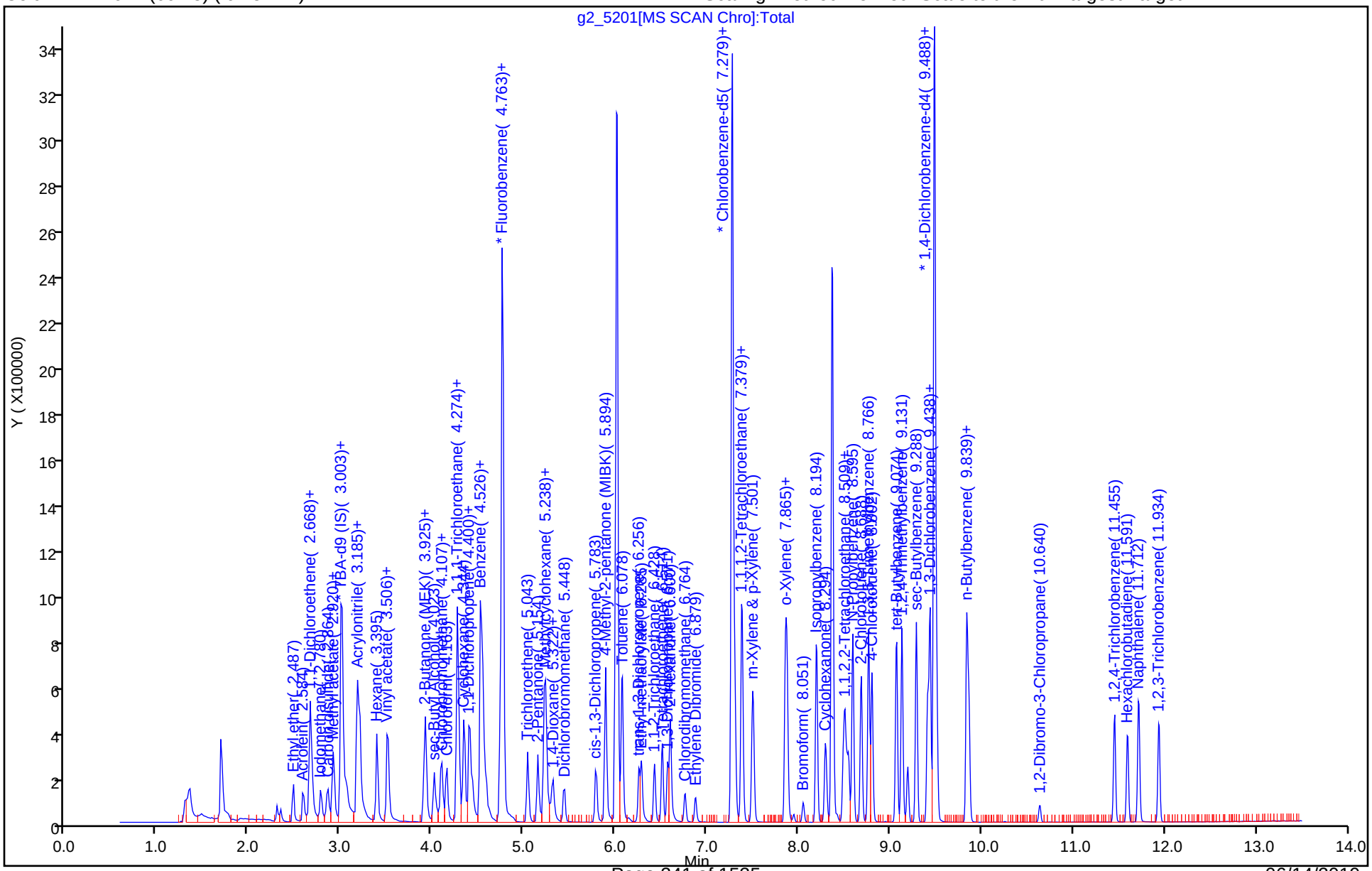
Report Date: 20-May-2019 11:33:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5201.D

Injection Date:	18-May-2019 10:55:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5202.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-May-2019 11:19:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-006
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:34:10 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	82	1316589	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2174339	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	506570	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	929393	50.0	50.0	
22 Ethyl ether	59	2.487	2.487	0.000	92	16324	2.00	1.97	
24 Acrolein	56	2.598	2.584	0.014	96	29427	19.8	18.7	
26 1,1,2-Trichloro-1,2,2-trif	151	2.668	2.668	0.000	70	13554	2.00	1.84	
25 1,1-Dichloroethene	96	2.668	2.668	0.000	96	18281	2.00	1.88	
27 Acetone	43	2.696	2.682	0.014	99	54592	8.00	9.31	
28 Iodomethane	142	2.780	2.780	0.000	97	26755	2.00	1.90	
30 Carbon disulfide	76	2.864	2.864	0.000	99	37974	2.00	1.73	
32 Methyl acetate	43	2.920	2.906	0.014	99	37117	4.00	3.98	
33 3-Chloro-1-propene	41	2.920	2.920	0.000	94	27846	2.00	1.88	
35 Methylene Chloride	84	3.017	3.017	0.000	95	21544	2.00	1.91	
37 2-Methyl-2-propanol	59	3.073	3.073	0.000	98	23834	20.0	20.1	
39 Acrylonitrile	53	3.185	3.171	0.014	99	85726	20.0	19.6	
41 Methyl tert-butyl ether	73	3.199	3.199	0.000	96	31242	2.00	1.91	
40 trans-1,2-Dichloroethene	96	3.213	3.213	0.000	97	17199	2.00	1.88	
42 Hexane	57	3.394	3.395	-0.001	90	30790	2.00	2.07	
46 Vinyl acetate	43	3.548	3.506	0.042	98	83906	4.00	3.98	
45 1,1-Dichloroethane	63	3.520	3.520	0.000	95	32018	2.00	1.91	
52 2-Butanone (MEK)	43	3.911	3.911	0.000	99	43573	8.00	7.89	
51 cis-1,2-Dichloroethene	96	3.925	3.925	0.000	82	18068	2.00	1.82	
50 2,2-Dichloropropane	77	3.925	3.925	0.000	87	15212	2.00	1.84	
55 sec-Butyl Alcohol	45	4.023	4.023	0.000	98	61480	60.0	55.0	
56 Chlorobromomethane	128	4.107	4.093	0.014	96	7143	2.00	1.75	
57 Tetrahydrofuran	42	4.107	4.107	0.000	93	14601	4.00	3.87	
59 Chloroform	83	4.163	4.163	0.000	93	33322	2.00	1.96	
60 1,1,1-Trichloroethane	97	4.288	4.288	0.000	97	23093	2.00	1.84	
61 Cyclohexane	56	4.344	4.344	0.000	91	39538	2.00	1.92	
63 1,1-Dichloropropene	75	4.414	4.400	0.014	96	24896	2.00	1.92	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 Carbon tetrachloride	117	4.414	4.414	0.000	79	18192	2.00	1.79	
66 Isobutyl alcohol	41	4.442	4.442	0.000	95	20544	50.0	47.0	
64 Benzene	78	4.554	4.554	0.000	93	79996	2.00	1.97	
65 1,2-Dichloroethane	62	4.596	4.582	0.014	95	24368	2.00	1.83	
67 n-Heptane	43	4.749	4.749	0.000	95	34933	2.00	1.95	
69 Trichloroethene	95	5.042	5.043	-0.001	97	18464	2.00	1.89	
70 2-Pentanone	43	5.154	5.154	0.000	99	66199	8.00	7.84	
71 Methylcyclohexane	55	5.224	5.224	0.000	92	28945	2.00	1.83	
72 1,2-Dichloropropane	63	5.252	5.238	0.014	84	23409	2.00	1.89	
74 1,4-Dioxane	88	5.308	5.294	0.014	34	5380	40.0	46.9	
75 Dibromomethane	93	5.322	5.322	0.000	93	9790	2.00	1.87	
76 Dichlorobromomethane	83	5.447	5.434	0.013	98	19278	2.00	1.77	
79 cis-1,3-Dichloropropene	75	5.797	5.783	0.014	94	26001	2.00	1.79	
81 4-Methyl-2-pentanone (MIBK	43	5.894	5.894	0.000	97	85121	8.00	7.55	
82 Toluene	91	6.078	6.078	0.000	99	79791	2.00	1.87	
83 trans-1,3-Dichloropropene	75	6.264	6.256	0.008	94	21359	2.00	1.70	
84 Ethyl methacrylate	69	6.292	6.285	0.007	91	20226	2.00	1.83	
85 1,1,2-Trichloroethane	97	6.428	6.428	0.000	90	14257	2.00	1.78	
86 Tetrachloroethene	164	6.514	6.514	0.000	97	14224	2.00	1.86	
87 1,3-Dichloropropane	76	6.578	6.571	0.007	92	27245	2.00	1.91	
88 2-Hexanone	43	6.607	6.600	0.007	98	54441	8.00	7.31	
89 Chlorodibromomethane	129	6.764	6.764	0.000	87	10891	2.00	1.67	
90 Ethylene Dibromide	107	6.878	6.871	0.007	99	13428	2.00	1.78	
91 1-Chlorohexane	91	7.272	7.272	0.000	90	30174	2.00	1.97	
92 Chlorobenzene	112	7.307	7.308	-0.001	98	51822	2.00	1.91	
93 1,1,1,2-Tetrachloroethane	131	7.379	7.379	0.000	90	14593	2.00	1.85	
94 Ethylbenzene	106	7.386	7.386	0.000	99	27658	2.00	1.86	
95 m-Xylene & p-Xylene	106	7.501	7.501	-0.001	100	34912	2.00	1.86	
96 o-Xylene	106	7.858	7.858	0.000	97	33730	2.00	1.85	
97 Styrene	104	7.879	7.872	0.007	96	53382	2.00	1.82	
98 Bromoform	173	8.051	8.051	0.000	93	6873	2.00	1.80	
99 Isopropylbenzene	105	8.201	8.194	0.007	96	95954	2.00	1.83	
100 Cyclohexanone	55	8.301	8.294	0.007	92	33964	80.0	76.9	
102 1,1,2,2-Tetrachloroethane	83	8.487	8.487	0.000	95	23603	2.00	1.88	
103 Bromobenzene	156	8.509	8.509	0.000	95	22248	2.00	1.85	
105 trans-1,4-Dichloro-2-buten	53	8.530	8.530	0.000	70	6293	2.00	1.72	
104 1,2,3-Trichloropropane	110	8.552	8.552	0.000	83	7506	2.00	1.88	
106 N-Propylbenzene	120	8.595	8.595	-0.001	99	26783	2.00	1.80	
107 2-Chlorotoluene	126	8.687	8.688	-0.001	96	22915	2.00	1.85	
108 1,3,5-Trimethylbenzene	105	8.766	8.766	0.000	94	84023	2.00	1.94	
109 4-Chlorotoluene	126	8.802	8.802	0.000	97	23833	2.00	1.90	
110 tert-Butylbenzene	119	9.074	9.074	0.000	94	75489	2.00	1.90	
111 1,2,4-Trimethylbenzene	105	9.131	9.131	0.000	98	82877	2.00	1.93	
112 sec-Butylbenzene	134	9.288	9.288	0.000	94	22537	2.00	1.95	
113 1,3-Dichlorobenzene	146	9.410	9.410	0.000	97	44840	2.00	1.91	
114 4-Isopropyltoluene	119	9.438	9.438	0.000	98	96561	2.00	1.96	
115 1,4-Dichlorobenzene	146	9.510	9.510	0.000	91	46604	2.00	1.89	
117 n-Butylbenzene	91	9.839	9.839	0.000	98	90773	2.00	1.97	
118 1,2-Dichlorobenzene	146	9.860	9.860	0.000	97	43906	2.00	1.91	
119 1,2-Dibromo-3-Chloropropan	157	10.639	10.632	0.007	76	3605	2.00	1.89	
121 1,2,4-Trichlorobenzene	180	11.455	11.455	0.000	94	30189	2.00	1.92	
122 Hexachlorobutadiene	225	11.590	11.598	-0.008	96	14871	2.00	1.90	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
123 Naphthalene	128	11.719	11.712	0.007	97	89167	2.00	1.98	
124 1,2,3-Trichlorobenzene	180	11.941	11.934	0.007	93	29190	2.00	1.96	
S 137 1,2-Dichloroethene, Total	96				0		4.00	3.70	
S 144 1,2-Dichloroethene, Total	1				0		4.00	3.70	
S 143 Xylenes, Total	106				0		4.00	3.71	
S 139 Total BTEX	1				0			9.40	
S 138 Xylenes, Total (URS)	1				0		4.00	3.71	
S 140 1,3-Dichloropropene, Total	1				0		4.00	3.49	
S 142 Trihalomethanes, Total	1				0		8.00	7.20	

Reagents:

MV-MegaMainA_00014	Amount Added:	2.00	Units: uL	
mv-Cent IS_00003	Amount Added:	5.00	Units: uL	

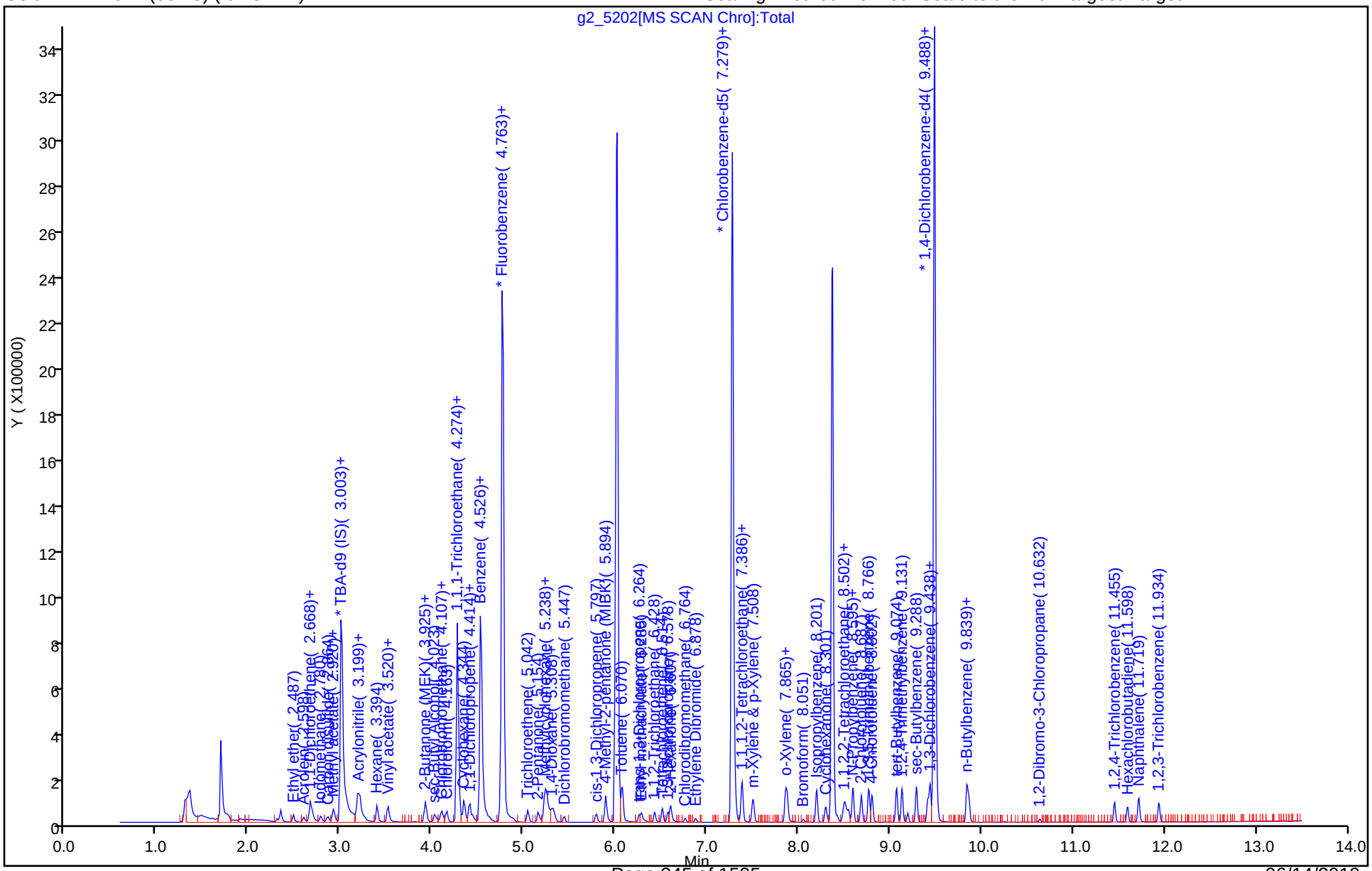
Report Date: 20-May-2019 11:34:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5202.D

Injection Date:	18-May-2019 11:19:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5203.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-May-2019 11:43:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-007
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:34:24 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	83	1269055	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2175176	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	505126	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	928589	50.0	50.0	
22 Ethyl ether	59	2.487	2.487	0.000	90	7749	1.00	0.9329	
24 Acrolein	56	2.598	2.584	0.014	97	14525	9.88	10.4	
26 1,1,2-Trichloro-1,2,2-trif	151	2.668	2.668	0.000	73	7139	1.00	0.9696	
25 1,1-Dichloroethene	96	2.668	2.668	0.000	96	8432	1.00	0.8687	
27 Acetone	43	2.696	2.682	0.014	99	35491	4.00	4.13	
28 Iodomethane	142	2.780	2.780	0.000	97	14483	1.00	1.03	
30 Carbon disulfide	76	2.864	2.864	0.000	98	18508	1.00	0.9647	
32 Methyl acetate	43	2.920	2.906	0.014	78	20244	2.00	1.96	
33 3-Chloro-1-propene	41	2.920	2.920	0.000	91	15130	1.00	1.02	
35 Methylene Chloride	84	3.017	3.017	0.000	53	11397	1.00	1.01	
37 2-Methyl-2-propanol	59	3.073	3.073	0.000	98	14802	10.0	11.0	
39 Acrylonitrile	53	3.185	3.171	0.014	99	43375	10.0	9.94	
41 Methyl tert-butyl ether	73	3.199	3.199	0.000	94	16754	1.00	1.02	
40 trans-1,2-Dichloroethene	96	3.213	3.213	0.000	97	8610	1.00	0.9402	
42 Hexane	57	3.394	3.395	-0.001	91	15184	1.00	1.02	
46 Vinyl acetate	43	3.548	3.506	0.042	96	40924	2.00	1.94	
45 1,1-Dichloroethane	63	3.520	3.520	0.000	87	16753	1.00	1.00	
52 2-Butanone (MEK)	43	3.911	3.911	0.000	96	23888	4.00	3.92	
51 cis-1,2-Dichloroethene	96	3.925	3.925	0.000	80	9123	1.00	0.9196	
50 2,2-Dichloropropane	77	3.939	3.925	0.014	58	7756	1.00	0.9391	
55 sec-Butyl Alcohol	45	4.023	4.023	0.000	97	36177	30.0	32.4	
56 Chlorobromomethane	128	4.107	4.093	0.014	45	3639	1.00	0.9637	
57 Tetrahydrofuran	42	4.107	4.107	0.000	80	8073	2.00	2.14	
59 Chloroform	83	4.163	4.163	0.000	92	18435	1.00	1.08	
60 1,1,1-Trichloroethane	97	4.288	4.288	0.000	97	11899	1.00	0.9499	
61 Cyclohexane	56	4.344	4.344	0.000	89	19860	1.00	0.9634	
63 1,1-Dichloropropene	75	4.400	4.400	0.000	94	11633	1.00	0.8956	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 Carbon tetrachloride	117	4.414	4.414	0.000	84	8844	1.00	0.9336	
66 Isobutyl alcohol	41	4.442	4.442	0.000	89	13479	25.0	28.4	
64 Benzene	78	4.554	4.554	0.000	93	40405	1.00	0.99	
65 1,2-Dichloroethane	62	4.596	4.582	0.014	93	13614	1.00	1.02	a
67 n-Heptane	43	4.749	4.749	0.000	94	19118	1.00	1.07	
69 Trichloroethene	95	5.043	5.043	-0.001	96	9425	1.00	0.9660	
70 2-Pentanone	43	5.154	5.154	0.000	99	39570	4.00	4.69	
71 Methylcyclohexane	55	5.224	5.224	0.000	93	15466	1.00	0.9780	
72 1,2-Dichloropropane	63	5.252	5.238	0.014	78	14311	1.00	1.03	
74 1,4-Dioxane	88	5.294	5.294	0.000	9	1406	20.0	15.1	
75 Dibromomethane	93	5.322	5.322	0.000	91	4509	1.00	0.8603	
76 Dichlorobromomethane	83	5.448	5.434	0.014	95	9526	1.00	0.9363	
79 cis-1,3-Dichloropropene	75	5.797	5.783	0.014	93	13073	1.00	0.9041	
81 4-Methyl-2-pentanone (MIBK	43	5.894	5.894	0.000	96	46714	4.00	4.14	
82 Toluene	91	6.078	6.078	0.000	97	41925	1.00	0.9808	
83 trans-1,3-Dichloropropene	75	6.264	6.256	0.008	87	10824	1.00	1.02	
84 Ethyl methacrylate	69	6.292	6.285	0.007	90	10190	1.00	1.05	
85 1,1,2-Trichloroethane	97	6.428	6.428	0.000	90	7716	1.00	1.01	
86 Tetrachloroethene	164	6.507	6.514	-0.007	94	7482	1.00	0.9814	
87 1,3-Dichloropropane	76	6.578	6.571	0.007	94	14226	1.00	1.00	
88 2-Hexanone	43	6.607	6.600	0.007	95	31022	4.00	4.18	
89 Chlorodibromomethane	129	6.757	6.764	-0.007	87	5625	1.00	1.04	
90 Ethylene Dibromide	107	6.879	6.871	0.007	93	7390	1.00	0.9819	
91 1-Chlorohexane	91	7.272	7.272	0.000	81	17118	1.00	1.12	
92 Chlorobenzene	112	7.308	7.308	0.000	97	26668	1.00	0.9839	
93 1,1,1,2-Tetrachloroethane	131	7.379	7.379	0.000	87	7587	1.00	1.08	
94 Ethylbenzene	106	7.386	7.386	0.000	98	14597	1.00	0.9819	
95 m-Xylene & p-Xylene	106	7.501	7.501	0.000	99	18494	1.00	0.9883	
96 o-Xylene	106	7.858	7.858	0.000	96	18921	1.00	1.04	
97 Styrene	104	7.880	7.872	0.008	95	27480	1.00	0.9389	
98 Bromoform	173	8.051	8.051	0.000	92	3364	1.00	1.06	
99 Isopropylbenzene	105	8.201	8.194	0.007	96	48905	1.00	0.9331	
100 Cyclohexanone	55	8.294	8.294	0.000	94	21752	40.0	44.7	
102 1,1,2,2-Tetrachloroethane	83	8.494	8.487	0.007	93	12508	1.00	1.00	
103 Bromobenzene	156	8.509	8.509	0.000	95	11156	1.00	0.9299	
105 trans-1,4-Dichloro-2-buten	53	8.530	8.530	0.000	58	3273	1.00	0.9836	
104 1,2,3-Trichloropropane	110	8.545	8.552	-0.008	82	4072	1.00	1.02	
106 N-Propylbenzene	120	8.595	8.595	0.000	99	14351	1.00	0.9666	
107 2-Chlorotoluene	126	8.688	8.688	0.000	96	12013	1.00	0.9695	
108 1,3,5-Trimethylbenzene	105	8.766	8.766	0.000	95	41286	1.00	0.9527	
109 4-Chlorotoluene	126	8.809	8.802	0.007	96	11710	1.00	0.9360	
110 tert-Butylbenzene	119	9.066	9.074	-0.008	94	38265	1.00	0.9658	
111 1,2,4-Trimethylbenzene	105	9.131	9.131	0.000	96	40831	1.00	0.9496	
112 sec-Butylbenzene	134	9.288	9.288	0.000	94	11081	1.00	0.9596	
113 1,3-Dichlorobenzene	146	9.410	9.410	0.000	97	21976	1.00	0.9370	
114 4-Isopropyltoluene	119	9.438	9.438	0.000	97	47932	1.00	0.9724	
115 1,4-Dichlorobenzene	146	9.510	9.510	0.000	91	25437	1.00	1.03	
117 n-Butylbenzene	91	9.839	9.839	0.000	98	42924	1.00	0.9324	
118 1,2-Dichlorobenzene	146	9.860	9.860	0.000	97	22756	1.00	0.99	
119 1,2-Dibromo-3-Chloropropan	157	10.640	10.632	0.008	76	1896	1.00	1.27	
121 1,2,4-Trichlorobenzene	180	11.455	11.455	0.000	93	15266	1.00	0.9735	
122 Hexachlorobutadiene	225	11.598	11.598	0.000	95	7595	1.00	0.9706	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
123 Naphthalene	128	11.719	11.712	0.007	97	47388	1.00	1.05	
124 1,2,3-Trichlorobenzene	180	11.941	11.934	0.007	93	15681	1.00	1.06	
S 137 1,2-Dichloroethene, Total	96				0		2.00	1.86	
S 142 Trihalomethanes, Total	1				0		4.00	4.12	
S 140 1,3-Dichloropropene, Total	1				0		2.00	1.93	
S 138 Xylenes, Total (URS)	1				0		2.00	2.03	
S 139 Total BTEX	1				0			4.99	
S 143 Xylenes, Total	106				0		2.00	2.03	
S 144 1,2-Dichloroethene, Total	1				0		2.00	1.86	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

MV-MegaMainA_00014 Amount Added: 1.00 Units: uL

mv-Cent IS_00003 Amount Added: 5.00 Units: uL

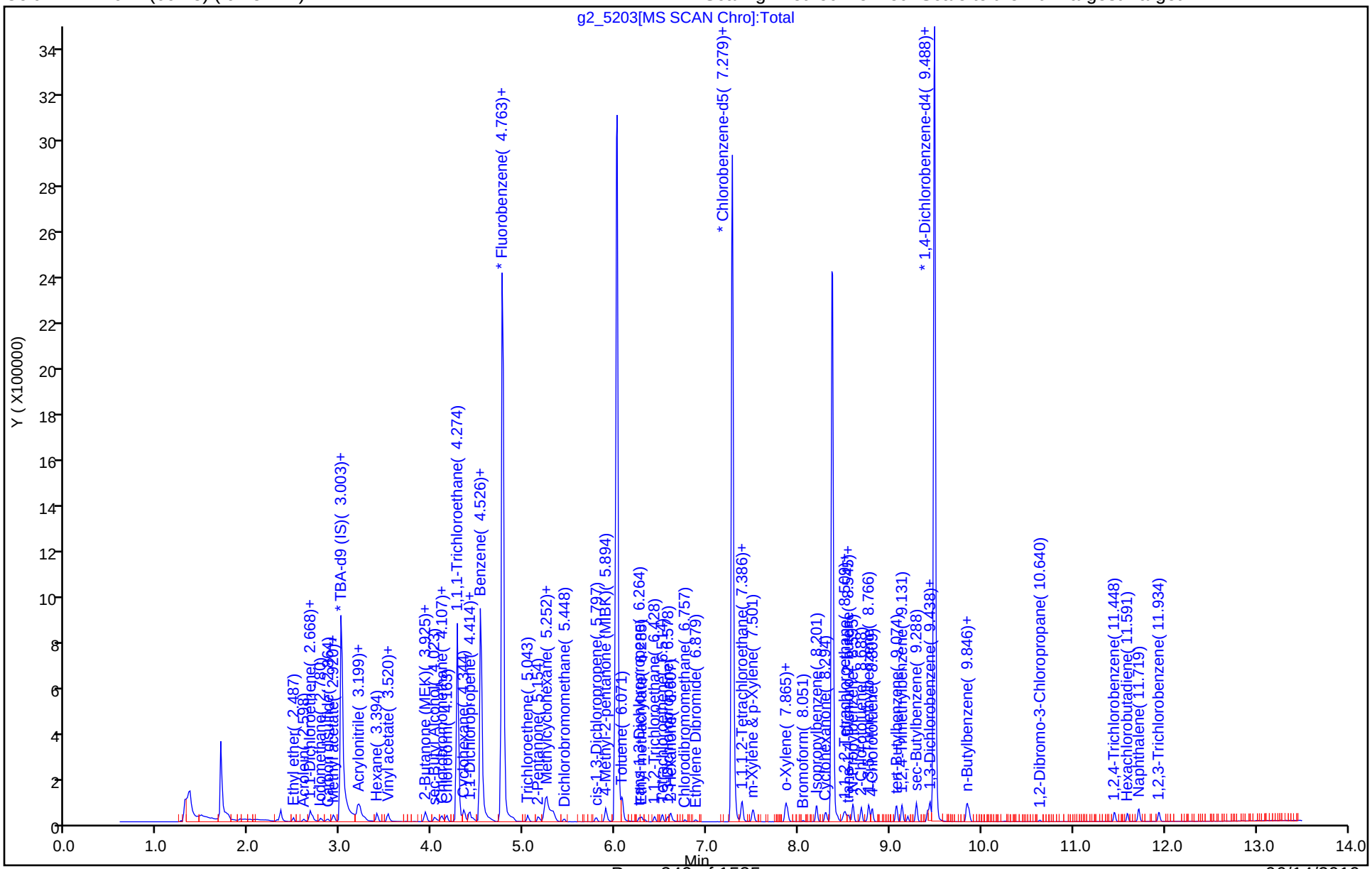
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Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5203.D

Injection Date:	18-May-2019 11:43:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

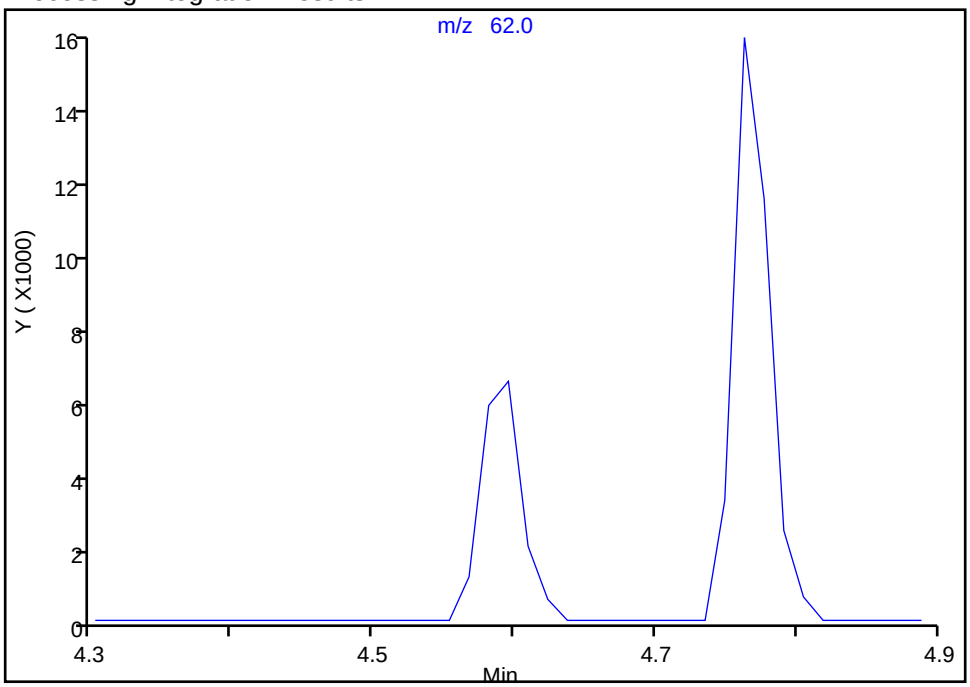
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Injection Date: 18-May-2019 11:43:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: meierg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

65 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

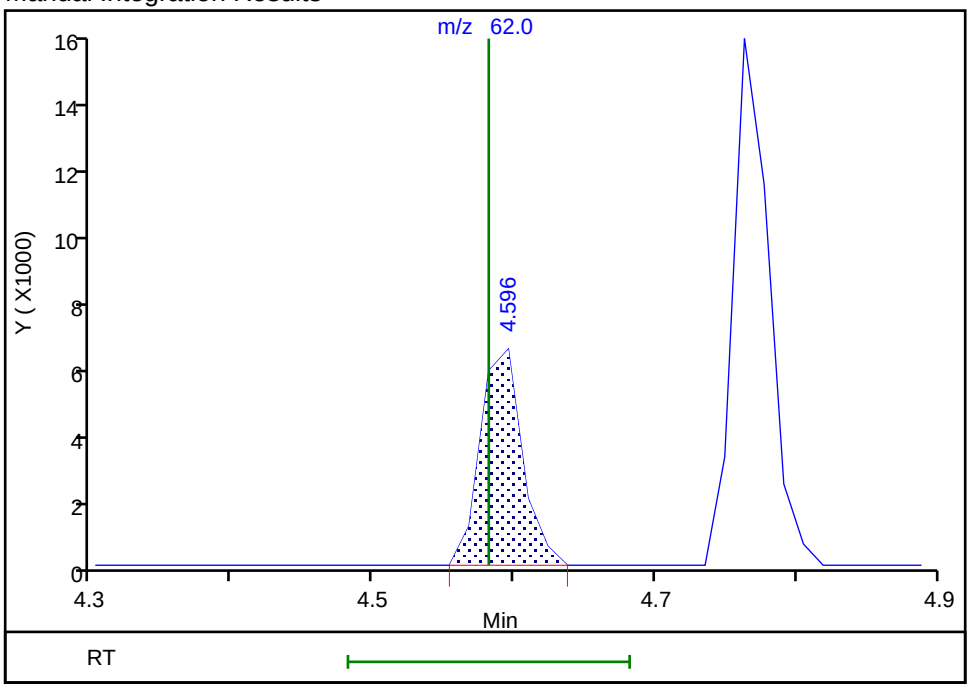
Not Detected
Expected RT: 4.58

Processing Integration Results



Manual Integration Results

RT: 4.60
Area: 13614
Amount: 1.022221
Amount Units: ug/l



Reviewer: meierg, 18-May-2019 12:35:25
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5204.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-May-2019 12:07:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-008
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:34:37 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	82	1198391	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2139779	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	499620	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	903920	50.0	50.0	
22 Ethyl ether	59	2.487	2.487	0.000	92	4001	0.5000	0.4897	
24 Acrolein	56	2.598	2.584	0.014	95	4525	4.94	4.87	
26 1,1,2-Trichloro-1,2,2-trif	151	2.668	2.668	0.000	71	3151	0.5000	0.4351	
25 1,1-Dichloroethene	96	2.668	2.668	0.000	92	4379	0.5000	0.4586	
27 Acetone	43	2.696	2.682	0.014	99	28045	2.00	2.24	
28 Iodomethane	142	2.780	2.780	0.000	94	6591	0.5000	0.4751	
30 Carbon disulfide	76	2.864	2.864	0.000	99	7262	0.5000	0.5258	
32 Methyl acetate	43	2.920	2.906	0.014	84	12162	1.00	1.01	
33 3-Chloro-1-propene	41	2.920	2.920	0.000	87	7365	0.5000	0.5062	
35 Methylene Chloride	84	3.017	3.017	0.000	46	5928	0.5000	0.5353	
37 2-Methyl-2-propanol	59	3.073	3.073	0.000	97	8411	5.00	4.74	
39 Acrylonitrile	53	3.185	3.171	0.014	98	20419	5.00	4.76	
41 Methyl tert-butyl ether	73	3.199	3.199	0.000	93	8466	0.5000	0.5251	
40 trans-1,2-Dichloroethene	96	3.213	3.213	0.000	96	3952	0.5000	0.4387	
42 Hexane	57	3.394	3.395	-0.001	92	7764	0.5000	0.5295	
46 Vinyl acetate	43	3.520	3.506	0.014	96	20125	1.00	0.9699	
45 1,1-Dichloroethane	63	3.520	3.520	0.000	90	8047	0.5000	0.4871	
52 2-Butanone (MEK)	43	3.911	3.911	0.000	91	14249	2.00	2.03	
51 cis-1,2-Dichloroethene	96	3.925	3.925	0.000	79	5131	0.5000	0.5257	
50 2,2-Dichloropropane	77		3.925				ND	ND	
55 sec-Butyl Alcohol	45	4.037	4.023	0.014	97	20168	15.0	18.3	
56 Chlorobromomethane	128	4.107	4.093	0.014	19	1647	0.5000	0.5246	
57 Tetrahydrofuran	42	4.121	4.107	0.014	60	3500	1.00	0.9426	
59 Chloroform	83	4.163	4.163	-0.001	92	9902	0.5000	0.5913	
60 1,1,1-Trichloroethane	97	4.288	4.288	0.000	90	6267	0.5000	0.5086	
61 Cyclohexane	56	4.344	4.344	0.000	90	10743	0.5000	0.5298	
63 1,1-Dichloropropene	75	4.414	4.400	0.014	90	5789	0.5000	0.4531	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 Carbon tetrachloride	117	4.414	4.414	0.000	78	4377	0.5000	0.5306	
66 Isobutyl alcohol	41	4.442	4.442	0.000	94	7084	12.5	11.9	
64 Benzene	78	4.554	4.554	0.000	92	20820	0.5000	0.5211	
65 1,2-Dichloroethane	62	4.595	4.582	0.013	93	7652	0.5000	0.5841	a
67 n-Heptane	43	4.749	4.749	0.000	92	10809	0.5000	0.6134	
69 Trichloroethene	95	5.042	5.043	-0.001	91	4712	0.5000	0.4909	
70 2-Pentanone	43	5.154	5.154	0.000	97	15335	2.00	1.85	
71 Methylcyclohexane	55	5.224	5.224	0.000	91	8067	0.5000	0.5186	
72 1,2-Dichloropropane	63	5.252	5.238	0.014	49	9655	0.5000	0.6049	
74 1,4-Dioxane	88		5.294				ND	ND	
75 Dibromomethane	93	5.322	5.322	0.000	91	2535	0.5000	0.4917	
76 Dichlorobromomethane	83	5.433	5.434	-0.001	92	4717	0.5000	0.5316	
79 cis-1,3-Dichloropropene	75	5.797	5.783	0.014	94	5895	0.5000	0.4122	
81 4-Methyl-2-pentanone (MIBK	43	5.894	5.894	0.000	95	20941	2.00	1.89	
82 Toluene	91	6.078	6.078	0.000	97	21572	0.5000	0.5130	
83 trans-1,3-Dichloropropene	75	6.263	6.256	0.007	83	4649	0.5000	0.6314	
84 Ethyl methacrylate	69	6.292	6.285	0.007	84	4578	0.5000	0.6089	
85 1,1,2-Trichloroethane	97	6.428	6.428	0.000	85	3404	0.5000	0.5121	
86 Tetrachloroethene	164	6.514	6.514	0.000	94	3628	0.5000	0.4811	
87 1,3-Dichloropropane	76	6.571	6.571	0.000	89	6865	0.5000	0.4884	
88 2-Hexanone	43	6.607	6.600	0.007	97	15078	2.00	2.05	
89 Chlorodibromomethane	129	6.764	6.764	0.000	87	2378	0.5000	0.6507	
90 Ethylene Dibromide	107	6.878	6.871	0.007	95	3259	0.5000	0.4378	
91 1-Chlorohexane	91	7.272	7.272	0.000	33	10121	0.5000	0.6702	
92 Chlorobenzene	112	7.307	7.308	-0.001	93	14441	0.5000	0.5387	
93 1,1,1,2-Tetrachloroethane	131	7.379	7.379	0.000	40	3914	0.5000	0.6783	
94 Ethylbenzene	106	7.386	7.386	0.000	98	7075	0.5000	0.4812	
95 m-Xylene & p-Xylene	106	7.508	7.501	0.007	97	9243	0.5000	0.4994	
96 o-Xylene	106	7.858	7.858	0.000	94	8837	0.5000	0.4910	
97 Styrene	104	7.879	7.872	0.007	93	14026	0.5000	0.4845	
98 Bromoform	173		8.051				ND	ND	
99 Isopropylbenzene	105	8.194	8.194	0.000	94	25604	0.5000	0.5018	
100 Cyclohexanone	55	8.294	8.294	0.000	95	11957	20.0	19.0	
102 1,1,2,2-Tetrachloroethane	83	8.487	8.487	0.000	87	5862	0.5000	0.4797	
103 Bromobenzene	156	8.509	8.509	0.000	89	5723	0.5000	0.4900	
105 trans-1,4-Dichloro-2-buten	53	8.530	8.530	0.000	1	1344	0.5000	0.5224	
104 1,2,3-Trichloropropane	110	8.544	8.552	-0.008	75	1247	0.5000	0.3203	
106 N-Propylbenzene	120	8.594	8.595	-0.001	99	6758	0.5000	0.4676	
107 2-Chlorotoluene	126	8.687	8.688	-0.001	95	6067	0.5000	0.5030	
108 1,3,5-Trimethylbenzene	105	8.766	8.766	0.000	94	20609	0.5000	0.4885	
109 4-Chlorotoluene	126	8.809	8.802	0.007	96	5645	0.5000	0.4635	
110 tert-Butylbenzene	119	9.074	9.074	0.000	94	19859	0.5000	0.5149	
111 1,2,4-Trimethylbenzene	105	9.131	9.131	0.000	94	20333	0.5000	0.4858	
112 sec-Butylbenzene	134	9.295	9.288	0.007	94	5151	0.5000	0.4583	
113 1,3-Dichlorobenzene	146	9.417	9.410	0.007	93	11753	0.5000	0.5148	
114 4-Isopropyltoluene	119	9.438	9.438	0.000	98	22407	0.5000	0.4670	
115 1,4-Dichlorobenzene	146	9.510	9.510	0.000	89	12796	0.5000	0.5347	
117 n-Butylbenzene	91	9.839	9.839	0.000	98	22402	0.5000	0.4999	
118 1,2-Dichlorobenzene	146	9.867	9.860	0.007	95	11842	0.5000	0.5307	
119 1,2-Dibromo-3-Chloropropan	157		10.632				ND	ND	
121 1,2,4-Trichlorobenzene	180	11.455	11.455	0.000	89	8142	0.5000	0.5334	
122 Hexachlorobutadiene	225	11.598	11.598	0.000	86	3640	0.5000	0.4779	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
123 Naphthalene	128	11.719	11.712	0.007	96	22600	0.5000	0.5150	
124 1,2,3-Trichlorobenzene	180	11.941	11.934	0.007	91	7862	0.5000	0.5434	
S 137 1,2-Dichloroethene, Total	96				0		1.00	0.9644	
S 144 1,2-Dichloroethene, Total	1				0		1.00	0.9644	
S 143 Xylenes, Total	106				0		1.00	0.99	
S 139 Total BTEX	1				0			2.51	
S 138 Xylenes, Total (URS)	1				0		1.00	0.99	
S 140 1,3-Dichloropropene, Total	1				0		1.00	1.04	
S 142 Trihalomethanes, Total	1				0		2.00	1.77	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

a - User Assigned ID

Reagents:

MV-MegaMainA_00014	Amount Added:	0.50	Units: uL	
mv-Cent IS_00003	Amount Added:	5.00	Units: uL	

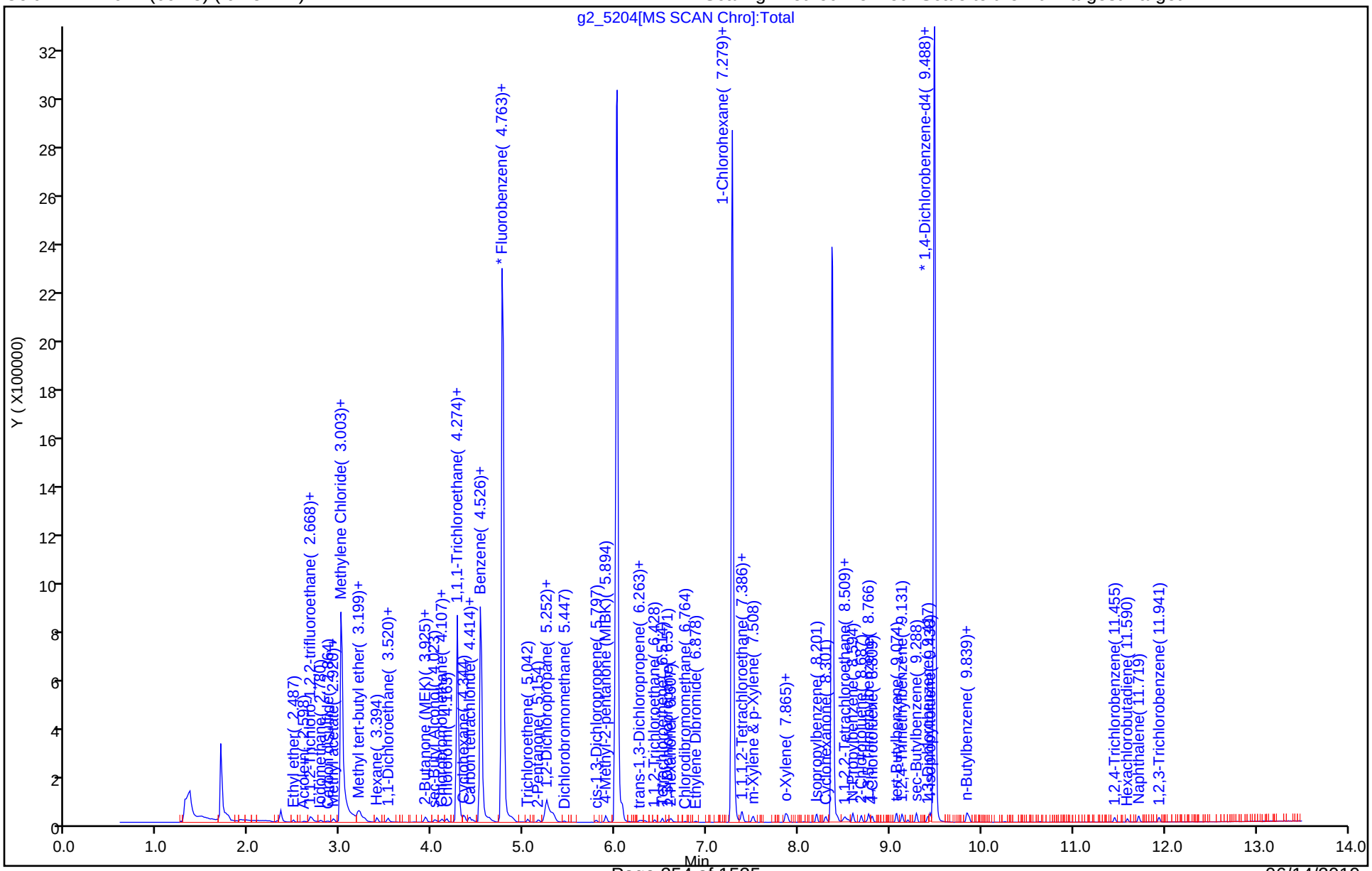
Report Date: 20-May-2019 11:34:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5204.D

Injection Date:	18-May-2019 12:07:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

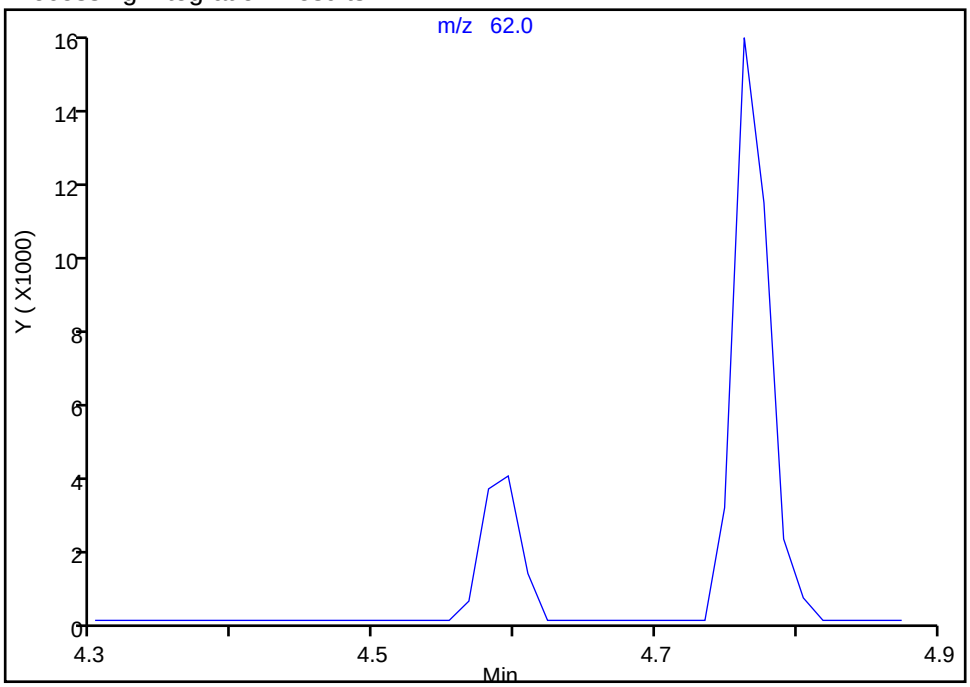
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Injection Date: 18-May-2019 12:07:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: meierg ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

65 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

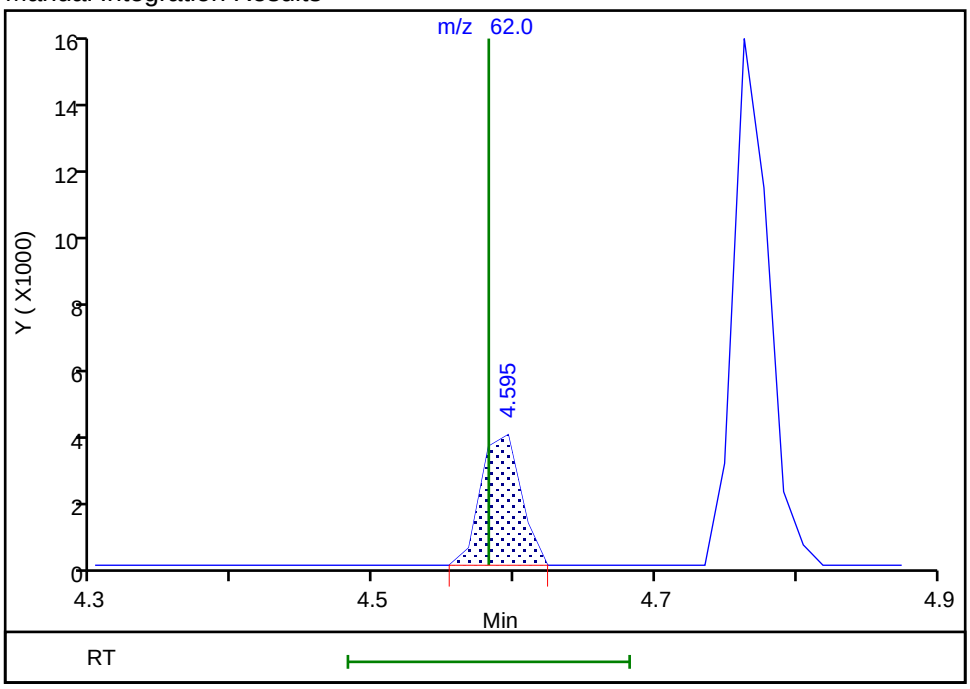
Not Detected
Expected RT: 4.58

Processing Integration Results



Manual Integration Results

RT: 4.60
Area: 7652
Amount: 0.584063
Amount Units: ug/l



Reviewer: meierg, 18-May-2019 12:34:41
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5206.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-May-2019 12:55:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-010
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:35:02 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.017	3.003	0.014	82	1255209	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2185237	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	497642	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	924314	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.274	4.274	0.000	94	473741	50.0	50.4	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.526	4.526	0.000	97	613025	50.0	49.9	
$ 8 Toluene-d8 (Surr)	98	6.020	6.020	0.000	94	2188606	50.0	51.0	
$ 9 4-Bromofluorobenzene (Surr	95	8.366	8.366	0.000	88	849744	50.0	49.1	
12 Dichlorodifluoromethane	85	1.509	1.509	0.000	99	2277171	200.0	209.6	
14 Chloromethane	50	1.663	1.663	0.000	99	1933721	200.0	220.9	
15 Vinyl chloride	62	1.760	1.760	0.000	98	2403017	200.0	205.0	
17 Bromomethane	94	2.012	2.012	0.000	89	1219858	200.0	179.9	
18 Chloroethane	64	2.082	2.082	0.000	99	1303946	200.0	188.4	
19 Dichlorofluoromethane	67	2.249	2.249	0.000	98	460769	200.0	200.0	
20 Trichlorofluoromethane	101	2.277	2.277	0.000	99	915542	200.0	199.9	
78 2-Chloroethyl vinyl ether	63	5.643	5.643	0.000	91	1468272	200.0	213.4	

Reagents:

MV-Gas A_00025 Amount Added: 200.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

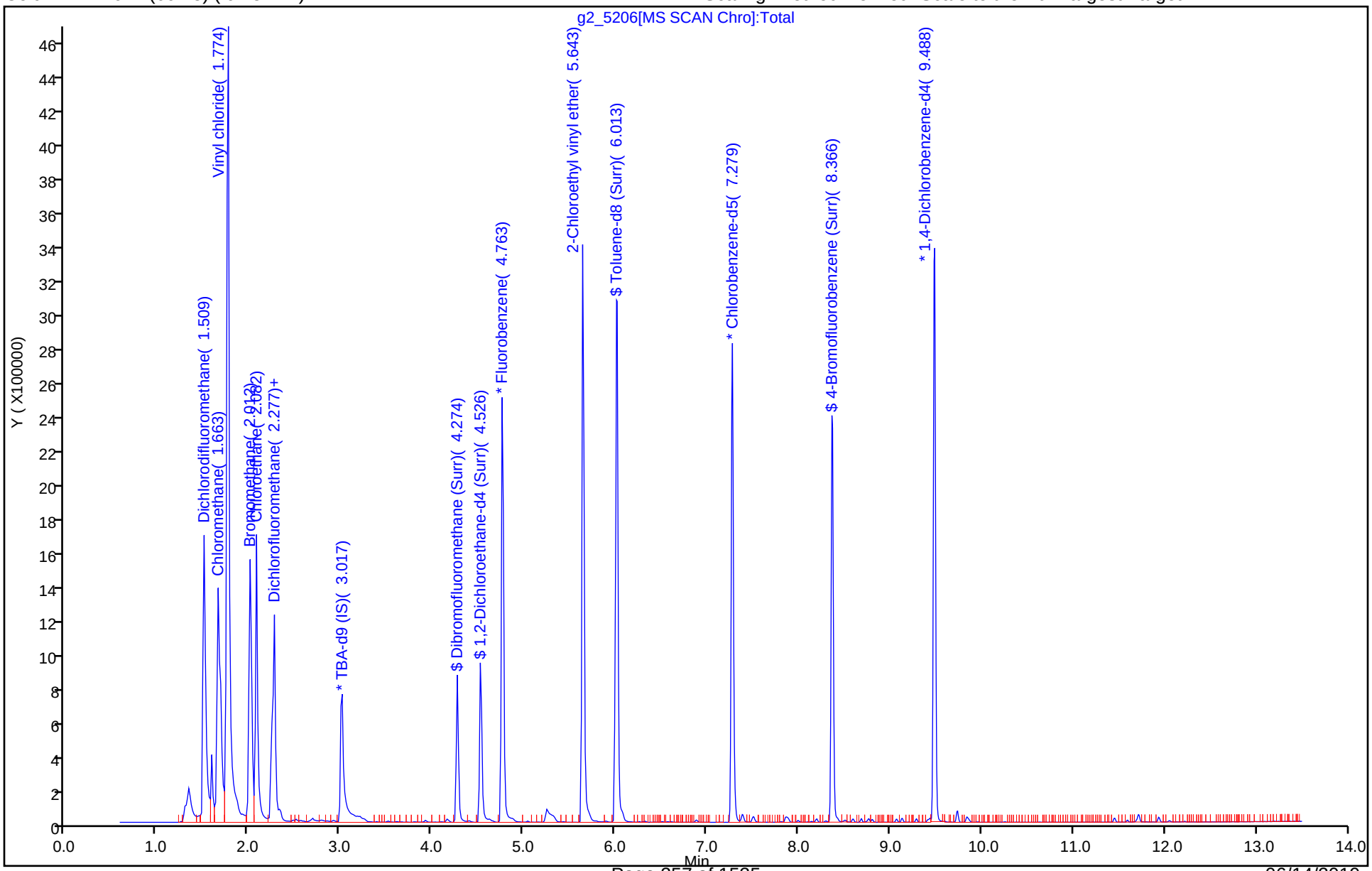
Report Date: 20-May-2019 11:35:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5206.D

Injection Date:	18-May-2019 12:55:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5207.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-May-2019 13:19:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-011
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:35:07 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	82	1222766	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2168604	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	496726	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	919785	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.274	4.274	0.000	94	464870	50.0	49.8	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.526	4.526	0.000	98	606730	50.0	49.7	
$ 8 Toluene-d8 (Surr)	98	6.020	6.020	0.000	94	2162891	50.0	50.5	
$ 9 4-Bromofluorobenzene (Surr	95	8.366	8.366	0.000	89	838092	50.0	48.6	
12 Dichlorodifluoromethane	85	1.509	1.509	0.000	99	1052377	100.0	97.7	
14 Chloromethane	50	1.663	1.663	0.000	99	901775	100.0	103.7	
15 Vinyl chloride	62	1.760	1.760	0.000	98	1161129	100.0	100.0	
17 Bromomethane	94	2.012	2.012	0.000	89	660473	100.0	98.2	
18 Chloroethane	64	2.082	2.082	0.000	99	684274	100.0	99.6	
19 Dichlorofluoromethane	67	2.249	2.249	0.000	97	196881	100.0	100.0	
20 Trichlorofluoromethane	101	2.277	2.277	0.000	98	406759	100.0	101.1	
78 2-Chloroethyl vinyl ether	63	5.643	5.643	0.000	91	694953	100.0	101.9	

Reagents:

MV-Gas A_00025 Amount Added: 100.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

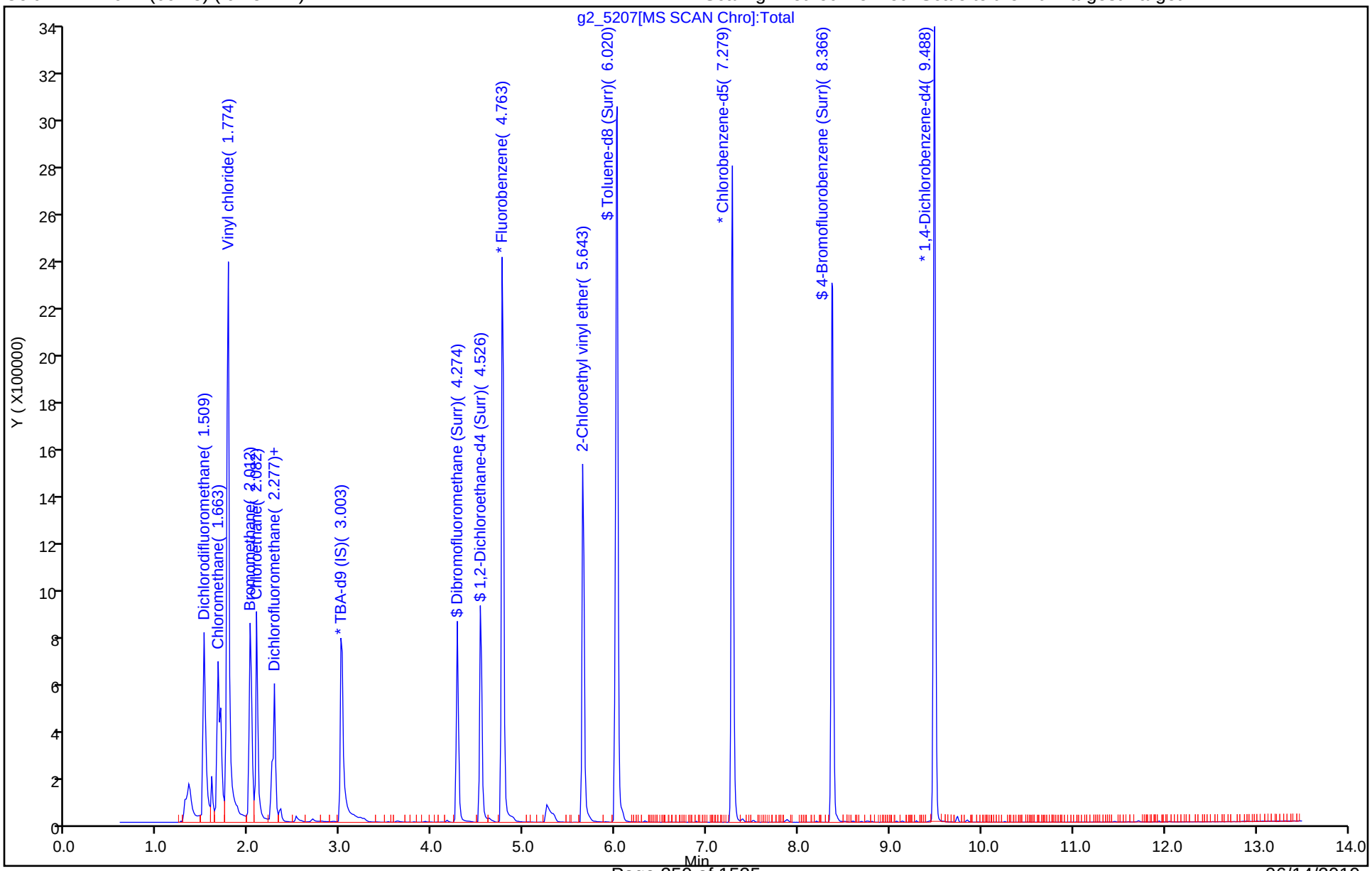
Report Date: 20-May-2019 11:35:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5207.D

Injection Date:	18-May-2019 13:19:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5208.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 18-May-2019 13:43:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: icis
Misc. Info.: 280-0082029-012
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:35:11 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	82	1182261	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2121561	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	485961	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	893027	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.274	4.274	0.000	94	445180	50.0	48.8	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.526	4.526	0.000	97	591211	50.0	49.5	
$ 8 Toluene-d8 (Surr)	98	6.020	6.020	0.000	94	2086166	50.0	49.8	
$ 9 4-Bromofluorobenzene (Surr	95	8.366	8.366	0.000	89	820697	50.0	49.0	
12 Dichlorodifluoromethane	85	1.509	1.509	0.000	100	531659	50.0	50.6	
14 Chloromethane	50	1.663	1.663	0.000	99	423876	50.0	49.7	
15 Vinyl chloride	62	1.760	1.760	0.000	98	576613	50.0	50.9	
17 Bromomethane	94	2.012	2.012	0.000	90	334014	50.0	50.7	
18 Chloroethane	64	2.082	2.082	0.000	100	358035	50.0	53.3	
19 Dichlorofluoromethane	67	2.249	2.249	0.000	98	70145	50.0	50.0	
20 Trichlorofluoromethane	101	2.277	2.277	0.000	98	176050	50.0	48.4	
78 2-Chloroethyl vinyl ether	63	5.643	5.643	0.000	91	337194	50.0	50.6	

Reagents:

MV-Gas A_00025 Amount Added: 50.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

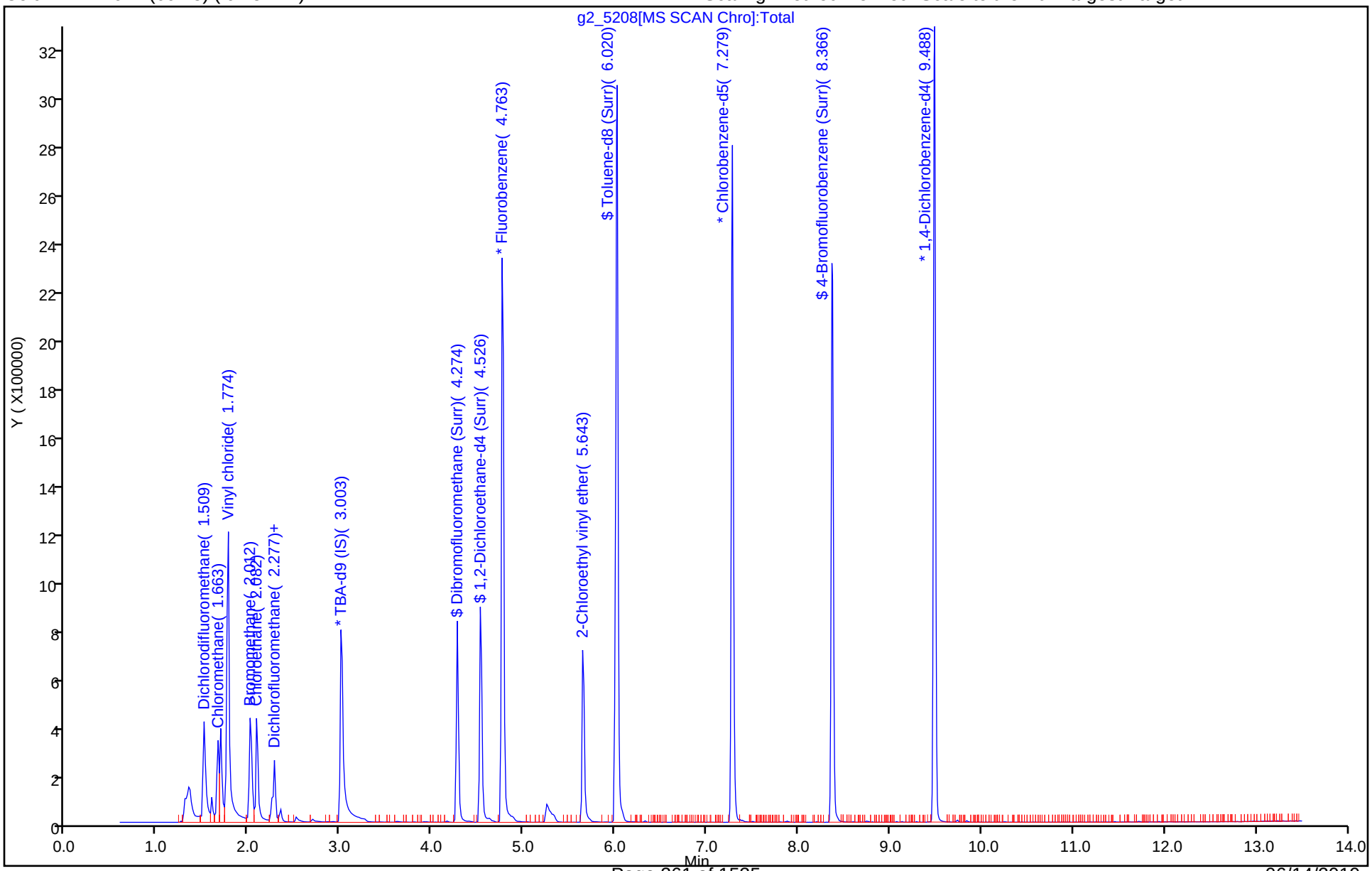
Report Date: 20-May-2019 11:35:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5208.D

Injection Date:	18-May-2019 13:43:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	icis			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5209.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	18-May-2019 14:07:30	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Misc. Info.:	280-0082029-013				
Operator ID:	meierg	Instrument ID:	VMS_G2		
Sublist:	chrom-AQ_VMSG2_8260*sub149				
Method:	\\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	20-May-2019 11:35:15	Calib Date:	18-May-2019 18:07:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D				
Column 1 :	DB-624 (60.25) (0.25 mm)		Det: MS SCAN		
Process Host:	CTX0310				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.004	3.003	0.001	82	1182725	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2109684	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	500539	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	878570	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.274	4.274	0.000	93	453619	50.0	50.0	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.526	4.526	0.000	97	594270	50.0	50.1	
$ 8 Toluene-d8 (Surr)	98	6.021	6.020	0.001	94	2120252	50.0	49.1	
$ 9 4-Bromofluorobenzene (Surr	95	8.366	8.366	0.000	89	832554	50.0	50.6	
12 Dichlorodifluoromethane	85	1.509	1.509	0.000	99	102183	10.0	9.94	
14 Chloromethane	50	1.663	1.663	0.000	99	78362	10.0	9.01	
15 Vinyl chloride	62	1.761	1.760	0.001	98	111037	10.0	10.1	
17 Bromomethane	94	2.012	2.012	0.000	90	65646	10.0	10.0	
18 Chloroethane	64	2.082	2.082	0.000	99	73654	10.0	11.0	
19 Dichlorofluoromethane	67	2.249	2.249	0.000	96	8267	10.0	10.0	
20 Trichlorofluoromethane	101	2.277	2.277	0.000	97	30638	10.0	9.74	
78 2-Chloroethyl vinyl ether	63	5.657	5.643	0.014	90	64015	10.0	9.83	

Reagents:

MV-Gas A_00025	Amount Added: 10.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added: 5.00	Units: uL	Run Reagent

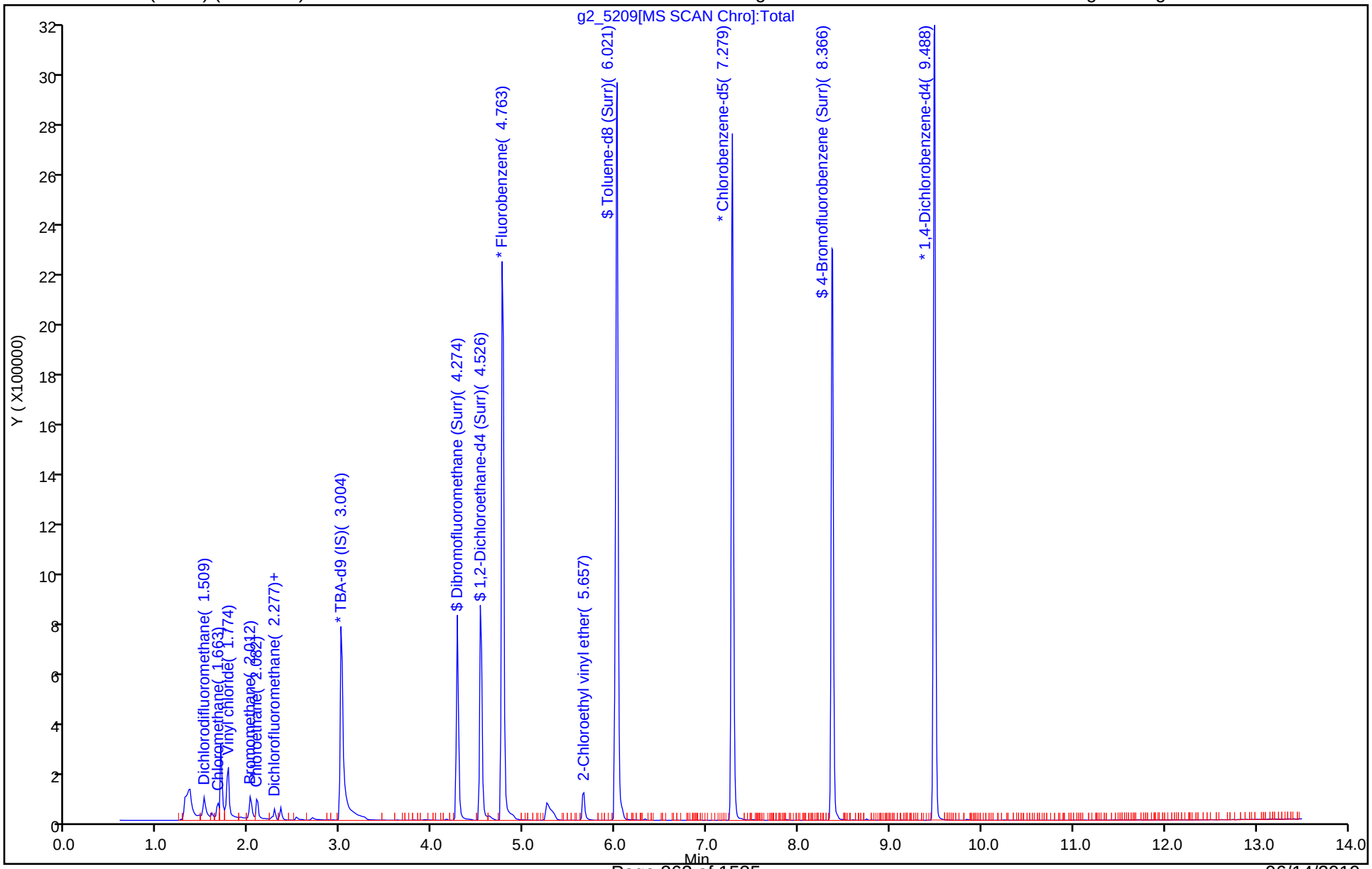
Report Date: 20-May-2019 11:35:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5209.D

Injection Date:	18-May-2019 14:07:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5210.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-May-2019 14:31:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-014
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:35:19 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	82	1167777	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2181554	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	510492	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	872241	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.274	4.274	0.000	94	472225	50.0	50.3	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.526	4.526	0.000	98	615982	50.0	50.2	
$ 8 Toluene-d8 (Surr)	98	6.020	6.020	0.000	94	2220278	50.0	50.4	
$ 9 4-Bromofluorobenzene (Surr	95	8.366	8.366	0.000	89	838184	50.0	51.3	
12 Dichlorodifluoromethane	85	1.509	1.509	0.000	98	18122	2.00	1.88	
14 Chloromethane	50	1.649	1.663	-0.014	97	18204	2.00	1.81	
15 Vinyl chloride	62	1.760	1.760	0.000	94	17452	2.00	1.79	
17 Bromomethane	94	2.012	2.012	0.000	91	12829	2.00	1.90	
18 Chloroethane	64	2.082	2.082	0.000	99	13432	2.00	1.94	
19 Dichlorofluoromethane	67	2.249	2.249	0.000	1	465	2.00	2.00	Ma
20 Trichlorofluoromethane	101	2.277	2.277	0.000	95	4907	2.00	2.35	a
78 2-Chloroethyl vinyl ether	63	5.657	5.643	0.014	88	11183	2.00	1.83	

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

MV-Gas A_00025 Amount Added: 2.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

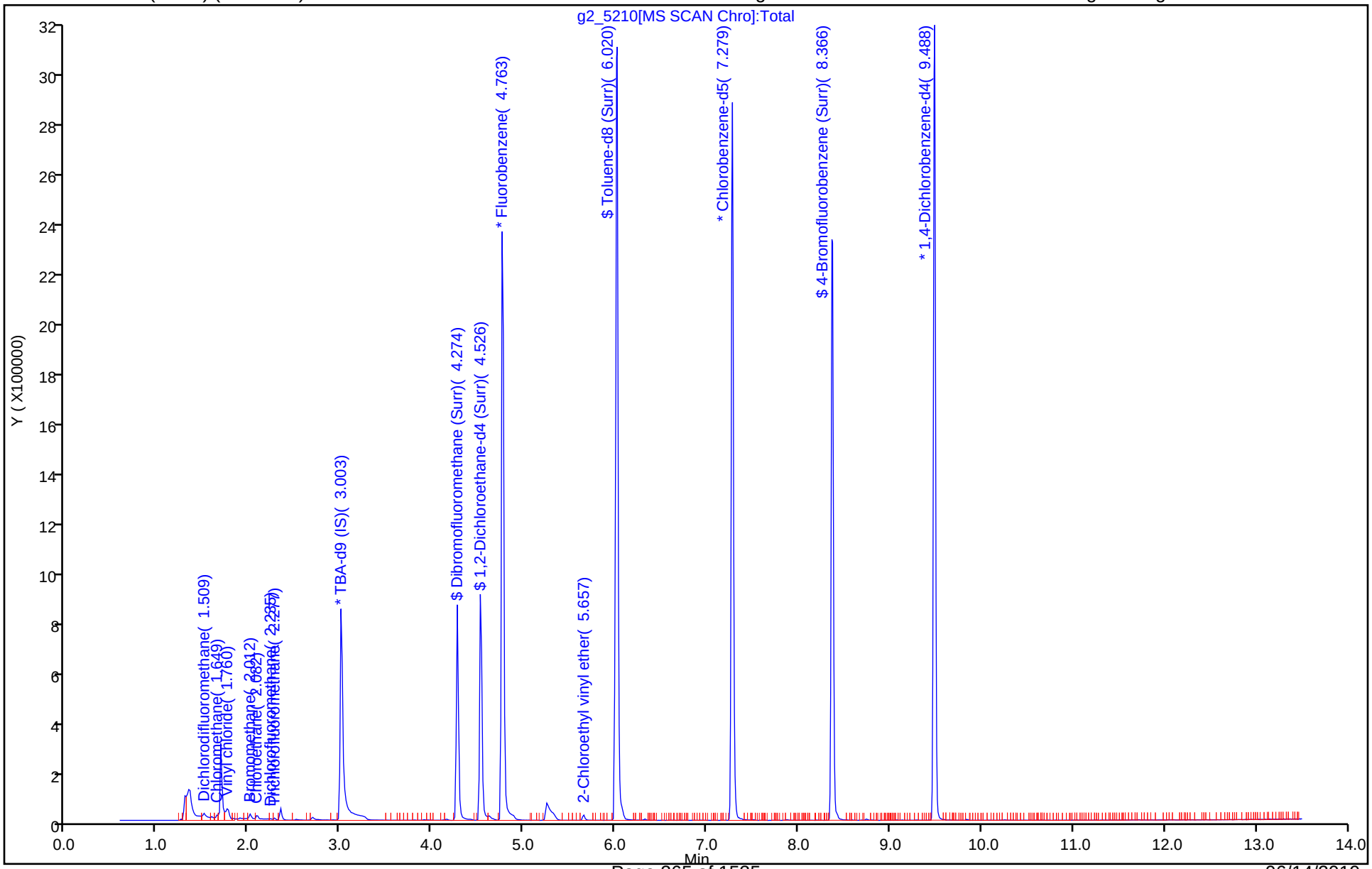
Report Date: 20-May-2019 11:35:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5210.D

Injection Date:	18-May-2019 14:31:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

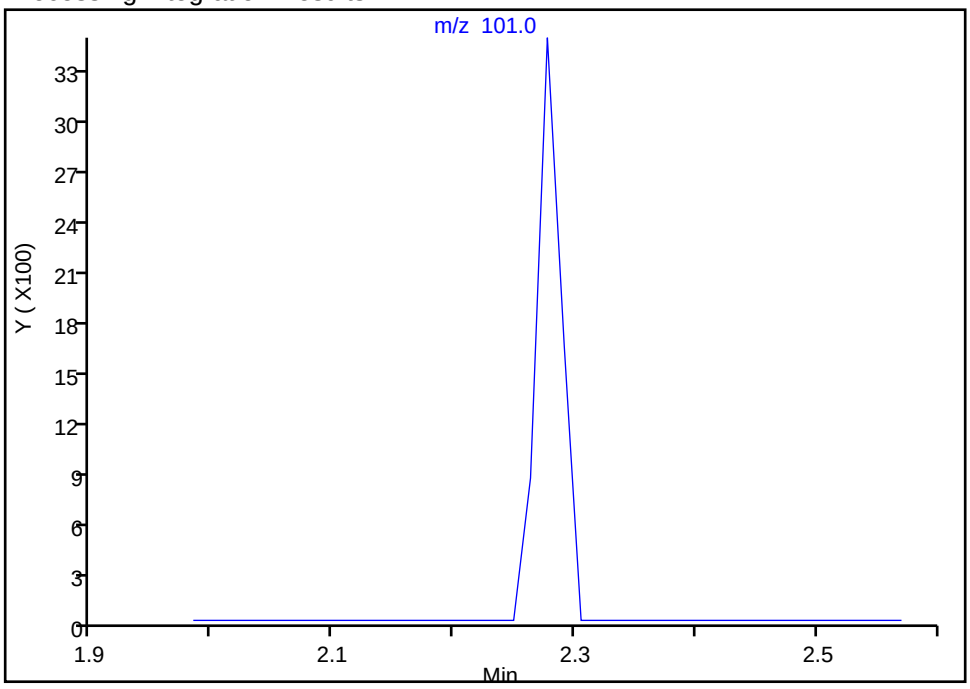
Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5210.D
Injection Date: 18-May-2019 14:31:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: meierg ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

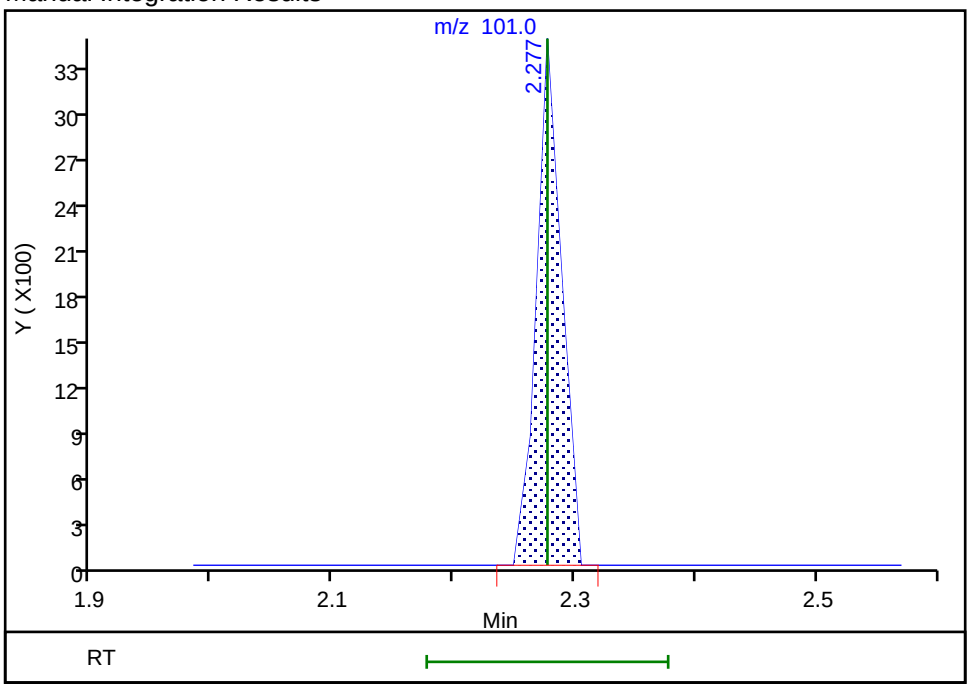
Not Detected
Expected RT: 2.28

Processing Integration Results



Manual Integration Results

RT: 2.28
Area: 4907
Amount: 2.352004
Amount Units: ug/l



Reviewer: meierg, 18-May-2019 15:06:35
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5211.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-May-2019 14:55:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-015
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:35:25 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	82	1120017	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2074510	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	486370	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	858212	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.274	4.274	0.000	94	449033	50.0	50.3	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.526	4.526	0.000	97	583723	50.0	50.0	
$ 8 Toluene-d8 (Surr)	98	6.020	6.020	0.000	94	2087492	50.0	49.8	
$ 9 4-Bromofluorobenzene (Surr	95	8.366	8.366	0.000	88	828271	50.0	51.5	
12 Dichlorodifluoromethane	85	1.509	1.509	0.000	97	8517	1.00	1.03	a
14 Chloromethane	50	1.649	1.663	-0.014	96	11070	1.00	1.06	
15 Vinyl chloride	62	1.760	1.760	0.000	94	8323	1.00	1.05	
17 Bromomethane	94	2.012	2.012	0.000	89	7052	1.00	1.10	
18 Chloroethane	64	2.082	2.082	0.000	96	6241	1.00	0.9497	
19 Dichlorofluoromethane	67		2.249				ND	ND	
20 Trichlorofluoromethane	101	2.277	2.277	0.000	90	2021	1.00	1.58	Ma
78 2-Chloroethyl vinyl ether	63	5.657	5.643	0.014	86	5024	1.00	0.9676	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

MV-Gas A_00025 Amount Added: 1.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

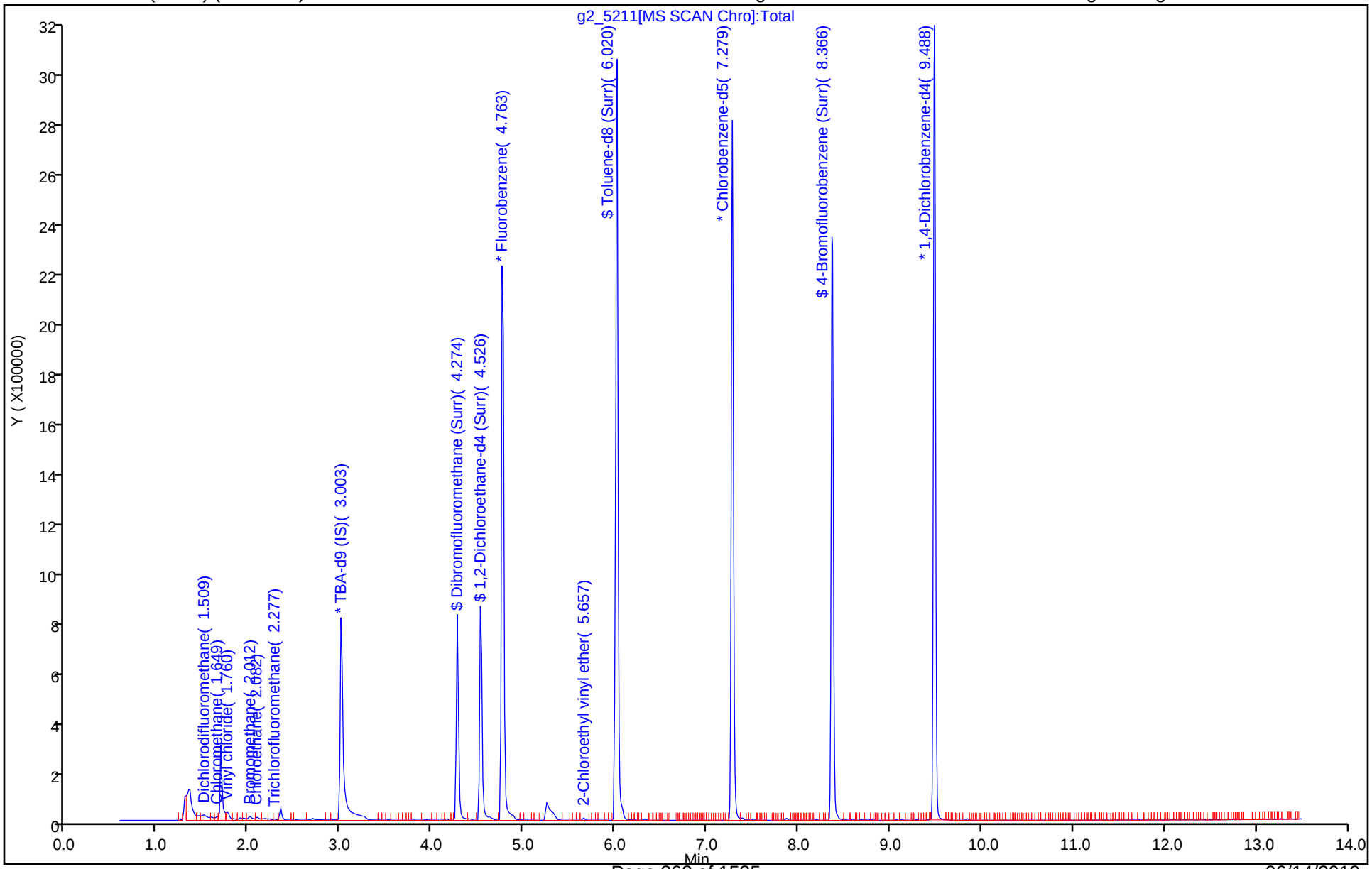
Report Date: 20-May-2019 11:35:26 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5211.D

Injection Date:	18-May-2019 14:55:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

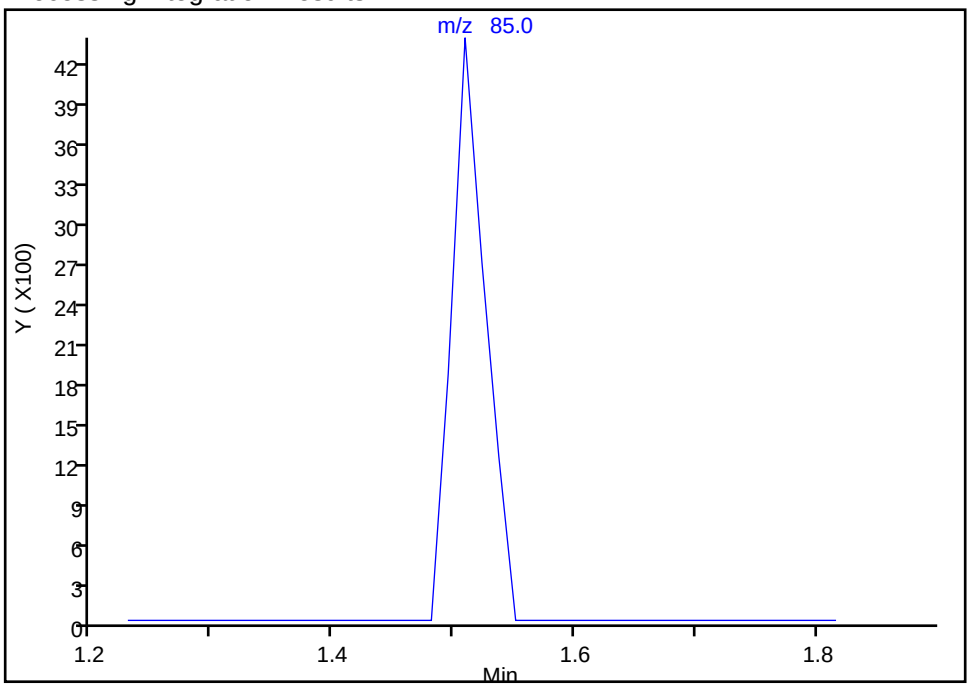
Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5211.D
Injection Date: 18-May-2019 14:55:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: meierg ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

12 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

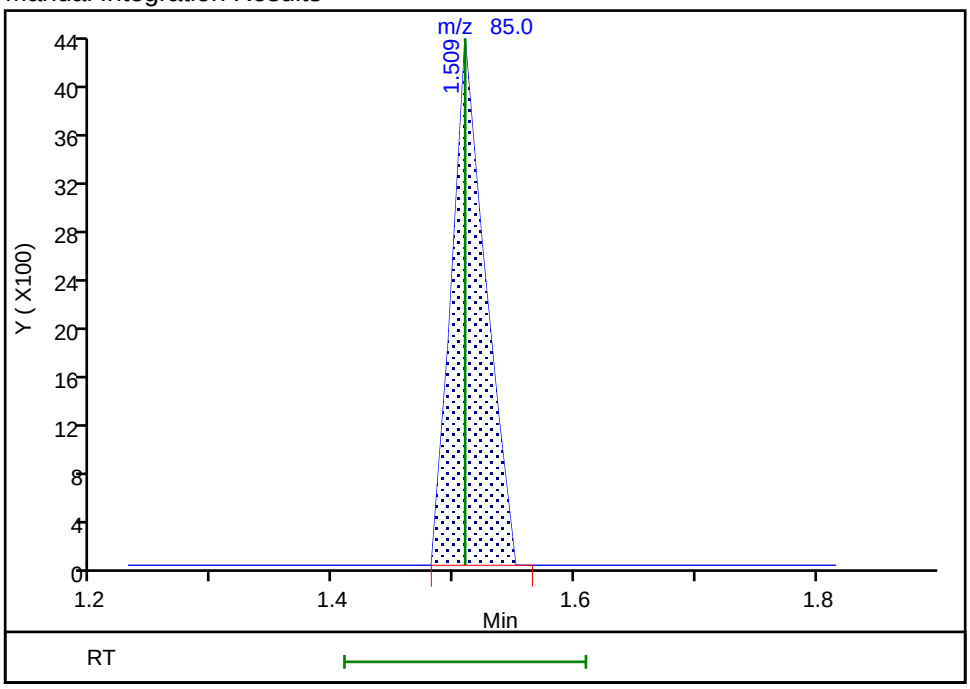
Not Detected
Expected RT: 1.51

Processing Integration Results



Manual Integration Results

RT: 1.51
Area: 8517
Amount: 1.031427
Amount Units: ug/l



Reviewer: meierg, 18-May-2019 15:12:08
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

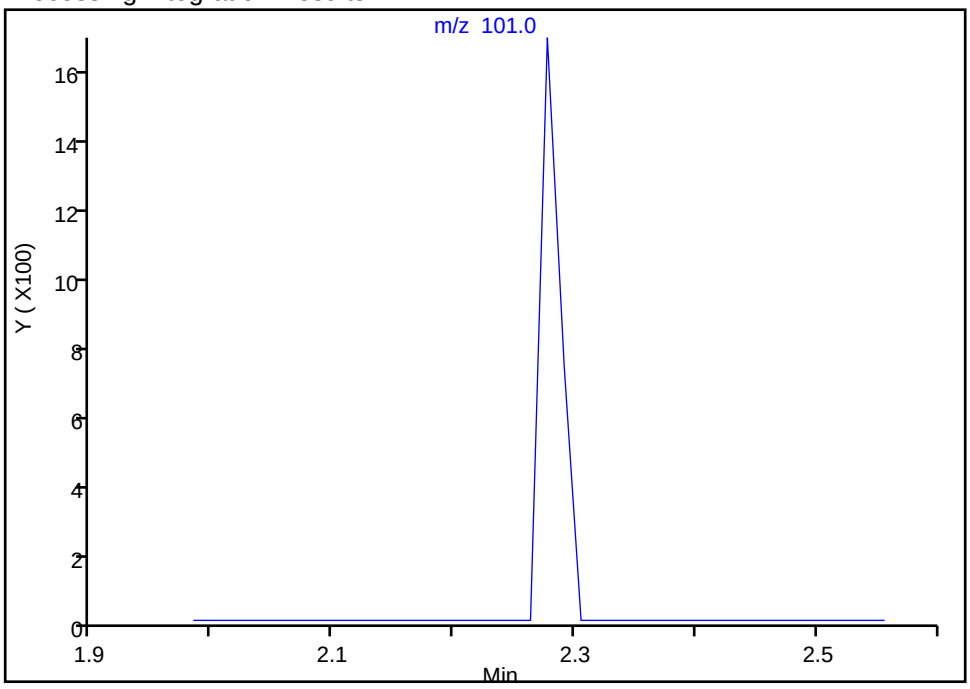
Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5211.D
Injection Date: 18-May-2019 14:55:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: meierg ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

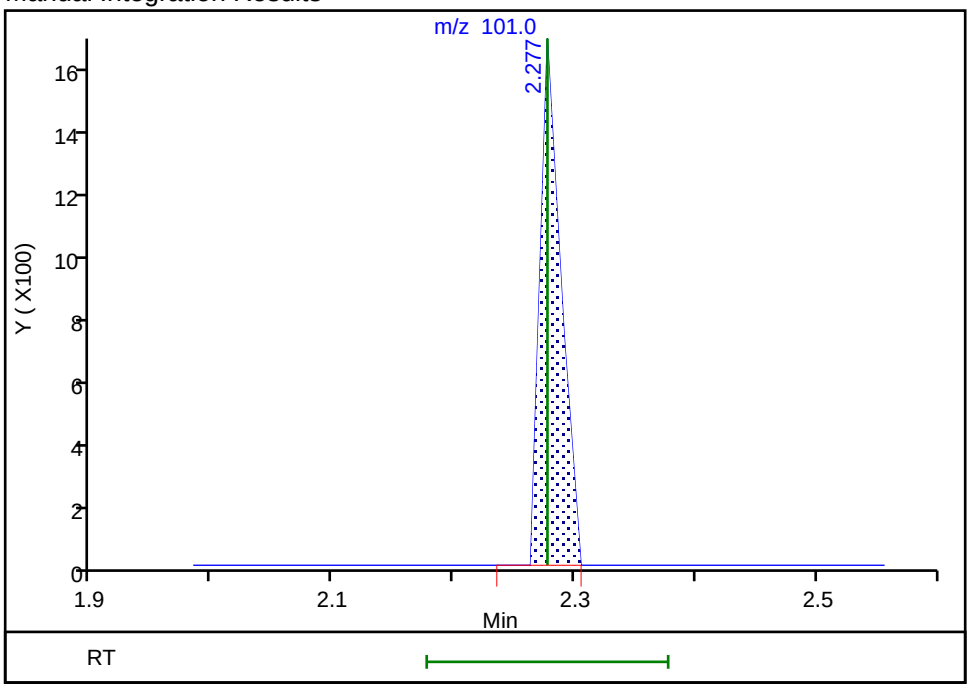
Not Detected
Expected RT: 2.28

Processing Integration Results



Manual Integration Results

RT: 2.28
Area: 2021
Amount: 1.575701
Amount Units: ug/l



Reviewer: meierg, 18-May-2019 15:12:24
Audit Action: Manually Integrated Audit Reason: Assign Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5212.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-May-2019 15:19:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-016
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:35:29 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 TBA-d9 (IS)	65	3.004	3.003	0.001	82	1143968	1000.0	1000.0	
*	2 Fluorobenzene	96	4.763	4.763	0.000	99	2039250	50.0	50.0	
*	3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	486175	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	866885	50.0	50.0	
$	6 Dibromofluoromethane (Surr	111	4.274	4.274	0.000	93	442131	50.0	50.4	
$	7 1,2-Dichloroethane-d4 (Sur	65	4.526	4.526	0.000	98	580891	50.0	50.6	
$	8 Toluene-d8 (Surr)	98	6.021	6.020	0.001	94	2067326	50.0	49.3	
$	9 4-Bromofluorobenzene (Surr	95	8.366	8.366	0.000	89	811811	50.0	50.0	
	12 Dichlorodifluoromethane	85		1.509				ND	ND	
	14 Chloromethane	50	1.649	1.663	-0.014	94	6294	0.5000	0.4987	
	15 Vinyl chloride	62	1.691	1.760	-0.069	49	23826	0.5000	2.48	
	17 Bromomethane	94	2.012	2.012	0.000	80	3348	0.5000	0.5291	
	18 Chloroethane	64	2.096	2.082	0.014	95	3143	0.5000	0.4865	
	19 Dichlorofluoromethane	67		2.249				ND	ND	
	20 Trichlorofluoromethane	101		2.277				ND	ND	
	78 2-Chloroethyl vinyl ether	63	5.657	5.643	0.014	77	2057	0.5000	0.5192	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

MV-Gas A_00025 Amount Added: 0.50 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

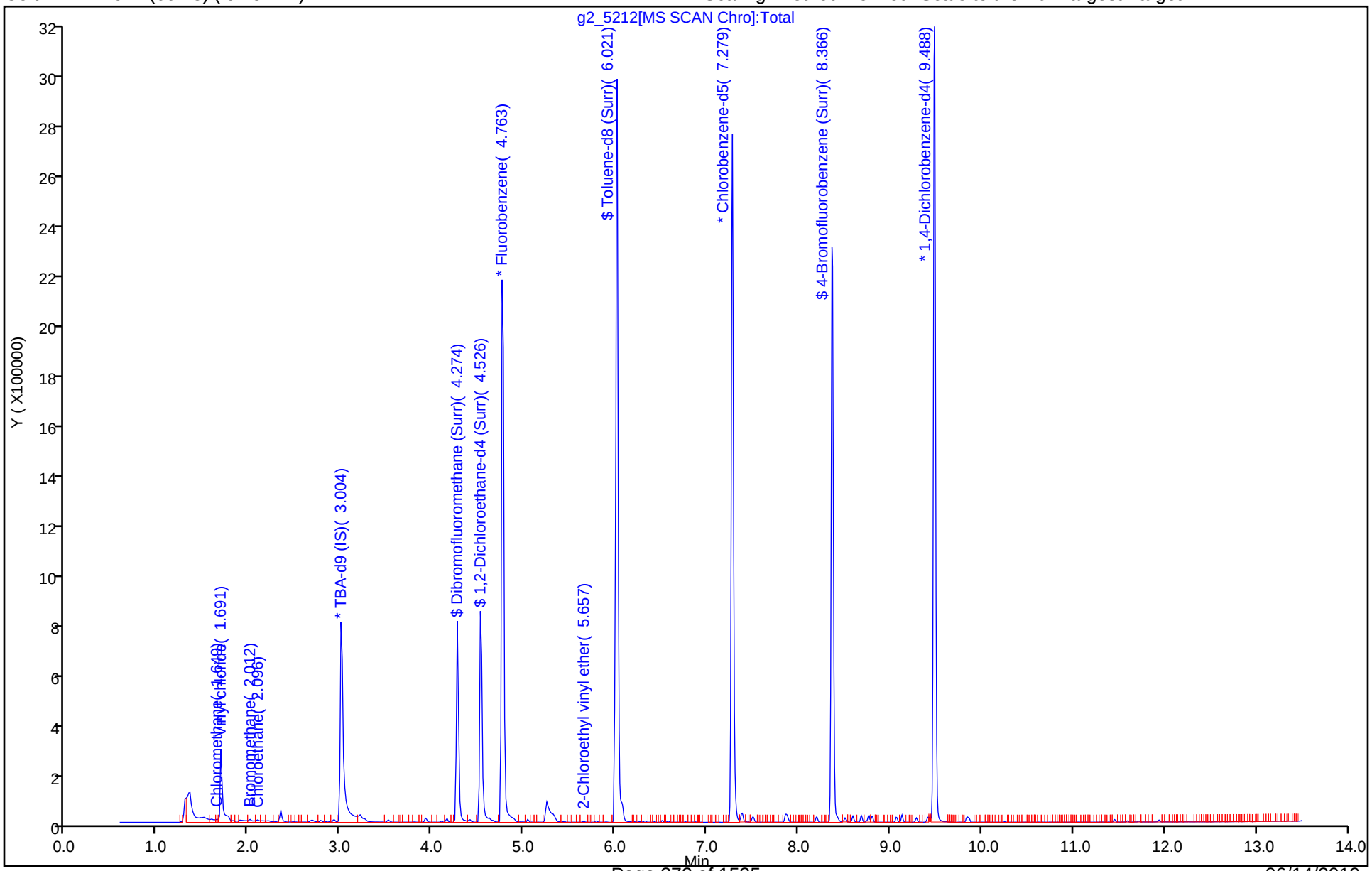
Report Date: 20-May-2019 11:35:31 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5212.D

Injection Date:	18-May-2019 15:19:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	16
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5214.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-May-2019 16:07:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-018
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:41:55 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.018	3.003	0.015	82	1158398	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2129416	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	547440	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	95	879921	50.0	50.0	
16 Ethylene oxide	43	1.970	1.970	0.000	100	1898398	20000	20071	
21 Ethanol	45	2.403	2.403	0.000	98	2052577	12000	11343	
23 Propene oxide	58	2.515	2.528	-0.013	96	16410086	20000	20105	e
29 Isopropyl alcohol	45	2.780	2.780	0.000	99	1675223	2000.0	1867.4	
31 Acetonitrile	41	2.892	2.892	0.000	99	3933724	2000.0	2067.8	
47 Isopropyl ether	87	3.520	3.520	0.000	95	1729719	200.0	201.3	
48 2-Chloro-1,3-butadiene	53	3.576	3.576	0.000	91	3539386	200.0	208.6	
49 Tert-butyl ethyl ether	59	3.786	3.785	0.001	98	4246963	200.0	180.6	
53 Ethyl acetate	43	3.925	3.925	0.000	99	4813438	400.0	380.7	
54 Propionitrile	54	3.953	3.953	0.000	99	3793614	2000.0	1999.8	
58 Methacrylonitrile	41	4.065	4.065	0.000	88	12559989	2000.0	1770.1	
68 Tert-amyl methyl ether	73	4.624	4.623	0.001	67	4239905	200.0	185.8	
73 n-Butanol	56	4.931	4.931	0.000	86	1946410	5000.0	5179.2	
77 Methyl methacrylate	100	5.266	5.266	0.000	92	1362982	400.0	425.5	
80 2-Nitropropane	41	5.615	5.615	0.000	98	987141	400.0	422.8	
13 Tetrahydrothiophene	60	6.750	6.750	0.000	93	463713	400.0	420.4	
101 cis-1,4-Dichloro-2-butene	53	8.251	8.258	-0.007	92	1753205	400.0	409.9	
116 1,2,3-Trimethylbenzene	105	9.531	9.531	0.000	98	9022698	200.0	199.3	
120 1,3,5-Trichlorobenzene	180	10.826	10.825	0.001	97	3616630	200.0	206.8	

QC Flag Legend

Processing Flags
e - Potential Peak Saturated

Reagents:

mv-Cent IS_00003	Amount Added: 5.00	Units: uL
MV-Supp A_00035	Amount Added: 200.00	Units: uL

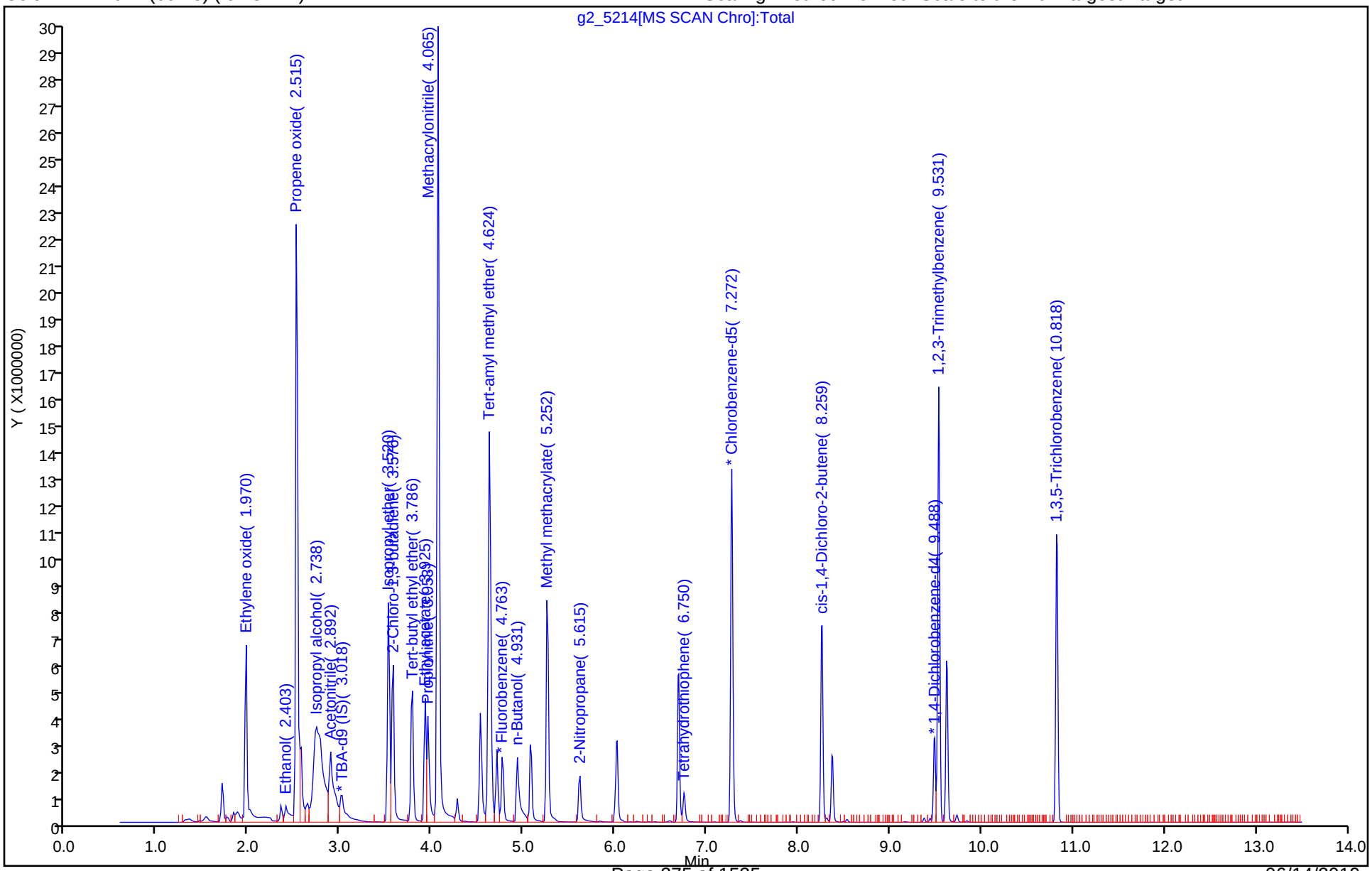
Report Date: 20-May-2019 11:41:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5214.D

Injection Date:	18-May-2019 16:07:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	18
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5215.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 18-May-2019 16:31:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-019
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:41:59 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.004	3.004	0.000	82	1098326	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2146459	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	88	519646	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	95	884874	50.0	50.0	
16 Ethylene oxide	43	1.970	1.970	0.000	100	1303927	10000	9910.0	
21 Ethanol	45	2.403	2.403	0.000	98	1163857	6000.0	6354.6	
23 Propene oxide	58	2.515	2.515	0.000	96	11962705	10000	9944.5	
29 Isopropyl alcohol	45	2.780	2.780	0.000	99	857251	1000.0	948.0	
31 Acetonitrile	41	2.892	2.892	0.000	99	2003754	1000.0	1044.9	
47 Isopropyl ether	87	3.520	3.520	0.000	96	911164	100.0	105.2	
48 2-Chloro-1,3-butadiene	53	3.576	3.576	0.000	91	1793733	100.0	104.9	
49 Tert-butyl ethyl ether	59	3.786	3.786	0.000	98	2313576	100.0	97.6	
53 Ethyl acetate	43	3.925	3.925	0.000	99	2445778	200.0	191.9	
54 Propionitrile	54	3.953	3.953	0.000	99	1906580	1000.0	997.0	
58 Methacrylonitrile	41	4.065	4.065	0.000	91	7037369	1000.0	983.9	
68 Tert-amyl methyl ether	73	4.624	4.624	0.000	68	2288175	100.0	99.5	
73 n-Butanol	56	4.931	4.931	0.000	87	937212	2500.0	2485.1	
77 Methyl methacrylate	100	5.252	5.252	0.000	93	670893	200.0	208.1	
80 2-Nitropropane	41	5.615	5.615	0.000	98	455352	200.0	194.1	
13 Tetrahydrothiophene	60	6.750	6.750	0.000	93	225528	200.0	215.4	
101 cis-1,4-Dichloro-2-butene	53	8.252	8.252	0.000	95	864022	200.0	201.3	
116 1,2,3-Trimethylbenzene	105	9.531	9.531	0.000	98	4808099	100.0	105.6	
120 1,3,5-Trichlorobenzene	180	10.818	10.818	0.000	97	1834673	100.0	104.3	

Reagents:

mv-Cent IS_00003 Amount Added: 5.00 Units: uL
MV-Supp A_00035 Amount Added: 100.00 Units: uL

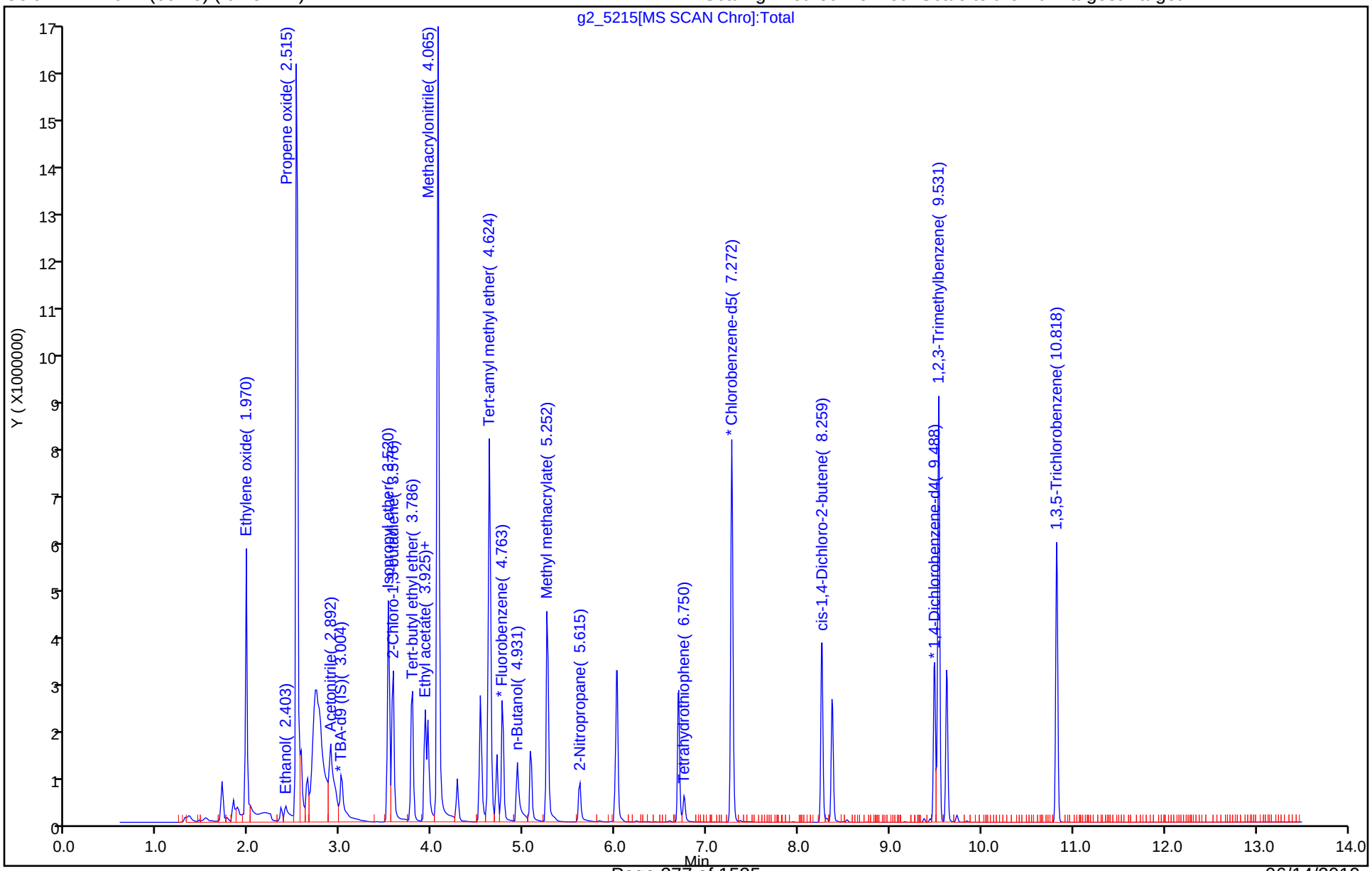
Report Date: 20-May-2019 11:42:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5215.D

Injection Date:	18-May-2019 16:31:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	19
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5216.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 18-May-2019 16:55:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-020
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:42:02 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	82	1135576	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2100646	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	87	501195	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	886004	50.0	50.0	
16 Ethylene oxide	43	1.970	1.970	0.000	100	740993	5000.0	5034.3	
21 Ethanol	45	2.403	2.403	0.000	99	578136	3000.0	3196.3	
23 Propene oxide	58	2.528	2.528	0.000	96	6854317	5000.0	5047.5	
29 Isopropyl alcohol	45	2.780	2.780	0.000	98	415751	500.0	469.8	
31 Acetonitrile	41	2.892	2.892	0.000	99	939886	500.0	500.8	
47 Isopropyl ether	87	3.520	3.520	0.000	96	436697	50.0	51.5	
48 2-Chloro-1,3-butadiene	53	3.576	3.576	0.000	91	870693	50.0	52.0	
49 Tert-butyl ethyl ether	59	3.785	3.785	0.000	98	1170720	50.0	50.5	
53 Ethyl acetate	43	3.925	3.925	0.000	99	1145511	100.0	91.8	
54 Propionitrile	54	3.953	3.953	0.000	99	997622	500.0	533.1	
58 Methacrylonitrile	41	4.065	4.065	0.000	91	3483784	500.0	497.7	
68 Tert-amyl methyl ether	73	4.623	4.623	0.000	67	1124164	50.0	49.9	
73 n-Butanol	56	4.931	4.931	0.000	86	412565	1250.0	1129.5	
77 Methyl methacrylate	100	5.266	5.266	0.000	94	309323	100.0	98.4	
80 2-Nitropropane	41	5.615	5.615	0.000	98	190324	100.0	83.6	
13 Tetrahydrothiophene	60	6.750	6.750	0.000	93	102446	100.0	101.4	
101 cis-1,4-Dichloro-2-butene	53	8.258	8.258	0.000	95	388029	100.0	90.8	
116 1,2,3-Trimethylbenzene	105	9.531	9.531	0.000	98	2306767	50.0	50.6	
120 1,3,5-Trichlorobenzene	180	10.825	10.825	0.000	97	869021	50.0	49.3	

Reagents:

mv-Cent IS_00003 Amount Added: 5.00 Units: uL
MV-Supp A_00035 Amount Added: 50.00 Units: uL

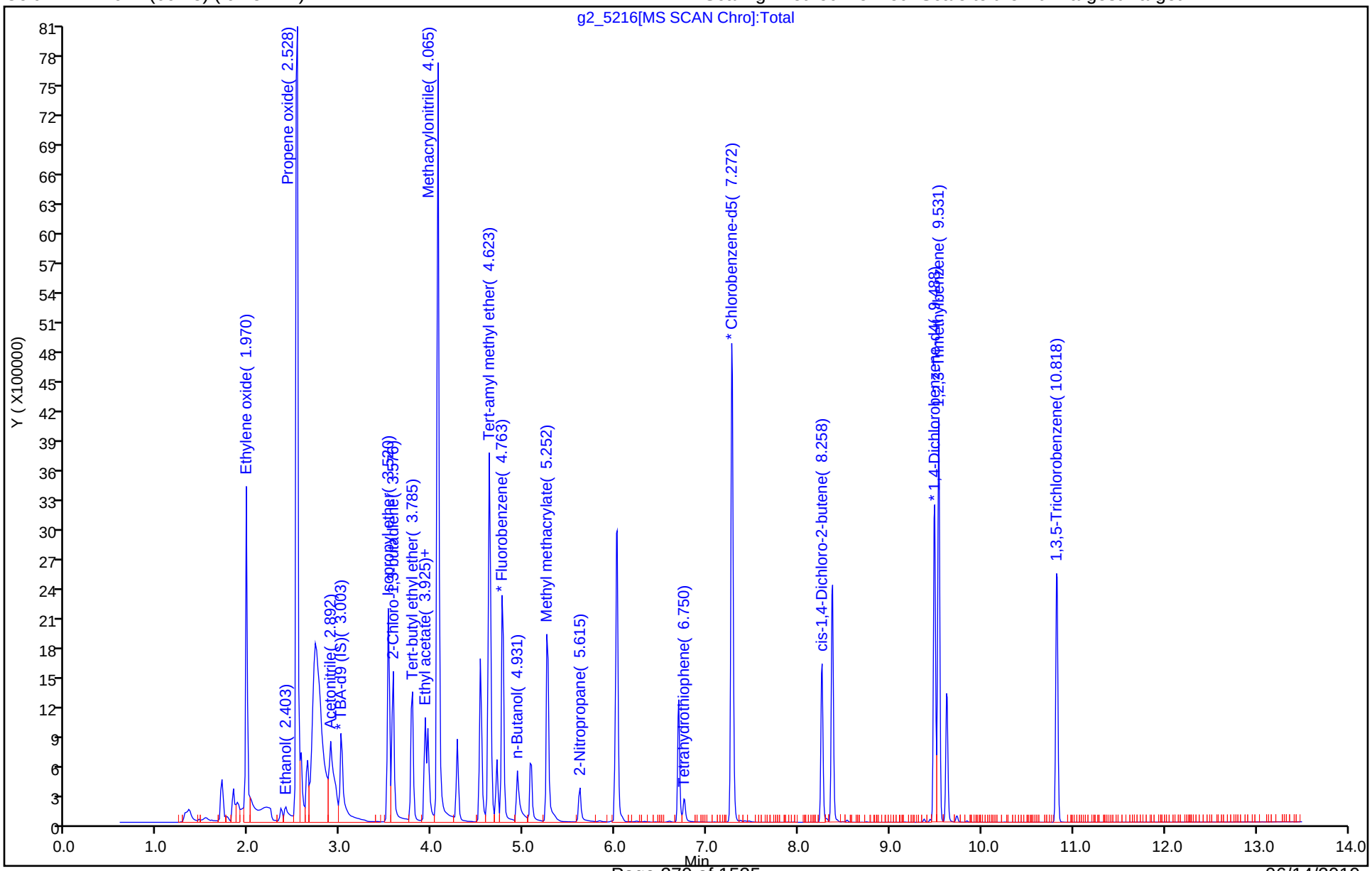
Report Date: 20-May-2019 11:42:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5216.D

Injection Date:	18-May-2019 16:55:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	20
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5217.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-May-2019 17:19:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-021
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:42:06 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	82	1154889	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2074208	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	88	487697	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	873583	50.0	50.0	
16 Ethylene oxide	43	1.970	1.970	0.000	100	204888	1000.0	1204.2	
21 Ethanol	45	2.403	2.403	0.000	94	130058	600.0	682.5	
23 Propene oxide	58	2.529	2.528	0.001	96	1526315	1000.0	1017.1	
29 Isopropyl alcohol	45	2.780	2.780	0.000	99	90665	100.0	103.8	a
31 Acetonitrile	41	2.892	2.892	0.000	98	192241	100.0	103.7	
47 Isopropyl ether	87	3.520	3.520	0.000	95	85213	10.0	10.2	
48 2-Chloro-1,3-butadiene	53	3.576	3.576	0.000	91	166326	10.0	10.1	
49 Tert-butyl ethyl ether	59	3.786	3.785	0.001	99	241153	10.0	10.5	
53 Ethyl acetate	43	3.925	3.925	0.000	99	243409	20.0	19.8	
54 Propionitrile	54	3.953	3.953	0.000	99	200849	100.0	108.7	
58 Methacrylonitrile	41	4.065	4.065	0.000	92	745787	100.0	107.9	
68 Tert-amyl methyl ether	73	4.623	4.623	0.000	98	237471	10.0	10.7	
73 n-Butanol	56	4.945	4.931	0.014	89	66090	250.0	201.0	
77 Methyl methacrylate	100	5.266	5.266	0.000	94	59297	20.0	19.6	
80 2-Nitropropane	41	5.615	5.615	0.000	98	41478	20.0	19.3	
13 Tetrahydrothiophene	60	6.757	6.750	0.007	93	20279	20.0	20.6	
101 cis-1,4-Dichloro-2-butene	53	8.258	8.258	0.000	97	71449	20.0	17.7	
116 1,2,3-Trimethylbenzene	105	9.531	9.531	0.000	97	456603	10.0	10.2	
120 1,3,5-Trichlorobenzene	180	10.818	10.825	-0.007	97	169471	10.0	9.76	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

mv-Cent IS_00003	Amount Added:	5.00	Units: uL
MV-Supp A_00035	Amount Added:	10.00	Units: uL

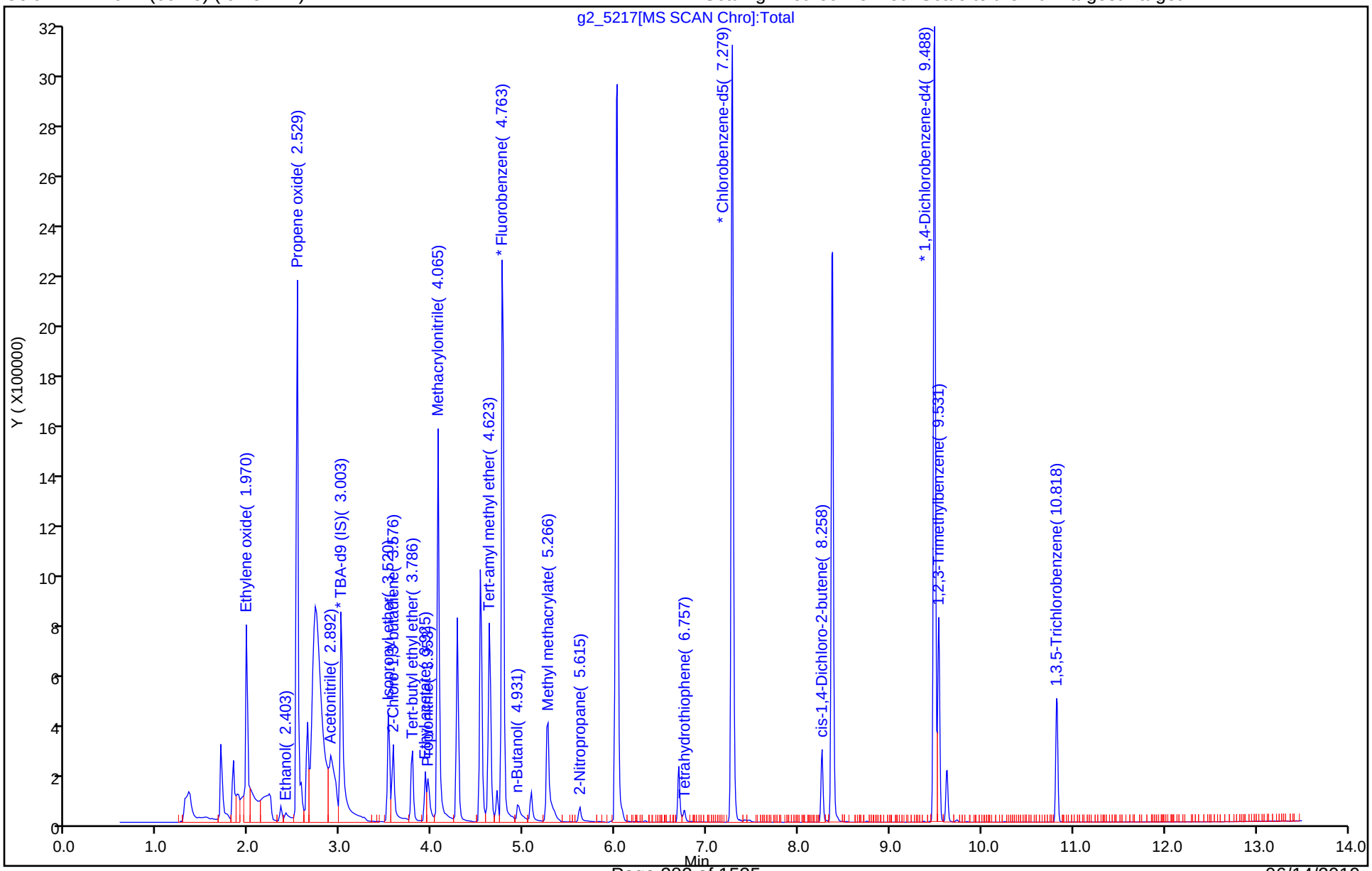
Report Date: 20-May-2019 11:42:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5217.D

Injection Date:	18-May-2019 17:19:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	21
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

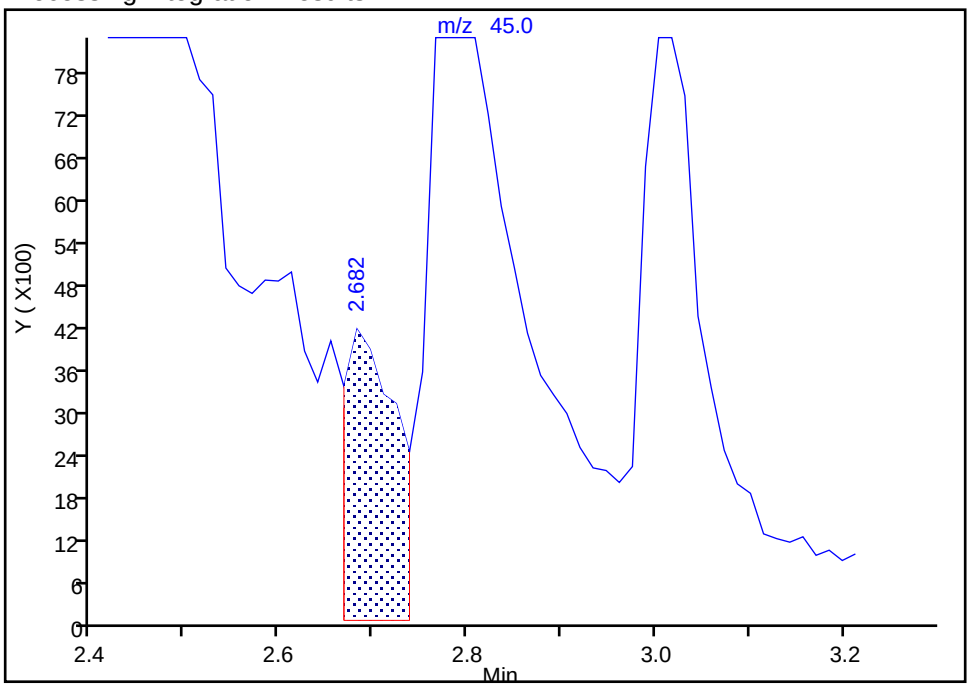
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Injection Date: 18-May-2019 17:19:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: meierg ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

29 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

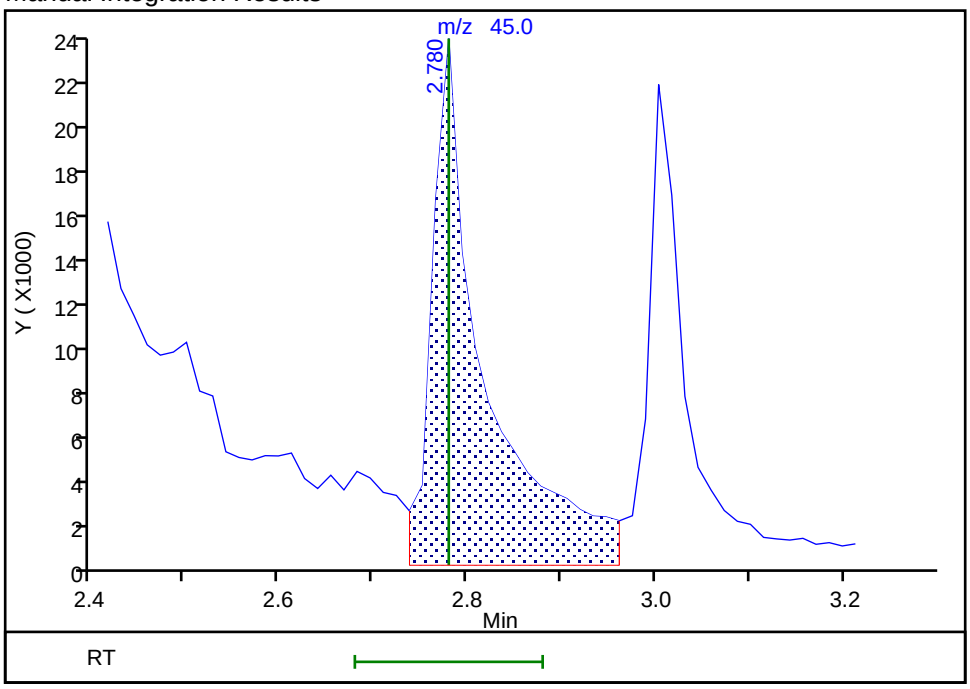
Processing Integration Results

RT: 2.68
Area: 16610
Amount: 98.908916
Amount Units: ug/l



Manual Integration Results

RT: 2.78
Area: 90665
Amount: 103.7553
Amount Units: ug/l



Reviewer: meierg, 20-May-2019 11:30:01
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5218.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-May-2019 17:43:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-022
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:42:10 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.004	3.003	0.001	82	1119562	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2018264	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	88	478943	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	849743	50.0	50.0	
16 Ethylene oxide	43	1.970	1.970	0.000	99	36973	200.0	120.6	M
21 Ethanol	45	2.403	2.403	0.000	96	42930	120.0	192.5	
23 Propene oxide	58	2.529	2.528	0.001	96	282136	200.0	179.5	
29 Isopropyl alcohol	45	2.780	2.780	0.000	95	19406	20.0	22.8	a
31 Acetonitrile	41	2.906	2.892	0.014	41	29911	20.0	16.6	
47 Isopropyl ether	87	3.520	3.520	0.000	95	15233	2.00	1.87	
48 2-Chloro-1,3-butadiene	53	3.576	3.576	0.000	91	28769	2.00	1.79	
49 Tert-butyl ethyl ether	59	3.786	3.785	0.001	98	43310	2.00	1.94	
53 Ethyl acetate	43	3.925	3.925	0.000	99	50678	4.00	4.23	
54 Propionitrile	54	3.967	3.953	0.014	99	33191	20.0	18.5	
58 Methacrylonitrile	41	4.065	4.065	0.000	92	135278	20.0	20.1	
68 Tert-amyl methyl ether	73	4.624	4.623	0.001	68	42274	2.00	1.95	
73 n-Butanol	56	4.945	4.931	0.014	88	9324	50.0	47.3	
77 Methyl methacrylate	100	5.266	5.266	0.000	91	8626	4.00	3.45	
80 2-Nitropropane	41	5.615	5.615	0.000	95	5711	4.00	3.73	
13 Tetrahydrothiophene	60	6.757	6.750	0.007	86	3187	4.00	3.30	
101 cis-1,4-Dichloro-2-butene	53	8.259	8.258	0.001	91	11535	4.00	3.74	
116 1,2,3-Trimethylbenzene	105	9.531	9.531	0.000	98	81145	2.00	1.86	
120 1,3,5-Trichlorobenzene	180	10.826	10.825	0.001	97	32676	2.00	1.93	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

mv-Cent IS_00003	Amount Added:	5.00	Units: uL
MV-Supp A_00035	Amount Added:	2.00	Units: uL

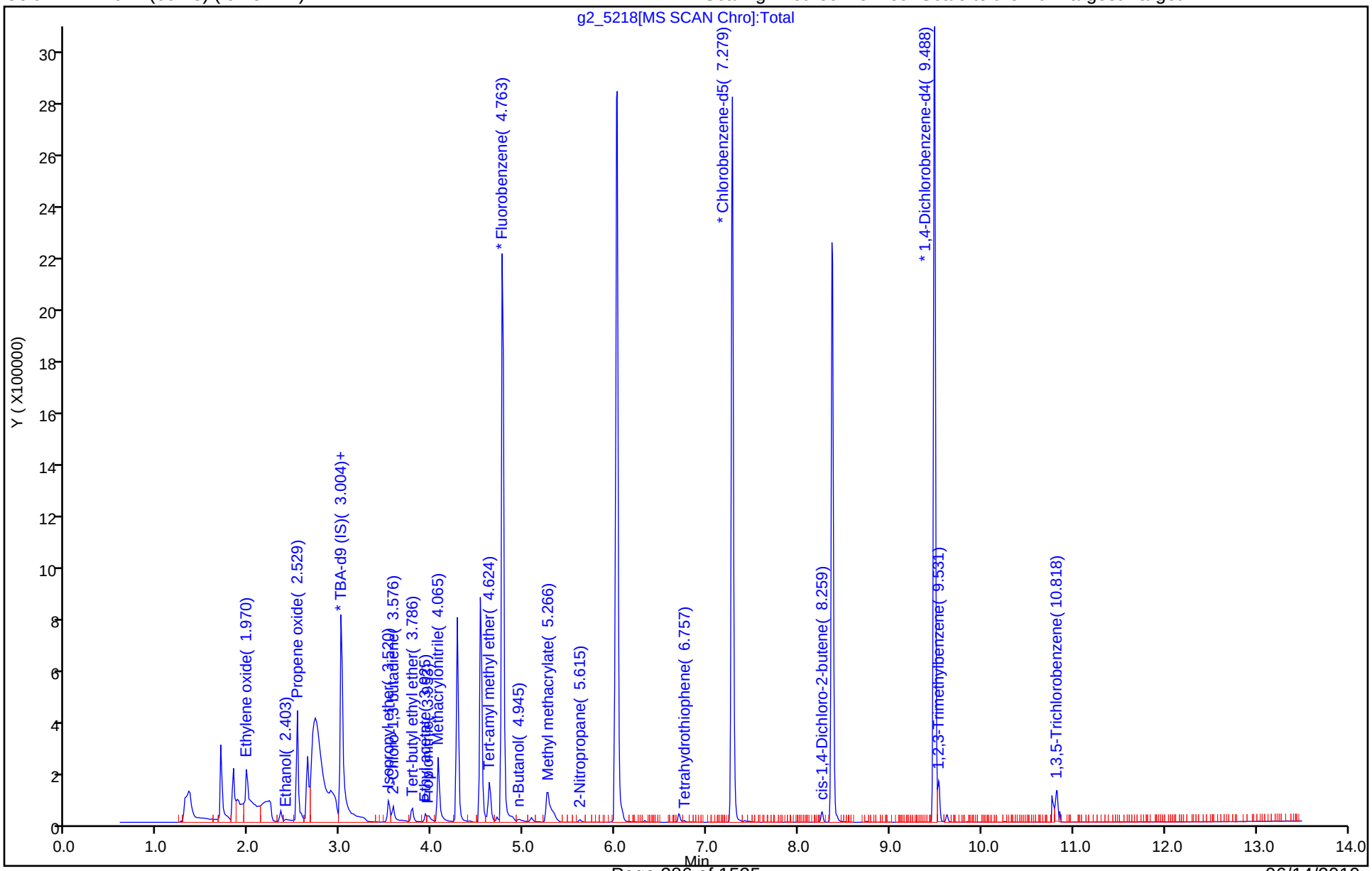
Report Date: 20-May-2019 11:42:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5218.D

Injection Date:	18-May-2019 17:43:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	22
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

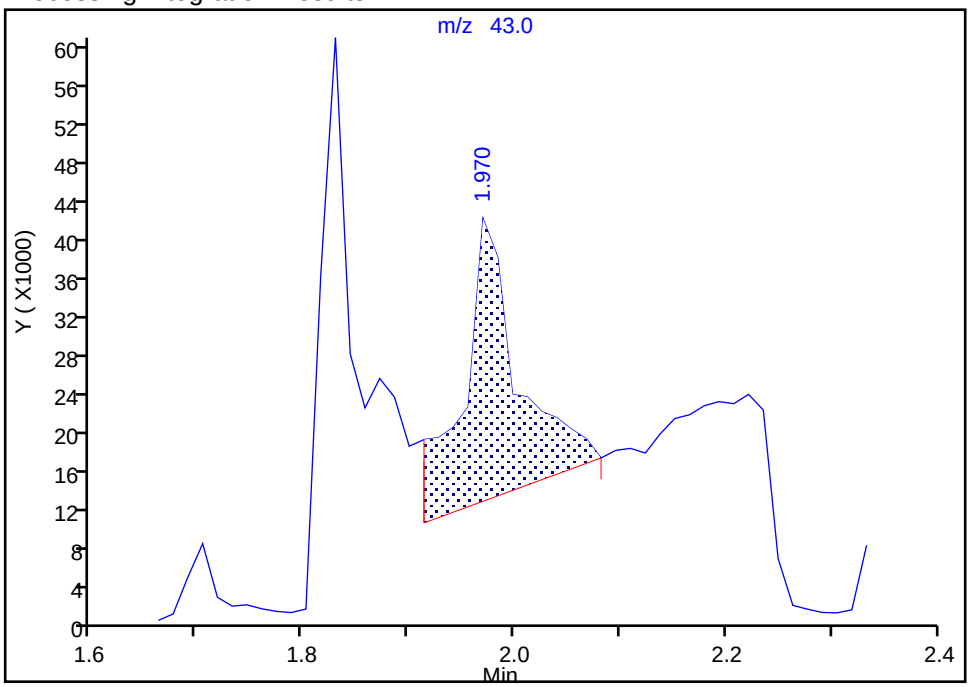
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Injection Date:	18-May-2019 17:43:30	Instrument ID:	VMS_G2		
Lims ID:	ic				
Client ID:					
Operator ID:	meierg	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

16 Ethylene oxide, CAS: 75-21-8

Signal: 1

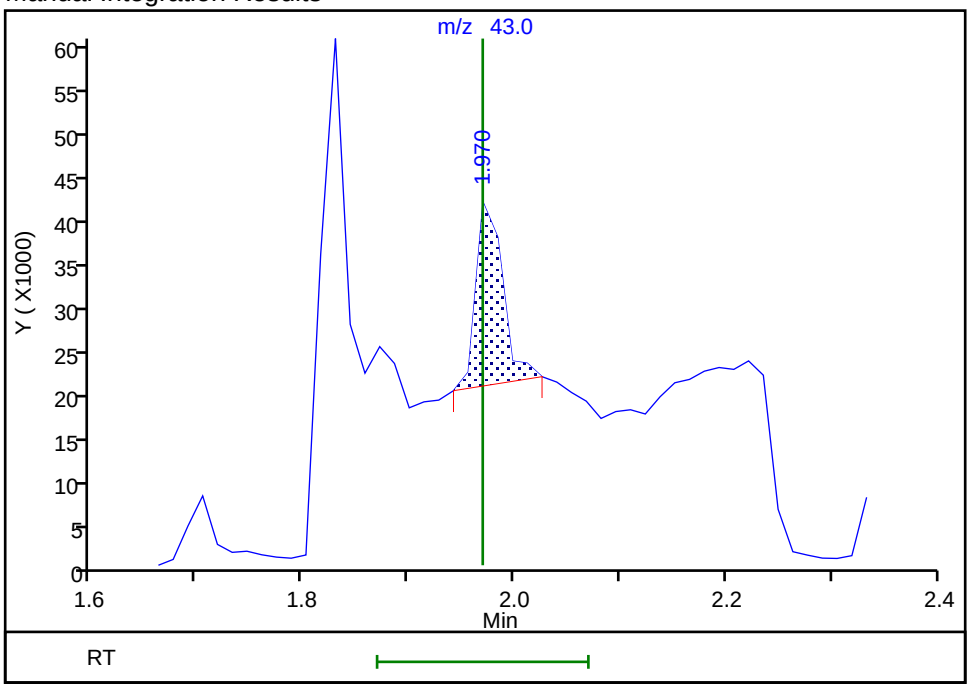
Processing Integration Results

RT: 1.97
Area: 108438
Amount: 195.8160
Amount Units: ug/l



Manual Integration Results

RT: 1.97
Area: 36973
Amount: 120.5670
Amount Units: ug/l



Reviewer: meierg, 20-May-2019 11:25:38
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

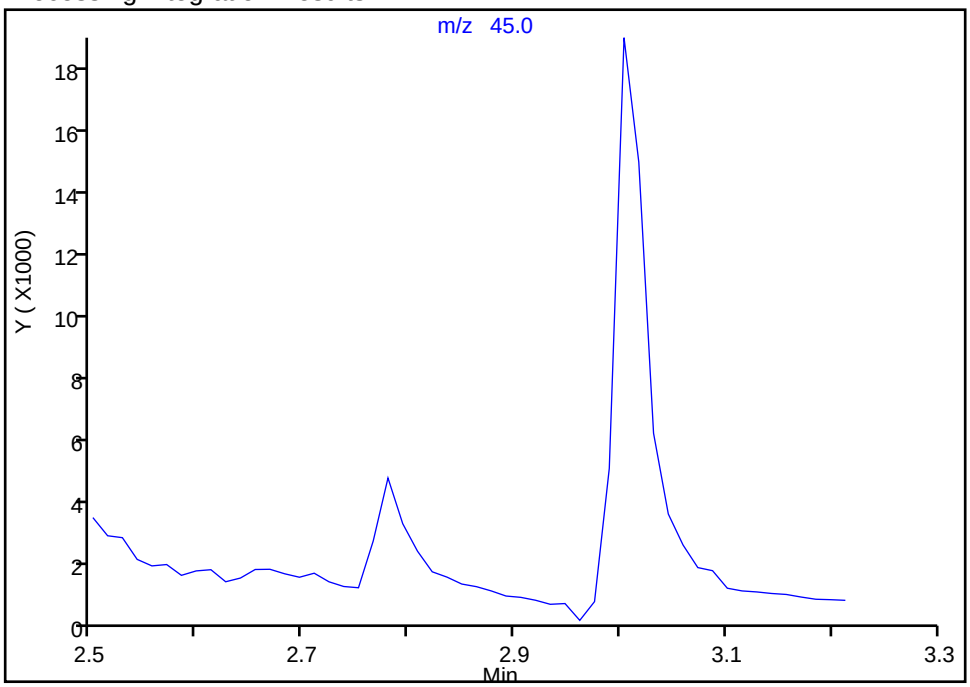
Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5218.D
Injection Date: 18-May-2019 17:43:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: meierg ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

29 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

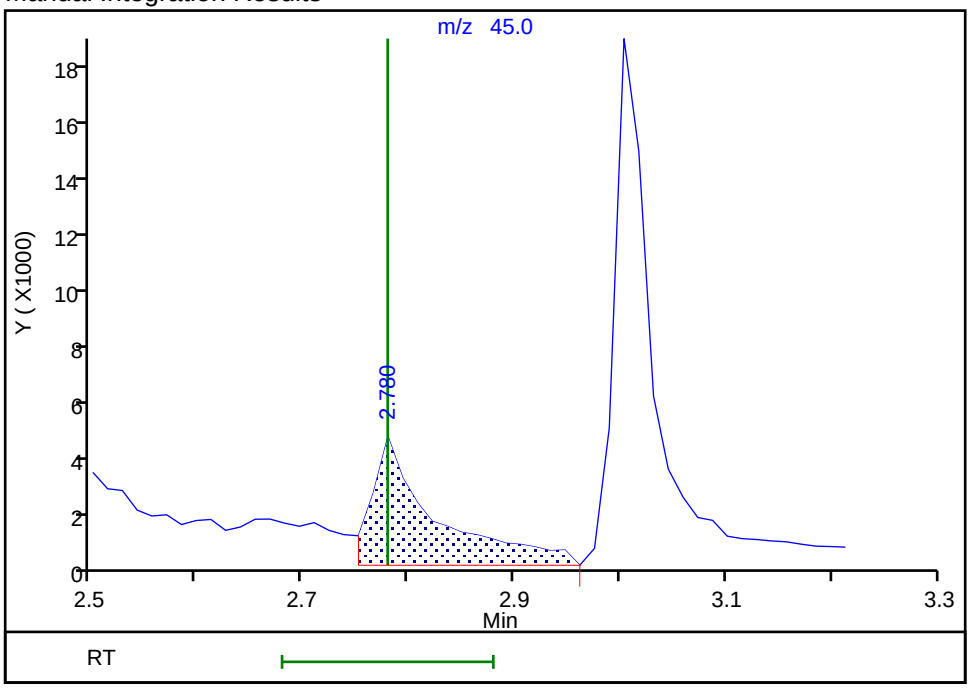
Not Detected
Expected RT: 2.78

Processing Integration Results



Manual Integration Results

RT: 2.78
Area: 19406
Amount: 22.823439
Amount Units: ug/l



Reviewer: meierg, 20-May-2019 11:30:24
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-May-2019 18:07:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 280-0082029-023
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub149

Method: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2019 11:42:13 Calib Date: 18-May-2019 18:07:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0310

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.003	3.003	0.000	82	1119185	1000.0	1000.0	
* 2 Fluorobenzene	96	4.763	4.763	0.000	99	2025380	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.279	7.279	0.000	88	477899	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.488	9.488	0.000	96	841294	50.0	50.0	
16 Ethylene oxide	43	1.970	1.970	0.000	99	18220	100.0	-1.79	M
21 Ethanol	45	2.403	2.403	0.000	95	12067	60.0	11.3	
23 Propene oxide	58	2.529	2.528	0.001	96	154324	100.0	92.1	
29 Isopropyl alcohol	45		2.780				ND	ND	
31 Acetonitrile	41	2.906	2.892	0.014	42	19047	10.0	10.5	
47 Isopropyl ether	87	3.520	3.520	0.000	95	7826	1.00	0.9576	
48 2-Chloro-1,3-butadiene	53	3.576	3.576	0.000	92	15623	1.00	0.9679	
49 Tert-butyl ethyl ether	59	3.786	3.785	0.001	98	24284	1.00	1.09	
53 Ethyl acetate	43	3.925	3.925	0.000	98	27051	2.00	2.25	
54 Propionitrile	54	3.967	3.953	0.014	97	16726	10.0	9.27	
58 Methacrylonitrile	41	4.065	4.065	0.000	92	70932	10.0	10.5	
68 Tert-amyl methyl ether	73	4.624	4.623	0.001	96	22380	1.00	1.03	
73 n-Butanol	56	4.973	4.931	0.042	26	4203	25.0	32.9	
77 Methyl methacrylate	100	5.266	5.266	0.000	95	4668	2.00	2.14	
80 2-Nitropropane	41	5.615	5.615	0.000	91	2926	2.00	2.47	
13 Tetrahydrothiophene	60		6.750				ND	ND	
101 cis-1,4-Dichloro-2-butene	53	8.251	8.258	-0.007	92	6226	2.00	2.48	
116 1,2,3-Trimethylbenzene	105	9.531	9.531	0.000	98	42959	1.00	0.99	
120 1,3,5-Trichlorobenzene	180	10.825	10.825	0.000	95	16597	1.00	0.99	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Review Flags
M - Manually Integrated

Reagents:

mv-Cent IS_00003	Amount Added:	5.00	Units: uL
MV-Supp A_00035	Amount Added:	1.00	Units: uL

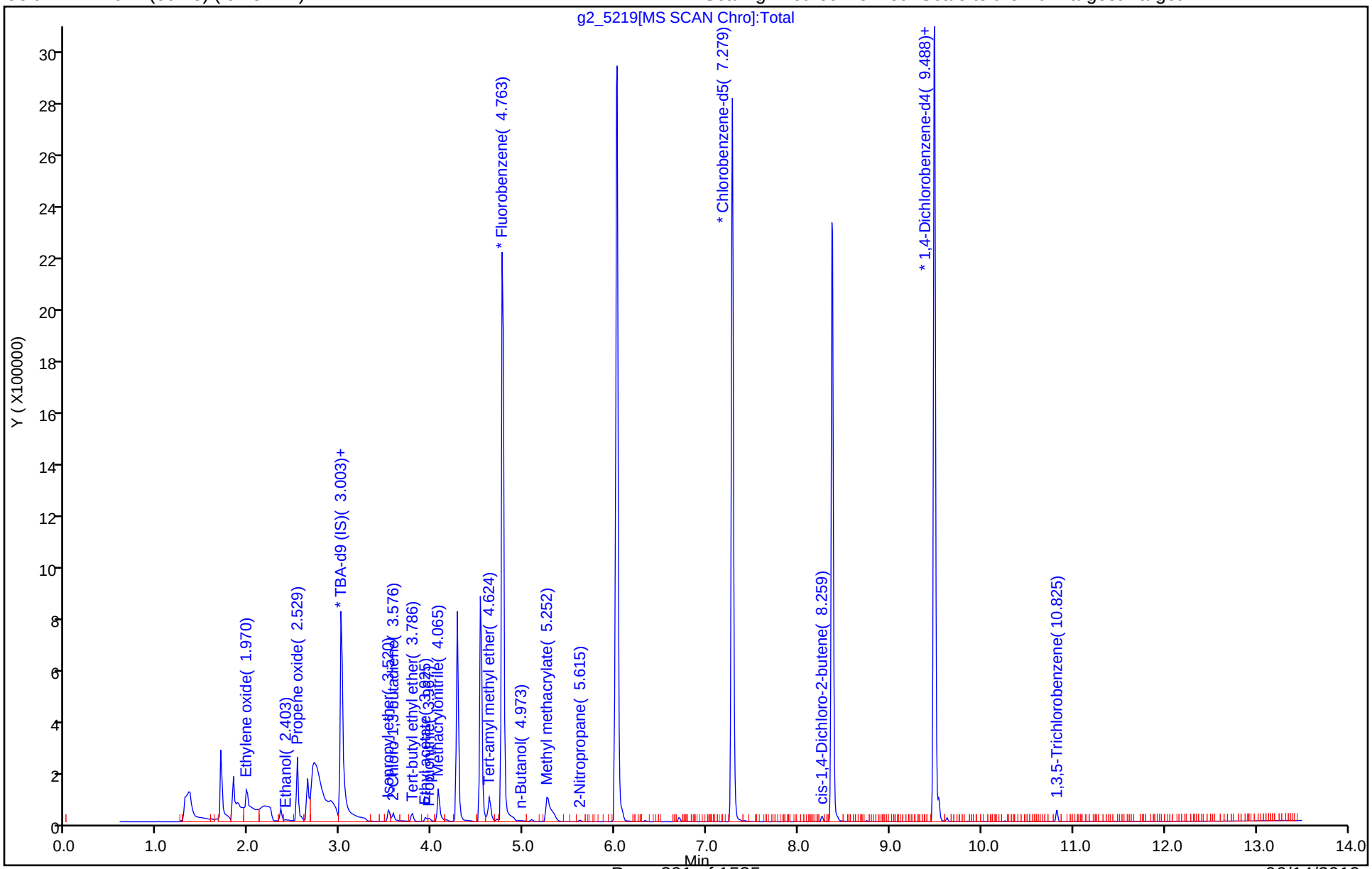
Report Date: 20-May-2019 11:42:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D

Injection Date:	18-May-2019 18:07:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	23
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

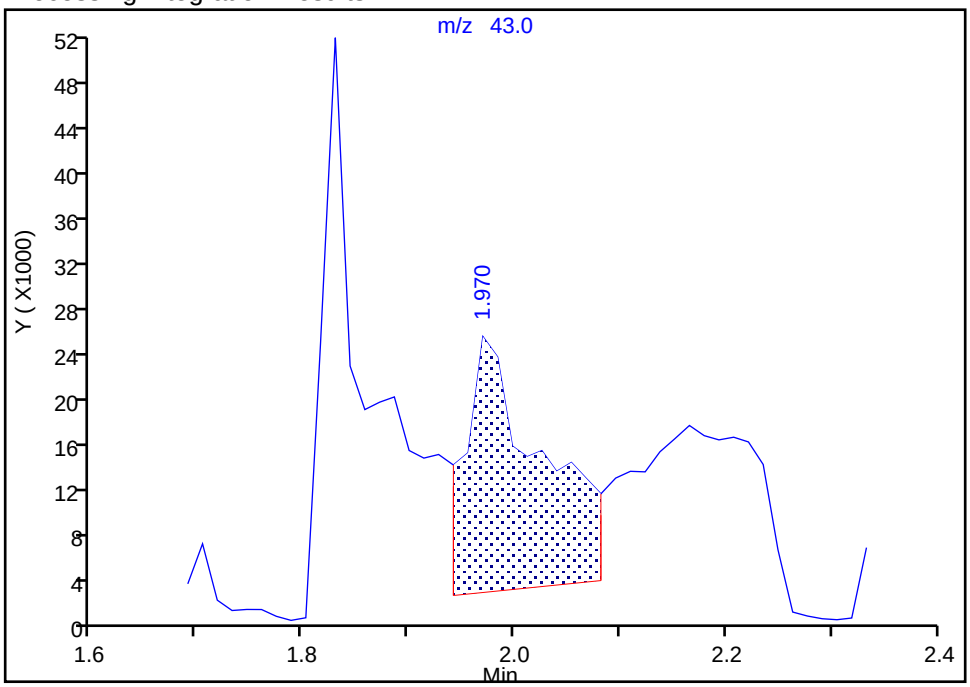
Data File:	\\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D				
Injection Date:	18-May-2019 18:07:30	Instrument ID:	VMS_G2		
Lims ID:	ic				
Client ID:					
Operator ID:	meierg	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

16 Ethylene oxide, CAS: 75-21-8

Signal: 1

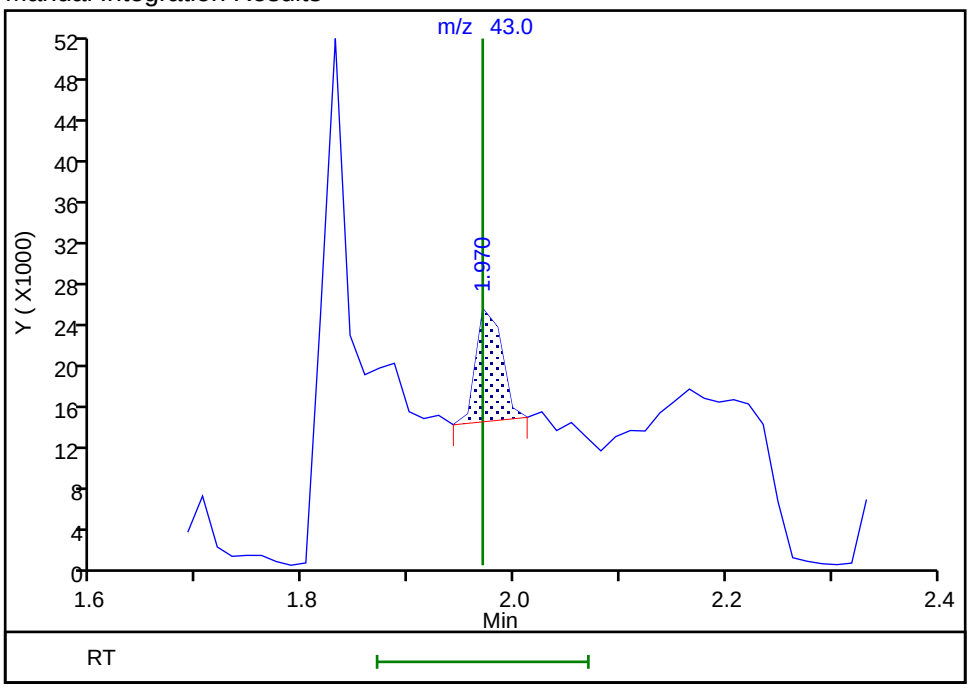
Processing Integration Results

RT: 1.97
Area: 115895
Amount: 365.8417
Amount Units: ug/l



Manual Integration Results

RT: 1.97
Area: 18220
Amount: -1.793831
Amount Units: ug/l



Reviewer: meierg, 20-May-2019 11:26:02
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459545

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/27/2019 10:34 Calibration End Date: 05/27/2019 12:42 Calibration ID: 36570

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-459545/8	g2_5538.D
Level 2	IC 280-459545/7	g2_5537.D
Level 3	IC 280-459545/6	g2_5536.D
Level 4	IC 280-459545/5	g2_5535.D
Level 5	ICIS 280-459545/4	g2_5534.D
Level 6	IC 280-459545/3	g2_5533.D
Level 7	IC 280-459545/2	g2_5532.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2957 0.3649	0.3320 0.3516	0.3407	0.3605	0.3601	Ave		0.3437				7.0		15.0			
Chloromethane	0.4298 0.3906	0.4253 0.3516	0.3990	0.3570	0.3757	Ave		0.3898			0.1000	7.9		15.0			
Vinyl chloride	+++++ 0.2227	0.2664 0.2078	0.2450	0.2735	0.2284	Lin2	0.0376	0.2304							0.9900		0.9900
Bromomethane	0.1604 0.1765	0.2008 0.1598	0.1700	0.1768	0.1734	Ave		0.1740				7.9		15.0			
Chloroethane	0.1914 0.1548	0.2018 0.1416	0.2036	0.1659	0.1553	Ave		0.1735				14.5		15.0			
Dichlorofluoromethane	+++++ 0.2460	0.0672 0.2603	0.0877	0.1378	0.2025	Lin1	-0.299	0.2485							0.9910		0.9900
Trichlorofluoromethane	0.1769 0.3327	0.2194 0.3379	0.2297	0.2606	0.3015	Lin1	-0.125	0.3306							0.9980		0.9900
2-Chloroethyl vinyl ether	0.1134 0.1678	0.1337 0.1637	0.1305	0.1497	0.1596	Ave		0.1455				13.9		15.0			
Dibromofluoromethane (Surr)	0.2308 0.2344	0.2315 0.2390	0.2314	0.2323	0.2362	Ave		0.2337				1.3		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3175 0.3204	0.3181 0.3264	0.3183	0.3136	0.3174	Ave		0.3188				1.2		15.0			
Toluene-d8 (Surr)	4.1145 4.1525	4.1497 4.0734	4.1352	4.1660	4.1175	Ave		4.1298				0.8		15.0			
4-Bromofluorobenzene (Surr)	0.9418 0.9151	0.9270 0.8799	0.9430	0.9405	0.9305	Ave		0.9254				2.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459545

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/27/2019 10:34 Calibration End Date: 05/27/2019 12:42 Calibration ID: 36570

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-459545/8	g2_5538.D
Level 2	IC 280-459545/7	g2_5537.D
Level 3	IC 280-459545/6	g2_5536.D
Level 4	IC 280-459545/5	g2_5535.D
Level 5	ICIS 280-459545/4	g2_5534.D
Level 6	IC 280-459545/3	g2_5533.D
Level 7	IC 280-459545/2	g2_5532.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	14395 3797138	32821 7170363	68426	371006	1882376	0.500 100	1.00 200	2.00	10.0	50.0
Chloromethane	FB	Ave	20919 4063800	42039 7170399	80128	367351	1964118	0.500 100	1.00 200	2.00	10.0	50.0
Vinyl chloride	FB	Lin2	+++++ 2316966	26330 4236566	49205	281471	1194288	+++++ 100	1.00 200	2.00	10.0	50.0
Bromomethane	FB	Ave	7806 1836447	19847 3259093	34138	181905	906724	0.500 100	1.00 200	2.00	10.0	50.0
Chloroethane	FB	Ave	9316 1610526	19949 2887173	40896	170754	811977	0.500 100	1.00 200	2.00	10.0	50.0
Dichlorofluoromethane	FB	Lin1	+++++ 2559207	6647 5308653	17616	141785	1058443	+++++ 100	1.00 200	2.00	10.0	50.0
Trichlorofluoromethane	FB	Lin1	8609 3461284	21689 6889252	46138	268157	1576004	0.500 100	1.00 200	2.00	10.0	50.0
2-Chloroethyl vinyl ether	FB	Ave	5522 1746409	13220 3339001	26213	154022	834302	0.500 100	1.00 200	2.00	10.0	50.0
Dibromofluoromethane (Surr)	FB	Ave	1123558 1219560	1144175 1218283	1161619	1195424	1234805	50.0 50.0	50.0 50.0	50.0	50.0	50.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	1545300 1666774	1572021 1663981	1597924	1613264	1659144	50.0 50.0	50.0 50.0	50.0	50.0	50.0
Toluene-d8 (Surr)	CBNZ d5	Ave	4413215 4768537	4493409 4619622	4579209	4702671	4806607	50.0 50.0	50.0 50.0	50.0	50.0	50.0
4-Bromofluorobenzene (Surr)	DCBd 4	Ave	1621217 1766936	1655212 1756037	1673576	1719452	1774265	50.0 50.0	50.0 50.0	50.0	50.0	50.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5532.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-May-2019 10:34:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub168

Method: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 28-May-2019 11:27:38 Calib Date: 27-May-2019 12:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.101	3.087	0.014	83	2875493	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	5097805	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	89	1134083	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	95	1995634	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1218283	50.0	51.1	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.623	4.623	0.000	95	1663981	50.0	51.2	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4619622	50.0	49.3	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	87	1756037	50.0	47.5	
12 Dichlorodifluoromethane	85	1.621	1.621	0.000	100	7170363	200.0	204.6	
14 Chloromethane	50	1.788	1.788	0.000	98	7170399	200.0	180.4	
15 Vinyl chloride	62	1.886	1.900	-0.014	98	4236566	200.0	180.2	
17 Bromomethane	94	2.124	2.124	0.000	90	3259093	200.0	183.8	
18 Chloroethane	64	2.165	2.165	0.000	99	2887173	200.0	163.2	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	97	5308653	200.0	210.7	
20 Trichlorofluoromethane	101	2.403	2.403	0.000	98	6889252	200.0	204.8	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	92	3339001	200.0	225.1	

Reagents:

MV-Gas A_00026 Amount Added: 200.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

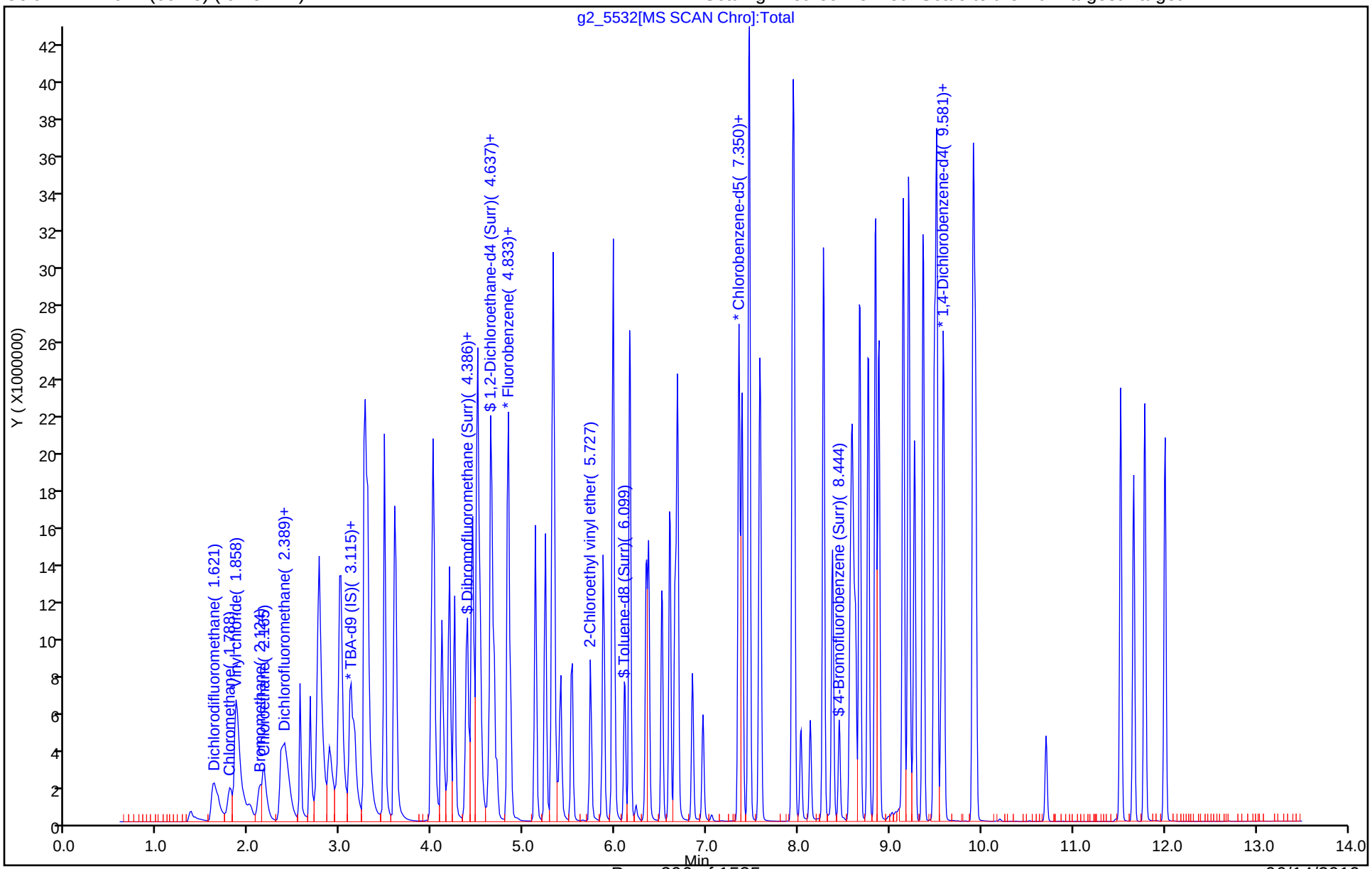
Report Date: 28-May-2019 11:27:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5532.D

Injection Date:	27-May-2019 10:34:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5533.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-May-2019 10:55:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub168

Method: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 28-May-2019 11:27:42 Calib Date: 27-May-2019 12:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	88	3005911	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	5202427	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	87	1148351	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	95	1930820	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	92	1219560	50.0	50.2	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.623	-0.013	97	1666774	50.0	50.3	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4768537	50.0	50.3	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1766936	50.0	49.4	
12 Dichlorodifluoromethane	85	1.621	1.621	0.000	99	3797138	100.0	106.2	
14 Chloromethane	50	1.788	1.788	0.000	99	4063800	100.0	100.2	
15 Vinyl chloride	62	1.900	1.900	0.000	97	2316966	100.0	96.5	
17 Bromomethane	94	2.124	2.124	0.000	90	1836447	100.0	101.5	
18 Chloroethane	64	2.166	2.165	0.001	100	1610526	100.0	89.2	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	97	2559207	100.0	100.2	
20 Trichlorofluoromethane	101	2.403	2.403	0.000	99	3461284	100.0	101.0	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	92	1746409	100.0	115.4	

Reagents:

MV-Gas A_00026 Amount Added: 100.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

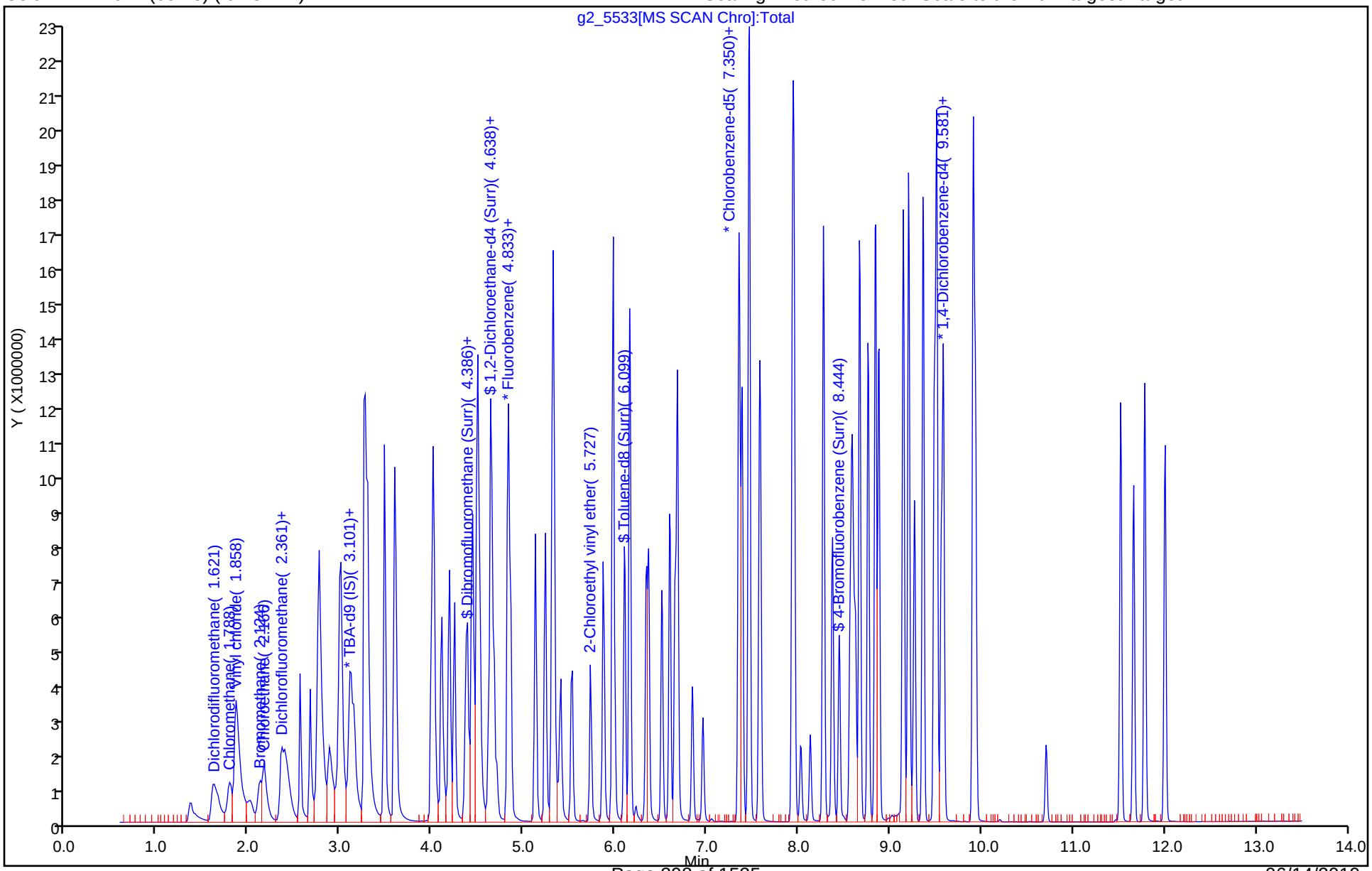
Report Date: 28-May-2019 11:27:43 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5533.D

Injection Date:	27-May-2019 10:55:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5534.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 27-May-2019 11:16:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub168

Method: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 28-May-2019 11:27:47 Calib Date: 27-May-2019 12:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	85	3051532	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	5227981	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	87	1167362	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1906854	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	92	1234805	50.0	50.5	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.623	4.623	0.000	98	1659144	50.0	49.8	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4806607	50.0	49.9	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1774265	50.0	50.3	
12 Dichlorodifluoromethane	85	1.621	1.621	0.000	99	1882376	50.0	52.4	
14 Chloromethane	50	1.788	1.788	0.000	99	1964118	50.0	48.2	
15 Vinyl chloride	62	1.900	1.900	0.000	97	1194288	50.0	49.4	
17 Bromomethane	94	2.124	2.124	0.000	90	906724	50.0	49.9	
18 Chloroethane	64	2.165	2.165	0.000	100	811977	50.0	44.8	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	97	1058443	50.0	41.9	
20 Trichlorofluoromethane	101	2.403	2.403	0.000	98	1576004	50.0	46.0	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	92	834302	50.0	54.8	

Reagents:

MV-Gas A_00026 Amount Added: 50.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

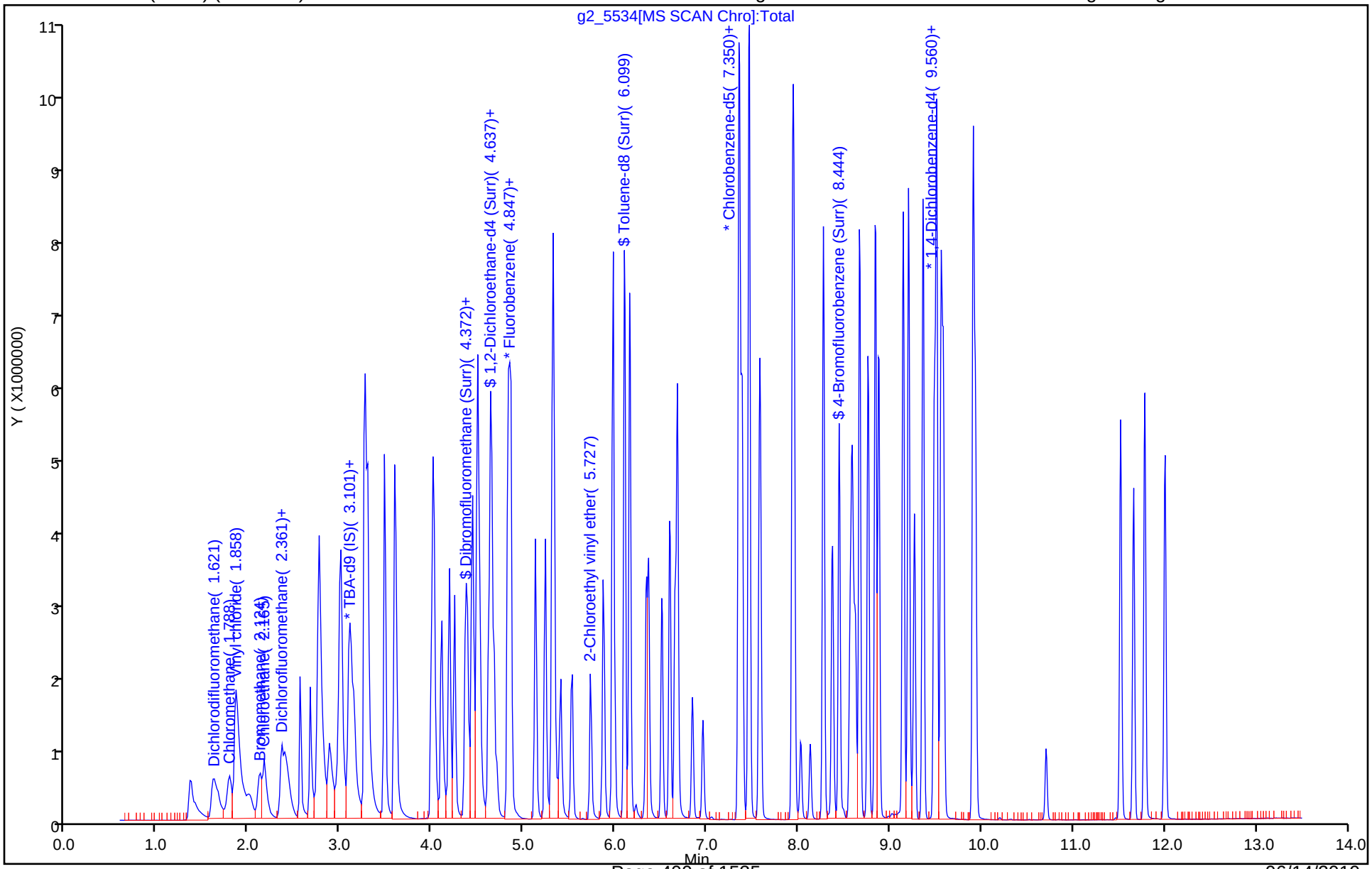
Report Date: 28-May-2019 11:27:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5534.D

Injection Date:	27-May-2019 11:16:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	icis			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5535.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-May-2019 11:38:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub168

Method: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 28-May-2019 11:27:51 Calib Date: 27-May-2019 12:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2941348	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	5145145	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	1128809	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1828268	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1195424	50.0	49.7	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.623	4.623	0.000	99	1613264	50.0	49.2	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4702671	50.0	50.4	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1719452	50.0	50.8	
12 Dichlorodifluoromethane	85	1.621	1.621	0.000	99	371006	10.0	10.5	
14 Chloromethane	50	1.774	1.788	-0.014	99	367351	10.0	9.16	
15 Vinyl chloride	62	1.886	1.900	-0.014	97	281471	10.0	11.7	
17 Bromomethane	94	2.110	2.124	-0.014	91	181905	10.0	10.2	
18 Chloroethane	64	2.165	2.165	0.000	100	170754	10.0	9.56	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	70	141785	10.0	6.75	
20 Trichlorofluoromethane	101	2.361	2.403	-0.042	97	268157	10.0	8.26	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	92	154022	10.0	10.3	

Reagents:

MV-Gas A_00026 Amount Added: 10.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

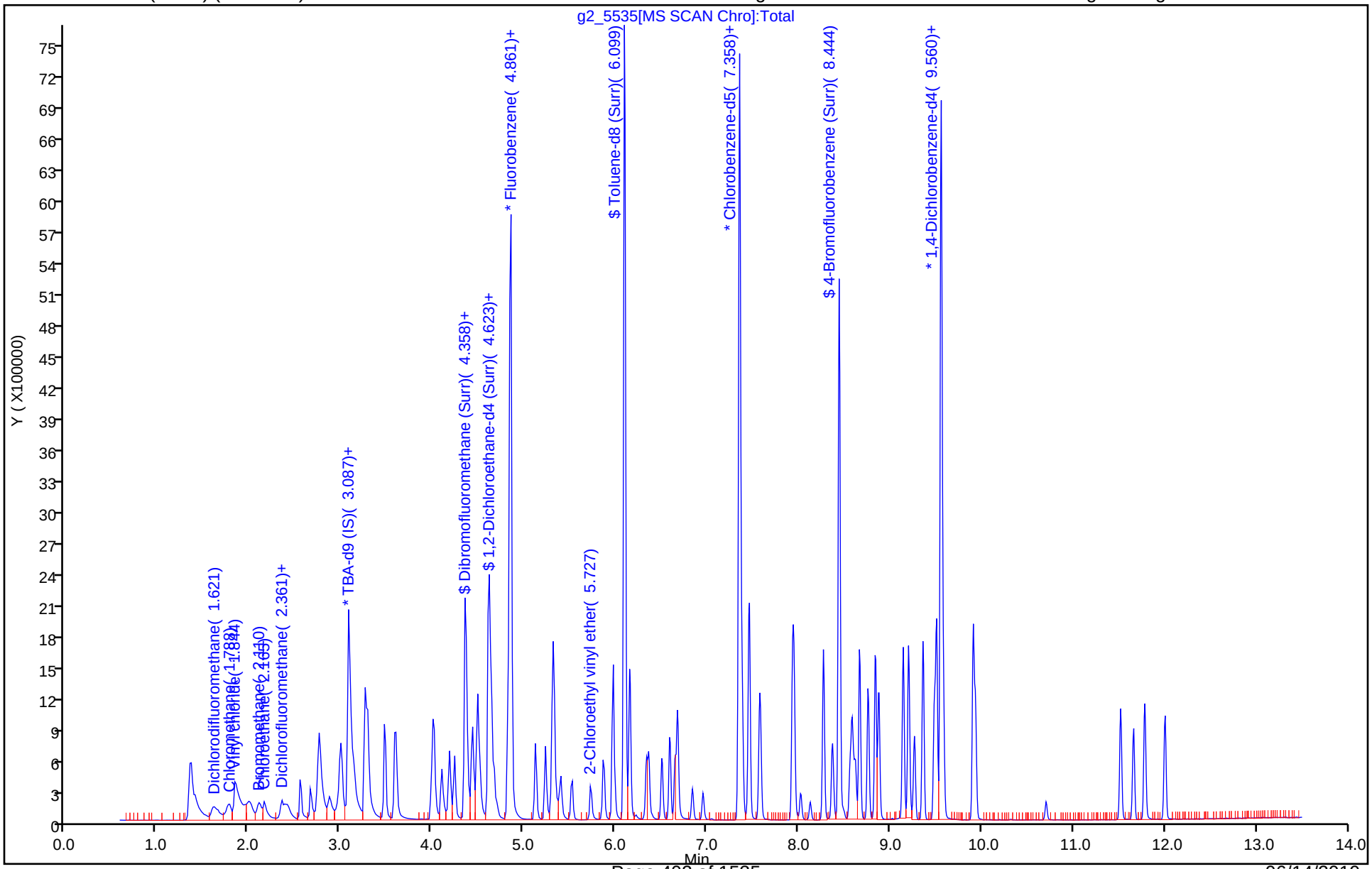
Report Date: 28-May-2019 11:27:52 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5535.D

Injection Date:	27-May-2019 11:38:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5536.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-May-2019 11:59:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub168

Method: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 28-May-2019 11:27:55 Calib Date: 27-May-2019 12:42:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	80	3027981	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	5020926	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	86	1107371	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	95	1774821	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	66	1161619	50.0	49.5	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.624	4.623	0.001	99	1597924	50.0	49.9	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4579209	50.0	50.1	
$ 9 4-Bromofluorobenzene (Surr	95	8.445	8.444	0.001	87	1673576	50.0	50.9	
12 Dichlorodifluoromethane	85	1.621	1.621	0.000	61	68426	2.00	1.98	
14 Chloromethane	50	1.775	1.788	-0.013	87	80128	2.00	2.05	
15 Vinyl chloride	62	1.900	1.900	0.000	50	49205	2.00	1.96	a
17 Bromomethane	94	2.110	2.124	-0.014	84	34138	2.00	1.95	
18 Chloroethane	64	2.166	2.165	0.001	87	40896	2.00	2.35	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	31	17616	2.00	1.91	
20 Trichlorofluoromethane	101	2.361	2.403	-0.042	69	46138	2.00	1.77	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	75	26213	2.00	1.79	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

MV-Gas A_00026	Amount Added:	2.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

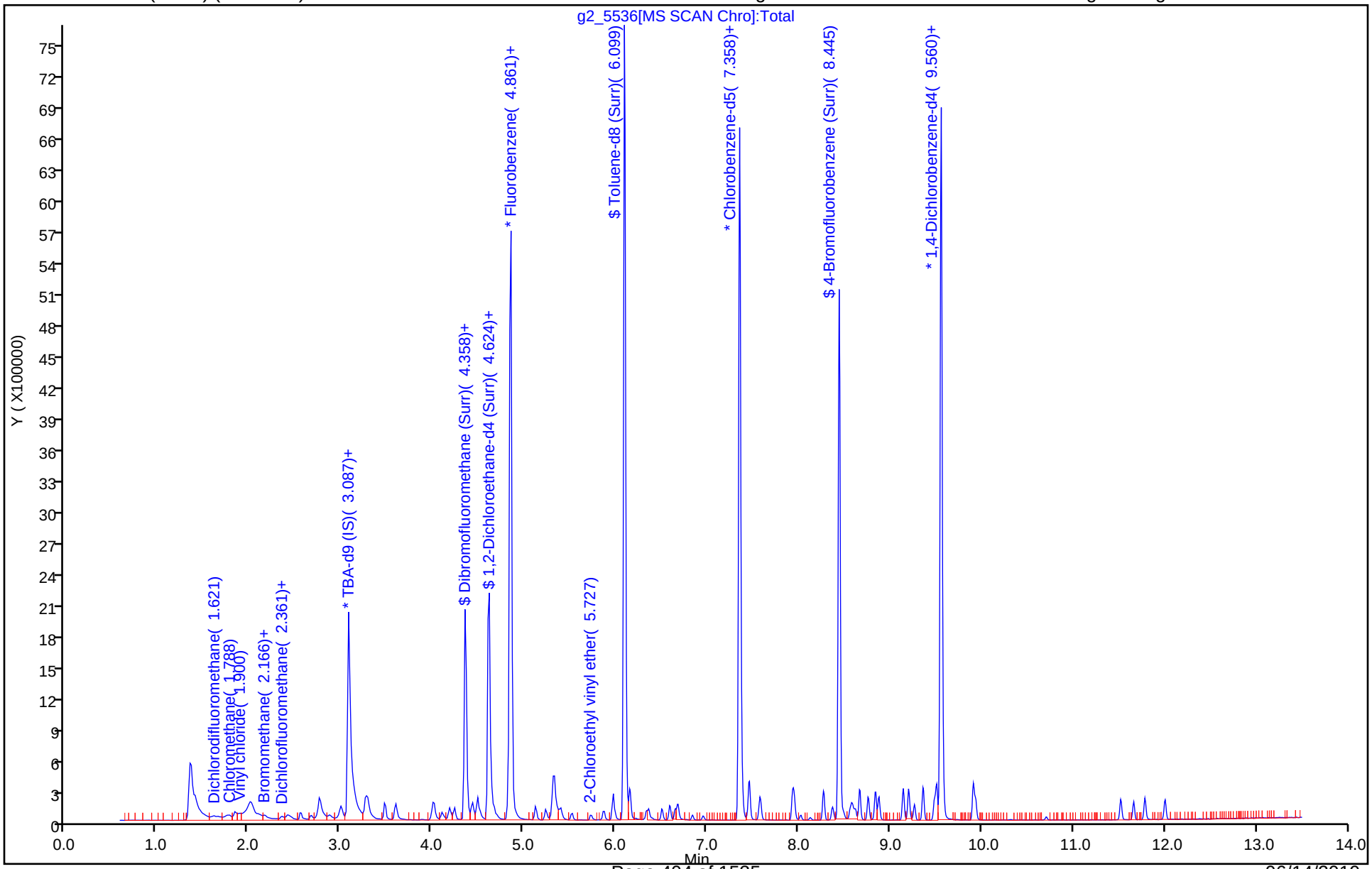
Report Date: 28-May-2019 11:27:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5536.D

Injection Date:	27-May-2019 11:59:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

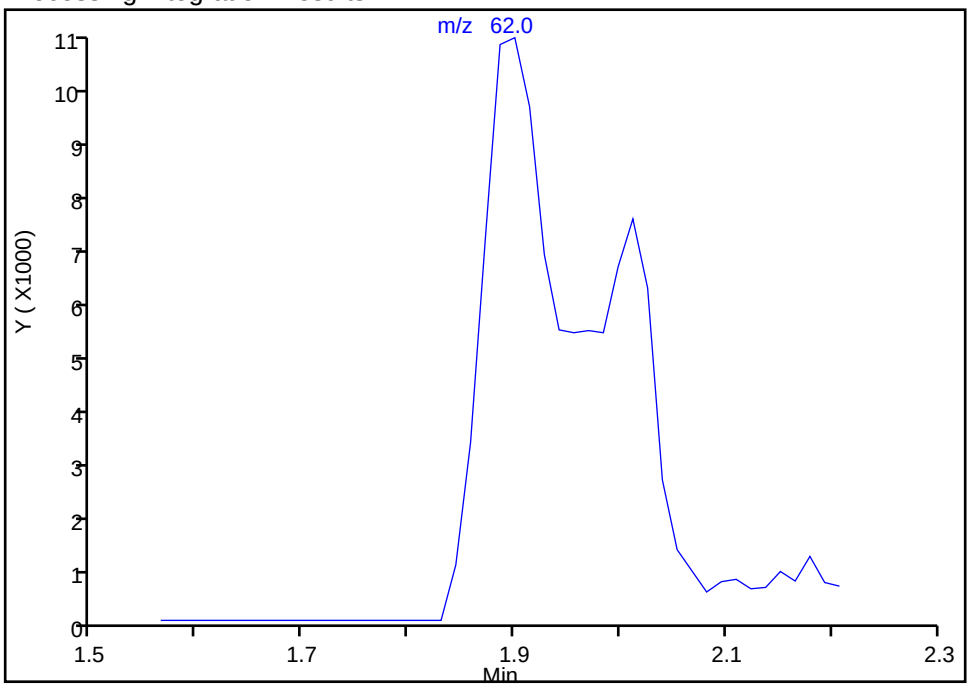
Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5536.D
Injection Date: 27-May-2019 11:59:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: meierg ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

15 Vinyl chloride, CAS: 75-01-4

Signal: 1

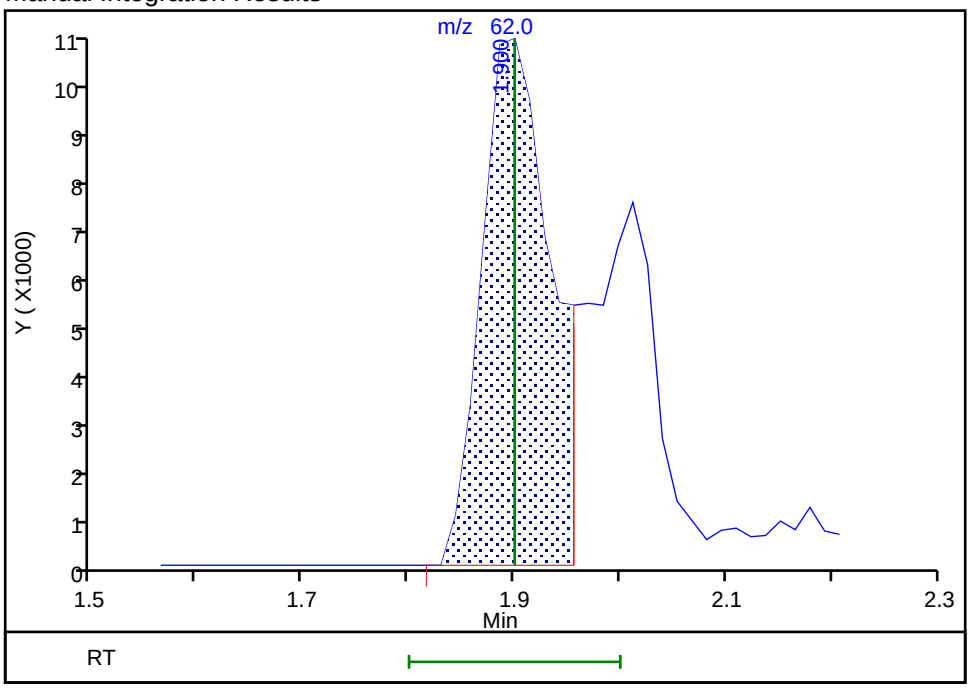
Not Detected
Expected RT: 1.90

Processing Integration Results



Manual Integration Results

RT: 1.90
Area: 49205
Amount: 1.963712
Amount Units: ug/l



Reviewer: meierg, 28-May-2019 10:44:46
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5537.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-May-2019 12:21:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub168

Method: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 28-May-2019 11:27:59 Calib Date: 27-May-2019 12:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2924464	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4942387	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	1082817	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1785616	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1144175	50.0	49.5	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.623	4.623	0.000	99	1572021	50.0	49.9	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	95	4493409	50.0	50.2	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1655212	50.0	50.1	
12 Dichlorodifluoromethane	85	1.621	1.621	0.000	98	32821	1.00	0.9662	
14 Chloromethane	50	1.774	1.788	-0.014	96	42039	1.00	1.09	
15 Vinyl chloride	62	1.998	1.900	0.098	57	26330	1.00	0.99	
17 Bromomethane	94	2.096	2.124	-0.028	92	19847	1.00	1.15	
18 Chloroethane	64	2.165	2.165	0.000	98	19949	1.00	1.16	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	43	6647	1.00	1.48	
20 Trichlorofluoromethane	101	2.361	2.403	-0.042	91	21689	1.00	1.04	
78 2-Chloroethyl vinyl ether	63	5.741	5.727	0.014	92	13220	1.00	0.9191	

Reagents:

MV-Gas A_00026 Amount Added: 1.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

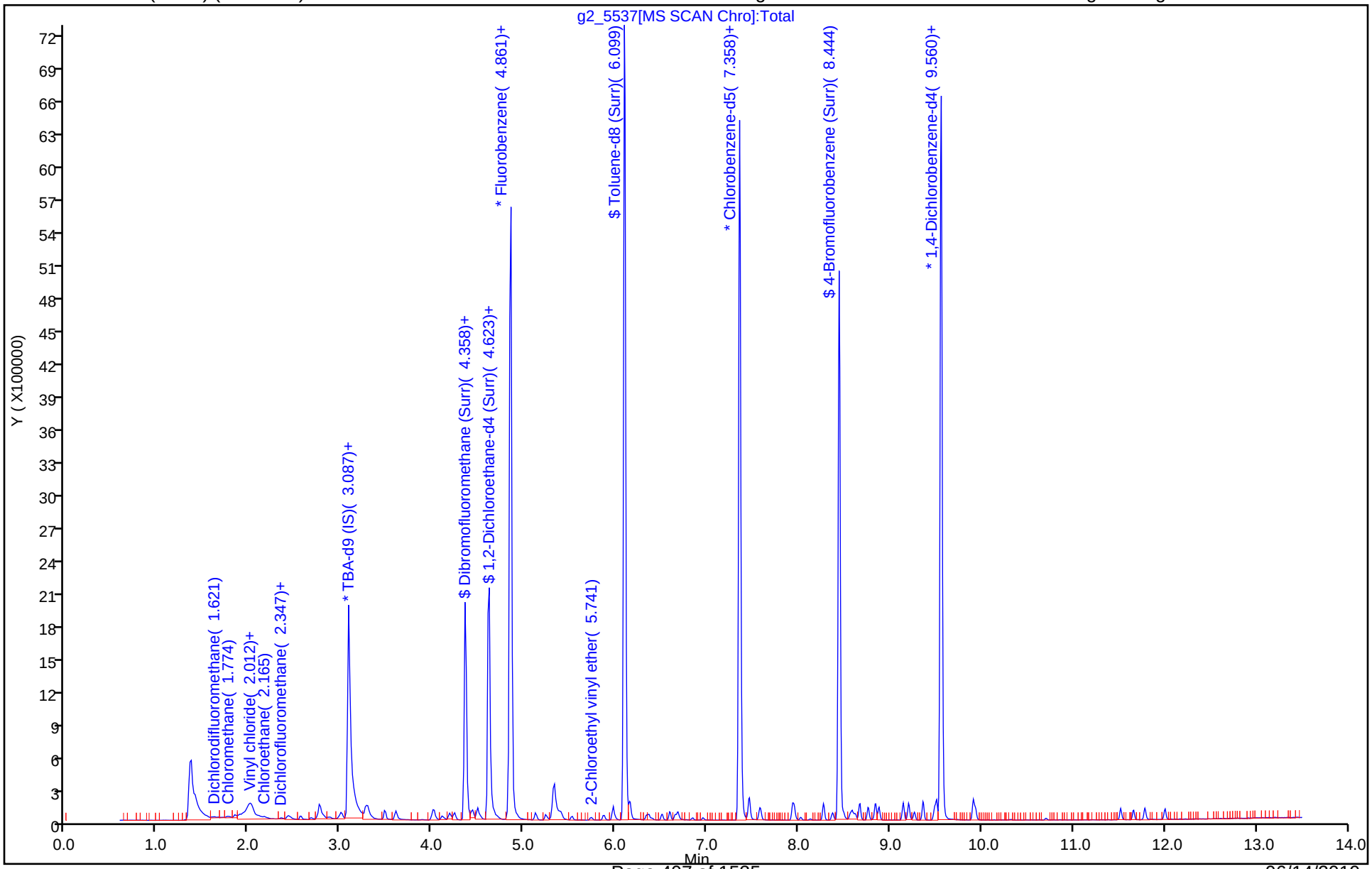
Report Date: 28-May-2019 11:27:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5537.D

Injection Date:	27-May-2019 12:21:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-May-2019 12:42:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub168

Method: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 28-May-2019 11:28:02 Calib Date: 27-May-2019 12:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2845781	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4867650	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	1072598	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1721351	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1123558	50.0	49.4	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.624	4.623	0.001	99	1545300	50.0	49.8	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4413215	50.0	49.8	
$ 9 4-Bromofluorobenzene (Surr	95	8.445	8.444	0.001	88	1621217	50.0	50.9	
12 Dichlorodifluoromethane	85	1.607	1.621	-0.014	91	14395	0.5000	0.4303	
14 Chloromethane	50	1.747	1.788	-0.041	97	20919	0.5000	0.5512	
15 Vinyl chloride	62		1.900				ND	ND	
17 Bromomethane	94	2.096	2.124	-0.028	80	7806	0.5000	0.4609	
18 Chloroethane	64	2.166	2.165	0.001	65	9316	0.5000	0.5516	
19 Dichlorofluoromethane	67		2.361				ND	ND	
20 Trichlorofluoromethane	101	2.361	2.403	-0.042	77	8609	0.5000	0.6465	
78 2-Chloroethyl vinyl ether	63	5.741	5.727	0.014	83	5522	0.5000	0.3898	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

MV-Gas A_00026	Amount Added:	0.50	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

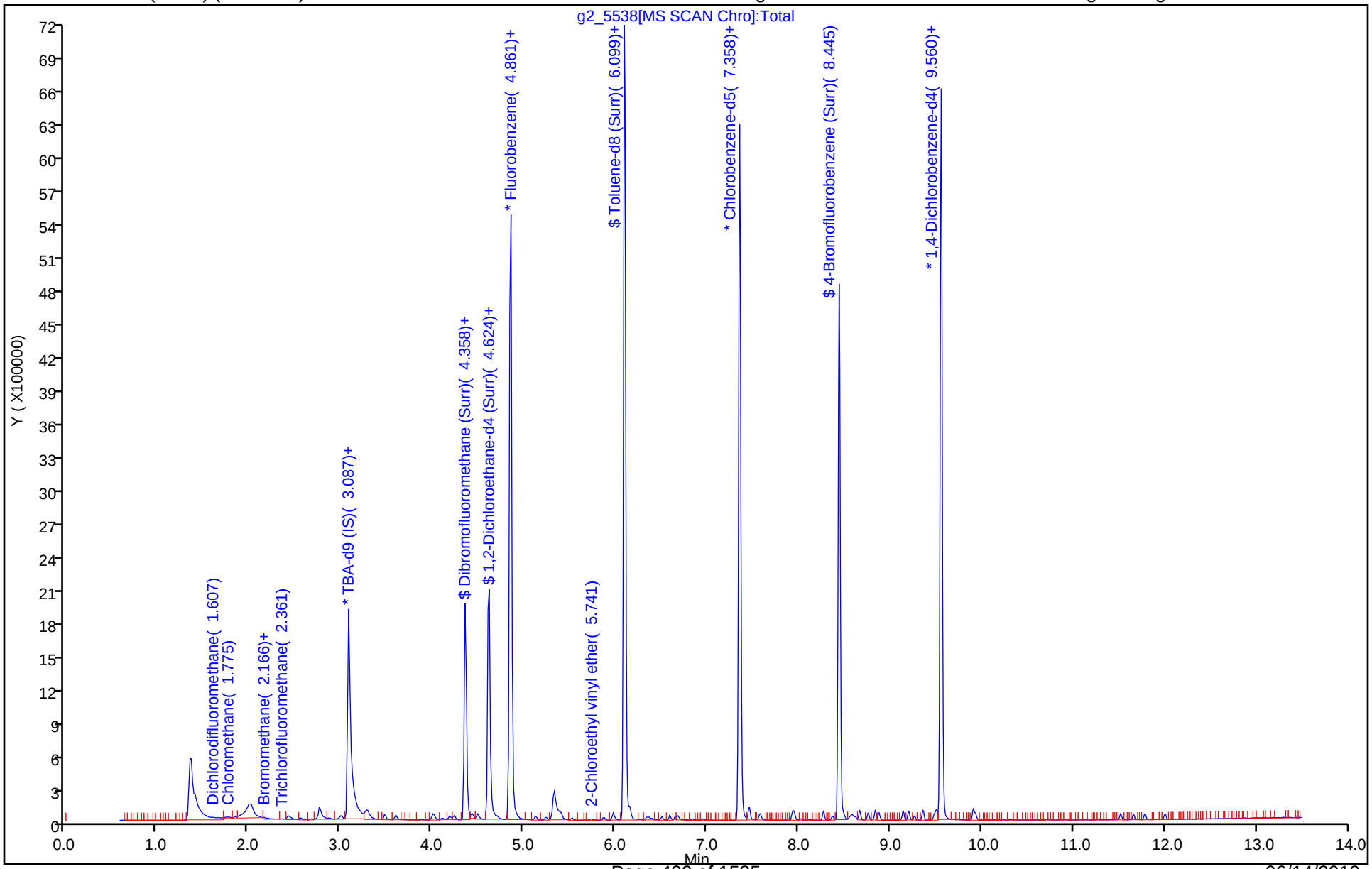
Report Date: 28-May-2019 11:28:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Injection Date:	27-May-2019 12:42:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-459588/8	g2_5576.D
Level 2	IC 280-459588/7	g2_5575.D
Level 3	IC 280-459588/6	g2_5574.D
Level 4	IC 280-459588/5	g2_5573.D
Level 5	ICIS 280-459588/4	g2_5572.D
Level 6	IC 280-459588/3	g2_5571.D
Level 7	IC 280-459588/2	g2_5570.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethyl ether	+++++ 0.2042	0.2607 0.1825	0.2701	0.2448	0.2176	Lin1	0.1338	0.1935							0.9940		0.9900
Acrolein	0.0595 0.0375	0.0430 0.0355	0.0358	0.0398	0.0383	Lin1	0.0937	0.0364							0.9990		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1750 0.1860	0.1614 0.1787	0.1737	0.1956	0.1883	Ave		0.1798				6.3		15.0			
1,1-Dichloroethene	0.2114 0.2106	0.2038 0.2011	0.1854	0.2140	0.2095	Ave		0.2051				4.8		30.0			
Acetone	0.2733 0.0754	0.1822 0.0693	0.1610	0.1031	0.0783	Lin1	0.4833	0.0719							0.9950		0.9900
Methyl iodide	0.3249 0.3191	0.3108 0.3049	0.2927	0.3324	0.3238	Ave		0.3155				4.3		15.0			
Methyl acetate	0.3008 0.2006	0.2094 0.1938	0.2000	0.2005	0.1996	Lin2	0.0928	0.1909							0.9910		0.9900
Carbon disulfide	0.7311 0.7440	0.6857 0.7031	0.6575	0.7786	0.7862	Ave		0.7266				6.5		15.0			
3-Chloro-1-propene	0.3837 0.3776	0.3270 0.3721	0.3386	0.3922	0.3889	Ave		0.3686				6.9		15.0			
Methylene Chloride	0.3678 0.2222	0.3066 0.2106	0.2520	0.2349	0.2215	Lin2	0.0761	0.2199							0.9990		0.9900
t-Butyl alcohol	+++++ 0.0272	0.0480 0.0265	0.0351	0.0256	0.0242	Lin1	0.1810	0.0262							0.9980		0.9900
Acrylonitrile	0.1000 0.0906	0.0918 0.0837	0.0791	0.0952	0.0927	Ave		0.0904				7.8		15.0			
Methyl tert-butyl ether	0.5957 0.5014	0.5138 0.4812	0.4861	0.5277	0.5135	Ave		0.5171				7.4		15.0			
trans-1,2-Dichloroethene	0.2416 0.2223	0.2006 0.2143	0.2084	0.2262	0.2192	Ave		0.2189				6.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Hexane	1.7943 1.7751	1.7664 1.7129	1.6907	1.8851	1.7888	Ave		1.7733				3.5		15.0			
Vinyl acetate	0.5027 0.5280	0.5179 0.4572	0.4582	0.5227	0.5374	Ave		0.5035				6.5		15.0			
1,1-Dichloroethane	0.4179 0.4070	0.3936 0.3916	0.3630	0.4219	0.4042	Ave		0.3999			0.1000	4.9		15.0			
2-Butanone (MEK)	+++++ 0.1191	0.1280 0.1185	0.1048	0.1147	0.1173	Lin1	-0.020	0.1184							1.0000		0.9900
cis-1,2-Dichloroethene	0.2451 0.2377	0.2390 0.2343	0.2137	0.2363	0.2373	Ave		0.2348				4.2		15.0			
2,2-Dichloropropane	0.2741 0.2866	0.2589 0.2820	0.2473	0.2820	0.2853	Ave		0.2737				5.5		15.0			
sec-Butyl Alcohol	+++++ 0.0228	0.0262 0.0226	0.0204	0.0217	0.0223	Lin1	0.0098	0.0226							1.0000		0.9900
Bromochloromethane	0.1138 0.1118	0.1002 0.1103	0.1001	0.1066	0.1096	Ave		0.1075				5.1		15.0			
Tetrahydrofuran	0.1696 0.0844	0.1122 0.0837	0.0935	0.0876	0.0819	Lin2	0.0828	0.0803							0.9920		0.9900
Chloroform	0.4089 0.3972	0.3893 0.3910	0.3694	0.4036	0.3914	Ave		0.3930				3.2		30.0			
1,1,1-Trichloroethane	0.3610 0.3598	0.3240 0.3580	0.3147	0.3611	0.3548	Ave		0.3476				5.6		15.0			
Cyclohexane	0.5090 0.4880	0.5183 0.4786	0.4417	0.5000	0.4938	Ave		0.4899				5.1		15.0			
1,1-Dichloropropene	0.3503 0.3362	0.3240 0.3318	0.3052	0.3360	0.3305	Ave		0.3306				4.2		15.0			
Carbon tetrachloride	+++++ 0.3107	0.2301 0.3187	0.2247	0.2772	0.2954	Lin1	-0.138	0.3137							0.9990		0.9900
Isobutyl alcohol	+++++ 0.0099	0.0098 0.0100	0.0098	0.0089	0.0095	Lin1	-0.022	0.0099							0.9990		0.9900
Benzene	1.0533 0.8854	0.9060 0.8216	0.8514	0.9381	0.9009	Ave		0.9081				8.2		15.0			
1,2-Dichloroethane	0.5313 0.3417	0.3989 0.3473	0.3405	0.3455	0.3407	Lin2	0.0902	0.3312							0.9950		0.9900
Trichloroethene	0.2318 0.2356	0.2175 0.2320	0.2130	0.2343	0.2325	Ave		0.2281				3.9		15.0			
2-Pentanone	+++++ 0.1953	0.2321 0.1878	0.1940	0.1891	0.1941	Lin1	0.1222	0.1904							1.0000		0.9900
Methylcyclohexane	0.3976 0.3754	0.3705 0.3693	0.3692	0.3910	0.3768	Ave		0.3785				3.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichloropropane	+++++ 0.2307	0.3287 0.2258	0.2623	0.2524	0.2342	Lin2	0.0922	0.2306							0.9980		0.9900
1,4-Dioxane	+++++ 0.0028	0.0051 0.0027	0.0033	0.0029	0.0028	Lin1	0.0417	0.0027							1.0000		0.9900
Dibromomethane	0.1358 0.1295	0.1244 0.1303	0.1172	0.1249	0.1260	Ave		0.1269				4.6		15.0			
Bromodichloromethane	+++++ 0.2881	0.2386 0.2952	0.2181	0.2659	0.2781	Lin1	-0.100	0.2912							0.9990		0.9900
cis-1,3-Dichloropropene	1.4913 1.6429	1.3783 1.6483	1.3842	1.5624	1.6121	Ave		1.5314				7.6		15.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.2538	0.2933 0.2309	0.2488	0.2655	0.2583	Lin1	0.2540	0.2411							0.9970		0.9900
Toluene	1.0652 0.9086	0.9539 0.8134	0.8835	0.9648	0.9272	Ave		0.9310				8.4		30.0			
trans-1,3-Dichloropropene	0.3197 0.3397	0.2845 0.3413	0.2627	0.3143	0.3324	Ave		0.3135				9.5		15.0			
Ethyl methacrylate	+++++ 1.3470	1.1769 1.3515	1.1046	1.2563	1.3060	Ave		1.2570				7.9		15.0			
1,1,2-Trichloroethane	+++++ 0.1838	0.1881 0.1814	0.1759	0.1816	0.1834	Ave		0.1824				2.2		15.0			
Tetrachloroethene	0.8462 0.8213	0.8185 0.8056	0.7455	0.8180	0.8023	Ave		0.8082				3.8		15.0			
1,3-Dichloropropane	1.7385 1.4961	1.4931 1.4755	1.4525	1.4653	1.4972	Ave		1.5169				6.5		15.0			
2-Hexanone	+++++ 0.7946	0.8836 0.7766	0.7954	0.7762	0.7881	Lin1	0.2949	0.7823							1.0000		0.9900
Dibromochloromethane	+++++ 0.8332	0.5555 0.8734	0.5902	0.6760	0.7838	Lin1	-0.482	0.8501							0.9980		0.9900
1,2-Dibromoethane	0.8778 0.8173	0.8471 0.8125	0.7140	0.7943	0.8024	Ave		0.8093				6.3		15.0			
1-Chlorohexane	2.1229 1.4714	1.6433 1.4214	1.4519	1.4945	1.4509	Lin2	0.3184	1.4141							0.9960		0.9900
Chlorobenzene	3.3290 2.6465	2.8263 2.5005	2.6669	2.7138	2.6537	Ave		2.7624			0.3000	9.7		15.0			
1,1,1,2-Tetrachloroethane	0.9823 0.9464	0.8604 0.9606	0.7854	0.8577	0.9204	Ave		0.9019				7.8		15.0			
Ethylbenzene	1.7416 1.4863	1.3407 1.4594	1.3903	1.4606	1.4617	Ave		1.4772				8.6		30.0			
m,p-Xylene	1.9040 1.8192	1.7625 1.7796	1.6981	1.8383	1.8118	Ave		1.8019				3.6		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
o-Xylene	1.9084 1.7465	1.6991 1.6999	1.6160	1.7601	1.7361	Ave		1.7380				5.1		15.0			
Styrene	3.0248 2.8888	2.5503 2.7719	2.5227	2.8057	2.8667	Ave		2.7758				6.6		15.0			
Bromoform	+++++ 0.4803	0.3227 0.5220	0.3446	0.3611	0.4285	Lin1	-0.320	0.4970			0.1000				0.9940		0.9900
Isopropylbenzene	+++++ 2.7789	2.9060 2.2428	2.7570	2.9998	2.8799	Ave		2.7607				9.7		15.0			
Cyclohexanone	+++++ 0.0420	0.0465 0.0410	0.0393	0.0397	0.0394	Lin1	0.0478	0.0410							1.0000		0.9900
1,1,2,2-Tetrachloroethane	+++++ 0.6346	0.7531 0.6088	0.6806	0.6650	0.6440	Lin1	0.1612	0.6204			0.3000				0.9990		0.9900
Bromobenzene	0.9461 0.6709	0.6922 0.6288	0.6673	0.6722	0.6744	Lin2	0.1296	0.6401							0.9940		0.9900
trans-1,4-Dichloro-2-butene	+++++ 0.2233	0.1915 0.2257	0.2046	0.1958	0.2109	Lin1	-0.052	0.2229							0.9990		0.9900
1,2,3-Trichloropropane	+++++ 0.2218	0.2514 0.2127	0.2306	0.2261	0.2218	Lin1	0.0405	0.2164							1.0000		0.9900
N-Propylbenzene	0.8972 0.8134	0.7989 0.7563	0.7726	0.8321	0.8169	Ave		0.8125				5.6		15.0			
2-Chlorotoluene	0.7954 0.6744	0.6281 0.6332	0.6314	0.6924	0.6728	Ave		0.6754				8.7		15.0			
1,3,5-Trimethylbenzene	2.7286 2.3660	2.3284 2.0277	2.1995	2.4596	2.3901	Ave		2.3571				9.2		15.0			
4-Chlorotoluene	0.8585 0.6935	0.7183 0.6604	0.6840	0.7100	0.6895	Ave		0.7163				9.1		15.0			
tert-Butylbenzene	2.6862 2.1707	2.2610 1.9486	2.1154	2.2503	2.1980	Ave		2.2329				10.1		15.0			
1,2,4-Trimethylbenzene	2.8218 2.3714	2.3518 +++++	2.2776	2.4612	2.3967	Ave		2.4467				7.9		15.0			
sec-Butylbenzene	0.7482 0.6774	0.6701 0.6436	0.6357	0.6844	0.6689	Ave		0.6755				5.4		15.0			
1,3-Dichlorobenzene	+++++ 1.2953	1.3780 1.2342	1.2524	1.3160	1.2976	Ave		1.2956				3.9		15.0			
4-Isopropyltoluene	+++++ 2.8323	2.9932 +++++	2.7776	2.9957	2.8832	Ave		2.8964				3.3		15.0			
1,4-Dichlorobenzene	+++++ 1.3114	1.5246 1.2503	1.3958	1.3566	1.3211	Ave		1.3600				6.9		15.0			
n-Butylbenzene	+++++ 2.5821	2.7273 2.1205	2.6814	2.7369	2.6455	Ave		2.5823				9.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	+++++ 1.2668	1.4110 1.2283	1.2830	1.3041	1.2838	Ave		1.2962				4.8		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1555	0.1378 0.1624	0.1281	0.1285	0.1432	Lin1	-0.055	0.1576							0.9980		0.9900
1,2,4-Trichlorobenzene	1.5769 0.9789	1.1750 0.9010	0.9499	0.9856	0.9702	Lin2	0.3029	0.9195							0.9930		0.9900
Hexachlorobutadiene	+++++ 0.4687	0.5319 0.4359	0.4725	0.4898	0.4664	Ave		0.4775				6.7		15.0			
Naphthalene	+++++ 2.5416	3.0858 2.1599	2.6267	2.6463	2.5438	Lin1	1.0323	2.3194							0.9930		0.9900
1,2,3-Trichlorobenzene	+++++ 0.8922	1.0756 0.8183	0.9704	0.9374	0.8914	Lin1	0.3021	0.8486							0.9980		0.9900
Dibromofluoromethane (Surr)	0.2344 0.2423	0.2283 0.2388	0.2301	0.2341	0.2352	Ave		0.2347				2.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3258 0.3207	0.3255 0.3342	0.3258	0.3237	0.3143	Ave		0.3243				1.9		15.0			
Toluene-d8 (Surr)	4.1273 4.1010	4.1255 4.1330	4.1508	4.0910	4.0917	Ave		4.1172				0.6		15.0			
4-Bromofluorobenzene (Surr)	0.9352 0.9232	0.9312 0.8813	0.9281	0.9369	0.9229	Ave		0.9227				2.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-459588/8	g2_5576.D
Level 2	IC 280-459588/7	g2_5575.D
Level 3	IC 280-459588/6	g2_5574.D
Level 4	IC 280-459588/5	g2_5573.D
Level 5	ICIS 280-459588/4	g2_5572.D
Level 6	IC 280-459588/3	g2_5571.D
Level 7	IC 280-459588/2	g2_5570.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Ethyl ether	FB	Lin1	+++++ 1972579	23886 3429207	50329	229516	1041275	+++++ 100	1.00 200	2.00	10.0	50.0
Acrolein	FB	Lin1	26511 3578330	38946 6581555	65832	368221	1811969	4.94 988	9.88 1975	19.8	98.8	494
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	7894 1796658	14786 3357509	32361	183400	901242	0.500 100	1.00 200	2.00	10.0	50.0
1,1-Dichloroethene	FB	Ave	9536 2033680	18671 3777973	34549	200627	1002854	0.500 100	1.00 200	2.00	10.0	50.0
Acetone	FB	Lin1	49323 2912665	66774 5209864	119987	386722	1499958	2.00 400	4.00 800	8.00	40.0	200
Methyl iodide	FB	Ave	14656 3081581	28483 5728305	54540	311647	1549686	0.500 100	1.00 200	2.00	10.0	50.0
Methyl acetate	FB	Lin2	27136 3875749	38384 7283617	74509	376016	1911007	1.00 200	2.00 400	4.00	20.0	100
Carbon disulfide	FB	Ave	32982 7185764	62834 13210834	122497	730026	3762808	0.500 100	1.00 200	2.00	10.0	50.0
3-Chloro-1-propene	FB	Ave	17310 3646696	29968 6991291	63096	367779	1861317	0.500 100	1.00 200	2.00	10.0	50.0
Methylene Chloride	FB	Lin2	16591 2146076	28090 3956158	46948	220250	1060062	0.500 100	1.00 200	2.00	10.0	50.0
t-Butyl alcohol	FB	Lin1	+++++ 2626558	44017 4985184	65329	240319	1156611	+++++ 1000	10.0 2000	20.0	100	500
Acrylonitrile	FB	Ave	45102 8752163	84122 15723117	147335	892910	4435719	5.00 1000	10.0 2000	20.0	100	500
Methyl tert-butyl ether	FB	Ave	26870 4843098	47082 9040970	90572	494813	2457585	0.500 100	1.00 200	2.00	10.0	50.0
trans-1,2-Dichloroethene	FB	Ave	10899 2147339	18379 4026319	38830	212081	1048926	0.500 100	1.00 200	2.00	10.0	50.0
Hexane	CBNZ d5	Ave	18033 3808464	35975 7178706	69575	395404	1913657	0.500 100	1.00 200	2.00	10.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Vinyl acetate	FB	Ave	45350 10199659	94918 17180141	170759	980252	5144089	1.00 200	2.00 400	4.00	20.0	100
1,1-Dichloroethane	FB	Ave	18852 3930882	36062 7357955	67629	395587	1934401	0.500 100	1.00 200	2.00	10.0	50.0
2-Butanone (MEK)	FB	Lin1	+++++ 4600707	46910 8908470	78093	430125	2245431	+++++ 400	4.00 800	8.00	40.0	200
cis-1,2-Dichloroethene	FB	Ave	11058 2295315	21899 4401412	39809	221567	1135587	0.500 100	1.00 200	2.00	10.0	50.0
2,2-Dichloropropane	FB	Ave	12366 2767961	23721 5298818	46072	264435	1365350	0.500 100	1.00 200	2.00	10.0	50.0
sec-Butyl Alcohol	FB	Lin1	+++++ 6617250	72100 12724136	113750	610460	3204345	+++++ 3000	30.0 6000	60.0	300	1500
Bromochloromethane	FB	Ave	5134 1079821	9179 2073278	18654	99983	524636	0.500 100	1.00 200	2.00	10.0	50.0
Tetrahydrofuran	FB	Lin2	15303 1629951	20568 3147071	34826	164335	783592	1.00 200	2.00 400	4.00	20.0	100
Chloroform	FB	Ave	18445 3835915	35669 7345888	68832	378457	1873556	0.500 100	1.00 200	2.00	10.0	50.0
1,1,1-Trichloroethane	FB	Ave	16286 3475090	29691 6726493	58633	338562	1698283	0.500 100	1.00 200	2.00	10.0	50.0
Cyclohexane	FB	Ave	22962 4713634	47496 8992557	82297	468838	2363687	0.500 100	1.00 200	2.00	10.0	50.0
1,1-Dichloropropene	FB	Ave	15804 3247600	29689 6234841	56868	315068	1581848	0.500 100	1.00 200	2.00	10.0	50.0
Carbon tetrachloride	FB	Lin1	+++++ 3001212	21083 5988898	41866	259936	1413889	+++++ 100	1.00 200	2.00	10.0	50.0
Isobutyl alcohol	FB	Lin1	+++++ 2385867	22416 4696239	45601	207701	1132197	+++++ 2500	25.0 5000	50.0	250	1250
Benzene	FB	Ave	47516 8551259	83016 15437217	158626	879612	4312221	0.500 100	1.00 200	2.00	10.0	50.0
1,2-Dichloroethane	FB	Lin2	23967 3300748	36554 6526181	63434	323915	1630898	0.500 100	1.00 200	2.00	10.0	50.0
Trichloroethene	FB	Ave	10455 2275534	19929 4359359	39683	219637	1113027	0.500 100	1.00 200	2.00	10.0	50.0
2-Pentanone	FB	Lin1	+++++ 7545129	85060 14112674	144606	709334	3716960	+++++ 400	4.00 800	8.00	40.0	200
Methylcyclohexane	FB	Ave	17934 3626202	33947 6938288	68789	366650	1803308	0.500 100	1.00 200	2.00	10.0	50.0
1,2-Dichloropropane	FB	Lin2	+++++ 2228507	30124 4242579	48865	236686	1120988	+++++ 100	1.00 200	2.00	10.0	50.0
1,4-Dioxane	FB	Lin1	+++++ 534461	9387 1007619	12412	54993	266617	+++++ 2000	20.0 4000	40.0	200	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dibromomethane	FB	Ave	6124 1250947	11397 2448497	21843	117094	602991	0.500 100	1.00 200	2.00	10.0	50.0
Bromodichloromethane	FB	Lin1	+++++ 2782787	21863 5546497	40636	249351	1330883	+++++ 100	1.00 200	2.00	10.0	50.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	14988 3524830	28070 6907875	56962	327711	1724610	0.500 100	1.00 200	2.00	10.0	50.0
4-Methyl-2-pentanone (MIBK)	FB	Lin1	+++++ 9803642	107486 17349621	185455	995917	4945736	+++++ 400	4.00 800	8.00	40.0	200
Toluene	FB	Ave	48052 8775469	87408 15283275	164612	904659	4437794	0.500 100	1.00 200	2.00	10.0	50.0
trans-1,3-Dichloropropene	FB	Ave	14423 3281273	26073 6413059	48951	294683	1591083	0.500 100	1.00 200	2.00	10.0	50.0
Ethyl methacrylate	CBNZ d5	Ave	+++++ 2889926	23968 5664025	45456	263504	1397180	+++++ 100	1.00 200	2.00	10.0	50.0
1,1,2-Trichloroethane	FB	Ave	+++++ 1775068	17235 3407470	32769	170262	878032	+++++ 100	1.00 200	2.00	10.0	50.0
Tetrachloroethene	CBNZ d5	Ave	8504 1762116	16669 3376050	30681	171571	858302	0.500 100	1.00 200	2.00	10.0	50.0
1,3-Dichloropropane	CBNZ d5	Ave	17472 3209741	30408 6183959	59773	307342	1601721	0.500 100	1.00 200	2.00	10.0	50.0
2-Hexanone	CBNZ d5	Lin1	+++++ 6818804	71981 13019460	130924	651251	3372340	+++++ 400	4.00 800	8.00	40.0	200
Dibromochloromethane	CBNZ d5	Lin1	+++++ 1787613	11313 3660193	24286	141790	838540	+++++ 100	1.00 200	2.00	10.0	50.0
1,2-Dibromoethane	CBNZ d5	Ave	8822 1753553	17252 3405285	29381	166605	858353	0.500 100	1.00 200	2.00	10.0	50.0
1-Chlorohexane	CBNZ d5	Lin2	21335 3156769	33467 5957213	59749	313481	1552170	0.500 100	1.00 200	2.00	10.0	50.0
Chlorobenzene	CBNZ d5	Ave	33456 5677808	57561 10479502	109747	569211	2838921	0.500 100	1.00 200	2.00	10.0	50.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	9872 2030469	17524 4026049	32322	179913	984613	0.500 100	1.00 200	2.00	10.0	50.0
Ethylbenzene	CBNZ d5	Ave	17503 3188875	27305 6116298	57212	306355	1563669	0.500 100	1.00 200	2.00	10.0	50.0
m,p-Xylene	CBNZ d5	Ave	19135 3903015	35896 7458224	69882	385587	1938203	0.500 100	1.00 200	2.00	10.0	50.0
o-Xylene	CBNZ d5	Ave	19179 3747083	34604 7124155	66501	369181	1857220	0.500 100	1.00 200	2.00	10.0	50.0
Styrene	CBNZ d5	Ave	30399 6197647	51939 11616980	103813	588502	3066764	0.500 100	1.00 200	2.00	10.0	50.0
Bromoform	CBNZ d5	Lin1	+++++ 1030419	6572 2187819	14181	75732	458444	+++++ 100	1.00 200	2.00	10.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Isopropylbenzene	DCBd 4	Ave	+++++ 10025988	96531 16708746	185956	1025776	5103698	+++++ 100	1.00 200	2.00	10.0	50.0
Cyclohexanone	CBNZ d5	Lin1	+++++ 3601033	37913 6871062	64758	332665	1685085	+++++ 4000	40.0 8000	80.0	400	2000
1,1,2,2-Tetrachloroethane	DCBd 4	Lin1	+++++ 2289730	25018 4535360	45905	227395	1141372	+++++ 100	1.00 200	2.00	10.0	50.0
Bromobenzene	DCBd 4	Lin2	15449 2420591	22994 4684372	45006	229867	1195180	0.500 100	1.00 200	2.00	10.0	50.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin1	+++++ 805684	6360 1681829	13797	66966	373844	+++++ 100	1.00 200	2.00	10.0	50.0
1,2,3-Trichloropropane	DCBd 4	Lin1	+++++ 800274	8351 1584514	15556	77327	392995	+++++ 100	1.00 200	2.00	10.0	50.0
N-Propylbenzene	DCBd 4	Ave	14651 2934844	26539 5634674	52114	284535	1447773	0.500 100	1.00 200	2.00	10.0	50.0
2-Chlorotoluene	DCBd 4	Ave	12989 2433169	20865 4717286	42588	236748	1192376	0.500 100	1.00 200	2.00	10.0	50.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	44556 8536220	77346 15106131	148358	841069	4235783	0.500 100	1.00 200	2.00	10.0	50.0
4-Chlorotoluene	DCBd 4	Ave	14018 2502184	23860 4920350	46138	242794	1221972	0.500 100	1.00 200	2.00	10.0	50.0
tert-Butylbenzene	DCBd 4	Ave	43864 7831569	75107 14517166	142683	769501	3895353	0.500 100	1.00 200	2.00	10.0	50.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	46078 8555660	78122 +++++	153620	841614	4247461	0.500 100	1.00 +++++	2.00	10.0	50.0
sec-Butylbenzene	DCBd 4	Ave	12217 2444081	22261 4794479	42879	234023	1185342	0.500 100	1.00 200	2.00	10.0	50.0
1,3-Dichlorobenzene	DCBd 4	Ave	+++++ 4673406	45776 9194515	84472	449993	2299698	+++++ 100	1.00 200	2.00	10.0	50.0
4-Isopropyltoluene	DCBd 4	Ave	+++++ 10218606	99429 +++++	187345	1024379	5109546	+++++ 100	1.00 +++++	2.00	10.0	50.0
1,4-Dichlorobenzene	DCBd 4	Ave	+++++ 4731542	50646 9314712	94143	463883	2341297	+++++ 100	1.00 200	2.00	10.0	50.0
n-Butylbenzene	DCBd 4	Ave	+++++ 9315996	90596 15797993	180857	935894	4688447	+++++ 100	1.00 200	2.00	10.0	50.0
1,2-Dichlorobenzene	DCBd 4	Ave	+++++ 4570451	46870 9150717	86538	445931	2275194	+++++ 100	1.00 200	2.00	10.0	50.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 561021	4577 1210216	8640	43951	253838	+++++ 100	1.00 200	2.00	10.0	50.0
1,2,4-Trichlorobenzene	DCBd 4	Lin2	25749 3531868	39030 6712810	64067	337029	1719402	0.500 100	1.00 200	2.00	10.0	50.0
Hexachlorobutadiene	DCBd 4	Ave	+++++ 1690851	17670 3247235	31871	167494	826615	+++++ 100	1.00 200	2.00	10.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1 Analy Batch No.: 459588

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2019 11:52 Calibration End Date: 05/28/2019 14:00 Calibration ID: 36582

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Naphthalene	DCBd 4	Lin1	+++++ 9169830	102506 16091101	177171	904889	4508128	+++++ 100	1.00 200	2.00	10.0	50.0
1,2,3-Trichlorobenzene	DCBd 4	Lin1	+++++ 3219155	35728 6096181	65455	320525	1579817	+++++ 100	1.00 200	2.00	10.0	50.0
Dibromofluoromethane (Surr)	FB	Ave	1057269 1170189	1046006 1121520	1071895	1097587	1125637	50.0 50.0	50.0 50.0	50.0	50.0	50.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	1469662 1548716	1491345 1569895	1517323	1517304	1504337	50.0 50.0	50.0 50.0	50.0	50.0	50.0
Toluene-d8 (Surr)	CBNZ d5	Ave	4147889 4399272	4201071 4330288	4270372	4290471	4377323	50.0 50.0	50.0 50.0	50.0	50.0	50.0
4-Bromofluorobenzene (Surr)	DCBd 4	Ave	1527072 1665393	1546661 1641356	1565010	1601878	1635576	50.0 50.0	50.0 50.0	50.0	50.0	50.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5570.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 28-May-2019 11:52:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub172

Method: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 29-May-2019 10:26:59 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0312

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	89	2747789	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4697181	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	89	1047743	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1862505	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1121520	50.0	50.9	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	97	1569895	50.0	51.5	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4330288	50.0	50.2	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.445	-0.001	87	1641356	50.0	47.8	
22 Ethyl ether	59	2.557	2.557	0.000	94	3429207	200.0	187.9	
24 Acrolein	56	2.668	2.668	0.000	99	6581555	1975.0	1921.0	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	93	3357509	200.0	198.8	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	3777973	200.0	196.1	
27 Acetone	43	2.766	2.766	0.000	99	5209864	800.0	764.3	
28 Iodomethane	142	2.878	2.878	0.000	99	5728305	200.0	193.3	
30 Carbon disulfide	76	2.990	2.990	0.000	100	13210834	200.0	193.5	
32 Methyl acetate	43	2.990	2.990	0.000	97	7283617	400.0	405.7	
33 3-Chloro-1-propene	41	3.003	3.004	-0.001	88	6991291	200.0	201.9	
35 Methylene Chloride	84	3.115	3.115	0.000	98	3956158	200.0	191.2	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	99	4985184	2000.0	2020.7	
39 Acrylonitrile	53	3.255	3.255	0.000	97	15723117	2000.0	1850.6	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	97	9040970	200.0	186.1	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	97	4026319	200.0	195.8	
42 Hexane	57	3.478	3.478	0.000	94	7178706	200.0	193.2	
46 Vinyl acetate	43	3.590	3.590	0.000	98	17180141	400.0	363.2	e
45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	7357955	200.0	195.9	
52 2-Butanone (MEK)	43	3.981	3.981	0.000	100	8908470	800.0	800.8	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	4401412	200.0	199.6	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	88	5298818	200.0	206.1	
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	12724136	6000.0	5998.1	
57 Tetrahydrofuran	42	4.191	4.191	0.000	89	3147071	400.0	415.9	
56 Chlorobromomethane	128	4.177	4.191	-0.014	98	2073278	200.0	205.3	
59 Chloroform	83	4.246	4.247	-0.001	93	7345888	200.0	199.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	6726493	200.0	206.0	
61 Cyclohexane	56	4.442	4.442	0.000	91	8992557	200.0	195.4	
63 1,1-Dichloropropene	75	4.484	4.498	-0.014	97	6234841	200.0	200.8	
62 Carbon tetrachloride	117	4.498	4.498	0.000	95	5988898	200.0	203.7	
66 Isobutyl alcohol	41	4.512	4.512	0.000	94	4696239	5000.0	5065.2	
64 Benzene	78	4.638	4.638	0.000	98	15437217	200.0	181.0	
65 1,2-Dichloroethane	62	4.665	4.680	-0.015	98	6526181	200.0	209.5	
67 n-Heptane	43	4.833	4.833	0.000	92	7896113	200.0	190.3	
69 Trichloroethene	95	5.126	5.126	0.000	97	4359359	200.0	203.4	
70 2-Pentanone	43	5.238	5.238	0.000	98	14112674	800.0	788.3	
71 Methylcyclohexane	55	5.308	5.308	0.000	93	6938288	200.0	195.1	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	91	4242579	200.0	195.5	
74 1,4-Dioxane	88	5.378	5.378	0.000	94	1007619	4000.0	3954.1	
75 Dibromomethane	93	5.406	5.406	0.000	97	2448497	200.0	205.4	
76 Dichlorobromomethane	83	5.517	5.517	0.000	99	5546497	200.0	203.1	
79 cis-1,3-Dichloropropene	75	5.867	5.867	0.000	94	6907875	200.0	215.3	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	91	17349621	800.0	764.9	e
82 Toluene	91	6.156	6.156	0.000	94	15283275	200.0	174.8	e
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	96	6413059	200.0	217.7	
84 Ethyl methacrylate	69	6.364	6.364	0.000	91	5664025	200.0	215.0	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	94	3407470	200.0	198.9	
86 Tetrachloroethene	164	6.593	6.593	0.000	94	3376050	200.0	199.3	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	94	6183959	200.0	194.5	
88 2-Hexanone	43	6.678	6.678	0.000	98	13019460	800.0	793.8	
89 Chlorodibromomethane	129	6.843	6.843	0.000	91	3660193	200.0	206.0	
90 Ethylene Dibromide	107	6.957	6.957	0.000	99	3405285	200.0	200.8	
91 1-Chlorohexane	91	7.350	7.351	-0.001	96	5957213	200.0	200.8	
92 Chlorobenzene	112	7.386	7.386	0.000	92	10479502	200.0	181.0	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	93	4026049	200.0	213.0	
94 Ethylbenzene	106	7.458	7.465	-0.007	98	6116298	200.0	197.6	e
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	98	7458224	200.0	197.5	
96 o-Xylene	106	7.937	7.937	0.000	95	7124155	200.0	195.6	
97 Styrene	104	7.951	7.951	0.000	92	11616980	200.0	199.7	
98 Bromoform	173	8.130	8.130	0.000	96	2187819	200.0	210.7	
99 Isopropylbenzene	105	8.266	8.273	-0.007	98	16708746	200.0	162.5	e
100 Cyclohexanone	55	8.373	8.373	0.000	94	6871062	8000.0	7999.5	
102 1,1,2,2-Tetrachloroethane	83	8.566	8.559	0.007	96	4535360	200.0	196.0	
103 Bromobenzene	156	8.587	8.588	-0.001	97	4684372	200.0	196.3	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	76	1681829	200.0	202.8	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	85	1584514	200.0	196.4	
106 N-Propylbenzene	120	8.666	8.666	0.000	93	5634674	200.0	186.2	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	4717286	200.0	187.5	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	97	15106131	200.0	172.0	e
109 4-Chlorotoluene	126	8.881	8.881	0.000	97	4920350	200.0	184.4	
110 tert-Butylbenzene	119	9.145	9.145	0.000	92	14517166	200.0	174.5	e
111 1,2,4-Trimethylbenzene	105		9.202				ND	ND	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	4794479	200.0	190.6	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	97	9194515	200.0	190.5	
114 4-Isopropyltoluene	119	9.503	9.510	-0.007	97	16483916	200.0	152.8	e
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	93	9314712	200.0	183.9	
117 n-Butylbenzene	91	9.903	9.910	-0.007	93	15797993	200.0	164.2	e
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	95	9150717	200.0	189.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	84	1210216	200.0	206.5	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	6712810	200.0	195.7	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	3247235	200.0	182.5	
123 Naphthalene	128	11.776	11.784	-0.008	99	16091101	200.0	185.8	e
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	95	6096181	200.0	192.5	
S 137 1,2-Dichloroethene, Total	96				0		400.0	395.3	
S 140 1,3-Dichloropropene, Total	1				0		400.0	433.0	
S 142 Trihalomethanes, Total	1				0		800.0	818.9	
S 138 Xylenes, Total (URS)	1				0		400.0	393.1	
S 144 1,2-Dichloroethene, Total	1				0		400.0	395.3	
S 143 Xylenes, Total	106				0		400.0	393.1	
S 139 Total BTEX	1				0			946.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

e - Potential Peak Saturated

Reagents:

MV-MegaMainA_00014	Amount Added: 200.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added: 5.00	Units: uL	Run Reagent

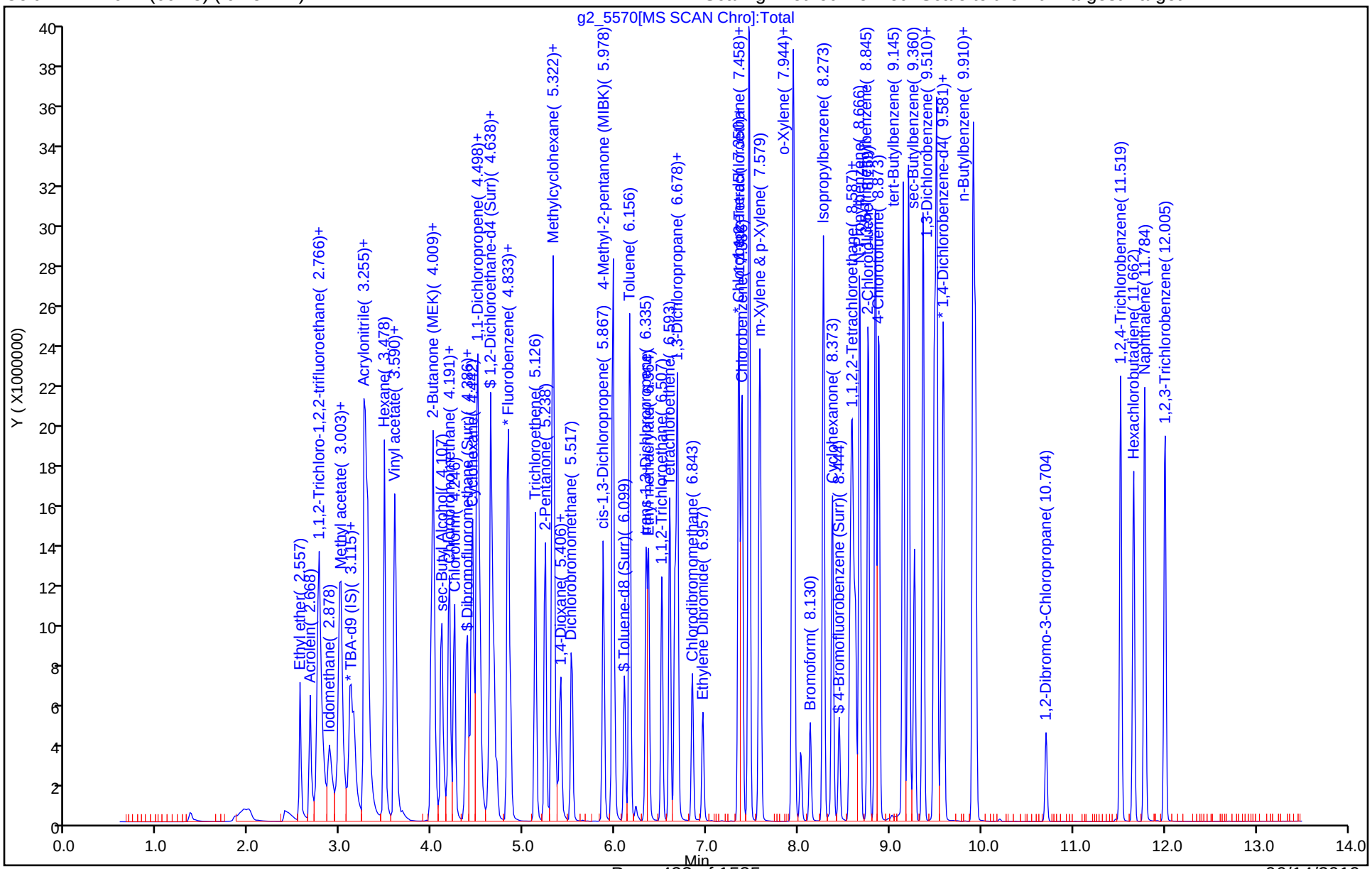
Report Date: 29-May-2019 10:27:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5570.D

Injection Date:	28-May-2019 11:52:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5571.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 28-May-2019 12:14:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub172

Method: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 29-May-2019 10:27:16 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0312

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	88	2807701	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4829188	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	87	1072721	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1803957	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	96	1170189	50.0	51.6	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	96	1548716	50.0	49.4	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4399272	50.0	49.8	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.445	-0.001	88	1665393	50.0	50.0	
22 Ethyl ether	59	2.557	2.557	0.000	94	1972579	100.0	104.8	
24 Acrolein	56	2.668	2.668	0.000	99	3578330	987.5	1014.7	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	93	1796658	100.0	103.5	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	2033680	100.0	102.7	
27 Acetone	43	2.766	2.766	0.000	100	2912665	400.0	412.5	
28 Iodomethane	142	2.878	2.878	0.000	99	3081581	100.0	101.1	
30 Carbon disulfide	76	3.003	2.990	0.013	100	7185764	100.0	102.4	
32 Methyl acetate	43	2.989	2.990	-0.001	98	3875749	200.0	209.8	
33 3-Chloro-1-propene	41	3.003	3.004	-0.001	91	3646696	100.0	102.4	
35 Methylene Chloride	84	3.115	3.115	0.000	97	2146076	100.0	100.7	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	100	2626558	1000.0	1032.2	
39 Acrylonitrile	53	3.255	3.255	0.000	98	8752163	1000.0	1002.0	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	96	4843098	100.0	97.0	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	98	2147339	100.0	101.5	
42 Hexane	57	3.478	3.478	0.000	94	3808464	100.0	100.1	
46 Vinyl acetate	43	3.590	3.590	0.000	97	10199659	200.0	209.8	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	3930882	100.0	101.8	
52 2-Butanone (MEK)	43	3.981	3.981	0.000	100	4600707	400.0	402.3	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	2295315	100.0	101.2	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	87	2767961	100.0	104.7	
55 sec-Butyl Alcohol	45	4.093	4.107	-0.014	99	6617250	3000.0	3033.9	
57 Tetrahydrofuran	42	4.191	4.191	0.000	89	1629951	200.0	209.0	
56 Chlorobromomethane	128	4.191	4.191	0.000	98	1079821	100.0	104.0	
59 Chloroform	83	4.246	4.247	-0.001	94	3835915	100.0	101.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	3475090	100.0	103.5	
61 Cyclohexane	56	4.442	4.442	0.000	91	4713634	100.0	99.6	
63 1,1-Dichloropropene	75	4.498	4.498	0.000	97	3247600	100.0	101.7	
62 Carbon tetrachloride	117	4.498	4.498	0.000	95	3001212	100.0	99.5	
66 Isobutyl alcohol	41	4.512	4.512	0.000	95	2385867	2500.0	2504.1	
64 Benzene	78	4.637	4.638	-0.001	98	8551259	100.0	97.5	
65 1,2-Dichloroethane	62	4.679	4.680	-0.001	97	3300748	100.0	102.9	
67 n-Heptane	43	4.833	4.833	0.000	93	4150553	100.0	97.3	
69 Trichloroethene	95	5.126	5.126	0.000	97	2275534	100.0	103.3	
70 2-Pentanone	43	5.238	5.238	0.000	99	7545129	400.0	409.6	
71 Methylcyclohexane	55	5.308	5.308	0.000	93	3626202	100.0	99.2	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	92	2228507	100.0	99.7	
74 1,4-Dioxane	88	5.378	5.378	0.000	95	534461	2000.0	2032.5	
75 Dibromomethane	93	5.406	5.406	0.000	96	1250947	100.0	102.1	
76 Dichlorobromomethane	83	5.517	5.517	0.000	99	2782787	100.0	99.3	
79 cis-1,3-Dichloropropene	75	5.867	5.867	-0.001	94	3524830	100.0	107.3	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	96	9803642	400.0	419.9	
82 Toluene	91	6.156	6.156	0.000	99	8775469	100.0	97.6	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	96	3281273	100.0	108.4	
84 Ethyl methacrylate	69	6.364	6.364	0.000	91	2889926	100.0	107.2	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	93	1775068	100.0	100.8	
86 Tetrachloroethene	164	6.592	6.593	-0.001	95	1762116	100.0	101.6	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	93	3209741	100.0	98.6	
88 2-Hexanone	43	6.678	6.678	0.000	97	6818804	400.0	405.9	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	1787613	100.0	98.6	
90 Ethylene Dibromide	107	6.957	6.957	0.000	99	1753553	100.0	101.0	
91 1-Chlorohexane	91	7.350	7.351	-0.001	97	3156769	100.0	103.8	
92 Chlorobenzene	112	7.386	7.386	0.000	94	5677808	100.0	95.8	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	92	2030469	100.0	104.9	
94 Ethylbenzene	106	7.465	7.465	0.000	99	3188875	100.0	100.6	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	3903015	100.0	101.0	
96 o-Xylene	106	7.937	7.937	0.000	97	3747083	100.0	100.5	
97 Styrene	104	7.951	7.951	0.000	95	6197647	100.0	104.1	
98 Bromoform	173	8.130	8.130	0.000	96	1030419	100.0	97.3	
99 Isopropylbenzene	105	8.273	8.273	0.000	98	10025988	100.0	100.7	
100 Cyclohexanone	55	8.373	8.373	0.000	94	3601033	4000.0	4094.3	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	2289730	100.0	102.0	
103 Bromobenzene	156	8.587	8.588	-0.001	96	2420591	100.0	104.6	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	76	805684	100.0	100.4	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	85	800274	100.0	102.3	
106 N-Propylbenzene	120	8.666	8.666	0.000	98	2934844	100.0	100.1	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	2433169	100.0	99.9	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	95	8536220	100.0	100.4	
109 4-Chlorotoluene	126	8.881	8.881	0.000	97	2502184	100.0	96.8	
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	7831569	100.0	97.2	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	98	8555660	100.0	96.9	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	2444081	100.0	100.3	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	98	4673406	100.0	100.0	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	10218606	100.0	97.8	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	93	4731542	100.0	96.4	
117 n-Butylbenzene	91	9.910	9.910	0.000	98	9315996	100.0	100.0	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	96	4570451	100.0	97.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	83	561021	100.0	99.0	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	3531868	100.0	106.1	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	1690851	100.0	98.1	
123 Naphthalene	128	11.784	11.784	0.000	98	9169830	100.0	109.1	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	95	3219155	100.0	104.8	
S 137 1,2-Dichloroethene, Total	96				0		200.0	202.8	
S 139 Total BTEX	1				0			497.2	
S 143 Xylenes, Total	106				0		200.0	201.4	
S 144 1,2-Dichloroethene, Total	1				0		200.0	202.8	
S 138 Xylenes, Total (URS)	1				0		200.0	201.4	
S 142 Trihalomethanes, Total	1				0		400.0	396.2	
S 140 1,3-Dichloropropene, Total	1				0		200.0	215.6	

Reagents:

MV-MegaMainA_00014	Amount Added: 100.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added: 5.00	Units: uL	Run Reagent

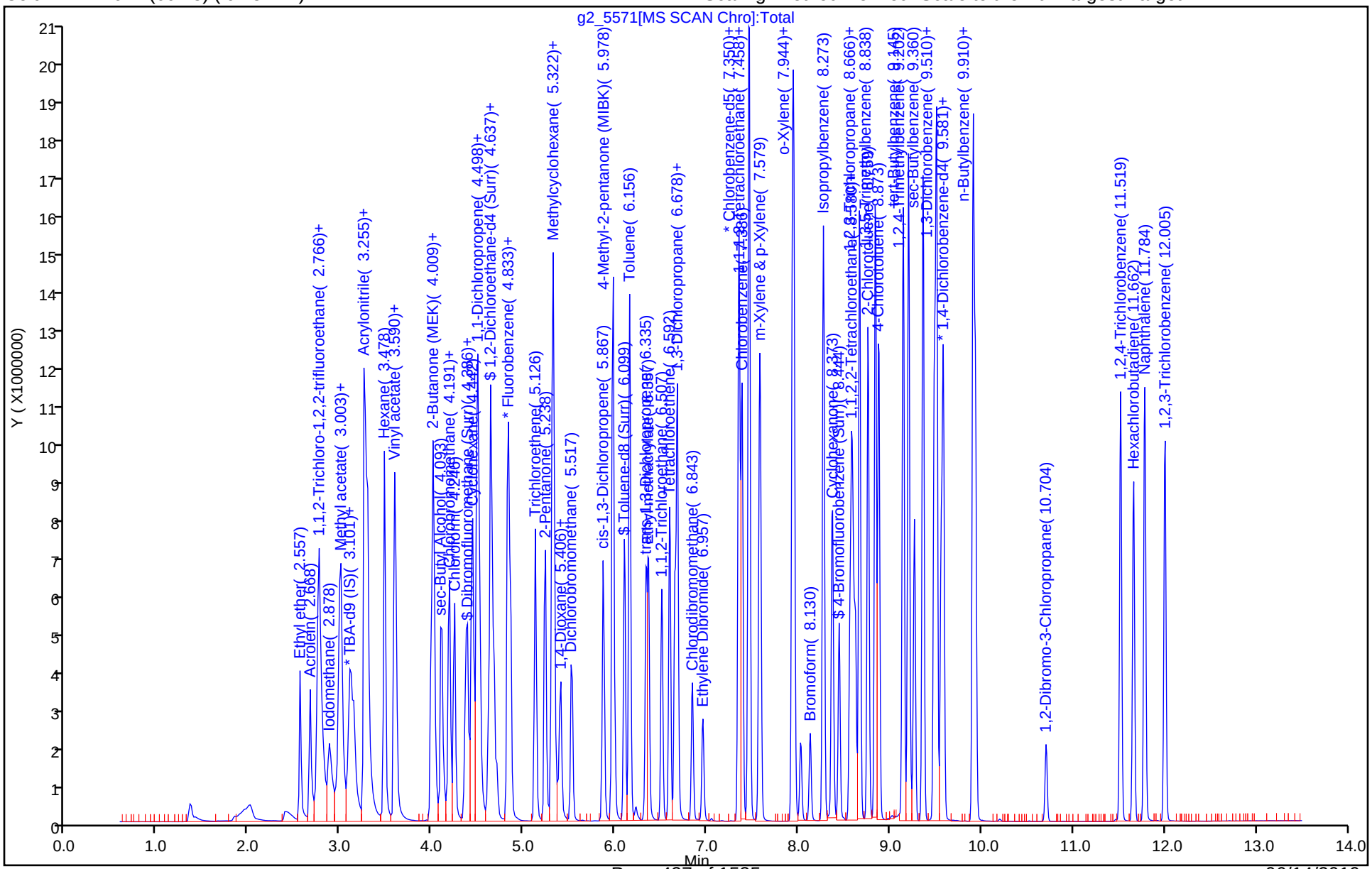
Report Date: 29-May-2019 10:27:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5571.D

Injection Date:	28-May-2019 12:14:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5572.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 28-May-2019 12:35:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub172

Method: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 29-May-2019 10:27:32 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0312

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 TBA-d9 (IS)	65	3.087	3.087	0.000	87	2760879	1000.0	1000.0	
*	2 Fluorobenzene	96	4.861	4.861	0.000	99	4786311	50.0	50.0	
*	3 Chlorobenzene-d5	119	7.358	7.358	0.000	87	1069793	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	95	1772209	50.0	50.0	
$	6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1125637	50.0	50.1	
$	7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	98	1504337	50.0	48.5	
$	8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4377323	50.0	49.7	
$	9 4-Bromofluorobenzene (Surr	95	8.445	8.445	0.000	88	1635576	50.0	50.0	
	22 Ethyl ether	59	2.557	2.557	0.000	95	1041275	50.0	55.5	
	24 Acrolein	56	2.668	2.668	0.000	99	1811969	493.8	517.2	
	26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	92	901242	50.0	52.4	
	25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	1002854	50.0	51.1	
	27 Acetone	43	2.766	2.766	0.000	99	1499958	200.0	211.1	
	28 Iodomethane	142	2.878	2.878	0.000	100	1549686	50.0	51.3	
	30 Carbon disulfide	76	2.990	2.990	0.000	100	3762808	50.0	54.1	
	32 Methyl acetate	43	2.990	2.990	0.000	98	1911007	100.0	104.1	
	33 3-Chloro-1-propene	41	3.004	3.004	0.000	91	1861317	50.0	52.8	
	35 Methylene Chloride	84	3.115	3.115	0.000	97	1060062	50.0	50.0	
	37 2-Methyl-2-propanol	59	3.143	3.143	0.000	100	1156611	500.0	454.8	
	39 Acrylonitrile	53	3.255	3.255	0.000	99	4435719	500.0	512.4	
	41 Methyl tert-butyl ether	73	3.283	3.283	0.000	95	2457585	50.0	49.7	
	40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	97	1048926	50.0	50.0	
	42 Hexane	57	3.478	3.478	0.000	94	1913657	50.0	50.4	
	46 Vinyl acetate	43	3.590	3.590	0.000	97	5144089	100.0	106.7	
	45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	1934401	50.0	50.5	
	52 2-Butanone (MEK)	43	3.981	3.981	0.000	100	2245431	200.0	198.2	
	51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	1135587	50.0	50.5	
	50 2,2-Dichloropropane	77	4.023	4.023	0.000	88	1365350	50.0	52.1	
	55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	3204345	1500.0	1482.1	
	57 Tetrahydrofuran	42	4.191	4.191	0.000	90	783592	100.0	100.8	
	56 Chlorobromomethane	128	4.191	4.191	0.000	98	524636	50.0	51.0	
	59 Chloroform	83	4.247	4.247	0.000	94	1873556	50.0	49.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	1698283	50.0	51.0	
61 Cyclohexane	56	4.442	4.442	0.000	92	2363687	50.0	50.4	
63 1,1-Dichloropropene	75	4.498	4.498	0.000	96	1581848	50.0	50.0	
62 Carbon tetrachloride	117	4.498	4.498	0.000	87	1413889	50.0	47.5	
66 Isobutyl alcohol	41	4.512	4.512	0.000	95	1132197	1250.0	1200.1	
64 Benzene	78	4.638	4.638	0.000	98	4312221	50.0	49.6	
65 1,2-Dichloroethane	62	4.680	4.680	0.000	97	1630898	50.0	51.2	
67 n-Heptane	43	4.833	4.833	0.000	93	2024502	50.0	47.9	
69 Trichloroethene	95	5.126	5.126	0.000	97	1113027	50.0	51.0	
70 2-Pentanone	43	5.238	5.238	0.000	99	3716960	200.0	203.3	
71 Methylcyclohexane	55	5.308	5.308	0.000	93	1803308	50.0	49.8	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	92	1120988	50.0	50.4	
74 1,4-Dioxane	88	5.378	5.378	0.000	93	266617	1000.0	1015.4	
75 Dibromomethane	93	5.406	5.406	0.000	96	602991	50.0	49.7	
76 Dichlorobromomethane	83	5.517	5.517	0.000	99	1330883	50.0	48.1	
79 cis-1,3-Dichloropropene	75	5.867	5.867	0.000	94	1724610	50.0	52.6	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	97	4945736	200.0	213.2	
82 Toluene	91	6.156	6.156	0.000	98	4437794	50.0	49.8	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	95	1591083	50.0	53.0	
84 Ethyl methacrylate	69	6.364	6.364	0.000	92	1397180	50.0	51.9	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	93	878032	50.0	50.3	
86 Tetrachloroethene	164	6.593	6.593	0.000	96	858302	50.0	49.6	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	93	1601721	50.0	49.4	
88 2-Hexanone	43	6.678	6.678	0.000	97	3372340	200.0	201.1	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	838540	50.0	46.7	
90 Ethylene Dibromide	107	6.957	6.957	0.000	98	858353	50.0	49.6	
91 1-Chlorohexane	91	7.351	7.351	0.000	96	1552170	50.0	51.1	
92 Chlorobenzene	112	7.386	7.386	0.000	94	2838921	50.0	48.0	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	93	984613	50.0	51.0	
94 Ethylbenzene	106	7.465	7.465	0.000	99	1563669	50.0	49.5	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	1938203	50.0	50.3	
96 o-Xylene	106	7.937	7.937	0.000	97	1857220	50.0	49.9	
97 Styrene	104	7.951	7.951	0.000	95	3066764	50.0	51.6	
98 Bromoform	173	8.130	8.130	0.000	96	458444	50.0	43.8	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	5103698	50.0	52.2	
100 Cyclohexanone	55	8.373	8.373	0.000	95	1685085	2000.0	1920.5	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	1141372	50.0	51.6	
103 Bromobenzene	156	8.588	8.588	0.000	96	1195180	50.0	52.5	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	89	373844	50.0	47.6	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	81	392995	50.0	51.1	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	1447773	50.0	50.3	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	1192376	50.0	49.8	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	95	4235783	50.0	50.7	
109 4-Chlorotoluene	126	8.881	8.881	0.000	97	1221972	50.0	48.1	
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	3895353	50.0	49.2	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	97	4247461	50.0	49.0	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	1185342	50.0	49.5	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	98	2299698	50.0	50.1	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	5109546	50.0	49.8	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	93	2341297	50.0	48.6	
117 n-Butylbenzene	91	9.910	9.910	0.000	98	4688447	50.0	51.2	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	2275194	50.0	49.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	83	253838	50.0	45.8	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	1719402	50.0	52.4	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	826615	50.0	48.8	
123 Naphthalene	128	11.784	11.784	0.000	97	4508128	50.0	54.4	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	95	1579817	50.0	52.2	
S 137 1,2-Dichloroethene, Total	96				0		100.0	100.6	
S 140 1,3-Dichloropropene, Total	1				0		100.0	105.6	
S 142 Trihalomethanes, Total	1				0		200.0	188.3	
S 138 Xylenes, Total (URS)	1				0		100.0	100.2	
S 144 1,2-Dichloroethene, Total	1				0		100.0	100.6	
S 143 Xylenes, Total	106				0		100.0	100.2	

Reagents:

MV-MegaMainA_00014	Amount Added: 50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added: 5.00	Units: uL	Run Reagent

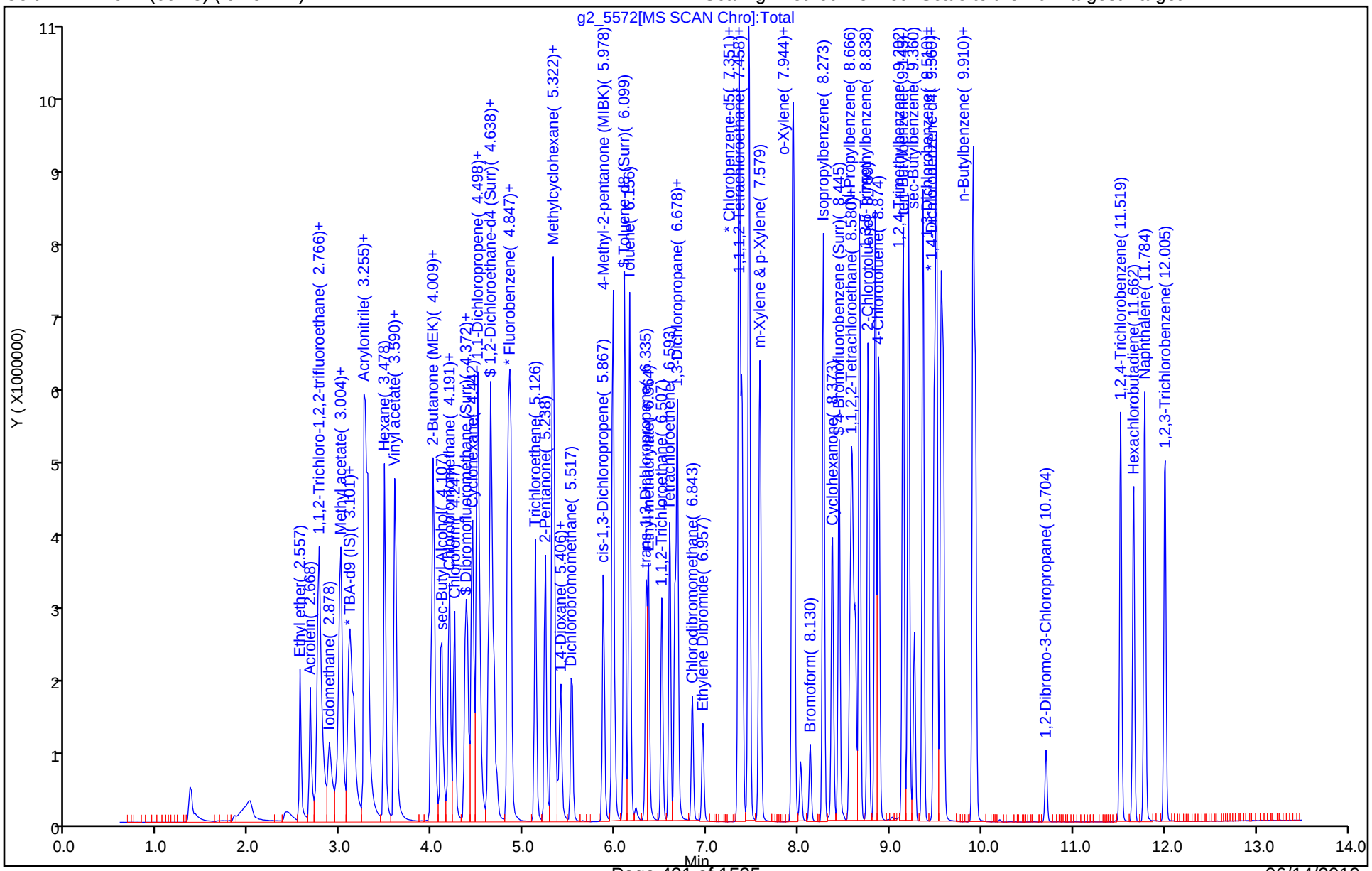
Report Date: 29-May-2019 10:27:35 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5572.D

Injection Date:	28-May-2019 12:35:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	icis			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5573.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 28-May-2019 12:56:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub172

Method: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 29-May-2019 10:27:47 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0312

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	83	2758324	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4688082	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	87	1048751	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1709739	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1097587	50.0	49.9	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	99	1517304	50.0	49.9	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4290471	50.0	49.7	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.445	-0.001	88	1601878	50.0	50.8	
22 Ethyl ether	59	2.557	2.557	0.000	94	229516	10.0	12.0	
24 Acrolein	56	2.668	2.668	0.000	99	368221	98.8	105.3	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	94	183400	10.0	10.9	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	96	200627	10.0	10.4	
27 Acetone	43	2.766	2.766	0.000	100	386722	40.0	50.6	
28 Iodomethane	142	2.878	2.878	0.000	100	311647	10.0	10.5	
30 Carbon disulfide	76	2.990	2.990	0.000	100	730026	10.0	10.7	
32 Methyl acetate	43	2.990	2.990	0.000	98	376016	20.0	20.5	
33 3-Chloro-1-propene	41	3.003	3.004	-0.001	92	367779	10.0	10.6	
35 Methylene Chloride	84	3.115	3.115	0.000	97	220250	10.0	10.3	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	100	240319	100.0	91.0	
39 Acrylonitrile	53	3.269	3.255	0.014	99	892910	100.0	105.3	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	95	494813	10.0	10.2	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	97	212081	10.0	10.3	
42 Hexane	57	3.478	3.478	0.000	94	395404	10.0	10.6	
46 Vinyl acetate	43	3.590	3.590	0.000	97	980252	20.0	20.8	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	97	395587	10.0	10.6	
52 2-Butanone (MEK)	43	3.995	3.981	0.014	100	430125	40.0	38.9	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	221567	10.0	10.1	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	87	264435	10.0	10.3	
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	610460	300.0	287.9	
57 Tetrahydrofuran	42	4.191	4.191	0.000	91	164335	20.0	20.8	
56 Chlorobromomethane	128	4.191	4.191	0.000	97	99983	10.0	9.92	
59 Chloroform	83	4.246	4.247	-0.001	93	378457	10.0	10.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	338562	10.0	10.4	
61 Cyclohexane	56	4.442	4.442	0.000	92	468838	10.0	10.2	
63 1,1-Dichloropropene	75	4.498	4.498	0.000	96	315068	10.0	10.2	
62 Carbon tetrachloride	117	4.498	4.498	0.000	83	259936	10.0	9.28	
66 Isobutyl alcohol	41	4.526	4.512	0.014	93	207701	250.0	226.6	
64 Benzene	78	4.638	4.638	0.000	95	879612	10.0	10.3	
65 1,2-Dichloroethane	62	4.679	4.680	-0.001	96	323915	10.0	10.2	
67 n-Heptane	43	4.833	4.833	0.000	95	418594	10.0	10.1	
69 Trichloroethene	95	5.126	5.126	0.000	96	219637	10.0	10.3	
70 2-Pentanone	43	5.238	5.238	0.000	99	709334	40.0	39.1	
71 Methylcyclohexane	55	5.308	5.308	0.000	93	366650	10.0	10.3	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	94	236686	10.0	10.5	
74 1,4-Dioxane	88	5.378	5.378	0.000	94	54993	200.0	201.6	
75 Dibromomethane	93	5.406	5.406	0.000	95	117094	10.0	9.84	
76 Dichlorobromomethane	83	5.517	5.517	0.000	99	249351	10.0	9.48	
79 cis-1,3-Dichloropropene	75	5.867	5.867	0.000	93	327711	10.0	10.2	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	97	995917	40.0	43.0	
82 Toluene	91	6.156	6.156	0.000	99	904659	10.0	10.4	
83 trans-1,3-Dichloropropene	75	6.342	6.335	0.007	95	294683	10.0	10.0	
84 Ethyl methacrylate	69	6.364	6.364	0.000	90	263504	10.0	10.0	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	91	170262	10.0	9.96	
86 Tetrachloroethene	164	6.593	6.593	0.000	95	171571	10.0	10.1	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	94	307342	10.0	9.66	
88 2-Hexanone	43	6.678	6.678	0.000	98	651251	40.0	39.3	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	141790	10.0	8.52	
90 Ethylene Dibromide	107	6.957	6.957	0.000	98	166605	10.0	9.81	
91 1-Chlorohexane	91	7.350	7.351	-0.001	94	313481	10.0	10.3	
92 Chlorobenzene	112	7.386	7.386	0.000	95	569211	10.0	9.82	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	93	179913	10.0	9.51	
94 Ethylbenzene	106	7.465	7.465	0.000	99	306355	10.0	9.89	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	385587	10.0	10.2	
96 o-Xylene	106	7.937	7.937	0.000	97	369181	10.0	10.1	
97 Styrene	104	7.951	7.951	0.000	95	588502	10.0	10.1	
98 Bromoform	173	8.130	8.130	0.000	96	75732	10.0	7.91	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	1025776	10.0	10.9	
100 Cyclohexanone	55	8.373	8.373	0.000	95	332665	400.0	385.8	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	95	227395	10.0	10.5	
103 Bromobenzene	156	8.587	8.588	-0.001	93	229867	10.0	10.3	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	80	66966	10.0	9.02	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	84	77327	10.0	10.3	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	284535	10.0	10.2	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	236748	10.0	10.3	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	94	841069	10.0	10.4	
109 4-Chlorotoluene	126	8.881	8.881	0.000	97	242794	10.0	9.91	
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	769501	10.0	10.1	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	97	841614	10.0	10.1	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	234023	10.0	10.1	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	98	449993	10.0	10.2	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	1024379	10.0	10.3	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	96	463883	10.0	9.98	
117 n-Butylbenzene	91	9.910	9.910	0.000	98	935894	10.0	10.6	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	445931	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	78	43951	10.0	8.50	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	93	337029	10.0	10.4	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	167494	10.0	10.3	
123 Naphthalene	128	11.784	11.784	0.000	97	904889	10.0	11.0	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	95	320525	10.0	10.7	
S 137 1,2-Dichloroethene, Total	96				0		20.0	20.4	
S 139 Total BTEX	1				0			50.9	
S 143 Xylenes, Total	106				0		20.0	20.3	
S 144 1,2-Dichloroethene, Total	1				0		20.0	20.4	
S 138 Xylenes, Total (URS)	1				0		20.0	20.3	
S 142 Trihalomethanes, Total	1				0		40.0	36.2	
S 140 1,3-Dichloropropene, Total	1				0		20.0	20.2	

Reagents:

MV-MegaMainA_00014	Amount Added:	10.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

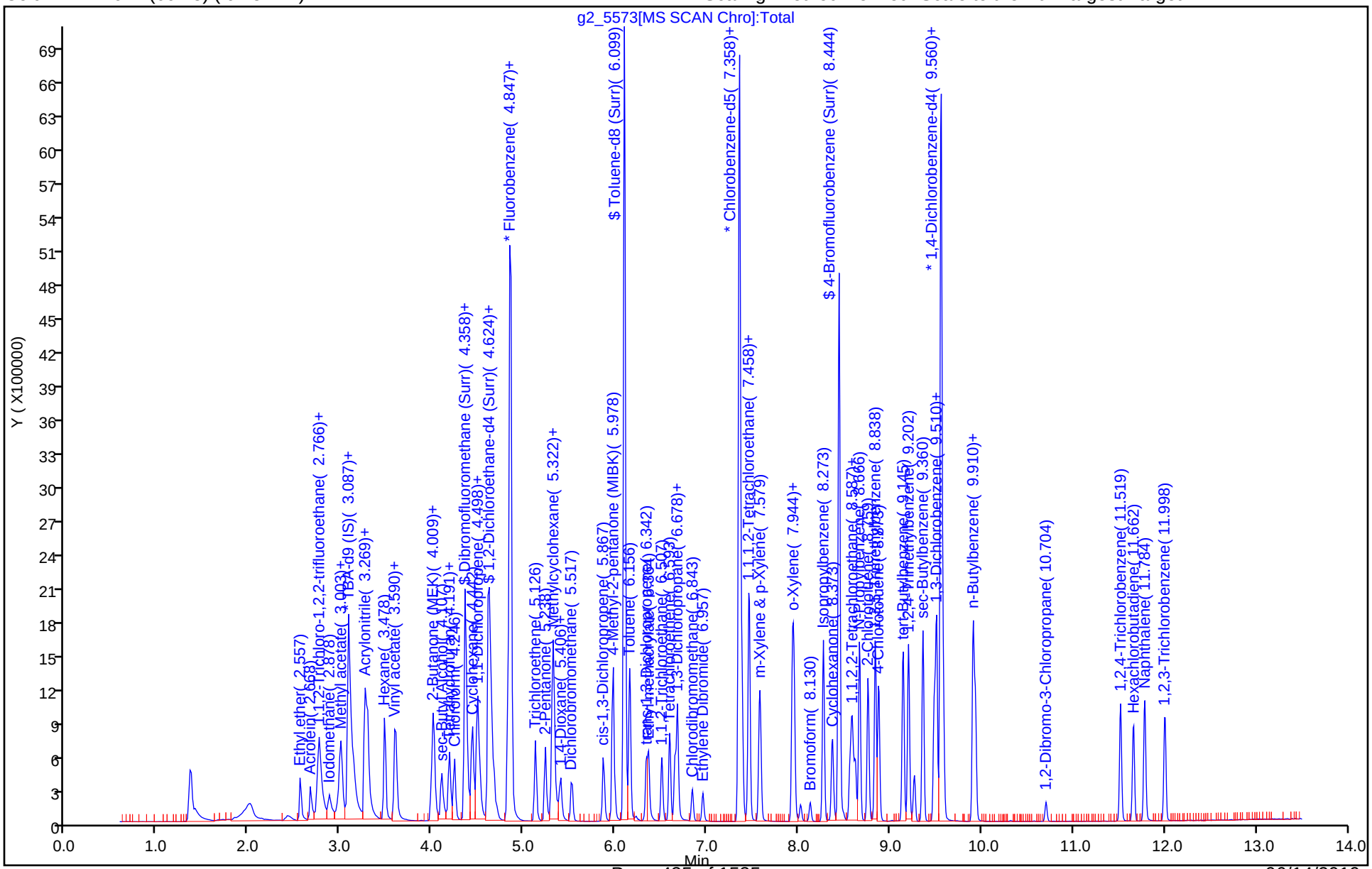
Report Date: 29-May-2019 10:27:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5573.D

Injection Date:	28-May-2019 12:56:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5574.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 28-May-2019 13:18:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub172

Method: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 29-May-2019 10:28:00 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0312

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2770210	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4657930	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	1028806	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1686238	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1071895	50.0	49.0	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.609	4.610	-0.001	99	1517323	50.0	50.2	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	95	4270372	50.0	50.4	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.445	-0.001	89	1565010	50.0	50.3	
22 Ethyl ether	59	2.556	2.557	-0.001	95	50329	2.00	2.10	
24 Acrolein	56	2.682	2.668	0.014	99	65832	19.8	16.8	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	91	32361	2.00	1.93	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	94	34549	2.00	1.81	
27 Acetone	43	2.766	2.766	0.000	98	119987	8.00	11.2	
28 Iodomethane	142	2.878	2.878	0.000	98	54540	2.00	1.86	
30 Carbon disulfide	76	3.003	2.990	0.013	92	122497	2.00	1.81	
32 Methyl acetate	43	2.989	2.990	-0.001	97	74509	4.00	3.70	
33 3-Chloro-1-propene	41	3.003	3.004	-0.001	91	63096	2.00	1.84	
35 Methylene Chloride	84	3.115	3.115	0.000	98	46948	2.00	1.95	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	98	65329	20.0	19.9	
39 Acrylonitrile	53	3.269	3.255	0.014	100	147335	20.0	17.5	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	96	90572	2.00	1.88	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	98	38830	2.00	1.90	
42 Hexane	57	3.478	3.478	0.000	94	69575	2.00	1.91	
46 Vinyl acetate	43	3.590	3.590	0.000	97	170759	4.00	3.64	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	97	67629	2.00	1.82	
52 2-Butanone (MEK)	43	3.995	3.981	0.014	99	78093	8.00	7.25	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	83	39809	2.00	1.82	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	87	46072	2.00	1.81	
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	113750	60.0	53.6	
57 Tetrahydrofuran	42	4.191	4.191	-0.001	89	34826	4.00	3.62	
56 Chlorobromomethane	128	4.191	4.191	-0.001	97	18654	2.00	1.86	
59 Chloroform	83	4.246	4.247	-0.001	95	68832	2.00	1.88	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	97	58633	2.00	1.81	
61 Cyclohexane	56	4.442	4.442	0.000	90	82297	2.00	1.80	
63 1,1-Dichloropropene	75	4.498	4.498	0.000	96	56868	2.00	1.85	
62 Carbon tetrachloride	117	4.498	4.498	0.000	77	41866	2.00	1.87	
66 Isobutyl alcohol	41	4.526	4.512	0.014	92	45601	50.0	51.8	
64 Benzene	78	4.637	4.638	-0.001	93	158626	2.00	1.88	
65 1,2-Dichloroethane	62	4.679	4.680	-0.001	96	63434	2.00	1.78	
67 n-Heptane	43	4.833	4.833	0.000	92	73884	2.00	1.80	
69 Trichloroethene	95	5.126	5.126	0.000	97	39683	2.00	1.87	
70 2-Pentanone	43	5.238	5.238	0.000	99	144606	8.00	7.51	
71 Methylcyclohexane	55	5.308	5.308	0.000	94	68789	2.00	1.95	
72 1,2-Dichloropropane	63	5.336	5.322	0.014	82	48865	2.00	1.87	
74 1,4-Dioxane	88	5.378	5.378	0.000	54	12412	40.0	33.9	
75 Dibromomethane	93	5.406	5.406	0.000	94	21843	2.00	1.85	
76 Dichlorobromomethane	83	5.531	5.517	0.014	97	40636	2.00	1.84	
79 cis-1,3-Dichloropropene	75	5.866	5.867	-0.001	94	56962	2.00	1.81	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	96	185455	8.00	7.20	
82 Toluene	91	6.156	6.156	0.000	99	164612	2.00	1.90	
83 trans-1,3-Dichloropropene	75	6.342	6.335	0.007	95	48951	2.00	1.68	
84 Ethyl methacrylate	69	6.364	6.364	0.000	92	45456	2.00	1.76	
85 1,1,2-Trichloroethane	97	6.514	6.507	0.007	93	32769	2.00	1.93	
86 Tetrachloroethene	164	6.600	6.593	0.007	94	30681	2.00	1.84	
87 1,3-Dichloropropane	76	6.657	6.650	0.007	93	59773	2.00	1.92	
88 2-Hexanone	43	6.678	6.678	0.000	95	130924	8.00	7.76	
89 Chlorodibromomethane	129	6.843	6.843	0.000	91	24286	2.00	1.96	
90 Ethylene Dibromide	107	6.957	6.957	0.000	98	29381	2.00	1.76	
91 1-Chlorohexane	91	7.350	7.351	-0.001	91	59749	2.00	1.83	
92 Chlorobenzene	112	7.386	7.386	0.000	95	109747	2.00	1.93	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	91	32322	2.00	1.74	
94 Ethylbenzene	106	7.465	7.465	0.000	99	57212	2.00	1.88	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	69882	2.00	1.88	
96 o-Xylene	106	7.937	7.937	0.000	97	66501	2.00	1.86	
97 Styrene	104	7.958	7.951	0.007	96	103813	2.00	1.82	
98 Bromoform	173	8.123	8.130	-0.007	96	14181	2.00	2.03	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	185956	2.00	2.00	
100 Cyclohexanone	55	8.373	8.373	0.000	93	64758	80.0	75.6	
102 1,1,2,2-Tetrachloroethane	83	8.566	8.559	0.007	96	45905	2.00	1.93	
103 Bromobenzene	156	8.587	8.588	-0.001	95	45006	2.00	1.88	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	73	13797	2.00	2.07	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	84	15556	2.00	1.94	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	52114	2.00	1.90	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	42588	2.00	1.87	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	96	148358	2.00	1.87	
109 4-Chlorotoluene	126	8.881	8.881	-0.001	97	46138	2.00	1.91	
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	142683	2.00	1.89	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	98	153620	2.00	1.86	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	42879	2.00	1.88	
113 1,3-Dichlorobenzene	146	9.488	9.481	0.007	98	84472	2.00	1.93	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	187345	2.00	1.92	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	95	94143	2.00	2.05	
117 n-Butylbenzene	91	9.910	9.910	0.000	98	180857	2.00	2.08	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	86538	2.00	1.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
119 1,2-Dibromo-3-Chloropropan	157	10.711	10.704	0.007	80	8640	2.00	1.97	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	64067	2.00	1.74	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	96	31871	2.00	1.98	
123 Naphthalene	128	11.784	11.784	0.000	97	177171	2.00	1.82	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	95	65455	2.00	1.93	
S 137 1,2-Dichloroethene, Total	96				0		4.00	3.72	
S 140 1,3-Dichloropropene, Total	1				0		4.00	3.48	
S 142 Trihalomethanes, Total	1				0		8.00	7.71	
S 138 Xylenes, Total (URS)	1				0		4.00	3.74	
S 144 1,2-Dichloroethene, Total	1				0		4.00	3.72	
S 143 Xylenes, Total	106				0		4.00	3.74	
S 139 Total BTEX	1				0			9.40	

Reagents:

MV-MegaMainA_00014	Amount Added:	2.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

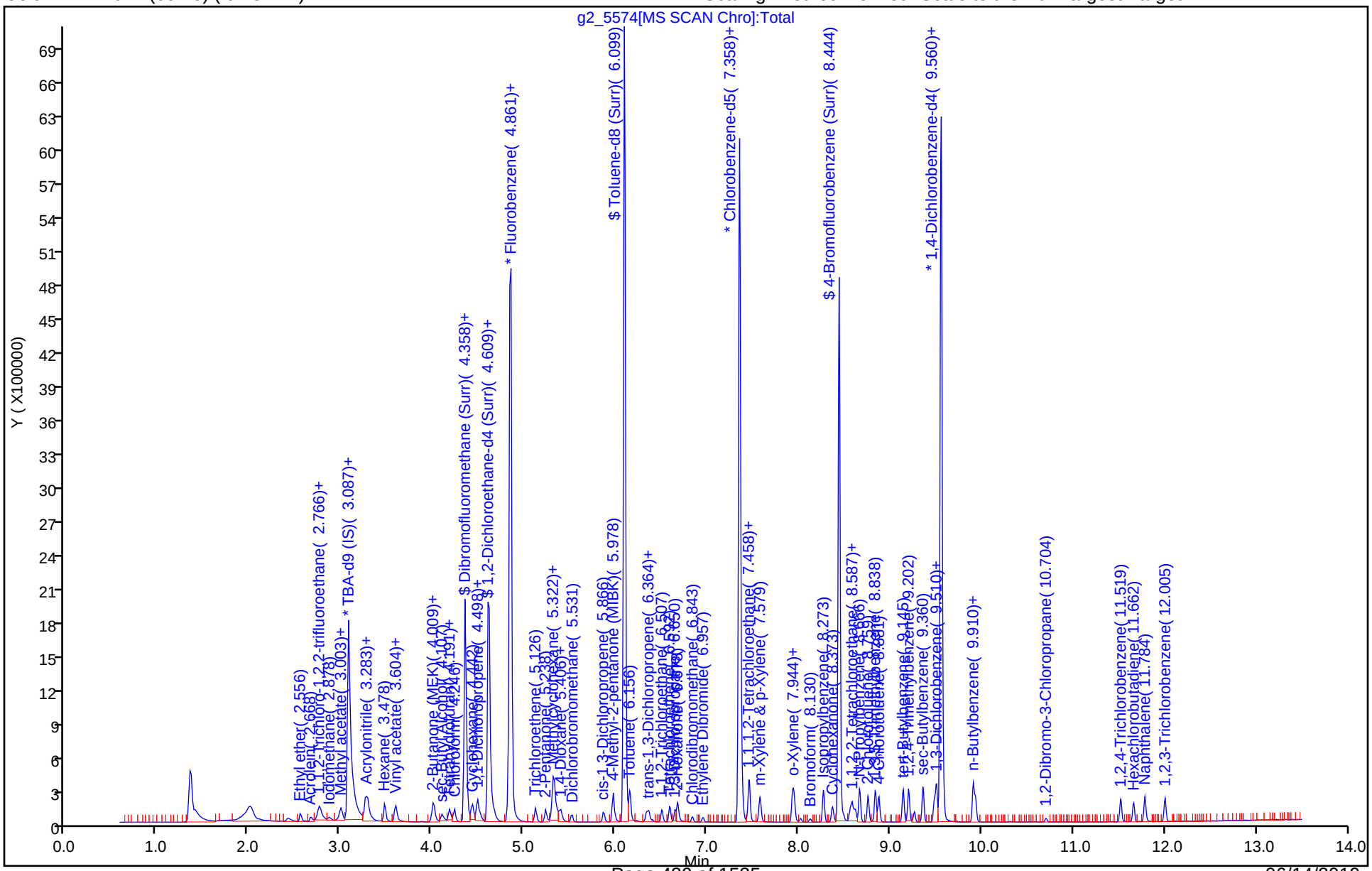
Report Date: 29-May-2019 10:28:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5574.D

Injection Date:	28-May-2019 13:18:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5575.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 28-May-2019 13:39:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub172

Method: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 29-May-2019 10:28:12 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0312

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2841500	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4581598	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.357	7.358	-0.001	88	1018306	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1660911	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	92	1046006	50.0	48.6	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.609	4.610	-0.001	100	1491345	50.0	50.2	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4201071	50.0	50.1	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.445	-0.001	89	1546661	50.0	50.5	
22 Ethyl ether	59	2.556	2.557	-0.001	95	23886	1.00	0.6557	
24 Acrolein	56	2.682	2.668	0.014	98	38946	9.88	9.10	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	93	14786	1.00	0.8974	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	18671	1.00	0.99	
27 Acetone	43	2.780	2.766	0.014	99	66774	4.00	3.41	
28 Iodomethane	142	2.878	2.878	0.000	99	28483	1.00	0.9852	
30 Carbon disulfide	76	2.989	2.990	-0.001	94	62834	1.00	0.9437	
32 Methyl acetate	43	2.989	2.990	-0.001	96	38384	2.00	1.71	
33 3-Chloro-1-propene	41	3.003	3.004	-0.001	84	29968	1.00	0.8873	
35 Methylene Chloride	84	3.115	3.115	0.000	94	28090	1.00	1.05	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	99	44017	10.0	11.4	
39 Acrylonitrile	53	3.269	3.255	0.014	98	84122	10.0	10.2	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	96	47082	1.00	0.99	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	95	18379	1.00	0.9161	
42 Hexane	57	3.478	3.478	0.000	94	35975	1.00	1.00	
46 Vinyl acetate	43	3.590	3.590	0.000	97	94918	2.00	2.06	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	36062	1.00	0.9842	
52 2-Butanone (MEK)	43	3.995	3.981	0.014	99	46910	4.00	4.49	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	21899	1.00	1.02	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	87	23721	1.00	0.9457	
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	72100	30.0	34.4	
57 Tetrahydrofuran	42	4.190	4.191	-0.001	90	20568	2.00	1.76	
56 Chlorobromomethane	128	4.190	4.191	-0.001	94	9179	1.00	0.9318	
59 Chloroform	83	4.246	4.247	-0.001	93	35669	1.00	0.99	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	97	29691	1.00	0.9321	
61 Cyclohexane	56	4.442	4.442	0.000	92	47496	1.00	1.06	
63 1,1-Dichloropropene	75	4.498	4.498	0.000	96	29689	1.00	0.9801	
62 Carbon tetrachloride	117	4.498	4.498	0.000	75	21083	1.00	1.17	
66 Isobutyl alcohol	41	4.526	4.512	0.014	93	22416	25.0	27.0	
64 Benzene	78	4.637	4.638	-0.001	92	83016	1.00	1.00	
65 1,2-Dichloroethane	62	4.679	4.680	-0.001	95	36554	1.00	0.9322	
67 n-Heptane	43	4.833	4.833	0.000	89	41654	1.00	1.03	
69 Trichloroethene	95	5.126	5.126	0.000	94	19929	1.00	0.9535	
70 2-Pentanone	43	5.238	5.238	0.000	99	85060	4.00	4.23	
71 Methylcyclohexane	55	5.308	5.308	0.000	95	33947	1.00	0.9787	
72 1,2-Dichloropropane	63	5.336	5.322	0.014	52	30124	1.00	1.03	
74 1,4-Dioxane	88	5.378	5.378	0.000	40	9387	20.0	22.5	
75 Dibromomethane	93	5.406	5.406	0.000	94	11397	1.00	0.9804	
76 Dichlorobromomethane	83	5.531	5.517	0.014	97	21863	1.00	1.16	
79 cis-1,3-Dichloropropene	75	5.866	5.867	-0.001	93	28070	1.00	0.9000	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	98	107486	4.00	3.81	
82 Toluene	91	6.156	6.156	0.000	98	87408	1.00	1.02	
83 trans-1,3-Dichloropropene	75	6.349	6.335	0.014	95	26073	1.00	0.9075	
84 Ethyl methacrylate	69	6.364	6.364	0.000	88	23968	1.00	0.9362	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	91	17235	1.00	1.03	
86 Tetrachloroethene	164	6.592	6.593	-0.001	95	16669	1.00	1.01	
87 1,3-Dichloropropane	76	6.657	6.650	0.007	92	30408	1.00	0.9843	
88 2-Hexanone	43	6.678	6.678	0.000	96	71981	4.00	4.14	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	11313	1.00	1.22	
90 Ethylene Dibromide	107	6.957	6.957	0.000	92	17252	1.00	1.05	
91 1-Chlorohexane	91	7.350	7.351	-0.001	82	33467	1.00	0.9369	
92 Chlorobenzene	112	7.386	7.386	0.000	93	57561	1.00	1.02	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	81	17524	1.00	0.9540	
94 Ethylbenzene	106	7.465	7.465	0.000	99	27305	1.00	0.9076	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	35896	1.00	0.9781	
96 o-Xylene	106	7.937	7.937	0.000	96	34604	1.00	0.9776	
97 Styrene	104	7.951	7.951	0.000	96	51939	1.00	0.9187	
98 Bromoform	173	8.130	8.130	0.000	90	6572	1.00	1.29	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	96531	1.00	1.05	
100 Cyclohexanone	55	8.373	8.373	0.000	93	37913	40.0	44.3	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	25018	1.00	0.9541	
103 Bromobenzene	156	8.587	8.588	-0.001	95	22994	1.00	0.8789	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	67	6360	1.00	1.09	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	83	8351	1.00	0.9746	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	26539	1.00	0.9833	
107 2-Chlorotoluene	126	8.759	8.759	0.000	95	20865	1.00	0.9300	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	93	77346	1.00	0.9878	
109 4-Chlorotoluene	126	8.880	8.881	-0.001	96	23860	1.00	1.00	
110 tert-Butylbenzene	119	9.145	9.145	0.000	93	75107	1.00	1.01	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	98	78122	1.00	0.9612	
112 sec-Butylbenzene	134	9.360	9.360	0.000	96	22261	1.00	0.99	
113 1,3-Dichlorobenzene	146	9.488	9.481	0.007	97	45776	1.00	1.06	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	98	99429	1.00	1.03	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	94	50646	1.00	1.12	
117 n-Butylbenzene	91	9.910	9.910	0.000	98	90596	1.00	1.06	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	96	46870	1.00	1.09	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	73	4577	1.00	1.22	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	90	39030	1.00	0.9484	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	94	17670	1.00	1.11	
123 Naphthalene	128	11.783	11.784	-0.001	97	102506	1.00	0.8854	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	94	35728	1.00	0.9115	
S 137 1,2-Dichloroethene, Total	96				0		2.00	1.93	
S 139 Total BTEX	1				0			4.89	
S 143 Xylenes, Total	106				0		2.00	1.96	
S 144 1,2-Dichloroethene, Total	1				0		2.00	1.93	
S 138 Xylenes, Total (URS)	1				0		2.00	1.96	
S 142 Trihalomethanes, Total	1				0		4.00	4.67	
S 140 1,3-Dichloropropene, Total	1				0		2.00	1.81	

Reagents:

MV-MegaMainA_00014	Amount Added:	1.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

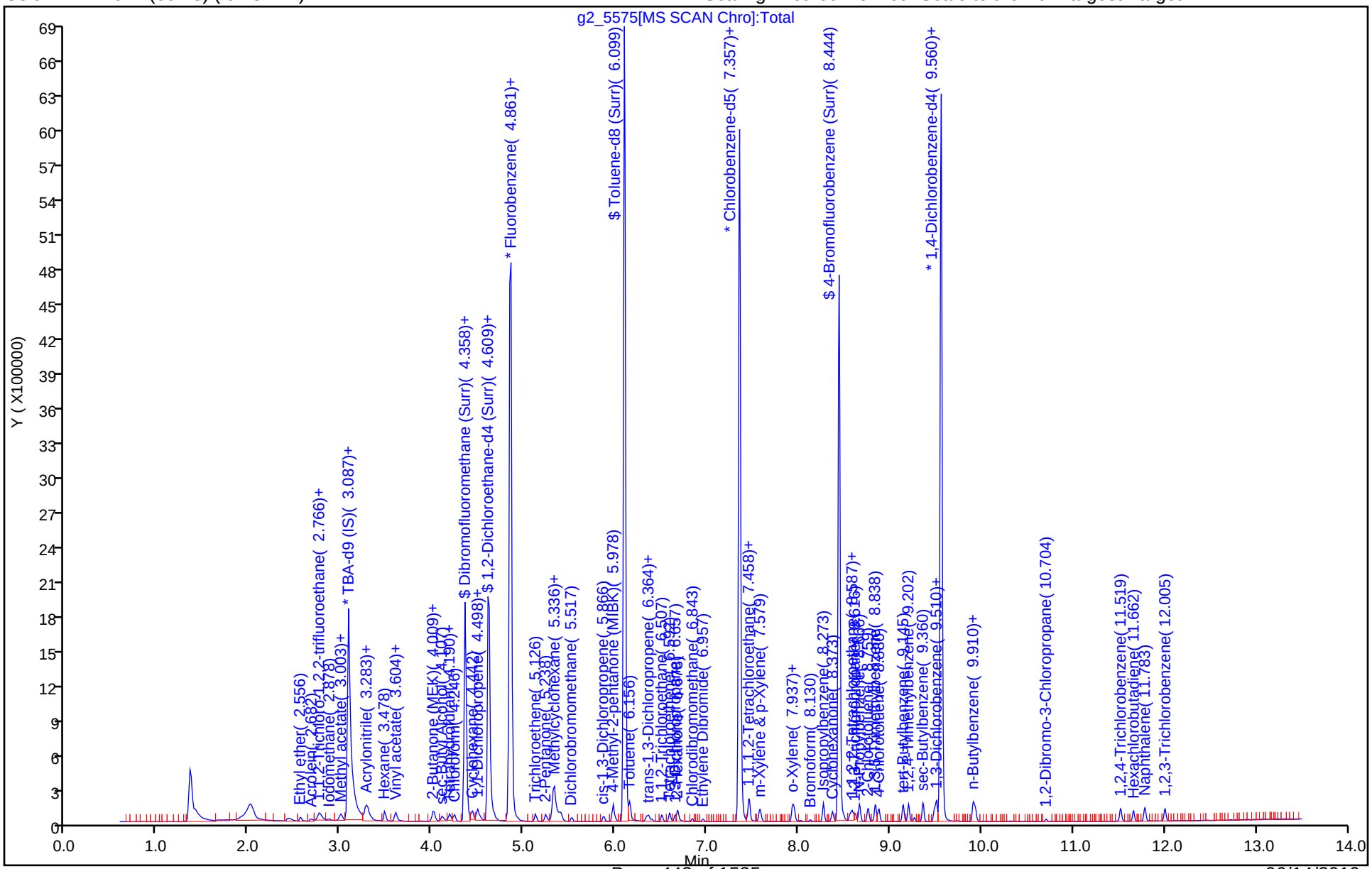
Report Date: 29-May-2019 10:28:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5575.D

Injection Date:	28-May-2019 13:39:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-May-2019 14:00:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub172

Method: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 29-May-2019 10:28:24 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0312

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2764675	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4511035	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.357	7.358	-0.001	88	1004996	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1632920	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1057269	50.0	49.9	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.609	4.610	-0.001	100	1469662	50.0	50.2	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4147889	50.0	50.1	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.445	-0.001	89	1527072	50.0	50.7	
22 Ethyl ether	59	2.556	2.557	-0.001	91	11647	0.5000	-0.0242	
24 Acrolein	56	2.682	2.668	0.014	97	26511	4.94	5.50	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	90	7894	0.5000	0.4866	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	9536	0.5000	0.5153	
27 Acetone	43	2.780	2.766	0.014	100	49323	2.00	0.8816	
28 Iodomethane	142	2.878	2.878	0.000	98	14656	0.5000	0.5149	
30 Carbon disulfide	76	3.003	2.990	0.013	95	32982	0.5000	0.5031	
32 Methyl acetate	43	3.003	2.990	0.013	96	27136	1.00	1.09	
33 3-Chloro-1-propene	41	3.017	3.004	0.013	82	17310	0.5000	0.5205	
35 Methylene Chloride	84	3.115	3.115	0.000	96	16591	0.5000	0.4905	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	99	40034	5.00	10.0	
39 Acrylonitrile	53	3.269	3.255	0.014	96	45102	5.00	5.53	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	84	26870	0.5000	0.5760	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	95	10899	0.5000	0.5518	
42 Hexane	57	3.478	3.478	0.000	96	18033	0.5000	0.5059	
46 Vinyl acetate	43	3.590	3.590	0.000	98	45350	1.00	1.00	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	76	18852	0.5000	0.5226	
52 2-Butanone (MEK)	43	3.995	3.981	0.014	97	37535	2.00	3.68	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	82	11058	0.5000	0.5221	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	61	12366	0.5000	0.5007	
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	98	70043	15.0	34.0	
57 Tetrahydrofuran	42	4.204	4.191	0.013	90	15303	1.00	1.08	
56 Chlorobromomethane	128	4.190	4.191	-0.001	92	5134	0.5000	0.5293	
59 Chloroform	83	4.246	4.247	-0.001	95	18445	0.5000	0.5203	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	96	16286	0.5000	0.5193	
61 Cyclohexane	56	4.442	4.442	0.000	91	22962	0.5000	0.5195	
63 1,1-Dichloropropene	75	4.498	4.498	0.000	94	15804	0.5000	0.5299	
62 Carbon tetrachloride	117	4.498	4.498	0.000	79	11272	0.5000	0.8375	
66 Isobutyl alcohol	41	4.526	4.512	0.014	93	28413	12.5	34.2	
64 Benzene	78	4.651	4.638	0.013	92	47516	0.5000	0.5800	
65 1,2-Dichloroethane	62	4.679	4.680	-0.001	94	23967	0.5000	0.5298	
67 n-Heptane	43	4.833	4.833	0.000	85	23543	0.5000	0.5907	
69 Trichloroethene	95	5.126	5.126	0.000	97	10455	0.5000	0.5080	
70 2-Pentanone	43	5.238	5.238	0.000	99	66424	2.00	3.22	
71 Methylcyclohexane	55	5.308	5.308	0.000	93	17934	0.5000	0.5251	
72 1,2-Dichloropropane	63	5.336	5.322	0.014	47	20208	0.5000	0.5714	
74 1,4-Dioxane	88	5.378	5.378	0.000	54	9557	10.0	23.8	
75 Dibromomethane	93	5.406	5.406	0.000	93	6124	0.5000	0.5350	
76 Dichlorobromomethane	83	5.517	5.517	0.000	97	11951	0.5000	0.7971	
79 cis-1,3-Dichloropropene	75	5.866	5.867	-0.001	92	14988	0.5000	0.4869	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	97	86609	2.00	2.93	
82 Toluene	91	6.156	6.156	0.000	97	48052	0.5000	0.5721	
83 trans-1,3-Dichloropropene	75	6.342	6.335	0.007	92	14423	0.5000	0.5099	
84 Ethyl methacrylate	69	6.364	6.364	0.000	94	15817	0.5000	0.6260	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	89	10522	0.5000	0.6395	
86 Tetrachloroethene	164	6.592	6.593	-0.001	93	8504	0.5000	0.5235	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	91	17472	0.5000	0.5731	
88 2-Hexanone	43	6.678	6.678	0.000	96	67118	2.00	3.89	
89 Chlorodibromomethane	129	6.843	6.843	0.000	84	8210	0.5000	1.05	
90 Ethylene Dibromide	107	6.957	6.957	0.000	97	8822	0.5000	0.5423	
91 1-Chlorohexane	91	7.350	7.351	-0.001	33	21335	0.5000	0.5254	
92 Chlorobenzene	112	7.386	7.386	0.000	97	33456	0.5000	0.6026	
93 1,1,1,2-Tetrachloroethane	131	7.465	7.458	0.007	41	9872	0.5000	0.5446	
94 Ethylbenzene	106	7.465	7.465	0.000	98	17503	0.5000	0.5895	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	19135	0.5000	0.5283	
96 o-Xylene	106	7.937	7.937	0.000	96	19179	0.5000	0.5490	
97 Styrene	104	7.951	7.951	0.000	93	30399	0.5000	0.5448	
98 Bromoform	173	8.130	8.130	0.000	93	5338	0.5000	1.18	
99 Isopropylbenzene	105	8.273	8.273	0.000	95	53359	0.5000	0.5918	
100 Cyclohexanone	55	8.373	8.373	0.000	92	40195	20.0	47.6	
102 1,1,2,2-Tetrachloroethane	83	8.566	8.559	0.007	95	20223	0.5000	0.7382	
103 Bromobenzene	156	8.587	8.588	-0.001	94	15449	0.5000	0.5365	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	37	6115	0.5000	1.07	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	84	6841	0.5000	0.7808	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	14651	0.5000	0.5521	
107 2-Chlorotoluene	126	8.759	8.759	0.000	95	12989	0.5000	0.5889	
108 1,3,5-Trimethylbenzene	105	8.845	8.838	0.007	95	44556	0.5000	0.5788	
109 4-Chlorotoluene	126	8.880	8.881	-0.001	96	14018	0.5000	0.5992	
110 tert-Butylbenzene	119	9.145	9.145	0.000	93	43864	0.5000	0.6015	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	97	46078	0.5000	0.5766	
112 sec-Butylbenzene	134	9.367	9.360	0.007	95	12217	0.5000	0.5538	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	97	30678	0.5000	0.7250	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	57144	0.5000	0.6041	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	86	33454	0.5000	0.7532	
117 n-Butylbenzene	91	9.910	9.910	0.000	96	53565	0.5000	0.6352	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	95	34138	0.5000	0.8065	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
119 1,2-Dibromo-3-Chloropropan	157	10.711	10.704	0.007	78	4796	0.5000	1.28	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	25749	0.5000	0.5280	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	94	10432	0.5000	0.6689	
123 Naphthalene	128	11.783	11.784	-0.001	97	86610	0.5000	0.6983	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	93	28481	0.5000	0.6717	
S 137 1,2-Dichloroethene, Total	96				0		1.00	1.07	
S 140 1,3-Dichloropropene, Total	1				0		1.00	1.00	
S 142 Trihalomethanes, Total	1				0		2.00	3.54	
S 138 Xylenes, Total (URS)	1				0		1.00	1.08	
S 144 1,2-Dichloroethene, Total	1				0		1.00	1.07	
S 143 Xylenes, Total	106				0		1.00	1.08	
S 139 Total BTEX	1				0			2.82	

Reagents:

MV-MegaMainA_00014	Amount Added:	0.50	Units: uL		
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent	

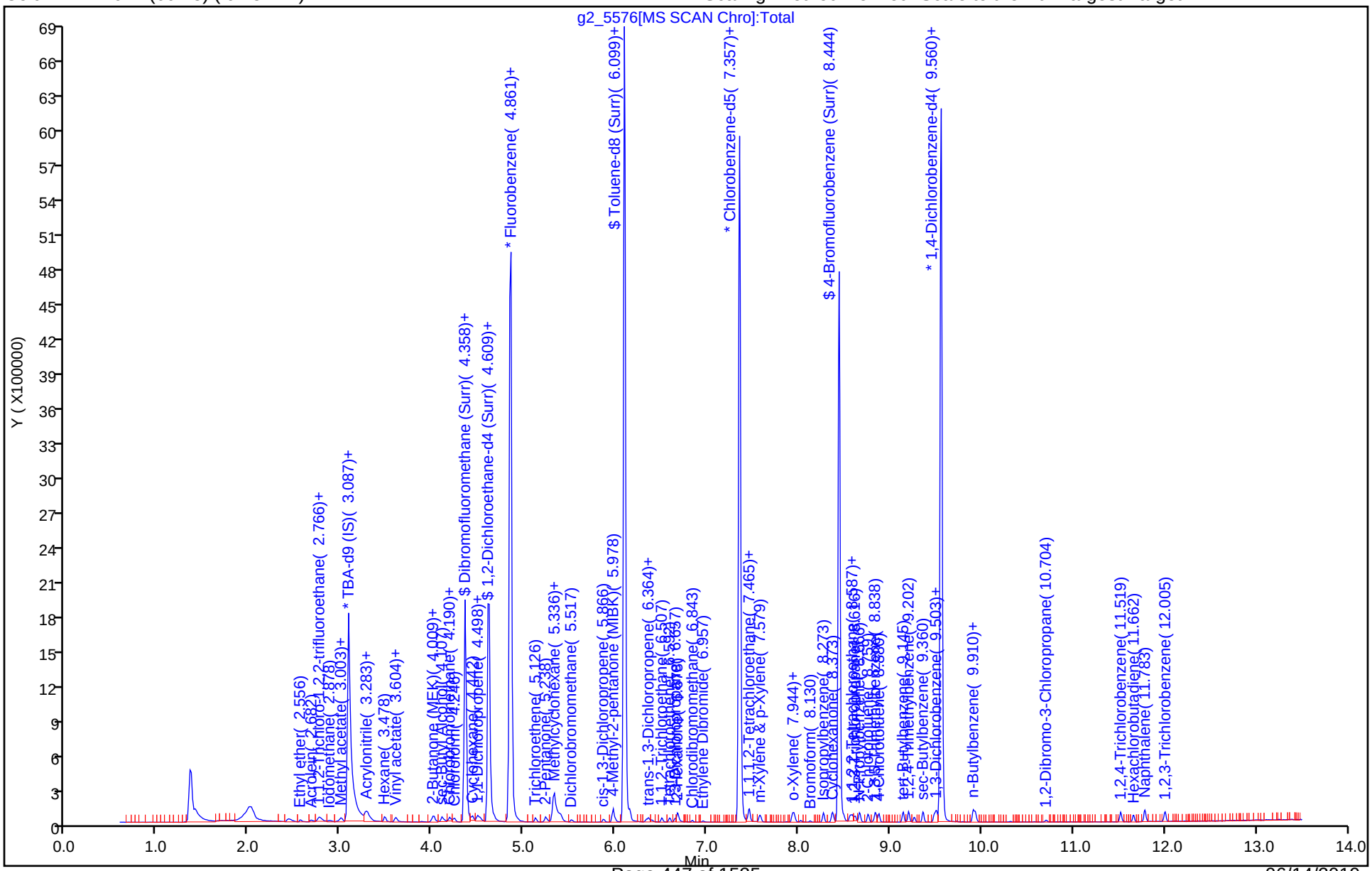
Report Date: 29-May-2019 10:28:27 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Injection Date:	28-May-2019 14:00:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: ICV 280-459545/9 Calibration Date: 05/27/2019 13:04

Instrument ID: VMS_G2 Calib Start Date: 05/27/2019 10:34

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/27/2019 12:42

Lab File ID: g2_5539.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3437	0.3210		46.7	50.0	-6.6	20.0
Chloromethane	Ave	0.3898	0.3823	0.1000	49.0	50.0	-1.9	20.0
Vinyl chloride	Lin2		0.2395		51.8	50.0	3.6	20.0
Bromomethane	Ave	0.1740	0.1789		51.4	50.0	2.8	20.0
Chloroethane	Ave	0.1735	0.1635		47.1	50.0	-5.8	20.0
Dichlorofluoromethane	Lin1		0.1819		37.8	50.0	-24.4*	20.0
Trichlorofluoromethane	Lin1		0.2881		44.0	50.0	-12.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1455	0.1594		54.8	50.0	9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2374		50.8	50.0	1.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3188	0.3246		50.9	50.0	1.8	20.0
Toluene-d8 (Surr)	Ave	4.130	4.101		49.6	50.0	-0.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.9254	0.9323		50.4	50.0	0.7	20.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5539.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 27-May-2019 13:04:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: meierg Instrument ID: VMS_G2
Sublist:

Method: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 28-May-2019 11:28:08 Calib Date: 27-May-2019 12:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 TBA-d9 (IS)	65	3.087	3.087	0.000	85	2845678	1000.0	1000.0	
*	2 Fluorobenzene	96	4.861	4.861	0.000	99	5003605	50.0	50.0	
*	3 Chlorobenzene-d5	119	7.357	7.358	-0.001	87	1116133	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	95	1841678	50.0	50.0	
$	6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1187786	50.0	50.8	
$	7 1,2-Dichloroethane-d4 (Sur	65	4.623	4.623	0.000	98	1624080	50.0	50.9	
$	8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4576841	50.0	49.6	
$	9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1716958	50.0	50.4	
	12 Dichlorodifluoromethane	85	1.621	1.621	0.000	99	1606121	50.0	46.7	
	14 Chloromethane	50	1.788	1.788	0.000	99	1912804	50.0	49.0	
	15 Vinyl chloride	62	1.900	1.900	0.000	98	1198400	50.0	51.8	
	17 Bromomethane	94	2.123	2.124	-0.001	90	895101	50.0	51.4	
	18 Chloroethane	64	2.165	2.165	0.000	100	817874	50.0	47.1	
	19 Dichlorofluoromethane	67	2.361	2.361	0.000	97	909936	50.0	37.8	
	20 Trichlorofluoromethane	101	2.403	2.403	0.000	97	1441709	50.0	44.0	
	78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	92	797658	50.0	54.8	

Reagents:

MV-Gas B_00029 Amount Added: 50.00 Units: uL
mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

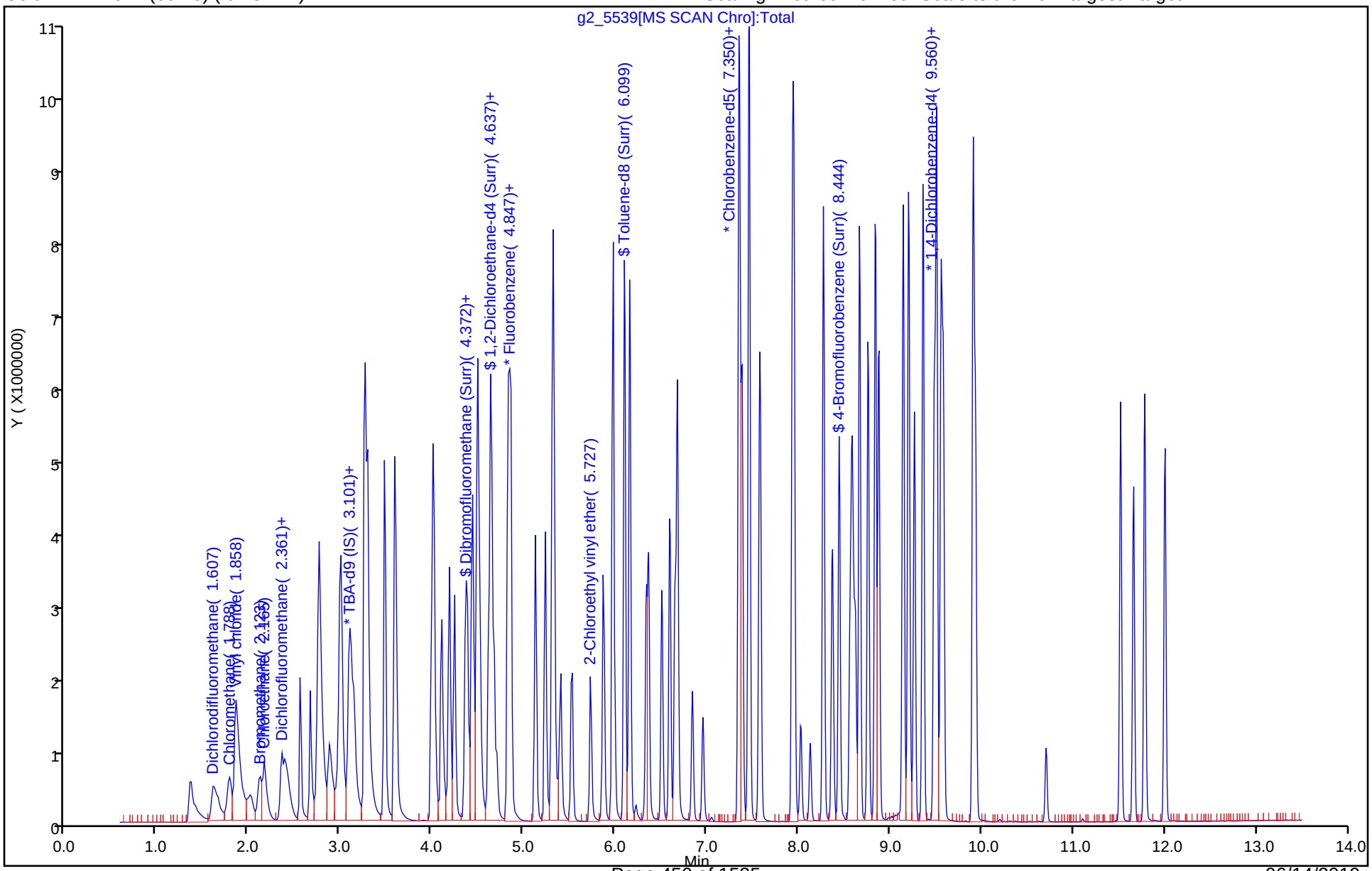
Report Date: 28-May-2019 11:28:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5539.D

Injection Date:	27-May-2019 13:04:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	icv			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: ICV 280-459588/9 Calibration Date: 05/28/2019 14:22

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5577.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Lin1		0.2063		52.6	50.0	5.2	20.0
Acrolein	Lin1		0.0378		517	500	3.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1798	0.1949		54.2	50.0	8.4	20.0
1,1-Dichloroethene	Ave	0.2051	0.2245		54.7	50.0	9.5	20.0
Acetone	Lin1		0.0693		186	200	-7.0	20.0
Methyl iodide	Ave	0.3155	0.3364		53.3	50.0	6.6	20.0
Carbon disulfide	Ave	0.7266	0.7763		53.4	50.0	6.8	20.0
Methyl acetate	Lin2		0.2015		105	100	5.1	20.0
3-Chloro-1-propene	Ave	0.3686	0.4040		54.8	50.0	9.6	20.0
Methylene Chloride	Lin2		0.2278		51.5	50.0	2.9	20.0
t-Butyl alcohol	Lin1		0.0281		530	500	6.0	20.0
Acrylonitrile	Ave	0.0904	0.0961		531	500	6.2	20.0
Methyl tert-butyl ether	Ave	0.5171	0.5193		50.2	50.0	0.4	20.0
trans-1,2-Dichloroethene	Ave	0.2189	0.2335		53.3	50.0	6.7	20.0
Hexane	Ave	1.773	1.951		55.0	50.0	10.0	20.0
Vinyl acetate	Ave	0.5035	0.5682		113	100	12.9	20.0
1,1-Dichloroethane	Ave	0.3999	0.4239	0.1000	53.0	50.0	6.0	20.0
2-Butanone (MEK)	Lin1		0.1207		204	200	2.0	20.0
cis-1,2-Dichloroethene	Ave	0.2348	0.2527		53.8	50.0	7.6	20.0
2,2-Dichloropropane	Ave	0.2737	0.3007		54.9	50.0	9.9	20.0
sec-Butyl Alcohol	Lin1		0.0231		1540	1500	2.4	20.0
Bromochloromethane	Ave	0.1075	0.1124		52.3	50.0	4.6	20.0
Tetrahydrofuran	Lin2		0.0873		108	100	7.6	20.0
Chloroform	Ave	0.3930	0.4067		51.7	50.0	3.5	20.0
1,1,1-Trichloroethane	Ave	0.3476	0.3705		53.3	50.0	6.6	20.0
Cyclohexane	Ave	0.4899	0.5163		52.7	50.0	5.4	20.0
1,1-Dichloropropene	Ave	0.3306	0.3421		51.7	50.0	3.5	20.0
Carbon tetrachloride	Lin1		0.2997		48.2	50.0	-3.6	20.0
Isobutyl alcohol	Lin1		0.0099		1260	1250	0.6	20.0
Benzene	Ave	0.9081	0.9361		51.5	50.0	3.1	20.0
1,2-Dichloroethane	Lin2		0.3514		52.8	50.0	5.6	20.0
Trichloroethene	Ave	0.2281	0.2419		53.0	50.0	6.0	20.0
2-Pentanone	Lin1		0.2042		214	200	6.9	20.0
Methylcyclohexane	Ave	0.3785	0.3945		52.1	50.0	4.2	20.0
1,2-Dichloropropane	Lin2		0.2460		53.0	50.0	5.9	20.0
1,4-Dioxane	Lin1		0.0027		995	1000	-0.5	20.0
Dibromomethane	Ave	0.1269	0.1338		52.7	50.0	5.5	20.0
Bromodichloromethane	Lin1		0.2939		50.8	50.0	1.6	20.0
cis-1,3-Dichloropropene	Ave	1.531	1.699		55.5	50.0	11.0	20.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.2655		219	200	9.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: ICV 280-459588/9 Calibration Date: 05/28/2019 14:22

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5577.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene	Ave	0.9310	0.9612		51.6	50.0	3.3	20.0
trans-1,3-Dichloropropene	Ave	0.3135	0.3241		51.7	50.0	3.4	20.0
Ethyl methacrylate	Ave	1.257	1.382		55.0	50.0	9.9	20.0
1,1,2-Trichloroethane	Ave	0.1824	0.1878		51.5	50.0	3.0	20.0
Tetrachloroethene	Ave	0.8082	0.8600		53.2	50.0	6.4	20.0
1,3-Dichloropropane	Ave	1.517	1.523		50.2	50.0	0.4	20.0
2-Hexanone	Lin1		0.8151		208	200	4.0	20.0
Dibromochloromethane	Lin1		0.8186		48.7	50.0	-2.6	20.0
1,2-Dibromoethane	Ave	0.8093	0.8411		52.0	50.0	3.9	20.0
1-Chlorohexane	Lin2		1.510		53.1	50.0	6.3	20.0
Chlorobenzene	Ave	2.762	2.771	0.3000	50.2	50.0	0.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9019	0.9143		50.7	50.0	1.4	20.0
Ethylbenzene	Ave	1.477	1.544		52.3	50.0	4.5	20.0
m,p-Xylene	Ave	1.802	1.863		51.7	50.0	3.4	20.0
o-Xylene	Ave	1.738	1.808		52.0	50.0	4.0	20.0
Styrene	Ave	2.776	3.043		54.8	50.0	9.6	20.0
Bromoform	Lin1		0.4501	0.1000	45.9	50.0	-8.1	20.0
Isopropylbenzene	Ave	2.761	2.956		53.5	50.0	7.1	20.0
Cyclohexanone	Lin1		0.0400		1950	2000	-2.5	20.0
1,1,2,2-Tetrachloroethane	Lin1		0.6534	0.3000	52.4	50.0	4.8	20.0
Bromobenzene	Lin2		0.6908		53.8	50.0	7.5	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.2286		51.5	50.0	3.0	20.0
1,2,3-Trichloropropane	Lin1		0.2257		52.0	50.0	3.9	20.0
N-Propylbenzene	Ave	0.8125	0.8271		50.9	50.0	1.8	20.0
2-Chlorotoluene	Ave	0.6754	0.6830		50.6	50.0	1.1	20.0
1,3,5-Trimethylbenzene	Ave	2.357	2.461		52.2	50.0	4.4	20.0
4-Chlorotoluene	Ave	0.7163	0.7127		49.7	50.0	-0.5	20.0
tert-Butylbenzene	Ave	2.233	2.244		50.2	50.0	0.5	20.0
1,2,4-Trimethylbenzene	Ave	2.447	2.475		50.6	50.0	1.2	20.0
sec-Butylbenzene	Ave	0.6755	0.6803		50.4	50.0	0.7	20.0
1,3-Dichlorobenzene	Ave	1.296	1.320		50.9	50.0	1.9	20.0
4-Isopropyltoluene	Ave	2.896	2.941		50.8	50.0	1.5	20.0
1,4-Dichlorobenzene	Ave	1.360	1.350		49.6	50.0	-0.7	20.0
n-Butylbenzene	Ave	2.582	2.668		51.7	50.0	3.3	20.0
1,2-Dichlorobenzene	Ave	1.296	1.260		48.6	50.0	-2.8	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1486		47.5	50.0	-5.0	20.0
1,2,4-Trichlorobenzene	Lin2		0.9908		53.5	50.0	7.1	20.0
Hexachlorobutadiene	Ave	0.4775	0.4877		51.1	50.0	2.1	20.0
Naphthalene	Lin1		2.586		55.3	50.0	10.6	20.0
1,2,3-Trichlorobenzene	Lin1		0.9002		52.7	50.0	5.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2347	0.2355		50.2	50.0	0.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: ICV 280-459588/9 Calibration Date: 05/28/2019 14:22

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5577.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane-d4 (Surr)	Ave	0.3243	0.3177		49.0	50.0	-2.0	20.0
Toluene-d8 (Surr)	Ave	4.117	4.136		50.2	50.0	0.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.9227	0.9110		49.4	50.0	-1.3	20.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5577.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 28-May-2019 14:22:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: meierg Instrument ID: VMS_G2
Sublist:

Method: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 29-May-2019 10:34:54 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0312

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	86	2765843	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4756462	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	1057392	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1767723	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	95	1120297	50.0	50.2	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	98	1511313	50.0	49.0	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4373297	50.0	50.2	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.445	-0.001	89	1610390	50.0	49.4	
22 Ethyl ether	59	2.557	2.557	0.000	95	981340	50.0	52.6	
24 Acrolein	56	2.668	2.668	0.000	100	1799044	500.1	516.7	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	93	927160	50.0	54.2	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	1067779	50.0	54.7	
27 Acetone	43	2.766	2.766	0.000	100	1319080	200.0	186.1	
28 Iodomethane	142	2.878	2.878	0.000	100	1600062	50.0	53.3	
30 Carbon disulfide	76	2.990	2.990	0.000	100	3692385	50.0	53.4	
32 Methyl acetate	43	2.990	2.990	0.000	98	1916914	100.0	105.1	
33 3-Chloro-1-propene	41	3.004	3.004	0.000	90	1921812	50.0	54.8	
35 Methylene Chloride	84	3.115	3.115	0.000	97	1083427	50.0	51.5	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	100	1336151	500.0	529.8	
39 Acrylonitrile	53	3.255	3.255	0.000	99	4569685	500.0	531.2	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	96	2469804	50.0	50.2	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	97	1110627	50.0	53.3	
42 Hexane	57	3.478	3.478	0.000	94	2063277	50.0	55.0	
46 Vinyl acetate	43	3.590	3.590	0.000	97	5404977	100.0	112.9	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	2016100	50.0	53.0	
52 2-Butanone (MEK)	43	3.995	3.981	0.014	100	2295619	200.0	203.9	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	1201760	50.0	53.8	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	88	1430446	50.0	54.9	
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	3301301	1500.0	1536.5	
57 Tetrahydrofuran	42	4.191	4.191	0.000	90	830186	100.0	107.6	
56 Chlorobromomethane	128	4.191	4.191	0.000	98	534765	50.0	52.3	
59 Chloroform	83	4.247	4.247	0.000	94	1934436	50.0	51.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	1762171	50.0	53.3	
61 Cyclohexane	56	4.442	4.442	0.000	92	2455645	50.0	52.7	
63 1,1-Dichloropropene	75	4.498	4.498	0.000	97	1627000	50.0	51.7	
62 Carbon tetrachloride	117	4.498	4.498	0.000	94	1425339	50.0	48.2	
66 Isobutyl alcohol	41	4.512	4.512	0.000	95	1179113	1250.0	1257.6	
64 Benzene	78	4.638	4.638	0.000	98	4452673	50.0	51.5	
65 1,2-Dichloroethane	62	4.679	4.680	-0.001	97	1671538	50.0	52.8	
67 n-Heptane	43	4.833	4.833	0.000	94	2181720	50.0	51.9	
69 Trichloroethene	95	5.126	5.126	0.000	97	1150369	50.0	53.0	
70 2-Pentanone	43	5.238	5.238	0.000	99	3884431	200.0	213.8	
71 Methylcyclohexane	55	5.308	5.308	0.000	92	1876367	50.0	52.1	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	91	1170213	50.0	53.0	
74 1,4-Dioxane	88	5.378	5.378	0.000	95	259607	1000.0	994.6	
75 Dibromomethane	93	5.406	5.406	0.000	96	636572	50.0	52.7	
76 Dichlorobromomethane	83	5.517	5.517	0.000	99	1397952	50.0	50.8	
79 cis-1,3-Dichloropropene	75	5.867	5.867	0.000	94	1796949	50.0	55.5	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	97	5050461	200.0	219.1	
82 Toluene	91	6.156	6.156	0.000	99	4571961	50.0	51.6	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	96	1541556	50.0	51.7	
84 Ethyl methacrylate	69	6.364	6.364	0.000	91	1461143	50.0	55.0	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	93	893030	50.0	51.5	
86 Tetrachloroethene	164	6.593	6.593	0.000	95	909402	50.0	53.2	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	94	1610308	50.0	50.2	
88 2-Hexanone	43	6.678	6.678	0.000	97	3447438	200.0	208.0	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	865566	50.0	48.7	
90 Ethylene Dibromide	107	6.957	6.957	0.000	99	889345	50.0	52.0	
91 1-Chlorohexane	91	7.351	7.351	-0.001	95	1596147	50.0	53.1	
92 Chlorobenzene	112	7.386	7.386	0.000	94	2929719	50.0	50.2	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	93	966731	50.0	50.7	
94 Ethylbenzene	106	7.465	7.465	0.000	99	1632766	50.0	52.3	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	1970172	50.0	51.7	
96 o-Xylene	106	7.937	7.937	0.000	97	1911323	50.0	52.0	
97 Styrene	104	7.951	7.951	0.000	95	3217356	50.0	54.8	
98 Bromoform	173	8.130	8.130	0.000	96	475915	50.0	45.9	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	5225231	50.0	53.5	
100 Cyclohexanone	55	8.366	8.373	-0.007	95	1690394	2000.0	1949.2	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	1155051	50.0	52.4	
103 Bromobenzene	156	8.588	8.588	0.000	96	1221068	50.0	53.8	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	88	404117	50.0	51.5	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	82	398975	50.0	52.0	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	1462134	50.0	50.9	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	1207323	50.0	50.6	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	96	4351184	50.0	52.2	
109 4-Chlorotoluene	126	8.874	8.881	-0.007	97	1259905	50.0	49.7	
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	3966311	50.0	50.2	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	97	4375154	50.0	50.6	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	1202583	50.0	50.4	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	98	2333516	50.0	50.9	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	5198635	50.0	50.8	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	93	2387159	50.0	49.6	
117 n-Butylbenzene	91	9.910	9.910	0.000	98	4717121	50.0	51.7	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	2227786	50.0	48.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	82	262660	50.0	47.5	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	1751458	50.0	53.5	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	862040	50.0	51.1	
123 Naphthalene	128	11.784	11.784	0.000	97	4571486	50.0	55.3	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	95	1591255	50.0	52.7	
S 137 1,2-Dichloroethene, Total	96				0		100.0	107.1	
S 143 Xylenes, Total	106				0		100.0	103.7	
S 144 1,2-Dichloroethene, Total	1				0		100.0	107.1	
S 138 Xylenes, Total (URS)	1				0		100.0	103.7	
S 142 Trihalomethanes, Total	1				0		200.0	197.2	
S 140 1,3-Dichloropropene, Total	1				0		100.0	107.2	

Reagents:

MV-MegaMain B_00012	Amount Added: 50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added: 5.00	Units: uL	Run Reagent

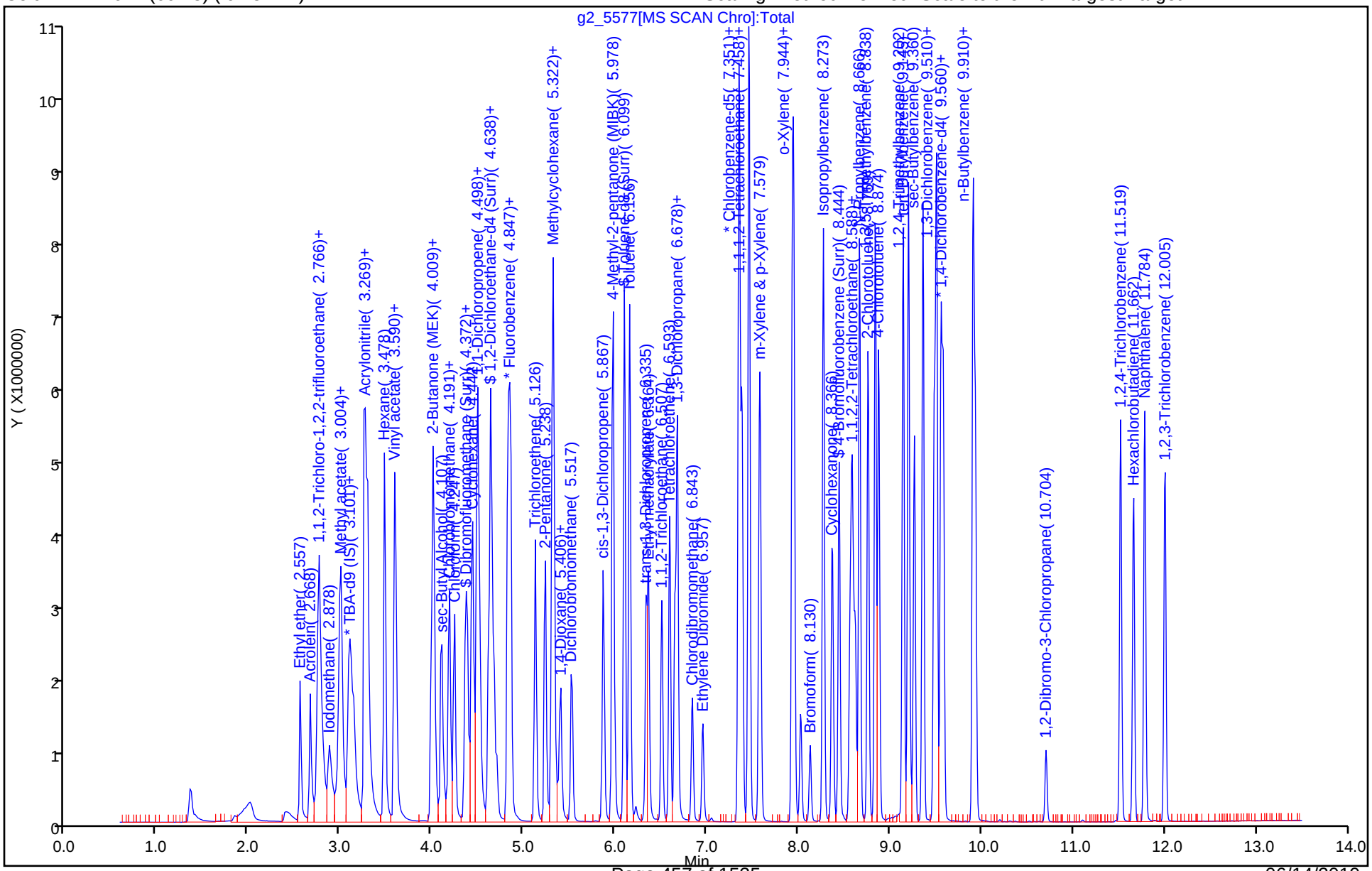
Report Date: 29-May-2019 10:34:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5577.D

Injection Date:	28-May-2019 14:22:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	icv			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCV 280-459872/2 Calibration Date: 05/30/2019 09:12

Instrument ID: VMS_G2 Calib Start Date: 05/27/2019 10:34

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/27/2019 12:42

Lab File ID: g2_5672.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3437	0.3782		55.0	50.0	10.1	20.0
Chloromethane	Ave	0.3898	0.3685	0.1000	47.3	50.0	-5.5	20.0
Vinyl chloride	Lin2		0.2089		45.2	50.0	-9.7	20.0
Bromomethane	Ave	0.1740	0.1822		52.4	50.0	4.7	20.0
Chloroethane	Ave	0.1735	0.1669		48.1	50.0	-3.8	20.0
Dichlorofluoromethane	Lin1		0.1972		40.9	50.0	-18.2	20.0
Trichlorofluoromethane	Lin1		0.3174		48.4	50.0	-3.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1455	0.1885		64.8	50.0	29.6*	20.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5672.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 30-May-2019 09:12:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub90

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:39:00 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	86	2636812	1000.0	1000.0	
* 2 Fluorobenzene	96	4.847	4.847	0.000	99	4187765	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	89	947837	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	95	1563182	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	94	994311	50.0	50.6	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	98	1362990	50.0	50.2	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3891853	50.0	49.9	
$ 9 4-Bromofluorobenzene (Surr	95	8.445	8.445	0.000	87	1454185	50.0	50.4	
12 Dichlorodifluoromethane	85	1.607	1.607	0.000	100	1584000	50.0	55.0	
14 Chloromethane	50	1.789	1.789	0.000	99	1543256	50.0	47.3	
15 Vinyl chloride	62	1.900	1.900	0.000	97	874676	50.0	45.2	
17 Bromomethane	94	2.124	2.124	0.000	91	762810	50.0	52.4	
18 Chloroethane	64	2.166	2.166	0.000	99	698792	50.0	48.1	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	97	825670	50.0	40.9	
20 Trichlorofluoromethane	101	2.403	2.403	0.000	99	1329025	50.0	48.4	
22 Ethyl ether	59	2.557	2.557	0.000	95	960557	50.0	58.6	
24 Acrolein	56	2.668	2.668	0.000	100	1799051	493.8	587.2	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	93	923235	50.0	61.3	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	1028599	50.0	59.9	
27 Acetone	43	2.766	2.766	0.000	99	1407885	200.0	227.0	
28 Iodomethane	142	2.878	2.878	0.000	99	1546133	50.0	58.5	
32 Methyl acetate	43	2.990	2.990	0.000	98	1999697	100.0	124.6	
30 Carbon disulfide	76	3.004	3.004	0.000	100	3442482	50.0	56.6	
33 3-Chloro-1-propene	41	3.004	3.004	0.000	91	1862442	50.0	60.3	
35 Methylene Chloride	84	3.115	3.115	0.000	97	1077743	50.0	58.2	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	100	1405970	500.0	634.5	
39 Acrylonitrile	53	3.255	3.255	0.000	99	4587019	500.0	605.6	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	95	2526483	50.0	58.3	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	97	1083485	50.0	59.1	
42 Hexane	57	3.478	3.478	0.000	94	2014602	50.0	59.9	
46 Vinyl acetate	43	3.590	3.590	0.000	97	5300279	100.0	125.7	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	1997273	50.0	59.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
52 2-Butanone (MEK)	43	3.981	3.981	0.000	100	2397212	200.0	241.8	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	1155281	50.0	58.8	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	87	1377544	50.0	60.1	
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	3431014	1500.0	1813.8	
56 Chlorobromomethane	128	4.191	4.191	0.000	98	537478	50.0	59.7	
57 Tetrahydrofuran	42	4.191	4.191	0.000	90	851908	100.0	125.6	
59 Chloroform	83	4.247	4.247	0.000	93	1933019	50.0	58.7	
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	1722703	50.0	59.2	
61 Cyclohexane	56	4.442	4.442	0.000	91	2421119	50.0	59.0	
63 1,1-Dichloropropene	75	4.484	4.484	0.000	96	1636187	50.0	59.1	
62 Carbon tetrachloride	117	4.498	4.498	0.000	85	1419368	50.0	54.5	
66 Isobutyl alcohol	41	4.512	4.512	0.000	95	1226274	1250.0	1485.1	
64 Benzene	78	4.638	4.638	0.000	98	4398441	50.0	57.8	
65 1,2-Dichloroethane	62	4.666	4.666	0.000	97	1692211	50.0	60.7	
67 n-Heptane	43	4.819	4.819	0.000	96	2122576	50.0	57.4	
69 Trichloroethene	95	5.126	5.126	0.000	97	1140395	50.0	59.7	
70 2-Pentanone	43	5.238	5.238	0.000	99	3971953	200.0	248.4	
71 Methylcyclohexane	55	5.308	5.308	0.000	92	1851016	50.0	58.4	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	91	1152782	50.0	59.3	
74 1,4-Dioxane	88	5.378	5.378	0.000	95	274882	1000.0	1199.2	
75 Dibromomethane	93	5.406	5.406	0.000	97	633452	50.0	59.6	
76 Dichlorobromomethane	83	5.518	5.518	0.000	99	1367277	50.0	56.4	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	92	789490	50.0	64.8	
79 cis-1,3-Dichloropropene	75	5.867	5.867	0.000	94	1796821	50.0	61.9	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	97	5300106	200.0	261.4	
82 Toluene	91	6.156	6.156	0.000	98	4564896	50.0	58.5	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	97	1643443	50.0	62.6	
84 Ethyl methacrylate	69	6.364	6.364	0.000	92	1486803	50.0	62.4	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	94	905541	50.0	59.3	
86 Tetrachloroethene	164	6.593	6.593	0.000	94	884517	50.0	57.7	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	92	1673420	50.0	58.2	
88 2-Hexanone	43	6.678	6.678	0.000	96	3622925	200.0	243.9	
89 Chlorodibromomethane	129	6.843	6.843	0.000	91	860651	50.0	54.0	
90 Ethylene Dibromide	107	6.957	6.957	0.000	99	900793	50.0	58.7	
91 1-Chlorohexane	91	7.351	7.351	0.000	96	1603864	50.0	59.6	
92 Chlorobenzene	112	7.386	7.386	0.000	95	2891521	50.0	55.2	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	93	973363	50.0	56.9	
94 Ethylbenzene	106	7.465	7.465	0.000	99	1598865	50.0	57.1	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	1961331	50.0	57.4	
96 o-Xylene	106	7.937	7.937	0.000	97	1883909	50.0	57.2	
97 Styrene	104	7.951	7.951	0.000	95	3124288	50.0	59.4	
98 Bromoform	173	8.130	8.130	0.000	96	468228	50.0	50.3	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	5124799	50.0	59.4	
100 Cyclohexanone	55	8.366	8.366	0.000	94	1597892	2000.0	2055.5	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	1177121	50.0	60.4	
103 Bromobenzene	156	8.588	8.588	0.000	97	1199883	50.0	59.8	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	81	400730	50.0	57.7	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	82	405111	50.0	59.7	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	1442792	50.0	56.8	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	1216196	50.0	57.6	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	95	4291405	50.0	58.2	
109 4-Chlorotoluene	126	8.874	8.874	0.000	98	1234931	50.0	55.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	3936295	50.0	56.4	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	98	4282887	50.0	56.0	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	1186803	50.0	56.2	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	97	2314501	50.0	57.1	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	5087168	50.0	56.2	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	93	2343872	50.0	55.1	
117 n-Butylbenzene	91	9.903	9.903	0.000	98	4610895	50.0	57.1	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	2245422	50.0	55.4	
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	83	260882	50.0	53.3	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	1658682	50.0	57.4	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	786839	50.0	52.7	
123 Naphthalene	128	11.784	11.784	0.000	97	4623448	50.0	63.3	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	94	1536298	50.0	57.6	
S 137 1,2-Dichloroethene, Total	96				0		100.0	117.8	
S 143 Xylenes, Total	106				0		100.0	114.6	
S 144 1,2-Dichloroethene, Total	1				0		100.0	117.8	
S 138 Xylenes, Total (URS)	1				0		100.0	114.6	
S 142 Trihalomethanes, Total	1				0		200.0	219.5	
S 140 1,3-Dichloropropene, Total	1				0		100.0	124.5	

Reagents:

MV-MegaMainA_00014	Amount Added: 50.00	Units: uL	
MV-Gas A_00026	Amount Added: 50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added: 5.00	Units: uL	Run Reagent

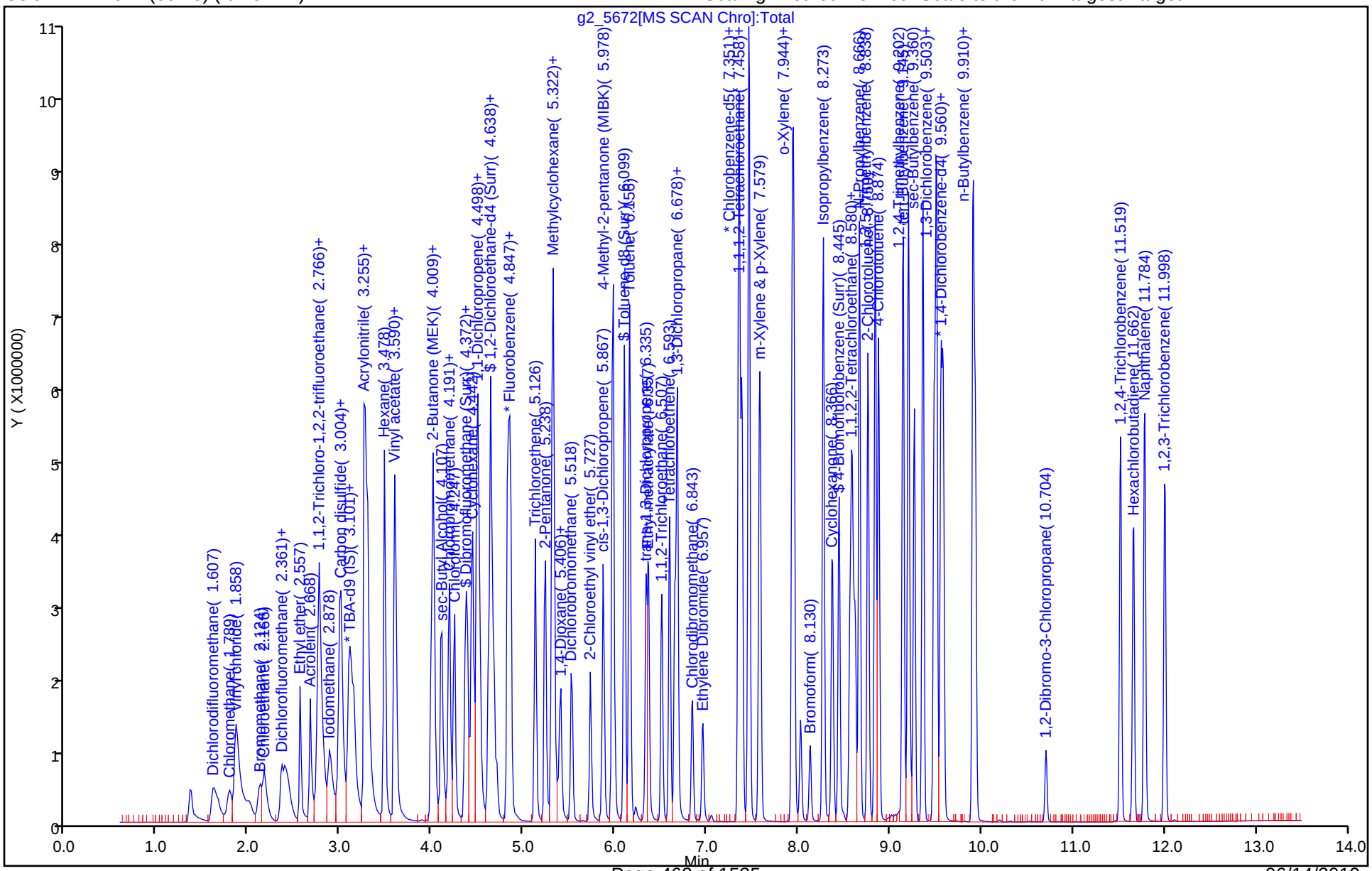
Report Date: 31-May-2019 00:39:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5672.D

Injection Date:	30-May-2019 09:12:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ccv			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCV 280-459872/2 Calibration Date: 05/30/2019 09:12

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5672.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Lin1		0.2294		58.6	50.0	17.1	20.0
Acrolein	Lin1		0.0435		587	494	18.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1798	0.2205		61.3	50.0	22.6*	20.0
1,1-Dichloroethene	Ave	0.2051	0.2456		59.9	50.0	19.8	20.0
Acetone	Lin1		0.0841		227	200	13.5	20.0
Methyl iodide	Ave	0.3155	0.3692		58.5	50.0	17.0	20.0
Methyl acetate	Lin2		0.2388		125	100	24.6*	20.0
3-Chloro-1-propene	Ave	0.3686	0.4447		60.3	50.0	20.7*	20.0
Carbon disulfide	Ave	0.7266	0.8220		56.6	50.0	13.1	20.0
Methylene Chloride	Lin2		0.2574		58.2	50.0	16.4	20.0
t-Butyl alcohol	Lin1		0.0336		635	500	26.9*	20.0
Acrylonitrile	Ave	0.0904	0.1095		606	500	21.1*	20.0
Methyl tert-butyl ether	Ave	0.5171	0.6033		58.3	50.0	16.7	20.0
trans-1,2-Dichloroethene	Ave	0.2189	0.2587		59.1	50.0	18.2	20.0
Hexane	Ave	1.773	2.125		59.9	50.0	19.9	20.0
Vinyl acetate	Ave	0.5035	0.6328		126	100	25.7*	20.0
1,1-Dichloroethane	Ave	0.3999	0.4769	0.1000	59.6	50.0	19.3	20.0
2-Butanone (MEK)	Lin1		0.1431		242	200	20.9*	20.0
cis-1,2-Dichloroethene	Ave	0.2348	0.2759		58.8	50.0	17.5	20.0
2,2-Dichloropropane	Ave	0.2737	0.3289		60.1	50.0	20.2*	20.0
sec-Butyl Alcohol	Lin1		0.0273		1810	1500	20.9*	20.0
Bromochloromethane	Ave	0.1075	0.1283		59.7	50.0	19.4	20.0
Tetrahydrofuran	Lin2		0.1017		126	100	25.6*	20.0
Chloroform	Ave	0.3930	0.4616		58.7	50.0	17.5	20.0
1,1,1-Trichloroethane	Ave	0.3476	0.4114		59.2	50.0	18.3	20.0
Cyclohexane	Ave	0.4899	0.5781		59.0	50.0	18.0	20.0
1,1-Dichloropropene	Ave	0.3306	0.3907		59.1	50.0	18.2	20.0
Carbon tetrachloride	Lin1		0.3389		54.5	50.0	8.9	20.0
Isobutyl alcohol	Lin1		0.0117		1490	1250	18.8	20.0
Benzene	Ave	0.9081	1.050		57.8	50.0	15.7	20.0
1,2-Dichloroethane	Lin2		0.4041		60.7	50.0	21.5*	20.0
Trichloroethene	Ave	0.2281	0.2723		59.7	50.0	19.4	20.0
2-Pentanone	Lin1		0.2371		248	200	24.2*	20.0
Methylcyclohexane	Ave	0.3785	0.4420		58.4	50.0	16.8	20.0
1,2-Dichloropropane	Lin2		0.2753		59.3	50.0	18.6	20.0
1,4-Dioxane	Lin1		0.0033		1200	1000	19.9	20.0
Dibromomethane	Ave	0.1269	0.1513		59.6	50.0	19.2	20.0
Bromodichloromethane	Lin1		0.3265		56.4	50.0	12.8	20.0
cis-1,3-Dichloropropene	Ave	1.531	1.896		61.9	50.0	23.8*	20.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3164		261	200	30.7*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCV 280-459872/2 Calibration Date: 05/30/2019 09:12

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5672.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene	Ave	0.9310	1.090		58.5	50.0	17.1	20.0
trans-1,3-Dichloropropene	Ave	0.3135	0.3924		62.6	50.0	25.2*	20.0
Ethyl methacrylate	Ave	1.257	1.569		62.4	50.0	24.8*	20.0
1,1,2-Trichloroethane	Ave	0.1824	0.2162		59.3	50.0	18.6	20.0
Tetrachloroethene	Ave	0.8082	0.9332		57.7	50.0	15.5	20.0
1,3-Dichloropropane	Ave	1.517	1.766		58.2	50.0	16.4	20.0
2-Hexanone	Lin1		0.9556		244	200	22.0*	20.0
Dibromochloromethane	Lin1		0.9080		54.0	50.0	8.0	20.0
1,2-Dibromoethane	Ave	0.8093	0.9504		58.7	50.0	17.4	20.0
1-Chlorohexane	Lin2		1.692		59.6	50.0	19.2	20.0
Chlorobenzene	Ave	2.762	3.051	0.3000	55.2	50.0	10.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9019	1.027		56.9	50.0	13.9	20.0
Ethylbenzene	Ave	1.477	1.687		57.1	50.0	14.2	20.0
m,p-Xylene	Ave	1.802	2.069		57.4	50.0	14.8	20.0
o-Xylene	Ave	1.738	1.988		57.2	50.0	14.4	20.0
Styrene	Ave	2.776	3.296		59.4	50.0	18.7	20.0
Bromoform	Lin1		0.4940	0.1000	50.3	50.0	0.7	20.0
Isopropylbenzene	Ave	2.761	3.278		59.4	50.0	18.8	20.0
Cyclohexanone	Lin1		0.0422		2060	2000	2.8	20.0
1,1,2,2-Tetrachloroethane	Lin1		0.7530	0.3000	60.4	50.0	20.9*	20.0
Bromobenzene	Lin2		0.7676		59.8	50.0	19.5	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.2564		57.7	50.0	15.5	20.0
1,2,3-Trichloropropane	Lin1		0.2592		59.7	50.0	19.4	20.0
N-Propylbenzene	Ave	0.8125	0.9230		56.8	50.0	13.6	20.0
2-Chlorotoluene	Ave	0.6754	0.7780		57.6	50.0	15.2	20.0
1,3,5-Trimethylbenzene	Ave	2.357	2.745		58.2	50.0	16.5	20.0
4-Chlorotoluene	Ave	0.7163	0.7900		55.1	50.0	10.3	20.0
tert-Butylbenzene	Ave	2.233	2.518		56.4	50.0	12.8	20.0
1,2,4-Trimethylbenzene	Ave	2.447	2.740		56.0	50.0	12.0	20.0
sec-Butylbenzene	Ave	0.6755	0.7592		56.2	50.0	12.4	20.0
1,3-Dichlorobenzene	Ave	1.296	1.481		57.1	50.0	14.3	20.0
4-Isopropyltoluene	Ave	2.896	3.254		56.2	50.0	12.4	20.0
1,4-Dichlorobenzene	Ave	1.360	1.499		55.1	50.0	10.3	20.0
n-Butylbenzene	Ave	2.582	2.950		57.1	50.0	14.2	20.0
1,2-Dichlorobenzene	Ave	1.296	1.436		55.4	50.0	10.8	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1669		53.3	50.0	6.6	20.0
1,2,4-Trichlorobenzene	Lin2		1.061		57.4	50.0	14.7	20.0
Hexachlorobutadiene	Ave	0.4775	0.5034		52.7	50.0	5.4	20.0
Naphthalene	Lin1		2.958		63.3	50.0	26.6*	20.0
1,2,3-Trichlorobenzene	Lin1		0.9828		57.6	50.0	15.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2347	0.2374		50.6	50.0	1.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCV 280-459872/2 Calibration Date: 05/30/2019 09:12

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5672.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane-d4 (Surr)	Ave	0.3243	0.3255		50.2	50.0	0.4	20.0
Toluene-d8 (Surr)	Ave	4.117	4.106		49.9	50.0	-0.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.9227	0.9303		50.4	50.0	0.8	20.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5672.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 30-May-2019 09:12:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub90

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:39:00 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 TBA-d9 (IS)	65	3.087	3.087	0.000	86	2636812	1000.0	1000.0	
*	2 Fluorobenzene	96	4.847	4.847	0.000	99	4187765	50.0	50.0	
*	3 Chlorobenzene-d5	119	7.358	7.358	0.000	89	947837	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	95	1563182	50.0	50.0	
$	6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	94	994311	50.0	50.6	
$	7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	98	1362990	50.0	50.2	
$	8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3891853	50.0	49.9	
$	9 4-Bromofluorobenzene (Surr	95	8.445	8.445	0.000	87	1454185	50.0	50.4	
	12 Dichlorodifluoromethane	85	1.607	1.607	0.000	100	1584000	50.0	55.0	
	14 Chloromethane	50	1.789	1.789	0.000	99	1543256	50.0	47.3	
	15 Vinyl chloride	62	1.900	1.900	0.000	97	874676	50.0	45.2	
	17 Bromomethane	94	2.124	2.124	0.000	91	762810	50.0	52.4	
	18 Chloroethane	64	2.166	2.166	0.000	99	698792	50.0	48.1	
	19 Dichlorofluoromethane	67	2.361	2.361	0.000	97	825670	50.0	40.9	
	20 Trichlorofluoromethane	101	2.403	2.403	0.000	99	1329025	50.0	48.4	
	22 Ethyl ether	59	2.557	2.557	0.000	95	960557	50.0	58.6	
	24 Acrolein	56	2.668	2.668	0.000	100	1799051	493.8	587.2	
	26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	93	923235	50.0	61.3	
	25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	1028599	50.0	59.9	
	27 Acetone	43	2.766	2.766	0.000	99	1407885	200.0	227.0	
	28 Iodomethane	142	2.878	2.878	0.000	99	1546133	50.0	58.5	
	32 Methyl acetate	43	2.990	2.990	0.000	98	1999697	100.0	124.6	
	30 Carbon disulfide	76	3.004	3.004	0.000	100	3442482	50.0	56.6	
	33 3-Chloro-1-propene	41	3.004	3.004	0.000	91	1862442	50.0	60.3	
	35 Methylene Chloride	84	3.115	3.115	0.000	97	1077743	50.0	58.2	
	37 2-Methyl-2-propanol	59	3.143	3.143	0.000	100	1405970	500.0	634.5	
	39 Acrylonitrile	53	3.255	3.255	0.000	99	4587019	500.0	605.6	
	41 Methyl tert-butyl ether	73	3.283	3.283	0.000	95	2526483	50.0	58.3	
	40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	97	1083485	50.0	59.1	
	42 Hexane	57	3.478	3.478	0.000	94	2014602	50.0	59.9	
	46 Vinyl acetate	43	3.590	3.590	0.000	97	5300279	100.0	125.7	
	45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	1997273	50.0	59.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
52 2-Butanone (MEK)	43	3.981	3.981	0.000	100	2397212	200.0	241.8	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	1155281	50.0	58.8	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	87	1377544	50.0	60.1	
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	3431014	1500.0	1813.8	
56 Chlorobromomethane	128	4.191	4.191	0.000	98	537478	50.0	59.7	
57 Tetrahydrofuran	42	4.191	4.191	0.000	90	851908	100.0	125.6	
59 Chloroform	83	4.247	4.247	0.000	93	1933019	50.0	58.7	
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	1722703	50.0	59.2	
61 Cyclohexane	56	4.442	4.442	0.000	91	2421119	50.0	59.0	
63 1,1-Dichloropropene	75	4.484	4.484	0.000	96	1636187	50.0	59.1	
62 Carbon tetrachloride	117	4.498	4.498	0.000	85	1419368	50.0	54.5	
66 Isobutyl alcohol	41	4.512	4.512	0.000	95	1226274	1250.0	1485.1	
64 Benzene	78	4.638	4.638	0.000	98	4398441	50.0	57.8	
65 1,2-Dichloroethane	62	4.666	4.666	0.000	97	1692211	50.0	60.7	
67 n-Heptane	43	4.819	4.819	0.000	96	2122576	50.0	57.4	
69 Trichloroethene	95	5.126	5.126	0.000	97	1140395	50.0	59.7	
70 2-Pentanone	43	5.238	5.238	0.000	99	3971953	200.0	248.4	
71 Methylcyclohexane	55	5.308	5.308	0.000	92	1851016	50.0	58.4	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	91	1152782	50.0	59.3	
74 1,4-Dioxane	88	5.378	5.378	0.000	95	274882	1000.0	1199.2	
75 Dibromomethane	93	5.406	5.406	0.000	97	633452	50.0	59.6	
76 Dichlorobromomethane	83	5.518	5.518	0.000	99	1367277	50.0	56.4	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	92	789490	50.0	64.8	
79 cis-1,3-Dichloropropene	75	5.867	5.867	0.000	94	1796821	50.0	61.9	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	97	5300106	200.0	261.4	
82 Toluene	91	6.156	6.156	0.000	98	4564896	50.0	58.5	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	97	1643443	50.0	62.6	
84 Ethyl methacrylate	69	6.364	6.364	0.000	92	1486803	50.0	62.4	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	94	905541	50.0	59.3	
86 Tetrachloroethene	164	6.593	6.593	0.000	94	884517	50.0	57.7	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	92	1673420	50.0	58.2	
88 2-Hexanone	43	6.678	6.678	0.000	96	3622925	200.0	243.9	
89 Chlorodibromomethane	129	6.843	6.843	0.000	91	860651	50.0	54.0	
90 Ethylene Dibromide	107	6.957	6.957	0.000	99	900793	50.0	58.7	
91 1-Chlorohexane	91	7.351	7.351	0.000	96	1603864	50.0	59.6	
92 Chlorobenzene	112	7.386	7.386	0.000	95	2891521	50.0	55.2	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	93	973363	50.0	56.9	
94 Ethylbenzene	106	7.465	7.465	0.000	99	1598865	50.0	57.1	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	1961331	50.0	57.4	
96 o-Xylene	106	7.937	7.937	0.000	97	1883909	50.0	57.2	
97 Styrene	104	7.951	7.951	0.000	95	3124288	50.0	59.4	
98 Bromoform	173	8.130	8.130	0.000	96	468228	50.0	50.3	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	5124799	50.0	59.4	
100 Cyclohexanone	55	8.366	8.366	0.000	94	1597892	2000.0	2055.5	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	1177121	50.0	60.4	
103 Bromobenzene	156	8.588	8.588	0.000	97	1199883	50.0	59.8	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	81	400730	50.0	57.7	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	82	405111	50.0	59.7	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	1442792	50.0	56.8	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	1216196	50.0	57.6	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	95	4291405	50.0	58.2	
109 4-Chlorotoluene	126	8.874	8.874	0.000	98	1234931	50.0	55.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	3936295	50.0	56.4	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	98	4282887	50.0	56.0	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	1186803	50.0	56.2	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	97	2314501	50.0	57.1	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	5087168	50.0	56.2	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	93	2343872	50.0	55.1	
117 n-Butylbenzene	91	9.903	9.903	0.000	98	4610895	50.0	57.1	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	2245422	50.0	55.4	
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	83	260882	50.0	53.3	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	1658682	50.0	57.4	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	786839	50.0	52.7	
123 Naphthalene	128	11.784	11.784	0.000	97	4623448	50.0	63.3	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	94	1536298	50.0	57.6	
S 137 1,2-Dichloroethene, Total	96				0		100.0	117.8	
S 143 Xylenes, Total	106				0		100.0	114.6	
S 144 1,2-Dichloroethene, Total	1				0		100.0	117.8	
S 138 Xylenes, Total (URS)	1				0		100.0	114.6	
S 142 Trihalomethanes, Total	1				0		200.0	219.5	
S 140 1,3-Dichloropropene, Total	1				0		100.0	124.5	

Reagents:

MV-MegaMainA_00014	Amount Added: 50.00	Units: uL	
MV-Gas A_00026	Amount Added: 50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added: 5.00	Units: uL	Run Reagent

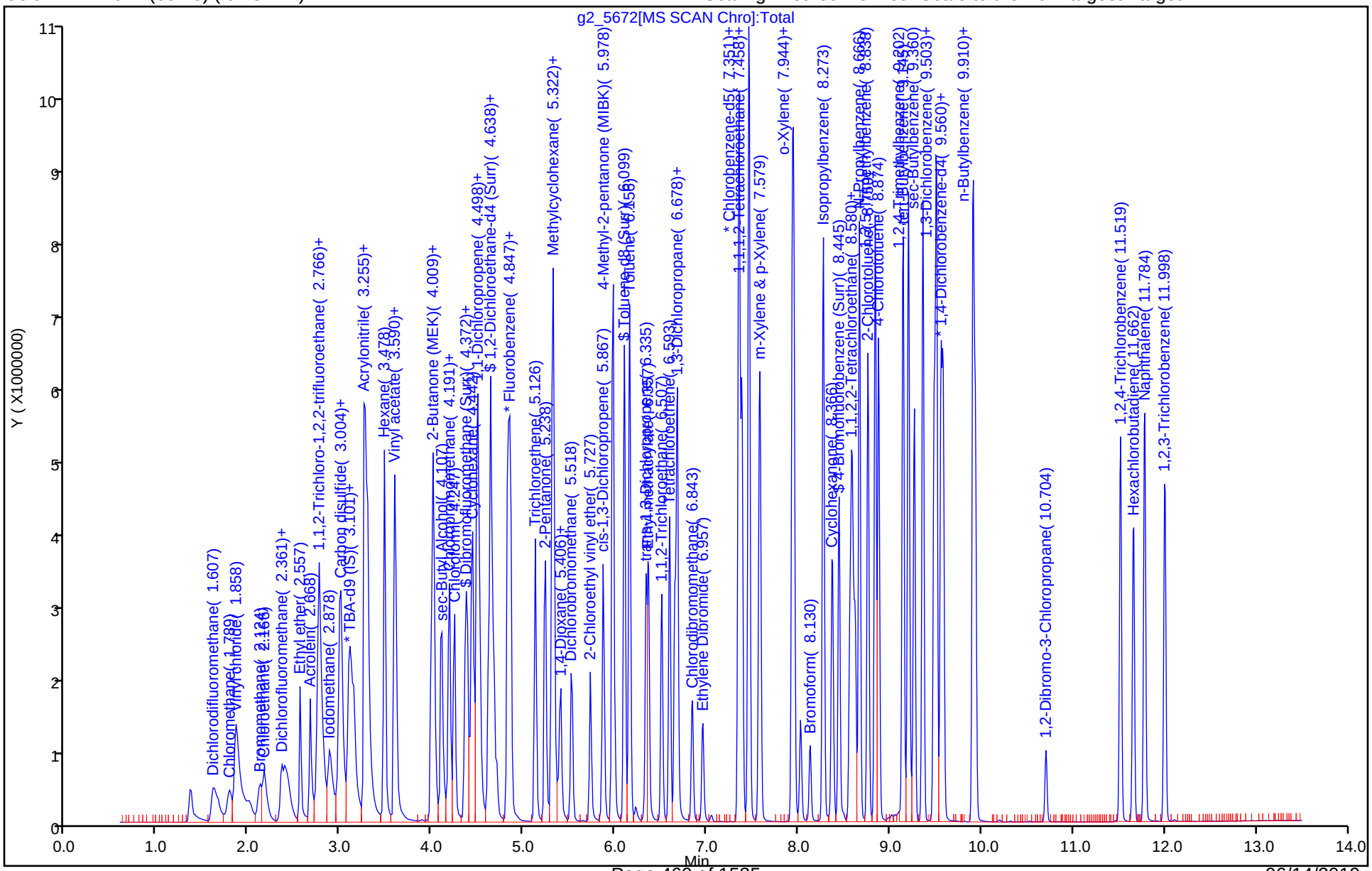
Report Date: 31-May-2019 00:39:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5672.D

Injection Date:	30-May-2019 09:12:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ccv			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCV 280-459872/3 Calibration Date: 05/30/2019 09:34

Instrument ID: VMS_G2 Calib Start Date: 05/18/2019 09:44

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/18/2019 18:07

Lab File ID: g2_5673.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethylene oxide	Qua		0.0128			5000		20.0
Ethanol	Lin1		0.0038		2660	3000	-11.5	20.0
Isopropyl alcohol	Ave	0.0211	0.0185		439	500	-12.2	20.0
Acetonitrile	Ave	0.0447	0.0335		375	500	-25.1*	20.0
Diisopropyl ether	Ave	0.2018	0.2307		57.2	50.0	14.4	20.0
2-Chloro-1,3-butadiene	Ave	0.3985	0.4962		62.3	50.0	24.5*	20.0
Tert-butyl ethyl ether	Ave	0.5520	0.7100		64.3	50.0	28.6*	20.0
Ethyl acetate	Ave	0.2969	0.3396		114	100	14.4	20.0
Propionitrile	Ave	0.0445	0.0501		563	500	12.5	20.0
Methacrylonitrile	Ave	0.1666	0.1983		595	500	19.0	20.0
Tert-amyl methyl ether	Ave	0.5358	0.6505		60.7	50.0	21.4*	20.0
n-Butanol	Lin1		0.0097		1390	1250	11.0	20.0
Methyl methacrylate	Lin2		0.0924		123	100	23.3*	20.0
2-Nitropropane	Lin1		0.0677		124	100	24.3*	20.0
cis-1,4-Dichloro-2-butene	Lin1		0.2721		113	100	12.6	20.0
1,2,3-Trimethylbenzene	Ave	2.573	2.960		57.5	50.0	15.0	20.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5673.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 30-May-2019 09:34:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 10:38:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2790529	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4273546	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	953235	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1542159	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1006491	50.0	50.2	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	100	1390948	50.0	50.2	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3939471	50.0	50.2	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1461840	50.0	51.4	
16 Ethylene oxide	43	2.054	2.054	0.000	100	5475927	5000.0	NQ	E
21 Ethanol	45	2.473	2.473	0.000	97	980831	3000.0	2655.7	M
23 Propene oxide	58	2.598	2.598	0.000	96	20560360	5000.0	8122.5	
29 Isopropyl alcohol	45	2.850	2.850	0.000	100	789941	500.0	438.8	
31 Acetonitrile	41	2.976	2.976	0.000	98	1430673	500.0	374.7	a
47 Isopropyl ether	87	3.604	3.604	0.000	95	986038	50.0	57.2	
48 2-Chloro-1,3-butadiene	53	3.660	3.660	0.000	93	2120560	50.0	62.3	
49 Tert-butyl ethyl ether	59	3.869	3.869	0.000	98	3034257	50.0	64.3	a
53 Ethyl acetate	43	4.009	4.009	0.000	99	2902555	100.0	114.4	a
54 Propionitrile	54	4.037	4.037	0.000	99	2142387	500.0	562.7	
58 Methacrylonitrile	41	4.149	4.149	0.000	92	8473196	500.0	595.0	
68 Tert-amyl methyl ether	73	4.707	4.707	0.000	83	2779988	50.0	60.7	a
73 n-Butanol	56	5.015	5.015	0.000	87	1035155	1250.0	1388.1	
77 Methyl methacrylate	100	5.336	5.336	0.000	93	789554	100.0	123.3	
80 2-Nitropropane	41	5.685	5.685	0.000	98	578410	100.0	124.3	
13 Tetrahydrothiophene	60	6.836	6.836	0.000	94	232416	100.0	121.0	a
101 cis-1,4-Dichloro-2-butene	53	8.330	8.330	0.000	94	839246	100.0	112.6	
116 1,2,3-Trimethylbenzene	105	9.603	9.603	0.000	98	4564684	50.0	57.5	a
120 1,3,5-Trichlorobenzene	180	10.890	10.890	0.000	97	1901636	50.0	62.0	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-Supp A_00035	Amount Added:	50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

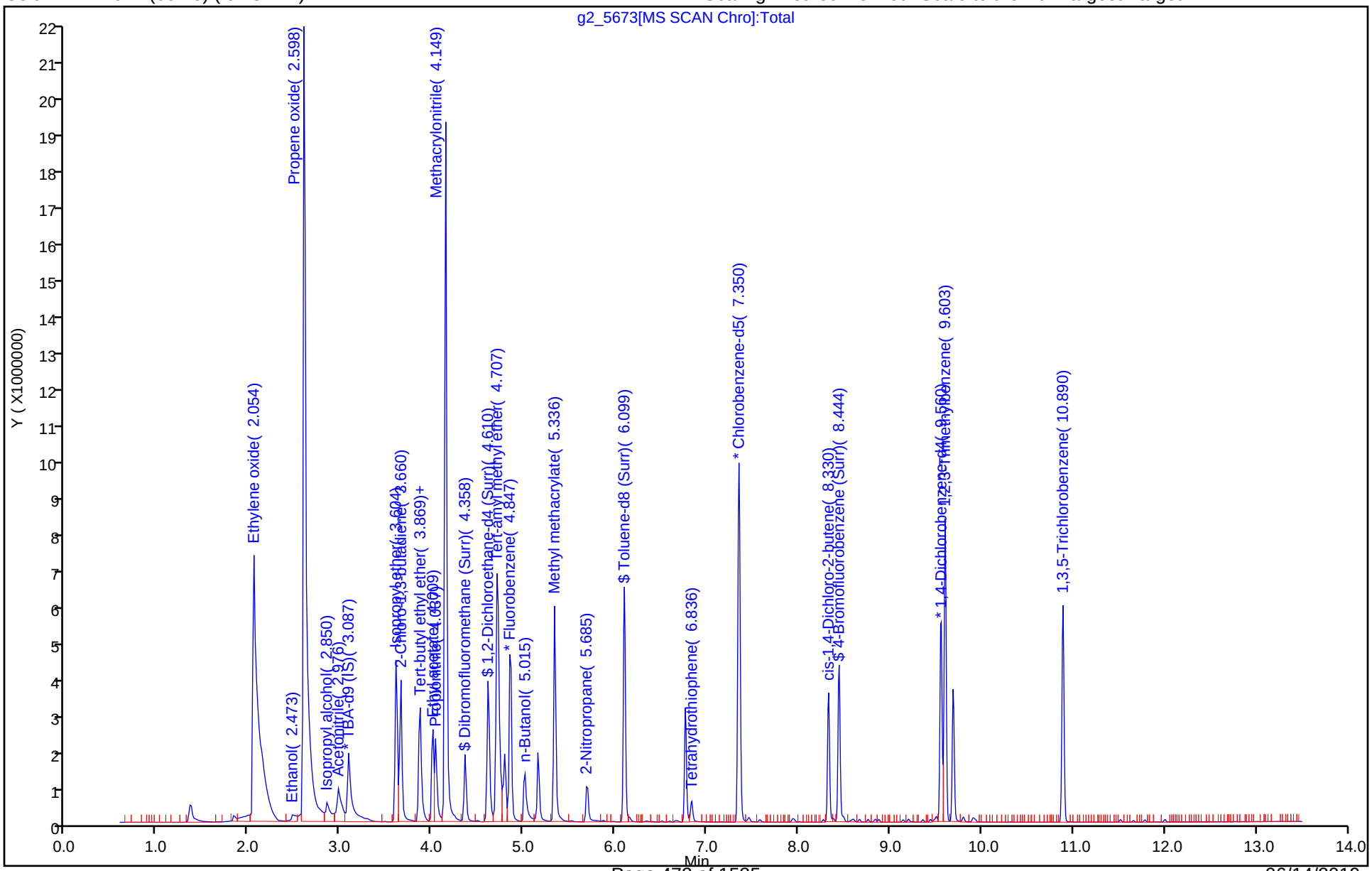
Report Date: 31-May-2019 00:37:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5673.D

Injection Date:	30-May-2019 09:34:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ccv			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

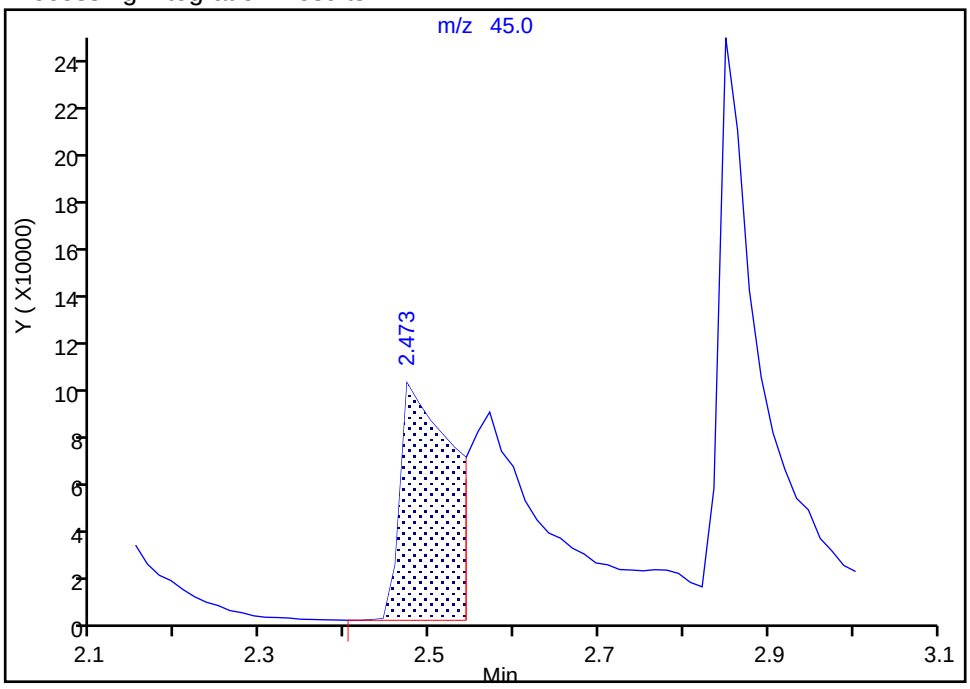
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Injection Date: 30-May-2019 09:34:30 Instrument ID: VMS_G2
Lims ID: ccv
Client ID:
Operator ID: meierg ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

21 Ethanol, CAS: 64-17-5

Signal: 1

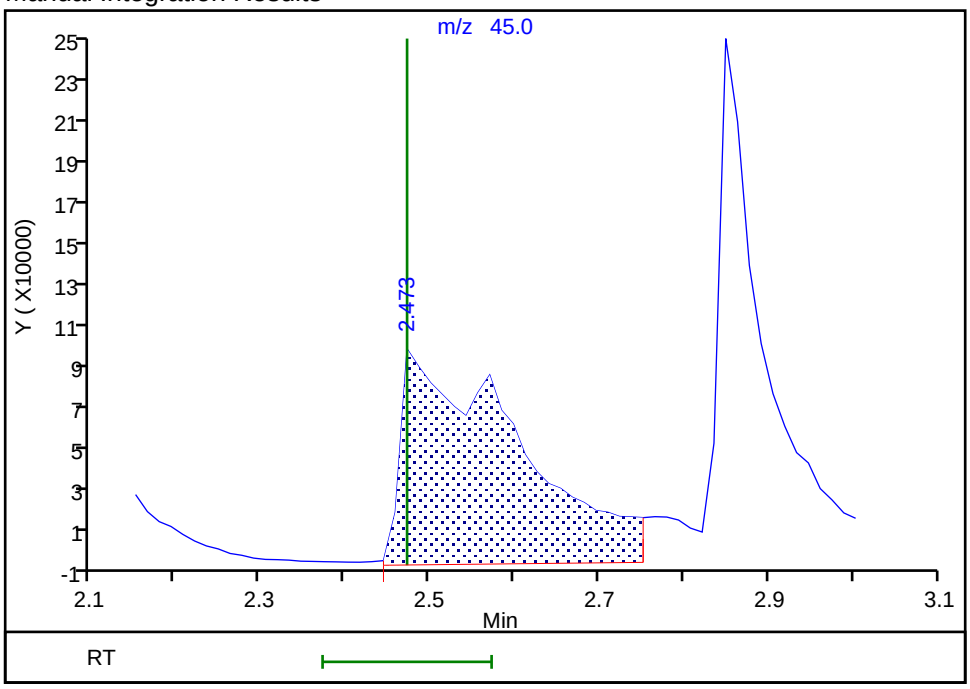
Processing Integration Results

RT: 2.47
Area: 434142
Amount: 1142.5108
Amount Units: ug/l



Manual Integration Results

RT: 2.47
Area: 980831
Amount: 2655.6839
Amount Units: ug/l



Reviewer: meierg, 30-May-2019 09:50:31
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

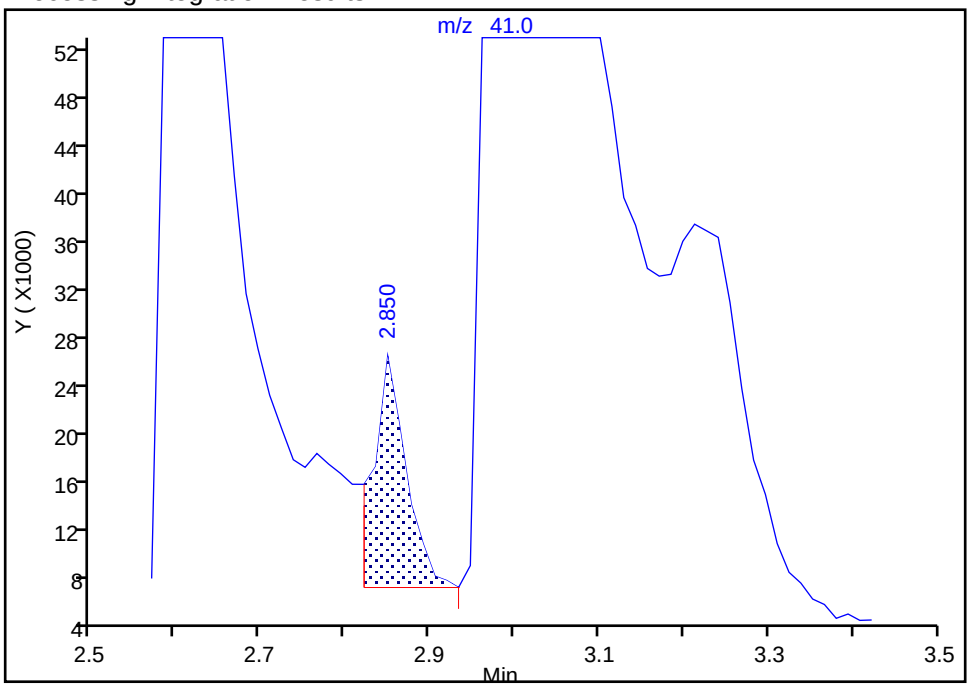
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Injection Date: 30-May-2019 09:34:30 Instrument ID: VMS_G2
Lims ID: ccv
Client ID:
Operator ID: meierg ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

31 Acetonitrile, CAS: 75-05-8

Signal: 1

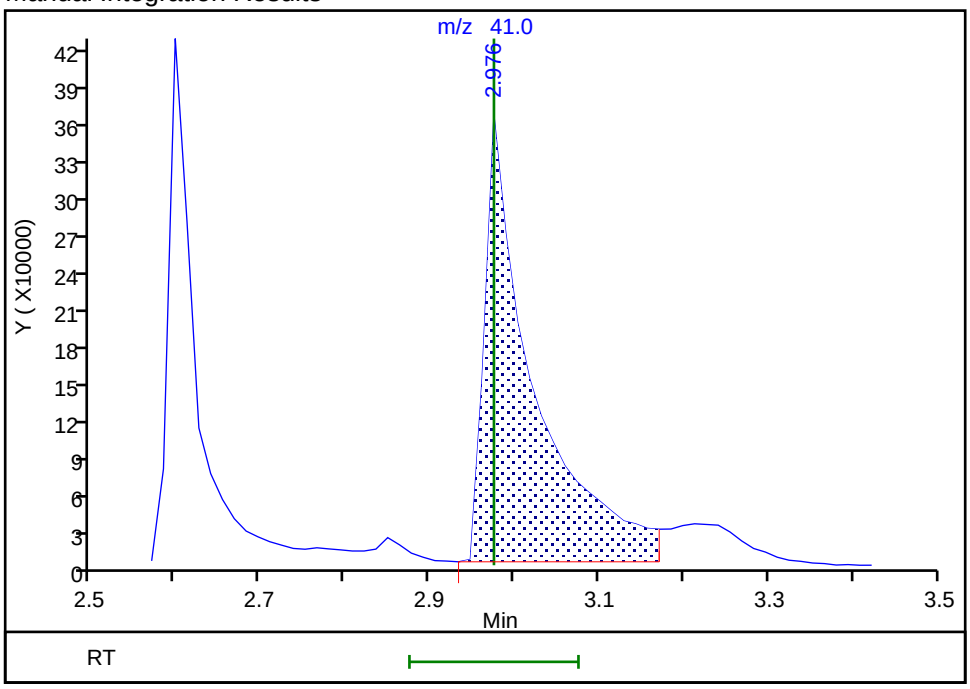
Processing Integration Results

RT: 2.85
Area: 53081
Amount: 13.903208
Amount Units: ug/l



Manual Integration Results

RT: 2.98
Area: 1430673
Amount: 374.7281
Amount Units: ug/l



Reviewer: meierg, 30-May-2019 13:36:43
Audit Action: Assigned Compound ID Audit Reason: Wrong peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

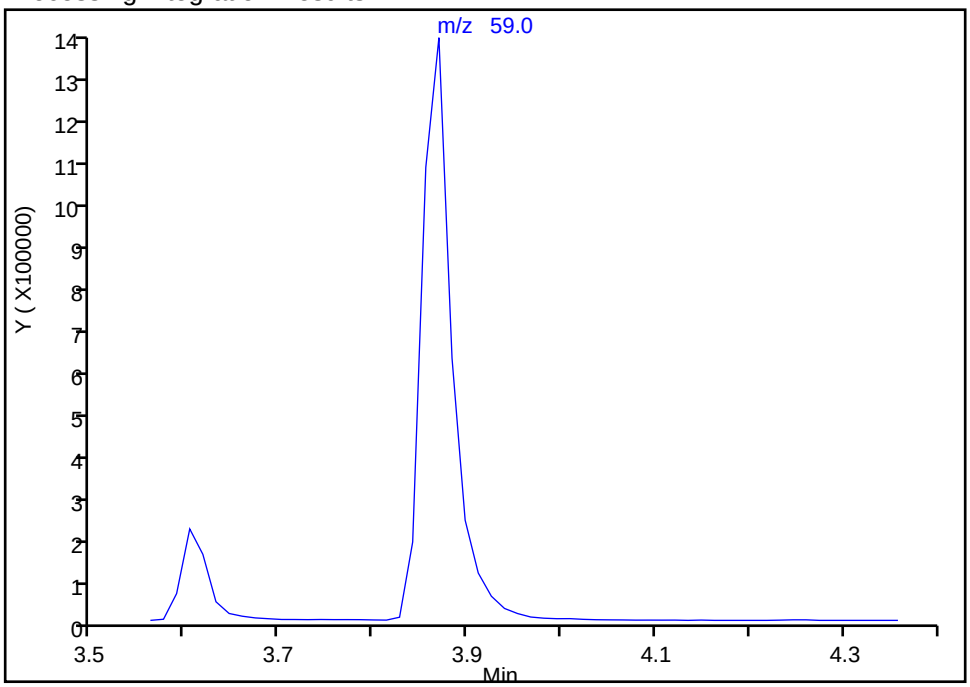
Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5673.D
Injection Date: 30-May-2019 09:34:30 Instrument ID: VMS_G2
Lims ID: ccv
Client ID:
Operator ID: meierg ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

49 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

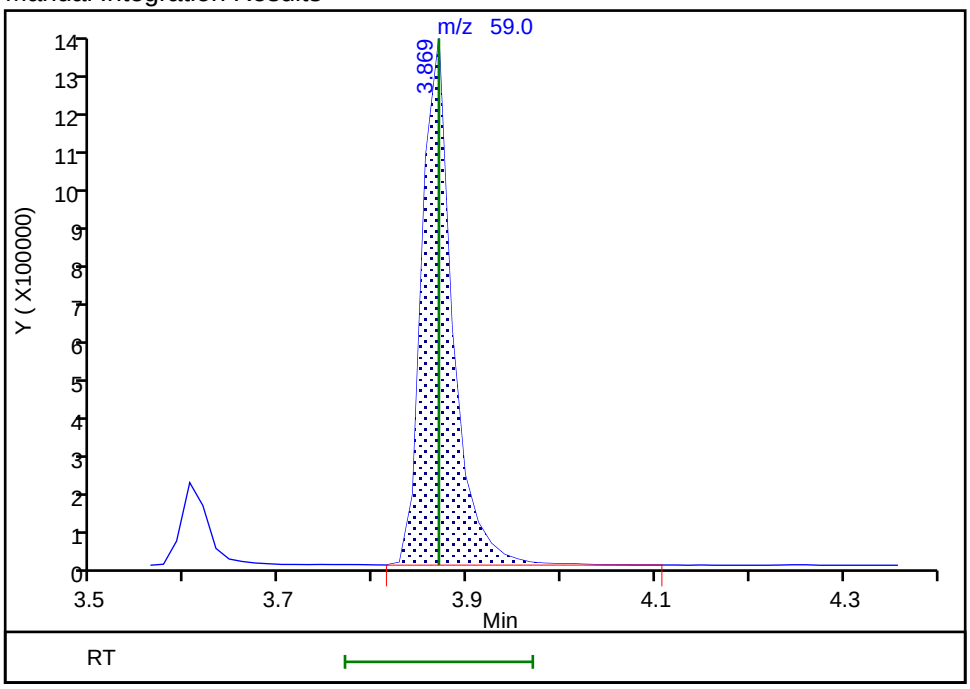
Not Detected
Expected RT: 3.87

Processing Integration Results



Manual Integration Results

RT: 3.87
Area: 3034257
Amount: 64.309882
Amount Units: ug/l



Reviewer: meierg, 30-May-2019 09:52:47
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

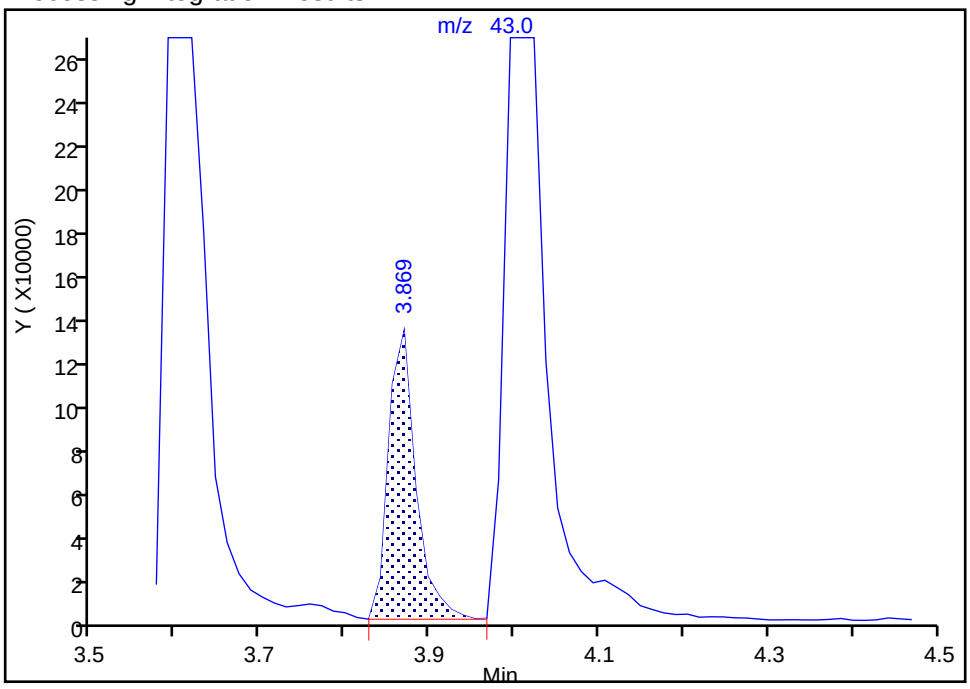
Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5673.D
Injection Date: 30-May-2019 09:34:30 Instrument ID: VMS_G2
Lims ID: ccv
Client ID:
Operator ID: meierg ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

53 Ethyl acetate, CAS: 141-78-6

Signal: 1

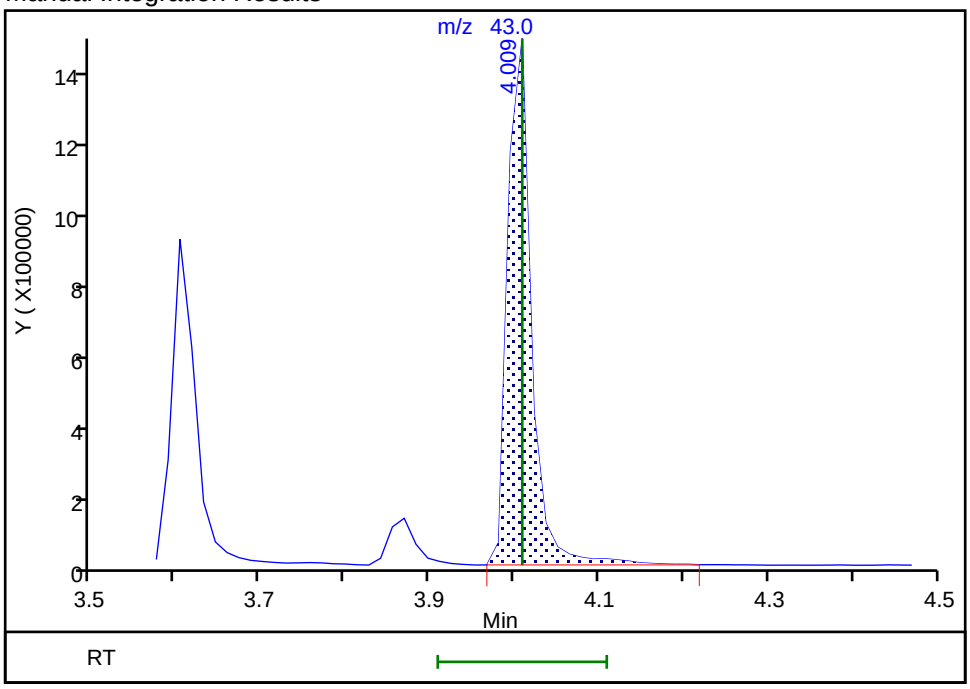
Processing Integration Results

RT: 3.87
Area: 298412
Amount: 11.760641
Amount Units: ug/l



Manual Integration Results

RT: 4.01
Area: 2902555
Amount: 114.3919
Amount Units: ug/l



Reviewer: meierg, 30-May-2019 13:36:56
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

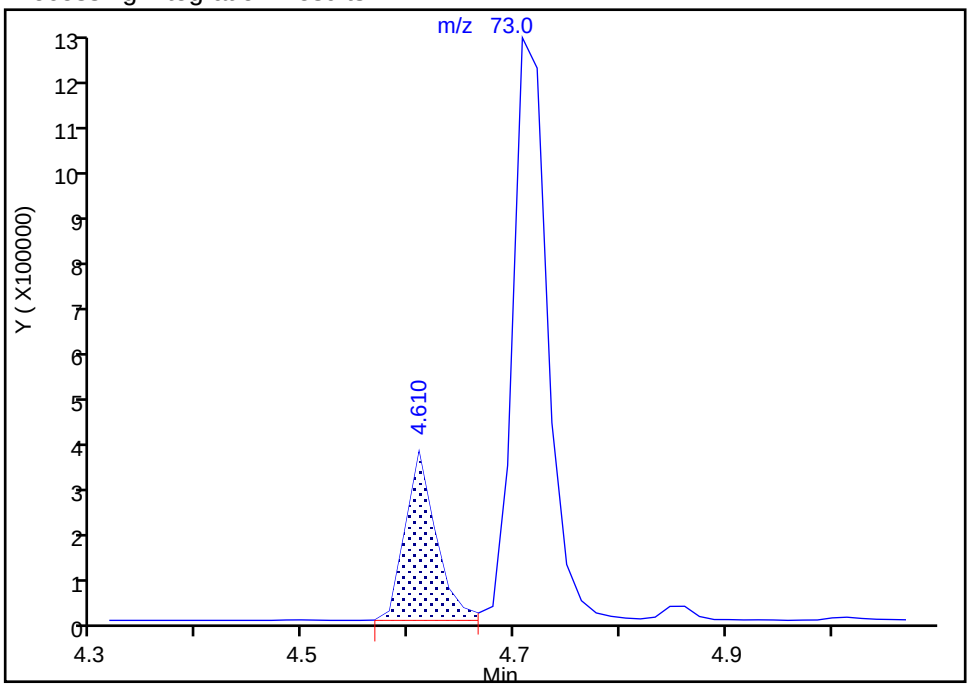
Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5673.D
Injection Date: 30-May-2019 09:34:30 Instrument ID: VMS_G2
Lims ID: ccv
Client ID:
Operator ID: meierg ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

68 Tert-amyl methyl ether, CAS: 994-05-8

Signal: 1

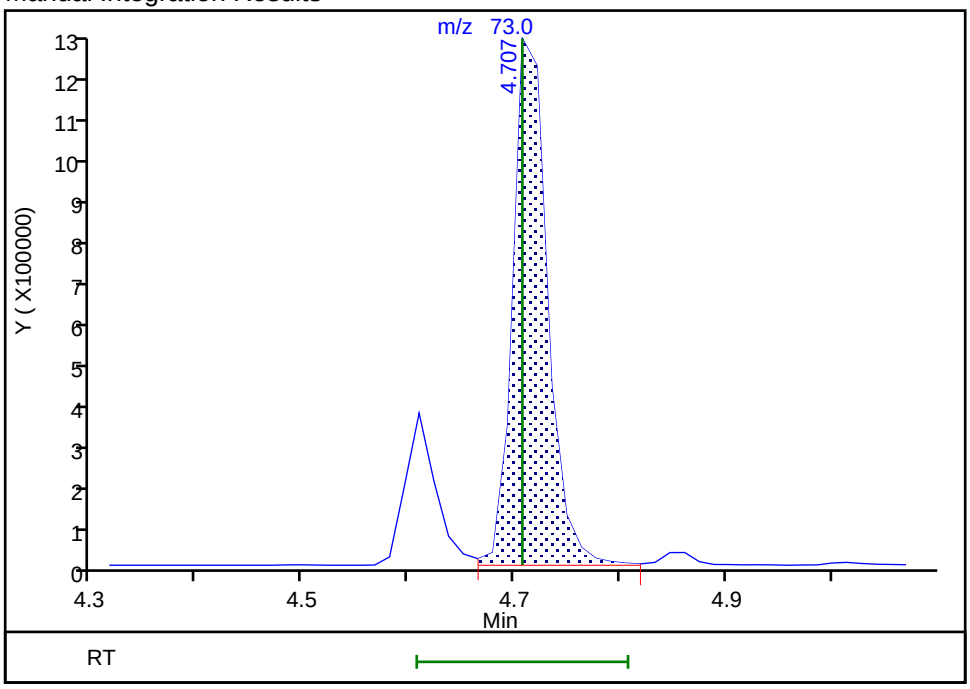
Processing Integration Results

RT: 4.61
Area: 713091
Amount: 15.572665
Amount Units: ug/l



Manual Integration Results

RT: 4.71
Area: 2779988
Amount: 60.710093
Amount Units: ug/l



Reviewer: meierg, 30-May-2019 09:53:04
Audit Action: Assigned Compound ID Audit Reason: Wrong peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

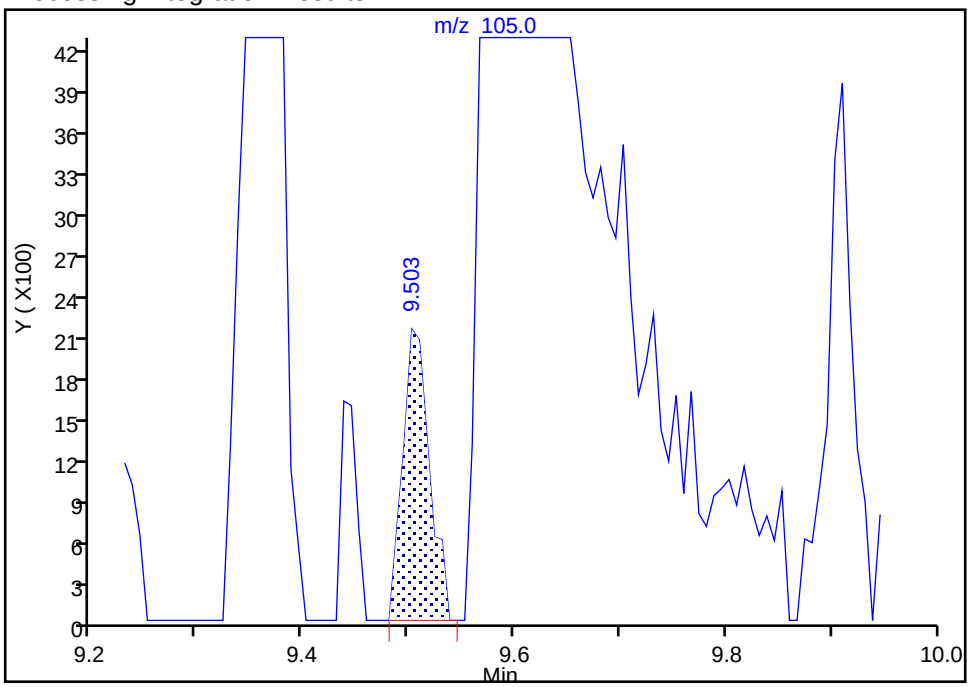
Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5673.D
Injection Date: 30-May-2019 09:34:30 Instrument ID: VMS_G2
Lims ID: ccv
Client ID:
Operator ID: meierg ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

116 1,2,3-Trimethylbenzene, CAS: 526-73-8

Signal: 1

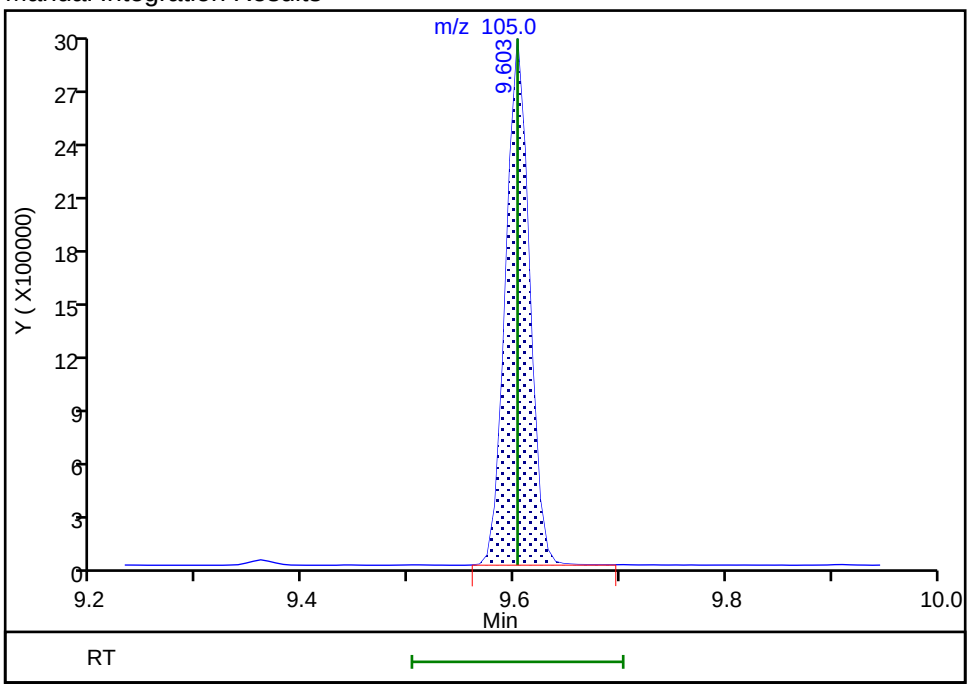
Processing Integration Results

RT: 9.50
Area: 3731
Amount: 0.047015
Amount Units: ug/l



Manual Integration Results

RT: 9.60
Area: 4564684
Amount: 57.519924
Amount Units: ug/l



Reviewer: meierg, 30-May-2019 13:37:24
Audit Action: Assigned Compound ID Audit Reason: Wrong peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCV 280-459872/3 Calibration Date: 05/30/2019 09:34

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5673.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2347	0.2355		50.2	50.0	0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3243	0.3255		50.2	50.0	0.4	20.0
Toluene-d8 (Surr)	Ave	4.117	4.133		50.2	50.0	0.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.9227	0.9479		51.4	50.0	2.7	20.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5673.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 30-May-2019 09:34:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 10:38:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2790529	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4273546	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	953235	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1542159	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1006491	50.0	50.2	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	100	1390948	50.0	50.2	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3939471	50.0	50.2	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1461840	50.0	51.4	
16 Ethylene oxide	43	2.054	2.054	0.000	100	5475927	5000.0	NQ	E
21 Ethanol	45	2.473	2.473	0.000	97	980831	3000.0	2655.7	M
23 Propene oxide	58	2.598	2.598	0.000	96	20560360	5000.0	8122.5	
29 Isopropyl alcohol	45	2.850	2.850	0.000	100	789941	500.0	438.8	
31 Acetonitrile	41	2.976	2.976	0.000	98	1430673	500.0	374.7	a
47 Isopropyl ether	87	3.604	3.604	0.000	95	986038	50.0	57.2	
48 2-Chloro-1,3-butadiene	53	3.660	3.660	0.000	93	2120560	50.0	62.3	
49 Tert-butyl ethyl ether	59	3.869	3.869	0.000	98	3034257	50.0	64.3	a
53 Ethyl acetate	43	4.009	4.009	0.000	99	2902555	100.0	114.4	a
54 Propionitrile	54	4.037	4.037	0.000	99	2142387	500.0	562.7	
58 Methacrylonitrile	41	4.149	4.149	0.000	92	8473196	500.0	595.0	
68 Tert-amyl methyl ether	73	4.707	4.707	0.000	83	2779988	50.0	60.7	a
73 n-Butanol	56	5.015	5.015	0.000	87	1035155	1250.0	1388.1	
77 Methyl methacrylate	100	5.336	5.336	0.000	93	789554	100.0	123.3	
80 2-Nitropropane	41	5.685	5.685	0.000	98	578410	100.0	124.3	
13 Tetrahydrothiophene	60	6.836	6.836	0.000	94	232416	100.0	121.0	a
101 cis-1,4-Dichloro-2-butene	53	8.330	8.330	0.000	94	839246	100.0	112.6	
116 1,2,3-Trimethylbenzene	105	9.603	9.603	0.000	98	4564684	50.0	57.5	a
120 1,3,5-Trichlorobenzene	180	10.890	10.890	0.000	97	1901636	50.0	62.0	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-Supp A_00035	Amount Added:	50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

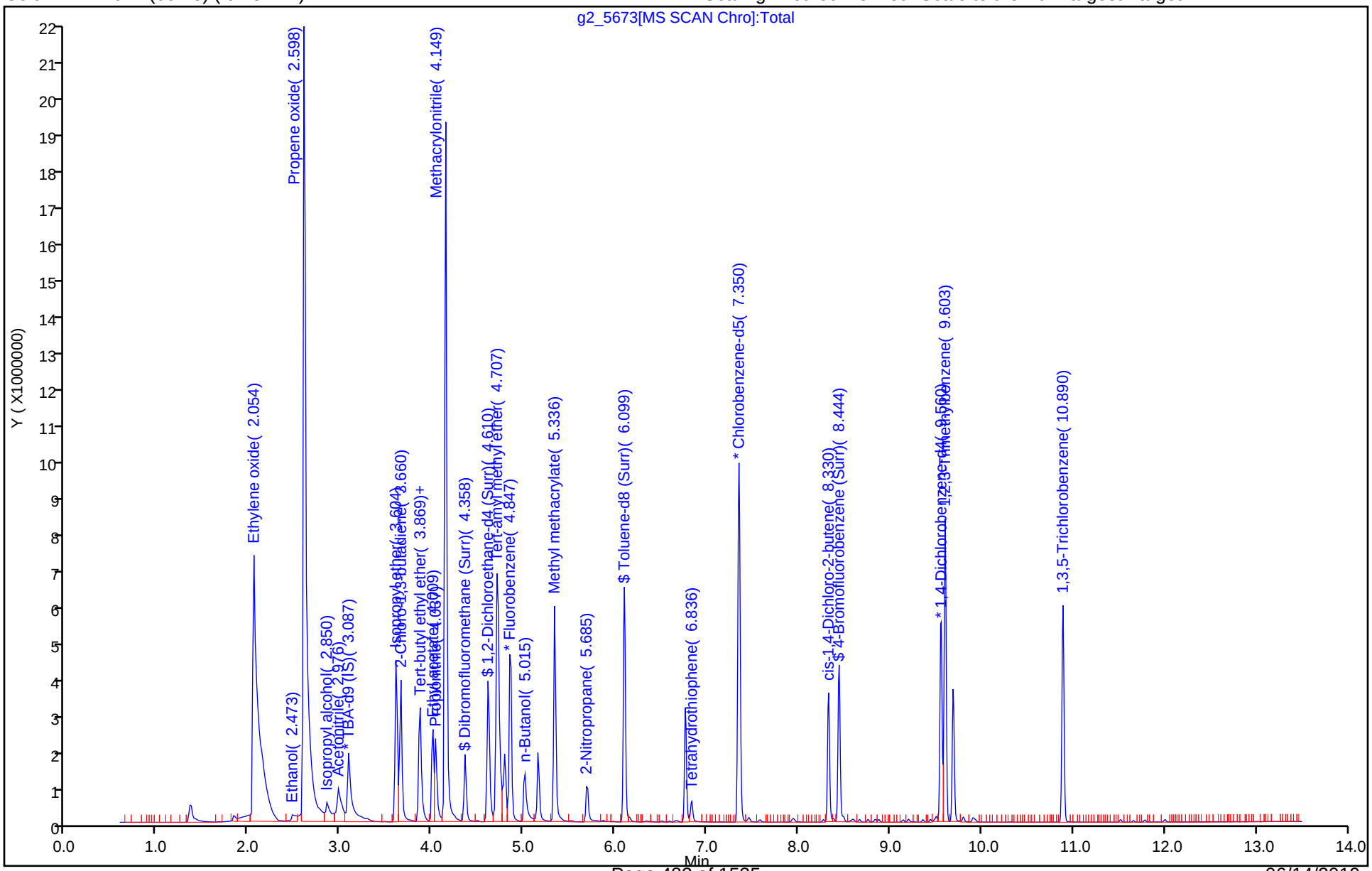
Report Date: 31-May-2019 00:37:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5673.D

Injection Date:	30-May-2019 09:34:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ccv			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCVC 280-459872/31 Calibration Date: 05/30/2019 19:34

Instrument ID: VMS_G2 Calib Start Date: 05/27/2019 10:34

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/27/2019 12:42

Lab File ID: g2_5701.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3437	0.3629		52.8	50.0	5.6	50.0
Chloromethane	Ave	0.3898	0.3585	0.1000	46.0	50.0	-8.0	50.0
Vinyl chloride	Lin2		0.2091		45.2	50.0	-9.6	50.0
Bromomethane	Ave	0.1740	0.1768		50.8	50.0	1.6	50.0
Chloroethane	Ave	0.1735	0.1560		44.9	50.0	-10.1	50.0
Dichlorofluoromethane	Lin1		0.1801		37.4	50.0	-25.1	50.0
Trichlorofluoromethane	Lin1		0.2974		45.4	50.0	-9.3	50.0
2-Chloroethyl vinyl ether	Ave	0.1455	0.1791		61.6	50.0	23.1	50.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5701.D
Lims ID: ccvc
Client ID:
Sample Type: CCVC
Inject. Date: 30-May-2019 19:34:30 ALS Bottle#: 30 Worklist Smp#: 31
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccvc
Misc. Info.: 280-0082377-031
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub90

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:38:47 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: ornelasg Date: 30-May-2019 19:56:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	84	2026243	1000.0	1000.0	
* 2 Fluorobenzene	96	4.847	4.861	-0.014	98	3569697	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	807378	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1345661	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	862641	50.0	51.5	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	98	1222414	50.0	52.8	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3295329	50.0	49.6	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	87	1258409	50.0	50.7	
12 Dichlorodifluoromethane	85	1.607	1.607	0.000	99	1295577	50.0	52.8	
14 Chloromethane	50	1.788	1.789	-0.001	99	1279780	50.0	46.0	
15 Vinyl chloride	62	1.886	1.900	-0.014	98	746395	50.0	45.2	
17 Bromomethane	94	2.124	2.124	0.000	92	631182	50.0	50.8	
18 Chloroethane	64	2.165	2.166	-0.001	99	556687	50.0	44.9	
19 Dichlorofluoromethane	67	2.347	2.361	-0.014	97	642826	50.0	37.4	
20 Trichlorofluoromethane	101	2.403	2.403	0.000	99	1061771	50.0	45.4	
22 Ethyl ether	59	2.557	2.557	0.000	95	821227	50.0	58.7	
24 Acrolein	56	2.668	2.668	0.000	99	1350299	493.8	516.7	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	94	709476	50.0	55.3	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	94	808538	50.0	55.2	
27 Acetone	43	2.766	2.766	0.000	99	1258881	200.0	238.4	
28 Iodomethane	142	2.878	2.878	0.000	98	1272491	50.0	56.5	
32 Methyl acetate	43	2.990	2.990	0.000	98	1689521	100.0	123.5	
30 Carbon disulfide	76	2.990	3.004	-0.014	100	2721095	50.0	52.5	
33 3-Chloro-1-propene	41	3.003	3.004	-0.001	90	1425094	50.0	54.2	
35 Methylene Chloride	84	3.115	3.115	0.000	98	878593	50.0	55.6	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	99	1116784	500.0	590.8	
39 Acrylonitrile	53	3.255	3.255	0.000	98	3867215	500.0	598.9	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	96	2179656	50.0	59.0	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	96	851268	50.0	54.5	
42 Hexane	57	3.478	3.478	0.000	95	1343932	50.0	46.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
46 Vinyl acetate	43	3.590	3.590	0.000	97	3819617	100.0	106.3	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	1663757	50.0	58.3	
52 2-Butanone (MEK)	43	3.981	3.981	0.000	99	2050374	200.0	242.6	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	954997	50.0	57.0	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	88	910650	50.0	46.6	
55 sec-Butyl Alcohol	45	4.093	4.107	-0.014	99	2725161	1500.0	1690.1	
56 Chlorobromomethane	128	4.177	4.191	-0.014	97	465975	50.0	60.7	
57 Tetrahydrofuran	42	4.191	4.191	0.000	90	721098	100.0	124.7	
59 Chloroform	83	4.246	4.247	-0.001	94	1648292	50.0	58.8	
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	1463213	50.0	59.0	
61 Cyclohexane	56	4.442	4.442	0.000	92	1896923	50.0	54.2	
63 1,1-Dichloropropene	75	4.484	4.484	0.000	96	1317217	50.0	55.8	
62 Carbon tetrachloride	117	4.498	4.498	0.000	96	1191371	50.0	53.6	
66 Isobutyl alcohol	41	4.512	4.512	0.000	94	1023976	1250.0	1454.9	
64 Benzene	78	4.638	4.638	0.000	98	3583415	50.0	55.3	
65 1,2-Dichloroethane	62	4.665	4.666	-0.001	97	1552046	50.0	65.4	
67 n-Heptane	43	4.819	4.819	0.000	96	1390175	50.0	44.1	
69 Trichloroethene	95	5.126	5.126	0.000	97	946048	50.0	58.1	
70 2-Pentanone	43	5.238	5.238	0.000	99	3348995	200.0	245.7	
71 Methylcyclohexane	55	5.308	5.308	0.000	93	1409841	50.0	52.2	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	84	947378	50.0	57.2	
74 1,4-Dioxane	88	5.378	5.378	0.000	93	212875	1000.0	1088.1	
75 Dibromomethane	93	5.392	5.406	-0.014	97	554200	50.0	61.2	
76 Dichlorobromomethane	83	5.517	5.518	-0.001	99	1157048	50.0	56.0	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	93	639487	50.0	61.6	
79 cis-1,3-Dichloropropene	75	5.867	5.867	0.000	93	1454570	50.0	58.8	
81 4-Methyl-2-pentanone (MIBK	43	5.964	5.978	-0.014	98	4497798	200.0	260.2	
82 Toluene	91	6.156	6.156	0.000	98	3696636	50.0	55.6	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	98	1353807	50.0	60.5	
84 Ethyl methacrylate	69	6.364	6.364	0.000	92	1230677	50.0	60.6	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	93	789968	50.0	60.7	
86 Tetrachloroethene	164	6.593	6.593	0.000	94	707439	50.0	54.2	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	93	1433829	50.0	58.5	
88 2-Hexanone	43	6.678	6.678	0.000	96	3079082	200.0	243.4	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	729959	50.0	53.7	
90 Ethylene Dibromide	107	6.957	6.957	0.000	99	778723	50.0	59.6	
91 1-Chlorohexane	91	7.343	7.351	-0.008	94	1233787	50.0	53.8	
92 Chlorobenzene	112	7.386	7.386	0.000	93	2427456	50.0	54.4	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	92	828286	50.0	56.9	
94 Ethylbenzene	106	7.458	7.465	-0.007	99	1305382	50.0	54.7	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	1610281	50.0	55.3	
96 o-Xylene	106	7.937	7.937	0.000	97	1548983	50.0	55.2	
97 Styrene	104	7.951	7.951	0.000	95	2609884	50.0	58.2	
98 Bromoform	173	8.130	8.130	0.000	96	396118	50.0	50.0	
99 Isopropylbenzene	105	8.273	8.273	0.000	97	4238333	50.0	57.0	
100 Cyclohexanone	55	8.366	8.366	0.000	96	1458593	2000.0	2202.9	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	963108	50.0	57.4	
103 Bromobenzene	156	8.580	8.588	-0.008	96	1046808	50.0	60.6	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	76	311080	50.0	52.1	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	86	349343	50.0	59.8	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	1174808	50.0	53.7	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	1004819	50.0	55.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	94	3546183	50.0	55.9	
109 4-Chlorotoluene	126	8.873	8.874	-0.001	98	1025793	50.0	53.2	
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	3227382	50.0	53.7	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	98	3597443	50.0	54.6	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	959359	50.0	52.8	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	97	1959880	50.0	56.2	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	4167181	50.0	53.5	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	96	2006942	50.0	54.8	
117 n-Butylbenzene	91	9.903	9.903	0.000	98	3626385	50.0	52.2	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	1952658	50.0	56.0	
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	82	213276	50.0	50.6	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	1381361	50.0	55.5	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	606486	50.0	47.2	
123 Naphthalene	128	11.784	11.784	0.000	97	3899839	50.0	62.0	
124 1,2,3-Trichlorobenzene	180	11.998	12.005	-0.007	95	1308169	50.0	56.9	
S 137 1,2-Dichloroethene, Total	96				0		100.0	111.4	
S 139 Total BTEX	1				0			276.2	
S 143 Xylenes, Total	106				0		100.0	110.5	
S 144 1,2-Dichloroethene, Total	1				0		100.0	111.4	
S 138 Xylenes, Total (URS)	1				0		100.0	110.5	
S 142 Trihalomethanes, Total	1				0		200.0	218.5	
S 140 1,3-Dichloropropene, Total	1				0		100.0	119.3	

Reagents:

MV-MegaMainA_00014	Amount Added:	50.00	Units: uL	
MV-Gas A_00026	Amount Added:	50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

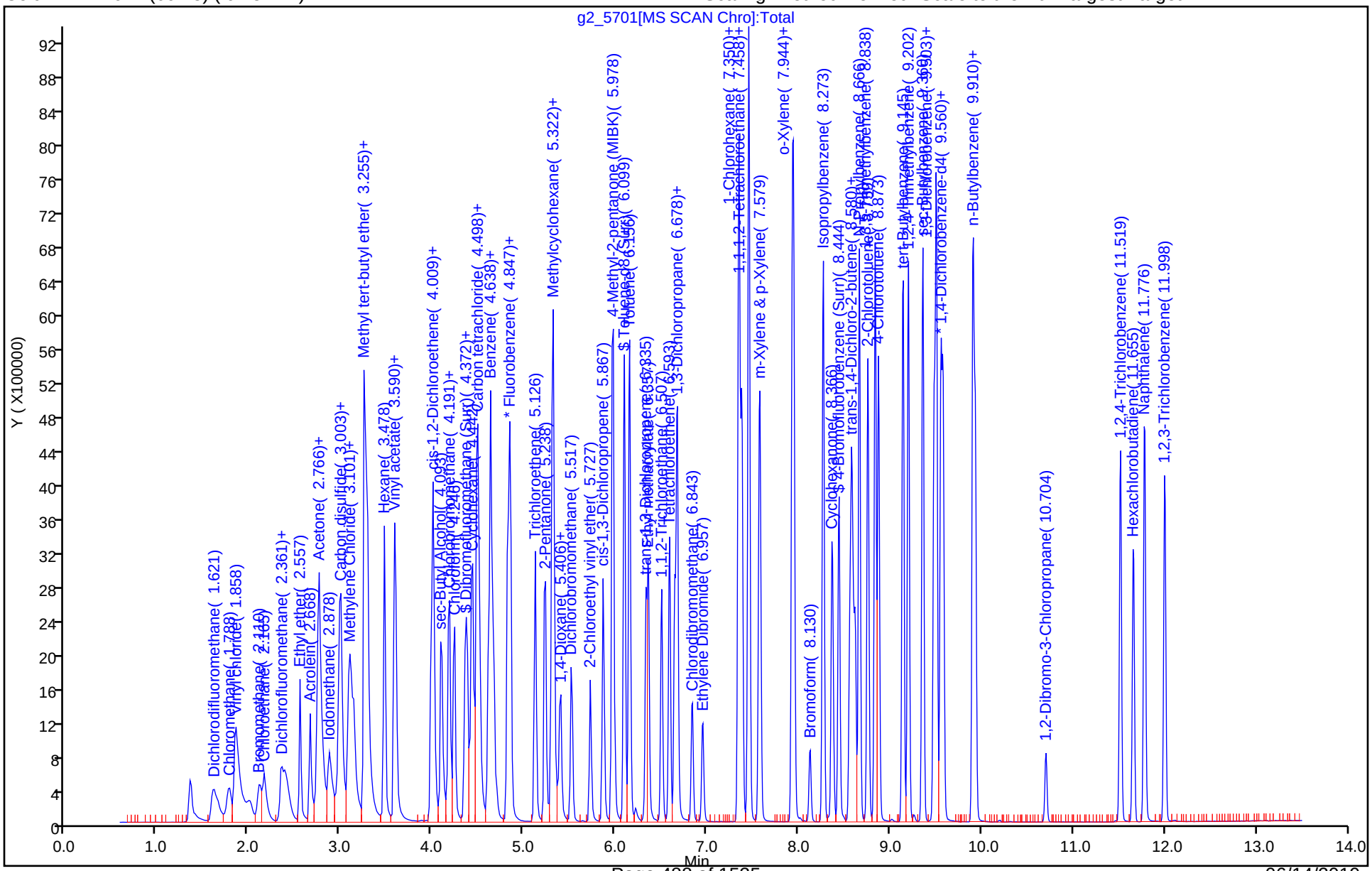
Report Date: 31-May-2019 00:38:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5701.D

Injection Date:	30-May-2019 19:34:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ccvc			Worklist Smp#:	31
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCVC 280-459872/31 Calibration Date: 05/30/2019 19:34

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5701.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Lin1		0.2301		58.7	50.0	17.5	50.0
Acrolein	Lin1		0.0383		517	494	4.7	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1798	0.1988		55.3	50.0	10.5	50.0
1,1-Dichloroethene	Ave	0.2051	0.2265		55.2	50.0	10.4	50.0
Acetone	Lin1		0.0882		238	200	19.2	50.0
Methyl iodide	Ave	0.3155	0.3565		56.5	50.0	13.0	50.0
Carbon disulfide	Ave	0.7266	0.7623		52.5	50.0	4.9	50.0
Methyl acetate	Lin2		0.2367		124	100	23.5	50.0
3-Chloro-1-propene	Ave	0.3686	0.3992		54.2	50.0	8.3	50.0
Methylene Chloride	Lin2		0.2461		55.6	50.0	11.3	50.0
t-Butyl alcohol	Lin1		0.0313		591	500	18.2	50.0
Acrylonitrile	Ave	0.0904	0.1083		599	500	19.8	50.0
Methyl tert-butyl ether	Ave	0.5171	0.6106		59.0	50.0	18.1	50.0
trans-1,2-Dichloroethene	Ave	0.2189	0.2385		54.5	50.0	8.9	50.0
Hexane	Ave	1.773	1.665		46.9	50.0	-6.1	50.0
Vinyl acetate	Ave	0.5035	0.5350		106	100	6.3	50.0
1,1-Dichloroethane	Ave	0.3999	0.4661	0.1000	58.3	50.0	16.6	50.0
2-Butanone (MEK)	Lin1		0.1436		243	200	21.3	50.0
cis-1,2-Dichloroethene	Ave	0.2348	0.2675		57.0	50.0	14.0	50.0
2,2-Dichloropropane	Ave	0.2737	0.2551		46.6	50.0	-6.8	50.0
sec-Butyl Alcohol	Lin1		0.0255		1690	1500	12.7	50.0
Bromochloromethane	Ave	0.1075	0.1305		60.7	50.0	21.4	50.0
Tetrahydrofuran	Lin2		0.1010		125	100	24.7	50.0
Chloroform	Ave	0.3930	0.4618		58.8	50.0	17.5	50.0
1,1,1-Trichloroethane	Ave	0.3476	0.4099		59.0	50.0	17.9	50.0
Cyclohexane	Ave	0.4899	0.5314		54.2	50.0	8.5	50.0
1,1-Dichloropropene	Ave	0.3306	0.3690		55.8	50.0	11.6	50.0
Carbon tetrachloride	Lin1		0.3338		53.6	50.0	7.3	50.0
Isobutyl alcohol	Lin1		0.0115		1450	1250	16.4	50.0
Benzene	Ave	0.9081	1.004		55.3	50.0	10.5	50.0
1,2-Dichloroethane	Lin2		0.4348		65.4	50.0	30.7	50.0
Trichloroethene	Ave	0.2281	0.2650		58.1	50.0	16.2	50.0
2-Pentanone	Lin1		0.2345		246	200	22.9	50.0
Methylcyclohexane	Ave	0.3785	0.3950		52.2	50.0	4.3	50.0
1,2-Dichloropropane	Lin2		0.2654		57.2	50.0	14.3	50.0
1,4-Dioxane	Lin1		0.0030		1090	1000	8.8	50.0
Dibromomethane	Ave	0.1269	0.1553		61.2	50.0	22.4	50.0
Bromodichloromethane	Lin1		0.3241		56.0	50.0	12.0	50.0
cis-1,3-Dichloropropene	Ave	1.531	1.802		58.8	50.0	17.6	50.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3150		260	200	30.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCVC 280-459872/31 Calibration Date: 05/30/2019 19:34

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5701.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene	Ave	0.9310	1.036		55.6	50.0	11.2	50.0
trans-1,3-Dichloropropene	Ave	0.3135	0.3793		60.5	50.0	21.0	50.0
Ethyl methacrylate	Ave	1.257	1.524		60.6	50.0	21.3	50.0
1,1,2-Trichloroethane	Ave	0.1824	0.2213		60.7	50.0	21.4	50.0
Tetrachloroethene	Ave	0.8082	0.8762		54.2	50.0	8.4	50.0
1,3-Dichloropropane	Ave	1.517	1.776		58.5	50.0	17.1	50.0
2-Hexanone	Lin1		0.9534		243	200	21.7	50.0
Dibromochloromethane	Lin1		0.9041		53.7	50.0	7.5	50.0
1,2-Dibromoethane	Ave	0.8093	0.9645		59.6	50.0	19.2	50.0
1-Chlorohexane	Lin2		1.528		53.8	50.0	7.6	50.0
Chlorobenzene	Ave	2.762	3.007	0.3000	54.4	50.0	8.8	50.0
1,1,1,2-Tetrachloroethane	Ave	0.9019	1.026		56.9	50.0	13.7	50.0
Ethylbenzene	Ave	1.477	1.617		54.7	50.0	9.5	50.0
m,p-Xylene	Ave	1.802	1.994		55.3	50.0	10.7	50.0
o-Xylene	Ave	1.738	1.919		55.2	50.0	10.4	50.0
Styrene	Ave	2.776	3.233		58.2	50.0	16.5	50.0
Bromoform	Lin1		0.4906	0.1000	50.0	50.0	0.0	50.0
Isopropylbenzene	Ave	2.761	3.150		57.0	50.0	14.1	50.0
Cyclohexanone	Lin1		0.0452		2200	2000	10.1	50.0
1,1,2,2-Tetrachloroethane	Lin1		0.7157	0.3000	57.4	50.0	14.8	50.0
Bromobenzene	Lin2		0.7779		60.6	50.0	21.1	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.2312		52.1	50.0	4.2	50.0
1,2,3-Trichloropropane	Lin1		0.2596		59.8	50.0	19.6	50.0
N-Propylbenzene	Ave	0.8125	0.8730		53.7	50.0	7.4	50.0
2-Chlorotoluene	Ave	0.6754	0.7467		55.3	50.0	10.6	50.0
1,3,5-Trimethylbenzene	Ave	2.357	2.635		55.9	50.0	11.8	50.0
4-Chlorotoluene	Ave	0.7163	0.7623		53.2	50.0	6.4	50.0
tert-Butylbenzene	Ave	2.233	2.398		53.7	50.0	7.4	50.0
1,2,4-Trimethylbenzene	Ave	2.447	2.673		54.6	50.0	9.3	50.0
sec-Butylbenzene	Ave	0.6755	0.7129		52.8	50.0	5.5	50.0
1,3-Dichlorobenzene	Ave	1.296	1.456		56.2	50.0	12.4	50.0
4-Isopropyltoluene	Ave	2.896	3.097		53.5	50.0	6.9	50.0
1,4-Dichlorobenzene	Ave	1.360	1.491		54.8	50.0	9.7	50.0
n-Butylbenzene	Ave	2.582	2.695		52.2	50.0	4.4	50.0
1,2-Dichlorobenzene	Ave	1.296	1.451		56.0	50.0	12.0	50.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1585		50.6	50.0	1.3	50.0
1,2,4-Trichlorobenzene	Lin2		1.027		55.5	50.0	11.0	50.0
Hexachlorobutadiene	Ave	0.4775	0.4507		47.2	50.0	-5.6	50.0
Naphthalene	Lin1		2.898		62.0	50.0	24.1	50.0
1,2,3-Trichlorobenzene	Lin1		0.9721		56.9	50.0	13.9	50.0
Dibromofluoromethane (Surr)	Ave	0.2347	0.2417		51.5	50.0	2.9	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCVC 280-459872/31 Calibration Date: 05/30/2019 19:34

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5701.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane-d4 (Surr)	Ave	0.3243	0.3424		52.8	50.0	5.6	50.0
Toluene-d8 (Surr)	Ave	4.117	4.082		49.6	50.0	-0.9	50.0
4-Bromofluorobenzene (Surr)	Ave	0.9227	0.9352		50.7	50.0	1.4	50.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5701.D
Lims ID: ccvc
Client ID:
Sample Type: CCVC
Inject. Date: 30-May-2019 19:34:30 ALS Bottle#: 30 Worklist Smp#: 31
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccvc
Misc. Info.: 280-0082377-031
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub90

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:38:47 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: ornelasg Date: 30-May-2019 19:56:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	84	2026243	1000.0	1000.0	
* 2 Fluorobenzene	96	4.847	4.861	-0.014	98	3569697	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	807378	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1345661	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	862641	50.0	51.5	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	98	1222414	50.0	52.8	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3295329	50.0	49.6	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	87	1258409	50.0	50.7	
12 Dichlorodifluoromethane	85	1.607	1.607	0.000	99	1295577	50.0	52.8	
14 Chloromethane	50	1.788	1.789	-0.001	99	1279780	50.0	46.0	
15 Vinyl chloride	62	1.886	1.900	-0.014	98	746395	50.0	45.2	
17 Bromomethane	94	2.124	2.124	0.000	92	631182	50.0	50.8	
18 Chloroethane	64	2.165	2.166	-0.001	99	556687	50.0	44.9	
19 Dichlorofluoromethane	67	2.347	2.361	-0.014	97	642826	50.0	37.4	
20 Trichlorofluoromethane	101	2.403	2.403	0.000	99	1061771	50.0	45.4	
22 Ethyl ether	59	2.557	2.557	0.000	95	821227	50.0	58.7	
24 Acrolein	56	2.668	2.668	0.000	99	1350299	493.8	516.7	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	94	709476	50.0	55.3	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	94	808538	50.0	55.2	
27 Acetone	43	2.766	2.766	0.000	99	1258881	200.0	238.4	
28 Iodomethane	142	2.878	2.878	0.000	98	1272491	50.0	56.5	
32 Methyl acetate	43	2.990	2.990	0.000	98	1689521	100.0	123.5	
30 Carbon disulfide	76	2.990	3.004	-0.014	100	2721095	50.0	52.5	
33 3-Chloro-1-propene	41	3.003	3.004	-0.001	90	1425094	50.0	54.2	
35 Methylene Chloride	84	3.115	3.115	0.000	98	878593	50.0	55.6	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	99	1116784	500.0	590.8	
39 Acrylonitrile	53	3.255	3.255	0.000	98	3867215	500.0	598.9	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	96	2179656	50.0	59.0	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	96	851268	50.0	54.5	
42 Hexane	57	3.478	3.478	0.000	95	1343932	50.0	46.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
46 Vinyl acetate	43	3.590	3.590	0.000	97	3819617	100.0	106.3	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	1663757	50.0	58.3	
52 2-Butanone (MEK)	43	3.981	3.981	0.000	99	2050374	200.0	242.6	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	954997	50.0	57.0	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	88	910650	50.0	46.6	
55 sec-Butyl Alcohol	45	4.093	4.107	-0.014	99	2725161	1500.0	1690.1	
56 Chlorobromomethane	128	4.177	4.191	-0.014	97	465975	50.0	60.7	
57 Tetrahydrofuran	42	4.191	4.191	0.000	90	721098	100.0	124.7	
59 Chloroform	83	4.246	4.247	-0.001	94	1648292	50.0	58.8	
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	1463213	50.0	59.0	
61 Cyclohexane	56	4.442	4.442	0.000	92	1896923	50.0	54.2	
63 1,1-Dichloropropene	75	4.484	4.484	0.000	96	1317217	50.0	55.8	
62 Carbon tetrachloride	117	4.498	4.498	0.000	96	1191371	50.0	53.6	
66 Isobutyl alcohol	41	4.512	4.512	0.000	94	1023976	1250.0	1454.9	
64 Benzene	78	4.638	4.638	0.000	98	3583415	50.0	55.3	
65 1,2-Dichloroethane	62	4.665	4.666	-0.001	97	1552046	50.0	65.4	
67 n-Heptane	43	4.819	4.819	0.000	96	1390175	50.0	44.1	
69 Trichloroethene	95	5.126	5.126	0.000	97	946048	50.0	58.1	
70 2-Pentanone	43	5.238	5.238	0.000	99	3348995	200.0	245.7	
71 Methylcyclohexane	55	5.308	5.308	0.000	93	1409841	50.0	52.2	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	84	947378	50.0	57.2	
74 1,4-Dioxane	88	5.378	5.378	0.000	93	212875	1000.0	1088.1	
75 Dibromomethane	93	5.392	5.406	-0.014	97	554200	50.0	61.2	
76 Dichlorobromomethane	83	5.517	5.518	-0.001	99	1157048	50.0	56.0	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	93	639487	50.0	61.6	
79 cis-1,3-Dichloropropene	75	5.867	5.867	0.000	93	1454570	50.0	58.8	
81 4-Methyl-2-pentanone (MIBK	43	5.964	5.978	-0.014	98	4497798	200.0	260.2	
82 Toluene	91	6.156	6.156	0.000	98	3696636	50.0	55.6	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	98	1353807	50.0	60.5	
84 Ethyl methacrylate	69	6.364	6.364	0.000	92	1230677	50.0	60.6	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	93	789968	50.0	60.7	
86 Tetrachloroethene	164	6.593	6.593	0.000	94	707439	50.0	54.2	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	93	1433829	50.0	58.5	
88 2-Hexanone	43	6.678	6.678	0.000	96	3079082	200.0	243.4	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	729959	50.0	53.7	
90 Ethylene Dibromide	107	6.957	6.957	0.000	99	778723	50.0	59.6	
91 1-Chlorohexane	91	7.343	7.351	-0.008	94	1233787	50.0	53.8	
92 Chlorobenzene	112	7.386	7.386	0.000	93	2427456	50.0	54.4	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	92	828286	50.0	56.9	
94 Ethylbenzene	106	7.458	7.465	-0.007	99	1305382	50.0	54.7	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	1610281	50.0	55.3	
96 o-Xylene	106	7.937	7.937	0.000	97	1548983	50.0	55.2	
97 Styrene	104	7.951	7.951	0.000	95	2609884	50.0	58.2	
98 Bromoform	173	8.130	8.130	0.000	96	396118	50.0	50.0	
99 Isopropylbenzene	105	8.273	8.273	0.000	97	4238333	50.0	57.0	
100 Cyclohexanone	55	8.366	8.366	0.000	96	1458593	2000.0	2202.9	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	963108	50.0	57.4	
103 Bromobenzene	156	8.580	8.588	-0.008	96	1046808	50.0	60.6	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	76	311080	50.0	52.1	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	86	349343	50.0	59.8	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	1174808	50.0	53.7	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	1004819	50.0	55.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	94	3546183	50.0	55.9	
109 4-Chlorotoluene	126	8.873	8.874	-0.001	98	1025793	50.0	53.2	
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	3227382	50.0	53.7	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	98	3597443	50.0	54.6	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	959359	50.0	52.8	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	97	1959880	50.0	56.2	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	4167181	50.0	53.5	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	96	2006942	50.0	54.8	
117 n-Butylbenzene	91	9.903	9.903	0.000	98	3626385	50.0	52.2	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	1952658	50.0	56.0	
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	82	213276	50.0	50.6	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	1381361	50.0	55.5	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	606486	50.0	47.2	
123 Naphthalene	128	11.784	11.784	0.000	97	3899839	50.0	62.0	
124 1,2,3-Trichlorobenzene	180	11.998	12.005	-0.007	95	1308169	50.0	56.9	
S 137 1,2-Dichloroethene, Total	96				0		100.0	111.4	
S 139 Total BTEX	1				0			276.2	
S 143 Xylenes, Total	106				0		100.0	110.5	
S 144 1,2-Dichloroethene, Total	1				0		100.0	111.4	
S 138 Xylenes, Total (URS)	1				0		100.0	110.5	
S 142 Trihalomethanes, Total	1				0		200.0	218.5	
S 140 1,3-Dichloropropene, Total	1				0		100.0	119.3	

Reagents:

MV-MegaMainA_00014	Amount Added: 50.00	Units: uL	
MV-Gas A_00026	Amount Added: 50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added: 5.00	Units: uL	Run Reagent

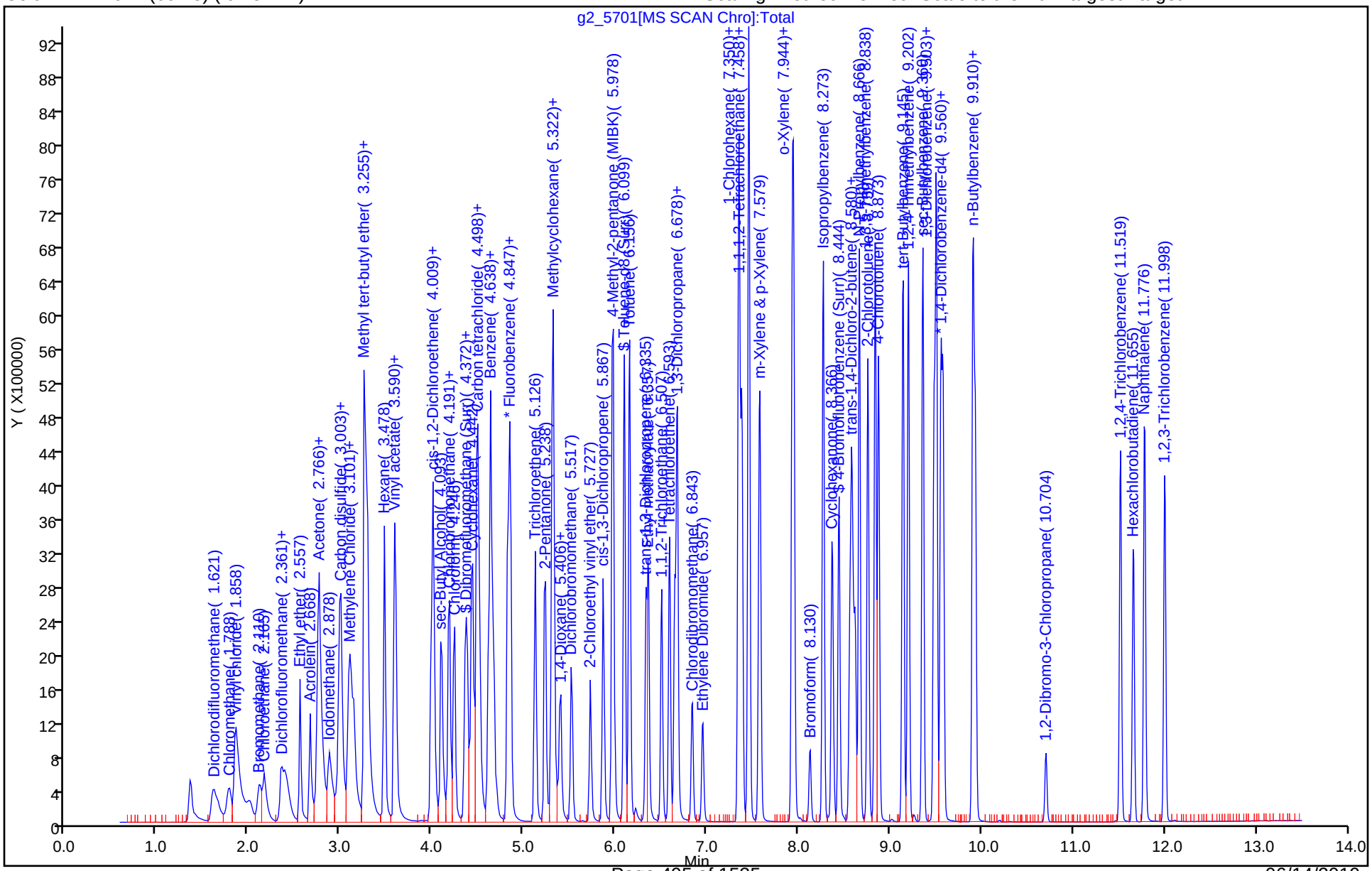
Report Date: 31-May-2019 00:38:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5701.D

Injection Date:	30-May-2019 19:34:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ccvc			Worklist Smp#:	31
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCVC 280-459872/32 Calibration Date: 05/30/2019 19:53

Instrument ID: VMS_G2 Calib Start Date: 05/18/2019 09:44

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/18/2019 18:07

Lab File ID: g2_5702.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethylene oxide	Qua		0.0139			5000		50.0
Ethanol	Lin1		0.0035		2390	3000	-20.3	50.0
Isopropyl alcohol	Ave	0.0211	0.0222		526	500	5.1	50.0
Acetonitrile	Ave	0.0447	0.0331		371	500	-25.8	50.0
Diisopropyl ether	Ave	0.2018	0.2288		56.7	50.0	13.4	50.0
2-Chloro-1,3-butadiene	Ave	0.3985	0.4964		62.3	50.0	24.6	50.0
Tert-butyl ethyl ether	Ave	0.5520	0.7374		66.8	50.0	33.6	50.0
Ethyl acetate	Ave	0.2969	0.3537		119	100	19.1	50.0
Propionitrile	Ave	0.0445	0.0509		572	500	14.3	50.0
Methacrylonitrile	Ave	0.1666	0.2064		619	500	23.9	50.0
Tert-amyl methyl ether	Ave	0.5358	0.6775		63.2	50.0	26.5	50.0
n-Butanol	Lin1		0.0095		1360	1250	8.8	50.0
Methyl methacrylate	Lin2		0.0916		122	100	22.2	50.0
2-Nitropropane	Lin1		0.0684		126	100	25.6	50.0
cis-1,4-Dichloro-2-butene	Lin1		0.2551		106	100	5.7	50.0
1,2,3-Trimethylbenzene	Ave	2.573	2.996		58.2	50.0	16.4	50.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5702.D
Lims ID: ccvc
Client ID:
Sample Type: CCVC
Inject. Date: 30-May-2019 19:53:30 ALS Bottle#: 31 Worklist Smp#: 32
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccvc
Misc. Info.: 280-0082377-032
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:38:54 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: ornelasg Date: 30-May-2019 20:15:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2280982	1000.0	1000.0	
* 2 Fluorobenzene	96	4.847	4.861	-0.014	98	3665693	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	832450	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.553	9.560	-0.007	96	1326589	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	886210	50.0	51.5	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	100	1259432	50.0	53.0	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	95	3403849	50.0	49.7	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	89	1276808	50.0	52.2	
16 Ethylene oxide	43	2.054	2.054	0.000	100	5105457	5000.0	NQ	E
21 Ethanol	45	2.473	2.473	0.000	97	759746	3000.0	2392.5	
23 Propene oxide	58	2.598	2.598	0.000	95	18234626	5000.0	8490.7	
29 Isopropyl alcohol	45	2.850	2.850	0.000	99	811788	500.0	525.7	
31 Acetonitrile	41	2.976	2.976	0.000	99	1214631	500.0	370.9	
47 Isopropyl ether	87	3.604	3.604	0.000	95	838846	50.0	56.7	
48 2-Chloro-1,3-butadiene	53	3.660	3.660	0.000	93	1819547	50.0	62.3	
49 Tert-butyl ethyl ether	59	3.869	3.869	0.000	98	2703245	50.0	66.8	
53 Ethyl acetate	43	4.009	4.009	0.000	99	2593033	100.0	119.1	
54 Propionitrile	54	4.037	4.037	0.000	99	1867040	500.0	571.7	
58 Methacrylonitrile	41	4.149	4.149	0.000	93	7565839	500.0	619.4	
68 Tert-amyl methyl ether	73	4.707	4.707	0.000	86	2483390	50.0	63.2	
73 n-Butanol	56	5.015	5.015	0.000	88	869887	1250.0	1360.3	
77 Methyl methacrylate	100	5.336	5.336	0.000	93	671315	100.0	122.2	
80 2-Nitropropane	41	5.685	5.685	0.000	99	501712	100.0	125.6	
13 Tetrahydrothiophene	60	6.836	6.836	0.000	94	204808	100.0	122.1	
101 cis-1,4-Dichloro-2-butene	53	8.330	8.330	0.000	95	676821	100.0	105.7	
116 1,2,3-Trimethylbenzene	105	9.603	9.603	0.000	98	3974457	50.0	58.2	
120 1,3,5-Trichlorobenzene	180	10.890	10.890	0.000	96	1592626	50.0	60.4	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

E - Exceeded Maximum Amount

Reagents:

MV-Supp A_00035	Amount Added:	50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

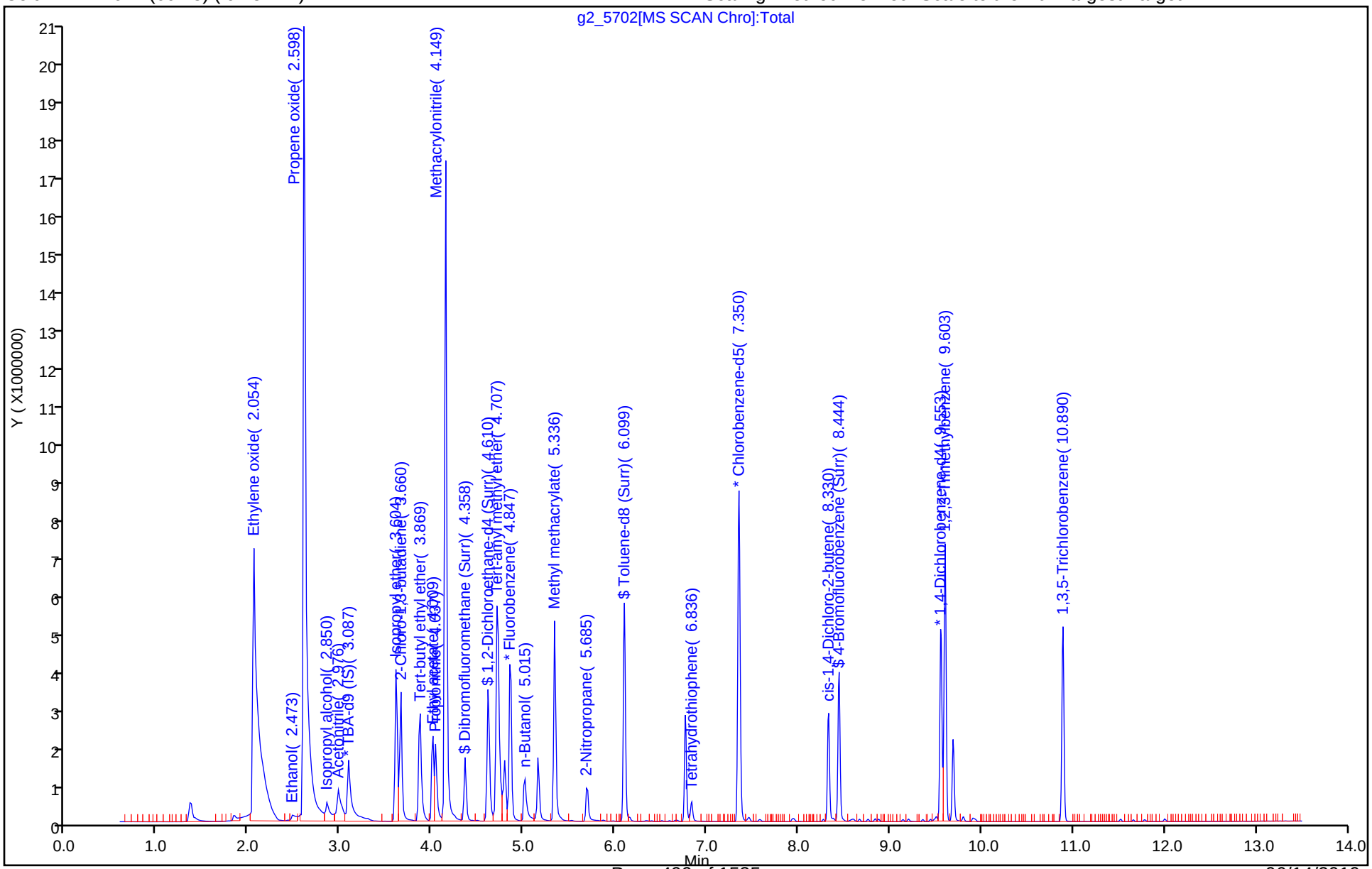
Report Date: 31-May-2019 00:38:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5702.D

Injection Date:	30-May-2019 19:53:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ccvc			Worklist Smp#:	32
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: CCVC 280-459872/32 Calibration Date: 05/30/2019 19:53

Instrument ID: VMS_G2 Calib Start Date: 05/28/2019 11:52

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 05/28/2019 14:00

Lab File ID: g2_5702.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2347	0.2418		51.5	50.0	3.0	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3243	0.3436		53.0	50.0	6.0	50.0
Toluene-d8 (Surr)	Ave	4.117	4.089		49.7	50.0	-0.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.9227	0.9625		52.2	50.0	4.3	50.0

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5702.D
Lims ID: ccvc
Client ID:
Sample Type: CCVC
Inject. Date: 30-May-2019 19:53:30 ALS Bottle#: 31 Worklist Smp#: 32
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccvc
Misc. Info.: 280-0082377-032
Operator ID: meierg Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:38:54 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: ornelasg Date: 30-May-2019 20:15:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2280982	1000.0	1000.0	
* 2 Fluorobenzene	96	4.847	4.861	-0.014	98	3665693	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	832450	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.553	9.560	-0.007	96	1326589	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	886210	50.0	51.5	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	100	1259432	50.0	53.0	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	95	3403849	50.0	49.7	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	89	1276808	50.0	52.2	
16 Ethylene oxide	43	2.054	2.054	0.000	100	5105457	5000.0	NQ	E
21 Ethanol	45	2.473	2.473	0.000	97	759746	3000.0	2392.5	
23 Propene oxide	58	2.598	2.598	0.000	95	18234626	5000.0	8490.7	
29 Isopropyl alcohol	45	2.850	2.850	0.000	99	811788	500.0	525.7	
31 Acetonitrile	41	2.976	2.976	0.000	99	1214631	500.0	370.9	
47 Isopropyl ether	87	3.604	3.604	0.000	95	838846	50.0	56.7	
48 2-Chloro-1,3-butadiene	53	3.660	3.660	0.000	93	1819547	50.0	62.3	
49 Tert-butyl ethyl ether	59	3.869	3.869	0.000	98	2703245	50.0	66.8	
53 Ethyl acetate	43	4.009	4.009	0.000	99	2593033	100.0	119.1	
54 Propionitrile	54	4.037	4.037	0.000	99	1867040	500.0	571.7	
58 Methacrylonitrile	41	4.149	4.149	0.000	93	7565839	500.0	619.4	
68 Tert-amyl methyl ether	73	4.707	4.707	0.000	86	2483390	50.0	63.2	
73 n-Butanol	56	5.015	5.015	0.000	88	869887	1250.0	1360.3	
77 Methyl methacrylate	100	5.336	5.336	0.000	93	671315	100.0	122.2	
80 2-Nitropropane	41	5.685	5.685	0.000	99	501712	100.0	125.6	
13 Tetrahydrothiophene	60	6.836	6.836	0.000	94	204808	100.0	122.1	
101 cis-1,4-Dichloro-2-butene	53	8.330	8.330	0.000	95	676821	100.0	105.7	
116 1,2,3-Trimethylbenzene	105	9.603	9.603	0.000	98	3974457	50.0	58.2	
120 1,3,5-Trichlorobenzene	180	10.890	10.890	0.000	96	1592626	50.0	60.4	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

E - Exceeded Maximum Amount

Reagents:

MV-Supp A_00035	Amount Added:	50.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

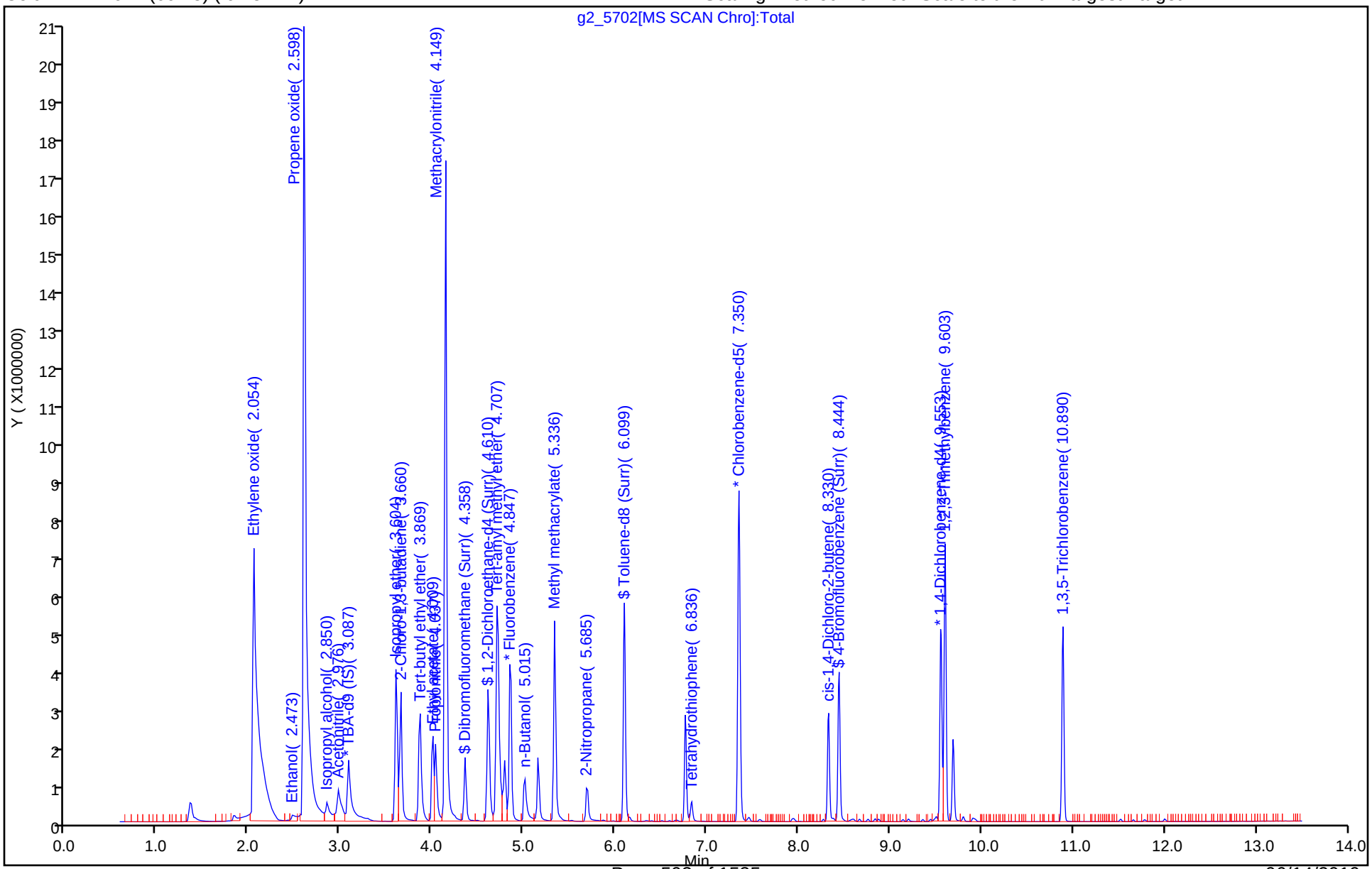
Report Date: 31-May-2019 00:38:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5702.D

Injection Date:	30-May-2019 19:53:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	ccvc			Worklist Smp#:	32
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5197.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	18-May-2019 09:14:30	ALS Bottle#:	100	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	bfb				
Operator ID:	meierg	Instrument ID:	VMS_G2		
Method:	\\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\AQ_VMSG2_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	20-May-2019 11:50:52	Calib Date:	18-May-2019 18:07:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5219.D				
Column 1 :	DB-624 (60.25) (0.25 mm)		Det: MS SCAN		
Process Host:	CTX0310				
First Level Reviewer: meierg		Date:	20-May-2019 11:50:51		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 11 BFB	95	3.153	3.153	0.000	83	342369	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

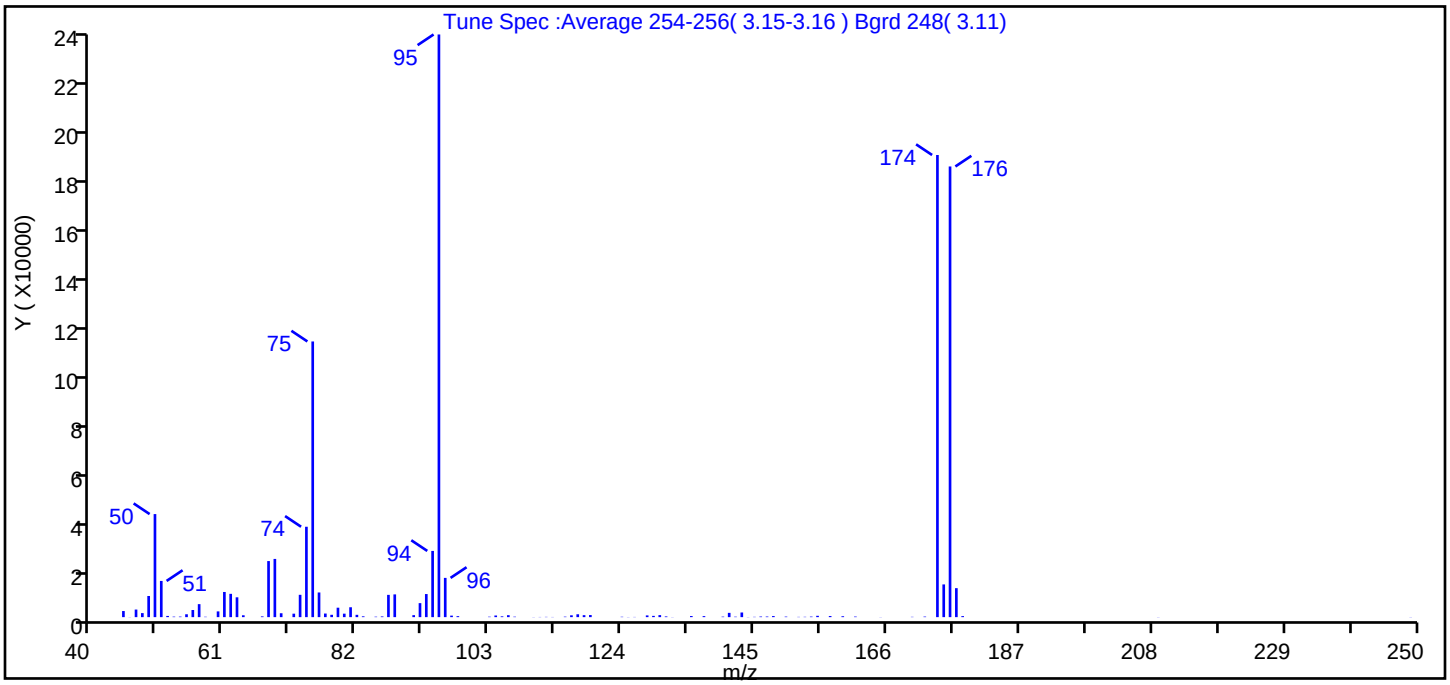
MV-BFB_00028 Amount Added: 2.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5197.D
Injection Date: 18-May-2019 09:14:30 Instrument ID: VMS_G2
Lims ID: bfb
Client ID:
Operator ID: meierg ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 11 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.7
75	30 to 60% of m/z 95	47.3
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	79.3
175	5 to 9% of m/z 174	5.6 (7.1)
176	Greater than 95% but less than 101% of m/z 174	77.3 (97.5)
177	5 to 9% of m/z 176	5.0 (6.4)

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5197.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 18-May-2019 09:14:30
Spectrum: Tune Spec :Average 254-256(3.15-3.16) Bgrd 248(3.11)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 98

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	2485	74.00	36816	106.00	794	144.00	57
46.00	50	75.00	112280	107.00	187	145.00	123
47.00	3090	76.00	10049	110.00	51	146.00	249
48.00	1644	77.00	1468	111.00	76	147.00	248
49.00	8614	78.00	954	112.00	112	148.00	432
50.00	41976	79.00	3846	113.00	73	150.00	219
51.00	14750	80.00	1415	115.00	199	152.00	107
52.00	491	81.00	4030	116.00	751	153.00	134
53.00	204	82.00	944	117.00	1169	154.00	225
54.00	219	83.00	329	118.00	805	155.00	547
55.00	1173	85.00	186	119.00	853	157.00	446
56.00	2910	86.00	285	124.00	153	159.00	362
57.00	5296	87.00	9074	125.00	60	161.00	230
58.00	156	88.00	9265	126.00	83	165.00	51
60.00	2341	91.00	807	128.00	705	170.00	127
61.00	10248	92.00	5704	129.00	516	172.00	223
62.00	9491	93.00	9406	130.00	827	174.00	188224
63.00	8077	94.00	26968	131.00	288	175.00	13328
64.00	760	95.00	237312	132.00	53	176.00	183552
67.00	300	96.00	15988	135.00	441	177.00	11806
68.00	22840	97.00	617	137.00	412	178.00	414
69.00	23712	98.00	396	140.00	201	209.00	53
70.00	1590	103.00	182	141.00	1744	249.00	60
72.00	1414	104.00	664	142.00	186		
73.00	9095	105.00	321	143.00	1894		

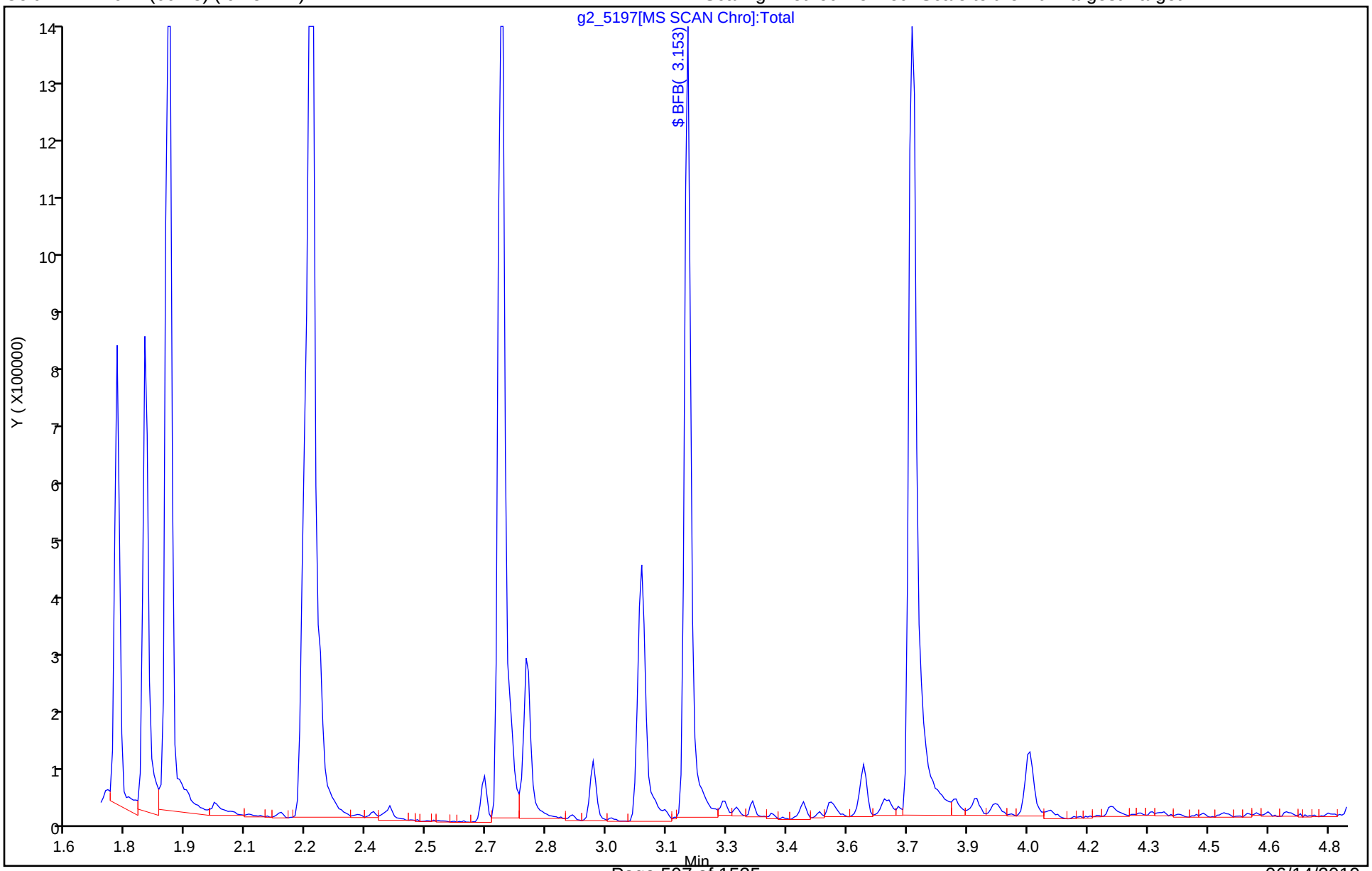
Report Date: 20-May-2019 11:50:53 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190518-82029.b\g2_5197.D

Injection Date:	18-May-2019 09:14:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	100
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5531.D
Lims ID: bfb
Client ID:
Sample Type: BFB
Inject. Date: 27-May-2019 10:12:30 ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 28-May-2019 11:27:35 Calib Date: 27-May-2019 12:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5538.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 11 BFB	95	3.204	3.204	0.000	82	510167	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

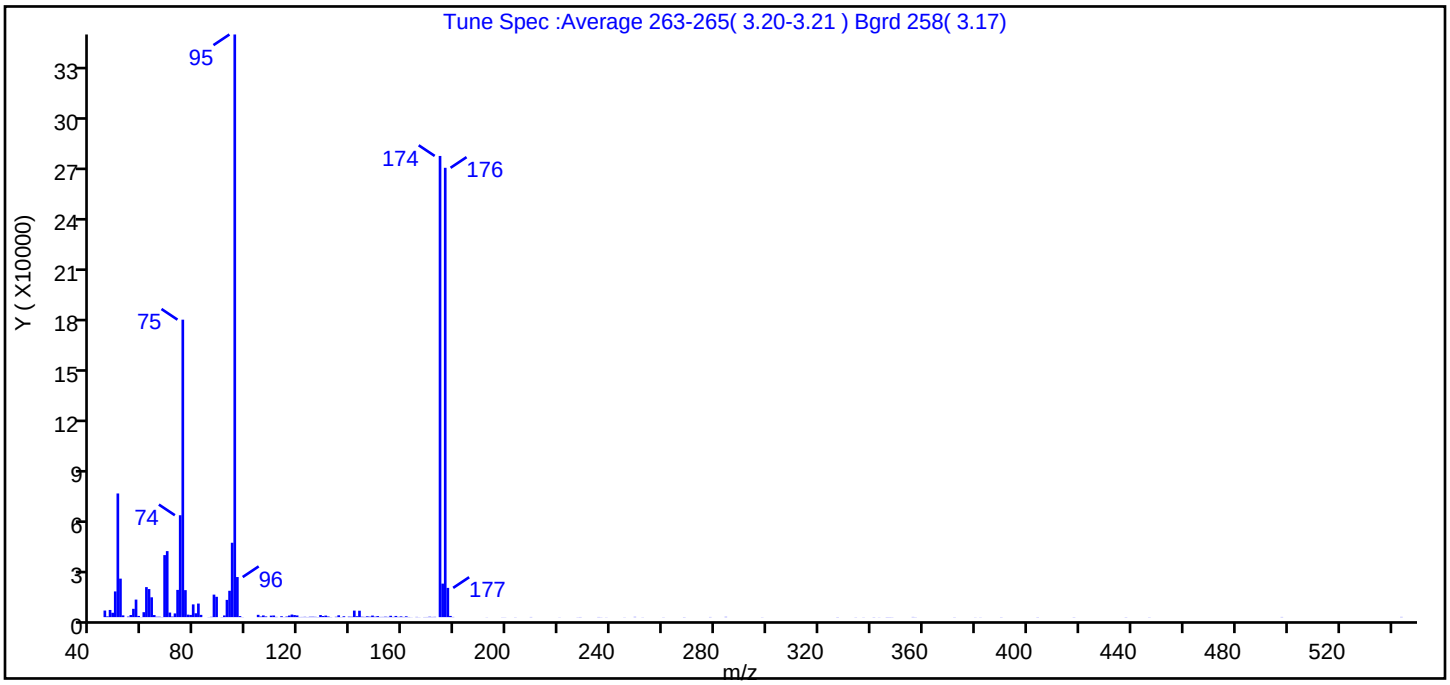
MV-BFB_00028 Amount Added: 2.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5531.D
Injection Date: 27-May-2019 10:12:30 Instrument ID: VMS_G2
Lims ID: bfb
Client ID:
Operator ID: meierg ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 11 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.2
75	30 to 60% of m/z 95	51.1
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	79.2
175	5 to 9% of m/z 174	5.8 (7.3)
176	Greater than 95% but less than 101% of m/z 174	77.1 (97.4)
177	5 to 9% of m/z 176	5.0 (6.5)

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5531.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 27-May-2019 10:12:30
Spectrum: Tune Spec :Average 263-265(3.20-3.21) Bgrd 258(3.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 158

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	3916	88.00	12082	137.00	527	198.00	54
46.00	445	90.00	85	139.00	300	199.00	52
47.00	4268	91.00	1004	140.00	230	203.00	63
48.00	2594	92.00	10248	141.00	3889	209.00	102
49.00	15270	93.00	15659	142.00	530	220.00	51
50.00	73440	94.00	44176	143.00	3817	227.00	56
51.00	22864	95.00	345984	144.00	250	228.00	90
52.00	1050	96.00	23808	145.00	159	235.00	99
54.00	314	97.00	623	146.00	498	236.00	57
55.00	1248	98.00	68	147.00	260	238.00	50
56.00	4948	104.00	1377	148.00	936	245.00	57
57.00	10426	105.00	346	149.00	269	249.00	160
58.00	721	106.00	1022	150.00	621	252.00	57
59.00	62	107.00	413	151.00	133	260.00	61
60.00	2946	109.00	902	152.00	148	268.00	83
61.00	17832	110.00	985	153.00	273	278.00	101
62.00	16664	111.00	157	154.00	146	284.00	172
63.00	11782	113.00	523	155.00	805	298.00	56
64.00	1229	114.00	57	156.00	143	327.00	86
65.00	238	115.00	353	157.00	714	334.00	64
66.00	244	116.00	946	158.00	154	337.00	58
67.00	82	117.00	1544	159.00	461	341.00	83
68.00	36848	118.00	1226	160.00	119	343.00	51
69.00	39208	119.00	1010	161.00	505	346.00	82
70.00	2715	120.00	108	162.00	103	347.00	75
71.00	338	121.00	122	163.00	52	348.00	61
72.00	2209	122.00	191	165.00	139	356.00	114
73.00	16175	123.00	91	166.00	57	357.00	62
74.00	60512	124.00	236	168.00	93	372.00	70
75.00	176640	125.00	247	169.00	100	380.00	51
76.00	16035	126.00	194	170.00	246	382.00	53
77.00	1485	127.00	85	171.00	128	390.00	71
78.00	1321	128.00	1253	172.00	179	404.00	78

Report Date: 28-May-2019 11:27:36 Chrom Revision: 2.3 03-May-2019 15:52:00
Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5531.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 27-May-2019 10:12:30
Spectrum: Tune Spec :Average 263-265(3.20-3.21) Bgrd 258(3.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 158

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7579	129.00	652	174.00	273856	418.00	78
80.00	2298	130.00	932	175.00	19912	438.00	77
81.00	8065	131.00	389	176.00	266816	447.00	65
82.00	1350	132.00	80	177.00	17376	498.00	105
85.00	61	134.00	219	178.00	717	544.00	125
86.00	181	135.00	1092	179.00	123		
87.00	13379	136.00	76	192.00	51		

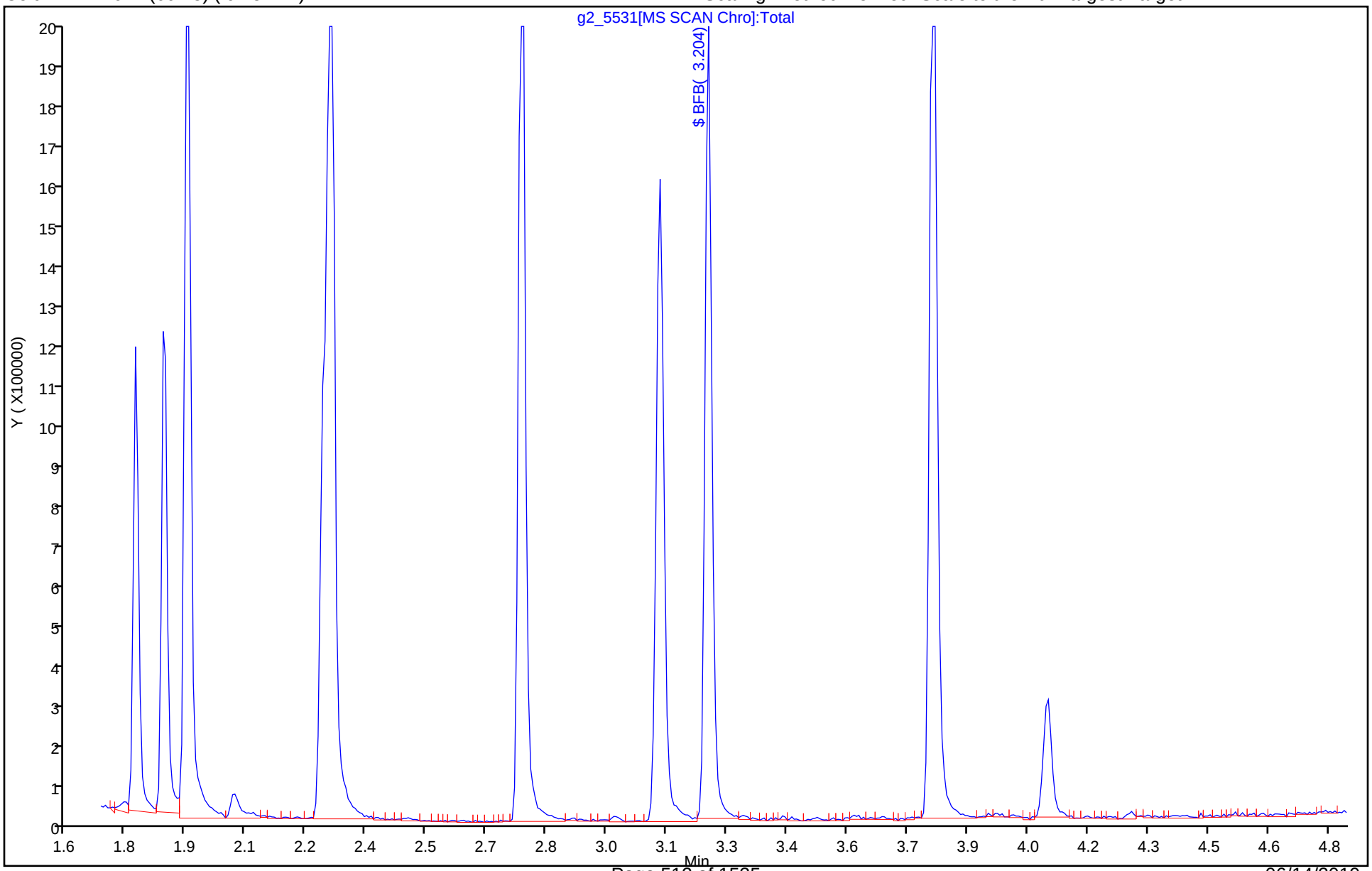
Report Date: 28-May-2019 11:27:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190527-82276.b\g2_5531.D

Injection Date:	27-May-2019 10:12:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	100
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5569.D
Lims ID: bfb
Client ID:
Sample Type: BFB
Inject. Date: 28-May-2019 11:31:30 ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 29-May-2019 10:16:02 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: meierg Date: 28-May-2019 12:13:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 11 BFB	95	3.205	3.205	0.000	81	463367	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

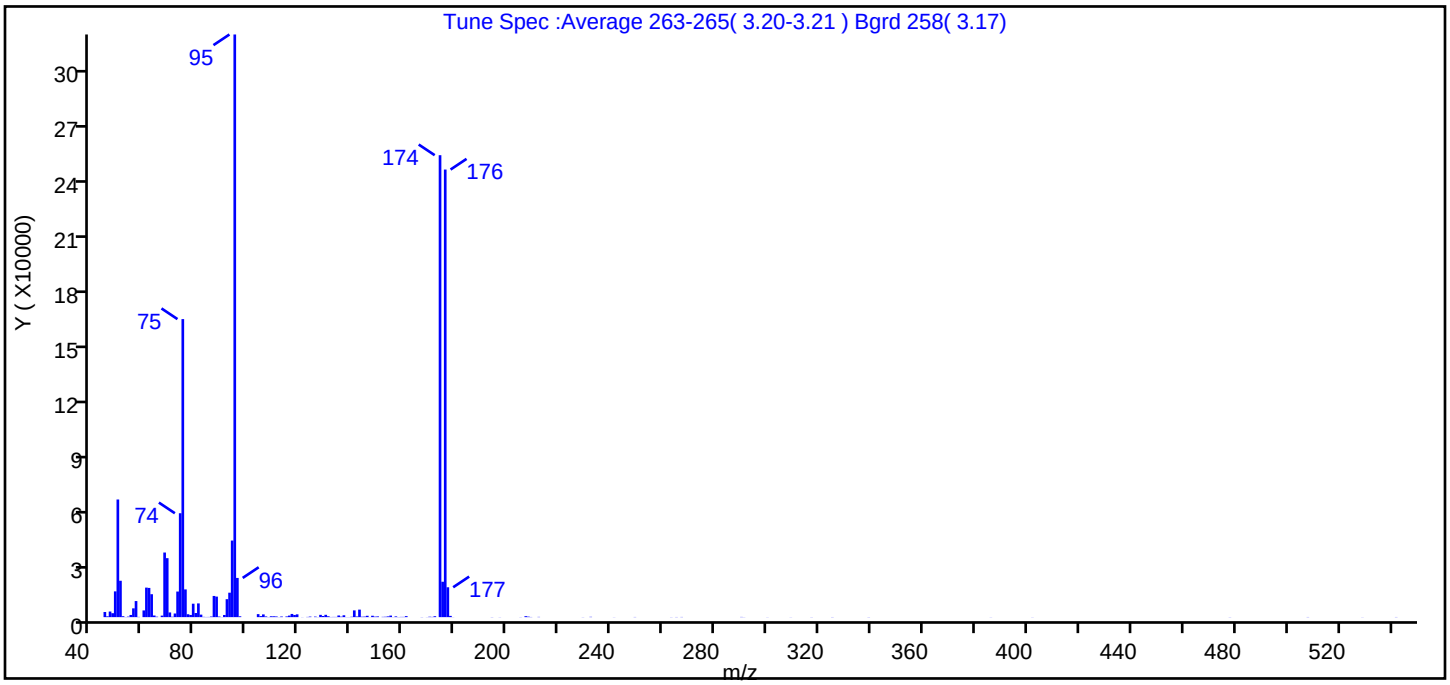
MV-BFB_00028 Amount Added: 2.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5569.D
Injection Date: 28-May-2019 11:31:30 Instrument ID: VMS_G2
Lims ID: bfb
Client ID:
Operator ID: meierg ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 11 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.2
75	30 to 60% of m/z 95	51.2
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	79.3
175	5 to 9% of m/z 174	6.1 (7.7)
176	Greater than 95% but less than 101% of m/z 174	76.8 (96.9)
177	5 to 9% of m/z 176	5.1 (6.7)

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5569.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 28-May-2019 11:31:30
Spectrum: Tune Spec :Average 263-265(3.20-3.21) Bgrd 258(3.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 142

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	2814	83.00	153	129.00	623	172.00	504
46.00	445	84.00	100	130.00	1281	174.00	253248
47.00	3079	85.00	119	131.00	479	175.00	19408
48.00	2164	86.00	333	132.00	100	176.00	245376
49.00	14126	87.00	11616	133.00	128	177.00	16379
50.00	64496	88.00	11258	134.00	122	178.00	689
51.00	19944	89.00	318	135.00	907	179.00	50
52.00	504	90.00	62	136.00	265	194.00	74
53.00	68	91.00	1187	137.00	1021	197.00	57
54.00	276	92.00	9848	138.00	60	205.00	64
55.00	1200	93.00	13405	139.00	66	207.00	524
56.00	4824	94.00	41984	140.00	208	208.00	279
57.00	8820	95.00	319424	141.00	3704	209.00	99
58.00	129	96.00	21496	142.00	359	212.00	140
60.00	3684	97.00	464	143.00	4125	229.00	59
61.00	16189	104.00	1651	144.00	239	232.00	171
62.00	16019	105.00	577	145.00	306	241.00	50
63.00	12573	106.00	1498	146.00	747	249.00	97
64.00	888	107.00	381	147.00	42	263.00	61
65.00	250	108.00	75	148.00	762	265.00	90
67.00	835	109.00	482	149.00	282	267.00	106
68.00	35424	110.00	468	150.00	399	290.00	119
69.00	32336	111.00	368	152.00	161	291.00	54
70.00	2574	112.00	59	153.00	220	300.00	50
71.00	218	113.00	346	154.00	397	309.00	50
72.00	1995	115.00	381	155.00	848	317.00	63
73.00	14034	116.00	847	156.00	60	325.00	83
74.00	56960	117.00	1758	157.00	409	339.00	72
75.00	163392	118.00	1191	158.00	77	386.00	52
76.00	15207	119.00	1535	159.00	138	402.00	53
77.00	1589	121.00	51	160.00	144	478.00	65
78.00	1197	123.00	122	161.00	561	508.00	89
79.00	7370	124.00	300	167.00	73	529.00	50

Report Date: 29-May-2019 10:16:04 Chrom Revision: 2.3 03-May-2019 15:52:00
Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5569.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 28-May-2019 11:31:30
Spectrum: Tune Spec :Average 263-265(3.20-3.21) Bgrd 258(3.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 142

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	2265	126.00	295	169.00	52	542.00	89
81.00	7528	127.00	57	170.00	225		
82.00	1377	128.00	1259	171.00	139		

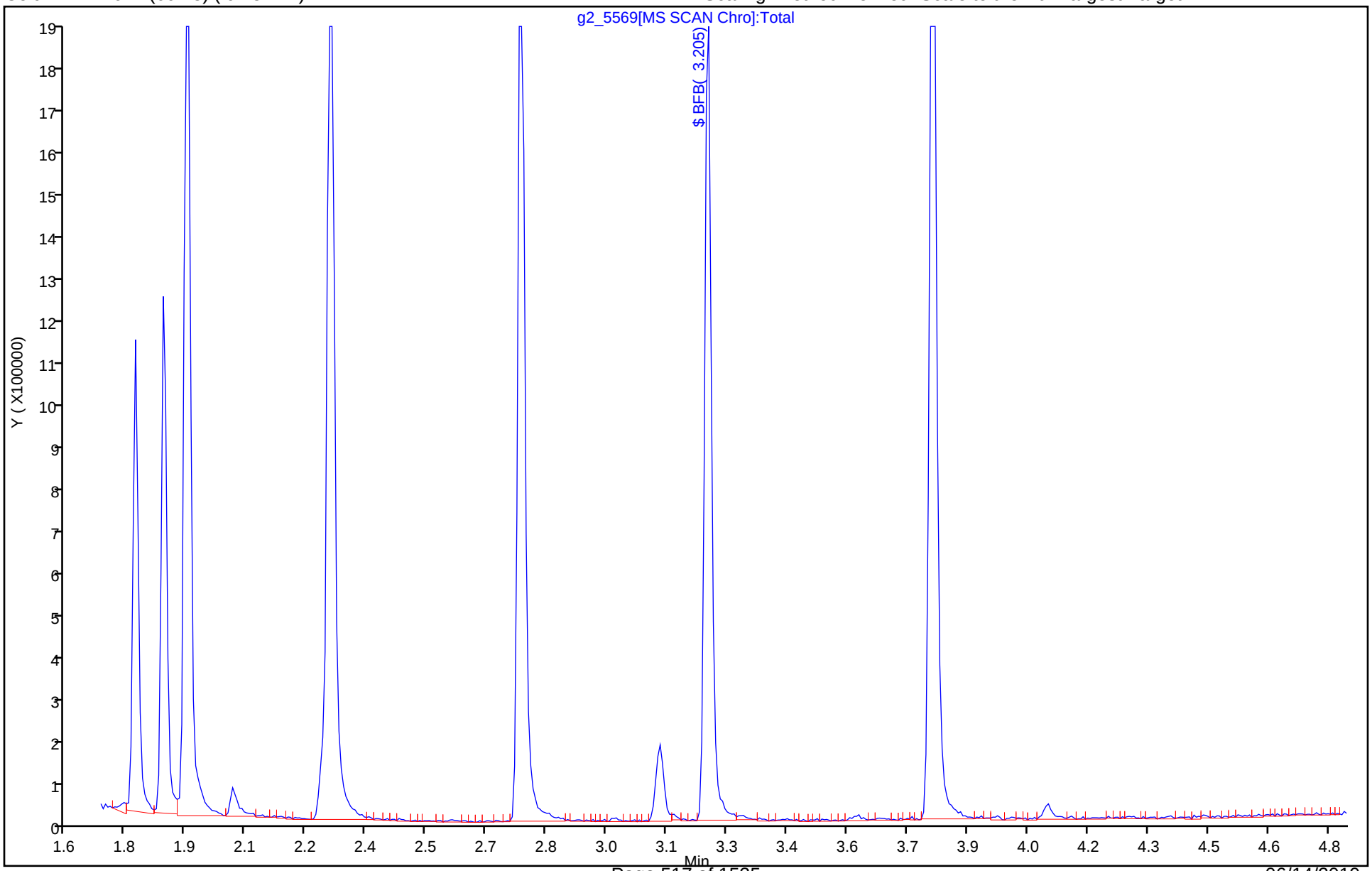
Report Date: 29-May-2019 10:16:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5569.D

Injection Date:	28-May-2019 11:31:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	100
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5671.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	30-May-2019 08:51:30	ALS Bottle#:	100	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Operator ID:	meierg	Instrument ID:	VMS_G2		
Method:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	31-May-2019 00:38:56	Calib Date:	28-May-2019 14:00:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D				
Column 1 :	DB-624 (60.25) (0.25 mm)		Det: MS SCAN		
Process Host:	CTX0327				
First Level Reviewer: meierg		Date:	30-May-2019 08:59:03		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 11 BFB	95	3.199	3.199	0.000	79	464381	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

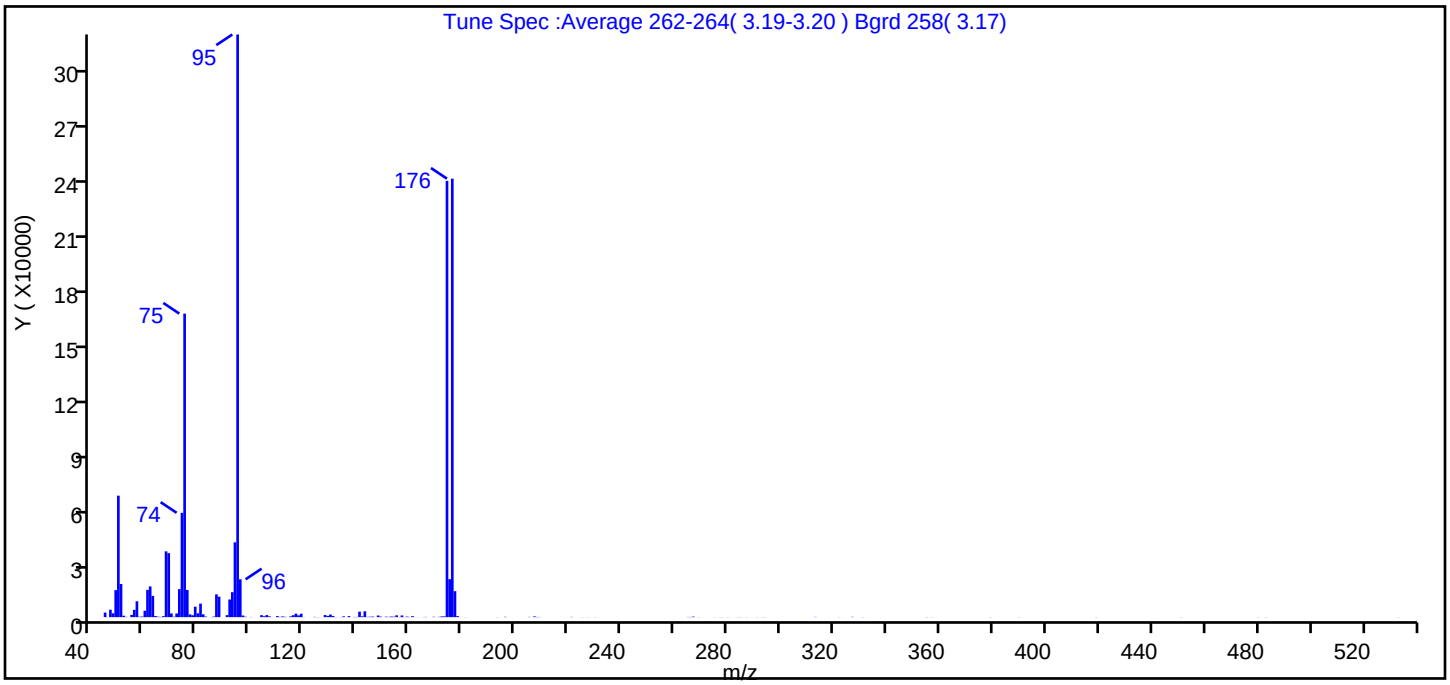
MV-BFB_00028 Amount Added: 2.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5671.D
Injection Date: 30-May-2019 08:51:30 Instrument ID: VMS_G2
Lims ID: bfb
Client ID:
Operator ID: meierg ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 11 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.8
75	30 to 60% of m/z 95	52.1
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.1 (0.2)
174	50 to 120% of m/z 95	74.9
175	5 to 9% of m/z 174	6.5 (8.7)
176	Greater than 95% but less than 101% of m/z 174	75.3 (100.5)
177	5 to 9% of m/z 176	4.5 (5.9)

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5671.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 30-May-2019 08:51:30
Spectrum: Tune Spec :Average 262-264(3.19-3.20) Bgrd 258(3.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 148

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	2441	83.00	293	135.00	432	196.00	170
46.00	51	85.00	59	137.00	567	205.00	128
47.00	3953	86.00	294	139.00	106	207.00	388
48.00	2041	87.00	12127	140.00	108	208.00	116
49.00	14400	88.00	10898	141.00	2901	209.00	79
50.00	64704	91.00	1077	142.00	414	221.00	136
51.00	17656	92.00	9405	143.00	3108	225.00	51
52.00	762	93.00	13284	144.00	135	227.00	56
53.00	140	94.00	39848	145.00	221	230.00	59
55.00	1202	95.00	310336	146.00	297	265.00	104
56.00	3895	96.00	20144	148.00	875	266.00	117
57.00	8454	97.00	861	149.00	298	267.00	290
58.00	228	98.00	214	151.00	244	269.00	58
59.00	317	100.00	99	152.00	152	275.00	56
60.00	3404	104.00	1057	153.00	323	277.00	50
61.00	14505	105.00	471	154.00	243	278.00	53
62.00	16358	106.00	1104	155.00	970	280.00	79
63.00	11312	107.00	438	156.00	62	283.00	10
64.00	592	110.00	570	157.00	901	284.00	82
65.00	236	111.00	136	158.00	76	285.00	50
66.00	113	112.00	375	159.00	290	287.00	51
67.00	554	113.00	171	160.00	55	291.00	59
68.00	35048	115.00	433	161.00	534	293.00	59
69.00	34096	116.00	1023	163.00	51	294.00	52
70.00	1969	117.00	1846	165.00	50	313.00	125
71.00	237	118.00	959	166.00	132	322.00	65
72.00	1955	119.00	1825	169.00	189	327.00	163
73.00	14913	120.00	87	171.00	151	331.00	59
74.00	55560	124.00	144	172.00	389	355.00	88
75.00	161664	125.00	68	173.00	396	357.00	56
76.00	14484	126.00	61	174.00	232384	379.00	79
77.00	1477	128.00	1116	175.00	20208	390.00	66
78.00	1015	129.00	658	176.00	233536	419.00	78

Report Date: 31-May-2019 00:38:56 Chrom Revision: 2.3 03-May-2019 15:52:00
Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5671.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 30-May-2019 08:51:30
Spectrum: Tune Spec :Average 262-264(3.19-3.20) Bgrd 258(3.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 148

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	5571	130.00	1392	177.00	13836	451.00	76
80.00	2027	131.00	645	178.00	556	480.00	62
81.00	7220	132.00	60	181.00	55	483.00	71
82.00	1518	134.00	64	193.00	75	533.00	55

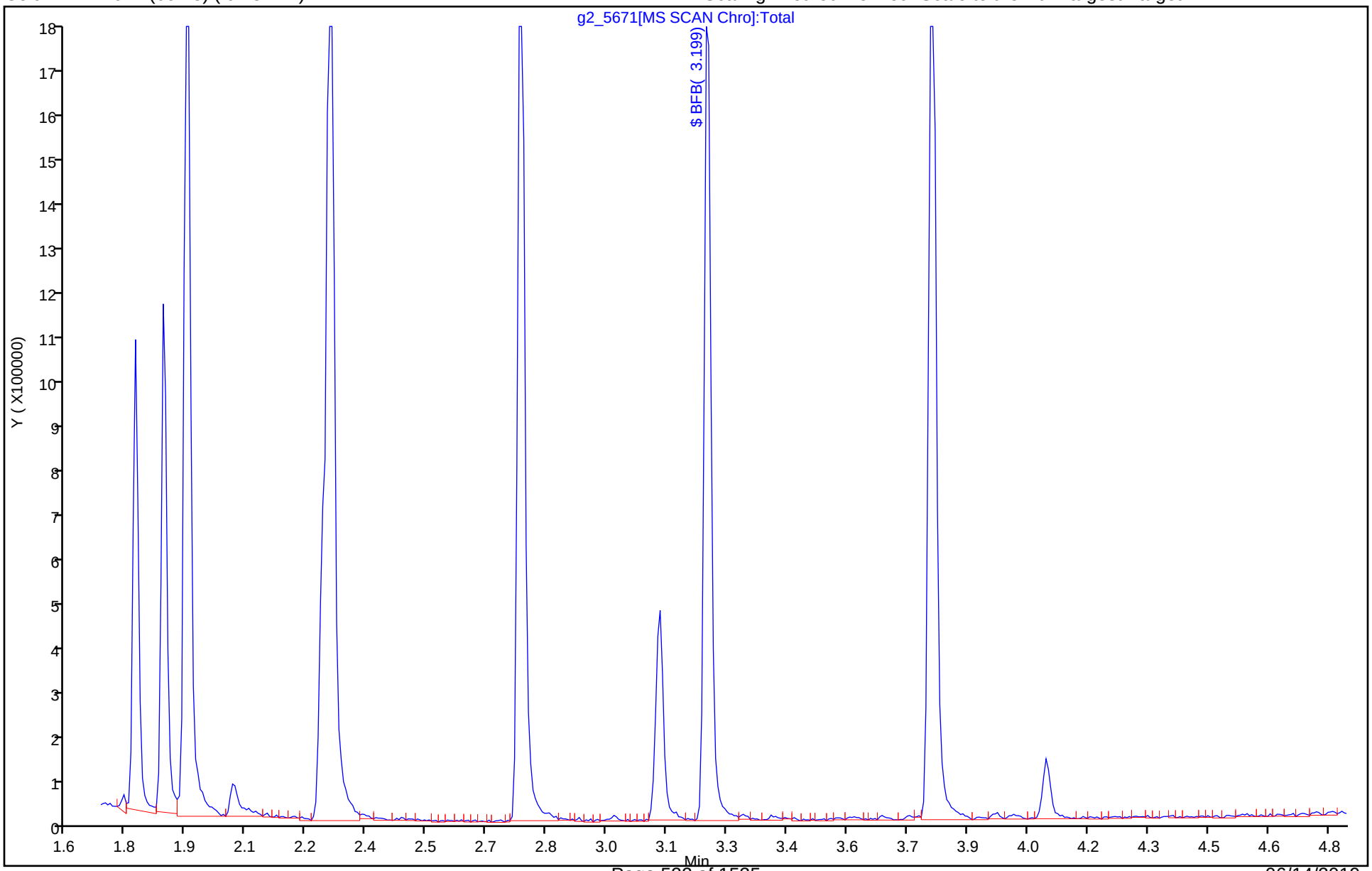
Report Date: 31-May-2019 00:38:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5671.D

Injection Date:	30-May-2019 08:51:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	100
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 280-459872/7

Matrix: Water Lab File ID: g2_5677.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 11:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.23
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.19
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.21
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.33
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.21
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.15
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.47
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.15
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
540-59-0	1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.15
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.18
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.16
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.13
142-28-9	1,3-Dichloropropane	0.20	U	1.0	0.20	0.090
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.80	U	1.0	0.80	0.38
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	2.0
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.7
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.21
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.20
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98
67-64-1	Acetone	6.4	U M	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	1.0	U	1.0	1.0	0.46
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 280-459872/7

Matrix: Water Lab File ID: g2_5677.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 11:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
124-48-1	Dibromochloromethane	0.40	U	1.0	0.40	0.17
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
108-20-3	Diisopropyl ether	0.40	U	10	0.40	0.13
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
179601-23-1	m,p-Xylene	0.80	U	2.0	0.80	0.15
74-88-4	Methyl iodide	0.80	U	2.0	0.80	0.23
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	2.0	U	5.0	2.0	0.94
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.14
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.80	U	1.0	0.80	0.36
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
108-05-4	Vinyl acetate	2.0	U	3.0	2.0	0.94
75-01-4	Vinyl chloride	0.20	U M	1.5	0.20	0.10
1330-20-7	Xylenes, Total	0.80	U	1.0	0.80	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 280-459872/7

Matrix: Water Lab File ID: g2_5677.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 11:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		81-118
460-00-4	4-Bromofluorobenzene (Surr)	103		85-114
1868-53-7	Dibromofluoromethane (Surr)	99		80-119
2037-26-5	Toluene-d8 (Surr)	101		89-112

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5677.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 30-May-2019 11:00:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 14:27:26 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: meierg Date: 30-May-2019 12:10:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2728348	1000.0	1000.0	
* 2 Fluorobenzene	96	4.847	4.861	-0.014	99	4249517	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	942442	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1530498	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	991307	50.0	49.7	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	100	1380954	50.0	50.1	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3900175	50.0	50.3	
$ 9 4-Bromofluorobenzene (Surr	95	8.445	8.444	0.001	88	1453187	50.0	51.5	
$ 10 Trifluorotoluene (Surr)	1		0.000					ND	
$ 11 BFB	95		3.199					ND	
12 Dichlorodifluoromethane	85		1.607					ND	
34 Chlorotrifluoroethene	116		1.677					ND	
14 Chloromethane	50		1.789					ND	
36 1,2-Dichloro-1,1,2,2-tetra	85		1.830					ND	
15 Vinyl chloride	62		1.900					ND	U
16 Ethylene oxide	43		2.054					ND	U
38 2-Chloro-1,1,1-Trifluoroet	118		2.110					ND	
17 Bromomethane	94		2.124					ND	
18 Chloroethane	64		2.166					ND	
19 Dichlorofluoromethane	67		2.361					ND	
20 Trichlorofluoromethane	101		2.403					ND	
21 Ethanol	45		2.473					ND	
22 Ethyl ether	59		2.557					ND	
23 Propene oxide	58		2.598					ND	
24 Acrolein	56		2.668					ND	
26 1,1,2-Trichloro-1,2,2-trif	151		2.752					ND	
25 1,1-Dichloroethene	96		2.766					ND	
27 Acetone	43		2.766					ND	U
29 Isopropyl alcohol	45		2.850					ND	U
28 Iodomethane	142		2.878					ND	
31 Acetonitrile	41		2.976					ND	U
32 Methyl acetate	43		2.990					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
30 Carbon disulfide	76		3.004					ND	
33 3-Chloro-1-propene	41		3.004					ND	U
35 Methylene Chloride	84		3.115					ND	
43 1,2-Dichloro-1,1,2-trifluo	117		3.129					ND	
37 2-Methyl-2-propanol	59		3.143					ND	
44 1,1,1-Trifluoro-2,2-dichlo	83		3.213					ND	
39 Acrylonitrile	53		3.255					ND	
41 Methyl tert-butyl ether	73		3.283					ND	
40 trans-1,2-Dichloroethene	96		3.297					ND	
42 Hexane	57		3.478					ND	
46 Vinyl acetate	43		3.590					ND	
47 Isopropyl ether	87		3.604					ND	
45 1,1-Dichloroethane	63		3.604					ND	
48 2-Chloro-1,3-butadiene	53		3.660					ND	
49 Tert-butyl ethyl ether	59		3.869					ND	
52 2-Butanone (MEK)	43		3.981					ND	
53 Ethyl acetate	43		4.009					ND	U
51 cis-1,2-Dichloroethene	96		4.009					ND	
50 2,2-Dichloropropane	77		4.023					ND	
54 Propionitrile	54		4.037					ND	
55 sec-Butyl Alcohol	45		4.107					ND	
58 Methacrylonitrile	41		4.149					ND	
56 Chlorobromomethane	128		4.191					ND	
57 Tetrahydrofuran	42		4.191					ND	
59 Chloroform	83		4.247					ND	
60 1,1,1-Trichloroethane	97		4.386					ND	
61 Cyclohexane	56		4.442					ND	
63 1,1-Dichloropropene	75		4.484					ND	
62 Carbon tetrachloride	117		4.498					ND	
66 Isobutyl alcohol	41		4.512					ND	
64 Benzene	78		4.638					ND	
65 1,2-Dichloroethane	62		4.666					ND	
68 Tert-amyl methyl ether	73		4.707					ND	
67 n-Heptane	43		4.819					ND	
73 n-Butanol	56		5.015					ND	
69 Trichloroethene	95		5.126					ND	
70 2-Pentanone	43		5.238					ND	
71 Methylcyclohexane	55		5.308					ND	
72 1,2-Dichloropropane	63		5.322					ND	
77 Methyl methacrylate	100		5.336					ND	
74 1,4-Dioxane	88		5.378					ND	
75 Dibromomethane	93		5.406					ND	
76 Dichlorobromomethane	83		5.518					ND	
80 2-Nitropropane	41		5.685					ND	
78 2-Chloroethyl vinyl ether	63		5.727					ND	
79 cis-1,3-Dichloropropene	75		5.867					ND	
81 4-Methyl-2-pentanone (MIBK	43		5.978					ND	
82 Toluene	91		6.156					ND	
83 trans-1,3-Dichloropropene	75		6.335					ND	
84 Ethyl methacrylate	69		6.364					ND	
85 1,1,2-Trichloroethane	97		6.507					ND	
86 Tetrachloroethene	164		6.593					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
87 1,3-Dichloropropane	76		6.650					ND	
88 2-Hexanone	43		6.678					ND	
13 Tetrahydrothiophene	60		6.836					ND	
89 Chlorodibromomethane	129		6.843					ND	
90 Ethylene Dibromide	107		6.957					ND	
91 1-Chlorohexane	91		7.351					ND	
92 Chlorobenzene	112		7.386					ND	
93 1,1,1,2-Tetrachloroethane	131		7.458					ND	
94 Ethylbenzene	106		7.465					ND	
95 m-Xylene & p-Xylene	106		7.579					ND	
96 o-Xylene	106		7.937					ND	
97 Styrene	104		7.951					ND	
98 Bromoform	173		8.130					ND	
99 Isopropylbenzene	105		8.273					ND	
101 cis-1,4-Dichloro-2-butene	53		8.330					ND	
100 Cyclohexanone	55		8.366					ND	U
102 1,1,2,2-Tetrachloroethane	83		8.559					ND	
103 Bromobenzene	156		8.588					ND	
105 trans-1,4-Dichloro-2-buten	53		8.602					ND	
104 1,2,3-Trichloropropane	110		8.623					ND	
106 N-Propylbenzene	120		8.666					ND	
107 2-Chlorotoluene	126		8.759					ND	
108 1,3,5-Trimethylbenzene	105		8.838					ND	
109 4-Chlorotoluene	126		8.874					ND	
110 tert-Butylbenzene	119		9.145					ND	
111 1,2,4-Trimethylbenzene	105		9.202					ND	
112 sec-Butylbenzene	134		9.360					ND	
113 1,3-Dichlorobenzene	146		9.481					ND	
114 4-Isopropyltoluene	119		9.510					ND	
115 1,4-Dichlorobenzene	146		9.581					ND	
116 1,2,3-Trimethylbenzene	105		9.603					ND	
117 n-Butylbenzene	91		9.903					ND	
118 1,2-Dichlorobenzene	146		9.932					ND	
119 1,2-Dibromo-3-Chloropropan	157		10.704					ND	
120 1,3,5-Trichlorobenzene	180		10.890					ND	
121 1,2,4-Trichlorobenzene	180		11.519					ND	
122 Hexachlorobutadiene	225		11.662					ND	
123 Naphthalene	128		11.784					ND	
124 1,2,3-Trichlorobenzene	180		12.005					ND	
130 2,2,3-Trimethylbutane	1		0.000					ND	
132 Pentachloroethane	167		0.000					ND	
135 3,3-Dimethylpentane	1		0.000					ND	
161 1-Chloro-1-fluoroethane TI	1		0.000					ND	
136 2,4-Dimethylpentane	1		0.000					ND	
128 3-Ethylpentane	1		0.000					ND	
125 1-Chlorohexane TIC	1		0.000					ND	
126 2,2-Dimethylpentane	1		0.000					ND	
127 n-Nonyl Aldehyde	1		0.000					ND	
133 2,3-Dimethylpentane	1		0.000					ND	
134 3-Methylhexane	1		0.000					ND	
129 Dimethyl disulfide	1		0.000					ND	
131 2-Methylhexane	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 137 1,2-Dichloroethene, Total	96		2.000				ND		
S 139 Total BTEX	1		0.000				ND		
S 143 Xylenes, Total	106		0.000				ND		
S 144 1,2-Dichloroethene, Total	1		0.000				ND		
S 138 Xylenes, Total (URS)	1		0.000				ND		
S 142 Trihalomethanes, Total	1		0.000				ND		
S 141 TAH	1				0			0	7
S 140 1,3-Dichloropropene, Total	1		0.000				ND		

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

mv-Cent IS/SS_00002 Amount Added: 5.00 Units: uL Run Reagent

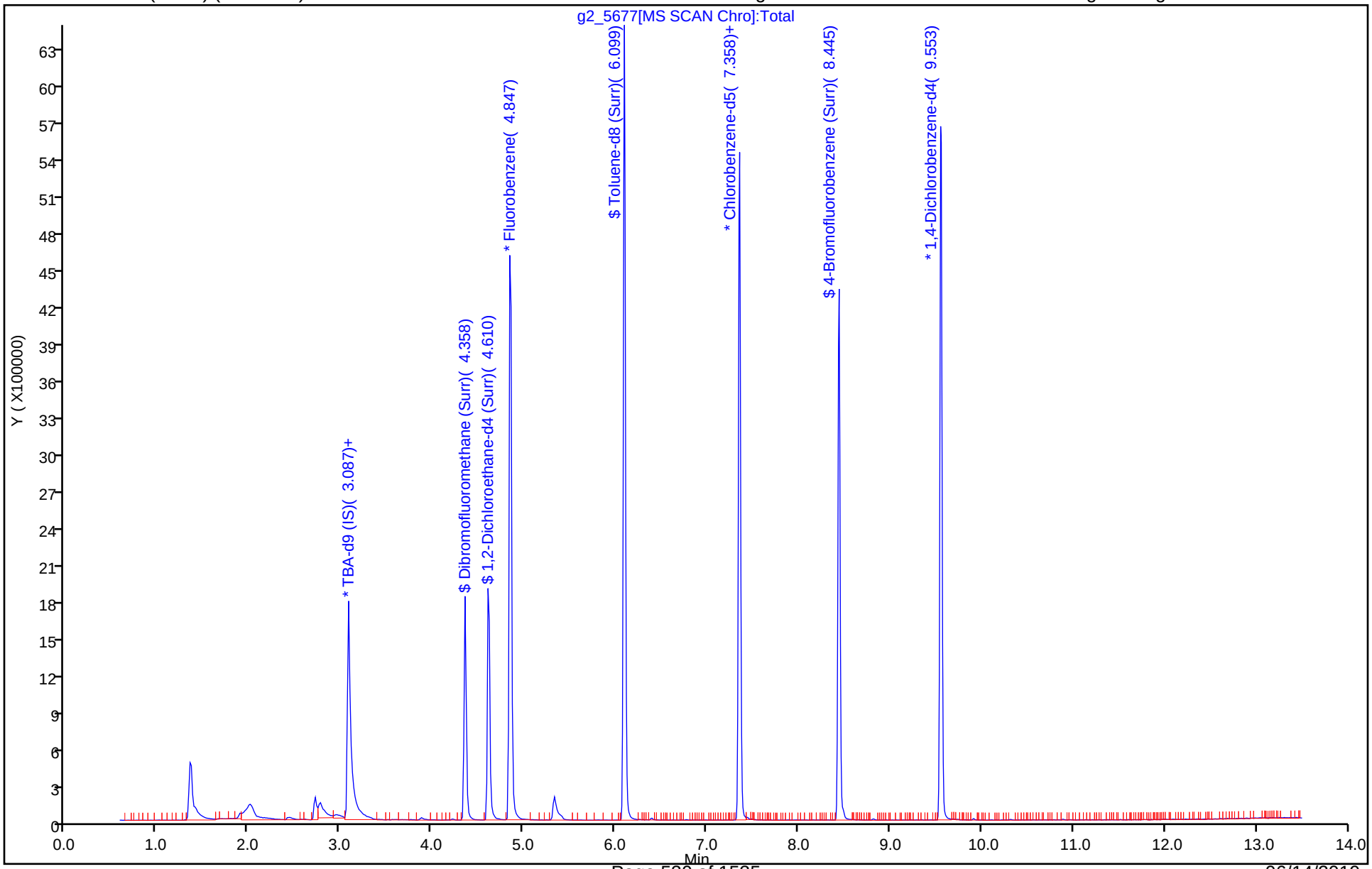
Report Date: 31-May-2019 14:27:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5677.D

Injection Date:	30-May-2019 11:00:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	mb			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5677.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 30-May-2019 11:00:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 14:27:26 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: meierg Date: 30-May-2019 12:10:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 Dibromofluoromethane (Surr)	50.0	49.7	99.38
$ 7 1,2-Dichloroethane-d4 (Surr)	50.0	50.1	100.21
$ 8 Toluene-d8 (Surr)	50.0	50.3	100.51
$ 9 4-Bromofluorobenzene (Surr)	50.0	51.5	102.91

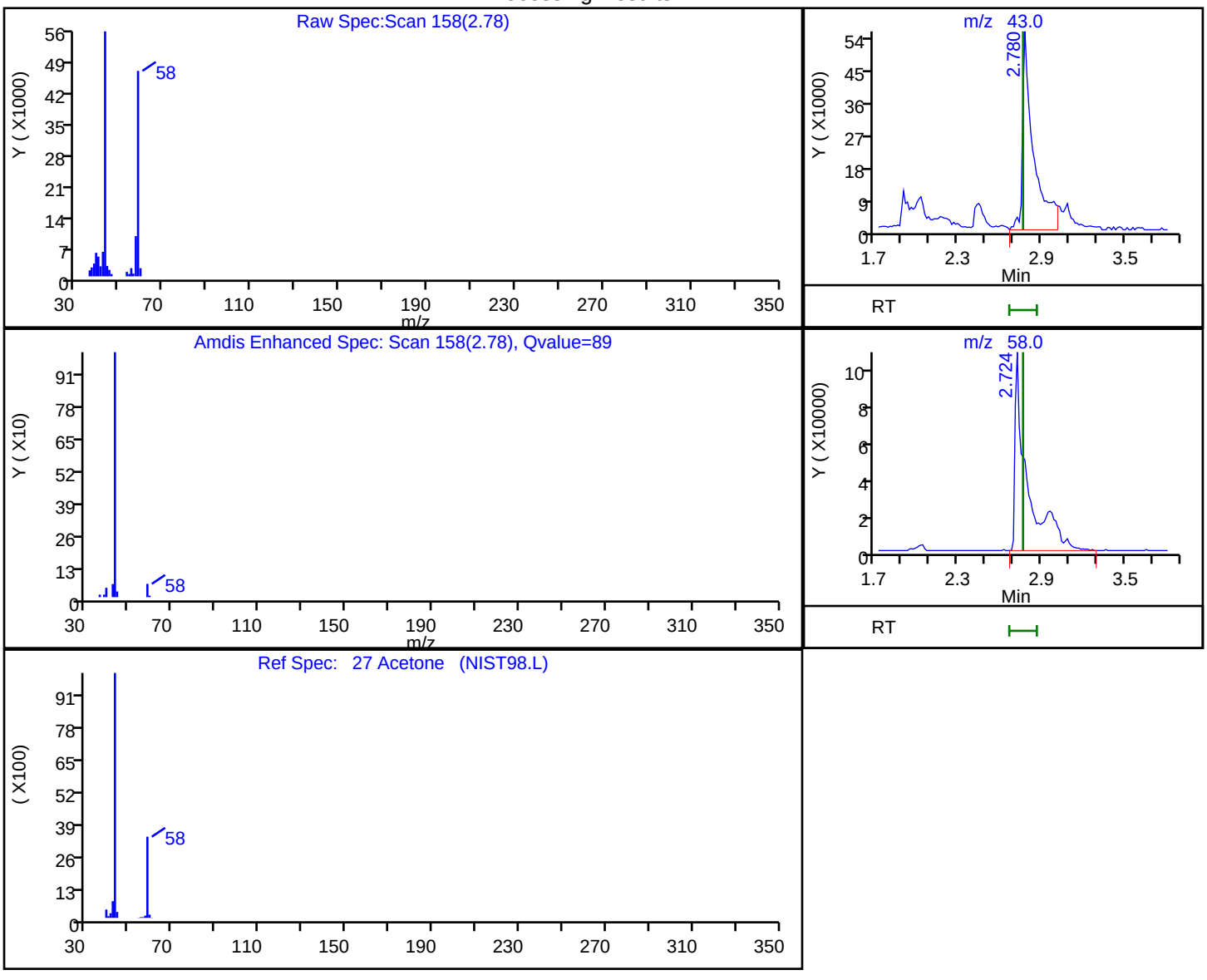
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5677.D
Injection Date: 30-May-2019 11:00:30 Instrument ID: VMS_G2
Lims ID: mb
Client ID:
Operator ID: meierg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

27 Acetone, CAS: 67-64-1

Processing Results



RT	Mass	Response	Amount
2.78	43.00	310610	44.088789
2.72	58.00	637605	

Reviewer: meierg, 30-May-2019 12:09:54
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

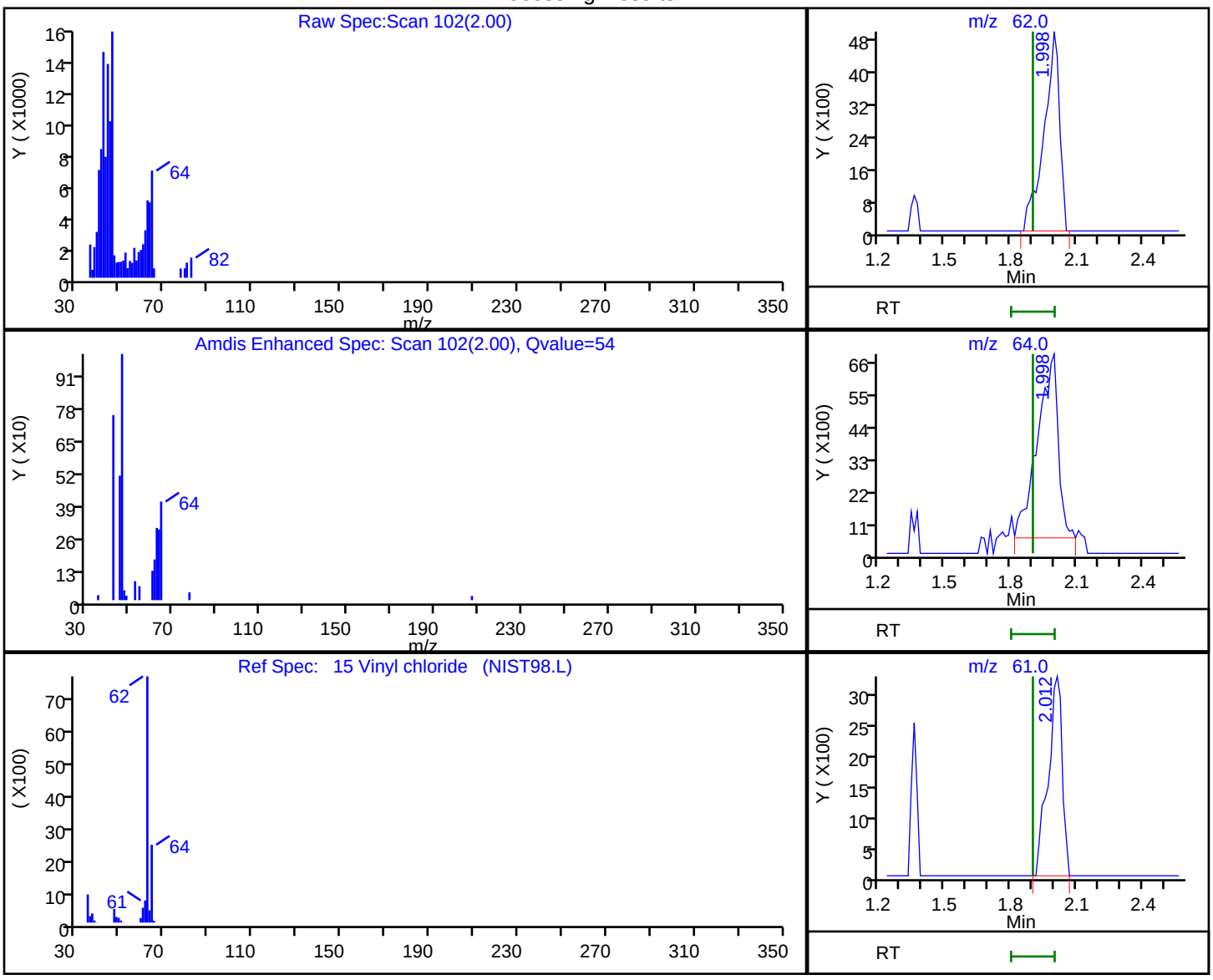
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5677.D
Injection Date: 30-May-2019 11:00:30 Instrument ID: VMS_G2
Lims ID: mb
Client ID:
Operator ID: meierg ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

15 Vinyl chloride, CAS: 75-01-4

Processing Results



RT	Mass	Response	Amount
2.00	62.00	24614	1.093932
2.00	64.00	41767	
2.01	61.00	14486	

Reviewer: meierg, 30-May-2019 12:09:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-459872/4

Matrix: Water Lab File ID: g2_5674.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 09:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	27.1		1.0	0.80	0.21
71-55-6	1,1,1-Trichloroethane	29.7		1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	30.0		1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	28.8		1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	29.3		1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	31.2		1.0	0.80	0.23
563-58-6	1,1-Dichloropropene	27.8		1.0	0.40	0.19
87-61-6	1,2,3-Trichlorobenzene	29.1		1.0	0.80	0.21
96-18-4	1,2,3-Trichloropropane	30.9	Q	3.0	0.80	0.33
120-82-1	1,2,4-Trichlorobenzene	28.1		1.0	0.80	0.21
95-63-6	1,2,4-Trimethylbenzene	28.2		1.0	0.40	0.15
96-12-8	1,2-Dibromo-3-Chloropropane	27.0		5.0	1.6	0.47
106-93-4	1,2-Dibromoethane	28.6		1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	26.9		1.0	0.40	0.15
107-06-2	1,2-Dichloroethane	28.8		1.0	0.40	0.13
540-59-0	1,2-Dichloroethene, Total	59.2		1.0	0.40	0.15
78-87-5	1,2-Dichloropropane	29.1		1.0	0.40	0.18
108-67-8	1,3,5-Trimethylbenzene	28.8		1.0	0.40	0.16
541-73-1	1,3-Dichlorobenzene	28.2		1.0	0.40	0.13
142-28-9	1,3-Dichloropropane	28.0		1.0	0.20	0.090
106-46-7	1,4-Dichlorobenzene	27.9		1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	30.2		1.0	0.80	0.38
78-93-3	2-Butanone (MEK)	121		6.0	4.0	2.0
95-49-8	2-Chlorotoluene	28.3		1.0	0.40	0.17
591-78-6	2-Hexanone	123		5.0	4.0	1.7
106-43-4	4-Chlorotoluene	28.2		1.0	0.80	0.21
99-87-6	4-Isopropyltoluene	28.4		1.0	0.40	0.20
108-10-1	4-Methyl-2-pentanone (MIBK)	129		5.0	3.2	0.98
67-64-1	Acetone	164	Q	10	6.4	1.9
71-43-2	Benzene	28.6		1.0	0.40	0.16
108-86-1	Bromobenzene	29.7		1.0	0.40	0.17
74-97-5	Bromochloromethane	28.8		1.0	0.20	0.10
75-27-4	Bromodichloromethane	27.1		1.0	0.40	0.17
75-25-2	Bromoform	23.4		1.0	1.0	0.46
74-83-9	Bromomethane	26.8		2.0	0.80	0.21
75-15-0	Carbon disulfide	24.1		2.0	0.80	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-459872/4

Matrix: Water Lab File ID: g2_5674.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 09:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	26.4		2.0	0.40	0.19
108-90-7	Chlorobenzene	27.7		1.0	0.40	0.17
75-00-3	Chloroethane	25.0		2.0	1.6	0.41
67-66-3	Chloroform	29.1		1.0	0.40	0.16
74-87-3	Chloromethane	23.0		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	29.6		1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	30.2		1.0	0.40	0.16
124-48-1	Dibromochloromethane	25.6		1.0	0.40	0.17
74-95-3	Dibromomethane	29.1		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	24.7		2.0	0.80	0.31
100-41-4	Ethylbenzene	28.3		1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	26.7		1.0	0.80	0.36
98-82-8	Isopropylbenzene	30.2		1.0	0.40	0.19
179601-23-1	m,p-Xylene	28.7		2.0	0.80	0.15
74-88-4	Methyl iodide	30.5		2.0	0.80	0.23
1634-04-4	Methyl tert-butyl ether	29.0		5.0	0.80	0.25
75-09-2	Methylene Chloride	28.8		5.0	2.0	0.94
91-20-3	Naphthalene	31.3		1.0	0.80	0.22
104-51-8	n-Butylbenzene	28.5		1.0	0.80	0.14
103-65-1	N-Propylbenzene	28.2		1.0	0.40	0.16
95-47-6	o-Xylene	28.4		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	28.4		1.0	0.40	0.17
100-42-5	Styrene	30.0		1.0	0.80	0.36
98-06-6	tert-Butylbenzene	27.8		1.0	0.40	0.16
127-18-4	Tetrachloroethene	29.4		1.0	0.40	0.20
108-88-3	Toluene	28.9		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	29.6		1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	28.1		1.0	0.40	0.19
79-01-6	Trichloroethene	29.0		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	22.7		2.0	0.80	0.29
108-05-4	Vinyl acetate	62.4		3.0	2.0	0.94
75-01-4	Vinyl chloride	22.8		1.5	0.20	0.10
1330-20-7	Xylenes, Total	57.1		1.0	0.80	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-459872/4

Matrix: Water Lab File ID: g2_5674.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 09:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		81-118
460-00-4	4-Bromofluorobenzene (Surr)	101		85-114
1868-53-7	Dibromofluoromethane (Surr)	100		80-119
2037-26-5	Toluene-d8 (Surr)	99		89-112

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5674.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 30-May-2019 09:55:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 10:55:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2939827	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4298787	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.357	7.358	-0.001	88	966787	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1581411	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	95	1013955	50.0	50.2	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.609	4.610	-0.001	100	1429605	50.0	51.3	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3949304	50.0	49.6	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1476246	50.0	50.6	
12 Dichlorodifluoromethane	85	1.621	1.607	0.014	99	730981	25.0	24.7	
14 Chloromethane	50	1.788	1.789	-0.001	99	771065	25.0	23.0	
15 Vinyl chloride	62	1.900	1.900	0.000	97	453896	25.0	22.8	
17 Bromomethane	94	2.123	2.124	-0.001	90	401115	25.0	26.8	
18 Chloroethane	64	2.165	2.166	-0.001	99	372926	25.0	25.0	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	97	360693	25.0	18.1	
20 Trichlorofluoromethane	101	2.417	2.403	0.014	99	633556	25.0	22.7	
22 Ethyl ether	59	2.556	2.557	-0.001	94	489673	25.0	28.7	
24 Acrolein	56	2.668	2.668	0.000	99	924645	250.0	292.7	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	93	470080	25.0	30.4	
25 1,1-Dichloroethene	96	2.780	2.766	0.014	95	550400	25.0	31.2	
27 Acetone	43	2.766	2.766	0.000	100	1058210	100.0	164.4	
28 Iodomethane	142	2.892	2.878	0.014	99	826605	25.0	30.5	
32 Methyl acetate	43	2.989	2.990	-0.001	98	1066688	50.0	64.5	
30 Carbon disulfide	76	3.003	3.004	-0.001	98	1506172	25.0	24.1	
33 3-Chloro-1-propene	41	3.017	3.004	0.013	85	919691	25.0	29.0	
35 Methylene Chloride	84	3.115	3.115	0.000	97	551701	25.0	28.8	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	100	794650	250.0	346.2	
39 Acrylonitrile	53	3.255	3.255	0.000	99	2385427	250.0	306.8	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	96	1287417	25.0	29.0	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	97	556432	25.0	29.6	
42 Hexane	57	3.478	3.478	0.000	93	1010404	25.0	29.5	
46 Vinyl acetate	43	3.590	3.590	0.000	97	2700220	50.0	62.4	
45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	1006076	25.0	29.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
52 2-Butanone (MEK)	43	3.995	3.981	0.014	100	1230503	100.0	121.0	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	596546	25.0	29.6	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	88	709769	25.0	30.2	
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	1825414	750.0	939.9	
56 Chlorobromomethane	128	4.190	4.191	-0.001	97	266559	25.0	28.8	
57 Tetrahydrofuran	42	4.190	4.191	-0.001	90	454390	50.0	64.7	
59 Chloroform	83	4.246	4.247	-0.001	93	981985	25.0	29.1	
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	886694	25.0	29.7	
61 Cyclohexane	56	4.442	4.442	0.000	91	1223277	25.0	29.0	
63 1,1-Dichloropropene	75	4.498	4.484	0.014	96	789623	25.0	27.8	
62 Carbon tetrachloride	117	4.498	4.498	0.000	94	699603	25.0	26.4	
66 Isobutyl alcohol	41	4.512	4.512	0.000	95	616094	625.0	728.0	
64 Benzene	78	4.637	4.638	-0.001	97	2230675	25.0	28.6	
65 1,2-Dichloroethane	62	4.679	4.666	0.013	97	828805	25.0	28.8	
67 n-Heptane	43	4.833	4.819	0.014	94	1055678	25.0	27.8	
69 Trichloroethene	95	5.126	5.126	0.000	97	568275	25.0	29.0	
70 2-Pentanone	43	5.238	5.238	0.000	99	2092730	100.0	127.2	
71 Methylcyclohexane	55	5.308	5.308	0.000	92	929267	25.0	28.6	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	90	585153	25.0	29.1	
74 1,4-Dioxane	88	5.378	5.378	0.000	94	139940	500.0	587.0	
75 Dibromomethane	93	5.406	5.406	0.000	97	317744	25.0	29.1	
76 Dichlorobromomethane	83	5.517	5.518	-0.001	99	669536	25.0	27.1	
78 2-Chloroethyl vinyl ether	63	5.727	5.727	0.000	92	384893	25.0	30.8	
79 cis-1,3-Dichloropropene	75	5.866	5.867	-0.001	94	894054	25.0	30.2	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	97	2700684	100.0	129.2	
82 Toluene	91	6.156	6.156	0.000	98	2311166	25.0	28.9	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	96	758009	25.0	28.1	
84 Ethyl methacrylate	69	6.364	6.364	0.000	91	738385	25.0	30.4	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	93	451010	25.0	28.8	
86 Tetrachloroethene	164	6.592	6.593	-0.001	95	459035	25.0	29.4	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	93	820057	25.0	28.0	
88 2-Hexanone	43	6.678	6.678	0.000	98	1862002	100.0	122.7	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	411798	25.0	25.6	
90 Ethylene Dibromide	107	6.957	6.957	0.000	98	448260	25.0	28.6	
91 1-Chlorohexane	91	7.343	7.351	-0.008	97	815548	25.0	29.6	
92 Chlorobenzene	112	7.386	7.386	0.000	94	1479297	25.0	27.7	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	93	473242	25.0	27.1	
94 Ethylbenzene	106	7.465	7.465	0.000	99	808211	25.0	28.3	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	1000893	25.0	28.7	
96 o-Xylene	106	7.937	7.937	0.000	97	955686	25.0	28.4	
97 Styrene	104	7.951	7.951	0.000	95	1611922	25.0	30.0	
98 Bromoform	173	8.130	8.130	0.000	95	218450	25.0	23.4	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	2635817	25.0	30.2	
100 Cyclohexanone	55	8.366	8.366	0.000	94	798882	1000.0	1006.9	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	593204	25.0	30.0	
103 Bromobenzene	156	8.580	8.588	-0.008	96	605696	25.0	29.7	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	79	203265	25.0	29.1	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	82	212579	25.0	30.9	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	725777	25.0	28.2	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	604327	25.0	28.3	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	94	2144536	25.0	28.8	
109 4-Chlorotoluene	126	8.873	8.874	-0.001	97	638793	25.0	28.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	1965730	25.0	27.8	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	97	2184433	25.0	28.2	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	606035	25.0	28.4	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	97	1155639	25.0	28.2	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	2598768	25.0	28.4	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	94	1199382	25.0	27.9	
117 n-Butylbenzene	91	9.903	9.903	0.000	98	2329215	25.0	28.5	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	1103832	25.0	26.9	
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	82	132760	25.0	27.0	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	827843	25.0	28.1	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	402969	25.0	26.7	
123 Naphthalene	128	11.783	11.784	-0.001	97	2328886	25.0	31.3	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	95	791550	25.0	29.1	
S 137 1,2-Dichloroethene, Total	96				0		50.0	59.1	
S 143 Xylenes, Total	106				0		50.0	57.2	
S 144 1,2-Dichloroethene, Total	1				0		50.0	59.1	
S 138 Xylenes, Total (URS)	1				0		50.0	57.2	
S 142 Trihalomethanes, Total	1				0		100.0	105.2	
S 140 1,3-Dichloropropene, Total	1				0		50.0	58.3	

Reagents:

MV-Gas B_00029	Amount Added:	25.00	Units: uL	
MV-MegaMain B_00012	Amount Added:	25.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

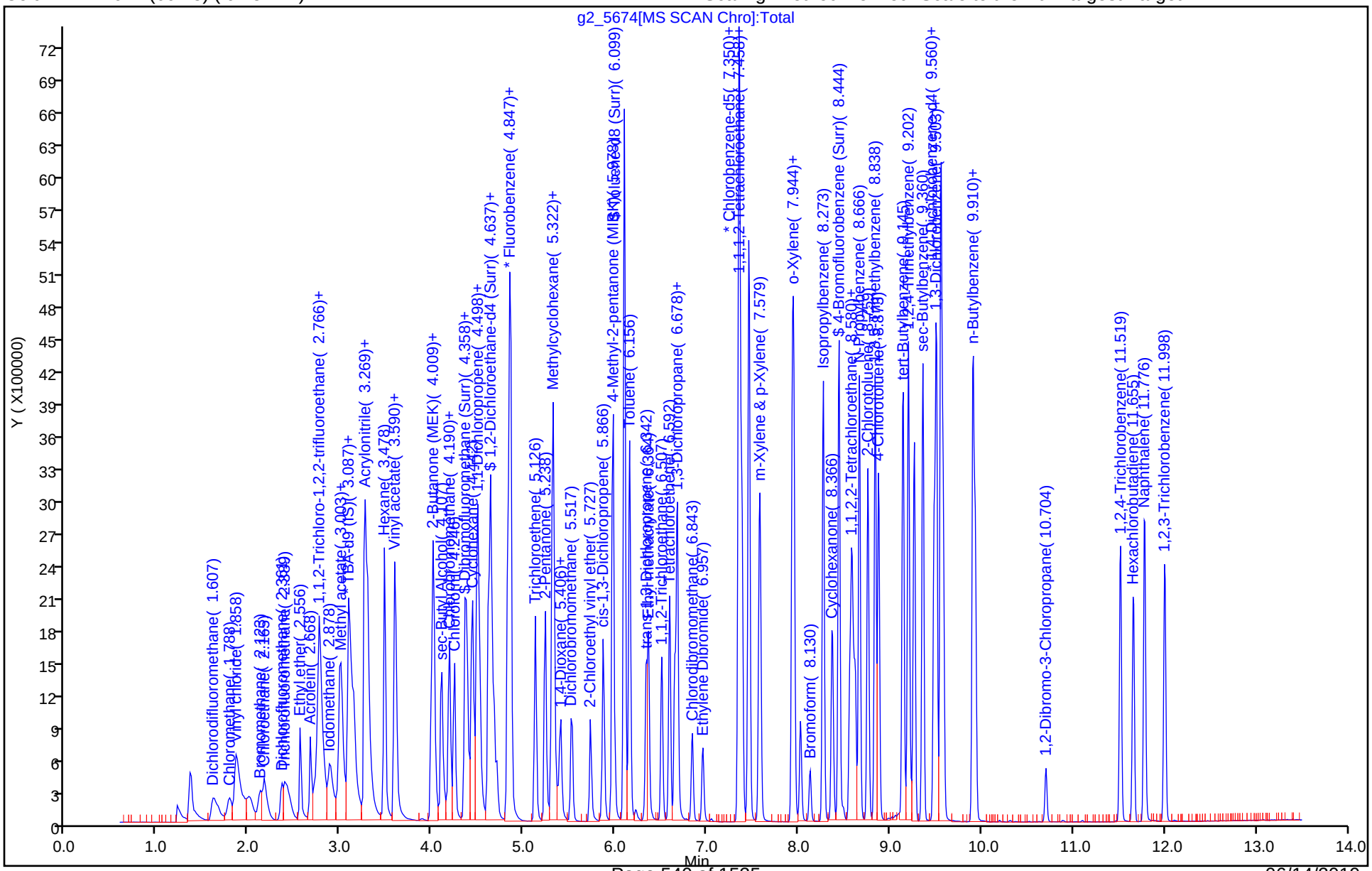
Report Date: 31-May-2019 00:37:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5674.D

Injection Date:	30-May-2019 09:55:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	lcs			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5674.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 30-May-2019 09:55:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: meierg Date: 30-May-2019 10:55:47

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 Dibromofluoromethane (Surr)	50.0	50.2	100.48
$ 7 1,2-Dichloroethane-d4 (Surr)	50.0	51.3	102.56
$ 8 Toluene-d8 (Surr)	50.0	49.6	99.22
$ 9 4-Bromofluorobenzene (Surr)	50.0	50.6	101.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-459872/5

Matrix: Water Lab File ID: g2_5675.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 10:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
108-20-3	Diisopropyl ether	27.2		10	0.40	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		81-118
460-00-4	4-Bromofluorobenzene (Surr)	103		85-114
1868-53-7	Dibromofluoromethane (Surr)	100		80-119
2037-26-5	Toluene-d8 (Surr)	99		89-112

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5675.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 30-May-2019 10:17:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 14:26:39 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: meierg Date: 31-May-2019 14:26:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	82	2888589	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	99	4354421	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	978896	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1561835	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	1023191	50.0	50.1	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	100	1405552	50.0	49.8	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4005343	50.0	49.7	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1486318	50.0	51.6	
16 Ethylene oxide	43	2.054	2.054	0.000	100	2710374	2500.0	10252	
21 Ethanol	45	2.473	2.473	0.000	95	371866	1500.0	951.0	M
23 Propene oxide	58	2.598	2.598	0.000	96	11686188	2500.0	4039.2	
29 Isopropyl alcohol	45	2.850	2.850	0.000	100	432539	250.0	235.8	
31 Acetonitrile	41	2.976	2.976	0.000	98	807285	250.0	207.5	
47 Isopropyl ether	87	3.604	3.604	0.000	95	478071	25.0	27.2	
48 2-Chloro-1,3-butadiene	53	3.660	3.660	0.000	93	981775	25.0	28.3	
49 Tert-butyl ethyl ether	59	3.869	3.869	0.000	98	1489672	25.0	31.0	
53 Ethyl acetate	43	4.009	4.009	0.000	99	1377461	50.0	53.3	
54 Propionitrile	54	4.037	4.037	0.000	99	1051811	250.0	271.1	
58 Methacrylonitrile	41	4.149	4.149	0.000	93	4145395	250.0	285.7	
68 Tert-amyl methyl ether	73	4.707	4.707	0.000	85	1397169	25.0	29.9	
73 n-Butanol	56	5.015	5.015	0.000	87	432616	625.0	581.8	
77 Methyl methacrylate	100	5.336	5.336	0.000	94	369138	50.0	56.9	
80 2-Nitropropane	41	5.699	5.685	0.014	98	244638	50.0	52.3	
13 Tetrahydrothiophene	60	6.836	6.836	0.000	94	139303	50.0	70.6	
101 cis-1,4-Dichloro-2-butene	53	8.330	8.330	0.000	96	417109	50.0	55.8	
116 1,2,3-Trimethylbenzene	105	9.603	9.603	0.000	98	2167336	25.0	27.0	
120 1,3,5-Trichlorobenzene	180	10.890	10.890	0.000	97	897138	25.0	28.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MV-Supp B_00024	Amount Added:	25.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

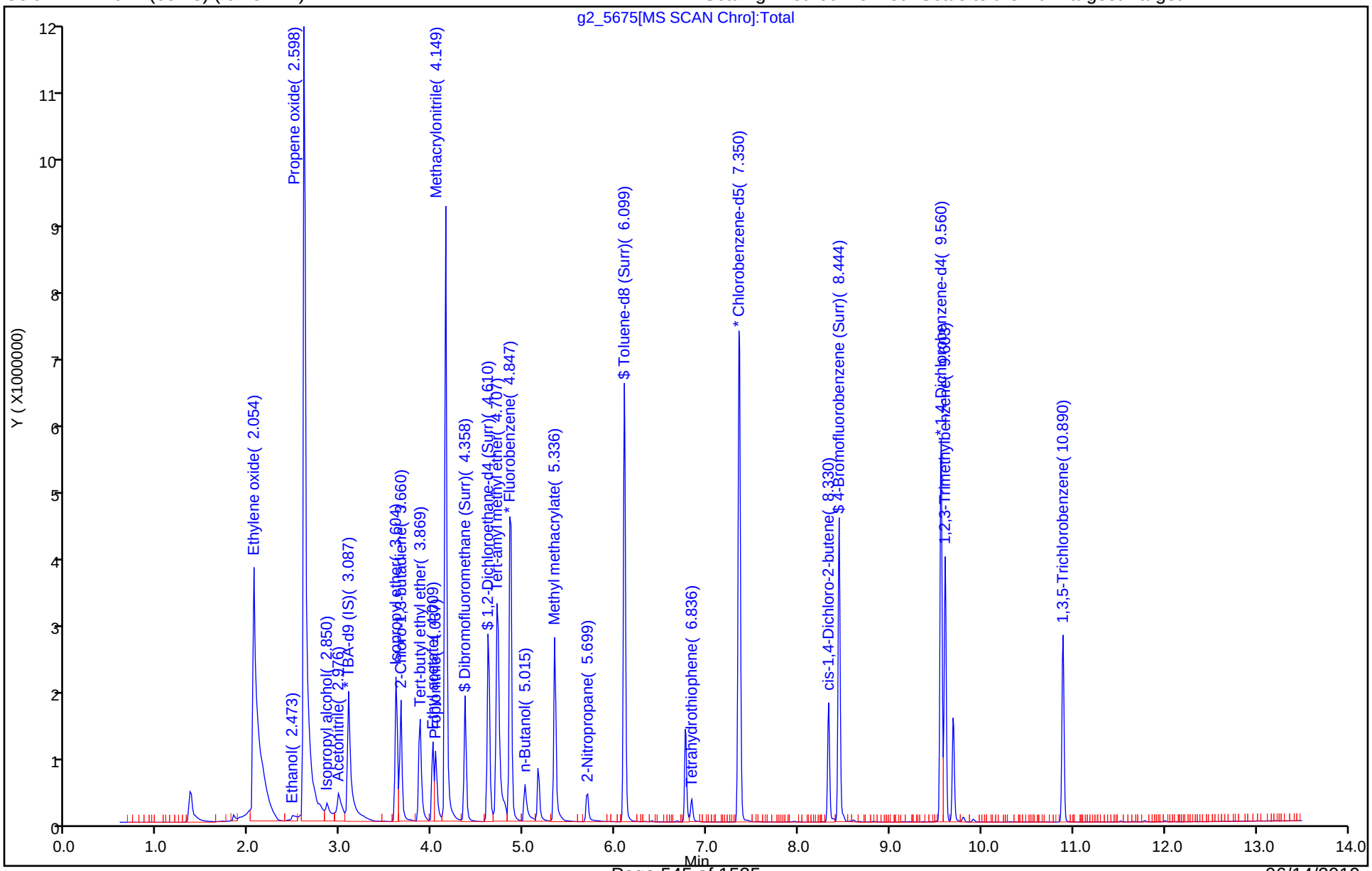
Report Date: 31-May-2019 14:26:40 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5675.D

Injection Date:	30-May-2019 10:17:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	lcs			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5675.D				
Lims ID:	lcs				
Client ID:					
Sample Type:	LCS				
Inject. Date:	30-May-2019 10:17:30	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	LCS				
Operator ID:	meierg	Instrument ID:	VMS_G2		
Method:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	31-May-2019 14:26:39	Calib Date:	28-May-2019 14:00:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D				
Column 1 :	DB-624 (60.25) (0.25 mm)		Det: MS SCAN		
Process Host:	CTX0322				

First Level Reviewer: meierg Date: 31-May-2019 14:26:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 Dibromofluoromethane (Surr)	50.0	50.1	100.10
$ 7 1,2-Dichloroethane-d4 (Surr)	50.0	49.8	99.54
$ 8 Toluene-d8 (Surr)	50.0	49.7	99.38
$ 9 4-Bromofluorobenzene (Surr)	50.0	51.6	103.14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-459872/6

Matrix: Water Lab File ID: g2_5676.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 10:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
108-20-3	Diisopropyl ether	26.1		10	0.40	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		81-118
460-00-4	4-Bromofluorobenzene (Surr)	104		85-114
1868-53-7	Dibromofluoromethane (Surr)	100		80-119
2037-26-5	Toluene-d8 (Surr)	100		89-112

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5676.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 30-May-2019 10:38:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 14:27:26 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0322

First Level Reviewer: meierg Date: 31-May-2019 14:27:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	44	2882169	1000.0	1000.0	
* 2 Fluorobenzene	96	4.861	4.861	0.000	94	4355720	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	86	976824	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1548255	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	67	1022108	50.0	50.0	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	99	1421429	50.0	50.3	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	4018603	50.0	50.0	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1486880	50.0	52.0	
16 Ethylene oxide	43	2.054	2.054	0.000	100	2758726	2500.0	10506	
21 Ethanol	45	2.571	2.473	0.097	98	413299	1500.0	1063.2	M
23 Propene oxide	58	2.598	2.598	0.000	95	10801530	2500.0	3698.2	
29 Isopropyl alcohol	45	2.850	2.850	0.000	78	398346	250.0	217.1	
31 Acetonitrile	41	2.976	2.976	0.000	98	638420	250.0	164.1	
47 Isopropyl ether	87	3.604	3.604	0.000	95	459334	25.0	26.1	
48 2-Chloro-1,3-butadiene	53	3.660	3.660	0.000	84	937072	25.0	27.0	
49 Tert-butyl ethyl ether	59	3.869	3.869	0.000	98	1448118	25.0	30.1	
53 Ethyl acetate	43	4.009	4.009	0.000	97	1387479	50.0	53.6	
54 Propionitrile	54	4.037	4.037	0.000	99	1082013	250.0	278.8	
58 Methacrylonitrile	41	4.149	4.149	0.000	93	4172971	250.0	287.5	
68 Tert-amyl methyl ether	73	4.707	4.707	0.000	77	1368969	25.0	29.3	
73 n-Butanol	56	5.015	5.015	0.000	76	448613	625.0	602.4	
77 Methyl methacrylate	100	5.336	5.336	0.000	93	377985	50.0	58.2	
80 2-Nitropropane	41	5.685	5.685	0.000	99	242530	50.0	51.8	
13 Tetrahydrothiophene	60	6.836	6.836	0.000	72	140683	50.0	71.5	
101 cis-1,4-Dichloro-2-butene	53	8.330	8.330	0.000	93	398073	50.0	53.7	
116 1,2,3-Trimethylbenzene	105	9.603	9.603	0.000	75	2091155	25.0	26.2	
120 1,3,5-Trichlorobenzene	180	10.890	10.890	0.000	96	870021	25.0	28.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MV-Supp B_00024	Amount Added:	25.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

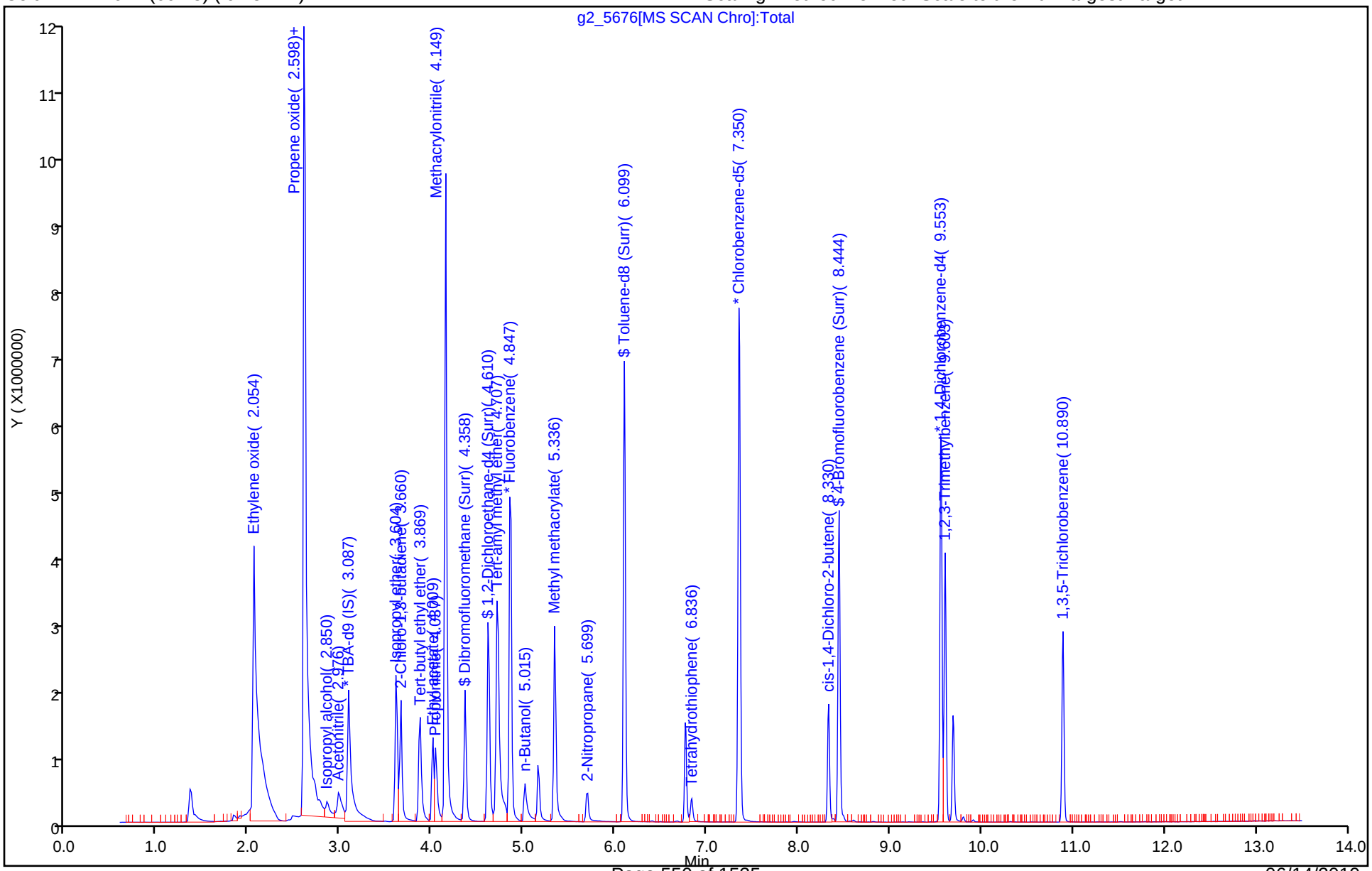
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Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5676.D

Injection Date:	30-May-2019 10:38:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	lcsd			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5676.D				
Lims ID:	lcsd				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	30-May-2019 10:38:30	ALS Bottle#:	5	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	LCSD				
Operator ID:	meierg	Instrument ID:	VMS_G2		
Method:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	31-May-2019 14:27:26	Calib Date:	28-May-2019 14:00:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D				
Column 1 :	DB-624 (60.25) (0.25 mm)		Det: MS SCAN		
Process Host:	CTX0322				

First Level Reviewer: meierg Date: 31-May-2019 14:27:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 Dibromofluoromethane (Surr)	50.0	50.0	99.97
$ 7 1,2-Dichloroethane-d4 (Surr)	50.0	50.3	100.64
$ 8 Toluene-d8 (Surr)	50.0	50.0	99.92
$ 9 4-Bromofluorobenzene (Surr)	50.0	52.0	104.08

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: 280-124039-G-4 MS

Matrix: Water Lab File ID: g2_5682.D

Analysis Method: 8260B Date Collected: 05/18/2019 14:54

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	28.9		1.0	0.80	0.21
71-55-6	1,1,1-Trichloroethane	31.5		1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	30.5	J1	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	29.7		1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	31.2		1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	33.0	J1	1.0	0.80	0.23
563-58-6	1,1-Dichloropropene	30.3		1.0	0.40	0.19
87-61-6	1,2,3-Trichlorobenzene	29.0		1.0	0.80	0.21
96-18-4	1,2,3-Trichloropropane	30.6		3.0	0.80	0.33
120-82-1	1,2,4-Trichlorobenzene	29.1		1.0	0.80	0.21
95-63-6	1,2,4-Trimethylbenzene	29.6		1.0	0.40	0.15
96-12-8	1,2-Dibromo-3-Chloropropane	24.1		5.0	1.6	0.47
106-93-4	1,2-Dibromoethane	28.9		1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	28.0		1.0	0.40	0.15
107-06-2	1,2-Dichloroethane	30.9		1.0	0.40	0.13
540-59-0	1,2-Dichloroethene, Total	63.7	J1	1.0	0.40	0.15
78-87-5	1,2-Dichloropropane	30.4		1.0	0.40	0.18
108-67-8	1,3,5-Trimethylbenzene	30.8		1.0	0.40	0.16
541-73-1	1,3-Dichlorobenzene	29.6		1.0	0.40	0.13
142-28-9	1,3-Dichloropropane	28.7		1.0	0.20	0.090
106-46-7	1,4-Dichlorobenzene	29.0		1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	31.9		1.0	0.80	0.38
78-93-3	2-Butanone (MEK)	116		6.0	4.0	2.0
95-49-8	2-Chlorotoluene	29.8		1.0	0.40	0.17
591-78-6	2-Hexanone	116		5.0	4.0	1.7
106-43-4	4-Chlorotoluene	29.4		1.0	0.80	0.21
99-87-6	4-Isopropyltoluene	29.8		1.0	0.40	0.20
108-10-1	4-Methyl-2-pentanone (MIBK)	125		5.0	3.2	0.98
67-64-1	Acetone	112		10	6.4	1.9
71-43-2	Benzene	29.9		1.0	0.40	0.16
108-86-1	Bromobenzene	31.4	J1	1.0	0.40	0.17
74-97-5	Bromochloromethane	29.7		1.0	0.20	0.10
75-27-4	Bromodichloromethane	28.4		1.0	0.40	0.17
75-25-2	Bromoform	22.9		1.0	1.0	0.46
74-83-9	Bromomethane	28.2		2.0	0.80	0.21
75-15-0	Carbon disulfide	29.8		2.0	0.80	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: 280-124039-G-4 MS

Matrix: Water Lab File ID: g2_5682.D

Analysis Method: 8260B Date Collected: 05/18/2019 14:54

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	29.1		2.0	0.40	0.19
108-90-7	Chlorobenzene	28.8		1.0	0.40	0.17
75-00-3	Chloroethane	25.7		2.0	1.6	0.41
67-66-3	Chloroform	31.0		1.0	0.40	0.16
74-87-3	Chloromethane	20.4		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	32.0	J1	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	30.8		1.0	0.40	0.16
124-48-1	Dibromochloromethane	25.7		1.0	0.40	0.17
74-95-3	Dibromomethane	29.8		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	26.6		2.0	0.80	0.31
108-20-3	Diisopropyl ether	0.40	U M	10	0.40	0.13
100-41-4	Ethylbenzene	29.9		1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	28.1		1.0	0.80	0.36
98-82-8	Isopropylbenzene	31.8		1.0	0.40	0.19
179601-23-1	m,p-Xylene	29.7		2.0	0.80	0.15
74-88-4	Methyl iodide	32.0		2.0	0.80	0.23
1634-04-4	Methyl tert-butyl ether	29.8		5.0	0.80	0.25
75-09-2	Methylene Chloride	29.9		5.0	2.0	0.94
91-20-3	Naphthalene	30.6		1.0	0.80	0.22
104-51-8	n-Butylbenzene	29.8		1.0	0.80	0.14
103-65-1	N-Propylbenzene	30.1		1.0	0.40	0.16
95-47-6	o-Xylene	29.7		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	29.8		1.0	0.40	0.17
100-42-5	Styrene	30.7		1.0	0.80	0.36
98-06-6	tert-Butylbenzene	29.6		1.0	0.40	0.16
127-18-4	Tetrachloroethene	30.7		1.0	0.40	0.20
108-88-3	Toluene	30.4	J1	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	31.7	J1	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	28.7		1.0	0.40	0.19
79-01-6	Trichloroethene	31.2	J1	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	24.4		2.0	0.80	0.29
108-05-4	Vinyl acetate	62.3		3.0	2.0	0.94
75-01-4	Vinyl chloride	26.9		1.5	0.20	0.10
1330-20-7	Xylenes, Total	59.4		1.0	0.80	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: 280-124039-G-4 MS

Matrix: Water Lab File ID: g2_5682.D

Analysis Method: 8260B Date Collected: 05/18/2019 14:54

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		81-118
460-00-4	4-Bromofluorobenzene (Surr)	101		85-114
1868-53-7	Dibromofluoromethane (Surr)	101		80-119
2037-26-5	Toluene-d8 (Surr)	98		89-112

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5682.D
Lims ID: 280-124039-G-4 MS
Client ID: GR047-GW-02-1-MS
Sample Type: MS
Inject. Date: 30-May-2019 12:47:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-124039-g-4 ms
Misc. Info.: 280-0082377-012
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: ornelasg Date: 31-May-2019 00:03:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	84	2443868	1000.0	1000.0	
* 2 Fluorobenzene	96	4.847	4.861	-0.014	99	3964060	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	87	894971	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.560	9.560	0.000	96	1467641	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	935774	50.0	50.3	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	100	1327756	50.0	51.6	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3627351	50.0	49.2	
$ 9 4-Bromofluorobenzene (Surr	95	8.444	8.444	0.000	88	1367723	50.0	50.5	
$ 10 Trifluorotoluene (Surr)	1		0.000					ND	
$ 11 BFB	95	3.297	3.199	0.098	0	26108		NR	
12 Dichlorodifluoromethane	85	1.621	1.607	0.014	97	725573	25.0	26.6	
34 Chlorotrifluoroethene	116		1.677					ND	
14 Chloromethane	50	1.788	1.789	-0.001	99	630161	25.0	20.4	
36 1,2-Dichloro-1,1,2,2-tetra	85		1.830					ND	
15 Vinyl chloride	62	1.900	1.900	0.000	98	494838	25.0	26.9	
16 Ethylene oxide	43		2.054					ND	
38 2-Chloro-1,1,1-Trifluoroet	118		2.110					ND	
17 Bromomethane	94	2.110	2.124	-0.014	91	388687	25.0	28.2	
18 Chloroethane	64	2.165	2.166	-0.001	99	353349	25.0	25.7	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	97	326293	25.0	17.8	
20 Trichlorofluoromethane	101	2.403	2.403	0.000	97	628402	25.0	24.4	
21 Ethanol	45		2.473					ND	U
22 Ethyl ether	59	2.556	2.557	-0.001	95	471116	25.0	30.0	
23 Propene oxide	58		2.598					ND	
24 Acrolein	56	2.668	2.668	0.000	100	863581	250.0	296.5	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	93	461076	25.0	32.3	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	536428	25.0	33.0	
27 Acetone	43	2.766	2.766	0.000	99	674426	100.0	111.5	
29 Isopropyl alcohol	45		2.850					ND	U
28 Iodomethane	142	2.878	2.878	0.000	99	800048	25.0	32.0	
31 Acetonitrile	41	2.766	2.976	-0.210	21	10721		3.03	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Methyl acetate	43	2.989	2.990	-0.001	98	894352	50.0	58.6	
30 Carbon disulfide	76	3.003	3.004	-0.001	99	1717565	25.0	29.8	
33 3-Chloro-1-propene	41	3.003	3.004	-0.001	90	913090	25.0	31.2	
35 Methylene Chloride	84	3.115	3.115	0.000	97	527956	25.0	29.9	
43 1,2-Dichloro-1,1,2-trifluo	117		3.129					ND	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	100	664778	250.0	313.5	
44 1,1,1-Trifluoro-2,2-dichlo	83		3.213					ND	
39 Acrylonitrile	53	3.255	3.255	0.000	98	2162060	250.0	301.5	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	97	1220948	25.0	29.8	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	97	549977	25.0	31.7	
42 Hexane	57	3.478	3.478	0.000	94	983722	25.0	31.0	
46 Vinyl acetate	43	3.590	3.590	0.000	97	2485450	50.0	62.3	
47 Isopropyl ether	87		3.604					ND	U
45 1,1-Dichloroethane	63	3.604	3.604	0.000	96	988428	25.0	31.2	
48 2-Chloro-1,3-butadiene	53		3.660					ND	
49 Tert-butyl ethyl ether	59		3.869					ND	
52 2-Butanone (MEK)	43	3.995	3.981	0.014	100	1089685	100.0	116.2	
53 Ethyl acetate	43		4.009					ND	U
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	595996	25.0	32.0	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	88	691880	25.0	31.9	
54 Propionitrile	54		4.037					ND	U
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	1531330	750.0	855.0	
58 Methacrylonitrile	41		4.149					ND	
56 Chlorobromomethane	128	4.191	4.191	0.000	98	253120	25.0	29.7	
57 Tetrahydrofuran	42	4.191	4.191	0.000	89	406657	50.0	62.8	
59 Chloroform	83	4.246	4.247	-0.001	93	967365	25.0	31.0	
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	868734	25.0	31.5	
61 Cyclohexane	56	4.442	4.442	0.000	91	1212232	25.0	31.2	
63 1,1-Dichloropropene	75	4.484	4.484	0.000	97	794424	25.0	30.3	
62 Carbon tetrachloride	117	4.498	4.498	0.000	95	712104	25.0	29.1	
66 Isobutyl alcohol	41	4.512	4.512	0.000	94	567651	625.0	727.4	
64 Benzene	78	4.637	4.638	-0.001	98	2154635	25.0	29.9	
65 1,2-Dichloroethane	62	4.665	4.666	-0.001	97	818242	25.0	30.9	
68 Tert-amyl methyl ether	73		4.707					ND	U
67 n-Heptane	43	4.819	4.819	0.000	95	1025100	25.0	29.3	
73 n-Butanol	56		5.015					ND	
69 Trichloroethene	95	5.126	5.126	0.000	96	563837	25.0	31.2	
70 2-Pentanone	43	5.238	5.238	0.000	99	1831725	100.0	120.7	
71 Methylcyclohexane	55	5.308	5.308	0.000	93	917320	25.0	30.6	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	90	563621	25.0	30.4	
77 Methyl methacrylate	100		5.336					ND	U
74 1,4-Dioxane	88	5.378	5.378	0.000	96	126959	500.0	577.2	
75 Dibromomethane	93	5.406	5.406	0.000	96	299432	25.0	29.8	
76 Dichlorobromomethane	83	5.517	5.518	-0.001	99	647878	25.0	28.4	
80 2-Nitropropane	41		5.685					ND	
78 2-Chloroethyl vinyl ether	63		5.727				25.0	ND	
79 cis-1,3-Dichloropropene	75	5.866	5.867	-0.001	94	844321	25.0	30.8	
81 4-Methyl-2-pentanone (MIBK	43	5.964	5.978	-0.014	97	2404451	100.0	124.7	
82 Toluene	91	6.156	6.156	0.000	98	2246448	25.0	30.4	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	96	712537	25.0	28.7	
84 Ethyl methacrylate	69	6.364	6.364	0.000	91	675893	25.0	30.0	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	93	429496	25.0	29.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
86 Tetrachloroethene	164	6.592	6.593	-0.001	96	444090	25.0	30.7	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	92	778810	25.0	28.7	
88 2-Hexanone	43	6.678	6.678	0.000	97	1627411	100.0	115.8	
13 Tetrahydrothiophene	60		6.836					ND	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	382370	25.0	25.7	
90 Ethylene Dibromide	107	6.957	6.957	0.000	99	418679	25.0	28.9	
91 1-Chlorohexane	91	7.343	7.351	-0.008	95	788905	25.0	30.9	
92 Chlorobenzene	112	7.379	7.386	-0.007	94	1423934	25.0	28.8	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	91	465967	25.0	28.9	
94 Ethylbenzene	106	7.458	7.465	-0.007	99	790531	25.0	29.9	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	959473	25.0	29.7	
96 o-Xylene	106	7.937	7.937	0.000	97	922495	25.0	29.7	
97 Styrene	104	7.951	7.951	0.000	95	1525769	25.0	30.7	
98 Bromoform	173	8.130	8.130	0.000	95	198092	25.0	22.9	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	2576433	25.0	31.8	
101 cis-1,4-Dichloro-2-butene	53		8.330					ND	
100 Cyclohexanone	55	8.366	8.366	0.000	95	777825	1000.0	1059.1	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	559489	25.0	30.5	
103 Bromobenzene	156	8.580	8.588	-0.008	95	594690	25.0	31.4	
105 trans-1,4-Dichloro-2-buten	53	8.595	8.602	-0.007	75	180161	25.0	27.8	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	85	195390	25.0	30.6	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	717155	25.0	30.1	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	590238	25.0	29.8	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	95	2132030	25.0	30.8	
109 4-Chlorotoluene	126	8.873	8.874	-0.001	97	617999	25.0	29.4	
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	1937759	25.0	29.6	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	98	2122433	25.0	29.6	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	589963	25.0	29.8	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	98	1127508	25.0	29.6	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	2537241	25.0	29.8	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	94	1159538	25.0	29.0	
116 1,2,3-Trimethylbenzene	105		9.603					ND	U
117 n-Butylbenzene	91	9.903	9.903	0.000	98	2261863	25.0	29.8	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	1063524	25.0	28.0	
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	78	109721	25.0	24.1	
120 1,3,5-Trichlorobenzene	180		10.890					ND	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	794047	25.0	29.1	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	393941	25.0	28.1	
123 Naphthalene	128	11.784	11.784	0.000	97	2110708	25.0	30.6	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	94	731813	25.0	29.0	
130 2,2,3-Trimethylbutane	1		0.000					ND	
132 Pentachloroethane	167		0.000					ND	
135 3,3-Dimethylpentane	1		0.000					ND	
161 1-Chloro-1-fluoroethane TI	1		0.000					ND	
136 2,4-Dimethylpentane	1		0.000					ND	
128 3-Ethylpentane	1		0.000					ND	
125 1-Chlorohexane TIC	1		0.000					ND	
126 2,2-Dimethylpentane	1		0.000					ND	
127 n-Nonyl Aldehyde	1		0.000					ND	
133 2,3-Dimethylpentane	1		0.000					ND	
134 3-Methylhexane	1		0.000					ND	
129 Dimethyl disulfide	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 2-Methylhexane	1		0.000					ND	
S 137 1,2-Dichloroethene, Total	96				0		50.0	63.7	
S 139 Total BTEX	1				0			149.7	
S 143 Xylenes, Total	106				0		50.0	59.4	
S 144 1,2-Dichloroethene, Total	1				0		50.0	63.7	
S 138 Xylenes, Total (URS)	1				0		50.0	59.4	
S 142 Trihalomethanes, Total	1				0		100.0	108.1	
S 141 TAH	1				0			0	7
S 140 1,3-Dichloropropene, Total	1				0		50.0	59.5	

QC Flag Legend

Processing Flags
- NR - Missing Quant Standard
- 7 - Failed Limit of Detection

Review Flags
- U - Marked Undetected

Reagents:

MV-Gas B_00029	Amount Added:	25.00	Units: uL	
MV-MegaMain B_00012	Amount Added:	25.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

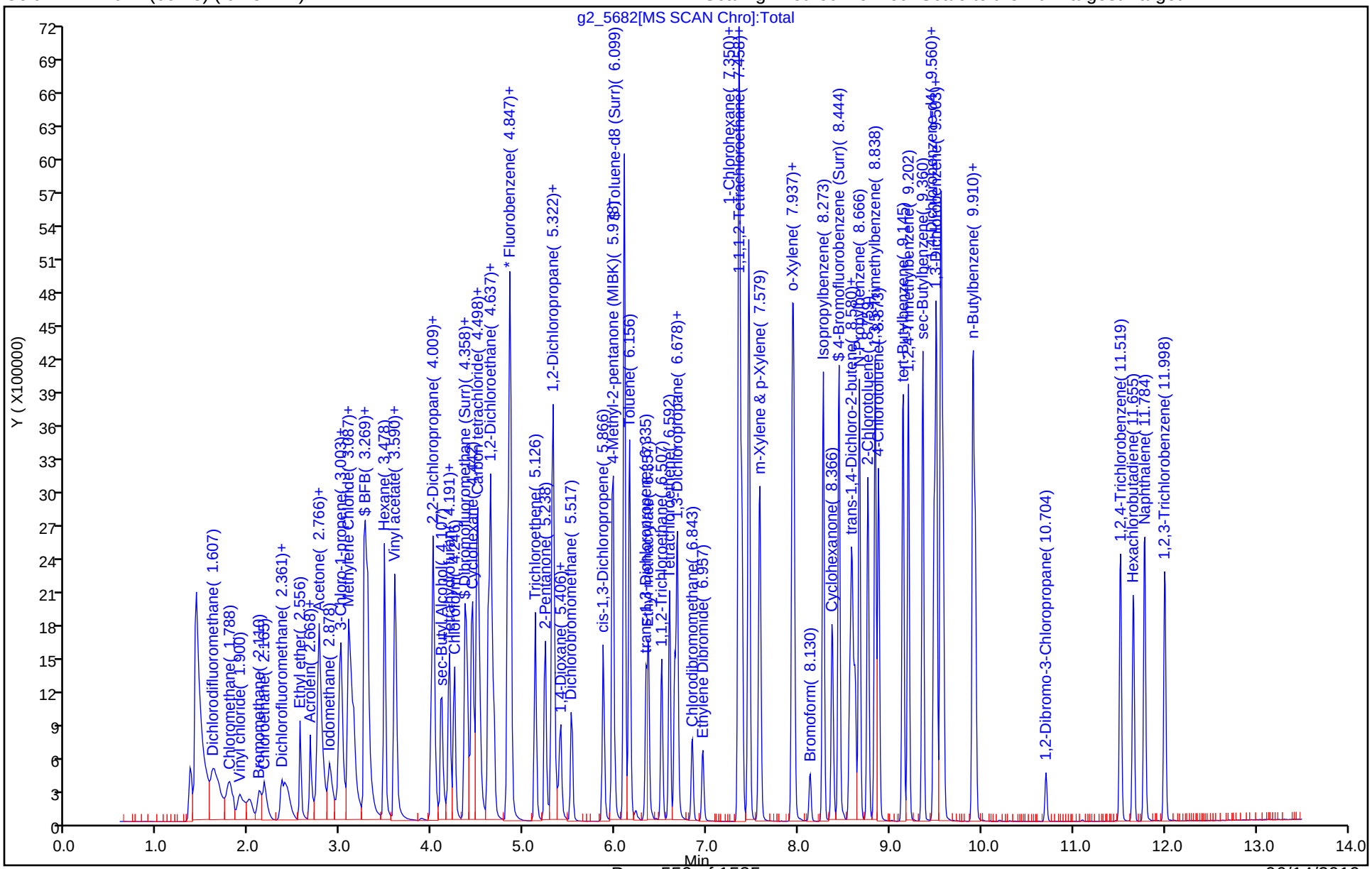
Report Date: 31-May-2019 00:38:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5682.D

Injection Date:	30-May-2019 12:47:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	280-124039-G-4 MS			Worklist Smp#:	12
Client ID:	GR047-GW-02-1-MS				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5682.D
Lims ID: 280-124039-G-4 MS
Client ID: GR047-GW-02-1-MS
Sample Type: MS
Inject. Date: 30-May-2019 12:47:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-124039-g-4 ms
Misc. Info.: 280-0082377-012
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: ornelasg Date: 31-May-2019 00:03:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 Dibromofluoromethane (Surr)	50.0	50.3	100.56
$ 7 1,2-Dichloroethane-d4 (Surr)	50.0	51.6	103.29
$ 8 Toluene-d8 (Surr)	50.0	49.2	98.44
$ 9 4-Bromofluorobenzene (Surr)	50.0	50.5	101.00
$ 11 BFB	0	0	0.00

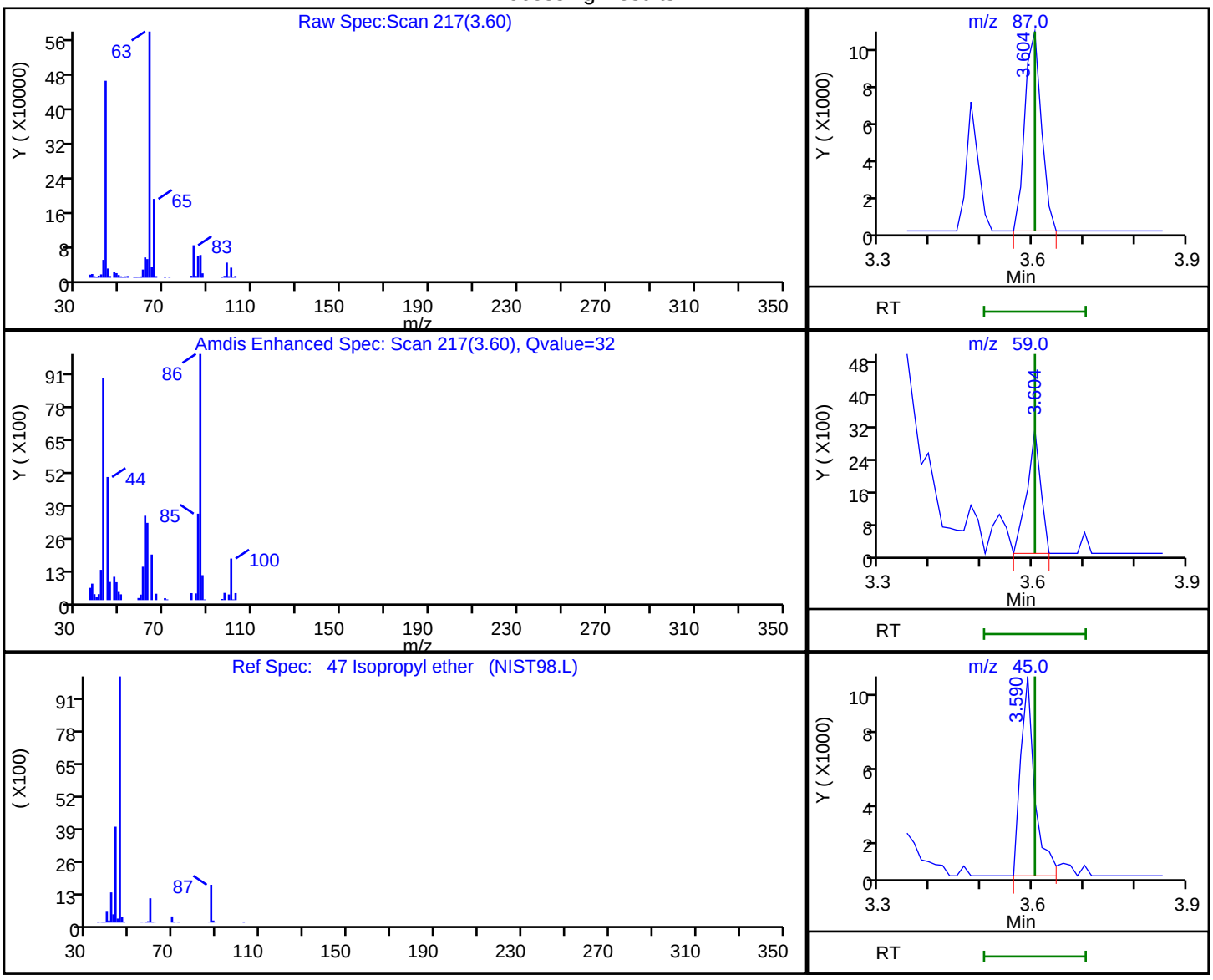
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5682.D				
Injection Date:	30-May-2019 12:47:30	Instrument ID:	VMS_G2		
Lims ID:	280-124039-G-4 MS				
Client ID:	GR047-GW-02-1-MS				
Operator ID:	meierg	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

47 Isopropyl ether, CAS: 108-20-3

Processing Results



RT	Mass	Response	Amount
3.60	87.00	23081	1.443005
3.60	59.00	5707	
3.59	45.00	19878	

Reviewer: ornelasg, 31-May-2019 00:02:54

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: 280-124039-G-4 MSD

Matrix: Water Lab File ID: g2_5683.D

Analysis Method: 8260B Date Collected: 05/18/2019 14:54

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 13:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	28.3		1.0	0.80	0.21
71-55-6	1,1,1-Trichloroethane	31.8		1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	30.5	J1	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	28.9		1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	31.2		1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	33.1	J1	1.0	0.80	0.23
563-58-6	1,1-Dichloropropene	29.7		1.0	0.40	0.19
87-61-6	1,2,3-Trichlorobenzene	29.2		1.0	0.80	0.21
96-18-4	1,2,3-Trichloropropane	30.4		3.0	0.80	0.33
120-82-1	1,2,4-Trichlorobenzene	29.3		1.0	0.80	0.21
95-63-6	1,2,4-Trimethylbenzene	29.6		1.0	0.40	0.15
96-12-8	1,2-Dibromo-3-Chloropropane	24.9		5.0	1.6	0.47
106-93-4	1,2-Dibromoethane	29.0		1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	28.1		1.0	0.40	0.15
107-06-2	1,2-Dichloroethane	30.4		1.0	0.40	0.13
540-59-0	1,2-Dichloroethene, Total	62.1	J1	1.0	0.40	0.15
78-87-5	1,2-Dichloropropane	30.0		1.0	0.40	0.18
108-67-8	1,3,5-Trimethylbenzene	30.8		1.0	0.40	0.16
541-73-1	1,3-Dichlorobenzene	29.8		1.0	0.40	0.13
142-28-9	1,3-Dichloropropane	28.5		1.0	0.20	0.090
106-46-7	1,4-Dichlorobenzene	29.1		1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	31.4		1.0	0.80	0.38
78-93-3	2-Butanone (MEK)	116		6.0	4.0	2.0
95-49-8	2-Chlorotoluene	30.3		1.0	0.40	0.17
591-78-6	2-Hexanone	115		5.0	4.0	1.7
106-43-4	4-Chlorotoluene	28.8		1.0	0.80	0.21
99-87-6	4-Isopropyltoluene	29.5		1.0	0.40	0.20
108-10-1	4-Methyl-2-pentanone (MIBK)	125		5.0	3.2	0.98
67-64-1	Acetone	116		10	6.4	1.9
71-43-2	Benzene	30.0		1.0	0.40	0.16
108-86-1	Bromobenzene	31.0	J1	1.0	0.40	0.17
74-97-5	Bromochloromethane	30.6		1.0	0.20	0.10
75-27-4	Bromodichloromethane	28.2		1.0	0.40	0.17
75-25-2	Bromoform	23.1		1.0	1.0	0.46
74-83-9	Bromomethane	28.8		2.0	0.80	0.21
75-15-0	Carbon disulfide	29.6		2.0	0.80	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: 280-124039-G-4 MSD

Matrix: Water Lab File ID: g2_5683.D

Analysis Method: 8260B Date Collected: 05/18/2019 14:54

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 13:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	29.2		2.0	0.40	0.19
108-90-7	Chlorobenzene	29.0		1.0	0.40	0.17
75-00-3	Chloroethane	26.7		2.0	1.6	0.41
67-66-3	Chloroform	30.5		1.0	0.40	0.16
74-87-3	Chloromethane	21.8		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	31.0	J1	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	30.5		1.0	0.40	0.16
124-48-1	Dibromochloromethane	25.5		1.0	0.40	0.17
74-95-3	Dibromomethane	30.3		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	27.1		2.0	0.80	0.31
108-20-3	Diisopropyl ether	0.40	U M	10	0.40	0.13
100-41-4	Ethylbenzene	29.7		1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	27.7		1.0	0.80	0.36
98-82-8	Isopropylbenzene	32.4		1.0	0.40	0.19
179601-23-1	m,p-Xylene	29.6		2.0	0.80	0.15
74-88-4	Methyl iodide	31.4		2.0	0.80	0.23
1634-04-4	Methyl tert-butyl ether	29.4		5.0	0.80	0.25
75-09-2	Methylene Chloride	30.3		5.0	2.0	0.94
91-20-3	Naphthalene	31.0		1.0	0.80	0.22
104-51-8	n-Butylbenzene	30.4		1.0	0.80	0.14
103-65-1	N-Propylbenzene	30.5		1.0	0.40	0.16
95-47-6	o-Xylene	29.5		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	29.6		1.0	0.40	0.17
100-42-5	Styrene	30.8		1.0	0.80	0.36
98-06-6	tert-Butylbenzene	29.7		1.0	0.40	0.16
127-18-4	Tetrachloroethene	31.1		1.0	0.40	0.20
108-88-3	Toluene	30.0		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	31.1	J1	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	28.4		1.0	0.40	0.19
79-01-6	Trichloroethene	30.3		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	25.0		2.0	0.80	0.29
108-05-4	Vinyl acetate	62.1		3.0	2.0	0.94
75-01-4	Vinyl chloride	27.5		1.5	0.20	0.10
1330-20-7	Xylenes, Total	59.1		1.0	0.80	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Client Sample ID: Lab Sample ID: 280-124039-G-4 MSD

Matrix: Water Lab File ID: g2_5683.D

Analysis Method: 8260B Date Collected: 05/18/2019 14:54

Sample wt/vol: 5(mL) Date Analyzed: 05/30/2019 13:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (60.25) ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 459872 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		81-118
460-00-4	4-Bromofluorobenzene (Surr)	102		85-114
1868-53-7	Dibromofluoromethane (Surr)	101		80-119
2037-26-5	Toluene-d8 (Surr)	100		89-112

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5683.D
Lims ID: 280-124039-G-4 MSD
Client ID: GR047-GW-02-1-MSD
Sample Type: MSD
Inject. Date: 30-May-2019 13:08:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-124039-g-4 msd
Misc. Info.: 280-0082377-013
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: ornelasg Date: 31-May-2019 00:05:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.087	3.087	0.000	84	2497851	1000.0	1000.0	
* 2 Fluorobenzene	96	4.847	4.861	-0.014	99	4036954	50.0	50.0	
* 3 Chlorobenzene-d5	119	7.358	7.358	0.000	88	905622	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	9.553	9.560	-0.007	96	1473169	50.0	50.0	
$ 6 Dibromofluoromethane (Surr	111	4.358	4.358	0.000	93	959484	50.0	50.6	
$ 7 1,2-Dichloroethane-d4 (Sur	65	4.610	4.610	0.000	100	1363116	50.0	52.1	
$ 8 Toluene-d8 (Surr)	98	6.099	6.099	0.000	94	3741094	50.0	50.2	
$ 9 4-Bromofluorobenzene (Surr	95	8.445	8.444	0.001	88	1387569	50.0	51.0	
$ 10 Trifluorotoluene (Surr)	1		0.000					ND	
$ 11 BFB	95	3.297	3.199	0.098	0	27250		NR	
12 Dichlorodifluoromethane	85	1.621	1.607	0.014	98	751676	25.0	27.1	
34 Chlorotrifluoroethene	116		1.677					ND	
14 Chloromethane	50	1.789	1.789	0.000	99	687054	25.0	21.8	
36 1,2-Dichloro-1,1,2,2-tetra	85		1.830					ND	
15 Vinyl chloride	62	1.900	1.900	0.000	98	514550	25.0	27.5	
16 Ethylene oxide	43		2.054					ND	
38 2-Chloro-1,1,1-Trifluoroet	118		2.110					ND	
17 Bromomethane	94	2.124	2.124	0.000	91	403899	25.0	28.8	
18 Chloroethane	64	2.166	2.166	0.000	99	374680	25.0	26.7	
19 Dichlorofluoromethane	67	2.361	2.361	0.000	97	360321	25.0	19.2	
20 Trichlorofluoromethane	101	2.403	2.403	0.000	98	657431	25.0	25.0	
21 Ethanol	45		2.473					ND	
22 Ethyl ether	59	2.557	2.557	0.000	94	493772	25.0	30.9	
23 Propene oxide	58		2.598					ND	
24 Acrolein	56	2.668	2.668	0.000	99	890990	250.0	300.4	
26 1,1,2-Trichloro-1,2,2-trif	151	2.752	2.752	0.000	94	465245	25.0	32.0	
25 1,1-Dichloroethene	96	2.766	2.766	0.000	95	547753	25.0	33.1	
27 Acetone	43	2.766	2.766	0.000	99	709947	100.0	115.5	
29 Isopropyl alcohol	45		2.850					ND	U
28 Iodomethane	142	2.878	2.878	0.000	99	799627	25.0	31.4	
31 Acetonitrile	41		2.976					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Methyl acetate	43	2.990	2.990	0.000	98	931800	50.0	60.0	
30 Carbon disulfide	76	3.004	3.004	0.000	99	1736840	25.0	29.6	
33 3-Chloro-1-propene	41	3.004	3.004	0.000	89	922353	25.0	31.0	
35 Methylene Chloride	84	3.115	3.115	0.000	96	544811	25.0	30.3	
43 1,2-Dichloro-1,1,2-trifluo	117		3.129					ND	
37 2-Methyl-2-propanol	59	3.143	3.143	0.000	99	679804	250.0	314.8	
44 1,1,1-Trifluoro-2,2-dichlo	83		3.213					ND	
39 Acrylonitrile	53	3.255	3.255	0.000	99	2205087	250.0	302.0	
41 Methyl tert-butyl ether	73	3.283	3.283	0.000	95	1227365	25.0	29.4	
40 trans-1,2-Dichloroethene	96	3.297	3.297	0.000	97	550421	25.0	31.1	
42 Hexane	57	3.478	3.478	0.000	94	1003654	25.0	31.2	
46 Vinyl acetate	43	3.590	3.590	0.000	97	2524399	50.0	62.1	
47 Isopropyl ether	87		3.604					ND	U
45 1,1-Dichloroethane	63	3.604	3.604	0.000	97	1005809	25.0	31.2	
48 2-Chloro-1,3-butadiene	53		3.660					ND	
49 Tert-butyl ethyl ether	59		3.869					ND	
52 2-Butanone (MEK)	43	3.981	3.981	0.000	100	1108868	100.0	116.1	
53 Ethyl acetate	43		4.009					ND	
51 cis-1,2-Dichloroethene	96	4.009	4.009	0.000	84	587559	25.0	31.0	
50 2,2-Dichloropropane	77	4.023	4.023	0.000	87	694322	25.0	31.4	
54 Propionitrile	54		4.037					ND	U
55 sec-Butyl Alcohol	45	4.107	4.107	0.000	99	1530826	750.0	839.3	
58 Methacrylonitrile	41		4.149					ND	
56 Chlorobromomethane	128	4.191	4.191	0.000	98	265559	25.0	30.6	
57 Tetrahydrofuran	42	4.191	4.191	0.000	90	400603	50.0	60.7	
59 Chloroform	83	4.247	4.247	0.000	93	967047	25.0	30.5	
60 1,1,1-Trichloroethane	97	4.386	4.386	0.000	98	893730	25.0	31.8	
61 Cyclohexane	56	4.442	4.442	0.000	92	1213386	25.0	30.7	
63 1,1-Dichloropropene	75	4.484	4.484	0.000	96	792466	25.0	29.7	
62 Carbon tetrachloride	117	4.498	4.498	0.000	86	727507	25.0	29.2	
66 Isobutyl alcohol	41	4.512	4.512	0.000	94	571934	625.0	719.7	
64 Benzene	78	4.638	4.638	0.000	97	2198860	25.0	30.0	
65 1,2-Dichloroethane	62	4.666	4.666	0.000	97	819168	25.0	30.4	
68 Tert-amyl methyl ether	73		4.707					ND	
67 n-Heptane	43	4.819	4.819	0.000	95	1029541	25.0	28.9	
73 n-Butanol	56		5.015					ND	
69 Trichloroethene	95	5.126	5.126	0.000	97	557874	25.0	30.3	
70 2-Pentanone	43	5.238	5.238	0.000	99	1842848	100.0	119.2	
71 Methylcyclohexane	55	5.308	5.308	0.000	92	928168	25.0	30.4	
72 1,2-Dichloropropane	63	5.322	5.322	0.000	90	565600	25.0	30.0	
77 Methyl methacrylate	100		5.336					ND	U
74 1,4-Dioxane	88	5.378	5.378	0.000	91	131589	500.0	587.8	
75 Dibromomethane	93	5.406	5.406	0.000	96	310678	25.0	30.3	
76 Dichlorobromomethane	83	5.518	5.518	0.000	99	655567	25.0	28.2	
80 2-Nitropropane	41		5.685					ND	
78 2-Chloroethyl vinyl ether	63	5.797	5.727	0.070	1	1988	25.0	0.1692	
79 cis-1,3-Dichloropropene	75	5.867	5.867	0.000	94	844948	25.0	30.5	
81 4-Methyl-2-pentanone (MIBK	43	5.978	5.978	0.000	97	2445440	100.0	124.6	
82 Toluene	91	6.156	6.156	0.000	98	2252769	25.0	30.0	
83 trans-1,3-Dichloropropene	75	6.335	6.335	0.000	97	719082	25.0	28.4	
84 Ethyl methacrylate	69	6.364	6.364	0.000	91	679254	25.0	29.8	
85 1,1,2-Trichloroethane	97	6.507	6.507	0.000	94	424829	25.0	28.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
86 Tetrachloroethene	164	6.593	6.593	0.000	96	455580	25.0	31.1	
87 1,3-Dichloropropane	76	6.650	6.650	0.000	92	782081	25.0	28.5	
88 2-Hexanone	43	6.678	6.678	0.000	97	1639591	100.0	115.3	
13 Tetrahydrothiophene	60		6.836					ND	
89 Chlorodibromomethane	129	6.843	6.843	0.000	90	384171	25.0	25.5	
90 Ethylene Dibromide	107	6.957	6.957	0.000	100	425693	25.0	29.0	
91 1-Chlorohexane	91	7.343	7.351	-0.008	97	803100	25.0	31.1	
92 Chlorobenzene	112	7.386	7.386	0.000	94	1449874	25.0	29.0	
93 1,1,1,2-Tetrachloroethane	131	7.458	7.458	0.000	92	462998	25.0	28.3	
94 Ethylbenzene	106	7.458	7.465	-0.007	99	794372	25.0	29.7	
95 m-Xylene & p-Xylene	106	7.579	7.579	0.000	99	966367	25.0	29.6	
96 o-Xylene	106	7.930	7.937	-0.007	97	929942	25.0	29.5	
97 Styrene	104	7.951	7.951	0.000	95	1548586	25.0	30.8	
98 Bromoform	173	8.130	8.130	0.000	96	202135	25.0	23.1	
99 Isopropylbenzene	105	8.273	8.273	0.000	96	2632477	25.0	32.4	
101 cis-1,4-Dichloro-2-butene	53		8.330					ND	
100 Cyclohexanone	55	8.366	8.366	0.000	94	791685	1000.0	1065.3	
102 1,1,2,2-Tetrachloroethane	83	8.559	8.559	0.000	96	562661	25.0	30.5	
103 Bromobenzene	156	8.580	8.588	-0.008	95	587542	25.0	31.0	
105 trans-1,4-Dichloro-2-buten	53	8.602	8.602	0.000	83	182032	25.0	28.0	
104 1,2,3-Trichloropropane	110	8.623	8.623	0.000	84	194674	25.0	30.4	
106 N-Propylbenzene	120	8.666	8.666	0.000	99	730486	25.0	30.5	
107 2-Chlorotoluene	126	8.759	8.759	0.000	96	602366	25.0	30.3	
108 1,3,5-Trimethylbenzene	105	8.838	8.838	0.000	96	2142421	25.0	30.8	
109 4-Chlorotoluene	126	8.874	8.874	0.000	97	608737	25.0	28.8	
110 tert-Butylbenzene	119	9.145	9.145	0.000	94	1954120	25.0	29.7	
111 1,2,4-Trimethylbenzene	105	9.202	9.202	0.000	97	2135749	25.0	29.6	
112 sec-Butylbenzene	134	9.360	9.360	0.000	95	589238	25.0	29.6	
113 1,3-Dichlorobenzene	146	9.481	9.481	0.000	97	1137299	25.0	29.8	
114 4-Isopropyltoluene	119	9.510	9.510	0.000	97	2519409	25.0	29.5	
115 1,4-Dichlorobenzene	146	9.581	9.581	0.000	94	1164311	25.0	29.1	
116 1,2,3-Trimethylbenzene	105		9.603					ND	U
117 n-Butylbenzene	91	9.903	9.903	0.000	98	2312403	25.0	30.4	
118 1,2-Dichlorobenzene	146	9.932	9.932	0.000	97	1072335	25.0	28.1	
119 1,2-Dibromo-3-Chloropropan	157	10.704	10.704	0.000	82	114036	25.0	24.9	
120 1,3,5-Trichlorobenzene	180		10.890					ND	
121 1,2,4-Trichlorobenzene	180	11.519	11.519	0.000	94	801479	25.0	29.3	
122 Hexachlorobutadiene	225	11.662	11.662	0.000	98	389324	25.0	27.7	
123 Naphthalene	128	11.784	11.784	0.000	97	2150251	25.0	31.0	
124 1,2,3-Trichlorobenzene	180	12.005	12.005	0.000	95	739307	25.0	29.2	
130 2,2,3-Trimethylbutane	1		0.000					ND	
132 Pentachloroethane	167		0.000					ND	
135 3,3-Dimethylpentane	1		0.000					ND	
161 1-Chloro-1-fluoroethane TI	1		0.000					ND	
136 2,4-Dimethylpentane	1		0.000					ND	
128 3-Ethylpentane	1		0.000					ND	
125 1-Chlorohexane TIC	1		0.000					ND	
126 2,2-Dimethylpentane	1		0.000					ND	
127 n-Nonyl Aldehyde	1		0.000					ND	
133 2,3-Dimethylpentane	1		0.000					ND	
134 3-Methylhexane	1		0.000					ND	
129 Dimethyl disulfide	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 2-Methylhexane	1		0.000					ND	
S 137 1,2-Dichloroethene, Total	96				0		50.0	62.1	
S 139 Total BTEX	1				0			148.8	
S 143 Xylenes, Total	106				0		50.0	59.2	
S 144 1,2-Dichloroethene, Total	1				0		50.0	62.1	
S 138 Xylenes, Total (URS)	1				0		50.0	59.2	
S 142 Trihalomethanes, Total	1				0		100.0	107.3	
S 141 TAH	1				0			0	7
S 140 1,3-Dichloropropene, Total	1				0		50.0	58.9	

QC Flag Legend

Processing Flags
- NR - Missing Quant Standard
- 7 - Failed Limit of Detection

Review Flags
- U - Marked Undetected

Reagents:

MV-MegaMain B_00012	Amount Added:	25.00	Units: uL	
MV-Gas B_00029	Amount Added:	25.00	Units: uL	
mv-Cent IS/SS_00002	Amount Added:	5.00	Units: uL	Run Reagent

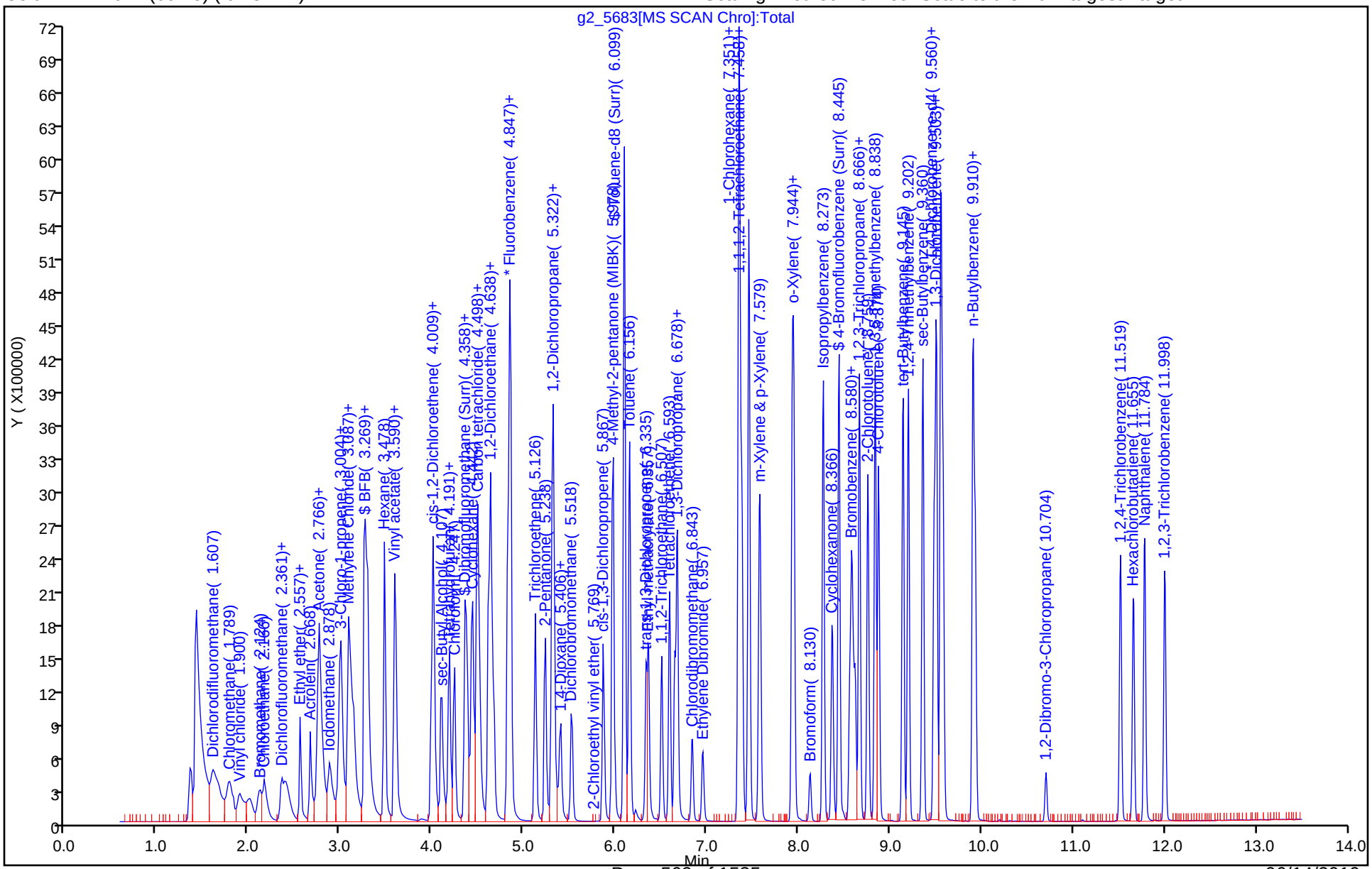
Report Date: 31-May-2019 00:38:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5683.D

Injection Date:	30-May-2019 13:08:30	Instrument ID:	VMS_G2	Operator ID:	meierg
Lims ID:	280-124039-G-4 MSD			Worklist Smp#:	13
Client ID:	GR047-GW-02-1-MSD				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

Data File: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5683.D
Lims ID: 280-124039-G-4 MSD
Client ID: GR047-GW-02-1-MSD
Sample Type: MSD
Inject. Date: 30-May-2019 13:08:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-124039-g-4 msd
Misc. Info.: 280-0082377-013
Operator ID: meierg Instrument ID: VMS_G2

Method: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 31-May-2019 00:37:28 Calib Date: 28-May-2019 14:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b\g2_5576.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: CTX0327

First Level Reviewer: ornelasg Date: 31-May-2019 00:05:30

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 Dibromofluoromethane (Surr)	50.0	50.6	101.25
$ 7 1,2-Dichloroethane-d4 (Surr)	50.0	52.1	104.13
$ 8 Toluene-d8 (Surr)	50.0	50.2	100.33
$ 9 4-Bromofluorobenzene (Surr)	50.0	51.0	102.08
$ 11 BFB	0	0	0.00

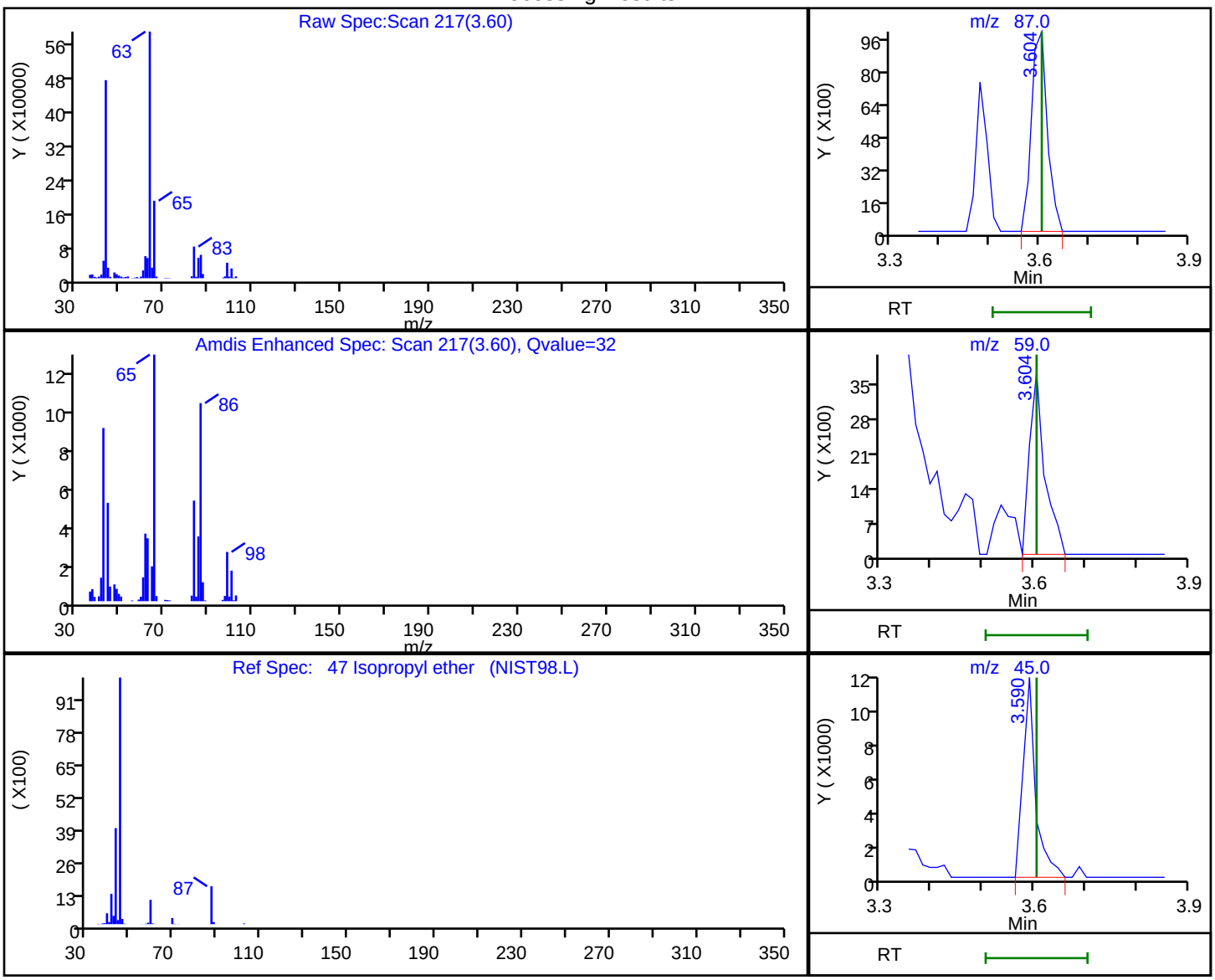
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VMS_G2\20190530-82377.b\g2_5683.D				
Injection Date:	30-May-2019 13:08:30	Instrument ID:	VMS_G2		
Lims ID:	280-124039-G-4 MSD				
Client ID:	GR047-GW-02-1-MSD				
Operator ID:	meierg	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

47 Isopropyl ether, CAS: 108-20-3

Processing Results



RT	Mass	Response	Amount
3.60	87.00	22275	1.367469
3.60	59.00	7669	
3.59	45.00	19375	

Reviewer: ornelasg, 31-May-2019 00:04:33

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: VMS_G2 Start Date: 05/18/2019 09:14

Analysis Batch Number: 458654 End Date: 05/18/2019 18:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-458654/1		05/18/2019 09:14	1	g2_5197.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/2		05/18/2019 09:44	1	g2_5198.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/3		05/18/2019 10:08	1	g2_5199.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/4		05/18/2019 10:31	1	g2_5200.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/5		05/18/2019 10:55	1	g2_5201.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/6		05/18/2019 11:19	1	g2_5202.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/7		05/18/2019 11:43	1	g2_5203.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/8		05/18/2019 12:07	1	g2_5204.D	DB-624 (60.25) 0.25(mm)
ICV 280-458654/9		05/18/2019 12:31	1		DB-624 (60.25) 0.25(mm)
IC 280-458654/10		05/18/2019 12:55	1	g2_5206.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/11		05/18/2019 13:19	1	g2_5207.D	DB-624 (60.25) 0.25(mm)
ICIS 280-458654/12		05/18/2019 13:43	1	g2_5208.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/13		05/18/2019 14:07	1	g2_5209.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/14		05/18/2019 14:31	1	g2_5210.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/15		05/18/2019 14:55	1	g2_5211.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/16		05/18/2019 15:19	1	g2_5212.D	DB-624 (60.25) 0.25(mm)
ICV 280-458654/17		05/18/2019 15:43	1		DB-624 (60.25) 0.25(mm)
IC 280-458654/18		05/18/2019 16:07	1	g2_5214.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/19		05/18/2019 16:31	1	g2_5215.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/20		05/18/2019 16:55	1	g2_5216.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/21		05/18/2019 17:19	1	g2_5217.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/22		05/18/2019 17:43	1	g2_5218.D	DB-624 (60.25) 0.25(mm)
IC 280-458654/23		05/18/2019 18:07	1	g2_5219.D	DB-624 (60.25) 0.25(mm)
ICV 280-458654/24		05/18/2019 18:31	1		DB-624 (60.25) 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: VMS_G2 Start Date: 05/27/2019 10:12

Analysis Batch Number: 459545 End Date: 05/27/2019 13:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-459545/1		05/27/2019 10:12	1	g2_5531.D	DB-624 (60.25) 0.25(mm)
IC 280-459545/2		05/27/2019 10:34	1	g2_5532.D	DB-624 (60.25) 0.25(mm)
IC 280-459545/3		05/27/2019 10:55	1	g2_5533.D	DB-624 (60.25) 0.25(mm)
ICIS 280-459545/4		05/27/2019 11:16	1	g2_5534.D	DB-624 (60.25) 0.25(mm)
IC 280-459545/5		05/27/2019 11:38	1	g2_5535.D	DB-624 (60.25) 0.25(mm)
IC 280-459545/6		05/27/2019 11:59	1	g2_5536.D	DB-624 (60.25) 0.25(mm)
IC 280-459545/7		05/27/2019 12:21	1	g2_5537.D	DB-624 (60.25) 0.25(mm)
IC 280-459545/8		05/27/2019 12:42	1	g2_5538.D	DB-624 (60.25) 0.25(mm)
ICV 280-459545/9		05/27/2019 13:04	1	g2_5539.D	DB-624 (60.25) 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: VMS_G2 Start Date: 05/28/2019 11:31

Analysis Batch Number: 459588 End Date: 05/28/2019 14:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-459588/1		05/28/2019 11:31	1	g2_5569.D	DB-624 (60.25) 0.25(mm)
IC 280-459588/2		05/28/2019 11:52	1	g2_5570.D	DB-624 (60.25) 0.25(mm)
IC 280-459588/3		05/28/2019 12:14	1	g2_5571.D	DB-624 (60.25) 0.25(mm)
ICIS 280-459588/4		05/28/2019 12:35	1	g2_5572.D	DB-624 (60.25) 0.25(mm)
IC 280-459588/5		05/28/2019 12:56	1	g2_5573.D	DB-624 (60.25) 0.25(mm)
IC 280-459588/6		05/28/2019 13:18	1	g2_5574.D	DB-624 (60.25) 0.25(mm)
IC 280-459588/7		05/28/2019 13:39	1	g2_5575.D	DB-624 (60.25) 0.25(mm)
IC 280-459588/8		05/28/2019 14:00	1	g2_5576.D	DB-624 (60.25) 0.25(mm)
ICV 280-459588/9		05/28/2019 14:22	1	g2_5577.D	DB-624 (60.25) 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: VMS_G2 Start Date: 05/30/2019 08:51

Analysis Batch Number: 459872 End Date: 05/30/2019 19:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-459872/1		05/30/2019 08:51	1	g2_5671.D	DB-624 (60.25) 0.25(mm)
CCV 280-459872/2		05/30/2019 09:12	1	g2_5672.D	DB-624 (60.25) 0.25(mm)
CCV 280-459872/3		05/30/2019 09:34	1	g2_5673.D	DB-624 (60.25) 0.25(mm)
LCS 280-459872/4		05/30/2019 09:55	1	g2_5674.D	DB-624 (60.25) 0.25(mm)
LCS 280-459872/5		05/30/2019 10:17	1	g2_5675.D	DB-624 (60.25) 0.25(mm)
LCSD 280-459872/6		05/30/2019 10:38	1	g2_5676.D	DB-624 (60.25) 0.25(mm)
MB 280-459872/7		05/30/2019 11:00	1	g2_5677.D	DB-624 (60.25) 0.25(mm)
280-123922-1		05/30/2019 11:21	1	g2_5678.D	DB-624 (60.25) 0.25(mm)
280-123922-2		05/30/2019 11:43	1	g2_5679.D	DB-624 (60.25) 0.25(mm)
280-123922-4		05/30/2019 12:04	1	g2_5680.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 12:26	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 12:47	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 13:08	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 14:13	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 14:34	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 14:55	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 15:17	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 15:38	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 16:00	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 16:21	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 16:42	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 17:04	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 17:25	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 17:47	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 18:08	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 18:29	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 18:51	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/30/2019 19:12	1		DB-624 (60.25) 0.25(mm)
CCVC 280-459872/31		05/30/2019 19:34	1	g2_5701.D	DB-624 (60.25) 0.25(mm)
CCVC 280-459872/32		05/30/2019 19:53	1	g2_5702.D	DB-624 (60.25) 0.25(mm)

Sequence Name: C:¥msdchem¥1¥sequence¥053019am.S
Comment:
Operator: meierg
Data Path: C:¥MSDCHEM¥1¥DATA¥053019am¥
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Test America Denver
Instrument: G2
DV-MS-0010 (6260/6224) (Circle)
Purge Volume: (20mL/5mL/5µL) (Circle)
Tune Time: 0851/1953
Lims Data: 459872

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line					Sample Name/Misc Info	
1)	Sample	100	g2_5671	BFB	BFB	
2)	Sample	1	g2_5672	8260	CCV	
3)	Sample	2	g2_5673	8260	CCV	
4)	Sample	3	g2_5674	8260	LCS	
5)	Sample	4	g2_5675	8260	LCS	
6)	Sample	5	g2_5676	8260	LCSD	
7)	Sample	6	g2_5677	8260	MB	pH Strips 5/30/19
8)	Sample	7	g2_5678	8260	280-123922-k-1	<2
9)	Sample	8	g2_5679	8260	280-123922-m-2	<2
10)	Sample	9	g2_5680	8260	280-123922-b-4	<2
11)	Sample	10	g2_5681	8260	280-124039-f-4	<2
12)	Sample	11	g2_5682	8260	280-124039-g-4 ms	<2
13)	Sample	12	g2_5683	8260	280-124039-g-4 msd	<2
14)	Sample	13	g2_5684	8260	280-124012-a-1	<2
15)	Sample	14	g2_5685	8260	280-124012-m-2	<2
16)	Sample	15	g2_5686	8260	280-124039-g-1	<2
17)	Sample	16	g2_5687	8260	280-124039-f-2	<2
18)	Sample	17	g2_5688	8260	280-124039-h-6	<2
19)	Sample	18	g2_5689	8260	280-124039-g-8	<2
20)	Sample	19	g2_5690	8260	280-124039-f-10	<2
21)	Sample	20	g2_5691	8260	280-124039-g-13	<2
22)	Sample	21	g2_5692	8260	280-124039-b-15	<2
23)	Sample	22	g2_5693	8260	280-124058-h-1	<2
24)	Sample	23	g2_5694	8260	280-124058-a-2	<2
25)	Sample	24	g2_5695	8260	280-124085-g-1	<2
26)	Sample	25	g2_5696	8260	280-124085-f-2	7 HCl
27)	Sample	26	g2_5697	8260	280-124085-a-3	<2
28)	Sample	27	g2_5698	8260	280-124085-b-4	<2
29)	Sample	28	g2_5699	8260	280-124085-b-5	<2
30)	Sample	29	g2_5700	8260	280-124085-f-6	<2
31)	Sample	30	g2_5701	8260	ccvc	
32)	Sample	31	g2_5702	8260	ccvc	

Last Modified: Thu May 30 19:29:04 2019 Page: 1

TestAmerica Laboratories
Worklist Report

Worklist Name: 053019am Worklist Number: 82377
Instrument Name: VMS_G2 Chrom Method: AQ_VMSG2_8260
Purge Volume: 5.000 Units: mL
Analysis Type: VOA
Batch Directory: \\chromna\Denver\ChromData\VMS_G2\20190530-82377.b
Upload Directory: \\CorpTALSAPP16\280-DN-RawData\Organics\MS\VMS_G2
Run Reagent: mv-Cent IS/SS_00002 Amount Added: 5.000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0082377-001	# 1 bfb	MV-BFB_00028	BFB	voaWater	1.000	uL	1.000
280-0082377-002	# 2 ccv	MV-MegaMainA_00014 MV-Gas A_00026	CCV	voaWater	5.000	mL	1.000
280-0082377-003	# 3 ccv	MV-Supp A_00035	CCV	voaWater	5.000	mL	1.000
280-0082377-004	# 4 lcs	MV-Gas B_00029 MV-MegaMain B_00012	LCS	voaWater	5.000	mL	1.000
280-0082377-005	# 5 lcs	MV-Supp B_00024	LCS	voaWater	5.000	mL	1.000
280-0082377-006	# 6 lcsd	MV-Supp B_00024	LCSD	voaWater	5.000	mL	1.000
280-0082377-007	# 7 mb		MB	voaWater	5.000	mL	1.000
280-0082377-008	# 8 280-123922-K-1		Client	voaWater	5.000	mL	1.000
280-0082377-009	# 9 280-123922-M-2		Client	voaWater	5.000	mL	1.000
280-0082377-010	#10 280-123922-B-4		Client	voaWater	5.000	mL	1.000
280-0082377-011	#11 280-124039-F-4		Client	voaWater	5.000	mL	1.000
280-0082377-012	#12 280-124039-G-4 MS	MV-Gas B_00029 MV-MegaMain B_00012	MS	voaWater	5.000	mL	1.000
280-0082377-013	#13 280-124039-G-4 MSD	MV-MegaMain B_00012 MV-Gas B_00029	MSD	voaWater	5.000	mL	1.000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0082377-014	#14 280-124012-A-1		Client	voaWater	5.000	mL	1.000
280-0082377-015	#15 280-124012-M-2		Client	voaWater	5.000	mL	1.000
280-0082377-016	#16 280-124039-G-1		Client	voaWater	5.000	mL	1.000
280-0082377-017	#17 280-124039-F-2		Client	voaWater	5.000	mL	1.000
280-0082377-018	#18 280-124039-H-6		Client	voaWater	5.000	mL	1.000
280-0082377-019	#19 280-124039-G-8		Client	voaWater	5.000	mL	1.000
280-0082377-020	#20 280-124039-F-10		Client	voaWater	5.000	mL	1.000
280-0082377-021	#21 280-124039-G-13		Client	voaWater	5.000	mL	1.000
280-0082377-022	#22 280-124039-B-15		Client	voaWater	5.000	mL	1.000
280-0082377-023	#23 280-124058-H-1		Client	voaWater	5.000	mL	1.000
280-0082377-024	#24 280-124058-A-2		Client	voaWater	5.000	mL	1.000
280-0082377-025	#25 280-124085-G-1		Client	voaWater	5.000	mL	1.000
280-0082377-026	#26 280-124085-F-2		Client	voaWater	5.000	mL	1.000
280-0082377-027	#27 280-124085-A-3		Client	voaWater	5.000	mL	1.000
280-0082377-028	#28 280-124085-B-4		Client	voaWater	5.000	mL	1.000
280-0082377-029	#29 280-124085-B-5		Client	voaWater	5.000	mL	1.000
280-0082377-030	#30 280-124085-F-6		Client	voaWater	5.000	mL	1.000
280-0082377-031	#31 ccvc	MV-MegaMainA_00014 MV-Gas A_00026	CCVC	voaWater	5.000	mL	1.000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0082377-032	#32 ccvc	MV-Supp A_00035	CCVC	voaWater	5.000	mL	1.000

Sample Request Form: 56272

den_msvoa_totalbacklog 5/30/2019 10:09:25 AM Assigned to:Meier, Greg P

Sample	Client Sample ID	Container	Method	Analytical Method	Hold Time	Due	PM	State Code	Storage	Hazard Level
280-123922-1	LF1MW-5_0519	1 X	8260B_DOD5	8260B_DOD5	05/30 23:59	06/05/19	KZ1	NY	Mtls-Strge & 97 & MS-Strge & WC Dpt	Unconfirmed
M Q5 / DIL3 / non-standard spike compounds needed (Diisopropyl Ether)										
280-123922-2	LF1MW-5_0519-a	1 X	8260B_DOD5	8260B_DOD5	05/30 23:59	06/05/19	KZ1	NY	97 & WC Dpt & MS-Strge & Mtls-Strge	Unconfirmed
M Q5 / DIL3 / non-standard spike compounds needed (Diisopropyl Ether)										
280-123922-4	LF1-TB1_051619	1 X	8260B_DOD5	8260B_DOD5	05/30 23:59	06/05/19	KZ1	NY	MS-Strge	Unconfirmed
M Q5 / DIL3 / non-standard spike compounds needed (Diisopropyl Ether)										
280-124012-1	TRIP BLANK	1 X	624_5ml	624_5ml	06/03 23:59	05/31/19	DRR	CO	MS-Strge	Unconfirmed
280-124012-2	OUTFALL 100A	1 X	624_5ml	624_5ml	06/03 23:59	05/31/19	DRR	CO	106 & WC Dpt & MS-Strge & Mtls-Strge	Unconfirmed
280-124039-1	GR047-GW-01-1	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	119 & MS-Strge & Mtls-Strge	Unconfirmed
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124039-2	GR047-DUP08	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	MS-Strge & Mtls-Strge & 119	Unconfirmed
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124039-4	GR047-GW-02-1	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	119 & MS-Strge & Mtls-Strge	Unconfirmed
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124039-4MS	GR047-GW-02-1-MS	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	MS-Strge & Mtls-Strge & 119	Unconfirmed
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124039-4MSD	GR047-GW-02-1-MSD	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	119 & Mtls-Strge & MS-Strge	Unconfirmed
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124039-6	GR047-GW-03-1	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	MS-Strge & Mtls-Strge & 119	Unconfirmed

Sample Request Form: 56272

den_msvoa_totalbacklog 5/30/2019 10:09:25 AM Assigned to:Meier, Greg P

Sample	Client Sample ID	Container	Method	Analytical Method	Hold Time	Due	PM	State Code	Storage	Hazard Level
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124039-8	GR047-GW-04-1	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	MS-Strge & Mtls-Strge & 119	Unconfirmed
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124039-10	GR047-GW-05-1	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	119 & MS-Strge & Mtls-Strge	Unconfirmed
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124039-13	GR047-GW-06-1	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	Mtls-Strge & 119 & MS-Strge	Unconfirmed
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124039-15	GR047-TB-05182019	1 X	8260B_DOD5	8260B_DOD5	06/01 23:59	06/07/19	DFB	FL	MS-Strge	Unconfirmed
M QSM 5.1_No Variances_DIL3/ReportParent&MS/MSDs at the same DL										
280-124058-1	EB-052019-PETNDRAIN-01	1 X	8260B	8260B	06/03 23:59	06/03/19	MAJ	CO	114 & Mtls-Strge & MS-Strge	Unconfirmed
M DuPont QAS_DIL3										
280-124058-2	TB-052019-PETNDRAIN-01	1 X	8260B	8260B	06/03 23:59	06/03/19	MAJ	CO	MS-Strge	Unconfirmed
M DuPont QAS_DIL3										
280-124085-1	BASIN A	1 X	8260B	8260B	05/31 23:59	06/05/19	BAS	CA	Mtls-Strge & 122 & MS-Strge	Unconfirmed
M ethanol needed										
280-124085-2	BASIN C	1 X	8260B	8260B	05/31 23:59	06/05/19	BAS	CA	122 & Mtls-Strge & MS-Strge	Unconfirmed
M ethanol needed										
280-124085-3	QCTB	1 X	8260B	8260B	05/31 23:59	06/05/19	BAS	CA	MS-Strge	Unconfirmed
M ethanol needed										
280-124085-4	QCEB	1 X	8260B	8260B	05/31 23:59	06/05/19	BAS	CA	MS-Strge	Unconfirmed

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06/14/2019

Sample Request Form: 56272

den_msvoa_totalbacklog 5/30/2019 10:09:25 AM Assigned to:Meier, Greg P

Sample	Client Sample ID	Container	Method	Analytical Method	Hold Time	Due	PM	State Code	Storage	Hazard Level
M ethanol needed										
280-124085-5	QCFB	1 X	8260B	8260B	05/31 23:59	06/05/19	BAS	CA	MS-Strge	Unconfirmed
M ethanol needed										

Sequence Name: C:¥msdchem¥1¥sequence¥052819I.S
Comment:
Operator: meierg
Data Path: C:¥MSDCHEM¥1¥DATA¥052819I¥
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Test America Denver
Instrument: G2
DV-MS-0010 (026 / 024) (Circle) (24)
Purge Volume: (20ml / 5ml / 5g) (Circle)
Tune Time: 1131 - 1422
Lims Batch: 459588
459589
459590

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info		
1)	Sample	100	g2_5569	BFB	BFB
2)	Sample	1	g2_5570	8260	IC
3)	Sample	2	g2_5571	8260	IC
4)	Sample	3	g2_5572	8260	ICIS
5)	Sample	4	g2_5573	8260	IC
6)	Sample	5	g2_5574	8260	IC
7)	Sample	6	g2_5575	8260	IC
8)	Sample	7	g2_5576	8260	IC
9)	Sample	8	g2_5577	8260	ICV

MAIN/SULR

GM 5/29/19

Last Modified: Tue May 28 14:11:14 2019 Page: 1

TestAmerica Laboratories
Worklist Report

Worklist Name: 052819i Worklist Number: 82298
Instrument Name: VMS_G2 Chrom Method: AQ_VMSG2_8260
Purge Volume: 5.000 Units: mL
Analysis Type: VOA
Batch Directory: \\chromna\Denver\ChromData\VMS_G2\20190528-82298.b
Upload Directory: \\CorpTALSAPP16\280-DN-RawData\Organics\MS\VMS_G2
Run Reagent: mv-Cent IS/SS_00002 Amount Added: 5.000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Smp Type	Cal Lvl	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0082298-001	# 1 bfb	MV-BFB_00028	BFB		voaWater	1.000	uL	1.000
280-0082298-002	# 2 ic	MV-MegaMainA_00014	IC	7	voaWater	5.000	mL	1.000
280-0082298-003	# 3 ic	MV-MegaMainA_00014	IC	6	voaWater	5.000	mL	1.000
280-0082298-004	# 4 icis	MV-MegaMainA_00014	ICIS	5	voaWater	5.000	mL	1.000
280-0082298-005	# 5 ic	MV-MegaMainA_00014	IC	4	voaWater	5.000	mL	1.000
280-0082298-006	# 6 ic	MV-MegaMainA_00014	IC	3	voaWater	5.000	mL	1.000
280-0082298-007	# 7 ic	MV-MegaMainA_00014	IC	2	voaWater	5.000	mL	1.000
280-0082298-008	# 8 ic	MV-MegaMainA_00014	IC	1	voaWater	5.000	mL	1.000
280-0082298-009	# 9 icv	MV-MegaMain B_00012	ICV		voaWater	5.000	mL	1.000

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459545 Batch Start Date: 05/27/19 10:12 Batch Analyst: Meier, Greg P

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MV-BFB 00028	mv-Cent IS/SS 00002	MV-Gas A 00026	MV-Gas B 00029
BFB 280-459545/1		8260B		1 uL	1 uL	2 uL			
IC 280-459545/2		8260B		5 mL	5 mL		5 uL	200 uL	
IC 280-459545/3		8260B		5 mL	5 mL		5 uL	100 uL	
ICIS 280-459545/4		8260B		5 mL	5 mL		5 uL	50 uL	
IC 280-459545/5		8260B		5 mL	5 mL		5 uL	10 uL	
IC 280-459545/6		8260B		5 mL	5 mL		5 uL	2 uL	
IC 280-459545/7		8260B		5 mL	5 mL		5 uL	1 uL	
IC 280-459545/8		8260B		5 mL	5 mL		5 uL	0.5 uL	
ICV 280-459545/9		8260B		5 mL	5 mL		5 uL		50 uL

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459588 Batch Start Date: 05/28/19 11:31 Batch Analyst: Meier, Greg P

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MV-BFB 00028	mv-Cent IS/SS 00002	MV-MegaMain B 00012	MV-MegaMainA 00014
BFB 280-459588/1		8260B		1 uL	1 uL	2 uL			
IC 280-459588/2		8260B		5 mL	5 mL		5 uL		200 uL
IC 280-459588/3		8260B		5 mL	5 mL		5 uL		100 uL
ICIS 280-459588/4		8260B		5 mL	5 mL		5 uL		50 uL
IC 280-459588/5		8260B		5 mL	5 mL		5 uL		10 uL
IC 280-459588/6		8260B		5 mL	5 mL		5 uL		2 uL
IC 280-459588/7		8260B		5 mL	5 mL		5 uL		1 uL
IC 280-459588/8		8260B		5 mL	5 mL		5 uL		0.5 uL
ICV 280-459588/9		8260B		5 mL	5 mL		5 uL	50 uL	

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459872 Batch Start Date: 05/30/19 08:51 Batch Analyst: Ornelas, Gabriel

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MV-BFB 00028	mv-Cent IS/SS 00002	MV-Gas A 00026	MV-Gas B 00029
BFB 280-459872/1		8260B		1 uL	1 uL	2 uL			
CCV 280-459872/2		8260B		5 mL	5 mL		5 uL	50 uL	
CCV 280-459872/3		8260B		5 mL	5 mL		5 uL		
LCS 280-459872/4		8260B		5 mL	5 mL		5 uL		25 uL
LCS 280-459872/5		8260B		5 mL	5 mL		5 uL		
LCSD 280-459872/6		8260B		5 mL	5 mL		5 uL		
MB 280-459872/7		8260B		5 mL	5 mL		5 uL		
280-123922-K-1	LF1MW-5_0519	8260B	T	5 mL	5 mL		5 uL		
280-123922-M-2	LF1MW-5_0519-a	8260B	T	5 mL	5 mL		5 uL		
280-123922-B-4	LF1-TB1_051619	8260B	T	5 mL	5 mL		5 uL		
CCVC 280-459872/31		8260B		5 mL	5 mL		5 uL	50 uL	
CCVC 280-459872/32		8260B		5 mL	5 mL		5 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MV-MegaMain B 00012	MV-MegaMainA 00014	MV-Supp A 00035	MV-Supp B 00024		
BFB 280-459872/1		8260B							
CCV 280-459872/2		8260B			50 uL				
CCV 280-459872/3		8260B				50 uL			
LCS 280-459872/4		8260B		25 uL					
LCS 280-459872/5		8260B					25 uL		
LCSD 280-459872/6		8260B					25 uL		
MB 280-459872/7		8260B							
280-123922-K-1	LF1MW-5_0519	8260B	T						
280-123922-M-2	LF1MW-5_0519-a	8260B	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459872 Batch Start Date: 05/30/19 08:51 Batch Analyst: Ornelas, Gabriel

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MV-MegaMain B 00012	MV-MegaMainA 00014	MV-Supp A 00035	MV-Supp B 00024		
280-123922-B-4	LF1-TB1_051619	8260B	T						
CCVC 280-459872/31		8260B			50 uL				
CCVC 280-459872/32		8260B				50 uL			

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG No.:

Project: Griffiss AFB, LF001 - 3342

Client Sample ID	Lab Sample ID
LF1MW-5_0519	280-123922-1
LF1MW-5_0519-a	280-123922-2
LF1P-5_0519	280-123922-3

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF1MW-5_0519 Lab Sample ID: 280-123922-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 12:50

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	58	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF1MW-5_0519-a
Lab Sample ID: 280-123922-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123922-1
SDG ID.:
Matrix: Water
Date Sampled: 05/16/2019 12:50
Reporting Basis: WET
Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	56	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF1P-5_0519 Lab Sample ID: 280-123922-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 16:20

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	24	100	15	4.4	ug/L	J		1	6010C

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

ICV Source: ICP ICV_00822 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	ICV 280-459449/10 05/24/2019 14:26				ICV 280-459449/11 05/24/2019 14:31				CCV 280-459449/133 05/24/2019 21:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	238		250	95	239		250	95	470		500	94

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

ICV Source: ICP ICV_00822 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	CCV 280-459449/147 05/24/2019 22:48				CCV 280-459449/160 05/24/2019 23:35							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	469		500	94	466		500	93				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

ICV Source: ICP LLCCV_02550 Concentration Units: ug/L

CCV Source: ICP LLCCV_02550

Analyte	ICVL 280-459449/12 05/24/2019 14:47				CCVL 280-459449/135 05/24/2019 22:05				CCVL 280-459449/149 05/24/2019 22:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	92.7	J	100	93	88.2	J	100	88	88.5	J	100	88

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

ICV Source: ICP LLCCV_02550 Concentration Units: ug/L

CCV Source: ICP LLCCV_02550

Analyte	CCVL 280-459449/162 05/24/2019 23:42											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	87.9	J	100	88								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Method: 6010C Instrument ID: MT_052

Lab Sample ID: CRI 280-459449/16 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_02550

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Boron	100	93.5	J	93	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-459449/15 05/24/2019 14:58		CCB 280-459449/134 05/24/2019 22:02		CCB 280-459449/148 05/24/2019 22:52		CCB 280-459449/161 05/24/2019 23:38	
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-459136/1-A

Instrument Code: MT_052 Batch No.: 459449

CAS No.	Analyte	Concentration	C	Q	Method
7440-42-8	Boron	15	U		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: ICSA 280-459449/17 Instrument ID: MT_052

Lab File ID: 52A052419aa.csv ICS Source: ICP ICSA_00186

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		**13.5**	
Aluminum	*500000*	*523128*	*105*
Antimony		*-6.61*	
Arsenic		*3.03*	
Barium		*1.87*	
Cadmium		*0.530*	
Calcium	*500000*	*495011*	*99*
Cobalt		*-0.585*	
Copper		*-2.03*	
Iron	*200000*	*197337*	*99*
Lead		*7.45*	
Lithium		*-11.5*	
Magnesium	*500000*	*521121*	*104*
Manganese		*0.584*	
Molybdenum		*0.750*	
Nickel		*-4.40*	
Phosphorus		*13.8*	
Potassium		*275*	
Selenium		*11.5*	
Silicon		*43.4*	
Silver		*2.40*	
Thallium		*11.0*	
Tin		*-3.23*	
Titanium		*-2.01*	
Vanadium		*1.14*	
Zinc		*-3.41*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Lab Sample ID: ICSAB 280-459449/18 Instrument ID: MT_052

Lab File ID: 52A052419aa.csv ICS Source: ICP ICSAB_00213

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Boron	**10000**	**10886**	**109**
Aluminum	*500000*	*535785*	*107*
Antimony	*1000*	*1080*	*108*
Arsenic	*1000*	*1106*	*111*
Barium	*1000*	*1075*	*108*
Beryllium	*500*	*529*	*106*
Cadmium	*1000*	*1051*	*105*
Calcium	*500000*	*506038*	*101*
Chromium	*1000*	*1084*	*108*
Cobalt	*1000*	*998*	*100*
Copper	*1000*	*1103*	*110*
Iron	*200000*	*202386*	*101*
Lead	*1000*	*1038*	*104*
Lithium	*1000*	*1108*	*111*
Magnesium	*500000*	*536563*	*107*
Manganese	*1000*	*1043*	*104*
Molybdenum	*1000*	*1040*	*104*
Nickel	*1000*	*1010*	*101*
Phosphorus	*10000*	*10925*	*109*
Potassium	*10000*	*11643*	*116*
Selenium	*1000*	*1082*	*108*
Silicon	*10000*	*10679*	*107*
Silver	*1000*	*1172*	*117*
Sodium	*10000*	*11466*	*115*
Strontium	*1000*	*1050*	*105*
Thallium	*1000*	*1036*	*104*
Tin	*1000*	*1041*	*104*
Titanium	*1000*	*1044*	*104*
Vanadium	*1000*	*1051*	*105*
Zinc	*1000*	*1032*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 280-123855-F-1-B MS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	978		6.6	J	1000	97	85-113		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 280-123855-F-1-C MSD

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	978		1000	97	85-113	0	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 280-123855-F-1-A PDS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	102		6.6	J	100	96	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-459136/2-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Boron	1000	950		95	85	113		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-459136/3-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	956		1000	96	85-113	1	20		6010C

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-123855-F-1-A SD ^5

SDG No:

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123922-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Boron	6.6	J	75	U	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C DL Date: 02/03/2019 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Boron	208.9	100	4.37

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Boron		100	4.37

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	394.401														
Aluminum	396.152								-0.000104					-0.000023	
Antimony	206.834											0.004372		0.00005	
Arsenic	188.980													-0.000018	
Barium	493.408													0.000008	
Beryllium	234.861													-0.000043	
Bismuth	223.061													0.000079	0.000001
Boron	249.678													-0.000081	
Cadmium	214.439													0.000011	
Calcium	315.887		0.000314												
Chromium	205.560		-0.000004				-0.00014								
Cobalt	228.615													0	
Copper	324.754		0.000005						-0.000012						
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.000052									-0.00051			
Lithium	670.783														
Magnesium	279.078													-0.000401	
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604								0					0	
Phosphorus	213.618												-0.16455		
Potassium	766.491														
Selenium	196.026													-0.000171	
Silicon	288.158													0	
Silver	328.068														
Sodium	589.592					-0.030677	-								
Sodium	589.593					-0.275847									
Strontium	421.552													0.000001	
Sulfur	181.972								0.000105					-	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.794		0.00001118						-0.000017		0.00204			-0.000053	
Thorium	288.505						-0.00596		-0.000014					-0.000047	
Tin	189.925														
Titanium	336.122								0.000026					-	
Uranium	409.013								-0.000041					0.000232	
Vanadium	292.401											-0.00709			
Zinc	206.200													0.000031	
Zirconium	343.823													0	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Aluminum	396.152				0.040824										0.190657
Aluminum	394.401														0.02099
Antimony	206.834				-0.00389									-0.00029	
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560				-0.0007		-0.00029								
Cobalt	228.615						0.0001								
Copper	324.754				0.000286										
Iron	238.204														
Iron	259.940														
Lead	220.353				-0.000822										
Lithium	670.783														
Magnesium	279.078														
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618				-0.023999										
Potassium	766.491														
Selenium	196.026			0.000916	0.000109										
Silicon	288.158														
Silver	328.068														
Sodium	589.593														
Sodium	589.592														
Strontium	421.552														
Sulfur	181.972			0.006869											

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Thallium	190.794				-0.00234										
Thorium	288.505			0.011354											
Tin	189.925														
Titanium	336.122						0.000067								
Uranium	409.013														
Vanadium	292.401				-0.0014										
Zinc	206.200														
Zirconium	343.823														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	394.401	-0.021133			0.011488										
Aluminum	396.152														
Antimony	206.834		0.00261					-0.00114							
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560														
Cobalt	228.615		0.001881												
Copper	324.754	0.004174	-0.000232		-0.00125										
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.00043		0.000755										
Lithium	670.783														
Magnesium	279.078				-0.00486										
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604			0.000222											
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026														
Silicon	288.158														
Silver	328.068				-0.000389	-0.011329		0.0060693							
Sodium	589.592														
Sodium	589.593														
Strontium	421.552														
Sulfur	181.972														

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.794		-0.00212												
Thorium	288.505		-		0.002914	-0.06422									
Tin	189.925														
Titanium	336.122														
Uranium	409.013							-0.039324							
Vanadium	292.401	0.002016	0.000703		-0.0001										
Zinc	206.200														
Zirconium	343.823														

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123922-1

SDG No.:

Instrument ID: MT_052 Date: 04/09/2019 07:05

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Boron		50	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-459136/1-A	05/24/2019 06:00	459136		50	50
LCS 280-459136/2-A	05/24/2019 06:00	459136		50	50
LCSD 280-459136/3-A	05/24/2019 06:00	459136		50	50
280-123922-1	05/24/2019 06:00	459136		50	50
280-123922-2	05/24/2019 06:00	459136		50	50
280-123922-3	05/24/2019 06:00	459136		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				B																								
ICIS 280-459449/1	1		13:50	X																								
IC 280-459449/2			13:53	X																								
IC 280-459449/3			13:57	X																								
IC 280-459449/4			14:01	X																								
ZZZZZZ			14:05																									
ZZZZZZ			14:09																									
ZZZZZZ			14:12																									
ICVH 280-459449/8	1		14:17	X																								
ICVH 280-459449/9	1		14:21	X																								
ICV 280-459449/10	1		14:26	X																								
ICV 280-459449/11	1		14:31	X																								
ICVL 280-459449/12	1		14:47	X																								
CCVH 280-459449/13			14:51																									
CCV 280-459449/14			14:55																									
ICB 280-459449/15	1		14:58	X																								
CRI 280-459449/16	1		15:01	X																								
ICSA 280-459449/17	1		15:05	X																								
ICSAB 280-459449/18	1		15:09	X																								
LRA 280-459449/19			15:12																									
CCVH 280-459449/20			15:16																									
CCV 280-459449/21			15:20																									
CCB 280-459449/22			15:24																									
CCVL 280-459449/23			15:27																									
ZZZZZZ			15:31																									
ZZZZZZ			15:35																									
ZZZZZZ			15:38																									
ZZZZZZ			15:42																									
ZZZZZZ			15:45																									
ZZZZZZ			15:49																									
ZZZZZZ			15:52																									
ZZZZZZ			15:56																									
ZZZZZZ			16:00																									
ZZZZZZ			16:03																									
CCVH 280-459449/34			16:07																									
CCV 280-459449/35			16:11																									
CCB 280-459449/36			16:14																									
CCVL 280-459449/37			16:18																									
ZZZZZZ			16:21																									
ZZZZZZ			16:25																									
ZZZZZZ			16:28																									
ZZZZZZ			16:32																									
ZZZZZZ			16:36																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			16:39	
ZZZZZZ			16:43	
ZZZZZZ			16:46	
ZZZZZZ			16:50	
ZZZZZZ			16:54	
CCVH 280-459449/48			16:57	
CCV 280-459449/49			17:01	
CCB 280-459449/50			17:05	
CCVL 280-459449/51			17:08	
ZZZZZZ			17:12	
ZZZZZZ			17:15	
ZZZZZZ			17:19	
ZZZZZZ			17:22	
ZZZZZZ			17:26	
ZZZZZZ			17:29	
ZZZZZZ			17:33	
ZZZZZZ			17:36	
ZZZZZZ			17:40	
ZZZZZZ			17:44	
CCVH 280-459449/62			17:47	
CCV 280-459449/63			17:51	
CCB 280-459449/64			17:54	
CCVL 280-459449/65			17:58	
ZZZZZZ			18:01	
ZZZZZZ			18:04	
ZZZZZZ			18:08	
ZZZZZZ			18:11	
ZZZZZZ			18:15	
ZZZZZZ			18:19	
ZZZZZZ			18:23	
ZZZZZZ			18:27	
ZZZZZZ			18:30	
ZZZZZZ			18:34	
CCVH 280-459449/76			18:37	
CCV 280-459449/77			18:41	
CCB 280-459449/78			18:45	
CCVL 280-459449/79			18:48	
ZZZZZZ			18:51	
ZZZZZZ			18:55	
ZZZZZZ			18:58	
ZZZZZZ			19:02	
ZZZZZZ			19:06	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			19:09	
ZZZZZZ			19:13	
ZZZZZZ			19:16	
ZZZZZZ			19:20	
ZZZZZZ			19:23	
CCVH 280-459449/90			19:27	
CCV 280-459449/91			19:31	
CCB 280-459449/92			19:34	
CCVL 280-459449/93			19:38	
ZZZZZZ			19:41	
ZZZZZZ			19:45	
ZZZZZZ			19:48	
ZZZZZZ			19:51	
ZZZZZZ			19:55	
ZZZZZZ			19:59	
ZZZZZZ			20:02	
ZZZZZZ			20:06	
ZZZZZZ			20:10	
ZZZZZZ			20:13	
CCVH 280-459449/104			20:16	
CCV 280-459449/105			20:20	
CCB 280-459449/106			20:24	
CCVL 280-459449/107			20:27	
ZZZZZZ			20:30	
ZZZZZZ			20:34	
ZZZZZZ			20:37	
ZZZZZZ			20:41	
ZZZZZZ			20:44	
ZZZZZZ			20:48	
ZZZZZZ			20:51	
ZZZZZZ			20:55	
ZZZZZZ			20:58	
ZZZZZZ			21:02	
CCVH 280-459449/118			21:05	
CCV 280-459449/119			21:09	
CCB 280-459449/120			21:13	
CCVL 280-459449/121			21:16	
ZZZZZZ			21:19	
ZZZZZZ			21:23	
ZZZZZZ			21:27	
ZZZZZZ			21:30	
ZZZZZZ			21:34	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			21:37	
ZZZZZZ			21:41	
ZZZZZZ			21:44	
ZZZZZZ			21:48	
ZZZZZZ			21:51	
CCVH 280-459449/132	1		21:55	X
CCV 280-459449/133	1		21:58	X
CCB 280-459449/134	1		22:02	X
CCVL 280-459449/135	1		22:05	X
ZZZZZZ			22:09	
ZZZZZZ			22:12	
ZZZZZZ			22:16	
MB 280-459136/1-A	1	T	22:20	X
LCS 280-459136/2-A	1	T	22:23	X
LCSD 280-459136/3-A	1	T	22:26	X
ZZZZZZ			22:30	
ZZZZZZ			22:34	
ZZZZZZ			22:37	
ZZZZZZ			22:41	
CCVH 280-459449/146	1		22:45	X
CCV 280-459449/147	1		22:48	X
CCB 280-459449/148	1		22:52	X
CCVL 280-459449/149	1		22:55	X
ZZZZZZ			22:58	
ZZZZZZ			23:02	
ZZZZZZ			23:06	
ZZZZZZ			23:09	
ZZZZZZ			23:13	
ZZZZZZ			23:16	
280-123922-1	1	T	23:20	X
280-123922-2	1	T	23:24	X
280-123922-3	1	T	23:27	X
CCVH 280-459449/159	1		23:31	X
CCV 280-459449/160	1		23:35	X
CCB 280-459449/161	1		23:38	X
CCVL 280-459449/162	1		23:42	X
ZZZZZZ			23:45	
ZZZZZZ			23:48	
ZZZZZZ			23:52	
ZZZZZZ			23:56	
ZZZZZZ			23:59	
ZZZZZZ			00:03	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			00:06	
ZZZZZZ			00:10	
ZZZZZZ			00:14	
ZZZZZZ			00:17	
CCVH 280-459449/173			00:21	
CCV 280-459449/174			00:24	
CCB 280-459449/175			00:28	
CCVL 280-459449/176			00:31	
ZZZZZZ			00:35	
ZZZZZZ			00:38	
ZZZZZZ			00:42	
ZZZZZZ			00:45	
ZZZZZZ			00:49	
ZZZZZZ			00:52	
ZZZZZZ			00:56	
ZZZZZZ			01:00	
ZZZZZZ			01:03	
CCVH 280-459449/186			01:07	
CCV 280-459449/187			01:10	
CCB 280-459449/188			01:14	
CCVL 280-459449/189			01:17	
ZZZZZZ			01:21	
ZZZZZZ			01:24	
ZZZZZZ			01:28	
ZZZZZZ			01:31	
ZZZZZZ			01:35	
ZZZZZZ			01:39	
ZZZZZZ			01:43	
CCVH 280-459449/197			01:47	
CCV 280-459449/198			01:50	
CCB 280-459449/199			01:54	
CCVL 280-459449/200			01:57	
ZZZZZZ			09:04	

Prep Types:
T = Total/NA

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

ICP Instrument ID: MT_052 Start Date: 05/24/2019 End Date: 05/24/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 242.219	Q	Element Y 377.433	Q	Element Y 488.368	Q	Element	Q	Element	Q
ICIS 280-459449/1	13:50										
ICVH 280-459449/8	14:17	95		95		96					
ICVH 280-459449/9	14:21	94		94		96					
ICV 280-459449/10	14:26	95		94		94					
ICV 280-459449/11	14:31	95		95		97					
ICVL 280-459449/12	14:47	97		96		96					
ICB 280-459449/15	14:58	97		96		96					
CRI 280-459449/16	15:01	99		98		99					
ICSA 280-459449/17	15:05	84		83		89					
ICSAB 280-459449/18	15:09	86		85		91					
CCVH 280-459449/132	21:55	112		110		118					
CCV 280-459449/133	21:58	115		113		121					
CCB 280-459449/134	22:02	117		115		120					
CCVL 280-459449/135	22:05	119		116		122					
MB 280-459136/1-A	22:20	113		111		114					
LCS 280-459136/2-A	22:23	105		104		110					
LCSD 280-459136/3-A	22:26	107		105		112					
CCVH 280-459449/146	22:45	109		106		114					
CCV 280-459449/147	22:48	111		109		116					
CCB 280-459449/148	22:52	114		111		117					
CCVL 280-459449/149	22:55	117		115		120					
280-123922-1	23:20	116		115		123					
280-123922-2	23:24	115		114		122					
280-123922-3	23:27	116		114		122					
CCVH 280-459449/159	23:31	113		110		119					
CCV 280-459449/160	23:35	117		115		121					
CCB 280-459449/161	23:38	118		116		123					
CCVL 280-459449/162	23:42	120		117		124					

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459136 Batch Start Date: 05/24/19 06:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/24/19 12:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	PREP SPK 1 00008	PREP SPK 2 00004	PREP SPK 3 00004
MB 280-459136/1		3010A, 6010C			50 mL	50 mL			
LCS 280-459136/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
LCSD 280-459136/3		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123922-F-1	LF1MW-5_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123922-F-2	LF1MW-5_0519-a	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123922-F-3	LF1P-5_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PREP SPK 4 00004					
MB 280-459136/1		3010A, 6010C							
LCS 280-459136/2		3010A, 6010C		0.5 mL					
LCSD 280-459136/3		3010A, 6010C		0.5 mL					
280-123922-F-1	LF1MW-5_0519	3010A, 6010C	T						
280-123922-F-2	LF1MW-5_0519-a	3010A, 6010C	T						
280-123922-F-3	LF1P-5_0519	3010A, 6010C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459136 Batch Start Date: 05/24/19 06:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/24/19 12:00

Batch Notes	
Temperature - Corrected - End	93 Degrees C
Temperature - Corrected - Start	91 Degrees C
Digestion End Time	05/24/2019 12:00
Digestion Start Time	05/24/2019 06:00
Digestion Unit ID	02
Hydrochloric Acid ID	0000217157-05/03
Nitric Acid ID	0000216908-05/03
Pipette/Syringe/Dispenser ID	MET-116
Thermometer ID	QA-22
Digestion Tube/Cup ID	1812114
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	91 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Path: D:\My Results\52A052419.esws

Date created: 5/24/2019 12:17:42 PM

Instrument used: MY18171010

Software Version : 7.4.2.10790

Firmware Version : 3784

Notes:

Sample Name: icis

Date: 5/24/2019 1:50:34 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000000 !	ppm	N/A	N/A	-267.045000 !	Y 377.433
Al (394.401 nm)	0.000000 !	ppm	N/A	N/A	90.444400 !	Y 377.433
Al H (396.152 nm)	0.000000 !	ppm	N/A	N/A	51.855400 !	Y_R 377.433
As (188.980 nm)	0.000000 !	ppm	N/A	N/A	-1.575970 !	Y 242.219
B (249.678 nm)	0.000000 !	ppm	N/A	N/A	46.671100 !	Y 242.219
Ba (493.408 nm)	0.000000 !	ppm	N/A	N/A	1399.460000 !	Y_R 488.368
Be (234.861 nm)	0.000000 !	ppm	N/A	N/A	-1.978600 !	Y_R 488.368
Bi (223.061 nm)	0.000000 !	ppm	N/A	N/A	-10.611700 !	Y 377.433
Ca (315.887 nm)	0.000000 !	ppm	N/A	N/A	-69.038458 !	Y_R 377.433
Cd (214.439 nm)	0.000000 !	ppm	N/A	N/A	-5.179760 !	Y 377.433
Co (228.615 nm)	0.000000 !	ppm	N/A	N/A	-15.131600 !	Y 242.219
Cr (205.560 nm)	0.000000 !	ppm	N/A	N/A	-6.753520 !	Y 377.433
Cu (324.754 nm)	0.000000 !	ppm	N/A	N/A	317.963000 !	Y 377.433
Fe (238.204 nm)	0.000000 !	ppm	N/A	N/A	7.139494 !	Y_R 377.433
Fe H (259.940 nm)	0.000000 !	ppm	N/A	N/A	13.492100 !	Y_R 377.433
K (766.491 nm)	0.000000 !	ppm	N/A	N/A	1937.380000 !	Y_R2 488.368
Li (670.783 nm)	0.000000 !	ppm	N/A	N/A	-2545.770000 !	Y_R2 488.368
Mg (279.078 nm)	0.000000 !	ppm	N/A	N/A	8.407430 !	Y 377.433
Mn (257.610 nm)	0.000000 !	ppm	N/A	N/A	-11.057100 !	Y 377.433
Mo (202.032 nm)	0.000000 !	ppm	N/A	N/A	11.132500 !	Y 377.433
Na (589.592 nm)	0.000000 !	ppm	N/A	N/A	150.393000 !	Y_R2 488.368
Na H (589.593 nm)	0.000000 !	ppm	N/A	N/A	52.579926 !	Y_R4
Ni (231.604 nm)	0.000000 !	ppm	N/A	N/A	-8.621800 !	Y 377.433
P (213.618 nm)	0.000000 !	ppm	N/A	N/A	-4.070530 !	Y 242.219
Pb (220.353 nm)	0.000000 !	ppm	N/A	N/A	8.254170 !	Y 242.219
S (181.972 nm)	0.000000 !	ppm	N/A	N/A	12.698613 !	Y 377.433
Sb (206.834 nm)	0.000000 !	ppm	N/A	N/A	1.776990 !	Y 377.433
Se (196.026 nm)	0.000000 !	ppm	N/A	N/A	8.857090 !	Y 242.219
Si (288.158 nm)	0.000000 !	ppm	N/A	N/A	488.546000 !	Y 377.433
Sn (189.925 nm)	0.000000 !	ppm	N/A	N/A	2.090400 !	Y 377.433
Sr (421.552 nm)	0.000000 !	ppm	N/A	N/A	23.169446 !	Y_R 488.368
Th (288.505 nm)	0.000000 !	ppm	N/A	N/A	12.700100 !	Y 377.433
Ti (336.122 nm)	0.000000 !	ppm	N/A	N/A	-433.882000 !	Y 377.433
Tl (190.794 nm)	0.000000 !	ppm	N/A	N/A	1.816620 !	Y 377.433
U (409.013 nm)	0.000000 !	ppm	N/A	N/A	-24.762300 !	Y 377.433
V (292.401 nm)	0.000000 !	ppm	N/A	N/A	-145.643000 !	Y 377.433
Zn (206.200 nm)	0.000000 !	ppm	N/A	N/A	4.064370 !	Y 377.433
Zr (343.823 nm)	0.000000 !	ppm	N/A	N/A	-161.615000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.000000 !	23115.465534 !	0.000000	0.00
Y 377.433	1.000000 !	699431.216509 !	0.000000	0.00
Y_R 377.433	1.000000 !	60628.700000 !	0.000000	0.00
Y_R 488.368	1.000000 !	52827.700000 !	0.000000	0.00
Y_R2 488.368	1.000000 !	106005.291079 !	0.000000	0.00
Y_R4	1.000000 !	45000.000000 !	0.000000	0.00

Sample Name: ic1

Date: 5/24/2019 1:53:46 PM Rack:Tube: 3:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.000000 !	ppm	N/A	N/A	34420.100000 !	Y 377.433
Al (394.401 nm)	1.000000 !	ppm	N/A	N/A	12295.500000 !	Y 377.433
Al H (396.152 nm)	1.000000 !	ppm	N/A	N/A	1927.770000 !	Y_R 377.433
As (188.980 nm)	1.000000 !	ppm	N/A	N/A	1505.320000 !	Y 242.219
B (249.678 nm)	1.000000 !	ppm	N/A	N/A	7188.330000 !	Y 242.219
Ba (493.408 nm)	1.000000 !	ppm	N/A	N/A	101093.000000 !	Y_R 488.368
Be (234.861 nm)	1.000000 !	ppm	N/A	N/A	98480.800000 !	Y_R 488.368
Bi (223.061 nm)	2.000000 !	ppm	N/A	N/A	4369.640000 !	Y 377.433
Ca (315.887 nm)	10.000000 !	ppm	N/A	N/A	7873.018724 !	Y_R 377.433
Cd (214.439 nm)	1.000000 !	ppm	N/A	N/A	36974.900000 !	Y 377.433
Co (228.615 nm)	1.000000 !	ppm	N/A	N/A	23484.900000 !	Y 242.219
Cr (205.560 nm)	1.000000 !	ppm	N/A	N/A	6662.940000 !	Y 377.433
Cu (324.754 nm)	1.000000 !	ppm	N/A	N/A	46959.100000 !	Y 377.433
Fe (238.204 nm)	5.000000 !	ppm	N/A	N/A	12043.012362 !	Y_R 377.433
Fe H (259.940 nm)	5.000000 !	ppm	N/A	N/A	6926.340000 !	Y_R 377.433
K (766.491 nm)	100.000000 !	ppm	N/A	N/A	98496.100000 !	Y_R2 488.368
Li (670.783 nm)	1.000000 !	ppm	N/A	N/A	14624.500000 !	Y_R2 488.368
Mg (279.078 nm)	40.000000 !	ppm	N/A	N/A	130903.000000 !	Y 377.433
Mn (257.610 nm)	1.000000 !	ppm	N/A	N/A	272649.000000 !	Y 377.433
Mo (202.032 nm)	1.000000 !	ppm	N/A	N/A	12615.400000 !	Y 377.433
Na (589.592 nm)		ppm	N/A	N/A	40893.200000 !	Y_R2 488.368
Na H (589.593 nm)		ppm	N/A	N/A	26976.026888 !	Y_R4
Ni (231.604 nm)	1.000000 !	ppm	N/A	N/A	5165.430000 !	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	-153.150000 !	Y 242.219
Pb (220.353 nm)	1.000000 !	ppm	N/A	N/A	3186.400000 !	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	24.996043 !	Y 377.433
Sb (206.834 nm)	1.000000 !	ppm	N/A	N/A	1690.430000 !	Y 377.433
Se (196.026 nm)	1.000000 !	ppm	N/A	N/A	1517.040000 !	Y 242.219
Si (288.158 nm)	10.000000 !	ppm	N/A	N/A	64864.200000 !	Y 377.433
Sn (189.925 nm)	1.000000 !	ppm	N/A	N/A	1611.150000 !	Y 377.433
Sr (421.552 nm)	1.000000 !	ppm	N/A	N/A	150624.251629 !	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	-39.509800 !	Y 377.433
Ti (336.122 nm)	1.000000 !	ppm	N/A	N/A	127522.000000 !	Y 377.433
Tl (190.794 nm)	1.000000 !	ppm	N/A	N/A	2288.810000 !	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	-45.760300 !	Y 377.433
V (292.401 nm)	1.000000 !	ppm	N/A	N/A	51838.700000 !	Y 377.433
Zn (206.200 nm)	1.000000 !	ppm	N/A	N/A	4500.800000 !	Y 377.433
Zr (343.823 nm)	1.000000 !	ppm	N/A	N/A	56450.100000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.976917 !	22581.901479 !	0.002168	0.22
Y 377.433	0.977143 !	683444.354027 !	0.001557	0.16
Y_R 377.433	0.974987 !	59112.300000 !	0.004848	0.50
Y_R 488.368	0.972359 !	51367.500000 !	0.005236	0.54
Y_R2 488.368	0.961482 !	101922.155595 !	0.005878	0.61
Y_R4	0.983579 !	44261.000000 !	0.000675	0.07

Sample Name: ic3

Date: 5/24/2019 1:57:54 PM Rack:Tube: 3:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-258.673000 !	Y 377.433
Al (394.401 nm)		ppm	N/A	N/A	573.984000 !	Y 377.433
Al H (396.152 nm)		ppm	N/A	N/A	113.364000 !	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	0.234095 !	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	49.041000 !	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1451.400000 !	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	3.201450 !	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	-11.419900 !	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-66.058745 !	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	-2.059940 !	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	-20.835400 !	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-6.914490 !	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	343.102000 !	Y 377.433
Fe (238.204 nm)		ppm	N/A	N/A	92.333631 !	Y_R 377.433
Fe H (259.940 nm)		ppm	N/A	N/A	66.619500 !	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	1949.230000 !	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2528.360000 !	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	17.829500 !	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	8.470240 !	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	18.620000 !	Y 377.433
Na (589.592 nm)	50.000000 !	ppm	N/A	N/A	41195.600000 !	Y_R2 488.368
Na H (589.593 nm)	50.000000 !	ppm	N/A	N/A	27010.309459 !	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	-6.559380 !	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	1.110720 !	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	8.317920 !	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	14.043954 !	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	3.096320 !	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	7.752380 !	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	535.204000 !	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	2.711680 !	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	72.045476 !	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	20.292100 !	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-428.640000 !	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	-0.538019 !	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	14.639600 !	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	-156.729000 !	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	10.011300 !	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-154.110000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993758 !	22971.185603 !	0.001288	0.13
Y 377.433	0.989537 !	692113.294317 !	0.001254	0.13
Y_R 377.433	0.988362 !	59923.200000 !	0.004887	0.49
Y_R 488.368	0.990897 !	52346.800000 !	0.007672	0.77
Y_R2 488.368	0.989459 !	104887.911584 !	0.000969	0.10
Y_R4	0.993930 !	44726.800000 !	0.003535	0.36

Sample Name: ic2

Date: 5/24/2019 2:01:32 PM Rack:Tube: 3:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-114.811000 !	Y 377.433
Al (394.401 nm)	100.000000 !	ppm	N/A	N/A	1249990.000000 !	Y 377.433
Al H (396.152 nm)	100.000000 !	ppm	N/A	N/A	218339.000000 !	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	2.086190 !	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	-17.642200 !	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1807.270000 !	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	-489.683000 !	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	-17.310500 !	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-87.155681 !	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	28.610700 !	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	70.366700 !	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-3.113460 !	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	2389.680000 !	Y 377.433
Fe (238.204 nm)	100.000000 !	ppm	N/A	N/A	241018.534258 !	Y_R 377.433
Fe H (259.940 nm)	100.000000 !	ppm	N/A	N/A	138310.000000 !	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	2231.750000 !	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2630.170000 !	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	-290.722000 !	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	-289.546000 !	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	11.190000 !	Y 377.433
Na (589.592 nm)	500.000000 !	ppm	N/A	N/A	390776.000000 !	Y_R2 488.368
Na H (589.593 nm)	500.000000 !	ppm	N/A	N/A	271160.576082 !	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	7.070090 !	Y 377.433
P (213.618 nm)	10.000000 !	ppm	N/A	N/A	14296.000000 !	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	36.346300 !	Y 242.219
S (181.972 nm)	10.000000 !	ppm	N/A	N/A	4592.241667 !	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	15.038600 !	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	1.904680 !	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	736.662000 !	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	-0.047550 !	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	128.820066 !	Y_R 488.368
Th (288.505 nm)	10.000000 !	ppm	N/A	N/A	17262.000000 !	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-357.628000 !	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	-18.749500 !	Y 377.433
U (409.013 nm)	1.000000 !	ppm	N/A	N/A	3147.670000 !	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	770.401000 !	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	22.659000 !	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-183.342000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.960821 !	22209.833629 !	0.005664	0.59
Y 377.433	0.955642 !	668405.696055 !	0.005373	0.56
Y_R 377.433	0.981604 !	59513.400000 !	0.003023	0.31
Y_R 488.368	0.970727 !	51281.300000 !	0.012094	1.25
Y_R2 488.368	0.959598 !	101722.455148 !	0.003536	0.37
Y_R4	0.984535 !	44304.000000 !	0.000369	0.04

Sample Name: S1-5717466

Date: 5/24/2019 2:05:41 PM Rack:Tube: 3:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.006330 !	ppm	0.001529	0.15	34454.700000 !	Y 377.433
Al (394.401 nm)	1.015630 !	ppm	0.001570	0.15	12744.900000 !	Y 377.433
Al H (396.152 nm)	0.982419 !	ppm	0.001177	0.12	2395.060000 !	Y_R 377.433
As (188.980 nm)	1.008150 !	ppm	0.001295	0.13	1517.470000 !	Y 242.219
B (249.678 nm)	1.005060 !	ppm	0.001491	0.15	7221.550000 !	Y 242.219
Ba (493.408 nm)	1.003580 !	ppm	0.000649	0.06	101454.000000 !	Y_R 488.368
Be (234.861 nm)	1.001190 !	ppm	0.000902	0.09	98576.300000 !	Y_R 488.368
Bi (223.061 nm)	2.009760 !	ppm	0.002910	0.14	4392.120000 !	Y 377.433
Ca (315.887 nm)	10.060009 !	ppm	0.009638	0.10	7920.946505 !	Y_R 377.433
Cd (214.439 nm)	1.013990 !	ppm	0.001505	0.15	37494.200000 !	Y 377.433
Co (228.615 nm)	1.006690 !	ppm	0.001476	0.15	23689.000000 !	Y 242.219
Cr (205.560 nm)	1.007340 !	ppm	0.002850	0.28	6704.330000 !	Y 377.433
Cu (324.754 nm)	1.004500 !	ppm	0.002594	0.26	47165.200000 !	Y 377.433
Fe (238.204 nm)	5.027064 !	ppm	0.000017	0.00	12108.160491 !	Y_R 377.433
Fe H (259.940 nm)	5.030520 !	ppm	0.007204	0.14	6968.550000 !	Y_R 377.433
K (766.491 nm)	100.264000 !	ppm	0.799322	0.80	98750.700000 !	Y_R2 488.368
Li (670.783 nm)	0.994589 !	ppm	0.002971	0.30	14531.600000 !	Y_R2 488.368
Mg (279.078 nm)	40.536600 !	ppm	0.002576	0.01	132652.000000 !	Y 377.433
Mn (257.610 nm)	1.008870 !	ppm	0.000117	0.01	275068.000000 !	Y 377.433
Mo (202.032 nm)	1.009120 !	ppm	0.002080	0.21	12730.300000 !	Y 377.433
Na (589.592 nm)	49.495500 !	ppm	0.010914	0.02	41008.900000 !	Y_R2 488.368
Na H (589.593 nm)	50.602736 !	ppm	0.509916	1.01	27337.327468 !	Y_R4
Ni (231.604 nm)	1.010350 !	ppm	0.000788	0.08	5220.150000 !	Y 377.433
P (213.618 nm)	0.084764 !	ppm	0.000757	0.89	-153.862000 !	Y 242.219
Pb (220.353 nm)	1.007180 !	ppm	0.002005	0.20	3203.410000 !	Y 242.219
S (181.972 nm)	0.015704 !	ppm	0.007487	47.67	23.546002 !	Y 377.433
Sb (206.834 nm)	1.007980 !	ppm	0.004563	0.45	1698.290000 !	Y 377.433
Se (196.026 nm)	1.004290 !	ppm	0.001681	0.17	1523.780000 !	Y 242.219
Si (288.158 nm)	10.094100 !	ppm	0.016284	0.16	65470.300000 !	Y 377.433
Sn (189.925 nm)	1.013890 !	ppm	0.000971	0.10	1633.500000 !	Y 377.433
Sr (421.552 nm)	1.003361 !	ppm	0.000589	0.06	151131.247626 !	Y_R 488.368
Th (288.505 nm)	0.024475 !	ppm	0.002982	12.18	-47.951600 !	Y 377.433
Ti (336.122 nm)	1.005790 !	ppm	0.000157	0.02	128305.000000 !	Y 377.433
Tl (190.794 nm)	1.008240 !	ppm	0.001073	0.11	2301.120000 !	Y 377.433
U (409.013 nm)	0.023997 !	ppm	0.007716	32.15	-71.591600 !	Y 377.433
V (292.401 nm)	1.008220 !	ppm	0.000613	0.06	51857.200000 !	Y 377.433
Zn (206.200 nm)	1.014810 !	ppm	0.002292	0.23	4568.090000 !	Y 377.433
Zr (343.823 nm)	1.005170 !	ppm	0.000816	0.08	56742.600000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.955568 !	22088.393115 !	0.001030	0.11
Y 377.433	0.951611 !	665586.277647 !	0.000440	0.05
Y_R 377.433	0.956907 !	58016.100000 !	0.000712	0.07
Y_R 488.368	0.954524 !	50425.300000 !	0.000419	0.04
Y_R2 488.368	0.955664 !	101305.409979 !	0.000693	0.07
Y_R4	0.980210 !	44109.400000 !	0.000601	0.06

Sample Name: S3-5617381

Date: 5/24/2019 2:09:18 PM Rack:Tube: 3:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000278 !u	ppm	0.000708	> 100.00	-257.922000 !	Y 377.433
Al (394.401 nm)	0.039080 !	ppm	0.000652	1.67	571.243000 !	Y 377.433
Al H (396.152 nm)	0.172662 !u	ppm	0.004232	2.45	119.348000 !	Y_R 377.433
As (188.980 nm)	-0.002553 !u	ppm	0.003077	> 100.00	-5.424310 !	Y 242.219
B (249.678 nm)	0.000776 !	ppm	0.000056	7.15	52.192000 !	Y 242.219
Ba (493.408 nm)	0.000686 !	ppm	0.000136	19.85	1467.840000 !	Y_R 488.368
Be (234.861 nm)	0.000126 !	ppm	0.000002	1.83	10.216900 !	Y_R 488.368
Bi (223.061 nm)	0.001861 !	ppm	0.001935	> 100.00	-6.528150 !	Y 377.433
Ca (315.887 nm)	0.005635 !	ppm	0.006192	> 100.00	-64.552485 !	Y_R 377.433
Cd (214.439 nm)	-0.000006 !u	ppm	0.000113	> 100.00	-5.402420 !	Y 377.433
Co (228.615 nm)	0.000019 !u	ppm	0.000383	> 100.00	-14.670700 !	Y 242.219
Cr (205.560 nm)	0.000598 !	ppm	0.000164	27.45	-2.773590 !	Y 377.433
Cu (324.754 nm)	0.000326 !	ppm	0.000133	40.93	331.893000 !	Y 377.433
Fe (238.204 nm)	0.041957 !	ppm	0.000403	0.96	108.138190 !	Y_R 377.433
Fe H (259.940 nm)	0.044842 !u	ppm	0.001039	2.32	73.428700 !	Y_R 377.433
K (766.491 nm)	-0.040785 !u	ppm	0.497043	> 100.00	1898.000000 !	Y_R2 488.368
Li (670.783 nm)	-0.002744 !u	ppm	0.003571	> 100.00	-2592.880000 !	Y_R2 488.368
Mg (279.078 nm)	0.006749 !	ppm	0.001799	26.66	29.910200 !	Y 377.433
Mn (257.610 nm)	0.000244 !	ppm	0.000049	20.25	55.420800 !	Y 377.433
Mo (202.032 nm)	0.000787 !	ppm	0.000069	8.73	21.045800 !	Y 377.433
Na (589.592 nm)	49.792800 !	ppm	0.154071	0.31	41025.600000 !	Y_R2 488.368
Na H (589.593 nm)	49.760807 !u	ppm	0.065688	0.13	26880.533702 !	Y_R4
Ni (231.604 nm)	0.000472 !	ppm	0.000570	> 100.00	-6.174600 !	Y 377.433
P (213.618 nm)	-0.000178 !u	ppm	0.003501	> 100.00	-4.510970 !	Y 242.219
Pb (220.353 nm)	0.001673 !	ppm	0.000404	24.13	13.641400 !	Y 242.219
S (181.972 nm)	0.009398 !	ppm	0.001080	11.50	17.003992 !	Y 377.433
Sb (206.834 nm)	-0.001231 !u	ppm	0.004657	> 100.00	-0.298904 !	Y 377.433
Se (196.026 nm)	0.003170 !	ppm	0.002378	75.01	13.627200 !	Y 242.219
Si (288.158 nm)	0.008169 !	ppm	0.000280	3.43	541.133000 !	Y 377.433
Sn (189.925 nm)	0.001503 !	ppm	0.000476	31.70	4.508840 !	Y 377.433
Sr (421.552 nm)	0.000400 !	ppm	0.000078	19.55	83.473270 !	Y_R 488.368
Th (288.505 nm)	0.005909 !	ppm	0.001353	22.90	23.026700 !	Y 377.433
Ti (336.122 nm)	0.000108 !	ppm	0.000077	71.18	-420.018000 !	Y 377.433
Tl (190.794 nm)	0.001299 !	ppm	0.000424	32.67	4.777590 !	Y 377.433
U (409.013 nm)	0.014769 !	ppm	0.000396	2.68	22.096100 !	Y 377.433
V (292.401 nm)	-0.000330 !u	ppm	0.000102	30.84	-164.442000 !	Y 377.433
Zn (206.200 nm)	0.001423 !	ppm	0.000291	20.47	10.466800 !	Y 377.433
Zr (343.823 nm)	0.000356 !	ppm	0.000099	27.73	-141.450000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.980701 !	22669.364029 !	0.006892	0.70
Y 377.433	0.975682 !	682422.659191 !	0.005691	0.58
Y_R 377.433	0.967716 !	58671.400000 !	0.001656	0.17
Y_R 488.368	0.968599 !	51168.900000 !	0.002594	0.27
Y_R2 488.368	0.976851 !	103551.368582 !	0.000651	0.07
Y_R4	0.976217 !	43929.700000 !	0.005080	0.52

Sample Name: S2-5713035

Date: 5/24/2019 2:12:53 PM Rack:Tube: 3:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005115 !	ppm	0.000074	1.45	-109.669000 !	Y 377.433
Al (394.401 nm)	102.814000 !o	ppm	0.021713	0.02	1252500.000000 !	Y 377.433
Al H (396.152 nm)	100.205000 !	ppm	0.237277	0.24	218783.000000 !	Y_R 377.433
As (188.980 nm)	0.003244 !	ppm	0.000544	16.78	0.593429 !	Y 242.219
B (249.678 nm)	-0.002530 !u	ppm	0.000488	19.28	-29.385700 !	Y 242.219
Ba (493.408 nm)	0.004213 !	ppm	0.000172	4.08	1899.440000 !	Y_R 488.368
Be (234.861 nm)	-0.000472 !u	ppm	0.000017	3.64	-472.971000 !	Y_R 488.368
Bi (223.061 nm)	0.011488 !	ppm	0.001124	9.78	31.892400 !	Y 377.433
Ca (315.887 nm)	-0.013233 !u	ppm	0.006583	49.75	-54.552316 !	Y_R 377.433
Cd (214.439 nm)	-0.000257 !u	ppm	0.000176	68.21	26.081300 !	Y 377.433
Co (228.615 nm)	0.003462 !	ppm	0.000074	2.13	66.227700 !	Y 242.219
Cr (205.560 nm)	0.001393 !	ppm	0.000455	32.67	-0.138616 !	Y 377.433
Cu (324.754 nm)	0.003206 !	ppm	0.000326	10.17	2385.040000 !	Y 377.433
Fe (238.204 nm)	100.365903 !o	ppm	0.111531	0.11	241605.389750 !	Y_R 377.433
Fe H (259.940 nm)	100.031000 !	ppm	0.237179	0.24	138352.000000 !	Y_R 377.433
K (766.491 nm)	0.205238 !u	ppm	0.380136	> 100.00	2135.560000 !	Y_R2 488.368
Li (670.783 nm)	-0.003821 !u	ppm	0.000584	15.29	-2611.370000 !	Y_R2 488.368
Mg (279.078 nm)	-0.041589 !u	ppm	0.002542	6.11	-275.084000 !	Y 377.433
Mn (257.610 nm)	-0.000285 !u	ppm	0.000007	2.42	-88.638400 !	Y 377.433
Mo (202.032 nm)	-0.000081 !u	ppm	0.000237	> 100.00	10.117400 !	Y 377.433
Na (589.592 nm)	474.701000 !o	ppm	0.268687	0.06	389835.000000 !	Y_R2 488.368
Na H (589.593 nm)	502.219994 !	ppm	1.683124	0.34	272365.047247 !	Y_R4
Ni (231.604 nm)	0.003026 !	ppm	0.000071	2.33	7.036050 !	Y 377.433
P (213.618 nm)	10.014000 !	ppm	0.025174	0.25	14307.900000 !	Y 242.219
Pb (220.353 nm)	0.011619 !	ppm	0.000737	6.34	31.010100 !	Y 242.219
S (181.972 nm)	9.912057 !	ppm	0.029707	0.30	4551.975914 !	Y 377.433
Sb (206.834 nm)	-0.000096 !u	ppm	0.001428	> 100.00	10.085800 !	Y 377.433
Se (196.026 nm)	0.013324 !	ppm	0.001662	12.47	3.101390 !	Y 242.219
Si (288.158 nm)	0.039082 !	ppm	0.000541	1.39	740.140000 !	Y 377.433
Sn (189.925 nm)	0.001646 !	ppm	0.000505	30.72	4.738160 !	Y 377.433
Sr (421.552 nm)	0.000711 !	ppm	0.000089	12.45	145.341162 !	Y_R 488.368
Th (288.505 nm)	10.000700 !	ppm	0.007182	0.07	17258.200000 !	Y 377.433
Ti (336.122 nm)	0.000714 !	ppm	0.000080	11.26	-342.389000 !	Y 377.433
Tl (190.794 nm)	-0.003364 !u	ppm	0.001137	33.80	-15.443400 !	Y 377.433
U (409.013 nm)	0.997626 !	ppm	0.004228	0.42	3213.990000 !	Y 377.433
V (292.401 nm)	-0.001643 !u	ppm	0.000009	0.54	767.910000 !	Y 377.433
Zn (206.200 nm)	0.009003 !	ppm	0.000456	5.07	58.522200 !	Y 377.433
Zr (343.823 nm)	-0.000685 !u	ppm	0.000116	16.97	-200.412000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.929477 !	21485.292234 !	0.000904	0.10
Y 377.433	0.920676 !	643949.784134 !	0.000017	0.00
Y_R 377.433	0.948199 !	57488.100000 !	0.012700	1.34
Y_R 488.368	0.948617 !	50113.200000 !	0.013792	1.45
Y_R2 488.368	0.962677 !	102048.905126 !	0.011259	1.17
Y_R4	0.971773 !	43729.800000 !	0.001066	0.11

Sample Name: ICVH-5719883

Date: 5/24/2019 2:17:00 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001529 !	ppm	0.000208	13.63	-221.293000 !	Y 377.433
Al (394.401 nm)	40.577900 !o	ppm	0.032523	0.08	494648.000000 !	Y 377.433
Al H (396.152 nm)	40.079700 !	ppm	0.091676	0.23	87351.000000 !	Y_R 377.433
As (188.980 nm)	0.001356 !	ppm	0.001471	> 100.00	-1.724240 !	Y 242.219
B (249.678 nm)	0.000710 !	ppm	0.000071	9.98	4.989470 !	Y 242.219
Ba (493.408 nm)	0.001279 !	ppm	0.000296	23.13	1591.420000 !	Y_R 488.368
Be (234.861 nm)	-0.000550 !u	ppm	0.000025	4.59	-398.430000 !	Y_R 488.368
Bi (223.061 nm)	0.006126 !	ppm	0.003733	60.95	16.788300 !	Y 377.433
Ca (315.887 nm)	-0.014615 !u	ppm	0.003678	25.17	-70.658832 !	Y_R 377.433
Cd (214.439 nm)	-0.000142 !u	ppm	0.000045	31.49	22.452300 !	Y 377.433
Co (228.615 nm)	-0.000416 !u	ppm	0.000073	17.50	-24.901500 !	Y 242.219
Cr (205.560 nm)	-0.000010 !u	ppm	0.000081	> 100.00	-7.892410 !	Y 377.433
Cu (324.754 nm)	0.001116 !	ppm	0.000120	10.75	928.091000 !	Y 377.433
Fe (238.204 nm)	80.920191 !o	ppm	0.277968	0.34	194796.165850 !	Y_R 377.433
Fe H (259.940 nm)	80.618200 !	ppm	0.235159	0.29	111505.000000 !	Y_R 377.433
K (766.491 nm)	0.054981 !u	ppm	0.359235	> 100.00	1990.470000 !	Y_R2 488.368
Li (670.783 nm)	-0.003245 !u	ppm	0.005001	> 100.00	-2601.490000 !	Y_R2 488.368
Mg (279.078 nm)	-0.012820 !u	ppm	0.001058	8.25	-146.476000 !	Y 377.433
Mn (257.610 nm)	0.000052 !	ppm	0.000015	28.35	3.097440 !	Y 377.433
Mo (202.032 nm)	-0.000101 !u	ppm	0.000417	> 100.00	9.864300 !	Y 377.433
Na (589.592 nm)	78.821300 !o	ppm	0.082171	0.10	64855.400000 !	Y_R2 488.368
Na H (589.593 nm)	78.687742 !	ppm	0.007608	0.01	42575.020281 !	Y_R4
Ni (231.604 nm)	0.000320 !	ppm	0.000047	14.53	-6.963240 !	Y 377.433
P (213.618 nm)	3.874420 !	ppm	0.007516	0.19	5534.670000 !	Y 242.219
Pb (220.353 nm)	0.002217 !	ppm	0.001064	47.97	9.721160 !	Y 242.219
S (181.972 nm)	3.959902 !	ppm	0.005933	0.15	1826.156310 !	Y 377.433
Sb (206.834 nm)	0.000246 !u	ppm	0.001206	> 100.00	9.015370 !	Y 377.433
Se (196.026 nm)	0.005652 !	ppm	0.003752	66.38	-3.460740 !	Y 242.219
Si (288.158 nm)	0.005184 !	ppm	0.002698	52.04	521.920000 !	Y 377.433
Sn (189.925 nm)	0.001486 !	ppm	0.000010	0.71	4.481500 !	Y 377.433
Sr (421.552 nm)	0.000255 !	ppm	0.000058	22.54	73.794311 !	Y_R 488.368
Th (288.505 nm)	2.960560 !	ppm	0.010325	0.35	5114.700000 !	Y 377.433
Ti (336.122 nm)	0.000133 !	ppm	0.000072	53.76	-416.780000 !	Y 377.433
Tl (190.794 nm)	0.001720 !	ppm	0.000454	26.37	-3.022820 !	Y 377.433
U (409.013 nm)	0.402842 !	ppm	0.009299	2.31	1312.720000 !	Y 377.433
V (292.401 nm)	-0.000740 !u	ppm	0.000287	38.81	102.360000 !	Y 377.433
Zn (206.200 nm)	-0.002751 !u	ppm	0.000670	24.35	2.961050 !	Y 377.433
Zr (343.823 nm)	0.001102 !	ppm	0.000128	11.63	-99.245100 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.954168 !	22056.047679 !	0.001215	0.13
Y 377.433	0.952119 !	665942.077663 !	0.000686	0.07
Y_R 377.433	0.959975 !	58202.100000 !	0.003946	0.41
Y_R 488.368	0.964265 !	50939.900000 !	0.006732	0.70
Y_R2 488.368	0.963229 !	102107.390097 !	0.004483	0.47
Y_R4	0.986416 !	44388.700000 !	0.000443	0.04

Sample Name: ICVH-5719883

Date: 5/24/2019 2:21:29 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002171 !	ppm	0.000368	16.93	-199.147000 !	Y 377.433
Al (394.401 nm)	40.743100 !o	ppm	0.109011	0.27	496660.000000 !	Y 377.433
Al H (396.152 nm)	40.111200 !	ppm	0.275315	0.69	87419.700000 !	Y_R 377.433
As (188.980 nm)	0.002864 !	ppm	0.002621	91.50	0.546592 !	Y 242.219
B (249.678 nm)	0.000516 !u	ppm	0.000916	> 100.00	3.570770 !	Y 242.219
Ba (493.408 nm)	0.001174 !	ppm	0.000378	32.24	1581.000000 !	Y_R 488.368
Be (234.861 nm)	-0.000517 !u	ppm	0.000010	1.97	-395.417000 !	Y_R 488.368
Bi (223.061 nm)	0.004595 !	ppm	0.005964	> 100.00	13.445200 !	Y 377.433
Ca (315.887 nm)	-0.014476 !u	ppm	0.006250	43.18	-70.530048 !	Y_R 377.433
Cd (214.439 nm)	-0.000053 !u	ppm	0.000168	> 100.00	25.775800 !	Y 377.433
Co (228.615 nm)	-0.000416 !u	ppm	0.000304	72.98	-24.929300 !	Y 242.219
Cr (205.560 nm)	0.000231 !	ppm	0.000199	86.17	-6.284520 !	Y 377.433
Cu (324.754 nm)	0.001066 !	ppm	0.000188	17.65	929.325000 !	Y 377.433
Fe (238.204 nm)	80.970748 !o	ppm	0.450146	0.56	194917.865604 !	Y_R 377.433
Fe H (259.940 nm)	80.750900 !	ppm	0.508941	0.63	111689.000000 !	Y_R 377.433
K (766.491 nm)	0.144096 !	ppm	0.004589	3.18	2076.520000 !	Y_R2 488.368
Li (670.783 nm)	-0.002873 !u	ppm	0.000832	28.96	-2595.100000 !	Y_R2 488.368
Mg (279.078 nm)	-0.013153 !u	ppm	0.000996	7.57	-147.653000 !	Y 377.433
Mn (257.610 nm)	0.000094 !	ppm	0.000018	19.33	14.696800 !	Y 377.433
Mo (202.032 nm)	-0.000376 !u	ppm	0.000132	34.98	6.389310 !	Y 377.433
Na (589.592 nm)	77.970800 !o	ppm	0.167281	0.21	64157.200000 !	Y_R2 488.368
Na H (589.593 nm)	77.573510 !	ppm	0.048620	0.06	41970.487019 !	Y_R4
Ni (231.604 nm)	-0.000630 !u	ppm	0.000402	63.88	-11.878000 !	Y 377.433
P (213.618 nm)	3.875140 !	ppm	0.033256	0.86	5535.650000 !	Y 242.219
Pb (220.353 nm)	0.001403 !u	ppm	0.002614	> 100.00	7.127140 !	Y 242.219
S (181.972 nm)	3.944610 !	ppm	0.005476	0.14	1819.153227 !	Y 377.433
Sb (206.834 nm)	0.002169 !u	ppm	0.003570	> 100.00	12.269200 !	Y 377.433
Se (196.026 nm)	0.012352 !	ppm	0.003610	29.22	6.631010 !	Y 242.219
Si (288.158 nm)	0.005719 !	ppm	0.002577	45.06	525.360000 !	Y 377.433
Sn (189.925 nm)	0.002084 !	ppm	0.002694	> 100.00	5.443930 !	Y 377.433
Sr (421.552 nm)	0.000252 !	ppm	0.000019	7.51	73.319492 !	Y_R 488.368
Th (288.505 nm)	2.965710 !	ppm	0.006628	0.22	5123.570000 !	Y 377.433
Ti (336.122 nm)	-0.000048 !u	ppm	0.000030	62.81	-440.043000 !	Y 377.433
Tl (190.794 nm)	0.000396 !u	ppm	0.001175	> 100.00	-6.050450 !	Y 377.433
U (409.013 nm)	0.398019 !	ppm	0.009214	2.31	1297.500000 !	Y 377.433
V (292.401 nm)	-0.000978 !u	ppm	0.000321	32.83	91.992300 !	Y 377.433
Zn (206.200 nm)	-0.001999 !u	ppm	0.000716	35.83	6.350020 !	Y 377.433
Zr (343.823 nm)	0.000831 !	ppm	0.000030	3.67	-114.546000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.941205 !	21756.388753 !	0.002499	0.27
Y 377.433	0.935965 !	654643.417507 !	0.003399	0.36
Y_R 377.433	0.960620 !	58241.200000 !	0.002841	0.30
Y_R 488.368	0.958957 !	50659.500000 !	0.000711	0.07
Y_R2 488.368	0.960057 !	101771.073557 !	0.002904	0.30
Y_R4	0.975579 !	43901.000000 !	0.002480	0.25

Sample Name: ICV-5717304

Date: 5/24/2019 2:26:48 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.248461 !	ppm	0.000172	0.07	8307.440000 !	Y 377.433
Al (394.401 nm)	0.248861 !	ppm	0.000498	0.20	3192.700000 !	Y 377.433
Al H (396.152 nm)	0.342179 !u	ppm	0.001313	0.38	611.792000 !	Y_R 377.433
As (188.980 nm)	0.240953 !	ppm	0.000069	0.03	361.481000 !	Y 242.219
B (249.678 nm)	0.238247 !	ppm	0.000190	0.08	1747.430000 !	Y 242.219
Ba (493.408 nm)	0.246116 !	ppm	0.000584	0.24	25936.700000 !	Y_R 488.368
Be (234.861 nm)	0.249187 !	ppm	0.001095	0.44	24533.400000 !	Y_R 488.368
Bi (223.061 nm)	0.468769 !	ppm	0.000163	0.03	1016.320000 !	Y 377.433
Ca (315.887 nm)	2.503014 !	ppm	0.016243	0.65	1918.933159 !	Y_R 377.433
Cd (214.439 nm)	0.250960 !	ppm	0.000288	0.11	9275.870000 !	Y 377.433
Co (228.615 nm)	0.246181 !	ppm	0.001790	0.73	5781.340000 !	Y 242.219
Cr (205.560 nm)	0.250310 !	ppm	0.000234	0.09	1660.880000 !	Y 377.433
Cu (324.754 nm)	0.245798 !	ppm	0.000042	0.02	11780.100000 !	Y 377.433
Fe (238.204 nm)	1.244175 !	ppm	0.005315	0.43	3002.085515 !	Y_R 377.433
Fe H (259.940 nm)	1.249890 !u	ppm	0.004409	0.35	1739.990000 !	Y_R 377.433
K (766.491 nm)	24.943700 !	ppm	0.513866	2.06	26022.700000 !	Y_R2 488.368
Li (670.783 nm)	0.235718 Q!	ppm	0.001342	0.57	1501.560000 Q!	Y_R2 488.368
Mg (279.078 nm)	10.010600 !	ppm	0.002562	0.03	32764.700000 !	Y 377.433
Mn (257.610 nm)	0.250853 !	ppm	0.000007	0.00	68386.400000 !	Y 377.433
Mo (202.032 nm)	0.246758 !	ppm	0.000021	0.01	3121.330000 !	Y 377.433
Na (589.592 nm)	12.031200 !	ppm	0.041851	0.35	10082.300000 !	Y_R2 488.368
Na H (589.593 nm)	12.456415 !u	ppm	0.125856	1.01	6640.806435 !	Y_R4
Ni (231.604 nm)	0.251713 !	ppm	0.000326	0.13	1294.040000 !	Y 377.433
P (213.618 nm)	0.022253 Q!	ppm	0.002819	12.67	-38.918000 Q!	Y 242.219
Pb (220.353 nm)	0.249108 !	ppm	0.002054	0.82	798.580000 !	Y 242.219
S (181.972 nm)	0.006209 !	ppm	0.004763	76.72	16.453242 !	Y 377.433
Sb (206.834 nm)	0.251701 !	ppm	0.001385	0.55	425.466000 !	Y 377.433
Se (196.026 nm)	0.237821 !	ppm	0.001605	0.68	367.603000 !	Y 242.219
Si (288.158 nm)	2.403650 !	ppm	0.006927	0.29	15962.200000 !	Y 377.433
Sn (189.925 nm)	0.246705 !	ppm	0.001057	0.43	399.052000 !	Y 377.433
Sr (421.552 nm)	0.240584 !	ppm	0.000161	0.07	36255.598354 !	Y_R 488.368
Th (288.505 nm)	0.008137 !	ppm	0.000660	8.11	1.964030 !	Y 377.433
Ti (336.122 nm)	0.240935 !	ppm	0.000116	0.05	30405.600000 !	Y 377.433
Tl (190.794 nm)	0.251549 !	ppm	0.001523	0.61	575.529000 !	Y 377.433
U (409.013 nm)	0.009895 !	ppm	0.005249	53.05	-23.792000 !	Y 377.433
V (292.401 nm)	0.243905 !	ppm	0.000055	0.02	12431.900000 !	Y 377.433
Zn (206.200 nm)	0.251278 !	ppm	0.000938	0.37	1134.170000 !	Y 377.433
Zr (343.823 nm)	0.247060 !	ppm	0.000232	0.09	13824.900000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.952332 !	22013.599443 !	0.002548	0.27
Y 377.433	0.944378 !	660527.446021 !	0.002474	0.26
Y_R 377.433	0.934665 !	56667.600000 !	0.005564	0.60
Y_R 488.368	0.938454 !	49576.400000 !	0.006044	0.64
Y_R2 488.368	0.926673 !	98232.191454 !	0.001675	0.18
Y_R4	0.959479 !	43176.500000 !	0.003479	0.36

Sample Name: ICV-5717304

Date: 5/24/2019 2:31:33 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.248613 !	ppm	0.000206	0.08	8312.810000 !	Y 377.433
Al (394.401 nm)	0.250158 !	ppm	0.000168	0.07	3207.620000 !	Y 377.433
Al H (396.152 nm)	0.347435 !u	ppm	0.003672	1.06	623.168000 !	Y_R 377.433
As (188.980 nm)	0.239693 !	ppm	0.002180	0.91	359.583000 !	Y 242.219
B (249.678 nm)	0.238626 !	ppm	0.001087	0.46	1750.140000 !	Y 242.219
Ba (493.408 nm)	0.244968 !	ppm	0.000522	0.21	25822.200000 !	Y_R 488.368
Be (234.861 nm)	0.243127 !	ppm	0.001330	0.55	23936.600000 !	Y_R 488.368
Bi (223.061 nm)	0.469837 !	ppm	0.004788	1.02	1018.660000 !	Y 377.433
Ca (315.887 nm)	2.499004 !	ppm	0.008195	0.33	1915.750994 !	Y_R 377.433
Cd (214.439 nm)	0.251998 !	ppm	0.000659	0.26	9314.240000 !	Y 377.433
Co (228.615 nm)	0.246485 !	ppm	0.000695	0.28	5788.470000 !	Y 242.219
Cr (205.560 nm)	0.251346 !	ppm	0.000454	0.18	1667.780000 !	Y 377.433
Cu (324.754 nm)	0.245488 !	ppm	0.000997	0.41	11766.100000 !	Y 377.433
Fe (238.204 nm)	1.239956 !	ppm	0.003512	0.28	2991.928981 !	Y_R 377.433
Fe H (259.940 nm)	1.246210 !u	ppm	0.001464	0.12	1734.900000 !	Y_R 377.433
K (766.491 nm)	24.766700 !	ppm	0.511859	2.07	25851.800000 !	Y_R2 488.368
Li (670.783 nm)	0.239702 !	ppm	0.000034	0.01	1569.960000 !	Y_R2 488.368
Mg (279.078 nm)	10.017600 !	ppm	0.022179	0.22	32787.800000 !	Y 377.433
Mn (257.610 nm)	0.250825 !	ppm	0.000619	0.25	68378.800000 !	Y 377.433
Mo (202.032 nm)	0.247668 !	ppm	0.001353	0.55	3132.800000 !	Y 377.433
Na (589.592 nm)	11.922100 !	ppm	0.073551	0.62	9992.570000 !	Y_R2 488.368
Na H (589.593 nm)	12.306073 !u	ppm	0.121817	0.99	6559.237656 !	Y_R4
Ni (231.604 nm)	0.251595 !	ppm	0.000751	0.30	1293.430000 !	Y 377.433
P (213.618 nm)	0.019175 Q!	ppm	0.000598	3.12	-43.264700 Q!	Y 242.219
Pb (220.353 nm)	0.249754 !	ppm	0.000595	0.24	800.617000 !	Y 242.219
S (181.972 nm)	0.001637 !	ppm	0.000116	7.06	14.358697 !	Y 377.433
Sb (206.834 nm)	0.252993 !	ppm	0.000176	0.07	427.649000 !	Y 377.433
Se (196.026 nm)	0.238134 !	ppm	0.000773	0.32	368.076000 !	Y 242.219
Si (288.158 nm)	2.407320 !	ppm	0.012456	0.52	15985.800000 !	Y 377.433
Sn (189.925 nm)	0.248904 !	ppm	0.001269	0.51	402.592000 !	Y 377.433
Sr (421.552 nm)	0.240224 !	ppm	0.000896	0.37	36201.385706 !	Y_R 488.368
Th (288.505 nm)	0.007108 !	ppm	0.003575	50.29	0.247399 !	Y 377.433
Ti (336.122 nm)	0.241234 !	ppm	0.000770	0.32	30443.700000 !	Y 377.433
Tl (190.794 nm)	0.253761 !	ppm	0.001698	0.67	580.591000 !	Y 377.433
U (409.013 nm)	0.004849 !	ppm	0.001559	32.16	-39.793000 !	Y 377.433
V (292.401 nm)	0.243593 !	ppm	0.000437	0.18	12415.500000 !	Y 377.433
Zn (206.200 nm)	0.252300 !	ppm	0.001139	0.45	1138.770000 !	Y 377.433
Zr (343.823 nm)	0.247184 !	ppm	0.001238	0.50	13831.900000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.954003 !	22052.219564 !	0.000470	0.05
Y 377.433	0.946009 !	661667.969683 !	0.000208	0.02
Y_R 377.433	0.959912 !	58198.300000 !	0.002195	0.23
Y_R 488.368	0.965164 !	50987.400000 !	0.001631	0.17
Y_R2 488.368	0.957958 !	101548.586339 !	0.001325	0.14
Y_R4	0.962764 !	43324.300000 !	0.008609	0.89

Sample Name: ICVL-5719884

Date: 5/24/2019 2:47:51 PM Rack:Tube: 3:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008209 !	ppm	0.000402	4.90	15.082500 !	Y 377.433
Al (394.401 nm)	0.103965 !	ppm	0.000340	0.33	1369.620000 !	Y 377.433
Al H (396.152 nm)	0.229930 !u	ppm	0.007617	3.31	250.009000 !	Y_R 377.433
As (188.980 nm)	0.015056 !	ppm	0.001861	12.36	21.109000 !	Y 242.219
B (249.678 nm)	0.092671 !	ppm	0.000216	0.23	708.433000 !	Y 242.219
Ba (493.408 nm)	0.011029 !	ppm	0.000418	3.79	2499.030000 !	Y_R 488.368
Be (234.861 nm)	0.001033 !	ppm	0.000037	3.54	99.270700 !	Y_R 488.368
Bi (223.061 nm)	0.095280 !	ppm	0.004189	4.40	198.090000 !	Y 377.433
Ca (315.887 nm)	0.218595 !	ppm	0.005046	2.31	104.594724 !	Y_R 377.433
Cd (214.439 nm)	0.005259 !	ppm	0.000073	1.38	189.325000 !	Y 377.433
Co (228.615 nm)	0.010837 !	ppm	0.000020	0.19	240.009000 !	Y 242.219
Cr (205.560 nm)	0.011039 !	ppm	0.000379	3.43	66.686900 !	Y 377.433
Cu (324.754 nm)	0.016678 !	ppm	0.000299	1.79	1093.720000 !	Y 377.433
Fe (238.204 nm)	0.110723 !	ppm	0.005242	4.73	273.668052 !	Y_R 377.433
Fe H (259.940 nm)	0.117423 !u	ppm	0.001420	1.21	173.807000 !	Y_R 377.433
K (766.491 nm)	3.134540 !	ppm	0.368741	11.76	4964.060000 !	Y_R2 488.368
Li (670.783 nm)	0.017620 !	ppm	0.001928	10.94	-2243.220000 !	Y_R2 488.368
Mg (279.078 nm)	0.208158 !	ppm	0.002456	1.18	688.184000 !	Y 377.433
Mn (257.610 nm)	0.011135 !	ppm	0.000027	0.24	3024.950000 !	Y 377.433
Mo (202.032 nm)	0.020214 !	ppm	0.000512	2.53	265.920000 !	Y 377.433
Na (589.592 nm)	1.056380 !	ppm	0.029214	2.77	1020.000000 !	Y_R2 488.368
Na H (589.593 nm)	1.399465 !u	ppm	0.005166	0.37	641.790452 !	Y_R4
Ni (231.604 nm)	0.044314 !	ppm	0.001601	3.61	220.681000 !	Y 377.433
P (213.618 nm)	2.863300 !	ppm	0.008097	0.28	4085.680000 !	Y 242.219
Pb (220.353 nm)	0.011269 !	ppm	0.001151	10.21	44.160200 !	Y 242.219
S (181.972 nm)	0.098653 !	ppm	0.002497	2.53	57.919057 !	Y 377.433
Sb (206.834 nm)	0.018476 !	ppm	0.001432	7.75	32.822100 !	Y 377.433
Se (196.026 nm)	0.019121 !	ppm	0.002071	10.83	37.684900 !	Y 242.219
Si (288.158 nm)	0.486914 !	ppm	0.000835	0.17	3623.090000 !	Y 377.433
Sn (189.925 nm)	0.103946 !	ppm	0.000433	0.42	169.346000 !	Y 377.433
Sr (421.552 nm)	0.009427 !	ppm	0.000186	1.97	1442.897340 !	Y_R 488.368
Th (288.505 nm)	0.016079 !	ppm	0.003006	18.70	39.971800 !	Y 377.433
Ti (336.122 nm)	0.009721 !	ppm	0.000030	0.31	810.799000 !	Y 377.433
Tl (190.794 nm)	0.015053 !	ppm	0.002424	16.10	36.126600 !	Y 377.433
U (409.013 nm)	0.051932 !	ppm	0.006925	13.33	138.760000 !	Y 377.433
V (292.401 nm)	0.009602 !	ppm	0.000090	0.94	345.644000 !	Y 377.433
Zn (206.200 nm)	0.023201 !	ppm	0.000072	0.31	108.406000 !	Y 377.433
Zr (343.823 nm)	0.009765 Q!	ppm	0.000002	0.02	391.179000 Q!	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.973911 !	22512.400571 !	0.002197	0.23
Y 377.433	0.961378 !	672418.098260 !	0.003485	0.36
Y_R 377.433	0.957323 !	58041.300000 !	0.002451	0.26
Y_R 488.368	0.959690 !	50698.200000 !	0.001322	0.14
Y_R2 488.368	0.964289 !	102219.744886 !	0.000195	0.02
Y_R4	0.960691 !	43231.100000 !	0.002082	0.22

Sample Name: CCVH-5713036

Date: 5/24/2019 2:51:20 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004595 !	ppm	0.000403	8.78	-118.444000 !	Y 377.433
Al (394.401 nm)	51.400000 !o	ppm	0.016402	0.03	626212.000000 !	Y 377.433
Al H (396.152 nm)	50.019300 !	ppm	0.221750	0.44	109081.000000 !	Y_R 377.433
As (188.980 nm)	0.000459 !u	ppm	0.001697	> 100.00	-2.245120 !	Y 242.219
B (249.678 nm)	-0.001937 !u	ppm	0.000299	15.46	3.798430 !	Y 242.219
Ba (493.408 nm)	0.003457 !	ppm	0.000654	18.90	1784.160000 !	Y_R 488.368
Be (234.861 nm)	0.001103 !	ppm	0.000039	3.54	-105.953000 !	Y_R 488.368
Bi (223.061 nm)	0.011556 !	ppm	0.002514	21.76	23.382700 !	Y 377.433
Ca (315.887 nm)	-0.018856 !u	ppm	0.003165	16.79	-71.502892 !	Y_R 377.433
Cd (214.439 nm)	0.001294 !	ppm	0.000254	19.63	63.088300 !	Y 377.433
Co (228.615 nm)	0.002977 !	ppm	0.000096	3.21	54.872700 !	Y 242.219
Cr (205.560 nm)	0.001178 !	ppm	0.000056	4.71	-0.245591 !	Y 377.433
Cu (324.754 nm)	0.003181 !	ppm	0.000313	9.84	1426.030000 !	Y 377.433
Fe (238.204 nm)	50.257577 !o	ppm	0.226217	0.45	120985.900875 !	Y_R 377.433
Fe H (259.940 nm)	50.167900 !	ppm	0.213242	0.43	69392.900000 !	Y_R 377.433
K (766.491 nm)	0.302430 !	ppm	0.296265	97.96	2229.410000 !	Y_R2 488.368
Li (670.783 nm)	-0.004930 !u	ppm	0.000356	7.21	-2630.410000 !	Y_R2 488.368
Mg (279.078 nm)	0.035158 !	ppm	0.000780	2.22	48.796200 !	Y 377.433
Mn (257.610 nm)	0.000969 !	ppm	0.000005	0.50	253.215000 !	Y 377.433
Mo (202.032 nm)	0.001283 !	ppm	0.000268	20.90	27.309500 !	Y 377.433
Na (589.592 nm)	235.940000 !o	ppm	0.858847	0.36	193835.000000 !	Y_R2 488.368
Na H (589.593 nm)	241.502573 !	ppm	0.991290	0.41	130911.207827 !	Y_R4
Ni (231.604 nm)	0.002866 !	ppm	0.000161	5.61	6.209260 !	Y 377.433
P (213.618 nm)	5.015700 !	ppm	0.008116	0.16	7163.730000 !	Y 242.219
Pb (220.353 nm)	0.005069 !	ppm	0.000442	8.73	17.395200 !	Y 242.219
S (181.972 nm)	4.959723 !	ppm	0.011034	0.22	2284.032382 !	Y 377.433
Sb (206.834 nm)	-0.000441 !u	ppm	0.003971	> 100.00	5.262430 !	Y 377.433
Se (196.026 nm)	0.008729 !	ppm	0.000644	7.37	9.079020 !	Y 242.219
Si (288.158 nm)	0.018016 !	ppm	0.001862	10.34	604.524000 !	Y 377.433
Sn (189.925 nm)	0.004084 !	ppm	0.001576	38.60	8.661320 !	Y 377.433
Sr (421.552 nm)	0.001513 !	ppm	0.000005	0.30	258.601796 !	Y_R 488.368
Th (288.505 nm)	4.968620 !	ppm	0.000463	0.01	8580.980000 !	Y 377.433
Ti (336.122 nm)	0.001459 !	ppm	0.000076	5.21	-247.106000 !	Y 377.433
Tl (190.794 nm)	-0.000134 !u	ppm	0.000486	> 100.00	-3.287730 !	Y 377.433
U (409.013 nm)	0.542030 Q!	ppm	0.001460	0.27	1731.620000 Q!	Y 377.433
V (292.401 nm)	0.000192 !	ppm	0.000174	90.34	362.854000 !	Y 377.433
Zn (206.200 nm)	0.002566 !	ppm	0.000668	26.04	22.600300 !	Y 377.433
Zr (343.823 nm)	0.001084 !	ppm	0.000043	3.94	-100.245000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.918470 !	21230.855930 !	0.003257	0.35
Y 377.433	0.907907 !	635018.671536 !	0.002912	0.32
Y_R 377.433	0.931007 !	56445.800000 !	0.004635	0.50
Y_R 488.368	0.938400 !	49573.500000 !	0.010778	1.15
Y_R2 488.368	0.941066 !	99757.982210 !	0.006279	0.67
Y_R4	0.954830 !	42967.300000 !	0.004048	0.42

Sample Name: CCV-5717467

Date: 5/24/2019 2:55:03 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.503275 !	ppm	0.001134	0.23	17096.500000 !	Y 377.433
Al (394.401 nm)	0.521895 !	ppm	0.002993	0.57	6589.530000 !	Y 377.433
Al H (396.152 nm)	0.564758 !u	ppm	0.016655	2.95	1226.820000 !	Y_R 377.433
As (188.980 nm)	0.503249 !	ppm	0.001146	0.23	756.697000 !	Y 242.219
B (249.678 nm)	0.491318 !	ppm	0.001054	0.21	3554.030000 !	Y 242.219
Ba (493.408 nm)	0.503285 !	ppm	0.001330	0.26	51575.800000 !	Y_R 488.368
Be (234.861 nm)	0.499322 !	ppm	0.006971	1.40	49161.900000 !	Y_R 488.368
Bi (223.061 nm)	1.000640 !	ppm	0.007160	0.72	2181.470000 !	Y 377.433
Ca (315.887 nm)	5.044375 !	ppm	0.009716	0.19	3937.367110 !	Y_R 377.433
Cd (214.439 nm)	0.523488 !	ppm	0.001150	0.22	19354.500000 !	Y 377.433
Co (228.615 nm)	0.509358 !	ppm	0.000257	0.05	11978.100000 !	Y 242.219
Cr (205.560 nm)	0.522296 !	ppm	0.001929	0.37	3472.960000 !	Y 377.433
Cu (324.754 nm)	0.508497 !	ppm	0.003521	0.69	24032.700000 !	Y 377.433
Fe (238.204 nm)	2.541967 !	ppm	0.000081	0.00	6126.098126 !	Y_R 377.433
Fe H (259.940 nm)	2.547770 !u	ppm	0.005375	0.21	3534.940000 !	Y_R 377.433
K (766.491 nm)	49.963800 !	ppm	0.451443	0.90	50181.800000 !	Y_R2 488.368
Li (670.783 nm)	0.492253 !	ppm	0.001111	0.23	5906.330000 !	Y_R2 488.368
Mg (279.078 nm)	20.288700 !	ppm	0.036087	0.18	66396.700000 !	Y 377.433
Mn (257.610 nm)	0.506005 !	ppm	0.000612	0.12	137956.000000 !	Y 377.433
Mo (202.032 nm)	0.510223 !	ppm	0.002174	0.43	6442.100000 !	Y 377.433
Na (589.592 nm)	24.237000 !	ppm	0.004779	0.02	20160.500000 !	Y_R2 488.368
Na H (589.593 nm)	24.862230 !u	ppm	0.235152	0.95	13371.657665 !	Y_R4
Ni (231.604 nm)	0.518400 !	ppm	0.001266	0.24	2674.210000 !	Y 377.433
P (213.618 nm)	0.050943 !	ppm	0.000759	1.49	-69.161900 !	Y 242.219
Pb (220.353 nm)	0.515561 !	ppm	0.002291	0.44	1643.890000 !	Y 242.219
S (181.972 nm)	0.009977 !	ppm	0.004833	48.44	19.115066 !	Y 377.433
Sb (206.834 nm)	0.513058 !	ppm	0.004688	0.91	865.399000 !	Y 377.433
Se (196.026 nm)	0.502116 !	ppm	0.000731	0.15	766.274000 !	Y 242.219
Si (288.158 nm)	4.997900 !	ppm	0.016291	0.33	32662.800000 !	Y 377.433
Sn (189.925 nm)	0.522132 !	ppm	0.001487	0.28	842.231000 !	Y 377.433
Sr (421.552 nm)	0.491740 !	ppm	0.000683	0.14	74080.070681 !	Y_R 488.368
Th (288.505 nm)	0.020627 !	ppm	0.003862	18.72	-3.256010 !	Y 377.433
Ti (336.122 nm)	0.498424 !	ppm	0.001494	0.30	63363.700000 !	Y 377.433
Tl (190.794 nm)	0.522963 !	ppm	0.001410	0.27	1194.570000 !	Y 377.433
U (409.013 nm)	0.014865 !	ppm	0.002048	13.78	-39.196300 !	Y 377.433
V (292.401 nm)	0.505207 !	ppm	0.000926	0.18	25906.800000 !	Y 377.433
Zn (206.200 nm)	0.523405 !	ppm	0.001521	0.29	2358.030000 !	Y 377.433
Zr (343.823 nm)	0.501256 !	ppm	0.001308	0.26	28215.400000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.948206 !	21918.220930 !	0.005173	0.55
Y 377.433	0.936007 !	654672.194997 !	0.004405	0.47
Y_R 377.433	0.939042 !	56933.000000 !	0.006696	0.71
Y_R 488.368	0.949540 !	50162.000000 !	0.007416	0.78
Y_R2 488.368	0.932042 !	98801.344815 !	0.001728	0.19
Y_R4	0.943754 !	42468.900000 !	0.005449	0.58

Sample Name: ICB

Date: 5/24/2019 2:58:37 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000143	ppm	0.000099	69.37	-262.259000	Y 377.433
Al (394.401 nm)	-0.000540 u	ppm	0.001010	> 100.00	85.520200	Y 377.433
Al H (396.152 nm)	0.140396 Zu	ppm	0.000543	0.39	48.814200 Z	Y_R 377.433
As (188.980 nm)	-0.000399 u	ppm	0.004266	> 100.00	-2.177390	Y 242.219
B (249.678 nm)	-0.000951 u	ppm	0.001206	> 100.00	39.882400	Y 242.219
Ba (493.408 nm)	0.000116 u	ppm	0.000373	> 100.00	1410.990000	Y_R 488.368
Be (234.861 nm)	-0.000085 u	ppm	0.000004	4.62	-10.322400	Y_R 488.368
Bi (223.061 nm)	0.000167	ppm	0.000004	2.35	-10.246500	Y 377.433
Ca (315.887 nm)	0.005839	ppm	0.001125	19.27	-64.399362	Y_R 377.433
Cd (214.439 nm)	-0.000056 u	ppm	0.000059	> 100.00	-7.247190	Y 377.433
Co (228.615 nm)	-0.000333 u	ppm	0.000202	60.49	-22.967100	Y 242.219
Cr (205.560 nm)	0.000733	ppm	0.000376	51.23	-1.863220	Y 377.433
Cu (324.754 nm)	0.000506	ppm	0.000213	42.11	340.992000	Y 377.433
Fe (238.204 nm)	-0.000100 u	ppm	0.000054	54.34	6.898996	Y_R 377.433
Fe H (259.940 nm)	0.005575 u	ppm	0.004814	86.35	19.122800	Y_R 377.433
K (766.491 nm)	0.131894 u	ppm	0.409036	> 100.00	2064.740000	Y_R2 488.368
Li (670.783 nm)	-0.001431 u	ppm	0.000864	60.37	-2570.330000	Y_R2 488.368
Mg (279.078 nm)	-0.001410 u	ppm	0.002988	> 100.00	3.570750	Y 377.433
Mn (257.610 nm)	0.000033	ppm	0.000038	> 100.00	-1.949720	Y 377.433
Mo (202.032 nm)	0.000619	ppm	0.000115	18.51	18.934000	Y 377.433
Na (589.592 nm)	-0.024890 u	ppm	0.002768	11.12	129.987000	Y_R2 488.368
Na H (589.593 nm)	0.478903 u	ppm	0.010554	2.20	142.333969	Y_R4
Ni (231.604 nm)	-0.000008 u	ppm	0.000006	75.77	-8.661750	Y 377.433
P (213.618 nm)	-0.001306 u	ppm	0.000659	50.46	-6.086420	Y 242.219
Pb (220.353 nm)	0.000904	ppm	0.000798	88.34	11.155900	Y 242.219
S (181.972 nm)	0.007648	ppm	0.003876	50.68	16.201916	Y 377.433
Sb (206.834 nm)	0.001052 u	ppm	0.002600	> 100.00	3.556330	Y 377.433
Se (196.026 nm)	-0.000574 u	ppm	0.002612	> 100.00	7.991750	Y 242.219
Si (288.158 nm)	-0.000197 u	ppm	0.001977	> 100.00	487.280000	Y 377.433
Sn (189.925 nm)	0.000354 u	ppm	0.002437	> 100.00	2.659630	Y 377.433
Sr (421.552 nm)	0.000445	ppm	0.000062	13.93	90.247294	Y_R 488.368
Th (288.505 nm)	0.004397	ppm	0.000798	18.16	20.365700	Y 377.433
Ti (336.122 nm)	-0.000074 u	ppm	0.000040	53.98	-443.336000	Y 377.433
Tl (190.794 nm)	0.001330	ppm	0.001599	> 100.00	4.856420	Y 377.433
U (409.013 nm)	-0.004628 u	ppm	0.014092	> 100.00	-39.425700	Y 377.433
V (292.401 nm)	-0.000351 u	ppm	0.000129	36.75	-164.814000	Y 377.433
Zn (206.200 nm)	-0.000870 u	ppm	0.000041	4.69	0.151118	Y 377.433
Zr (343.823 nm)	-0.000254 u	ppm	0.000025	9.73	-176.004000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.970833	22441.262855	0.001433	0.15
Y 377.433	0.956801	669216.679562	0.002960	0.31
Y_R 377.433	0.957934	58078.400000	0.001499	0.16
Y_R 488.368	0.962470	50845.100000	0.008563	0.89
Y_R2 488.368	0.969935	102818.254566	0.001625	0.17
Y_R4	0.970257	43661.500000	0.003936	0.41

Sample Name: CRI-5719884

Date: 5/24/2019 3:01:48 PM Rack:Tube: 3:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008683	ppm	0.000075	0.86	31.521200	Y 377.433
Al (394.401 nm)	0.103789	ppm	0.000875	0.84	1367.140000	Y 377.433
Al H (396.152 nm)	0.233905 u	ppm	0.011558	4.94	258.742000	Y_R 377.433
As (188.980 nm)	0.014609	ppm	0.005339	36.54	20.435000	Y 242.219
B (249.678 nm)	0.093460	ppm	0.000836	0.89	714.066000	Y 242.219
Ba (493.408 nm)	0.010387	ppm	0.000363	3.50	2435.050000	Y_R 488.368
Be (234.861 nm)	0.000906	ppm	0.000090	9.93	86.719200	Y_R 488.368
Bi (223.061 nm)	0.095407	ppm	0.003926	4.11	198.367000	Y 377.433
Ca (315.887 nm)	0.204297	ppm	0.010112	4.95	93.237046	Y_R 377.433
Cd (214.439 nm)	0.005374	ppm	0.000085	1.58	193.607000	Y 377.433
Co (228.615 nm)	0.010581	ppm	0.000152	1.44	233.989000	Y 242.219
Cr (205.560 nm)	0.010827	ppm	0.000706	6.52	65.275400	Y 377.433
Cu (324.754 nm)	0.016755	ppm	0.000115	0.69	1097.460000	Y 377.433
Fe (238.204 nm)	0.115134	ppm	0.000988	0.86	284.288167	Y_R 377.433
Fe H (259.940 nm)	0.118722 u	ppm	0.005241	4.41	175.604000	Y_R 377.433
K (766.491 nm)	3.048910	ppm	0.410021	13.45	4881.370000	Y_R2 488.368
Li (670.783 nm)	0.023102	ppm	0.000914	3.96	-2149.100000	Y_R2 488.368
Mg (279.078 nm)	0.209297	ppm	0.001932	0.92	691.951000	Y 377.433
Mn (257.610 nm)	0.011130	ppm	0.000014	0.12	3023.550000	Y 377.433
Mo (202.032 nm)	0.020071	ppm	0.000156	0.78	264.112000	Y 377.433
Na (589.592 nm)	1.043100	ppm	0.020018	1.92	1008.990000	Y_R2 488.368
Na H (589.593 nm)	1.442298 u	ppm	0.020801	1.44	665.029667	Y_R4
Ni (231.604 nm)	0.044760	ppm	0.000318	0.71	222.984000	Y 377.433
P (213.618 nm)	2.883980	ppm	0.018128	0.63	4115.350000	Y 242.219
Pb (220.353 nm)	0.012956 Q	ppm	0.000243	1.87	49.516300 Q	Y 242.219
S (181.972 nm)	0.095554	ppm	0.002927	3.06	56.499386	Y 377.433
Sb (206.834 nm)	0.022226	ppm	0.001905	8.57	39.154200	Y 377.433
Se (196.026 nm)	0.020653	ppm	0.003068	14.85	39.995200	Y 242.219
Si (288.158 nm)	0.494912	ppm	0.002290	0.46	3674.570000	Y 377.433
Sn (189.925 nm)	0.104179	ppm	0.000847	0.81	169.721000	Y 377.433
Sr (421.552 nm)	0.009565	ppm	0.000041	0.43	1463.695933	Y_R 488.368
Th (288.505 nm)	0.018399 Q	ppm	0.008262	44.90	43.936700 Q	Y 377.433
Ti (336.122 nm)	0.009794	ppm	0.000103	1.05	820.139000	Y 377.433
Tl (190.794 nm)	0.015874	ppm	0.002284	14.39	38.003200	Y 377.433
U (409.013 nm)	0.053822	ppm	0.009812	18.23	144.740000	Y 377.433
V (292.401 nm)	0.009758	ppm	0.000298	3.05	354.015000	Y 377.433
Zn (206.200 nm)	0.023233	ppm	0.000306	1.32	108.552000	Y 377.433
Zr (343.823 nm)	0.009975 Q	ppm	0.000090	0.90	403.112000 Q	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.992963	22952.804175	0.002725	0.27
Y 377.433	0.976638	683090.976786	0.003426	0.35
Y_R 377.433	0.983955	59656.000000	0.004513	0.46
Y_R 488.368	0.993117	52464.100000	0.010296	1.04
Y_R2 488.368	0.992961	105259.115724	0.004718	0.48
Y_R4	0.976524	43943.500000	0.004717	0.48

Sample Name: ICSA-5714842

Date: 5/24/2019 3:05:17 PM Rack:Tube: 3:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002401	ppm	0.000057	2.37	-186.190000	Y 377.433
Al (394.401 nm)	530.358000 o	ppm	2.136820	0.40	6473180.000000	Y 377.433
Al H (396.152 nm)	523.128000	ppm	3.398080	0.65	1143160.000000	Y_R 377.433
As (188.980 nm)	0.003031	ppm	0.002611	86.12	-2.335990	Y 242.219
B (249.678 nm)	0.013502	ppm	0.000149	1.10	29.465300	Y 242.219
Ba (493.408 nm)	0.001873	ppm	0.000934	49.89	1742.840000	Y_R 488.368
Be (234.861 nm)	-0.000879 Ku	ppm	0.000012	1.35	-920.376000 K	Y_R 488.368
Bi (223.061 nm)	0.000118 u	ppm	0.000305	> 100.00	23.635100	Y 377.433
Ca (315.887 nm)	495.010652	ppm	2.848799	0.58	393202.673998	Y_R 377.433
Cd (214.439 nm)	0.000530	ppm	0.000393	74.08	94.335200	Y 377.433
Co (228.615 nm)	-0.000585 u	ppm	0.001492	> 100.00	-28.840600	Y 242.219
Cr (205.560 nm)	0.006145 K	ppm	0.000138	2.25	20.168500 K	Y 377.433
Cu (324.754 nm)	-0.002034 u	ppm	0.000238	11.71	56.156100	Y 377.433
Fe (238.204 nm)	196.673079 o	ppm	1.091917	0.56	473433.574737	Y_R 377.433
Fe H (259.940 nm)	197.337000	ppm	1.121020	0.57	272925.000000	Y_R 377.433
K (766.491 nm)	0.274999 u	ppm	0.478662	> 100.00	2202.920000	Y_R2 488.368
Li (670.783 nm)	-0.011531 Ku	ppm	0.003501	30.36	-2743.760000 K	Y_R2 488.368
Mg (279.078 nm)	521.121000	ppm	1.329980	0.26	1705040.000000	Y 377.433
Mn (257.610 nm)	0.000584	ppm	0.000004	0.76	148.041000	Y 377.433
Mo (202.032 nm)	0.000750	ppm	0.000687	91.51	20.591600	Y 377.433
Na (589.592 nm)	0.297495	ppm	0.019241	6.47	395.197000	Y_R2 488.368
Na H (589.593 nm)	2.628357 u	ppm	0.079337	3.02	1308.533292	Y_R4
Ni (231.604 nm)	-0.004400 u	ppm	0.000992	22.55	-31.384300	Y 377.433
P (213.618 nm)	0.013829 u	ppm	0.025036	> 100.00	17.613500	Y 242.219
Pb (220.353 nm)	0.007454 K	ppm	0.001213	16.27	-54.789800 K	Y 242.219
S (181.972 nm)	0.003884 u	ppm	0.007754	> 100.00	38.916978	Y 377.433
Sb (206.834 nm)	-0.006606 u	ppm	0.004873	73.77	7.235880	Y 377.433
Se (196.026 nm)	0.011462 K	ppm	0.002727	23.79	-24.513500 K	Y 242.219
Si (288.158 nm)	0.043417	ppm	0.001880	4.33	768.045000	Y 377.433
Sn (189.925 nm)	-0.003233 u	ppm	0.001173	36.29	-3.110950	Y 377.433
Sr (421.552 nm)	0.007827 K	ppm	0.000118	1.51	1231.492690 K	Y_R 488.368
Th (288.505 nm)	0.020434 K	ppm	0.000564	2.76	20.077300 K	Y 377.433
Ti (336.122 nm)	-0.002014 u	ppm	0.000074	3.68	999.062000	Y 377.433
Tl (190.794 nm)	0.010950 K	ppm	0.003170	28.95	-3.227670 K	Y 377.433
U (409.013 nm)	0.048784	ppm	0.008897	18.24	208.254000	Y 377.433
V (292.401 nm)	0.001139	ppm	0.000049	4.28	-94.135900	Y 377.433
Zn (206.200 nm)	-0.003406 u	ppm	0.000743	21.81	16.130300	Y 377.433
Zr (343.823 nm)	0.003332	ppm	0.000005	0.14	27.012000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.838918	19391.979314	0.000134	0.02
Y 377.433	0.832757	582456.166581	0.001681	0.20
Y_R 377.433	0.879545	53325.700000	0.005955	0.68
Y_R 488.368	0.890491	47042.600000	0.013426	1.51
Y_R2 488.368	0.887361	94064.988440	0.003841	0.43
Y_R4	0.923672	41565.200000	0.000613	0.07

Sample Name: ICSAB-5707812

Date: 5/24/2019 3:09:05 PM
Rack:Tube: 3:12

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.171700	ppm	0.001121	0.10	40166.500000	Y 377.433
Al (394.401 nm)	542.970000 o	ppm	0.362419	0.07	6626860.000000	Y 377.433
Al H (396.152 nm)	535.785000	ppm	1.258190	0.23	1171360.000000	Y_R 377.433
As (188.980 nm)	1.105710	ppm	0.004172	0.38	1659.150000	Y 242.219
B (249.678 nm)	10.885900	ppm	0.007900	0.07	77673.400000	Y 242.219
Ba (493.408 nm)	1.075000	ppm	0.004373	0.41	108731.000000	Y_R 488.368
Be (234.861 nm)	0.529318	ppm	0.003058	0.58	51273.900000	Y_R 488.368
Bi (223.061 nm)	1.038170	ppm	0.004132	0.40	2297.980000	Y 377.433
Ca (315.887 nm)	506.037671	ppm	1.830165	0.36	401963.667512	Y_R 377.433
Cd (214.439 nm)	1.050610	ppm	0.003940	0.38	38928.300000	Y 377.433
Co (228.615 nm)	0.998172	ppm	0.000003	0.00	23490.300000	Y 242.219
Cr (205.560 nm)	1.083940	ppm	0.000181	0.02	7201.140000	Y 377.433
Cu (324.754 nm)	1.103290	ppm	0.000326	0.03	52000.900000	Y 377.433
Fe (238.204 nm)	201.642088 o	ppm	0.817463	0.41	485394.845987	Y_R 377.433
Fe H (259.940 nm)	202.386000	ppm	0.809003	0.40	279909.000000	Y_R 377.433
K (766.491 nm)	11.642800	ppm	0.236544	2.03	13179.500000	Y_R2 488.368
Li (670.783 nm)	1.108230	ppm	0.011314	1.02	16482.800000	Y_R2 488.368
Mg (279.078 nm)	536.563000	ppm	0.461994	0.09	1755570.000000	Y 377.433
Mn (257.610 nm)	1.042510	ppm	0.000616	0.06	284240.000000	Y 377.433
Mo (202.032 nm)	1.040440	ppm	0.000263	0.03	13125.100000	Y 377.433
Na (589.592 nm)	11.466300	ppm	0.137846	1.20	9806.930000	Y_R2 488.368
Na H (589.593 nm)	13.811659 Gu	ppm	0.132650	0.96	7376.102832 G	Y_R4
Ni (231.604 nm)	1.010250	ppm	0.000048	0.00	5219.640000	Y 377.433
P (213.618 nm)	10.925400	ppm	0.022488	0.21	15322.500000	Y 242.219
Pb (220.353 nm)	1.038090	ppm	0.000764	0.07	3212.680000	Y 242.219
S (181.972 nm)	10.930733 G	ppm	0.031165	0.29	5046.772991 G	Y 377.433
Sb (206.834 nm)	1.079930	ppm	0.000706	0.07	1836.410000	Y 377.433
Se (196.026 nm)	1.082090	ppm	0.009188	0.85	1590.530000	Y 242.219
Si (288.158 nm)	10.678800	ppm	0.023733	0.22	69234.300000	Y 377.433
Sn (189.925 nm)	1.040500	ppm	0.000045	0.00	1676.320000	Y 377.433
Sr (421.552 nm)	1.050373	ppm	0.004667	0.44	158240.845861	Y_R 488.368
Th (288.505 nm)	2.116180	ppm	0.005320	0.25	3532.300000	Y 377.433
Ti (336.122 nm)	1.043780	ppm	0.000930	0.09	134862.000000	Y 377.433
Tl (190.794 nm)	1.035800	ppm	0.005268	0.51	2333.960000	Y 377.433
U (409.013 nm)	0.068024	ppm	0.002808	4.13	146.651000	Y 377.433
V (292.401 nm)	1.051340	ppm	0.000331	0.03	54280.800000	Y 377.433
Zn (206.200 nm)	1.032090	ppm	0.001401	0.14	4673.190000	Y 377.433
Zr (343.823 nm)	0.995599	ppm	0.001610	0.16	56201.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.855676	19779.346600	0.001576	0.18
Y 377.433	0.848450	593432.556518	0.001919	0.23
Y_R 377.433	0.904775	54855.400000	0.005231	0.58
Y_R 488.368	0.909961	48071.100000	0.004760	0.52
Y_R2 488.368	0.900612	95469.609644	0.004888	0.54
Y_R4	0.931292	41908.100000	0.009804	1.05

Sample Name: LRA-5681702

Date: 5/24/2019 3:12:53 PM Rack:Tube: 3:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.011689 u	ppm	0.000080	0.69	-4676.050000	Y 377.433
Al (394.401 nm)	-0.165366 u	ppm	0.004853	2.93	692.950000	Y 377.433
Al H (396.152 nm)	-1.792040 u	ppm	0.005802	0.32	536.371000	Y_R 377.433
As (188.980 nm)	10.311000	ppm	0.023248	0.23	15522.500000	Y 242.219
B (249.678 nm)	10.303700	ppm	0.010155	0.10	73344.000000	Y 242.219
Ba (493.408 nm)	12.615100	ppm	0.073209	0.58	1259450.000000	Y_R 488.368
Be (234.861 nm)	-0.002265 u	ppm	0.000082	3.63	-2335.100000	Y_R 488.368
Bi (223.061 nm)	-0.028173 u	ppm	0.001400	4.97	13.896700	Y 377.433
Ca (315.887 nm)	0.039231	ppm	0.011739	29.92	-37.821785	Y_R 377.433
Cd (214.439 nm)	2.128930	ppm	0.003373	0.16	78925.700000	Y 377.433
Co (228.615 nm)	5.351610	ppm	0.002039	0.04	126215.000000	Y 242.219
Cr (205.560 nm)	10.665600	ppm	0.009518	0.09	71085.100000	Y 377.433
Cu (324.754 nm)	10.890000	ppm	0.013370	0.12	508213.000000	Y 377.433
Fe (238.204 nm)	498.877644 o	ppm	0.522367	0.10	1200892.720181	Y_R 377.433
Fe H (259.940 nm)	499.137000	ppm	0.153969	0.03	690310.000000	Y_R 377.433
K (766.491 nm)	-0.087254 u	ppm	0.236544	> 100.00	1853.130000	Y_R2 488.368
Li (670.783 nm)	0.004208	ppm	0.004783	> 100.00	-2473.510000	Y_R2 488.368
Mg (279.078 nm)	0.011832	ppm	0.003494	29.53	-608.431000	Y 377.433
Mn (257.610 nm)	10.136700	ppm	0.006293	0.06	2763870.000000	Y 377.433
Mo (202.032 nm)	5.150110	ppm	0.002018	0.04	64924.300000	Y 377.433
Na (589.592 nm)	6.331210	ppm	0.034799	0.55	8215.020000	Y_R2 488.368
Na H (589.593 nm)	8.746202 u	ppm	0.120546	1.38	4627.807970	Y_R4
Ni (231.604 nm)	10.750000	ppm	0.013085	0.12	55618.800000	Y 377.433
P (213.618 nm)	0.964899	ppm	0.001991	0.21	-1361.680000	Y 242.219
Pb (220.353 nm)	10.800700	ppm	0.009637	0.09	34290.400000	Y 242.219
S (181.972 nm)	-0.018863 u	ppm	0.010789	57.20	36.300005	Y 377.433
Sb (206.834 nm)	0.029616	ppm	0.001407	4.75	93.597400	Y 377.433
Se (196.026 nm)	5.076870	ppm	0.008562	0.17	7552.200000	Y 242.219
Si (288.158 nm)	50.394400	ppm	0.054424	0.11	324906.000000	Y 377.433
Sn (189.925 nm)	0.000631	ppm	0.000015	2.34	3.106010	Y 377.433
Sr (421.552 nm)	10.172829	ppm	0.038028	0.37	1532137.194356	Y_R 488.368
Th (288.505 nm)	0.287625	ppm	0.003240	1.13	-459.371000	Y 377.433
Ti (336.122 nm)	9.950910	ppm	0.010939	0.11	1272940.000000	Y 377.433
Tl (190.794 nm)	5.412360	ppm	0.002153	0.04	12268.700000	Y 377.433
U (409.013 nm)	-0.035204 u	ppm	0.002951	8.38	228.311000	Y 377.433
V (292.401 nm)	10.080300	ppm	0.015666	0.16	519978.000000	Y 377.433
Zn (206.200 nm)	10.218300	ppm	0.019249	0.19	46022.400000	Y 377.433
Zr (343.823 nm)	0.015403	ppm	0.000677	4.40	710.361000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.939604	21719.390480	0.002960	0.32
Y 377.433	0.948043	663090.840783	0.002026	0.21
Y_R 377.433	0.953912	57834.500000	0.003547	0.37
Y_R 488.368	0.961347	50785.800000	0.002258	0.23
Y_R2 488.368	0.957094	101457.056447	0.023123	2.42
Y_R4	0.965933	43466.900000	0.001092	0.11

Sample Name: CCVH-5713036

Date: 5/24/2019 3:16:45 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005344	ppm	0.000032	0.61	-92.870600	Y 377.433
Al (394.401 nm)	51.579900 o	ppm	0.041891	0.08	628397.000000	Y 377.433
Al H (396.152 nm)	50.138200	ppm	0.024517	0.05	109341.000000	Y_R 377.433
As (188.980 nm)	0.005676	ppm	0.000836	14.72	5.602080	Y 242.219
B (249.678 nm)	0.010482	ppm	0.000230	2.20	92.206400	Y 242.219
Ba (493.408 nm)	0.003617	ppm	0.000160	4.42	1800.500000	Y_R 488.368
Be (234.861 nm)	0.001202	ppm	0.000003	0.28	-98.233100	Y_R 488.368
Bi (223.061 nm)	0.009097	ppm	0.000212	2.33	18.083000	Y 377.433
Ca (315.887 nm)	-0.002064 u	ppm	0.000604	29.27	-58.104762	Y_R 377.433
Cd (214.439 nm)	0.001434	ppm	0.000130	9.04	68.461200	Y 377.433
Co (228.615 nm)	0.003321	ppm	0.000225	6.77	62.991600	Y 242.219
Cr (205.560 nm)	0.001585	ppm	0.000062	3.90	2.453430	Y 377.433
Cu (324.754 nm)	0.004148	ppm	0.000114	2.74	1479.210000	Y 377.433
Fe (238.204 nm)	50.753654 o	ppm	0.024749	0.05	122180.044879	Y_R 377.433
Fe H (259.940 nm)	50.519500	ppm	0.007892	0.02	69879.100000	Y_R 377.433
K (766.491 nm)	0.338683	ppm	0.272947	80.59	2264.410000	Y_R2 488.368
Li (670.783 nm)	-0.004055 u	ppm	0.003749	92.47	-2615.390000	Y_R2 488.368
Mg (279.078 nm)	0.042672	ppm	0.001307	3.06	72.652800	Y 377.433
Mn (257.610 nm)	0.001427	ppm	0.000042	2.97	378.135000	Y 377.433
Mo (202.032 nm)	0.002100	ppm	0.000531	25.27	37.601400	Y 377.433
Na (589.592 nm)	236.030000 o	ppm	0.344324	0.15	193909.000000	Y_R2 488.368
Na H (589.593 nm)	244.257877	ppm	1.847899	0.76	132406.114795	Y_R4
Ni (231.604 nm)	0.003912	ppm	0.000026	0.67	11.623300	Y 377.433
P (213.618 nm)	4.985860	ppm	0.014555	0.29	7120.850000	Y 242.219
Pb (220.353 nm)	0.008677	ppm	0.000380	4.37	28.826900	Y 242.219
S (181.972 nm)	5.009718	ppm	0.005789	0.12	2306.928856	Y 377.433
Sb (206.834 nm)	-0.002363 u	ppm	0.001788	75.65	2.057140	Y 377.433
Se (196.026 nm)	0.008029	ppm	0.004210	52.43	7.896590	Y 242.219
Si (288.158 nm)	0.032659	ppm	0.001646	5.04	698.790000	Y 377.433
Sn (189.925 nm)	0.003279	ppm	0.000268	8.18	7.365980	Y 377.433
Sr (421.552 nm)	0.001888	ppm	0.000085	4.52	315.109092	Y_R 488.368
Th (288.505 nm)	4.977960	ppm	0.000103	0.00	8597.020000	Y 377.433
Ti (336.122 nm)	0.002051	ppm	0.000125	6.12	-171.399000	Y 377.433
Tl (190.794 nm)	0.001663	ppm	0.000769	46.25	0.764010	Y 377.433
U (409.013 nm)	0.549697 Q	ppm	0.005933	1.08	1756.350000 Q	Y 377.433
V (292.401 nm)	0.000766	ppm	0.000265	34.56	396.658000	Y 377.433
Zn (206.200 nm)	0.003483	ppm	0.000074	2.13	26.791300	Y 377.433
Zr (343.823 nm)	0.001026	ppm	0.000153	14.95	-103.534000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.929503	21485.886983	0.002162	0.23
Y 377.433	0.915674	640450.858375	0.001917	0.21
Y_R 377.433	0.939295	56948.300000	0.005381	0.57
Y_R 488.368	0.954261	50411.400000	0.002707	0.28
Y_R2 488.368	0.937494	99379.347172	0.001711	0.18
Y_R4	0.945189	42533.500000	0.004097	0.43

Sample Name: CCV-5717467

Date: 5/24/2019 3:20:53 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.506164	ppm	0.000352	0.07	17196.200000	Y 377.433
Al (394.401 nm)	0.521312	ppm	0.002233	0.43	6582.030000	Y 377.433
Al H (396.152 nm)	0.575292 u	ppm	0.006235	1.08	1251.010000	Y_R 377.433
As (188.980 nm)	0.506619	ppm	0.001995	0.39	761.775000	Y 242.219
B (249.678 nm)	0.501500	ppm	0.000685	0.14	3626.730000	Y 242.219
Ba (493.408 nm)	0.505904	ppm	0.002075	0.41	51836.900000	Y_R 488.368
Be (234.861 nm)	0.497987	ppm	0.000416	0.08	49030.300000	Y_R 488.368
Bi (223.061 nm)	1.007800	ppm	0.006895	0.68	2197.150000	Y 377.433
Ca (315.887 nm)	5.065932	ppm	0.011109	0.22	3954.493594	Y_R 377.433
Cd (214.439 nm)	0.527390	ppm	0.000218	0.04	19498.800000	Y 377.433
Co (228.615 nm)	0.511227	ppm	0.000181	0.04	12022.100000	Y 242.219
Cr (205.560 nm)	0.532125	ppm	0.001212	0.23	3538.490000	Y 377.433
Cu (324.754 nm)	0.505538	ppm	0.000941	0.19	23894.900000	Y 377.433
Fe (238.204 nm)	2.562431	ppm	0.004510	0.18	6175.359103	Y_R 377.433
Fe H (259.940 nm)	2.559290 u	ppm	0.003632	0.14	3550.870000	Y_R 377.433
K (766.491 nm)	50.121600	ppm	0.505015	1.01	50334.200000	Y_R2 488.368
Li (670.783 nm)	0.496385	ppm	0.008098	1.63	5977.290000	Y_R2 488.368
Mg (279.078 nm)	20.432800	ppm	0.000479	0.00	66868.500000	Y 377.433
Mn (257.610 nm)	0.508749	ppm	0.000414	0.08	138704.000000	Y 377.433
Mo (202.032 nm)	0.512924	ppm	0.001158	0.23	6476.150000	Y 377.433
Na (589.592 nm)	24.147500	ppm	0.060593	0.25	20087.800000	Y_R2 488.368
Na H (589.593 nm)	26.345114 u	ppm	0.163892	0.62	14176.205450	Y_R4
Ni (231.604 nm)	0.521758	ppm	0.000643	0.12	2691.590000	Y 377.433
P (213.618 nm)	0.050261	ppm	0.002134	4.25	-69.731000	Y 242.219
Pb (220.353 nm)	0.518176	ppm	0.000077	0.01	1652.150000	Y 242.219
S (181.972 nm)	0.008323	ppm	0.010082	> 100.00	18.375439	Y 377.433
Sb (206.834 nm)	0.515627	ppm	0.003775	0.73	869.749000	Y 377.433
Se (196.026 nm)	0.505944	ppm	0.002741	0.54	772.049000	Y 242.219
Si (288.158 nm)	5.049320	ppm	0.018703	0.37	32993.900000	Y 377.433
Sn (189.925 nm)	0.525151	ppm	0.001871	0.36	847.089000	Y 377.433
Sr (421.552 nm)	0.492557	ppm	0.000768	0.16	74203.140652	Y_R 488.368
Th (288.505 nm)	0.021525	ppm	0.003347	15.55	-2.026960	Y 377.433
Ti (336.122 nm)	0.500329	ppm	0.000502	0.10	63607.700000	Y 377.433
Tl (190.794 nm)	0.525439	ppm	0.000107	0.02	1200.220000	Y 377.433
U (409.013 nm)	0.010698	ppm	0.001573	14.70	-52.829400	Y 377.433
V (292.401 nm)	0.507389	ppm	0.000221	0.04	26017.600000	Y 377.433
Zn (206.200 nm)	0.528291	ppm	0.002316	0.44	2380.010000	Y 377.433
Zr (343.823 nm)	0.502939	ppm	0.000173	0.03	28310.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.953220	22034.134161	0.002396	0.25
Y 377.433	0.940016	657476.628682	0.002094	0.22
Y_R 377.433	0.952678	57759.700000	0.002774	0.29
Y_R 488.368	0.963976	50924.600000	0.003273	0.34
Y_R2 488.368	0.951438	100857.449627	0.001773	0.19
Y_R4	0.962609	43317.400000	0.002820	0.29

Sample Name: CCB

Date: 5/24/2019 3:24:27 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000342	ppm	0.000165	48.21	-255.293000	Y 377.433
Al (394.401 nm)	-0.000319 u	ppm	0.000390	> 100.00	86.787300	Y 377.433
Al H (396.152 nm)	0.137586 Zu	ppm	0.000958	0.70	42.580400 Z	Y_R 377.433
As (188.980 nm)	-0.000387 u	ppm	0.001767	> 100.00	-2.159090	Y 242.219
B (249.678 nm)	0.001850	ppm	0.000004	0.24	59.887100	Y 242.219
Ba (493.408 nm)	-0.000691 u	ppm	0.000124	17.98	1330.550000	Y_R 488.368
Be (234.861 nm)	0.000006 u	ppm	0.000034	> 100.00	-1.409390	Y_R 488.368
Bi (223.061 nm)	0.000214 u	ppm	0.002880	> 100.00	-10.143400	Y 377.433
Ca (315.887 nm)	0.011762	ppm	0.001199	10.19	-59.693449	Y_R 377.433
Cd (214.439 nm)	0.000130	ppm	0.000018	13.58	-0.370161	Y 377.433
Co (228.615 nm)	-0.000186 u	ppm	0.000170	91.35	-19.495200	Y 242.219
Cr (205.560 nm)	0.000423 u	ppm	0.000902	> 100.00	-3.934740	Y 377.433
Cu (324.754 nm)	0.000917	ppm	0.000067	7.25	360.333000	Y 377.433
Fe (238.204 nm)	-0.001115 u	ppm	0.000591	53.02	4.455782	Y_R 377.433
Fe H (259.940 nm)	0.000766 u	ppm	0.000728	95.11	12.472200	Y_R 377.433
K (766.491 nm)	0.115709	ppm	0.102489	88.57	2049.110000	Y_R2 488.368
Li (670.783 nm)	0.001169	ppm	0.000551	47.15	-2525.690000	Y_R2 488.368
Mg (279.078 nm)	0.003272	ppm	0.001389	42.45	19.194300	Y 377.433
Mn (257.610 nm)	0.000062	ppm	0.000013	21.85	5.759690	Y 377.433
Mo (202.032 nm)	0.000281	ppm	0.000183	65.09	14.669900	Y 377.433
Na (589.592 nm)	0.031342	ppm	0.011251	35.90	175.900000	Y_R2 488.368
Na H (589.593 nm)	1.415258 u	ppm	0.035770	2.53	650.359065	Y_R4
Ni (231.604 nm)	0.001550	ppm	0.000636	41.03	-0.600591	Y 377.433
P (213.618 nm)	0.001331 u	ppm	0.004091	> 100.00	-2.478760	Y 242.219
Pb (220.353 nm)	0.000846	ppm	0.000073	8.58	10.928400	Y 242.219
S (181.972 nm)	0.001695 u	ppm	0.003865	> 100.00	13.475988	Y 377.433
Sb (206.834 nm)	-0.000706 u	ppm	0.005111	> 100.00	0.587549	Y 377.433
Se (196.026 nm)	-0.002296 u	ppm	0.001151	50.16	5.395170	Y 242.219
Si (288.158 nm)	0.001040	ppm	0.000126	12.09	495.241000	Y 377.433
Sn (189.925 nm)	0.000224 u	ppm	0.000924	> 100.00	2.450130	Y 377.433
Sr (421.552 nm)	0.000342	ppm	0.000041	12.03	74.738723	Y_R 488.368
Th (288.505 nm)	0.002869 u	ppm	0.004333	> 100.00	17.588500	Y 377.433
Ti (336.122 nm)	0.000119	ppm	0.000059	49.99	-418.608000	Y 377.433
Tl (190.794 nm)	-0.000106 u	ppm	0.000816	> 100.00	1.573150	Y 377.433
U (409.013 nm)	-0.010643 u	ppm	0.003286	30.87	-58.497500	Y 377.433
V (292.401 nm)	-0.000306 u	ppm	0.000051	16.69	-161.906000	Y 377.433
Zn (206.200 nm)	-0.000236 u	ppm	0.000027	11.29	3.004500	Y 377.433
Zr (343.823 nm)	-0.000161 u	ppm	0.000036	22.49	-170.706000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984152	22749.142139	0.001225	0.12
Y 377.433	0.968698	677537.444328	0.001033	0.11
Y_R 377.433	0.977896	59288.600000	0.000849	0.09
Y_R 488.368	0.986997	52140.800000	0.001464	0.15
Y_R2 488.368	0.980877	103978.105431	0.006778	0.69
Y_R4	0.988038	44461.700000	0.003594	0.36

Sample Name: CCVL-5719884

Date: 5/24/2019 3:27:39 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008377	ppm	0.000086	1.03	20.988100	Y 377.433
Al (394.401 nm)	0.101957	ppm	0.000900	0.88	1343.160000	Y 377.433
Al H (396.152 nm)	0.240419 u	ppm	0.002452	1.02	272.920000	Y_R 377.433
As (188.980 nm)	0.016495	ppm	0.001179	7.14	23.278000	Y 242.219
B (249.678 nm)	0.096736	ppm	0.000914	0.94	737.463000	Y 242.219
Ba (493.408 nm)	0.009598	ppm	0.000014	0.14	2356.430000	Y_R 488.368
Be (234.861 nm)	0.000934	ppm	0.000068	7.23	89.570900	Y_R 488.368
Bi (223.061 nm)	0.092707	ppm	0.001522	1.64	192.454000	Y 377.433
Ca (315.887 nm)	0.208966	ppm	0.014070	6.73	96.948909	Y_R 377.433
Cd (214.439 nm)	0.005204	ppm	0.000114	2.18	187.320000	Y 377.433
Co (228.615 nm)	0.010951	ppm	0.000298	2.72	242.681000	Y 242.219
Cr (205.560 nm)	0.010739	ppm	0.000235	2.19	64.692400	Y 377.433
Cu (324.754 nm)	0.016741	ppm	0.000102	0.61	1097.920000	Y 377.433
Fe (238.204 nm)	0.105225	ppm	0.005053	4.80	260.435201	Y_R 377.433
Fe H (259.940 nm)	0.107427 u	ppm	0.001545	1.44	159.983000	Y_R 377.433
K (766.491 nm)	3.193990	ppm	0.185003	5.79	5021.460000	Y_R2 488.368
Li (670.783 nm)	0.021678	ppm	0.000038	0.17	-2173.550000	Y_R2 488.368
Mg (279.078 nm)	0.209333	ppm	0.001315	0.63	692.110000	Y 377.433
Mn (257.610 nm)	0.010832	ppm	0.000010	0.09	2942.490000	Y 377.433
Mo (202.032 nm)	0.020210	ppm	0.000452	2.24	265.868000	Y 377.433
Na (589.592 nm)	1.104950	ppm	0.014966	1.35	1059.560000	Y_R2 488.368
Na H (589.593 nm)	2.257384 u	ppm	0.012562	0.56	1107.259756	Y_R4
Ni (231.604 nm)	0.043996	ppm	0.000138	0.31	219.038000	Y 377.433
P (213.618 nm)	2.896190	ppm	0.027106	0.94	4132.800000	Y 242.219
Pb (220.353 nm)	0.009403	ppm	0.001689	17.97	38.216300	Y 242.219
S (181.972 nm)	0.092998	ppm	0.004671	5.02	55.327609	Y 377.433
Sb (206.834 nm)	0.015673	ppm	0.002638	16.83	28.085700	Y 377.433
Se (196.026 nm)	0.020538	ppm	0.004926	23.98	39.823400	Y 242.219
Si (288.158 nm)	0.500526	ppm	0.002573	0.51	3710.720000	Y 377.433
Sn (189.925 nm)	0.106627	ppm	0.000588	0.55	173.659000	Y 377.433
Sr (421.552 nm)	0.009362	ppm	0.000265	2.83	1433.123790	Y_R 488.368
Th (288.505 nm)	0.017549	ppm	0.000152	0.87	42.474800	Y 377.433
Ti (336.122 nm)	0.009884	ppm	0.000094	0.95	831.574000	Y 377.433
Tl (190.794 nm)	0.017371	ppm	0.001697	9.77	41.429800	Y 377.433
U (409.013 nm)	0.062153	ppm	0.000065	0.10	171.152000	Y 377.433
V (292.401 nm)	0.009577	ppm	0.000115	1.20	345.214000	Y 377.433
Zn (206.200 nm)	0.021534	ppm	0.000750	3.48	100.914000	Y 377.433
Zr (343.823 nm)	0.010001	ppm	0.000063	0.63	404.536000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.997314	23053.374763	0.001667	0.17
Y 377.433	0.980236	685607.789700	0.000741	0.08
Y_R 377.433	0.978924	59350.900000	0.002241	0.23
Y_R 488.368	0.991307	52368.500000	0.004419	0.45
Y_R2 488.368	0.992487	105208.912881	0.007791	0.79
Y_R4	0.982377	44206.900000	0.006283	0.64

Sample Name: 280-123501-a-8-a@5

Date: 5/24/2019 3:31:07 PM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002394	ppm	0.000319	13.31	-185.822000	Y 377.433
Al (394.401 nm)	0.076429	ppm	0.003061	4.00	1401.210000	Y 377.433
Al H (396.152 nm)	-0.054093 u	ppm	0.003386	6.26	211.545000	Y_R 377.433
As (188.980 nm)	-0.000302 u	ppm	0.001046	> 100.00	-2.034960	Y 242.219
B (249.678 nm)	0.424479	ppm	0.001260	0.30	3078.080000	Y 242.219
Ba (493.408 nm)	0.001966	ppm	0.000479	24.34	1595.590000	Y_R 488.368
Be (234.861 nm)	-0.000006 u	ppm	0.000070	> 100.00	-3.053170	Y_R 488.368
Bi (223.061 nm)	0.000062 u	ppm	0.000203	> 100.00	-10.453200	Y 377.433
Ca (315.887 nm)	83.847789	ppm	0.220500	0.26	66523.380077	Y_R 377.433
Cd (214.439 nm)	0.000243	ppm	0.000115	47.24	3.867860	Y 377.433
Co (228.615 nm)	0.000600	ppm	0.000348	58.04	-0.928181	Y 242.219
Cr (205.560 nm)	0.000182 u	ppm	0.000665	> 100.00	-5.672920	Y 377.433
Cu (324.754 nm)	0.002367	ppm	0.000050	2.13	379.563000	Y 377.433
Fe (238.204 nm)	0.122894	ppm	0.002000	1.63	302.966018	Y_R 377.433
Fe H (259.940 nm)	0.111953 u	ppm	0.000170	0.15	166.242000	Y_R 377.433
K (766.491 nm)	0.951001	ppm	0.287290	30.21	2855.660000	Y_R2 488.368
Li (670.783 nm)	0.190682	ppm	0.006342	3.33	728.286000	Y_R2 488.368
Mg (279.078 nm)	180.974000	ppm	0.400292	0.22	592221.000000	Y 377.433
Mn (257.610 nm)	0.099467	ppm	0.000002	0.00	27109.500000	Y 377.433
Mo (202.032 nm)	0.025843	ppm	0.000311	1.20	336.862000	Y 377.433
Na (589.592 nm)	607.048000 o	ppm	0.314889	0.05	498479.000000	Y_R2 488.368
Na H (589.593 nm)	656.052601	ppm	3.868969	0.59	355827.873916	Y_R4
Ni (231.604 nm)	0.002373	ppm	0.001374	57.90	3.655180	Y 377.433
P (213.618 nm)	0.010385	ppm	0.002521	24.27	8.640070	Y 242.219
Pb (220.353 nm)	-0.000932 u	ppm	0.002813	> 100.00	5.377330	Y 242.219
S (181.972 nm)	635.564447 bo	ppm	0.851744	0.13	291076.625952	Y 377.433
Sb (206.834 nm)	-0.005785 u	ppm	0.003292	56.90	-8.155580	Y 377.433
Se (196.026 nm)	1.277790	ppm	0.000251	0.02	1936.110000	Y 242.219
Si (288.158 nm)	1.879280	ppm	0.008752	0.47	12586.600000	Y 377.433
Sn (189.925 nm)	0.000126 u	ppm	0.001713	> 100.00	2.292980	Y 377.433
Sr (421.552 nm)	1.441337	ppm	0.011947	0.83	217090.040525	Y_R 488.368
Th (288.505 nm)	0.013493	ppm	0.001755	13.00	35.885000	Y 377.433
Ti (336.122 nm)	0.001956	ppm	0.000235	12.00	102.547000	Y 377.433
Tl (190.794 nm)	0.000382 u	ppm	0.002731	> 100.00	-0.815898	Y 377.433
U (409.013 nm)	0.053341	ppm	0.006280	11.77	133.250000	Y 377.433
V (292.401 nm)	0.001485	ppm	0.000311	20.92	-72.673100	Y 377.433
Zn (206.200 nm)	0.006133	ppm	0.000065	1.06	31.661000	Y 377.433
Zr (343.823 nm)	0.000683	ppm	0.000214	31.30	-122.971000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.910194	21039.561355	0.000843	0.09
Y 377.433	0.901889	630809.588243	0.001459	0.16
Y_R 377.433	0.940672	57031.800000	0.004138	0.44
Y_R 488.368	0.957648	50590.400000	0.010325	1.08
Y_R2 488.368	0.929911	98575.455902	0.004263	0.46
Y_R4	0.960699	43231.400000	0.010482	1.09

Sample Name: mb 280-459145/1-a

Date: 5/24/2019 3:35:14 PM Rack:Tube: 1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000490	ppm	0.000319	65.19	-250.369000	Y 377.433
Al (394.401 nm)	0.000648	ppm	0.000245	37.77	100.475000	Y 377.433
Al H (396.152 nm)	0.142484 u	ppm	0.012678	8.90	53.218200	Y_R 377.433
As (188.980 nm)	-0.002766 u	ppm	0.000201	7.27	-5.744160	Y 242.219
B (249.678 nm)	-0.000289 u	ppm	0.000041	14.04	44.600600	Y 242.219
Ba (493.408 nm)	0.000028 u	ppm	0.000332	> 100.00	1402.300000	Y_R 488.368
Be (234.861 nm)	-0.000091 u	ppm	0.000034	37.06	-10.942100	Y_R 488.368
Bi (223.061 nm)	0.000465	ppm	0.000390	83.89	-9.592430	Y 377.433
Ca (315.887 nm)	0.006399	ppm	0.001425	22.27	-63.952754	Y_R 377.433
Cd (214.439 nm)	-0.000139 u	ppm	0.000061	44.02	-10.314900	Y 377.433
Co (228.615 nm)	-0.000536 u	ppm	0.000320	59.63	-27.723200	Y 242.219
Cr (205.560 nm)	0.000138 u	ppm	0.000598	> 100.00	-5.833130	Y 377.433
Cu (324.754 nm)	0.001100	ppm	0.000359	32.64	368.499000	Y 377.433
Fe (238.204 nm)	0.009988	ppm	0.000525	5.26	31.182414	Y_R 377.433
Fe H (259.940 nm)	0.015261 u	ppm	0.003402	22.29	32.519500	Y_R 377.433
K (766.491 nm)	0.059202 u	ppm	0.242848	> 100.00	1994.550000	Y_R2 488.368
Li (670.783 nm)	0.002257	ppm	0.001337	59.24	-2507.020000	Y_R2 488.368
Mg (279.078 nm)	0.010992	ppm	0.001507	13.71	44.078600	Y 377.433
Mn (257.610 nm)	0.000324	ppm	0.000022	6.70	77.249700	Y 377.433
Mo (202.032 nm)	-0.000048 u	ppm	0.000054	> 100.00	10.526900	Y 377.433
Na (589.592 nm)	0.086851	ppm	0.019082	21.97	221.760000	Y_R2 488.368
Na H (589.593 nm)	2.217233 u	ppm	0.074072	3.34	1085.475185	Y_R4
Ni (231.604 nm)	0.000585	ppm	0.000567	96.79	-5.591600	Y 377.433
P (213.618 nm)	0.000982	ppm	0.000102	10.35	-3.020320	Y 242.219
Pb (220.353 nm)	0.000379	ppm	0.000131	34.60	9.499140	Y 242.219
S (181.972 nm)	0.028735	ppm	0.011328	39.42	25.859681	Y 377.433
Sb (206.834 nm)	-0.001601 u	ppm	0.000657	41.04	-0.924960	Y 377.433
Se (196.026 nm)	-0.001414 u	ppm	0.000878	62.04	6.721860	Y 242.219
Si (288.158 nm)	0.000441 u	ppm	0.000934	> 100.00	491.384000	Y 377.433
Sn (189.925 nm)	0.001164	ppm	0.000731	62.74	3.964040	Y 377.433
Sr (421.552 nm)	0.000246	ppm	0.000079	32.17	60.227009	Y_R 488.368
Th (288.505 nm)	0.002897 u	ppm	0.006002	> 100.00	17.761100	Y 377.433
Ti (336.122 nm)	0.000010 u	ppm	0.000092	> 100.00	-432.583000	Y 377.433
Tl (190.794 nm)	-0.001418 u	ppm	0.000894	63.07	-1.428930	Y 377.433
U (409.013 nm)	0.010219	ppm	0.001018	9.97	7.635640	Y 377.433
V (292.401 nm)	-0.000598 u	ppm	0.000108	18.07	-177.519000	Y 377.433
Zn (206.200 nm)	0.002121	ppm	0.000740	34.89	13.604700	Y 377.433
Zr (343.823 nm)	-0.000166 u	ppm	0.000248	> 100.00	-171.011000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.986587	22805.417838	0.000039	0.00
Y 377.433	0.971921	679791.585839	0.000439	0.05
Y_R 377.433	0.965741	58551.700000	0.000849	0.09
Y_R 488.368	0.968106	51142.800000	0.000634	0.07
Y_R2 488.368	0.958925	101651.121330	0.000933	0.10
Y_R4	0.975881	43914.600000	0.001197	0.12

Sample Name: lcs 280-459145/2-a

Date: 5/24/2019 3:38:25 PM Rack:Tube: 1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000857	ppm	0.001015	> 100.00	-560.221000	Y 377.433
Al (394.401 nm)	10.328300 o	ppm	0.017138	0.17	126418.000000	Y 377.433
Al H (396.152 nm)	10.230000	ppm	0.047547	0.46	22603.800000	Y_R 377.433
As (188.980 nm)	2.056700	ppm	0.016838	0.82	3097.370000	Y 242.219
B (249.678 nm)	1.005060	ppm	0.003267	0.33	7218.450000	Y 242.219
Ba (493.408 nm)	2.047640	ppm	0.006026	0.29	205545.000000	Y_R 488.368
Be (234.861 nm)	1.026030	ppm	0.000260	0.03	101001.000000	Y_R 488.368
Bi (223.061 nm)	2.012660	ppm	0.003901	0.19	4399.270000	Y 377.433
Ca (315.887 nm)	50.414466	ppm	0.130603	0.26	39973.018346	Y_R 377.433
Cd (214.439 nm)	1.046710	ppm	0.003744	0.36	38706.300000	Y 377.433
Co (228.615 nm)	1.006520	ppm	0.002159	0.21	23685.600000	Y 242.219
Cr (205.560 nm)	1.058730	ppm	0.007486	0.71	7046.570000	Y 377.433
Cu (324.754 nm)	1.001980	ppm	0.002368	0.24	47112.200000	Y 377.433
Fe (238.204 nm)	10.352190 o	ppm	0.040890	0.39	24926.668158	Y_R 377.433
Fe H (259.940 nm)	10.334200	ppm	0.038679	0.37	14303.500000	Y_R 377.433
K (766.491 nm)	50.603000	ppm	0.662384	1.31	50799.000000	Y_R2 488.368
Li (670.783 nm)	1.014900	ppm	0.002317	0.23	14880.400000	Y_R2 488.368
Mg (279.078 nm)	50.965400	ppm	0.122852	0.24	166741.000000	Y 377.433
Mn (257.610 nm)	1.025210	ppm	0.001546	0.15	279524.000000	Y 377.433
Mo (202.032 nm)	1.046380	ppm	0.002200	0.21	13199.900000	Y 377.433
Na (589.592 nm)	49.434100	ppm	0.213244	0.43	41196.100000	Y_R2 488.368
Na H (589.593 nm)	52.679595	ppm	0.079819	0.15	28464.140426	Y_R4
Ni (231.604 nm)	1.022000	ppm	0.004682	0.46	5281.650000	Y 377.433
P (213.618 nm)	20.710800	ppm	0.089705	0.43	29338.500000	Y 242.219
Pb (220.353 nm)	1.021620	ppm	0.004620	0.45	3252.300000	Y 242.219
S (181.972 nm)	10.022080	ppm	0.035510	0.35	4608.102367	Y 377.433
Sb (206.834 nm)	-0.002131 u	ppm	0.006262	> 100.00	-6.671160	Y 377.433
Se (196.026 nm)	2.008880	ppm	0.007495	0.37	3037.550000	Y 242.219
Si (288.158 nm)	2.082350	ppm	0.001737	0.08	13893.800000	Y 377.433
Sn (189.925 nm)	2.096040	ppm	0.007272	0.35	3374.740000	Y 377.433
Sr (421.552 nm)	0.993695	ppm	0.002805	0.28	149676.286759	Y_R 488.368
Th (288.505 nm)	1.042000	ppm	0.000165	0.02	1713.890000	Y 377.433
Ti (336.122 nm)	1.020300	ppm	0.001918	0.19	130300.000000	Y 377.433
Tl (190.794 nm)	2.058000	ppm	0.000220	0.01	4699.630000	Y 377.433
U (409.013 nm)	2.033760	ppm	0.002265	0.11	6364.320000	Y 377.433
V (292.401 nm)	1.019430	ppm	0.001222	0.12	52429.800000	Y 377.433
Zn (206.200 nm)	0.521344	ppm	0.001789	0.34	2349.850000	Y 377.433
Zr (343.823 nm)	0.508077	ppm	0.001381	0.27	28601.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.938695	21698.380905	0.002369	0.25
Y 377.433	0.932578	652274.209223	0.002900	0.31
Y_R 377.433	0.945087	57299.500000	0.001269	0.13
Y_R 488.368	0.956279	50518.000000	0.000031	0.00
Y_R2 488.368	0.944795	100153.313934	0.002455	0.26
Y_R4	0.967175	43522.800000	0.000157	0.02

Sample Name: 280-123846-a-1-a

Date: 5/24/2019 3:42:04 PM Rack:Tube: 1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001095	ppm	0.000150	13.73	-229.879000	Y 377.433
Al (394.401 nm)	0.008695	ppm	0.000004	0.05	267.035000	Y 377.433
Al H (396.152 nm)	0.089404 u	ppm	0.001278	1.43	28.195300	Y_R 377.433
As (188.980 nm)	0.000617 u	ppm	0.001146	> 100.00	-0.724318	Y 242.219
B (249.678 nm)	0.005053	ppm	0.000420	8.31	81.090500	Y 242.219
Ba (493.408 nm)	0.183942	ppm	0.000528	0.29	19739.600000	Y_R 488.368
Be (234.861 nm)	0.000014 u	ppm	0.000066	> 100.00	-12.820200	Y_R 488.368
Bi (223.061 nm)	-0.001164 u	ppm	0.001219	> 100.00	-12.660500	Y 377.433
Ca (315.887 nm)	45.802337	ppm	0.204583	0.45	36307.440806	Y_R 377.433
Cd (214.439 nm)	0.000198	ppm	0.000099	50.23	3.300870	Y 377.433
Co (228.615 nm)	0.001226	ppm	0.000170	13.87	13.678500	Y 242.219
Cr (205.560 nm)	0.000341	ppm	0.000332	97.34	-4.484570	Y 377.433
Cu (324.754 nm)	0.000569	ppm	0.000492	86.50	314.235000	Y 377.433
Fe (238.204 nm)	2.885306	ppm	0.013580	0.47	6952.575702	Y_R 377.433
Fe H (259.940 nm)	2.870510 u	ppm	0.009721	0.34	3981.280000	Y_R 377.433
K (766.491 nm)	1.294990	ppm	0.170113	13.14	3187.810000	Y_R2 488.368
Li (670.783 nm)	0.005834	ppm	0.000089	1.53	-2445.600000	Y_R2 488.368
Mg (279.078 nm)	16.248000	ppm	0.005191	0.03	53173.300000	Y 377.433
Mn (257.610 nm)	0.824175	ppm	0.000934	0.11	224708.000000	Y 377.433
Mo (202.032 nm)	0.000954	ppm	0.000125	13.11	23.157300	Y 377.433
Na (589.592 nm)	13.885400	ppm	0.155299	1.12	11590.500000	Y_R2 488.368
Na H (589.593 nm)	15.805033 u	ppm	0.164111	1.04	8457.619765	Y_R4
Ni (231.604 nm)	-0.000593 u	ppm	0.000721	> 100.00	-11.684900	Y 377.433
P (213.618 nm)	0.025936	ppm	0.003503	13.51	32.608900	Y 242.219
Pb (220.353 nm)	0.000294 u	ppm	0.000929	> 100.00	9.283890	Y 242.219
S (181.972 nm)	5.450476	ppm	0.016840	0.31	2513.648616	Y 377.433
Sb (206.834 nm)	-0.003283 u	ppm	0.000390	11.87	-3.528400	Y 377.433
Se (196.026 nm)	0.000856	ppm	0.000963	> 100.00	10.557800	Y 242.219
Si (288.158 nm)	7.565790	ppm	0.022273	0.29	49193.800000	Y 377.433
Sn (189.925 nm)	0.002686	ppm	0.000528	19.64	6.412630	Y 377.433
Sr (421.552 nm)	0.242262	ppm	0.001460	0.60	36508.505339	Y_R 488.368
Th (288.505 nm)	-0.004877 u	ppm	0.003863	79.20	19.375700	Y 377.433
Ti (336.122 nm)	-0.000237 u	ppm	0.000153	64.63	-308.111000	Y 377.433
Tl (190.794 nm)	0.002876	ppm	0.003722	> 100.00	6.218460	Y 377.433
U (409.013 nm)	0.025366	ppm	0.001853	7.31	51.736000	Y 377.433
V (292.401 nm)	0.000132	ppm	0.000181	> 100.00	-142.020000	Y 377.433
Zn (206.200 nm)	0.006173	ppm	0.000184	2.98	32.222300	Y 377.433
Zr (343.823 nm)	-0.000055 u	ppm	0.000021	38.61	-164.721000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.968268	22381.957287	0.004260	0.44
Y 377.433	0.956282	668853.558796	0.004812	0.50
Y_R 377.433	0.959876	58196.100000	0.003459	0.36
Y_R 488.368	0.971070	51299.400000	0.004929	0.51
Y_R2 488.368	0.969705	102793.835235	0.007447	0.77
Y_R4	0.972466	43760.900000	0.001353	0.14

Sample Name: 280-123846-a-1-aSD@5

Date: 5/24/2019 3:45:40 PM Rack:Tube: 1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000572	ppm	0.000147	25.65	-247.495000	Y 377.433
Al (394.401 nm)	0.002833	ppm	0.001334	47.08	141.210000	Y 377.433
Al H (396.152 nm)	0.126714 u	ppm	0.002389	1.89	37.258000	Y_R 377.433
As (188.980 nm)	0.001477 u	ppm	0.002409	> 100.00	0.631730	Y 242.219
B (249.678 nm)	-0.000395 u	ppm	0.001132	> 100.00	43.482000	Y 242.219
Ba (493.408 nm)	0.037072	ppm	0.000157	0.42	5095.810000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000046	79.41	-10.428900	Y_R 488.368
Bi (223.061 nm)	-0.001425 u	ppm	0.001446	> 100.00	-13.621500	Y 377.433
Ca (315.887 nm)	9.532084	ppm	0.044412	0.47	7501.396998	Y_R 377.433
Cd (214.439 nm)	0.000036	ppm	0.000022	60.92	-3.581990	Y 377.433
Co (228.615 nm)	0.000180 u	ppm	0.000267	> 100.00	-10.904400	Y 242.219
Cr (205.560 nm)	-0.000164 u	ppm	0.000089	54.34	-7.846640	Y 377.433
Cu (324.754 nm)	0.000672	ppm	0.000202	30.03	341.937000	Y 377.433
Fe (238.204 nm)	0.636008	ppm	0.000235	0.04	1538.122402	Y_R 377.433
Fe H (259.940 nm)	0.641073 u	ppm	0.002819	0.44	898.007000	Y_R 377.433
K (766.491 nm)	0.331335	ppm	0.255157	77.01	2257.320000	Y_R2 488.368
Li (670.783 nm)	0.001384 u	ppm	0.007891	> 100.00	-2522.010000	Y_R2 488.368
Mg (279.078 nm)	3.386870	ppm	0.001327	0.04	11090.400000	Y 377.433
Mn (257.610 nm)	0.171708	ppm	0.000119	0.07	46806.700000	Y 377.433
Mo (202.032 nm)	0.000417	ppm	0.000347	83.16	16.392900	Y 377.433
Na (589.592 nm)	2.978070	ppm	0.068490	2.30	2603.370000	Y_R2 488.368
Na H (589.593 nm)	4.424638 u	ppm	0.073310	1.66	2283.116759	Y_R4
Ni (231.604 nm)	0.000449 u	ppm	0.000909	> 100.00	-6.298800	Y 377.433
P (213.618 nm)	0.004351	ppm	0.004407	> 100.00	1.883910	Y 242.219
Pb (220.353 nm)	0.000010 u	ppm	0.000626	> 100.00	8.320130	Y 242.219
S (181.972 nm)	1.114416	ppm	0.006641	0.60	524.061388	Y 377.433
Sb (206.834 nm)	-0.003132 u	ppm	0.003664	> 100.00	-3.463110	Y 377.433
Se (196.026 nm)	0.001578	ppm	0.000791	50.13	11.312800	Y 242.219
Si (288.158 nm)	1.538170	ppm	0.002807	0.18	10390.600000	Y 377.433
Sn (189.925 nm)	0.002184	ppm	0.000315	14.43	5.604350	Y 377.433
Sr (421.552 nm)	0.049530	ppm	0.000304	0.61	7482.482904	Y_R 488.368
Th (288.505 nm)	-0.001628 u	ppm	0.001109	68.15	13.046300	Y 377.433
Ti (336.122 nm)	0.000002 u	ppm	0.000141	> 100.00	-401.543000	Y 377.433
Tl (190.794 nm)	-0.001179 u	ppm	0.000425	36.05	-1.333410	Y 377.433
U (409.013 nm)	0.014062	ppm	0.001814	12.90	19.044800	Y 377.433
V (292.401 nm)	-0.000228 u	ppm	0.000011	4.80	-158.812000	Y 377.433
Zn (206.200 nm)	0.005683	ppm	0.000739	13.01	29.705900	Y 377.433
Zr (343.823 nm)	-0.000375 u	ppm	0.000103	27.39	-182.847000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984038	22746.504940	0.001179	0.12
Y 377.433	0.970023	678464.034459	0.001001	0.10
Y_R 377.433	0.968628	58726.700000	0.005230	0.54
Y_R 488.368	0.981027	51825.400000	0.005238	0.53
Y_R2 488.368	0.959691	101732.278263	0.001678	0.17
Y_R4	0.973915	43826.100000	0.009160	0.94

Sample Name: 280-123846-a-1-b ms

Date: 5/24/2019 3:49:12 PM Rack:Tube: 1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001328	ppm	0.000000	0.01	-548.974000	Y 377.433
Al (394.401 nm)	10.444900 o	ppm	0.007880	0.08	127911.000000	Y 377.433
Al H (396.152 nm)	10.292300	ppm	0.014418	0.14	22838.400000	Y_R 377.433
As (188.980 nm)	2.096590	ppm	0.004107	0.20	3157.390000	Y 242.219
B (249.678 nm)	1.027210	ppm	0.000409	0.04	7374.940000	Y 242.219
Ba (493.408 nm)	2.254660	ppm	0.006796	0.30	226186.000000	Y_R 488.368
Be (234.861 nm)	1.031180	ppm	0.000550	0.05	101495.000000	Y_R 488.368
Bi (223.061 nm)	2.027750	ppm	0.004045	0.20	4432.840000	Y 377.433
Ca (315.887 nm)	97.129444	ppm	0.208017	0.21	77074.347146	Y_R 377.433
Cd (214.439 nm)	1.049910	ppm	0.000454	0.04	38826.100000	Y 377.433
Co (228.615 nm)	1.009150	ppm	0.001502	0.15	23748.100000	Y 242.219
Cr (205.560 nm)	1.070840	ppm	0.011968	1.12	7127.300000	Y 377.433
Cu (324.754 nm)	1.014750	ppm	0.003074	0.30	47680.100000	Y 377.433
Fe (238.204 nm)	13.392716 o	ppm	0.009419	0.07	32245.746075	Y_R 377.433
Fe H (259.940 nm)	13.348500	ppm	0.028354	0.21	18472.200000	Y_R 377.433
K (766.491 nm)	52.623900	ppm	0.936229	1.78	52750.400000	Y_R2 488.368
Li (670.783 nm)	1.029690	ppm	0.003914	0.38	15134.300000	Y_R2 488.368
Mg (279.078 nm)	67.932900	ppm	0.132270	0.19	222260.000000	Y 377.433
Mn (257.610 nm)	1.856720	ppm	0.001332	0.07	506241.000000	Y 377.433
Mo (202.032 nm)	1.059940	ppm	0.000430	0.04	13370.800000	Y 377.433
Na (589.592 nm)	64.169500 o	ppm	0.182904	0.29	53339.200000	Y_R2 488.368
Na H (589.593 nm)	68.006111	ppm	0.398484	0.59	36779.635705	Y_R4
Ni (231.604 nm)	1.023390	ppm	0.002250	0.22	5288.830000	Y 377.433
P (213.618 nm)	21.170100	ppm	0.051091	0.24	29991.300000	Y 242.219
Pb (220.353 nm)	1.031140	ppm	0.003196	0.31	3282.550000	Y 242.219
S (181.972 nm)	15.850614	ppm	0.073340	0.46	7282.260533	Y 377.433
Sb (206.834 nm)	-0.000260 u	ppm	0.001106	> 100.00	-3.327390	Y 377.433
Se (196.026 nm)	2.041940	ppm	0.015781	0.77	3087.800000	Y 242.219
Si (288.158 nm)	9.905850	ppm	0.005876	0.06	64258.100000	Y 377.433
Sn (189.925 nm)	2.115120	ppm	0.009276	0.44	3405.440000	Y 377.433
Sr (421.552 nm)	1.252131	ppm	0.003095	0.25	188597.433821	Y_R 488.368
Th (288.505 nm)	1.044860	ppm	0.005656	0.54	1732.610000	Y 377.433
Ti (336.122 nm)	1.031570	ppm	0.001097	0.11	131902.000000	Y 377.433
Tl (190.794 nm)	2.061150	ppm	0.003113	0.15	4704.490000	Y 377.433
U (409.013 nm)	2.072120	ppm	0.000566	0.03	6481.690000	Y 377.433
V (292.401 nm)	1.031720	ppm	0.000895	0.09	53062.700000	Y 377.433
Zn (206.200 nm)	0.523448	ppm	0.000664	0.13	2359.740000	Y 377.433
Zr (343.823 nm)	0.510939	ppm	0.000493	0.10	28763.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.928952	21473.153574	0.002208	0.24
Y 377.433	0.923533	645947.483022	0.001412	0.15
Y_R 377.433	0.949320	57556.100000	0.001163	0.12
Y_R 488.368	0.960306	50730.800000	0.000396	0.04
Y_R2 488.368	0.949404	100641.819980	0.001710	0.18
Y_R4	0.968838	43597.700000	0.006423	0.66

Sample Name: 280-123846-a-1-c msd

Date: 5/24/2019 3:52:52 PM Rack:Tube: 1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001215	ppm	0.000190	15.68	-551.094000	Y 377.433
Al (394.401 nm)	10.372300 o	ppm	0.020397	0.20	127019.000000	Y 377.433
Al H (396.152 nm)	10.200900	ppm	0.031237	0.31	22630.500000	Y_R 377.433
As (188.980 nm)	2.084720	ppm	0.002000	0.10	3139.510000	Y 242.219
B (249.678 nm)	1.023120	ppm	0.000522	0.05	7345.840000	Y 242.219
Ba (493.408 nm)	2.228020	ppm	0.003131	0.14	223529.000000	Y_R 488.368
Be (234.861 nm)	1.030240	ppm	0.003341	0.32	101403.000000	Y_R 488.368
Bi (223.061 nm)	2.016850	ppm	0.001547	0.08	4408.940000	Y 377.433
Ca (315.887 nm)	94.484731	ppm	0.165673	0.18	74973.881020	Y_R 377.433
Cd (214.439 nm)	1.047130	ppm	0.000424	0.04	38723.200000	Y 377.433
Co (228.615 nm)	1.003410	ppm	0.000414	0.04	23612.800000	Y 242.219
Cr (205.560 nm)	1.056240	ppm	0.005471	0.52	7029.940000	Y 377.433
Cu (324.754 nm)	1.011060	ppm	0.002410	0.24	47510.000000	Y 377.433
Fe (238.204 nm)	13.134807 o	ppm	0.020255	0.15	31624.913682	Y_R 377.433
Fe H (259.940 nm)	13.085500	ppm	0.017269	0.13	18108.400000	Y_R 377.433
K (766.491 nm)	52.075900	ppm	0.534000	1.03	52221.200000	Y_R2 488.368
Li (670.783 nm)	1.022820	ppm	0.001118	0.11	15016.400000	Y_R2 488.368
Mg (279.078 nm)	66.808500	ppm	0.057171	0.09	218581.000000	Y 377.433
Mn (257.610 nm)	1.813710	ppm	0.001696	0.09	494515.000000	Y 377.433
Mo (202.032 nm)	1.053830	ppm	0.000665	0.06	13293.900000	Y 377.433
Na (589.592 nm)	62.925000 o	ppm	0.302372	0.48	52311.900000	Y_R2 488.368
Na H (589.593 nm)	67.157651	ppm	0.434965	0.65	36319.298423	Y_R4
Ni (231.604 nm)	1.015520	ppm	0.000721	0.07	5248.120000	Y 377.433
P (213.618 nm)	21.003700	ppm	0.027241	0.13	29754.600000	Y 242.219
Pb (220.353 nm)	1.023920	ppm	0.000165	0.02	3259.650000	Y 242.219
S (181.972 nm)	15.553886	ppm	0.045062	0.29	7146.106596	Y 377.433
Sb (206.834 nm)	-0.002611 u	ppm	0.002728	> 100.00	-7.330430	Y 377.433
Se (196.026 nm)	2.029700	ppm	0.001740	0.09	3069.340000	Y 242.219
Si (288.158 nm)	9.544080	ppm	0.031980	0.34	61929.200000	Y 377.433
Sn (189.925 nm)	2.105280	ppm	0.002825	0.13	3389.610000	Y 377.433
Sr (421.552 nm)	1.232915	ppm	0.002453	0.20	185703.461638	Y_R 488.368
Th (288.505 nm)	1.041490	ppm	0.002533	0.24	1726.650000	Y 377.433
Ti (336.122 nm)	1.025800	ppm	0.001674	0.16	131155.000000	Y 377.433
Tl (190.794 nm)	2.054940	ppm	0.001142	0.06	4690.460000	Y 377.433
U (409.013 nm)	2.061440	ppm	0.002096	0.10	6448.390000	Y 377.433
V (292.401 nm)	1.025830	ppm	0.002193	0.21	52761.900000	Y 377.433
Zn (206.200 nm)	0.521034	ppm	0.000809	0.16	2348.850000	Y 377.433
Zr (343.823 nm)	0.507023	ppm	0.000372	0.07	28541.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.936261	21642.112133	0.000571	0.06
Y 377.433	0.930321	650695.572494	0.000031	0.00
Y_R 377.433	0.952185	57729.800000	0.003172	0.33
Y_R 488.368	0.963913	50921.300000	0.003448	0.36
Y_R2 488.368	0.952039	100921.183310	0.000019	0.00
Y_R4	0.976178	43928.000000	0.007289	0.75

Sample Name: 280-123846-a-2-a

Date: 5/24/2019 3:56:32 PM Rack:Tube: 1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004485	ppm	0.000132	2.94	-116.876000	Y 377.433
Al (394.401 nm)	17.907500 o	ppm	0.019290	0.11	219080.000000	Y 377.433
Al H (396.152 nm)	17.518500	ppm	0.016527	0.09	38710.300000	Y_R 377.433
As (188.980 nm)	0.005365	ppm	0.000187	3.48	2.073830	Y 242.219
B (249.678 nm)	0.011919	ppm	0.000111	0.93	37.202800	Y 242.219
Ba (493.408 nm)	0.014728	ppm	0.000158	1.07	2998.140000	Y_R 488.368
Be (234.861 nm)	0.009116	ppm	0.000238	2.61	203.336000	Y_R 488.368
Bi (223.061 nm)	0.001448	ppm	0.000936	64.66	20.857700	Y 377.433
Ca (315.887 nm)	223.052912	ppm	0.089096	0.04	177085.320514	Y_R 377.433
Cd (214.439 nm)	0.139870	ppm	0.000082	0.06	5233.740000	Y 377.433
Co (228.615 nm)	0.341503	ppm	0.002611	0.76	8010.800000	Y 242.219
Cr (205.560 nm)	0.004018	ppm	0.001311	32.64	19.084800	Y 377.433
Cu (324.754 nm)	11.435400	ppm	0.063949	0.56	533591.000000	Y 377.433
Fe (238.204 nm)	163.714794 o	ppm	0.016676	0.01	394097.228533	Y_R 377.433
Fe H (259.940 nm)	163.418000	ppm	0.039495	0.02	226015.000000	Y_R 377.433
K (766.491 nm)	3.200880	ppm	0.443206	13.85	5028.120000	Y_R2 488.368
Li (670.783 nm)	0.024600	ppm	0.000762	3.10	-2123.380000	Y_R2 488.368
Mg (279.078 nm)	90.710100	ppm	0.021277	0.02	296624.000000	Y 377.433
Mn (257.610 nm)	25.940700 bo	ppm	0.052842	0.20	7072970.000000	Y 377.433
Mo (202.032 nm)	0.000496	ppm	0.000300	60.49	17.389800	Y 377.433
Na (589.592 nm)	10.201300	ppm	0.034721	0.34	8528.120000	Y_R2 488.368
Na H (589.593 nm)	12.063099 u	ppm	0.141568	1.17	6427.410440	Y_R4
Ni (231.604 nm)	0.248013	ppm	0.001896	0.76	1274.660000	Y 377.433
P (213.618 nm)	1.074440	ppm	0.004268	0.40	-1167.240000	Y 242.219
Pb (220.353 nm)	0.073015	ppm	0.004262	5.84	238.246000	Y 242.219
S (181.972 nm)	463.693021 bo	ppm	0.283462	0.06	212456.587813	Y 377.433
Sb (206.834 nm)	-0.008734 u	ppm	0.001575	18.04	0.854668	Y 377.433
Se (196.026 nm)	0.006280 b	ppm	0.002348	37.39	12.463100	Y 242.219
Si (288.158 nm)	14.866500	ppm	0.120503	0.81	96192.400000	Y 377.433
Sn (189.925 nm)	0.002202	ppm	0.002150	97.63	5.633950	Y 377.433
Sr (421.552 nm)	1.750509	ppm	0.011566	0.66	263676.367751	Y_R 488.368
Th (288.505 nm)	0.035597 b	ppm	0.003953	11.11	571.558000	Y 377.433
Ti (336.122 nm)	-0.000919 u	ppm	0.000030	3.25	212.110000	Y 377.433
Tl (190.794 nm)	0.013543	ppm	0.001174	8.67	6.140970	Y 377.433
U (409.013 nm)	0.366556	ppm	0.007245	1.98	1228.460000	Y 377.433
V (292.401 nm)	-0.000770 u	ppm	0.000405	52.67	-175.416000	Y 377.433
Zn (206.200 nm)	22.971600	ppm	0.276630	1.20	103324.000000	Y 377.433
Zr (343.823 nm)	0.002626	ppm	0.000166	6.33	-12.932800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.964718	22299.907868	0.000787	0.08
Y 377.433	0.963776	674094.960119	0.000030	0.00
Y_R 377.433	1.001220	60702.500000	0.000743	0.07
Y_R 488.368	1.010310	53372.300000	0.005332	0.53
Y_R2 488.368	1.007330	106782.347458	0.001987	0.20
Y_R4	1.032130	46445.900000	0.006838	0.66

Sample Name: 280-123846-a-3-a

Date: 5/24/2019 4:00:20 PM Rack:Tube: 1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001468	ppm	0.000185	12.60	-216.936000	Y 377.433
Al (394.401 nm)	0.000733 u	ppm	0.001679	> 100.00	466.669000	Y 377.433
Al H (396.152 nm)	-0.125502 u	ppm	0.005664	4.51	30.873200	Y_R 377.433
As (188.980 nm)	0.000630	ppm	0.000824	> 100.00	-0.630299	Y 242.219
B (249.678 nm)	0.013656	ppm	0.000464	3.40	144.129000	Y 242.219
Ba (493.408 nm)	0.037742	ppm	0.000198	0.53	5162.170000	Y_R 488.368
Be (234.861 nm)	-0.000018 u	ppm	0.000003	18.75	-4.227550	Y_R 488.368
Bi (223.061 nm)	-0.000172 u	ppm	0.000527	> 100.00	-10.964300	Y 377.433
Ca (315.887 nm)	97.876948	ppm	0.162088	0.17	77665.397742	Y_R 377.433
Cd (214.439 nm)	0.000234	ppm	0.000047	19.97	3.516410	Y 377.433
Co (228.615 nm)	-0.000708 u	ppm	0.000144	20.35	-31.758500	Y 242.219
Cr (205.560 nm)	0.000310 u	ppm	0.000482	> 100.00	-4.689120	Y 377.433
Cu (324.754 nm)	0.001259	ppm	0.000303	24.03	317.380000	Y 377.433
Fe (238.204 nm)	0.113773	ppm	0.000192	0.17	281.010841	Y_R 377.433
Fe H (259.940 nm)	0.110472 u	ppm	0.001806	1.64	164.194000	Y_R 377.433
K (766.491 nm)	1.938410	ppm	0.246901	12.74	3809.090000	Y_R2 488.368
Li (670.783 nm)	0.011415	ppm	0.003079	26.97	-2349.770000	Y_R2 488.368
Mg (279.078 nm)	29.593400	ppm	0.085578	0.29	96848.000000	Y 377.433
Mn (257.610 nm)	0.667304	ppm	0.001602	0.24	181936.000000	Y 377.433
Mo (202.032 nm)	0.000225	ppm	0.000253	> 100.00	13.971700	Y 377.433
Na (589.592 nm)	24.487300	ppm	0.081551	0.33	20260.500000	Y_R2 488.368
Na H (589.593 nm)	26.398701 u	ppm	0.127941	0.48	14205.279631	Y_R4
Ni (231.604 nm)	-0.002809 u	ppm	0.000554	19.70	-23.155500	Y 377.433
P (213.618 nm)	0.072570	ppm	0.003969	5.47	98.995100	Y 242.219
Pb (220.353 nm)	0.000656 u	ppm	0.002082	> 100.00	10.436600	Y 242.219
S (181.972 nm)	88.229608	ppm	0.330350	0.37	40424.772208	Y 377.433
Sb (206.834 nm)	-0.007155 u	ppm	0.002018	28.20	-10.298100	Y 377.433
Se (196.026 nm)	0.000604 u	ppm	0.002462	> 100.00	10.671100	Y 242.219
Si (288.158 nm)	7.733400	ppm	0.039313	0.51	50272.900000	Y 377.433
Sn (189.925 nm)	0.001792	ppm	0.000365	20.36	4.974170	Y 377.433
Sr (421.552 nm)	1.396385	ppm	0.004412	0.32	210320.276467	Y_R 488.368
Th (288.505 nm)	-0.003598 u	ppm	0.000733	20.36	17.390800	Y 377.433
Ti (336.122 nm)	-0.000133 u	ppm	0.000076	57.29	-117.323000	Y 377.433
Tl (190.794 nm)	0.002341	ppm	0.002394	> 100.00	3.253530	Y 377.433
U (409.013 nm)	0.031265	ppm	0.012010	38.41	61.486800	Y 377.433
V (292.401 nm)	0.000509	ppm	0.000121	23.69	-121.887000	Y 377.433
Zn (206.200 nm)	0.006237	ppm	0.000356	5.70	32.127200	Y 377.433
Zr (343.823 nm)	-0.000134 u	ppm	0.000133	98.73	-169.221000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993183	22957.878655	0.001222	0.12
Y 377.433	0.985883	689557.565948	0.000566	0.06
Y_R 377.433	0.987442	59867.400000	0.000949	0.10
Y_R 488.368	0.998594	52753.400000	0.002385	0.24
Y_R2 488.368	0.979203	103800.655113	0.005526	0.56
Y_R4	0.985400	44342.900000	0.005455	0.55

Sample Name: 280-123846-a-4-a

Date: 5/24/2019 4:03:49 PM Rack:Tube: 1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000672	ppm	0.000089	13.20	-259.043000	Y 377.433
Al (394.401 nm)	37.615300 o	ppm	0.141623	0.38	459199.000000	Y 377.433
Al H (396.152 nm)	37.560600	ppm	0.171429	0.46	81877.600000	Y_R 377.433
As (188.980 nm)	0.015547	ppm	0.000116	0.74	20.840800	Y 242.219
B (249.678 nm)	0.013125	ppm	0.000217	1.65	118.832000	Y 242.219
Ba (493.408 nm)	0.169718	ppm	0.000258	0.15	18349.000000	Y_R 488.368
Be (234.861 nm)	0.001774	ppm	0.000102	5.74	14.810700	Y_R 488.368
Bi (223.061 nm)	0.004028	ppm	0.001481	36.76	4.675110	Y 377.433
Ca (315.887 nm)	24.170629	ppm	0.048237	0.20	19136.824774	Y_R 377.433
Cd (214.439 nm)	0.000538	ppm	0.000017	3.12	29.874900	Y 377.433
Co (228.615 nm)	0.012849	ppm	0.000251	1.96	308.528000	Y 242.219
Cr (205.560 nm)	0.066124	ppm	0.000120	0.18	433.223000	Y 377.433
Cu (324.754 nm)	0.095051	ppm	0.000196	0.21	4750.990000	Y 377.433
Fe (238.204 nm)	37.339520 o	ppm	0.080489	0.22	89889.883643	Y_R 377.433
Fe H (259.940 nm)	37.215200	ppm	0.103511	0.28	51479.500000	Y_R 377.433
K (766.491 nm)	5.563330	ppm	0.210957	3.79	7309.260000	Y_R2 488.368
Li (670.783 nm)	0.030651	ppm	0.002750	8.97	-2019.480000	Y_R2 488.368
Mg (279.078 nm)	11.354700	ppm	0.006808	0.06	37115.900000	Y 377.433
Mn (257.610 nm)	1.150080	ppm	0.000506	0.04	313569.000000	Y 377.433
Mo (202.032 nm)	0.001829	ppm	0.000014	0.76	34.184700	Y 377.433
Na (589.592 nm)	3.330910	ppm	0.000682	0.02	2923.100000	Y_R2 488.368
Na H (589.593 nm)	4.562117 u	ppm	0.055011	1.21	2357.706706	Y_R4
Ni (231.604 nm)	0.019656	ppm	0.001757	8.94	93.081400	Y 377.433
P (213.618 nm)	0.833976	ppm	0.000816	0.10	1166.760000	Y 242.219
Pb (220.353 nm)	0.045203	ppm	0.003493	7.73	144.935000	Y 242.219
S (181.972 nm)	9.140641	ppm	0.016455	0.18	4203.538159	Y 377.433
Sb (206.834 nm)	0.001042 u	ppm	0.004909	> 100.00	4.954000	Y 377.433
Se (196.026 nm)	0.003735	ppm	0.002321	62.13	6.478990	Y 242.219
Si (288.158 nm)	53.393800	ppm	0.425537	0.80	344215.000000	Y 377.433
Sn (189.925 nm)	0.000207 u	ppm	0.001093	> 100.00	2.424190	Y 377.433
Sr (421.552 nm)	0.087838	ppm	0.000205	0.23	13257.241817	Y_R 488.368
Th (288.505 nm)	0.051944	ppm	0.001920	3.70	116.007000	Y 377.433
Ti (336.122 nm)	0.489149	ppm	0.005235	1.07	62237.800000	Y 377.433
Tl (190.794 nm)	0.000933	ppm	0.000429	45.99	-2.887450	Y 377.433
U (409.013 nm)	-0.027716 u	ppm	0.002337	8.43	-91.032600	Y 377.433
V (292.401 nm)	0.048532	ppm	0.000132	0.27	2376.310000	Y 377.433
Zn (206.200 nm)	0.204107	ppm	0.000153	0.08	927.080000	Y 377.433
Zr (343.823 nm)	0.020238	ppm	0.000203	1.00	984.072000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.023063	23648.588075	0.000155	0.02
Y 377.433	1.011199	707263.910667	0.001478	0.15
Y_R 377.433	1.029820	62436.700000	0.002558	0.25
Y_R 488.368	1.041360	55012.600000	0.000150	0.01
Y_R2 488.368	1.031307	109323.951371	0.000923	0.09
Y_R4	1.052540	47364.200000	0.005511	0.52

Sample Name: CCVH-5713036

Date: 5/24/2019 4:07:34 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004824	ppm	0.000016	0.34	-110.803000	Y 377.433
Al (394.401 nm)	51.176500 o	ppm	0.078142	0.15	623481.000000	Y 377.433
Al H (396.152 nm)	49.896000	ppm	0.045982	0.09	108811.000000	Y_R 377.433
As (188.980 nm)	0.002231	ppm	0.001279	57.32	0.419548	Y 242.219
B (249.678 nm)	-0.002181 u	ppm	0.000548	25.11	1.941520	Y 242.219
Ba (493.408 nm)	0.002154	ppm	0.001067	49.52	1654.390000	Y_R 488.368
Be (234.861 nm)	0.001205	ppm	0.000098	8.11	-96.736000	Y_R 488.368
Bi (223.061 nm)	0.011474	ppm	0.003806	33.17	23.239100	Y 377.433
Ca (315.887 nm)	-0.009192 u	ppm	0.003550	38.62	-63.832507	Y_R 377.433
Cd (214.439 nm)	0.001351	ppm	0.000099	7.36	65.276800	Y 377.433
Co (228.615 nm)	0.003228	ppm	0.000151	4.68	60.770600	Y 242.219
Cr (205.560 nm)	0.001577	ppm	0.000237	15.01	2.410950	Y 377.433
Cu (324.754 nm)	0.004247	ppm	0.000211	4.96	1478.090000	Y 377.433
Fe (238.204 nm)	50.459657 o	ppm	0.056053	0.11	121472.343176	Y_R 377.433
Fe H (259.940 nm)	50.158800	ppm	0.027893	0.06	69380.300000	Y_R 377.433
K (766.491 nm)	0.257416	ppm	0.337163	> 100.00	2185.940000	Y_R2 488.368
Li (670.783 nm)	0.005467	ppm	0.002806	51.33	-2451.910000	Y_R2 488.368
Mg (279.078 nm)	0.040567	ppm	0.000473	1.17	66.049800	Y 377.433
Mn (257.610 nm)	0.001123	ppm	0.000026	2.33	295.110000	Y 377.433
Mo (202.032 nm)	0.001222	ppm	0.000507	41.45	26.536800	Y 377.433
Na (589.592 nm)	234.306000 o	ppm	0.212351	0.09	192494.000000	Y_R2 488.368
Na H (589.593 nm)	246.925321	ppm	0.817850	0.33	133853.353159	Y_R4
Ni (231.604 nm)	0.003780	ppm	0.000861	22.78	10.936200	Y 377.433
P (213.618 nm)	5.055800	ppm	0.007871	0.16	7220.870000	Y 242.219
Pb (220.353 nm)	0.006672	ppm	0.000098	1.47	22.518400	Y 242.219
S (181.972 nm)	5.024649	ppm	0.023323	0.46	2313.766550	Y 377.433
Sb (206.834 nm)	-0.001699 u	ppm	0.004236	> 100.00	3.161460	Y 377.433
Se (196.026 nm)	0.008919	ppm	0.001604	17.98	9.314140	Y 242.219
Si (288.158 nm)	0.108577	ppm	0.002787	2.57	1187.520000	Y 377.433
Sn (189.925 nm)	0.002386	ppm	0.000927	38.88	5.928880	Y 377.433
Sr (421.552 nm)	0.001454	ppm	0.000115	7.94	249.707734	Y_R 488.368
Th (288.505 nm)	4.950770	ppm	0.008996	0.18	8550.210000	Y 377.433
Ti (336.122 nm)	0.001768	ppm	0.000210	11.88	-207.524000	Y 377.433
Tl (190.794 nm)	-0.001416 u	ppm	0.001746	> 100.00	-6.242800	Y 377.433
U (409.013 nm)	0.550074 Q	ppm	0.002107	0.38	1757.300000 Q	Y 377.433
V (292.401 nm)	0.000367	ppm	0.000149	40.66	372.747000	Y 377.433
Zn (206.200 nm)	0.003110	ppm	0.001074	34.54	25.075400	Y 377.433
Zr (343.823 nm)	0.001305	ppm	0.000300	23.00	-87.743800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.966092	22331.662435	0.006248	0.65
Y 377.433	0.953693	667042.625242	0.006797	0.71
Y_R 377.433	0.975277	59129.800000	0.002445	0.25
Y_R 488.368	0.990066	52302.900000	0.008002	0.81
Y_R2 488.368	0.964768	102270.547482	0.000702	0.07
Y_R4	0.989556	44530.000000	0.002392	0.24

Sample Name: CCV-5717467

Date: 5/24/2019 4:11:16 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.502924	ppm	0.000434	0.09	17085.000000	Y 377.433
Al (394.401 nm)	0.517701	ppm	0.000674	0.13	6536.400000	Y 377.433
Al H (396.152 nm)	0.562858 u	ppm	0.000840	0.15	1221.510000	Y_R 377.433
As (188.980 nm)	0.506861	ppm	0.000660	0.13	762.141000	Y 242.219
B (249.678 nm)	0.490446	ppm	0.000807	0.16	3547.800000	Y 242.219
Ba (493.408 nm)	0.501906	ppm	0.001859	0.37	51438.400000	Y_R 488.368
Be (234.861 nm)	0.495760	ppm	0.001372	0.28	48811.100000	Y_R 488.368
Bi (223.061 nm)	1.009170	ppm	0.006504	0.64	2200.150000	Y 377.433
Ca (315.887 nm)	5.027003	ppm	0.016379	0.33	3923.571557	Y_R 377.433
Cd (214.439 nm)	0.523988	ppm	0.000248	0.05	19373.000000	Y 377.433
Co (228.615 nm)	0.508084	ppm	0.001529	0.30	11948.100000	Y 242.219
Cr (205.560 nm)	0.521061	ppm	0.002712	0.52	3464.720000	Y 377.433
Cu (324.754 nm)	0.506339	ppm	0.001379	0.27	23932.600000	Y 377.433
Fe (238.204 nm)	2.538741	ppm	0.000038	0.00	6118.333156	Y_R 377.433
Fe H (259.940 nm)	2.549270 u	ppm	0.003418	0.13	3537.010000	Y_R 377.433
K (766.491 nm)	49.722700	ppm	0.406285	0.82	49949.000000	Y_R2 488.368
Li (670.783 nm)	0.501873	ppm	0.001238	0.25	6071.520000	Y_R2 488.368
Mg (279.078 nm)	20.205800	ppm	0.019458	0.10	66125.600000	Y 377.433
Mn (257.610 nm)	0.504242	ppm	0.000278	0.06	137475.000000	Y 377.433
Mo (202.032 nm)	0.509973	ppm	0.000221	0.04	6438.950000	Y 377.433
Na (589.592 nm)	24.119100	ppm	0.109109	0.45	20063.500000	Y_R2 488.368
Na H (589.593 nm)	26.668760 u	ppm	0.187250	0.70	14351.801756	Y_R4
Ni (231.604 nm)	0.520500	ppm	0.000465	0.09	2685.080000	Y 377.433
P (213.618 nm)	0.049732	ppm	0.000044	0.09	-70.613800	Y 242.219
Pb (220.353 nm)	0.515384	ppm	0.000705	0.14	1643.320000	Y 242.219
S (181.972 nm)	0.013025	ppm	0.006965	53.48	20.509658	Y 377.433
Sb (206.834 nm)	0.516401	ppm	0.003525	0.68	871.026000	Y 377.433
Se (196.026 nm)	0.503847	ppm	0.002582	0.51	768.886000	Y 242.219
Si (288.158 nm)	5.017660	ppm	0.003831	0.08	32790.100000	Y 377.433
Sn (189.925 nm)	0.520208	ppm	0.001686	0.32	839.135000	Y 377.433
Sr (421.552 nm)	0.488223	ppm	0.001780	0.36	73550.451063	Y_R 488.368
Th (288.505 nm)	0.023422	ppm	0.000473	2.02	1.751330	Y 377.433
Ti (336.122 nm)	0.497258	ppm	0.000412	0.08	63214.500000	Y 377.433
Tl (190.794 nm)	0.521339	ppm	0.002789	0.53	1190.860000	Y 377.433
U (409.013 nm)	0.008528	ppm	0.000946	11.09	-59.273900	Y 377.433
V (292.401 nm)	0.502834	ppm	0.000127	0.03	25784.600000	Y 377.433
Zn (206.200 nm)	0.524911	ppm	0.002204	0.42	2364.800000	Y 377.433
Zr (343.823 nm)	0.499662	ppm	0.000592	0.12	28125.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.986973	22814.342911	0.001061	0.11
Y 377.433	0.973698	681034.719848	0.000217	0.02
Y_R 377.433	0.987610	59877.600000	0.002127	0.22
Y_R 488.368	0.999335	52792.600000	0.001155	0.12
Y_R2 488.368	0.981167	104008.858325	0.004898	0.50
Y_R4	0.997717	44897.200000	0.002273	0.23

Sample Name: CCB

Date: 5/24/2019 4:14:52 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000212	ppm	0.000205	96.87	-259.611000	Y 377.433
Al (394.401 nm)	0.000135 u	ppm	0.002654	> 100.00	91.036600	Y 377.433
Al H (396.152 nm)	0.131432 Zu	ppm	0.006925	5.27	29.077400 Z	Y_R 377.433
As (188.980 nm)	-0.000298 u	ppm	0.000590	> 100.00	-2.024880	Y 242.219
B (249.678 nm)	-0.002781 u	ppm	0.001059	38.08	26.809300	Y 242.219
Ba (493.408 nm)	-0.000505 u	ppm	0.000353	69.83	1349.090000	Y_R 488.368
Be (234.861 nm)	0.000006 u	ppm	0.000024	> 100.00	-1.373880	Y_R 488.368
Bi (223.061 nm)	0.001771	ppm	0.000562	31.71	-6.733210	Y 377.433
Ca (315.887 nm)	0.005535 u	ppm	0.013637	> 100.00	-64.642696	Y_R 377.433
Cd (214.439 nm)	0.000061	ppm	0.000022	35.83	-2.918730	Y 377.433
Co (228.615 nm)	0.000098	ppm	0.000097	99.06	-12.836100	Y 242.219
Cr (205.560 nm)	0.000139 u	ppm	0.000274	> 100.00	-5.826180	Y 377.433
Cu (324.754 nm)	0.000863	ppm	0.000196	22.69	358.524000	Y 377.433
Fe (238.204 nm)	-0.000690 u	ppm	0.000630	91.32	5.478470	Y_R 377.433
Fe H (259.940 nm)	0.004617 u	ppm	0.000964	20.88	17.798000	Y_R 377.433
K (766.491 nm)	-0.147946 u	ppm	0.085423	57.74	1794.530000	Y_R2 488.368
Li (670.783 nm)	0.009187	ppm	0.007553	82.21	-2388.020000	Y_R2 488.368
Mg (279.078 nm)	-0.000083 u	ppm	0.000211	> 100.00	8.287930	Y 377.433
Mn (257.610 nm)	0.000075	ppm	0.000021	28.48	9.385630	Y 377.433
Mo (202.032 nm)	0.000376	ppm	0.000201	53.38	15.869500	Y 377.433
Na (589.592 nm)	0.042131	ppm	0.038610	91.64	184.847000	Y_R2 488.368
Na H (589.593 nm)	1.372533 u	ppm	0.048128	3.51	627.178272	Y_R4
Ni (231.604 nm)	-0.000060 u	ppm	0.000169	> 100.00	-8.931800	Y 377.433
P (213.618 nm)	-0.000004 u	ppm	0.001054	> 100.00	-4.333780	Y 242.219
Pb (220.353 nm)	0.001063	ppm	0.000947	89.08	11.609300	Y 242.219
S (181.972 nm)	0.002604 u	ppm	0.006629	> 100.00	13.891481	Y 377.433
Sb (206.834 nm)	-0.002251 u	ppm	0.001586	70.45	-2.026490	Y 377.433
Se (196.026 nm)	-0.002948 u	ppm	0.001546	52.45	4.411790	Y 242.219
Si (288.158 nm)	0.010868	ppm	0.001158	10.66	558.512000	Y 377.433
Sn (189.925 nm)	0.000151	ppm	0.000180	> 100.00	2.332690	Y 377.433
Sr (421.552 nm)	0.000210	ppm	0.000058	27.61	54.781271	Y_R 488.368
Th (288.505 nm)	0.001966	ppm	0.001722	87.59	16.041900	Y 377.433
Ti (336.122 nm)	0.000102	ppm	0.000008	7.79	-420.789000	Y 377.433
Tl (190.794 nm)	-0.000292 u	ppm	0.000531	> 100.00	1.147810	Y 377.433
U (409.013 nm)	-0.007273 u	ppm	0.002940	40.43	-47.821500	Y 377.433
V (292.401 nm)	-0.000500 u	ppm	0.000022	4.39	-171.240000	Y 377.433
Zn (206.200 nm)	-0.000688 u	ppm	0.000249	36.25	0.970138	Y 377.433
Zr (343.823 nm)	-0.000155 u	ppm	0.000139	89.62	-170.391000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.004080	23209.775309	0.001572	0.16
Y 377.433	0.989852	692333.166173	0.001901	0.19
Y_R 377.433	0.996619	60423.700000	0.000312	0.03
Y_R 488.368	0.999884	52821.500000	0.007003	0.70
Y_R2 488.368	1.007943	106847.342153	0.004678	0.46
Y_R4	1.006670	45299.900000	0.007132	0.71

Sample Name: CCVL-5719884

Date: 5/24/2019 4:18:05 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008791	ppm	0.000191	2.18	35.221400	Y 377.433
Al (394.401 nm)	0.103111	ppm	0.000105	0.10	1360.730000	Y 377.433
Al H (396.152 nm)	0.237222 u	ppm	0.010267	4.33	265.984000	Y_R 377.433
As (188.980 nm)	0.016429	ppm	0.002342	14.25	23.178300	Y 242.219
B (249.678 nm)	0.093113	ppm	0.000349	0.38	711.594000	Y 242.219
Ba (493.408 nm)	0.009295	ppm	0.000440	4.74	2326.160000	Y_R 488.368
Be (234.861 nm)	0.000958	ppm	0.000051	5.28	91.887900	Y_R 488.368
Bi (223.061 nm)	0.095211	ppm	0.005464	5.74	197.936000	Y 377.433
Ca (315.887 nm)	0.207236	ppm	0.012195	5.88	95.573994	Y_R 377.433
Cd (214.439 nm)	0.005452	ppm	0.000031	0.56	196.462000	Y 377.433
Co (228.615 nm)	0.010624	ppm	0.000009	0.08	235.000000	Y 242.219
Cr (205.560 nm)	0.011073	ppm	0.000063	0.57	66.916300	Y 377.433
Cu (324.754 nm)	0.016722	ppm	0.000159	0.95	1095.120000	Y 377.433
Fe (238.204 nm)	0.103788	ppm	0.000714	0.69	256.976420	Y_R 377.433
Fe H (259.940 nm)	0.107316 u	ppm	0.006623	6.17	159.830000	Y_R 377.433
K (766.491 nm)	3.069070	ppm	0.061745	2.01	4900.840000	Y_R2 488.368
Li (670.783 nm)	0.030488 Q	ppm	0.005350	17.55	-2022.280000 Q	Y_R2 488.368
Mg (279.078 nm)	0.208988	ppm	0.001280	0.61	690.754000	Y 377.433
Mn (257.610 nm)	0.010808	ppm	0.000033	0.31	2935.920000	Y 377.433
Mo (202.032 nm)	0.020404	ppm	0.000382	1.87	268.309000	Y 377.433
Na (589.592 nm)	1.036070	ppm	0.026569	2.56	1002.950000	Y_R2 488.368
Na H (589.593 nm)	2.093390 u	ppm	0.060738	2.90	1018.283852	Y_R4
Ni (231.604 nm)	0.044263	ppm	0.000037	0.08	220.419000	Y 377.433
P (213.618 nm)	2.885800	ppm	0.013175	0.46	4117.960000	Y 242.219
Pb (220.353 nm)	0.009857	ppm	0.000935	9.48	39.693600	Y 242.219
S (181.972 nm)	0.090288	ppm	0.006414	7.10	54.086541	Y 377.433
Sb (206.834 nm)	0.021591	ppm	0.000059	0.27	38.082000	Y 377.433
Se (196.026 nm)	0.020456	ppm	0.000351	1.71	39.700700	Y 242.219
Si (288.158 nm)	0.504747	ppm	0.003842	0.76	3737.890000	Y 377.433
Sn (189.925 nm)	0.105021	ppm	0.001872	1.78	171.075000	Y 377.433
Sr (421.552 nm)	0.009460	ppm	0.000278	2.94	1447.895797	Y_R 488.368
Th (288.505 nm)	0.014187	ppm	0.000728	5.13	36.780600	Y 377.433
Ti (336.122 nm)	0.009924	ppm	0.000115	1.16	836.678000	Y 377.433
Tl (190.794 nm)	0.018145	ppm	0.002450	13.50	43.197700	Y 377.433
U (409.013 nm)	0.061255	ppm	0.010754	17.56	168.342000	Y 377.433
V (292.401 nm)	0.009542	ppm	0.000044	0.46	341.835000	Y 377.433
Zn (206.200 nm)	0.022380	ppm	0.000020	0.09	104.718000	Y 377.433
Zr (343.823 nm)	0.009774	ppm	0.000106	1.08	391.719000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.020465	23588.523572	0.000237	0.02
Y 377.433	1.003994	702224.587947	0.000471	0.05
Y_R 377.433	1.015860	61590.400000	0.004153	0.41
Y_R 488.368	1.028680	54342.700000	0.008270	0.80
Y_R2 488.368	1.017443	107854.372340	0.001631	0.16
Y_R4	1.018610	45837.300000	0.001763	0.17

Sample Name: 280-123846-a-5-a

Date: 5/24/2019 4:21:34 PM Rack:Tube: 1:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001592	ppm	0.000487	30.62	-213.144000	Y 377.433
Al (394.401 nm)	0.644100	ppm	0.000392	0.06	8080.990000	Y 377.433
Al H (396.152 nm)	0.670733 u	ppm	0.003904	0.58	1382.690000	Y_R 377.433
As (188.980 nm)	0.000419	ppm	0.000480	> 100.00	-1.089120	Y 242.219
B (249.678 nm)	0.006090	ppm	0.001422	23.35	87.090600	Y 242.219
Ba (493.408 nm)	0.030112	ppm	0.000298	0.99	4405.680000	Y_R 488.368
Be (234.861 nm)	0.000826	ppm	0.000012	1.51	56.903000	Y_R 488.368
Bi (223.061 nm)	0.000653	ppm	0.000707	> 100.00	-8.257790	Y 377.433
Ca (315.887 nm)	126.584757	ppm	0.372927	0.29	100465.461750	Y_R 377.433
Cd (214.439 nm)	0.020932	ppm	0.000055	0.26	771.052000	Y 377.433
Co (228.615 nm)	0.051311	ppm	0.000559	1.09	1190.760000	Y 242.219
Cr (205.560 nm)	0.000461	ppm	0.000088	19.18	-3.763440	Y 377.433
Cu (324.754 nm)	0.942333	ppm	0.000048	0.01	44197.900000	Y 377.433
Fe (238.204 nm)	5.317608	ppm	0.005004	0.09	12807.549953	Y_R 377.433
Fe H (259.940 nm)	5.293550	ppm	0.005204	0.10	7332.310000	Y_R 377.433
K (766.491 nm)	1.894150	ppm	0.454348	23.99	3766.350000	Y_R2 488.368
Li (670.783 nm)	0.010437	ppm	0.000818	7.84	-2366.560000	Y_R2 488.368
Mg (279.078 nm)	41.808700	ppm	0.019733	0.05	136814.000000	Y 377.433
Mn (257.610 nm)	4.610750	ppm	0.008387	0.18	1257160.000000	Y 377.433
Mo (202.032 nm)	0.000483	ppm	0.000317	65.65	17.223200	Y 377.433
Na (589.592 nm)	8.044790	ppm	0.091916	1.14	6761.120000	Y_R2 488.368
Na H (589.593 nm)	9.183115 u	ppm	0.072024	0.78	4864.857462	Y_R4
Ni (231.604 nm)	0.034248	ppm	0.000135	0.39	168.589000	Y 377.433
P (213.618 nm)	0.084653	ppm	0.005542	6.55	-106.115000	Y 242.219
Pb (220.353 nm)	0.000651	ppm	0.000727	> 100.00	10.385500	Y 242.219
S (181.972 nm)	153.715193 bo	ppm	0.332982	0.22	70428.108621	Y 377.433
Sb (206.834 nm)	-0.005261 u	ppm	0.000035	0.66	-6.657160	Y 377.433
Se (196.026 nm)	0.000283 u	ppm	0.001780	> 100.00	14.349300	Y 242.219
Si (288.158 nm)	6.902190	ppm	0.006316	0.09	44921.900000	Y 377.433
Sn (189.925 nm)	0.002746	ppm	0.000347	12.62	6.508220	Y 377.433
Sr (421.552 nm)	0.487549	ppm	0.000232	0.05	73449.408899	Y_R 488.368
Th (288.505 nm)	-0.014110 u	ppm	0.002064	14.63	76.228700	Y 377.433
Ti (336.122 nm)	-0.000778 u	ppm	0.000046	5.93	-102.753000	Y 377.433
Tl (190.794 nm)	0.002005	ppm	0.000848	42.30	0.986158	Y 377.433
U (409.013 nm)	0.050886	ppm	0.013840	27.20	123.742000	Y 377.433
V (292.401 nm)	0.000406	ppm	0.000169	41.71	-125.936000	Y 377.433
Zn (206.200 nm)	3.584740	ppm	0.000179	0.00	16124.400000	Y 377.433
Zr (343.823 nm)	-0.000030 u	ppm	0.000253	> 100.00	-163.321000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.983865	22742.497327	0.000993	0.10
Y 377.433	0.975777	682489.124320	0.000259	0.03
Y_R 377.433	0.992999	60204.300000	0.001665	0.17
Y_R 488.368	1.005000	53091.900000	0.002189	0.22
Y_R2 488.368	0.978564	103732.922088	0.008981	0.92
Y_R4	0.987971	44458.700000	0.006299	0.64

Sample Name: 280-123846-a-6-a

Date: 5/24/2019 4:25:12 PM Rack:Tube: 1:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003287	ppm	0.000073	2.21	-155.553000	Y 377.433
Al (394.401 nm)	3.512690 o	ppm	0.000729	0.02	43182.100000	Y 377.433
Al H (396.152 nm)	3.451910	ppm	0.006881	0.20	7618.650000	Y_R 377.433
As (188.980 nm)	0.030833	ppm	0.000624	2.02	42.039700	Y 242.219
B (249.678 nm)	0.009782	ppm	0.001638	16.75	55.826700	Y 242.219
Ba (493.408 nm)	0.023830	ppm	0.000131	0.55	3858.800000	Y_R 488.368
Be (234.861 nm)	0.001493	ppm	0.000000	0.02	-299.324000	Y_R 488.368
Bi (223.061 nm)	0.001666	ppm	0.001496	89.78	11.200000	Y 377.433
Ca (315.887 nm)	165.043619	ppm	0.225947	0.14	131010.425641	Y_R 377.433
Cd (214.439 nm)	0.029926	ppm	0.000268	0.89	1144.170000	Y 377.433
Co (228.615 nm)	0.103972	ppm	0.000282	0.27	2429.240000	Y 242.219
Cr (205.560 nm)	0.005604	ppm	0.000274	4.89	30.363500	Y 377.433
Cu (324.754 nm)	1.694620	ppm	0.003630	0.21	79276.100000	Y 377.433
Fe (238.204 nm)	105.065283 o	ppm	0.180401	0.17	252917.617265	Y_R 377.433
Fe H (259.940 nm)	104.924000	ppm	0.108029	0.10	145120.000000	Y_R 377.433
K (766.491 nm)	2.608630	ppm	0.417087	15.99	4456.250000	Y_R2 488.368
Li (670.783 nm)	0.011083	ppm	0.000891	8.04	-2355.480000	Y_R2 488.368
Mg (279.078 nm)	53.800900	ppm	0.085349	0.16	175925.000000	Y 377.433
Mn (257.610 nm)	12.031900	ppm	0.008817	0.07	3280600.000000	Y 377.433
Mo (202.032 nm)	0.008205	ppm	0.000368	4.48	114.545000	Y 377.433
Na (589.592 nm)	8.275290	ppm	0.056797	0.69	6948.970000	Y_R2 488.368
Na H (589.593 nm)	9.326577 u	ppm	0.106595	1.14	4942.693840	Y_R4
Ni (231.604 nm)	0.066574	ppm	0.000685	1.03	335.857000	Y 377.433
P (213.618 nm)	0.301778	ppm	0.006761	2.24	28.577300	Y 242.219
Pb (220.353 nm)	0.121064	ppm	0.000259	0.21	392.610000	Y 242.219
S (181.972 nm)	252.523897 bo	ppm	1.161482	0.46	115703.470971	Y 377.433
Sb (206.834 nm)	-0.002700 u	ppm	0.001627	60.25	5.977450	Y 377.433
Se (196.026 nm)	0.000923 u	ppm	0.002290	> 100.00	-0.014301	Y 242.219
Si (288.158 nm)	11.396600	ppm	0.014585	0.13	73854.900000	Y 377.433
Sn (189.925 nm)	0.001476	ppm	0.000672	45.57	4.464640	Y 377.433
Sr (421.552 nm)	0.892266	ppm	0.001711	0.19	134415.150250	Y_R 488.368
Th (288.505 nm)	-0.013504 u	ppm	0.004397	32.56	215.027000	Y 377.433
Ti (336.122 nm)	0.021771	ppm	0.000206	0.95	2914.040000	Y 377.433
Tl (190.794 nm)	0.008094	ppm	0.002448	30.25	1.482440	Y 377.433
U (409.013 nm)	0.084285	ppm	0.000529	0.63	297.856000	Y 377.433
V (292.401 nm)	0.002812	ppm	0.000218	7.77	3.498700	Y 377.433
Zn (206.200 nm)	5.692840	ppm	0.004102	0.07	25617.900000	Y 377.433
Zr (343.823 nm)	0.002225	ppm	0.000254	11.39	-35.641100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.970895	22442.694327	0.000918	0.09
Y 377.433	0.969656	678207.503162	0.000628	0.06
Y_R 377.433	0.980227	59429.900000	0.000652	0.07
Y_R 488.368	0.994041	52512.900000	0.002203	0.22
Y_R2 488.368	0.979825	103866.657743	0.004295	0.44
Y_R4	0.981990	44189.500000	0.004429	0.45

Sample Name: 280-123846-a-7-a

Date: 5/24/2019 4:28:57 PM Rack:Tube: 1:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000107	ppm	0.000149	> 100.00	-263.430000	Y 377.433
Al (394.401 nm)	0.002480	ppm	0.001275	51.40	121.694000	Y 377.433
Al H (396.152 nm)	0.130443 u	ppm	0.000784	0.60	26.951700	Y_R 377.433
As (188.980 nm)	0.001879	ppm	0.001427	75.93	1.253260	Y 242.219
B (249.678 nm)	0.000239	ppm	0.000276	> 100.00	48.321300	Y 242.219
Ba (493.408 nm)	-0.000790 u	ppm	0.000502	63.48	1320.750000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000034	60.35	-7.959800	Y_R 488.368
Bi (223.061 nm)	-0.001664 u	ppm	0.001322	79.48	-14.238700	Y 377.433
Ca (315.887 nm)	0.048630	ppm	0.005051	10.39	-30.415909	Y_R 377.433
Cd (214.439 nm)	-0.000096 u	ppm	0.000149	> 100.00	-8.691150	Y 377.433
Co (228.615 nm)	-0.000264 u	ppm	0.000134	50.59	-21.334800	Y 242.219
Cr (205.560 nm)	0.000448	ppm	0.000328	73.10	-3.763510	Y 377.433
Cu (324.754 nm)	0.001449	ppm	0.000200	13.77	384.776000	Y 377.433
Fe (238.204 nm)	0.099273	ppm	0.000019	0.02	246.107994	Y_R 377.433
Fe H (259.940 nm)	0.105474 u	ppm	0.001731	1.64	157.282000	Y_R 377.433
K (766.491 nm)	-0.155821 u	ppm	0.396901	> 100.00	1786.930000	Y_R2 488.368
Li (670.783 nm)	0.011383	ppm	0.002735	24.03	-2350.320000	Y_R2 488.368
Mg (279.078 nm)	0.009683	ppm	0.000624	6.44	39.970000	Y 377.433
Mn (257.610 nm)	0.001656	ppm	0.000039	2.33	440.567000	Y 377.433
Mo (202.032 nm)	-0.000135 u	ppm	0.000346	> 100.00	9.432410	Y 377.433
Na (589.592 nm)	-0.006961 u	ppm	0.004815	69.17	144.507000	Y_R2 488.368
Na H (589.593 nm)	1.051729 u	ppm	0.055451	5.27	453.124019	Y_R4
Ni (231.604 nm)	0.001050	ppm	0.000674	64.17	-3.189250	Y 377.433
P (213.618 nm)	-0.003141 u	ppm	0.000876	27.89	-8.820160	Y 242.219
Pb (220.353 nm)	0.000006 u	ppm	0.000294	> 100.00	8.272240	Y 242.219
S (181.972 nm)	0.022835	ppm	0.003120	13.67	23.162623	Y 377.433
Sb (206.834 nm)	-0.005367 u	ppm	0.001099	20.48	-7.278590	Y 377.433
Se (196.026 nm)	-0.002372 u	ppm	0.001251	52.71	5.256070	Y 242.219
Si (288.158 nm)	0.008150	ppm	0.001996	24.49	541.012000	Y 377.433
Sn (189.925 nm)	0.001683	ppm	0.000223	13.23	4.798320	Y 377.433
Sr (421.552 nm)	0.000392	ppm	0.000060	15.38	82.182649	Y_R 488.368
Th (288.505 nm)	0.002430	ppm	0.000719	29.60	16.890000	Y 377.433
Ti (336.122 nm)	0.000176	ppm	0.000142	80.33	-411.213000	Y 377.433
Tl (190.794 nm)	-0.001144 u	ppm	0.000412	36.00	-0.813746	Y 377.433
U (409.013 nm)	0.001907 u	ppm	0.003115	> 100.00	-18.644900	Y 377.433
V (292.401 nm)	-0.000229 u	ppm	0.000160	69.86	-158.071000	Y 377.433
Zn (206.200 nm)	0.006748	ppm	0.000761	11.27	34.421200	Y 377.433
Zr (343.823 nm)	0.000046	ppm	0.000011	24.61	-159.023000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.007897	23297.998793	0.000400	0.04
Y 377.433	0.993103	694606.985693	0.000920	0.09
Y_R 377.433	1.004870	60924.200000	0.003054	0.30
Y_R 488.368	1.014530	53595.400000	0.000618	0.06
Y_R2 488.368	1.020983	108229.598710	0.001512	0.15
Y_R4	1.013370	45601.600000	0.002062	0.20

Sample Name: 280-123846-a-8-a

Date: 5/24/2019 4:32:28 PM Rack:Tube: 1:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001016	ppm	0.000054	5.27	-232.499000	Y 377.433
Al (394.401 nm)	0.007700	ppm	0.001678	21.79	254.187000	Y 377.433
Al H (396.152 nm)	0.096857 u	ppm	0.009637	9.95	43.795500	Y_R 377.433
As (188.980 nm)	0.001728	ppm	0.001638	94.81	0.950545	Y 242.219
B (249.678 nm)	0.002189	ppm	0.000565	25.82	60.659700	Y 242.219
Ba (493.408 nm)	0.182303	ppm	0.000746	0.41	19576.200000	Y_R 488.368
Be (234.861 nm)	-0.000050 u	ppm	0.000002	3.66	-18.985300	Y_R 488.368
Bi (223.061 nm)	0.000834 u	ppm	0.002993	> 100.00	-8.290450	Y 377.433
Ca (315.887 nm)	45.611523	ppm	0.143703	0.32	36155.898695	Y_R 377.433
Cd (214.439 nm)	0.000036	ppm	0.000010	28.93	-2.683720	Y 377.433
Co (228.615 nm)	0.000952	ppm	0.000053	5.53	7.257220	Y 242.219
Cr (205.560 nm)	0.000183 u	ppm	0.000832	> 100.00	-5.540510	Y 377.433
Cu (324.754 nm)	0.000200	ppm	0.000113	56.73	297.192000	Y 377.433
Fe (238.204 nm)	2.850758	ppm	0.007169	0.25	6869.412081	Y_R 377.433
Fe H (259.940 nm)	2.849080 u	ppm	0.009042	0.32	3951.640000	Y_R 377.433
K (766.491 nm)	1.028120	ppm	0.060382	5.87	2930.120000	Y_R2 488.368
Li (670.783 nm)	0.008206	ppm	0.003927	47.85	-2404.870000	Y_R2 488.368
Mg (279.078 nm)	16.064500	ppm	0.020118	0.13	52573.100000	Y 377.433
Mn (257.610 nm)	0.819413	ppm	0.000351	0.04	223410.000000	Y 377.433
Mo (202.032 nm)	0.000791	ppm	0.000331	41.85	21.100200	Y 377.433
Na (589.592 nm)	13.878200	ppm	0.061941	0.45	11584.100000	Y_R2 488.368
Na H (589.593 nm)	14.905658 u	ppm	0.120764	0.81	7969.658301	Y_R4
Ni (231.604 nm)	-0.000532 u	ppm	0.000391	73.53	-11.374500	Y 377.433
P (213.618 nm)	0.024204	ppm	0.003319	13.71	30.294800	Y 242.219
Pb (220.353 nm)	0.000593 u	ppm	0.001738	> 100.00	10.221400	Y 242.219
S (181.972 nm)	5.486028	ppm	0.000647	0.01	2529.888407	Y 377.433
Sb (206.834 nm)	-0.004438 u	ppm	0.002925	65.91	-5.484490	Y 377.433
Se (196.026 nm)	-0.000290 u	ppm	0.002542	> 100.00	8.829580	Y 242.219
Si (288.158 nm)	7.494590	ppm	0.010002	0.13	48735.500000	Y 377.433
Sn (189.925 nm)	0.002893	ppm	0.000961	33.21	6.744920	Y 377.433
Sr (421.552 nm)	0.241304	ppm	0.000925	0.38	36364.201544	Y_R 488.368
Th (288.505 nm)	-0.008224 u	ppm	0.003575	43.47	13.472900	Y 377.433
Ti (336.122 nm)	-0.000009 u	ppm	0.000174	> 100.00	-280.412000	Y 377.433
Tl (190.794 nm)	-0.001063 u	ppm	0.000112	10.57	-2.768880	Y 377.433
U (409.013 nm)	0.027625	ppm	0.007279	26.35	58.902200	Y 377.433
V (292.401 nm)	-0.000040 u	ppm	0.000225	> 100.00	-150.718000	Y 377.433
Zn (206.200 nm)	0.003176	ppm	0.000112	3.53	18.742400	Y 377.433
Zr (343.823 nm)	0.000174	ppm	0.000050	28.83	-151.744000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.999868	23112.405310	0.000071	0.01
Y 377.433	0.990018	692449.677252	0.001576	0.16
Y_R 377.433	1.009820	61224.200000	0.000843	0.08
Y_R 488.368	1.022240	54002.500000	0.000304	0.03
Y_R2 488.368	1.015908	107691.587008	0.002207	0.22
Y_R4	1.013210	45594.600000	0.007582	0.75

Sample Name: 280-123846-a-9-a

Date: 5/24/2019 4:36:04 PM Rack:Tube: 1:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004521	ppm	0.000348	7.69	-111.896000	Y 377.433
Al (394.401 nm)	1.677230	ppm	0.004897	0.29	20618.300000	Y 377.433
Al H (396.152 nm)	1.789520	ppm	0.006951	0.39	3731.240000	Y_R 377.433
As (188.980 nm)	0.028839	ppm	0.001136	3.94	41.113000	Y 242.219
B (249.678 nm)	0.003337	ppm	0.000986	29.56	54.121900	Y 242.219
Ba (493.408 nm)	0.034608	ppm	0.000377	1.09	4872.290000	Y_R 488.368
Be (234.861 nm)	0.000215	ppm	0.000003	1.29	-100.689000	Y_R 488.368
Bi (223.061 nm)	0.004815	ppm	0.001667	34.62	4.839300	Y 377.433
Ca (315.887 nm)	43.107749	ppm	0.036875	0.09	34167.805300	Y_R 377.433
Cd (214.439 nm)	0.011972	ppm	0.000042	0.35	449.048000	Y 377.433
Co (228.615 nm)	0.022578	ppm	0.000120	0.53	515.937000	Y 242.219
Cr (205.560 nm)	0.000690	ppm	0.000839	> 100.00	-2.316160	Y 377.433
Cu (324.754 nm)	0.714707	ppm	0.001725	0.24	33629.000000	Y 377.433
Fe (238.204 nm)	28.355511 o	ppm	0.016699	0.06	68263.805562	Y_R 377.433
Fe H (259.940 nm)	28.270700	ppm	0.005491	0.02	39109.300000	Y_R 377.433
K (766.491 nm)	2.805700	ppm	0.231715	8.26	4646.530000	Y_R2 488.368
Li (670.783 nm)	0.013402	ppm	0.000963	7.18	-2315.660000	Y_R2 488.368
Mg (279.078 nm)	11.888900	ppm	0.037524	0.32	38875.100000	Y 377.433
Mn (257.610 nm)	2.914690	ppm	0.004676	0.16	794708.000000	Y 377.433
Mo (202.032 nm)	0.020671	ppm	0.000322	1.56	271.673000	Y 377.433
Na (589.592 nm)	7.222310	ppm	0.007638	0.11	6086.870000	Y_R2 488.368
Na H (589.593 nm)	7.986082 u	ppm	0.066570	0.83	4215.399894	Y_R4
Ni (231.604 nm)	0.012589	ppm	0.000989	7.85	56.516100	Y 377.433
P (213.618 nm)	0.165996	ppm	0.011141	6.71	64.752800	Y 242.219
Pb (220.353 nm)	0.657191	ppm	0.000935	0.14	2096.700000	Y 242.219
S (181.972 nm)	58.778740	ppm	0.278099	0.47	26942.050801	Y 377.433
Sb (206.834 nm)	0.000423 u	ppm	0.001285	> 100.00	4.703920	Y 377.433
Se (196.026 nm)	0.000806	ppm	0.000790	98.03	6.839680	Y 242.219
Si (288.158 nm)	11.192200	ppm	0.017184	0.15	72538.800000	Y 377.433
Sn (189.925 nm)	0.001839	ppm	0.000612	33.25	5.049700	Y 377.433
Sr (421.552 nm)	0.208590	ppm	0.000029	0.01	31441.279029	Y_R 488.368
Th (288.505 nm)	-0.001044 u	ppm	0.000364	34.91	65.251200	Y 377.433
Ti (336.122 nm)	0.012015	ppm	0.000163	1.36	1249.800000	Y 377.433
Tl (190.794 nm)	0.000026 u	ppm	0.000911	> 100.00	-3.280720	Y 377.433
U (409.013 nm)	0.043930	ppm	0.003099	7.05	129.704000	Y 377.433
V (292.401 nm)	0.001699	ppm	0.000368	21.69	-59.767900	Y 377.433
Zn (206.200 nm)	2.405600	ppm	0.014077	0.59	10825.400000	Y 377.433
Zr (343.823 nm)	0.000799	ppm	0.000025	3.09	-116.388000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.014082	23440.987937	0.003884	0.38
Y 377.433	1.005959	703599.379407	0.005360	0.53
Y_R 377.433	1.027690	62307.500000	0.000818	0.08
Y_R 488.368	1.039640	54921.700000	0.000547	0.05
Y_R2 488.368	1.024416	108593.489515	0.002417	0.24
Y_R4	1.027980	46259.200000	0.000547	0.05

Sample Name: 280-123846-a-2-o@5

Date: 5/24/2019 4:39:45 PM Rack:Tube: 1:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001197	ppm	0.000155	12.97	-227.529000	Y 377.433
Al (394.401 nm)	3.606350 o	ppm	0.002867	0.08	44202.200000	Y 377.433
Al H (396.152 nm)	3.656930	ppm	0.000450	0.01	7870.060000	Y_R 377.433
As (188.980 nm)	-0.000899 u	ppm	0.001057	> 100.00	-3.842720	Y 242.219
B (249.678 nm)	0.000422 u	ppm	0.001078	> 100.00	30.224700	Y 242.219
Ba (493.408 nm)	0.001965	ppm	0.000037	1.89	1622.190000	Y_R 488.368
Be (234.861 nm)	0.001785	ppm	0.000064	3.57	31.337300	Y_R 488.368
Bi (223.061 nm)	-0.003747 u	ppm	0.001352	36.08	-12.998000	Y 377.433
Ca (315.887 nm)	45.639089	ppm	0.000487	0.00	36178.686980	Y_R 377.433
Cd (214.439 nm)	0.029171	ppm	0.000032	0.11	1087.230000	Y 377.433
Co (228.615 nm)	0.070580	ppm	0.001040	1.47	1643.600000	Y 242.219
Cr (205.560 nm)	0.000246 u	ppm	0.000589	> 100.00	-5.305120	Y 377.433
Cu (324.754 nm)	2.307480	ppm	0.009646	0.42	107917.000000	Y 377.433
Fe (238.204 nm)	33.676922 o	ppm	0.032308	0.10	81073.368841	Y_R 377.433
Fe H (259.940 nm)	33.518800	ppm	0.011406	0.03	46367.500000	Y_R 377.433
K (766.491 nm)	0.486682	ppm	0.215737	44.33	2407.320000	Y_R2 488.368
Li (670.783 nm)	0.012167	ppm	0.001244	10.23	-2336.870000	Y_R2 488.368
Mg (279.078 nm)	18.384700	ppm	0.004968	0.03	60123.900000	Y 377.433
Mn (257.610 nm)	5.692560	ppm	0.001880	0.03	1552120.000000	Y 377.433
Mo (202.032 nm)	0.000260	ppm	0.000042	16.03	14.412200	Y 377.433
Na (589.592 nm)	2.078230	ppm	0.089156	4.29	1856.820000	Y_R2 488.368
Na H (589.593 nm)	2.890224 u	ppm	0.030363	1.05	1450.611023	Y_R4
Ni (231.604 nm)	0.050368	ppm	0.000019	0.04	251.991000	Y 377.433
P (213.618 nm)	0.212294	ppm	0.003175	1.50	-244.341000	Y 242.219
Pb (220.353 nm)	0.014809	ppm	0.001705	11.51	54.995700	Y 242.219
S (181.972 nm)	95.698044	ppm	0.151863	0.16	43858.351694	Y 377.433
Sb (206.834 nm)	-0.004410 u	ppm	0.000179	4.06	-2.829470	Y 377.433
Se (196.026 nm)	-0.000498 u	ppm	0.000813	> 100.00	7.373760	Y 242.219
Si (288.158 nm)	2.995550	ppm	0.002771	0.09	19772.600000	Y 377.433
Sn (189.925 nm)	0.000800 u	ppm	0.001228	> 100.00	3.378360	Y 377.433
Sr (421.552 nm)	0.350067	ppm	0.004988	1.42	52748.745151	Y_R 488.368
Th (288.505 nm)	-0.002295 u	ppm	0.000019	0.81	117.898000	Y 377.433
Ti (336.122 nm)	-0.000127 u	ppm	0.000025	19.95	-294.993000	Y 377.433
Tl (190.794 nm)	0.001042	ppm	0.001442	> 100.00	-1.260140	Y 377.433
U (409.013 nm)	0.095493	ppm	0.010408	10.90	296.874000	Y 377.433
V (292.401 nm)	-0.000026 u	ppm	0.000008	31.50	-148.912000	Y 377.433
Zn (206.200 nm)	4.917800	ppm	0.000810	0.02	22122.800000	Y 377.433
Zr (343.823 nm)	0.000774	ppm	0.000303	39.07	-117.778000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.011396	23378.882002	0.003661	0.36
Y 377.433	1.001979	700815.621683	0.004001	0.40
Y_R 377.433	1.027490	62295.200000	0.000173	0.02
Y_R 488.368	1.037860	54827.900000	0.014165	1.36
Y_R2 488.368	1.018618	107978.857770	0.002105	0.21
Y_R4	1.026830	46207.400000	0.004966	0.48

Sample Name: MB 280-459144/1-A

Date: 5/24/2019 4:43:28 PM Rack:Tube: 1:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000190	ppm	0.000024	12.35	-260.734000	Y 377.433
Al (394.401 nm)	0.001969	ppm	0.000972	49.34	116.429000	Y 377.433
Al H (396.152 nm)	0.138108 u	ppm	0.006644	4.81	43.663800	Y_R 377.433
As (188.980 nm)	0.000772 u	ppm	0.001166	> 100.00	-0.413993	Y 242.219
B (249.678 nm)	-0.003151 u	ppm	0.000657	20.86	24.129100	Y 242.219
Ba (493.408 nm)	-0.001099 u	ppm	0.000010	0.91	1289.960000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000031	> 100.00	-5.085130	Y_R 488.368
Bi (223.061 nm)	-0.000822 u	ppm	0.000897	> 100.00	-12.401900	Y 377.433
Ca (315.887 nm)	0.018740	ppm	0.000572	3.05	-54.154915	Y_R 377.433
Cd (214.439 nm)	-0.000007 u	ppm	0.000011	> 100.00	-5.419850	Y 377.433
Co (228.615 nm)	-0.000133 u	ppm	0.000134	> 100.00	-18.263100	Y 242.219
Cr (205.560 nm)	0.000255	ppm	0.000175	68.71	-5.052840	Y 377.433
Cu (324.754 nm)	0.001429	ppm	0.000234	16.34	383.762000	Y 377.433
Fe (238.204 nm)	0.065594	ppm	0.002111	3.22	165.035201	Y_R 377.433
Fe H (259.940 nm)	0.069582 u	ppm	0.002689	3.86	107.644000	Y_R 377.433
K (766.491 nm)	-0.129907 u	ppm	0.259043	> 100.00	1811.950000	Y_R2 488.368
Li (670.783 nm)	0.009346	ppm	0.000114	1.22	-2385.300000	Y_R2 488.368
Mg (279.078 nm)	0.003704	ppm	0.000158	4.27	20.237600	Y 377.433
Mn (257.610 nm)	0.001438	ppm	0.000145	10.05	381.149000	Y 377.433
Mo (202.032 nm)	-0.000395 u	ppm	0.000207	52.42	6.150900	Y 377.433
Na (589.592 nm)	-0.017591 u	ppm	0.021591	> 100.00	135.559000	Y_R2 488.368
Na H (589.593 nm)	0.834138 u	ppm	0.009275	1.11	335.068984	Y_R4
Ni (231.604 nm)	0.000076 u	ppm	0.000946	> 100.00	-8.227030	Y 377.433
P (213.618 nm)	-0.000165 u	ppm	0.003507	> 100.00	-4.573150	Y 242.219
Pb (220.353 nm)	-0.000064 u	ppm	0.001421	> 100.00	8.081000	Y 242.219
S (181.972 nm)	0.009454	ppm	0.007571	80.08	17.033400	Y 377.433
Sb (206.834 nm)	-0.002710 u	ppm	0.003773	> 100.00	-2.790800	Y 377.433
Se (196.026 nm)	0.000048	ppm	0.000003	6.34	8.915140	Y 242.219
Si (288.158 nm)	0.000462 u	ppm	0.001591	> 100.00	491.521000	Y 377.433
Sn (189.925 nm)	0.000566 u	ppm	0.000951	> 100.00	3.001340	Y 377.433
Sr (421.552 nm)	0.000381	ppm	0.000075	19.65	80.538035	Y_R 488.368
Th (288.505 nm)	0.001943	ppm	0.001763	90.76	16.111400	Y 377.433
Ti (336.122 nm)	0.000110	ppm	0.000042	37.96	-419.735000	Y 377.433
Tl (190.794 nm)	-0.001445 u	ppm	0.001296	89.69	-1.494950	Y 377.433
U (409.013 nm)	-0.001618 u	ppm	0.009124	> 100.00	-29.838900	Y 377.433
V (292.401 nm)	-0.000293 u	ppm	0.000246	84.16	-161.598000	Y 377.433
Zn (206.200 nm)	0.001748	ppm	0.000079	4.52	11.934400	Y 377.433
Zr (343.823 nm)	-0.000159 u	ppm	0.000188	> 100.00	-170.598000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.009081	23325.372530	0.004077	0.40
Y 377.433	0.994302	695445.789948	0.005240	0.53
Y_R 377.433	1.014250	61492.900000	0.000193	0.02
Y_R 488.368	1.027670	54289.200000	0.008855	0.86
Y_R2 488.368	1.023657	108513.020729	0.003148	0.31
Y_R4	1.021790	45980.500000	0.001723	0.17

Sample Name: LCS 280-459144/2-A

Date: 5/24/2019 4:46:56 PM Rack:Tube: 1:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000550	ppm	0.000135	24.63	-567.027000	Y 377.433
Al (394.401 nm)	10.239900 o	ppm	0.019816	0.19	125335.000000	Y 377.433
Al H (396.152 nm)	10.101600	ppm	0.046325	0.46	22318.100000	Y_R 377.433
As (188.980 nm)	2.053770	ppm	0.008232	0.40	3092.960000	Y 242.219
B (249.678 nm)	0.996340	ppm	0.003380	0.34	7156.270000	Y 242.219
Ba (493.408 nm)	2.033980	ppm	0.009371	0.46	204183.000000	Y_R 488.368
Be (234.861 nm)	1.010280	ppm	0.001350	0.13	99449.900000	Y_R 488.368
Bi (223.061 nm)	2.009910	ppm	0.002404	0.12	4393.230000	Y 377.433
Ca (315.887 nm)	49.866651	ppm	0.204743	0.41	39537.902970	Y_R 377.433
Cd (214.439 nm)	1.035680	ppm	0.002784	0.27	38298.600000	Y 377.433
Co (228.615 nm)	0.999799	ppm	0.003052	0.31	23527.200000	Y 242.219
Cr (205.560 nm)	1.046380	ppm	0.003016	0.29	6964.310000	Y 377.433
Cu (324.754 nm)	0.994122	ppm	0.007418	0.75	46746.100000	Y 377.433
Fe (238.204 nm)	10.252079 o	ppm	0.039869	0.39	24685.682920	Y_R 377.433
Fe H (259.940 nm)	10.226000	ppm	0.054842	0.54	14153.900000	Y_R 377.433
K (766.491 nm)	49.778100	ppm	0.769889	1.55	50002.400000	Y_R2 488.368
Li (670.783 nm)	1.019450	ppm	0.003627	0.36	14958.500000	Y_R2 488.368
Mg (279.078 nm)	50.327600	ppm	0.110725	0.22	164654.000000	Y 377.433
Mn (257.610 nm)	1.015970	ppm	0.001605	0.16	277004.000000	Y 377.433
Mo (202.032 nm)	1.037870	ppm	0.001875	0.18	13092.800000	Y 377.433
Na (589.592 nm)	48.933500	ppm	0.059771	0.12	40781.700000	Y_R2 488.368
Na H (589.593 nm)	51.369625	ppm	0.411104	0.80	27753.408054	Y_R4
Ni (231.604 nm)	1.016460	ppm	0.002957	0.29	5252.960000	Y 377.433
P (213.618 nm)	20.633700	ppm	0.076498	0.37	29230.600000	Y 242.219
Pb (220.353 nm)	1.014990	ppm	0.001894	0.19	3231.250000	Y 242.219
S (181.972 nm)	10.109532	ppm	0.041762	0.41	4648.073738	Y 377.433
Sb (206.834 nm)	-0.003355 u	ppm	0.002796	83.35	-8.688350	Y 377.433
Se (196.026 nm)	2.008970	ppm	0.004631	0.23	3037.700000	Y 242.219
Si (288.158 nm)	2.028590	ppm	0.002232	0.11	13547.700000	Y 377.433
Sn (189.925 nm)	2.081400	ppm	0.011133	0.53	3351.180000	Y 377.433
Sr (421.552 nm)	0.987051	ppm	0.004645	0.47	148675.695596	Y_R 488.368
Th (288.505 nm)	1.035610	ppm	0.002197	0.21	1704.110000	Y 377.433
Ti (336.122 nm)	1.010770	ppm	0.001651	0.16	129079.000000	Y 377.433
Tl (190.794 nm)	2.037730	ppm	0.003055	0.15	4653.380000	Y 377.433
U (409.013 nm)	2.023310	ppm	0.003817	0.19	6331.900000	Y 377.433
V (292.401 nm)	1.007950	ppm	0.000722	0.07	51837.300000	Y 377.433
Zn (206.200 nm)	0.514867	ppm	0.000618	0.12	2320.710000	Y 377.433
Zr (343.823 nm)	0.503914	ppm	0.000215	0.04	28365.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984535	22757.987328	0.000648	0.07
Y 377.433	0.979537	685118.629452	0.000712	0.07
Y_R 377.433	1.005880	60985.400000	0.002569	0.26
Y_R 488.368	1.016590	53704.100000	0.003166	0.31
Y_R2 488.368	1.014512	107543.677907	0.001765	0.17
Y_R4	1.028740	46293.400000	0.004703	0.46

Sample Name: 280-123846-A-10-A

Date: 5/24/2019 4:50:35 PM Rack:Tube: 1:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001880	ppm	0.000220	11.70	-202.964000	Y 377.433
Al (394.401 nm)	0.511417	ppm	0.002601	0.51	6393.650000	Y 377.433
Al H (396.152 nm)	0.593338 u	ppm	0.006627	1.12	1115.340000	Y_R 377.433
As (188.980 nm)	0.015556	ppm	0.002817	18.11	21.255700	Y 242.219
B (249.678 nm)	0.003949	ppm	0.000545	13.80	61.869000	Y 242.219
Ba (493.408 nm)	0.017731	ppm	0.000253	1.43	3185.080000	Y_R 488.368
Be (234.861 nm)	0.000246	ppm	0.000162	65.79	-72.904800	Y_R 488.368
Bi (223.061 nm)	0.000668 u	ppm	0.002348	> 100.00	-5.254040	Y 377.433
Ca (315.887 nm)	46.721456	ppm	0.030883	0.07	37037.533523	Y_R 377.433
Cd (214.439 nm)	0.014076	ppm	0.000014	0.10	524.485000	Y 377.433
Co (228.615 nm)	0.027523	ppm	0.000294	1.07	631.700000	Y 242.219
Cr (205.560 nm)	-0.000012 u	ppm	0.000007	60.10	-6.922320	Y 377.433
Cu (324.754 nm)	0.391221	ppm	0.000378	0.10	18535.500000	Y 377.433
Fe (238.204 nm)	22.506674 o	ppm	0.039999	0.18	54184.633508	Y_R 377.433
Fe H (259.940 nm)	22.585400	ppm	0.047523	0.21	31246.700000	Y_R 377.433
K (766.491 nm)	1.968500	ppm	0.170043	8.64	3838.150000	Y_R2 488.368
Li (670.783 nm)	0.016434	ppm	0.002317	14.10	-2263.590000	Y_R2 488.368
Mg (279.078 nm)	12.507500	ppm	0.008601	0.07	40907.100000	Y 377.433
Mn (257.610 nm)	3.223730	ppm	0.004991	0.15	878972.000000	Y 377.433
Mo (202.032 nm)	0.010479	ppm	0.000234	2.23	143.206000	Y 377.433
Na (589.592 nm)	7.389810	ppm	0.060454	0.82	6220.690000	Y_R2 488.368
Na H (589.593 nm)	8.228926 u	ppm	0.006366	0.08	4347.156639	Y_R4
Ni (231.604 nm)	0.014999	ppm	0.000454	3.03	68.988200	Y 377.433
P (213.618 nm)	0.064808	ppm	0.007341	11.33	-3.666280	Y 242.219
Pb (220.353 nm)	0.119904	ppm	0.000450	0.38	389.342000	Y 242.219
S (181.972 nm)	64.776600	ppm	0.206048	0.32	29689.944048	Y 377.433
Sb (206.834 nm)	0.000207 u	ppm	0.001326	> 100.00	3.952790	Y 377.433
Se (196.026 nm)	0.001534	ppm	0.000935	60.93	9.870230	Y 242.219
Si (288.158 nm)	10.001200	ppm	0.009317	0.09	64871.600000	Y 377.433
Sn (189.925 nm)	0.002084	ppm	0.001814	87.04	5.443960	Y 377.433
Sr (421.552 nm)	0.209365	ppm	0.000177	0.08	31557.204444	Y_R 488.368
Th (288.505 nm)	-0.014512 u	ppm	0.000302	2.08	48.538700	Y 377.433
Ti (336.122 nm)	0.000330	ppm	0.000027	8.31	-233.320000	Y 377.433
Tl (190.794 nm)	0.003980	ppm	0.000749	18.83	6.424630	Y 377.433
U (409.013 nm)	0.029945	ppm	0.001460	4.88	80.573400	Y 377.433
V (292.401 nm)	0.000473	ppm	0.000419	88.73	-124.620000	Y 377.433
Zn (206.200 nm)	2.780200	ppm	0.007126	0.26	12509.000000	Y 377.433
Zr (343.823 nm)	0.000698	ppm	0.000007	0.96	-122.082000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.022615	23638.223794	0.001614	0.16
Y 377.433	1.015952	710588.264151	0.002849	0.28
Y_R 377.433	1.033050	62632.600000	0.004706	0.46
Y_R 488.368	1.041200	55004.400000	0.006973	0.67
Y_R2 488.368	1.029669	109150.406867	0.000394	0.04
Y_R4	1.029500	46327.300000	0.009079	0.88

Sample Name: 280-123846-A-11-A

Date: 5/24/2019 4:54:17 PM Rack:Tube: 1:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004380	ppm	0.000233	5.33	-116.974000	Y 377.433
Al (394.401 nm)	2.144210	ppm	0.006882	0.32	26320.700000	Y 377.433
Al H (396.152 nm)	2.343770	ppm	0.009288	0.40	4945.010000	Y_R 377.433
As (188.980 nm)	0.031819	ppm	0.000361	1.14	45.606300	Y 242.219
B (249.678 nm)	0.003380	ppm	0.001081	31.98	54.489000	Y 242.219
Ba (493.408 nm)	0.034351	ppm	0.000480	1.40	4846.570000	Y_R 488.368
Be (234.861 nm)	0.000249	ppm	0.000014	5.64	-96.953000	Y_R 488.368
Bi (223.061 nm)	0.007486	ppm	0.001444	19.29	10.672600	Y 377.433
Ca (315.887 nm)	42.983868	ppm	0.140887	0.33	34069.557595	Y_R 377.433
Cd (214.439 nm)	0.011934	ppm	0.000027	0.23	447.608000	Y 377.433
Co (228.615 nm)	0.022135	ppm	0.000025	0.11	505.742000	Y 242.219
Cr (205.560 nm)	0.000312 u	ppm	0.000944	> 100.00	-4.851790	Y 377.433
Cu (324.754 nm)	0.713749	ppm	0.002299	0.32	33583.700000	Y 377.433
Fe (238.204 nm)	28.250286 o	ppm	0.082107	0.29	68010.509128	Y_R 377.433
Fe H (259.940 nm)	28.139100	ppm	0.084213	0.30	38927.400000	Y_R 377.433
K (766.491 nm)	3.009870	ppm	0.222695	7.40	4843.680000	Y_R2 488.368
Li (670.783 nm)	0.020615	ppm	0.001413	6.85	-2191.810000	Y_R2 488.368
Mg (279.078 nm)	11.849000	ppm	0.005254	0.04	38744.700000	Y 377.433
Mn (257.610 nm)	2.896550	ppm	0.002838	0.10	789762.000000	Y 377.433
Mo (202.032 nm)	0.020468	ppm	0.000307	1.50	269.121000	Y 377.433
Na (589.592 nm)	7.203800	ppm	0.016655	0.23	6071.600000	Y_R2 488.368
Na H (589.593 nm)	7.823139 u	ppm	0.015565	0.20	4126.994003	Y_R4
Ni (231.604 nm)	0.013272	ppm	0.001411	10.63	60.055800	Y 377.433
P (213.618 nm)	0.184716	ppm	0.021997	11.91	91.336800	Y 242.219
Pb (220.353 nm)	0.663543	ppm	0.001388	0.21	2116.810000	Y 242.219
S (181.972 nm)	58.612732	ppm	0.049445	0.08	26865.946809	Y 377.433
Sb (206.834 nm)	0.005342	ppm	0.000462	8.65	12.978300	Y 377.433
Se (196.026 nm)	0.002045	ppm	0.000735	35.94	8.704990	Y 242.219
Si (288.158 nm)	11.747700	ppm	0.048214	0.41	76115.400000	Y 377.433
Sn (189.925 nm)	0.000045 u	ppm	0.001553	> 100.00	2.162940	Y 377.433
Sr (421.552 nm)	0.213563	ppm	0.002408	1.13	32190.274136	Y_R 488.368
Th (288.505 nm)	-0.004414 u	ppm	0.004958	> 100.00	58.993300	Y 377.433
Ti (336.122 nm)	0.016953	ppm	0.001216	7.17	1880.900000	Y 377.433
Tl (190.794 nm)	0.003232	ppm	0.000708	21.90	4.065860	Y 377.433
U (409.013 nm)	0.050739	ppm	0.000883	1.74	151.171000	Y 377.433
V (292.401 nm)	0.002106	ppm	0.000139	6.60	-38.869000	Y 377.433
Zn (206.200 nm)	2.406180	ppm	0.006268	0.26	10828.000000	Y 377.433
Zr (343.823 nm)	0.001241	ppm	0.000980	78.92	-91.344000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.024471	23681.116286	0.002327	0.23
Y 377.433	1.015481	710258.955955	0.003189	0.31
Y_R 377.433	1.040820	63103.900000	0.000868	0.08
Y_R 488.368	1.052310	55591.100000	0.003168	0.30
Y_R2 488.368	1.049647	111268.133565	0.001216	0.12
Y_R4	1.042370	46906.800000	0.000915	0.09

Sample Name: CCVH-5713036

Date: 5/24/2019 4:57:59 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004929	ppm	0.000129	2.61	-106.912000	Y 377.433
Al (394.401 nm)	50.923200 o	ppm	0.000475	0.00	620395.000000	Y 377.433
Al H (396.152 nm)	49.586100	ppm	0.214082	0.43	108134.000000	Y_R 377.433
As (188.980 nm)	0.004622	ppm	0.001091	23.59	4.033140	Y 242.219
B (249.678 nm)	-0.001823 u	ppm	0.000682	37.39	4.725660	Y 242.219
Ba (493.408 nm)	0.001975	ppm	0.000124	6.26	1636.230000	Y_R 488.368
Be (234.861 nm)	0.001177	ppm	0.000033	2.82	-97.862800	Y_R 488.368
Bi (223.061 nm)	0.011766	ppm	0.003243	27.56	23.808800	Y 377.433
Ca (315.887 nm)	0.002632	ppm	0.000377	14.33	-54.527421	Y_R 377.433
Cd (214.439 nm)	0.001372	ppm	0.000193	14.09	65.888100	Y 377.433
Co (228.615 nm)	0.003019	ppm	0.000363	12.03	55.873100	Y 242.219
Cr (205.560 nm)	0.001641	ppm	0.000337	20.57	2.849760	Y 377.433
Cu (324.754 nm)	0.004359	ppm	0.000414	9.50	1478.100000	Y 377.433
Fe (238.204 nm)	50.064179 o	ppm	0.258239	0.52	120520.358383	Y_R 377.433
Fe H (259.940 nm)	49.891100	ppm	0.236378	0.47	69010.000000	Y_R 377.433
K (766.491 nm)	0.196712	ppm	0.165861	84.32	2127.330000	Y_R2 488.368
Li (670.783 nm)	0.012261	ppm	0.002282	18.61	-2335.240000	Y_R2 488.368
Mg (279.078 nm)	0.038669	ppm	0.000372	0.96	60.579000	Y 377.433
Mn (257.610 nm)	0.001191	ppm	0.000074	6.21	313.588000	Y 377.433
Mo (202.032 nm)	0.001296	ppm	0.000320	24.66	27.464500	Y 377.433
Na (589.592 nm)	232.296000 o	ppm	2.880500	1.24	190843.000000	Y_R2 488.368
Na H (589.593 nm)	244.564769	ppm	1.820283	0.74	132572.621330	Y_R4
Ni (231.604 nm)	0.003635	ppm	0.000205	5.65	10.193100	Y 377.433
P (213.618 nm)	5.034590	ppm	0.007987	0.16	7190.590000	Y 242.219
Pb (220.353 nm)	0.007065	ppm	0.000225	3.19	23.790900	Y 242.219
S (181.972 nm)	5.059961	ppm	0.021228	0.42	2329.937477	Y 377.433
Sb (206.834 nm)	-0.001616 u	ppm	0.000630	38.95	3.262700	Y 377.433
Se (196.026 nm)	0.007466	ppm	0.000661	8.85	7.224860	Y 242.219
Si (288.158 nm)	0.026951	ppm	0.000220	0.82	662.042000	Y 377.433
Sn (189.925 nm)	0.002563	ppm	0.000230	8.96	6.213880	Y 377.433
Sr (421.552 nm)	0.001494	ppm	0.000131	8.74	255.636002	Y_R 488.368
Th (288.505 nm)	4.935260	ppm	0.010616	0.22	8523.440000	Y 377.433
Ti (336.122 nm)	0.001963	ppm	0.000006	0.28	-182.591000	Y 377.433
Tl (190.794 nm)	0.000005 u	ppm	0.001038	> 100.00	-2.956780	Y 377.433
U (409.013 nm)	0.542092 Q	ppm	0.002409	0.44	1731.720000 Q	Y 377.433
V (292.401 nm)	0.000511	ppm	0.000126	24.68	378.002000	Y 377.433
Zn (206.200 nm)	0.002544	ppm	0.000550	21.61	22.473800	Y 377.433
Zr (343.823 nm)	0.001175	ppm	0.000002	0.19	-95.082300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.981687	22692.163485	0.002613	0.27
Y 377.433	0.968488	677390.990954	0.003644	0.38
Y_R 377.433	0.999011	60568.800000	0.001715	0.17
Y_R 488.368	1.015600	53651.600000	0.002469	0.24
Y_R2 488.368	1.010572	107125.971647	0.009093	0.90
Y_R4	1.025000	46124.800000	0.002333	0.23

Sample Name: CCV-5717467

Date: 5/24/2019 5:01:45 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.500413	ppm	0.000422	0.08	16998.800000	Y 377.433
Al (394.401 nm)	0.512396	ppm	0.003777	0.74	6471.920000	Y 377.433
Al H (396.152 nm)	0.566249 u	ppm	0.001718	0.30	1226.840000	Y_R 377.433
As (188.980 nm)	0.503705	ppm	0.001288	0.26	757.385000	Y 242.219
B (249.678 nm)	0.488756	ppm	0.002145	0.44	3535.740000	Y 242.219
Ba (493.408 nm)	0.498254	ppm	0.000546	0.11	51074.200000	Y_R 488.368
Be (234.861 nm)	0.485030	ppm	0.000975	0.20	47754.500000	Y_R 488.368
Bi (223.061 nm)	1.006380	ppm	0.000143	0.01	2194.020000	Y 377.433
Ca (315.887 nm)	4.974457	ppm	0.012873	0.26	3881.837221	Y_R 377.433
Cd (214.439 nm)	0.520006	ppm	0.000653	0.13	19225.700000	Y 377.433
Co (228.615 nm)	0.505157	ppm	0.000912	0.18	11879.100000	Y 242.219
Cr (205.560 nm)	0.520997	ppm	0.003939	0.76	3464.330000	Y 377.433
Cu (324.754 nm)	0.506304	ppm	0.000641	0.13	23929.900000	Y 377.433
Fe (238.204 nm)	2.517522	ppm	0.008669	0.34	6067.254617	Y_R 377.433
Fe H (259.940 nm)	2.521360 u	ppm	0.001474	0.06	3498.410000	Y_R 377.433
K (766.491 nm)	49.030200	ppm	0.704856	1.44	49280.300000	Y_R2 488.368
Li (670.783 nm)	0.509932	ppm	0.000926	0.18	6209.880000	Y_R2 488.368
Mg (279.078 nm)	19.968400	ppm	0.001800	0.01	65348.900000	Y 377.433
Mn (257.610 nm)	0.499777	ppm	0.000139	0.03	136258.000000	Y 377.433
Mo (202.032 nm)	0.505454	ppm	0.000297	0.06	6382.000000	Y 377.433
Na (589.592 nm)	23.884100	ppm	0.212307	0.89	19870.300000	Y_R2 488.368
Na H (589.593 nm)	25.921073 u	ppm	0.091803	0.35	13946.139589	Y_R4
Ni (231.604 nm)	0.516198	ppm	0.000994	0.19	2662.810000	Y 377.433
P (213.618 nm)	0.051109	ppm	0.001096	2.14	-67.924400	Y 242.219
Pb (220.353 nm)	0.508526	ppm	0.000051	0.01	1621.540000	Y 242.219
S (181.972 nm)	-0.005127 u	ppm	0.001408	27.47	12.176703	Y 377.433
Sb (206.834 nm)	0.512949	ppm	0.001054	0.21	865.249000	Y 377.433
Se (196.026 nm)	0.502273	ppm	0.003699	0.74	766.509000	Y 242.219
Si (288.158 nm)	4.962260	ppm	0.008614	0.17	32433.500000	Y 377.433
Sn (189.925 nm)	0.517488	ppm	0.000590	0.11	834.757000	Y 377.433
Sr (421.552 nm)	0.485473	ppm	0.001010	0.21	73136.262414	Y_R 488.368
Th (288.505 nm)	0.021431	ppm	0.000377	1.76	-1.181740	Y 377.433
Ti (336.122 nm)	0.493539	ppm	0.000623	0.13	62738.400000	Y 377.433
Tl (190.794 nm)	0.518463	ppm	0.002522	0.49	1184.320000	Y 377.433
U (409.013 nm)	0.007002	ppm	0.001066	15.23	-63.563900	Y 377.433
V (292.401 nm)	0.499047	ppm	0.000248	0.05	25587.800000	Y 377.433
Zn (206.200 nm)	0.519393	ppm	0.002151	0.41	2339.990000	Y 377.433
Zr (343.823 nm)	0.496027	ppm	0.000354	0.07	27919.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.013957	23438.082814	0.000108	0.01
Y 377.433	1.001271	700320.477595	0.002121	0.21
Y_R 377.433	1.032670	62609.500000	0.003730	0.36
Y_R 488.368	1.043750	55138.700000	0.003898	0.37
Y_R2 488.368	1.037676	109999.132923	0.003202	0.31
Y_R4	1.045160	47032.100000	0.005027	0.48

Sample Name: CCB

Date: 5/24/2019 5:05:20 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000497	ppm	0.000105	21.06	-250.171000	Y 377.433
Al (394.401 nm)	-0.000738 u	ppm	0.000397	53.89	84.669100	Y 377.433
Al H (396.152 nm)	0.128365 Zu	ppm	0.012743	9.93	22.332100 Z	Y_R 377.433
As (188.980 nm)	0.000610 u	ppm	0.001391	> 100.00	-0.656747	Y 242.219
B (249.678 nm)	-0.001537 u	ppm	0.000342	22.24	35.692500	Y 242.219
Ba (493.408 nm)	-0.001244 u	ppm	0.000316	25.36	1275.420000	Y_R 488.368
Be (234.861 nm)	0.000089	ppm	0.000004	4.10	6.787080	Y_R 488.368
Bi (223.061 nm)	0.000689	ppm	0.000206	29.85	-9.101980	Y 377.433
Ca (315.887 nm)	0.012222	ppm	0.002157	17.65	-59.331025	Y_R 377.433
Cd (214.439 nm)	-0.000031 u	ppm	0.000171	> 100.00	-6.307740	Y 377.433
Co (228.615 nm)	-0.000294 u	ppm	0.000030	10.27	-22.038800	Y 242.219
Cr (205.560 nm)	0.000288	ppm	0.000110	38.24	-4.833320	Y 377.433
Cu (324.754 nm)	0.001206	ppm	0.000044	3.61	372.725000	Y 377.433
Fe (238.204 nm)	-0.000102 u	ppm	0.002418	> 100.00	6.893660	Y_R 377.433
Fe H (259.940 nm)	0.000781 u	ppm	0.001665	> 100.00	12.493900	Y_R 377.433
K (766.491 nm)	-0.082468 u	ppm	0.164183	> 100.00	1857.750000	Y_R2 488.368
Li (670.783 nm)	0.013012 Z	ppm	0.001963	15.08	-2322.350000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003420	ppm	0.001102	32.22	19.283000	Y 377.433
Mn (257.610 nm)	0.000056	ppm	0.000028	50.71	4.165610	Y 377.433
Mo (202.032 nm)	-0.000206 u	ppm	0.000480	> 100.00	8.533340	Y 377.433
Na (589.592 nm)	0.008131 u	ppm	0.016352	> 100.00	156.764000	Y_R2 488.368
Na H (589.593 nm)	1.080032 u	ppm	0.047549	4.40	468.480118	Y_R4
Ni (231.604 nm)	0.000294 u	ppm	0.000460	> 100.00	-7.098820	Y 377.433
P (213.618 nm)	-0.000560 u	ppm	0.000544	97.20	-5.033850	Y 242.219
Pb (220.353 nm)	0.001008	ppm	0.000046	4.55	11.506500	Y 242.219
S (181.972 nm)	0.000353 u	ppm	0.002018	> 100.00	12.860880	Y 377.433
Sb (206.834 nm)	-0.003301 u	ppm	0.001915	58.01	-3.792370	Y 377.433
Se (196.026 nm)	0.000526 u	ppm	0.000954	> 100.00	9.650420	Y 242.219
Si (288.158 nm)	-0.002427 u	ppm	0.000370	15.24	472.924000	Y 377.433
Sn (189.925 nm)	0.001666	ppm	0.001671	> 100.00	4.770670	Y 377.433
Sr (421.552 nm)	0.000264	ppm	0.000068	25.86	62.879410	Y_R 488.368
Th (288.505 nm)	0.003861	ppm	0.000139	3.61	19.429500	Y 377.433
Ti (336.122 nm)	0.000251	ppm	0.000009	3.60	-401.710000	Y 377.433
Tl (190.794 nm)	-0.000902 u	ppm	0.000528	58.57	-0.244486	Y 377.433
U (409.013 nm)	0.002477 u	ppm	0.003926	> 100.00	-16.907200	Y 377.433
V (292.401 nm)	-0.000076 u	ppm	0.000416	> 100.00	-150.898000	Y 377.433
Zn (206.200 nm)	-0.000224 u	ppm	0.000205	91.48	3.057850	Y 377.433
Zr (343.823 nm)	-0.000123 u	ppm	0.000042	34.45	-168.593000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.032546	23867.777763	0.003026	0.29
Y 377.433	1.018226	712178.900969	0.002652	0.26
Y_R 377.433	1.031620	62545.900000	0.003132	0.30
Y_R 488.368	1.042370	55065.900000	0.001503	0.14
Y_R2 488.368	1.048355	111131.208851	0.005126	0.49
Y_R4	1.043480	46956.600000	0.006393	0.61

Sample Name: CCVL-5719884

Date: 5/24/2019 5:08:32 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008223	ppm	0.000009	0.11	15.586500	Y 377.433
Al (394.401 nm)	0.101340	ppm	0.000811	0.80	1338.810000	Y 377.433
Al H (396.152 nm)	0.237886 u	ppm	0.011403	4.79	267.387000	Y_R 377.433
As (188.980 nm)	0.013148	ppm	0.000822	6.25	18.233700	Y 242.219
B (249.678 nm)	0.092051	ppm	0.000878	0.95	704.010000	Y 242.219
Ba (493.408 nm)	0.008404	ppm	0.000607	7.23	2237.390000	Y_R 488.368
Be (234.861 nm)	0.000926	ppm	0.000003	0.29	88.767000	Y_R 488.368
Bi (223.061 nm)	0.091509	ppm	0.001428	1.56	189.828000	Y 377.433
Ca (315.887 nm)	0.208768	ppm	0.001515	0.73	96.791098	Y_R 377.433
Cd (214.439 nm)	0.005306	ppm	0.000049	0.92	191.089000	Y 377.433
Co (228.615 nm)	0.010657	ppm	0.000245	2.30	235.777000	Y 242.219
Cr (205.560 nm)	0.010312	ppm	0.000299	2.90	61.847000	Y 377.433
Cu (324.754 nm)	0.016874	ppm	0.000085	0.50	1102.180000	Y 377.433
Fe (238.204 nm)	0.102003	ppm	0.003932	3.85	252.678213	Y_R 377.433
Fe H (259.940 nm)	0.104928 u	ppm	0.001516	1.44	156.527000	Y_R 377.433
K (766.491 nm)	2.951630	ppm	0.310650	10.52	4787.440000	Y_R2 488.368
Li (670.783 nm)	0.033225 Q	ppm	0.004295	12.93	-1975.290000 Q	Y_R2 488.368
Mg (279.078 nm)	0.205198	ppm	0.002110	1.03	678.436000	Y 377.433
Mn (257.610 nm)	0.010726	ppm	0.000009	0.08	2913.490000	Y 377.433
Mo (202.032 nm)	0.020065	ppm	0.000003	0.01	264.041000	Y 377.433
Na (589.592 nm)	1.039350	ppm	0.024046	2.31	1005.400000	Y_R2 488.368
Na H (589.593 nm)	1.852938 u	ppm	0.010858	0.59	887.825021	Y_R4
Ni (231.604 nm)	0.044608	ppm	0.000236	0.53	222.202000	Y 377.433
P (213.618 nm)	2.880230	ppm	0.009157	0.32	4110.120000	Y 242.219
Pb (220.353 nm)	0.009081	ppm	0.000781	8.61	37.218200	Y 242.219
S (181.972 nm)	0.088388	ppm	0.003527	3.99	53.216266	Y 377.433
Sb (206.834 nm)	0.019030	ppm	0.001502	7.89	33.757900	Y 377.433
Se (196.026 nm)	0.017585	ppm	0.001334	7.59	35.370500	Y 242.219
Si (288.158 nm)	0.489691	ppm	0.000215	0.04	3640.970000	Y 377.433
Sn (189.925 nm)	0.105084	ppm	0.001358	1.29	171.177000	Y 377.433
Sr (421.552 nm)	0.009469	ppm	0.000019	0.20	1449.161950	Y_R 488.368
Th (288.505 nm)	0.015187	ppm	0.000059	0.39	38.454100	Y 377.433
Ti (336.122 nm)	0.009960	ppm	0.000005	0.05	841.274000	Y 377.433
Tl (190.794 nm)	0.016092	ppm	0.004471	27.79	38.505700	Y 377.433
U (409.013 nm)	0.058930	ppm	0.008012	13.59	160.917000	Y 377.433
V (292.401 nm)	0.009668	ppm	0.000179	1.85	348.656000	Y 377.433
Zn (206.200 nm)	0.021645	ppm	0.000535	2.47	101.410000	Y 377.433
Zr (343.823 nm)	0.009927	ppm	0.000186	1.88	400.385000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047081	24203.767399	0.004757	0.45
Y 377.433	1.030889	721035.999841	0.005047	0.49
Y_R 377.433	1.040770	63100.800000	0.002030	0.20
Y_R 488.368	1.052530	55602.600000	0.005984	0.57
Y_R2 488.368	1.059536	112316.375987	0.013312	1.26
Y_R4	1.049180	47213.200000	0.014797	1.41

Sample Name: 280-123928-A-1-A

Date: 5/24/2019 5:12:00 PM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001748	ppm	0.000157	8.98	-208.543000	Y 377.433
Al (394.401 nm)	0.523125	ppm	0.002201	0.42	6750.650000	Y 377.433
Al H (396.152 nm)	0.474834 u	ppm	0.003488	0.73	1186.750000	Y_R 377.433
As (188.980 nm)	0.003140	ppm	0.001418	45.16	3.144560	Y 242.219
B (249.678 nm)	0.113556	ppm	0.000217	0.19	857.413000	Y 242.219
Ba (493.408 nm)	0.118599	ppm	0.000092	0.08	13223.400000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000020	43.09	-8.327910	Y_R 488.368
Bi (223.061 nm)	-0.000391 u	ppm	0.000305	78.13	-11.381500	Y 377.433
Ca (315.887 nm)	98.510190	ppm	0.241790	0.25	78168.451739	Y_R 377.433
Cd (214.439 nm)	0.000147	ppm	0.000035	23.82	0.432701	Y 377.433
Co (228.615 nm)	0.000188	ppm	0.000237	> 100.00	-10.096500	Y 242.219
Cr (205.560 nm)	0.000398 u	ppm	0.000808	> 100.00	-4.127490	Y 377.433
Cu (324.754 nm)	0.002447	ppm	0.000341	13.92	369.979000	Y 377.433
Fe (238.204 nm)	0.405062	ppm	0.002016	0.50	982.195104	Y_R 377.433
Fe H (259.940 nm)	0.403499 u	ppm	0.001968	0.49	569.446000	Y_R 377.433
K (766.491 nm)	7.499310	ppm	0.305519	4.07	9178.630000	Y_R2 488.368
Li (670.783 nm)	0.045226	ppm	0.003399	7.52	-1769.230000	Y_R2 488.368
Mg (279.078 nm)	19.415700	ppm	0.041828	0.22	63542.100000	Y 377.433
Mn (257.610 nm)	0.116710	ppm	0.000412	0.35	31811.000000	Y 377.433
Mo (202.032 nm)	0.002411	ppm	0.000241	10.01	41.524200	Y 377.433
Na (589.592 nm)	118.792000 o	ppm	1.479990	1.25	97693.600000	Y_R2 488.368
Na H (589.593 nm)	126.772046	ppm	0.771912	0.61	68663.455076	Y_R4
Ni (231.604 nm)	0.001019	ppm	0.000162	15.94	-3.350730	Y 377.433
P (213.618 nm)	0.110026	ppm	0.000042	0.04	152.267000	Y 242.219
Pb (220.353 nm)	0.000292 u	ppm	0.000562	> 100.00	9.205640	Y 242.219
S (181.972 nm)	56.125712	ppm	0.214144	0.38	25720.921760	Y 377.433
Sb (206.834 nm)	-0.004337 u	ppm	0.001649	38.02	-5.585970	Y 377.433
Se (196.026 nm)	0.001383	ppm	0.000494	35.71	11.001900	Y 242.219
Si (288.158 nm)	9.945740	ppm	0.018644	0.19	64514.900000	Y 377.433
Sn (189.925 nm)	0.000708	ppm	0.000494	69.68	3.230190	Y 377.433
Sr (421.552 nm)	1.025845	ppm	0.001417	0.14	154516.662200	Y_R 488.368
Th (288.505 nm)	-0.010629 u	ppm	0.002316	21.79	-5.984890	Y 377.433
Ti (336.122 nm)	0.015445	ppm	0.000293	1.90	1877.260000	Y 377.433
Tl (190.794 nm)	0.002658	ppm	0.000076	2.86	3.867190	Y 377.433
U (409.013 nm)	0.047634	ppm	0.002307	4.84	113.447000	Y 377.433
V (292.401 nm)	0.003867	ppm	0.000130	3.36	51.172700	Y 377.433
Zn (206.200 nm)	0.005153	ppm	0.000252	4.89	27.290500	Y 377.433
Zr (343.823 nm)	0.000829	ppm	0.000094	11.39	-114.663000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.981008	22676.465484	0.005686	0.58
Y 377.433	0.970897	679075.448067	0.005933	0.61
Y_R 377.433	0.998292	60525.200000	0.003366	0.34
Y_R 488.368	1.009690	53339.900000	0.000134	0.01
Y_R2 488.368	1.005666	106605.948458	0.005520	0.55
Y_R4	1.010190	45458.300000	0.005974	0.59

Sample Name: 280-123928-A-1-Asd@5

Date: 5/24/2019 5:15:33 PM Rack:Tube: 1:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000550	ppm	0.000359	65.32	-248.446000	Y 377.433
Al (394.401 nm)	0.111945	ppm	0.001622	1.45	1512.990000	Y 377.433
Al H (396.152 nm)	0.208267 u	ppm	0.002621	1.26	277.697000	Y_R 377.433
As (188.980 nm)	0.002955	ppm	0.001888	63.90	2.874370	Y 242.219
B (249.678 nm)	0.020772	ppm	0.000377	1.81	194.951000	Y 242.219
Ba (493.408 nm)	0.023112	ppm	0.000636	2.75	3703.710000	Y_R 488.368
Be (234.861 nm)	-0.000008 u	ppm	0.000034	> 100.00	-3.324900	Y_R 488.368
Bi (223.061 nm)	0.000795	ppm	0.000931	> 100.00	-8.846460	Y 377.433
Ca (315.887 nm)	19.870042	ppm	0.028225	0.14	15711.889717	Y_R 377.433
Cd (214.439 nm)	0.000103	ppm	0.000001	0.89	-1.334360	Y 377.433
Co (228.615 nm)	-0.000267 u	ppm	0.000236	88.56	-21.275600	Y 242.219
Cr (205.560 nm)	-0.000296 u	ppm	0.000375	> 100.00	-8.735110	Y 377.433
Cu (324.754 nm)	0.001463	ppm	0.000120	8.22	372.742000	Y 377.433
Fe (238.204 nm)	0.120505	ppm	0.001552	1.29	297.215610	Y_R 377.433
Fe H (259.940 nm)	0.129784 u	ppm	0.003080	2.37	190.902000	Y_R 377.433
K (766.491 nm)	1.373630	ppm	0.042213	3.07	3263.740000	Y_R2 488.368
Li (670.783 nm)	0.022840	ppm	0.003611	15.81	-2153.600000	Y_R2 488.368
Mg (279.078 nm)	3.943400	ppm	0.001958	0.05	12912.200000	Y 377.433
Mn (257.610 nm)	0.023905	ppm	0.000017	0.07	6506.940000	Y 377.433
Mo (202.032 nm)	0.000720	ppm	0.000557	77.40	20.208000	Y 377.433
Na (589.592 nm)	24.567800	ppm	0.120787	0.49	20323.200000	Y_R2 488.368
Na H (589.593 nm)	25.692543 u	ppm	0.093975	0.37	13822.149178	Y_R4
Ni (231.604 nm)	0.000511	ppm	0.000522	> 100.00	-5.973620	Y 377.433
P (213.618 nm)	0.020602	ppm	0.000053	0.26	25.042100	Y 242.219
Pb (220.353 nm)	-0.000068 u	ppm	0.001240	> 100.00	8.052460	Y 242.219
S (181.972 nm)	11.031796	ppm	0.035003	0.32	5065.801720	Y 377.433
Sb (206.834 nm)	-0.003704 u	ppm	0.001302	35.15	-4.483190	Y 377.433
Se (196.026 nm)	-0.000941 u	ppm	0.000130	13.79	7.439900	Y 242.219
Si (288.158 nm)	1.973380	ppm	0.001827	0.09	13192.300000	Y 377.433
Sn (189.925 nm)	-0.000002 u	ppm	0.000642	> 100.00	2.086610	Y 377.433
Sr (421.552 nm)	0.203739	ppm	0.000381	0.19	30706.571086	Y_R 488.368
Th (288.505 nm)	-0.005112 u	ppm	0.006324	> 100.00	3.844580	Y 377.433
Ti (336.122 nm)	0.003471	ppm	0.000132	3.79	77.274000	Y 377.433
Tl (190.794 nm)	0.001280	ppm	0.001455	> 100.00	3.932160	Y 377.433
U (409.013 nm)	0.006460	ppm	0.005998	92.85	-6.818340	Y 377.433
V (292.401 nm)	0.000662	ppm	0.000040	6.12	-112.672000	Y 377.433
Zn (206.200 nm)	0.004219	ppm	0.000919	21.77	23.053300	Y 377.433
Zr (343.823 nm)	0.000269	ppm	0.000064	23.71	-146.392000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.026261	23722.502561	0.000062	0.01
Y 377.433	1.013051	708559.454117	0.000699	0.07
Y_R 377.433	1.039530	63025.600000	0.001652	0.16
Y_R 488.368	1.052330	55592.000000	0.000402	0.04
Y_R2 488.368	1.044686	110742.200517	0.002046	0.20
Y_R4	1.053430	47404.100000	0.013814	1.31

Sample Name: 280-123928-A-1-B MS

Date: 5/24/2019 5:19:02 PM Rack:Tube: 1:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001039	ppm	0.000034	3.30	-559.867000	Y 377.433
Al (394.401 nm)	11.057000 o	ppm	0.009798	0.09	135572.000000	Y 377.433
Al H (396.152 nm)	10.628000	ppm	0.033582	0.32	23875.400000	Y_R 377.433
As (188.980 nm)	2.114480	ppm	0.005921	0.28	3184.430000	Y 242.219
B (249.678 nm)	1.143980	ppm	0.003331	0.29	8210.430000	Y 242.219
Ba (493.408 nm)	2.155240	ppm	0.002362	0.11	216272.000000	Y_R 488.368
Be (234.861 nm)	1.008440	ppm	0.004530	0.45	99266.500000	Y_R 488.368
Bi (223.061 nm)	2.025530	ppm	0.004737	0.23	4427.540000	Y 377.433
Ca (315.887 nm)	145.717017	ppm	0.143451	0.10	115662.996907	Y_R 377.433
Cd (214.439 nm)	1.028500	ppm	0.001555	0.15	38033.200000	Y 377.433
Co (228.615 nm)	1.003670	ppm	0.000152	0.02	23619.300000	Y 242.219
Cr (205.560 nm)	1.052180	ppm	0.000675	0.06	7002.940000	Y 377.433
Cu (324.754 nm)	1.024680	ppm	0.001046	0.10	48116.500000	Y 377.433
Fe (238.204 nm)	10.672771 o	ppm	0.021845	0.20	25698.363676	Y_R 377.433
Fe H (259.940 nm)	10.663400	ppm	0.021181	0.20	14758.700000	Y_R 377.433
K (766.491 nm)	58.148500	ppm	0.370677	0.64	58084.800000	Y_R2 488.368
Li (670.783 nm)	1.066470	ppm	0.001871	0.18	15765.700000	Y_R2 488.368
Mg (279.078 nm)	69.213700	ppm	0.107729	0.16	226455.000000	Y 377.433
Mn (257.610 nm)	1.126020	ppm	0.000570	0.05	307008.000000	Y 377.433
Mo (202.032 nm)	1.049120	ppm	0.001038	0.10	13234.500000	Y 377.433
Na (589.592 nm)	165.102000 o	ppm	0.407584	0.25	136172.000000	Y_R2 488.368
Na H (589.593 nm)	175.513047	ppm	0.313297	0.18	95108.184975	Y_R4
Ni (231.604 nm)	1.016250	ppm	0.001019	0.10	5251.850000	Y 377.433
P (213.618 nm)	21.154500	ppm	0.008367	0.04	29967.600000	Y 242.219
Pb (220.353 nm)	1.006990	ppm	0.002476	0.25	3205.660000	Y 242.219
S (181.972 nm)	66.013842	ppm	0.162272	0.25	30254.742699	Y 377.433
Sb (206.834 nm)	0.000388 u	ppm	0.001475	> 100.00	-2.420530	Y 377.433
Se (196.026 nm)	2.043510	ppm	0.005798	0.28	3089.840000	Y 242.219
Si (288.158 nm)	12.151800	ppm	0.026054	0.21	78716.500000	Y 377.433
Sn (189.925 nm)	2.097940	ppm	0.003758	0.18	3377.790000	Y 377.433
Sr (421.552 nm)	2.010656	ppm	0.003781	0.19	302831.706403	Y_R 488.368
Th (288.505 nm)	1.036730	ppm	0.001179	0.11	1704.480000	Y 377.433
Ti (336.122 nm)	1.035960	ppm	0.000153	0.01	132626.000000	Y 377.433
Tl (190.794 nm)	2.001690	ppm	0.001714	0.09	4566.970000	Y 377.433
U (409.013 nm)	2.068350	ppm	0.001347	0.07	6465.320000	Y 377.433
V (292.401 nm)	1.020220	ppm	0.000827	0.08	52472.100000	Y 377.433
Zn (206.200 nm)	0.515515	ppm	0.000500	0.10	2323.690000	Y 377.433
Zr (343.823 nm)	0.480610	ppm	0.000448	0.09	27046.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.974343	22522.384729	0.003399	0.35
Y 377.433	0.972119	679930.536622	0.004295	0.44
Y_R 377.433	1.022660	62002.700000	0.000068	0.01
Y_R 488.368	1.031240	54478.100000	0.000339	0.03
Y_R2 488.368	1.026494	108813.783145	0.006647	0.65
Y_R4	1.046400	47088.100000	0.002155	0.21

Sample Name: 280-123928-A-1-C MSD

Date: 5/24/2019 5:22:42 PM Rack:Tube: 1:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000710	ppm	0.000334	47.00	-576.927000	Y 377.433
Al (394.401 nm)	11.021900 o	ppm	0.016637	0.15	135140.000000	Y 377.433
Al H (396.152 nm)	10.603000	ppm	0.001710	0.02	23816.000000	Y_R 377.433
As (188.980 nm)	2.132010	ppm	0.008231	0.39	3210.830000	Y 242.219
B (249.678 nm)	1.143030	ppm	0.001061	0.09	8203.430000	Y 242.219
Ba (493.408 nm)	2.142440	ppm	0.003925	0.18	214996.000000	Y_R 488.368
Be (234.861 nm)	1.018870	ppm	0.005353	0.53	100292.000000	Y_R 488.368
Bi (223.061 nm)	2.035730	ppm	0.005337	0.26	4449.930000	Y 377.433
Ca (315.887 nm)	149.906199	ppm	0.186507	0.12	118990.065297	Y_R 377.433
Cd (214.439 nm)	1.055180	ppm	0.001669	0.16	39019.900000	Y 377.433
Co (228.615 nm)	1.014160	ppm	0.002199	0.22	23866.100000	Y 242.219
Cr (205.560 nm)	1.069690	ppm	0.022057	2.06	7119.600000	Y 377.433
Cu (324.754 nm)	1.023490	ppm	0.002734	0.27	48059.100000	Y 377.433
Fe (238.204 nm)	11.018092 o	ppm	0.012558	0.11	26529.609618	Y_R 377.433
Fe H (259.940 nm)	10.960900	ppm	0.009380	0.09	15170.100000	Y_R 377.433
K (766.491 nm)	58.685900	ppm	0.610045	1.04	58603.700000	Y_R2 488.368
Li (670.783 nm)	1.067160	ppm	0.005994	0.56	15777.600000	Y_R2 488.368
Mg (279.078 nm)	70.814400	ppm	0.159915	0.23	231693.000000	Y 377.433
Mn (257.610 nm)	1.140350	ppm	0.002377	0.21	310918.000000	Y 377.433
Mo (202.032 nm)	1.065320	ppm	0.002075	0.19	13438.700000	Y 377.433
Na (589.592 nm)	165.092000 o	ppm	0.528397	0.32	136162.000000	Y_R2 488.368
Na H (589.593 nm)	173.689331	ppm	1.211300	0.70	94118.716455	Y_R4
Ni (231.604 nm)	1.035270	ppm	0.001455	0.14	5350.300000	Y 377.433
P (213.618 nm)	21.389200	ppm	0.037525	0.18	30302.700000	Y 242.219
Pb (220.353 nm)	1.023260	ppm	0.003042	0.30	3257.310000	Y 242.219
S (181.972 nm)	66.582272	ppm	0.082213	0.12	30515.315850	Y 377.433
Sb (206.834 nm)	0.000989 u	ppm	0.002553	> 100.00	-1.420370	Y 377.433
Se (196.026 nm)	2.064380	ppm	0.010524	0.51	3121.250000	Y 242.219
Si (288.158 nm)	12.285000	ppm	0.037734	0.31	79574.000000	Y 377.433
Sn (189.925 nm)	2.139690	ppm	0.003306	0.15	3444.980000	Y 377.433
Sr (421.552 nm)	1.996167	ppm	0.003176	0.16	300649.680347	Y_R 488.368
Th (288.505 nm)	1.040250	ppm	0.001132	0.11	1709.090000	Y 377.433
Ti (336.122 nm)	1.043640	ppm	0.002442	0.23	133624.000000	Y 377.433
Tl (190.794 nm)	2.045620	ppm	0.002157	0.11	4667.150000	Y 377.433
U (409.013 nm)	2.071060	ppm	0.001737	0.08	6473.720000	Y 377.433
V (292.401 nm)	1.033430	ppm	0.002374	0.23	53152.200000	Y 377.433
Zn (206.200 nm)	0.527229	ppm	0.000223	0.04	2376.410000	Y 377.433
Zr (343.823 nm)	0.479768	ppm	0.001419	0.30	26998.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.992810	22949.254643	0.003150	0.32
Y 377.433	0.982695	687327.362477	0.002142	0.22
Y_R 377.433	1.031420	62533.600000	0.004354	0.42
Y_R 488.368	1.043960	55149.800000	0.005594	0.54
Y_R2 488.368	1.023040	108447.675472	0.009366	0.92
Y_R4	1.048900	47200.400000	0.010116	0.96

Sample Name: MB 280-458933/1-A

Date: 5/24/2019 5:26:20 PM Rack:Tube: 1:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000006 u	ppm	0.000365	> 100.00	-267.097000	Y 377.433
Al (394.401 nm)	0.003588	ppm	0.000136	3.78	136.725000	Y 377.433
Al H (396.152 nm)	0.130321 u	ppm	0.010750	8.25	26.716200	Y_R 377.433
As (188.980 nm)	-0.000138 u	ppm	0.004512	> 100.00	-1.785770	Y 242.219
B (249.678 nm)	-0.001092 u	ppm	0.000196	17.99	38.847700	Y 242.219
Ba (493.408 nm)	-0.001540 u	ppm	0.000219	14.21	1245.980000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000005	25.35	-4.128780	Y_R 488.368
Bi (223.061 nm)	-0.001303 u	ppm	0.002923	> 100.00	-13.458600	Y 377.433
Ca (315.887 nm)	0.035478	ppm	0.001094	3.08	-40.863339	Y_R 377.433
Cd (214.439 nm)	0.000063	ppm	0.000054	85.55	-2.825810	Y 377.433
Co (228.615 nm)	0.000020 u	ppm	0.000086	> 100.00	-14.655500	Y 242.219
Cr (205.560 nm)	0.000274	ppm	0.000107	39.00	-4.928870	Y 377.433
Cu (324.754 nm)	0.001329	ppm	0.000430	32.33	378.675000	Y 377.433
Fe (238.204 nm)	0.043105	ppm	0.000045	0.10	110.900971	Y_R 377.433
Fe H (259.940 nm)	0.046922 u	ppm	0.000040	0.08	76.305700	Y_R 377.433
K (766.491 nm)	-0.078049 u	ppm	0.271259	> 100.00	1862.020000	Y_R2 488.368
Li (670.783 nm)	0.014902	ppm	0.004723	31.70	-2289.890000	Y_R2 488.368
Mg (279.078 nm)	0.008382	ppm	0.001143	13.64	35.578900	Y 377.433
Mn (257.610 nm)	0.000429	ppm	0.000008	1.77	105.826000	Y 377.433
Mo (202.032 nm)	0.000439	ppm	0.000278	63.27	16.670300	Y 377.433
Na (589.592 nm)	0.007598	ppm	0.001229	16.17	156.111000	Y_R2 488.368
Na H (589.593 nm)	1.357685 u	ppm	0.049215	3.62	619.122550	Y_R4
Ni (231.604 nm)	0.000635	ppm	0.000116	18.35	-5.334000	Y 377.433
P (213.618 nm)	0.001134 u	ppm	0.003133	> 100.00	-2.753260	Y 242.219
Pb (220.353 nm)	0.000626	ppm	0.000148	23.74	10.272500	Y 242.219
S (181.972 nm)	0.005542	ppm	0.007331	> 100.00	15.238551	Y 377.433
Sb (206.834 nm)	0.000093 u	ppm	0.002227	> 100.00	1.933090	Y 377.433
Se (196.026 nm)	0.003966	ppm	0.001641	41.37	14.828500	Y 242.219
Si (288.158 nm)	0.007614	ppm	0.000963	12.65	537.560000	Y 377.433
Sn (189.925 nm)	0.001476	ppm	0.001436	97.27	4.465090	Y 377.433
Sr (421.552 nm)	0.000336	ppm	0.000001	0.42	73.750925	Y_R 488.368
Th (288.505 nm)	0.001252 u	ppm	0.002312	> 100.00	14.897700	Y 377.433
Ti (336.122 nm)	0.000309	ppm	0.000004	1.41	-394.314000	Y 377.433
Tl (190.794 nm)	0.002082	ppm	0.001233	59.21	6.569580	Y 377.433
U (409.013 nm)	0.007206	ppm	0.003145	43.65	-1.882820	Y 377.433
V (292.401 nm)	0.000055	ppm	0.000014	25.00	-143.735000	Y 377.433
Zn (206.200 nm)	0.002469	ppm	0.000461	18.66	15.172700	Y 377.433
Zr (343.823 nm)	0.000120	ppm	0.000124	> 100.00	-154.809000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043582	24122.876482	0.001821	0.17
Y 377.433	1.031294	721319.013235	0.000773	0.07
Y_R 377.433	1.045290	63374.500000	0.002723	0.26
Y_R 488.368	1.061810	56092.800000	0.001576	0.15
Y_R2 488.368	1.060502	112418.783410	0.002723	0.26
Y_R4	1.037450	46685.100000	0.009067	0.87

Sample Name: LCS 280-458933/2-A

Date: 5/24/2019 5:29:35 PM Rack:Tube: 1:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052850	ppm	0.000586	1.11	1246.450000	Y 377.433
Al (394.401 nm)	10.253300 o	ppm	0.014367	0.14	125498.000000	Y 377.433
Al H (396.152 nm)	10.156300	ppm	0.026674	0.26	22437.300000	Y_R 377.433
As (188.980 nm)	2.056730	ppm	0.004609	0.22	3097.410000	Y 242.219
B (249.678 nm)	0.999192	ppm	0.000956	0.10	7176.580000	Y 242.219
Ba (493.408 nm)	2.034540	ppm	0.006589	0.32	204238.000000	Y_R 488.368
Be (234.861 nm)	1.010540	ppm	0.000017	0.00	99474.900000	Y_R 488.368
Bi (223.061 nm)	2.004590	ppm	0.002535	0.13	4381.580000	Y 377.433
Ca (315.887 nm)	50.008726	ppm	0.079076	0.16	39650.755399	Y_R 377.433
Cd (214.439 nm)	1.037520	ppm	0.002605	0.25	38366.600000	Y 377.433
Co (228.615 nm)	1.000210	ppm	0.001198	0.12	23536.900000	Y 242.219
Cr (205.560 nm)	1.049660	ppm	0.001299	0.12	6986.130000	Y 377.433
Cu (324.754 nm)	0.998347	ppm	0.003459	0.35	46943.200000	Y 377.433
Fe (238.204 nm)	10.342966 o	ppm	0.005836	0.06	24904.464802	Y_R 377.433
Fe H (259.940 nm)	10.302500	ppm	0.037862	0.37	14259.600000	Y_R 377.433
K (766.491 nm)	50.108100	ppm	0.368672	0.74	50321.200000	Y_R2 488.368
Li (670.783 nm)	1.019660	ppm	0.001783	0.17	14962.100000	Y_R2 488.368
Mg (279.078 nm)	50.387100	ppm	0.054911	0.11	164849.000000	Y 377.433
Mn (257.610 nm)	1.016110	ppm	0.001809	0.18	277041.000000	Y 377.433
Mo (202.032 nm)	1.041350	ppm	0.003161	0.30	13136.600000	Y 377.433
Na (589.592 nm)	49.058000	ppm	0.397055	0.81	40884.300000	Y_R2 488.368
Na H (589.593 nm)	51.639846	ppm	0.023391	0.05	27900.017860	Y_R4
Ni (231.604 nm)	1.016400	ppm	0.003037	0.30	5252.670000	Y 377.433
P (213.618 nm)	20.572300	ppm	0.013511	0.07	29141.500000	Y 242.219
Pb (220.353 nm)	1.015410	ppm	0.002137	0.21	3232.550000	Y 242.219
S (181.972 nm)	10.084515	ppm	0.020054	0.20	4636.624096	Y 377.433
Sb (206.834 nm)	1.097090	ppm	0.006217	0.57	1849.580000	Y 377.433
Se (196.026 nm)	2.007210	ppm	0.003173	0.16	3035.020000	Y 242.219
Si (288.158 nm)	2.100920	ppm	0.006270	0.30	14013.400000	Y 377.433
Sn (189.925 nm)	2.081520	ppm	0.005237	0.25	3351.370000	Y 377.433
Sr (421.552 nm)	0.985923	ppm	0.002477	0.25	148505.856687	Y_R 488.368
Th (288.505 nm)	1.037790	ppm	0.000472	0.05	1707.600000	Y 377.433
Ti (336.122 nm)	1.012250	ppm	0.000692	0.07	129267.000000	Y 377.433
Tl (190.794 nm)	2.048920	ppm	0.001996	0.10	4678.920000	Y 377.433
U (409.013 nm)	2.014020	ppm	0.000201	0.01	6302.470000	Y 377.433
V (292.401 nm)	1.010450	ppm	0.001897	0.19	51966.100000	Y 377.433
Zn (206.200 nm)	0.515697	ppm	0.000235	0.05	2324.460000	Y 377.433
Zr (343.823 nm)	0.503438	ppm	0.000965	0.19	28338.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.985571	22781.938337	0.000986	0.10
Y 377.433	0.979938	685399.117473	0.001865	0.19
Y_R 377.433	1.004600	60907.500000	0.000749	0.07
Y_R 488.368	1.017640	53759.700000	0.000017	0.00
Y_R2 488.368	1.002629	106284.009593	0.006915	0.69
Y_R4	1.041200	46854.100000	0.000677	0.07

Sample Name: 280-123564-M-1-B

Date: 5/24/2019 5:33:14 PM Rack:Tube: 1:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001184	ppm	0.000405	34.17	-226.753000	Y 377.433
Al (394.401 nm)	0.005803	ppm	0.001208	20.81	405.493000	Y 377.433
Al H (396.152 nm)	-0.043952 u	ppm	0.005190	11.81	139.021000	Y_R 377.433
As (188.980 nm)	0.004248	ppm	0.000010	0.24	4.811960	Y 242.219
B (249.678 nm)	0.260905	ppm	0.001395	0.53	1909.700000	Y 242.219
Ba (493.408 nm)	0.064682	ppm	0.000010	0.01	7848.200000	Y_R 488.368
Be (234.861 nm)	0.000122	ppm	0.000033	26.94	8.050310	Y_R 488.368
Bi (223.061 nm)	-0.000214 u	ppm	0.000540	> 100.00	-10.961400	Y 377.433
Ca (315.887 nm)	120.808531	ppm	0.249863	0.21	95877.798281	Y_R 377.433
Cd (214.439 nm)	0.000373	ppm	0.000027	7.35	8.816260	Y 377.433
Co (228.615 nm)	0.000134	ppm	0.000111	82.63	-11.971500	Y 242.219
Cr (205.560 nm)	0.000859	ppm	0.000179	20.90	-7.972840	Y 377.433
Cu (324.754 nm)	0.001044	ppm	0.000304	29.13	314.810000	Y 377.433
Fe (238.204 nm)	0.465407	ppm	0.001059	0.23	1127.454757	Y_R 377.433
Fe H (259.940 nm)	0.456792 u	ppm	0.005077	1.11	643.149000	Y_R 377.433
K (766.491 nm)	17.843900	ppm	0.011223	0.06	19167.200000	Y_R2 488.368
Li (670.783 nm)	0.033165	ppm	0.001150	3.47	-1976.320000	Y_R2 488.368
Mg (279.078 nm)	39.479600	ppm	0.016218	0.04	129199.000000	Y 377.433
Mn (257.610 nm)	0.151850	ppm	0.000077	0.05	41392.200000	Y 377.433
Mo (202.032 nm)	1.486560	ppm	0.001772	0.12	18748.100000	Y 377.433
Na (589.592 nm)	268.309000 o	ppm	0.035286	0.01	220420.000000	Y_R2 488.368
Na H (589.593 nm)	284.738870	ppm	1.146877	0.40	154369.326491	Y_R4
Ni (231.604 nm)	0.001795	ppm	0.000153	8.54	0.665567	Y 377.433
P (213.618 nm)	0.035889	ppm	0.000722	2.01	-4.890670	Y 242.219
Pb (220.353 nm)	0.000144 u	ppm	0.000614	> 100.00	4.878630	Y 242.219
S (181.972 nm)	120.810218 bo	ppm	0.091335	0.08	55344.677977	Y 377.433
Sb (206.834 nm)	-0.006700 u	ppm	0.001812	27.05	-19.310800	Y 377.433
Se (196.026 nm)	0.001487 u	ppm	0.002503	> 100.00	11.437600	Y 242.219
Si (288.158 nm)	8.706400	ppm	0.026840	0.31	56536.600000	Y 377.433
Sn (189.925 nm)	0.000574	ppm	0.000170	29.67	3.014320	Y 377.433
Sr (421.552 nm)	0.926463	ppm	0.001138	0.12	139549.622670	Y_R 488.368
Th (288.505 nm)	-0.001815 u	ppm	0.000327	17.99	9.562480	Y 377.433
Ti (336.122 nm)	-0.000315 u	ppm	0.000013	4.25	-63.447200	Y 377.433
Tl (190.794 nm)	0.005082	ppm	0.000551	10.85	0.589403	Y 377.433
U (409.013 nm)	0.020024	ppm	0.005058	25.26	23.026800	Y 377.433
V (292.401 nm)	0.002060	ppm	0.000243	11.80	-149.637000	Y 377.433
Zn (206.200 nm)	0.009387	ppm	0.000541	5.76	46.339500	Y 377.433
Zr (343.823 nm)	0.000041 u	ppm	0.000134	> 100.00	-159.308000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.972993	22491.186046	0.007022	0.72
Y 377.433	0.963619	673984.932071	0.008078	0.84
Y_R 377.433	1.021360	61923.900000	0.004866	0.48
Y_R 488.368	1.033910	54619.200000	0.000984	0.10
Y_R2 488.368	1.018102	107924.157576	0.004380	0.43
Y_R4	1.047910	47155.900000	0.006797	0.65

Sample Name: 280-123564-M-1-Bsd@5

Date: 5/24/2019 5:36:48 PM Rack:Tube: 1:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000844	ppm	0.000237	28.11	-238.133000	Y 377.433
Al (394.401 nm)	0.001567	ppm	0.000612	39.09	159.441000	Y 377.433
Al H (396.152 nm)	0.104511 u	ppm	0.005382	5.15	66.188400	Y_R 377.433
As (188.980 nm)	0.000014 u	ppm	0.001339	> 100.00	-1.593700	Y 242.219
B (249.678 nm)	0.050399	ppm	0.000579	1.15	405.764000	Y 242.219
Ba (493.408 nm)	0.011558	ppm	0.000250	2.16	2552.870000	Y_R 488.368
Be (234.861 nm)	0.000045	ppm	0.000026	58.14	-3.724890	Y_R 488.368
Bi (223.061 nm)	0.001361	ppm	0.000920	67.60	-7.371860	Y 377.433
Ca (315.887 nm)	24.962926	ppm	0.045764	0.18	19756.664696	Y_R 377.433
Cd (214.439 nm)	0.000062	ppm	0.000027	43.45	-2.276540	Y 377.433
Co (228.615 nm)	0.000221	ppm	0.000095	42.95	-9.946510	Y 242.219
Cr (205.560 nm)	0.001152	ppm	0.000141	12.21	-0.447237	Y 377.433
Cu (324.754 nm)	0.001406	ppm	0.000035	2.48	370.964000	Y 377.433
Fe (238.204 nm)	1.458723	ppm	0.020675	1.42	3518.541485	Y_R 377.433
Fe H (259.940 nm)	1.456240 u	ppm	0.033171	2.28	2025.370000	Y_R 377.433
K (766.491 nm)	3.252950	ppm	0.180362	5.54	5078.400000	Y_R2 488.368
Li (670.783 nm)	0.022264	ppm	0.004039	18.14	-2163.500000	Y_R2 488.368
Mg (279.078 nm)	7.965060	ppm	0.042395	0.53	26071.000000	Y 377.433
Mn (257.610 nm)	0.044321	ppm	0.000084	0.19	12073.500000	Y 377.433
Mo (202.032 nm)	0.294281	ppm	0.001090	0.37	3720.320000	Y 377.433
Na (589.592 nm)	54.635800	ppm	0.192064	0.35	45003.500000	Y_R2 488.368
Na H (589.593 nm)	56.273700	ppm	0.394523	0.70	30414.144092	Y_R4
Ni (231.604 nm)	0.000781	ppm	0.000353	45.15	-4.576650	Y 377.433
P (213.618 nm)	0.004193	ppm	0.004208	> 100.00	-8.563770	Y 242.219
Pb (220.353 nm)	0.001265	ppm	0.000461	36.46	11.514700	Y 242.219
S (181.972 nm)	23.826157	ppm	0.066569	0.28	10925.348734	Y 377.433
Sb (206.834 nm)	-0.004720 u	ppm	0.001698	35.97	-8.009410	Y 377.433
Se (196.026 nm)	-0.000081 u	ppm	0.001119	> 100.00	8.469200	Y 242.219
Si (288.158 nm)	1.718500	ppm	0.002773	0.16	11551.500000	Y 377.433
Sn (189.925 nm)	0.001508	ppm	0.001672	> 100.00	4.516830	Y 377.433
Sr (421.552 nm)	0.180206	ppm	0.001473	0.82	27162.573253	Y_R 488.368
Th (288.505 nm)	-0.006339 u	ppm	0.001165	18.38	1.870400	Y 377.433
Ti (336.122 nm)	0.000209	ppm	0.000040	18.93	-322.853000	Y 377.433
Tl (190.794 nm)	0.003508	ppm	0.001039	29.62	7.096060	Y 377.433
U (409.013 nm)	0.009581	ppm	0.001155	12.05	3.423220	Y 377.433
V (292.401 nm)	0.000713	ppm	0.000280	39.27	-131.673000	Y 377.433
Zn (206.200 nm)	0.005760	ppm	0.000352	6.11	30.167900	Y 377.433
Zr (343.823 nm)	0.000006 u	ppm	0.000158	> 100.00	-161.292000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.058416	24465.770187	0.012363	1.17
Y 377.433	1.044664	730670.953421	0.009361	0.90
Y_R 377.433	1.116890	67715.600000	0.002853	0.26
Y_R 488.368	1.137020	60066.200000	0.006081	0.53
Y_R2 488.368	1.125452	119303.902198	0.015418	1.37
Y_R4	1.115520	50198.200000	0.008591	0.77

Sample Name: 280-123564-M-1-C MS

Date: 5/24/2019 5:40:23 PM Rack:Tube: 1:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.053719	ppm	0.000029	0.05	1278.130000	Y 377.433
Al (394.401 nm)	10.087500 o	ppm	0.012119	0.12	123708.000000	Y 377.433
Al H (396.152 nm)	9.707660	ppm	0.019997	0.21	21945.100000	Y_R 377.433
As (188.980 nm)	2.109960	ppm	0.002950	0.14	3177.610000	Y 242.219
B (249.678 nm)	1.273800	ppm	0.002604	0.20	9137.470000	Y 242.219
Ba (493.408 nm)	2.044420	ppm	0.007102	0.35	205224.000000	Y_R 488.368
Be (234.861 nm)	0.993468	ppm	0.018659	1.88	97791.700000	Y_R 488.368
Bi (223.061 nm)	2.007090	ppm	0.000206	0.01	4387.190000	Y 377.433
Ca (315.887 nm)	174.385000	ppm	0.155441	0.09	138431.051559	Y_R 377.433
Cd (214.439 nm)	1.028760	ppm	0.001588	0.15	38042.900000	Y 377.433
Co (228.615 nm)	0.994127	ppm	0.002153	0.22	23393.700000	Y 242.219
Cr (205.560 nm)	1.032760	ppm	0.002257	0.22	6866.470000	Y 377.433
Cu (324.754 nm)	1.006370	ppm	0.003426	0.34	47266.000000	Y 377.433
Fe (238.204 nm)	10.812025 o	ppm	0.011820	0.11	26033.572032	Y_R 377.433
Fe H (259.940 nm)	10.757200	ppm	0.007428	0.07	14888.500000	Y_R 377.433
K (766.491 nm)	68.202800	ppm	0.929536	1.36	67793.100000	Y_R2 488.368
Li (670.783 nm)	1.034640	ppm	0.002188	0.21	15219.300000	Y_R2 488.368
Mg (279.078 nm)	90.981700	ppm	0.149860	0.16	297689.000000	Y 377.433
Mn (257.610 nm)	1.149400	ppm	0.002076	0.18	313385.000000	Y 377.433
Mo (202.032 nm)	2.537450	ppm	0.005736	0.23	31993.700000	Y 377.433
Na (589.592 nm)	313.292000 o	ppm	2.695290	0.86	257798.000000	Y_R2 488.368
Na H (589.593 nm)	336.329956	ppm	2.564974	0.76	182360.387230	Y_R4
Ni (231.604 nm)	1.017230	ppm	0.000164	0.02	5256.830000	Y 377.433
P (213.618 nm)	21.149000	ppm	0.049273	0.23	29912.000000	Y 242.219
Pb (220.353 nm)	0.994928	ppm	0.000082	0.01	3163.480000	Y 242.219
S (181.972 nm)	135.148406 bo	ppm	0.071623	0.05	61916.714692	Y 377.433
Sb (206.834 nm)	1.106420	ppm	0.001904	0.17	1855.420000	Y 377.433
Se (196.026 nm)	2.037190	ppm	0.003132	0.15	3080.540000	Y 242.219
Si (288.158 nm)	10.946700	ppm	0.013782	0.13	70958.500000	Y 377.433
Sn (189.925 nm)	2.089380	ppm	0.004997	0.24	3364.010000	Y 377.433
Sr (421.552 nm)	1.900161	ppm	0.005741	0.30	286191.152073	Y_R 488.368
Th (288.505 nm)	1.018500	ppm	0.000992	0.10	1674.360000	Y 377.433
Ti (336.122 nm)	1.007400	ppm	0.001739	0.17	129070.000000	Y 377.433
Tl (190.794 nm)	1.958350	ppm	0.001989	0.10	4458.750000	Y 377.433
U (409.013 nm)	2.012310	ppm	0.000776	0.04	6281.610000	Y 377.433
V (292.401 nm)	1.006980	ppm	0.002030	0.20	51681.700000	Y 377.433
Zn (206.200 nm)	0.517613	ppm	0.000024	0.00	2333.140000	Y 377.433
Zr (343.823 nm)	0.498573	ppm	0.000709	0.14	28063.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.026569	23729.612553	0.004146	0.40
Y 377.433	1.018587	712431.437561	0.003657	0.36
Y_R 377.433	1.074990	65175.200000	0.016982	1.58
Y_R 488.368	1.089940	57578.900000	0.014852	1.36
Y_R2 488.368	1.060362	112403.991178	0.003730	0.35
Y_R4	1.081820	48681.800000	0.007775	0.72

Sample Name: 280-123564-M-1-D MSD

Date: 5/24/2019 5:44:02 PM Rack:Tube: 1:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054278	ppm	0.000296	0.54	1296.080000	Y 377.433
Al (394.401 nm)	10.141400 o	ppm	0.001532	0.02	124364.000000	Y 377.433
Al H (396.152 nm)	9.839090	ppm	0.050330	0.51	22228.000000	Y_R 377.433
As (188.980 nm)	2.115180	ppm	0.006564	0.31	3185.470000	Y 242.219
B (249.678 nm)	1.275730	ppm	0.001119	0.09	9151.180000	Y 242.219
Ba (493.408 nm)	2.058540	ppm	0.009419	0.46	206632.000000	Y_R 488.368
Be (234.861 nm)	0.996210	ppm	0.004149	0.42	98061.500000	Y_R 488.368
Bi (223.061 nm)	2.006710	ppm	0.001277	0.06	4386.360000	Y 377.433
Ca (315.887 nm)	173.300864	ppm	0.606130	0.35	137570.059428	Y_R 377.433
Cd (214.439 nm)	1.034450	ppm	0.002177	0.21	38253.200000	Y 377.433
Co (228.615 nm)	0.998926	ppm	0.000402	0.04	23506.700000	Y 242.219
Cr (205.560 nm)	1.042350	ppm	0.009663	0.93	6930.520000	Y 377.433
Cu (324.754 nm)	1.006260	ppm	0.007349	0.73	47261.300000	Y 377.433
Fe (238.204 nm)	10.897581 o	ppm	0.023398	0.21	26239.520376	Y_R 377.433
Fe H (259.940 nm)	10.842300	ppm	0.031898	0.29	15006.100000	Y_R 377.433
K (766.491 nm)	68.361300	ppm	0.258589	0.38	67946.200000	Y_R2 488.368
Li (670.783 nm)	1.042490	ppm	0.007335	0.70	15354.000000	Y_R2 488.368
Mg (279.078 nm)	90.766300	ppm	0.098594	0.11	296984.000000	Y 377.433
Mn (257.610 nm)	1.154200	ppm	0.001155	0.10	314692.000000	Y 377.433
Mo (202.032 nm)	2.522230	ppm	0.000291	0.01	31802.000000	Y 377.433
Na (589.592 nm)	311.162000 o	ppm	1.021910	0.33	256055.000000	Y_R2 488.368
Na H (589.593 nm)	331.041411	ppm	0.347510	0.10	179491.054659	Y_R4
Ni (231.604 nm)	1.022000	ppm	0.000318	0.03	5281.520000	Y 377.433
P (213.618 nm)	21.187700	ppm	0.025023	0.12	29968.200000	Y 242.219
Pb (220.353 nm)	0.998633	ppm	0.003219	0.32	3175.270000	Y 242.219
S (181.972 nm)	132.175133 bo	ppm	0.441651	0.33	60555.056019	Y 377.433
Sb (206.834 nm)	1.111800	ppm	0.003689	0.33	1864.650000	Y 377.433
Se (196.026 nm)	2.049820	ppm	0.003739	0.18	3099.570000	Y 242.219
Si (288.158 nm)	10.778900	ppm	0.041664	0.39	69878.400000	Y 377.433
Sn (189.925 nm)	2.098820	ppm	0.000360	0.02	3379.210000	Y 377.433
Sr (421.552 nm)	1.891406	ppm	0.007927	0.42	284872.527105	Y_R 488.368
Th (288.505 nm)	1.027860	ppm	0.006934	0.67	1690.120000	Y 377.433
Ti (336.122 nm)	1.010990	ppm	0.000558	0.06	129527.000000	Y 377.433
Tl (190.794 nm)	1.975710	ppm	0.002890	0.15	4498.560000	Y 377.433
U (409.013 nm)	2.013370	ppm	0.004692	0.23	6284.880000	Y 377.433
V (292.401 nm)	1.011200	ppm	0.000730	0.07	51899.600000	Y 377.433
Zn (206.200 nm)	0.521480	ppm	0.000539	0.10	2350.540000	Y 377.433
Zr (343.823 nm)	0.500266	ppm	0.000419	0.08	28159.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.007121	23280.077629	0.002460	0.24
Y 377.433	0.998752	698558.323330	0.003319	0.33
Y_R 377.433	1.053730	63886.000000	0.001862	0.18
Y_R 488.368	1.068660	56455.000000	0.001969	0.18
Y_R2 488.368	1.052210	111539.802115	0.001617	0.15
Y_R4	1.092790	49175.700000	0.005595	0.51

Sample Name: CCVH-5713036

Date: 5/24/2019 5:47:41 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004366	ppm	0.000845	19.35	-126.449000	Y 377.433
Al (394.401 nm)	50.141800 o	ppm	0.119899	0.24	610866.000000	Y 377.433
Al H (396.152 nm)	48.773400	ppm	0.108019	0.22	106357.000000	Y_R 377.433
As (188.980 nm)	0.001570	ppm	0.000344	21.89	-0.587395	Y 242.219
B (249.678 nm)	-0.000717 u	ppm	0.000274	38.23	12.177200	Y 242.219
Ba (493.408 nm)	0.001558	ppm	0.000375	24.08	1595.260000	Y_R 488.368
Be (234.861 nm)	0.001250	ppm	0.000018	1.46	-93.914000	Y_R 488.368
Bi (223.061 nm)	0.010623	ppm	0.000253	2.38	21.441900	Y 377.433
Ca (315.887 nm)	0.007731	ppm	0.002842	36.76	-50.678077	Y_R 377.433
Cd (214.439 nm)	0.001496	ppm	0.000134	8.96	70.810400	Y 377.433
Co (228.615 nm)	0.003277	ppm	0.000188	5.74	61.924900	Y 242.219
Cr (205.560 nm)	0.001874	ppm	0.000083	4.42	4.423500	Y 377.433
Cu (324.754 nm)	0.003781	ppm	0.000293	7.75	1445.290000	Y 377.433
Fe (238.204 nm)	50.844207 o	ppm	0.099263	0.20	122398.021328	Y_R 377.433
Fe H (259.940 nm)	50.274200	ppm	0.063437	0.13	69539.900000	Y_R 377.433
K (766.491 nm)	0.295665	ppm	0.067948	22.98	2222.870000	Y_R2 488.368
Li (670.783 nm)	0.011271	ppm	0.003492	30.98	-2352.240000	Y_R2 488.368
Mg (279.078 nm)	0.040814	ppm	0.000848	2.08	66.699800	Y 377.433
Mn (257.610 nm)	0.001089	ppm	0.000031	2.80	285.808000	Y 377.433
Mo (202.032 nm)	0.002056	ppm	0.000329	16.00	37.044800	Y 377.433
Na (589.592 nm)	229.488000 o	ppm	0.619172	0.27	188538.000000	Y_R2 488.368
Na H (589.593 nm)	238.900235	ppm	1.797332	0.75	129499.293113	Y_R4
Ni (231.604 nm)	0.003435	ppm	0.000513	14.93	9.152150	Y 377.433
P (213.618 nm)	4.979870	ppm	0.001591	0.03	7112.550000	Y 242.219
Pb (220.353 nm)	0.006442	ppm	0.000351	5.45	21.922300	Y 242.219
S (181.972 nm)	5.066101	ppm	0.031114	0.61	2332.749215	Y 377.433
Sb (206.834 nm)	-0.000709 u	ppm	0.001150	> 100.00	4.858220	Y 377.433
Se (196.026 nm)	0.007607	ppm	0.004366	57.39	7.236830	Y 242.219
Si (288.158 nm)	0.019482	ppm	0.000234	1.20	613.960000	Y 377.433
Sn (189.925 nm)	0.001717	ppm	0.000272	15.85	4.853370	Y 377.433
Sr (421.552 nm)	0.001522	ppm	0.000160	10.48	260.027460	Y_R 488.368
Th (288.505 nm)	4.900080	ppm	0.011160	0.23	8462.630000	Y 377.433
Ti (336.122 nm)	0.001930	ppm	0.000032	1.63	-186.830000	Y 377.433
Tl (190.794 nm)	-0.000508 u	ppm	0.000063	12.49	-4.247580	Y 377.433
U (409.013 nm)	0.537553 Q	ppm	0.000592	0.11	1717.890000 Q	Y 377.433
V (292.401 nm)	0.000561	ppm	0.000122	21.80	377.502000	Y 377.433
Zn (206.200 nm)	0.002944	ppm	0.000053	1.81	24.383200	Y 377.433
Zr (343.823 nm)	0.001147	ppm	0.000283	24.65	-96.708200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.053651	24355.639580	0.005899	0.56
Y 377.433	1.031070	721162.865379	0.007052	0.68
Y_R 377.433	1.066690	64672.300000	0.001419	0.13
Y_R 488.368	1.075460	56814.200000	0.002333	0.22
Y_R2 488.368	1.062692	112650.960671	0.004949	0.47
Y_R4	1.084190	48788.300000	0.003314	0.31

Sample Name: CCV-5717467

Date: 5/24/2019 5:51:22 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.498537	ppm	0.001352	0.27	16934.100000	Y 377.433
Al (394.401 nm)	0.510726	ppm	0.002719	0.53	6450.660000	Y 377.433
Al H (396.152 nm)	0.557486 u	ppm	0.000185	0.03	1206.260000	Y_R 377.433
As (188.980 nm)	0.500984	ppm	0.000358	0.07	753.285000	Y 242.219
B (249.678 nm)	0.485722	ppm	0.003008	0.62	3514.080000	Y 242.219
Ba (493.408 nm)	0.495398	ppm	0.000921	0.19	50789.500000	Y_R 488.368
Be (234.861 nm)	0.484547	ppm	0.001096	0.23	47707.000000	Y_R 488.368
Bi (223.061 nm)	1.002780	ppm	0.002550	0.25	2186.150000	Y 377.433
Ca (315.887 nm)	4.947085	ppm	0.002302	0.05	3860.097518	Y_R 377.433
Cd (214.439 nm)	0.518235	ppm	0.001415	0.27	19160.200000	Y 377.433
Co (228.615 nm)	0.501719	ppm	0.001080	0.22	11798.200000	Y 242.219
Cr (205.560 nm)	0.517817	ppm	0.001773	0.34	3443.140000	Y 377.433
Cu (324.754 nm)	0.501981	ppm	0.000928	0.18	23728.600000	Y 377.433
Fe (238.204 nm)	2.510262	ppm	0.007638	0.30	6049.777157	Y_R 377.433
Fe H (259.940 nm)	2.505310 u	ppm	0.001456	0.06	3476.220000	Y_R 377.433
K (766.491 nm)	48.854700	ppm	0.516083	1.06	49110.900000	Y_R2 488.368
Li (670.783 nm)	0.509833	ppm	0.000025	0.01	6208.190000	Y_R2 488.368
Mg (279.078 nm)	19.897100	ppm	0.027386	0.14	65115.300000	Y 377.433
Mn (257.610 nm)	0.496588	ppm	0.000419	0.08	135389.000000	Y 377.433
Mo (202.032 nm)	0.503022	ppm	0.000452	0.09	6351.340000	Y 377.433
Na (589.592 nm)	23.852500	ppm	0.096063	0.40	19843.200000	Y_R2 488.368
Na H (589.593 nm)	26.159094 u	ppm	0.126407	0.48	14075.279110	Y_R4
Ni (231.604 nm)	0.513312	ppm	0.000358	0.07	2647.880000	Y 377.433
P (213.618 nm)	0.047669	ppm	0.000011	0.02	-71.716400	Y 242.219
Pb (220.353 nm)	0.505103	ppm	0.002012	0.40	1610.680000	Y 242.219
S (181.972 nm)	0.003302 u	ppm	0.008156	> 100.00	16.027331	Y 377.433
Sb (206.834 nm)	0.511856	ppm	0.002350	0.46	863.420000	Y 377.433
Se (196.026 nm)	0.500540	ppm	0.001325	0.26	763.893000	Y 242.219
Si (288.158 nm)	4.941940	ppm	0.028213	0.57	32302.600000	Y 377.433
Sn (189.925 nm)	0.518294	ppm	0.000294	0.06	836.055000	Y 377.433
Sr (421.552 nm)	0.482106	ppm	0.000953	0.20	72629.238064	Y_R 488.368
Th (288.505 nm)	0.019873	ppm	0.001259	6.34	-3.596690	Y 377.433
Ti (336.122 nm)	0.491157	ppm	0.000480	0.10	62433.400000	Y 377.433
Tl (190.794 nm)	0.514206	ppm	0.000727	0.14	1174.590000	Y 377.433
U (409.013 nm)	0.014731	ppm	0.011811	80.18	-38.719300	Y 377.433
V (292.401 nm)	0.495969	ppm	0.000254	0.05	25428.500000	Y 377.433
Zn (206.200 nm)	0.516473	ppm	0.000240	0.05	2326.850000	Y 377.433
Zr (343.823 nm)	0.493430	ppm	0.000544	0.11	27772.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.034499	23912.915212	0.004448	0.43
Y 377.433	1.022329	715048.723172	0.003357	0.33
Y_R 377.433	1.048450	63566.200000	0.000018	0.00
Y_R 488.368	1.061790	56091.900000	0.000036	0.00
Y_R2 488.368	1.048727	111170.611381	0.003991	0.38
Y_R4	1.055140	47481.400000	0.010265	0.97

Sample Name: CCB

Date: 5/24/2019 5:54:59 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000537	ppm	0.000608	> 100.00	-248.592000	Y 377.433
Al (394.401 nm)	-0.002014 u	ppm	0.000894	44.40	68.683400	Y 377.433
Al H (396.152 nm)	0.128355 Zu	ppm	0.000493	0.38	22.349900 Z	Y_R 377.433
As (188.980 nm)	-0.001664 u	ppm	0.002793	> 100.00	-4.083050	Y 242.219
B (249.678 nm)	-0.002671 u	ppm	0.000264	9.90	27.596600	Y 242.219
Ba (493.408 nm)	-0.001843 u	ppm	0.000328	17.82	1215.740000	Y_R 488.368
Be (234.861 nm)	0.000026 u	ppm	0.000048	> 100.00	0.573056	Y_R 488.368
Bi (223.061 nm)	0.000586 u	ppm	0.002093	> 100.00	-9.328010	Y 377.433
Ca (315.887 nm)	0.001100 u	ppm	0.007840	> 100.00	-68.164540	Y_R 377.433
Cd (214.439 nm)	-0.000021 u	ppm	0.000081	> 100.00	-5.961640	Y 377.433
Co (228.615 nm)	-0.000170 u	ppm	0.000126	74.39	-19.123100	Y 242.219
Cr (205.560 nm)	0.000578	ppm	0.000029	4.99	-2.894770	Y 377.433
Cu (324.754 nm)	0.001206	ppm	0.000010	0.81	372.778000	Y 377.433
Fe (238.204 nm)	-0.000938 u	ppm	0.001106	> 100.00	4.881296	Y_R 377.433
Fe H (259.940 nm)	0.001887 u	ppm	0.002010	> 100.00	14.022300	Y_R 377.433
K (766.491 nm)	-0.201771 u	ppm	0.336001	> 100.00	1742.560000	Y_R2 488.368
Li (670.783 nm)	0.020857 Z	ppm	0.002227	10.68	-2187.650000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003398	ppm	0.001196	35.20	19.296400	Y 377.433
Mn (257.610 nm)	0.000051	ppm	0.000023	44.61	2.839860	Y 377.433
Mo (202.032 nm)	0.000133	ppm	0.000084	62.99	12.806900	Y 377.433
Na (589.592 nm)	0.049142	ppm	0.017917	36.46	190.188000	Y_R2 488.368
Na H (589.593 nm)	1.207642 u	ppm	0.019870	1.65	537.715591	Y_R4
Ni (231.604 nm)	-0.000340 u	ppm	0.000917	> 100.00	-10.377400	Y 377.433
P (213.618 nm)	-0.000915 u	ppm	0.000138	15.04	-5.536340	Y 242.219
Pb (220.353 nm)	0.000056 u	ppm	0.001877	> 100.00	8.466190	Y 242.219
S (181.972 nm)	0.002200 u	ppm	0.004657	> 100.00	13.706227	Y 377.433
Sb (206.834 nm)	0.000077 u	ppm	0.000366	> 100.00	1.911940	Y 377.433
Se (196.026 nm)	-0.001512 u	ppm	0.000730	48.29	6.577670	Y 242.219
Si (288.158 nm)	-0.005031 u	ppm	0.000259	5.16	456.159000	Y 377.433
Sn (189.925 nm)	-0.000801 u	ppm	0.000101	12.63	0.801786	Y 377.433
Sr (421.552 nm)	0.000256	ppm	0.000073	28.49	61.658990	Y_R 488.368
Th (288.505 nm)	-0.000247 u	ppm	0.004537	> 100.00	12.353000	Y 377.433
Ti (336.122 nm)	0.000255	ppm	0.000016	6.33	-401.305000	Y 377.433
Tl (190.794 nm)	0.001139	ppm	0.000174	15.25	4.421730	Y 377.433
U (409.013 nm)	0.003208	ppm	0.001420	44.27	-14.583500	Y 377.433
V (292.401 nm)	0.000079 u	ppm	0.000182	> 100.00	-142.816000	Y 377.433
Zn (206.200 nm)	-0.000239 u	ppm	0.000077	32.10	2.991020	Y 377.433
Zr (343.823 nm)	0.000046	ppm	0.000003	7.14	-159.001000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.055339	24394.642901	0.000665	0.06
Y 377.433	1.041542	728486.721068	0.000027	0.00
Y_R 377.433	1.062710	64430.700000	0.008839	0.83
Y_R 488.368	1.075770	56830.500000	0.010577	0.98
Y_R2 488.368	1.075658	114025.490785	0.002797	0.26
Y_R4	1.055620	47502.800000	0.002187	0.21

Sample Name: CCVL-5719884

Date: 5/24/2019 5:58:10 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007837	ppm	0.000124	1.59	2.170630	Y 377.433
Al (394.401 nm)	0.100020	ppm	0.000985	0.99	1320.070000	Y 377.433
Al H (396.152 nm)	0.229356 u	ppm	0.002890	1.26	248.649000	Y_R 377.433
As (188.980 nm)	0.013486	ppm	0.000214	1.59	18.742600	Y 242.219
B (249.678 nm)	0.092162	ppm	0.000703	0.76	704.801000	Y 242.219
Ba (493.408 nm)	0.008061	ppm	0.000119	1.48	2203.140000	Y_R 488.368
Be (234.861 nm)	0.000963	ppm	0.000043	4.46	92.411300	Y_R 488.368
Bi (223.061 nm)	0.094802	ppm	0.002758	2.91	197.041000	Y 377.433
Ca (315.887 nm)	0.218801	ppm	0.001572	0.72	104.757637	Y_R 377.433
Cd (214.439 nm)	0.005451	ppm	0.000036	0.66	196.430000	Y 377.433
Co (228.615 nm)	0.010538	ppm	0.000223	2.11	232.976000	Y 242.219
Cr (205.560 nm)	0.010888	ppm	0.000486	4.46	65.686800	Y 377.433
Cu (324.754 nm)	0.016987	ppm	0.000162	0.96	1109.030000	Y 377.433
Fe (238.204 nm)	0.101019	ppm	0.002042	2.02	250.309035	Y_R 377.433
Fe H (259.940 nm)	0.106631 u	ppm	0.000902	0.85	158.883000	Y_R 377.433
K (766.491 nm)	2.838530	ppm	0.117323	4.13	4678.230000	Y_R2 488.368
Li (670.783 nm)	0.038429 Q	ppm	0.000818	2.13	-1885.930000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204726	ppm	0.000381	0.19	677.009000	Y 377.433
Mn (257.610 nm)	0.010632	ppm	0.000018	0.17	2887.750000	Y 377.433
Mo (202.032 nm)	0.019965	ppm	0.000160	0.80	262.782000	Y 377.433
Na (589.592 nm)	1.005820	ppm	0.009101	0.90	977.794000	Y_R2 488.368
Na H (589.593 nm)	1.894986 u	ppm	0.018592	0.98	910.638591	Y_R4
Ni (231.604 nm)	0.045042	ppm	0.001201	2.67	224.445000	Y 377.433
P (213.618 nm)	2.871720	ppm	0.037252	1.30	4097.920000	Y 242.219
Pb (220.353 nm)	0.009621	ppm	0.001675	17.41	38.917600	Y 242.219
S (181.972 nm)	0.094910	ppm	0.002234	2.35	56.203196	Y 377.433
Sb (206.834 nm)	0.018676	ppm	0.000604	3.24	33.158900	Y 377.433
Se (196.026 nm)	0.017964	ppm	0.000115	0.64	35.941900	Y 242.219
Si (288.158 nm)	0.488480	ppm	0.001712	0.35	3633.170000	Y 377.433
Sn (189.925 nm)	0.103354	ppm	0.000640	0.62	168.393000	Y 377.433
Sr (421.552 nm)	0.009258	ppm	0.000062	0.67	1417.449453	Y_R 488.368
Th (288.505 nm)	0.019897 Q	ppm	0.002091	10.51	46.518200 Q	Y 377.433
Ti (336.122 nm)	0.010065	ppm	0.000087	0.87	854.795000	Y 377.433
Tl (190.794 nm)	0.015299	ppm	0.003088	20.18	36.691700	Y 377.433
U (409.013 nm)	0.052867	ppm	0.007375	13.95	141.702000	Y 377.433
V (292.401 nm)	0.009837	ppm	0.000084	0.85	358.490000	Y 377.433
Zn (206.200 nm)	0.021578	ppm	0.000345	1.60	101.111000	Y 377.433
Zr (343.823 nm)	0.009936	ppm	0.000121	1.22	400.901000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.062822	24567.619459	0.002670	0.25
Y 377.433	1.047575	732706.500198	0.003527	0.34
Y_R 377.433	1.069300	64830.600000	0.000253	0.02
Y_R 488.368	1.084290	57280.500000	0.002856	0.26
Y_R2 488.368	1.078201	114294.977787	0.002834	0.26
Y_R4	1.077560	48490.400000	0.005422	0.50

Sample Name: 280-123564-M-2-B

Date: 5/24/2019 6:01:39 PM Rack:Tube: 1:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000234	ppm	0.000044	18.74	-258.886000	Y 377.433
Al (394.401 nm)	0.005243	ppm	0.000120	2.29	154.251000	Y 377.433
Al H (396.152 nm)	0.144376 u	ppm	0.007096	4.92	57.404100	Y_R 377.433
As (188.980 nm)	-0.000029 u	ppm	0.002175	> 100.00	-1.620590	Y 242.219
B (249.678 nm)	-0.000772 u	ppm	0.000540	69.94	41.152500	Y 242.219
Ba (493.408 nm)	-0.001270 u	ppm	0.000592	46.65	1272.870000	Y_R 488.368
Be (234.861 nm)	-0.000040 u	ppm	0.000009	21.56	-5.976310	Y_R 488.368
Bi (223.061 nm)	0.001325	ppm	0.001053	79.47	-7.708010	Y 377.433
Ca (315.887 nm)	0.086997	ppm	0.002928	3.37	0.056376	Y_R 377.433
Cd (214.439 nm)	0.000014 u	ppm	0.000041	> 100.00	-4.656110	Y 377.433
Co (228.615 nm)	-0.000197 u	ppm	0.000066	33.37	-19.752700	Y 242.219
Cr (205.560 nm)	0.000445 u	ppm	0.000771	> 100.00	-3.787450	Y 377.433
Cu (324.754 nm)	0.001218	ppm	0.000256	21.00	374.667000	Y 377.433
Fe (238.204 nm)	0.013968	ppm	0.000884	6.33	40.762153	Y_R 377.433
Fe H (259.940 nm)	0.014567 u	ppm	0.000557	3.82	31.559100	Y_R 377.433
K (766.491 nm)	-0.170224 u	ppm	0.246808	> 100.00	1773.020000	Y_R2 488.368
Li (670.783 nm)	0.014388	ppm	0.000204	1.42	-2298.730000	Y_R2 488.368
Mg (279.078 nm)	0.010698	ppm	0.000430	4.02	43.472700	Y 377.433
Mn (257.610 nm)	0.000421	ppm	0.000002	0.55	103.679000	Y 377.433
Mo (202.032 nm)	0.000364	ppm	0.000034	9.29	15.714800	Y 377.433
Na (589.592 nm)	0.024758 u	ppm	0.059411	> 100.00	170.276000	Y_R2 488.368
Na H (589.593 nm)	0.962563 u	ppm	0.029697	3.09	404.746706	Y_R4
Ni (231.604 nm)	0.001066	ppm	0.000035	3.29	-3.103800	Y 377.433
P (213.618 nm)	-0.004016 u	ppm	0.000724	18.02	-10.026900	Y 242.219
Pb (220.353 nm)	0.000990	ppm	0.000150	15.20	11.385500	Y 242.219
S (181.972 nm)	0.013736	ppm	0.002751	20.02	18.991544	Y 377.433
Sb (206.834 nm)	-0.002513 u	ppm	0.000619	24.63	-2.467280	Y 377.433
Se (196.026 nm)	-0.001609 u	ppm	0.000667	41.48	6.428000	Y 242.219
Si (288.158 nm)	0.042816	ppm	0.000724	1.69	764.177000	Y 377.433
Sn (189.925 nm)	0.001281 u	ppm	0.002255	> 100.00	4.151800	Y 377.433
Sr (421.552 nm)	0.000298	ppm	0.000020	6.58	67.979432	Y_R 488.368
Th (288.505 nm)	0.000627	ppm	0.000181	28.92	13.757000	Y 377.433
Ti (336.122 nm)	0.000397	ppm	0.000015	3.90	-382.974000	Y 377.433
Tl (190.794 nm)	-0.001257 u	ppm	0.000332	26.37	-1.065350	Y 377.433
U (409.013 nm)	-0.006419 u	ppm	0.008399	> 100.00	-45.120200	Y 377.433
V (292.401 nm)	-0.000303 u	ppm	0.000009	3.01	-161.405000	Y 377.433
Zn (206.200 nm)	0.006872	ppm	0.000762	11.09	34.969400	Y 377.433
Zr (343.823 nm)	0.000041	ppm	0.000056	> 100.00	-159.313000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047390	24210.898934	0.002682	0.26
Y 377.433	1.033988	723203.240937	0.003402	0.33
Y_R 377.433	1.050540	63692.900000	0.001460	0.14
Y_R 488.368	1.058490	55917.400000	0.002350	0.22
Y_R2 488.368	1.069548	113377.716365	0.007166	0.67
Y_R4	1.041410	46863.400000	0.002986	0.29

Sample Name: 280-123786-B-1-A

Date: 5/24/2019 6:04:49 PM Rack:Tube: 1:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000268	ppm	0.000104	38.79	-258.634000	Y 377.433
Al (394.401 nm)	0.014931	ppm	0.000078	0.52	295.271000	Y 377.433
Al H (396.152 nm)	0.134942 u	ppm	0.002870	2.13	57.906600	Y_R 377.433
As (188.980 nm)	-0.000197 u	ppm	0.002333	> 100.00	-1.872960	Y 242.219
B (249.678 nm)	0.002583	ppm	0.000256	9.91	65.105100	Y 242.219
Ba (493.408 nm)	0.012648	ppm	0.000618	4.89	2660.440000	Y_R 488.368
Be (234.861 nm)	-0.000116 u	ppm	0.000004	3.15	-13.492600	Y_R 488.368
Bi (223.061 nm)	0.000430 u	ppm	0.001023	> 100.00	-9.664710	Y 377.433
Ca (315.887 nm)	9.760426	ppm	0.054448	0.56	7682.749969	Y_R 377.433
Cd (214.439 nm)	-0.000032 u	ppm	0.000003	9.86	-6.340000	Y 377.433
Co (228.615 nm)	-0.000246 u	ppm	0.000105	42.85	-20.904700	Y 242.219
Cr (205.560 nm)	0.000579	ppm	0.000039	6.69	-2.892790	Y 377.433
Cu (324.754 nm)	0.005599	ppm	0.000084	1.50	569.689000	Y 377.433
Fe (238.204 nm)	0.022545	ppm	0.002336	10.36	61.409284	Y_R 377.433
Fe H (259.940 nm)	0.026034 u	ppm	0.003843	14.76	47.418300	Y_R 377.433
K (766.491 nm)	0.645544	ppm	0.195150	30.23	2560.710000	Y_R2 488.368
Li (670.783 nm)	0.013959	ppm	0.001101	7.89	-2306.090000	Y_R2 488.368
Mg (279.078 nm)	1.776030	ppm	0.006383	0.36	5819.440000	Y 377.433
Mn (257.610 nm)	0.000360	ppm	0.000020	5.63	87.178400	Y 377.433
Mo (202.032 nm)	0.000396	ppm	0.000452	> 100.00	16.126100	Y 377.433
Na (589.592 nm)	4.940490	ppm	0.006671	0.14	4208.850000	Y_R2 488.368
Na H (589.593 nm)	5.715142 u	ppm	0.011594	0.20	2983.287367	Y_R4
Ni (231.604 nm)	-0.000341 u	ppm	0.000131	38.59	-10.385000	Y 377.433
P (213.618 nm)	0.003347	ppm	0.004218	> 100.00	-0.554686	Y 242.219
Pb (220.353 nm)	-0.000418 u	ppm	0.000142	33.87	7.036040	Y 242.219
S (181.972 nm)	1.820334	ppm	0.004620	0.25	846.801731	Y 377.433
Sb (206.834 nm)	-0.003865 u	ppm	0.001767	45.72	-4.746710	Y 377.433
Se (196.026 nm)	0.000770	ppm	0.000980	> 100.00	10.013600	Y 242.219
Si (288.158 nm)	2.796860	ppm	0.009400	0.34	18493.500000	Y 377.433
Sn (189.925 nm)	0.001273	ppm	0.000034	2.67	4.138600	Y 377.433
Sr (421.552 nm)	0.056162	ppm	0.000865	1.54	8481.264922	Y_R 488.368
Th (288.505 nm)	-0.004246 u	ppm	0.001879	44.25	5.325630	Y 377.433
Ti (336.122 nm)	0.000230	ppm	0.000053	23.03	-371.774000	Y 377.433
Tl (190.794 nm)	-0.001793 u	ppm	0.001172	65.35	-2.672710	Y 377.433
U (409.013 nm)	0.008560	ppm	0.002595	30.32	1.151080	Y 377.433
V (292.401 nm)	0.000165	ppm	0.000034	20.78	-140.441000	Y 377.433
Zn (206.200 nm)	0.005548	ppm	0.001017	18.34	29.014400	Y 377.433
Zr (343.823 nm)	-0.000051 u	ppm	0.000332	> 100.00	-164.478000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045324	24163.144605	0.006363	0.61
Y 377.433	1.032117	721895.014458	0.006291	0.61
Y_R 377.433	1.056220	64037.600000	0.001699	0.16
Y_R 488.368	1.074200	56747.400000	0.012444	1.16
Y_R2 488.368	1.053000	111623.556680	0.005172	0.49
Y_R4	1.064070	47883.100000	0.002409	0.23

Sample Name: 280-123787-A-1-A

Date: 5/24/2019 6:08:00 PM Rack:Tube: 1:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002318	ppm	0.000272	11.74	-187.527000	Y 377.433
Al (394.401 nm)	-0.021207 u	ppm	0.002230	10.51	492.491000	Y 377.433
Al H (396.152 nm)	-0.341605 u	ppm	0.004102	1.20	42.313700	Y_R 377.433
As (188.980 nm)	0.002181	ppm	0.000360	16.50	1.709520	Y 242.219
B (249.678 nm)	0.152687	ppm	0.000338	0.22	1137.080000	Y 242.219
Ba (493.408 nm)	0.017502	ppm	0.000138	0.79	3144.380000	Y_R 488.368
Be (234.861 nm)	-0.000080 u	ppm	0.000046	57.99	-10.108200	Y_R 488.368
Bi (223.061 nm)	-0.000151 u	ppm	0.000447	> 100.00	-10.888500	Y 377.433
Ca (315.887 nm)	109.199532	ppm	0.583084	0.53	86657.858097	Y_R 377.433
Cd (214.439 nm)	0.000337	ppm	0.000090	26.77	7.303560	Y 377.433
Co (228.615 nm)	-0.000005 u	ppm	0.000284	> 100.00	-15.234400	Y 242.219
Cr (205.560 nm)	0.000963	ppm	0.000496	51.49	-0.347669	Y 377.433
Cu (324.754 nm)	0.000780	ppm	0.000160	20.52	291.819000	Y 377.433
Fe (238.204 nm)	0.057277	ppm	0.002205	3.85	145.015871	Y_R 377.433
Fe H (259.940 nm)	0.046974 u	ppm	0.002752	5.86	76.377300	Y_R 377.433
K (766.491 nm)	20.601900	ppm	0.399153	1.94	21830.300000	Y_R2 488.368
Li (670.783 nm)	0.289740	ppm	0.002540	0.88	2429.140000	Y_R2 488.368
Mg (279.078 nm)	117.066000	ppm	0.141880	0.12	383091.000000	Y 377.433
Mn (257.610 nm)	0.035557	ppm	0.000004	0.01	9683.930000	Y 377.433
Mo (202.032 nm)	0.001003	ppm	0.000250	24.93	23.780600	Y 377.433
Na (589.592 nm)	803.012000 o	ppm	3.128600	0.39	659350.000000	Y_R2 488.368
Na H (589.593 nm)	906.961152	ppm	3.235260	0.36	491959.851061	Y_R4
Ni (231.604 nm)	0.004631	ppm	0.001256	27.12	15.338900	Y 377.433
P (213.618 nm)	0.002417	ppm	0.002539	> 100.00	-1.467790	Y 242.219
Pb (220.353 nm)	-0.000955 u	ppm	0.000646	67.72	5.268650	Y 242.219
S (181.972 nm)	514.765494 bo	ppm	1.008184	0.20	235757.250091	Y 377.433
Sb (206.834 nm)	-0.007196 u	ppm	0.003385	47.04	-10.369700	Y 377.433
Se (196.026 nm)	-0.001338 u	ppm	0.001346	> 100.00	6.874250	Y 242.219
Si (288.158 nm)	4.029460	ppm	0.001593	0.04	26428.500000	Y 377.433
Sn (189.925 nm)	0.000897 u	ppm	0.001685	> 100.00	3.533900	Y 377.433
Sr (421.552 nm)	2.561542	ppm	0.003000	0.12	385794.147969	Y_R 488.368
Th (288.505 nm)	0.003544	ppm	0.002225	62.78	16.688300	Y 377.433
Ti (336.122 nm)	-0.000215 u	ppm	0.000222	> 100.00	-90.287200	Y 377.433
Tl (190.794 nm)	0.000817 u	ppm	0.001936	> 100.00	-0.666097	Y 377.433
U (409.013 nm)	-0.003373 u	ppm	0.006669	> 100.00	-50.000300	Y 377.433
V (292.401 nm)	0.001062	ppm	0.000042	3.96	-91.434700	Y 377.433
Zn (206.200 nm)	0.015459	ppm	0.001101	7.12	73.589200	Y 377.433
Zr (343.823 nm)	0.000500	ppm	0.000182	36.33	-133.289000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.931918	21541.710313	0.005706	0.61
Y 377.433	0.925557	647363.680787	0.005591	0.60
Y_R 377.433	0.977574	59269.100000	0.006882	0.70
Y_R 488.368	0.985820	52078.600000	0.000763	0.08
Y_R2 488.368	0.997398	105729.417968	0.002448	0.25
Y_R4	1.008130	45366.000000	0.009432	0.94

Sample Name: 280-123787-A-2-A

Date: 5/24/2019 6:11:49 PM Rack:Tube: 1:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002091	ppm	0.000152	7.28	-195.546000	Y 377.433
Al (394.401 nm)	-0.027920 u	ppm	0.000549	1.97	414.615000	Y 377.433
Al H (396.152 nm)	-0.358980 u	ppm	0.010838	3.02	11.545700	Y_R 377.433
As (188.980 nm)	0.003904	ppm	0.002555	65.46	4.306010	Y 242.219
B (249.678 nm)	0.176826	ppm	0.000322	0.18	1309.490000	Y 242.219
Ba (493.408 nm)	0.016938	ppm	0.000191	1.13	3088.060000	Y_R 488.368
Be (234.861 nm)	-0.000069 u	ppm	0.000033	48.75	-8.806600	Y_R 488.368
Bi (223.061 nm)	-0.000243 u	ppm	0.000094	38.50	-11.095300	Y 377.433
Ca (315.887 nm)	104.070044	ppm	0.400940	0.39	82583.988080	Y_R 377.433
Cd (214.439 nm)	0.000242	ppm	0.000017	7.18	3.760120	Y 377.433
Co (228.615 nm)	-0.000297 u	ppm	0.000077	25.73	-22.104300	Y 242.219
Cr (205.560 nm)	0.000479 u	ppm	0.001065	> 100.00	-3.571760	Y 377.433
Cu (324.754 nm)	0.000656	ppm	0.000199	30.25	288.891000	Y 377.433
Fe (238.204 nm)	0.018334	ppm	0.004934	26.91	51.272516	Y_R 377.433
Fe H (259.940 nm)	0.003489 u	ppm	0.001382	39.61	16.237900	Y_R 377.433
K (766.491 nm)	20.930700	ppm	0.364348	1.74	22147.800000	Y_R2 488.368
Li (670.783 nm)	0.299170	ppm	0.005230	1.75	2591.060000	Y_R2 488.368
Mg (279.078 nm)	124.499000	ppm	0.116694	0.09	407414.000000	Y 377.433
Mn (257.610 nm)	0.000698	ppm	0.000036	5.16	179.149000	Y 377.433
Mo (202.032 nm)	0.001176	ppm	0.000035	2.94	25.952100	Y 377.433
Na (589.592 nm)	740.878000 o	ppm	1.576900	0.21	608344.000000	Y_R2 488.368
Na H (589.593 nm)	821.420510	ppm	3.711667	0.45	445549.249885	Y_R4
Ni (231.604 nm)	0.004223	ppm	0.000508	12.03	13.228100	Y 377.433
P (213.618 nm)	0.007275	ppm	0.003130	43.03	5.571830	Y 242.219
Pb (220.353 nm)	0.002473	ppm	0.002382	96.33	16.168500	Y 242.219
S (181.972 nm)	539.144561 bo	ppm	0.719836	0.13	246921.377398	Y 377.433
Sb (206.834 nm)	-0.005005 u	ppm	0.002888	57.70	-6.673860	Y 377.433
Se (196.026 nm)	0.002585	ppm	0.002920	> 100.00	12.751900	Y 242.219
Si (288.158 nm)	4.357140	ppm	0.000644	0.01	28537.900000	Y 377.433
Sn (189.925 nm)	0.001217	ppm	0.000981	80.55	4.049000	Y 377.433
Sr (421.552 nm)	2.576198	ppm	0.000699	0.03	388001.428647	Y_R 488.368
Th (288.505 nm)	0.005542	ppm	0.003277	59.13	19.570800	Y 377.433
Ti (336.122 nm)	-0.000689 u	ppm	0.000005	0.72	-168.920000	Y 377.433
Tl (190.794 nm)	0.001219 u	ppm	0.002245	> 100.00	0.467403	Y 377.433
U (409.013 nm)	0.000241 u	ppm	0.000597	> 100.00	-37.825600	Y 377.433
V (292.401 nm)	0.001194	ppm	0.000360	30.15	-84.728500	Y 377.433
Zn (206.200 nm)	0.010590	ppm	0.000925	8.74	51.685000	Y 377.433
Zr (343.823 nm)	0.000205 u	ppm	0.000409	> 100.00	-149.992000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.962597	22250.868574	0.003619	0.38
Y 377.433	0.947916	663001.700652	0.002718	0.29
Y_R 377.433	1.018190	61731.800000	0.003347	0.33
Y_R 488.368	1.024830	54139.600000	0.002041	0.20
Y_R2 488.368	1.017070	107814.751003	0.000523	0.05
Y_R4	1.058490	47631.800000	0.000863	0.08

Sample Name: 280-123787-A-3-A

Date: 5/24/2019 6:15:36 PM Rack:Tube: 1:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001711	ppm	0.000236	13.79	-208.295000	Y 377.433
Al (394.401 nm)	-0.029607 u	ppm	0.000204	0.69	384.628000	Y 377.433
Al H (396.152 nm)	-0.350827 u	ppm	0.004378	1.25	17.297100	Y_R 377.433
As (188.980 nm)	0.001845	ppm	0.000395	21.39	1.203220	Y 242.219
B (249.678 nm)	0.153205	ppm	0.000111	0.07	1140.800000	Y 242.219
Ba (493.408 nm)	0.013958	ppm	0.000070	0.50	2790.960000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000039	67.32	-7.794740	Y_R 488.368
Bi (223.061 nm)	-0.000451 u	ppm	0.001669	> 100.00	-11.552900	Y 377.433
Ca (315.887 nm)	104.252603	ppm	0.149400	0.14	82728.978439	Y_R 377.433
Cd (214.439 nm)	0.000172	ppm	0.000091	53.30	1.170270	Y 377.433
Co (228.615 nm)	-0.000438 u	ppm	0.000131	29.85	-25.403600	Y 242.219
Cr (205.560 nm)	0.000619	ppm	0.000079	12.70	-2.635580	Y 377.433
Cu (324.754 nm)	0.000525	ppm	0.000016	2.97	284.058000	Y 377.433
Fe (238.204 nm)	0.015179	ppm	0.003611	23.79	43.678114	Y_R 377.433
Fe H (259.940 nm)	0.010701 u	ppm	0.003745	35.00	26.212500	Y_R 377.433
K (766.491 nm)	20.628700	ppm	0.368987	1.79	21856.200000	Y_R2 488.368
Li (670.783 nm)	0.295633	ppm	0.002400	0.81	2530.320000	Y_R2 488.368
Mg (279.078 nm)	121.990000	ppm	0.124451	0.10	399202.000000	Y 377.433
Mn (257.610 nm)	0.003149	ppm	0.000006	0.20	847.539000	Y 377.433
Mo (202.032 nm)	0.000495	ppm	0.000374	75.58	17.373200	Y 377.433
Na (589.592 nm)	775.469000 o	ppm	2.690650	0.35	636739.000000	Y_R2 488.368
Na H (589.593 nm)	866.258357	ppm	1.704528	0.20	469876.299647	Y_R4
Ni (231.604 nm)	0.004342	ppm	0.000927	21.35	13.844100	Y 377.433
P (213.618 nm)	0.004411	ppm	0.003070	69.61	1.523210	Y 242.219
Pb (220.353 nm)	-0.000539 u	ppm	0.000970	> 100.00	6.590880	Y 242.219
S (181.972 nm)	534.144610 bo	ppm	0.006074	0.00	244631.649237	Y 377.433
Sb (206.834 nm)	-0.004814 u	ppm	0.001478	30.70	-6.345060	Y 377.433
Se (196.026 nm)	-0.003019 u	ppm	0.001404	46.50	4.303960	Y 242.219
Si (288.158 nm)	4.347810	ppm	0.009411	0.22	28477.900000	Y 377.433
Sn (189.925 nm)	0.000495 u	ppm	0.001725	> 100.00	2.886690	Y 377.433
Sr (421.552 nm)	2.547177	ppm	0.025150	0.99	383630.751830	Y_R 488.368
Th (288.505 nm)	0.008088	ppm	0.002520	31.16	24.077700	Y 377.433
Ti (336.122 nm)	-0.000564 u	ppm	0.000031	5.41	-152.001000	Y 377.433
Tl (190.794 nm)	0.001577	ppm	0.000554	35.13	1.280320	Y 377.433
U (409.013 nm)	0.004973	ppm	0.005120	> 100.00	-22.911000	Y 377.433
V (292.401 nm)	0.000760	ppm	0.000243	31.97	-106.502000	Y 377.433
Zn (206.200 nm)	0.011208	ppm	0.001053	9.39	54.464700	Y 377.433
Zr (343.823 nm)	0.000504	ppm	0.000180	35.66	-133.066000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.996414	23032.570544	0.007316	0.73
Y 377.433	0.983906	688174.786696	0.005028	0.51
Y_R 377.433	1.048720	63582.500000	0.007621	0.73
Y_R 488.368	1.055050	55735.700000	0.000450	0.04
Y_R2 488.368	1.019854	108109.907880	0.004270	0.42
Y_R4	1.028860	46298.700000	0.000520	0.05

Sample Name: 280-123787-A-4-A

Date: 5/24/2019 6:19:25 PM Rack:Tube: 1:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001403	ppm	0.000447	31.89	-219.168000	Y 377.433
Al (394.401 nm)	-0.027599 u	ppm	0.001510	5.47	412.165000	Y 377.433
Al H (396.152 nm)	-0.347176 u	ppm	0.002943	0.85	26.793600	Y_R 377.433
As (188.980 nm)	0.003680	ppm	0.000695	18.89	3.969170	Y 242.219
B (249.678 nm)	0.154121	ppm	0.000394	0.26	1147.340000	Y 242.219
Ba (493.408 nm)	0.016254	ppm	0.000151	0.93	3019.850000	Y_R 488.368
Be (234.861 nm)	-0.000038 u	ppm	0.000040	> 100.00	-5.737030	Y_R 488.368
Bi (223.061 nm)	0.001808	ppm	0.001118	61.85	-6.605110	Y 377.433
Ca (315.887 nm)	105.220119	ppm	0.162195	0.15	83497.386466	Y_R 377.433
Cd (214.439 nm)	0.000261	ppm	0.000155	59.31	4.481980	Y 377.433
Co (228.615 nm)	0.000089 u	ppm	0.000271	> 100.00	-13.010600	Y 242.219
Cr (205.560 nm)	0.000819	ppm	0.000093	11.36	-1.309480	Y 377.433
Cu (324.754 nm)	0.001210	ppm	0.000609	50.37	313.936000	Y 377.433
Fe (238.204 nm)	0.014166	ppm	0.003238	22.86	41.239159	Y_R 377.433
Fe H (259.940 nm)	0.000514 u	ppm	0.001541	> 100.00	12.123800	Y_R 377.433
K (766.491 nm)	20.832200	ppm	0.058193	0.28	22052.700000	Y_R2 488.368
Li (670.783 nm)	0.301519	ppm	0.005053	1.68	2631.380000	Y_R2 488.368
Mg (279.078 nm)	122.288000	ppm	0.221016	0.18	400180.000000	Y 377.433
Mn (257.610 nm)	0.003775	ppm	0.000012	0.31	1018.280000	Y 377.433
Mo (202.032 nm)	0.000931	ppm	0.000394	42.36	22.864200	Y 377.433
Na (589.592 nm)	805.524000 o	ppm	0.193828	0.02	661411.000000	Y_R2 488.368
Na H (589.593 nm)	891.050932	ppm	4.354756	0.49	483327.663385	Y_R4
Ni (231.604 nm)	0.005334	ppm	0.000005	0.10	18.979100	Y 377.433
P (213.618 nm)	0.006425	ppm	0.003491	54.33	4.291560	Y 242.219
Pb (220.353 nm)	-0.000917 u	ppm	0.002268	> 100.00	5.384610	Y 242.219
S (181.972 nm)	534.448172 bo	ppm	1.993846	0.37	244770.710612	Y 377.433
Sb (206.834 nm)	-0.007465 u	ppm	0.001379	18.47	-10.828900	Y 377.433
Se (196.026 nm)	-0.000164 u	ppm	0.000965	> 100.00	8.611600	Y 242.219
Si (288.158 nm)	4.369020	ppm	0.008152	0.19	28614.400000	Y 377.433
Sn (189.925 nm)	0.002443	ppm	0.000419	17.16	6.022060	Y 377.433
Sr (421.552 nm)	2.552477	ppm	0.014142	0.55	384428.941170	Y_R 488.368
Th (288.505 nm)	0.006520	ppm	0.006209	95.23	21.317400	Y 377.433
Ti (336.122 nm)	-0.000477 u	ppm	0.000093	19.47	-137.919000	Y 377.433
Tl (190.794 nm)	0.001867	ppm	0.000822	44.01	1.910260	Y 377.433
U (409.013 nm)	0.000235 u	ppm	0.003892	> 100.00	-38.027500	Y 377.433
V (292.401 nm)	0.000914	ppm	0.000148	16.22	-99.174100	Y 377.433
Zn (206.200 nm)	0.012590	ppm	0.000834	6.62	60.680400	Y 377.433
Zr (343.823 nm)	0.000471	ppm	0.000037	7.86	-134.962000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.986327	22799.396690	0.003588	0.36
Y 377.433	0.973662	681009.771360	0.004369	0.45
Y_R 377.433	1.058490	64175.200000	0.009246	0.87
Y_R 488.368	1.072150	56639.000000	0.015181	1.42
Y_R2 488.368	1.050683	111378.003983	0.001665	0.16
Y_R4	1.089620	49032.700000	0.002291	0.21

Sample Name: 280-123787-A-5-A

Date: 5/24/2019 6:23:18 PM Rack:Tube: 1:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001472	ppm	0.000118	8.04	-216.664000	Y 377.433
Al (394.401 nm)	-0.025967 u	ppm	0.000181	0.70	416.530000	Y 377.433
Al H (396.152 nm)	-0.339238 u	ppm	0.006334	1.87	20.228800	Y_R 377.433
As (188.980 nm)	0.000736 u	ppm	0.003034	> 100.00	-0.467141	Y 242.219
B (249.678 nm)	0.150876	ppm	0.000797	0.53	1124.160000	Y 242.219
Ba (493.408 nm)	0.015023	ppm	0.000003	0.02	2897.190000	Y_R 488.368
Be (234.861 nm)	-0.000048 u	ppm	0.000067	> 100.00	-6.758850	Y_R 488.368
Bi (223.061 nm)	-0.000793 u	ppm	0.001508	> 100.00	-12.301100	Y 377.433
Ca (315.887 nm)	102.376819	ppm	0.086210	0.08	81239.216391	Y_R 377.433
Cd (214.439 nm)	0.000299	ppm	0.000198	66.38	5.874240	Y 377.433
Co (228.615 nm)	-0.000415 u	ppm	0.000208	50.18	-24.878900	Y 242.219
Cr (205.560 nm)	0.000345	ppm	0.000319	92.33	-4.464550	Y 377.433
Cu (324.754 nm)	0.000499	ppm	0.000276	55.25	283.025000	Y 377.433
Fe (238.204 nm)	0.017021	ppm	0.000363	2.13	48.112363	Y_R 377.433
Fe H (259.940 nm)	0.005482 u	ppm	0.004352	79.39	18.995300	Y_R 377.433
K (766.491 nm)	20.207100	ppm	0.388449	1.92	21449.100000	Y_R2 488.368
Li (670.783 nm)	0.296875	ppm	0.008671	2.92	2551.650000	Y_R2 488.368
Mg (279.078 nm)	118.781000	ppm	0.178392	0.15	388703.000000	Y 377.433
Mn (257.610 nm)	0.004767	ppm	0.000031	0.64	1288.690000	Y 377.433
Mo (202.032 nm)	0.000663	ppm	0.000131	19.68	19.491900	Y 377.433
Na (589.592 nm)	776.131000 o	ppm	4.189250	0.54	637283.000000	Y_R2 488.368
Na H (589.593 nm)	868.410935	ppm	0.490324	0.06	471044.194004	Y_R4
Ni (231.604 nm)	0.005580	ppm	0.001410	25.27	20.247700	Y 377.433
P (213.618 nm)	0.002059	ppm	0.000947	45.98	-1.664820	Y 242.219
Pb (220.353 nm)	-0.000279 u	ppm	0.003890	> 100.00	7.430090	Y 242.219
S (181.972 nm)	525.305195 bo	ppm	1.174594	0.22	240583.507340	Y 377.433
Sb (206.834 nm)	-0.009396 u	ppm	0.004918	52.34	-14.090500	Y 377.433
Se (196.026 nm)	0.000478 u	ppm	0.000781	> 100.00	9.580020	Y 242.219
Si (288.158 nm)	4.276010	ppm	0.010354	0.24	28015.700000	Y 377.433
Sn (189.925 nm)	0.000090 u	ppm	0.000210	> 100.00	2.235020	Y 377.433
Sr (421.552 nm)	2.494274	ppm	0.020509	0.82	375663.569548	Y_R 488.368
Th (288.505 nm)	0.010283	ppm	0.002257	21.95	27.974800	Y 377.433
Ti (336.122 nm)	-0.000494 u	ppm	0.000025	5.10	-149.912000	Y 377.433
Tl (190.794 nm)	0.001790	ppm	0.000145	8.10	1.847600	Y 377.433
U (409.013 nm)	0.007014 u	ppm	0.012808	> 100.00	-16.140500	Y 377.433
V (292.401 nm)	0.000952	ppm	0.000249	26.18	-96.791900	Y 377.433
Zn (206.200 nm)	0.011997	ppm	0.000381	3.18	58.014000	Y 377.433
Zr (343.823 nm)	0.000697	ppm	0.000090	12.87	-122.167000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.023019	23647.557881	0.000866	0.08
Y 377.433	1.012726	708332.038075	0.001831	0.18
Y_R 377.433	1.094030	66329.900000	0.002529	0.23
Y_R 488.368	1.102840	58260.400000	0.005577	0.51
Y_R2 488.368	1.082693	114771.180442	0.002195	0.20
Y_R4	1.094140	49236.100000	0.005874	0.54

Sample Name: 280-123787-A-6-A

Date: 5/24/2019 6:27:07 PM Rack:Tube: 1:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002197	ppm	0.000331	15.06	-191.686000	Y 377.433
Al (394.401 nm)	-0.025164 u	ppm	0.000729	2.90	448.180000	Y 377.433
Al H (396.152 nm)	-0.347195 u	ppm	0.003018	0.87	33.958700	Y_R 377.433
As (188.980 nm)	0.001536	ppm	0.000636	41.44	0.736646	Y 242.219
B (249.678 nm)	0.157820	ppm	0.000853	0.54	1173.740000	Y 242.219
Ba (493.408 nm)	0.019535	ppm	0.000671	3.44	3347.000000	Y_R 488.368
Be (234.861 nm)	-0.000068 u	ppm	0.000067	98.78	-8.890310	Y_R 488.368
Bi (223.061 nm)	0.002056	ppm	0.000467	22.72	-6.053470	Y 377.433
Ca (315.887 nm)	108.130956	ppm	0.166178	0.15	85809.187692	Y_R 377.433
Cd (214.439 nm)	0.000233	ppm	0.000009	3.83	3.468790	Y 377.433
Co (228.615 nm)	-0.000178 u	ppm	0.000487	> 100.00	-19.291600	Y 242.219
Cr (205.560 nm)	0.001047	ppm	0.000730	69.75	0.212371	Y 377.433
Cu (324.754 nm)	0.000253	ppm	0.000209	82.71	266.998000	Y 377.433
Fe (238.204 nm)	0.055191	ppm	0.001289	2.33	139.992913	Y_R 377.433
Fe H (259.940 nm)	0.039011 u	ppm	0.002094	5.37	65.365100	Y_R 377.433
K (766.491 nm)	20.947000	ppm	0.128438	0.61	22163.500000	Y_R2 488.368
Li (670.783 nm)	0.307477	ppm	0.000349	0.11	2733.680000	Y_R2 488.368
Mg (279.078 nm)	122.082000	ppm	0.193797	0.16	399506.000000	Y 377.433
Mn (257.610 nm)	0.018122	ppm	0.000068	0.38	4930.180000	Y 377.433
Mo (202.032 nm)	0.000620	ppm	0.000013	2.15	18.951000	Y 377.433
Na (589.592 nm)	834.656000 o	ppm	1.339950	0.16	685327.000000	Y_R2 488.368
Na H (589.593 nm)	933.415134	ppm	1.998732	0.21	506312.621844	Y_R4
Ni (231.604 nm)	0.005887	ppm	0.000187	3.18	21.836100	Y 377.433
P (213.618 nm)	0.002897	ppm	0.001019	35.16	-0.482344	Y 242.219
Pb (220.353 nm)	-0.002944 u	ppm	0.002523	85.71	-1.030550	Y 242.219
S (181.972 nm)	540.559317 bo	ppm	1.820474	0.34	247569.526707	Y 377.433
Sb (206.834 nm)	-0.009166 u	ppm	0.000363	3.96	-13.691500	Y 377.433
Se (196.026 nm)	0.002083	ppm	0.001211	58.13	12.010200	Y 242.219
Si (288.158 nm)	4.354320	ppm	0.020072	0.46	28519.800000	Y 377.433
Sn (189.925 nm)	0.001020 u	ppm	0.002111	> 100.00	3.731010	Y 377.433
Sr (421.552 nm)	2.571650	ppm	0.018223	0.71	387316.496731	Y_R 488.368
Th (288.505 nm)	0.004038	ppm	0.005636	> 100.00	17.303800	Y 377.433
Ti (336.122 nm)	-0.000338 u	ppm	0.000045	13.19	-110.110000	Y 377.433
Tl (190.794 nm)	0.000189 u	ppm	0.002416	> 100.00	-2.051350	Y 377.433
U (409.013 nm)	0.011394	ppm	0.004807	42.19	-2.996790	Y 377.433
V (292.401 nm)	0.001036	ppm	0.000122	11.73	-93.546900	Y 377.433
Zn (206.200 nm)	0.015406	ppm	0.001012	6.57	73.349700	Y 377.433
Zr (343.823 nm)	0.000692	ppm	0.000226	32.59	-122.439000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.025329	23700.951966	0.005795	0.57
Y 377.433	1.015526	710290.462165	0.006295	0.62
Y_R 377.433	1.087980	65962.900000	0.002790	0.26
Y_R 488.368	1.100750	58150.200000	0.006621	0.60
Y_R2 488.368	1.072716	113713.574117	0.004558	0.42
Y_R4	1.082260	48701.600000	0.004649	0.43

Sample Name: MB 280-459219/1-A

Date: 5/24/2019 6:30:56 PM Rack:Tube: 1:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000224	ppm	0.000272	> 100.00	-259.313000	Y 377.433
Al (394.401 nm)	-0.000704 u	ppm	0.000377	53.65	83.708400	Y 377.433
Al H (396.152 nm)	0.144648 u	ppm	0.006605	4.57	57.988900	Y_R 377.433
As (188.980 nm)	0.000096 u	ppm	0.000250	> 100.00	-1.432030	Y 242.219
B (249.678 nm)	-0.004738 u	ppm	0.000065	1.37	12.829700	Y 242.219
Ba (493.408 nm)	-0.002212 u	ppm	0.000181	8.19	1178.990000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000004	8.21	-6.629080	Y_R 488.368
Bi (223.061 nm)	0.000503 u	ppm	0.001341	> 100.00	-9.510520	Y 377.433
Ca (315.887 nm)	0.020005	ppm	0.001030	5.15	-53.149577	Y_R 377.433
Cd (214.439 nm)	-0.000137 u	ppm	0.000050	36.75	-10.251900	Y 377.433
Co (228.615 nm)	-0.000365 u	ppm	0.000178	48.83	-23.701600	Y 242.219
Cr (205.560 nm)	0.000612	ppm	0.000159	25.99	-2.675250	Y 377.433
Cu (324.754 nm)	0.001067	ppm	0.000191	17.87	366.403000	Y 377.433
Fe (238.204 nm)	0.004046	ppm	0.000414	10.23	16.879589	Y_R 377.433
Fe H (259.940 nm)	0.007633 u	ppm	0.000368	4.82	21.969200	Y_R 377.433
K (766.491 nm)	-0.237477 u	ppm	0.044034	18.54	1708.080000	Y_R2 488.368
Li (670.783 nm)	0.017502	ppm	0.002766	15.81	-2245.260000	Y_R2 488.368
Mg (279.078 nm)	0.009399	ppm	0.000224	2.38	39.128000	Y 377.433
Mn (257.610 nm)	0.000107	ppm	0.000016	14.54	18.164300	Y 377.433
Mo (202.032 nm)	0.000396	ppm	0.000238	60.08	16.128600	Y 377.433
Na (589.592 nm)	0.162939	ppm	0.009459	5.81	283.567000	Y_R2 488.368
Na H (589.593 nm)	2.648948 u	ppm	0.028185	1.06	1319.705273	Y_R4
Ni (231.604 nm)	0.000641	ppm	0.000073	11.36	-5.305780	Y 377.433
P (213.618 nm)	-0.003315 u	ppm	0.001905	57.47	-8.792930	Y 242.219
Pb (220.353 nm)	-0.000726 u	ppm	0.000496	68.41	5.951000	Y 242.219
S (181.972 nm)	0.047685	ppm	0.005941	12.46	34.536865	Y 377.433
Sb (206.834 nm)	-0.002468 u	ppm	0.000563	22.81	-2.390220	Y 377.433
Se (196.026 nm)	-0.001122 u	ppm	0.000432	38.46	7.163840	Y 242.219
Si (288.158 nm)	-0.004563 u	ppm	0.000341	7.47	459.170000	Y 377.433
Sn (189.925 nm)	0.000069 u	ppm	0.000505	> 100.00	2.201720	Y 377.433
Sr (421.552 nm)	0.000249	ppm	0.000060	24.28	60.690855	Y_R 488.368
Th (288.505 nm)	-0.000237 u	ppm	0.005135	> 100.00	12.305600	Y 377.433
Ti (336.122 nm)	0.000318	ppm	0.000152	47.73	-393.127000	Y 377.433
Tl (190.794 nm)	-0.000175 u	ppm	0.001959	> 100.00	1.413860	Y 377.433
U (409.013 nm)	0.003506	ppm	0.003814	> 100.00	-13.634400	Y 377.433
V (292.401 nm)	-0.000169 u	ppm	0.000087	51.40	-155.335000	Y 377.433
Zn (206.200 nm)	0.001440	ppm	0.000279	19.40	10.541600	Y 377.433
Zr (343.823 nm)	0.000053 u	ppm	0.000086	> 100.00	-158.599000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122435	25945.607231	0.002058	0.18
Y 377.433	1.103360	771724.609454	0.002593	0.24
Y_R 377.433	1.134640	68792.100000	0.000461	0.04
Y_R 488.368	1.152740	60896.500000	0.001330	0.12
Y_R2 488.368	1.127614	119533.067245	0.005037	0.45
Y_R4	1.110050	49952.100000	0.003966	0.36

Sample Name: LCS 280-459219/2-A

Date: 5/24/2019 6:34:07 PM Rack:Tube: 1:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051573	ppm	0.000357	0.69	1203.070000	Y 377.433
Al (394.401 nm)	9.977600 o	ppm	0.023683	0.24	122129.000000	Y 377.433
Al H (396.152 nm)	9.804980	ppm	0.031361	0.32	21663.600000	Y_R 377.433
As (188.980 nm)	2.053860	ppm	0.000377	0.02	3093.090000	Y 242.219
B (249.678 nm)	0.968869	ppm	0.001295	0.13	6960.080000	Y 242.219
Ba (493.408 nm)	1.996070	ppm	0.007725	0.39	200403.000000	Y_R 488.368
Be (234.861 nm)	0.987691	ppm	0.000690	0.07	97225.200000	Y_R 488.368
Bi (223.061 nm)	1.972640	ppm	0.006968	0.35	4311.590000	Y 377.433
Ca (315.887 nm)	50.099053	ppm	0.160945	0.32	39722.402631	Y_R 377.433
Cd (214.439 nm)	1.043020	ppm	0.001784	0.17	38569.900000	Y 377.433
Co (228.615 nm)	0.993781	ppm	0.001278	0.13	23385.600000	Y 242.219
Cr (205.560 nm)	1.045450	ppm	0.007070	0.68	6958.100000	Y 377.433
Cu (324.754 nm)	0.993831	ppm	0.005659	0.57	46731.400000	Y 377.433
Fe (238.204 nm)	10.242775 o	ppm	0.031886	0.31	24663.285919	Y_R 377.433
Fe H (259.940 nm)	10.173100	ppm	0.033262	0.33	14080.700000	Y_R 377.433
K (766.491 nm)	48.952900	ppm	0.073868	0.15	49205.700000	Y_R2 488.368
Li (670.783 nm)	1.023110	ppm	0.002753	0.27	15021.300000	Y_R2 488.368
Mg (279.078 nm)	50.010500	ppm	0.099069	0.20	163617.000000	Y 377.433
Mn (257.610 nm)	1.010850	ppm	0.002818	0.28	275607.000000	Y 377.433
Mo (202.032 nm)	1.039990	ppm	0.000527	0.05	13119.400000	Y 377.433
Na (589.592 nm)	48.055100	ppm	0.042101	0.09	40054.400000	Y_R2 488.368
Na H (589.593 nm)	50.853891	ppm	0.280829	0.55	27473.593178	Y_R4
Ni (231.604 nm)	1.020550	ppm	0.002759	0.27	5274.100000	Y 377.433
P (213.618 nm)	20.392500	ppm	0.009835	0.05	28885.700000	Y 242.219
Pb (220.353 nm)	1.011700	ppm	0.000570	0.06	3220.750000	Y 242.219
S (181.972 nm)	10.212127	ppm	0.001258	0.01	4695.045023	Y 377.433
Sb (206.834 nm)	-0.001778 u	ppm	0.001572	88.43	-5.979030	Y 377.433
Se (196.026 nm)	2.014700	ppm	0.004841	0.24	3046.340000	Y 242.219
Si (288.158 nm)	2.058360	ppm	0.007380	0.36	13739.400000	Y 377.433
Sn (189.925 nm)	2.078120	ppm	0.002704	0.13	3345.900000	Y 377.433
Sr (421.552 nm)	0.973090	ppm	0.004029	0.41	146573.131458	Y_R 488.368
Th (288.505 nm)	1.011290	ppm	0.007067	0.70	1662.590000	Y 377.433
Ti (336.122 nm)	1.005170	ppm	0.002290	0.23	128362.000000	Y 377.433
Tl (190.794 nm)	2.042470	ppm	0.005619	0.28	4664.200000	Y 377.433
U (409.013 nm)	1.985270	ppm	0.002138	0.11	6212.600000	Y 377.433
V (292.401 nm)	1.003690	ppm	0.002638	0.26	51615.500000	Y 377.433
Zn (206.200 nm)	0.514043	ppm	0.002334	0.45	2317.000000	Y 377.433
Zr (343.823 nm)	0.492814	ppm	0.000858	0.17	27737.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080778	24982.686906	0.002580	0.24
Y 377.433	1.067559	746684.026833	0.003677	0.34
Y_R 377.433	1.112150	67428.000000	0.002795	0.25
Y_R 488.368	1.126950	59534.200000	0.002801	0.25
Y_R2 488.368	1.097790	116371.541804	0.000811	0.07
Y_R4	1.110780	49985.200000	0.003315	0.30

Sample Name: CCVH-5713036

Date: 5/24/2019 6:37:48 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003911	ppm	0.000142	3.62	-142.185000	Y 377.433
Al (394.401 nm)	50.022700 o	ppm	0.066890	0.13	609421.000000	Y 377.433
Al H (396.152 nm)	48.489000	ppm	0.148435	0.31	105736.000000	Y_R 377.433
As (188.980 nm)	0.005786	ppm	0.003856	66.64	5.774820	Y 242.219
B (249.678 nm)	-0.000968 u	ppm	0.000535	55.27	10.593700	Y 242.219
Ba (493.408 nm)	0.001498	ppm	0.000087	5.80	1588.970000	Y_R 488.368
Be (234.861 nm)	0.001088	ppm	0.000055	5.08	-108.386000	Y_R 488.368
Bi (223.061 nm)	0.011599	ppm	0.002283	19.69	23.515100	Y 377.433
Ca (315.887 nm)	0.001603 u	ppm	0.007076	> 100.00	-55.624710	Y_R 377.433
Cd (214.439 nm)	0.001425	ppm	0.000080	5.59	68.026100	Y 377.433
Co (228.615 nm)	0.003001	ppm	0.000109	3.62	55.456000	Y 242.219
Cr (205.560 nm)	0.002199	ppm	0.000835	37.99	6.602950	Y 377.433
Cu (324.754 nm)	0.004084	ppm	0.000128	3.14	1452.930000	Y 377.433
Fe (238.204 nm)	50.481674 o	ppm	0.070945	0.14	121525.342504	Y_R 377.433
Fe H (259.940 nm)	49.980200	ppm	0.109235	0.22	69133.200000	Y_R 377.433
K (766.491 nm)	0.243697	ppm	0.130678	53.62	2172.700000	Y_R2 488.368
Li (670.783 nm)	0.015121	ppm	0.001862	12.31	-2286.130000	Y_R2 488.368
Mg (279.078 nm)	0.040521	ppm	0.000891	2.20	66.192200	Y 377.433
Mn (257.610 nm)	0.001056	ppm	0.000015	1.41	277.005000	Y 377.433
Mo (202.032 nm)	0.001517	ppm	0.000409	26.98	30.247600	Y 377.433
Na (589.592 nm)	232.187000 o	ppm	0.020310	0.01	190754.000000	Y_R2 488.368
Na H (589.593 nm)	239.467705	ppm	0.802672	0.34	129807.177866	Y_R4
Ni (231.604 nm)	0.003647	ppm	0.001164	31.92	10.251600	Y 377.433
P (213.618 nm)	4.974370	ppm	0.003670	0.07	7104.700000	Y 242.219
Pb (220.353 nm)	0.006155	ppm	0.000163	2.66	21.067900	Y 242.219
S (181.972 nm)	5.092026	ppm	0.020069	0.39	2344.621254	Y 377.433
Sb (206.834 nm)	-0.000619 u	ppm	0.000068	10.98	4.986110	Y 377.433
Se (196.026 nm)	0.010165	ppm	0.000668	6.57	11.187500	Y 242.219
Si (288.158 nm)	0.013219	ppm	0.001150	8.70	573.648000	Y 377.433
Sn (189.925 nm)	0.001633	ppm	0.000419	25.65	4.718460	Y 377.433
Sr (421.552 nm)	0.001440	ppm	0.000062	4.32	247.640876	Y_R 488.368
Th (288.505 nm)	4.882710	ppm	0.004085	0.08	8432.730000	Y 377.433
Ti (336.122 nm)	0.002159	ppm	0.000080	3.70	-157.516000	Y 377.433
Tl (190.794 nm)	0.000710	ppm	0.000703	99.13	-1.426110	Y 377.433
U (409.013 nm)	0.539360 Q	ppm	0.004625	0.86	1723.370000 Q	Y 377.433
V (292.401 nm)	0.000731	ppm	0.000046	6.32	382.676000	Y 377.433
Zn (206.200 nm)	0.003206	ppm	0.000383	11.94	25.508600	Y 377.433
Zr (343.823 nm)	0.001224	ppm	0.000007	0.60	-92.338100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.069447	24720.755944	0.001954	0.18
Y 377.433	1.048066	733049.802056	0.001366	0.13
Y_R 377.433	1.091180	66157.000000	0.009827	0.90
Y_R 488.368	1.098390	58025.300000	0.013640	1.24
Y_R2 488.368	1.074035	113853.424170	0.005744	0.53
Y_R4	1.090640	49078.600000	0.002562	0.23

Sample Name: CCV-5717467

Date: 5/24/2019 6:41:29 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.493700	ppm	0.001465	0.30	16767.900000	Y 377.433
Al (394.401 nm)	0.503621	ppm	0.001426	0.28	6362.630000	Y 377.433
Al H (396.152 nm)	0.551221 u	ppm	0.010558	1.92	1189.330000	Y_R 377.433
As (188.980 nm)	0.496755	ppm	0.000135	0.03	746.912000	Y 242.219
B (249.678 nm)	0.480291	ppm	0.000097	0.02	3475.270000	Y 242.219
Ba (493.408 nm)	0.485591	ppm	0.001230	0.25	49811.900000	Y_R 488.368
Be (234.861 nm)	0.483193	ppm	0.002926	0.61	47573.500000	Y_R 488.368
Bi (223.061 nm)	0.997449	ppm	0.000583	0.06	2174.470000	Y 377.433
Ca (315.887 nm)	5.027210	ppm	0.028239	0.56	3923.731051	Y_R 377.433
Cd (214.439 nm)	0.521041	ppm	0.001099	0.21	19264.000000	Y 377.433
Co (228.615 nm)	0.499743	ppm	0.000509	0.10	11751.600000	Y 242.219
Cr (205.560 nm)	0.517890	ppm	0.004242	0.82	3443.630000	Y 377.433
Cu (324.754 nm)	0.496170	ppm	0.001747	0.35	23457.100000	Y 377.433
Fe (238.204 nm)	2.542465	ppm	0.007320	0.29	6127.295675	Y_R 377.433
Fe H (259.940 nm)	2.529260 u	ppm	0.005691	0.23	3509.340000	Y_R 377.433
K (766.491 nm)	48.628100	ppm	0.150522	0.31	48892.100000	Y_R2 488.368
Li (670.783 nm)	0.509857	ppm	0.006731	1.32	6208.590000	Y_R2 488.368
Mg (279.078 nm)	20.019200	ppm	0.038060	0.19	65515.000000	Y 377.433
Mn (257.610 nm)	0.494907	ppm	0.001007	0.20	134930.000000	Y 377.433
Mo (202.032 nm)	0.502535	ppm	0.002626	0.52	6345.200000	Y 377.433
Na (589.592 nm)	23.660400	ppm	0.144382	0.61	19683.300000	Y_R2 488.368
Na H (589.593 nm)	25.889794 u	ppm	0.225125	0.87	13929.169059	Y_R4
Ni (231.604 nm)	0.514145	ppm	0.001652	0.32	2652.170000	Y 377.433
P (213.618 nm)	0.047522	ppm	0.000547	1.15	-70.614700	Y 242.219
Pb (220.353 nm)	0.500622	ppm	0.000106	0.02	1596.450000	Y 242.219
S (181.972 nm)	0.026393	ppm	0.010078	38.18	26.597090	Y 377.433
Sb (206.834 nm)	0.509507	ppm	0.001975	0.39	859.479000	Y 377.433
Se (196.026 nm)	0.505145	ppm	0.001385	0.27	770.826000	Y 242.219
Si (288.158 nm)	4.877220	ppm	0.002577	0.05	31886.000000	Y 377.433
Sn (189.925 nm)	0.519215	ppm	0.002431	0.47	837.537000	Y 377.433
Sr (421.552 nm)	0.475017	ppm	0.001620	0.34	71561.598604	Y_R 488.368
Th (288.505 nm)	0.019693	ppm	0.002586	13.13	-3.242940	Y 377.433
Ti (336.122 nm)	0.487405	ppm	0.000717	0.15	61953.600000	Y 377.433
Tl (190.794 nm)	0.514378	ppm	0.001944	0.38	1174.990000	Y 377.433
U (409.013 nm)	0.016727	ppm	0.012498	74.72	-31.790100	Y 377.433
V (292.401 nm)	0.490176	ppm	0.000945	0.19	25127.600000	Y 377.433
Zn (206.200 nm)	0.521056	ppm	0.000672	0.13	2347.470000	Y 377.433
Zr (343.823 nm)	0.489753	ppm	0.001306	0.27	27564.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093769	25282.971283	0.002071	0.19
Y 377.433	1.075018	751900.871386	0.003817	0.36
Y_R 377.433	1.098880	66623.700000	0.003325	0.30
Y_R 488.368	1.113920	58845.700000	0.005464	0.49
Y_R2 488.368	1.119608	118684.377848	0.008332	0.74
Y_R4	1.121670	50474.900000	0.010423	0.93

Sample Name: CCB

Date: 5/24/2019 6:45:05 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000436	ppm	0.000145	33.21	-251.763000	Y 377.433
Al (394.401 nm)	-0.000667 u	ppm	0.000813	> 100.00	81.896600	Y 377.433
Al H (396.152 nm)	0.130367 Zu	ppm	0.003154	2.42	26.753100 Z	Y_R 377.433
As (188.980 nm)	-0.001067 u	ppm	0.000315	29.51	-3.183440	Y 242.219
B (249.678 nm)	-0.003023 u	ppm	0.000700	23.14	25.079900	Y 242.219
Ba (493.408 nm)	-0.001851 u	ppm	0.000292	15.77	1214.940000	Y_R 488.368
Be (234.861 nm)	0.000034	ppm	0.000002	6.04	1.326360	Y_R 488.368
Bi (223.061 nm)	0.000181 u	ppm	0.001643	> 100.00	-10.216300	Y 377.433
Ca (315.887 nm)	0.009254 u	ppm	0.014114	> 100.00	-61.690586	Y_R 377.433
Cd (214.439 nm)	0.000002 u	ppm	0.000006	> 100.00	-5.111430	Y 377.433
Co (228.615 nm)	-0.000210 u	ppm	0.000148	70.55	-20.084600	Y 242.219
Cr (205.560 nm)	0.000329	ppm	0.000398	> 100.00	-4.559090	Y 377.433
Cu (324.754 nm)	0.000933	ppm	0.000189	20.27	361.609000	Y 377.433
Fe (238.204 nm)	0.000327 u	ppm	0.000541	> 100.00	7.927369	Y_R 377.433
Fe H (259.940 nm)	0.001868 u	ppm	0.000434	23.24	13.996200	Y_R 377.433
K (766.491 nm)	-0.248267 u	ppm	0.096271	38.78	1697.660000	Y_R2 488.368
Li (670.783 nm)	0.022162 Z	ppm	0.000027	0.12	-2165.250000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002718	ppm	0.000552	20.32	17.359200	Y 377.433
Mn (257.610 nm)	0.000086	ppm	0.000004	4.52	12.406000	Y 377.433
Mo (202.032 nm)	0.000215 u	ppm	0.000402	> 100.00	13.836400	Y 377.433
Na (589.592 nm)	0.005313	ppm	0.000009	0.17	154.185000	Y_R2 488.368
Na H (589.593 nm)	1.436787 u	ppm	0.025047	1.74	662.039840	Y_R4
Ni (231.604 nm)	0.000362	ppm	0.000146	40.18	-6.746050	Y 377.433
P (213.618 nm)	-0.000738 u	ppm	0.002635	> 100.00	-5.179980	Y 242.219
Pb (220.353 nm)	-0.000653 u	ppm	0.000382	58.55	6.172590	Y 242.219
S (181.972 nm)	0.011045	ppm	0.002101	19.03	17.757006	Y 377.433
Sb (206.834 nm)	-0.001674 u	ppm	0.001470	87.81	-1.049420	Y 377.433
Se (196.026 nm)	-0.002956 u	ppm	0.000669	22.64	4.398240	Y 242.219
Si (288.158 nm)	-0.006105 u	ppm	0.001660	27.19	449.248000	Y 377.433
Sn (189.925 nm)	0.002137	ppm	0.001549	72.49	5.528170	Y 377.433
Sr (421.552 nm)	0.000285	ppm	0.000073	25.80	66.025268	Y_R 488.368
Th (288.505 nm)	0.002574 u	ppm	0.003708	> 100.00	17.154900	Y 377.433
Ti (336.122 nm)	0.000321	ppm	0.000132	41.31	-392.851000	Y 377.433
Tl (190.794 nm)	-0.000107 u	ppm	0.001145	> 100.00	1.569990	Y 377.433
U (409.013 nm)	-0.000296 u	ppm	0.008484	> 100.00	-25.701100	Y 377.433
V (292.401 nm)	-0.000246 u	ppm	0.000044	18.09	-158.267000	Y 377.433
Zn (206.200 nm)	-0.000442 u	ppm	0.000667	> 100.00	2.077620	Y 377.433
Zr (343.823 nm)	0.000221	ppm	0.000167	75.66	-149.119000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.118709	25859.488479	0.002671	0.24
Y 377.433	1.097166	767391.921951	0.003085	0.28
Y_R 377.433	1.128890	68443.300000	0.000868	0.08
Y_R 488.368	1.144900	60482.300000	0.012685	1.11
Y_R2 488.368	1.129987	119784.635956	0.001362	0.12
Y_R4	1.113530	50108.800000	0.002216	0.20

Sample Name: CCVL-5719884

Date: 5/24/2019 6:48:17 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007835	ppm	0.000465	5.94	2.038040	Y 377.433
Al (394.401 nm)	0.099871	ppm	0.000082	0.08	1320.340000	Y 377.433
Al H (396.152 nm)	0.226848 u	ppm	0.004607	2.03	243.073000	Y_R 377.433
As (188.980 nm)	0.013749	ppm	0.002575	18.73	19.139700	Y 242.219
B (249.678 nm)	0.091453	ppm	0.001092	1.19	699.736000	Y 242.219
Ba (493.408 nm)	0.007969	ppm	0.000048	0.60	2193.980000	Y_R 488.368
Be (234.861 nm)	0.000941	ppm	0.000033	3.51	90.299500	Y_R 488.368
Bi (223.061 nm)	0.098763	ppm	0.003273	3.31	205.716000	Y 377.433
Ca (315.887 nm)	0.215922	ppm	0.013137	6.08	102.469725	Y_R 377.433
Cd (214.439 nm)	0.005235	ppm	0.000130	2.48	188.456000	Y 377.433
Co (228.615 nm)	0.010516	ppm	0.000111	1.05	232.464000	Y 242.219
Cr (205.560 nm)	0.009925	ppm	0.000087	0.88	59.262200	Y 377.433
Cu (324.754 nm)	0.016812	ppm	0.000067	0.40	1099.440000	Y 377.433
Fe (238.204 nm)	0.101148	ppm	0.000390	0.39	250.621042	Y_R 377.433
Fe H (259.940 nm)	0.106594 u	ppm	0.003044	2.86	158.830000	Y_R 377.433
K (766.491 nm)	2.878080	ppm	0.267654	9.30	4716.420000	Y_R2 488.368
Li (670.783 nm)	0.042451 Q	ppm	0.002867	6.75	-1816.880000 Q	Y_R2 488.368
Mg (279.078 nm)	0.210770	ppm	0.000908	0.43	696.724000	Y 377.433
Mn (257.610 nm)	0.010623	ppm	0.000005	0.04	2885.450000	Y 377.433
Mo (202.032 nm)	0.019854	ppm	0.000527	2.65	261.375000	Y 377.433
Na (589.592 nm)	1.033580	ppm	0.040265	3.90	1000.540000	Y_R2 488.368
Na H (589.593 nm)	2.129970 u	ppm	0.032310	1.52	1038.130172	Y_R4
Ni (231.604 nm)	0.044625	ppm	0.000868	1.94	222.289000	Y 377.433
P (213.618 nm)	2.872730	ppm	0.001663	0.06	4099.510000	Y 242.219
Pb (220.353 nm)	0.010053	ppm	0.000262	2.61	40.302500	Y 242.219
S (181.972 nm)	0.103099	ppm	0.000430	0.42	59.952902	Y 377.433
Sb (206.834 nm)	0.020283	ppm	0.003729	18.39	35.869100	Y 377.433
Se (196.026 nm)	0.019051	ppm	0.000166	0.87	37.581000	Y 242.219
Si (288.158 nm)	0.481138	ppm	0.002429	0.50	3585.900000	Y 377.433
Sn (189.925 nm)	0.105102	ppm	0.000199	0.19	171.205000	Y 377.433
Sr (421.552 nm)	0.009127	ppm	0.000019	0.21	1397.770776	Y_R 488.368
Th (288.505 nm)	0.017342	ppm	0.002799	16.14	42.137500	Y 377.433
Ti (336.122 nm)	0.010108	ppm	0.000039	0.39	860.266000	Y 377.433
Tl (190.794 nm)	0.016076	ppm	0.000143	0.89	38.469200	Y 377.433
U (409.013 nm)	0.065922	ppm	0.007617	11.56	183.134000	Y 377.433
V (292.401 nm)	0.009863	ppm	0.000058	0.59	359.330000	Y 377.433
Zn (206.200 nm)	0.021852	ppm	0.000049	0.22	102.341000	Y 377.433
Zr (343.823 nm)	0.009991	ppm	0.000203	2.03	403.996000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131695	26159.654987	0.000545	0.05
Y 377.433	1.107736	774785.398294	0.001124	0.10
Y_R 377.433	1.138550	69028.900000	0.004587	0.40
Y_R 488.368	1.156490	61094.800000	0.002817	0.24
Y_R2 488.368	1.134723	120286.664669	0.002671	0.24
Y_R4	1.135650	51104.100000	0.006686	0.59

Sample Name: 280-123508-D-2-B

Date: 5/24/2019 6:51:47 PM Rack:Tube: 1:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001052	ppm	0.000446	42.39	-237.014000	Y 377.433
Al (394.401 nm)	-0.005768 u	ppm	0.000416	7.21	289.647000	Y 377.433
Al H (396.152 nm)	-0.070401 u	ppm	0.001364	1.94	6.588490	Y_R 377.433
As (188.980 nm)	0.004909	ppm	0.001113	22.67	5.819390	Y 242.219
B (249.678 nm)	0.520973	ppm	0.000704	0.14	3767.250000	Y 242.219
Ba (493.408 nm)	0.032336	ppm	0.000253	0.78	4623.230000	Y_R 488.368
Be (234.861 nm)	-0.000088 u	ppm	0.000027	30.60	-10.800300	Y_R 488.368
Bi (223.061 nm)	-0.000437 u	ppm	0.001977	> 100.00	-11.549700	Y 377.433
Ca (315.887 nm)	63.888233	ppm	0.095123	0.15	50671.361389	Y_R 377.433
Cd (214.439 nm)	0.000096	ppm	0.000079	82.74	-1.624330	Y 377.433
Co (228.615 nm)	-0.000442 u	ppm	0.000043	9.76	-25.503600	Y 242.219
Cr (205.560 nm)	0.006499	ppm	0.000224	3.45	36.583900	Y 377.433
Cu (324.754 nm)	0.000604	ppm	0.000100	16.61	307.778000	Y 377.433
Fe (238.204 nm)	0.048151	ppm	0.001297	2.69	123.048448	Y_R 377.433
Fe H (259.940 nm)	0.043497 u	ppm	0.001509	3.47	71.568600	Y_R 377.433
K (766.491 nm)	4.791830	ppm	0.013650	0.28	6564.320000	Y_R2 488.368
Li (670.783 nm)	0.123121	ppm	0.003500	2.84	-431.747000	Y_R2 488.368
Mg (279.078 nm)	20.442400	ppm	0.031331	0.15	66903.200000	Y 377.433
Mn (257.610 nm)	0.000765	ppm	0.000022	2.91	197.398000	Y 377.433
Mo (202.032 nm)	0.002234	ppm	0.000067	2.98	39.285900	Y 377.433
Na (589.592 nm)	173.080000 o	ppm	0.076785	0.04	142239.000000	Y_R2 488.368
Na H (589.593 nm)	179.767943	ppm	0.013004	0.01	97416.705021	Y_R4
Ni (231.604 nm)	-0.000196 u	ppm	0.000249	> 100.00	-9.637270	Y 377.433
P (213.618 nm)	0.004703	ppm	0.002696	57.31	2.214140	Y 242.219
Pb (220.353 nm)	-0.000101 u	ppm	0.000555	> 100.00	7.942410	Y 242.219
S (181.972 nm)	70.956847	ppm	0.039172	0.06	32510.822241	Y 377.433
Sb (206.834 nm)	-0.003614 u	ppm	0.000173	4.78	-4.287450	Y 377.433
Se (196.026 nm)	0.002484	ppm	0.000030	1.22	12.593100	Y 242.219
Si (288.158 nm)	13.235200	ppm	0.037012	0.28	85691.300000	Y 377.433
Sn (189.925 nm)	0.001373 u	ppm	0.002227	> 100.00	4.300420	Y 377.433
Sr (421.552 nm)	1.035434	ppm	0.000069	0.01	155960.642514	Y_R 488.368
Th (288.505 nm)	-0.003747 u	ppm	0.004439	> 100.00	2.899920	Y 377.433
Ti (336.122 nm)	0.000014 u	ppm	0.000255	> 100.00	-215.652000	Y 377.433
Tl (190.794 nm)	-0.000265 u	ppm	0.000898	> 100.00	-1.337360	Y 377.433
U (409.013 nm)	0.021078	ppm	0.001495	7.09	33.642300	Y 377.433
V (292.401 nm)	0.016179	ppm	0.000140	0.86	691.445000	Y 377.433
Zn (206.200 nm)	0.004629	ppm	0.000220	4.75	24.887800	Y 377.433
Zr (343.823 nm)	0.000214	ppm	0.000207	96.72	-149.494000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075439	24859.284026	0.005999	0.56
Y 377.433	1.057170	739417.610169	0.007598	0.72
Y_R 377.433	1.111310	67377.100000	0.003150	0.28
Y_R 488.368	1.126610	59516.100000	0.001197	0.11
Y_R2 488.368	1.098352	116431.080206	0.006697	0.61
Y_R4	1.105630	49753.100000	0.002390	0.22

Sample Name: 280-123508-D-3-B

Date: 5/24/2019 6:55:22 PM Rack:Tube: 1:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000745	ppm	0.000429	57.65	-247.638000	Y 377.433
Al (394.401 nm)	0.015397	ppm	0.001739	11.29	475.976000	Y 377.433
Al H (396.152 nm)	0.009018 u	ppm	0.007906	87.67	54.890800	Y_R 377.433
As (188.980 nm)	0.003815	ppm	0.002847	74.62	4.170790	Y 242.219
B (249.678 nm)	0.537417	ppm	0.000419	0.08	3884.670000	Y 242.219
Ba (493.408 nm)	0.039788	ppm	0.000302	0.76	5366.140000	Y_R 488.368
Be (234.861 nm)	-0.000028 u	ppm	0.000012	44.44	-5.066980	Y_R 488.368
Bi (223.061 nm)	0.000963	ppm	0.000143	14.83	-8.476550	Y 377.433
Ca (315.887 nm)	68.302942	ppm	0.015409	0.02	54177.553788	Y_R 377.433
Cd (214.439 nm)	0.000211	ppm	0.000052	24.50	2.666200	Y 377.433
Co (228.615 nm)	-0.000286 u	ppm	0.000059	20.48	-21.854500	Y 242.219
Cr (205.560 nm)	0.007870	ppm	0.000294	3.74	45.730700	Y 377.433
Cu (324.754 nm)	0.001446	ppm	0.000471	32.58	342.593000	Y 377.433
Fe (238.204 nm)	0.089835	ppm	0.001550	1.73	223.387370	Y_R 377.433
Fe H (259.940 nm)	0.088372 u	ppm	0.003704	4.19	133.631000	Y_R 377.433
K (766.491 nm)	4.973020	ppm	0.003027	0.06	6739.270000	Y_R2 488.368
Li (670.783 nm)	0.131424	ppm	0.000249	0.19	-289.196000	Y_R2 488.368
Mg (279.078 nm)	19.313400	ppm	0.013457	0.07	63208.100000	Y 377.433
Mn (257.610 nm)	0.005073	ppm	0.000000	0.00	1372.170000	Y 377.433
Mo (202.032 nm)	0.001508	ppm	0.000322	21.33	30.139300	Y 377.433
Na (589.592 nm)	175.517000 o	ppm	1.813990	1.03	144242.000000	Y_R2 488.368
Na H (589.593 nm)	181.021440	ppm	1.255135	0.69	98096.797008	Y_R4
Ni (231.604 nm)	0.000349 u	ppm	0.001402	> 100.00	-6.814970	Y 377.433
P (213.618 nm)	0.001653	ppm	0.001630	98.59	-2.249650	Y 242.219
Pb (220.353 nm)	-0.000863 u	ppm	0.001302	> 100.00	5.585750	Y 242.219
S (181.972 nm)	72.757618	ppm	0.283461	0.39	33335.722611	Y 377.433
Sb (206.834 nm)	-0.004097 u	ppm	0.000132	3.22	-5.088030	Y 377.433
Se (196.026 nm)	0.001244 u	ppm	0.006936	> 100.00	10.717700	Y 242.219
Si (288.158 nm)	13.163000	ppm	0.035464	0.27	85226.100000	Y 377.433
Sn (189.925 nm)	0.000812	ppm	0.000284	34.99	3.397530	Y 377.433
Sr (421.552 nm)	0.738897	ppm	0.001959	0.27	111301.926329	Y_R 488.368
Th (288.505 nm)	-0.004533 u	ppm	0.004150	91.56	1.765920	Y 377.433
Ti (336.122 nm)	-0.000056 u	ppm	0.000063	> 100.00	-209.793000	Y 377.433
Tl (190.794 nm)	0.000711	ppm	0.000354	49.78	0.718845	Y 377.433
U (409.013 nm)	0.025758	ppm	0.001921	7.46	47.925100	Y 377.433
V (292.401 nm)	0.015223	ppm	0.000200	1.32	639.792000	Y 377.433
Zn (206.200 nm)	0.007608	ppm	0.000796	10.46	38.290100	Y 377.433
Zr (343.823 nm)	0.000168	ppm	0.000046	27.59	-152.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.067116	24666.882263	0.009079	0.85
Y 377.433	1.048284	733202.409738	0.009195	0.88
Y_R 377.433	1.086010	65843.400000	0.009435	0.87
Y_R 488.368	1.098330	58022.300000	0.010314	0.94
Y_R2 488.368	1.091547	115709.741430	0.012640	1.16
Y_R4	1.117650	50294.000000	0.004105	0.37

Sample Name: 280-123508-D-4-B

Date: 5/24/2019 6:58:56 PM Rack:Tube: 1:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000806	ppm	0.000513	63.65	-245.915000	Y 377.433
Al (394.401 nm)	-0.006699 u	ppm	0.000010	0.15	283.290000	Y 377.433
Al H (396.152 nm)	-0.067452 u	ppm	0.001878	2.78	15.875300	Y_R 377.433
As (188.980 nm)	0.003465	ppm	0.000589	17.00	3.644390	Y 242.219
B (249.678 nm)	0.524773	ppm	0.000572	0.11	3794.420000	Y 242.219
Ba (493.408 nm)	0.032138	ppm	0.000160	0.50	4603.470000	Y_R 488.368
Be (234.861 nm)	-0.000046 u	ppm	0.000083	> 100.00	-6.595370	Y_R 488.368
Bi (223.061 nm)	0.000843 u	ppm	0.001748	> 100.00	-8.752690	Y 377.433
Ca (315.887 nm)	64.229099	ppm	0.068845	0.11	50942.077491	Y_R 377.433
Cd (214.439 nm)	0.000232	ppm	0.000047	20.40	3.390860	Y 377.433
Co (228.615 nm)	-0.000723 u	ppm	0.000002	0.26	-32.129600	Y 242.219
Cr (205.560 nm)	0.007088	ppm	0.000239	3.38	40.519100	Y 377.433
Cu (324.754 nm)	0.000505	ppm	0.000218	43.03	301.819000	Y 377.433
Fe (238.204 nm)	0.010431	ppm	0.001492	14.30	32.248236	Y_R 377.433
Fe H (259.940 nm)	0.004839 u	ppm	0.002982	61.62	18.105600	Y_R 377.433
K (766.491 nm)	4.735190	ppm	0.100825	2.13	6509.620000	Y_R2 488.368
Li (670.783 nm)	0.127487	ppm	0.000004	0.00	-356.780000	Y_R2 488.368
Mg (279.078 nm)	20.514100	ppm	0.023830	0.12	67137.500000	Y 377.433
Mn (257.610 nm)	0.000484	ppm	0.000034	6.97	121.040000	Y 377.433
Mo (202.032 nm)	0.001815	ppm	0.000057	3.15	34.003300	Y 377.433
Na (589.592 nm)	174.549000 o	ppm	0.571855	0.33	143445.000000	Y_R2 488.368
Na H (589.593 nm)	180.439584	ppm	0.760178	0.42	97781.107911	Y_R4
Ni (231.604 nm)	-0.001900 u	ppm	0.000477	25.10	-18.454900	Y 377.433
P (213.618 nm)	0.002491	ppm	0.000065	2.60	-0.774279	Y 242.219
Pb (220.353 nm)	-0.001904 u	ppm	0.000117	6.14	2.274790	Y 242.219
S (181.972 nm)	71.709981	ppm	0.277662	0.39	32855.739027	Y 377.433
Sb (206.834 nm)	-0.005492 u	ppm	0.000334	6.09	-7.456930	Y 377.433
Se (196.026 nm)	-0.002096 u	ppm	0.000315	15.03	5.694070	Y 242.219
Si (288.158 nm)	13.346200	ppm	0.054028	0.40	86405.800000	Y 377.433
Sn (189.925 nm)	0.001070 u	ppm	0.001625	> 100.00	3.811680	Y 377.433
Sr (421.552 nm)	1.042496	ppm	0.000028	0.00	157024.123665	Y_R 488.368
Th (288.505 nm)	-0.003409 u	ppm	0.005619	> 100.00	3.599170	Y 377.433
Ti (336.122 nm)	-0.000027 u	ppm	0.000070	> 100.00	-219.834000	Y 377.433
Tl (190.794 nm)	-0.000803 u	ppm	0.000478	59.49	-2.575260	Y 377.433
U (409.013 nm)	0.023765	ppm	0.002193	9.23	42.108600	Y 377.433
V (292.401 nm)	0.016412	ppm	0.000082	0.50	702.343000	Y 377.433
Zn (206.200 nm)	0.004178	ppm	0.000362	8.65	22.855300	Y 377.433
Zr (343.823 nm)	0.000212	ppm	0.000048	22.75	-149.606000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092753	25259.497737	0.000380	0.03
Y 377.433	1.075875	752500.798709	0.000522	0.05
Y_R 377.433	1.129850	68501.500000	0.001327	0.12
Y_R 488.368	1.144130	60441.600000	0.000972	0.08
Y_R2 488.368	1.117963	118510.020944	0.003250	0.29
Y_R4	1.135340	51090.100000	0.003248	0.29

Sample Name: 280-123508-D-5-D

Date: 5/24/2019 7:02:29 PM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000723	ppm	0.000196	27.12	-248.270000	Y 377.433
Al (394.401 nm)	0.001533	ppm	0.000314	20.46	305.275000	Y 377.433
Al H (396.152 nm)	-0.005263 u	ppm	0.005161	98.05	22.021500	Y_R 377.433
As (188.980 nm)	0.005055	ppm	0.000663	13.12	6.029310	Y 242.219
B (249.678 nm)	0.389394	ppm	0.000295	0.08	2827.340000	Y 242.219
Ba (493.408 nm)	0.060756	ppm	0.000053	0.09	7456.810000	Y_R 488.368
Be (234.861 nm)	-0.000012 u	ppm	0.000012	> 100.00	-4.952850	Y_R 488.368
Bi (223.061 nm)	0.001623	ppm	0.001109	68.29	-6.972910	Y 377.433
Ca (315.887 nm)	67.644011	ppm	0.041647	0.06	53654.219415	Y_R 377.433
Cd (214.439 nm)	0.000217	ppm	0.000001	0.52	3.001180	Y 377.433
Co (228.615 nm)	-0.000389 u	ppm	0.000130	33.28	-24.280500	Y 242.219
Cr (205.560 nm)	0.006446	ppm	0.000191	2.96	36.231800	Y 377.433
Cu (324.754 nm)	0.000784	ppm	0.000344	43.87	312.384000	Y 377.433
Fe (238.204 nm)	0.426178	ppm	0.003881	0.91	1033.025152	Y_R 377.433
Fe H (259.940 nm)	0.425204 u	ppm	0.007756	1.82	599.464000	Y_R 377.433
K (766.491 nm)	4.553690	ppm	0.059109	1.30	6334.370000	Y_R2 488.368
Li (670.783 nm)	0.100383	ppm	0.002679	2.67	-822.174000	Y_R2 488.368
Mg (279.078 nm)	19.101800	ppm	0.000177	0.00	62515.400000	Y 377.433
Mn (257.610 nm)	0.002577	ppm	0.000037	1.42	691.474000	Y 377.433
Mo (202.032 nm)	0.002161	ppm	0.000205	9.50	38.367700	Y 377.433
Na (589.592 nm)	156.057000 o	ppm	0.133192	0.09	128272.000000	Y_R2 488.368
Na H (589.593 nm)	161.357582	ppm	0.740389	0.46	87428.050368	Y_R4
Ni (231.604 nm)	-0.000916 u	ppm	0.000916	> 100.00	-13.357300	Y 377.433
P (213.618 nm)	-0.003899 u	ppm	0.003785	97.08	-10.023500	Y 242.219
Pb (220.353 nm)	-0.002810 u	ppm	0.000100	3.56	-0.593987	Y 242.219
S (181.972 nm)	67.672368	ppm	0.129061	0.19	31006.870135	Y 377.433
Sb (206.834 nm)	-0.006880 u	ppm	0.002108	30.63	-9.775150	Y 377.433
Se (196.026 nm)	0.002067	ppm	0.002048	99.09	11.868100	Y 242.219
Si (288.158 nm)	14.090600	ppm	0.009612	0.07	91197.700000	Y 377.433
Sn (189.925 nm)	0.000291	ppm	0.000267	91.57	2.558790	Y 377.433
Sr (421.552 nm)	0.734304	ppm	0.000861	0.12	110610.186424	Y_R 488.368
Th (288.505 nm)	-0.004597 u	ppm	0.004044	87.98	1.640130	Y 377.433
Ti (336.122 nm)	-0.000009 u	ppm	0.000024	> 100.00	-205.971000	Y 377.433
Tl (190.794 nm)	0.001834	ppm	0.001604	87.45	3.269750	Y 377.433
U (409.013 nm)	0.021995	ppm	0.013009	59.14	36.325400	Y 377.433
V (292.401 nm)	0.014862	ppm	0.000155	1.05	621.831000	Y 377.433
Zn (206.200 nm)	0.001072	ppm	0.000628	58.58	8.944670	Y 377.433
Zr (343.823 nm)	0.000475	ppm	0.000073	15.28	-134.714000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.088949	25171.566251	0.000142	0.01
Y 377.433	1.071855	749688.863850	0.000188	0.02
Y_R 377.433	1.130300	68528.800000	0.002320	0.21
Y_R 488.368	1.145410	60509.200000	0.001216	0.11
Y_R2 488.368	1.124596	119213.114122	0.003666	0.33
Y_R4	1.145990	51569.600000	0.015148	1.32

Sample Name: 280-123508-D-5-Dsd@5

Date: 5/24/2019 7:06:03 PM Rack:Tube: 1:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000693	ppm	0.000314	45.33	-244.101000	Y 377.433
Al (394.401 nm)	0.000319 u	ppm	0.001263	> 100.00	135.354000	Y 377.433
Al H (396.152 nm)	0.100888 u	ppm	0.002616	2.59	21.435200	Y_R 377.433
As (188.980 nm)	0.001777	ppm	0.000083	4.68	1.099650	Y 242.219
B (249.678 nm)	0.074148	ppm	0.000471	0.64	576.171000	Y 242.219
Ba (493.408 nm)	0.011303	ppm	0.000394	3.49	2526.340000	Y_R 488.368
Be (234.861 nm)	-0.000071 u	ppm	0.000004	5.10	-9.276660	Y_R 488.368
Bi (223.061 nm)	-0.000036 u	ppm	0.000381	> 100.00	-10.677500	Y 377.433
Ca (315.887 nm)	13.873007	ppm	0.075946	0.55	10948.980640	Y_R 377.433
Cd (214.439 nm)	0.000134	ppm	0.000097	72.66	-0.193171	Y 377.433
Co (228.615 nm)	-0.000166 u	ppm	0.000052	31.27	-19.040700	Y 242.219
Cr (205.560 nm)	0.001286	ppm	0.000149	11.56	1.818770	Y 377.433
Cu (324.754 nm)	0.001378	ppm	0.000277	20.12	372.492000	Y 377.433
Fe (238.204 nm)	0.071012	ppm	0.001668	2.35	178.077645	Y_R 377.433
Fe H (259.940 nm)	0.072089 u	ppm	0.001251	1.74	111.110000	Y_R 377.433
K (766.491 nm)	0.807964	ppm	0.044711	5.53	2717.540000	Y_R2 488.368
Li (670.783 nm)	0.031515	ppm	0.000390	1.24	-2004.660000	Y_R2 488.368
Mg (279.078 nm)	3.924320	ppm	0.000970	0.02	12850.100000	Y 377.433
Mn (257.610 nm)	0.000872	ppm	0.000044	5.00	226.745000	Y 377.433
Mo (202.032 nm)	0.000495	ppm	0.000346	69.88	17.376400	Y 377.433
Na (589.592 nm)	32.553200	ppm	0.244993	0.75	26875.900000	Y_R2 488.368
Na H (589.593 nm)	33.836637 u	ppm	0.216820	0.64	18240.777475	Y_R4
Ni (231.604 nm)	-0.000156 u	ppm	0.000695	> 100.00	-9.424930	Y 377.433
P (213.618 nm)	-0.001037 u	ppm	0.002522	> 100.00	-5.737190	Y 242.219
Pb (220.353 nm)	-0.000692 u	ppm	0.000323	46.70	6.063060	Y 242.219
S (181.972 nm)	13.435450	ppm	0.020825	0.15	6166.197158	Y 377.433
Sb (206.834 nm)	-0.000187 u	ppm	0.004108	> 100.00	1.473070	Y 377.433
Se (196.026 nm)	0.000020 u	ppm	0.001510	> 100.00	8.869720	Y 242.219
Si (288.158 nm)	2.800980	ppm	0.000903	0.03	18520.000000	Y 377.433
Sn (189.925 nm)	0.001015	ppm	0.001133	> 100.00	3.722950	Y 377.433
Sr (421.552 nm)	0.149132	ppm	0.001201	0.81	22482.681335	Y_R 488.368
Th (288.505 nm)	-0.002844 u	ppm	0.000616	21.67	7.191790	Y 377.433
Ti (336.122 nm)	0.000477	ppm	0.000067	14.03	-326.259000	Y 377.433
Tl (190.794 nm)	0.000210 u	ppm	0.001698	> 100.00	1.740050	Y 377.433
U (409.013 nm)	0.008607 u	ppm	0.013077	> 100.00	0.784331	Y 377.433
V (292.401 nm)	0.002951	ppm	0.000008	0.26	6.149450	Y 377.433
Zn (206.200 nm)	0.007634	ppm	0.000591	7.74	38.400700	Y 377.433
Zr (343.823 nm)	0.000088	ppm	0.000082	92.27	-156.612000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110312	25665.389863	0.004191	0.38
Y 377.433	1.090365	762635.119948	0.003582	0.33
Y_R 377.433	1.103070	66877.900000	0.018821	1.71
Y_R 488.368	1.114490	58875.900000	0.007646	0.69
Y_R2 488.368	1.092537	115814.688237	0.006242	0.57
Y_R4	1.102850	49628.100000	0.000846	0.08

Sample Name: 280-123508-D-5-E MS

Date: 5/24/2019 7:09:31 PM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051912	ppm	0.000076	0.15	1216.570000	Y 377.433
Al (394.401 nm)	9.909300 o	ppm	0.009207	0.09	121485.000000	Y 377.433
Al H (396.152 nm)	9.642340	ppm	0.018817	0.20	21595.900000	Y_R 377.433
As (188.980 nm)	2.046160	ppm	0.006700	0.33	3081.510000	Y 242.219
B (249.678 nm)	1.379690	ppm	0.001035	0.08	9894.230000	Y 242.219
Ba (493.408 nm)	2.035610	ppm	0.000653	0.03	204345.000000	Y_R 488.368
Be (234.861 nm)	0.976862	ppm	0.006084	0.62	96160.200000	Y_R 488.368
Bi (223.061 nm)	1.940790	ppm	0.006666	0.34	4241.800000	Y 377.433
Ca (315.887 nm)	113.653925	ppm	0.259472	0.23	90198.041979	Y_R 377.433
Cd (214.439 nm)	0.999093	ppm	0.000501	0.05	36945.400000	Y 377.433
Co (228.615 nm)	0.974678	ppm	0.001921	0.20	22935.600000	Y 242.219
Cr (205.560 nm)	1.018890	ppm	0.001474	0.14	6781.170000	Y 377.433
Cu (324.754 nm)	0.980273	ppm	0.006176	0.63	46059.100000	Y 377.433
Fe (238.204 nm)	9.924962 o	ppm	0.029689	0.30	23898.256127	Y_R 377.433
Fe H (259.940 nm)	9.895870	ppm	0.007643	0.08	13697.300000	Y_R 377.433
K (766.491 nm)	53.793900	ppm	0.347336	0.65	53880.100000	Y_R2 488.368
Li (670.783 nm)	1.083160	ppm	0.003193	0.29	16052.400000	Y_R2 488.368
Mg (279.078 nm)	67.295400	ppm	0.030370	0.05	220180.000000	Y 377.433
Mn (257.610 nm)	0.980027	ppm	0.000619	0.06	267203.000000	Y 377.433
Mo (202.032 nm)	1.012420	ppm	0.000027	0.00	12772.000000	Y 377.433
Na (589.592 nm)	203.811000 o	ppm	0.169247	0.08	167922.000000	Y_R2 488.368
Na H (589.593 nm)	214.130708	ppm	0.450697	0.21	116060.434156	Y_R4
Ni (231.604 nm)	0.989804	ppm	0.001004	0.10	5114.920000	Y 377.433
P (213.618 nm)	20.323100	ppm	0.036422	0.18	28790.100000	Y 242.219
Pb (220.353 nm)	0.973931	ppm	0.003970	0.41	3100.770000	Y 242.219
S (181.972 nm)	76.352316	ppm	0.182683	0.24	34987.257330	Y 377.433
Sb (206.834 nm)	-0.003155 u	ppm	0.001470	46.59	-8.221400	Y 377.433
Se (196.026 nm)	1.975390	ppm	0.002252	0.11	2987.080000	Y 242.219
Si (288.158 nm)	16.165800	ppm	0.079444	0.49	104557.000000	Y 377.433
Sn (189.925 nm)	2.035410	ppm	0.000618	0.03	3277.190000	Y 377.433
Sr (421.552 nm)	1.701506	ppm	0.000874	0.05	256273.304246	Y_R 488.368
Th (288.505 nm)	0.993490	ppm	0.010594	1.07	1630.480000	Y 377.433
Ti (336.122 nm)	0.985097	ppm	0.000539	0.05	126009.000000	Y 377.433
Tl (190.794 nm)	1.935630	ppm	0.000213	0.01	4417.520000	Y 377.433
U (409.013 nm)	1.986820	ppm	0.004805	0.24	6209.880000	Y 377.433
V (292.401 nm)	0.995563	ppm	0.001030	0.10	51203.200000	Y 377.433
Zn (206.200 nm)	0.496285	ppm	0.001275	0.26	2237.110000	Y 377.433
Zr (343.823 nm)	0.484603	ppm	0.000272	0.06	27272.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993905	22974.579807	0.001734	0.17
Y 377.433	0.990613	692865.311983	0.003487	0.35
Y_R 377.433	1.033650	62669.100000	0.004287	0.41
Y_R 488.368	1.044250	55165.200000	0.002488	0.24
Y_R2 488.368	1.035173	109733.762406	0.000922	0.09
Y_R4	1.056600	47547.000000	0.001951	0.18

Sample Name: 280-123508-D-5-F MSD

Date: 5/24/2019 7:13:12 PM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052536	ppm	0.000443	0.84	1233.510000	Y 377.433
Al (394.401 nm)	9.921930 o	ppm	0.002687	0.03	121632.000000	Y 377.433
Al H (396.152 nm)	9.602020	ppm	0.024590	0.26	21505.700000	Y_R 377.433
As (188.980 nm)	2.063210	ppm	0.008173	0.40	3107.180000	Y 242.219
B (249.678 nm)	1.382700	ppm	0.001486	0.11	9915.570000	Y 242.219
Ba (493.408 nm)	2.022710	ppm	0.000964	0.05	203060.000000	Y_R 488.368
Be (234.861 nm)	0.976291	ppm	0.000355	0.04	96102.900000	Y_R 488.368
Bi (223.061 nm)	1.965210	ppm	0.002505	0.13	4295.320000	Y 377.433
Ca (315.887 nm)	116.687987	ppm	0.026790	0.02	92607.699844	Y_R 377.433
Cd (214.439 nm)	1.026820	ppm	0.000898	0.09	37970.700000	Y 377.433
Co (228.615 nm)	0.987001	ppm	0.001020	0.10	23225.800000	Y 242.219
Cr (205.560 nm)	1.037570	ppm	0.003382	0.33	6905.650000	Y 377.433
Cu (324.754 nm)	0.991279	ppm	0.003902	0.39	46574.100000	Y 377.433
Fe (238.204 nm)	10.165534 o	ppm	0.010871	0.11	24477.354008	Y_R 377.433
Fe H (259.940 nm)	10.120900	ppm	0.019975	0.20	14008.500000	Y_R 377.433
K (766.491 nm)	53.910200	ppm	0.520297	0.97	53992.400000	Y_R2 488.368
Li (670.783 nm)	1.078520	ppm	0.005362	0.50	15972.700000	Y_R2 488.368
Mg (279.078 nm)	68.991600	ppm	0.077423	0.11	225731.000000	Y 377.433
Mn (257.610 nm)	0.996820	ppm	0.000647	0.06	271782.000000	Y 377.433
Mo (202.032 nm)	1.028720	ppm	0.000215	0.02	12977.300000	Y 377.433
Na (589.592 nm)	202.710000 o	ppm	0.134292	0.07	167015.000000	Y_R2 488.368
Na H (589.593 nm)	212.152905	ppm	1.340064	0.63	114987.365050	Y_R4
Ni (231.604 nm)	1.008120	ppm	0.000113	0.01	5209.730000	Y 377.433
P (213.618 nm)	20.493500	ppm	0.001740	0.01	29031.100000	Y 242.219
Pb (220.353 nm)	0.990514	ppm	0.000038	0.00	3153.350000	Y 242.219
S (181.972 nm)	77.414010	ppm	0.319180	0.41	35473.666672	Y 377.433
Sb (206.834 nm)	0.001608 u	ppm	0.002537	> 100.00	-0.214172	Y 377.433
Se (196.026 nm)	2.012850	ppm	0.000004	0.00	3043.540000	Y 242.219
Si (288.158 nm)	16.367900	ppm	0.036571	0.22	105858.000000	Y 377.433
Sn (189.925 nm)	2.093230	ppm	0.002460	0.12	3370.210000	Y 377.433
Sr (421.552 nm)	1.694541	ppm	0.000421	0.02	255224.383699	Y_R 488.368
Th (288.505 nm)	1.004600	ppm	0.001600	0.16	1648.080000	Y 377.433
Ti (336.122 nm)	0.996132	ppm	0.000397	0.04	127432.000000	Y 377.433
Tl (190.794 nm)	1.975940	ppm	0.005471	0.28	4509.480000	Y 377.433
U (409.013 nm)	1.966610	ppm	0.002909	0.15	6144.850000	Y 377.433
V (292.401 nm)	1.011190	ppm	0.000345	0.03	52009.700000	Y 377.433
Zn (206.200 nm)	0.510785	ppm	0.000637	0.12	2302.350000	Y 377.433
Zr (343.823 nm)	0.490398	ppm	0.000622	0.13	27600.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.017602	23522.342450	0.000610	0.06
Y 377.433	1.005577	703332.008836	0.001096	0.11
Y_R 377.433	1.064160	64518.700000	0.001011	0.10
Y_R 488.368	1.076770	56883.300000	0.000252	0.02
Y_R2 488.368	1.055283	111865.614269	0.006904	0.65
Y_R4	1.079010	48555.300000	0.007000	0.65

Sample Name: 280-123508-D-5-Dpds

Date: 5/24/2019 7:16:51 PM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049665	ppm	0.000011	0.02	1433.360000	Y 377.433
Al (394.401 nm)	1.020930	ppm	0.003566	0.35	12770.800000	Y 377.433
Al H (396.152 nm)	0.988335	ppm	0.004740	0.48	2209.860000	Y_R 377.433
As (188.980 nm)	0.217371	ppm	0.000249	0.11	325.948000	Y 242.219
B (249.678 nm)	0.485275	ppm	0.000338	0.07	3511.700000	Y 242.219
Ba (493.408 nm)	0.162836	ppm	0.000513	0.31	17634.100000	Y_R 488.368
Be (234.861 nm)	0.050892	ppm	0.000218	0.43	5005.310000	Y_R 488.368
Bi (223.061 nm)	0.000781 u	ppm	0.001422	> 100.00	-8.655480	Y 377.433
Ca (315.887 nm)	86.939521	ppm	0.141920	0.16	68979.079049	Y_R 377.433
Cd (214.439 nm)	0.053734	ppm	0.000117	0.22	1982.370000	Y 377.433
Co (228.615 nm)	0.049552	ppm	0.001112	2.24	1151.560000	Y 242.219
Cr (205.560 nm)	0.059190	ppm	0.000051	0.09	387.607000	Y 377.433
Cu (324.754 nm)	0.053329	ppm	0.000064	0.12	2764.740000	Y 377.433
Fe (238.204 nm)	1.107875	ppm	0.000107	0.01	2673.988846	Y_R 377.433
Fe H (259.940 nm)	1.103060 u	ppm	0.005093	0.46	1536.930000	Y_R 377.433
K (766.491 nm)	25.047000	ppm	0.419529	1.67	26122.400000	Y_R2 488.368
Li (670.783 nm)	0.189207	ppm	0.000603	0.32	702.952000	Y_R2 488.368
Mg (279.078 nm)	39.351000	ppm	0.053855	0.14	128770.000000	Y 377.433
Mn (257.610 nm)	0.052100	ppm	0.000017	0.03	14194.600000	Y 377.433
Mo (202.032 nm)	0.054182	ppm	0.000142	0.26	694.055000	Y 377.433
Na (589.592 nm)	173.186000 o	ppm	0.334192	0.19	142356.000000	Y_R2 488.368
Na H (589.593 nm)	179.088138	ppm	0.522131	0.29	97047.872373	Y_R4
Ni (231.604 nm)	0.051016	ppm	0.000335	0.66	255.579000	Y 377.433
P (213.618 nm)	2.114720	ppm	0.004592	0.22	3004.880000	Y 242.219
Pb (220.353 nm)	0.102301	ppm	0.001119	1.09	334.155000	Y 242.219
S (181.972 nm)	66.436334	ppm	0.309898	0.47	30441.930535	Y 377.433
Sb (206.834 nm)	0.107860	ppm	0.000624	0.58	183.723000	Y 377.433
Se (196.026 nm)	0.207722	ppm	0.000828	0.40	321.936000	Y 242.219
Si (288.158 nm)	18.781500	ppm	0.032380	0.17	121396.000000	Y 377.433
Sn (189.925 nm)	0.104895	ppm	0.000962	0.92	170.872000	Y 377.433
Sr (421.552 nm)	0.771659	ppm	0.000038	0.00	116236.008525	Y_R 488.368
Th (288.505 nm)	0.207195	ppm	0.008745	4.22	363.556000	Y 377.433
Ti (336.122 nm)	0.049667	ppm	0.000122	0.25	6216.570000	Y 377.433
Tl (190.794 nm)	0.207573	ppm	0.000235	0.11	472.692000	Y 377.433
U (409.013 nm)	0.528074	ppm	0.001613	0.31	1633.380000	Y 377.433
V (292.401 nm)	0.066111	ppm	0.000481	0.73	3261.300000	Y 377.433
Zn (206.200 nm)	0.224707	ppm	0.002472	1.10	1014.660000	Y 377.433
Zr (343.823 nm)	0.050642	ppm	0.000167	0.33	2705.290000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045980	24178.305537	0.000117	0.01
Y 377.433	1.027397	718593.210620	0.000528	0.05
Y_R 377.433	1.066070	64634.600000	0.006998	0.66
Y_R 488.368	1.080670	57089.400000	0.007271	0.67
Y_R2 488.368	1.054621	111795.420409	0.006358	0.60
Y_R4	1.088720	48992.500000	0.004755	0.44

Sample Name: 280-123638-D-1-C

Date: 5/24/2019 7:20:23 PM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001565	ppm	0.000021	1.37	-216.327000	Y 377.433
Al (394.401 nm)	-0.014867 u	ppm	0.000918	6.17	384.025000	Y 377.433
Al H (396.152 nm)	-0.224334 u	ppm	0.012236	5.45	-34.337900	Y_R 377.433
As (188.980 nm)	0.002767	ppm	0.001606	58.02	2.592430	Y 242.219
B (249.678 nm)	0.177773	ppm	0.001055	0.59	1316.240000	Y 242.219
Ba (493.408 nm)	0.125391	ppm	0.000392	0.31	13900.200000	Y_R 488.368
Be (234.861 nm)	0.000005 u	ppm	0.000022	> 100.00	-1.699910	Y_R 488.368
Bi (223.061 nm)	0.001344	ppm	0.001492	> 100.00	-7.640840	Y 377.433
Ca (315.887 nm)	207.248715	ppm	0.092372	0.04	164529.078633	Y_R 377.433
Cd (214.439 nm)	0.000228	ppm	0.000063	27.50	3.281990	Y 377.433
Co (228.615 nm)	-0.000561 u	ppm	0.000133	23.77	-28.331600	Y 242.219
Cr (205.560 nm)	0.001325	ppm	0.000162	12.24	2.079800	Y 377.433
Cu (324.754 nm)	0.000284	ppm	0.000176	61.91	210.204000	Y 377.433
Fe (238.204 nm)	0.046819	ppm	0.001333	2.85	119.841985	Y_R 377.433
Fe H (259.940 nm)	0.033860 u	ppm	0.001255	3.71	58.241300	Y_R 377.433
K (766.491 nm)	8.902580	ppm	0.275950	3.10	10533.600000	Y_R2 488.368
Li (670.783 nm)	0.183019	ppm	0.001148	0.63	596.714000	Y_R2 488.368
Mg (279.078 nm)	45.875400	ppm	0.034759	0.08	150129.000000	Y 377.433
Mn (257.610 nm)	0.000418	ppm	0.000024	5.73	103.050000	Y 377.433
Mo (202.032 nm)	0.001256	ppm	0.000441	35.08	26.962200	Y 377.433
Na (589.592 nm)	188.730000 o	ppm	0.969952	0.51	155108.000000	Y_R2 488.368
Na H (589.593 nm)	196.132474	ppm	0.956667	0.49	106295.381910	Y_R4
Ni (231.604 nm)	-0.002243 u	ppm	0.000290	12.91	-20.223700	Y 377.433
P (213.618 nm)	0.002084	ppm	0.000651	31.24	-1.760010	Y 242.219
Pb (220.353 nm)	0.000058 u	ppm	0.000688	> 100.00	8.547360	Y 242.219
S (181.972 nm)	70.361236	ppm	0.034449	0.05	32245.104718	Y 377.433
Sb (206.834 nm)	-0.007481 u	ppm	0.002658	35.53	-10.848300	Y 377.433
Se (196.026 nm)	0.000594 u	ppm	0.001635	> 100.00	9.741930	Y 242.219
Si (288.158 nm)	16.327700	ppm	0.068068	0.42	105599.000000	Y 377.433
Sn (189.925 nm)	0.000463	ppm	0.000040	8.60	2.835180	Y 377.433
Sr (421.552 nm)	1.820517	ppm	0.001638	0.09	274195.071676	Y_R 488.368
Th (288.505 nm)	0.005489	ppm	0.007215	> 100.00	16.352300	Y 377.433
Ti (336.122 nm)	-0.001400 u	ppm	0.000075	5.34	90.884600	Y 377.433
Tl (190.794 nm)	0.005259	ppm	0.000523	9.94	5.606540	Y 377.433
U (409.013 nm)	0.032748	ppm	0.000283	0.87	51.602600	Y 377.433
V (292.401 nm)	0.007345	ppm	0.000170	2.32	233.125000	Y 377.433
Zn (206.200 nm)	0.003762	ppm	0.000941	25.00	20.986700	Y 377.433
Zr (343.823 nm)	0.000327	ppm	0.000105	32.18	-143.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.032603	23869.090275	0.005455	0.53
Y 377.433	1.020515	713780.024329	0.005492	0.54
Y_R 377.433	1.096760	66494.900000	0.000883	0.08
Y_R 488.368	1.109250	58599.100000	0.000075	0.01
Y_R2 488.368	1.090866	115637.573315	0.002063	0.19
Y_R4	1.092240	49150.700000	0.000599	0.05

Sample Name: 280-123638-D-2-E

Date: 5/24/2019 7:23:55 PM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001632	ppm	0.000154	9.42	-213.865000	Y 377.433
Al (394.401 nm)	-0.011106 u	ppm	0.000786	7.08	410.367000	Y 377.433
Al H (396.152 nm)	-0.205265 u	ppm	0.003311	1.61	-26.679600	Y_R 377.433
As (188.980 nm)	0.000740	ppm	0.000109	14.77	-0.460832	Y 242.219
B (249.678 nm)	0.169044	ppm	0.000143	0.08	1253.920000	Y 242.219
Ba (493.408 nm)	0.118771	ppm	0.000456	0.38	13240.200000	Y_R 488.368
Be (234.861 nm)	-0.000045 u	ppm	0.000019	42.61	-6.460090	Y_R 488.368
Bi (223.061 nm)	0.000037 u	ppm	0.001179	> 100.00	-10.511700	Y 377.433
Ca (315.887 nm)	197.493132	ppm	0.193206	0.10	156781.137937	Y_R 377.433
Cd (214.439 nm)	0.000234	ppm	0.000068	29.07	3.486240	Y 377.433
Co (228.615 nm)	-0.000535 u	ppm	0.000097	18.16	-27.723600	Y 242.219
Cr (205.560 nm)	0.001741	ppm	0.000907	52.11	4.857040	Y 377.433
Cu (324.754 nm)	0.000055 u	ppm	0.000351	> 100.00	203.398000	Y 377.433
Fe (238.204 nm)	0.011491	ppm	0.002380	20.71	34.799934	Y_R 377.433
Fe H (259.940 nm)	0.009757 u	ppm	0.000941	9.64	24.907600	Y_R 377.433
K (766.491 nm)	8.288540	ppm	0.262937	3.17	9940.700000	Y_R2 488.368
Li (670.783 nm)	0.179252	ppm	0.003602	2.01	532.028000	Y_R2 488.368
Mg (279.078 nm)	43.718200	ppm	0.042534	0.10	143069.000000	Y 377.433
Mn (257.610 nm)	0.000219	ppm	0.000024	10.92	48.579500	Y 377.433
Mo (202.032 nm)	0.001078	ppm	0.000010	0.90	24.719100	Y 377.433
Na (589.592 nm)	179.298000 o	ppm	0.153029	0.09	147363.000000	Y_R2 488.368
Na H (589.593 nm)	185.909697	ppm	0.618969	0.33	100748.951323	Y_R4
Ni (231.604 nm)	-0.002044 u	ppm	0.000829	40.57	-19.196100	Y 377.433
P (213.618 nm)	0.000718	ppm	0.000852	> 100.00	-3.547400	Y 242.219
Pb (220.353 nm)	-0.001604 u	ppm	0.000118	7.34	3.284680	Y 242.219
S (181.972 nm)	67.622258	ppm	0.195956	0.29	30990.301061	Y 377.433
Sb (206.834 nm)	-0.005549 u	ppm	0.001812	32.66	-7.585940	Y 377.433
Se (196.026 nm)	-0.000936 u	ppm	0.001520	> 100.00	7.442200	Y 242.219
Si (288.158 nm)	15.558300	ppm	0.018892	0.12	100646.000000	Y 377.433
Sn (189.925 nm)	0.000613	ppm	0.000758	> 100.00	3.076370	Y 377.433
Sr (421.552 nm)	1.733415	ppm	0.003609	0.21	261077.322445	Y_R 488.368
Th (288.505 nm)	-0.003530 u	ppm	0.002524	71.50	1.154800	Y 377.433
Ti (336.122 nm)	-0.001233 u	ppm	0.000021	1.71	79.271500	Y 377.433
Tl (190.794 nm)	0.002299	ppm	0.000010	0.46	-0.773000	Y 377.433
U (409.013 nm)	0.035954	ppm	0.003217	8.95	63.051400	Y 377.433
V (292.401 nm)	0.007169	ppm	0.000220	3.07	222.923000	Y 377.433
Zn (206.200 nm)	0.002587	ppm	0.000197	7.63	15.700600	Y 377.433
Zr (343.823 nm)	0.000167	ppm	0.000044	26.29	-152.173000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070190	24737.936195	0.004822	0.45
Y 377.433	1.057852	739894.364248	0.004751	0.45
Y_R 377.433	1.104560	66968.300000	0.004393	0.40
Y_R 488.368	1.117090	59013.400000	0.007118	0.64
Y_R2 488.368	1.107506	117401.477796	0.007719	0.70
Y_R4	1.105630	49753.500000	0.004410	0.40

Sample Name: CCVH-5713036

Date: 5/24/2019 7:27:31 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004357	ppm	0.000216	4.97	-126.648000	Y 377.433
Al (394.401 nm)	49.910200 o	ppm	0.107435	0.22	608047.000000	Y 377.433
Al H (396.152 nm)	48.384600	ppm	0.102592	0.21	105507.000000	Y_R 377.433
As (188.980 nm)	0.002668	ppm	0.002437	91.34	1.077050	Y 242.219
B (249.678 nm)	-0.001943 u	ppm	0.000505	26.01	3.635760	Y 242.219
Ba (493.408 nm)	0.000410	ppm	0.000180	43.97	1480.550000	Y_R 488.368
Be (234.861 nm)	0.001153	ppm	0.000012	1.02	-101.880000	Y_R 488.368
Bi (223.061 nm)	-0.005282 u	ppm	0.000274	5.20	-13.459500	Y 377.433
Ca (315.887 nm)	0.016998	ppm	0.003601	21.19	-43.420977	Y_R 377.433
Cd (214.439 nm)	0.001442	ppm	0.000018	1.22	68.633700	Y 377.433
Co (228.615 nm)	0.003341	ppm	0.000175	5.24	63.444400	Y 242.219
Cr (205.560 nm)	0.001756	ppm	0.000047	2.65	3.646900	Y 377.433
Cu (324.754 nm)	0.004156	ppm	0.000314	7.55	1456.610000	Y 377.433
Fe (238.204 nm)	50.464533 o	ppm	0.125877	0.25	121484.079688	Y_R 377.433
Fe H (259.940 nm)	49.984900	ppm	0.119794	0.24	69139.800000	Y_R 377.433
K (766.491 nm)	0.006591 u	ppm	0.173748	> 100.00	1943.750000	Y_R2 488.368
Li (670.783 nm)	0.023950	ppm	0.007303	30.49	-2134.540000	Y_R2 488.368
Mg (279.078 nm)	0.040361	ppm	0.000026	0.06	65.748600	Y 377.433
Mn (257.610 nm)	0.001013	ppm	0.000012	1.21	265.098000	Y 377.433
Mo (202.032 nm)	0.001326	ppm	0.000249	18.73	27.851800	Y 377.433
Na (589.592 nm)	230.833000 o	ppm	2.214290	0.96	189642.000000	Y_R2 488.368
Na H (589.593 nm)	237.199695	ppm	1.093087	0.46	128576.654820	Y_R4
Ni (231.604 nm)	0.004099	ppm	0.000060	1.47	12.590700	Y 377.433
P (213.618 nm)	5.001870	ppm	0.027667	0.55	7144.080000	Y 242.219
Pb (220.353 nm)	0.006810	ppm	0.001596	23.43	23.157800	Y 242.219
S (181.972 nm)	5.078522	ppm	0.004174	0.08	2338.437318	Y 377.433
Sb (206.834 nm)	0.000704	ppm	0.000301	42.71	7.216410	Y 377.433
Se (196.026 nm)	0.007493	ppm	0.000508	6.79	7.162700	Y 242.219
Si (288.158 nm)	0.016584	ppm	0.001063	6.41	595.309000	Y 377.433
Sn (189.925 nm)	0.003725	ppm	0.001943	52.15	8.084130	Y 377.433
Sr (421.552 nm)	0.001503	ppm	0.000169	11.24	257.067433	Y_R 488.368
Th (288.505 nm)	4.871320	ppm	0.006004	0.12	8413.060000	Y 377.433
Ti (336.122 nm)	0.002214	ppm	0.000252	11.39	-150.454000	Y 377.433
Tl (190.794 nm)	-0.000707 u	ppm	0.002633	> 100.00	-4.664460	Y 377.433
U (409.013 nm)	0.535784 Q	ppm	0.003075	0.57	1712.000000 Q	Y 377.433
V (292.401 nm)	0.000830	ppm	0.000009	1.05	388.291000	Y 377.433
Zn (206.200 nm)	0.002887	ppm	0.000329	11.41	24.074800	Y 377.433
Zr (343.823 nm)	0.001251	ppm	0.000190	15.18	-90.767300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.088053	25150.854156	0.004860	0.45
Y 377.433	1.068374	747254.134079	0.003990	0.37
Y_R 377.433	1.129050	68453.100000	0.005716	0.51
Y_R 488.368	1.146140	60548.000000	0.013548	1.18
Y_R2 488.368	1.134795	120294.287374	0.004435	0.39
Y_R4	1.152130	51845.700000	0.010134	0.88

Sample Name: CCV-5717467

Date: 5/24/2019 7:31:15 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.495988	ppm	0.000132	0.03	16846.900000	Y 377.433
Al (394.401 nm)	0.503588	ppm	0.001026	0.20	6360.550000	Y 377.433
Al H (396.152 nm)	0.546297 u	ppm	0.003446	0.63	1179.040000	Y_R 377.433
As (188.980 nm)	0.502798	ppm	0.004409	0.88	756.018000	Y 242.219
B (249.678 nm)	0.482717	ppm	0.000631	0.13	3492.600000	Y 242.219
Ba (493.408 nm)	0.485237	ppm	0.002427	0.50	49776.500000	Y_R 488.368
Be (234.861 nm)	0.475426	ppm	0.003708	0.78	46808.600000	Y_R 488.368
Bi (223.061 nm)	1.000660	ppm	0.000196	0.02	2181.510000	Y 377.433
Ca (315.887 nm)	5.046753	ppm	0.007091	0.14	3939.251238	Y_R 377.433
Cd (214.439 nm)	0.521708	ppm	0.000110	0.02	19288.700000	Y 377.433
Co (228.615 nm)	0.501076	ppm	0.000584	0.12	11783.000000	Y 242.219
Cr (205.560 nm)	0.517305	ppm	0.004643	0.90	3439.730000	Y 377.433
Cu (324.754 nm)	0.500496	ppm	0.002120	0.42	23659.700000	Y 377.433
Fe (238.204 nm)	2.543244	ppm	0.013627	0.54	6129.172681	Y_R 377.433
Fe H (259.940 nm)	2.530920 u	ppm	0.006168	0.24	3511.640000	Y_R 377.433
K (766.491 nm)	48.731900	ppm	0.125998	0.26	48992.300000	Y_R2 488.368
Li (670.783 nm)	0.520769	ppm	0.001922	0.37	6395.950000	Y_R2 488.368
Mg (279.078 nm)	20.056800	ppm	0.009453	0.05	65638.100000	Y 377.433
Mn (257.610 nm)	0.496413	ppm	0.000543	0.11	135341.000000	Y 377.433
Mo (202.032 nm)	0.502474	ppm	0.000042	0.01	6344.440000	Y 377.433
Na (589.592 nm)	23.659400	ppm	0.126142	0.53	19682.400000	Y_R2 488.368
Na H (589.593 nm)	25.375233 u	ppm	0.218646	0.86	13649.990651	Y_R4
Ni (231.604 nm)	0.515033	ppm	0.000346	0.07	2656.780000	Y 377.433
P (213.618 nm)	0.046933	ppm	0.007359	15.68	-72.659100	Y 242.219
Pb (220.353 nm)	0.503556	ppm	0.002415	0.48	1605.740000	Y 242.219
S (181.972 nm)	0.009563	ppm	0.004888	51.12	18.899101	Y 377.433
Sb (206.834 nm)	0.510971	ppm	0.002474	0.48	861.941000	Y 377.433
Se (196.026 nm)	0.507082	ppm	0.001426	0.28	773.751000	Y 242.219
Si (288.158 nm)	4.932320	ppm	0.004879	0.10	32240.700000	Y 377.433
Sn (189.925 nm)	0.518824	ppm	0.000764	0.15	836.907000	Y 377.433
Sr (421.552 nm)	0.475220	ppm	0.002653	0.56	71592.133603	Y_R 488.368
Th (288.505 nm)	0.019600	ppm	0.000558	2.85	-3.581390	Y 377.433
Ti (336.122 nm)	0.489143	ppm	0.000797	0.16	62176.100000	Y 377.433
Tl (190.794 nm)	0.517013	ppm	0.002936	0.57	1181.020000	Y 377.433
U (409.013 nm)	0.014079	ppm	0.005935	42.16	-40.427600	Y 377.433
V (292.401 nm)	0.491974	ppm	0.000080	0.02	25221.500000	Y 377.433
Zn (206.200 nm)	0.520552	ppm	0.003762	0.72	2345.200000	Y 377.433
Zr (343.823 nm)	0.490468	ppm	0.000776	0.16	27604.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119763	25883.834934	0.002367	0.21
Y 377.433	1.100093	769439.170745	0.002677	0.24
Y_R 377.433	1.148310	69620.700000	0.005549	0.48
Y_R 488.368	1.165280	61559.300000	0.005859	0.50
Y_R2 488.368	1.164104	123401.164712	0.001444	0.12
Y_R4	1.168000	52560.100000	0.003671	0.31

Sample Name: CCB

Date: 5/24/2019 7:34:50 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000612	ppm	0.000121	19.69	-245.768000	Y 377.433
Al (394.401 nm)	-0.001856 u	ppm	0.000826	44.50	70.121200	Y 377.433
Al H (396.152 nm)	0.133385 Zu	ppm	0.004039	3.03	33.297900 Z	Y_R 377.433
As (188.980 nm)	-0.000076 u	ppm	0.001366	> 100.00	-1.690650	Y 242.219
B (249.678 nm)	-0.002738 u	ppm	0.000400	14.59	27.119900	Y 242.219
Ba (493.408 nm)	-0.002156 Zu	ppm	0.000446	20.70	1184.470000 Z	Y_R 488.368
Be (234.861 nm)	-0.000024 u	ppm	0.000029	> 100.00	-4.319380	Y_R 488.368
Bi (223.061 nm)	0.000795	ppm	0.000623	78.36	-8.871530	Y 377.433
Ca (315.887 nm)	0.013340	ppm	0.000573	4.30	-58.445010	Y_R 377.433
Cd (214.439 nm)	0.000037 u	ppm	0.000133	> 100.00	-3.821420	Y 377.433
Co (228.615 nm)	-0.000236 u	ppm	0.000294	> 100.00	-20.687700	Y 242.219
Cr (205.560 nm)	0.000068	ppm	0.000011	15.42	-6.296990	Y 377.433
Cu (324.754 nm)	0.001044	ppm	0.000109	10.46	364.774000	Y 377.433
Fe (238.204 nm)	-0.001236 u	ppm	0.000883	71.46	4.165332	Y_R 377.433
Fe H (259.940 nm)	0.002669 u	ppm	0.001241	46.52	15.104000	Y_R 377.433
K (766.491 nm)	-0.144016 u	ppm	0.154360	> 100.00	1798.320000	Y_R2 488.368
Li (670.783 nm)	0.025323 Z	ppm	0.004383	17.31	-2110.970000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001907	ppm	0.000475	24.93	14.681500	Y 377.433
Mn (257.610 nm)	0.000077	ppm	0.000002	2.33	9.965160	Y 377.433
Mo (202.032 nm)	0.000051 u	ppm	0.000330	> 100.00	11.776300	Y 377.433
Na (589.592 nm)	0.015271	ppm	0.006561	42.96	162.228000	Y_R2 488.368
Na H (589.593 nm)	1.161752 u	ppm	0.010555	0.91	512.817784	Y_R4
Ni (231.604 nm)	0.000466	ppm	0.000173	37.19	-6.210220	Y 377.433
P (213.618 nm)	0.000361 u	ppm	0.001090	> 100.00	-3.531630	Y 242.219
Pb (220.353 nm)	-0.000544 u	ppm	0.000199	36.53	6.520630	Y 242.219
S (181.972 nm)	-0.000590 u	ppm	0.002316	> 100.00	12.428531	Y 377.433
Sb (206.834 nm)	0.000255	ppm	0.000283	> 100.00	2.210040	Y 377.433
Se (196.026 nm)	0.001188 u	ppm	0.002385	> 100.00	10.649900	Y 242.219
Si (288.158 nm)	-0.008861 u	ppm	0.000209	2.36	431.505000	Y 377.433
Sn (189.925 nm)	0.001086	ppm	0.000767	70.56	3.838630	Y 377.433
Sr (421.552 nm)	0.000215	ppm	0.000032	14.74	55.533387	Y_R 488.368
Th (288.505 nm)	-0.003943 u	ppm	0.002906	73.71	5.897010	Y 377.433
Ti (336.122 nm)	0.000509	ppm	0.000055	10.74	-368.688000	Y 377.433
Tl (190.794 nm)	0.000119 u	ppm	0.000480	> 100.00	2.089300	Y 377.433
U (409.013 nm)	0.002085	ppm	0.002825	> 100.00	-18.136000	Y 377.433
V (292.401 nm)	0.000173	ppm	0.000213	> 100.00	-137.684000	Y 377.433
Zn (206.200 nm)	-0.000711 u	ppm	0.000314	44.12	0.867723	Y 377.433
Zr (343.823 nm)	0.000138	ppm	0.000066	47.63	-153.799000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155936	26719.992636	0.004100	0.35
Y 377.433	1.134793	793709.995440	0.003703	0.33
Y_R 377.433	1.171830	71046.800000	0.007728	0.66
Y_R 488.368	1.189320	62829.000000	0.011232	0.94
Y_R2 488.368	1.170241	124051.704230	0.001097	0.09
Y_R4	1.173680	52815.700000	0.002444	0.21

Sample Name: CCVL-5719884

Date: 5/24/2019 7:38:01 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008519	ppm	0.000768	9.01	25.872200	Y 377.433
Al (394.401 nm)	0.096139	ppm	0.000673	0.70	1274.130000	Y 377.433
Al H (396.152 nm)	0.230965 u	ppm	0.007461	3.23	252.125000	Y_R 377.433
As (188.980 nm)	0.014414	ppm	0.000053	0.37	20.141100	Y 242.219
B (249.678 nm)	0.091228	ppm	0.000717	0.79	698.133000	Y 242.219
Ba (493.408 nm)	0.007420	ppm	0.000079	1.07	2139.230000	Y_R 488.368
Be (234.861 nm)	0.000968	ppm	0.000006	0.62	92.948400	Y_R 488.368
Bi (223.061 nm)	0.089687	ppm	0.001552	1.73	185.837000	Y 377.433
Ca (315.887 nm)	0.222647	ppm	0.003610	1.62	107.810415	Y_R 377.433
Cd (214.439 nm)	0.005386	ppm	0.000045	0.84	194.019000	Y 377.433
Co (228.615 nm)	0.010519	ppm	0.000162	1.54	232.514000	Y 242.219
Cr (205.560 nm)	0.010560	ppm	0.000924	8.75	63.500300	Y 377.433
Cu (324.754 nm)	0.016641	ppm	0.000169	1.01	1091.810000	Y 377.433
Fe (238.204 nm)	0.103796	ppm	0.003534	3.40	256.995142	Y_R 377.433
Fe H (259.940 nm)	0.105675 u	ppm	0.000783	0.74	157.560000	Y_R 377.433
K (766.491 nm)	2.739340	ppm	0.395562	14.44	4582.460000	Y_R2 488.368
Li (670.783 nm)	0.047933 Q	ppm	0.001334	2.78	-1722.760000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204601	ppm	0.001527	0.75	676.592000	Y 377.433
Mn (257.610 nm)	0.010610	ppm	0.000003	0.03	2881.720000	Y 377.433
Mo (202.032 nm)	0.019766	ppm	0.000130	0.66	260.267000	Y 377.433
Na (589.592 nm)	1.035520	ppm	0.005495	0.53	1001.960000	Y_R2 488.368
Na H (589.593 nm)	1.926472 u	ppm	0.013932	0.72	927.721125	Y_R4
Ni (231.604 nm)	0.043673	ppm	0.000733	1.68	217.365000	Y 377.433
P (213.618 nm)	2.893890	ppm	0.011448	0.40	4129.960000	Y 242.219
Pb (220.353 nm)	0.009474	ppm	0.000567	5.98	38.452600	Y 242.219
S (181.972 nm)	0.101626	ppm	0.000364	0.36	59.278897	Y 377.433
Sb (206.834 nm)	0.019252	ppm	0.002113	10.97	34.136800	Y 377.433
Se (196.026 nm)	0.018699	ppm	0.002720	14.55	37.050400	Y 242.219
Si (288.158 nm)	0.480111	ppm	0.001691	0.35	3579.300000	Y 377.433
Sn (189.925 nm)	0.102444	ppm	0.000602	0.59	166.928000	Y 377.433
Sr (421.552 nm)	0.009238	ppm	0.000039	0.43	1414.407518	Y_R 488.368
Th (288.505 nm)	0.018597	ppm	0.001412	7.59	44.301100	Y 377.433
Ti (336.122 nm)	0.010092	ppm	0.000061	0.60	858.263000	Y 377.433
Tl (190.794 nm)	0.016817	ppm	0.000135	0.80	40.162900	Y 377.433
U (409.013 nm)	0.063514	ppm	0.003793	5.97	175.507000	Y 377.433
V (292.401 nm)	0.010099	ppm	0.000104	1.03	371.482000	Y 377.433
Zn (206.200 nm)	0.021990	ppm	0.000293	1.33	102.963000	Y 377.433
Zr (343.823 nm)	0.010006	ppm	0.000079	0.79	404.838000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.183238	27351.108019	0.000684	0.06
Y 377.433	1.161331	812270.878333	0.001609	0.14
Y_R 377.433	1.201600	72851.400000	0.002103	0.17
Y_R 488.368	1.218750	64383.800000	0.005858	0.48
Y_R2 488.368	1.181082	125200.983379	0.000010	0.00
Y_R4	1.185170	53332.700000	0.001399	0.12

Sample Name: 280-123638-D-3-C

Date: 5/24/2019 7:41:32 PM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001497	ppm	0.000027	1.82	-218.426000	Y 377.433
Al (394.401 nm)	-0.006982 u	ppm	0.000579	8.29	379.637000	Y 377.433
Al H (396.152 nm)	-0.143854 u	ppm	0.000395	0.27	-10.450600	Y_R 377.433
As (188.980 nm)	0.003344	ppm	0.001201	35.92	3.462130	Y 242.219
B (249.678 nm)	0.142980	ppm	0.000796	0.56	1067.770000	Y 242.219
Ba (493.408 nm)	0.086148	ppm	0.000073	0.09	9987.930000	Y_R 488.368
Be (234.861 nm)	-0.000081 u	ppm	0.000042	51.66	-10.095400	Y_R 488.368
Bi (223.061 nm)	0.000806	ppm	0.000078	9.73	-8.827200	Y 377.433
Ca (315.887 nm)	160.955923	ppm	0.170298	0.11	127763.077330	Y_R 377.433
Cd (214.439 nm)	0.000160	ppm	0.000024	15.19	0.738094	Y 377.433
Co (228.615 nm)	-0.000779 u	ppm	0.000224	28.78	-33.455900	Y 242.219
Cr (205.560 nm)	0.001201	ppm	0.000273	22.73	1.256550	Y 377.433
Cu (324.754 nm)	0.002766	ppm	0.000248	8.97	352.221000	Y 377.433
Fe (238.204 nm)	0.026728	ppm	0.001308	4.89	71.477858	Y_R 377.433
Fe H (259.940 nm)	0.020903 u	ppm	0.000961	4.60	40.321800	Y_R 377.433
K (766.491 nm)	7.315860	ppm	0.219970	3.01	9001.480000	Y_R2 488.368
Li (670.783 nm)	0.155508	ppm	0.000620	0.40	124.341000	Y_R2 488.368
Mg (279.078 nm)	36.128900	ppm	0.022272	0.06	118235.000000	Y 377.433
Mn (257.610 nm)	0.000329	ppm	0.000004	1.08	78.767800	Y 377.433
Mo (202.032 nm)	0.001188	ppm	0.000252	21.22	26.105700	Y 377.433
Na (589.592 nm)	149.890000 o	ppm	0.484974	0.32	123215.000000	Y_R2 488.368
Na H (589.593 nm)	154.383662	ppm	1.377991	0.89	83644.307204	Y_R4
Ni (231.604 nm)	-0.001487 u	ppm	0.001001	67.34	-16.316000	Y 377.433
P (213.618 nm)	-0.001080 u	ppm	0.003134	> 100.00	-6.642920	Y 242.219
Pb (220.353 nm)	-0.000352 u	ppm	0.000915	> 100.00	7.218840	Y 242.219
S (181.972 nm)	57.650307	ppm	0.108098	0.19	26421.820265	Y 377.433
Sb (206.834 nm)	-0.006752 u	ppm	0.001422	21.06	-9.617460	Y 377.433
Se (196.026 nm)	0.001490	ppm	0.000195	13.08	11.098700	Y 242.219
Si (288.158 nm)	14.963700	ppm	0.004890	0.03	96818.500000	Y 377.433
Sn (189.925 nm)	0.000235	ppm	0.000188	80.09	2.468540	Y 377.433
Sr (421.552 nm)	1.430374	ppm	0.001226	0.09	215439.016476	Y_R 488.368
Th (288.505 nm)	-0.000610 u	ppm	0.002305	> 100.00	6.975610	Y 377.433
Ti (336.122 nm)	-0.000848 u	ppm	0.000011	1.26	5.186930	Y 377.433
Tl (190.794 nm)	0.002166	ppm	0.000533	24.59	0.362402	Y 377.433
U (409.013 nm)	0.027779	ppm	0.009250	33.30	41.950000	Y 377.433
V (292.401 nm)	0.007360	ppm	0.000188	2.56	234.158000	Y 377.433
Zn (206.200 nm)	0.002505	ppm	0.000460	18.35	15.332300	Y 377.433
Zr (343.823 nm)	0.000130 u	ppm	0.000188	> 100.00	-154.251000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.079864	24961.562879	0.003632	0.34
Y 377.433	1.067146	746394.921723	0.001471	0.14
Y_R 377.433	1.138190	69007.300000	0.004225	0.37
Y_R 488.368	1.152170	60866.600000	0.002888	0.25
Y_R2 488.368	1.127246	119494.011580	0.003091	0.27
Y_R4	1.140560	51325.200000	0.011214	0.98

Sample Name: 280-123638-D-4-C

Date: 5/24/2019 7:45:05 PM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001641	ppm	0.000031	1.88	-213.277000	Y 377.433
Al (394.401 nm)	-0.017333 u	ppm	0.002480	14.31	406.671000	Y 377.433
Al H (396.152 nm)	-0.257472 u	ppm	0.004396	1.71	-22.975100	Y_R 377.433
As (188.980 nm)	0.000513 u	ppm	0.001070	> 100.00	-0.803397	Y 242.219
B (249.678 nm)	0.239790	ppm	0.001211	0.50	1759.160000	Y 242.219
Ba (493.408 nm)	0.118444	ppm	0.000348	0.29	13207.600000	Y_R 488.368
Be (234.861 nm)	-0.000065 u	ppm	0.000067	> 100.00	-8.419650	Y_R 488.368
Bi (223.061 nm)	0.000426 u	ppm	0.001563	> 100.00	-9.658470	Y 377.433
Ca (315.887 nm)	220.371064	ppm	1.084718	0.49	174950.924648	Y_R 377.433
Cd (214.439 nm)	0.000231	ppm	0.000074	31.88	3.367190	Y 377.433
Co (228.615 nm)	-0.000439 u	ppm	0.000118	26.77	-25.457300	Y 242.219
Cr (205.560 nm)	0.001267	ppm	0.000472	37.29	1.693720	Y 377.433
Cu (324.754 nm)	-0.000169 u	ppm	0.000212	> 100.00	181.655000	Y 377.433
Fe (238.204 nm)	0.012427	ppm	0.000755	6.08	37.052265	Y_R 377.433
Fe H (259.940 nm)	0.004135 u	ppm	0.000583	14.09	17.131900	Y_R 377.433
K (766.491 nm)	8.171640	ppm	0.210356	2.57	9827.820000	Y_R2 488.368
Li (670.783 nm)	0.169225	ppm	0.000676	0.40	359.862000	Y_R2 488.368
Mg (279.078 nm)	49.361300	ppm	0.079719	0.16	161536.000000	Y 377.433
Mn (257.610 nm)	0.000178	ppm	0.000015	8.57	37.504300	Y 377.433
Mo (202.032 nm)	0.000500	ppm	0.000376	75.12	17.433900	Y 377.433
Na (589.592 nm)	156.981000 o	ppm	0.054210	0.03	129043.000000	Y_R2 488.368
Na H (589.593 nm)	162.487660	ppm	0.610586	0.38	88041.180845	Y_R4
Ni (231.604 nm)	-0.001483 u	ppm	0.000749	50.47	-16.294700	Y 377.433
P (213.618 nm)	0.003745	ppm	0.002888	77.10	0.927955	Y 242.219
Pb (220.353 nm)	0.000332 u	ppm	0.002451	> 100.00	9.403750	Y 242.219
S (181.972 nm)	92.777864	ppm	0.298601	0.32	42511.554160	Y 377.433
Sb (206.834 nm)	-0.007593 u	ppm	0.000221	2.91	-11.036400	Y 377.433
Se (196.026 nm)	0.001342	ppm	0.001773	> 100.00	10.878600	Y 242.219
Si (288.158 nm)	15.423600	ppm	0.031742	0.21	99778.700000	Y 377.433
Sn (189.925 nm)	0.000550	ppm	0.000189	34.42	2.974610	Y 377.433
Sr (421.552 nm)	2.026707	ppm	0.009390	0.46	305247.463060	Y_R 488.368
Th (288.505 nm)	0.002540 u	ppm	0.005799	> 100.00	11.005800	Y 377.433
Ti (336.122 nm)	-0.001190 u	ppm	0.000151	12.68	163.249000	Y 377.433
Tl (190.794 nm)	0.003560	ppm	0.000885	24.86	1.196090	Y 377.433
U (409.013 nm)	0.034148	ppm	0.004902	14.35	54.254500	Y 377.433
V (292.401 nm)	0.006928	ppm	0.000032	0.46	211.879000	Y 377.433
Zn (206.200 nm)	0.002269	ppm	0.000464	20.46	14.267800	Y 377.433
Zr (343.823 nm)	0.000253	ppm	0.000045	17.77	-147.317000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.083517	25046.002364	0.003313	0.31
Y 377.433	1.074091	751252.631944	0.004766	0.44
Y_R 377.433	1.125480	68236.400000	0.012463	1.11
Y_R 488.368	1.139320	60187.400000	0.011615	1.02
Y_R2 488.368	1.141191	120972.278380	0.002137	0.19
Y_R4	1.142260	51401.700000	0.000505	0.04

Sample Name: MB 280-459218/1-A

Date: 5/24/2019 7:48:37 PM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000112 u	ppm	0.000365	> 100.00	-263.172000	Y 377.433
Al (394.401 nm)	0.000185 u	ppm	0.000283	> 100.00	91.923000	Y 377.433
Al H (396.152 nm)	0.131240 u	ppm	0.009875	7.52	28.638700	Y_R 377.433
As (188.980 nm)	0.001211 u	ppm	0.002623	> 100.00	0.247723	Y 242.219
B (249.678 nm)	-0.003771 u	ppm	0.001344	35.64	19.729600	Y 242.219
Ba (493.408 nm)	-0.002244 u	ppm	0.000124	5.53	1175.790000	Y_R 488.368
Be (234.861 nm)	-0.000022 u	ppm	0.000017	77.12	-4.194680	Y_R 488.368
Bi (223.061 nm)	0.000366 u	ppm	0.000725	> 100.00	-9.808620	Y 377.433
Ca (315.887 nm)	0.032943	ppm	0.000744	2.26	-42.875704	Y_R 377.433
Cd (214.439 nm)	0.000039 u	ppm	0.000110	> 100.00	-3.722340	Y 377.433
Co (228.615 nm)	0.000002 u	ppm	0.000212	> 100.00	-15.080000	Y 242.219
Cr (205.560 nm)	0.000140 u	ppm	0.000374	> 100.00	-5.816130	Y 377.433
Cu (324.754 nm)	0.001299	ppm	0.000221	17.02	378.805000	Y 377.433
Fe (238.204 nm)	0.015859	ppm	0.003308	20.86	45.314630	Y_R 377.433
Fe H (259.940 nm)	0.017458 u	ppm	0.001248	7.15	35.558000	Y_R 377.433
K (766.491 nm)	-0.206693 u	ppm	0.237980	> 100.00	1737.800000	Y_R2 488.368
Li (670.783 nm)	0.021648	ppm	0.002398	11.08	-2174.070000	Y_R2 488.368
Mg (279.078 nm)	0.005537	ppm	0.000312	5.64	26.603300	Y 377.433
Mn (257.610 nm)	0.000242	ppm	0.000008	3.15	54.813500	Y 377.433
Mo (202.032 nm)	-0.000097 u	ppm	0.000402	> 100.00	9.908480	Y 377.433
Na (589.592 nm)	0.019624	ppm	0.019197	97.83	165.826000	Y_R2 488.368
Na H (589.593 nm)	1.263860 u	ppm	0.044447	3.52	568.216898	Y_R4
Ni (231.604 nm)	0.000396	ppm	0.000181	45.58	-6.570320	Y 377.433
P (213.618 nm)	-0.003137 u	ppm	0.002731	87.06	-8.608900	Y 242.219
Pb (220.353 nm)	-0.000426 u	ppm	0.000789	> 100.00	6.887520	Y 242.219
S (181.972 nm)	0.003858	ppm	0.002406	62.35	14.466947	Y 377.433
Sb (206.834 nm)	-0.000799 u	ppm	0.000214	26.73	0.428985	Y 377.433
Se (196.026 nm)	-0.001027 u	ppm	0.000406	39.50	7.303800	Y 242.219
Si (288.158 nm)	-0.003361 u	ppm	0.000292	8.69	466.913000	Y 377.433
Sn (189.925 nm)	0.000855	ppm	0.001125	> 100.00	3.466320	Y 377.433
Sr (421.552 nm)	0.000239	ppm	0.000056	23.28	59.167770	Y_R 488.368
Th (288.505 nm)	0.001974	ppm	0.000879	44.52	16.058700	Y 377.433
Ti (336.122 nm)	0.000335	ppm	0.000005	1.41	-390.966000	Y 377.433
Tl (190.794 nm)	-0.000005 u	ppm	0.000395	> 100.00	1.801110	Y 377.433
U (409.013 nm)	0.000016 u	ppm	0.009267	> 100.00	-24.688400	Y 377.433
V (292.401 nm)	0.000126	ppm	0.000071	56.28	-138.827000	Y 377.433
Zn (206.200 nm)	0.001660	ppm	0.000257	15.46	11.532600	Y 377.433
Zr (343.823 nm)	0.000118	ppm	0.000111	93.80	-154.930000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148191	26540.971477	0.002785	0.24
Y 377.433	1.127718	788761.180593	0.001888	0.17
Y_R 377.433	1.155240	70040.700000	0.004225	0.37
Y_R 488.368	1.169070	61759.400000	0.007738	0.66
Y_R2 488.368	1.156012	122543.431112	0.003831	0.33
Y_R4	1.147350	51630.700000	0.004904	0.43

Sample Name: LCS 280-459218/2-A

Date: 5/24/2019 7:51:48 PM Rack:Tube: 1:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050999	ppm	0.000058	0.11	1189.010000	Y 377.433
Al (394.401 nm)	9.856720 o	ppm	0.002341	0.02	120652.000000	Y 377.433
Al H (396.152 nm)	9.645930	ppm	0.022171	0.23	21308.700000	Y_R 377.433
As (188.980 nm)	2.027890	ppm	0.003051	0.15	3053.970000	Y 242.219
B (249.678 nm)	0.966227	ppm	0.000254	0.03	6941.250000	Y 242.219
Ba (493.408 nm)	1.966980	ppm	0.008408	0.43	197503.000000	Y_R 488.368
Be (234.861 nm)	0.964119	ppm	0.006604	0.68	94904.000000	Y_R 488.368
Bi (223.061 nm)	1.968160	ppm	0.002534	0.13	4301.780000	Y 377.433
Ca (315.887 nm)	49.638898	ppm	0.160295	0.32	39356.904820	Y_R 377.433
Cd (214.439 nm)	1.025470	ppm	0.000004	0.00	37921.000000	Y 377.433
Co (228.615 nm)	0.979617	ppm	0.000285	0.03	23052.000000	Y 242.219
Cr (205.560 nm)	1.023080	ppm	0.004275	0.42	6809.060000	Y 377.433
Cu (324.754 nm)	0.988708	ppm	0.003320	0.34	46490.700000	Y 377.433
Fe (238.204 nm)	10.185058 o	ppm	0.022977	0.23	24524.351484	Y_R 377.433
Fe H (259.940 nm)	10.103700	ppm	0.029508	0.29	13984.700000	Y_R 377.433
K (766.491 nm)	48.707500	ppm	0.348553	0.72	48968.700000	Y_R2 488.368
Li (670.783 nm)	1.017250	ppm	0.002835	0.28	14920.600000	Y_R2 488.368
Mg (279.078 nm)	49.609500	ppm	0.024227	0.05	162305.000000	Y 377.433
Mn (257.610 nm)	0.993507	ppm	0.000244	0.02	270878.000000	Y 377.433
Mo (202.032 nm)	1.021020	ppm	0.001292	0.13	12880.300000	Y 377.433
Na (589.592 nm)	47.630500	ppm	0.145219	0.30	39696.600000	Y_R2 488.368
Na H (589.593 nm)	49.413144 u	ppm	0.328199	0.66	26691.906913	Y_R4
Ni (231.604 nm)	1.003620	ppm	0.000985	0.10	5186.460000	Y 377.433
P (213.618 nm)	20.413100	ppm	0.020572	0.10	28917.000000	Y 242.219
Pb (220.353 nm)	0.996631	ppm	0.002025	0.20	3172.980000	Y 242.219
S (181.972 nm)	10.176016	ppm	0.020750	0.20	4678.442888	Y 377.433
Sb (206.834 nm)	-0.000368 u	ppm	0.003724	> 100.00	-3.558620	Y 377.433
Se (196.026 nm)	1.997150	ppm	0.004648	0.23	3019.860000	Y 242.219
Si (288.158 nm)	2.030340	ppm	0.002581	0.13	13559.000000	Y 377.433
Sn (189.925 nm)	2.045060	ppm	0.003510	0.17	3292.710000	Y 377.433
Sr (421.552 nm)	0.957725	ppm	0.003828	0.40	144259.109158	Y_R 488.368
Th (288.505 nm)	1.002940	ppm	0.004268	0.43	1649.930000	Y 377.433
Ti (336.122 nm)	0.988947	ppm	0.000304	0.03	126285.000000	Y 377.433
Tl (190.794 nm)	2.005930	ppm	0.002974	0.15	4580.770000	Y 377.433
U (409.013 nm)	1.973920	ppm	0.000278	0.01	6177.030000	Y 377.433
V (292.401 nm)	0.986872	ppm	0.000169	0.02	50749.400000	Y 377.433
Zn (206.200 nm)	0.509378	ppm	0.002150	0.42	2296.020000	Y 377.433
Zr (343.823 nm)	0.488666	ppm	0.000118	0.02	27502.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108961	25634.149759	0.000092	0.01
Y 377.433	1.098554	768362.756334	0.000416	0.04
Y_R 377.433	1.157780	70195.000000	0.005317	0.46
Y_R 488.368	1.171240	61873.700000	0.007604	0.65
Y_R2 488.368	1.160764	123047.133724	0.005822	0.50
Y_R4	1.156590	52046.300000	0.005557	0.48

Sample Name: 280-123691-E-2-C

Date: 5/24/2019 7:55:26 PM Rack:Tube: 1:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002127	ppm	0.000014	0.67	-195.684000	Y 377.433
Al (394.401 nm)	-0.019906 u	ppm	0.000772	3.88	708.704000	Y 377.433
Al H (396.152 nm)	-0.497739 u	ppm	0.000521	0.10	1.243060	Y_R 377.433
As (188.980 nm)	0.004314	ppm	0.001984	45.98	4.848080	Y 242.219
B (249.678 nm)	12.700500	ppm	0.022291	0.18	90747.700000	Y 242.219
Ba (493.408 nm)	0.424821	ppm	0.001938	0.46	43753.800000	Y_R 488.368
Be (234.861 nm)	-0.000064 u	ppm	0.000007	11.41	-20.317500	Y_R 488.368
Bi (223.061 nm)	-0.002354 u	ppm	0.001008	42.82	-15.009600	Y 377.433
Ca (315.887 nm)	230.322134	ppm	0.136361	0.06	182854.122027	Y_R 377.433
Cd (214.439 nm)	0.000774	ppm	0.000019	2.41	24.591500	Y 377.433
Co (228.615 nm)	0.010448	ppm	0.000161	1.54	230.885000	Y 242.219
Cr (205.560 nm)	0.014096	ppm	0.000146	1.04	87.177500	Y 377.433
Cu (324.754 nm)	0.010652	ppm	0.000142	1.33	683.677000	Y 377.433
Fe (238.204 nm)	2.844974	ppm	0.003044	0.11	6855.488442	Y_R 377.433
Fe H (259.940 nm)	2.806550 u	ppm	0.007371	0.26	3892.830000	Y_R 377.433
K (766.491 nm)	123.312000	ppm	0.578268	0.47	121006.000000	Y_R2 488.368
Li (670.783 nm)	0.047986	ppm	0.008146	16.98	-1721.840000	Y_R2 488.368
Mg (279.078 nm)	120.162000	ppm	0.468423	0.39	393219.000000	Y 377.433
Mn (257.610 nm)	1.301310	ppm	0.004305	0.33	354803.000000	Y 377.433
Mo (202.032 nm)	0.005148	ppm	0.000211	4.10	76.018800	Y 377.433
Na (589.592 nm)	821.616000 o	ppm	3.685720	0.45	674714.000000	Y_R2 488.368
Na H (589.593 nm)	949.966280	ppm	4.276483	0.45	515292.547888	Y_R4
Ni (231.604 nm)	0.032864	ppm	0.001632	4.97	161.418000	Y 377.433
P (213.618 nm)	0.776813	ppm	0.006731	0.87	1103.460000	Y 242.219
Pb (220.353 nm)	-0.000931 u	ppm	0.000755	81.04	5.302610	Y 242.219
S (181.972 nm)	56.772718	ppm	0.010504	0.02	26027.506702	Y 377.433
Sb (206.834 nm)	-0.004699 u	ppm	0.002774	59.05	-5.923760	Y 377.433
Se (196.026 nm)	-0.001795 u	ppm	0.000838	46.67	7.237990	Y 242.219
Si (288.158 nm)	21.439300	ppm	0.041166	0.19	138505.000000	Y 377.433
Sn (189.925 nm)	0.000835 u	ppm	0.002104	> 100.00	3.433320	Y 377.433
Sr (421.552 nm)	3.339287	ppm	0.005940	0.18	502923.878096	Y_R 488.368
Th (288.505 nm)	0.003478	ppm	0.000840	24.16	36.894400	Y 377.433
Ti (336.122 nm)	0.010999	ppm	0.000041	0.37	1759.310000	Y 377.433
Tl (190.794 nm)	0.004006	ppm	0.000134	3.36	1.427530	Y 377.433
U (409.013 nm)	0.012348	ppm	0.000412	3.34	-16.513300	Y 377.433
V (292.401 nm)	0.014633	ppm	0.000100	0.68	609.856000	Y 377.433
Zn (206.200 nm)	0.008492	ppm	0.000579	6.81	42.646000	Y 377.433
Zr (343.823 nm)	0.018203	ppm	0.000042	0.23	868.910000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.035324	23931.991894	0.004248	0.41
Y 377.433	1.033082	722569.718455	0.004935	0.48
Y_R 377.433	1.142250	69253.200000	0.002294	0.20
Y_R 488.368	1.155550	61044.900000	0.005187	0.45
Y_R2 488.368	1.151847	122101.889352	0.011073	0.96
Y_R4	1.158240	52120.700000	0.006944	0.60

Sample Name: 280-123691-E-2-Csd@5

Date: 5/24/2019 7:59:05 PM Rack:Tube: 1:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001158	ppm	0.000027	2.33	-227.831000	Y 377.433
Al (394.401 nm)	-0.000695 u	ppm	0.002680	> 100.00	258.044000	Y 377.433
Al H (396.152 nm)	0.011069 u	ppm	0.000719	6.50	32.468100	Y_R 377.433
As (188.980 nm)	-0.000357 u	ppm	0.000431	> 100.00	-2.132710	Y 242.219
B (249.678 nm)	2.456560	ppm	0.006760	0.28	17590.200000	Y 242.219
Ba (493.408 nm)	0.081164	ppm	0.000086	0.11	9491.540000	Y_R 488.368
Be (234.861 nm)	-0.000041 u	ppm	0.000050	> 100.00	-8.832190	Y_R 488.368
Bi (223.061 nm)	0.001577	ppm	0.000458	29.06	-6.990940	Y 377.433
Ca (315.887 nm)	46.507811	ppm	0.049596	0.11	36867.732528	Y_R 377.433
Cd (214.439 nm)	0.000229	ppm	0.000085	36.92	3.580400	Y 377.433
Co (228.615 nm)	0.001879	ppm	0.000118	6.29	29.122300	Y 242.219
Cr (205.560 nm)	0.002569	ppm	0.001102	42.89	10.364600	Y 377.433
Cu (324.754 nm)	0.002737	ppm	0.000151	5.51	416.380000	Y 377.433
Fe (238.204 nm)	0.675109	ppm	0.002972	0.44	1632.245213	Y_R 377.433
Fe H (259.940 nm)	0.673252 u	ppm	0.000791	0.12	942.510000	Y_R 377.433
K (766.491 nm)	23.387400	ppm	0.189320	0.81	24519.900000	Y_R2 488.368
Li (670.783 nm)	0.032436	ppm	0.002978	9.18	-1988.830000	Y_R2 488.368
Mg (279.078 nm)	24.042400	ppm	0.001359	0.01	78682.500000	Y 377.433
Mn (257.610 nm)	0.263687	ppm	0.000233	0.09	71885.900000	Y 377.433
Mo (202.032 nm)	0.001055	ppm	0.000610	57.84	24.426600	Y 377.433
Na (589.592 nm)	178.757000 o	ppm	0.102216	0.06	146911.000000	Y_R2 488.368
Na H (589.593 nm)	185.181443	ppm	1.388151	0.75	100353.832324	Y_R4
Ni (231.604 nm)	0.005694	ppm	0.000341	6.00	20.840400	Y 377.433
P (213.618 nm)	0.150686	ppm	0.002955	1.96	210.743000	Y 242.219
Pb (220.353 nm)	-0.000639 u	ppm	0.000598	93.44	6.293530	Y 242.219
S (181.972 nm)	10.938474	ppm	0.041135	0.38	5025.141902	Y 377.433
Sb (206.834 nm)	-0.002401 u	ppm	0.001887	78.63	-2.221370	Y 377.433
Se (196.026 nm)	-0.002310 u	ppm	0.000356	15.43	5.568410	Y 242.219
Si (288.158 nm)	4.161320	ppm	0.014370	0.35	27277.300000	Y 377.433
Sn (189.925 nm)	0.000150	ppm	0.000173	> 100.00	2.331720	Y 377.433
Sr (421.552 nm)	0.661035	ppm	0.000455	0.07	99575.911760	Y_R 488.368
Th (288.505 nm)	-0.003112 u	ppm	0.000233	7.49	11.168200	Y 377.433
Ti (336.122 nm)	0.002507	ppm	0.000036	1.45	44.833200	Y 377.433
Tl (190.794 nm)	0.002142	ppm	0.000966	45.08	4.783190	Y 377.433
U (409.013 nm)	0.019685	ppm	0.007529	38.25	31.592800	Y 377.433
V (292.401 nm)	0.003205	ppm	0.000180	5.62	17.847800	Y 377.433
Zn (206.200 nm)	0.005350	ppm	0.000365	6.83	28.217100	Y 377.433
Zr (343.823 nm)	0.003644	ppm	0.000054	1.47	44.688100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.128441	26084.447949	0.006829	0.61
Y 377.433	1.111111	777145.515890	0.006441	0.58
Y_R 377.433	1.195740	72496.100000	0.001683	0.14
Y_R 488.368	1.211020	63975.400000	0.000420	0.03
Y_R2 488.368	1.195729	126753.645586	0.003616	0.30
Y_R4	1.180780	53135.200000	0.008215	0.70

Sample Name: 280-123691-E-2-D MS

Date: 5/24/2019 8:02:38 PM Rack:Tube: 1:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.056310	ppm	0.000373	0.66	1362.720000	Y 377.433
Al (394.401 nm)	9.801490 o	ppm	0.019510	0.20	120842.000000	Y 377.433
Al H (396.152 nm)	9.127540	ppm	0.013519	0.15	21531.300000	Y_R 377.433
As (188.980 nm)	2.132590	ppm	0.000882	0.04	3211.660000	Y 242.219
B (249.678 nm)	13.872200	ppm	0.005420	0.04	99109.700000	Y 242.219
Ba (493.408 nm)	2.404460	ppm	0.000246	0.01	241119.000000	Y_R 488.368
Be (234.861 nm)	0.954544	ppm	0.003248	0.34	93950.200000	Y_R 488.368
Bi (223.061 nm)	1.988360	ppm	0.007472	0.38	4346.740000	Y 377.433
Ca (315.887 nm)	277.387785	ppm	0.499180	0.18	220236.411844	Y_R 377.433
Cd (214.439 nm)	0.990146	ppm	0.001713	0.17	36615.700000	Y 377.433
Co (228.615 nm)	0.987212	ppm	0.000142	0.01	23231.400000	Y 242.219
Cr (205.560 nm)	1.037570	ppm	0.001376	0.13	6905.680000	Y 377.433
Cu (324.754 nm)	1.044750	ppm	0.002390	0.23	48974.700000	Y 377.433
Fe (238.204 nm)	12.755881 o	ppm	0.029822	0.23	30712.771325	Y_R 377.433
Fe H (259.940 nm)	12.797600	ppm	0.043621	0.34	17710.400000	Y_R 377.433
K (766.491 nm)	175.241000	ppm	0.268936	0.15	171148.000000	Y_R2 488.368
Li (670.783 nm)	1.060750	ppm	0.002201	0.21	15667.600000	Y_R2 488.368
Mg (279.078 nm)	168.138000	ppm	0.289712	0.17	550170.000000	Y 377.433
Mn (257.610 nm)	2.250390	ppm	0.002458	0.11	613579.000000	Y 377.433
Mo (202.032 nm)	1.013340	ppm	0.001401	0.14	12783.600000	Y 377.433
Na (589.592 nm)	852.465000 o	ppm	1.373230	0.16	700488.000000	Y_R2 488.368
Na H (589.593 nm)	1002.975454	ppm	7.108298	0.71	544053.001080	Y_R4
Ni (231.604 nm)	1.023280	ppm	0.001082	0.11	5288.010000	Y 377.433
P (213.618 nm)	22.083600	ppm	0.016591	0.08	31291.700000	Y 242.219
Pb (220.353 nm)	0.962910	ppm	0.001682	0.17	3065.720000	Y 242.219
S (181.972 nm)	67.550804	ppm	0.218888	0.32	30968.730223	Y 377.433
Sb (206.834 nm)	-0.001628 u	ppm	0.001994	> 100.00	-5.333220	Y 377.433
Se (196.026 nm)	2.063290	ppm	0.006827	0.33	3120.710000	Y 242.219
Si (288.158 nm)	23.074500	ppm	0.020201	0.09	149032.000000	Y 377.433
Sn (189.925 nm)	1.976940	ppm	0.002638	0.13	3183.100000	Y 377.433
Sr (421.552 nm)	4.318157	ppm	0.000875	0.02	650344.218961	Y_R 488.368
Th (288.505 nm)	1.007980	ppm	0.000043	0.00	1676.280000	Y 377.433
Ti (336.122 nm)	1.011370	ppm	0.002202	0.22	129933.000000	Y 377.433
Tl (190.794 nm)	1.846540	ppm	0.000413	0.02	4206.830000	Y 377.433
U (409.013 nm)	1.999460	ppm	0.005915	0.30	6232.910000	Y 377.433
V (292.401 nm)	0.996871	ppm	0.000784	0.08	51266.900000	Y 377.433
Zn (206.200 nm)	0.497759	ppm	0.002567	0.52	2244.130000	Y 377.433
Zr (343.823 nm)	0.462460	ppm	0.000798	0.17	26019.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.040928	24061.534189	0.000656	0.06
Y 377.433	1.047005	732307.890933	0.000657	0.06
Y_R 377.433	1.174450	71205.200000	0.001676	0.14
Y_R 488.368	1.184050	62550.500000	0.005609	0.47
Y_R2 488.368	1.151784	122095.188226	0.002978	0.26
Y_R4	1.133120	50990.300000	0.014335	1.27

Sample Name: 280-123691-E-2-E MSD

Date: 5/24/2019 8:06:22 PM Rack:Tube: 1:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.055242	ppm	0.000555	1.00	1327.450000	Y 377.433
Al (394.401 nm)	9.742360 o	ppm	0.001212	0.01	120114.000000	Y 377.433
Al H (396.152 nm)	9.078200	ppm	0.002784	0.03	21414.200000	Y_R 377.433
As (188.980 nm)	2.120320	ppm	0.002552	0.12	3193.180000	Y 242.219
B (249.678 nm)	13.773200	ppm	0.010194	0.07	98402.800000	Y 242.219
Ba (493.408 nm)	2.391080	ppm	0.001286	0.05	239786.000000	Y_R 488.368
Be (234.861 nm)	0.947105	ppm	0.000641	0.07	93217.700000	Y_R 488.368
Bi (223.061 nm)	1.987280	ppm	0.002035	0.10	4344.370000	Y 377.433
Ca (315.887 nm)	275.869957	ppm	0.134220	0.05	219030.933947	Y_R 377.433
Cd (214.439 nm)	0.986134	ppm	0.001189	0.12	36467.300000	Y 377.433
Co (228.615 nm)	0.983813	ppm	0.000407	0.04	23151.200000	Y 242.219
Cr (205.560 nm)	1.026010	ppm	0.000871	0.08	6828.610000	Y 377.433
Cu (324.754 nm)	1.040280	ppm	0.001187	0.11	48766.600000	Y 377.433
Fe (238.204 nm)	12.743663 o	ppm	0.022600	0.18	30683.360072	Y_R 377.433
Fe H (259.940 nm)	12.776300	ppm	0.030375	0.24	17680.900000	Y_R 377.433
K (766.491 nm)	173.952000	ppm	1.085510	0.62	169903.000000	Y_R2 488.368
Li (670.783 nm)	1.054830	ppm	0.001180	0.11	15565.900000	Y_R2 488.368
Mg (279.078 nm)	167.186000	ppm	0.107213	0.06	547056.000000	Y 377.433
Mn (257.610 nm)	2.240060	ppm	0.000038	0.00	610765.000000	Y 377.433
Mo (202.032 nm)	1.009180	ppm	0.000772	0.08	12731.100000	Y 377.433
Na (589.592 nm)	849.309000 o	ppm	4.342150	0.51	697894.000000	Y_R2 488.368
Na H (589.593 nm)	990.825607	ppm	7.437821	0.75	537461.027018	Y_R4
Ni (231.604 nm)	1.016630	ppm	0.001484	0.15	5253.630000	Y 377.433
P (213.618 nm)	21.928700	ppm	0.039965	0.18	31071.600000	Y 242.219
Pb (220.353 nm)	0.959947	ppm	0.000451	0.05	3056.300000	Y 242.219
S (181.972 nm)	66.873493	ppm	0.138695	0.21	30658.441914	Y 377.433
Sb (206.834 nm)	-0.005750 u	ppm	0.000923	16.05	-12.303300	Y 377.433
Se (196.026 nm)	2.053160	ppm	0.007660	0.37	3105.410000	Y 242.219
Si (288.158 nm)	22.950800	ppm	0.026458	0.12	148236.000000	Y 377.433
Sn (189.925 nm)	1.973750	ppm	0.002353	0.12	3177.960000	Y 377.433
Sr (421.552 nm)	4.296208	ppm	0.005974	0.14	647038.590543	Y_R 488.368
Th (288.505 nm)	1.000180	ppm	0.001874	0.19	1663.150000	Y 377.433
Ti (336.122 nm)	1.005220	ppm	0.000965	0.10	129140.000000	Y 377.433
Tl (190.794 nm)	1.839750	ppm	0.001513	0.08	4191.400000	Y 377.433
U (409.013 nm)	1.979740	ppm	0.002514	0.13	6170.710000	Y 377.433
V (292.401 nm)	0.992838	ppm	0.000799	0.08	51060.700000	Y 377.433
Zn (206.200 nm)	0.505083	ppm	0.000383	0.08	2277.060000	Y 377.433
Zr (343.823 nm)	0.461563	ppm	0.000019	0.00	25968.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.032478	23866.200246	0.001096	0.11
Y 377.433	1.039051	726744.495441	0.001632	0.16
Y_R 377.433	1.168020	70815.700000	0.000592	0.05
Y_R 488.368	1.176390	62146.000000	0.000723	0.06
Y_R2 488.368	1.156089	122551.564423	0.000748	0.06
Y_R4	1.133590	51011.600000	0.004767	0.42

Sample Name: 280-123691-E-2-Cpds

Date: 5/24/2019 8:10:06 PM Rack:Tube: 1:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001373	ppm	0.000258	18.80	-221.602000	Y 377.433
Al (394.401 nm)	0.057207	ppm	0.001370	2.39	1077.540000	Y 377.433
Al H (396.152 nm)	-0.023300 u	ppm	0.005929	25.45	127.491000	Y_R 377.433
As (188.980 nm)	0.004539	ppm	0.002776	61.17	5.259290	Y 242.219
B (249.678 nm)	3.626100	ppm	0.001889	0.05	25942.900000	Y 242.219
Ba (493.408 nm)	0.073176	ppm	0.000664	0.91	8694.810000	Y_R 488.368
Be (234.861 nm)	0.000017 u	ppm	0.000047	> 100.00	-0.943627	Y_R 488.368
Bi (223.061 nm)	0.000675	ppm	0.000941	> 100.00	-8.945960	Y 377.433
Ca (315.887 nm)	115.281528	ppm	0.091093	0.08	91488.222451	Y_R 377.433
Cd (214.439 nm)	0.000442	ppm	0.000182	41.17	11.223600	Y 377.433
Co (228.615 nm)	0.007428	ppm	0.000285	3.84	159.618000	Y 242.219
Cr (205.560 nm)	0.005046	ppm	0.000077	1.53	26.758400	Y 377.433
Cu (324.754 nm)	0.012184	ppm	0.000090	0.74	818.614000	Y 377.433
Fe (238.204 nm)	0.157439	ppm	0.001130	0.72	386.123757	Y_R 377.433
Fe H (259.940 nm)	0.149385 u	ppm	0.001225	0.82	218.010000	Y_R 377.433
K (766.491 nm)	73.989600	ppm	0.966633	1.31	73380.800000	Y_R2 488.368
Li (670.783 nm)	0.035185	ppm	0.001472	4.18	-1941.640000	Y_R2 488.368
Mg (279.078 nm)	62.317200	ppm	0.036168	0.06	203932.000000	Y 377.433
Mn (257.610 nm)	0.646998	ppm	0.000435	0.07	176399.000000	Y 377.433
Mo (202.032 nm)	0.002843	ppm	0.000112	3.93	46.969000	Y 377.433
Na (589.592 nm)	446.935000 o	ppm	2.320710	0.52	367057.000000	Y_R2 488.368
Na H (589.593 nm)	481.388063	ppm	3.824457	0.79	261062.555304	Y_R4
Ni (231.604 nm)	0.068033	ppm	0.001362	2.00	343.390000	Y 377.433
P (213.618 nm)	0.261479	ppm	0.000072	0.03	366.600000	Y 242.219
Pb (220.353 nm)	-0.000519 u	ppm	0.000246	47.28	6.656510	Y 242.219
S (181.972 nm)	92.410590	ppm	0.183251	0.20	42340.264006	Y 377.433
Sb (206.834 nm)	-0.000541 u	ppm	0.000676	> 100.00	0.883580	Y 377.433
Se (196.026 nm)	0.000707 u	ppm	0.002174	> 100.00	10.789300	Y 242.219
Si (288.158 nm)	10.961800	ppm	0.016756	0.15	71056.000000	Y 377.433
Sn (189.925 nm)	0.001033	ppm	0.000279	27.05	3.751830	Y 377.433
Sr (421.552 nm)	1.104576	ppm	0.001962	0.18	166373.490869	Y_R 488.368
Th (288.505 nm)	0.000246 u	ppm	0.001534	> 100.00	22.617800	Y 377.433
Ti (336.122 nm)	0.001062	ppm	0.000099	9.34	95.344800	Y 377.433
Tl (190.794 nm)	0.003984	ppm	0.002797	70.20	6.331610	Y 377.433
U (409.013 nm)	0.014339	ppm	0.002062	14.38	5.301530	Y 377.433
V (292.401 nm)	0.005193	ppm	0.000236	4.54	120.928000	Y 377.433
Zn (206.200 nm)	0.025382	ppm	0.000696	2.74	118.223000	Y 377.433
Zr (343.823 nm)	0.001654	ppm	0.000201	12.18	-67.960800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.097221	25362.773983	0.000357	0.03
Y 377.433	1.088500	761330.703813	0.001142	0.10
Y_R 377.433	1.190410	72173.100000	0.006868	0.58
Y_R 488.368	1.202960	63549.400000	0.008711	0.72
Y_R2 488.368	1.184466	125559.642207	0.004420	0.37
Y_R4	1.168060	52562.700000	0.010411	0.89

Sample Name: 280-123706-E-1-A

Date: 5/24/2019 8:13:44 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000177 u	ppm	0.000388	> 100.00	-260.984000	Y 377.433
Al (394.401 nm)	0.000122 u	ppm	0.001323	> 100.00	92.132200	Y 377.433
Al H (396.152 nm)	0.141826 u	ppm	0.004120	2.90	51.722300	Y_R 377.433
As (188.980 nm)	-0.001300 u	ppm	0.002453	> 100.00	-3.535430	Y 242.219
B (249.678 nm)	0.007559	ppm	0.000298	3.94	100.645000	Y 242.219
Ba (493.408 nm)	-0.003041 u	ppm	0.000029	0.95	1096.280000	Y_R 488.368
Be (234.861 nm)	-0.000081 u	ppm	0.000002	2.10	-10.063600	Y_R 488.368
Bi (223.061 nm)	0.002300 u	ppm	0.004181	> 100.00	-5.571930	Y 377.433
Ca (315.887 nm)	0.048464	ppm	0.000600	1.24	-30.550375	Y_R 377.433
Cd (214.439 nm)	-0.000022 u	ppm	0.000048	> 100.00	-5.998120	Y 377.433
Co (228.615 nm)	-0.000260 u	ppm	0.000041	15.65	-21.254500	Y 242.219
Cr (205.560 nm)	0.000331 u	ppm	0.000750	> 100.00	-4.544650	Y 377.433
Cu (324.754 nm)	0.000994	ppm	0.000054	5.43	364.059000	Y 377.433
Fe (238.204 nm)	0.015768	ppm	0.002039	12.93	45.095753	Y_R 377.433
Fe H (259.940 nm)	0.019397 u	ppm	0.001309	6.75	38.238500	Y_R 377.433
K (766.491 nm)	-0.350999 u	ppm	0.359048	> 100.00	1598.460000	Y_R2 488.368
Li (670.783 nm)	0.032289	ppm	0.002028	6.28	-1991.370000	Y_R2 488.368
Mg (279.078 nm)	0.008492	ppm	0.000444	5.23	36.203900	Y 377.433
Mn (257.610 nm)	0.000384	ppm	0.000013	3.37	93.765800	Y 377.433
Mo (202.032 nm)	0.000059	ppm	0.000021	34.98	11.875700	Y 377.433
Na (589.592 nm)	0.104613	ppm	0.012336	11.79	235.380000	Y_R2 488.368
Na H (589.593 nm)	1.905357 u	ppm	0.050052	2.63	916.265376	Y_R4
Ni (231.604 nm)	0.000274	ppm	0.000061	22.27	-7.204260	Y 377.433
P (213.618 nm)	0.000757 u	ppm	0.007360	> 100.00	-2.929910	Y 242.219
Pb (220.353 nm)	0.000304	ppm	0.000266	87.57	9.217950	Y 242.219
S (181.972 nm)	0.002825 u	ppm	0.004388	> 100.00	13.994131	Y 377.433
Sb (206.834 nm)	-0.001360 u	ppm	0.001020	74.95	-0.518297	Y 377.433
Se (196.026 nm)	-0.000273 u	ppm	0.001968	> 100.00	8.441310	Y 242.219
Si (288.158 nm)	0.026250	ppm	0.003668	13.97	657.533000	Y 377.433
Sn (189.925 nm)	0.001288	ppm	0.000621	48.25	4.162240	Y 377.433
Sr (421.552 nm)	0.000203	ppm	0.000037	18.22	53.743983	Y_R 488.368
Th (288.505 nm)	0.003428	ppm	0.000660	19.24	18.596500	Y 377.433
Ti (336.122 nm)	0.000483	ppm	0.000011	2.34	-372.078000	Y 377.433
Tl (190.794 nm)	0.000236 u	ppm	0.002395	> 100.00	2.353860	Y 377.433
U (409.013 nm)	0.005287 u	ppm	0.009885	> 100.00	-7.954590	Y 377.433
V (292.401 nm)	0.000248	ppm	0.000157	63.47	-132.807000	Y 377.433
Zn (206.200 nm)	0.001662	ppm	0.000189	11.37	11.538900	Y 377.433
Zr (343.823 nm)	0.000013 u	ppm	0.000065	> 100.00	-160.885000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.186480	27426.039872	0.002051	0.17
Y 377.433	1.167445	816547.353870	0.001190	0.10
Y_R 377.433	1.214660	73643.100000	0.002806	0.23
Y_R 488.368	1.231520	65058.100000	0.003218	0.26
Y_R2 488.368	1.223059	129650.711250	0.002275	0.19
Y_R4	1.198830	53947.400000	0.000962	0.08

Sample Name: CCVH-5713036

Date: 5/24/2019 8:16:57 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004288	ppm	0.000368	8.57	-128.838000	Y 377.433
Al (394.401 nm)	49.577100 o	ppm	0.037885	0.08	603983.000000	Y 377.433
Al H (396.152 nm)	48.034700	ppm	0.063528	0.13	104743.000000	Y_R 377.433
As (188.980 nm)	0.005075	ppm	0.003719	73.28	4.712260	Y 242.219
B (249.678 nm)	0.002952	ppm	0.000621	21.05	38.770200	Y 242.219
Ba (493.408 nm)	0.000497	ppm	0.000029	5.74	1488.970000	Y_R 488.368
Be (234.861 nm)	0.001146	ppm	0.000021	1.81	-101.273000	Y_R 488.368
Bi (223.061 nm)	0.011485	ppm	0.001164	10.14	23.209900	Y 377.433
Ca (315.887 nm)	0.005251	ppm	0.004610	87.80	-52.826293	Y_R 377.433
Cd (214.439 nm)	0.001419	ppm	0.000004	0.30	67.683100	Y 377.433
Co (228.615 nm)	0.003008	ppm	0.000240	7.97	55.599800	Y 242.219
Cr (205.560 nm)	0.001935	ppm	0.000411	21.26	4.853140	Y 377.433
Cu (324.754 nm)	0.003977	ppm	0.000147	3.69	1446.990000	Y 377.433
Fe (238.204 nm)	50.158861 o	ppm	0.083204	0.17	120748.274192	Y_R 377.433
Fe H (259.940 nm)	49.686900	ppm	0.089321	0.18	68727.700000	Y_R 377.433
K (766.491 nm)	0.088308	ppm	0.074875	84.79	2022.650000	Y_R2 488.368
Li (670.783 nm)	0.027020	ppm	0.001830	6.77	-2081.830000	Y_R2 488.368
Mg (279.078 nm)	0.035848	ppm	0.002108	5.88	51.574700	Y 377.433
Mn (257.610 nm)	0.001027	ppm	0.000003	0.25	268.981000	Y 377.433
Mo (202.032 nm)	0.001352	ppm	0.000074	5.45	28.174500	Y 377.433
Na (589.592 nm)	228.763000 o	ppm	0.994585	0.43	187942.000000	Y_R2 488.368
Na H (589.593 nm)	235.423555	ppm	1.146530	0.49	127612.999289	Y_R4
Ni (231.604 nm)	0.003462	ppm	0.000197	5.70	9.294170	Y 377.433
P (213.618 nm)	4.938900	ppm	0.005941	0.12	7054.180000	Y 242.219
Pb (220.353 nm)	0.006273	ppm	0.002059	32.81	21.472800	Y 242.219
S (181.972 nm)	5.061702	ppm	0.005953	0.12	2330.734212	Y 377.433
Sb (206.834 nm)	-0.001084 u	ppm	0.000872	80.41	4.172030	Y 377.433
Se (196.026 nm)	0.003846	ppm	0.002614	67.96	1.740930	Y 242.219
Si (288.158 nm)	0.026378	ppm	0.000255	0.97	658.358000	Y 377.433
Sn (189.925 nm)	0.002031	ppm	0.002046	> 100.00	5.358880	Y 377.433
Sr (421.552 nm)	0.001568	ppm	0.000137	8.71	266.845282	Y_R 488.368
Th (288.505 nm)	4.843260	ppm	0.000504	0.01	8364.620000	Y 377.433
Ti (336.122 nm)	0.002130	ppm	0.000133	6.23	-161.217000	Y 377.433
Tl (190.794 nm)	0.000183 u	ppm	0.001461	> 100.00	-2.599290	Y 377.433
U (409.013 nm)	0.528184 Q	ppm	0.001220	0.23	1687.670000 Q	Y 377.433
V (292.401 nm)	0.000867	ppm	0.000237	27.32	389.791000	Y 377.433
Zn (206.200 nm)	0.002915	ppm	0.000371	12.73	24.156800	Y 377.433
Zr (343.823 nm)	0.001375	ppm	0.000064	4.62	-83.780200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131333	26151.289659	0.001296	0.11
Y 377.433	1.112143	777867.407170	0.001936	0.17
Y_R 377.433	1.170270	70952.300000	0.008341	0.71
Y_R 488.368	1.178130	62238.100000	0.004942	0.42
Y_R2 488.368	1.171793	124216.275690	0.007213	0.62
Y_R4	1.177950	53007.800000	0.005703	0.48

Sample Name: CCV-5717467

Date: 5/24/2019 8:20:40 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.494413	ppm	0.001152	0.23	16792.900000	Y 377.433
Al (394.401 nm)	0.498926	ppm	0.001565	0.31	6303.470000	Y 377.433
Al H (396.152 nm)	0.542231 u	ppm	0.002723	0.50	1170.580000	Y_R 377.433
As (188.980 nm)	0.498001	ppm	0.003601	0.72	748.790000	Y 242.219
B (249.678 nm)	0.484188	ppm	0.002556	0.53	3503.110000	Y 242.219
Ba (493.408 nm)	0.485519	ppm	0.000574	0.12	49804.700000	Y_R 488.368
Be (234.861 nm)	0.471643	ppm	0.000435	0.09	46436.000000	Y_R 488.368
Bi (223.061 nm)	1.001420	ppm	0.007549	0.75	2183.160000	Y 377.433
Ca (315.887 nm)	5.014680	ppm	0.015155	0.30	3913.776472	Y_R 377.433
Cd (214.439 nm)	0.518029	ppm	0.000665	0.13	19152.600000	Y 377.433
Co (228.615 nm)	0.497141	ppm	0.002209	0.44	11690.400000	Y 242.219
Cr (205.560 nm)	0.513749	ppm	0.002834	0.55	3416.040000	Y 377.433
Cu (324.754 nm)	0.499878	ppm	0.003004	0.60	23631.500000	Y 377.433
Fe (238.204 nm)	2.537593	ppm	0.003624	0.14	6115.568865	Y_R 377.433
Fe H (259.940 nm)	2.521460 u	ppm	0.009007	0.36	3498.550000	Y_R 377.433
K (766.491 nm)	48.727300	ppm	0.401176	0.82	48987.900000	Y_R2 488.368
Li (670.783 nm)	0.519826	ppm	0.007866	1.51	6379.770000	Y_R2 488.368
Mg (279.078 nm)	19.880300	ppm	0.039817	0.20	65060.500000	Y 377.433
Mn (257.610 nm)	0.492824	ppm	0.001224	0.25	134362.000000	Y 377.433
Mo (202.032 nm)	0.499531	ppm	0.000805	0.16	6307.340000	Y 377.433
Na (589.592 nm)	23.696400	ppm	0.129185	0.55	19712.800000	Y_R2 488.368
Na H (589.593 nm)	25.165963 u	ppm	0.012915	0.05	13536.450049	Y_R4
Ni (231.604 nm)	0.512248	ppm	0.000192	0.04	2642.360000	Y 377.433
P (213.618 nm)	0.050637	ppm	0.003012	5.95	-66.831200	Y 242.219
Pb (220.353 nm)	0.499593	ppm	0.004251	0.85	1593.180000	Y 242.219
S (181.972 nm)	0.008648	ppm	0.000243	2.81	18.469729	Y 377.433
Sb (206.834 nm)	0.507242	ppm	0.003640	0.72	855.644000	Y 377.433
Se (196.026 nm)	0.505035	ppm	0.003797	0.75	770.660000	Y 242.219
Si (288.158 nm)	4.924150	ppm	0.046047	0.94	32188.100000	Y 377.433
Sn (189.925 nm)	0.515712	ppm	0.000390	0.08	831.901000	Y 377.433
Sr (421.552 nm)	0.476512	ppm	0.000154	0.03	71786.710579	Y_R 488.368
Th (288.505 nm)	0.024480	ppm	0.004524	18.48	5.181750	Y 377.433
Ti (336.122 nm)	0.486596	ppm	0.000672	0.14	61850.100000	Y 377.433
Tl (190.794 nm)	0.507975	ppm	0.000304	0.06	1160.360000	Y 377.433
U (409.013 nm)	0.012711	ppm	0.008939	70.33	-44.463700	Y 377.433
V (292.401 nm)	0.488596	ppm	0.000883	0.18	25048.000000	Y 377.433
Zn (206.200 nm)	0.518069	ppm	0.000832	0.16	2334.040000	Y 377.433
Zr (343.823 nm)	0.487696	ppm	0.000252	0.05	27447.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.151520	26617.916736	0.002486	0.22
Y 377.433	1.133475	792787.974556	0.000494	0.04
Y_R 377.433	1.188690	72068.600000	0.002437	0.20
Y_R 488.368	1.201790	63487.500000	0.001104	0.09
Y_R2 488.368	1.163824	123371.552911	0.000537	0.05
Y_R4	1.171510	52717.900000	0.005367	0.46

Sample Name: CCB

Date: 5/24/2019 8:24:15 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000397 u	ppm	0.000764	> 100.00	-253.188000	Y 377.433
Al (394.401 nm)	-0.002573 u	ppm	0.000370	14.36	59.665600	Y 377.433
Al H (396.152 nm)	0.123141 Zu	ppm	0.004283	3.48	10.955700 Z	Y_R 377.433
As (188.980 nm)	0.000050 u	ppm	0.000715	> 100.00	-1.501170	Y 242.219
B (249.678 nm)	0.000293 u	ppm	0.001314	> 100.00	48.764400	Y 242.219
Ba (493.408 nm)	-0.002440 Zu	ppm	0.000329	13.49	1156.190000 Z	Y_R 488.368
Be (234.861 nm)	0.000033	ppm	0.000012	37.91	1.233010	Y_R 488.368
Bi (223.061 nm)	-0.000169 u	ppm	0.000722	> 100.00	-10.981400	Y 377.433
Ca (315.887 nm)	0.016302	ppm	0.002322	14.25	-56.094244	Y_R 377.433
Cd (214.439 nm)	0.000078	ppm	0.000092	> 100.00	-2.292450	Y 377.433
Co (228.615 nm)	0.000070 u	ppm	0.000161	> 100.00	-13.498000	Y 242.219
Cr (205.560 nm)	-0.000057 u	ppm	0.000302	> 100.00	-7.135470	Y 377.433
Cu (324.754 nm)	0.001243	ppm	0.000145	11.63	375.241000	Y 377.433
Fe (238.204 nm)	-0.000799 u	ppm	0.001054	> 100.00	5.217343	Y_R 377.433
Fe H (259.940 nm)	0.001771 u	ppm	0.001460	82.42	13.862700	Y_R 377.433
K (766.491 nm)	-0.257566 u	ppm	0.332970	> 100.00	1688.680000	Y_R2 488.368
Li (670.783 nm)	0.025915 Z	ppm	0.000174	0.67	-2100.800000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002730	ppm	0.003217	> 100.00	17.406300	Y 377.433
Mn (257.610 nm)	0.000086	ppm	0.000052	60.56	12.384700	Y 377.433
Mo (202.032 nm)	0.000219	ppm	0.000037	16.85	13.898500	Y 377.433
Na (589.592 nm)	0.018884 u	ppm	0.047583	> 100.00	165.136000	Y_R2 488.368
Na H (589.593 nm)	1.097921 u	ppm	0.026202	2.39	478.185686	Y_R4
Ni (231.604 nm)	0.000148 u	ppm	0.000538	> 100.00	-7.853000	Y 377.433
P (213.618 nm)	0.000114 u	ppm	0.003516	> 100.00	-3.897820	Y 242.219
Pb (220.353 nm)	0.000982	ppm	0.000813	82.83	11.367000	Y 242.219
S (181.972 nm)	-0.003597 u	ppm	0.002845	79.09	11.052153	Y 377.433
Sb (206.834 nm)	-0.003324 u	ppm	0.000349	10.48	-3.839990	Y 377.433
Se (196.026 nm)	-0.002453 u	ppm	0.001160	47.27	5.158180	Y 242.219
Si (288.158 nm)	-0.001680 u	ppm	0.000380	22.61	477.729000	Y 377.433
Sn (189.925 nm)	0.000046 u	ppm	0.001189	> 100.00	2.163640	Y 377.433
Sr (421.552 nm)	0.000227	ppm	0.000071	31.45	57.355131	Y_R 488.368
Th (288.505 nm)	0.000507	ppm	0.000610	> 100.00	13.561900	Y 377.433
Ti (336.122 nm)	0.000596	ppm	0.000071	11.99	-357.590000	Y 377.433
Tl (190.794 nm)	0.000906 u	ppm	0.001594	> 100.00	3.886030	Y 377.433
U (409.013 nm)	0.000983 u	ppm	0.003072	> 100.00	-21.648300	Y 377.433
V (292.401 nm)	0.000021 u	ppm	0.000126	> 100.00	-144.800000	Y 377.433
Zn (206.200 nm)	-0.000202 u	ppm	0.000453	> 100.00	3.153970	Y 377.433
Zr (343.823 nm)	0.000293	ppm	0.000037	12.66	-145.019000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.143189	26425.345158	0.001680	0.15
Y 377.433	1.121065	784108.003363	0.001419	0.13
Y_R 377.433	1.167150	70763.100000	0.003219	0.28
Y_R 488.368	1.179940	62333.700000	0.004204	0.36
Y_R2 488.368	1.168077	123822.347571	0.005394	0.46
Y_R4	1.149060	51707.400000	0.007333	0.64

Sample Name: CCVL-5719884

Date: 5/24/2019 8:27:26 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008368	ppm	0.000256	3.06	20.768600	Y 377.433
Al (394.401 nm)	0.096986	ppm	0.000941	0.97	1282.580000	Y 377.433
Al H (396.152 nm)	0.233166 u	ppm	0.003251	1.39	256.861000	Y_R 377.433
As (188.980 nm)	0.013653	ppm	0.001223	8.96	18.994100	Y 242.219
B (249.678 nm)	0.092914	ppm	0.000762	0.82	710.169000	Y 242.219
Ba (493.408 nm)	0.007341	ppm	0.000225	3.07	2131.380000	Y_R 488.368
Be (234.861 nm)	0.000918	ppm	0.000020	2.17	87.969200	Y_R 488.368
Bi (223.061 nm)	0.091768	ppm	0.001533	1.67	190.395000	Y 377.433
Ca (315.887 nm)	0.221802	ppm	0.001882	0.85	107.140544	Y_R 377.433
Cd (214.439 nm)	0.005444	ppm	0.000041	0.75	196.185000	Y 377.433
Co (228.615 nm)	0.010421	ppm	0.000055	0.53	230.222000	Y 242.219
Cr (205.560 nm)	0.010718	ppm	0.000559	5.21	64.553100	Y 377.433
Cu (324.754 nm)	0.016637	ppm	0.000216	1.30	1092.270000	Y 377.433
Fe (238.204 nm)	0.102631	ppm	0.000129	0.13	254.189095	Y_R 377.433
Fe H (259.940 nm)	0.106874 u	ppm	0.000376	0.35	159.219000	Y_R 377.433
K (766.491 nm)	2.842510	ppm	0.210521	7.41	4682.080000	Y_R2 488.368
Li (670.783 nm)	0.044432 Q	ppm	0.005966	13.43	-1782.860000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204511	ppm	0.001757	0.86	676.546000	Y 377.433
Mn (257.610 nm)	0.010539	ppm	0.000043	0.41	2862.360000	Y 377.433
Mo (202.032 nm)	0.019611	ppm	0.000520	2.65	258.317000	Y 377.433
Na (589.592 nm)	1.008350	ppm	0.008370	0.83	979.635000	Y_R2 488.368
Na H (589.593 nm)	1.901404 u	ppm	0.006683	0.35	914.120325	Y_R4
Ni (231.604 nm)	0.043824	ppm	0.000776	1.77	218.145000	Y 377.433
P (213.618 nm)	2.858810	ppm	0.021954	0.77	4079.580000	Y 242.219
Pb (220.353 nm)	0.010599	ppm	0.000455	4.30	41.990900	Y 242.219
S (181.972 nm)	0.096288	ppm	0.002967	3.08	56.834147	Y 377.433
Sb (206.834 nm)	0.019853	ppm	0.001922	9.68	35.149400	Y 377.433
Se (196.026 nm)	0.017389	ppm	0.002782	16.00	35.073600	Y 242.219
Si (288.158 nm)	0.484393	ppm	0.000976	0.20	3606.860000	Y 377.433
Sn (189.925 nm)	0.102679	ppm	0.000781	0.76	167.307000	Y 377.433
Sr (421.552 nm)	0.009043	ppm	0.000139	1.53	1385.086457	Y_R 488.368
Th (288.505 nm)	0.016266	ppm	0.005260	32.34	40.200000	Y 377.433
Ti (336.122 nm)	0.010028	ppm	0.000083	0.83	850.027000	Y 377.433
Tl (190.794 nm)	0.016509	ppm	0.001137	6.89	39.459200	Y 377.433
U (409.013 nm)	0.054215	ppm	0.007129	13.15	146.037000	Y 377.433
V (292.401 nm)	0.010005	ppm	0.000188	1.88	367.392000	Y 377.433
Zn (206.200 nm)	0.021705	ppm	0.000473	2.18	101.681000	Y 377.433
Zr (343.823 nm)	0.009772	ppm	0.000122	1.25	391.577000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155530	26710.622556	0.001314	0.11
Y 377.433	1.132393	792031.187628	0.000862	0.08
Y_R 377.433	1.161700	70432.400000	0.002153	0.19
Y_R 488.368	1.178510	62257.900000	0.003125	0.27
Y_R2 488.368	1.157154	122664.419050	0.009785	0.85
Y_R4	1.157080	52068.500000	0.005068	0.44

Sample Name: 280-123676-E-10-D

Date: 5/24/2019 8:30:54 PM Rack:Tube: 1:61

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054076	ppm	0.000022	0.04	1590.140000	Y 377.433
Al (394.401 nm)	0.994792	ppm	0.000035	0.00	13116.900000	Y 377.433
Al H (396.152 nm)	0.518150 u	ppm	0.013110	2.53	2233.400000	Y_R 377.433
As (188.980 nm)	0.219763	ppm	0.001224	0.56	329.477000	Y 242.219
B (249.678 nm)	12.741100	ppm	0.004276	0.03	91036.800000	Y 242.219
Ba (493.408 nm)	0.523006	ppm	0.001705	0.33	53543.000000	Y_R 488.368
Be (234.861 nm)	0.049478	ppm	0.000163	0.33	4854.200000	Y_R 488.368
Bi (223.061 nm)	0.001810	ppm	0.000128	7.10	-5.660290	Y 377.433
Ca (315.887 nm)	248.206948	ppm	1.203343	0.48	197058.601768	Y_R 377.433
Cd (214.439 nm)	0.052374	ppm	0.000023	0.04	1933.220000	Y 377.433
Co (228.615 nm)	0.060308	ppm	0.000084	0.14	1404.840000	Y 242.219
Cr (205.560 nm)	0.066715	ppm	0.000454	0.68	437.723000	Y 377.433
Cu (324.754 nm)	0.065177	ppm	0.000089	0.14	3227.240000	Y 377.433
Fe (238.204 nm)	3.914990	ppm	0.008222	0.21	9431.204618	Y_R 377.433
Fe H (259.940 nm)	3.884620 u	ppm	0.026183	0.67	5383.790000	Y_R 377.433
K (766.491 nm)	143.157000	ppm	0.456744	0.32	140168.000000	Y_R2 488.368
Li (670.783 nm)	0.141199	ppm	0.001761	1.25	-121.350000	Y_R2 488.368
Mg (279.078 nm)	139.761000	ppm	0.092328	0.07	457344.000000	Y 377.433
Mn (257.610 nm)	1.341120	ppm	0.001114	0.08	365657.000000	Y 377.433
Mo (202.032 nm)	0.056036	ppm	0.000053	0.09	717.420000	Y 377.433
Na (589.592 nm)	839.787000 o	ppm	2.255570	0.27	689653.000000	Y_R2 488.368
Na H (589.593 nm)	968.705474	ppm	6.983637	0.72	525459.612839	Y_R4
Ni (231.604 nm)	0.084721	ppm	0.000942	1.11	429.951000	Y 377.433
P (213.618 nm)	2.926940	ppm	0.004126	0.14	4163.250000	Y 242.219
Pb (220.353 nm)	0.098154	ppm	0.003451	3.52	320.911000	Y 242.219
S (181.972 nm)	56.047393	ppm	0.065148	0.12	25696.344567	Y 377.433
Sb (206.834 nm)	0.104842	ppm	0.002426	2.31	178.826000	Y 377.433
Se (196.026 nm)	0.211827	ppm	0.000889	0.42	329.209000	Y 242.219
Si (288.158 nm)	28.198700	ppm	0.014246	0.05	182019.000000	Y 377.433
Sn (189.925 nm)	0.096878	ppm	0.000875	0.90	157.972000	Y 377.433
Sr (421.552 nm)	3.366879	ppm	0.013037	0.39	507079.446959	Y_R 488.368
Th (288.505 nm)	0.209448	ppm	0.000590	0.28	388.679000	Y 377.433
Ti (336.122 nm)	0.060632	ppm	0.000256	0.42	8170.900000	Y 377.433
Tl (190.794 nm)	0.196383	ppm	0.004456	2.27	440.314000	Y 377.433
U (409.013 nm)	0.519357	ppm	0.000738	0.14	1584.090000	Y 377.433
V (292.401 nm)	0.065468	ppm	0.000029	0.04	3227.370000	Y 377.433
Zn (206.200 nm)	0.217758	ppm	0.002025	0.93	983.808000	Y 377.433
Zr (343.823 nm)	0.068208	ppm	0.000148	0.22	3699.770000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.019331	23562.316230	0.000200	0.02
Y 377.433	1.016821	711196.267275	0.000913	0.09
Y_R 377.433	1.113880	67533.200000	0.000262	0.02
Y_R 488.368	1.125540	59459.600000	0.002382	0.21
Y_R2 488.368	1.096344	116218.284022	0.007670	0.70
Y_R4	1.103780	49670.300000	0.003883	0.35

Sample Name: MB 280-459139/1-A

Date: 5/24/2019 8:34:34 PM Rack:Tube: 1:62

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000461	ppm	0.000251	54.50	-250.911000	Y 377.433
Al (394.401 nm)	0.001070	ppm	0.001247	> 100.00	102.354000	Y 377.433
Al H (396.152 nm)	0.133178 u	ppm	0.004109	3.09	32.869400	Y_R 377.433
As (188.980 nm)	0.000769 u	ppm	0.003019	> 100.00	-0.417209	Y 242.219
B (249.678 nm)	0.008359	ppm	0.000699	8.36	106.350000	Y 242.219
Ba (493.408 nm)	-0.002306 u	ppm	0.000419	18.19	1169.610000	Y_R 488.368
Be (234.861 nm)	-0.000036 u	ppm	0.000066	> 100.00	-5.636430	Y_R 488.368
Bi (223.061 nm)	0.000078 u	ppm	0.000352	> 100.00	-10.435700	Y 377.433
Ca (315.887 nm)	0.035277	ppm	0.007101	20.13	-41.022641	Y_R 377.433
Cd (214.439 nm)	-0.000022 u	ppm	0.000022	99.65	-5.976630	Y 377.433
Co (228.615 nm)	-0.000258 u	ppm	0.000198	76.80	-21.198000	Y 242.219
Cr (205.560 nm)	0.000265	ppm	0.000087	32.89	-4.987230	Y 377.433
Cu (324.754 nm)	0.001112	ppm	0.000236	21.22	370.333000	Y 377.433
Fe (238.204 nm)	0.028042	ppm	0.000915	3.26	74.641364	Y_R 377.433
Fe H (259.940 nm)	0.029082 u	ppm	0.000110	0.38	51.633700	Y_R 377.433
K (766.491 nm)	-0.174505 u	ppm	0.045806	26.25	1768.880000	Y_R2 488.368
Li (670.783 nm)	0.026922	ppm	0.000351	1.30	-2083.510000	Y_R2 488.368
Mg (279.078 nm)	0.008686	ppm	0.002792	32.15	36.901500	Y 377.433
Mn (257.610 nm)	0.000562	ppm	0.000032	5.71	142.241000	Y 377.433
Mo (202.032 nm)	-0.000090 u	ppm	0.000203	> 100.00	10.000900	Y 377.433
Na (589.592 nm)	0.064304	ppm	0.055795	86.77	202.492000	Y_R2 488.368
Na H (589.593 nm)	1.763628 u	ppm	0.003605	0.20	839.369365	Y_R4
Ni (231.604 nm)	-0.000222 u	ppm	0.000435	> 100.00	-9.771290	Y 377.433
P (213.618 nm)	-0.001959 u	ppm	0.002060	> 100.00	-6.870260	Y 242.219
Pb (220.353 nm)	0.000466 u	ppm	0.000765	> 100.00	9.720710	Y 242.219
S (181.972 nm)	0.009541	ppm	0.002433	25.51	17.070163	Y 377.433
Sb (206.834 nm)	0.001830	ppm	0.000582	31.82	4.871450	Y 377.433
Se (196.026 nm)	-0.001167 u	ppm	0.001413	> 100.00	7.090920	Y 242.219
Si (288.158 nm)	0.019039	ppm	0.004418	23.21	611.111000	Y 377.433
Sn (189.925 nm)	0.001387 u	ppm	0.001972	> 100.00	4.321980	Y 377.433
Sr (421.552 nm)	0.000283	ppm	0.000162	57.17	65.811118	Y_R 488.368
Th (288.505 nm)	0.003996	ppm	0.002664	66.66	19.580200	Y 377.433
Ti (336.122 nm)	0.000498	ppm	0.000017	3.42	-370.089000	Y 377.433
Tl (190.794 nm)	-0.001151 u	ppm	0.000774	67.23	-0.818647	Y 377.433
U (409.013 nm)	0.001549 u	ppm	0.005689	> 100.00	-19.828100	Y 377.433
V (292.401 nm)	-0.000001 u	ppm	0.000077	> 100.00	-145.316000	Y 377.433
Zn (206.200 nm)	0.004224	ppm	0.000525	12.43	23.063600	Y 377.433
Zr (343.823 nm)	0.000225	ppm	0.000004	1.58	-148.885000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.152038	26629.887442	0.003207	0.28
Y 377.433	1.132153	791863.307620	0.002787	0.25
Y_R 377.433	1.169350	70896.400000	0.008986	0.77
Y_R 488.368	1.187300	62722.100000	0.008867	0.75
Y_R2 488.368	1.173077	124352.417316	0.006090	0.52
Y_R4	1.156840	52057.600000	0.006040	0.52

Sample Name: LCS 280-459139/2-A

Date: 5/24/2019 8:37:46 PM Rack:Tube: 1:63

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052404	ppm	0.000138	0.26	1233.240000	Y 377.433
Al (394.401 nm)	9.884080 o	ppm	0.022603	0.23	120997.000000	Y 377.433
Al H (396.152 nm)	9.714050	ppm	0.078559	0.81	21461.700000	Y_R 377.433
As (188.980 nm)	2.046290	ppm	0.000713	0.03	3081.680000	Y 242.219
B (249.678 nm)	0.976585	ppm	0.001253	0.13	7015.210000	Y 242.219
Ba (493.408 nm)	1.982860	ppm	0.008283	0.42	199086.000000	Y_R 488.368
Be (234.861 nm)	0.974801	ppm	0.000293	0.03	95955.900000	Y_R 488.368
Bi (223.061 nm)	1.977650	ppm	0.005077	0.26	4322.560000	Y 377.433
Ca (315.887 nm)	49.735520	ppm	0.105811	0.21	39433.661989	Y_R 377.433
Cd (214.439 nm)	1.036940	ppm	0.000033	0.00	38344.900000	Y 377.433
Co (228.615 nm)	0.989360	ppm	0.002640	0.27	23281.400000	Y 242.219
Cr (205.560 nm)	1.036070	ppm	0.007023	0.68	6895.640000	Y 377.433
Cu (324.754 nm)	0.986018	ppm	0.002533	0.26	46361.900000	Y 377.433
Fe (238.204 nm)	10.212622 o	ppm	0.043857	0.43	24590.703592	Y_R 377.433
Fe H (259.940 nm)	10.135300	ppm	0.030699	0.30	14028.400000	Y_R 377.433
K (766.491 nm)	48.968900	ppm	0.744482	1.52	49221.100000	Y_R2 488.368
Li (670.783 nm)	1.023030	ppm	0.000891	0.09	15019.800000	Y_R2 488.368
Mg (279.078 nm)	49.813300	ppm	0.092063	0.18	162971.000000	Y 377.433
Mn (257.610 nm)	1.003930	ppm	0.001812	0.18	273720.000000	Y 377.433
Mo (202.032 nm)	1.029910	ppm	0.002310	0.22	12992.400000	Y 377.433
Na (589.592 nm)	47.925800	ppm	0.158300	0.33	39942.900000	Y_R2 488.368
Na H (589.593 nm)	49.511855 u	ppm	0.110396	0.22	26745.463455	Y_R4
Ni (231.604 nm)	1.015790	ppm	0.002038	0.20	5249.470000	Y 377.433
P (213.618 nm)	21.197600	ppm	0.036099	0.17	30038.800000	Y 242.219
Pb (220.353 nm)	1.006120	ppm	0.002256	0.22	3203.250000	Y 242.219
S (181.972 nm)	10.516019	ppm	0.006994	0.07	4834.193835	Y 377.433
Sb (206.834 nm)	1.084670	ppm	0.006343	0.58	1828.640000	Y 377.433
Se (196.026 nm)	2.010010	ppm	0.005333	0.27	3039.260000	Y 242.219
Si (288.158 nm)	2.077980	ppm	0.005599	0.27	13865.700000	Y 377.433
Sn (189.925 nm)	2.073860	ppm	0.002782	0.13	3339.040000	Y 377.433
Sr (421.552 nm)	0.966729	ppm	0.003981	0.41	145615.152174	Y_R 488.368
Th (288.505 nm)	1.007840	ppm	0.002678	0.27	1657.700000	Y 377.433
Ti (336.122 nm)	0.998777	ppm	0.001418	0.14	127543.000000	Y 377.433
Tl (190.794 nm)	2.020480	ppm	0.001166	0.06	4613.980000	Y 377.433
U (409.013 nm)	2.052000	ppm	0.015575	0.76	6424.220000	Y 377.433
V (292.401 nm)	0.996886	ppm	0.001464	0.15	51262.200000	Y 377.433
Zn (206.200 nm)	0.513917	ppm	0.000770	0.15	2316.430000	Y 377.433
Zr (343.823 nm)	0.492146	ppm	0.001028	0.21	27699.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.098888	25401.301804	0.001492	0.14
Y 377.433	1.086634	760025.440777	0.001467	0.13
Y_R 377.433	1.143240	69313.000000	0.000667	0.06
Y_R 488.368	1.158330	61192.100000	0.000418	0.04
Y_R2 488.368	1.130549	119844.172180	0.009834	0.87
Y_R4	1.130640	50878.600000	0.002155	0.19

Sample Name: 280-123483-A-3-A

Date: 5/24/2019 8:41:25 PM Rack:Tube: 1:64

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000631	ppm	0.000003	0.49	-252.560000	Y 377.433
Al (394.401 nm)	0.005320	ppm	0.000783	14.71	216.174000	Y 377.433
Al H (396.152 nm)	0.094770 u	ppm	0.003591	3.79	28.337400	Y_R 377.433
As (188.980 nm)	0.005259	ppm	0.002386	45.37	6.346510	Y 242.219
B (249.678 nm)	0.041333	ppm	0.000602	1.46	341.793000	Y 242.219
Ba (493.408 nm)	0.043847	ppm	0.000102	0.23	5770.840000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000036	> 100.00	-2.740430	Y_R 488.368
Bi (223.061 nm)	0.000525	ppm	0.000627	> 100.00	-9.430420	Y 377.433
Ca (315.887 nm)	43.134064	ppm	0.007552	0.02	34188.279851	Y_R 377.433
Cd (214.439 nm)	0.000172	ppm	0.000008	4.51	1.239470	Y 377.433
Co (228.615 nm)	0.000042 u	ppm	0.000080	> 100.00	-14.147600	Y 242.219
Cr (205.560 nm)	0.004911	ppm	0.000661	13.47	25.968500	Y 377.433
Cu (324.754 nm)	0.001318	ppm	0.000111	8.43	351.356000	Y 377.433
Fe (238.204 nm)	0.107587	ppm	0.000932	0.87	266.120052	Y_R 377.433
Fe H (259.940 nm)	0.108446 u	ppm	0.001781	1.64	161.392000	Y_R 377.433
K (766.491 nm)	6.282050	ppm	0.310570	4.94	8003.250000	Y_R2 488.368
Li (670.783 nm)	0.030639	ppm	0.003336	10.89	-2019.700000	Y_R2 488.368
Mg (279.078 nm)	13.127600	ppm	0.022841	0.17	42966.200000	Y 377.433
Mn (257.610 nm)	0.001218	ppm	0.000020	1.66	321.112000	Y 377.433
Mo (202.032 nm)	0.006994	ppm	0.000130	1.86	99.283700	Y 377.433
Na (589.592 nm)	22.587200	ppm	0.007874	0.03	18702.000000	Y_R2 488.368
Na H (589.593 nm)	23.516674 u	ppm	0.243064	1.03	12641.618361	Y_R4
Ni (231.604 nm)	0.000650	ppm	0.000354	54.49	-5.257470	Y 377.433
P (213.618 nm)	0.021874	ppm	0.003284	15.01	26.661100	Y 242.219
Pb (220.353 nm)	-0.000911 u	ppm	0.001605	> 100.00	5.393380	Y 242.219
S (181.972 nm)	17.248110	ppm	0.012431	0.07	7913.667199	Y 377.433
Sb (206.834 nm)	-0.003624 u	ppm	0.000294	8.11	-4.347570	Y 377.433
Se (196.026 nm)	0.004357	ppm	0.003077	70.61	15.403400	Y 242.219
Si (288.158 nm)	17.783000	ppm	0.036999	0.21	114968.000000	Y 377.433
Sn (189.925 nm)	0.002065	ppm	0.000447	21.62	5.413120	Y 377.433
Sr (421.552 nm)	0.211800	ppm	0.000083	0.04	31920.471244	Y_R 488.368
Th (288.505 nm)	-0.007823 u	ppm	0.000596	7.63	-3.743470	Y 377.433
Ti (336.122 nm)	0.000142	ppm	0.000022	15.70	-269.158000	Y 377.433
Tl (190.794 nm)	0.002657	ppm	0.000569	21.41	6.128200	Y 377.433
U (409.013 nm)	0.027521	ppm	0.005842	21.23	56.872100	Y 377.433
V (292.401 nm)	0.018280	ppm	0.000228	1.25	800.006000	Y 377.433
Zn (206.200 nm)	0.002959	ppm	0.000374	12.65	17.387300	Y 377.433
Zr (343.823 nm)	0.000333	ppm	0.000063	18.95	-142.781000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114007	25750.794657	0.004322	0.39
Y 377.433	1.094963	765851.585905	0.004732	0.43
Y_R 377.433	1.144610	69396.200000	0.006789	0.59
Y_R 488.368	1.159500	61253.500000	0.007689	0.66
Y_R2 488.368	1.149784	121883.189711	0.007778	0.68
Y_R4	1.141640	51373.800000	0.009283	0.81

Sample Name: 280-123483-A-4-A

Date: 5/24/2019 8:44:55 PM Rack:Tube: 1:65

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000874	ppm	0.000037	4.23	-244.305000	Y 377.433
Al (394.401 nm)	0.010567	ppm	0.001288	12.19	280.404000	Y 377.433
Al H (396.152 nm)	0.100393 u	ppm	0.006104	6.08	42.921500	Y_R 377.433
As (188.980 nm)	0.006955	ppm	0.001016	14.62	8.902950	Y 242.219
B (249.678 nm)	0.039997	ppm	0.000542	1.35	332.290000	Y 242.219
Ba (493.408 nm)	0.045037	ppm	0.000686	1.52	5889.360000	Y_R 488.368
Be (234.861 nm)	-0.000054 u	ppm	0.000026	47.87	-7.447930	Y_R 488.368
Bi (223.061 nm)	-0.000155 u	ppm	0.001983	> 100.00	-10.929500	Y 377.433
Ca (315.887 nm)	44.400175	ppm	0.040318	0.09	35193.836337	Y_R 377.433
Cd (214.439 nm)	0.000189	ppm	0.000079	41.86	1.823340	Y 377.433
Co (228.615 nm)	-0.000404 u	ppm	0.000053	13.04	-24.632700	Y 242.219
Cr (205.560 nm)	0.007595	ppm	0.000385	5.07	43.870000	Y 377.433
Cu (324.754 nm)	0.001675	ppm	0.000002	0.10	368.228000	Y 377.433
Fe (238.204 nm)	0.046987	ppm	0.000777	1.65	120.246410	Y_R 377.433
Fe H (259.940 nm)	0.044859 u	ppm	0.000758	1.69	73.452100	Y_R 377.433
K (766.491 nm)	6.621740	ppm	0.158384	2.39	8331.260000	Y_R2 488.368
Li (670.783 nm)	0.026392	ppm	0.001519	5.76	-2092.620000	Y_R2 488.368
Mg (279.078 nm)	13.461000	ppm	0.022195	0.16	44057.400000	Y 377.433
Mn (257.610 nm)	0.001208	ppm	0.000016	1.33	318.192000	Y 377.433
Mo (202.032 nm)	0.006720	ppm	0.000157	2.33	95.832100	Y 377.433
Na (589.592 nm)	23.242300	ppm	0.002925	0.01	19240.000000	Y_R2 488.368
Na H (589.593 nm)	24.006413 u	ppm	0.013073	0.05	12907.328987	Y_R4
Ni (231.604 nm)	0.001304	ppm	0.000247	18.97	-1.876940	Y 377.433
P (213.618 nm)	0.020263	ppm	0.000372	1.84	24.214400	Y 242.219
Pb (220.353 nm)	-0.001085 u	ppm	0.000449	41.43	4.830740	Y 242.219
S (181.972 nm)	17.747322	ppm	0.002481	0.01	8142.346870	Y 377.433
Sb (206.834 nm)	-0.005606 u	ppm	0.002153	38.41	-7.675780	Y 377.433
Se (196.026 nm)	0.003396	ppm	0.002410	70.96	13.969400	Y 242.219
Si (288.158 nm)	18.264400	ppm	0.068496	0.38	118067.000000	Y 377.433
Sn (189.925 nm)	0.001400	ppm	0.000092	6.58	4.342670	Y 377.433
Sr (421.552 nm)	0.218043	ppm	0.000137	0.06	32860.755602	Y_R 488.368
Th (288.505 nm)	-0.001372 u	ppm	0.004102	> 100.00	7.314930	Y 377.433
Ti (336.122 nm)	0.000151	ppm	0.000043	28.54	-263.561000	Y 377.433
Tl (190.794 nm)	-0.001107 u	ppm	0.000137	12.41	-2.521240	Y 377.433
U (409.013 nm)	0.027882	ppm	0.009189	32.96	57.856000	Y 377.433
V (292.401 nm)	0.018561	ppm	0.000035	0.19	814.263000	Y 377.433
Zn (206.200 nm)	0.005215	ppm	0.000415	7.96	27.522800	Y 377.433
Zr (343.823 nm)	-0.000034 u	ppm	0.000114	> 100.00	-163.559000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120932	25910.854172	0.005076	0.45
Y 377.433	1.102824	771349.616060	0.003938	0.36
Y_R 377.433	1.148280	69619.000000	0.005003	0.44
Y_R 488.368	1.162120	61392.200000	0.003576	0.31
Y_R2 488.368	1.138335	120669.579878	0.004794	0.42
Y_R4	1.127330	50729.700000	0.001432	0.13

Sample Name: 280-123483-A-5-A

Date: 5/24/2019 8:48:24 PM Rack:Tube: 1:66

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001223	ppm	0.000013	1.10	-232.628000	Y 377.433
Al (394.401 nm)	0.004714	ppm	0.002114	44.84	214.835000	Y 377.433
Al H (396.152 nm)	0.091665 u	ppm	0.002212	2.41	25.578500	Y_R 377.433
As (188.980 nm)	0.007444	ppm	0.000842	11.31	9.641510	Y 242.219
B (249.678 nm)	0.040980	ppm	0.000156	0.38	339.334000	Y 242.219
Ba (493.408 nm)	0.042958	ppm	0.000325	0.76	5682.110000	Y_R 488.368
Be (234.861 nm)	-0.000051 u	ppm	0.000000	0.05	-7.051400	Y_R 488.368
Bi (223.061 nm)	-0.000482 u	ppm	0.001492	> 100.00	-11.651800	Y 377.433
Ca (315.887 nm)	45.722579	ppm	0.197099	0.43	36244.095924	Y_R 377.433
Cd (214.439 nm)	0.000067 u	ppm	0.000106	> 100.00	-2.681120	Y 377.433
Co (228.615 nm)	-0.000363 u	ppm	0.000151	41.71	-23.668700	Y 242.219
Cr (205.560 nm)	0.003812	ppm	0.000030	0.79	18.638700	Y 377.433
Cu (324.754 nm)	0.004322	ppm	0.000017	0.38	488.944000	Y 377.433
Fe (238.204 nm)	0.008487	ppm	0.000915	10.78	27.568262	Y_R 377.433
Fe H (259.940 nm)	0.010154 u	ppm	0.000350	3.45	25.456000	Y_R 377.433
K (766.491 nm)	6.555810	ppm	0.032447	0.49	8267.590000	Y_R2 488.368
Li (670.783 nm)	0.030301	ppm	0.002553	8.42	-2025.490000	Y_R2 488.368
Mg (279.078 nm)	13.743500	ppm	0.002635	0.02	44981.200000	Y 377.433
Mn (257.610 nm)	0.000375	ppm	0.000033	8.69	91.275600	Y 377.433
Mo (202.032 nm)	0.006741	ppm	0.000526	7.80	96.099000	Y 377.433
Na (589.592 nm)	23.858600	ppm	0.113362	0.48	19745.400000	Y_R2 488.368
Na H (589.593 nm)	24.671183 u	ppm	0.039400	0.16	13268.003975	Y_R4
Ni (231.604 nm)	-0.001232 u	ppm	0.000554	44.95	-14.991900	Y 377.433
P (213.618 nm)	0.025056	ppm	0.004839	19.31	30.513000	Y 242.219
Pb (220.353 nm)	-0.000969 u	ppm	0.001223	> 100.00	5.280760	Y 242.219
S (181.972 nm)	18.706955	ppm	0.037746	0.20	8581.879979	Y 377.433
Sb (206.834 nm)	-0.005950 u	ppm	0.003837	64.48	-8.288340	Y 377.433
Se (196.026 nm)	0.004102	ppm	0.002981	72.67	15.043000	Y 242.219
Si (288.158 nm)	18.390300	ppm	0.133565	0.73	118878.000000	Y 377.433
Sn (189.925 nm)	0.000766	ppm	0.000728	95.11	3.322490	Y 377.433
Sr (421.552 nm)	0.222917	ppm	0.001419	0.64	33594.657374	Y_R 488.368
Th (288.505 nm)	-0.002490 u	ppm	0.001261	50.63	5.477210	Y 377.433
Ti (336.122 nm)	0.000033 u	ppm	0.000086	> 100.00	-273.996000	Y 377.433
Tl (190.794 nm)	0.002950	ppm	0.000217	7.34	6.708920	Y 377.433
U (409.013 nm)	0.033865	ppm	0.007653	22.60	76.593600	Y 377.433
V (292.401 nm)	0.018871	ppm	0.000159	0.84	830.016000	Y 377.433
Zn (206.200 nm)	0.002940	ppm	0.000822	27.96	17.286900	Y 377.433
Zr (343.823 nm)	0.000204	ppm	0.000092	44.81	-150.040000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115746	25790.997860	0.003828	0.34
Y 377.433	1.096871	767185.893256	0.002449	0.22
Y_R 377.433	1.139420	69081.600000	0.002978	0.26
Y_R 488.368	1.157740	61160.900000	0.004737	0.41
Y_R2 488.368	1.134501	120263.128141	0.004662	0.41
Y_R4	1.133810	51021.500000	0.005894	0.52

Sample Name: 280-123483-A-6-A

Date: 5/24/2019 8:51:54 PM Rack:Tube: 1:67

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001171	ppm	0.000197	16.82	-234.314000	Y 377.433
Al (394.401 nm)	0.005490	ppm	0.002149	39.14	223.348000	Y 377.433
Al H (396.152 nm)	0.098242 u	ppm	0.005466	5.56	37.447800	Y_R 377.433
As (188.980 nm)	0.010008	ppm	0.000763	7.62	13.504500	Y 242.219
B (249.678 nm)	0.037930	ppm	0.000673	1.77	317.545000	Y 242.219
Ba (493.408 nm)	0.041971	ppm	0.000003	0.01	5583.710000	Y_R 488.368
Be (234.861 nm)	-0.000073 u	ppm	0.000023	31.05	-9.268310	Y_R 488.368
Bi (223.061 nm)	-0.000264 u	ppm	0.000006	2.40	-11.172600	Y 377.433
Ca (315.887 nm)	44.267603	ppm	0.070905	0.16	35088.545793	Y_R 377.433
Cd (214.439 nm)	0.000159	ppm	0.000108	67.99	0.701305	Y 377.433
Co (228.615 nm)	-0.000324 u	ppm	0.000218	67.32	-22.743700	Y 242.219
Cr (205.560 nm)	0.003680	ppm	0.000455	12.37	17.762000	Y 377.433
Cu (324.754 nm)	0.002113	ppm	0.000484	22.90	386.182000	Y 377.433
Fe (238.204 nm)	0.015340	ppm	0.001394	9.09	44.065946	Y_R 377.433
Fe H (259.940 nm)	0.014439 u	ppm	0.001143	7.91	31.382200	Y_R 377.433
K (766.491 nm)	6.403270	ppm	0.167695	2.62	8120.300000	Y_R2 488.368
Li (670.783 nm)	0.027008	ppm	0.005159	19.10	-2082.040000	Y_R2 488.368
Mg (279.078 nm)	13.346600	ppm	0.006347	0.05	43682.600000	Y 377.433
Mn (257.610 nm)	0.000312	ppm	0.000033	10.44	73.959000	Y 377.433
Mo (202.032 nm)	0.006413	ppm	0.000049	0.77	91.960400	Y 377.433
Na (589.592 nm)	23.190300	ppm	0.119559	0.52	19196.600000	Y_R2 488.368
Na H (589.593 nm)	23.902644 u	ppm	0.263189	1.10	12851.028719	Y_R4
Ni (231.604 nm)	-0.000721 u	ppm	0.000287	39.84	-12.352100	Y 377.433
P (213.618 nm)	0.022350	ppm	0.002939	13.15	27.090800	Y 242.219
Pb (220.353 nm)	-0.000069 u	ppm	0.000498	> 100.00	8.143030	Y 242.219
S (181.972 nm)	18.097823	ppm	0.052121	0.29	8302.853387	Y 377.433
Sb (206.834 nm)	-0.001121 u	ppm	0.003060	> 100.00	-0.132587	Y 377.433
Se (196.026 nm)	0.003564	ppm	0.001011	28.35	14.230000	Y 242.219
Si (288.158 nm)	17.824700	ppm	0.031503	0.18	115236.000000	Y 377.433
Sn (189.925 nm)	0.001493	ppm	0.001305	87.43	4.492600	Y 377.433
Sr (421.552 nm)	0.215954	ppm	0.000123	0.06	32546.017126	Y_R 488.368
Th (288.505 nm)	-0.004230 u	ppm	0.000770	18.20	2.550200	Y 377.433
Ti (336.122 nm)	-0.000077 u	ppm	0.000083	> 100.00	-293.079000	Y 377.433
Tl (190.794 nm)	-0.000333 u	ppm	0.001154	> 100.00	-0.741876	Y 377.433
U (409.013 nm)	0.030915	ppm	0.009045	29.26	67.426600	Y 377.433
V (292.401 nm)	0.017874	ppm	0.000056	0.31	777.993000	Y 377.433
Zn (206.200 nm)	0.003661	ppm	0.000091	2.50	20.529700	Y 377.433
Zr (343.823 nm)	0.000119	ppm	0.000022	18.78	-154.901000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.101292	25456.877385	0.002564	0.23
Y 377.433	1.081587	756495.578520	0.001137	0.11
Y_R 377.433	1.127010	68329.000000	0.003059	0.27
Y_R 488.368	1.142280	60344.100000	0.004681	0.41
Y_R2 488.368	1.126356	119399.656538	0.007442	0.66
Y_R4	1.125050	50627.300000	0.012051	1.07

Sample Name: 280-123483-A-11-A

Date: 5/24/2019 8:55:23 PM Rack:Tube: 1:68

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001120	ppm	0.000178	15.90	-235.803000	Y 377.433
Al (394.401 nm)	0.006441	ppm	0.001889	29.32	230.434000	Y 377.433
Al H (396.152 nm)	0.097668 u	ppm	0.003807	3.90	32.209600	Y_R 377.433
As (188.980 nm)	0.006087	ppm	0.004229	69.48	7.591220	Y 242.219
B (249.678 nm)	0.035598	ppm	0.000209	0.59	300.784000	Y 242.219
Ba (493.408 nm)	0.038882	ppm	0.000061	0.16	5275.860000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000055	> 100.00	-5.657680	Y_R 488.368
Bi (223.061 nm)	-0.000878 u	ppm	0.001873	> 100.00	-12.486700	Y 377.433
Ca (315.887 nm)	42.668965	ppm	0.029048	0.07	33818.899934	Y_R 377.433
Cd (214.439 nm)	0.000064 u	ppm	0.000123	> 100.00	-2.729160	Y 377.433
Co (228.615 nm)	-0.000408 u	ppm	0.000113	27.71	-24.711700	Y 242.219
Cr (205.560 nm)	0.011501	ppm	0.000538	4.68	69.914500	Y 377.433
Cu (324.754 nm)	0.001365	ppm	0.000316	23.14	352.568000	Y 377.433
Fe (238.204 nm)	0.201496	ppm	0.002472	1.23	492.174920	Y_R 377.433
Fe H (259.940 nm)	0.201338 u	ppm	0.000135	0.07	289.861000	Y_R 377.433
K (766.491 nm)	6.408480	ppm	0.189596	2.96	8125.330000	Y_R2 488.368
Li (670.783 nm)	0.024772	ppm	0.006228	25.14	-2120.440000	Y_R2 488.368
Mg (279.078 nm)	12.628300	ppm	0.030386	0.24	41332.100000	Y 377.433
Mn (257.610 nm)	0.002312	ppm	0.000001	0.05	619.440000	Y 377.433
Mo (202.032 nm)	0.006399	ppm	0.000085	1.32	91.792100	Y 377.433
Na (589.592 nm)	22.378400	ppm	0.146845	0.66	18529.500000	Y_R2 488.368
Na H (589.593 nm)	22.796880 u	ppm	0.136327	0.60	12251.089543	Y_R4
Ni (231.604 nm)	0.004041	ppm	0.000284	7.03	12.288300	Y 377.433
P (213.618 nm)	0.022278	ppm	0.003182	14.28	27.231600	Y 242.219
Pb (220.353 nm)	-0.000051 u	ppm	0.002195	> 100.00	8.130560	Y 242.219
S (181.972 nm)	16.478277	ppm	0.075749	0.46	7561.099979	Y 377.433
Sb (206.834 nm)	-0.003287 u	ppm	0.000148	4.49	-3.717500	Y 377.433
Se (196.026 nm)	0.003255	ppm	0.001768	54.30	13.718900	Y 242.219
Si (288.158 nm)	17.652700	ppm	0.040279	0.23	114129.000000	Y 377.433
Sn (189.925 nm)	0.002524	ppm	0.001394	55.22	6.152060	Y 377.433
Sr (421.552 nm)	0.205843	ppm	0.000284	0.14	31023.351737	Y_R 488.368
Th (288.505 nm)	-0.007710 u	ppm	0.000241	3.12	-3.522910	Y 377.433
Ti (336.122 nm)	0.000164	ppm	0.000020	12.08	-267.806000	Y 377.433
Tl (190.794 nm)	0.001318 u	ppm	0.001919	> 100.00	3.076520	Y 377.433
U (409.013 nm)	0.032567	ppm	0.005622	17.26	73.003600	Y 377.433
V (292.401 nm)	0.018754	ppm	0.000048	0.26	821.388000	Y 377.433
Zn (206.200 nm)	0.002750	ppm	0.000384	13.98	16.459500	Y 377.433
Zr (343.823 nm)	0.000225	ppm	0.000306	> 100.00	-148.882000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107665	25604.200611	0.002884	0.26
Y 377.433	1.087505	760634.903174	0.002441	0.22
Y_R 377.433	1.124090	68152.200000	0.001419	0.13
Y_R 488.368	1.139000	60170.700000	0.002740	0.24
Y_R2 488.368	1.108379	117493.994823	0.000127	0.01
Y_R4	1.130410	50868.600000	0.000033	0.00

Sample Name: 280-123483-A-12-A

Date: 5/24/2019 8:58:54 PM Rack:Tube: 1:69

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001092	ppm	0.000286	26.24	-236.845000	Y 377.433
Al (394.401 nm)	0.006502	ppm	0.000173	2.66	229.639000	Y 377.433
Al H (396.152 nm)	0.099336 u	ppm	0.005323	5.36	36.791500	Y_R 377.433
As (188.980 nm)	0.005984	ppm	0.001027	17.16	7.439950	Y 242.219
B (249.678 nm)	0.034891	ppm	0.000817	2.34	295.837000	Y 242.219
Ba (493.408 nm)	0.039224	ppm	0.000010	0.03	5309.860000	Y_R 488.368
Be (234.861 nm)	-0.000086 u	ppm	0.000015	18.09	-10.513200	Y_R 488.368
Bi (223.061 nm)	0.000236	ppm	0.000247	> 100.00	-10.076000	Y 377.433
Ca (315.887 nm)	43.081405	ppm	0.123768	0.29	34146.462327	Y_R 377.433
Cd (214.439 nm)	0.000184	ppm	0.000037	20.09	1.651520	Y 377.433
Co (228.615 nm)	-0.000012 u	ppm	0.000214	> 100.00	-15.413700	Y 242.219
Cr (205.560 nm)	0.004994	ppm	0.000343	6.87	26.525500	Y 377.433
Cu (324.754 nm)	0.000599	ppm	0.000217	36.25	318.038000	Y 377.433
Fe (238.204 nm)	0.024385	ppm	0.000326	1.34	65.839339	Y_R 377.433
Fe H (259.940 nm)	0.024380 u	ppm	0.000100	0.41	45.130700	Y_R 377.433
K (766.491 nm)	6.386370	ppm	0.009997	0.16	8103.980000	Y_R2 488.368
Li (670.783 nm)	0.024700	ppm	0.004525	18.32	-2121.660000	Y_R2 488.368
Mg (279.078 nm)	12.736900	ppm	0.040761	0.32	41687.700000	Y 377.433
Mn (257.610 nm)	0.001323	ppm	0.000034	2.60	349.569000	Y 377.433
Mo (202.032 nm)	0.006507	ppm	0.000056	0.86	93.151800	Y 377.433
Na (589.592 nm)	22.416900	ppm	0.004838	0.02	18561.100000	Y_R2 488.368
Na H (589.593 nm)	22.983268 u	ppm	0.158833	0.69	12352.215517	Y_R4
Ni (231.604 nm)	0.001464	ppm	0.000473	32.28	-1.045050	Y 377.433
P (213.618 nm)	0.021818	ppm	0.004042	18.53	26.727400	Y 242.219
Pb (220.353 nm)	-0.000416 u	ppm	0.000036	8.78	6.977980	Y 242.219
S (181.972 nm)	16.614689	ppm	0.089447	0.54	7623.592708	Y 377.433
Sb (206.834 nm)	-0.004331 u	ppm	0.003518	81.23	-5.543500	Y 377.433
Se (196.026 nm)	0.003725	ppm	0.000223	6.00	14.472100	Y 242.219
Si (288.158 nm)	17.707300	ppm	0.057474	0.32	114480.000000	Y 377.433
Sn (189.925 nm)	0.000832	ppm	0.000546	65.60	3.429850	Y 377.433
Sr (421.552 nm)	0.208011	ppm	0.000691	0.33	31349.895448	Y_R 488.368
Th (288.505 nm)	-0.006288 u	ppm	0.000379	6.03	-1.101910	Y 377.433
Ti (336.122 nm)	0.000068 u	ppm	0.000118	> 100.00	-278.319000	Y 377.433
Tl (190.794 nm)	-0.000862 u	ppm	0.000629	73.00	-1.908340	Y 377.433
U (409.013 nm)	0.024593	ppm	0.000821	3.34	47.550000	Y 377.433
V (292.401 nm)	0.018660	ppm	0.000076	0.41	819.841000	Y 377.433
Zn (206.200 nm)	0.002165	ppm	0.000184	8.51	13.801500	Y 377.433
Zr (343.823 nm)	0.000074	ppm	0.000089	> 100.00	-157.398000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110195	25662.674293	0.002203	0.20
Y 377.433	1.088982	761668.076481	0.002594	0.24
Y_R 377.433	1.122550	68058.800000	0.004236	0.38
Y_R 488.368	1.138530	60146.200000	0.004467	0.39
Y_R2 488.368	1.120033	118729.462157	0.001593	0.14
Y_R4	1.129240	50815.900000	0.012758	1.13

Sample Name: 280-123483-A-13-A

Date: 5/24/2019 9:02:24 PM Rack:Tube: 1:70

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000937	ppm	0.000286	30.50	-246.840000	Y 377.433
Al (394.401 nm)	0.008302	ppm	0.001231	14.83	226.243000	Y 377.433
Al H (396.152 nm)	0.117081 u	ppm	0.004055	3.46	38.888800	Y_R 377.433
As (188.980 nm)	0.003653	ppm	0.001316	36.04	3.927620	Y 242.219
B (249.678 nm)	0.016225	ppm	0.000081	0.50	162.538000	Y 242.219
Ba (493.408 nm)	0.025123	ppm	0.000439	1.75	3904.070000	Y_R 488.368
Be (234.861 nm)	-0.000067 u	ppm	0.000055	81.22	-8.655360	Y_R 488.368
Bi (223.061 nm)	0.000076 u	ppm	0.002519	> 100.00	-10.436100	Y 377.433
Ca (315.887 nm)	30.541040	ppm	0.030300	0.10	24186.830389	Y_R 377.433
Cd (214.439 nm)	0.000017 u	ppm	0.000141	> 100.00	-4.540010	Y 377.433
Co (228.615 nm)	-0.000566 u	ppm	0.000020	3.58	-28.422400	Y 242.219
Cr (205.560 nm)	0.020115	ppm	0.000044	0.22	127.374000	Y 377.433
Cu (324.754 nm)	0.000979	ppm	0.000081	8.24	343.372000	Y 377.433
Fe (238.204 nm)	0.015574	ppm	0.001290	8.28	44.628409	Y_R 377.433
Fe H (259.940 nm)	0.015220 u	ppm	0.002063	13.56	32.461600	Y_R 377.433
K (766.491 nm)	3.095310	ppm	0.088951	2.87	4926.180000	Y_R2 488.368
Li (670.783 nm)	0.027404	ppm	0.004398	16.05	-2075.230000	Y_R2 488.368
Mg (279.078 nm)	10.182600	ppm	0.004171	0.04	33329.200000	Y 377.433
Mn (257.610 nm)	0.000339	ppm	0.000012	3.55	81.442300	Y 377.433
Mo (202.032 nm)	0.007483	ppm	0.000516	6.89	105.448000	Y 377.433
Na (589.592 nm)	14.796100	ppm	0.065325	0.44	12302.000000	Y_R2 488.368
Na H (589.593 nm)	15.320102 u	ppm	0.065526	0.43	8194.517745	Y_R4
Ni (231.604 nm)	-0.000908 u	ppm	0.000481	53.00	-13.317400	Y 377.433
P (213.618 nm)	0.037343	ppm	0.001034	2.77	48.840300	Y 242.219
Pb (220.353 nm)	-0.001535 u	ppm	0.000614	40.00	3.378260	Y 242.219
S (181.972 nm)	7.342768	ppm	0.036557	0.50	3376.853087	Y 377.433
Sb (206.834 nm)	-0.004709 u	ppm	0.003253	69.09	-6.080080	Y 377.433
Se (196.026 nm)	0.001340	ppm	0.000530	39.53	10.875200	Y 242.219
Si (288.158 nm)	20.840700	ppm	0.077092	0.37	134652.000000	Y 377.433
Sn (189.925 nm)	-0.000342 u	ppm	0.001155	> 100.00	1.540430	Y 377.433
Sr (421.552 nm)	0.113605	ppm	0.000453	0.40	17132.142336	Y_R 488.368
Th (288.505 nm)	-0.000689 u	ppm	0.001953	> 100.00	7.478550	Y 377.433
Ti (336.122 nm)	0.000302	ppm	0.000012	3.99	-291.393000	Y 377.433
Tl (190.794 nm)	0.000105 u	ppm	0.002619	> 100.00	0.798303	Y 377.433
U (409.013 nm)	0.011799	ppm	0.002409	20.41	8.623290	Y 377.433
V (292.401 nm)	0.030633	ppm	0.000264	0.86	1437.070000	Y 377.433
Zn (206.200 nm)	0.002578	ppm	0.000121	4.71	15.659300	Y 377.433
Zr (343.823 nm)	0.000012 u	ppm	0.000036	> 100.00	-160.924000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122475	25946.529722	0.000106	0.01
Y 377.433	1.101071	770123.197653	0.001951	0.18
Y_R 377.433	1.139500	69086.500000	0.002506	0.22
Y_R 488.368	1.154810	61005.900000	0.001555	0.13
Y_R2 488.368	1.134987	120314.665364	0.004034	0.36
Y_R4	1.129460	50825.700000	0.019830	1.76

Sample Name: CCVH-5713036

Date: 5/24/2019 9:05:54 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005055	ppm	0.000070	1.38	-102.389000	Y 377.433
Al (394.401 nm)	49.329000 o	ppm	0.089106	0.18	600960.000000	Y 377.433
Al H (396.152 nm)	47.731400	ppm	0.095916	0.20	104080.000000	Y_R 377.433
As (188.980 nm)	0.002041	ppm	0.002283	> 100.00	0.148390	Y 242.219
B (249.678 nm)	-0.002291 u	ppm	0.001050	45.81	1.500020	Y 242.219
Ba (493.408 nm)	0.000544	ppm	0.000099	18.12	1493.440000	Y_R 488.368
Be (234.861 nm)	0.001168	ppm	0.000008	0.69	-97.881700	Y_R 488.368
Bi (223.061 nm)	0.011137	ppm	0.002665	23.93	22.395600	Y 377.433
Ca (315.887 nm)	0.001323 u	ppm	0.006501	> 100.00	-56.008649	Y_R 377.433
Cd (214.439 nm)	0.001420	ppm	0.000014	1.02	67.589400	Y 377.433
Co (228.615 nm)	0.002966	ppm	0.000250	8.43	54.600000	Y 242.219
Cr (205.560 nm)	0.001713	ppm	0.000131	7.66	3.377630	Y 377.433
Cu (324.754 nm)	0.004260	ppm	0.000302	7.08	1455.640000	Y 377.433
Fe (238.204 nm)	49.862035 o	ppm	0.085028	0.17	120033.762347	Y_R 377.433
Fe H (259.940 nm)	49.355600	ppm	0.066564	0.13	68269.400000	Y_R 377.433
K (766.491 nm)	0.162614 u	ppm	0.248933	> 100.00	2094.400000	Y_R2 488.368
Li (670.783 nm)	0.022755	ppm	0.002568	11.28	-2155.060000	Y_R2 488.368
Mg (279.078 nm)	0.038199	ppm	0.000642	1.68	59.510200	Y 377.433
Mn (257.610 nm)	0.000983	ppm	0.000015	1.49	257.020000	Y 377.433
Mo (202.032 nm)	0.001205	ppm	0.000012	0.96	26.320700	Y 377.433
Na (589.592 nm)	225.130000 o	ppm	0.181859	0.08	184960.000000	Y_R2 488.368
Na H (589.593 nm)	232.921647	ppm	1.308568	0.56	126255.573388	Y_R4
Ni (231.604 nm)	0.002423	ppm	0.000791	32.66	3.915070	Y 377.433
P (213.618 nm)	4.898030	ppm	0.041801	0.85	6995.600000	Y 242.219
Pb (220.353 nm)	0.005391	ppm	0.002568	47.63	18.734100	Y 242.219
S (181.972 nm)	4.939296	ppm	0.005699	0.12	2274.677285	Y 377.433
Sb (206.834 nm)	0.003407	ppm	0.002828	83.01	11.734300	Y 377.433
Se (196.026 nm)	0.008445	ppm	0.002521	29.85	8.753720	Y 242.219
Si (288.158 nm)	0.014444	ppm	0.000008	0.05	581.529000	Y 377.433
Sn (189.925 nm)	0.001768	ppm	0.000340	19.24	4.934530	Y 377.433
Sr (421.552 nm)	0.001546	ppm	0.000260	16.83	263.536661	Y_R 488.368
Th (288.505 nm)	4.806540	ppm	0.000106	0.00	8301.350000	Y 377.433
Ti (336.122 nm)	0.001876	ppm	0.000036	1.92	-193.820000	Y 377.433
Tl (190.794 nm)	-0.000134 u	ppm	0.000242	> 100.00	-3.292040	Y 377.433
U (409.013 nm)	0.530260 Q	ppm	0.002188	0.41	1694.050000 Q	Y 377.433
V (292.401 nm)	0.000757	ppm	0.000015	2.00	381.487000	Y 377.433
Zn (206.200 nm)	0.002478	ppm	0.000313	12.62	22.148400	Y 377.433
Zr (343.823 nm)	0.001154	ppm	0.000013	1.14	-96.310500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080520	24976.716330	0.005726	0.53
Y 377.433	1.058670	740466.734455	0.004186	0.40
Y_R 377.433	1.100820	66741.500000	0.000832	0.08
Y_R 488.368	1.105210	58385.800000	0.002760	0.25
Y_R2 488.368	1.116106	118313.108717	0.001804	0.16
Y_R4	1.114310	50144.000000	0.016075	1.44

Sample Name: CCV-5717467

Date: 5/24/2019 9:09:39 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.490118	ppm	0.000386	0.08	16644.100000	Y 377.433
Al (394.401 nm)	0.495793	ppm	0.001286	0.26	6264.520000	Y 377.433
Al H (396.152 nm)	0.549962 u	ppm	0.001900	0.35	1184.460000	Y_R 377.433
As (188.980 nm)	0.491797	ppm	0.001573	0.32	739.441000	Y 242.219
B (249.678 nm)	0.474074	ppm	0.000983	0.21	3430.890000	Y 242.219
Ba (493.408 nm)	0.479987	ppm	0.000787	0.16	49253.100000	Y_R 488.368
Be (234.861 nm)	0.473658	ppm	0.000992	0.21	46634.600000	Y_R 488.368
Bi (223.061 nm)	0.982909	ppm	0.003819	0.39	2142.620000	Y 377.433
Ca (315.887 nm)	4.960898	ppm	0.015938	0.32	3871.064278	Y_R 377.433
Cd (214.439 nm)	0.516156	ppm	0.000584	0.11	19083.300000	Y 377.433
Co (228.615 nm)	0.492633	ppm	0.000821	0.17	11584.300000	Y 242.219
Cr (205.560 nm)	0.510710	ppm	0.005031	0.99	3395.780000	Y 377.433
Cu (324.754 nm)	0.494147	ppm	0.002255	0.46	23363.700000	Y 377.433
Fe (238.204 nm)	2.513507	ppm	0.012011	0.48	6057.589822	Y_R 377.433
Fe H (259.940 nm)	2.495930 u	ppm	0.005701	0.23	3463.250000	Y_R 377.433
K (766.491 nm)	48.059800	ppm	0.087825	0.18	48343.300000	Y_R2 488.368
Li (670.783 nm)	0.505386	ppm	0.006182	1.22	6131.830000	Y_R2 488.368
Mg (279.078 nm)	19.820500	ppm	0.026096	0.13	64864.800000	Y 377.433
Mn (257.610 nm)	0.489654	ppm	0.000474	0.10	133498.000000	Y 377.433
Mo (202.032 nm)	0.497339	ppm	0.001159	0.23	6279.710000	Y 377.433
Na (589.592 nm)	23.196300	ppm	0.106099	0.46	19300.900000	Y_R2 488.368
Na H (589.593 nm)	24.783791 u	ppm	0.287072	1.16	13329.100235	Y_R4
Ni (231.604 nm)	0.507989	ppm	0.002203	0.43	2620.330000	Y 377.433
P (213.618 nm)	0.046912	ppm	0.001174	2.50	-71.110300	Y 242.219
Pb (220.353 nm)	0.496467	ppm	0.000117	0.02	1583.260000	Y 242.219
S (181.972 nm)	-0.002846 u	ppm	0.003691	> 100.00	13.198295	Y 377.433
Sb (206.834 nm)	0.506142	ppm	0.002257	0.45	853.792000	Y 377.433
Se (196.026 nm)	0.497621	ppm	0.002029	0.41	759.481000	Y 242.219
Si (288.158 nm)	4.856450	ppm	0.011946	0.25	31752.300000	Y 377.433
Sn (189.925 nm)	0.511155	ppm	0.001627	0.32	824.568000	Y 377.433
Sr (421.552 nm)	0.468414	ppm	0.000982	0.21	70567.174760	Y_R 488.368
Th (288.505 nm)	0.019790	ppm	0.000792	4.00	-2.737970	Y 377.433
Ti (336.122 nm)	0.482876	ppm	0.000198	0.04	61374.000000	Y 377.433
Tl (190.794 nm)	0.507827	ppm	0.003253	0.64	1160.040000	Y 377.433
U (409.013 nm)	0.010696	ppm	0.004697	43.91	-50.579300	Y 377.433
V (292.401 nm)	0.485981	ppm	0.000031	0.01	24912.800000	Y 377.433
Zn (206.200 nm)	0.516549	ppm	0.000748	0.14	2327.200000	Y 377.433
Zr (343.823 nm)	0.484382	ppm	0.000246	0.05	27260.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110226	25663.399673	0.003311	0.30
Y 377.433	1.087431	760583.179321	0.003446	0.32
Y_R 377.433	1.124420	68172.200000	0.003554	0.32
Y_R 488.368	1.141010	60277.100000	0.004298	0.38
Y_R2 488.368	1.113495	118036.401449	0.005241	0.47
Y_R4	1.114010	50130.400000	0.012190	1.09

Sample Name: CCB

Date: 5/24/2019 9:13:14 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000531	ppm	0.000353	66.54	-248.958000	Y 377.433
Al (394.401 nm)	-0.001888 u	ppm	0.000400	21.17	70.891100	Y 377.433
Al H (396.152 nm)	0.131908 Zu	ppm	0.002572	1.95	30.119200 Z	Y_R 377.433
As (188.980 nm)	0.001907	ppm	0.001237	64.89	1.297350	Y 242.219
B (249.678 nm)	-0.002138 u	ppm	0.000175	8.19	31.405500	Y 242.219
Ba (493.408 nm)	-0.002785 Zu	ppm	0.000424	15.22	1121.830000 Z	Y_R 488.368
Be (234.861 nm)	0.000015	ppm	0.000005	33.06	-0.513454	Y_R 488.368
Bi (223.061 nm)	0.001659	ppm	0.000386	23.27	-6.978990	Y 377.433
Ca (315.887 nm)	0.014086	ppm	0.012065	85.65	-57.852566	Y_R 377.433
Cd (214.439 nm)	0.000048	ppm	0.000029	61.60	-3.420210	Y 377.433
Co (228.615 nm)	-0.000233 u	ppm	0.000227	97.48	-20.611000	Y 242.219
Cr (205.560 nm)	0.000675	ppm	0.000433	64.16	-2.252990	Y 377.433
Cu (324.754 nm)	0.001191	ppm	0.000457	38.36	371.821000	Y 377.433
Fe (238.204 nm)	-0.000071 u	ppm	0.001400	> 100.00	6.969104	Y_R 377.433
Fe H (259.940 nm)	-0.001275 u	ppm	0.002708	> 100.00	9.650000	Y_R 377.433
K (766.491 nm)	-0.181411 u	ppm	0.386781	> 100.00	1762.220000	Y_R2 488.368
Li (670.783 nm)	0.022116 Z	ppm	0.001473	6.66	-2166.030000 Z	Y_R2 488.368
Mg (279.078 nm)	0.005094	ppm	0.001329	26.09	24.755100	Y 377.433
Mn (257.610 nm)	0.000089	ppm	0.000031	34.54	13.301200	Y 377.433
Mo (202.032 nm)	0.000000 u	ppm	0.000352	> 100.00	11.137800	Y 377.433
Na (589.592 nm)	-0.014882 u	ppm	0.030183	> 100.00	137.331000	Y_R2 488.368
Na H (589.593 nm)	0.730207 u	ppm	0.021935	3.00	278.680480	Y_R4
Ni (231.604 nm)	0.000808	ppm	0.000476	58.88	-4.437520	Y 377.433
P (213.618 nm)	-0.004995 u	ppm	0.002601	52.07	-11.225300	Y 242.219
Pb (220.353 nm)	0.001810	ppm	0.001724	95.28	14.054900	Y 242.219
S (181.972 nm)	-0.005704 u	ppm	0.004751	83.30	10.086873	Y 377.433
Sb (206.834 nm)	-0.002076 u	ppm	0.000089	4.28	-1.727990	Y 377.433
Se (196.026 nm)	0.000716	ppm	0.000531	74.20	9.937480	Y 242.219
Si (288.158 nm)	-0.006607 u	ppm	0.000869	13.15	446.013000	Y 377.433
Sn (189.925 nm)	0.000929	ppm	0.000167	18.01	3.585090	Y 377.433
Sr (421.552 nm)	0.000304	ppm	0.000042	13.80	68.946791	Y_R 488.368
Th (288.505 nm)	-0.000155 u	ppm	0.002664	> 100.00	12.531600	Y 377.433
Ti (336.122 nm)	0.000496	ppm	0.000044	8.78	-370.470000	Y 377.433
Tl (190.794 nm)	0.001369	ppm	0.000539	39.41	4.946980	Y 377.433
U (409.013 nm)	0.011430	ppm	0.003464	30.30	11.512700	Y 377.433
V (292.401 nm)	0.000014 u	ppm	0.000199	> 100.00	-146.283000	Y 377.433
Zn (206.200 nm)	-0.000734 u	ppm	0.000082	11.18	0.765441	Y 377.433
Zr (343.823 nm)	0.000009 u	ppm	0.000060	> 100.00	-161.108000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.089212	25177.641891	0.000080	0.01
Y 377.433	1.075763	752421.996441	0.001228	0.11
Y_R 377.433	1.118100	67789.000000	0.003922	0.35
Y_R 488.368	1.131480	59773.600000	0.002117	0.19
Y_R2 488.368	1.117164	118425.267071	0.001023	0.09
Y_R4	1.094050	49232.300000	0.007805	0.71

Sample Name: CCVL-5719884

Date: 5/24/2019 9:16:26 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008137	ppm	0.000200	2.45	12.775600	Y 377.433
Al (394.401 nm)	0.096674	ppm	0.001521	1.57	1280.320000	Y 377.433
Al H (396.152 nm)	0.226800 u	ppm	0.004301	1.90	243.008000	Y_R 377.433
As (188.980 nm)	0.015877	ppm	0.002649	16.69	22.346300	Y 242.219
B (249.678 nm)	0.089796	ppm	0.000370	0.41	687.904000	Y 242.219
Ba (493.408 nm)	0.007648	ppm	0.000456	5.96	2161.970000	Y_R 488.368
Be (234.861 nm)	0.000885	ppm	0.000081	9.12	84.717900	Y_R 488.368
Bi (223.061 nm)	0.091412	ppm	0.002302	2.52	189.616000	Y 377.433
Ca (315.887 nm)	0.216775	ppm	0.008654	3.99	103.147452	Y_R 377.433
Cd (214.439 nm)	0.005234	ppm	0.000029	0.55	188.417000	Y 377.433
Co (228.615 nm)	0.010458	ppm	0.000140	1.34	231.090000	Y 242.219
Cr (205.560 nm)	0.010531	ppm	0.000255	2.42	63.304200	Y 377.433
Cu (324.754 nm)	0.016326	ppm	0.000010	0.06	1077.360000	Y 377.433
Fe (238.204 nm)	0.102549	ppm	0.000384	0.37	253.992095	Y_R 377.433
Fe H (259.940 nm)	0.109025 u	ppm	0.001442	1.32	162.193000	Y_R 377.433
K (766.491 nm)	2.839050	ppm	0.411144	14.48	4678.740000	Y_R2 488.368
Li (670.783 nm)	0.039958 Q	ppm	0.000205	0.51	-1859.690000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204607	ppm	0.001332	0.65	676.623000	Y 377.433
Mn (257.610 nm)	0.010477	ppm	0.000007	0.07	2845.600000	Y 377.433
Mo (202.032 nm)	0.019752	ppm	0.000043	0.22	260.087000	Y 377.433
Na (589.592 nm)	1.028670	ppm	0.015997	1.56	996.392000	Y_R2 488.368
Na H (589.593 nm)	1.663543 u	ppm	0.022769	1.37	785.067654	Y_R4
Ni (231.604 nm)	0.043471	ppm	0.000052	0.12	216.321000	Y 377.433
P (213.618 nm)	2.843860	ppm	0.008300	0.29	4058.320000	Y 242.219
Pb (220.353 nm)	0.010552	ppm	0.000290	2.75	41.878400	Y 242.219
S (181.972 nm)	0.089368	ppm	0.004964	5.55	53.664618	Y 377.433
Sb (206.834 nm)	0.018641	ppm	0.000213	1.14	33.101400	Y 377.433
Se (196.026 nm)	0.019590	ppm	0.001322	6.75	38.394500	Y 242.219
Si (288.158 nm)	0.476274	ppm	0.002560	0.54	3554.590000	Y 377.433
Sn (189.925 nm)	0.103994	ppm	0.001121	1.08	169.423000	Y 377.433
Sr (421.552 nm)	0.009167	ppm	0.000212	2.31	1403.808414	Y_R 488.368
Th (288.505 nm)	0.014508	ppm	0.000056	0.39	37.285700	Y 377.433
Ti (336.122 nm)	0.009900	ppm	0.000056	0.57	833.684000	Y 377.433
Tl (190.794 nm)	0.015919	ppm	0.001173	7.37	38.111200	Y 377.433
U (409.013 nm)	0.055076	ppm	0.013804	25.06	148.748000	Y 377.433
V (292.401 nm)	0.009501	ppm	0.000053	0.56	340.720000	Y 377.433
Zn (206.200 nm)	0.021497	ppm	0.000259	1.20	100.746000	Y 377.433
Zr (343.823 nm)	0.009841	ppm	0.000027	0.27	395.488000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126356	26036.233010	0.005623	0.50
Y 377.433	1.102923	771418.663594	0.003259	0.30
Y_R 377.433	1.137480	68964.000000	0.001567	0.14
Y_R 488.368	1.150620	60784.700000	0.003972	0.35
Y_R2 488.368	1.132342	120034.284257	0.002476	0.22
Y_R4	1.128140	50766.200000	0.005804	0.51

Sample Name: 280-123483-A-13-Asd@5

Date: 5/24/2019 9:19:54 PM Rack:Tube: 1:71

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000598	ppm	0.000337	56.27	-248.565000	Y 377.433
Al (394.401 nm)	0.000794	ppm	0.000501	63.11	107.345000	Y 377.433
Al H (396.152 nm)	0.128515 u	ppm	0.006820	5.31	30.692100	Y_R 377.433
As (188.980 nm)	0.001308 u	ppm	0.002423	> 100.00	0.391218	Y 242.219
B (249.678 nm)	0.000228 u	ppm	0.000466	> 100.00	48.220500	Y 242.219
Ba (493.408 nm)	0.003445	ppm	0.000202	5.87	1743.040000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000005	8.36	-8.046650	Y_R 488.368
Bi (223.061 nm)	-0.000053 u	ppm	0.002110	> 100.00	-10.703200	Y 377.433
Ca (315.887 nm)	6.133371	ppm	0.031240	0.51	4802.118527	Y_R 377.433
Cd (214.439 nm)	0.000066 u	ppm	0.000113	> 100.00	-2.678270	Y 377.433
Co (228.615 nm)	-0.000243 u	ppm	0.000014	5.79	-20.857000	Y 242.219
Cr (205.560 nm)	0.004196	ppm	0.000119	2.84	21.226600	Y 377.433
Cu (324.754 nm)	0.001139	ppm	0.000176	15.46	366.420000	Y 377.433
Fe (238.204 nm)	0.139187	ppm	0.001999	1.44	342.185778	Y_R 377.433
Fe H (259.940 nm)	0.143584 u	ppm	0.000447	0.31	209.987000	Y_R 377.433
K (766.491 nm)	0.586946	ppm	0.010583	1.80	2504.130000	Y_R2 488.368
Li (670.783 nm)	0.020114	ppm	0.000402	2.00	-2200.400000	Y_R2 488.368
Mg (279.078 nm)	2.072910	ppm	0.007397	0.36	6791.570000	Y 377.433
Mn (257.610 nm)	0.001096	ppm	0.000008	0.71	287.714000	Y 377.433
Mo (202.032 nm)	0.001663	ppm	0.000135	8.10	32.094200	Y 377.433
Na (589.592 nm)	2.996380	ppm	0.053929	1.80	2610.750000	Y_R2 488.368
Na H (589.593 nm)	3.586135 u	ppm	0.002318	0.06	1828.181450	Y_R4
Ni (231.604 nm)	0.000483	ppm	0.000021	4.27	-6.119590	Y 377.433
P (213.618 nm)	0.009018	ppm	0.001388	15.39	8.614400	Y 242.219
Pb (220.353 nm)	0.000382 u	ppm	0.001598	> 100.00	9.455740	Y 242.219
S (181.972 nm)	1.466500	ppm	0.010385	0.71	684.590071	Y 377.433
Sb (206.834 nm)	-0.002830 u	ppm	0.001147	40.53	-2.971270	Y 377.433
Se (196.026 nm)	0.001248	ppm	0.000185	14.81	10.704600	Y 242.219
Si (288.158 nm)	4.147800	ppm	0.040136	0.97	27190.300000	Y 377.433
Sn (189.925 nm)	0.001016 u	ppm	0.002574	> 100.00	3.724870	Y 377.433
Sr (421.552 nm)	0.022328	ppm	0.000021	0.09	3385.851705	Y_R 488.368
Th (288.505 nm)	0.000007 u	ppm	0.001549	> 100.00	11.918900	Y 377.433
Ti (336.122 nm)	0.000340	ppm	0.000110	32.44	-369.769000	Y 377.433
Tl (190.794 nm)	-0.000156 u	ppm	0.001396	> 100.00	1.192660	Y 377.433
U (409.013 nm)	0.007319	ppm	0.006476	88.48	-2.244980	Y 377.433
V (292.401 nm)	0.005993	ppm	0.000114	1.89	163.669000	Y 377.433
Zn (206.200 nm)	0.005027	ppm	0.000191	3.80	26.687500	Y 377.433
Zr (343.823 nm)	0.000068 u	ppm	0.000273	> 100.00	-157.760000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124386	25990.704418	0.005429	0.48
Y 377.433	1.100541	769752.817229	0.005284	0.48
Y_R 377.433	1.136660	68914.400000	0.008962	0.79
Y_R 488.368	1.146860	60586.200000	0.002039	0.18
Y_R2 488.368	1.125672	119327.226116	0.004297	0.38
Y_R4	1.135470	51095.900000	0.006347	0.56

Sample Name: 280-123483-A-13-B MS

Date: 5/24/2019 9:23:22 PM Rack:Tube: 1:72

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051919	ppm	0.000488	0.94	1208.840000	Y 377.433
Al (394.401 nm)	9.794190 o	ppm	0.014477	0.15	119918.000000	Y 377.433
Al H (396.152 nm)	9.594690	ppm	0.001284	0.01	21234.900000	Y_R 377.433
As (188.980 nm)	2.011880	ppm	0.005944	0.30	3029.840000	Y 242.219
B (249.678 nm)	0.993957	ppm	0.002401	0.24	7139.360000	Y 242.219
Ba (493.408 nm)	1.973480	ppm	0.000324	0.02	198151.000000	Y_R 488.368
Be (234.861 nm)	0.966925	ppm	0.002347	0.24	95180.900000	Y_R 488.368
Bi (223.061 nm)	1.954250	ppm	0.005016	0.26	4271.290000	Y 377.433
Ca (315.887 nm)	78.764560	ppm	0.003478	0.00	62488.672712	Y_R 377.433
Cd (214.439 nm)	1.017370	ppm	0.000954	0.09	37621.400000	Y 377.433
Co (228.615 nm)	0.965648	ppm	0.000096	0.01	22723.500000	Y 242.219
Cr (205.560 nm)	1.054020	ppm	0.000407	0.04	7015.460000	Y 377.433
Cu (324.754 nm)	0.969074	ppm	0.004586	0.47	45557.400000	Y 377.433
Fe (238.204 nm)	10.064009 o	ppm	0.018797	0.19	24232.967044	Y_R 377.433
Fe H (259.940 nm)	9.982660	ppm	0.015211	0.15	13817.300000	Y_R 377.433
K (766.491 nm)	51.868000	ppm	0.722361	1.39	52020.400000	Y_R2 488.368
Li (670.783 nm)	1.008540	ppm	0.005997	0.59	14771.100000	Y_R2 488.368
Mg (279.078 nm)	59.425900	ppm	0.089890	0.15	194428.000000	Y 377.433
Mn (257.610 nm)	0.983906	ppm	0.002118	0.22	268260.000000	Y 377.433
Mo (202.032 nm)	1.017920	ppm	0.001257	0.12	12841.300000	Y 377.433
Na (589.592 nm)	62.029800 o	ppm	0.219502	0.35	51519.000000	Y_R2 488.368
Na H (589.593 nm)	63.497476	ppm	0.156990	0.25	34333.447894	Y_R4
Ni (231.604 nm)	0.988996	ppm	0.001420	0.14	5110.800000	Y 377.433
P (213.618 nm)	20.317000	ppm	0.008216	0.04	28783.900000	Y 242.219
Pb (220.353 nm)	0.985413	ppm	0.001325	0.13	3137.300000	Y 242.219
S (181.972 nm)	17.428131	ppm	0.057327	0.33	8001.030245	Y 377.433
Sb (206.834 nm)	1.077650	ppm	0.001695	0.16	1817.010000	Y 377.433
Se (196.026 nm)	1.969270	ppm	0.001525	0.08	2977.840000	Y 242.219
Si (288.158 nm)	23.240800	ppm	0.042715	0.18	150103.000000	Y 377.433
Sn (189.925 nm)	2.063040	ppm	0.007706	0.37	3321.640000	Y 377.433
Sr (421.552 nm)	1.060653	ppm	0.000040	0.00	159760.215980	Y_R 488.368
Th (288.505 nm)	0.999305	ppm	0.002764	0.28	1639.470000	Y 377.433
Ti (336.122 nm)	0.982977	ppm	0.001093	0.11	125622.000000	Y 377.433
Tl (190.794 nm)	1.981150	ppm	0.005684	0.29	4522.900000	Y 377.433
U (409.013 nm)	1.970260	ppm	0.002725	0.14	6161.430000	Y 377.433
V (292.401 nm)	1.013480	ppm	0.001981	0.20	52122.500000	Y 377.433
Zn (206.200 nm)	0.509789	ppm	0.001298	0.25	2297.850000	Y 377.433
Zr (343.823 nm)	0.486865	ppm	0.000736	0.15	27400.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071380	24765.451830	0.001533	0.14
Y 377.433	1.057559	739690.036103	0.000664	0.06
Y_R 377.433	1.111180	67369.600000	0.000100	0.01
Y_R 488.368	1.125100	59436.500000	0.000005	0.00
Y_R2 488.368	1.093208	115885.837132	0.003910	0.36
Y_R4	1.116960	50263.000000	0.000126	0.01

Sample Name: 280-123483-A-13-C MSD

Date: 5/24/2019 9:27:01 PM Rack:Tube: 1:73

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051566	ppm	0.000232	0.45	1198.770000	Y 377.433
Al (394.401 nm)	9.730200 o	ppm	0.018209	0.19	119134.000000	Y 377.433
Al H (396.152 nm)	9.543630	ppm	0.007082	0.07	21119.700000	Y_R 377.433
As (188.980 nm)	1.991650	ppm	0.005265	0.26	2999.350000	Y 242.219
B (249.678 nm)	0.989844	ppm	0.001199	0.12	7110.020000	Y 242.219
Ba (493.408 nm)	1.957530	ppm	0.001591	0.08	196561.000000	Y_R 488.368
Be (234.861 nm)	0.969503	ppm	0.001503	0.16	95435.100000	Y_R 488.368
Bi (223.061 nm)	1.942190	ppm	0.004458	0.23	4244.880000	Y 377.433
Ca (315.887 nm)	78.808529	ppm	0.025442	0.03	62523.579505	Y_R 377.433
Cd (214.439 nm)	1.010620	ppm	0.003657	0.36	37371.600000	Y 377.433
Co (228.615 nm)	0.958851	ppm	0.002501	0.26	22563.500000	Y 242.219
Cr (205.560 nm)	1.045350	ppm	0.003681	0.35	6957.630000	Y 377.433
Cu (324.754 nm)	0.966505	ppm	0.002801	0.29	45437.600000	Y 377.433
Fe (238.204 nm)	10.005832 o	ppm	0.003587	0.04	24092.924135	Y_R 377.433
Fe H (259.940 nm)	9.917040	ppm	0.032618	0.33	13726.500000	Y_R 377.433
K (766.491 nm)	51.424900	ppm	0.600793	1.17	51592.700000	Y_R2 488.368
Li (670.783 nm)	1.001950	ppm	0.002234	0.22	14658.000000	Y_R2 488.368
Mg (279.078 nm)	59.380500	ppm	0.177062	0.30	194280.000000	Y 377.433
Mn (257.610 nm)	0.978717	ppm	0.003044	0.31	266846.000000	Y 377.433
Mo (202.032 nm)	1.012500	ppm	0.001313	0.13	12772.900000	Y 377.433
Na (589.592 nm)	61.765900 o	ppm	0.006081	0.01	51298.500000	Y_R2 488.368
Na H (589.593 nm)	63.438071	ppm	0.039552	0.06	34301.217695	Y_R4
Ni (231.604 nm)	0.982030	ppm	0.005021	0.51	5074.740000	Y 377.433
P (213.618 nm)	20.171300	ppm	0.066674	0.33	28575.900000	Y 242.219
Pb (220.353 nm)	0.980890	ppm	0.000729	0.07	3122.940000	Y 242.219
S (181.972 nm)	17.430579	ppm	0.065954	0.38	8002.140372	Y 377.433
Sb (206.834 nm)	1.062050	ppm	0.002007	0.19	1790.670000	Y 377.433
Se (196.026 nm)	1.951380	ppm	0.005582	0.29	2950.850000	Y 242.219
Si (288.158 nm)	23.696500	ppm	0.005118	0.02	153037.000000	Y 377.433
Sn (189.925 nm)	2.043400	ppm	0.002394	0.12	3290.030000	Y 377.433
Sr (421.552 nm)	1.053046	ppm	0.001386	0.13	158614.479535	Y_R 488.368
Th (288.505 nm)	0.989349	ppm	0.001620	0.16	1622.800000	Y 377.433
Ti (336.122 nm)	0.977634	ppm	0.002051	0.21	124939.000000	Y 377.433
Tl (190.794 nm)	1.964500	ppm	0.009854	0.50	4484.860000	Y 377.433
U (409.013 nm)	1.965980	ppm	0.001890	0.10	6148.090000	Y 377.433
V (292.401 nm)	1.007160	ppm	0.003485	0.35	51797.900000	Y 377.433
Zn (206.200 nm)	0.505347	ppm	0.001504	0.30	2277.870000	Y 377.433
Zr (343.823 nm)	0.483918	ppm	0.001049	0.22	27233.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.065796	24636.369196	0.001549	0.15
Y 377.433	1.052791	736354.870475	0.002461	0.23
Y_R 377.433	1.095180	66399.200000	0.001551	0.14
Y_R 488.368	1.110020	58639.900000	0.000327	0.03
Y_R2 488.368	1.097886	116381.737318	0.000294	0.03
Y_R4	1.104890	49720.000000	0.000365	0.03

Sample Name: 280-123483-A-13-Apds

Date: 5/24/2019 9:30:41 PM Rack:Tube: 1:74

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.048035	ppm	0.000238	0.50	1371.230000	Y 377.433
Al (394.401 nm)	0.999728	ppm	0.002627	0.26	12354.800000	Y 377.433
Al H (396.152 nm)	1.095380	ppm	0.001281	0.12	2195.980000	Y_R 377.433
As (188.980 nm)	0.205601	ppm	0.001599	0.78	308.214000	Y 242.219
B (249.678 nm)	0.115367	ppm	0.000753	0.65	869.970000	Y 242.219
Ba (493.408 nm)	0.123583	ppm	0.000023	0.02	13720.800000	Y_R 488.368
Be (234.861 nm)	0.048870	ppm	0.000159	0.33	4806.430000	Y_R 488.368
Bi (223.061 nm)	0.003191	ppm	0.001460	45.77	-3.391760	Y 377.433
Ca (315.887 nm)	49.197629	ppm	0.123399	0.25	39004.247392	Y_R 377.433
Cd (214.439 nm)	0.052693	ppm	0.000058	0.11	1943.830000	Y 377.433
Co (228.615 nm)	0.048680	ppm	0.000701	1.44	1131.040000	Y 242.219
Cr (205.560 nm)	0.071250	ppm	0.000665	0.93	468.027000	Y 377.433
Cu (324.754 nm)	0.051219	ppm	0.000038	0.07	2686.990000	Y 377.433
Fe (238.204 nm)	1.058662	ppm	0.001124	0.11	2555.524171	Y_R 377.433
Fe H (259.940 nm)	1.055520 u	ppm	0.001651	0.16	1471.180000	Y_R 377.433
K (766.491 nm)	22.760000	ppm	0.110883	0.49	23914.100000	Y_R2 488.368
Li (670.783 nm)	0.123192	ppm	0.003593	2.92	-430.538000	Y_R2 488.368
Mg (279.078 nm)	29.864500	ppm	0.109305	0.37	97726.300000	Y 377.433
Mn (257.610 nm)	0.050508	ppm	0.000190	0.38	13760.300000	Y 377.433
Mo (202.032 nm)	0.058436	ppm	0.000518	0.89	747.676000	Y 377.433
Na (589.592 nm)	33.276400	ppm	0.150629	0.45	27494.900000	Y_R2 488.368
Na H (589.593 nm)	34.150209 u	ppm	0.062626	0.18	18410.908046	Y_R4
Ni (231.604 nm)	0.049922	ppm	0.000249	0.50	249.915000	Y 377.433
P (213.618 nm)	2.033210	ppm	0.009146	0.45	2888.850000	Y 242.219
Pb (220.353 nm)	0.100597	ppm	0.000754	0.75	328.704000	Y 242.219
S (181.972 nm)	7.185344	ppm	0.034236	0.48	3305.849998	Y 377.433
Sb (206.834 nm)	0.101562	ppm	0.003467	3.41	173.140000	Y 377.433
Se (196.026 nm)	0.200227	ppm	0.005164	2.58	310.643000	Y 242.219
Si (288.158 nm)	25.471500	ppm	0.237451	0.93	164463.000000	Y 377.433
Sn (189.925 nm)	0.104739	ppm	0.000230	0.22	170.621000	Y 377.433
Sr (421.552 nm)	0.157191	ppm	0.000280	0.18	23696.458830	Y_R 488.368
Th (288.505 nm)	0.202799	ppm	0.006429	3.17	355.360000	Y 377.433
Ti (336.122 nm)	0.049207	ppm	0.000172	0.35	6031.030000	Y 377.433
Tl (190.794 nm)	0.205361	ppm	0.000137	0.07	469.096000	Y 377.433
U (409.013 nm)	0.513994	ppm	0.002095	0.41	1593.730000	Y 377.433
V (292.401 nm)	0.079731	ppm	0.000212	0.27	3964.550000	Y 377.433
Zn (206.200 nm)	0.212588	ppm	0.000087	0.04	960.162000	Y 377.433
Zr (343.823 nm)	0.049472	ppm	0.000218	0.44	2639.080000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092613	25256.251269	0.003212	0.29
Y 377.433	1.074669	751657.091478	0.004263	0.40
Y_R 377.433	1.120150	67913.500000	0.007586	0.68
Y_R 488.368	1.134580	59937.000000	0.005106	0.45
Y_R2 488.368	1.111883	117865.496370	0.002666	0.24
Y_R4	1.105690	49756.200000	0.003117	0.28

Sample Name: 280-123483-A-14-A

Date: 5/24/2019 9:34:14 PM Rack:Tube: 1:75

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001066	ppm	0.000324	30.42	-242.112000	Y 377.433
Al (394.401 nm)	0.003155	ppm	0.000854	27.06	164.582000	Y 377.433
Al H (396.152 nm)	0.110453 u	ppm	0.004851	4.39	23.996200	Y_R 377.433
As (188.980 nm)	0.004090	ppm	0.000470	11.50	4.586340	Y 242.219
B (249.678 nm)	0.015605	ppm	0.000580	3.72	158.116000	Y 242.219
Ba (493.408 nm)	0.024854	ppm	0.000248	1.00	3877.300000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000020	34.42	-7.690220	Y_R 488.368
Bi (223.061 nm)	0.000287 u	ppm	0.001079	> 100.00	-9.975680	Y 377.433
Ca (315.887 nm)	29.091394	ppm	0.155710	0.54	23035.512801	Y_R 377.433
Cd (214.439 nm)	0.000116	ppm	0.000064	54.93	-0.873252	Y 377.433
Co (228.615 nm)	-0.000193 u	ppm	0.000213	> 100.00	-19.658800	Y 242.219
Cr (205.560 nm)	0.019752	ppm	0.000631	3.20	124.952000	Y 377.433
Cu (324.754 nm)	0.001289	ppm	0.000166	12.84	357.713000	Y 377.433
Fe (238.204 nm)	0.005518	ppm	0.003879	70.29	20.422230	Y_R 377.433
Fe H (259.940 nm)	0.005092 u	ppm	0.000398	7.81	18.455400	Y_R 377.433
K (766.491 nm)	2.976040	ppm	0.517300	17.38	4811.010000	Y_R2 488.368
Li (670.783 nm)	0.024768	ppm	0.000125	0.50	-2120.490000	Y_R2 488.368
Mg (279.078 nm)	9.761620	ppm	0.005334	0.05	31951.500000	Y 377.433
Mn (257.610 nm)	0.000492	ppm	0.000011	2.16	123.221000	Y 377.433
Mo (202.032 nm)	0.007653	ppm	0.000044	0.57	107.590000	Y 377.433
Na (589.592 nm)	14.559300	ppm	0.021092	0.14	12107.600000	Y_R2 488.368
Na H (589.593 nm)	15.013806 u	ppm	0.007004	0.05	8028.334734	Y_R4
Ni (231.604 nm)	-0.000564 u	ppm	0.000568	> 100.00	-11.540000	Y 377.433
P (213.618 nm)	0.034990	ppm	0.003542	10.12	45.405700	Y 242.219
Pb (220.353 nm)	0.000735	ppm	0.000471	64.07	10.608400	Y 242.219
S (181.972 nm)	6.991214	ppm	0.023318	0.33	3215.790121	Y 377.433
Sb (206.834 nm)	-0.005158 u	ppm	0.000468	9.08	-6.843380	Y 377.433
Se (196.026 nm)	0.001715	ppm	0.000620	36.15	11.444100	Y 242.219
Si (288.158 nm)	20.396900	ppm	0.048877	0.24	131795.000000	Y 377.433
Sn (189.925 nm)	0.001648	ppm	0.000058	3.50	4.742070	Y 377.433
Sr (421.552 nm)	0.111681	ppm	0.000057	0.05	16842.503551	Y_R 488.368
Th (288.505 nm)	-0.005736 u	ppm	0.000325	5.67	-1.061150	Y 377.433
Ti (336.122 nm)	0.000107	ppm	0.000058	54.43	-321.075000	Y 377.433
Tl (190.794 nm)	-0.000057 u	ppm	0.001152	> 100.00	0.484323	Y 377.433
U (409.013 nm)	0.019056	ppm	0.001381	7.25	31.832100	Y 377.433
V (292.401 nm)	0.029636	ppm	0.000127	0.43	1384.760000	Y 377.433
Zn (206.200 nm)	0.002651	ppm	0.000264	9.96	15.984400	Y 377.433
Zr (343.823 nm)	0.000125 u	ppm	0.000262	> 100.00	-154.519000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075272	24855.404190	0.001970	0.18
Y 377.433	1.065376	745157.259861	0.001688	0.16
Y_R 377.433	1.085770	65828.900000	0.005384	0.50
Y_R 488.368	1.098370	58024.300000	0.002101	0.19
Y_R2 488.368	1.091324	115686.159433	0.008999	0.82
Y_R4	1.080380	48616.900000	0.003823	0.35

Sample Name: 280-123483-A-20-A

Date: 5/24/2019 9:37:43 PM Rack:Tube: 1:76

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001058	ppm	0.000012	1.11	-242.427000	Y 377.433
Al (394.401 nm)	0.005497	ppm	0.000207	3.77	189.901000	Y 377.433
Al H (396.152 nm)	0.116975 u	ppm	0.009608	8.21	38.718700	Y_R 377.433
As (188.980 nm)	0.005195	ppm	0.000332	6.39	6.229460	Y 242.219
B (249.678 nm)	0.015676	ppm	0.000848	5.41	158.131000	Y 242.219
Ba (493.408 nm)	0.025330	ppm	0.000167	0.66	3925.400000	Y_R 488.368
Be (234.861 nm)	-0.000052 u	ppm	0.000040	76.38	-10.668300	Y_R 488.368
Bi (223.061 nm)	0.001420	ppm	0.000812	57.22	-7.349740	Y 377.433
Ca (315.887 nm)	29.285458	ppm	0.092707	0.32	23189.641111	Y_R 377.433
Cd (214.439 nm)	0.000189	ppm	0.000104	54.85	2.145740	Y 377.433
Co (228.615 nm)	-0.000233 u	ppm	0.000516	> 100.00	-20.612900	Y 242.219
Cr (205.560 nm)	0.021092	ppm	0.000610	2.89	133.885000	Y 377.433
Cu (324.754 nm)	0.000859	ppm	0.000249	28.96	339.770000	Y 377.433
Fe (238.204 nm)	0.845953	ppm	0.002710	0.32	2043.497214	Y_R 377.433
Fe H (259.940 nm)	0.847412 u	ppm	0.000882	0.10	1183.370000	Y_R 377.433
K (766.491 nm)	2.841060	ppm	0.432996	15.24	4680.680000	Y_R2 488.368
Li (670.783 nm)	0.025169	ppm	0.001954	7.76	-2113.610000	Y_R2 488.368
Mg (279.078 nm)	9.839010	ppm	0.033199	0.34	32203.800000	Y 377.433
Mn (257.610 nm)	0.004507	ppm	0.000014	0.31	1217.720000	Y 377.433
Mo (202.032 nm)	0.008206	ppm	0.000379	4.62	114.562000	Y 377.433
Na (589.592 nm)	14.563500	ppm	0.092809	0.64	12111.200000	Y_R2 488.368
Na H (589.593 nm)	15.177992 u	ppm	0.073629	0.49	8117.414840	Y_R4
Ni (231.604 nm)	0.000145	ppm	0.000041	27.94	-7.869320	Y 377.433
P (213.618 nm)	0.036525	ppm	0.000241	0.66	47.687800	Y 242.219
Pb (220.353 nm)	0.000603 u	ppm	0.001697	> 100.00	10.161900	Y 242.219
S (181.972 nm)	7.070215	ppm	0.023033	0.33	3251.991871	Y 377.433
Sb (206.834 nm)	-0.003522 u	ppm	0.002164	61.44	-4.004840	Y 377.433
Se (196.026 nm)	0.003227	ppm	0.001511	46.83	13.513900	Y 242.219
Si (288.158 nm)	20.582000	ppm	0.011061	0.05	132986.000000	Y 377.433
Sn (189.925 nm)	0.001583	ppm	0.000634	40.04	4.636760	Y 377.433
Sr (421.552 nm)	0.113068	ppm	0.000024	0.02	17051.486611	Y_R 488.368
Th (288.505 nm)	0.003933	ppm	0.003522	89.56	15.536600	Y 377.433
Ti (336.122 nm)	0.000364	ppm	0.000000	0.03	-287.498000	Y 377.433
Tl (190.794 nm)	-0.000018 u	ppm	0.000311	> 100.00	0.459937	Y 377.433
U (409.013 nm)	0.010899	ppm	0.011456	> 100.00	6.539540	Y 377.433
V (292.401 nm)	0.029968	ppm	0.000171	0.57	1402.930000	Y 377.433
Zn (206.200 nm)	0.019951	ppm	0.000017	0.09	93.896400	Y 377.433
Zr (343.823 nm)	0.000215	ppm	0.000104	48.30	-149.427000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.078424	24928.283564	0.004593	0.43
Y 377.433	1.069988	748382.759548	0.005376	0.50
Y_R 377.433	1.085430	65808.500000	0.006645	0.61
Y_R 488.368	1.095030	57847.900000	0.005467	0.50
Y_R2 488.368	1.098020	116395.904328	0.003670	0.33
Y_R4	1.088630	48988.400000	0.010096	0.93

Sample Name: 280-123483-A-22-A

Date: 5/24/2019 9:41:16 PM Rack:Tube: 1:77

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000800	ppm	0.000083	10.32	-251.739000	Y 377.433
Al (394.401 nm)	0.004513	ppm	0.000226	5.00	182.710000	Y 377.433
Al H (396.152 nm)	0.111266 u	ppm	0.000320	0.29	27.164300	Y_R 377.433
As (188.980 nm)	0.003709	ppm	0.001127	30.39	4.013420	Y 242.219
B (249.678 nm)	0.016146	ppm	0.001174	7.27	161.971000	Y 242.219
Ba (493.408 nm)	0.025640	ppm	0.000103	0.40	3955.570000	Y_R 488.368
Be (234.861 nm)	-0.000044 u	ppm	0.000030	67.82	-6.380110	Y_R 488.368
Bi (223.061 nm)	0.000379 u	ppm	0.000766	> 100.00	-9.774260	Y 377.433
Ca (315.887 nm)	29.952044	ppm	0.137012	0.46	23719.045446	Y_R 377.433
Cd (214.439 nm)	0.000117	ppm	0.000104	88.78	-0.842939	Y 377.433
Co (228.615 nm)	-0.000401 u	ppm	0.000053	13.14	-24.549600	Y 242.219
Cr (205.560 nm)	0.019366	ppm	0.000541	2.79	122.374000	Y 377.433
Cu (324.754 nm)	0.000453	ppm	0.000347	76.62	318.123000	Y 377.433
Fe (238.204 nm)	0.010551	ppm	0.000716	6.79	32.538038	Y_R 377.433
Fe H (259.940 nm)	0.012903 u	ppm	0.000075	0.58	29.258000	Y_R 377.433
K (766.491 nm)	3.076620	ppm	0.259455	8.43	4908.130000	Y_R2 488.368
Li (670.783 nm)	0.022907	ppm	0.000516	2.25	-2152.450000	Y_R2 488.368
Mg (279.078 nm)	10.071200	ppm	0.019589	0.19	32964.400000	Y 377.433
Mn (257.610 nm)	0.000262	ppm	0.000012	4.62	60.439900	Y 377.433
Mo (202.032 nm)	0.008104	ppm	0.000205	2.53	113.275000	Y 377.433
Na (589.592 nm)	14.970800	ppm	0.096424	0.64	12445.500000	Y_R2 488.368
Na H (589.593 nm)	15.371156 u	ppm	0.091239	0.59	8222.217228	Y_R4
Ni (231.604 nm)	-0.000683 u	ppm	0.000263	38.43	-12.154000	Y 377.433
P (213.618 nm)	0.038704	ppm	0.002552	6.59	50.853700	Y 242.219
Pb (220.353 nm)	-0.000869 u	ppm	0.001459	> 100.00	5.527260	Y 242.219
S (181.972 nm)	7.245108	ppm	0.017057	0.24	3332.106163	Y 377.433
Sb (206.834 nm)	-0.001851 u	ppm	0.000032	1.71	-1.260520	Y 377.433
Se (196.026 nm)	0.002288	ppm	0.000287	12.53	12.306900	Y 242.219
Si (288.158 nm)	21.037200	ppm	0.030426	0.14	135917.000000	Y 377.433
Sn (189.925 nm)	0.000347 u	ppm	0.001319	> 100.00	2.648610	Y 377.433
Sr (421.552 nm)	0.115583	ppm	0.000495	0.43	17430.118958	Y_R 488.368
Th (288.505 nm)	-0.002493 u	ppm	0.001556	62.43	4.456590	Y 377.433
Ti (336.122 nm)	0.000158	ppm	0.000073	46.15	-311.363000	Y 377.433
Tl (190.794 nm)	0.001115	ppm	0.000950	85.18	3.126030	Y 377.433
U (409.013 nm)	0.014256	ppm	0.001002	7.03	16.471000	Y 377.433
V (292.401 nm)	0.030554	ppm	0.000275	0.90	1432.240000	Y 377.433
Zn (206.200 nm)	0.002117	ppm	0.000445	21.00	13.586200	Y 377.433
Zr (343.823 nm)	0.000130	ppm	0.000160	> 100.00	-154.263000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076908	24893.237839	0.001910	0.18
Y 377.433	1.067042	746322.824252	0.001906	0.18
Y_R 377.433	1.103680	66914.500000	0.004742	0.43
Y_R 488.368	1.115400	58924.100000	0.002895	0.26
Y_R2 488.368	1.108589	117516.257977	0.003333	0.30
Y_R4	1.098060	49412.600000	0.003807	0.35

Sample Name: 280-123533-A-2-A

Date: 5/24/2019 9:44:45 PM Rack:Tube: 1:78

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001109	ppm	0.000409	36.87	-235.988000	Y 377.433
Al (394.401 nm)	0.012423	ppm	0.000561	4.52	345.282000	Y 377.433
Al H (396.152 nm)	0.076408 u	ppm	0.003796	4.97	45.506100	Y_R 377.433
As (188.980 nm)	0.007808	ppm	0.002814	36.04	10.187900	Y 242.219
B (249.678 nm)	0.012451	ppm	0.000408	3.27	135.537000	Y 242.219
Ba (493.408 nm)	0.058082	ppm	0.000247	0.42	7189.980000	Y_R 488.368
Be (234.861 nm)	-0.000125 u	ppm	0.000012	9.63	-14.659000	Y_R 488.368
Bi (223.061 nm)	-0.001256 u	ppm	0.001592	> 100.00	-13.329000	Y 377.433
Ca (315.887 nm)	74.912828	ppm	0.046094	0.06	59427.156410	Y_R 377.433
Cd (214.439 nm)	0.000163	ppm	0.000023	13.98	0.897507	Y 377.433
Co (228.615 nm)	-0.000335 u	ppm	0.000183	54.53	-22.993400	Y 242.219
Cr (205.560 nm)	0.018839	ppm	0.000097	0.52	118.862000	Y 377.433
Cu (324.754 nm)	0.000983	ppm	0.000084	8.52	316.189000	Y 377.433
Fe (238.204 nm)	0.090849	ppm	0.001634	1.80	225.828064	Y_R 377.433
Fe H (259.940 nm)	0.091067 u	ppm	0.000537	0.59	137.358000	Y_R 377.433
K (766.491 nm)	8.524570	ppm	0.115973	1.36	10168.600000	Y_R2 488.368
Li (670.783 nm)	0.024953	ppm	0.002224	8.91	-2117.320000	Y_R2 488.368
Mg (279.078 nm)	19.681100	ppm	0.037020	0.19	64411.300000	Y 377.433
Mn (257.610 nm)	0.001979	ppm	0.000013	0.67	528.590000	Y 377.433
Mo (202.032 nm)	0.006520	ppm	0.000369	5.66	93.307200	Y 377.433
Na (589.592 nm)	26.208300	ppm	0.028347	0.11	21677.800000	Y_R2 488.368
Na H (589.593 nm)	26.675732 u	ppm	0.125367	0.47	14355.584662	Y_R4
Ni (231.604 nm)	0.001807	ppm	0.000068	3.76	0.730471	Y 377.433
P (213.618 nm)	0.018146	ppm	0.001443	7.95	21.286700	Y 242.219
Pb (220.353 nm)	-0.002084 u	ppm	0.001193	57.24	1.685850	Y 242.219
S (181.972 nm)	40.100010	ppm	0.131006	0.33	18380.382127	Y 377.433
Sb (206.834 nm)	-0.003880 u	ppm	0.000011	0.28	-4.678600	Y 377.433
Se (196.026 nm)	0.006926	ppm	0.001909	27.56	19.283000	Y 242.219
Si (288.158 nm)	18.133000	ppm	0.013923	0.08	117221.000000	Y 377.433
Sn (189.925 nm)	0.001141	ppm	0.001586	> 100.00	3.927050	Y 377.433
Sr (421.552 nm)	0.364934	ppm	0.000514	0.14	54982.689558	Y_R 488.368
Th (288.505 nm)	-0.006158 u	ppm	0.002920	47.42	-1.497750	Y 377.433
Ti (336.122 nm)	0.000152	ppm	0.000165	> 100.00	-158.127000	Y 377.433
Tl (190.794 nm)	0.000619	ppm	0.000683	> 100.00	0.187166	Y 377.433
U (409.013 nm)	0.033956	ppm	0.002529	7.45	73.004300	Y 377.433
V (292.401 nm)	0.017353	ppm	0.000191	1.10	745.863000	Y 377.433
Zn (206.200 nm)	0.001972	ppm	0.000081	4.09	12.946400	Y 377.433
Zr (343.823 nm)	0.000167	ppm	0.000011	6.51	-152.189000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087731	25143.407691	0.006435	0.59
Y 377.433	1.070186	748521.173788	0.005634	0.53
Y_R 377.433	1.109160	67247.300000	0.002912	0.26
Y_R 488.368	1.121690	59256.400000	0.000407	0.04
Y_R2 488.368	1.100490	116657.812816	0.001761	0.16
Y_R4	1.101800	49580.800000	0.010123	0.92

Sample Name: 280-123533-A-3-A

Date: 5/24/2019 9:48:13 PM Rack:Tube: 1:79

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001525	ppm	0.000190	12.43	-221.540000	Y 377.433
Al (394.401 nm)	0.010677	ppm	0.001101	10.31	322.798000	Y 377.433
Al H (396.152 nm)	0.064675 u	ppm	0.000212	0.33	19.379200	Y_R 377.433
As (188.980 nm)	0.007804	ppm	0.001884	24.14	10.183300	Y 242.219
B (249.678 nm)	0.012322	ppm	0.000500	4.06	134.653000	Y 242.219
Ba (493.408 nm)	0.056905	ppm	0.000116	0.20	7072.580000	Y_R 488.368
Be (234.861 nm)	-0.000031 u	ppm	0.000013	42.87	-5.114200	Y_R 488.368
Bi (223.061 nm)	0.000374 u	ppm	0.001104	> 100.00	-9.769060	Y 377.433
Ca (315.887 nm)	71.663335	ppm	0.127712	0.18	56846.390577	Y_R 377.433
Cd (214.439 nm)	0.000149	ppm	0.000045	30.19	0.333525	Y 377.433
Co (228.615 nm)	-0.000107 u	ppm	0.000219	> 100.00	-17.646700	Y 242.219
Cr (205.560 nm)	0.014182	ppm	0.000041	0.29	87.801000	Y 377.433
Cu (324.754 nm)	0.000352	ppm	0.000035	9.83	289.029000	Y 377.433
Fe (238.204 nm)	0.027686	ppm	0.000313	1.13	73.785537	Y_R 377.433
Fe H (259.940 nm)	0.024980 u	ppm	0.001963	7.86	45.959900	Y_R 377.433
K (766.491 nm)	8.359360	ppm	0.414704	4.96	10009.100000	Y_R2 488.368
Li (670.783 nm)	0.029311	ppm	0.003321	11.33	-2042.490000	Y_R2 488.368
Mg (279.078 nm)	19.017600	ppm	0.021288	0.11	62240.000000	Y 377.433
Mn (257.610 nm)	0.001362	ppm	0.000007	0.51	360.424000	Y 377.433
Mo (202.032 nm)	0.006600	ppm	0.000134	2.02	94.315400	Y 377.433
Na (589.592 nm)	25.826800	ppm	0.102948	0.40	21364.300000	Y_R2 488.368
Na H (589.593 nm)	26.722078 u	ppm	0.222266	0.83	14380.729723	Y_R4
Ni (231.604 nm)	0.001090	ppm	0.001169	> 100.00	-2.982380	Y 377.433
P (213.618 nm)	0.017354	ppm	0.002341	13.49	20.286800	Y 242.219
Pb (220.353 nm)	-0.001864 u	ppm	0.000546	29.28	2.398910	Y 242.219
S (181.972 nm)	39.155356	ppm	0.000676	0.00	17947.615207	Y 377.433
Sb (206.834 nm)	-0.004817 u	ppm	0.002379	49.39	-6.292210	Y 377.433
Se (196.026 nm)	0.008682	ppm	0.004295	49.47	21.947300	Y 242.219
Si (288.158 nm)	17.672800	ppm	0.045623	0.26	114258.000000	Y 377.433
Sn (189.925 nm)	0.001878	ppm	0.000487	25.96	5.111560	Y 377.433
Sr (421.552 nm)	0.361966	ppm	0.000085	0.02	54535.592290	Y_R 488.368
Th (288.505 nm)	-0.004453 u	ppm	0.004405	98.90	1.541450	Y 377.433
Ti (336.122 nm)	-0.000230 u	ppm	0.000018	7.95	-217.760000	Y 377.433
Tl (190.794 nm)	-0.000606 u	ppm	0.000377	62.14	-2.477920	Y 377.433
U (409.013 nm)	0.031013	ppm	0.001600	5.16	64.059800	Y 377.433
V (292.401 nm)	0.017279	ppm	0.000010	0.06	743.643000	Y 377.433
Zn (206.200 nm)	0.002559	ppm	0.000483	18.87	15.576000	Y 377.433
Zr (343.823 nm)	0.000135	ppm	0.000171	> 100.00	-154.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.067507	24675.911474	0.007843	0.73
Y 377.433	1.060674	741868.357756	0.007922	0.75
Y_R 377.433	1.107870	67168.600000	0.005620	0.51
Y_R 488.368	1.118510	59088.600000	0.004435	0.40
Y_R2 488.368	1.111826	117859.462439	0.003371	0.30
Y_R4	1.093990	49229.300000	0.007601	0.69

Sample Name: 280-123533-A-9-A

Date: 5/24/2019 9:51:43 PM Rack:Tube: 1:80

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001694	ppm	0.000370	21.83	-214.702000	Y 377.433
Al (394.401 nm)	0.019959	ppm	0.000729	3.65	543.437000	Y 377.433
Al H (396.152 nm)	-0.009725 u	ppm	0.006340	65.19	10.898000	Y_R 377.433
As (188.980 nm)	0.007130	ppm	0.005406	75.82	9.162620	Y 242.219
B (249.678 nm)	0.015302	ppm	0.000030	0.19	155.841000	Y 242.219
Ba (493.408 nm)	0.126536	ppm	0.000178	0.14	14014.500000	Y_R 488.368
Be (234.861 nm)	-0.000046 u	ppm	0.000038	81.06	-7.393620	Y_R 488.368
Bi (223.061 nm)	-0.000442 u	ppm	0.001175	> 100.00	-11.518600	Y 377.433
Ca (315.887 nm)	162.071188	ppm	0.676089	0.42	128648.827829	Y_R 377.433
Cd (214.439 nm)	0.000220	ppm	0.000100	45.59	3.043620	Y 377.433
Co (228.615 nm)	-0.000120 u	ppm	0.000351	> 100.00	-17.909000	Y 242.219
Cr (205.560 nm)	0.009132	ppm	0.000077	0.85	54.122800	Y 377.433
Cu (324.754 nm)	0.000614	ppm	0.000144	23.46	249.719000	Y 377.433
Fe (238.204 nm)	0.198000	ppm	0.001679	0.85	483.759956	Y_R 377.433
Fe H (259.940 nm)	0.189080 u	ppm	0.003341	1.77	272.909000	Y_R 377.433
K (766.491 nm)	12.888700	ppm	0.066817	0.52	14382.500000	Y_R2 488.368
Li (670.783 nm)	0.033644	ppm	0.001759	5.23	-1968.090000	Y_R2 488.368
Mg (279.078 nm)	44.613900	ppm	0.054303	0.12	146000.000000	Y 377.433
Mn (257.610 nm)	0.001550	ppm	0.000018	1.19	411.529000	Y 377.433
Mo (202.032 nm)	0.005906	ppm	0.000414	7.01	85.566900	Y 377.433
Na (589.592 nm)	47.235900	ppm	0.249732	0.53	38955.000000	Y_R2 488.368
Na H (589.593 nm)	47.893878 u	ppm	0.131039	0.27	25867.620039	Y_R4
Ni (231.604 nm)	0.000077 u	ppm	0.000643	> 100.00	-8.219070	Y 377.433
P (213.618 nm)	0.017688	ppm	0.005241	29.63	20.554100	Y 242.219
Pb (220.353 nm)	0.000431	ppm	0.000555	> 100.00	9.720210	Y 242.219
S (181.972 nm)	119.935293 bo	ppm	0.327223	0.27	54945.626821	Y 377.433
Sb (206.834 nm)	-0.007689 u	ppm	0.002334	30.35	-11.172400	Y 377.433
Se (196.026 nm)	0.023510	ppm	0.000397	1.69	44.266200	Y 242.219
Si (288.158 nm)	19.792600	ppm	0.010022	0.05	127904.000000	Y 377.433
Sn (189.925 nm)	0.002530	ppm	0.000686	27.10	6.161110	Y 377.433
Sr (421.552 nm)	0.778247	ppm	0.002136	0.27	117228.112580	Y_R 488.368
Th (288.505 nm)	0.003091 u	ppm	0.004577	> 100.00	12.578900	Y 377.433
Ti (336.122 nm)	0.000721	ppm	0.000143	19.85	214.603000	Y 377.433
Tl (190.794 nm)	0.003147	ppm	0.000976	31.01	2.453120	Y 377.433
U (409.013 nm)	0.028857	ppm	0.003350	11.61	45.163500	Y 377.433
V (292.401 nm)	0.014237	ppm	0.000094	0.66	587.988000	Y 377.433
Zn (206.200 nm)	0.004776	ppm	0.000269	5.63	25.570500	Y 377.433
Zr (343.823 nm)	0.000160	ppm	0.000092	57.37	-152.561000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093335	25272.954241	0.016029	1.47
Y 377.433	1.078406	754271.086101	0.015610	1.45
Y_R 377.433	1.131950	68628.800000	0.013836	1.22
Y_R 488.368	1.145150	60495.700000	0.014940	1.30
Y_R2 488.368	1.131556	119950.960556	0.013498	1.19
Y_R4	1.146600	51596.800000	0.005029	0.44

Sample Name: CCVH-5713036

Date: 5/24/2019 9:55:14 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005212	ppm	0.000054	1.04	-96.884900	Y 377.433
Al (394.401 nm)	48.964400 o	ppm	0.039318	0.08	596516.000000	Y 377.433
Al H (396.152 nm)	47.289700	ppm	0.071989	0.15	103114.000000	Y_R 377.433
As (188.980 nm)	0.003535	ppm	0.001685	47.66	2.415060	Y 242.219
B (249.678 nm)	-0.003358 u	ppm	0.000521	15.53	-5.810390	Y 242.219
Ba (493.408 nm)	-0.000156 u	ppm	0.000208	> 100.00	1423.200000	Y_R 488.368
Be (234.861 nm)	0.001129	ppm	0.000016	1.42	-99.397600	Y_R 488.368
Bi (223.061 nm)	0.008761	ppm	0.000873	9.96	17.100600	Y 377.433
Ca (315.887 nm)	0.014770	ppm	0.007808	52.86	-45.419520	Y_R 377.433
Cd (214.439 nm)	0.001336	ppm	0.000020	1.52	64.277100	Y 377.433
Co (228.615 nm)	0.003384	ppm	0.000166	4.91	64.433200	Y 242.219
Cr (205.560 nm)	0.001611	ppm	0.000495	30.70	2.711700	Y 377.433
Cu (324.754 nm)	0.003882	ppm	0.000474	12.22	1433.480000	Y 377.433
Fe (238.204 nm)	49.327702 o	ppm	0.007475	0.02	118747.528522	Y_R 377.433
Fe H (259.940 nm)	48.871600	ppm	0.049236	0.10	67600.100000	Y_R 377.433
K (766.491 nm)	0.055436 u	ppm	0.144934	> 100.00	1990.910000	Y_R2 488.368
Li (670.783 nm)	0.028833	ppm	0.003003	10.41	-2050.710000	Y_R2 488.368
Mg (279.078 nm)	0.039277	ppm	0.001480	3.77	63.713400	Y 377.433
Mn (257.610 nm)	0.000958	ppm	0.000017	1.76	250.155000	Y 377.433
Mo (202.032 nm)	0.000737	ppm	0.000273	37.07	20.418400	Y 377.433
Na (589.592 nm)	224.624000 o	ppm	1.053580	0.47	184545.000000	Y_R2 488.368
Na H (589.593 nm)	231.403491	ppm	1.303796	0.56	125431.889030	Y_R4
Ni (231.604 nm)	0.004185	ppm	0.000427	10.21	13.036600	Y 377.433
P (213.618 nm)	4.922960	ppm	0.016080	0.33	7031.460000	Y 242.219
Pb (220.353 nm)	0.005369	ppm	0.000485	9.04	18.726700	Y 242.219
S (181.972 nm)	4.909358	ppm	0.024841	0.51	2260.967293	Y 377.433
Sb (206.834 nm)	-0.001407 u	ppm	0.003331	> 100.00	3.561320	Y 377.433
Se (196.026 nm)	0.005890	ppm	0.000330	5.60	5.036650	Y 242.219
Si (288.158 nm)	0.013797	ppm	0.001162	8.42	577.367000	Y 377.433
Sn (189.925 nm)	0.000968 u	ppm	0.001996	> 100.00	3.647540	Y 377.433
Sr (421.552 nm)	0.001505	ppm	0.000002	0.13	257.231874	Y_R 488.368
Th (288.505 nm)	4.757380	ppm	0.010828	0.23	8216.640000	Y 377.433
Ti (336.122 nm)	0.002109	ppm	0.000086	4.08	-164.005000	Y 377.433
Tl (190.794 nm)	-0.000008 u	ppm	0.000293	> 100.00	-2.944900	Y 377.433
U (409.013 nm)	0.532220 Q	ppm	0.005807	1.09	1699.880000 Q	Y 377.433
V (292.401 nm)	0.001025	ppm	0.000013	1.30	393.076000	Y 377.433
Zn (206.200 nm)	0.002556	ppm	0.000569	22.26	22.427000	Y 377.433
Zr (343.823 nm)	0.001249	ppm	0.000114	9.11	-90.929000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120163	25893.081787	0.000684	0.06
Y 377.433	1.100355	769622.674633	0.001849	0.17
Y_R 377.433	1.173700	71159.700000	0.001940	0.17
Y_R 488.368	1.182170	62451.200000	0.001404	0.12
Y_R2 488.368	1.172232	124262.792528	0.010109	0.86
Y_R4	1.173740	52818.100000	0.009180	0.78

Sample Name: CCV-5717467

Date: 5/24/2019 9:58:56 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.487512	ppm	0.001497	0.31	16554.700000	Y 377.433
Al (394.401 nm)	0.491738	ppm	0.000468	0.10	6214.540000	Y 377.433
Al H (396.152 nm)	0.540927 u	ppm	0.003678	0.68	1163.110000	Y_R 377.433
As (188.980 nm)	0.488788	ppm	0.004750	0.97	734.908000	Y 242.219
B (249.678 nm)	0.469881	ppm	0.001648	0.35	3400.960000	Y 242.219
Ba (493.408 nm)	0.474213	ppm	0.000967	0.20	48677.500000	Y_R 488.368
Be (234.861 nm)	0.460665	ppm	0.003745	0.81	45355.100000	Y_R 488.368
Bi (223.061 nm)	0.979059	ppm	0.003265	0.33	2134.180000	Y 377.433
Ca (315.887 nm)	4.901523	ppm	0.007807	0.16	3823.906479	Y_R 377.433
Cd (214.439 nm)	0.510207	ppm	0.001012	0.20	18863.300000	Y 377.433
Co (228.615 nm)	0.488262	ppm	0.001057	0.22	11481.500000	Y 242.219
Cr (205.560 nm)	0.508373	ppm	0.003519	0.69	3380.240000	Y 377.433
Cu (324.754 nm)	0.491292	ppm	0.001615	0.33	23230.200000	Y 377.433
Fe (238.204 nm)	2.482742	ppm	0.004850	0.20	5983.533322	Y_R 377.433
Fe H (259.940 nm)	2.467690 u	ppm	0.000388	0.02	3424.190000	Y_R 377.433
K (766.491 nm)	47.962500	ppm	0.025165	0.05	48249.300000	Y_R2 488.368
Li (670.783 nm)	0.512111	ppm	0.003580	0.70	6247.310000	Y_R2 488.368
Mg (279.078 nm)	19.612400	ppm	0.044246	0.23	64183.800000	Y 377.433
Mn (257.610 nm)	0.485216	ppm	0.001191	0.25	132288.000000	Y 377.433
Mo (202.032 nm)	0.489708	ppm	0.001019	0.21	6183.530000	Y 377.433
Na (589.592 nm)	23.164500	ppm	0.091468	0.39	19274.100000	Y_R2 488.368
Na H (589.593 nm)	24.269828 u	ppm	0.150222	0.62	13050.246199	Y_R4
Ni (231.604 nm)	0.503312	ppm	0.002240	0.45	2596.120000	Y 377.433
P (213.618 nm)	0.047353	ppm	0.003176	6.71	-69.500700	Y 242.219
Pb (220.353 nm)	0.493215	ppm	0.000332	0.07	1572.950000	Y 242.219
S (181.972 nm)	0.002796	ppm	0.002341	83.73	15.768771	Y 377.433
Sb (206.834 nm)	0.499237	ppm	0.005169	1.04	842.155000	Y 377.433
Se (196.026 nm)	0.489670	ppm	0.002955	0.60	747.492000	Y 242.219
Si (288.158 nm)	4.825620	ppm	0.021555	0.45	31553.800000	Y 377.433
Sn (189.925 nm)	0.507943	ppm	0.006697	1.32	819.399000	Y 377.433
Sr (421.552 nm)	0.464872	ppm	0.001620	0.35	70033.829739	Y_R 488.368
Th (288.505 nm)	0.020427	ppm	0.003445	16.86	-1.134770	Y 377.433
Ti (336.122 nm)	0.479641	ppm	0.000892	0.19	60959.800000	Y 377.433
Tl (190.794 nm)	0.501148	ppm	0.000452	0.09	1144.810000	Y 377.433
U (409.013 nm)	0.010860	ppm	0.003721	34.27	-49.678200	Y 377.433
V (292.401 nm)	0.481452	ppm	0.001241	0.26	24679.700000	Y 377.433
Zn (206.200 nm)	0.511425	ppm	0.002371	0.46	2304.150000	Y 377.433
Zr (343.823 nm)	0.480650	ppm	0.000512	0.11	27048.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148036	26537.391993	0.001734	0.15
Y 377.433	1.129174	789779.602682	0.002068	0.18
Y_R 377.433	1.191700	72251.200000	0.005179	0.43
Y_R 488.368	1.206830	63753.900000	0.008205	0.68
Y_R2 488.368	1.184088	125519.581389	0.008789	0.74
Y_R4	1.182430	53209.400000	0.004934	0.42

Sample Name: CCB

Date: 5/24/2019 10:02:33 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000958	ppm	0.000044	4.64	-233.802000	Y 377.433
Al (394.401 nm)	-0.002989 u	ppm	0.000383	12.83	55.420500	Y 377.433
Al H (396.152 nm)	0.133419 Zu	ppm	0.004364	3.27	33.424100 Z	Y_R 377.433
As (188.980 nm)	-0.002008 u	ppm	0.000827	41.16	-4.602120	Y 242.219
B (249.678 nm)	-0.003627 u	ppm	0.000345	9.51	20.770100	Y 242.219
Ba (493.408 nm)	-0.002506 Zu	ppm	0.000117	4.65	1149.620000 Z	Y_R 488.368
Be (234.861 nm)	-0.000045 u	ppm	0.000048	> 100.00	-6.404320	Y_R 488.368
Bi (223.061 nm)	0.000886 u	ppm	0.002560	> 100.00	-8.672310	Y 377.433
Ca (315.887 nm)	0.013939	ppm	0.012721	91.26	-57.969644	Y_R 377.433
Cd (214.439 nm)	0.000066	ppm	0.000020	30.94	-2.748020	Y 377.433
Co (228.615 nm)	-0.000127 u	ppm	0.000091	71.20	-18.138300	Y 242.219
Cr (205.560 nm)	0.000699	ppm	0.000273	39.10	-2.092520	Y 377.433
Cu (324.754 nm)	0.001088	ppm	0.000431	39.59	367.630000	Y 377.433
Fe (238.204 nm)	-0.000917 u	ppm	0.002061	> 100.00	4.931284	Y_R 377.433
Fe H (259.940 nm)	-0.000154 u	ppm	0.000204	> 100.00	11.200600	Y_R 377.433
K (766.491 nm)	-0.260652 u	ppm	0.052183	20.02	1685.700000	Y_R2 488.368
Li (670.783 nm)	0.028603 Z	ppm	0.002417	8.45	-2054.650000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001473	ppm	0.000919	62.43	13.210800	Y 377.433
Mn (257.610 nm)	0.000088	ppm	0.000013	15.17	12.866600	Y 377.433
Mo (202.032 nm)	0.000281 u	ppm	0.000489	> 100.00	14.668600	Y 377.433
Na (589.592 nm)	-0.029902 u	ppm	0.019100	63.87	125.120000	Y_R2 488.368
Na H (589.593 nm)	0.741295 u	ppm	0.041195	5.56	284.696452	Y_R4
Ni (231.604 nm)	0.000835	ppm	0.000563	67.39	-4.300780	Y 377.433
P (213.618 nm)	-0.000203 u	ppm	0.002431	> 100.00	-4.354400	Y 242.219
Pb (220.353 nm)	0.000042 u	ppm	0.000587	> 100.00	8.389980	Y 242.219
S (181.972 nm)	-0.005595 u	ppm	0.010309	> 100.00	10.136412	Y 377.433
Sb (206.834 nm)	-0.001812 u	ppm	0.001769	97.64	-1.280670	Y 377.433
Se (196.026 nm)	-0.000473 u	ppm	0.000579	> 100.00	8.144700	Y 242.219
Si (288.158 nm)	-0.008116 u	ppm	0.000323	3.98	436.301000	Y 377.433
Sn (189.925 nm)	0.000869 u	ppm	0.001341	> 100.00	3.488420	Y 377.433
Sr (421.552 nm)	0.000254	ppm	0.000012	4.57	61.356198	Y_R 488.368
Th (288.505 nm)	0.002381	ppm	0.001175	49.35	16.818300	Y 377.433
Ti (336.122 nm)	0.000493	ppm	0.000096	19.52	-370.818000	Y 377.433
Tl (190.794 nm)	-0.000084 u	ppm	0.000772	> 100.00	1.622640	Y 377.433
U (409.013 nm)	0.007074	ppm	0.001702	24.06	-2.321070	Y 377.433
V (292.401 nm)	0.000134	ppm	0.000061	45.57	-139.403000	Y 377.433
Zn (206.200 nm)	0.000197 u	ppm	0.000947	> 100.00	4.949170	Y 377.433
Zr (343.823 nm)	0.000115	ppm	0.000066	57.20	-155.095000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.168345	27006.836879	0.000017	0.00
Y 377.433	1.147009	802253.637588	0.000138	0.01
Y_R 377.433	1.194380	72413.900000	0.004199	0.35
Y_R 488.368	1.201500	63472.500000	0.000132	0.01
Y_R2 488.368	1.185314	125649.583811	0.003280	0.28
Y_R4	1.173270	52797.100000	0.011441	0.98

Sample Name: CCVL-5719884

Date: 5/24/2019 10:05:47 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008504	ppm	0.000195	2.29	25.406000	Y 377.433
Al (394.401 nm)	0.095334	ppm	0.001428	1.50	1264.430000	Y 377.433
Al H (396.152 nm)	0.226197 u	ppm	0.000332	0.15	241.626000	Y_R 377.433
As (188.980 nm)	0.014580	ppm	0.000880	6.04	20.392000	Y 242.219
B (249.678 nm)	0.088182	ppm	0.000698	0.79	676.376000	Y 242.219
Ba (493.408 nm)	0.006820 Q	ppm	0.000032	0.47	2079.470000 Q	Y_R 488.368
Be (234.861 nm)	0.000927	ppm	0.000017	1.82	88.845900	Y_R 488.368
Bi (223.061 nm)	0.087065	ppm	0.003918	4.50	180.096000	Y 377.433
Ca (315.887 nm)	0.217174	ppm	0.001618	0.74	103.463893	Y_R 377.433
Cd (214.439 nm)	0.005236	ppm	0.000043	0.82	188.495000	Y 377.433
Co (228.615 nm)	0.010432	ppm	0.000084	0.81	230.476000	Y 242.219
Cr (205.560 nm)	0.010697	ppm	0.000749	7.00	64.415800	Y 377.433
Cu (324.754 nm)	0.016356	ppm	0.000009	0.06	1078.210000	Y 377.433
Fe (238.204 nm)	0.101960	ppm	0.001111	1.09	252.575203	Y_R 377.433
Fe H (259.940 nm)	0.106652 u	ppm	0.003298	3.09	158.911000	Y_R 377.433
K (766.491 nm)	2.658630	ppm	0.282830	10.64	4504.530000	Y_R2 488.368
Li (670.783 nm)	0.050032 Q	ppm	0.004407	8.81	-1686.710000 Q	Y_R2 488.368
Mg (279.078 nm)	0.203100	ppm	0.000628	0.31	671.740000	Y 377.433
Mn (257.610 nm)	0.010412	ppm	0.000027	0.26	2827.790000	Y 377.433
Mo (202.032 nm)	0.019343	ppm	0.000049	0.26	254.933000	Y 377.433
Na (589.592 nm)	0.986493	ppm	0.022405	2.27	961.597000	Y_R2 488.368
Na H (589.593 nm)	1.588049 u	ppm	0.036433	2.29	744.107583	Y_R4
Ni (231.604 nm)	0.043597	ppm	0.000072	0.17	216.971000	Y 377.433
P (213.618 nm)	2.837500	ppm	0.010767	0.38	4049.330000	Y 242.219
Pb (220.353 nm)	0.009484	ppm	0.000081	0.85	38.476200	Y 242.219
S (181.972 nm)	0.086059	ppm	0.003213	3.73	52.148987	Y 377.433
Sb (206.834 nm)	0.019061	ppm	0.001126	5.91	33.814800	Y 377.433
Se (196.026 nm)	0.016833	ppm	0.000333	1.98	34.236200	Y 242.219
Si (288.158 nm)	0.471976	ppm	0.002162	0.46	3526.930000	Y 377.433
Sn (189.925 nm)	0.102053	ppm	0.000565	0.55	166.300000	Y 377.433
Sr (421.552 nm)	0.009034	ppm	0.000043	0.47	1383.767723	Y_R 488.368
Th (288.505 nm)	0.015805	ppm	0.001733	10.96	39.482700	Y 377.433
Ti (336.122 nm)	0.009988	ppm	0.000101	1.01	844.885000	Y 377.433
Tl (190.794 nm)	0.016197	ppm	0.000235	1.45	38.748200	Y 377.433
U (409.013 nm)	0.055540	ppm	0.004707	8.47	150.248000	Y 377.433
V (292.401 nm)	0.009753	ppm	0.000015	0.15	353.600000	Y 377.433
Zn (206.200 nm)	0.021332	ppm	0.000147	0.69	100.005000	Y 377.433
Zr (343.823 nm)	0.009678	ppm	0.000252	2.61	386.245000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.187442	27448.268211	0.003334	0.28
Y 377.433	1.164466	814464.089041	0.004559	0.39
Y_R 377.433	1.205840	73108.400000	0.001773	0.15
Y_R 488.368	1.221650	64537.000000	0.003809	0.31
Y_R2 488.368	1.192292	126389.296492	0.002636	0.22
Y_R4	1.185650	53354.200000	0.013270	1.12

Sample Name: 280-123533-A-9-B MS

Date: 5/24/2019 10:09:14 PM Rack:Tube: 1:81

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052475	ppm	0.000531	1.01	1238.100000	Y 377.433
Al (394.401 nm)	9.760190 o	ppm	0.015723	0.16	119673.000000	Y 377.433
Al H (396.152 nm)	9.306140	ppm	0.013046	0.14	20843.800000	Y_R 377.433
As (188.980 nm)	2.030700	ppm	0.000393	0.02	3058.190000	Y 242.219
B (249.678 nm)	1.002030	ppm	0.001873	0.19	7197.050000	Y 242.219
Ba (493.408 nm)	2.042730	ppm	0.005851	0.29	205055.000000	Y_R 488.368
Be (234.861 nm)	0.949280	ppm	0.004937	0.52	93443.400000	Y_R 488.368
Bi (223.061 nm)	1.942530	ppm	0.004839	0.25	4245.630000	Y 377.433
Ca (315.887 nm)	204.900824	ppm	0.565957	0.28	162666.777098	Y_R 377.433
Cd (214.439 nm)	0.989639	ppm	0.000002	0.00	36595.800000	Y 377.433
Co (228.615 nm)	0.941818	ppm	0.001324	0.14	22162.900000	Y 242.219
Cr (205.560 nm)	1.015520	ppm	0.004105	0.40	6758.820000	Y 377.433
Cu (324.754 nm)	0.970790	ppm	0.006215	0.64	45561.200000	Y 377.433
Fe (238.204 nm)	10.015362 o	ppm	0.033685	0.34	24115.863756	Y_R 377.433
Fe H (259.940 nm)	9.961930	ppm	0.031545	0.32	13788.600000	Y_R 377.433
K (766.491 nm)	61.431700	ppm	0.724125	1.18	61255.100000	Y_R2 488.368
Li (670.783 nm)	1.022980	ppm	0.000611	0.06	15019.100000	Y_R2 488.368
Mg (279.078 nm)	92.110700	ppm	0.073186	0.08	301385.000000	Y 377.433
Mn (257.610 nm)	0.964391	ppm	0.000446	0.05	262940.000000	Y 377.433
Mo (202.032 nm)	1.000010	ppm	0.000880	0.09	12615.500000	Y 377.433
Na (589.592 nm)	92.056600 o	ppm	0.235431	0.26	76183.400000	Y_R2 488.368
Na H (589.593 nm)	95.017109	ppm	0.692021	0.73	51434.618542	Y_R4
Ni (231.604 nm)	0.960686	ppm	0.000154	0.02	4964.260000	Y 377.433
P (213.618 nm)	20.444900	ppm	0.040520	0.20	28966.500000	Y 242.219
Pb (220.353 nm)	0.965862	ppm	0.002176	0.23	3075.300000	Y 242.219
S (181.972 nm)	129.147728 bo	ppm	0.097631	0.08	59169.745648	Y 377.433
Sb (206.834 nm)	1.069830	ppm	0.000791	0.07	1803.720000	Y 377.433
Se (196.026 nm)	1.993700	ppm	0.000818	0.04	3014.670000	Y 242.219
Si (288.158 nm)	21.491600	ppm	0.152456	0.71	138842.000000	Y 377.433
Sn (189.925 nm)	2.014830	ppm	0.001637	0.08	3244.060000	Y 377.433
Sr (421.552 nm)	1.700430	ppm	0.004217	0.25	256111.304971	Y_R 488.368
Th (288.505 nm)	0.981898	ppm	0.002476	0.25	1609.180000	Y 377.433
Ti (336.122 nm)	0.972208	ppm	0.000823	0.08	124680.000000	Y 377.433
Tl (190.794 nm)	1.916430	ppm	0.001514	0.08	4369.850000	Y 377.433
U (409.013 nm)	1.967250	ppm	0.009423	0.48	6135.610000	Y 377.433
V (292.401 nm)	0.983711	ppm	0.000609	0.06	50588.800000	Y 377.433
Zn (206.200 nm)	0.493939	ppm	0.000486	0.10	2226.570000	Y 377.433
Zr (343.823 nm)	0.479773	ppm	0.000914	0.19	26999.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.091221	25224.069988	0.004445	0.41
Y 377.433	1.086925	760229.317433	0.005883	0.54
Y_R 377.433	1.154740	70010.300000	0.001793	0.16
Y_R 488.368	1.167860	61695.400000	0.000548	0.05
Y_R2 488.368	1.163478	123334.876707	0.004424	0.38
Y_R4	1.162390	52307.600000	0.004116	0.35

Sample Name: 280-123533-A-9-C MSD

Date: 5/24/2019 10:12:55 PM Rack:Tube: 1:82

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052459	ppm	0.000054	0.10	1238.660000	Y 377.433
Al (394.401 nm)	9.778680 o	ppm	0.020763	0.21	119896.000000	Y 377.433
Al H (396.152 nm)	9.340550	ppm	0.050626	0.54	20914.500000	Y_R 377.433
As (188.980 nm)	2.027200	ppm	0.003897	0.19	3052.930000	Y 242.219
B (249.678 nm)	0.999071	ppm	0.000673	0.07	7175.860000	Y 242.219
Ba (493.408 nm)	2.047710	ppm	0.008241	0.40	205551.000000	Y_R 488.368
Be (234.861 nm)	0.927069	ppm	0.003020	0.33	91255.600000	Y_R 488.368
Bi (223.061 nm)	1.947740	ppm	0.005095	0.26	4257.060000	Y 377.433
Ca (315.887 nm)	201.678278	ppm	0.867265	0.43	160107.422234	Y_R 377.433
Cd (214.439 nm)	0.986689	ppm	0.001339	0.14	36486.800000	Y 377.433
Co (228.615 nm)	0.938162	ppm	0.000094	0.01	22076.900000	Y 242.219
Cr (205.560 nm)	1.015930	ppm	0.010214	1.01	6761.570000	Y 377.433
Cu (324.754 nm)	0.968897	ppm	0.001694	0.17	45474.200000	Y 377.433
Fe (238.204 nm)	10.101079 o	ppm	0.069354	0.69	24322.199713	Y_R 377.433
Fe H (259.940 nm)	10.017600	ppm	0.049200	0.49	13865.600000	Y_R 377.433
K (766.491 nm)	61.269600	ppm	0.172537	0.28	61098.500000	Y_R2 488.368
Li (670.783 nm)	1.026940	ppm	0.004784	0.47	15087.100000	Y_R2 488.368
Mg (279.078 nm)	91.022400	ppm	0.241505	0.27	297823.000000	Y 377.433
Mn (257.610 nm)	0.962326	ppm	0.001914	0.20	262377.000000	Y 377.433
Mo (202.032 nm)	0.997211	ppm	0.001806	0.18	12580.200000	Y 377.433
Na (589.592 nm)	90.724000 o	ppm	0.226721	0.25	75090.700000	Y_R2 488.368
Na H (589.593 nm)	94.045414	ppm	0.887510	0.94	50907.419381	Y_R4
Ni (231.604 nm)	0.960231	ppm	0.000293	0.03	4961.890000	Y 377.433
P (213.618 nm)	20.375600	ppm	0.017372	0.09	28868.100000	Y 242.219
Pb (220.353 nm)	0.964887	ppm	0.002427	0.25	3072.200000	Y 242.219
S (181.972 nm)	126.228154 bo	ppm	0.100244	0.08	57832.514393	Y 377.433
Sb (206.834 nm)	1.066240	ppm	0.001517	0.14	1797.690000	Y 377.433
Se (196.026 nm)	1.993320	ppm	0.006650	0.33	3014.060000	Y 242.219
Si (288.158 nm)	20.987500	ppm	0.062095	0.30	135597.000000	Y 377.433
Sn (189.925 nm)	2.007590	ppm	0.003978	0.20	3232.420000	Y 377.433
Sr (421.552 nm)	1.687653	ppm	0.003862	0.23	254187.130394	Y_R 488.368
Th (288.505 nm)	0.983444	ppm	0.005990	0.61	1612.440000	Y 377.433
Ti (336.122 nm)	0.971099	ppm	0.001977	0.20	124525.000000	Y 377.433
Tl (190.794 nm)	1.907610	ppm	0.003181	0.17	4349.840000	Y 377.433
U (409.013 nm)	1.970700	ppm	0.004284	0.22	6147.150000	Y 377.433
V (292.401 nm)	0.981165	ppm	0.002202	0.22	50457.100000	Y 377.433
Zn (206.200 nm)	0.490837	ppm	0.002009	0.41	2212.630000	Y 377.433
Zr (343.823 nm)	0.479694	ppm	0.000498	0.10	26994.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.112848	25724.007259	0.005060	0.45
Y 377.433	1.108400	775249.656374	0.003672	0.33
Y_R 377.433	1.202090	72881.000000	0.003798	0.32
Y_R 488.368	1.215260	64199.200000	0.001918	0.16
Y_R2 488.368	1.198374	127033.996823	0.009828	0.82
Y_R4	1.165310	52438.700000	0.004168	0.36

Sample Name: 280-123533-A-11-A

Date: 5/24/2019 10:16:34 PM Rack:Tube: 1:83

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001949	ppm	0.000330	16.92	-205.422000	Y 377.433
Al (394.401 nm)	0.004448	ppm	0.000146	3.28	347.844000	Y 377.433
Al H (396.152 nm)	-0.015692 u	ppm	0.000938	5.97	-9.970190	Y_R 377.433
As (188.980 nm)	0.004935	ppm	0.000046	0.94	5.857250	Y 242.219
B (249.678 nm)	0.015847	ppm	0.000589	3.71	159.783000	Y 242.219
Ba (493.408 nm)	0.121832	ppm	0.000400	0.33	13545.400000	Y_R 488.368
Be (234.861 nm)	-0.000006 u	ppm	0.000002	29.19	-3.013020	Y_R 488.368
Bi (223.061 nm)	0.001156	ppm	0.000986	85.25	-8.034320	Y 377.433
Ca (315.887 nm)	156.623113	ppm	0.226178	0.14	124321.933441	Y_R 377.433
Cd (214.439 nm)	0.000276	ppm	0.000080	29.19	5.058030	Y 377.433
Co (228.615 nm)	-0.000156 u	ppm	0.000395	> 100.00	-18.800800	Y 242.219
Cr (205.560 nm)	0.006126	ppm	0.000067	1.09	34.072400	Y 377.433
Cu (324.754 nm)	-0.000136 u	ppm	0.000328	> 100.00	217.610000	Y 377.433
Fe (238.204 nm)	0.108826	ppm	0.001177	1.08	269.103064	Y_R 377.433
Fe H (259.940 nm)	0.098399 u	ppm	0.000421	0.43	147.498000	Y_R 377.433
K (766.491 nm)	12.474500	ppm	0.037296	0.30	13982.600000	Y_R2 488.368
Li (670.783 nm)	0.046256	ppm	0.002495	5.39	-1751.540000	Y_R2 488.368
Mg (279.078 nm)	43.257800	ppm	0.047495	0.11	141563.000000	Y 377.433
Mn (257.610 nm)	0.000614	ppm	0.000001	0.24	156.416000	Y 377.433
Mo (202.032 nm)	0.006342	ppm	0.000181	2.86	91.065200	Y 377.433
Na (589.592 nm)	45.717900	ppm	0.244055	0.53	37707.700000	Y_R2 488.368
Na H (589.593 nm)	46.419944 u	ppm	0.101478	0.22	25067.928232	Y_R4
Ni (231.604 nm)	-0.000161 u	ppm	0.000265	> 100.00	-9.450730	Y 377.433
P (213.618 nm)	0.018266	ppm	0.000303	1.66	21.533300	Y 242.219
Pb (220.353 nm)	-0.000875 u	ppm	0.001190	> 100.00	5.551330	Y 242.219
S (181.972 nm)	117.105181 bo	ppm	0.082429	0.07	53649.321115	Y 377.433
Sb (206.834 nm)	-0.006167 u	ppm	0.001820	29.51	-8.625170	Y 377.433
Se (196.026 nm)	0.023745	ppm	0.000371	1.56	44.643300	Y 242.219
Si (288.158 nm)	19.191100	ppm	0.021930	0.11	124033.000000	Y 377.433
Sn (189.925 nm)	0.002113	ppm	0.000351	16.60	5.490920	Y 377.433
Sr (421.552 nm)	0.755356	ppm	0.001337	0.18	113780.592123	Y_R 488.368
Th (288.505 nm)	-0.002060 u	ppm	0.003858	> 100.00	3.834530	Y 377.433
Ti (336.122 nm)	-0.000658 u	ppm	0.000053	8.02	21.489200	Y 377.433
Tl (190.794 nm)	0.005002	ppm	0.000597	11.93	6.904120	Y 377.433
U (409.013 nm)	0.030922	ppm	0.004296	13.89	52.313400	Y 377.433
V (292.401 nm)	0.014159	ppm	0.000060	0.42	585.112000	Y 377.433
Zn (206.200 nm)	0.002132	ppm	0.000253	11.87	13.667700	Y 377.433
Zr (343.823 nm)	0.000306	ppm	0.000097	31.69	-144.285000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.141450	26385.148029	0.008377	0.73
Y 377.433	1.130206	790501.328387	0.007733	0.68
Y_R 377.433	1.201460	72842.900000	0.004951	0.41
Y_R 488.368	1.214420	64155.000000	0.004080	0.34
Y_R2 488.368	1.199893	127194.999616	0.002953	0.25
Y_R4	1.167130	52520.700000	0.002111	0.18

Sample Name: MB 280-459136/1-A

Date: 5/24/2019 10:20:04 PM Rack:Tube: 1:84

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000612 u	ppm	0.000890	> 100.00	-245.705000	Y 377.433
Al (394.401 nm)	-0.000176 u	ppm	0.000866	> 100.00	88.092700	Y 377.433
Al H (396.152 nm)	0.130946 u	ppm	0.000939	0.72	27.999400	Y_R 377.433
As (188.980 nm)	0.000255 u	ppm	0.004164	> 100.00	-1.192420	Y 242.219
B (249.678 nm)	-0.002895 u	ppm	0.000613	21.18	25.988700	Y 242.219
Ba (493.408 nm)	-0.002066 u	ppm	0.000287	13.91	1193.460000	Y_R 488.368
Be (234.861 nm)	-0.000019 u	ppm	0.000027	> 100.00	-3.905390	Y_R 488.368
Bi (223.061 nm)	0.000457 u	ppm	0.000886	> 100.00	-9.609920	Y 377.433
Ca (315.887 nm)	0.025505	ppm	0.008492	33.30	-48.783492	Y_R 377.433
Cd (214.439 nm)	-0.000111 u	ppm	0.000074	66.39	-9.294880	Y 377.433
Co (228.615 nm)	-0.000299 u	ppm	0.000005	1.62	-22.166900	Y 242.219
Cr (205.560 nm)	0.000499	ppm	0.000406	81.26	-3.423090	Y 377.433
Cu (324.754 nm)	0.000839	ppm	0.000201	24.01	356.789000	Y 377.433
Fe (238.204 nm)	0.010015	ppm	0.000275	2.74	31.246718	Y_R 377.433
Fe H (259.940 nm)	0.014013 u	ppm	0.002886	20.59	30.792900	Y_R 377.433
K (766.491 nm)	-0.253445 u	ppm	0.095453	37.66	1692.660000	Y_R2 488.368
Li (670.783 nm)	0.018099	ppm	0.000961	5.31	-2235.000000	Y_R2 488.368
Mg (279.078 nm)	0.005597	ppm	0.000057	1.01	26.848200	Y 377.433
Mn (257.610 nm)	0.000368	ppm	0.000005	1.47	89.229300	Y 377.433
Mo (202.032 nm)	-0.000011 u	ppm	0.000018	> 100.00	10.995300	Y 377.433
Na (589.592 nm)	0.060771	ppm	0.044265	72.84	199.735000	Y_R2 488.368
Na H (589.593 nm)	0.704579 u	ppm	0.021112	3.00	264.775841	Y_R4
Ni (231.604 nm)	-0.000178 u	ppm	0.000168	94.10	-9.542370	Y 377.433
P (213.618 nm)	-0.002246 u	ppm	0.001706	75.97	-7.307480	Y 242.219
Pb (220.353 nm)	0.000367 u	ppm	0.001370	> 100.00	9.400330	Y 242.219
S (181.972 nm)	0.008157	ppm	0.002021	24.78	16.435343	Y 377.433
Sb (206.834 nm)	-0.002097 u	ppm	0.002997	> 100.00	-1.762000	Y 377.433
Se (196.026 nm)	-0.003695 u	ppm	0.000849	22.97	3.282770	Y 242.219
Si (288.158 nm)	-0.002678 u	ppm	0.000236	8.83	471.304000	Y 377.433
Sn (189.925 nm)	-0.000393 u	ppm	0.000363	92.34	1.457920	Y 377.433
Sr (421.552 nm)	0.000256	ppm	0.000009	3.63	61.661305	Y_R 488.368
Th (288.505 nm)	0.000762 u	ppm	0.006342	> 100.00	13.991700	Y 377.433
Ti (336.122 nm)	0.000354	ppm	0.000107	30.11	-388.504000	Y 377.433
Tl (190.794 nm)	0.000496 u	ppm	0.001026	> 100.00	2.947880	Y 377.433
U (409.013 nm)	-0.002833 u	ppm	0.008578	> 100.00	-33.701700	Y 377.433
V (292.401 nm)	-0.000029 u	ppm	0.000167	> 100.00	-147.120000	Y 377.433
Zn (206.200 nm)	0.002854	ppm	0.000793	27.81	16.897500	Y 377.433
Zr (343.823 nm)	-0.000064 u	ppm	0.000115	> 100.00	-165.247000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130767	26138.194535	0.000954	0.08
Y 377.433	1.110353	776615.337064	0.000751	0.07
Y_R 377.433	1.122620	68063.000000	0.000028	0.00
Y_R 488.368	1.143520	60409.600000	0.004756	0.42
Y_R2 488.368	1.123674	119115.367827	0.004212	0.37
Y_R4	1.126090	50674.000000	0.005559	0.49

Sample Name: LCS 280-459136/2-A

Date: 5/24/2019 10:23:14 PM Rack:Tube: 1:85

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001321	ppm	0.000260	19.69	-528.948000	Y 377.433
Al (394.401 nm)	9.812770 o	ppm	0.010696	0.11	120114.000000	Y 377.433
Al H (396.152 nm)	9.630360	ppm	0.051249	0.53	21270.200000	Y_R 377.433
As (188.980 nm)	1.968840	ppm	0.002451	0.12	2964.990000	Y 242.219
B (249.678 nm)	0.949804	ppm	0.001225	0.13	6824.180000	Y 242.219
Ba (493.408 nm)	1.945990	ppm	0.004232	0.22	195410.000000	Y_R 488.368
Be (234.861 nm)	0.956982	ppm	0.004525	0.47	94202.800000	Y_R 488.368
Bi (223.061 nm)	1.924840	ppm	0.002118	0.11	4206.840000	Y 377.433
Ca (315.887 nm)	47.306107	ppm	0.179614	0.38	37504.195547	Y_R 377.433
Cd (214.439 nm)	0.992643	ppm	0.001295	0.13	36706.800000	Y 377.433
Co (228.615 nm)	0.955805	ppm	0.000592	0.06	22491.600000	Y 242.219
Cr (205.560 nm)	1.002540	ppm	0.000093	0.01	6672.250000	Y 377.433
Cu (324.754 nm)	0.958902	ppm	0.000055	0.01	45100.800000	Y 377.433
Fe (238.204 nm)	9.803149 o	ppm	0.044618	0.46	23605.029360	Y_R 377.433
Fe H (259.940 nm)	9.760870	ppm	0.032429	0.33	13510.500000	Y_R 377.433
K (766.491 nm)	48.526900	ppm	0.021433	0.04	48794.400000	Y_R2 488.368
Li (670.783 nm)	1.004200	ppm	0.003029	0.30	14696.500000	Y_R2 488.368
Mg (279.078 nm)	48.242100	ppm	0.066483	0.14	157831.000000	Y 377.433
Mn (257.610 nm)	0.971186	ppm	0.001048	0.11	264792.000000	Y 377.433
Mo (202.032 nm)	0.990299	ppm	0.000640	0.06	12493.100000	Y 377.433
Na (589.592 nm)	47.468300	ppm	0.224628	0.47	39559.000000	Y_R2 488.368
Na H (589.593 nm)	48.912168 u	ppm	0.039874	0.08	26420.099261	Y_R4
Ni (231.604 nm)	0.969319	ppm	0.002610	0.27	5008.960000	Y 377.433
P (213.618 nm)	19.897400	ppm	0.029110	0.15	28187.000000	Y 242.219
Pb (220.353 nm)	0.970147	ppm	0.000948	0.10	3088.910000	Y 242.219
S (181.972 nm)	9.581999	ppm	0.009259	0.10	4406.281862	Y 377.433
Sb (206.834 nm)	-0.000965 u	ppm	0.001239	> 100.00	-4.531750	Y 377.433
Se (196.026 nm)	1.928290	ppm	0.000718	0.04	2916.080000	Y 242.219
Si (288.158 nm)	1.993860	ppm	0.006053	0.30	13324.200000	Y 377.433
Sn (189.925 nm)	1.981850	ppm	0.006554	0.33	3190.990000	Y 377.433
Sr (421.552 nm)	0.944535	ppm	0.001486	0.16	142272.591809	Y_R 488.368
Th (288.505 nm)	0.983751	ppm	0.001891	0.19	1618.330000	Y 377.433
Ti (336.122 nm)	0.970421	ppm	0.001579	0.16	123908.000000	Y 377.433
Tl (190.794 nm)	1.945360	ppm	0.000764	0.04	4442.500000	Y 377.433
U (409.013 nm)	1.950000	ppm	0.003413	0.18	6101.640000	Y 377.433
V (292.401 nm)	0.967465	ppm	0.001394	0.14	49752.200000	Y 377.433
Zn (206.200 nm)	0.494770	ppm	0.000978	0.20	2230.280000	Y 377.433
Zr (343.823 nm)	0.481234	ppm	0.001345	0.28	27081.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047295	24208.707890	0.000348	0.03
Y 377.433	1.043272	729696.882560	0.001240	0.12
Y_R 377.433	1.083990	65721.100000	0.005850	0.54
Y_R 488.368	1.095680	57882.500000	0.004285	0.39
Y_R2 488.368	1.080810	114571.604877	0.006324	0.59
Y_R4	1.089040	49006.800000	0.004169	0.38

Sample Name: LCSD 280-459136/3-A

Date: 5/24/2019 10:26:55 PM Rack:Tube: 1:86

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000990	ppm	0.000071	7.13	-547.800000	Y 377.433
Al (394.401 nm)	9.836230 o	ppm	0.015749	0.16	120402.000000	Y 377.433
Al H (396.152 nm)	9.623610	ppm	0.062696	0.65	21259.600000	Y_R 377.433
As (188.980 nm)	1.998520	ppm	0.001452	0.07	3009.700000	Y 242.219
B (249.678 nm)	0.955554	ppm	0.002881	0.30	6865.090000	Y 242.219
Ba (493.408 nm)	1.951430	ppm	0.015666	0.80	195953.000000	Y_R 488.368
Be (234.861 nm)	0.968333	ppm	0.008382	0.87	95319.500000	Y_R 488.368
Bi (223.061 nm)	1.948250	ppm	0.000292	0.01	4258.160000	Y 377.433
Ca (315.887 nm)	48.948628	ppm	0.267590	0.55	38808.692548	Y_R 377.433
Cd (214.439 nm)	1.025970	ppm	0.003583	0.35	37939.400000	Y 377.433
Co (228.615 nm)	0.971913	ppm	0.002448	0.25	22871.000000	Y 242.219
Cr (205.560 nm)	1.031740	ppm	0.002585	0.25	6866.820000	Y 377.433
Cu (324.754 nm)	0.977630	ppm	0.000838	0.09	45974.500000	Y 377.433
Fe (238.204 nm)	10.084564 o	ppm	0.054209	0.54	24282.445743	Y_R 377.433
Fe H (259.940 nm)	9.996650	ppm	0.073196	0.73	13836.600000	Y_R 377.433
K (766.491 nm)	48.769500	ppm	0.385150	0.79	49028.600000	Y_R2 488.368
Li (670.783 nm)	1.007890	ppm	0.008123	0.81	14759.900000	Y_R2 488.368
Mg (279.078 nm)	49.532400	ppm	0.109370	0.22	162053.000000	Y 377.433
Mn (257.610 nm)	0.994248	ppm	0.001447	0.15	271081.000000	Y 377.433
Mo (202.032 nm)	1.014320	ppm	0.001558	0.15	12795.800000	Y 377.433
Na (589.592 nm)	47.466100	ppm	0.170666	0.36	39558.400000	Y_R2 488.368
Na H (589.593 nm)	48.645855 u	ppm	0.308027	0.63	26275.609700	Y_R4
Ni (231.604 nm)	0.997943	ppm	0.001917	0.19	5157.130000	Y 377.433
P (213.618 nm)	20.231500	ppm	0.065446	0.32	28659.400000	Y 242.219
Pb (220.353 nm)	0.995362	ppm	0.002000	0.20	3168.970000	Y 242.219
S (181.972 nm)	9.845299	ppm	0.046310	0.47	4527.016365	Y 377.433
Sb (206.834 nm)	-0.001386 u	ppm	0.002098	> 100.00	-5.294160	Y 377.433
Se (196.026 nm)	1.968820	ppm	0.003644	0.19	2977.160000	Y 242.219
Si (288.158 nm)	2.038120	ppm	0.001956	0.10	13609.100000	Y 377.433
Sn (189.925 nm)	2.046450	ppm	0.008500	0.42	3294.940000	Y 377.433
Sr (421.552 nm)	0.950019	ppm	0.007185	0.76	143098.602771	Y_R 488.368
Th (288.505 nm)	0.997942	ppm	0.002703	0.27	1640.800000	Y 377.433
Ti (336.122 nm)	0.987683	ppm	0.001883	0.19	126123.000000	Y 377.433
Tl (190.794 nm)	2.004230	ppm	0.003647	0.18	4576.900000	Y 377.433
U (409.013 nm)	1.974730	ppm	0.005901	0.30	6179.240000	Y 377.433
V (292.401 nm)	0.988773	ppm	0.002282	0.23	50848.600000	Y 377.433
Zn (206.200 nm)	0.510942	ppm	0.003199	0.63	2303.040000	Y 377.433
Zr (343.823 nm)	0.488075	ppm	0.000687	0.14	27469.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.067395	24673.332532	0.001831	0.17
Y 377.433	1.052094	735867.440269	0.001877	0.18
Y_R 377.433	1.101830	66802.700000	0.006289	0.57
Y_R 488.368	1.115910	58951.100000	0.009143	0.82
Y_R2 488.368	1.083231	114828.256830	0.006138	0.57
Y_R4	1.105320	49739.400000	0.003459	0.31

Sample Name: 280-123855-F-1-A

Date: 5/24/2019 10:30:34 PM Rack:Tube: 1:87

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001389	ppm	0.000091	6.58	-219.324000	Y 377.433
Al (394.401 nm)	0.010171	ppm	0.000098	0.97	244.703000	Y 377.433
Al H (396.152 nm)	0.102079 u	ppm	0.005127	5.02	-5.052240	Y_R 377.433
As (188.980 nm)	0.000203 u	ppm	0.001840	> 100.00	-1.287980	Y 242.219
B (249.678 nm)	0.006620	ppm	0.000000	0.00	93.574600	Y 242.219
Ba (493.408 nm)	0.027185	ppm	0.000293	1.08	4110.160000	Y_R 488.368
Be (234.861 nm)	-0.000012 u	ppm	0.000040	> 100.00	-5.870930	Y_R 488.368
Bi (223.061 nm)	-0.000280 u	ppm	0.002153	> 100.00	-11.112300	Y 377.433
Ca (315.887 nm)	62.595827	ppm	0.010866	0.02	49644.919966	Y_R 377.433
Cd (214.439 nm)	0.000184	ppm	0.000022	11.87	1.884850	Y 377.433
Co (228.615 nm)	0.000537	ppm	0.000018	3.26	-2.497040	Y 242.219
Cr (205.560 nm)	0.000700	ppm	0.000891	> 100.00	-2.101760	Y 377.433
Cu (324.754 nm)	0.000972	ppm	0.000021	2.16	325.274000	Y 377.433
Fe (238.204 nm)	0.642581	ppm	0.000333	0.05	1553.943306	Y_R 377.433
Fe H (259.940 nm)	0.640423 u	ppm	0.004482	0.70	897.108000	Y_R 377.433
K (766.491 nm)	0.843837	ppm	0.210854	24.99	2752.180000	Y_R2 488.368
Li (670.783 nm)	0.019723	ppm	0.000960	4.87	-2207.130000	Y_R2 488.368
Mg (279.078 nm)	2.940220	ppm	0.002863	0.10	9628.970000	Y 377.433
Mn (257.610 nm)	0.706083	ppm	0.000364	0.05	192509.000000	Y 377.433
Mo (202.032 nm)	0.000583	ppm	0.000277	47.48	18.481400	Y 377.433
Na (589.592 nm)	142.375000 o	ppm	0.039354	0.03	117033.000000	Y_R2 488.368
Na H (589.593 nm)	146.785958	ppm	0.716322	0.49	79522.126019	Y_R4
Ni (231.604 nm)	0.009001	ppm	0.000236	2.63	37.953800	Y 377.433
P (213.618 nm)	0.020928	ppm	0.000207	0.99	25.541300	Y 242.219
Pb (220.353 nm)	-0.001807 u	ppm	0.000004	0.20	2.523000	Y 242.219
S (181.972 nm)	3.604568	ppm	0.003011	0.08	1668.804079	Y 377.433
Sb (206.834 nm)	-0.003704 u	ppm	0.000869	23.46	-4.422230	Y 377.433
Se (196.026 nm)	0.001997	ppm	0.002518	> 100.00	12.698300	Y 242.219
Si (288.158 nm)	2.253200	ppm	0.000046	0.00	14993.700000	Y 377.433
Sn (189.925 nm)	0.002181	ppm	0.001691	77.51	5.599930	Y 377.433
Sr (421.552 nm)	0.106199	ppm	0.000279	0.26	16016.995379	Y_R 488.368
Th (288.505 nm)	-0.008811 u	ppm	0.001808	20.52	9.872960	Y 377.433
Ti (336.122 nm)	-0.000211 u	ppm	0.000037	17.60	-245.468000	Y 377.433
Tl (190.794 nm)	0.003636	ppm	0.000098	2.69	7.536640	Y 377.433
U (409.013 nm)	0.019398	ppm	0.002559	13.19	28.845000	Y 377.433
V (292.401 nm)	0.000786	ppm	0.000568	72.22	-106.102000	Y 377.433
Zn (206.200 nm)	0.003515	ppm	0.000334	9.49	19.961200	Y 377.433
Zr (343.823 nm)	-0.000114 u	ppm	0.000195	> 100.00	-168.055000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076793	24890.570258	0.001235	0.11
Y 377.433	1.055975	738582.092902	0.001448	0.14
Y_R 377.433	1.113690	67521.700000	0.001897	0.17
Y_R 488.368	1.129610	59674.700000	0.004476	0.40
Y_R2 488.368	1.107966	117450.284227	0.001488	0.13
Y_R4	1.122590	50516.700000	0.002173	0.19

Sample Name: 280-123855-F-1-Asd@5

Date: 5/24/2019 10:34:08 PM Rack:Tube: 1:88

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000841	ppm	0.000067	8.00	-238.001000	Y 377.433
Al (394.401 nm)	0.000567	ppm	0.000428	75.60	103.950000	Y 377.433
Al H (396.152 nm)	0.125088 u	ppm	0.000910	0.73	20.961700	Y_R 377.433
As (188.980 nm)	0.001552	ppm	0.000146	9.44	0.758224	Y 242.219
B (249.678 nm)	-0.001215 u	ppm	0.000355	29.20	37.896100	Y 242.219
Ba (493.408 nm)	0.004145	ppm	0.000244	5.88	1812.790000	Y_R 488.368
Be (234.861 nm)	-0.000048 u	ppm	0.000047	97.72	-7.378370	Y_R 488.368
Bi (223.061 nm)	0.000554	ppm	0.000780	> 100.00	-9.370270	Y 377.433
Ca (315.887 nm)	12.659210	ppm	0.025755	0.20	9984.979715	Y_R 377.433
Cd (214.439 nm)	0.000062	ppm	0.000006	9.07	-2.831460	Y 377.433
Co (228.615 nm)	0.000341	ppm	0.000325	95.22	-7.112380	Y 242.219
Cr (205.560 nm)	0.000543	ppm	0.000149	27.47	-3.135150	Y 377.433
Cu (324.754 nm)	0.001090	ppm	0.000332	30.48	360.693000	Y 377.433
Fe (238.204 nm)	0.167647	ppm	0.000124	0.07	410.695731	Y_R 377.433
Fe H (259.940 nm)	0.170657 u	ppm	0.003115	1.83	247.429000	Y_R 377.433
K (766.491 nm)	-0.014175 u	ppm	0.162922	> 100.00	1923.700000	Y_R2 488.368
Li (670.783 nm)	0.023606	ppm	0.001561	6.61	-2140.440000	Y_R2 488.368
Mg (279.078 nm)	0.600004	ppm	0.002382	0.40	1971.590000	Y 377.433
Mn (257.610 nm)	0.143555	ppm	0.000142	0.10	39130.700000	Y 377.433
Mo (202.032 nm)	0.000273	ppm	0.000154	56.17	14.577500	Y 377.433
Na (589.592 nm)	29.096000	ppm	0.088082	0.30	24036.200000	Y_R2 488.368
Na H (589.593 nm)	29.905057 u	ppm	0.181567	0.61	16107.674394	Y_R4
Ni (231.604 nm)	0.001458	ppm	0.000109	7.45	-1.077720	Y 377.433
P (213.618 nm)	0.000565	ppm	0.000330	58.37	-3.405960	Y 242.219
Pb (220.353 nm)	-0.000279 u	ppm	0.001792	> 100.00	7.370590	Y 242.219
S (181.972 nm)	0.708331	ppm	0.006056	0.85	338.166396	Y 377.433
Sb (206.834 nm)	-0.001879 u	ppm	0.003459	> 100.00	-1.379700	Y 377.433
Se (196.026 nm)	-0.001314 u	ppm	0.000631	48.02	7.035010	Y 242.219
Si (288.158 nm)	0.442422	ppm	0.000827	0.19	3336.670000	Y 377.433
Sn (189.925 nm)	0.001106	ppm	0.001025	92.73	3.869730	Y 377.433
Sr (421.552 nm)	0.021003	ppm	0.000055	0.26	3186.238945	Y_R 488.368
Th (288.505 nm)	-0.003493 u	ppm	0.001652	47.28	9.206530	Y 377.433
Ti (336.122 nm)	0.000164	ppm	0.000012	7.03	-369.747000	Y 377.433
Tl (190.794 nm)	0.000438 u	ppm	0.001661	> 100.00	2.292760	Y 377.433
U (409.013 nm)	0.010493	ppm	0.011207	> 100.00	6.990480	Y 377.433
V (292.401 nm)	-0.000087 u	ppm	0.000093	> 100.00	-150.867000	Y 377.433
Zn (206.200 nm)	0.004805	ppm	0.000110	2.29	25.696600	Y 377.433
Zr (343.823 nm)	-0.000121 u	ppm	0.000247	> 100.00	-168.466000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114589	25764.251337	0.002075	0.19
Y 377.433	1.090803	762941.446187	0.003019	0.28
Y_R 377.433	1.124220	68160.000000	0.004153	0.37
Y_R 488.368	1.135240	59971.900000	0.001111	0.10
Y_R2 488.368	1.126497	119414.653358	0.006604	0.59
Y_R4	1.130380	50866.900000	0.007677	0.68

Sample Name: 280-123855-F-1-B MS

Date: 5/24/2019 10:37:39 PM Rack:Tube: 1:89

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001593	ppm	0.000268	16.80	-532.538000	Y 377.433
Al (394.401 nm)	9.989500 o	ppm	0.014802	0.15	122297.000000	Y 377.433
Al H (396.152 nm)	9.670150	ppm	0.032145	0.33	21395.400000	Y_R 377.433
As (188.980 nm)	2.054450	ppm	0.002680	0.13	3093.970000	Y 242.219
B (249.678 nm)	0.978071	ppm	0.000525	0.05	7025.480000	Y 242.219
Ba (493.408 nm)	1.985970	ppm	0.012114	0.61	199397.000000	Y_R 488.368
Be (234.861 nm)	0.975428	ppm	0.002041	0.21	96015.200000	Y_R 488.368
Bi (223.061 nm)	1.983360	ppm	0.000227	0.01	4335.160000	Y 377.433
Ca (315.887 nm)	111.073901	ppm	0.626359	0.56	88148.961896	Y_R 377.433
Cd (214.439 nm)	1.033070	ppm	0.001191	0.12	38202.400000	Y 377.433
Co (228.615 nm)	0.990401	ppm	0.000269	0.03	23306.200000	Y 242.219
Cr (205.560 nm)	1.045540	ppm	0.002117	0.20	6958.750000	Y 377.433
Cu (324.754 nm)	1.005620	ppm	0.002539	0.25	47246.800000	Y 377.433
Fe (238.204 nm)	10.795818 o	ppm	0.048824	0.45	25994.557234	Y_R 377.433
Fe H (259.940 nm)	10.712000	ppm	0.047922	0.45	14826.000000	Y_R 377.433
K (766.491 nm)	50.376300	ppm	0.913036	1.81	50580.100000	Y_R2 488.368
Li (670.783 nm)	1.015700	ppm	0.011767	1.16	14894.000000	Y_R2 488.368
Mg (279.078 nm)	52.585700	ppm	0.046755	0.09	172043.000000	Y 377.433
Mn (257.610 nm)	1.703770	ppm	0.002978	0.17	464539.000000	Y 377.433
Mo (202.032 nm)	1.028640	ppm	0.000649	0.06	12976.300000	Y 377.433
Na (589.592 nm)	187.915000 o	ppm	1.887840	1.00	154863.000000	Y_R2 488.368
Na H (589.593 nm)	195.392569	ppm	2.404396	1.23	105893.941773	Y_R4
Ni (231.604 nm)	1.023490	ppm	0.002162	0.21	5289.310000	Y 377.433
P (213.618 nm)	20.845800	ppm	0.018181	0.09	29530.100000	Y 242.219
Pb (220.353 nm)	0.997208	ppm	0.000284	0.03	3174.720000	Y 242.219
S (181.972 nm)	13.792910	ppm	0.004948	0.04	6340.230421	Y 377.433
Sb (206.834 nm)	-0.000881 u	ppm	0.001470	> 100.00	-4.461120	Y 377.433
Se (196.026 nm)	2.011750	ppm	0.002611	0.13	3042.730000	Y 242.219
Si (288.158 nm)	4.327220	ppm	0.000982	0.02	28345.300000	Y 377.433
Sn (189.925 nm)	2.075370	ppm	0.000756	0.04	3341.480000	Y 377.433
Sr (421.552 nm)	1.061583	ppm	0.006729	0.63	159900.308225	Y_R 488.368
Th (288.505 nm)	1.003330	ppm	0.000909	0.09	1660.600000	Y 377.433
Ti (336.122 nm)	1.003270	ppm	0.002056	0.20	128332.000000	Y 377.433
Tl (190.794 nm)	1.981130	ppm	0.006530	0.33	4521.420000	Y 377.433
U (409.013 nm)	2.003980	ppm	0.002735	0.14	6263.510000	Y 377.433
V (292.401 nm)	1.004620	ppm	0.001323	0.13	51668.000000	Y 377.433
Zn (206.200 nm)	0.514005	ppm	0.000763	0.15	2316.910000	Y 377.433
Zr (343.823 nm)	0.493076	ppm	0.000869	0.18	27752.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.062493	24560.012140	0.001563	0.15
Y 377.433	1.049543	734082.898404	0.000607	0.06
Y_R 377.433	1.121840	68015.800000	0.003323	0.30
Y_R 488.368	1.136650	60046.800000	0.004933	0.43
Y_R2 488.368	1.108747	117533.078626	0.009259	0.84
Y_R4	1.116170	50227.500000	0.013044	1.17

Sample Name: 280-123855-F-1-C MSD

Date: 5/24/2019 10:41:19 PM Rack:Tube: 1:90

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001179	ppm	0.000111	9.38	-543.169000	Y 377.433
Al (394.401 nm)	9.897070 o	ppm	0.013472	0.14	121167.000000	Y 377.433
Al H (396.152 nm)	9.659840	ppm	0.006490	0.07	21372.600000	Y_R 377.433
As (188.980 nm)	2.033620	ppm	0.006201	0.30	3062.580000	Y 242.219
B (249.678 nm)	0.977790	ppm	0.002180	0.22	7023.490000	Y 242.219
Ba (493.408 nm)	1.977820	ppm	0.001501	0.08	198584.000000	Y_R 488.368
Be (234.861 nm)	0.984255	ppm	0.001542	0.16	96884.700000	Y_R 488.368
Bi (223.061 nm)	1.972660	ppm	0.005330	0.27	4311.730000	Y 377.433
Ca (315.887 nm)	112.666293	ppm	0.061928	0.05	89413.645699	Y_R 377.433
Cd (214.439 nm)	1.022230	ppm	0.002614	0.26	37801.300000	Y 377.433
Co (228.615 nm)	0.980584	ppm	0.001321	0.13	23075.000000	Y 242.219
Cr (205.560 nm)	1.029000	ppm	0.003554	0.35	6848.490000	Y 377.433
Cu (324.754 nm)	0.992137	ppm	0.005077	0.51	46617.900000	Y 377.433
Fe (238.204 nm)	10.771025 o	ppm	0.006627	0.06	25934.876874	Y_R 377.433
Fe H (259.940 nm)	10.681100	ppm	0.000993	0.01	14783.200000	Y_R 377.433
K (766.491 nm)	50.477700	ppm	0.543272	1.08	50678.000000	Y_R2 488.368
Li (670.783 nm)	1.011120	ppm	0.000089	0.01	14815.500000	Y_R2 488.368
Mg (279.078 nm)	52.252300	ppm	0.103563	0.20	170953.000000	Y 377.433
Mn (257.610 nm)	1.710860	ppm	0.002278	0.13	466471.000000	Y 377.433
Mo (202.032 nm)	1.018870	ppm	0.000984	0.10	12853.200000	Y 377.433
Na (589.592 nm)	191.895000 o	ppm	0.331536	0.17	158127.000000	Y_R2 488.368
Na H (589.593 nm)	197.347868	ppm	0.130687	0.07	106954.801338	Y_R4
Ni (231.604 nm)	1.012130	ppm	0.000198	0.02	5230.510000	Y 377.433
P (213.618 nm)	20.681300	ppm	0.065529	0.32	29298.600000	Y 242.219
Pb (220.353 nm)	0.989845	ppm	0.003793	0.38	3151.350000	Y 242.219
S (181.972 nm)	13.781892	ppm	0.065607	0.48	6335.293019	Y 377.433
Sb (206.834 nm)	0.000309 u	ppm	0.001085	> 100.00	-2.446570	Y 377.433
Se (196.026 nm)	1.994040	ppm	0.001243	0.06	3016.040000	Y 242.219
Si (288.158 nm)	4.396560	ppm	0.019478	0.44	28791.700000	Y 377.433
Sn (189.925 nm)	2.049400	ppm	0.004376	0.21	3299.690000	Y 377.433
Sr (421.552 nm)	1.061305	ppm	0.000042	0.00	159858.509162	Y_R 488.368
Th (288.505 nm)	1.000750	ppm	0.004014	0.40	1657.240000	Y 377.433
Ti (336.122 nm)	0.992942	ppm	0.001025	0.10	127017.000000	Y 377.433
Tl (190.794 nm)	1.961210	ppm	0.002849	0.15	4475.860000	Y 377.433
U (409.013 nm)	1.986730	ppm	0.009608	0.48	6208.830000	Y 377.433
V (292.401 nm)	0.994462	ppm	0.001476	0.15	51147.200000	Y 377.433
Zn (206.200 nm)	0.512682	ppm	0.002284	0.45	2310.960000	Y 377.433
Zr (343.823 nm)	0.490283	ppm	0.000832	0.17	27594.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.056012	24410.206975	0.002927	0.28
Y 377.433	1.043919	730149.564309	0.003343	0.32
Y_R 377.433	1.096460	66476.800000	0.000619	0.06
Y_R 488.368	1.108980	58584.900000	0.000520	0.05
Y_R2 488.368	1.084958	115011.286243	0.001023	0.09
Y_R4	1.108450	49880.400000	0.001451	0.13

Sample Name: CCVH-5713036

Date: 5/24/2019 10:45:00 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005474	ppm	0.000040	0.73	-87.815900	Y 377.433
Al (394.401 nm)	48.848500 o	ppm	0.143134	0.29	595101.000000	Y 377.433
Al H (396.152 nm)	47.275200	ppm	0.113396	0.24	103082.000000	Y_R 377.433
As (188.980 nm)	0.004349	ppm	0.001013	23.29	3.638470	Y 242.219
B (249.678 nm)	-0.000904 u	ppm	0.001217	> 100.00	11.671100	Y 242.219
Ba (493.408 nm)	0.000714	ppm	0.000272	38.14	1509.960000	Y_R 488.368
Be (234.861 nm)	0.001273	ppm	0.000011	0.89	-85.545500	Y_R 488.368
Bi (223.061 nm)	0.009099	ppm	0.003138	34.49	17.853700	Y 377.433
Ca (315.887 nm)	0.004280 u	ppm	0.013272	> 100.00	-53.739080	Y_R 377.433
Cd (214.439 nm)	0.001443	ppm	0.000098	6.82	68.247700	Y 377.433
Co (228.615 nm)	0.003006	ppm	0.000052	1.73	55.535000	Y 242.219
Cr (205.560 nm)	0.001927	ppm	0.000783	40.65	4.816180	Y 377.433
Cu (324.754 nm)	0.004297	ppm	0.000026	0.60	1453.140000	Y 377.433
Fe (238.204 nm)	49.402415 o	ppm	0.117838	0.24	118927.376412	Y_R 377.433
Fe H (259.940 nm)	48.971500	ppm	0.085408	0.17	67738.300000	Y_R 377.433
K (766.491 nm)	0.238193	ppm	0.273989	> 100.00	2167.380000	Y_R2 488.368
Li (670.783 nm)	0.021191	ppm	0.000113	0.53	-2181.920000	Y_R2 488.368
Mg (279.078 nm)	0.042489	ppm	0.002414	5.68	74.256400	Y 377.433
Mn (257.610 nm)	0.001055	ppm	0.000000	0.01	276.474000	Y 377.433
Mo (202.032 nm)	0.001361	ppm	0.000227	16.65	28.291400	Y 377.433
Na (589.592 nm)	223.972000 o	ppm	0.744428	0.33	184010.000000	Y_R2 488.368
Na H (589.593 nm)	229.031288	ppm	2.114989	0.92	124144.835668	Y_R4
Ni (231.604 nm)	0.003410	ppm	0.000610	17.88	9.023910	Y 377.433
P (213.618 nm)	4.877180	ppm	0.000006	0.00	6965.780000	Y 242.219
Pb (220.353 nm)	0.006263	ppm	0.001890	30.18	21.543200	Y 242.219
S (181.972 nm)	4.836787	ppm	0.014825	0.31	2227.733577	Y 377.433
Sb (206.834 nm)	-0.000418 u	ppm	0.002845	> 100.00	5.230520	Y 377.433
Se (196.026 nm)	0.006054	ppm	0.001258	20.77	5.265590	Y 242.219
Si (288.158 nm)	0.013243	ppm	0.000871	6.58	573.802000	Y 377.433
Sn (189.925 nm)	0.002244	ppm	0.000025	1.10	5.701530	Y 377.433
Sr (421.552 nm)	0.001554	ppm	0.000055	3.56	264.568872	Y_R 488.368
Th (288.505 nm)	4.737450	ppm	0.017129	0.36	8182.180000	Y 377.433
Ti (336.122 nm)	0.001932	ppm	0.000089	4.58	-186.602000	Y 377.433
Tl (190.794 nm)	0.001869	ppm	0.002011	> 100.00	1.335130	Y 377.433
U (409.013 nm)	0.525351 Q	ppm	0.003269	0.62	1678.120000 Q	Y 377.433
V (292.401 nm)	0.001070	ppm	0.000041	3.82	395.788000	Y 377.433
Zn (206.200 nm)	0.002866	ppm	0.000242	8.43	23.830900	Y 377.433
Zr (343.823 nm)	0.001288	ppm	0.000354	27.46	-88.697200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087581	25139.934201	0.000724	0.07
Y 377.433	1.063951	744160.368155	0.001553	0.15
Y_R 377.433	1.124690	68188.700000	0.001506	0.13
Y_R 488.368	1.139800	60213.100000	0.001939	0.17
Y_R2 488.368	1.093766	115944.967548	0.001918	0.18
Y_R4	1.123890	50575.100000	0.012337	1.10

Sample Name: CCV-5717467

Date: 5/24/2019 10:48:43 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.485844	ppm	0.001066	0.22	16496.000000	Y 377.433
Al (394.401 nm)	0.492356	ppm	0.001959	0.40	6223.430000	Y 377.433
Al H (396.152 nm)	0.536039 u	ppm	0.006037	1.13	1153.210000	Y_R 377.433
As (188.980 nm)	0.485029	ppm	0.001998	0.41	729.243000	Y 242.219
B (249.678 nm)	0.469166	ppm	0.001101	0.23	3395.850000	Y 242.219
Ba (493.408 nm)	0.476472	ppm	0.001459	0.31	48902.800000	Y_R 488.368
Be (234.861 nm)	0.463826	ppm	0.002222	0.48	45666.300000	Y_R 488.368
Bi (223.061 nm)	0.976670	ppm	0.003060	0.31	2128.960000	Y 377.433
Ca (315.887 nm)	4.906256	ppm	0.001752	0.04	3827.665279	Y_R 377.433
Cd (214.439 nm)	0.511535	ppm	0.001361	0.27	18912.500000	Y 377.433
Co (228.615 nm)	0.487508	ppm	0.000473	0.10	11463.700000	Y 242.219
Cr (205.560 nm)	0.511666	ppm	0.000476	0.09	3402.200000	Y 377.433
Cu (324.754 nm)	0.488672	ppm	0.001573	0.32	23107.700000	Y 377.433
Fe (238.204 nm)	2.503589	ppm	0.005601	0.22	6033.715477	Y_R 377.433
Fe H (259.940 nm)	2.481020 u	ppm	0.002567	0.10	3442.620000	Y_R 377.433
K (766.491 nm)	48.036200	ppm	0.050998	0.11	48320.600000	Y_R2 488.368
Li (670.783 nm)	0.506402	ppm	0.002803	0.55	6149.280000	Y_R2 488.368
Mg (279.078 nm)	19.707800	ppm	0.041638	0.21	64495.800000	Y 377.433
Mn (257.610 nm)	0.485802	ppm	0.000806	0.17	132448.000000	Y 377.433
Mo (202.032 nm)	0.489574	ppm	0.000382	0.08	6181.840000	Y 377.433
Na (589.592 nm)	22.998100	ppm	0.036863	0.16	19137.400000	Y_R2 488.368
Na H (589.593 nm)	24.356149 u	ppm	0.004103	0.02	13097.080408	Y_R4
Ni (231.604 nm)	0.501498	ppm	0.002630	0.52	2586.740000	Y 377.433
P (213.618 nm)	0.050387	ppm	0.003750	7.44	-65.092400	Y 242.219
Pb (220.353 nm)	0.493079	ppm	0.003292	0.67	1572.530000	Y 242.219
S (181.972 nm)	-0.007428 u	ppm	0.001076	14.49	11.095072	Y 377.433
Sb (206.834 nm)	0.496017	ppm	0.001392	0.28	836.739000	Y 377.433
Se (196.026 nm)	0.489987	ppm	0.002803	0.57	747.969000	Y 242.219
Si (288.158 nm)	4.814600	ppm	0.012845	0.27	31482.800000	Y 377.433
Sn (189.925 nm)	0.507486	ppm	0.001502	0.30	818.665000	Y 377.433
Sr (421.552 nm)	0.465086	ppm	0.001478	0.32	70066.026230	Y_R 488.368
Th (288.505 nm)	0.022848	ppm	0.001564	6.84	2.842160	Y 377.433
Ti (336.122 nm)	0.478755	ppm	0.000061	0.01	60846.500000	Y 377.433
Tl (190.794 nm)	0.502625	ppm	0.001630	0.32	1148.180000	Y 377.433
U (409.013 nm)	0.016284	ppm	0.001516	9.31	-32.492900	Y 377.433
V (292.401 nm)	0.482691	ppm	0.001059	0.22	24742.500000	Y 377.433
Zn (206.200 nm)	0.512900	ppm	0.000886	0.17	2310.790000	Y 377.433
Zr (343.823 nm)	0.479454	ppm	0.000256	0.05	26981.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110837	25677.516510	0.005782	0.52
Y 377.433	1.090614	762809.221734	0.005910	0.54
Y_R 377.433	1.141890	69231.200000	0.004445	0.39
Y_R 488.368	1.157360	61140.500000	0.002830	0.24
Y_R2 488.368	1.137014	120529.460291	0.003244	0.29
Y_R4	1.128070	50763.200000	0.003571	0.32

Sample Name: CCB

Date: 5/24/2019 10:52:18 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001087	ppm	0.000277	25.49	-229.364000	Y 377.433
Al (394.401 nm)	-0.002865 u	ppm	0.002470	86.20	56.061900	Y 377.433
Al H (396.152 nm)	0.129444 Zu	ppm	0.004939	3.82	24.701000 Z	Y_R 377.433
As (188.980 nm)	0.002595	ppm	0.001818	70.08	2.333930	Y 242.219
B (249.678 nm)	-0.003267 u	ppm	0.000816	24.98	23.337200	Y 242.219
Ba (493.408 nm)	-0.002172 Zu	ppm	0.000063	2.89	1182.900000 Z	Y_R 488.368
Be (234.861 nm)	0.000000 u	ppm	0.000064	> 100.00	-1.946900	Y_R 488.368
Bi (223.061 nm)	0.000217 u	ppm	0.000465	> 100.00	-10.135900	Y 377.433
Ca (315.887 nm)	0.019000	ppm	0.002964	15.60	-53.950497	Y_R 377.433
Cd (214.439 nm)	-0.000001 u	ppm	0.000049	> 100.00	-5.209800	Y 377.433
Co (228.615 nm)	-0.000186 u	ppm	0.000082	43.89	-19.516800	Y 242.219
Cr (205.560 nm)	0.000313	ppm	0.000142	45.40	-4.665670	Y 377.433
Cu (324.754 nm)	0.001212	ppm	0.000188	15.51	373.782000	Y 377.433
Fe (238.204 nm)	0.000320	ppm	0.000206	64.24	7.910795	Y_R 377.433
Fe H (259.940 nm)	0.002007 u	ppm	0.001793	89.36	14.188200	Y_R 377.433
K (766.491 nm)	-0.162920 u	ppm	0.223873	> 100.00	1780.070000	Y_R2 488.368
Li (670.783 nm)	0.023327 Z	ppm	0.004054	17.38	-2145.240000 Z	Y_R2 488.368
Mg (279.078 nm)	0.005084	ppm	0.001513	29.77	25.127500	Y 377.433
Mn (257.610 nm)	0.000089	ppm	0.000020	22.27	13.264000	Y 377.433
Mo (202.032 nm)	-0.000027 u	ppm	0.000165	> 100.00	10.787200	Y 377.433
Na (589.592 nm)	-0.021245 u	ppm	0.040179	> 100.00	132.359000	Y_R2 488.368
Na H (589.593 nm)	0.775501 u	ppm	0.025514	3.29	303.255069	Y_R4
Ni (231.604 nm)	0.000289 u	ppm	0.000825	> 100.00	-7.125610	Y 377.433
P (213.618 nm)	-0.000782 u	ppm	0.005638	> 100.00	-5.296550	Y 242.219
Pb (220.353 nm)	-0.000043 u	ppm	0.001631	> 100.00	8.105760	Y 242.219
S (181.972 nm)	-0.014650 u	ppm	0.008204	56.00	5.989689	Y 377.433
Sb (206.834 nm)	-0.001358 u	ppm	0.001010	74.36	-0.513777	Y 377.433
Se (196.026 nm)	-0.001035 u	ppm	0.000142	13.71	7.296640	Y 242.219
Si (288.158 nm)	-0.006703 u	ppm	0.002393	35.70	445.396000	Y 377.433
Sn (189.925 nm)	0.000695	ppm	0.000260	37.48	3.208150	Y 377.433
Sr (421.552 nm)	0.000191	ppm	0.000030	15.82	51.913012	Y_R 488.368
Th (288.505 nm)	0.001360	ppm	0.001207	88.72	14.993800	Y 377.433
Ti (336.122 nm)	0.000364	ppm	0.000029	7.95	-387.318000	Y 377.433
Tl (190.794 nm)	0.000500 u	ppm	0.000884	> 100.00	2.959970	Y 377.433
U (409.013 nm)	-0.003465 u	ppm	0.001439	41.54	-35.748200	Y 377.433
V (292.401 nm)	0.000288	ppm	0.000231	80.18	-131.011000	Y 377.433
Zn (206.200 nm)	-0.000632 u	ppm	0.000031	4.87	1.222180	Y 377.433
Zr (343.823 nm)	-0.000003 u	ppm	0.000172	> 100.00	-161.786000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136128	26262.117419	0.006999	0.62
Y 377.433	1.113631	778908.068802	0.007367	0.66
Y_R 377.433	1.157610	70184.200000	0.005216	0.45
Y_R 488.368	1.173940	62016.300000	0.005788	0.49
Y_R2 488.368	1.156436	122588.310744	0.012317	1.07
Y_R4	1.161670	52275.100000	0.001831	0.16

Sample Name: CCVL-5719884

Date: 5/24/2019 10:55:31 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008543	ppm	0.000014	0.17	26.616200	Y 377.433
Al (394.401 nm)	0.092870	ppm	0.000699	0.75	1233.920000	Y 377.433
Al H (396.152 nm)	0.223118 u	ppm	0.005623	2.52	234.859000	Y_R 377.433
As (188.980 nm)	0.016657	ppm	0.000382	2.29	23.521600	Y 242.219
B (249.678 nm)	0.088483	ppm	0.000393	0.44	678.530000	Y 242.219
Ba (493.408 nm)	0.006869 Q	ppm	0.000547	7.96	2084.300000 Q	Y_R 488.368
Be (234.861 nm)	0.000912	ppm	0.000021	2.28	87.442700	Y_R 488.368
Bi (223.061 nm)	0.085847	ppm	0.004034	4.70	177.427000	Y 377.433
Ca (315.887 nm)	0.222244	ppm	0.011757	5.29	107.490242	Y_R 377.433
Cd (214.439 nm)	0.005287	ppm	0.000065	1.24	190.383000	Y 377.433
Co (228.615 nm)	0.010290	ppm	0.000026	0.25	227.136000	Y 242.219
Cr (205.560 nm)	0.010714	ppm	0.000230	2.15	64.527200	Y 377.433
Cu (324.754 nm)	0.016527	ppm	0.000025	0.15	1086.740000	Y 377.433
Fe (238.204 nm)	0.099824	ppm	0.000997	1.00	247.434073	Y_R 377.433
Fe H (259.940 nm)	0.103122 u	ppm	0.002534	2.46	154.029000	Y_R 377.433
K (766.491 nm)	2.783540	ppm	0.064341	2.31	4625.140000	Y_R2 488.368
Li (670.783 nm)	0.053147 Q	ppm	0.000016	0.03	-1633.220000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200388	ppm	0.002917	1.46	662.785000	Y 377.433
Mn (257.610 nm)	0.010435	ppm	0.000036	0.35	2834.180000	Y 377.433
Mo (202.032 nm)	0.019293	ppm	0.000285	1.48	254.302000	Y 377.433
Na (589.592 nm)	0.993088	ppm	0.021442	2.16	966.992000	Y_R2 488.368
Na H (589.593 nm)	1.560915 u	ppm	0.040782	2.61	729.385874	Y_R4
Ni (231.604 nm)	0.043449	ppm	0.000379	0.87	216.206000	Y 377.433
P (213.618 nm)	2.807470	ppm	0.009786	0.35	4006.260000	Y 242.219
Pb (220.353 nm)	0.009275	ppm	0.000139	1.50	37.823600	Y 242.219
S (181.972 nm)	0.082758	ppm	0.006970	8.42	50.638379	Y 377.433
Sb (206.834 nm)	0.016170	ppm	0.002379	14.71	28.935400	Y 377.433
Se (196.026 nm)	0.018035	ppm	0.001896	10.51	36.048600	Y 242.219
Si (288.158 nm)	0.469926	ppm	0.002388	0.51	3513.720000	Y 377.433
Sn (189.925 nm)	0.103304	ppm	0.000208	0.20	168.312000	Y 377.433
Sr (421.552 nm)	0.008960	ppm	0.000096	1.07	1372.622834	Y_R 488.368
Th (288.505 nm)	0.019142	ppm	0.001318	6.88	45.253700	Y 377.433
Ti (336.122 nm)	0.009902	ppm	0.000037	0.37	833.936000	Y 377.433
Tl (190.794 nm)	0.016934	ppm	0.001599	9.44	40.432600	Y 377.433
U (409.013 nm)	0.062071	ppm	0.011920	19.20	170.972000	Y 377.433
V (292.401 nm)	0.009835	ppm	0.000134	1.36	357.918000	Y 377.433
Zn (206.200 nm)	0.021350	ppm	0.000451	2.11	100.084000	Y 377.433
Zr (343.823 nm)	0.009549	ppm	0.000244	2.56	378.992000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.170926	27066.496323	0.003371	0.29
Y 377.433	1.146290	801751.041260	0.001785	0.16
Y_R 377.433	1.187740	72011.300000	0.000932	0.08
Y_R 488.368	1.200210	63404.600000	0.009227	0.77
Y_R2 488.368	1.178107	124885.574394	0.005257	0.45
Y_R4	1.170170	52657.400000	0.011566	0.99

Sample Name: 280-123855-F-1-Apds

Date: 5/24/2019 10:58:59 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.045268	ppm	0.000274	0.60	1287.040000	Y 377.433
Al (394.401 nm)	1.002310	ppm	0.000968	0.10	12382.600000	Y 377.433
Al H (396.152 nm)	1.073660	ppm	0.006530	0.61	2137.730000	Y_R 377.433
As (188.980 nm)	0.204098	ppm	0.000140	0.07	305.930000	Y 242.219
B (249.678 nm)	0.102163	ppm	0.000888	0.87	775.276000	Y 242.219
Ba (493.408 nm)	0.122289	ppm	0.000670	0.55	13592.300000	Y_R 488.368
Be (234.861 nm)	0.048602	ppm	0.000343	0.71	4777.050000	Y_R 488.368
Bi (223.061 nm)	0.002410 u	ppm	0.004042	> 100.00	-4.986890	Y 377.433
Ca (315.887 nm)	80.130328	ppm	0.175207	0.22	63571.170684	Y_R 377.433
Cd (214.439 nm)	0.052326	ppm	0.000113	0.22	1930.570000	Y 377.433
Co (228.615 nm)	0.050863	ppm	0.000797	1.57	1182.360000	Y 242.219
Cr (205.560 nm)	0.053036	ppm	0.001051	1.98	346.563000	Y 377.433
Cu (324.754 nm)	0.052299	ppm	0.000342	0.65	2719.870000	Y 377.433
Fe (238.204 nm)	1.751334	ppm	0.005143	0.29	4222.906541	Y_R 377.433
Fe H (259.940 nm)	1.740390 u	ppm	0.007148	0.41	2418.350000	Y_R 377.433
K (766.491 nm)	20.582400	ppm	0.107914	0.52	21811.500000	Y_R2 488.368
Li (670.783 nm)	0.121298	ppm	0.003137	2.59	-463.051000	Y_R2 488.368
Mg (279.078 nm)	22.474000	ppm	0.005380	0.02	73541.200000	Y 377.433
Mn (257.610 nm)	0.738707	ppm	0.000168	0.02	201405.000000	Y 377.433
Mo (202.032 nm)	0.050570	ppm	0.000481	0.95	648.530000	Y 377.433
Na (589.592 nm)	156.324000 o	ppm	0.331777	0.21	128505.000000	Y_R2 488.368
Na H (589.593 nm)	161.491097	ppm	2.225431	1.38	87500.489391	Y_R4
Ni (231.604 nm)	0.059245	ppm	0.000429	0.72	298.145000	Y 377.433
P (213.618 nm)	2.082240	ppm	0.021854	1.05	2959.040000	Y 242.219
Pb (220.353 nm)	0.099144	ppm	0.000161	0.16	324.108000	Y 242.219
S (181.972 nm)	3.570736	ppm	0.001620	0.05	1654.302650	Y 377.433
Sb (206.834 nm)	0.099701	ppm	0.002509	2.52	169.972000	Y 377.433
Se (196.026 nm)	0.199387	ppm	0.003340	1.68	310.168000	Y 242.219
Si (288.158 nm)	7.124050	ppm	0.015088	0.21	46350.100000	Y 377.433
Sn (189.925 nm)	0.101808	ppm	0.000832	0.82	165.906000	Y 377.433
Sr (421.552 nm)	0.150330	ppm	0.000082	0.05	22663.367249	Y_R 488.368
Th (288.505 nm)	0.197463	ppm	0.005432	2.75	362.267000	Y 377.433
Ti (336.122 nm)	0.048967	ppm	0.000365	0.75	6108.790000	Y 377.433
Tl (190.794 nm)	0.200838	ppm	0.000727	0.36	457.453000	Y 377.433
U (409.013 nm)	0.511950	ppm	0.001100	0.21	1583.520000	Y 377.433
V (292.401 nm)	0.050677	ppm	0.000101	0.20	2462.310000	Y 377.433
Zn (206.200 nm)	0.214899	ppm	0.000328	0.15	970.654000	Y 377.433
Zr (343.823 nm)	0.049622	ppm	0.000056	0.11	2647.550000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.111493	25692.669633	0.000422	0.04
Y 377.433	1.093950	765142.454918	0.000276	0.03
Y_R 377.433	1.153380	69927.900000	0.008167	0.71
Y_R 488.368	1.169580	61786.000000	0.006906	0.59
Y_R2 488.368	1.139953	120841.052138	0.012381	1.09
Y_R4	1.134730	51062.700000	0.014125	1.24

Sample Name: 280-123855-F-2-A

Date: 5/24/2019 11:02:33 PM Rack:Tube: 2:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002516	ppm	0.000105	4.18	-180.969000	Y 377.433
Al (394.401 nm)	-0.023378 bu	ppm	0.000087	0.37	3410.120000	Y 377.433
Al H (396.152 nm)	-2.319660 bu	ppm	0.007284	0.31	481.390000	Y_R 377.433
As (188.980 nm)	0.001202	ppm	0.001212	> 100.00	0.231311	Y 242.219
B (249.678 nm)	0.160773	ppm	0.000679	0.42	1194.760000	Y 242.219
Ba (493.408 nm)	2.642530	ppm	0.000646	0.02	264843.000000	Y_R 488.368
Be (234.861 nm)	-0.000043 u	ppm	0.000027	62.31	-6.953060	Y_R 488.368
Bi (223.061 nm)	0.001727	ppm	0.002000	> 100.00	-6.745170	Y 377.433
Ca (315.887 nm)	203.970721	ppm	0.333825	0.16	161925.736592	Y_R 377.433
Cd (214.439 nm)	0.000372	ppm	0.000042	11.16	8.646020	Y 377.433
Co (228.615 nm)	0.000793	ppm	0.000226	28.53	3.518510	Y 242.219
Cr (205.560 nm)	0.031618	ppm	0.000232	0.73	204.076000	Y 377.433
Cu (324.754 nm)	0.016423	ppm	0.000400	2.44	962.894000	Y 377.433
Fe (238.204 nm)	0.169867	ppm	0.000360	0.21	416.040086	Y_R 377.433
Fe H (259.940 nm)	0.169816 u	ppm	0.004671	2.75	246.267000	Y_R 377.433
K (766.491 nm)	25.910300	ppm	0.269451	1.04	26956.000000	Y_R2 488.368
Li (670.783 nm)	4.407960	ppm	0.008915	0.20	73140.000000	Y_R2 488.368
Mg (279.078 nm)	5.557840	ppm	0.005107	0.09	18195.200000	Y 377.433
Mn (257.610 nm)	0.015627	ppm	0.000079	0.51	4249.810000	Y 377.433
Mo (202.032 nm)	0.005719	ppm	0.000079	1.37	83.220700	Y 377.433
Na (589.592 nm)	1023.090000 o	ppm	4.325190	0.42	840611.000000	Y_R2 488.368
Na H (589.593 nm)	1209.535490	ppm	9.374698	0.78	656123.418565	Y_R4
Ni (231.604 nm)	0.009209	ppm	0.000756	8.21	39.025800	Y 377.433
P (213.618 nm)	0.003176	ppm	0.002216	69.78	-3.979490	Y 242.219
Pb (220.353 nm)	-0.000726 u	ppm	0.000685	94.41	5.876100	Y 242.219
S (181.972 nm)	1.150749	ppm	0.008375	0.73	549.941596	Y 377.433
Sb (206.834 nm)	-0.004500 u	ppm	0.000771	17.14	-5.620970	Y 377.433
Se (196.026 nm)	-0.002388 u	ppm	0.001199	50.21	5.234890	Y 242.219
Si (288.158 nm)	5.076570	ppm	0.025767	0.51	33169.300000	Y 377.433
Sn (189.925 nm)	0.001120	ppm	0.001042	93.07	3.891750	Y 377.433
Sr (421.552 nm)	13.841945 bo	ppm	0.004819	0.03	2084635.111392	Y_R 488.368
Th (288.505 nm)	-0.008655 u	ppm	0.003172	36.66	-7.365410	Y 377.433
Ti (336.122 nm)	-0.000113 u	ppm	0.000183	> 100.00	257.552000	Y 377.433
Tl (190.794 nm)	0.002645	ppm	0.001815	68.61	-0.426633	Y 377.433
U (409.013 nm)	-0.010910 u	ppm	0.002229	20.43	-86.813800	Y 377.433
V (292.401 nm)	0.002433	ppm	0.000016	0.66	-32.424900	Y 377.433
Zn (206.200 nm)	0.002765	ppm	0.000314	11.36	16.523100	Y 377.433
Zr (343.823 nm)	-0.000256 u	ppm	0.000162	63.08	-176.120000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.030643	23823.782127	0.010625	1.03
Y 377.433	1.021096	714186.148597	0.010885	1.07
Y_R 377.433	1.115230	67615.200000	0.000665	0.06
Y_R 488.368	1.129710	59680.200000	0.002494	0.22
Y_R2 488.368	1.078185	114293.345524	0.010388	0.96
Y_R4	1.105350	49740.800000	0.011859	1.07

Sample Name: 280-123855-F-3-A

Date: 5/24/2019 11:06:15 PM Rack:Tube: 2:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001417	ppm	0.000388	27.40	-218.989000	Y 377.433
Al (394.401 nm)	0.008246	ppm	0.000226	2.74	279.317000	Y 377.433
Al H (396.152 nm)	0.071110 u	ppm	0.001249	1.76	-4.278220	Y_R 377.433
As (188.980 nm)	0.001554 u	ppm	0.004063	> 100.00	0.648083	Y 242.219
B (249.678 nm)	0.029515	ppm	0.001577	5.34	254.949000	Y 242.219
Ba (493.408 nm)	0.290916	ppm	0.000248	0.09	30405.400000	Y_R 488.368
Be (234.861 nm)	-0.000028 u	ppm	0.000024	85.05	-23.082800	Y_R 488.368
Bi (223.061 nm)	-0.000805 u	ppm	0.000488	60.63	-11.622500	Y 377.433
Ca (315.887 nm)	110.894475	ppm	0.151574	0.14	88003.983785	Y_R 377.433
Cd (214.439 nm)	0.000241	ppm	0.000079	32.79	5.497120	Y 377.433
Co (228.615 nm)	-0.000141 u	ppm	0.000040	28.42	-18.462900	Y 242.219
Cr (205.560 nm)	0.000515	ppm	0.000048	9.39	-3.315240	Y 377.433
Cu (324.754 nm)	-0.000214 u	ppm	0.000044	20.65	237.725000	Y 377.433
Fe (238.204 nm)	4.338148	ppm	0.005651	0.13	10449.818431	Y_R 377.433
Fe H (259.940 nm)	4.303820 u	ppm	0.007312	0.17	5963.520000	Y_R 377.433
K (766.491 nm)	1.289600	ppm	0.245590	19.04	3182.600000	Y_R2 488.368
Li (670.783 nm)	0.042211	ppm	0.002035	4.82	-1820.990000	Y_R2 488.368
Mg (279.078 nm)	25.300800	ppm	0.026701	0.11	82795.100000	Y 377.433
Mn (257.610 nm)	0.456008	ppm	0.000389	0.09	124324.000000	Y 377.433
Mo (202.032 nm)	0.000208	ppm	0.000081	38.96	13.751400	Y 377.433
Na (589.592 nm)	14.197600	ppm	0.011086	0.08	11870.900000	Y_R2 488.368
Na H (589.593 nm)	15.965671 u	ppm	0.195368	1.22	8544.774753	Y_R4
Ni (231.604 nm)	-0.001077 u	ppm	0.000071	6.59	-14.194900	Y 377.433
P (213.618 nm)	0.010003	ppm	0.001801	18.00	10.240500	Y 242.219
Pb (220.353 nm)	-0.000019 u	ppm	0.000090	> 100.00	8.343030	Y 242.219
S (181.972 nm)	3.636981	ppm	0.000722	0.02	1685.278403	Y 377.433
Sb (206.834 nm)	-0.001929 u	ppm	0.004224	> 100.00	-1.111090	Y 377.433
Se (196.026 nm)	-0.002141 u	ppm	0.002912	> 100.00	5.154740	Y 242.219
Si (288.158 nm)	6.404440	ppm	0.025585	0.40	41717.500000	Y 377.433
Sn (189.925 nm)	-0.000269 u	ppm	0.001387	> 100.00	1.657150	Y 377.433
Sr (421.552 nm)	0.295460	ppm	0.000431	0.15	44520.432994	Y_R 488.368
Th (288.505 nm)	-0.004793 u	ppm	0.002258	47.11	10.565800	Y 377.433
Ti (336.122 nm)	-0.000502 u	ppm	0.000038	7.67	-114.570000	Y 377.433
Tl (190.794 nm)	0.001408	ppm	0.001567	> 100.00	0.027513	Y 377.433
U (409.013 nm)	0.033372	ppm	0.001855	5.56	69.234700	Y 377.433
V (292.401 nm)	0.001250	ppm	0.000287	22.93	-85.203100	Y 377.433
Zn (206.200 nm)	0.002349	ppm	0.000127	5.42	15.231000	Y 377.433
Zr (343.823 nm)	0.000708	ppm	0.000188	26.51	-121.526000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.133753	26207.223620	0.004048	0.36
Y 377.433	1.121572	784462.441862	0.005006	0.45
Y_R 377.433	1.185850	71896.400000	0.005930	0.50
Y_R 488.368	1.201790	63487.600000	0.008115	0.68
Y_R2 488.368	1.181145	125207.666230	0.001130	0.10
Y_R4	1.173060	52787.500000	0.008726	0.74

Sample Name: 280-123855-F-4-A

Date: 5/24/2019 11:09:51 PM Rack:Tube: 2:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001547	ppm	0.000454	29.36	-214.287000	Y 377.433
Al (394.401 nm)	0.016654	ppm	0.001067	6.41	358.037000	Y 377.433
Al H (396.152 nm)	0.096992 u	ppm	0.001888	1.95	25.789200	Y_R 377.433
As (188.980 nm)	0.000187	ppm	0.000081	43.24	-1.299070	Y 242.219
B (249.678 nm)	0.014738	ppm	0.000256	1.74	151.832000	Y 242.219
Ba (493.408 nm)	0.042267	ppm	0.000300	0.71	5613.310000	Y_R 488.368
Be (234.861 nm)	-0.000021 u	ppm	0.000017	80.84	-4.789060	Y_R 488.368
Bi (223.061 nm)	-0.000294 u	ppm	0.003062	> 100.00	-11.222700	Y 377.433
Ca (315.887 nm)	94.049693	ppm	0.221866	0.24	74625.763819	Y_R 377.433
Cd (214.439 nm)	0.000160	ppm	0.000128	79.94	0.817816	Y 377.433
Co (228.615 nm)	-0.000144 u	ppm	0.000533	> 100.00	-18.532000	Y 242.219
Cr (205.560 nm)	0.000431	ppm	0.000191	44.31	-3.882750	Y 377.433
Cu (324.754 nm)	0.001066	ppm	0.000207	19.40	309.526000	Y 377.433
Fe (238.204 nm)	0.166423	ppm	0.001626	0.98	407.749809	Y_R 377.433
Fe H (259.940 nm)	0.160287 u	ppm	0.000106	0.07	233.088000	Y_R 377.433
K (766.491 nm)	1.955250	ppm	0.046120	2.36	3825.350000	Y_R2 488.368
Li (670.783 nm)	0.035814	ppm	0.001625	4.54	-1930.840000	Y_R2 488.368
Mg (279.078 nm)	12.363600	ppm	0.024753	0.20	40465.800000	Y 377.433
Mn (257.610 nm)	0.069652	ppm	0.000079	0.11	18980.200000	Y 377.433
Mo (202.032 nm)	0.000447	ppm	0.000021	4.62	16.767700	Y 377.433
Na (589.592 nm)	168.147000 o	ppm	1.113480	0.66	138192.000000	Y_R2 488.368
Na H (589.593 nm)	174.645898	ppm	1.731982	0.99	94637.707606	Y_R4
Ni (231.604 nm)	-0.000603 u	ppm	0.000721	> 100.00	-11.741700	Y 377.433
P (213.618 nm)	0.003200 u	ppm	0.006356	> 100.00	0.149483	Y 242.219
Pb (220.353 nm)	-0.001360 u	ppm	0.002406	> 100.00	4.002330	Y 242.219
S (181.972 nm)	10.091979	ppm	0.004559	0.05	4639.286587	Y 377.433
Sb (206.834 nm)	-0.003922 u	ppm	0.000261	6.64	-4.831470	Y 377.433
Se (196.026 nm)	-0.000279 u	ppm	0.002490	> 100.00	8.492600	Y 242.219
Si (288.158 nm)	3.410140	ppm	0.000539	0.02	22441.600000	Y 377.433
Sn (189.925 nm)	0.000485	ppm	0.000351	72.41	2.871180	Y 377.433
Sr (421.552 nm)	0.222799	ppm	0.000114	0.05	33576.905725	Y_R 488.368
Th (288.505 nm)	-0.006729 u	ppm	0.003079	45.77	0.083196	Y 377.433
Ti (336.122 nm)	-0.000189 u	ppm	0.000190	> 100.00	-133.017000	Y 377.433
Tl (190.794 nm)	0.001639	ppm	0.000880	53.70	1.744150	Y 377.433
U (409.013 nm)	0.018880	ppm	0.004670	24.74	22.565500	Y 377.433
V (292.401 nm)	0.001077	ppm	0.000086	8.02	-92.259900	Y 377.433
Zn (206.200 nm)	0.007001	ppm	0.000257	3.68	35.567700	Y 377.433
Zr (343.823 nm)	0.000029 u	ppm	0.000125	> 100.00	-159.978000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125294	26011.691317	0.000523	0.05
Y 377.433	1.110794	776924.020377	0.000616	0.06
Y_R 377.433	1.179880	71534.700000	0.007433	0.63
Y_R 488.368	1.197570	63264.600000	0.005445	0.45
Y_R2 488.368	1.160024	122968.705188	0.002573	0.22
Y_R4	1.154250	51941.200000	0.005887	0.51

Sample Name: 280-123855-F-5-A

Date: 5/24/2019 11:13:25 PM Rack:Tube: 2:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001338	ppm	0.000486	36.36	-221.515000	Y 377.433
Al (394.401 nm)	0.022576	ppm	0.000344	1.52	428.901000	Y 377.433
Al H (396.152 nm)	0.094375 u	ppm	0.001920	2.03	16.818000	Y_R 377.433
As (188.980 nm)	0.000253 u	ppm	0.002038	> 100.00	-1.198250	Y 242.219
B (249.678 nm)	0.015816	ppm	0.001654	10.46	159.541000	Y 242.219
Ba (493.408 nm)	0.041856	ppm	0.000333	0.80	5572.320000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000007	90.15	-3.309130	Y_R 488.368
Bi (223.061 nm)	0.001211	ppm	0.001220	> 100.00	-7.930320	Y 377.433
Ca (315.887 nm)	89.165555	ppm	0.317284	0.36	70746.755673	Y_R 377.433
Cd (214.439 nm)	0.000182	ppm	0.000212	> 100.00	1.619650	Y 377.433
Co (228.615 nm)	-0.000326 u	ppm	0.000057	17.55	-22.793700	Y 242.219
Cr (205.560 nm)	0.000630	ppm	0.000031	4.85	-2.551020	Y 377.433
Cu (324.754 nm)	0.001762	ppm	0.000065	3.67	344.086000	Y 377.433
Fe (238.204 nm)	0.143981	ppm	0.001286	0.89	353.727126	Y_R 377.433
Fe H (259.940 nm)	0.146063 u	ppm	0.000451	0.31	213.416000	Y_R 377.433
K (766.491 nm)	1.776040	ppm	0.030548	1.72	3652.310000	Y_R2 488.368
Li (670.783 nm)	0.036902	ppm	0.001054	2.86	-1912.160000	Y_R2 488.368
Mg (279.078 nm)	11.626600	ppm	0.002752	0.02	38054.200000	Y 377.433
Mn (257.610 nm)	0.053273	ppm	0.000008	0.01	14514.200000	Y 377.433
Mo (202.032 nm)	-0.000025 u	ppm	0.000132	> 100.00	10.820100	Y 377.433
Na (589.592 nm)	152.808000 o	ppm	0.499032	0.33	125600.000000	Y_R2 488.368
Na H (589.593 nm)	156.632614	ppm	0.410036	0.26	84864.489505	Y_R4
Ni (231.604 nm)	-0.000950 u	ppm	0.000346	36.46	-13.537300	Y 377.433
P (213.618 nm)	0.007691	ppm	0.001045	13.58	6.463460	Y 242.219
Pb (220.353 nm)	-0.000989 u	ppm	0.000607	61.40	5.193020	Y 242.219
S (181.972 nm)	10.113903	ppm	0.018137	0.18	4649.032368	Y 377.433
Sb (206.834 nm)	-0.002965 u	ppm	0.001804	60.86	-3.212800	Y 377.433
Se (196.026 nm)	0.000361 u	ppm	0.000720	> 100.00	9.440270	Y 242.219
Si (288.158 nm)	3.189730	ppm	0.001075	0.03	21022.600000	Y 377.433
Sn (189.925 nm)	0.001453	ppm	0.001078	74.17	4.428970	Y 377.433
Sr (421.552 nm)	0.212363	ppm	0.000063	0.03	32005.358528	Y_R 488.368
Th (288.505 nm)	-0.007348 u	ppm	0.002065	28.10	-1.161630	Y 377.433
Ti (336.122 nm)	-0.000009 u	ppm	0.000081	> 100.00	-126.698000	Y 377.433
Tl (190.794 nm)	0.001508	ppm	0.001776	> 100.00	1.643300	Y 377.433
U (409.013 nm)	0.021836	ppm	0.000526	2.41	32.530700	Y 377.433
V (292.401 nm)	0.001273	ppm	0.000095	7.44	-82.627300	Y 377.433
Zn (206.200 nm)	0.006151	ppm	0.000478	7.77	31.745200	Y 377.433
Zr (343.823 nm)	0.000262	ppm	0.000100	38.09	-146.804000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126904	26048.911589	0.000678	0.06
Y 377.433	1.110593	776783.599694	0.000736	0.07
Y_R 377.433	1.177540	71392.800000	0.000142	0.01
Y_R 488.368	1.194680	63112.300000	0.000035	0.00
Y_R2 488.368	1.172002	124238.381948	0.004590	0.39
Y_R4	1.179190	53063.700000	0.003479	0.30

Sample Name: 280-123855-F-6-A

Date: 5/24/2019 11:16:57 PM Rack:Tube: 2:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001487	ppm	0.000032	2.17	-216.315000	Y 377.433
Al (394.401 nm)	0.026793	ppm	0.000908	3.39	482.331000	Y 377.433
Al H (396.152 nm)	0.104782 u	ppm	0.000491	0.47	42.366600	Y_R 377.433
As (188.980 nm)	0.003158	ppm	0.000388	12.30	3.178890	Y 242.219
B (249.678 nm)	0.015140	ppm	0.000680	4.49	154.711000	Y 242.219
Ba (493.408 nm)	0.042680	ppm	0.000184	0.43	5654.460000	Y_R 488.368
Be (234.861 nm)	-0.000087 u	ppm	0.000032	36.87	-11.150600	Y_R 488.368
Bi (223.061 nm)	0.000380 u	ppm	0.001687	> 100.00	-9.750400	Y 377.433
Ca (315.887 nm)	89.755023	ppm	0.294693	0.33	71214.912191	Y_R 377.433
Cd (214.439 nm)	0.000193	ppm	0.000037	19.00	2.016580	Y 377.433
Co (228.615 nm)	-0.000326 u	ppm	0.000021	6.52	-22.789700	Y 242.219
Cr (205.560 nm)	0.000345	ppm	0.000478	> 100.00	-4.450970	Y 377.433
Cu (324.754 nm)	0.001351	ppm	0.000029	2.17	324.496000	Y 377.433
Fe (238.204 nm)	0.150932	ppm	0.001391	0.92	370.459664	Y_R 377.433
Fe H (259.940 nm)	0.149402 u	ppm	0.001097	0.73	218.034000	Y_R 377.433
K (766.491 nm)	1.882430	ppm	0.023417	1.24	3755.040000	Y_R2 488.368
Li (670.783 nm)	0.033964	ppm	0.003266	9.62	-1962.590000	Y_R2 488.368
Mg (279.078 nm)	12.017900	ppm	0.001451	0.01	39334.500000	Y 377.433
Mn (257.610 nm)	0.050045	ppm	0.000044	0.09	13634.200000	Y 377.433
Mo (202.032 nm)	0.000469	ppm	0.000144	30.72	17.041100	Y 377.433
Na (589.592 nm)	158.259000 o	ppm	0.267203	0.17	130075.000000	Y_R2 488.368
Na H (589.593 nm)	163.486963	ppm	0.787056	0.48	88583.358876	Y_R4
Ni (231.604 nm)	-0.000740 u	ppm	0.000654	88.44	-12.449200	Y 377.433
P (213.618 nm)	0.004707	ppm	0.002783	59.14	2.263910	Y 242.219
Pb (220.353 nm)	-0.000455 u	ppm	0.000082	18.09	6.893760	Y 242.219
S (181.972 nm)	9.874962	ppm	0.002930	0.03	4539.624255	Y 377.433
Sb (206.834 nm)	-0.002950 u	ppm	0.005731	> 100.00	-3.191880	Y 377.433
Se (196.026 nm)	0.000276 u	ppm	0.002397	> 100.00	9.305550	Y 242.219
Si (288.158 nm)	3.267030	ppm	0.001916	0.06	21520.200000	Y 377.433
Sn (189.925 nm)	0.000099 u	ppm	0.000298	> 100.00	2.250020	Y 377.433
Sr (421.552 nm)	0.219722	ppm	0.001126	0.51	33113.525268	Y_R 488.368
Th (288.505 nm)	-0.010606 u	ppm	0.001412	13.31	-6.834540	Y 377.433
Ti (336.122 nm)	0.000146	ppm	0.000009	5.95	-105.020000	Y 377.433
Tl (190.794 nm)	0.001290 u	ppm	0.003131	> 100.00	1.121180	Y 377.433
U (409.013 nm)	0.022821	ppm	0.005094	22.32	35.607000	Y 377.433
V (292.401 nm)	0.001288	ppm	0.000317	24.63	-81.888100	Y 377.433
Zn (206.200 nm)	0.006954	ppm	0.000055	0.79	35.356600	Y 377.433
Zr (343.823 nm)	0.000083	ppm	0.000056	67.45	-156.941000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125019	26005.342609	0.000990	0.09
Y 377.433	1.108711	775467.140294	0.000070	0.01
Y_R 377.433	1.175580	71274.200000	0.003794	0.32
Y_R 488.368	1.190480	62890.400000	0.006953	0.58
Y_R2 488.368	1.170208	124048.247271	0.002757	0.24
Y_R4	1.170310	52664.000000	0.005090	0.43

Sample Name: 280-123922-F-1-A

Date: 5/24/2019 11:20:31 PM Rack:Tube: 2:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002115	ppm	0.000012	0.56	-194.509000	Y 377.433
Al (394.401 nm)	0.004879	ppm	0.000586	12.02	282.978000	Y 377.433
Al H (396.152 nm)	0.036443 u	ppm	0.001013	2.78	-4.547340	Y_R 377.433
As (188.980 nm)	0.006666	ppm	0.001650	24.76	8.126330	Y 242.219
B (249.678 nm)	0.058048	ppm	0.000030	0.05	453.935000	Y 242.219
Ba (493.408 nm)	0.052673	ppm	0.000211	0.40	6660.650000	Y_R 488.368
Be (234.861 nm)	-0.000067 u	ppm	0.000037	54.57	-61.989600	Y_R 488.368
Bi (223.061 nm)	-0.001099 u	ppm	0.000943	85.88	-10.828300	Y 377.433
Ca (315.887 nm)	132.912804	ppm	0.376727	0.28	105491.071631	Y_R 377.433
Cd (214.439 nm)	0.000262	ppm	0.000016	6.07	9.630680	Y 377.433
Co (228.615 nm)	0.003321	ppm	0.000122	3.69	62.894000	Y 242.219
Cr (205.560 nm)	0.000538	ppm	0.000403	74.84	-3.165680	Y 377.433
Cu (324.754 nm)	0.000002 u	ppm	0.000255	> 100.00	237.589000	Y 377.433
Fe (238.204 nm)	12.626130 o	ppm	0.024459	0.19	30400.438550	Y_R 377.433
Fe H (259.940 nm)	12.575100	ppm	0.032333	0.26	17402.600000	Y_R 377.433
K (766.491 nm)	3.489260	ppm	0.229193	6.57	5306.570000	Y_R2 488.368
Li (670.783 nm)	0.068250	ppm	0.000068	0.10	-1373.900000	Y_R2 488.368
Mg (279.078 nm)	11.278200	ppm	0.014458	0.13	36897.700000	Y 377.433
Mn (257.610 nm)	4.163860	ppm	0.000885	0.02	1135310.000000	Y 377.433
Mo (202.032 nm)	0.000347	ppm	0.000162	46.74	15.510100	Y 377.433
Na (589.592 nm)	11.133100	ppm	0.011432	0.10	9301.190000	Y_R2 488.368
Na H (589.593 nm)	11.988430 u	ppm	0.025969	0.22	6386.898258	Y_R4
Ni (231.604 nm)	-0.000005 u	ppm	0.000087	> 100.00	-8.641530	Y 377.433
P (213.618 nm)	0.000388 u	ppm	0.002154	> 100.00	-3.240380	Y 242.219
Pb (220.353 nm)	-0.000796 u	ppm	0.002645	> 100.00	5.810550	Y 242.219
S (181.972 nm)	0.008137	ppm	0.006377	78.37	36.470312	Y 377.433
Sb (206.834 nm)	-0.005027 u	ppm	0.002029	40.36	-5.647020	Y 377.433
Se (196.026 nm)	0.002610	ppm	0.000354	13.57	15.421200	Y 242.219
Si (288.158 nm)	8.037910	ppm	0.011070	0.14	52233.200000	Y 377.433
Sn (189.925 nm)	0.000462	ppm	0.000057	12.39	2.833550	Y 377.433
Sr (421.552 nm)	0.486873	ppm	0.001731	0.36	73348.706996	Y_R 488.368
Th (288.505 nm)	-0.010551 u	ppm	0.000146	1.39	73.512800	Y 377.433
Ti (336.122 nm)	-0.000470 u	ppm	0.000126	26.80	-33.654600	Y 377.433
Tl (190.794 nm)	0.002199	ppm	0.000915	41.64	-0.048263	Y 377.433
U (409.013 nm)	0.026876	ppm	0.000504	1.87	51.760800	Y 377.433
V (292.401 nm)	0.001036	ppm	0.000111	10.76	-94.157900	Y 377.433
Zn (206.200 nm)	0.003409	ppm	0.000755	22.16	21.149700	Y 377.433
Zr (343.823 nm)	0.000599	ppm	0.000141	23.50	-127.708000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.160184	26818.183747	0.005577	0.48
Y 377.433	1.148527	803315.888326	0.005474	0.48
Y_R 377.433	1.209720	73344.100000	0.002242	0.19
Y_R 488.368	1.226120	64772.900000	0.001322	0.11
Y_R2 488.368	1.201997	127418.093708	0.003545	0.29
Y_R4	1.192360	53656.100000	0.009852	0.83

Sample Name: 280-123922-F-2-A

Date: 5/24/2019 11:24:10 PM Rack:Tube: 2:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002172	ppm	0.000084	3.85	-192.556000	Y 377.433
Al (394.401 nm)	0.005798	ppm	0.000242	4.18	285.118000	Y 377.433
Al H (396.152 nm)	0.031316 u	ppm	0.002367	7.56	-24.665800	Y_R 377.433
As (188.980 nm)	0.008830	ppm	0.000278	3.15	11.406300	Y 242.219
B (249.678 nm)	0.055760	ppm	0.000587	1.05	437.973000	Y 242.219
Ba (493.408 nm)	0.049821	ppm	0.000149	0.30	6375.860000	Y_R 488.368
Be (234.861 nm)	-0.000010 u	ppm	0.000006	56.65	-53.621100	Y_R 488.368
Bi (223.061 nm)	-0.001070 u	ppm	0.001717	> 100.00	-10.880700	Y 377.433
Ca (315.887 nm)	126.251653	ppm	0.438515	0.35	100200.744922	Y_R 377.433
Cd (214.439 nm)	0.000279	ppm	0.000099	35.45	10.009100	Y 377.433
Co (228.615 nm)	0.003196	ppm	0.000018	0.57	59.963400	Y 242.219
Cr (205.560 nm)	0.000785 u	ppm	0.001159	> 100.00	-1.517980	Y 377.433
Cu (324.754 nm)	0.000083 u	ppm	0.000329	> 100.00	247.315000	Y 377.433
Fe (238.204 nm)	11.968125 o	ppm	0.025040	0.21	28816.504700	Y_R 377.433
Fe H (259.940 nm)	11.910700	ppm	0.020596	0.17	16483.700000	Y_R 377.433
K (766.491 nm)	3.379420	ppm	0.010437	0.31	5200.510000	Y_R2 488.368
Li (670.783 nm)	0.064766	ppm	0.003232	4.99	-1433.720000	Y_R2 488.368
Mg (279.078 nm)	10.743800	ppm	0.030267	0.28	35149.700000	Y 377.433
Mn (257.610 nm)	3.966730	ppm	0.010311	0.26	1081560.000000	Y 377.433
Mo (202.032 nm)	0.000244 u	ppm	0.000377	> 100.00	14.212000	Y 377.433
Na (589.592 nm)	10.529800	ppm	0.044769	0.43	8805.320000	Y_R2 488.368
Na H (589.593 nm)	11.166132 u	ppm	0.083553	0.75	5940.755663	Y_R4
Ni (231.604 nm)	-0.000025 u	ppm	0.000705	> 100.00	-8.746440	Y 377.433
P (213.618 nm)	0.002201 u	ppm	0.006271	> 100.00	-0.706124	Y 242.219
Pb (220.353 nm)	0.000565	ppm	0.000058	10.35	10.138900	Y 242.219
S (181.972 nm)	0.005261	ppm	0.004472	85.00	34.177458	Y 377.433
Sb (206.834 nm)	-0.004688 u	ppm	0.001333	28.43	-5.128250	Y 377.433
Se (196.026 nm)	-0.001168 u	ppm	0.001266	> 100.00	9.614340	Y 242.219
Si (288.158 nm)	7.652980	ppm	0.015710	0.21	49755.100000	Y 377.433
Sn (189.925 nm)	0.000813	ppm	0.000984	> 100.00	3.398040	Y 377.433
Sr (421.552 nm)	0.462018	ppm	0.000880	0.19	69605.354370	Y_R 488.368
Th (288.505 nm)	-0.008646 u	ppm	0.004743	54.85	73.071900	Y 377.433
Ti (336.122 nm)	-0.000416 u	ppm	0.000078	18.80	-50.206100	Y 377.433
Tl (190.794 nm)	0.002672	ppm	0.002199	82.29	1.386720	Y 377.433
U (409.013 nm)	0.029696	ppm	0.001699	5.72	61.153900	Y 377.433
V (292.401 nm)	0.000873	ppm	0.000406	46.55	-101.722000	Y 377.433
Zn (206.200 nm)	0.003060	ppm	0.000600	19.61	19.491300	Y 377.433
Zr (343.823 nm)	0.000357	ppm	0.000042	11.73	-141.428000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.154710	26691.647833	0.000911	0.08
Y 377.433	1.141432	798353.506062	0.001820	0.16
Y_R 377.433	1.206520	73149.900000	0.002382	0.20
Y_R 488.368	1.222850	64600.500000	0.002684	0.22
Y_R2 488.368	1.189822	126127.473966	0.002731	0.23
Y_R4	1.187520	53438.500000	0.005882	0.50

Sample Name: 280-123922-F-3-A

Date: 5/24/2019 11:27:50 PM Rack:Tube: 2:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001874	ppm	0.000047	2.50	-203.258000	Y 377.433
Al (394.401 nm)	0.011894	ppm	0.000982	8.26	324.120000	Y 377.433
Al H (396.152 nm)	0.078472 u	ppm	0.011187	14.26	15.199700	Y_R 377.433
As (188.980 nm)	0.002519	ppm	0.002813	> 100.00	1.663560	Y 242.219
B (249.678 nm)	0.024425	ppm	0.001234	5.05	209.257000	Y 242.219
Ba (493.408 nm)	0.049268	ppm	0.000483	0.98	6327.490000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000013	28.63	-93.328900	Y_R 488.368
Bi (223.061 nm)	-0.001517 u	ppm	0.000674	44.44	-10.386800	Y 377.433
Ca (315.887 nm)	112.822586	ppm	0.400155	0.35	89535.305419	Y_R 377.433
Cd (214.439 nm)	0.000333	ppm	0.000076	22.84	15.451000	Y 377.433
Co (228.615 nm)	-0.000350 u	ppm	0.000133	38.06	-23.378200	Y 242.219
Cr (205.560 nm)	0.000080	ppm	0.000054	67.52	-6.217600	Y 377.433
Cu (324.754 nm)	0.000631	ppm	0.000188	29.85	277.728000	Y 377.433
Fe (238.204 nm)	20.508558 o	ppm	0.077951	0.38	49374.818247	Y_R 377.433
Fe H (259.940 nm)	20.496300	ppm	0.054354	0.27	28357.400000	Y_R 377.433
K (766.491 nm)	1.357600	ppm	0.174056	12.82	3248.260000	Y_R2 488.368
Li (670.783 nm)	0.050076	ppm	0.000300	0.60	-1685.950000	Y_R2 488.368
Mg (279.078 nm)	15.178300	ppm	0.020423	0.13	49649.400000	Y 377.433
Mn (257.610 nm)	1.121290	ppm	0.001585	0.14	305719.000000	Y 377.433
Mo (202.032 nm)	0.000175 u	ppm	0.000289	> 100.00	13.340700	Y 377.433
Na (589.592 nm)	8.464180	ppm	0.019101	0.23	7109.470000	Y_R2 488.368
Na H (589.593 nm)	9.002393 u	ppm	0.024745	0.27	4766.805624	Y_R4
Ni (231.604 nm)	-0.001419 u	ppm	0.000096	6.73	-15.965400	Y 377.433
P (213.618 nm)	0.011387	ppm	0.003098	27.20	12.599000	Y 242.219
Pb (220.353 nm)	-0.000445 u	ppm	0.000528	> 100.00	6.975610	Y 242.219
S (181.972 nm)	0.033330	ppm	0.002296	6.89	37.212092	Y 377.433
Sb (206.834 nm)	-0.003079 u	ppm	0.003867	> 100.00	-1.694290	Y 377.433
Se (196.026 nm)	0.001811 u	ppm	0.002708	> 100.00	7.888600	Y 242.219
Si (288.158 nm)	6.585000	ppm	0.038022	0.58	42879.900000	Y 377.433
Sn (189.925 nm)	0.000948	ppm	0.000978	> 100.00	3.615330	Y 377.433
Sr (421.552 nm)	0.306223	ppm	0.001325	0.43	46143.807384	Y_R 488.368
Th (288.505 nm)	-0.007390 u	ppm	0.001693	22.91	17.997400	Y 377.433
Ti (336.122 nm)	-0.000307 u	ppm	0.000032	10.49	-82.602500	Y 377.433
Tl (190.794 nm)	0.002076	ppm	0.000993	47.84	-0.482735	Y 377.433
U (409.013 nm)	0.036917	ppm	0.002167	5.87	92.151500	Y 377.433
V (292.401 nm)	0.001137	ppm	0.000124	10.90	-89.799100	Y 377.433
Zn (206.200 nm)	0.002984	ppm	0.000541	18.14	20.338700	Y 377.433
Zr (343.823 nm)	0.000751	ppm	0.000286	38.04	-119.113000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.156418	26731.148907	0.000083	0.01
Y 377.433	1.143635	799894.288192	0.001365	0.12
Y_R 377.433	1.205710	73100.500000	0.004115	0.34
Y_R 488.368	1.219960	64447.800000	0.004866	0.40
Y_R2 488.368	1.184862	125601.692413	0.013498	1.14
Y_R4	1.183340	53250.200000	0.008898	0.75

Sample Name: CCVH-5713036

Date: 5/24/2019 11:31:29 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005562	ppm	0.000028	0.50	-84.822900	Y 377.433
Al (394.401 nm)	48.752200 o	ppm	0.119635	0.25	593927.000000	Y 377.433
Al H (396.152 nm)	47.062600	ppm	0.004247	0.01	102618.000000	Y_R 377.433
As (188.980 nm)	0.005098	ppm	0.000138	2.70	4.770800	Y 242.219
B (249.678 nm)	-0.002992 u	ppm	0.000590	19.70	-3.168160	Y 242.219
Ba (493.408 nm)	0.000036 u	ppm	0.000556	> 100.00	1442.330000	Y_R 488.368
Be (234.861 nm)	0.001144	ppm	0.000024	2.07	-97.763000	Y_R 488.368
Bi (223.061 nm)	0.010838	ppm	0.001263	11.65	21.640500	Y 377.433
Ca (315.887 nm)	0.013225	ppm	0.003498	26.45	-46.681416	Y_R 377.433
Cd (214.439 nm)	0.001414	ppm	0.000078	5.50	67.117900	Y 377.433
Co (228.615 nm)	0.003098	ppm	0.000010	0.33	57.711800	Y 242.219
Cr (205.560 nm)	0.001919	ppm	0.000289	15.07	4.768030	Y 377.433
Cu (324.754 nm)	0.004336	ppm	0.000339	7.81	1454.680000	Y 377.433
Fe (238.204 nm)	49.277426 o	ppm	0.014566	0.03	118626.505831	Y_R 377.433
Fe H (259.940 nm)	48.863800	ppm	0.037409	0.08	67589.300000	Y_R 377.433
K (766.491 nm)	-0.010603 u	ppm	0.386729	> 100.00	1927.150000	Y_R2 488.368
Li (670.783 nm)	0.034108	ppm	0.002806	8.23	-1960.130000	Y_R2 488.368
Mg (279.078 nm)	0.042544	ppm	0.001594	3.75	74.539900	Y 377.433
Mn (257.610 nm)	0.001128	ppm	0.000034	3.01	296.626000	Y 377.433
Mo (202.032 nm)	0.000893	ppm	0.000159	17.82	22.386700	Y 377.433
Na (589.592 nm)	223.292000 o	ppm	1.309210	0.59	183452.000000	Y_R2 488.368
Na H (589.593 nm)	226.909164	ppm	1.978780	0.87	122993.463995	Y_R4
Ni (231.604 nm)	0.003774	ppm	0.000387	10.25	10.908900	Y 377.433
P (213.618 nm)	4.885200	ppm	0.025889	0.53	6977.370000	Y 242.219
Pb (220.353 nm)	0.006168	ppm	0.000027	0.44	21.279200	Y 242.219
S (181.972 nm)	4.861365	ppm	0.008192	0.17	2238.989126	Y 377.433
Sb (206.834 nm)	0.002238	ppm	0.002195	98.08	9.709910	Y 377.433
Se (196.026 nm)	0.005895	ppm	0.000327	5.55	5.057560	Y 242.219
Si (288.158 nm)	0.011642	ppm	0.000348	2.99	563.493000	Y 377.433
Sn (189.925 nm)	0.002193	ppm	0.001473	67.15	5.619560	Y 377.433
Sr (421.552 nm)	0.001395	ppm	0.000213	15.29	240.725792	Y_R 488.368
Th (288.505 nm)	4.710170	ppm	0.011575	0.25	8135.140000	Y 377.433
Ti (336.122 nm)	0.002134	ppm	0.000060	2.80	-160.810000	Y 377.433
Tl (190.794 nm)	0.001279	ppm	0.001693	> 100.00	-0.001284	Y 377.433
U (409.013 nm)	0.522615 Q	ppm	0.010748	2.06	1669.340000 Q	Y 377.433
V (292.401 nm)	0.001176	ppm	0.000277	23.58	401.121000	Y 377.433
Zn (206.200 nm)	0.003124	ppm	0.000010	0.31	24.975000	Y 377.433
Zr (343.823 nm)	0.001369	ppm	0.000286	20.86	-84.140500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126045	26029.050117	0.005993	0.53
Y 377.433	1.104526	772539.975056	0.005709	0.52
Y_R 377.433	1.178780	71468.100000	0.001835	0.16
Y_R 488.368	1.187270	62720.700000	0.009869	0.83
Y_R2 488.368	1.172086	124247.290536	0.006851	0.58
Y_R4	1.188490	53482.100000	0.001725	0.15

Sample Name: CCV-5717467

Date: 5/24/2019 11:35:14 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.486191	ppm	0.001823	0.37	16508.600000	Y 377.433
Al (394.401 nm)	0.489801	ppm	0.002901	0.59	6189.200000	Y 377.433
Al H (396.152 nm)	0.537113 u	ppm	0.001825	0.34	1154.150000	Y_R 377.433
As (188.980 nm)	0.488633	ppm	0.002596	0.53	734.675000	Y 242.219
B (249.678 nm)	0.465737	ppm	0.001898	0.41	3371.370000	Y 242.219
Ba (493.408 nm)	0.471743	ppm	0.001298	0.28	48431.300000	Y_R 488.368
Be (234.861 nm)	0.465282	ppm	0.002833	0.61	45809.700000	Y_R 488.368
Bi (223.061 nm)	0.977760	ppm	0.001033	0.11	2131.340000	Y 377.433
Ca (315.887 nm)	4.856845	ppm	0.008833	0.18	3788.421606	Y_R 377.433
Cd (214.439 nm)	0.507620	ppm	0.001364	0.27	18767.700000	Y 377.433
Co (228.615 nm)	0.485295	ppm	0.001340	0.28	11411.600000	Y 242.219
Cr (205.560 nm)	0.509990	ppm	0.000130	0.03	3391.040000	Y 377.433
Cu (324.754 nm)	0.486690	ppm	0.000456	0.09	23016.500000	Y 377.433
Fe (238.204 nm)	2.483905	ppm	0.011659	0.47	5986.332259	Y_R 377.433
Fe H (259.940 nm)	2.461160 u	ppm	0.000888	0.04	3415.160000	Y_R 377.433
K (766.491 nm)	47.964900	ppm	0.129621	0.27	48251.700000	Y_R2 488.368
Li (670.783 nm)	0.511826	ppm	0.006190	1.21	6242.410000	Y_R2 488.368
Mg (279.078 nm)	19.542500	ppm	0.066006	0.34	63955.200000	Y 377.433
Mn (257.610 nm)	0.483337	ppm	0.001607	0.33	131776.000000	Y 377.433
Mo (202.032 nm)	0.487257	ppm	0.001525	0.31	6152.640000	Y 377.433
Na (589.592 nm)	22.951100	ppm	0.026190	0.11	19097.900000	Y_R2 488.368
Na H (589.593 nm)	23.876559 u	ppm	0.178357	0.75	12836.875966	Y_R4
Ni (231.604 nm)	0.499921	ppm	0.001462	0.29	2578.570000	Y 377.433
P (213.618 nm)	0.048416	ppm	0.000079	0.16	-67.033100	Y 242.219
Pb (220.353 nm)	0.490711	ppm	0.004179	0.85	1564.990000	Y 242.219
S (181.972 nm)	-0.004256 u	ppm	0.003521	82.74	12.540465	Y 377.433
Sb (206.834 nm)	0.495492	ppm	0.003244	0.65	835.858000	Y 377.433
Se (196.026 nm)	0.489739	ppm	0.006346	1.30	747.596000	Y 242.219
Si (288.158 nm)	4.799720	ppm	0.017259	0.36	31387.100000	Y 377.433
Sn (189.925 nm)	0.507508	ppm	0.001319	0.26	818.700000	Y 377.433
Sr (421.552 nm)	0.461723	ppm	0.000660	0.14	69559.594830	Y_R 488.368
Th (288.505 nm)	0.023887	ppm	0.003463	14.50	4.802450	Y 377.433
Ti (336.122 nm)	0.476763	ppm	0.001282	0.27	60591.500000	Y 377.433
Tl (190.794 nm)	0.496940	ppm	0.002086	0.42	1135.200000	Y 377.433
U (409.013 nm)	0.007387	ppm	0.002461	33.31	-60.459000	Y 377.433
V (292.401 nm)	0.480068	ppm	0.001743	0.36	24608.100000	Y 377.433
Zn (206.200 nm)	0.508084	ppm	0.001997	0.39	2289.130000	Y 377.433
Zr (343.823 nm)	0.477151	ppm	0.001415	0.30	26850.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.169887	27042.491200	0.003063	0.26
Y 377.433	1.149968	804323.851455	0.002393	0.21
Y_R 377.433	1.193060	72333.600000	0.008484	0.71
Y_R 488.368	1.210900	63969.200000	0.009225	0.76
Y_R2 488.368	1.189709	126115.435246	0.007855	0.66
Y_R4	1.191190	53603.700000	0.015481	1.30

Sample Name: CCB

Date: 5/24/2019 11:38:50 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000523	ppm	0.000311	59.58	-249.066000	Y 377.433
Al (394.401 nm)	-0.002954 u	ppm	0.000339	11.49	55.570400	Y 377.433
Al H (396.152 nm)	0.125149 Zu	ppm	0.000171	0.14	15.355200 Z	Y_R 377.433
As (188.980 nm)	0.001220 u	ppm	0.002338	> 100.00	0.261903	Y 242.219
B (249.678 nm)	-0.003867 u	ppm	0.000098	2.54	19.055200	Y 242.219
Ba (493.408 nm)	-0.003045 Zu	ppm	0.000316	10.39	1095.950000 Z	Y_R 488.368
Be (234.861 nm)	0.000079	ppm	0.000015	18.67	5.808700	Y_R 488.368
Bi (223.061 nm)	0.000743 u	ppm	0.001083	> 100.00	-8.984730	Y 377.433
Ca (315.887 nm)	0.018616	ppm	0.000362	1.94	-54.255848	Y_R 377.433
Cd (214.439 nm)	0.000141	ppm	0.000197	> 100.00	0.023417	Y 377.433
Co (228.615 nm)	-0.000028 u	ppm	0.000442	> 100.00	-15.792000	Y 242.219
Cr (205.560 nm)	0.000154 u	ppm	0.000384	> 100.00	-5.727090	Y 377.433
Cu (324.754 nm)	0.000991	ppm	0.000083	8.35	363.172000	Y 377.433
Fe (238.204 nm)	0.000338 u	ppm	0.001181	> 100.00	7.952352	Y_R 377.433
Fe H (259.940 nm)	-0.000638 u	ppm	0.000946	> 100.00	10.531300	Y_R 377.433
K (766.491 nm)	-0.366554 u	ppm	0.182715	49.85	1583.440000	Y_R2 488.368
Li (670.783 nm)	0.030878 Z	ppm	0.001055	3.42	-2015.580000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003566	ppm	0.001667	46.74	20.115900	Y 377.433
Mn (257.610 nm)	0.000068	ppm	0.000034	50.76	7.430830	Y 377.433
Mo (202.032 nm)	0.000072	ppm	0.000090	> 100.00	12.040800	Y 377.433
Na (589.592 nm)	-0.024339 u	ppm	0.013801	56.70	129.515000	Y_R2 488.368
Na H (589.593 nm)	0.766139 u	ppm	0.013947	1.82	298.175222	Y_R4
Ni (231.604 nm)	0.000456	ppm	0.000071	15.57	-6.259110	Y 377.433
P (213.618 nm)	-0.000730 u	ppm	0.002433	> 100.00	-5.025940	Y 242.219
Pb (220.353 nm)	-0.000115 u	ppm	0.000580	> 100.00	7.884230	Y 242.219
S (181.972 nm)	-0.003804 u	ppm	0.001911	50.24	10.956809	Y 377.433
Sb (206.834 nm)	0.001033	ppm	0.001328	> 100.00	3.521670	Y 377.433
Se (196.026 nm)	-0.001976 u	ppm	0.000188	9.52	5.876290	Y 242.219
Si (288.158 nm)	-0.007989 u	ppm	0.001324	16.58	437.117000	Y 377.433
Sn (189.925 nm)	0.000170 u	ppm	0.000723	> 100.00	2.364140	Y 377.433
Sr (421.552 nm)	0.000299	ppm	0.000081	27.04	68.136448	Y_R 488.368
Th (288.505 nm)	0.000702 u	ppm	0.002488	> 100.00	13.866500	Y 377.433
Ti (336.122 nm)	0.000574	ppm	0.000020	3.55	-360.438000	Y 377.433
Tl (190.794 nm)	0.000331 u	ppm	0.000523	> 100.00	2.573460	Y 377.433
U (409.013 nm)	0.004514	ppm	0.005411	> 100.00	-10.407300	Y 377.433
V (292.401 nm)	0.000297	ppm	0.000042	14.06	-130.759000	Y 377.433
Zn (206.200 nm)	-0.000511 u	ppm	0.000174	34.09	1.765540	Y 377.433
Zr (343.823 nm)	0.000085 u	ppm	0.000255	> 100.00	-156.808000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.182700	27338.657606	0.001183	0.10
Y 377.433	1.159646	811092.630521	0.000186	0.02
Y_R 377.433	1.210350	73382.100000	0.002437	0.20
Y_R 488.368	1.232300	65099.700000	0.009776	0.79
Y_R2 488.368	1.194628	126636.873496	0.005653	0.47
Y_R4	1.180160	53107.000000	0.002198	0.19

Sample Name: CCVL-5719884

Date: 5/24/2019 11:42:02 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008755	ppm	0.000095	1.08	34.113700	Y 377.433
Al (394.401 nm)	0.094047	ppm	0.000510	0.54	1247.860000	Y 377.433
Al H (396.152 nm)	0.222913 u	ppm	0.003729	1.67	234.432000	Y_R 377.433
As (188.980 nm)	0.014413	ppm	0.000871	6.04	20.140600	Y 242.219
B (249.678 nm)	0.087938	ppm	0.000282	0.32	674.634000	Y 242.219
Ba (493.408 nm)	0.006628 Q	ppm	0.000265	4.00	2060.330000 Q	Y_R 488.368
Be (234.861 nm)	0.000844	ppm	0.000052	6.16	80.681000	Y_R 488.368
Bi (223.061 nm)	0.087943	ppm	0.001010	1.15	182.018000	Y 377.433
Ca (315.887 nm)	0.220930	ppm	0.007291	3.30	106.445063	Y_R 377.433
Cd (214.439 nm)	0.005161	ppm	0.000051	0.98	185.728000	Y 377.433
Co (228.615 nm)	0.010284	ppm	0.000077	0.75	226.992000	Y 242.219
Cr (205.560 nm)	0.010967	ppm	0.000144	1.31	66.221100	Y 377.433
Cu (324.754 nm)	0.016297	ppm	0.000069	0.42	1076.270000	Y 377.433
Fe (238.204 nm)	0.100375	ppm	0.000981	0.98	248.760003	Y_R 377.433
Fe H (259.940 nm)	0.106919 u	ppm	0.005444	5.09	159.280000	Y_R 377.433
K (766.491 nm)	2.694880	ppm	0.043403	1.61	4539.520000	Y_R2 488.368
Li (670.783 nm)	0.053988 Q	ppm	0.003248	6.02	-1618.780000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200246	ppm	0.000400	0.20	662.354000	Y 377.433
Mn (257.610 nm)	0.010415	ppm	0.000030	0.29	2828.570000	Y 377.433
Mo (202.032 nm)	0.019248	ppm	0.000010	0.05	253.742000	Y 377.433
Na (589.592 nm)	1.029610	ppm	0.070729	6.87	996.803000	Y_R2 488.368
Na H (589.593 nm)	1.527916 u	ppm	0.018512	1.21	711.482430	Y_R4
Ni (231.604 nm)	0.043035	ppm	0.001107	2.57	214.063000	Y 377.433
P (213.618 nm)	2.805360	ppm	0.004957	0.18	4003.450000	Y 242.219
Pb (220.353 nm)	0.009045	ppm	0.000258	2.86	37.091300	Y 242.219
S (181.972 nm)	0.081749	ppm	0.002228	2.73	50.175483	Y 377.433
Sb (206.834 nm)	0.017000	ppm	0.000580	3.41	30.338300	Y 377.433
Se (196.026 nm)	0.017763	ppm	0.000716	4.03	35.639600	Y 242.219
Si (288.158 nm)	0.467053	ppm	0.001365	0.29	3495.230000	Y 377.433
Sn (189.925 nm)	0.100295	ppm	0.000494	0.49	163.471000	Y 377.433
Sr (421.552 nm)	0.008971	ppm	0.000069	0.77	1374.199342	Y_R 488.368
Th (288.505 nm)	0.017725	ppm	0.000788	4.44	42.815300	Y 377.433
Ti (336.122 nm)	0.009937	ppm	0.000023	0.23	838.345000	Y 377.433
Tl (190.794 nm)	0.016109	ppm	0.001798	11.16	38.546900	Y 377.433
U (409.013 nm)	0.065617	ppm	0.000457	0.70	182.197000	Y 377.433
V (292.401 nm)	0.009733	ppm	0.000112	1.15	352.702000	Y 377.433
Zn (206.200 nm)	0.021187	ppm	0.000279	1.32	99.350500	Y 377.433
Zr (343.823 nm)	0.009790	ppm	0.000075	0.76	392.629000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.197654	27684.339001	0.001341	0.11
Y 377.433	1.174431	821433.375890	0.001770	0.15
Y_R 377.433	1.219150	73915.500000	0.002161	0.18
Y_R 488.368	1.242230	65624.400000	0.000254	0.02
Y_R2 488.368	1.217394	129050.247600	0.007015	0.58
Y_R4	1.193510	53707.800000	0.004449	0.37

Sample Name: MB 280-459135/1-A

Date: 5/24/2019 11:45:31 PM Rack:Tube: 2:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000634	ppm	0.000510	80.36	-245.040000	Y 377.433
Al (394.401 nm)	-0.000113 u	ppm	0.001697	> 100.00	89.206400	Y 377.433
Al H (396.152 nm)	0.134997 u	ppm	0.005700	4.22	36.787700	Y_R 377.433
As (188.980 nm)	0.000550 u	ppm	0.002478	> 100.00	-0.747642	Y 242.219
B (249.678 nm)	-0.003193 u	ppm	0.001081	33.85	23.866500	Y 242.219
Ba (493.408 nm)	-0.003001 u	ppm	0.000187	6.22	1100.250000	Y_R 488.368
Be (234.861 nm)	-0.000019 u	ppm	0.000032	> 100.00	-3.891480	Y_R 488.368
Bi (223.061 nm)	0.003922	ppm	0.002234	56.95	-2.021520	Y 377.433
Ca (315.887 nm)	0.036664	ppm	0.002359	6.43	-39.920980	Y_R 377.433
Cd (214.439 nm)	-0.000025 u	ppm	0.000107	> 100.00	-6.118880	Y 377.433
Co (228.615 nm)	-0.000070 u	ppm	0.000028	40.36	-16.788700	Y 242.219
Cr (205.560 nm)	0.000377	ppm	0.000165	43.73	-4.240390	Y 377.433
Cu (324.754 nm)	0.001178	ppm	0.000335	28.48	372.625000	Y 377.433
Fe (238.204 nm)	0.007209	ppm	0.001037	14.38	24.491996	Y_R 377.433
Fe H (259.940 nm)	0.012903 u	ppm	0.002301	17.84	29.257800	Y_R 377.433
K (766.491 nm)	-0.303714 u	ppm	0.054371	17.90	1644.120000	Y_R2 488.368
Li (670.783 nm)	0.028263	ppm	0.002703	9.56	-2060.480000	Y_R2 488.368
Mg (279.078 nm)	0.004657	ppm	0.000195	4.19	23.674200	Y 377.433
Mn (257.610 nm)	0.000234	ppm	0.000052	22.16	52.644900	Y 377.433
Mo (202.032 nm)	-0.000059 u	ppm	0.000227	> 100.00	10.389300	Y 377.433
Na (589.592 nm)	-0.001246 u	ppm	0.012547	> 100.00	148.486000	Y_R2 488.368
Na H (589.593 nm)	0.566363 u	ppm	0.000287	0.05	189.785672	Y_R4
Ni (231.604 nm)	0.000210 u	ppm	0.000973	> 100.00	-7.533770	Y 377.433
P (213.618 nm)	0.002013	ppm	0.001274	63.28	-1.100290	Y 242.219
Pb (220.353 nm)	-0.000355 u	ppm	0.001240	> 100.00	7.122690	Y 242.219
S (181.972 nm)	-0.015545 u	ppm	0.000915	5.88	5.580570	Y 377.433
Sb (206.834 nm)	-0.000891 u	ppm	0.004314	> 100.00	0.272505	Y 377.433
Se (196.026 nm)	0.001143 u	ppm	0.002022	> 100.00	10.579800	Y 242.219
Si (288.158 nm)	-0.007429 u	ppm	0.001190	16.02	440.722000	Y 377.433
Sn (189.925 nm)	0.000540	ppm	0.000511	94.78	2.958550	Y 377.433
Sr (421.552 nm)	0.000149	ppm	0.000085	56.80	45.667238	Y_R 488.368
Th (288.505 nm)	0.004332	ppm	0.002448	56.50	20.169600	Y 377.433
Ti (336.122 nm)	0.000557	ppm	0.000031	5.48	-362.594000	Y 377.433
Tl (190.794 nm)	0.000971 u	ppm	0.001597	> 100.00	4.035080	Y 377.433
U (409.013 nm)	-0.001871 u	ppm	0.003864	> 100.00	-30.666300	Y 377.433
V (292.401 nm)	0.000123	ppm	0.000172	> 100.00	-139.292000	Y 377.433
Zn (206.200 nm)	0.003091	ppm	0.000159	5.13	17.965000	Y 377.433
Zr (343.823 nm)	-0.000054 u	ppm	0.000144	> 100.00	-164.649000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.191260	27536.518228	0.004356	0.37
Y 377.433	1.168864	817540.167183	0.004637	0.40
Y_R 377.433	1.219860	73958.400000	0.002078	0.17
Y_R 488.368	1.237290	65363.200000	0.011604	0.94
Y_R2 488.368	1.200722	127282.904693	0.007071	0.59
Y_R4	1.193200	53693.700000	0.001859	0.16

Sample Name: LCS 280-459135/2-A

Date: 5/24/2019 11:48:44 PM Rack:Tube: 2:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000954	ppm	0.000286	29.98	-541.296000	Y 377.433
Al (394.401 nm)	9.620220 o	ppm	0.003629	0.04	117758.000000	Y 377.433
Al H (396.152 nm)	9.345540	ppm	0.024014	0.26	20640.400000	Y_R 377.433
As (188.980 nm)	1.960080	ppm	0.004365	0.22	2951.780000	Y 242.219
B (249.678 nm)	0.934772	ppm	0.001406	0.15	6716.800000	Y 242.219
Ba (493.408 nm)	1.905450	ppm	0.005394	0.28	191369.000000	Y_R 488.368
Be (234.861 nm)	0.934211	ppm	0.001134	0.12	91960.000000	Y_R 488.368
Bi (223.061 nm)	1.922080	ppm	0.004051	0.21	4200.800000	Y 377.433
Ca (315.887 nm)	47.686330	ppm	0.156853	0.33	37806.099940	Y_R 377.433
Cd (214.439 nm)	0.998929	ppm	0.000009	0.00	36939.300000	Y 377.433
Co (228.615 nm)	0.950014	ppm	0.000165	0.02	22355.300000	Y 242.219
Cr (205.560 nm)	1.009600	ppm	0.000820	0.08	6719.350000	Y 377.433
Cu (324.754 nm)	0.957610	ppm	0.000833	0.09	45040.300000	Y 377.433
Fe (238.204 nm)	9.856572 o	ppm	0.034338	0.35	23733.628017	Y_R 377.433
Fe H (259.940 nm)	9.781840	ppm	0.048138	0.49	13539.500000	Y_R 377.433
K (766.491 nm)	47.817700	ppm	0.351667	0.74	48109.500000	Y_R2 488.368
Li (670.783 nm)	1.002880	ppm	0.002346	0.23	14673.900000	Y_R2 488.368
Mg (279.078 nm)	48.294200	ppm	0.002993	0.01	158002.000000	Y 377.433
Mn (257.610 nm)	0.968199	ppm	0.000282	0.03	263978.000000	Y 377.433
Mo (202.032 nm)	0.988347	ppm	0.000427	0.04	12468.500000	Y 377.433
Na (589.592 nm)	46.546900	ppm	0.170394	0.37	38795.100000	Y_R2 488.368
Na H (589.593 nm)	47.617505 u	ppm	0.317540	0.67	25717.672099	Y_R4
Ni (231.604 nm)	0.972378	ppm	0.000330	0.03	5024.790000	Y 377.433
P (213.618 nm)	19.807500	ppm	0.026841	0.14	28058.500000	Y 242.219
Pb (220.353 nm)	0.968864	ppm	0.000985	0.10	3084.830000	Y 242.219
S (181.972 nm)	9.679340	ppm	0.003377	0.03	4450.889380	Y 377.433
Sb (206.834 nm)	-0.002115 u	ppm	0.002527	> 100.00	-6.418550	Y 377.433
Se (196.026 nm)	1.927740	ppm	0.000593	0.03	2915.240000	Y 242.219
Si (288.158 nm)	1.982430	ppm	0.003566	0.18	13250.600000	Y 377.433
Sn (189.925 nm)	1.998160	ppm	0.000614	0.03	3217.250000	Y 377.433
Sr (421.552 nm)	0.925725	ppm	0.002209	0.24	139439.836380	Y_R 488.368
Th (288.505 nm)	0.979358	ppm	0.005755	0.59	1611.060000	Y 377.433
Ti (336.122 nm)	0.965514	ppm	0.000074	0.01	123283.000000	Y 377.433
Tl (190.794 nm)	1.942680	ppm	0.000495	0.03	4436.350000	Y 377.433
U (409.013 nm)	1.929680	ppm	0.005457	0.28	6037.490000	Y 377.433
V (292.401 nm)	0.964008	ppm	0.000663	0.07	49571.000000	Y 377.433
Zn (206.200 nm)	0.497916	ppm	0.000754	0.15	2244.430000	Y 377.433
Zr (343.823 nm)	0.477616	ppm	0.000174	0.04	26877.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.137895	26302.967932	0.001749	0.15
Y 377.433	1.125114	786939.566486	0.002851	0.25
Y_R 377.433	1.189730	72132.100000	0.003514	0.30
Y_R 488.368	1.207040	63765.400000	0.002203	0.18
Y_R2 488.368	1.168537	123871.065104	0.010530	0.90
Y_R4	1.175460	52895.600000	0.008398	0.71

Sample Name: LCSD 280-459135/3-A

Date: 5/24/2019 11:52:21 PM Rack:Tube: 2:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000967	ppm	0.000659	68.08	-542.287000	Y 377.433
Al (394.401 nm)	9.672440 o	ppm	0.000058	0.00	118397.000000	Y 377.433
Al H (396.152 nm)	9.415380	ppm	0.009196	0.10	20795.500000	Y_R 377.433
As (188.980 nm)	1.972330	ppm	0.001359	0.07	2970.250000	Y 242.219
B (249.678 nm)	0.941104	ppm	0.000293	0.03	6761.960000	Y 242.219
Ba (493.408 nm)	1.915570	ppm	0.004365	0.23	192378.000000	Y_R 488.368
Be (234.861 nm)	0.945408	ppm	0.002292	0.24	93062.300000	Y_R 488.368
Bi (223.061 nm)	1.935380	ppm	0.003845	0.20	4229.950000	Y 377.433
Ca (315.887 nm)	48.025731	ppm	0.132237	0.28	38075.671243	Y_R 377.433
Cd (214.439 nm)	1.003220	ppm	0.000089	0.01	37098.200000	Y 377.433
Co (228.615 nm)	0.954860	ppm	0.001251	0.13	22469.400000	Y 242.219
Cr (205.560 nm)	1.017190	ppm	0.007816	0.77	6769.950000	Y 377.433
Cu (324.754 nm)	0.958897	ppm	0.006587	0.69	45100.400000	Y 377.433
Fe (238.204 nm)	9.949736 o	ppm	0.033640	0.34	23957.891654	Y_R 377.433
Fe H (259.940 nm)	9.848960	ppm	0.010073	0.10	13632.400000	Y_R 377.433
K (766.491 nm)	48.199700	ppm	0.436365	0.91	48478.400000	Y_R2 488.368
Li (670.783 nm)	1.006250	ppm	0.003981	0.40	14731.700000	Y_R2 488.368
Mg (279.078 nm)	48.645000	ppm	0.008925	0.02	159150.000000	Y 377.433
Mn (257.610 nm)	0.973011	ppm	0.000096	0.01	265290.000000	Y 377.433
Mo (202.032 nm)	0.992715	ppm	0.001437	0.14	12523.600000	Y 377.433
Na (589.592 nm)	46.842300	ppm	0.233788	0.50	39040.000000	Y_R2 488.368
Na H (589.593 nm)	47.968589 u	ppm	0.293710	0.61	25908.155056	Y_R4
Ni (231.604 nm)	0.979684	ppm	0.000696	0.07	5062.610000	Y 377.433
P (213.618 nm)	19.979400	ppm	0.052224	0.26	28303.900000	Y 242.219
Pb (220.353 nm)	0.977445	ppm	0.001837	0.19	3112.090000	Y 242.219
S (181.972 nm)	9.744528	ppm	0.045716	0.47	4480.775984	Y 377.433
Sb (206.834 nm)	0.003126	ppm	0.002280	72.93	2.426670	Y 377.433
Se (196.026 nm)	1.940920	ppm	0.008086	0.42	2935.090000	Y 242.219
Si (288.158 nm)	1.987070	ppm	0.001432	0.07	13280.500000	Y 377.433
Sn (189.925 nm)	2.010680	ppm	0.005203	0.26	3237.400000	Y 377.433
Sr (421.552 nm)	0.930520	ppm	0.002536	0.27	140162.042693	Y_R 488.368
Th (288.505 nm)	0.977997	ppm	0.002310	0.24	1608.210000	Y 377.433
Ti (336.122 nm)	0.969305	ppm	0.000009	0.00	123769.000000	Y 377.433
Tl (190.794 nm)	1.959900	ppm	0.000477	0.02	4475.690000	Y 377.433
U (409.013 nm)	1.945640	ppm	0.009442	0.49	6087.870000	Y 377.433
V (292.401 nm)	0.968483	ppm	0.000295	0.03	49801.400000	Y 377.433
Zn (206.200 nm)	0.500153	ppm	0.001383	0.28	2254.510000	Y 377.433
Zr (343.823 nm)	0.479776	ppm	0.000135	0.03	26999.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130519	26132.472073	0.000473	0.04
Y 377.433	1.118982	782651.070220	0.001678	0.15
Y_R 377.433	1.175680	71279.800000	0.000869	0.07
Y_R 488.368	1.192720	63008.800000	0.001137	0.10
Y_R2 488.368	1.163738	123362.340565	0.005099	0.44
Y_R4	1.158460	52130.500000	0.003131	0.27

Sample Name: 280-123924-F-1-A

Date: 5/24/2019 11:56:01 PM Rack:Tube: 2:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000961	ppm	0.000561	58.43	-235.239000	Y 377.433
Al (394.401 nm)	1.508800	ppm	0.002079	0.14	18535.600000	Y 377.433
Al H (396.152 nm)	1.676070	ppm	0.001513	0.09	3435.780000	Y_R 377.433
As (188.980 nm)	0.001943	ppm	0.001305	67.17	1.289550	Y 242.219
B (249.678 nm)	0.008294	ppm	0.000701	8.45	104.585000	Y 242.219
Ba (493.408 nm)	0.005690	ppm	0.000148	2.60	1968.580000	Y_R 488.368
Be (234.861 nm)	0.000098	ppm	0.000022	22.20	-2.032520	Y_R 488.368
Bi (223.061 nm)	0.001233	ppm	0.001013	82.18	-7.514400	Y 377.433
Ca (315.887 nm)	40.465020	ppm	0.023768	0.06	32068.903657	Y_R 377.433
Cd (214.439 nm)	0.000185	ppm	0.000037	19.82	2.592120	Y 377.433
Co (228.615 nm)	0.000900	ppm	0.000052	5.74	7.521390	Y 242.219
Cr (205.560 nm)	0.055633	ppm	0.000544	0.98	364.244000	Y 377.433
Cu (324.754 nm)	0.013127	ppm	0.000185	1.41	904.114000	Y 377.433
Fe (238.204 nm)	2.283137	ppm	0.006993	0.31	5503.049310	Y_R 377.433
Fe H (259.940 nm)	2.263490 u	ppm	0.005003	0.22	3141.790000	Y_R 377.433
K (766.491 nm)	0.913943	ppm	0.033003	3.61	2819.880000	Y_R2 488.368
Li (670.783 nm)	0.034876	ppm	0.000134	0.38	-1946.940000	Y_R2 488.368
Mg (279.078 nm)	14.249600	ppm	0.011630	0.08	46634.700000	Y 377.433
Mn (257.610 nm)	0.097884	ppm	0.000639	0.65	26678.000000	Y 377.433
Mo (202.032 nm)	0.000470	ppm	0.000116	24.67	17.052000	Y 377.433
Na (589.592 nm)	4.635230	ppm	0.057118	1.23	3956.540000	Y_R2 488.368
Na H (589.593 nm)	5.128281 u	ppm	0.037110	0.72	2664.882633	Y_R4
Ni (231.604 nm)	0.009055	ppm	0.001014	11.20	38.232000	Y 377.433
P (213.618 nm)	0.031971	ppm	0.001197	3.74	38.568200	Y 242.219
Pb (220.353 nm)	-0.000135 u	ppm	0.001208	> 100.00	7.512960	Y 242.219
S (181.972 nm)	3.069439	ppm	0.002283	0.07	1420.691591	Y 377.433
Sb (206.834 nm)	-0.004303 u	ppm	0.001622	37.68	-5.054390	Y 377.433
Se (196.026 nm)	-0.002503 u	ppm	0.000703	28.08	4.631610	Y 242.219
Si (288.158 nm)	7.018480	ppm	0.052864	0.75	45670.500000	Y 377.433
Sn (189.925 nm)	0.001163	ppm	0.001223	> 100.00	3.961950	Y 377.433
Sr (421.552 nm)	0.094300	ppm	0.000226	0.24	14225.264570	Y_R 488.368
Th (288.505 nm)	-0.000143 u	ppm	0.002820	> 100.00	12.989500	Y 377.433
Ti (336.122 nm)	0.035511	ppm	0.002430	6.84	4249.520000	Y 377.433
Tl (190.794 nm)	0.002346	ppm	0.000229	9.75	5.153520	Y 377.433
U (409.013 nm)	0.018911	ppm	0.005373	28.41	31.289000	Y 377.433
V (292.401 nm)	0.003868	ppm	0.000127	3.29	34.616200	Y 377.433
Zn (206.200 nm)	0.021532	ppm	0.000614	2.85	101.204000	Y 377.433
Zr (343.823 nm)	0.001442	ppm	0.000199	13.81	-79.961400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.159290	26797.534525	0.001412	0.12
Y 377.433	1.140480	797687.440680	0.001182	0.10
Y_R 377.433	1.199940	72750.800000	0.000838	0.07
Y_R 488.368	1.221080	64506.900000	0.002472	0.20
Y_R2 488.368	1.188983	126038.454240	0.009928	0.84
Y_R4	1.183720	53267.400000	0.009004	0.76

Sample Name: 280-123924-F-1-Asd@5

Date: 5/24/2019 11:59:37 PM Rack:Tube: 2:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001136	ppm	0.000224	19.68	-227.926000	Y 377.433
Al (394.401 nm)	0.314765	ppm	0.000104	0.03	3939.650000	Y 377.433
Al H (396.152 nm)	0.451804 u	ppm	0.004564	1.01	735.161000	Y_R 377.433
As (188.980 nm)	0.001071	ppm	0.000565	52.80	0.023222	Y 242.219
B (249.678 nm)	-0.001111 u	ppm	0.000164	14.72	38.434800	Y 242.219
Ba (493.408 nm)	-0.000890 u	ppm	0.000068	7.68	1311.170000	Y_R 488.368
Be (234.861 nm)	-0.000045 u	ppm	0.000056	> 100.00	-8.632170	Y_R 488.368
Bi (223.061 nm)	0.000476 u	ppm	0.003022	> 100.00	-9.479000	Y 377.433
Ca (315.887 nm)	8.214216	ppm	0.010532	0.13	6454.817684	Y_R 377.433
Cd (214.439 nm)	0.000049 u	ppm	0.000075	> 100.00	-3.140320	Y 377.433
Co (228.615 nm)	0.000285	ppm	0.000116	40.56	-8.148240	Y 242.219
Cr (205.560 nm)	0.011556	ppm	0.000350	3.03	70.307500	Y 377.433
Cu (324.754 nm)	0.003371	ppm	0.000459	13.61	468.999000	Y 377.433
Fe (238.204 nm)	0.522336	ppm	0.002929	0.56	1264.493975	Y_R 377.433
Fe H (259.940 nm)	0.517174 u	ppm	0.003575	0.69	726.657000	Y_R 377.433
K (766.491 nm)	-0.010100 u	ppm	0.040550	> 100.00	1927.630000	Y_R2 488.368
Li (670.783 nm)	0.029714	ppm	0.002487	8.37	-2035.580000	Y_R2 488.368
Mg (279.078 nm)	2.899080	ppm	0.000301	0.01	9494.370000	Y 377.433
Mn (257.610 nm)	0.020252	ppm	0.000029	0.14	5510.790000	Y 377.433
Mo (202.032 nm)	0.000223	ppm	0.000231	> 100.00	13.945500	Y 377.433
Na (589.592 nm)	0.933490	ppm	0.018806	2.01	916.308000	Y_R2 488.368
Na H (589.593 nm)	1.441362 u	ppm	0.005860	0.41	664.521729	Y_R4
Ni (231.604 nm)	0.001931	ppm	0.000461	23.87	1.366700	Y 377.433
P (213.618 nm)	0.005992	ppm	0.000318	5.31	3.937700	Y 242.219
Pb (220.353 nm)	-0.000586 u	ppm	0.000446	76.15	6.342010	Y 242.219
S (181.972 nm)	0.597585	ppm	0.004206	0.70	286.835208	Y 377.433
Sb (206.834 nm)	-0.001663 u	ppm	0.002137	> 100.00	-0.938342	Y 377.433
Se (196.026 nm)	0.000415 u	ppm	0.001183	> 100.00	9.377440	Y 242.219
Si (288.158 nm)	1.422770	ppm	0.001068	0.08	9647.720000	Y 377.433
Sn (189.925 nm)	-0.000157 u	ppm	0.001158	> 100.00	1.838480	Y 377.433
Sr (421.552 nm)	0.018497	ppm	0.000034	0.18	2808.867545	Y_R 488.368
Th (288.505 nm)	0.000866	ppm	0.000662	76.50	14.383300	Y 377.433
Ti (336.122 nm)	0.008112	ppm	0.000567	6.99	632.130000	Y 377.433
Tl (190.794 nm)	-0.001098 u	ppm	0.000404	36.80	-1.107150	Y 377.433
U (409.013 nm)	0.003805 u	ppm	0.008352	> 100.00	-13.380900	Y 377.433
V (292.401 nm)	0.000806	ppm	0.000045	5.57	-108.390000	Y 377.433
Zn (206.200 nm)	0.009487	ppm	0.000094	0.99	46.799400	Y 377.433
Zr (343.823 nm)	0.000357	ppm	0.000016	4.47	-141.391000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.172019	27091.768121	0.000328	0.03
Y 377.433	1.148455	803265.002692	0.000370	0.03
Y_R 377.433	1.191280	72225.600000	0.000447	0.04
Y_R 488.368	1.205210	63668.400000	0.003365	0.28
Y_R2 488.368	1.189352	126077.609341	0.005941	0.50
Y_R4	1.183520	53258.500000	0.011177	0.94

Sample Name: 280-123924-F-1-B MS

Date: 5/25/2019 12:03:07 AM Rack:Tube: 2:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001458	ppm	0.000062	4.24	-532.818000	Y 377.433
Al (394.401 nm)	11.772800 o	ppm	0.021402	0.18	144069.000000	Y 377.433
Al H (396.152 nm)	11.475100	ppm	0.003670	0.03	25338.200000	Y_R 377.433
As (188.980 nm)	2.015820	ppm	0.008809	0.44	3035.710000	Y 242.219
B (249.678 nm)	0.974205	ppm	0.001861	0.19	6996.960000	Y 242.219
Ba (493.408 nm)	1.958600	ppm	0.000311	0.02	196669.000000	Y_R 488.368
Be (234.861 nm)	0.955837	ppm	0.002005	0.21	94079.100000	Y_R 488.368
Bi (223.061 nm)	1.956120	ppm	0.002499	0.13	4275.780000	Y 377.433
Ca (315.887 nm)	90.200494	ppm	0.195182	0.22	71571.639078	Y_R 377.433
Cd (214.439 nm)	1.014570	ppm	0.002444	0.24	37518.800000	Y 377.433
Co (228.615 nm)	0.961259	ppm	0.003518	0.37	22622.300000	Y 242.219
Cr (205.560 nm)	1.078360	ppm	0.001162	0.11	7177.780000	Y 377.433
Cu (324.754 nm)	0.990251	ppm	0.001995	0.20	46536.000000	Y 377.433
Fe (238.204 nm)	12.386853 o	ppm	0.036572	0.30	29824.456277	Y_R 377.433
Fe H (259.940 nm)	12.379000	ppm	0.040857	0.33	17131.400000	Y_R 377.433
K (766.491 nm)	50.291200	ppm	0.425488	0.85	50498.000000	Y_R2 488.368
Li (670.783 nm)	1.026510	ppm	0.002344	0.23	15079.600000	Y_R2 488.368
Mg (279.078 nm)	64.102500	ppm	0.167380	0.26	209728.000000	Y 377.433
Mn (257.610 nm)	1.083510	ppm	0.002704	0.25	295418.000000	Y 377.433
Mo (202.032 nm)	1.008410	ppm	0.002787	0.28	12721.400000	Y 377.433
Na (589.592 nm)	52.205600	ppm	0.011811	0.02	43450.800000	Y_R2 488.368
Na H (589.593 nm)	53.440247	ppm	0.587138	1.10	28876.836749	Y_R4
Ni (231.604 nm)	0.993529	ppm	0.003533	0.36	5134.270000	Y 377.433
P (213.618 nm)	20.377800	ppm	0.034404	0.17	28865.300000	Y 242.219
Pb (220.353 nm)	0.990255	ppm	0.000862	0.09	3152.360000	Y 242.219
S (181.972 nm)	13.209829	ppm	0.014415	0.11	6070.197378	Y 377.433
Sb (206.834 nm)	0.003526	ppm	0.001578	44.76	3.373600	Y 377.433
Se (196.026 nm)	1.975120	ppm	0.002098	0.11	2986.210000	Y 242.219
Si (288.158 nm)	9.960880	ppm	0.038270	0.38	64612.400000	Y 377.433
Sn (189.925 nm)	2.045700	ppm	0.006649	0.33	3293.730000	Y 377.433
Sr (421.552 nm)	1.045833	ppm	0.000047	0.00	157528.617253	Y_R 488.368
Th (288.505 nm)	0.991862	ppm	0.001647	0.17	1630.980000	Y 377.433
Ti (336.122 nm)	1.025120	ppm	0.001547	0.15	131057.000000	Y 377.433
Tl (190.794 nm)	1.974600	ppm	0.007221	0.37	4507.030000	Y 377.433
U (409.013 nm)	1.987350	ppm	0.016244	0.82	6215.590000	Y 377.433
V (292.401 nm)	0.988552	ppm	0.002201	0.22	50821.000000	Y 377.433
Zn (206.200 nm)	0.521732	ppm	0.000836	0.16	2351.880000	Y 377.433
Zr (343.823 nm)	0.485108	ppm	0.001918	0.40	27301.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110049	25659.298647	0.000566	0.05
Y 377.433	1.098881	768591.464509	0.000078	0.01
Y_R 377.433	1.168690	70856.300000	0.000276	0.02
Y_R 488.368	1.184420	62570.300000	0.000366	0.03
Y_R2 488.368	1.144982	121374.134732	0.006181	0.54
Y_R4	1.154840	51967.800000	0.012097	1.05

Sample Name: 280-123924-F-1-C MSD

Date: 5/25/2019 12:06:48 AM Rack:Tube: 2:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001276	ppm	0.000165	12.90	-534.887000	Y 377.433
Al (394.401 nm)	11.571800 o	ppm	0.010661	0.09	141602.000000	Y 377.433
Al H (396.152 nm)	11.247500	ppm	0.002782	0.02	24833.300000	Y_R 377.433
As (188.980 nm)	1.992830	ppm	0.013991	0.70	3001.070000	Y 242.219
B (249.678 nm)	0.965283	ppm	0.003683	0.38	6933.320000	Y 242.219
Ba (493.408 nm)	1.929150	ppm	0.001401	0.07	193734.000000	Y_R 488.368
Be (234.861 nm)	0.950053	ppm	0.001796	0.19	93510.100000	Y_R 488.368
Bi (223.061 nm)	1.943720	ppm	0.008415	0.43	4248.610000	Y 377.433
Ca (315.887 nm)	88.728331	ppm	0.036971	0.04	70402.381447	Y_R 377.433
Cd (214.439 nm)	1.006210	ppm	0.000714	0.07	37209.700000	Y 377.433
Co (228.615 nm)	0.950640	ppm	0.001712	0.18	22372.300000	Y 242.219
Cr (205.560 nm)	1.068070	ppm	0.004723	0.44	7109.200000	Y 377.433
Cu (324.754 nm)	0.981278	ppm	0.003932	0.40	46122.000000	Y 377.433
Fe (238.204 nm)	12.248386 o	ppm	0.016342	0.13	29491.143151	Y_R 377.433
Fe H (259.940 nm)	12.237000	ppm	0.016457	0.13	16935.000000	Y_R 377.433
K (766.491 nm)	50.204300	ppm	0.759039	1.51	50414.000000	Y_R2 488.368
Li (670.783 nm)	1.019600	ppm	0.005074	0.50	14960.900000	Y_R2 488.368
Mg (279.078 nm)	63.461500	ppm	0.097170	0.15	207632.000000	Y 377.433
Mn (257.610 nm)	1.071680	ppm	0.001096	0.10	292194.000000	Y 377.433
Mo (202.032 nm)	0.997378	ppm	0.000646	0.06	12582.300000	Y 377.433
Na (589.592 nm)	52.051400	ppm	0.212289	0.41	43317.500000	Y_R2 488.368
Na H (589.593 nm)	53.023078	ppm	0.210344	0.40	28650.499258	Y_R4
Ni (231.604 nm)	0.985362	ppm	0.001165	0.12	5091.990000	Y 377.433
P (213.618 nm)	19.572200	ppm	0.053052	0.27	27715.900000	Y 242.219
Pb (220.353 nm)	0.977734	ppm	0.002087	0.21	3112.460000	Y 242.219
S (181.972 nm)	12.737214	ppm	0.036244	0.28	5853.651223	Y 377.433
Sb (206.834 nm)	-0.001854 u	ppm	0.004578	> 100.00	-5.646130	Y 377.433
Se (196.026 nm)	1.961070	ppm	0.008737	0.45	2965.030000	Y 242.219
Si (288.158 nm)	9.788730	ppm	0.062809	0.64	63504.100000	Y 377.433
Sn (189.925 nm)	2.023570	ppm	0.000390	0.02	3258.140000	Y 377.433
Sr (421.552 nm)	1.029550	ppm	0.001090	0.11	155076.359707	Y_R 488.368
Th (288.505 nm)	0.980427	ppm	0.002214	0.23	1611.920000	Y 377.433
Ti (336.122 nm)	1.014350	ppm	0.002861	0.28	129674.000000	Y 377.433
Tl (190.794 nm)	1.961030	ppm	0.000605	0.03	4476.130000	Y 377.433
U (409.013 nm)	1.907180	ppm	0.011460	0.60	5962.070000	Y 377.433
V (292.401 nm)	0.977929	ppm	0.000482	0.05	50276.300000	Y 377.433
Zn (206.200 nm)	0.519429	ppm	0.002358	0.45	2341.500000	Y 377.433
Zr (343.823 nm)	0.479422	ppm	0.000297	0.06	26979.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107639	25603.596539	0.003013	0.27
Y 377.433	1.094305	765391.329867	0.001713	0.16
Y_R 377.433	1.158090	70213.600000	0.003604	0.31
Y_R 488.368	1.175330	62090.100000	0.002630	0.22
Y_R2 488.368	1.141109	120963.581886	0.003894	0.34
Y_R4	1.149890	51745.000000	0.003039	0.26

Sample Name: 280-123924-F-1-Apds

Date: 5/25/2019 12:10:25 AM Rack:Tube: 2:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.046764	ppm	0.000014	0.03	1337.840000	Y 377.433
Al (394.401 nm)	2.526280	ppm	0.000830	0.03	30983.400000	Y 377.433
Al H (396.152 nm)	2.626570	ppm	0.004708	0.18	5533.240000	Y_R 377.433
As (188.980 nm)	0.201850	ppm	0.000408	0.20	302.501000	Y 242.219
B (249.678 nm)	0.104262	ppm	0.001643	1.58	789.387000	Y 242.219
Ba (493.408 nm)	0.103011	ppm	0.000413	0.40	11671.600000	Y_R 488.368
Be (234.861 nm)	0.048439	ppm	0.000323	0.67	4754.630000	Y_R 488.368
Bi (223.061 nm)	0.005348	ppm	0.003952	73.91	1.710280	Y 377.433
Ca (315.887 nm)	59.109373	ppm	0.163340	0.28	46876.599355	Y_R 377.433
Cd (214.439 nm)	0.051986	ppm	0.000100	0.19	1918.610000	Y 377.433
Co (228.615 nm)	0.048375	ppm	0.000260	0.54	1125.670000	Y 242.219
Cr (205.560 nm)	0.106545	ppm	0.000254	0.24	703.408000	Y 377.433
Cu (324.754 nm)	0.062718	ppm	0.000060	0.10	3216.370000	Y 377.433
Fe (238.204 nm)	3.267897	ppm	0.010447	0.32	7873.538563	Y_R 377.433
Fe H (259.940 nm)	3.243220 u	ppm	0.013436	0.41	4496.740000	Y_R 377.433
K (766.491 nm)	21.002500	ppm	0.096107	0.46	22217.100000	Y_R2 488.368
Li (670.783 nm)	0.135699	ppm	0.005127	3.78	-215.793000	Y_R2 488.368
Mg (279.078 nm)	33.755800	ppm	0.045621	0.14	110457.000000	Y 377.433
Mn (257.610 nm)	0.144003	ppm	0.000112	0.08	39252.900000	Y 377.433
Mo (202.032 nm)	0.050886	ppm	0.000236	0.46	652.514000	Y 377.433
Na (589.592 nm)	23.211900	ppm	0.090902	0.39	19228.100000	Y_R2 488.368
Na H (589.593 nm)	23.678800 u	ppm	0.148639	0.63	12729.580589	Y_R4
Ni (231.604 nm)	0.058429	ppm	0.000404	0.69	293.934000	Y 377.433
P (213.618 nm)	2.033670	ppm	0.006457	0.32	2887.250000	Y 242.219
Pb (220.353 nm)	0.100484	ppm	0.002033	2.02	328.005000	Y 242.219
S (181.972 nm)	3.051816	ppm	0.002397	0.08	1413.711036	Y 377.433
Sb (206.834 nm)	0.102088	ppm	0.001620	1.59	174.338000	Y 377.433
Se (196.026 nm)	0.200116	ppm	0.000887	0.44	310.039000	Y 242.219
Si (288.158 nm)	12.006800	ppm	0.069359	0.58	77783.300000	Y 377.433
Sn (189.925 nm)	0.099392	ppm	0.001615	1.62	162.017000	Y 377.433
Sr (421.552 nm)	0.140620	ppm	0.000153	0.11	21201.218267	Y_R 488.368
Th (288.505 nm)	0.196957	ppm	0.001480	0.75	349.683000	Y 377.433
Ti (336.122 nm)	0.088530	ppm	0.002911	3.29	11099.100000	Y 377.433
Tl (190.794 nm)	0.206269	ppm	0.000151	0.07	470.368000	Y 377.433
U (409.013 nm)	0.514044	ppm	0.001119	0.22	1593.940000	Y 377.433
V (292.401 nm)	0.053784	ppm	0.000054	0.10	2604.850000	Y 377.433
Zn (206.200 nm)	0.228800	ppm	0.000404	0.18	1033.370000	Y 377.433
Zr (343.823 nm)	0.050779	ppm	0.000461	0.91	2713.060000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.132375	26175.378659	0.002293	0.20
Y 377.433	1.113946	779128.328990	0.001929	0.17
Y_R 377.433	1.167490	70783.600000	0.002283	0.20
Y_R 488.368	1.184270	62562.000000	0.002260	0.19
Y_R2 488.368	1.161308	123104.791299	0.012553	1.08
Y_R4	1.162990	52334.600000	0.009956	0.86

Sample Name: 280-123924-F-2-A

Date: 5/25/2019 12:14:00 AM Rack:Tube: 2:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001126	ppm	0.000040	3.55	-229.063000	Y 377.433
Al (394.401 nm)	0.588491	ppm	0.003440	0.58	7294.530000	Y 377.433
Al H (396.152 nm)	0.715714 u	ppm	0.001288	0.18	1321.610000	Y_R 377.433
As (188.980 nm)	0.000665 u	ppm	0.000964	> 100.00	-0.601684	Y 242.219
B (249.678 nm)	0.006132	ppm	0.000312	5.08	89.886000	Y 242.219
Ba (493.408 nm)	0.003041	ppm	0.000231	7.58	1703.410000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000005	> 100.00	-6.541690	Y_R 488.368
Bi (223.061 nm)	0.000243 u	ppm	0.002973	> 100.00	-9.905040	Y 377.433
Ca (315.887 nm)	31.983167	ppm	0.017931	0.06	25332.321193	Y_R 377.433
Cd (214.439 nm)	0.000214	ppm	0.000064	29.90	3.132230	Y 377.433
Co (228.615 nm)	0.000137	ppm	0.000046	33.56	-11.302900	Y 242.219
Cr (205.560 nm)	0.002059	ppm	0.000269	13.05	6.965000	Y 377.433
Cu (324.754 nm)	0.004741	ppm	0.000175	3.68	516.861000	Y 377.433
Fe (238.204 nm)	1.004135	ppm	0.001894	0.19	2424.266872	Y_R 377.433
Fe H (259.940 nm)	0.995260 u	ppm	0.003597	0.36	1387.840000	Y_R 377.433
K (766.491 nm)	0.659084	ppm	0.037778	5.73	2573.790000	Y_R2 488.368
Li (670.783 nm)	0.031861	ppm	0.002918	9.16	-1998.710000	Y_R2 488.368
Mg (279.078 nm)	10.313100	ppm	0.045938	0.45	33754.600000	Y 377.433
Mn (257.610 nm)	0.072732	ppm	0.000205	0.28	19820.100000	Y 377.433
Mo (202.032 nm)	0.000358	ppm	0.000301	83.96	15.644100	Y 377.433
Na (589.592 nm)	2.560300	ppm	0.005371	0.21	2252.610000	Y_R2 488.368
Na H (589.593 nm)	3.049932 u	ppm	0.012437	0.41	1537.261532	Y_R4
Ni (231.604 nm)	0.000316	ppm	0.000003	0.85	-6.985660	Y 377.433
P (213.618 nm)	0.027351	ppm	0.000102	0.37	34.034700	Y 242.219
Pb (220.353 nm)	-0.000702 u	ppm	0.000206	29.40	6.006050	Y 242.219
S (181.972 nm)	3.767360	ppm	0.023511	0.62	1739.809013	Y 377.433
Sb (206.834 nm)	-0.002589 u	ppm	0.003249	> 100.00	-2.560690	Y 377.433
Se (196.026 nm)	0.001057	ppm	0.000038	3.57	10.296100	Y 242.219
Si (288.158 nm)	5.435260	ppm	0.055976	1.03	35478.400000	Y 377.433
Sn (189.925 nm)	0.001876	ppm	0.000028	1.50	5.108670	Y 377.433
Sr (421.552 nm)	0.054252	ppm	0.000424	0.78	8193.721905	Y_R 488.368
Th (288.505 nm)	-0.004077 u	ppm	0.000231	5.68	6.286910	Y 377.433
Ti (336.122 nm)	0.015475	ppm	0.000258	1.67	1656.700000	Y 377.433
Tl (190.794 nm)	0.000000 u	ppm	0.001322	> 100.00	0.349370	Y 377.433
U (409.013 nm)	0.010331	ppm	0.006989	67.65	4.405450	Y 377.433
V (292.401 nm)	0.001782	ppm	0.000452	25.34	-55.990000	Y 377.433
Zn (206.200 nm)	0.010436	ppm	0.000353	3.38	51.132700	Y 377.433
Zr (343.823 nm)	0.000507	ppm	0.000334	65.86	-132.902000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.144970	26466.523005	0.003993	0.35
Y 377.433	1.124439	786467.696089	0.005011	0.45
Y_R 377.433	1.171600	71032.800000	0.001260	0.11
Y_R 488.368	1.183500	62521.600000	0.005113	0.43
Y_R2 488.368	1.155472	122486.151217	0.000057	0.00
Y_R4	1.144340	51495.400000	0.007867	0.69

Sample Name: 280-123924-F-3-A

Date: 5/25/2019 12:17:34 AM Rack:Tube: 2:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001818	ppm	0.000180	9.89	-204.979000	Y 377.433
Al (394.401 nm)	0.735941	ppm	0.001575	0.21	9175.880000	Y 377.433
Al H (396.152 nm)	0.790780 u	ppm	0.006325	0.80	1614.840000	Y_R 377.433
As (188.980 nm)	-0.001347 u	ppm	0.001458	> 100.00	-3.662740	Y 242.219
B (249.678 nm)	0.052632	ppm	0.000178	0.34	421.329000	Y 242.219
Ba (493.408 nm)	0.189787	ppm	0.000170	0.09	20321.700000	Y_R 488.368
Be (234.861 nm)	-0.000005 u	ppm	0.000014	> 100.00	-11.427500	Y_R 488.368
Bi (223.061 nm)	0.000699 u	ppm	0.002800	> 100.00	-8.712250	Y 377.433
Ca (315.887 nm)	61.855854	ppm	0.091574	0.15	49057.417312	Y_R 377.433
Cd (214.439 nm)	0.000453	ppm	0.000136	30.10	12.437800	Y 377.433
Co (228.615 nm)	0.000466	ppm	0.000247	52.97	-3.761100	Y 242.219
Cr (205.560 nm)	0.021094	ppm	0.000410	1.95	133.898000	Y 377.433
Cu (324.754 nm)	0.008096	ppm	0.000039	0.48	657.181000	Y 377.433
Fe (238.204 nm)	2.110079	ppm	0.000206	0.01	5086.468908	Y_R 377.433
Fe H (259.940 nm)	2.087540 u	ppm	0.007360	0.35	2898.450000	Y_R 377.433
K (766.491 nm)	1.743600	ppm	0.043384	2.49	3620.990000	Y_R2 488.368
Li (670.783 nm)	0.057006	ppm	0.000907	1.59	-1566.970000	Y_R2 488.368
Mg (279.078 nm)	31.390900	ppm	0.060489	0.19	102728.000000	Y 377.433
Mn (257.610 nm)	0.245697	ppm	0.000323	0.13	66980.500000	Y 377.433
Mo (202.032 nm)	0.000152 u	ppm	0.000853	> 100.00	13.048200	Y 377.433
Na (589.592 nm)	70.923300 o	ppm	0.056177	0.08	58414.300000	Y_R2 488.368
Na H (589.593 nm)	71.801816	ppm	0.281032	0.39	38839.018737	Y_R4
Ni (231.604 nm)	0.008480	ppm	0.000014	0.17	35.257700	Y 377.433
P (213.618 nm)	0.096143	ppm	0.003282	3.41	131.344000	Y 242.219
Pb (220.353 nm)	0.002035 u	ppm	0.003070	> 100.00	14.638800	Y 242.219
S (181.972 nm)	8.978001	ppm	0.022465	0.25	4128.105012	Y 377.433
Sb (206.834 nm)	-0.002506 u	ppm	0.000967	38.58	-2.173420	Y 377.433
Se (196.026 nm)	0.001204	ppm	0.001281	> 100.00	10.477100	Y 242.219
Si (288.158 nm)	4.683630	ppm	0.005792	0.12	30639.700000	Y 377.433
Sn (189.925 nm)	0.000522 u	ppm	0.000967	> 100.00	2.930010	Y 377.433
Sr (421.552 nm)	0.375214	ppm	0.000475	0.13	56531.135611	Y_R 488.368
Th (288.505 nm)	-0.002389 u	ppm	0.002394	> 100.00	11.733800	Y 377.433
Ti (336.122 nm)	0.011137	ppm	0.000006	0.06	1205.730000	Y 377.433
Tl (190.794 nm)	0.001584	ppm	0.001152	72.76	2.648440	Y 377.433
U (409.013 nm)	0.025764	ppm	0.009776	37.94	50.036900	Y 377.433
V (292.401 nm)	0.002112	ppm	0.000086	4.09	-44.924000	Y 377.433
Zn (206.200 nm)	0.009002	ppm	0.000381	4.23	44.837800	Y 377.433
Zr (343.823 nm)	0.000826	ppm	0.000219	26.54	-114.826000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119998	25889.274858	0.001065	0.10
Y 377.433	1.102761	771305.207157	0.002034	0.18
Y_R 377.433	1.169190	70886.500000	0.003868	0.33
Y_R 488.368	1.186300	62669.600000	0.002526	0.21
Y_R2 488.368	1.144352	121307.376533	0.003907	0.34
Y_R4	1.142290	51403.000000	0.000131	0.01

Sample Name: CCVH-5713036

Date: 5/25/2019 12:21:12 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005574	ppm	0.000410	7.36	-84.352200	Y 377.433
Al (394.401 nm)	48.706800 o	ppm	0.029812	0.06	593367.000000	Y 377.433
Al H (396.152 nm)	46.882300	ppm	0.090933	0.19	102223.000000	Y_R 377.433
As (188.980 nm)	0.003107	ppm	0.000141	4.54	1.778920	Y 242.219
B (249.678 nm)	-0.002039 u	ppm	0.000025	1.23	3.796290	Y 242.219
Ba (493.408 nm)	0.000117 u	ppm	0.000299	> 100.00	1450.220000	Y_R 488.368
Be (234.861 nm)	0.001234	ppm	0.000039	3.15	-87.781500	Y_R 488.368
Bi (223.061 nm)	0.008974	ppm	0.005029	56.03	17.513000	Y 377.433
Ca (315.887 nm)	0.009597	ppm	0.002469	25.73	-49.591276	Y_R 377.433
Cd (214.439 nm)	0.001362	ppm	0.000004	0.27	65.105400	Y 377.433
Co (228.615 nm)	0.003059	ppm	0.000215	7.02	56.799000	Y 242.219
Cr (205.560 nm)	0.002309	ppm	0.000145	6.30	7.366990	Y 377.433
Cu (324.754 nm)	0.004192	ppm	0.000079	1.89	1451.550000	Y 377.433
Fe (238.204 nm)	49.010095 o	ppm	0.114973	0.23	117982.993641	Y_R 377.433
Fe H (259.940 nm)	48.633700	ppm	0.050504	0.10	67271.100000	Y_R 377.433
K (766.491 nm)	0.019007 u	ppm	0.120828	> 100.00	1955.740000	Y_R2 488.368
Li (670.783 nm)	0.026572	ppm	0.006531	24.58	-2089.530000	Y_R2 488.368
Mg (279.078 nm)	0.041124	ppm	0.000127	0.31	70.265400	Y 377.433
Mn (257.610 nm)	0.000989	ppm	0.000036	3.62	258.586000	Y 377.433
Mo (202.032 nm)	0.001149	ppm	0.000281	24.42	25.615800	Y 377.433
Na (589.592 nm)	222.164000 o	ppm	0.088297	0.04	182525.000000	Y_R2 488.368
Na H (589.593 nm)	226.713469	ppm	1.774783	0.78	122887.288644	Y_R4
Ni (231.604 nm)	0.003117	ppm	0.000901	28.91	7.508830	Y 377.433
P (213.618 nm)	4.873570	ppm	0.003463	0.07	6960.720000	Y 242.219
Pb (220.353 nm)	0.003869	ppm	0.001125	29.08	13.988100	Y 242.219
S (181.972 nm)	4.823168	ppm	0.033331	0.69	2221.496171	Y 377.433
Sb (206.834 nm)	0.001018 u	ppm	0.001656	> 100.00	7.629450	Y 377.433
Se (196.026 nm)	0.006738	ppm	0.001495	22.19	6.397590	Y 242.219
Si (288.158 nm)	0.013848	ppm	0.000435	3.14	577.693000	Y 377.433
Sn (189.925 nm)	0.001182	ppm	0.001562	> 100.00	3.992470	Y 377.433
Sr (421.552 nm)	0.001384	ppm	0.000152	10.98	238.932480	Y_R 488.368
Th (288.505 nm)	4.702840	ppm	0.000929	0.02	8122.510000	Y 377.433
Ti (336.122 nm)	0.002014	ppm	0.000041	2.02	-176.137000	Y 377.433
Tl (190.794 nm)	-0.000266 u	ppm	0.000566	> 100.00	-3.508030	Y 377.433
U (409.013 nm)	0.531174 Q	ppm	0.004132	0.78	1696.310000 Q	Y 377.433
V (292.401 nm)	0.001155	ppm	0.000017	1.50	401.801000	Y 377.433
Zn (206.200 nm)	0.001971	ppm	0.000220	11.14	19.749700	Y 377.433
Zr (343.823 nm)	0.001337	ppm	0.000067	5.04	-85.901100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.116824	25815.914143	0.005444	0.49
Y 377.433	1.092820	764352.599398	0.004419	0.40
Y_R 377.433	1.174410	71203.200000	0.003585	0.31
Y_R 488.368	1.188980	62811.100000	0.002297	0.19
Y_R2 488.368	1.145669	121446.931002	0.007197	0.63
Y_R4	1.168960	52603.100000	0.001491	0.13

Sample Name: CCV-5717467

Date: 5/25/2019 12:24:56 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.485015	ppm	0.000320	0.07	16467.800000	Y 377.433
Al (394.401 nm)	0.490468	ppm	0.000503	0.10	6198.520000	Y 377.433
Al H (396.152 nm)	0.536260 u	ppm	0.015143	2.82	1151.830000	Y_R 377.433
As (188.980 nm)	0.486694	ppm	0.000535	0.11	731.753000	Y 242.219
B (249.678 nm)	0.464587	ppm	0.001354	0.29	3363.160000	Y 242.219
Ba (493.408 nm)	0.470100	ppm	0.000885	0.19	48267.500000	Y_R 488.368
Be (234.861 nm)	0.458542	ppm	0.003016	0.66	45146.100000	Y_R 488.368
Bi (223.061 nm)	0.973086	ppm	0.001261	0.13	2121.100000	Y 377.433
Ca (315.887 nm)	4.857128	ppm	0.014722	0.30	3788.647160	Y_R 377.433
Cd (214.439 nm)	0.507151	ppm	0.000973	0.19	18750.300000	Y 377.433
Co (228.615 nm)	0.483985	ppm	0.000416	0.09	11380.800000	Y 242.219
Cr (205.560 nm)	0.509836	ppm	0.004764	0.93	3390.030000	Y 377.433
Cu (324.754 nm)	0.486668	ppm	0.001195	0.25	23014.600000	Y 377.433
Fe (238.204 nm)	2.476463	ppm	0.017652	0.71	5968.417441	Y_R 377.433
Fe H (259.940 nm)	2.451550 u	ppm	0.012204	0.50	3401.870000	Y_R 377.433
K (766.491 nm)	48.178100	ppm	0.114127	0.24	48457.500000	Y_R2 488.368
Li (670.783 nm)	0.512697	ppm	0.000315	0.06	6257.370000	Y_R2 488.368
Mg (279.078 nm)	19.536900	ppm	0.021522	0.11	63936.800000	Y 377.433
Mn (257.610 nm)	0.481892	ppm	0.000163	0.03	131382.000000	Y 377.433
Mo (202.032 nm)	0.484360	ppm	0.000342	0.07	6116.130000	Y 377.433
Na (589.592 nm)	22.872700	ppm	0.009329	0.04	19033.500000	Y_R2 488.368
Na H (589.593 nm)	23.793868 u	ppm	0.087982	0.37	12792.011456	Y_R4
Ni (231.604 nm)	0.498054	ppm	0.000325	0.07	2568.920000	Y 377.433
P (213.618 nm)	0.052569	ppm	0.004243	8.07	-61.264000	Y 242.219
Pb (220.353 nm)	0.489342	ppm	0.002920	0.60	1560.660000	Y 242.219
S (181.972 nm)	-0.004742 u	ppm	0.004718	99.51	12.318962	Y 377.433
Sb (206.834 nm)	0.493952	ppm	0.001467	0.30	833.264000	Y 377.433
Se (196.026 nm)	0.486541	ppm	0.001043	0.21	742.775000	Y 242.219
Si (288.158 nm)	4.788120	ppm	0.013078	0.27	31312.400000	Y 377.433
Sn (189.925 nm)	0.501597	ppm	0.000881	0.18	809.188000	Y 377.433
Sr (421.552 nm)	0.459688	ppm	0.000816	0.18	69253.103046	Y_R 488.368
Th (288.505 nm)	0.021469	ppm	0.001826	8.50	0.711225	Y 377.433
Ti (336.122 nm)	0.476129	ppm	0.000190	0.04	60510.400000	Y 377.433
Tl (190.794 nm)	0.495712	ppm	0.001690	0.34	1132.410000	Y 377.433
U (409.013 nm)	0.014122	ppm	0.000222	1.57	-39.142100	Y 377.433
V (292.401 nm)	0.479254	ppm	0.000190	0.04	24565.700000	Y 377.433
Zn (206.200 nm)	0.508572	ppm	0.001540	0.30	2291.330000	Y 377.433
Zr (343.823 nm)	0.476364	ppm	0.000099	0.02	26806.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.138884	26325.840322	0.004074	0.36
Y 377.433	1.118040	781991.879402	0.004868	0.44
Y_R 377.433	1.173440	71144.200000	0.004666	0.40
Y_R 488.368	1.191410	62939.700000	0.003400	0.29
Y_R2 488.368	1.144112	121281.936781	0.002607	0.23
Y_R4	1.165810	52461.300000	0.002225	0.19

Sample Name: CCB

Date: 5/25/2019 12:28:31 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001217	ppm	0.000234	19.22	-225.065000	Y 377.433
Al (394.401 nm)	-0.002915 u	ppm	0.000165	5.67	57.885900	Y 377.433
Al H (396.152 nm)	0.136008 Zu	ppm	0.001624	1.19	39.135200 Z	Y_R 377.433
As (188.980 nm)	0.001288	ppm	0.001327	> 100.00	0.364647	Y 242.219
B (249.678 nm)	-0.003177 u	ppm	0.000326	10.27	23.979300	Y 242.219
Ba (493.408 nm)	-0.002523 Zu	ppm	0.000328	13.00	1147.940000 Z	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000049	> 100.00	-2.259800	Y_R 488.368
Bi (223.061 nm)	0.001276	ppm	0.000962	75.40	-7.818650	Y 377.433
Ca (315.887 nm)	0.016778	ppm	0.002696	16.07	-55.714105	Y_R 377.433
Cd (214.439 nm)	0.000033	ppm	0.000004	13.34	-3.950670	Y 377.433
Co (228.615 nm)	0.000116	ppm	0.000125	> 100.00	-12.408900	Y 242.219
Cr (205.560 nm)	0.000049 u	ppm	0.000229	> 100.00	-6.427720	Y 377.433
Cu (324.754 nm)	0.001544	ppm	0.000130	8.45	388.449000	Y 377.433
Fe (238.204 nm)	-0.001064 u	ppm	0.000885	83.20	4.578415	Y_R 377.433
Fe H (259.940 nm)	0.003377 u	ppm	0.001336	39.56	16.083000	Y_R 377.433
K (766.491 nm)	-0.247162 u	ppm	0.012793	5.18	1698.730000	Y_R2 488.368
Li (670.783 nm)	0.025681 Z	ppm	0.003555	13.84	-2104.820000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003264	ppm	0.002245	68.78	18.839700	Y 377.433
Mn (257.610 nm)	0.000076	ppm	0.000007	9.67	9.756590	Y 377.433
Mo (202.032 nm)	0.000551	ppm	0.000078	14.11	18.079200	Y 377.433
Na (589.592 nm)	-0.003595 u	ppm	0.008711	> 100.00	146.702000	Y_R2 488.368
Na H (589.593 nm)	0.663320 u	ppm	0.000468	0.07	242.390261	Y_R4
Ni (231.604 nm)	0.000676	ppm	0.000291	43.02	-5.120060	Y 377.433
P (213.618 nm)	-0.000207 u	ppm	0.003046	> 100.00	-4.492120	Y 242.219
Pb (220.353 nm)	0.000088 u	ppm	0.000913	> 100.00	8.570690	Y 242.219
S (181.972 nm)	-0.010619 u	ppm	0.000619	5.83	7.835786	Y 377.433
Sb (206.834 nm)	-0.002835 u	ppm	0.001841	64.95	-3.013170	Y 377.433
Se (196.026 nm)	-0.002744 u	ppm	0.000886	32.28	4.718440	Y 242.219
Si (288.158 nm)	-0.007602 u	ppm	0.000091	1.19	439.608000	Y 377.433
Sn (189.925 nm)	0.000937	ppm	0.000275	29.30	3.598740	Y 377.433
Sr (421.552 nm)	0.000297	ppm	0.000046	15.61	67.954595	Y_R 488.368
Th (288.505 nm)	0.001236	ppm	0.000516	41.73	14.914900	Y 377.433
Ti (336.122 nm)	0.000457	ppm	0.000085	18.51	-375.466000	Y 377.433
Tl (190.794 nm)	0.001193	ppm	0.000567	47.52	4.542570	Y 377.433
U (409.013 nm)	0.010220	ppm	0.010471	> 100.00	7.676410	Y 377.433
V (292.401 nm)	0.000172	ppm	0.000195	> 100.00	-137.824000	Y 377.433
Zn (206.200 nm)	0.000046	ppm	0.000003	5.59	4.269980	Y 377.433
Zr (343.823 nm)	0.000150 u	ppm	0.000334	> 100.00	-153.099000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.163796	26901.688589	0.001227	0.11
Y 377.433	1.142541	799128.932866	0.002814	0.25
Y_R 377.433	1.186050	71908.600000	0.002211	0.19
Y_R 488.368	1.196460	63206.100000	0.005508	0.46
Y_R2 488.368	1.160801	123051.099926	0.005762	0.50
Y_R4	1.159740	52188.300000	0.006032	0.52

Sample Name: CCVL-5719884

Date: 5/25/2019 12:31:43 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008720	ppm	0.000045	0.52	32.912500	Y 377.433
Al (394.401 nm)	0.094608	ppm	0.000342	0.36	1253.600000	Y 377.433
Al H (396.152 nm)	0.228501 u	ppm	0.000786	0.34	246.724000	Y_R 377.433
As (188.980 nm)	0.015581	ppm	0.001307	8.39	21.900100	Y 242.219
B (249.678 nm)	0.087158	ppm	0.000578	0.66	669.067000	Y 242.219
Ba (493.408 nm)	0.007051	ppm	0.000507	7.18	2102.530000	Y_R 488.368
Be (234.861 nm)	0.000879	ppm	0.000041	4.62	84.180700	Y_R 488.368
Bi (223.061 nm)	0.085398	ppm	0.000666	0.78	176.443000	Y 377.433
Ca (315.887 nm)	0.217964	ppm	0.002064	0.95	104.092218	Y_R 377.433
Cd (214.439 nm)	0.005277	ppm	0.000005	0.09	190.001000	Y 377.433
Co (228.615 nm)	0.010188	ppm	0.000026	0.26	224.727000	Y 242.219
Cr (205.560 nm)	0.010361	ppm	0.000294	2.84	62.173800	Y 377.433
Cu (324.754 nm)	0.016476	ppm	0.000017	0.10	1085.060000	Y 377.433
Fe (238.204 nm)	0.100721	ppm	0.001371	1.36	249.593574	Y_R 377.433
Fe H (259.940 nm)	0.104244 u	ppm	0.000866	0.83	155.581000	Y_R 377.433
K (766.491 nm)	2.717740	ppm	0.096735	3.56	4561.600000	Y_R2 488.368
Li (670.783 nm)	0.050383 Q	ppm	0.003002	5.96	-1680.680000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202380	ppm	0.001247	0.62	669.470000	Y 377.433
Mn (257.610 nm)	0.010343	ppm	0.000025	0.25	2808.920000	Y 377.433
Mo (202.032 nm)	0.019598	ppm	0.000014	0.07	258.152000	Y 377.433
Na (589.592 nm)	0.955155	ppm	0.009383	0.98	935.896000	Y_R2 488.368
Na H (589.593 nm)	1.456252 u	ppm	0.001350	0.09	672.600420	Y_R4
Ni (231.604 nm)	0.043447	ppm	0.000477	1.10	216.193000	Y 377.433
P (213.618 nm)	2.803350	ppm	0.007861	0.28	4000.470000	Y 242.219
Pb (220.353 nm)	0.007918	ppm	0.000838	10.59	33.485500	Y 242.219
S (181.972 nm)	0.084682	ppm	0.002263	2.67	51.518065	Y 377.433
Sb (206.834 nm)	0.017540	ppm	0.000807	4.60	31.238700	Y 377.433
Se (196.026 nm)	0.018792	ppm	0.001471	7.83	37.190100	Y 242.219
Si (288.158 nm)	0.471036	ppm	0.000297	0.06	3520.880000	Y 377.433
Sn (189.925 nm)	0.101380	ppm	0.001301	1.28	165.216000	Y 377.433
Sr (421.552 nm)	0.009045	ppm	0.000001	0.01	1385.312122	Y_R 488.368
Th (288.505 nm)	0.020126 Q	ppm	0.003280	16.30	46.897000 Q	Y 377.433
Ti (336.122 nm)	0.009804	ppm	0.000020	0.21	821.322000	Y 377.433
Tl (190.794 nm)	0.014595	ppm	0.000281	1.93	35.081600	Y 377.433
U (409.013 nm)	0.055920	ppm	0.003255	5.82	151.448000	Y 377.433
V (292.401 nm)	0.010095	ppm	0.000171	1.70	372.302000	Y 377.433
Zn (206.200 nm)	0.021421	ppm	0.000020	0.09	100.401000	Y 377.433
Zr (343.823 nm)	0.009629	ppm	0.000080	0.83	383.512000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.186071	27416.585166	0.005148	0.43
Y 377.433	1.162299	812948.431283	0.005085	0.44
Y_R 377.433	1.206100	73124.300000	0.003122	0.26
Y_R 488.368	1.218350	64362.700000	0.009285	0.76
Y_R2 488.368	1.185091	125625.951992	0.000917	0.08
Y_R4	1.177170	52972.600000	0.007808	0.66

Sample Name: 280-123924-F-4-A

Date: 5/25/2019 12:35:13 AM Rack:Tube: 2:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002448	ppm	0.000548	22.41	-183.868000	Y 377.433
Al (394.401 nm)	0.273093	ppm	0.001821	0.67	3575.180000	Y 377.433
Al H (396.152 nm)	0.278132 u	ppm	0.003136	1.13	565.988000	Y_R 377.433
As (188.980 nm)	0.004406	ppm	0.000316	7.17	4.879200	Y 242.219
B (249.678 nm)	0.036886	ppm	0.000781	2.12	306.163000	Y 242.219
Ba (493.408 nm)	0.024589	ppm	0.000048	0.20	3856.250000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000053	> 100.00	-33.650200	Y_R 488.368
Bi (223.061 nm)	-0.000593 u	ppm	0.000713	> 100.00	-10.726000	Y 377.433
Ca (315.887 nm)	136.716423	ppm	0.689477	0.50	108511.992304	Y_R 377.433
Cd (214.439 nm)	0.001725	ppm	0.000054	3.11	61.362600	Y 377.433
Co (228.615 nm)	0.000491	ppm	0.000144	29.35	-3.479540	Y 242.219
Cr (205.560 nm)	0.003259	ppm	0.000385	11.82	14.955200	Y 377.433
Cu (324.754 nm)	0.566816	ppm	0.001399	0.25	26677.200000	Y 377.433
Fe (238.204 nm)	6.807313 o	ppm	0.035724	0.52	16393.529973	Y_R 377.433
Fe H (259.940 nm)	6.740210	ppm	0.032925	0.49	9333.020000	Y_R 377.433
K (766.491 nm)	3.337330	ppm	0.247306	7.41	5159.870000	Y_R2 488.368
Li (670.783 nm)	0.056527	ppm	0.002953	5.22	-1575.190000	Y_R2 488.368
Mg (279.078 nm)	24.875600	ppm	0.045869	0.18	81401.200000	Y 377.433
Mn (257.610 nm)	3.970490	ppm	0.012193	0.31	1082580.000000	Y 377.433
Mo (202.032 nm)	0.003389	ppm	0.000163	4.82	53.854200	Y 377.433
Na (589.592 nm)	49.060500	ppm	0.222448	0.45	40429.600000	Y_R2 488.368
Na H (589.593 nm)	49.488306 u	ppm	0.645505	1.30	26732.686834	Y_R4
Ni (231.604 nm)	0.004372	ppm	0.000604	13.82	14.009200	Y 377.433
P (213.618 nm)	0.213195	ppm	0.004438	2.08	166.041000	Y 242.219
Pb (220.353 nm)	0.017025	ppm	0.000579	3.40	62.364600	Y 242.219
S (181.972 nm)	6.701000	ppm	0.004885	0.07	3101.140657	Y 377.433
Sb (206.834 nm)	-0.004929 u	ppm	0.001276	25.89	-5.981360	Y 377.433
Se (196.026 nm)	-0.001365 u	ppm	0.003804	> 100.00	10.670600	Y 242.219
Si (288.158 nm)	8.785740	ppm	0.036287	0.41	57047.300000	Y 377.433
Sn (189.925 nm)	0.000174 u	ppm	0.001224	> 100.00	2.370490	Y 377.433
Sr (421.552 nm)	0.585717	ppm	0.003482	0.59	88233.745784	Y_R 488.368
Th (288.505 nm)	-0.002613 u	ppm	0.003231	> 100.00	83.593100	Y 377.433
Ti (336.122 nm)	0.002475	ppm	0.000407	16.44	358.918000	Y 377.433
Tl (190.794 nm)	0.003595	ppm	0.001909	53.10	3.631100	Y 377.433
U (409.013 nm)	0.039087	ppm	0.002051	5.25	85.584500	Y 377.433
V (292.401 nm)	0.003889	ppm	0.000006	0.16	55.831900	Y 377.433
Zn (206.200 nm)	1.670290	ppm	0.001723	0.10	7515.880000	Y 377.433
Zr (343.823 nm)	0.000703	ppm	0.000066	9.45	-121.828000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130434	26130.508283	0.005194	0.46
Y 377.433	1.117736	781779.216956	0.005699	0.51
Y_R 377.433	1.176740	71344.200000	0.002784	0.24
Y_R 488.368	1.195480	63154.200000	0.004552	0.38
Y_R2 488.368	1.156353	122579.534682	0.009352	0.81
Y_R4	1.163760	52368.900000	0.018654	1.60

Sample Name: 280-123924-F-5-A

Date: 5/25/2019 12:38:50 AM Rack:Tube: 2:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001636	ppm	0.000015	0.93	-211.052000	Y 377.433
Al (394.401 nm)	0.017561	ppm	0.001118	6.37	556.988000	Y 377.433
Al H (396.152 nm)	-0.022977 u	ppm	0.001885	8.21	82.401800	Y_R 377.433
As (188.980 nm)	0.002331	ppm	0.000897	38.49	1.880600	Y 242.219
B (249.678 nm)	0.015095	ppm	0.000265	1.75	153.267000	Y 242.219
Ba (493.408 nm)	0.250088	ppm	0.000331	0.13	26333.300000	Y_R 488.368
Be (234.861 nm)	-0.000010 u	ppm	0.000001	12.52	-11.777700	Y_R 488.368
Bi (223.061 nm)	-0.001072 u	ppm	0.000351	32.72	-12.595700	Y 377.433
Ca (315.887 nm)	47.830134	ppm	0.065621	0.14	37917.933224	Y_R 377.433
Cd (214.439 nm)	0.000233	ppm	0.000181	77.59	4.297000	Y 377.433
Co (228.615 nm)	0.001543	ppm	0.000127	8.25	21.500300	Y 242.219
Cr (205.560 nm)	0.339532	ppm	0.003334	0.98	2257.530000	Y 377.433
Cu (324.754 nm)	0.006424	ppm	0.000333	5.19	587.355000	Y 377.433
Fe (238.204 nm)	2.084162	ppm	0.001725	0.08	5024.080311	Y_R 377.433
Fe H (259.940 nm)	2.059050 u	ppm	0.002447	0.12	2859.050000	Y_R 377.433
K (766.491 nm)	1.487280	ppm	0.373707	25.13	3373.480000	Y_R2 488.368
Li (670.783 nm)	0.099805	ppm	0.000457	0.46	-832.090000	Y_R2 488.368
Mg (279.078 nm)	27.109900	ppm	0.036836	0.14	88718.800000	Y 377.433
Mn (257.610 nm)	0.226201	ppm	0.000384	0.17	61664.900000	Y 377.433
Mo (202.032 nm)	0.001200	ppm	0.000044	3.67	26.253600	Y 377.433
Na (589.592 nm)	151.899000 o	ppm	0.246010	0.16	124901.000000	Y_R2 488.368
Na H (589.593 nm)	155.050989	ppm	0.621867	0.40	84006.369245	Y_R4
Ni (231.604 nm)	0.152418	ppm	0.000408	0.27	779.993000	Y 377.433
P (213.618 nm)	0.005374	ppm	0.006367	> 100.00	2.023210	Y 242.219
Pb (220.353 nm)	0.000473	ppm	0.000636	> 100.00	9.283730	Y 242.219
S (181.972 nm)	7.372866	ppm	0.034735	0.47	3392.262186	Y 377.433
Sb (206.834 nm)	-0.003056 u	ppm	0.001732	56.67	-0.759902	Y 377.433
Se (196.026 nm)	-0.001629 u	ppm	0.000356	21.85	6.184290	Y 242.219
Si (288.158 nm)	3.718190	ppm	0.007337	0.20	24424.700000	Y 377.433
Sn (189.925 nm)	0.001514	ppm	0.000394	26.04	4.527210	Y 377.433
Sr (421.552 nm)	0.946656	ppm	0.000486	0.05	142590.837584	Y_R 488.368
Th (288.505 nm)	0.001071	ppm	0.000055	5.10	17.757700	Y 377.433
Ti (336.122 nm)	0.000488	ppm	0.000022	4.46	-204.320000	Y 377.433
Tl (190.794 nm)	-0.000546 u	ppm	0.000151	27.64	-1.624270	Y 377.433
U (409.013 nm)	0.020631	ppm	0.001681	8.15	35.748500	Y 377.433
V (292.401 nm)	0.001636	ppm	0.000061	3.75	-185.201000	Y 377.433
Zn (206.200 nm)	0.006553	ppm	0.000378	5.76	33.822500	Y 377.433
Zr (343.823 nm)	0.000184 u	ppm	0.000407	> 100.00	-151.188000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126972	26050.485853	0.005107	0.45
Y 377.433	1.109793	776224.140446	0.006425	0.58
Y_R 377.433	1.189170	72098.000000	0.000566	0.05
Y_R 488.368	1.201360	63465.200000	0.000377	0.03
Y_R2 488.368	1.154772	122411.977258	0.000992	0.09
Y_R4	1.166700	52501.600000	0.003746	0.32

Sample Name: 280-123924-F-6-A

Date: 5/25/2019 12:42:23 AM Rack:Tube: 2:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001933	ppm	0.000218	11.28	-200.699000	Y 377.433
Al (394.401 nm)	0.023076	ppm	0.001411	6.12	547.001000	Y 377.433
Al H (396.152 nm)	0.018211 u	ppm	0.007139	39.20	31.216000	Y_R 377.433
As (188.980 nm)	0.001629	ppm	0.000059	3.60	0.872478	Y 242.219
B (249.678 nm)	0.114548	ppm	0.000840	0.73	864.615000	Y 242.219
Ba (493.408 nm)	0.013097	ppm	0.000828	6.32	2705.280000	Y_R 488.368
Be (234.861 nm)	-0.000062 u	ppm	0.000004	5.72	-8.956690	Y_R 488.368
Bi (223.061 nm)	0.000367 u	ppm	0.001563	> 100.00	-9.758070	Y 377.433
Ca (315.887 nm)	126.341069	ppm	0.459785	0.36	100271.764509	Y_R 377.433
Cd (214.439 nm)	0.000265	ppm	0.000076	28.59	4.701230	Y 377.433
Co (228.615 nm)	0.000178	ppm	0.000120	67.38	-10.938000	Y 242.219
Cr (205.560 nm)	0.001218	ppm	0.000364	29.88	1.365980	Y 377.433
Cu (324.754 nm)	0.000906	ppm	0.000462	50.94	285.149000	Y 377.433
Fe (238.204 nm)	0.205456	ppm	0.000543	0.26	501.707212	Y_R 377.433
Fe H (259.940 nm)	0.203597 u	ppm	0.000129	0.06	292.985000	Y_R 377.433
K (766.491 nm)	6.930740	ppm	0.172922	2.50	8629.620000	Y_R2 488.368
Li (670.783 nm)	0.048039	ppm	0.001482	3.08	-1720.920000	Y_R2 488.368
Mg (279.078 nm)	23.543700	ppm	0.105421	0.45	77051.400000	Y 377.433
Mn (257.610 nm)	1.345290	ppm	0.005050	0.38	366796.000000	Y 377.433
Mo (202.032 nm)	0.000047 u	ppm	0.000350	> 100.00	11.719500	Y 377.433
Na (589.592 nm)	32.752600	ppm	0.004126	0.01	27039.900000	Y_R2 488.368
Na H (589.593 nm)	33.131297 u	ppm	0.172914	0.52	17858.090669	Y_R4
Ni (231.604 nm)	0.000810	ppm	0.000673	83.09	-4.426260	Y 377.433
P (213.618 nm)	0.001928 u	ppm	0.006613	> 100.00	-1.760070	Y 242.219
Pb (220.353 nm)	-0.000527 u	ppm	0.001274	> 100.00	6.632460	Y 242.219
S (181.972 nm)	16.189639	ppm	0.118809	0.73	7437.509341	Y 377.433
Sb (206.834 nm)	-0.007534 u	ppm	0.003299	43.79	-10.916000	Y 377.433
Se (196.026 nm)	0.002001	ppm	0.000507	25.35	13.728000	Y 242.219
Si (288.158 nm)	6.979820	ppm	0.017553	0.25	45421.600000	Y 377.433
Sn (189.925 nm)	0.000534	ppm	0.000291	54.40	2.950250	Y 377.433
Sr (421.552 nm)	0.658368	ppm	0.001111	0.17	99174.168631	Y_R 488.368
Th (288.505 nm)	-0.002138 u	ppm	0.000548	25.62	32.795700	Y 377.433
Ti (336.122 nm)	0.000262	ppm	0.000129	49.27	39.364700	Y 377.433
Tl (190.794 nm)	0.004025	ppm	0.002428	60.33	5.856550	Y 377.433
U (409.013 nm)	0.029471	ppm	0.008287	28.12	51.744500	Y 377.433
V (292.401 nm)	0.001136	ppm	0.000132	11.61	-88.322500	Y 377.433
Zn (206.200 nm)	0.007127	ppm	0.000375	5.26	36.139600	Y 377.433
Zr (343.823 nm)	-0.000136 u	ppm	0.000015	10.66	-169.331000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130281	26126.961460	0.005378	0.48
Y 377.433	1.116296	780772.419238	0.004965	0.44
Y_R 377.433	1.178740	71465.800000	0.000866	0.07
Y_R 488.368	1.199050	63343.200000	0.007701	0.64
Y_R2 488.368	1.165437	123542.525524	0.008807	0.76
Y_R4	1.171120	52700.300000	0.005139	0.44

Sample Name: 280-123924-F-7-A

Date: 5/25/2019 12:45:54 AM Rack:Tube: 2:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001629	ppm	0.000278	17.06	-211.269000	Y 377.433
Al (394.401 nm)	0.030921	ppm	0.001013	3.28	558.720000	Y 377.433
Al H (396.152 nm)	0.086917 u	ppm	0.003265	3.76	52.118900	Y_R 377.433
As (188.980 nm)	0.000752 u	ppm	0.002067	> 100.00	-0.449145	Y 242.219
B (249.678 nm)	0.015189	ppm	0.000658	4.33	155.026000	Y 242.219
Ba (493.408 nm)	0.093616	ppm	0.000735	0.79	10732.600000	Y_R 488.368
Be (234.861 nm)	-0.000046 u	ppm	0.000007	15.93	-7.399320	Y_R 488.368
Bi (223.061 nm)	0.001770	ppm	0.001062	60.01	-6.695290	Y 377.433
Ca (315.887 nm)	85.372000	ppm	0.199985	0.23	67733.897231	Y_R 377.433
Cd (214.439 nm)	0.000099	ppm	0.000136	> 100.00	-1.429000	Y 377.433
Co (228.615 nm)	-0.000351 u	ppm	0.000119	33.90	-23.367900	Y 242.219
Cr (205.560 nm)	0.000635	ppm	0.000226	35.64	-2.520600	Y 377.433
Cu (324.754 nm)	0.001528	ppm	0.000001	0.06	336.540000	Y 377.433
Fe (238.204 nm)	0.212285	ppm	0.004146	1.95	518.146859	Y_R 377.433
Fe H (259.940 nm)	0.220050 u	ppm	0.001283	0.58	315.739000	Y_R 377.433
K (766.491 nm)	1.760700	ppm	0.315906	17.94	3637.500000	Y_R2 488.368
Li (670.783 nm)	0.040773	ppm	0.002040	5.00	-1845.690000	Y_R2 488.368
Mg (279.078 nm)	13.509800	ppm	0.016397	0.12	44216.900000	Y 377.433
Mn (257.610 nm)	0.078373	ppm	0.000053	0.07	21358.200000	Y 377.433
Mo (202.032 nm)	0.000061 u	ppm	0.000259	> 100.00	11.898500	Y 377.433
Na (589.592 nm)	143.988000 o	ppm	0.263245	0.18	118371.000000	Y_R2 488.368
Na H (589.593 nm)	147.589034	ppm	1.430744	0.97	79957.839587	Y_R4
Ni (231.604 nm)	-0.000315 u	ppm	0.000929	> 100.00	-10.249400	Y 377.433
P (213.618 nm)	0.010370	ppm	0.002497	24.08	10.364100	Y 242.219
Pb (220.353 nm)	-0.001063 u	ppm	0.000228	21.43	4.902180	Y 242.219
S (181.972 nm)	9.047139	ppm	0.047749	0.53	4160.418818	Y 377.433
Sb (206.834 nm)	-0.004968 u	ppm	0.000516	10.39	-6.592670	Y 377.433
Se (196.026 nm)	0.000326 u	ppm	0.002785	> 100.00	9.404930	Y 242.219
Si (288.158 nm)	3.183230	ppm	0.001152	0.04	20980.800000	Y 377.433
Sn (189.925 nm)	-0.000030 u	ppm	0.000541	> 100.00	2.042750	Y 377.433
Sr (421.552 nm)	0.331351	ppm	0.000853	0.26	49925.060316	Y_R 488.368
Th (288.505 nm)	-0.008153 u	ppm	0.004059	49.79	-2.086890	Y 377.433
Ti (336.122 nm)	0.000156	ppm	0.000117	74.95	-117.110000	Y 377.433
Tl (190.794 nm)	0.000376	ppm	0.000304	80.85	-0.819734	Y 377.433
U (409.013 nm)	0.025766	ppm	0.002662	10.33	45.559900	Y 377.433
V (292.401 nm)	0.001403	ppm	0.000095	6.80	-74.587500	Y 377.433
Zn (206.200 nm)	0.006498	ppm	0.000768	11.82	33.314200	Y 377.433
Zr (343.823 nm)	0.000022 u	ppm	0.000297	> 100.00	-160.370000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126512	26039.860314	0.002960	0.26
Y 377.433	1.111904	777700.300573	0.003106	0.28
Y_R 377.433	1.183690	71765.500000	0.007299	0.62
Y_R 488.368	1.195640	63163.000000	0.006260	0.52
Y_R2 488.368	1.154474	122380.403638	0.002767	0.24
Y_R4	1.156040	52021.900000	0.003969	0.34

Sample Name: 280-123924-F-8-A

Date: 5/25/2019 12:49:26 AM Rack:Tube: 2:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001770	ppm	0.000368	20.78	-206.636000	Y 377.433
Al (394.401 nm)	0.036275	ppm	0.001524	4.20	627.072000	Y 377.433
Al H (396.152 nm)	0.100369 u	ppm	0.004589	4.57	82.270300	Y_R 377.433
As (188.980 nm)	0.001992	ppm	0.002806	> 100.00	1.419410	Y 242.219
B (249.678 nm)	0.015234	ppm	0.000481	3.16	155.327000	Y 242.219
Ba (493.408 nm)	0.096144	ppm	0.000633	0.66	10984.600000	Y_R 488.368
Be (234.861 nm)	-0.000057 u	ppm	0.000019	32.94	-8.609570	Y_R 488.368
Bi (223.061 nm)	0.000604 u	ppm	0.001055	> 100.00	-9.243110	Y 377.433
Ca (315.887 nm)	83.540230	ppm	0.461750	0.55	66279.097862	Y_R 377.433
Cd (214.439 nm)	0.000238	ppm	0.000008	3.23	3.728240	Y 377.433
Co (228.615 nm)	-0.000249 u	ppm	0.000083	33.33	-20.975800	Y 242.219
Cr (205.560 nm)	0.000539	ppm	0.000035	6.43	-3.158670	Y 377.433
Cu (324.754 nm)	0.001652	ppm	0.000069	4.19	342.364000	Y 377.433
Fe (238.204 nm)	0.241572	ppm	0.001052	0.44	588.645205	Y_R 377.433
Fe H (259.940 nm)	0.241987 u	ppm	0.001497	0.62	346.077000	Y_R 377.433
K (766.491 nm)	1.695760	ppm	0.189499	11.17	3574.780000	Y_R2 488.368
Li (670.783 nm)	0.041113	ppm	0.003730	9.07	-1839.850000	Y_R2 488.368
Mg (279.078 nm)	13.321600	ppm	0.023013	0.17	43600.700000	Y 377.433
Mn (257.610 nm)	0.078488	ppm	0.000092	0.12	21389.600000	Y 377.433
Mo (202.032 nm)	0.000488	ppm	0.000096	19.68	17.283200	Y 377.433
Na (589.592 nm)	138.534000 o	ppm	0.052226	0.04	113895.000000	Y_R2 488.368
Na H (589.593 nm)	143.199107	ppm	0.556966	0.39	77576.058062	Y_R4
Ni (231.604 nm)	-0.000932 u	ppm	0.000342	36.65	-13.445700	Y 377.433
P (213.618 nm)	0.009986	ppm	0.001001	10.03	9.748600	Y 242.219
Pb (220.353 nm)	0.000115	ppm	0.000050	43.31	8.697730	Y 242.219
S (181.972 nm)	8.885204	ppm	0.027381	0.31	4086.165303	Y 377.433
Sb (206.834 nm)	-0.004473 u	ppm	0.004209	94.11	-5.752640	Y 377.433
Se (196.026 nm)	-0.000394 u	ppm	0.004847	> 100.00	8.311580	Y 242.219
Si (288.158 nm)	3.156410	ppm	0.003540	0.11	20808.200000	Y 377.433
Sn (189.925 nm)	0.002400	ppm	0.002192	91.32	5.952370	Y 377.433
Sr (421.552 nm)	0.331894	ppm	0.001130	0.34	50006.864844	Y_R 488.368
Th (288.505 nm)	-0.005452 u	ppm	0.003877	71.12	2.753750	Y 377.433
Ti (336.122 nm)	0.000285	ppm	0.000046	16.03	-107.106000	Y 377.433
Tl (190.794 nm)	0.001698 u	ppm	0.003012	> 100.00	2.275210	Y 377.433
U (409.013 nm)	0.026858	ppm	0.000660	2.46	49.304000	Y 377.433
V (292.401 nm)	0.001329	ppm	0.000007	0.51	-79.665300	Y 377.433
Zn (206.200 nm)	0.007225	ppm	0.000330	4.57	36.588100	Y 377.433
Zr (343.823 nm)	0.000029	ppm	0.000036	> 100.00	-159.995000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124082	25983.673048	0.001644	0.15
Y 377.433	1.109022	775684.659982	0.003006	0.27
Y_R 377.433	1.181290	71620.100000	0.009978	0.84
Y_R 488.368	1.195950	63179.200000	0.009558	0.80
Y_R2 488.368	1.158190	122774.218305	0.003284	0.28
Y_R4	1.169190	52613.400000	0.002445	0.21

Sample Name: 280-123924-F-9-A

Date: 5/25/2019 12:52:58 AM Rack:Tube: 2:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001632	ppm	0.000786	48.15	-211.291000	Y 377.433
Al (394.401 nm)	0.041435	ppm	0.000065	0.16	688.671000	Y 377.433
Al H (396.152 nm)	0.105167 u	ppm	0.001265	1.20	93.556700	Y_R 377.433
As (188.980 nm)	-0.001542 u	ppm	0.000516	33.45	-3.905760	Y 242.219
B (249.678 nm)	0.014873	ppm	0.000187	1.26	152.742000	Y 242.219
Ba (493.408 nm)	0.097591	ppm	0.000102	0.10	11128.900000	Y_R 488.368
Be (234.861 nm)	-0.000053 u	ppm	0.000034	64.51	-8.221910	Y_R 488.368
Bi (223.061 nm)	0.000867 u	ppm	0.001245	> 100.00	-8.666350	Y 377.433
Ca (315.887 nm)	83.585050	ppm	0.110408	0.13	66314.693309	Y_R 377.433
Cd (214.439 nm)	0.000275	ppm	0.000009	3.19	5.072990	Y 377.433
Co (228.615 nm)	-0.000136 u	ppm	0.000250	> 100.00	-18.326500	Y 242.219
Cr (205.560 nm)	0.000670	ppm	0.000259	38.62	-2.285900	Y 377.433
Cu (324.754 nm)	0.001636	ppm	0.000388	23.69	342.592000	Y 377.433
Fe (238.204 nm)	0.248573	ppm	0.001431	0.58	605.498559	Y_R 377.433
Fe H (259.940 nm)	0.244741 u	ppm	0.004371	1.79	349.886000	Y_R 377.433
K (766.491 nm)	1.711630	ppm	0.388364	22.69	3590.110000	Y_R2 488.368
Li (670.783 nm)	0.043956	ppm	0.001229	2.80	-1791.040000	Y_R2 488.368
Mg (279.078 nm)	13.424200	ppm	0.000133	0.00	43936.700000	Y 377.433
Mn (257.610 nm)	0.079857	ppm	0.000136	0.17	21762.600000	Y 377.433
Mo (202.032 nm)	0.000176	ppm	0.000034	19.55	13.349800	Y 377.433
Na (589.592 nm)	138.044000 o	ppm	0.419432	0.30	113493.000000	Y_R2 488.368
Na H (589.593 nm)	142.963190	ppm	1.735994	1.21	77448.059779	Y_R4
Ni (231.604 nm)	-0.001017 u	ppm	0.000301	29.63	-13.882600	Y 377.433
P (213.618 nm)	0.005590	ppm	0.005516	98.69	3.455530	Y 242.219
Pb (220.353 nm)	-0.000269 u	ppm	0.000803	> 100.00	7.457440	Y 242.219
S (181.972 nm)	8.944271	ppm	0.025668	0.29	4113.226914	Y 377.433
Sb (206.834 nm)	-0.002303 u	ppm	0.001211	52.60	-2.087600	Y 377.433
Se (196.026 nm)	0.002517	ppm	0.000661	26.28	12.703000	Y 242.219
Si (288.158 nm)	3.197120	ppm	0.003836	0.12	21070.300000	Y 377.433
Sn (189.925 nm)	0.000572 u	ppm	0.002925	> 100.00	3.010250	Y 377.433
Sr (421.552 nm)	0.333928	ppm	0.000815	0.24	50313.165454	Y_R 488.368
Th (288.505 nm)	-0.006973 u	ppm	0.000923	13.23	0.098033	Y 377.433
Ti (336.122 nm)	0.000451	ppm	0.000021	4.73	-85.336200	Y 377.433
Tl (190.794 nm)	0.001762	ppm	0.000313	17.75	2.414820	Y 377.433
U (409.013 nm)	0.020401	ppm	0.004633	22.71	28.767100	Y 377.433
V (292.401 nm)	0.001499	ppm	0.000209	13.96	-69.940800	Y 377.433
Zn (206.200 nm)	0.007957	ppm	0.000365	4.59	39.878200	Y 377.433
Zr (343.823 nm)	0.000158	ppm	0.000084	53.05	-152.697000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.135720	26252.701519	0.000707	0.06
Y 377.433	1.120886	783982.493169	0.001259	0.11
Y_R 377.433	1.192330	72289.400000	0.001694	0.14
Y_R 488.368	1.208310	63832.200000	0.002634	0.22
Y_R2 488.368	1.173536	124400.977233	0.000582	0.05
Y_R4	1.178710	53041.800000	0.005636	0.48

Sample Name: 280-123924-F-10-A

Date: 5/25/2019 12:56:30 AM Rack:Tube: 2:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000602	48.17	-224.246000	Y 377.433
Al (394.401 nm)	0.254858	ppm	0.000420	0.16	3225.770000	Y 377.433
Al H (396.152 nm)	0.368969 u	ppm	0.009085	2.46	574.540000	Y_R 377.433
As (188.980 nm)	-0.000320 u	ppm	0.000134	41.69	-2.064840	Y 242.219
B (249.678 nm)	0.004689	ppm	0.000644	13.73	80.023100	Y 242.219
Ba (493.408 nm)	0.017808	ppm	0.000158	0.89	3175.020000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000006	32.67	-4.878440	Y_R 488.368
Bi (223.061 nm)	0.000017 u	ppm	0.001949	> 100.00	-10.534000	Y 377.433
Ca (315.887 nm)	25.726179	ppm	0.015537	0.06	20362.899546	Y_R 377.433
Cd (214.439 nm)	0.000112	ppm	0.000150	> 100.00	-0.938249	Y 377.433
Co (228.615 nm)	0.000191	ppm	0.000023	12.06	-10.473800	Y 242.219
Cr (205.560 nm)	0.000805	ppm	0.000310	38.50	-1.396890	Y 377.433
Cu (324.754 nm)	0.003822	ppm	0.000308	8.06	478.117000	Y 377.433
Fe (238.204 nm)	0.227852	ppm	0.000403	0.18	555.619950	Y_R 377.433
Fe H (259.940 nm)	0.231290 u	ppm	0.003164	1.37	331.283000	Y_R 377.433
K (766.491 nm)	0.619063	ppm	0.065386	10.56	2535.140000	Y_R2 488.368
Li (670.783 nm)	0.030750	ppm	0.007462	24.27	-2017.790000	Y_R2 488.368
Mg (279.078 nm)	2.940840	ppm	0.009741	0.33	9631.400000	Y 377.433
Mn (257.610 nm)	0.306341	ppm	0.000755	0.25	83515.800000	Y 377.433
Mo (202.032 nm)	0.001458	ppm	0.000006	0.40	29.503700	Y 377.433
Na (589.592 nm)	0.851335	ppm	0.061249	7.19	853.005000	Y_R2 488.368
Na H (589.593 nm)	1.619651 u	ppm	0.014119	0.87	761.253718	Y_R4
Ni (231.604 nm)	0.001366	ppm	0.000257	18.78	-1.552120	Y 377.433
P (213.618 nm)	0.142311	ppm	0.001824	1.28	198.696000	Y 242.219
Pb (220.353 nm)	-0.000949 u	ppm	0.000780	82.20	5.217730	Y 242.219
S (181.972 nm)	0.384170	ppm	0.009444	2.46	190.903196	Y 377.433
Sb (206.834 nm)	-0.004816 u	ppm	0.001270	26.38	-6.362330	Y 377.433
Se (196.026 nm)	-0.001457 u	ppm	0.004680	> 100.00	7.035460	Y 242.219
Si (288.158 nm)	2.543400	ppm	0.012201	0.48	16861.800000	Y 377.433
Sn (189.925 nm)	0.000964	ppm	0.000006	0.58	3.641510	Y 377.433
Sr (421.552 nm)	0.076078	ppm	0.000324	0.43	11480.602067	Y_R 488.368
Th (288.505 nm)	-0.004944 u	ppm	0.002058	41.63	9.575360	Y 377.433
Ti (336.122 nm)	0.005271	ppm	0.000259	4.91	329.444000	Y 377.433
Tl (190.794 nm)	0.000977	ppm	0.000967	98.98	2.963660	Y 377.433
U (409.013 nm)	0.017439	ppm	0.003214	18.43	27.227600	Y 377.433
V (292.401 nm)	0.001668	ppm	0.000001	0.07	-60.927000	Y 377.433
Zn (206.200 nm)	0.008281	ppm	0.000074	0.90	41.335600	Y 377.433
Zr (343.823 nm)	0.000338	ppm	0.000111	32.86	-142.467000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.180234	27281.647885	0.004149	0.35
Y 377.433	1.162312	812957.222490	0.004539	0.39
Y_R 377.433	1.222140	74097.100000	0.004200	0.34
Y_R 488.368	1.238960	65451.500000	0.003903	0.32
Y_R2 488.368	1.187455	125876.535185	0.008083	0.68
Y_R4	1.197350	53880.600000	0.002638	0.22

Sample Name: 280-123924-F-11-A

Date: 5/25/2019 1:00:01 AM Rack:Tube: 2:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001431	ppm	0.000034	2.34	-219.861000	Y 377.433
Al (394.401 nm)	1.334860	ppm	0.000332	0.02	16410.400000	Y 377.433
Al H (396.152 nm)	1.455920	ppm	0.006122	0.42	2953.960000	Y_R 377.433
As (188.980 nm)	0.011347	ppm	0.001027	9.05	15.230300	Y 242.219
B (249.678 nm)	0.008354	ppm	0.000230	2.75	100.102000	Y 242.219
Ba (493.408 nm)	0.060981	ppm	0.000161	0.26	7487.460000	Y_R 488.368
Be (234.861 nm)	0.000093	ppm	0.000000	0.10	-38.402800	Y_R 488.368
Bi (223.061 nm)	-0.000290 u	ppm	0.000968	> 100.00	-9.381790	Y 377.433
Ca (315.887 nm)	28.399721	ppm	0.116803	0.41	22486.518606	Y_R 377.433
Cd (214.439 nm)	0.003463	ppm	0.000005	0.15	127.262000	Y 377.433
Co (228.615 nm)	0.001825	ppm	0.000456	24.98	29.072900	Y 242.219
Cr (205.560 nm)	0.003880	ppm	0.000162	4.19	19.080200	Y 377.433
Cu (324.754 nm)	0.011655	ppm	0.000059	0.51	842.433000	Y 377.433
Fe (238.204 nm)	10.788020 o	ppm	0.021820	0.20	25975.787539	Y_R 377.433
Fe H (259.940 nm)	10.669400	ppm	0.031097	0.29	14767.000000	Y_R 377.433
K (766.491 nm)	0.559254	ppm	0.206094	36.85	2477.390000	Y_R2 488.368
Li (670.783 nm)	0.034027	ppm	0.000169	0.50	-1961.520000	Y_R2 488.368
Mg (279.078 nm)	7.193090	ppm	0.014491	0.20	23532.200000	Y 377.433
Mn (257.610 nm)	0.678384	ppm	0.001110	0.16	184957.000000	Y 377.433
Mo (202.032 nm)	0.000359	ppm	0.000055	15.38	15.661700	Y 377.433
Na (589.592 nm)	1.716570	ppm	0.000482	0.03	1572.990000	Y_R2 488.368
Na H (589.593 nm)	2.329912 u	ppm	0.012199	0.52	1146.609925	Y_R4
Ni (231.604 nm)	0.003151	ppm	0.000232	7.37	7.682320	Y 377.433
P (213.618 nm)	0.258189	ppm	0.000861	0.33	362.747000	Y 242.219
Pb (220.353 nm)	0.006286	ppm	0.000520	8.27	28.030200	Y 242.219
S (181.972 nm)	2.804974	ppm	0.007938	0.28	1300.856644	Y 377.433
Sb (206.834 nm)	-0.005253 u	ppm	0.000555	10.57	-6.291710	Y 377.433
Se (196.026 nm)	0.000314 u	ppm	0.001758	> 100.00	7.512750	Y 242.219
Si (288.158 nm)	5.005630	ppm	0.017255	0.34	32712.600000	Y 377.433
Sn (189.925 nm)	0.001508	ppm	0.001170	77.60	4.517040	Y 377.433
Sr (421.552 nm)	0.087041	ppm	0.000117	0.13	13133.237807	Y_R 488.368
Th (288.505 nm)	-0.002941 u	ppm	0.000482	16.40	19.170900	Y 377.433
Ti (336.122 nm)	0.031279	ppm	0.000963	3.08	3666.840000	Y 377.433
Tl (190.794 nm)	0.001025	ppm	0.001264	> 100.00	1.600780	Y 377.433
U (409.013 nm)	0.018402	ppm	0.006171	33.54	37.638100	Y 377.433
V (292.401 nm)	0.005814	ppm	0.000091	1.56	154.359000	Y 377.433
Zn (206.200 nm)	0.058243	ppm	0.000284	0.49	267.472000	Y 377.433
Zr (343.823 nm)	0.000986	ppm	0.000005	0.46	-105.771000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.169654	27037.088102	0.001549	0.13
Y 377.433	1.151231	805207.155493	0.002177	0.19
Y_R 377.433	1.191640	72247.800000	0.005118	0.43
Y_R 488.368	1.208400	63837.200000	0.005911	0.49
Y_R2 488.368	1.190591	126208.951401	0.005721	0.48
Y_R4	1.196540	53844.300000	0.016526	1.38

Sample Name: 280-123924-F-12-A

Date: 5/25/2019 1:03:42 AM Rack:Tube: 2:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001408	ppm	0.000192	13.66	-219.088000	Y 377.433
Al (394.401 nm)	0.052717	ppm	0.000840	1.59	827.232000	Y 377.433
Al H (396.152 nm)	0.110112 u	ppm	0.005967	5.42	103.558000	Y_R 377.433
As (188.980 nm)	0.001452 u	ppm	0.003421	> 100.00	0.602821	Y 242.219
B (249.678 nm)	0.013888	ppm	0.000520	3.74	145.664000	Y 242.219
Ba (493.408 nm)	0.097344	ppm	0.000516	0.53	11104.300000	Y_R 488.368
Be (234.861 nm)	-0.000042 u	ppm	0.000017	41.18	-7.550420	Y_R 488.368
Bi (223.061 nm)	0.001138 u	ppm	0.001635	> 100.00	-8.057140	Y 377.433
Ca (315.887 nm)	80.336549	ppm	0.341835	0.43	63734.714061	Y_R 377.433
Cd (214.439 nm)	0.000211	ppm	0.000077	36.71	2.756860	Y 377.433
Co (228.615 nm)	-0.000385 u	ppm	0.000083	21.49	-24.172400	Y 242.219
Cr (205.560 nm)	0.000640 u	ppm	0.001168	> 100.00	-2.485460	Y 377.433
Cu (324.754 nm)	0.001538	ppm	0.000175	11.39	338.726000	Y 377.433
Fe (238.204 nm)	0.332465	ppm	0.001001	0.30	807.440587	Y_R 377.433
Fe H (259.940 nm)	0.330446 u	ppm	0.001642	0.50	468.415000	Y_R 377.433
K (766.491 nm)	1.724330	ppm	0.195766	11.35	3602.380000	Y_R2 488.368
Li (670.783 nm)	0.040224	ppm	0.003319	8.25	-1855.110000	Y_R2 488.368
Mg (279.078 nm)	13.113800	ppm	0.030686	0.23	42920.700000	Y 377.433
Mn (257.610 nm)	0.078146	ppm	0.000176	0.22	21296.100000	Y 377.433
Mo (202.032 nm)	0.000369	ppm	0.000359	97.11	15.788400	Y 377.433
Na (589.592 nm)	132.518000 o	ppm	0.469290	0.35	108957.000000	Y_R2 488.368
Na H (589.593 nm)	136.512291	ppm	1.030354	0.75	73948.085040	Y_R4
Ni (231.604 nm)	-0.001488 u	ppm	0.000681	45.76	-16.323000	Y 377.433
P (213.618 nm)	0.011313	ppm	0.000958	8.46	11.626700	Y 242.219
Pb (220.353 nm)	0.000667	ppm	0.000026	3.83	10.440600	Y 242.219
S (181.972 nm)	8.727401	ppm	0.064511	0.74	4013.736844	Y 377.433
Sb (206.834 nm)	-0.002118 u	ppm	0.000472	22.27	-1.770190	Y 377.433
Se (196.026 nm)	0.001180	ppm	0.000711	60.22	10.661900	Y 242.219
Si (288.158 nm)	3.092560	ppm	0.011459	0.37	20397.100000	Y 377.433
Sn (189.925 nm)	-0.000457 u	ppm	0.000565	> 100.00	1.354820	Y 377.433
Sr (421.552 nm)	0.330161	ppm	0.000542	0.16	49745.811962	Y_R 488.368
Th (288.505 nm)	-0.007179 u	ppm	0.001547	21.54	-0.183406	Y 377.433
Ti (336.122 nm)	0.000605	ppm	0.000011	1.79	-77.357900	Y 377.433
Tl (190.794 nm)	0.000105 u	ppm	0.000247	> 100.00	-1.250060	Y 377.433
U (409.013 nm)	0.022658	ppm	0.004986	22.01	36.447900	Y 377.433
V (292.401 nm)	0.001476	ppm	0.000070	4.78	-72.001400	Y 377.433
Zn (206.200 nm)	0.007936	ppm	0.000282	3.55	39.798300	Y 377.433
Zr (343.823 nm)	0.000088 u	ppm	0.000219	> 100.00	-156.647000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.127288	26057.776022	0.000907	0.08
Y 377.433	1.111362	777321.222336	0.000700	0.06
Y_R 377.433	1.167610	70790.700000	0.003667	0.31
Y_R 488.368	1.178710	62268.500000	0.001030	0.09
Y_R2 488.368	1.133349	120140.998367	0.003870	0.34
Y_R4	1.144610	51507.200000	0.006302	0.55

Sample Name: CCVH-5713036

Date: 5/25/2019 1:07:14 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005750	ppm	0.000584	10.16	-78.164300	Y 377.433
Al (394.401 nm)	48.591400 o	ppm	0.215221	0.44	591965.000000	Y 377.433
Al H (396.152 nm)	46.763400	ppm	0.064321	0.14	101963.000000	Y_R 377.433
As (188.980 nm)	0.002380	ppm	0.001805	75.84	0.685071	Y 242.219
B (249.678 nm)	-0.002282 u	ppm	0.000193	8.47	2.104150	Y 242.219
Ba (493.408 nm)	-0.000291 u	ppm	0.000393	> 100.00	1409.420000	Y_R 488.368
Be (234.861 nm)	0.001210	ppm	0.000117	9.69	-89.751800	Y_R 488.368
Bi (223.061 nm)	0.009391	ppm	0.001295	13.79	18.411600	Y 377.433
Ca (315.887 nm)	0.023838	ppm	0.002125	8.92	-38.308171	Y_R 377.433
Cd (214.439 nm)	0.001482	ppm	0.000032	2.19	69.506600	Y 377.433
Co (228.615 nm)	0.003163	ppm	0.000096	3.05	59.216700	Y 242.219
Cr (205.560 nm)	0.001688	ppm	0.000369	21.84	3.232380	Y 377.433
Cu (324.754 nm)	0.004258	ppm	0.000272	6.40	1450.640000	Y 377.433
Fe (238.204 nm)	48.932573 o	ppm	0.050159	0.10	117796.385101	Y_R 377.433
Fe H (259.940 nm)	48.486500	ppm	0.046691	0.10	67067.500000	Y_R 377.433
K (766.491 nm)	-0.100532 u	ppm	0.126685	> 100.00	1840.310000	Y_R2 488.368
Li (670.783 nm)	0.030793	ppm	0.000311	1.01	-2017.060000	Y_R2 488.368
Mg (279.078 nm)	0.040265	ppm	0.003132	7.78	67.476100	Y 377.433
Mn (257.610 nm)	0.000983	ppm	0.000008	0.79	257.069000	Y 377.433
Mo (202.032 nm)	0.000983	ppm	0.000144	14.64	23.524800	Y 377.433
Na (589.592 nm)	221.146000 o	ppm	0.156613	0.07	181690.000000	Y_R2 488.368
Na H (589.593 nm)	225.469294	ppm	0.991663	0.44	122212.253952	Y_R4
Ni (231.604 nm)	0.003371	ppm	0.000356	10.56	8.821090	Y 377.433
P (213.618 nm)	4.862720	ppm	0.017520	0.36	6945.160000	Y 242.219
Pb (220.353 nm)	0.005399	ppm	0.001696	31.40	18.882200	Y 242.219
S (181.972 nm)	4.782783	ppm	0.012963	0.27	2203.001909	Y 377.433
Sb (206.834 nm)	0.001107	ppm	0.001258	> 100.00	7.774120	Y 377.433
Se (196.026 nm)	0.004972	ppm	0.001827	36.74	3.754960	Y 242.219
Si (288.158 nm)	0.011428	ppm	0.000331	2.90	562.118000	Y 377.433
Sn (189.925 nm)	0.000871	ppm	0.001225	> 100.00	3.491810	Y 377.433
Sr (421.552 nm)	0.001411	ppm	0.000217	15.37	243.026533	Y_R 488.368
Th (288.505 nm)	4.674290	ppm	0.011200	0.24	8073.340000	Y 377.433
Ti (336.122 nm)	0.002067	ppm	0.000019	0.92	-169.255000	Y 377.433
Tl (190.794 nm)	0.001730	ppm	0.002203	> 100.00	1.066710	Y 377.433
U (409.013 nm)	0.529586 Q	ppm	0.006154	1.16	1691.220000 Q	Y 377.433
V (292.401 nm)	0.001128	ppm	0.000005	0.43	398.213000	Y 377.433
Zn (206.200 nm)	0.003434	ppm	0.000203	5.90	26.318300	Y 377.433
Zr (343.823 nm)	0.001344	ppm	0.000034	2.50	-85.550400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136931	26280.695340	0.001960	0.17
Y 377.433	1.117124	781351.448484	0.002083	0.19
Y_R 377.433	1.193650	72369.500000	0.002873	0.24
Y_R 488.368	1.215760	64226.000000	0.006674	0.55
Y_R2 488.368	1.188541	125991.624351	0.000601	0.05
Y_R4	1.193160	53692.000000	0.010164	0.85

Sample Name: CCV-5717467

Date: 5/25/2019 1:10:59 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.483343	ppm	0.000551	0.11	16410.100000	Y 377.433
Al (394.401 nm)	0.488555	ppm	0.003582	0.73	6175.180000	Y 377.433
Al H (396.152 nm)	0.533505 u	ppm	0.000172	0.03	1146.060000	Y_R 377.433
As (188.980 nm)	0.484302	ppm	0.002327	0.48	728.148000	Y 242.219
B (249.678 nm)	0.462246	ppm	0.001552	0.34	3346.440000	Y 242.219
Ba (493.408 nm)	0.469857	ppm	0.000593	0.13	48243.200000	Y_R 488.368
Be (234.861 nm)	0.460935	ppm	0.002321	0.50	45381.700000	Y_R 488.368
Bi (223.061 nm)	0.965010	ppm	0.000298	0.03	2103.420000	Y 377.433
Ca (315.887 nm)	4.847930	ppm	0.013247	0.27	3781.339747	Y_R 377.433
Cd (214.439 nm)	0.503491	ppm	0.000907	0.18	18615.000000	Y 377.433
Co (228.615 nm)	0.481472	ppm	0.001059	0.22	11321.700000	Y 242.219
Cr (205.560 nm)	0.505730	ppm	0.002032	0.40	3362.660000	Y 377.433
Cu (324.754 nm)	0.486352	ppm	0.001185	0.24	23000.000000	Y 377.433
Fe (238.204 nm)	2.476119	ppm	0.003861	0.16	5967.589472	Y_R 377.433
Fe H (259.940 nm)	2.456620 u	ppm	0.001703	0.07	3408.880000	Y_R 377.433
K (766.491 nm)	48.076300	ppm	0.433549	0.90	48359.300000	Y_R2 488.368
Li (670.783 nm)	0.509461	ppm	0.005866	1.15	6201.800000	Y_R2 488.368
Mg (279.078 nm)	19.452200	ppm	0.018008	0.09	63659.700000	Y 377.433
Mn (257.610 nm)	0.480125	ppm	0.000211	0.04	130900.000000	Y 377.433
Mo (202.032 nm)	0.481575	ppm	0.000626	0.13	6081.020000	Y 377.433
Na (589.592 nm)	22.859800	ppm	0.046570	0.20	19022.400000	Y_R2 488.368
Na H (589.593 nm)	23.783505 u	ppm	0.038716	0.16	12786.388785	Y_R4
Ni (231.604 nm)	0.495762	ppm	0.000741	0.15	2557.050000	Y 377.433
P (213.618 nm)	0.053548	ppm	0.000142	0.26	-59.597400	Y 242.219
Pb (220.353 nm)	0.487583	ppm	0.001539	0.32	1555.080000	Y 242.219
S (181.972 nm)	0.007010	ppm	0.001584	22.59	17.695924	Y 377.433
Sb (206.834 nm)	0.488149	ppm	0.003838	0.79	823.464000	Y 377.433
Se (196.026 nm)	0.484416	ppm	0.001404	0.29	739.567000	Y 242.219
Si (288.158 nm)	4.774490	ppm	0.022182	0.46	31224.600000	Y 377.433
Sn (189.925 nm)	0.499821	ppm	0.000197	0.04	806.331000	Y 377.433
Sr (421.552 nm)	0.460367	ppm	0.000801	0.17	69355.326684	Y_R 488.368
Th (288.505 nm)	0.020423	ppm	0.001601	7.84	-0.979441	Y 377.433
Ti (336.122 nm)	0.474263	ppm	0.000164	0.03	60271.700000	Y 377.433
Tl (190.794 nm)	0.493066	ppm	0.002807	0.57	1126.370000	Y 377.433
U (409.013 nm)	0.016336	ppm	0.000045	0.27	-31.890200	Y 377.433
V (292.401 nm)	0.477612	ppm	0.000019	0.00	24482.300000	Y 377.433
Zn (206.200 nm)	0.505068	ppm	0.000037	0.01	2275.570000	Y 377.433
Zr (343.823 nm)	0.473977	ppm	0.000270	0.06	26671.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155331	26706.009907	0.003584	0.31
Y 377.433	1.136946	795215.774100	0.001563	0.14
Y_R 377.433	1.182140	71671.400000	0.006318	0.53
Y_R 488.368	1.196580	63212.700000	0.004735	0.40
Y_R2 488.368	1.174336	124485.805737	0.012711	1.08
Y_R4	1.178930	53052.000000	0.002072	0.18

Sample Name: CCB

Date: 5/25/2019 1:14:34 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001038	ppm	0.000622	59.95	-231.280000	Y 377.433
Al (394.401 nm)	-0.001596 u	ppm	0.000052	3.26	73.177700	Y 377.433
Al H (396.152 nm)	0.132756 Zu	ppm	0.001154	0.87	31.920900 Z	Y_R 377.433
As (188.980 nm)	0.000769 u	ppm	0.002807	> 100.00	-0.417625	Y 242.219
B (249.678 nm)	-0.004508 u	ppm	0.000319	7.07	14.478700	Y 242.219
Ba (493.408 nm)	-0.002891 Zu	ppm	0.000376	13.01	1111.200000 Z	Y_R 488.368
Be (234.861 nm)	0.000013 u	ppm	0.000024	> 100.00	-0.683374	Y_R 488.368
Bi (223.061 nm)	0.000908	ppm	0.000954	> 100.00	-8.624150	Y 377.433
Ca (315.887 nm)	0.024603	ppm	0.000614	2.50	-49.499247	Y_R 377.433
Cd (214.439 nm)	0.000104	ppm	0.000049	47.11	-1.334500	Y 377.433
Co (228.615 nm)	-0.000274 u	ppm	0.000188	68.59	-21.587800	Y 242.219
Cr (205.560 nm)	0.000303	ppm	0.000002	0.66	-4.734200	Y 377.433
Cu (324.754 nm)	0.001450	ppm	0.000098	6.77	384.583000	Y 377.433
Fe (238.204 nm)	-0.001593 u	ppm	0.001286	80.70	3.303888	Y_R 377.433
Fe H (259.940 nm)	0.001933 u	ppm	0.000064	3.29	14.087100	Y_R 377.433
K (766.491 nm)	-0.244138 u	ppm	0.059751	24.47	1701.650000	Y_R2 488.368
Li (670.783 nm)	0.031418 Z	ppm	0.002057	6.55	-2006.320000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001742 u	ppm	0.002975	> 100.00	13.879400	Y 377.433
Mn (257.610 nm)	0.000093	ppm	0.000016	17.05	14.390500	Y 377.433
Mo (202.032 nm)	0.000189	ppm	0.000095	50.24	13.518700	Y 377.433
Na (589.592 nm)	-0.016391 u	ppm	0.004359	26.59	136.170000	Y_R2 488.368
Na H (589.593 nm)	0.659476 u	ppm	0.005464	0.83	240.304959	Y_R4
Ni (231.604 nm)	0.001301	ppm	0.000868	66.73	-1.887880	Y 377.433
P (213.618 nm)	-0.001071 u	ppm	0.001011	94.41	-5.607370	Y 242.219
Pb (220.353 nm)	0.000629	ppm	0.000026	4.12	10.286800	Y 242.219
S (181.972 nm)	-0.013068 u	ppm	0.003958	30.29	6.714241	Y 377.433
Sb (206.834 nm)	-0.000553 u	ppm	0.000315	56.96	0.842603	Y 377.433
Se (196.026 nm)	-0.002592 u	ppm	0.001921	74.12	4.948780	Y 242.219
Si (288.158 nm)	-0.008136 u	ppm	0.000490	6.02	436.169000	Y 377.433
Sn (189.925 nm)	0.001420	ppm	0.000574	40.39	4.375660	Y 377.433
Sr (421.552 nm)	0.000142	ppm	0.000046	32.54	44.503914	Y_R 488.368
Th (288.505 nm)	0.000724	ppm	0.000153	21.19	14.010500	Y 377.433
Ti (336.122 nm)	0.000466	ppm	0.000026	5.55	-374.311000	Y 377.433
Tl (190.794 nm)	0.001294 u	ppm	0.001837	> 100.00	4.776820	Y 377.433
U (409.013 nm)	0.008572	ppm	0.003259	38.02	2.433190	Y 377.433
V (292.401 nm)	0.000326	ppm	0.000225	69.03	-129.586000	Y 377.433
Zn (206.200 nm)	0.000043 u	ppm	0.000371	> 100.00	4.259670	Y 377.433
Zr (343.823 nm)	0.000093 u	ppm	0.000237	> 100.00	-156.336000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.174567	27150.654621	0.003480	0.30
Y 377.433	1.154650	807598.056843	0.003485	0.30
Y_R 377.433	1.195830	72501.400000	0.010468	0.88
Y_R 488.368	1.217260	64304.900000	0.005600	0.46
Y_R2 488.368	1.177338	124804.106598	0.004808	0.41
Y_R4	1.174680	52860.500000	0.007775	0.66

Sample Name: CCVL-5719884

Date: 5/25/2019 1:17:46 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008810	ppm	0.000423	4.80	35.952900	Y 377.433
Al (394.401 nm)	0.093355	ppm	0.001263	1.35	1239.630000	Y 377.433
Al H (396.152 nm)	0.233783 u	ppm	0.006882	2.94	258.068000	Y_R 377.433
As (188.980 nm)	0.013124	ppm	0.000307	2.34	18.198000	Y 242.219
B (249.678 nm)	0.087437	ppm	0.000375	0.43	671.057000	Y 242.219
Ba (493.408 nm)	0.007011	ppm	0.000138	1.97	2098.500000	Y_R 488.368
Be (234.861 nm)	0.000885	ppm	0.000004	0.42	84.740900	Y_R 488.368
Bi (223.061 nm)	0.085930	ppm	0.006166	7.18	177.610000	Y 377.433
Ca (315.887 nm)	0.214658	ppm	0.000509	0.24	101.466814	Y_R 377.433
Cd (214.439 nm)	0.005157	ppm	0.000073	1.41	185.564000	Y 377.433
Co (228.615 nm)	0.010225	ppm	0.000066	0.65	225.609000	Y 242.219
Cr (205.560 nm)	0.010609	ppm	0.000401	3.78	63.832800	Y 377.433
Cu (324.754 nm)	0.016134	ppm	0.000305	1.89	1068.660000	Y 377.433
Fe (238.204 nm)	0.100441	ppm	0.002055	2.05	248.917464	Y_R 377.433
Fe H (259.940 nm)	0.103730 u	ppm	0.000802	0.77	154.870000	Y_R 377.433
K (766.491 nm)	2.737630	ppm	0.057123	2.09	4580.810000	Y_R2 488.368
Li (670.783 nm)	0.048131 Q	ppm	0.003162	6.57	-1719.350000 Q	Y_R2 488.368
Mg (279.078 nm)	0.199271	ppm	0.001849	0.93	659.090000	Y 377.433
Mn (257.610 nm)	0.010307	ppm	0.000073	0.71	2799.260000	Y 377.433
Mo (202.032 nm)	0.018960	ppm	0.000234	1.23	250.102000	Y 377.433
Na (589.592 nm)	0.976863	ppm	0.037269	3.82	953.664000	Y_R2 488.368
Na H (589.593 nm)	1.504194 u	ppm	0.004979	0.33	698.611843	Y_R4
Ni (231.604 nm)	0.042313	ppm	0.000730	1.73	210.326000	Y 377.433
P (213.618 nm)	2.798110	ppm	0.011873	0.42	3993.130000	Y 242.219
Pb (220.353 nm)	0.010190	ppm	0.000304	2.98	40.740800	Y 242.219
S (181.972 nm)	0.078309	ppm	0.001953	2.49	48.599601	Y 377.433
Sb (206.834 nm)	0.020154	ppm	0.000930	4.61	35.660500	Y 377.433
Se (196.026 nm)	0.017008	ppm	0.000800	4.71	34.500000	Y 242.219
Si (288.158 nm)	0.465019	ppm	0.004394	0.94	3482.140000	Y 377.433
Sn (189.925 nm)	0.100933	ppm	0.000941	0.93	164.497000	Y 377.433
Sr (421.552 nm)	0.008703	ppm	0.000118	1.36	1333.912466	Y_R 488.368
Th (288.505 nm)	0.017359	ppm	0.002655	15.30	42.213800	Y 377.433
Ti (336.122 nm)	0.009814	ppm	0.000067	0.68	822.626000	Y 377.433
Tl (190.794 nm)	0.014675	ppm	0.000896	6.11	35.268000	Y 377.433
U (409.013 nm)	0.060940	ppm	0.002976	4.88	167.381000	Y 377.433
V (292.401 nm)	0.009620	ppm	0.000138	1.44	347.062000	Y 377.433
Zn (206.200 nm)	0.020706	ppm	0.000303	1.47	97.185300	Y 377.433
Zr (343.823 nm)	0.009531	ppm	0.000150	1.57	377.973000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.187066	27439.588467	0.003904	0.33
Y 377.433	1.167243	816406.283788	0.003806	0.33
Y_R 377.433	1.203140	72945.000000	0.000458	0.04
Y_R 488.368	1.226760	64807.200000	0.008226	0.67
Y_R2 488.368	1.185333	125651.561835	0.001020	0.09
Y_R4	1.180890	53139.900000	0.002506	0.21

Sample Name: MB 280-459258/1-A

Date: 5/25/2019 1:21:16 AM Rack:Tube: 2:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001408	ppm	0.000107	7.60	-218.363000	Y 377.433
Al (394.401 nm)	0.001066	ppm	0.000778	73.01	104.475000	Y 377.433
Al H (396.152 nm)	0.132563 u	ppm	0.011198	8.45	31.629400	Y_R 377.433
As (188.980 nm)	-0.001134 u	ppm	0.001809	> 100.00	-3.286000	Y 242.219
B (249.678 nm)	-0.004047 u	ppm	0.000374	9.24	17.749700	Y 242.219
Ba (493.408 nm)	-0.002058 u	ppm	0.000016	0.79	1194.290000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000029	> 100.00	-2.371600	Y_R 488.368
Bi (223.061 nm)	-0.000480 u	ppm	0.000052	10.86	-11.658600	Y 377.433
Ca (315.887 nm)	0.107957	ppm	0.005280	4.89	16.700285	Y_R 377.433
Cd (214.439 nm)	0.000019 u	ppm	0.000105	> 100.00	-4.469780	Y 377.433
Co (228.615 nm)	-0.000085 u	ppm	0.000038	44.98	-17.137000	Y 242.219
Cr (205.560 nm)	0.001458	ppm	0.000197	13.49	2.973070	Y 377.433
Cu (324.754 nm)	0.002541	ppm	0.000117	4.59	435.894000	Y 377.433
Fe (238.204 nm)	0.027114	ppm	0.002990	11.03	72.407728	Y_R 377.433
Fe H (259.940 nm)	0.029600 u	ppm	0.000447	1.51	52.349500	Y_R 377.433
K (766.491 nm)	-0.279273 u	ppm	0.239850	85.88	1667.720000	Y_R2 488.368
Li (670.783 nm)	0.029212	ppm	0.003347	11.46	-2044.190000	Y_R2 488.368
Mg (279.078 nm)	0.020135	ppm	0.001504	7.47	74.210800	Y 377.433
Mn (257.610 nm)	0.000440	ppm	0.000007	1.59	108.840000	Y 377.433
Mo (202.032 nm)	0.000154	ppm	0.000132	85.52	13.075000	Y 377.433
Na (589.592 nm)	0.027995	ppm	0.014455	51.63	172.710000	Y_R2 488.368
Na H (589.593 nm)	0.590692 u	ppm	0.021575	3.65	202.985593	Y_R4
Ni (231.604 nm)	0.001397	ppm	0.000631	45.17	-1.394420	Y 377.433
P (213.618 nm)	0.008844	ppm	0.000917	10.36	8.267120	Y 242.219
Pb (220.353 nm)	-0.000187 u	ppm	0.001469	> 100.00	7.665400	Y 242.219
S (181.972 nm)	-0.000922 u	ppm	0.000025	2.67	12.279008	Y 377.433
Sb (206.834 nm)	-0.001336 u	ppm	0.000871	65.21	-0.470727	Y 377.433
Se (196.026 nm)	-0.001358 u	ppm	0.000078	5.71	6.803220	Y 242.219
Si (288.158 nm)	0.003918	ppm	0.000552	14.09	513.769000	Y 377.433
Sn (189.925 nm)	0.010632	ppm	0.001355	12.74	19.197600	Y 377.433
Sr (421.552 nm)	0.000410	ppm	0.000120	29.33	84.959475	Y_R 488.368
Th (288.505 nm)	0.003345	ppm	0.000376	11.24	18.478900	Y 377.433
Ti (336.122 nm)	0.000611	ppm	0.000072	11.75	-355.606000	Y 377.433
Tl (190.794 nm)	-0.000446 u	ppm	0.000156	35.06	0.792211	Y 377.433
U (409.013 nm)	0.002955	ppm	0.003537	> 100.00	-15.342800	Y 377.433
V (292.401 nm)	0.000379	ppm	0.000090	23.64	-126.908000	Y 377.433
Zn (206.200 nm)	0.006511	ppm	0.000004	0.06	33.348300	Y 377.433
Zr (343.823 nm)	0.000016 u	ppm	0.000058	> 100.00	-160.731000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.184043	27369.714815	0.002638	0.22
Y 377.433	1.166087	815597.945832	0.002831	0.24
Y_R 377.433	1.208790	73287.400000	0.001186	0.10
Y_R 488.368	1.231930	65079.800000	0.002176	0.18
Y_R2 488.368	1.189271	126069.029129	0.016042	1.35
Y_R4	1.169440	52624.700000	0.012843	1.10

Sample Name: LCS 280-459258/2-A

Date: 5/25/2019 1:24:28 AM Rack:Tube: 2:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049356	ppm	0.000272	0.55	1147.060000	Y 377.433
Al (394.401 nm)	9.343770 o	ppm	0.002505	0.03	114377.000000	Y 377.433
Al H (396.152 nm)	9.216240	ppm	0.010891	0.12	20344.900000	Y_R 377.433
As (188.980 nm)	1.876620	ppm	0.002913	0.16	2826.020000	Y 242.219
B (249.678 nm)	0.898569	ppm	0.001930	0.21	6458.360000	Y 242.219
Ba (493.408 nm)	1.846040	ppm	0.001719	0.09	185446.000000	Y_R 488.368
Be (234.861 nm)	0.910233	ppm	0.003307	0.36	89599.400000	Y_R 488.368
Bi (223.061 nm)	1.855130	ppm	0.008016	0.43	4054.140000	Y 377.433
Ca (315.887 nm)	46.846665	ppm	0.111809	0.24	37139.201069	Y_R 377.433
Cd (214.439 nm)	0.962085	ppm	0.001217	0.13	35576.700000	Y 377.433
Co (228.615 nm)	0.918515	ppm	0.002006	0.22	21613.700000	Y 242.219
Cr (205.560 nm)	0.971561	ppm	0.000956	0.10	6465.900000	Y 377.433
Cu (324.754 nm)	0.924445	ppm	0.001734	0.19	43492.200000	Y 377.433
Fe (238.204 nm)	9.676138 o	ppm	0.014089	0.15	23299.292236	Y_R 377.433
Fe H (259.940 nm)	9.601080	ppm	0.015649	0.16	13289.600000	Y_R 377.433
K (766.491 nm)	47.144600	ppm	0.472877	1.00	47459.600000	Y_R2 488.368
Li (670.783 nm)	0.967333	ppm	0.009125	0.94	14063.600000	Y_R2 488.368
Mg (279.078 nm)	47.171900	ppm	0.048997	0.10	154330.000000	Y 377.433
Mn (257.610 nm)	0.938782	ppm	0.000612	0.07	255957.000000	Y 377.433
Mo (202.032 nm)	0.949274	ppm	0.000329	0.03	11976.000000	Y 377.433
Na (589.592 nm)	45.556700	ppm	0.010254	0.02	37967.000000	Y_R2 488.368
Na H (589.593 nm)	46.572934 u	ppm	0.401710	0.86	25150.933548	Y_R4
Ni (231.604 nm)	0.938159	ppm	0.000102	0.01	4847.670000	Y 377.433
P (213.618 nm)	18.964200	ppm	0.030410	0.16	26861.500000	Y 242.219
Pb (220.353 nm)	0.938463	ppm	0.002138	0.23	2988.310000	Y 242.219
S (181.972 nm)	9.106931	ppm	0.009106	0.10	4188.639437	Y 377.433
Sb (206.834 nm)	0.991151	ppm	0.000694	0.07	1670.990000	Y 377.433
Se (196.026 nm)	1.842710	ppm	0.003603	0.20	2787.000000	Y 242.219
Si (288.158 nm)	1.038040	ppm	0.003187	0.31	7170.970000	Y 377.433
Sn (189.925 nm)	1.926470	ppm	0.001971	0.10	3101.890000	Y 377.433
Sr (421.552 nm)	0.899035	ppm	0.000854	0.10	135420.322864	Y_R 488.368
Th (288.505 nm)	0.949042	ppm	0.005345	0.56	1561.350000	Y 377.433
Ti (336.122 nm)	0.934947	ppm	0.000513	0.05	119369.000000	Y 377.433
Tl (190.794 nm)	1.870460	ppm	0.002167	0.12	4271.440000	Y 377.433
U (409.013 nm)	1.870550	ppm	0.006681	0.36	5851.170000	Y 377.433
V (292.401 nm)	0.934596	ppm	0.000290	0.03	48058.400000	Y 377.433
Zn (206.200 nm)	0.484433	ppm	0.000011	0.00	2183.780000	Y 377.433
Zr (343.823 nm)	0.465392	ppm	0.000149	0.03	26185.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.118392	25852.153817	0.001057	0.09
Y 377.433	1.107592	774684.179592	0.000428	0.04
Y_R 377.433	1.151120	69790.800000	0.001646	0.14
Y_R 488.368	1.168660	61737.500000	0.003215	0.28
Y_R2 488.368	1.128919	119671.379734	0.000388	0.03
Y_R4	1.148170	51667.400000	0.009456	0.82

Sample Name: 280-123406-A-5-M

Date: 5/25/2019 1:28:08 AM Rack:Tube: 2:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003442	ppm	0.000205	5.96	-276.228000	Y 377.433
Al (394.401 nm)	94.925700 o	ppm	0.161247	0.17	1158740.000000	Y 377.433
Al H (396.152 nm)	91.935200	ppm	0.134650	0.15	200814.000000	Y_R 377.433
As (188.980 nm)	0.047860	ppm	0.002866	5.99	65.722300	Y 242.219
B (249.678 nm)	0.077265	ppm	0.000758	0.98	495.640000	Y 242.219
Ba (493.408 nm)	0.836634	ppm	0.001403	0.17	84948.400000	Y_R 488.368
Be (234.861 nm)	0.002598	ppm	0.000059	2.26	-498.919000	Y_R 488.368
Bi (223.061 nm)	-0.001272 u	ppm	0.000445	35.01	17.387100	Y 377.433
Ca (315.887 nm)	67.304063	ppm	0.099015	0.15	53407.482436	Y_R 377.433
Cd (214.439 nm)	0.004597	ppm	0.000044	0.96	237.127000	Y 377.433
Co (228.615 nm)	0.105040	ppm	0.000506	0.48	2669.320000	Y 242.219
Cr (205.560 nm)	0.999840	ppm	0.000139	0.01	6657.380000	Y 377.433
Cu (324.754 nm)	1.089080	ppm	0.001462	0.13	51050.100000	Y 377.433
Fe (238.204 nm)	177.983715 o	ppm	0.086091	0.05	428445.012797	Y_R 377.433
Fe H (259.940 nm)	176.946000	ppm	0.129663	0.07	244725.000000	Y_R 377.433
K (766.491 nm)	12.859700	ppm	0.120014	0.93	14354.500000	Y_R2 488.368
Li (670.783 nm)	0.132372	ppm	0.002258	1.71	-272.912000	Y_R2 488.368
Mg (279.078 nm)	74.673900	ppm	0.098140	0.13	244134.000000	Y 377.433
Mn (257.610 nm)	2.635830	ppm	0.002998	0.11	718675.000000	Y 377.433
Mo (202.032 nm)	0.004658	ppm	0.000496	10.64	69.841700	Y 377.433
Na (589.592 nm)	7.823210	ppm	0.011966	0.15	6762.370000	Y_R2 488.368
Na H (589.593 nm)	8.221549 u	ppm	0.091781	1.12	4343.153858	Y_R4
Ni (231.604 nm)	1.026720	ppm	0.000218	0.02	5303.690000	Y 377.433
P (213.618 nm)	2.694840	ppm	0.023835	0.88	3594.450000	Y 242.219
Pb (220.353 nm)	1.118380	ppm	0.001217	0.11	3539.250000	Y 242.219
S (181.972 nm)	14.147462	ppm	0.009153	0.06	6503.484149	Y 377.433
Sb (206.834 nm)	0.004975	ppm	0.000844	16.97	10.952500	Y 377.433
Se (196.026 nm)	0.008829	ppm	0.000878	9.95	-19.935000	Y 242.219
Si (288.158 nm)	4.197800	ppm	0.024459	0.58	27512.200000	Y 377.433
Sn (189.925 nm)	0.032229	ppm	0.000785	2.44	53.949000	Y 377.433
Sr (421.552 nm)	0.304011	ppm	0.000364	0.12	45834.360715	Y_R 488.368
Th (288.505 nm)	0.053763	ppm	0.001032	1.92	103.178000	Y 377.433
Ti (336.122 nm)	4.784840	ppm	0.001166	0.02	612058.000000	Y 377.433
Tl (190.794 nm)	0.009972	ppm	0.000280	2.81	-20.189200	Y 377.433
U (409.013 nm)	0.011163	ppm	0.002944	26.38	124.950000	Y 377.433
V (292.401 nm)	0.343619	ppm	0.000426	0.12	17535.300000	Y 377.433
Zn (206.200 nm)	1.340620	ppm	0.001680	0.13	6057.260000	Y 377.433
Zr (343.823 nm)	0.058794	ppm	0.000197	0.34	3166.830000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122488	25946.837931	0.001146	0.10
Y 377.433	1.108385	775238.761179	0.001099	0.10
Y_R 377.433	1.172550	71090.200000	0.000593	0.05
Y_R 488.368	1.186910	62701.900000	0.000606	0.05
Y_R2 488.368	1.152350	122155.204462	0.023334	2.02
Y_R4	1.187750	53448.500000	0.014121	1.19

Sample Name: 280-123406-A-5-Msd@5

Date: 5/25/2019 1:31:56 AM Rack:Tube: 2:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001609	ppm	0.000351	21.79	-237.222000	Y 377.433
Al (394.401 nm)	19.180700 o	ppm	0.027821	0.15	234215.000000	Y 377.433
Al H (396.152 nm)	18.885900	ppm	0.037404	0.20	41047.000000	Y_R 377.433
As (188.980 nm)	0.010734	ppm	0.001899	17.69	13.600400	Y 242.219
B (249.678 nm)	0.012780	ppm	0.000717	5.61	116.642000	Y 242.219
Ba (493.408 nm)	0.167925	ppm	0.000365	0.22	18169.900000	Y_R 488.368
Be (234.861 nm)	0.000421	ppm	0.000004	0.89	-116.435000	Y_R 488.368
Bi (223.061 nm)	0.005199	ppm	0.001696	32.62	7.150000	Y 377.433
Ca (315.887 nm)	13.937554	ppm	0.030643	0.22	11004.993376	Y_R 377.433
Cd (214.439 nm)	0.000893	ppm	0.000007	0.76	42.834400	Y 377.433
Co (228.615 nm)	0.021674	ppm	0.000145	0.67	538.174000	Y 242.219
Cr (205.560 nm)	0.206972	ppm	0.000498	0.24	1372.760000	Y 377.433
Cu (324.754 nm)	0.220516	ppm	0.000141	0.06	10585.400000	Y 377.433
Fe (238.204 nm)	36.862313 o	ppm	0.069594	0.19	88741.161884	Y_R 377.433
Fe H (259.940 nm)	36.514400	ppm	0.014240	0.04	50510.200000	Y_R 377.433
K (766.491 nm)	2.534950	ppm	0.321757	12.69	4385.100000	Y_R2 488.368
Li (670.783 nm)	0.047349	ppm	0.004590	9.69	-1732.780000	Y_R2 488.368
Mg (279.078 nm)	15.207900	ppm	0.002840	0.02	49725.500000	Y 377.433
Mn (257.610 nm)	0.550386	ppm	0.000493	0.09	150057.000000	Y 377.433
Mo (202.032 nm)	0.000909	ppm	0.000186	20.50	22.589000	Y 377.433
Na (589.592 nm)	1.591570	ppm	0.011110	0.70	1494.650000	Y_R2 488.368
Na H (589.593 nm)	2.017420 u	ppm	0.002719	0.13	977.065528	Y_R4
Ni (231.604 nm)	0.214236	ppm	0.000280	0.13	1099.840000	Y 377.433
P (213.618 nm)	0.552542	ppm	0.004879	0.88	734.733000	Y 242.219
Pb (220.353 nm)	0.235470	ppm	0.001161	0.49	751.864000	Y 242.219
S (181.972 nm)	2.854380	ppm	0.005611	0.20	1322.343859	Y 377.433
Sb (206.834 nm)	-0.000647 u	ppm	0.000996	> 100.00	0.915317	Y 377.433
Se (196.026 nm)	0.001540	ppm	0.000649	42.15	2.464800	Y 242.219
Si (288.158 nm)	0.873227	ppm	0.008786	1.01	6110.010000	Y 377.433
Sn (189.925 nm)	0.007057	ppm	0.000459	6.50	13.445700	Y 377.433
Sr (421.552 nm)	0.061823	ppm	0.000054	0.09	9339.376261	Y_R 488.368
Th (288.505 nm)	0.009555	ppm	0.002133	22.32	29.090200	Y 377.433
Ti (336.122 nm)	0.975622	ppm	0.000669	0.07	124453.000000	Y 377.433
Tl (190.794 nm)	0.002108	ppm	0.000606	28.74	-2.562330	Y 377.433
U (409.013 nm)	0.008049	ppm	0.002763	34.32	24.496900	Y 377.433
V (292.401 nm)	0.069852	ppm	0.000220	0.31	3444.920000	Y 377.433
Zn (206.200 nm)	0.281497	ppm	0.000268	0.10	1275.020000	Y 377.433
Zr (343.823 nm)	0.011857	ppm	0.000090	0.76	509.616000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.144189	26448.465877	0.003093	0.27
Y 377.433	1.126060	787601.694317	0.001220	0.11
Y_R 377.433	1.168660	70854.500000	0.007768	0.66
Y_R 488.368	1.184790	62590.000000	0.009276	0.78
Y_R2 488.368	1.155349	122473.067115	0.004133	0.36
Y_R4	1.166750	52503.800000	0.008898	0.76

Sample Name: 280-123406-A-5-N MS

Date: 5/25/2019 1:35:38 AM Rack:Tube: 2:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051955	ppm	0.000468	0.90	1052.380000	Y 377.433
Al (394.401 nm)	168.749000 o	ppm	0.019412	0.01	2060050.000000	Y 377.433
Al H (396.152 nm)	163.569000	ppm	0.259505	0.16	357918.000000	Y_R 377.433
As (188.980 nm)	1.917810	ppm	0.002993	0.16	2882.040000	Y 242.219
B (249.678 nm)	1.028010	ppm	0.001450	0.14	7253.630000	Y 242.219
Ba (493.408 nm)	3.042740	ppm	0.000200	0.01	304927.000000	Y_R 488.368
Be (234.861 nm)	0.896020	ppm	0.006942	0.77	87254.400000	Y_R 488.368
Bi (223.061 nm)	1.816630	ppm	0.012548	0.69	4008.470000	Y 377.433
Ca (315.887 nm)	146.695599	ppm	0.186093	0.13	116478.878117	Y_R 377.433
Cd (214.439 nm)	0.934372	ppm	0.002882	0.31	34642.700000	Y 377.433
Co (228.615 nm)	1.025650	ppm	0.000634	0.06	24467.900000	Y 242.219
Cr (205.560 nm)	2.101270	ppm	0.007562	0.36	13994.600000	Y 377.433
Cu (324.754 nm)	2.191430	ppm	0.001710	0.08	102483.000000	Y 377.433
Fe (238.204 nm)	233.167158 o	ppm	0.001483	0.00	561281.194771	Y_R 377.433
Fe H (259.940 nm)	234.452000	ppm	0.165993	0.07	324255.000000	Y_R 377.433
K (766.491 nm)	65.998600	ppm	0.334319	0.51	65664.800000	Y_R2 488.368
Li (670.783 nm)	1.122820	ppm	0.005707	0.51	16733.300000	Y_R2 488.368
Mg (279.078 nm)	142.790000	ppm	0.457336	0.32	466933.000000	Y 377.433
Mn (257.610 nm)	4.551950	ppm	0.006017	0.13	1241120.000000	Y 377.433
Mo (202.032 nm)	0.906761	ppm	0.001927	0.21	11440.200000	Y 377.433
Na (589.592 nm)	56.091600 o	ppm	0.095877	0.17	46887.100000	Y_R2 488.368
Na H (589.593 nm)	56.995409	ppm	0.249344	0.44	30805.711680	Y_R4
Ni (231.604 nm)	2.062710	ppm	0.003987	0.19	10666.000000	Y 377.433
P (213.618 nm)	21.922200	ppm	0.006163	0.03	30796.300000	Y 242.219
Pb (220.353 nm)	2.124120	ppm	0.005647	0.27	6718.680000	Y 242.219
S (181.972 nm)	24.031750	ppm	0.030779	0.13	11040.223128	Y 377.433
Sb (206.834 nm)	0.518864	ppm	0.002681	0.52	867.433000	Y 377.433
Se (196.026 nm)	1.831290	ppm	0.003383	0.18	2717.320000	Y 242.219
Si (288.158 nm)	8.916240	ppm	0.016455	0.18	57887.400000	Y 377.433
Sn (189.925 nm)	1.823190	ppm	0.007674	0.42	2935.710000	Y 377.433
Sr (421.552 nm)	1.372229	ppm	0.000854	0.06	206717.451947	Y_R 488.368
Th (288.505 nm)	0.978156	ppm	0.001387	0.14	1609.320000	Y 377.433
Ti (336.122 nm)	8.413350	ppm	0.007859	0.09	1076630.000000	Y 377.433
Tl (190.794 nm)	1.800570	ppm	0.004229	0.23	4048.670000	Y 377.433
U (409.013 nm)	1.833500	ppm	0.001742	0.10	5878.590000	Y 377.433
V (292.401 nm)	1.412540	ppm	0.001876	0.13	72778.400000	Y 377.433
Zn (206.200 nm)	2.003010	ppm	0.005787	0.29	9043.540000	Y 377.433
Zr (343.823 nm)	0.509921	ppm	0.000891	0.17	28705.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.097653	25372.756066	0.004151	0.38
Y 377.433	1.090341	762618.534092	0.005517	0.51
Y_R 377.433	1.164880	70625.200000	0.004315	0.37
Y_R 488.368	1.176590	62156.700000	0.003959	0.34
Y_R2 488.368	1.121193	118852.414707	0.005130	0.46
Y_R4	1.176080	52923.500000	0.006628	0.56

Sample Name: 280-123406-A-5-O MSD

Date: 5/25/2019 1:39:33 AM Rack:Tube: 2:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051111	ppm	0.000187	0.36	1049.240000	Y 377.433
Al (394.401 nm)	154.209000 o	ppm	0.151635	0.10	1882560.000000	Y 377.433
Al H (396.152 nm)	149.870000	ppm	1.077370	0.72	327929.000000	Y_R 377.433
As (188.980 nm)	1.886360	ppm	0.001216	0.06	2835.370000	Y 242.219
B (249.678 nm)	0.998362	ppm	0.000022	0.00	7057.160000	Y 242.219
Ba (493.408 nm)	3.021260	ppm	0.020573	0.68	302765.000000	Y_R 488.368
Be (234.861 nm)	0.889049	ppm	0.005596	0.63	86679.500000	Y_R 488.368
Bi (223.061 nm)	1.796670	ppm	0.006391	0.36	3960.190000	Y 377.433
Ca (315.887 nm)	128.735032	ppm	0.879818	0.68	102211.020724	Y_R 377.433
Cd (214.439 nm)	0.926315	ppm	0.000590	0.06	34334.100000	Y 377.433
Co (228.615 nm)	1.002300	ppm	0.000566	0.06	23866.500000	Y 242.219
Cr (205.560 nm)	1.886710	ppm	0.000258	0.01	12564.400000	Y 377.433
Cu (324.754 nm)	2.054020	ppm	0.006313	0.31	96096.300000	Y 377.433
Fe (238.204 nm)	206.772882 o	ppm	1.058216	0.51	497745.563371	Y_R 377.433
Fe H (259.940 nm)	207.118000	ppm	1.416420	0.68	286453.000000	Y_R 377.433
K (766.491 nm)	64.708500	ppm	0.299751	0.46	64419.100000	Y_R2 488.368
Li (670.783 nm)	1.104820	ppm	0.001076	0.10	16424.200000	Y_R2 488.368
Mg (279.078 nm)	128.881000	ppm	0.062095	0.05	421455.000000	Y 377.433
Mn (257.610 nm)	4.370650	ppm	0.007942	0.18	1191690.000000	Y 377.433
Mo (202.032 nm)	0.897812	ppm	0.000343	0.04	11327.400000	Y 377.433
Na (589.592 nm)	54.315300	ppm	0.100577	0.19	45424.200000	Y_R2 488.368
Na H (589.593 nm)	55.175658	ppm	0.354940	0.64	29818.394703	Y_R4
Ni (231.604 nm)	1.879410	ppm	0.002082	0.11	9717.630000	Y 377.433
P (213.618 nm)	21.524800	ppm	0.017250	0.08	30260.600000	Y 242.219
Pb (220.353 nm)	2.267310	ppm	0.003435	0.15	7177.990000	Y 242.219
S (181.972 nm)	20.946542	ppm	0.034616	0.17	9625.852127	Y 377.433
Sb (206.834 nm)	0.524058	ppm	0.000792	0.15	877.726000	Y 377.433
Se (196.026 nm)	1.808680	ppm	0.001883	0.10	2689.760000	Y 242.219
Si (288.158 nm)	8.954540	ppm	0.045949	0.51	58134.000000	Y 377.433
Sn (189.925 nm)	1.814970	ppm	0.000542	0.03	2922.470000	Y 377.433
Sr (421.552 nm)	1.256179	ppm	0.009105	0.72	189236.212974	Y_R 488.368
Th (288.505 nm)	0.987345	ppm	0.000966	0.10	1632.140000	Y 377.433
Ti (336.122 nm)	7.242320	ppm	0.012439	0.17	926730.000000	Y 377.433
Tl (190.794 nm)	1.791290	ppm	0.001661	0.09	4036.670000	Y 377.433
U (409.013 nm)	1.817960	ppm	0.005531	0.30	5813.990000	Y 377.433
V (292.401 nm)	1.342150	ppm	0.001451	0.11	69155.100000	Y 377.433
Zn (206.200 nm)	1.820590	ppm	0.000007	0.00	8219.560000	Y 377.433
Zr (343.823 nm)	0.496770	ppm	0.000103	0.02	27961.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.098178	25384.891525	0.001592	0.14
Y 377.433	1.088527	761349.464317	0.002322	0.21
Y_R 377.433	1.156960	70144.800000	0.004981	0.43
Y_R 488.368	1.169330	61772.800000	0.004983	0.43
Y_R2 488.368	1.131935	119991.063742	0.003562	0.31
Y_R4	1.170700	52681.500000	0.003636	0.31

Sample Name: 280-123406-A-5-Mpds

Date: 5/25/2019 1:43:20 AM Rack:Tube: 2:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.046957	ppm	0.000128	0.27	1221.350000	Y 377.433
Al (394.401 nm)	93.682200 o	ppm	0.214454	0.23	1143590.000000	Y 377.433
Al H (396.152 nm)	90.661100	ppm	0.164676	0.18	198046.000000	Y_R 377.433
As (188.980 nm)	0.239753	ppm	0.000294	0.12	354.961000	Y 242.219
B (249.678 nm)	0.170153	ppm	0.000770	0.45	1160.640000	Y 242.219
Ba (493.408 nm)	0.909117	ppm	0.002436	0.27	92172.300000	Y_R 488.368
Be (234.861 nm)	0.048495	ppm	0.000500	1.03	4033.030000	Y_R 488.368
Bi (223.061 nm)	-0.008513 u	ppm	0.002061	24.21	1.083540	Y 377.433
Ca (315.887 nm)	84.291946	ppm	0.172672	0.20	66899.037358	Y_R 377.433
Cd (214.439 nm)	0.053046	ppm	0.000003	0.01	2027.650000	Y 377.433
Co (228.615 nm)	0.148829	ppm	0.000784	0.53	3696.040000	Y 242.219
Cr (205.560 nm)	1.021320	ppm	0.002141	0.21	6800.380000	Y 377.433
Cu (324.754 nm)	1.110260	ppm	0.001083	0.10	52038.200000	Y 377.433
Fe (238.204 nm)	175.168773 o	ppm	0.171002	0.10	421668.956386	Y_R 377.433
Fe H (259.940 nm)	173.900000	ppm	0.194159	0.11	240512.000000	Y_R 377.433
K (766.491 nm)	31.799100	ppm	0.032857	0.10	32642.200000	Y_R2 488.368
Li (670.783 nm)	0.229809	ppm	0.002534	1.10	1400.110000	Y_R2 488.368
Mg (279.078 nm)	92.356300	ppm	0.048425	0.05	301994.000000	Y 377.433
Mn (257.610 nm)	2.620760	ppm	0.003330	0.13	714564.000000	Y 377.433
Mo (202.032 nm)	0.052535	ppm	0.000009	0.02	673.298000	Y 377.433
Na (589.592 nm)	25.971500	ppm	0.049279	0.19	21676.700000	Y_R2 488.368
Na H (589.593 nm)	26.260671 u	ppm	0.024413	0.09	14130.390458	Y_R4
Ni (231.604 nm)	1.047010	ppm	0.002654	0.25	5408.860000	Y 377.433
P (213.618 nm)	4.576570	ppm	0.012057	0.26	6278.100000	Y 242.219
Pb (220.353 nm)	1.181560	ppm	0.003678	0.31	3741.260000	Y 242.219
S (181.972 nm)	13.964904	ppm	0.008385	0.06	6420.687730	Y 377.433
Sb (206.834 nm)	0.107941	ppm	0.001900	1.76	184.518000	Y 377.433
Se (196.026 nm)	0.199714	ppm	0.000765	0.38	268.665000	Y 242.219
Si (288.158 nm)	9.048660	ppm	0.042033	0.46	58739.900000	Y 377.433
Sn (189.925 nm)	0.131430	ppm	0.000201	0.15	213.568000	Y 377.433
Sr (421.552 nm)	0.343158	ppm	0.000947	0.28	51729.417987	Y_R 488.368
Th (288.505 nm)	0.242619	ppm	0.003018	1.24	425.878000	Y 377.433
Ti (336.122 nm)	4.733730	ppm	0.008869	0.19	605577.000000	Y 377.433
Tl (190.794 nm)	0.198981	ppm	0.000989	0.50	411.899000	Y 377.433
U (409.013 nm)	0.480014	ppm	0.004718	0.98	1602.050000	Y 377.433
V (292.401 nm)	0.384008	ppm	0.000049	0.01	19617.900000	Y 377.433
Zn (206.200 nm)	1.505130	ppm	0.002557	0.17	6796.640000	Y 377.433
Zr (343.823 nm)	0.105258	ppm	0.000073	0.07	5797.230000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.117585	25833.505985	0.003563	0.32
Y 377.433	1.105044	772902.006036	0.003335	0.30
Y_R 377.433	1.168470	70843.100000	0.006930	0.59
Y_R 488.368	1.182790	62484.000000	0.009077	0.77
Y_R2 488.368	1.140774	120928.115723	0.002278	0.20
Y_R4	1.174330	52844.900000	0.000775	0.07

Sample Name: CCVH-5713036

Date: 5/25/2019 1:47:10 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005089	ppm	0.000058	1.14	-101.165000	Y 377.433
Al (394.401 nm)	48.225800 o	ppm	0.080371	0.17	587506.000000	Y 377.433
Al H (396.152 nm)	46.521400	ppm	0.028074	0.06	101435.000000	Y_R 377.433
As (188.980 nm)	0.002212	ppm	0.002125	96.09	0.436696	Y 242.219
B (249.678 nm)	-0.003029 u	ppm	0.000464	15.32	-3.116090	Y 242.219
Ba (493.408 nm)	0.000760	ppm	0.000128	16.85	1514.070000	Y_R 488.368
Be (234.861 nm)	0.001183	ppm	0.000114	9.61	-91.607600	Y_R 488.368
Bi (223.061 nm)	0.008907	ppm	0.000076	0.85	17.316600	Y 377.433
Ca (315.887 nm)	0.016876	ppm	0.002401	14.23	-43.895089	Y_R 377.433
Cd (214.439 nm)	0.001330	ppm	0.000055	4.15	63.790100	Y 377.433
Co (228.615 nm)	0.002971	ppm	0.000117	3.95	54.739500	Y 242.219
Cr (205.560 nm)	0.002360	ppm	0.000662	28.03	7.721050	Y 377.433
Cu (324.754 nm)	0.004155	ppm	0.000194	4.66	1442.440000	Y 377.433
Fe (238.204 nm)	48.729940 o	ppm	0.036529	0.07	117308.612440	Y_R 377.433
Fe H (259.940 nm)	48.257200	ppm	0.040680	0.08	66750.400000	Y_R 377.433
K (766.491 nm)	0.019848 u	ppm	0.074852	> 100.00	1956.550000	Y_R2 488.368
Li (670.783 nm)	0.028219	ppm	0.001162	4.12	-2061.250000	Y_R2 488.368
Mg (279.078 nm)	0.045759	ppm	0.001397	3.05	85.887800	Y 377.433
Mn (257.610 nm)	0.001101	ppm	0.000018	1.65	289.085000	Y 377.433
Mo (202.032 nm)	0.000959	ppm	0.000081	8.45	23.221500	Y 377.433
Na (589.592 nm)	220.875000 o	ppm	0.427024	0.19	181468.000000	Y_R2 488.368
Na H (589.593 nm)	226.730027	ppm	0.568137	0.25	122896.272024	Y_R4
Ni (231.604 nm)	0.002887	ppm	0.000470	16.28	6.317440	Y 377.433
P (213.618 nm)	4.802770	ppm	0.002243	0.05	6859.440000	Y 242.219
Pb (220.353 nm)	0.004207	ppm	0.000183	4.36	15.105600	Y 242.219
S (181.972 nm)	4.714924	ppm	0.021051	0.45	2171.925696	Y 377.433
Sb (206.834 nm)	0.001668	ppm	0.002018	> 100.00	8.706690	Y 377.433
Se (196.026 nm)	0.010267	ppm	0.000903	8.79	11.792500	Y 242.219
Si (288.158 nm)	0.018090	ppm	0.000457	2.53	605.003000	Y 377.433
Sn (189.925 nm)	0.000728	ppm	0.000171	23.43	3.261620	Y 377.433
Sr (421.552 nm)	0.001568	ppm	0.000136	8.66	266.578896	Y_R 488.368
Th (288.505 nm)	4.653950	ppm	0.007190	0.15	8038.160000	Y 377.433
Ti (336.122 nm)	0.002316	ppm	0.000017	0.75	-137.411000	Y 377.433
Tl (190.794 nm)	-0.000624 u	ppm	0.002092	> 100.00	-4.299830	Y 377.433
U (409.013 nm)	0.525180 Q	ppm	0.005153	0.98	1677.090000 Q	Y 377.433
V (292.401 nm)	0.001278	ppm	0.000018	1.40	404.295000	Y 377.433
Zn (206.200 nm)	0.002977	ppm	0.000024	0.81	24.235100	Y 377.433
Zr (343.823 nm)	0.001207	ppm	0.000248	20.53	-93.296500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.116648	25811.832718	0.003472	0.31
Y 377.433	1.096232	766738.669559	0.004005	0.37
Y_R 377.433	1.150310	69741.900000	0.000339	0.03
Y_R 488.368	1.158650	61208.600000	0.001931	0.17
Y_R2 488.368	1.125871	119348.243988	0.009313	0.83
Y_R4	1.163630	52363.400000	0.005261	0.45

Sample Name: CCV-5717467

Date: 5/25/2019 1:50:55 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.478173	ppm	0.000329	0.07	16231.100000	Y 377.433
Al (394.401 nm)	0.487150	ppm	0.001910	0.39	6157.580000	Y 377.433
Al H (396.152 nm)	0.531589 u	ppm	0.005877	1.11	1140.110000	Y_R 377.433
As (188.980 nm)	0.475741	ppm	0.002009	0.42	715.248000	Y 242.219
B (249.678 nm)	0.457403	ppm	0.001580	0.35	3311.870000	Y 242.219
Ba (493.408 nm)	0.466589	ppm	0.001913	0.41	47917.400000	Y_R 488.368
Be (234.861 nm)	0.460171	ppm	0.002692	0.58	45306.600000	Y_R 488.368
Bi (223.061 nm)	0.955322	ppm	0.006550	0.69	2082.190000	Y 377.433
Ca (315.887 nm)	4.817276	ppm	0.030872	0.64	3756.996112	Y_R 377.433
Cd (214.439 nm)	0.499326	ppm	0.000056	0.01	18460.900000	Y 377.433
Co (228.615 nm)	0.477833	ppm	0.000059	0.01	11236.000000	Y 242.219
Cr (205.560 nm)	0.498624	ppm	0.003798	0.76	3315.290000	Y 377.433
Cu (324.754 nm)	0.483783	ppm	0.000633	0.13	22880.300000	Y 377.433
Fe (238.204 nm)	2.453357	ppm	0.010172	0.41	5912.797531	Y_R 377.433
Fe H (259.940 nm)	2.447800 u	ppm	0.011413	0.47	3396.690000	Y_R 377.433
K (766.491 nm)	47.626700	ppm	0.102788	0.22	47925.100000	Y_R2 488.368
Li (670.783 nm)	0.504626	ppm	0.002753	0.55	6118.780000	Y_R2 488.368
Mg (279.078 nm)	19.370300	ppm	0.014748	0.08	63391.600000	Y 377.433
Mn (257.610 nm)	0.477857	ppm	0.000260	0.05	130281.000000	Y 377.433
Mo (202.032 nm)	0.477702	ppm	0.000058	0.01	6032.200000	Y 377.433
Na (589.592 nm)	22.823200	ppm	0.027093	0.12	18991.600000	Y_R2 488.368
Na H (589.593 nm)	23.754730 u	ppm	0.112749	0.47	12770.776918	Y_R4
Ni (231.604 nm)	0.489895	ppm	0.001433	0.29	2526.690000	Y 377.433
P (213.618 nm)	0.049491	ppm	0.003918	7.92	-64.407900	Y 242.219
Pb (220.353 nm)	0.483195	ppm	0.000368	0.08	1541.180000	Y 242.219
S (181.972 nm)	-0.005595 u	ppm	0.009177	> 100.00	11.915473	Y 377.433
Sb (206.834 nm)	0.480658	ppm	0.000877	0.18	810.823000	Y 377.433
Se (196.026 nm)	0.476386	ppm	0.002103	0.44	727.459000	Y 242.219
Si (288.158 nm)	4.748460	ppm	0.008677	0.18	31057.100000	Y 377.433
Sn (189.925 nm)	0.494453	ppm	0.001488	0.30	797.693000	Y 377.433
Sr (421.552 nm)	0.456870	ppm	0.002295	0.50	68828.671231	Y_R 488.368
Th (288.505 nm)	0.025085	ppm	0.004189	16.70	7.372560	Y 377.433
Ti (336.122 nm)	0.471235	ppm	0.000112	0.02	59884.100000	Y 377.433
Tl (190.794 nm)	0.489222	ppm	0.000025	0.01	1117.600000	Y 377.433
U (409.013 nm)	0.015295	ppm	0.006522	42.64	-34.851600	Y 377.433
V (292.401 nm)	0.474753	ppm	0.000000	0.00	24335.500000	Y 377.433
Zn (206.200 nm)	0.500943	ppm	0.000523	0.10	2257.010000	Y 377.433
Zr (343.823 nm)	0.471401	ppm	0.000251	0.05	26525.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119589	25879.815609	0.000789	0.07
Y 377.433	1.101536	770448.864875	0.000942	0.09
Y_R 377.433	1.133530	68724.700000	0.008515	0.75
Y_R 488.368	1.150040	60753.800000	0.007927	0.69
Y_R2 488.368	1.120177	118744.687649	0.010323	0.92
Y_R4	1.150090	51754.200000	0.009779	0.85

Sample Name: CCB

Date: 5/25/2019 1:54:32 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001128	ppm	0.000252	22.36	-228.020000	Y 377.433
Al (394.401 nm)	-0.002416 u	ppm	0.001793	74.19	63.121300	Y 377.433
Al H (396.152 nm)	0.132740 Zu	ppm	0.000417	0.31	31.944300 Z	Y_R 377.433
As (188.980 nm)	0.002261	ppm	0.002607	> 100.00	1.831000	Y 242.219
B (249.678 nm)	-0.004088 u	ppm	0.000042	1.02	17.479900	Y 242.219
Ba (493.408 nm)	-0.002377 Zu	ppm	0.000100	4.19	1162.530000 Z	Y_R 488.368
Be (234.861 nm)	0.000022 u	ppm	0.000094	> 100.00	0.186696	Y_R 488.368
Bi (223.061 nm)	0.000405 u	ppm	0.003086	> 100.00	-9.724100	Y 377.433
Ca (315.887 nm)	0.020945	ppm	0.001621	7.74	-52.405571	Y_R 377.433
Cd (214.439 nm)	0.000019 u	ppm	0.000079	> 100.00	-4.484500	Y 377.433
Co (228.615 nm)	-0.000001 u	ppm	0.000156	> 100.00	-15.174300	Y 242.219
Cr (205.560 nm)	0.000164	ppm	0.000195	> 100.00	-5.658290	Y 377.433
Cu (324.754 nm)	0.001290	ppm	0.000139	10.77	377.064000	Y 377.433
Fe (238.204 nm)	-0.001083 u	ppm	0.001151	> 100.00	4.532704	Y_R 377.433
Fe H (259.940 nm)	0.002144 u	ppm	0.001869	87.18	14.378400	Y_R 377.433
K (766.491 nm)	-0.082227 u	ppm	0.252073	> 100.00	1857.990000	Y_R2 488.368
Li (670.783 nm)	0.023844 Z	ppm	0.003049	12.79	-2136.360000 Z	Y_R2 488.368
Mg (279.078 nm)	0.004489	ppm	0.000044	0.99	22.895600	Y 377.433
Mn (257.610 nm)	0.000092	ppm	0.000026	28.15	13.942200	Y 377.433
Mo (202.032 nm)	0.000544	ppm	0.000274	50.31	17.988100	Y 377.433
Na (589.592 nm)	-0.008498 u	ppm	0.012431	> 100.00	142.717000	Y_R2 488.368
Na H (589.593 nm)	0.615576 u	ppm	0.005246	0.85	216.486829	Y_R4
Ni (231.604 nm)	0.000055 u	ppm	0.000402	> 100.00	-8.337350	Y 377.433
P (213.618 nm)	-0.000613 u	ppm	0.001150	> 100.00	-5.039130	Y 242.219
Pb (220.353 nm)	-0.000808 u	ppm	0.001590	> 100.00	5.715700	Y 242.219
S (181.972 nm)	-0.012440 u	ppm	0.001427	11.47	7.002070	Y 377.433
Sb (206.834 nm)	-0.001603 u	ppm	0.005967	> 100.00	-0.930728	Y 377.433
Se (196.026 nm)	0.001754	ppm	0.001392	79.40	11.502400	Y 242.219
Si (288.158 nm)	-0.005186 u	ppm	0.001676	32.32	455.160000	Y 377.433
Sn (189.925 nm)	0.000673	ppm	0.000192	28.46	3.173790	Y 377.433
Sr (421.552 nm)	0.000218	ppm	0.000002	1.06	55.998153	Y_R 488.368
Th (288.505 nm)	0.002045	ppm	0.001255	61.38	16.324000	Y 377.433
Ti (336.122 nm)	0.000313	ppm	0.000068	21.62	-393.777000	Y 377.433
Tl (190.794 nm)	0.001306 u	ppm	0.002436	> 100.00	4.800870	Y 377.433
U (409.013 nm)	0.012042	ppm	0.003548	29.47	13.458800	Y 377.433
V (292.401 nm)	0.000229	ppm	0.000205	89.55	-134.676000	Y 377.433
Zn (206.200 nm)	-0.000505 u	ppm	0.000073	14.44	1.793510	Y 377.433
Zr (343.823 nm)	-0.000087 u	ppm	0.000073	83.35	-166.556000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.139575	26341.800478	0.004592	0.40
Y 377.433	1.119116	782744.642209	0.004667	0.42
Y_R 377.433	1.164290	70589.700000	0.006571	0.56
Y_R 488.368	1.178910	62279.200000	0.003825	0.32
Y_R2 488.368	1.132858	120088.965145	0.000660	0.06
Y_R4	1.141340	51360.200000	0.006056	0.53

Sample Name: CCVL-5719884

Date: 5/25/2019 1:57:45 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008630	ppm	0.000223	2.58	29.818700	Y 377.433
Al (394.401 nm)	0.094487	ppm	0.001240	1.31	1253.890000	Y 377.433
Al H (396.152 nm)	0.225787 u	ppm	0.007618	3.37	240.667000	Y_R 377.433
As (188.980 nm)	0.016219	ppm	0.000602	3.71	22.861500	Y 242.219
B (249.678 nm)	0.087384	ppm	0.000163	0.19	670.681000	Y 242.219
Ba (493.408 nm)	0.007143	ppm	0.000580	8.12	2111.700000	Y_R 488.368
Be (234.861 nm)	0.000904	ppm	0.000087	9.63	86.687100	Y_R 488.368
Bi (223.061 nm)	0.083983	ppm	0.001180	1.41	173.344000	Y 377.433
Ca (315.887 nm)	0.218646	ppm	0.014350	6.56	104.632086	Y_R 377.433
Cd (214.439 nm)	0.005001	ppm	0.000091	1.83	179.781000	Y 377.433
Co (228.615 nm)	0.009951	ppm	0.000112	1.13	219.160000	Y 242.219
Cr (205.560 nm)	0.010200	ppm	0.000062	0.61	61.107800	Y 377.433
Cu (324.754 nm)	0.016340	ppm	0.000161	0.99	1077.850000	Y 377.433
Fe (238.204 nm)	0.097284	ppm	0.001794	1.84	241.318380	Y_R 377.433
Fe H (259.940 nm)	0.103402 u	ppm	0.001702	1.65	154.416000	Y_R 377.433
K (766.491 nm)	2.751270	ppm	0.175139	6.37	4593.980000	Y_R2 488.368
Li (670.783 nm)	0.048289 Q	ppm	0.000292	0.60	-1716.640000 Q	Y_R2 488.368
Mg (279.078 nm)	0.198032	ppm	0.001094	0.55	655.093000	Y 377.433
Mn (257.610 nm)	0.010258	ppm	0.000001	0.01	2785.960000	Y 377.433
Mo (202.032 nm)	0.019046	ppm	0.000182	0.96	251.188000	Y 377.433
Na (589.592 nm)	0.977145	ppm	0.013377	1.37	953.871000	Y_R2 488.368
Na H (589.593 nm)	1.346975 u	ppm	0.006720	0.50	613.311750	Y_R4
Ni (231.604 nm)	0.041411	ppm	0.000182	0.44	205.661000	Y 377.433
P (213.618 nm)	2.786300	ppm	0.018856	0.68	3976.040000	Y 242.219
Pb (220.353 nm)	0.008884	ppm	0.000422	4.75	36.584000	Y 242.219
S (181.972 nm)	0.078448	ppm	0.001291	1.65	48.662793	Y 377.433
Sb (206.834 nm)	0.018703	ppm	0.002844	15.21	33.210900	Y 377.433
Se (196.026 nm)	0.015128	ppm	0.000396	2.62	31.664900	Y 242.219
Si (288.158 nm)	0.465160	ppm	0.001263	0.27	3483.040000	Y 377.433
Sn (189.925 nm)	0.099311	ppm	0.000073	0.07	161.888000	Y 377.433
Sr (421.552 nm)	0.008870	ppm	0.000040	0.45	1358.993591	Y_R 488.368
Th (288.505 nm)	0.017758	ppm	0.000055	0.31	42.897600	Y 377.433
Ti (336.122 nm)	0.009833	ppm	0.000076	0.78	825.105000	Y 377.433
Tl (190.794 nm)	0.015752	ppm	0.000416	2.64	37.731900	Y 377.433
U (409.013 nm)	0.062696	ppm	0.013133	20.95	172.940000	Y 377.433
V (292.401 nm)	0.009636	ppm	0.000315	3.27	347.708000	Y 377.433
Zn (206.200 nm)	0.020630	ppm	0.000263	1.28	96.845700	Y 377.433
Zr (343.823 nm)	0.009638	ppm	0.000107	1.12	384.014000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.133245	26195.487191	0.002364	0.21
Y 377.433	1.122919	785404.599708	0.003219	0.29
Y_R 377.433	1.155260	70042.000000	0.003602	0.31
Y_R 488.368	1.172010	61914.700000	0.014434	1.23
Y_R2 488.368	1.136447	120469.440053	0.003951	0.35
Y_R4	1.127810	50751.400000	0.012899	1.14

Sample Name: bottle 123601-5

Date: 5/25/2019 9:04:35 AM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001680	ppm	0.000227	13.54	-214.441000	Y 377.433
Al (394.401 nm)	0.015009	ppm	0.002216	14.77	374.139000	Y 377.433
Al H (396.152 nm)	0.079748 u	ppm	0.002174	2.73	69.319700	Y_R 377.433
As (188.980 nm)	0.010983	ppm	0.000789	7.19	14.973700	Y 242.219
B (249.678 nm)	0.075634	ppm	0.000191	0.25	586.818000	Y 242.219
Ba (493.408 nm)	0.062801	ppm	0.002375	3.78	7660.350000	Y_R 488.368
Be (234.861 nm)	-0.000028 u	ppm	0.000013	46.54	-4.803230	Y_R 488.368
Bi (223.061 nm)	0.001675	ppm	0.001949	> 100.00	-6.931070	Y 377.433
Ca (315.887 nm)	23.482343	ppm	0.696808	2.97	18580.777929	Y_R 377.433
Cd (214.439 nm)	0.000173	ppm	0.000125	72.46	1.205800	Y 377.433
Co (228.615 nm)	-0.000244 u	ppm	0.000281	> 100.00	-20.858000	Y 242.219
Cr (205.560 nm)	0.000452	ppm	0.000213	47.07	-3.755360	Y 377.433
Cu (324.754 nm)	0.000956	ppm	0.000182	19.05	346.744000	Y 377.433
Fe (238.204 nm)	0.008812	ppm	0.003662	41.56	28.350895	Y_R 377.433
Fe H (259.940 nm)	0.009036 u	ppm	0.001130	12.50	23.909300	Y_R 377.433
K (766.491 nm)	5.110920	ppm	0.002879	0.06	6872.420000	Y_R2 488.368
Li (670.783 nm)	0.041812	ppm	0.001168	2.79	-1827.850000	Y_R2 488.368
Mg (279.078 nm)	4.734890	ppm	0.143531	3.03	15502.600000	Y 377.433
Mn (257.610 nm)	0.000232	ppm	0.000004	1.57	52.288500	Y 377.433
Mo (202.032 nm)	0.003081	ppm	0.000367	11.91	49.969300	Y 377.433
Na (589.592 nm)	40.711800	ppm	0.108666	0.27	33584.800000	Y_R2 488.368
Na H (589.593 nm)	41.739108 u	ppm	0.148223	0.36	22528.311920	Y_R4
Ni (231.604 nm)	-0.000088 u	ppm	0.000261	> 100.00	-9.079130	Y 377.433
P (213.618 nm)	0.009270	ppm	0.001955	21.09	8.956010	Y 242.219
Pb (220.353 nm)	0.000432 u	ppm	0.000651	> 100.00	9.627220	Y 242.219
S (181.972 nm)	7.651799	ppm	0.044413	0.58	3518.058667	Y 377.433
Sb (206.834 nm)	-0.004980 u	ppm	0.001889	37.93	-6.648870	Y 377.433
Se (196.026 nm)	0.000108 u	ppm	0.002678	> 100.00	9.018770	Y 242.219
Si (288.158 nm)	26.699600	ppm	0.036117	0.14	172369.000000	Y 377.433
Sn (189.925 nm)	0.000884	ppm	0.000909	> 100.00	3.512200	Y 377.433
Sr (421.552 nm)	0.371008	ppm	0.010250	2.76	55897.439231	Y_R 488.368
Th (288.505 nm)	-0.002634 u	ppm	0.000643	24.42	6.021660	Y 377.433
Ti (336.122 nm)	0.001534	ppm	0.000206	13.42	-155.603000	Y 377.433
Tl (190.794 nm)	-0.001586 u	ppm	0.001545	97.44	-2.786620	Y 377.433
U (409.013 nm)	0.005513 u	ppm	0.012743	> 100.00	-10.430400	Y 377.433
V (292.401 nm)	0.014550	ppm	0.000508	3.49	609.080000	Y 377.433
Zn (206.200 nm)	0.001137	ppm	0.000940	82.67	9.178270	Y 377.433
Zr (343.823 nm)	0.000020 u	ppm	0.000134	> 100.00	-160.488000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124664	25997.143274	0.002608	0.23
Y 377.433	1.115275	780058.110390	0.001033	0.09
Y_R 377.433	1.140640	69155.400000	0.001349	0.12
Y_R 488.368	1.151440	60827.900000	0.000626	0.05
Y_R2 488.368	1.110323	117700.078365	0.007004	0.63
Y_R4	1.159770	52189.400000	0.005036	0.43

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG No.:

Project: Griffiss AFB, LF001 - 3342

Client Sample ID	Lab Sample ID
LF1MW-5_0519	280-123922-1
LF1MW-5_0519-a	280-123922-2
LF1P-5_0519	280-123922-3

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF1MW-5_0519 Lab Sample ID: 280-123922-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 12:50

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	1.5	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.020	0.020	0.020	0.0068	mg/L	U		1	9066
Color	100	50	50	50	PCU		D	10	SM 2120B
Hardness	400	6.0	1.6	0.60	mg/L			1	SM 2340C
Bromide	0.56	0.50	0.20	0.11	mg/L			1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Chloride	7.5	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	1.9	0.50	0.20	0.19	mg/L			1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	3.0	5.0	3.0	1.0	mg/L	U		1	9056A
Total Organic Carbon - Quad	2.0	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	420	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	470	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	2.3	2.5	0.74	0.30	mg/L	J		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF1MW-5_0519-a
Lab Sample ID: 280-123922-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123922-1
SDG ID.:
Matrix: Water
Date Sampled: 05/16/2019 12:50
Reporting Basis: WET
Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	1.7	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	1.4	1.0	0.50	0.69	mg/L			1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.020	0.020	0.020	0.0068	mg/L	U		1	9066
Color	150	50	50	50	PCU		D	10	SM 2120B
Hardness	410	6.0	1.6	0.60	mg/L			1	SM 2340C
Bromide	0.57	0.50	0.20	0.11	mg/L			1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Chloride	7.5	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	1.8	0.50	0.20	0.19	mg/L			1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	3.0	5.0	3.0	1.0	mg/L	U		1	9056A
Total Organic Carbon - Quad	2.1	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	420	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	450	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	2.0	2.5	0.74	0.30	mg/L	J		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF1P-5_0519 Lab Sample ID: 280-123922-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 16:20

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.84	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	1.6	1.0	0.50	0.69	mg/L			1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.0069	0.020	0.020	0.0068	mg/L	J		1	9066
Color	200	50	50	50	PCU		D	10	SM 2120B
Hardness	370	6.0	1.6	0.60	mg/L			1	SM 2340C
Bromide	0.14	0.50	0.20	0.11	mg/L	J	M	1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Chloride	6.5	3.0	3.0	1.0	mg/L		M	1	9056A
Orthophosphate as P	1.4	0.50	0.20	0.19	mg/L		J1	1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	3.0	5.0	3.0	1.0	mg/L	U		1	9056A
Total Organic Carbon - Quad	2.2	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	380	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	370	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: MJS Batch Start Date: 05/30/2019

Reporting Units: mg/L Analytical Batch No.: 459963

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	11:25	Ammonia	0.462	0.498	93	90-110		350.1 ICV_00350
15	ICV	11:27	Ammonia	2.46	2.49	99	90-110		350.1 ICV_00350
16	ICB	11:29	Ammonia	0.050				U	
40	CCVL	12:22	Ammonia	0.454	0.500	91	90-110		350.1 cal_00367
41	CCV	12:24	Ammonia	2.44	2.50	97	90-110		350.1 cal_00367
42	CCB	12:26	Ammonia	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: SVC Batch Start Date: 06/07/2019

Reporting Units: mg/L Analytical Batch No.: 460878

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:13	Nitrogen, Kjeldahl	5.02	5.00	100	90-110		TKN ICV 25_00078
14	ICB	17:15	Nitrogen, Kjeldahl	0.50				U	
49	CCV	17:58	Nitrogen, Kjeldahl	5.02	5.00	100	90-110		TKN 25ppm_00794
50	CCB	18:00	Nitrogen, Kjeldahl	0.50				U	
65	CCV	18:18	Nitrogen, Kjeldahl	4.97	5.00	99	90-110		TKN 25ppm_00794
66	CCB	18:20	Nitrogen, Kjeldahl	0.50				U	
80	CCV	18:37	Nitrogen, Kjeldahl	5.05	5.00	101	90-110		TKN 25ppm_00794
81	CCB	18:38	Nitrogen, Kjeldahl	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: KES Batch Start Date: 06/07/2019

Reporting Units: mg/L Analytical Batch No.: 460807

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:42	Chemical Oxygen Demand (COD)	74.9	75.4	99	90-110		COD icv std_00034
2	ICB	09:42	Chemical Oxygen Demand (COD)	20				U	
16	CCV	09:42	Chemical Oxygen Demand (COD)	96.0	100	96	90-110		COD cal std_00048
17	CCB	09:42	Chemical Oxygen Demand (COD)	20				U	
28	CCV	09:42	Chemical Oxygen Demand (COD)	101	100	101	90-110		COD cal std_00048
29	CCB	09:42	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: ARM Batch Start Date: 06/09/2019

Reporting Units: mg/L Analytical Batch No.: 460979

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	15:07	Phenols, Total	0.205	0.200	102	90-110		Phenol ICV 10_00605
14	ICVL	15:10	Phenols, Total	0.105	0.100	105	90-110		Phenol ICV 10_00605
15	ICB	15:13	Phenols, Total	0.020				U	
29	CCV	15:55	Phenols, Total	0.197	0.201	98	90-110		Phenol CAL 10_00730
30	CCVL	15:58	Phenols, Total	0.102	0.101	102	90-110		Phenol CAL 10_00730
31	CCB	16:01	Phenols, Total	0.020				U	
45	CCV	16:43	Phenols, Total	0.208	0.201	103	90-110		Phenol CAL 10_00730
46	CCVL	16:46	Phenols, Total	0.102	0.101	101	90-110		Phenol CAL 10_00730
47	CCB	16:49	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: TLP Batch Start Date: 05/02/2019

Reporting Units: mg/L Analytical Batch No.: 456732

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	12:00	Bromide	3.95	4.00	99	90-110		IC ICV 5_00232
			Chloride	78.0	80.0	98	90-110		IC CL ICV_00016
			Sulfate	78.6	80.0	98	90-110		IC SO4 ICV_00017
9	ICB	12:16	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: JAP Batch Start Date: 05/17/2019

Reporting Units: mg/L Analytical Batch No.: 458552

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	09:47	Nitrate Nitrite as N	9.95	10.0	100	90-110		
			Orthophosphate as P	5.05	5.00	101	90-110		IC LCS_01578
			Nitrate	5.00	5.00	100	90-110		IC LCS_01578
			Nitrite	4.95	5.00	99	90-110		IC LCS_01578
2	CCB	10:03	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
17	CCV	21:14	Nitrate Nitrite as N	10.1	10.0	101	90-110		
			Orthophosphate as P	5.26	5.00	105	90-110		IC LCS_01578
			Nitrate	5.10	5.00	102	90-110		IC LCS_01578
			Nitrite	4.98	5.00	100	90-110		IC LCS_01578
18	CCB	21:30	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
28	CCV	00:14	Nitrate Nitrite as N	10.0	10.0	100	90-110		
			Orthophosphate as P	5.22	5.00	104	90-110		IC LCS_01578
			Nitrate	5.07	5.00	101	90-110		IC LCS_01578
			Nitrite	4.96	5.00	99	90-110		IC LCS_01578
29	CCB	00:31	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
40	CCV	03:31	Nitrate Nitrite as N	9.54	10.0	95	90-110		
			Orthophosphate as P	5.52	5.00	110	90-110		IC LCS_01579
			Nitrate	4.80	5.00	96	90-110		IC LCS_01579
			Nitrite	4.74	5.00	95	90-110		IC LCS_01579
41	CCB	03:48	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: JAP Batch Start Date: 05/17/2019

Reporting Units: mg/L Analytical Batch No.: 458553

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	09:47	Bromide	5.26	5.00	105	90-110		IC LCS_01578
			Chloride	95.2	100	95	90-110		IC LCS_01578
			Sulfate	93.4	100	93	90-110		IC LCS_01578
2	CCB	10:03	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
17	CCV	21:14	Bromide	5.31	5.00	106	90-110		IC LCS_01578
			Chloride	96.5	100	97	90-110		IC LCS_01578
			Sulfate	94.8	100	95	90-110		IC LCS_01578
18	CCB	21:30	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
28	CCV	00:14	Bromide	5.29	5.00	106	90-110		IC LCS_01578
			Chloride	96.1	100	96	90-110		IC LCS_01578
			Sulfate	94.5	100	95	90-110		IC LCS_01578
29	CCB	00:31	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
40	CCV	03:31	Bromide	5.06	5.00	101	90-110		IC LCS_01579
			Chloride	94.4	100	94	90-110		IC LCS_01579
			Sulfate	92.6	100	93	90-110		IC LCS_01579
41	CCB	03:48	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: JAP Batch Start Date: 06/03/2019

Reporting Units: mg/L Analytical Batch No.: 460239

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	12:34	Chloride	83.4	80.0	104	90-110		IC CL ICV_00016
			Fluoride	4.25	4.00	106	90-110		IC ICV 5_00235
			Sulfate	81.0	80.0	101	90-110		IC SO4 ICV_00017
9	ICB	12:52	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: JAP Batch Start Date: 06/11/2019

Reporting Units: mg/L Analytical Batch No.: 461105

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	08:44	Chloride	104	100	104	90-110		IC LCS_01601
			Fluoride	5.01	5.00	100	90-110		IC LCS_01601
			Sulfate	102	100	102	90-110		IC LCS_01601
2	CCB	09:02	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	
17	CCV	17:25	Chloride	105	100	105	90-110		IC LCS_01601
			Fluoride	4.98	5.00	100	90-110		IC LCS_01601
			Sulfate	100	100	100	90-110		IC LCS_01601
18	CCB	17:44	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/10/2019

Reporting Units: mg/L Analytical Batch No.: 461179

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	17:09	Total Organic Carbon - Quad	21.2	20.0	106	90-110		TOC ICV Std_00037
2	ICB	17:24	Total Organic Carbon - Quad	0.50				U	
39	CCV	03:15	Total Organic Carbon - Quad	26.1	25.0	105	90-110		TOC ICV Std_00037
40	CCB	03:31	Total Organic Carbon - Quad	0.50				U	
51	CCV	06:31	Total Organic Carbon - Quad	26.2	25.0	105	90-110		TOC ICV Std_00037
52	CCB	06:46	Total Organic Carbon - Quad	0.50				U	
63	CCV	09:52	Total Organic Carbon - Quad	26.4	25.0	106	90-110		TOC ICV Std_00037
64	CCB	10:07	Total Organic Carbon - Quad	0.50				U	
72	CCV	12:17	Total Organic Carbon - Quad	27.0	25.0	108	90-110		TOC ICV Std_00037
73	CCB	12:34	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Analyst: SGB Batch Start Date: 05/24/2019

Reporting Units: mg/L Analytical Batch No.: 459576

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
28	CCV	20:31	Alkalinity	196	200	98	90-110		Alk daily lcs 00821
29	CCB	20:36	Alkalinity	10				U	
42	CCV	21:55	Alkalinity	200	200	100	90-110		Alk daily lcs 00821
43	CCB	21:59	Alkalinity	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 459963 Date: 05/30/2019 11:56							
350.1	MB 280-459963/27	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 460878 Date: 06/07/2019 18:08 Prep Batch: 460760 Date: 06/06/2019 19:57							
351.2	MB 280-460760/28-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 460807 Date: 06/07/2019 09:42							
410.4	MB 280-460807/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 458552 Date: 05/17/2019 11:08							
9056A	MB 280-458552/6	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458552/6	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-458552/6	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458552/6	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458553 Date: 05/17/2019 11:08							
9056A	MB 280-458553/6	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458553/6	Chloride	3.0	U M	mg/L	3.0	1
9056A	MB 280-458553/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 461105 Date: 06/11/2019 10:17							
9056A	MB 280-461105/6	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-461105/6	Chloride	3.0	U	mg/L	3.0	1
9056A	MB 280-461105/6	Fluoride	0.10	U	mg/L	1.0	1
9056A	MB 280-461105/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 461179 Date: 06/11/2019 04:03							
9060A	MB 280-461179/42	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 460979 Date: 06/09/2019 15:22 Prep Batch: 460948 Date: 06/08/2019 14:11							
9066	MB 280-460948/2-A	Phenols, Total	0.020	U	mg/L	0.020	1
Batch ID: 458642 Date: 05/17/2019 23:18							
SM 2120B	MB 280-458642/1	Color	5.0	U	PCU	5.0	1
Batch ID: 459576 Date: 05/24/2019 20:47							
SM 2320B	MB 280-459576/31	Alkalinity	10	U	mg/L	10	1
Batch ID: 459401 Date: 05/24/2019 15:23							
SM 2340C	MB 280-459401/2	Hardness	0.81	U	mg/L	3.0	1
Batch ID: 459268 Date: 05/23/2019 16:24							
SM 2540C	MB 280-459268/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 458606 Date: 05/17/2019 15:43							
SM5210B	MB 280-458606/4	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
UNSEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458606 Date: 05/17/2019 15:43							
SM5210B	USB 280-458606/2	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

FORM III-IN

3-IN
SEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458606 Date: 05/17/2019 15:43							
SM5210B	SCB 280-458606/1	Biochemical Oxygen Demand	0.611	J	mg/L	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 460807 Date: 06/07/2019 09:42											
410.4	280-123922-2	Chemical Oxygen Demand (COD)	40	U	mg/L						
410.4	280-123922-2 MS	Chemical Oxygen Demand (COD)	104		mg/L	100	104	90-110			D
Batch ID: 458552 Date: 05/18/2019 01:20											
9056A	280-123922-3	Nitrate Nitrite as N	0.10	U	mg/L						
9056A	280-123922-3 MS	Nitrate Nitrite as N	10.0		mg/L	10.0	100	80-120			
9056A	280-123922-3	Orthophosphate as P	1.4		mg/L						J1
9056A	280-123922-3 MS	Orthophosphate as P	2.08		mg/L	5.00	14	80-116			J1
9056A	280-123922-3	Nitrate	0.10	U	mg/L						
9056A	280-123922-3 MS	Nitrate	5.05		mg/L	5.00	101	88-111			
9056A	280-123922-3	Nitrite	0.10	U	mg/L						M
9056A	280-123922-3 MS	Nitrite	4.96		mg/L	5.00	99	87-111			
Batch ID: 458553 Date: 05/18/2019 01:20											
9056A	280-123922-3	Bromide	0.14	J	mg/L						M
9056A	280-123922-3 MS	Bromide	5.43		mg/L	5.00	106	91-110			
9056A	280-123922-3	Chloride	6.5		mg/L						M
9056A	280-123922-3 MS	Chloride	28.5		mg/L	25.0	88	87-111			
9056A	280-123922-3	Sulfate	3.0	U	mg/L						
9056A	280-123922-3 MS	Sulfate	21.8		mg/L	25.0	87	87-112			
Batch ID: 461105 Date: 06/11/2019 16:10											
9056A	280-123922-1	Chloride	10		mg/L						J1
9056A	280-123922-1 MS	Chloride	38.3		mg/L	25.0	113	87-111			J1
9056A	280-123922-1	Fluoride	0.10	U	mg/L						
9056A	280-123922-1 MS	Fluoride	4.75		mg/L	5.00	95	88-112			
9056A	280-123922-1	Sulfate	3.0	U	mg/L						
9056A	280-123922-1 MS	Sulfate	26.9		mg/L	25.0	108	87-112			M

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 460807 Date: 06/07/2019 09:42											
410.4	280-123922-2 MSD	Chemical Oxygen Demand (COD)	97.5		mg/L	100	97	90-110	7	11	D
Batch ID: 458552 Date: 05/18/2019 01:36											
9056A	280-123922-3 MSD	Nitrate Nitrite as N	10.3		mg/L	10.0	103	80-120	3	10	
9056A	280-123922-3 MSD	Orthophosphate as P	2.05		mg/L	5.00	13	80-116	2	10	J1
9056A	280-123922-3 MSD	Nitrate	5.19		mg/L	5.00	104	88-111	3	10	
9056A	280-123922-3 MSD	Nitrite	5.10		mg/L	5.00	102	87-111	3	10	
Batch ID: 458553 Date: 05/18/2019 01:36											
9056A	280-123922-3 MSD	Bromide	5.56		mg/L	5.00	108	91-110	2	10	
9056A	280-123922-3 MSD	Chloride	29.1		mg/L	25.0	91	87-111	2	10	
9056A	280-123922-3 MSD	Sulfate	22.4		mg/L	25.0	90	87-112	3	10	
Batch ID: 461105 Date: 06/11/2019 16:29											
9056A	280-123922-1 MSD	Chloride	37.5		mg/L	25.0	110	87-111	2	10	
9056A	280-123922-1 MSD	Fluoride	4.65		mg/L	5.00	93	88-112	2	10	
9056A	280-123922-1 MSD	Sulfate	26.7		mg/L	25.0	107	87-112	1	10	M

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 458552 Date: 05/18/2019 01:04								
9056A	LF1P-5_0519	280-123922-3	Nitrate Nitrite as N	0.10	mg/L			U
9056A	LF1P-5_0519	280-123922-3 DU	Nitrate Nitrite as N	0.10	mg/L	NC	10	U
9056A	LF1P-5_0519	280-123922-3	Orthophosphate as P	1.4	mg/L			
9056A	LF1P-5_0519	280-123922-3 DU	Orthophosphate as P	1.36	mg/L	3	10	
9056A	LF1P-5_0519	280-123922-3	Nitrate	0.10	mg/L			U
9056A	LF1P-5_0519	280-123922-3 DU	Nitrate	0.10	mg/L	NC	10	U
9056A	LF1P-5_0519	280-123922-3	Nitrite	0.10	mg/L			U
9056A	LF1P-5_0519	280-123922-3 DU	Nitrite	0.10	mg/L	NC	10	U M
Batch ID: 458553 Date: 05/18/2019 01:04								
9056A	LF1P-5_0519	280-123922-3	Bromide	0.14	mg/L			J
9056A	LF1P-5_0519	280-123922-3 DU	Bromide	0.143	mg/L	3	10	J M
9056A	LF1P-5_0519	280-123922-3	Chloride	6.5	mg/L			
9056A	LF1P-5_0519	280-123922-3 DU	Chloride	6.50	mg/L	0.1	10	M
9056A	LF1P-5_0519	280-123922-3	Sulfate	3.0	mg/L			U
9056A	LF1P-5_0519	280-123922-3 DU	Sulfate	3.0	mg/L	NC	10	U
Batch ID: 461105 Date: 06/11/2019 15:52								
9056A	LF1MW-5_0519	280-123922-1	Bromide	0.20	mg/L			U
9056A	LF1MW-5_0519	280-123922-1 DU	Bromide	0.20	mg/L	NC	10	U Q
9056A	LF1MW-5_0519	280-123922-1	Chloride	10	mg/L			
9056A	LF1MW-5_0519	280-123922-1 DU	Chloride	9.97	mg/L	0.2	10	
9056A	LF1MW-5_0519	280-123922-1	Fluoride	0.10	mg/L			U
9056A	LF1MW-5_0519	280-123922-1 DU	Fluoride	0.10	mg/L	NC	10	U
9056A	LF1MW-5_0519	280-123922-1	Sulfate	3.0	mg/L			U
9056A	LF1MW-5_0519	280-123922-1 DU	Sulfate	3.0	mg/L	NC	10	U
Batch ID: 459268 Date: 05/23/2019 16:24								
SM 2540C	LF1P-5_0519	280-123922-3	Total Dissolved Solids (TDS)	370	mg/L			
SM 2540C	LF1P-5_0519	280-123922-3 DU	Total Dissolved Solids (TDS)	402	mg/L	8	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963	Date: 05/30/2019 11:52										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-459963/25	Ammonia	2.55		mg/L	2.50	102	90-110	0	10	
Batch ID: 460878	Date: 06/07/2019 18:07	Prep Batch: 460760	Date: 06/06/2019 19:57								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460760/27-A	Nitrogen, Kjeldahl	5.92		mg/L	6.00	99	90-110			
Batch ID: 460807	Date: 06/07/2019 09:42										
						LCS Source: COD cal std_00048					
410.4	LCS 280-460807/3	Chemical Oxygen Demand (COD)	99.0		mg/L	100	99	90-110	1	11	
Batch ID: 458552	Date: 05/17/2019 10:36										
						LCS Source:					
9056A	LCS 280-458552/4	Nitrate Nitrite as N	9.95		mg/L	10.0	100	80-120	1	10	
						LCS Source: IC LCS_01578					
9056A	LCS 280-458552/4	Orthophosphate as P	5.10		mg/L	5.00	102	80-116	1	10	
9056A	LCS 280-458552/4	Nitrate	5.00		mg/L	5.00	100	88-111	1	10	
9056A	LCS 280-458552/4	Nitrite	4.95		mg/L	5.00	99	87-111	1	10	
Batch ID: 458553	Date: 05/17/2019 10:36										
						LCS Source: IC LCS_01578					
9056A	LCS 280-458553/4	Bromide	5.25		mg/L	5.00	105	91-110	1	10	
9056A	LCS 280-458553/4	Chloride	95.5		mg/L	100	95	87-111	1	10	
9056A	LCS 280-458553/4	Sulfate	93.6		mg/L	100	94	87-112	1	10	
Batch ID: 461105	Date: 06/11/2019 09:39										
						LCS Source: IC LCS_01601					
9056A	LCS 280-461105/4	Chloride	104		mg/L	100	104	87-111	1	10	
9056A	LCS 280-461105/4	Fluoride	5.03		mg/L	5.00	101	88-112	1	10	
9056A	LCS 280-461105/4	Sulfate	102		mg/L	100	102	87-112	1	10	M
Batch ID: 461179	Date: 06/11/2019 03:46										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-461179/41	Total Organic Carbon - Quad	25.4		mg/L	25.0	102	88-112			
Batch ID: 460979	Date: 06/09/2019 15:19	Prep Batch: 460948	Date: 06/08/2019 14:11								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460948/1-A	Phenols, Total	0.195		mg/L	0.201	97	90-110			
Batch ID: 459576	Date: 05/24/2019 20:42										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459576/30	Alkalinity	199		mg/L	200	99	89-109			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459401	Date: 05/24/2019 15:23										
						LCS Source: Hard lcs std_00050					
SM 2340C	LCS 280-459401/1	Hardness	398		mg/L	398	100	90-110			
Batch ID: 459268	Date: 05/23/2019 16:24										
						LCS Source: TDS LCS_00537_00055					
SM 2540C	LCS 280-459268/2	Total Dissolved Solids (TDS)	503		mg/L	500	101	93-110			
Batch ID: 458606	Date: 05/17/2019 15:43										
						LCS Source: BOD Std_00001_00046					
SM5210B	LCS 280-458606/3	Biochemical Oxygen Demand	202		mg/L	198	102	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963	Date: 05/30/2019 11:54										
						LCSD Source: 350.1 cal_00367					
350.1	LCSD 280-459963/26	Ammonia	2.54		mg/L	2.50	102	90-110	0	10	
Batch ID: 460807	Date: 06/07/2019 09:42										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-460807/4	Chemical Oxygen Demand (COD)	98.4		mg/L	100	98	90-110	1	11	
Batch ID: 458552	Date: 05/17/2019 10:52										
						LCSD Source:					
9056A	LCSD 280-458552/5	Nitrate Nitrite as N	10.0		mg/L	10.0	100	80-120	1	10	
						LCSD Source: IC LCS_01578					
9056A	LCSD 280-458552/5	Orthophosphate as P	5.17		mg/L	5.00	103	80-116	1	10	
9056A	LCSD 280-458552/5	Nitrate	5.04		mg/L	5.00	101	88-111	1	10	
9056A	LCSD 280-458552/5	Nitrite	4.99		mg/L	5.00	100	87-111	1	10	
Batch ID: 458553	Date: 05/17/2019 10:52										
						LCSD Source: IC LCS_01578					
9056A	LCSD 280-458553/5	Bromide	5.29		mg/L	5.00	106	91-110	1	10	
9056A	LCSD 280-458553/5	Chloride	96.2		mg/L	100	96	87-111	1	10	
9056A	LCSD 280-458553/5	Sulfate	94.3		mg/L	100	94	87-112	1	10	
Batch ID: 461105	Date: 06/11/2019 09:58										
						LCSD Source: IC LCS_01601					
9056A	LCSD 280-461105/5	Chloride	105		mg/L	100	105	87-111	1	10	
9056A	LCSD 280-461105/5	Fluoride	5.07		mg/L	5.00	101	88-112	1	10	
9056A	LCSD 280-461105/5	Sulfate	101		mg/L	100	101	87-112	1	10	M

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458552	Date: 05/17/2019 10:19										
						LCS Source:					
9056A	MRL 280-458552/3	Nitrate Nitrite as N	0.445	J	mg/L	0.400	111	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458552/3	Orthophosphate as P	0.204	J	mg/L	0.200	102	50-150			
9056A	MRL 280-458552/3	Nitrate	0.229	J	mg/L	0.200	115	50-150			
9056A	MRL 280-458552/3	Nitrite	0.216	J	mg/L	0.200	108	50-150			
Batch ID: 458553	Date: 05/17/2019 10:19										
						LCS Source: IC CAL cl/so4_00257					
9056A	MRL 280-458553/3	Chloride	2.28	J	mg/L	2.50	91	50-150			
9056A	MRL 280-458553/3	Sulfate	2.31	J	mg/L	2.50	92	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458553/3	Bromide	0.216	J	mg/L	0.200	108	50-150			
Batch ID: 461105	Date: 06/11/2019 09:21										
						LCS Source: IC CAL cl/so4_00260					
9056A	MRL 280-461105/3	Chloride	2.58	J	mg/L	2.50	103	50-150			
9056A	MRL 280-461105/3	Sulfate	2.30	J	mg/L	2.50	92	50-150			M
						LCS Source: IC Cal low_00464					
9056A	MRL 280-461105/3	Fluoride	0.154	J	mg/L	0.200	77	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 DL Date: 02/03/2019 00:00

Prep Method: Distill/Phenol

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (PCU)	
Color		5	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B XRL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (PCU)	
Color		5	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Hardness		3	0.3

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness		3	0.3

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom8

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Fluoride		1	0.06

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom8

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Fluoride		1	0.0597

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A DL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A XMDL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		10	3.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B DL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Biochemical Oxygen Demand		2	0.236

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123922-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B XMDL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Biochemical Oxygen Demand		2	0.236

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460760/27-A	06/06/2019 19:57	460760		25	25
MB 280-460760/28-A	06/06/2019 19:57	460760		25	25
280-123922-1	06/06/2019 19:57	460760		25	25
280-123922-2	06/06/2019 19:57	460760		25	25
280-123922-3	06/06/2019 19:57	460760		25	25

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
280-123922-1	06/07/2019 12:22	460843		50	50
280-123922-2	06/07/2019 12:22	460843		50	50
280-123922-3	06/07/2019 12:22	460843		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460948/1-A	06/08/2019 14:11	460948		50	50
MB 280-460948/2-A	06/08/2019 14:11	460948		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:03																									
IC 280-459963/4			11:05	X																								
IC 280-459963/5			11:07	X																								
IC 280-459963/6			11:09	X																								
IC 280-459963/7			11:11	X																								
IC 280-459963/8			11:13	X																								
IC 280-459963/9			11:15	X																								
IC 280-459963/10			11:17	X																								
IC 280-459963/11			11:19	X																								
ZZZZZZ			11:21																									
ZZZZZZ			11:23																									
ICVL 280-459963/14	1		11:25	X																								
ICV 280-459963/15	1		11:27	X																								
ICB 280-459963/16	1		11:29	X																								
ZZZZZZ			11:31																									
ZZZZZZ			11:33																									
ZZZZZZ			11:35																									
ZZZZZZ			11:37																									
ZZZZZZ			11:39																									
ZZZZZZ			11:41																									
ZZZZZZ			11:43																									
ZZZZZZ			11:50																									
LCS 280-459963/25	1	T	11:52	X																								
LCSD 280-459963/26	1	T	11:54	X																								
MB 280-459963/27	1	T	11:56	X																								
ZZZZZZ			11:58																									
ZZZZZZ			12:00																									
ZZZZZZ			12:02																									
ZZZZZZ			12:04																									
ZZZZZZ			12:06																									
280-123922-1	1	T	12:08	X																								
280-123922-2	1	T	12:10	X																								
280-123922-3	1	T	12:12	X																								
ZZZZZZ			12:14																									
ZZZZZZ			12:16																									
RINSE 280-459963/38			12:18																									
ZZZZZZ			12:20																									
CCVL 280-459963/40	1		12:22	X																								
CCV 280-459963/41	1		12:24	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
CCB 280-459963/42	1		12:26	X																								
ZZZZZZ			12:28																									
ZZZZZZ			12:30																									
ZZZZZZ			12:32																									
ZZZZZZ			12:34																									
ZZZZZZ			12:36																									
ZZZZZZ			12:38																									
ZZZZZZ			12:40																									
ZZZZZZ			12:42																									
ZZZZZZ			12:44																									
ZZZZZZ			12:46																									
ZZZZZZ			12:48																									
RINSE 280-459963/54			12:50																									
ZZZZZZ			12:52																									
CCVL 280-459963/56			12:54																									
CCV 280-459963/57			12:56																									
CCB 280-459963/58			12:58																									
ZZZZZZ			13:00																									
ZZZZZZ			13:02																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									
ZZZZZZ			13:08																									
RINSE 280-459963/64			13:10																									
ZZZZZZ			13:12																									
CCVL 280-459963/66			13:14																									
CCV 280-459963/67			13:16																									
CCB 280-459963/68			13:18																									
ZZZZZZ			13:20																									
ZZZZZZ			13:22																									
ZZZZZZ			13:24																									
ZZZZZZ			13:26																									
ZZZZZZ			13:28																									
ZZZZZZ			13:30																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
ZZZZZZ			13:44																									
ZZZZZZ			13:46																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
RINSE 280-459963/83			13:48																									
ZZZZZZ			13:50																									
CCVL 280-459963/85			13:52																									
CCV 280-459963/86			13:54																									
CCB 280-459963/87			13:56																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:08																									
ZZZZZZ			14:10																									
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
RINSE 280-459963/99			14:20																									
ZZZZZZ			14:22																									
CCVL 280-459963/101			14:24																									
CCV 280-459963/102			14:26																									
CCB 280-459963/103			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
RINSE 280-459963/109			14:40																									
ZZZZZZ			14:42																									
CCVL 280-459963/111			14:44																									
CCV 280-459963/112			14:46																									
CCB 280-459963/113			14:48																									
ZZZZZZ			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
RINSE 280-459963/123			15:08																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			15:10																									
CCVL 280-459963/125			15:12																									
CCV 280-459963/126			15:14																									
CCB 280-459963/127			15:16																									
ZZZZZZ			15:18																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			16:59																									
ZZZZZZ			17:00																									
ZZZZZZ			17:01																									
ZZZZZZ			17:02																									
IC 280-460066/36-A			17:03	X																								
IC 280-460066/37-A			17:05	X																								
IC 280-460066/38-A			17:06	X																								
IC 280-460066/39-A			17:07	X																								
IC 280-460066/40-A			17:08	X																								
IC 280-460066/41-A			17:10	X																								
ZZZZZZ			17:11																									
ZZZZZZ			17:12																									
ICV 280-460066/42-A	1		17:13	X																								
ICB 280-460066/43-A	1		17:15	X																								
ZZZZZZ			17:16																									
ZZZZZZ			17:17																									
ZZZZZZ			17:18																									
ZZZZZZ			17:20																									
ZZZZZZ			17:21																									
ZZZZZZ			17:22																									
ZZZZZZ			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:26																									
ZZZZZZ			17:27																									
ZZZZZZ			17:28																									
ZZZZZZ			17:30																									
ZZZZZZ			17:31																									
ZZZZZZ			17:32																									
ZZZZZZ			17:33																									
ZZZZZZ			17:35																									
CCV 280-460066/44-A			17:36																									
CCB 280-460066/45-A			17:37																									
ZZZZZZ			17:38																									
ZZZZZZ			17:40																									
ZZZZZZ			17:41																									
ZZZZZZ			17:42																									
ZZZZZZ			17:43																									
ZZZZZZ			17:45																									
ZZZZZZ			17:46																									
ZZZZZZ			17:47																									
ZZZZZZ			17:48																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes
				TKN
ZZZZZZ			17:50	
ZZZZZZ			17:51	
ZZZZZZ			17:52	
ZZZZZZ			17:53	
ZZZZZZ			17:55	
ZZZZZZ			17:56	
ZZZZZZ			17:57	
CCV 280-460066/44-A	1		17:58	X
CCB 280-460066/45-A	1		18:00	X
ZZZZZZ			18:01	
ZZZZZZ			18:02	
ZZZZZZ			18:03	
ZZZZZZ			18:05	
ZZZZZZ			18:06	
LCS 280-460760/27-A	1	T	18:07	X
MB 280-460760/28-A	1	T	18:08	X
ZZZZZZ			18:10	
ZZZZZZ			18:11	
ZZZZZZ			18:12	
ZZZZZZ			18:13	
ZZZZZZ			18:15	
ZZZZZZ			18:16	
ZZZZZZ			18:17	
CCV 280-460066/44-A	1		18:18	X
CCB 280-460066/45-A	1		18:20	X
ZZZZZZ			18:21	
ZZZZZZ			18:22	
ZZZZZZ			18:23	
280-123922-1	1	T	18:25	X
ZZZZZZ			18:26	
ZZZZZZ			18:27	
280-123922-2	1	T	18:28	X
280-123922-3	1	T	18:30	X
ZZZZZZ			18:31	
ZZZZZZ			18:32	
ZZZZZZ			18:33	
ZZZZZZ			18:35	
ZZZZZZ			18:36	
CCV 280-460066/44-A	1		18:37	X
CCB 280-460066/45-A	1		18:38	X
ZZZZZZ			18:40	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			18:41																									
ZZZZZZ			18:42																									
ZZZZZZ			18:43																									
ZZZZZZ			18:45																									
ZZZZZZ			18:46																									
ZZZZZZ			18:47																									
ZZZZZZ			18:48																									
ZZZZZZ			18:50																									
ZZZZZZ			18:51																									
ZZZZZZ			18:52																									
ZZZZZZ			18:53																									
ZZZZZZ			18:55																									
ZZZZZZ			18:56																									
ZZZZZZ			18:57																									
ZZZZZZ			18:58																									
CCV 280-460066/44-A			19:00																									
CCB 280-460066/45-A			19:01																									
ZZZZZZ			19:02																									
ZZZZZZ			19:03																									
CCV 280-460066/44-A			19:05																									
CCB 280-460066/45-A			19:06																									
ZZZZZZ			19:07																									
ZZZZZZ			19:08																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/07/2019 09:42 End Date: 06/07/2019 09:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-460807/1	1		09:42	X																								
ICB 280-460807/2	1		09:42	X																								
LCS 280-460807/3	1	T	09:42	X																								
LCSD 280-460807/4	1	T	09:42	X																								
MB 280-460807/5	1	T	09:42	X																								
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
CCV 280-460807/16	1		09:42	X																								
CCB 280-460807/17	1		09:42	X																								
ZZZZZZ			09:42																									
280-123922-1	2	T	09:42	X																								
280-123922-2	2	T	09:42	X																								
280-123922-2 MS	2	T	09:42	X																								
280-123922-2 MSD	2	T	09:42	X																								
280-123922-3	2	T	09:42	X																								
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
CCV 280-460807/28	1		09:42	X																								
CCB 280-460807/29	1		09:42	X																								
ZZZZZZ			09:42																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
CCV 280-460807/34			09:50																									
CCB 280-460807/35			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/07/2019 09:42 End Date: 06/07/2019 09:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/09/2019 14:31 End Date: 06/09/2019 18:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			14:31																									
ZZZZZZ			14:34																									
ZZZZZZ			14:37																									
ZZZZZZ			14:40																									
IC 280-460979/5			14:43	X																								
IC 280-460979/6			14:46	X																								
IC 280-460979/7			14:49	X																								
IC 280-460979/8			14:52	X																								
IC 280-460979/9			14:55	X																								
IC 280-460979/10			14:58	X																								
ZZZZZZ			15:01																									
ZZZZZZ			15:04																									
ICV 280-460979/13	1		15:07	X																								
ICVL 280-460979/14	1		15:10	X																								
ICB 280-460979/15	1		15:13	X																								
ZZZZZZ			15:16																									
LCS 280-460948/1-A	1	T	15:19	X																								
MB 280-460948/2-A	1	T	15:22	X																								
ZZZZZZ			15:25																									
280-123922-1	1	T	15:28	X																								
280-123922-2	1	T	15:31	X																								
280-123922-3	1	T	15:34	X																								
ZZZZZZ			15:37																									
ZZZZZZ			15:40																									
ZZZZZZ			15:43																									
ZZZZZZ			15:46																									
ZZZZZZ			15:49																									
ZZZZZZ			15:52																									
CCV 280-460979/29	1		15:55	X																								
CCVL 280-460979/30	1		15:58	X																								
CCB 280-460979/31	1		16:01	X																								
ZZZZZZ			16:04																									
ZZZZZZ			16:07																									
ZZZZZZ			16:10																									
ZZZZZZ			16:13																									
ZZZZZZ			16:16																									
ZZZZZZ			16:19																									
ZZZZZZ			16:22																									
ZZZZZZ			16:25																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/09/2019 14:31 End Date: 06/09/2019 18:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			16:28																									
ZZZZZZ			16:31																									
ZZZZZZ			16:34																									
ZZZZZZ			16:37																									
ZZZZZZ			16:40																									
CCV 280-460979/45	1		16:43	X																								
CCVL 280-460979/46	1		16:46	X																								
CCB 280-460979/47	1		16:49	X																								
ZZZZZZ			16:52																									
ZZZZZZ			16:55																									
ZZZZZZ			16:58																									
ZZZZZZ			17:01																									
ZZZZZZ			17:04																									
ZZZZZZ			17:07																									
ZZZZZZ			17:10																									
ZZZZZZ			17:13																									
ZZZZZZ			17:16																									
ZZZZZZ			17:19																									
ZZZZZZ			17:22																									
ZZZZZZ			17:25																									
ZZZZZZ			17:28																									
CCV 280-460979/61			17:31																									
CCVL 280-460979/62			17:34																									
CCB 280-460979/63			17:37																									
ZZZZZZ			17:40																									
ZZZZZZ			17:43																									
ZZZZZZ			17:46																									
ZZZZZZ			17:49																									
ZZZZZZ			17:52																									
ZZZZZZ			17:57																									
ZZZZZZ			18:00																									
ZZZZZZ			18:03																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2120B

Start Date: 05/17/2019 23:18 End Date: 05/17/2019 23:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Color																								
MB 280-458642/1	1	T	23:18	X																								
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
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ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
280-123922-1	10	T	23:18	X																								
280-123922-2	10	T	23:18	X																								
280-123922-3	10	T	23:18	X																								
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:20																									
ZZZZZZ			23:20																									
ZZZZZZ			23:20																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340C

Start Date: 05/24/2019 15:23 End Date: 05/24/2019 15:23

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
LCS 280-459401/1	1	T	15:23	X																								
MB 280-459401/2	1	T	15:23	X																								
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
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ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
280-123922-1	1	T	15:23	X																								
280-123922-2	1	T	15:23	X																								
280-123922-3	1	T	15:23	X																								
ZZZZZZ			15:23																									
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ZZZZZZ			15:23																									
ZZZZZZ			15:23																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/02/2019 10:05 End Date: 05/03/2019 05:53

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-456732/1			10:05																										
STD 280-456732/2 IC	1		10:21	X	X	X	X																						
STD 280-456732/3 IC	1		10:38	X	X	X	X																						
STD 280-456732/4 IC	1		10:54	X	X	X	X																						
STD 280-456732/5 IC	1		11:11	X	X	X	X																						
STD 280-456732/6 IC	1		11:27	X	X	X	X																						
STD 280-456732/7 IC	1		11:43	X	X	X	X																						
ICV 280-456732/8	1		12:00	X	X		X																						
ICB 280-456732/9	1		12:16	X	X	X	X																						
ZZZZZZ			12:33																										
ZZZZZZ			12:49																										
ZZZZZZ			13:05																										
ZZZZZZ			13:22																										
ZZZZZZ			23:52																										
ZZZZZZ			00:08																										
ZZZZZZ			00:24																										
ZZZZZZ			00:41																										
ZZZZZZ			00:57																										
ZZZZZZ			01:14																										
ZZZZZZ			01:30																										
ZZZZZZ			01:46																										
ZZZZZZ			02:03																										
ZZZZZZ			02:19																										
CCV 280-456732/24			02:36																										
CCB 280-456732/25			02:52																										
ZZZZZZ			03:09																										
ZZZZZZ			03:25																										
ZZZZZZ			03:41																										
ZZZZZZ			03:58																										
ZZZZZZ			04:14																										
ZZZZZZ			04:31																										
ZZZZZZ			04:47																										
ZZZZZZ			05:03																										
ZZZZZZ			05:20																										
CCV 280-456732/35			05:36																										
CCB 280-456732/36			05:53																										

Prep Types:
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																									
				NNO32	NO2-N	NO3	Orthophosasp																						
CCV 280-458552/1	1		09:47	X	X	X	X																						
CCB 280-458552/2	1		10:03	X	X	X	X																						
MRL 280-458552/3	1	T	10:19	X	X	X	X																						
LCS 280-458552/4	1	T	10:36	X	X	X	X																						
LCSD 280-458552/5	1	T	10:52	X	X	X	X																						
MB 280-458552/6	1	T	11:08	X	X	X	X																						
ZZZZZZ			18:30																										
ZZZZZZ			18:46																										
ZZZZZZ			19:02																										
ZZZZZZ			19:19																										
ZZZZZZ			19:35																										
ZZZZZZ			19:52																										
ZZZZZZ			20:08																										
ZZZZZZ			20:24																										
ZZZZZZ			20:41																										
ZZZZZZ			20:57																										
CCV 280-458552/17	1		21:14	X	X	X	X																						
CCB 280-458552/18	1		21:30	X	X	X	X																						
ZZZZZZ			21:47																										
ZZZZZZ			22:03																										
ZZZZZZ			22:19																										
ZZZZZZ			22:36																										
ZZZZZZ			22:52																										
ZZZZZZ			23:09																										
ZZZZZZ			23:25																										
ZZZZZZ			23:41																										
ZZZZZZ			23:58																										
CCV 280-458552/28	1		00:14	X	X	X	X																						
CCB 280-458552/29	1		00:31	X	X	X	X																						
280-123922-3	1	T	00:47	X	X	X	X																						
280-123922-3 DU	1	T	01:04	X	X	X	X																						
280-123922-3 MS	1	T	01:20	X	X	X	X																						
280-123922-3 MSD	1	T	01:36	X	X	X	X																						

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																								
280-123922-1	1	T	01:53	X	X	X	X																								
ZZZZZZ			02:09																												
280-123922-2	1	T	02:26	X	X	X	X																								
ZZZZZZ			02:42																												
ZZZZZZ			02:58																												
ZZZZZZ			03:15																												
CCV 280-458552/40	1		03:31	X	X	X	X																								
CCB 280-458552/41	1		03:48	X	X	X	X																								
ZZZZZZ			04:04																												
ZZZZZZ			04:21																												
ZZZZZZ			04:37																												
ZZZZZZ			04:53																												
ZZZZZZ			05:10																												
ZZZZZZ			05:26																												
ZZZZZZ			05:43																												
ZZZZZZ			05:59																												
ZZZZZZ			06:15																												
ZZZZZZ			06:32																												
CCV 280-458552/52			06:48																												
CCB 280-458552/53			07:05																												
ZZZZZZ			07:21																												
ZZZZZZ			07:38																												
ZZZZZZ			07:54																												
ZZZZZZ			13:29																												
ZZZZZZ			13:45																												
ZZZZZZ			14:01																												
ZZZZZZ			14:18																												
ZZZZZZ			14:34																												
ZZZZZZ			14:51																												
ZZZZZZ			15:07																												
CCV 280-458552/64			15:23																												
CCB 280-458552/65			15:40																												
ZZZZZZ			15:56																												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
ZZZZZZ			16:13																											
ZZZZZZ			16:29																											
ZZZZZZ			16:46																											
ZZZZZZ			17:02																											
ZZZZZZ			17:18																											
ZZZZZZ			17:35																											
ZZZZZZ			17:51																											
ZZZZZZ			18:08																											
CCV 280-458552/75			18:24																											
CCB 280-458552/76			18:40																											

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	SO4																								
CCV 280-458553/1	1		09:47	X	X	X																								
CCB 280-458553/2	1		10:03	X	X	X																								
MRL 280-458553/3	1	T	10:19	X	X	X																								
LCS 280-458553/4	1	T	10:36	X	X	X																								
LCSD 280-458553/5	1	T	10:52	X	X	X																								
MB 280-458553/6	1	T	11:08	X	X	X																								
ZZZZZZ			18:30																											
ZZZZZZ			18:46																											
ZZZZZZ			19:02																											
ZZZZZZ			19:19																											
ZZZZZZ			19:35																											
ZZZZZZ			19:52																											
ZZZZZZ			20:08																											
ZZZZZZ			20:24																											
ZZZZZZ			20:41																											
ZZZZZZ			20:57																											
CCV 280-458553/17	1		21:14	X	X	X																								
CCB 280-458553/18	1		21:30	X	X	X																								
ZZZZZZ			21:47																											
ZZZZZZ			22:03																											
ZZZZZZ			22:19																											
ZZZZZZ			22:36																											
ZZZZZZ			22:52																											
ZZZZZZ			23:09																											
ZZZZZZ			23:25																											
ZZZZZZ			23:41																											
ZZZZZZ			23:58																											
CCV 280-458553/28	1		00:14	X	X	X																								
CCB 280-458553/29	1		00:31	X	X	X																								
280-123922-3	1	T	00:47	X	X	X																								
280-123922-3 DU	1	T	01:04	X	X	X																								
280-123922-3 MS	1	T	01:20	X	X	X																								
280-123922-3 MSD	1	T	01:36	X	X	X																								
280-123922-1	1	T	01:53	X	X	X																								
ZZZZZZ			02:09																											
280-123922-2	1	T	02:26	X	X	X																								
ZZZZZZ			02:42																											
ZZZZZZ			02:58																											
ZZZZZZ			03:15																											
CCV 280-458553/40	1		03:31	X	X	X																								
CCB 280-458553/41	1		03:48	X	X	X																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	SO4																								
ZZZZZZ			04:04																											
ZZZZZZ			04:21																											
ZZZZZZ			04:37																											
ZZZZZZ			04:53																											
ZZZZZZ			05:10																											
ZZZZZZ			05:26																											
ZZZZZZ			05:43																											
ZZZZZZ			05:59																											
ZZZZZZ			06:15																											
ZZZZZZ			06:32																											
CCV 280-458553/52			06:48																											
CCB 280-458553/53			07:05																											
ZZZZZZ			07:21																											
ZZZZZZ			07:38																											
ZZZZZZ			07:54																											
ZZZZZZ			13:29																											
ZZZZZZ			13:45																											
ZZZZZZ			14:01																											
ZZZZZZ			14:18																											
ZZZZZZ			14:34																											
ZZZZZZ			14:51																											
ZZZZZZ			15:07																											
CCV 280-458553/64			15:23																											
CCB 280-458553/65			15:40																											
ZZZZZZ			15:56																											
ZZZZZZ			16:13																											
ZZZZZZ			16:29																											
ZZZZZZ			16:46																											
ZZZZZZ			17:02																											
ZZZZZZ			17:18																											
ZZZZZZ			17:35																											
ZZZZZZ			17:51																											
ZZZZZZ			18:08																											
CCV 280-458553/75			18:24																											
CCB 280-458553/76			18:40																											

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom8 Analysis Method: 9056A

Start Date: 06/03/2019 10:23 End Date: 06/03/2019 23:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-460239/1			10:23																										
STD 280-460239/2 IC	1		10:41	X	X	X	X																						
STD 280-460239/3 IC	1		11:00	X	X	X	X																						
STD 280-460239/4 IC	1		11:19	X	X	X	X																						
STD 280-460239/5 IC	1		11:38	X	X	X	X																						
STD 280-460239/6 IC	1		11:56	X	X	X	X																						
STD 280-460239/7 IC	1		12:15	X	X	X	X																						
ICV 280-460239/8	1		12:34		X	X	X																						
ICB 280-460239/9	1		12:52	X	X	X	X																						
ZZZZZZ			13:11																										
ZZZZZZ			13:30																										
ZZZZZZ			13:49																										
ZZZZZZ			14:07																										
ZZZZZZ			14:30																										
ZZZZZZ			14:48																										
ZZZZZZ			15:07																										
ZZZZZZ			15:25																										
ZZZZZZ			15:44																										
ZZZZZZ			16:03																										
ZZZZZZ			16:21																										
ZZZZZZ			16:40																										
ZZZZZZ			16:59																										
ZZZZZZ			17:18																										
CCV 280-460239/24			17:36																										
CCB 280-460239/25			17:55																										
ZZZZZZ			18:14																										
ZZZZZZ			18:32																										
ZZZZZZ			18:51																										
ZZZZZZ			19:10																										
ZZZZZZ			19:29																										
ZZZZZZ			19:47																										
ZZZZZZ			20:06																										
ZZZZZZ			20:25																										
ZZZZZZ			20:44																										
ZZZZZZ			21:02																										
CCV 280-460239/36			21:21																										
CCB 280-460239/37			21:40																										
ZZZZZZ			21:58																										
ZZZZZZ			22:17																										
ZZZZZZ			22:36																										
ZZZZZZ			22:55																										

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom8 Analysis Method: 9056A

Start Date: 06/03/2019 10:23 End Date: 06/03/2019 23:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																							
ZZZZZZ			23:13																										
CCV 280-460239/43			23:32																										
CCB 280-460239/44			23:50																										

Prep Types:
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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_IonChrom8 Analysis Method: 9056A

Start Date: 06/11/2019 08:44 End Date: 06/11/2019 23:59

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	F	SO4																							
CCV 280-461105/1	1		08:44		X	X	X																							
CCB 280-461105/2	1		09:02	X	X	X	X																							
MRL 280-461105/3	1	T	09:21		X	X	X																							
LCS 280-461105/4	1	T	09:39		X	X	X																							
LCSD 280-461105/5	1	T	09:58		X	X	X																							
MB 280-461105/6	1	T	10:17	X	X	X	X																							
ZZZZZZ			14:19																											
ZZZZZZ			14:37																											
ZZZZZZ			14:56																											
ZZZZZZ			15:14																											
280-123922-1	1	T	15:33			X																								
280-123922-1 DU	1	T	15:52	X	X	X	X																							
280-123922-1 MS	1	T	16:10		X	X	X																							
280-123922-1 MSD	1	T	16:29		X	X	X																							
280-123922-2	1	T	16:48			X																								
280-123922-3	1	T	17:07			X																								
CCV 280-461105/17	1		17:25		X	X	X																							
CCB 280-461105/18	1		17:44	X	X	X	X																							
ZZZZZZ			18:03																											
ZZZZZZ			18:22																											
ZZZZZZ			18:40																											
ZZZZZZ			18:59																											
ZZZZZZ			19:18																											
ZZZZZZ			19:36																											
ZZZZZZ			19:55																											
ZZZZZZ			20:14																											
ZZZZZZ			20:33																											
ZZZZZZ			20:51																											
CCV 280-461105/29			21:10																											
CCB 280-461105/30			21:29																											
ZZZZZZ			21:47																											
ZZZZZZ			22:06																											
ZZZZZZ			22:25																											
ZZZZZZ			22:44																											
ZZZZZZ			23:02																											
ZZZZZZ			23:21																											
CCV 280-461105/37			23:40																											
CCB 280-461105/38			23:59																											

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/10/2019 17:09 End Date: 06/11/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ICV 280-461179/1	1		17:09	X																									
ICB 280-461179/2	1		17:24	X																									
ZZZZZZ			17:43																										
ZZZZZZ			18:00																										
ZZZZZZ			18:17																										
ZZZZZZ			18:32																										
ZZZZZZ			18:46																										
ZZZZZZ			19:01																										
ZZZZZZ			19:18																										
ZZZZZZ			19:33																										
ZZZZZZ			19:48																										
ZZZZZZ			20:06																										
ZZZZZZ			20:21																										
ZZZZZZ			20:36																										
CCV 280-461179/15			20:51																										
CCB 280-461179/16			21:07																										
ZZZZZZ			21:24																										
ZZZZZZ			21:39																										
ZZZZZZ			21:54																										
ZZZZZZ			22:08																										
ZZZZZZ			22:23																										
ZZZZZZ			22:40																										
ZZZZZZ			22:55																										
ZZZZZZ			23:09																										
ZZZZZZ			23:26																										
ZZZZZZ			23:43																										
CCV 280-461179/27			23:58																										
CCB 280-461179/28			00:12																										
ZZZZZZ			00:31																										
ZZZZZZ			00:50																										
ZZZZZZ			01:05																										
ZZZZZZ			01:19																										
ZZZZZZ			01:38																										
ZZZZZZ			01:53																										
ZZZZZZ			02:12																										
ZZZZZZ			02:30																										
ZZZZZZ			02:45																										
ZZZZZZ			03:00																										
CCV 280-461179/39	1		03:15	X																									
CCB 280-461179/40	1		03:31	X																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/10/2019 17:09 End Date: 06/11/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
LCS 280-461179/41	1	T	03:46	X																									
MB 280-461179/42	1	T	04:03	X																									
ZZZZZZ			04:20																										
ZZZZZZ			04:34																										
ZZZZZZ			04:49																										
ZZZZZZ			05:04																										
ZZZZZZ			05:19																										
ZZZZZZ			05:42																										
ZZZZZZ			05:57																										
ZZZZZZ			06:13																										
CCV 280-461179/51	1		06:31	X																									
CCB 280-461179/52	1		06:46	X																									
ZZZZZZ			07:06																										
ZZZZZZ			07:23																										
ZZZZZZ			07:38																										
ZZZZZZ			07:55																										
ZZZZZZ			08:13																										
ZZZZZZ			08:30																										
ZZZZZZ			08:47																										
ZZZZZZ			09:06																										
ZZZZZZ			09:21																										
280-123922-1	1	T	09:37	X																									
CCV 280-461179/63	1		09:52	X																									
CCB 280-461179/64	1		10:07	X																									
280-123922-2	1	T	10:24	X																									
280-123922-3	1	T	10:38	X																									
ZZZZZZ			10:53																										
ZZZZZZ			11:10																										
ZZZZZZ			11:27																										
ZZZZZZ			11:46																										
ZZZZZZ			12:00																										
CCV 280-461179/72	1		12:17	X																									
CCB 280-461179/73	1		12:34	X																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-459576/1			17:32																									
ZZZZZZ			17:40																									
ZZZZZZ			17:42																									
ZZZZZZ			17:48																									
ZZZZZZ			18:12																									
ZZZZZZ			18:18																									
ZZZZZZ			18:23																									
ZZZZZZ			18:29																									
ZZZZZZ			18:34																									
ZZZZZZ			18:39																									
ZZZZZZ			18:45																									
ZZZZZZ			18:52																									
ZZZZZZ			19:01																									
ZZZZZZ			19:07																									
ZZZZZZ			19:16																									
CCV 280-459576/16			19:22																									
CCB 280-459576/17			19:27																									
ZZZZZZ			19:35																									
ZZZZZZ			19:40																									
ZZZZZZ			19:46																									
ZZZZZZ			19:52																									
ZZZZZZ			19:59																									
ZZZZZZ			20:04																									
ZZZZZZ			20:10																									
ZZZZZZ			20:16																									
ZZZZZZ			20:22																									
ZZZZZZ			20:25																									
CCV 280-459576/28	1		20:31	X																								
CCB 280-459576/29	1		20:36	X																								
LCS 280-459576/30	1	T	20:42	X																								
MB 280-459576/31	1	T	20:47	X																								
ZZZZZZ			20:52																									
ZZZZZZ			20:58																									
ZZZZZZ			21:03																									
ZZZZZZ			21:08																									
ZZZZZZ			21:17																									
ZZZZZZ			21:22																									
280-123922-1	1	T	21:29	X																								
280-123922-3	1	T	21:36	X																								
280-123922-2	1	T	21:43	X																								
ZZZZZZ			21:48																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
CCV 280-459576/42	1		21:55	X																								
CCB 280-459576/43	1		21:59	X																								
ZZZZZZ			22:06																									
ZZZZZZ			22:13																									
ZZZZZZ			22:18																									
ZZZZZZ			22:24																									
ZZZZZZ			22:30																									
ZZZZZZ			22:35																									
ZZZZZZ			22:41																									
ZZZZZZ			22:47																									
ZZZZZZ			22:54																									
ZZZZZZ			23:01																									
CCV 280-459576/54			23:07																									
CCB 280-459576/55			23:12																									
ZZZZZZ			23:18																									
ZZZZZZ			23:23																									
ZZZZZZ			23:30																									
ZZZZZZ			23:38																									
ZZZZZZ			23:43																									
ZZZZZZ			23:50																									
ZZZZZZ			23:57																									
ZZZZZZ			00:05																									
ZZZZZZ			00:13																									
ZZZZZZ			00:21																									
ZZZZZZ			00:27																									
ZZZZZZ			00:34																									
CCV 280-459576/68			00:40																									
CCB 280-459576/69			00:44																									
ZZZZZZ			00:53																									
ZZZZZZ			00:58																									
ZZZZZZ			01:08																									
ZZZZZZ			01:15																									
ZZZZZZ			01:21																									
ZZZZZZ			01:32																									
ZZZZZZ			01:40																									
ZZZZZZ			01:47																									
ZZZZZZ			01:53																									
ZZZZZZ			01:59																									
CCV 280-459576/80			02:04																									
CCB 280-459576/81			02:09																									
ZZZZZZ			02:15																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																									
				Alk																									
ZZZZZZ			02:19																										
ZZZZZZ			02:26																										
ZZZZZZ			02:33																										
ZZZZZZ			02:39																										
ZZZZZZ			02:45																										
ZZZZZZ			02:50																										
ZZZZZZ			02:57																										
ZZZZZZ			03:04																										
ZZZZZZ			03:10																										
ZZZZZZ			03:15																										
ZZZZZZ			03:21																										
CCV 280-459576/94			03:27																										
CCB 280-459576/95			03:31																										
ZZZZZZ			03:37																										
ZZZZZZ			03:43																										
ZZZZZZ			03:49																										
ZZZZZZ			03:55																										
ZZZZZZ			04:02																										
ZZZZZZ			04:16																										
ZZZZZZ			04:34																										
ZZZZZZ			04:56																										
ZZZZZZ			05:12																										
ZZZZZZ			05:23																										
CCV 280-459576/106			05:28																										
CCB 280-459576/107			05:33																										
ZZZZZZ			05:40																										
ZZZZZZ			05:45																										
ZZZZZZ			05:55																										
ZZZZZZ			06:06																										
ZZZZZZ			06:18																										
ZZZZZZ			06:23																										
ZZZZZZ			06:44																										
ZZZZZZ			06:51																										
ZZZZZZ			06:57																										
ZZZZZZ			07:04																										
ZZZZZZ			07:10																										
ZZZZZZ			07:16																										
CCV 280-459576/120			07:23																										
CCB 280-459576/121			07:27																										
ZZZZZZ			07:33																										
ZZZZZZ			07:40																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																									
				Alk																									
ZZZZZZ			07:46																										
ZZZZZZ			07:57																										
ZZZZZZ			08:02																										
ZZZZZZ			08:07																										
ZZZZZZ			08:12																										
ZZZZZZ			08:17																										
ZZZZZZ			08:23																										
ZZZZZZ			08:26																										
CCV 280-459576/132			08:32																										
CCB 280-459576/133			08:37																										
ZZZZZZ			08:43																										
ZZZZZZ			08:48																										
ZZZZZZ			08:53																										
ZZZZZZ			08:56																										
ZZZZZZ			09:01																										
CCV 280-459576/139			09:07																										
CCB 280-459576/140			09:12																										

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/23/2019 16:24 End Date: 05/23/2019 16:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-459268/1	1	T	16:24	X																								
LCS 280-459268/2	1	T	16:24	X																								
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
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ZZZZZZ			16:24																									
280-123922-1	1	T	16:24	X																								
280-123922-2	1	T	16:24	X																								
280-123922-3	1	T	16:24	X																								
280-123922-3 DU	1	T	16:24	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM5210B

Start Date: 05/17/2019 15:43 End Date: 05/17/2019 18:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				BOD																								
SCB 280-458606/1	1	T	15:43	X																								
USB 280-458606/2	1	T	15:43	X																								
LCS 280-458606/3	1	T	15:43	X																								
MB 280-458606/4	1	T	15:43	X																								
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
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ZZZZZZ			15:43																									
280-123922-1	1	T	15:43	X																								
280-123922-2	1	T	15:43	X																								
280-123922-3	1	T	15:43	X																								
ZZZZZZ			15:43																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459963 Batch Start Date: 05/30/19 10:59 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
ICVL 280-459963/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-459963/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-459963/16		350.1			10 mL	10 mL			
LCS 280-459963/25		350.1			100 mL	100 mL		2.5 mL	
LCSD 280-459963/26		350.1			100 mL	100 mL		2.5 mL	
MB 280-459963/27		350.1			10 mL	10 mL			
280-123922-E-1	LF1MW-5_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123922-D-2	LF1MW-5_0519-a	350.1	T	N	10 mL	10 mL	<2 SU		
280-123922-C-3	LF1P-5_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459963/40		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459963/41		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/42		350.1			10 mL	10 mL			

Batch Notes	
Carrier Identification	350.1 complex_00424
Hypochlorite ID	350.1 bleach_01068
Sodium Nitroprusside ID	350.1 color_00152
Pipette/Syringe/Dispenser ID	JPX100, JPX1000, JPX5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460066 Batch Start Date: 05/31/19 16:12 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00794	TKN ICV 25 00078		
ICV 280-460066/42		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-460066/43		351.2, 351.2		25 mL	25 mL				
CCV 280-460066/44		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-460066/45		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	06/01/19 0400
Block Digestion Start time	05/31/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00126
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460760 Batch Start Date: 06/06/19 19:57 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00794		
LCS 280-460760/27		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460760/28		351.2, 351.2		<2	25 mL	25 mL			
280-123922-C-1	LF1MW-5_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123922-E-2	LF1MW-5_0519-a	351.2, 351.2	T	<2	25 mL	25 mL			
280-123922-C-3	LF1P-5_0519	351.2, 351.2	T	<2	25 mL	25 mL			

Batch Notes	
Block Digestion End time	06/06/19 0430
Block Digestion Start time	06/06/19 2130
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00127
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460878 Batch Start Date: 06/07/19 16:59 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-460066/42-A		351.2		4 mL					
ICB 280-460066/43-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
LCS 280-460760/27-A		351.2		4 mL					
MB 280-460760/28-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123922-C-1-A	LF1MW-5_0519	351.2	T	4 mL					
280-123922-E-2-A	LF1MW-5_0519-a	351.2	T	4 mL					
280-123922-C-3-A	LF1P-5_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					

Batch Notes	
Buffer Reagent ID	TKN Buffer_00118
Hypochlorite ID	TKN hypo_00663
Sodium Nitroprusside ID	Sodium Nitro_00095
Pipette/Syringe/Dispenser ID	5000AD, 1000AD

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 457887 Batch Start Date: 05/13/19 07:39 Batch Analyst: Loux, Lauren P

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	COD cal std 00048			
IC 280-457887/1		410.4		50 mL	50 mL	0.25 mL			
IC 280-457887/2		410.4		50 mL	50 mL	0.5 mL			
IC 280-457887/3		410.4		50 mL	50 mL	1 mL			
IC 280-457887/4		410.4		50 mL	50 mL	2.5 mL			
IC 280-457887/5		410.4		50 mL	50 mL	5 mL			
IC 280-457887/6		410.4		50 mL	50 mL	7.5 mL			

Batch Notes	
Block Digestor ID	Hach4AA, Hach4BB, Hach6AA
Chlorine ID	HC850274
Temperature - Corrected - End	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Temperature - Corrected - Start	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Digestion End Time	05/13/2019 11:27
Digestion Start Time	05/13/2019 09:27
Pipette/Syringe/Dispenser ID	5000LL, 1000LL
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Temperature - Uncorrected - Start	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460807 Batch Start Date: 06/07/19 09:42 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-460807/1		410.4		100 mL	100 mL				
ICB 280-460807/2		410.4		2 mL	2 mL				
LCS 280-460807/3		410.4		100 mL	100 mL				10 mL
LCSD 280-460807/4		410.4		100 mL	100 mL				10 mL
MB 280-460807/5		410.4		2 mL	2 mL				
CCV 280-460807/16		410.4		100 mL	100 mL				10 mL
CCB 280-460807/17		410.4		2 mL	2 mL				
280-123922-E-1	LF1MW-5_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
280-123922-E-2	LF1MW-5_0519-a	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
280-123922-E-2 MS	LF1MW-5_0519-a	410.4	T	100 mL	100 mL	>1000	<2 SU	<2 SU	
280-123922-E-2 MSD	LF1MW-5_0519-a	410.4	T	100 mL	100 mL	>1000	<2 SU	<2 SU	
280-123922-C-3	LF1P-5_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
CCV 280-460807/28		410.4		100 mL	100 mL				10 mL
CCB 280-460807/29		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
ICV 280-460807/1		410.4		7.5 mL					
ICB 280-460807/2		410.4							
LCS 280-460807/3		410.4							
LCSD 280-460807/4		410.4							
MB 280-460807/5		410.4							
CCV 280-460807/16		410.4							
CCB 280-460807/17		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460807 Batch Start Date: 06/07/19 09:42 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
280-123922-E-1	LF1MW-5_0519	410.4	T						
280-123922-E-2	LF1MW-5_0519-a	410.4	T						
280-123922-E-2 MS	LF1MW-5_0519-a	410.4	T		0.5 mL				
280-123922-E-2 MSD	LF1MW-5_0519-a	410.4	T		0.5 mL				
280-123922-C-3	LF1P-5_0519	410.4	T						
CCV 280-460807/28		410.4							
CCB 280-460807/29		410.4							

Batch Notes	
Batch Comment	KS trained by CJ
Block Digestor ID	Hach 2, Hach 4
Chlorine ID	HC850274
Temperature - Corrected - End	Hach 2 AA 150, Hach 2 BB 151, Hach 4 AA 149 Degrees C
Temperature - Corrected - Start	Hach 2 AA 150, Hach 2 BB 151, Hach 4 AA 149 Degrees C
Digestion End Time	06/07/2019 02:51
Digestion Start Time	06/07/2019 12:51
Pipette/Syringe/Dispenser ID	1000LL, AZ5000
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150 Degrees C
Temperature - Uncorrected - Start	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460843 Batch Start Date: 06/07/19 12:22 Batch Analyst: Abeyta, Joseph L

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	
280-123922-G-1	LF1MW-5_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	
280-123922-G-2	LF1MW-5_0519-a	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	
280-123922-G-3	LF1P-5_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460948 Batch Start Date: 06/08/19 14:11 Batch Analyst: Abeyta, Joseph L

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730			
LCS 280-460948/1		Distill/Phenol, 9066		50 mL	50 mL	1 mL			
MB 280-460948/2		Distill/Phenol, 9066		50 mL	50 mL				

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460979 Batch Start Date: 06/09/19 14:31 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460979/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460979/14		9066		100 mL	100 mL		1 mL		
ICB 280-460979/15		9066		100 mL	100 mL				
LCS 280-460948/1-A		9066		100 mL	100 mL				
MB 280-460948/2-A		9066		100 mL	100 mL				
280-123922-G-1-A	LF1MW-5_0519	9066	T	100 mL	100 mL				
280-123922-G-2-A	LF1MW-5_0519-a	9066	T	100 mL	100 mL				
280-123922-G-3-A	LF1P-5_0519	9066	T	100 mL	100 mL				
CCV 280-460979/29		9066		100 mL	100 mL	2 mL			
CCVL 280-460979/30		9066		100 mL	100 mL	1 mL			
CCB 280-460979/31		9066		100 mL	100 mL				
CCV 280-460979/45		9066		100 mL	100 mL	2 mL			
CCVL 280-460979/46		9066		100 mL	100 mL	1 mL			
CCB 280-460979/47		9066		100 mL	100 mL				

Batch Notes	
Batch Comment	RK training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00409
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458642 Batch Start Date: 05/17/19 23:17 Batch Analyst: Bryant, Chase K

Batch Method: SM 2120B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount			
MB 280-458642/1		SM 2120B		7 SU	50 mL	50 mL			
280-123922-J-1	LF1MW-5_0519	SM 2120B	T	7 SU	5 mL	50 mL			
280-123922-H-2	LF1MW-5_0519-a	SM 2120B	T	7 SU	5 mL	50 mL			
280-123922-J-3	LF1P-5_0519	SM 2120B	T	7 SU	5 mL	50 mL			

Batch Notes	
Batch Comment	KS trained by CKB
pH Meter ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459401 Batch Start Date: 05/24/19 15:23 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
LCS 280-459401/1		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	10.13 mL
MB 280-459401/2		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	0.00 mL
280-123922-F-1	LF1MW-5_0519	SM 2340C	T	12.5 mL	25 mL	<2 SU	<2 SU	0.00 mL	5.10 mL
280-123922-F-2	LF1MW-5_0519-a	SM 2340C	T	12.5 mL	25 mL	<2 SU	<2 SU	0.00 mL	5.20 mL
280-123922-F-3	LF1P-5_0519	SM 2340C	T	12.5 mL	25 mL	<2 SU	<2 SU	0.00 mL	4.72 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00050				
LCS 280-459401/1		SM 2340C		10.13 mL	10 mL				
MB 280-459401/2		SM 2340C		0 mL					
280-123922-F-1	LF1MW-5_0519	SM 2340C	T	5.1 mL					
280-123922-F-2	LF1MW-5_0519-a	SM 2340C	T	5.2 mL					
280-123922-F-3	LF1P-5_0519	SM 2340C	T	4.72 mL					

Batch Notes	
Batch Comment	KS trained by DA
Buffer Reagent ID	Mg EDTA 00009
Indicator Reagent ID	Hardness ind 00008
Nominal Amount Used	25 mL
pH Strip ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000
Normality of First Titrant	0.01966 N
Titrant ID	EDTA Titrant 00090
Titrant Standardization Date	05/24/2019

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 456732 Batch Start Date: 05/02/19 10:05 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00254	IC Cal low 00455	IC CL ICV 00016	IC ICV 5 00232
STD 280-456732/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-456732/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-456732/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-456732/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-456732/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-456732/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-456732/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-456732/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-456732/2 IC		9056A							
STD 280-456732/3 IC		9056A							
STD 280-456732/4 IC		9056A							
STD 280-456732/5 IC		9056A							
STD 280-456732/6 IC		9056A							
STD 280-456732/7 IC		9056A							
ICV 280-456732/8		9056A		0.4 mL					
ICB 280-456732/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 456732 Batch Start Date: 05/02/19 10:05 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00566
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458		
STD 280-458327/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458327/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458327/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458327/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458327/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458327/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458		
STD 280-458328/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458328/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458328/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458328/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458328/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458328/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458552 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01578	IC LCS 01579
CCV 280-458552/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458552/2		9056A		5 mL	5 mL				
MRL 280-458552/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458552/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458552/5		9056A		5 mL	5 mL			5 mL	
MB 280-458552/6		9056A		5 mL	5 mL				
CCV 280-458552/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458552/18		9056A		5 mL	5 mL				
CCV 280-458552/28		9056A		5 mL	5 mL			5 mL	
CCB 280-458552/29		9056A		5 mL	5 mL				
280-123922-H-3	LF1P-5_0519	9056A	T	5 mL	5 mL				
280-123922-H-3 DU	LF1P-5_0519	9056A	T	5 mL	5 mL				
280-123922-H-3 MS	LF1P-5_0519	9056A	T	5 mL	5 mL				
280-123922-H-3 MSD	LF1P-5_0519	9056A	T	5 mL	5 mL				
280-123922-I-1	LF1MW-5_0519	9056A	T	5 mL	5 mL				
280-123922-I-1	LF1MW-5_0519	9056A	T	5 mL	5 mL				
280-123922-I-2	LF1MW-5_0519-a	9056A	T	5 mL	5 mL				
280-123922-I-2	LF1MW-5_0519-a	9056A	T	5 mL	5 mL				
CCV 280-458552/40		9056A		5 mL	5 mL				5 mL
CCB 280-458552/41		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
CCV 280-458552/1		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458552 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
CCB 280-458552/2		9056A							
MRL 280-458552/3		9056A							
LCS 280-458552/4		9056A							
LCSD 280-458552/5		9056A							
MB 280-458552/6		9056A							
CCV 280-458552/17		9056A							
CCB 280-458552/18		9056A							
CCV 280-458552/28		9056A							
CCB 280-458552/29		9056A							
280-123922-H-3	LF1P-5_0519	9056A	T						
280-123922-H-3 DU	LF1P-5_0519	9056A	T						
280-123922-H-3 MS	LF1P-5_0519	9056A	T	0.05 mL					
280-123922-H-3 MSD	LF1P-5_0519	9056A	T	0.05 mL					
280-123922-I-1	LF1MW-5_0519	9056A	T						
280-123922-I-1	LF1MW-5_0519	9056A	T						
280-123922-I-2	LF1MW-5_0519-a	9056A	T						
280-123922-I-2	LF1MW-5_0519-a	9056A	T						
CCV 280-458552/40		9056A							
CCB 280-458552/41		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458552 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_0570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458553 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01578	IC LCS 01579
CCV 280-458553/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458553/2		9056A		5 mL	5 mL				
MRL 280-458553/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458553/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458553/5		9056A		5 mL	5 mL			5 mL	
MB 280-458553/6		9056A		5 mL	5 mL				
CCV 280-458553/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458553/18		9056A		5 mL	5 mL				
CCV 280-458553/28		9056A		5 mL	5 mL			5 mL	
CCB 280-458553/29		9056A		5 mL	5 mL				
280-123922-H-3	LF1P-5_0519	9056A	T	5 mL	5 mL				
280-123922-H-3 DU	LF1P-5_0519	9056A	T	5 mL	5 mL				
280-123922-H-3 MS	LF1P-5_0519	9056A	T	5 mL	5 mL				
280-123922-H-3 MSD	LF1P-5_0519	9056A	T	5 mL	5 mL				
280-123922-I-1	LF1MW-5_0519	9056A	T	5 mL	5 mL				
280-123922-I-1	LF1MW-5_0519	9056A	T	5 mL	5 mL				
280-123922-I-2	LF1MW-5_0519-a	9056A	T	5 mL	5 mL				
280-123922-I-2	LF1MW-5_0519-a	9056A	T	5 mL	5 mL				
CCV 280-458553/40		9056A		5 mL	5 mL				5 mL
CCB 280-458553/41		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
CCV 280-458553/1		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458553 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
CCB 280-458553/2		9056A							
MRL 280-458553/3		9056A							
LCS 280-458553/4		9056A							
LCSD 280-458553/5		9056A							
MB 280-458553/6		9056A							
CCV 280-458553/17		9056A							
CCB 280-458553/18		9056A							
CCV 280-458553/28		9056A							
CCB 280-458553/29		9056A							
280-123922-H-3	LF1P-5_0519	9056A	T						
280-123922-H-3 DU	LF1P-5_0519	9056A	T						
280-123922-H-3 MS	LF1P-5_0519	9056A	T	0.05 mL					
280-123922-H-3 MSD	LF1P-5_0519	9056A	T	0.05 mL					
280-123922-I-1	LF1MW-5_0519	9056A	T						
280-123922-I-1	LF1MW-5_0519	9056A	T						
280-123922-I-2	LF1MW-5_0519-a	9056A	T						
280-123922-I-2	LF1MW-5_0519-a	9056A	T						
CCV 280-458553/40		9056A							
CCB 280-458553/41		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458553 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460239 Batch Start Date: 06/03/19 10:23 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00259	IC Cal low 00462	IC CL ICV 00016	IC ICV 5 00235
STD 280-460239/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-460239/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-460239/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-460239/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-460239/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-460239/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-460239/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-460239/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-460239/2 IC		9056A							
STD 280-460239/3 IC		9056A							
STD 280-460239/4 IC		9056A							
STD 280-460239/5 IC		9056A							
STD 280-460239/6 IC		9056A							
STD 280-460239/7 IC		9056A							
ICV 280-460239/8		9056A		0.4 mL					
ICB 280-460239/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 460239 Batch Start Date: 06/03/19 10:23 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 461105 Batch Start Date: 06/11/19 08:44 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00260	IC Cal low 00464	IC LCS 01601	ICMS/MSD WEEK 00599
CCV 280-461105/1		9056A		5 mL	5 mL			5 mL	
CCB 280-461105/2		9056A		5 mL	5 mL				
MRL 280-461105/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-461105/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-461105/5		9056A		5 mL	5 mL			5 mL	
MB 280-461105/6		9056A		5 mL	5 mL				
280-123922-J-1	LF1MW-5_0519	9056A	T	5 mL	5 mL				
280-123922-J-1 DU	LF1MW-5_0519	9056A	T	5 mL	5 mL				
280-123922-J-1 MS	LF1MW-5_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123922-J-1 MSD	LF1MW-5_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123922-H-2	LF1MW-5_0519-a	9056A	T	5 mL	5 mL				
280-123922-I-3	LF1P-5_0519	9056A	T	5 mL	5 mL				
CCV 280-461105/17		9056A		5 mL	5 mL			5 mL	
CCB 280-461105/18		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	180502365015
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 461179 Batch Start Date: 06/10/19 17:09 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-461179/1		9060A		50 mL	50 mL	1 mL			
ICB 280-461179/2		9060A		20 mL	20 mL				
CCV 280-461179/39		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/40		9060A		20 mL	20 mL				
LCS 280-461179/41		9060A		200 mL	200 mL		5 mL		
MB 280-461179/42		9060A		20 mL	20 mL				
CCV 280-461179/51		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/52		9060A		20 mL	20 mL				
280-123922-G-1	LF1MW-5_0519	9060A	T	20 mL	20 mL				
CCV 280-461179/63		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/64		9060A		20 mL	20 mL				
280-123922-G-2	LF1MW-5_0519-a	9060A	T	20 mL	20 mL				
280-123922-G-3	LF1P-5_0519	9060A	T	20 mL	20 mL				
CCV 280-461179/72		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/73		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 461180 Batch Start Date: 06/10/19 17:09 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC LCS Std 00046			
LCS 280-461180/41		9060A		200 mL	200 mL	5 mL			
MB 280-461180/42		9060A		20 mL	20 mL				
280-123922-G-1	LF1MW-5_0519	9060A	T	20 mL	20 mL				
280-123922-G-2	LF1MW-5_0519-a	9060A	T	20 mL	20 mL				
280-123922-G-3	LF1P-5_0519	9060A	T	20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
CCV 280-459576/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/29		SM 2320B		InitialAmount is blank					
LCS 280-459576/30		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459576/31		SM 2320B		InitialAmount is blank					
280-123922-J-1	LF1MW-5_0519	SM 2320B	T	InitialAmount is blank					
280-123922-I-3	LF1P-5_0519	SM 2320B	T	InitialAmount is blank					
280-123922-H-2	LF1MW-5_0519-a	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/42		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/43		SM 2320B		InitialAmount is blank					

Batch Notes	
Acid ID	0.02 H2SO4_00260
pH Buffer 1 ID	pH 2.0 buffer_00079
pH Buffer 2 ID	pH 4. 0 buffer_00178
pH Buffer 3 ID	pH 7.0 buffer_00258
pH Buffer 4 ID	pH 10 buffer_00142
pH Buffer 5 ID	pH 12 buffer_00148
pH Buffer 6 ID	pH 7.0 buffer_00257
Sodium Carbonate ID	Alk Stk Std_00016
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000 ADI
Probe ID	PCE 86 pH 1105 sep14
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-459268/1		SM 2540C			3.8951A0383775	3.8951 g	100 mL	3.8950 g	3.8953 g
LCS 280-459268/2		SM 2540C			3.3709A0383776	3.3709 g	100 mL	3.4216 g	3.4212 g
280-123922-A-1	LF1MW-5_0519	SM 2540C	T	735 umhos/cm	3.9624A0383795	3.9624 g	100 mL	4.0091 g	4.0093 g
280-123922-A-2	LF1MW-5_0519-a	SM 2540C	T	763 umhos/cm	3.4167A0383796	3.4167 g	100 mL	3.4616 g	3.4617 g
280-123922-B-3	LF1P-5_0519	SM 2540C	T	670 umhos/cm	3.8195A0383797	3.8195 g	100 mL	3.8561 g	3.8566 g
280-123922-B-3 DU	LF1P-5_0519	SM 2540C	T	670 umhos/cm	3.9169A0383798	3.9169 g	100 mL	3.9574 g	3.9571 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 280-459268/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	-0.0001 g	0.0002 g	N/A g
LCS 280-459268/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0507 g	0.0503 g	N/A g
280-123922-A-1	LF1MW-5_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0467 g	0.0469 g	N/A g
280-123922-A-2	LF1MW-5_0519-a	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0449 g	0.045 g	N/A g
280-123922-B-3	LF1P-5_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0366 g	0.0371 g	N/A g
280-123922-B-3 DU	LF1P-5_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0405 g	0.0402 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00055		
MB 280-459268/1		SM 2540C		N/A g	100 mL	OK			
LCS 280-459268/2		SM 2540C		N/A g	100 mL	OK	100 mL		
280-123922-A-1	LF1MW-5_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123922-A-2	LF1MW-5_0519-a	SM 2540C	T	N/A g	100 mL	OK			
280-123922-B-3	LF1P-5_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123922-B-3 DU	LF1P-5_0519	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/31/2019 17:09
Date/Time - Out - CW (WT2)	06/01/2019 18:32
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/23/2019 16:13
Date/Time - Out	05/30/2019 10:00
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/30/2019 10:00 No Unit
Weight(WT1) Date/Time Out	05/31/2019 15:00
Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	Initial_DO	InitialTemp	Final pH	Bot1Num
SCB 280-458606/1		SM5210B				7.08	22.14 Celsius		1
USB 280-458606/2		SM5210B				7.07	22.14 Celsius		5
LCS 280-458606/3		SM5210B				7.09	22.12 Celsius		8
MB 280-458606/4		SM5210B				7.09	22.02 Celsius		11
280-123922-B-1	LF1MW-5_0519	SM5210B	T	6.66 SU	no	7.13	21.40 Celsius	6.66 SU	63
280-123922-B-2	LF1MW-5_0519-a	SM5210B	T	6.68 SU	no	7.10	21.40 Celsius	6.68 SU	66
280-123922-A-3	LF1P-5_0519	SM5210B	T	6.82 SU	no	7.10	21.38 Celsius	6.82 SU	69

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
SCB 280-458606/1		SM5210B		22.15 Celsius	15 mL	6.94 mg/L	4.38 mg/L	2.56 mg/L	0.683 mg/L
USB 280-458606/2		SM5210B		22.24 Celsius	300 mL	6.82 mg/L	6.63 mg/L	0.19 mg/L	0.19 mg/L
LCS 280-458606/3		SM5210B		22.10 Celsius	6 mL	6.98 mg/L	2.24 mg/L	4.74 mg/L	206.47 mg/L
MB 280-458606/4		SM5210B		22.04 Celsius	300 mL	6.90 mg/L	6.13 mg/L	0.77 mg/L	0.159 mg/L
280-123922-B-1	LF1MW-5_0519	SM5210B	T	21.64 Celsius	60 mL	6.52 mg/L	4.68 mg/L	1.84 mg/L	6.147 mg/L
280-123922-B-2	LF1MW-5_0519-a	SM5210B	T	21.52 Celsius	60 mL	6.64 mg/L	4.94 mg/L	1.7 mg/L	5.447 mg/L
280-123922-A-3	LF1P-5_0519	SM5210B	T	21.56 Celsius	60 mL	6.53 mg/L	5.62 mg/L	0.91 mg/L	1.497 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
SCB 280-458606/1		SM5210B		No. % DO < 50%	37 %	2	22.10 Celsius	20 mL	6.96 mg/L
USB 280-458606/2		SM5210B		Yes. USB		6	22.22 Celsius	300 mL	6.80 mg/L
LCS 280-458606/3		SM5210B		YES. Pass		9	21.99 Celsius	6 mL	6.99 mg/L
MB 280-458606/4		SM5210B		No. DO Deplete Fail					
280-123922-B-1	LF1MW-5_0519	SM5210B	T	No. DO Deplete Fail		64	21.33 Celsius	120 mL	7.01 mg/L
280-123922-B-2	LF1MW-5_0519-a	SM5210B	T	No. DO Deplete Fail		67	21.35 Celsius	120 mL	7.30 mg/L

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
280-123922-A-3	LF1P-5_0519	SM5210B	T	No. DO Deplete Fail		70	21.33 Celsius	120 mL	7.10 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
SCB 280-458606/1		SM5210B		3.92 mg/L	44 %	3.04 mg/L	0.608 mg/L	Yes	3
USB 280-458606/2		SM5210B		6.67 mg/L		0.13 mg/L	0.13 mg/L	Yes. Pass	7
LCS 280-458606/3		SM5210B		2.42 mg/L		4.57 mg/L	197.97 mg/L	YES. Pass	10
MB 280-458606/4		SM5210B							
280-123922-B-1	LF1MW-5_0519	SM5210B	T	5.23 mg/L		1.78 mg/L	2.924 mg/L	No. DO Deplete Fail	65
280-123922-B-2	LF1MW-5_0519-a	SM5210B	T	5.94 mg/L		1.36 mg/L	1.874 mg/L	No. DO Deplete Fail	68
280-123922-A-3	LF1P-5_0519	SM5210B	T	6.00 mg/L		1.1 mg/L	1.224 mg/L	No. DO Deplete Fail	71

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
SCB 280-458606/1		SM5210B		22.10 Celsius	25 mL	6.99 mg/L	3.20 mg/L	3.79 mg/L	0.606 mg/L
USB 280-458606/2		SM5210B		22.20 Celsius	300 mL	6.82 mg/L	6.67 mg/L	0.15 mg/L	0.15 mg/L
LCS 280-458606/3		SM5210B		21.96 Celsius	6 mL	7.02 mg/L	2.39 mg/L	4.63 mg/L	200.97 mg/L
MB 280-458606/4		SM5210B							
280-123922-B-1	LF1MW-5_0519	SM5210B	T	20.94 Celsius	240 mL	6.90 mg/L	4.44 mg/L	2.46 mg/L	2.312 mg/L
280-123922-B-2	LF1MW-5_0519-a	SM5210B	T	21.15 Celsius	240 mL	7.00 mg/L	4.82 mg/L	2.18 mg/L	1.962 mg/L
280-123922-A-3	LF1P-5_0519	SM5210B	T	21.22 Celsius	240 mL	6.79 mg/L	5.35 mg/L	1.44 mg/L	1.037 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
SCB 280-458606/1		SM5210B		54 %	YES. Pass	4	22.11 Celsius	30 mL	6.98 mg/L
USB 280-458606/2		SM5210B			Yes. Pass				
LCS 280-458606/3		SM5210B			YES. Pass				

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GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
MB 280-458606/4		SM5210B							
280-123922-B-1	LF1MW-5_0519	SM5210B	T		YES. Pass				
280-123922-B-2	LF1MW-5_0519-a	SM5210B	T		YES. Pass				
280-123922-A-3	LF1P-5_0519	SM5210B	T		NO. Deplete Fail				

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
SCB 280-458606/1		SM5210B		2.35 mg/L	4.63 mg/L	0.617 mg/L	66 %	YES. Pass	300 mL
USB 280-458606/2		SM5210B							300 mL
LCS 280-458606/3		SM5210B							300 mL
MB 280-458606/4		SM5210B							300 mL
280-123922-B-1	LF1MW-5_0519	SM5210B	T						300 mL
280-123922-B-2	LF1MW-5_0519-a	SM5210B	T						300 mL
280-123922-A-3	LF1P-5_0519	SM5210B	T						300 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
SCB 280-458606/1		SM5210B		7.13	21.61 Celsius				
USB 280-458606/2		SM5210B		7.18	21.33 Celsius				
LCS 280-458606/3		SM5210B		7.18	21.30 Celsius	6 mL			
MB 280-458606/4		SM5210B		7.14	21.26 Celsius				
280-123922-B-1	LF1MW-5_0519	SM5210B	T	7.07	20.54 Celsius		pH temp= 12.9, color= pale yellow/slightly turbid		
280-123922-B-2	LF1MW-5_0519-a	SM5210B	T	7.07	20.46 Celsius		pH temp= 13.3, color= pale yellow/slightly turbid		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
280-123922-A-3	LF1P-5_0519	SM5210B	T	7.07	20.45 Celsius		pH temp= 15.2, color= pale orange/slightly turbid		

Batch Notes	
Barometer ID	YSI 5100 BOD Probe: 16H100313
Batch Comment	Room Temp= 22.51 EC trained by ckb
Calibration - Final Date/Time	05/21/2019 15:45
Calibration - Initial Date/Time	05/17/2019 17:30
Dilution Water ID	Elga water 18.2 micro ohms
Sulfuric Acid ID	1N H2SO4_00033
Incubator ID	BOD10
Sodium Hydroxide ID	1N NaOH_00047
Nitrification Inhibitor ID	Nitrogen inhibitor_00012
Nominal Amount Used	300 mL
Nutrient Buffer Pillow ID	BOD buffer_00038
pH Meter ID	SV-15261, QX1-15909
Pipette/Syringe/Dispenser ID	5000 BOD 1000BOD
Probe ID	YSI 5010 BOD Probe 15A100003
Residual Chlorine Pillow Lot #	free chlorine micro check lot: 111418
Amount of Seed added to each Sample	4 mL
Seed Correction	0.6106 mg/L
Seed ID	Polyseed_00020 Seeded @ 17:30 EC Readback 16:30 EC
Thermometer ID	BOD log tag 10
Uncorrected Incubator Temp - Final	19.70 Celsius
Uncorrected Incubator Temp - Initial	19.70 Celsius
Barometric Pressure - Uncorrected	initial:620 final:624

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123922-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Table - 053019.tbl

File name: C:\FLOW_4\053019.TBL
Date: 30-May-19

Cup	Name	Type	R	Dil	Wt	Comment
5	Sync	SYNC	1	1	1	
0	blk	CO	1	1	1	
0	Read Baseline	RB	1	1	1	
1	Cal 0.0 PPB	C	1	1	1	
3	Cal 25.0 ppb	C	1	1	1	
4	Cal 50.0 ppb	C	1	1	1	
5	Cal 100.0 ppb	C	1	1	1	
6	Cal 500.0 ppb	C	1	1	1	
7	Cal 1000.0 ppb	C	1	1	1	
8	Cal 2500.0 ppb	C	1	1	1	
9	Cal 5000.0 ppb	C	1	1	1	
0	blank	BLNK	1	1	1	
0	read baseline	RB	1	1	1	
10	ICVL 500.0 ppb	U	1	1	1	pH Cl-
11	ICV 2500.0 ppb	U	1	1	1	
1	ICB	U	1	1	1	
0	read baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	2
13	280-124168-c-1	U	1	1	1	2
14	MS 280-124168-c-1	U	1	1	1	
15	MSD 280-124168-c-1	U	1	1	1	
16	280-124168-c-2	U	1	1	1	2
17	280-124168-c-3	U	1	1	1	2
18	280-123922-e-1	U	1	1	1	2
19	280-123922-d-2	U	1	1	1	2
20	280-123922-c-3	U	1	1	1	2
21	280-123947-b-2	U	1	20	1	2
22	280-123924-e-1	U	1	1	1	2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
23	280-123924-d-2	U	1	1	1	2
24	280-123924-c-3	U	1	1	1	2
25	280-123924-c-4	U	1	1	1	2
26	MS 280-123924-c-4	U	1	1	1	
27	MSD 280-123924-c-4	U	1	1	1	
28	280-123924-e-5	U	1	1	1	2
29	280-123924-c-6	U	1	1	1	2
30	280-123924-c-7	U	1	1	1	2
31	280-123924-c-8	U	1	1	1	2
32	280-123924-c-9	U	1	1	1	2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
33	280-123924-c-10	U	1	1	1	2
34	280-123924-c-11	U	1	1	1	2
35	280-123924-c-12	U	1	1	1	2
36	280-123930-e-1	U	1	1	1	2

Cup	Name	Type	R	Dil	Wt	Comment
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	
37	280-123930-c-2	U	1	1	1	L2 N
38	MS 280-123930-c-2	U	1	1	1	
39	MSD 280-123930-c-2	U	1	1	1	N
40	280-123930-e-3	U	1	1	1	L2
41	280-123930-c-4	U	1	1	1	L2
42	280-123930-c-5	U	1	1	1	L2
43	280-123981-d-1	U	1	1	1	L2
44	280-123981-e-2	U	1	1	1	L2
45	280-123981-c-3	U	1	1	1	L2
46	280-123981-e-4	U	1	1	1	L2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
47	280-123981-e-5	U	1	1	1	L2
48	280-123981-d-6	U	1	1	1	L2
49	280-123981-e-7	U	1	1	1	L2
50	MS 280-123981-e-7	U	1	1	1	
51	MSD 280-123981-e-7	U	1	1	1	L2
52	280-123981-c-8	U	1	1	1	L2
53	280-123981-e-9	U	1	1	1	L2
54	280-124244-a-1	U	1	1	1	L2
55	280-124229-b-1	U	1	1	1	L2
56	280-124229-b-2	U	1	1	1	L2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
57	280-124229-b-3	U	1	1	1	L2
58	280-124229-b-4	U	1	1	1	L2
59	280-124229-b-5	U	1	1	1	L2 unpreserved
60	280-123760-e-1	U	1	~~1~~ 500	1	L2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	
61	280-123712-a-1	U	1	100	1	L2 N
62	MS 280-123712-a-1	U	1	100	1	
63	MSD 280-123712-a-1	U	1	100	1	
64	280-123712-a-2	U	1	100	1	L2 N
65	280-123590-a-1	U	1	500	1	L2
0	Rinse	U	1	1	1	

Cup	Name	Type	R	Dil	Wt	Comment
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	MJS
Operator ID	MJS
Platform	FS 3000
Software Rev Code	222
Data system ID	57
Result path	C:\FLOW_4\053019.RST
Sample table path	C:\FLOW_4\053019.tbl
Method path	C:\FLOW_4\nh3.mth
Date acquired	30-May-19
Time acquired	15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	10:59	5	Sync	12533	102.820	
30-May-19	11:01	0	blk	-101	7.426	
30-May-19	11:03	0	Read Baseline	0	8.188	BL
30-May-19	11:05	1	Cal 0.0 PPB	351	10.830	
30-May-19	11:07	3	Cal 25.0 ppb	3030	31.004	
30-May-19	11:09	4	Cal 50.0 ppb	6203	54.940	
30-May-19	11:11	5	Cal 100.0 ppb	12605	103.366	
30-May-19	11:13	6	Cal 500.0 ppb	61020	475.195	
30-May-19	11:15	7	Cal 1000.0 ppb	123276	967.943	
30-May-19	11:17	8	Cal 2500.0 ppb	308445	2530.731	
30-May-19	11:19	9	Cal 5000.0 ppb	570676	4992.791	
30-May-19	11:21	0	blank	228	9.900	
30-May-19	11:23	0	read baseline	0	8.188	BL
30-May-19	11:25	10	ICVL 500.0 ppb	59361	462.292	
30-May-19	11:27	11	ICV 2500.0 ppb	300443	2460.194	
30-May-19	11:29	1	ICB	89	8.859	
30-May-19	11:31	0	read baseline	0	8.188	BL UM
30-May-19	11:33	8	LCS	303744	2489.255	
30-May-19	11:35	8	LCSD	301427	2468.847	
30-May-19	11:37	12	.MB	4364	41.063	UM
30-May-19	11:39	13	.280-124168-c-1	-7737	-49.901	LO
30-May-19	11:41	14	MS 280-124168-c-1	-9671	-64.381	LO
30-May-19	11:43	15	MSD 280-124168-c-1	-13204	-90.792	LO
30-May-19	11:50	0	read baseline	0	8.188	BL
30-May-19	11:52	8	LCS	310485	2548.762	
30-May-19	11:54	8	LCSD	309471	2539.796	
30-May-19	11:56	12	MB	90	8.865	
30-May-19	11:58	13	280-124168-c-1	146	9.286	
30-May-19	12:00	14	MS 280-124168-c-1	131075	1030.835	
30-May-19	12:02	15	MSD 280-124168-c-1	133295	1048.785	
30-May-19	12:04	16	280-124168-c-2	186	9.585	
30-May-19	12:06	17	280-124168-c-3	311	10.529	
30-May-19	12:08	18	280-123922-e-1	186011	1481.124	
30-May-19	12:10	19	280-123922-d-2	211025	1690.397	
30-May-19	12:12	20	280-123922-c-3	107517	841.664	
30-May-19	12:14	21	280-123947-b-2	98077	15330.447	
30-May-19	12:16	22	280-123924-e-1	67	8.694	
30-May-19	12:18	0	Rinse	100	8.937	
30-May-19	12:20	0	Read Baseline	0	8.188	BL
30-May-19	12:22	6	CCVL 500 ppb	58335	454.312	
30-May-19	12:24	8	CCV 2500 ppb	297861	2437.484	
30-May-19	12:26	12	CCB	485	11.841	
30-May-19	12:28	0	Read Baseline	0	8.188	BL
30-May-19	12:30	23	280-123924-d-2	9179	77.426	
30-May-19	12:32	24	280-123924-c-3	307	10.499	
30-May-19	12:34	25	280-123924-c-4	36798	287.930	

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	12:36	26	MS 280-123924-c-4	158618	1254.990	
30-May-19	12:38	27	MSD 280-123924-c-4	166484	1319.605	
30-May-19	12:40	28	280-123924-e-5	18381	147.199	
30-May-19	12:42	29	280-123924-c-6	77531	604.279	
30-May-19	12:44	30	280-123924-c-7	2933	30.271	
30-May-19	12:46	31	280-123924-c-8	3185	32.172	
30-May-19	12:48	32	280-123924-c-9	3096	31.503	
30-May-19	12:50	0	Rinse	-236	6.415	
30-May-19	12:52	0	Read Baseline	0	8.188	BL
30-May-19	12:54	6	CCVL 500 ppb	58342	454.370	
30-May-19	12:56	8	CCV 2500 ppb	296742	2427.652	
30-May-19	12:58	12	CCB	603	12.725	
30-May-19	13:00	0	Read Baseline	0	8.188	BL
30-May-19	13:02	33	280-123924-c-10	2218	24.887	
30-May-19	13:04	34	280-123924-c-11	1753	21.383	
30-May-19	13:06	35	280-123924-c-12	3497	34.523	
30-May-19	13:08	36	280-123930-e-1	82256	641.432	
30-May-19	13:10	0	Rinse	345	10.784	
30-May-19	13:12	0	Read Baseline	0	8.188	BL
30-May-19	13:14	6	CCVL 500 ppb	59538	463.670	
30-May-19	13:16	8	CCV 2500 ppb	303993	2491.456	
30-May-19	13:18	12	CCB	398	11.186	
30-May-19	13:20	0	Read Baseline	0	8.188	BL
30-May-19	13:22	8	LCS	301638	2470.708	
30-May-19	13:24	8	LCSD	301428	2468.860	
30-May-19	13:26	12	MB	370	10.970	
30-May-19	13:28	37	280-123930-c-2	15354	124.213	
30-May-19	13:30	38	MS 280-123930-c-2	142208	1121.052	
30-May-19	13:32	39	MSD 280-123930-c-2	144106	1136.489	
30-May-19	13:34	40	280-123930-e-3	15971	128.895	
30-May-19	13:36	41	280-123930-c-4	23150	183.504	
30-May-19	13:38	42	280-123930-c-5	6642	58.253	
30-May-19	13:40	43	280-123981-d-1	78481	611.740	
30-May-19	13:42	44	280-123981-e-2	27694	218.186	
30-May-19	13:44	45	280-123981-c-3	-274	6.129	
30-May-19	13:46	46	280-123981-e-4	319	10.589	
30-May-19	13:48	0	Rinse	226	9.886	
30-May-19	13:50	0	Read Baseline	0	8.188	BL
30-May-19	13:52	6	CCVL 500 ppb	58773	457.718	
30-May-19	13:54	8	CCV 2500 ppb	303896	2490.598	
30-May-19	13:56	12	CCB	319	10.590	
30-May-19	13:58	0	Read Baseline	0	8.188	BL
30-May-19	14:00	47	280-123981-e-5	-70	7.663	
30-May-19	14:02	48	280-123981-d-6	3100	31.536	
30-May-19	14:04	49	280-123981-e-7	-248	6.325	
30-May-19	14:06	50	MS 280-123981-e-7	120358	944.480	
30-May-19	14:08	51	MSD 280-123981-e-7	128907	1013.326	
30-May-19	14:10	52	280-123981-c-8	477	11.779	
30-May-19	14:12	53	280-123981-e-9	161	9.397	
30-May-19	14:14	54	280-124244-a-1	55458	431.976	
30-May-19	14:16	55	280-124229-b-1	2030	23.469	
30-May-19	14:18	56	280-124229-b-2	-138	7.149	
30-May-19	14:20	0	Rinse	-263	6.210	
30-May-19	14:22	0	Read Baseline	0	8.188	BL
30-May-19	14:24	6	CCVL 500 ppb	59416	462.718	
30-May-19	14:26	8	CCV 2500 ppb	301106	2466.028	
30-May-19	14:28	12	CCB	377	11.027	

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	14:30	0	Read Baseline	0	8.188	BL
30-May-19	14:32	57	280-124229-b-3	591	12.637	
30-May-19	14:34	58	280-124229-b-4	10957	90.884	
30-May-19	14:36	59	280-124229-b-5	-95	7.476	
30-May-19	14:38	60	280-123760-e-1	272349	221467.359	
30-May-19	14:40	0	Rinse	181	9.548	
30-May-19	14:42	0	Read Baseline	0	8.188	BL
30-May-19	14:44	6	CCVL 500 ppb	61769	481.031	
30-May-19	14:46	8	CCV 2500 ppb	309865	2543.281	
30-May-19	14:48	12	CCB	520	12.100	
30-May-19	14:50	0	Read Baseline	0	8.188	BL
30-May-19	14:52	8	LCS	288419	2354.700	
30-May-19	14:54	8	LCSD	313714	2577.327	
30-May-19	14:56	12	MB	264	10.176	
30-May-19	14:58	61	280-123712-a-1	75216	58611.250	
30-May-19	15:00	62	MS 280-123712-a-1	213348	170996.875	
30-May-19	15:02	63	MSD 280-123712-a-1	211956	169823.797	
30-May-19	15:04	64	280-123712-a-2	72113	56179.426	
30-May-19	15:06	65	280-123590-a-1	44423	173305.375	
30-May-19	15:08	0	Rinse	62	8.651	
30-May-19	15:10	0	Read Baseline	0	8.188	BL
30-May-19	15:12	6	CCVL 500 ppb	58293	453.988	
30-May-19	15:14	8	CCV 2500 ppb	313425	2574.775	
30-May-19	15:16	12	CCB	201	9.697	
30-May-19	15:18	0	Read Baseline	0	8.188	BL

Peak Table:Ammonia

File name: C:\FLOW_4\053019.RST
Date: 30-May-19
Operator: MJS

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	12533	102.819733	
2	0	blk	1	CO	1	1	-101	7.426366	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
4	1	Cal 0.0 PPB	1	C	1	1	351	10.830211	
5	3	Cal 25.0 ppb	1	C	1	1	3030	31.003801	
6	4	Cal 50.0 ppb	1	C	1	1	6203	54.940498	
7	5	Cal 100.0 ppb	1	C	1	1	12605	103.365593	
8	6	Cal 500.0 ppb	1	C	1	1	61020	475.194672	
9	7	Cal 1000.0 ppb	1	C	1	1	123276	967.943176	
10	8	Cal 2500.0 ppb	1	C	1	1	308445	2530.731201	
11	9	Cal 5000.0 ppb	1	C	1	1	570676	4992.790527	
12	0	blank	1	BLNK	1	1	228	9.900016	
B	0	read baseline	1	RB	1	1	0	8.187531	BL
14	10	ICVL 500.0 ppb	1	U	1	1	59361	462.292480	
15	11	ICV 2500.0 ppb	1	U	1	1	300443	2460.193604	
16	1	ICB	1	U	1	1	89	8.859468	
B	0	read baseline	1	RB	1	1	0	8.187531	BL UM
18	8	LCS	1	U	1	1	303744	2489.255371	
19	8	LCSD	1	U	1	1	301427	2468.846924	
20	12	.MB	1	U	1	1	4364	41.062794	UM
21	13	.280-124168-c-1	1	U	1	1	-7737	-49.900867	LO
22	14	MS 280-124168-c-1	1	U	1	1	-9671	-64.381126	LO
23	15	MSD 280-124168-c-1	1	U	1	1	-13204	-90.791763	LO
B	0	read baseline	1	RB	1	1	0	8.187531	BL
25	8	LCS	1	U	1	1	310485	2548.761719	
26	8	LCSD	1	U	1	1	309471	2539.795898	
27	12	MB	1	U	1	1	90	8.865420	
28	13	280-124168-c-1	1	U	1	1	146	9.286325	
29	14	MS 280-124168-c-1	1	U	1	1	131075	1030.835327	
30	15	MSD 280-124168-c-1	1	U	1	1	133295	1048.784912	
31	16	280-124168-c-2	1	U	1	1	186	9.585053	
32	17	280-124168-c-3	1	U	1	1	311	10.529251	
33	18	280-123922-e-1	1	U	1	1	186011	1481.124268	
34	19	280-123922-d-2	1	U	1	1	211025	1690.396729	
35	20	280-123922-c-3	1	U	1	1	107517	841.663757	
36	21	280-123947-b-2	1	U	20	1	98077	15330.447266	
37	22	280-123924-e-1	1	U	1	1	67	8.694414	
38	0	Rinse	1	U	1	1	100	8.937119	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
40	6	CCVL 500 ppb	1	U	1	1	58335	454.312469	
41	8	CCV 2500 ppb	1	U	1	1	297861	2437.484375	
42	12	CCB	1	U	1	1	485	11.840541	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
44	23	280-123924-d-2	1	U	1	1	9179	77.425850	
45	24	280-123924-c-3	1	U	1	1	307	10.499029	
46	25	280-123924-c-4	1	U	1	1	36798	287.929779	
47	26	MS 280-123924-c-4	1	U	1	1	158618	1254.989624	
48	27	MSD 280-123924-c-4	1	U	1	1	166484	1319.604614	
49	28	280-123924-e-5	1	U	1	1	18381	147.198837	
50	29	280-123924-c-6	1	U	1	1	77531	604.278931	
51	30	280-123924-c-7	1	U	1	1	2933	30.271387	
52	31	280-123924-c-8	1	U	1	1	3185	32.171955	
53	32	280-123924-c-9	1	U	1	1	3096	31.503464	
54	0	Rinse	1	U	1	1	-236	6.414662	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
56	6	CCVL 500 ppb	1	U	1	1	58342	454.370270	
57	8	CCV 2500 ppb	1	U	1	1	296742	2427.651855	
58	12	CCB	1	U	1	1	603	12.725226	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
60	33	280-123924-c-10	1	U	1	1	2218	24.886900	
61	34	280-123924-c-11	1	U	1	1	1753	21.382565	
62	35	280-123924-c-12	1	U	1	1	3497	34.523472	
63	36	280-123930-e-1	1	U	1	1	82256	641.432190	
64	0	Rinse	1	U	1	1	345	10.784194	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
66	6	CCVL 500 ppb	1	U	1	1	59538	463.670349	
67	8	CCV 2500 ppb	1	U	1	1	303993	2491.456055	
68	12	CCB	1	U	1	1	398	11.185896	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
70	8	LCS	1	U	1	1	301638	2470.708252	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	8	LCSD	1	U	1	1	301428	2468.860107	
72	12	MB	1	U	1	1	370	10.970116	
73	37	280-123930-c-2	1	U	1	1	15354	124.213051	
74	38	MS 280-123930-c-2	1	U	1	1	142208	1121.051636	
75	39	MSD 280-123930-c-2	1	U	1	1	144106	1136.489258	
76	40	280-123930-e-3	1	U	1	1	15971	128.894516	
77	41	280-123930-c-4	1	U	1	1	23150	183.503891	
78	42	280-123930-c-5	1	U	1	1	6642	58.253437	
79	43	280-123981-d-1	1	U	1	1	78481	611.739990	
80	44	280-123981-e-2	1	U	1	1	27694	218.186264	
81	45	280-123981-c-3	1	U	1	1	-274	6.128890	
82	46	280-123981-e-4	1	U	1	1	319	10.588769	
83	0	Rinse	1	U	1	1	226	9.885809	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
85	6	CCVL 500 ppb	1	U	1	1	58773	457.717712	
86	8	CCV 2500 ppb	1	U	1	1	303896	2490.597656	
87	12	CCB	1	U	1	1	319	10.589765	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
89	47	280-123981-e-5	1	U	1	1	-70	7.663309	
90	48	280-123981-d-6	1	U	1	1	3100	31.535744	
91	49	280-123981-e-7	1	U	1	1	-248	6.324844	
92	50	MS 280-123981-e-7	1	U	1	1	120358	944.480103	
93	51	MSD 280-123981-e-7	1	U	1	1	128907	1013.326233	
94	52	280-123981-c-8	1	U	1	1	477	11.778512	
95	53	280-123981-e-9	1	U	1	1	161	9.396813	
96	54	280-124244-a-1	1	U	1	1	55458	431.976318	
97	55	280-124229-b-1	1	U	1	1	2030	23.469158	
98	56	280-124229-b-2	1	U	1	1	-138	7.149239	
99	0	Rinse	1	U	1	1	-263	6.209613	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
101	6	CCVL 500 ppb	1	U	1	1	59416	462.718384	
102	8	CCV 2500 ppb	1	U	1	1	301106	2466.027832	
103	12	CCB	1	U	1	1	377	11.026817	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
105	57	280-124229-b-3	1	U	1	1	591	12.636806	
106	58	280-124229-b-4	1	U	1	1	10957	90.884277	
107	59	280-124229-b-5	1	U	1	1	-95	7.475824	
108	60	280-123760-e-1	1	U	100	1	272349	221467.359375	
109	0	Rinse	1	U	1	1	181	9.547703	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
111	6	CCVL 500 ppb	1	U	1	1	61769	481.031189	
112	8	CCV 2500 ppb	1	U	1	1	309865	2543.281494	
113	12	CCB	1	U	1	1	520	12.099533	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
115	8	LCS	1	U	1	1	288419	2354.699951	
116	8	LCSD	1	U	1	1	313714	2577.327393	
117	12	MB	1	U	1	1	264	10.175629	
118	61	280-123712-a-1	1	U	100	1	75216	58611.250000	
119	62	MS 280-123712-a-1	1	U	100	1	213348	170996.875000	
120	63	MSD 280-123712-a-1	1	U	100	1	211956	169823.796875	
121	64	280-123712-a-2	1	U	100	1	72113	56179.425781	
122	65	280-123590-a-1	1	U	500	1	44423	173305.375000	
123	0	Rinse	1	U	1	1	62	8.651432	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
125	6	CCVL 500 ppb	1	U	1	1	58293	453.987793	
126	8	CCV 2500 ppb	1	U	1	1	313425	2574.775391	
127	12	CCB	1	U	1	1	201	9.697403	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL

Ammonia:Calibration 1: Peak 4-128

File name: C:\FLOW_4\053019.RST
Date: 30-May-19
Operator: MJS

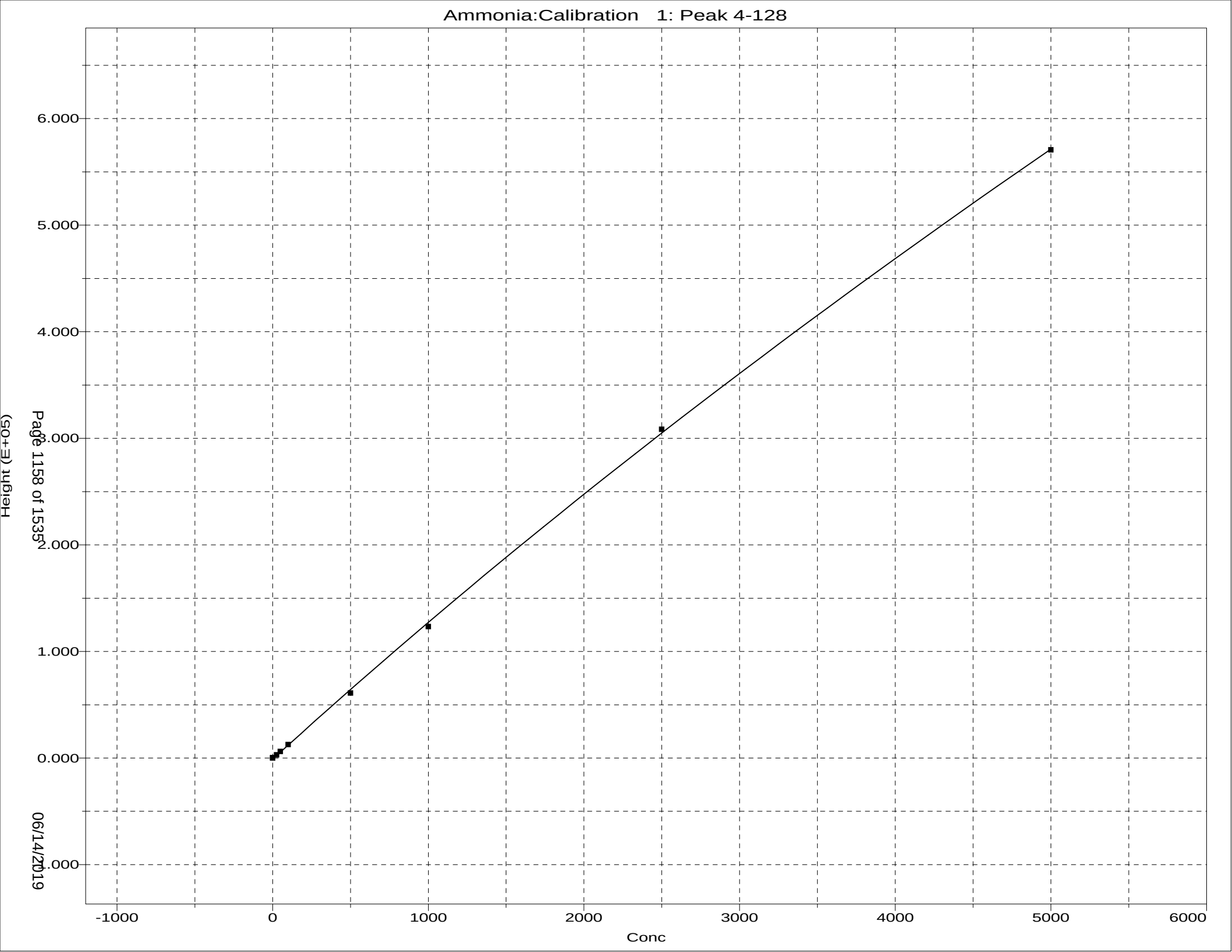
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*	Cal 1000.0 ppb	1000.000000	123275.507812
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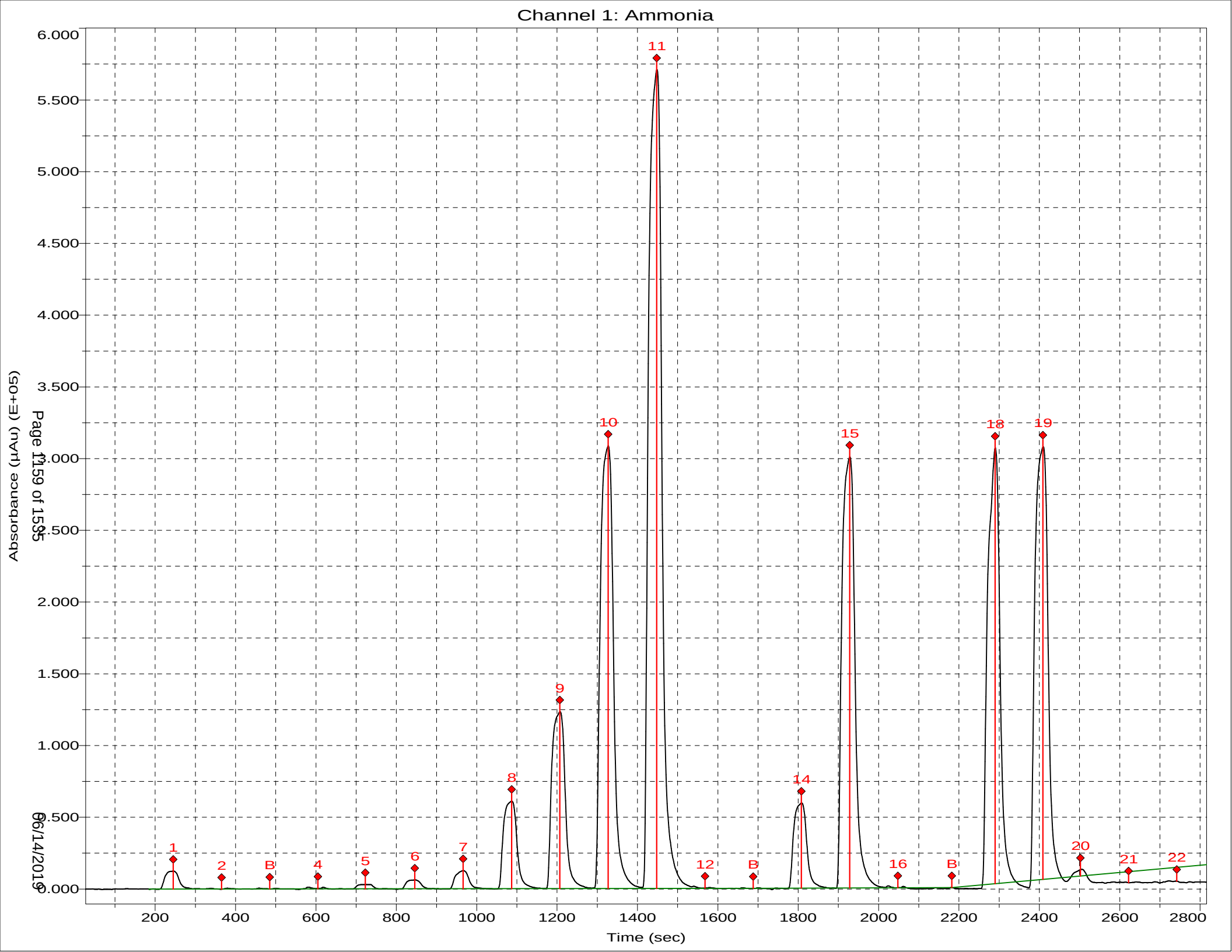
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a: (intercept) 8.1875e+00
b: 7.5239e-03
c: 2.1214e-09

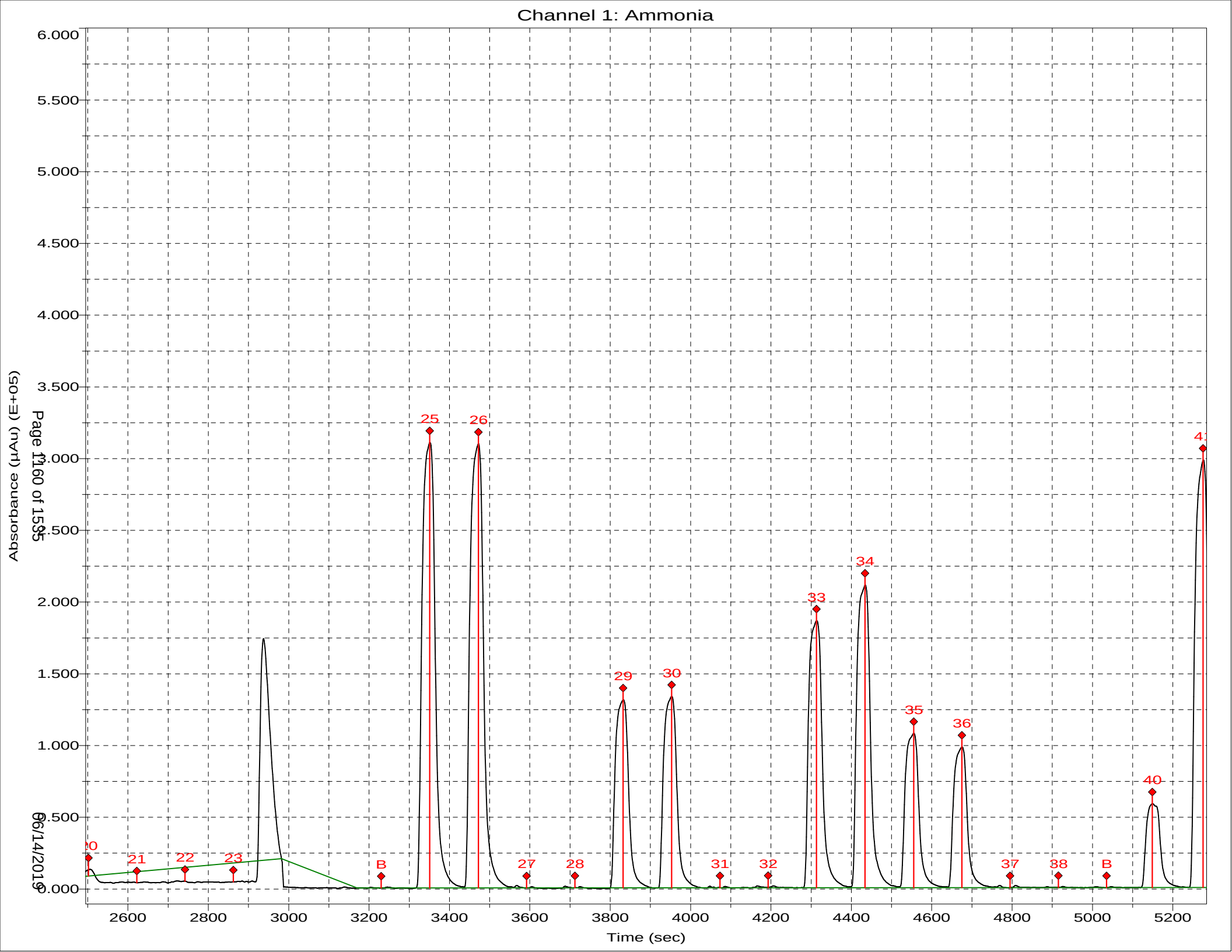
Corr Coef: 0.999938

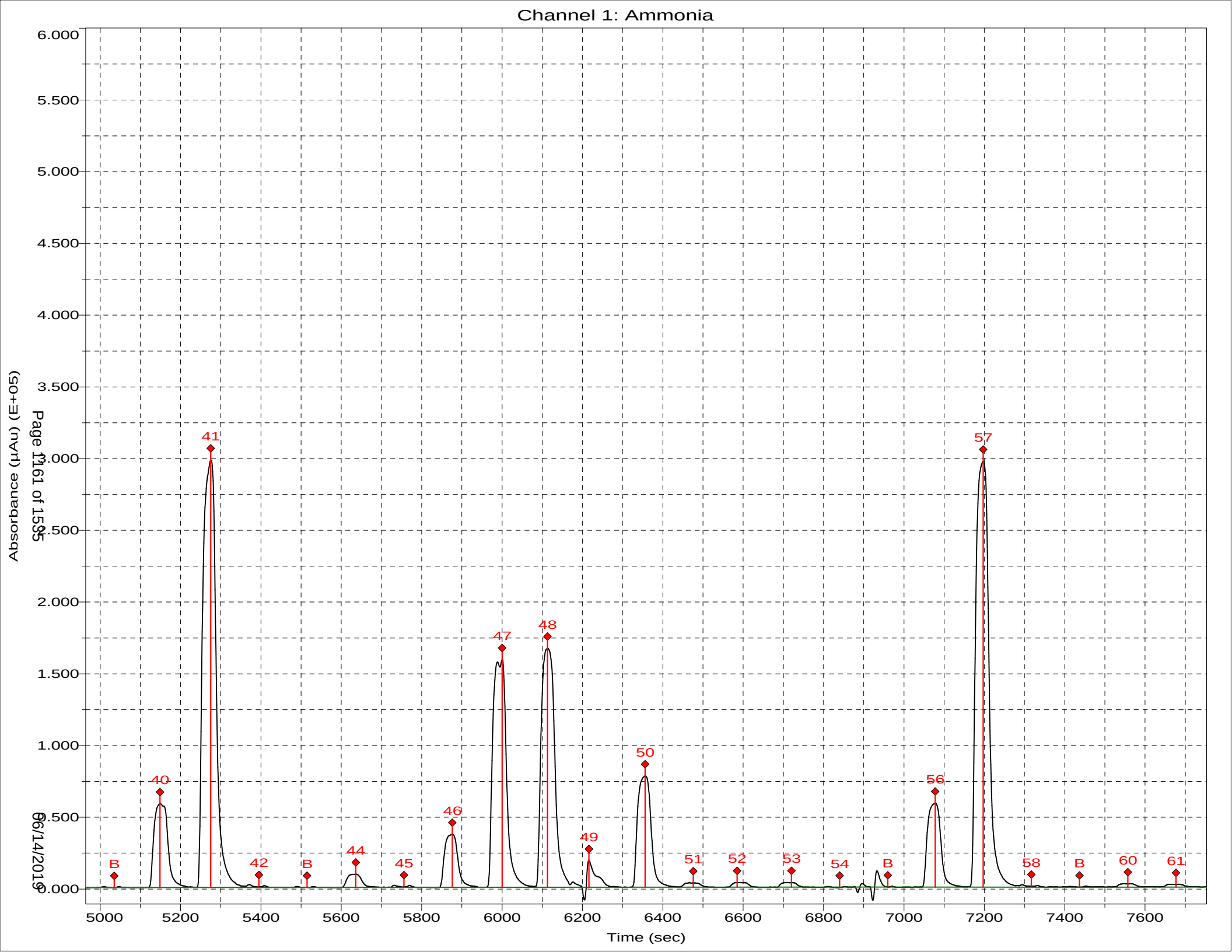
Carryover: 0%

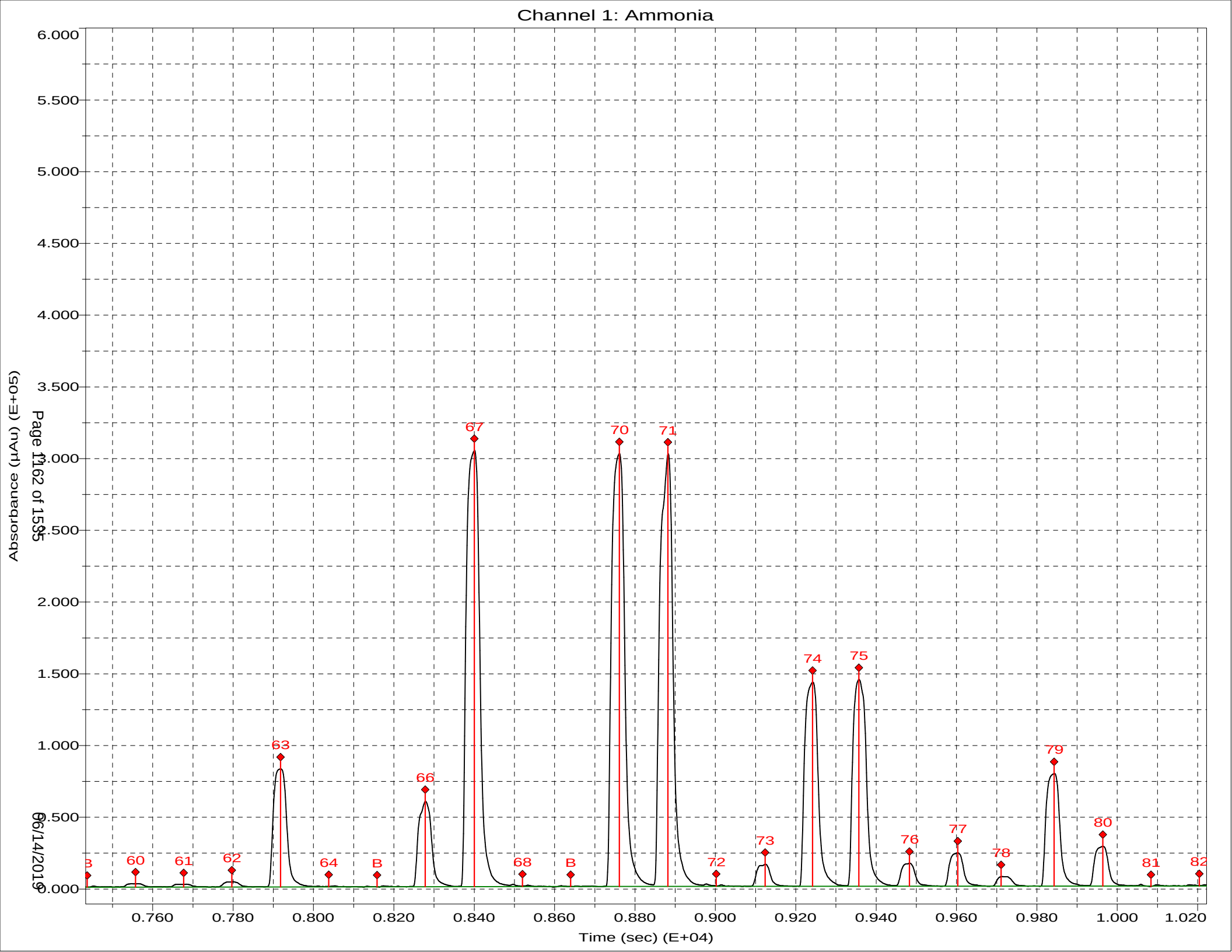
No Drift Peaks

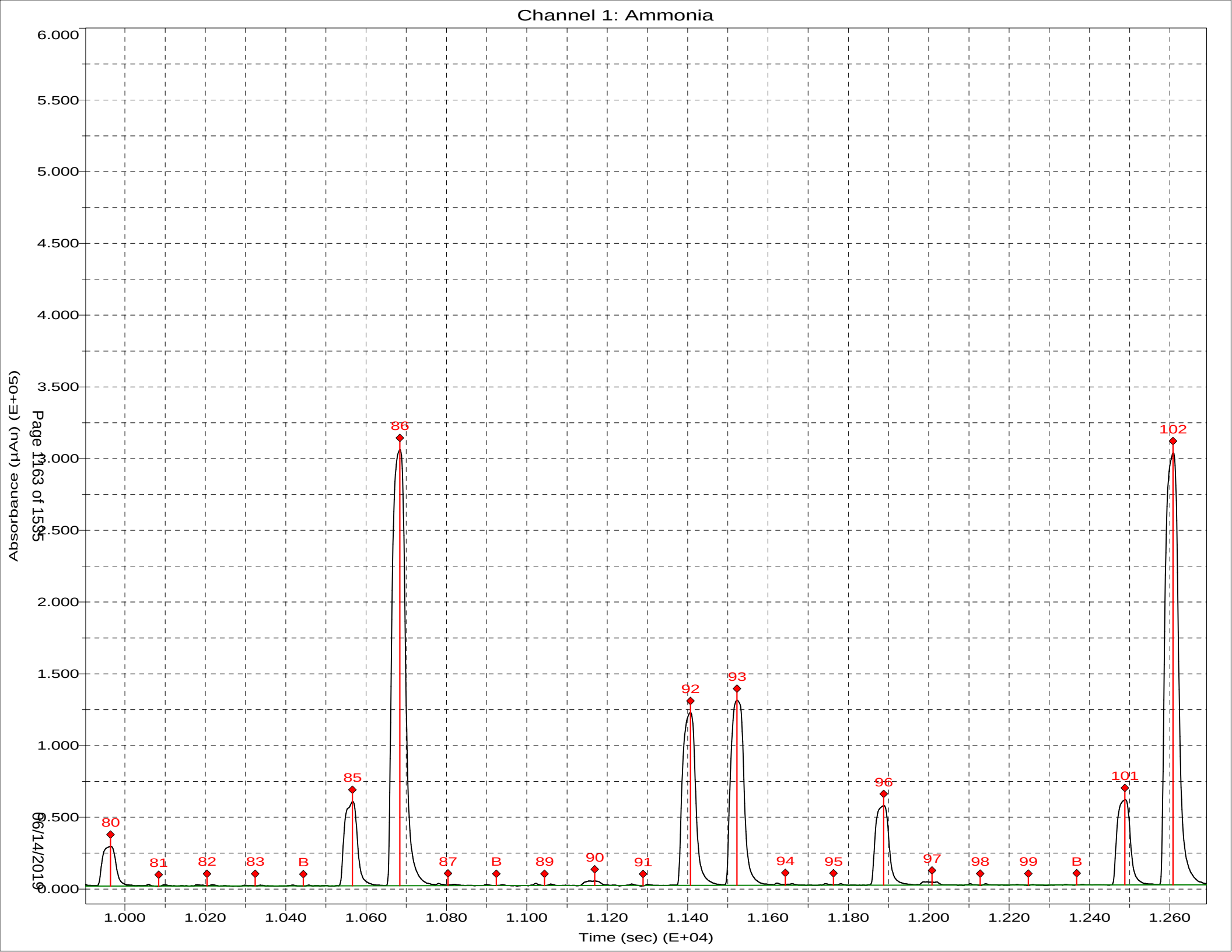

Ammonia:Calibration 1: Peak 4-128
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Height (E+05)
-1000
0
1000
2000
3000
4000
5000
6000
Conc

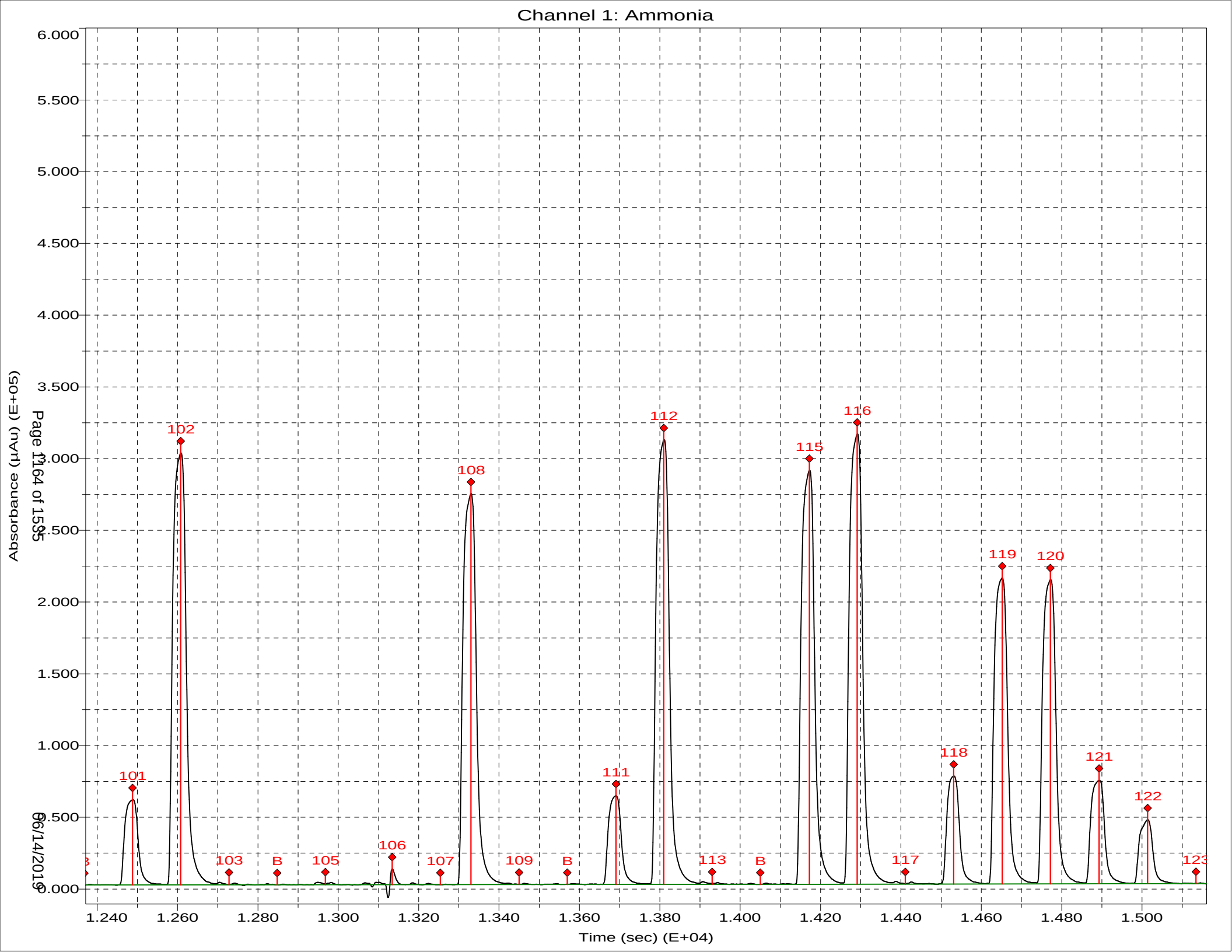

Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
Page 1159 of 1535
06/14/2019
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
21
22

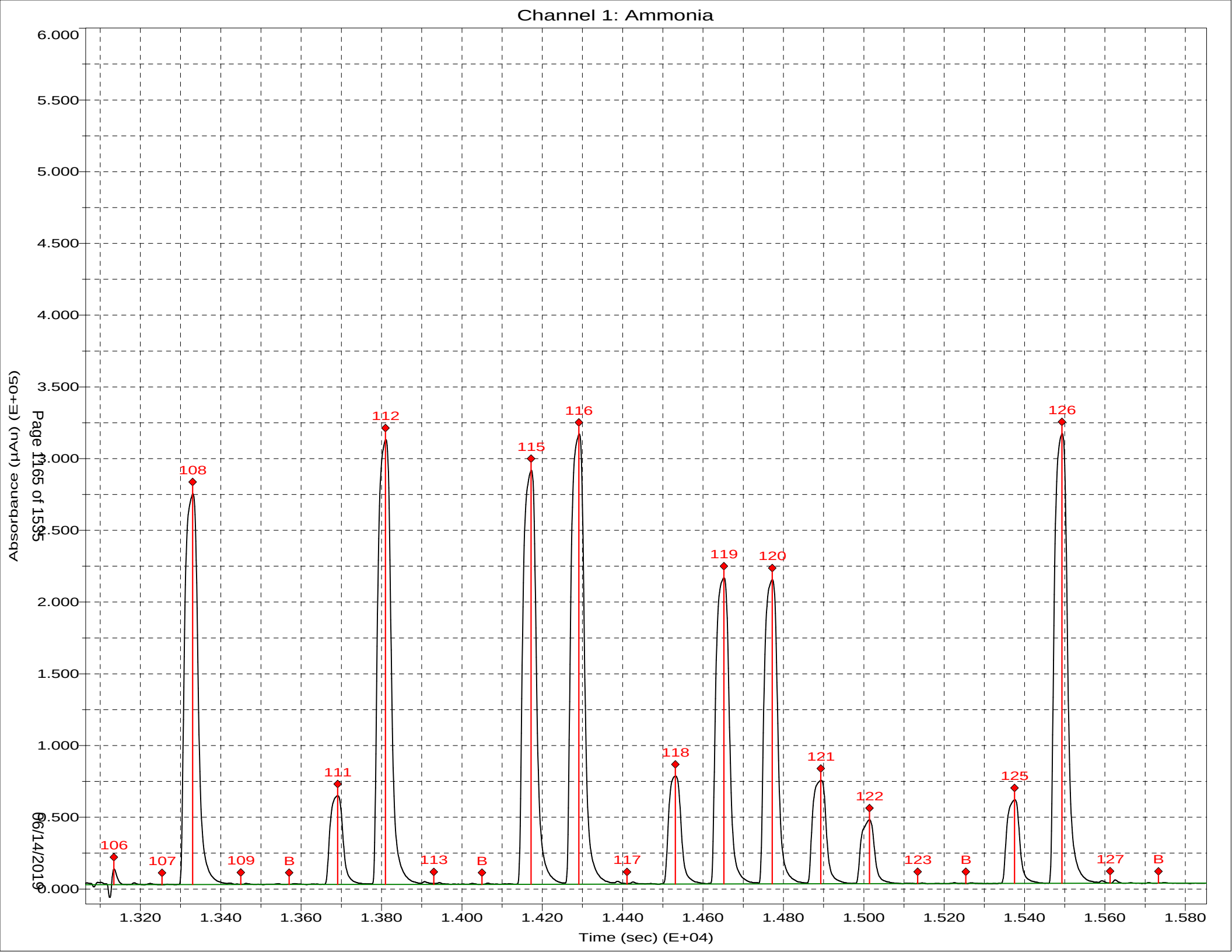

Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
20
21
22
23
B
25
26
27
28
29
30
31
32
33
34
35
36
37
38
B
40
41


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
Page 1161 of 1535
06/14/2019
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
B
40
41
42
B
44
45
46
47
48
49
50
51
52
53
54
B
56
57
58
B
60
61


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.760
0.780
0.800
0.820
0.840
0.860
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
60
61
62
63
64
B
66
67
68
B
70
71
72
73
74
75
76
77
78
79
80
81
82


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
Page 1163 of 1535
06/14/2019
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.000
1.020
1.040
1.060
1.080
1.100
1.120
1.140
1.160
1.180
1.200
1.220
1.240
1.260
80
81
82
83
B
85
86
87
B
89
90
91
92
93
94
95
96
97
98
99
B
101
102


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Page 1164 of 1535
06/14/2019
101
102
103
B
105
106
107
108
109
B
111
112
113
B
115
116
117
118
119
120
121
122
123
1.240
1.260
1.280
1.300
1.320
1.340
1.360
1.380
1.400
1.420
1.440
1.460
1.480
1.500
Time (sec) (E+04)


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.320
1.340
1.360
1.380
1.400
1.420
1.440
1.460
1.480
1.500
1.520
1.540
1.560
1.580
106
107
108
109
B
111
112
113
B
115
116
117
118
119
120
121
122
123
B
125
126
127
B

Sample Table for 060719

	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-460066/42-A	Unknown	4 ml
14	1:16	ICB 280-460066/43-A	Unknown	4 ml
15	1:17	LCS 280-460760/1-A	Unknown	4 ml
16	1:18	MB 280-460760/2-A	Unknown	4 ml
17	1:19	280-124223-A-1-B	Unknown	4 ml
18	1:20	280-124223-A-1-C MS	Unknown	4 ml
19	1:21	280-124223-A-1-D MS	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	280-124223-A-2-B	Unknown	4 ml
22	1:24	280-124223-A-3-B	Unknown	4 ml
23	1:25	280-124223-A-4-B	Unknown	4 ml
24	1:26	280-124223-A-5-B	Unknown	4 ml
25	1:27	280-124321-A-1-A	Unknown	4 ml
26	1:28	280-124073-F-1-A	Unknown	4 ml
27	1:29	280-124073-E-2-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-460066/44-A	Unknown	4 ml
30	1:32	CCB 280-460066/45-A	Unknown	4 ml
31	1:33	280-123981-E-1-A	Unknown	4 ml
32	1:34	280-123981-C-3-A	Unknown	4 ml
33	1:35	280-123981-D-2-B	Unknown	4 ml
34	1:36	280-123981-D-2-C MS	Unknown	4 ml
35	1:37	280-123981-D-2-D MS	Unknown	4 ml
36	1:38	w	Blank	4 ml
37	1:39	280-123981-E-4-A	Unknown	4 ml
38	1:40	280-123981-D-5-A	Unknown	4 ml
39	1:41	280-123981-D-6-A	Unknown	4 ml
40	1:42	280-123981-D-7-A	Unknown	4 ml
41	1:43	280-123981-E-8-A	Unknown	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-460066/44-A	Unknown	4 ml
44	1:46	CCB 280-460066/45-A	Unknown	4 ml

	Position	Identifier	Type	Cup Type
45	1:47	280-123981-C-9-A	Unknown	4 ml
46	1:48	280-123983-E-1-A	Unknown	4 ml
47	1:49	280-123983-C-2-A	Unknown	4 ml
48	1:50	280-123983-D-3-A	Unknown	4 ml
49	1:51	w	Blank	4 ml
50	1:52	LCS 280-460760/27-A	Unknown	4 ml
51	1:53	MB 280-460760/28-A	Unknown	4 ml
52	1:54	280-123969-C-2-A	Unknown	4 ml
53	1:55	280-123969-C-2-B MS	Unknown	4 ml
54	1:56	280-123969-C-2-C MS	Unknown	4 ml
55	1:57	280-124073-F-1-A	Unknown	4 ml
56	1:58	w	Blank	4 ml
57	1:59	CCV 280-460066/44-A	Unknown	4 ml
58	1:60	CCB 280-460066/45-A	Unknown	4 ml
59	2:1	280-123969-C-3-A	Unknown	4 ml
60	2:2	280-123969-D-4-A	Unknown	4 ml
61	2:3	280-123969-D-5-A	Unknown	4 ml
62	2:4	280-123922-C-1-A	Unknown	4 ml
63	2:5	280-123922-E-2-A	Unknown	4 ml
64	2:6	280-123922-C-3-A	Unknown	4 ml
65	2:7	280-123924-E-1-A	Unknown	4 ml
66	2:8	280-123924-D-2-A	Unknown	4 ml
67	2:9	280-123924-E-3-A	Unknown	4 ml
68	2:10	280-123924-D-4-A	Unknown	4 ml
69	2:11	w	Blank	4 ml
70	2:12	CCV 280-460066/44-A	Unknown	4 ml
71	2:13	CCB 280-460066/45-A	Unknown	4 ml
72	2:14	280-123924-D-4-B MS	Unknown	4 ml
73	2:15	280-123924-D-4-C MS	Unknown	4 ml
74	2:16	w	Blank	4 ml
75	2:17	280-123924-D-5-A	Unknown	4 ml
76	2:18	280-123924-C-6-A	Unknown	4 ml
77	2:19	280-123924-C-7-A	Unknown	4 ml
78	2:20	280-123924-E-8-A	Unknown	4 ml
79	2:21	280-123924-D-9-A	Unknown	4 ml
80	2:22	280-123924-C-10-A	Unknown	4 ml
81	2:23	280-123924-C-11-A	Unknown	4 ml
82	2:24	280-123924-D-12-A	Unknown	4 ml
83	2:25	w	Blank	4 ml
84	2:26	CCV 280-460066/44-A	Unknown	4 ml
85	2:27	CCB 280-460066/45-A	Unknown	4 ml
86	2:28	280-124073-E-2-A	Unknown	4 ml
87	2:29	w	Blank	4 ml
88	2:30	CCV 280-460066/44-A	Unknown	4 ml

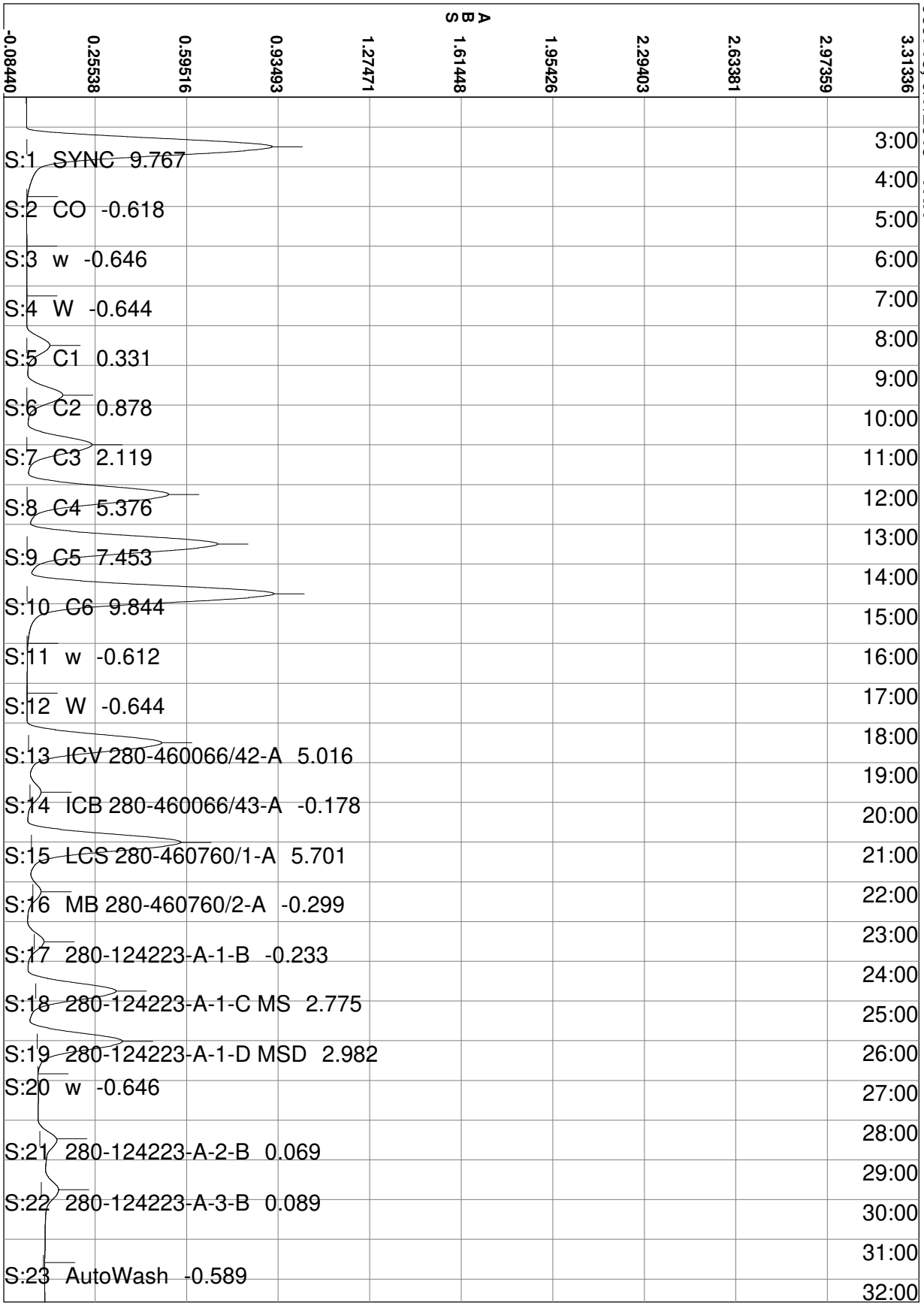
	Position	Identifier	Type	Cup Type
89	2:31	CCB 280-460066/45-A	Unknown	4 ml

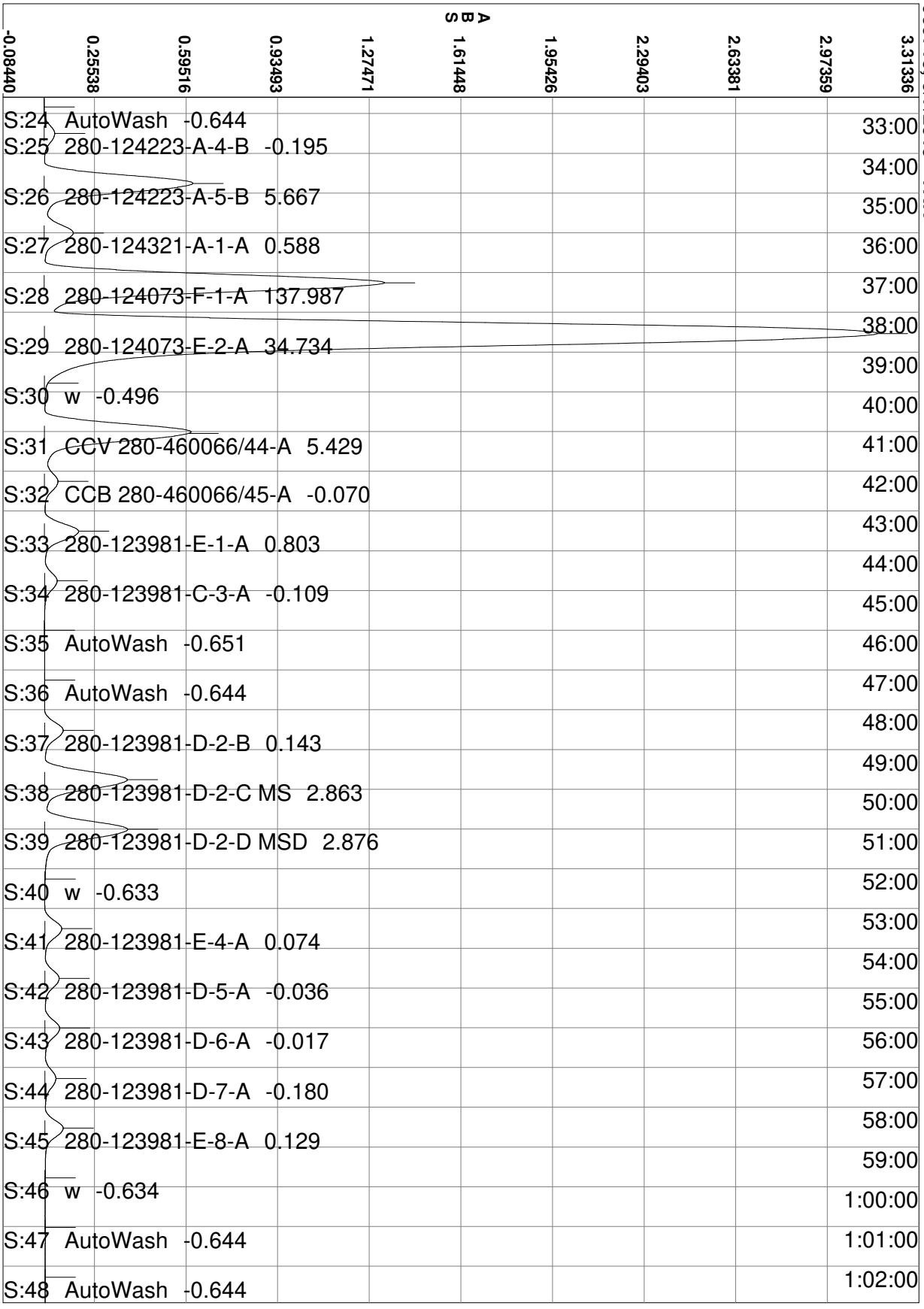
Run Name: 060719
Configuration: TKN
Run date: 6/7/2019

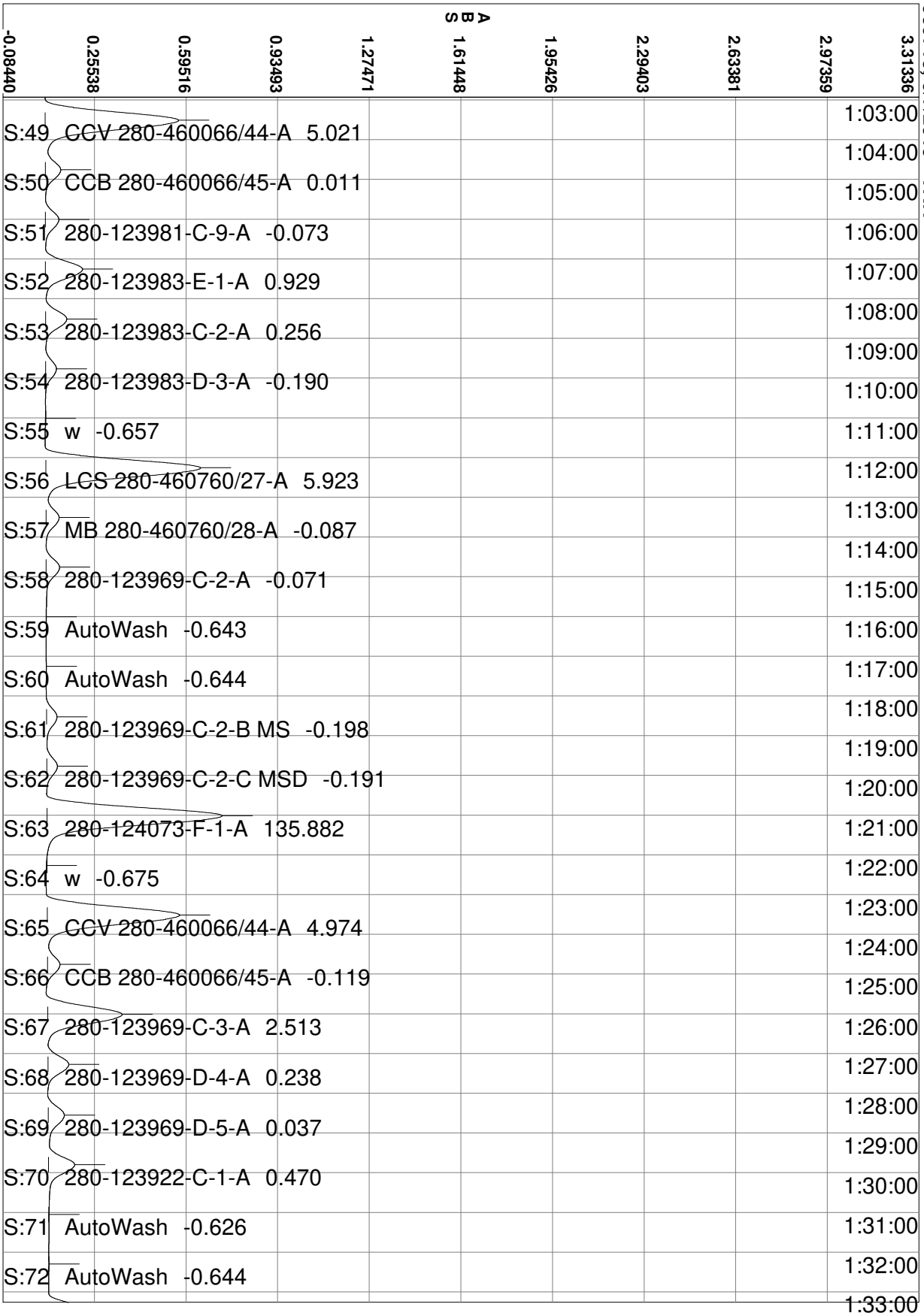
	Position	Identifier	Type	Comme	Date	Time	otal	TKN Cor Ht	mg/l
1	1:1	SYNC	SYNC	50;351.2	6/7/2019	4:59:37 PM	1	0.90855	9.767
2	1:2	CO	Carry over		6/7/2019	5:00:07 PM	1	0.00233	-0.618
3	1:3	w	Blank		6/7/2019	5:01:22 PM	1	-0.00018	-0.646
4	1:4	W	Wash		6/7/2019	5:02:37 PM	1	0.00000	-0.644
5	1:5	C1	Calibrant		6/7/2019	5:03:52 PM	1	0.08507	0.331
6	1:6	C2	Calibrant		6/7/2019	5:05:07 PM	1	0.13281	0.878
7	1:7	C3	Calibrant		6/7/2019	5:06:22 PM	1	0.24110	2.119
8	1:8	C4	Calibrant		6/7/2019	5:07:37 PM	1	0.52538	5.376
9	1:9	C5	Calibrant		6/7/2019	5:08:52 PM	1	0.70662	7.453
10	1:10	C6	Calibrant		6/7/2019	5:10:07 PM	1	0.91529	9.844
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99847
		Intercept:							0.056224
		Linear coef:							0.087266
11	1:13	w	Blank		6/7/2019	5:11:22 PM	1	0.00283	-0.612
12	1:14	W	Wash		6/7/2019	5:12:37 PM	1	0.00000	-0.644
13	1:15	ICV 280-460066/42-A	Unknown		6/7/2019	5:13:52 PM	1	0.49392	5.016
14	1:16	ICB 280-460066/43-A	Unknown		6/7/2019	5:15:07 PM	1	0.04069	-0.178
15	1:17	LCS 280-460760/1-A	Unknown		6/7/2019	5:16:22 PM	1	0.55368	5.701
16	1:18	MB 280-460760/2-A	Unknown		6/7/2019	5:17:37 PM	1	0.03012	-0.299
17	1:19	280-124223-A-1-B	Unknown		6/7/2019	5:18:52 PM	1	0.03593	-0.233
18	1:20	280-124223-A-1-C MS	Unknown		6/7/2019	5:20:07 PM	1	0.29842	2.775
19	1:21	280-124223-A-1-D MSD	Unknown		6/7/2019	5:21:22 PM	1	0.31642	2.982
20	1:22	w	Blank		6/7/2019	5:22:37 PM	1	-0.00018	-0.646
21	1:23	280-124223-A-2-B	Unknown		6/7/2019	5:23:52 PM	1	0.06225	0.069
22	1:24	280-124223-A-3-B	Unknown		6/7/2019	5:25:07 PM	1	0.06401	0.089
23	0	AutoWash	AutoWash		6/7/2019	5:26:21 PM	1	0.00483	-0.589
24	0	AutoWash	AutoWash		6/7/2019	5:27:36 PM	1	0.00000	-0.644
25	1:25	280-124223-A-4-B	Unknown		6/7/2019	5:28:51 PM	1	0.03923	-0.195
26	1:26	280-124223-A-5-B	Unknown		6/7/2019	5:30:06 PM	1	0.55078	5.667
27	1:27	280-124321-A-1-A	Unknown		6/7/2019	5:31:21 PM	1	0.10751	0.588
28	1:28	280-124073-F-1-A	Unknown		6/7/2019	5:32:36 PM	10	1.26038	137.987
29	1:29	280-124073-E-2-A	Unknown		6/7/2019	5:33:52 PM	1	3.08733	34.734
30	1:30	w	Blank		6/7/2019	5:35:07 PM	1	0.01291	-0.496
31	1:31	CCV 280-460066/44-A	Unknown		6/7/2019	5:36:22 PM	1	0.53003	5.429
32	1:32	CCB 280-460066/45-A	Unknown		6/7/2019	5:37:37 PM	1	0.05011	-0.070
33	1:33	280-123981-E-1-A	Unknown		6/7/2019	5:38:52 PM	1	0.12627	0.803
34	1:34	280-123981-C-3-A	Unknown		6/7/2019	5:40:07 PM	1	0.04668	-0.109
35	0	AutoWash	AutoWash		6/7/2019	5:41:22 PM	1	-0.00056	-0.651
36	0	AutoWash	AutoWash		6/7/2019	5:42:37 PM	1	0.00000	-0.644
37	1:35	280-123981-D-2-B	Unknown		6/7/2019	5:43:52 PM	1	0.06866	0.143
38	1:36	280-123981-D-2-C MS	Unknown		6/7/2019	5:45:07 PM	1	0.30605	2.863

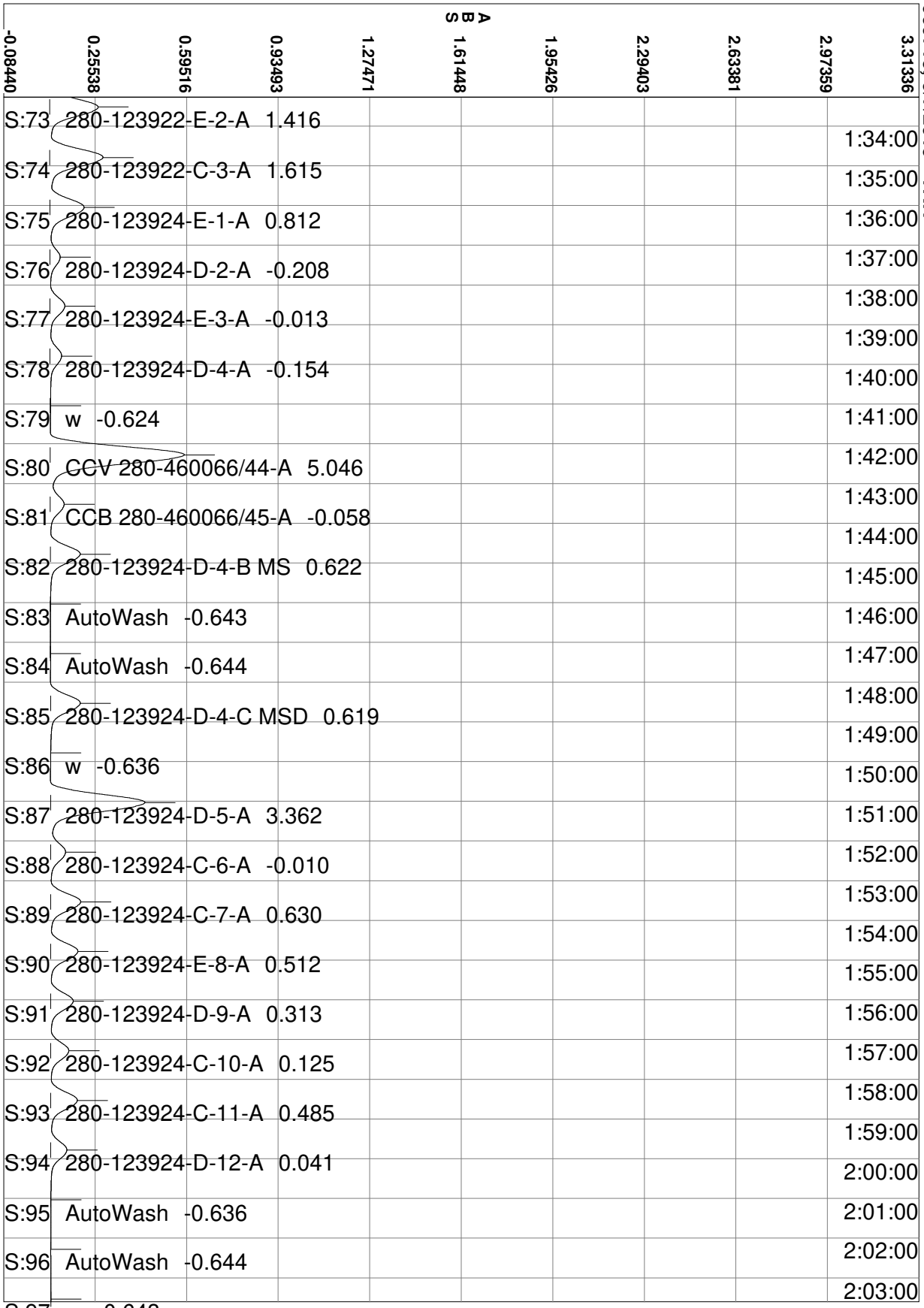
	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
39	1:37	280-123981-D-2-D MSD	Unknown		6/7/2019	5:46:22 PM	1	0.30718	2.876
40	1:38	w	Blank		6/7/2019	5:47:37 PM	1	0.00094	-0.633
41	1:39	280-123981-E-4-A	Unknown		6/7/2019	5:48:52 PM	1	0.06270	0.074
42	1:40	280-123981-D-5-A	Unknown		6/7/2019	5:50:07 PM	1	0.05308	-0.036
43	1:41	280-123981-D-6-A	Unknown		6/7/2019	5:51:22 PM	1	0.05477	-0.017
44	1:42	280-123981-D-7-A	Unknown		6/7/2019	5:52:37 PM	1	0.04053	-0.180
45	1:43	280-123981-E-8-A	Unknown		6/7/2019	5:53:52 PM	1	0.06745	0.129
46	1:44	w	Blank		6/7/2019	5:55:07 PM	1	0.00086	-0.634
47	0	AutoWash	AutoWash		6/7/2019	5:56:22 PM	1	0.00007	-0.644
48	0	AutoWash	AutoWash		6/7/2019	5:57:37 PM	1	0.00000	-0.644
49	1:45	CCV 280-460066/44-A	Unknown		6/7/2019	5:58:52 PM	1	0.49441	5.021
50	1:46	CCB 280-460066/45-A	Unknown		6/7/2019	6:00:07 PM	1	0.05721	0.011
51	1:47	280-123981-C-9-A	Unknown		6/7/2019	6:01:21 PM	1	0.04987	-0.073
52	1:48	280-123983-E-1-A	Unknown		6/7/2019	6:02:36 PM	1	0.13727	0.929
53	1:49	280-123983-C-2-A	Unknown		6/7/2019	6:03:51 PM	1	0.07852	0.256
54	1:50	280-123983-D-3-A	Unknown		6/7/2019	6:05:06 PM	1	0.03961	-0.190
55	1:51	w	Blank		6/7/2019	6:06:21 PM	1	-0.00114	-0.657
56	1:52	LCS 280-460760/27-A	Unknown		6/7/2019	6:07:36 PM	1	0.57313	5.923
57	1:53	MB 280-460760/28-A	Unknown		6/7/2019	6:08:52 PM	1	0.04866	-0.087
58	1:54	280-123969-C-2-A	Unknown		6/7/2019	6:10:07 PM	1	0.05005	-0.071
59	0	AutoWash	AutoWash		6/7/2019	6:11:22 PM	1	0.00009	-0.643
60	0	AutoWash	AutoWash		6/7/2019	6:12:37 PM	1	0.00000	-0.644
61	1:55	280-123969-C-2-B MS	Unknown		6/7/2019	6:13:52 PM	1	0.03892	-0.198
62	1:56	280-123969-C-2-C MSD	Unknown		6/7/2019	6:15:07 PM	1	0.03955	-0.191
63	1:57	280-124073-F-1-A	Unknown		6/7/2019	6:16:22 PM	20	0.64912	135.882
64	1:58	w	Blank		6/7/2019	6:17:37 PM	1	-0.00266	-0.675
65	1:59	CCV 280-460066/44-A	Unknown		6/7/2019	6:18:52 PM	1	0.49031	4.974
66	1:60	CCB 280-460066/45-A	Unknown		6/7/2019	6:20:07 PM	1	0.04584	-0.119
67	2:1	280-123969-C-3-A	Unknown		6/7/2019	6:21:22 PM	1	0.27554	2.513
68	2:2	280-123969-D-4-A	Unknown		6/7/2019	6:22:37 PM	1	0.07696	0.238
69	2:3	280-123969-D-5-A	Unknown		6/7/2019	6:23:52 PM	1	0.05949	0.037
70	2:4	280-123922-C-1-A	Unknown		6/7/2019	6:25:07 PM	1	0.09728	0.470
71	0	AutoWash	AutoWash		6/7/2019	6:26:22 PM	1	0.00162	-0.626
72	0	AutoWash	AutoWash		6/7/2019	6:27:37 PM	1	0.00000	-0.644
73	2:5	280-123922-E-2-A	Unknown		6/7/2019	6:28:52 PM	1	0.17979	1.416
74	2:6	280-123922-C-3-A	Unknown		6/7/2019	6:30:07 PM	1	0.19714	1.615
75	2:7	280-123924-E-1-A	Unknown		6/7/2019	6:31:22 PM	1	0.12708	0.812
76	2:8	280-123924-D-2-A	Unknown		6/7/2019	6:32:37 PM	1	0.03805	-0.208
77	2:9	280-123924-E-3-A	Unknown		6/7/2019	6:33:52 PM	1	0.05510	-0.013
78	2:10	280-123924-D-4-A	Unknown		6/7/2019	6:35:06 PM	1	0.04278	-0.154
79	2:11	w	Blank		6/7/2019	6:36:21 PM	1	0.00176	-0.624
80	2:12	CCV 280-460066/44-A	Unknown		6/7/2019	6:37:36 PM	1	0.49652	5.046
81	2:13	CCB 280-460066/45-A	Unknown		6/7/2019	6:38:51 PM	1	0.05118	-0.058
82	2:14	280-123924-D-4-B MS	Unknown		6/7/2019	6:40:06 PM	1	0.11047	0.622
83	0	AutoWash	AutoWash		6/7/2019	6:41:21 PM	1	0.00010	-0.643
84	0	AutoWash	AutoWash		6/7/2019	6:42:36 PM	1	0.00000	-0.644
85	2:15	280-123924-D-4-C MSD	Unknown		6/7/2019	6:43:52 PM	1	0.11023	0.619
86	2:16	w	Blank		6/7/2019	6:45:07 PM	1	0.00071	-0.636

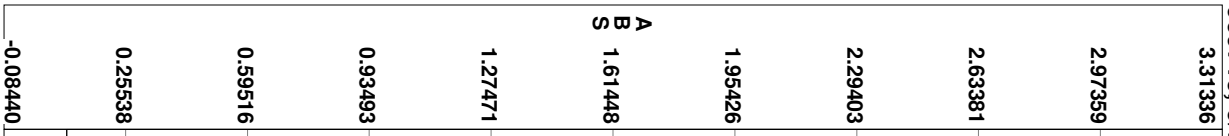
	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
87	2:17	280-123924-D-5-A	Unknown		6/7/2019	6:46:22 PM	1	0.34959	3.362
88	2:18	280-123924-C-6-A	Unknown		6/7/2019	6:47:37 PM	1	0.05535	-0.010
89	2:19	280-123924-C-7-A	Unknown		6/7/2019	6:48:52 PM	1	0.11124	0.630
90	2:20	280-123924-E-8-A	Unknown		6/7/2019	6:50:07 PM	1	0.10092	0.512
91	2:21	280-123924-D-9-A	Unknown		6/7/2019	6:51:22 PM	1	0.08357	0.313
92	2:22	280-123924-C-10-A	Unknown		6/7/2019	6:52:37 PM	1	0.06717	0.125
93	2:23	280-123924-C-11-A	Unknown		6/7/2019	6:53:52 PM	1	0.09851	0.485
94	2:24	280-123924-D-12-A	Unknown		6/7/2019	6:55:07 PM	1	0.05984	0.041
95	0	AutoWash	AutoWash		6/7/2019	6:56:22 PM	1	0.00073	-0.636
96	0	AutoWash	AutoWash		6/7/2019	6:57:37 PM	1	0.00000	-0.644
97	2:25	w	Blank		6/7/2019	6:58:52 PM	1	0.00011	-0.643
98	2:26	CCV 280-460066/44-A	Unknown		6/7/2019	7:00:07 PM	1	0.49477	5.025
99	2:27	CCB 280-460066/45-A	Unknown		6/7/2019	7:01:22 PM	1	0.05077	-0.063
100	2:28	280-124073-E-2-A	Unknown		6/7/2019	7:02:37 PM	10	0.87412	93.724
101	2:29	w	Blank		6/7/2019	7:03:52 PM	1	0.00172	-0.625
102	2:30	CCV 280-460066/44-A	Unknown		6/7/2019	7:05:07 PM	1	0.48876	4.956
103	2:31	CCB 280-460066/45-A	Unknown		6/7/2019	7:06:22 PM	1	0.05025	-0.068
104	0	AutoWash	AutoWash		6/7/2019	7:07:37 PM	1	-0.00094	-0.655
105	0	AutoWash	AutoWash		6/7/2019	7:08:52 PM	1	0.00000	-0.644


060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:1 SYNC 9.767
S:2 CO -0.618
S:3 w -0.646
S:4 W -0.644
S:5 C1 0.331
S:6 C2 0.878
S:7 C3 2.119
S:8 C4 5.376
S:9 C5 7.453
S:10 C6 9.844
S:11 w -0.612
S:12 W -0.644
S:13 ICV 280-460066/42-A 5.016
S:14 ICB 280-460066/43-A -0.178
S:15 LCS 280-460760/1-A 5.701
S:16 MB 280-460760/2-A -0.299
S:17 280-124223-A-1-B -0.233
S:18 280-124223-A-1-C MS 2.775
S:19 280-124223-A-1-D MSD 2.982
S:20 w -0.646
S:21 280-124223-A-2-B 0.069
S:22 280-124223-A-3-B 0.089
S:23 AutoWash -0.589
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32:00


060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:24 AutoWash -0.644
S:25 280-124223-A-4-B -0.195
S:26 280-124223-A-5-B 5.667
S:27 280-124321-A-1-A 0.588
S:28 280-124073-F-1-A 137.987
S:29 280-124073-E-2-A 34.734
S:30 w -0.496
S:31 CCV 280-460066/44-A 5.429
S:32 CCB 280-460066/45-A -0.070
S:33 280-123981-E-1-A 0.803
S:34 280-123981-C-3-A -0.109
S:35 AutoWash -0.651
S:36 AutoWash -0.644
S:37 280-123981-D-2-B 0.143
S:38 280-123981-D-2-C MS 2.863
S:39 280-123981-D-2-D MSD 2.876
S:40 w -0.633
S:41 280-123981-E-4-A 0.074
S:42 280-123981-D-5-A -0.036
S:43 280-123981-D-6-A -0.017
S:44 280-123981-D-7-A -0.180
S:45 280-123981-E-8-A 0.129
S:46 w -0.634
S:47 AutoWash -0.644
S:48 AutoWash -0.644
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59:00
1:00:00
1:01:00
1:02:00


060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:49 CCV 280-460066/44-A 5.021
S:50 CCB 280-460066/45-A 0.011
S:51 280-123981-C-9-A -0.073
S:52 280-123983-E-1-A 0.929
S:53 280-123983-C-2-A 0.256
S:54 280-123983-D-3-A -0.190
S:55 w -0.657
S:56 LCS 280-460760/27-A 5.923
S:57 MB 280-460760/28-A -0.087
S:58 280-123969-C-2-A -0.071
S:59 AutoWash -0.643
S:60 AutoWash -0.644
S:61 280-123969-C-2-B MS -0.198
S:62 280-123969-C-2-C MSD -0.191
S:63 280-124073-F-1-A 135.882
S:64 w -0.675
S:65 CCV 280-460066/44-A 4.974
S:66 CCB 280-460066/45-A -0.119
S:67 280-123969-C-3-A 2.513
S:68 280-123969-D-4-A 0.238
S:69 280-123969-D-5-A 0.037
S:70 280-123922-C-1-A 0.470
S:71 AutoWash -0.626
S:72 AutoWash -0.644
1:03:00
1:04:00
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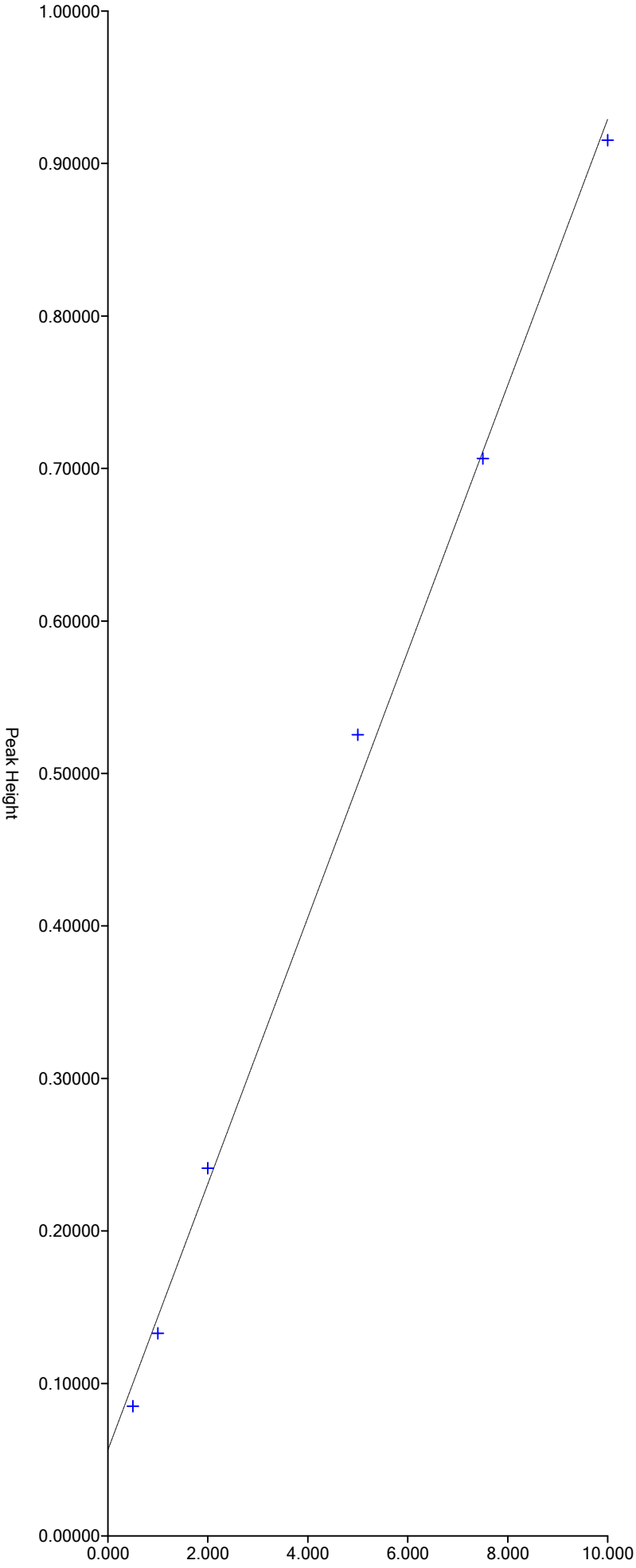

060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:73 280-123922-E-2-A 1.416
S:74 280-123922-C-3-A 1.615
S:75 280-123924-E-1-A 0.812
S:76 280-123924-D-2-A -0.208
S:77 280-123924-E-3-A -0.013
S:78 280-123924-D-4-A -0.154
S:79 w -0.624
S:80 CCV 280-460066/44-A 5.046
S:81 CCB 280-460066/45-A -0.058
S:82 280-123924-D-4-B MS 0.622
S:83 AutoWash -0.643
S:84 AutoWash -0.644
S:85 280-123924-D-4-C MSD 0.619
S:86 w -0.636
S:87 280-123924-D-5-A 3.362
S:88 280-123924-C-6-A -0.010
S:89 280-123924-C-7-A 0.630
S:90 280-123924-E-8-A 0.512
S:91 280-123924-D-9-A 0.313
S:92 280-123924-C-10-A 0.125
S:93 280-123924-C-11-A 0.485
S:94 280-123924-D-12-A 0.041
S:95 AutoWash -0.636
S:96 AutoWash -0.644
S:97 w -0.643
1:34:00
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2:03:00



060719, 6/7/2019 - TKN

	2:04:00
S:98 CCV 280-460066/44-A 5.025	2:05:00
S:99 CCB 280-460066/45-A -0.063	2:06:00
S:100 280-124073-E-2-A 93.724	2:07:00
S:101 w -0.625	2:08:00
S:102 CCV 280-460066/44-A 4.956	2:09:00
S:103 CCB 280-460066/45-A -0.068	2:10:00
S:104 AutoWash -0.655	2:11:00
S:105 AutoWash -0.644	2:12:00
	2:13:00
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	2:27:00
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	2:29:00
	2:30:00
	2:31:00
	2:32:00
	2:33:00

Calibration for TKN



Segment 1: Equation: y = 0.08727x + 0.05622
Correlation: 0.9985

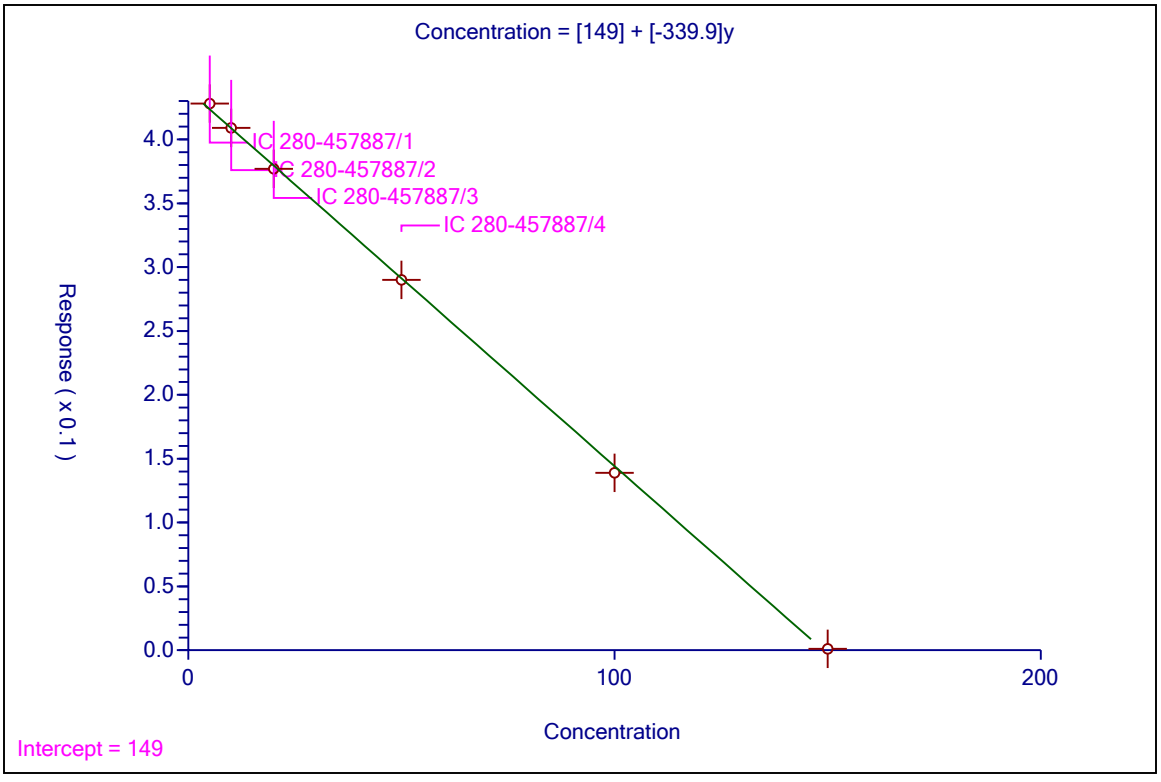
X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-457887/1	5.0	0.428			0.0856	Y
2	IC 280-457887/2	10.0	0.409			0.0409	Y
3	IC 280-457887/3	20.0	0.377			0.01885	Y
4	IC 280-457887/4	50.0	0.29			0.0058	Y
5	IC 280-457887/5	100.0	0.139			0.00139	Y
6	IC 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123027-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 16 Lab ID: **280-123027-K-1** Inj Date: 5/13/2019 7:39:00AM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.374	21.87740 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123112-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123113-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 17 Lab ID: **280-123113-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	11 J mg/L				

RS# 18 Lab ID: **280-123113-A-2** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.227	71.84270 mg/L	mg/L				

RS# 19 Lab ID: **280-123113-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 20 Lab ID: **280-123113-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.394	15.07940 mg/L	15 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90	110	

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123114-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 21 Lab ID: **280-123114-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.404	11.68040 mg/L	12 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123115-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

RS# 24 Lab ID: **280-123115-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 25 Lab ID: **280-123115-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.359	26.97590 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.148	98.69480	mg/L	mg/L	99	90	110

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	20 U mg/L				

Job Number: 280-123267-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 29 Lab ID: **280-123267-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 30 Lab ID: **280-123267-E-2** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.381	19.49810 mg/L	39 J mg/L				

RS# 31 Lab ID: **280-123267-E-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.340	33.43400 mg/L	mg/L				

RS# 32 Lab ID: **280-123267-E-4** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.061	128.2661 mg/L	mg/L				

RS# 33 Lab ID: **280-123267-B-5** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.428	3.522800 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	mg/L				

RS# 36 Lab ID: **280-123267-B-6** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	mg/L				

RS# 37 Lab ID: **280-123267-C-7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.464	-8.713600 mg/L	mg/L				

RS# 38 Lab ID: **280-123267-B-8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 39 Lab ID: **280-123267-D-9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.292	49.74920 mg/L	mg/L				

RS# 40 Lab ID: **CCV 280-457887/40** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 41 Lab ID: **CCB 280-457887/41** Inj Date: 5/13/2019 7:39:49AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123444-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 15 Lab ID: **280-123444-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

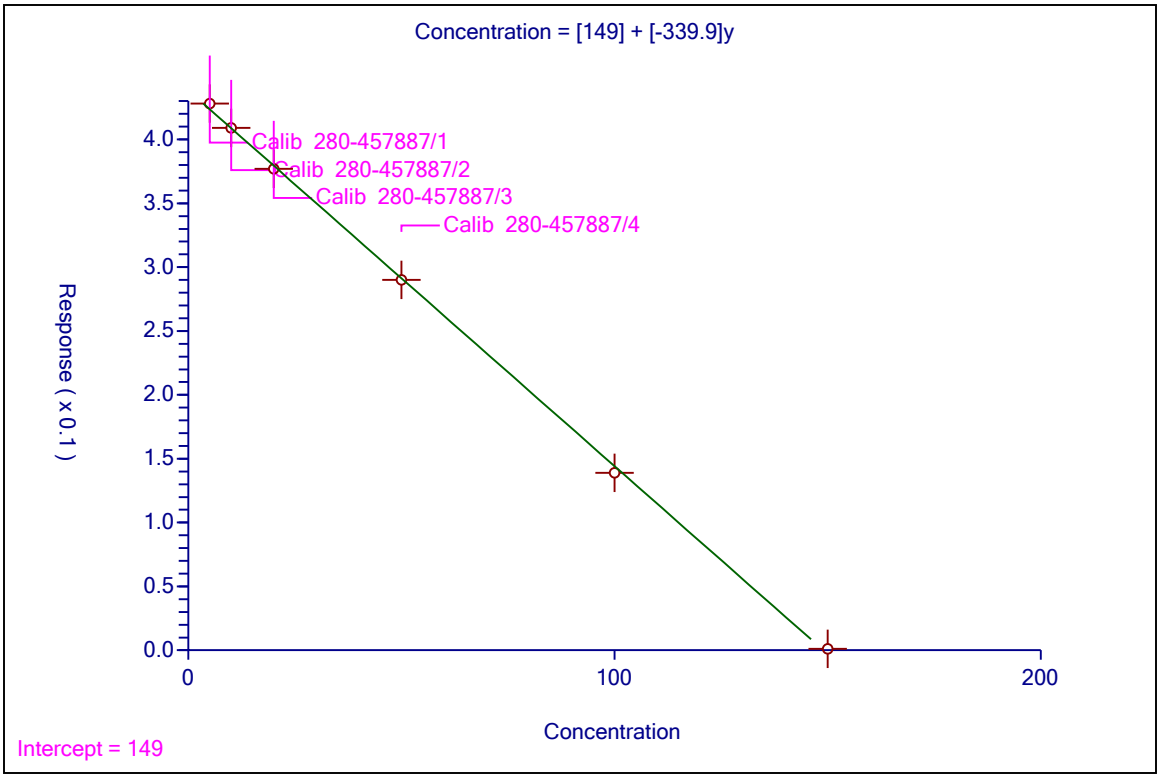
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123922-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	20 U mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	20 U mg/L					

RS# 6 Lab ID: **280-124070-C-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	21 J mg/L					

RS# 7 Lab ID: **280-124070-C-1 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.272	56.54720 mg/L	mg/L	92	90	110		

RS# 8 Lab ID: **280-124070-C-1 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	82	90	110	9	11

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

RS# 19 Lab ID: **280-123922-E-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.431	2.503100 mg/L	40 U mg/L				

RS# 20 Lab ID: **280-123922-E-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	40 U mg/L				

RS# 21 Lab ID: **280-123922-E-2 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90 110		

RS# 22 Lab ID: **280-123922-E-2 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L	97	90 110	7	11

RS# 23 Lab ID: **280-123922-C-3** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	40 U mg/L				

RS# 28 Lab ID: **CCV 280-460807/28** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 29 Lab ID: **CCB 280-460807/29** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123923-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	mg/L					

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90	110		

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L					

RS# 20 Lab ID: **280-123922-E-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L					

RS# 21 Lab ID: **280-123922-E-2 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90	110		

TALS Raw Data Report

RS# 22 Lab ID: **280-123922-E-2 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L	97	90	110	7	11

RS# 24 Lab ID: **280-123923-E-1** Inj Date: 6/7/2019 9:42:00AM Dil: 10.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	mg/L					

RS# 28 Lab ID: **CCV 280-460807/28** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90	110		

RS# 29 Lab ID: **CCB 280-460807/29** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	mg/L					

TALS Raw Data Report

Job Number: 280-123924-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	20 U mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	20 U mg/L					

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90	110		

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L					

RS# 20 Lab ID: **280-123922-E-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	40 U mg/L					

RS# 21 Lab ID: **280-123922-E-2 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90	110		

TALS Raw Data Report

RS# 22 Lab ID: **280-123922-E-2 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L	97	90 110	7	11

RS# 25 Lab ID: **280-123924-E-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	40 U mg/L				

RS# 26 Lab ID: **280-123924-D-2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.434	1.483400 mg/L	20 U mg/L				

RS# 27 Lab ID: **280-123924-C-3** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	40 U mg/L				

RS# 28 Lab ID: **CCV 280-460807/28** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 29 Lab ID: **CCB 280-460807/29** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	20 U mg/L				

RS# 30 Lab ID: **280-123924-C-4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.290	50.42900 mg/L	mg/L				

RS# 31 Lab ID: **280-123924-G-5** Inj Date: 6/7/2019 9:50:29AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	40 U mg/L				

RS# 32 Lab ID: **280-123924-G-6** Inj Date: 6/7/2019 9:50:29AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	40 U mg/L				

RS# 33 Lab ID: **280-123924-C-7** Inj Date: 6/7/2019 9:50:29AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.419	6.581900 mg/L	40 U mg/L				

TALS Raw Data Report

RS# 34 Lab ID: **CCV 280-460807/34** Inj Date: 6/7/2019 9:50:29AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.144	100.0544 mg/L	mg/L	100	90 110		

RS# 35 Lab ID: **CCB 280-460807/35** Inj Date: 6/7/2019 9:50:29AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123941-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	mg/L					

RS# 6 Lab ID: **280-124070-C-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	mg/L					

RS# 7 Lab ID: **280-124070-C-1 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.272	56.54720 mg/L	mg/L	92	90	110		

RS# 8 Lab ID: **280-124070-C-1 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	82	90	110	9	11

RS# 14 Lab ID: **280-123941-J-5** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.424	4.882400 mg/L	mg/L					

TALS Raw Data Report

RS# 15 Lab ID: **280-123941-K-6** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 18 Lab ID: **280-123941-J-7** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 20 Lab ID: **280-123922-E-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 21 Lab ID: **280-123922-E-2 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90 110		

RS# 22 Lab ID: **280-123922-E-2 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L	97	90 110	7	11

RS# 28 Lab ID: **CCV 280-460807/28** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 29 Lab ID: **CCB 280-460807/29** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-124070-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	mg/L					

RS# 6 Lab ID: **280-124070-C-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	21 J mg/L					

RS# 7 Lab ID: **280-124070-C-1 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.272	56.54720 mg/L	mg/L	92	90	110		

RS# 8 Lab ID: **280-124070-C-1 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	82	90	110	9	11

RS# 9 Lab ID: **280-124070-C-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	mg/L					

TALS Raw Data Report

RS# 10 Lab ID: **280-124070-C-3** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	mg/L				

RS# 11 Lab ID: **280-124070-B-4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.399	13.37990 mg/L	13 J mg/L				

RS# 12 Lab ID: **280-124070-B-5** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

RS# 13 Lab ID: **280-124070-B-6** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060919.RST
Sample table path	C:\FLOW_4\p060919.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	09-Jun-19
Time acquired	18:03

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
09-Jun-19	14:31	106	Sync	1286675	495.238	
09-Jun-19	14:34	0	Carryover	11097	0.792	
09-Jun-19	14:37	0	Carryover	2488	-2.651	LO
09-Jun-19	14:40	0	Read Baseline	-60	-3.671	BL
09-Jun-19	14:43	101	Cal 10.0 ppb	35673	10.614	
09-Jun-19	14:46	102	Cal 20.0 ppb	66664	22.983	
09-Jun-19	14:49	103	Cal 50.0 ppb	139083	51.814	
09-Jun-19	14:52	104	Cal 100 ppb	257194	98.619	
09-Jun-19	14:55	105	Cal 200 ppb	514138	199.516	
09-Jun-19	14:58	106	Cal 500 ppb	1299636	500.102	
09-Jun-19	15:01	0	Blank	-4059	-5.270	LO
09-Jun-19	15:04	0	Read Baseline	-1486	-4.241	BL
09-Jun-19	15:07	107	ICV 200 ppb	527062	204.558	
09-Jun-19	15:10	109	ICVL 100 ppb	273931	105.230	
09-Jun-19	15:13	0	ICB	-7526	-6.658	LO
09-Jun-19	15:16	0	Read Baseline	-9964	-7.634	BL
09-Jun-19	15:19	113	LCS 280-460948/1-A	503270	195.274	
09-Jun-19	15:22	114	MB 280-460948/2-A	23187	5.625	
09-Jun-19	15:25	115	580-86264-A-1-A	126009	46.616	
09-Jun-19	15:28	116	280-123922-G-1-A	19122	4.001	
09-Jun-19	15:31	117	280-123922-G-2-A	22395	5.309	
09-Jun-19	15:34	118	280-123922-G-3-A	26468	6.936	
09-Jun-19	15:37	119	280-123924-C-11-B	26906	7.112	
09-Jun-19	15:40	120	280-123924-D-12-B	32525	9.356	
09-Jun-19	15:43	121	280-123930-E-1-B	32281	9.259	
09-Jun-19	15:46	122	280-123930-C-2-B	36952	11.125	
09-Jun-19	15:49	0	Blank	1032	-3.233	LO
09-Jun-19	15:52	0	Read Baseline	1257	-3.144	BL
09-Jun-19	15:55	108	CCV 200 ppb	507380	196.879	
09-Jun-19	15:58	104	CCVL 100 ppb	266960	102.477	
09-Jun-19	16:01	0	CCB	978	-3.255	LO
09-Jun-19	16:04	0	Read Baseline	-1565	-4.272	BL
09-Jun-19	16:07	123	280-123930-E-3-D	40305	12.464	
09-Jun-19	16:10	124	280-123930-C-4-B	45657	14.601	
09-Jun-19	16:13	125	280-123930-C-4-C MS	504321	195.685	
09-Jun-19	16:16	126	280-123930-C-4-D MSD	578971	224.775	
09-Jun-19	16:19	127	280-123930-C-5-B	28732	7.841	
09-Jun-19	16:22	128	280-124038-J-1-A	3136935	1156.889	HI
09-Jun-19	16:25	129	280-124038-H-2-A	2881047	1069.303	HI
09-Jun-19	16:28	130	280-124038-I-3-A	205172	78.037	FL
09-Jun-19	16:31	131	280-124038-H-4-A	2466305	924.672	HI
09-Jun-19	16:34	132	280-124270-D-4-A	84415	30.059	FL

Result path C:\FLOW_4\P060919.RST
Sample table path C:\FLOW_4\p060919.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 09-Jun-19
Time acquired 18:03

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
09-Jun-19	16:37	0	Blank	8885	-0.092	LO
09-Jun-19	16:40	0	Read Baseline	-3067	-4.874	BL
09-Jun-19	16:43	108	CCV 200 ppb	535374	207.799	
09-Jun-19	16:46	104	CCVL 100 ppb	265862	102.044	
09-Jun-19	16:49	0	CCB	-7354	-6.589	LO
09-Jun-19	16:52	0	Read Baseline	-3460	-5.031	BL
09-Jun-19	16:55	133	280-124270-D-5-A	31369	8.895	
09-Jun-19	16:58	134	280-124270-D-6-A	24051	5.971	
09-Jun-19	17:01	135	280-124270-D-7-A	16361	2.897	
09-Jun-19	17:04	136	280-124270-D-7-B MS	455013	176.412	
09-Jun-19	17:07	137	280-124270-D-7-C MSD	474218	183.924	
09-Jun-19	17:10	138	280-124151-D-1-D	1671891	638.412	HI
09-Jun-19	17:13	139	LCS 280-460949/1-A	624498	242.463	FL
09-Jun-19	17:16	140	MB 280-460949/2-A	41960	13.124	FL
09-Jun-19	17:19	141	280-124151-C-2-A	4839752	1707.698	HI
09-Jun-19	17:22	142	280-124151-C-2-B MS	4693343	1662.528	HI
09-Jun-19	17:25	0	Blank	143187	53.445	
09-Jun-19	17:28	0	Read Baseline	642	-3.389	BL
09-Jun-19	17:31	108	CCV 200 ppb	506469	196.524	
09-Jun-19	17:34	104	CCVL 100 ppb	256793	98.461	
09-Jun-19	17:37	0	CCB	-12183	-8.522	LO
09-Jun-19	17:40	0	Read Baseline	-23526	-13.064	BL
09-Jun-19	17:43	143	280-124151-C-2-C MSD	4712803	1668.555	HI
09-Jun-19	17:46	144	280-124151-D-3-A	407321	157.725	FL
09-Jun-19	17:49	145	280-124151-D-4-A	4072925	1466.547	HI
09-Jun-19	17:52	146	280-124151-D-6-A	4293156	1536.962	HI
09-Jun-19	17:57	147	280-124038-J-1-A	925282	1791.633	
09-Jun-19	18:00	148	280-124038-H-2-A	n/m	n/m	n/m
09-Jun-19	18:03	149	280-124038-I-3-A	n/m	n/m	n/m

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060919.RST
Date: 09-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1286675	495.238159	
2	0	Carryover	1	CO	1	1	11097	0.792235	
3	0	Carryover	2	CO	1	1	2488	-2.650863	LO
B	0	Read Baseline	1	RB	1	1	-60	-3.670604	BL
5	101	Cal 10.0 ppb	1	C	1	1	35673	10.613757	
6	102	Cal 20.0 ppb	1	C	1	1	66664	22.982763	
7	103	Cal 50.0 ppb	1	C	1	1	139083	51.813549	
8	104	Cal 100 ppb	1	C	1	1	257194	98.619263	
9	105	Cal 200 ppb	1	C	1	1	514138	199.516449	
10	106	Cal 500 ppb	1	C	1	1	1299636	500.101685	
11	0	Blank	1	BLNK	1	1	-4059	-5.270422	LO
B	0	Read Baseline	1	RB	1	1	-1486	-4.240927	BL
13	107	ICV 200 ppb	1	U	1	1	527062	204.558014	
14	109	ICVL 100 ppb	1	U	1	1	273931	105.230148	
15	0	ICB	1	U	1	1	-7526	-6.657990	LO
B	0	Read Baseline	1	RB	1	1	-9964	-7.633920	BL
17	113	LCS 280-460948/1-A 1	U		1	1	503270	195.274353	
18	114	MB 280-460948/2-A 1	U		1	1	23187	5.625281	
19	115	580-86264-A-1-A 1	U		1	1	126009	46.616154	
20	116	280-123922-G-1-A 1	U		1	1	19122	4.000751	
21	117	280-123922-G-2-A 1	U		1	1	22395	5.308970	
22	118	280-123922-G-3-A 1	U		1	1	26468	6.936482	
23	119	280-123924-C-11-B 1	U		1	1	26906	7.111565	
24	120	280-123924-D-12-B 1	U		1	1	32525	9.356362	
25	121	280-123930-E-1-B 1	U		1	1	32281	9.258766	
26	122	280-123930-C-2-B 1	U		1	1	36952	11.124533	
27	0	Blank	1	BLNK	1	1	1032	-3.233443	LO
B	0	Read Baseline	1	RB	1	1	1257	-3.143666	BL
29	108	CCV 200 ppb	1	CCV	1	1	507380	196.879089	
30	104	CCVL 100 ppb	1	U	1	1	266960	102.477127	
31	0	CCB	1	U	1	1	978	-3.255191	LO
B	0	Read Baseline	1	RB	1	1	-1565	-4.272460	BL
33	123	280-123930-E-3-D 1	U		1	1	40305	12.463752	
34	124	280-123930-C-4-B 1	U		1	1	45657	14.600732	
35	125	280-123930-C-4-C MS 1	U		1	1	504321	195.684738	
36	126	280-123930-C-4-D MSD 1	U		1	1	578971	224.774826	
37	127	280-123930-C-5-B 1	U		1	1	28732	7.840890	
38	128	280-124038-J-1-A 1	U		1	1	3136935	1156.889160	HI
39	129	280-124038-H-2-A 1	U		1	1	2881047	1069.302734	HI
40	130	280-124038-I-3-A 1	U		1	1	205172	78.036606	FL
41	131	280-124038-H-4-A 1	U		1	1	2466305	924.671631	HI
42	132	280-124270-D-4-A 1	U		1	1	84415	30.058987	FL
43	0	Blank	1	BLNK	1	1	8885	-0.092288	LO
B	0	Read Baseline	1	RB	1	1	-3067	-4.873619	BL
45	108	CCV 200 ppb	1	CCV	1	1	535374	207.798599	
46	104	CCVL 100 ppb	1	U	1	1	265862	102.043587	
47	0	CCB	1	U	1	1	-7354	-6.589145	LO
B	0	Read Baseline	1	RB	1	1	-3460	-5.030814	BL
49	133	280-124270-D-5-A 1	U		1	1	31369	8.894743	
50	134	280-124270-D-6-A 1	U		1	1	24051	5.970714	
51	135	280-124270-D-7-A 1	U		1	1	16361	2.896896	
52	136	280-124270-D-7-B MS 1	U		1	1	455013	176.411545	
53	137	280-124270-D-7-C MSD 1	U		1	1	474218	183.923676	
54	138	280-124151-D-1-D 1	U		1	1	1671891	638.411926	HI
55	139	LCS 280-460949/1-A 1	U		1	1	624498	242.463379	FL
56	140	MB 280-460949/2-A 1	U		1	1	41960	13.124446	FL
57	141	280-124151-C-2-A 1	U		1	1	4839752	1707.697876	HI
58	142	280-124151-C-2-B MS 1	U		1	1	4693343	1662.527832	HI
59	0	Blank	1	BLNK	1	1	143187	53.444538	
B	0	Read Baseline	1	RB	1	1	642	-3.389388	BL
61	108	CCV 200 ppb	1	CCV	1	1	506469	196.523514	
62	104	CCVL 100 ppb	1	U	1	1	256793	98.460831	
63	0	CCB	1	U	1	1	-12183	-8.522326	LO
B	0	Read Baseline	1	RB	1	1	-23526	-13.064279	BL
65	143	280-124151-C-2-C MSD 1	U		1	1	4712803	1668.555298	HI
66	144	280-124151-D-3-A 1	U		1	1	407321	157.725357	FL
67	145	280-124151-D-4-A 1	U		1	1	4072925	1466.547241	HI
68	146	280-124151-D-6-A 1	U		1	1	4293156	1536.961670	HI
69	147	280-124038-J-1-A 1	U		5	1	925282	1791.633179	

Phenols, Total:Calibration 1: Peak 5-71

File name: C:\FLOW_4\P060919.RST
Date: 09-Jun-19
Operator: AM

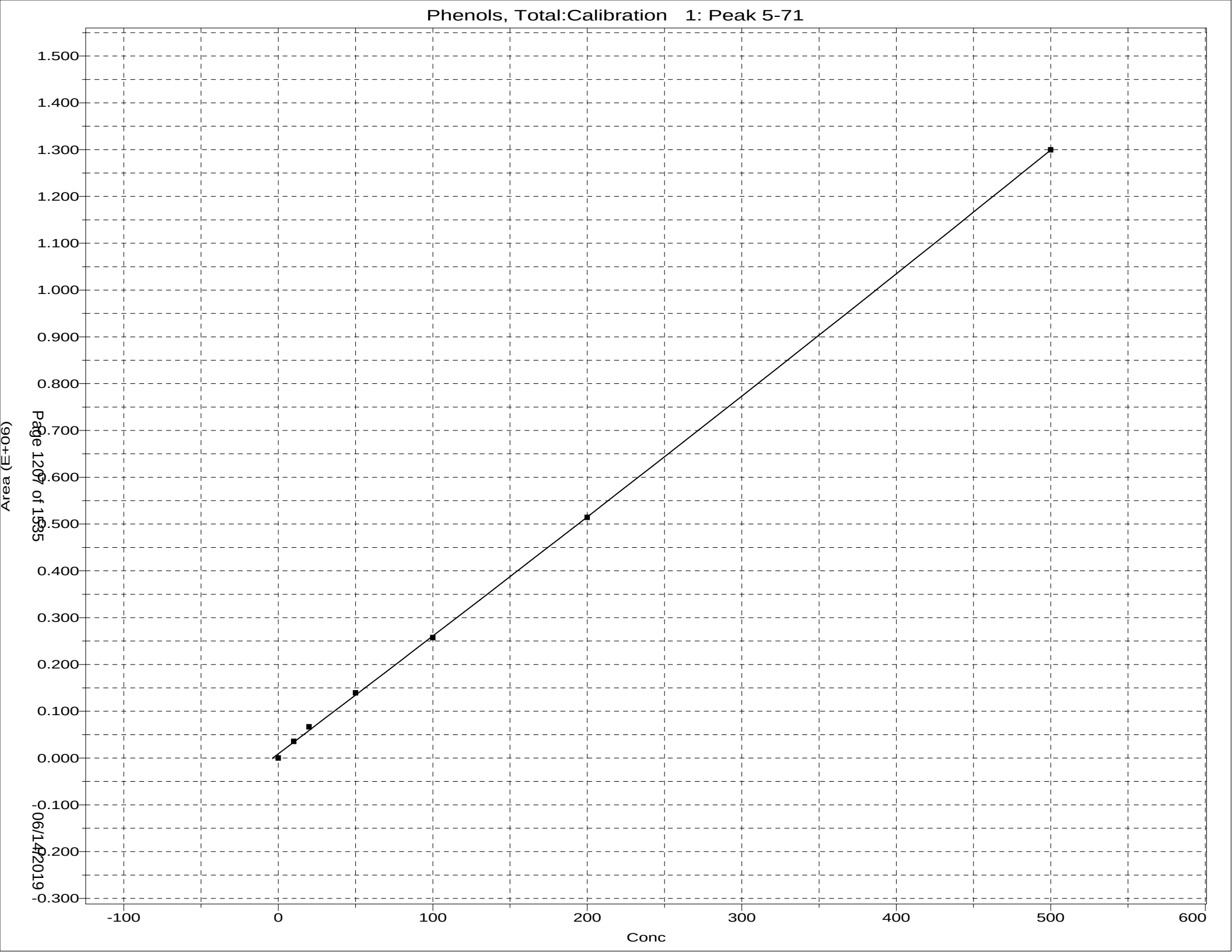
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*	Cal 100 ppb	100.000000	257194.125000
*	Cal 200 ppb	200.000000	514138.000000
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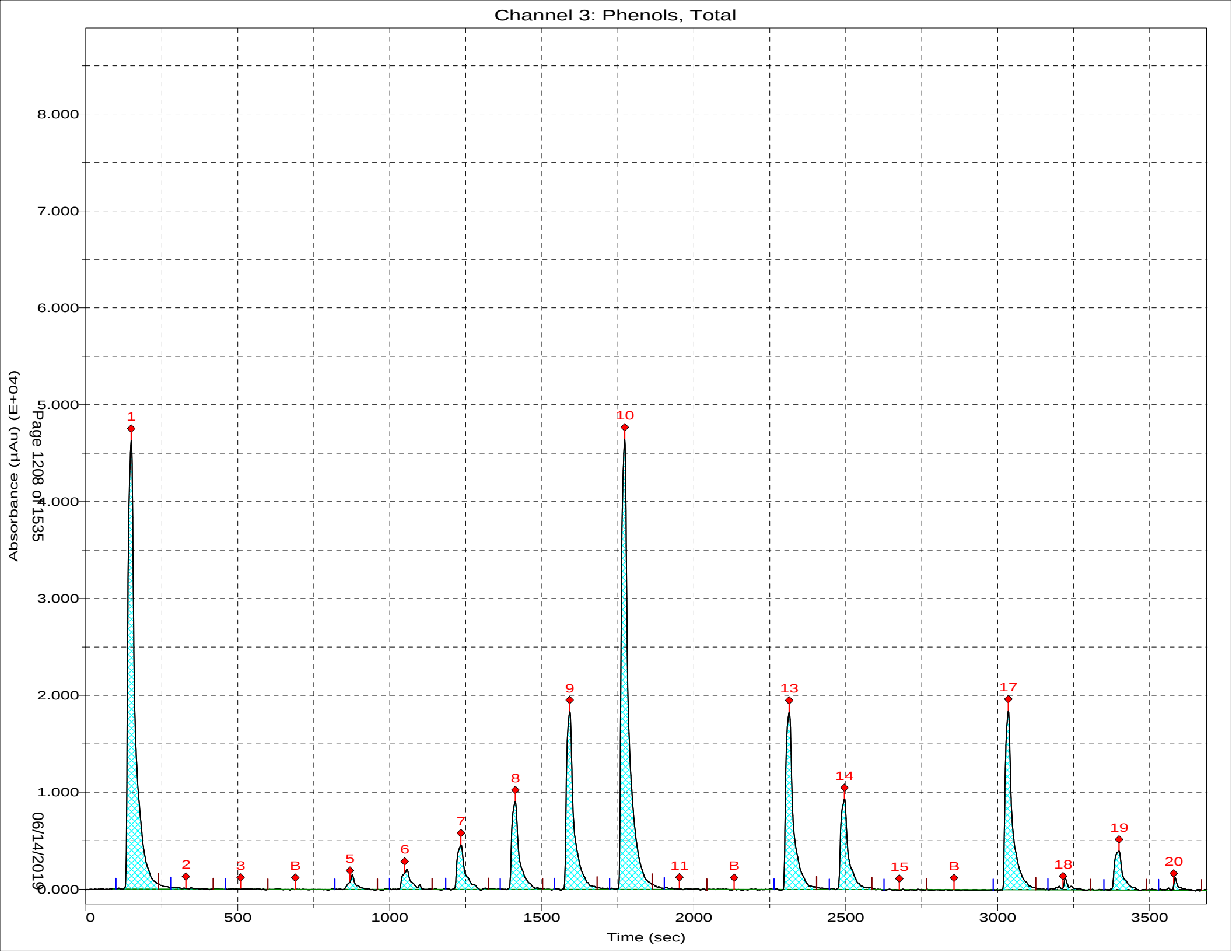
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b: 4.0009e-04
c: -9.6058e-12

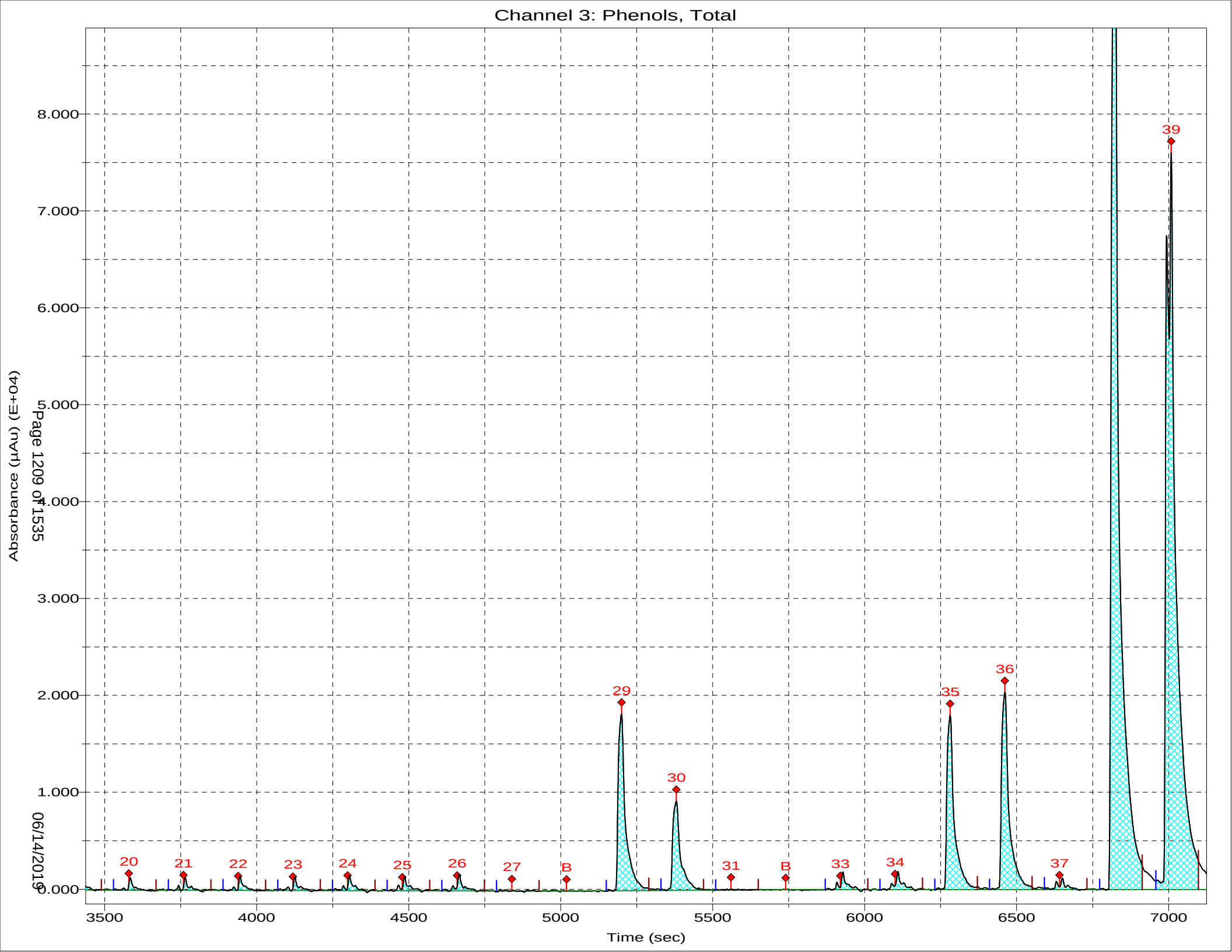
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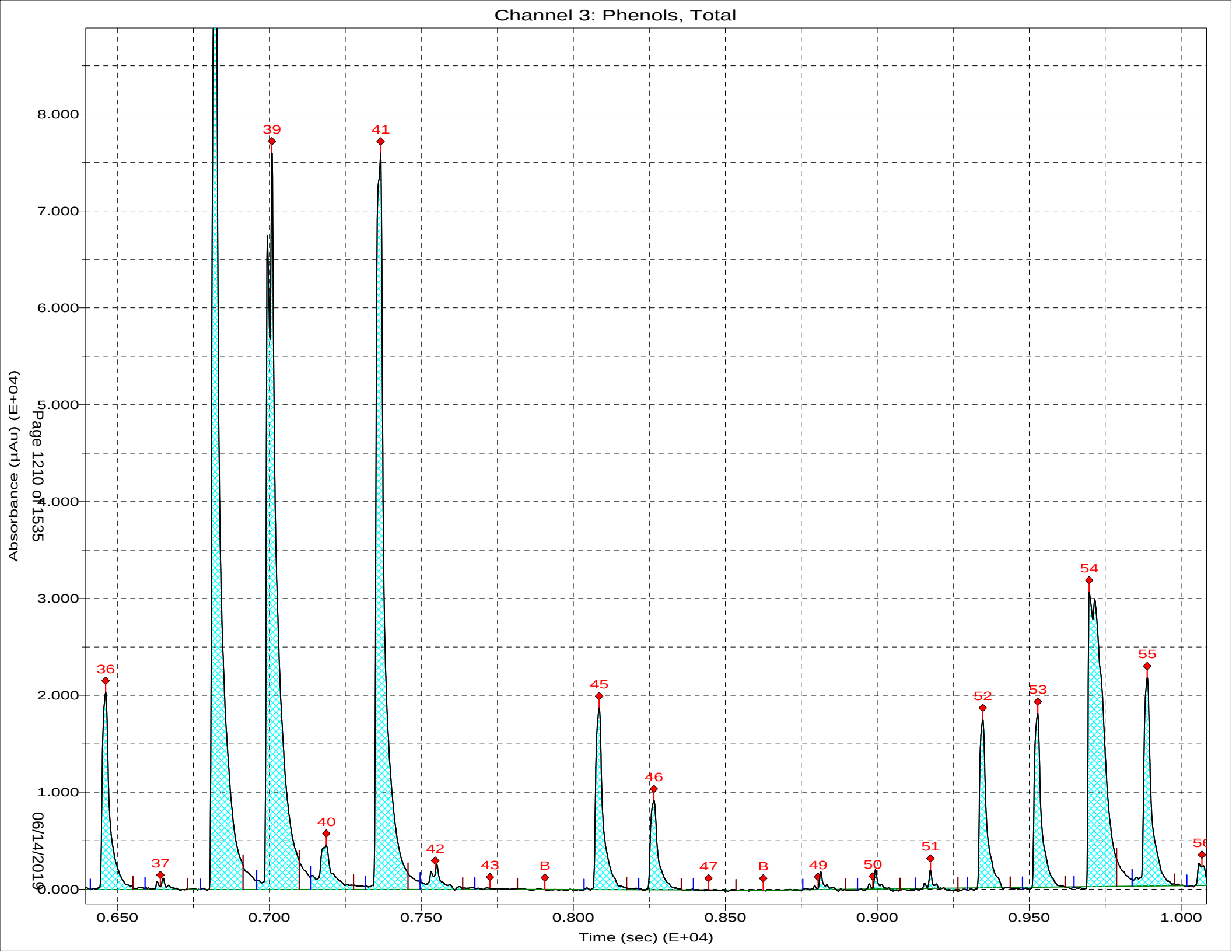
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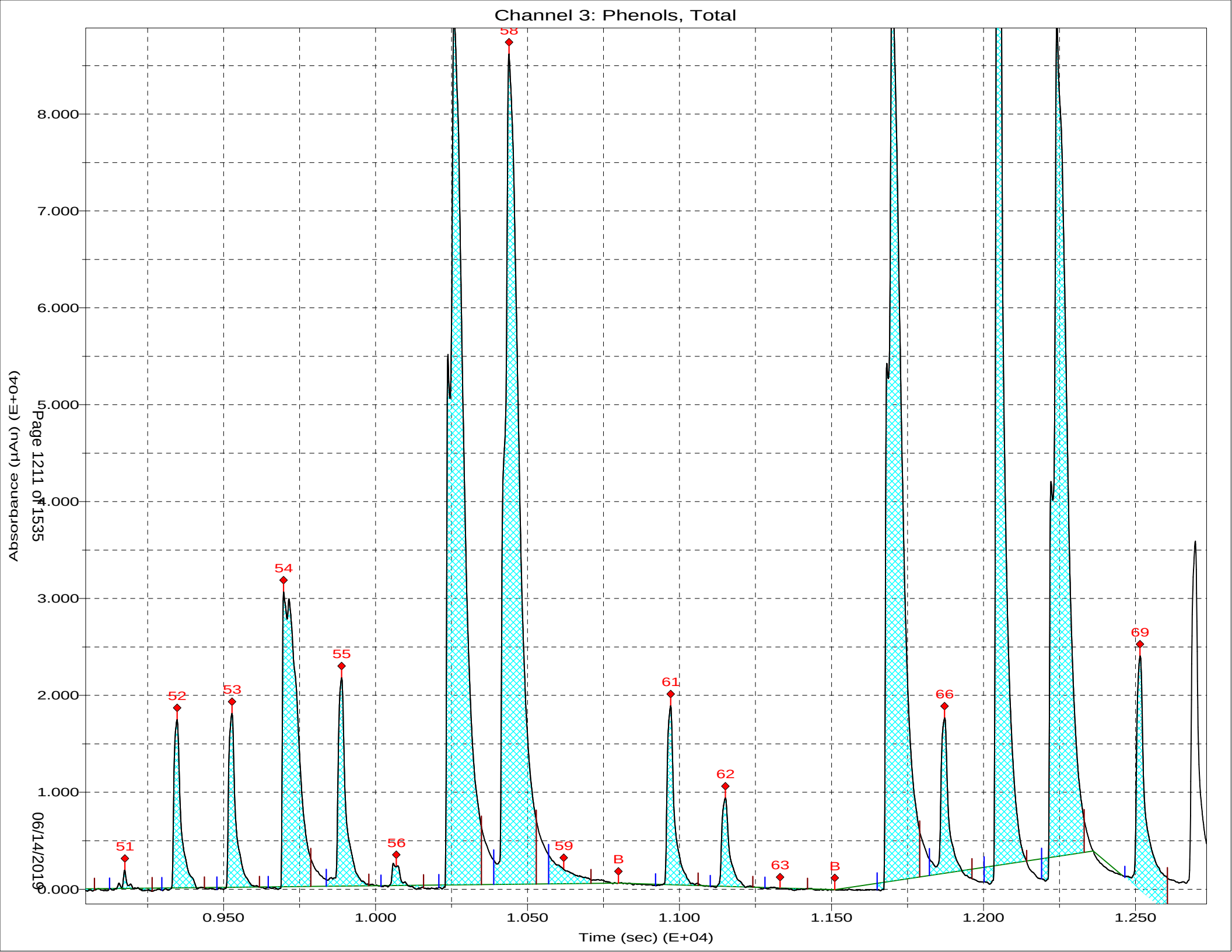
No Drift Peaks


Phenols, Total:Calibration 1: Peak 5-71
Area (E+06)
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-0.300
-100
0
100
200
300
400
500
600
Conc


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
0
500
1000
1500
2000
2500
3000
3500
Time (sec)
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
20
Page 1208 of 1535
06/14/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Page 1209 of 1535
06/14/2019
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37
39
3500
4000
4500
5000
5500
6000
6500
7000
Time (sec)


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
0.650
0.700
0.750
0.800
0.850
0.900
0.950
1.000
36
37
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55
56
Page 1210 of 1535
06/14/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
0.950
1.000
1.050
1.100
1.150
1.200
1.250
Time (sec) (E+04)
51
52
53
54
55
56
58
59
B
61
62
63
B
66
69
Page 1211 of 1535
06/14/2019

Color Bench Sheet

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Analyst: CKB	Batch #: 458642	SOP: DV-WC-0058 SM 2120B
Date: 5/17/19		

Calibration Standard TALS ID: COLOR STD_00018 1.0 N HCl TALS ID: N/A

1.0 N NaOH TALS ID: N/A

Sample ID	pH	Observed Color	Dilution Factor	Sample Centrifuged?	Final Color
Method Blank	7	<5	N/A	Yes (No)	ND
280-123924-I-1	7	15	N/A	Yes (No)	15
DU " " " "	7	15	N/A	Yes (No)	15
280-123924-I-2	7	5	N/A	Yes (No)	5
280-123924-I-3	7	10	N/A	Yes (No)	10
280-123924-J-4	7	15	5X	Yes (No)	75
280-123924-J-5	7	<5	N/A	Yes (No)	ND
280-123924-H-6	7	<5	N/A	Yes (No)	ND
280-123924-H-7	7	25	N/A	Yes (No)	25
280-123924-J-8	7	30	N/A	Yes (No)	30
280-123924-J-9	7	30	N/A	Yes (No)	30
280-123924-H-10	7	50	N/A	Yes (No)	50
280-123924-J-11	7	40	N/A	Yes (No)	40
DU " " " "	7	40	N/A	Yes (No)	40
280-123924-I-12	7	30	N/A	Yes (No)	30
280-123922-J-1	7	10	10X	Yes (No)	100
280-123922-H-2	7	15	10X	Yes (No)	150
280-123922-J-3	7	20	10X	Yes (No)	200
280-123930-H-1	7	5	10X	Yes (No)	50
280-123930-J-2	7	20	N/A	Yes (No)	20
280-123930-H-3	7	20	N/A	Yes (No)	20
280-123930-J-4	7	20	10X	Yes (No)	200
280-123930-I-5	7	25	N/A		25

Comments: _____

HARDNESS BY TITRATION -- Method 2340C

Analyst:	KS	**Titration Solutions**		**SOP Information:**	**Rep. / Detection Limits**
Date:	5/24/2019	Solution 1:	EDTA	Number: DV-WC-0060	MDL (mg/L) 1.3
Time:	15:29	ID #	_00090	Revision: 4	RL (mg/L) 5
Batch No.:	459401	Source:	RICCA	**Calibration Information**	Spike Concentrations:
		Normality:	0.01966	Std# Hard 00051	LCS Spike Vol (mL) 10
Pipette Verification				Made By: LabChem	MS Spike Vol (mL) 10
at 5 mL:	4.93 g			Concentration (mg/L): 1000	LCS conc. (mg/L) 1000.0
Brinkmann bottletop				Exp: 6/13/20	MS conc (mg/L) 1000.0
Buret 50					

Sample ID	Sample pH	Sample Volume	Buret Start	Buret Stop	Flags	Final mL	Sample Conc mg/L	Prep D.F.	Analyt. D.F.	Final Conc mg/L	Titrant TV
titrant stdz	7	10	0.00	10.27		10.27	1009.425	1	1	1009.42	0.01947
titrant stdz	7	10	0.00	10.08		10.08	990.750	1	1	990.75	0.01984

Buffer:	Hardness Buffer 00009	Exp:	7 15 2019
Calmagite Indicator:	0289-11_00008	Exp:	12 31 2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 02-May-2019 10:21:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:57 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.067	-0.025	366785	0.2000	0.3377	
2 Chloride	3.609	3.634	-0.025	2749324	1.00	1.24	
3 Nitrite as N	4.384	4.392	-0.008	1221417	NC	NC	
4 Bromide	5.300	5.300	0.000	261279	0.2000	0.2109	
5 Nitrate as N	6.009	5.992	0.017	1512184	NC	NC	
7 Orthophosphate as P	7.867	7.825	0.042	525912	NC	NC	
6 Sulfate	8.925	8.950	-0.025	2110627	1.00	1.15	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

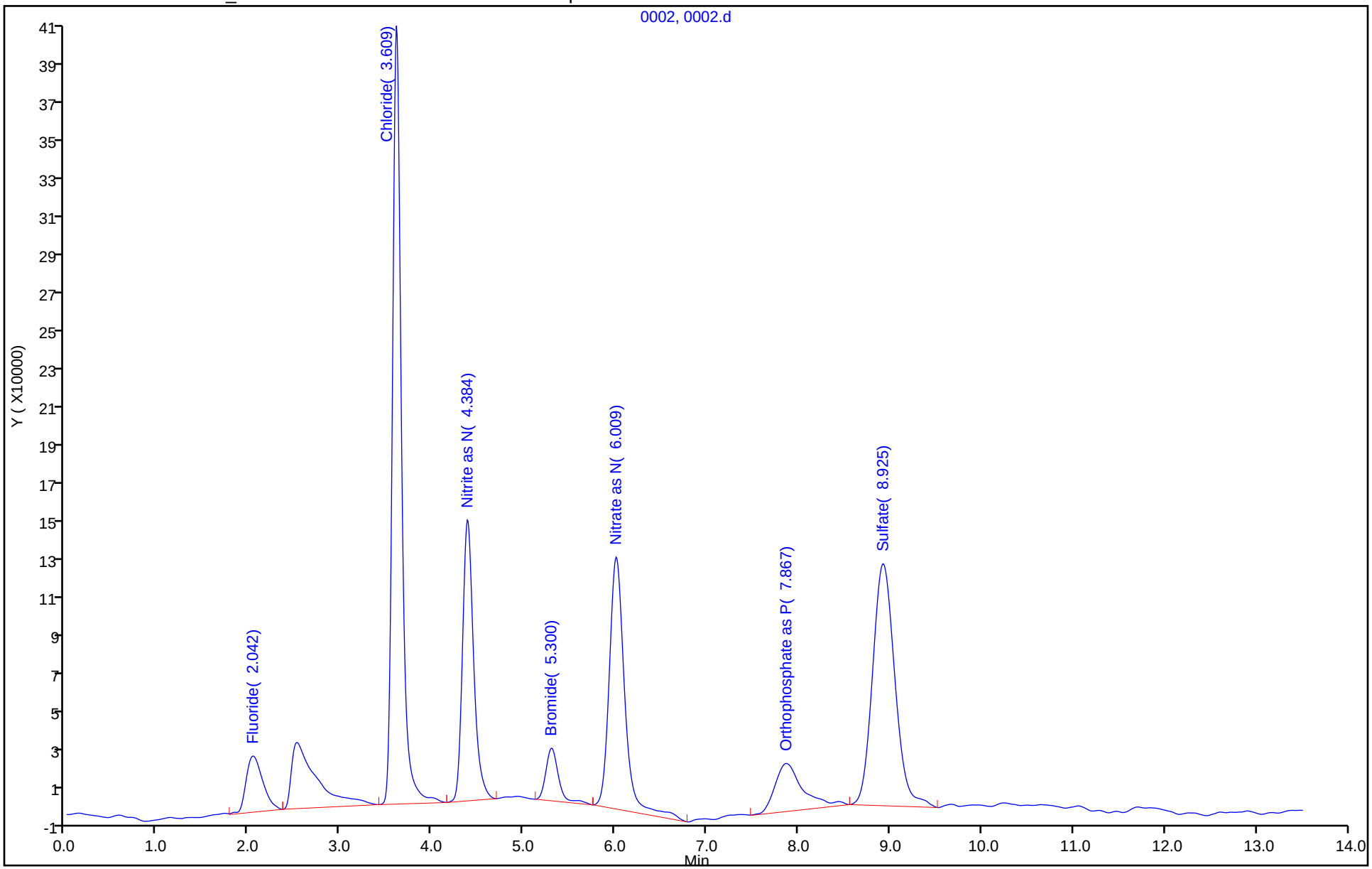
IC Cal low_00455 Amount Added: 0.02 Units: mL
IC CAL cl/so4_00254 Amount Added: 0.02 Units: mL

Report Date: 03-May-2019 07:54:57 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0002.d

Injection Date:	02-May-2019 10:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 02-May-2019 10:38:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:58 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.067	-0.033	372666	0.5000	0.3503	
2 Chloride	3.617	3.634	-0.017	6899153	2.50	2.37	
3 Nitrite as N	4.392	4.392	0.000	3131988	NC	NC	
4 Bromide	5.309	5.300	0.009	625822	0.5000	0.4928	
5 Nitrate as N	6.017	5.992	0.025	3555588	NC	NC	
7 Orthophosphate as P	7.859	7.825	0.034	1108069	NC	NC	
6 Sulfate	8.934	8.950	-0.016	5251435	2.50	2.41	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

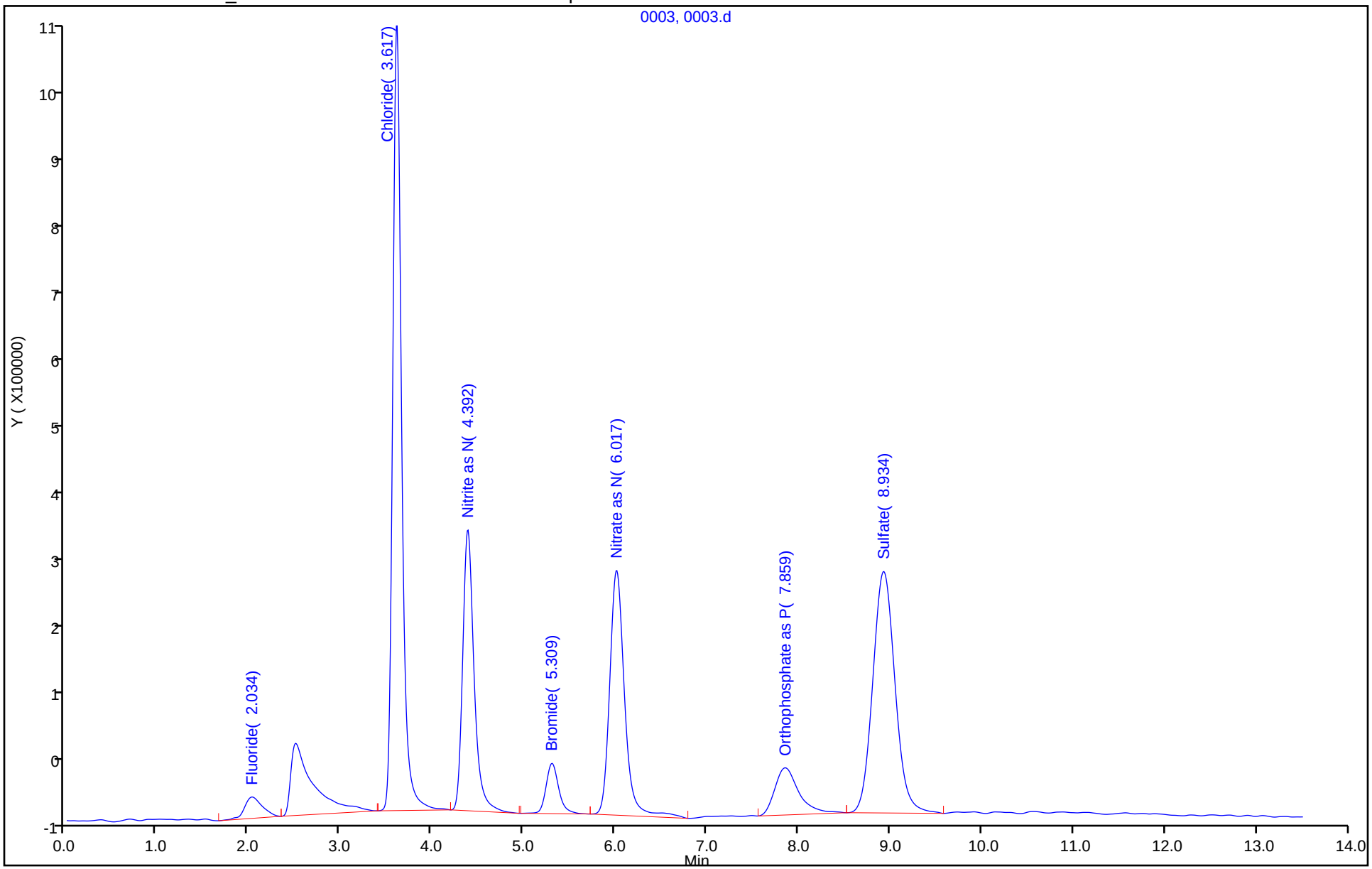
IC Cal low_00455 Amount Added: 0.05 Units: mL
IC CAL cl/so4_00254 Amount Added: 0.05 Units: mL

Report Date: 03-May-2019 07:54:58 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0003.d

Injection Date:	02-May-2019 10:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	02-May-2019 10:54:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081509-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	03-May-2019 07:54:58	Calib Date:	02-May-2019 11:43:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0322				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.067	-0.050	495441	1.00	0.6135	
2 Chloride	3.617	3.634	-0.017	14033483	5.00	4.30	
3 Nitrite as N	4.392	4.392	0.000	6441564	NC	NC	
4 Bromide	5.309	5.300	0.009	1248307	1.00	0.9743	
5 Nitrate as N	6.009	5.992	0.017	7095802	NC	NC	
7 Orthophosphate as P	7.850	7.825	0.025	2292647	NC	NC	
6 Sulfate	8.934	8.950	-0.016	10751965	5.00	4.62	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

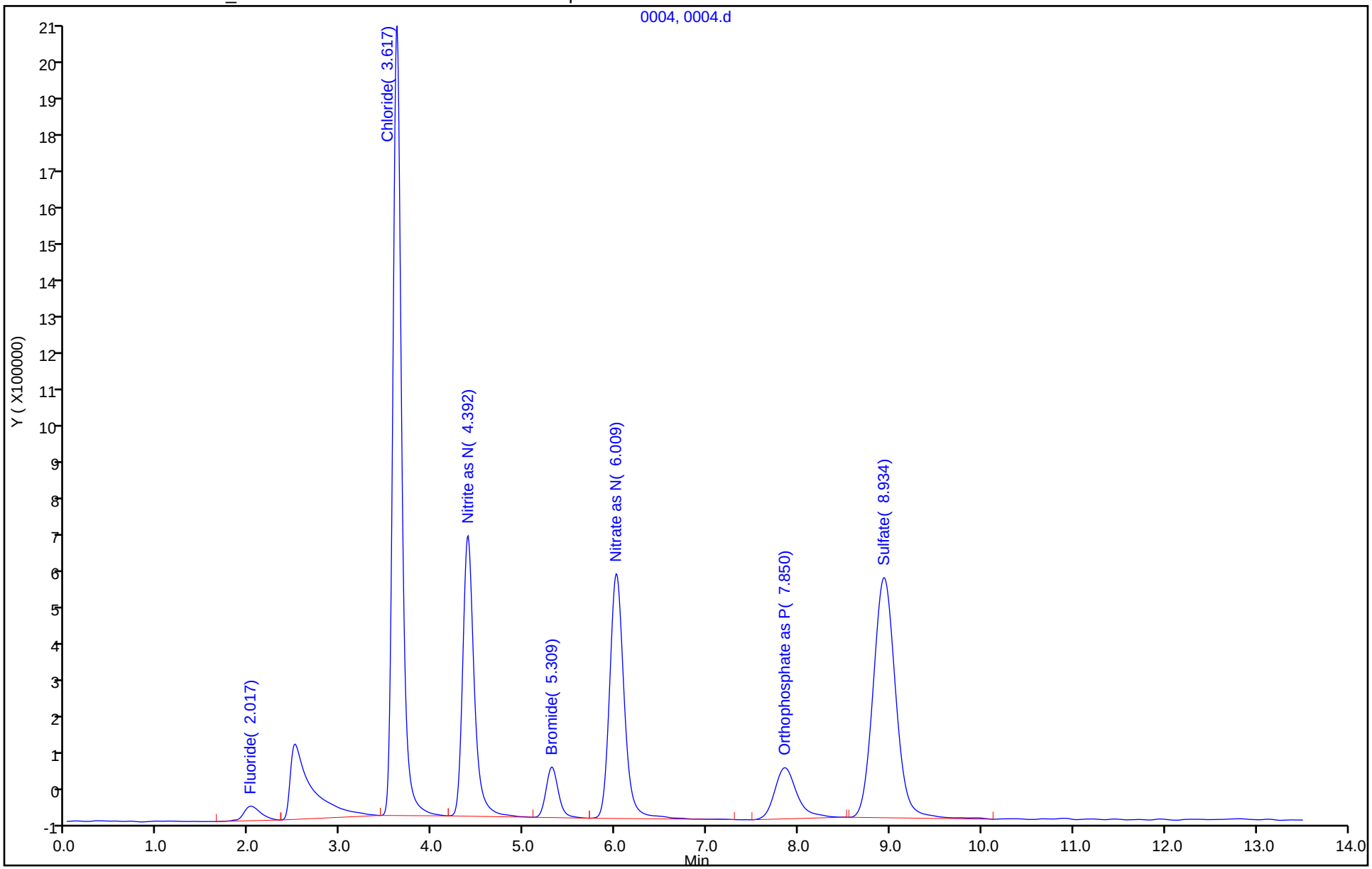
IC Cal low_00455	Amount Added:	0.10	Units: mL
IC CAL cl/so4_00254	Amount Added:	0.10	Units: mL

Report Date: 03-May-2019 07:54:59 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0004.d

Injection Date:	02-May-2019 10:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 02-May-2019 11:11:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:59 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	2020138	4.00	3.88	
2 Chloride	3.634	3.634	0.000	203689540	60.0	55.7	
3 Nitrite as N	4.392	4.392	0.000	26199019	NC	NC	
4 Bromide	5.300	5.300	0.000	5053207	4.00	3.92	
5 Nitrate as N	6.000	6.000	0.000	29041817	NC	NC	
7 Orthophosphate as P	7.842	7.842	0.000	9583357	NC	NC	
6 Sulfate	8.959	8.959	0.000	142005890	60.0	57.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

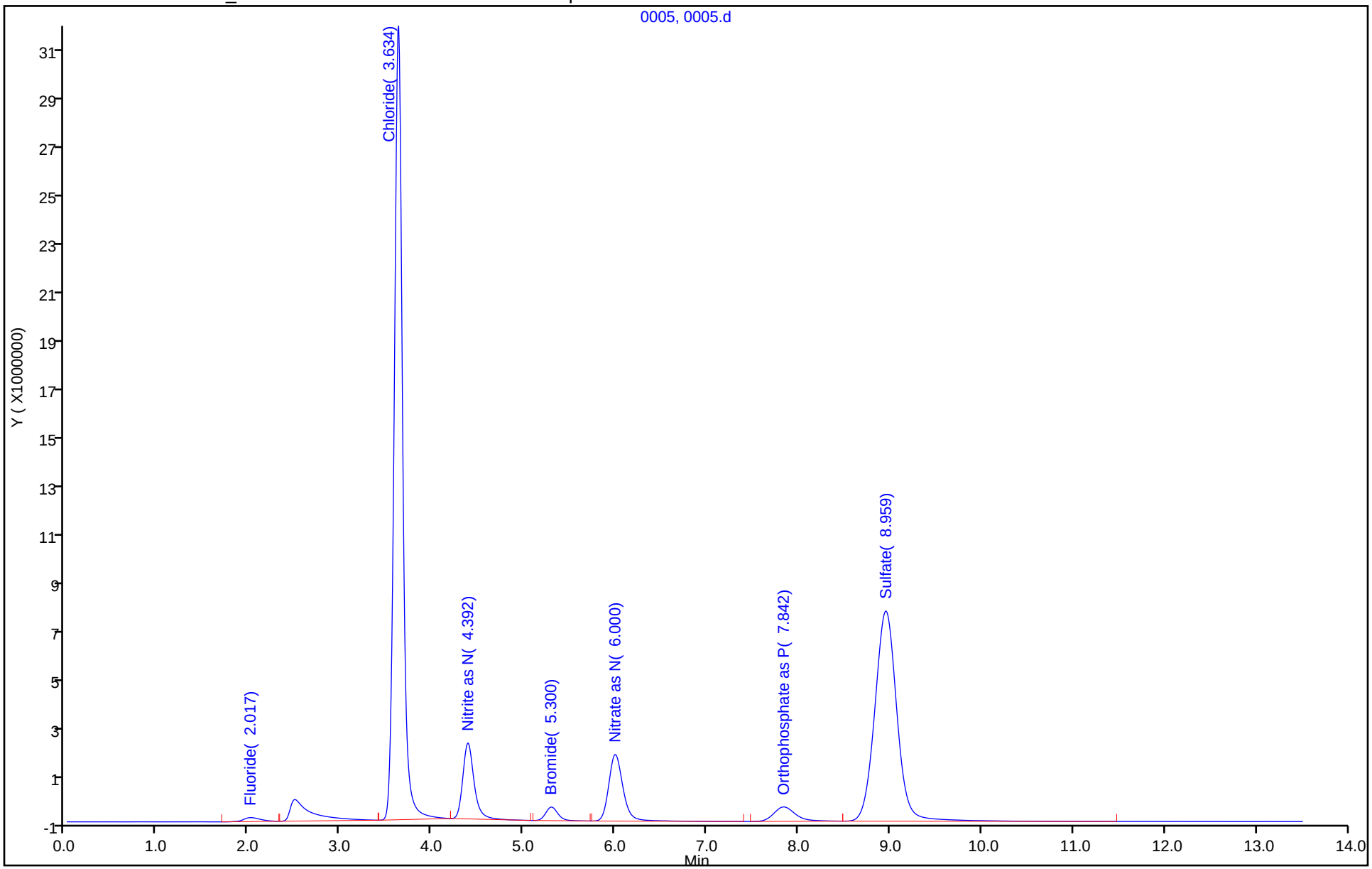
IC Cal low_00455 Amount Added: 0.40 Units: mL
IC CAL cl/so4_00254 Amount Added: 1.20 Units: mL

Report Date: 03-May-2019 07:54:59 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0005.d

Injection Date:	02-May-2019 11:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 02-May-2019 11:27:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:00 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	3480139	8.00	7.01	
2 Chloride	3.650	3.634	0.016	434615430	120.0	118.4	
3 Nitrite as N	4.392	4.392	0.000	53247138	NC	NC	
4 Bromide	5.300	5.300	0.000	10123490	8.00	7.84	
5 Nitrate as N	5.992	6.000	-0.008	59270420	NC	NC	
7 Orthophosphate as P	7.834	7.842	-0.008	19166572	NC	NC	
6 Sulfate	8.975	8.959	0.016	292630668	120.0	117.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

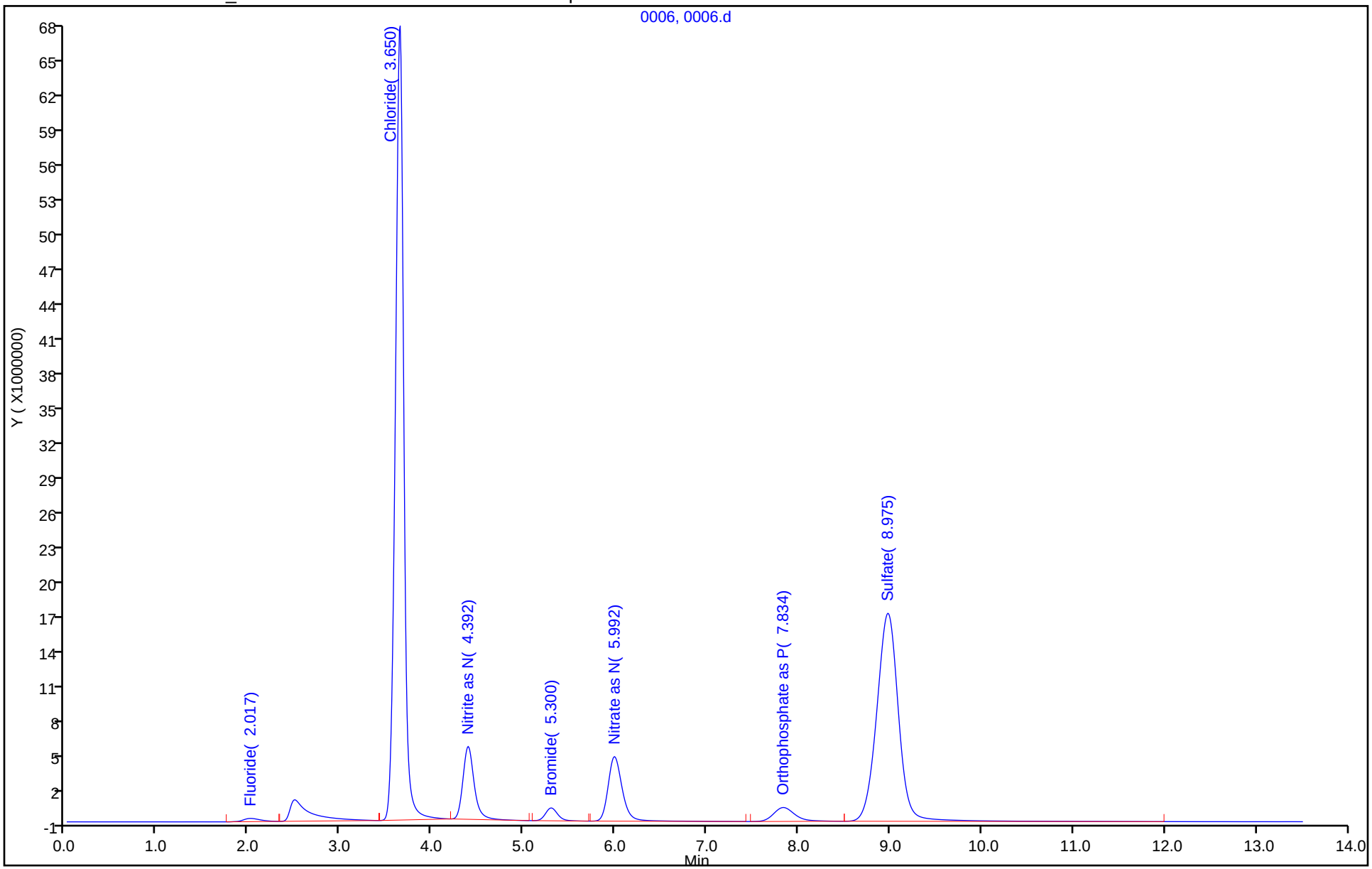
IC Cal low_00455 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00254 Amount Added: 2.40 Units: mL

Report Date: 03-May-2019 07:55:00 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0006.d

Injection Date:	02-May-2019 11:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 02-May-2019 11:43:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-007
Misc. Info.: 7 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:01 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	5578154	10.0	11.5	
2 Chloride	3.667	3.634	0.033	759596501	200.0	206.5	
3 Nitrite as N	4.392	4.392	0.000	70984538	NC	NC	
4 Bromide	5.292	5.300	-0.008	13261367	10.0	10.3	
5 Nitrate as N	5.984	6.000	-0.016	79286235	NC	NC	
7 Orthophosphate as P	7.825	7.842	-0.017	25804274	NC	NC	
6 Sulfate	9.000	8.959	0.041	511344409	200.0	205.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

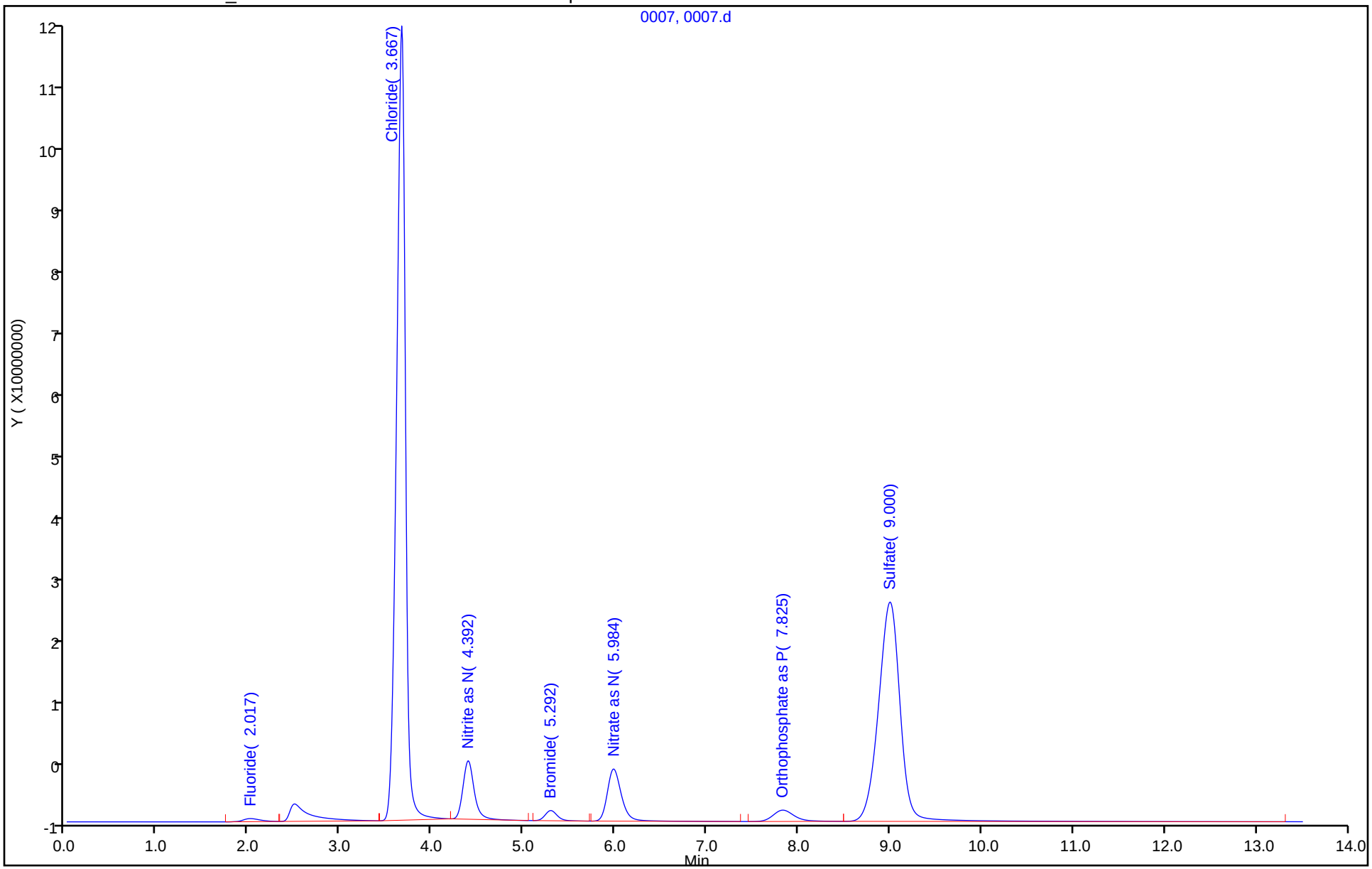
IC Cal low_00455 Amount Added: 1.00 Units: mL
IC CAL cl/so4_00254 Amount Added: 4.00 Units: mL

Report Date: 03-May-2019 07:55:02 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Injection Date:	02-May-2019 11:43:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



456731/32

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81509 Inst ID: 11 Analysis Date: 05/02/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
Dissolved →	122281	12	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D)	1 & 8
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
122281	1,2,4,5,6,7	F (Cl) NO2 Br NO3 PO4 (SO4)	5x, 10x, 20x	limit.
	8,10,11	F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya. 5/6/19

456731/32

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81509 Inst ID: 11 Analysis Date: 05/02/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
Dissolved →	122281	12	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D)	1 & 8
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
122281	1,2,4,5,6,7	F (Cl) NO2 Br NO3 PO4 (SO4)	5x, 10x, 20x	limit.
	8, 10, 11	F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 03-May-2019 07:55:18
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b
Inj Date : 02-May-2019 10:21:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					209210	486585	R1, R4	).968*
2 Chloride					-183738	3887536		0.998
3 Nitrite as N	-244378	6864639		0.999				
4 Bromide					-11343	1292891		0.999
5 Nitrate as N	-164405	7626518		0.998				
7 Orthophosphate as P	-42386	2478276		0.998				
6 Sulfate					-758343	2493295		0.999

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit

Phaniya
5/6/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	03-May-2019 07:55:18

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b
Inj Date : 02-May-2019 10:21:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					209210	466585	R1, R4	).968*
2 Chloride					-183738	368753(		0.998
3 Nitrite as N	-244378	6864639		0.999				
4 Bromide					-11343	1292891		0.999
5 Nitrate as N	-164405	7626518		0.998				
7 Orthophosphate as P	-42386	2478276		0.998				
6 Sulfate					-758343	2493295		0.999

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 02-May-2019 12:00:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-008
Misc. Info.: 8 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:02 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	2447396	4.00	4.80	
2 Chloride	3.642	3.642	0.000	285894932	80.0	78.0	
3 Nitrite as N	4.392	4.392	0.000	25388265	NC	NC	
4 Bromide	5.309	5.309	0.000	5092734	4.00	3.95	
5 Nitrate as N	6.000	6.000	0.000	29556367	NC	NC	
7 Orthophosphate as P	7.842	7.842	0.000	9842771	NC	NC	
6 Sulfate	8.967	8.967	0.000	195183824	80.0	78.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

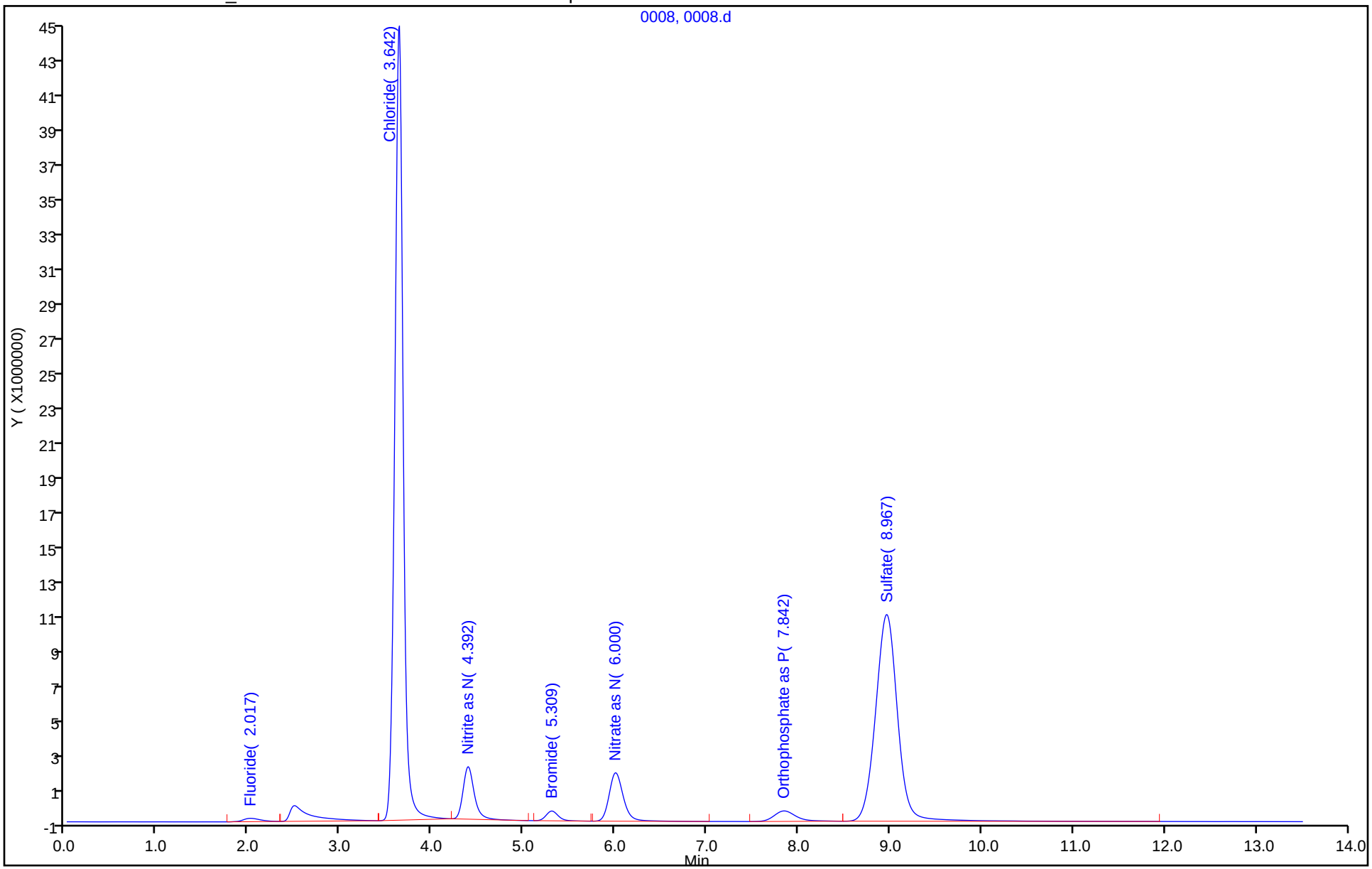
IC CL ICV_00016	Amount Added:	0.40	Units: mL
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00232	Amount Added:	0.40	Units: mL

Report Date: 03-May-2019 07:55:02 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0008.d

Injection Date:	02-May-2019 12:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 02-May-2019 12:16:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-009
Misc. Info.: 9 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:02 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

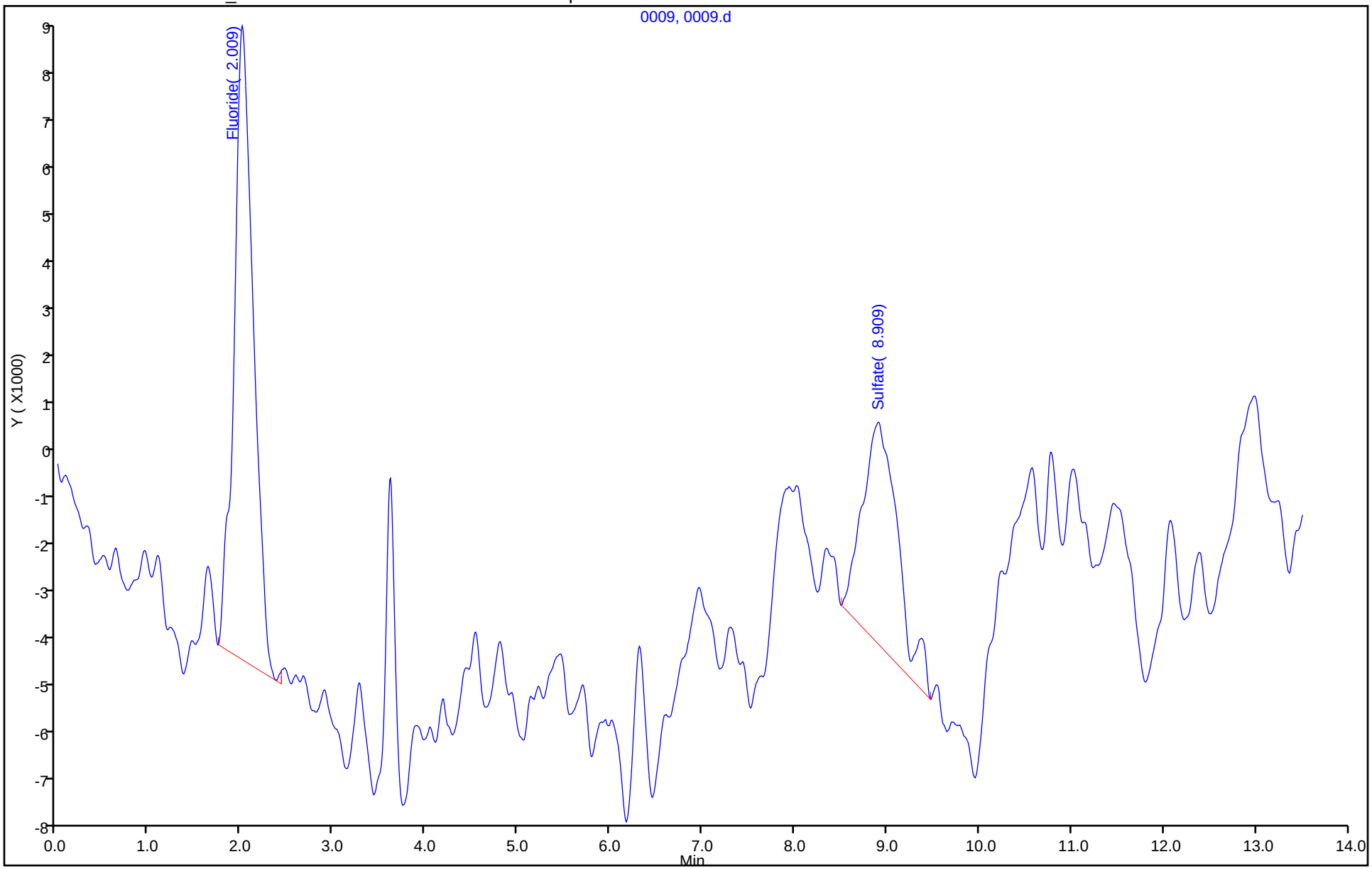
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.017	-0.008	184261		-0.0535	
2 Chloride		3.634				ND	
3 Nitrite as N		4.392				ND	
4 Bromide		5.300				ND	
5 Nitrate as N		6.000				ND	
7 Orthophosphate as P		7.842				ND	
6 Sulfate	8.909	8.959	-0.050	119116		0.3519	

Report Date: 03-May-2019 07:55:03 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0009.d

Injection Date:	02-May-2019 12:16:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 Inst ID: 11 Analysis Date: 05/15/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	NC	NC	M
2 Chloride	3.234	3.242	-0.008	4716909	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	1976056	0.2000	0.2135	a
4 Bromide	4.642	4.642	0.000	382484	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	2120855	0.2000	0.2208	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	0.2000	0.2189	a
6 Sulfate	6.409	6.434	-0.025	3612640	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

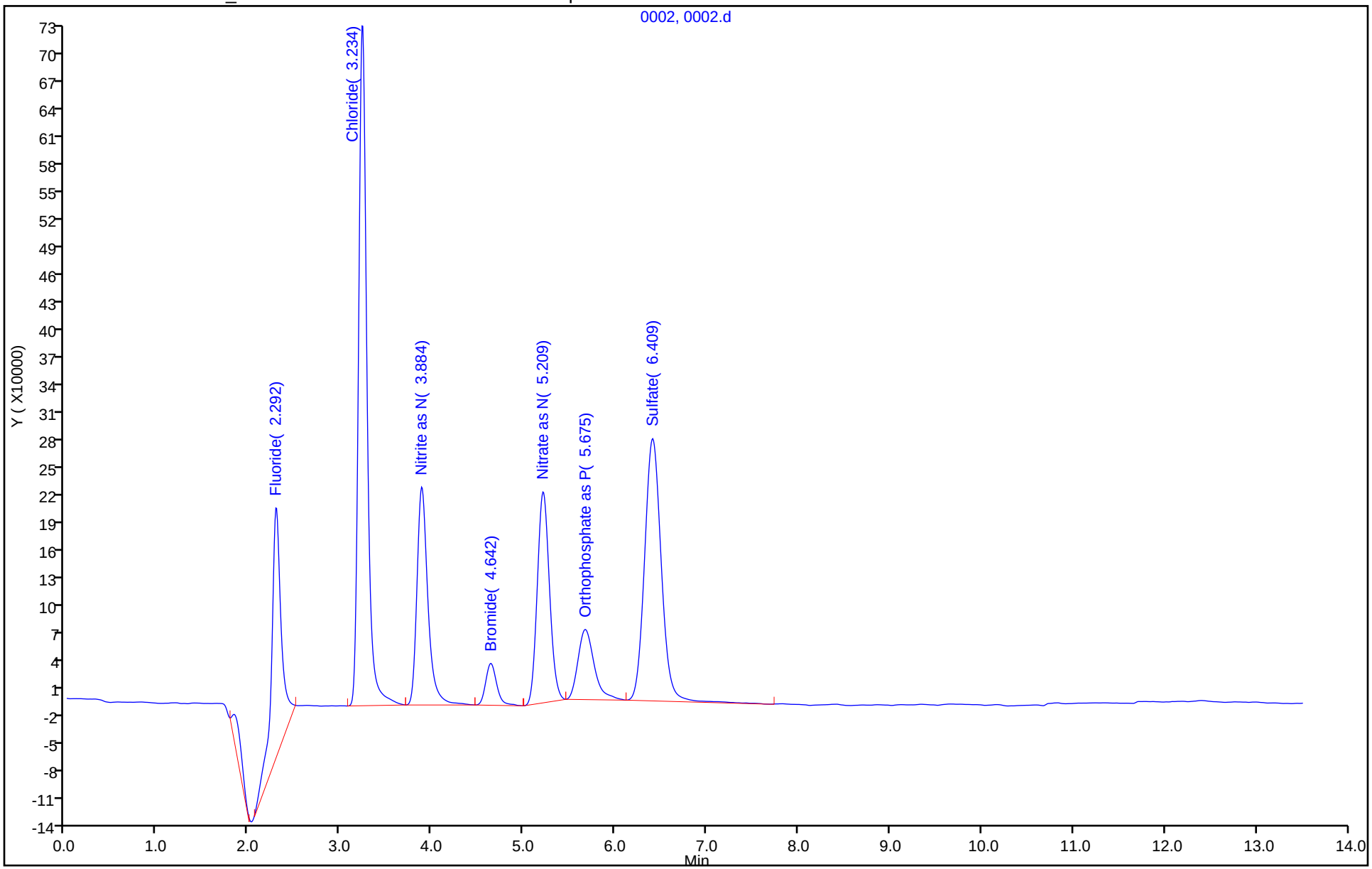
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

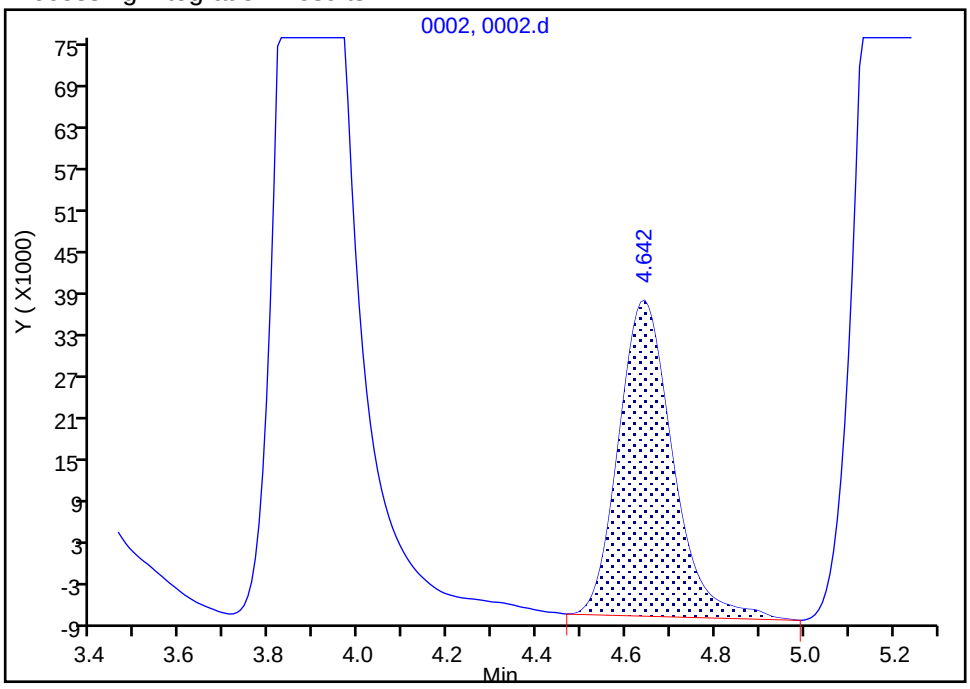
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

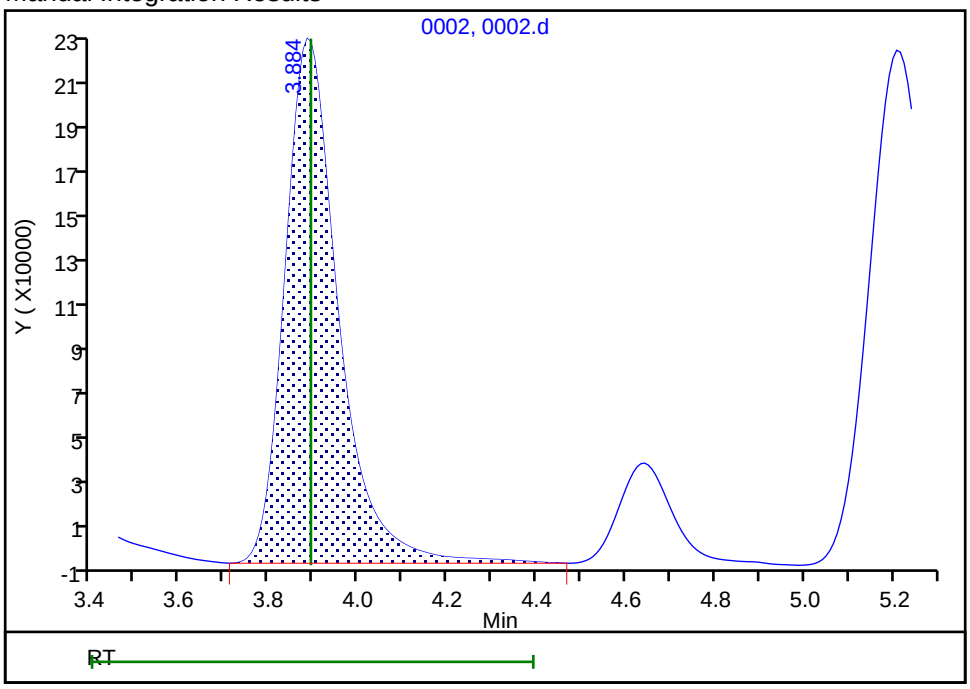
Processing Integration Results

RT: 4.64
Area: 382484
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 1976056
Amount: 0.213513
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:40
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

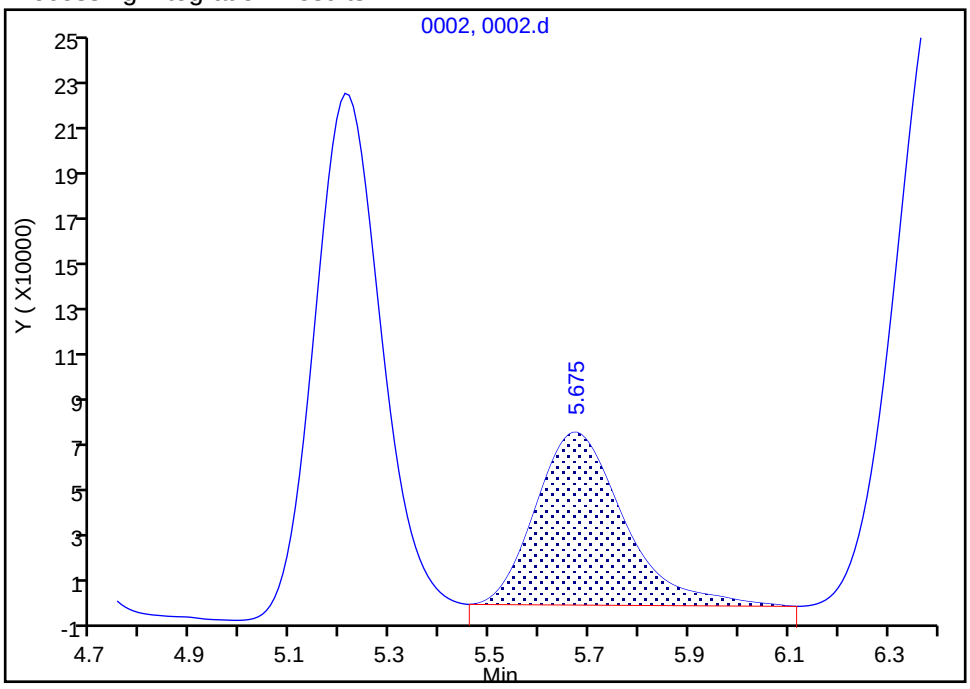
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

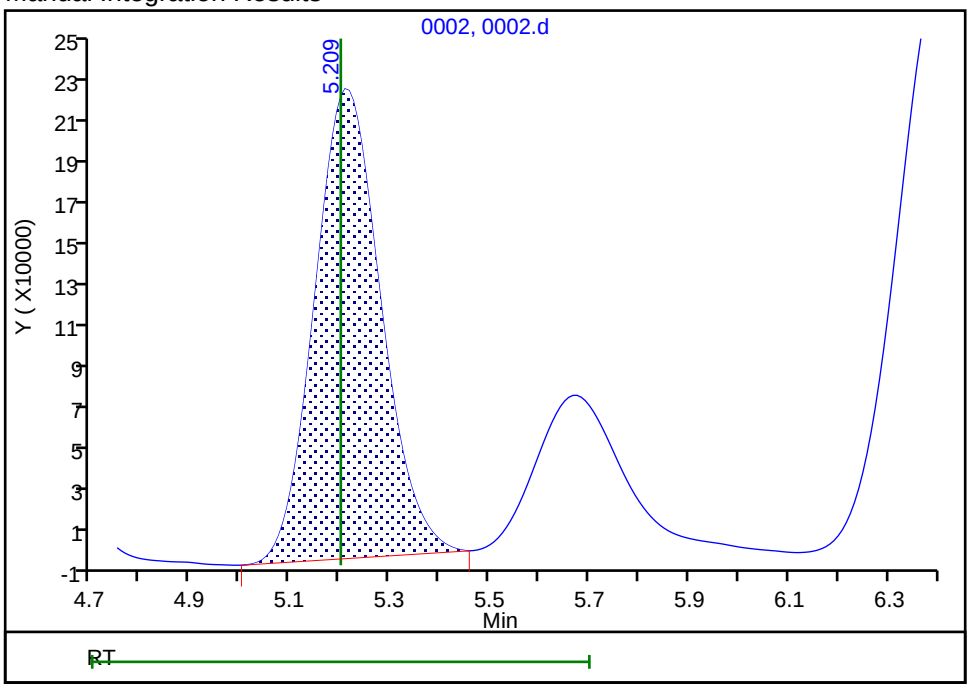
Processing Integration Results

RT: 5.68
Area: 939373
Amount: 0.215245
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 2120855
Amount: 0.220835
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

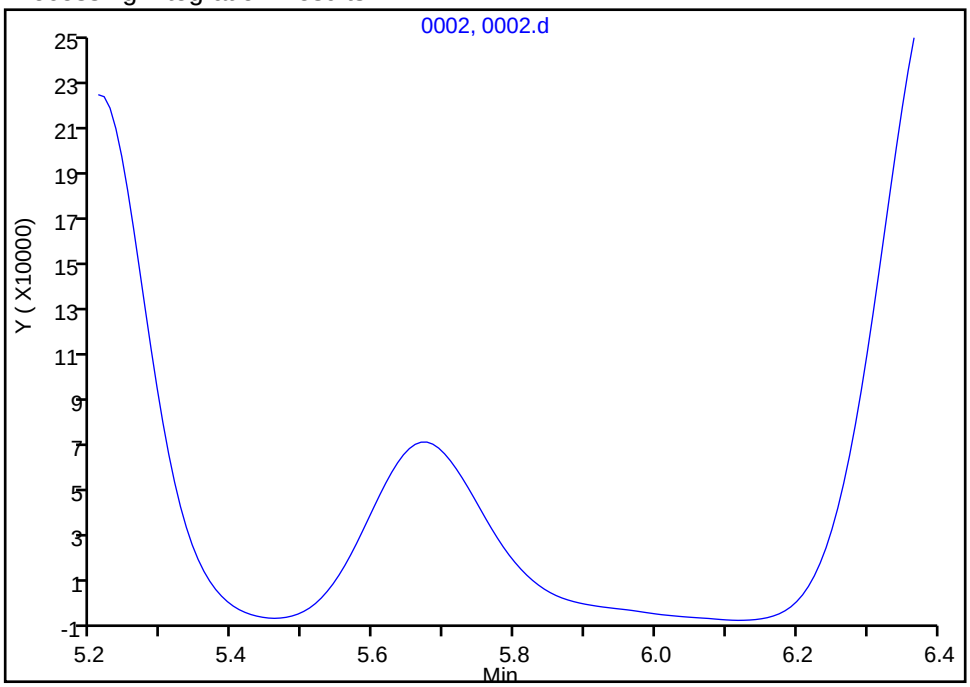
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

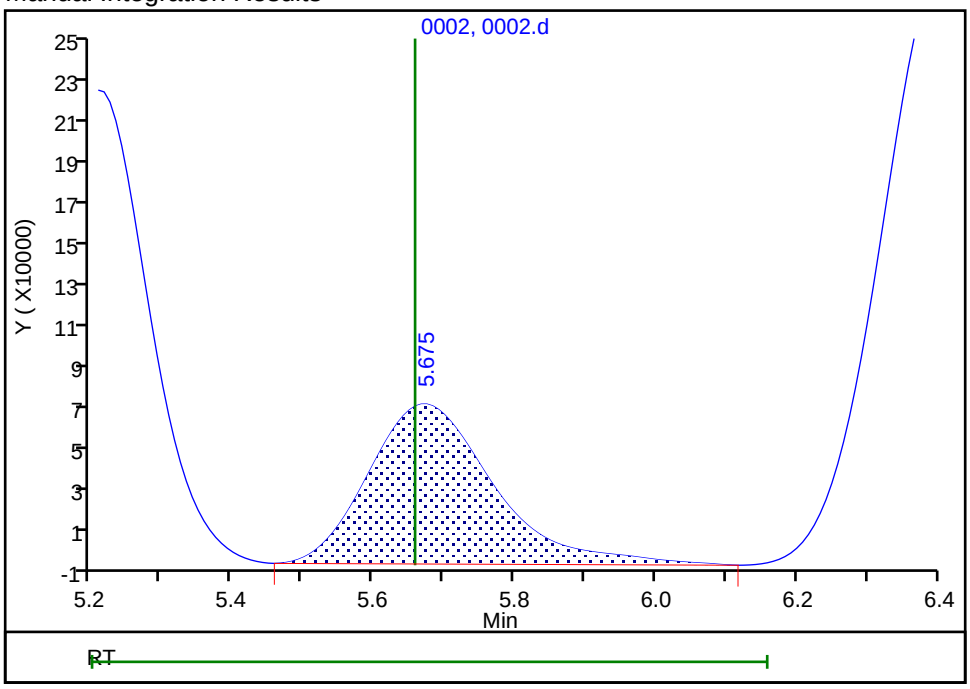
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.68
Area: 939373
Amount: 0.218915
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:07
Audit Action: Assigned Compound ID Audit Reason:

458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

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5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	0.2000	0.1247	M
2 Chloride	3.234	3.242	-0.008	4716909	1.00	1.32	
3 Nitrite as N	3.884	3.892	-0.008	1976056	NC	NC	a
4 Bromide	4.642	4.642	0.000	382484	0.2000	0.2043	a
5 Nitrate as N	5.209	5.200	0.009	2120855	NC	NC	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	3612640	1.00	1.25	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

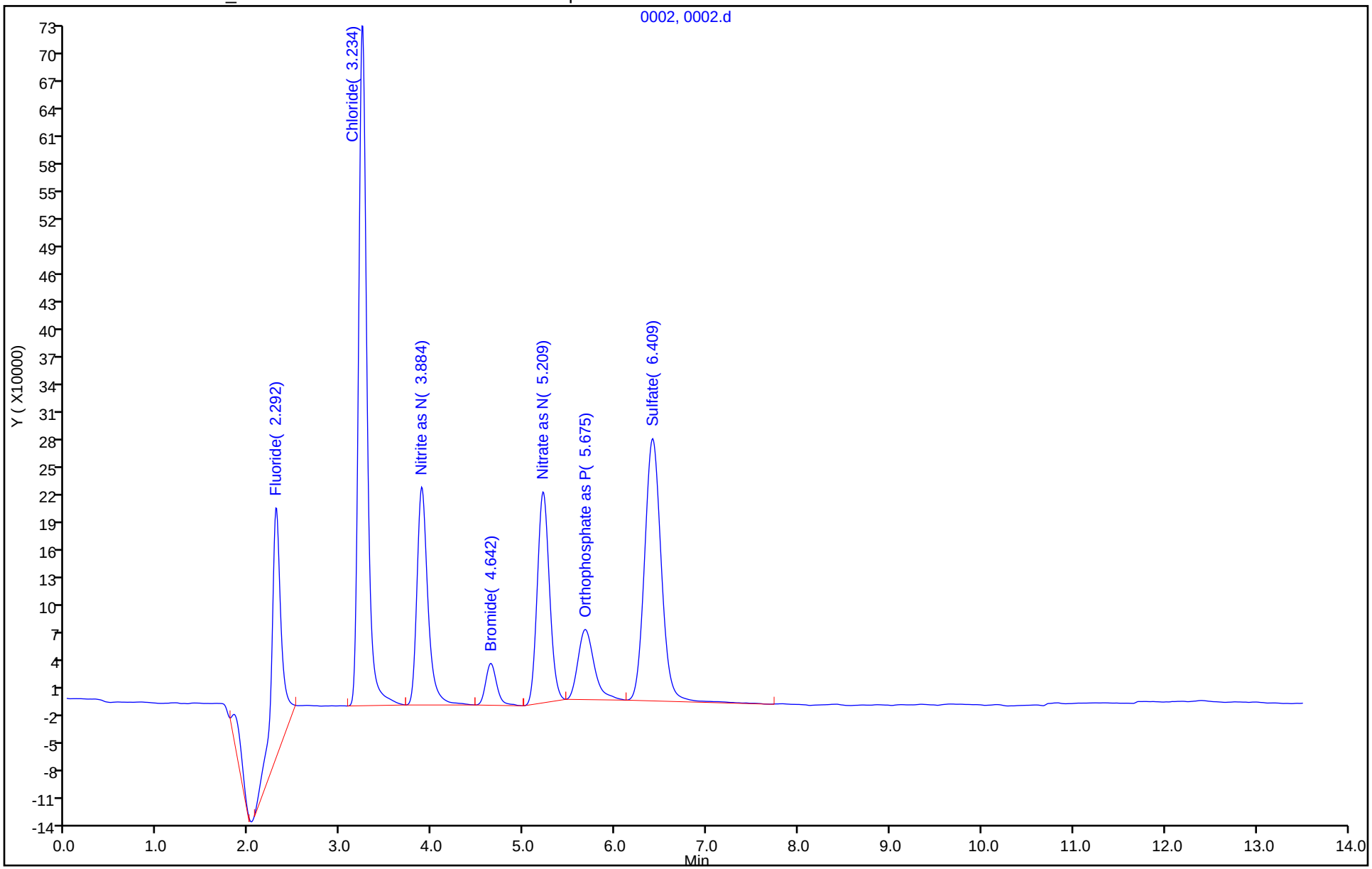
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

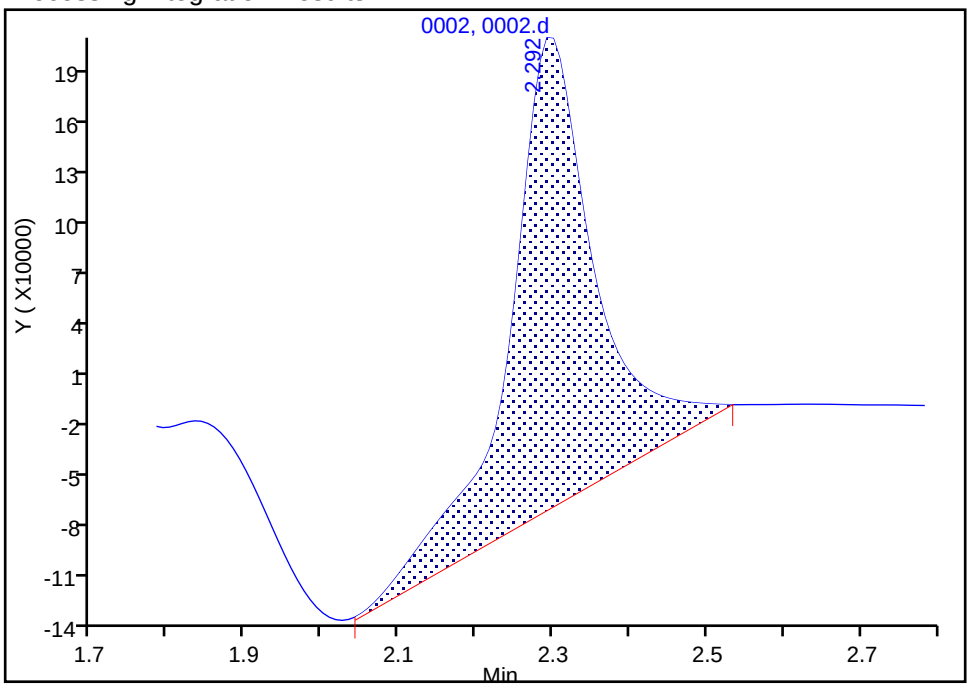
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

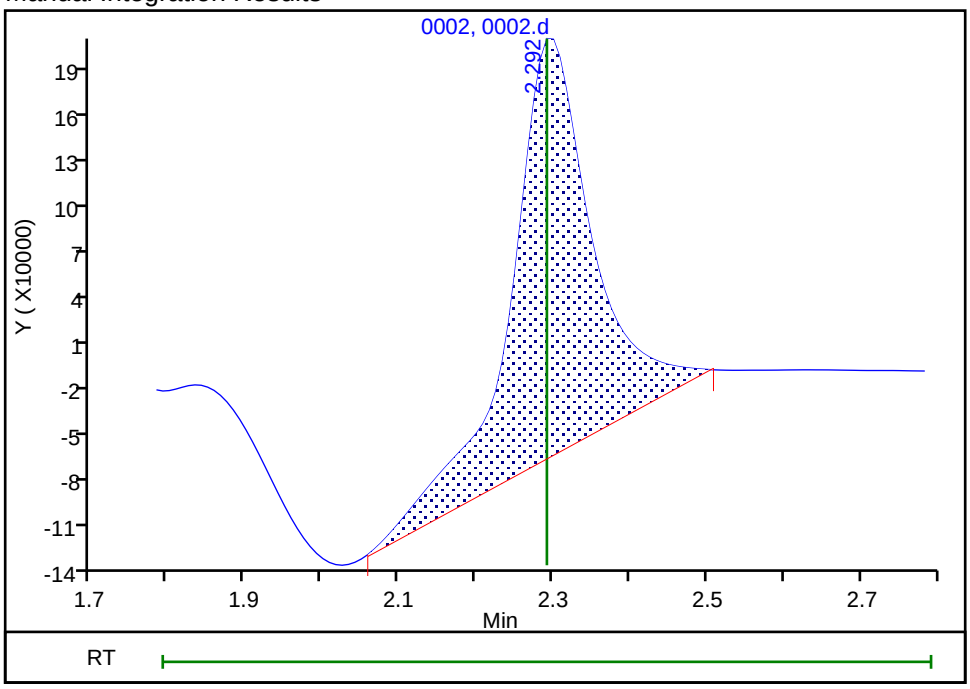
Processing Integration Results

RT: 2.29
Area: 2156044
Amount: 0.130825
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2026299
Amount: 0.124737
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:10:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

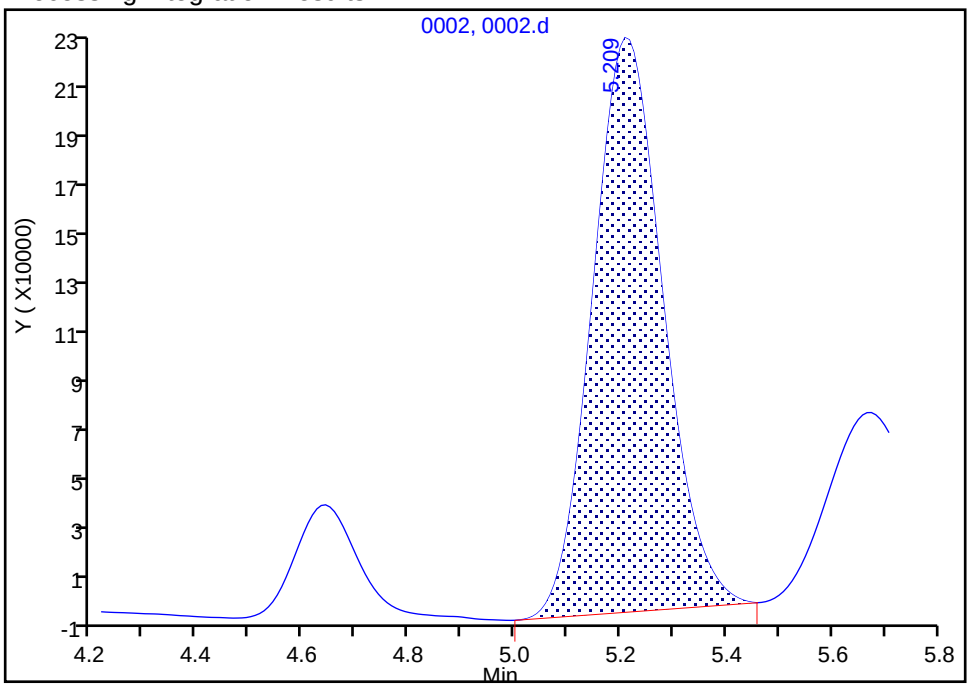
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

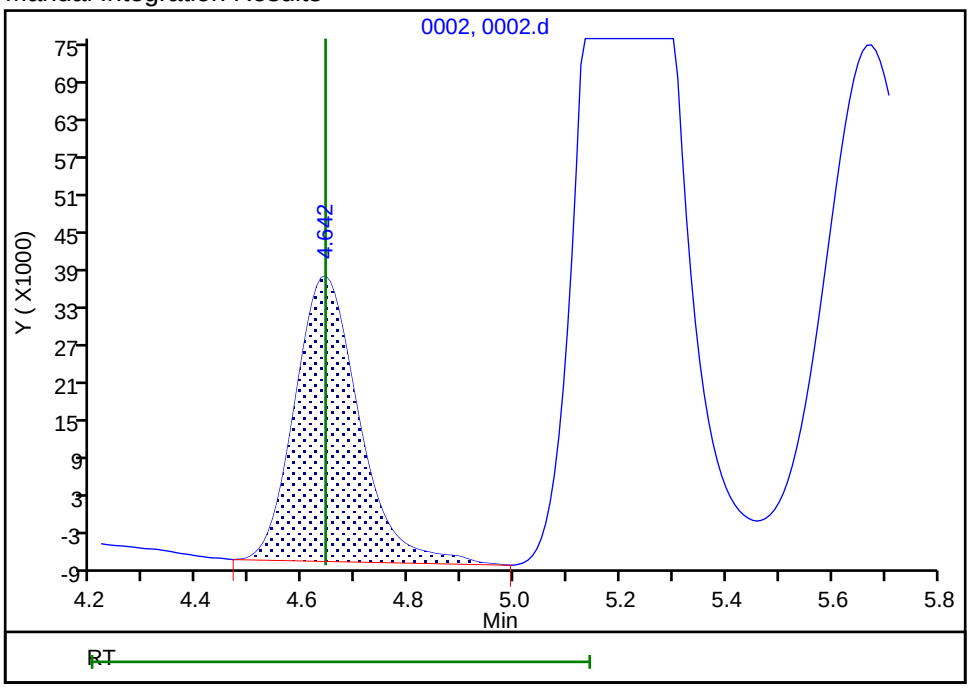
Processing Integration Results

RT: 5.21
Area: 2120855
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 382484
Amount: 0.204318
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

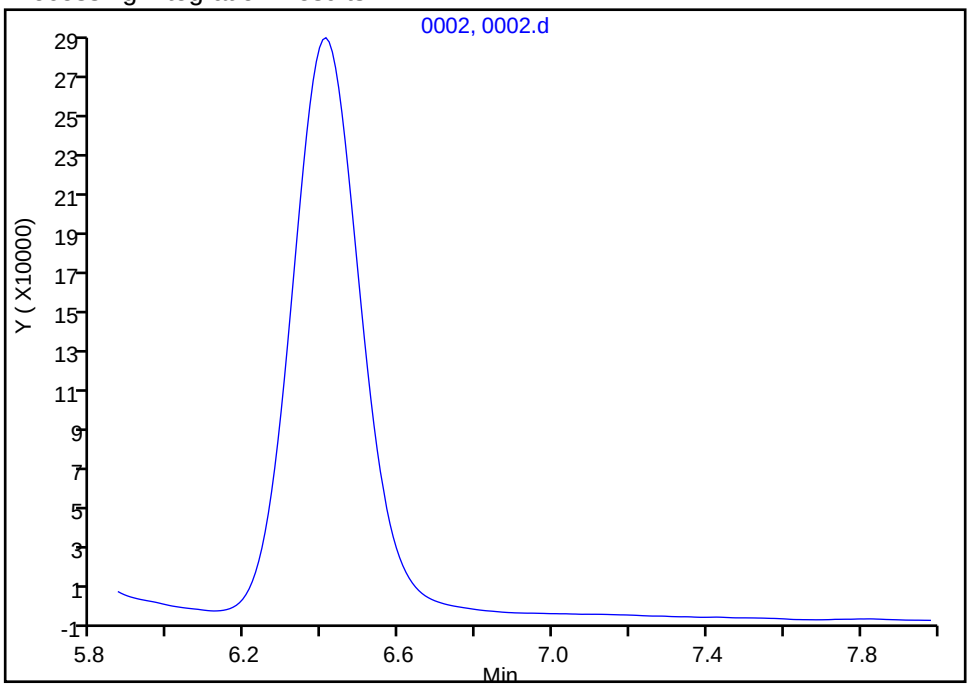
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

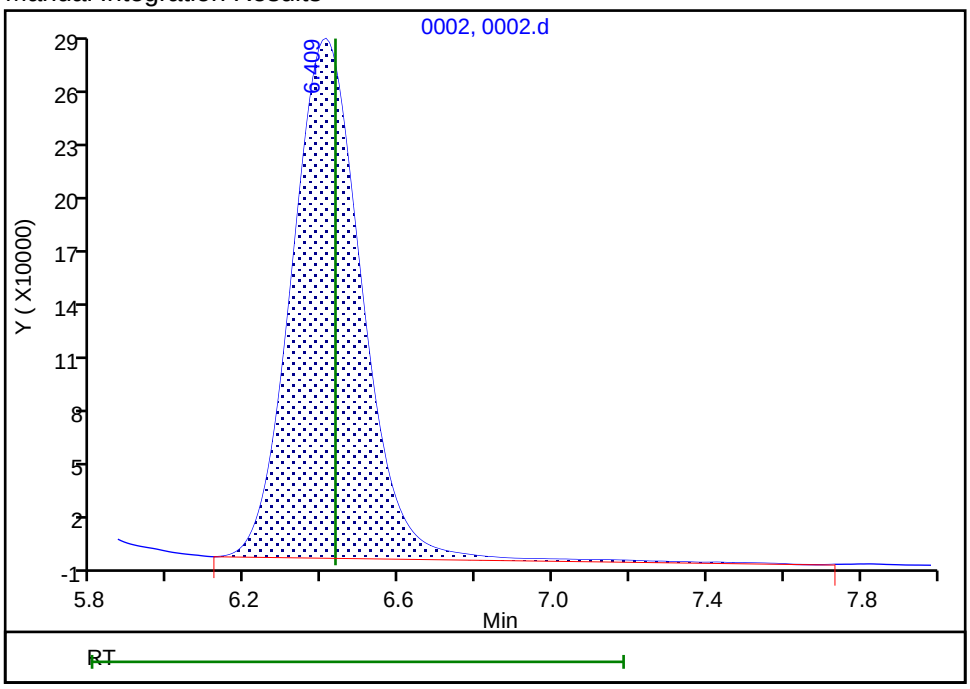
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 3612640
Amount: 1.245045
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:12
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	NC	NC	
2 Chloride	3.234	3.242	-0.008	11441790	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	4889442	0.5000	0.4912	a
4 Bromide	4.634	4.642	-0.008	953603	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	5219434	0.5000	0.4876	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	0.5000	0.4793	a
6 Sulfate	6.409	6.434	-0.025	8699908	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

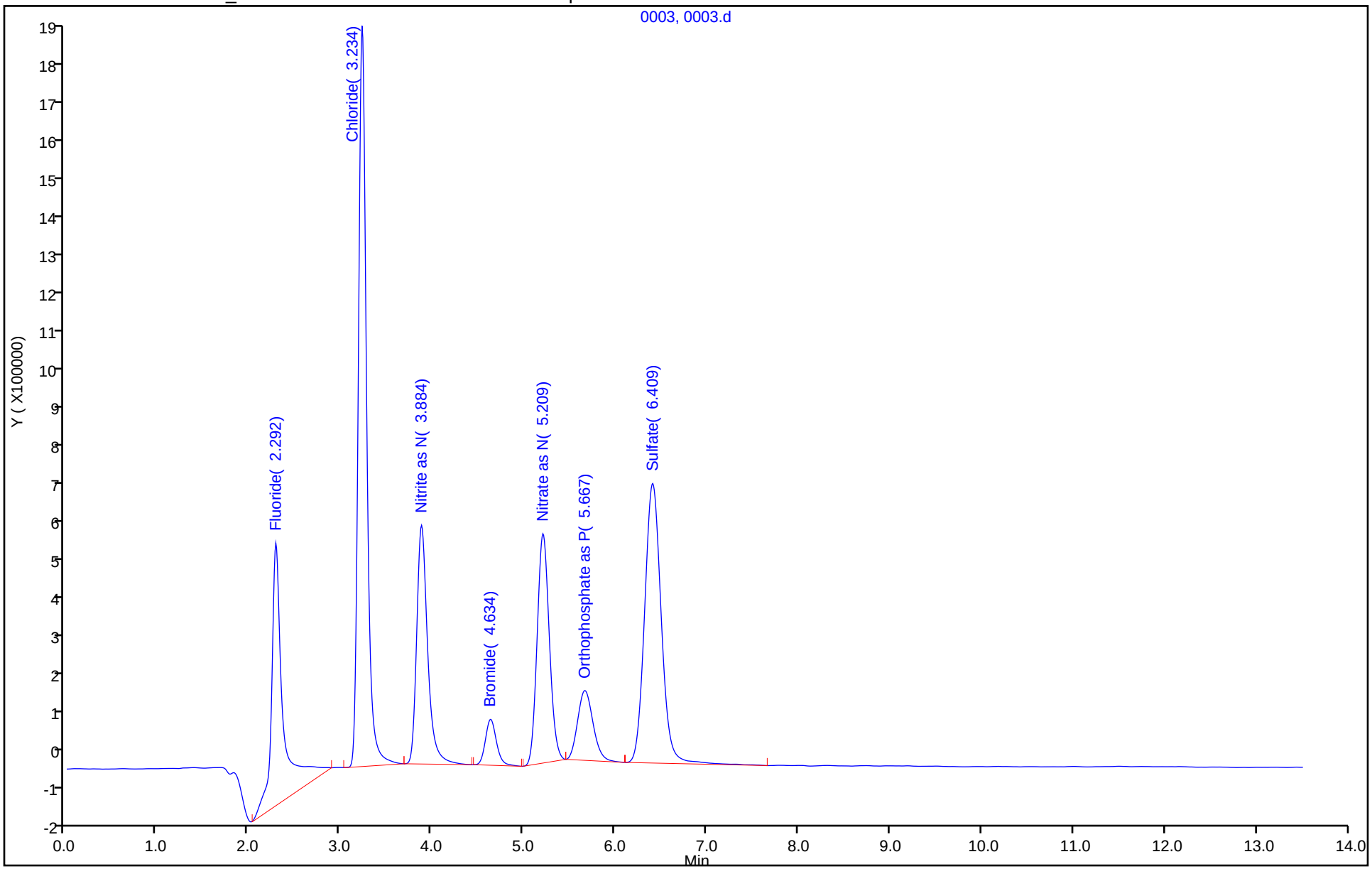
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

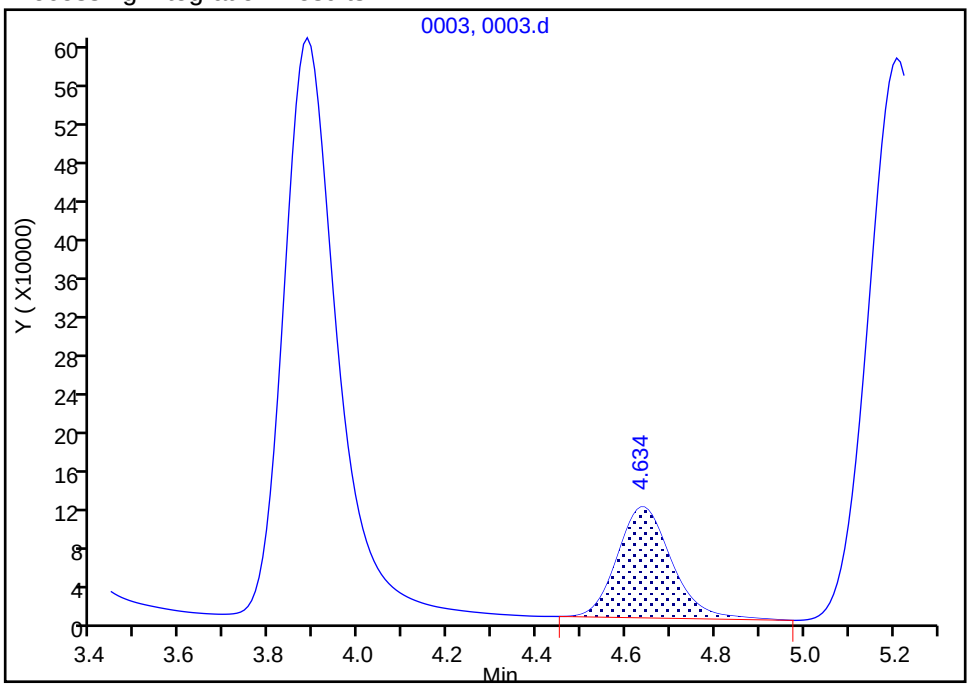
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

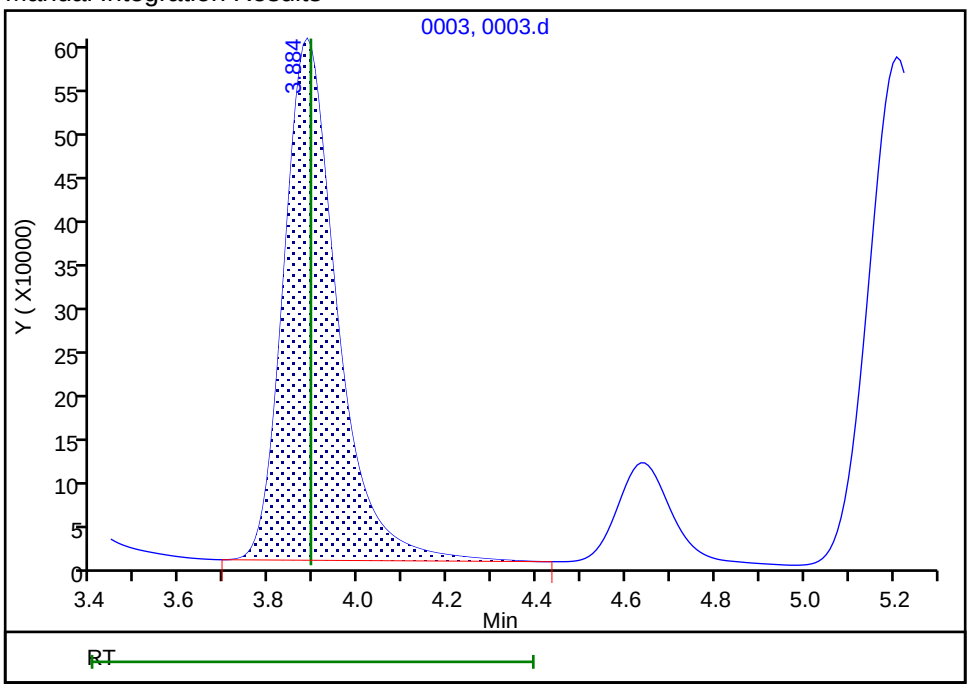
Processing Integration Results

RT: 4.63
Area: 953603
Amount: -0.100903
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 4889442
Amount: 0.491191
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

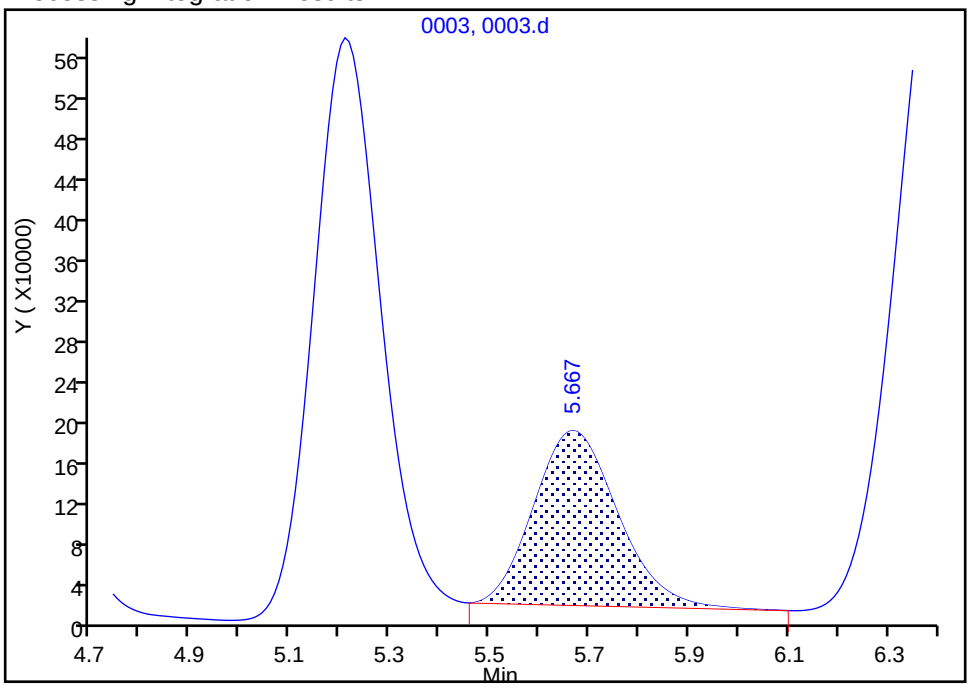
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d				
Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

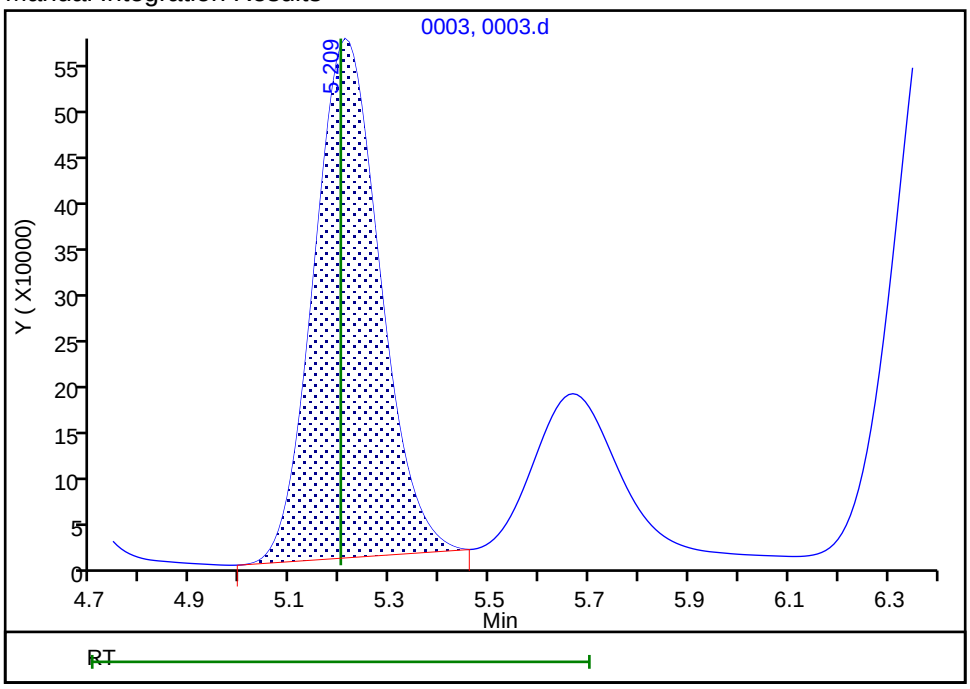
Processing Integration Results

RT: 5.67
Area: 2017876
Amount: 0.290238
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 5219434
Amount: 0.487631
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

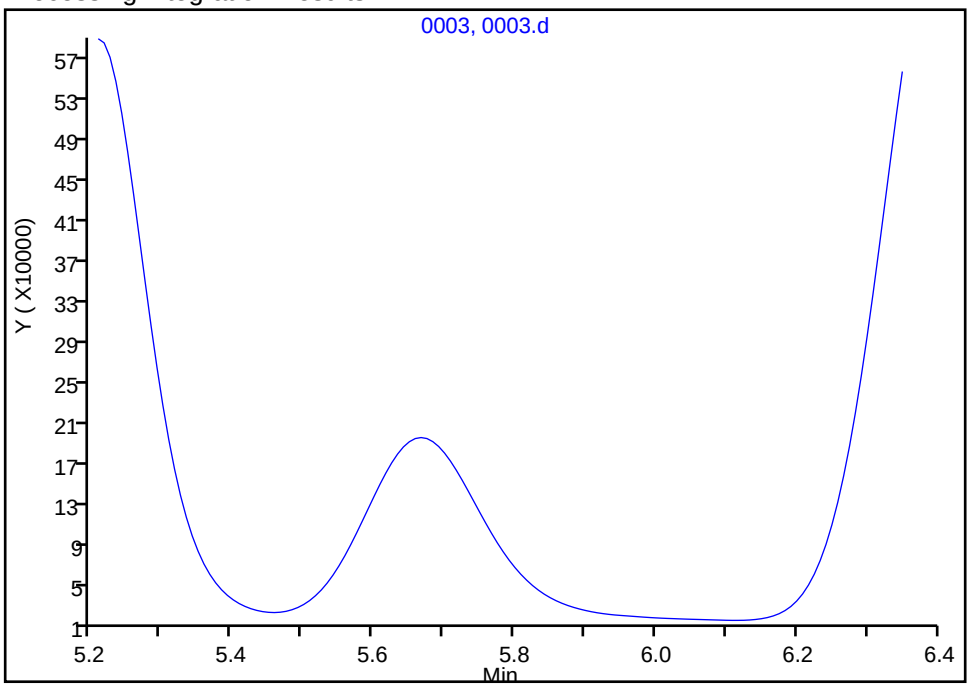
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

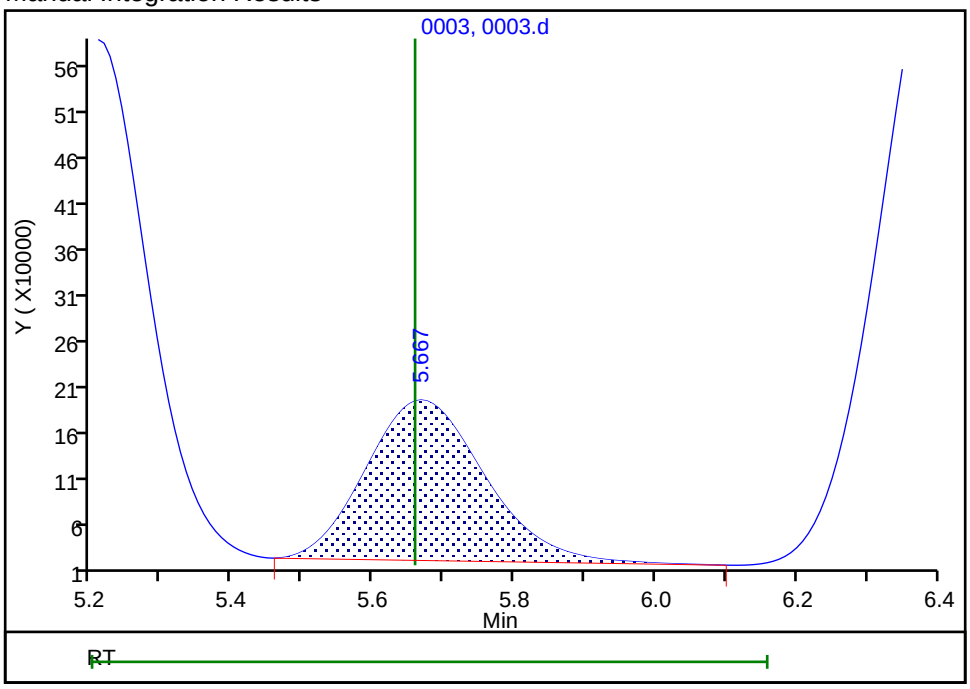
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 2017876
Amount: 0.479288
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	0.5000	0.6311	
2 Chloride	3.234	3.242	-0.008	11441790	2.50	2.32	
3 Nitrite as N	3.884	3.892	-0.008	4889442	NC	NC	a
4 Bromide	4.634	4.642	-0.008	953603	0.5000	0.4980	a
5 Nitrate as N	5.209	5.200	0.009	5219434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	8699908	2.50	2.38	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

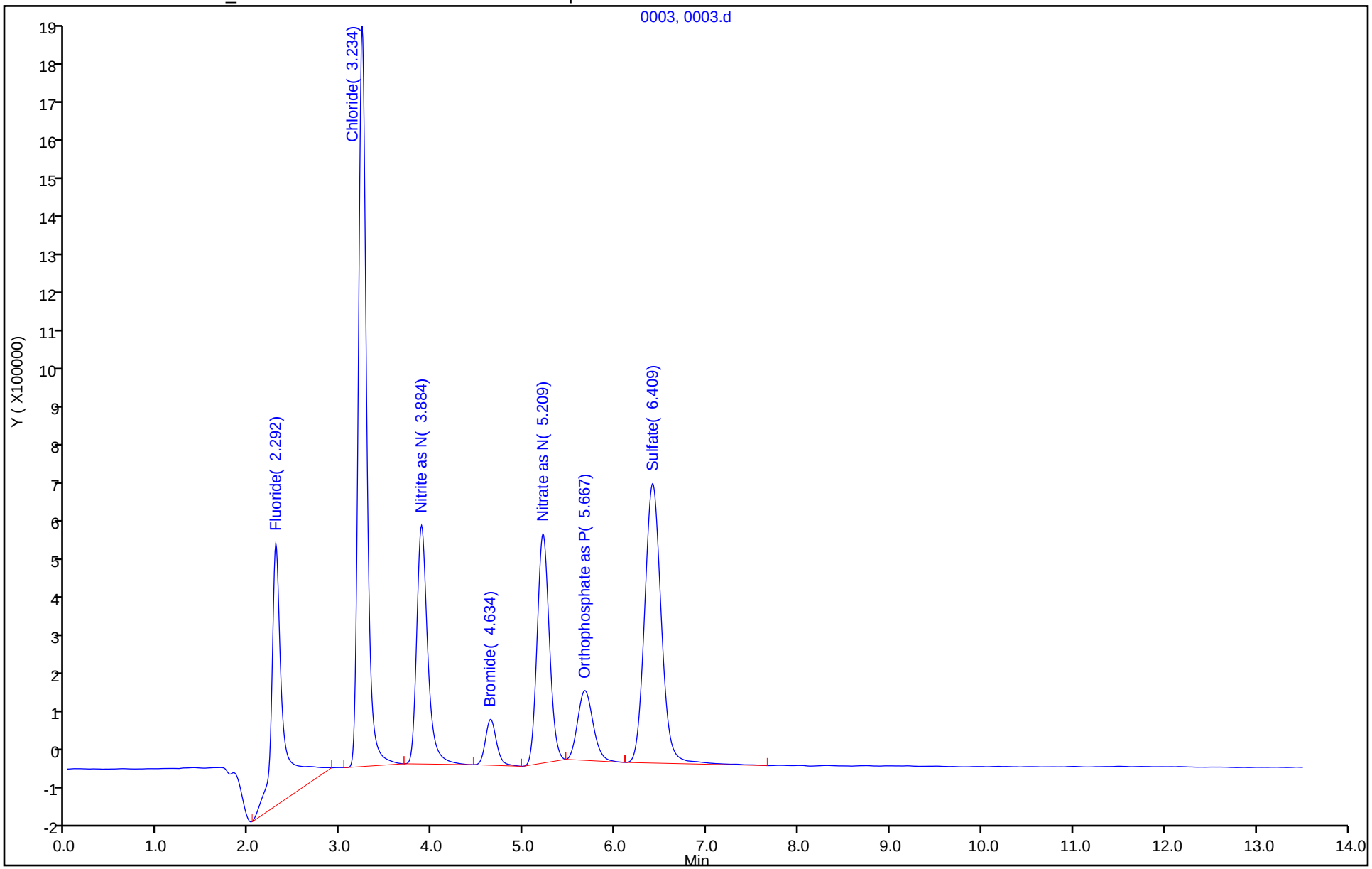
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

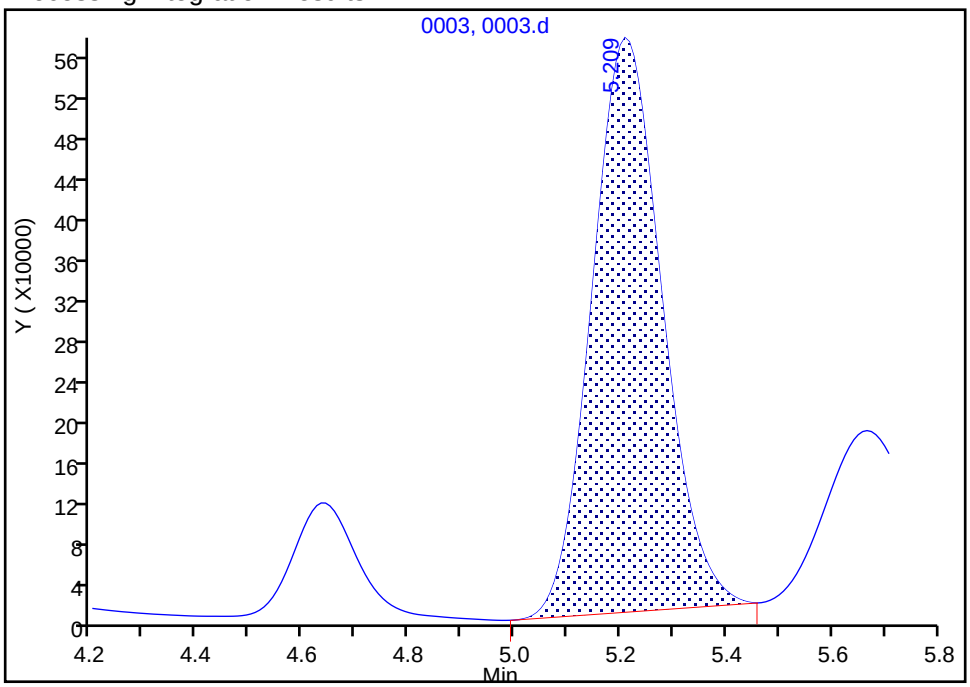
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

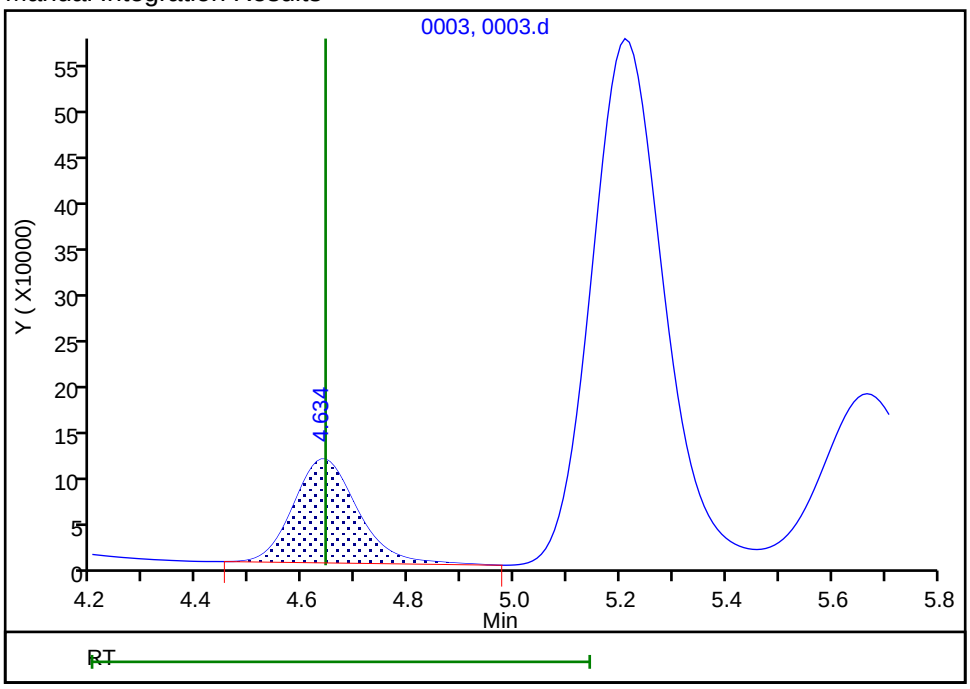
Processing Integration Results

RT: 5.21
Area: 5219434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 953603
Amount: 0.497971
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

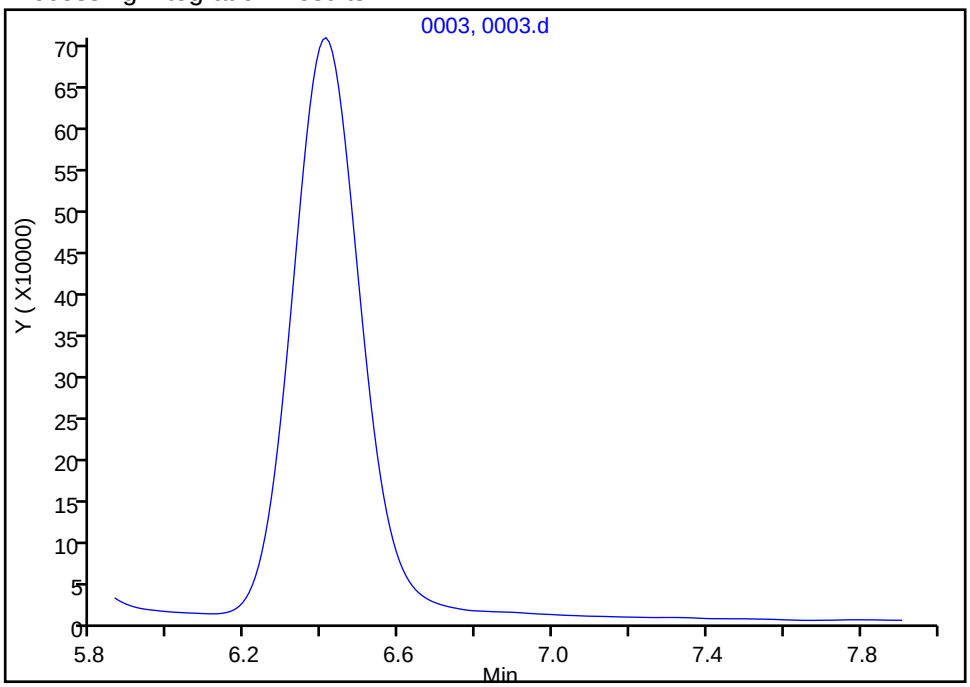
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

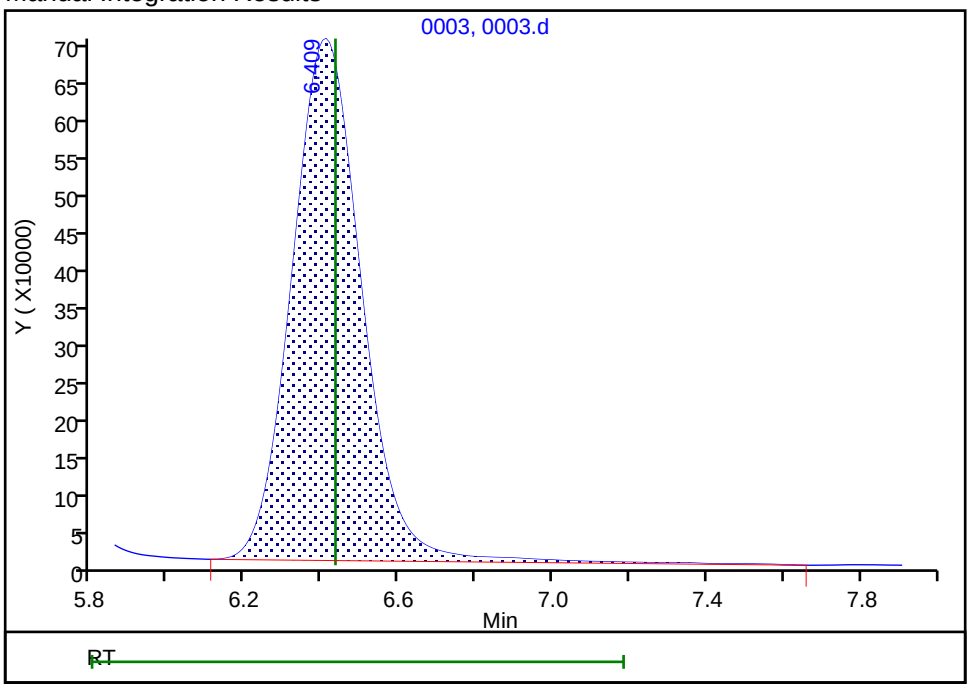
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 8699908
Amount: 2.382508
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:24
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	NC	NC	
2 Chloride	3.234	3.242	-0.008	23461594	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	9866046	1.00	0.9655	a
4 Bromide	4.642	4.642	0.000	1893846	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	10516434	1.00	0.9437	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	1.00	0.9615	a
6 Sulfate	6.409	6.434	-0.025	17587626	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

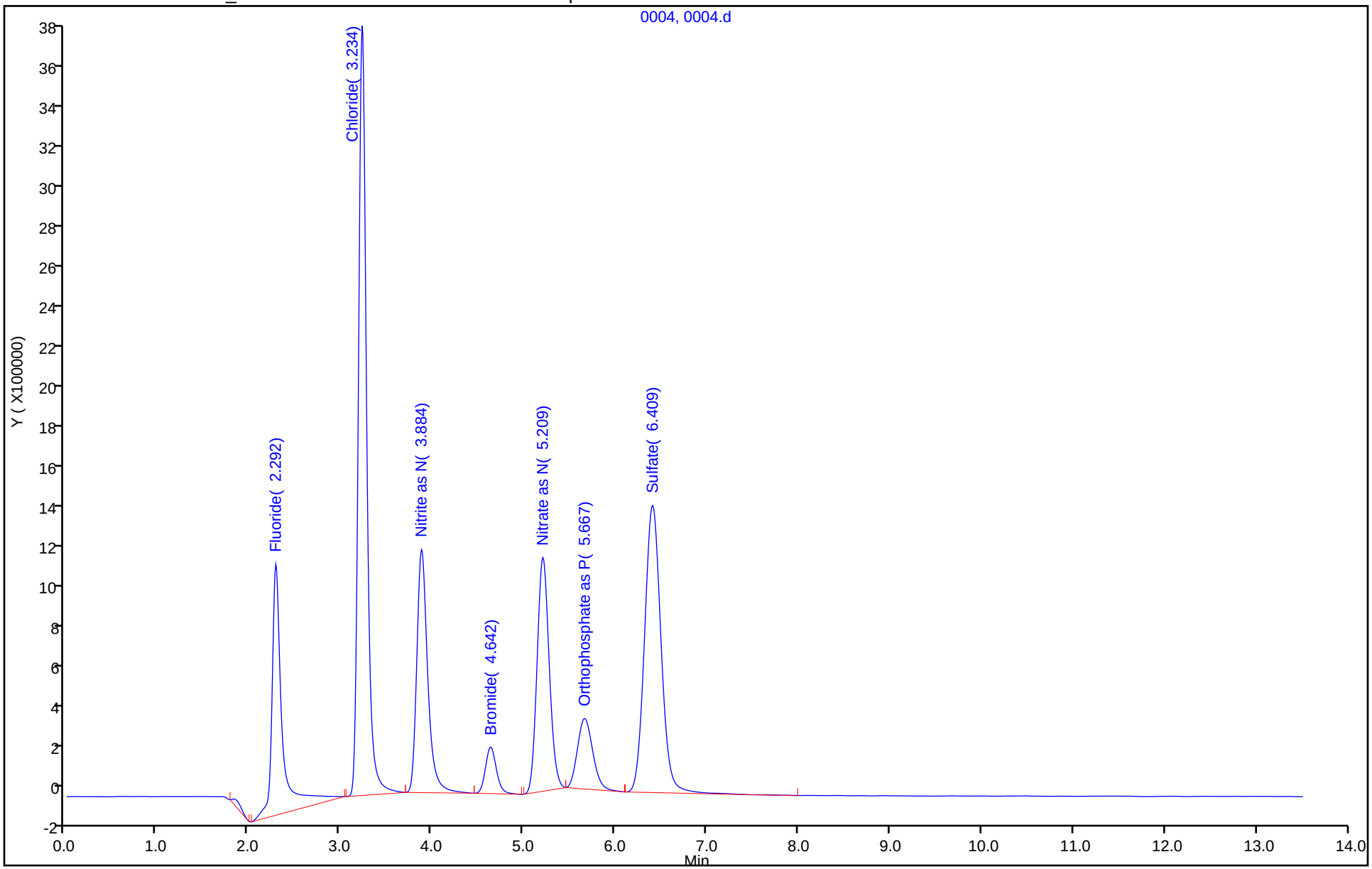
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

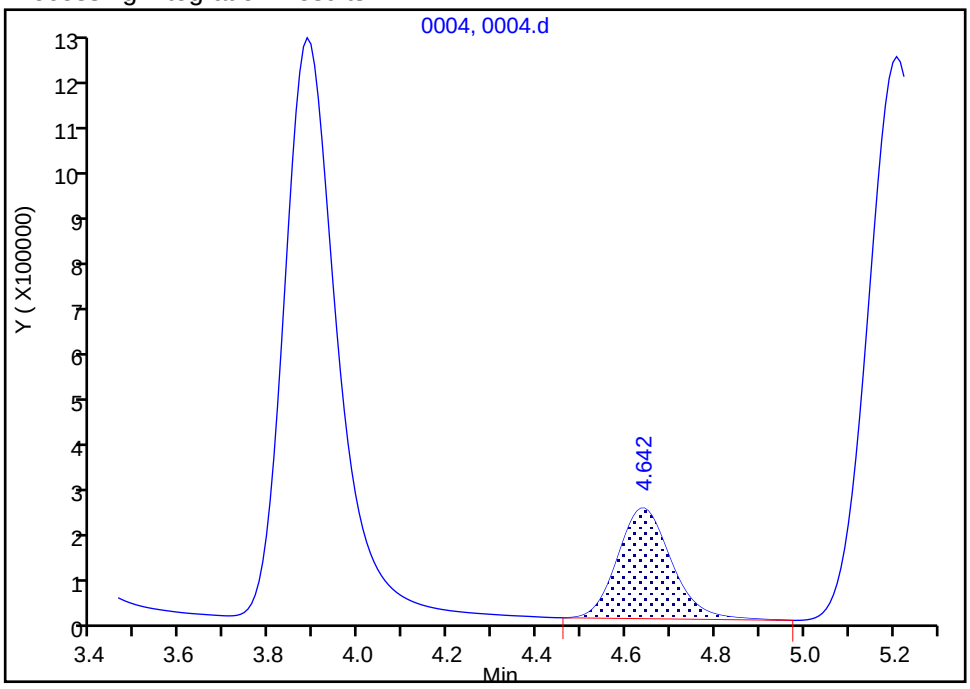
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

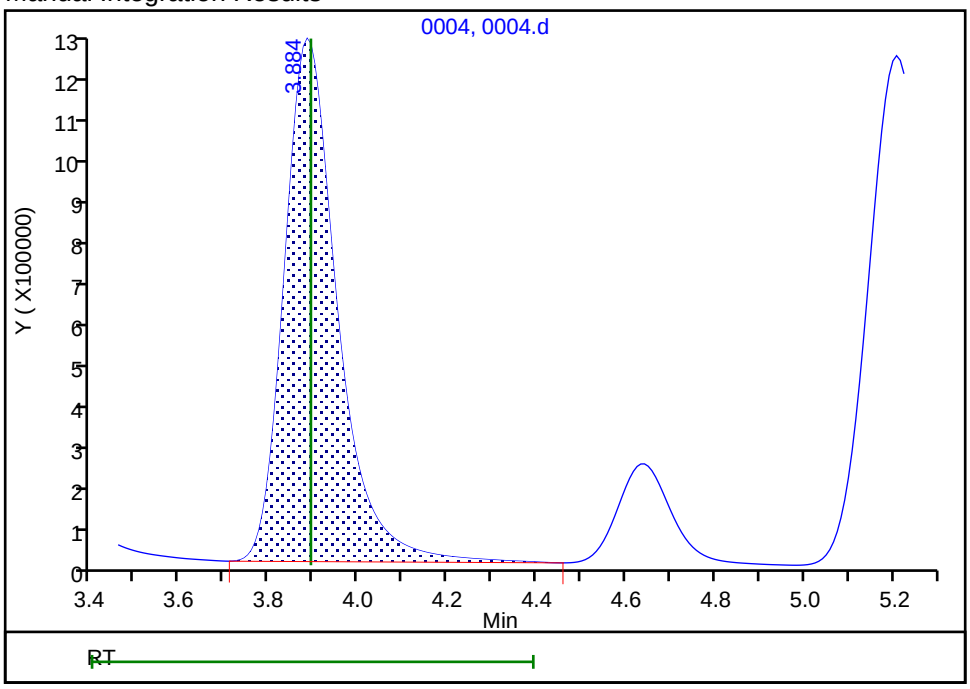
Processing Integration Results

RT: 4.64
Area: 1893846
Amount: -0.132556
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 9866046
Amount: 0.965516
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:43
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

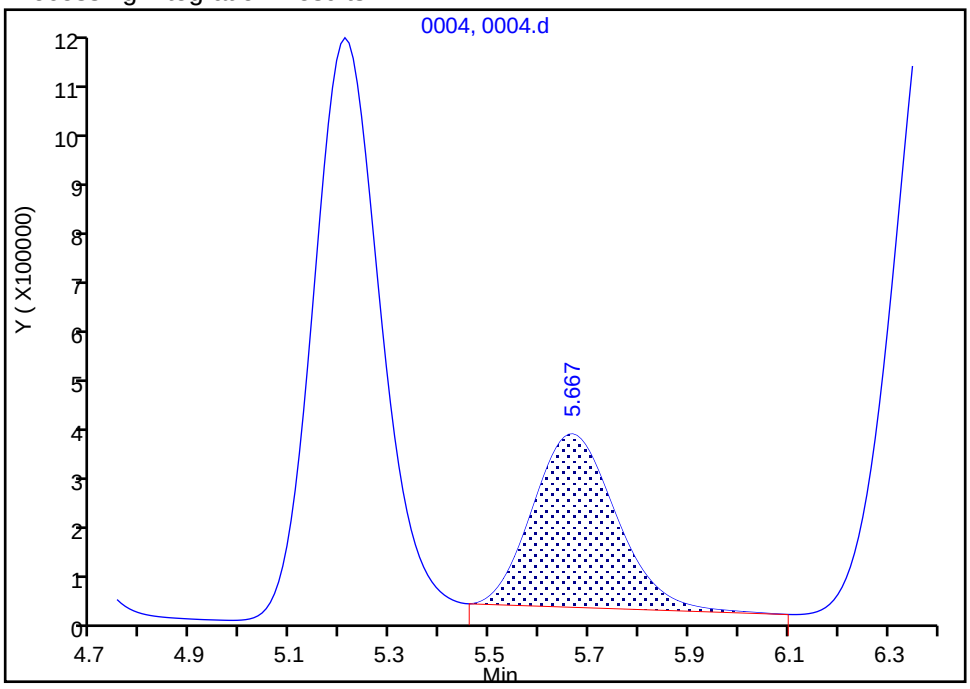
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

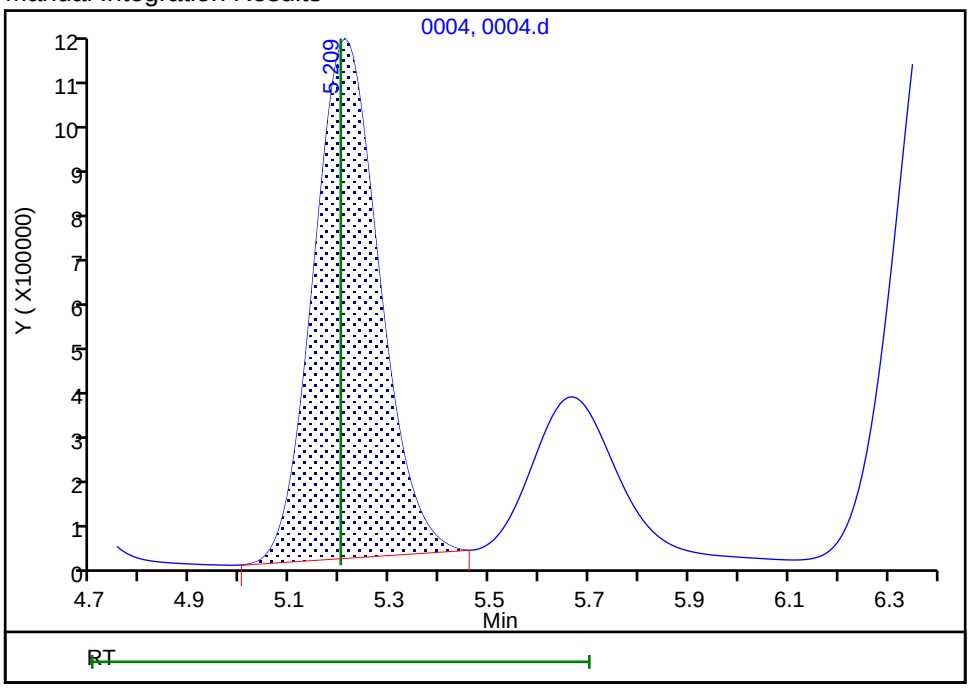
Processing Integration Results

RT: 5.67
Area: 4015320
Amount: 0.609716
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 10516434
Amount: 0.943717
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:47
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

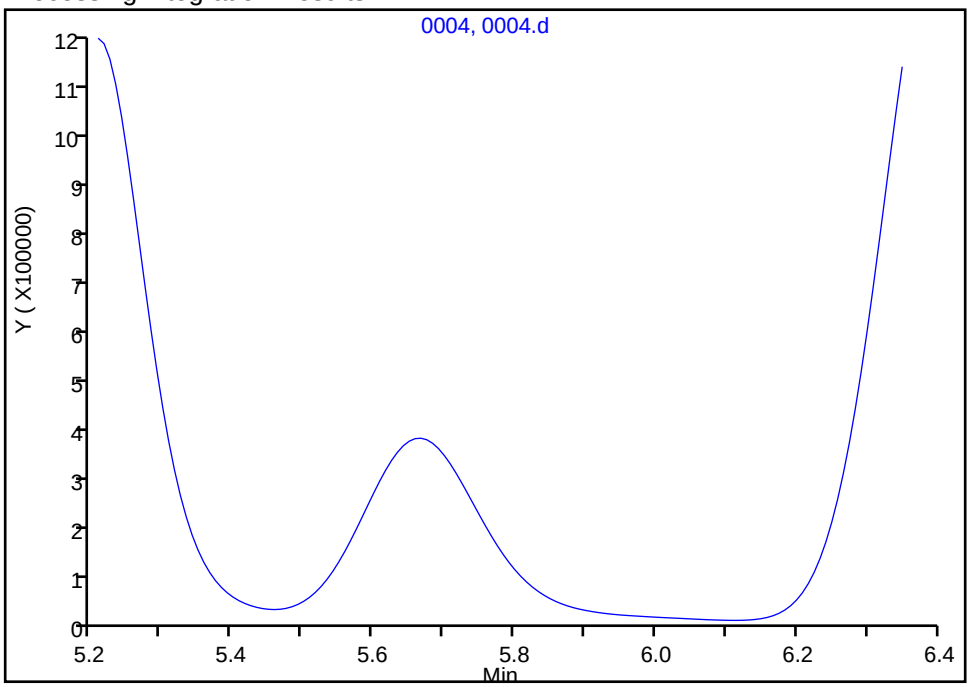
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

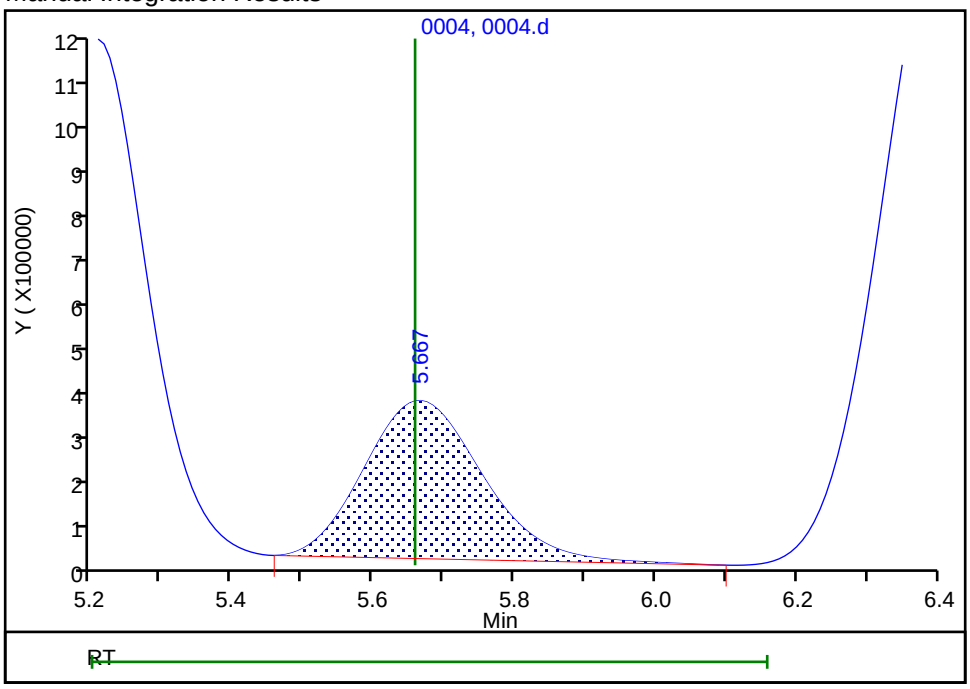
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 4015320
Amount: 0.961514
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	1.00	1.16	
2 Chloride	3.234	3.242	-0.008	23461594	5.00	4.11	
3 Nitrite as N	3.884	3.892	-0.008	9866046	NC	NC	a
4 Bromide	4.642	4.642	0.000	1893846	1.00	0.9814	a
5 Nitrate as N	5.209	5.200	0.009	10516434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	17587626	5.00	4.37	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

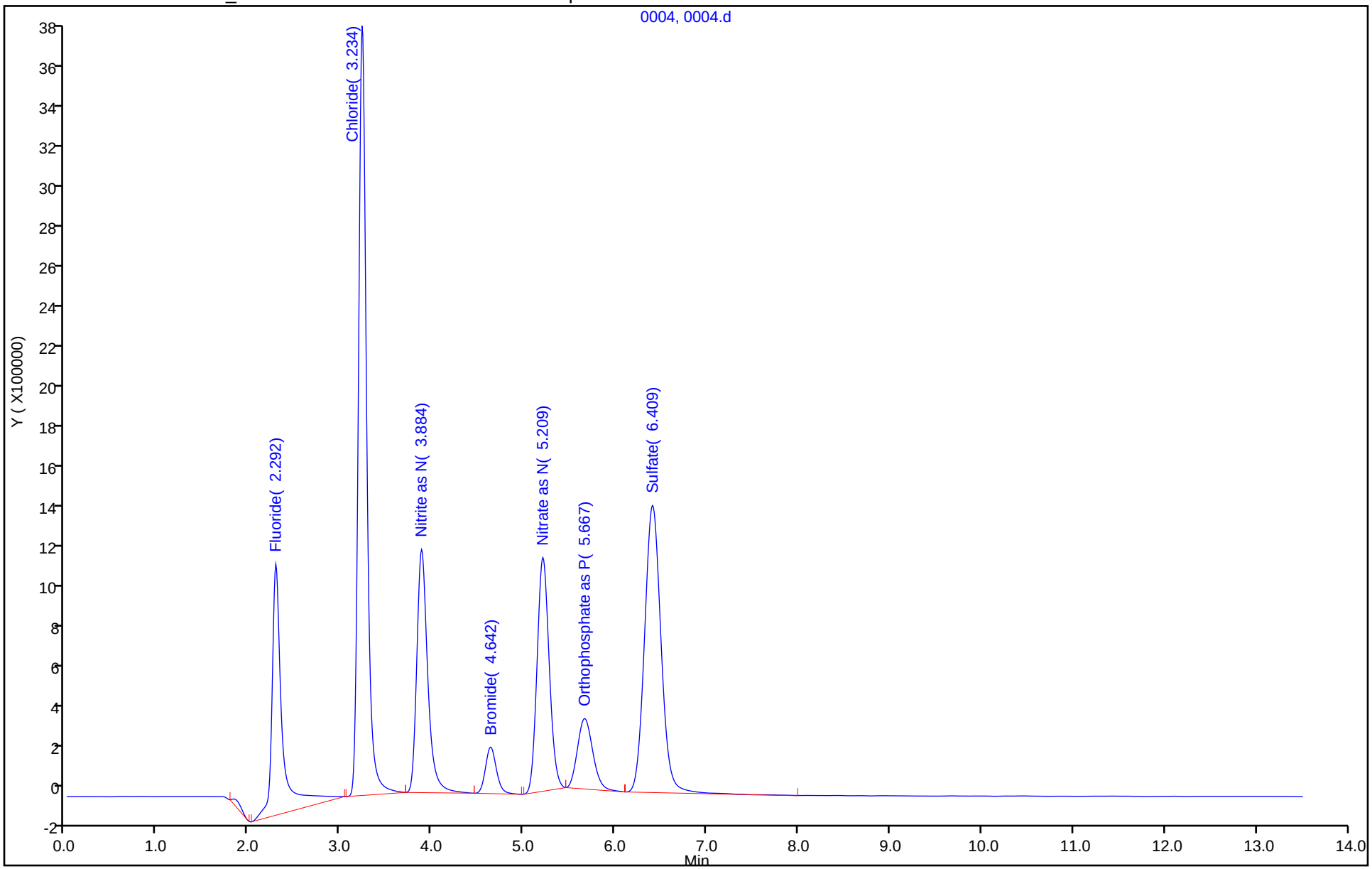
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

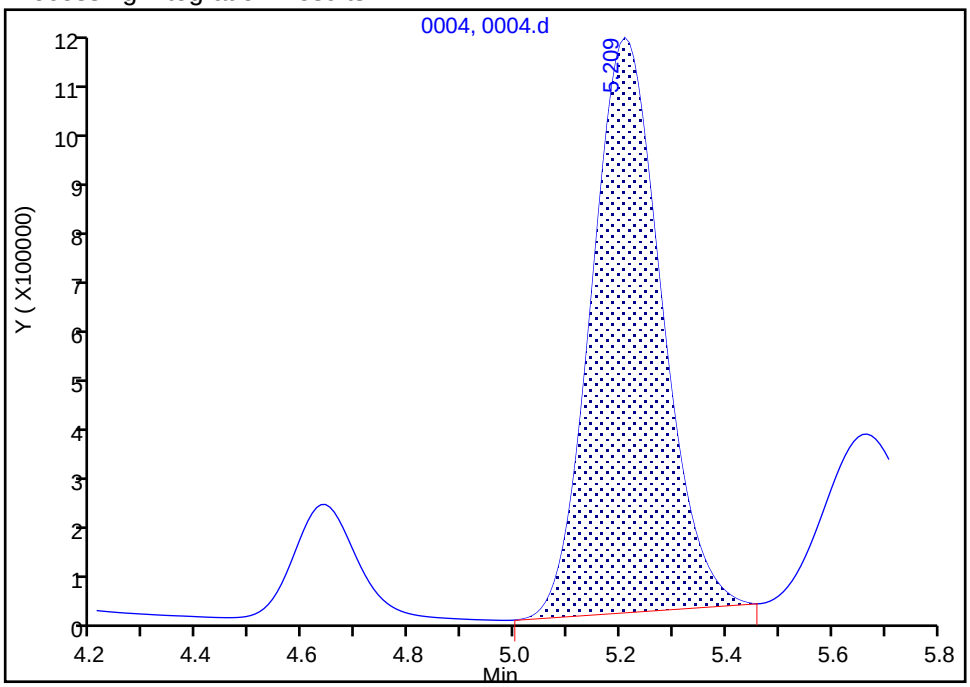
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

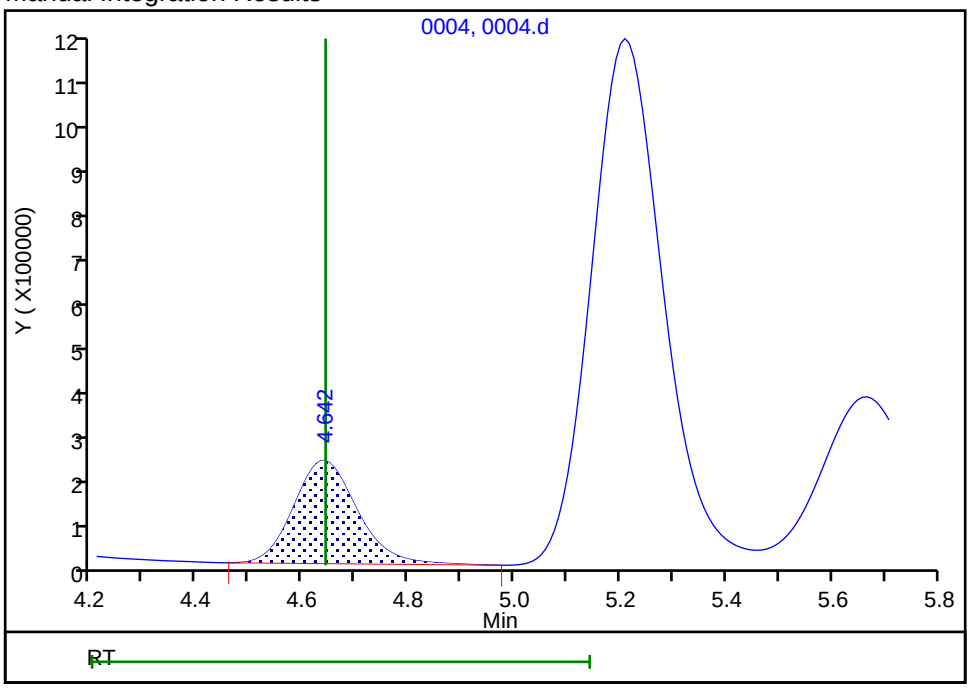
Processing Integration Results

RT: 5.21
Area: 10516434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 1893846
Amount: 0.981416
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:15
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

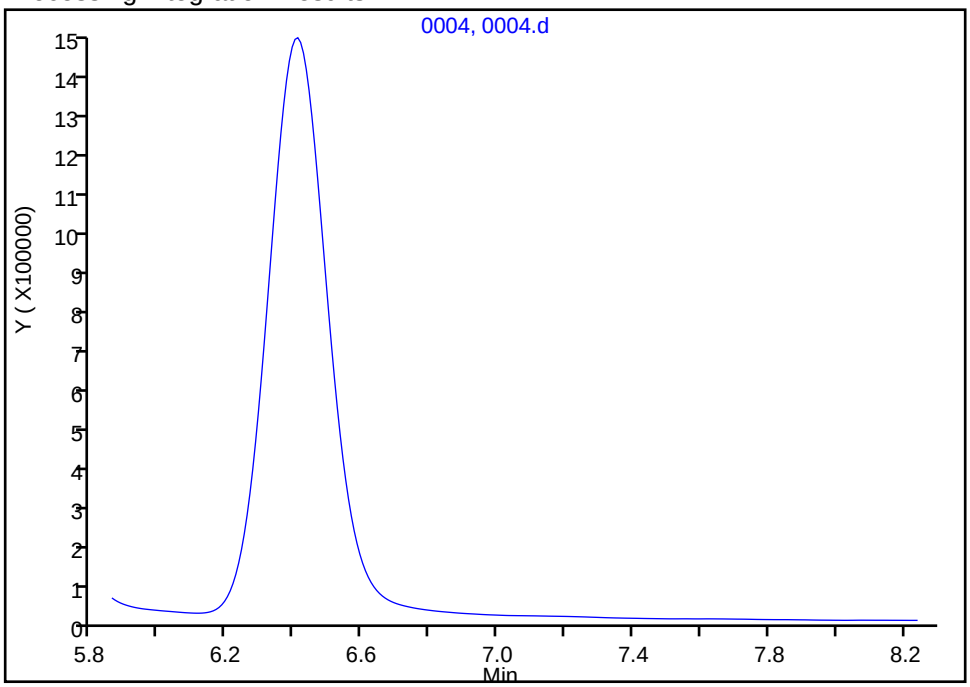
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

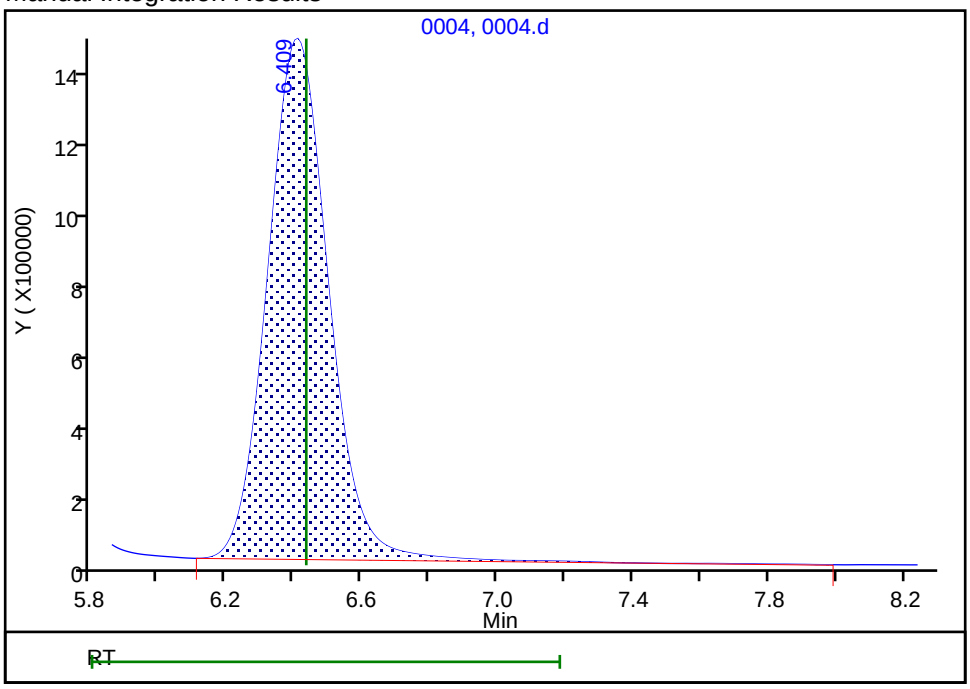
Processing Integration Results

Not Detected
Expected RT: 6.43



Manual Integration Results

RT: 6.41
Area: 17587626
Amount: 4.369714
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:10
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	NC	NC	
2 Chloride	3.242	3.242	0.000	361228288	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	40367514	4.00	3.87	a
4 Bromide	4.634	4.634	0.000	7626440	NC	NC	a
5 Nitrate as N	5.200	5.200	0.000	43835884	4.00	3.81	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	4.00	3.88	a
6 Sulfate	6.434	6.434	0.000	241149184	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

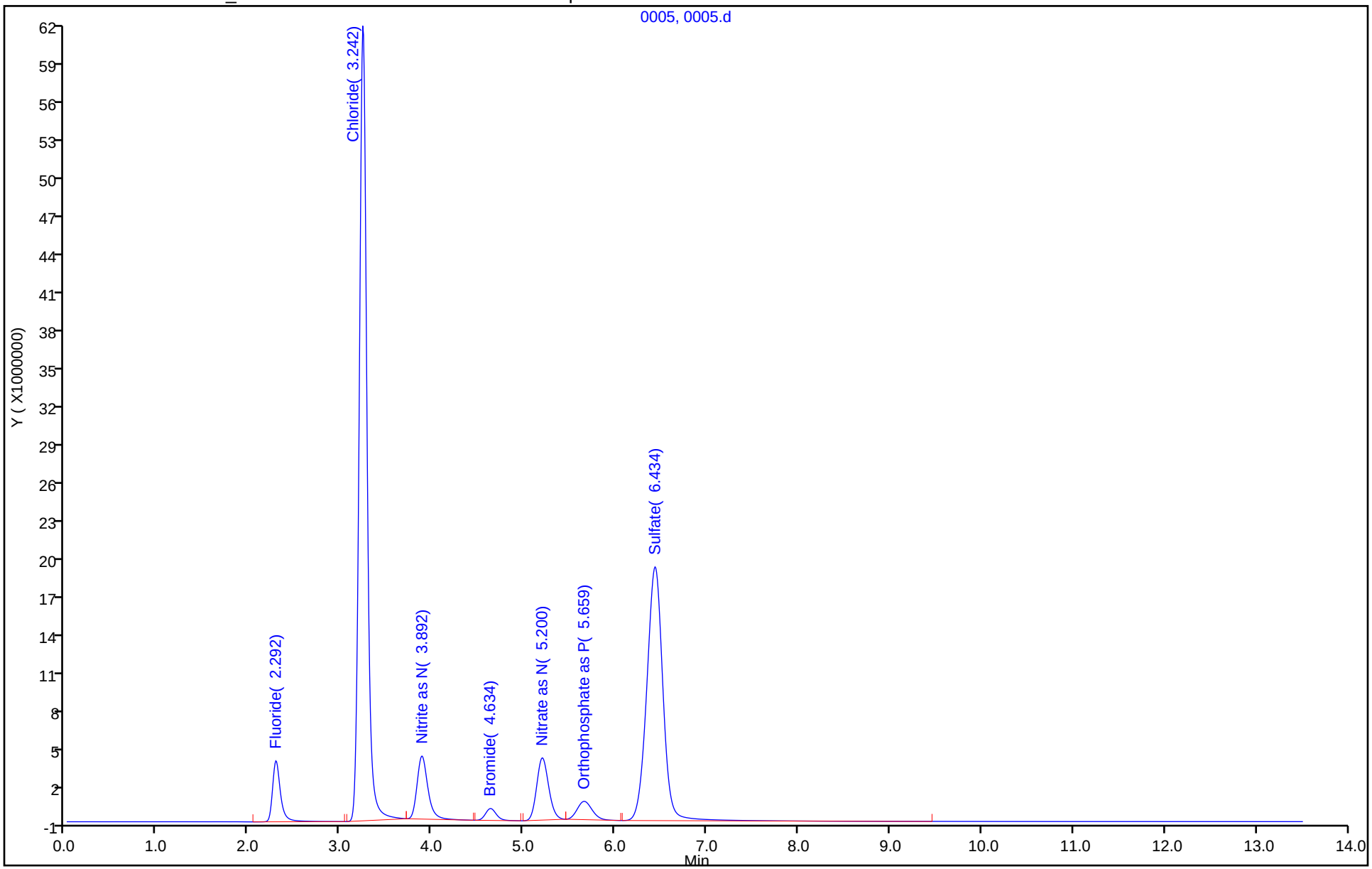
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

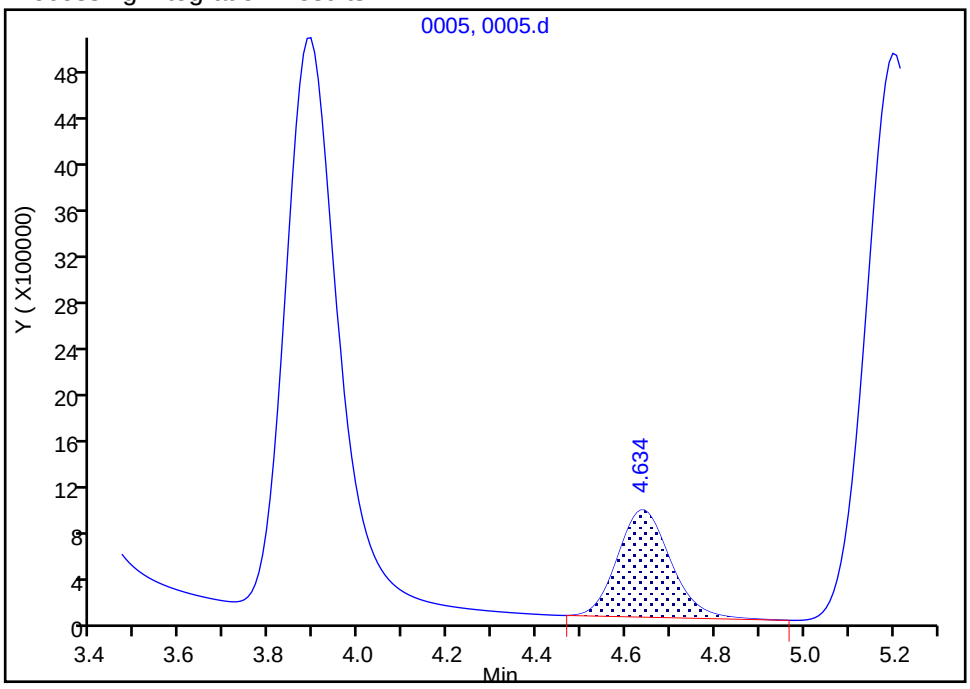
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

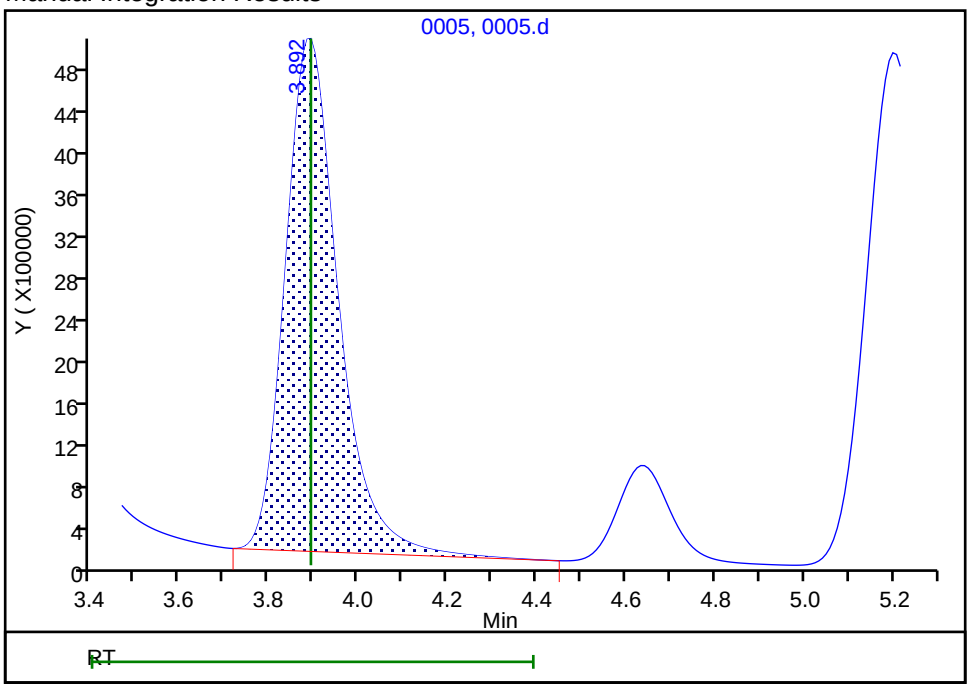
Processing Integration Results

RT: 4.63
Area: 7626440
Amount: 2.554556
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 40367514
Amount: 3.872644
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:32
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

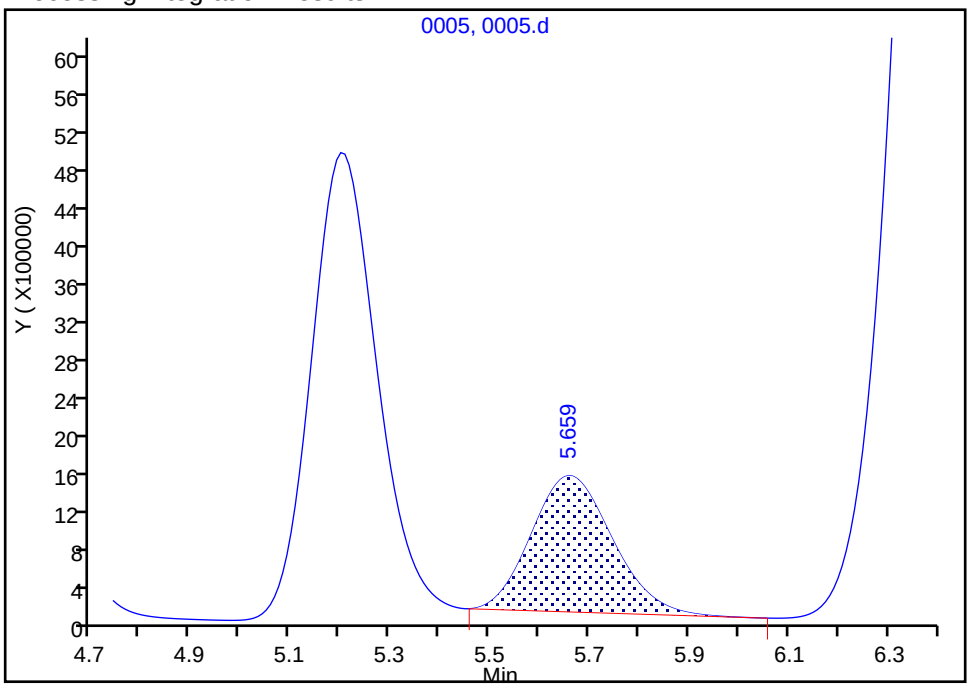
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d				
Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L4				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

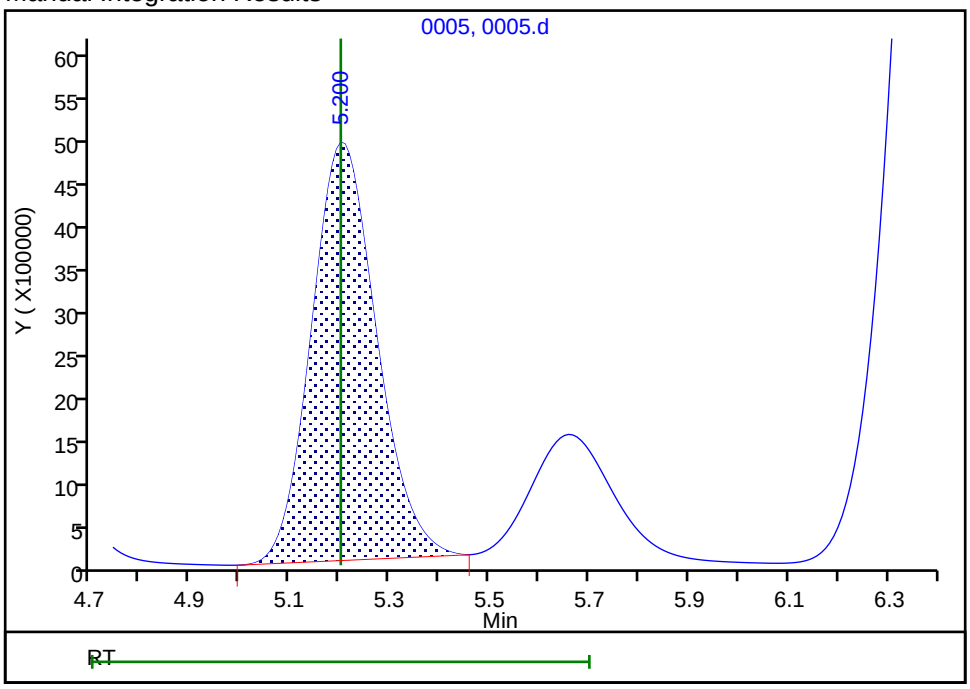
Processing Integration Results

RT: 5.66
Area: 16089342
Amount: 3.399959
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 43835884
Amount: 3.812608
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:36
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

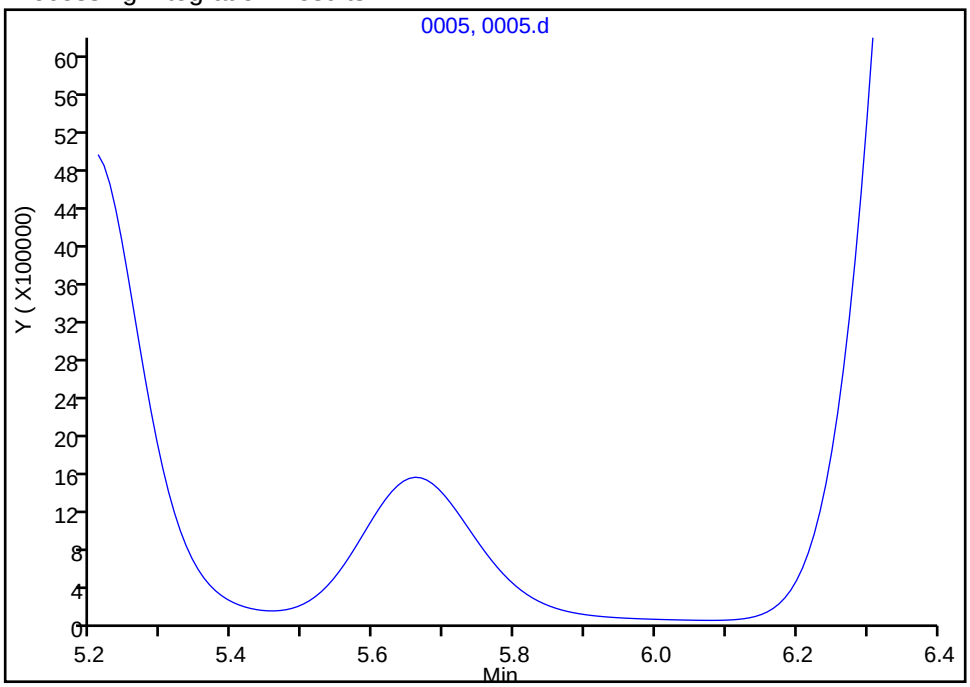
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

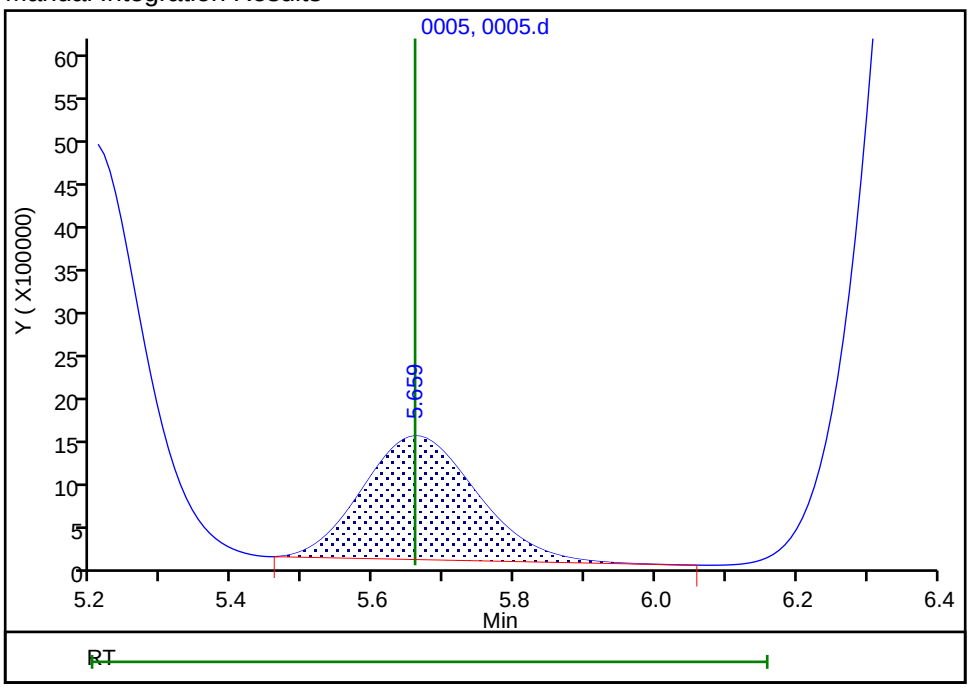
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 16089342
Amount: 3.876438
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	4.00	3.86	
2 Chloride	3.242	3.242	0.000	361228288	60.0	54.3	
3 Nitrite as N	3.892	3.892	0.000	40367514	NC	NC	a
4 Bromide	4.634	4.634	0.000	7626440	4.00	3.94	a
5 Nitrate as N	5.200	5.200	0.000	43835884	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	NC	NC	a
6 Sulfate	6.434	6.434	0.000	241149184	60.0	54.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

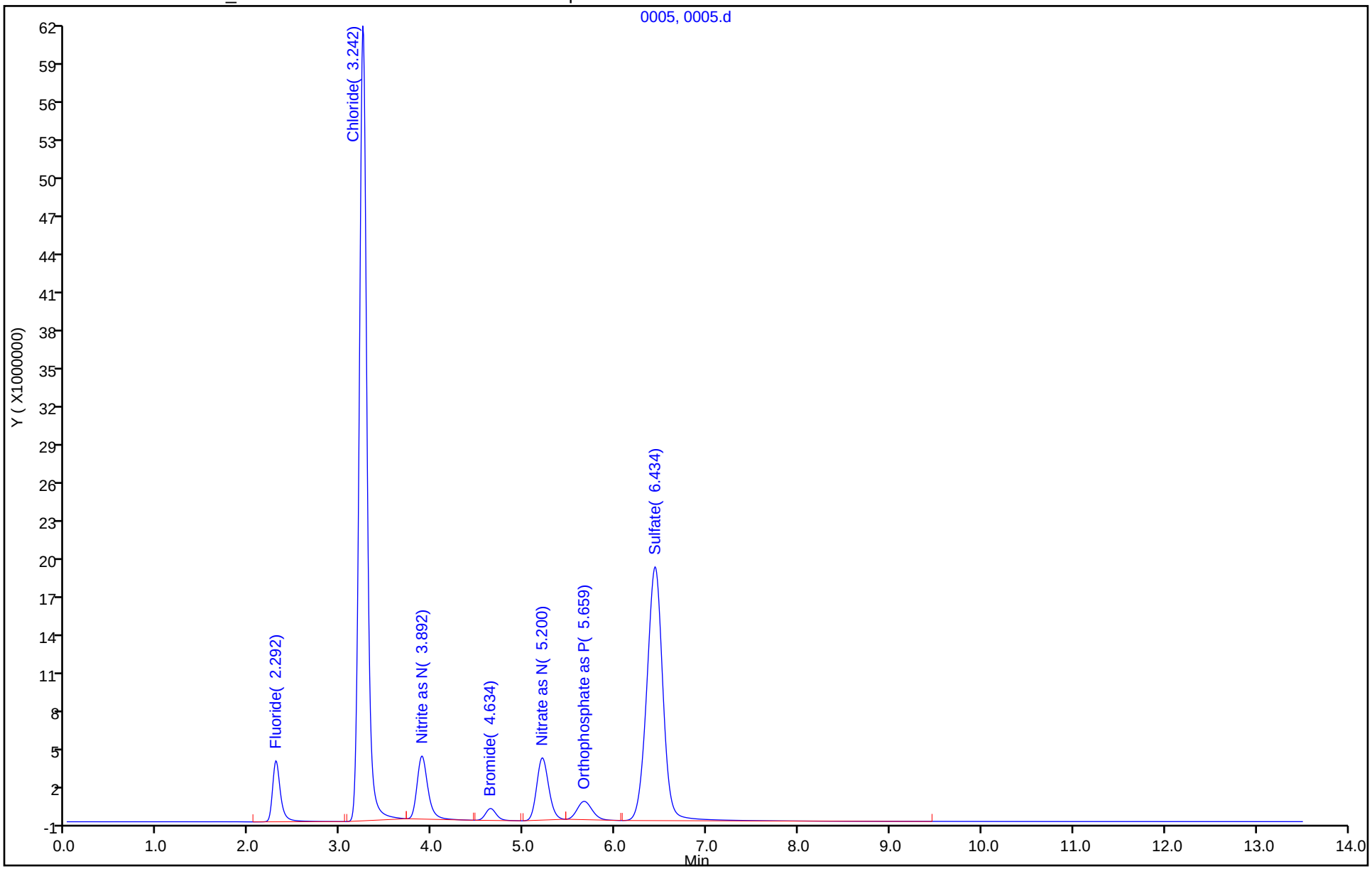
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

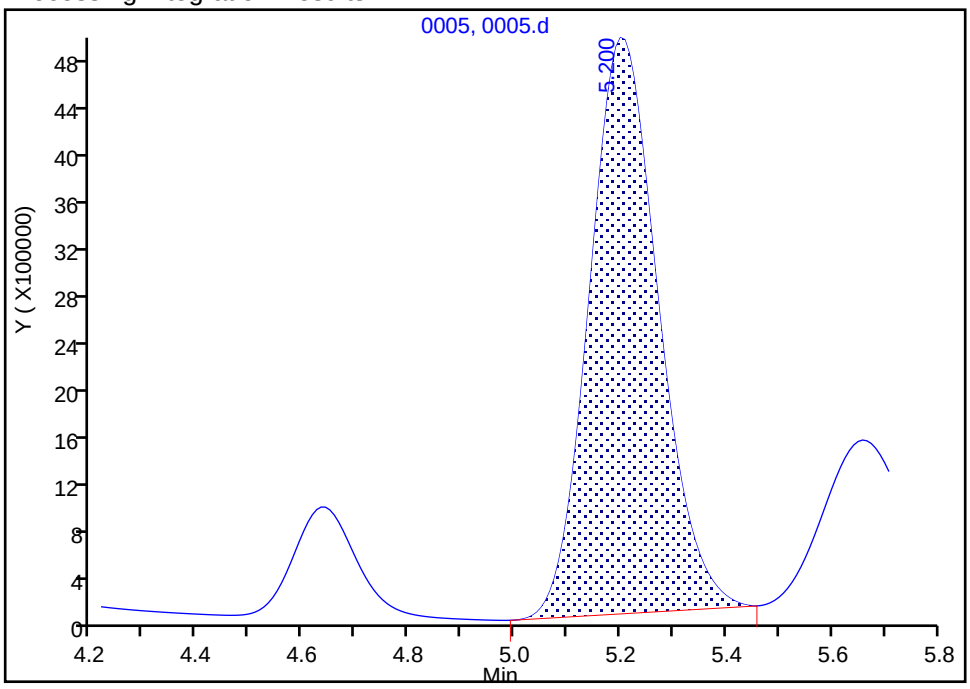
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

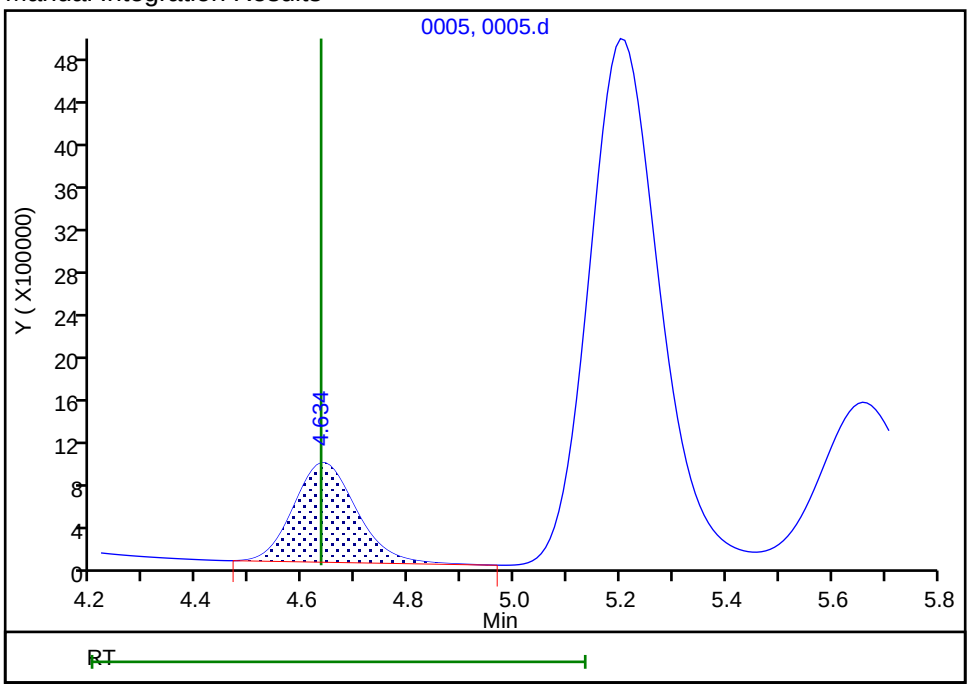
Processing Integration Results

RT: 5.20
Area: 43835884
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 7626440
Amount: 3.940762
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 08:31:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

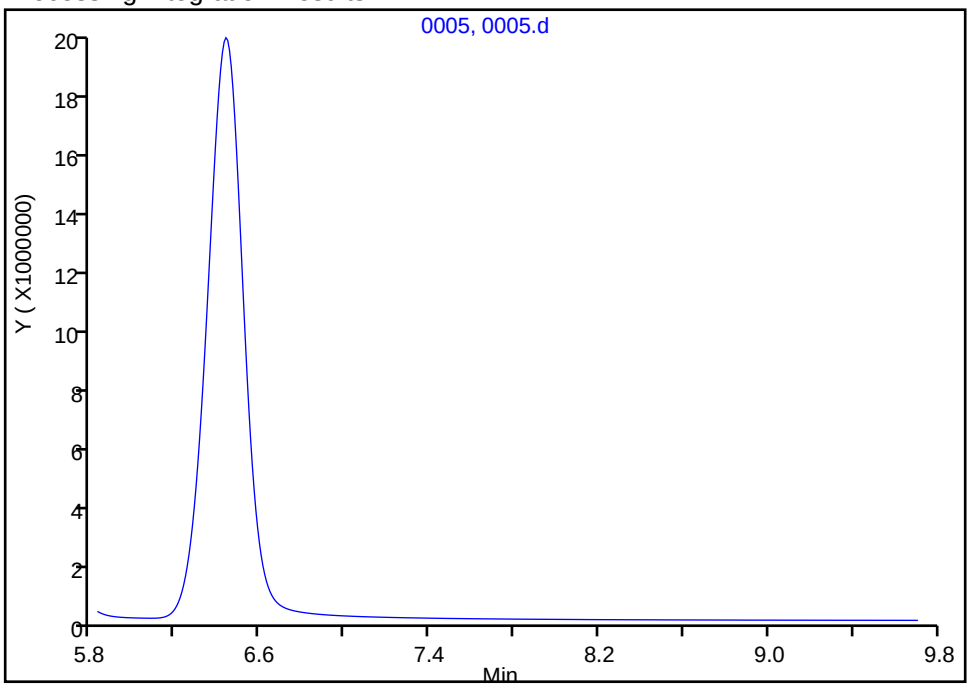
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

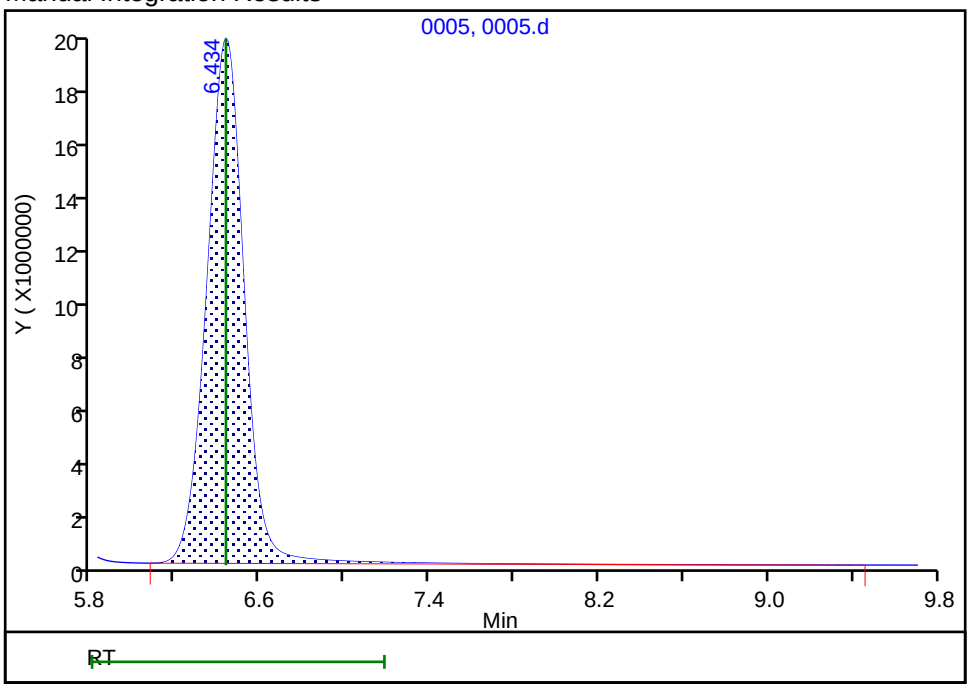
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.43
Area: 241149184
Amount: 54.355882
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:52
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	NC	NC	
2 Chloride	3.251	3.250	0.001	792237933	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	83950148	8.00	8.03	a
4 Bromide	4.634	4.642	-0.008	15499336	NC	NC	a
5 Nitrate as N	5.201	5.200	0.001	92548386	8.00	8.01	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	8.00	7.99	a
6 Sulfate	6.459	6.442	0.017	523125792	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

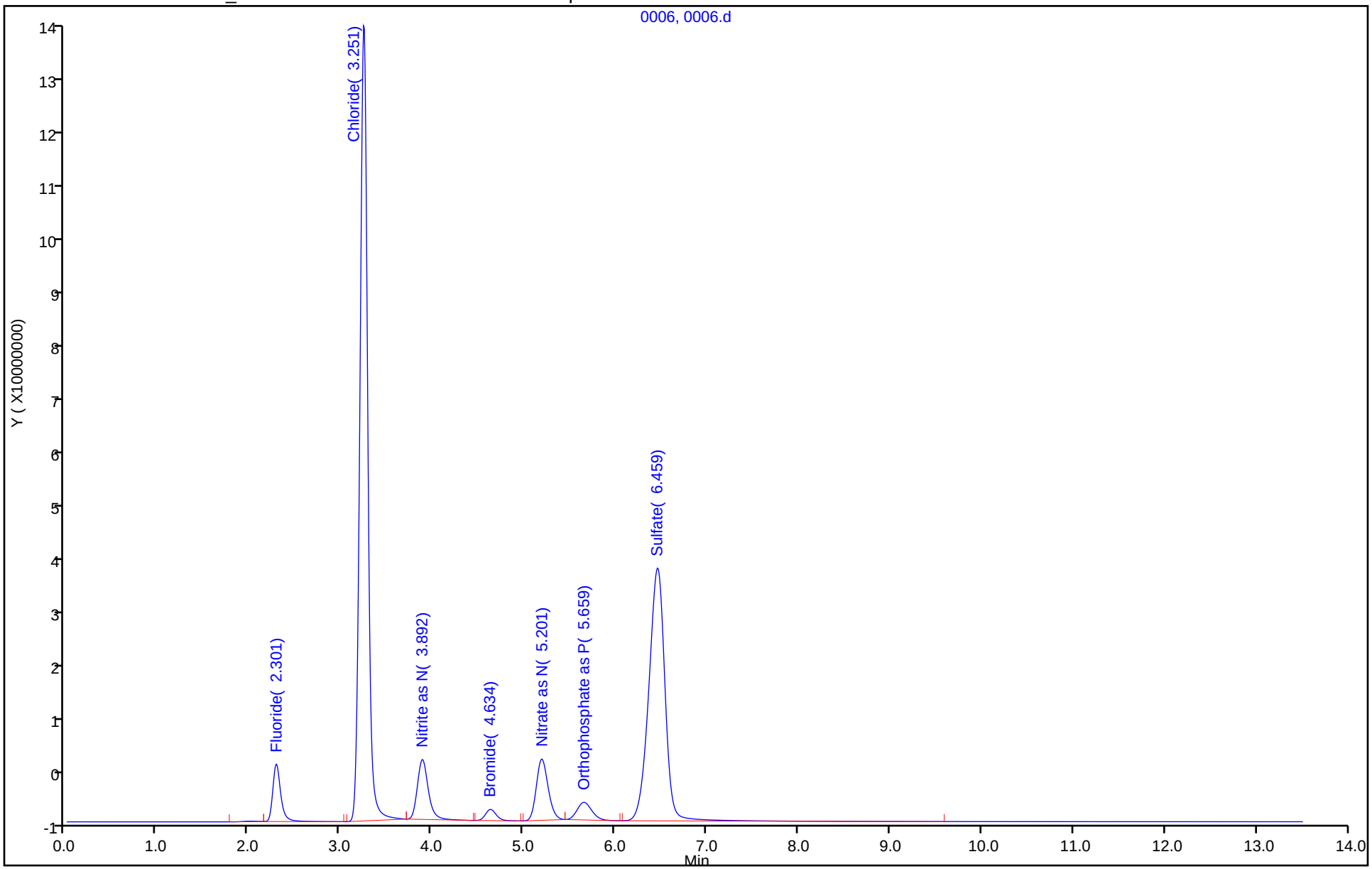
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

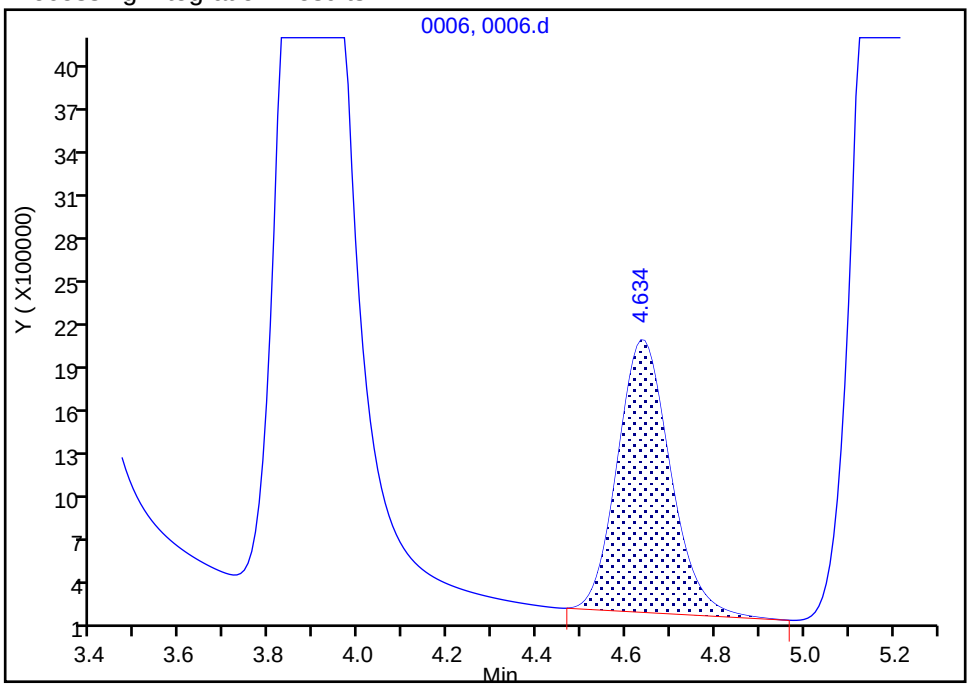
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

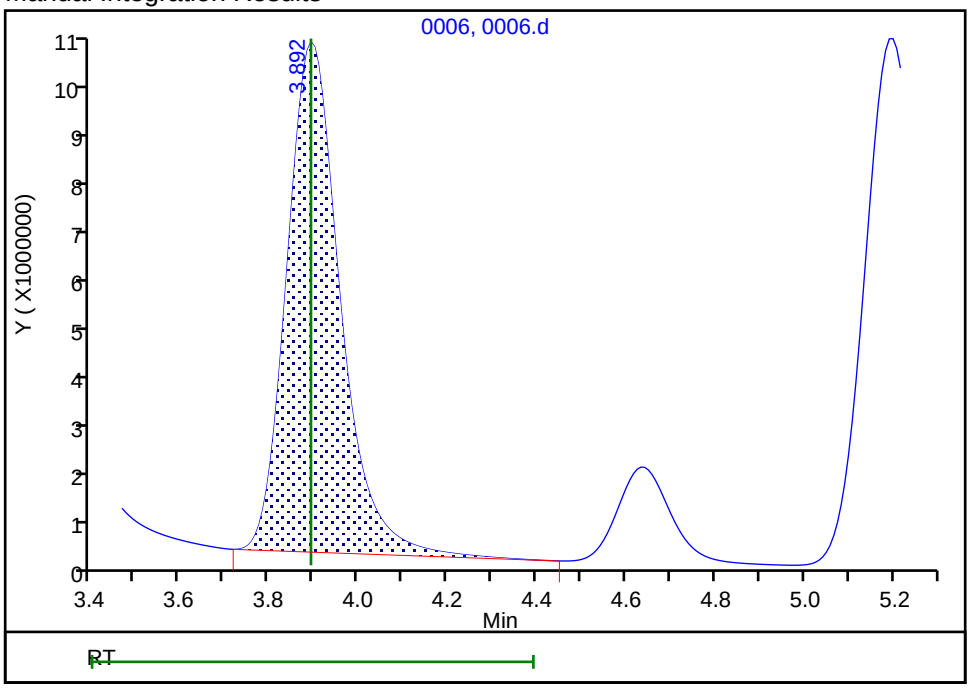
Processing Integration Results

RT: 4.63
Area: 15499336
Amount: 2.959649
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 83950148
Amount: 8.026551
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:18
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

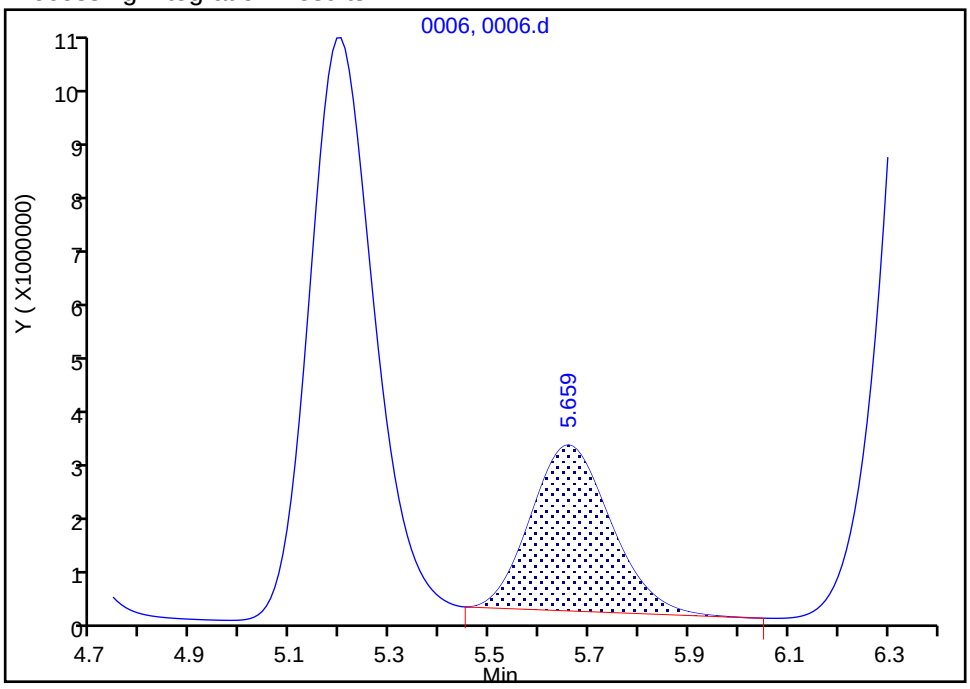
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

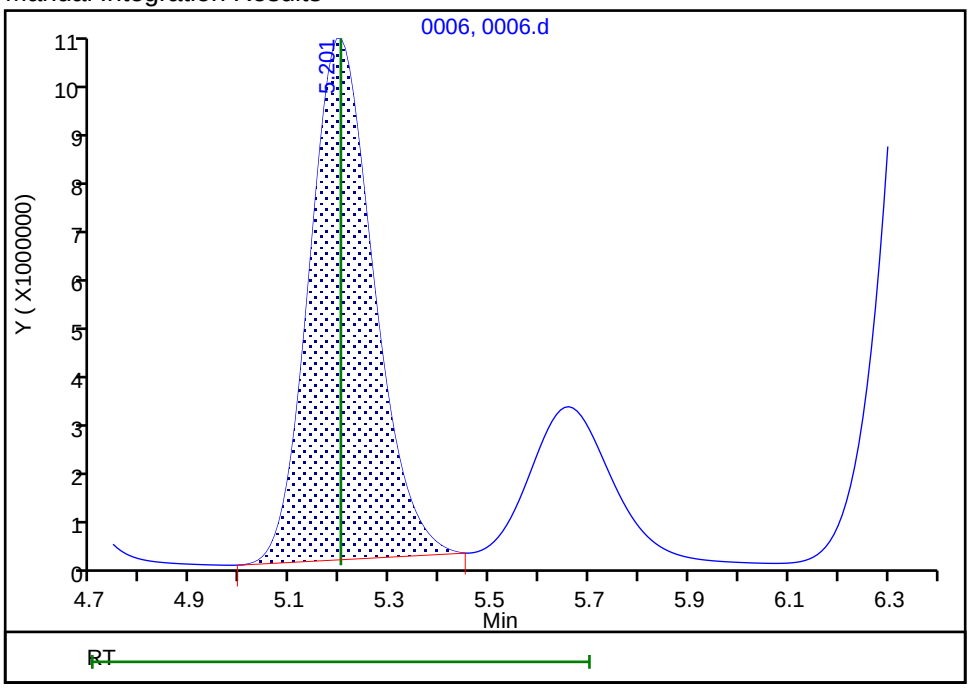
Processing Integration Results

RT: 5.66
Area: 33143352
Amount: 5.007844
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 92548386
Amount: 8.006881
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:22
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

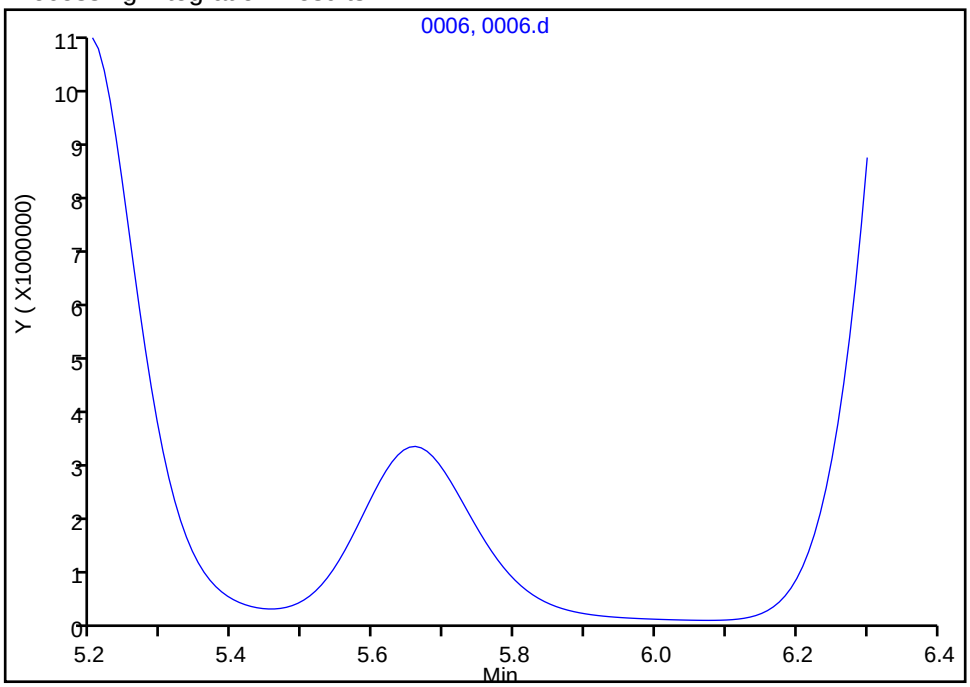
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

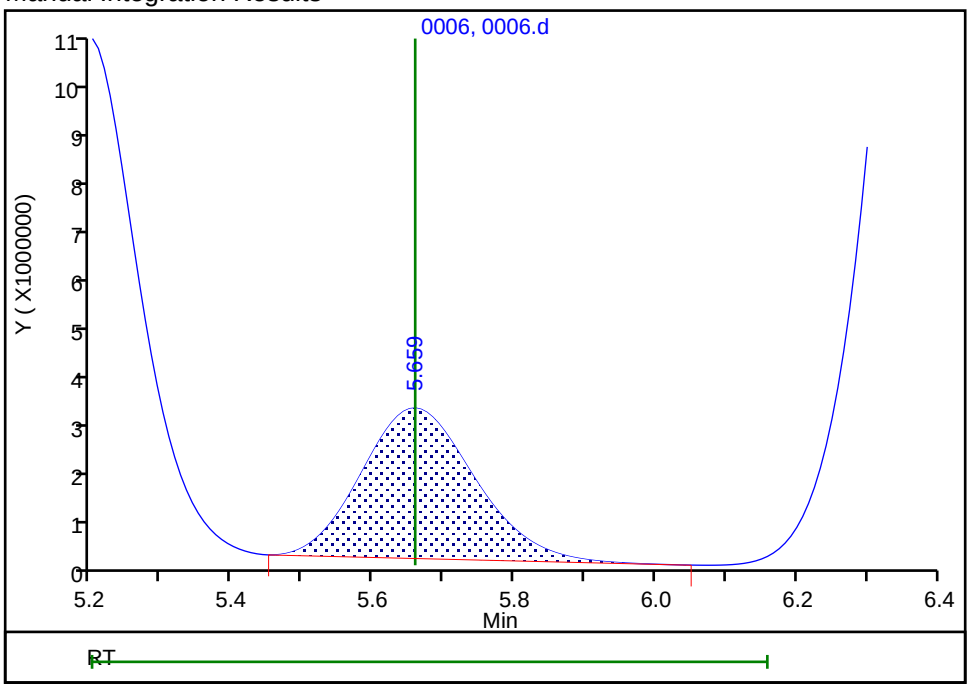
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 33143352
Amount: 7.993638
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:27
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	8.00	7.94	
2 Chloride	3.251	3.250	0.001	792237933	120.0	118.4	
3 Nitrite as N	3.892	3.892	0.000	83950148	NC	NC	a
4 Bromide	4.634	4.642	-0.008	15499336	8.00	7.98	a
5 Nitrate as N	5.201	5.200	0.001	92548386	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	NC	NC	a
6 Sulfate	6.459	6.442	0.017	523125792	120.0	117.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

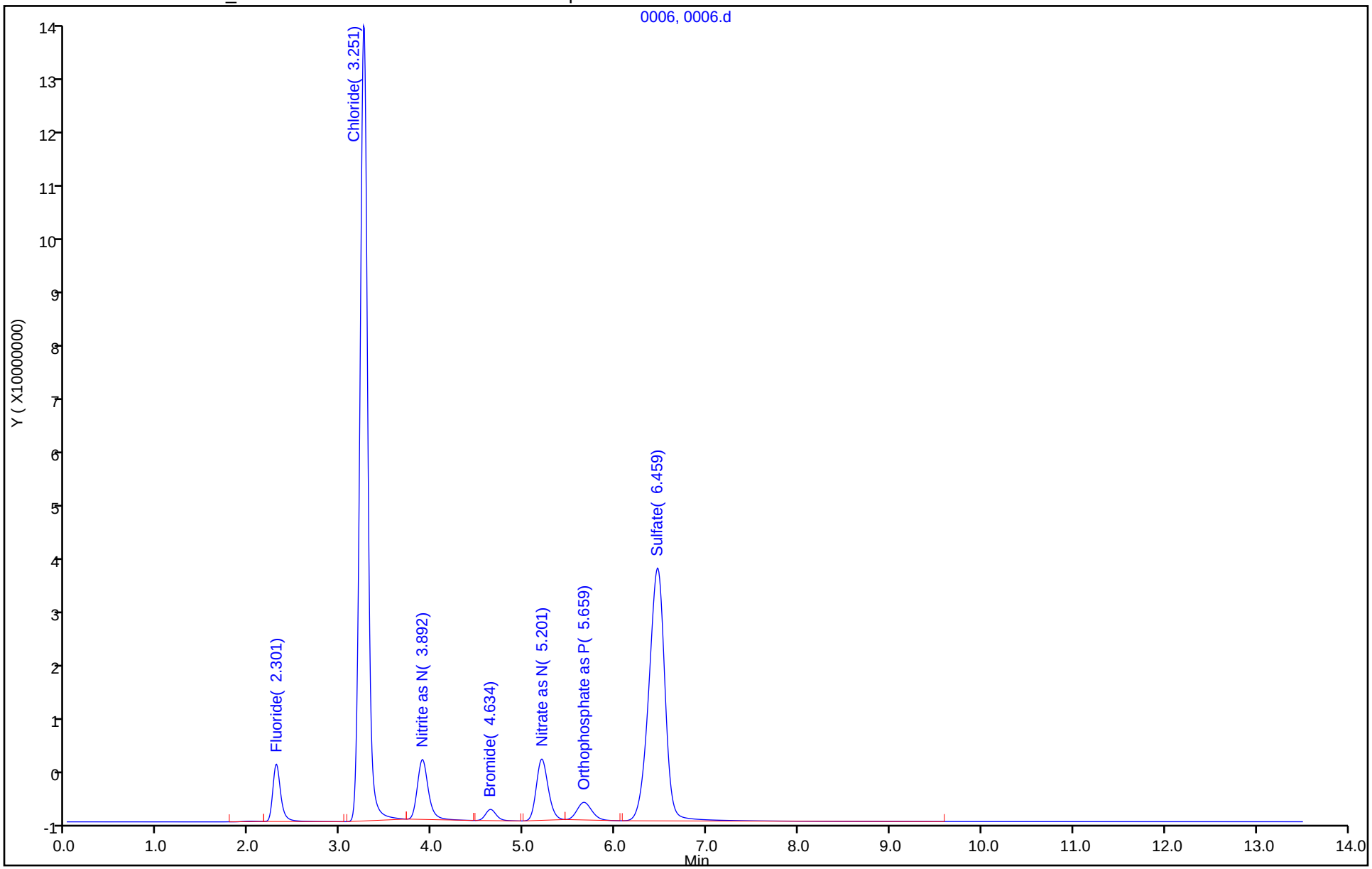
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

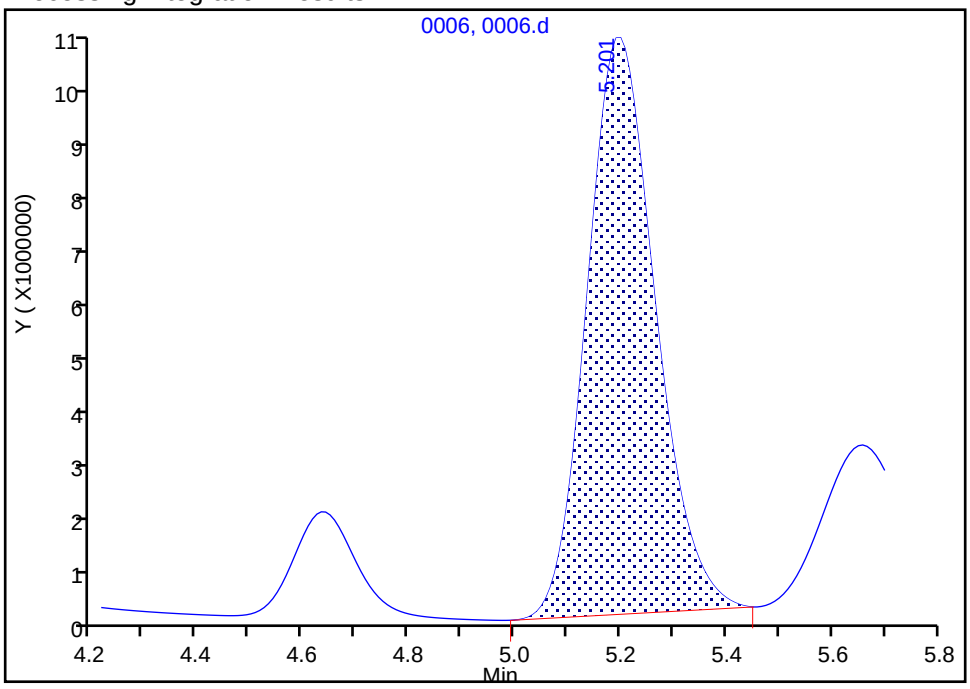
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

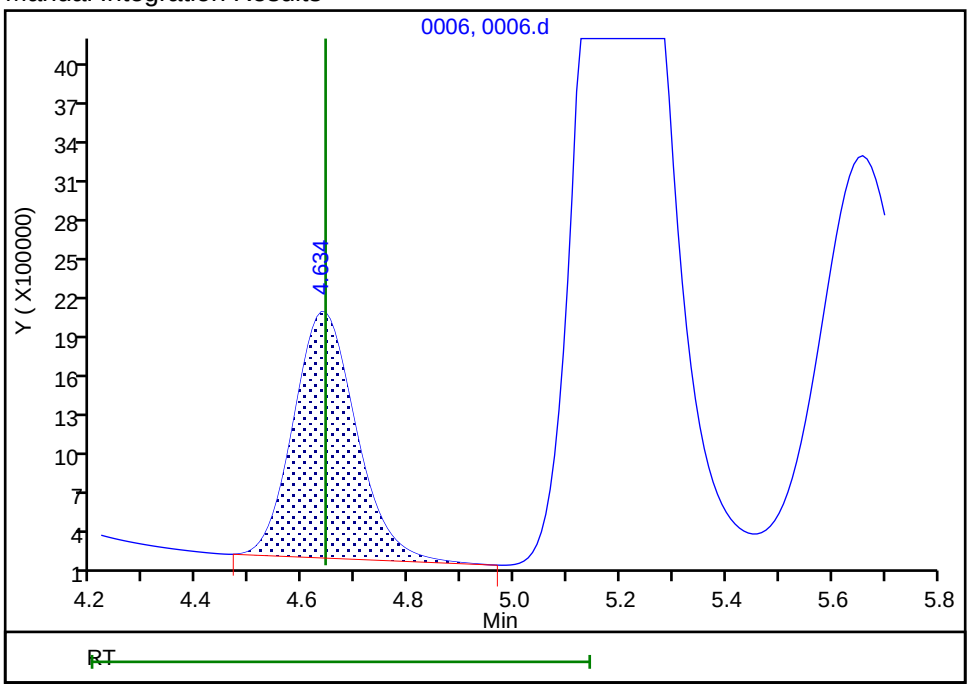
Processing Integration Results

RT: 5.20
Area: 92548386
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 15499336
Amount: 7.976961
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:37
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

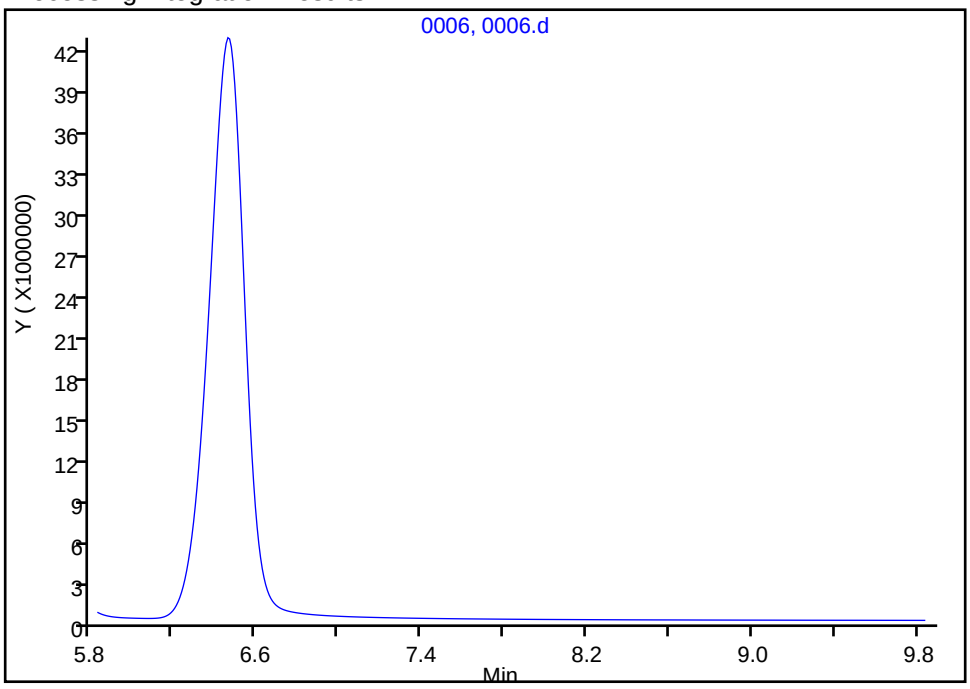
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

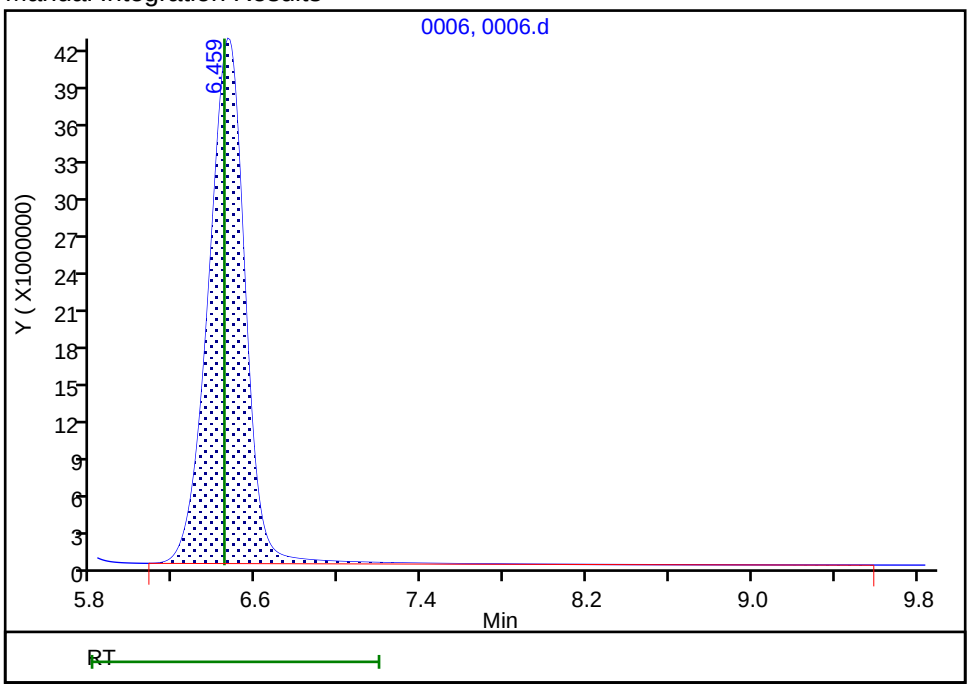
Not Detected
Expected RT: 6.44

Processing Integration Results



Manual Integration Results

RT: 6.46
Area: 523125792
Amount: 117.4031
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	NC	NC	
2 Chloride	3.267	3.250	0.017	1394323073	NC	NC	
3 Nitrite as N	3.901	3.892	0.009	106025591	10.0	10.1	
4 Bromide	4.642	4.642	0.000	19510403	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	118348380	10.0	10.2	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	10.0	10.2	
6 Sulfate	6.484	6.442	0.042	931644146	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

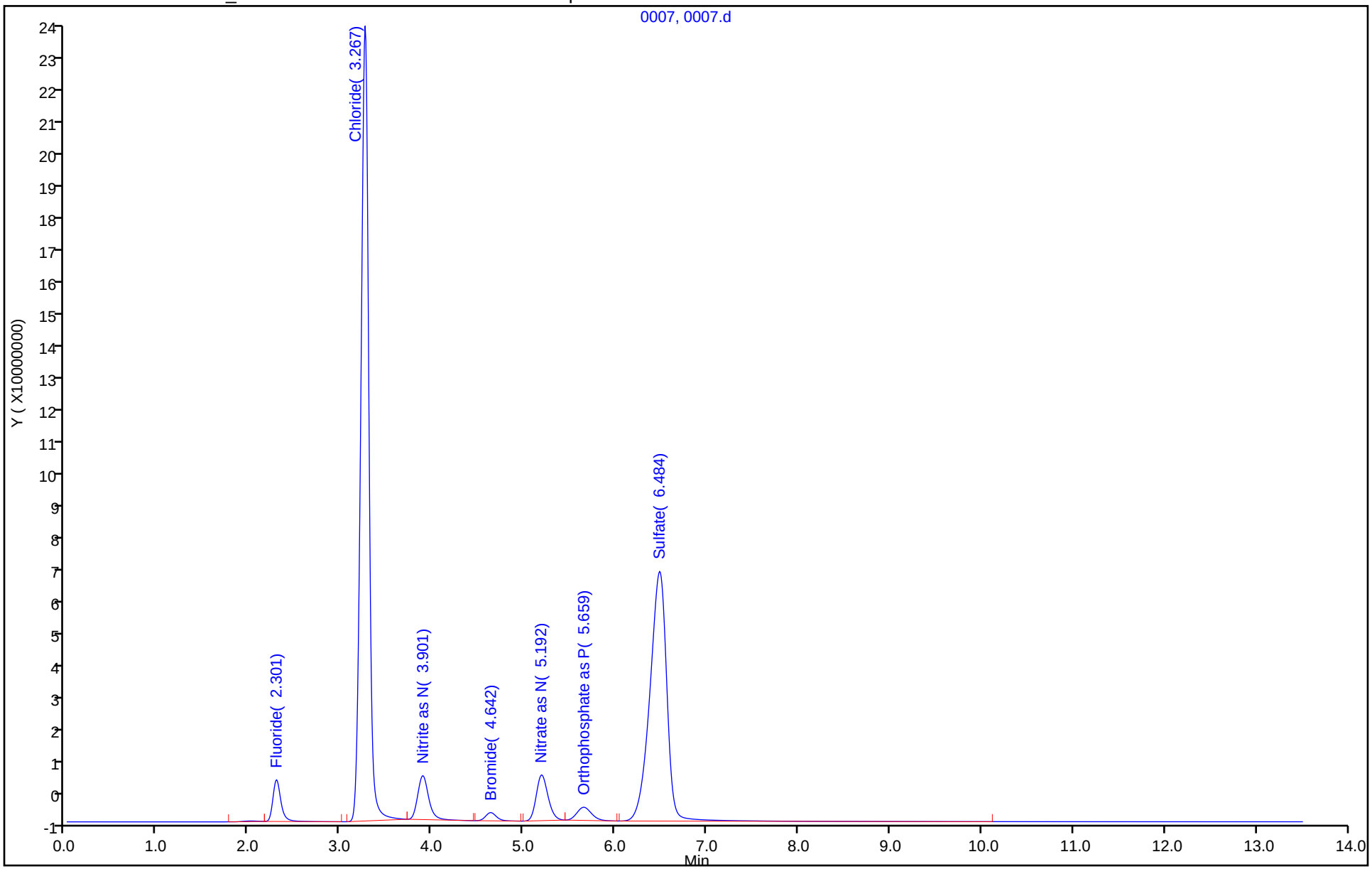
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-May-2019 18:54:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-007
Misc. Info.: 21691
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:07 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	10.0	9.99	
2 Chloride	3.267	3.250	0.017	1394323073	200.0	208.0	
3 Nitrite as N	3.901	3.892	0.009	106025591	NC	NC	
4 Bromide	4.642	4.642	0.000	19510403	10.0	10.0	
5 Nitrate as N	5.192	5.200	-0.008	118348380	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	NC	NC	
6 Sulfate	6.484	6.442	0.042	931644146	200.0	208.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

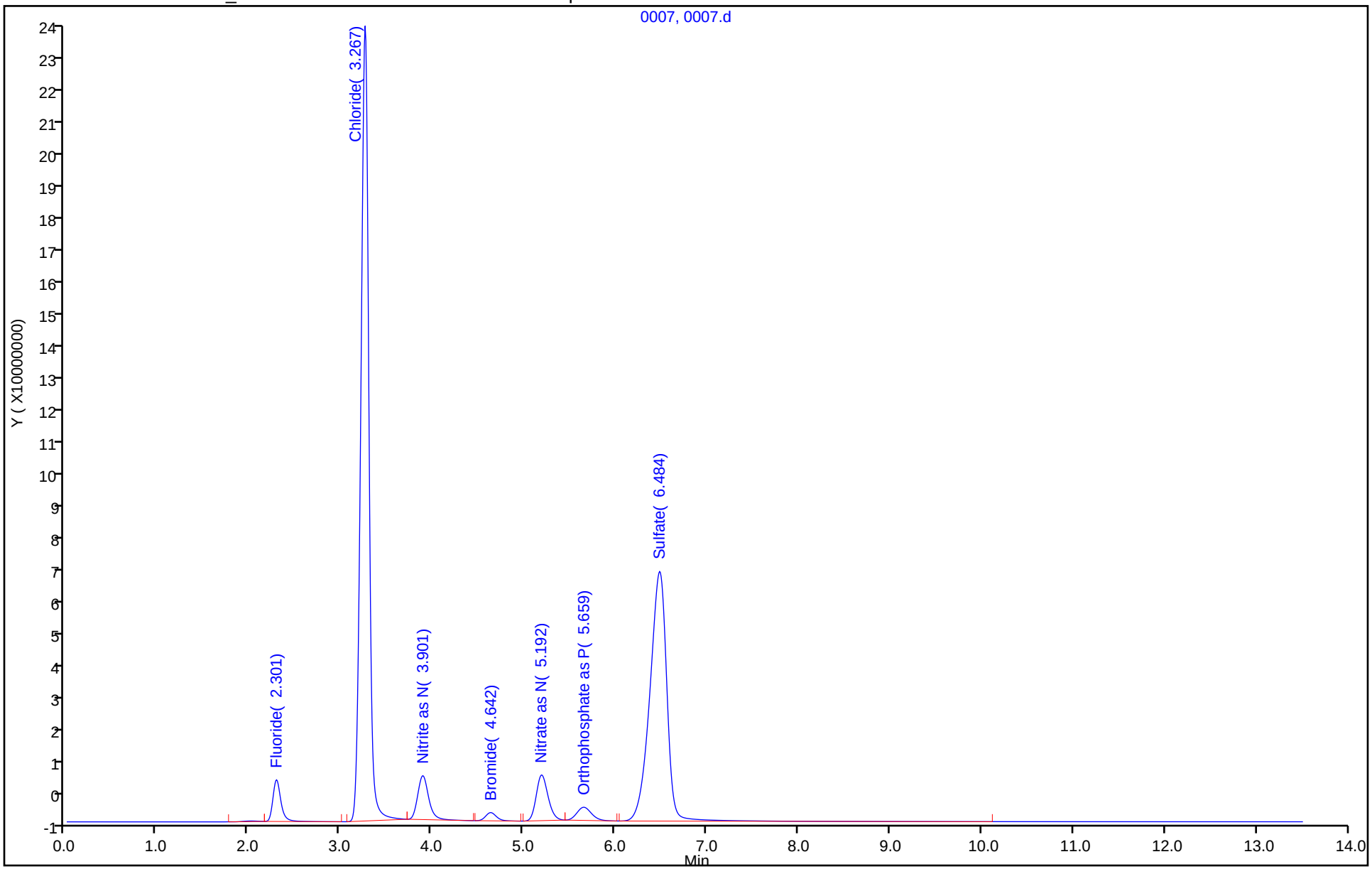
IC CAL cl/so4_00256 Amount Added: 4.00 Units: mL
IC Cal low_00458 Amount Added: 1.00 Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 82000 Inst ID: 11 Analysis Date: 05-17-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123875	4 1 KES 5-17-19	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 1	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123899	4	F Cl NO2 Br NO3 (PO4) SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123875	1	F Cl NO2 Br NO3 PO4 SO4	100x, 1000x	dirt
123899	4	F Cl NO2 Br NO3 (PO4) SO4	100x, 1000x	dirt
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 20-May-2019 17:55:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 09:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37534254	NC	NC	
2 Chloride	3.242	3.242	0.000	636211327	NC	NC	
3 Nitrite as N	3.876	3.892	-0.016	51655603	5.00	4.95	
4 Bromide	4.609	4.634	-0.025	10186924	NC	NC	
5 Nitrate as N	5.167	5.200	-0.033	57599604	5.00	5.00	
7 Orthophosphate as P	5.617	5.659	-0.042	20945835	5.00	5.05	
6 Sulfate	6.392	6.434	-0.042	415954032	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

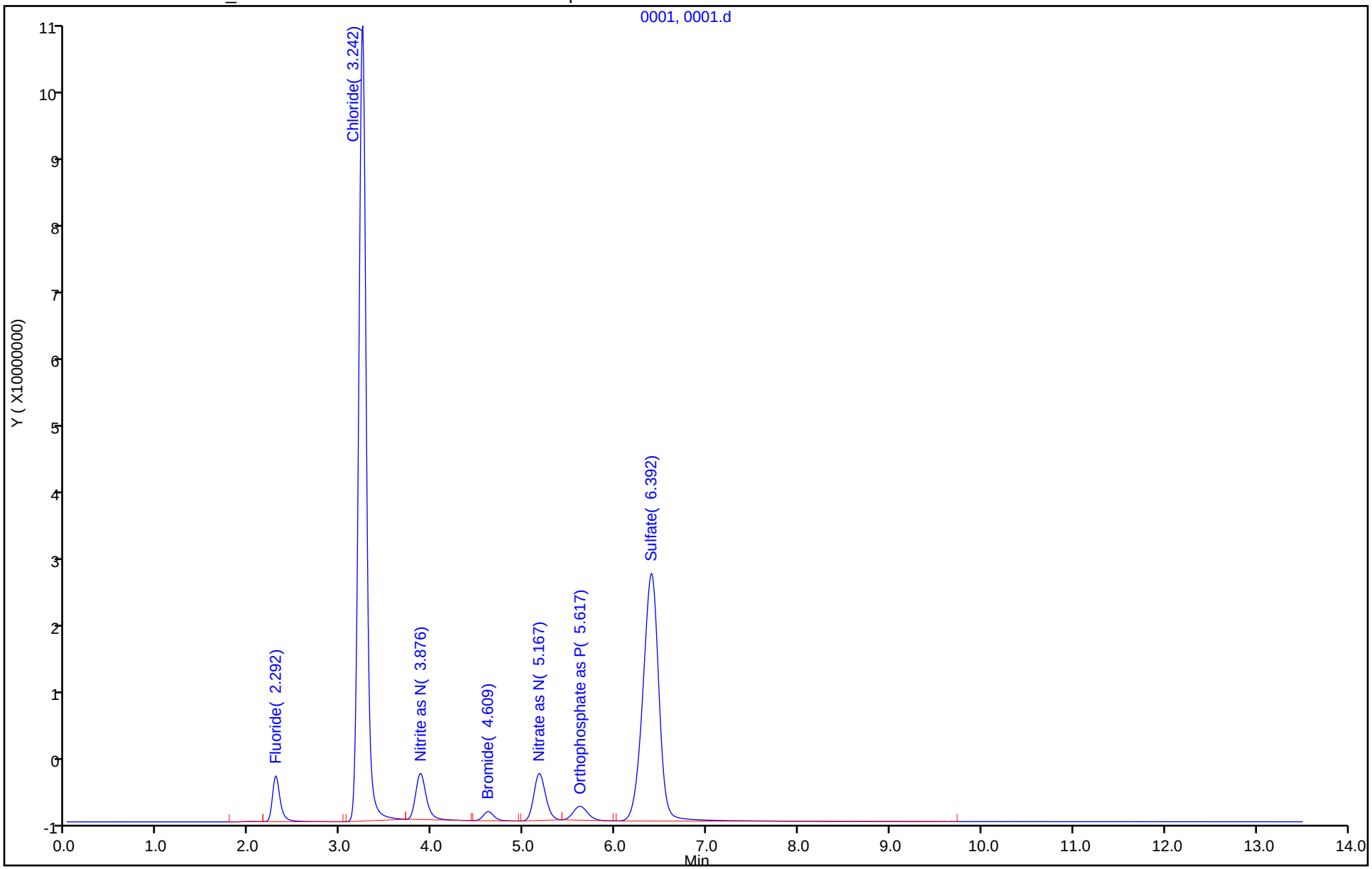
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:26 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d

Injection Date:	17-May-2019 09:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



IC Instrument Information

WL: 82000 Inst ID: 11 Analysis Date: 05-17-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123875	4 1 KES 5-17-19	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 1	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123899	4	F Cl NO2 Br NO3 (PO4) SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123875	1	F Cl NO2 Br NO3 PO4 SO4	100x, 1000x	dirt
123899	4	F Cl NO2 Br NO3 (PO4) SO4	100x, 1000x	dirt
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 20-May-2019 17:55:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 09:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37534254	5.00	5.02	
2 Chloride	3.242	3.242	0.000	636211327	100.0	95.2	
3 Nitrite as N	3.876	3.892	-0.016	51655603	NC	NC	
4 Bromide	4.609	4.634	-0.025	10186924	5.00	5.26	
5 Nitrate as N	5.167	5.200	-0.033	57599604	NC	NC	
7 Orthophosphate as P	5.617	5.659	-0.042	20945835	NC	NC	
6 Sulfate	6.392	6.434	-0.042	415954032	100.0	93.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

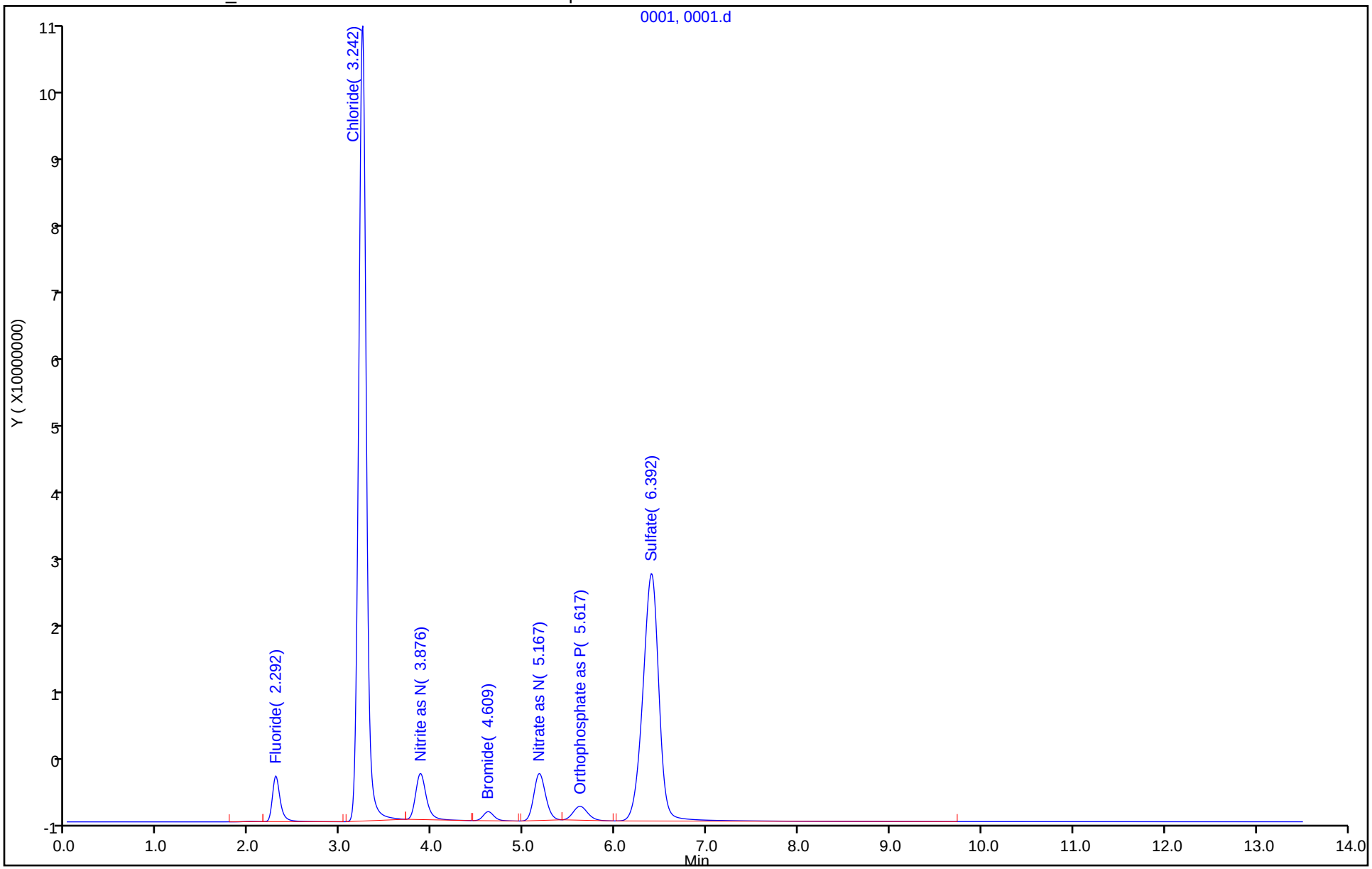
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:26 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d

Injection Date:	17-May-2019 09:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 10:03:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:53:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.292	0.425	25831		NC	M
2 Chloride	3.226	3.242	-0.016	63275		NC	M
3 Nitrite as N		3.892			ND		
4 Bromide		4.634			ND		
5 Nitrate as N		5.200			ND		
7 Orthophosphate as P		5.659			ND		
6 Sulfate		6.434			ND		

QC Flag Legend

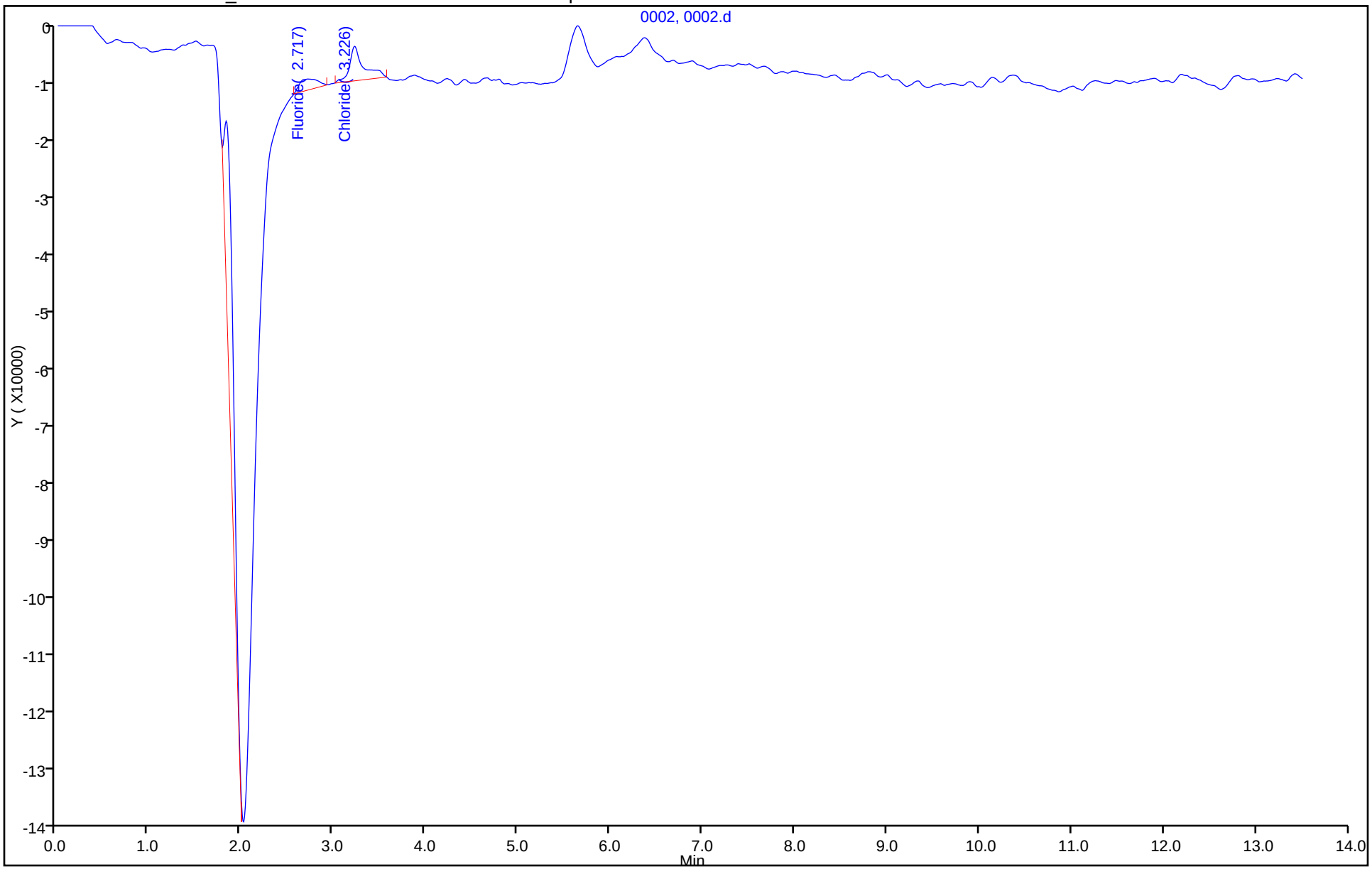
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:27 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d

Injection Date:	17-May-2019 10:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 10:03:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:53:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.292	0.425	25831		-0.1510	M
2 Chloride	3.226	3.242	-0.016	63275		0.6266	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P		5.659				ND	
6 Sulfate		6.434				ND	

QC Flag Legend

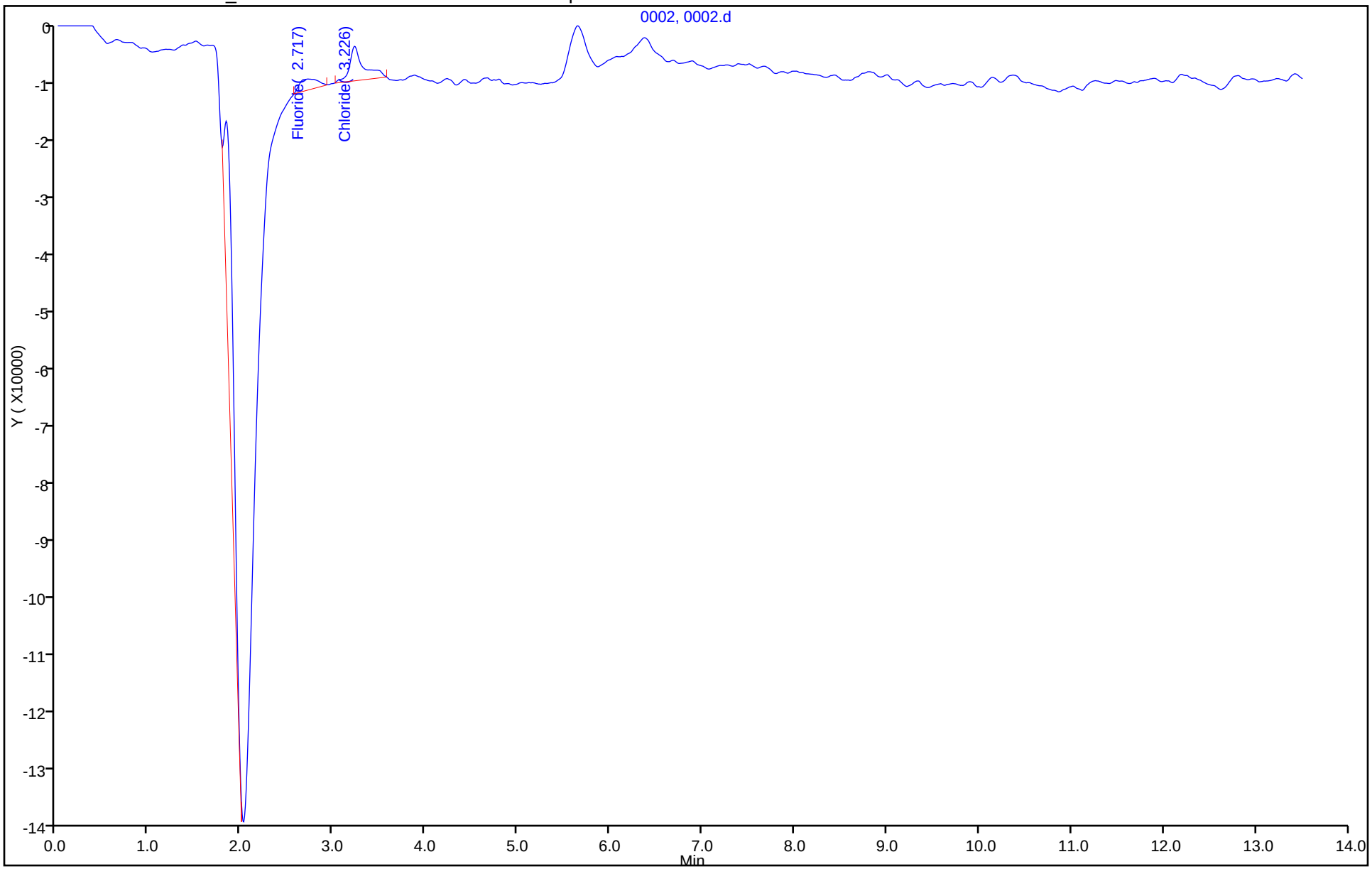
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:27 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d

Injection Date:	17-May-2019 10:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

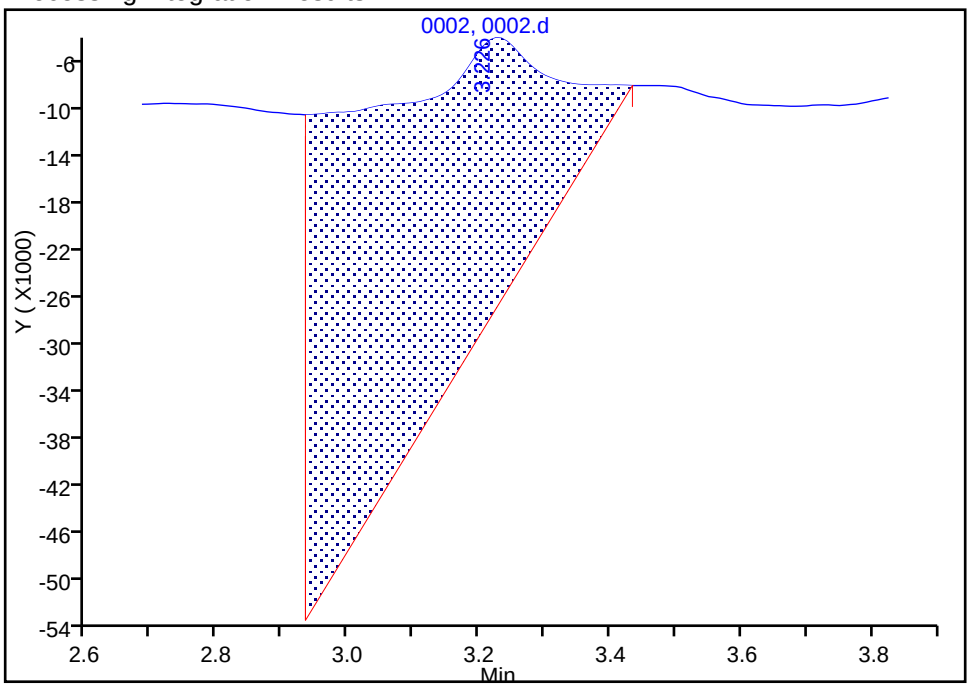
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d				
Injection Date:	17-May-2019 10:03:00	Instrument ID:	WC_IonChrom11		
Lims ID:	CCB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

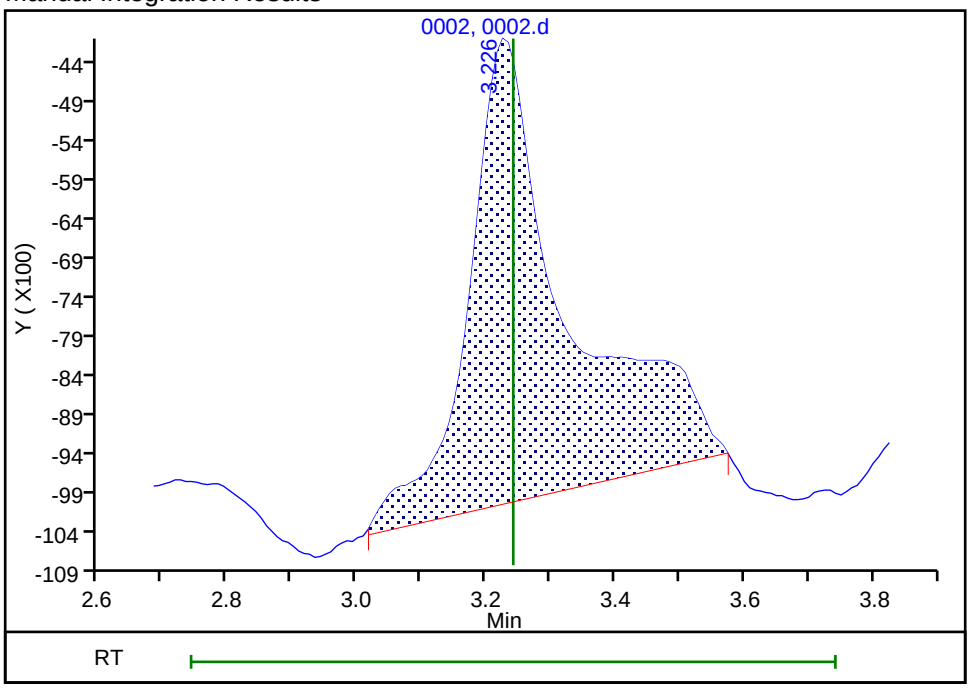
Processing Integration Results

RT: 3.23
Area: 680412
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 63275
Amount: 0.626597
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 07:53:52

Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 17-May-2019 10:19:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3370541	NC	NC	
2 Chloride	3.225	3.242	-0.017	11162382	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	2000895	0.2000	0.2159	
4 Bromide	4.617	4.634	-0.017	404188	NC	NC	
5 Nitrate as N	5.184	5.200	-0.016	2220587	0.2000	0.2294	
7 Orthophosphate as P	5.625	5.659	-0.034	875786	0.2000	0.2036	
6 Sulfate	6.350	6.434	-0.084	8371770	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

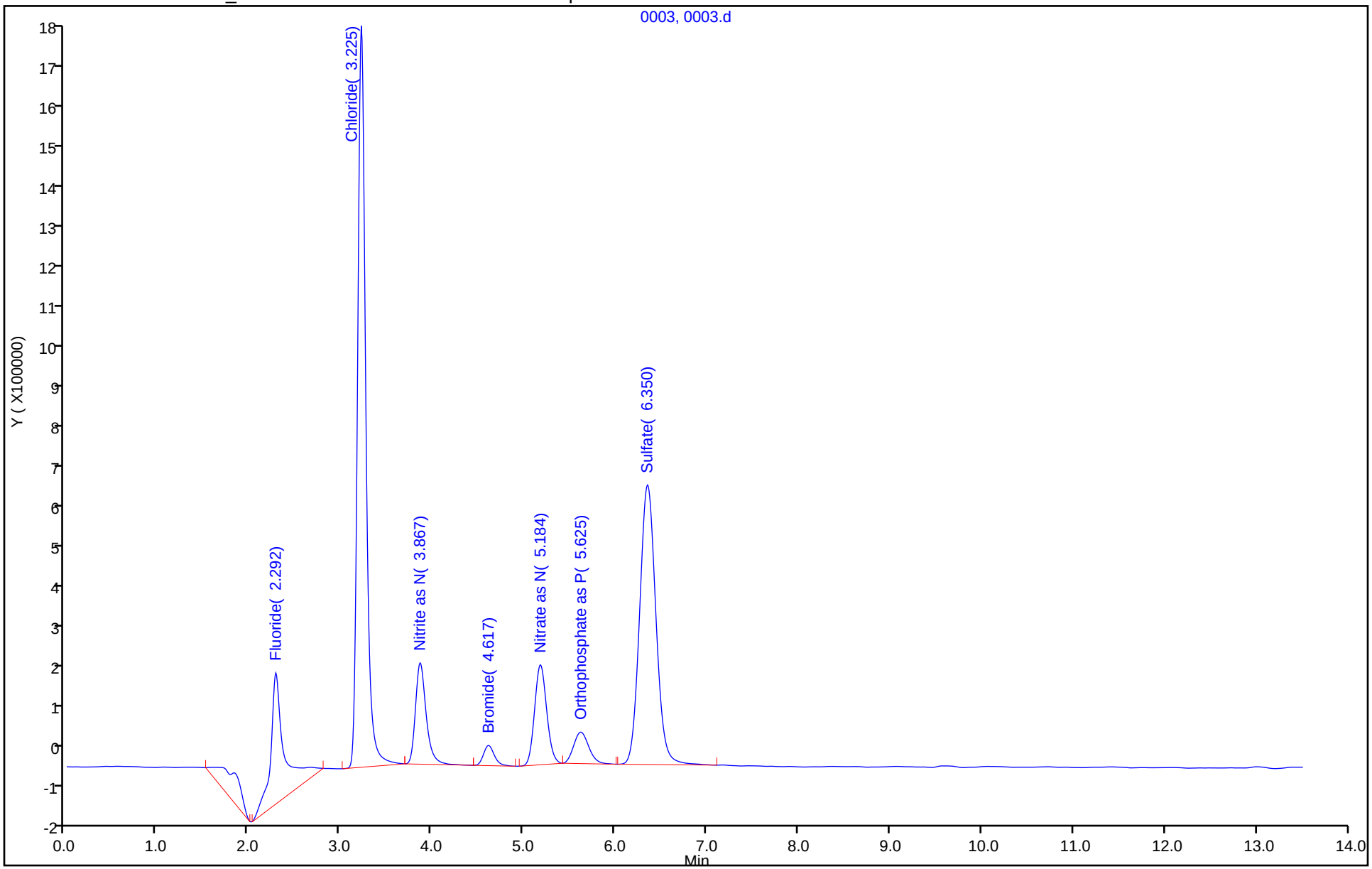
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d

Injection Date:	17-May-2019 10:19:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 17-May-2019 10:19:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3370541	0.2000	0.3100	
2 Chloride	3.225	3.242	-0.017	11162382	2.50	2.28	
3 Nitrite as N	3.867	3.892	-0.025	2000895	NC	NC	
4 Bromide	4.617	4.634	-0.017	404188	0.2000	0.2161	
5 Nitrate as N	5.184	5.200	-0.016	2220587	NC	NC	
7 Orthophosphate as P	5.625	5.659	-0.034	875786	NC	NC	
6 Sulfate	6.350	6.434	-0.084	8371770	2.50	2.31	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

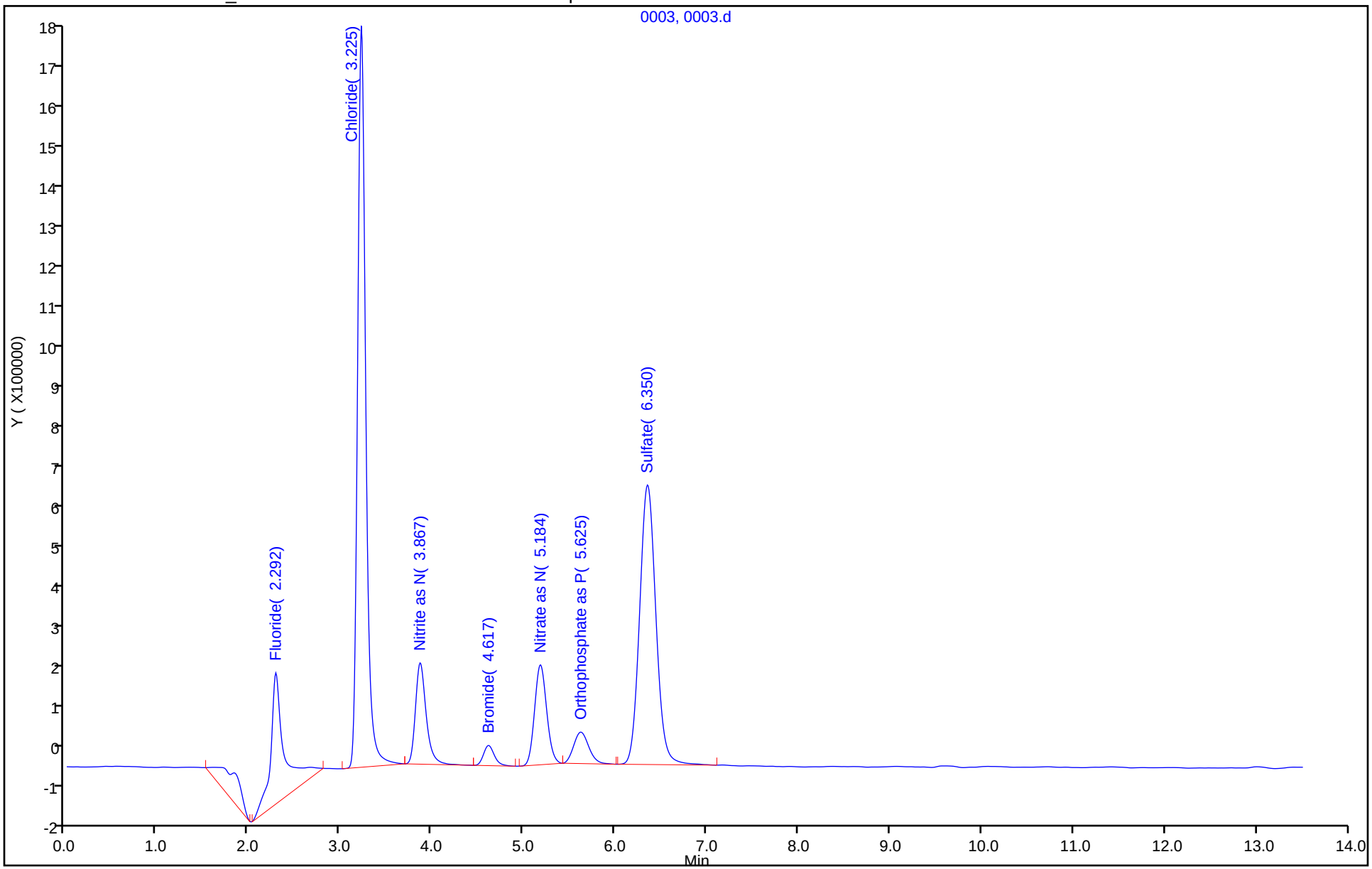
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d

Injection Date:	17-May-2019 10:19:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-May-2019 10:36:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37519209	NC	NC	
2 Chloride	3.242	3.242	0.000	637771422	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	51681403	5.00	4.95	
4 Bromide	4.609	4.634	-0.025	10158715	NC	NC	
5 Nitrate as N	5.167	5.200	-0.033	57678326	5.00	5.00	
7 Orthophosphate as P	5.617	5.659	-0.042	21167317	5.00	5.10	
6 Sulfate	6.400	6.434	-0.034	416705232	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

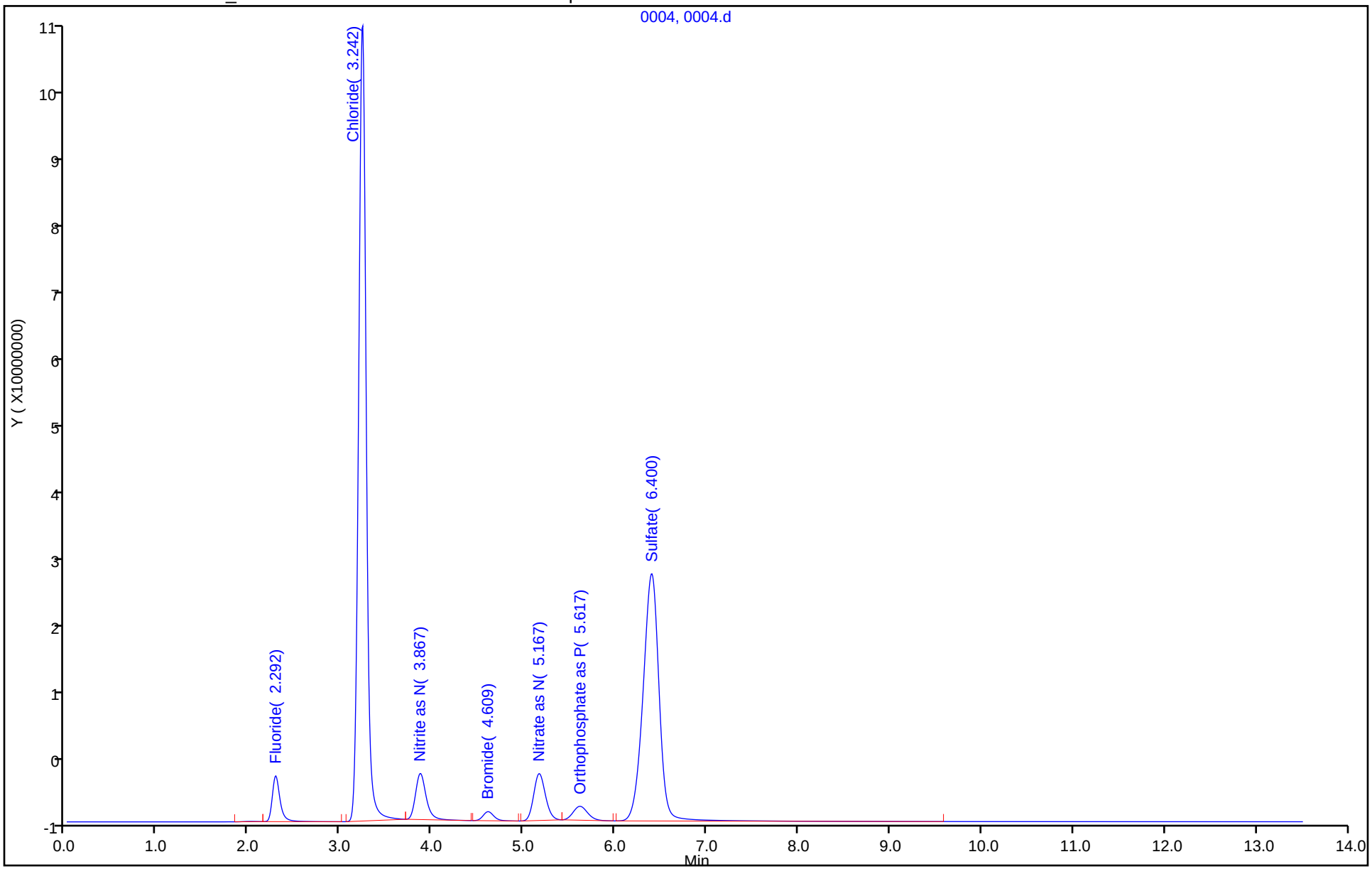
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d

Injection Date:	17-May-2019 10:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-May-2019 10:36:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37519209	5.00	5.02	
2 Chloride	3.242	3.242	0.000	637771422	100.0	95.5	
3 Nitrite as N	3.867	3.892	-0.025	51681403	NC	NC	
4 Bromide	4.609	4.634	-0.025	10158715	5.00	5.25	
5 Nitrate as N	5.167	5.200	-0.033	57678326	NC	NC	
7 Orthophosphate as P	5.617	5.659	-0.042	21167317	NC	NC	
6 Sulfate	6.400	6.434	-0.034	416705232	100.0	93.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

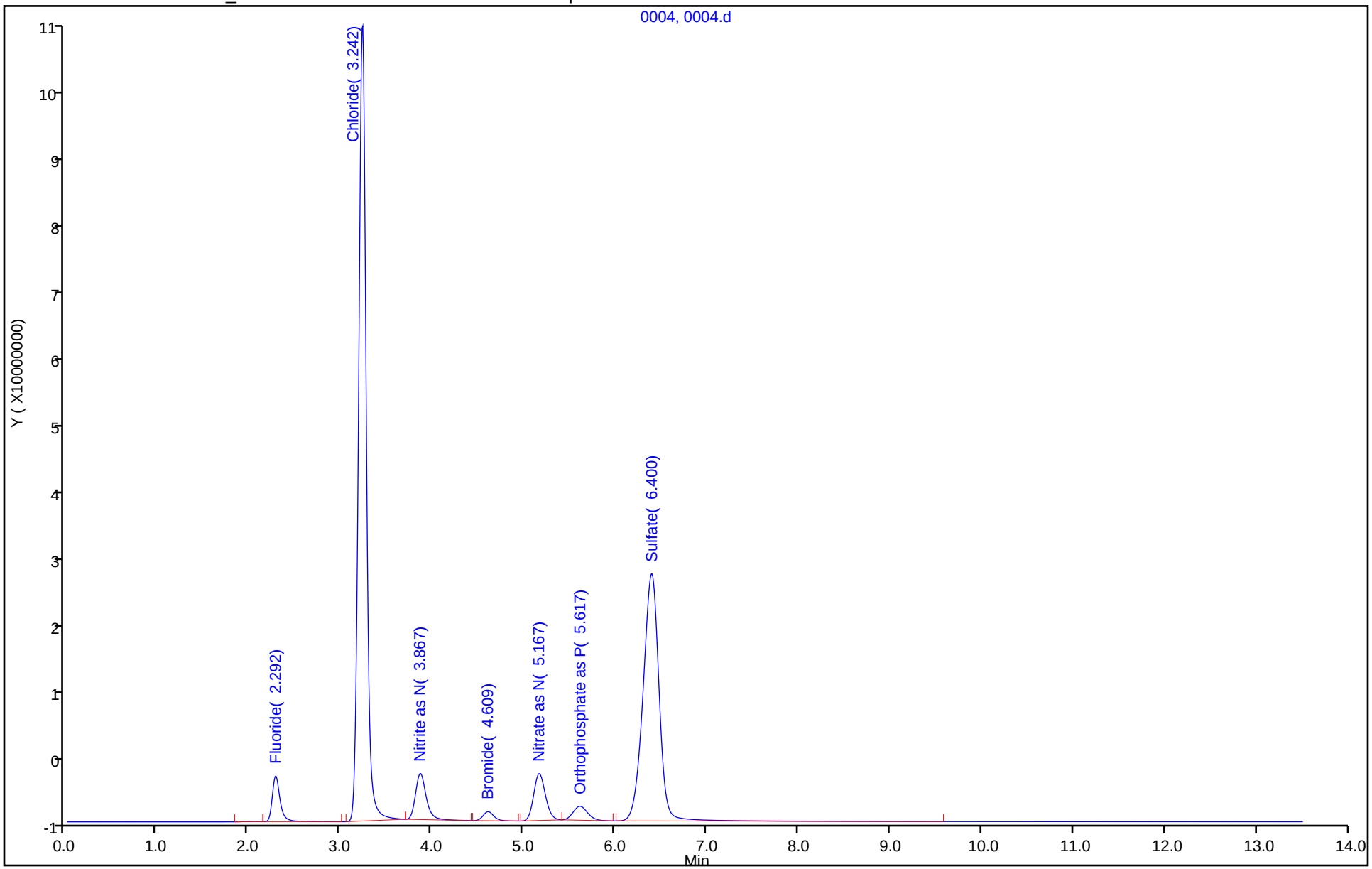
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d

Injection Date:	17-May-2019 10:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 17-May-2019 10:52:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37761341	NC	NC	
2 Chloride	3.242	3.242	0.000	642425114	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	52090587	5.00	4.99	
4 Bromide	4.609	4.634	-0.025	10244896	NC	NC	
5 Nitrate as N	5.167	5.200	-0.033	58061081	5.00	5.04	
7 Orthophosphate as P	5.609	5.659	-0.050	21441125	5.00	5.17	
6 Sulfate	6.392	6.434	-0.042	419646386	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

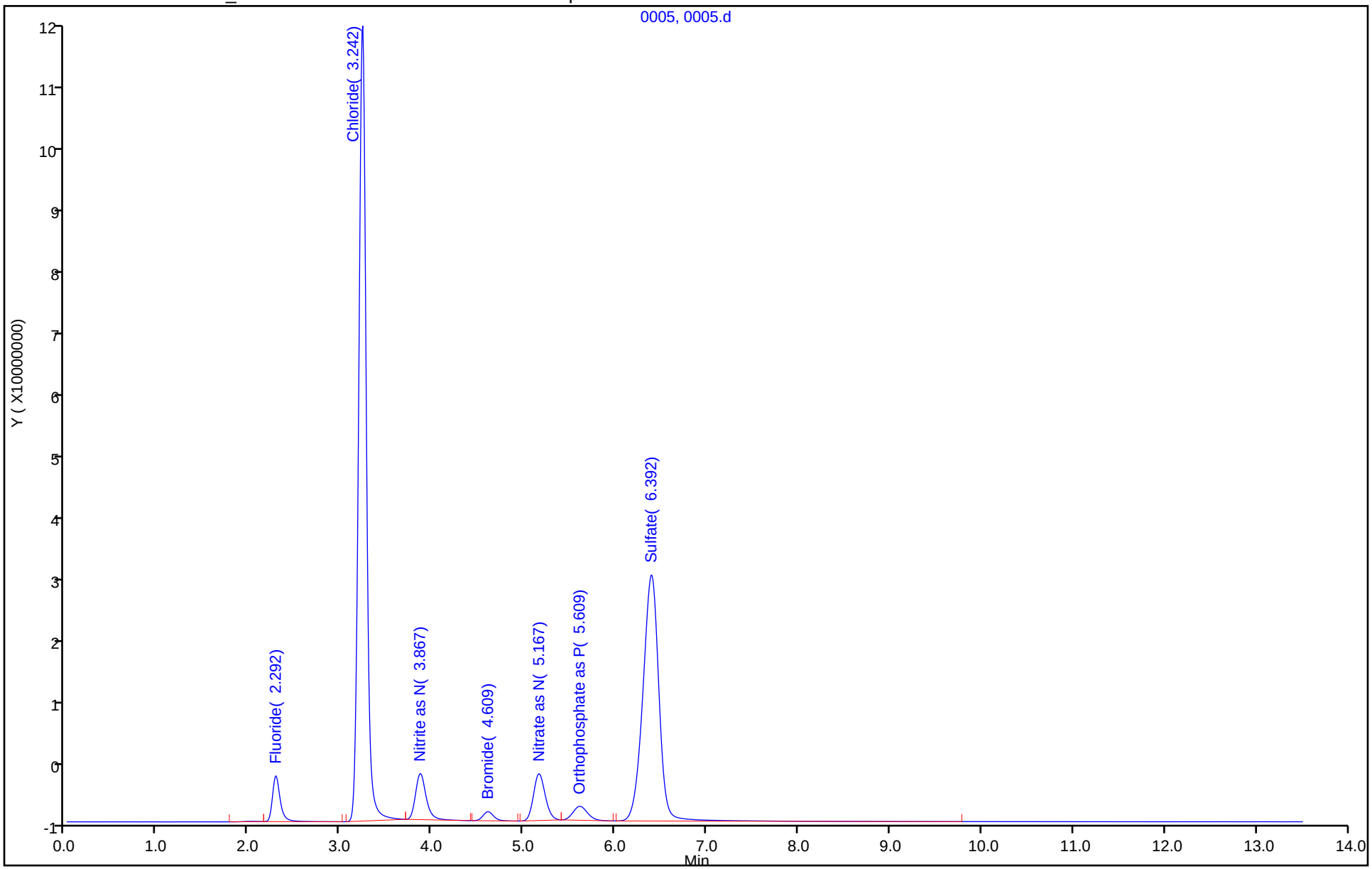
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d

Injection Date:	17-May-2019 10:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 17-May-2019 10:52:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37761341	5.00	5.05	
2 Chloride	3.242	3.242	0.000	642425114	100.0	96.2	
3 Nitrite as N	3.867	3.892	-0.025	52090587	NC	NC	
4 Bromide	4.609	4.634	-0.025	10244896	5.00	5.29	
5 Nitrate as N	5.167	5.200	-0.033	58061081	NC	NC	
7 Orthophosphate as P	5.609	5.659	-0.050	21441125	NC	NC	
6 Sulfate	6.392	6.434	-0.042	419646386	100.0	94.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

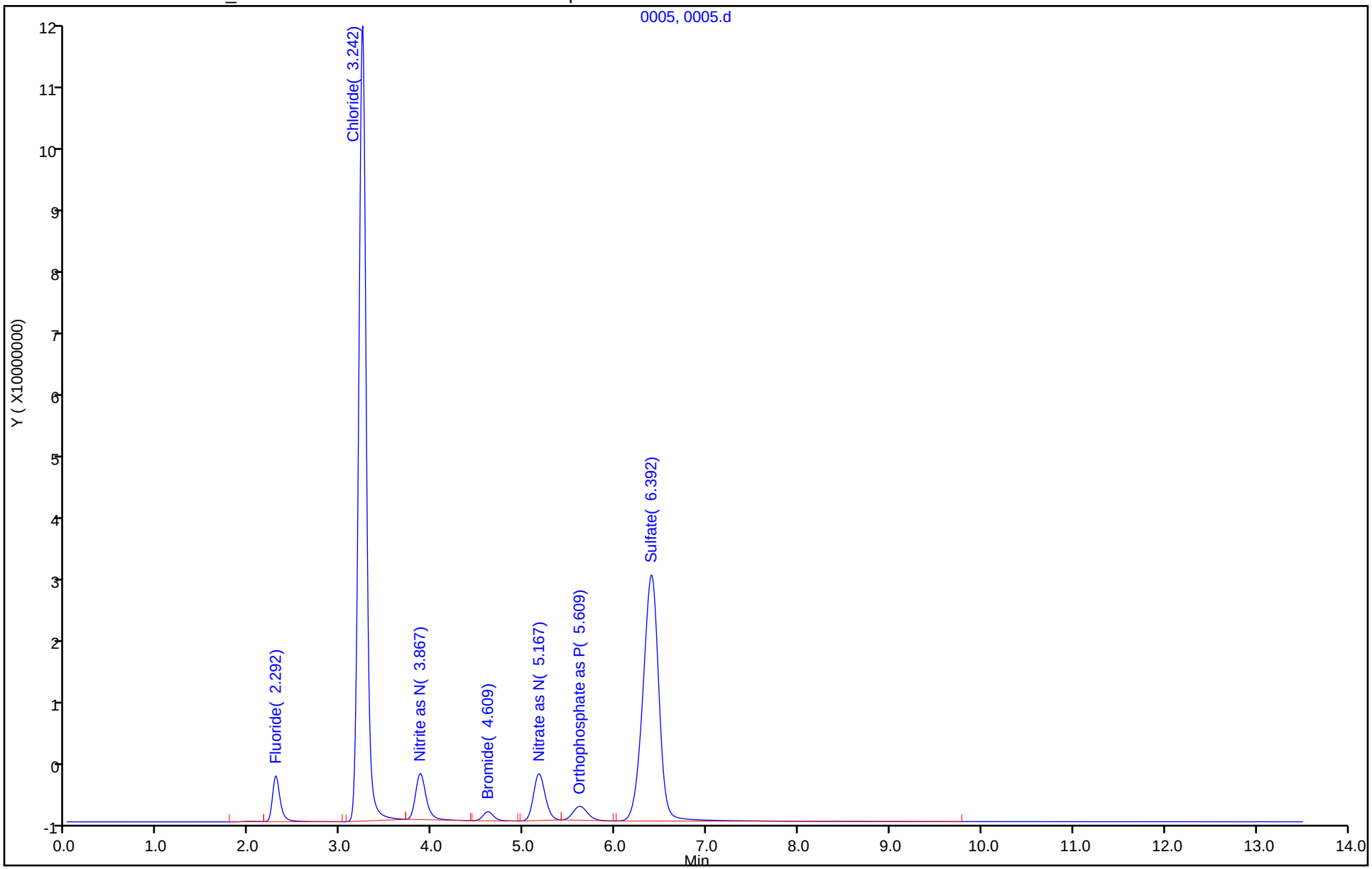
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d

Injection Date:	17-May-2019 10:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 17-May-2019 11:08:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:54:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.709	2.292	0.417	20711		NC	M
2 Chloride	3.225	3.242	-0.017	23519		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.642	5.659	-0.017	114145		0.0197	
6 Sulfate	5.909	6.434	-0.525	104185		NC	

QC Flag Legend

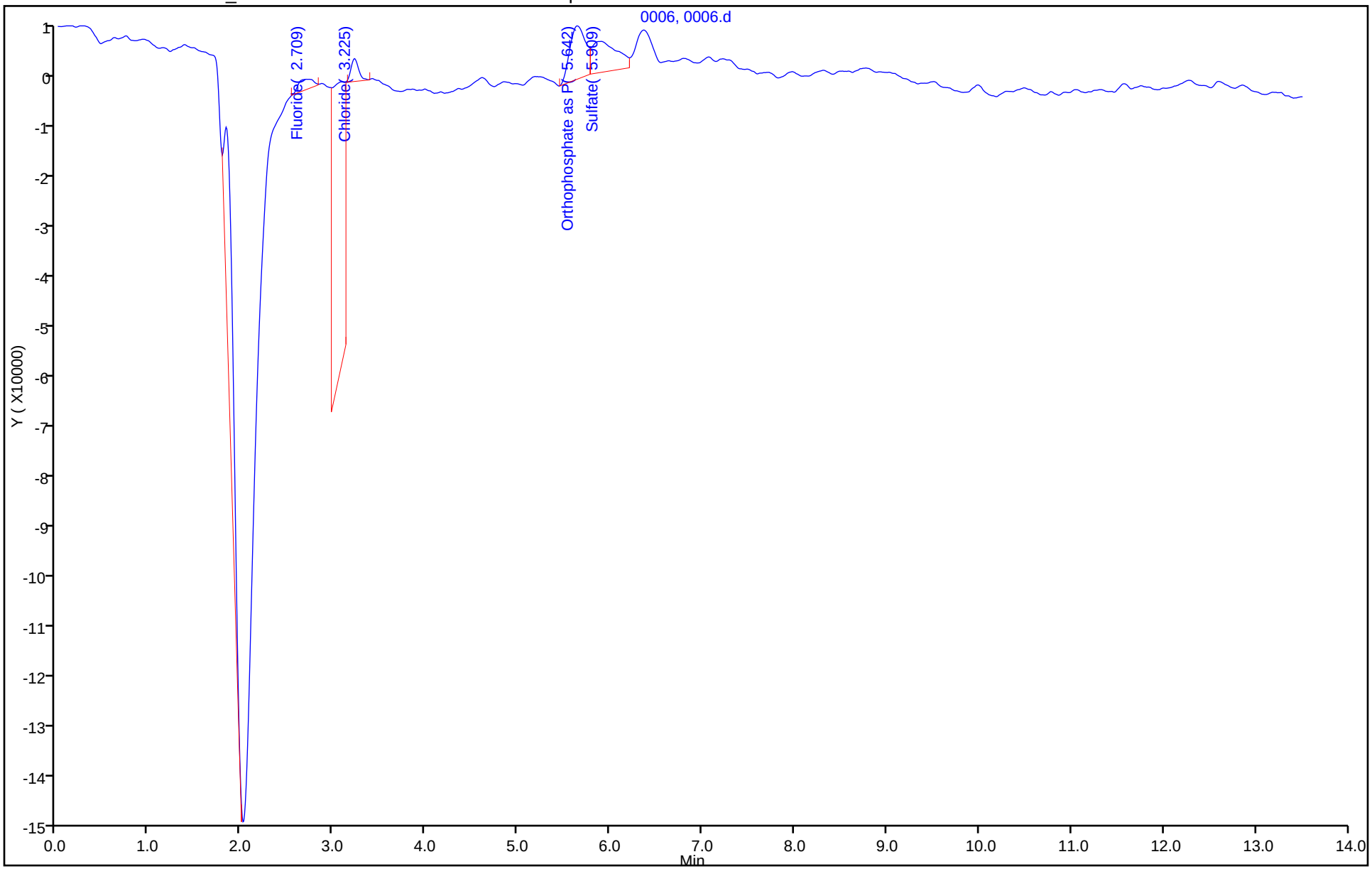
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d

Injection Date:	17-May-2019 11:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 17-May-2019 11:08:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:54:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.709	2.292	0.417	20711		-0.1517	M
2 Chloride	3.225	3.242	-0.017	23519		0.6207	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.642	5.659	-0.017	114145		NC	
6 Sulfate	5.909	6.434	-0.525	104185		0.4606	

QC Flag Legend

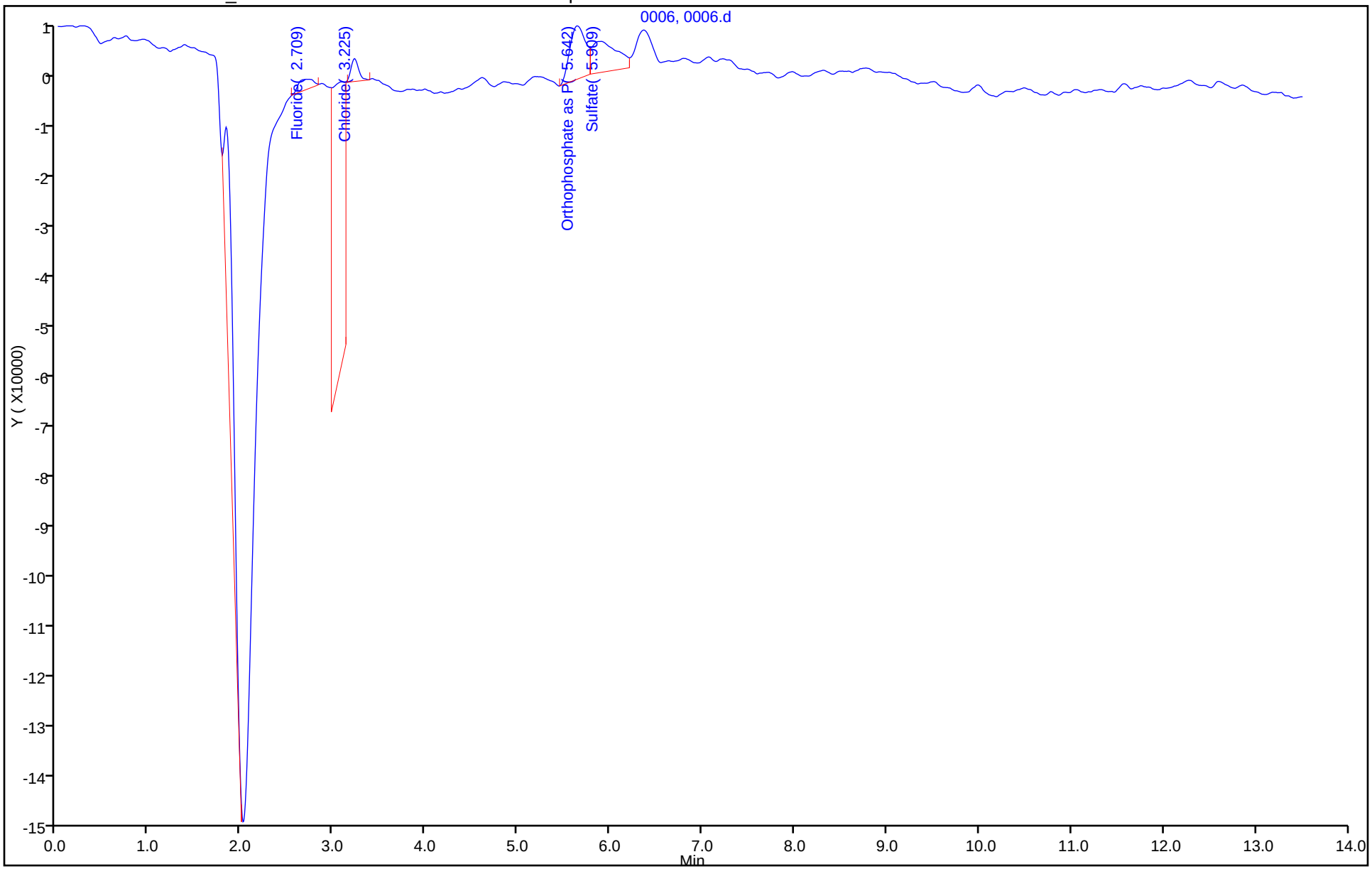
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d

Injection Date:	17-May-2019 11:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

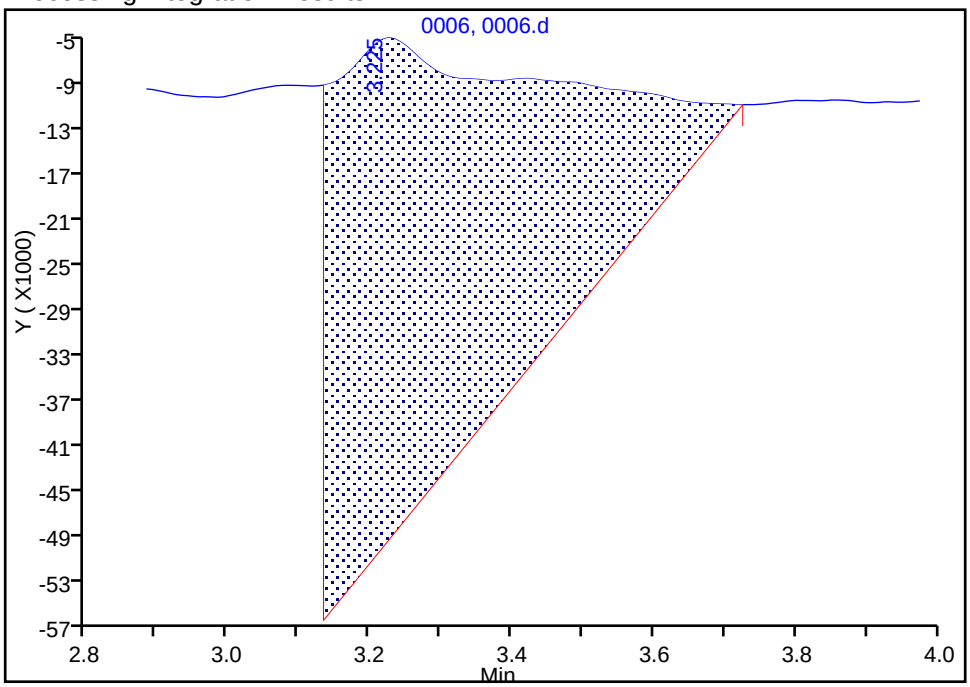
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d
Injection Date: 17-May-2019 11:08:00 Instrument ID: WC_IonChrom11
Lims ID: MB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

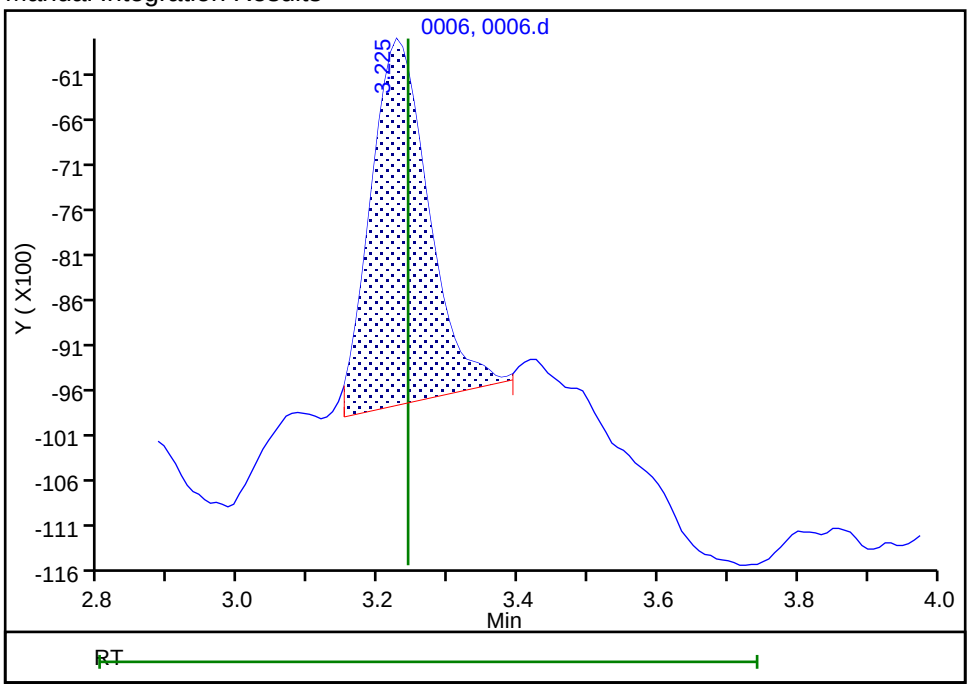
Processing Integration Results

RT: 3.23
Area: 876237
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 23519
Amount: 0.620685
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 07:54:13
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 21:14:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-017
Misc. Info.: 11605 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	38084969	NC	NC	
2 Chloride	3.234	3.242	-0.008	644920282	NC	NC	
3 Nitrite as N	3.859	3.892	-0.033	52024684	5.00	4.98	
4 Bromide	4.592	4.634	-0.042	10284595	NC	NC	
5 Nitrate as N	5.142	5.200	-0.058	58800537	5.00	5.10	
7 Orthophosphate as P	5.609	5.659	-0.050	21838921	5.00	5.26	
6 Sulfate	6.400	6.434	-0.034	422005317	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

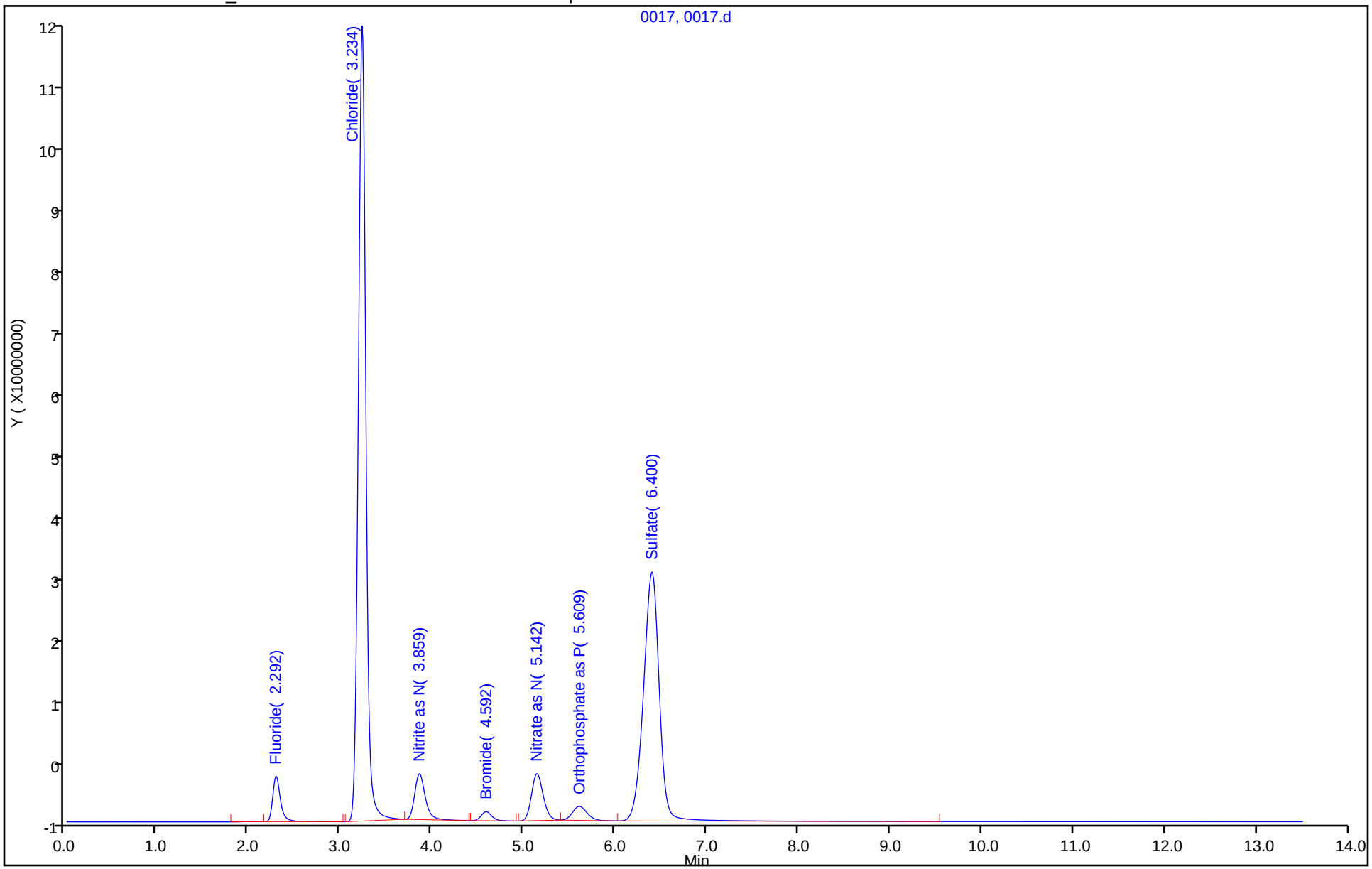
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d

Injection Date:	17-May-2019 21:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 21:14:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-017
Misc. Info.: 11605 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	38084969	5.00	5.10	
2 Chloride	3.234	3.242	-0.008	644920282	100.0	96.5	
3 Nitrite as N	3.859	3.892	-0.033	52024684	NC	NC	
4 Bromide	4.592	4.634	-0.042	10284595	5.00	5.31	
5 Nitrate as N	5.142	5.200	-0.058	58800537	NC	NC	
7 Orthophosphate as P	5.609	5.659	-0.050	21838921	NC	NC	
6 Sulfate	6.400	6.434	-0.034	422005317	100.0	94.8	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

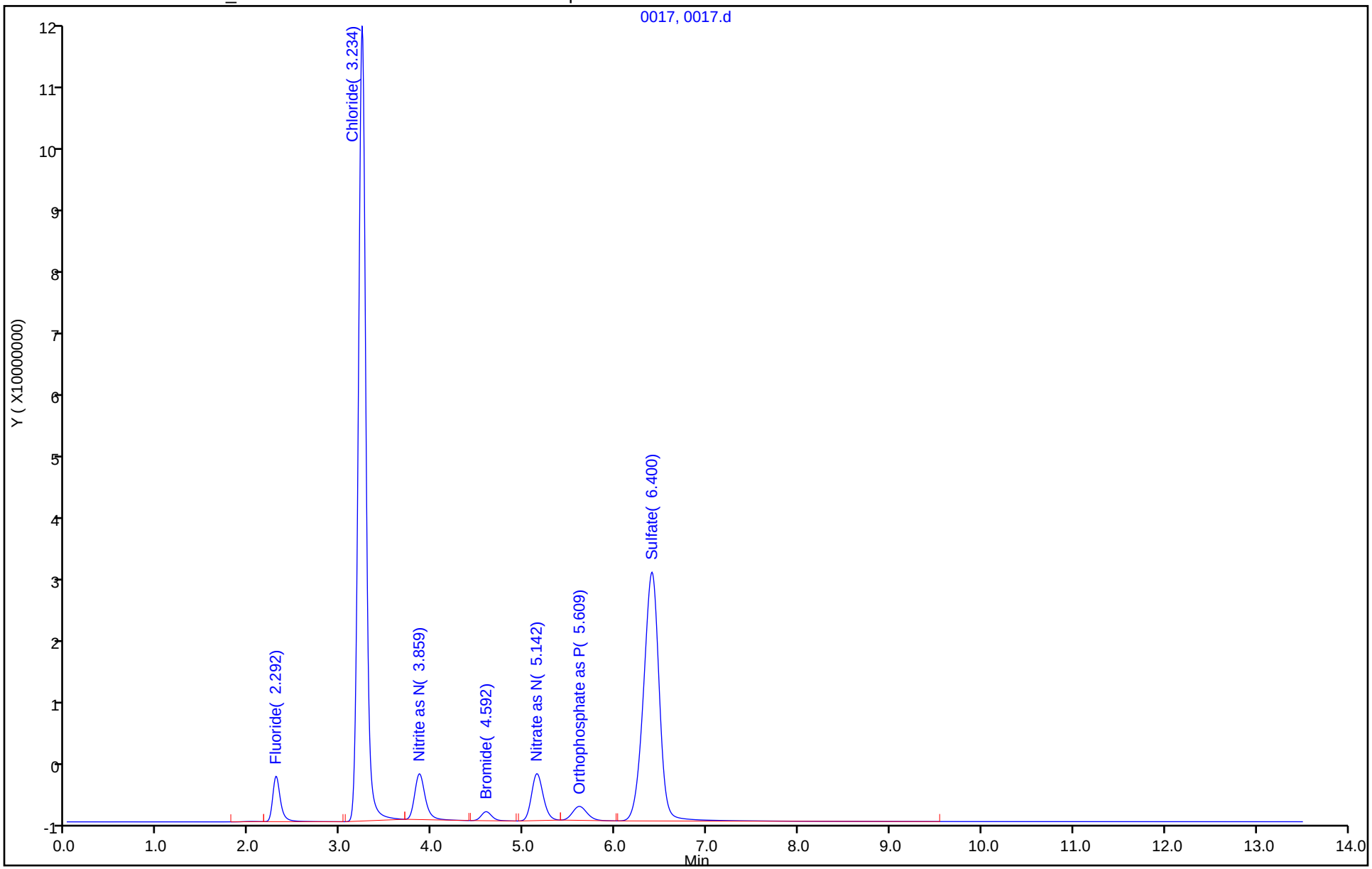
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d

Injection Date:	17-May-2019 21:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 21:30:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-018
Misc. Info.: 31545 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:56:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.692	2.292	0.400	33350		NC	M
2 Chloride	3.225	3.242	-0.017	83529		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.667	5.659	0.008	363632		0.0799	
6 Sulfate	6.375	6.434	-0.059	237941		NC	

QC Flag Legend

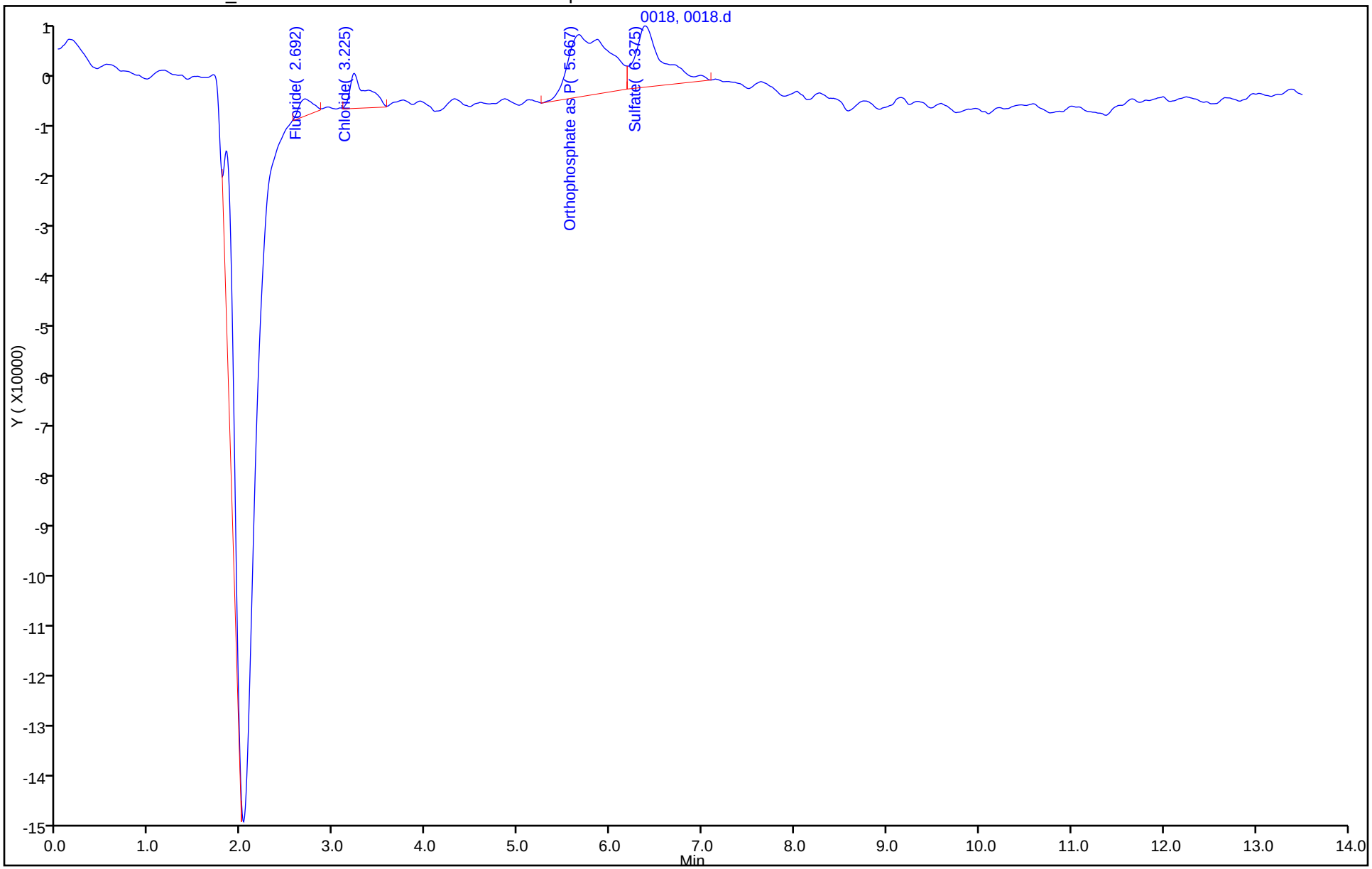
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:40 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d

Injection Date:	17-May-2019 21:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 21:30:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-018
Misc. Info.: 31545 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:56:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.692	2.292	0.400	33350		-0.1500	M
2 Chloride	3.225	3.242	-0.017	83529		0.6296	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.667	5.659	0.008	363632		NC	
6 Sulfate	6.375	6.434	-0.059	237941		0.4905	

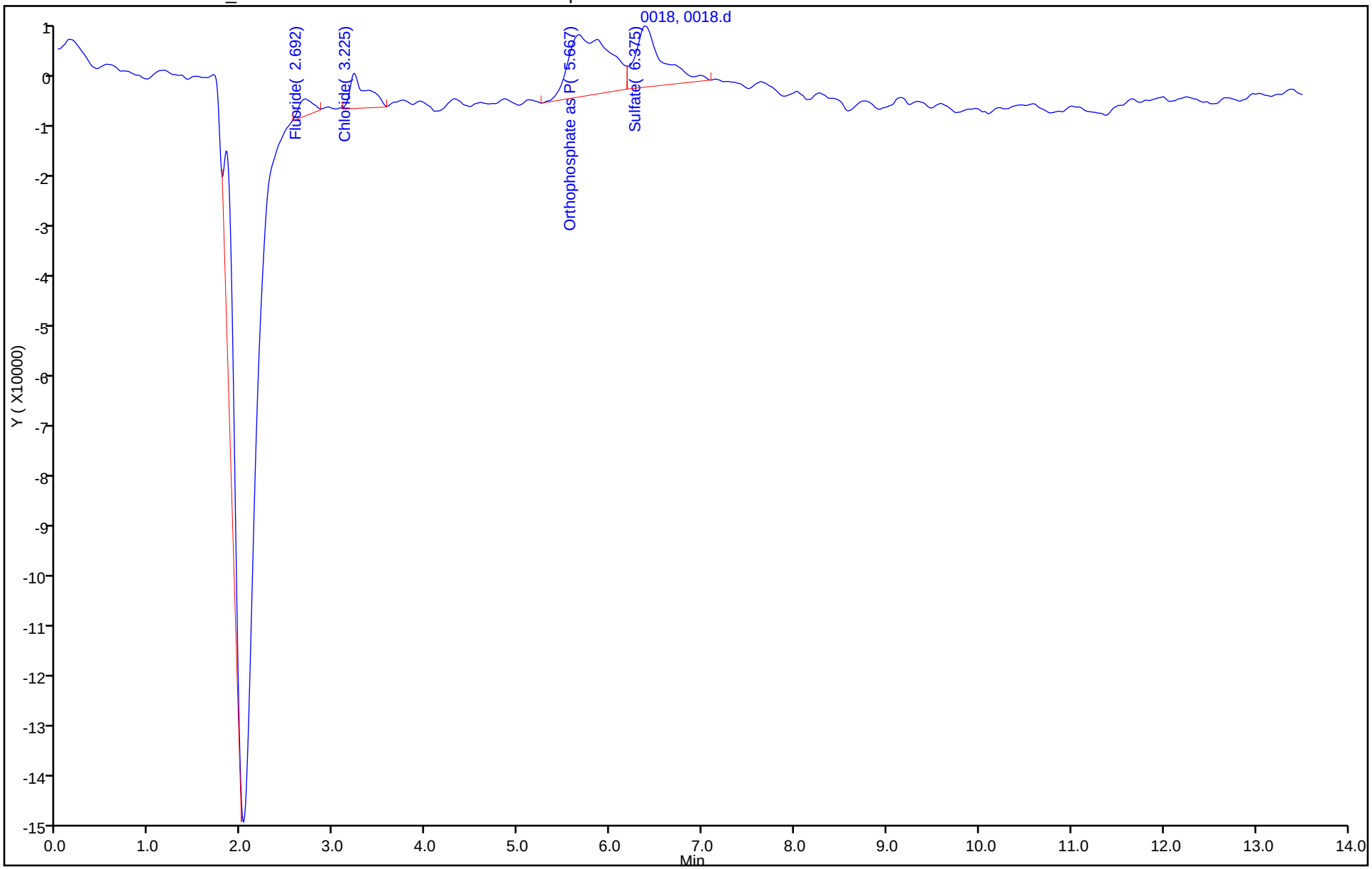
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d				
Injection Date:	17-May-2019 21:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

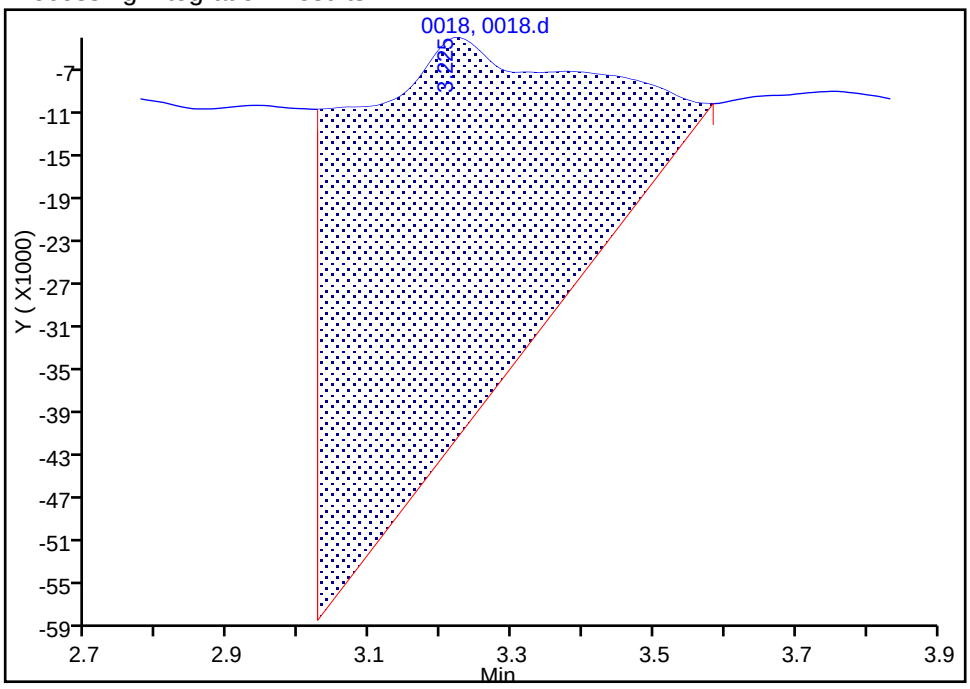
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d				
Injection Date:	17-May-2019 21:30:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ccb				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

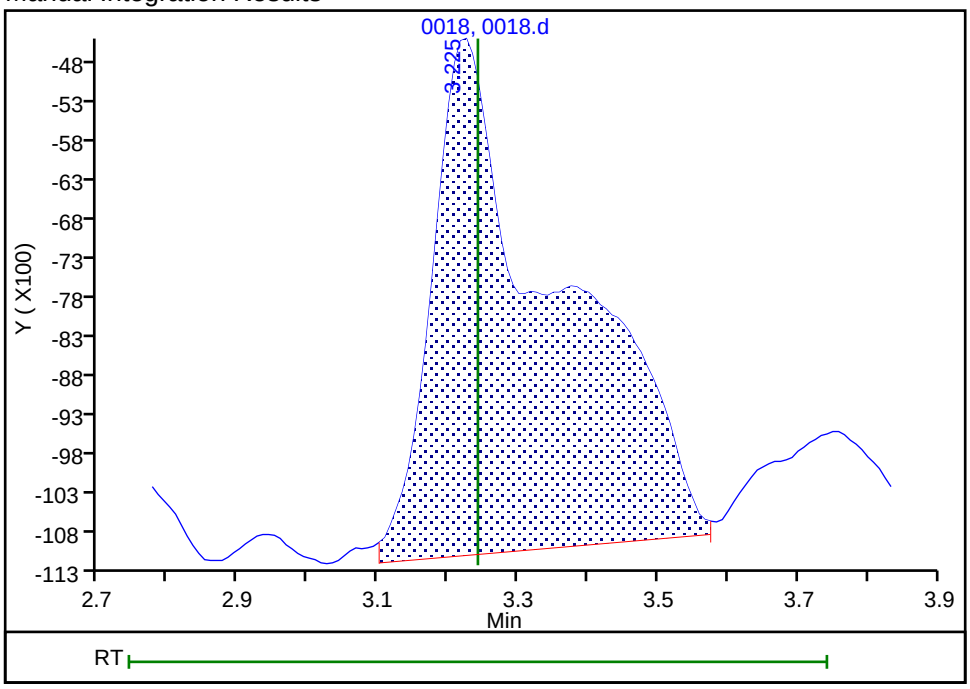
Processing Integration Results

RT: 3.23
Area: 878883
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 83529
Amount: 0.629610
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 07:56:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0028.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 00:14:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-028
Misc. Info.: 19195 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37857449	NC	NC	
2 Chloride	3.234	3.242	-0.008	641844583	NC	NC	
3 Nitrite as N	3.859	3.892	-0.033	51745304	5.00	4.96	
4 Bromide	4.592	4.634	-0.042	10233649	NC	NC	
5 Nitrate as N	5.150	5.200	-0.050	58381343	5.00	5.07	
7 Orthophosphate as P	5.609	5.659	-0.050	21654464	5.00	5.22	
6 Sulfate	6.400	6.434	-0.034	420771463	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

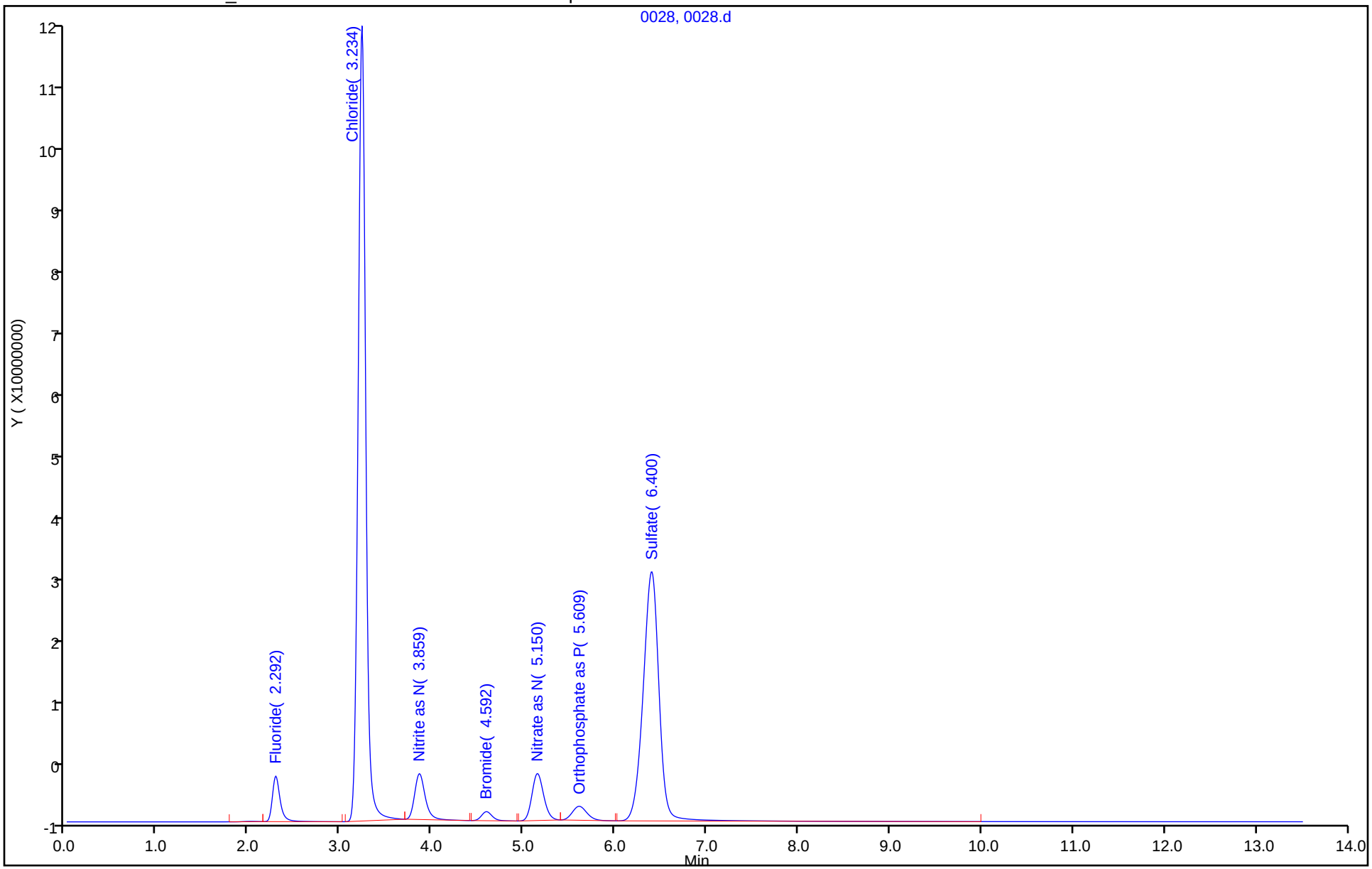
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0028.d

Injection Date:	18-May-2019 00:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0028.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 00:14:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-028
Misc. Info.: 19195 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37857449	5.00	5.06	
2 Chloride	3.234	3.242	-0.008	641844583	100.0	96.1	
3 Nitrite as N	3.859	3.892	-0.033	51745304	NC	NC	
4 Bromide	4.592	4.634	-0.042	10233649	5.00	5.29	
5 Nitrate as N	5.150	5.200	-0.050	58381343	NC	NC	
7 Orthophosphate as P	5.609	5.659	-0.050	21654464	NC	NC	
6 Sulfate	6.400	6.434	-0.034	420771463	100.0	94.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

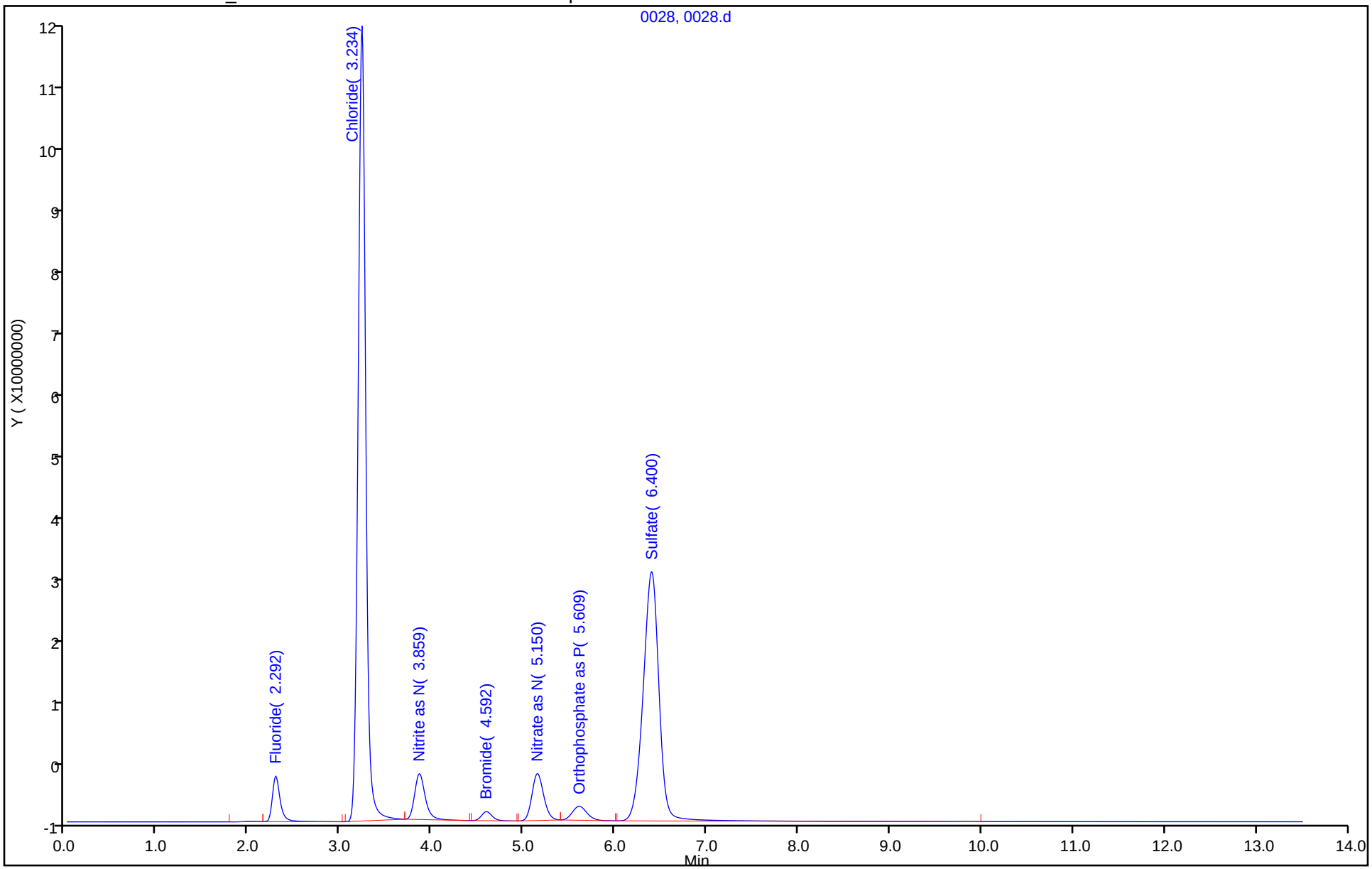
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0028.d

Injection Date:	18-May-2019 00:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 00:31:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-029
Misc. Info.: 7140 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:00:23

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.675	2.292	0.383	23780		NC	M
2 Chloride	3.225	3.242	-0.017	35802		NC	Ma
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.867	5.659	0.208	313732		0.0679	
6 Sulfate	6.375	6.434	-0.059	140432		NC	

QC Flag Legend

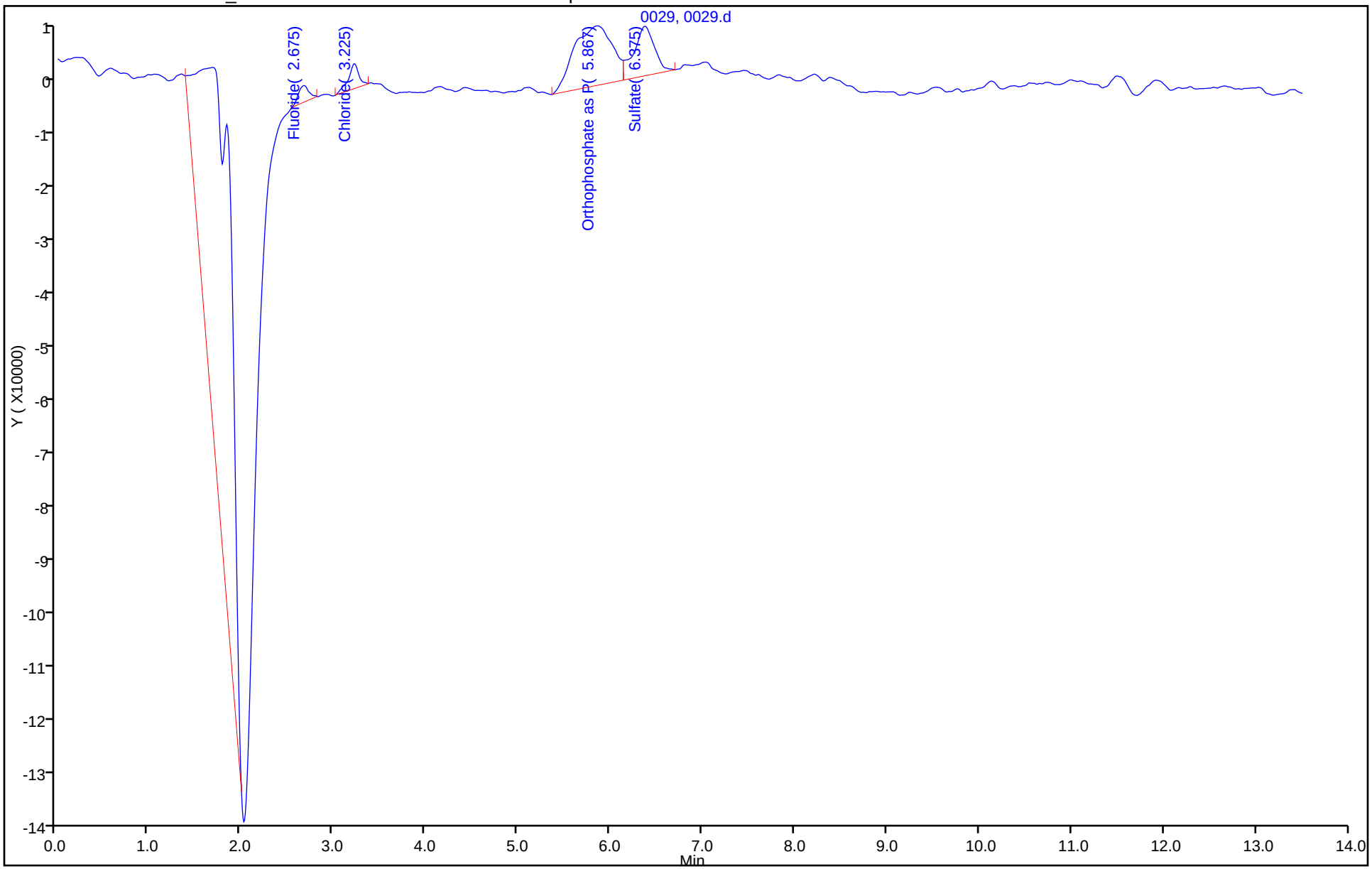
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 20-May-2019 08:09:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d

Injection Date:	18-May-2019 00:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 00:31:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-029
Misc. Info.: 7140 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:00:23

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.675	2.292	0.383	23780		-0.1513	M
2 Chloride	3.225	3.242	-0.017	35802		0.6225	Ma
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.867	5.659	0.208	313732		NC	
6 Sulfate	6.375	6.434	-0.059	140432		0.4687	

QC Flag Legend

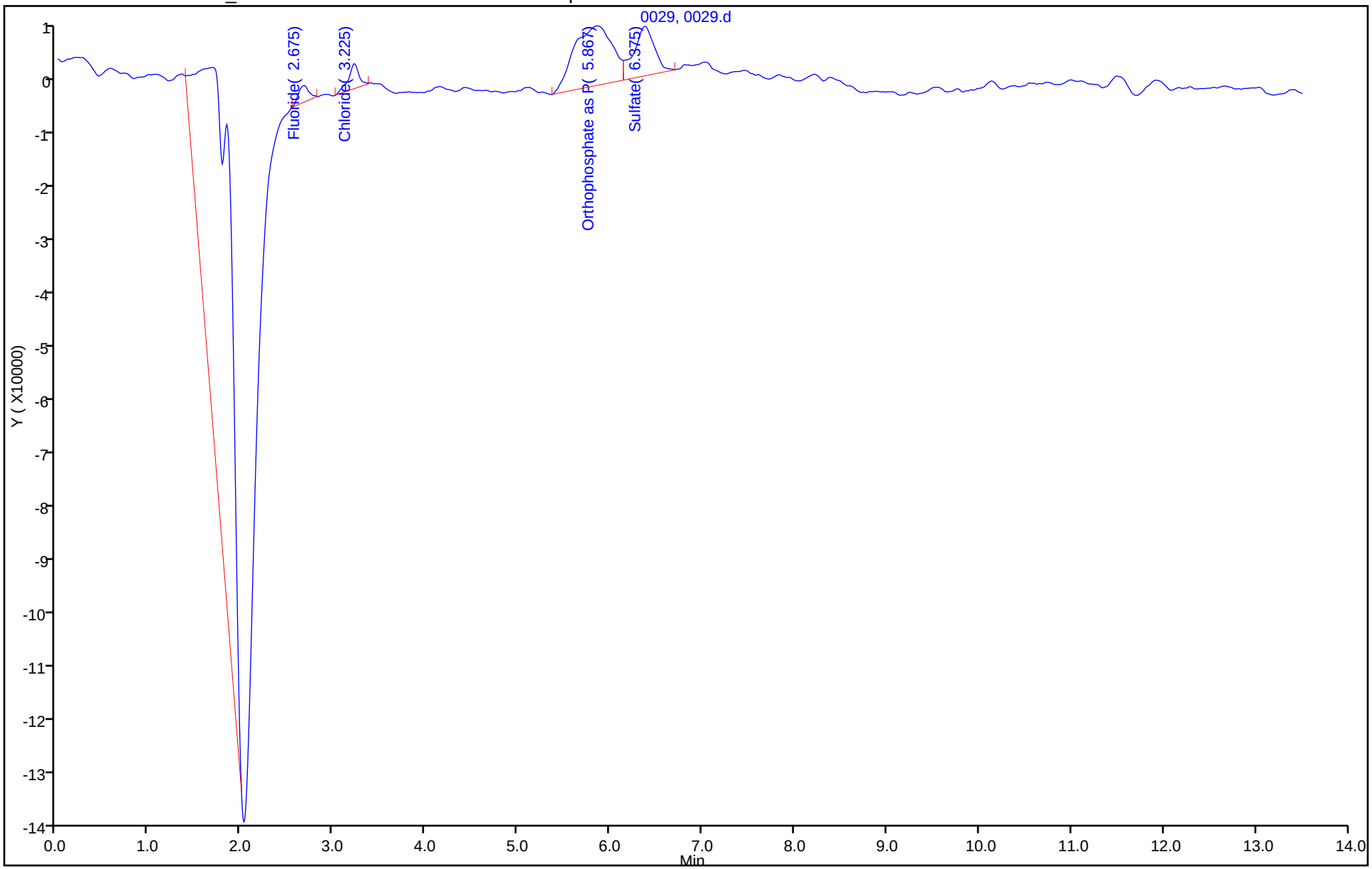
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 20-May-2019 08:09:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d

Injection Date:	18-May-2019 00:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

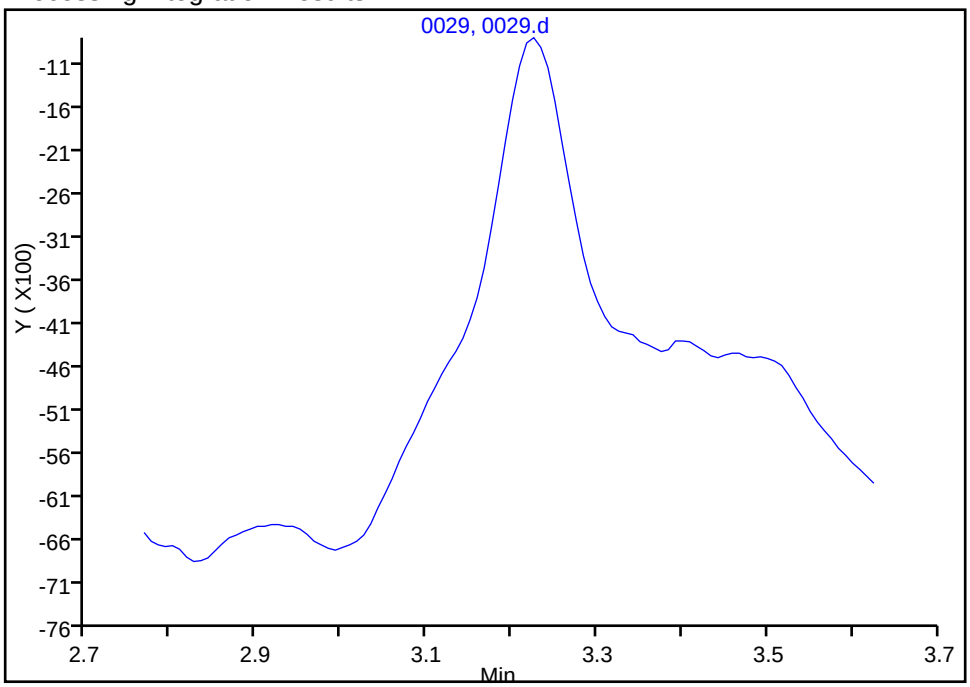
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d
Injection Date: 18-May-2019 00:31:00 Instrument ID: WC_IonChrom11
Lims ID: ccb
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

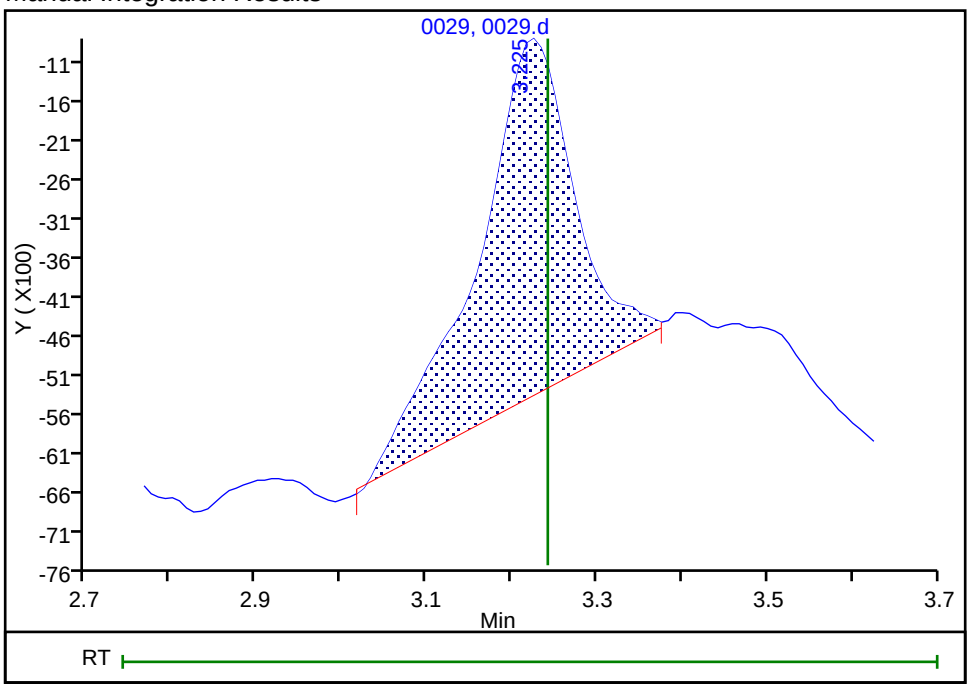
Not Detected
Expected RT: 3.24

Processing Integration Results



Manual Integration Results

RT: 3.23
Area: 35802
Amount: 0.622512
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:00:22
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0030.d
Lims ID: 280-123922-H-3
Client ID: LF1P-5_0519
Sample Type: Client
Inject. Date: 18-May-2019 00:47:00 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-030
Misc. Info.: 12262 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:01:07

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	440687	NC	M
2 Chloride	3.226	3.242	-0.016	39595634	NC	M
3 Nitrite as N	3.776	3.892	-0.116	100422	0.0347	M
4 Bromide	4.642	4.634	0.008	254381	NC	M
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.567	5.659	-0.092	5848024	1.40	
6 Sulfate	6.392	6.434	-0.042	903625	NC	

QC Flag Legend

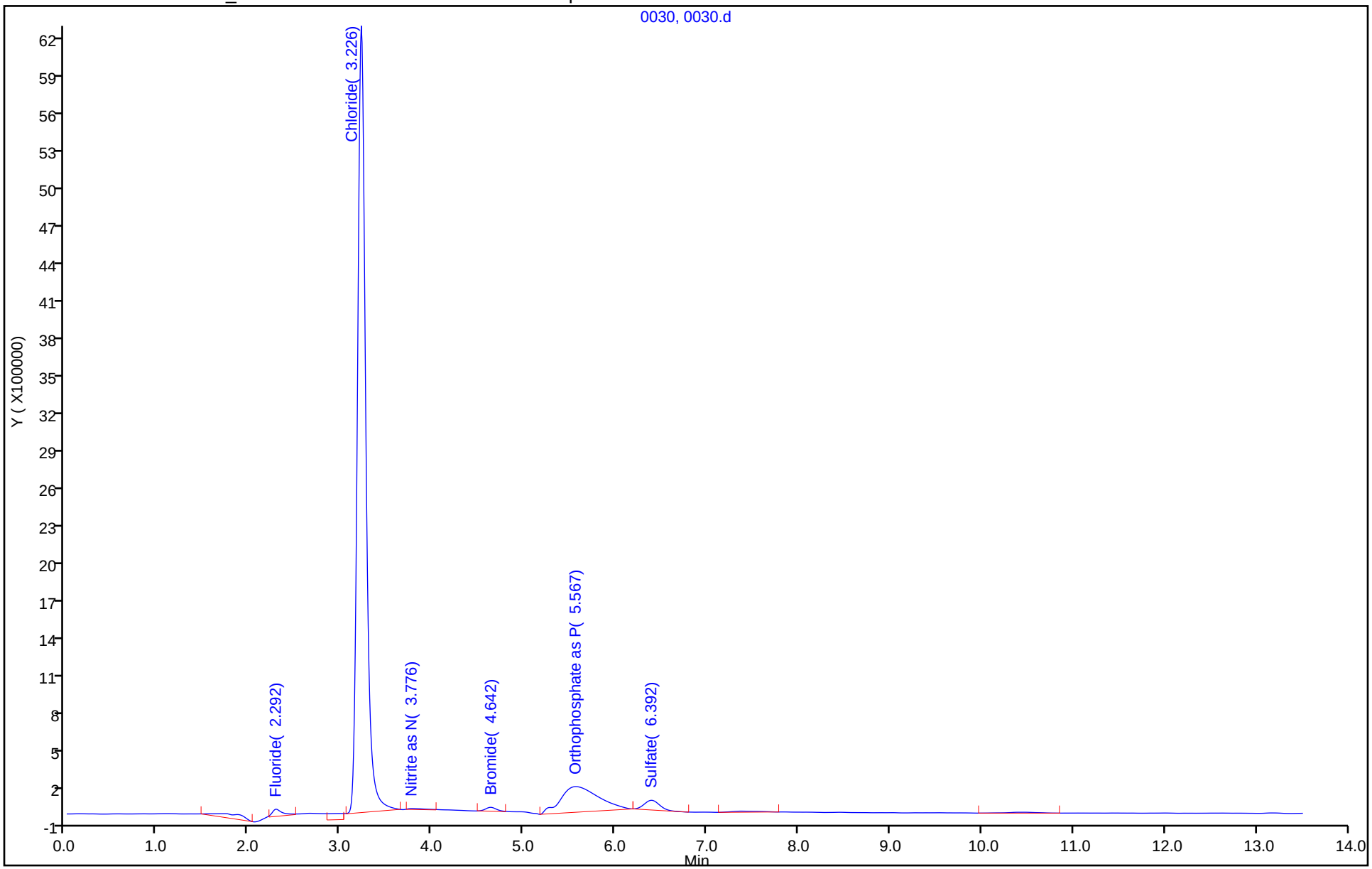
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0030.d

Injection Date:	18-May-2019 00:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-H-3	Lab Sample ID:	280-123922-3	Worklist Smp#:	30
Client ID:	LF1P-5_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

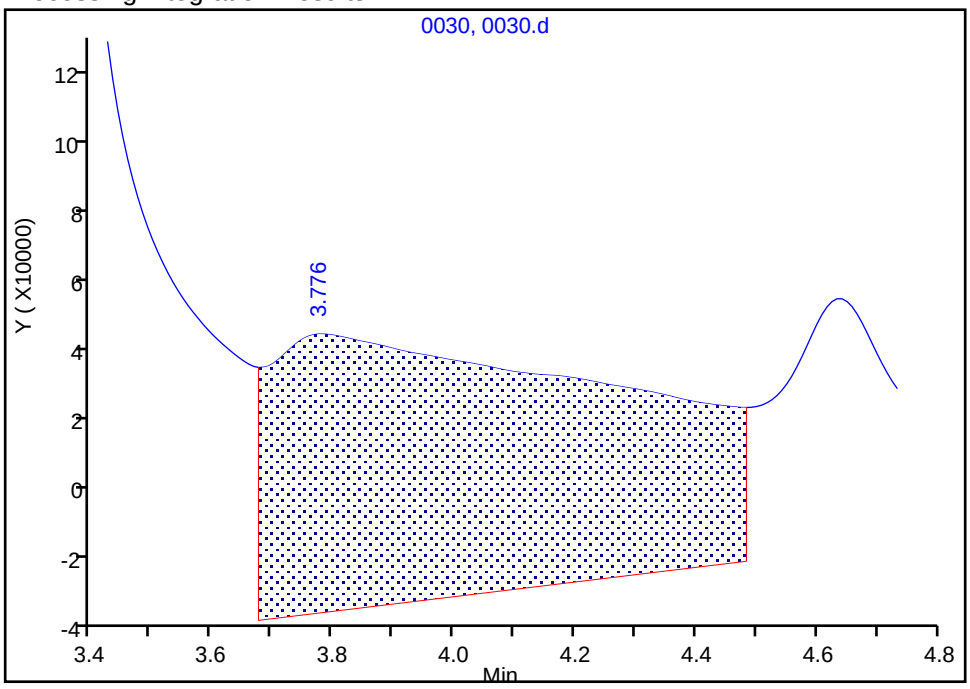
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0030.d				
Injection Date:	18-May-2019 00:47:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123922-H-3	Lab Sample ID:	280-123922-3		
Client ID:	LF1P-5_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

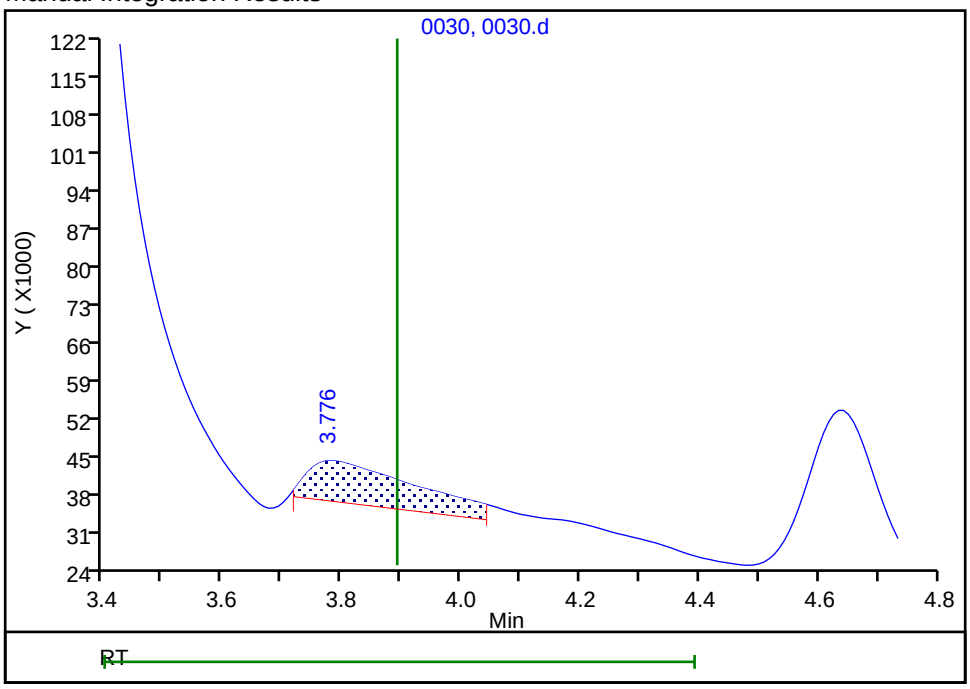
Processing Integration Results

RT: 3.78
Area: 2821488
Amount: 0.294092
Amount Units: ug/ml



Manual Integration Results

RT: 3.78
Area: 100422
Amount: 0.034744
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:00:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0030.d
Lims ID: 280-123922-H-3
Client ID: LF1P-5_0519
Sample Type: Client
Inject. Date: 18-May-2019 00:47:00 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-030
Misc. Info.: 12262 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:01:07

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	440687	-0.0938	M
2 Chloride	3.226	3.242	-0.016	39595634	6.51	M
3 Nitrite as N	3.776	3.892	-0.116	100422	NC	M
4 Bromide	4.642	4.634	0.008	254381	0.1388	M
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.567	5.659	-0.092	5848024	NC	
6 Sulfate	6.392	6.434	-0.042	903625	0.6393	

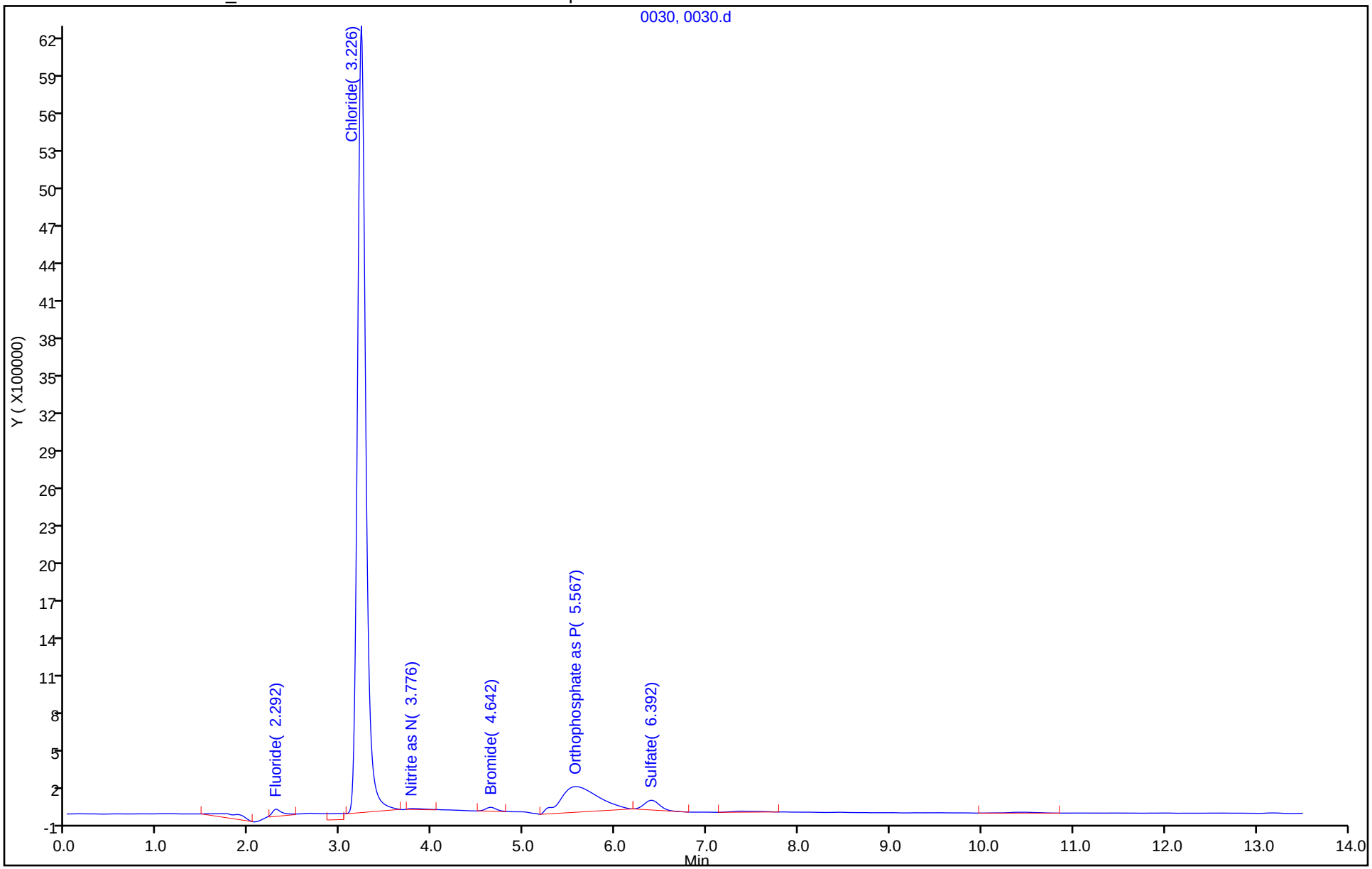
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0030.d				
Injection Date:	18-May-2019 00:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-H-3	Lab Sample ID:	280-123922-3	Worklist Smp#:	30
Client ID:	LF1P-5_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

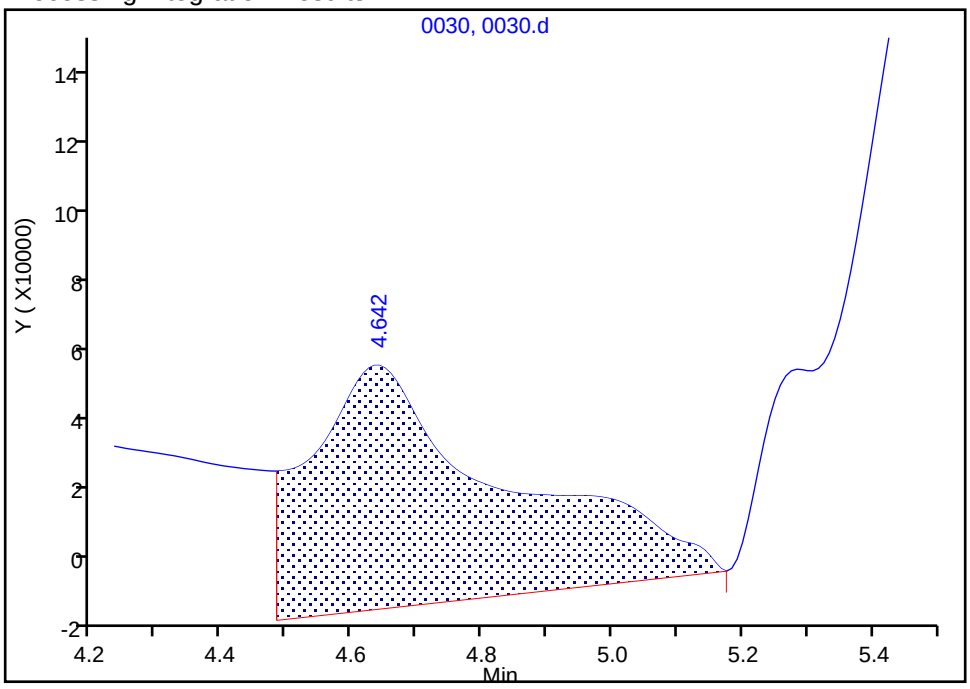
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0030.d				
Injection Date:	18-May-2019 00:47:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123922-H-3	Lab Sample ID:	280-123922-3		
Client ID:	LF1P-5_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

4 Bromide, CAS: 24959-67-9

Signal: 1

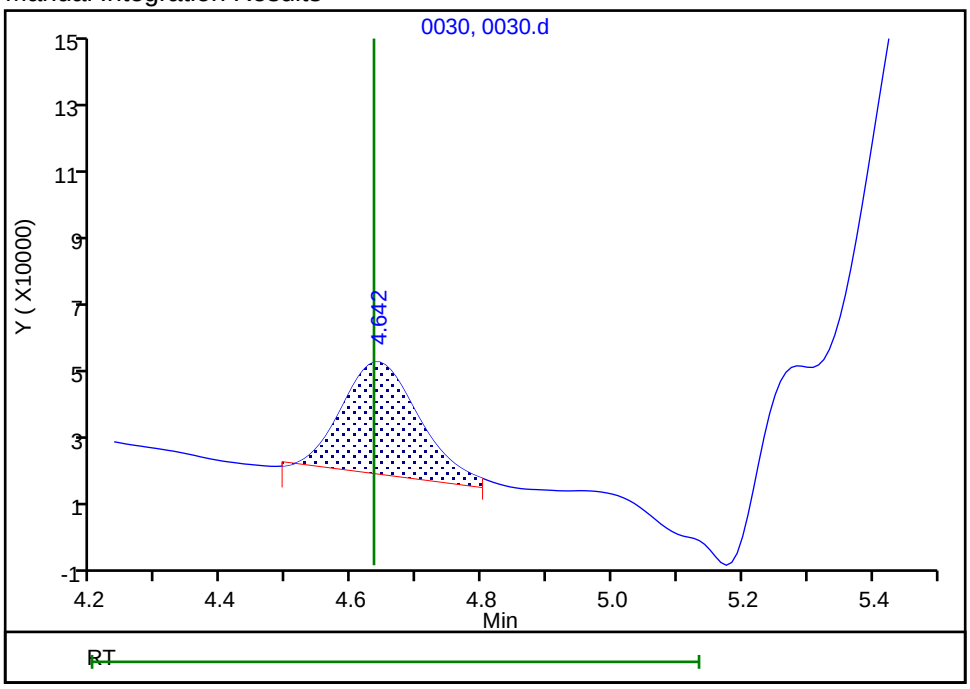
Processing Integration Results

RT: 4.64
Area: 1366389
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 254381
Amount: 0.138836
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:00:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

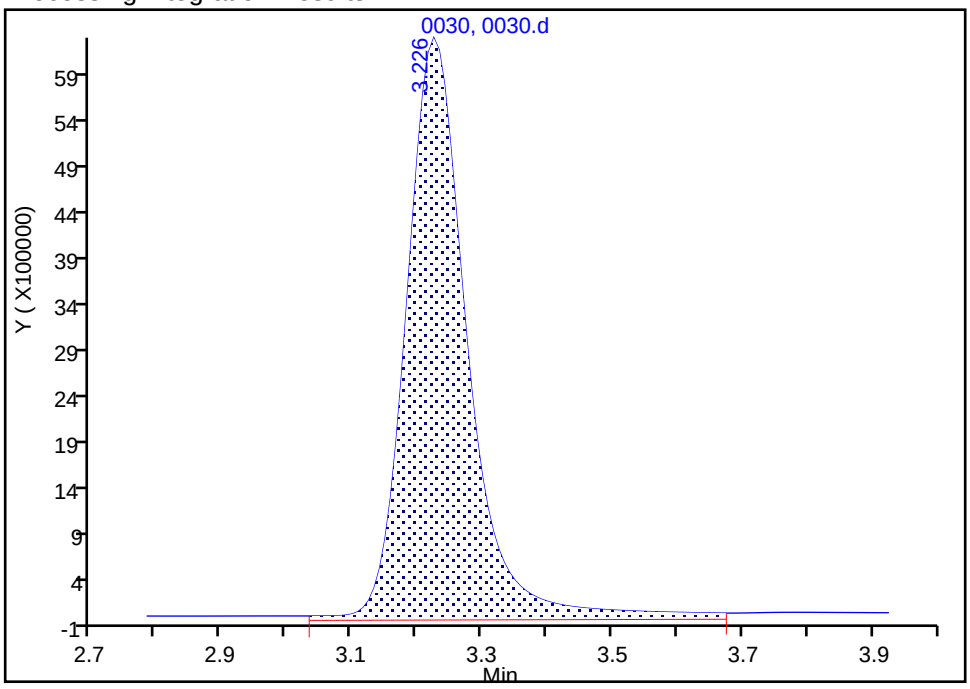
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0030.d				
Injection Date:	18-May-2019 00:47:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123922-H-3	Lab Sample ID:	280-123922-3		
Client ID:	LF1P-5_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

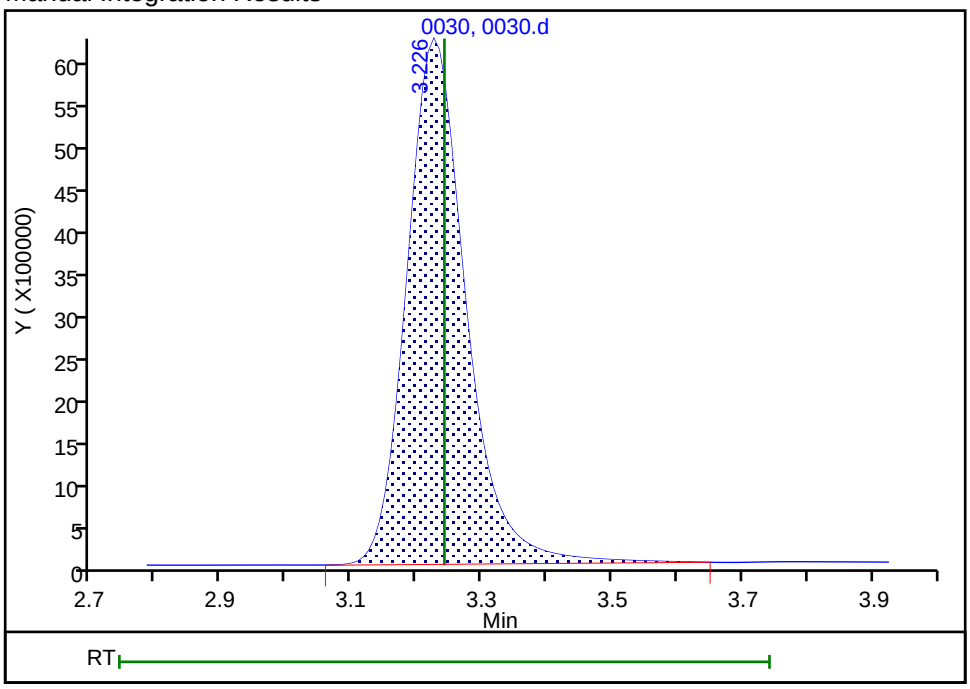
Processing Integration Results

RT: 3.23
Area: 41794375
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 39595634
Amount: 6.505809
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:00:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0031.d
Lims ID: 280-123922-H-3 DU
Client ID:
Sample Type: DU
Inject. Date: 18-May-2019 01:04:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-031
Misc. Info.: 7904 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:01:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	437783		NC	M
2 Chloride	3.225	3.242	-0.017	39530780		NC	M
3 Nitrite as N	3.800	3.892	-0.092	85552		0.0333	M
4 Bromide	4.634	4.634	0.000	262665		NC	M
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.567	5.659	-0.092	5673380		1.36	
6 Sulfate	6.392	6.434	-0.042	923661		NC	

QC Flag Legend

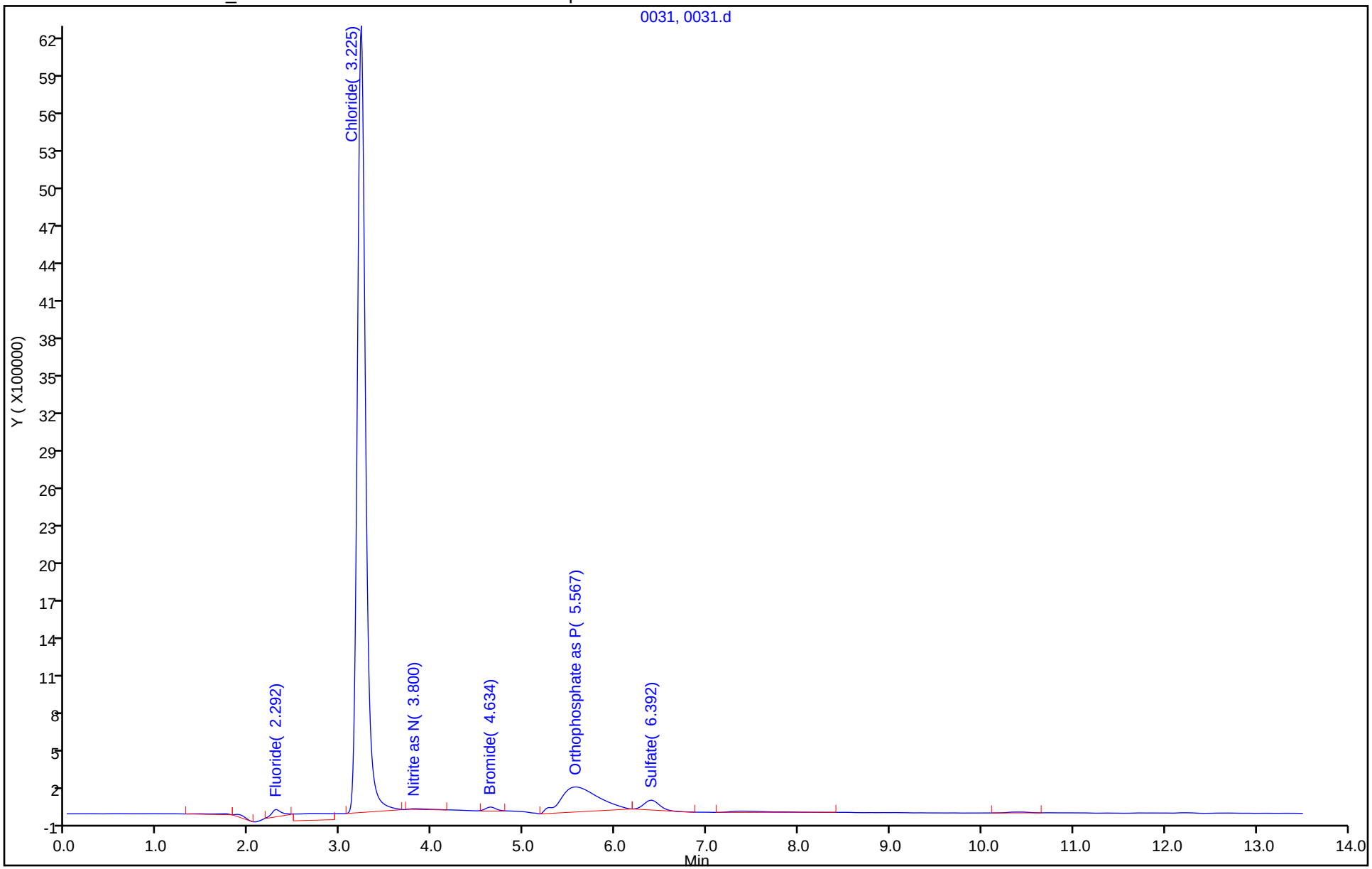
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0031.d

Injection Date:	18-May-2019 01:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-H-3 DU			Worklist Smp#:	31
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

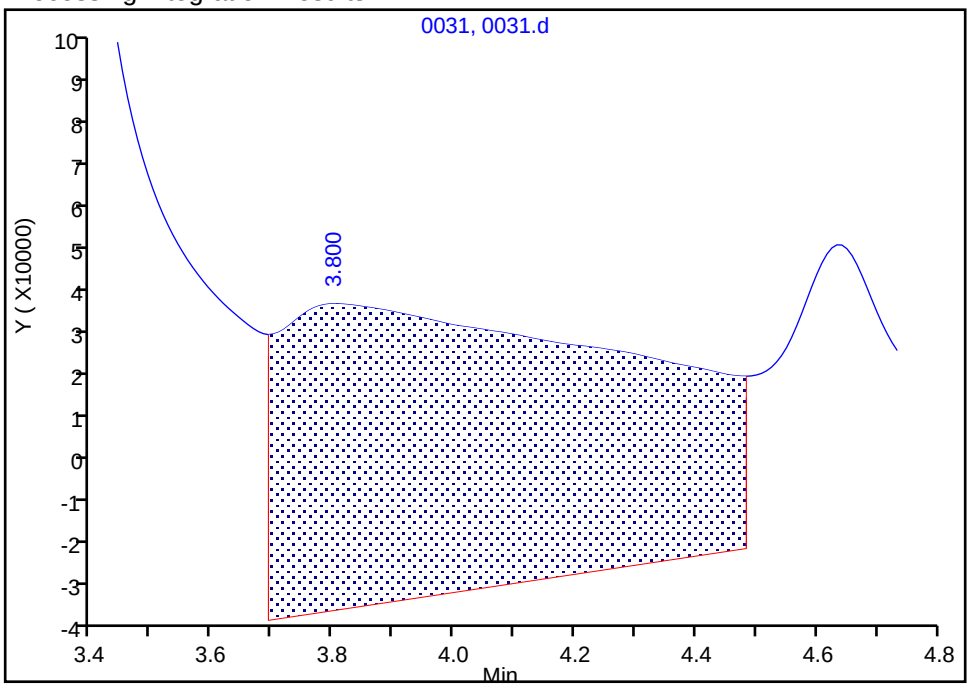
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0031.d
Injection Date: 18-May-2019 01:04:00 Instrument ID: WC_IonChrom11
Lims ID: 280-123922-H-3 DU
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

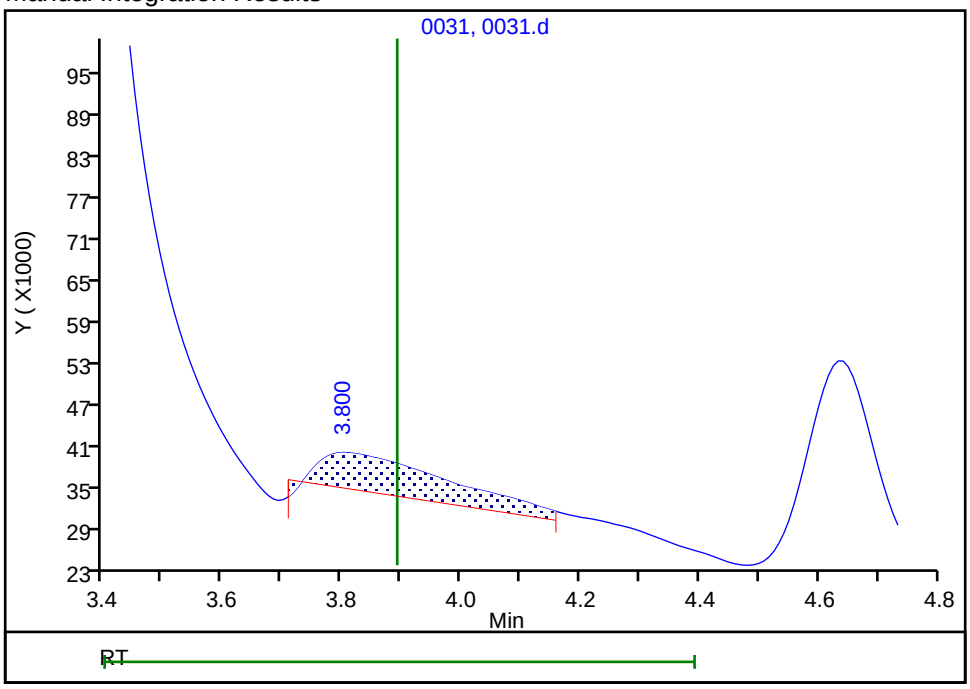
Processing Integration Results

RT: 3.80
Area: 2649074
Amount: 0.277659
Amount Units: ug/ml



Manual Integration Results

RT: 3.80
Area: 85552
Amount: 0.033327
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:01:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0031.d
Lims ID: 280-123922-H-3 DU
Client ID:
Sample Type: DU
Inject. Date: 18-May-2019 01:04:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-031
Misc. Info.: 7904 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:01:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	437783		-0.0942	M
2 Chloride	3.225	3.242	-0.017	39530780		6.50	M
3 Nitrite as N	3.800	3.892	-0.092	85552		NC	M
4 Bromide	4.634	4.634	0.000	262665		0.1431	M
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.567	5.659	-0.092	5673380		NC	
6 Sulfate	6.392	6.434	-0.042	923661		0.6438	

QC Flag Legend

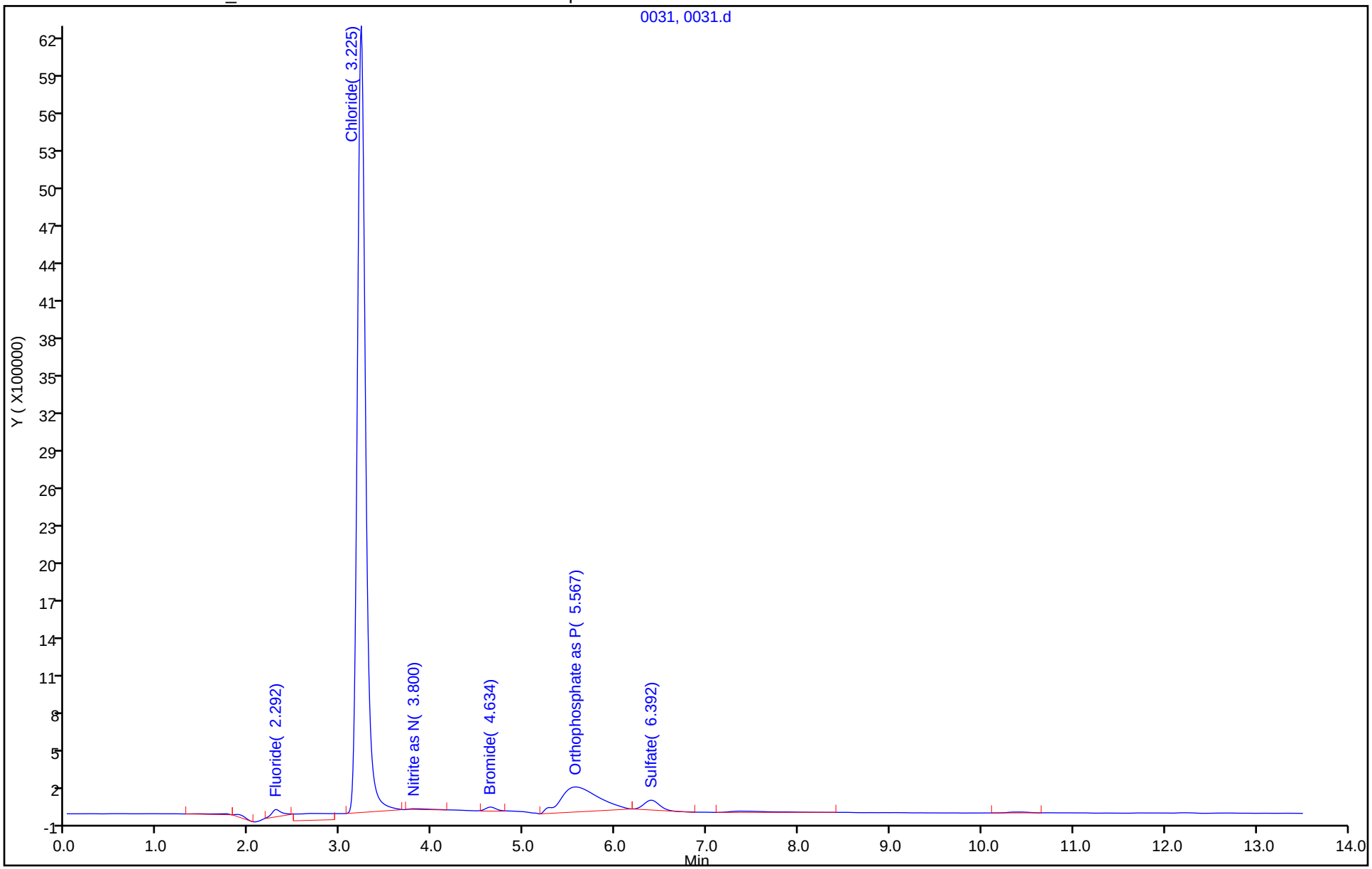
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0031.d

Injection Date:	18-May-2019 01:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-H-3 DU			Worklist Smp#:	31
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

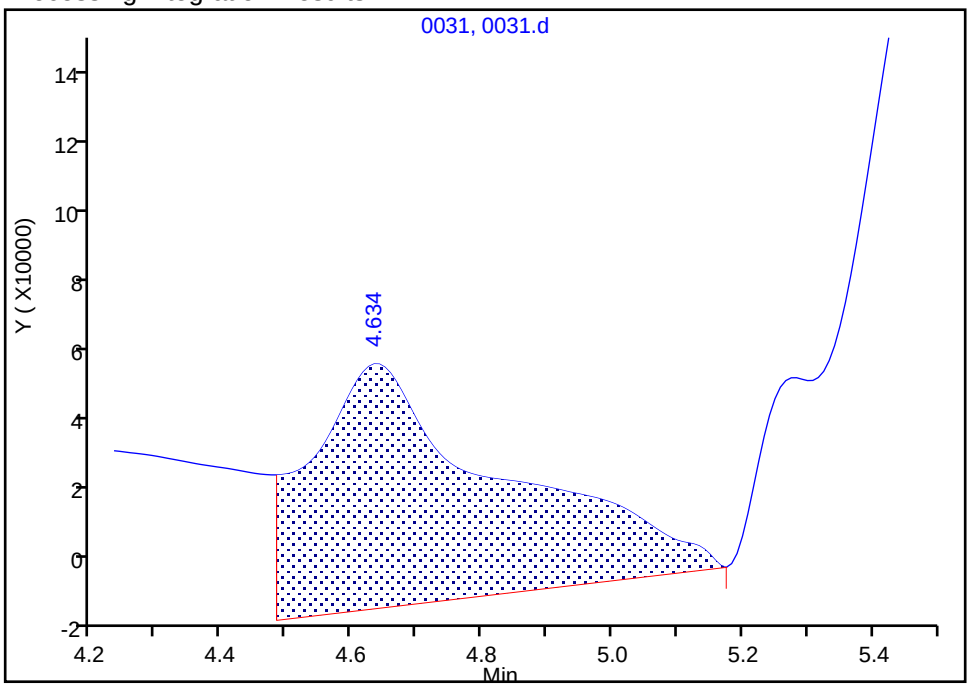
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0031.d				
Injection Date:	18-May-2019 01:04:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123922-H-3 DU				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

4 Bromide, CAS: 24959-67-9

Signal: 1

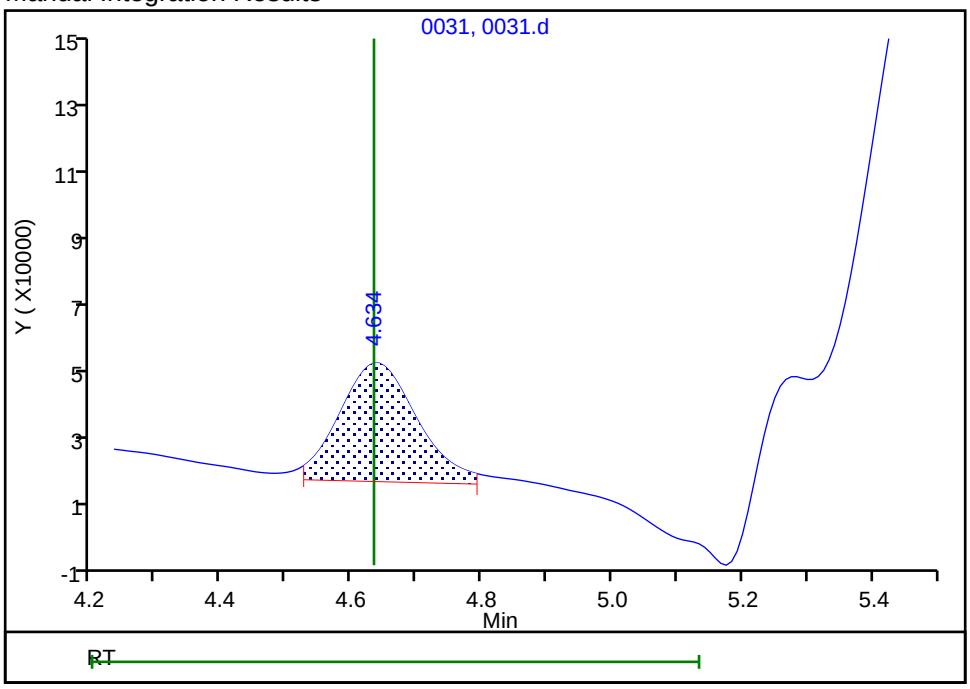
Processing Integration Results

RT: 4.63
Area: 1333946
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 262665
Amount: 0.143108
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:01:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

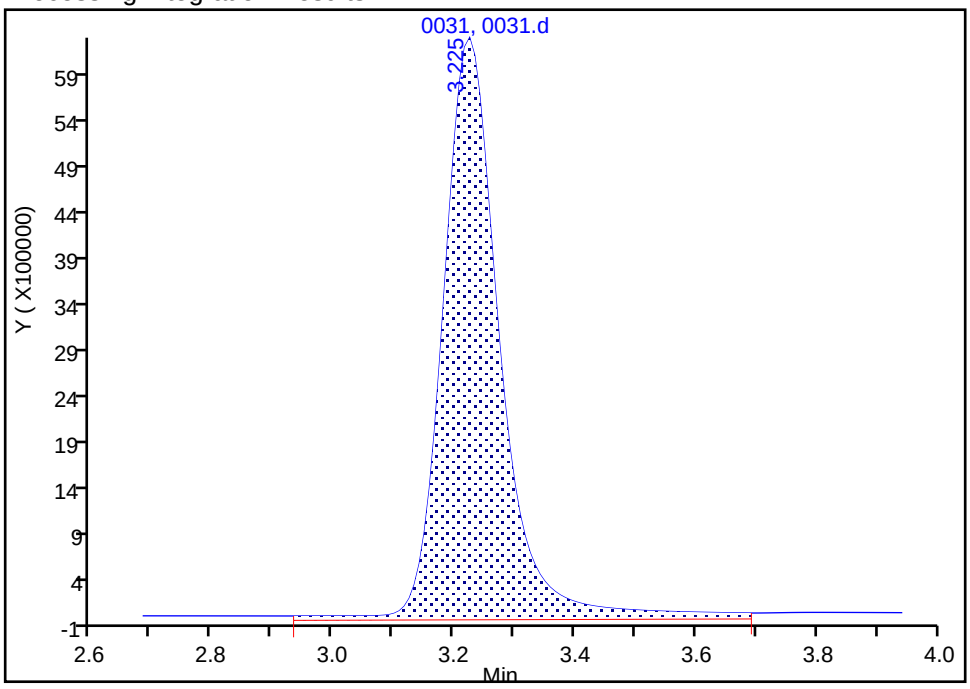
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0031.d
Injection Date: 18-May-2019 01:04:00 Instrument ID: WC_IonChrom11
Lims ID: 280-123922-H-3 DU
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

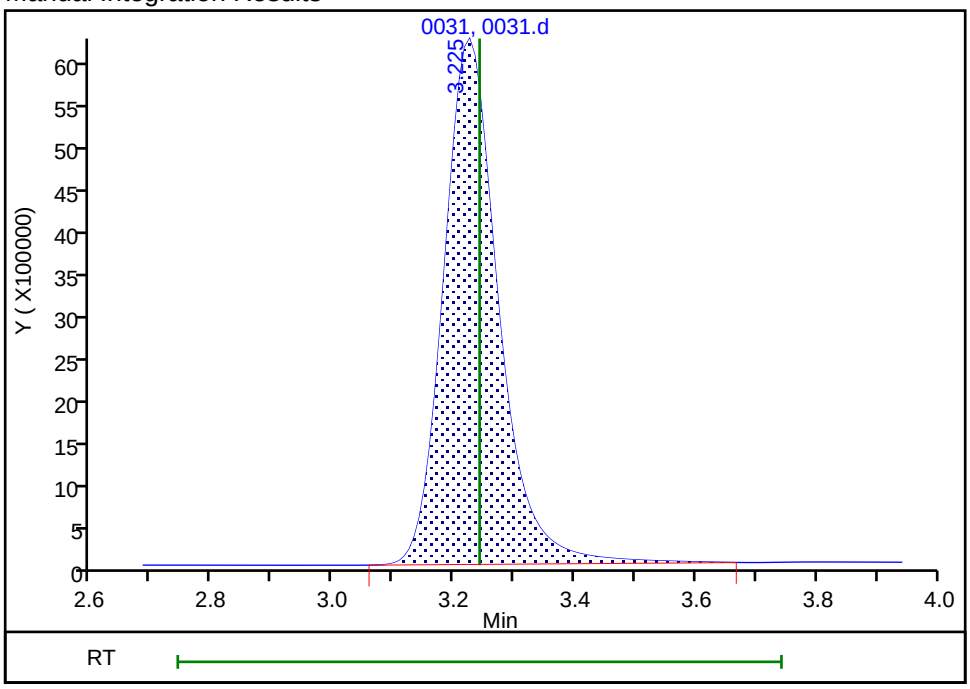
Processing Integration Results

RT: 3.23
Area: 41990512
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 39530780
Amount: 6.496164
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:01:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0032.d
Lims ID: 280-123922-H-3 MS
Client ID:
Sample Type: MS
Inject. Date: 18-May-2019 01:20:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-032
Misc. Info.: 14261 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	35773308	NC	NC	
2 Chloride	3.225	3.242	-0.017	187550870	NC	NC	
3 Nitrite as N	3.875	3.892	-0.017	51743867	5.00	4.96	
4 Bromide	4.634	4.634	0.000	10517137	NC	NC	
5 Nitrate as N	5.267	5.200	0.067	58242074	5.00	5.05	
7 Orthophosphate as P	5.684	5.659	0.025	8668627	5.00	2.08	
6 Sulfate	6.409	6.434	-0.025	95527307	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

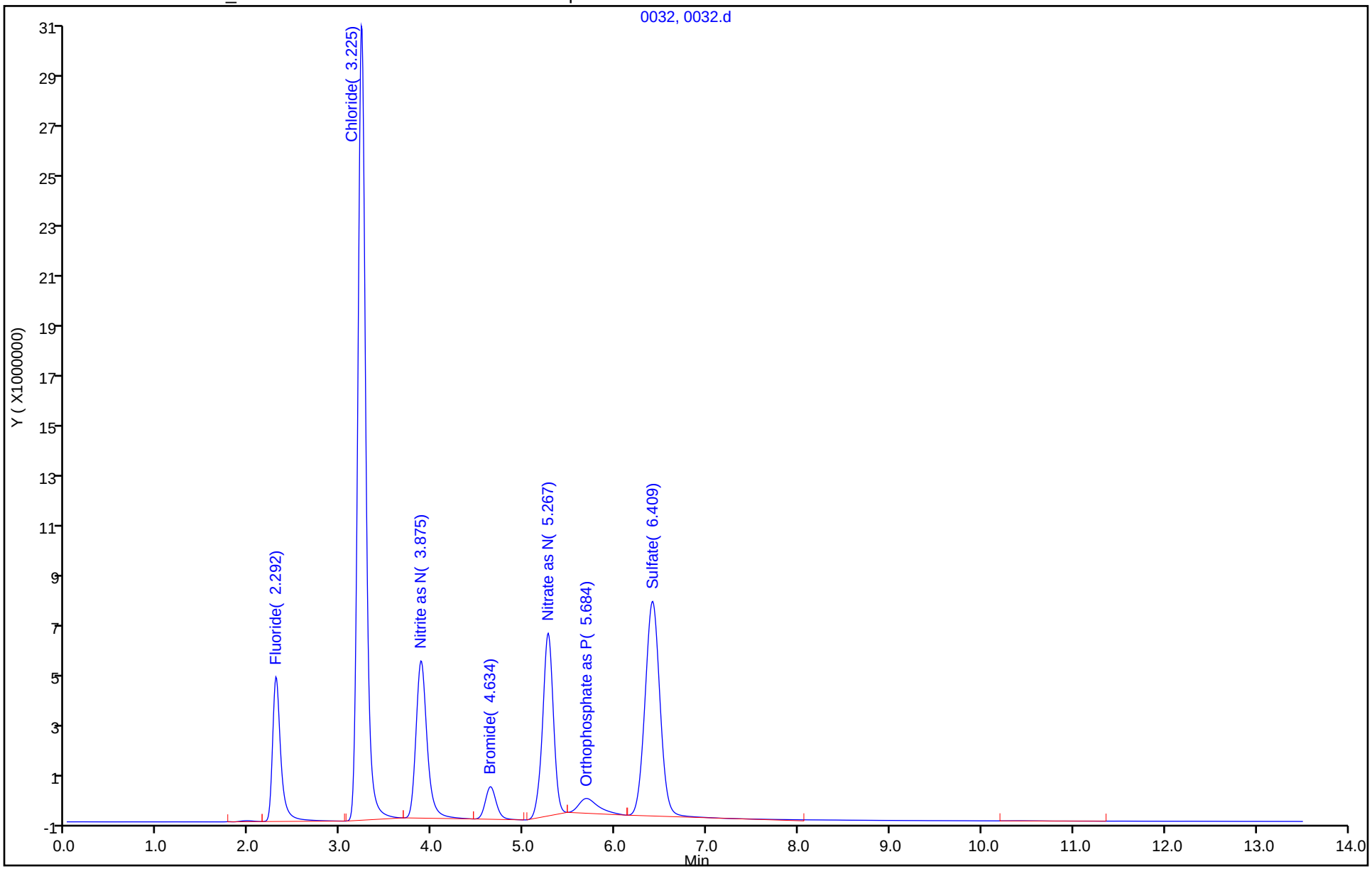
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 20-May-2019 08:09:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0032.d

Injection Date:	18-May-2019 01:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-H-3 MS			Worklist Smp#:	32
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0032.d
Lims ID: 280-123922-H-3 MS
Client ID:
Sample Type: MS
Inject. Date: 18-May-2019 01:20:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-032
Misc. Info.: 14261 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	35773308	5.00	4.78	
2 Chloride	3.225	3.242	-0.017	187550870	25.0	28.5	
3 Nitrite as N	3.875	3.892	-0.017	51743867	NC	NC	
4 Bromide	4.634	4.634	0.000	10517137	5.00	5.43	
5 Nitrate as N	5.267	5.200	0.067	58242074	NC	NC	
7 Orthophosphate as P	5.684	5.659	0.025	8668627	NC	NC	
6 Sulfate	6.409	6.434	-0.025	95527307	25.0	21.8	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

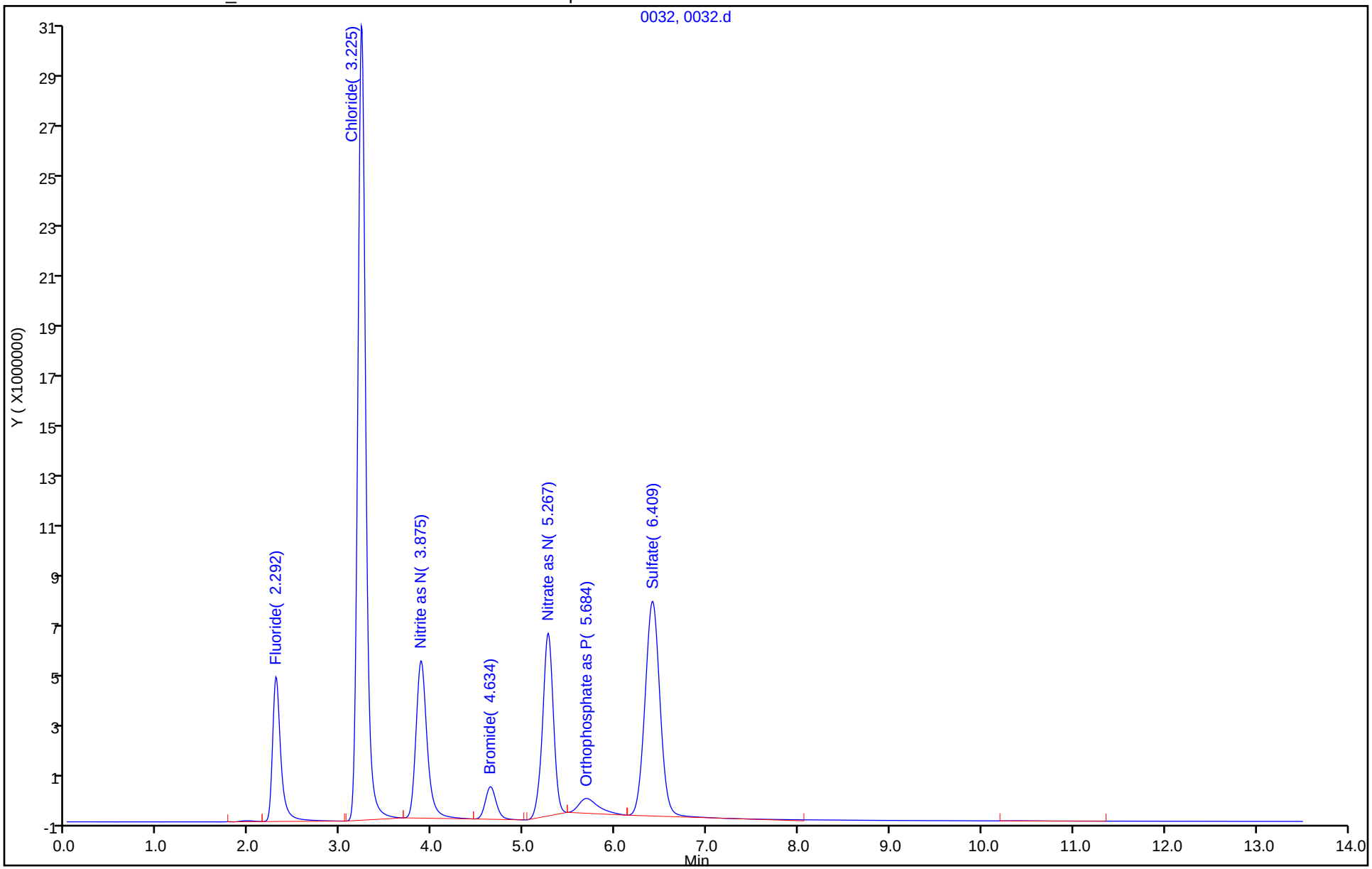
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 20-May-2019 08:09:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0032.d

Injection Date:	18-May-2019 01:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-H-3 MS			Worklist Smp#:	32
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0033.d
Lims ID: 280-123922-H-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 18-May-2019 01:36:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-033
Misc. Info.: 8730 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36191165	NC	NC	
2 Chloride	3.225	3.242	-0.017	191743634	NC	NC	
3 Nitrite as N	3.875	3.892	-0.017	53249974	5.00	5.10	
4 Bromide	4.634	4.634	0.000	10767382	NC	NC	
5 Nitrate as N	5.267	5.200	0.067	59813858	5.00	5.19	
7 Orthophosphate as P	5.675	5.659	0.016	8522290	5.00	2.05	
6 Sulfate	6.409	6.434	-0.025	98384589	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

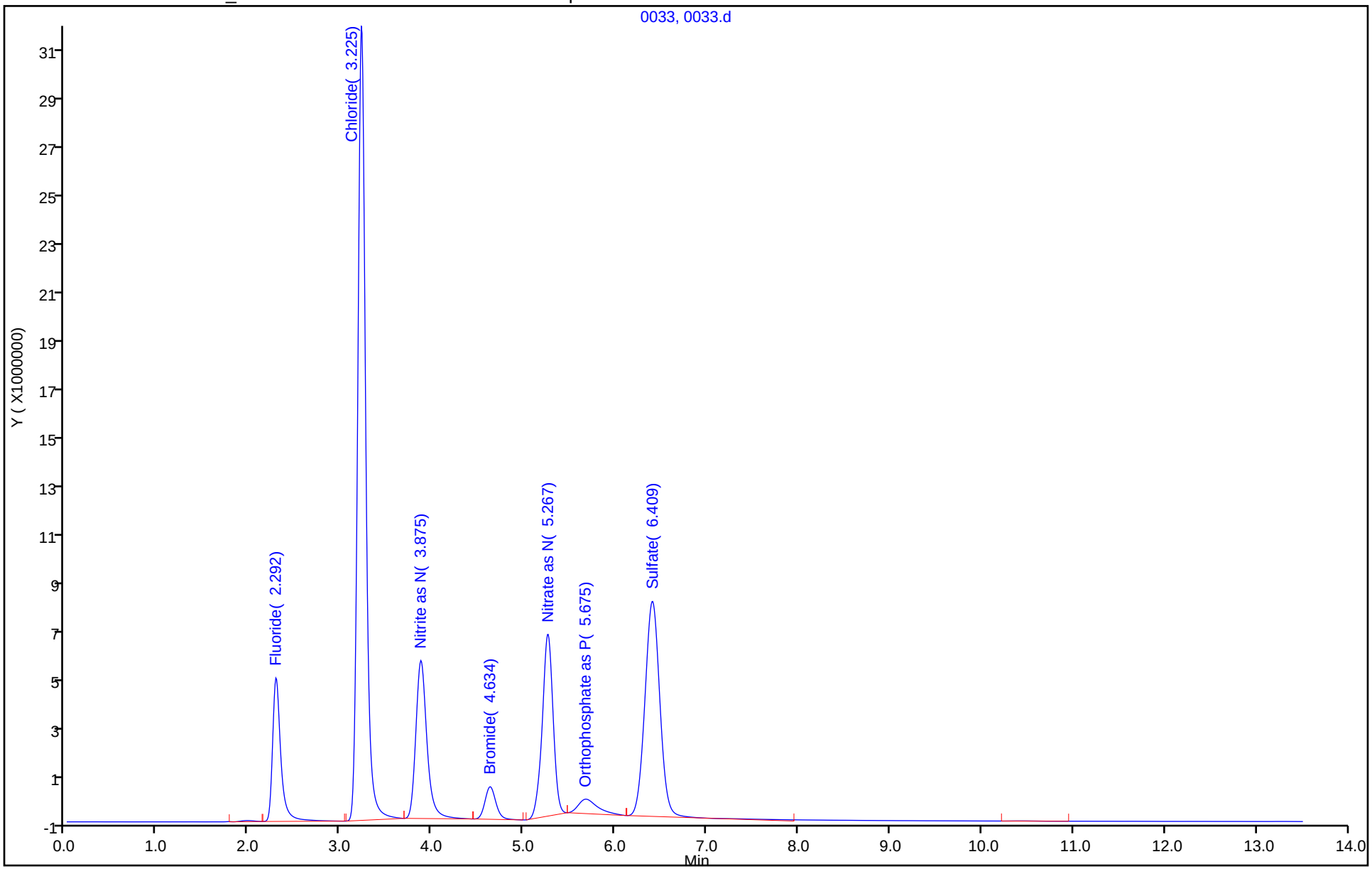
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 20-May-2019 08:09:52 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0033.d

Injection Date:	18-May-2019 01:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-H-3 MSD			Worklist Smp#:	33
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0033.d
Lims ID: 280-123922-H-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 18-May-2019 01:36:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-033
Misc. Info.: 8730 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36191165	5.00	4.83	
2 Chloride	3.225	3.242	-0.017	191743634	25.0	29.1	
3 Nitrite as N	3.875	3.892	-0.017	53249974	NC	NC	
4 Bromide	4.634	4.634	0.000	10767382	5.00	5.56	
5 Nitrate as N	5.267	5.200	0.067	59813858	NC	NC	
7 Orthophosphate as P	5.675	5.659	0.016	8522290	NC	NC	
6 Sulfate	6.409	6.434	-0.025	98384589	25.0	22.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

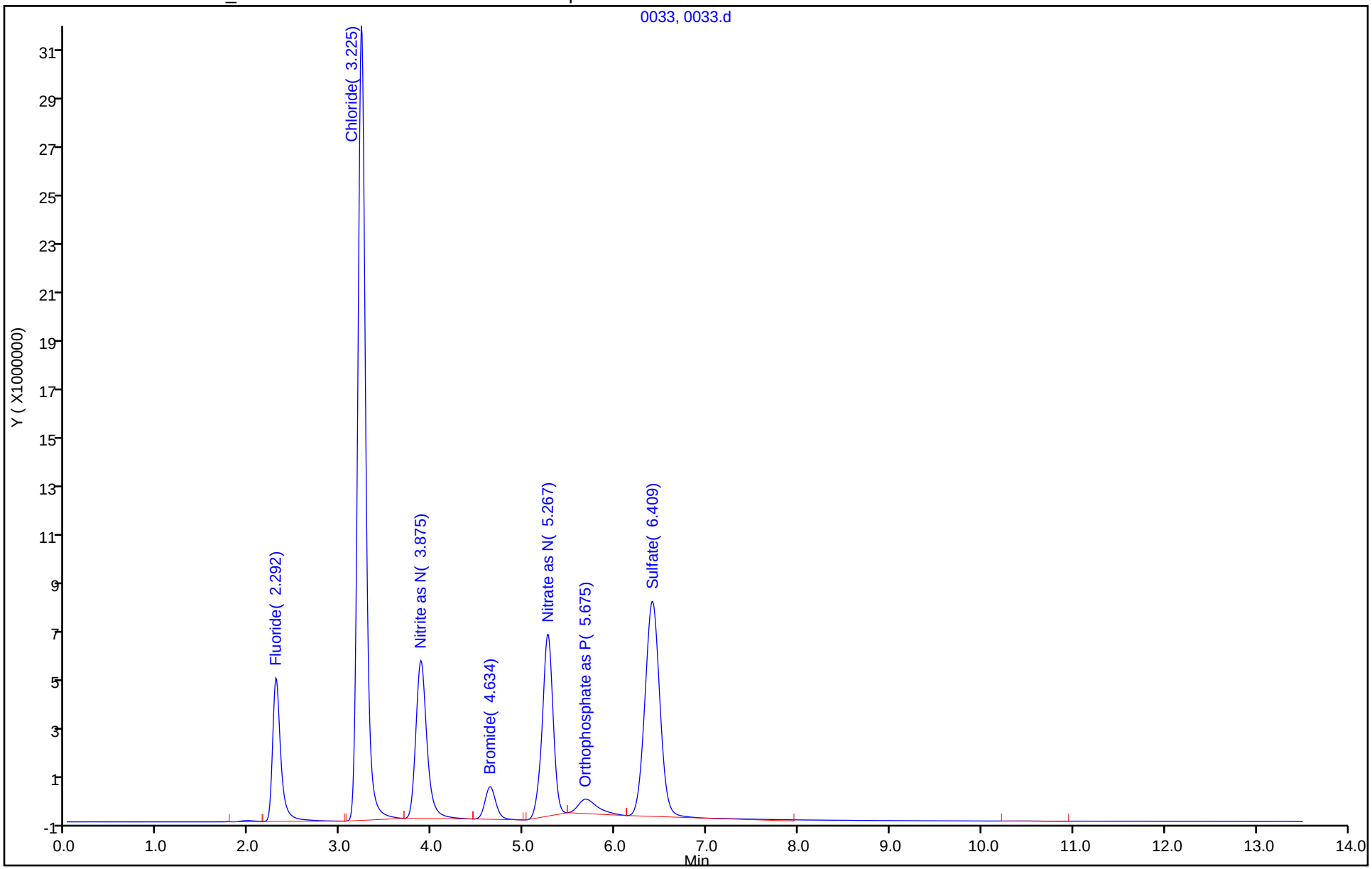
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 20-May-2019 08:09:52 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0033.d

Injection Date:	18-May-2019 01:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-H-3 MSD			Worklist Smp#:	33
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0034.d
Lims ID: 280-123922-I-1
Client ID: LF1MW-5_0519
Sample Type: Client
Inject. Date: 18-May-2019 01:53:00 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-034
Misc. Info.: 20910 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.292	0.008	1145536	NC	
2 Chloride	3.225	3.242	-0.017	46245423	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.650	4.634	0.016	1076478	NC	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.534	5.659	-0.125	8097726	1.95	
6 Sulfate	6.400	6.434	-0.034	787447	NC	

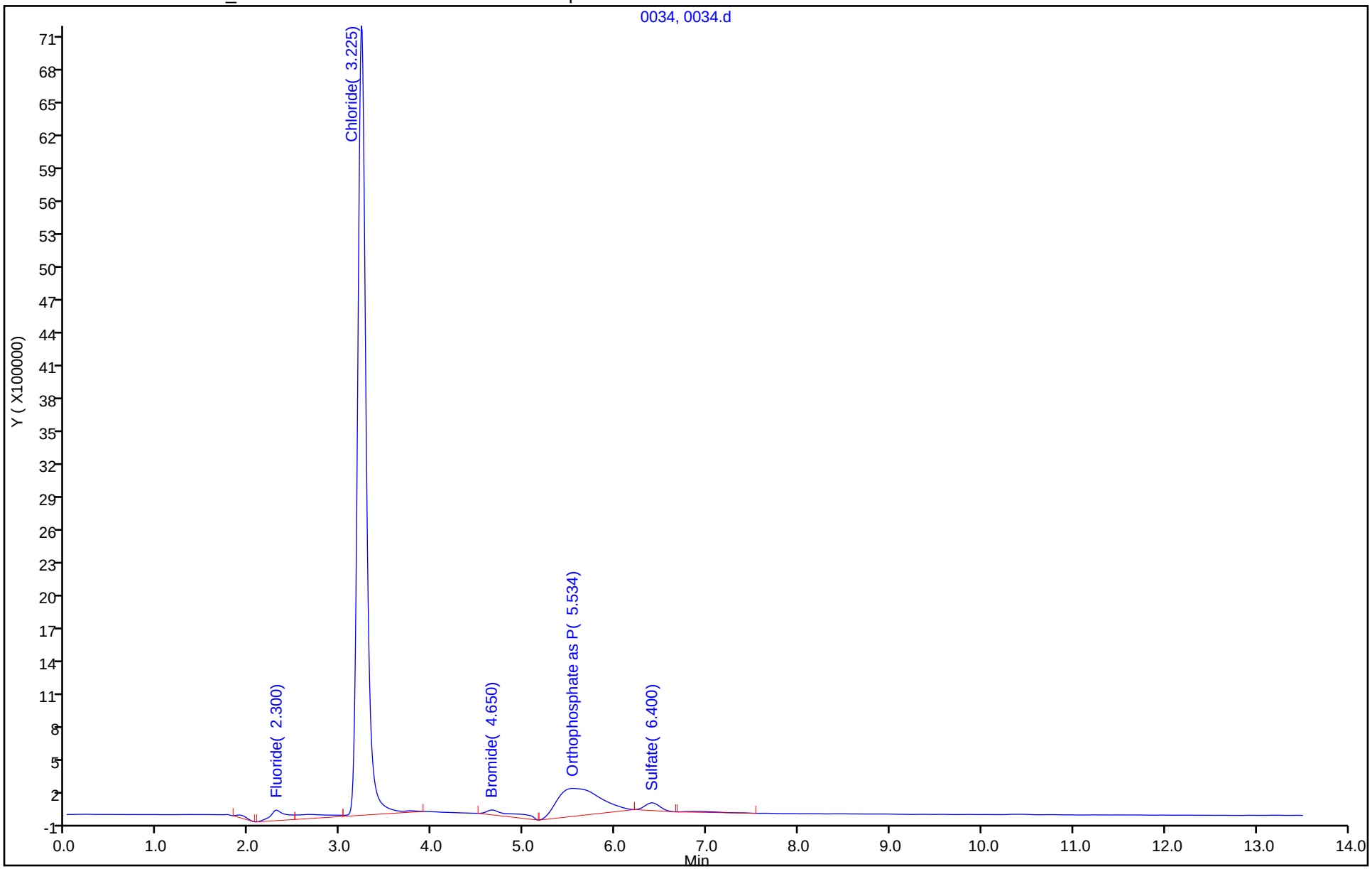
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:53 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0034.d				
Injection Date:	18-May-2019 01:53:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-I-1	Lab Sample ID:	280-123922-1	Worklist Smp#:	34
Client ID:	LF1MW-5_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0034.d
Lims ID: 280-123922-I-1
Client ID: LF1MW-5_0519
Sample Type: Client
Inject. Date: 18-May-2019 01:53:00 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-034
Misc. Info.: 20910 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.292	0.008	1145536	0.003326	
2 Chloride	3.225	3.242	-0.017	46245423	7.49	
3 Nitrite as N		3.892			ND	
4 Bromide	4.650	4.634	0.016	1076478	0.5628	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.534	5.659	-0.125	8097726	NC	
6 Sulfate	6.400	6.434	-0.034	787447	0.6134	

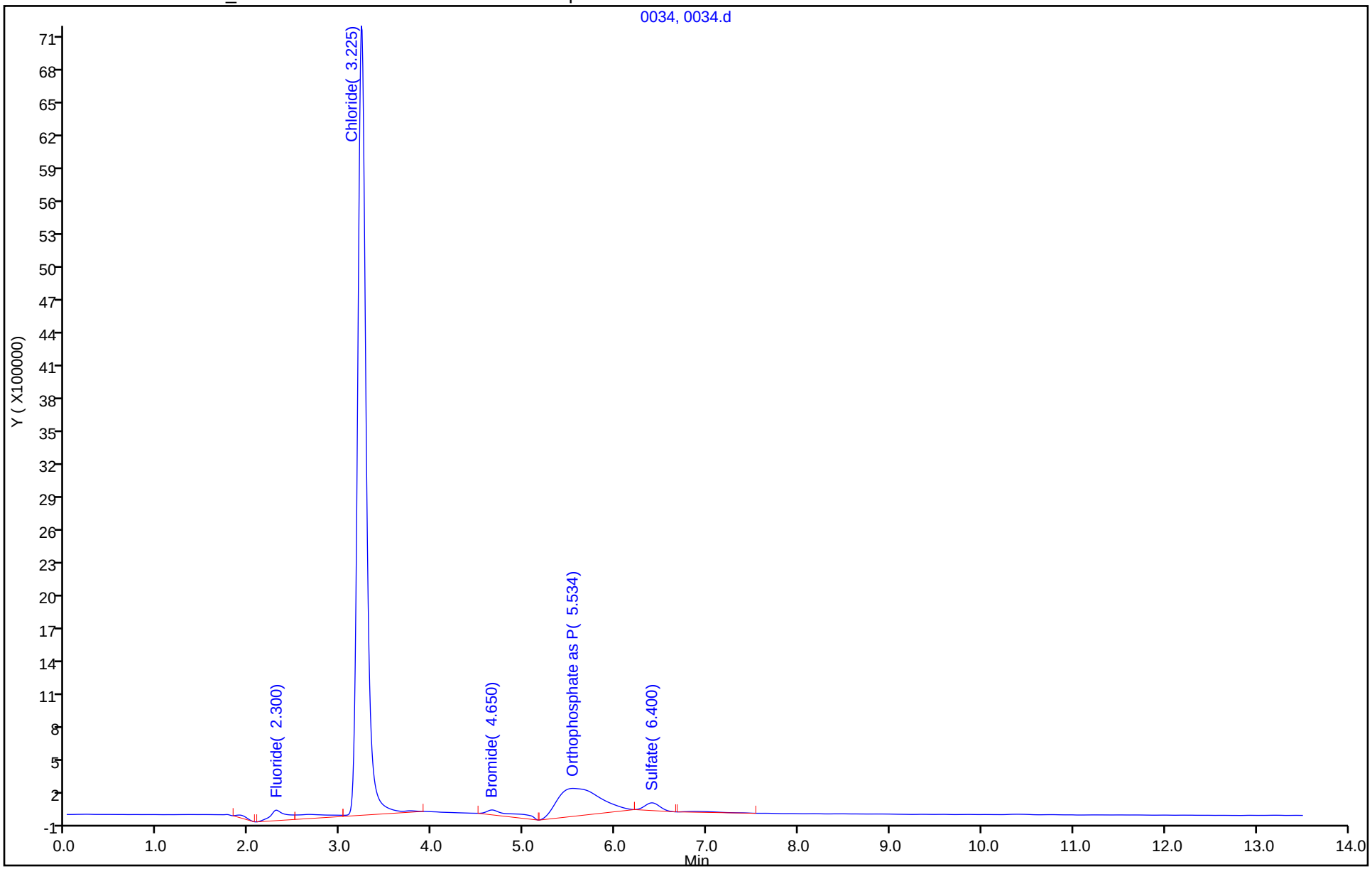
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:53 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0034.d				
Injection Date:	18-May-2019 01:53:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-I-1	Lab Sample ID:	280-123922-1	Worklist Smp#:	34
Client ID:	LF1MW-5_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0036.d
Lims ID: 280-123922-I-2
Client ID: LF1MW-5_0519-a
Sample Type: Client
Inject. Date: 18-May-2019 02:26:00 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-036
Misc. Info.: 28426 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	218319	NC	
2 Chloride	3.226	3.242	-0.016	46519299	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.651	4.634	0.017	1098812	NC	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.526	5.659	-0.133	7476504	1.80	
6 Sulfate	6.401	6.434	-0.033	894053	NC	

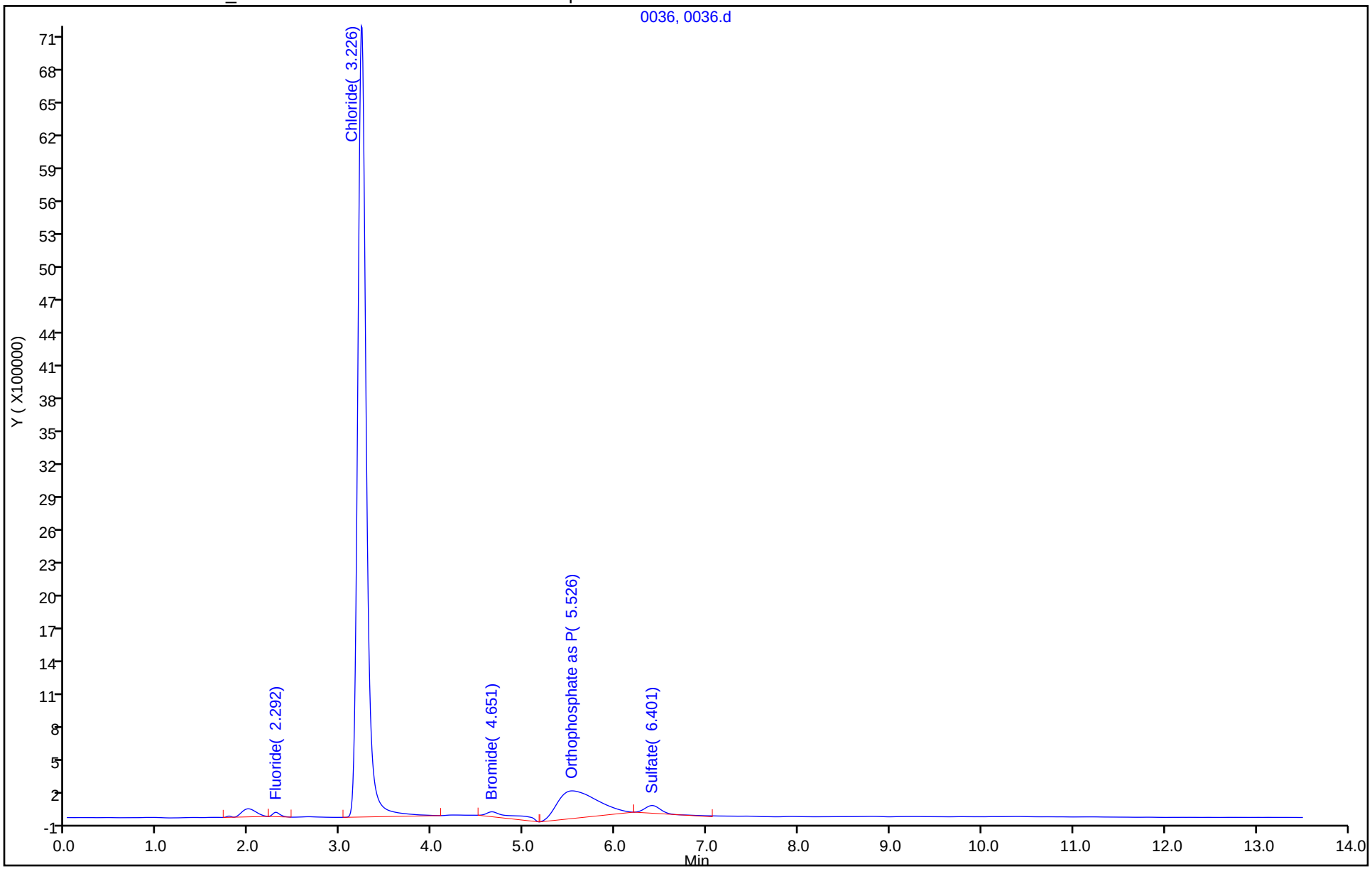
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:54 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0036.d				
Injection Date:	18-May-2019 02:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-I-2	Lab Sample ID:	280-123922-2	Worklist Smp#:	36
Client ID:	LF1MW-5_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0036.d
Lims ID: 280-123922-I-2
Client ID: LF1MW-5_0519-a
Sample Type: Client
Inject. Date: 18-May-2019 02:26:00 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-036
Misc. Info.: 28426 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	218319	-0.1245	
2 Chloride	3.226	3.242	-0.016	46519299	7.54	
3 Nitrite as N		3.892			ND	
4 Bromide	4.651	4.634	0.017	1098812	0.5743	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.526	5.659	-0.133	7476504	NC	
6 Sulfate	6.401	6.434	-0.033	894053	0.6372	

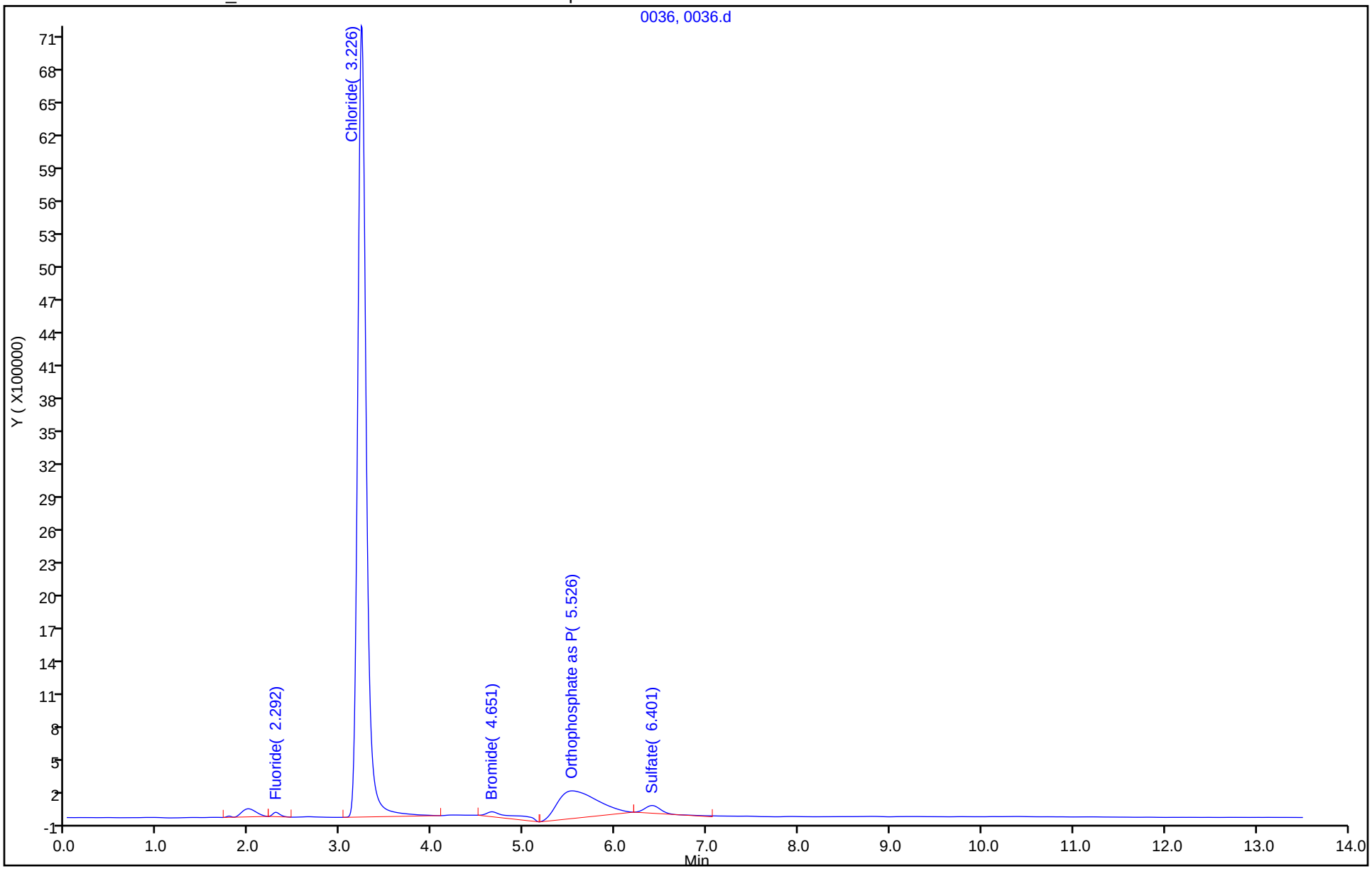
QC Flag Legend

Processing Flags
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Report Date: 20-May-2019 08:09:54 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0036.d				
Injection Date:	18-May-2019 02:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123922-I-2	Lab Sample ID:	280-123922-2	Worklist Smp#:	36
Client ID:	LF1MW-5_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 03:31:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-040
Misc. Info.: 12043 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	34148076	NC	NC	
2 Chloride	3.234	3.242	-0.008	630538189	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	49504869	5.00	4.74	
4 Bromide	4.600	4.634	-0.034	9806141	NC	NC	
5 Nitrate as N	5.150	5.200	-0.050	55299211	5.00	4.80	
7 Orthophosphate as P	5.600	5.659	-0.059	22885698	5.00	5.52	
6 Sulfate	6.392	6.434	-0.042	412076222	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

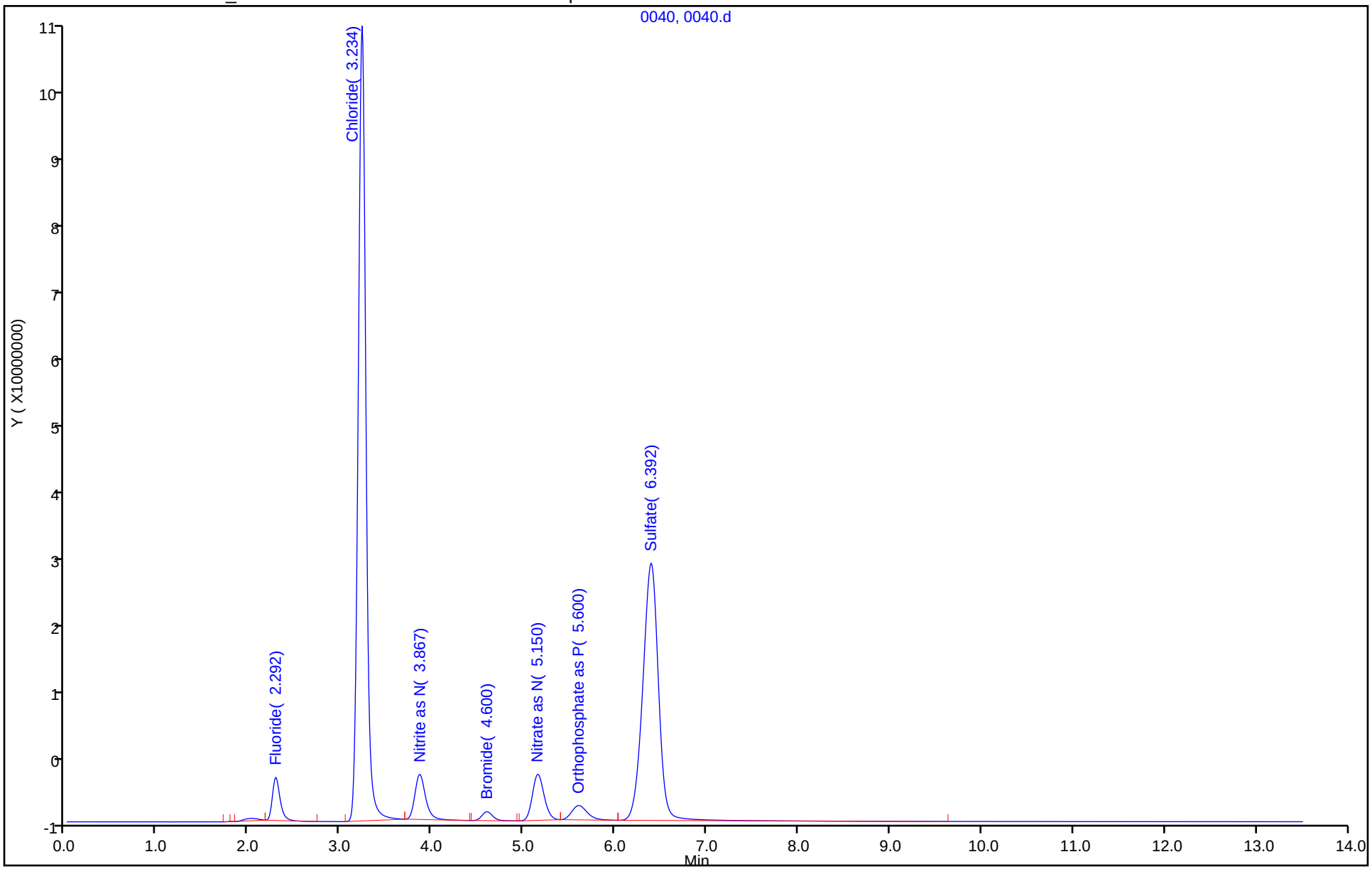
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d

Injection Date:	18-May-2019 03:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 03:31:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-040
Misc. Info.: 12043 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	34148076	5.00	4.55	
2 Chloride	3.234	3.242	-0.008	630538189	100.0	94.4	
3 Nitrite as N	3.867	3.892	-0.025	49504869	NC	NC	
4 Bromide	4.600	4.634	-0.034	9806141	5.00	5.06	
5 Nitrate as N	5.150	5.200	-0.050	55299211	NC	NC	
7 Orthophosphate as P	5.600	5.659	-0.059	22885698	NC	NC	
6 Sulfate	6.392	6.434	-0.042	412076222	100.0	92.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

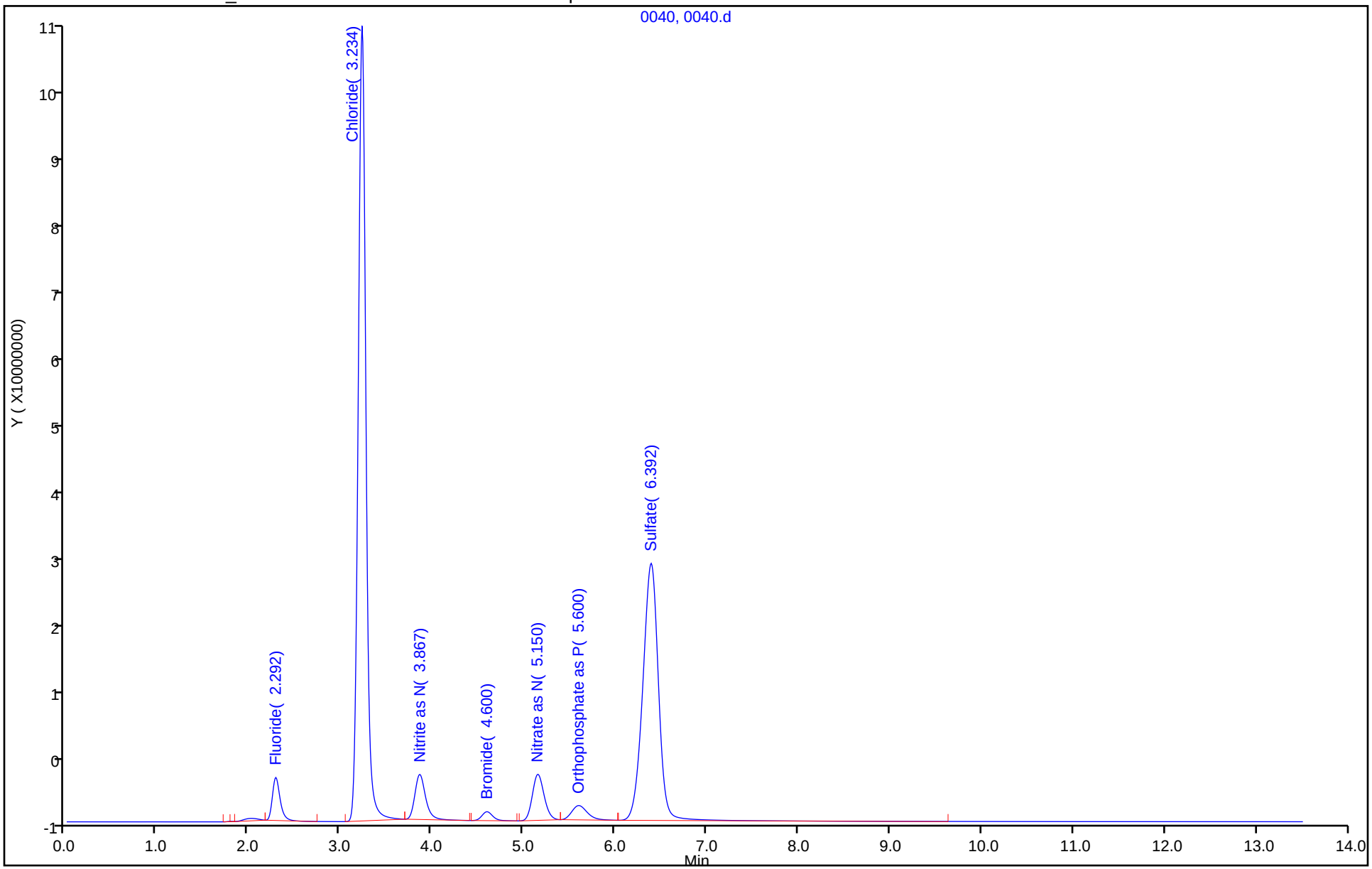
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d

Injection Date:	18-May-2019 03:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	18-May-2019 03:48:00	ALS Bottle#:	0	Worklist Smp#:	41
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-041				
Misc. Info.:	31086 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	20-May-2019 08:09:56	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	5101652		NC	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.759	5.659	0.100	537628		0.1219	
6 Sulfate		6.434				ND	

QC Flag Legend

Processing Flags

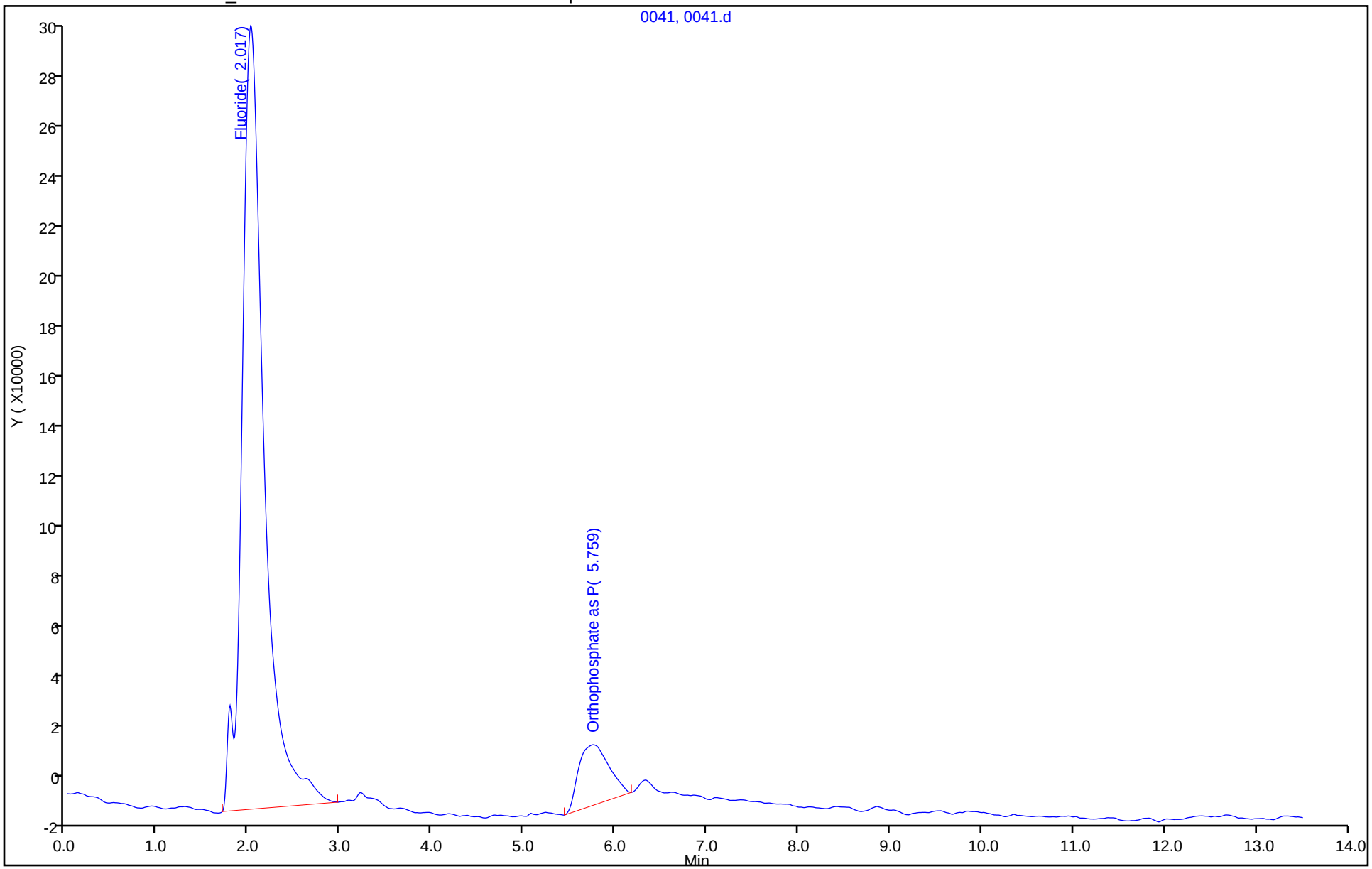
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Report Date: 20-May-2019 08:09:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d

Injection Date:	18-May-2019 03:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	18-May-2019 03:48:00	ALS Bottle#:	0	Worklist Smp#:	41
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-041				
Misc. Info.:	31086 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	20-May-2019 08:09:56	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	5101652		0.5487	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.759	5.659	0.100	537628		NC	
6 Sulfate		6.434				ND	

QC Flag Legend

Processing Flags

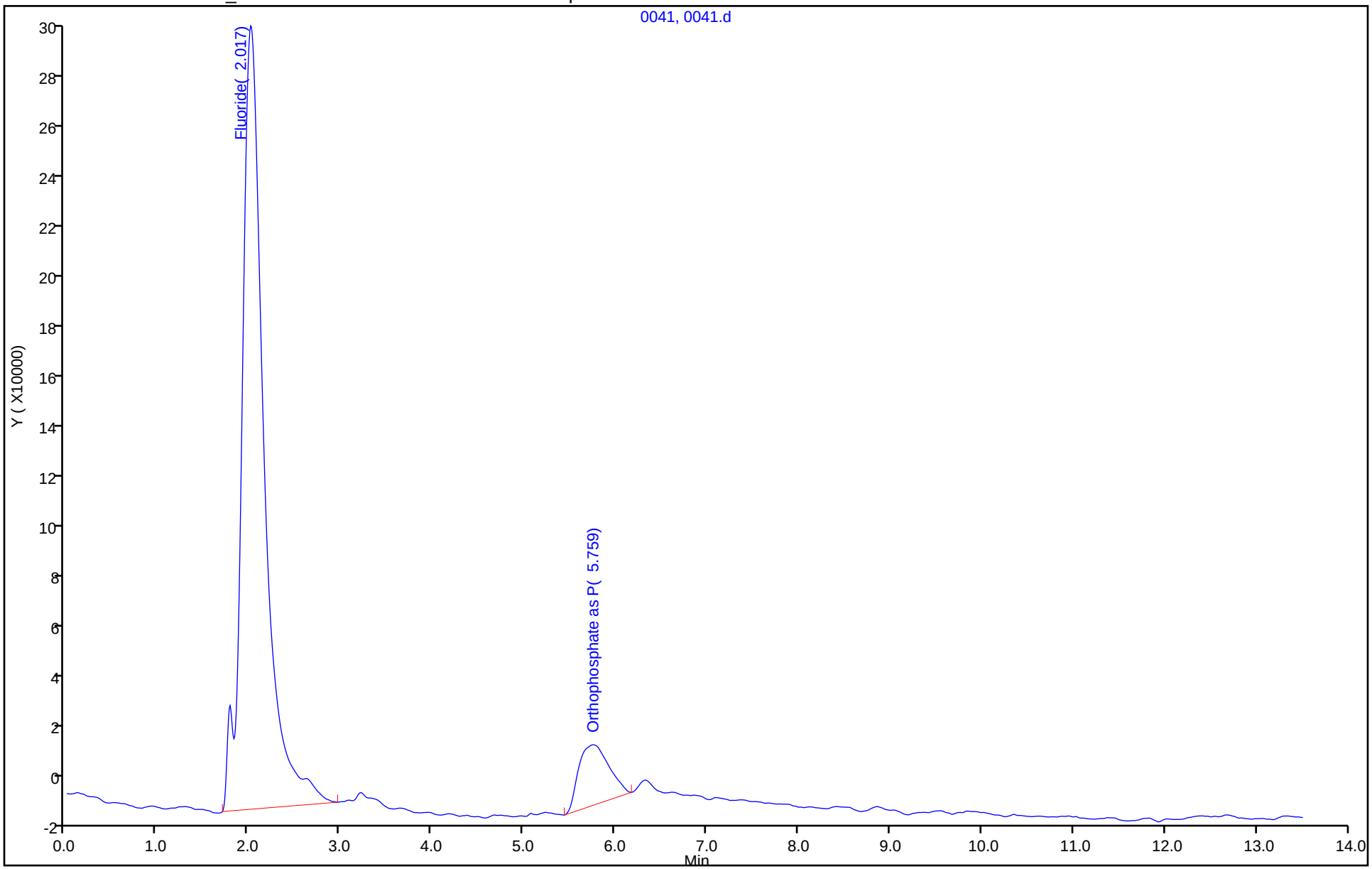
NC - Not Calibrated

Report Date: 20-May-2019 08:09:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d

Injection Date:	18-May-2019 03:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\02.0000.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Jun-2019 10:41:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082481-002 Temporary sequence for manual data acquisition
Operator ID: Instrument ID: WC_IonChrom8
Sublist: chrom-Anions_IC8*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 08:19:51 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0310

First Level Reviewer: pedrickj Date: 03-Jun-2019 13:00:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.017	-0.008	8424739	0.2000	0.1897	M
2 Chloride	2.950	2.925	0.025	16754385	1.00	1.05	M
3 Nitrite as N	3.325	3.292	0.033	8220389	NC	NC	M
4 Bromide	4.959	4.850	0.109	873557	0.2000	0.1949	
5 Nitrate as N	5.392	5.167	0.225	9170140	NC	NC	
6 Sulfate	10.942	10.392	0.550	11281668	1.00	1.11	Ma
7 Orthophosphate as P	12.634	12.875	-0.241	23480751	NC	NC	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

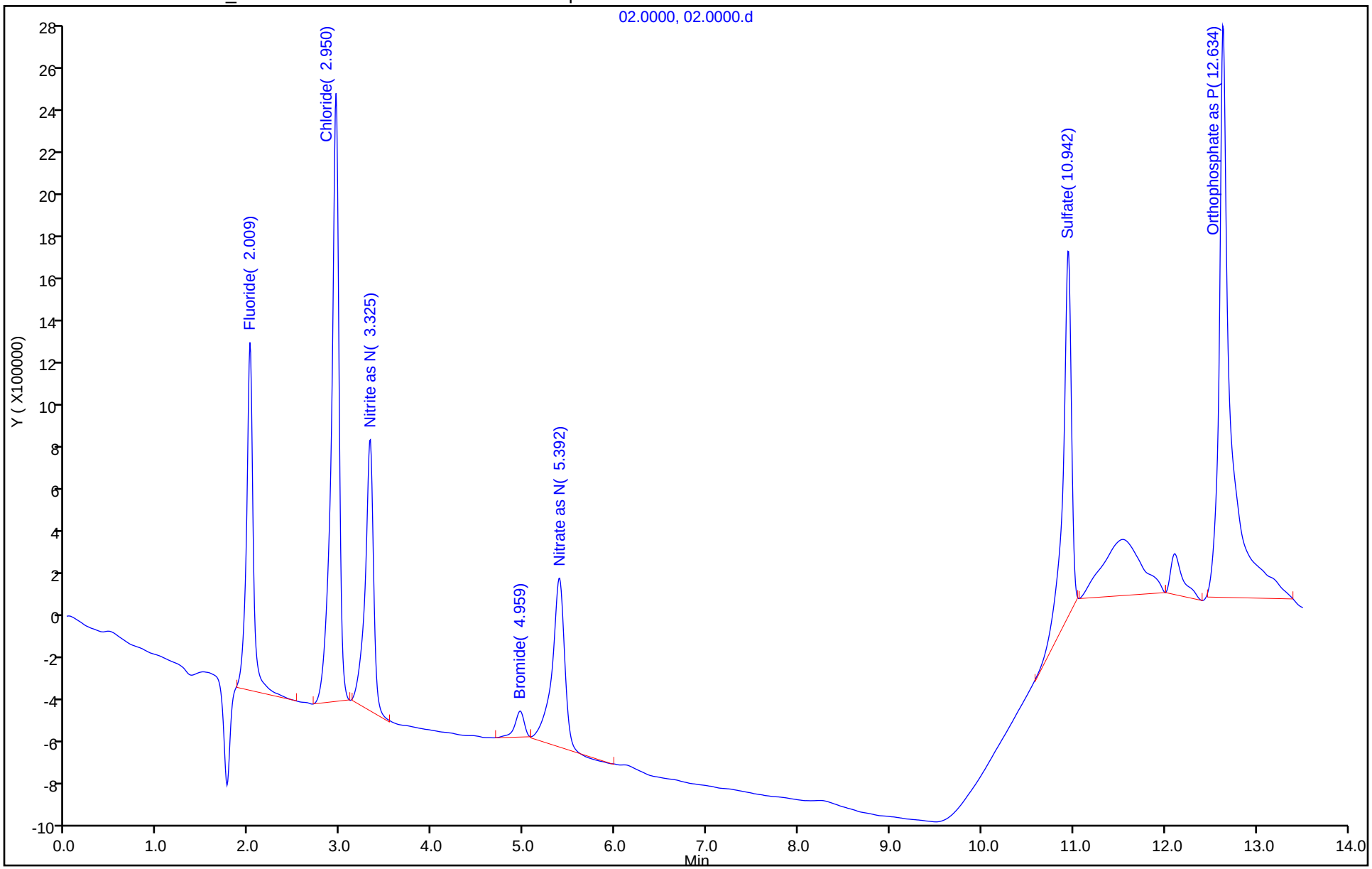
IC CAL cl/so4_00259 Amount Added: 0.02 Units: mL
IC Cal low_00462 Amount Added: 0.02 Units: mL

Report Date: 04-Jun-2019 08:19:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\02.0000.d

Injection Date:	03-Jun-2019 10:41:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

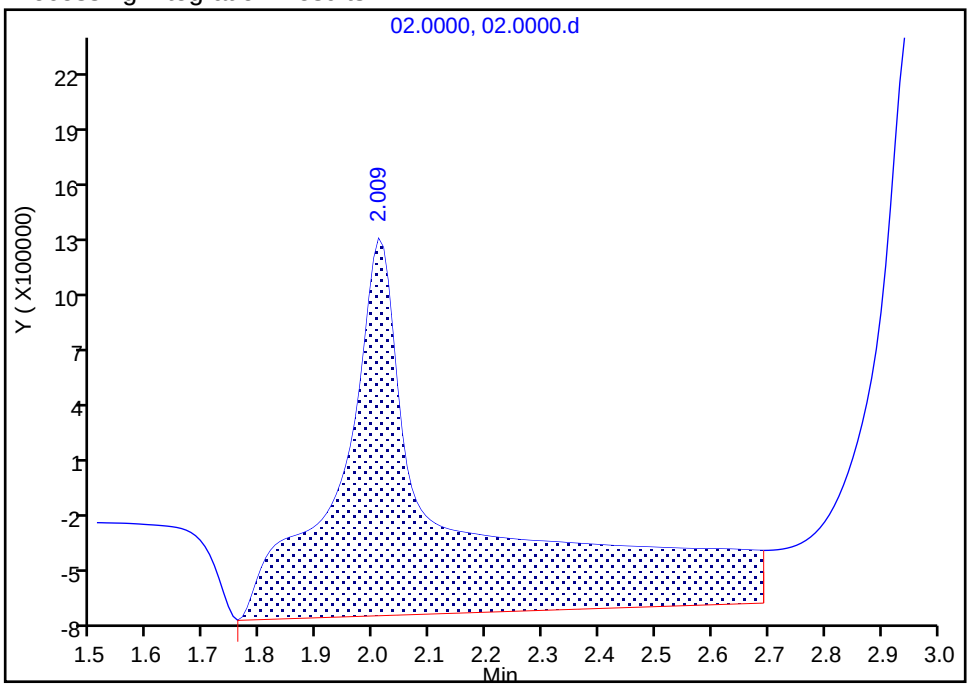
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\02.0000.d
Injection Date: 03-Jun-2019 10:41:00 Instrument ID: WC_IonChrom8
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

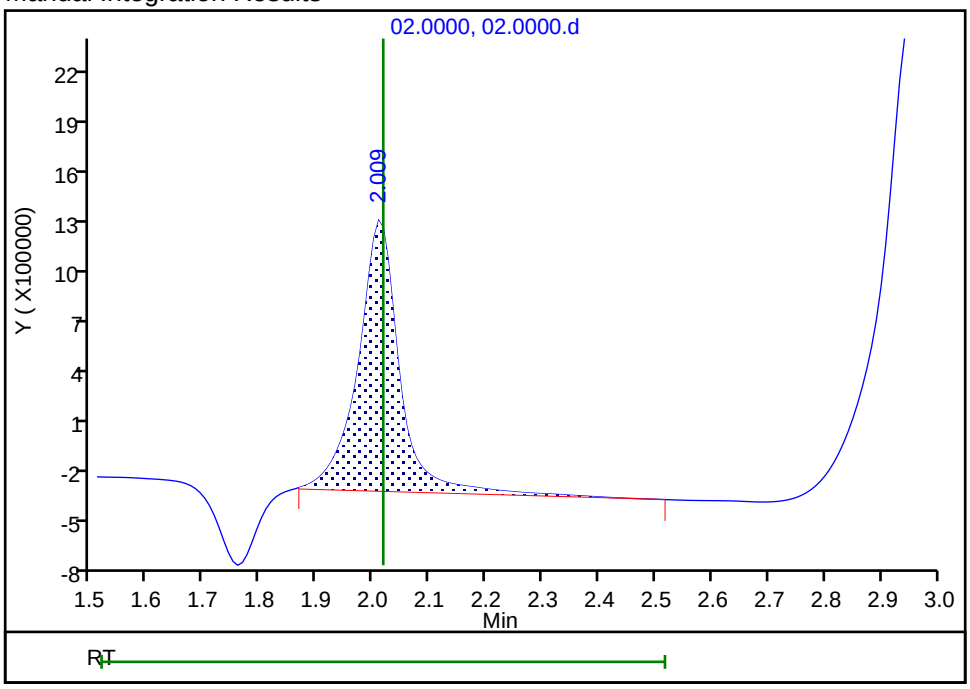
RT: 2.01
Area: 28534816
Amount: 0.392168
Amount Units: ug/ml

Processing Integration Results



RT: 2.01
Area: 8424739
Amount: 0.189725
Amount Units: ug/ml

Manual Integration Results



Reviewer: pedrickj, 03-Jun-2019 13:00:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

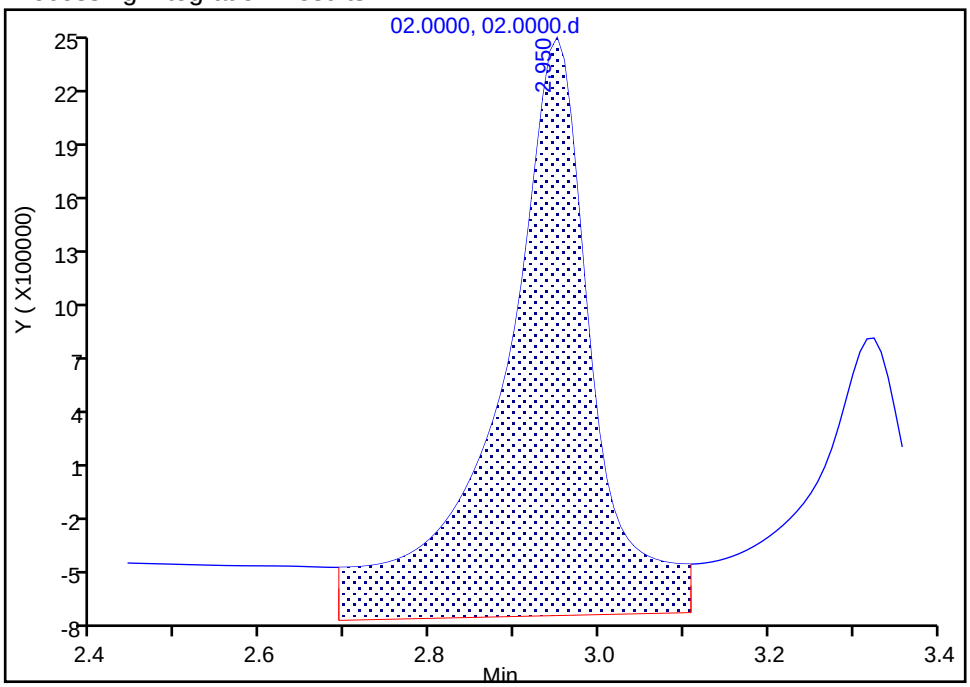
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\02.0000.d
Injection Date: 03-Jun-2019 10:41:00 Instrument ID: WC_IonChrom8
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

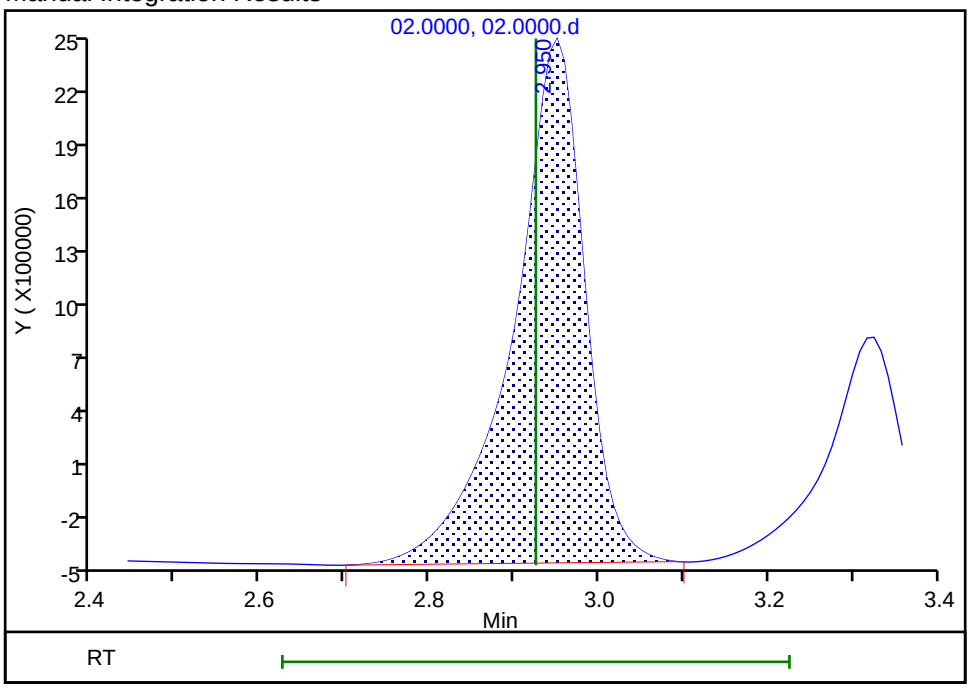
Processing Integration Results

RT: 2.95
Area: 23674018
Amount: 1.130222
Amount Units: ug/ml



Manual Integration Results

RT: 2.95
Area: 16754385
Amount: 1.049967
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:00:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

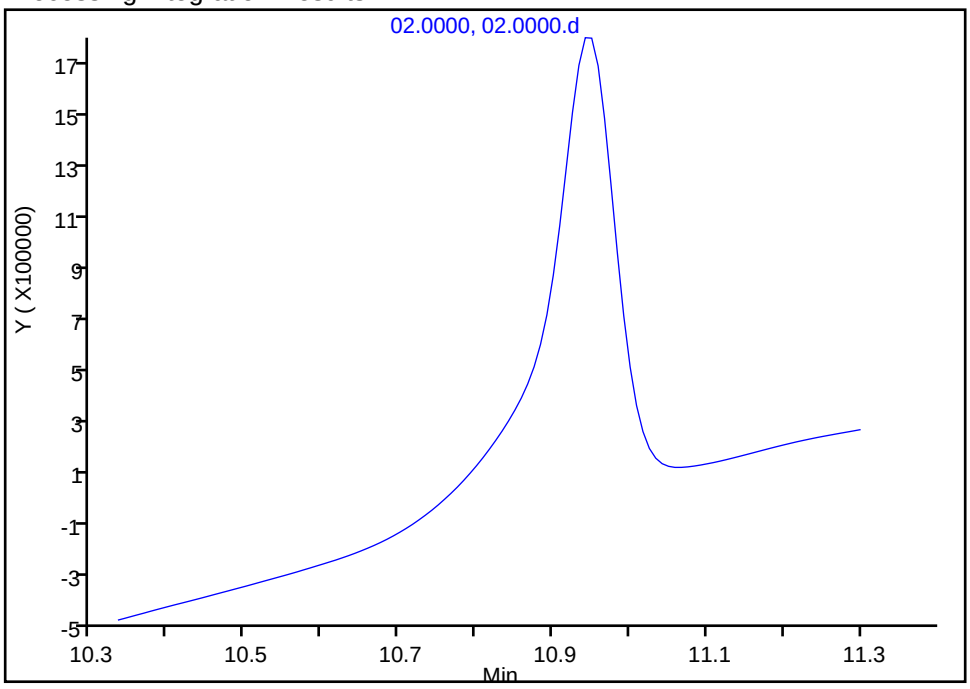
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\02.0000.d
Injection Date: 03-Jun-2019 10:41:00 Instrument ID: WC_IonChrom8
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

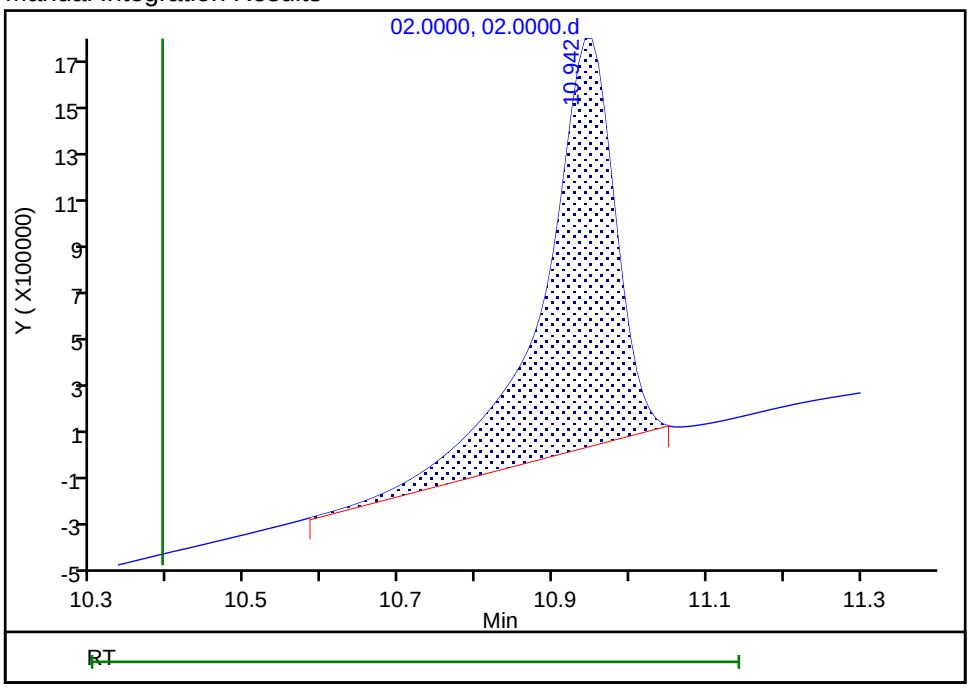
Not Detected
Expected RT: 10.39

Processing Integration Results



Manual Integration Results

RT: 10.94
Area: 11281668
Amount: 1.111143
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:00:23
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\03.0000.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Jun-2019 11:00:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082481-003 Temporary sequence for manual data acquisition
Operator ID: Instrument ID: WC_IonChrom8
Sublist: chrom-Anions_IC8*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 08:19:52 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0310

First Level Reviewer: pedrickj Date: 03-Jun-2019 13:01:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.017	-0.008	17744003	0.5000	0.4767	M
2 Chloride	2.950	2.925	0.025	40644048	2.50	2.41	M
3 Nitrite as N	3.325	3.292	0.033	19147146	NC	NC	M
4 Bromide	4.992	4.850	0.142	1942226	0.5000	0.4630	
5 Nitrate as N	5.409	5.167	0.242	18077937	NC	NC	
6 Sulfate	11.042	10.392	0.650	27254627	2.50	2.31	M
7 Orthophosphate as P	12.834	12.875	-0.041	33138172	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

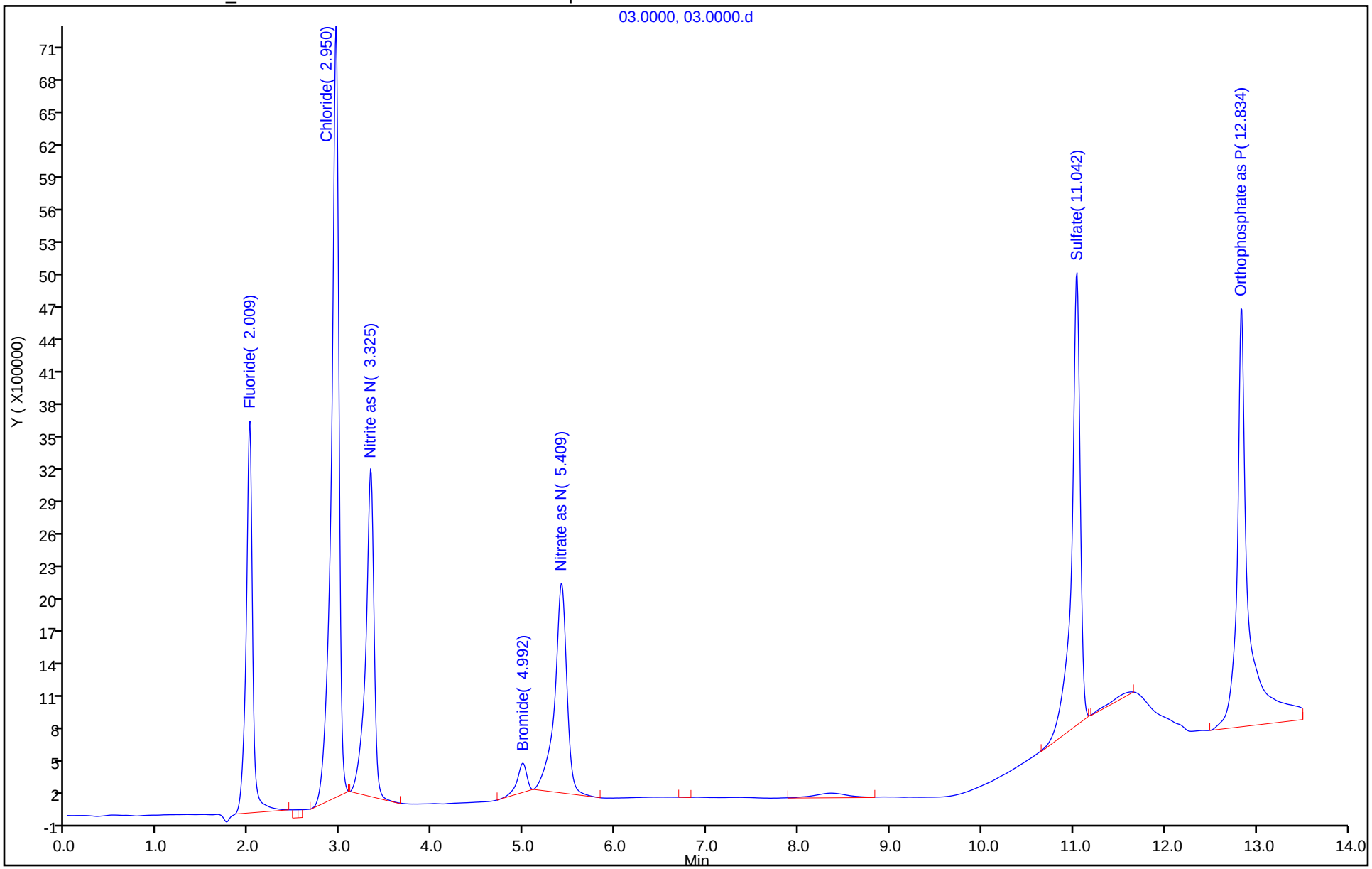
IC CAL cl/so4_00259 Amount Added: 0.05 Units: mL
IC Cal low_00462 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2019 08:19:53 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\03.0000.d

Injection Date:	03-Jun-2019 11:00:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

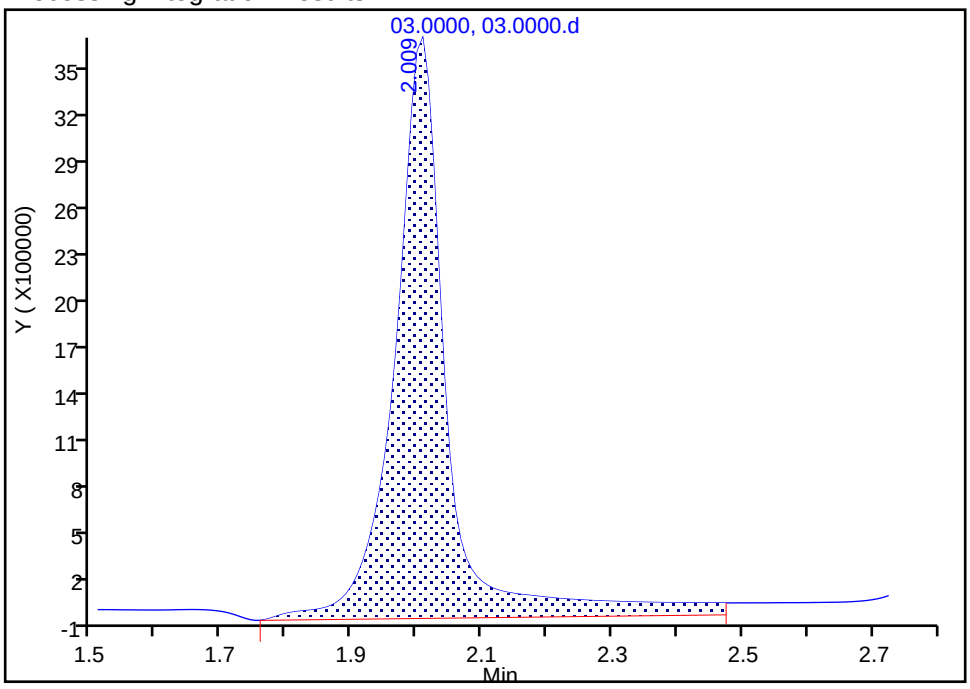
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\03.0000.d
Injection Date: 03-Jun-2019 11:00:00 Instrument ID: WC_IonChrom8
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

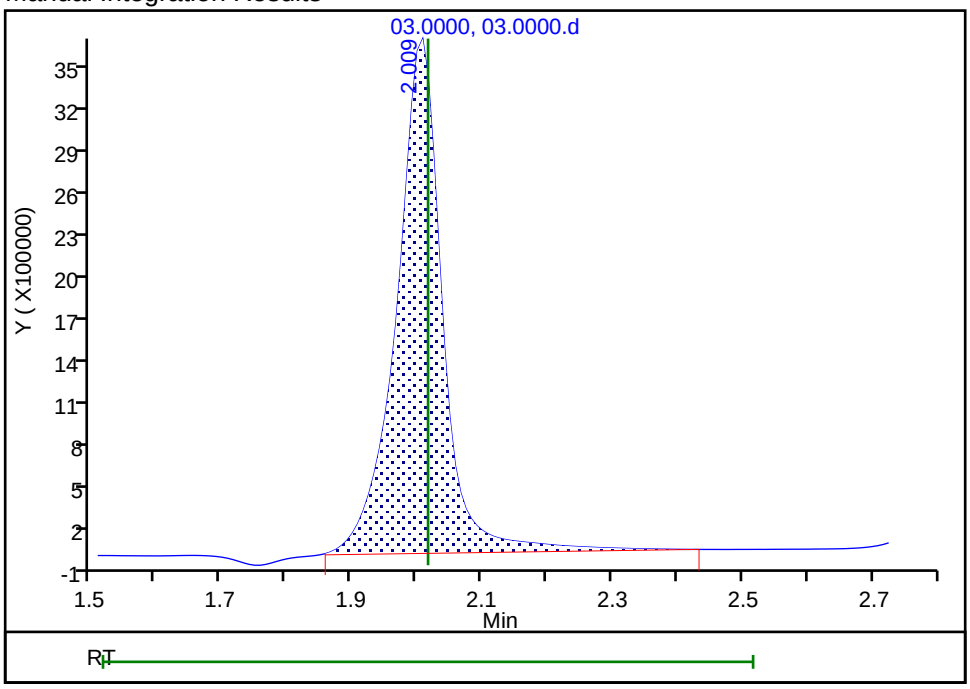
Processing Integration Results

RT: 2.01
Area: 20716123
Amount: 0.542523
Amount Units: ug/ml



Manual Integration Results

RT: 2.01
Area: 17744003
Amount: 0.476739
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:00:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

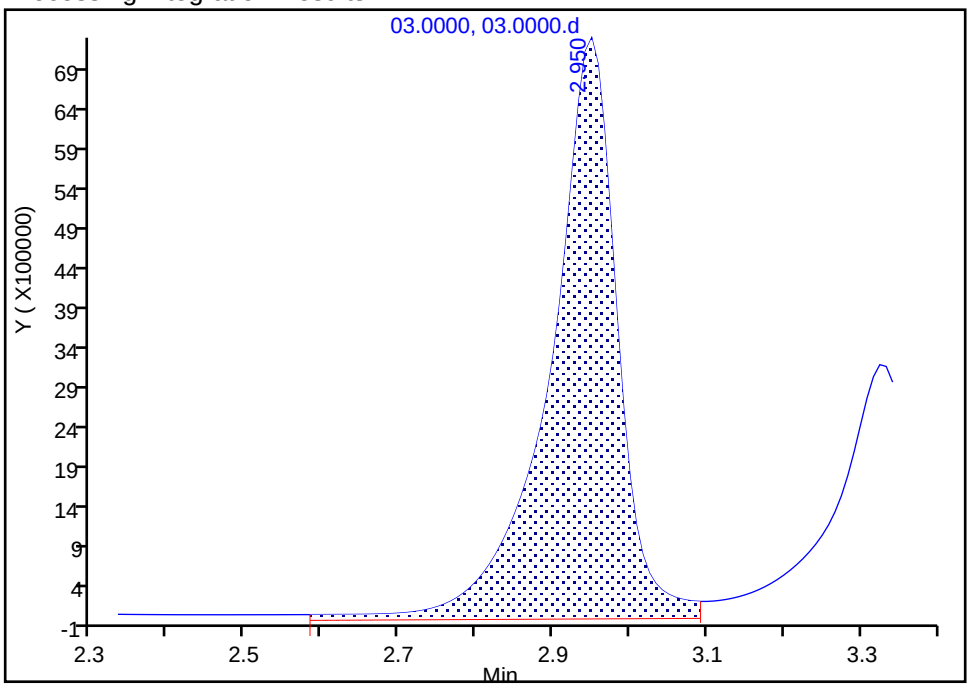
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\03.0000.d
Injection Date: 03-Jun-2019 11:00:00 Instrument ID: WC_IonChrom8
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

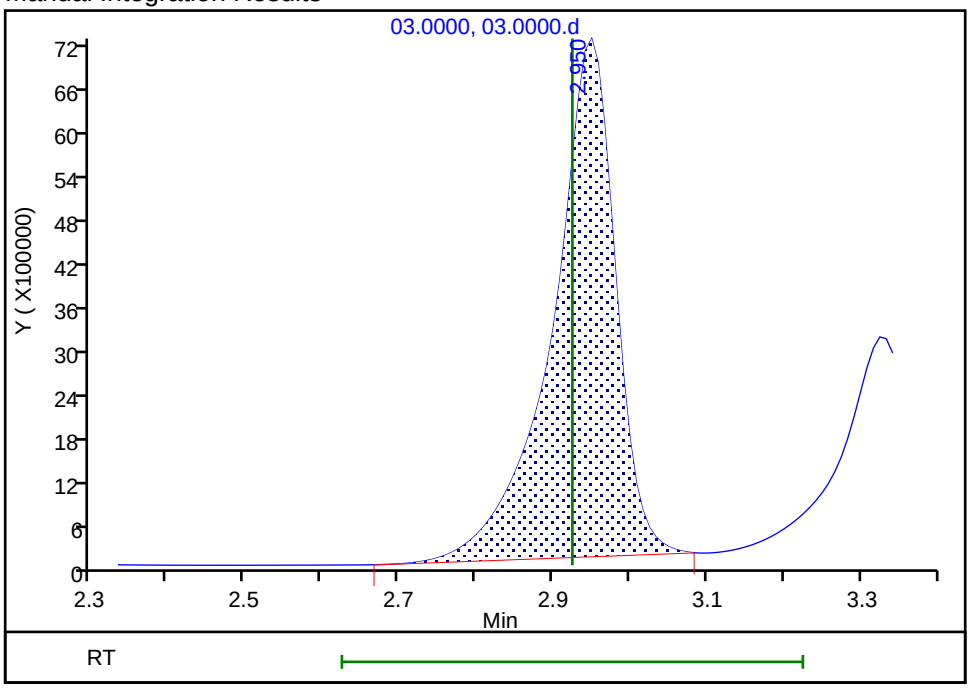
Processing Integration Results

RT: 2.95
Area: 44661823
Amount: 2.529786
Amount Units: ug/ml



Manual Integration Results

RT: 2.95
Area: 40644048
Amount: 2.412085
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:00:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

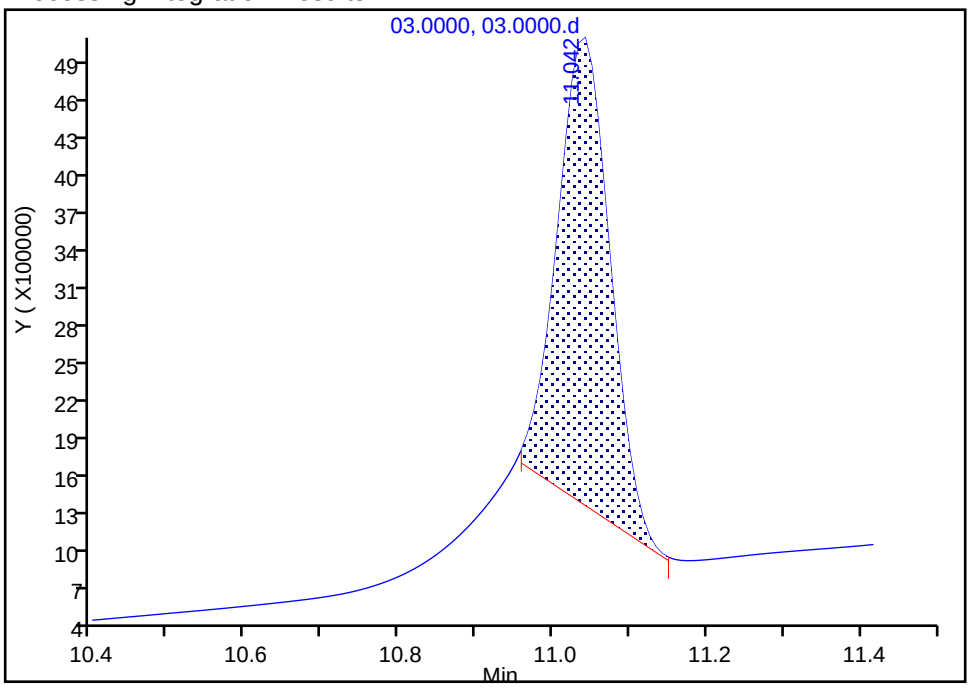
Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\03.0000.d		
Injection Date:	03-Jun-2019 11:00:00	Instrument ID:	WC_IonChrom8
Lims ID:	std L2		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

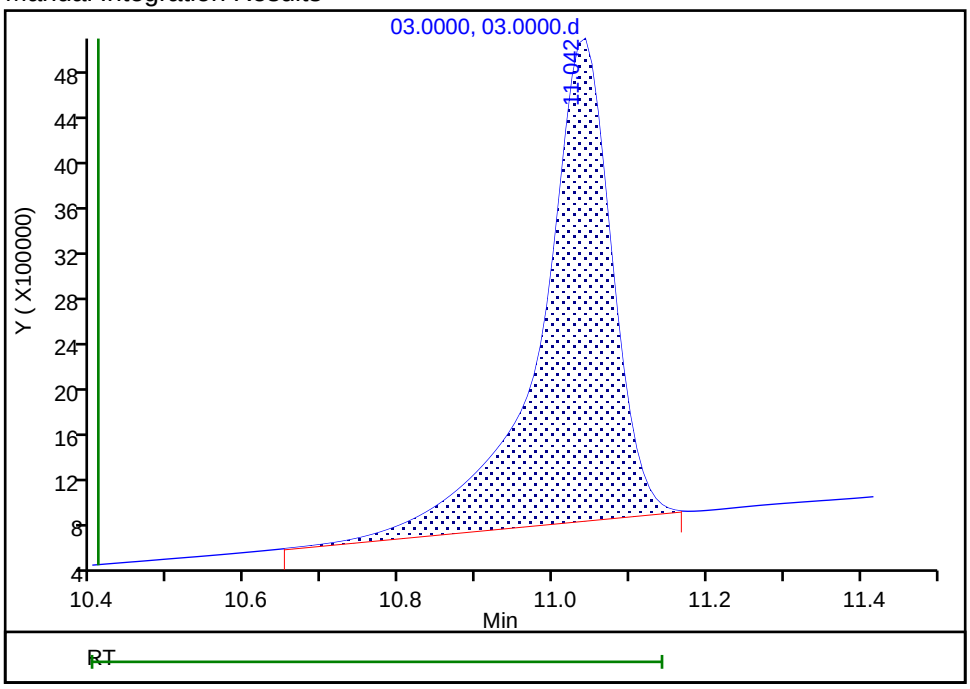
Processing Integration Results

RT: 11.04
Area: 17373450
Amount: 1.592443
Amount Units: ug/ml



Manual Integration Results

RT: 11.04
Area: 27254627
Amount: 2.306204
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:01:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\04.0000.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Jun-2019 11:19:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082481-004 Temporary sequence for manual data acquisition
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom8
Sublist: chrom-Anions_IC8*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 08:19:54 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0310

First Level Reviewer: pedrickj Date: 03-Jun-2019 13:01:35

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.017	0.008	36962535	1.00	1.07	M
2 Chloride	2.992	2.925	0.067	83953225	5.00	4.88	M
3 Nitrite as N	3.392	3.292	0.100	39727789	NC	NC	M
4 Bromide	5.150	4.850	0.300	4228584	1.00	1.04	a
5 Nitrate as N	5.583	5.167	0.416	38051506	NC	NC	a
6 Sulfate	11.158	10.392	0.766	61026144	5.00	4.83	Ma
7 Orthophosphate as P	13.033	12.875	0.158	38297723	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

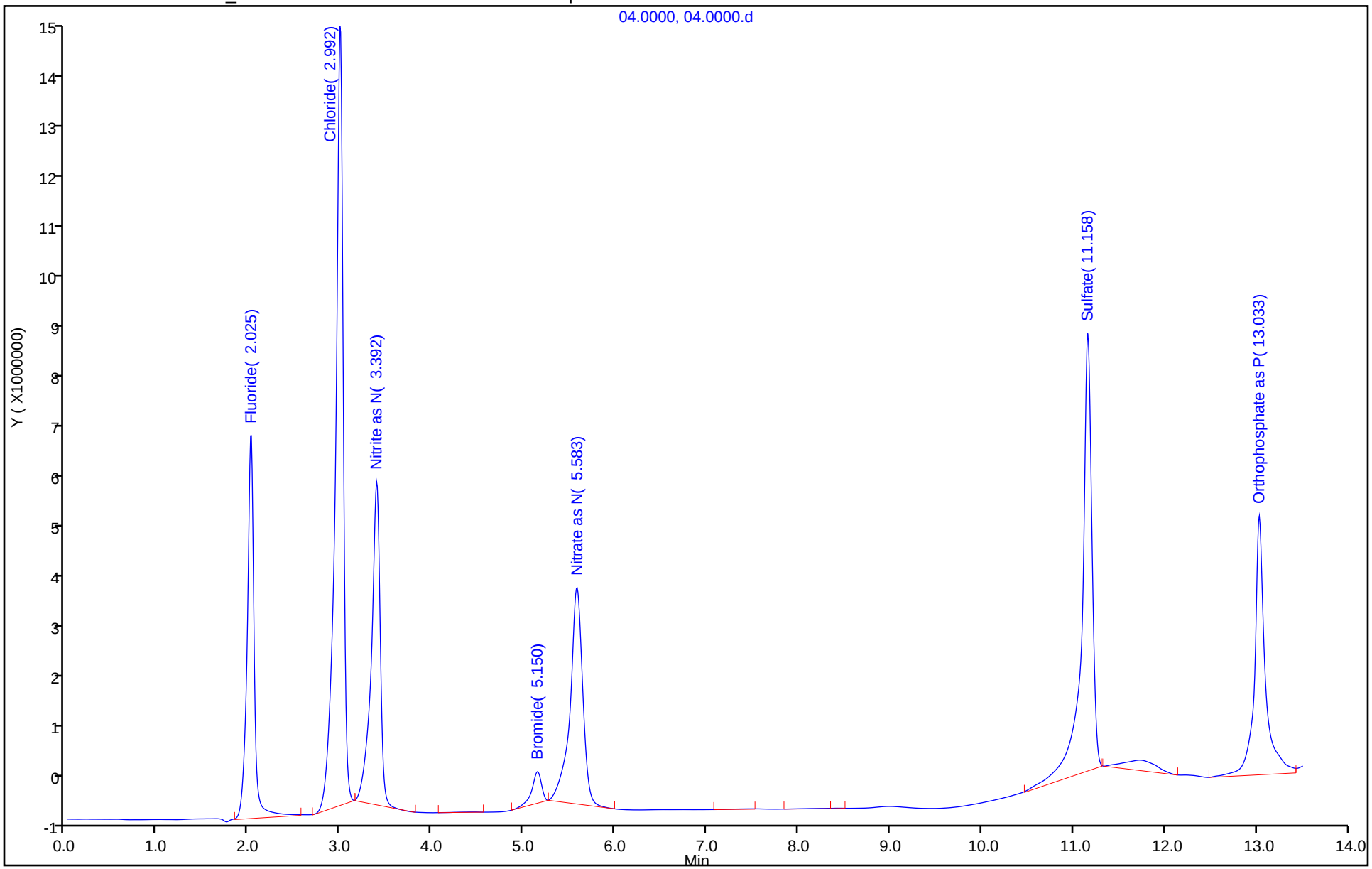
IC CAL cl/so4_00259 Amount Added: 0.10 Units: mL
IC Cal low_00462 Amount Added: 0.10 Units: mL

Report Date: 04-Jun-2019 08:19:54 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\04.0000.d

Injection Date:	03-Jun-2019 11:19:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

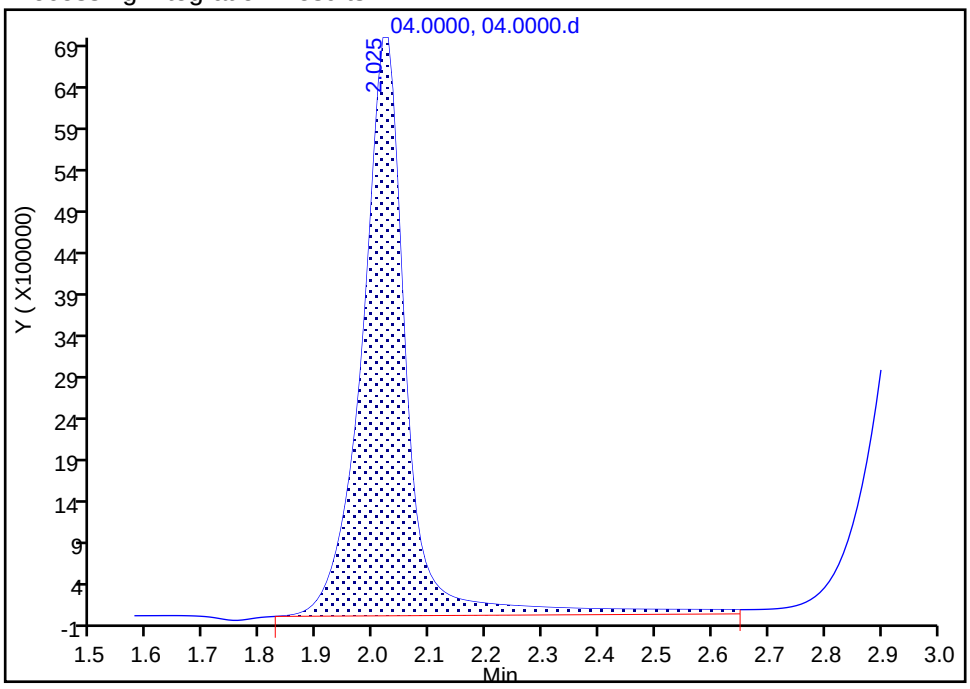
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\04.0000.d
Injection Date: 03-Jun-2019 11:19:00 Instrument ID: WC_IonChrom8
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

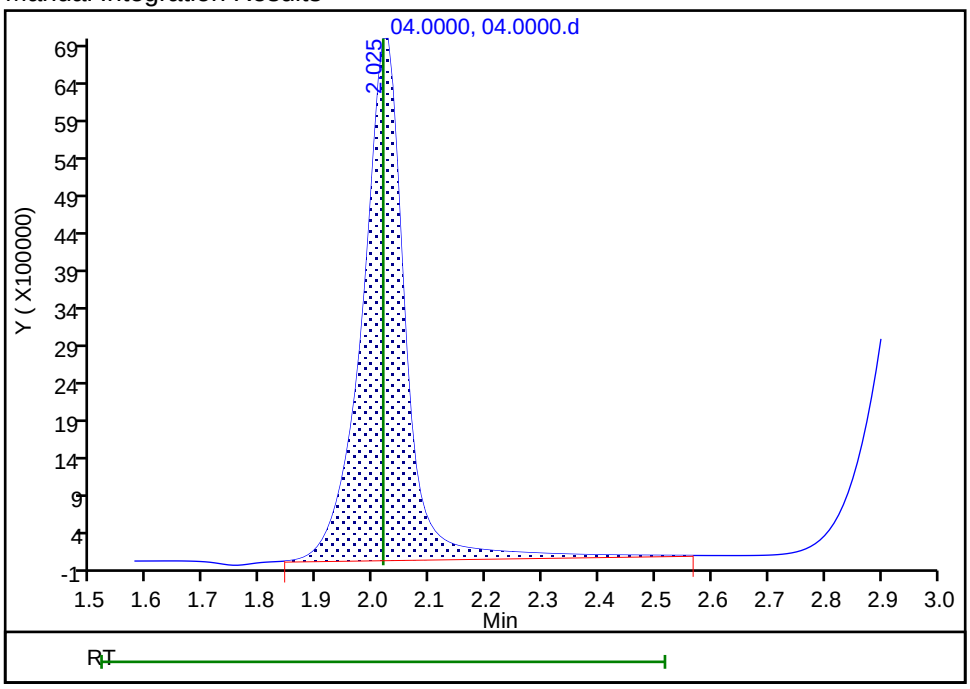
Processing Integration Results

RT: 2.03
Area: 38037918
Amount: 1.097645
Amount Units: ug/ml



Manual Integration Results

RT: 2.03
Area: 36962535
Amount: 1.068628
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:02:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

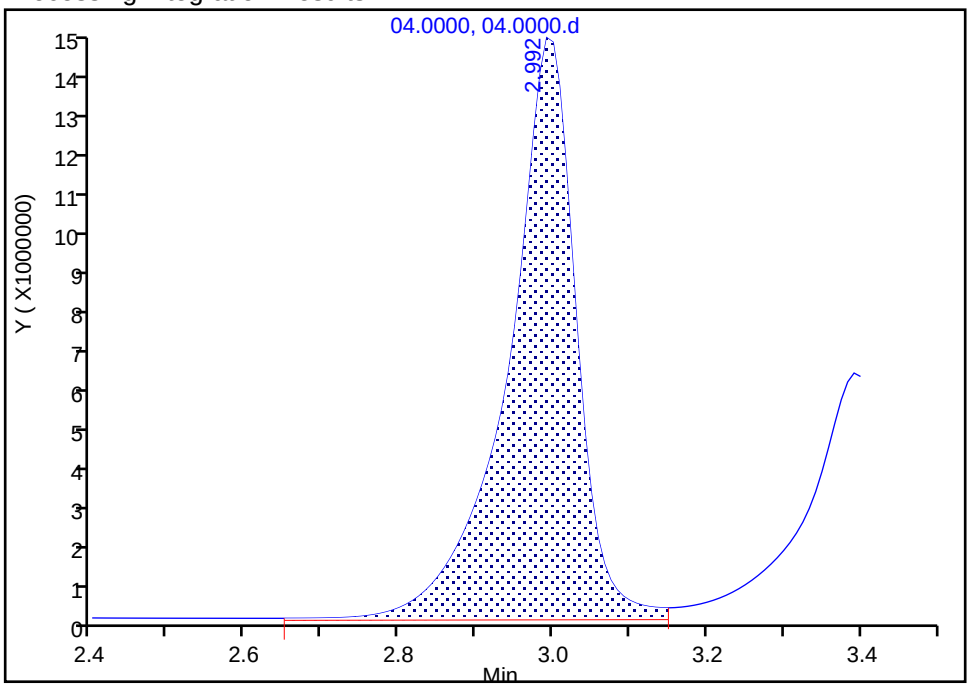
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\04.0000.d
Injection Date: 03-Jun-2019 11:19:00 Instrument ID: WC_IonChrom8
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

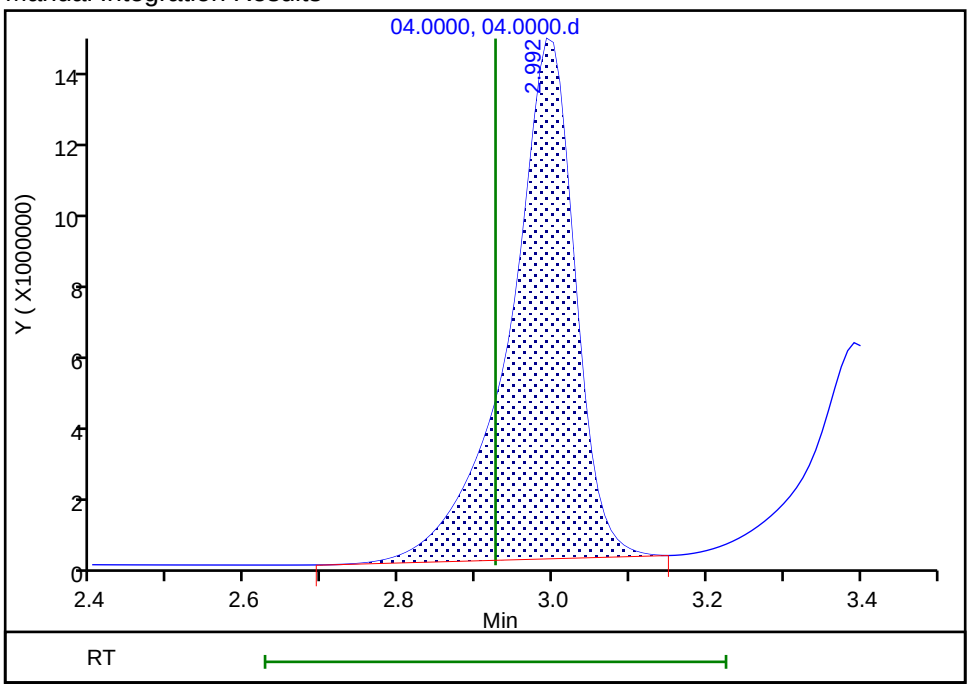
Processing Integration Results

RT: 2.99
Area: 88677753
Amount: 5.012755
Amount Units: ug/ml



Manual Integration Results

RT: 2.99
Area: 83953225
Amount: 4.881448
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:01:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

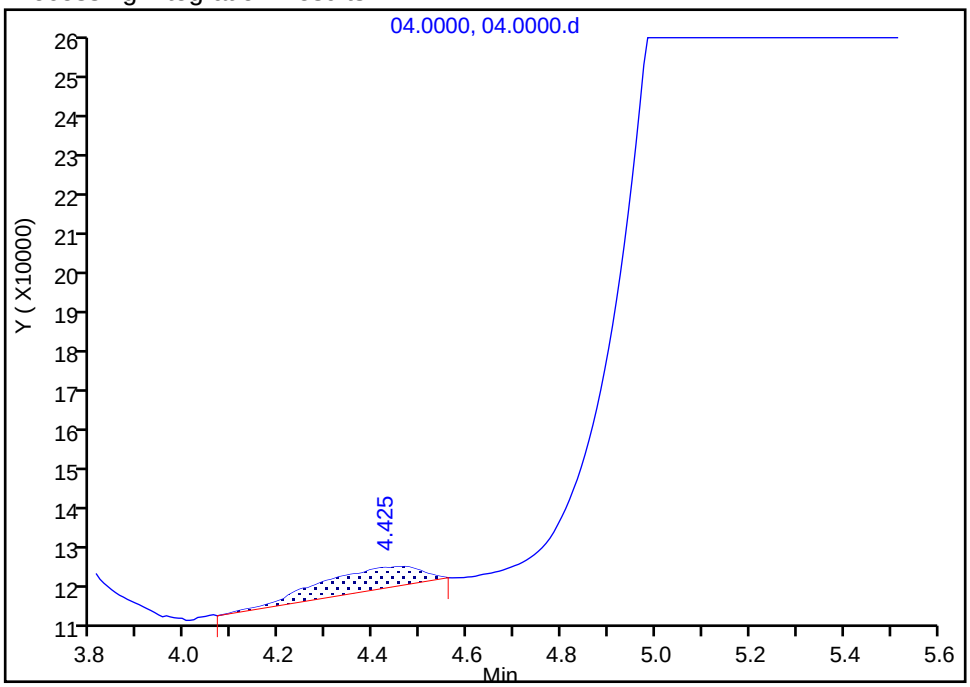
Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\04.0000.d				
Injection Date:	03-Jun-2019 11:19:00	Instrument ID:	WC_IonChrom8		
Lims ID:	std L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

4 Bromide, CAS: 24959-67-9

Signal: 1

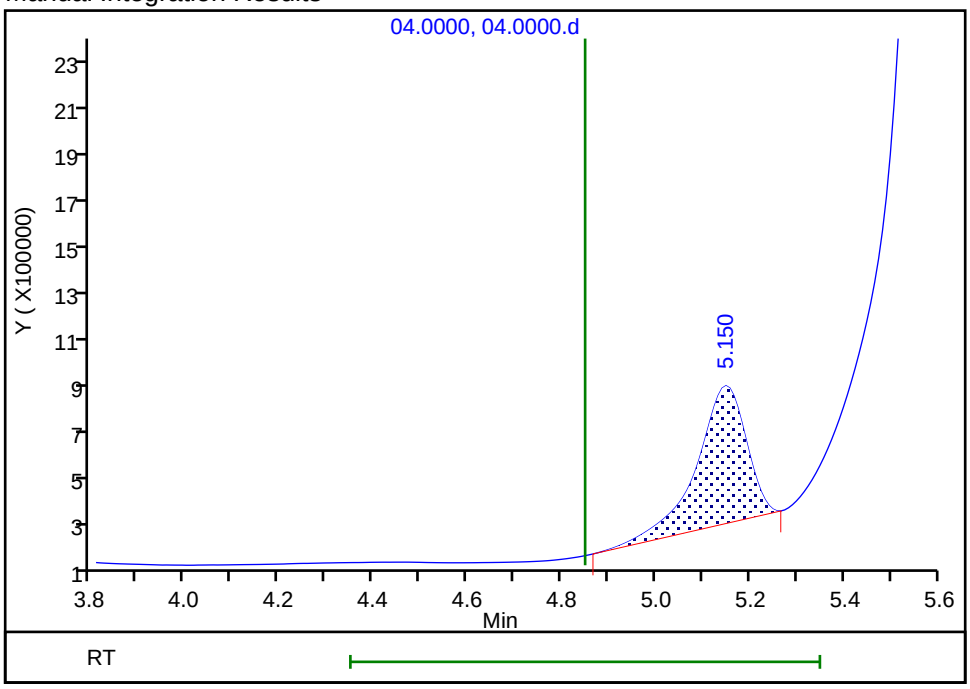
Processing Integration Results

RT: 4.43
Area: 79690
Amount: 0.409235
Amount Units: ug/ml



Manual Integration Results

RT: 5.15
Area: 4228584
Amount: 1.036793
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:01:53
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

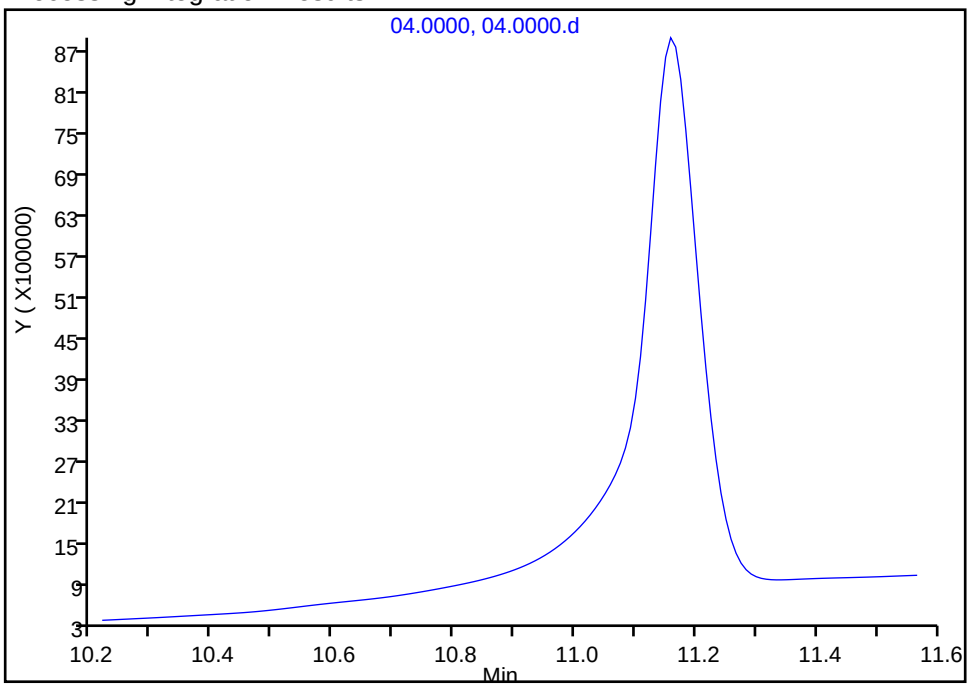
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\04.0000.d
Injection Date: 03-Jun-2019 11:19:00 Instrument ID: WC_IonChrom8
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

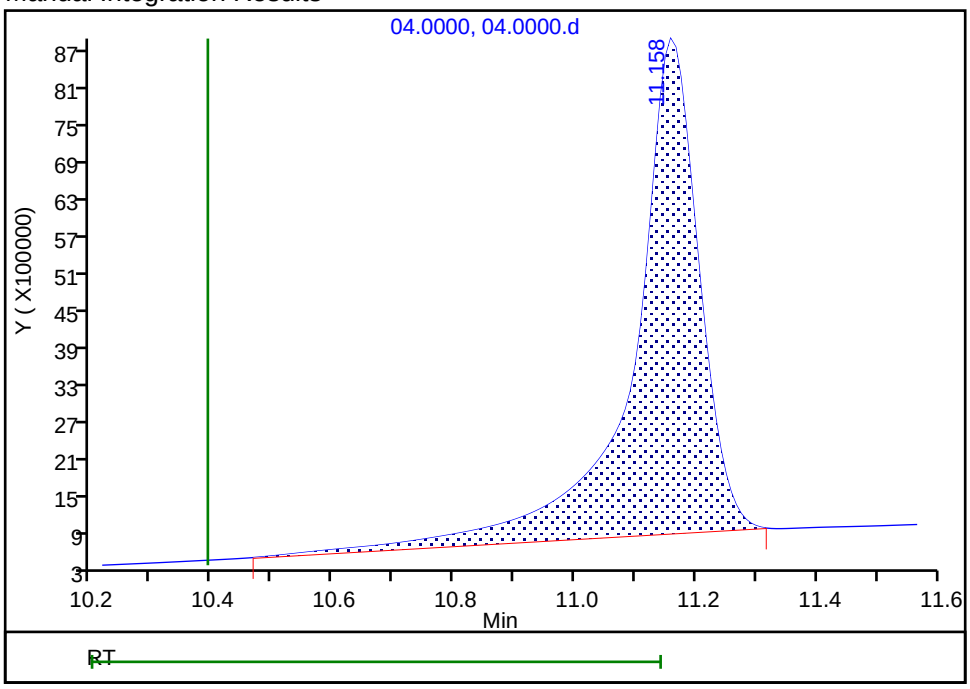
Not Detected
Expected RT: 10.39

Processing Integration Results



Manual Integration Results

RT: 11.16
Area: 61026144
Amount: 4.832915
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:01:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\05.0000.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Jun-2019 11:38:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082481-005 Temporary sequence for manual data acquisition
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom8
Sublist: chrom-Anions_IC8*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 08:19:55 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0310

First Level Reviewer: pedrickj Date: 03-Jun-2019 13:02:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	138314412	4.00	4.19	
2 Chloride	2.917	2.917	0.000	1051803785	60.0	60.1	M
3 Nitrite as N	3.309	3.309	0.000	143665339	NC	NC	M
4 Bromide	4.975	4.975	0.000	17521291	4.00	4.37	
5 Nitrate as N	5.334	5.334	0.000	199924800	NC	NC	
6 Sulfate	11.050	11.050	0.000	785538848	60.0	59.0	M
7 Orthophosphate as P	13.159	13.159	0.000	93198853	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

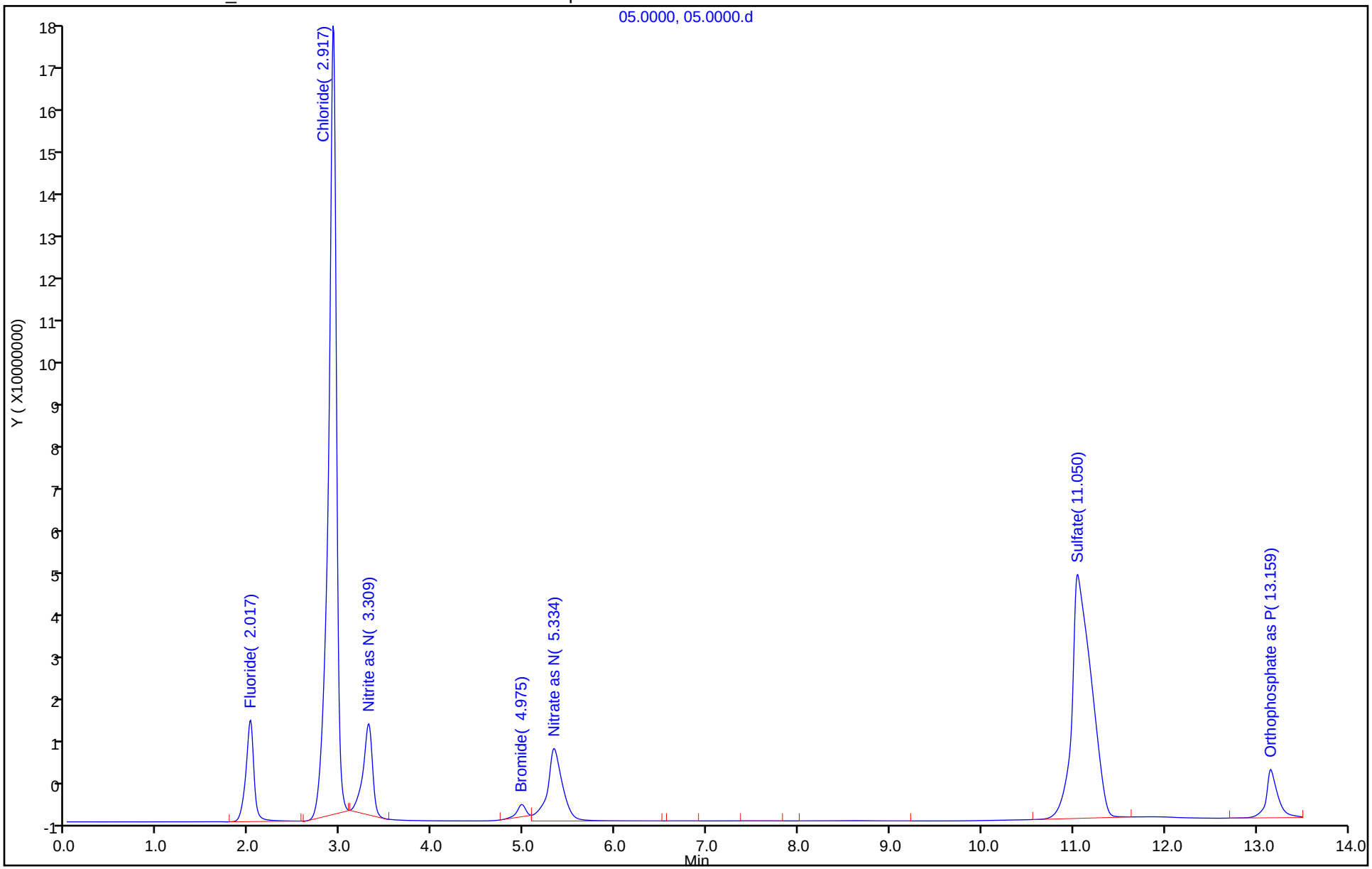
IC CAL cl/so4_00259 Amount Added: 1.20 Units: mL
IC Cal low_00462 Amount Added: 0.40 Units: mL

Report Date: 04-Jun-2019 08:19:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\05.0000.d

Injection Date:	03-Jun-2019 11:38:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

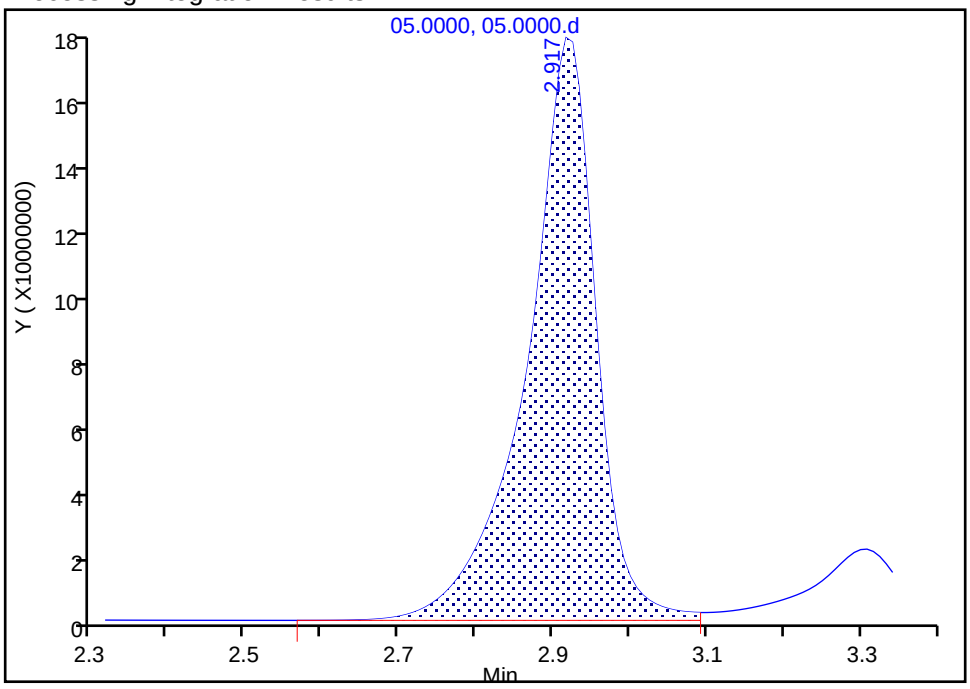
Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\05.0000.d				
Injection Date:	03-Jun-2019 11:38:00	Instrument ID:	WC_IonChrom8		
Lims ID:	std L4				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

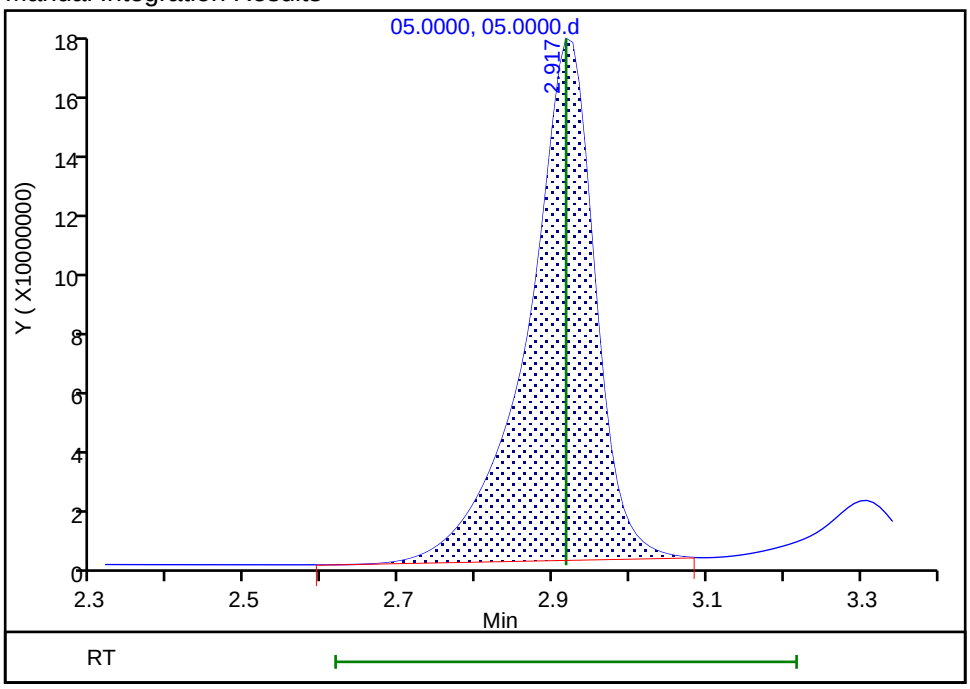
Processing Integration Results

RT: 2.92
Area: 1084020361
Amount: 59.965831
Amount Units: ug/ml



Manual Integration Results

RT: 2.92
Area: 1051803785
Amount: 60.065454
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:02:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

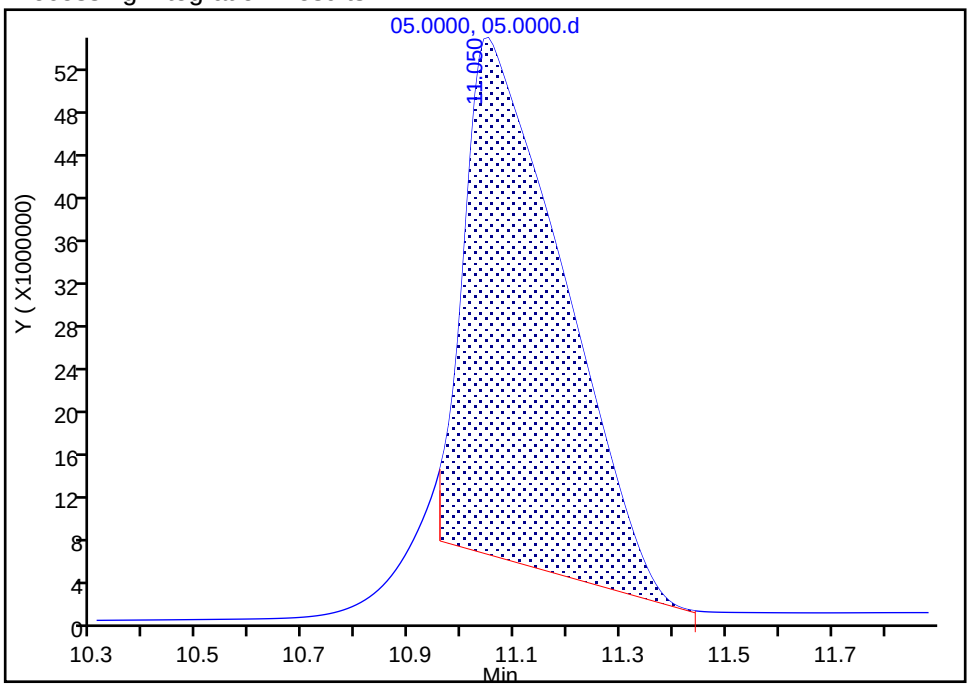
Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\05.0000.d		
Injection Date:	03-Jun-2019 11:38:00	Instrument ID:	WC_IonChrom8
Lims ID:	std L4		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 5
Injection Vol:	25.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

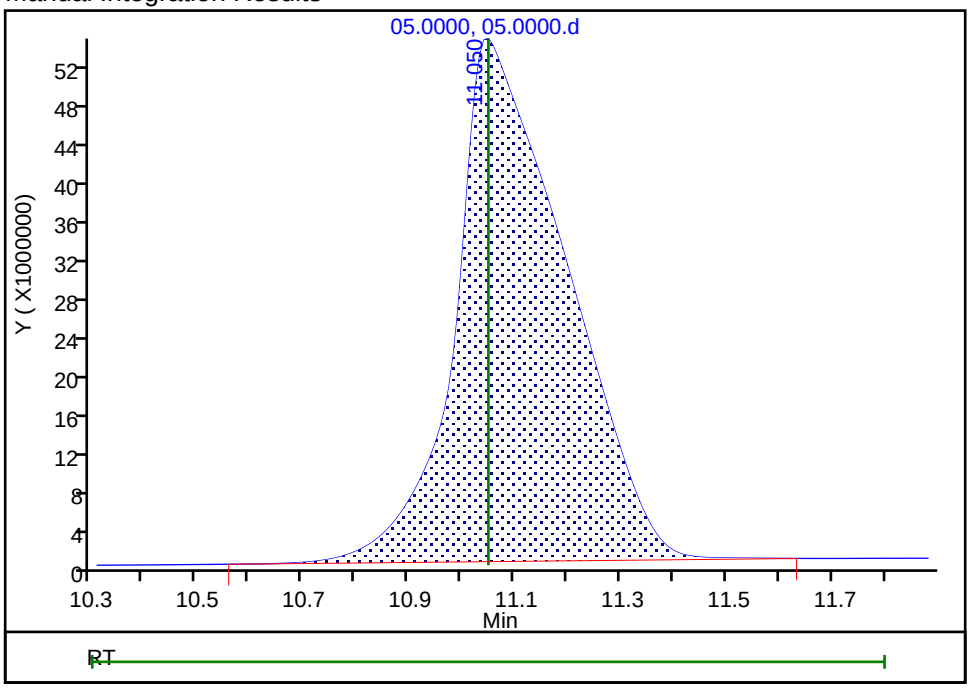
Processing Integration Results

RT: 11.05
Area: 624570842
Amount: 260.8658
Amount Units: ug/ml



Manual Integration Results

RT: 11.05
Area: 785538848
Amount: 59.039355
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:02:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\06.0000.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 03-Jun-2019 11:56:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082481-006 Temporary sequence for manual data acquisition
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom8
Sublist: chrom-Anions_IC8*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 08:19:57 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0310

First Level Reviewer: pedrickj Date: 03-Jun-2019 13:02:49

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.017	-0.008	267569824	8.00	8.17	
2 Chloride	2.859	2.917	-0.058	2141714833	120.0	122.2	M
3 Nitrite as N	3.225	3.309	-0.084	271190412	NC	NC	M
4 Bromide	4.859	4.975	-0.116	32994784	8.00	8.26	
5 Nitrate as N	5.159	5.334	-0.175	425185305	NC	NC	
6 Sulfate	10.600	11.050	-0.450	1639427065	120.0	122.9	Ma
7 Orthophosphate as P	13.150	13.159	-0.009	171010135	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

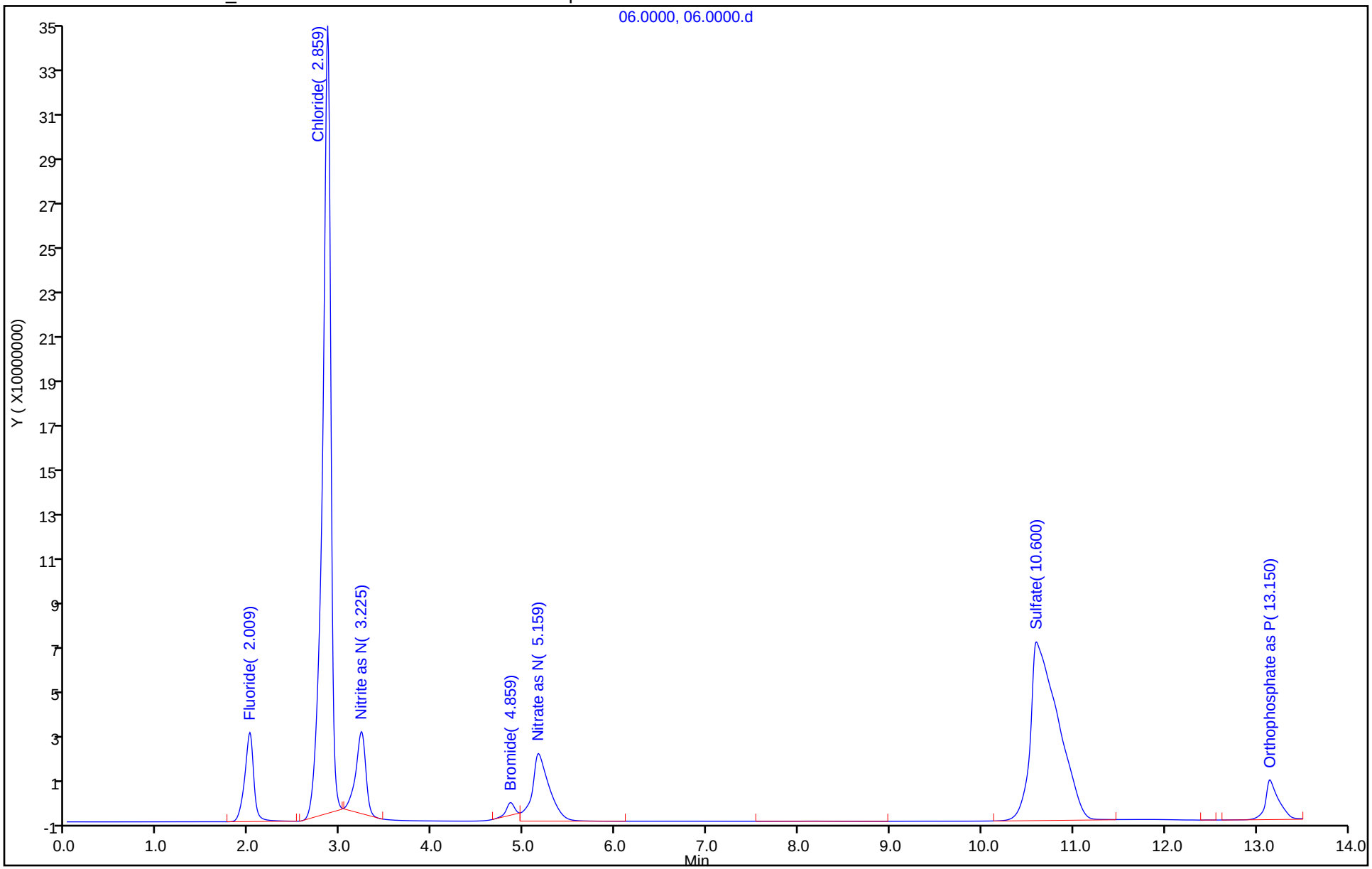
IC CAL cl/so4_00259 Amount Added: 2.40 Units: mL
IC Cal low_00462 Amount Added: 0.80 Units: mL

Report Date: 04-Jun-2019 08:19:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\06.0000.d

Injection Date:	03-Jun-2019 11:56:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

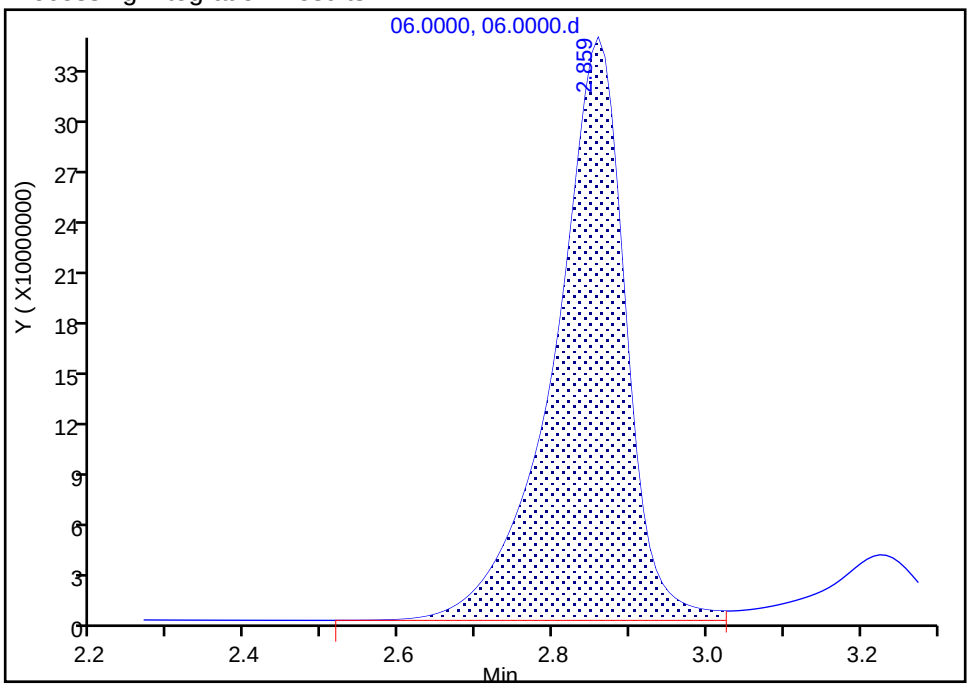
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\06.0000.d
Injection Date: 03-Jun-2019 11:56:00 Instrument ID: WC_IonChrom8
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

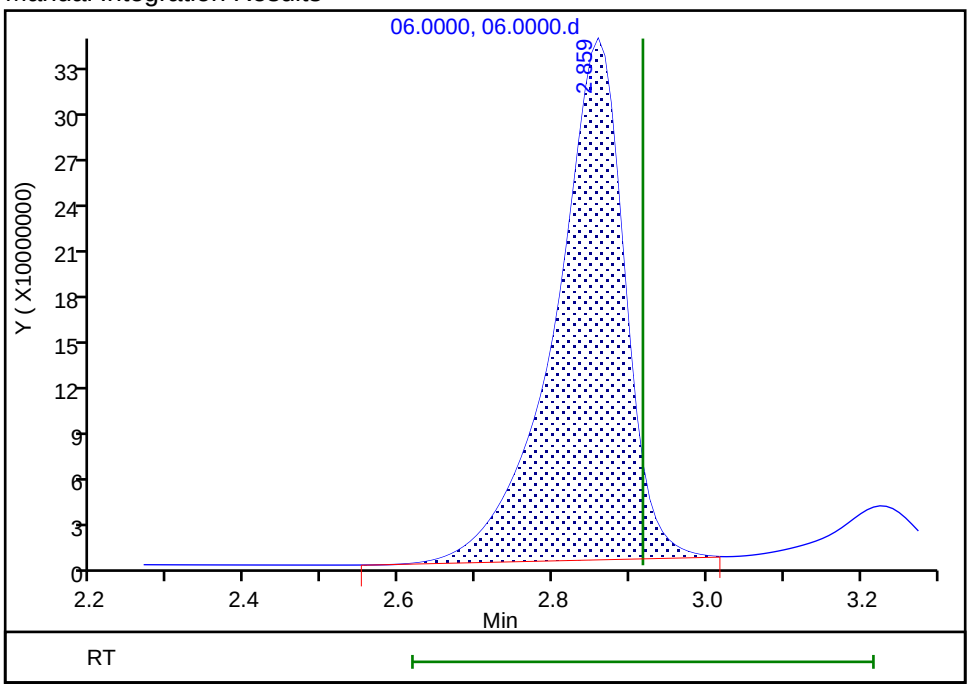
Processing Integration Results

RT: 2.86
Area: 2215851625
Amount: 122.9793
Amount Units: ug/ml



Manual Integration Results

RT: 2.86
Area: 2141714833
Amount: 122.2090
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:02:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

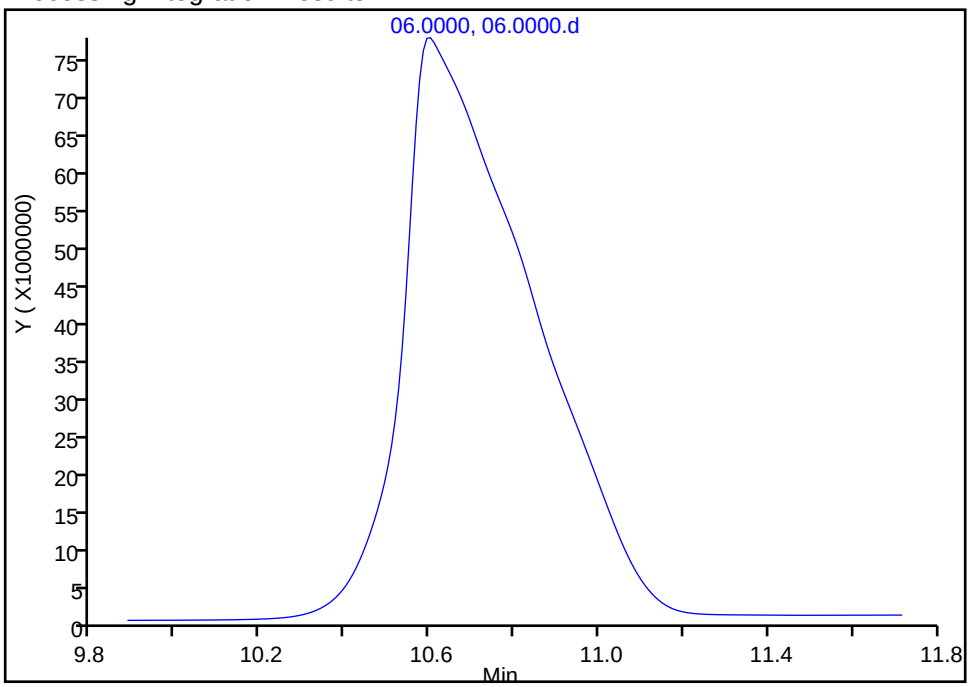
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\06.0000.d
Injection Date: 03-Jun-2019 11:56:00 Instrument ID: WC_IonChrom8
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

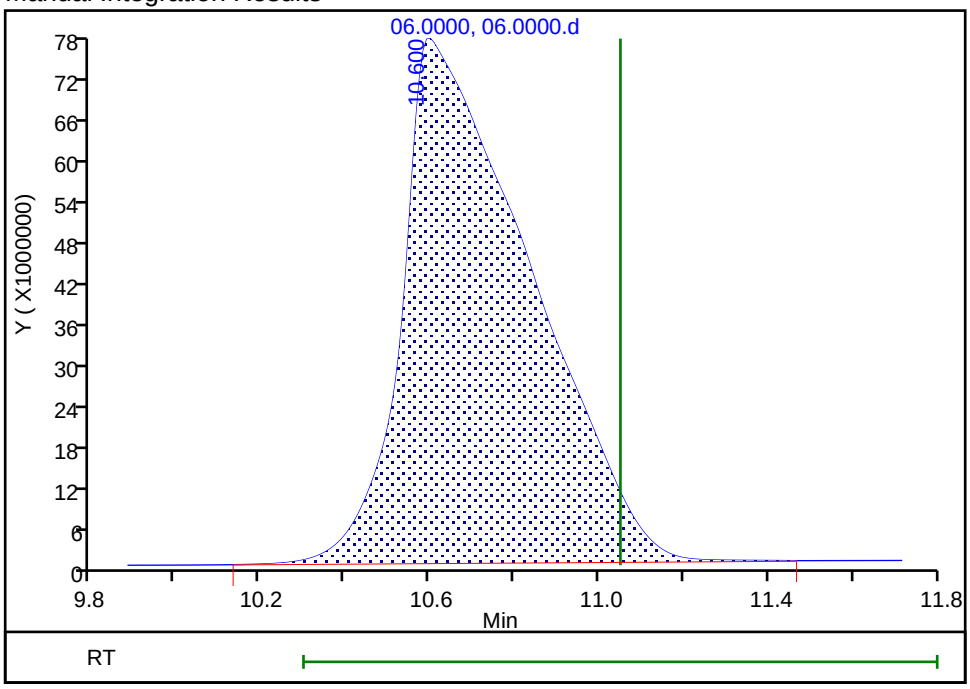
Not Detected
Expected RT: 11.05

Processing Integration Results



Manual Integration Results

RT: 10.60
Area: 1639427065
Amount: 122.9254
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:02:47
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 03-Jun-2019 12:15:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082481-007 Temporary sequence for manual data acquisition
Misc. Info.: 27863 F
Operator ID: Instrument ID: WC_IonChrom8
Sublist: chrom-Anions_IC8*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 08:19:58 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0310

First Level Reviewer: pedrickj Date: 03-Jun-2019 13:03:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.017	-0.008	314105480	10.0	9.60	
2 Chloride	2.842	2.917	-0.075	3468914871	200.0	197.9	M
3 Nitrite as N	3.200	3.309	-0.109	293034595	NC	NC	M
4 Bromide	4.725	4.975	-0.250	37464688	10.0	9.38	a
5 Nitrate as N	5.009	5.334	-0.325	513960956	NC	NC	a
6 Sulfate	10.300	11.050	-0.750	2646668976	200.0	198.3	Ma
7 Orthophosphate as P	13.100	13.159	-0.059	209929703	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

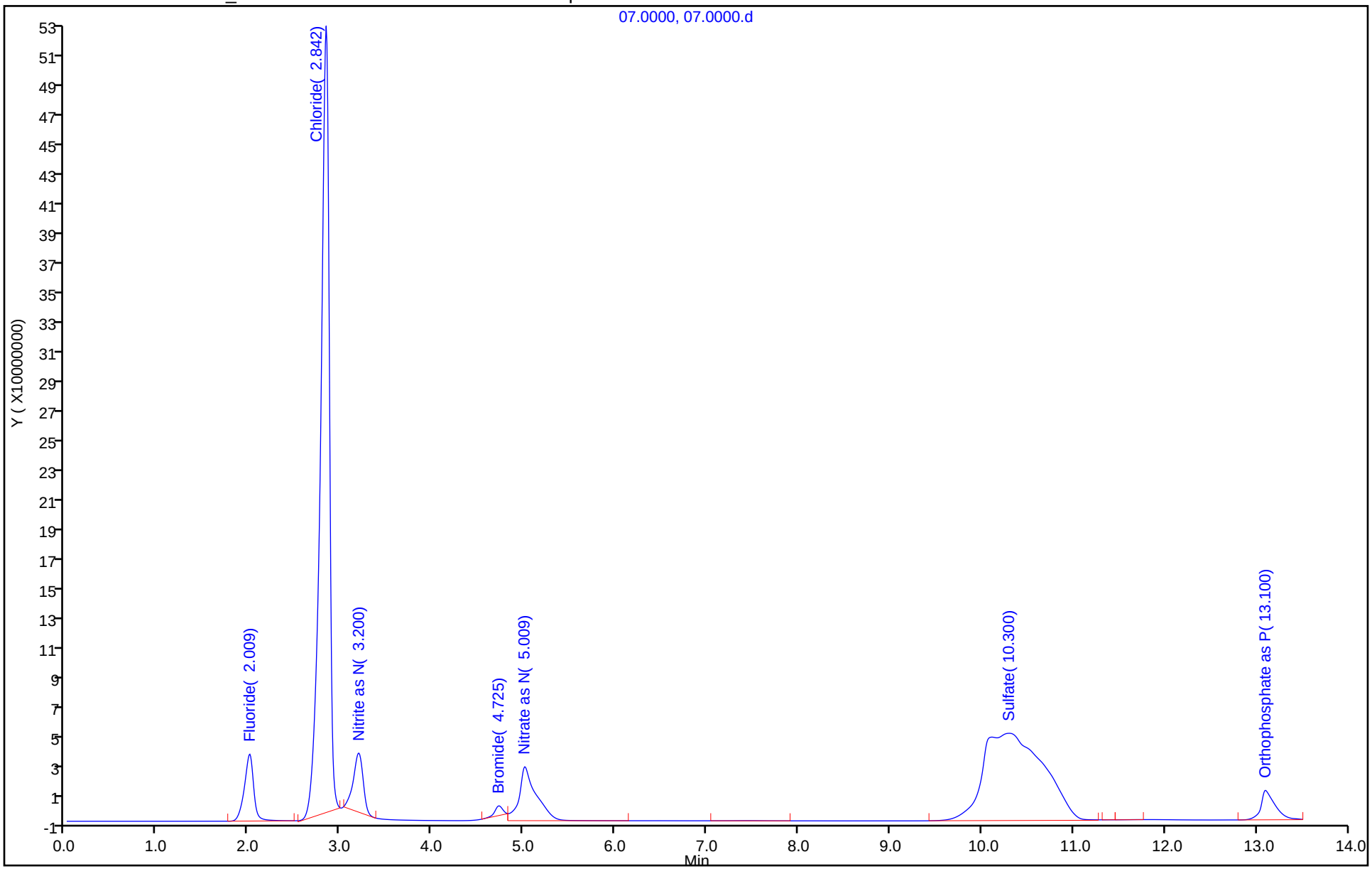
Reagents:

IC CAL cl/so4_00259 Amount Added: 4.00 Units: mL
IC Cal low_00462 Amount Added: 1.00 Units: mL

Report Date: 04-Jun-2019 08:19:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d				
Injection Date:	03-Jun-2019 12:15:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

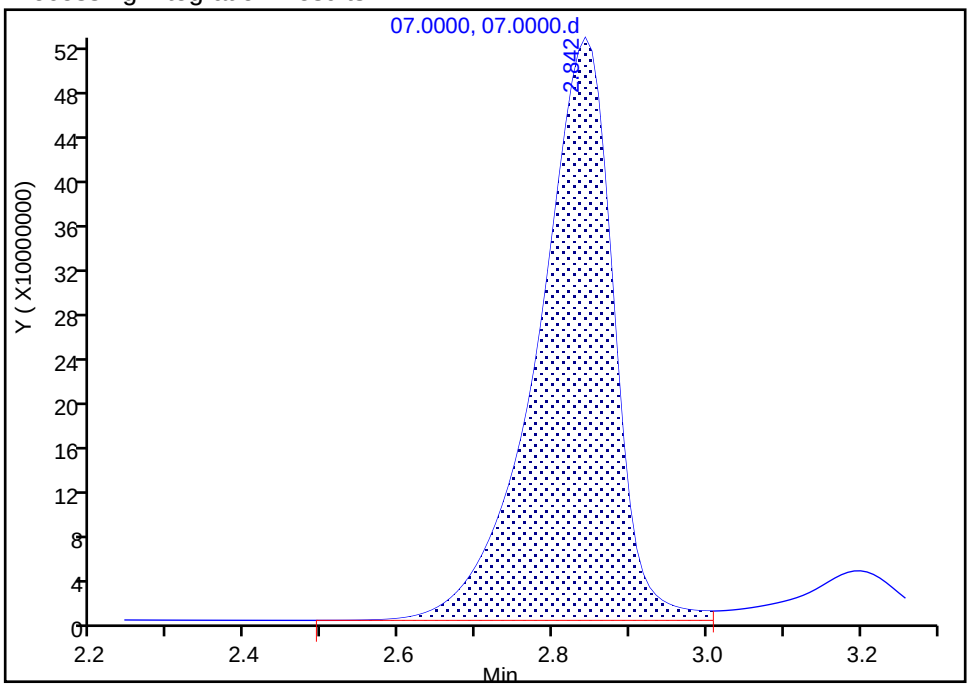
Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d				
Injection Date:	03-Jun-2019 12:15:00	Instrument ID:	WC_IonChrom8		
Lims ID:	std L6				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

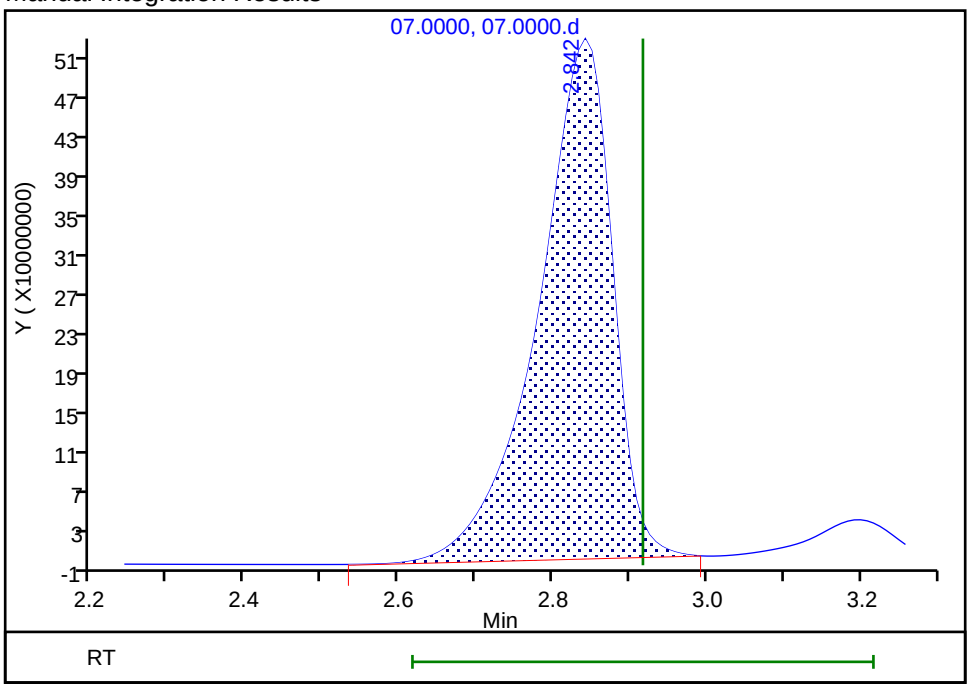
Processing Integration Results

RT: 2.84
Area: 3583125916
Amount: 200.9330
Amount Units: ug/ml



Manual Integration Results

RT: 2.84
Area: 3468914871
Amount: 197.8821
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:03:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

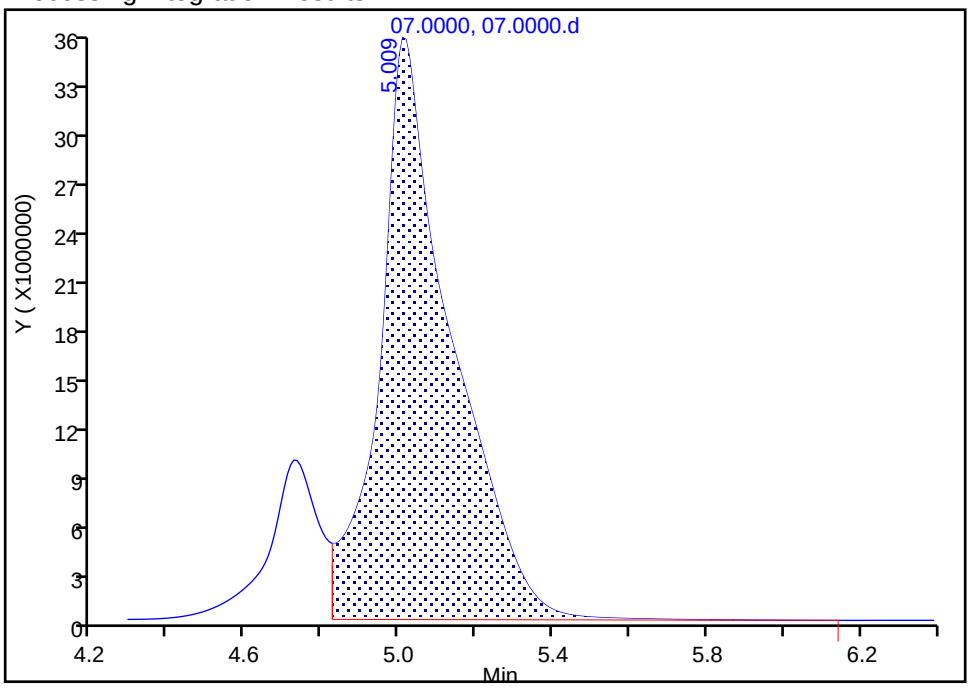
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d
Injection Date: 03-Jun-2019 12:15:00 Instrument ID: WC_IonChrom8
Lims ID: std L6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

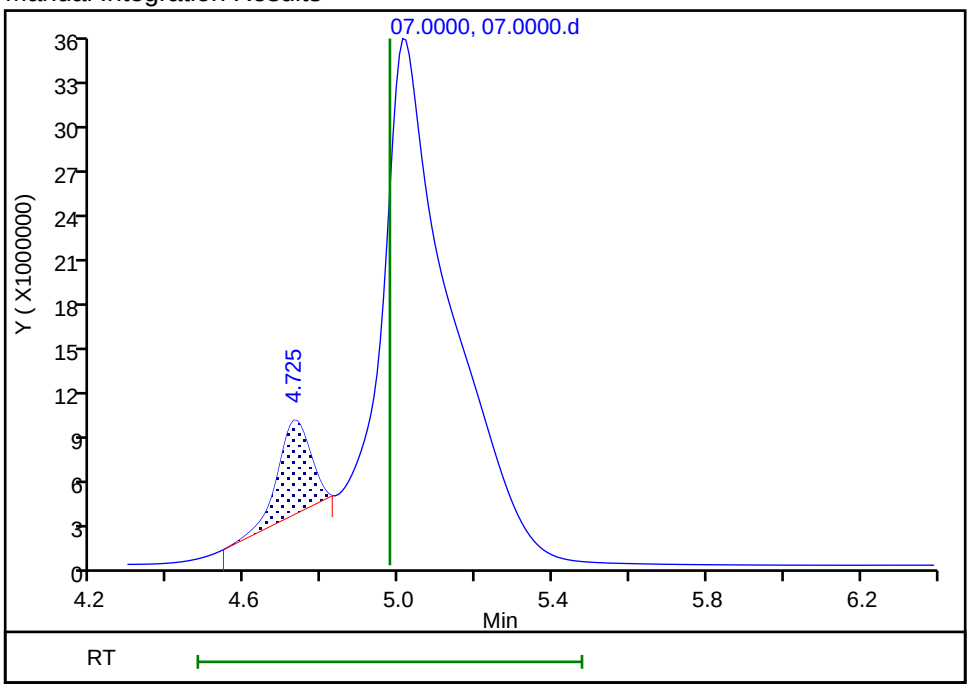
Processing Integration Results

RT: 5.01
Area: 513960956
Amount: 19.604685
Amount Units: ug/ml



Manual Integration Results

RT: 4.73
Area: 37464688
Amount: 9.377234
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:03:34
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

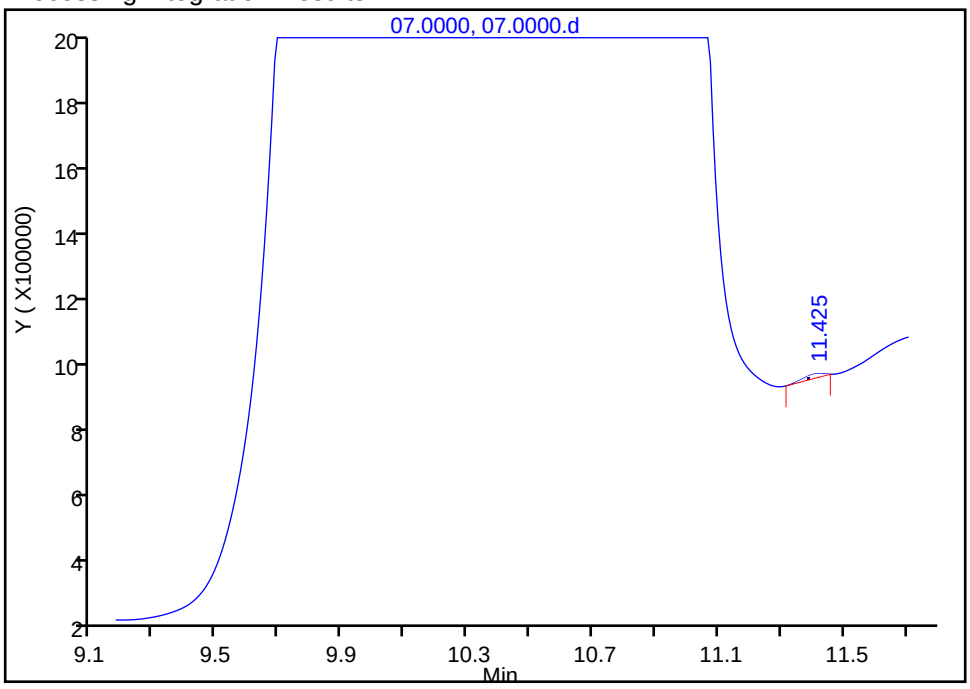
Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d				
Injection Date:	03-Jun-2019 12:15:00	Instrument ID:	WC_IonChrom8		
Lims ID:	std L6				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

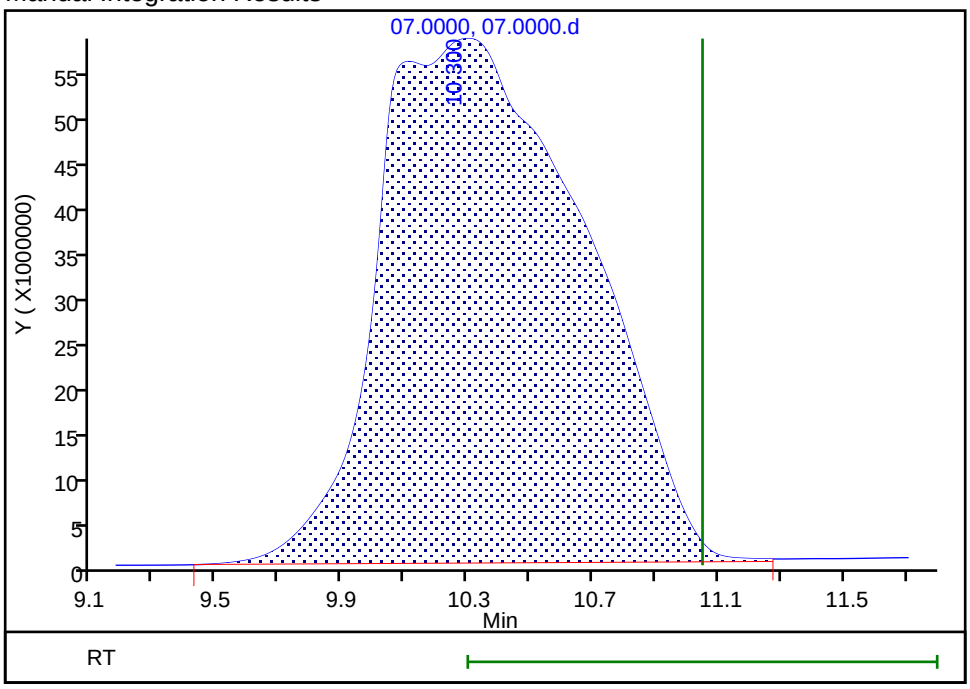
Processing Integration Results

RT: 11.43
Area: 56570
Amount: -2.287183
Amount Units: ug/ml



Manual Integration Results

RT: 10.30
Area: 2646668976
Amount: 198.2850
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:03:13
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82481 Inst ID: 8 Analysis Date: 6/3/19 Analyst: JP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123494	1	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D) !	
☐	123473	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123459	1	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	
☐	123442	6	(F Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123543	10	(F Cl) NO2 Br NO3 PO4 (SO4)	(MS/D) !	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
473	1	F Cl NO2 Br NO3 PO4 (SO4)	20x	HIST
459	1	F (Cl) NO2 Br NO3 PO4 SO4	20x	HIST
442	1-3	(F Cl) NO2 Br NO3 PO4 (SO4)	2x	COND.
543	3,8	(F Cl) NO2 Br NO3 PO4 (SO4)	2x5x	HIST
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 6/6/19

IC Instrument Information

WL: 82481 Inst ID: 8 Analysis Date: 6/3/19 Analyst: JP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123494	1	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D)	
☐	123473	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123459	1	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	
☐	123442	6	(F Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123543	10	(F Cl) NO2 Br NO3 PO4 (SO4)	(MS/D)	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
473	1	F Cl NO2 Br NO3 PO4 (SO4)	20x	HIST
459	1	F (Cl) NO2 Br NO3 PO4 SO4	20x	HIST
442	1-3	(F Cl) NO2 Br NO3 PO4 (SO4)	2x	COND.
543	3,8	(F Cl) NO2 Br NO3 PO4 (SO4)	2x5x	HIST
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Instrument: WC_IonChrom8 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2019 00:10:36
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b
Inj Date : 03-Jun-2019 10:41:00, Sublist: chrom-Anions_IC8*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					2264391	3246981		0.998
2 Chloride					-166056	175386C		1.000
3 Nitrite as N	3169016	3189753	R1	).991*				
4 Bromide					97033	3984934		0.996
5 Nitrate as N	-435888	5192084		0.996				
6 Sulfate					-356965	133658C		1.000
7 Orthophosphate as P	2064144	1878508	R4	).996*				

ICallb Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit

Phuriya
6/6/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Instrument: WC_IonChrom8 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2019 00:10:36
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b
Inj Date : 03-Jun-2019 10:41:00, Sublist: chrom-Anions_IC8*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					2264391	3246981		0.998
2 Chloride					-166056	175386		1.000
3 Nitrite as N	3169016	3189753	R1	).991*				
4 Bromide					97033	3984934		0.996
5 Nitrate as N	-435888	5192084		0.996				
6 Sulfate					-356965	133658		1.000
7 Orthophosphate as P	2064144	1878509	R4	).996*				

ICalib Error Legend

R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\08.0000.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 03-Jun-2019 12:34:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082481-008 Temporary sequence for manual data acquisition
Misc. Info.: 31524 F
Operator ID: Instrument ID: WC_IonChrom8
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 08:19:59 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0310

First Level Reviewer: pedrickj Date: 03-Jun-2019 13:03:59

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.008	2.008	0.000	140264774	4.00	4.25	
2 Chloride	2.925	2.925	0.000	1461737052	80.0	83.4	M
3 Nitrite as N	3.283	3.283	0.000	136190748	NC	NC	M
4 Bromide	4.925	4.925	0.000	18933330	4.00	4.73	
5 Nitrate as N	5.300	5.300	0.000	200806862	NC	NC	
6 Sulfate	10.792	10.792	0.000	1078964610	80.0	81.0	Ma
7 Orthophosphate as P	13.200	13.200	0.000	98382667	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

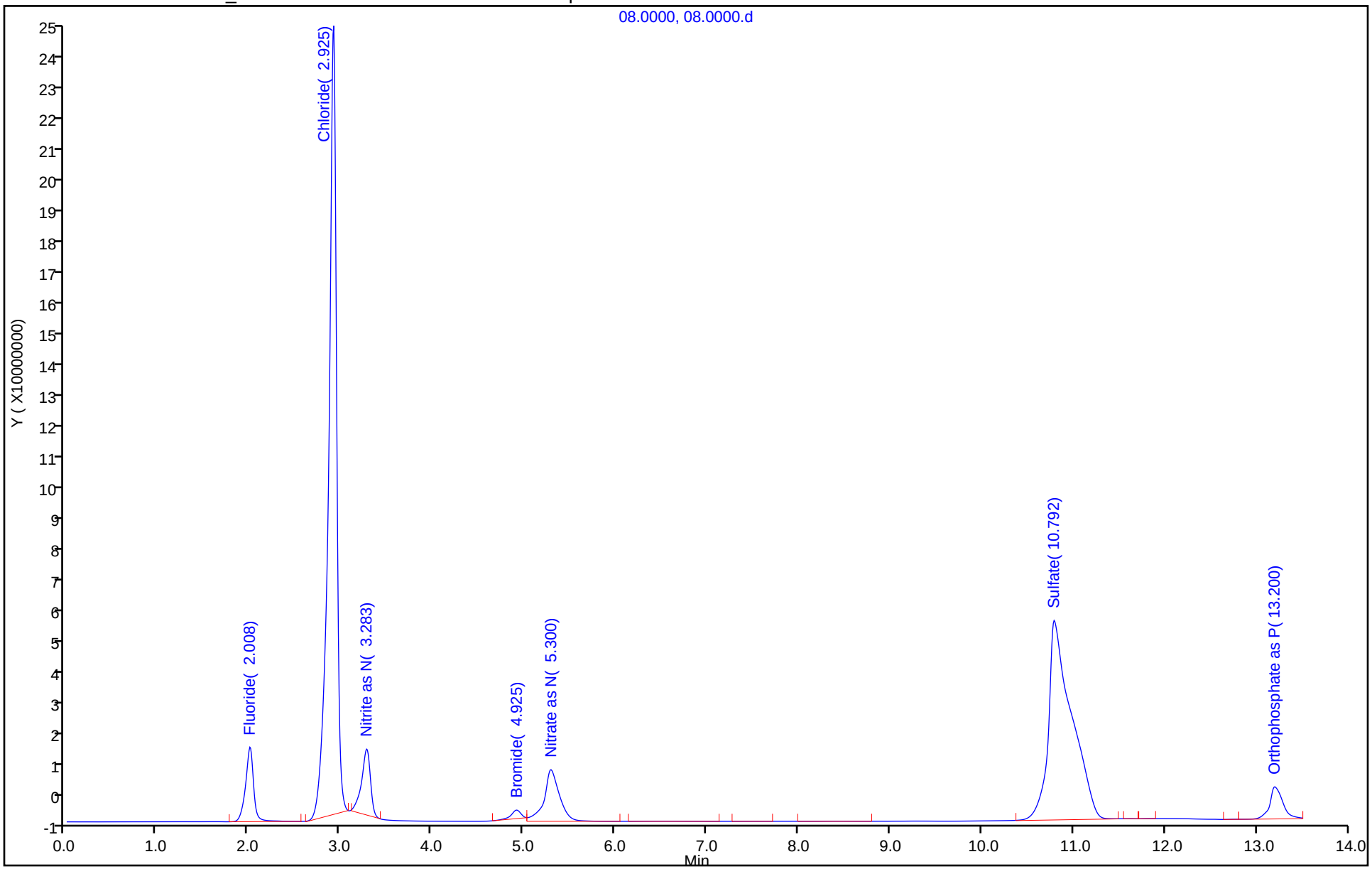
IC CL ICV_00016	Amount Added:	0.40	Units: mL
IC ICV 5_00235	Amount Added:	0.40	Units: mL
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL

Report Date: 04-Jun-2019 08:20:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\08.0000.d

Injection Date:	03-Jun-2019 12:34:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

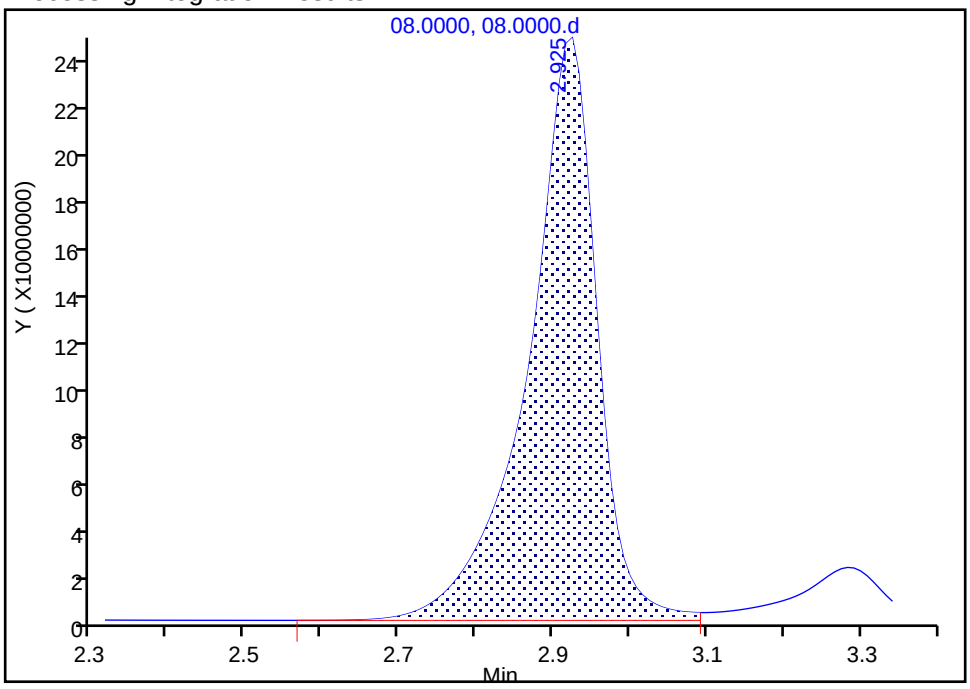
Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\08.0000.d				
Injection Date:	03-Jun-2019 12:34:00	Instrument ID:	WC_IonChrom8		
Lims ID:	ICV				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

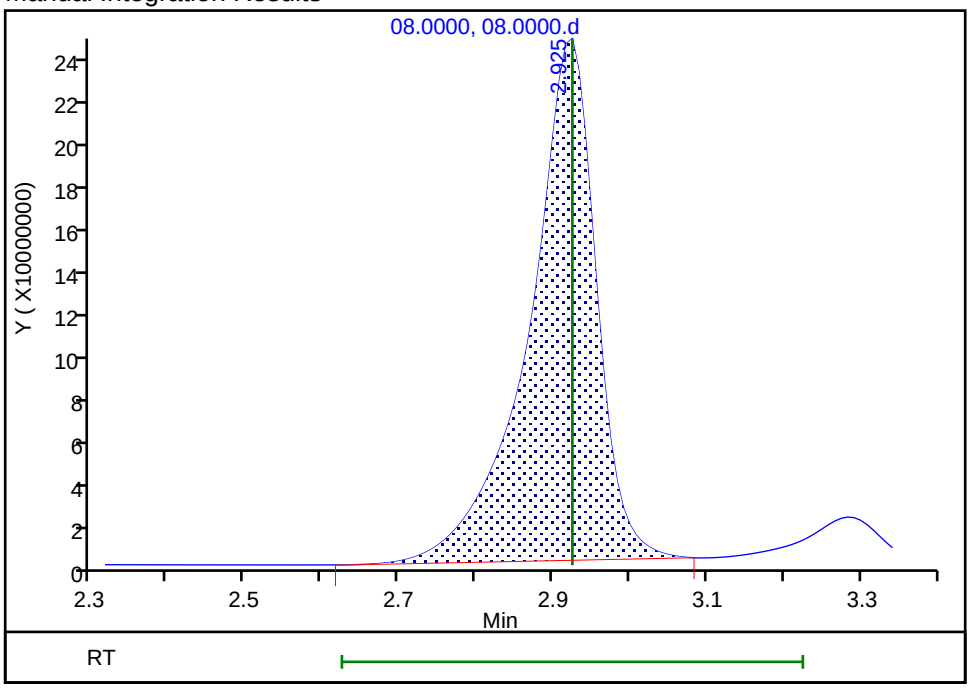
Processing Integration Results

RT: 2.93
Area: 1507953808
Amount: 86.073793
Amount Units: ug/ml



Manual Integration Results

RT: 2.93
Area: 1461737052
Amount: 83.438649
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:04:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

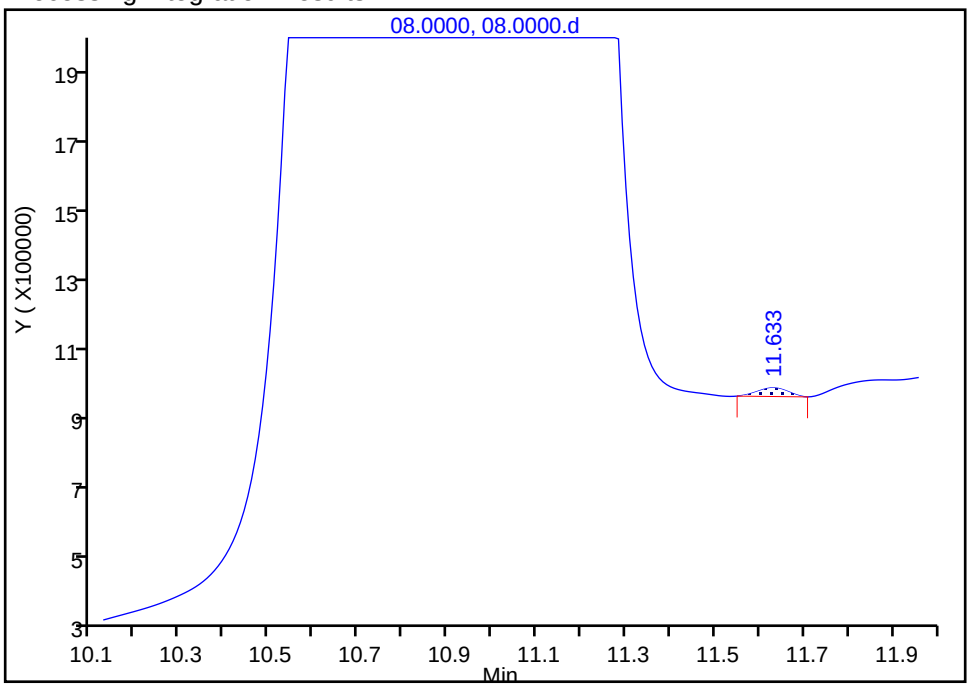
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\08.0000.d
Injection Date: 03-Jun-2019 12:34:00 Instrument ID: WC_IonChrom8
Lims ID: ICV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

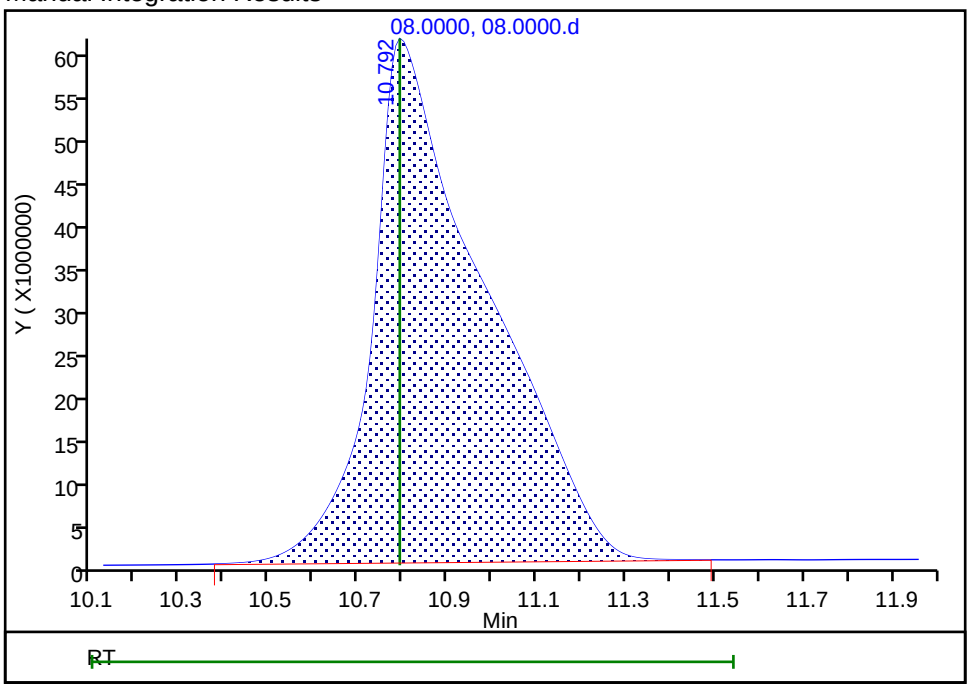
Processing Integration Results

RT: 11.63
Area: 113620
Amount: 0.275574
Amount Units: ug/ml



Manual Integration Results

RT: 10.79
Area: 1078964610
Amount: 80.992822
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2019 13:03:58
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\09.0000.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 03-Jun-2019 12:52:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082481-009 Temporary sequence for manual data acquisition
Misc. Info.: 18835 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 08:19:59 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0310

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.983	2.017	-0.034	571877		-0.0521	
2 Chloride	2.875	2.917	-0.042	1109204		0.1579	
3 Nitrite as N	3.208	3.309	-0.101	540000		NC	
4 Bromide	4.950	4.975	-0.025	85814		-0.002815	
5 Nitrate as N	5.308	5.334	-0.026	1649814		NC	
6 Sulfate	11.083	11.050	0.033	337894		0.2924	
7 Orthophosphate as P	13.375	13.159	0.216	3891574		NC	

QC Flag Legend

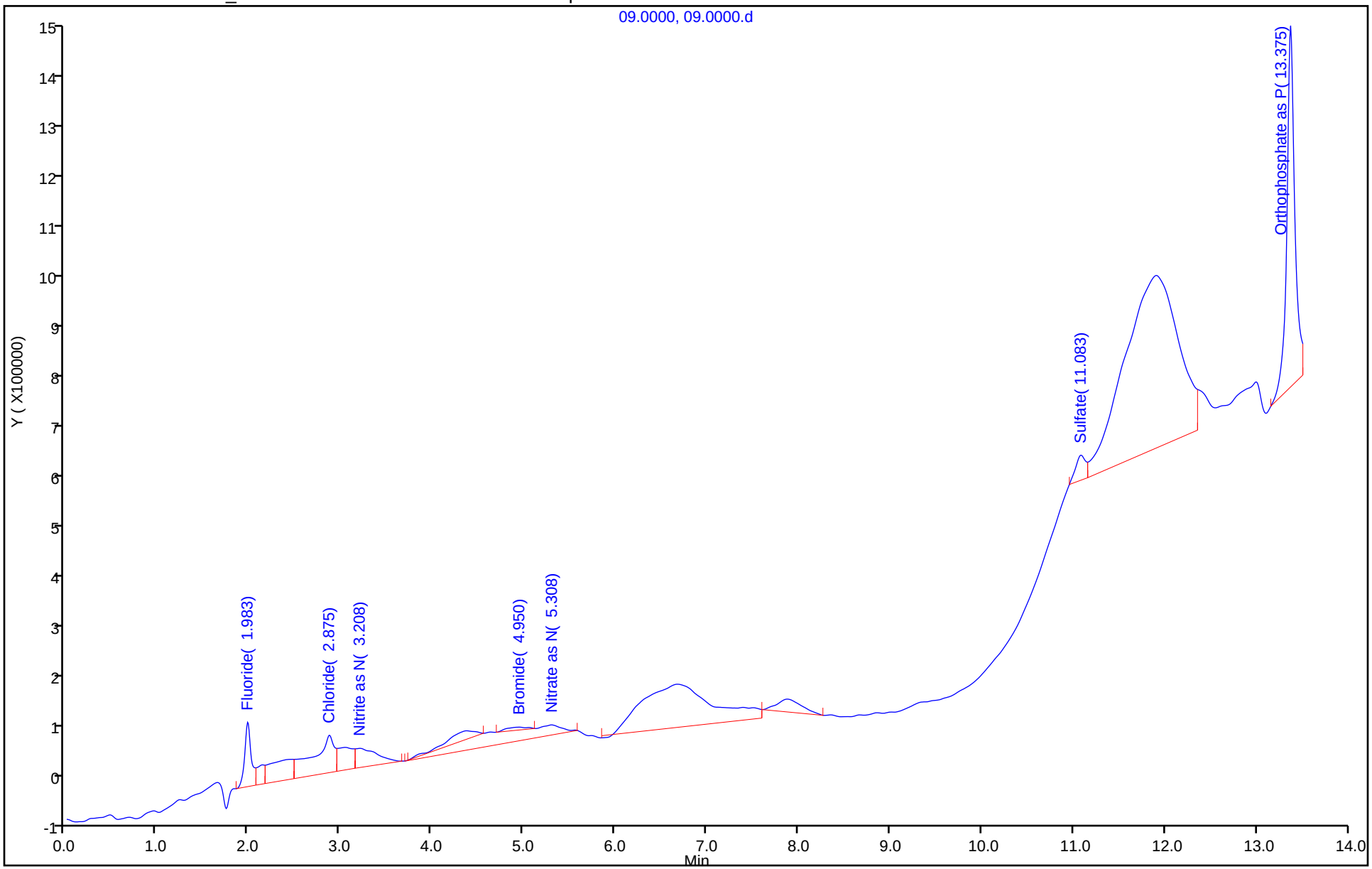
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 08:20:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\09.0000.d

Injection Date:	03-Jun-2019 12:52:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 82727 Inst ID: 8 Analysis Date: 6/11/19 Analyst: JP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123941	2	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123969	2	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123922	3	(F) Cl NO2 Br NO3 PO4 SO4	(MS/D)1	
☐	124055	6	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123850	1	F Cl NO2 Br NO3 PO4 SO4	(MS/D)1	
☐	124057	2	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	124183	4	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
941		F Cl NO2 Br NO3 PO4 SO4	5,20	
969		F Cl NO2 Br NO3 PO4 SO4	2,5	
055		F Cl NO2 Br NO3 PO4 SO4	5,10,20	
057		F Cl NO2 Br NO3 PO4 SO4	10,20	
183		F Cl NO2 Br NO3 PO4 SO4	5,10,200	
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\Anions_IC8.m
Instrument: WC_IonChrom8 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2019 00:10:36
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b
Inj Date : 03-Jun-2019 10:41:00, Sublist: chrom-Anions_IC8*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					2264391	3246981		0.998
2 Chloride					-166056	175386		1.000
3 Nitrite as N	3169016	3189753	R1	).991*				
4 Bromide					97033	3984934		0.996
5 Nitrate as N	-435888	5192084		0.996				
6 Sulfate					-356965	133658		1.000
7 Orthophosphate as P	2064144	1878509	R4	).996*				

ICalib Error Legend

R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\01.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 11-Jun-2019 08:44:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-001 Temporary sequence for manual data acquisition
Operator ID: Instrument ID: WC_IonChrom8
Sublist: chrom-Anions_IC8*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 11-Jun-2019 09:33:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.992	1.992	0.000	165005685	5.00	5.01	
2 Chloride	2.825	2.825	0.000	1826726827	100.0	104.2	
3 Nitrite as N	3.192	3.192	0.000	224275855	NC	NC	
4 Bromide	4.733	4.733	0.000	20929051	5.00	5.23	a
5 Nitrate as N	5.050	5.050	0.000	251851303	NC	NC	a
6 Sulfate	10.625	10.625	0.000	1355638569	100.0	101.7	Ma
7 Orthophosphate as P		13.159			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

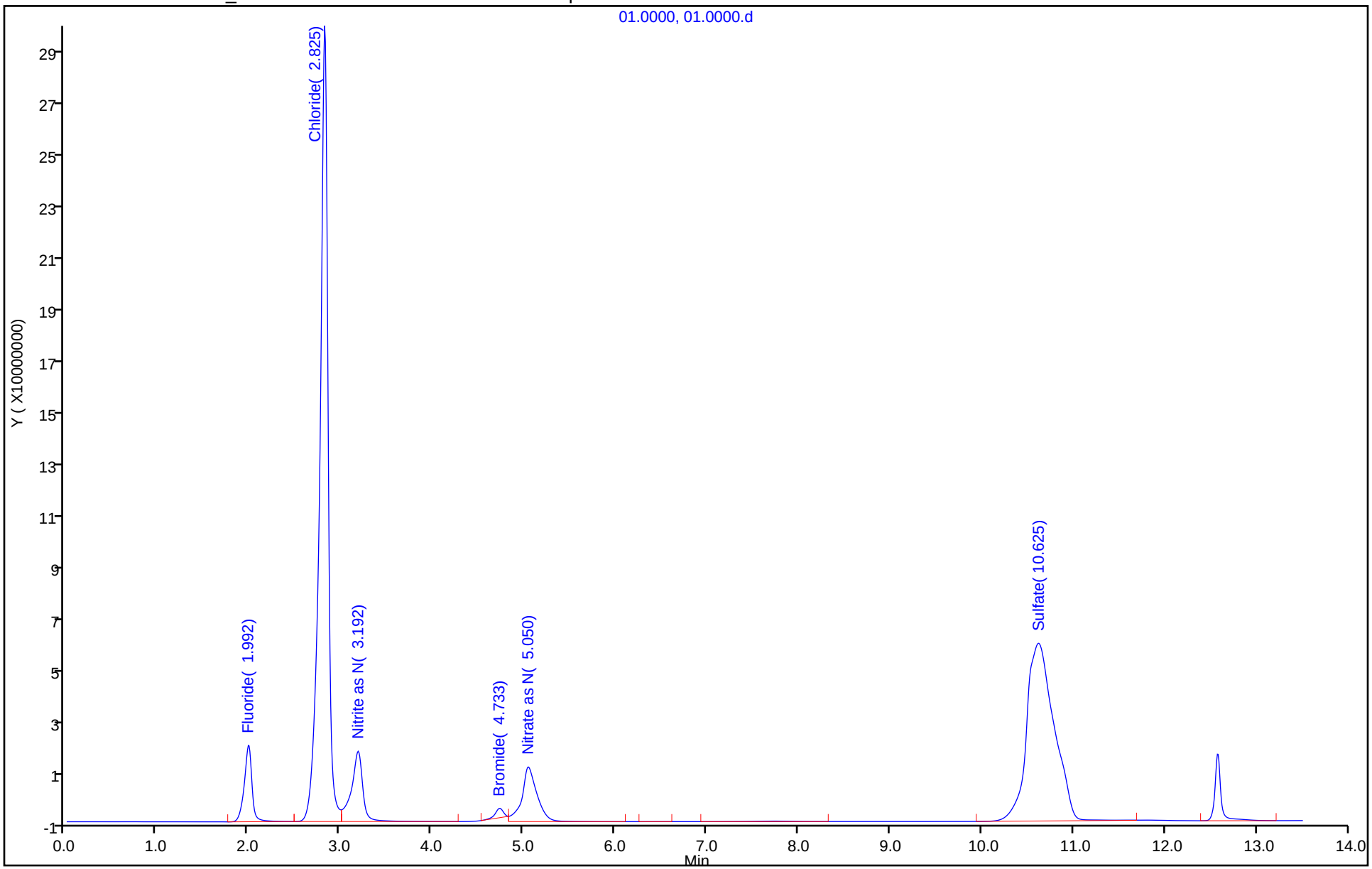
IC LCS_01601 Amount Added: 5.00 Units: mL

Report Date: 12-Jun-2019 08:36:47 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\01.0000.d

Injection Date:	11-Jun-2019 08:44:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

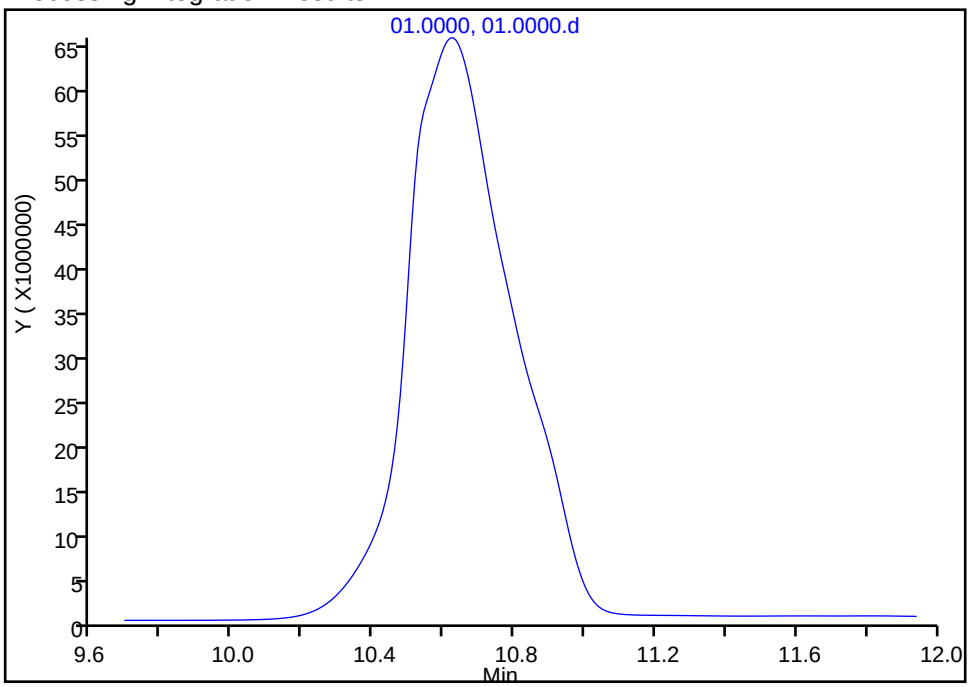
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\01.0000.d
Injection Date: 11-Jun-2019 08:44:00 Instrument ID: WC_IonChrom8
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

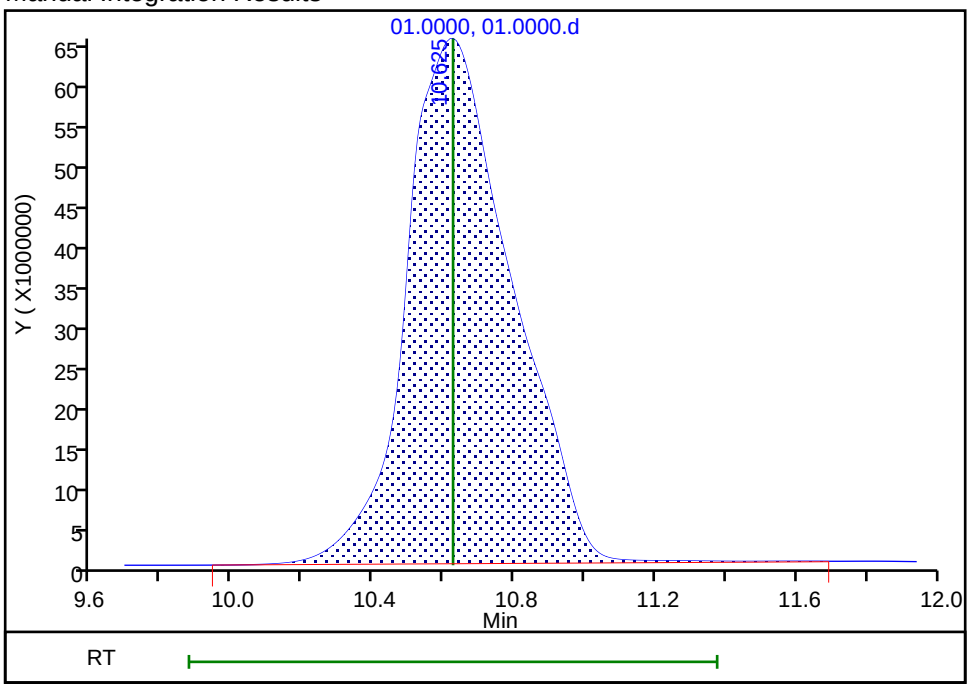
Not Detected
Expected RT: 10.63

Processing Integration Results



Manual Integration Results

RT: 10.63
Area: 1355638569
Amount: 101.6930
Amount Units: ug/ml



Reviewer: pedrickj, 11-Jun-2019 09:33:49
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\02.0000.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 11-Jun-2019 09:02:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-002 Temporary sequence for manual data acquisition
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	1.992	0.033	468031		-0.0553	
2 Chloride	2.817	2.825	-0.008	182020		0.1051	
3 Nitrite as N		3.192				ND	
4 Bromide	5.142	4.733	0.409	42816		-0.0136	
5 Nitrate as N	5.734	5.050	0.684	886439		NC	
6 Sulfate		10.625				ND	
7 Orthophosphate as P	13.209	13.159	0.050	521830		NC	

QC Flag Legend

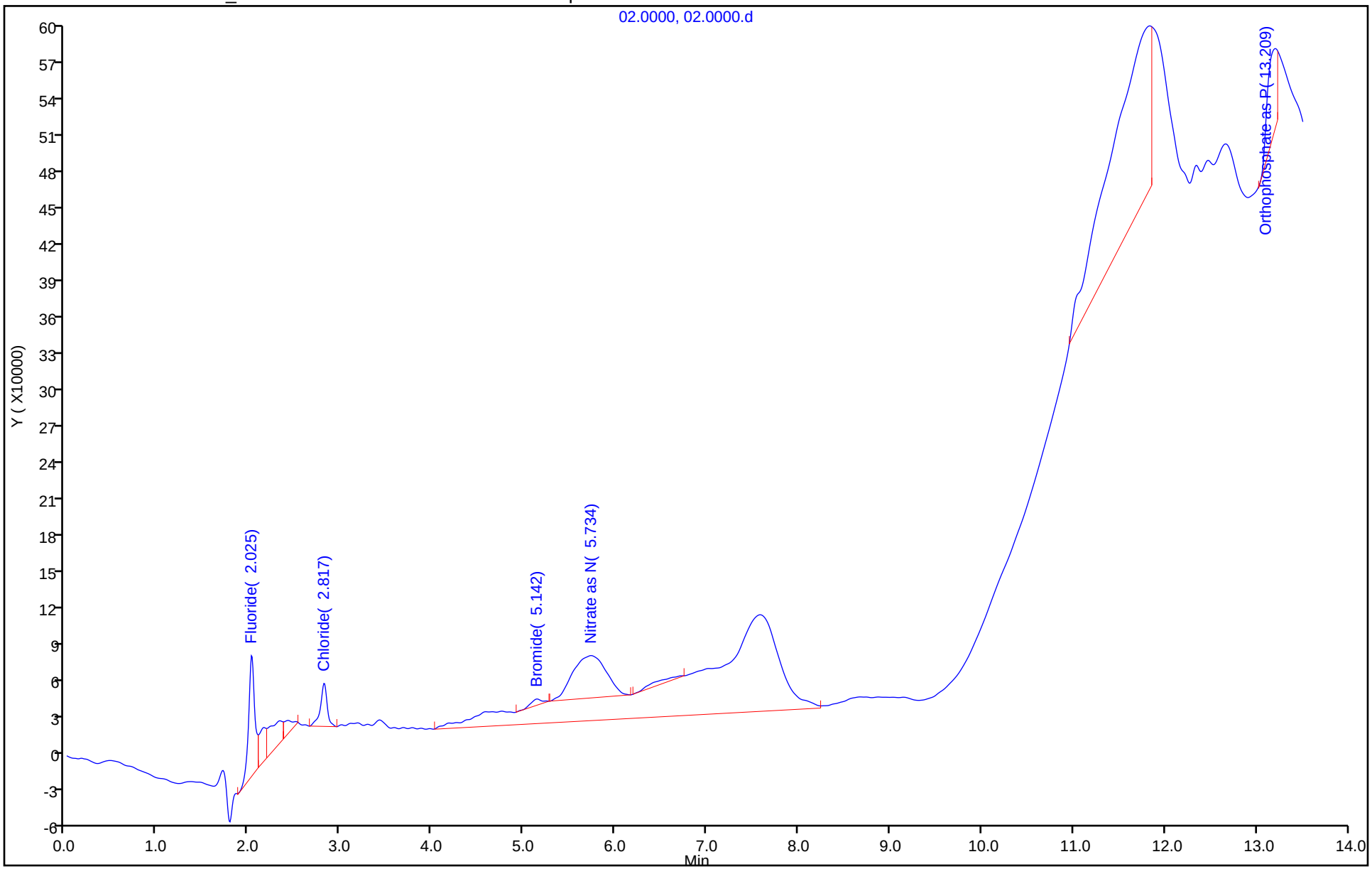
Processing Flags
NC - Not Calibrated

Report Date: 12-Jun-2019 08:36:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\02.0000.d

Injection Date:	11-Jun-2019 09:02:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\03.0000.d
Lims ID: mrl
Client ID:
Sample Type: MRL
Inject. Date: 11-Jun-2019 09:21:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-003 Temporary sequence for manual data acquisition
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 11-Jun-2019 10:11:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.984	1.992	-0.008	7249816	0.2000	0.1535	
2 Chloride	2.842	2.825	0.017	43532883	2.50	2.58	
3 Nitrite as N	3.184	3.192	-0.008	8853946	NC	NC	
4 Bromide	4.742	4.733	0.009	757094	0.2000	0.1656	
5 Nitrate as N	5.159	5.050	0.109	8403113	NC	NC	
6 Sulfate	11.034	10.625	0.409	27182232	2.50	2.30	M
7 Orthophosphate as P	13.025	13.159	-0.134	10620614	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

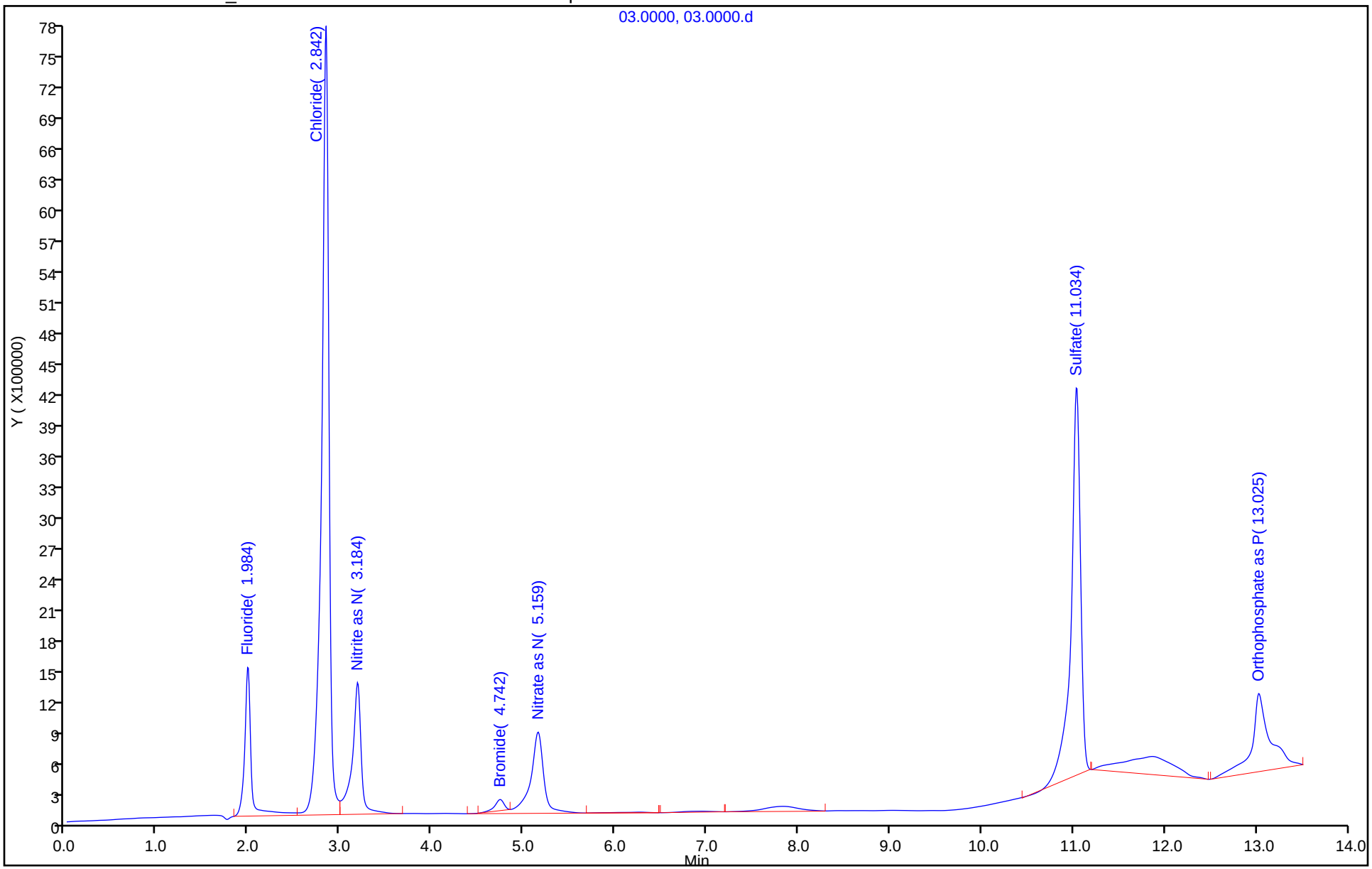
IC CAL cl/so4_00260 Amount Added: 0.05 Units: mL
IC Cal low_00464 Amount Added: 0.02 Units: mL

Report Date: 12-Jun-2019 08:36:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\03.0000.d

Injection Date:	11-Jun-2019 09:21:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	mrl			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

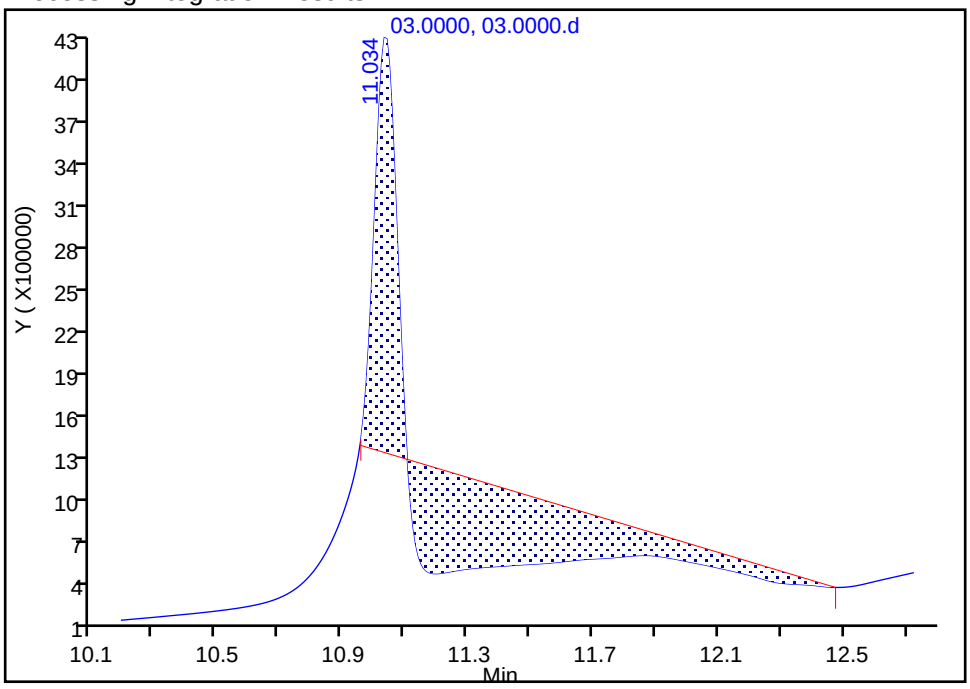
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\03.0000.d
Injection Date: 11-Jun-2019 09:21:00 Instrument ID: WC_IonChrom8
Lims ID: mrl
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

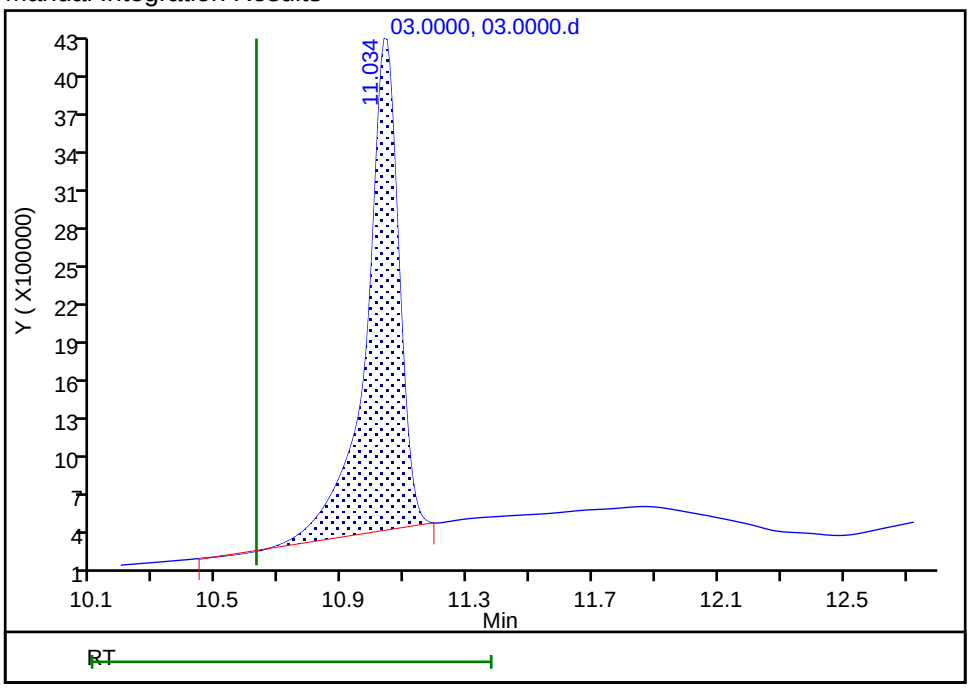
Processing Integration Results

RT: 11.03
Area: 4211793
Amount: 0.582190
Amount Units: ug/ml



Manual Integration Results

RT: 11.03
Area: 27182232
Amount: 2.300788
Amount Units: ug/ml



Reviewer: pedrickj, 11-Jun-2019 10:11:18
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\04.0000.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 11-Jun-2019 09:39:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-004 Temporary sequence for manual data acquisition
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 11-Jun-2019 10:11:32

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.992	0.025	165622682	5.00	5.03	
2 Chloride	2.917	2.825	0.092	1823492725	100.0	104.1	
3 Nitrite as N	3.284	3.192	0.092	223512582	NC	NC	
4 Bromide	4.825	4.733	0.092	22116318	5.00	5.53	
5 Nitrate as N	5.150	5.050	0.100	249684066	NC	NC	
6 Sulfate	10.750	10.625	0.125	1363236079	100.0	102.3	Ma
7 Orthophosphate as P	13.125	13.159	-0.034	101743437	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

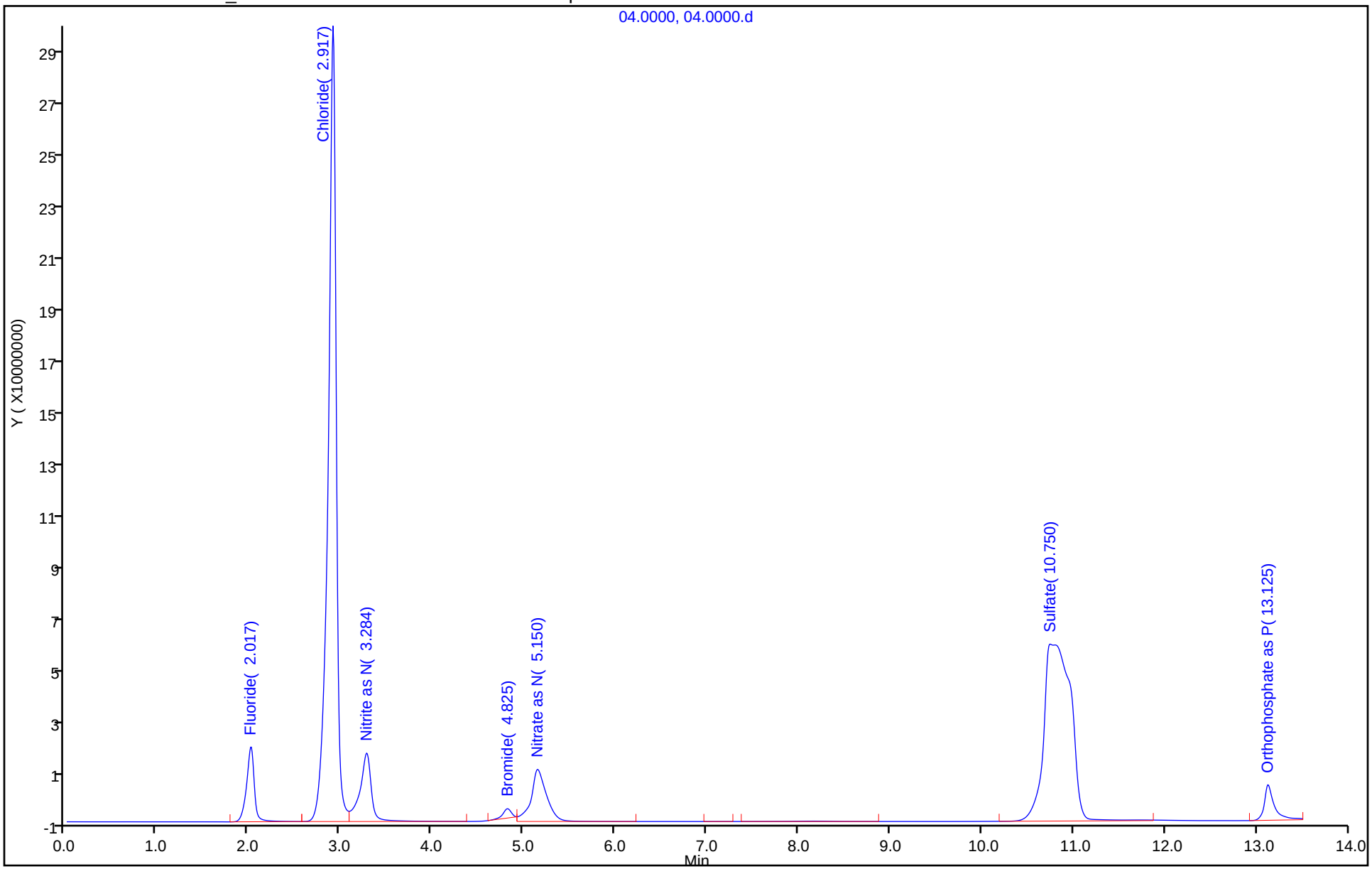
IC LCS_01601 Amount Added: 5.00 Units: mL

Report Date: 12-Jun-2019 08:36:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\04.0000.d

Injection Date:	11-Jun-2019 09:39:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

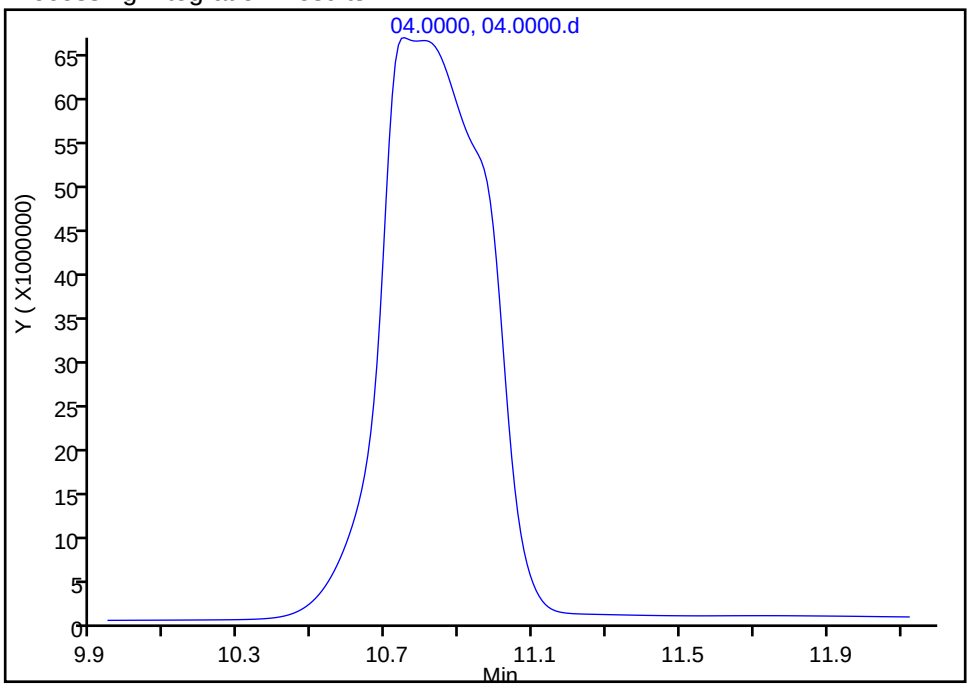
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\04.0000.d
Injection Date: 11-Jun-2019 09:39:00 Instrument ID: WC_IonChrom8
Lims ID: lcs
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

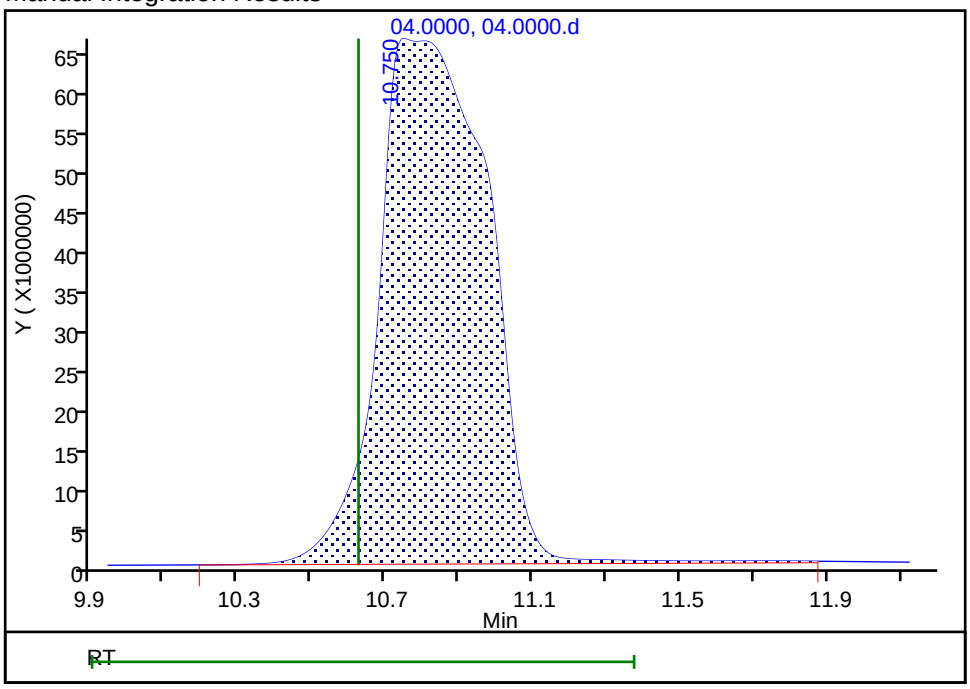
Not Detected
Expected RT: 10.63

Processing Integration Results



Manual Integration Results

RT: 10.75
Area: 1363236079
Amount: 102.2614
Amount Units: ug/ml



Reviewer: pedrickj, 11-Jun-2019 10:11:29
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\05.0000.d
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 11-Jun-2019 09:58:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-005 Temporary sequence for manual data acquisition
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 11-Jun-2019 13:04:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	1.992	0.050	166842018	5.00	5.07	
2 Chloride	2.959	2.825	0.134	1834185200	100.0	104.7	
3 Nitrite as N	3.325	3.192	0.133	225925444	NC	NC	
4 Bromide	4.934	4.733	0.201	21910601	5.00	5.47	a
5 Nitrate as N	5.267	5.050	0.217	251530050	NC	NC	a
6 Sulfate	10.742	10.625	0.117	1350558287	100.0	101.3	Ma
7 Orthophosphate as P	12.867	13.159	-0.292	109094508	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

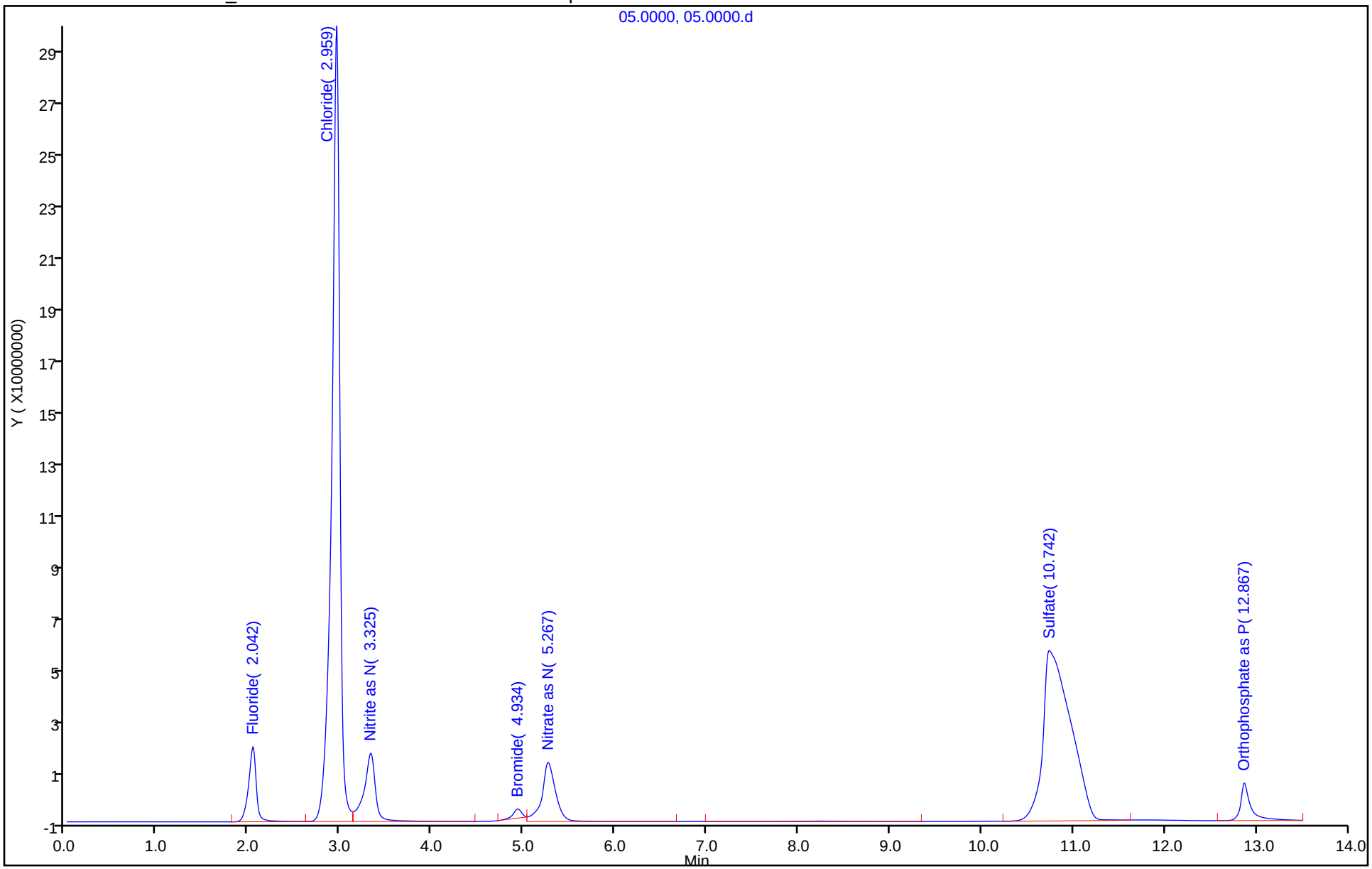
IC LCS_01601 Amount Added: 5.00 Units: mL

Report Date: 12-Jun-2019 08:36:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\05.0000.d

Injection Date:	11-Jun-2019 09:58:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	lcsd			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

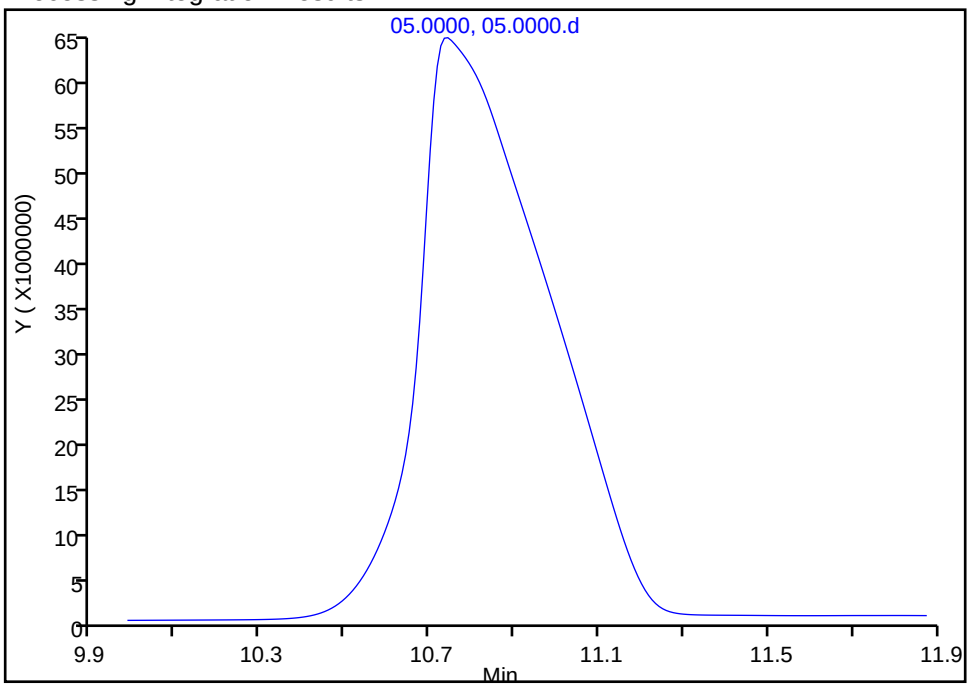
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\05.0000.d
Injection Date: 11-Jun-2019 09:58:00 Instrument ID: WC_IonChrom8
Lims ID: lcsd
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

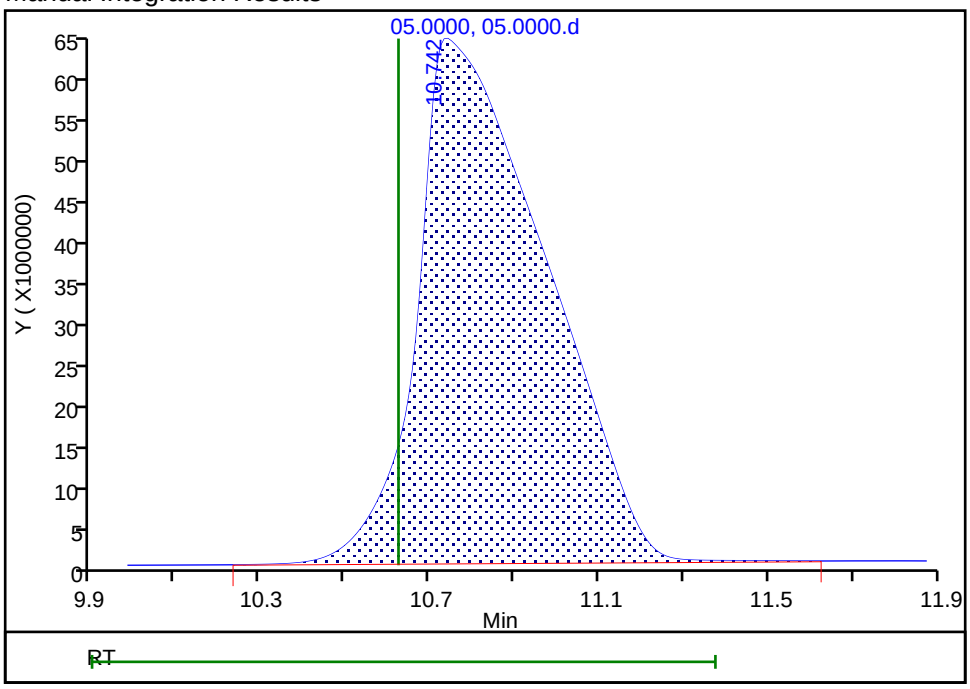
Not Detected
Expected RT: 10.63

Processing Integration Results



Manual Integration Results

RT: 10.74
Area: 1350558287
Amount: 101.3129
Amount Units: ug/ml



Reviewer: pedrickj, 11-Jun-2019 13:04:49
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\06.0000.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 11-Jun-2019 10:17:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-006 Temporary sequence for manual data acquisition
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	1.992	0.008	546433		-0.0529	
2 Chloride	2.925	2.825	0.100	226690		0.1076	
3 Nitrite as N	3.334	3.192	0.142	4132230		NC	
4 Bromide		4.733				ND	
5 Nitrate as N	5.250	5.050	0.200	54822		NC	
6 Sulfate	11.342	10.625	0.717	917616		0.3357	
7 Orthophosphate as P	13.209	13.159	0.050	2408209		NC	

QC Flag Legend

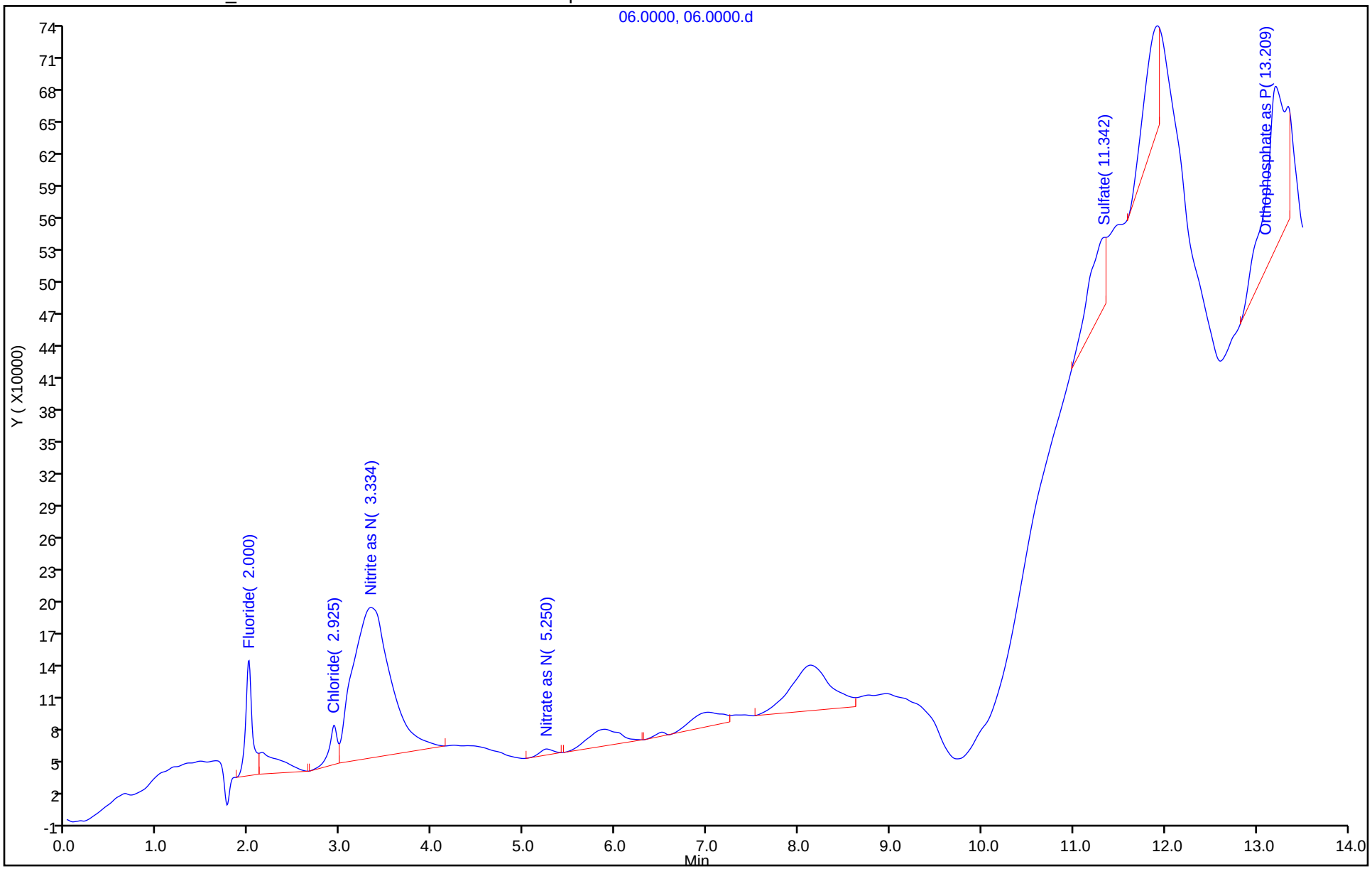
Processing Flags
NC - Not Calibrated

Report Date: 12-Jun-2019 08:36:52 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\06.0000.d

Injection Date:	11-Jun-2019 10:17:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\11.0000.d
Lims ID: 280-123922-J-1
Client ID: LF1MW-5_0519
Sample Type: Client
Inject. Date: 11-Jun-2019 15:33:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-011 Temporary sequence for manual data acquisition
Misc. Info.: 4904 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:31:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	1.992	1.992	0.000	1311695	-0.0293	
2 Chloride	2.917	2.825	0.092	173566941	10.0	
3 Nitrite as N		3.192			ND	
4 Bromide		4.733			ND	a
5 Nitrate as N	4.717	5.050	-0.333	1000504	NC	a
6 Sulfate	11.075	10.625	0.450	127488	0.2766	
7 Orthophosphate as P		13.159			ND	

QC Flag Legend

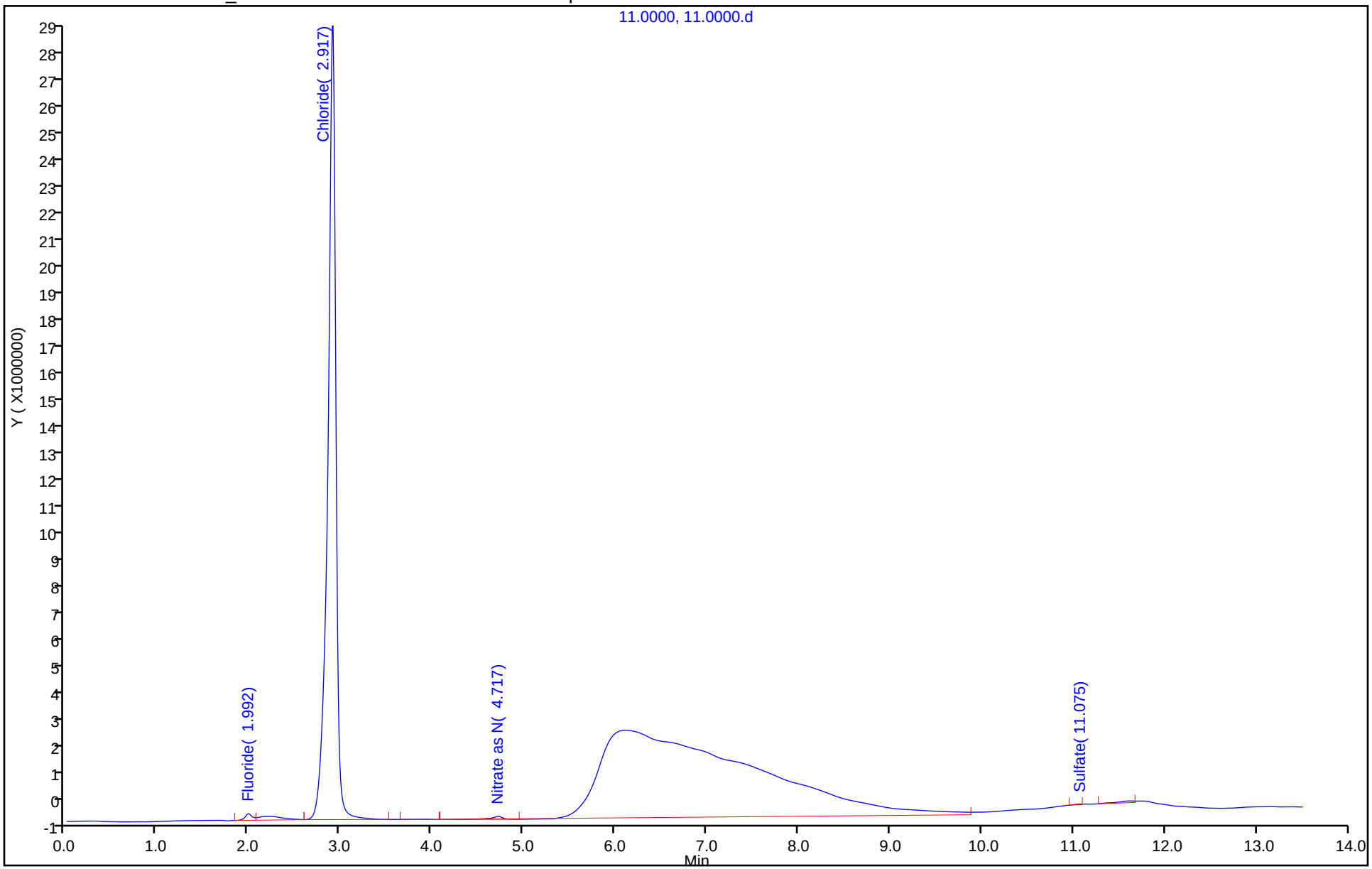
Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 12-Jun-2019 08:36:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\11.0000.d

Injection Date:	11-Jun-2019 15:33:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	280-123922-J-1	Lab Sample ID:	280-123922-1	Worklist Smp#:	11
Client ID:	LF1MW-5_0519				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\12.0000.d
Lims ID: 280-123922-J-1 DU
Client ID:
Sample Type: DU
Inject. Date: 11-Jun-2019 15:52:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-012 Temporary sequence for manual data acquisition
Misc. Info.: 16189 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:31:23

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.984	1.992	-0.008	1280699		-0.0303	
2 Chloride	2.925	2.825	0.100	173263370		9.97	
3 Nitrite as N		3.192				ND	
4 Bromide		4.733				ND	a
5 Nitrate as N	4.709	5.050	-0.341	684860		NC	a
6 Sulfate		10.625				ND	
7 Orthophosphate as P		13.159				ND	

QC Flag Legend

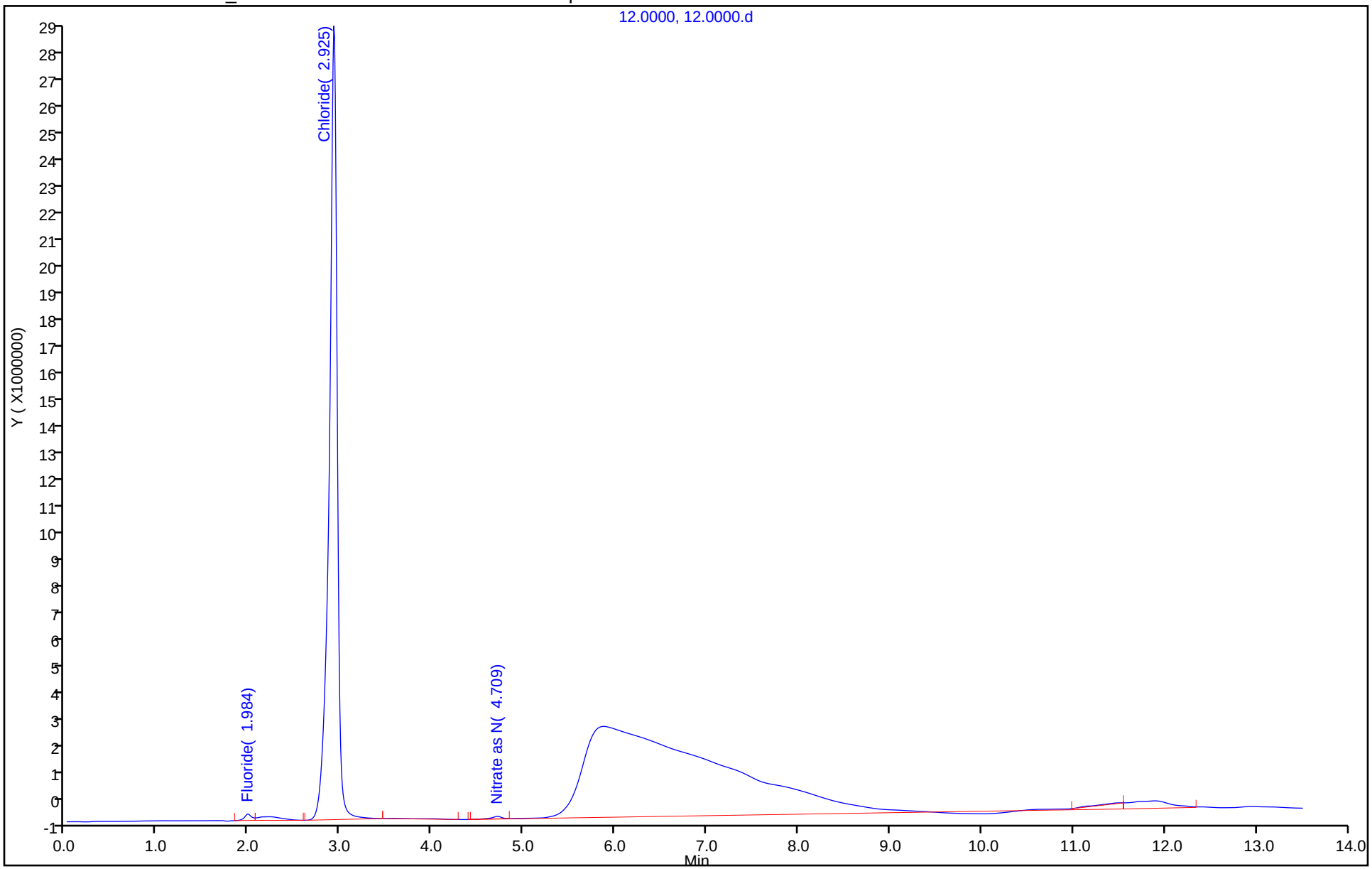
Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 12-Jun-2019 08:36:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\12.0000.d

Injection Date:	11-Jun-2019 15:52:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	280-123922-J-1 DU			Worklist Smp#:	12
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\13.0000.d
Lims ID: 280-123922-J-1 MS
Client ID:
Sample Type: MS
Inject. Date: 11-Jun-2019 16:10:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-013 Temporary sequence for manual data acquisition
Misc. Info.: 3428 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:31:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.992	0.025	156401797	5.00	4.75	
2 Chloride	2.892	2.825	0.067	669544722	25.0	38.3	
3 Nitrite as N	3.292	3.192	0.100	220745704	NC	NC	
4 Bromide	4.717	4.733	-0.016	19767116	5.00	4.94	
5 Nitrate as N	4.984	5.050	-0.066	242559625	NC	NC	M
6 Sulfate	9.975	10.625	-0.650	355919338	25.0	26.9	Ma
7 Orthophosphate as P	13.042	13.159	-0.117	83708065	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

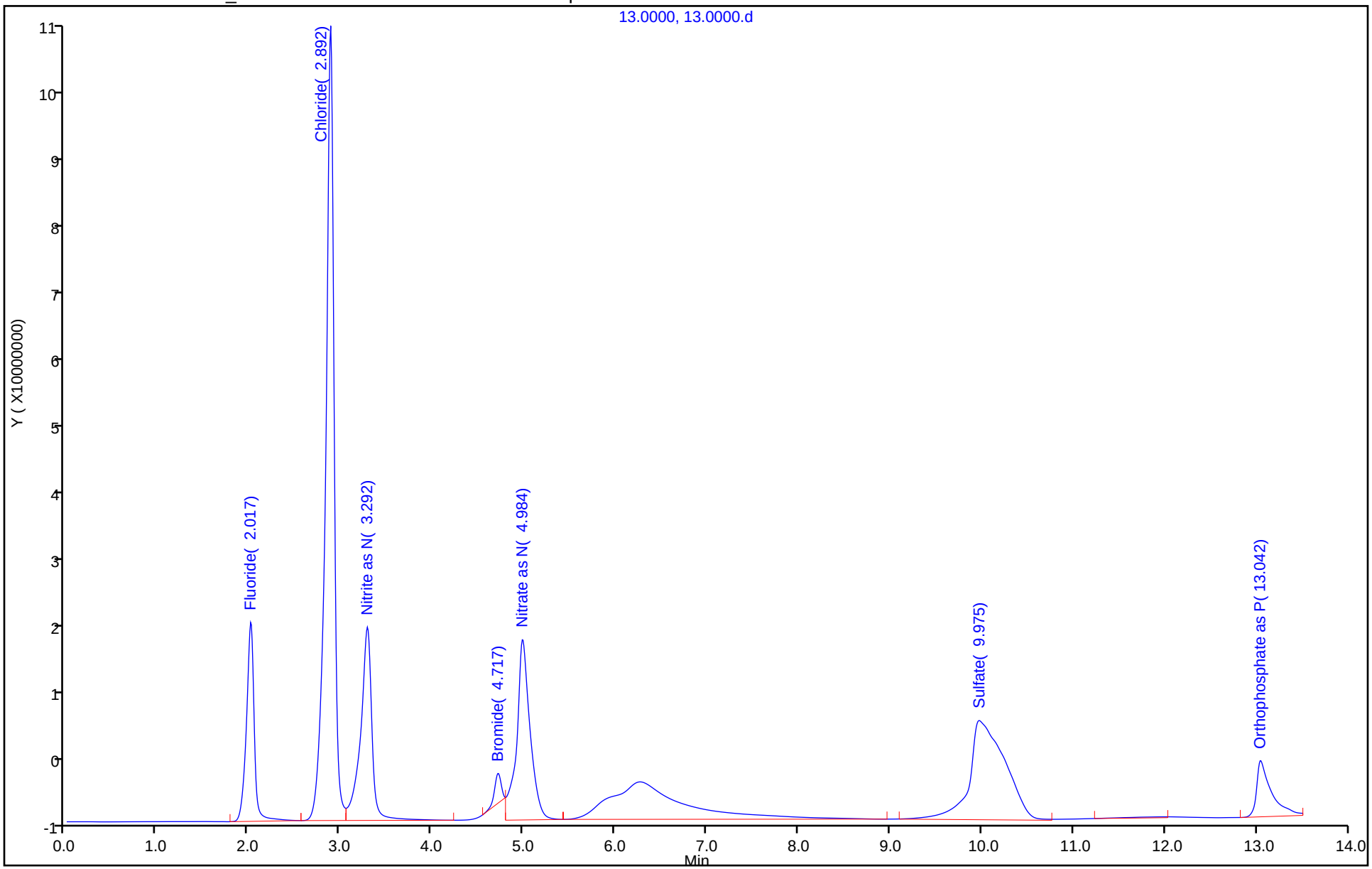
ICMS/MSD WEEK_00599 Amount Added: 0.05 Units: mL

Report Date: 12-Jun-2019 08:36:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\13.0000.d

Injection Date:	11-Jun-2019 16:10:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	280-123922-J-1 MS			Worklist Smp#:	13
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

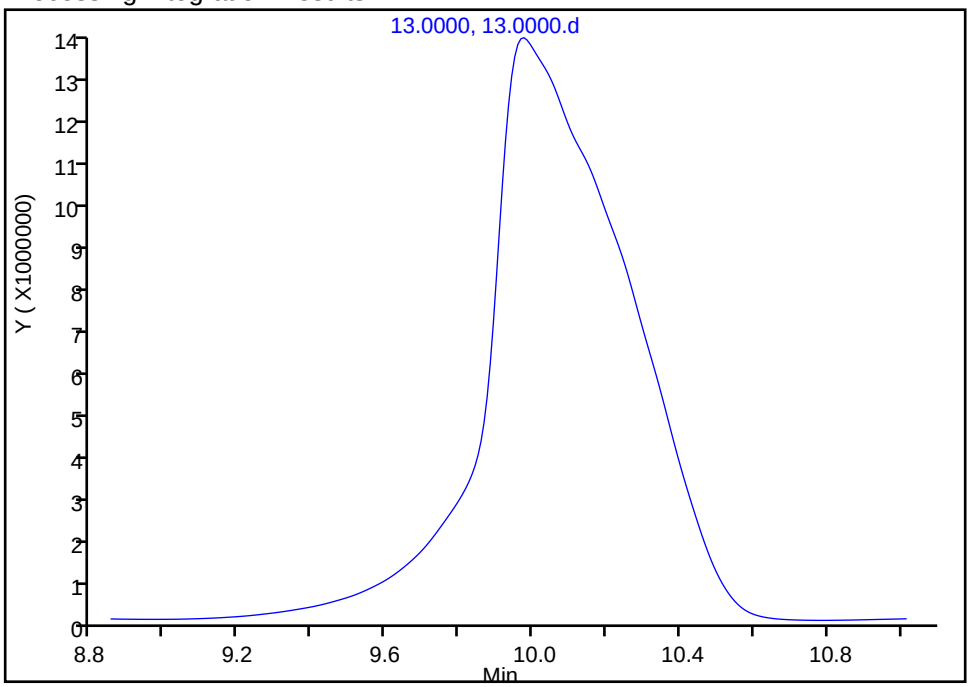
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\13.0000.d
Injection Date: 11-Jun-2019 16:10:00 Instrument ID: WC_IonChrom8
Lims ID: 280-123922-J-1 MS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

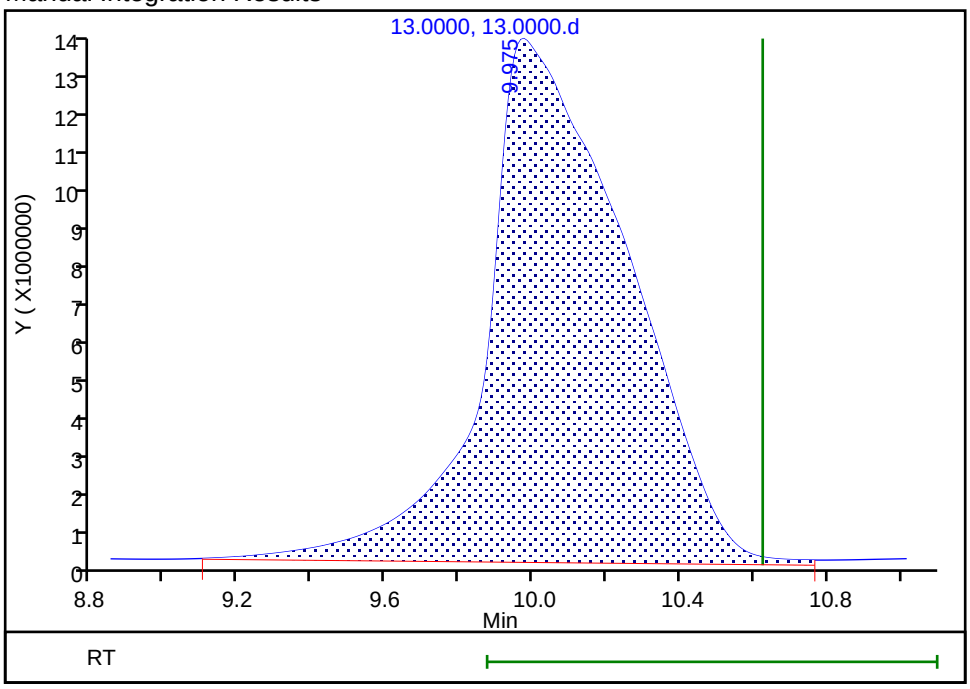
Not Detected
Expected RT: 10.63

Processing Integration Results



Manual Integration Results

RT: 9.98
Area: 355919338
Amount: 26.896172
Amount Units: ug/ml



Reviewer: pedrickj, 12-Jun-2019 08:31:57
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\14.0000.d
Lims ID: 280-123922-J-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 11-Jun-2019 16:29:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-014 Temporary sequence for manual data acquisition
Misc. Info.: 32045 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:32:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.008	1.992	0.016	153250605	5.00	4.65	
2 Chloride	2.842	2.825	0.017	656073837	25.0	37.5	
3 Nitrite as N	3.225	3.192	0.033	215288165	NC	NC	
4 Bromide	4.508	4.733	-0.225	19442156	5.00	4.85	Ma
5 Nitrate as N	4.808	5.050	-0.242	224133326	NC	NC	Ma
6 Sulfate	10.825	10.625	0.200	353067566	25.0	26.7	Ma
7 Orthophosphate as P	13.167	13.159	0.008	88764762	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

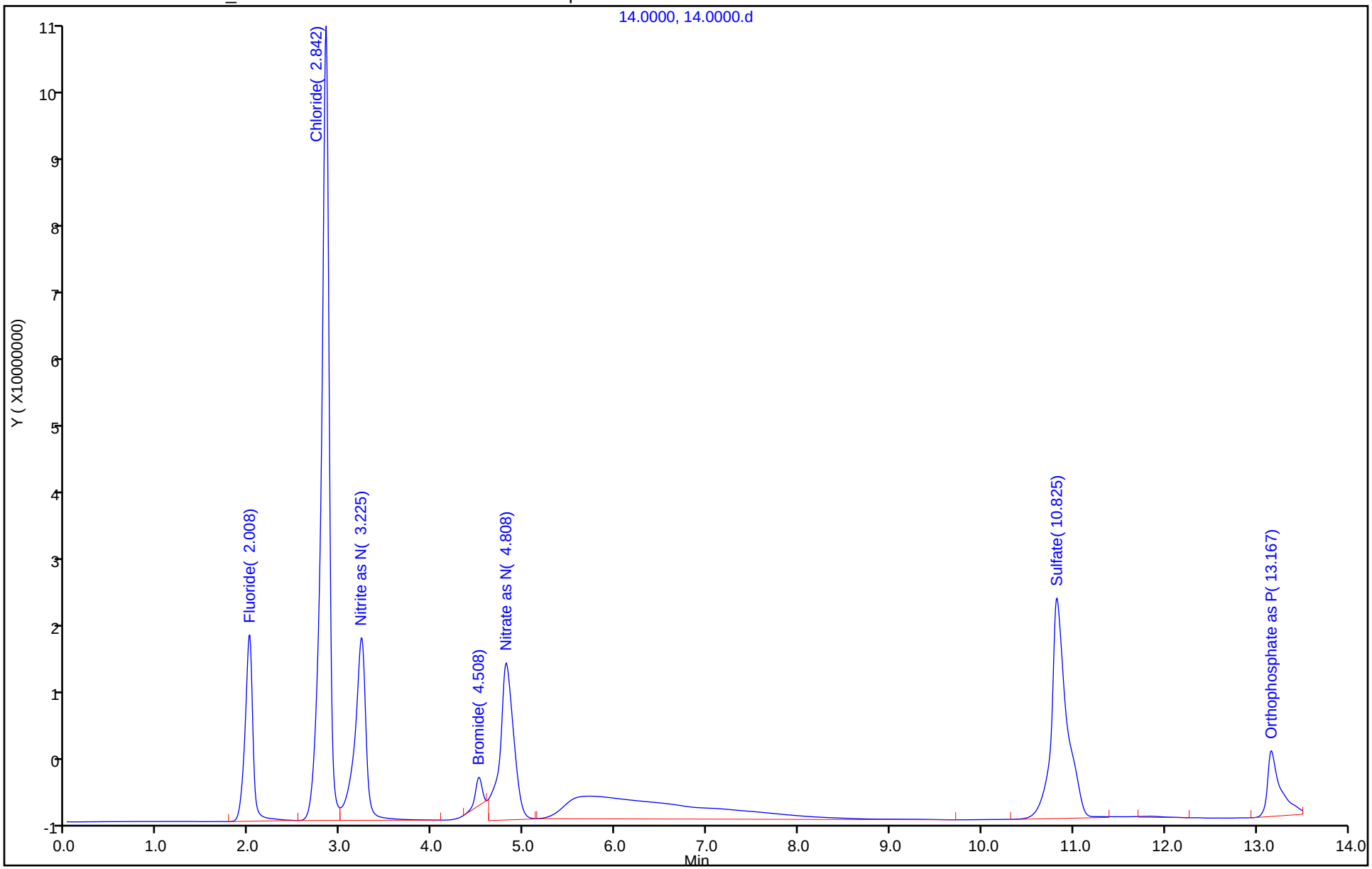
ICMS/MSD WEEK_00599 Amount Added: 0.05 Units: mL

Report Date: 12-Jun-2019 08:36:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\14.0000.d

Injection Date:	11-Jun-2019 16:29:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	280-123922-J-1 MSD			Worklist Smp#:	14
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

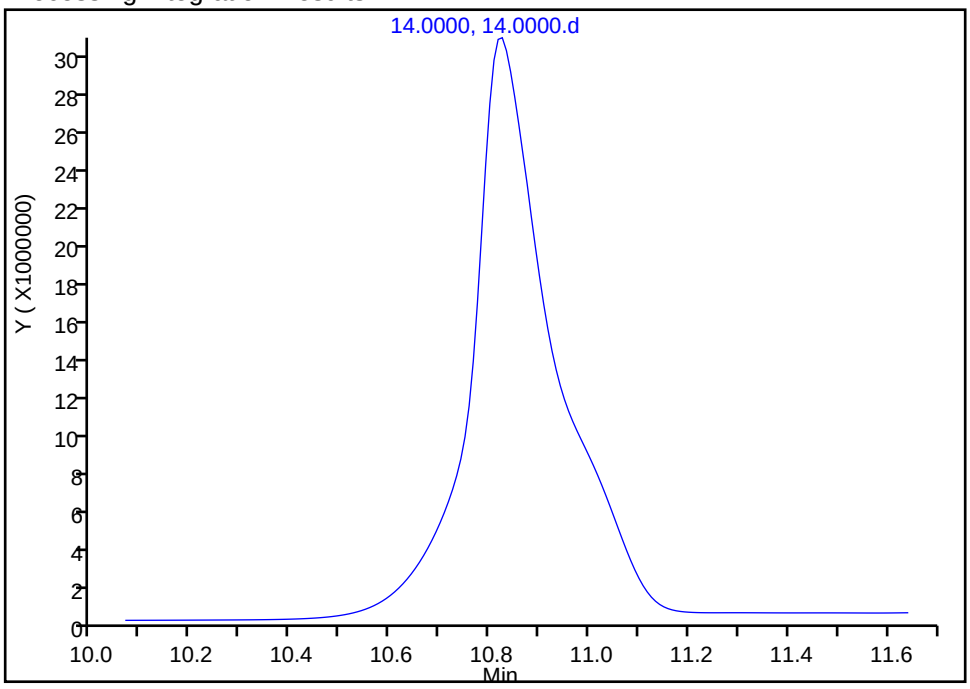
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\14.0000.d
Injection Date: 11-Jun-2019 16:29:00 Instrument ID: WC_IonChrom8
Lims ID: 280-123922-J-1 MSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

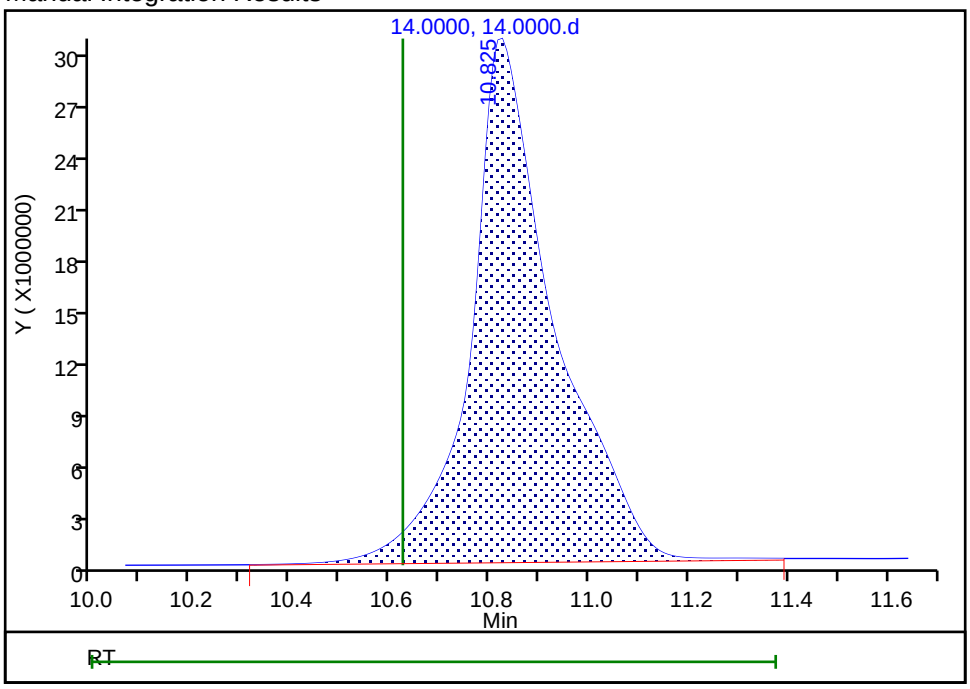
Not Detected
Expected RT: 10.63

Processing Integration Results



Manual Integration Results

RT: 10.83
Area: 353067566
Amount: 26.682809
Amount Units: ug/ml



Reviewer: pedrickj, 12-Jun-2019 08:32:26
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\15.0000.d
Lims ID: 280-123922-H-2
Client ID: LF1MW-5_0519-a
Sample Type: Client
Inject. Date: 11-Jun-2019 16:48:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-015 Temporary sequence for manual data acquisition
Misc. Info.: 27332 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:32:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	1.992	1.992	0.000	1888522	-0.0116	
2 Chloride	2.833	2.825	0.008	174981929	10.1	
3 Nitrite as N		3.192			ND	
4 Bromide	4.083	4.733	-0.650	248471	0.0380	a
5 Nitrate as N	4.458	5.050	-0.592	691211	NC	a
6 Sulfate	11.017	10.625	0.392	967478	0.3395	
7 Orthophosphate as P	13.475	13.159	0.316	1167139	NC	

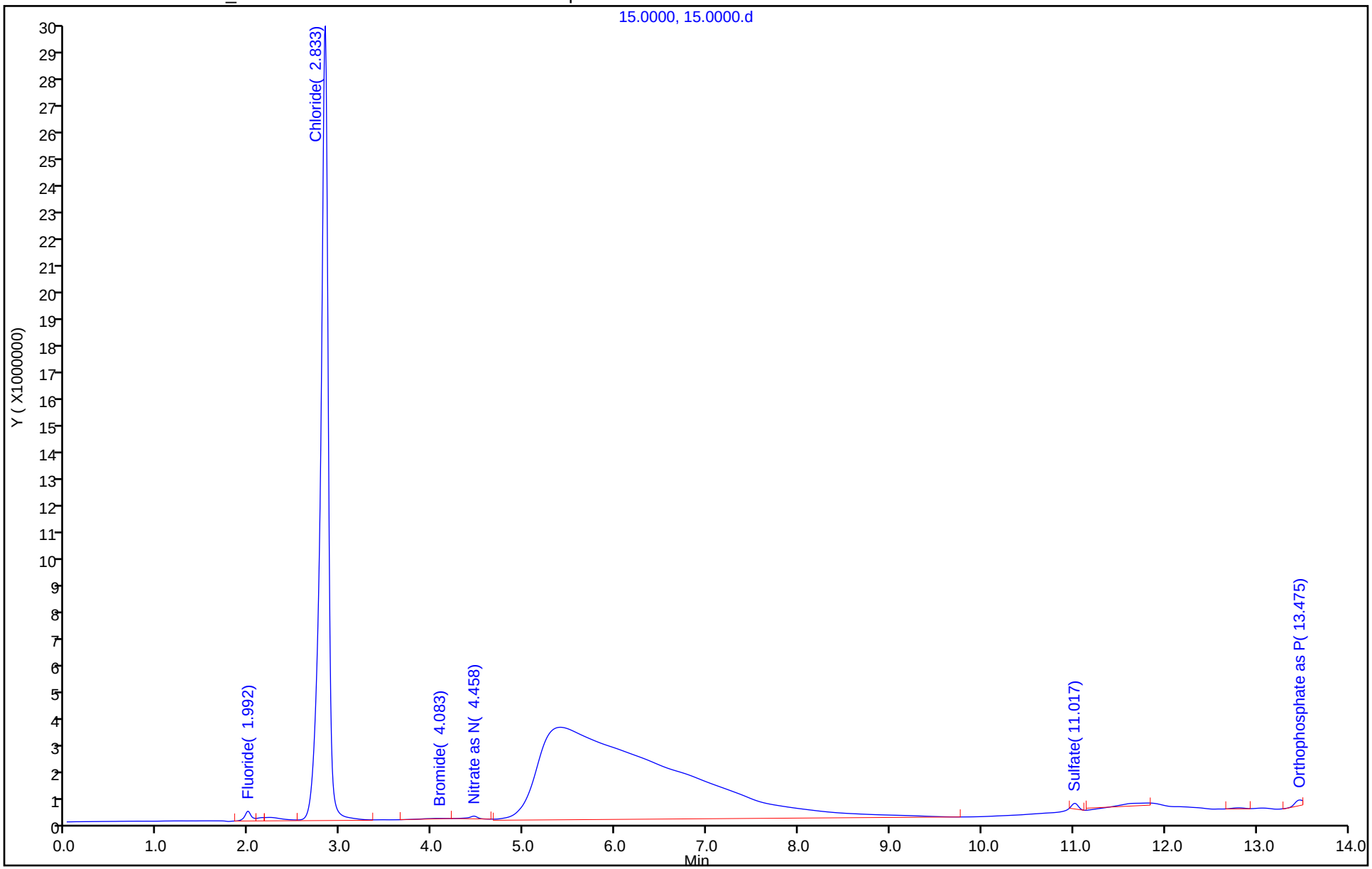
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 12-Jun-2019 08:36:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\15.0000.d				
Injection Date:	11-Jun-2019 16:48:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	280-123922-H-2	Lab Sample ID:	280-123922-2	Worklist Smp#:	15
Client ID:	LF1MW-5_0519-a				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\16.0000.d
Lims ID: 280-123922-I-3
Client ID: LF1P-5_0519
Sample Type: Client
Inject. Date: 11-Jun-2019 17:07:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-016 Temporary sequence for manual data acquisition
Misc. Info.: 18456 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:46 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:32:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	1.992	1.992	0.000	1350455	-0.0281	
2 Chloride	2.867	2.825	0.042	152613163	8.80	
3 Nitrite as N		3.192			ND	
4 Bromide	4.658	4.733	-0.075	803363	0.1773	
5 Nitrate as N	4.992	5.050	-0.058	500315	NC	
6 Sulfate	11.067	10.625	0.442	357466	0.2938	
7 Orthophosphate as P		13.159			ND	

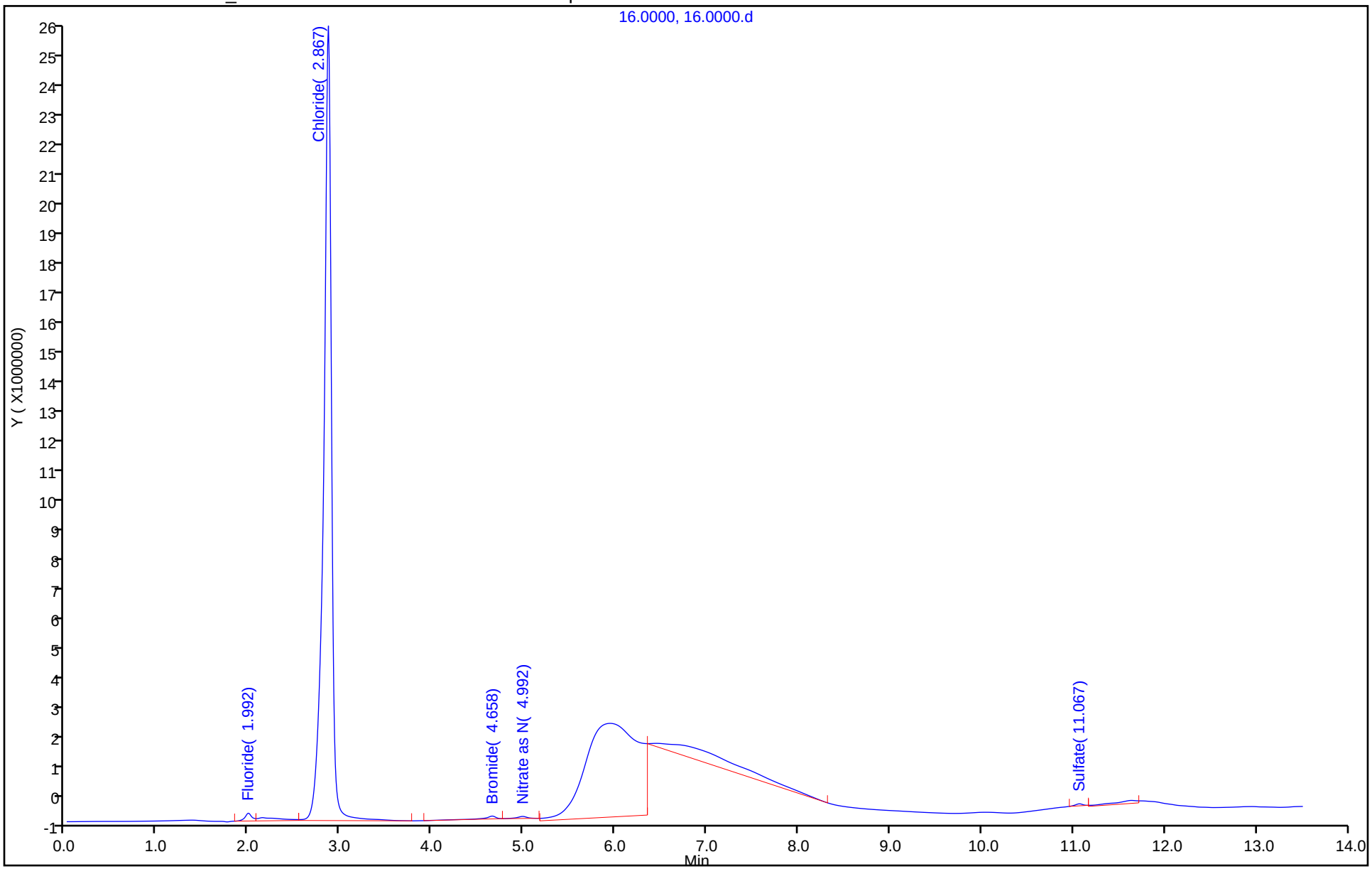
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 12-Jun-2019 08:36:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\16.0000.d				
Injection Date:	11-Jun-2019 17:07:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	280-123922-I-3	Lab Sample ID:	280-123922-3	Worklist Smp#:	16
Client ID:	LF1P-5_0519				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\17.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 11-Jun-2019 17:25:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-017 Temporary sequence for manual data acquisition
Misc. Info.: 26369 F
Operator ID: Instrument ID: WC_IonChrom8
Sublist: chrom-Anions_IC8*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:58 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:33:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.067	1.992	0.075	163937171	5.00	4.98	
2 Chloride	2.967	2.825	0.142	1842944422	100.0	105.2	
3 Nitrite as N	3.267	3.192	0.075	305949579	NC	NC	
4 Bromide	4.584	4.733	-0.149	20535956	5.00	5.13	a
5 Nitrate as N	4.875	5.050	-0.175	191317665	NC	NC	a
6 Sulfate	10.125	10.625	-0.500	1336870329	100.0	100.3	Ma
7 Orthophosphate as P	12.967	13.159	-0.192	91867584	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

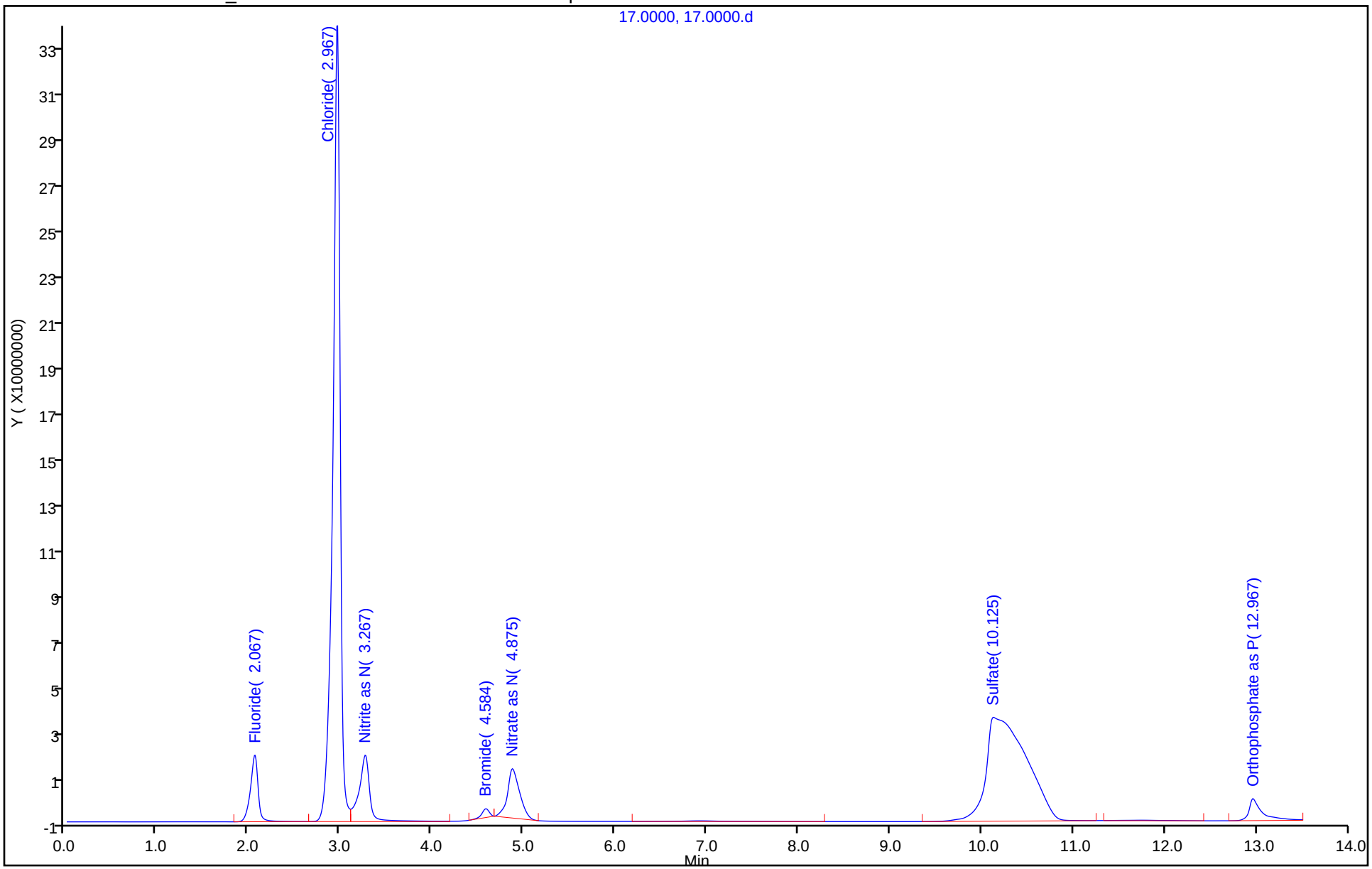
IC LCS_01601 Amount Added: 5.00 Units: mL

Report Date: 12-Jun-2019 08:36:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\17.0000.d

Injection Date:	11-Jun-2019 17:25:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

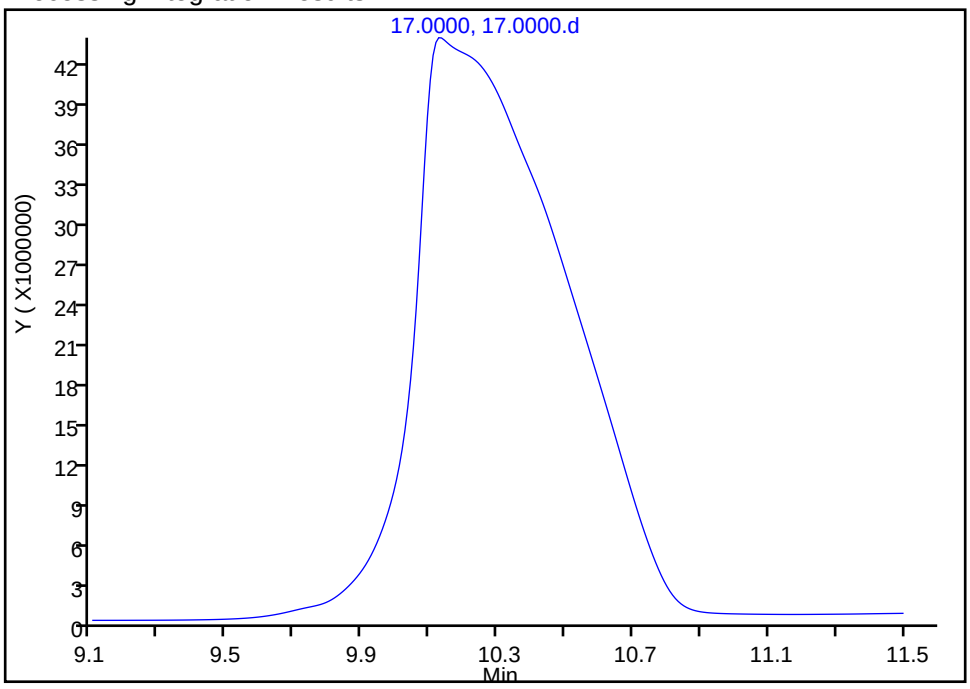
Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\17.0000.d
Injection Date: 11-Jun-2019 17:25:00 Instrument ID: WC_IonChrom8
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC8 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

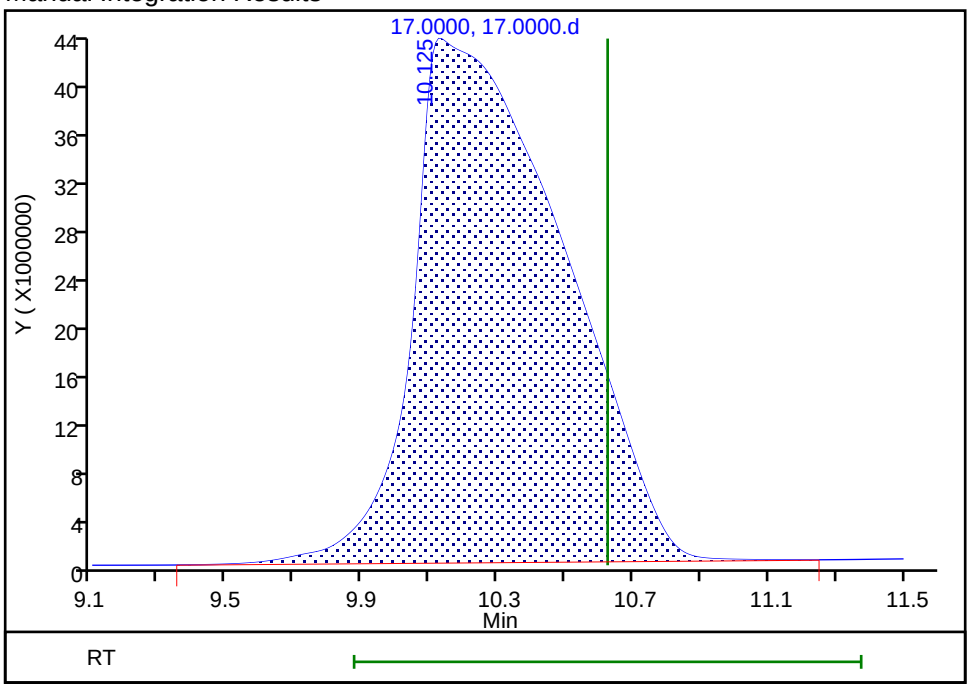
Not Detected
Expected RT: 10.63

Processing Integration Results



Manual Integration Results

RT: 10.13
Area: 1336870329
Amount: 100.2888
Amount Units: ug/ml



Reviewer: pedrickj, 12-Jun-2019 08:33:06
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\18.0000.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 11-Jun-2019 17:44:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082727-018 Temporary sequence for manual data acquisition
Misc. Info.: 10755 F
Operator ID: Instrument ID: WC_IonChrom8

Method: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\Anions_IC8.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:36:58 Calib Date: 03-Jun-2019 12:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom8\20190603-82481.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.992	0.025	536490		-0.0532	
2 Chloride	2.942	2.825	0.117	417284		0.1185	
3 Nitrite as N		3.192				ND	
4 Bromide		4.733				ND	
5 Nitrate as N	4.975	5.050	-0.075	736918			NC
6 Sulfate		10.625				ND	
7 Orthophosphate as P	13.184	13.159	0.025	3433157			NC

QC Flag Legend

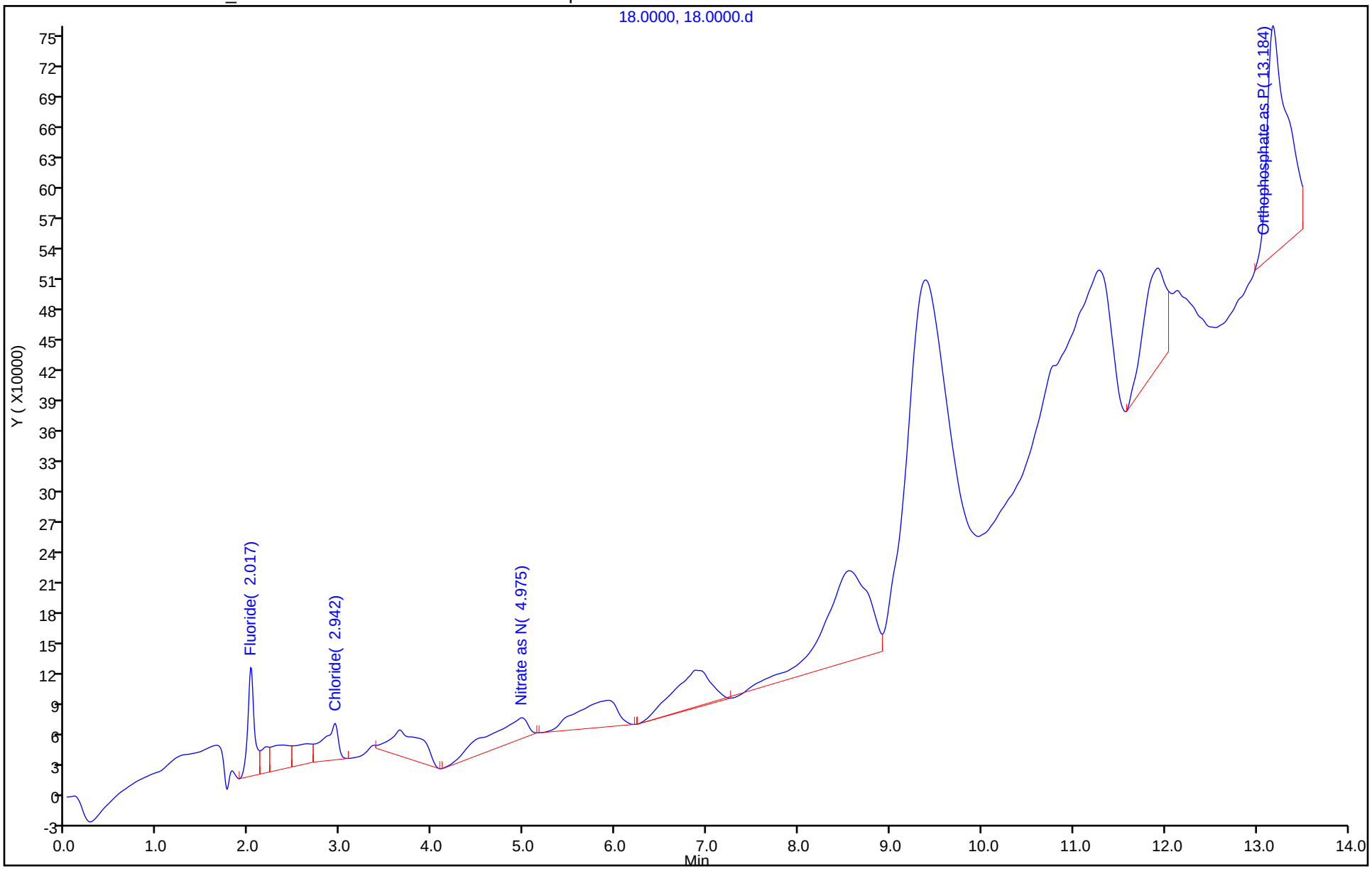
Processing Flags
NC - Not Calibrated

Report Date: 12-Jun-2019 08:36:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom8\20190611-82727.b\18.0000.d

Injection Date:	11-Jun-2019 17:44:00	Instrument ID:	WC_IonChrom8	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC8	Limit Group:	Wet - Anions 28D		



pH ok 6/10/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	cl			1
2*	NPOC	ICB	1.000	cl			2
3*	NPOC	lcs 280-461049/1-a	1.000	cl			3
4*	NPOC	mb 280-461049/2-a	1.000	cl			4
5*	NPOC	TIC	1.000	cl			5
6*	NPOC	280-123867-g-1-b	1.000	7			6
7*	NPOC	280-123867-g-1-c ms	1.000	7			7
8*	NPOC	280-123867-g-1-d msd	1.000	7			8
9*	NPOC	280-123867-g-2-b	1.000	7			9
10*	NPOC	LCS	1.000	cl			10
11*	NPOC	MB	1.000	cl			11
12*	NPOC	TIC	1.000	cl			12
13*	NPOC	280-123706-d-1	2x ~~1.000~~	cl	rerun		13
14*	NPOC	280-123820-k-4	1.000	cl			14
15*	NPOC	CCV	1.000	cl			15
16*	NPOC	CCB	1.000	cl			16
17*	NPOC	280-123820-k-5	1.000	cl			17
18*	NPOC	MS 280-123820-k-5	1.000	cl			18
19*	NPOC	MSD 280-123820-k-5	1.000	cl			19
20*	NPOC	280-123822-h-1	10x ~~1.000~~	cl	rerun		20
21*	NPOC	280-123832-d-7	1.000	cl			21
22*	NPOC	280-123832-d-8	3x ~~1.000~~	cl	rerun		22
23*	NPOC	280-123832-c-10	1.000	cl			23
24*	NPOC	280-123832-c-11	1.000	cl			24
25*	NPOC	280-123863-d-2	5x ~~1.000~~	cl	rerun		25
26*	NPOC	280-123863-d-3	20x ~~1.000~~	cl	↓		26
27*	NPOC	CCV	1.000	cl			27
28*	NPOC	CCB	1.000	cl			28
29*	NPOC	280-123863-d-4	1.000	cl			29
30*	NPOC	280-123919-b-5	1.000	cl			30
31*	NPOC	MS 280-123919-b-5	1.000	cl			31
32*	NPOC	MSD 280-123919-b-5	1.000	cl			32
33*	NPOC	280-123919-b-6	1.000	cl			33
34*	NPOC	280-123941-k-2	2x ~~1.000~~	cl	high chloride		34
35*	NPOC	280-123941-k-4	2x ~~1.000~~	cl	high chloride		35
36*	NPOC	280-123941-k-5	1.000	cl			36
37*	NPOC	280-123941-j-6	1.000	cl			37
38*	NPOC	280-123941-k-7	1.000	cl			38
39*	NPOC	CCV	1.000	cl			39
40*	NPOC	CCB	1.000	cl			40
41*	NPOC	LCS	1.000	cl			41
42*	NPOC	MB	1.000	cl			42
43*	NPOC	TIC	1.000	cl			43
44*	NPOC	280-123855-e-3	1.000	cl			44
45*	NPOC	MS 280-123855-e-3	1.000	cl			45
46*	NPOC	MSD 280-123855-e-3	1.000	cl			46
47*	NPOC	280-123855-e-4	1.000	cl			47
48*	NPOC	280-123855-c-5	1.000	cl			48
49*	NPOC	280-123855-c-6	1.000	cl			49
50*	NPOC	280-123959-b-3	5x ~~1.000~~	cl	cloudy/diluted sample		50
51*	NPOC	CCV	1.000	cl			51

pH 6/10/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	cl			52
53*	NPOC	280-123959-c-4	5p 1.000	cl	cloudy/limited sample		53
54*	NPOC	280-123959-b-5	3p 1.000	cl	cloudy/limited sample		54
55*	NPOC	280-123960-c-1	1.000	cl			55
56*	NPOC	320-50340-g-1	1.000	cl			56
57*	NPOC	MS 320-50340-g-1	1.000	cl			57
58*	NPOC	MSD 320-50340-g-1	1.000	cl			58
59*	NPOC	320-50340-f-2	1.000	cl			59
60*	NPOC	320-50340-f-4	1.000	cl			60
61*	NPOC	320-50340-f-5	1.000	cl			61
62*	NPOC	280-123922-g-1	1.000	cl			62
63*	NPOC	CCV	1.000	cl			63
64*	NPOC	CCB	1.000	cl			64
65*	NPOC	280-123922-g-2	1.000	cl			65
66*	NPOC	280-123922-g-3	1.000	cl			66
67*	NPOC	280-123924-g-1	1.000	cl			67
68*	NPOC	280-123924-g-2	1.000	cl			68
69*	NPOC	280-123924-g-3	1.000	cl			69
70*	NPOC	280-123924-g-4	1.000	cl			70
71*	NPOC	280-123924-g-5	1.000	cl			71
72*	NPOC	CCV	1.000	cl			72
73*	NPOC	CCB	1.000	cl			73

Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	ICV
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

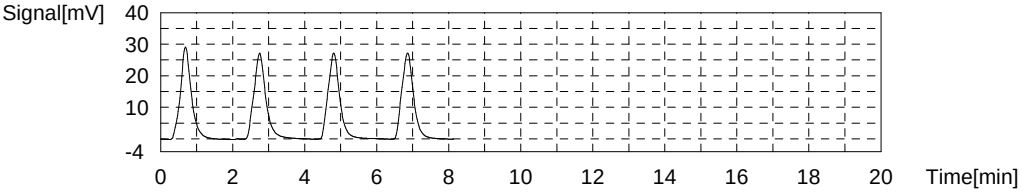
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.76	21.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:09:37 PM
2	63.30	21.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:11:51 PM
3	61.54	20.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:14:04 PM
4	62.58	21.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:16:10 PM

Mean Area 62.80
Mean Conc. 21.19mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

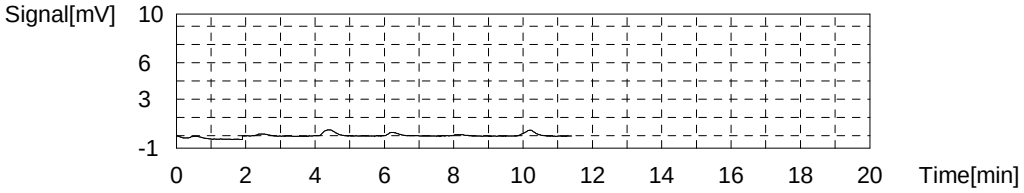
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03304mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3242	0.02793mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:24:41 PM
2	0.3186	0.02603mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:26:45 PM
3	1.115	0.2958mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:28:49 PM
4	0.5177	0.09348mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:30:53 PM
5	0.1967	-0.01527mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:32:57 PM
6	1.094	0.2887mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:35:00 PM

Mean Area 0.3393
Mean Conc. 0.03304mg/L



Sample

Sample Name: lcs 280-461049/1-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

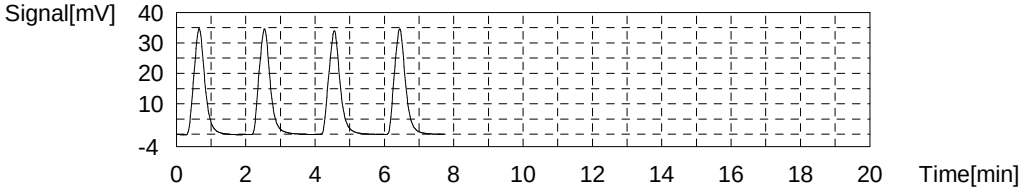
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.50	26.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:43:26 PM
2	77.90	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:45:36 PM
3	77.91	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:47:40 PM
4	77.59	26.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:49:45 PM

Mean Area 77.72
Mean Conc. 26.25mg/L



Sample

Sample Name: mb 280-461049/2-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

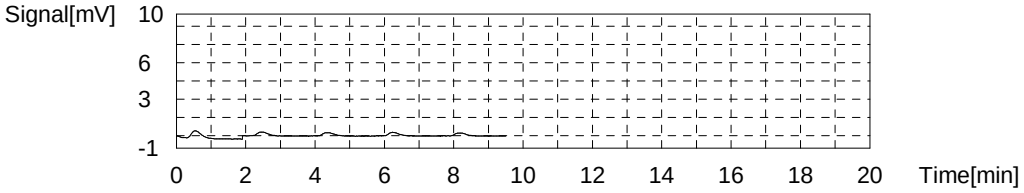
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1090mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.124	0.2989mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:58:16 PM
2	0.6274	0.1306mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:00:20 PM
3	0.5792	0.1143mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:02:24 PM
4	0.5449	0.1027mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:04:28 PM
5	0.5025	0.08833mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:06:32 PM

Mean Area 0.5635
Mean Conc. 0.1090mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

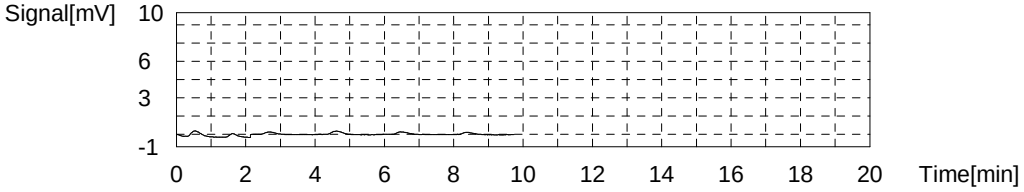
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06685mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.213	0.3290mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:15:16 PM
2	0.3970	0.05259mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:17:20 PM
3	0.5763	0.1133mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:19:24 PM
4	0.4099	0.05696mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:21:28 PM
5	0.3732	0.04453mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:23:32 PM

Mean Area 0.4391
Mean Conc. 0.06685mg/L



Sample

Sample Name: 280-123867-g-1-b
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

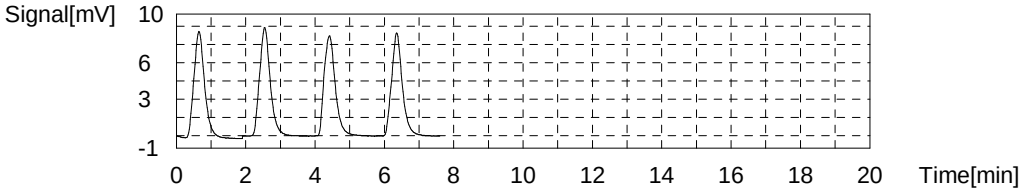
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.247mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.81	6.291mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:32:02 PM
2	19.07	6.379mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:34:06 PM
3	18.51	6.189mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:36:10 PM
4	18.34	6.131mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:38:14 PM

Mean Area 18.68
Mean Conc. 6.247mg/L



Sample

Sample Name: 280-123867-g-1-c ms
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

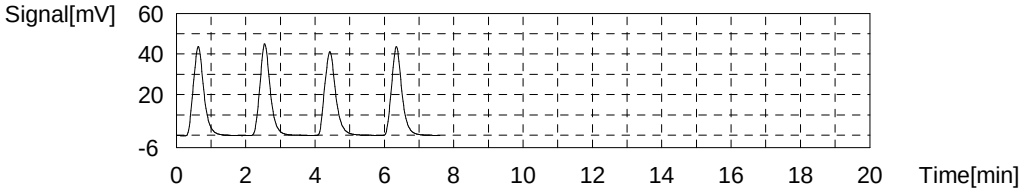
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	93.69	31.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:46:45 PM
2	94.09	31.79mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:48:49 PM
3	92.09	31.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:50:53 PM
4	91.70	30.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:52:57 PM

Mean Area 92.89
Mean Conc. 31.39mg/L



Sample

Sample Name: 280-123867-g-1-d msd
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

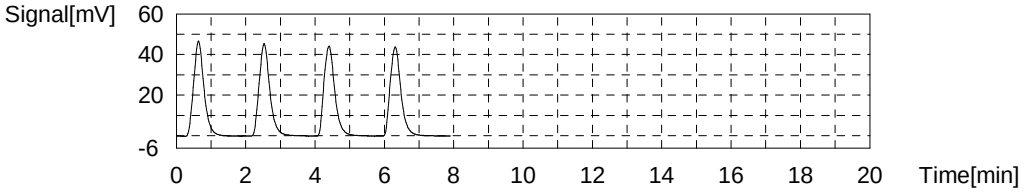
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.82mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.50	33.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:01:28 PM
2	97.64	33.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:03:32 PM
3	96.39	32.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:05:36 PM
4	95.98	32.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:07:58 PM

Mean Area 97.13
Mean Conc. 32.82mg/L



Sample

Sample Name: 280-123867-g-2-b
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

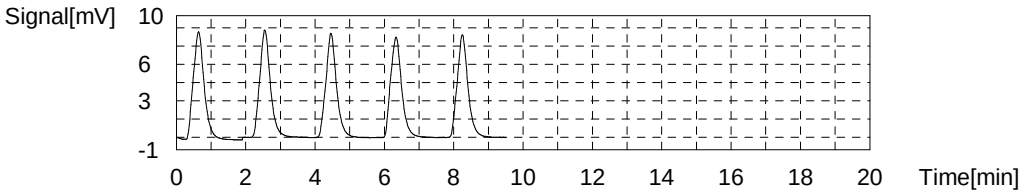
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.170mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.37	6.480mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:16:30 PM
2	18.84	6.301mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:18:34 PM
3	18.47	6.175mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:20:38 PM
4	18.35	6.135mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:22:42 PM
5	18.16	6.070mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:24:46 PM

Mean Area 18.46
Mean Conc. 6.170mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

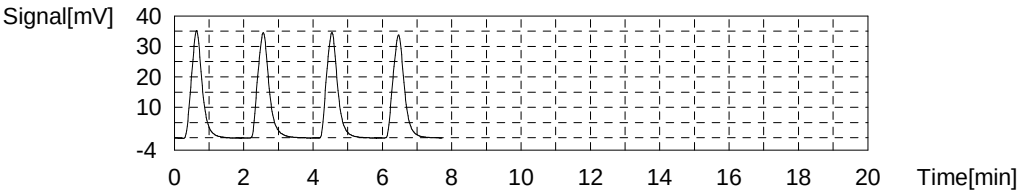
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.50	26.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:33:18 PM
2	79.67	26.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:35:27 PM
3	77.89	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:37:31 PM
4	77.54	26.19mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:39:35 PM

Mean Area 78.15
Mean Conc. 26.39mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

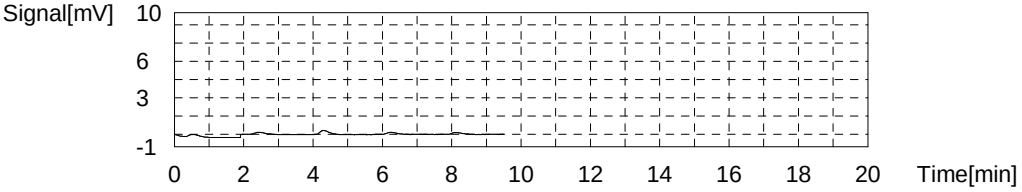
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02124mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3664	0.04222mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:48:07 PM
2	0.3217	0.02708mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:50:11 PM
3	0.6020	0.1220mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:52:15 PM
4	0.2741	0.01095mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:54:19 PM
5	0.2556	0.00469mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:56:23 PM

Mean Area 0.3045
Mean Conc. 0.02124mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

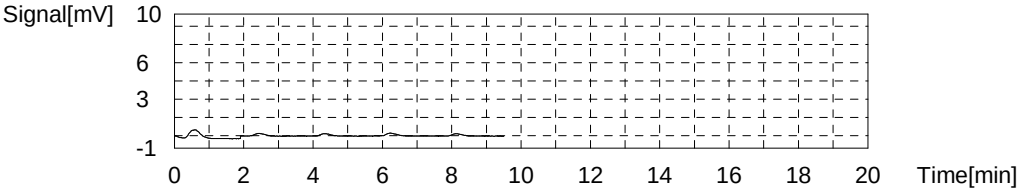
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04273mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.457	0.4117mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:04:53 PM
2	0.3806	0.04703mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:06:57 PM
3	0.3522	0.03741mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:09:01 PM
4	0.4200	0.06038mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:11:05 PM
5	0.3188	0.02610mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:13:09 PM

Mean Area 0.3679
Mean Conc. 0.04273mg/L



Sample

Sample Name: 280-123706-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

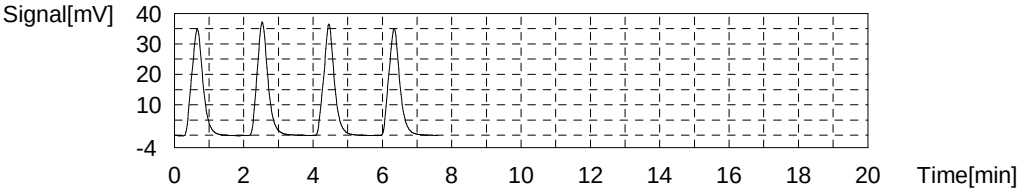
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:53.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.87	53.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:21:39 PM
2	80.79	54.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:23:43 PM
3	78.63	53.11mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:25:47 PM
4	78.14	52.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:27:51 PM

Mean Area 79.36
Mean Conc. 53.61mg/L



Sample

Sample Name: 280-123820-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

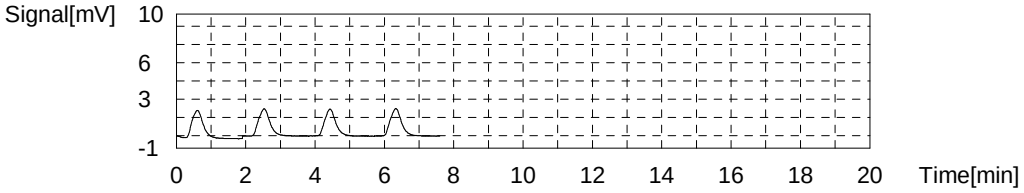
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.601mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.981	1.606mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:36:23 PM
2	5.030	1.622mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:38:27 PM
3	4.824	1.552mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:40:31 PM
4	5.036	1.624mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:42:35 PM

Mean Area 4.968
Mean Conc. 1.601mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

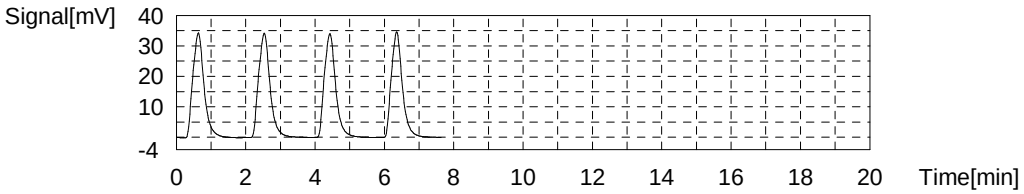
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.56	26.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:51:06 PM
2	78.96	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:53:10 PM
3	77.99	26.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:55:16 PM
4	77.05	26.02mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:57:20 PM

Mean Area 78.14
Mean Conc. 26.39mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

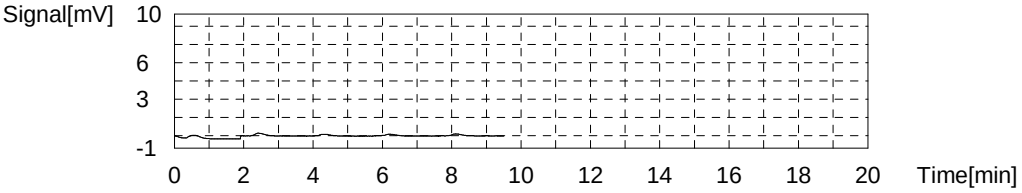
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00972mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4514	0.07102mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:05:51 PM
2	0.3900	0.05022mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:07:55 PM
3	0.2379	-0.00131mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:09:59 PM
4	0.1997	-0.01425mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:12:03 PM
5	0.2542	0.00421mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:14:07 PM

Mean Area 0.2705
Mean Conc. 0.00972mg/L



Sample

Sample Name: 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

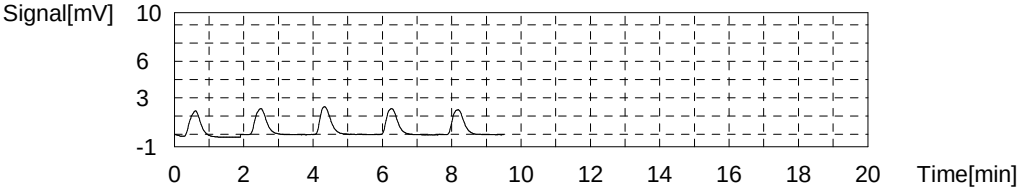
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.519mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.536	1.455mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:22:37 PM
2	4.778	1.537mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:24:41 PM
3	4.787	1.540mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:26:45 PM
4	4.701	1.511mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:28:49 PM
5	4.638	1.489mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:30:53 PM

Mean Area 4.726
Mean Conc. 1.519mg/L



Sample

Sample Name: MS 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

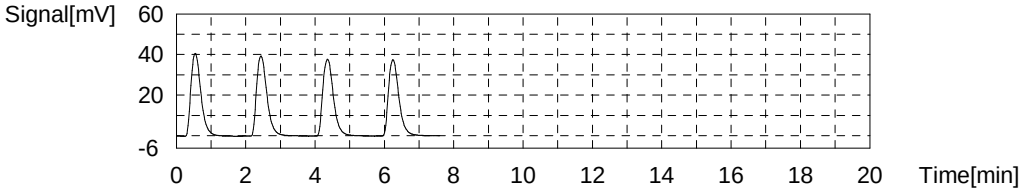
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.06	28.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:39:23 PM
2	82.36	27.82mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:41:27 PM
3	81.23	27.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:43:31 PM
4	79.39	26.81mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:45:35 PM

Mean Area 81.51
Mean Conc. 27.53mg/L



Sample

Sample Name: MSD 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

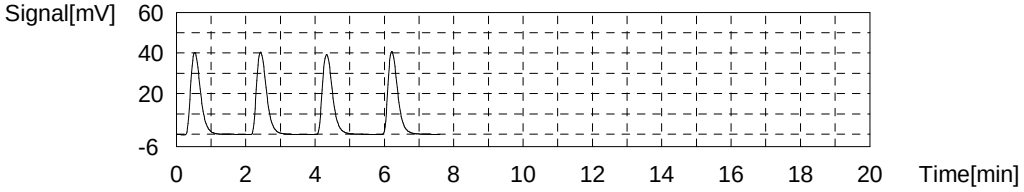
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.38mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.75	27.27mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:54:06 PM
2	82.04	27.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:56:10 PM
3	81.11	27.40mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:58:14 PM
4	80.39	27.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:00:18 PM

Mean Area 81.07
Mean Conc. 27.38mg/L



Sample

Sample Name: 280-123822-h-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

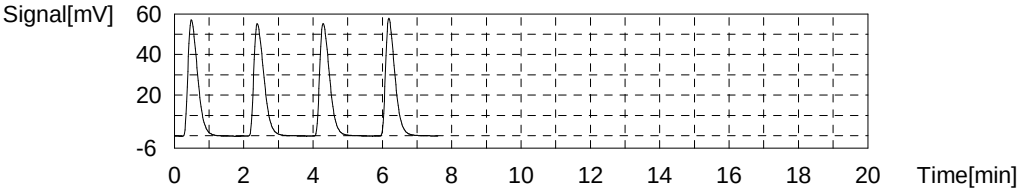
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:753.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	112.7	762.0mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:08:49 PM
2	113.0	764.0mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:10:53 PM
3	110.2	745.0mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:12:57 PM
4	110.0	743.7mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:15:01 PM

Mean Area 111.5
Mean Conc. 753.7mg/L



Sample

Sample Name: 280-123832-d-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

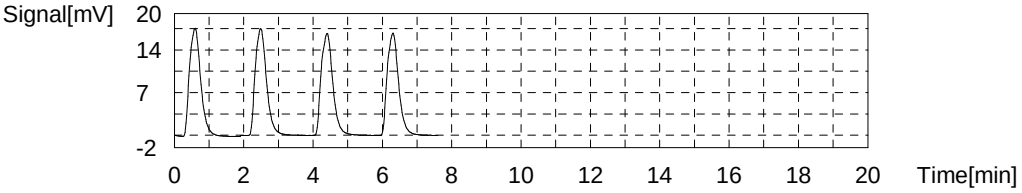
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.50	13.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:23:32 PM
2	39.81	13.40mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:25:36 PM
3	39.23	13.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:27:40 PM
4	38.88	13.09mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:29:44 PM

Mean Area 39.61
Mean Conc. 13.34mg/L



Sample

Sample Name: 280-123832-d-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

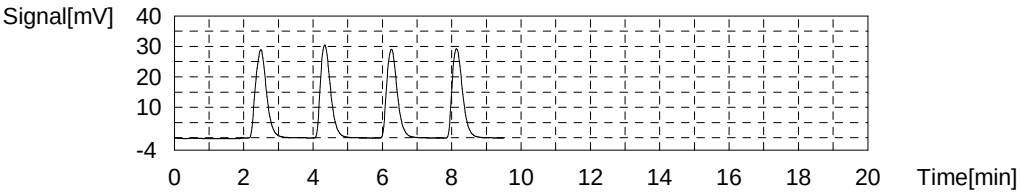
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:105.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2294	-0.02094mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:38:15 PM
2	64.30	108.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:40:19 PM
3	62.58	105.6mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:42:23 PM
4	62.30	105.1mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:44:27 PM
5	61.93	104.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:46:30 PM

Mean Area 62.78
Mean Conc. 105.9mg/L



Sample

Sample Name: 280-123832-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

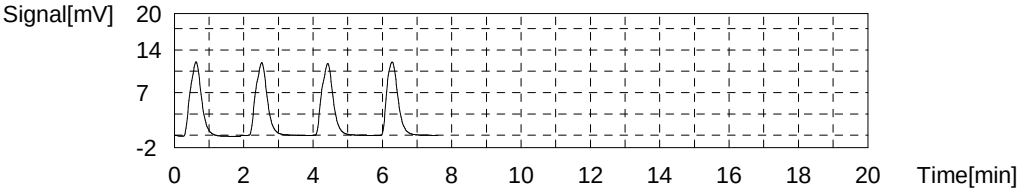
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.206mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.90	9.370mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:55:01 PM
2	27.66	9.289mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:57:05 PM
3	27.07	9.089mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:59:09 PM
4	27.03	9.075mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:01:13 PM

Mean Area 27.41
Mean Conc. 9.206mg/L



Sample

Sample Name: 280-123832-c-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

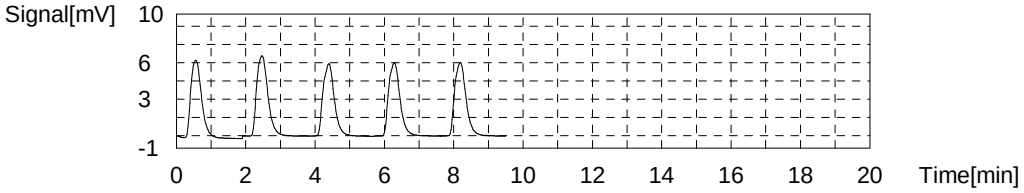
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.548mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.87	4.617mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:09:45 PM
2	14.82	4.939mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:11:49 PM
3	13.38	4.451mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:13:53 PM
4	13.70	4.559mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:15:57 PM
5	13.72	4.566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:18:01 PM

Mean Area 13.67
Mean Conc. 4.548mg/L



Sample

Sample Name: 280-123863-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

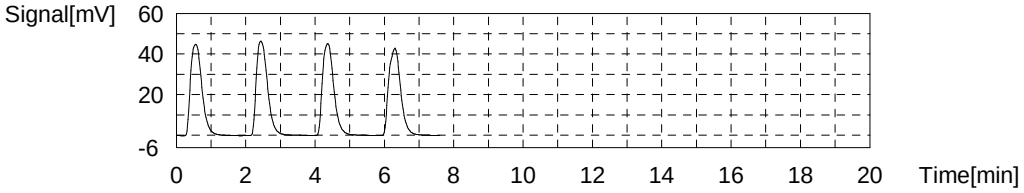
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:175.5mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	104.2	176.1mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:26:31 PM
2	104.5	176.6mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:28:35 PM
3	103.3	174.6mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:30:39 PM
4	103.5	174.9mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:32:43 PM

Mean Area 103.9
Mean Conc. 175.5mg/L



Sample

Sample Name: 280-123863-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

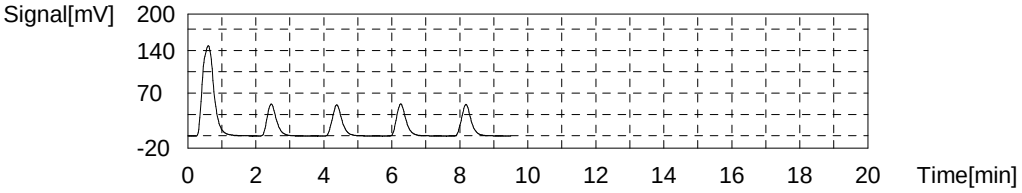
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:2157mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	348.6	2360mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:41:14 PM
2	101.7	2152mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:43:18 PM
3	101.9	2156mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:45:22 PM
4	102.6	2171mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:47:25 PM
5	101.6	2150mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:49:29 PM

Mean Area 102.0
Mean Conc. 2157mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

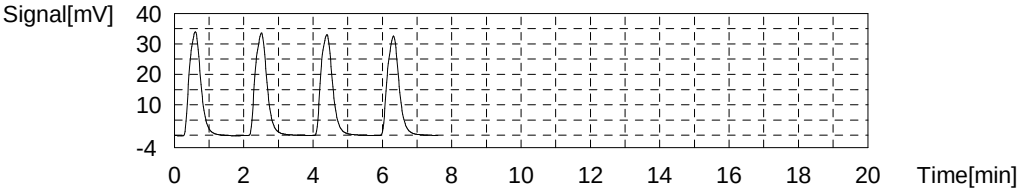
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.50mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.72	26.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:58:00 PM
2	79.27	26.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:00:04 AM
3	77.76	26.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:02:08 AM
4	77.16	26.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:04:12 AM

Mean Area 78.48
Mean Conc. 26.50mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

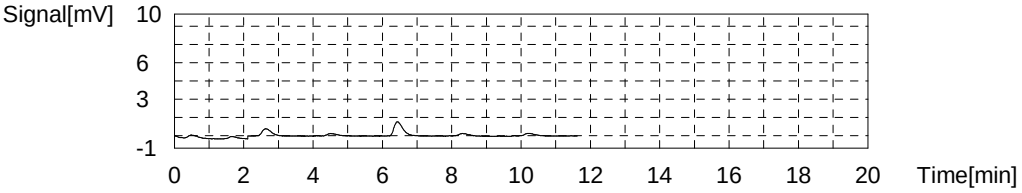
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04701mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4149	0.05865mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:12:56 AM
2	1.060	0.2772mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:15:00 AM
3	0.3445	0.03480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:17:04 AM
4	2.121	0.6366mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:19:08 AM
5	0.3690	0.04310mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:21:12 AM
6	0.3937	0.05147mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:23:15 AM

Mean Area 0.3805
Mean Conc. 0.04701mg/L



Sample

Sample Name: 280-123863-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

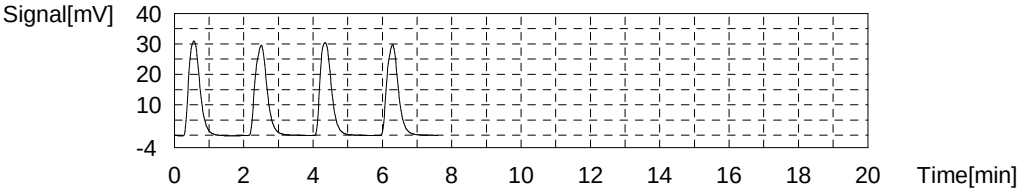
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.58mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	70.60	23.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:31:41 AM
2	70.71	23.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:33:45 AM
3	69.29	23.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:35:49 AM
4	68.75	23.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:37:53 AM

Mean Area 69.84
Mean Conc. 23.58mg/L



Sample

Sample Name: 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

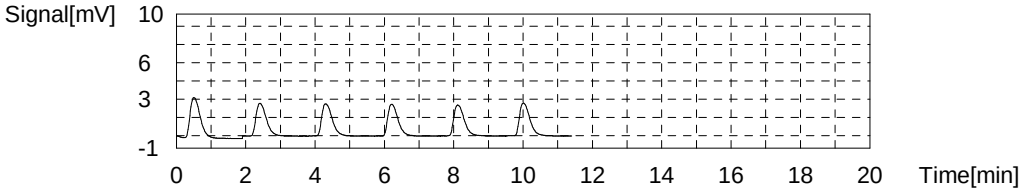
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.753mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.664	2.176mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:46:24 AM
2	5.590	1.812mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:48:28 AM
3	5.500	1.781mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:50:32 AM
4	5.353	1.732mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:52:36 AM
5	5.320	1.720mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:54:39 AM
6	5.494	1.779mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:56:43 AM

Mean Area 5.417
Mean Conc. 1.753mg/L



Sample

Sample Name: MS 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

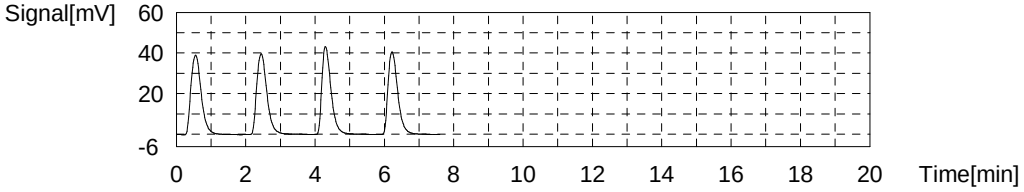
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.31mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.94	27.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:05:09 AM
2	81.71	27.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:07:13 AM
3	79.85	26.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:09:17 AM
4	79.94	27.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:11:21 AM

Mean Area 80.86
Mean Conc. 27.31mg/L



Sample

Sample Name: MSD 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

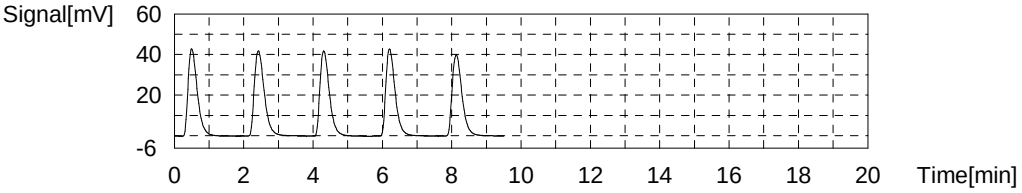
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.09mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.94	27.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:19:53 AM
2	84.38	28.50mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:21:57 AM
3	79.69	26.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:24:01 AM
4	80.28	27.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:26:05 AM
5	79.88	26.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:28:09 AM

Mean Area 80.20
Mean Conc. 27.09mg/L



Sample

Sample Name: 280-123919-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

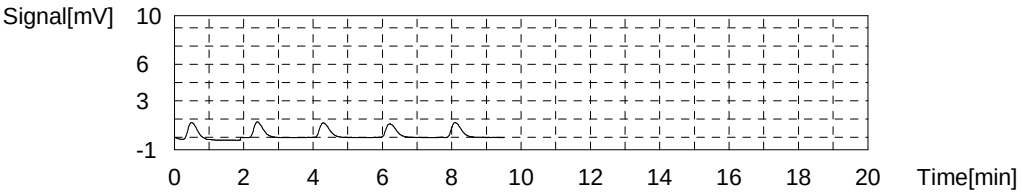
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7242mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.677	0.8250mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:36:40 AM
2	2.431	0.7417mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:38:44 AM
3	2.361	0.7180mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:40:48 AM
4	2.297	0.6963mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:42:51 AM
5	2.429	0.7410mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:44:55 AM

Mean Area 2.380
Mean Conc. 0.7242mg/L



Sample

Sample Name: 280-123941-k-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

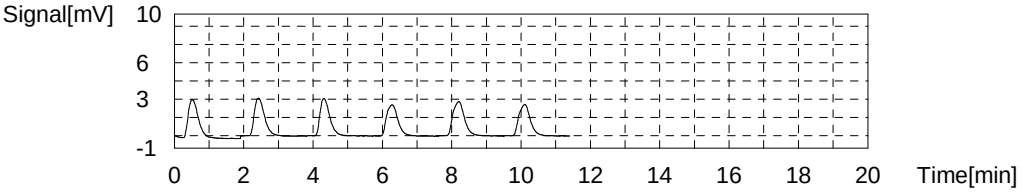
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:4.110mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.416	4.183mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:53:27 AM
2	6.343	4.134mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:55:31 AM
3	6.000	3.902mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:57:35 AM
4	5.826	3.784mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:59:39 AM
5	6.473	4.222mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:01:42 AM
6	5.896	3.831mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:03:46 AM

Mean Area 6.308
Mean Conc. 4.110mg/L



Sample

Sample Name: 280-123941-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

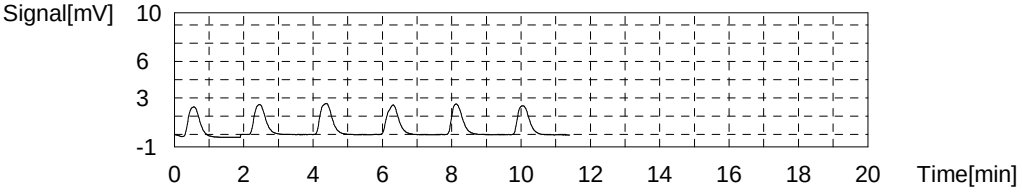
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:3.548mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.530	3.583mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:12:13 AM
2	5.548	3.595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:14:17 AM
3	6.078	3.954mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:16:21 AM
4	5.713	3.707mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:18:25 AM
5	5.378	3.480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:20:29 AM
6	5.458	3.534mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:22:32 AM

Mean Area 5.479
Mean Conc. 3.548mg/L



Sample

Sample Name: 280-123941-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

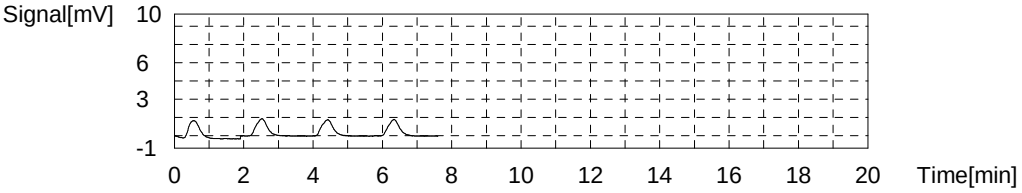
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9505mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.005	0.9361mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:30:59 AM
2	3.145	0.9836mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:33:03 AM
3	3.037	0.9470mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:35:07 AM
4	3.003	0.9354mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:37:11 AM

Mean Area 3.048
Mean Conc. 0.9505mg/L



Sample

Sample Name: 280-123941-j-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

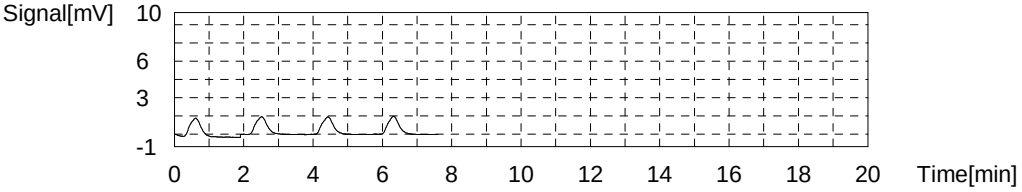
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.031mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.271	1.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:45:43 AM
2	3.354	1.054mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:47:47 AM
3	3.225	1.011mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:49:51 AM
4	3.288	1.032mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:51:55 AM

Mean Area 3.285
Mean Conc. 1.031mg/L



Sample

Sample Name: 280-123941-k-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

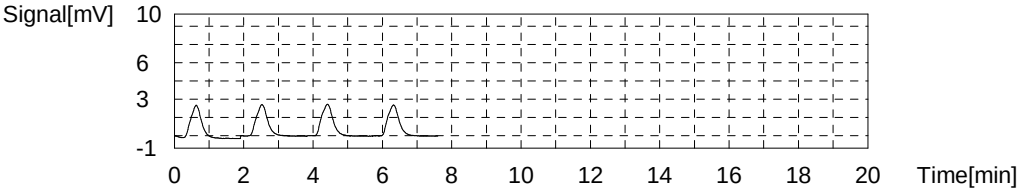
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.875mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.766	1.871mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:00:27 AM
2	5.794	1.881mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:02:31 AM
3	5.865	1.905mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:04:35 AM
4	5.683	1.843mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:06:38 AM

Mean Area 5.777
Mean Conc. 1.875mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

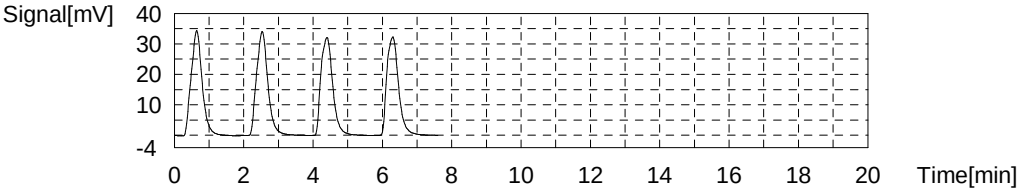
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.13mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.91	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:15:11 AM
2	78.15	26.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:17:15 AM
3	76.76	25.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:19:19 AM
4	76.62	25.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:21:23 AM

Mean Area 77.36
Mean Conc. 26.13mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

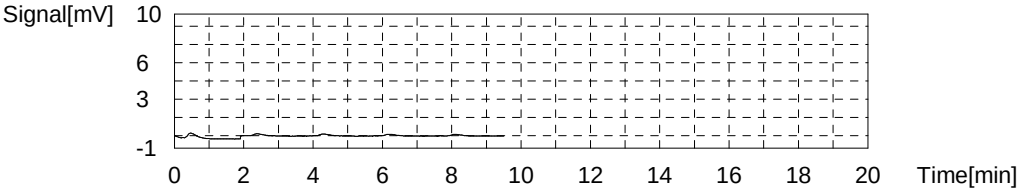
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00427mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6654	0.1435mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:29:55 AM
2	0.3002	0.01980mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:31:59 AM
3	0.2646	0.00774mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:34:03 AM
4	0.2428	0.00035mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:36:07 AM
5	0.2099	-0.01079mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:38:11 AM

Mean Area 0.2544
Mean Conc. 0.00427mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

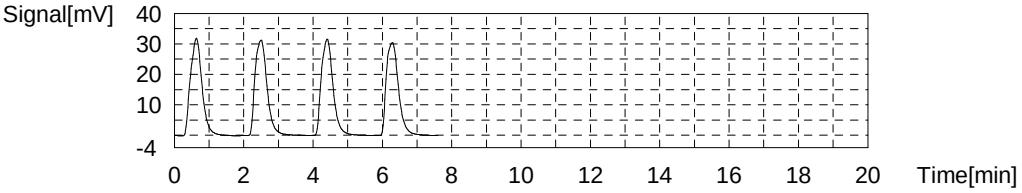
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.53	25.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:46:42 AM
2	75.80	25.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:48:46 AM
3	74.65	25.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:50:50 AM
4	75.01	25.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:52:54 AM

Mean Area 75.25
Mean Conc. 25.41mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

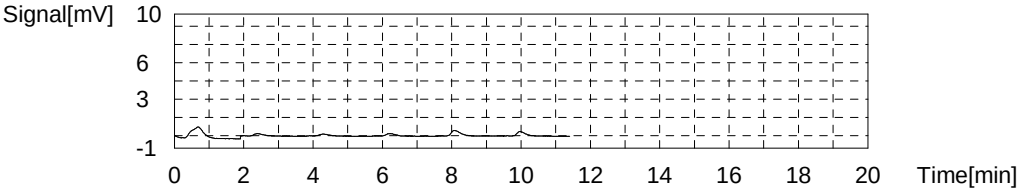
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04991mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.112	0.6336mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:01:26 AM
2	0.3316	0.03043mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:03:30 AM
3	0.2659	0.00818mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:05:34 AM
4	0.3745	0.04497mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:07:38 AM
5	0.8231	0.1969mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:09:41 AM
6	0.5844	0.1161mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:11:45 AM

Mean Area 0.3891
Mean Conc. 0.04991mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

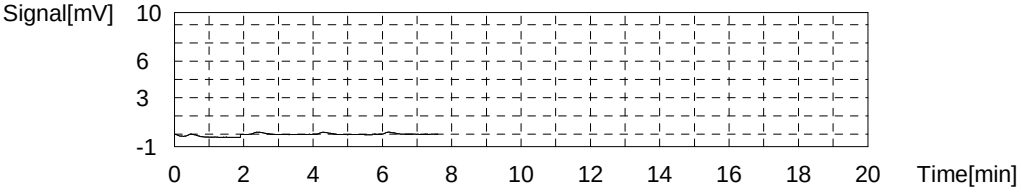
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02668mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3102	0.02318mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:20:12 AM
2	0.3614	0.04053mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:22:16 AM
3	0.3085	0.02261mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:24:20 AM
4	0.3020	0.02041mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:26:24 AM

Mean Area 0.3205
Mean Conc. 0.02668mg/L



Sample

Sample Name: 280-123855-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

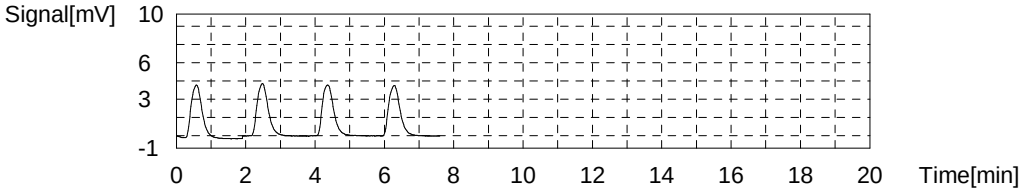
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.117mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.542	3.151mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:34:57 AM
2	9.540	3.150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:37:01 AM
3	9.308	3.071mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:39:05 AM
4	9.378	3.095mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:41:09 AM

Mean Area 9.442
Mean Conc. 3.117mg/L



Sample

Sample Name: MS 280-123855-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

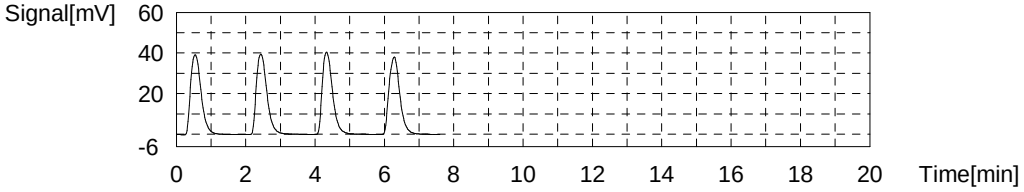
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.63	28.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:49:41 AM
2	84.50	28.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:51:45 AM
3	83.94	28.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:53:49 AM
4	83.50	28.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:55:53 AM

Mean Area 84.14
Mean Conc. 28.42mg/L



Sample

Sample Name: MSD 280-123855-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

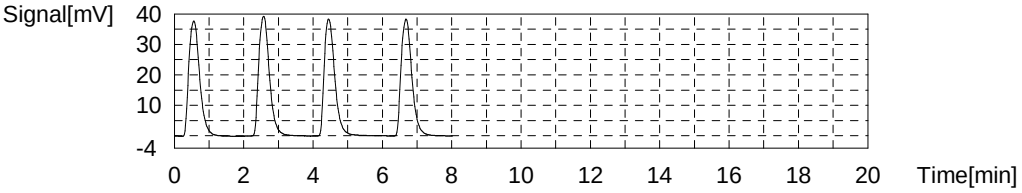
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.35	28.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:04:32 AM
2	84.60	28.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:06:36 AM
3	81.65	27.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:08:58 AM
4	83.40	28.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:11:02 AM

Mean Area 83.25
Mean Conc. 28.12mg/L



Sample

Sample Name: 280-123855-e-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

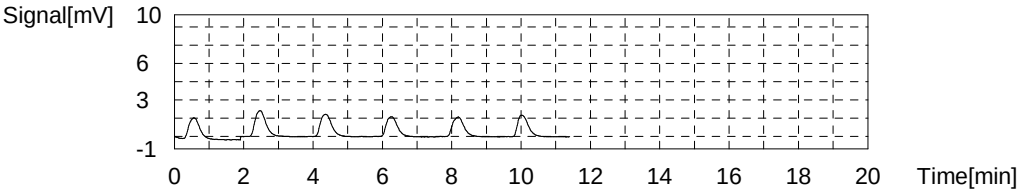
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.163mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.690	1.168mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:19:34 AM
2	4.643	1.491mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:21:38 AM
3	4.075	1.299mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:23:42 AM
4	3.629	1.148mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:25:46 AM
5	3.637	1.150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:27:49 AM
6	3.739	1.185mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:29:53 AM

Mean Area 3.674
Mean Conc. 1.163mg/L



Sample

Sample Name: 280-123855-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

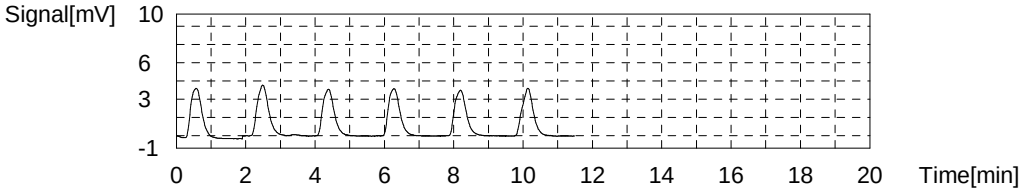
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.904mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.131	3.011mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:38:19 AM
2	9.716	3.210mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:40:23 AM
3	8.757	2.885mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:42:27 AM
4	8.901	2.934mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:44:30 AM
5	8.737	2.878mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:46:34 AM
6	8.865	2.921mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:48:43 AM

Mean Area 8.815
Mean Conc. 2.904mg/L



Sample

Sample Name: 280-123855-c-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

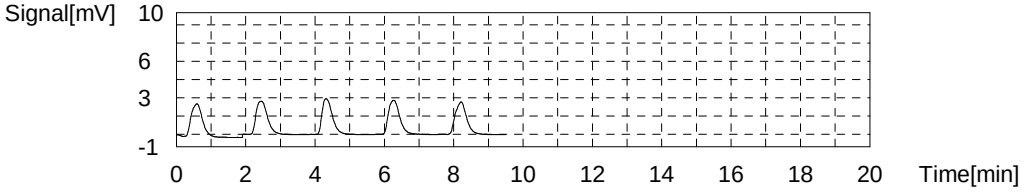
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.986mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.090	1.981mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:57:09 AM
2	6.223	2.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:59:13 AM
3	6.034	1.962mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:01:17 AM
4	6.329	2.062mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:03:20 AM
5	6.065	1.973mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:05:24 AM

Mean Area 6.103
Mean Conc. 1.986mg/L



Sample

Sample Name: 280-123959-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

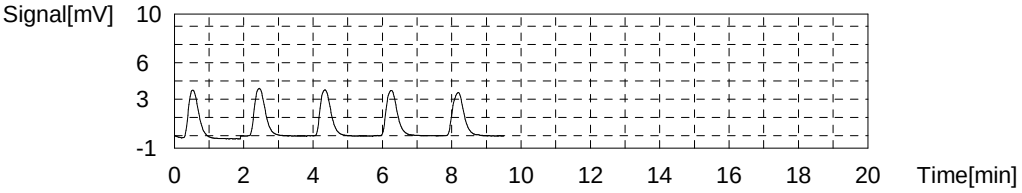
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:13.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.081	13.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:13:56 AM
2	8.452	13.91mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:16:00 AM
3	8.106	13.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:18:04 AM
4	8.060	13.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:20:08 AM
5	8.086	13.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:22:11 AM

Mean Area 8.083
Mean Conc. 13.28mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

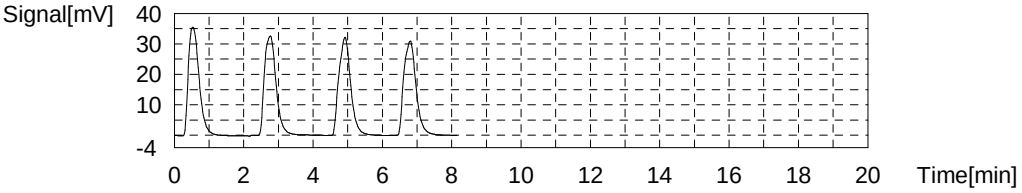
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.16mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.52	26.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:31:00 AM
2	77.29	26.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:33:16 AM
3	77.07	26.03mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:35:20 AM
4	77.00	26.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:37:27 AM

Mean Area 77.47
Mean Conc. 26.16mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

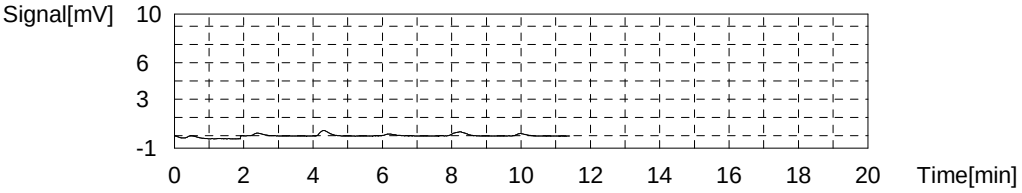
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02421mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3085	0.02261mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:46:00 AM
2	0.3703	0.04355mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:48:04 AM
3	0.8305	0.1995mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:50:08 AM
4	0.2463	0.00154mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:52:12 AM
5	0.8237	0.1971mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:54:15 AM
6	0.3278	0.02915mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:56:19 AM

Mean Area 0.3132
Mean Conc. 0.02421mg/L



Sample

Sample Name: 280-123959-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

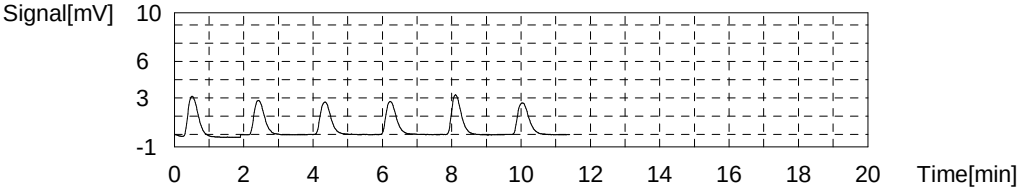
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:9.321mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.793	11.10mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:04:46 AM
2	5.889	9.566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:06:50 AM
3	5.641	9.146mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:08:54 AM
4	5.577	9.037mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:10:57 AM
5	6.367	10.38mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:13:01 AM
6	5.872	9.537mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:15:05 AM

Mean Area 5.745
Mean Conc. 9.321mg/L



Sample

Sample Name: 280-123959-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

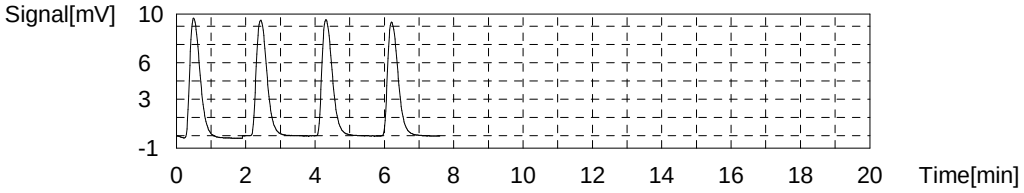
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:33.72mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.36	34.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:23:32 AM
2	20.41	34.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:25:36 AM
3	20.01	33.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:27:40 AM
4	19.82	33.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:29:43 AM

Mean Area 20.15
Mean Conc. 33.72mg/L



Sample

Sample Name: 280-123960-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

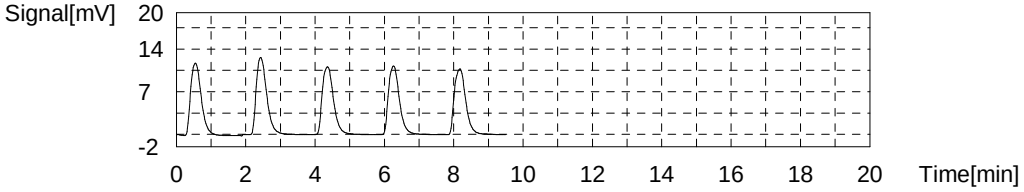
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:8.405mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.50	8.557mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:38:17 AM
2	26.78	8.991mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:40:21 AM
3	25.17	8.445mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:42:25 AM
4	24.76	8.306mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:44:29 AM
5	24.78	8.313mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:46:32 AM

Mean Area 25.05
Mean Conc. 8.405mg/L



Sample

Sample Name: 320-50340-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

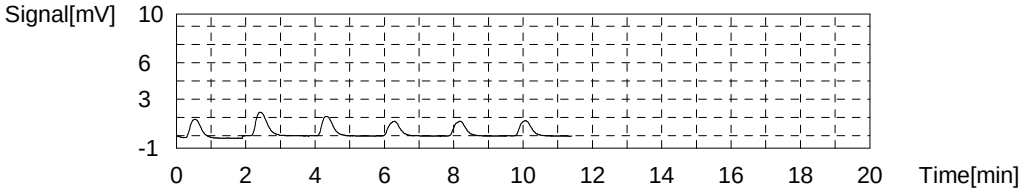
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8943mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.251	1.019mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:55:05 AM
2	4.321	1.382mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:57:09 AM
3	3.431	1.080mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:59:13 AM
4	2.706	0.8348mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:01:16 AM
5	2.765	0.8548mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:03:20 AM
6	2.804	0.8680mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:05:24 AM

Mean Area 2.882
Mean Conc. 0.8943mg/L



Sample

Sample Name: MS 320-50340-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

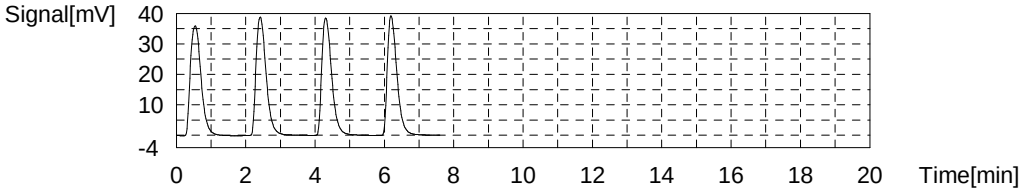
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.50	26.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:13:51 AM
2	78.88	26.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:15:55 AM
3	76.88	25.96mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:17:59 AM
4	75.92	25.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:20:02 AM

Mean Area 77.55
Mean Conc. 26.19mg/L



Sample

Sample Name: MSD 320-50340-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

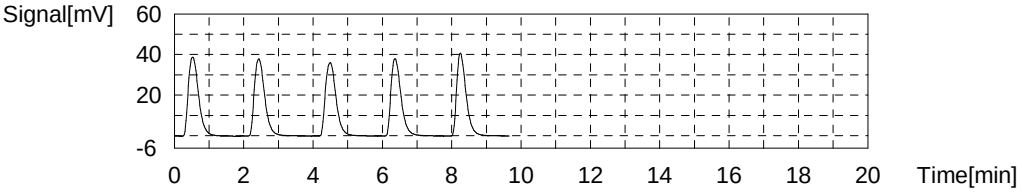
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.40	27.49mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:28:36 AM
2	79.62	26.89mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:30:49 AM
3	77.98	26.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:32:53 AM
4	77.43	26.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:34:56 AM
5	77.00	26.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:37:00 AM

Mean Area 78.01
Mean Conc. 26.35mg/L



Sample

Sample Name: 320-50340-f-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

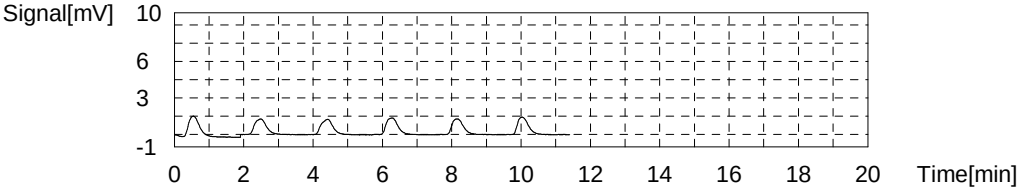
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9328mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.634	1.149mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:45:33 AM
2	2.996	0.9331mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:47:37 AM
3	2.945	0.9158mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:49:41 AM
4	3.188	0.9981mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:51:45 AM
5	2.942	0.9148mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:53:48 AM
6	3.098	0.9676mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:55:52 AM

Mean Area 2.995
Mean Conc. 0.9328mg/L



Sample

Sample Name: 320-50340-f-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

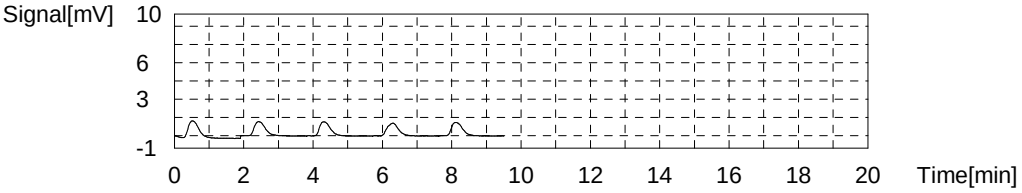
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7462mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.872	0.8911mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:04:19 AM
2	2.501	0.7654mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:06:23 AM
3	2.475	0.7566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:08:26 AM
4	2.395	0.7295mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:10:30 AM
5	2.407	0.7335mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:12:34 AM

Mean Area 2.445
Mean Conc. 0.7462mg/L



Sample

Sample Name: 320-50340-f-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

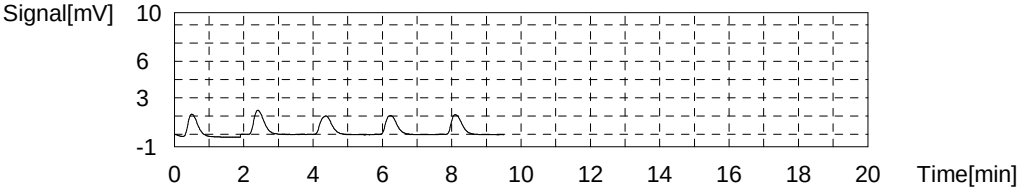
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.099mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.523	1.112mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:21:07 AM
2	4.013	1.278mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:23:11 AM
3	3.502	1.104mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:25:15 AM
4	3.464	1.092mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:27:18 AM
5	3.450	1.087mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:29:22 AM

Mean Area 3.485
Mean Conc. 1.099mg/L



Sample

Sample Name: 280-123922-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

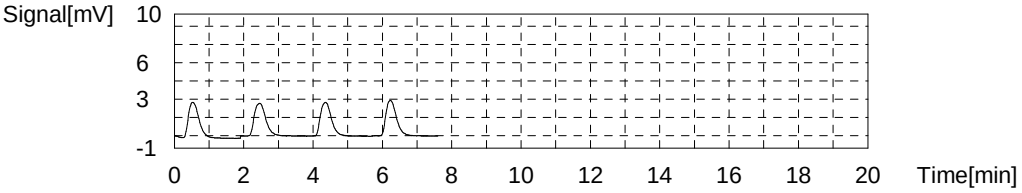
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.983mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.094	1.983mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:37:55 AM
2	6.129	1.994mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:39:59 AM
3	6.039	1.964mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:42:03 AM
4	6.115	1.990mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:44:06 AM

Mean Area 6.094
Mean Conc. 1.983mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

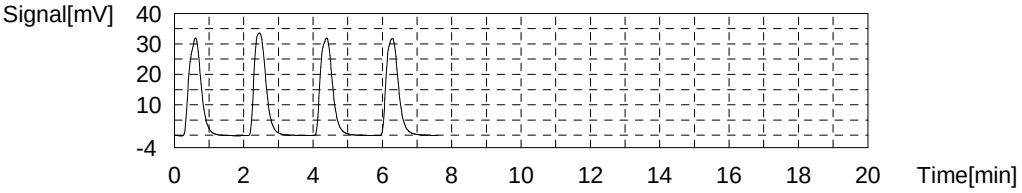
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.83	26.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:52:40 AM
2	79.29	26.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:54:44 AM
3	78.08	26.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:56:48 AM
4	77.60	26.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:58:52 AM

Mean Area 78.20
Mean Conc. 26.41mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

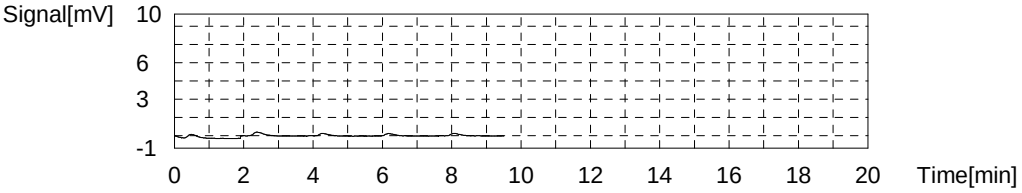
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04570mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4889	0.08372mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:07:25 AM
2	0.5913	0.1184mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:09:29 AM
3	0.3493	0.03643mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:11:33 AM
4	0.3411	0.03365mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:13:36 AM
5	0.3274	0.02901mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:15:40 AM

Mean Area 0.3767
Mean Conc. 0.04570mg/L



Sample

Sample Name: 280-123922-g-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

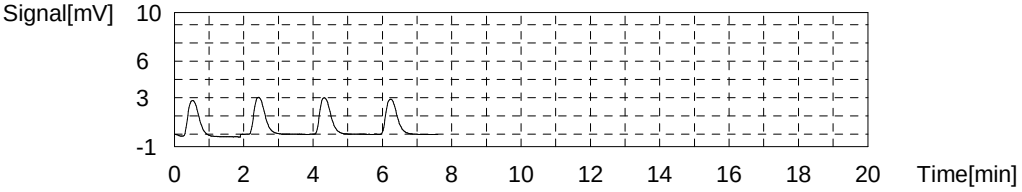
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.130mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.471	2.110mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:24:13 AM
2	6.609	2.157mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:26:17 AM
3	6.532	2.131mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:28:20 AM
4	6.501	2.120mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:30:24 AM

Mean Area 6.528
Mean Conc. 2.130mg/L



Sample

Sample Name: 280-123922-g-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

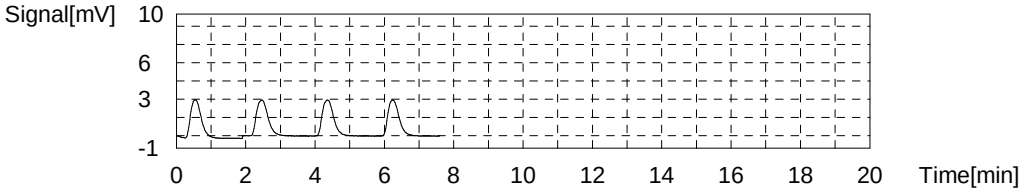
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.174mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.620	2.161mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:38:58 AM
2	6.776	2.214mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:41:02 AM
3	6.664	2.176mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:43:06 AM
4	6.572	2.145mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:45:09 AM

Mean Area 6.658
Mean Conc. 2.174mg/L



Sample

Sample Name: 280-123924-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

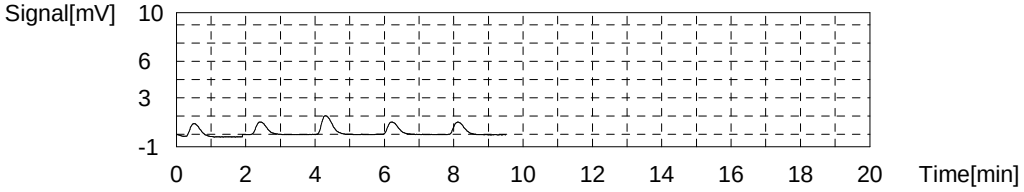
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6557mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.122	0.6370mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:53:43 AM
2	2.210	0.6668mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:55:47 AM
3	3.239	1.015mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:57:50 AM
4	2.192	0.6607mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:59:54 AM
5	2.185	0.6583mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:01:58 AM

Mean Area 2.177
Mean Conc. 0.6557mg/L



Sample

Sample Name: 280-123924-g-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

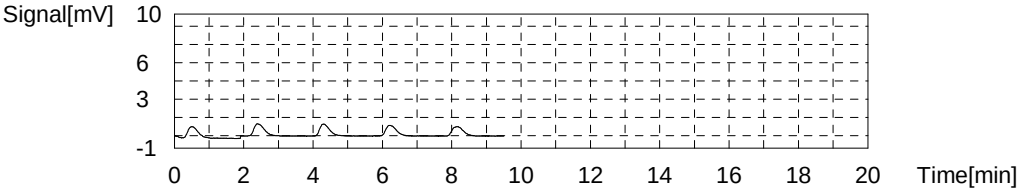
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5330mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.836	0.5401mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:10:31 AM
2	2.067	0.6184mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:12:35 AM
3	1.884	0.5564mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:14:39 AM
4	1.801	0.5282mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:16:42 AM
5	1.739	0.5072mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:18:46 AM

Mean Area 1.815
Mean Conc. 0.5330mg/L



Sample

Sample Name: 280-123924-g-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

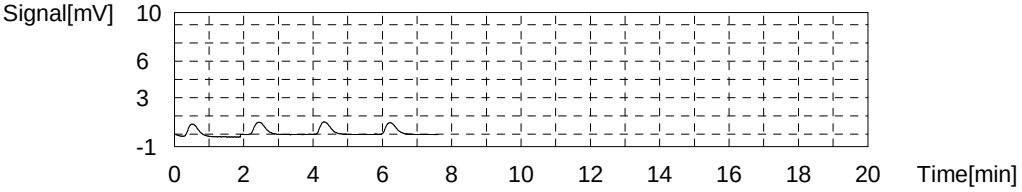
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6311mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.023	0.6034mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:27:19 AM
2	2.206	0.6654mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:29:23 AM
3	2.161	0.6502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:31:27 AM
4	2.029	0.6055mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:33:30 AM

Mean Area 2.105
Mean Conc. 0.6311mg/L



Sample

Sample Name: 280-123924-g-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

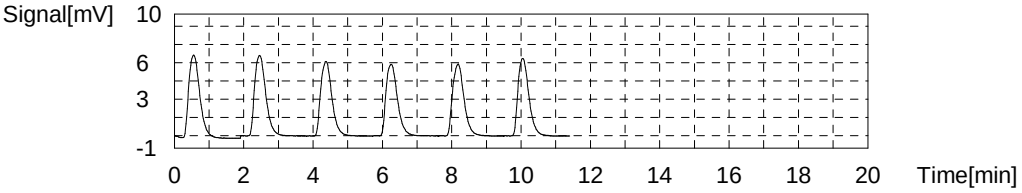
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.552mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.12	5.040mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:42:04 AM
2	14.84	4.946mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:44:08 AM
3	13.82	4.600mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:46:11 AM
4	13.47	4.481mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:48:15 AM
5	13.48	4.485mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:50:19 AM
6	13.94	4.641mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:52:23 AM

Mean Area 13.68
Mean Conc. 4.552mg/L



Sample

Sample Name: 280-123924-g-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

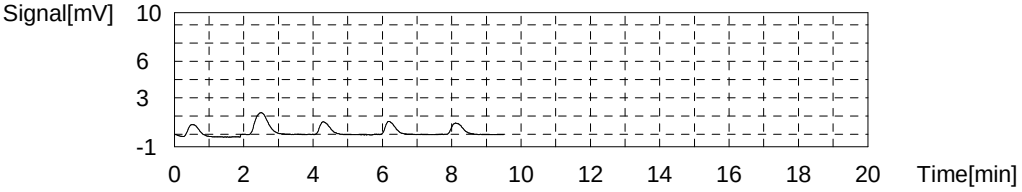
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6367mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.170	0.6532mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:00:50 PM
2	4.610	1.480mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:02:54 PM
3	2.136	0.6417mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:04:58 PM
4	2.086	0.6248mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:07:01 PM
5	2.093	0.6272mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:09:05 PM

Mean Area 2.121
Mean Conc. 0.6367mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

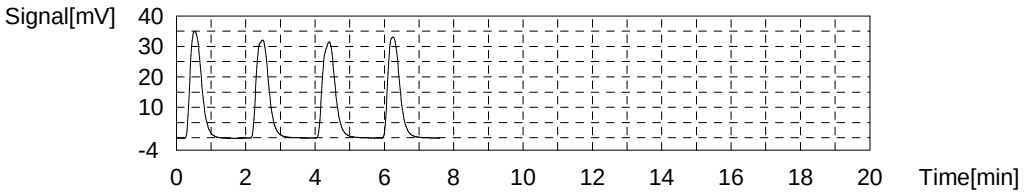
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.00mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.82	27.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:17:38 PM
2	80.38	27.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:19:42 PM
3	80.12	27.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:21:46 PM
4	78.45	26.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:23:49 PM

Mean Area 79.94
Mean Conc. 27.00mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

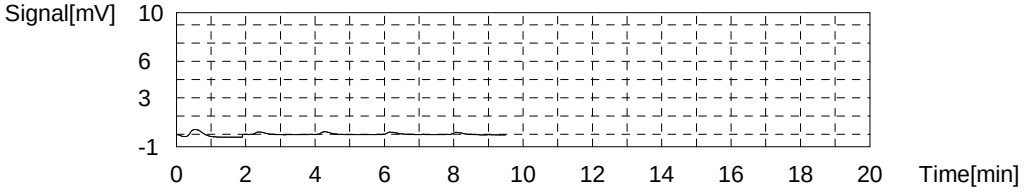
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04400mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.380	0.3856mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:32:24 PM
2	0.3790	0.04649mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:34:28 PM
3	0.4006	0.05381mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:36:32 PM
4	0.3732	0.04453mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:38:35 PM
5	0.3338	0.03118mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:40:39 PM

Mean Area 0.3717
Mean Conc. 0.04400mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

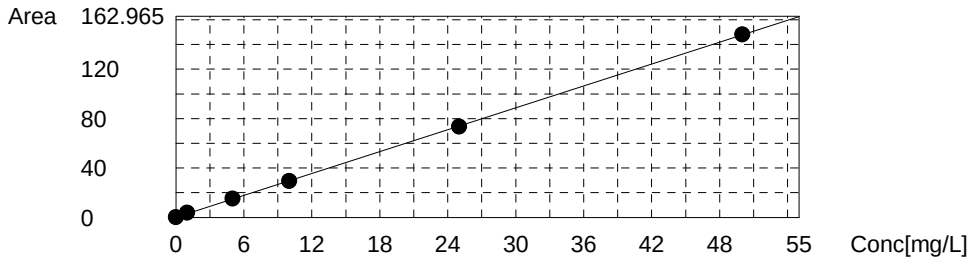
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

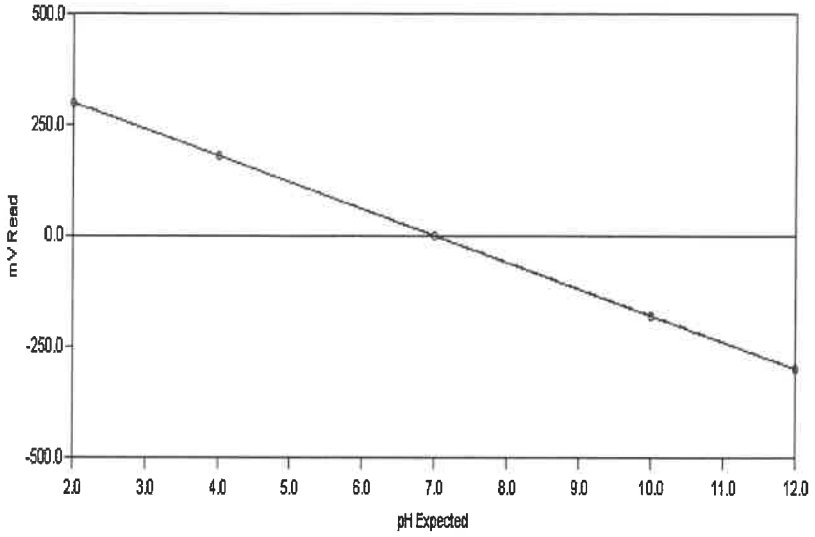
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



MANTECH INC.
Calibration Report

Calibration Record # 461



Calibration Settings

Calibration ID	PH	Date	5/24/2019
Channel	1	Time	5:27 PM
Probe Type	pH	Temperature	295.78 K 22.63 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.670	CorrCoeff	1.0000
Intercept	0.124	Equation: Y = (-59.670) X + (0.124)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.670	-65.00	-54.00
Intercept	0.124	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	297.85
	4.00	179.93
	7.00	0.61
	10.00	-180.17
	12.00	-297.60

Test America
Water Analysis Report

Analyst: SGB

Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
rinse	5/24/2019	5:32 PM	22.20	-1.00	9.22	-1.00	-1.00	-1.00	2.72	8.38	2.94	5.45	.00	.03	.11	.14	.02
check	5/24/2019	5:40 PM	22.08	-1.00	10.51	-1.00	-1.00	-1.00	92.81	198.94	13.33	185.61	.00	.93	1.99	-1.00	.02
b7	5/24/2019	5:42 PM	21.92	-1.00	7.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
lcs	5/24/2019	5:48 PM	21.76	-1.00	10.51	-1.00	-1.00	-1.00	93.68	195.97	8.62	187.35	.00	.94	1.96	-1.00	.02
mb	5/24/2019	6:12 PM	22.39	-1.00	7.30	-1.00	-1.00	-1.00	.00	2.43	2.43	.00	.00	.00	.05	.07	.02
280-123986-A-11	5/24/2019	6:18 PM	21.73	-1.00	7.41	-1.00	-1.00	-1.00	.00	187.14	187.14	.00	.00	.00	1.87	-1.00	.02
280-123986-A-11	5/24/2019	6:23 PM	21.48	-1.00	7.43	-1.00	-1.00	-1.00	.00	189.84	189.84	.00	.00	.00	1.90	-1.00	.02
280-123986-A-12	5/24/2019	6:29 PM	21.45	-1.00	7.52	-1.00	-1.00	-1.00	.00	192.48	192.48	.00	.00	.00	1.92	-1.00	.02
280-123986-A-1	5/24/2019	6:34 PM	21.51	-1.00	7.69	-1.00	-1.00	-1.00	.00	122.93	122.93	.00	.00	.00	1.23	-1.00	.02
280-123986-A-6	5/24/2019	6:39 PM	21.67	-1.00	7.80	-1.00	-1.00	-1.00	.00	149.83	149.83	.00	.00	.00	1.50	-1.00	.02
280-123986-A-7	5/24/2019	6:45 PM	21.61	-1.00	7.94	-1.00	-1.00	-1.00	.00	124.83	124.83	.00	.00	.00	1.25	-1.00	.02
280-123986-A-8	5/24/2019	6:52 PM	21.38	-1.00	7.60	-1.00	-1.00	-1.00	.00	532.96	532.96	.00	.00	.00	5.33	-1.00	.02
280-123842-A-1	5/24/2019	7:01 PM	21.44	-1.00	7.21	-1.00	-1.00	-1.00	.00	646.84	646.84	.00	.00	.00	6.47	-1.00	.02
280-123815-G-1	5/24/2019	7:07 PM	21.48	-1.00	8.11	-1.00	-1.00	-1.00	.00	180.90	180.90	.00	.00	.00	1.81	-1.00	.02
280-123291-B-1	5/24/2019	7:16 PM	21.31	-1.00	7.32	-1.00	-1.00	-1.00	.00	796.65	796.65	.00	.00	.00	7.97	-1.00	.02
ccv	5/24/2019	7:22 PM	21.31	-1.00	10.46	-1.00	-1.00	-1.00	95.91	199.19	7.37	191.82	.00	.96	1.99	-1.00	.02
ccb	5/24/2019	7:27 PM	21.35	-1.00	6.56	-1.00	-1.00	-1.00	.00	1.15	1.15	.00	.00	.00	.03	.05	.02
280-123843-A-2	5/24/2019	7:35 PM	21.31	-1.00	7.47	-1.00	-1.00	-1.00	.00	567.21	567.21	.00	.00	.00	5.67	-1.00	.02
280-123855-H-5	5/24/2019	7:40 PM	21.53	-1.00	7.98	-1.00	-1.00	-1.00	.00	218.11	218.11	.00	.00	.00	2.18	-1.00	.02
280-123855-J-4	5/24/2019	7:46 PM	21.69	-1.00	7.98	-1.00	-1.00	-1.00	.00	219.58	219.58	.00	.00	.00	2.20	-1.00	.02
280-123855-J-6	5/24/2019	7:52 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	216.63	216.63	.00	.00	.00	2.17	-1.00	.02
280-123855-I-1	5/24/2019	7:59 PM	21.56	-1.00	7.26	-1.00	-1.00	-1.00	.00	235.07	235.07	.00	.00	.00	2.35	-1.00	.02
280-123855-J-2	5/24/2019	8:04 PM	21.28	-1.00	10.56	-1.00	-1.00	-1.00	80.82	111.02	.00	60.41	50.61	.81	1.11	-1.00	.02
280-123855-J-3	5/24/2019	8:10 PM	21.31	-1.00	7.80	-1.00	-1.00	-1.00	.00	367.77	367.77	.00	.00	.00	3.68	-1.00	.02
280-123868-B-2	5/24/2019	8:16 PM	21.37	-1.00	7.96	-1.00	-1.00	-1.00	.00	138.62	138.62	.00	.00	.00	1.39	-1.00	.02
280-123868-B-1	5/24/2019	8:22 PM	21.32	-1.00	7.96	-1.00	-1.00	-1.00	.00	141.52	141.52	.00	.00	.00	1.42	-1.00	.02
280-123868-B-3	5/24/2019	8:25 PM	21.37	-1.00	4.09	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02

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GENERAL RESULTS REPORT.SRW

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
ccv	5/24/2019	8:31 PM	21.31	-1.00	10.41	-1.00	-1.00	-1.00	91.66	196.42	13.11	183.32	.00	.92	1.96	-1.00	.02
ccb	5/24/2019	8:36 PM	21.64	-1.00	7.13	-1.00	-1.00	-1.00	.00	1.71	1.71	.00	.00	.00	.04	.05	.02
lcs	5/24/2019	8:42 PM	21.73	-1.00	10.42	-1.00	-1.00	-1.00	94.43	198.96	10.10	188.87	.00	.94	1.99	-1.00	.02
mb	5/24/2019	8:47 PM	21.87	-1.00	7.25	-1.00	-1.00	-1.00	.00	1.70	1.70	.00	.00	.00	.04	.05	.02
280-123882-B-1	5/24/2019	8:52 PM	21.63	-1.00	7.92	-1.00	-1.00	-1.00	.00	168.53	168.53	.00	.00	.00	1.69	-1.00	.02
du	5/24/2019	8:58 PM	21.50	-1.00	7.96	-1.00	-1.00	-1.00	.00	168.56	168.56	.00	.00	.00	1.69	-1.00	.02
280-123919-C-2	5/24/2019	9:03 PM	21.44	-1.00	6.66	-1.00	-1.00	-1.00	.00	1.60	1.60	.00	.00	.00	.03	.05	.02
280-123919-C-6	5/24/2019	9:08 PM	21.40	-1.00	7.65	-1.00	-1.00	-1.00	.00	185.45	185.45	.00	.00	.00	1.85	-1.00	.02
280-123919-C-5	5/24/2019	9:17 PM	21.38	-1.00	7.35	-1.00	-1.00	-1.00	.00	546.93	546.93	.00	.00	.00	5.47	-1.00	.02
280-123919-C-4	5/24/2019	9:22 PM	21.54	-1.00	7.63	-1.00	-1.00	-1.00	.00	185.98	185.98	.00	.00	.00	1.86	-1.00	.02
280-123922-J-1	5/24/2019	9:29 PM	21.51	-1.00	7.31	-1.00	-1.00	-1.00	.00	423.12	423.12	.00	.00	.00	4.23	-1.00	.02
280-123922-I-3	5/24/2019	9:36 PM	21.64	-1.00	7.35	-1.00	-1.00	-1.00	.00	377.60	377.60	.00	.00	.00	3.78	-1.00	.02
280-123922-H-2	5/24/2019	9:43 PM	21.86	-1.00	7.38	-1.00	-1.00	-1.00	.00	420.73	420.73	.00	.00	.00	4.21	-1.00	.02
280-123924-A-5	5/24/2019	9:48 PM	22.11	-1.00	8.11	-1.00	-1.00	-1.00	.00	163.70	163.70	.00	.00	.00	1.64	-1.00	.02
ccv	5/24/2019	9:55 PM	21.90	-1.00	10.39	-1.00	-1.00	-1.00	91.87	199.99	16.25	183.74	.00	.92	2.00	-1.00	.02
ccb	5/24/2019	9:59 PM	21.80	-1.00	6.37	-1.00	-1.00	-1.00	.00	.84	.84	.00	.00	.00	.03	.05	.02
280-123924-B-6	5/24/2019	10:06 PM	21.58	-1.00	7.89	-1.00	-1.00	-1.00	.00	410.82	410.82	.00	.00	.00	4.11	-1.00	.02
280-123924-B-7	5/24/2019	10:13 PM	21.66	-1.00	8.11	-1.00	-1.00	-1.00	.00	217.84	217.84	.00	.00	.00	2.18	-1.00	.02
280-123924-B-8	5/24/2019	10:18 PM	21.57	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.48	212.48	.00	.00	.00	2.12	-1.00	.02
280-123924-B-9	5/24/2019	10:24 PM	21.53	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.16	212.16	.00	.00	.00	2.12	-1.00	.02
280-123924-A-10	5/24/2019	10:30 PM	21.51	-1.00	7.30	-1.00	-1.00	-1.00	.00	86.68	86.68	.00	.00	.00	.87	-1.00	.02
280-123924-A-11	5/24/2019	10:35 PM	21.51	-1.00	7.77	-1.00	-1.00	-1.00	.00	89.64	89.64	.00	.00	.00	.90	-1.00	.02
280-123924-B-12	5/24/2019	10:41 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	209.92	209.92	.00	.00	.00	2.10	-1.00	.02
280-123930-I-1	5/24/2019	10:47 PM	21.89	-1.00	7.26	-1.00	-1.00	-1.00	.00	248.54	248.54	.00	.00	.00	2.49	-1.00	.02
280-123930-H-2	5/24/2019	10:54 PM	22.16	-1.00	7.38	-1.00	-1.00	-1.00	.00	492.40	492.40	.00	.00	.00	4.92	-1.00	.02
280-123930-I-3	5/24/2019	11:01 PM	22.07	-1.00	7.35	-1.00	-1.00	-1.00	.00	491.92	491.92	.00	.00	.00	4.92	-1.00	.02
ccv	5/24/2019	11:07 PM	21.95	-1.00	10.41	-1.00	-1.00	-1.00	86.66	197.59	24.28	173.31	.00	.87	1.98	-1.00	.02
ccb	5/24/2019	11:12 PM	21.85	-1.00	6.31	-1.00	-1.00	-1.00	.00	.99	.99	.00	.00	.00	.03	.05	.02
lcs	5/24/2019	11:18 PM	21.64	-1.00	10.38	-1.00	-1.00	-1.00	90.31	202.44	21.82	180.62	.00	.90	2.02	-1.00	.02
mb	5/24/2019	11:23 PM	21.70	-1.00	6.27	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.05	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123930-H-4	5/24/2019	11:30 PM	21.63	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.17	484.17	.00	.00	.00	4.84	-1.00	.02
du	5/24/2019	11:38 PM	21.73	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.73	484.73	.00	.00	.00	4.85	-1.00	.02
280-123930-J-5	5/24/2019	11:43 PM	21.79	-1.00	7.69	-1.00	-1.00	-1.00	.00	155.17	155.17	.00	.00	.00	1.55	-1.00	.02
280-123941-I-2	5/24/2019	11:50 PM	21.79	-1.00	8.28	-1.00	-1.00	-1.00	.00	362.95	362.95	.00	.00	.00	3.63	-1.00	.02
280-123941-I-4	5/24/2019	11:57 PM	21.95	-1.00	8.58	-1.00	-1.00	-1.00	25.24	424.38	373.91	50.48	.00	.25	4.24	-1.00	.02
280-123941-I-5	5/25/2019	12:05 AM	22.39	-1.00	7.94	-1.00	-1.00	-1.00	.00	576.32	576.32	.00	.00	.00	5.76	-1.00	.02
280-123941-I-6	5/25/2019	12:13 AM	22.32	-1.00	7.90	-1.00	-1.00	-1.00	.00	551.79	551.79	.00	.00	.00	5.52	-1.00	.02
280-123941-I-7	5/25/2019	12:21 AM	22.11	-1.00	7.60	-1.00	-1.00	-1.00	.00	582.27	582.27	.00	.00	.00	5.82	-1.00	.02
280-123941-I-9	5/25/2019	12:27 AM	22.02	-1.00	8.10	-1.00	-1.00	-1.00	.00	171.96	171.96	.00	.00	.00	1.72	-1.00	.02
280-123941-I-10	5/25/2019	12:34 AM	21.86	-1.00	7.94	-1.00	-1.00	-1.00	.00	410.36	410.36	.00	.00	.00	4.10	-1.00	.02
ccv	5/25/2019	12:40 AM	21.71	-1.00	10.37	-1.00	-1.00	-1.00	89.84	200.21	20.54	179.67	.00	.90	2.00	-1.00	.02
ccb	5/25/2019	12:44 AM	21.71	-1.00	6.54	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-123941-I-11	5/25/2019	12:53 AM	21.69	-1.00	8.03	-1.00	-1.00	-1.00	.00	488.04	488.04	.00	.00	.00	4.88	-1.00	.02
280-123942-C-1	5/25/2019	12:58 AM	21.71	-1.00	7.75	-1.00	-1.00	-1.00	.00	146.69	146.69	.00	.00	.00	1.47	-1.00	.02
280-123947-A-2	5/25/2019	1:08 AM	21.69	-1.00	7.64	-1.00	-1.00	-1.00	.00	845.54	845.54	.00	.00	.00	8.46	-1.00	.02
280-123955-A-1	5/25/2019	1:15 AM	21.79	-1.00	7.81	-1.00	-1.00	-1.00	.00	432.94	432.94	.00	.00	.00	4.33	-1.00	.02
280-123969-A-2	5/25/2019	1:21 AM	21.73	-1.00	9.91	-1.00	-1.00	-1.00	59.22	157.92	39.48	118.44	.00	.59	1.58	-1.00	.02
280-123969-C-4	5/25/2019	1:32 AM	21.96	-1.00	7.68	-1.00	-1.00	-1.00	.00	931.00	931.00	.00	.00	.00	9.31	-1.00	.02
280-123969-A-3	5/25/2019	1:40 AM	21.87	-1.00	8.14	-1.00	-1.00	-1.00	.00	561.64	561.64	.00	.00	.00	5.62	-1.00	.02
280-123969-C-5	5/25/2019	1:47 AM	21.64	-1.00	7.80	-1.00	-1.00	-1.00	.00	521.66	521.66	.00	.00	.00	5.22	-1.00	.02
280-123981-J-8	5/25/2019	1:53 AM	21.51	-1.00	8.02	-1.00	-1.00	-1.00	.00	202.09	202.09	.00	.00	.00	2.02	-1.00	.02
280-123981-J-3	5/25/2019	1:59 AM	21.37	-1.00	7.99	-1.00	-1.00	-1.00	.00	217.95	217.95	.00	.00	.00	2.18	-1.00	.02
ccv	5/25/2019	2:04 AM	21.25	-1.00	10.34	-1.00	-1.00	-1.00	89.34	200.92	22.25	178.67	.00	.89	2.01	-1.00	.02
ccb	5/25/2019	2:09 AM	21.32	-1.00	6.39	-1.00	-1.00	-1.00	.00	1.24	1.24	.00	.00	.00	.03	.05	.02
lcs	5/25/2019	2:15 AM	21.25	-1.00	10.32	-1.00	-1.00	-1.00	87.49	199.56	24.58	174.98	.00	.87	2.00	-1.00	.02
mb	5/25/2019	2:19 AM	21.30	-1.00	6.43	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.04	.02
280-123981-H-4	5/25/2019	2:26 AM	21.31	-1.00	7.90	-1.00	-1.00	-1.00	.00	333.37	333.37	.00	.00	.00	3.33	-1.00	.02
du	5/25/2019	2:33 AM	21.41	-1.00	7.92	-1.00	-1.00	-1.00	.00	336.92	336.92	.00	.00	.00	3.37	-1.00	.02
280-123981-J-9	5/25/2019	2:39 AM	21.92	-1.00	8.14	-1.00	-1.00	-1.00	.00	211.07	211.07	.00	.00	.00	2.11	-1.00	.02
280-123981-I-6	5/25/2019	2:45 AM	21.82	-1.00	7.98	-1.00	-1.00	-1.00	.00	238.01	238.01	.00	.00	.00	2.38	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123981-I-2	5/25/2019	2:50 AM	21.71	-1.00	8.16	-1.00	-1.00	-1.00	.00	151.85	151.85	.00	.00	.00	1.52	-1.00	.02
280-123981-J-7	5/25/2019	2:57 AM	21.64	-1.00	7.88	-1.00	-1.00	-1.00	.00	318.00	318.00	.00	.00	.00	3.18	-1.00	.02
280-123981-I-1	5/25/2019	3:04 AM	21.57	-1.00	7.83	-1.00	-1.00	-1.00	.00	480.47	480.47	.00	.00	.00	4.80	-1.00	.02
280-123981-J-5	5/25/2019	3:10 AM	21.57	-1.00	8.18	-1.00	-1.00	-1.00	.00	168.22	168.22	.00	.00	.00	1.68	-1.00	.02
280-123983-H-1	5/25/2019	3:15 AM	21.56	-1.00	7.68	-1.00	-1.00	-1.00	.00	80.51	80.51	.00	.00	.00	.81	-1.00	.02
280-123983-I-2	5/25/2019	3:21 AM	21.51	-1.00	7.97	-1.00	-1.00	-1.00	.00	157.17	157.17	.00	.00	.00	1.57	-1.00	.02
ccv	5/25/2019	3:27 AM	21.50	-1.00	10.31	-1.00	-1.00	-1.00	88.23	200.79	24.34	176.45	.00	.88	2.01	-1.00	.02
ccb	5/25/2019	3:31 AM	21.63	-1.00	6.41	-1.00	-1.00	-1.00	.00	1.07	1.07	.00	.00	.00	.03	.05	.02
280-123983-H-3	5/25/2019	3:37 AM	21.66	-1.00	7.48	-1.00	-1.00	-1.00	.00	133.40	133.40	.00	.00	.00	1.33	-1.00	.02
280-124012-C-2	5/25/2019	3:43 AM	21.79	-1.00	8.21	-1.00	-1.00	-1.00	.00	154.14	154.14	.00	.00	.00	1.54	-1.00	.02
280-124006-B-1	5/25/2019	3:49 AM	22.10	-1.00	8.17	-1.00	-1.00	-1.00	.00	187.63	187.63	.00	.00	.00	1.88	-1.00	.02
280-124014-A-1	5/25/2019	3:55 AM	22.02	-1.00	8.04	-1.00	-1.00	-1.00	.00	260.05	260.05	.00	.00	.00	2.60	-1.00	.02
280-124014-A-2	5/25/2019	4:02 AM	21.93	-1.00	7.99	-1.00	-1.00	-1.00	.00	471.35	471.35	.00	.00	.00	4.71	-1.00	.02
280-124036-D-1	5/25/2019	4:16 AM	21.90	-1.00	7.31	-1.00	-1.00	-1.00	.00	1,354.27	1,354.27	.00	.00	.00	13.54	-1.00	.02
280-124036-C-2	5/25/2019	4:34 AM	21.98	-1.00	7.80	-1.00	-1.00	-1.00	.00	1,920.50	1,920.50	.00	.00	.00	19.20	-1.00	.02
280-124036-C-3	5/25/2019	4:56 AM	22.07	-1.00	8.01	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124036-D-4	5/25/2019	5:12 AM	22.14	-1.00	8.09	-1.00	-1.00	-1.00	.00	1,605.88	1,605.88	.00	.00	.00	16.06	-1.00	.02
280-124036-C-6	5/25/2019	5:23 AM	22.16	-1.00	7.92	-1.00	-1.00	-1.00	.00	1,030.71	1,030.71	.00	.00	.00	10.31	-1.00	.02
ccv	5/25/2019	5:28 AM	22.08	-1.00	10.23	-1.00	-1.00	-1.00	84.01	201.28	33.25	168.03	.00	.84	2.01	-1.00	.02
ccb	5/25/2019	5:33 AM	22.03	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.11	1.11	.00	.00	.00	.03	.04	.02
lcs	5/25/2019	5:40 AM	21.98	-1.00	10.24	-1.00	-1.00	-1.00	85.95	205.96	34.06	171.90	.00	.86	2.06	-1.00	.02
mb	5/25/2019	5:45 AM	22.49	-1.00	6.46	-1.00	-1.00	-1.00	.00	1.41	1.41	.00	.00	.00	.03	.05	.02
280-124036-D-7	5/25/2019	5:55 AM	22.39	-1.00	7.87	-1.00	-1.00	-1.00	.00	994.91	994.91	.00	.00	.00	9.95	-1.00	.02
du	5/25/2019	6:06 AM	22.40	-1.00	7.88	-1.00	-1.00	-1.00	.00	1,000.38	1,000.38	.00	.00	.00	10.00	-1.00	.02
280-124036-D-8	5/25/2019	6:18 AM	22.39	-1.00	7.83	-1.00	-1.00	-1.00	.00	1,001.71	1,001.71	.00	.00	.00	10.02	-1.00	.02
280-124036-C-9	5/25/2019	6:23 AM	22.40	-1.00	6.30	-1.00	-1.00	-1.00	.00	1.28	1.28	.00	.00	.00	.03	.05	.02
280-124036-C-10	5/25/2019	6:44 AM	22.23	-1.00	8.74	-1.00	-1.00	-1.00	121.48	.00	-242.97	242.97	.00	1.21	.00	.00	.02
280-124053-F-3	5/25/2019	6:51 AM	22.42	-1.00	7.96	-1.00	-1.00	-1.00	.00	397.73	397.73	.00	.00	.00	3.98	-1.00	.02
280-124053-E-2	5/25/2019	6:57 AM	22.31	-1.00	7.92	-1.00	-1.00	-1.00	.00	284.93	284.93	.00	.00	.00	2.85	-1.00	.02
280-124070-F-5	5/25/2019	7:04 AM	22.28	-1.00	7.90	-1.00	-1.00	-1.00	.00	301.09	301.09	.00	.00	.00	3.01	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-124070-F-6	5/25/2019	7:10 AM	22.26	-1.00	7.96	-1.00	-1.00	-1.00	.00	213.13	213.13	.00	.00	.00	2.13	-1.00	.02
280-124070-F-3	5/25/2019	7:16 AM	22.32	-1.00	8.01	-1.00	-1.00	-1.00	.00	336.89	336.89	.00	.00	.00	3.37	-1.00	.02
ccv	5/25/2019	7:23 AM	22.40	-1.00	10.23	-1.00	-1.00	-1.00	82.94	206.67	40.79	165.88	.00	.83	2.07	-1.00	.02
ccb	5/25/2019	7:27 AM	22.70	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.18	1.18	.00	.00	.00	.03	.05	.02
280-124070-F-4	5/25/2019	7:33 AM	22.55	-1.00	7.95	-1.00	-1.00	-1.00	.00	266.39	266.39	.00	.00	.00	2.66	-1.00	.02
280-124070-F-1	5/25/2019	7:40 AM	22.49	-1.00	7.91	-1.00	-1.00	-1.00	.00	355.63	355.63	.00	.00	.00	3.56	-1.00	.02
280-124070-F-2	5/25/2019	7:46 AM	22.46	-1.00	7.98	-1.00	-1.00	-1.00	.00	246.93	246.93	.00	.00	.00	2.47	-1.00	.02
280-124156-E-1	5/25/2019	7:57 AM	22.43	-1.00	8.62	-1.00	-1.00	-1.00	36.56	1,039.07	965.95	73.12	.00	.37	10.39	-1.00	.02
280-123939-A-3	5/25/2019	8:02 AM	22.52	-1.00	8.14	-1.00	-1.00	-1.00	.00	82.75	82.75	.00	.00	.00	.83	-1.00	.02
280-123939-A-3 du	5/25/2019	8:07 AM	22.39	-1.00	8.21	-1.00	-1.00	-1.00	.00	83.01	83.01	.00	.00	.00	.83	-1.00	.02
280-123939-A-4	5/25/2019	8:12 AM	22.42	-1.00	6.28	-1.00	-1.00	-1.00	.00	.92	.92	.00	.00	.00	.03	.04	.02
280-124055-A-1	5/25/2019	8:17 AM	22.42	-1.00	7.08	-1.00	-1.00	-1.00	.00	71.71	71.71	.00	.00	.00	.72	-1.00	.02
280-124055-A-2	5/25/2019	8:23 AM	22.46	-1.00	8.05	-1.00	-1.00	-1.00	.00	197.82	197.82	.00	.00	.00	1.98	-1.00	.02
280-124055-A-3	5/25/2019	8:26 AM	22.54	-1.00	4.07	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
ccv	5/25/2019	8:32 AM	22.89	-1.00	10.11	-1.00	-1.00	-1.00	78.99	202.48	44.50	157.98	.00	.79	2.02	-1.00	.02
ccb	5/25/2019	8:37 AM	22.96	-1.00	6.88	-1.00	-1.00	-1.00	.00	1.91	1.91	.00	.00	.00	.04	.06	.02
lcs	5/25/2019	8:43 AM	22.98	-1.00	10.13	-1.00	-1.00	-1.00	77.19	200.11	45.73	154.37	.00	.77	2.00	-1.00	.02
mb	5/25/2019	8:48 AM	22.92	-1.00	6.71	-1.00	-1.00	-1.00	.00	1.63	1.63	.00	.00	.00	.03	.05	.02
280-124055-A-4	5/25/2019	8:53 AM	22.83	-1.00	7.37	-1.00	-1.00	-1.00	.00	40.22	40.22	.00	.00	.00	.40	-1.00	.02
280-124055-A-5	5/25/2019	8:56 AM	22.81	-1.00	3.81	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124055-A-6	5/25/2019	9:01 AM	22.80	-1.00	7.22	-1.00	-1.00	-1.00	.00	37.84	37.84	.00	.00	.00	.38	-1.00	.02
ccv	5/25/2019	9:07 AM	22.78	-1.00	10.18	-1.00	-1.00	-1.00	79.97	201.90	41.96	159.94	.00	.80	2.02	-1.00	.02
ccb	5/25/2019	9:12 AM	22.77	-1.00	6.57	-1.00	-1.00	-1.00	.00	1.75	1.75	.00	.00	.00	.03	.05	.02

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2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

06/14/2019

Batch Number: 280-459268 Analyst: Cherry, Scott V Batch Open: 5/23/2019 4:24:00PM

Batch End:

Conductivity Solids, Total Dissolved (TDS)

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
1	MB~280-459268/1 N/A	N/A			100	N/A	N/A	N/A		
2	LCS~280-459268/2 N/A	N/A			100	N/A	N/A	N/A		
3	280-123943-A-1 (2540C_Calcd)	N/A (280-123943-1)	Water	Hist	50	6/5/19	12_Day_Rush	4		
4	280-123943-A-1 (2540C_Calcd)	N/A (280-123943-1)	Water	2	50	6/5/19	12_Day_Rush	4		
5	280-123930-J-1 (2540C_Calcd)	N/A (280-123930-1)	Water	492	100	6/5/19	12_Days	4		
6	280-123930-I-2 (2540C_Calcd)	N/A (280-123930-1)	Water	842	100	6/5/19	12_Days	4		
7	280-123930-J-3 (2540C_Calcd)	N/A (280-123930-1)	Water	828	100	6/5/19	12_Days	4		
8	280-123983-A-1 (2540C_Calcd)	N/A (280-123983-1)	Water	155.5	100	6/5/19	12_Days	4		
9	280-123983-B-2 (2540C_Calcd)	N/A (280-123983-1)	Water	289.2	100	6/5/19	12_Days	4		
10	280-123983-B-3 (2540C_Calcd)	N/A (280-123983-1)	Water	295.7	100	6/5/19	12_Days	4		
11	280-124034-C-1 (2540C_Calcd)	N/A (280-124034-1)	Water	5570	25	5/30/19	8_Days	2		
12	280-123981-I-1 (2540C_Calcd)	N/A (280-123981-1)	Water	913	100	6/5/19	12_Days	4		
13	280-123981-H-2 (2540C_Calcd)	N/A (280-123981-1)	Water	311	100	6/5/19	12_Days	4		
14	280-123981-H-3 (2540C_Calcd)	N/A (280-123981-1)	Water	374	100	6/5/19	12_Days	4		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-459268 Analyst: Cherry, Scott V Batch Open: 5/23/2019 4:24:00PM

Batch End:

15	280-123981-I-4 (2540C_Calcd)	N/A (280-123981-1)	Water	555	100	6/5/19	12_Days	4	
16	280-123981-H-5 (2540C_Calcd)	N/A (280-123981-1)	Water	277.9	100	6/5/19	12_Days	4	
17	280-123981-J-6 (2540C_Calcd)	N/A (280-123981-1)	Water	414	100	6/5/19	12_Days	4	
18	280-123981-B-7 (2540C_Calcd)	N/A (280-123981-1)	Water	607	100	6/5/19	12_Days	4	
19	280-123981-I-8 (2540C_Calcd)	N/A (280-123981-1)	Water	353	100	6/5/19	12_Days	4	
20	280-123981-I-9 (2540C_Calcd)	N/A (280-123981-1)	Water	376	100	6/5/19	12_Days	4	
21	280-123922-A-1 (2540C_Calcd)	N/A (280-123922-1)	Water	735	100	6/5/19	12_Days	4	
22	280-123922-A-2 (2540C_Calcd)	N/A (280-123922-1)	Water	763	100	6/5/19	12_Days	4	
23	280-123922-B-3 (2540C_Calcd)	N/A (280-123922-1)	Water	670	100	6/5/19	12_Days	4	
24	280-123922-B-3 (2540C_Calcd)	N/A (280-123922-1)	Water	11	100	6/5/19	12_Days	4	

06/14/2019

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COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.466	149.1	-13.4408	-8.06448

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.478	149.1	-17.6264	-10.57584

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.459	149.1	-10.9992	-6.59952

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
5	-348.8	0.353	149.1	25.9736	77.9208

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.467	149.1	-13.7896	-8.27376

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.106	149.1	112.1272	67.27632

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.396	149.1	10.9752	6.58512

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.438	149.1	-3.6744	-2.20464

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.460	149.1	-11.348	-6.8088

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.478	149.1	-17.6264	-10.57584

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.032	149.1	137.9384	82.76304

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.440	149.1	-4.372	-2.6232

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.445	149.1	-6.116	-3.6696

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.435	149.1	-2.628	-1.5768

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.427	149.1	0.1624	0.09744

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.441	149.1	-4.7208	-2.83248

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.449	149.1	-7.5112	-4.50672

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.417	149.1	3.6504	2.19024

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.434	149.1	-2.2792	-1.36752

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.406	149.1	7.4872	4.49232

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.441	149.1	-4.7208	-2.83248

TALS Raw Data Report

Job Number: 280-123922-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	777777777	mg/L	0.611 J mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	366666667	mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen	366666666	mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 22 Lab ID: **280-123922-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		1.8494 mg/L	2.3 J mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 23 Lab ID: **280-123922-B-2** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		1.5694 mg/L	2.0 J mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 24 Lab ID: **280-123922-A-3** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123923-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen		366666666 mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	mg/L			NC	20

RS# 25 Lab ID: **280-123923-C-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		3.1491 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123924-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	777777777	mg/L	0.611 J mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	366666667	mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen	366666666	mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 10 Lab ID: **280-123924-A-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 11 Lab ID: **280-123924-A-2** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 12 Lab ID: **280-123924-B-3** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 13 Lab ID: **280-123924-A-4** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		4.76395 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 14 Lab ID: **280-123924-A-5** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 15 Lab ID: **280-123924-B-6** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 16 Lab ID: **280-123924-B-7** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 17 Lab ID: **280-123924-B-8** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 18 Lab ID: **280-123924-B-9** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 19 Lab ID: **280-123924-B-10** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		2.2094 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 20 Lab ID: **280-123924-B-11** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 21 Lab ID: **280-123924-A-12** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123930-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	0.611 J mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen		366666666 mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 7 Lab ID: **280-123930-B-2** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 8 Lab ID: **280-123930-B-3** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 9 Lab ID: **280-123930-A-4** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		3.4391 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 26 Lab ID: **LCS 280-458606/26** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		333333334 mg/L	mg/L	98	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 27 Lab ID: **MB 280-458606/27** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 28 Lab ID: **280-123930-B-5** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 29 Lab ID: **280-123930-B-5 DU** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

TALS Raw Data Report

Job Number: 280-123945-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	mg/L				

RS# 26 Lab ID: **LCS 280-458606/26** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		333333334 mg/L	mg/L	98	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 27 Lab ID: **MB 280-458606/27** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 28 Lab ID: **280-123930-B-5** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 29 Lab ID: **280-123930-B-5 DU** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

RS# 30 Lab ID: **280-123945-A-1** Inj Date: 5/17/2019 6:30:35PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		3.9041 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

Shipping and Receiving Documents

Chain of Custody Record 317878

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

06/14/2019

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Kim Nemmers	Site Contact: J. Pawud	Date: 5/16/19	COC No:
Company Name: Bhate environmental	Tel/Fax:	Lab Contact:	Carrier: Fedex	1 of 1 COCs
Address: 745 Union blvd #129	Analysis Turnaround Time			Sampler:
City/State/Zip: Lakewood, CO 80228	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 303-725-7631	TAT if different from Below			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Griffiss LFs	☐ 1 week			Job / SDG No.:
Site: LF001	☐ 2 days			
PO# 3342	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260 B	SW9056A	SM2320 B	E350.1	E351.2	E410.4	SW9060A	SM5210 B	SW9066	SM2540C	SM2120 B	SM2340	SW6010C	Sample Specific Notes:
LF1MW-5_0519	05/16	1250	G	W	12	N		X	X	X	X	X	X	X	X	X	X	X	X	X	1 VOA broke during packing
LF1MW-5_0519-a	05/16	1250	G	W	13	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF1P-5_0519	05/16	1620	G	W	10	N			X	X	X	X	X	X	X	X	X	X	X	X	All in 2nd cooler
LF1-TB1_051619	—	—	—	W	3	—		X	X	X	X	X	X	X	X	X	X	X	X	X	trips have bubble

280-123922 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

882620, 882621

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: 882622, 882623, | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Jawad Pawud	Bhate	5/16 1900	Fedex	Fedex	5/16 — 1900
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			Cere	TABEN	5/17/19 0850
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

1.1, tc, IR#9 by AP 5/17/19

Login Sample Receipt Checklist

Client: Bhate Environmental

Job Number: 280-123922-1

Login Number: 123922
List Number: 1
Creator: Paul, Amanda E

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 280-123930-1

Job Description: Griffiss AFB, LF002 LF#2 - 3342

For:
Bhate Environmental
445 Union Blvd Ste.129
Lakewood, CO 80226

Attention: Marcia Olive



Approved for release.
Kayse 1 Zalmai
Project Manager I
6/14/2019 3:06 PM

Kayse 1 Zalmai, Project Manager I
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
kayse.zalmai@testamericainc.com
06/14/2019

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Qualifiers

Metals

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
H	Sample was prepped or analyzed beyond the specified holding time
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE
Client: Bhate Environmental
Project: Griffiss AFB, LF002 LF#2 - 3342
Report Number: 280-123930-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interfererences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/17/2019; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.7º C, 3.8º C and 5.7º C.

RECEIPT EXCEPTIONS

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): LF2MW-12_0519 (280-123930-2). Multiple container labels do not list the collection date. The sample was logged per the COC.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for total metals (ICP) in accordance with 6010C. The samples were prepared on 05/28/2019 and analyzed on 05/29/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/30/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL KJELDAHL NITROGEN

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 06/04/2019 and analyzed on 06/05/2019.

Nitrogen, Kjeldahl failed the recovery criteria low for the MS and MSD of sample LF2MW-12_0519-aMS/MSD (280-123930-3) in batch 280-460603. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519

(280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The samples were analyzed on 06/08/2019.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 280-460943 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AND ORTHOPHOSPHATE AS P

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for nitrate-nitrite and orthophosphate as P in accordance with 9056A_48H_DOD5. The samples were analyzed on 05/18/2019 and 06/03/2019.

Orthophosphate as P failed the recovery criteria low for the MS and MSD of sample 280-123922-3 in batch 280-458552. Sample matrix interference is suspected.

Orthophosphate as P failed the recovery criteria high for the MS of sample LF2MW-12_0519MS (280-123930-2) in batch 280-460231. Sample matrix interference is suspected.

Nitrite and Orthophosphate as P failed the recovery criteria high for the MSD of sample LF2MW-12_0519MSD (280-123930-2) in batch 280-460231. Also Orthophosphate as P exceeded the RPD limit. Sample matrix interference is suspected.

The continuing calibration verification (CCV) associated with batch 280-458552 recovered above the upper control limit for orthophosphate, method 9056A_48HR.The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: LF2MW-12_0519-a (280-123930-3).

Reanalysis of the following samples were performed outside of the analytical holding time for orthophosphate due to CCV failed for orthophosphate in batch 458552, method 9056A_48HR, batch 460231 : LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Fluoride

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for sulfate in accordance with 9056A. The samples were analyzed on 05/18/2019, 06/03/2019 and 06/11/2019.

Fluoride was detected in method blank MB 280-460232/6 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 06/12/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PHENOLICS, TOTAL RECOVERABLE

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for phenolics, total recoverable in accordance with EPA SW-846 Method 9066. The samples were prepared on 06/07/2019 and analyzed on 06/09/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

COLOR

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for color in accordance with SM20 2120B - Colorimetric. The samples were analyzed on 05/17/2019.

Samples LF2MW2-1_0519 (280-123930-1)[10X] and LF2MW-4_0519 (280-123930-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for alkalinity in accordance with SM20 2320B. The samples were analyzed on 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HARDNESS

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for hardness in accordance with SM20 2340C. The samples were analyzed on 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 05/23/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND

Samples LF2MW2-1_0519 (280-123930-1), LF2MW-12_0519 (280-123930-2), LF2MW-12_0519-a (280-123930-3), LF2MW-4_0519 (280-123930-4) and LF2MW -13_0519 (280-123930-5) were analyzed for Biochemical Oxygen Demand in accordance with SM20 5210B. The samples were analyzed on 05/17/2019.

Biochemical Oxygen Demand was detected in method blank SCB 280-458606/1 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ);therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Bhate Environmental
Job ID: 280-123930-1
Project/Site: Griffiss AFB, LF002 LF#2 - 3342

Client Sample ID: LF2MW2-1_0519
Lab Sample ID: 280-123930-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	38	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.64		0.10	0.022	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand (COD)	26	J1	20	8.7	mg/L	1		410.4	Total/NA
Bromide	0.19	J	0.50	0.11	mg/L	1		9056A	Total/NA
Nitrate Nitrite as N	0.077	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	10		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.81		0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.12	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.077	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	11		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	1.1		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0093	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	50	D	50	50	PCU	10		SM 2120B	Total/NA
Alkalinity	250		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	260		6.0	0.60	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	290		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF2MW-12_0519
Lab Sample ID: 280-123930-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	56	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.12		0.10	0.022	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand (COD)	13	J	20	8.7	mg/L	1		410.4	Total/NA
Bromide	0.57		0.50	0.11	mg/L	1		9056A	Total/NA
Chloride	1.3	J	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	2.2		0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.067	J J1	1.0	0.060	mg/L	1		9056A	Total/NA
Sulfate	18		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	6.2		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.011	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	20		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	490		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	480		6.0	0.60	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	530		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF2MW-12_0519-a
Lab Sample ID: 280-123930-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	57	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.13		0.10	0.022	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand (COD)	13	J	20	8.7	mg/L	1		410.4	Total/NA
Bromide	0.63		0.50	0.11	mg/L	1		9056A	Total/NA
Nitrate Nitrite as N	1.1		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	1.3	J	3.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	0.10	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	1.1		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	18		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	6.3		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.012	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	20		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	490		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	450		6.0	0.60	mg/L	1		SM 2340C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF2MW-12_0519-a (Continued)
Lab Sample ID: 280-123930-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids (TDS)	540		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF2MW-4_0519
Lab Sample ID: 280-123930-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	12	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.18		0.10	0.022	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand (COD)	21		20	8.7	mg/L	1		410.4	Total/NA
Bromide	0.61		0.50	0.11	mg/L	1		9056A	Total/NA
Nitrate Nitrite as N	0.23	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	5.3		3.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	0.47	J M	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.23	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	3.1	J	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	6.9		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.015	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	200	D	50	50	PCU	10		SM 2120B	Total/NA
Alkalinity	480		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	480		6.0	0.60	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	500		10	4.7	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	8.6		5.0	0.59	mg/L	1		SM5210B	Total/NA

Client Sample ID: LF2MW -13_0519
Lab Sample ID: 280-123930-5

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	11	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.058	J	0.10	0.022	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	5.4		1.0	0.69	mg/L	1		351.2	Total/NA
Chemical Oxygen Demand (COD)	16	J	20	8.7	mg/L	1		410.4	Total/NA
Nitrate Nitrite as N	0.10	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	1.0	J	3.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	0.079	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.10	J	0.50	0.042	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	6.6		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0078	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	25		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	160		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	160		10	4.7	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF2MW2-1_0519
Lab Sample ID: 280-123930-1

Date Collected: 05/16/19 15:46
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	38	J	100	4.4	ug/L		05/28/19 18:00	05/29/19 11:37	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.64		0.10	0.022	mg/L			05/30/19 13:08	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:34	1
Chemical Oxygen Demand (COD)	26	J1	20	8.7	mg/L			06/08/19 12:45	1
Bromide	0.19	J	0.50	0.11	mg/L			05/18/19 02:58	1
Nitrate Nitrite as N	0.077	J	0.50	0.042	mg/L			05/18/19 02:58	1
Chloride	10		3.0	1.0	mg/L			05/18/19 02:58	1
Orthophosphate as P	0.81		0.50	0.19	mg/L			05/18/19 02:58	1
Fluoride	0.12	J	1.0	0.060	mg/L			06/11/19 13:57	1
Nitrate	0.077	J	0.50	0.042	mg/L			05/18/19 02:58	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 02:58	1
Sulfate	11		5.0	1.0	mg/L			05/18/19 02:58	1
Total Organic Carbon - Quad	1.1		1.0	0.16	mg/L			06/12/19 06:37	1
Phenols, Total	0.0093	J	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 15:43	1
Color	50	D	50	50	PCU			05/17/19 23:18	10
Alkalinity	250		10	3.1	mg/L			05/24/19 22:47	1
Hardness	260		6.0	0.60	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	290		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF2MW-12_0519
Lab Sample ID: 280-123930-2

Date Collected: 05/16/19 15:45
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	56	J	100	4.4	ug/L		05/28/19 18:00	05/29/19 11:59	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.12		0.10	0.022	mg/L			05/30/19 13:28	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:35	1
Chemical Oxygen Demand (COD)	13	J	20	8.7	mg/L			06/08/19 12:45	1
Bromide	0.57		0.50	0.11	mg/L			05/18/19 03:15	1
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/18/19 03:15	1
Chloride	1.3	J	3.0	1.0	mg/L			05/18/19 03:15	1
Orthophosphate as P	2.2		0.50	0.19	mg/L			05/18/19 03:15	1
Fluoride	0.067	J J1	1.0	0.060	mg/L			06/03/19 19:06	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/18/19 03:15	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 03:15	1
Sulfate	18		5.0	1.0	mg/L			05/18/19 03:15	1
Total Organic Carbon - Quad	6.2		1.0	0.16	mg/L			06/12/19 06:56	1
Phenols, Total	0.011	J	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 15:46	1
Color	20		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	490		10	3.1	mg/L			05/24/19 22:54	1
Hardness	480		6.0	0.60	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	530		10	4.7	mg/L			05/23/19 16:24	1

Client Sample ID: LF2MW-12_0519
Lab Sample ID: 280-123930-2
Date Collected: 05/16/19 15:45
Matrix: Water
Date Received: 05/17/19 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF2MW-12_0519-a
Lab Sample ID: 280-123930-3
Date Collected: 05/16/19 15:45
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**57**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:02	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.13**		0.10	0.022	mg/L			05/30/19 13:34	1
Nitrogen, Kjeldahl	0.50	U J1	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:40	1
Chemical Oxygen Demand (COD)	**13**	**J**	20	8.7	mg/L			06/08/19 12:45	1
Bromide	**0.63**		0.50	0.11	mg/L			05/18/19 04:21	1
Nitrate Nitrite as N	**1.1**		0.50	0.042	mg/L			05/18/19 04:21	1
Chloride	**1.3**	**J**	3.0	1.0	mg/L			05/18/19 04:21	1
Orthophosphate as P	0.20	U Q	0.50	0.19	mg/L			05/18/19 04:21	1
Fluoride	**0.10**	**J**	1.0	0.060	mg/L			06/03/19 20:11	1
Nitrate	**1.1**		0.50	0.042	mg/L			05/18/19 04:21	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 04:21	1
Sulfate	**18**		5.0	1.0	mg/L			05/18/19 04:21	1
Total Organic Carbon - Quad	**6.3**		1.0	0.16	mg/L			06/12/19 07:12	1
Phenols, Total	**0.012**	**J**	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 16:07	1
Color	**20**		5.0	5.0	PCU			05/17/19 23:20	1
Alkalinity	**490**		10	3.1	mg/L			05/24/19 23:01	1
Hardness	**450**		6.0	0.60	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**540**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF2MW-4_0519
Lab Sample ID: 280-123930-4
Date Collected: 05/16/19 17:02
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**12**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:05	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.18**		0.10	0.022	mg/L			05/30/19 13:36	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:52	1
Chemical Oxygen Demand (COD)	**21**		20	8.7	mg/L			06/08/19 12:45	1
Bromide	**0.61**		0.50	0.11	mg/L			05/18/19 04:53	1
Nitrate Nitrite as N	**0.23**	**J**	0.50	0.042	mg/L			05/18/19 04:53	1
Chloride	**5.3**		3.0	1.0	mg/L			05/18/19 04:53	1
Orthophosphate as P	0.20	U H	0.50	0.19	mg/L			06/03/19 20:28	1
Fluoride	**0.47**	**J M**	1.0	0.060	mg/L			06/03/19 20:28	1
Nitrate	**0.23**	**J**	0.50	0.042	mg/L			05/18/19 04:53	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 04:53	1

Client Sample ID: LF2MW-4_0519
Lab Sample ID: 280-123930-4

Date Collected: 05/16/19 17:02
Matrix: Water
Date Received: 05/17/19 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	3.1	J	5.0	1.0	mg/L			05/18/19 04:53	1
Total Organic Carbon - Quad	6.9		1.0	0.16	mg/L			06/12/19 08:03	1
Phenols, Total	0.015	J	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 16:10	1
Color	200	D	50	50	PCU			05/17/19 23:20	10
Alkalinity	480		10	3.1	mg/L			05/24/19 23:30	1
Hardness	480		6.0	0.60	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	500		10	4.7	mg/L			05/23/19 13:30	1
Biochemical Oxygen Demand	8.6		5.0	0.59	mg/L			05/17/19 15:43	1

Client Sample ID: LF2MW -13_0519
Lab Sample ID: 280-123930-5

Date Collected: 05/16/19 17:10
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	11	J	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:07	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.058	J	0.10	0.022	mg/L			05/30/19 13:38	1
Nitrogen, Kjeldahl	5.4		1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:53	1
Chemical Oxygen Demand (COD)	16	J	20	8.7	mg/L			06/08/19 12:45	1
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 05:26	1
Nitrate Nitrite as N	0.10	J	0.50	0.042	mg/L			05/18/19 05:26	1
Chloride	1.0	J	3.0	1.0	mg/L			05/18/19 05:26	1
Orthophosphate as P	0.20	U H	0.50	0.19	mg/L			06/03/19 20:44	1
Fluoride	0.079	J	1.0	0.060	mg/L			06/03/19 20:44	1
Nitrate	0.10	J	0.50	0.042	mg/L			05/18/19 05:26	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 05:26	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/18/19 05:26	1
Total Organic Carbon - Quad	6.6		1.0	0.16	mg/L			06/12/19 08:20	1
Phenols, Total	0.0078	J	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 16:19	1
Color	25		5.0	5.0	PCU			05/17/19 23:20	1
Alkalinity	160		10	3.1	mg/L			05/24/19 23:43	1
Hardness	160		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	160		10	4.7	mg/L			05/23/19 13:30	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 18:30	1

Default Detection Limits

Client: Bhate Environmental
Job ID: 280-123930-1
Project/Site: Griffiss AFB, LF002 LF#2 - 3342

Method: 6010C - Metals (ICP)

Prep: 3010A

Analyte	LOQ	DL	Units
Boron	100	4.4	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Chemical Oxygen Demand (COD)	20	8.7	mg/L
Bromide	0.50	0.11	mg/L
Chloride	3.0	1.0	mg/L
Fluoride	1.0	0.060	mg/L
Nitrate	0.50	0.042	mg/L
Nitrate Nitrite as N	0.50	0.042	mg/L
Nitrite	0.50	0.049	mg/L
Orthophosphate as P	0.50	0.19	mg/L
Sulfate	5.0	1.0	mg/L
Total Organic Carbon - Quad	1.0	0.16	mg/L
Color	5.0	5.0	PCU
Alkalinity	10	3.1	mg/L
Hardness	3.0	0.30	mg/L
Total Dissolved Solids (TDS)	10	4.7	mg/L
Biochemical Oxygen Demand	2.0	0.24	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: Distill/Phenol

Analyte	LOQ	DL	Units
Phenols, Total	0.020	0.0068	mg/L

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-459132/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15	U	100	4.4	ug/L		05/28/19 18:00	05/29/19 11:30	1

Lab Sample ID: LCS 280-459132/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	957		ug/L		96	85 - 113

Lab Sample ID: LCSD 280-459132/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	965		ug/L		97	85 - 113	1	20

Lab Sample ID: 280-123930-1 MS
Client Sample ID: LF2MW2-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	38	J	1000	1010		ug/L		97	85 - 113

Lab Sample ID: 280-123930-1 MSD
Client Sample ID: LF2MW2-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	38	J	1000	978		ug/L		94	85 - 113	3	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-459963/27
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 11:56	1

Lab Sample ID: MB 280-459963/72
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 13:26	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 280-459963/25
Matrix: Water
Analysis Batch: 459963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.55		mg/L		102	90 - 110

Lab Sample ID: LCS 280-459963/70
Matrix: Water
Analysis Batch: 459963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.47		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-459963/26
Matrix: Water
Analysis Batch: 459963

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.54		mg/L		102	90 - 110	0	10

Lab Sample ID: LCSD 280-459963/71
Matrix: Water
Analysis Batch: 459963

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.47		mg/L		99	90 - 110	0	10

Lab Sample ID: 280-123930-2 MS
Matrix: Water
Analysis Batch: 459963

Client Sample ID: LF2MW-12_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.12		1.00	1.12		mg/L		100	90 - 110

Lab Sample ID: 280-123930-2 MSD
Matrix: Water
Analysis Batch: 459963

Client Sample ID: LF2MW-12_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.12		1.00	1.14		mg/L		101	90 - 110	1	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-460465/28-A
Matrix: Water
Analysis Batch: 460603

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460465

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:39	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: MB 280-460465/2-A
Matrix: Water
Analysis Batch: 460603

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460465

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 17:48	1

Lab Sample ID: LCS 280-460465/1-A
Matrix: Water
Analysis Batch: 460603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	6.00	6.25		mg/L		104	90 - 110

Lab Sample ID: LCS 280-460465/27-A
Matrix: Water
Analysis Batch: 460603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	6.00	6.11		mg/L		102	90 - 110

Lab Sample ID: 280-123930-3 MS
Matrix: Water
Analysis Batch: 460603

Client Sample ID: LF2MW-12_0519-a
Prep Type: Total/NA
Prep Batch: 460465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	0.50	U J1	3.00	2.48	J1	mg/L		83	90 - 110

Lab Sample ID: 280-123930-3 MSD
Matrix: Water
Analysis Batch: 460603

Client Sample ID: LF2MW-12_0519-a
Prep Type: Total/NA
Prep Batch: 460465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	0.50	U J1	3.00	2.58	J1	mg/L		86	90 - 110	4	25

Method: 410.4 - COD

Lab Sample ID: MB 280-460943/5
Matrix: Water
Analysis Batch: 460943

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/08/19 12:45	1

Lab Sample ID: LCS 280-460943/3
Matrix: Water
Analysis Batch: 460943

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	99.0		mg/L		99	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: LCSD 280-460943/4
Matrix: Water
Analysis Batch: 460943

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	100	101		mg/L		101	90 - 110	2	11

Lab Sample ID: 280-123930-1 MS
Matrix: Water
Analysis Batch: 460943

Client Sample ID: LF2MW2-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	26	J1	50.0	53.8	J1	mg/L		56	90 - 110

Lab Sample ID: 280-123930-1 MSD
Matrix: Water
Analysis Batch: 460943

Client Sample ID: LF2MW2-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	26	J1	50.0	48.0	J1	mg/L		44	90 - 110	11	11

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-458552/6
Matrix: Water
Analysis Batch: 458552

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/17/19 11:08	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			05/17/19 11:08	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/17/19 11:08	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/17/19 11:08	1

Lab Sample ID: LCS 280-458552/4
Matrix: Water
Analysis Batch: 458552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	10.0	9.95		mg/L		100	80 - 120
Orthophosphate as P	5.00	5.10		mg/L		102	80 - 116
Nitrate	5.00	5.00		mg/L		100	88 - 111
Nitrite	5.00	4.95		mg/L		99	87 - 111

Lab Sample ID: LCSD 280-458552/5
Matrix: Water
Analysis Batch: 458552

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	10.0		mg/L		100	80 - 120	1	10
Orthophosphate as P	5.00	5.17		mg/L		103	80 - 116	1	10
Nitrate	5.00	5.04		mg/L		101	88 - 111	1	10
Nitrite	5.00	4.99		mg/L		100	87 - 111	1	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 280-458552/3
Matrix: Water
Analysis Batch: 458552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.445	J	mg/L		111	50 - 150
Orthophosphate as P	0.200	0.204	J	mg/L		102	50 - 150
Nitrate	0.200	0.229	J	mg/L		115	50 - 150
Nitrite	0.200	0.216	J	mg/L		108	50 - 150

Lab Sample ID: MB 280-458553/6
Matrix: Water
Analysis Batch: 458553

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/17/19 11:08	1
Chloride	3.0	U M	3.0	1.0	mg/L			05/17/19 11:08	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/17/19 11:08	1

Lab Sample ID: LCS 280-458553/4
Matrix: Water
Analysis Batch: 458553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.25		mg/L		105	91 - 110
Chloride	100	95.5		mg/L		95	87 - 111
Sulfate	100	93.6		mg/L		94	87 - 112

Lab Sample ID: LCSD 280-458553/5
Matrix: Water
Analysis Batch: 458553

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.29		mg/L		106	91 - 110	1	10
Chloride	100	96.2		mg/L		96	87 - 111	1	10
Sulfate	100	94.3		mg/L		94	87 - 112	1	10

Lab Sample ID: MRL 280-458553/3
Matrix: Water
Analysis Batch: 458553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.216	J	mg/L		108	50 - 150
Chloride	2.50	2.28	J	mg/L		91	50 - 150
Sulfate	2.50	2.31	J	mg/L		92	50 - 150

Lab Sample ID: MB 280-460231/6
Matrix: Water
Analysis Batch: 460231

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			06/03/19 18:26	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			06/03/19 18:26	1
Nitrate	0.10	U	0.50	0.042	mg/L			06/03/19 18:26	1
Nitrite	0.10	U	0.50	0.049	mg/L			06/03/19 18:26	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCS 280-460231/4
Matrix: Water
Analysis Batch: 460231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	10.0	10.7		mg/L		107	80 - 120
Orthophosphate as P	5.00	5.15		mg/L		103	80 - 116
Nitrate	5.00	5.36		mg/L		107	88 - 111
Nitrite	5.00	5.29		mg/L		106	87 - 111

Lab Sample ID: LCSD 280-460231/5
Matrix: Water
Analysis Batch: 460231

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	10.7		mg/L		107	80 - 120	0	10
Orthophosphate as P	5.00	5.19		mg/L		104	80 - 116	1	10
Nitrate	5.00	5.39		mg/L		108	88 - 111	1	10
Nitrite	5.00	5.31		mg/L		106	87 - 111	0	10

Lab Sample ID: MRL 280-460231/3
Matrix: Water
Analysis Batch: 460231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.503		mg/L		126	50 - 150
Orthophosphate as P	0.200	0.20	U	mg/L		86	50 - 150
Nitrate	0.200	0.255	J	mg/L		127	50 - 150
Nitrite	0.200	0.248	J	mg/L		124	50 - 150

Lab Sample ID: 280-123930-2 MS
Matrix: Water
Analysis Batch: 460231

Client Sample ID: LF2MW-12_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.092	J H	10.0	10.8		mg/L		107	80 - 120
Orthophosphate as P	0.20	U H J1	5.00	10.1	J1	mg/L		202	80 - 116
Nitrate	0.092	J H	5.00	5.36		mg/L		105	88 - 111
Nitrite	0.10	U H J1	5.00	5.47		mg/L		109	87 - 111

Lab Sample ID: 280-123930-2 MSD
Matrix: Water
Analysis Batch: 460231

Client Sample ID: LF2MW-12_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.092	J H	10.0	11.1		mg/L		110	80 - 120	2	10
Orthophosphate as P	0.20	U H J1	5.00	17.9	J1	mg/L		358	80 - 116	56	10
Nitrate	0.092	J H	5.00	5.46		mg/L		107	88 - 111	2	10
Nitrite	0.10	U H J1	5.00	5.61	J1	mg/L		112	87 - 111	2	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123930-2 DU
Client Sample ID: LF2MW-12_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460231

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.092	J H	0.0859	J	mg/L		7	10
Orthophosphate as P	0.20	U H J1	0.20	U	mg/L		NC	10
Nitrate	0.092	J H	0.0859	J	mg/L		7	10
Nitrite	0.10	U H J1	0.10	U	mg/L		NC	10

Lab Sample ID: MB 280-460232/6
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460232

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.264	J	1.0	0.060	mg/L			06/03/19 18:26	1

Lab Sample ID: LCS 280-460232/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	5.00	4.55		mg/L		91	88 - 112

Lab Sample ID: LCSD 280-460232/5
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460232

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	5.00	4.64		mg/L		93	88 - 112	2	10

Lab Sample ID: MRL 280-460232/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460232

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.200	0.246	J	mg/L		123	50 - 150

Lab Sample ID: 280-123930-2 MS
Client Sample ID: LF2MW-12_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.067	J1	5.00	5.40		mg/L		107	88 - 112

Lab Sample ID: 280-123930-2 MSD
Client Sample ID: LF2MW-12_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460232

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.067	J1	5.00	5.85	J1	mg/L		116	88 - 112	8	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123930-2 DU
Matrix: Water
Analysis Batch: 460232

Client Sample ID: LF2MW-12_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.067	J1	0.0663	J	mg/L		1	10

Lab Sample ID: MB 280-461102/6
Matrix: Water
Analysis Batch: 461102

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			06/11/19 10:03	1
Chloride	3.0	U	3.0	1.0	mg/L			06/11/19 10:03	1
Fluoride	0.10	U	1.0	0.060	mg/L			06/11/19 10:03	1
Sulfate	3.0	U	5.0	1.0	mg/L			06/11/19 10:03	1

Lab Sample ID: LCS 280-461102/4
Matrix: Water
Analysis Batch: 461102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.89		mg/L		98	91 - 110
Chloride	100	98.8		mg/L		99	87 - 111
Fluoride	5.00	5.15		mg/L		103	88 - 112
Sulfate	100	98.1		mg/L		98	87 - 112

Lab Sample ID: LCSD 280-461102/5
Matrix: Water
Analysis Batch: 461102

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.92		mg/L		98	91 - 110	1	10
Chloride	100	99.0		mg/L		99	87 - 111	0	10
Fluoride	5.00	5.20		mg/L		104	88 - 112	1	10
Sulfate	100	97.8		mg/L		98	87 - 112	0	10

Lab Sample ID: MRL 280-461102/3
Matrix: Water
Analysis Batch: 461102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.236	J	mg/L		118	50 - 150
Chloride	2.50	2.49	J	mg/L		99	50 - 150
Fluoride	0.200	0.223	J	mg/L		112	50 - 150
Sulfate	2.50	2.11	J	mg/L		84	50 - 150

Lab Sample ID: 280-123930-1 MS
Matrix: Water
Analysis Batch: 461102

Client Sample ID: LF2MW2-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.18	J M	5.00	4.97	M	mg/L		96	91 - 110
Chloride	14		25.0	38.7		mg/L		100	87 - 111
Fluoride	0.12	J	5.00	4.88		mg/L		95	88 - 112

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123930-1 MS
Client Sample ID: LF2MW2-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461102

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	14		25.0	39.4		mg/L		103	87 - 112		

Lab Sample ID: 280-123930-1 MSD
Client Sample ID: LF2MW2-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461102

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.18	J M	5.00	5.20		mg/L		100	91 - 110	5	10
Chloride	14		25.0	40.0		mg/L		105	87 - 111	3	10
Fluoride	0.12	J	5.00	5.13		mg/L		100	88 - 112	5	10
Sulfate	14		25.0	40.3		mg/L		107	87 - 112	2	10

Lab Sample ID: 280-123930-1 DU
Client Sample ID: LF2MW2-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461102

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.18	J M	0.184	J M	mg/L		2	10
Chloride	14		13.6		mg/L		1	10
Fluoride	0.12	J	0.123	J	mg/L		0.2	10
Sulfate	14		13.8		mg/L		2	10

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-461295/35
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461295

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/12/19 02:56	1

Lab Sample ID: LCS 280-461295/34
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461295

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Quad	25.0	25.4		mg/L		102	88 - 112		

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: 280-123930-4 MS
Client Sample ID: LF2MW-4_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460979
Prep Batch: 460843

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenols, Total	0.015	J	0.201	0.196		mg/L		90	72 - 118		

Method: 9066 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: 280-123930-4 MSD — **Client Sample ID: LF2MW-4_0519**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 460979 — **Prep Batch: 460843**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenols, Total	0.015	J	0.201	0.225		mg/L		104	72 - 118	14	16

Lab Sample ID: MB 280-460948/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 460979 — **Prep Batch: 460948**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/08/19 14:11	06/09/19 15:22	1

Lab Sample ID: LCS 280-460948/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 460979 — **Prep Batch: 460948**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.195		mg/L		97	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-458642/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 458642

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0	U	5.0	5.0	PCU			05/17/19 23:18	1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-459576/31 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 459576

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/24/19 20:47	1

Lab Sample ID: MB 280-459576/57 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 459576

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/24/19 23:23	1

Lab Sample ID: LCS 280-459576/30 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 459576

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	199		mg/L		99	89 - 109

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 280-459576/56
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			200	202		mg/L		101	89 - 109		

Lab Sample ID: 280-123930-4 DU
Matrix: Water
Analysis Batch: 459576

Client Sample ID: LF2MW-4_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	480			485		mg/L				0.1	10

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 280-459401/2
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness	0.81	U	3.0	0.30	mg/L			05/24/19 15:23	1

Lab Sample ID: LCS 280-459401/1
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness			398	398		mg/L		100	90 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-459242/1
Matrix: Water
Analysis Batch: 459242

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			05/23/19 13:30	1

Lab Sample ID: LCS 280-459242/2
Matrix: Water
Analysis Batch: 459242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids (TDS)			500	504		mg/L		101	93 - 110		

Lab Sample ID: MB 280-459268/1
Matrix: Water
Analysis Batch: 459268

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			05/23/19 16:24	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 280-459268/2
Matrix: Water
Analysis Batch: 459268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids (TDS)			500	503		mg/L		101	93 - 110		

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-458606/27
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 18:30	1

Lab Sample ID: MB 280-458606/4
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Lab Sample ID: SCB 280-458606/1
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.611	J	2.0	0.24	mg/L			05/17/19 15:43	1

Lab Sample ID: USB 280-458606/2
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Lab Sample ID: LCS 280-458606/26
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	195		mg/L		98	85 - 115		

Lab Sample ID: LCS 280-458606/3
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	202		mg/L		102	85 - 115		

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: 280-123930-1 DU
Client Sample ID: LF2MW2-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458606

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	0.59	U		0.59	U	mg/L				NC	20

Lab Sample ID: 280-123930-5 DU
Client Sample ID: LF2MW -13_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458606

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	0.59	U		0.59	U	mg/L				NC	20

Metals

Prep Batch: 459132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	3010A	
280-123930-2	LF2MW-12_0519	Total/NA	Water	3010A	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	3010A	
280-123930-4	LF2MW-4_0519	Total/NA	Water	3010A	
280-123930-5	LF2MW -13_0519	Total/NA	Water	3010A	
MB 280-459132/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-459132/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-459132/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-123930-1 MS	LF2MW2-1_0519	Total/NA	Water	3010A	
280-123930-1 MSD	LF2MW2-1_0519	Total/NA	Water	3010A	

Analysis Batch: 459798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	6010C	459132
280-123930-2	LF2MW-12_0519	Total/NA	Water	6010C	459132
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	6010C	459132
280-123930-4	LF2MW-4_0519	Total/NA	Water	6010C	459132
280-123930-5	LF2MW -13_0519	Total/NA	Water	6010C	459132
MB 280-459132/1-A	Method Blank	Total/NA	Water	6010C	459132
LCS 280-459132/2-A	Lab Control Sample	Total/NA	Water	6010C	459132
LCSD 280-459132/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	459132
280-123930-1 MS	LF2MW2-1_0519	Total/NA	Water	6010C	459132
280-123930-1 MSD	LF2MW2-1_0519	Total/NA	Water	6010C	459132

General Chemistry

Analysis Batch: 458552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	9056A	
280-123930-2	LF2MW-12_0519	Total/NA	Water	9056A	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	9056A	
280-123930-4	LF2MW-4_0519	Total/NA	Water	9056A	
280-123930-5	LF2MW -13_0519	Total/NA	Water	9056A	
MB 280-458552/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458552/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458552/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458552/3	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 458553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	9056A	
280-123930-2	LF2MW-12_0519	Total/NA	Water	9056A	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	9056A	
280-123930-4	LF2MW-4_0519	Total/NA	Water	9056A	
280-123930-5	LF2MW -13_0519	Total/NA	Water	9056A	
MB 280-458553/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458553/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458553/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458553/3	Lab Control Sample	Total/NA	Water	9056A	

General Chemistry

Analysis Batch: 458606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	SM5210B	
280-123930-2	LF2MW-12_0519	Total/NA	Water	SM5210B	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	SM5210B	
280-123930-4	LF2MW-4_0519	Total/NA	Water	SM5210B	
280-123930-5	LF2MW -13_0519	Total/NA	Water	SM5210B	
MB 280-458606/27	Method Blank	Total/NA	Water	SM5210B	
MB 280-458606/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-458606/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-458606/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-458606/26	Lab Control Sample	Total/NA	Water	SM5210B	
LCS 280-458606/3	Lab Control Sample	Total/NA	Water	SM5210B	
280-123930-1 DU	LF2MW2-1_0519	Total/NA	Water	SM5210B	
280-123930-5 DU	LF2MW -13_0519	Total/NA	Water	SM5210B	

Analysis Batch: 458642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	SM 2120B	
280-123930-2	LF2MW-12_0519	Total/NA	Water	SM 2120B	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	SM 2120B	
280-123930-4	LF2MW-4_0519	Total/NA	Water	SM 2120B	
280-123930-5	LF2MW -13_0519	Total/NA	Water	SM 2120B	
MB 280-458642/1	Method Blank	Total/NA	Water	SM 2120B	

Analysis Batch: 459242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-4	LF2MW-4_0519	Total/NA	Water	SM 2540C	
280-123930-5	LF2MW -13_0519	Total/NA	Water	SM 2540C	
MB 280-459242/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-459242/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 459268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	SM 2540C	
280-123930-2	LF2MW-12_0519	Total/NA	Water	SM 2540C	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	SM 2540C	
MB 280-459268/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-459268/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 459401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	SM 2340C	
280-123930-2	LF2MW-12_0519	Total/NA	Water	SM 2340C	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	SM 2340C	
280-123930-4	LF2MW-4_0519	Total/NA	Water	SM 2340C	
280-123930-5	LF2MW -13_0519	Total/NA	Water	SM 2340C	
MB 280-459401/2	Method Blank	Total/NA	Water	SM 2340C	
LCS 280-459401/1	Lab Control Sample	Total/NA	Water	SM 2340C	

Analysis Batch: 459576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 459576 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-2	LF2MW-12_0519	Total/NA	Water	SM 2320B	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	SM 2320B	
280-123930-4	LF2MW-4_0519	Total/NA	Water	SM 2320B	
280-123930-5	LF2MW -13_0519	Total/NA	Water	SM 2320B	
MB 280-459576/31	Method Blank	Total/NA	Water	SM 2320B	
MB 280-459576/57	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-459576/30	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 280-459576/56	Lab Control Sample	Total/NA	Water	SM 2320B	
280-123930-4 DU	LF2MW-4_0519	Total/NA	Water	SM 2320B	

Analysis Batch: 459963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	350.1	
280-123930-2	LF2MW-12_0519	Total/NA	Water	350.1	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	350.1	
280-123930-4	LF2MW-4_0519	Total/NA	Water	350.1	
280-123930-5	LF2MW -13_0519	Total/NA	Water	350.1	
MB 280-459963/27	Method Blank	Total/NA	Water	350.1	
MB 280-459963/72	Method Blank	Total/NA	Water	350.1	
LCS 280-459963/25	Lab Control Sample	Total/NA	Water	350.1	
LCS 280-459963/70	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-459963/26	Lab Control Sample Dup	Total/NA	Water	350.1	
LCSD 280-459963/71	Lab Control Sample Dup	Total/NA	Water	350.1	
280-123930-2 MS	LF2MW-12_0519	Total/NA	Water	350.1	
280-123930-2 MSD	LF2MW-12_0519	Total/NA	Water	350.1	

Analysis Batch: 460231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-4	LF2MW-4_0519	Total/NA	Water	9056A	
280-123930-5	LF2MW -13_0519	Total/NA	Water	9056A	
MB 280-460231/6	Method Blank	Total/NA	Water	9056A	
LCS 280-460231/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-460231/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-460231/3	Lab Control Sample	Total/NA	Water	9056A	
280-123930-2 MS	LF2MW-12_0519	Total/NA	Water	9056A	
280-123930-2 MSD	LF2MW-12_0519	Total/NA	Water	9056A	
280-123930-2 DU	LF2MW-12_0519	Total/NA	Water	9056A	

Analysis Batch: 460232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-2	LF2MW-12_0519	Total/NA	Water	9056A	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	9056A	
280-123930-4	LF2MW-4_0519	Total/NA	Water	9056A	
280-123930-5	LF2MW -13_0519	Total/NA	Water	9056A	
MB 280-460232/6	Method Blank	Total/NA	Water	9056A	
LCS 280-460232/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-460232/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-460232/3	Lab Control Sample	Total/NA	Water	9056A	
280-123930-2 MS	LF2MW-12_0519	Total/NA	Water	9056A	
280-123930-2 MSD	LF2MW-12_0519	Total/NA	Water	9056A	
280-123930-2 DU	LF2MW-12_0519	Total/NA	Water	9056A	

General Chemistry

Prep Batch: 460465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	351.2	
280-123930-2	LF2MW-12_0519	Total/NA	Water	351.2	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	351.2	
280-123930-4	LF2MW-4_0519	Total/NA	Water	351.2	
280-123930-5	LF2MW -13_0519	Total/NA	Water	351.2	
MB 280-460465/28-A	Method Blank	Total/NA	Water	351.2	
MB 280-460465/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-460465/1-A	Lab Control Sample	Total/NA	Water	351.2	
LCS 280-460465/27-A	Lab Control Sample	Total/NA	Water	351.2	
280-123930-3 MS	LF2MW-12_0519-a	Total/NA	Water	351.2	
280-123930-3 MSD	LF2MW-12_0519-a	Total/NA	Water	351.2	

Analysis Batch: 460603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	351.2	460465
280-123930-2	LF2MW-12_0519	Total/NA	Water	351.2	460465
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	351.2	460465
280-123930-4	LF2MW-4_0519	Total/NA	Water	351.2	460465
280-123930-5	LF2MW -13_0519	Total/NA	Water	351.2	460465
MB 280-460465/28-A	Method Blank	Total/NA	Water	351.2	460465
MB 280-460465/2-A	Method Blank	Total/NA	Water	351.2	460465
LCS 280-460465/1-A	Lab Control Sample	Total/NA	Water	351.2	460465
LCS 280-460465/27-A	Lab Control Sample	Total/NA	Water	351.2	460465
280-123930-3 MS	LF2MW-12_0519-a	Total/NA	Water	351.2	460465
280-123930-3 MSD	LF2MW-12_0519-a	Total/NA	Water	351.2	460465

Prep Batch: 460843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	Distill/Phenol	
280-123930-2	LF2MW-12_0519	Total/NA	Water	Distill/Phenol	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	Distill/Phenol	
280-123930-4	LF2MW-4_0519	Total/NA	Water	Distill/Phenol	
280-123930-5	LF2MW -13_0519	Total/NA	Water	Distill/Phenol	
280-123930-4 MS	LF2MW-4_0519	Total/NA	Water	Distill/Phenol	
280-123930-4 MSD	LF2MW-4_0519	Total/NA	Water	Distill/Phenol	

Analysis Batch: 460943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	410.4	
280-123930-2	LF2MW-12_0519	Total/NA	Water	410.4	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	410.4	
280-123930-4	LF2MW-4_0519	Total/NA	Water	410.4	
280-123930-5	LF2MW -13_0519	Total/NA	Water	410.4	
MB 280-460943/5	Method Blank	Total/NA	Water	410.4	
LCS 280-460943/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-460943/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-123930-1 MS	LF2MW2-1_0519	Total/NA	Water	410.4	
280-123930-1 MSD	LF2MW2-1_0519	Total/NA	Water	410.4	

General Chemistry

Prep Batch: 460948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-460948/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460948/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 460979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	9066	460843
280-123930-2	LF2MW-12_0519	Total/NA	Water	9066	460843
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	9066	460843
280-123930-4	LF2MW-4_0519	Total/NA	Water	9066	460843
280-123930-5	LF2MW -13_0519	Total/NA	Water	9066	460843
MB 280-460948/2-A	Method Blank	Total/NA	Water	9066	460948
LCS 280-460948/1-A	Lab Control Sample	Total/NA	Water	9066	460948
280-123930-4 MS	LF2MW-4_0519	Total/NA	Water	9066	460843
280-123930-4 MSD	LF2MW-4_0519	Total/NA	Water	9066	460843

Analysis Batch: 461102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	9056A	
MB 280-461102/6	Method Blank	Total/NA	Water	9056A	
LCS 280-461102/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-461102/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-461102/3	Lab Control Sample	Total/NA	Water	9056A	
280-123930-1 MS	LF2MW2-1_0519	Total/NA	Water	9056A	
280-123930-1 MSD	LF2MW2-1_0519	Total/NA	Water	9056A	
280-123930-1 DU	LF2MW2-1_0519	Total/NA	Water	9056A	

Analysis Batch: 461295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123930-1	LF2MW2-1_0519	Total/NA	Water	9060A	
280-123930-2	LF2MW-12_0519	Total/NA	Water	9060A	
280-123930-3	LF2MW-12_0519-a	Total/NA	Water	9060A	
280-123930-4	LF2MW-4_0519	Total/NA	Water	9060A	
280-123930-5	LF2MW -13_0519	Total/NA	Water	9060A	
MB 280-461295/35	Method Blank	Total/NA	Water	9060A	
LCS 280-461295/34	Lab Control Sample	Total/NA	Water	9060A	

Client Sample ID: LF2MW2-1_0519
Lab Sample ID: 280-123930-1

Date Collected: 05/16/19 15:46
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 11:37	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:08	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:34	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 02:58	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 02:58	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	461102	06/11/19 13:57	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 06:37	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 15:43	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		10	5 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 22:47	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	12.5 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF2MW-12_0519
Lab Sample ID: 280-123930-2

Date Collected: 05/16/19 15:45
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 11:59	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:28	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:35	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 03:15	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 03:15	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 19:06	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 06:56	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 15:46	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 22:54	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	12.5 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF2MW-12_0519-a
Lab Sample ID: 280-123930-3

Date Collected: 05/16/19 15:45
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:02	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:34	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:40	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 04:21	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 04:21	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 20:11	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 07:12	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 16:07	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:20	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 23:01	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	12.5 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF2MW-4_0519
Lab Sample ID: 280-123930-4

Date Collected: 05/16/19 17:02
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:05	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:36	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:52	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 04:53	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 04:53	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460231	06/03/19 20:28	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 20:28	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 08:03	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 16:10	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		10	5 mL	50 mL	458642	05/17/19 23:20	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 23:30	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	12.5 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459242	05/23/19 13:30	JAP	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Lab Chronicle

Client: Bhate Environmental
Job ID: 280-123930-1
Project/Site: Griffiss AFB, LF002 LF#2 - 3342

Client Sample ID: LF2MW -13_0519
Lab Sample ID: 280-123930-5

Date Collected: 05/16/19 17:10
Matrix: Water

Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:07	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:38	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:53	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 05:26	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 05:26	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460231	06/03/19 20:44	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 20:44	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 08:20	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 16:19	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:20	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 23:43	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459242	05/23/19 13:30	JAP	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 18:30	EC	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Bhate Environmental
Job ID: 280-123930-1
Project/Site: Griffiss AFB, LF002 LF#2 - 3342

Laboratory: Eurofins TestAmerica, Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD		2907.01	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2120B		Water	Color
SM 2340C		Water	Hardness

New York	NELAP	2	11964	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3010A	Water	Boron
9056A		Water	Bromide
9056A		Water	Chloride
9056A		Water	Fluoride
9056A		Water	Nitrate
9056A		Water	Nitrate Nitrite as N
9056A		Water	Nitrite
9056A		Water	Orthophosphate as P
9056A		Water	Sulfate
9060A		Water	Total Organic Carbon - Quad

Method Summary

Client: Bhate Environmental
Job ID: 280-123930-1
Project/Site: Griffiss AFB, LF002 LF#2 - 3342

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
9066	Phenolics, Total Recoverable	SW846	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
Distill/Phenol	Distillation, Phenolics	None	TAL DEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Bhate Environmental
Job ID: 280-123930-1
Project/Site: Griffiss AFB, LF002 LF#2 - 3342

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-123930-1	LF2MW2-1_0519	Water	05/16/19 15:46	05/17/19 08:50	
280-123930-2	LF2MW-12_0519	Water	05/16/19 15:45	05/17/19 08:50	
280-123930-3	LF2MW-12_0519-a	Water	05/16/19 15:45	05/17/19 08:50	
280-123930-4	LF2MW-4_0519	Water	05/16/19 17:02	05/17/19 08:50	
280-123930-5	LF2MW -13_0519	Water	05/16/19 17:10	05/17/19 08:50	

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:04
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:04
Orthophosphate as P	5.68	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458327/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:05
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:06
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:07
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:07
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:07

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:08
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:08
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/15/19 19:10
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458328/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458328/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:07
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:07

Lab Sample ID: STD 280-458328/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	pedrickj	05/16/19 08:31
Sulfate	6.43	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:08
Sulfate	6.46	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458553

Lab Sample ID: CCB 280-458553/2 Client Sample ID:

Date Analyzed: 05/17/19 10:03 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Peak not integrated	pedrickj	05/20/19 07:53

Lab Sample ID: MB 280-458553/6 Client Sample ID:

Date Analyzed: 05/17/19 11:08 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Peak not integrated	pedrickj	05/20/19 07:54

Lab Sample ID: CCB 280-458553/18 Client Sample ID:

Date Analyzed: 05/17/19 21:30 Lab File ID: 0018.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Incomplete Integration	pedrickj	05/20/19 07:56

Lab Sample ID: CCB 280-458553/29 Client Sample ID:

Date Analyzed: 05/18/19 00:31 Lab File ID: 0029.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Peak not integrated	pedrickj	05/20/19 08:00

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 460232

Lab Sample ID: 280-123930-4 Client Sample ID: LF2MW-4_0519

Date Analyzed: 06/03/19 20:28 Lab File ID: 0012.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.63	Peak assignment corrected	pedrickj	06/04/19 08:21

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Batch Number: 461102

Lab Sample ID: CCV 280-461102/1 Client Sample ID:

Date Analyzed: 06/11/19 08:42 Lab File ID: 01.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.86	Peak assignment corrected	pedrickj	06/11/19 13:03

Lab Sample ID: 280-123930-1 DU Client Sample ID: LF2MW2-1_0519 DU

Date Analyzed: 06/11/19 14:13 Lab File ID: 08.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.88	Peak assignment corrected	pedrickj	06/12/19 08:26

Lab Sample ID: 280-123930-1 MS Client Sample ID: LF2MW2-1_0519 MS

Date Analyzed: 06/11/19 14:29 Lab File ID: 09.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.88	Peak assignment corrected	pedrickj	06/12/19 08:26

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00367	06/04/19	05/28/19	Di Water, Lot na	100 mL	NH3 CAL STD_00030	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00030	02/28/20		Ricca, Lot 1808L28		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00350	06/04/19	05/28/19	na, Lot na	100 mL	NH3 ICV STD_00026	10 mL	Ammonia	99.6 mg/L
.NH3 ICV STD_00026	04/01/20		Inorganic Ventures, Lot M2-NH662533		(Purchased Reagent)		Ammonia	996 mg/L
Alk daily lcs_00821	05/27/19	05/20/19	Di Water, Lot na	1000 mL	Alk stk std_00016	4 mL	Alkalinity	200 mg/L
.Alk stk std_00016	06/30/20		Fischer, Lot 182564		(Purchased Reagent)		Alkalinity	50 g/L
BOD Std_00001_00046	02/15/24		HACH, Lot A9046		(Purchased Reagent)		Biochemical Oxygen Demand	198 mg/L
COD cal std_00048	09/01/20		Ricca, Lot 1904987		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1000 mg/L
COD icv std_00034	02/01/20		HACH, Lot A9057		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1005 mg/L
cod ms/msd_00022	09/30/19		Chemetrics, Lot 90427		(Purchased Reagent)		Chemical Oxygen Demand (COD)	10000 mg/L
Hard lcs std_00050	06/13/20		Lab Chem, Lot H159-16		(Purchased Reagent)		Hardness	0.996 mg/mL
IC CAL cl/so4_00249	03/29/19	03/22/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00254	05/03/19	04/26/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00256	05/17/19	05/10/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00257	05/24/19	05/17/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00260	06/14/19	06/07/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00447	03/31/19	03/24/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
IC Cal low_00455	05/03/19	04/26/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
IC Cal low_00458	05/18/19	05/11/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00462	06/05/19	05/29/19	Di Water, Lot NA	100 mL	IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00464	06/15/19	06/08/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
IC CL ICV_00016	10/31/19		ERA, Lot 091017		(Purchased Reagent)		Chloride	1000 mg/L
IC ICV 5_00228	03/27/19	03/20/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00010	0.5 mL	Fluoride	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00010	03/30/19		ERA, Lot 120816		(Purchased Reagent)		Fluoride	1000 mg/L
IC ICV 5_00232	05/09/19	05/02/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
IC ICV 5_00234	05/27/19	05/20/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00016	0.5 mL	Nitrite	50 mg/L
					IC NO3 ICV_00014	0.5 mL	Nitrate	50 mg/L
					IC PO4 ICV_00015	0.5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L
.IC NO2 ICV_00016	05/31/20		ERA, Lot 020518		(Purchased Reagent)		Nitrite	1000 mg/L
.IC NO3 ICV_00014	12/31/19		ERA, Lot 031217		(Purchased Reagent)		Nitrate	1000 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC PO4 ICV_00015	06/30/19	ERA, Lot 060617			(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC LCS_01578	05/18/19	05/17/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19	ricca, Lot 1804F11			(Purchased Reagent)		Bromide	1000 mg/L
..IC N02 CAL_00045	07/31/19	RICCA, Lot 1902672			(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20	Ricca, Lot 2807e96			(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21	RICCA, Lot 4902D52			(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20	SPEX CertiPrep, Lot 4-154CL-2X			(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20	SPEX CertiPrep, Lot 4-131SO4-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC LCS_01579	05/19/19	05/18/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19	ricca, Lot 1804F11			(Purchased Reagent)		Bromide	1000 mg/L
..IC N02 CAL_00045	07/31/19	RICCA, Lot 1902672			(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20	Ricca, Lot 2807e96			(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21	RICCA, Lot 4902D52			(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20	SPEX CertiPrep, Lot 4-154CL-2X			(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20	SPEX CertiPrep, Lot 4-131SO4-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC LCS_01593	06/04/19	06/03/19	Di Water, Lot 27	200 mL	IC Cal low_00462	20 mL	Fluoride	5 mg/L as N
							Nitrite	5 mg/L as N
							Nitrate	5 mg/L as N
							Orthophosphate as P	5 mg/L as N
.IC Cal low_00462	06/05/19	05/29/19	Di Water, Lot NA	100 mL	IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC FL cal_00013	10/31/19	Ricca, Lot 4805C89			(Purchased Reagent)		Fluoride	1000 mg/L
..IC N02 CAL_00045	07/31/19	RICCA, Lot 1902672			(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20	Ricca, Lot 2807e96			(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21	RICCA, Lot 4902D52			(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC LCS_01601	06/12/19	06/11/19	Di Water, Lot 27	200 mL	IC Cal low_00464	20 mL	Bromide	5 mg/L as N

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoride	5 mg/L as N
					IC CL cal_00058	20 mL	Chloride	100 mg/L as N
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L as N
.IC Cal low_00464	06/15/19	06/08/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00017	06/30/19		ERA, Lot 210617		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00018	07/31/19		ERA, Lot 060717		(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00595	06/05/19	05/29/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Fluoride	499.957 mg/L
							Nitrate	500.003 mg/L
							Orthophosphate as P	500.058 mg/L
					IC SPK N02SOL_00013	5 mL	Nitrite	499.973 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD F_00002	2.21 g	Fluoride	999.914 mg/L
					IC MS/MSD N03_00005	6.068 g	Nitrate	1000.01 mg/L
					IC MS/MSD P04_00002	4.3936 g	Orthophosphate as P	1000.12 mg/L
..IC MS/MSD F_00002	09/29/21		FISHER, Lot 110901		(Purchased Reagent)		Fluoride	0.45245 g/g
..IC MS/MSD N03_00005	09/27/28		FISHER, Lot 176192		(Purchased Reagent)		Nitrate	0.1648 g/g
..IC MS/MSD P04_00002	09/06/22		FISHER, Lot 112841		(Purchased Reagent)		Orthophosphate as P	0.22763 g/g
.IC SPK N02SOL_00013	06/05/19	06/05/18	Di Water, Lot na	500 mL	IC MS/MSD N02_00002	2.4628 g	Nitrite	999.946 mg/L
..IC MS/MSD N02_00002	01/12/27		fisher, Lot 164254		(Purchased Reagent)		Nitrite	0.20301 g/g
ICMS/MSD WEEK_00599	06/18/19	06/11/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Bromide	499.924 mg/L
							Chloride	2499.92 mg/L
							Fluoride	499.957 mg/L
							Sulfate	2500.26 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD Br_00003	1.2876 g	Bromide	999.847 mg/L
					IC MS/MSD CL_00002	8.2424 g	Chloride	4999.84 mg/L
					IC MS/MSD F_00002	2.21 g	Fluoride	999.914 mg/L
					IC MS/MSD S04_00005	9.0704 g	Sulfate	5000.51 mg/L
..IC MS/MSD Br_00003	09/29/21		FISHER, Lot 110569		(Purchased Reagent)		Bromide	0.77652 g/g
..IC MS/MSD CL_00002	01/13/21		FISHER, Lot 091363		(Purchased Reagent)		Chloride	0.6066 g/g
..IC MS/MSD F_00002	09/29/21		FISHER, Lot 110901		(Purchased Reagent)		Fluoride	0.45245 g/g
..IC MS/MSD S04_00005	09/29/20		FISHER, Lot 147276		(Purchased Reagent)		Sulfate	0.5513 g/g
ICP CCV_00380	06/04/19	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00840	250 mL	Boron	0.5 mg/L
.ICP ICAL1A_00840	06/25/20	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	1000 mL	ICP CAL STD 4_00003	10 mL	Boron	1 mg/L
..ICP CAL STD 4_00003	09/22/20		CPI, Lot 10094465-3		(Purchased Reagent)		Boron	100 mg/L
ICP ICSA_00186	03/18/20	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.Icp stk ICSA_00029	03/18/20		CPI, Lot 982821-1		(Purchased Reagent)		Al	5000 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICSAB_00213	06/03/19	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Li_00040	0.25 mL	Li	1 mg/L
					ICP ICSAB 1_00001	2.5 mL	Mo	1 mg/L
							Sb	1 mg/L
							Si	10 mg/L
							SiO2	21.4 mg/L
							Sn	1 mg/L
							Ti	1 mg/L
					ICP ICSAB 2_00001	2.5 mL	Ag	1 mg/L
							As	1 mg/L
							Ba	1 mg/L
							Be	0.5 mg/L
							Boron	10 mg/L
							Cd	1 mg/L
							Co	1 mg/L
							Cr	1 mg/L
							Cu	1 mg/L
							K	10 mg/L
							Mn	1 mg/L
							Na	10 mg/L
							Ni	1 mg/L
							P	10 mg/L
							Pb	1 mg/L
							Se	1 mg/L
							Sr	1 mg/L
							Tl	1 mg/L
							V	1 mg/L
							Zn	1 mg/L
					Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.1000 Li_00040	05/16/20		CPI, Lot 751942-43		(Purchased Reagent)		Li	1000 mg/L
.ICP ICSAB 1_00001	06/03/19		CPI, Lot 990624-2		(Purchased Reagent)		Mo	100 mg/L
							Sb	100 mg/L
							Si	1000 mg/L
							SiO2	2140 mg/L
							Sn	100 mg/L
							Ti	100 mg/L
.ICP ICSAB 2_00001	06/03/19		CPI, Lot 990626-2		(Purchased Reagent)		Ag	100 mg/L
							As	100 mg/L
							Ba	100 mg/L
							Be	50 mg/L
							Boron	1000 mg/L
							Cd	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							K	1000 mg/L
							Mn	100 mg/L
							Na	1000 mg/L
							Ni	100 mg/L
							P	1000 mg/L
							Pb	100 mg/L
							Se	100 mg/L
							Sr	100 mg/L
							Tl	100 mg/L
							V	100 mg/L
							Zn	100 mg/L
.Icp stk ICSA_00029	03/18/20	CPI, Lot 982821-1			(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICV_00824	10/16/19	05/29/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP CAL STD 4_00002	0.25 mL	Boron	0.25 ppm
.ICP CAL STD 4_00002	09/22/20	CPI, Lot 10094465-2			(Purchased Reagent)		Boron	100 mg/L
ICP LLCCV_02552	05/30/19	05/29/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV-2a_00010	1 mL	Boron	100 ppb
.ICP LLCCV-2a_00010	06/18/19	CPI, Lot 10090185-1			(Purchased Reagent)		Boron	10 mg/L
ICP PDS 2_00021	05/13/20	Inorganic Ventures, Lot M2-MEB659765			(Purchased Reagent)		Boron	10 mg/L
Phenol CAL 10_00730	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol CAL_00012	1 mL	Phenolics, Total Recoverable	10.07 mg/L
							Phenols, Total	10.07 mg/L
.Phenol CAL_00012	12/07/19	Lab Chem, Lot G341-02			(Purchased Reagent)		Phenolics, Total Recoverable	1007 mg/L
							Phenols, Total	1007 mg/L
Phenol ICV 10_00605	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol ICV_00013	1 mL	Phenols, Total	10 mg/L
.Phenol ICV_00013	02/29/20	ERA, Lot 090817			(Purchased Reagent)		Phenols, Total	1000 mg/L
PREP SPK 1_00008	05/13/20	CPI, Lot 993218-1			(Purchased Reagent)		As	200 mg/L
							Ba	200 mg/L
							Be	100 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							Li	100 mg/L
							Mn	100 mg/L
							Mo	100 mg/L
							Ni	100 mg/L
							Pb	100 mg/L
							Se	200 mg/L
							Si	200 mg/L
							SiO2	428 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sn	200 mg/L
							Sr	100 mg/L
							Ti	100 mg/L
							Tl	200 mg/L
							V	100 mg/L
PREP SPK 2_00004	05/13/20	CPI, Lot 992745-2			(Purchased Reagent)		Al	1000 mg/L
							Ca	5000 mg/L
							Fe	1000 mg/L
							K	5000 mg/L
							Mg	5000 mg/L
							Na	5000 mg/L
PREP SPK 3_00004	05/13/20	CPI, Lot 992746-1			(Purchased Reagent)		P	2000 mg/L
							Sulfur	1000 mg/L
							U	200 mg/L
							W	100 mg/L
PREP SPK 4_00004	05/08/20	CPI, Lot 10094085-3			(Purchased Reagent)		Bi	200 mg/L
							Boron	100 mg/L
							Th	100 mg/L
							Zn	50 mg/L
							Zr	50 mg/L
PREP SPK 4B_00001	04/16/20	CPI, Lot 10094085-2			(Purchased Reagent)		Ag	5 mg/L
PREP SPK 5_00002	10/10/19	04/10/19	5% HNO3, Lot 216908	250 mL	1000 Sb_00020	25 mL	Sb	100 mg/L
.1000 Sb_00020	03/08/20	CPI, Lot 153992-34			(Purchased Reagent)		Sb	1000 mg/L
TDS LCS_00537_00055	08/22/19	05/22/19	Di Water, Lot na	1000 mL	NaCl f_00004	0.5 g	Total Dissolved Solids (TDS)	500 mg/L
.NaCl f_00004	04/14/21	JT Baker, Lot J48622			(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g
TKN 25ppm_00794	07/01/19	05/31/19	Di Water, Lot 1	100 mL	TKN 100PPM_00108	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN 100PPM_00108	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21	nsi lab solutions, Lot 010617			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TKN ICV 25_00078	07/01/19	05/31/19	DI water, Lot 1	100 mL	TKN ICV 100_00070	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN ICV 100_00070	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20	ERA, Lot 281018			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TOC ICV Std_00037	01/31/20	Ricca, Lot 1807G06			(Purchased Reagent)		TOC Result 1	1000 ppm
							TOC Result 2	1000 ppm
							TOC Result 3	1000 ppm
							TOC Result 4	1000 ppm
							Total Organic Carbon - Quad	1000 ppm
TOC LCS Std_00046	03/31/21	Ultra Scientific, Lot CT-0920			(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm

Reagent

1000 Li_00040

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000291

SE Std Lithium (Li) – 1000 µg/mL

Lot #: 751942-43

Matrix: 5% HNO_3

5658289
ID: 1000 Li_00040
Exp:05/16/20 Prpd:CRR Opn:03/26/19
1000 Li CPI

Element	Certified Concentration & Uncertainty
Li	1002 ± 3 µg/mL (w/v)
	993 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	35	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<100	V	<1
Al	9	Cs	7	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	30	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	2	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Zn	<2
Ba	2	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	MAJOR	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

November 16, 2018
Certification Date

Chuck Goudreau, Certifying Officer

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

1000 Sb_00020

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Antimony (Sb) – 1000 µg/mL

Matrix: 5% HNO_3/tr. HF

5522333
ID: 1000 Sb_00020
Exp: 06/17/19 Prpd: SJS
1000 Sb CPI

Product #: TA-100023

Lot #: 153992-34

Element	Certified Concentration & Uncertainty
Sb	1000 ± 5 µg/mL (w/v)
	977 ± 5 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure antimony (Sb) metal dissolved in high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3102a, lot #140911**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<1000	V	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	<0.5	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	<0.5	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	0.6	Re	<0.2	Ta	<0.5	Zn	<2
Ba	<1	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	4	Os	<0.5	Sb	MAJOR	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	<2	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 17, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
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Europe
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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

Alk stk std_00016

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Quality Test / Release Date	06/05/2018
Lot Number	182564	Expiration Date	Jun/2020
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
COLOR	APHA	<= 5	<5
NORMALITY		Inclusive Between 0.995 - 1.000	1.000
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

BOD Std_00001_00046

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY: **ez GGA for BOD Test**
COMMODITY NUMBER: **2514420**
LOT NUMBER: **A9046**

MANUFACTURE DATE: **2/25/2019**

DATE OF ANALYSIS: **2/28/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
Confirmation test to ensure glutamic acid has been added.	To Pass	Passed
COD Concentration used to confirm the total concentration of Glucose-Glutamic Acid is correct.	884 to 956 mg/l	911.0 mg/l

The expiration date is Feb 2024

After preparation following the instruction sheet the BOD concentration is 198 mg/L.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

COD cal std_00048

RICCA CHEMICAL COMPANY®

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customerservice@riccachemical.com

Certificate of Analysis

Potassium Acid Phthalate Standard, 1000 ppm Chemical Oxygen Demand (COD)

Lot Number: 1904987 **Product Number:** 5868

Manufacture Date: APR 05, 2019
Expiration Date: SEP 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is estimated based upon the volumetric method of preparation. It is certified that a COD of 500 mg/L should be obtained on a 25.0 mL aliquot of this standard solution diluted to 50 mL. The manufacturing specification for this product is Chemical Oxygen Demand (COD) = 1.000 ± 0.005 mg per mL at 20°C. This is the equivalent quantity of Oxygen that this standard solution will consume, based on the reduction of a Potassium Dichromate Standard Solution under the specified conditions in the ASTM D 1252-95 test methods.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Chemical Oxygen Demand (COD)	995-1005 ppm	1000 ppm

Specification	Reference
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg COD)	ASTM (D 1252 A)
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg/L)	ASTM (D 1252 B)
Stock Potassium Acid Phthalate	EPA (410.4)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5868-16	500 mL natural poly	18 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (04/05/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

COD icv std_00034

Certificate of Analysis List

For request number 1116752

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
2253929	9057	N/A	N/A	Chemical Oxygen Demand Standard Solution 1000 mg/l COD

Total Enclosures: 1

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY:**Chemical Oxygen Demand Standard Solution 1000 mg/l COD**

COMMODITY NUMBER: **2253929**	MANUFACTURE DATE:	DATE OF ANALYSIS:
LOT NUMBER: **A9057**	**3/2/2019**	**3/3/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
COD Concentration	950 to 1050 ppm	986.0 ppm

The expiration date is Feb 2020

The item 2253929 is traceable to NIST standards SRM 84L Potassium Hydrogen Phthalate LOT N/A.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

cod ms/msd_00022

CHEMetrics Simplicity in Water Analysis

January 2, 2019

CERTIFICATE OF ANALYSIS

CHEMetrics Inc., certifies that the following COD Standard Solution has been manufactured from Primary Standard Grade (99.99+% purity) Potassium Hydrogen Phthalate (CAS No. 877-24-7). The reported standard solution concentration is calculated from wt/vol measurements obtained using analytical balances (readable to 0.0001 gram and calibrated with NIST traceable weights) and ASTM Class A volumetric glassware.

To maintain the stated accuracy for the duration of the established shelf-life, store this solution under refrigeration 2°C - 8°C (36°F - 46°F).

Cat. No.	Lot No.	Accuracy	Date of Manufacture	Product Description
A-7310	90427	10,000 ± 500	Sept. 2018	10,000 ppm COD Standard

Sincerely,

Teresa A. Neale
Vice President of Operations & Product Support

certif_cod_a7310.wpd

Reagent

Hard lcs std_00050

LabChem
performance through
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CALCIUM CARBONATE STANDARD 1mL = 1mg CaCO3 (0.01M)

Catalog Number: LC12700
Lot Number: H159-16

Mfg Date: 06/13/2018
Expiration Date: 06/13/2020

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Molarity	0.0100M +/- 0.0001M	0.0100M
Concentration mg CaCO3/mL	1.000 +/- 0.010mg CaCO3/mL	1.000 mg CaCO3/mL
Traceable to NIST	Calcium Carbonate	915b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted By: Greg Albright, Chemist Supervisor



An ISO9001:2008 certified company. Registration # 0306-01

07/05/2018 9:24:43 AM

Reagent

IC BR ICV_00012

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 1804F11 **Product Number:** 1180

Manufacture Date: APR 06, 2018
Expiration Date: SEP 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Israel Alamudun (04/06/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC BR ICV_00014

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Bromide
CATALOG NUMBER:	046 -125 mL; 987 - 500 mL
LOT NUMBER:	450817
ISSUE DATE:	September 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Bromide (KBr)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	1.2%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3184 Bromide
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 8/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC CL cal_00055

Reference Materials Producer
Cert #2495.01

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Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-101CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018 Certifying Officer: Kathleen Cullin

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Reagent

IC CL cal_00058

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-154CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 997 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 996 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: APR - - 2019

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials -- Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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Phone: 1-800-LAB-SPEX Fax: 732-603-9647

Reagent

IC CL ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Chloride
CATALOG NUMBER:	047 -125 mL; 988 - 500 mL
LOT NUMBER:	091017
ISSUE DATE:	October 17, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Chloride (NaCl)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9984 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3182 Chloride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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Reagent

IC F ICV_00010

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Fluoride
CATALOG NUMBER:	050 -125 mL; 989 - 500 mL
LOT NUMBER:	120816
ISSUE DATE:	September 29, 2016
REVISION DATE:	September 12, 2017
STARTING MATERIAL:	Potassium Fluoride (KF)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	1.0002 ± 0.0008 g/mL at 20.9°C and 623 mm Hg
TRACEABILITY[3]:	102%
NIST/SRM:	3183 Fluoride
VERIFICATION METHOD:	Ion Chromatography
STORAGE: THIS	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor which is equal to the student t factor at a 95% confidence interval at n-1 degrees of freedom. The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability Recovery = ((% Recovery certified standard)/(% Recovery NIST SRM))*100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

This standard **expires 3/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller

ISO/IEC GUIDE 34:2009 — ACCREDITED — REFERENCE MATERIAL PRODUCER CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 — ACCREDITED — CHEMICAL TESTING LABORATORY CERTIFICATE NO. 1539.02

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Reagent

IC F ICV_00012

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Fluoride
CATALOG NUMBER:	050 -125 mL; 989 - 500 mL
LOT NUMBER:	230918
ISSUE DATE:	October 11, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Fluoride (KF)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9995 ± 0.0008 g/mL at 20.6°C and 752 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	3183 Fluoride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 9/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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Reagent

IC FL cal_00013

RICCA CHEMICAL COMPANY®

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Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F⁻

Lot Number: 4805C89 **Product Number:** 3173

Manufacture Date: MAY 07, 2018
Expiration Date: OCT 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1000 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC MS/MSD Br_00003

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S255	Mfg. Date 3/3/2011	
Lot Number	110569		
Description	SODIUM BROMIDE, A.C.S.		
Country of Origin	China	Recommended Retest Date	Mar-2016
Chemical Origin	Inorganic-non animal		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE GRANULATING POWDER
ASSAY	%	>= 99	99.5
BARIUM (Ba)	%	<= 0.002	<0.0020
BROMATE	%	<= 0.001	<0.0010
CALCIUM	%	<= 0.002	<0.0020
CHLORIDE	%	<= 0.2	0.09
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.001	<0.0010
PH 5% SOLN @ 25 DEG C		Inclusive Between 5.0 8.8	7.1
POTASSIUM (K)	%	<= 0.1	<0.10
SULFATE (SO4)	%	<= 0.002	<0.0020



Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD F_00002

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB.

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S299**	**Mfg. Date**	**3/18/2011**
Lot Number	**110901**		
Description	**SODIUM FLUORIDE, A.C.S.**		
Country of Origin	**India**	**Recommended Retest Date**	**Mar-2016**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE POWDER
ASSAY	%	>= 99	99.2
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.003	<0.0030
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.02	0.010
IRON (Fe)	%	<= 0.003	<0.0030
LOSS ON DRYING @ 105 C	%	<= 0.3	0.30
POTASSIUM (K)	%	<= 0.02	0.003
SODIUM FLUOSILICATE	%	<= 0.1	0.01
SULFATE (SO4)	%	<= 0.03	<0.030
SULFITE	%	<= 0.005	0.003
TITRATABLE ACID	mEq/g	<= 0.03	0.020
TITRATABLE BASE	mEq/g	<= 0.01	0.001



Edgar E. Hau

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD N02_00002

Fisher Scientific

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Fair Lawn, NJ 07410
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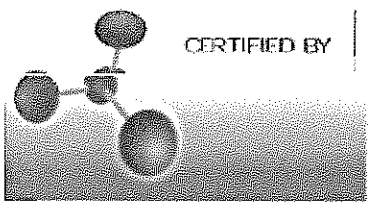
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

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Catalog Number	**S347**	**Quality Test / Release Date**	**9/9/2016**
Lot Number	**164254**		
Description	**SODIUM NITRITE, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Sep-2021**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	yELLOW-WHITE CRYSTALS
ASSAY	%	>= 97	98.6
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.001	<0.0010
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	%	<= 0.001	<0.0010
POTASSIUM (K)	%	<= 0.005	<0.0010
SULFATE (SO4)	%	<= 0.01	<0.010



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC MS/MSD N03_00005

Scientific

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ıir Lawn, NJ 07410
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)1.796.1329 fax

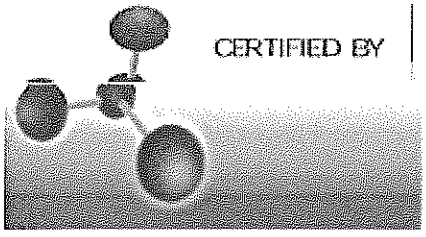
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

s is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been plied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability l fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. ıer does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

ıtalog Number	**S343**	**Quality Test / Release Date**	**8/23/2017**
)t Number	**176192**		
escription	**SODIUM NITRATE, A.C.S.**		
)untry of Origin	**Mexico**	*** Suggested Retest Date**	**Aug-2022**
ıemical Origin	**Inorganic-non animal**		
SE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

sult name	Units	Specifications	Test Value
PEARANCE		REPORT	Clear to white crystals.
SAY	%	>= 99	99.7
LCIUM	%	<= 0.005	0.001
LORIDE	%	<= 0.001	<0.0010
AVY METALS (as Pb)	ppm	<= 5	<5.0
ENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
SOLUBLE MATTER	%	<= 0.005	<0.005
)ATE	ppm	<= 5	<5.0
)N (Fe)	ppm	<= 3	<3.0
.GNESIUM	%	<= 0.002	0.0002
TRITE (NO2)	%	<= 0.001	<0.0010
5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.3	6.7
OSPHATE (PO4)	ppm	<= 5	<5.0
LFATE (SO4)	%	<= 0.003	<0.0030



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Reagent

IC MS/MSD P04_00002

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Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

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Catalog Number	**P386**	**Mfg. Date**	**9/19/2011**
Lot Number	**112841**		
Description	**POTASSIUM PHOSPHATE MONOBASIC NF/FCC/EP/BP**		
Country of Origin	**United States**		
Chemical Origin	**Inorganic**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

FCC Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	MG/KG	<= 3	<3
ASSAY	%	>= 98.0	99.7
FLUORIDES	MG/KG	<= 10	<5
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD (Pb)	MG/KG	<= 2	<2.0
LOSS ON DRYING PER FCC	%	<= 1	<1.0

NF Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	ppm	<= 3	<3
ASSAY	%	Inclusive Between 98.0 100.5	99.7
ENDOTOXINS	EU/Mg	<= 1	<0.02000
FLUORIDES	%	<= 0.001	<0.0005
HEAVY METALS (as PB)	%	<= 0.002	<0.002
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD	ppm	<= 5	<5
LOSS ON DRYING	%	<= 1.0	<1.0
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS

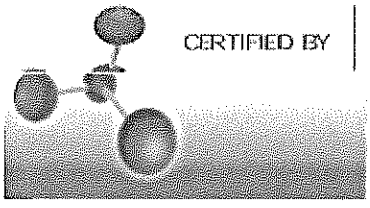
EP Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS

ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
BACTERIAL ENDOTOXINS	EU/Mg	<= 1	<0.02000
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER EP	%	<= 2.0	<1.0
PH (5 % SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

British Pharmacopela Grade Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS
ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER BP	%	<= 2.0	<1.0
PH (5% SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

Residual Solvents	No Class 1, Class 2, or Class 3 solvents, or any other solvents, are used in the manufacturing, handling, or storage of this storage, or in any cleaning process.



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD S04_00005

Fisher Scientific

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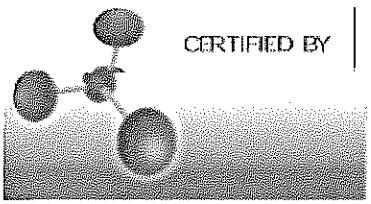
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

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Catalog Number	**P304**	**Quality Test / Release Date**	**3/2/2015**
Lot Number	**147276**		
Description	**POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Feb-2020**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99	99.4
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.005	<0.0050
NITROGEN COMPOUNDS	ppm	<= 5	<5
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.5	5.5
SODIUM (Na)	%	<= 0.02	<0.020



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC N02 CAL_00045

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Arlington, TX 76012
http://www.riccachemical.com
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Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2)

Lot Number: 1902672 **Product Number:** R5444900

Manufacture Date: FEB 04, 2019
Expiration Date: JUL 2019

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	995 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (02/04/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC N03 cal_00019

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Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2807E96 **Product Number:** 5459

Manufacture Date: JUL 24, 2018
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Andy Baumgartner (07/24/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC NO2 ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO_2-N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	020518
ISSUE DATE:	May 16, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite ($NaNO_2$)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	4.7%
MATRIX:	18 megohm deionized water
DENSITY:	1.0004 ± 0.0008 g/mL at 19.2°C and 752 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	-
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 5/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC P04 cal_00019

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Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H_2O

Lot Number: 4902D52 **Product Number:** AP1KW

Manufacture Date: FEB 08, 2019
Expiration Date: JAN 2021

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs (02/08/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC PO4 ICV_00015

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Phosphate as P (PO_4-P)
CATALOG NUMBER:	061 -125 mL; 993 - 500 mL
LOT NUMBER:	060617
ISSUE DATE:	June 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Dihydrogen Phosphate (KH_2PO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9996 ± 0.0008 g/mL at 23.5°C and 622 mm Hg
TRACEABILITY[3]:	103%
NIST/SRM:	3186 Phosphate
VERIFICATION METHOD:	Ion Chromatography
STORAGE: THIS	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC SO4 ICV_00017

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	210617
ISSUE DATE:	June 27, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9987 ± 0.0008 g/mL at 22.5°C and 757 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC SO4 ICV_00018

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	060717
ISSUE DATE:	September 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	2.9%
MATRIX:	18 megohm deionized water
DENSITY:	0.9980 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	99.3%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 7/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC sulfatecal_00053

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: AUG - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

© 2018 SPEX CertiPrep, LLC

Reagent

IC sulfatecal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

ICP CAL STD 4_00002

CPI INTERNATIONAL

5617886
ID: ICP CAL STD 4_00002
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 SECONDARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-SS

Custom ISO G34 Second Source Standard

Lot #: 10094465-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 µg/mL	Ca	999.9 ± 5.0 µg/mL	Na	5000 ± 25 µg/mL
Al	99.98 ± 0.50 µg/mL	Fe	500.1 ± 2.5 µg/mL	Zn	100.0 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	10,000 ± 50 µg/mL	Zr	100.0 ± 0.5 µg/mL
Bi	200.0 ± 1.0 µg/mL	Mg	4000 ± 20 µg/mL		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP CAL STD 4_00003

CPI INTERNATIONAL

5617860
ID: ICP CAL STD 4_00001
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 PRIMARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-500

Custom ISO G34 Standard

Lot #: 10094465-3

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.1 ± 0.5 µg/mL	Ca	1000 ± 5 µg/mL	Na	5000 ± 25 µg/mL
Al	100.1 ± 0.5 µg/mL	Fe	500.3 ± 2.5 µg/mL	Zn	100.1 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	9999 ± 50 µg/mL	Zr	99.98 ± 0.50 µg/mL
Bi	200.2 ± 1.0 µg/mL	Mg	4001 ± 20 µg/mL		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP ICSAB 1_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

5471540
ID: ICP ICSAB 1_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 1 CPI

Lot #: 990624-2

Matrix: 5% HNO_3/0.5% HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.0 ± 0.5 mg/L
Sb	100.0 ± 0.5 mg/L	Sn	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-1		
Vendor	CPI		
Lot number	990624-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICPICSAB1_00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CR	Instrument ID	MT-025
Verification Date	1/30/19	Method Reference	6010B
ID of Standard Used for Verification	5528932/5528182	Batch # / Chrom Work List #	445975

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:

Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	N/A

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

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Reagent ID: ICP ICSAB 1_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 1 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990624-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-1
Open Date:	01/29/2019		
Container(s):	5471540		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Mo					100.00000	mg/L
Sb					100.00000	mg/L
Si					1000.00000	mg/L
Sn					100.00000	mg/L
Ti					100.00000	mg/L

Sample Name: xICSAB sol 1 100x Acquired: 1/30/2019 11:16:24 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: reagent bottle check

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.02433**	**.01266**	**.01718**	**.01887**	**.00044**	**.02174**	**.47181**	**.00071**
Stddev	.00004	.00024	.00489	.00084	.00010	.00012	.00685	.00076	.00006
%RSD	7.0663	.98064	38.631	4.8888	.52301	27.840	31.508	.16192	8.4479
#1	.00053	.02450	.01612	.01658	.01880	.00035	.02659	.47235	.00067
#2	.00058	.02416	.00920	.01777	.01894	.00052	.01690	.47127	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00242**	**.00153**	**.02006**	**.56757**	**.01037**	**.47512**	**.00496**	**1.0133**
Stddev	.00010	.00025	.00005	.00110	.03642	.00435	.00725	.00001	.0039
%RSD	2.5510	10.211	3.1263	5.4797	6.4175	42.012	1.5261	.23393	.38063
#1	.00417	.00225	.00150	.02084	.54181	.00729	.47000	.00497	1.0160
#2	.00403	.00260	.00157	.01928	.59333	.01345	.48025	.00496	1.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49431**	**.00430**	**.08410**	**.01084**	**.03507**	**.99570**	**.01580**	**9.9173**	**21.223**
Stddev	.00501	.00053	.00063	.00088	.00283	.00482	.00254	.0370	.079
%RSD	1.0130	12.416	.75155	8.1609	8.0821	.48413	16.067	.37264	.37264
#1	.49077	.00468	.08455	.01146	.03707	.99230	.01760	9.8912	21.167
#2	.49785	.00392	.08365	.01021	.03306	.99911	.01401	9.9434	21.279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0648**	**.00964**	**.01036**	**1.0237**	**.01971**	**.02237**	**.00551**	**.00635**	**.00546**
Stddev	.0013	.00014	.00233	.0003	.00077	.01226	.00033	.00030	.00002
%RSD	.12116	1.4717	22.449	.02853	3.9220	54.809	6.0687	4.7932	.32279
#1	1.0658	.00954	.00871	1.0239	.02026	.03104	.00575	.00656	.00548
#2	1.0639	.00974	.01200	1.0235	.01916	.01370	.00527	.00613	.00545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4001.5**	**55629.**	**4846.2**
Stddev	8.9	65.	20.9
%RSD	.22316	.11631	.43220
#1	3995.2	55583.	4861.0
#2	4007.8	55674.	4831.4

Reagent

ICP ICSAB 2_00001

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-2		
Vendor	CPI		
Lot number	990626-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICP ICSAB 2-00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CL/CR	Instrument ID	MT_052 MT_025
Verification Date	1/21/19 1/29/19	Method Reference	L0103
ID of Standard Used for Verification	Calibration STDS	Batch # / Chrom Work List #	4449758/4455894

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

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ICP ICSAB 2_00001

Reagent ID: ICP ICSAB 2_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 2 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990626-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-2
Open Date:	01/29/2019		
Container(s):	5471537		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
As					100.00000	mg/L
B					1000.00000	mg/L
Ba					100.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					100.00000	mg/L
Cr					100.00000	mg/L
Cu					100.00000	mg/L
K					1000.00000	mg/L
Mn					100.00000	mg/L
Na					1000.00000	mg/L
Ni					100.00000	mg/L
P					1000.00000	mg/L
Pb					100.00000	mg/L
Se					100.00000	mg/L
Sr					100.00000	mg/L
Tl					100.00000	mg/L
V					100.00000	mg/L
Zn					100.00000	mg/L

52A012119.esws

Tuesday, January 22, 2019 7:50 AM

User: denmet

Workstation: DENPC507

Sample Name: ICSAB 2 100X

Date: 1/21/2019 2:07:16 PM

Rack:Tube: 1:90

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.966867	ppm	0.002732	0.28	27113.200000	Y 377.433
Al (394.401 nm)	-0.018589 u	ppm	0.000377	2.03	120.753000	Y 377.433
Al H (396.152 nm)	-0.080631 u	ppm	0.000855	1.06	12.478800	Y_R 377.433
As (188.980 nm)	0.937518	ppm	0.002548	0.27	1229.410000	Y 242.219
B (249.678 nm)	9.446880	ppm	0.011734	0.12	33938.900000	Y 242.219
Ba (493.408 nm)	0.969569	ppm	0.001606	0.17	87740.300000	Y_R 488.368
Be (234.861 nm)	0.466384	ppm	0.000072	0.02	26151.800000	Y_R 488.368
Bi (223.061 nm)	0.001837	ppm	0.002483	> 100.00	44.091400	Y 377.433
Ca (315.887 nm)	-0.003106 u	ppm	0.007441	> 100.00	18.818785	Y_R 377.433
Cd (214.439 nm)	0.974802	ppm	0.002985	0.31	25402.900000	Y 377.433
Co (228.615 nm)	0.978758	ppm	0.004920	0.50	20392.400000	Y 242.219
Cr (205.560 nm)	0.948655	ppm	0.001917	0.20	3826.770000	Y 377.433
Cu (324.754 nm)	0.971137	ppm	0.002614	0.27	45503.100000	Y 377.433
Fe (238.204 nm)	-0.000041 u	ppm	0.005163	> 100.00	10.116548	Y_R 377.433
Fe H (259.940 nm)	-0.222218 u	ppm	0.000618	0.28	1.482800	Y_R 377.433
K (766.491 nm)	9.955440	ppm	0.046489	0.47	11734.600000	Y_R2 488.368
Li (670.783 nm)	0.002338	ppm	0.002398	> 100.00	-636.367000	Y_R2 488.368
Mg (279.078 nm)	-0.004893 u	ppm	0.001386	28.33	1.042300	Y 377.433
Mn (257.610 nm)	0.984512	ppm	0.002227	0.23	189159.000000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000717	> 100.00	21.118500	Y 377.433
Na (589.592 nm)	9.389940	ppm	0.127054	1.35	4480.750000	Y_R2 488.368
Na H (589.593 nm)	7.370639 u	ppm	0.011086	0.15	3061.539033	Y_R4
Ni (231.604 nm)	0.972725	ppm	0.002305	0.24	3493.420000	Y 377.433
P (213.618 nm)	9.363070	ppm	0.023289	0.25	9381.970000	Y 242.219
Pb (220.353 nm)	0.994713	ppm	0.002048	0.21	2187.470000	Y 242.219
S (181.972 nm)	-0.017508 u	ppm	0.000015	0.09	2.280092	Y 377.433
Sb (206.834 nm)	0.001746 u	ppm	0.003005	> 100.00	29.044800	Y 377.433
Se (196.026 nm)	0.894485	ppm	0.006733	0.75	1281.770000	Y 242.219
Si (288.158 nm)	-0.001748 u	ppm	0.000507	29.01	377.617000	Y 377.433
Sn (189.925 nm)	-0.004588 u	ppm	0.000168	3.65	-1.654320	Y 377.433
Sr (421.552 nm)	0.967161	ppm	0.001611	0.17	106421.982008	Y_R 488.368
Th (288.505 nm)	-0.048933 u	ppm	0.005261	10.75	-112.903000	Y 377.433
Ti (336.122 nm)	0.000456	ppm	0.000097	21.34	-304.249000	Y 377.433
Tl (190.794 nm)	0.993837	ppm	0.000436	0.04	568.452000	Y 377.433
U (409.013 nm)	0.002082 u	ppm	0.006736	> 100.00	238.011000	Y 377.433
V (292.401 nm)	0.964201	ppm	0.002968	0.31	41257.400000	Y 377.433
Zn (206.200 nm)	0.992230	ppm	0.004980	0.50	3092.660000	Y 377.433
Zr (343.823 nm)	0.000098 u	ppm	0.000260	> 100.00	-51.254600	Y 377.433

Sample Name: ICSAB Sol 2 Acquired: 1/29/2019 15:38:12 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 100x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.96906**	**-.00340**	**1.0112**	**9.4842**	**1.0100**	**.49999**	**.00175**	**-.06604**	**.95028**
Stddev	.00070	.00005	.0084	.0140	.0002	.00072	.00805	.00493	.00089
%RSD	.07261	1.5359	.83124	.14767	.02300	.14445	460.44	7.4694	.09328
#1	.96857	-.00336	1.0053	9.4941	1.0102	.50051	.00744	-.06255	.95091
#2	.96956	-.00344	1.0172	9.4743	1.0099	.49948	-.00394	-.06953	.94966
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.02000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97510**	**.98255**	**1.0095**	**-.00152**	**10.088**	**.00379**	**-.00580**	**.91712**	**.00092**
Stddev	.00391	.00157	.0019	.00267	.030	.00092	.00435	.00154	.00057
%RSD	.40132	.16023	.18807	175.43	.29831	24.241	75.007	.16823	61.615
#1	.97787	.98367	1.0108	-.00342	10.109	.00443	-.00887	.91821	.00052
#2	.97233	.98144	1.0081	.00037	10.067	.00314	-.00272	.91603	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.062**	W **10.363**	**.97101**	**9.3122**	**.99342**	**.01022**	**-.00250**	**1.0041**	**-.01800**
Stddev	.003	.128	.00214	.0214	.00289	.00320	.00030	.0007	.00696
%RSD	.02670	1.2361	.22005	.22968	.29093	31.312	12.156	.06617	38.635
#1	10.060	10.273	.97252	9.3273	.99546	.01248	-.00271	1.0037	-.02292
#2	10.064	10.454	.96950	9.2970	.99137	.00795	-.00228	1.0046	-.01309
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.03853**	**-.00056**	**1.0257**	**.00369**	**.00020**	**1.0532**	**.01005**	**.92759**	**.89480**
Stddev	.01489	.00053	.0020	.00219	.00018	.0029	.01643	.00224	.00413
%RSD	38.635	93.658	.19274	59.457	90.526	.27479	163.59	.24111	.46200
#1	-.04905	-.00019	1.0271	.00524	.00032	1.0552	-.00157	.92917	.89772
#2	-.02800	-.00094	1.0243	.00214	.00007	1.0511	.02166	.92601	.89188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.00366**
Stddev	.00163
%RSD	44.615
#1	.00251
#2	.00482
Check ?	Chk Pass
High Limit	
Low Limit	

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

5471537
ID: ICP ICSAB 2_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 2 CPI

Lot #: 990626-2

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	99.98 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L
As	100.0 ± 0.5 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	100.1 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.1 ± 0.5 mg/L	Zn	100.1 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP LLCCV-2a_00010

Standard Verification Form TA-CM-OCT18-DENSR-500

Standard Information			
Vendor Standard Name	ICP LLCCV-2A		
Vendor	CPI International		
Lot number	# 10090185-1		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID ICP LLCCV-4-00010	
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	SS/CR	Instrument ID	MT-25/MT51
Verification Date	1/30/19	Method Reference	6010C
ID of Standard Used for Verification	ICP LLCCV4-00010	Batch # / Chrom Work List #	446036 446039
Attach to this form: formulary report , COA and data used for verification Attach to standard in TALS: this form and all supporting documentation including the original CoA			
See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐
New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.			
New Expiration Date:	5/19/19		

1st Level Review SS Date: 1/30/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00255**	**.00036**	**1.0047**	**.00032**
Stddev	.00007	.00061	.00058	.0085	.00017
%RSD	22.249	24.069	160.98	.84480	52.650
#1	.00038	.00212	-.00005	1.0107	.00020
#2	.00028	.00298	.00077	.99868	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00000**	**-.00048**	**-.00028**	**-.00042**
Stddev	.00001	.00553	.00256	.00005	.00010
%RSD	17.443	748150.	537.38	16.632	24.554
#1	.00003	-.00391	-.00229	-.00024	-.00035
#2	.00004	.00391	.00134	-.00031	-.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00130**	**.00088**	**.04958**	**.00161**
Stddev	.00008	.00040	.00450	.00732	.00228
%RSD	36.641	30.925	510.71	14.755	141.15
#1	.00028	-.00102	.00406	.05476	.00322
#2	.00017	-.00159	-.00230	.04441	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00017**	**.20636**	**.06243**	**-.00068**
Stddev	.00621	.00002	.00144	.00668	.00007
%RSD	704.64	12.859	.69592	10.708	10.347
#1	.00527	.00016	.20737	.06715	-.00073
#2	-.00351	.00019	.20534	.05770	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W **28.602**	**.00941**	**.93219**	**.20441**	**-.00477**
Stddev	.231	.00080	.00830	.00111	.00057
%RSD	.80679	8.5162	.89068	.54438	11.917
#1	28.765	.00998	.93806	.20519	-.00518
#2	28.439	.00885	.92632	.20362	-.00437
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000				
Low Limit	-6.0000				

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837
Line	288.158 {117}	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**6.9653**	**14.906**	**1.0635**	**.00005**	**.00074**
Stddev	.5657	1.211	.0080	.00010	.00128
%RSD	8.1224	8.1224	.75098	204.33	172.19
#1	6.5652	14.050	1.0691	.00012	-.00016
#2	7.3653	15.762	1.0578	-.00002	.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.10301**	**-.00165**	**-.01130**	**.00045**	**.00148**
Stddev	.00039	.00056	.00796	.00022	.00019
%RSD	.37486	34.177	70.407	49.618	12.553
#1	.10274	-.00125	-.00568	.00060	.00161
#2	.10328	-.00205	-.01693	.00029	.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.10737**
Stddev	.00304
%RSD	2.8315
#1	.10952
#2	.10522
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3890.6**	**54764.**	**4797.3**
Stddev	19.3	21.	3.8
%RSD	.49699	.03853	.07876
#1	3904.3	54779.	4794.6
#2	3876.9	54749.	4799.9

Sample Name: IIccv 2a

Date: 1/30/2019 2:27:53 PM

Rack:Tube: 3:12

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000048	3.81	-339.440000	Y 377.433
Al (167.019 nm)	0.001696	ppm	0.000845	49.83	1.871810	Y_R 377.433
Al H (396.152 nm)	-0.020587 u	ppm	0.002888	14.03	32.631734	Y_R 377.433
As (188.980 nm)	0.000723 u	ppm	0.002356	> 100.00	-0.970725	Y 242.219
B (249.678 nm)	0.813216	ppm	0.047006	5.78	21874.000000	Y 242.219
Ba (493.408 nm)	-0.000896 u	ppm	0.000024	2.69	598.598000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000016	> 100.00	-47.571600	Y_R 488.368
Bi (223.061 nm)	-0.004182 u	ppm	0.000579	13.85	11.245000	Y 377.433
Ca (315.887 nm)	0.022497	ppm	0.007400	32.89	-56.854280	Y_R 377.433
Cd (214.439 nm)	-0.000023 u	ppm	0.000024	> 100.00	5.258060	Y 377.433
Co (228.615 nm)	0.000071	ppm	0.000056	78.59	-38.009000	Y 242.219
Cr (205.560 nm)	0.000045	ppm	0.000039	86.68	-3.139690	Y 377.433
Cu (324.754 nm)	0.001245	ppm	0.000109	8.79	622.379000	Y 377.433
Fe (238.204 nm)	0.000681	ppm	0.000210	30.84	21.007438	Y_R 377.433
Fe H (259.940 nm)	-0.161781 u	ppm	0.002169	1.34	15.721500	Y_R 377.433
K (766.491 nm)	0.111372	ppm	0.057292	51.44	-830.133000	Y_R2 488.368
Li (670.783 nm)	0.009646	ppm	0.000473	4.90	-1348.180000	Y_R2 488.368
Mg (279.078 nm)	0.000264	ppm	0.000066	24.84	60.535800	Y 377.433
Mn (257.610 nm)	-0.000023 u	ppm	0.000008	35.49	70.205200	Y 377.433
Mo (202.032 nm)	0.169223	ppm	0.010445	6.17	1702.140000	Y 377.433
Na (589.592 nm)	-0.029006 u	ppm	0.010864	37.45	385.781000	Y_R2 488.368
Na H (589.593 nm)	-0.896086 u	ppm	0.020122	2.25	2225.768499	Y_R 488.368
Ni (231.604 nm)	0.000372 u	ppm	0.000677	> 100.00	0.134162	Y 377.433
P (213.618 nm)	23.045500 o	ppm	1.330770	5.77	58100.800000	Y 242.219
Pb (220.353 nm)	-0.001310 u	ppm	0.000331	25.30	-1.855490	Y 242.219
S (181.972 nm)	0.728365	ppm	0.040987	5.63	417.926408	Y 377.433
Sb (206.834 nm)	0.165059	ppm	0.009553	5.79	476.065000	Y 377.433
Se (196.026 nm)	-0.002999 u	ppm	0.001270	42.36	11.827200	Y 242.219
Si (288.158 nm)	5.208390	ppm	0.502562	9.65	48419.800000	Y 377.433
Sn (189.925 nm)	0.837532	ppm	0.048034	5.74	2234.630000	Y 377.433
Sr (421.552 nm)	0.000133	ppm	0.000061	46.11	158.521803	Y_R 488.368
Th (288.505 nm)	0.003026	ppm	0.000486	16.08	69.191200	Y 377.433
Ti (336.122 nm)	0.083021	ppm	0.004935	5.94	12374.600000	Y 377.433
Tl (190.794 nm)	0.000337	ppm	0.000105	31.25	-9.290920	Y 377.433
U (409.013 nm)	0.001927	ppm	0.000273	14.16	-152.923000	Y 377.433
V (292.401 nm)	-0.000419 u	ppm	0.000023	5.46	15.573700	Y 377.433
Zn (206.200 nm)	0.000466	ppm	0.000052	11.15	2.238410	Y 377.433
Zr (343.823 nm)	0.085063	ppm	0.005356	6.30	12032.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.937661	19025.790936	0.001064	0.11
Y 377.433	0.960036	985122.681103	0.000581	0.06
Y_R 377.433	1.006470	69104.000000	0.004101	0.41
Y_R 488.368	1.019670	40383.200000	0.014164	1.39
Y_R2 488.368	1.053637	81193.558986	0.004178	0.40

5500073
ID: ICP LLCCV-2a_00010
Exp: 05/18/18 Prpd: SJS
ICP LLCCV-2A CPI

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN5R-500

Custom ISO Guide 34 ICP LLCCV-2A

Lot #: 10090185-1

Matrix: 2% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
B	10.01 ± 0.05 µg/mL	S	10.01 ± 0.05 µg/mL	Sn	10.01 ± 0.05 µg/mL
Mo	2.01 ± 0.01 µg/mL	Sb	2.02 ± 0.01 µg/mL	Ti	1.00 ± 0.01 µg/mL
P	300.0 ± 1.5 µg/mL	Si	49.19 ± 0.25 µg/mL	Zr	1.01 ± 0.01 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 18, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

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- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP PDS 2_00021

INORGANIC VENTURES
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CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	STLDEN-PDS-2A
Lot Number:	M2-MEB659765
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	500 µg/mL ea: Silicon, 10 µg/mL ea: Tin, Boron, Antimony, 5 µg/mL ea: Molybdenum, Titanium, Zirconium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.07 µg/mL	Boron, B	10.00 ± 0.07 µg/mL
Molybdenum, Mo	5.002 ± 0.030 µg/mL	Silicon, Si	500.0 ± 3.2 µg/mL
Tin, Sn	10.00 ± 0.08 µg/mL	Titanium, Ti	5.002 ± 0.030 µg/mL
Zirconium, Zr	5.001 ± 0.030 µg/mL		

Density: 1.016 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
B	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	130920
Zr	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods **Characterization of CRM by one method**

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 07, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 07, 2020**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Reagent

Icp stk ICSA_00029

CPI INTERNATIONAL

5514208
ID: lcp stk ICSA_00027
Exp: 07/08/19 Prpd: SJS
ICP stock ICSA solution

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 982821-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 8, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
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Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

NaCl f_00004

Sodium Chloride, Crystal

`BAKER ANALYZED´® A.C.S. Reagent

Product No. 3624
Lot No. J48622
Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO_3)	0.003 % max.	0.002 %
Phosphate (PO_4)	5 ppm max.	< 3 ppm
Sulfate (SO_4)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %
For Laboratory, Research or Manufacturing Use		
Country of Origin: USA		

ISO
Phillipsburg, NJ 9001.2008, 14001.2004
Paris, KY 9001.2008
Mexico City, Mexico 9001.2008
Deventer, The Netherlands 9001.2008, 14001.2004, 13485.2003
Selangor, Malaysia 9001.2008
Panoli, India 9001.2008
Gliwice, Poland 9001.2008, 17025.2005

Marcy M. Matlosz
Director of QA & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151
Avantor ™ Performance Materials. Inc. (formerly Mallinckrodt Baker, Inc.)
222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Reagent

NH3 CAL STD_00030

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 1808L28 **Product Number:** 5455

Manufacture Date: AUG 29, 2018
Expiration Date: FEB 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (08/29/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00026

1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	M2-NH662533
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium Chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 996 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **993 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **997 ± 2 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\ (u_{char\ a})^2 + (w_b)^2\ (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

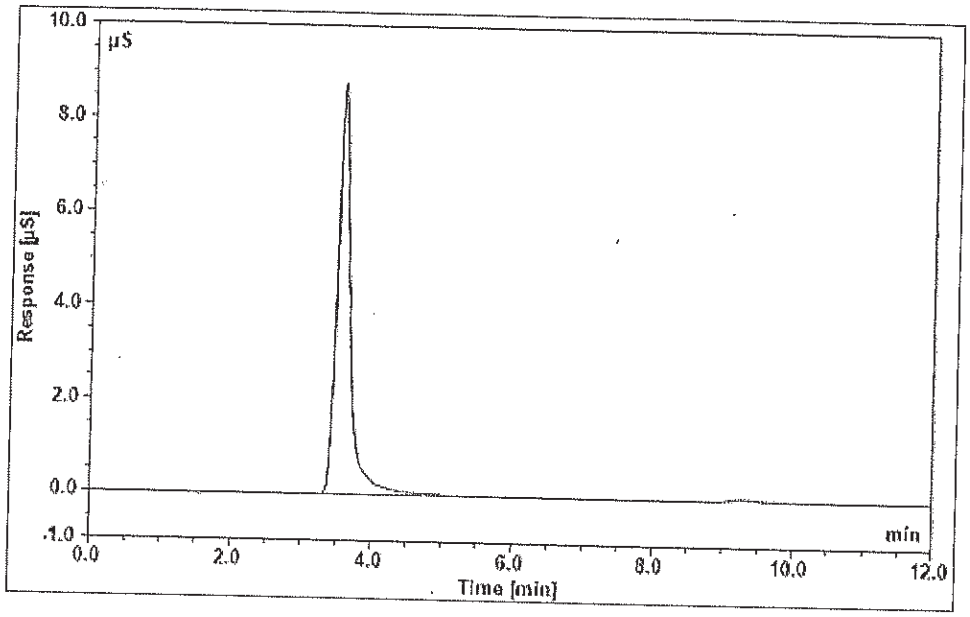
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS12A-5µm 3x150mm	**Eluent:**	20 mM MSA
Guard Column:	IonPac CG12A-5µm 3x30mm	**Eluent Flow Rate:**	0.50 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35° C
		Cell Temp:	35° C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	10 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	30 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

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10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 03, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- November 03, 2021

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

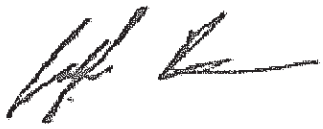
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

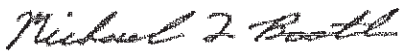
Certificate Prepared By:

Joseph Burns
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

Phenol CAL_00012

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: PHENOL STANDARD, 1000ppm (1mL = 1mg)

Mfg. Date: 12/07/2017

Catalog Number: LC18330

Exp. Date: 12/07/2019

Lot Number: G341-02

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm Phenol	1000ppm +/- 10ppm	1007 ppm
Concentration mg Phenol / L	1.000 + / - 0.010 mg/mL	1.007 mg/mL
Traceable to NIST	Potassium Dichromate	136f

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor

Greg Albright

An ISO9001:2008 certified company. Registration # 0306-01

03/23/2018 5:05 PM

Form #17.13 07/28/2016

Reagent

Phenol ICV_00013

ERA

A Waters Company

Distributed by
SPEX CertiPrep
1-800-LAB-SPEX
www.spexcsp.com

Certificate of Analysis

PRODUCT:	1000 mg/L Phenol
CATALOG NUMBER:	982
LOT NUMBER:	090817
ISSUE DATE:	August 18, 2017
REVISION DATE:	August 2, 2018
STARTING MATERIAL:	Phenol (C_6H_5OH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.8%
MATRIX:	18 megohm deionized water and 1% (v/v) H_2SO_4
DENSITY:	1.0085 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	NA
VERIFICATION METHOD:	Spectrophotometry
STORAGE:	Store at 4 ± 2°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

PREP SPK 1_00008

CPI INTERNATIONAL

5643174
ID: PREP SPK 1_00008
Exp: 05/21/20 Prpd: MRJ
Metals Prep Spike Mix 1 C

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 993218-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.1 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.1 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 21, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

PREP SPK 4B_00001

5643188
ID: PREP SPK 4B_00001
Exp: 09/28/20 Prpd: MRJ
Metals Prep Spike 4B CPI

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN-B

Custom Spike Solution B

Lot #: 10094085-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty
Ag	5.00 ± 0.03 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 5.00 µg/mL by gravimetric methods using a single-element concentrate dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3151**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 28, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

TKN CAL STD_00017

nsi lab solutions
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7212 ACC Blvd. | Raleigh, NC 27617 | 800.234.7837

Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Catalog Number: IS-009, IS-009-500
Lot Number: 010617

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00011

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00037

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 4901G09 **Product Number:** 1847

Manufacture Date: JAN 22, 2019
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-32	1 L amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jim Gibbs (01/22/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00046

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1000 ± 5 µg/mL	NAA00089; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG No.:

Project: Griffiss AFB, LF002 LF#2 - 3342

Client Sample ID	Lab Sample ID
LF2MW2-1_0519	280-123930-1
LF2MW-12_0519	280-123930-2
LF2MW-12_0519-a	280-123930-3
LF2MW-4_0519	280-123930-4
LF2MW -13_0519	280-123930-5

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF2MW2-1_0519 Lab Sample ID: 280-123930-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 15:46

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	38	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF2MW-12_0519 Lab Sample ID: 280-123930-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 15:45

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	56	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF2MW-12_0519-a
Lab Sample ID: 280-123930-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123930-1
SDG ID.:
Matrix: Water
Date Sampled: 05/16/2019 15:45
Reporting Basis: WET
Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	57	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF2MW-4_0519 Lab Sample ID: 280-123930-4

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 17:02

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	12	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF2MW -13_0519 Lab Sample ID: 280-123930-5

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 17:10

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	11	100	15	4.4	ug/L	J		1	6010C

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

ICV Source: ICP ICV_00824 Concentration Units: ug/L

CCV Source: ICP CCV_00380

Analyte	ICV 280-459798/9 05/29/2019 07:49				ICV 280-459798/10 05/29/2019 07:56				CCV 280-459798/79 05/29/2019 11:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	246		250	99	250		250	100	495		500	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

ICV Source: ICP ICV_00824 Concentration Units: ug/L

CCV Source: ICP CCV_00380

Analyte	CCV 280-459798/91 05/29/2019 11:52				CCV 280-459798/104 05/29/2019 12:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	484		500	97	486		500	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

ICV Source: ICP LLCCV_02552 Concentration Units: ug/L

CCV Source: ICP LLCCV_02552

Analyte	ICVL 280-459798/11 05/29/2019 08:02				CCVL 280-459798/81 05/29/2019 11:27				CCVL 280-459798/93 05/29/2019 11:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	99.7	J	100	100	99.6	J	100	100	98.8	J	100	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

ICV Source: ICP LLCCV_02552 Concentration Units: ug/L

CCV Source: ICP LLCCV_02552

Analyte	CCVL 280-459798/106 05/29/2019 12:31											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	97.8	J	100	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Method: 6010C Instrument ID: MT_025

Lab Sample ID: CRI 280-459798/15 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_02552

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Boron	100	93.4	J	93	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-459798/14 05/29/2019 08:09		CCB 280-459798/80 05/29/2019 11:24		CCB 280-459798/92 05/29/2019 11:54		CCB 280-459798/105 05/29/2019 12:28	
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-459132/1-A

Instrument Code: MT_025 Batch No.: 459798

CAS No.	Analyte	Concentration	C	Q	Method
7440-42-8	Boron	15	U		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Lab Sample ID: ICSA 280-459798/16 Instrument ID: MT_025

Lab File ID: 25A052919z.asc ICS Source: ICP ICSA_00186

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		**-1.43**	
Aluminum	*500000*	*507180*	*101*
Antimony		*-10.2*	
Arsenic		*-3.32*	
Barium		*1.77*	
Beryllium		*0.210*	
Cadmium		*0.200*	
Calcium	*500000*	*468580*	*94*
Cobalt		*-0.150*	
Copper		*2.07*	
Iron	*200000*	*187120*	*94*
Lead		*-3.35*	
Lithium		*-0.540*	
Magnesium	*500000*	*518090*	*104*
Manganese		*0.280*	
Molybdenum		*-0.350*	
Nickel		*2.35*	
Phosphorus		*5.99*	
Potassium		*-50.2*	
Selenium		*-2.81*	
Silicon		*10.3*	
Silver		*0.580*	
SiO2		*21.9*	
Thallium		*3.96*	
Tin		*-1.84*	
Titanium		*2.60*	
Vanadium		*0.930*	
Zinc		*-5.27*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Lab Sample ID: ICSAB 280-459798/17 Instrument ID: MT_025

Lab File ID: 25A052919z.asc ICS Source: ICP ICSAB_00213

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Boron	**10000**	**9684**	**97**
Aluminum	*500000*	*518950*	*104*
Antimony	*1000*	*985*	*98*
Arsenic	*1000*	*991*	*99*
Barium	*1000*	*998*	*100*
Beryllium	*500*	*494*	*99*
Cadmium	*1000*	*1014*	*101*
Calcium	*500000*	*480320*	*96*
Chromium	*1000*	*965*	*96*
Cobalt	*1000*	*930*	*93*
Copper	*1000*	*1082*	*108*
Iron	*200000*	*191790*	*96*
Lead	*1000*	*931*	*93*
Lithium	*1000*	*1037*	*104*
Magnesium	*500000*	*529350*	*106*
Manganese	*1000*	*1013*	*101*
Molybdenum	*1000*	*950*	*95*
Nickel	*1000*	*926*	*93*
Phosphorus	*10000*	*10026*	*100*
Potassium	*10000*	*10496*	*105*
Selenium	*1000*	*978*	*98*
Silicon	*10000*	*9903*	*99*
Silver	*1000*	*1120*	*112*
SiO2	*21400*	*21192*	*99*
Sodium	*10000*	*10550*	*106*
Strontium	*1000*	*1002*	*100*
Thallium	*1000*	*908*	*91*
Tin	*1000*	*932*	*93*
Titanium	*1000*	*1006*	*101*
Vanadium	*1000*	*1025*	*102*
Zinc	*1000*	*969*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: LF2MW2-1_0519 MS
Lab ID: 280-123930-1 MS
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123930-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	1010		38	J	1000	97	85-113		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: LF2MW2-1_0519 MSD
Lab ID: 280-123930-1 MSD
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123930-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	978		1000	94	85-113	3	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: LF2MW2-1_0519 PDS
Lab ID: 280-123930-1 PDS
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123930-1
SDG No.:
Matrix: Water
Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	136		38	J	100	98	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-459132/2-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Boron	1000	957		96	85	113		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-459132/3-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	965		1000	97	85-113	1	20		6010C

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-123930-1

SDG No:

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123930-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Boron	38	J	47.7	J	NC	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: MT_025

Method: 6010C DL Date: 02/03/2019 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Boron	208.9	100	4.37

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: MT_025

Method: 6010C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Boron		100	4.37

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	167.079													0.000386	
Aluminum	309.271														
Antimony	206.833		0.000026									0.009556		0.000031	
Arsenic	189.042		-0.000033						0.000012			0.000165		-0.000017	
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061		-0.000012			-0.000360						0.001346		0.000249	
Boron	208.959														
Cadmium	228.802			0.004373		-0.000173					-0.000030				
Calcium	317.933										-0.000132				
Chromium	205.552						-0.000889								
Cobalt	228.616					0.000052						0.000001		0.000000	
Copper	324.754														
Iron	259.940														
Iron	271.441										0.076500				
Lead	220.353		-0.000070					-0.000040	0.000001		-0.000688		0.000299		
Lithium	670.784								0.000017						
Magnesium	279.079													0.000221	
Manganese	257.610													0.000013	
Molybdenum	202.030														
Nickel	231.604						-0.000094		-0.000007		-0.000384			0.000000	
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090								-0.000016					0.000017	
Silicon	288.158											-0.013955			
Silver	328.068														
Sodium	589.592														
Sodium	818.326														
Strontium	407.771								0						
Sulfur	182.034		-0.000035						0.000017						

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.856								0.000002		0.001718	0.000274		-0.000032	
Thorium	283.730									-0.000364		-0.000133		0.000830	
Tin	189.989														
Titanium	334.904								0.000005			0.000255			
Uranium	370.152				0.002111				-0.000078			-0.009097		-0.000481	
Vanadium	292.402														
Zinc	206.200		0.000014					-0.000075				-0.000208		0.000023	
Zirconium	339.198													-0.000029	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Aluminum	309.271		0.001655												
Aluminum	167.079														
Antimony	206.833						-0.000005							0.000093	
Arsenic	189.042				0.000666							-0.000151	-0.000151		
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061														
Boron	208.959				0.040000										
Cadmium	228.802														
Calcium	317.933														
Chromium	205.552														
Cobalt	228.616			-0.000001	-0.001646		0.000125								
Copper	324.754				0.001137										
Iron	259.940														
Iron	271.441		0.000330												
Lead	220.353				-0.000710		0.000027					0.000363	0.000063		
Lithium	670.784														
Magnesium	279.079			-0.004762											
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604				0.000080										
Phosphorus	178.284				-0.001297										
Potassium	766.490														
Selenium	196.090			0.000890											
Silicon	288.158				-0.001696										
Silver	328.068			0.000114	-0.000029										
Sodium	818.326														
Sodium	589.592														
Strontium	407.771														
Sulfur	182.034			0.001895	-0.010027										

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Thallium	190.856			0.000471											
Thorium	283.730		-0.00000173		0.000298		0.000116								
Tin	189.989														
Titanium	334.904		0.000001		0.000993										
Uranium	370.152														
Vanadium	292.402			-0.000132	-0.015713										
Zinc	206.200				0.000123										
Zirconium	339.198				0.000270										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	167.079														
Aluminum	309.271														
Antimony	206.833		0.000161		-0.001976	0.000070		-0.000720							
Arsenic	189.042														
Barium	455.403							0.000631							
Beryllium	313.042		0		0.000024	0.000719									
Bismuth	223.061		-0.003027		-0.003000										
Boron	208.959														
Cadmium	228.802				-0.000172										
Calcium	317.933	-0.000543													
Chromium	205.552														
Cobalt	228.616		0.002396		0.000180										
Copper	324.754	0.004049	-0.000473		-0.000966	-0.000078		-0.004427							
Iron	259.940														
Iron	271.441					-0.209000		-0.033							
Lead	220.353		-0.000058		0.001102			-0.000169							
Lithium	670.784														
Magnesium	279.079		0.000196		0.001378										
Manganese	257.610	-0.000521			0.000099										
Molybdenum	202.030				-0.000094										
Nickel	231.604														
Phosphorus	178.284				0.000030										
Potassium	766.490														
Selenium	196.090	-0.000057			-0.000761										
Silicon	288.158														
Silver	328.068	0.000110			0.001056			0.004012							
Sodium	589.592														
Sodium	818.326														
Strontium	407.771														
Sulfur	182.034	0.000409				-0.001026									

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.856	-0.000005			0.000038	0.000848									
Thorium	283.730				0.020818			0.017935							
Tin	189.989	-0.000081	-0.000188		0.000171										
Titanium	334.904	0.007261			-0.000638										
Uranium	370.152	-0.003546	0.005713			0.003176		-0.002785							
Vanadium	292.402	0.001304	0.000377		-0.000269										
Zinc	206.200														
Zirconium	339.198	0.042435			-0.000206										

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123930-1

SDG No.:

Instrument ID: MT_025 Date: 04/09/2019 07:06

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Boron		90	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-459132/1-A	05/28/2019 18:00	459132		50	50
LCS 280-459132/2-A	05/28/2019 18:00	459132		50	50
LCSD 280-459132/3-A	05/28/2019 18:00	459132		50	50
280-123930-1	05/28/2019 18:00	459132		50	50
280-123930-1 MS	05/28/2019 18:00	459132		50	50
280-123930-1 MSD	05/28/2019 18:00	459132		50	50
280-123930-2	05/28/2019 18:00	459132		50	50
280-123930-3	05/28/2019 18:00	459132		50	50
280-123930-4	05/28/2019 18:00	459132		50	50
280-123930-5	05/28/2019 18:00	459132		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: MT_025 Analysis Method: 6010C

Start Date: 05/29/2019 07:28 End Date: 05/29/2019 13:09

Lab Sample Id	D/F	Type	Time	Analytes
				B
ICIS 280-459798/1	1		07:28	X
IC 280-459798/2			07:31	X
IC 280-459798/3			07:33	X
ZZZZZZ			07:36	
ZZZZZZ			07:38	
ICVH 280-459798/6	1		07:41	X
ICVH 280-459798/7	1		07:43	X
ZZZZZZ			07:46	
ICV 280-459798/9	1		07:49	X
ICV 280-459798/10	1		07:56	X
ICVL 280-459798/11	1		08:02	X
CCVH 280-459798/12			08:04	
CCV 280-459798/13			08:07	
ICB 280-459798/14	1		08:09	X
CRI 280-459798/15	1		08:13	X
ICSA 280-459798/16	1		08:16	X
ICSAB 280-459798/17	1		08:18	X
LRA 280-459798/18			08:21	
CCVH 280-459798/19			08:23	
CCV 280-459798/20			08:26	
CCB 280-459798/21			08:28	
CCVL 280-459798/22			08:31	
CRI 280-459798/23			08:46	
ZZZZZZ			08:59	
ZZZZZZ			09:02	
ZZZZZZ			09:04	
ZZZZZZ			09:07	
ZZZZZZ			09:09	
ZZZZZZ			09:12	
ZZZZZZ			09:14	
ZZZZZZ			09:17	
ZZZZZZ			09:19	
CCVH 280-459798/33			09:22	
CCV 280-459798/34			09:25	
CCB 280-459798/35			09:28	
CCVL 280-459798/36			09:31	
ZZZZZZ			09:34	
ZZZZZZ			09:36	
ZZZZZZ			09:39	
ZZZZZZ			09:41	
ZZZZZZ			09:43	
ZZZZZZ			09:46	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: MT_025 Analysis Method: 6010C

Start Date: 05/29/2019 07:28 End Date: 05/29/2019 13:09

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			09:49	
CCVH 280-459798/44			09:53	
CCV 280-459798/45			09:55	
CCB 280-459798/46			09:58	
CCVL 280-459798/47			10:01	
ZZZZZZ			10:04	
ZZZZZZ			10:06	
ZZZZZZ			10:09	
ZZZZZZ			10:11	
ZZZZZZ			10:14	
ZZZZZZ			10:16	
ZZZZZZ			10:18	
ZZZZZZ			10:21	
CCVH 280-459798/56			10:23	
CCV 280-459798/57			10:26	
CCB 280-459798/58			10:28	
CCVL 280-459798/59			10:31	
ZZZZZZ			10:33	
ZZZZZZ			10:36	
ZZZZZZ			10:39	
ZZZZZZ			10:41	
ZZZZZZ			10:44	
ZZZZZZ			10:46	
CCVH 280-459798/66			10:49	
CCV 280-459798/67			10:51	
CCB 280-459798/68			10:54	
CCVL 280-459798/69			10:56	
ZZZZZZ			10:59	
ZZZZZZ			11:02	
ZZZZZZ			11:05	
ZZZZZZ			11:07	
ZZZZZZ			11:10	
ZZZZZZ			11:12	
ZZZZZZ			11:15	
ZZZZZZ			11:17	
CCVH 280-459798/78	1		11:19	X
CCV 280-459798/79	1		11:22	X
CCB 280-459798/80	1		11:24	X
CCVL 280-459798/81	1		11:27	X
MB 280-459132/1-A	1	T	11:30	X
LCS 280-459132/2-A	1	T	11:32	X
LCSD 280-459132/3-A	1	T	11:35	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: MT_025 Analysis Method: 6010C

Start Date: 05/29/2019 07:28 End Date: 05/29/2019 13:09

Lab Sample Id	D/F	Type	Time	Analytes
				B
280-123930-1	1	T	11:37	X
280-123930-1 SD	5	T	11:40	X
280-123930-1 MS	1	T	11:42	X
280-123930-1 MSD	1	T	11:44	X
280-123930-1 PDS	1	T	11:47	X
CCVH 280-459798/90	1		11:49	X
CCV 280-459798/91	1		11:52	X
CCB 280-459798/92	1		11:54	X
CCVL 280-459798/93	1		11:57	X
280-123930-2	1	T	11:59	X
280-123930-3	1	T	12:02	X
280-123930-4	1	T	12:05	X
280-123930-5	1	T	12:07	X
ZZZZZZ			12:10	
ZZZZZZ			12:13	
ZZZZZZ			12:15	
ZZZZZZ			12:18	
ZZZZZZ			12:20	
CCVH 280-459798/103	1		12:23	X
CCV 280-459798/104	1		12:25	X
CCB 280-459798/105	1		12:28	X
CCVL 280-459798/106	1		12:31	X
ZZZZZZ			12:34	
ZZZZZZ			12:37	
ZZZZZZ			12:40	
ZZZZZZ			12:42	
ZZZZZZ			12:45	
ZZZZZZ			12:47	
ZZZZZZ			12:50	
CCVH 280-459798/114			12:53	
CCV 280-459798/115			12:55	
CCB 280-459798/116			12:58	
ZZZZZZ			13:01	
CCVL 280-459798/118			13:07	
CCVL 280-459798/119			13:09	

Prep Types:
T = Total/NA

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

ICP Instrument ID: MT_025 Start Date: 05/29/2019 End Date: 05/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q	Element	Q
ICIS 280-459798/1	07:28										
ICVH 280-459798/6	07:41	101		99		100					
ICVH 280-459798/7	07:43	101		100		102					
ICV 280-459798/9	07:49	103		103		104					
ICV 280-459798/10	07:56	99		99		98					
ICVL 280-459798/11	08:02	102		102		102					
ICB 280-459798/14	08:09	100		101		100					
CRI 280-459798/15	08:13	106		105		101					
ICSA 280-459798/16	08:16	94		90		101					
ICSAB 280-459798/17	08:18	93		89		99					
CCVH 280-459798/78	11:19	102		101		103					
CCV 280-459798/79	11:22	102		102		104					
CCB 280-459798/80	11:24	104		105		104					
CCVL 280-459798/81	11:27	107		106		107					
MB 280-459132/1-A	11:30	106		106		106					
LCS 280-459132/2-A	11:32	104		103		107					
LCSD 280-459132/3-A	11:35	104		103		105					
280-123930-1	11:37	104		104		106					
280-123930-1 SD	11:40	105		105		107					
280-123930-1 MS	11:42	104		102		106					
280-123930-1 MSD	11:44	106		105		111					
280-123930-1 PDS	11:47	104		105		108					
CCVH 280-459798/90	11:49	103		103		105					
CCV 280-459798/91	11:52	103		101		103					
CCB 280-459798/92	11:54	105		105		104					
CCVL 280-459798/93	11:57	105		105		106					
280-123930-2	11:59	104		103		105					
280-123930-3	12:02	104		104		107					
280-123930-4	12:05	106		105		107					
280-123930-5	12:07	104		104		107					
CCVH 280-459798/103	12:23	102		102		104					
CCV 280-459798/104	12:25	102		101		103					
CCB 280-459798/105	12:28	104		104		104					
CCVL 280-459798/106	12:31	107		107		106					

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459132 Batch Start Date: 05/28/19 18:00 Batch Analyst: Lodl, Dagmara A

Batch Method: 3010A Batch End Date: 05/29/19 00:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	PREP SPK 1 00008	PREP SPK 2 00004	PREP SPK 3 00004
MB 280-459132/1		3010A, 6010C			50 mL	50 mL			
LCS 280-459132/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
LCSD 280-459132/3		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123930-F-1	LF2MW2-1_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123930-F-1 MS	LF2MW2-1_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123930-F-1 MSD	LF2MW2-1_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123930-F-2	LF2MW-12_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123930-F-3	LF2MW-12_0519-a	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123930-F-4	LF2MW-4_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123930-F-5	LF2MW -13_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PREP SPK 4 00004	PREP SPK 4B 00001	PREP SPK 5 00002			
MB 280-459132/1		3010A, 6010C							
LCS 280-459132/2		3010A, 6010C		0.5 mL	0.5 mL	0.5 mL			
LCSD 280-459132/3		3010A, 6010C		0.5 mL	0.5 mL	0.5 mL			
280-123930-F-1	LF2MW2-1_0519	3010A, 6010C	T						
280-123930-F-1 MS	LF2MW2-1_0519	3010A, 6010C	T	0.5 mL	0.5 mL	0.5 mL			
280-123930-F-1 MSD	LF2MW2-1_0519	3010A, 6010C	T	0.5 mL	0.5 mL	0.5 mL			
280-123930-F-2	LF2MW-12_0519	3010A, 6010C	T						
280-123930-F-3	LF2MW-12_0519-a	3010A, 6010C	T						
280-123930-F-4	LF2MW-4_0519	3010A, 6010C	T						
280-123930-F-5	LF2MW -13_0519	3010A, 6010C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459132 Batch Start Date: 05/28/19 18:00 Batch Analyst: Lodl, Dagmara A

Batch Method: 3010A Batch End Date: 05/29/19 00:05

Batch Notes	
Temperature - Corrected - End	92 Degrees C
Temperature - Corrected - Start	92 Degrees C
Digestion End Time	05/29/2019 00:05
Digestion Start Time	05/28/2019 18:00
Digestion Unit ID	04
Hydrochloric Acid ID	0000217157-05/03
Nitric Acid ID	0000216908-05/03
Pipette/Syringe/Dispenser ID	MET-116
Analyst ID - Spike Witness Analyst	QA-51
Thermometer ID	QA-46
Digestion Tube/Cup ID	1812114
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	93 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Name: ICIS Acquired: 5/29/2019 7:28:35 Type: Cal
Method: 6500_025(v8) Mode: IR Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00154**	**.00315**	**-.01601**	**-.00063**	**.00071**	**-.02046**	**-.00378**	**-.00341**	**.01282**	**.00166**	**.00047**	**-.00038**
Stddev	.00014	.00003	.00097	.00000	.00003	.00090	.00043	.00013	.00043	.00004	.00007	.00003
%RSD	9.1954	1.0494	6.0437	.25435	4.7528	4.3919	11.501	3.6672	3.3588	2.3754	15.585	9.1400
#1	-.00144	.00317	-.01533	-.00063	.00074	-.01982	-.00409	-.00350	.01252	.00163	.00041	-.00035
#2	-.00164	.00312	-.01669	-.00063	.00069	-.02109	-.00347	-.00332	.01313	.00169	.00052	-.00040

Elem	Cu3247	Fe2599	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00873**	**.00168**	**.00138**	**.01383**	**.01718**	**-.00001**	**.00001**	**.00075**	**.02050**	**-.02713**	**-.00103**	**.00027**
Stddev	.00016	.00057	.00016	.00408	.00005	.00022	.00012	.00004	.00348	.00199	.00010	.00006
%RSD	1.8620	33.835	11.250	29.501	.31846	1554.7	2297.9	5.4942	16.957	7.3515	9.7074	23.456
#1	.00885	.00128	.00127	.01671	.01722	.00014	.00009	.00072	.02296	-.02854	-.00096	.00022
#2	.00862	.00208	.00149	.01094	.01714	-.00017	-.00008	.00078	.01804	-.02572	-.00110	.00031

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00136**	**.00044**	**.00110**	**.00038**	**.00142**	**.00142**	**.00007**	**.00708**	**-.00074**	**-.00070**	**-.00021**	**-.00379**
Stddev	.00016	.00012	.00043	.00005	.00063	.00063	.00005	.00031	.00017	.00003	.00005	.00001
%RSD	11.800	27.341	39.354	14.198	44.630	44.630	82.648	4.3209	23.661	3.9758	24.428	.20987
#1	-.00125	.00035	.00141	.00034	.00187	.00187	.00010	.00730	-.00061	-.00068	-.00017	-.00380
#2	-.00147	.00052	.00079	.00042	.00097	.00097	.00003	.00686	-.00086	-.00072	-.00025	-.00379

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**-.00016**	**.00013**	**-.00424**
Stddev	.00014	.00000	.00088
%RSD	89.496	.64655	20.710
#1	-.00006	.00013	-.00362
#2	-.00026	.00013	-.00486

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3622.1**	**40724.**	**3251.3**
Stddev	5.2	130.	29.5
%RSD	.14398	.31883	.90787
#1	3618.4	40632.	3272.2
#2	3625.7	40816.	3230.5

Sample Name: ICAL1 Acquired: 5/29/2019 7:31:10 Type: Cal
Method: 6500_025(v8) Mode: IR Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.22768**	**.20835**	**.03592**	**.25979**	**4.6941**	**5.6264**	**.24172**	**1.5974**	**1.6670**	**.92706**	**.87267**	**.23838**	**.67684**
Stddev	.00004	.00069	.00015	.00027	.0246	.0149	.00005	.0086	.0007	.00043	.00150	.00020	.00432
%RSD	.01630	.32964	.40641	.10322	.52442	.26484	.02176	.53743	.04005	.04659	.17136	.08436	.63879
#1	.22771	.20883	.03603	.25960	4.6767	5.6159	.24168	1.5914	1.6675	.92676	.87161	.23852	.67378
#2	.22766	.20786	.03582	.25998	4.7115	5.6370	.24176	1.6035	1.6666	.92737	.87372	.23824	.67990

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.1891**	**.74424**	**1.1045**	**1.5213**	**.47784**	**7.3776**	**.79731**	**.23487**	**.08437**	**.04435**	**.23596**	**.23596**	**.10471**
Stddev	.0142	.00338	.0014	.0019	.00105	.0407	.00060	.00051	.00029	.00007	.00177	.00177	.00020
%RSD	.44644	.45476	.12750	.12759	.21872	.55214	.07477	.21635	.34364	.16476	.74939	.74939	.18995
#1	3.1790	.74184	1.1054	1.5227	.47857	7.3488	.79773	.23451	.08457	.04430	.23471	.23471	.10485
#2	3.1992	.74663	1.1035	1.5199	.47710	7.4064	.79689	.23523	.08416	.04440	.23721	.23721	.10457

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.8104**	**.37287**	**.08860**	**.24417**	**.03887**	**.29309**
Stddev	.0347	.00065	.00008	.00123	.00003	.00022
%RSD	.50972	.17404	.08909	.50314	.07715	.07475
#1	6.7858	.37333	.08855	.24504	.03889	.29294
#2	6.8349	.37241	.08866	.24330	.03885	.29325

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3580.9**	**40207.**	**3289.6**
Stddev	5.7	161.	45.7
%RSD	.15952	.39930	1.3905
#1	3585.0	40320.	3321.9
#2	3576.9	40093.	3257.2

Sample Name: ICAL2 Acquired: 5/29/2019 7:33:30 Type: Cal
Method: 6500_025(v8) Mode: IR Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Al3092	Fe2714	Na8183	P_1782	S_1820	Th2837	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.3711**	**.61099**	**2.0511**	**.57999**	**.24543**	**.61088**	**.00235**
Stddev	.0052	.00061	.0009	.00215	.00095	.00112	.00015
%RSD	.15460	.10017	.04324	.37105	.38890	.18405	6.5391
#1	3.3748	.61056	2.0505	.58151	.24610	.61009	.00246
#2	3.3674	.61142	2.0517	.57846	.24475	.61168	.00224

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3583.1**	**39985.**	**3303.1**
Stddev	5.2	249.	12.1
%RSD	.14442	.62198	.36543
#1	3579.5	40161.	3311.6
#2	3586.8	39809.	3294.5

Sample Name: S1-5708352 Acquired: 5/29/2019 7:36:02 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97451**	**.98118**	**.97563**	**.98121**	**.97025**	**.96475**	**1.9595**	**9.7302**	**.98064**	**.98341**	**.98122**	**.97360**	**4.8402**
Stddev	.00115	.00325	.01251	.00551	.00746	.00460	.0088	.0499	.00520	.00574	.00391	.00453	.0144
%RSD	.11806	.33121	1.2823	.56198	.76902	.47637	.45134	.51267	.52993	.58329	.39865	.46571	.29647
#1	.97370	.97889	.96679	.97731	.96497	.96150	1.9533	9.6949	.97696	.97935	.97846	.97039	4.8300
#2	.97532	.98348	.98448	.98511	.97552	.96800	1.9658	9.7654	.98431	.98747	.98399	.97681	4.8503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**97.293**	**.97185**	**39.022**	**.97185**	**.98481**	**48.422**	**.98220**	**-.00397**	**.98299**	**-.00322**	**.98212**	**.97731**	**9.6372**
Stddev	.571	.01053	.014	.00041	.00385	.245	.00118	.00128	.00333	.00343	.00620	.00499	.0142
%RSD	.58729	1.0834	.03511	.04243	.39078	.50584	.11991	32.258	.33892	106.42	.63156	.51087	.14698
#1	96.889	.96441	39.012	.97156	.98209	48.249	.98136	-.00487	.98063	-.00080	.97774	.97378	9.6272
#2	97.697	.97930	39.032	.97214	.98753	48.595	.98303	-.00306	.98535	-.00565	.98651	.98084	9.6472
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.624**	**.98788**	**.97061**	**-.00831**	**.96946**	**.98258**	**-.01112**	**.97039**	**.97055**	**.96816**
Stddev	.030	.00159	.00664	.00140	.00160	.00807	.00993	.00036	.00437	.01337
%RSD	.14698	.16128	.68422	16.851	.16456	.82092	89.341	.03729	.44978	1.3805
#1	20.602	.98676	.96591	-.00732	.96833	.97687	-.01814	.97013	.96746	.95871
#2	20.645	.98901	.97530	-.00931	.97059	.98828	-.00409	.97065	.97363	.97762
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3678.3**	**41351.**	**3375.5**
Stddev	14.3	12.	12.4
%RSD	.38962	.02953	.36667
#1	3688.5	41342.	3384.2
#2	3668.2	41360.	3366.7

Sample Name: S2-5713035 Acquired: 5/29/2019 7:38:33 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00207**	**100.96**	**-.00128**	**.00368**	**.00237**	**.00005**	**-.00457**	**.00847**	**.00006**	**.00434**	**.00055**	**.02140**
Stddev	.00189	.27	.00080	.00097	.00000	.00013	.00004	.00133	.00018	.00008	.00013	.00160
%RSD	91.319	.26642	62.889	26.265	.09750	249.87	.96568	15.733	277.83	1.8008	23.858	7.4820
#1	-.00340	100.77	-.00071	.00300	.00237	.00014	-.00454	.00941	-.00006	.00428	.00046	.02027
#2	-.00073	101.15	-.00184	.00437	.00237	-.00004	-.00460	.00752	.00019	.00439	.00065	.02253
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**100.68**	**.30918**	**.00619**	**.02803**	**.00509**	**-.00068**	**503.35**	**.00333**	**10.015**	**.00272**	**10.005**	**.00209**
Stddev	.07	.02209	.00538	.00180	.00007	.00036	.48	.00050	.031	.00157	.047	.00190
%RSD	.06576	7.1455	86.925	6.4100	1.4659	53.118	.09578	15.070	.30529	57.753	.46660	91.260
#1	100.64	.29356	.00239	.02930	.00503	-.00093	503.01	.00297	10.036	.00161	10.038	.00074
#2	100.73	.32480	.00999	.02676	.00514	-.00042	503.69	.00368	9.9929	.00383	9.9716	.00343
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00998**	**.04159**	**.08901**	**-.00302**	**.00018**	**9.9962**	**-.02939**	**-.00015**	F **1.0990**	**.00968**	**.00304**	**.20259**
Stddev	.00506	.01538	.03291	.00052	.00028	.0151	.00009	.00092	.0239	.00091	.00084	.00203
%RSD	50.745	36.977	36.977	17.124	158.15	.15115	.30482	610.34	2.1766	9.4185	27.554	1.0033
#1	.01356	.05247	.11228	-.00266	-.00002	9.9855	-.02945	-.00080	1.1159	.01032	.00363	.20116
#2	.00640	.03072	.06574	-.00339	.00038	10.007	-.02933	.00050	1.0821	.00903	.00245	.20403
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									1.0000			
Range									5.0000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3580.6**	**39714.**	**3289.7**
Stddev	.6	157.	17.5
%RSD	.01685	.39598	.53048
#1	3580.2	39603.	3302.1
#2	3581.1	39826.	3277.4

Sample Name: ICVH-5725435 Acquired: 5/29/2019 7:41:05 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00060**	**40.396**	**-.00592**	**-.00089**	**.00018**	**.00022**	**.00112**	**-.00097**	**-.00041**	**.00044**	**.00009**	**.00644**
Stddev	.00044	.139	.00112	.00008	.00102	.00005	.00171	.00078	.00020	.00052	.00034	.00176
%RSD	74.026	.34400	18.924	9.3082	559.89	23.745	151.85	80.949	48.514	118.36	370.98	27.311
#1	-.00091	40.495	-.00671	-.00083	-.00054	.00018	-.00008	-.00041	-.00027	.00007	-.00015	.00520
#2	-.00028	40.298	-.00512	-.00094	.00090	.00025	.00233	-.00152	-.00055	.00081	.00033	.00769
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**80.760**	**.18414**	**.00098**	**.00629**	**.00127**	**-.00053**	**81.018**	**.00004**	**3.8766**	**-.00132**	**3.9863**	**-.00306**
Stddev	.576	.02965	.00268	.00241	.00009	.00001	.848	.00012	.0312	.00028	.0028	.00246
%RSD	.71333	16.103	274.52	38.384	7.4656	1.0478	1.0464	298.56	.80556	20.878	.06975	80.152
#1	81.167	.20510	-.00092	.00458	.00133	-.00053	81.617	-.00005	3.8987	-.00151	3.9883	-.00480
#2	80.353	.16317	.00287	.00799	.00120	-.00053	80.418	.00013	3.8546	-.00112	3.9843	-.00133
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**.00826**	**.01768**	**.00066**	**-.00008**	**2.8980**	**-.00888**	**-.00045**	F **.44468**	**.00420**	**-.00435**	**.05757**
Stddev	.00085	.02535	.05425	.00105	.00006	.0108	.00042	.00005	.02135	.00047	.00007	.00073
%RSD	178.97	306.76	306.76	158.86	77.604	.37293	4.7140	10.048	4.8021	11.182	1.5172	1.2648
#1	-.00013	.02619	.05604	-.00008	-.00004	2.9056	-.00859	-.00048	.45978	.00387	-.00430	.05808
#2	.00108	-.00966	-.02067	.00140	-.00012	2.8903	-.00918	-.00042	.42958	.00454	-.00439	.05705
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.40000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3659.7**	**40229.**	**3244.2**
Stddev	6.6	9.	25.6
%RSD	.18166	.02296	.78940
#1	3655.0	40235.	3226.1
#2	3664.4	40222.	3262.3

Sample Name: ICVH-5725435 Acquired: 5/29/2019 7:43:51 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00058**	**40.057**	**-.00272**	**-.00060**	**.00019**	**.00020**	**.00088**	**-.00734**	**-.00020**	**.00015**	**-.00000**	**.00534**	**79.954**
Stddev	.00059	.166	.00202	.00103	.00025	.00003	.00435	.00487	.00029	.00019	.00017	.00001	.306
%RSD	101.69	.41563	74.148	171.71	131.01	16.021	492.92	66.344	144.77	129.82	3880.7	.09770	.38236
#1	-.00016	39.939	-.00415	-.00133	.00001	.00022	.00396	-.00390	.00000	.00001	-.00013	.00534	79.738
#2	-.00100	40.175	-.00129	.00013	.00036	.00018	-.00220	-.01079	-.00040	.00028	.00012	.00534	80.170
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.05476**	**-.00332**	**.00700**	**.00132**	**-.00115**	**80.113**	**-.00044**	**3.8886**	**.00014**	**3.9801**	**.00122**	**.00223**	**-.03197**
Stddev	.00462	.00087	.00304	.00000	.00027	.338	.00050	.0089	.00088	.0260	.00396	.00111	.00643
%RSD	8.4374	26.078	43.357	.20298	23.517	.42134	114.05	.22780	622.79	.65312	324.04	49.520	20.104
#1	-.05150	-.00393	.00486	.00132	-.00134	79.875	-.00009	3.8949	.00076	3.9984	.00402	.00302	-.03652
#2	-.05803	-.00271	.00915	.00132	-.00096	80.352	-.00080	3.8824	-.00048	3.9617	-.00158	.00145	-.02743
Check ?	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.06842**	**.00223**	**-.00029**	**2.8942**	**-.00904**	**.00158**	**.39164**	**.00350**	**-.00392**	**.05485**
Stddev	.01376	.00203	.00041	.0054	.00013	.00266	.01537	.00059	.00002	.00233
%RSD	20.104	91.098	142.97	.18627	1.4376	169.07	3.9252	16.847	.62475	4.2458
#1	-.07815	.00079	.00000	2.8904	-.00914	.00346	.38077	.00308	-.00394	.05320
#2	-.05870	.00367	-.00057	2.8980	-.00895	-.00031	.40251	.00391	-.00390	.05650
Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3673.3**	**40910.**	**3326.5**
Stddev	12.4	90.	21.4
%RSD	.33727	.21976	.64395
#1	3664.5	40846.	3311.4
#2	3682.1	40974.	3341.6

Sample Name: ICV-5725436 Acquired: 5/29/2019 7:46:42 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.24910**	**.24340**	W **.22676**	W **.23447**	**.25110**	**.25442**	**.48078**	**2.5167**	**.23680**	**.24056**	**.23843**	**.24462**
Stddev	.00397	.00077	.00165	.00030	.00020	.00073	.00120	.0085	.00015	.00034	.00052	.00576
%RSD	1.5928	.31546	.72719	.12738	.07841	.28799	.24864	.33931	.06336	.13962	.21738	2.3551
#1	.25190	.24395	.22792	.23426	.25124	.25390	.47993	2.5227	.23670	.24032	.23879	.24870
#2	.24629	.24286	.22559	.23468	.25096	.25494	.48163	2.5106	.23691	.24080	.23806	.24055
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.25000	.25000								
Range			-5.4900%	-5.4900%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2501**	**24.944**	**.25289**	**9.8721**	**.24850**	**.23806**	**12.515**	**.24202**	**-.00403**	**.24317**	**-.00800**	**.24454**
Stddev	.0121	.095	.00612	.1636	.00403	.00009	.004	.00106	.00153	.00092	.00469	.00220
%RSD	.96682	.38118	2.4194	1.6569	1.6216	.03762	.03555	.43652	37.894	.37681	58.689	.89952
#1	1.2587	24.877	.25722	9.9878	.25135	.23800	12.512	.24127	-.00511	.24381	-.00468	.24609
#2	1.2416	25.012	.24856	9.7565	.24565	.23813	12.518	.24276	-.00295	.24252	-.01132	.24298
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.22146**	**2.4868**	**5.3219**	**.24016**	**.25141**	**-.00335**	**.24246**	**.24572**	**.06798**	**.24178**	**.24481**	**.24941**
Stddev	.00102	.0198	.0424	.00011	.00005	.00270	.00507	.00348	.00457	.00443	.00389	.00100
%RSD	.46189	.79644	.79644	.04750	.02047	80.802	2.0892	1.4145	6.7283	1.8338	1.5880	.40137
#1	.22074	2.4728	5.2919	.24008	.25138	-.00143	.24605	.24818	.06474	.24492	.24756	.24870
#2	.22219	2.5009	5.3518	.24024	.25145	-.00526	.23888	.24326	.07121	.23865	.24206	.25012
Check ?	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value	.25000											
Range	-10.490%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3800.9**	**41775.**	**3347.5**
Stddev	4.2	196.	1.2
%RSD	.11180	.46937	.03436
#1	3803.9	41637.	3348.3
#2	3797.9	41914.	3346.7

Sample Name: ICV-5725436 Acquired: 5/29/2019 7:49:32 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.25298**	**.25348**	**.24669**	**.24634**	**.25203**	**.25452**	**.50575**	**2.5282**	**.24777**	**.25127**	**.24900**	**.24918**	**1.2490**
Stddev	.00028	.00016	.00371	.00075	.00126	.00031	.00041	.0097	.00066	.00054	.00012	.00005	.0048
%RSD	.10949	.06360	1.5039	.30639	.49843	.12266	.08065	.38313	.26510	.21678	.04714	.01996	.38508
#1	.25318	.25336	.24931	.24688	.25292	.25474	.50604	2.5350	.24823	.25166	.24891	.24922	1.2524
#2	.25279	.25359	.24406	.24581	.25114	.25430	.50546	2.5213	.24730	.25089	.24908	.24914	1.2456
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.977**	**.24979**	**9.9888**	**.25045**	**.24929**	**12.424**	**.25191**	**-.00051**	**.25097**	**-.00802**	**.25656**	**.24341**	**2.4958**
Stddev	.036	.00024	.0066	.00034	.00115	.067	.00082	.00230	.00096	.00055	.00014	.00032	.0633
%RSD	.14353	.09591	.06574	.13684	.46108	.53678	.32475	450.03	.38345	6.8246	.05469	.13097	2.5362
#1	25.002	.24996	9.9935	.25020	.25010	12.471	.25249	.00112	.25029	-.00764	.25666	.24319	2.4510
#2	24.951	.24962	9.9842	.25069	.24848	12.377	.25133	-.00214	.25165	-.00841	.25646	.24364	2.5405
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.3409**	**.24902**	**.25159**	**-.00490**	**.24433**	**.25429**	**.03650**	**.24499**	**.24424**	**.24792**
Stddev	.1354	.00085	.00130	.00039	.00085	.00327	.00864	.00043	.00147	.00208
%RSD	2.5362	.34048	.51520	8.0213	.34857	1.2873	23.661	.17738	.60333	.83781
#1	5.2451	.24842	.25251	-.00518	.24493	.25660	.04261	.24468	.24528	.24939
#2	5.4367	.24962	.25068	-.00463	.24373	.25197	.03040	.24529	.24320	.24645
Check ?	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3736.7**	**42145.**	**3376.8**
Stddev	2.3	35.	11.3
%RSD	.06088	.08329	.33372
#1	3738.3	42120.	3368.9
#2	3735.1	42170.	3384.8

Sample Name: ICV-5725436 Acquired: 5/29/2019 7:56:55 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.25300**	**.25762**	**.24455**	**.24959**	**.25277**	**.25580**	**.50732**	**2.5538**	**.24987**	**.25336**	**.25042**	**.25138**	**1.2541**
Stddev	.00020	.00052	.00315	.00103	.00047	.00058	.00308	.0069	.00144	.00136	.00187	.00098	.0054
%RSD	.07982	.20060	1.2869	.41331	.18619	.22827	.60668	.27103	.57681	.53561	.74712	.38916	.43279
#1	.25285	.25799	.24677	.25032	.25244	.25539	.50949	2.5586	.25089	.25432	.25175	.25069	1.2503
#2	.25314	.25726	.24232	.24886	.25311	.25621	.50514	2.5489	.24885	.25240	.24910	.25207	1.2580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.300**	**.25901**	**10.083**	**.25297**	**.25157**	**12.581**	**.25503**	**-.00123**	**.25430**	**.00180**	**.26132**	**.24588**	**2.5027**
Stddev	.085	.00495	.007	.00011	.00052	.110	.00016	.00076	.00066	.00616	.00107	.00301	.0443
%RSD	.33645	1.9095	.06624	.04534	.20475	.87418	.06460	61.459	.26146	342.33	.40810	1.2261	1.7706
#1	25.240	.26251	10.078	.25305	.25194	12.504	.25492	-.00177	.25477	.00616	.26207	.24374	2.5340
#2	25.360	.25552	10.088	.25289	.25121	12.659	.25515	-.00070	.25383	-.00256	.26056	.24801	2.4714
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.3558**	**.25077**	**.25255**	**-.00534**	**.24756**	**.26070**	**-.02060**	**.24807**	**.24831**	**.24770**
Stddev	.0948	.00070	.00034	.00124	.00006	.00285	.08160	.00009	.00145	.00270
%RSD	1.7706	.27843	.13553	23.223	.02272	1.0937	396.17	.03525	.58500	1.0911
#1	5.4228	.25126	.25231	-.00622	.24760	.26271	-.07830	.24800	.24728	.24579
#2	5.2887	.25028	.25279	-.00446	.24752	.25868	.03710	.24813	.24934	.24961
Check ?	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3576.5**	**40136.**	**3195.2**
Stddev	14.4	157.	33.1
%RSD	.40347	.39065	1.0359
#1	3566.3	40025.	3218.6
#2	3586.7	40247.	3171.8

Sample Name: ICVL-5725431 Acquired: 5/29/2019 8:02:22 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00800**	**.10551**	**.01060**	**.09966**	**.01067**	**.00117**	**.10925**	**.22177**	**.00530**	**.01116**	**.01046**	**.01560**
Stddev	.00033	.00101	.00659	.00013	.00066	.00002	.00128	.00014	.00001	.00029	.00030	.00026
%RSD	4.1043	.95723	62.218	.13453	6.1408	1.8259	1.1758	.06347	.13712	2.6185	2.8574	1.6648
#1	.00823	.10622	.00594	.09956	.01021	.00116	.11016	.22187	.00530	.01095	.01067	.01542
#2	.00777	.10479	.01526	.09975	.01114	.00119	.10834	.22167	.00531	.01137	.01024	.01579
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12624**	**3.0236**	**.01644**	**.20886**	**.01073**	**.01976**	**1.0400**	**.04228**	**2.9590**	**.01168**	**.09482**	**.02267**
Stddev	.00008	.1357	.00001	.00147	.00001	.00079	.0159	.00018	.0000	.00041	.00957	.00466
%RSD	.05993	4.4874	.06064	.70316	.11726	4.0031	1.5248	.42207	.00063	3.5425	10.094	20.560
#1	.12629	3.1195	.01643	.20990	.01074	.01920	1.0512	.04215	2.9590	.01198	.10159	.02597
#2	.12619	2.9277	.01645	.20782	.01072	.02032	1.0288	.04241	2.9590	.01139	.08805	.01938
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01691**	**.48052**	**1.0283**	**.10349**	**.00996**	**.01447**	**.00959**	**.01581**	F **.03691**	**.00997**	**.02274**	**.01167**
Stddev	.00115	.01525	.0326	.00074	.00042	.00049	.00015	.00138	.03907	.00015	.00025	.00194
%RSD	6.8180	3.1740	3.1740	.71619	4.2439	3.3649	1.5240	8.7512	105.87	1.5481	1.0832	16.662
#1	.01609	.46973	1.0052	.10402	.01026	.01413	.00948	.01679	.00928	.00986	.02291	.01029
#2	.01773	.49130	1.0514	.10297	.00966	.01482	.00969	.01483	.06453	.01008	.02256	.01304
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3678.9**	**41548.**	**3313.0**
Stddev	14.0	48.	24.8
%RSD	.38175	.11639	.74893
#1	3688.8	41514.	3295.5
#2	3669.0	41582.	3330.5

Sample Name: CCVH-5713036 Acquired: 5/29/2019 8:04:54 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**49.920**	**-.00402**	**.00142**	**.00141**	**.00019**	**-.00111**	**.00303**	**.00000**	**.00235**	**.00009**	**.01190**
Stddev	.00067	.072	.00033	.00103	.00037	.00000	.00352	.00519	.00022	.00022	.00022	.00006
%RSD	320.39	.14445	8.2980	72.109	26.025	1.7118	317.24	171.29	6582.0	9.4877	248.28	.52279
#1	-.00026	49.869	-.00379	.00070	.00167	.00020	-.00360	.00670	.00016	.00251	-.00007	.01195
#2	.00068	49.971	-.00426	.00215	.00115	.00019	.00138	-.00064	-.00015	.00219	.00025	.01186
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.526**	**.06694**	**.00049**	**.01406**	**.00246**	**-.00102**	**249.02**	**.00147**	**4.9713**	**.00244**	**4.9092**	**.00051**
Stddev	.043	.12833	.00553	.00225	.00006	.00034	.65	.00027	.0251	.00073	.0343	.00035
%RSD	.08651	191.71	1123.9	16.028	2.3789	33.001	.25973	18.295	.50586	29.783	.69865	68.533
#1	49.556	-.02380	.00440	.01246	.00250	-.00078	248.57	.00166	4.9891	.00192	4.9334	.00075
#2	49.496	.15768	-.00342	.01565	.00242	-.00126	249.48	.00128	4.9535	.00295	4.8849	.00026
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00106**	**-.01147**	**-.02454**	**-.00040**	**.00023**	**5.0012**	**-.01463**	**.00226**	F **.57467**	**.00544**	**-.00194**	**.09439**
Stddev	.00087	.01960	.04193	.00106	.00025	.0082	.00019	.00115	.00474	.00068	.00026	.00003
%RSD	82.173	170.85	170.85	262.04	109.79	.16408	1.2654	50.728	.82482	12.437	13.339	.03019
#1	.00044	-.02533	-.05420	.00035	.00005	5.0070	-.01476	.00307	.57802	.00592	-.00212	.09441
#2	.00168	.00239	.00511	-.00115	.00041	4.9954	-.01450	.00145	.57132	.00497	-.00176	.09437
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3584.4**	**40016.**	**3247.7**
Stddev	2.0	105.	83.3
%RSD	.05665	.26274	2.5639
#1	3583.0	40090.	3306.6
#2	3585.8	39942.	3188.8

Sample Name: CCV-5714928 Acquired: 5/29/2019 8:07:24 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47193**	**.47469**	**.45985**	**.46731**	**.47220**	**.47202**	**.94481**	**4.7316**	**.46789**	**.47239**	**.46971**	**.47207**	**2.3368**
Stddev	.00036	.00346	.00467	.00115	.00035	.00020	.00856	.0123	.00246	.00205	.00204	.00055	.0101
%RSD	.07624	.72809	1.0150	.24616	.07399	.04243	.90626	.25900	.52529	.43398	.43442	.11659	.43235
#1	.47168	.47714	.46315	.46812	.47195	.47188	.95087	4.7229	.46963	.47384	.47116	.47245	2.3296
#2	.47218	.47225	.45655	.46649	.47244	.47216	.93876	4.7402	.46615	.47094	.46827	.47168	2.3439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.466**	**.47771**	**18.756**	**.47136**	**.46662**	**23.753**	**.47259**	**-.00109**	**.46911**	**.00087**	**.46409**	**.46481**	**4.7130**
Stddev	.159	.00072	.027	.00029	.00258	.057	.00430	.00100	.00162	.00329	.00645	.00194	.0121
%RSD	.33503	.15093	.14414	.06208	.55384	.24059	.91081	92.075	.34513	380.28	1.3899	.41699	.25607
#1	47.353	.47720	18.737	.47115	.46845	23.793	.47563	-.00038	.47026	-.00146	.46865	.46619	4.7215
#2	47.578	.47822	18.775	.47156	.46479	23.712	.46954	-.00179	.46797	.00319	.45953	.46344	4.7044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.086**	**.47034**	**.47307**	**-.00273**	**.46806**	**.47433**	**.02307**	**.46762**	**.46575**	**.46484**
Stddev	.026	.00107	.00022	.00226	.00045	.01135	.04625	.00010	.00084	.00511
%RSD	.25607	.22814	.04588	82.809	.09659	2.3923	200.50	.02160	.17992	1.0989
#1	10.104	.47109	.47322	-.00113	.46838	.48236	-.00964	.46755	.46516	.46122
#2	10.068	.46958	.47292	-.00433	.46774	.46631	.05577	.46769	.46635	.46845
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3724.8**	**41917.**	**3381.1**
Stddev	2.7	77.	3.4
%RSD	.07261	.18417	.10067
#1	3722.9	41972.	3383.5
#2	3726.7	41863.	3378.7

Sample Name: ICB Acquired: 5/29/2019 8:09:50 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**-.00085**	**.00254**	**.00047**	**.00014**	**.00034**	**-.00016**	**-.00552**	**.00012**	**.00037**	**-.00037**	**-.00004**	**-.00268**
Stddev	.00077	.00010	.00284	.00016	.00015	.00018	.00413	.00112	.00010	.00019	.00004	.00027	.00676
%RSD	451.87	12.137	111.89	34.805	105.29	53.519	2543.0	20.249	79.779	49.842	10.075	697.83	252.64
#1	.00071	-.00093	.00053	.00059	.00025	.00021	-.00309	-.00631	.00005	.00050	-.00035	-.00023	-.00746
#2	-.00037	-.00078	.00455	.00035	.00004	.00047	.00276	-.00473	.00019	.00024	-.00040	.00015	.00210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11993**	**.00408**	**.00412**	**-.00001**	**.00033**	**.08086**	**.00017**	**-.00032**	**.00166**	**-.00800**	**-.00003**	**-.00434**	**.02113**
Stddev	.05571	.00679	.00180	.00007	.00021	.00511	.00014	.00151	.00168	.00197	.00321	.00008	.00514
%RSD	46.454	166.57	43.708	618.17	62.520	6.3145	79.805	470.08	100.74	24.664	10201.	1.7324	24.329
#1	.08054	-.00073	.00285	-.00006	.00019	.07725	.00027	.00074	.00048	-.00939	-.00230	-.00429	.02477
#2	.15933	.00888	.00540	.00004	.00048	.08447	.00008	-.00139	.00285	-.00660	.00224	-.00440	.01750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04523**	**.00164**	**.00028**	**-.00324**	**-.00029**	**.00427**	**.02178**	**.00001**	**-.00231**	**.00029**
Stddev	.01100	.00152	.00003	.00033	.00010	.00052	.01937	.00002	.00066	.00081
%RSD	24.329	93.123	9.5839	10.276	35.377	12.107	88.932	201.17	28.759	281.83
#1	.05301	.00056	.00030	-.00347	-.00022	.00390	.00808	.00003	-.00184	-.00029
#2	.03745	.00271	.00026	-.00300	-.00036	.00463	.03548	-.00001	-.00277	.00086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3633.8**	**41048.**	**3264.4**
Stddev	17.6	16.	2.0
%RSD	.48504	.03818	.06254
#1	3621.3	41037.	3262.9
#2	3646.2	41059.	3265.8

Sample Name: CRI-5725431 Acquired: 5/29/2019 8:13:19 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.00728**	**.09904**	**.01648**	**.09342**	**.00969**	**.00117**	**.10369**	**.19038**	**.00482**	**.01001**	**.00965**	**.01317**
Stddev	.00029	.00089	.00566	.00061	.00011	.00014	.00199	.00402	.00011	.00013	.00038	.00030
%RSD	3.9850	.89728	34.365	.65790	1.0943	11.877	1.9197	2.1142	2.1945	1.2845	3.9603	2.2679
#1	.00708	.09841	.02048	.09299	.00961	.00107	.10228	.19322	.00490	.01010	.00992	.01296
#2	.00749	.09967	.01247	.09386	.00976	.00127	.10509	.18753	.00475	.00992	.00938	.01338
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-20.490%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.12833**	**2.9815**	**.02120**	**.19808**	**.01028**	**.01880**	**1.0661**	**.03987**	**2.7997**	W **.01101**	**.08660**	**.01709**
Stddev	.00085	.0188	.00182	.00370	.00018	.00009	.0030	.00041	.0012	.00034	.00678	.00106
%RSD	.66045	.63147	8.6066	1.8670	1.7230	.47970	.28561	1.0184	.04402	3.0482	7.8283	6.2207
#1	.12773	2.9948	.02249	.19547	.01015	.01874	1.0639	.04016	2.8005	.01125	.08181	.01634
#2	.12893	2.9682	.01991	.20070	.01040	.01887	1.0682	.03958	2.7988	.01077	.09139	.01784
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value	.10000									.00900		
Range	20.490%									20.490%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01636**	**.51427**	**1.1005**	**.09798**	**.01023**	**.01327**	**.00930**	**.01638**	**.06731**	**.01044**	**.02005**	W **.00770**
Stddev	.00019	.03829	.0819	.00066	.00004	.00135	.00036	.00222	.05635	.00008	.00045	.00096
%RSD	1.1347	7.4458	7.4458	.67721	.37455	10.157	3.8460	13.539	83.717	.76008	2.2627	12.526
#1	.01623	.48720	1.0426	.09845	.01020	.01423	.00904	.01481	.02747	.01038	.01973	.00838
#2	.01649	.54135	1.1585	.09751	.01025	.01232	.00955	.01794	.10716	.01050	.02037	.00702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value												.01500
Range												-20.490%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3829.2**	**42870.**	**3280.1**
Stddev	2.9	250.	29.6
%RSD	.07525	.58310	.90383
#1	3831.3	42693.	3259.1
#2	3827.2	43047.	3301.0

Sample Name: ICSA-5714842 Acquired: 5/29/2019 8:16:23 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**507.18**	**-.00332**	**-.00143**	**.00177**	**.00021**	**-.00316**	**468.58**	**.00020**	**-.00015**	W **.00405**	**.00207**
Stddev	.00065	.59	.00152	.00003	.00046	.00020	.00386	.83	.00017	.00005	.00034	.00008
%RSD	112.42	.11609	45.835	2.2927	25.950	97.728	121.94	.17810	85.345	31.381	8.4057	3.8959
#1	.00104	507.59	-.00440	-.00145	.00144	.00035	-.00044	469.17	.00032	-.00018	.00429	.00212
#2	.00012	506.76	-.00225	-.00140	.00209	.00006	-.00589	467.99	.00008	-.00011	.00381	.00201
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit											.00260	
Low Limit											-.00260	

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**187.12**	**-.05024**	**-.00054**	**518.09**	**.00028**	**-.00035**	**.26525**	**.00235**	**.00599**	**-.00335**	**-.09807**	**-.01017**
Stddev	.97	.03259	.00173	4.49	.00013	.00029	.01088	.00041	.00577	.00214	.00062	.00378
%RSD	.52020	64.866	318.18	.86578	47.602	82.127	4.1015	17.466	96.297	63.895	.62923	37.140
#1	187.81	-.07328	.00068	521.26	.00037	-.00056	.27294	.00206	.00191	-.00486	-.09764	-.01285
#2	186.43	-.02720	-.00176	514.92	.00019	-.00015	.25755	.00264	.01006	-.00184	-.09851	-.00750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00281**	**.01025**	**.02193**	**-.00184**	W **.00783**	**-.00227**	W **.00260**	**.00396**	**-.20404**	**.00093**	**-.00527**	**-.00226**
Stddev	.00120	.00363	.00777	.00123	.00035	.00424	.00031	.00219	.08041	.00105	.00097	.00172
%RSD	42.839	35.417	35.417	67.058	4.4623	186.31	12.085	55.357	39.406	113.18	18.432	76.163
#1	-.00196	.00768	.01644	-.00271	.00808	.00072	.00238	.00241	-.26090	.00019	-.00596	-.00347
#2	-.00366	.01281	.02742	-.00097	.00759	-.00527	.00283	.00551	-.14719	.00167	-.00458	-.00104
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.00120		.00230					
Low Limit					-.00120		-.00230					

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3387.9**	**36506.**	**3286.3**
Stddev	36.1	115.	4.5
%RSD	1.0667	.31483	.13735
#1	3413.4	36424.	3283.1
#2	3362.3	36587.	3289.5

Sample Name: ICSAB-5707812 Acquired: 5/29/2019 8:18:57 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1196**	**518.95**	**.99094**	**9.6840**	**.99849**	**.49393**	**.98144**	**480.32**	**1.0142**	**.92956**	**.96460**	**1.0815**	**191.79**
Stddev	.0031	.30	.00891	.0301	.00048	.00108	.00688	.33	.0049	.00245	.00529	.0050	.64
%RSD	.27313	.05783	.89908	.31085	.04782	.21882	.70076	.06972	.48623	.26307	.54840	.46583	.33484
#1	1.1218	518.74	.99724	9.7053	.99883	.49317	.98630	480.56	1.0176	.93129	.96834	1.0779	191.33
#2	1.1174	519.16	.98464	9.6627	.99815	.49470	.97657	480.09	1.0107	.92783	.96086	1.0851	192.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.496**	**1.0372**	**529.35**	**1.0131**	**.94990**	**10.550**	**.92593**	**10.026**	**.93108**	**10.201**	**.98496**	**.97809**	**9.9029**
Stddev	.035	.0008	.37	.0009	.00660	.011	.00393	.042	.00740	.071	.00415	.00472	.0040
%RSD	.33037	.07979	.07049	.09044	.69488	.10621	.42402	.42239	.79520	.69573	.42151	.48254	.04013
#1	10.520	1.0366	529.08	1.0124	.95457	10.542	.92871	10.056	.93632	10.251	.98789	.97475	9.9057
#2	10.471	1.0377	529.61	1.0137	.94523	10.558	.92316	9.9957	.92585	10.151	.98202	.98143	9.9001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.192**	**.93243**	**1.0016**	**2.0613**	**1.0063**	**.90779**	**-.13258**	**1.0249**	**.96890**	**.98110**
Stddev	.009	.00566	.0001	.0046	.0002	.00345	.01076	.0015	.00620	.00370
%RSD	.04013	.60725	.01012	.22451	.02330	.37974	8.1179	.14246	.63996	.37721
#1	21.198	.93644	1.0015	2.0646	1.0064	.91023	-.14019	1.0259	.96451	.97848
#2	21.186	.92843	1.0017	2.0581	1.0061	.90535	-.12497	1.0238	.97328	.98371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3381.6**	**36241.**	**3224.5**
Stddev	5.7	64.	5.4
%RSD	.16888	.17563	.16742
#1	3377.6	36286.	3228.3
#2	3385.7	36196.	3220.7

Sample Name: LRA-5681702 Acquired: 5/29/2019 8:21:20 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00141**	**.32607**	**9.7222**	**9.7970**	**12.438**	**-.00461**	**-.01671**	**.07117**	**2.0653**	**5.0817**	**10.072**	**10.635**	**507.43**
Stddev	.00097	.00100	.0366	.0395	.084	.00022	.00343	.01512	.0089	.0194	.052	.039	2.23
%RSD	68.957	.30611	.37660	.40315	.67199	4.7516	20.525	21.250	.42871	.38101	.51657	.36296	.43919
#1	.00210	.32677	9.7481	9.8249	12.379	-.00446	-.01428	.08186	2.0715	5.0954	10.109	10.662	505.85
#2	.00072	.32536	9.6964	9.7690	12.497	-.00477	-.01913	.06047	2.0590	5.0680	10.035	10.608	509.00
Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.25654**	**.00094**	**-.04654**	**9.9920**	**4.9813**	**-.01044**	**10.261**	**-.02752**	**10.243**	**-.04772**	**.06020**	**4.8384**	**47.678**
Stddev	.02655	.00014	.00101	.0594	.0186	.02121	.042	.00244	.042	.00300	.00852	.0157	.328
%RSD	10.347	14.760	2.1670	.59423	.37286	203.17	.41321	8.8796	.41085	6.2936	14.147	.32489	.68861
#1	-.23777	.00084	-.04726	10.034	4.9944	.00456	10.291	-.02580	10.273	-.04984	.06623	4.8495	47.446
#2	-.27531	.00104	-.04583	9.9501	4.9682	-.02544	10.231	-.02925	10.214	-.04560	.05418	4.8273	47.910
Check ?	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**102.03**	**.00049**	**10.266**	**-.00268**	**9.9174**	**5.0872**	**.08803**	**9.9570**	**9.7098**	**.00066**
Stddev	.70	.00143	.081	.00049	.0324	.0254	.04984	.0311	.0305	.00150
%RSD	.68861	292.37	.78694	18.434	.32641	.49916	56.620	.31207	.31377	227.30
#1	101.53	-.00052	10.209	-.00303	9.9403	5.1052	.12328	9.9789	9.7314	.00172
#2	102.53	.00150	10.323	-.00233	9.8945	5.0693	.05279	9.9350	9.6883	-.00040
Check ?	None	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3666.3**	**41302.**	**3315.4**
Stddev	21.7	104.	15.1
%RSD	.59060	.25101	.45581
#1	3650.9	41229.	3304.7
#2	3681.6	41375.	3326.1

Sample Name: CCVH-5713036 Acquired: 5/29/2019 8:23:47 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**50.216**	**.00478**	**.03543**	**.00166**	**.00007**	**.00030**	**-.00518**	**-.00006**	**.00268**	**.00077**	**.01096**
Stddev	.00155	.116	.00426	.00252	.00027	.00016	.00032	.00240	.00039	.00023	.00047	.00010
%RSD	226.14	.23013	89.070	7.1071	16.530	224.27	106.39	46.394	649.87	8.5970	61.682	.87805
#1	.00041	50.134	.00780	.03721	.00146	.00018	.00007	-.00348	-.00033	.00285	.00111	.01103
#2	-.00178	50.298	.00177	.03365	.00185	-.00004	.00052	-.00688	.00021	.00252	.00043	.01090
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**50.091**	**-.05420**	**.00162**	**.01867**	**.00259**	**.00388**	**251.61**	**.00160**	**4.9382**	**.00337**	**4.8993**	**.00005**
Stddev	.457	.01082	.00149	.00107	.00003	.00127	.29	.00063	.0227	.00103	.0349	.00379
%RSD	.91146	19.967	92.151	5.7318	1.2512	32.856	.11671	39.492	.46056	30.568	.71247	7764.5
#1	49.768	-.04654	.00267	.01791	.00261	.00298	251.41	.00116	4.9543	.00409	4.9240	.00273
#2	50.414	-.06185	.00056	.01942	.00257	.00478	251.82	.00205	4.9221	.00264	4.8746	-.00263
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00490**	**.04582**	**.09805**	**-.00160**	**.00058**	**4.9771**	**-.01361**	**.00315**	F **.60045**	**.00527**	**.00066**	**.09737**
Stddev	.00446	.01485	.03178	.00033	.00028	.0133	.00009	.00011	.04024	.00092	.00015	.00121
%RSD	91.114	32.408	32.408	20.845	48.666	.26759	.64765	3.6450	6.7014	17.479	22.442	1.2378
#1	.00174	.05632	.12052	-.00184	.00038	4.9677	-.01368	.00323	.57200	.00593	.00077	.09652
#2	.00806	.03532	.07558	-.00137	.00078	4.9866	-.01355	.00307	.62891	.00462	.00056	.09823
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3652.3**	**40707.**	**3308.5**
Stddev	8.3	255.	12.8
%RSD	.22860	.62731	.38570
#1	3646.4	40887.	3317.5
#2	3658.2	40526.	3299.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 8:26:19 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49805**	**.50539**	**.49283**	**.51585**	**.50167**	**.49658**	**1.0001**	**5.0330**	**.49581**	**.50260**	**.50050**	**.50013**	**2.5198**
Stddev	.00160	.00000	.00035	.00058	.00000	.00047	.0005	.0092	.00105	.00038	.00224	.00460	.0003
%RSD	.32138	.00063	.07024	.11242	.00009	.09443	.04777	.18388	.21142	.07500	.44664	.91924	.01090
#1	.49919	.50538	.49308	.51626	.50167	.49691	1.0005	5.0396	.49655	.50287	.50208	.50338	2.5197
#2	.49692	.50539	.49259	.51544	.50167	.49625	.99978	5.0265	.49507	.50233	.49892	.49688	2.5200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.842**	**.50836**	**19.983**	**.50102**	**.49765**	**24.836**	**.50364**	**-.00199**	**.50039**	**.00426**	**.49620**	**.48274**	**4.9585**
Stddev	.026	.00747	.026	.00051	.00119	.005	.00038	.00019	.00265	.00037	.00105	.00570	.0100
%RSD	.05131	1.4700	.12792	.10228	.23953	.01927	.07496	9.3798	.53004	8.6489	.21062	1.1804	.20108
#1	49.824	.50308	19.965	.50138	.49850	24.840	.50338	-.00212	.50227	.00400	.49694	.48677	4.9515
#2	49.860	.51364	20.001	.50066	.49681	24.833	.50391	-.00185	.49852	.00452	.49547	.47871	4.9656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.611**	**.50626**	**.50393**	**-.00543**	**.49339**	**.50886**	**.00780**	**.49630**	**.49374**	**.49816**
Stddev	.021	.00039	.00036	.00017	.00056	.00060	.01145	.00148	.00051	.00239
%RSD	.20108	.07776	.07076	3.1823	.11446	.11790	146.76	.29898	.10270	.47914
#1	10.596	.50598	.50418	-.00555	.49299	.50929	-.00029	.49735	.49338	.49984
#2	10.626	.50653	.50367	-.00530	.49379	.50844	.01590	.49525	.49410	.49647
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3628.5**	**40848.**	**3299.7**
Stddev	4.9	135.	21.1
%RSD	.13524	.33005	.63964
#1	3631.9	40753.	3314.6
#2	3625.0	40943.	3284.8

Sample Name: CCB Acquired: 5/29/2019 8:28:45 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00129**	**.00208**	**.00124**	**.01499**	**.00031**	**.00025**	**.00089**	**-.01589**	**.00020**	**.00053**	**-.00010**	**.00018**	**.02776**
Stddev	.00027	.00170	.00273	.00117	.00047	.00021	.00217	.00059	.00039	.00026	.00016	.00043	.00788
%RSD	20.659	82.033	220.13	7.8034	150.31	82.680	243.83	3.6842	195.74	49.636	158.16	235.49	28.392
#1	.00110	.00087	-.00069	.01581	.00064	.00011	-.00064	-.01631	.00048	.00034	.00001	.00049	.02219
#2	.00148	.00328	.00317	.01416	-.00002	.00040	.00242	-.01548	-.00008	.00071	-.00022	-.00012	.03333
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02588**	**.00318**	**.00760**	**.00045**	**.00052**	**-.05312**	**-.00016**	**-.00101**	**.00016**	**.00180**	**-.00092**	**-.00588**	**-.00964**
Stddev	.11944	.00065	.00321	.00006	.00027	.00763	.00033	.00147	.00156	.01578	.00058	.00004	.02885
%RSD	461.56	20.368	42.188	12.321	51.478	14.363	203.43	145.57	984.20	877.04	63.449	.75992	299.26
#1	-.05858	.00272	.00533	.00049	.00033	-.04772	-.00039	.00003	.00126	-.00936	-.00051	-.00591	-.03004
#2	.11033	.00363	.00986	.00041	.00071	-.05851	.00007	-.00205	-.00095	.01296	-.00133	-.00585	.01076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.02063**	**.00051**	**-.00006**	**.00052**	**.00026**	**.00207**	**.00547**	**.00007**	**-.00276**	**-.00437**
Stddev	.06173	.00152	.00005	.00291	.00011	.00050	.08242	.00063	.00029	.00215
%RSD	299.26	295.58	73.948	556.06	43.315	24.087	1505.9	883.08	10.594	49.283
#1	-.06428	-.00056	-.00003	-.00154	.00018	.00172	.06375	-.00037	-.00255	-.00589
#2	.02302	.00159	-.00009	.00258	.00033	.00242	-.05281	.00051	-.00297	-.00284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3701.0**	**41665.**	**3310.6**
Stddev	1.4	307.	22.3
%RSD	.03700	.73765	.67272
#1	3700.0	41882.	3326.3
#2	3702.0	41447.	3294.8

Sample Name: CCVL-5725431 Acquired: 5/29/2019 8:31:23 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00759**	F **.20406**	**.01899**	**.10885**	**.01037**	**.00108**	**.10274**	**.19756**	**.00544**	**.01105**	**.01121**	**.01448**
Stddev	.00021	.14298	.00162	.00338	.00095	.00014	.00215	.00012	.00050	.00102	.00196	.00023
%RSD	2.8229	70.065	8.5217	3.1039	9.1799	13.317	2.0885	.05984	9.2174	9.2483	17.470	1.5882
#1	.00774	.30517	.02013	.11124	.01104	.00118	.10426	.19764	.00579	.01178	.01259	.01464
#2	.00743	.10296	.01784	.10646	.00969	.00098	.10122	.19748	.00508	.01033	.00982	.01432
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.10000										
Range		30.000%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.13180**	**2.8193**	**.01791**	**.21010**	**.01048**	**.02002**	**.93057**	**.04202**	**2.8355**	**.01088**	**.08354**	**.02016**
Stddev	.00563	.0959	.00478	.00267	.00006	.00085	.00285	.00260	.0000	.00188	.00200	.00377
%RSD	4.2683	3.4020	26.691	1.2695	.61052	4.2217	.30673	6.1803	.00035	17.321	2.3886	18.676
#1	.12782	2.7515	.01453	.20822	.01053	.02062	.92855	.04386	2.8355	.01221	.08213	.01750
#2	.13577	2.8871	.02129	.21199	.01043	.01942	.93259	.04018	2.8355	.00955	.08495	.02283
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.10000											
Range	30.000%											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01604**	**.50797**	**1.0871**	**.09865**	**.00965**	**.01508**	**.00903**	**.01695**	F **.00719**	**.01011**	**.02009**	**.01307**
Stddev	.00275	.03147	.0673	.00038	.00028	.00152	.00004	.00351	.03330	.00012	.00013	.00181
%RSD	17.141	6.1956	6.1956	.38585	2.9042	10.100	.45298	20.681	462.98	1.1473	.62486	13.833
#1	.01799	.53022	1.1347	.09892	.00945	.01400	.00906	.01943	-.01635	.01002	.02018	.01434
#2	.01410	.48571	1.0394	.09838	.00985	.01615	.00900	.01447	.03074	.01019	.02001	.01179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3831.8**	**43343.**	**3462.7**
Stddev	7.6	71.	12.5
%RSD	.19751	.16412	.36203
#1	3837.1	43293.	3471.6
#2	3826.4	43394.	3453.9

Sample Name: CRI- Acquired: 5/29/2019 8:46:55 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00191**	**.00070**	**.00366**	**.00002**	**.00021**	**-.00016**	**-.00515**	**-.00001**	**.00020**	**-.00030**	**-.00143**
Stddev	.00050	.00015	.00436	.00011	.00013	.00005	.00020	.00497	.00011	.00000	.00009	.00022
%RSD	1219.9	7.9647	622.11	3.0369	560.76	21.883	126.33	96.624	1535.9	1.3911	28.395	15.208
#1	-.00031	-.00180	-.00238	.00358	-.00007	.00025	-.00029	-.00866	.00007	.00020	-.00024	-.00158
#2	.00040	-.00201	.00379	.00374	.00012	.00018	-.00002	-.00163	-.00008	.00020	-.00037	-.00128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.09488**	**-.14574**	**.00119**	**-.00003**	**-.00007**	**-.00065**	**-.06932**	**-.00056**	**-.00197**	F **.01062**	**-.00359**	**-.00139**
Stddev	.00200	.06569	.00234	.00039	.00016	.00024	.00401	.00061	.00275	.00117	.00214	.00051
%RSD	2.1117	45.072	197.14	1202.5	220.09	37.367	5.7837	107.91	139.83	11.036	59.562	36.436
#1	.09630	-.19218	-.00047	-.00031	-.00018	-.00083	-.07216	-.00099	-.00392	.00979	-.00510	-.00104
#2	.09346	-.09929	.00285	.00024	.00004	-.00048	-.06649	-.00013	-.00002	.01145	-.00208	-.00175
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit	.05000									.01000		
Low Limit	-.05000									-.01000		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00527**	**.00033**	**.00070**	**.00099**	**-.00032**	**-.00203**	**.00027**	**.00148**	**.00955**	**.00101**	**-.00275**	**-.00067**
Stddev	.00030	.03549	.07596	.00091	.00030	.00229	.00054	.00161	.02621	.00021	.00037	.00045
%RSD	5.7048	10898.	10898.	92.152	92.571	112.97	200.25	109.30	274.56	20.433	13.583	67.294
#1	-.00506	.02542	.05441	.00163	-.00054	-.00041	.00065	.00262	.02808	.00086	-.00249	-.00098
#2	-.00548	-.02477	-.05301	.00034	-.00011	-.00365	-.00011	.00034	-.00899	.00116	-.00302	-.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.2**	**42852.**	**3396.5**
Stddev	50.4	267.	48.9
%RSD	1.3346	.62195	1.4402
#1	3741.6	43041.	3361.9
#2	3812.9	42664.	3431.1

Sample Name: MB 280-459283/1-B Acquired: 5/29/2019 8:59:37 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00103**	**.00054**	**.00003**	**.00057**	**.00020**	**-.00161**	**-.00826**	**-.00005**
Stddev	.00011	.00001	.00130	.00057	.00029	.00033	.00217	.00843	.00012
%RSD	109.59	1.0483	241.88	2212.8	51.591	165.07	134.69	102.06	235.58
#1	.00002	-.00104	.00145	-.00038	.00036	.00043	-.00314	-.01421	-.00013
#2	.00018	-.00102	-.00038	.00043	.00077	-.00003	-.00008	-.00230	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**-.00040**	**-.00087**	**.00349**	**-.04635**	**-.00213**	**.00965**	**.00010**	**-.00048**
Stddev	.00039	.00007	.00011	.00001	.03404	.00189	.00657	.00006	.00029
%RSD	117.56	17.779	12.264	.22156	73.440	88.718	68.049	57.696	60.088
#1	.00006	-.00045	-.00095	.00350	-.02228	-.00347	.00501	.00014	-.00028
#2	.00060	-.00035	-.00080	.00349	-.07042	-.00079	.01430	.00006	-.00068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.06412**	**-.00020**	**-.00105**	**.00233**	**.00178**	**-.00386**	**-.00313**	**.00446**	**.00953**
Stddev	.01553	.00033	.00491	.00017	.00045	.00200	.00731	.00753	.01612
%RSD	24.214	162.04	466.25	7.3418	25.013	51.749	233.35	169.09	169.09
#1	-.05314	.00003	.00242	.00245	.00210	-.00245	-.00830	.00978	.02093
#2	-.07510	-.00043	-.00452	.00221	.00147	-.00527	.00204	-.00087	-.00187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00159**	**-.00024**	**-.00158**	**.00030**	**.00198**	**-.02683**	**.00092**	**-.00190**	**.00030**
Stddev	.00085	.00007	.00433	.00019	.00161	.01116	.00054	.00075	.00048
%RSD	53.388	27.273	274.22	62.700	81.614	41.597	59.194	39.464	161.34
#1	.00099	-.00020	-.00464	.00017	.00084	-.03472	.00130	-.00243	.00064
#2	.00219	-.00029	.00148	.00043	.00312	-.01894	.00053	-.00137	-.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3792.3**	**42279.**	**3471.2**
Stddev	24.8	226.	6.8
%RSD	.65416	.53525	.19630
#1	3774.7	42439.	3466.4
#2	3809.8	42119.	3476.0

Sample Name: LCS 280-459283/2-B Acquired: 5/29/2019 9:02:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05116**	**10.304**	**1.9834**	**.98127**	**1.9986**	W **1.0262**	**1.9735**	**48.936**	**.99669**
Stddev	.00079	.079	.0090	.00115	.0035	.0031	.0028	.172	.00262
%RSD	1.5533	.76865	.45227	.11743	.17550	.30107	.14345	.35084	.26322
#1	.05060	10.248	1.9898	.98045	1.9962	1.0240	1.9755	48.815	.99854
#2	.05172	10.360	1.9771	.98208	2.0011	1.0284	1.9715	49.058	.99483
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.98064**	**.97964**	**1.0016**	**9.8342**	**49.277**	**1.0038**	**49.743**	**1.0137**	**.99593**
Stddev	.00217	.00032	.0018	.0069	.107	.0037	.008	.0007	.00309
%RSD	.22081	.03257	.18033	.06973	.21773	.36994	.01522	.06667	.31076
#1	.98217	.97986	1.0028	9.8391	49.201	1.0064	49.748	1.0133	.99812
#2	.97910	.97941	1.0003	9.8294	49.352	1.0011	49.738	1.0142	.99374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **49.717**	**.97929**	W **20.501**	**.98231**	**10.049**	**1.0594**	**1.9686**	**2.0779**	**4.4467**
Stddev	.146	.00070	.019	.00295	.011	.0032	.0080	.0103	.0220
%RSD	.29329	.07144	.09480	.30012	.10808	.30190	.40909	.49540	.49540
#1	49.614	.97978	20.514	.98023	10.056	1.0572	1.9743	2.0706	4.4311
#2	49.820	.97879	20.487	.98439	10.041	1.0617	1.9629	2.0852	4.4623
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9730**	**.99022**	**1.0250**	**1.0162**	**1.9524**	**2.3310**	**1.0116**	**.50007**	**.51455**
Stddev	.0004	.00310	.0008	.0005	.0001	.0014	.0005	.00038	.00653
%RSD	.02008	.31345	.08265	.05343	.00452	.06115	.04982	.07536	1.2695
#1	1.9733	.98803	1.0244	1.0166	1.9524	2.3300	1.0120	.49980	.50993
#2	1.9727	.99242	1.0256	1.0158	1.9523	2.3320	1.0113	.50033	.51917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3658.9**	**40667.**	**3343.5**
Stddev	4.3	171.	13.1
%RSD	.11821	.41968	.39265
#1	3655.9	40787.	3352.7
#2	3662.0	40546.	3334.2

Sample Name: 280-123838-B-1-B Acquired: 5/29/2019 9:04:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.00177**	**.01012**	**.48304**	**.12951**	**.00026**	**-.00475**	**189.35**	**.00054**
Stddev	.00101	.00053	.00808	.00110	.00028	.00016	.00004	.51	.00030
%RSD	185.18	29.861	79.877	.22872	.21987	61.984	.74013	.27186	55.031
#1	.00126	.00139	.00440	.48382	.12931	.00015	-.00472	188.99	.00033
#2	-.00017	.00214	.01584	.48226	.12972	.00038	-.00477	189.72	.00075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00387**	**.00015**	**.00020**	**.05466**	**.64214**	**.00713**	**109.98**	**2.9375**	**.00184**
Stddev	.00009	.00006	.00083	.00450	.08969	.00063	.31	.0105	.00038
%RSD	2.3333	36.634	420.65	8.2262	13.968	8.8251	.28121	.35620	20.514
#1	.00380	.00019	.00078	.05148	.70556	.00758	109.76	2.9301	.00157
#2	.00393	.00011	-.00039	.05784	.57872	.00669	110.20	2.9449	.00211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**73.510**	**.00277**	**.03168**	**.00013**	**4.0948**	**-.00191**	**-.00705**	**19.946**	**42.684**
Stddev	.817	.00005	.00010	.00034	.0339	.00434	.00464	.076	.162
%RSD	1.1107	1.7741	.32767	264.11	.82707	227.06	65.784	.37991	.37991
#1	74.088	.00280	.03175	-.00011	4.1188	.00116	-.01033	19.999	42.798
#2	72.933	.00273	.03160	.00036	4.0709	-.00499	-.00377	19.892	42.569
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00088**	**1.3279**	**-.00316**	**.00149**	**.00019**	**-.06063**	**.00036**	**-.00017**	**-.00259**
Stddev	.00050	.0039	.00390	.00005	.00254	.08232	.00067	.00061	.00580
%RSD	56.880	.29285	123.27	3.1987	1343.4	135.78	186.78	352.65	223.93
#1	-.00123	1.3251	-.00041	.00153	-.00160	-.11884	-.00012	-.00060	.00151
#2	-.00052	1.3306	-.00592	.00146	.00198	-.00242	.00084	.00026	-.00669
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3604.0**	**40393.**	**3391.6**
Stddev	4.3	167.	13.6
%RSD	.12006	.41301	.39967
#1	3607.1	40511.	3401.1
#2	3601.0	40275.	3382.0

Sample Name: 280-123838-B-2-B Acquired: 5/29/2019 9:07:06 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00199**	**.00828**	**.00469**	**.54497**	**.17506**	**.00025**	**-.00852**	**183.10**	**.00079**
Stddev	.00011	.00053	.00510	.00172	.00036	.00008	.00317	.16	.00035
%RSD	5.4333	6.4529	108.72	.31508	.20516	31.929	37.189	.08568	44.898
#1	.00191	.00790	.00108	.54618	.17480	.00019	-.01076	183.21	.00104
#2	.00207	.00866	.00829	.54375	.17531	.00030	-.00628	182.99	.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02699**	**-.00001**	**.00394**	**.20448**	**4.6189**	**.02925**	**152.50**	**7.4348**	**.00065**
Stddev	.00018	.00014	.00022	.00512	.0921	.00274	.32	.0014	.00011
%RSD	.66195	1777.3	5.5307	2.5060	1.9933	9.3824	.21130	.01928	16.283
#1	.02686	-.00010	.00409	.20811	4.5538	.03119	152.72	7.4338	.00058
#2	.02711	.00009	.00378	.20086	4.6840	.02730	152.27	7.4358	.00073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**168.60**	**.02554**	**.03197**	**.00084**	**1.5386**	**-.00173**	**-.00556**	**24.910**	**53.308**
Stddev	.14	.00027	.00343	.00029	.0131	.00234	.00232	.167	.356
%RSD	.08465	1.0614	10.714	34.600	.85215	135.66	41.725	.66849	.66849
#1	168.50	.02535	.03439	.00064	1.5478	-.00338	-.00392	25.028	53.560
#2	168.71	.02573	.02955	.00105	1.5293	-.00007	-.00720	24.792	53.056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00106**	**2.6637**	**-.00403**	**.00086**	**-.00589**	**-.01992**	**.00007**	**.01302**	**-.00085**
Stddev	.00006	.0042	.00066	.00045	.00227	.01576	.00017	.00004	.00209
%RSD	5.5627	.15637	16.440	51.522	38.568	79.125	237.16	.29843	247.07
#1	-.00110	2.6666	-.00356	.00055	-.00750	-.03106	.00019	.01299	.00063
#2	-.00102	2.6607	-.00450	.00118	-.00429	-.00877	-.00005	.01305	-.00233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3564.7**	**39383.**	**3296.1**
Stddev	2.6	11.	15.7
%RSD	.07271	.02916	.47578
#1	3562.9	39391.	3285.0
#2	3566.6	39375.	3307.2

Sample Name: 280-123838-B-3-B Acquired: 5/29/2019 9:09:42 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**-.00003**	**.00347**	**.51217**	**.11369**	**.00021**	**-.00428**	**134.87**	**.00045**
Stddev	.00063	.00015	.00205	.00279	.00013	.00011	.00651	.27	.00006
%RSD	91.202	533.84	59.136	.54559	.11260	55.267	152.24	.20078	13.025
#1	.00113	-.00014	.00492	.51415	.11360	.00013	-.00888	134.68	.00049
#2	.00024	.00008	.00202	.51020	.11378	.00029	.00033	135.06	.00040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00126**	**-.00015**	**-.00142**	**.08964**	**.64236**	**.00730**	**114.87**	**3.1476**	**.00485**
Stddev	.00049	.00010	.00103	.00524	.08561	.00452	.11	.0022	.00002
%RSD	38.870	64.611	73.008	5.8404	13.327	61.898	.09983	.07137	.44593
#1	.00161	-.00022	-.00069	.08594	.58182	.00411	114.79	3.1460	.00484
#2	.00092	-.00008	-.00215	.09334	.70289	.01050	114.95	3.1492	.00487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **61.256**	**61.940**	**.00135**	**.01665**	**.00061**	**.04869**	**-.00218**	**-.01177**	**17.112**
Stddev	.179	.094	.00002	.00065	.00047	.00488	.00499	.00062	.036
%RSD	.29159	.15142	1.4761	3.8908	77.409	10.024	229.33	5.3037	.20923
#1	61.129	61.874	.00134	.01619	.00027	.04524	-.00571	-.01221	17.137
#2	61.382	62.007	.00136	.01711	.00094	.05215	.00135	-.01133	17.086
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**36.619**	**-.00008**	**1.3010**	**-.00291**	**.00022**	**-.00259**	F **-.14100**	**.00043**	**-.00046**
Stddev	.077	.00142	.0044	.00086	.00016	.00230	.01900	.00063	.00036
%RSD	.20923	1738.8	.33798	29.505	73.419	88.582	13.478	146.01	78.909
#1	36.673	.00092	1.2979	-.00351	.00034	-.00097	-.15444	-.00001	-.00071
#2	36.564	-.00109	1.3041	-.00230	.00011	-.00422	-.12757	.00087	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							20.000		
Low Limit							-.12000		

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.00051**
Stddev	.00072
%RSD	140.71
#1	.00102
#2	.00000
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-123838-B-3-B Acquired: 5/29/2019 9:09:42 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3604.0**	**39412.**	**3218.6**
Stddev	6.9	297.	16.3
%RSD	.19274	.75321	.50542
#1	3599.1	39202.	3230.1
#2	3608.9	39622.	3207.1

Sample Name: 280-123838-B-4-B Acquired: 5/29/2019 9:12:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**.00392**	**.00405**	**.49646**	**.04259**	**.00022**	**-.00206**	**81.478**	**.00086**
Stddev	.00005	.00014	.00030	.00341	.00012	.00011	.00223	.379	.00020
%RSD	19.833	3.4588	7.4714	.68602	.27584	51.191	108.29	.46546	23.835
#1	-.00021	.00402	.00427	.49887	.04250	.00030	-.00363	81.210	.00100
#2	-.00028	.00382	.00384	.49405	.04267	.00014	-.00048	81.746	.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**-.00012**	**.00101**	**.00290**	**2.9409**	**.01420**	**88.763**	**.00367**	**.00750**
Stddev	.00030	.00022	.00027	.00233	.1442	.00299	.193	.00166	.00096
%RSD	62.614	186.78	26.836	80.520	4.9014	21.044	.21722	45.228	12.770
#1	-.00027	.00004	.00082	.00125	2.8390	.01631	88.627	.00250	.00818
#2	-.00070	-.00027	.00121	.00455	3.0429	.01209	88.900	.00485	.00682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**71.153**	**.00051**	**.02835**	**.00074**	**41.797**	**-.00077**	**-.00065**	**12.492**	**26.732**
Stddev	.770	.00088	.00008	.00204	.186	.00022	.00011	.000	.000
%RSD	1.0816	172.35	.27891	273.54	.44434	28.796	16.965	.00075	.00075
#1	70.609	.00113	.02829	-.00070	41.928	-.00061	-.00073	12.492	26.732
#2	71.697	-.00011	.02841	.00218	41.666	-.00092	-.00057	12.492	26.732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00139**	**.95399**	**-.00505**	**.00035**	**.00034**	**.00071**	**.00452**	**-.00114**	**.00029**
Stddev	.00084	.00755	.00114	.00024	.00211	.02431	.00012	.00066	.00104
%RSD	60.802	.79112	22.653	68.414	619.63	3440.3	2.6950	57.979	363.67
#1	.00198	.94866	-.00424	.00053	-.00115	-.01648	.00461	-.00160	-.00045
#2	.00079	.95933	-.00586	.00018	.00183	.01790	.00444	-.00067	.00102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3644.3**	**40733.**	**3336.3**
Stddev	.8	210.	5.1
%RSD	.02150	.51498	.15362
#1	3643.7	40882.	3332.7
#2	3644.9	40585.	3340.0

Sample Name: 280-123838-B-5-B Acquired: 5/29/2019 9:14:46 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.00718**	**.01301**	**.58317**	**.06073**	**.00031**	**-.00791**	**137.63**	**.00050**
Stddev	.00017	.00057	.00148	.00005	.00059	.00003	.00461	.15	.00030
%RSD	83.027	8.0047	11.396	.00879	.97149	9.8853	58.292	.11062	60.496
#1	-.00033	.00759	.01196	.58313	.06031	.00029	-.00465	137.52	.00029
#2	-.00009	.00677	.01405	.58320	.06114	.00033	-.01117	137.74	.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00132**	**-.00022**	**.00072**	**.23070**	**3.2936**	**.01845**	**121.78**	**3.6979**	**-.00047**
Stddev	.00012	.00034	.00040	.00674	.0356	.00261	.03	.0016	.00006
%RSD	9.3161	155.06	55.862	2.9222	1.0816	14.171	.02092	.04271	12.452
#1	.00123	.00002	.00043	.22594	3.2684	.02030	121.76	3.6968	-.00051
#2	.00140	-.00046	.00100	.23547	3.3188	.01660	121.79	3.6990	-.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**76.942**	**.00097**	**.02469**	**-.00137**	**.23063**	**.00363**	**-.00877**	**16.213**	**34.695**
Stddev	.563	.00060	.00086	.00029	.00078	.00140	.00454	.086	.183
%RSD	.73121	61.186	3.4974	21.370	.33644	38.625	51.806	.52738	.52738
#1	77.340	.00140	.02530	-.00158	.23118	.00264	-.00556	16.152	34.566
#2	76.544	.00055	.02408	-.00116	.23008	.00462	-.01198	16.273	34.825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00072**	**1.3919**	**-.00422**	**.00081**	**-.00101**	**-.07408**	**.00030**	**-.00053**	**-.00279**
Stddev	.00120	.0009	.00218	.00017	.00246	.01505	.00048	.00037	.00321
%RSD	166.33	.06659	51.587	20.992	243.18	20.318	158.98	70.361	114.92
#1	-.00013	1.3912	-.00576	.00093	.00073	-.06344	.00064	-.00026	-.00052
#2	.00157	1.3926	-.00268	.00069	-.00275	-.08473	-.00004	-.00079	-.00507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3584.4**	**40166.**	**3376.2**
Stddev	.7	38.	7.8
%RSD	.01862	.09521	.23168
#1	3583.9	40139.	3381.8
#2	3584.9	40193.	3370.7

Sample Name: 280-123838-B-6-B Acquired: 5/29/2019 9:17:19 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**-.00081**	**.01394**	**.59793**	**.07680**	**.00015**	**-.00236**	**96.819**	**.00001**
Stddev	.00158	.00009	.00001	.00109	.00038	.00016	.00064	.183	.00002
%RSD	253.81	10.555	.09451	.18170	.49736	105.45	26.947	.18944	140.17
#1	-.00050	-.00087	.01395	.59870	.07707	.00004	-.00191	96.690	.00000
#2	.00174	-.00075	.01394	.59716	.07653	.00026	-.00281	96.949	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**-.00022**	**-.00001**	**-.00512**	**2.4529**	**.00956**	**83.905**	**.00091**	**.00115**
Stddev	.00007	.00019	.00022	.00187	.0082	.00463	.072	.00004	.00030
%RSD	31.333	87.532	1878.6	36.581	.33577	48.450	.08556	3.8936	26.400
#1	-.00017	-.00036	-.00017	-.00644	2.4588	.01283	83.854	.00093	.00137
#2	-.00027	-.00008	.00014	-.00380	2.4471	.00628	83.955	.00088	.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**135.53**	**.00003**	**.03990**	**.00026**	**10.042**	**.00112**	**-.00773**	**17.318**	**37.060**
Stddev	.56	.00021	.00159	.00182	.033	.00075	.00568	.060	.128
%RSD	.41055	756.37	3.9887	692.70	.33181	66.897	73.463	.34530	.34530
#1	135.13	-.00012	.03877	-.00103	10.066	.00165	-.01175	17.275	36.969
#2	135.92	.00018	.04103	.00155	10.018	.00059	-.00372	17.360	37.150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00156**	**1.2511**	**-.00338**	**.00019**	**.00385**	**-.04613**	**.00245**	**-.00072**	**-.00188**
Stddev	.00049	.0032	.00137	.00028	.00041	.07166	.00013	.00004	.00163
%RSD	31.578	.25919	40.481	149.71	10.776	155.35	5.4625	5.4330	86.602
#1	-.00121	1.2488	-.00241	-.00001	.00355	.00454	.00236	-.00075	-.00303
#2	-.00191	1.2534	-.00434	.00038	.00414	-.09681	.00254	-.00069	-.00073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3645.7**	**40571.**	**3374.6**
Stddev	16.4	101.	17.7
%RSD	.44980	.24829	.52481
#1	3657.3	40642.	3387.1
#2	3634.2	40500.	3362.1

Sample Name: 280-123838-B-7-B Acquired: 5/29/2019 9:19:51 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00113**	**.00023**	**.00710**	**.57476**	**.10106**	**.00024**	**-.00356**	**114.54**	**.00041**
Stddev	.00078	.00042	.00540	.00504	.00003	.00010	.00421	.21	.00028
%RSD	69.120	184.10	76.051	.87650	.02918	42.757	118.27	.18533	69.102
#1	.00058	-.00007	.01092	.57832	.10104	.00017	-.00654	114.39	.00061
#2	.00168	.00053	.00328	.57120	.10108	.00031	-.00058	114.69	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.00041**	**.00046**	**.01727**	**2.1434**	**.01123**	**97.147**	**.00101**	**.00960**
Stddev	.00033	.00015	.00043	.00324	.0165	.00118	.247	.00017	.00019
%RSD	144.47	36.804	92.201	18.731	.77097	10.510	.25426	17.254	1.9854
#1	.00000	.00052	.00016	.01498	2.1551	.01206	96.972	.00089	.00973
#2	-.00046	.00030	.00076	.01956	2.1317	.01039	97.322	.00113	.00946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**84.095**	**.00025**	**.00870**	**-.00158**	**3.1459**	**.00364**	**-.00401**	**15.520**	**33.214**
Stddev	.081	.00025	.00290	.00108	.0348	.00066	.00221	.068	.146
%RSD	.09648	99.309	33.281	68.338	1.1057	18.168	55.241	.43996	.43996
#1	84.038	.00043	.01075	-.00235	3.1705	.00317	-.00244	15.472	33.110
#2	84.152	.00008	.00665	-.00082	3.1213	.00411	-.00557	15.569	33.317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**1.1621**	**-.00034**	**-.00003**	**.00328**	**-.06163**	**.00067**	**-.00103**	**.00047**
Stddev	.00179	.0001	.00019	.00008	.00527	.06527	.00051	.00011	.00471
%RSD	3061.3	.00797	56.610	273.11	160.66	105.91	76.251	10.383	1008.2
#1	-.00132	1.1620	-.00020	.00003	-.00045	-.10778	.00031	-.00095	.00380
#2	.00121	1.1622	-.00047	-.00008	.00701	-.01548	.00103	-.00110	-.00287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3591.3**	**40409.**	**3372.4**
Stddev	21.5	186.	6.3
%RSD	.59801	.46019	.18812
#1	3606.5	40540.	3376.9
#2	3576.1	40277.	3368.0

Sample Name: CCVH-5713036 Acquired: 5/29/2019 9:22:23 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00113**	**50.785**	**-.00315**	**.00364**	**.00108**	**.00022**	**-.00046**	**.02055**	**.00006**	**.00222**	**.00009**	**.01159**
Stddev	.00094	.417	.00177	.00029	.00047	.00010	.00421	.00412	.00015	.00019	.00057	.00105
%RSD	83.464	.82021	56.329	8.0367	43.489	43.411	912.72	20.045	267.21	8.5837	640.84	9.0544
#1	-.00046	50.491	-.00440	.00385	.00142	.00029	-.00344	.01764	-.00005	.00236	.00049	.01233
#2	-.00179	51.080	-.00189	.00344	.00075	.00016	.00252	.02346	.00016	.00209	-.00031	.01085
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.585**	**-.00600**	**.00496**	**.03105**	**.00277**	**-.00138**	**251.37**	**.00137**	**4.9505**	**.00371**	**4.9124**	**-.00037**
Stddev	.405	.00990	.00355	.00434	.00013	.00029	1.69	.00012	.0208	.00023	.0365	.00134
%RSD	.81751	165.13	71.625	13.985	4.6864	20.751	.67240	8.7494	.42017	6.2954	.74284	359.84
#1	49.298	.00101	.00747	.02798	.00286	-.00117	250.18	.00128	4.9652	.00355	4.9382	-.00132
#2	49.872	-.01300	.00245	.03412	.00268	-.00158	252.57	.00145	4.9358	.00388	4.8866	.00058
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00223**	**.02298**	**.04917**	**-.00031**	**.00037**	**5.0019**	**-.01551**	**.00141**	F **.58807**	**.00508**	**-.00006**	**.09622**
Stddev	.00147	.03082	.06595	.00076	.00014	.0037	.00012	.00109	.01553	.00071	.00011	.00545
%RSD	66.014	134.12	134.12	247.80	37.813	.07407	.74637	77.124	2.6405	13.953	200.51	5.6600
#1	.00328	.04477	.09580	-.00084	.00046	5.0045	-.01543	.00218	.59905	.00558	.00002	.09237
#2	.00119	.00119	.00254	.00023	.00027	4.9993	-.01559	.00064	.57709	.00458	-.00014	.10007
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3656.2**	**40446.**	**3266.6**
Stddev	15.7	124.	84.9
%RSD	.43070	.30724	2.5987
#1	3645.0	40534.	3326.6
#2	3667.3	40358.	3206.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 9:25:16 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49568**	**.51146**	**.49072**	**.49297**	**.49919**	**.49626**	**.99306**	**4.9637**	**.49361**	**.50176**	**.49631**	**.49914**	**2.4557**
Stddev	.00058	.00197	.00110	.00035	.00261	.00088	.00301	.0094	.00061	.00140	.00081	.00178	.0083
%RSD	.11646	.38599	.22387	.07056	.52187	.17794	.30273	.18901	.12334	.27930	.16323	.35613	.33711
#1	.49527	.51006	.49149	.49273	.50103	.49689	.99519	4.9703	.49404	.50275	.49688	.49789	2.4615
#2	.49609	.51285	.48994	.49322	.49735	.49564	.99094	4.9571	.49318	.50077	.49574	.50040	2.4498
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.408**	**.49749**	**20.049**	**.50290**	**.49277**	**25.035**	**.50241**	**-.00205**	**.49993**	**-.00017**	**.49517**	**.49379**	**4.9155**
Stddev	.317	.00323	.009	.00009	.00233	.088	.00016	.00593	.00227	.00122	.00600	.00176	.0114
%RSD	.64117	.64916	.04621	.01804	.47289	.35147	.03283	290.18	.45434	721.20	1.2125	.35544	.23214
#1	49.632	.49978	20.042	.50283	.49441	25.097	.50252	-.00624	.50153	.00069	.49092	.49255	4.9075
#2	49.184	.49521	20.055	.50296	.49112	24.973	.50229	.00215	.49832	-.00103	.49941	.49503	4.9236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.519**	**.49859**	**.49771**	**-.00771**	**.49834**	**.50685**	**.03626**	**.49782**	**.49871**	**.49242**
Stddev	.024	.00153	.00051	.00167	.00022	.00359	.00785	.00072	.00219	.00062
%RSD	.23214	.30737	.10187	21.682	.04343	.70909	21.661	.14395	.43882	.12582
#1	10.502	.49967	.49807	-.00889	.49819	.50430	.04181	.49732	.49716	.49199
#2	10.537	.49751	.49735	-.00653	.49850	.50939	.03070	.49833	.50026	.49286
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3663.6**	**40468.**	**3264.8**
Stddev	3.6	60.	11.2
%RSD	.09923	.14787	.34276
#1	3661.0	40510.	3256.9
#2	3666.2	40425.	3272.7

Sample Name: CCB Acquired: 5/29/2019 9:28:24 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00027**	**-.00130**	**.00239**	**.00235**	**.00016**	**.00002**	**-.00190**	**-.01368**	**.00012**	**.00019**	**-.00018**	**-.00060**	**-.00427**
Stddev	.00093	.00040	.00299	.00084	.00068	.00000	.00036	.00083	.00009	.00018	.00012	.00157	.00349
%RSD	338.79	30.347	125.02	35.994	434.24	8.5028	19.068	6.0465	72.710	95.474	64.713	260.57	81.903
#1	.00093	-.00102	.00028	.00294	.00063	.00003	-.00165	-.01426	.00006	.00032	-.00010	-.00171	-.00674
#2	-.00038	-.00158	.00450	.00175	-.00032	.00002	-.00216	-.01309	.00018	.00006	-.00027	.00051	-.00180
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05195**	**.00374**	**.00045**	**-.00006**	**.00014**	**.04744**	**.00008**	**.00052**	**.00290**	**-.00258**	**-.00163**	**-.00478**	**.00273**
Stddev	.05770	.00137	.00221	.00003	.00088	.00504	.00018	.00315	.00045	.00449	.00048	.00072	.03843
%RSD	111.07	36.734	494.78	60.389	631.12	10.620	234.76	610.18	15.522	174.00	29.610	15.116	1405.9
#1	.09275	.00277	.00201	-.00008	.00076	.04388	-.00005	-.00171	.00258	.00059	-.00129	-.00530	-.02444
#2	.01115	.00471	-.00111	-.00003	-.00048	.05100	.00021	.00274	.00322	-.00575	-.00198	-.00427	.02991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00585**	**.00051**	**-.00033**	**-.00512**	**-.00080**	**-.00225**	**.00803**	**.00033**	**-.00167**	**-.00149**
Stddev	.08224	.00044	.00003	.00392	.00084	.00073	.03909	.00096	.00062	.00069
%RSD	1405.9	85.505	8.5992	76.510	103.82	32.564	486.55	288.66	37.186	46.468
#1	-.05230	.00082	-.00031	-.00789	-.00140	-.00173	.03567	.00101	-.00210	-.00100
#2	.06400	.00020	-.00035	-.00235	-.00021	-.00276	-.01960	-.00034	-.00123	-.00198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3683.0**	**41087.**	**3282.8**
Stddev	12.1	151.	7.9
%RSD	.32915	.36846	.24121
#1	3674.4	41194.	3277.2
#2	3691.5	40980.	3288.4

Sample Name: CCVL-5725431 Acquired: 5/29/2019 9:31:35 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00639**	**.10335**	**.01474**	**.09994**	**.00985**	**.00117**	**.10448**	**.19966**	**.00503**	**.01040**	**.00972**	**.01355**
Stddev	.00015	.00061	.00111	.00186	.00025	.00007	.00165	.00660	.00039	.00014	.00057	.00036
%RSD	2.3464	.59440	7.5469	1.8614	2.5396	5.8016	1.5772	3.3033	7.7828	1.3131	5.8141	2.6321
#1	.00628	.10291	.01396	.10125	.00967	.00113	.10332	.20432	.00476	.01049	.00932	.01330
#2	.00650	.10378	.01553	.09862	.01003	.00122	.10565	.19500	.00531	.01030	.01012	.01380
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12265**	**3.0619**	**.02422**	**.20742**	**.01061**	**.02002**	**1.0331**	**.04233**	**2.9306**	F **.01228**	**.09229**	**.01881**
Stddev	.00114	.0171	.00488	.00184	.00002	.00032	.0002	.00007	.0053	.00225	.00037	.00304
%RSD	.93261	.55910	20.154	.88536	.20598	1.6164	.01825	.15738	.18125	18.336	.40307	16.177
#1	.12346	3.0497	.02077	.20872	.01059	.01979	1.0329	.04237	2.9343	.01068	.09203	.01666
#2	.12184	3.0740	.02767	.20612	.01062	.02025	1.0332	.04228	2.9268	.01387	.09256	.02096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value										.00900		
Range										30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01664**	**.53311**	**1.1408**	**.10287**	**.00991**	**.01307**	**.00963**	**.01749**	F **.01978**	**.01048**	**.01982**	F **.00910**
Stddev	.00501	.02122	.0454	.00235	.00012	.00357	.00042	.00091	.09536	.00022	.00035	.00133
%RSD	30.119	3.9812	3.9812	2.2827	1.2392	27.324	4.3786	5.1875	482.12	2.0703	1.7724	14.628
#1	.02018	.54811	1.1730	.10453	.00999	.01054	.00993	.01813	.08721	.01033	.02007	.00816
#2	.01309	.51810	1.1087	.10121	.00982	.01559	.00933	.01685	-.04765	.01064	.01957	.01004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value									.06000			.01500
Range									-30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3755.7**	**42019.**	**3341.9**
Stddev	2.9	147.	10.7
%RSD	.07623	.35015	.32118
#1	3753.7	42123.	3334.3
#2	3757.7	41915.	3349.5

Sample Name: 280-123838-B-8-D Acquired: 5/29/2019 9:34:17 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00033**	**.00312**	**.01800**	**.25866**	**.06253**	**.00012**	**-.00460**	**26.773**	**-.00004**
Stddev	.00162	.00007	.00043	.00249	.00016	.00013	.00267	.042	.00006
%RSD	493.81	2.2567	2.4013	.96343	.26381	106.29	58.029	.15551	164.98
#1	-.00147	.00307	.01830	.26042	.06265	.00003	-.00271	26.744	.00001
#2	.00082	.00317	.01769	.25690	.06242	.00021	-.00649	26.803	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00038**	**-.00025**	**.03851**	**7.9380**	**.00495**	**4.4786**	**.00250**	**.04163**
Stddev	.00011	.00021	.00024	.00022	.0512	.00323	.0153	.00007	.00016
%RSD	352.10	54.163	96.937	.57345	.64520	65.274	.34051	2.7656	.37390
#1	.00011	.00053	-.00042	.03835	7.9017	.00724	4.4894	.00245	.04174
#2	-.00005	.00023	-.00008	.03867	7.9742	.00267	4.4678	.00255	.04152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**75.409**	**.00075**	**.01749**	**.00039**	**22.026**	**.00086**	**-.00615**	**8.7443**	**18.713**
Stddev	.155	.00011	.00149	.00033	.160	.00082	.00201	.0195	.042
%RSD	.20542	14.696	8.4988	83.137	.72685	95.335	32.743	.22321	.22321
#1	75.300	.00068	.01644	.00016	22.139	.00144	-.00473	8.7305	18.683
#2	75.519	.00083	.01854	.00062	21.913	.00028	-.00757	8.7581	18.742
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.52013**	**-.00176**	**.00012**	**.00275**	**-.01661**	**.00220**	**-.00058**	**-.00287**
Stddev	.00084	.00039	.00300	.00069	.00103	.00212	.00105	.00027	.00225
%RSD	236.57	.07412	170.86	560.80	37.597	12.779	47.697	46.870	78.531
#1	-.00094	.51985	-.00388	-.00036	.00348	-.01811	.00294	-.00038	-.00128
#2	.00024	.52040	.00037	.00061	.00202	-.01511	.00145	-.00077	-.00446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3705.8**	**41160.**	**3413.6**
Stddev	5.8	74.	14.7
%RSD	.15727	.18076	.43047
#1	3709.9	41107.	3424.0
#2	3701.7	41212.	3403.3

Sample Name: 123838-B-8-D SD@5 Acquired: 5/29/2019 9:36:49 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**-.00141**	**.00223**	**.04619**	**.01220**	**.00015**	**-.00099**	**5.0749**	**-.00012**
Stddev	.00009	.00017	.00632	.00163	.00052	.00007	.00106	.0412	.00008
%RSD	12.746	11.770	283.20	3.5323	4.2498	49.467	106.81	.81268	72.318
#1	.00073	-.00153	.00670	.04734	.01256	.00020	-.00174	5.1041	-.00018
#2	.00061	-.00129	-.00224	.04504	.01183	.00010	-.00024	5.0458	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**-.00033**	**-.00081**	**.00574**	**1.4637**	**.00455**	**.84162**	**.00053**	**.00763**
Stddev	.00022	.00010	.00058	.00181	.1063	.00088	.00541	.00004	.00023
%RSD	72.140	28.933	71.837	31.521	7.2588	19.418	.64238	7.4338	3.0105
#1	.00015	-.00040	-.00040	.00702	1.5389	.00517	.84544	.00056	.00779
#2	.00047	-.00026	-.00122	.00446	1.3886	.00392	.83780	.00050	.00747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **14.091**	**-.00043**	**.00415**	**.00133**	**3.8705**	**-.00200**	**-.00375**	**1.6134**	**3.4526**
Stddev	.125	.00033	.00072	.00072	.0383	.00093	.00399	.0649	.1388
%RSD	.88397	77.841	17.301	54.448	.99018	46.731	106.44	4.0194	4.0194
#1	14.179	-.00019	.00364	.00184	3.8976	-.00265	-.00093	1.6592	3.5508
#2	14.003	-.00066	.00466	.00082	3.8434	-.00134	-.00657	1.5675	3.3545
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00121**	**.09919**	**-.00386**	**-.00022**	**.00053**	**-.00190**	**.00079**	**-.00267**	**-.00151**
Stddev	.00029	.00056	.00298	.00062	.00002	.00410	.00026	.00010	.00088
%RSD	23.982	.56896	77.174	285.28	4.4808	215.78	33.575	3.6813	58.212
#1	-.00141	.09959	-.00175	-.00066	.00055	-.00480	.00097	-.00274	-.00212
#2	-.00100	.09879	-.00597	.00022	.00051	.00100	.00060	-.00260	-.00089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3828.0**	**42647.**	**3418.1**
Stddev	18.7	94.	6.4
%RSD	.48762	.22124	.18749
#1	3814.8	42581.	3413.5
#2	3841.2	42714.	3422.6

Sample Name: 280-123838-B-8-E MS Acquired: 5/29/2019 9:39:24 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05366**	**10.512**	**2.0303**	**1.2313**	**2.0808**	W **1.0384**	**1.9342**	**77.038**	**1.0052**
Stddev	.00009	.000	.0051	.0001	.0045	.0036	.0098	.233	.0005
%RSD	.16007	.00466	.25231	.01233	.21733	.34453	.50650	.30260	.04731
#1	.05360	10.511	2.0339	1.2312	2.0776	1.0359	1.9411	76.874	1.0055
#2	.05372	10.512	2.0267	1.2314	2.0840	1.0409	1.9273	77.203	1.0049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.99001**	**.99107**	**1.0258**	**10.103**	**58.706**	**1.0152**	**55.873**	**1.0241**	**1.0458**
Stddev	.00221	.00366	.0015	.016	.221	.0009	.023	.0004	.0011
%RSD	.22287	.36936	.14676	.16094	.37602	.08857	.04104	.04441	.10784
#1	.99157	.99366	1.0269	10.091	58.550	1.0146	55.889	1.0238	1.0466
#2	.98845	.98848	1.0248	10.114	58.862	1.0159	55.856	1.0244	1.0450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**127.21**	**.98925**	W **20.881**	**.97959**	**32.339**	**1.0857**	**1.9919**	**10.947**	**23.426**
Stddev	.03	.00003	.022	.00348	.045	.0007	.0051	.023	.049
%RSD	.01965	.00344	.10541	.35508	.13846	.06079	.25465	.20761	.20761
#1	127.20	.98927	20.896	.98205	32.370	1.0852	1.9955	10.963	23.461
#2	127.23	.98923	20.865	.97713	32.307	1.0861	1.9884	10.931	23.392
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000						
Low Limit			-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9827**	**1.5229**	**1.0171**	**1.0286**	**1.9358**	**2.3176**	**1.0282**	**.49495**	**.46185**
Stddev	.0043	.0035	.0003	.0024	.0032	.0037	.0018	.00106	.00246
%RSD	.21684	.23232	.02619	.23267	.16790	.15834	.16995	.21502	.53288
#1	1.9857	1.5204	1.0170	1.0269	1.9381	2.3150	1.0295	.49420	.46011
#2	1.9796	1.5254	1.0173	1.0303	1.9335	2.3202	1.0270	.49571	.46359
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3696.4**	**40578.**	**3435.2**
Stddev	9.2	173.	1.5
%RSD	.24776	.42590	.04354
#1	3702.9	40700.	3436.2
#2	3689.9	40456.	3434.1

Sample Name: 280-123838-B-8-F MSD Acquired: 5/29/2019 9:41:43 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05388**	**10.352**	**1.9991**	**1.2266**	**2.0531**	W **1.0223**	**1.9328**	**75.596**	**.99388**
Stddev	.00053	.086	.0057	.0067	.0019	.0019	.0100	.026	.00414
%RSD	.99124	.83107	.28767	.54378	.09246	.18496	.51791	.03485	.41657
#1	.05350	10.291	2.0031	1.2313	2.0518	1.0210	1.9399	75.577	.99681
#2	.05426	10.413	1.9950	1.2218	2.0545	1.0236	1.9257	75.614	.99096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97922**	**.98092**	**1.0114**	**9.9315**	**58.006**	**1.0060**	**54.885**	**1.0090**	**1.0361**
Stddev	.00531	.00453	.0071	.0218	.089	.0119	.044	.0008	.0049
%RSD	.54225	.46213	.70151	.21933	.15328	1.1842	.08089	.07633	.47547
#1	.98297	.98413	1.0064	9.9161	58.068	1.0144	54.854	1.0085	1.0396
#2	.97547	.97772	1.0164	9.9469	57.943	.99755	54.917	1.0095	1.0326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**124.04**	**.97758**	W **20.630**	**.97075**	**31.696**	**1.0704**	**1.9731**	**10.608**	**22.701**
Stddev	.34	.00392	.125	.00696	.155	.0011	.0118	.019	.041
%RSD	.27765	.40132	.60811	.71702	.48776	.10336	.59718	.18004	.18004
#1	123.79	.98035	20.719	.97567	31.805	1.0712	1.9814	10.594	22.672
#2	124.28	.97480	20.541	.96582	31.586	1.0696	1.9648	10.622	22.730
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000						
Low Limit			-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9640**	**1.4979**	**1.0106**	**1.0106**	**1.9190**	**2.3209**	**1.0118**	**.49255**	**.47599**
Stddev	.0170	.0018	.0000	.0001	.0091	.0169	.0011	.00000	.00381
%RSD	.86313	.12114	.00036	.00767	.47569	.72974	.11272	.00089	.79964
#1	1.9760	1.4967	1.0106	1.0107	1.9254	2.3329	1.0110	.49255	.47330
#2	1.9520	1.4992	1.0106	1.0106	1.9125	2.3089	1.0126	.49256	.47868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3722.7**	**41135.**	**3463.3**
Stddev	8.3	65.	12.0
%RSD	.22215	.15917	.34786
#1	3728.6	41088.	3454.7
#2	3716.9	41181.	3471.8

Sample Name: 280-123838-B-8-D PDS Acquired: 5/29/2019 9:43:59 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04530**	**.95564**	**.20774**	**.35628**	**.15549**	**.04922**	**-.00217**	**44.108**	**.04910**
Stddev	.00001	.00450	.00303	.00102	.00004	.00003	.00075	.221	.00049
%RSD	.01269	.47064	1.4602	.28534	.02686	.05266	34.674	.50087	1.0048
#1	.04530	.95882	.20988	.35700	.15546	.04920	-.00164	43.952	.04945
#2	.04529	.95246	.20559	.35556	.15552	.04924	-.00270	44.264	.04875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04842**	**.04766**	**.05117**	**.98290**	**26.672**	**.10245**	**23.273**	**.05143**	**.09459**
Stddev	.00076	.00011	.00031	.00459	.041	.00014	.001	.00004	.00116
%RSD	1.5653	.23890	.61506	.46733	.15490	.14078	.00487	.07940	1.2284
#1	.04895	.04774	.05095	.98615	26.643	.10235	23.272	.05146	.09541
#2	.04788	.04758	.05139	.97965	26.701	.10255	23.273	.05140	.09377
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**91.154**	**.04874**	**2.0054**	**.09518**	**20.982**	**.11543**	**.18205**	**13.904**	**29.755**
Stddev	.116	.00022	.0144	.00034	.026	.00160	.00366	.055	.117
%RSD	.12730	.45155	.71957	.35258	.12514	1.3860	2.0127	.39469	.39469
#1	91.072	.04858	2.0156	.09494	21.001	.11429	.18464	13.866	29.672
#2	91.236	.04889	1.9952	.09542	20.964	.11656	.17946	13.943	29.839
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10616**	**.54180**	**.19495**	**.05315**	**.18951**	**.53510**	**.05022**	**.19565**	**.05925**
Stddev	.00035	.00268	.00166	.00024	.00315	.08051	.00045	.00163	.00404
%RSD	.32890	.49529	.85038	.45510	1.6619	15.045	.88664	.83323	6.8160
#1	.10641	.53990	.19612	.05332	.19173	.47817	.04990	.19450	.05639
#2	.10591	.54370	.19378	.05297	.18728	.59202	.05053	.19681	.06210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3791.1**	**42083.**	**3474.3**
Stddev	16.8	100.	41.2
%RSD	.44353	.23694	1.1855
#1	3803.0	42013.	3503.4
#2	3779.2	42154.	3445.2

Sample Name: 280-123838-B-10-B Acquired: 5/29/2019 9:46:24 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00104**	**-.00064**	**.01051**	**.50602**	**.10093**	**.00019**	**-.00498**	**182.46**	**.00070**
Stddev	.00054	.00001	.00105	.00742	.00066	.00013	.00029	.42	.00005
%RSD	52.056	2.0125	9.9993	1.4654	.65782	66.073	5.8457	.22763	7.7464
#1	.00142	-.00065	.01125	.51126	.10140	.00010	-.00478	182.76	.00074
#2	.00066	-.00063	.00976	.50077	.10046	.00028	-.00519	182.17	.00066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00720**	**.00018**	**-.00022**	**.05585**	**.60972**	**.01324**	**145.75**	**7.3312**	**.00592**
Stddev	.00006	.00010	.00021	.00077	.11232	.00079	.42	.0087	.00048
%RSD	.87412	57.812	94.609	1.3787	18.422	5.9371	.28593	.11825	8.0693
#1	.00724	.00025	-.00037	.05530	.68915	.01379	145.46	7.3374	.00625
#2	.00715	.00011	-.00007	.05639	.53030	.01268	146.05	7.3251	.00558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**75.968**	**.00240**	**.02384**	**.00082**	**.26196**	**-.00325**	**-.00898**	**22.179**	**47.462**
Stddev	.287	.00058	.00150	.00099	.00230	.00329	.00239	.009	.019
%RSD	.37822	24.173	6.2761	120.39	.87720	101.26	26.647	.04078	.04078
#1	76.171	.00199	.02278	.00153	.26358	-.00092	-.01067	22.185	47.476
#2	75.765	.00281	.02490	.00012	.26033	-.00558	-.00729	22.172	47.448
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**1.6401**	**-.00057**	**.00030**	**-.00536**	**-.06838**	**.00066**	**.00120**	**-.00043**
Stddev	.00157	.0036	.00064	.00032	.00273	.06408	.00026	.00065	.00474
%RSD	478.20	.21847	110.73	104.39	50.918	93.707	38.553	54.558	1096.9
#1	-.00078	1.6426	-.00012	.00052	-.00729	-.02307	.00084	.00074	-.00378
#2	.00144	1.6376	-.00102	.00008	-.00343	-.11370	.00048	.00166	.00292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3521.2**	**39168.**	**3285.5**
Stddev	3.4	177.	20.7
%RSD	.09775	.45086	.63078
#1	3518.7	39293.	3300.1
#2	3523.6	39043.	3270.8

Sample Name: Bottle 123513-A-9 Acquired: 5/29/2019 9:49:29 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: Bottle check K 150

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00156**	**.12386**	**-.00904**	**1.7606**	**.47335**	**.00031**	**.00030**	W **942.79**	**.00152**
Stddev	.00095	.00086	.01140	.0091	.00147	.00010	.00161	9.95	.00057
%RSD	60.853	.69766	126.15	.51908	.31117	32.094	540.59	1.0554	37.810
#1	.00089	.12325	-.01710	1.7671	.47231	.00024	.00143	935.75	.00192
#2	.00223	.12447	-.00098	1.7542	.47439	.00038	-.00084	949.83	.00111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								500.00	
Low Limit								-.40000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00080**	**.00004**	**-.00159**	**.20029**	**92.604**	W **2.2442**	W **703.22**	**.97041**	**-.00042**
Stddev	.00004	.00036	.00005	.00022	6.965	.0209	4.87	.00124	.00052
%RSD	4.8109	868.03	3.2422	.10861	7.5208	.93039	.69189	.12731	122.70
#1	.00083	.00029	-.00162	.20045	87.679	2.2295	699.78	.96954	-.00006
#2	.00077	-.00021	-.00155	.20014	97.528	2.2590	706.66	.97128	-.00079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass
High Limit						2.0000	500.00		
Low Limit						-.02000	-.40000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **14828.**	**.00980**	**.12057**	**-.00135**	**97.637**	**-.00314**	**.01258**	**4.0079**	**8.5770**
Stddev	55.	.00035	.00847	.00255	.622	.00045	.00401	.0520	.1113
%RSD	.37312	3.5782	7.0223	188.75	.63737	14.398	31.887	1.2978	1.2978
#1	14789.	.01005	.11458	.00045	98.077	-.00346	.00974	4.0447	8.6557
#2	14867.	.00955	.12655	-.00315	97.197	-.00282	.01542	3.9712	8.4983
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10000.								
Low Limit	9.0000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00581**	F **134.15**	**-.00536**	**.00504**	**.00277**	F **-.25090**	**-.00023**	**.00633**	**-.00171**
Stddev	.00056	.36	.00522	.00110	.00154	.03270	.00021	.00156	.00030
%RSD	9.6523	.26554	97.472	21.766	55.668	13.033	90.443	24.644	17.473
#1	-.00541	133.89	-.00905	.00581	.00168	-.22778	-.00008	.00523	-.00150
#2	-.00620	134.40	-.00167	.00426	.00387	-.27402	-.00038	.00743	-.00192
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		20.000				20.000			
Low Limit		-.02000				-.12000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**2831.2**	**29837.**	**2964.3**
Stddev	16.6	39.	13.7
%RSD	.58690	.13131	.46273
#1	2819.4	29865.	2954.6
#2	2842.9	29809.	2974.0

Sample Name: CCVH-5713036 Acquired: 5/29/2019 9:53:22 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**50.455**	**.00063**	**.00401**	**.00137**	**.00021**	**.00353**	**.05529**	**-.00011**	**.00244**	**.00001**	**.01137**
Stddev	.00036	.049	.00319	.00009	.00030	.00000	.00027	.01010	.00036	.00024	.00000	.00123
%RSD	387.13	.09674	503.51	2.1365	21.961	1.9073	7.6119	18.267	319.63	9.7753	7.1148	10.827
#1	-.00035	50.489	-.00162	.00395	.00116	.00021	.00334	.06243	.00014	.00228	.00001	.01224
#2	.00016	50.420	.00289	.00408	.00158	.00021	.00373	.04815	-.00037	.00261	.00001	.01050
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.030**	**1.3783**	**.00583**	**.05027**	**.00250**	**-.00133**	**251.67**	**.00149**	**4.9414**	**.00344**	**4.9140**	**-.00310**
Stddev	.075	.0555	.00316	.00545	.00001	.00040	.02	.00034	.0068	.00052	.0183	.00042
%RSD	.15250	4.0248	54.088	10.841	.20443	29.809	.00989	23.134	.13724	15.132	.37320	13.559
#1	49.083	1.3390	.00806	.05412	.00250	-.00161	251.69	.00124	4.9366	.00307	4.9269	-.00280
#2	48.977	1.4175	.00360	.04641	.00251	-.00105	251.65	.00173	4.9462	.00381	4.9010	-.00340
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00407**	**.03906**	**.08358**	**-.00057**	**.00839**	**5.0114**	**-.01526**	**.00041**	F **.58585**	**.00529**	**-.00240**	**.09925**
Stddev	.00190	.02473	.05292	.00078	.00121	.0055	.00050	.00040	.02958	.00058	.00028	.00280
%RSD	46.791	63.319	63.319	135.07	14.471	.11064	3.2497	98.054	5.0484	11.023	11.827	2.8204
#1	.00272	.02157	.04616	-.00112	.00925	5.0153	-.01561	.00013	.60676	.00487	-.00260	.10123
#2	.00542	.05654	.12100	-.00003	.00753	5.0075	-.01491	.00069	.56494	.00570	-.00220	.09727
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3784.5**	**41211.**	**3417.7**
Stddev	14.7	164.	3.2
%RSD	.38849	.39818	.09359
#1	3774.1	41095.	3420.0
#2	3794.9	41327.	3415.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 9:55:55 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48766**	**.50115**	**.48754**	**.48910**	**.49464**	**.49368**	**.98429**	**4.9301**	**.48521**	**.49519**	**.48797**	**.49328**
Stddev	.00199	.00545	.00118	.00099	.00201	.00104	.00106	.0341	.00217	.00127	.00236	.00114
%RSD	.40883	1.0876	.24132	.20268	.40628	.21031	.10783	.69178	.44623	.25661	.48402	.23034
#1	.48625	.50500	.48670	.48980	.49322	.49295	.98504	4.9060	.48674	.49609	.48964	.49408
#2	.48907	.49729	.48837	.48840	.49606	.49442	.98354	4.9542	.48368	.49429	.48630	.49248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.4436**	**49.647**	**.49741**	**19.793**	**.49657**	**.48629**	F **28.100**	**.49483**	**-.00373**	**.48896**	**.00413**	**.49029**
Stddev	.0128	.097	.00268	.028	.00122	.00295	.030	.00230	.00027	.00068	.00108	.00488
%RSD	.52270	.19602	.53853	.14024	.24513	.60669	.10521	.46544	7.3083	.13903	26.242	.99500
#1	2.4346	49.579	.49930	19.774	.49570	.48838	28.121	.49646	-.00354	.48944	.00336	.49374
#2	2.4526	49.716	.49551	19.813	.49743	.48421	28.079	.49320	-.00393	.48848	.00490	.48684
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	None	Chk Pass
Value							25.000					
Range							10.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49084**	**4.8737**	**10.430**	**.49055**	**.49103**	**-.00303**	**.49267**	**.49322**	**-.03298**	**.49609**	**.49382**	**.48918**
Stddev	.00475	.0181	.039	.00121	.00037	.00034	.00078	.00015	.00513	.00128	.00424	.00205
%RSD	.96760	.37067	.37067	.24675	.07620	11.394	.15916	.02948	15.567	.25825	.85858	.41866
#1	.49420	4.8609	10.402	.49140	.49077	-.00278	.49212	.49312	-.03661	.49518	.49082	.48773
#2	.48748	4.8865	10.457	.48969	.49130	-.00327	.49323	.49333	-.02935	.49699	.49682	.49062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3767.0**	**41817.**	**3399.4**
Stddev	7.5	178.	6.1
%RSD	.19809	.42514	.17929
#1	3761.7	41943.	3403.7
#2	3772.3	41691.	3395.1

Sample Name: CCB Acquired: 5/29/2019 9:58:21 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**-.00165**	**.00377**	**.00353**	**.00107**	**.00018**	**-.00255**	**-.00102**	**.00026**	**.00011**	**-.00026**	**-.00115**
Stddev	.00026	.00147	.00045	.00078	.00032	.00007	.00427	.00302	.00003	.00058	.00046	.00087
%RSD	531.80	88.658	11.937	21.993	30.150	37.561	167.05	297.41	11.009	524.34	179.36	76.123
#1	.00024	-.00062	.00409	.00298	.00084	.00023	.00046	.00112	.00028	.00052	.00007	-.00176
#2	-.00014	-.00269	.00345	.00407	.00130	.00014	-.00557	-.00315	.00024	-.00030	-.00058	-.00053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00755**	**.49592**	W **.00825**	**.00343**	**.00004**	**.00056**	F **2.6082**	**-.00003**	**.00233**	**.00240**	**-.00155**	**.00004**
Stddev	.00364	.02373	.00362	.00092	.00007	.00028	.0226	.00004	.00087	.00034	.00427	.00014
%RSD	48.173	4.7849	43.887	26.791	172.99	49.222	.86762	150.64	37.582	14.030	276.31	312.00
#1	-.00498	.51270	.00569	.00408	-.00001	.00037	2.6242	.00000	.00171	.00263	.00147	-.00005
#2	-.01012	.47914	.01082	.00278	.00009	.00076	2.5922	-.00006	.00294	.00216	-.00457	.00014
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.00500				.50000					
Low Limit			-.01000				-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00414**	**.02695**	**.05768**	**.00167**	**.00075**	**-.00023**	**.00010**	**-.00053**	**.01311**	**.00039**	**-.00209**	**-.00218**
Stddev	.00177	.01716	.03671	.00096	.00023	.00094	.00043	.00086	.01970	.00018	.00031	.00098
%RSD	42.621	63.654	63.654	57.585	30.315	402.45	424.38	163.11	150.25	45.149	14.666	44.941
#1	-.00539	.01482	.03172	.00099	.00091	-.00089	.00041	.00008	-.00082	.00052	-.00231	-.00149
#2	-.00290	.03908	.08364	.00236	.00059	.00043	-.00020	-.00113	.02704	.00027	-.00187	-.00287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3785.1**	**42361.**	**3428.3**
Stddev	6.6	181.	9.5
%RSD	.17515	.42778	.27789
#1	3789.8	42489.	3435.1
#2	3780.4	42233.	3421.6

Sample Name: CCVL-5725431 Acquired: 5/29/2019 10:01:41 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00688**	**.10296**	**.01469**	**.10098**	**.01046**	**.00128**	**.10274**	**.19525**	**.00466**	**.01076**	**.00996**	**.01493**
Stddev	.00017	.00090	.00316	.00082	.00055	.00013	.00252	.00157	.00033	.00009	.00031	.00035
%RSD	2.4841	.87227	21.501	.81610	5.3028	10.156	2.4501	.80320	7.1139	.83493	3.0811	2.3770
#1	.00700	.10233	.01245	.10156	.01007	.00119	.10096	.19414	.00443	.01083	.00974	.01518
#2	.00676	.10360	.01692	.10039	.01085	.00137	.10452	.19636	.00489	.01070	.01018	.01468
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12060**	**3.3504**	**.01867**	**.21584**	**.01064**	**.01940**	F **2.7270**	**.04155**	**2.9318**	F **.01263**	**.09450**	**.01952**
Stddev	.00332	.0172	.00269	.00005	.00001	.00036	.0359	.00022	.0014	.00046	.00151	.00675
%RSD	2.7539	.51362	14.405	.02195	.11906	1.8468	1.3178	.52187	.04763	3.6064	1.5926	34.562
#1	.11825	3.3626	.02057	.21581	.01063	.01965	2.7016	.04170	2.9328	.01231	.09557	.02429
#2	.12295	3.3382	.01677	.21587	.01065	.01914	2.7524	.04139	2.9308	.01295	.09344	.01475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							1.0000			.00900		
Range							30.000%			30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01606**	**.47213**	**1.0104**	**.10399**	**.01019**	**.01140**	**.00992**	**.01567**	F **.08559**	**.00938**	**.01787**	F **.00859**
Stddev	.00034	.02509	.0537	.00018	.00022	.00109	.00029	.00152	.00831	.00089	.00038	.00397
%RSD	2.1238	5.3140	5.3140	.17359	2.2032	9.6041	2.9305	9.6916	9.7109	9.4707	2.1058	46.207
#1	.01630	.45439	.97240	.10386	.01035	.01217	.00971	.01460	.07971	.00876	.01760	.01139
#2	.01581	.48987	1.0483	.10411	.01003	.01062	.01012	.01675	.09147	.01001	.01813	.00578
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value									.06000			.01500
Range									30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3838.5**	**42633.**	**3468.9**
Stddev	47.7	222.	23.9
%RSD	1.2414	.52135	.68814
#1	3804.8	42475.	3485.7
#2	3872.2	42790.	3452.0

Sample Name: MB 280-459483/1-A Acquired: 5/29/2019 10:04:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00044**	**-.00158**	**-.00066**	**.00143**	**.00027**	**.00020**	**.00105**	**-.00719**	**-.00009**
Stddev	.00028	.00015	.00450	.00035	.00030	.00012	.00055	.00061	.00032
%RSD	63.564	9.2196	678.64	24.358	111.41	58.391	52.311	8.4683	357.42
#1	-.00063	-.00148	.00252	.00167	.00049	.00012	.00066	-.00762	-.00032
#2	-.00024	-.00168	-.00385	.00118	.00006	.00028	.00143	-.00676	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00018**	**-.00070**	W **.05457**	**.25057**	**-.00157**	**.00636**	**.00140**	**-.00013**
Stddev	.00018	.00021	.00038	.00256	.01942	.00202	.00254	.00005	.00068
%RSD	218.38	116.10	53.708	4.7000	7.7494	128.56	40.003	3.5929	505.15
#1	.00021	-.00003	-.00096	.05639	.26431	-.00300	.00816	.00143	-.00061
#2	-.00004	-.00032	-.00043	.05276	.23684	-.00014	.00456	.00136	.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.05000					
Low Limit				-.05000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1.4862**	**.00034**	**-.00068**	**.00305**	**-.00015**	**-.00273**	**-.00297**	**-.00101**	**-.00217**
Stddev	.0054	.00023	.00202	.00112	.00057	.00549	.00089	.02806	.06004
%RSD	.36477	68.006	297.25	36.823	387.83	201.30	30.144	2767.8	2767.8
#1	1.4901	.00018	.00075	.00226	-.00055	-.00661	-.00233	.01883	.04029
#2	1.4824	.00051	-.00211	.00385	.00025	.00115	-.00360	-.02085	-.04463
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit	1.0000								
Low Limit	-1.0000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.00008**	**.00017**	**.00023**	**.00158**	**-.02912**	**-.00011**	**.00352**	**-.00265**
Stddev	.00200	.00008	.00114	.00015	.00217	.05648	.00033	.00022	.00160
%RSD	269.28	92.976	656.09	65.160	137.45	193.97	313.18	6.2032	60.655
#1	-.00067	.00003	-.00063	.00034	.00312	.01082	-.00034	.00367	-.00151
#2	.00215	.00014	.00098	.00013	.00004	-.06906	.00013	.00336	-.00378
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3808.0**	**42602.**	**3434.0**
Stddev	17.6	48.	9.0
%RSD	.46135	.11289	.26096
#1	3795.6	42636.	3440.3
#2	3820.5	42568.	3427.7

Sample Name: LCS 280-459483/2-A Acquired: 5/29/2019 10:06:52 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05279**	**10.248**	**1.9362**	**.96557**	**1.9642**	**.99402**	**1.9407**	**49.097**	**.96752**
Stddev	.00154	.010	.0105	.00531	.0076	.00455	.0138	.108	.00386
%RSD	2.9269	.09565	.54087	.54965	.38486	.45758	.71165	.22022	.39918
#1	.05388	10.241	1.9436	.96933	1.9588	.99080	1.9504	49.020	.97025
#2	.05169	10.255	1.9288	.96182	1.9695	.99723	1.9309	49.173	.96478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95627**	**.95491**	**.97790**	**9.7773**	**49.533**	**.97279**	**49.665**	**.98857**	**.97620**
Stddev	.00492	.00626	.00194	.0232	.149	.00173	.003	.00029	.00873
%RSD	.51426	.65522	.19869	.23769	.29986	.17733	.00509	.02945	.89477
#1	.95974	.95933	.97928	9.7609	49.428	.97157	49.663	.98837	.98238
#2	.95279	.95048	.97653	9.7938	49.638	.97401	49.667	.98878	.97002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **50.570**	**.95733**	**19.935**	**.96010**	**9.8794**	**1.0472**	**1.9051**	**1.9708**	**4.2175**
Stddev	.282	.00680	.101	.00551	.0057	.0089	.0072	.0310	.0663
%RSD	.55827	.71013	.50878	.57397	.05732	.84936	.37971	1.5719	1.5719
#1	50.371	.96214	20.007	.96400	9.8834	1.0535	1.9102	1.9927	4.2644
#2	50.770	.95253	19.864	.95620	9.8754	1.0410	1.9000	1.9489	4.1707
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9263**	**.97541**	**1.0132**	**.98914**	**1.9076**	**2.2596**	**.98743**	**.50697**	**.51533**
Stddev	.0117	.00372	.0020	.00297	.0078	.0161	.00151	.00118	.00107
%RSD	.60661	.38149	.19737	.30018	.40673	.71202	.15278	.23308	.20847
#1	1.9345	.97277	1.0146	.99124	1.9131	2.2483	.98636	.50781	.51457
#2	1.9180	.97804	1.0118	.98704	1.9022	2.2710	.98849	.50614	.51609
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3758.8**	**41618.**	**3477.7**
Stddev	8.9	146.	12.4
%RSD	.23666	.35190	.35751
#1	3752.5	41514.	3486.5
#2	3765.1	41721.	3468.9

Sample Name: LCSD 280-459483/3-A Acquired: 5/29/2019 10:09:09 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05181**	**10.256**	**1.9432**	**.96497**	**1.9775**	W **1.0027**	**1.9376**	**49.006**	**.97112**
Stddev	.00041	.024	.0051	.00225	.0036	.0023	.0054	.088	.00244
%RSD	.79723	.23001	.26380	.23334	.17934	.22815	.28016	.18015	.25151
#1	.05152	10.272	1.9469	.96656	1.9750	1.0011	1.9415	48.944	.97285
#2	.05210	10.239	1.9396	.96337	1.9800	1.0043	1.9338	49.069	.96940
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95930**	**.96024**	**.98422**	**9.7578**	**49.455**	**.98675**	**49.657**	**.99468**	**.98107**
Stddev	.00406	.00352	.00258	.0100	.071	.00229	.004	.00067	.00338
%RSD	.42311	.36658	.26212	.10239	.14294	.23206	.00898	.06693	.34427
#1	.96217	.96272	.98239	9.7508	49.405	.98513	49.661	.99421	.98345
#2	.95643	.95775	.98604	9.7649	49.505	.98837	49.654	.99515	.97868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **50.402**	**.96020**	W **20.002**	**.95970**	**9.8967**	**1.0487**	**1.9242**	**1.9845**	**4.2468**
Stddev	.025	.00152	.061	.00215	.0550	.0030	.0018	.0119	.0255
%RSD	.04874	.15864	.30585	.22413	.55604	.28877	.09470	.60103	.60103
#1	50.384	.96128	20.045	.96122	9.9356	1.0508	1.9255	1.9929	4.2649
#2	50.419	.95912	19.959	.95818	9.8577	1.0466	1.9229	1.9761	4.2288
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9335**	**.98098**	**1.0102**	**.99831**	**1.9088**	**2.3186**	**.99336**	**.48829**	**.51577**
Stddev	.0079	.00011	.0006	.00054	.0036	.0001	.00149	.00038	.00175
%RSD	.40713	.01105	.05400	.05434	.18945	.00478	.15012	.07830	.33894
#1	1.9390	.98105	1.0098	.99793	1.9113	2.3186	.99230	.48802	.51453
#2	1.9279	.98090	1.0106	.99870	1.9062	2.3187	.99441	.48856	.51700
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3782.7**	**41713.**	**3469.4**
Stddev	21.9	19.	20.7
%RSD	.57966	.04628	.59763
#1	3798.3	41727.	3484.0
#2	3767.2	41699.	3454.7

Sample Name: 280-123705-B-10-A Acquired: 5/29/2019 10:11:26 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00029**	**.03100**	**.00486**	**.00450**	**.00134**	**.00027**	**.00117**	**.21109**	**.00024**
Stddev	.00100	.00003	.00497	.00055	.00009	.00011	.00019	.00525	.00023
%RSD	343.16	.08219	102.22	12.133	6.4292	40.237	16.348	2.4891	94.553
#1	-.00100	.03099	.00135	.00411	.00140	.00019	.00104	.20738	.00040
#2	.00042	.03102	.00838	.00489	.00128	.00035	.00131	.21481	.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00039**	**-.00050**	**.02437**	**.28665**	**-.00075**	**.03726**	**.00137**	**.00121**
Stddev	.00045	.00008	.00124	.00506	.02040	.00063	.00137	.00010	.00027
%RSD	148.71	19.592	245.69	20.762	7.1168	83.653	3.6796	7.3076	22.585
#1	-.00002	.00034	-.00138	.02079	.27223	-.00119	.03629	.00144	.00101
#2	.00062	.00045	.00037	.02795	.30108	-.00031	.03822	.00130	.00140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.3440**	**.00050**	**.00368**	**.00261**	**.00851**	**-.00060**	**-.00044**	**.45838**	**.98094**
Stddev	.0099	.00046	.00003	.00246	.00313	.00343	.00521	.01170	.02503
%RSD	.73957	93.268	.83118	94.206	36.838	568.58	1180.0	2.5516	2.5516
#1	1.3511	.00083	.00366	.00435	.01072	-.00303	.00324	.45011	.96324
#2	1.3370	.00017	.00370	.00087	.00629	.00182	-.00412	.46665	.99864
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00134**	**.00049**	**-.00187**	**.00094**	**.00193**	**.05015**	**.00045**	**.01178**	**-.00084**
Stddev	.00005	.00015	.00128	.00067	.00135	.02707	.00045	.00023	.00006
%RSD	3.7604	30.563	68.563	70.708	69.839	53.991	99.450	1.9628	6.6964
#1	.00137	.00038	-.00096	.00047	.00288	.06929	.00077	.01194	-.00088
#2	.00130	.00059	-.00277	.00142	.00098	.03100	.00013	.01161	-.00080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3877.3**	**43575.**	**3534.1**
Stddev	1.0	78.	16.8
%RSD	.02515	.17987	.47564
#1	3876.6	43631.	3546.0
#2	3878.0	43520.	3522.2

Sample Name: 123705-B-10-A SD@5 Acquired: 5/29/2019 10:14:02 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.00481**	**.00174**	**.00235**	**.00075**	**.00024**	**.00043**	**.02304**	**.00015**
Stddev	.00003	.00042	.00343	.00045	.00057	.00010	.00123	.00136	.00009
%RSD	7.6906	8.7042	196.54	18.980	76.246	43.346	287.24	5.9021	61.916
#1	-.00046	.00451	.00417	.00266	.00116	.00031	-.00044	.02400	.00008
#2	-.00041	.00511	-.00068	.00203	.00035	.00016	.00130	.02207	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**-.00023**	**-.00263**	**.00195**	**.21437**	**.00154**	**.01545**	**.00020**	**.00004**
Stddev	.00005	.00013	.00040	.00213	.01979	.00165	.00039	.00010	.00002
%RSD	11.111	55.314	15.040	109.38	9.2308	106.80	2.5420	52.699	39.015
#1	.00052	-.00032	-.00291	.00345	.22836	.00038	.01517	.00012	.00003
#2	.00044	-.00014	-.00235	.00044	.20038	.00270	.01573	.00027	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0168**	**-.00098**	**.00144**	**-.00036**	**-.00059**	**-.00138**	**.00078**	**.08421**	**.18022**
Stddev	.0048	.00028	.00356	.00000	.01065	.00033	.00438	.03924	.08397
%RSD	.46777	28.457	246.88	.48270	1811.7	23.717	562.58	46.592	46.592
#1	1.0202	-.00118	.00396	-.00036	.00694	-.00114	.00388	.11196	.23959
#2	1.0134	-.00078	-.00108	-.00036	-.00811	-.00161	-.00232	.05647	.12084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00152**	**.00030**	**-.00135**	**-.00008**	**.00301**	**.01104**	**.00046**	**-.00252**	**-.00327**
Stddev	.00011	.00014	.00084	.00010	.00234	.00588	.00046	.00012	.00168
%RSD	7.4808	45.856	62.595	120.63	77.951	53.268	101.39	4.5650	51.450
#1	.00160	.00040	-.00075	-.00001	.00135	.00688	.00078	-.00261	-.00446
#2	.00144	.00021	-.00194	-.00015	.00466	.01520	.00013	-.00244	-.00208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3786.7**	**42751.**	**3462.3**
Stddev	21.0	45.	.7
%RSD	.55548	.10410	.01940
#1	3801.6	42720.	3461.8
#2	3771.9	42783.	3462.8

Sample Name: 123705-B-10-B MS Acquired: 5/29/2019 10:16:38 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05105**	**10.416**	**1.9585**	**.96742**	**1.9825**	W **1.0080**	**1.9510**	**49.458**	**.97461**
Stddev	.00034	.021	.0107	.00172	.0029	.0006	.0038	.008	.00646
%RSD	.67046	.20397	.54729	.17780	.14568	.05511	.19357	.01646	.66289
#1	.05130	10.431	1.9661	.96863	1.9845	1.0076	1.9536	49.452	.97918
#2	.05081	10.401	1.9509	.96620	1.9804	1.0084	1.9483	49.464	.97004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.96256**	**.96514**	**.97752**	**9.8297**	**49.783**	**.98846**	**49.736**	**.99565**	**.98538**
Stddev	.00680	.00628	.00212	.0211	.203	.00829	.125	.00101	.00844
%RSD	.70682	.65080	.21658	.21439	.40735	.83890	.25123	.10169	.85652
#1	.96737	.96958	.97901	9.8148	49.639	.99432	49.647	.99493	.99135
#2	.95775	.96070	.97602	9.8446	49.926	.98259	49.824	.99636	.97941
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **50.635**	**.96425**	W **20.171**	**.96340**	**9.9752**	**1.0548**	**1.9312**	**2.5213**	**5.3956**
Stddev	.026	.00593	.125	.00710	.0318	.0053	.0147	.0152	.0324
%RSD	.05089	.61513	.62075	.73669	.31880	.50685	.76302	.60084	.60084
#1	50.617	.96844	20.259	.96842	9.9977	1.0586	1.9416	2.5106	5.3726
#2	50.653	.96005	20.082	.95839	9.9528	1.0511	1.9208	2.5320	5.4185
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9387**	**.98224**	**1.0108**	**.99680**	**1.9206**	**2.2920**	**.99079**	**.49178**	**.51370**
Stddev	.0123	.00202	.0007	.00038	.0151	.0147	.00095	.00067	.00019
%RSD	.63233	.20583	.07054	.03791	.78410	.64104	.09574	.13548	.03609
#1	1.9474	.98367	1.0113	.99653	1.9312	2.3024	.99012	.49131	.51383
#2	1.9301	.98081	1.0103	.99706	1.9099	2.2816	.99146	.49225	.51357
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3762.0**	**41335.**	**3472.7**
Stddev	8.6	74.	18.6
%RSD	.22883	.17833	.53464
#1	3755.9	41387.	3485.8
#2	3768.1	41282.	3459.5

Sample Name: 123705-B-10-C MSD Acquired: 5/29/2019 10:18:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05079**	**10.374**	**1.9875**	**.98245**	**1.9917**	W **1.0104**	**1.9782**	**49.920**	**.98630**
Stddev	.00045	.093	.0015	.00248	.0043	.0043	.0054	.091	.00304
%RSD	.88165	.89392	.07571	.25257	.21699	.42501	.27118	.18254	.30846
#1	.05048	10.440	1.9885	.98421	1.9887	1.0074	1.9820	49.855	.98845
#2	.05111	10.309	1.9864	.98070	1.9948	1.0134	1.9744	49.984	.98415
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97414**	**.97675**	**.99050**	**9.9229**	**50.144**	**.99263**	**50.765**	**1.0108**	**.99846**
Stddev	.00275	.00448	.00375	.0025	.020	.00109	.016	.0004	.00468
%RSD	.28188	.45877	.37892	.02542	.04057	.10968	.03119	.03944	.46829
#1	.97609	.97992	.99316	9.9247	50.130	.99339	50.754	1.0111	1.0018
#2	.97220	.97358	.98785	9.9211	50.158	.99186	50.776	1.0105	.99515
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **51.147**	**.97771**	W **20.455**	**.97666**	**10.127**	**1.0463**	**1.9618**	**2.4968**	**5.3431**
Stddev	.116	.00166	.051	.00755	.077	.0009	.0001	.0080	.0172
%RSD	.22748	.16934	.24945	.77309	.75846	.08961	.00764	.32249	.32249
#1	51.064	.97888	20.491	.98200	10.181	1.0470	1.9619	2.4911	5.3309
#2	51.229	.97654	20.419	.97132	10.073	1.0456	1.9617	2.5025	5.3552
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9650**	**.98802**	**1.0314**	**1.0120**	**1.9435**	**2.3595**	**1.0061**	**.50067**	**.51631**
Stddev	.0069	.00198	.0028	.0000	.0066	.0377	.0061	.00219	.00151
%RSD	.35273	.20075	.27354	.00205	.33965	1.5967	.60639	.43772	.29264
#1	1.9699	.98662	1.0294	1.0120	1.9481	2.3329	1.0104	.49912	.51524
#2	1.9601	.98942	1.0334	1.0120	1.9388	2.3861	1.0018	.50222	.51738
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3742.3**	**41177.**	**3418.2**
Stddev	2.9	.	19.4
%RSD	.07631	.00118	.56768
#1	3740.3	41176.	3404.5
#2	3744.3	41177.	3432.0

Sample Name: 123705-B-10-A PDS Acquired: 5/29/2019 10:21:11 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04975**	**1.0013**	**.18713**	**.10176**	**.09980**	**.04945**	**.00023**	**19.309**	**.04875**
Stddev	.00049	.0027	.00658	.00077	.00018	.00013	.00016	.039	.00025
%RSD	.98084	.26460	3.5138	.75606	.17812	.25279	71.432	.19967	.51333
#1	.04940	1.0032	.18248	.10231	.09968	.04936	.00034	19.282	.04857
#2	.05009	.99942	.19178	.10122	.09993	.04954	.00011	19.337	.04892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04857**	**.04788**	**.05027**	**1.0045**	**19.314**	**.09787**	**19.370**	**.05027**	**.04978**
Stddev	.00005	.00010	.00035	.0155	.032	.00783	.011	.00008	.00116
%RSD	.10752	.20972	.70202	1.5468	.16665	8.0027	.05568	.16332	2.3375
#1	.04853	.04795	.05002	.99356	19.336	.10341	19.377	.05021	.04896
#2	.04861	.04781	.05051	1.0155	19.291	.09233	19.362	.05033	.05061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **20.357**	**.04834**	**1.9534**	**.09930**	**.00228**	**.09595**	**.18693**	**5.3240**	**11.393**
Stddev	.076	.00034	.0012	.00181	.00679	.00101	.00442	.0101	.022
%RSD	.37271	.70254	.06100	1.8209	297.56	1.0576	2.3632	.19008	.19008
#1	20.304	.04858	1.9525	.10058	-.00252	.09523	.19005	5.3168	11.378
#2	20.411	.04810	1.9542	.09802	.00709	.09667	.18381	5.3311	11.409
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09921**	**.04965**	**.20484**	**.04937**	**.19773**	**.54490**	**.04952**	**.19524**	**.05459**
Stddev	.00070	.00001	.00000	.00040	.00271	.02516	.00037	.00169	.00254
%RSD	.70584	.01139	.00212	.81431	1.3716	4.6168	.74727	.86518	4.6529
#1	.09970	.04965	.20484	.04965	.19965	.52711	.04925	.19643	.05638
#2	.09871	.04965	.20485	.04909	.19581	.56269	.04978	.19404	.05279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3802.6**	**42703.**	**3506.1**
Stddev	5.6	31.	9.1
%RSD	.14642	.07371	.25886
#1	3806.5	42725.	3512.6
#2	3798.6	42680.	3499.7

Sample Name: CCVH-5713036 Acquired: 5/29/2019 10:23:40 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00029**	**49.911**	**-.00232**	**.00266**	**.00110**	**.00021**	**.00076**	**.00137**	**-.00012**	**.00237**	**.00043**	**.00990**
Stddev	.00064	.034	.00606	.00103	.00008	.00007	.00301	.00028	.00011	.00001	.00007	.00048
%RSD	216.45	.06812	261.43	38.855	7.5437	34.165	394.79	20.211	91.723	.32277	16.193	4.8617
#1	.00016	49.887	.00197	.00193	.00104	.00016	.00289	.00117	-.00004	.00237	.00038	.01024
#2	-.00074	49.935	-.00661	.00339	.00116	.00026	-.00137	.00156	-.00020	.00238	.00048	.00956
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.534**	**.13899**	**.00468**	**.02131**	**.00248**	**-.00044**	**249.21**	**.00144**	**4.8961**	**.00359**	**4.8637**	**-.00030**
Stddev	.239	.02870	.00617	.00132	.00010	.00047	.45	.00026	.0287	.00068	.0287	.00684
%RSD	.49310	20.650	131.87	6.1957	3.9124	107.28	.18034	18.168	.58623	19.093	.59063	2286.8
#1	48.704	.11870	.00032	.02225	.00254	-.00078	249.53	.00162	4.9164	.00407	4.8840	-.00513
#2	48.365	.15928	.00905	.02038	.00241	-.00011	248.89	.00125	4.8758	.00310	4.8434	.00454
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.03903**	**.08352**	**-.00031**	**.00057**	**4.9908**	**-.01525**	**.00014**	F **.56129**	**.00514**	**-.00130**	**.09226**
Stddev	.00009	.04850	.10378	.00229	.00043	.0009	.00026	.00101	.01472	.00033	.00037	.00161
%RSD	87.936	124.26	124.26	749.32	74.611	.01739	1.7353	719.08	2.6219	6.4220	28.423	1.7402
#1	.00004	.00473	.01013	.00131	.00027	4.9914	-.01543	-.00058	.55088	.00490	-.00156	.09340
#2	.00017	.07332	.15690	-.00192	.00088	4.9902	-.01506	.00086	.57169	.00537	-.00104	.09113
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3763.1**	**41577.**	**3441.8**
Stddev	5.2	7.	55.5
%RSD	.13761	.01790	1.6111
#1	3759.5	41572.	3481.0
#2	3766.8	41583.	3402.6

Sample Name: CCV-5714928 Acquired: 5/29/2019 10:26:11 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48671**	**.49350**	**.48323**	**.48189**	**.49196**	**.49087**	**.97887**	**4.8653**	**.47981**	**.48791**	**.48090**	**.49197**	**2.4133**
Stddev	.00004	.00436	.00491	.00431	.00117	.00152	.00647	.0189	.00462	.00462	.00530	.00129	.0154
%RSD	.00910	.88356	1.0160	.89470	.23884	.30992	.66122	.38811	.96231	.94613	1.1027	.26202	.63946
#1	.48674	.49658	.48670	.48494	.49279	.48980	.98344	4.8520	.48308	.49118	.48465	.49288	2.4242
#2	.48668	.49042	.47976	.47884	.49113	.49195	.97429	4.8787	.47655	.48465	.47715	.49106	2.4024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.801**	**.49148**	**19.632**	**.49490**	**.48047**	**25.073**	**.48897**	**-.00046**	**.48732**	**.00116**	**.48265**	**.48635**	**4.8576**
Stddev	.093	.00249	.028	.00123	.00606	.002	.00311	.00138	.00727	.00754	.00961	.00487	.0362
%RSD	.19105	.50583	.14415	.24838	1.2618	.00783	.63627	300.79	1.4924	652.34	1.9915	1.0017	.74520
#1	48.867	.48972	19.652	.49577	.48475	25.072	.49117	.00052	.49246	.00648	.48945	.48979	4.8320
#2	48.735	.49324	19.612	.49403	.47618	25.074	.48677	-.00143	.48217	-.00417	.47586	.48290	4.8832
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.395**	**.48663**	**.48573**	**-.00557**	**.49216**	**.48588**	**-.00037**	**.49165**	**.48948**	**.48115**
Stddev	.077	.00039	.00185	.00039	.00034	.00285	.01919	.00307	.00032	.00021
%RSD	.74520	.07979	.38021	6.9188	.06871	.58666	5139.7	.62504	.06575	.04433
#1	10.341	.48635	.48704	-.00530	.49192	.48789	.01319	.49382	.48971	.48100
#2	10.450	.48690	.48443	-.00585	.49240	.48386	-.01394	.48948	.48925	.48130
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3787.0**	**42145.**	**3459.1**
Stddev	12.1	130.	10.4
%RSD	.31848	.30783	.30153
#1	3778.5	42237.	3466.5
#2	3795.5	42053.	3451.7

Sample Name: CCB Acquired: 5/29/2019 10:28:34 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00114**	**-.00206**	**.00364**	**.00231**	W **.00224**	W **.00149**	**-.00055**	**.06413**	**-.00008**	**.00019**	**-.00062**	**-.00146**
Stddev	.00079	.00025	.00852	.00083	.00322	.00196	.00384	.08715	.00020	.00003	.00006	.00146
%RSD	69.294	12.125	234.04	35.717	144.24	131.75	701.90	135.89	251.47	17.715	10.302	100.11
#1	-.00170	-.00224	.00966	.00290	-.00004	.00010	-.00326	.00251	.00006	.00021	-.00067	-.00250
#2	-.00058	-.00188	-.00238	.00173	.00451	.00287	.00217	.12576	-.00022	.00017	-.00058	-.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.00200	.00120						
Low Limit					-.00200	-.00120						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.03103**	**.26630**	**.00286**	**.00628**	**.00016**	**.00006**	F **.88824**	**-.00046**	**-.00216**	**.00137**	**-.00207**	**.00011**
Stddev	.04996	.15629	.00120	.00383	.00000	.00046	.28065	.00002	.00016	.00119	.00342	.00335
%RSD	160.98	58.691	41.963	60.988	2.8237	777.92	31.597	3.4174	7.4312	86.888	165.40	3006.5
#1	-.00429	.15578	.00201	.00899	.00016	.00038	.68978	-.00047	-.00205	.00053	-.00448	-.00226
#2	.06636	.37682	.00371	.00357	.00016	-.00027	1.0867	-.00044	-.00228	.00221	.00035	.00248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.50000					
Low Limit							-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00167**	**.01478**	**.03162**	**-.00009**	W **.00162**	**-.00087**	**-.00019**	**.00255**	**.00143**	**-.00055**	**-.00192**	**-.00036**
Stddev	.00319	.01916	.04101	.00099	.00220	.00084	.00014	.00290	.02022	.00129	.00020	.00023
%RSD	191.04	129.70	129.70	1080.1	135.56	96.570	76.848	113.45	1412.7	237.21	10.395	63.212
#1	.00059	.00122	.00262	.00061	.00007	-.00146	-.00009	.00460	.01573	.00037	-.00178	-.00020
#2	-.00393	.02833	.06062	-.00079	.00317	-.00027	-.00029	.00050	-.01287	-.00146	-.00206	-.00052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.00120							
Low Limit					-.00120							

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3759.0**	**41964.**	**3415.3**
Stddev	6.5	127.	40.6
%RSD	.17285	.30179	1.1894
#1	3754.4	42053.	3444.0
#2	3763.6	41874.	3386.6

Sample Name: CCVL-5725431 Acquired: 5/29/2019 10:31:12 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00674**	**.10435**	**.01850**	**.09899**	**.01089**	**.00129**	**.10581**	**.20927**	**.00481**	**.01025**	**.00966**	**.01405**
Stddev	.00190	.00026	.00351	.00081	.00000	.00007	.00164	.00166	.00022	.00016	.00022	.00113
%RSD	28.171	.25138	18.948	.81653	.02803	5.3842	1.5453	.79094	4.6770	1.6093	2.2354	8.0196
#1	.00539	.10417	.01602	.09956	.01089	.00134	.10465	.21044	.00496	.01013	.00982	.01325
#2	.00808	.10454	.02098	.09841	.01089	.00124	.10697	.20810	.00465	.01037	.00951	.01484
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12848**	**3.1527**	**.02294**	**.21650**	**.01074**	**.01935**	F **1.6002**	**.04138**	**2.9125**	**.01054**	**.08647**	**.01823**
Stddev	.00138	.1055	.00121	.00510	.00012	.00095	.0090	.00030	.0066	.00146	.00665	.00228
%RSD	1.0770	3.3471	5.2748	2.3552	1.1307	4.9025	.56226	.73027	.22735	13.897	7.6915	12.499
#1	.12750	3.2273	.02380	.22010	.01065	.02002	1.6066	.04160	2.9172	.00950	.09118	.01984
#2	.12945	3.0781	.02209	.21289	.01082	.01868	1.5938	.04117	2.9078	.01157	.08177	.01662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01656**	**.52601**	**1.1257**	**.10239**	**.00984**	**.01299**	**.00991**	**.01735**	**.04469**	**.00995**	**.01808**	**.01261**
Stddev	.00101	.01196	.0256	.00184	.00012	.00147	.00009	.00092	.04926	.00029	.00058	.00370
%RSD	6.0937	2.2744	2.2744	1.8019	1.2475	11.282	.85811	5.2845	110.21	2.9519	3.2289	29.368
#1	.01727	.53447	1.1438	.10369	.00976	.01402	.00997	.01800	.00986	.00975	.01849	.00999
#2	.01585	.51755	1.1076	.10108	.00993	.01195	.00985	.01670	.07953	.01016	.01767	.01523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3781.6**	**42281.**	**3399.4**
Stddev	7.1	428.	28.2
%RSD	.18794	1.0132	.82829
#1	3776.5	42584.	3379.5
#2	3786.6	41979.	3419.3

Sample Name: 280-123793-B-16-A Acquired: 5/29/2019 10:33:47 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.01653**	**.00129**	**.00255**	**.00109**	**.00011**	**.00056**	**.16242**	**-.00023**
Stddev	.00016	.00008	.00752	.00034	.00007	.00022	.00220	.00910	.00006
%RSD	339.87	.45733	583.77	13.297	5.9780	209.05	389.93	5.6024	26.525
#1	-.00006	.01658	-.00403	.00279	.00114	-.00005	.00212	.16886	-.00019
#2	.00016	.01647	.00661	.00231	.00105	.00027	-.00099	.15599	-.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.00026**	**-.00218**	**.00848**	**.13148**	**.00304**	**.01597**	**.00055**	**-.00036**
Stddev	.00045	.00035	.00131	.00276	.00568	.00293	.00376	.00005	.00023
%RSD	695.72	133.38	59.885	32.559	4.3167	96.186	23.541	9.2172	63.957
#1	.00025	-.00001	-.00126	.00653	.12747	.00511	.01863	.00058	-.00053
#2	-.00038	-.00051	-.00310	.01044	.13549	.00097	.01331	.00051	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.85082**	**-.00036**	**-.00025**	**.00145**	**-.00001**	**-.00152**	**-.00367**	**.43356**	**.92782**
Stddev	.00015	.00038	.00042	.00009	.01056	.00023	.00104	.00515	.01102
%RSD	.01804	106.12	172.16	5.8596	174180.	14.894	28.370	1.1876	1.1876
#1	.85072	-.00063	-.00054	.00139	.00746	-.00136	-.00440	.42992	.92003
#2	.85093	-.00009	.00005	.00151	-.00747	-.00168	-.00293	.43720	.93561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.00009**	**-.00223**	**.00028**	**.00088**	**-.00813**	**.00110**	**-.00098**	**-.00256**
Stddev	.00089	.00038	.00338	.00088	.00010	.04470	.00057	.00049	.00292
%RSD	753.47	415.96	151.96	314.14	11.405	550.13	52.131	50.039	114.09
#1	-.00075	-.00018	-.00462	.00090	.00081	.02348	.00150	-.00063	-.00462
#2	.00051	.00036	.00017	-.00034	.00096	-.03973	.00069	-.00133	-.00049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3842.9**	**42802.**	**3447.0**
Stddev	9.0	182.	14.2
%RSD	.23339	.42470	.41125
#1	3836.6	42931.	3437.0
#2	3849.2	42674.	3457.0

Sample Name: 280-123793-B-26-A Acquired: 5/29/2019 10:36:24 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**.00054**	**.00431**	**.00118**	**.00092**	**.00020**	**-.00354**	**.02913**	**-.00033**
Stddev	.00047	.00063	.00755	.00006	.00002	.00003	.00134	.00179	.00010
%RSD	99.442	116.61	175.17	5.1169	1.8034	14.345	38.007	6.1430	29.000
#1	-.00080	.00009	.00965	.00114	.00091	.00018	-.00259	.02786	-.00040
#2	-.00014	.00098	-.00103	.00122	.00093	.00022	-.00449	.03039	-.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.00003**	**.00008**	**-.00119**	**.08575**	**.00205**	**.04983**	**.00084**	**-.00044**
Stddev	.00007	.00040	.00113	.00391	.00499	.00169	.05416	.00099	.00056
%RSD	31.977	1479.6	1365.8	329.67	5.8237	82.273	108.71	117.58	128.41
#1	-.00027	-.00026	.00088	.00158	.08928	.00086	.08812	.00154	-.00004
#2	-.00017	.00031	-.00072	-.00395	.08222	.00325	.01153	.00014	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50263**	**-.00051**	**.00060**	**.00249**	**-.00302**	**.00053**	**-.00239**	**.00403**	**.00862**
Stddev	.00945	.00023	.00004	.00023	.00860	.00608	.00023	.01814	.03883
%RSD	1.8797	45.004	5.8378	9.0783	284.86	1153.4	9.6831	450.45	450.45
#1	.49595	-.00035	.00063	.00265	.00306	-.00377	-.00255	-.00880	-.01884
#2	.50931	-.00067	.00058	.00233	-.00910	.00483	-.00222	.01686	.03607
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00075**	**-.00028**	**-.00082**	**.00039**	**.00161**	**.04098**	**.00092**	**-.00025**	**.00120**
Stddev	.00033	.00005	.00231	.00095	.00412	.02310	.00026	.00052	.00182
%RSD	44.483	19.514	280.86	245.53	255.94	56.363	27.913	209.54	152.10
#1	.00099	-.00024	.00081	.00105	.00452	.02465	.00110	.00012	.00249
#2	.00052	-.00031	-.00246	-.00028	-.00130	.05732	.00074	-.00061	-.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3840.6**	**43217.**	**3507.1**
Stddev	2.4	138.	5.3
%RSD	.06217	.31950	.15233
#1	3842.3	43315.	3503.3
#2	3839.0	43120.	3510.8

Sample Name: 280-124017-B-10-A Acquired: 5/29/2019 10:39:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00143**	**.00382**	**.00212**	**.00056**	**.00080**	**.00020**	**.00141**	**.06143**	**-.00016**
Stddev	.00130	.00022	.00435	.00014	.00011	.00009	.00121	.01133	.00018
%RSD	91.264	5.8543	205.22	25.470	13.864	44.482	85.379	18.448	113.49
#1	-.00235	.00398	-.00096	.00046	.00088	.00013	.00056	.05341	-.00003
#2	-.00051	.00366	.00519	.00066	.00072	.00026	.00227	.06944	-.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**-.00029**	**-.00128**	**.00500**	**.14205**	**.00250**	**.00825**	**.00010**	**.00008**
Stddev	.00002	.00045	.00014	.00042	.04044	.00344	.00454	.00006	.00017
%RSD	5.5119	156.39	11.079	8.4384	28.470	137.53	55.089	63.849	214.49
#1	-.00032	.00003	-.00118	.00470	.17064	.00493	.01146	.00005	-.00004
#2	-.00030	-.00061	-.00138	.00530	.11345	.00007	.00504	.00014	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49717**	**-.00011**	**-.00103**	**.00211**	**-.00648**	**-.00015**	**-.00171**	**.02695**	**.05767**
Stddev	.00698	.00017	.00508	.00209	.01056	.00286	.00177	.02843	.06083
%RSD	1.4038	159.05	492.08	98.741	162.97	1968.7	103.63	105.48	105.48
#1	.49224	-.00023	.00256	.00359	.00099	.00188	-.00046	.04705	.10069
#2	.50211	.00001	-.00463	.00064	-.01394	-.00217	-.00296	.00685	.01466
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00102**	**-.00013**	**-.00021**	**-.00010**	**.00186**	**-.02279**	**.00001**	**-.00055**	**.00101**
Stddev	.00148	.00017	.00004	.00024	.00091	.03884	.00015	.00037	.00067
%RSD	145.14	123.51	16.935	227.79	48.817	170.44	1697.8	68.629	66.759
#1	-.00003	-.00025	-.00024	-.00027	.00251	.00468	-.00010	-.00028	.00053
#2	.00207	-.00002	-.00019	.00006	.00122	-.05025	.00011	-.00081	.00148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3830.7**	**43248.**	**3498.8**
Stddev	35.9	206.	18.5
%RSD	.93588	.47736	.52843
#1	3856.0	43102.	3485.7
#2	3805.3	43394.	3511.9

Sample Name: 280-124017-B-20-A Acquired: 5/29/2019 10:41:35 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00045**	**.01115**	**.00194**	**.00020**	**.00076**	**.00025**	**-.00118**	**.02511**	**-.00020**
Stddev	.00058	.00017	.00280	.00022	.00054	.00001	.00133	.00041	.00008
%RSD	126.46	1.4984	144.93	107.60	71.251	3.9016	112.60	1.6163	41.491
#1	-.00005	.01103	-.00005	.00036	.00114	.00024	-.00213	.02539	-.00014
#2	-.00086	.01126	.00392	.00005	.00037	.00026	-.00024	.02482	-.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**-.00033**	**-.00148**	**.01487**	**.15944**	**-.00099**	**.00696**	**.00035**	**-.00043**
Stddev	.00015	.00028	.00030	.00140	.03595	.00150	.00459	.00001	.00047
%RSD	60.004	84.750	20.034	9.4062	22.549	151.10	65.954	1.4640	108.93
#1	.00035	-.00053	-.00169	.01586	.13402	-.00205	.00371	.00036	-.00010
#2	.00014	-.00013	-.00127	.01388	.18486	.00007	.01020	.00035	-.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47638**	**-.00034**	**.00118**	**.00085**	**-.00564**	**-.00057**	**-.00551**	**.00615**	**.01317**
Stddev	.00576	.00101	.00014	.00123	.00937	.00206	.00052	.01616	.03458
%RSD	1.2097	293.54	11.606	144.40	166.29	357.51	9.5220	262.50	262.50
#1	.48046	.00037	.00128	.00172	.00099	-.00203	-.00588	.01758	.03762
#2	.47231	-.00105	.00109	-.00002	-.01226	.00088	-.00514	-.00527	-.01128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00158**	**-.00014**	**-.00205**	**.00044**	**.00379**	**.00267**	**.00013**	**-.00109**	**-.00055**
Stddev	.00012	.00006	.00212	.00025	.00554	.02807	.00014	.00036	.00218
%RSD	7.4115	43.555	103.36	56.288	145.91	1052.4	107.41	32.858	392.16
#1	.00149	-.00019	-.00055	.00061	-.00012	.02251	.00003	-.00083	-.00209
#2	.00166	-.00010	-.00354	.00026	.00771	-.01718	.00023	-.00134	.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3784.3**	**42466.**	**3436.2**
Stddev	6.4	162.	5.2
%RSD	.16877	.38132	.15174
#1	3779.8	42352.	3432.6
#2	3788.8	42581.	3439.9

Sample Name: 280-124118-B-10-A Acquired: 5/29/2019 10:44:11 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00103**	**.00692**	**.00591**	**-.00036**	**.00071**	**.00030**	**-.00121**	**.05333**	**.00002**
Stddev	.00001	.00008	.00621	.00102	.00006	.00017	.00034	.00195	.00019
%RSD	.85961	1.1064	105.15	283.26	8.1921	55.861	28.320	3.6591	936.25
#1	-.00104	.00687	.01030	-.00108	.00067	.00018	-.00097	.05471	-.00012
#2	-.00102	.00698	.00151	.00036	.00075	.00042	-.00145	.05195	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00014**	**-.00050**	**.10403**	**.15723**	**-.00204**	**.01039**	**.00076**	**-.00012**
Stddev	.00036	.00019	.00000	.00541	.06070	.00174	.00057	.00006	.00014
%RSD	447.82	135.18	.60203	5.1961	38.603	85.552	5.4793	7.8563	109.75
#1	-.00017	-.00001	-.00050	.10785	.11432	-.00327	.01079	.00081	-.00022
#2	.00033	-.00027	-.00050	.10020	.20015	-.00080	.00999	.00072	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.43259**	**-.00004**	**.00123**	**.00333**	**-.00084**	**-.00483**	**.00010**	**.03537**	**.07570**
Stddev	.01430	.00007	.00068	.00075	.00377	.00154	.00815	.00775	.01658
%RSD	3.3062	172.56	55.225	22.451	449.84	31.887	8417.8	21.897	21.897
#1	.44270	-.00009	.00171	.00280	-.00350	-.00374	-.00567	.02990	.06398
#2	.42248	.00001	.00075	.00386	.00183	-.00592	.00586	.04085	.08742
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**-.00014**	**-.00267**	**.00019**	**.00312**	**.05250**	**.00118**	**-.00155**	**-.00010**
Stddev	.00192	.00034	.00242	.00009	.00237	.05765	.00052	.00031	.00254
%RSD	249.63	243.04	90.539	45.457	75.822	109.81	43.950	20.296	2487.9
#1	-.00059	.00010	-.00096	.00013	.00145	.01173	.00155	-.00132	.00170
#2	.00213	-.00039	-.00438	.00025	.00479	.09326	.00081	-.00177	-.00190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3759.6**	**42740.**	**3410.2**
Stddev	11.7	203.	12.2
%RSD	.31153	.47606	.35660
#1	3767.9	42596.	3401.6
#2	3751.3	42884.	3418.8

Sample Name: 280-124121-B-10-A Acquired: 5/29/2019 10:46:46 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00030**	**.00242**	**-.00038**	**-.00038**	**.00058**	**.00020**	**.00068**	**.02145**	**-.00052**
Stddev	.00029	.00097	.00231	.00100	.00024	.00013	.00121	.00349	.00017
%RSD	98.878	40.256	609.37	263.81	41.481	67.609	177.51	16.281	32.006
#1	-.00009	.00173	-.00201	.00033	.00041	.00029	-.00017	.02392	-.00064
#2	-.00051	.00311	.00126	-.00109	.00075	.00010	.00154	.01898	-.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.00012**	**-.00128**	**.00558**	**.01700**	**-.00166**	**.00796**	**.00016**	**-.00045**
Stddev	.00029	.00006	.00057	.00196	.07499	.00252	.00075	.00010	.00083
%RSD	503.68	45.928	44.296	35.238	441.16	151.92	9.3859	60.807	186.41
#1	-.00026	.00016	-.00168	.00419	.07003	-.00344	.00849	.00023	.00014
#2	.00015	.00008	-.00088	.00696	-.03603	.00012	.00743	.00009	-.00104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42805**	**-.00020**	**.00135**	**.00385**	**-.00121**	**-.00018**	**-.00296**	**-.00454**	**-.00972**
Stddev	.00621	.00004	.00273	.00104	.00445	.00047	.00208	.03921	.08391
%RSD	1.4514	21.932	202.39	27.043	369.20	256.81	70.277	862.91	862.91
#1	.43244	-.00023	-.00058	.00459	.00194	.00015	-.00443	-.03227	-.06906
#2	.42365	-.00017	.00328	.00312	-.00436	-.00052	-.00149	.02318	.04961
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**-.00019**	**.00032**	**.00013**	**.00162**	**-.04048**	**.00044**	**-.00109**	**-.00224**
Stddev	.00093	.00021	.00172	.00020	.00059	.05155	.00074	.00017	.00209
%RSD	139.86	109.84	544.35	154.69	36.494	127.34	166.75	15.564	93.380
#1	.00001	-.00004	-.00090	.00028	.00204	-.00403	.00097	-.00097	-.00371
#2	.00132	-.00034	.00153	-.00001	.00120	-.07693	-.00008	-.00121	-.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3836.0**	**43061.**	**3460.7**
Stddev	.7	71.	17.6
%RSD	.01922	.16579	.50998
#1	3835.5	43112.	3448.2
#2	3836.5	43011.	3473.2

Sample Name: CCVH-5713036 Acquired: 5/29/2019 10:49:21 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00054**	**50.248**	**-.00226**	**.00013**	**.00176**	**.00025**	**-.00279**	**-.00254**	**-.00011**	**.00237**	**-.00002**	**.01073**	**49.397**
Stddev	.00028	.229	.00331	.00060	.00017	.00015	.00299	.00474	.00026	.00043	.00036	.00071	.156
%RSD	51.535	.45486	146.52	455.98	9.7910	61.961	107.38	186.31	231.17	18.304	1615.3	6.5751	.31545
#1	-.00074	50.086	.00008	.00055	.00163	.00014	-.00067	-.00590	-.00030	.00268	-.00028	.01123	49.287
#2	-.00035	50.409	-.00460	-.00029	.00188	.00036	-.00490	.00081	.00007	.00206	.00023	.01023	49.507
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.13042**	**.00396**	**.02383**	**.00250**	**-.00117**	**250.41**	**.00145**	**4.9128**	**.00404**	**4.8727**	**.00219**	**-.00509**	**.04730**
Stddev	.11842	.00237	.00019	.00012	.00049	1.91	.00067	.0295	.00037	.0240	.00206	.00493	.01455
%RSD	90.801	59.873	.79694	4.9414	41.900	.76413	45.860	.59984	9.1185	.49212	94.486	96.787	30.757
#1	.21415	.00564	.02397	.00259	-.00151	249.06	.00098	4.9337	.00378	4.8897	.00364	-.00858	.05759
#2	.04668	.00228	.02370	.00241	-.00082	251.77	.00192	4.8920	.00430	4.8558	.00073	-.00161	.03701
Check ?	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10122**	**.00040**	**.00002**	**4.9916**	**-.01561**	**.00254**	**.52251**	**.00556**	**-.00196**	**.10144**
Stddev	.03113	.00046	.00013	.0060	.00038	.00132	.00745	.00008	.00017	.00147
%RSD	30.757	114.51	811.97	.12011	2.4649	51.916	1.4265	1.4926	8.7281	1.4460
#1	.12323	.00008	.00011	4.9959	-.01533	.00347	.52778	.00562	-.00208	.10040
#2	.07921	.00073	-.00008	4.9874	-.01588	.00160	.51724	.00550	-.00184	.10248
Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3749.0**	**41625.**	**3423.8**
Stddev	6.9	67.	31.5
%RSD	.18437	.16165	.92121
#1	3753.9	41673.	3446.1
#2	3744.1	41578.	3401.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 10:51:52 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47526**	F **.63445**	**.48819**	**.47555**	**.48287**	**.48050**	**.96908**	**4.7972**	**.47658**	**.48517**	**.47941**	**.48047**
Stddev	.00310	.00101	.00941	.00115	.00064	.00036	.00015	.0060	.00149	.00184	.00203	.00140
%RSD	.65219	.15843	1.9269	.24088	.13272	.07426	.01575	.12462	.31360	.37947	.42242	.29201
#1	.47745	.63516	.49484	.47636	.48241	.48075	.96919	4.8014	.47764	.48647	.48084	.48146
#2	.47306	.63374	.48154	.47474	.48332	.48025	.96897	4.7930	.47553	.48387	.47798	.47947
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000										
Range		10.000%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.5076**	**47.949**	**.47750**	**19.301**	**.48576**	**.47853**	**25.093**	**.48701**	**.01214**	**.48495**	**.00839**	**.47858**
Stddev	.0086	.092	.00025	.035	.00097	.00104	.028	.00400	.00132	.00021	.01116	.00134
%RSD	.34330	.19135	.05314	.17919	.20056	.21805	.11289	.82220	10.845	.04307	133.04	.28045
#1	2.5015	47.884	.47732	19.325	.48645	.47927	25.073	.48984	.01307	.48509	.01629	.47953
#2	2.5137	48.014	.47768	19.276	.48507	.47779	25.113	.48418	.01121	.48480	.00050	.47763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47759**	**4.7637**	**10.194**	**.47980**	**.47763**	**.01010**	**.48206**	**.48328**	**.02062**	**.48112**	**.48028**	**.47124**
Stddev	.00451	.0153	.033	.00008	.00081	.00176	.00134	.00348	.03094	.00102	.00122	.00327
%RSD	.94356	.32142	.32142	.01717	.17057	17.467	.27740	.71982	150.04	.21124	.25348	.69408
#1	.47440	4.7745	10.217	.47986	.47705	.01134	.48301	.48574	-.00126	.48040	.48114	.46893
#2	.48078	4.7528	10.171	.47975	.47820	.00885	.48112	.48082	.04250	.48184	.47942	.47355
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3810.5**	**42694.**	**3496.9**
Stddev	10.0	75.	7.1
%RSD	.26327	.17633	.20195
#1	3817.6	42641.	3492.0
#2	3803.5	42748.	3501.9

Sample Name: CCB Acquired: 5/29/2019 10:54:16 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00125**	**-.00017**	**.00232**	**.00061**	**-.00023**	**.00013**	**.00076**	**-.01705**	**-.00033**	**.00012**	**-.00021**	**-.00130**
Stddev	.00085	.00101	.00629	.00109	.00042	.00004	.00627	.00208	.00015	.00002	.00036	.00143
%RSD	68.100	591.06	271.36	177.10	182.99	34.365	823.24	12.207	45.349	17.642	168.60	110.77
#1	-.00065	-.00088	-.00213	-.00015	.00007	.00010	-.00367	-.01852	-.00044	.00013	-.00047	-.00028
#2	-.00185	.00054	.00677	.00138	-.00052	.00016	.00519	-.01558	-.00023	.00010	.00004	-.00231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00175**	**.12065**	**.00293**	**.00428**	**.00003**	**.00039**	W **.45042**	**-.00085**	**-.00189**	**.00296**	**-.00680**	**-.00275**
Stddev	.00095	.05307	.00316	.00143	.00007	.00016	.03248	.00057	.00112	.00108	.00510	.00074
%RSD	54.374	43.987	108.04	33.274	223.01	40.895	7.2116	66.819	59.511	36.358	75.011	26.953
#1	-.00242	.15818	.00069	.00529	.00008	.00028	.47339	-.00125	-.00268	.00220	-.00319	-.00327
#2	-.00108	.08312	.00516	.00328	-.00002	.00051	.42745	-.00045	-.00109	.00372	-.01041	-.00222
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.35000					
Low Limit							-.35000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00767**	**.01642**	**.00160**	**-.00003**	**-.00023**	**.00025**	**.00013**	**.06909**	**.00031**	**-.00306**	**-.00136**
Stddev	.00211	.00495	.01060	.00092	.00004	.00025	.00020	.00355	.04900	.00112	.00019	.00125
%RSD	51.547	64.552	64.552	57.443	123.12	108.68	78.182	2803.3	70.916	367.77	6.3281	91.986
#1	.00559	.00417	.00893	.00095	-.00006	-.00041	.00011	-.00238	.03444	-.00049	-.00320	-.00225
#2	.00261	.01118	.02392	.00226	-.00000	-.00005	.00039	.00264	.10373	.00110	-.00293	-.00048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3792.1**	**42609.**	**3447.5**
Stddev	26.0	349.	15.7
%RSD	.68560	.81859	.45579
#1	3773.7	42362.	3458.6
#2	3810.5	42856.	3436.4

Sample Name: CCVL-5725431 Acquired: 5/29/2019 10:56:53 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00636**	**.10061**	**.01268**	**.09626**	**.01021**	**.00110**	**.10460**	**.19564**	**.00485**	**.00994**	**.00957**	**.01453**
Stddev	.00103	.00133	.00356	.00146	.00008	.00006	.00010	.00019	.00010	.00018	.00078	.00103
%RSD	16.120	1.3238	28.075	1.5139	.80635	5.4253	.09727	.09561	2.0638	1.8410	8.1983	7.0655
#1	.00709	.10155	.01520	.09729	.01015	.00105	.10467	.19577	.00492	.01007	.00902	.01525
#2	.00564	.09967	.01017	.09523	.01026	.00114	.10453	.19550	.00478	.00981	.01013	.01380
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12451**	**3.0901**	**.02460**	**.20985**	**.01055**	**.01942**	F **1.3421**	**.04083**	**2.8762**	**.00926**	**.09985**	**.01784**
Stddev	.00266	.0485	.00266	.00403	.00011	.00041	.0086	.00060	.0253	.00138	.00090	.00473
%RSD	2.1386	1.5696	10.815	1.9210	1.0124	2.1190	.64270	1.4596	.87808	14.853	.90461	26.507
#1	.12639	3.0558	.02648	.21270	.01063	.01913	1.3482	.04126	2.8941	.01024	.09921	.02118
#2	.12262	3.1244	.02272	.20700	.01048	.01972	1.3360	.04041	2.8583	.00829	.10049	.01449
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.01332**	**.48172**	**1.0309**	**.10024**	**.00956**	**.01332**	**.00951**	**.01681**	**.06065**	**.01012**	**.01786**	**.01434**
Stddev	.00289	.04591	.0983	.00257	.00028	.00111	.00001	.00036	.02499	.00136	.00014	.00260
%RSD	21.723	9.5303	9.5303	2.5670	2.9469	8.3477	.06640	2.1310	41.201	13.471	.79993	18.116
#1	.01537	.44925	.96140	.10206	.00976	.01253	.00951	.01706	.07832	.00916	.01776	.01617
#2	.01127	.51418	1.1003	.09842	.00937	.01410	.00952	.01656	.04298	.01108	.01796	.01250
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.02000											
Range	-30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3842.0**	**43035.**	**3484.2**
Stddev	2.4	80.	9.8
%RSD	.06277	.18679	.28117
#1	3840.3	43091.	3477.3
#2	3843.7	42978.	3491.2

Sample Name: MB 280-459200/1-A Acquired: 5/29/2019 10:59:32 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00063**	**.00555**	**-.00299**	**-.00046**	**.00076**	**.00041**	**-.00040**	**.01970**	**-.00024**
Stddev	.00047	.00036	.00397	.00027	.00038	.00031	.00648	.00273	.00023
%RSD	75.098	6.4786	132.74	59.147	50.252	75.671	1629.0	13.877	95.766
#1	-.00096	.00580	-.00018	-.00027	.00049	.00019	.00419	.01777	-.00040
#2	-.00030	.00529	-.00579	-.00065	.00103	.00063	-.00498	.02163	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00012**	**-.00123**	W **.05845**	**.02616**	**.00142**	**.01196**	**.00072**	**-.00043**
Stddev	.00039	.00028	.00076	.03065	.07800	.00271	.00564	.00001	.00012
%RSD	901.73	246.34	61.906	52.440	298.21	191.60	47.168	.73025	27.981
#1	.00032	-.00032	-.00069	.03677	-.02900	.00333	.00797	.00072	-.00052
#2	-.00023	.00009	-.00177	.08012	.08131	-.00050	.01595	.00073	-.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.05000					
Low Limit				-.05000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.46708**	**.00001**	**.00284**	**.00079**	**.01317**	**-.00201**	**.00087**	**.00177**	**.00378**
Stddev	.16270	.00066	.00203	.00056	.01048	.00446	.00468	.00908	.01942
%RSD	34.834	4405.9	71.613	70.373	79.606	222.16	540.12	514.00	514.00
#1	.35203	.00048	.00140	.00040	.00575	-.00516	.00417	.00818	.01751
#2	.58213	-.00045	.00428	.00118	.02058	.00115	-.00244	-.00465	-.00996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00155**	**-.00008**	**-.00340**	**.00005**	**.00149**	**.01862**	**.00074**	**.00261**	**-.00029**
Stddev	.00037	.00024	.00236	.00024	.00019	.03175	.00041	.00034	.00252
%RSD	23.761	301.06	69.408	509.98	12.709	170.50	55.674	13.050	882.95
#1	.00129	-.00025	-.00173	-.00012	.00136	.04107	.00103	.00286	.00150
#2	.00182	.00009	-.00507	.00022	.00162	-.00383	.00045	.00237	-.00207
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3821.6**	**43096.**	**3533.3**
Stddev	7.7	125.	28.5
%RSD	.20076	.29006	.80665
#1	3827.0	43184.	3553.5
#2	3816.1	43008.	3513.2

Sample Name: LCS 280-459200/2-A Acquired: 5/29/2019 11:02:43 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00100**	**9.9258**	**1.9455**	**.95371**	**1.9462**	**.99383**	**1.9279**	**48.213**	**.96830**
Stddev	.00059	.0533	.0120	.00251	.0000	.00258	.0028	.023	.00064
%RSD	58.468	.53736	.61725	.26287	.00132	.25964	.14565	.04802	.06573
#1	.00142	9.8881	1.9539	.95193	1.9462	.99566	1.9259	48.196	.96875
#2	.00059	9.9635	1.9370	.95548	1.9462	.99201	1.9299	48.229	.96785
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95552**	**.96016**	**.97001**	**9.6058**	**48.567**	**.97858**	**48.998**	**.99027**	**.97774**
Stddev	.00301	.00239	.00162	.0169	.048	.00417	.024	.00068	.00251
%RSD	.31532	.24883	.16733	.17637	.09884	.42572	.04845	.06871	.25712
#1	.95766	.96185	.97116	9.6178	48.533	.98153	48.981	.98979	.97952
#2	.95339	.95847	.96887	9.5939	48.601	.97564	49.015	.99075	.97596
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **48.643**	**.95943**	**19.838**	**.95654**	**9.7889**	**.00838**	**1.9183**	**1.9991**	**4.2780**
Stddev	.020	.00133	.019	.00492	.0208	.00176	.0002	.0179	.0383
%RSD	.04186	.13892	.09499	.51423	.21240	21.069	.01197	.89530	.89530
#1	48.657	.96037	19.851	.95306	9.7742	.00962	1.9182	2.0117	4.3051
#2	48.628	.95849	19.824	.96002	9.8036	.00713	1.9185	1.9864	4.2509
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9237**	**.96368**	**1.0068**	**.99294**	**1.9075**	**2.2351**	**.98215**	**.48487**	**.50532**
Stddev	.0063	.00073	.0004	.00062	.0096	.0132	.00028	.00078	.00270
%RSD	.32526	.07566	.04442	.06223	.50315	.59128	.02858	.16099	.53527
#1	1.9281	.96317	1.0065	.99250	1.9143	2.2257	.98195	.48542	.50724
#2	1.9193	.96420	1.0071	.99337	1.9007	2.2444	.98235	.48432	.50341
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3749.3**	**41527.**	**3459.3**
Stddev	9.1	234.	4.6
%RSD	.24194	.56466	.13355
#1	3742.9	41693.	3456.0
#2	3755.8	41362.	3462.6

Sample Name: 280-123647-C-1-E Acquired: 5/29/2019 11:05:02 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00059**	**.01309**	**.00053**	**.18304**	**.29865**	**.00018**	**-.00079**	**2.7785**	**-.00003**
Stddev	.00044	.00031	.00403	.00197	.00217	.00008	.00152	.0144	.00012
%RSD	74.456	2.3353	755.50	1.0780	.72626	43.475	192.04	.51980	402.52
#1	-.00090	.01288	.00338	.18443	.30018	.00012	-.00186	2.7887	-.00012
#2	-.00028	.01331	-.00232	.18164	.29712	.00023	.00028	2.7683	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00009**	**.00120**	**.44092**	**2.0179**	**.08242**	**.35516**	**.01363**	**.00202**
Stddev	.00032	.00016	.00007	.00289	.0639	.00381	.00036	.00003	.00025
%RSD	1291.4	186.41	5.8562	.65647	3.1669	4.6173	.10216	.18993	12.539
#1	.00025	.00020	.00125	.44296	2.0631	.07973	.35542	.01361	.00184
#2	-.00020	-.00003	.00115	.43887	1.9727	.08511	.35491	.01365	.00220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**387.22**	**.00004**	**.02761**	**.00014**	**.09282**	**.00102**	**-.00361**	**9.4557**	**20.235**
Stddev	2.41	.00009	.00164	.00140	.00828	.00202	.00023	.0685	.147
%RSD	.62267	198.53	5.9563	995.96	8.9172	198.80	6.3134	.72481	.72481
#1	388.92	.00010	.02645	.00113	.08697	-.00041	-.00345	9.5042	20.339
#2	385.51	-.00002	.02877	-.00085	.09867	.00244	-.00377	9.4072	20.132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.38490**	**-.00280**	**.00013**	**.00221**	**.04213**	**.00055**	**.00161**	**.00027**
Stddev	.00008	.00236	.00358	.00143	.00053	.01800	.00018	.00053	.00131
%RSD	232.92	.61403	127.57	1126.1	23.882	42.726	32.129	32.924	485.29
#1	.00002	.38657	-.00027	.00114	.00183	.05486	.00043	.00198	.00119
#2	-.00009	.38323	-.00533	-.00088	.00258	.02941	.00067	.00123	-.00065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3643.0**	**40726.**	**3428.2**
Stddev	6.7	78.	17.8
%RSD	.18348	.19093	.51966
#1	3647.7	40781.	3415.6
#2	3638.3	40671.	3440.8

Sample Name: 280-124074-D-1-A Acquired: 5/29/2019 11:07:38 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.01881**	**.00636**	**2.5075**	**.64746**	**.00017**	**-.00560**	**161.01**	**.00094**
Stddev	.00192	.00107	.00368	.0057	.00062	.00006	.00496	.35	.00007
%RSD	295.70	5.7040	57.890	.22935	.09507	32.974	88.449	.21704	7.2500
#1	.00071	.01805	.00896	2.5116	.64789	.00013	-.00911	161.26	.00089
#2	-.00200	.01956	.00376	2.5035	.64702	.00021	-.00210	160.77	.00099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01989**	**.00399**	**.00312**	**.47511**	**26.319**	**.01926**	**297.09**	**2.2718**	**.01234**
Stddev	.00025	.00001	.00054	.00433	.112	.00496	2.56	.0026	.00050
%RSD	1.2652	.19296	17.368	.91111	.42625	25.770	.86006	.11353	4.0436
#1	.01971	.00399	.00274	.47205	26.399	.01575	298.90	2.2737	.01269
#2	.02007	.00398	.00350	.47817	26.240	.02277	295.29	2.2700	.01198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**368.62**	**.24791**	**.31677**	**-.00106**	**52.767**	**-.00192**	**-.00366**	**20.762**	**44.430**
Stddev	.32	.00149	.00062	.00153	.180	.00443	.00488	.041	.088
%RSD	.08652	.60296	.19610	144.42	.34194	230.73	133.25	.19751	.19751
#1	368.85	.24897	.31634	.00002	52.895	.00121	-.00711	20.733	44.368
#2	368.40	.24685	.31721	-.00214	52.640	-.00505	-.00021	20.791	44.492
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00061**	**1.3476**	**-.00595**	**.00187**	**-.00062**	**-.00726**	**.00281**	**.01103**	**.00340**
Stddev	.00204	.0023	.00183	.00029	.00298	.01264	.00056	.00127	.00140
%RSD	332.41	.16850	30.694	15.625	477.75	174.15	20.071	11.512	41.252
#1	.00083	1.3493	-.00466	.00166	.00148	-.01620	.00241	.01193	.00241
#2	-.00205	1.3460	-.00724	.00208	-.00273	.00168	.00321	.01013	.00439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3586.7**	**40105.**	**3466.9**
Stddev	10.8	76.	11.0
%RSD	.30237	.18843	.31807
#1	3579.1	40158.	3459.1
#2	3594.4	40051.	3474.7

Sample Name: 280-124074-D-2-A Acquired: 5/29/2019 11:10:15 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.21034**	**.00864**	**.44144**	**.03588**	**.00036**	**-.00508**	**168.53**	**.00036**
Stddev	.00020	.00139	.00135	.00348	.00011	.00019	.00250	.53	.00016
%RSD	104.57	.66091	15.604	.78798	.29870	53.158	49.164	.31533	43.760
#1	-.00033	.21132	.00959	.44390	.03595	.00023	-.00331	168.91	.00025
#2	-.00005	.20936	.00769	.43898	.03580	.00050	-.00685	168.16	.00047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.00208**	**.00213**	**.32850**	**4.3222**	**.00905**	**112.69**	**.04161**	**.00204**
Stddev	.00027	.00025	.00114	.00009	.0906	.00123	.12	.00011	.00016
%RSD	35.882	12.117	53.694	.02788	2.0961	13.574	.10302	.25904	7.7552
#1	.00055	.00190	.00293	.32857	4.3863	.00992	112.61	.04169	.00193
#2	.00093	.00226	.00132	.32844	4.2582	.00818	112.77	.04153	.00215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **34.208**	**.00977**	**.07462**	**.00163**	F **216.55**	**-.00050**	**-.00550**	**10.062**	**21.534**
Stddev	.026	.00010	.00079	.00086	.71	.00508	.00002	.004	.009
%RSD	.07712	1.0507	1.0624	53.006	.32728	1014.4	.41797	.04034	.04034
#1	34.226	.00985	.07519	.00102	217.05	-.00409	-.00552	10.060	21.528
#2	34.189	.00970	.07406	.00224	216.05	.00309	-.00549	10.065	21.540
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500				200.00				
Low Limit	-.20000				-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**1.0017**	**-.00125**	**.00940**	**.00165**	**.01482**	**.00383**	**.00543**	**-.00028**
Stddev	.00041	.0050	.00178	.00156	.00104	.07577	.00109	.00009	.00223
%RSD	536.35	.49851	142.55	16.605	62.872	511.29	28.551	1.6971	792.70
#1	.00021	1.0053	-.00250	.01050	.00092	.06840	.00305	.00549	-.00185
#2	-.00036	.99822	.00001	.00829	.00238	-.03876	.00460	.00536	.00129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3666.7**	**41519.**	**3453.1**
Stddev	9.9	212.	24.4
%RSD	.27131	.51036	.70772
#1	3673.7	41369.	3435.8
#2	3659.6	41669.	3470.4

Sample Name: 280-124074-D-2-A Acquired: 5/29/2019 11:12:45 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00074**	**.04799**	**.00196**	**.10134**	**.00671**	**.00010**	**-.00058**	**34.899**	**.00043**
Stddev	.00089	.00028	.00152	.00286	.00020	.00004	.00264	.430	.00026
%RSD	120.52	.58464	77.621	2.8224	3.0102	40.316	455.71	1.2308	60.605
#1	-.00138	.04819	.00088	.09932	.00685	.00007	-.00244	34.595	.00025
#2	-.00011	.04779	.00303	.10336	.00657	.00012	.00129	35.203	.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00038**	**-.00032**	**.07567**	**1.0860**	**.00082**	**23.704**	**.00909**	**-.00058**
Stddev	.00018	.00025	.00138	.00354	.0082	.00297	.184	.00018	.00040
%RSD	137.56	64.587	431.73	4.6816	.75527	362.15	.77797	1.9550	68.038
#1	.00026	.00021	-.00129	.07317	1.0918	.00292	23.573	.00896	-.00086
#2	.00000	.00055	.00065	.07818	1.0802	-.00128	23.834	.00922	-.00030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.4987**	**.00184**	**.01558**	**.00268**	**47.262**	**-.00190**	**-.00262**	**2.0632**	**4.4152**
Stddev	.1161	.00039	.00172	.00097	.847	.00118	.00482	.0557	.1192
%RSD	1.5479	21.226	11.008	36.289	1.7924	61.953	183.63	2.7000	2.7000
#1	7.4166	.00157	.01437	.00337	46.663	-.00273	.00078	2.0238	4.3309
#2	7.5808	.00212	.01679	.00199	47.861	-.00107	-.00603	2.1026	4.4995
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00060**	**.20710**	**-.00244**	**.00186**	**.00280**	**.00576**	**.00124**	**-.00057**	**-.00055**
Stddev	.00082	.00209	.00116	.00001	.00037	.06777	.00076	.00049	.00405
%RSD	136.96	1.0104	47.532	.49949	13.262	1176.6	61.203	86.558	737.91
#1	-.00118	.20562	-.00162	.00187	.00307	-.04216	.00177	-.00091	-.00341
#2	-.00002	.20858	-.00326	.00185	.00254	.05368	.00070	-.00022	.00231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3754.8**	**42201.**	**3443.7**
Stddev	20.6	148.	16.3
%RSD	.54876	.35177	.47198
#1	3769.3	42306.	3455.2
#2	3740.2	42096.	3432.3

Sample Name: 280-124074-D-2-B MS Acquired: 5/29/2019 11:15:18 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00153**	**10.198**	**1.9789**	**1.3884**	**1.9557**	**.96570**	**1.9417**	**209.68**	**.97756**
Stddev	.00009	.024	.0032	.0038	.0050	.00303	.0022	.79	.00226
%RSD	5.9023	.23717	.16256	.27150	.25662	.31420	.11245	.37448	.23126
#1	.00160	10.181	1.9767	1.3911	1.9521	.96355	1.9433	209.12	.97916
#2	.00147	10.215	1.9812	1.3857	1.9592	.96784	1.9402	210.23	.97597
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.93388**	**.95738**	**.96828**	**9.7412**	**52.895**	**.97840**	**157.47**	**.99566**	**.98063**
Stddev	.00257	.00369	.00038	.0488	.157	.00065	.11	.00183	.00483
%RSD	.27550	.38538	.03906	.50042	.29660	.06648	.06725	.18398	.49282
#1	.93570	.95999	.96855	9.7067	52.784	.97794	157.40	.99437	.98405
#2	.93206	.95477	.96801	9.7756	53.006	.97886	157.55	.99696	.97721
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**82.957**	**.94826**	W **20.307**	**.93496**	F **224.19**	**.00660**	**1.9354**	**11.758**	**25.162**
Stddev	.636	.00497	.042	.00222	.57	.00195	.0068	.014	.029
%RSD	.76715	.52394	.20875	.23703	.25362	29.474	.35305	.11601	.11601
#1	82.507	.95177	20.337	.93653	224.59	.00798	1.9305	11.768	25.183
#2	83.407	.94475	20.277	.93339	223.78	.00523	1.9402	11.748	25.142
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000		200.00				
Low Limit			-6.0000		-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9172**	**1.9282**	**.96837**	**.97469**	**1.8458**	**2.2114**	**.96972**	**.46981**	**.48216**
Stddev	.0070	.0080	.00166	.00083	.0118	.0873	.00068	.00002	.00458
%RSD	.36654	.41375	.17192	.08547	.63697	3.9492	.06976	.00397	.95092
#1	1.9221	1.9226	.96720	.97410	1.8541	2.2732	.97020	.46980	.47892
#2	1.9122	1.9339	.96955	.97528	1.8375	2.1497	.96924	.46983	.48541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3628.9**	**40942.**	**3451.5**
Stddev	6.7	92.	7.5
%RSD	.18351	.22423	.21745
#1	3624.2	41007.	3456.8
#2	3633.6	40877.	3446.2

Sample Name: 280-124074-D-2-C MSD Acquired: 5/29/2019 11:17:35 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00270**	**10.307**	**2.0017**	**1.4045**	**2.0099**	**.98917**	**1.9688**	**213.52**	**.99420**
Stddev	.00028	.084	.0132	.0000	.0011	.00009	.0030	.03	.00071
%RSD	10.541	.81974	.65687	.00218	.05429	.00922	.15460	.01534	.07109
#1	.00250	10.366	2.0110	1.4045	2.0106	.98911	1.9667	213.55	.99470
#2	.00290	10.247	1.9924	1.4044	2.0091	.98924	1.9710	213.50	.99370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95091**	**.97598**	**.98078**	**9.9913**	**54.161**	**1.0111**	**158.90**	**1.0119**	**.99867**
Stddev	.00223	.00000	.00186	.0125	.009	.0028	.13	.0016	.00291
%RSD	.23426	.00020	.18945	.12534	.01646	.27746	.08270	.15785	.29091
#1	.95249	.97599	.98210	9.9825	54.168	1.0091	159.00	1.0130	1.0007
#2	.94934	.97598	.97947	10.000	54.155	1.0131	158.81	1.0107	.99661
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**84.988**	**.96424**	W **20.616**	**.95425**	F **225.03**	**.00516**	**1.9675**	**11.955**	**25.584**
Stddev	.087	.00119	.026	.00095	.50	.00460	.0024	.052	.111
%RSD	.10202	.12360	.12713	.09943	.22329	89.199	.12058	.43531	.43531
#1	84.926	.96508	20.634	.95492	225.39	.00190	1.9659	11.918	25.505
#2	85.049	.96340	20.597	.95358	224.68	.00841	1.9692	11.992	25.663
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000		200.00				
Low Limit			-6.0000		-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9476**	**1.9699**	**.98193**	**.99048**	**1.8762**	**2.2534**	**.98219**	**.47491**	**.49279**
Stddev	.0057	.0045	.00604	.00178	.0004	.0313	.00420	.00442	.00173
%RSD	.29533	.22604	.61519	.18021	.02040	1.3898	.42731	.93006	.35055
#1	1.9517	1.9730	.98620	.99174	1.8759	2.2756	.98516	.47803	.49157
#2	1.9436	1.9667	.97766	.98921	1.8764	2.2313	.97922	.47179	.49401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3612.2**	**40947.**	**3434.3**
Stddev	5.7	.	15.1
%RSD	.15757	.00044	.43905
#1	3616.3	40947.	3445.0
#2	3608.2	40946.	3423.7

Sample Name: CCVH-5713036 Acquired: 5/29/2019 11:19:56 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**50.378**	**-.00029**	**.00652**	**.00171**	**.00017**	**.00110**	**.02114**	**.00013**	**.00266**	**.00046**	**.01119**
Stddev	.00018	.097	.00034	.00002	.00052	.00003	.00090	.00205	.00031	.00004	.00001	.00119
%RSD	101.24	.19300	119.02	.30749	30.579	15.681	81.647	9.7064	239.80	1.6133	2.8856	10.664
#1	-.00030	50.446	-.00005	.00651	.00134	.00019	.00173	.02259	-.00009	.00263	.00045	.01034
#2	-.00005	50.309	-.00053	.00654	.00208	.00015	.00046	.01969	.00035	.00269	.00047	.01203
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.609**	**.23077**	**.00550**	**.02258**	**.00258**	**.00042**	**252.90**	**.00159**	**4.9336**	**.00261**	**4.9120**	**.00192**
Stddev	.209	.00531	.00214	.00367	.00009	.00016	1.05	.00036	.0329	.00002	.0547	.00585
%RSD	.42100	2.3025	38.867	16.242	3.3146	37.781	.41423	22.459	.66697	.73987	1.1138	304.49
#1	49.756	.23453	.00399	.01999	.00252	.00053	253.64	.00133	4.9569	.00262	4.9507	.00606
#2	49.461	.22702	.00701	.02518	.00264	.00031	252.16	.00184	4.9103	.00260	4.8733	-.00222
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00395**	**.00828**	**.01771**	**-.00017**	**.00025**	**5.0146**	**-.01535**	**.00376**	F **.56525**	**.00554**	**-.00062**	**.09899**
Stddev	.00388	.00322	.00689	.00020	.00002	.0140	.00004	.00146	.01349	.00004	.00044	.00377
%RSD	98.027	38.916	38.916	118.18	9.0375	.27993	.28436	38.914	2.3857	.72102	71.612	3.8044
#1	.00669	.00600	.01284	-.00032	.00027	5.0047	-.01538	.00480	.57479	.00557	-.00093	.10166
#2	.00121	.01055	.02259	-.00003	.00024	5.0245	-.01532	.00273	.55572	.00551	-.00030	.09633
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3694.2**	**41006.**	**3364.4**
Stddev	7.2	155.	3.6
%RSD	.19370	.37866	.10840
#1	3699.2	41116.	3361.8
#2	3689.1	40897.	3367.0

Sample Name: CCV-5714928 Acquired: 5/29/2019 11:22:26 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49121**	**.51718**	**.49094**	**.49496**	**.49588**	**.49419**	**.99824**	**4.9536**	**.49197**	**.50165**	**.49637**	**.49628**	**2.4405**
Stddev	.00136	.00377	.00453	.00212	.00469	.00494	.00798	.0356	.00240	.00340	.00324	.00254	.0237
%RSD	.27756	.72853	.92292	.42792	.94513	.99915	.79898	.71956	.48811	.67702	.65259	.51231	.97292
#1	.49025	.51984	.48773	.49346	.49920	.49768	.99260	4.9788	.49027	.49924	.49408	.49448	2.4573
#2	.49218	.51451	.49414	.49646	.49257	.49070	1.0039	4.9284	.49367	.50405	.49866	.49808	2.4237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.488**	**.50182**	**19.928**	**.50205**	**.49539**	**25.196**	**.50273**	**.00104**	**.50262**	**.05038**	**.49252**	**.49895**	**4.8912**
Stddev	.511	.00682	.043	.00051	.00129	.216	.00142	.00689	.00190	.05641	.00863	.00811	.0566
%RSD	1.0332	1.3597	.21440	.10245	.26047	.85662	.28254	663.27	.37709	111.98	1.7521	1.6245	1.1574
#1	49.850	.50665	19.898	.50168	.49447	25.349	.50172	.00591	.50128	.09026	.48641	.49322	4.9313
#2	49.127	.49700	19.958	.50241	.49630	25.043	.50373	-.00383	.50396	.01049	.49862	.50468	4.8512
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.467**	**.49876**	**.49230**	**-.00427**	**.49823**	**.49944**	**.08797**	**.49679**	**.49797**	**.48942**
Stddev	.121	.00584	.00316	.00034	.00049	.00198	.04631	.00012	.00116	.00111
%RSD	1.1574	1.1702	.64141	7.9213	.09768	.39632	52.640	.02318	.23289	.22621
#1	10.553	.49463	.49453	-.00403	.49858	.49804	.05523	.49671	.49879	.49020
#2	10.382	.50289	.49007	-.00451	.49789	.50084	.12071	.49688	.49715	.48863
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3679.9**	**41414.**	**3390.9**
Stddev	29.3	63.	34.4
%RSD	.79519	.15101	1.0152
#1	3700.6	41458.	3366.6
#2	3659.2	41370.	3415.2

Sample Name: CCB Acquired: 5/29/2019 11:24:53 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**-.00157**	**-.00141**	**.00367**	**.00012**	**.00027**	**-.00045**	**.00080**	**-.00011**	**.00028**	**-.00023**	**-.00157**
Stddev	.00015	.00017	.00030	.00197	.00038	.00016	.00234	.00472	.00011	.00029	.00026	.00140
%RSD	76.144	10.885	21.246	53.679	318.68	58.163	518.53	590.89	103.62	105.37	109.32	88.763
#1	.00031	-.00145	-.00162	.00506	-.00015	.00016	-.00210	-.00254	-.00019	.00007	-.00042	-.00256
#2	.00009	-.00170	-.00120	.00228	.00039	.00038	.00120	.00414	-.00003	.00048	-.00005	-.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00594**	**.12142**	**.00317**	**.00803**	**-.00000**	**.00035**	W **.46174**	**.00010**	**.00074**	**.00087**	**-.00085**	**-.00092**
Stddev	.00443	.02662	.00143	.00319	.00008	.00068	.00652	.00011	.00156	.00143	.00595	.00316
%RSD	74.637	21.921	45.142	39.760	1773.2	193.61	1.4119	111.49	209.88	164.02	699.05	344.76
#1	-.00281	.10260	.00418	.00577	-.00006	-.00013	.45713	.00002	-.00036	.00188	-.00506	-.00315
#2	-.00908	.14024	.00216	.01029	.00005	.00083	.46635	.00018	.00185	-.00014	.00336	.00132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.35000					
Low Limit							-.35000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**-.01110**	**-.02375**	**-.00052**	**-.00016**	**.00112**	**-.00020**	**.00099**	**-.01861**	**.00064**	**-.00152**	**-.00080**
Stddev	.00815	.00459	.00981	.00096	.00016	.00320	.00057	.00231	.00476	.00028	.00012	.00233
%RSD	3197.0	41.311	41.311	184.04	98.787	285.92	286.83	232.28	25.569	43.957	7.9251	291.43
#1	-.00551	-.01434	-.03069	-.00120	-.00028	.00338	-.00060	-.00064	-.02198	.00084	-.00161	.00085
#2	.00602	-.00786	-.01681	.00016	-.00005	-.00114	.00020	.00263	-.01525	.00044	-.00144	-.00245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3782.5**	**42630.**	**3397.6**
Stddev	24.5	13.	10.4
%RSD	.64659	.03121	.30524
#1	3765.3	42620.	3405.0
#2	3799.8	42639.	3390.3

Sample Name: CCVL-5725431 Acquired: 5/29/2019 11:27:30 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00637**	**.10084**	**.01447**	**.09963**	**.01068**	**.00129**	**.10497**	**.20189**	**.00492**	**.01054**	**.00962**	**.01394**
Stddev	.00148	.00094	.00123	.00071	.00069	.00010	.00378	.00810	.00014	.00014	.00019	.00167
%RSD	23.152	.93706	8.5166	.70914	6.4281	7.9330	3.6018	4.0137	2.8977	1.2891	1.9748	11.992
#1	.00533	.10151	.01360	.10013	.01019	.00122	.10765	.19616	.00502	.01044	.00949	.01276
#2	.00741	.10017	.01534	.09913	.01116	.00137	.10230	.20762	.00482	.01063	.00976	.01512
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.13351**	**3.1631**	**.02285**	**.20675**	**.01054**	**.01959**	F **1.3609**	**.04104**	**2.8941**	F **.01231**	**.09500**	**.01518**
Stddev	.00347	.0396	.00136	.00267	.00001	.00077	.0094	.00010	.0081	.00124	.00744	.00256
%RSD	2.5978	1.2533	5.9719	1.2918	.09039	3.9391	.68870	.23678	.28142	10.052	7.8321	16.874
#1	.13596	3.1911	.02382	.20863	.01053	.01905	1.3675	.04097	2.8999	.01319	.10026	.01700
#2	.13106	3.1351	.02189	.20486	.01055	.02014	1.3543	.04111	2.8883	.01144	.08974	.01337
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value	.10000						1.0000			.00900		
Range	30.000%						30.000%			30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01825**	**.51112**	**1.0938**	**.10097**	**.00972**	**.01273**	**.00983**	**.01725**	F **.11815**	**.01000**	**.01992**	**.01209**
Stddev	.00257	.02234	.0478	.00122	.00003	.00189	.00005	.00028	.01129	.00022	.00005	.00296
%RSD	14.083	4.3710	4.3710	1.2109	.28495	14.814	.51992	1.6146	9.5539	2.2043	.25351	24.494
#1	.02007	.49532	1.0600	.10011	.00970	.01406	.00987	.01706	.11017	.00984	.01996	.01418
#2	.01643	.52692	1.1276	.10184	.00974	.01139	.00979	.01745	.12613	.01016	.01989	.00999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3867.9**	**43288.**	**3483.1**
Stddev	.5	.	20.9
%RSD	.01253	.00071	.60084
#1	3868.2	43289.	3497.9
#2	3867.5	43288.	3468.3

Sample Name: MB 280-459132/1-A Acquired: 5/29/2019 11:30:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**.00545**	**.00413**	**.00242**	**.00058**	**.00018**	**-.00100**	**.00884**	**-.00028**
Stddev	.00016	.00020	.00374	.00006	.00011	.00012	.00262	.00089	.00015
%RSD	42.251	3.7475	90.449	2.4348	19.304	67.587	261.22	10.093	53.890
#1	-.00026	.00530	.00678	.00246	.00066	.00026	-.00286	.00947	-.00017
#2	-.00049	.00559	.00149	.00238	.00050	.00009	.00085	.00821	-.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.00005**	**-.00102**	F **.27348**	**.09360**	**.00199**	**.00482**	**.00174**	**-.00037**
Stddev	.00001	.00037	.00037	.01098	.07014	.00124	.00842	.00002	.00027
%RSD	23.120	776.23	36.718	4.0163	74.933	62.055	174.52	.93020	72.874
#1	.00007	-.00022	-.00128	.26572	.14320	.00286	.01078	.00172	-.00018
#2	.00005	.00031	-.00075	.28125	.04401	.00112	-.00113	.00175	-.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.10000					
Low Limit				-.10000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.37401**	**.00064**	**.00152**	**.00299**	**.01136**	**-.00185**	**-.00354**	**.00768**	**.01643**
Stddev	.01042	.00040	.00061	.00114	.00056	.00072	.00347	.02878	.06159
%RSD	2.7850	62.483	40.083	38.241	4.9478	38.815	98.091	374.94	374.94
#1	.38137	.00036	.00109	.00218	.01176	-.00236	-.00600	-.01267	-.02712
#2	.36664	.00092	.00196	.00380	.01096	-.00134	-.00108	.02803	.05997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00127**	**-.00019**	**-.00041**	**.00026**	**.00223**	**.01475**	**-.00000**	**-.00005**	**-.00601**
Stddev	.00037	.00009	.00032	.00064	.00123	.02691	.00053	.00015	.00162
%RSD	29.200	43.926	76.800	242.58	55.049	182.42	15295.	301.71	27.045
#1	.00101	-.00013	-.00064	.00072	.00310	.03379	.00037	-.00015	-.00486
#2	.00153	-.00025	-.00019	-.00019	.00136	-.00428	-.00038	.00006	-.00716
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3823.4**	**43189.**	**3443.1**
Stddev	2.1	56.	27.5
%RSD	.05363	.12973	.79994
#1	3824.8	43150.	3462.6
#2	3821.9	43229.	3423.6

Sample Name: LCS 280-459132/2-A Acquired: 5/29/2019 11:32:50 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05209**	**9.9543**	**1.9310**	**.95739**	**1.9585**	**.99399**	**1.9254**	**48.446**	**.96440**
Stddev	.00031	.0223	.0040	.00088	.0050	.00122	.0008	.145	.00049
%RSD	.59569	.22427	.20894	.09194	.25255	.12271	.03936	.30017	.05057
#1	.05231	9.9385	1.9338	.95677	1.9620	.99485	1.9260	48.548	.96474
#2	.05187	9.9701	1.9281	.95801	1.9550	.99312	1.9249	48.343	.96406
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95333**	**.95830**	**.96707**	**9.6508**	**48.846**	**.98242**	**48.735**	**.98400**	**.97587**
Stddev	.00204	.00192	.00202	.0242	.027	.00260	.128	.00383	.00427
%RSD	.21370	.19985	.20918	.25122	.05512	.26458	.26282	.38874	.43754
#1	.95477	.95966	.96564	9.6679	48.865	.98058	48.644	.98130	.97889
#2	.95189	.95695	.96850	9.6336	48.827	.98426	48.826	.98671	.97285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **48.809**	**.95716**	**19.862**	**.95690**	**9.8243**	**1.0412**	**1.9079**	**1.9732**	**4.2227**
Stddev	.059	.00226	.038	.00101	.0204	.0032	.0123	.0193	.0414
%RSD	.12004	.23599	.19287	.10598	.20722	.30611	.64510	.97983	.97983
#1	48.851	.95875	19.889	.95619	9.8099	1.0390	1.9166	1.9869	4.2519
#2	48.768	.95556	19.835	.95762	9.8387	1.0435	1.8992	1.9595	4.1934
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9229**	**.97493**	**.99966**	**.98248**	**1.9062**	**2.2579**	**.97835**	**.48407**	**.51129**
Stddev	.0063	.00265	.00553	.00326	.0125	.0011	.00524	.00415	.00005
%RSD	.32974	.27135	.55328	.33145	.65759	.04680	.53510	.85758	.01054
#1	1.9274	.97680	.99575	.98018	1.9150	2.2571	.97465	.48113	.51133
#2	1.9184	.97306	1.0036	.98478	1.8973	2.2586	.98205	.48700	.51126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3783.1**	**42009.**	**3481.8**
Stddev	11.1	207.	12.8
%RSD	.29225	.49315	.36783
#1	3790.9	42156.	3472.8
#2	3775.3	41863.	3490.9

Sample Name: LCSD 280-459132/3-A Acquired: 5/29/2019 11:35:06 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05176**	**10.099**	**1.9457**	**.96525**	**1.9713**	**.99944**	**1.9435**	**49.065**	**.97143**
Stddev	.00153	.065	.0105	.00186	.0001	.00157	.0021	.037	.00254
%RSD	2.9514	.64619	.54140	.19304	.00783	.15702	.10746	.07592	.26188
#1	.05284	10.146	1.9532	.96657	1.9715	.99833	1.9450	49.039	.97323
#2	.05068	10.053	1.9383	.96393	1.9712	1.0006	1.9420	49.091	.96963
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.96120**	**.96707**	**.97202**	**9.7418**	**49.659**	**.99278**	**49.365**	**.98908**	**.98612**
Stddev	.00286	.00151	.00483	.0005	.019	.00023	.040	.00073	.00299
%RSD	.29752	.15644	.49705	.00505	.03781	.02305	.08181	.07336	.30331
#1	.96322	.96814	.97544	9.7422	49.672	.99294	49.393	.98959	.98824
#2	.95918	.96600	.96860	9.7415	49.645	.99262	49.336	.98857	.98401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **49.427**	**.96441**	W **20.064**	**.96715**	**9.9262**	**1.0469**	**1.9170**	**1.9923**	**4.2635**
Stddev	.028	.00255	.034	.00158	.0032	.0113	.0033	.0046	.0098
%RSD	.05602	.26441	.16852	.16303	.03268	1.0796	.17336	.22958	.22958
#1	49.407	.96621	20.088	.96826	9.9285	1.0549	1.9193	1.9891	4.2566
#2	49.446	.96261	20.041	.96603	9.9239	1.0389	1.9146	1.9955	4.2704
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9429**	**.98275**	**1.0065**	**.98835**	**1.9291**	**2.2372**	**.98246**	**.48476**	**.51591**
Stddev	.0013	.00182	.0044	.00129	.0010	.0031	.00231	.00331	.00551
%RSD	.06421	.18516	.43583	.13087	.05222	.13676	.23507	.68373	1.0672
#1	1.9420	.98404	1.0096	.98927	1.9298	2.2350	.98410	.48711	.51980
#2	1.9438	.98147	1.0034	.98744	1.9284	2.2394	.98083	.48242	.51202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.3**	**41993.**	**3428.8**
Stddev	1.5	91.	13.1
%RSD	.04075	.21564	.38206
#1	3778.4	42058.	3438.1
#2	3776.2	41929.	3419.6

Sample Name: 280-123930-F-1-A Acquired: 5/29/2019 11:37:23 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00050**	**.01624**	**.02099**	**.03789**	**.07536**	**.00017**	**.00125**	**75.734**	**.00019**
Stddev	.00017	.00240	.00186	.00007	.00044	.00012	.00235	.130	.00028
%RSD	34.149	14.775	8.8813	.18087	.58026	67.443	187.49	.17117	151.34
#1	.00062	.01794	.02231	.03793	.07505	.00026	-.00041	75.642	-.00001
#2	.00038	.01455	.01967	.03784	.07567	.00009	.00291	75.826	.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00674**	**-.00017**	**.00116**	**12.830**	**1.9011**	**.01579**	**13.236**	W **10.570**	**.00064**
Stddev	.00013	.00067	.00037	.026	.0732	.00036	.022	.059	.00030
%RSD	1.9318	395.63	31.606	.20100	3.8532	2.2871	.16752	.56225	47.771
#1	.00683	.00030	.00142	12.812	1.9529	.01553	13.220	10.528	.00085
#2	.00664	-.00064	.00090	12.848	1.8493	.01604	13.252	10.612	.00042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.8568**	**.00435**	**.01847**	**.00216**	**4.5974**	**-.00452**	**-.00180**	**11.273**	**24.124**
Stddev	.0103	.00083	.00403	.00034	.0531	.00096	.00127	.027	.058
%RSD	.13131	19.191	21.815	15.813	1.1558	21.297	70.586	.24129	.24129
#1	7.8495	.00494	.02132	.00241	4.6350	-.00520	-.00270	11.254	24.083
#2	7.8641	.00376	.01562	.00192	4.5598	-.00384	-.00090	11.292	24.165
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00195**	**.23934**	**-.00317**	**.00063**	**-.00878**	**.00896**	**.00244**	**.00203**	**-.00088**
Stddev	.00017	.00030	.00441	.00049	.00283	.05786	.00035	.00062	.00043
%RSD	8.8118	.12376	139.47	78.603	32.198	645.52	14.264	30.375	48.750
#1	.00207	.23955	-.00004	.00028	-.01078	-.03195	.00269	.00247	-.00119
#2	.00183	.23913	-.00629	.00097	-.00678	.04988	.00220	.00160	-.00058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.6**	**42250.**	**3446.0**
Stddev	10.8	7.	12.6
%RSD	.28585	.01693	.36612
#1	3785.2	42255.	3454.9
#2	3770.0	42245.	3437.1

Sample Name: 123930-F-1-A SD@5 Acquired: 5/29/2019 11:40:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00092**	**.00185**	**.00941**	**.00953**	**.01461**	**.00009**	**-.00227**	**14.456**	**-.00026**
Stddev	.00083	.00079	.00214	.00031	.00002	.00010	.00052	.056	.00015
%RSD	89.862	42.774	22.691	3.3029	.12839	108.55	22.682	.38672	55.903
#1	-.00151	.00241	.00790	.00976	.01463	.00016	-.00191	14.417	-.00036
#2	-.00034	.00129	.01092	.00931	.01460	.00002	-.00264	14.496	-.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00169**	**.00007**	**-.00077**	**2.4296**	**.39665**	**.00475**	**2.6054**	**2.1290**	**.00014**
Stddev	.00040	.00036	.00137	.0142	.03488	.00067	.0132	.0137	.00039
%RSD	23.797	508.64	178.13	.58390	8.7931	14.090	.50718	.64118	286.35
#1	.00197	-.00019	.00020	2.4195	.42131	.00522	2.5961	2.1193	-.00014
#2	.00140	.00033	-.00174	2.4396	.37198	.00428	2.6148	2.1386	.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.7289**	**.00103**	**.00199**	**.00159**	**.93987**	**-.00042**	**-.00378**	**2.1019**	**4.4980**
Stddev	.0094	.00030	.00146	.00259	.02687	.00212	.00339	.0348	.0746
%RSD	.54307	28.783	73.136	162.83	2.8586	508.83	89.743	1.6575	1.6575
#1	1.7222	.00082	.00302	-.00024	.92087	-.00191	-.00618	2.0772	4.4452
#2	1.7355	.00124	.00096	.00342	.95887	.00108	-.00138	2.1265	4.5507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**.04543**	**-.00112**	**.00011**	**-.00094**	**.05968**	**.00049**	**-.00073**	**-.00004**
Stddev	.00069	.00012	.00154	.00007	.00119	.00658	.00040	.00053	.00358
%RSD	89.163	.26263	136.99	60.341	127.18	11.019	81.285	72.456	8327.5
#1	.00126	.04551	-.00221	.00007	-.00009	.06433	.00021	-.00110	.00249
#2	.00029	.04534	-.00004	.00016	-.00178	.05503	.00077	-.00035	-.00257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3801.4**	**42652.**	**3471.6**
Stddev	2.2	62.	3.3
%RSD	.05892	.14439	.09627
#1	3803.0	42608.	3473.9
#2	3799.9	42695.	3469.2

Sample Name: 280-123930-F-1-B MS Acquired: 5/29/2019 11:42:34 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05469**	**9.8446**	**1.9485**	**1.0077**	**2.0381**	**.99687**	**1.9437**	**120.37**	**.96580**
Stddev	.00012	.0811	.0030	.0028	.0101	.00464	.0048	.64	.00453
%RSD	.21326	.82413	.15258	.27580	.49509	.46517	.24467	.52810	.46921
#1	.05461	9.7873	1.9506	1.0096	2.0310	.99359	1.9470	119.92	.96900
#2	.05477	9.9020	1.9464	1.0057	2.0453	1.0002	1.9403	120.82	.96260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95224**	**.96016**	**.97448**	**21.710**	**50.132**	**1.0119**	**60.555**	W **11.044**	**.97906**
Stddev	.00412	.00363	.00557	.123	.405	.0065	.039	.029	.00534
%RSD	.43253	.37788	.57200	.56744	.80696	.64404	.06470	.25809	.54518
#1	.95515	.96272	.97843	21.623	49.846	1.0073	60.583	11.064	.98284
#2	.94933	.95759	.97054	21.797	50.418	1.0165	60.528	11.024	.97529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **55.397**	**57.133**	**.95351**	W **20.425**	**.94997**	**14.688**	**1.0489**	**1.8940**	**12.778**
Stddev	.278	.202	.00403	.063	.00110	.035	.0004	.0004	.001
%RSD	.50114	.35394	.42231	.30821	.11564	.23995	.03514	.02143	.00804
#1	55.200	56.990	.95636	20.469	.95075	14.713	1.0486	1.8937	12.778
#2	55.593	57.276	.95066	20.380	.94920	14.663	1.0492	1.8943	12.779
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500			20.000					
Low Limit	-.20000			-6.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.346**	**1.9264**	**1.2132**	**1.0117**	**.98834**	**1.8839**	**2.3070**	**.98722**	**.48947**
Stddev	.002	.0145	.0035	.0014	.00037	.0082	.0543	.00234	.00140
%RSD	.00804	.75437	.28629	.13598	.03707	.43538	2.3552	.23670	.28530
#1	27.344	1.9366	1.2108	1.0107	.98808	1.8897	2.3454	.98887	.48848
#2	27.347	1.9161	1.2157	1.0126	.98860	1.8781	2.2685	.98556	.49046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.52116**
Stddev	.00537
%RSD	1.0298
#1	.51737
#2	.52496
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-123930-F-1-B MS Acquired: 5/29/2019 11:42:34 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3748.9**	**41541.**	**3459.6**
Stddev	8.1	55.	6.2
%RSD	.21557	.13306	.17884
#1	3743.2	41501.	3463.9
#2	3754.7	41580.	3455.2

Sample Name: 280-123930-F-1-C MSD Acquired: 5/29/2019 11:44:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05150**	**9.9514**	**1.9271**	**.97754**	**1.9924**	**.97794**	**1.8787**	**117.99**	**.95019**
Stddev	.00067	.0098	.0063	.00113	.0022	.00176	.0097	.05	.00146
%RSD	1.3055	.09893	.32843	.11540	.11087	.17953	.51741	.03876	.15350
#1	.05198	9.9583	1.9226	.97674	1.9908	.97670	1.8856	117.95	.95123
#2	.05103	9.9444	1.9316	.97833	1.9940	.97918	1.8719	118.02	.94916
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.93495**	**.94181**	**.96810**	**21.371**	**50.251**	**.98621**	**60.184**	W **10.750**	**.95957**
Stddev	.00058	.00014	.00387	.015	.096	.00102	.006	.039	.00256
%RSD	.06223	.01461	.39974	.06841	.19090	.10357	.00963	.36260	.26698
#1	.93536	.94171	.97084	21.361	50.183	.98693	60.188	10.778	.96138
#2	.93454	.94190	.96536	21.382	50.319	.98548	60.179	10.723	.95776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **55.320**	**57.084**	**.93692**	**19.777**	**.93344**	**14.239**	**.98242**	**1.8645**	**12.465**
Stddev	.052	.320	.00332	.053	.00036	.012	.00116	.0004	.023
%RSD	.09400	.56017	.35387	.26869	.03893	.08747	.11766	.02413	.18780
#1	55.283	57.310	.93926	19.814	.93318	14.230	.98324	1.8642	12.448
#2	55.357	56.858	.93457	19.739	.93370	14.248	.98160	1.8648	12.481
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.674**	**1.8927**	**1.1815**	**.97474**	**.96801**	**1.8495**	**2.2793**	**.96655**	**.47795**
Stddev	.050	.0063	.0005	.00447	.00058	.0089	.0076	.00427	.00254
%RSD	.18780	.33397	.04188	.45891	.06034	.47833	.33357	.44134	.53152
#1	26.639	1.8972	1.1812	.97790	.96759	1.8558	2.2739	.96957	.47975
#2	26.710	1.8883	1.1819	.97158	.96842	1.8432	2.2847	.96354	.47616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.50441**
Stddev	.00143
%RSD	.28426
#1	.50340
#2	.50543
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-123930-F-1-C MSD Acquired: 5/29/2019 11:44:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3849.3**	**42825.**	**3600.7**
Stddev	19.9	42.	9.7
%RSD	.51687	.09862	.26812
#1	3863.4	42795.	3607.5
#2	3835.3	42854.	3593.9

Sample Name: 280-123930-F-1-A PDS Acquired: 5/29/2019 11:47:18 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05281**	**1.0193**	**.21606**	**.13636**	**.17586**	**.05239**	**-.00133**	**93.240**	**.05108**
Stddev	.00137	.0076	.00482	.00058	.00010	.00006	.00298	.032	.00032
%RSD	2.6017	.74397	2.2292	.42397	.05966	.11953	223.78	.03400	.62217
#1	.05184	1.0247	.21265	.13676	.17579	.05244	.00078	93.262	.05130
#2	.05378	1.0140	.21946	.13595	.17594	.05235	-.00344	93.217	.05086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05642**	**.05000**	**.05237**	**13.405**	**22.279**	**.11858**	**32.763**	W **10.193**	**.05006**
Stddev	.00056	.00013	.00073	.027	.027	.00063	.041	.052	.00073
%RSD	.99327	.25152	1.3872	.20341	.12301	.53513	.12405	.50720	1.4657
#1	.05682	.04991	.05186	13.386	22.259	.11903	32.792	10.230	.05058
#2	.05602	.05009	.05289	13.424	22.298	.11813	32.735	10.156	.04954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **27.905**	**.05395**	**2.0800**	**.10181**	**4.5390**	**.10291**	**.19080**	**15.856**	**33.932**
Stddev	.010	.00004	.0235	.00141	.0569	.00343	.00138	.087	.187
%RSD	.03531	.08304	1.1319	1.3899	1.2536	3.3310	.72104	.55069	.55069
#1	27.912	.05392	2.0966	.10281	4.5792	.10534	.19178	15.918	34.064
#2	27.898	.05398	2.0633	.10080	4.4987	.10049	.18983	15.794	33.800
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09954**	**.28399**	**.20257**	**.05010**	**.19542**	**.58323**	**.05261**	**.20158**	**.05912**
Stddev	.00052	.00071	.00267	.00035	.00034	.04882	.00049	.00048	.00480
%RSD	.52417	.25000	1.3205	.68998	.17233	8.3709	.93679	.23968	8.1256
#1	.09991	.28349	.20446	.04986	.19565	.54871	.05296	.20192	.05572
#2	.09917	.28450	.20067	.05035	.19518	.61775	.05226	.20124	.06251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3783.4**	**42619.**	**3503.1**
Stddev	1.1	158.	10.9
%RSD	.02867	.37097	.31144
#1	3784.2	42731.	3510.8
#2	3782.6	42507.	3495.4

Sample Name: CCVH-5713036 Acquired: 5/29/2019 11:49:50 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00107**	**49.048**	**.00198**	**.00271**	**.00062**	**.00019**	**.00054**	**.00737**	**-.00037**	**.00242**	**.00031**	**.01151**	**47.993**
Stddev	.00022	.098	.00038	.00082	.00095	.00053	.00030	.00352	.00035	.00032	.00018	.00083	.263
%RSD	20.339	.20027	19.320	30.313	153.26	284.39	55.908	47.784	94.685	13.336	59.262	7.2084	.54832
#1	-.00123	49.118	.00225	.00329	.00129	.00056	.00075	.00986	-.00012	.00219	.00018	.01209	48.179
#2	-.00092	48.979	.00171	.00213	-.00005	-.00019	.00032	.00488	-.00062	.00265	.00044	.01092	47.807
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.17294**	**.00235**	**.07774**	**.01515**	**-.00067**	**245.66**	**.00099**	**4.8356**	**.00366**	**4.8073**	**-.00130**	**.00327**	**.02354**
Stddev	.09897	.00384	.08674	.01725	.00012	1.74	.00030	.0260	.00156	.0209	.00286	.00212	.00896
%RSD	57.227	163.13	111.58	113.82	17.648	.70996	29.909	.53715	42.554	.43443	220.33	64.817	38.068
#1	.10296	.00507	.13907	.02735	-.00059	246.90	.00078	4.8540	.00256	4.8220	.00072	.00177	.02988
#2	.24293	-.00036	.01640	.00296	-.00075	244.43	.00120	4.8173	.00476	4.7925	-.00332	.00476	.01721
Check ?	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05038**	**-.00120**	**.00004**	**4.8755**	**-.01378**	**.00282**	**.48059**	**.00566**	**-.00129**	**.09664**
Stddev	.01918	.00026	.00031	.0074	.00100	.00132	.02251	.00110	.00002	.00331
%RSD	38.068	22.076	822.61	.15265	7.2523	46.712	4.6849	19.442	1.7537	3.4204
#1	.06394	-.00101	-.00018	4.8703	-.01308	.00189	.46467	.00644	-.00131	.09898
#2	.03682	-.00138	.00026	4.8808	-.01449	.00375	.49651	.00488	-.00127	.09430
Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3724.6**	**41875.**	**3419.1**
Stddev	1.8	693.	14.7
%RSD	.04818	1.6557	.42873
#1	3725.8	42365.	3408.7
#2	3723.3	41385.	3429.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 11:52:20 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48499**	**.49810**	**.48576**	**.48359**	**.49189**	**.48678**	**.97714**	**4.9021**	**.48493**	**.49472**	**.49183**	**.48857**	**2.4327**
Stddev	.00211	.00164	.00237	.00118	.00013	.00125	.00791	.0102	.00211	.00272	.00193	.00549	.0162
%RSD	.43513	.33006	.48714	.24421	.02738	.25774	.80954	.20790	.43552	.54948	.39229	1.1230	.66737
#1	.48350	.49927	.48744	.48443	.49179	.48767	.98273	4.9094	.48642	.49665	.49320	.48469	2.4442
#2	.48648	.49694	.48409	.48276	.49198	.48590	.97155	4.8949	.48343	.49280	.49047	.49245	2.4213
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.011**	**.49208**	**19.668**	**.49085**	**.48769**	**24.731**	**.49613**	**-.00087**	**.49324**	**.00258**	**.48345**	**.48224**	**4.8770**
Stddev	.207	.00432	.187	.00462	.00340	.042	.00214	.00090	.00313	.00079	.00399	.00266	.0237
%RSD	.42228	.87719	.95026	.94167	.69796	.16871	.43209	103.72	.63554	30.625	.82450	.55158	.48562
#1	49.157	.48902	19.535	.48758	.49009	24.760	.49765	-.00023	.49546	.00314	.48627	.48412	4.8938
#2	48.865	.49513	19.800	.49412	.48528	24.701	.49461	-.00151	.49103	.00202	.48063	.48036	4.8603
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.437**	**.49574**	**.48926**	**-.00442**	**.48644**	**.49716**	**-.04272**	**.48738**	**.48892**	**.48536**
Stddev	.051	.00034	.00043	.00086	.00513	.00231	.04530	.00253	.00313	.00181
%RSD	.48562	.06905	.08806	19.403	1.0553	.46558	106.03	.51850	.63984	.37384
#1	10.473	.49598	.48956	-.00502	.48281	.49880	-.07475	.48559	.48671	.48664
#2	10.401	.49549	.48895	-.00381	.49007	.49552	-.01069	.48917	.49113	.48408
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3727.0**	**41094.**	**3354.4**
Stddev	13.3	168.	18.9
%RSD	.35628	.40820	.56378
#1	3717.6	40975.	3341.0
#2	3736.4	41213.	3367.8

Sample Name: CCB Acquired: 5/29/2019 11:54:45 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**-.00218**	**.00212**	**.00207**	**.00010**	**.00016**	**-.00056**	**-.00865**	**.00010**	**.00041**	**-.00054**	**-.00080**	**-.00093**
Stddev	.00100	.00024	.00161	.00069	.00002	.00005	.00228	.00417	.00003	.00001	.00028	.00099	.00072
%RSD	212.29	11.066	76.069	33.168	21.462	29.016	409.75	48.180	34.087	2.1993	51.610	123.99	77.272
#1	.00024	-.00235	.00326	.00255	.00009	.00013	.00106	-.01160	.00013	.00041	-.00035	-.00010	-.00143
#2	-.00118	-.00201	.00098	.00158	.00012	.00019	-.00217	-.00570	.00008	.00040	-.00074	-.00150	-.00042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11810**	**-.00112**	**.00514**	**.00011**	**.00032**	**.34495**	**-.00043**	**.00033**	**.00190**	**-.00631**	**-.00210**	**-.00499**	**.00806**
Stddev	.16429	.00401	.00171	.00001	.00037	.00960	.00007	.00028	.00112	.00166	.00459	.00286	.00449
%RSD	139.12	356.58	33.188	10.491	114.80	2.7825	16.201	85.666	59.066	26.312	218.96	57.301	55.659
#1	.23427	.00171	.00634	.00010	.00006	.35173	-.00038	.00052	.00111	-.00749	.00115	-.00297	.00489
#2	.00192	-.00396	.00393	.00012	.00059	.33816	-.00048	.00013	.00269	-.00514	-.00535	-.00702	.01124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01726**	**.00077**	**-.00009**	**-.00038**	**-.00021**	**.00110**	**.00778**	**.00093**	**-.00275**	**.00009**
Stddev	.00960	.00066	.00012	.00256	.00061	.00069	.05738	.00008	.00001	.00022
%RSD	55.659	86.058	126.36	680.91	292.33	62.822	738.03	8.7415	.21813	235.91
#1	.01046	.00123	-.00001	-.00219	-.00064	.00158	.04835	.00087	-.00275	.00025
#2	.02405	.00030	-.00018	.00143	.00022	.00061	-.03280	.00098	-.00274	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3802.0**	**42712.**	**3392.1**
Stddev	2.1	239.	11.8
%RSD	.05540	.56069	.34900
#1	3800.5	42543.	3400.4
#2	3803.5	42882.	3383.7

Sample Name: CCVL-5725431 Acquired: 5/29/2019 11:57:20 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00785**	**.10366**	**.01911**	**.09881**	**.01066**	**.00126**	**.10082**	**.18943**	**.00467**	**.01062**	**.00974**	**.01472**
Stddev	.00056	.00057	.00246	.00128	.00043	.00008	.00108	.00785	.00035	.00038	.00006	.00120
%RSD	7.1874	.55257	12.870	1.2981	4.0446	6.1238	1.0687	4.1465	7.5871	3.5659	.61316	8.1867
#1	.00825	.10325	.02085	.09790	.01096	.00132	.10006	.18387	.00492	.01089	.00978	.01557
#2	.00746	.10406	.01737	.09971	.01035	.00121	.10158	.19498	.00442	.01036	.00970	.01386
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12350**	**2.9112**	**.02467**	**.20925**	**.01050**	**.01925**	**1.2929**	**.04088**	**2.8994**	F **.01208**	**.08810**	**.01885**
Stddev	.00182	.0056	.00392	.00392	.00001	.00004	.0094	.00007	.0090	.00211	.00447	.00389
%RSD	1.4727	.19271	15.903	1.8716	.10199	.18939	.72355	.18327	.31099	17.478	5.0681	20.622
#1	.12479	2.9152	.02190	.20648	.01050	.01927	1.2995	.04094	2.9058	.01059	.09126	.02160
#2	.12222	2.9073	.02745	.21202	.01051	.01922	1.2862	.04083	2.8930	.01358	.08495	.01610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value										.00900		
Range										30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01729**	**.50457**	**1.0798**	**.10418**	**.01008**	**.01322**	**.00969**	**.01721**	**.06845**	**.00963**	**.01758**	**.01176**
Stddev	.00300	.01371	.0293	.00096	.00005	.00023	.00060	.00069	.00415	.00018	.00053	.00019
%RSD	17.355	2.7167	2.7167	.92436	.45670	1.7049	6.2243	4.0194	6.0580	1.8919	3.0349	1.6497
#1	.01517	.51427	1.1005	.10350	.01011	.01338	.00927	.01672	.06552	.00950	.01721	.01163
#2	.01942	.49488	1.0590	.10486	.01005	.01306	.01012	.01770	.07138	.00975	.01796	.01190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3796.2**	**42879.**	**3440.8**
Stddev	6.0	112.	14.7
%RSD	.15736	.26089	.42855
#1	3800.4	42958.	3451.2
#2	3792.0	42800.	3430.4

Sample Name: 280-123930-F-2-A Acquired: 5/29/2019 11:59:53 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00070**	**.01070**	**.00498**	**.05620**	**.04804**	**.00015**	**-.00151**	**161.10**	**.00032**
Stddev	.00040	.00023	.00284	.00044	.00015	.00018	.00264	.13	.00043
%RSD	58.036	2.1197	57.023	.78369	.30816	120.96	174.77	.08082	132.43
#1	.00098	.01054	.00297	.05651	.04814	.00028	.00036	161.01	.00063
#2	.00041	.01086	.00699	.05589	.04793	.00002	-.00338	161.19	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00149**	**.00002**	**.00210**	**1.4930**	**4.6953**	**.00018**	**18.230**	**8.9474**	**-.00090**
Stddev	.00018	.00007	.00070	.0029	.0373	.00200	.037	.0537	.00006
%RSD	11.960	358.67	33.251	.19331	.79471	1083.1	.20079	.60075	6.3271
#1	.00161	-.00003	.00259	1.4910	4.6689	.00160	18.256	8.9854	-.00086
#2	.00136	.00007	.00161	1.4951	4.7217	-.00123	18.204	8.9094	-.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.1714**	**.00405**	**.01828**	**.00334**	**7.0490**	**-.00167**	**-.00989**	**4.6838**	**10.023**
Stddev	.0127	.00048	.00183	.00049	.0568	.00763	.00582	.0229	.049
%RSD	.40208	11.901	9.9853	14.635	.80516	456.90	58.835	.48837	.48837
#1	3.1624	.00439	.01699	.00368	7.0891	-.00707	-.01400	4.6676	9.9887
#2	3.1804	.00371	.01958	.00299	7.0089	.00373	-.00577	4.7000	10.058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00086**	**.42428**	**-.00151**	**.00002**	**-.00583**	**-.01295**	**.00189**	**.00070**	**.00108**
Stddev	.00076	.00067	.00114	.00007	.00107	.05526	.00007	.00011	.00031
%RSD	88.019	.15751	75.137	434.33	18.308	426.56	3.7737	15.405	28.358
#1	-.00139	.42381	-.00232	-.00003	-.00507	.02612	.00184	.00062	.00087
#2	-.00032	.42475	-.00071	.00006	-.00658	-.05203	.00194	.00077	.00130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3753.0**	**41796.**	**3422.5**
Stddev	19.3	23.	.6
%RSD	.51293	.05523	.01798
#1	3766.6	41780.	3422.9
#2	3739.4	41813.	3422.1

Sample Name: 280-123930-F-3-A Acquired: 5/29/2019 12:02:31 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.00231**	**.00886**	**.05670**	**.04662**	**.00029**	**-.00381**	**161.36**	**-.00009**
Stddev	.00160	.00026	.00343	.00192	.00036	.00022	.00344	.31	.00015
%RSD	508.29	11.351	38.684	3.3793	.76558	75.985	90.362	.18944	161.72
#1	-.00082	.00249	.01128	.05805	.04636	.00045	-.00624	161.14	-.00020
#2	.00144	.00212	.00643	.05534	.04687	.00013	-.00137	161.57	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00168**	**.00016**	**.00171**	**1.0727**	**4.5862**	**.00410**	**18.402**	**8.8682**	**-.00076**
Stddev	.00001	.00005	.00020	.0098	.0514	.00347	.046	.0038	.00031
%RSD	.59427	33.982	11.855	.91289	1.1204	84.636	.24763	.04291	41.206
#1	.00168	.00012	.00185	1.0658	4.6226	.00655	18.434	8.8709	-.00054
#2	.00169	.00020	.00157	1.0796	4.5499	.00164	18.369	8.8655	-.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.1877**	**.00316**	**.01436**	**.00081**	**7.2044**	**-.00506**	**-.01024**	**4.7494**	**10.164**
Stddev	.0141	.00048	.00342	.00049	.2798	.00225	.00669	.0588	.126
%RSD	.44389	15.049	23.815	61.082	3.8836	44.385	65.368	1.2377	1.2377
#1	3.1977	.00350	.01678	.00116	7.4022	-.00347	-.00551	4.7079	10.075
#2	3.1777	.00283	.01194	.00046	7.0065	-.00665	-.01497	4.7910	10.253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00116**	**.42322**	**-.00302**	**.00036**	**-.00584**	**.00818**	**.00192**	**.00025**	**.00138**
Stddev	.00067	.00080	.00145	.00000	.00027	.02025	.00033	.00068	.00196
%RSD	57.633	.18824	48.188	.66837	4.6314	247.56	17.382	271.97	142.24
#1	-.00069	.42265	-.00405	.00036	-.00565	.02249	.00168	.00073	.00277
#2	-.00164	.42378	-.00199	.00036	-.00603	-.00614	.00216	-.00023	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3772.6**	**42267.**	**3465.1**
Stddev	99.2	171.	18.5
%RSD	2.6282	.40420	.53314
#1	3702.5	42146.	3452.0
#2	3842.7	42388.	3478.1

Sample Name: 280-123930-F-4-A Acquired: 5/29/2019 12:05:22 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.08770**	**.01268**	**.01230**	**.05650**	**.00032**	**-.00287**	**151.80**	**-.00011**
Stddev	.00077	.00076	.00347	.00163	.00060	.00002	.00238	.24	.00009
%RSD	1334.1	.87167	27.377	13.238	1.0697	7.3651	82.725	.15790	80.132
#1	-.00049	.08824	.01513	.01345	.05692	.00034	-.00119	151.97	-.00005
#2	.00061	.08716	.01023	.01115	.05607	.00031	-.00456	151.63	-.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00254**	**-.00002**	**.00170**	**22.316**	**1.3209**	**.00171**	**20.876**	**3.5619**	**-.00116**
Stddev	.00027	.00051	.00055	.040	.0432	.00415	.046	.0072	.00030
%RSD	10.717	2171.1	32.369	.17792	3.2686	242.35	.21828	.20088	25.987
#1	.00235	-.00039	.00208	22.344	1.2904	.00465	20.843	3.5569	-.00095
#2	.00274	.00034	.00131	22.287	1.3514	-.00122	20.908	3.5670	-.00137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.0764**	**.00190**	**.03524**	**.00095**	**1.1705**	**-.00236**	**-.00308**	**9.6209**	**20.589**
Stddev	.0005	.00043	.00189	.00121	.0057	.00304	.00046	.0418	.090
%RSD	.01302	22.688	5.3504	127.05	.48363	128.41	14.763	.43489	.43489
#1	4.0760	.00160	.03657	.00181	1.1745	-.00022	-.00341	9.5913	20.525
#2	4.0767	.00221	.03391	.00010	1.1665	-.00451	-.00276	9.6505	20.652
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00104**	**.26018**	**-.00207**	**.00202**	**-.00317**	**-.02683**	**.00140**	**.01018**	**-.00190**
Stddev	.00060	.00045	.00189	.00014	.00139	.01753	.00025	.00132	.00150
%RSD	57.660	.17195	91.608	6.8365	43.737	65.336	17.925	12.976	79.191
#1	.00061	.26050	-.00073	.00212	-.00415	-.01444	.00122	.01111	-.00084
#2	.00146	.25986	-.00340	.00192	-.00219	-.03923	.00158	.00924	-.00296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3828.7**	**42678.**	**3476.8**
Stddev	14.8	150.	6.6
%RSD	.38711	.35164	.18893
#1	3818.2	42572.	3472.2
#2	3839.2	42784.	3481.5

Sample Name: 280-123930-F-5-A Acquired: 5/29/2019 12:07:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00078**	**.07931**	**-.00198**	**.01143**	**.01849**	**.00031**	**-.00287**	**51.321**	**.00030**
Stddev	.00007	.00071	.00250	.00081	.00042	.00000	.00029	.035	.00025
%RSD	9.0888	.90124	126.37	7.0627	2.2920	1.2871	10.036	.06772	83.790
#1	-.00083	.07981	-.00021	.01200	.01879	.00031	-.00267	51.346	.00048
#2	-.00073	.07880	-.00375	.01086	.01819	.00031	-.00308	51.297	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**.00004**	**-.00071**	**.28046**	**2.8694**	**.00319**	**4.9462**	**.74188**	**-.00001**
Stddev	.00038	.00001	.00108	.00218	.0011	.00521	.0092	.00037	.00011
%RSD	107.93	29.890	150.56	.77745	.03792	163.27	.18599	.04989	1115.7
#1	.00063	.00005	-.00148	.27892	2.8686	.00687	4.9396	.74214	.00007
#2	.00008	.00003	.00005	.28200	2.8702	-.00049	4.9527	.74161	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.5064**	**.00052**	**.03603**	**.00206**	**.09632**	**-.00234**	**-.00668**	**1.9371**	**4.1455**
Stddev	.0134	.00004	.00013	.00145	.00039	.00096	.00844	.0114	.0244
%RSD	.89127	7.4955	.36352	70.190	.40432	40.879	126.29	.58729	.58729
#1	1.4969	.00054	.03594	.00104	.09604	-.00302	-.00072	1.9291	4.1283
#2	1.5159	.00049	.03612	.00308	.09659	-.00167	-.01265	1.9452	4.1627
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00036**	**.11894**	**-.00183**	**.00199**	**-.00099**	**.03104**	**.00094**	**.00017**	**-.00401**
Stddev	.00042	.00013	.00377	.00055	.00125	.03181	.00016	.00030	.00321
%RSD	114.90	.10810	206.02	27.547	126.08	102.49	16.608	177.74	80.133
#1	-.00066	.11903	-.00450	.00161	-.00011	.05353	.00105	.00038	-.00174
#2	-.00007	.11885	.00084	.00238	-.00188	.00854	.00083	-.00004	-.00628
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3775.1**	**42484.**	**3463.8**
Stddev	6.7	11.	1.5
%RSD	.17856	.02544	.04378
#1	3770.3	42491.	3464.9
#2	3779.9	42476.	3462.7

Sample Name: 280-123981-F-1-A Acquired: 5/29/2019 12:10:29 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00034**	**.00448**	**.00091**	**.18674**	**.11557**	**.00011**	**-.00463**	**140.17**	**.00014**
Stddev	.00011	.00001	.00327	.00094	.00050	.00009	.00256	.45	.00017
%RSD	31.089	.33226	361.62	.50373	.42872	84.626	55.256	.32370	126.59
#1	-.00042	.00447	-.00141	.18740	.11522	.00004	-.00282	140.49	.00001
#2	-.00027	.00449	.00322	.18607	.11593	.00017	-.00643	139.84	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.00044**	**-.00015**	**4.0501**	**4.3400**	**.10413**	**35.028**	**.71018**	**-.00051**
Stddev	.00036	.00025	.00056	.0220	.0052	.00212	.002	.00048	.00008
%RSD	1382.7	55.861	380.33	.54351	.12073	2.0363	.00670	.06736	16.340
#1	.00023	.00062	.00025	4.0656	4.3363	.10263	35.027	.70984	-.00045
#2	-.00028	.00027	-.00054	4.0345	4.3437	.10563	35.030	.71052	-.00057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **16.994**	**-.00016**	**.01935**	**.00096**	**11.850**	**-.00097**	**-.00859**	**8.4286**	**18.037**
Stddev	.042	.00016	.00336	.00212	.069	.00076	.00040	.0026	.005
%RSD	.24677	99.392	17.384	221.18	.58385	78.493	4.6248	.03031	.03031
#1	17.024	-.00005	.01697	-.00054	11.899	-.00043	-.00887	8.4304	18.041
#2	16.964	-.00028	.02173	.00246	11.801	-.00150	-.00831	8.4268	18.033
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.94521**	**-.00394**	**.00058**	**.00166**	**-.03190**	**.00013**	**-.00045**	**-.00026**
Stddev	.00120	.00237	.00036	.00010	.00167	.05361	.00031	.00033	.00231
%RSD	435.57	.25054	9.0413	16.962	100.78	168.05	228.69	74.812	886.82
#1	-.00112	.94689	-.00419	.00065	.00048	-.06981	.00035	-.00068	-.00189
#2	.00057	.94354	-.00369	.00051	.00284	.00601	-.00008	-.00021	.00137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3746.0**	**42088.**	**3466.0**
Stddev	3.4	41.	25.4
%RSD	.09080	.09850	.73308
#1	3748.4	42059.	3448.0
#2	3743.6	42117.	3484.0

Sample Name: 280-123981-F-2-A Acquired: 5/29/2019 12:13:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00066**	**.00909**	**.00578**	**.01740**	**.02749**	**.00024**	**.00189**	**50.793**	**-.00011**
Stddev	.00089	.00051	.00085	.00086	.00022	.00003	.00060	.091	.00012
%RSD	134.42	5.6463	14.664	4.9354	.79550	11.575	31.599	.17984	110.08
#1	-.00003	.00946	.00518	.01801	.02734	.00022	.00147	50.728	-.00002
#2	-.00129	.00873	.00638	.01679	.02765	.00026	.00232	50.857	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00007**	**.00640**	**.23786**	**1.6740**	**.01503**	**8.5234**	**.06746**	**-.00033**
Stddev	.00025	.00006	.00023	.00295	.0333	.00235	.0208	.00007	.00002
%RSD	1055.4	87.535	3.5894	1.2421	1.9861	15.636	.24421	.11087	5.1479
#1	.00016	.00011	.00656	.23577	1.6505	.01337	8.5381	.06741	-.00034
#2	-.00020	.00003	.00624	.23995	1.6975	.01669	8.5086	.06752	-.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.2648**	**-.00030**	**.00943**	**.00370**	**5.6473**	**-.00285**	**-.00213**	**4.7669**	**10.201**
Stddev	.0042	.00028	.00106	.00024	.0509	.00314	.00189	.0017	.004
%RSD	.05708	93.243	11.283	6.4161	.90068	110.09	88.548	.03646	.03646
#1	7.2619	-.00010	.01019	.00386	5.6833	-.00507	-.00080	4.7657	10.199
#2	7.2677	-.00049	.00868	.00353	5.6114	-.00063	-.00347	4.7682	10.204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00126**	**.30891**	**-.00159**	**.00094**	**.00166**	**-.00039**	**.00072**	**.00434**	**.00049**
Stddev	.00026	.00095	.00199	.00019	.00084	.02420	.00071	.00028	.00464
%RSD	21.023	.30773	125.19	20.437	50.708	6174.2	99.577	6.4510	946.54
#1	.00107	.30824	-.00300	.00081	.00106	.01672	.00122	.00415	.00377
#2	.00144	.30958	-.00018	.00108	.00225	-.01751	.00021	.00454	-.00279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3806.0**	**42846.**	**3516.3**
Stddev	6.4	13.	12.6
%RSD	.16757	.03125	.35822
#1	3810.5	42836.	3525.2
#2	3801.5	42855.	3507.4

Sample Name: 280-123981-F-3-A Acquired: 5/29/2019 12:15:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.00356**	**.00202**	**.00817**	**.01415**	**.00011**	**-.00226**	**73.886**	**-.00014**
Stddev	.00082	.00016	.00090	.00131	.00088	.00004	.00350	.106	.00009
%RSD	176.35	4.3551	44.559	15.979	6.2324	31.664	154.60	.14314	63.927
#1	.00011	.00367	.00138	.00725	.01477	.00014	-.00474	73.961	-.00020
#2	-.00104	.00345	.00266	.00909	.01352	.00009	.00021	73.811	-.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.00041**	**-.00019**	**.02418**	**.81941**	**.00316**	**9.5700**	**.00899**	**-.00056**
Stddev	.00032	.00015	.00026	.00036	.02143	.00084	.0028	.00011	.00002
%RSD	125.82	35.465	133.33	1.4853	2.6147	26.614	.02934	1.2340	3.4344
#1	.00048	.00052	-.00038	.02444	.83456	.00256	9.5720	.00907	-.00058
#2	.00003	.00031	-.00001	.02393	.80426	.00375	9.5681	.00891	-.00055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2980**	**-.00063**	**.00011**	**.00242**	**.62304**	**-.00182**	**-.00155**	**5.0376**	**10.780**
Stddev	.0026	.00023	.00272	.00022	.01348	.00037	.00174	.0149	.032
%RSD	.19636	35.816	2429.8	9.2395	2.1636	20.543	112.35	.29619	.29619
#1	1.2962	-.00079	.00204	.00226	.61351	-.00156	-.00032	5.0481	10.803
#2	1.2998	-.00047	-.00181	.00258	.63257	-.00208	-.00278	5.0270	10.758
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.11122**	**-.00077**	**.00053**	**.00433**	**.03861**	**.00010**	**-.00011**	**.00025**
Stddev	.00114	.00030	.00196	.00034	.00024	.07276	.00054	.00033	.00099
%RSD	528.85	.26935	254.49	63.624	5.4421	188.43	557.65	300.25	389.45
#1	-.00102	.11144	-.00216	.00076	.00416	.09006	-.00029	.00012	.00095
#2	.00059	.11101	.00062	.00029	.00449	-.01283	.00048	-.00034	-.00045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3796.9**	**42756.**	**3504.5**
Stddev	19.9	99.	22.1
%RSD	.52349	.23263	.63178
#1	3810.9	42826.	3488.8
#2	3782.8	42686.	3520.2

Sample Name: 280-123981-F-4-A Acquired: 5/29/2019 12:18:07 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00053**	**.00343**	**.00241**	**.00870**	**.01490**	**.00032**	**.00024**	**78.713**	**-.00001**
Stddev	.00063	.00001	.00096	.00004	.00026	.00010	.00185	.163	.00040
%RSD	119.25	.39487	39.771	.51218	1.7305	29.829	765.20	.20649	4603.6
#1	-.00008	.00342	.00173	.00867	.01472	.00039	-.00106	78.598	-.00029
#2	-.00098	.00344	.00308	.00873	.01509	.00025	.00155	78.828	.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00036**	**-.00018**	**.02520**	**.93052**	**.00679**	**9.9149**	**.00367**	**-.00101**
Stddev	.00023	.00031	.00019	.00014	.04336	.00198	.0051	.00006	.00007
%RSD	201.97	85.192	102.30	.53852	4.6602	29.225	.05111	1.6244	6.7957
#1	.00028	.00058	-.00032	.02510	.96119	.00539	9.9113	.00372	-.00096
#2	-.00005	.00014	-.00005	.02530	.89986	.00819	9.9185	.00363	-.00106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.7810**	**-.00018**	**.00108**	**.00131**	**.65193**	**-.00494**	**-.00149**	**5.2348**	**11.203**
Stddev	.0356	.00040	.00185	.00050	.00494	.00009	.00153	.0305	.065
%RSD	1.9977	216.72	170.79	38.031	.75727	1.8538	103.11	.58217	.58217
#1	1.7558	.00010	-.00022	.00096	.65542	-.00487	-.00257	5.2133	11.156
#2	1.8061	-.00046	.00239	.00167	.64844	-.00500	-.00040	5.2564	11.249
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00091**	**.12372**	**-.00221**	**.00015**	**-.00112**	**.03460**	**.00027**	**-.00128**	**.00081**
Stddev	.00053	.00005	.00033	.00038	.00160	.02974	.00049	.00083	.00072
%RSD	57.833	.04286	15.173	253.35	143.51	85.975	183.51	64.619	89.819
#1	-.00054	.12376	-.00197	.00042	-.00225	.01356	.00061	-.00069	.00132
#2	-.00128	.12369	-.00244	-.00012	.00002	.05563	-.00008	-.00186	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3784.3**	**42822.**	**3438.0**
Stddev	13.1	205.	28.3
%RSD	.34601	.47948	.82287
#1	3793.5	42677.	3418.0
#2	3775.0	42967.	3458.0

Sample Name: 280-123981-F-5-A Acquired: 5/29/2019 12:20:42 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.27844**	**.00296**	**.00846**	**.01506**	**.00026**	**.00199**	**53.890**	**.00006**
Stddev	.00005	.00273	.00523	.00095	.00112	.00010	.00131	.246	.00043
%RSD	22.544	.98193	176.83	11.200	7.4415	39.052	66.070	.45684	696.32
#1	-.00025	.28037	-.00074	.00779	.01585	.00034	.00292	54.064	.00037
#2	-.00018	.27650	.00666	.00913	.01427	.00019	.00106	53.716	-.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00067**	**.00177**	**.25082**	**2.5554**	**.00283**	**5.4146**	**.01026**	**-.00029**
Stddev	.00002	.00017	.00014	.00198	.0293	.00337	.0141	.00010	.00002
%RSD	51.491	25.869	8.0648	.79126	1.1451	119.20	.26048	.96071	8.2277
#1	-.00003	.00080	.00167	.24942	2.5761	.00522	5.4245	.01019	-.00028
#2	-.00006	.00055	.00188	.25222	2.5347	.00044	5.4046	.01033	-.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9199**	**.00270**	**.00794**	**.00100**	**.65487**	**-.00009**	**-.00126**	**3.3944**	**7.2641**
Stddev	.0223	.00090	.00079	.00097	.00593	.00090	.00034	.0088	.0189
%RSD	1.1597	33.254	9.9317	97.388	.90514	961.84	27.112	.26030	.26030
#1	1.9357	.00333	.00850	.00169	.65907	.00054	-.00102	3.4007	7.2774
#2	1.9042	.00206	.00738	.00031	.65068	-.00073	-.00150	3.3882	7.2507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00145**	**.11820**	**-.00123**	**.00500**	**.00044**	**-.00705**	**.00125**	**-.00036**	**.00030**
Stddev	.00260	.00002	.00253	.00013	.00055	.01695	.00029	.00039	.00081
%RSD	179.64	.01428	206.55	2.5150	124.93	240.53	23.153	109.45	272.06
#1	.00329	.11821	.00056	.00491	.00005	-.01903	.00146	-.00064	.00087
#2	-.00039	.11818	-.00302	.00509	.00083	.00494	.00105	-.00008	-.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3795.7**	**42745.**	**3461.6**
Stddev	6.1	129.	12.4
%RSD	.16166	.30266	.35707
#1	3791.3	42837.	3452.9
#2	3800.0	42654.	3470.4

Sample Name: CCVH-5713036 Acquired: 5/29/2019 12:23:15 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00100**	**49.614**	**-.00254**	**-.00007**	**.00140**	**.00010**	**-.00091**	**.00550**	**-.00029**	**.00217**	**.00009**	**.01100**
Stddev	.00075	.154	.00491	.00020	.00034	.00003	.00138	.00114	.00026	.00027	.00004	.00044
%RSD	75.199	.31030	193.24	289.97	24.548	26.851	152.19	20.651	90.510	12.630	44.968	3.9537
#1	-.00153	49.722	-.00602	.00007	.00116	.00008	.00007	.00630	-.00010	.00198	.00006	.01131
#2	-.00047	49.505	.00093	-.00021	.00165	.00012	-.00189	.00470	-.00047	.00237	.00012	.01070
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.245**	**.12641**	**.00070**	**.01637**	**.00237**	**-.00101**	**250.15**	**.00150**	**4.9157**	**.00300**	**4.8783**	**.00081**
Stddev	.479	.04211	.00353	.00206	.00005	.00010	.81	.00017	.0192	.00125	.0074	.00152
%RSD	.97233	33.310	502.23	12.572	2.2615	9.4739	.32479	11.627	.39134	41.779	.15254	187.62
#1	49.584	.15618	.00320	.01491	.00240	-.00108	250.72	.00163	4.9293	.00389	4.8835	.00189
#2	48.907	.09663	-.00179	.01782	.00233	-.00094	249.57	.00138	4.9021	.00211	4.8730	-.00027
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00167**	**.02514**	**.05381**	**-.00061**	**-.00010**	**4.9398**	**-.01447**	**.00172**	F **.58038**	**.00526**	**-.00118**	**.09881**
Stddev	.00027	.03633	.07774	.00090	.00028	.0025	.00050	.00175	.03691	.00056	.00017	.00665
%RSD	16.449	144.47	144.47	147.08	281.27	.05041	3.4479	101.94	6.3595	10.697	14.711	6.7256
#1	-.00186	.05083	.10877	.00002	.00010	4.9416	-.01411	.00048	.60648	.00486	-.00130	.09411
#2	-.00147	-.00054	-.00116	-.00125	-.00030	4.9381	-.01482	.00296	.55428	.00566	-.00105	.10351
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3707.7**	**41435.**	**3386.6**
Stddev	17.3	44.	31.8
%RSD	.46795	.10645	.94033
#1	3720.0	41404.	3364.1
#2	3695.4	41466.	3409.1

Sample Name: CCV-5714928 Acquired: 5/29/2019 12:25:47 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48959**	**.53481**	**.48389**	**.48569**	**.49484**	**.48915**	**.98333**	**4.9049**	**.48629**	**.49551**	**.49125**	**.49422**	**2.4526**
Stddev	.00103	.00068	.00918	.00346	.00379	.00088	.00434	.0310	.00266	.00132	.00169	.00446	.0093
%RSD	.21006	.12696	1.8978	.71326	.76617	.18068	.44170	.63252	.54757	.26586	.34313	.90261	.37994
#1	.48886	.53529	.49038	.48814	.49752	.48977	.98640	4.9268	.48817	.49644	.49244	.49738	2.4592
#2	.49031	.53433	.47740	.48324	.49216	.48852	.98026	4.8830	.48440	.49458	.49006	.49107	2.4460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.269**	**.49531**	**19.815**	**.49478**	**.48938**	**24.932**	**.49637**	**.00171**	**.49626**	**.00676**	**.48767**	**.48015**	**4.8719**
Stddev	.142	.00107	.039	.00070	.00131	.046	.00090	.00043	.00490	.00475	.00190	.00552	.0322
%RSD	.28766	.21509	.19689	.14107	.26752	.18441	.18037	25.214	.98706	70.354	.38996	1.1501	.66135
#1	49.370	.49607	19.843	.49528	.49031	24.964	.49700	.00202	.49972	.00340	.48632	.47624	4.8491
#2	49.169	.49456	19.787	.49429	.48846	24.899	.49573	.00141	.49279	.01012	.48901	.48405	4.8947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.426**	**.49475**	**.49302**	**-.00008**	**.49068**	**.49767**	**-.05588**	**.48841**	**.49000**	**.48315**
Stddev	.069	.00238	.00266	.00413	.00055	.00272	.00743	.00082	.00243	.00748
%RSD	.66135	.48154	.53927	5171.0	.11130	.54667	13.291	.16712	.49643	1.5475
#1	10.377	.49644	.49490	-.00300	.49030	.49574	-.05063	.48899	.49172	.48843
#2	10.475	.49307	.49114	.00284	.49107	.49959	-.06113	.48783	.48828	.47786
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3698.4**	**41216.**	**3336.6**
Stddev	19.6	219.	5.8
%RSD	.52979	.53064	.17251
#1	3684.5	41062.	3332.5
#2	3712.2	41371.	3340.6

Sample Name: CCB Acquired: 5/29/2019 12:28:43 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**-.00184**	**.00066**	**.00049**	**.00071**	**.00020**	**-.00210**	**-.00351**	**-.00000**	**.00040**	**-.00039**	**-.00093**	**.01885**
Stddev	.00137	.00038	.00508	.00028	.00110	.00004	.00098	.00231	.00002	.00041	.00005	.00081	.00047
%RSD	2379.2	20.890	765.93	58.563	155.72	20.345	46.845	65.792	1606.7	102.43	12.648	86.729	2.4837
#1	.00102	-.00157	.00426	.00028	-.00007	.00018	-.00279	-.00514	.00001	.00068	-.00035	-.00036	.01852
#2	-.00091	-.00211	-.00293	.00069	.00149	.00023	-.00140	-.00188	-.00002	.00011	-.00042	-.00150	.01918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.06849**	**.00119**	**.00776**	**.00037**	**.00059**	**.27409**	**.00013**	**-.00013**	**.00235**	**-.00464**	**-.00176**	**-.00129**	**.01820**
Stddev	.06992	.00226	.00840	.00005	.00021	.01856	.00025	.00006	.00319	.00177	.00208	.00155	.02030
%RSD	102.09	189.53	108.26	14.079	34.920	6.7731	190.10	47.776	135.61	38.041	118.16	119.75	111.52
#1	.11793	.00278	.00182	.00041	.00073	.26096	.00031	-.00017	.00010	-.00339	-.00324	-.00020	.00385
#2	.01905	-.00040	.01369	.00033	.00044	.28721	-.00005	-.00008	.00460	-.00589	-.00029	-.00238	.03256
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.03895**	**.00059**	**-.00027**	**-.00191**	**-.00003**	**.00171**	**-.02232**	**.00081**	**-.00298**	**-.00055**
Stddev	.04344	.00006	.00017	.00163	.00038	.00063	.06575	.00097	.00044	.00108
%RSD	111.52	9.4032	65.473	85.020	1104.1	36.696	294.55	119.80	14.600	194.98
#1	.00823	.00055	-.00039	-.00306	-.00030	.00127	.02417	.00012	-.00267	-.00132
#2	.06967	.00063	-.00014	-.00076	.00023	.00215	-.06881	.00150	-.00329	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3770.2**	**42407.**	**3381.5**
Stddev	2.1	278.	12.1
%RSD	.05657	.65637	.35924
#1	3768.7	42210.	3372.9
#2	3771.7	42604.	3390.1

Sample Name: CCVL-5725431 Acquired: 5/29/2019 12:31:52 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00715**	**.10324**	**.01626**	**.09775**	**.01033**	**.00114**	**.10808**	**.19946**	**.00519**	**.01059**	**.01005**	**.01429**
Stddev	.00002	.00055	.00066	.00108	.00022	.00006	.00125	.00457	.00003	.00061	.00017	.00079
%RSD	.34304	.53446	4.0531	1.1047	2.1383	5.1411	1.1541	2.2899	.61599	5.7437	1.7112	5.5220
#1	.00717	.10363	.01673	.09699	.01048	.00118	.10720	.19623	.00521	.01102	.01017	.01485
#2	.00713	.10285	.01580	.09852	.01017	.00110	.10896	.20269	.00517	.01016	.00992	.01373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12254**	**3.0256**	**.01919**	**.19926**	**.01050**	**.01972**	**1.2135**	**.04181**	**2.9255**	**.00939**	**.09603**	**.01675**
Stddev	.00006	.0502	.00431	.00061	.00003	.00017	.0025	.00043	.0002	.00251	.00127	.00209
%RSD	.05152	1.6574	22.452	.30654	.24935	.85858	.20807	1.0265	.00757	26.783	1.3252	12.478
#1	.12259	3.0611	.01614	.19883	.01052	.01960	1.2117	.04212	2.9254	.01116	.09693	.01527
#2	.12250	2.9901	.02223	.19969	.01049	.01984	1.2153	.04151	2.9257	.00761	.09513	.01823
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01592**	**.49422**	**1.0576**	**.10201**	**.00983**	**.01263**	**.00946**	**.01574**	F **.12211**	**.01022**	**.01792**	**.01114**
Stddev	.00024	.02027	.0434	.00049	.00007	.00002	.00022	.00143	.00583	.00063	.00031	.00106
%RSD	1.5290	4.1024	4.1024	.47593	.75314	.18907	2.3384	9.0699	4.7728	6.1712	1.7159	9.5185
#1	.01575	.47988	1.0269	.10235	.00989	.01265	.00961	.01473	.12623	.00977	.01814	.01189
#2	.01610	.50855	1.0883	.10166	.00978	.01262	.00930	.01675	.11799	.01067	.01771	.01039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3881.5**	**43394.**	**3456.1**
Stddev	7.8	484.	18.4
%RSD	.20108	1.1163	.53189
#1	3876.0	43052.	3469.1
#2	3887.1	43737.	3443.1

Sample Name: 280-123981-F-6-A Acquired: 5/29/2019 12:34:54 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.01268**	**.00368**	**.05150**	**.04129**	**.00022**	**.00277**	**109.55**	**.00003**
Stddev	.00071	.00003	.00045	.00077	.00044	.00005	.00051	.33	.00002
%RSD	304.54	.26228	12.270	1.4953	1.0598	21.745	18.342	.30233	74.492
#1	-.00027	.01270	.00400	.05096	.04160	.00025	.00313	109.31	.00004
#2	.00073	.01266	.00336	.05204	.04098	.00019	.00241	109.78	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.00017**	**.00100**	**.51241**	**3.3725**	**.00453**	**10.932**	**.16503**	**-.00035**
Stddev	.00019	.00026	.00025	.00094	.0241	.00050	.044	.00052	.00068
%RSD	111.61	151.78	24.708	.18276	.71526	10.934	.39834	.31570	194.25
#1	-.00030	-.00001	.00082	.51174	3.3896	.00488	10.901	.16466	.00013
#2	-.00004	.00035	.00117	.51307	3.3555	.00418	10.963	.16539	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9122**	**.00046**	**.02019**	**.00170**	**.72899**	**-.00488**	**-.00374**	**4.4045**	**9.4257**
Stddev	.0299	.00004	.00168	.00016	.01727	.00299	.00260	.0030	.0065
%RSD	1.5659	9.6138	8.3054	9.2511	2.3697	61.278	69.534	.06877	.06877
#1	1.8910	.00050	.02138	.00159	.74121	-.00276	-.00559	4.4067	9.4302
#2	1.9334	.00043	.01901	.00181	.71678	-.00699	-.00190	4.4024	9.4211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.19737**	**-.00355**	**.00066**	**.00252**	**.06644**	**.00030**	**.00331**	**-.00022**
Stddev	.00204	.00089	.00123	.00021	.00215	.01249	.00023	.00032	.00170
%RSD	1344.4	.44847	34.691	32.313	85.473	18.801	75.393	9.5249	755.30
#1	-.00129	.19674	-.00442	.00081	.00404	.05761	.00014	.00309	-.00142
#2	.00160	.19800	-.00268	.00051	.00100	.07528	.00046	.00353	.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.9**	**42806.**	**3496.2**
Stddev	16.8	292.	.3
%RSD	.44368	.68279	.00836
#1	3789.8	43013.	3496.4
#2	3766.1	42599.	3496.0

Sample Name: 280-123981-F-7-A Acquired: 5/29/2019 12:37:27 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.03873**	**.00129**	**.00589**	**.05263**	**.00019**	**-.00319**	**104.21**	**.00025**
Stddev	.00089	.00087	.00081	.00035	.00041	.00008	.00327	.01	.00018
%RSD	1770.1	2.2590	62.984	5.9992	.77059	43.805	102.67	.01166	72.417
#1	.00058	.03934	.00071	.00564	.05234	.00013	-.00087	104.22	.00012
#2	-.00068	.03811	.00186	.00614	.05291	.00025	-.00550	104.20	.00038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00145**	**.02350**	**.00256**	**.19919**	**1.2966**	**.00122**	**17.533**	**2.3319**	**-.00029**
Stddev	.00010	.00030	.00050	.00259	.1255	.00512	.015	.0014	.00002
%RSD	7.1349	1.2575	19.431	1.2992	9.6794	418.38	.08731	.05889	8.2426
#1	.00153	.02330	.00291	.20102	1.3854	.00485	17.522	2.3329	-.00027
#2	.00138	.02371	.00221	.19736	1.2079	-.00240	17.544	2.3310	-.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.6948**	**.00880**	**.00398**	**.00076**	**5.9885**	**.00150**	**-.00278**	**4.3647**	**9.3404**
Stddev	.0221	.00042	.00145	.00041	.0421	.00385	.00151	.0251	.0537
%RSD	.38806	4.7498	36.390	54.460	.70365	256.65	54.146	.57450	.57450
#1	5.6791	.00850	.00500	.00047	6.0183	.00423	-.00172	4.3824	9.3783
#2	5.7104	.00909	.00296	.00105	5.9587	-.00122	-.00385	4.3469	9.3024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00158**	**.18895**	**.00012**	**.00159**	**-.00011**	**-.01070**	**.00078**	**.00497**	**.00027**
Stddev	.00173	.00005	.00242	.00050	.00109	.06200	.00019	.00014	.00137
%RSD	109.55	.02769	2054.2	31.781	987.69	579.30	23.857	2.8906	512.53
#1	.00280	.18891	.00183	.00194	.00066	-.05454	.00065	.00507	-.00070
#2	.00036	.18898	-.00159	.00123	-.00088	.03314	.00091	.00487	.00124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3744.0**	**42249.**	**3477.6**
Stddev	6.7	44.	14.1
%RSD	.17874	.10444	.40608
#1	3748.7	42218.	3487.5
#2	3739.2	42280.	3467.6

Sample Name: 280-123981-F-8-A Acquired: 5/29/2019 12:40:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.07545**	**.00144**	**.01295**	**.02737**	**.00011**	**-.00063**	**64.397**	**-.00006**
Stddev	.00028	.00006	.00217	.00011	.00102	.00005	.00170	.028	.00018
%RSD	845.05	.08420	150.72	.82527	3.7192	49.897	269.10	.04351	292.61
#1	.00017	.07549	.00297	.01288	.02665	.00015	.00057	64.377	-.00019
#2	-.00023	.07540	-.00009	.01303	.02809	.00007	-.00183	64.417	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**-.00027**	**.00004**	**.20783**	**.66377**	**.01005**	**8.1844**	**.09384**	**-.00016**
Stddev	.00039	.00013	.00118	.00024	.05309	.00340	.0045	.00018	.00039
%RSD	207.00	48.784	3226.7	.11742	7.9988	33.878	.05494	.19160	246.92
#1	-.00047	-.00018	-.00080	.20765	.70131	.01245	8.1875	.09371	-.00044
#2	.00009	-.00036	.00087	.20800	.62622	.00764	8.1812	.09396	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.2170**	**-.00033**	**.04213**	**.00093**	**.52159**	**-.00215**	**-.00383**	**3.4902**	**7.4690**
Stddev	.0154	.00015	.00261	.00123	.00393	.00161	.00312	.0272	.0583
%RSD	.47735	45.584	6.2048	131.68	.75311	74.906	81.565	.77985	.77985
#1	3.2062	-.00044	.04398	.00180	.52437	-.00329	-.00603	3.4709	7.4278
#2	3.2279	-.00022	.04028	.00006	.51881	-.00101	-.00162	3.5094	7.5102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.13721**	**.00710**	**.00015**	**-.00101**	**-.00073**	**.00049**	**.00082**	**.00234**
Stddev	.00193	.00003	.00008	.00004	.00274	.02418	.00008	.00016	.00137
%RSD	5359.3	.01932	1.1381	28.862	271.97	3324.4	15.346	19.287	58.400
#1	.00133	.13723	.00705	.00019	-.00295	.01637	.00054	.00093	.00137
#2	-.00140	.13720	.00716	.00012	.00093	-.01782	.00044	.00071	.00331
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3796.4**	**42769.**	**3501.2**
Stddev	3.9	20.	13.5
%RSD	.10223	.04686	.38465
#1	3799.1	42755.	3510.7
#2	3793.7	42783.	3491.6

Sample Name: 280-123981-F-9-A Acquired: 5/29/2019 12:42:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00052**	**.03290**	**.00038**	**.04184**	**.09927**	**.00022**	**.00053**	**71.626**	**.00003**
Stddev	.00043	.00020	.00238	.00033	.00451	.00023	.00410	3.342	.00006
%RSD	82.562	.60826	625.02	.79748	4.5436	102.19	769.56	4.6657	224.10
#1	.00082	.03304	-.00130	.04160	.09608	.00038	.00343	69.263	.00007
#2	.00021	.03275	.00206	.04207	.10246	.00006	-.00236	73.989	-.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00008**	**-.00032**	**.09929**	**1.9612**	**.00628**	**8.1410**	**.01105**	**-.00020**
Stddev	.00052	.00018	.00051	.00007	.0695	.00074	.0220	.00011	.00013
%RSD	302.42	239.85	157.07	.06885	3.5425	11.843	.27014	.95155	63.035
#1	.00053	.00021	-.00068	.09924	1.9121	.00575	8.1254	.01112	-.00029
#2	-.00019	-.00005	.00004	.09934	2.0103	.00680	8.1565	.01097	-.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.2797**	**-.00045**	**.02088**	**.00148**	**.98560**	**-.00465**	**-.00091**	**4.1522**	**8.8858**
Stddev	.0870	.00043	.00133	.00092	.00292	.00457	.00419	.2456	.5256
%RSD	3.8177	96.977	6.3581	62.416	.29605	98.210	460.80	5.9154	5.9154
#1	2.2181	-.00076	.02182	.00213	.98766	-.00142	-.00387	3.9785	8.5141
#2	2.3412	-.00014	.01994	.00083	.98353	-.00788	.00205	4.3259	9.2574
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00102**	**.47019**	**-.00265**	**.00054**	**.00018**	**.04608**	**.00009**	**.00281**	**.00010**
Stddev	.00009	.02153	.00011	.00020	.00379	.09226	.00017	.00056	.00292
%RSD	8.5789	4.5781	4.3294	36.443	2158.7	200.24	194.09	19.998	2805.7
#1	-.00108	.45497	-.00273	.00040	.00285	-.01916	.00021	.00321	-.00196
#2	-.00096	.48541	-.00257	.00067	-.00250	.11132	-.00003	.00241	.00217
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3833.4**	**43408.**	**3411.9**
Stddev	1.3	252.	142.3
%RSD	.03278	.58122	4.1696
#1	3832.5	43587.	3512.5
#2	3834.3	43230.	3311.3

Sample Name: 280-123983-F-1-A Acquired: 5/29/2019 12:45:07 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**.61340**	**.00252**	**.00968**	**.01575**	**.00017**	**-.00338**	**26.703**	**.00016**
Stddev	.00096	.00371	.00144	.00013	.00021	.00004	.00038	.078	.00043
%RSD	396.64	.60427	57.240	1.2939	1.3090	23.676	11.166	.29164	275.49
#1	-.00092	.61602	.00150	.00977	.01589	.00019	-.00365	26.758	-.00015
#2	.00044	.61078	.00354	.00959	.01560	.00014	-.00311	26.648	.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**.00087**	**.00372**	**2.7092**	**2.2499**	**.00579**	**3.4842**	**.20588**	**-.00049**
Stddev	.00034	.00016	.00059	.0115	.0170	.00123	.0050	.00029	.00007
%RSD	54.039	18.443	15.776	.42608	.75618	21.242	.14481	.14066	13.305
#1	.00038	.00098	.00413	2.7174	2.2619	.00667	3.4806	.20568	-.00045
#2	.00086	.00075	.00330	2.7010	2.2379	.00492	3.4878	.20609	-.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1340**	**.00139**	**.21676**	**.00558**	**.84771**	**-.00491**	**-.00437**	**1.8018**	**3.8559**
Stddev	.0148	.00002	.00010	.00018	.00016	.00104	.00299	.0221	.0473
%RSD	1.3049	1.1190	.04597	3.2260	.01928	21.194	68.457	1.2253	1.2253
#1	1.1445	.00140	.21683	.00545	.84783	-.00565	-.00226	1.8175	3.8894
#2	1.1236	.00138	.21669	.00571	.84760	-.00418	-.00649	1.7862	3.8225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00194**	**.06746**	**-.00287**	**.00821**	**.00293**	**.03483**	**.00220**	**.11038**	**.00236**
Stddev	.00280	.00004	.00065	.00039	.00078	.00235	.00012	.00003	.00194
%RSD	144.30	.05693	22.573	4.7293	26.583	6.7599	5.2388	.02838	82.107
#1	.00392	.06743	-.00333	.00848	.00348	.03649	.00212	.11036	.00099
#2	-.00004	.06748	-.00242	.00793	.00238	.03316	.00228	.11040	.00373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3844.9**	**43523.**	**3527.6**
Stddev	2.0	137.	20.4
%RSD	.05092	.31412	.57758
#1	3846.3	43620.	3542.0
#2	3843.5	43427.	3513.1

Sample Name: 280-123983-F-2-A Acquired: 5/29/2019 12:47:40 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00050**	**.02787**	**.00466**	**.01390**	**.01020**	**.00012**	**-.00280**	**48.937**	**-.00022**
Stddev	.00099	.00053	.00458	.00047	.00019	.00016	.00323	.115	.00010
%RSD	196.45	1.9175	98.151	3.3843	1.8731	132.81	115.53	.23573	45.385
#1	-.00120	.02825	.00790	.01423	.01006	.00001	-.00509	49.018	-.00029
#2	.00020	.02750	.00143	.01357	.01033	.00023	-.00051	48.855	-.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.00016**	**-.00020**	**.79746**	**2.3994**	**-.00025**	**5.2879**	**.52045**	**-.00062**
Stddev	.00033	.00031	.00043	.00061	.0252	.00302	.0079	.00168	.00000
%RSD	284.48	196.91	209.94	.07597	1.0510	1231.8	.15022	.32365	.07546
#1	-.00012	-.00006	-.00050	.79789	2.3815	-.00238	5.2935	.51926	-.00062
#2	.00035	.00038	.00010	.79703	2.4172	.00189	5.2823	.52164	-.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1627**	**-.00061**	**.11186**	**.00171**	**.43157**	**-.00326**	**-.00022**	**1.5503**	**3.3175**
Stddev	.0125	.00039	.00187	.00238	.00878	.00156	.00075	.0325	.0695
%RSD	1.0747	64.649	1.6692	139.30	2.0354	47.645	340.33	2.0944	2.0944
#1	1.1715	-.00033	.11318	.00339	.43778	-.00436	-.00075	1.5273	3.2684
#2	1.1539	-.00089	.11054	.00003	.42536	-.00216	.00031	1.5732	3.3667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**.13705**	**-.00198**	**.00098**	**.00267**	**-.02501**	**.00071**	**.00133**	**-.00314**
Stddev	.00016	.00017	.00010	.00043	.00326	.03353	.00021	.00028	.00196
%RSD	24.110	.12253	4.9097	43.261	122.37	134.11	29.355	21.298	62.251
#1	.00078	.13693	-.00204	.00128	.00497	-.04872	.00056	.00153	-.00176
#2	.00055	.13717	-.00191	.00068	.00036	-.00129	.00086	.00113	-.00452
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3786.5**	**42455.**	**3456.0**
Stddev	8.0	361.	13.8
%RSD	.21249	.85092	.39839
#1	3780.8	42711.	3446.2
#2	3792.2	42200.	3465.7

Sample Name: 280-123983-F-3-A Acquired: 5/29/2019 12:50:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00718**	**112.82**	**.04668**	**.09921**	**1.0749**	**.00662**	**.00359**	**219.64**	**.01519**
Stddev	.00018	.45	.00708	.00063	.0025	.00011	.00060	.41	.00019
%RSD	2.4714	.39506	15.172	.63173	.23109	1.6214	16.635	.18880	1.2255
#1	.00731	112.51	.04167	.09965	1.0732	.00654	.00317	219.35	.01532
#2	.00706	113.14	.05169	.09877	1.0767	.00669	.00401	219.93	.01506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.06954**	**.12077**	**.41102**	**154.30**	**9.2400**	**.22634**	**35.211**	F **67.487**	**.00166**
Stddev	.00095	.00138	.00080	.15	.0317	.00196	.043	.223	.00027
%RSD	1.3656	1.1452	.19440	.09997	.34265	.86807	.12355	.33020	16.084
#1	.07021	.12175	.41046	154.19	9.2176	.22773	35.180	67.329	.00147
#2	.06887	.11979	.41159	154.41	9.2623	.22495	35.241	67.645	.00185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit								20.000	
Low Limit								-.02000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.0178**	**.16446**	**13.781**	**.50365**	**16.569**	**-.00403**	**.00312**	W **53.882**	**115.31**
Stddev	.0150	.00166	.046	.00086	.022	.00012	.00113	.025	.05
%RSD	.49827	1.0101	.33670	.17100	.13120	2.9445	36.055	.04661	.04661
#1	3.0072	.16563	13.813	.50304	16.584	-.00411	.00392	53.864	115.27
#2	3.0285	.16328	13.748	.50426	16.553	-.00394	.00233	53.900	115.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								50.000	
Low Limit								-1.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01293**	**.95816**	**-.00512**	**.56484**	F **-.05771**	**.13732**	**.19372**	**1.2951**	**.02366**
Stddev	.00089	.00177	.00146	.00786	.00179	.00851	.00058	.0086	.00189
%RSD	6.8604	.18458	28.441	1.3913	3.0975	6.1973	.30094	.66260	7.9867
#1	.01230	.95691	-.00615	.55928	-.05645	.13130	.19413	1.2891	.02233
#2	.01355	.95941	-.00409	.57040	-.05898	.14334	.19331	1.3012	.02500
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					50.000				
Low Limit					-.03000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4071.4**	**44406.**	**3780.1**
Stddev	9.6	105.	18.7
%RSD	.23622	.23547	.49447
#1	4064.6	44480.	3793.3
#2	4078.2	44332.	3766.8

Sample Name: CCVH-5713036 Acquired: 5/29/2019 12:53:17 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00118**	**49.897**	**.00246**	**-.00119**	**.00153**	**.00027**	**.00031**	**.01178**	**-.00008**	**.00221**	**-.00013**	**.01091**
Stddev	.00114	.309	.00289	.00119	.00022	.00034	.00038	.00261	.00053	.00049	.00012	.00018
%RSD	96.637	.61926	117.56	100.08	14.092	128.11	122.97	22.188	694.77	21.970	91.278	1.6489
#1	-.00037	50.116	.00450	-.00203	.00138	.00051	.00057	.00994	-.00045	.00187	-.00005	.01078
#2	-.00199	49.679	.00042	-.00035	.00169	.00003	.00004	.01363	.00030	.00255	-.00021	.01104
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.038**	**.09863**	**.00191**	**.01412**	**.00525**	**-.00117**	**248.53**	**.00128**	**4.8949**	**.00463**	**4.8580**	**.00336**
Stddev	.269	.08317	.00117	.00926	.00028	.00046	1.35	.00079	.0293	.00031	.0162	.00014
%RSD	.54954	84.321	61.035	65.575	5.3435	39.554	.54259	61.296	.59843	6.7799	.33329	4.2926
#1	49.228	.15744	.00109	.00757	.00544	-.00084	249.49	.00184	4.9156	.00485	4.8695	.00326
#2	48.847	.03982	.00274	.02066	.00505	-.00149	247.58	.00073	4.8741	.00441	4.8466	.00346
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00199**	**.06319**	**.13523**	**-.00079**	**.00017**	**4.9582**	**-.01565**	**.00197**	F **.55927**	**.00502**	**-.00145**	**.09737**
Stddev	.00173	.01306	.02794	.00105	.00020	.0008	.00017	.00138	.04164	.00017	.00008	.00349
%RSD	87.195	20.665	20.665	132.86	120.10	.01503	1.0766	70.239	7.4454	3.4023	5.3677	3.5801
#1	-.00321	.05396	.11547	-.00005	.00003	4.9587	-.01553	.00294	.52982	.00515	-.00140	.09984
#2	-.00076	.07243	.15499	-.00153	.00031	4.9576	-.01577	.00099	.58871	.00490	-.00151	.09491
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3766.9**	**41698.**	**3401.3**
Stddev	4.8	47.	39.7
%RSD	.12681	.11216	1.1670
#1	3770.3	41665.	3373.2
#2	3763.5	41731.	3429.3

Sample Name: CCV-5714928 Acquired: 5/29/2019 12:55:50 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48512**	**.50517**	**.48039**	**.48465**	**.49315**	**.48855**	**.98562**	**4.8812**	**.48587**	**.49457**	**.48937**	**.49059**	**2.4077**
Stddev	.00132	.00144	.00011	.00138	.00027	.00084	.00734	.0140	.00150	.00036	.00288	.00000	.0064
%RSD	.27118	.28529	.02367	.28500	.05552	.17112	.74500	.28769	.30788	.07289	.58874	.00098	.26628
#1	.48419	.50619	.48031	.48563	.49296	.48914	.99082	4.8911	.48693	.49482	.49141	.49058	2.4123
#2	.48605	.50415	.48047	.48368	.49335	.48795	.98043	4.8712	.48481	.49431	.48733	.49059	2.4032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.956**	**.49291**	**19.573**	**.49118**	**.48655**	**24.608**	**.49439**	**-.00119**	**.49357**	**-.00608**	**.48999**	**.48488**	**4.8786**
Stddev	.132	.00286	.031	.00002	.00190	.044	.00027	.00220	.00033	.00926	.00332	.00415	.0305
%RSD	.26941	.58124	.15892	.00382	.38976	.17695	.05515	183.95	.06770	152.20	.67688	.85582	.62542
#1	48.863	.49493	19.595	.49120	.48790	24.638	.49458	-.00275	.49380	-.01263	.49233	.48195	4.8570
#2	49.050	.49088	19.551	.49117	.48521	24.577	.49420	.00036	.49333	.00046	.48764	.48781	4.9002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.440**	**.49161**	**.48942**	**-.00454**	**.48669**	**.49540**	**.03598**	**.48884**	**.48624**	**.48304**
Stddev	.065	.00261	.00065	.00379	.00047	.00059	.04661	.00099	.00130	.00027
%RSD	.62542	.52993	.13207	83.381	.09759	.11939	129.53	.20343	.26727	.05683
#1	10.394	.49346	.48988	-.00186	.48702	.49582	.00303	.48954	.48716	.48285
#2	10.486	.48977	.48896	-.00722	.48635	.49498	.06894	.48813	.48532	.48324
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3714.4**	**41951.**	**3405.8**
Stddev	2.2	171.	5.2
%RSD	.05857	.40827	.15286
#1	3712.8	42072.	3409.5
#2	3715.9	41830.	3402.1

Sample Name: CCB Acquired: 5/29/2019 12:58:38 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**-.00153**	**-.00008**	**.00044**	**.00023**	**.00023**	**.00000**	**.00716**	**-.00008**	**.00034**	**-.00024**	**-.00155**
Stddev	.00052	.00015	.00004	.00032	.00004	.00005	.00450	.00230	.00025	.00009	.00029	.00091
%RSD	150.21	10.101	49.056	73.298	17.990	21.498	100310.	32.123	308.34	27.348	123.24	58.577
#1	-.00002	-.00164	-.00011	.00021	.00020	.00027	-.00318	.00553	-.00026	.00041	-.00003	-.00091
#2	.00072	-.00142	-.00005	.00067	.00026	.00020	.00319	.00878	.00010	.00028	-.00045	-.00219
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00250**	**.03073**	**.00209**	**.00206**	**.00021**	**.00027**	W **.40646**	**-.00064**	**-.00003**	**.00161**	**.03004**	**-.00258**
Stddev	.00226	.03616	.00260	.00383	.00008	.00022	.00161	.00004	.00047	.00064	.00492	.00109
%RSD	90.464	117.69	124.33	185.73	36.264	82.044	.39658	6.7280	1519.8	39.798	16.379	42.141
#1	-.00410	.05630	.00393	.00477	.00026	.00011	.40760	-.00061	-.00036	.00115	.02656	-.00181
#2	-.00090	.00516	.00025	-.00065	.00015	.00043	.40532	-.00067	.00030	.00206	.03352	-.00335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.35000					
Low Limit							-.35000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**.00206**	**.00441**	**.00042**	**-.00026**	**-.00151**	**.00060**	**.00458**	**-.01338**	**.00019**	**-.00240**	**-.00102**
Stddev	.00526	.01665	.03563	.00020	.00018	.00043	.00004	.00318	.06871	.00030	.00061	.00243
%RSD	757.67	807.74	807.74	48.653	69.834	28.435	6.4709	69.403	513.51	157.28	25.623	237.27
#1	-.00441	.01384	.02961	.00028	-.00039	-.00121	.00057	.00683	.03521	-.00002	-.00196	-.00274
#2	.00302	-.00971	-.02078	.00057	-.00013	-.00181	.00063	.00233	-.06197	.00041	-.00283	.00069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3741.6**	**41863.**	**3361.7**
Stddev	1.3	229.	17.5
%RSD	.03421	.54631	.52039
#1	3740.7	42025.	3349.4
#2	3742.5	41702.	3374.1

Sample Name: CCVL-5725431 Acquired: 5/29/2019 13:01:46 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00565**	**.10296**	F **.02059**	**.09588**	**.01136**	**.00117**	**.10381**	**.19513**	**.00511**	**.01036**	**.00955**	**.01547**
Stddev	.00014	.00018	.00411	.00021	.00039	.00016	.00180	.00441	.00036	.00002	.00001	.00170
%RSD	2.4001	.17912	19.985	.21976	3.4022	13.537	1.7320	2.2609	6.9544	.20705	.08782	10.977
#1	.00555	.10309	.01768	.09602	.01109	.00128	.10254	.19825	.00537	.01034	.00955	.01427
#2	.00575	.10283	.02350	.09573	.01164	.00106	.10508	.19201	.00486	.01037	.00956	.01668
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000		.01500									
Range	-30.000%		30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11328**	**2.9536**	**.02444**	**.20419**	**.01053**	**.01915**	F **1.4664**	**.04196**	**2.8698**	**.01087**	**.12811**	**.01816**
Stddev	.00589	.0531	.00548	.00066	.00009	.00030	.0147	.00027	.0036	.00156	.00508	.00003
%RSD	5.2014	1.7977	22.410	.32380	.83088	1.5511	1.0024	.64969	.12441	14.333	3.9616	.17028
#1	.10912	2.9911	.02831	.20373	.01047	.01894	1.4560	.04177	2.8723	.01197	.13170	.01814
#2	.11745	2.9160	.02057	.20466	.01059	.01936	1.4768	.04215	2.8673	.00977	.12452	.01818
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01696**	**.52128**	**1.1155**	**.10222**	**.00993**	**.01156**	**.00929**	**.01702**	**.06793**	**.01023**	**.01782**	**.01239**
Stddev	.00464	.03837	.0821	.00007	.00013	.00080	.00053	.00138	.02472	.00046	.00056	.00328
%RSD	27.348	7.3615	7.3615	.06624	1.3432	6.9434	5.7542	8.1105	36.385	4.5287	3.1366	26.488
#1	.01368	.49415	1.0575	.10227	.01002	.01099	.00891	.01800	.05045	.01056	.01821	.01471
#2	.02024	.54842	1.1736	.10217	.00983	.01213	.00966	.01605	.08541	.00990	.01742	.01007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3793.3**	**42609.**	**3398.7**
Stddev	.3	218.	3.8
%RSD	.00814	.51087	.11064
#1	3793.1	42763.	3401.3
#2	3793.5	42455.	3396.0

Sample Name: CCVL-5725431 Acquired: 5/29/2019 13:07:35 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00657**	**.09662**	**.01490**	**.09221**	**.01028**	**.00118**	**.09969**	**.19588**	**.00462**	**.01013**	**.00951**	**.01467**
Stddev	.00094	.00013	.00801	.00030	.00052	.00000	.00398	.00301	.00008	.00031	.00002	.00043
%RSD	14.275	.13689	53.787	.32355	5.0214	.04721	3.9903	1.5371	1.7861	3.0598	.22594	2.9222
#1	.00724	.09653	.00923	.09200	.00991	.00118	.09688	.19375	.00456	.00991	.00949	.01497
#2	.00591	.09672	.02057	.09242	.01064	.00118	.10250	.19801	.00467	.01034	.00952	.01436
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11364**	**2.9109**	**.02159**	**.19957**	**.01041**	**.01814**	**1.1022**	**.03939**	**2.7402**	**.01155**	**.08827**	F **.01226**
Stddev	.00173	.1076	.00549	.00189	.00000	.00040	.0279	.00093	.0212	.00077	.00003	.00347
%RSD	1.5240	3.6954	25.435	.94677	.02649	2.2175	2.5350	2.3491	.77411	6.6280	.03794	28.305
#1	.11242	2.9870	.01771	.20090	.01042	.01843	1.1220	.03874	2.7252	.01101	.08825	.01472
#2	.11487	2.8348	.02547	.19823	.01041	.01786	1.0824	.04004	2.7552	.01209	.08830	.00981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value												.02000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.01350**	**.48272**	**1.0330**	**.09577**	**.00944**	**.01144**	**.00916**	**.01671**	F **.16812**	**.00996**	**.01870**	F **.00735**
Stddev	.00044	.02139	.0458	.00075	.00018	.00052	.00011	.00035	.00501	.00024	.00054	.00349
%RSD	3.2637	4.4310	4.4310	.77888	1.8676	4.5537	1.2553	2.1191	2.9776	2.3972	2.8682	47.431
#1	.01318	.49785	1.0654	.09630	.00931	.01107	.00908	.01696	.17166	.00979	.01832	.00982
#2	.01381	.46760	1.0007	.09524	.00956	.01181	.00924	.01646	.16458	.01013	.01908	.00489
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	.02000								.06000			.01500
Range	-30.000%								30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**4008.1**	**44030.**	**3545.6**
Stddev	3.0	70.	25.9
%RSD	.07501	.15949	.73082
#1	4010.2	43981.	3527.3
#2	4005.9	44080.	3563.9

Sample Name: CCVL-5725431 Acquired: 5/29/2019 13:09:54 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00547**	**.09796**	F **.02171**	**.09283**	**.00973**	**.00126**	**.10354**	**.18796**	**.00507**	**.01013**	**.00989**	**.01357**
Stddev	.00007	.00187	.00116	.00082	.00044	.00021	.00017	.00690	.00003	.00051	.00008	.00022
%RSD	1.3210	1.9066	5.3532	.88002	4.5288	16.303	.16851	3.6692	.51908	4.9864	.78387	1.6566
#1	.00542	.09928	.02253	.09341	.01004	.00140	.10342	.18308	.00505	.01049	.00984	.01373
#2	.00552	.09664	.02089	.09225	.00942	.00111	.10367	.19284	.00508	.00977	.00995	.01341
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000		.01500									
Range	-30.000%		30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10782**	**2.7591**	**.01590**	**.19365**	**.01031**	**.01801**	**1.0578**	**.03952**	**2.7625**	**.01152**	**.08111**	**.01834**
Stddev	.00147	.0624	.00207	.00328	.00002	.00000	.0171	.00017	.0012	.00027	.00193	.00025
%RSD	1.3622	2.2633	13.046	1.6962	.15331	.01248	1.6133	.42543	.04470	2.3345	2.3756	1.3768
#1	.10678	2.7150	.01737	.19133	.01030	.01801	1.0458	.03940	2.7616	.01133	.08248	.01851
#2	.10886	2.8033	.01443	.19597	.01032	.01800	1.0699	.03964	2.7634	.01171	.07975	.01816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01541**	**.48069**	**1.0287**	**.09713**	**.00944**	**.01061**	**.00866**	**.01622**	F **.10231**	**.01008**	**.01819**	F **.01021**
Stddev	.00504	.00905	.0194	.00138	.00014	.00188	.00014	.00008	.04425	.00004	.00068	.00232
%RSD	32.728	1.8821	1.8821	1.4219	1.4394	17.732	1.5779	.46975	43.249	.36904	3.7309	22.741
#1	.01897	.47429	1.0150	.09616	.00934	.00928	.00875	.01616	.13359	.01005	.01771	.01185
#2	.01184	.48708	1.0424	.09811	.00953	.01194	.00856	.01627	.07102	.01010	.01867	.00857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value									.06000			.01500
Range									30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3939.0**	**44927.**	**3644.8**
Stddev	12.6	36.	16.7
%RSD	.31880	.08056	.45852
#1	3947.9	44953.	3633.0
#2	3930.1	44902.	3656.6

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG No.:

Project: Griffiss AFB, LF002 LF#2 - 3342

Client Sample ID	Lab Sample ID
LF2MW2-1_0519	280-123930-1
LF2MW-12_0519	280-123930-2
LF2MW-12_0519-a	280-123930-3
LF2MW-4_0519	280-123930-4
LF2MW -13_0519	280-123930-5

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF2MW2-1_0519 Lab Sample ID: 280-123930-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 15:46

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.64	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	26	20	20	8.7	mg/L		J1	1	410.4
Phenols, Total	0.0093	0.020	0.020	0.0068	mg/L	J		1	9066
Color	50	50	50	50	PCU		D	10	SM 2120B
Hardness	260	6.0	1.6	0.60	mg/L			1	SM 2340C
Bromide	0.19	0.50	0.20	0.11	mg/L	J		1	9056A
Nitrate Nitrite as N	0.077	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	10	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.81	0.50	0.20	0.19	mg/L			1	9056A
Fluoride	0.12	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.077	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	11	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	1.1	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	250	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	290	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF2MW-12_0519 Lab Sample ID: 280-123930-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 15:45

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.12	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	13	20	20	8.7	mg/L	J		1	410.4
Phenols, Total	0.011	0.020	0.020	0.0068	mg/L	J		1	9066
Color	20	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	480	6.0	1.6	0.60	mg/L			1	SM 2340C
Bromide	0.57	0.50	0.20	0.11	mg/L			1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Chloride	1.3	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	2.2	0.50	0.20	0.19	mg/L			1	9056A
Fluoride	0.067	1.0	0.10	0.060	mg/L	J	J1	1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	18	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	6.2	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	490	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	530	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF2MW-12_0519-a
Lab Sample ID: 280-123930-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123930-1
SDG ID.:
Matrix: Water
Date Sampled: 05/16/2019 15:45
Reporting Basis: WET
Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.13	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U	J1	1	351.2
Chemical Oxygen Demand (COD)	13	20	20	8.7	mg/L	J		1	410.4
Phenols, Total	0.012	0.020	0.020	0.0068	mg/L	J		1	9066
Color	20	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	450	6.0	1.6	0.60	mg/L			1	SM 2340C
Bromide	0.63	0.50	0.20	0.11	mg/L			1	9056A
Nitrate Nitrite as N	1.1	0.50	0.10	0.042	mg/L			1	9056A
Chloride	1.3	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	Q	1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	1.1	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	18	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	6.3	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	490	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	540	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF2MW-4_0519 Lab Sample ID: 280-123930-4

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 17:02

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.18	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	21	20	20	8.7	mg/L			1	410.4
Phenols, Total	0.015	0.020	0.020	0.0068	mg/L	J		1	9066
Color	200	50	50	50	PCU		D	10	SM 2120B
Hardness	480	6.0	1.6	0.60	mg/L			1	SM 2340C
Bromide	0.61	0.50	0.20	0.11	mg/L			1	9056A
Nitrate Nitrite as N	0.23	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	5.3	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	H	1	9056A
Fluoride	0.47	1.0	0.10	0.060	mg/L	J	M	1	9056A
Nitrate	0.23	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	3.1	5.0	3.0	1.0	mg/L	J		1	9056A
Total Organic Carbon - Quad	6.9	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	480	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	500	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	8.6	5.0	1.5	0.59	mg/L			1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF2MW -13_0519 Lab Sample ID: 280-123930-5

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 17:10

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.058	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	5.4	1.0	0.50	0.69	mg/L			1	351.2
Chemical Oxygen Demand (COD)	16	20	20	8.7	mg/L	J		1	410.4
Phenols, Total	0.0078	0.020	0.020	0.0068	mg/L	J		1	9066
Color	25	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	160	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	1.0	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	H	1	9056A
Fluoride	0.079	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	3.0	5.0	3.0	1.0	mg/L	U		1	9056A
Total Organic Carbon - Quad	6.6	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	160	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	160	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: MJS Batch Start Date: 05/30/2019

Reporting Units: mg/L Analytical Batch No.: 459963

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	11:25	Ammonia	0.462	0.498	93	90-110		350.1 ICV_00350
15	ICV	11:27	Ammonia	2.46	2.49	99	90-110		350.1 ICV_00350
16	ICB	11:29	Ammonia	0.050				U	
41	CCV	12:24	Ammonia	2.44	2.50	97	90-110		350.1 cal_00367
42	CCB	12:26	Ammonia	0.050				U	
56	CCVL	12:54	Ammonia	0.454	0.500	91	90-110		350.1 cal_00367
57	CCV	12:56	Ammonia	2.43	2.50	97	90-110		350.1 cal_00367
58	CCB	12:58	Ammonia	0.050				U	
66	CCVL	13:14	Ammonia	0.464	0.500	93	90-110		350.1 cal_00367
67	CCV	13:16	Ammonia	2.49	2.50	100	90-110		350.1 cal_00367
68	CCB	13:18	Ammonia	0.050				U	
85	CCVL	13:52	Ammonia	0.458	0.500	92	90-110		350.1 cal_00367
86	CCV	13:54	Ammonia	2.49	2.50	100	90-110		350.1 cal_00367
87	CCB	13:56	Ammonia	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: SVC Batch Start Date: 06/05/2019

Reporting Units: mg/L Analytical Batch No.: 460603

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:44	Nitrogen, Kjeldahl	5.30	5.00	106	90-110		TKN ICV 25_00078
14	ICB	17:45	Nitrogen, Kjeldahl	0.50				U	
31	CCV	18:07	Nitrogen, Kjeldahl	5.03	5.00	101	90-110		TKN 25ppm_00794
32	CCB	18:08	Nitrogen, Kjeldahl	0.50				U	
49	CCV	18:29	Nitrogen, Kjeldahl	5.10	5.00	102	90-110		TKN 25ppm_00794
50	CCB	18:30	Nitrogen, Kjeldahl	0.50				U	
65	CCV	18:49	Nitrogen, Kjeldahl	5.13	5.00	103	90-110		TKN 25ppm_00794
66	CCB	18:50	Nitrogen, Kjeldahl	0.50				U	
80	CCV	19:08	Nitrogen, Kjeldahl	5.05	5.00	101	90-110		TKN 25ppm_00794
81	CCB	19:09	Nitrogen, Kjeldahl	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: KES Batch Start Date: 06/08/2019

Reporting Units: mg/L Analytical Batch No.: 460943

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	12:45	Chemical Oxygen Demand (COD)	71.2	75.4	94	90-110		COD icv std_00034
2	ICB	12:45	Chemical Oxygen Demand (COD)	20				U	
16	CCV	12:45	Chemical Oxygen Demand (COD)	91.9	100	92	90-110		COD cal std_00048
17	CCB	12:45	Chemical Oxygen Demand (COD)	20				U	
28	CCV	12:45	Chemical Oxygen Demand (COD)	96.3	100	96	90-110		COD cal std_00048
29	CCB	12:45	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: ARM Batch Start Date: 06/09/2019

Reporting Units: mg/L Analytical Batch No.: 460979

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	15:07	Phenols, Total	0.205	0.200	102	90-110		Phenol ICV 10_00605
14	ICVL	15:10	Phenols, Total	0.105	0.100	105	90-110		Phenol ICV 10_00605
15	ICB	15:13	Phenols, Total	0.020				U	
29	CCV	15:55	Phenols, Total	0.197	0.201	98	90-110		Phenol CAL 10_00730
30	CCVL	15:58	Phenols, Total	0.102	0.101	102	90-110		Phenol CAL 10_00730
31	CCB	16:01	Phenols, Total	0.020				U	
45	CCV	16:43	Phenols, Total	0.208	0.201	103	90-110		Phenol CAL 10_00730
46	CCVL	16:46	Phenols, Total	0.102	0.101	101	90-110		Phenol CAL 10_00730
47	CCB	16:49	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: JAP Batch Start Date: 03/26/2019

Reporting Units: mg/L Analytical Batch No.: 451952

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	12:04	Bromide	4.12	4.00	103	90-110		IC ICV 5_00228
			Chloride	83.3	80.0	104	90-110		IC CL ICV_00016
			Fluoride	4.30	4.00	108	90-110		IC ICV 5_00228
			Sulfate	84.9	80.0	106	90-110		IC SO4 ICV_00018
9	ICB	12:21	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: TLP Batch Start Date: 05/02/2019

Reporting Units: mg/L Analytical Batch No.: 456732

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	12:00	Bromide	3.95	4.00	99	90-110		IC ICV 5_00232
			Chloride	78.0	80.0	98	90-110		IC CL ICV_00016
			Sulfate	78.6	80.0	98	90-110		IC SO4 ICV_00017
9	ICB	12:16	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: JAP Batch Start Date: 05/17/2019

Reporting Units: mg/L Analytical Batch No.: 458552

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	09:47	Nitrate Nitrite as N	9.95	10.0	100	90-110		
			Orthophosphate as P	5.05	5.00	101	90-110		IC LCS_01578
			Nitrate	5.00	5.00	100	90-110		IC LCS_01578
			Nitrite	4.95	5.00	99	90-110		IC LCS_01578
2	CCB	10:03	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
17	CCV	21:14	Nitrate Nitrite as N	10.1	10.0	101	90-110		
			Orthophosphate as P	5.26	5.00	105	90-110		IC LCS_01578
			Nitrate	5.10	5.00	102	90-110		IC LCS_01578
			Nitrite	4.98	5.00	100	90-110		IC LCS_01578
18	CCB	21:30	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
28	CCV	00:14	Nitrate Nitrite as N	10.0	10.0	100	90-110		
			Orthophosphate as P	5.22	5.00	104	90-110		IC LCS_01578
			Nitrate	5.07	5.00	101	90-110		IC LCS_01578
			Nitrite	4.96	5.00	99	90-110		IC LCS_01578
29	CCB	00:31	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
40	CCV	03:31	Nitrate Nitrite as N	9.54	10.0	95	90-110		
			Orthophosphate as P	5.52	5.00	110	90-110		IC LCS_01579
			Nitrate	4.80	5.00	96	90-110		IC LCS_01579
			Nitrite	4.74	5.00	95	90-110		IC LCS_01579
41	CCB	03:48	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
52	CCV	06:48	Nitrate Nitrite as N	9.86	10.0	99	90-110		
			Orthophosphate as P	5.58	5.00	112	90-110		IC LCS_01579
			Nitrate	4.96	5.00	99	90-110		IC LCS_01579
			Nitrite	4.90	5.00	98	90-110		IC LCS_01579
53	CCB	07:05	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: JAP Batch Start Date: 05/17/2019

Reporting Units: mg/L Analytical Batch No.: 458553

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	09:47	Bromide	5.26	5.00	105	90-110		IC LCS_01578
			Chloride	95.2	100	95	90-110		IC LCS_01578
			Sulfate	93.4	100	93	90-110		IC LCS_01578
2	CCB	10:03	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
17	CCV	21:14	Bromide	5.31	5.00	106	90-110		IC LCS_01578
			Chloride	96.5	100	97	90-110		IC LCS_01578
			Sulfate	94.8	100	95	90-110		IC LCS_01578
18	CCB	21:30	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
28	CCV	00:14	Bromide	5.29	5.00	106	90-110		IC LCS_01578
			Chloride	96.1	100	96	90-110		IC LCS_01578
			Sulfate	94.5	100	95	90-110		IC LCS_01578
29	CCB	00:31	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
40	CCV	03:31	Bromide	5.06	5.00	101	90-110		IC LCS_01579
			Chloride	94.4	100	94	90-110		IC LCS_01579
			Sulfate	92.6	100	93	90-110		IC LCS_01579
41	CCB	03:48	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
52	CCV	06:48	Bromide	5.22	5.00	104	90-110		IC LCS_01579
			Chloride	97.8	100	98	90-110		IC LCS_01579
			Sulfate	95.5	100	96	90-110		IC LCS_01579
53	CCB	07:05	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: JAP Batch Start Date: 05/20/2019

Reporting Units: mg/L Analytical Batch No.: 458776

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	17:09	Nitrate Nitrite as N	7.94	8.00	99	90-110		
			Orthophosphate as P	4.11	4.00	103	90-110		IC ICV 5_00234
			Nitrate as N	4.12	4.00	103	90-110		IC ICV 5_00234
			Nitrite as N	3.82	4.00	95	90-110		IC ICV 5_00234
9	ICB	17:25	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: JAP Batch Start Date: 05/20/2019

Reporting Units: mg/L Analytical Batch No.: 458777

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	17:09	Bromide	4.19	4.00	105	90-110		IC ICV 5_00234
			Chloride	79.5	80.0	99	90-110		IC CL ICV_00016
			Fluoride	4.01	4.00	100	90-110		IC ICV 5_00234
			Sulfate	79.0	80.0	99	90-110		IC SO4 ICV_00017
9	ICB	17:25	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.205				J	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: TLP Batch Start Date: 06/03/2019

Reporting Units: mg/L Analytical Batch No.: 460231

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	17:04	Nitrate Nitrite as N	10.7	10.0	107	90-110		
			Orthophosphate as P	5.17	5.00	103	90-110		IC LCS_01593
			Nitrate as N	5.40	5.00	108	90-110		IC LCS_01593
			Nitrite as N	5.29	5.00	106	90-110		IC LCS_01593
2	CCB	17:20	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
17	CCV	21:50	Nitrate Nitrite as N	10.7	10.0	107	90-110		
			Orthophosphate as P	5.37	5.00	107	90-110		IC LCS_01593
			Nitrate as N	5.38	5.00	108	90-110		IC LCS_01593
			Nitrite as N	5.29	5.00	106	90-110		IC LCS_01593
18	CCB	22:06	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: TLP Batch Start Date: 06/03/2019

Reporting Units: mg/L Analytical Batch No.: 460232

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	17:04	Fluoride	4.64	5.00	93	90-110		IC LCS_01593
2	CCB	17:20	Fluoride	0.276				J	
17	CCV	21:50	Fluoride	4.60	5.00	92	90-110		IC LCS_01593
18	CCB	22:06	Fluoride	0.190				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: JAP Batch Start Date: 06/11/2019

Reporting Units: mg/L Analytical Batch No.: 461102

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	08:42	Bromide	4.91	5.00	98	90-110		IC LCS_01601
			Chloride	99.0	100	99	90-110		IC LCS_01601
			Fluoride	5.20	5.00	104	90-110		IC LCS_01601
			Sulfate	98.1	100	98	90-110		IC LCS_01601
2	CCB	08:57	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	
17	CCV	16:41	Bromide	4.93	5.00	99	90-110		IC LCS_01601
			Chloride	99.0	100	99	90-110		IC LCS_01601
			Fluoride	5.23	5.00	105	90-110		IC LCS_01601
			Sulfate	98.1	100	98	90-110		IC LCS_01601
18	CCB	16:57	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/11/2019

Reporting Units: mg/L Analytical Batch No.: 461295

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	17:26	Total Organic Carbon - Quad	20.9	20.0	105	90-110		TOC ICV Std_00037
2	ICB	17:41	Total Organic Carbon - Quad	0.50				U	
27	CCV	00:38	Total Organic Carbon - Quad	26.7	25.0	107	90-110		TOC ICV Std_00037
28	CCB	00:57	Total Organic Carbon - Quad	0.50				U	
39	CCV	04:03	Total Organic Carbon - Quad	27.2	25.0	109	90-110		TOC ICV Std_00037
40	CCB	04:21	Total Organic Carbon - Quad	0.50				U	
51	CCV	07:27	Total Organic Carbon - Quad	26.9	25.0	107	90-110		TOC ICV Std_00037
52	CCB	07:44	Total Organic Carbon - Quad	0.50				U	
63	CCV	11:04	Total Organic Carbon - Quad	27.4	25.0	110	90-110		TOC ICV Std_00037
64	CCB	11:23	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Analyst: SGB Batch Start Date: 05/24/2019

Reporting Units: mg/L Analytical Batch No.: 459576

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
28	CCV	20:31	Alkalinity	196	200	98	90-110		Alk daily lcs 00821
29	CCB	20:36	Alkalinity	10				U	
42	CCV	21:55	Alkalinity	200	200	100	90-110		Alk daily lcs 00821
43	CCB	21:59	Alkalinity	10				U	
54	CCV	23:07	Alkalinity	198	200	99	90-110		Alk daily lcs 00821
55	CCB	23:12	Alkalinity	10				U	
68	CCV	00:40	Alkalinity	200	200	100	90-110		Alk daily lcs 00821
69	CCB	00:44	Alkalinity	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 459963 Date: 05/30/2019 11:56							
350.1	MB 280-459963/27	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 459963 Date: 05/30/2019 13:26							
350.1	MB 280-459963/72	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 460603 Date: 06/05/2019 17:48 Prep Batch: 460465 Date: 06/04/2019 19:37							
351.2	MB 280-460465/2-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 460603 Date: 06/05/2019 18:39 Prep Batch: 460465 Date: 06/04/2019 19:37							
351.2	MB 280-460465/28-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 460943 Date: 06/08/2019 12:45							
410.4	MB 280-460943/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 458552 Date: 05/17/2019 11:08							
9056A	MB 280-458552/6	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458552/6	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-458552/6	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458552/6	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458553 Date: 05/17/2019 11:08							
9056A	MB 280-458553/6	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458553/6	Chloride	3.0	U M	mg/L	3.0	1
9056A	MB 280-458553/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 460231 Date: 06/03/2019 18:26							
9056A	MB 280-460231/6	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-460231/6	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-460231/6	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-460231/6	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 460232 Date: 06/03/2019 18:26							
9056A	MB 280-460232/6	Fluoride	0.264	J	mg/L	1.0	1
Batch ID: 461102 Date: 06/11/2019 10:03							
9056A	MB 280-461102/6	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-461102/6	Chloride	3.0	U	mg/L	3.0	1
9056A	MB 280-461102/6	Fluoride	0.10	U	mg/L	1.0	1
9056A	MB 280-461102/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 461295 Date: 06/12/2019 02:56							
9060A	MB 280-461295/35	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 460979 Date: 06/09/2019 15:22 Prep Batch: 460948 Date: 06/08/2019 14:11							
9066	MB 280-460948/2-A	Phenols, Total	0.020	U	mg/L	0.020	1
Batch ID: 458642 Date: 05/17/2019 23:18							
SM 2120B	MB 280-458642/1	Color	5.0	U	PCU	5.0	1
Batch ID: 459576 Date: 05/24/2019 20:47							
SM 2320B	MB 280-459576/31	Alkalinity	10	U	mg/L	10	1
Batch ID: 459576 Date: 05/24/2019 23:23							
SM 2320B	MB 280-459576/57	Alkalinity	10	U	mg/L	10	1
Batch ID: 459401 Date: 05/24/2019 15:23							
SM 2340C	MB 280-459401/2	Hardness	0.81	U	mg/L	3.0	1

FORM III-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 459242	Date: 05/23/2019 13:30						
SM 2540C	MB 280-459242/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 459268	Date: 05/23/2019 16:24						
SM 2540C	MB 280-459268/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 458606	Date: 05/17/2019 15:43						
SM5210B	MB 280-458606/4	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1
Batch ID: 458606	Date: 05/17/2019 18:30						
SM5210B	MB 280-458606/27	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
UNSEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458606 Date: 05/17/2019 15:43							
SM5210B	USB 280-458606/2	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

FORM III-IN

3-IN
SEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458606 Date: 05/17/2019 15:43							
SM5210B	SCB 280-458606/1	Biochemical Oxygen Demand	0.611	J	mg/L	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963 Date: 05/30/2019 13:30											
350.1	280-123930-2	Ammonia	0.12		mg/L						
350.1	280-123930-2 MS	Ammonia	1.12		mg/L	1.00	100	90-110			
Batch ID: 460603 Date: 06/05/2019 18:44 Prep Batch: 460465 Date: 06/04/2019 19:37											
351.2	280-123930-3	Nitrogen, Kjeldahl	0.50	U	mg/L						J1
351.2	280-123930-3 MS	Nitrogen, Kjeldahl	2.48		mg/L	3.00	83	90-110			J1
Batch ID: 460943 Date: 06/08/2019 12:45											
410.4	280-123930-1	Chemical Oxygen Demand (COD)	26		mg/L						J1
410.4	280-123930-1 MS	Chemical Oxygen Demand (COD)	53.8		mg/L	50.0	56	90-110			J1
Batch ID: 460231 Date: 06/03/2019 19:39											
9056A	280-123930-2	Nitrate Nitrite as N	0.092	J	mg/L						H
9056A	280-123930-2 MS	Nitrate Nitrite as N	10.8		mg/L	10.0	107	80-120			
9056A	280-123930-2	Orthophosphate as P	0.20	U	mg/L						H J1
9056A	280-123930-2 MS	Orthophosphate as P	10.1		mg/L	5.00	202	80-116			J1
9056A	280-123930-2	Nitrate	0.092	J	mg/L						H
9056A	280-123930-2 MS	Nitrate	5.36		mg/L	5.00	105	88-111			
9056A	280-123930-2	Nitrite	0.10	U	mg/L						H J1
9056A	280-123930-2 MS	Nitrite	5.47		mg/L	5.00	109	87-111			
Batch ID: 460232 Date: 06/03/2019 19:39											
9056A	280-123930-2	Fluoride	0.067	J	mg/L						J1
9056A	280-123930-2 MS	Fluoride	5.40		mg/L	5.00	107	88-112			
Batch ID: 461102 Date: 06/11/2019 14:29											
9056A	280-123930-1	Bromide	0.18	J	mg/L						M
9056A	280-123930-1 MS	Bromide	4.97		mg/L	5.00	96	91-110			M
9056A	280-123930-1	Chloride	14		mg/L						
9056A	280-123930-1 MS	Chloride	38.7		mg/L	25.0	100	87-111			
9056A	280-123930-1	Fluoride	0.12	J	mg/L						
9056A	280-123930-1 MS	Fluoride	4.88		mg/L	5.00	95	88-112			
9056A	280-123930-1	Sulfate	14		mg/L						
9056A	280-123930-1 MS	Sulfate	39.4		mg/L	25.0	103	87-112			
Batch ID: 460979 Date: 06/09/2019 16:13 Prep Batch: 460843 Date: 06/07/2019 12:22											
9066	280-123930-4	Phenols, Total	0.015	J	mg/L						
9066	280-123930-4 MS	Phenols, Total	0.196		mg/L	0.201	90	72-118			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963 Date: 05/30/2019 13:32											
350.1	280-123930-2 MSD	Ammonia	1.14		mg/L	1.00	101	90-110	1	10	
Batch ID: 460603 Date: 06/05/2019 18:45 Prep Batch: 460465 Date: 06/04/2019 19:37											
351.2	280-123930-3 MSD	Nitrogen, Kjeldahl	2.58		mg/L	3.00	86	90-110	4	25	J1
Batch ID: 460943 Date: 06/08/2019 12:45											
410.4	280-123930-1 MSD	Chemical Oxygen Demand (COD)	48.0		mg/L	50.0	44	90-110	11	11	J1
Batch ID: 460231 Date: 06/03/2019 19:55											
9056A	280-123930-2 MSD	Nitrate Nitrite as N	11.1		mg/L	10.0	110	80-120	2	10	
9056A	280-123930-2 MSD	Orthophosphate as P	17.9		mg/L	5.00	358	80-116	56	10	J1
9056A	280-123930-2 MSD	Nitrate	5.46		mg/L	5.00	107	88-111	2	10	
9056A	280-123930-2 MSD	Nitrite	5.61		mg/L	5.00	112	87-111	2	10	J1
Batch ID: 460232 Date: 06/03/2019 19:55											
9056A	280-123930-2 MSD	Fluoride	5.85		mg/L	5.00	116	88-112	8	10	J1
Batch ID: 461102 Date: 06/11/2019 14:46											
9056A	280-123930-1 MSD	Bromide	5.20		mg/L	5.00	100	91-110	5	10	
9056A	280-123930-1 MSD	Chloride	40.0		mg/L	25.0	105	87-111	3	10	
9056A	280-123930-1 MSD	Fluoride	5.13		mg/L	5.00	100	88-112	5	10	
9056A	280-123930-1 MSD	Sulfate	40.3		mg/L	25.0	107	87-112	2	10	
Batch ID: 460979 Date: 06/09/2019 16:16 Prep Batch: 460843 Date: 06/07/2019 12:22											
9066	280-123930-4 MSD	Phenols, Total	0.225		mg/L	0.201	104	72-118	14	16	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 460231 Date: 06/03/2019 19:22								
9056A	LF2MW-12_0519	280-123930-2	Nitrate Nitrite as N	0.092	mg/L			J
9056A	LF2MW-12_0519	280-123930-2 DU	Nitrate Nitrite as N	0.0859	mg/L	7	10	J
9056A	LF2MW-12_0519	280-123930-2	Orthophosphate as P	0.20	mg/L			U
9056A	LF2MW-12_0519	280-123930-2 DU	Orthophosphate as P	0.20	mg/L	NC	10	U
9056A	LF2MW-12_0519	280-123930-2	Nitrate	0.092	mg/L			J
9056A	LF2MW-12_0519	280-123930-2 DU	Nitrate	0.0859	mg/L	7	10	J
9056A	LF2MW-12_0519	280-123930-2	Nitrite	0.10	mg/L			U
9056A	LF2MW-12_0519	280-123930-2 DU	Nitrite	0.10	mg/L	NC	10	U
Batch ID: 460232 Date: 06/03/2019 19:22								
9056A	LF2MW-12_0519	280-123930-2	Fluoride	0.067	mg/L			J
9056A	LF2MW-12_0519	280-123930-2 DU	Fluoride	0.0663	mg/L	1	10	J
Batch ID: 461102 Date: 06/11/2019 14:13								
9056A	LF2MW2-1_0519	280-123930-1	Bromide	0.18	mg/L			J
9056A	LF2MW2-1_0519	280-123930-1 DU	Bromide	0.184	mg/L	2	10	J M
9056A	LF2MW2-1_0519	280-123930-1	Chloride	14	mg/L			
9056A	LF2MW2-1_0519	280-123930-1 DU	Chloride	13.6	mg/L	1	10	
9056A	LF2MW2-1_0519	280-123930-1	Fluoride	0.12	mg/L			J
9056A	LF2MW2-1_0519	280-123930-1 DU	Fluoride	0.123	mg/L	0.2	10	J
9056A	LF2MW2-1_0519	280-123930-1	Sulfate	14	mg/L			
9056A	LF2MW2-1_0519	280-123930-1 DU	Sulfate	13.8	mg/L	2	10	
Batch ID: 459576 Date: 05/24/2019 23:38								
SM 2320B	LF2MW-4_0519	280-123930-4	Alkalinity	480	mg/L			
SM 2320B	LF2MW-4_0519	280-123930-4 DU	Alkalinity	485	mg/L	0.1	10	
Batch ID: 458606 Date: 05/17/2019 15:43								
SM5210B	LF2MW2-1_0519	280-123930-1	Biochemical Oxygen Demand	0.59	mg/L			U
SM5210B	LF2MW2-1_0519	280-123930-1 DU	Biochemical Oxygen Demand	0.59	mg/L	NC	20	U
Batch ID: 458606 Date: 05/17/2019 18:30								
SM5210B	LF2MW -13_0519	280-123930-5	Biochemical Oxygen Demand	0.59	mg/L			U
SM5210B	LF2MW -13_0519	280-123930-5 DU	Biochemical Oxygen Demand	0.59	mg/L	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963	Date: 05/30/2019 11:52										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-459963/25	Ammonia	2.55		mg/L	2.50	102	90-110	0	10	
Batch ID: 459963	Date: 05/30/2019 13:22										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-459963/70	Ammonia	2.47		mg/L	2.50	99	90-110	0	10	
Batch ID: 460603	Date: 06/05/2019 18:38	Prep Batch: 460465	Date: 06/04/2019 19:37								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460465/27-A	Nitrogen, Kjeldahl	6.11		mg/L	6.00	102	90-110			
Batch ID: 460603	Date: 06/05/2019 18:47	Prep Batch: 460465	Date: 06/04/2019 19:37								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460465/1-A	Nitrogen, Kjeldahl	6.25		mg/L	6.00	104	90-110			
Batch ID: 460943	Date: 06/08/2019 12:45										
						LCS Source: COD cal std_00048					
410.4	LCS 280-460943/3	Chemical Oxygen Demand (COD)	99.0		mg/L	100	99	90-110	2	11	
Batch ID: 458552	Date: 05/17/2019 10:36										
						LCS Source:					
9056A	LCS 280-458552/4	Nitrate Nitrite as N	9.95		mg/L	10.0	100	80-120	1	10	
						LCS Source: IC LCS_01578					
9056A	LCS 280-458552/4	Orthophosphate as P	5.10		mg/L	5.00	102	80-116	1	10	
9056A	LCS 280-458552/4	Nitrate	5.00		mg/L	5.00	100	88-111	1	10	
9056A	LCS 280-458552/4	Nitrite	4.95		mg/L	5.00	99	87-111	1	10	
Batch ID: 458553	Date: 05/17/2019 10:36										
						LCS Source: IC LCS_01578					
9056A	LCS 280-458553/4	Bromide	5.25		mg/L	5.00	105	91-110	1	10	
9056A	LCS 280-458553/4	Chloride	95.5		mg/L	100	95	87-111	1	10	
9056A	LCS 280-458553/4	Sulfate	93.6		mg/L	100	94	87-112	1	10	
Batch ID: 460231	Date: 06/03/2019 17:53										
						LCS Source:					
9056A	LCS 280-460231/4	Nitrate Nitrite as N	10.7		mg/L	10.0	107	80-120	0	10	
						LCS Source: IC LCS_01593					
9056A	LCS 280-460231/4	Orthophosphate as P	5.15		mg/L	5.00	103	80-116	1	10	
9056A	LCS 280-460231/4	Nitrate	5.36		mg/L	5.00	107	88-111	1	10	
9056A	LCS 280-460231/4	Nitrite	5.29		mg/L	5.00	106	87-111	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 460232	Date: 06/03/2019 17:53										
						LCS Source: IC LCS_01593					
9056A	LCS 280-460232/4	Fluoride	4.55		mg/L	5.00	91	88-112	2	10	
Batch ID: 461102	Date: 06/11/2019 09:30										
						LCS Source: IC LCS_01601					
9056A	LCS 280-461102/4	Bromide	4.89		mg/L	5.00	98	91-110	1	10	
9056A	LCS 280-461102/4	Chloride	98.8		mg/L	100	99	87-111	0	10	
9056A	LCS 280-461102/4	Fluoride	5.15		mg/L	5.00	103	88-112	1	10	
9056A	LCS 280-461102/4	Sulfate	98.1		mg/L	100	98	87-112	0	10	
Batch ID: 461295	Date: 06/12/2019 02:42										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-461295/34	Total Organic Carbon - Quad	25.4		mg/L	25.0	102	88-112			
Batch ID: 460979	Date: 06/09/2019 15:19	Prep Batch: 460948	Date: 06/08/2019 14:11								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460948/1-A	Phenols, Total	0.195		mg/L	0.201	97	90-110			
Batch ID: 459576	Date: 05/24/2019 20:42										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459576/30	Alkalinity	199		mg/L	200	99	89-109			
Batch ID: 459576	Date: 05/24/2019 23:18										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459576/56	Alkalinity	202		mg/L	200	101	89-109			
Batch ID: 459401	Date: 05/24/2019 15:23										
						LCS Source: Hard lcs std_00050					
SM 2340C	LCS 280-459401/1	Hardness	398		mg/L	398	100	90-110			
Batch ID: 459242	Date: 05/23/2019 13:30										
						LCS Source: TDS LCS_00537_00055					
SM 2540C	LCS 280-459242/2	Total Dissolved Solids (TDS)	504		mg/L	500	101	93-110			
Batch ID: 459268	Date: 05/23/2019 16:24										
						LCS Source: TDS LCS_00537_00055					
SM 2540C	LCS 280-459268/2	Total Dissolved Solids (TDS)	503		mg/L	500	101	93-110			
Batch ID: 458606	Date: 05/17/2019 15:43										
						LCS Source: BOD Std_00001_00046					
SM5210B	LCS 280-458606/3	Biochemical Oxygen Demand	202		mg/L	198	102	85-115			
Batch ID: 458606	Date: 05/17/2019 18:30										
						LCS Source: BOD Std_00001_00046					
SM5210B	LCS 280-458606/26	Biochemical Oxygen Demand	195		mg/L	198	98	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963	Date: 05/30/2019 11:54										
						LCSD Source: 350.1 cal_00367					
350.1	LCSD 280-459963/26	Ammonia	2.54		mg/L	2.50	102	90-110	0	10	
Batch ID: 459963	Date: 05/30/2019 13:24										
						LCSD Source: 350.1 cal_00367					
350.1	LCSD 280-459963/71	Ammonia	2.47		mg/L	2.50	99	90-110	0	10	
Batch ID: 460943	Date: 06/08/2019 12:45										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-460943/4	Chemical Oxygen Demand (COD)	101		mg/L	100	101	90-110	2	11	
Batch ID: 458552	Date: 05/17/2019 10:52										
						LCSD Source:					
9056A	LCSD 280-458552/5	Nitrate Nitrite as N	10.0		mg/L	10.0	100	80-120	1	10	
						LCSD Source: IC LCS_01578					
9056A	LCSD 280-458552/5	Orthophosphate as P	5.17		mg/L	5.00	103	80-116	1	10	
9056A	LCSD 280-458552/5	Nitrate	5.04		mg/L	5.00	101	88-111	1	10	
9056A	LCSD 280-458552/5	Nitrite	4.99		mg/L	5.00	100	87-111	1	10	
Batch ID: 458553	Date: 05/17/2019 10:52										
						LCSD Source: IC LCS_01578					
9056A	LCSD 280-458553/5	Bromide	5.29		mg/L	5.00	106	91-110	1	10	
9056A	LCSD 280-458553/5	Chloride	96.2		mg/L	100	96	87-111	1	10	
9056A	LCSD 280-458553/5	Sulfate	94.3		mg/L	100	94	87-112	1	10	
Batch ID: 460231	Date: 06/03/2019 18:09										
						LCSD Source:					
9056A	LCSD 280-460231/5	Nitrate Nitrite as N	10.7		mg/L	10.0	107	80-120	0	10	
						LCSD Source: IC LCS_01593					
9056A	LCSD 280-460231/5	Orthophosphate as P	5.19		mg/L	5.00	104	80-116	1	10	
9056A	LCSD 280-460231/5	Nitrate	5.39		mg/L	5.00	108	88-111	1	10	
9056A	LCSD 280-460231/5	Nitrite	5.31		mg/L	5.00	106	87-111	0	10	
Batch ID: 460232	Date: 06/03/2019 18:09										
						LCSD Source: IC LCS_01593					
9056A	LCSD 280-460232/5	Fluoride	4.64		mg/L	5.00	93	88-112	2	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 461102	Date: 06/11/2019 09:47										
						LCSD Source: IC LCS_01601					
9056A	LCSD 280-461102/5	Bromide	4.92		mg/L	5.00	98	91-110	1	10	
9056A	LCSD 280-461102/5	Chloride	99.0		mg/L	100	99	87-111	0	10	
9056A	LCSD 280-461102/5	Fluoride	5.20		mg/L	5.00	104	88-112	1	10	
9056A	LCSD 280-461102/5	Sulfate	97.8		mg/L	100	98	87-112	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458552	Date: 05/17/2019 10:19										
						LCS Source:					
9056A	MRL 280-458552/3	Nitrate Nitrite as N	0.445	J	mg/L	0.400	111	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458552/3	Orthophosphate as P	0.204	J	mg/L	0.200	102	50-150			
9056A	MRL 280-458552/3	Nitrate	0.229	J	mg/L	0.200	115	50-150			
9056A	MRL 280-458552/3	Nitrite	0.216	J	mg/L	0.200	108	50-150			
Batch ID: 458553	Date: 05/17/2019 10:19										
						LCS Source: IC CAL cl/so4_00257					
9056A	MRL 280-458553/3	Chloride	2.28	J	mg/L	2.50	91	50-150			
9056A	MRL 280-458553/3	Sulfate	2.31	J	mg/L	2.50	92	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458553/3	Bromide	0.216	J	mg/L	0.200	108	50-150			
Batch ID: 460231	Date: 06/03/2019 17:36										
						LCS Source:					
9056A	MRL 280-460231/3	Nitrate Nitrite as N	0.503		mg/L	0.400	126	50-150			
						LCS Source: IC Cal low_00462					
9056A	MRL 280-460231/3	Orthophosphate as P	0.20	U	mg/L	0.200	86	50-150			
9056A	MRL 280-460231/3	Nitrate	0.255	J	mg/L	0.200	127	50-150			
9056A	MRL 280-460231/3	Nitrite	0.248	J	mg/L	0.200	124	50-150			
Batch ID: 460232	Date: 06/03/2019 17:36										
						LCS Source: IC Cal low_00462					
9056A	MRL 280-460232/3	Fluoride	0.246	J	mg/L	0.200	123	50-150			
Batch ID: 461102	Date: 06/11/2019 09:14										
						LCS Source: IC CAL cl/so4_00260					
9056A	MRL 280-461102/3	Chloride	2.49	J	mg/L	2.50	99	50-150			
9056A	MRL 280-461102/3	Sulfate	2.11	J	mg/L	2.50	84	50-150			
						LCS Source: IC Cal low_00464					
9056A	MRL 280-461102/3	Bromide	0.236	J	mg/L	0.200	118	50-150			
9056A	MRL 280-461102/3	Fluoride	0.223	J	mg/L	0.200	112	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 DL Date: 02/03/2019 00:00

Prep Method: Distill/Phenol

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (PCU)	
Color		5	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B XRL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (PCU)	
Color		5	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Hardness		3	0.3

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness		3	0.3

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.06
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.0597
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom7

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Fluoride		1	0.06

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom7

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Fluoride		1	0.0597

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A DL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A XMDL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		10	3.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B DL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Biochemical Oxygen Demand		2	0.236

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123930-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B XMDL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Biochemical Oxygen Demand		2	0.236

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460465/1-A	06/04/2019 19:37	460465		25	25
MB 280-460465/2-A	06/04/2019 19:37	460465		25	25
280-123930-1	06/04/2019 19:37	460465		25	25
280-123930-2	06/04/2019 19:37	460465		25	25
LCS 280-460465/27-A	06/04/2019 19:37	460465		25	25
MB 280-460465/28-A	06/04/2019 19:37	460465		25	25
280-123930-3	06/04/2019 19:37	460465		25	25
280-123930-3 MS	06/04/2019 19:37	460465		25	25
280-123930-3 MSD	06/04/2019 19:37	460465		25	25
280-123930-4	06/04/2019 19:37	460465		25	25
280-123930-5	06/04/2019 19:37	460465		25	25

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
280-123930-1	06/07/2019 12:22	460843		50	50
280-123930-2	06/07/2019 12:22	460843		50	50
280-123930-3	06/07/2019 12:22	460843		50	50
280-123930-4	06/07/2019 12:22	460843		50	50
280-123930-4 MS	06/07/2019 12:22	460843		50	50
280-123930-4 MSD	06/07/2019 12:22	460843		50	50
280-123930-5	06/07/2019 12:22	460843		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460948/1-A	06/08/2019 14:11	460948		50	50
MB 280-460948/2-A	06/08/2019 14:11	460948		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:03																									
IC 280-459963/4			11:05	X																								
IC 280-459963/5			11:07	X																								
IC 280-459963/6			11:09	X																								
IC 280-459963/7			11:11	X																								
IC 280-459963/8			11:13	X																								
IC 280-459963/9			11:15	X																								
IC 280-459963/10			11:17	X																								
IC 280-459963/11			11:19	X																								
ZZZZZZ			11:21																									
ZZZZZZ			11:23																									
ICVL 280-459963/14	1		11:25	X																								
ICV 280-459963/15	1		11:27	X																								
ICB 280-459963/16	1		11:29	X																								
ZZZZZZ			11:31																									
ZZZZZZ			11:33																									
ZZZZZZ			11:35																									
ZZZZZZ			11:37																									
ZZZZZZ			11:39																									
ZZZZZZ			11:41																									
ZZZZZZ			11:43																									
ZZZZZZ			11:50																									
LCS 280-459963/25	1	T	11:52	X																								
LCSD 280-459963/26	1	T	11:54	X																								
MB 280-459963/27	1	T	11:56	X																								
ZZZZZZ			11:58																									
ZZZZZZ			12:00																									
ZZZZZZ			12:02																									
ZZZZZZ			12:04																									
ZZZZZZ			12:06																									
ZZZZZZ			12:08																									
ZZZZZZ			12:10																									
ZZZZZZ			12:12																									
ZZZZZZ			12:14																									
ZZZZZZ			12:16																									
RINSE 280-459963/38			12:18																									
ZZZZZZ			12:20																									
CCVL 280-459963/40			12:22																									
CCV 280-459963/41	1		12:24	X																								

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
CCB 280-459963/42	1		12:26	X																								
ZZZZZZ			12:28																									
ZZZZZZ			12:30																									
ZZZZZZ			12:32																									
ZZZZZZ			12:34																									
ZZZZZZ			12:36																									
ZZZZZZ			12:38																									
ZZZZZZ			12:40																									
ZZZZZZ			12:42																									
ZZZZZZ			12:44																									
ZZZZZZ			12:46																									
ZZZZZZ			12:48																									
RINSE 280-459963/54			12:50																									
ZZZZZZ			12:52																									
CCVL 280-459963/56	1		12:54	X																								
CCV 280-459963/57	1		12:56	X																								
CCB 280-459963/58	1		12:58	X																								
ZZZZZZ			13:00																									
ZZZZZZ			13:02																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									
280-123930-1	1	T	13:08	X																								
RINSE 280-459963/64			13:10																									
ZZZZZZ			13:12																									
CCVL 280-459963/66	1		13:14	X																								
CCV 280-459963/67	1		13:16	X																								
CCB 280-459963/68	1		13:18	X																								
ZZZZZZ			13:20																									
LCS 280-459963/70	1	T	13:22	X																								
LCSD 280-459963/71	1	T	13:24	X																								
MB 280-459963/72	1	T	13:26	X																								
280-123930-2	1	T	13:28	X																								
280-123930-2 MS	1	T	13:30	X																								
280-123930-2 MSD	1	T	13:32	X																								
280-123930-3	1	T	13:34	X																								
280-123930-4	1	T	13:36	X																								
280-123930-5	1	T	13:38	X																								
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
ZZZZZZ			13:44																									
ZZZZZZ			13:46																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
RINSE 280-459963/83			13:48																									
ZZZZZZ			13:50																									
CCVL 280-459963/85	1		13:52	X																								
CCV 280-459963/86	1		13:54	X																								
CCB 280-459963/87	1		13:56	X																								
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:08																									
ZZZZZZ			14:10																									
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
RINSE 280-459963/99			14:20																									
ZZZZZZ			14:22																									
CCVL 280-459963/101			14:24																									
CCV 280-459963/102			14:26																									
CCB 280-459963/103			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
RINSE 280-459963/109			14:40																									
ZZZZZZ			14:42																									
CCVL 280-459963/111			14:44																									
CCV 280-459963/112			14:46																									
CCB 280-459963/113			14:48																									
ZZZZZZ			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
RINSE 280-459963/123			15:08																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			15:10																									
CCVL 280-459963/125			15:12																									
CCV 280-459963/126			15:14																									
CCB 280-459963/127			15:16																									
ZZZZZZ			15:18																									

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/05/2019 17:30 End Date: 06/05/2019 19:13

Lab Sample Id	D/F	Type	Time	Analytes
				TKN
ZZZZZZ			17:30	
ZZZZZZ			17:30	
ZZZZZZ			17:32	
ZZZZZZ			17:33	
IC 280-460066/36-A			17:34	X
IC 280-460066/37-A			17:35	X
IC 280-460066/38-A			17:37	X
IC 280-460066/39-A			17:38	X
IC 280-460066/40-A			17:39	X
IC 280-460066/41-A			17:40	X
ZZZZZZ			17:42	
ZZZZZZ			17:43	
ICV 280-460066/42-A	1		17:44	X
ICB 280-460066/43-A	1		17:45	X
ZZZZZZ			17:47	
MB 280-460465/2-A	1	T	17:48	X
ZZZZZZ			17:49	
ZZZZZZ			17:50	
ZZZZZZ			17:52	
ZZZZZZ			17:53	
ZZZZZZ			17:54	
ZZZZZZ			17:55	
ZZZZZZ			17:57	
ZZZZZZ			17:58	
ZZZZZZ			17:59	
ZZZZZZ			18:00	
ZZZZZZ			18:02	
ZZZZZZ			18:03	
ZZZZZZ			18:04	
ZZZZZZ			18:05	
CCV 280-460066/44-A	1		18:07	X
CCB 280-460066/45-A	1		18:08	X
ZZZZZZ			18:09	
ZZZZZZ			18:10	
ZZZZZZ			18:12	
ZZZZZZ			18:13	
ZZZZZZ			18:14	
ZZZZZZ			18:15	
ZZZZZZ			18:17	
ZZZZZZ			18:18	
ZZZZZZ			18:19	

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/05/2019 17:30 End Date: 06/05/2019 19:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			18:20																									
ZZZZZZ			18:22																									
ZZZZZZ			18:23																									
ZZZZZZ			18:24																									
ZZZZZZ			18:25																									
ZZZZZZ			18:27																									
ZZZZZZ			18:28																									
CCV 280-460066/44-A	1		18:29	X																								
CCB 280-460066/45-A	1		18:30	X																								
ZZZZZZ			18:32																									
ZZZZZZ			18:33																									
280-123930-1	1	T	18:34	X																								
280-123930-2	1	T	18:35	X																								
ZZZZZZ			18:37																									
LCS 280-460465/27-A	1	T	18:38	X																								
MB 280-460465/28-A	1	T	18:39	X																								
280-123930-3	1	T	18:40	X																								
ZZZZZZ			18:42																									
ZZZZZZ			18:43																									
280-123930-3 MS	1	T	18:44	X																								
280-123930-3 MSD	1	T	18:45	X																								
LCS 280-460465/1-A	1	T	18:47	X																								
ZZZZZZ			18:48																									
CCV 280-460066/44-A	1		18:49	X																								
CCB 280-460066/45-A	1		18:50	X																								
280-123930-4	1	T	18:52	X																								
280-123930-5	1	T	18:53	X																								
ZZZZZZ			18:54																									
ZZZZZZ			18:55																									
ZZZZZZ			18:57																									
ZZZZZZ			18:58																									
ZZZZZZ			18:59																									
ZZZZZZ			19:00																									
ZZZZZZ			19:02																									
ZZZZZZ			19:03																									
ZZZZZZ			19:04																									
ZZZZZZ			19:05																									
ZZZZZZ			19:07																									
CCV 280-460066/44-A	1		19:08	X																								
CCB 280-460066/45-A	1		19:09	X																								
ZZZZZZ			19:10																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/05/2019 17:30 End Date: 06/05/2019 19:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			19:12																									
ZZZZZZ			19:13																									

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/08/2019 12:45 End Date: 06/08/2019 12:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-460943/1	1		12:45	X																								
ICB 280-460943/2	1		12:45	X																								
LCS 280-460943/3	1	T	12:45	X																								
LCSD 280-460943/4	1	T	12:45	X																								
MB 280-460943/5	1	T	12:45	X																								
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
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ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
CCV 280-460943/16	1		12:45	X																								
CCB 280-460943/17	1		12:45	X																								
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
280-123930-1	1	T	12:45	X																								
280-123930-1 MS	1	T	12:45	X																								
280-123930-1 MSD	1	T	12:45	X																								
280-123930-2	1	T	12:45	X																								
280-123930-3	1	T	12:45	X																								
280-123930-4	1	T	12:45	X																								
280-123930-5	1	T	12:45	X																								
ZZZZZZ			12:45																									
CCV 280-460943/28	1		12:45	X																								
CCB 280-460943/29	1		12:45	X																								
ZZZZZZ			12:45																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
CCV 280-460943/34			12:50																									
CCB 280-460943/35			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/08/2019 12:45 End Date: 06/08/2019 12:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/09/2019 14:31 End Date: 06/09/2019 18:03

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			14:31	
ZZZZZZ			14:34	
ZZZZZZ			14:37	
ZZZZZZ			14:40	
IC 280-460979/5			14:43	X
IC 280-460979/6			14:46	X
IC 280-460979/7			14:49	X
IC 280-460979/8			14:52	X
IC 280-460979/9			14:55	X
IC 280-460979/10			14:58	X
ZZZZZZ			15:01	
ZZZZZZ			15:04	
ICV 280-460979/13	1		15:07	X
ICVL 280-460979/14	1		15:10	X
ICB 280-460979/15	1		15:13	X
ZZZZZZ			15:16	
LCS 280-460948/1-A	1	T	15:19	X
MB 280-460948/2-A	1	T	15:22	X
ZZZZZZ			15:25	
ZZZZZZ			15:28	
ZZZZZZ			15:31	
ZZZZZZ			15:34	
ZZZZZZ			15:37	
ZZZZZZ			15:40	
280-123930-1	1	T	15:43	X
280-123930-2	1	T	15:46	X
ZZZZZZ			15:49	
ZZZZZZ			15:52	
CCV 280-460979/29	1		15:55	X
CCVL 280-460979/30	1		15:58	X
CCB 280-460979/31	1		16:01	X
ZZZZZZ			16:04	
280-123930-3	1	T	16:07	X
280-123930-4	1	T	16:10	X
280-123930-4 MS	1	T	16:13	X
280-123930-4 MSD	1	T	16:16	X
280-123930-5	1	T	16:19	X
ZZZZZZ			16:22	
ZZZZZZ			16:25	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/09/2019 14:31 End Date: 06/09/2019 18:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			16:28																									
ZZZZZZ			16:31																									
ZZZZZZ			16:34																									
ZZZZZZ			16:37																									
ZZZZZZ			16:40																									
CCV 280-460979/45	1		16:43	X																								
CCVL 280-460979/46	1		16:46	X																								
CCB 280-460979/47	1		16:49	X																								
ZZZZZZ			16:52																									
ZZZZZZ			16:55																									
ZZZZZZ			16:58																									
ZZZZZZ			17:01																									
ZZZZZZ			17:04																									
ZZZZZZ			17:07																									
ZZZZZZ			17:10																									
ZZZZZZ			17:13																									
ZZZZZZ			17:16																									
ZZZZZZ			17:19																									
ZZZZZZ			17:22																									
ZZZZZZ			17:25																									
ZZZZZZ			17:28																									
CCV 280-460979/61			17:31																									
CCVL 280-460979/62			17:34																									
CCB 280-460979/63			17:37																									
ZZZZZZ			17:40																									
ZZZZZZ			17:43																									
ZZZZZZ			17:46																									
ZZZZZZ			17:49																									
ZZZZZZ			17:52																									
ZZZZZZ			17:57																									
ZZZZZZ			18:00																									
ZZZZZZ			18:03																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2120B

Start Date: 05/17/2019 23:18 End Date: 05/17/2019 23:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Color																								
MB 280-458642/1	1	T	23:18	X																								
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
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ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
280-123930-1	10	T	23:18	X																								
280-123930-2	1	T	23:18	X																								
280-123930-3	1	T	23:20	X																								
280-123930-4	10	T	23:20	X																								
280-123930-5	1	T	23:20	X																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340C

Start Date: 05/24/2019 15:23 End Date: 05/24/2019 15:23

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
LCS 280-459401/1	1	T	15:23	X																								
MB 280-459401/2	1	T	15:23	X																								
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
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ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
280-123930-1	1	T	15:23	X																								
280-123930-2	1	T	15:23	X																								
280-123930-3	1	T	15:23	X																								
280-123930-4	1	T	15:23	X																								
280-123930-5	1	T	15:23	X																								
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/02/2019 10:05 End Date: 05/03/2019 05:53

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-456732/1			10:05																										
STD 280-456732/2 IC	1		10:21	X	X	X	X																						
STD 280-456732/3 IC	1		10:38	X	X	X	X																						
STD 280-456732/4 IC	1		10:54	X	X	X	X																						
STD 280-456732/5 IC	1		11:11	X	X	X	X																						
STD 280-456732/6 IC	1		11:27	X	X	X	X																						
STD 280-456732/7 IC	1		11:43	X	X	X	X																						
ICV 280-456732/8	1		12:00	X	X		X																						
ICB 280-456732/9	1		12:16	X	X	X	X																						
ZZZZZZ			12:33																										
ZZZZZZ			12:49																										
ZZZZZZ			13:05																										
ZZZZZZ			13:22																										
ZZZZZZ			23:52																										
ZZZZZZ			00:08																										
ZZZZZZ			00:24																										
ZZZZZZ			00:41																										
ZZZZZZ			00:57																										
ZZZZZZ			01:14																										
ZZZZZZ			01:30																										
ZZZZZZ			01:46																										
ZZZZZZ			02:03																										
ZZZZZZ			02:19																										
CCV 280-456732/24			02:36																										
CCB 280-456732/25			02:52																										
ZZZZZZ			03:09																										
ZZZZZZ			03:25																										
ZZZZZZ			03:41																										
ZZZZZZ			03:58																										
ZZZZZZ			04:14																										
ZZZZZZ			04:31																										
ZZZZZZ			04:47																										
ZZZZZZ			05:03																										
ZZZZZZ			05:20																										
CCV 280-456732/35			05:36																										
CCB 280-456732/36			05:53																										

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCV 280-458552/1	1		09:47	X	X	X	X																							
CCB 280-458552/2	1		10:03	X	X	X	X																							
MRL 280-458552/3	1	T	10:19	X	X	X	X																							
LCS 280-458552/4	1	T	10:36	X	X	X	X																							
LCSD 280-458552/5	1	T	10:52	X	X	X	X																							
MB 280-458552/6	1	T	11:08	X	X	X	X																							
ZZZZZZ			18:30																											
ZZZZZZ			18:46																											
ZZZZZZ			19:02																											
ZZZZZZ			19:19																											
ZZZZZZ			19:35																											
ZZZZZZ			19:52																											
ZZZZZZ			20:08																											
ZZZZZZ			20:24																											
ZZZZZZ			20:41																											
ZZZZZZ			20:57																											
CCV 280-458552/17	1		21:14	X	X	X	X																							
CCB 280-458552/18	1		21:30	X	X	X	X																							
ZZZZZZ			21:47																											
ZZZZZZ			22:03																											
ZZZZZZ			22:19																											
ZZZZZZ			22:36																											
ZZZZZZ			22:52																											
ZZZZZZ			23:09																											
ZZZZZZ			23:25																											
ZZZZZZ			23:41																											
ZZZZZZ			23:58																											
CCV 280-458552/28	1		00:14	X	X	X	X																							
CCB 280-458552/29	1		00:31	X	X	X	X																							
ZZZZZZ			00:47																											
ZZZZZZ			01:04																											
ZZZZZZ			01:20																											
ZZZZZZ			01:36																											

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
ZZZZZZ			01:53																											
ZZZZZZ			02:09																											
ZZZZZZ			02:26																											
ZZZZZZ			02:42																											
280-123930-1	1	T	02:58	X	X	X	X																							
280-123930-2	1	T	03:15	X	X	X	X																							
CCV 280-458552/40	1		03:31	X	X	X	X																							
CCB 280-458552/41	1		03:48	X	X	X	X																							
ZZZZZZ			04:04																											
280-123930-3	1	T	04:21	X	X	X	X																							
ZZZZZZ			04:37																											
280-123930-4	1	T	04:53	X	X	X																								
ZZZZZZ			05:10																											
280-123930-5	1	T	05:26	X	X	X																								
ZZZZZZ			05:43																											
ZZZZZZ			05:59																											
ZZZZZZ			06:15																											
ZZZZZZ			06:32																											
CCV 280-458552/52	1		06:48	X	X	X	X																							
CCB 280-458552/53	1		07:05	X	X	X	X																							
ZZZZZZ			07:21																											
ZZZZZZ			07:38																											
ZZZZZZ			07:54																											
ZZZZZZ			13:29																											
ZZZZZZ			13:45																											
ZZZZZZ			14:01																											
ZZZZZZ			14:18																											
ZZZZZZ			14:34																											
ZZZZZZ			14:51																											
ZZZZZZ			15:07																											
CCV 280-458552/64			15:23																											
CCB 280-458552/65			15:40																											
ZZZZZZ			15:56																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
ZZZZZZ			16:13																											
ZZZZZZ			16:29																											
ZZZZZZ			16:46																											
ZZZZZZ			17:02																											
ZZZZZZ			17:18																											
ZZZZZZ			17:35																											
ZZZZZZ			17:51																											
ZZZZZZ			18:08																											
CCV 280-458552/75			18:24																											
CCB 280-458552/76			18:40																											

Prep Types:
T = Total/NA

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	SO4																								
CCV 280-458553/1	1		09:47	X	X	X																								
CCB 280-458553/2	1		10:03	X	X	X																								
MRL 280-458553/3	1	T	10:19	X	X	X																								
LCS 280-458553/4	1	T	10:36	X	X	X																								
LCSD 280-458553/5	1	T	10:52	X	X	X																								
MB 280-458553/6	1	T	11:08	X	X	X																								
ZZZZZZ			18:30																											
ZZZZZZ			18:46																											
ZZZZZZ			19:02																											
ZZZZZZ			19:19																											
ZZZZZZ			19:35																											
ZZZZZZ			19:52																											
ZZZZZZ			20:08																											
ZZZZZZ			20:24																											
ZZZZZZ			20:41																											
ZZZZZZ			20:57																											
CCV 280-458553/17	1		21:14	X	X	X																								
CCB 280-458553/18	1		21:30	X	X	X																								
ZZZZZZ			21:47																											
ZZZZZZ			22:03																											
ZZZZZZ			22:19																											
ZZZZZZ			22:36																											
ZZZZZZ			22:52																											
ZZZZZZ			23:09																											
ZZZZZZ			23:25																											
ZZZZZZ			23:41																											
ZZZZZZ			23:58																											
CCV 280-458553/28	1		00:14	X	X	X																								
CCB 280-458553/29	1		00:31	X	X	X																								
ZZZZZZ			00:47																											
ZZZZZZ			01:04																											
ZZZZZZ			01:20																											
ZZZZZZ			01:36																											
ZZZZZZ			01:53																											
ZZZZZZ			02:09																											
ZZZZZZ			02:26																											
ZZZZZZ			02:42																											
280-123930-1	1	T	02:58	X	X	X																								
280-123930-2	1	T	03:15	X	X	X																								
CCV 280-458553/40	1		03:31	X	X	X																								
CCB 280-458553/41	1		03:48	X	X	X																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																											
				Br	Cl-	SO4																									
ZZZZZZ			04:04																												
280-123930-3	1	T	04:21	X	X	X																									
ZZZZZZ			04:37																												
280-123930-4	1	T	04:53	X	X	X																									
ZZZZZZ			05:10																												
280-123930-5	1	T	05:26	X	X	X																									
ZZZZZZ			05:43																												
ZZZZZZ			05:59																												
ZZZZZZ			06:15																												
ZZZZZZ			06:32																												
CCV 280-458553/52	1		06:48	X	X	X																									
CCB 280-458553/53	1		07:05	X	X	X																									
ZZZZZZ			07:21																												
ZZZZZZ			07:38																												
ZZZZZZ			07:54																												
ZZZZZZ			13:29																												
ZZZZZZ			13:45																												
ZZZZZZ			14:01																												
ZZZZZZ			14:18																												
ZZZZZZ			14:34																												
ZZZZZZ			14:51																												
ZZZZZZ			15:07																												
CCV 280-458553/64			15:23																												
CCB 280-458553/65			15:40																												
ZZZZZZ			15:56																												
ZZZZZZ			16:13																												
ZZZZZZ			16:29																												
ZZZZZZ			16:46																												
ZZZZZZ			17:02																												
ZZZZZZ			17:18																												
ZZZZZZ			17:35																												
ZZZZZZ			17:51																												
ZZZZZZ			18:08																												
CCV 280-458553/75			18:24																												
CCB 280-458553/76			18:40																												

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
RTC 280-458776/1			15:15																											
STD 280-458776/2 IC	1		15:30	X	X	X	X																							
STD 280-458776/3 IC	1		15:47	X	X	X	X																							
STD 280-458776/4 IC	1		16:03	X	X	X	X																							
STD 280-458776/5 IC	1		16:20	X	X	X	X																							
STD 280-458776/6 IC	1		16:36	X	X	X	X																							
STD 280-458776/7 IC	1		16:52	X	X	X	X																							
ICV 280-458776/8	1		17:09	X	X	X	X																							
ICB 280-458776/9	1		17:25	X	X	X	X																							
ZZZZZZ			17:42																											
ZZZZZZ			17:58																											
ZZZZZZ			18:15																											
ZZZZZZ			18:31																											
ZZZZZZ			20:12																											
ZZZZZZ			20:28																											
ZZZZZZ			20:45																											
ZZZZZZ			21:01																											
ZZZZZZ			21:18																											
ZZZZZZ			21:34																											
ZZZZZZ			21:50																											
ZZZZZZ			22:07																											
ZZZZZZ			22:23																											
ZZZZZZ			22:40																											
CCV 280-458776/24			22:56																											
CCB 280-458776/25			23:12																											
ZZZZZZ			23:29																											
ZZZZZZ			23:45																											
ZZZZZZ			14:24																											
ZZZZZZ			14:40																											
ZZZZZZ			14:56																											
ZZZZZZ			15:12																											
ZZZZZZ			15:29																											
ZZZZZZ			15:45																											

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
ZZZZZZ			16:02																											
ZZZZZZ			16:18																											
CCV 280-458776/36			16:35																											
CCB 280-458776/37			16:51																											
ZZZZZZ			17:07																											
ZZZZZZ			17:24																											
ZZZZZZ			17:40																											
ZZZZZZ			17:57																											
ZZZZZZ			18:13																											
ZZZZZZ			18:29																											
CCV 280-458776/44			18:46																											
CCB 280-458776/45			19:02																											
CCV 280-458776/46			19:19																											
CCB 280-458776/47			19:35																											
ZZZZZZ			19:51																											
ZZZZZZ			20:08																											
ZZZZZZ			21:06																											
ZZZZZZ			21:22																											
ZZZZZZ			21:38																											
ZZZZZZ			21:54																											
ZZZZZZ			22:11																											
ZZZZZZ			22:27																											
ZZZZZZ			22:44																											
ZZZZZZ			23:00																											
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:49																											
CCV 280-458776/61			00:06																											
CCB 280-458776/62			00:22																											

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-458777/1			15:15																										
STD 280-458777/2 IC	1		15:30	X	X	X	X																						
STD 280-458777/3 IC	1		15:47	X	X	X	X																						
STD 280-458777/4 IC	1		16:03	X	X	X	X																						
STD 280-458777/5 IC	1		16:20	X	X	X	X																						
STD 280-458777/6 IC	1		16:36	X	X	X	X																						
STD 280-458777/7 IC	1		16:52	X	X	X	X																						
ICV 280-458777/8	1		17:09	X	X	X	X																						
ICB 280-458777/9	1		17:25	X	X	X	X																						
ZZZZZZ			17:42																										
ZZZZZZ			17:58																										
ZZZZZZ			18:15																										
ZZZZZZ			18:31																										
ZZZZZZ			20:12																										
ZZZZZZ			20:28																										
ZZZZZZ			20:45																										
ZZZZZZ			21:01																										
ZZZZZZ			21:18																										
ZZZZZZ			21:34																										
ZZZZZZ			21:50																										
ZZZZZZ			22:07																										
ZZZZZZ			22:23																										
ZZZZZZ			22:40																										
CCV 280-458777/24			22:56																										
CCB 280-458777/25			23:12																										
ZZZZZZ			23:29																										
ZZZZZZ			23:45																										
ZZZZZZ			14:24																										
ZZZZZZ			14:40																										
ZZZZZZ			14:56																										
ZZZZZZ			15:12																										
ZZZZZZ			15:29																										
ZZZZZZ			15:45																										
ZZZZZZ			16:02																										
ZZZZZZ			16:18																										
CCV 280-458777/36			16:35																										
CCB 280-458777/37			16:51																										
ZZZZZZ			17:07																										
ZZZZZZ			17:24																										
ZZZZZZ			17:40																										
ZZZZZZ			17:57																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																							
ZZZZZZ			18:13																										
ZZZZZZ			18:29																										
CCV 280-458777/44			18:46																										
CCB 280-458777/45			19:02																										
CCV 280-458777/46			19:19																										
CCB 280-458777/47			19:35																										
ZZZZZZ			19:51																										
ZZZZZZ			20:08																										
ZZZZZZ			21:06																										
ZZZZZZ			21:22																										
ZZZZZZ			21:38																										
ZZZZZZ			21:54																										
ZZZZZZ			22:11																										
ZZZZZZ			22:27																										
ZZZZZZ			22:44																										
ZZZZZZ			23:00																										
ZZZZZZ			23:17																										
ZZZZZZ			23:33																										
ZZZZZZ			23:49																										
CCV 280-458777/61			00:06																										
CCB 280-458777/62			00:22																										

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/03/2019 17:04 End Date: 06/04/2019 05:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCV 280-460231/1	1		17:04	X	X	X	X																							
CCB 280-460231/2	1		17:20	X	X	X	X																							
MRL 280-460231/3	1	T	17:36	X	X	X	X																							
LCS 280-460231/4	1	T	17:53	X	X	X	X																							
LCSD 280-460231/5	1	T	18:09	X	X	X	X																							
MB 280-460231/6	1	T	18:26	X	X	X	X																							
ZZZZZZ			19:06																											
280-123930-2 DU	1	T	19:22	X	X	X	X																							
280-123930-2 MS	1	T	19:39	X	X	X	X																							
280-123930-2 MSD	1	T	19:55	X	X	X	X																							
ZZZZZZ			20:11																											
280-123930-4	1	T	20:28				X																							
280-123930-5	1	T	20:44				X																							
ZZZZZZ			21:01																											
ZZZZZZ			21:17																											
ZZZZZZ			21:34																											
CCV 280-460231/17	1		21:50	X	X	X	X																							
CCB 280-460231/18	1		22:06	X	X	X	X																							
ZZZZZZ			22:23																											
ZZZZZZ			22:39																											
ZZZZZZ			22:56																											
ZZZZZZ			23:12																											
ZZZZZZ			23:28																											
ZZZZZZ			23:45																											
ZZZZZZ			00:01																											
ZZZZZZ			00:18																											
ZZZZZZ			00:34																											
ZZZZZZ			00:50																											
CCV 280-460231/29			01:07																											
CCB 280-460231/30			01:23																											
ZZZZZZ			01:40																											
ZZZZZZ			01:56																											
CCV 280-460231/33			02:13																											

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/03/2019 17:04 End Date: 06/04/2019 05:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCB 280-460231/34			02:29																											
CCV 280-460231/43			04:57																											
CCB 280-460231/44			05:13																											

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/03/2019 17:04 End Date: 06/04/2019 05:13

Lab Sample Id	D/F	Type	Time	Analytes
				F
CCV 280-460232/1	1		17:04	X
CCB 280-460232/2	1		17:20	X
MRL 280-460232/3	1	T	17:36	X
LCS 280-460232/4	1	T	17:53	X
LCSD 280-460232/5	1	T	18:09	X
MB 280-460232/6	1	T	18:26	X
280-123930-2	1	T	19:06	X
280-123930-2 DU	1	T	19:22	X
280-123930-2 MS	1	T	19:39	X
280-123930-2 MSD	1	T	19:55	X
280-123930-3	1	T	20:11	X
280-123930-4	1	T	20:28	X
280-123930-5	1	T	20:44	X
ZZZZZZ			21:01	
ZZZZZZ			21:17	
ZZZZZZ			21:34	
CCV 280-460232/17	1		21:50	X
CCB 280-460232/18	1		22:06	X
ZZZZZZ			22:23	
ZZZZZZ			22:39	
ZZZZZZ			22:56	
ZZZZZZ			23:12	
ZZZZZZ			23:28	
ZZZZZZ			23:45	
ZZZZZZ			00:01	
ZZZZZZ			00:18	
ZZZZZZ			00:34	
ZZZZZZ			00:50	
CCV 280-460232/29			01:07	
CCB 280-460232/30			01:23	
ZZZZZZ			01:40	
ZZZZZZ			01:56	
CCV 280-460232/33			02:13	
CCB 280-460232/34			02:29	
ZZZZZZ			02:45	
ZZZZZZ			03:02	
ZZZZZZ			03:18	
ZZZZZZ			03:35	
ZZZZZZ			03:51	
ZZZZZZ			04:07	
ZZZZZZ			04:24	
ZZZZZZ			04:40	

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/03/2019 17:04 End Date: 06/04/2019 05:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				F																								
CCV 280-460232/43			04:57																									
CCB 280-460232/44			05:13																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Method: 9056A

Start Date: 03/26/2019 10:10 End Date: 03/27/2019 00:52

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-451952/1			10:10																										
STD 280-451952/2 IC	1		10:26	X	X	X	X																						
STD 280-451952/3 IC	1		10:42	X	X	X	X																						
STD 280-451952/4 IC	1		10:58	X	X	X	X																						
STD 280-451952/5 IC	1		11:15	X	X	X	X																						
STD 280-451952/6 IC	1		11:31	X	X	X	X																						
STD 280-451952/7 IC	1		11:48	X	X	X	X																						
ICV 280-451952/8	1		12:04	X	X	X	X																						
ICB 280-451952/9	1		12:21	X	X	X	X																						
ZZZZZZ			12:37																										
ZZZZZZ			12:53																										
ZZZZZZ			13:10																										
ZZZZZZ			13:26																										
ZZZZZZ			16:07																										
ZZZZZZ			16:23																										
ZZZZZZ			16:39																										
ZZZZZZ			16:56																										
ZZZZZZ			17:12																										
ZZZZZZ			17:29																										
ZZZZZZ			17:45																										
ZZZZZZ			18:02																										
ZZZZZZ			18:18																										
ZZZZZZ			18:34																										
CCV 280-451952/24			18:51																										
CCB 280-451952/25			19:07																										
ZZZZZZ			19:24																										
ZZZZZZ			19:40																										
ZZZZZZ			19:57																										
ZZZZZZ			20:13																										
ZZZZZZ			20:29																										
ZZZZZZ			20:46																										
ZZZZZZ			21:02																										
ZZZZZZ			21:19																										
ZZZZZZ			21:35																										
ZZZZZZ			21:52																										
CCV 280-451952/36			22:08																										
CCB 280-451952/37			22:24																										
ZZZZZZ			22:41																										
ZZZZZZ			22:57																										
ZZZZZZ			23:13																										
ZZZZZZ			23:30																										

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Method: 9056A

Start Date: 03/26/2019 10:10 End Date: 03/27/2019 00:52

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
ZZZZZZ			23:46																										
ZZZZZZ			00:03																										
ZZZZZZ			00:19																										
CCV 280-451952/45			00:35																										
CCB 280-451952/46			00:52																										

Prep Types:
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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Method: 9056A

Start Date: 06/11/2019 08:42 End Date: 06/11/2019 22:26

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
CCV 280-461102/1	1		08:42	X	X	X	X																						
CCB 280-461102/2	1		08:57	X	X	X	X																						
MRL 280-461102/3	1	T	09:14	X	X	X	X																						
LCS 280-461102/4	1	T	09:30	X	X	X	X																						
LCSD 280-461102/5	1	T	09:47	X	X	X	X																						
MB 280-461102/6	1	T	10:03	X	X	X	X																						
280-123930-1	1	T	13:57			X																							
280-123930-1 DU	1	T	14:13	X	X	X	X																						
280-123930-1 MS	1	T	14:29	X	X	X	X																						
280-123930-1 MSD	1	T	14:46	X	X	X	X																						
ZZZZZZ			15:02																										
ZZZZZZ			15:19																										
ZZZZZZ			15:35																										
ZZZZZZ			15:51																										
ZZZZZZ			16:08																										
ZZZZZZ			16:24																										
CCV 280-461102/17	1		16:41	X	X	X	X																						
CCB 280-461102/18	1		16:57	X	X	X	X																						
ZZZZZZ			17:14																										
ZZZZZZ			17:30																										
ZZZZZZ			17:46																										
ZZZZZZ			18:03																										
ZZZZZZ			18:19																										
ZZZZZZ			18:36																										
ZZZZZZ			18:52																										
ZZZZZZ			19:09																										
ZZZZZZ			19:25																										
ZZZZZZ			19:41																										
CCV 280-461102/29			19:58																										
CCB 280-461102/30			20:14																										
ZZZZZZ			20:31																										
ZZZZZZ			20:47																										
ZZZZZZ			21:04																										
ZZZZZZ			21:20																										
ZZZZZZ			21:36																										
ZZZZZZ			21:53																										
CCV 280-461102/37			22:09																										
CCB 280-461102/38			22:26																										

Prep Types:
T = Total/NA

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/11/2019 17:26 End Date: 06/12/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ICV 280-461295/1	1		17:26	X																									
ICB 280-461295/2	1		17:41	X																									
ZZZZZZ			17:57																										
ZZZZZZ			18:14																										
ZZZZZZ			18:31																										
ZZZZZZ			18:48																										
ZZZZZZ			19:02																										
ZZZZZZ			19:17																										
ZZZZZZ			19:32																										
ZZZZZZ			19:49																										
ZZZZZZ			20:05																										
ZZZZZZ			20:24																										
ZZZZZZ			20:41																										
ZZZZZZ			20:56																										
CCV 280-461295/15			21:11																										
CCB 280-461295/16			21:27																										
ZZZZZZ			21:42																										
ZZZZZZ			21:57																										
ZZZZZZ			22:11																										
ZZZZZZ			22:28																										
ZZZZZZ			22:47																										
ZZZZZZ			23:11																										
ZZZZZZ			23:29																										
ZZZZZZ			23:44																										
ZZZZZZ			00:03																										
ZZZZZZ			00:24																										
CCV 280-461295/27	1		00:38	X																									
CCB 280-461295/28	1		00:57	X																									
ZZZZZZ			01:12																										
ZZZZZZ			01:35																										
ZZZZZZ			01:49																										
ZZZZZZ			02:08																										
ZZZZZZ			02:27																										
LCS 280-461295/34	1	T	02:42	X																									
MB 280-461295/35	1	T	02:56	X																									
ZZZZZZ			03:13																										
ZZZZZZ			03:32																										
ZZZZZZ			03:47																										
CCV 280-461295/39	1		04:03	X																									
CCB 280-461295/40	1		04:21	X																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/11/2019 17:26 End Date: 06/12/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ZZZZZZ			04:37																										
ZZZZZZ			04:56																										
ZZZZZZ			05:11																										
ZZZZZZ			05:28																										
ZZZZZZ			05:43																										
ZZZZZZ			05:59																										
ZZZZZZ			06:18																										
280-123930-1	1	T	06:37	X																									
280-123930-2	1	T	06:56	X																									
280-123930-3	1	T	07:12	X																									
CCV 280-461295/51	1		07:27	X																									
CCB 280-461295/52	1		07:44	X																									
280-123930-4	1	T	08:03	X																									
280-123930-5	1	T	08:20	X																									
ZZZZZZ			08:37																										
ZZZZZZ			08:56																										
ZZZZZZ			09:11																										
ZZZZZZ			09:26																										
ZZZZZZ			09:48																										
ZZZZZZ			10:05																										
ZZZZZZ			10:24																										
ZZZZZZ			10:43																										
CCV 280-461295/63	1		11:04	X																									
CCB 280-461295/64	1		11:23	X																									
ZZZZZZ			11:40																										
ZZZZZZ			11:57																										
CCV 280-461295/67			12:15																										
CCB 280-461295/68			12:34																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-459576/1			17:32																									
ZZZZZZ			17:40																									
ZZZZZZ			17:42																									
ZZZZZZ			17:48																									
ZZZZZZ			18:12																									
ZZZZZZ			18:18																									
ZZZZZZ			18:23																									
ZZZZZZ			18:29																									
ZZZZZZ			18:34																									
ZZZZZZ			18:39																									
ZZZZZZ			18:45																									
ZZZZZZ			18:52																									
ZZZZZZ			19:01																									
ZZZZZZ			19:07																									
ZZZZZZ			19:16																									
CCV 280-459576/16			19:22																									
CCB 280-459576/17			19:27																									
ZZZZZZ			19:35																									
ZZZZZZ			19:40																									
ZZZZZZ			19:46																									
ZZZZZZ			19:52																									
ZZZZZZ			19:59																									
ZZZZZZ			20:04																									
ZZZZZZ			20:10																									
ZZZZZZ			20:16																									
ZZZZZZ			20:22																									
ZZZZZZ			20:25																									
CCV 280-459576/28	1		20:31	X																								
CCB 280-459576/29	1		20:36	X																								
LCS 280-459576/30	1	T	20:42	X																								
MB 280-459576/31	1	T	20:47	X																								
ZZZZZZ			20:52																									
ZZZZZZ			20:58																									
ZZZZZZ			21:03																									
ZZZZZZ			21:08																									
ZZZZZZ			21:17																									
ZZZZZZ			21:22																									
ZZZZZZ			21:29																									
ZZZZZZ			21:36																									
ZZZZZZ			21:43																									
ZZZZZZ			21:48																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
CCV 280-459576/42	1		21:55	X																								
CCB 280-459576/43	1		21:59	X																								
ZZZZZZ			22:06																									
ZZZZZZ			22:13																									
ZZZZZZ			22:18																									
ZZZZZZ			22:24																									
ZZZZZZ			22:30																									
ZZZZZZ			22:35																									
ZZZZZZ			22:41																									
280-123930-1	1	T	22:47	X																								
280-123930-2	1	T	22:54	X																								
280-123930-3	1	T	23:01	X																								
CCV 280-459576/54	1		23:07	X																								
CCB 280-459576/55	1		23:12	X																								
LCS 280-459576/56	1	T	23:18	X																								
MB 280-459576/57	1	T	23:23	X																								
280-123930-4	1	T	23:30	X																								
280-123930-4 DU	1	T	23:38	X																								
280-123930-5	1	T	23:43	X																								
ZZZZZZ			23:50																									
ZZZZZZ			23:57																									
ZZZZZZ			00:05																									
ZZZZZZ			00:13																									
ZZZZZZ			00:21																									
ZZZZZZ			00:27																									
ZZZZZZ			00:34																									
CCV 280-459576/68	1		00:40	X																								
CCB 280-459576/69	1		00:44	X																								
ZZZZZZ			00:53																									
ZZZZZZ			00:58																									
ZZZZZZ			01:08																									
ZZZZZZ			01:15																									
ZZZZZZ			01:21																									
ZZZZZZ			01:32																									
ZZZZZZ			01:40																									
ZZZZZZ			01:47																									
ZZZZZZ			01:53																									
ZZZZZZ			01:59																									
CCV 280-459576/80			02:04																									
CCB 280-459576/81			02:09																									
ZZZZZZ			02:15																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			02:19																									
ZZZZZZ			02:26																									
ZZZZZZ			02:33																									
ZZZZZZ			02:39																									
ZZZZZZ			02:45																									
ZZZZZZ			02:50																									
ZZZZZZ			02:57																									
ZZZZZZ			03:04																									
ZZZZZZ			03:10																									
ZZZZZZ			03:15																									
ZZZZZZ			03:21																									
CCV 280-459576/94			03:27																									
CCB 280-459576/95			03:31																									
ZZZZZZ			03:37																									
ZZZZZZ			03:43																									
ZZZZZZ			03:49																									
ZZZZZZ			03:55																									
ZZZZZZ			04:02																									
ZZZZZZ			04:16																									
ZZZZZZ			04:34																									
ZZZZZZ			04:56																									
ZZZZZZ			05:12																									
ZZZZZZ			05:23																									
CCV 280-459576/106			05:28																									
CCB 280-459576/107			05:33																									
ZZZZZZ			05:40																									
ZZZZZZ			05:45																									
ZZZZZZ			05:55																									
ZZZZZZ			06:06																									
ZZZZZZ			06:18																									
ZZZZZZ			06:23																									
ZZZZZZ			06:44																									
ZZZZZZ			06:51																									
ZZZZZZ			06:57																									
ZZZZZZ			07:04																									
ZZZZZZ			07:10																									
ZZZZZZ			07:16																									
CCV 280-459576/120			07:23																									
CCB 280-459576/121			07:27																									
ZZZZZZ			07:33																									
ZZZZZZ			07:40																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			07:46																									
ZZZZZZ			07:57																									
ZZZZZZ			08:02																									
ZZZZZZ			08:07																									
ZZZZZZ			08:12																									
ZZZZZZ			08:17																									
ZZZZZZ			08:23																									
ZZZZZZ			08:26																									
CCV 280-459576/132			08:32																									
CCB 280-459576/133			08:37																									
ZZZZZZ			08:43																									
ZZZZZZ			08:48																									
ZZZZZZ			08:53																									
ZZZZZZ			08:56																									
ZZZZZZ			09:01																									
CCV 280-459576/139			09:07																									
CCB 280-459576/140			09:12																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/23/2019 13:30 End Date: 05/23/2019 13:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-459242/1	1	T	13:30	X																								
LCS 280-459242/2	1	T	13:30	X																								
ZZZZZZ			13:30																									
ZZZZZZ			13:30																									
ZZZZZZ			13:30																									
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ZZZZZZ			13:30																									
280-123930-4	1	T	13:30	X																								
280-123930-5	1	T	13:30	X																								
ZZZZZZ			13:30																									
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Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/23/2019 16:24 End Date: 05/23/2019 16:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-459268/1	1	T	16:24	X																								
LCS 280-459268/2	1	T	16:24	X																								
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
280-123930-1	1	T	16:24	X																								
280-123930-2	1	T	16:24	X																								
280-123930-3	1	T	16:24	X																								
ZZZZZZ			16:24																									
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Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM5210B

Start Date: 05/17/2019 15:43 End Date: 05/17/2019 18:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				BOD																								
SCB 280-458606/1	1	T	15:43	X																								
USB 280-458606/2	1	T	15:43	X																								
LCS 280-458606/3	1	T	15:43	X																								
MB 280-458606/4	1	T	15:43	X																								
280-123930-1	1	T	15:43	X																								
280-123930-1 DU	1	T	15:43	X																								
280-123930-2	1	T	15:43	X																								
280-123930-3	1	T	15:43	X																								
280-123930-4	1	T	15:43	X																								
ZZZZZZ			15:43																									
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ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
LCS 280-458606/26	1	T	18:30	X																								
MB 280-458606/27	1	T	18:30	X																								
280-123930-5	1	T	18:30	X																								
280-123930-5 DU	1	T	18:30	X																								
ZZZZZZ			18:30																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459963 Batch Start Date: 05/30/19 10:59 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
ICVL 280-459963/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-459963/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-459963/16		350.1			10 mL	10 mL			
LCS 280-459963/25		350.1			100 mL	100 mL		2.5 mL	
LCSD 280-459963/26		350.1			100 mL	100 mL		2.5 mL	
MB 280-459963/27		350.1			10 mL	10 mL			
CCV 280-459963/41		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/42		350.1			10 mL	10 mL			
CCVL 280-459963/56		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459963/57		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/58		350.1			10 mL	10 mL			
280-123930-E-1	LF2MW2-1_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459963/66		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459963/67		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/68		350.1			10 mL	10 mL			
LCS 280-459963/70		350.1			100 mL	100 mL		2.5 mL	
LCSD 280-459963/71		350.1			100 mL	100 mL		2.5 mL	
MB 280-459963/72		350.1			10 mL	10 mL			
280-123930-C-2	LF2MW-12_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123930-C-2 MS	LF2MW-12_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123930-C-2 MSD	LF2MW-12_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123930-E-3	LF2MW-12_0519-a	350.1	T	N	10 mL	10 mL	<2 SU		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459963 Batch Start Date: 05/30/19 10:59 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
280-123930-C-4	LF2MW-4_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123930-C-5	LF2MW -13_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459963/85		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459963/86		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/87		350.1			10 mL	10 mL			

Batch Notes	
Carrier Identification	350.1 complex_00424
Hypochlorite ID	350.1 bleach_01068
Sodium Nitroprusside ID	350.1 color_00152
Pipette/Syringe/Dispenser ID	JPX100, JPX1000, JPX5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460066 Batch Start Date: 05/31/19 16:12 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00794	TKN ICV 25 00078		
ICV 280-460066/42		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-460066/43		351.2, 351.2		25 mL	25 mL				
CCV 280-460066/44		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-460066/45		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	06/01/19 0400
Block Digestion Start time	05/31/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00126
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460465 Batch Start Date: 06/04/19 19:37 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00794		
LCS 280-460465/1		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460465/2		351.2, 351.2		<2	25 mL	25 mL			
280-123930-E-1	LF2MW2-1_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123930-C-2	LF2MW-12_0519	351.2, 351.2	T	<2	25 mL	25 mL			
LCS 280-460465/27		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460465/28		351.2, 351.2		<2	25 mL	25 mL			
280-123930-E-3	LF2MW-12_0519-a	351.2, 351.2	T	<2	25 mL	25 mL			
280-123930-E-3 MS	LF2MW-12_0519-a	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123930-E-3 MSD	LF2MW-12_0519-a	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123930-C-4	LF2MW-4_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123930-C-5	LF2MW -13_0519	351.2, 351.2	T	<2	25 mL	25 mL			

Batch Notes	
Block Digestion End time	06/05/19 0400
Block Digestion Start time	06/04/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00127
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460603 Batch Start Date: 06/05/19 17:30 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-460066/42-A		351.2		4 mL					
ICB 280-460066/43-A		351.2		4 mL					
MB 280-460465/2-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123930-E-1-A	LF2MW2-1_0519	351.2	T	4 mL					
280-123930-C-2-A	LF2MW-12_0519	351.2	T	4 mL					
LCS 280-460465/27-A		351.2		4 mL					
MB 280-460465/28-A		351.2		4 mL					
280-123930-E-3-A	LF2MW-12_0519-a	351.2	T	4 mL					
280-123930-E-3-B MS	LF2MW-12_0519-a	351.2	T	4 mL					
280-123930-E-3-C MSD	LF2MW-12_0519-a	351.2	T	4 mL					
LCS 280-460465/1-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123930-C-4-A	LF2MW-4_0519	351.2	T	4 mL					
280-123930-C-5-A	LF2MW -13_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460603 Batch Start Date: 06/05/19 17:30 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Batch Notes	
Buffer Reagent ID	TKN Buffer_00095
Hypochlorite ID	TKN hypo_00663
Sodium Nitroprusside ID	Sodium nitro_00118
Pipette/Syringe/Dispenser ID	5000NXN, 1000NXN

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 457887 Batch Start Date: 05/13/19 07:39 Batch Analyst: Loux, Lauren P

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	COD cal std 00048			
IC 280-457887/1		410.4		50 mL	50 mL	0.25 mL			
IC 280-457887/2		410.4		50 mL	50 mL	0.5 mL			
IC 280-457887/3		410.4		50 mL	50 mL	1 mL			
IC 280-457887/4		410.4		50 mL	50 mL	2.5 mL			
IC 280-457887/5		410.4		50 mL	50 mL	5 mL			
IC 280-457887/6		410.4		50 mL	50 mL	7.5 mL			

Batch Notes	
Block Digestor ID	Hach4AA, Hach4BB, Hach6AA
Chlorine ID	HC850274
Temperature - Corrected - End	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Temperature - Corrected - Start	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Digestion End Time	05/13/2019 11:27
Digestion Start Time	05/13/2019 09:27
Pipette/Syringe/Dispenser ID	5000LL, 1000LL
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Temperature - Uncorrected - Start	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460943 Batch Start Date: 06/08/19 12:45 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-460943/1		410.4		100 mL	100 mL				
ICB 280-460943/2		410.4		2 mL	2 mL				
LCS 280-460943/3		410.4		100 mL	100 mL				10 mL
LCSD 280-460943/4		410.4		100 mL	100 mL				10 mL
MB 280-460943/5		410.4		2 mL	2 mL				
CCV 280-460943/16		410.4		100 mL	100 mL				10 mL
CCB 280-460943/17		410.4		2 mL	2 mL				
280-123930-C-1	LF2MW2-1_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123930-C-1 MS	LF2MW2-1_0519	410.4	T	100 mL	100 mL	<1000	<2 SU	<2 SU	
280-123930-C-1 MSD	LF2MW2-1_0519	410.4	T	100 mL	100 mL	<1000	<2 SU	<2 SU	
280-123930-D-2	LF2MW-12_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123930-C-3	LF2MW-12_0519-a	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123930-D-4	LF2MW-4_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123930-E-5	LF2MW -13_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-460943/28		410.4		100 mL	100 mL				10 mL
CCB 280-460943/29		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
ICV 280-460943/1		410.4		7.5 mL					
ICB 280-460943/2		410.4							
LCS 280-460943/3		410.4							
LCSD 280-460943/4		410.4							
MB 280-460943/5		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460943 Batch Start Date: 06/08/19 12:45 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
CCV 280-460943/16		410.4							
CCB 280-460943/17		410.4							
280-123930-C-1	LF2MW2-1_0519	410.4	T						
280-123930-C-1 MS	LF2MW2-1_0519	410.4	T		0.5 mL				
280-123930-C-1 MSD	LF2MW2-1_0519	410.4	T		0.5 mL				
280-123930-D-2	LF2MW-12_0519	410.4	T						
280-123930-C-3	LF2MW-12_0519-a	410.4	T						
280-123930-D-4	LF2MW-4_0519	410.4	T						
280-123930-E-5	LF2MW -13_0519	410.4	T						
CCV 280-460943/28		410.4							
CCB 280-460943/29		410.4							

Batch Notes	
Batch Comment	KS trained by CJ
Block Digestor ID	Hach 2, Hach 4
Chlorine ID	HC850274
Temperature - Corrected - End	Hach 2 AA 150, Hach 2 BB 151, Hach 4 BB 150 Degrees C
Temperature - Corrected - Start	Hach 2 AA 150, Hach 2 BB 151, Hach 4 BB 150 Degrees C
Digestion End Time	06/08/2019 05:14
Digestion Start Time	06/08/2019 03:14
Pipette/Syringe/Dispenser ID	1000LL, AZ5000
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach 2 AA 150, Hach 2 BB 150, Hach 4 BB 150 Degrees C
Temperature - Uncorrected - Start	Hach 2 AA 150, Hach 2 BB 150, Hach 4 BB 150 Degrees C
Vial Lot Number	A9112A

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460943 Batch Start Date: 06/08/19 12:45 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460843 Batch Start Date: 06/07/19 12:22 Batch Analyst: Abeyta, Joseph L

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
280-123930-E-1	LF2MW2-1_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	
280-123930-C-2	LF2MW-12_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	
280-123930-E-3	LF2MW-12_0519-a	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	
280-123930-C-4	LF2MW-4_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	
280-123930-C-4 MS	LF2MW-4_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	1 mL
280-123930-C-4 MSD	LF2MW-4_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	1 mL
280-123930-C-5	LF2MW -13_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460948 Batch Start Date: 06/08/19 14:11 Batch Analyst: Abeyta, Joseph L

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730			
LCS 280-460948/1		Distill/Phenol, 9066		50 mL	50 mL	1 mL			
MB 280-460948/2		Distill/Phenol, 9066		50 mL	50 mL				

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460979 Batch Start Date: 06/09/19 14:31 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460979/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460979/14		9066		100 mL	100 mL		1 mL		
ICB 280-460979/15		9066		100 mL	100 mL				
LCS 280-460948/1-A		9066		100 mL	100 mL				
MB 280-460948/2-A		9066		100 mL	100 mL				
280-123930-E-1-B	LF2MW2-1_0519	9066	T	100 mL	100 mL				
280-123930-C-2-B	LF2MW-12_0519	9066	T	100 mL	100 mL				
CCV 280-460979/29		9066		100 mL	100 mL	2 mL			
CCVL 280-460979/30		9066		100 mL	100 mL	1 mL			
CCB 280-460979/31		9066		100 mL	100 mL				
280-123930-E-3-D	LF2MW-12_0519-a	9066	T	100 mL	100 mL				
280-123930-C-4-B	LF2MW-4_0519	9066	T	100 mL	100 mL				
280-123930-C-4-C MS	LF2MW-4_0519	9066		100 mL	100 mL				
280-123930-C-4-D MSD	LF2MW-4_0519	9066		100 mL	100 mL				
280-123930-C-5-B	LF2MW -13_0519	9066	T	100 mL	100 mL				
CCV 280-460979/45		9066		100 mL	100 mL	2 mL			
CCVL 280-460979/46		9066		100 mL	100 mL	1 mL			
CCB 280-460979/47		9066		100 mL	100 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460979 Batch Start Date: 06/09/19 14:31 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Batch Notes	
Batch Comment	RK training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00409
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458642 Batch Start Date: 05/17/19 23:17 Batch Analyst: Bryant, Chase K

Batch Method: SM 2120B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount			
MB 280-458642/1		SM 2120B		7 SU	50 mL	50 mL			
280-123930-H-1	LF2MW2-1_0519	SM 2120B	T	7 SU	5 mL	50 mL			
280-123930-J-2	LF2MW-12_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123930-H-3	LF2MW-12_0519-a	SM 2120B	T	7 SU	50 mL	50 mL			
280-123930-J-4	LF2MW-4_0519	SM 2120B	T	7 SU	5 mL	50 mL			
280-123930-I-5	LF2MW -13_0519	SM 2120B	T	7 SU	50 mL	50 mL			

Batch Notes	
Batch Comment	KS trained by CKB
pH Meter ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459401 Batch Start Date: 05/24/19 15:23 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
LCS 280-459401/1		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	10.13 mL
MB 280-459401/2		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	0.00 mL
280-123930-F-1	LF2MW2-1_0519	SM 2340C	T	12.5 mL	25 mL	<2 SU	<2 SU	0.00 mL	3.31 mL
280-123930-F-2	LF2MW-12_0519	SM 2340C	T	12.5 mL	25 mL	<2 SU	<2 SU	0.00 mL	6.09 mL
280-123930-F-3	LF2MW-12_0519-a	SM 2340C	T	12.5 mL	25 mL	<2 SU	<2 SU	0.00 mL	5.66 mL
280-123930-F-4	LF2MW-4_0519	SM 2340C	T	12.5 mL	25 mL	<2 SU	<2 SU	0.00 mL	6.08 mL
280-123930-F-5	LF2MW -13_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	3.97 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00050				
LCS 280-459401/1		SM 2340C		10.13 mL	10 mL				
MB 280-459401/2		SM 2340C		0 mL					
280-123930-F-1	LF2MW2-1_0519	SM 2340C	T	3.31 mL					
280-123930-F-2	LF2MW-12_0519	SM 2340C	T	6.09 mL					
280-123930-F-3	LF2MW-12_0519-a	SM 2340C	T	5.66 mL					
280-123930-F-4	LF2MW-4_0519	SM 2340C	T	6.08 mL					
280-123930-F-5	LF2MW -13_0519	SM 2340C	T	3.97 mL					

Batch Notes	
Batch Comment	KS trained by DA
Buffer Reagent ID	Mg EDTA 00009
Indicator Reagent ID	Hardness ind 00008
Nominal Amount Used	25 mL
pH Strip ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000
Normality of First Titrant	0.01966 N
Titrant ID	EDTA Titrant 00090
Titrant Standardization Date	05/24/2019

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459401 Batch Start Date: 05/24/19 15:23 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 451952 Batch Start Date: 03/26/19 10:10 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00249	IC Cal low 00447	IC CL ICV 00016	IC ICV 5 00228
STD 280-451952/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-451952/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-451952/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-451952/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-451952/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-451952/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-451952/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-451952/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00018					
STD 280-451952/2 IC		9056A							
STD 280-451952/3 IC		9056A							
STD 280-451952/4 IC		9056A							
STD 280-451952/5 IC		9056A							
STD 280-451952/6 IC		9056A							
STD 280-451952/7 IC		9056A							
ICV 280-451952/8		9056A		0.4 mL					
ICB 280-451952/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 451952 Batch Start Date: 03/26/19 10:10 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	180502429014
Sufficient Volume for Batch QC	Yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 456732 Batch Start Date: 05/02/19 10:05 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00254	IC Cal low 00455	IC CL ICV 00016	IC ICV 5 00232
STD 280-456732/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-456732/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-456732/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-456732/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-456732/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-456732/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-456732/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-456732/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-456732/2 IC		9056A							
STD 280-456732/3 IC		9056A							
STD 280-456732/4 IC		9056A							
STD 280-456732/5 IC		9056A							
STD 280-456732/6 IC		9056A							
STD 280-456732/7 IC		9056A							
ICV 280-456732/8		9056A		0.4 mL					
ICB 280-456732/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 456732 Batch Start Date: 05/02/19 10:05 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00566
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458		
STD 280-458327/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458327/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458327/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458327/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458327/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458327/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458		
STD 280-458328/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458328/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458328/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458328/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458328/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458328/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458552 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01578	IC LCS 01579
CCV 280-458552/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458552/2		9056A		5 mL	5 mL				
MRL 280-458552/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458552/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458552/5		9056A		5 mL	5 mL			5 mL	
MB 280-458552/6		9056A		5 mL	5 mL				
CCV 280-458552/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458552/18		9056A		5 mL	5 mL				
CCV 280-458552/28		9056A		5 mL	5 mL			5 mL	
CCB 280-458552/29		9056A		5 mL	5 mL				
280-123930-A-1	LF2MW2-1_0519	9056A	T	5 mL	5 mL				
280-123930-A-2	LF2MW2-12_0519	9056A	T	5 mL	5 mL				
CCV 280-458552/40		9056A		5 mL	5 mL				5 mL
CCB 280-458552/41		9056A		5 mL	5 mL				
280-123930-A-2	LF2MW2-12_0519	9056A	T	5 mL	5 mL				
280-123930-A-3	LF2MW2-12_0519-a	9056A	T	5 mL	5 mL				
280-123930-A-3	LF2MW2-12_0519-a	9056A	T	5 mL	5 mL				
280-123930-B-4	LF2MW2-4_0519	9056A	T	5 mL	5 mL				
280-123930-B-4	LF2MW2-4_0519	9056A	T	5 mL	5 mL				
280-123930-A-5	LF2MW2-13_0519	9056A	T	5 mL	5 mL				
CCV 280-458552/52		9056A		5 mL	5 mL				5 mL
CCB 280-458552/53		9056A		5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458552 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_0570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458553 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01578	IC LCS 01579
CCV 280-458553/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458553/2		9056A		5 mL	5 mL				
MRL 280-458553/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458553/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458553/5		9056A		5 mL	5 mL			5 mL	
MB 280-458553/6		9056A		5 mL	5 mL				
CCV 280-458553/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458553/18		9056A		5 mL	5 mL				
CCV 280-458553/28		9056A		5 mL	5 mL			5 mL	
CCB 280-458553/29		9056A		5 mL	5 mL				
280-123930-A-1	LF2MW2-1_0519	9056A	T	5 mL	5 mL				
280-123930-A-2	LF2MW2-12_0519	9056A	T	5 mL	5 mL				
CCV 280-458553/40		9056A		5 mL	5 mL				5 mL
CCB 280-458553/41		9056A		5 mL	5 mL				
280-123930-A-2	LF2MW2-12_0519	9056A	T	5 mL	5 mL				
280-123930-A-3	LF2MW2-12_0519-a	9056A	T	5 mL	5 mL				
280-123930-A-3	LF2MW2-12_0519-a	9056A	T	5 mL	5 mL				
280-123930-B-4	LF2MW2-4_0519	9056A	T	5 mL	5 mL				
280-123930-B-4	LF2MW2-4_0519	9056A	T	5 mL	5 mL				
280-123930-A-5	LF2MW2-13_0519	9056A	T	5 mL	5 mL				
CCV 280-458553/52		9056A		5 mL	5 mL				5 mL
CCB 280-458553/53		9056A		5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458553 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
STD 280-458776/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458776/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458776/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458776/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458776/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458776/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458776/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458776/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458776/2 IC		9056A							
STD 280-458776/3 IC		9056A							
STD 280-458776/4 IC		9056A							
STD 280-458776/5 IC		9056A							
STD 280-458776/6 IC		9056A							
STD 280-458776/7 IC		9056A							
ICV 280-458776/8		9056A		0.4 mL					
ICB 280-458776/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11_eluent00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
STD 280-458777/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458777/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458777/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458777/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458777/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458777/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458777/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458777/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458777/2 IC		9056A							
STD 280-458777/3 IC		9056A							
STD 280-458777/4 IC		9056A							
STD 280-458777/5 IC		9056A							
STD 280-458777/6 IC		9056A							
STD 280-458777/7 IC		9056A							
ICV 280-458777/8		9056A		0.4 mL					
ICB 280-458777/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11_eluent00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460231 Batch Start Date: 06/03/19 17:04 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00259	IC Cal low 00462	IC LCS 01593	ICMS/MSD WEEK 00595
CCV 280-460231/1		9056A		5 mL	5 mL			5 mL	
CCB 280-460231/2		9056A		5 mL	5 mL				
MRL 280-460231/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-460231/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-460231/5		9056A		5 mL	5 mL			5 mL	
MB 280-460231/6		9056A		5 mL	5 mL				
280-123930-I-2	LF2MW-12_0519	9056A	T	5 mL	5 mL				
280-123930-I-2 DU	LF2MW-12_0519	9056A	T	5 mL	5 mL				
280-123930-I-2 MS	LF2MW-12_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123930-I-2 MSD	LF2MW-12_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123930-H-3	LF2MW-12_0519-a	9056A	T	5 mL	5 mL				
280-123930-I-4	LF2MW-4_0519	9056A	T	5 mL	5 mL				
280-123930-I-5	LF2MW -13_0519	9056A	T	5 mL	5 mL				
CCV 280-460231/17		9056A		5 mL	5 mL			5 mL	
CCB 280-460231/18		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00575
Filter ID	r7ma6119
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 460232 Batch Start Date: 06/03/19 17:04 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00259	IC Cal low 00462	IC LCS 01593	ICMS/MSD WEEK 00595
CCV 280-460232/1		9056A		5 mL	5 mL			5 mL	
CCB 280-460232/2		9056A		5 mL	5 mL				
MRL 280-460232/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-460232/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-460232/5		9056A		5 mL	5 mL			5 mL	
MB 280-460232/6		9056A		5 mL	5 mL				
280-123930-I-2	LF2MW-12_0519	9056A	T	5 mL	5 mL				
280-123930-I-2 DU	LF2MW-12_0519	9056A	T	5 mL	5 mL				
280-123930-I-2 MS	LF2MW-12_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123930-I-2 MSD	LF2MW-12_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123930-H-3	LF2MW-12_0519-a	9056A	T	5 mL	5 mL				
280-123930-I-4	LF2MW-4_0519	9056A	T	5 mL	5 mL				
280-123930-I-5	LF2MW -13_0519	9056A	T	5 mL	5 mL				
CCV 280-460232/17		9056A		5 mL	5 mL			5 mL	
CCB 280-460232/18		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00575
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 461102 Batch Start Date: 06/11/19 08:42 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00260	IC Cal low 00464	IC LCS 01601	ICMS/MSD WEEK 00599
CCV 280-461102/1		9056A		5 mL	5 mL			5 mL	
CCB 280-461102/2		9056A		5 mL	5 mL				
MRL 280-461102/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-461102/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-461102/5		9056A		5 mL	5 mL			5 mL	
MB 280-461102/6		9056A		5 mL	5 mL				
280-123930-I-1	LF2MW2-1_0519	9056A	T	5 mL	5 mL				
280-123930-I-1 DU	LF2MW2-1_0519	9056A	T	5 mL	5 mL				
280-123930-I-1 MS	LF2MW2-1_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123930-I-1 MSD	LF2MW2-1_0519	9056A	T	5 mL	5 mL				0.05 mL
CCV 280-461102/17		9056A		5 mL	5 mL			5 mL	
CCB 280-461102/18		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	180502429014
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 461295 Batch Start Date: 06/11/19 17:26 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-461295/1		9060A		50 mL	50 mL	1 mL			
ICB 280-461295/2		9060A		20 mL	20 mL				
CCV 280-461295/27		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/28		9060A		20 mL	20 mL				
LCS 280-461295/34		9060A		200 mL	200 mL		5 mL		
MB 280-461295/35		9060A		20 mL	20 mL				
CCV 280-461295/39		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/40		9060A		20 mL	20 mL				
280-123930-G-1	LF2MW2-1_0519	9060A	T	20 mL	20 mL				
280-123930-G-2	LF2MW-12_0519	9060A	T	20 mL	20 mL				
280-123930-G-3	LF2MW-12_0519-a	9060A	T	20 mL	20 mL				
CCV 280-461295/51		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/52		9060A		20 mL	20 mL				
280-123930-G-4	LF2MW-4_0519	9060A	T	20 mL	20 mL				
280-123930-C-5	LF2MW -13_0519	9060A	T	20 mL	20 mL				
CCV 280-461295/63		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/64		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4)_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000AZ, WC1000LL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 461295 Batch Start Date: 06/11/19 17:26 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
CCV 280-459576/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/29		SM 2320B		InitialAmount is blank					
LCS 280-459576/30		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459576/31		SM 2320B		InitialAmount is blank					
CCV 280-459576/42		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/43		SM 2320B		InitialAmount is blank					
280-123930-I-1	LF2MW2-1_0519	SM 2320B	T	InitialAmount is blank					
280-123930-H-2	LF2MW-12_0519	SM 2320B	T	InitialAmount is blank					
280-123930-I-3	LF2MW-12_0519-a	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/54		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/55		SM 2320B		InitialAmount is blank					
LCS 280-459576/56		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459576/57		SM 2320B		InitialAmount is blank					
280-123930-H-4	LF2MW-4_0519	SM 2320B	T	InitialAmount is blank					
280-123930-H-4 DU	LF2MW-4_0519	SM 2320B	T	InitialAmount is blank					
280-123930-J-5	LF2MW -13_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/68		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/69		SM 2320B		InitialAmount is blank					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Acid ID	0.02 H2SO4_00260
pH Buffer 1 ID	pH 2.0 buffer_00079
pH Buffer 2 ID	pH 4. 0 buffer_00178
pH Buffer 3 ID	pH 7.0 buffer_00258
pH Buffer 4 ID	pH 10 buffer_00142
pH Buffer 5 ID	pH 12 buffer_00148
pH Buffer 6 ID	pH 7.0 buffer_00257
Sodium Carbonate ID	Alk Stk Std_00016
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000 ADI
Probe ID	PCE 86 pH 1105 sep14
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459242 Batch Start Date: 05/23/19 13:30 Batch Analyst: Pedrick, Joshua A

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-459242/1		SM 2540C		0.33 umhos/cm	3.4847A0383125	3.4847 g	100 mL	3.4848 g	3.4851 g
LCS 280-459242/2		SM 2540C			3.5662A0383126	3.5662 g	100 mL	3.6155 g	3.6171 g
280-123930-B-4	LF2MW-4_0519	SM 2540C	T	804 umhos/cm	3.7966A0383139	3.7966 g	100 mL	3.8449 g	3.8466 g
280-123930-A-5	LF2MW -13_0519	SM 2540C	T	282 umhos/cm	3.8272A0383140	3.8272 g	100 mL	3.8431 g	3.8436 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight3	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2
MB 280-459242/1		SM 2540C			Pass No Unit	N/A No Unit	N/A	0.0001 g	0.0004 g
LCS 280-459242/2		SM 2540C		3.6166 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0493 g	0.0509 g
280-123930-B-4	LF2MW-4_0519	SM 2540C	T	3.8465 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0483 g	0.05 g
280-123930-A-5	LF2MW -13_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0159 g	0.0164 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue3	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00055	
MB 280-459242/1		SM 2540C		N/A g	N/A g	100 mL	OK		
LCS 280-459242/2		SM 2540C		0.0504 g	N/A g	100 mL	OK	100 mL	
280-123930-B-4	LF2MW-4_0519	SM 2540C	T	0.0499 g	N/A g	100 mL	OK		
280-123930-A-5	LF2MW -13_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459242 Batch Start Date: 05/23/19 13:30 Batch Analyst: Pedrick, Joshua A

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/31/2019 15:40
Date/Time - Out - CW (WT2)	06/01/2019 17:12
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Date/Time - In - CW (WT3)	06/01/2019 17:22
Date/Time - Out - CW (WT3)	06/01/2019 20:45
Temperature - Start - CW (WT3) - Correct	180 Celsius
Temperature - End - CW (WT3) - Correct	180 Celsius
Temperature - Start-CW(WT3) -Uncorrected	180 Celsius
Temperature - End-CW(WT3) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/23/2019 16:25
Date/Time - Out	05/30/2019 10:00
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/30/2019 10:00 No Unit
Weight(WT1) Date/Time Out	05/31/2019 15:00

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459242 Batch Start Date: 05/23/19 13:30 Batch Analyst: Pedrick, Joshua A

Batch Method: SM 2540C Batch End Date:

Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-459268/1		SM 2540C			3.8951A0383775	3.8951 g	100 mL	3.8950 g	3.8953 g
LCS 280-459268/2		SM 2540C			3.3709A0383776	3.3709 g	100 mL	3.4216 g	3.4212 g
280-123930-J-1	LF2MW2-1_0519	SM 2540C	T	492 umhos/cm	3.4226A0383779	3.4226 g	100 mL	3.4515 g	3.4513 g
280-123930-I-2	LF2MW-12_0519	SM 2540C	T	842 umhos/cm	3.3850A0383780	3.3850 g	100 mL	3.4375 g	3.4376 g
280-123930-J-3	LF2MW-12_0519-a	SM 2540C	T	828 umhos/cm	3.4126A0383781	3.4126 g	100 mL	3.4668 g	3.4669 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 280-459268/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	-0.0001 g	0.0002 g	N/A g
LCS 280-459268/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0507 g	0.0503 g	N/A g
280-123930-J-1	LF2MW2-1_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0289 g	0.0287 g	N/A g
280-123930-I-2	LF2MW-12_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0525 g	0.0526 g	N/A g
280-123930-J-3	LF2MW-12_0519-a	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0542 g	0.0543 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00055		
MB 280-459268/1		SM 2540C		N/A g	100 mL	OK			
LCS 280-459268/2		SM 2540C		N/A g	100 mL	OK	100 mL		
280-123930-J-1	LF2MW2-1_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123930-I-2	LF2MW-12_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123930-J-3	LF2MW-12_0519-a	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/31/2019 17:09
Date/Time - Out - CW (WT2)	06/01/2019 18:32
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/23/2019 16:13
Date/Time - Out	05/30/2019 10:00
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/30/2019 10:00 No Unit
Weight(WT1) Date/Time Out	05/31/2019 15:00
Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	Initial_DO	InitialTemp	Final pH	Bot1Num
SCB 280-458606/1		SM5210B				7.08	22.14 Celsius		1
USB 280-458606/2		SM5210B				7.07	22.14 Celsius		5
LCS 280-458606/3		SM5210B				7.09	22.12 Celsius		8
MB 280-458606/4		SM5210B				7.09	22.02 Celsius		11
280-123930-B-1	LF2MW2-1_0519	SM5210B	T	6.51 SU	no	7.10	21.96 Celsius	6.51 SU	12
280-123930-B-1 DU	LF2MW2-1_0519	SM5210B	T	6.51 SU	no	7.12	21.85 Celsius	6.51 SU	15
280-123930-B-2	LF2MW-12_0519	SM5210B	T	6.62 SU	no	7.13	21.82 Celsius	6.62 SU	18
280-123930-B-3	LF2MW-12_0519-a	SM5210B	T	6.65 SU	no	7.14	21.78 Celsius	6.65 SU	21
280-123930-A-4	LF2MW-4_0519	SM5210B	T	6.75 SU	no	7.15	21.75 Celsius	6.75 SU	24
LCS 280-458606/26		SM5210B				7.14	21.25 Celsius		75
MB 280-458606/27		SM5210B				7.12	21.28 Celsius		78
280-123930-B-5	LF2MW -13_0519	SM5210B	T	7.18 SU	no	7.11	21.27 Celsius	7.18 SU	79
280-123930-B-5 DU	LF2MW -13_0519	SM5210B	T	7.18 SU	no	7.13	21.20 Celsius	7.17 SU	85

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
SCB 280-458606/1		SM5210B		22.15 Celsius	15 mL	6.94 mg/L	4.38 mg/L	2.56 mg/L	0.683 mg/L
USB 280-458606/2		SM5210B		22.24 Celsius	300 mL	6.82 mg/L	6.63 mg/L	0.19 mg/L	0.19 mg/L
LCS 280-458606/3		SM5210B		22.10 Celsius	6 mL	6.98 mg/L	2.24 mg/L	4.74 mg/L	206.47 mg/L
MB 280-458606/4		SM5210B		22.04 Celsius	300 mL	6.90 mg/L	6.13 mg/L	0.77 mg/L	0.159 mg/L
280-123930-B-1	LF2MW2-1_0519	SM5210B	T	21.71 Celsius	60 mL	6.90 mg/L	6.08 mg/L	0.82 mg/L	1.047 mg/L
280-123930-B-1 DU	LF2MW2-1_0519	SM5210B	T	21.71 Celsius	60 mL	6.89 mg/L	6.08 mg/L	0.81 mg/L	0.997 mg/L
280-123930-B-2	LF2MW-12_0519	SM5210B	T	21.74 Celsius	60 mL	6.97 mg/L	6.15 mg/L	0.82 mg/L	1.047 mg/L
280-123930-B-3	LF2MW-12_0519-a	SM5210B	T	21.67 Celsius	60 mL	6.98 mg/L	6.17 mg/L	0.81 mg/L	0.997 mg/L
280-123930-A-4	LF2MW-4_0519	SM5210B	T	21.70 Celsius	60 mL	6.76 mg/L	4.44 mg/L	2.32 mg/L	8.547 mg/L
LCS 280-458606/26		SM5210B		21.45 Celsius	6 mL	7.25 mg/L	3.26 mg/L	3.99 mg/L	168.97 mg/L

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
MB 280-458606/27		SM5210B		21.64 Celsius	300 mL	7.13 mg/L	6.37 mg/L	0.76 mg/L	0.149 mg/L
280-123930-B-5	LF2MW -13_0519	SM5210B	T	20.92 Celsius	60 mL	7.37 mg/L	6.37 mg/L	1 mg/L	1.947 mg/L
280-123930-B-5 DU	LF2MW -13_0519	SM5210B	T	20.80 Celsius	60 mL	7.38 mg/L	6.39 mg/L	0.99 mg/L	1.897 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
SCB 280-458606/1		SM5210B		No. % DO < 50%	37 %	2	22.10 Celsius	20 mL	6.96 mg/L
USB 280-458606/2		SM5210B		Yes. USB		6	22.22 Celsius	300 mL	6.80 mg/L
LCS 280-458606/3		SM5210B		YES. Pass		9	21.99 Celsius	6 mL	6.99 mg/L
MB 280-458606/4		SM5210B		No. DO Deplete Fail					
280-123930-B-1	LF2MW2-1_0519	SM5210B	T	No. DO Deplete Fail		13	21.34 Celsius	120 mL	6.83 mg/L
280-123930-B-1 DU	LF2MW2-1_0519	SM5210B	T	No. DO Deplete Fail		16	21.25 Celsius	120 mL	6.84 mg/L
280-123930-B-2	LF2MW-12_0519	SM5210B	T	No. DO Deplete Fail		19	21.19 Celsius	120 mL	6.94 mg/L
280-123930-B-3	LF2MW-12_0519-a	SM5210B	T	No. DO Deplete Fail		22	21.12 Celsius	120 mL	6.96 mg/L
280-123930-A-4	LF2MW-4_0519	SM5210B	T	YES. Pass		25	21.22 Celsius	120 mL	7.21 mg/L
LCS 280-458606/26		SM5210B		YES. Pass		76	21.42 Celsius	6 mL	7.20 mg/L
MB 280-458606/27		SM5210B		No. DO Deplete Fail					
280-123930-B-5	LF2MW -13_0519	SM5210B	T	No. DO Deplete Fail		80	20.86 Celsius	120 mL	7.34 mg/L
280-123930-B-5 DU	LF2MW -13_0519	SM5210B	T	No. DO Deplete Fail		83	20.77 Celsius	120 mL	7.36 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
SCB 280-458606/1		SM5210B		3.92 mg/L	44 %	3.04 mg/L	0.608 mg/L	Yes	3
USB 280-458606/2		SM5210B		6.67 mg/L		0.13 mg/L	0.13 mg/L	Yes. Pass	7
LCS 280-458606/3		SM5210B		2.42 mg/L		4.57 mg/L	197.97 mg/L	YES. Pass	10

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GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
MB 280-458606/4		SM5210B							
280-123930-B-1	LF2MW2-1_0519	SM5210B	T	5.97 mg/L		0.86 mg/L	0.624 mg/L	No. DO Deplete Fail	14
280-123930-B-1 DU	LF2MW2-1_0519	SM5210B	T	5.87 mg/L		0.97 mg/L	0.899 mg/L	No. DO Deplete Fail	17
280-123930-B-2	LF2MW-12_0519	SM5210B	T	6.14 mg/L		0.8 mg/L	0.474 mg/L	No. DO Deplete Fail	20
280-123930-B-3	LF2MW-12_0519-a	SM5210B	T	6.21 mg/L		0.75 mg/L	0.349 mg/L	No. DO Deplete Fail	23
280-123930-A-4	LF2MW-4_0519	SM5210B	T	3.14 mg/L		4.07 mg/L	8.649 mg/L	YES. Pass	26
LCS 280-458606/26		SM5210B		2.28 mg/L		4.92 mg/L	215.47 mg/L	YES. Pass	77
MB 280-458606/27		SM5210B							
280-123930-B-5	LF2MW -13_0519	SM5210B	T	6.16 mg/L		1.18 mg/L	1.424 mg/L	No. DO Deplete Fail	81
280-123930-B-5 DU	LF2MW -13_0519	SM5210B	T	6.21 mg/L		1.15 mg/L	1.349 mg/L	No. DO Deplete Fail	84

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
SCB 280-458606/1		SM5210B		22.10 Celsius	25 mL	6.99 mg/L	3.20 mg/L	3.79 mg/L	0.606 mg/L
USB 280-458606/2		SM5210B		22.20 Celsius	300 mL	6.82 mg/L	6.67 mg/L	0.15 mg/L	0.15 mg/L
LCS 280-458606/3		SM5210B		21.96 Celsius	6 mL	7.02 mg/L	2.39 mg/L	4.63 mg/L	200.97 mg/L
MB 280-458606/4		SM5210B							
280-123930-B-1	LF2MW2-1_0519	SM5210B	T	20.96 Celsius	240 mL	6.61 mg/L	5.39 mg/L	1.22 mg/L	0.762 mg/L
280-123930-B-1 DU	LF2MW2-1_0519	SM5210B	T	20.77 Celsius	240 mL	6.61 mg/L	5.46 mg/L	1.15 mg/L	0.674 mg/L
280-123930-B-2	LF2MW-12_0519	SM5210B	T	20.69 Celsius	240 mL	6.90 mg/L	6.13 mg/L	0.77 mg/L	0.199 mg/L
280-123930-B-3	LF2MW-12_0519-a	SM5210B	T	20.62 Celsius	240 mL	6.89 mg/L	5.89 mg/L	1 mg/L	0.487 mg/L
280-123930-A-4	LF2MW-4_0519	SM5210B	T	20.73 Celsius	240 mL	7.24 mg/L	0.72 mg/L	6.52 mg/L	7.387 mg/L
LCS 280-458606/26		SM5210B		21.36 Celsius	6 mL	7.24 mg/L	2.64 mg/L	4.6 mg/L	199.47 mg/L
MB 280-458606/27		SM5210B			240 mL				
280-123930-B-5	LF2MW -13_0519	SM5210B	T	20.96 Celsius	240 mL	7.30 mg/L	5.63 mg/L	1.67 mg/L	1.324 mg/L

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GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
280-123930-B-5 DU	LF2MW -13_0519	SM5210B	T	20.78 Celsius	240 mL	7.31 mg/L	5.79 mg/L	1.52 mg/L	1.137 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
SCB 280-458606/1		SM5210B		54 %	YES. Pass	4	22.11 Celsius	30 mL	6.98 mg/L
USB 280-458606/2		SM5210B			Yes. Pass				
LCS 280-458606/3		SM5210B			YES. Pass				
MB 280-458606/4		SM5210B							
280-123930-B-1	LF2MW2-1_0519	SM5210B	T		NO. Deplete Fail				
280-123930-B-1 DU	LF2MW2-1_0519	SM5210B	T		NO. Deplete Fail				
280-123930-B-2	LF2MW-12_0519	SM5210B	T		NO. Deplete Fail				
280-123930-B-3	LF2MW-12_0519-a	SM5210B	T		NO. Deplete Fail				
280-123930-A-4	LF2MW-4_0519	SM5210B	T		NO. Final DO Fail				
LCS 280-458606/26		SM5210B			YES. Pass				
MB 280-458606/27		SM5210B							
280-123930-B-5	LF2MW -13_0519	SM5210B	T		NO. Deplete Fail				
280-123930-B-5 DU	LF2MW -13_0519	SM5210B	T		NO. Deplete Fail				

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
SCB 280-458606/1		SM5210B		2.35 mg/L	4.63 mg/L	0.617 mg/L	66 %	YES. Pass	300 mL
USB 280-458606/2		SM5210B							300 mL
LCS 280-458606/3		SM5210B							300 mL
MB 280-458606/4		SM5210B							300 mL
280-123930-B-1	LF2MW2-1_0519	SM5210B	T						300 mL

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GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
280-123930-B-1 DU	LF2MW2-1_0519	SM5210B	T						300 mL
280-123930-B-2	LF2MW-12_0519	SM5210B	T						300 mL
280-123930-B-3	LF2MW-12_0519-a	SM5210B	T						300 mL
280-123930-A-4	LF2MW-4_0519	SM5210B	T						300 mL
LCS 280-458606/26		SM5210B							300 mL
MB 280-458606/27		SM5210B							300 mL
280-123930-B-5	LF2MW -13_0519	SM5210B	T						300 mL
280-123930-B-5 DU	LF2MW -13_0519	SM5210B	T						300 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
SCB 280-458606/1		SM5210B		7.13	21.61 Celsius				
USB 280-458606/2		SM5210B		7.18	21.33 Celsius				
LCS 280-458606/3		SM5210B		7.18	21.30 Celsius	6 mL			
MB 280-458606/4		SM5210B		7.14	21.26 Celsius				
280-123930-B-1	LF2MW2-1_0519	SM5210B	T	7.15	21.30 Celsius		pH temp= 15.7, color= pale orange /turbid		
280-123930-B-1 DU	LF2MW2-1_0519	SM5210B	T	7.17	21.17 Celsius		pH temp= 15.7, color= pale orange /turbid		
280-123930-B-2	LF2MW-12_0519	SM5210B	T	7.16	21.11 Celsius		pH temp= 15.5, color= clear/slightly turbid		
280-123930-B-3	LF2MW-12_0519-a	SM5210B	T	7.17	21.04 Celsius		pH temp= 14.8, color= clear/slightly turbid		
280-123930-A-4	LF2MW-4_0519	SM5210B	T	7.17	20.98 Celsius		pH temp= 14.4, color= pale orange/turbid		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
LCS 280-458606/26		SM5210B		7.03	20.43 Celsius	6 mL			
MB 280-458606/27		SM5210B		7.04	20.43 Celsius				
280-123930-B-5	LF2MW -13_0519	SM5210B	T	7.03	20.44 Celsius		pH temp= 19.0, color= clear		
280-123930-B-5 DU	LF2MW -13_0519	SM5210B	T	7.05	20.36 Celsius		pH temp= 19.0, color= clear		

Batch Notes	
Barometer ID	YSI 5100 BOD Probe: 16H100313
Batch Comment	Room Temp= 22.51 EC trained by ckb
Calibration - Final Date/Time	05/21/2019 15:45
Calibration - Initial Date/Time	05/17/2019 17:30
Dilution Water ID	Elga water 18.2 micro ohms
Sulfuric Acid ID	1N H2SO4_00033
Incubator ID	BOD10
Sodium Hydroxide ID	1N NaOH_00047
Nitrification Inhibitor ID	Nitrogen inhibitor_00012
Nominal Amount Used	300 mL
Nutrient Buffer Pillow ID	BOD buffer_00038
pH Meter ID	SV-15261, QX1-15909
Pipette/Syringe/Dispenser ID	5000 BOD 1000BOD
Probe ID	YSI 5010 BOD Probe 15A100003
Residual Chlorine Pillow Lot #	free chlorine micro check lot: 111418
Amount of Seed added to each Sample	4 mL
Seed Correction	0.6106 mg/L
Seed ID	Polyseed_00020 Seeded @ 17:30 EC Readback 16:30 EC
Thermometer ID	BOD log tag 10
Uncorrected Incubator Temp - Final	19.70 Celsius
Uncorrected Incubator Temp - Initial	19.70 Celsius
Barometric Pressure - Uncorrected	initial:620 final:624

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123930-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Table - 053019.tbl

File name: C:\FLOW_4\053019.TBL
Date: 30-May-19

Cup	Name	Type	R	Dil	Wt	Comment
5	Sync	SYNC	1	1	1	
0	blk	CO	1	1	1	
0	Read Baseline	RB	1	1	1	
1	Cal 0.0 PPB	C	1	1	1	
3	Cal 25.0 ppb	C	1	1	1	
4	Cal 50.0 ppb	C	1	1	1	
5	Cal 100.0 ppb	C	1	1	1	
6	Cal 500.0 ppb	C	1	1	1	
7	Cal 1000.0 ppb	C	1	1	1	
8	Cal 2500.0 ppb	C	1	1	1	
9	Cal 5000.0 ppb	C	1	1	1	
0	blank	BLNK	1	1	1	
0	read baseline	RB	1	1	1	
10	ICVL 500.0 ppb	U	1	1	1	pH Cl-
11	ICV 2500.0 ppb	U	1	1	1	
1	ICB	U	1	1	1	
0	read baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	2
13	280-124168-c-1	U	1	1	1	2
14	MS 280-124168-c-1	U	1	1	1	
15	MSD 280-124168-c-1	U	1	1	1	
16	280-124168-c-2	U	1	1	1	7 2
17	280-124168-c-3	U	1	1	1	2 2
18	280-123922-e-1	U	1	1	1	2 2
19	280-123922-d-2	U	1	1	1	2 2
20	280-123922-c-3	U	1	1	1	2 2
21	280-123947-b-2	U	1	20	1	2 2
22	280-123924-e-1	U	1	1	1	2 2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
23	280-123924-d-2	U	1	1	1	2 2 2
24	280-123924-c-3	U	1	1	1	2 2
25	280-123924-c-4	U	1	1	1	2 2
26	MS 280-123924-c-4	U	1	1	1	
27	MSD 280-123924-c-4	U	1	1	1	
28	280-123924-e-5	U	1	1	1	2 2 2
29	280-123924-c-6	U	1	1	1	2 2
30	280-123924-c-7	U	1	1	1	2 2
31	280-123924-c-8	U	1	1	1	2 2
32	280-123924-c-9	U	1	1	1	2 2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
33	280-123924-c-10	U	1	1	1	2 2 2
34	280-123924-c-11	U	1	1	1	2 2
35	280-123924-c-12	U	1	1	1	2 2
36	280-123930-e-1	U	1	1	1	2 2

Cup	Name	Type	R	Dil	Wt		Comment		
0	Rinse	U	1	1	1				
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				
8	LCS	U	1	1	1				
8	LCSD	U	1	1	1				
12	MB	U	1	1	1				
37	280-123930-c-2	U	1	1	1	L2			
38	MS 280-123930-c-2	U	1	1	1				
39	MSD 280-123930-c-2	U	1	1	1				
40	280-123930-e-3	U	1	1	1	L2			
41	280-123930-c-4	U	1	1	1	L2			
42	280-123930-c-5	U	1	1	1	L2			
43	280-123981-d-1	U	1	1	1	L2			
44	280-123981-e-2	U	1	1	1	L2			
45	280-123981-c-3	U	1	1	1	L2			
46	280-123981-e-4	U	1	1	1	L2			
0	Rinse	U	1	1	1				
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				
47	280-123981-e-5	U	1	1	1	L2			
48	280-123981-d-6	U	1	1	1	L2			
49	280-123981-e-7	U	1	1	1	L2			
50	MS 280-123981-e-7	U	1	1	1				
51	MSD 280-123981-e-7	U	1	1	1	L2			
52	280-123981-c-8	U	1	1	1	L2			
53	280-123981-e-9	U	1	1	1	L2			
54	280-124244-a-1	U	1	1	1	L2			
55	280-124229-b-1	U	1	1	1	L2			
56	280-124229-b-2	U	1	1	1	L2			
0	Rinse	U	1	1	1				
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				
57	280-124229-b-3	U	1	1	1	L2			
58	280-124229-b-4	U	1	1	1	L2			
59	280-124229-b-5	U	1	1	1	L2			unpreserved
60	280-123760-e-1	U	1	~~1~~ 500	1	T			
0	Rinse	U	1	1	1				
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				
8	LCS	U	1	1	1				
8	LCSD	U	1	1	1				
12	MB	U	1	1	1	L2			
61	280-123712-a-1	U	1	100	1	L2			
62	MS 280-123712-a-1	U	1	100	1				
63	MSD 280-123712-a-1	U	1	100	1				
64	280-123712-a-2	U	1	100	1	L2			
65	280-123590-a-1	U	1	500	1	L2			
0	Rinse	U	1	1	1				

Cup	Name	Type	R	Dil	Wt	Comment
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	

Run Results Report

Facility Name
Facility Location
Department
Operator Name MJS
Operator ID MJS
Platform FS 3000
Software Rev Code 222
Data system ID 57

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	10:59	5	Sync	12533	102.820	
30-May-19	11:01	0	blk	-101	7.426	
30-May-19	11:03	0	Read Baseline	0	8.188	BL
30-May-19	11:05	1	Cal 0.0 PPB	351	10.830	
30-May-19	11:07	3	Cal 25.0 ppb	3030	31.004	
30-May-19	11:09	4	Cal 50.0 ppb	6203	54.940	
30-May-19	11:11	5	Cal 100.0 ppb	12605	103.366	
30-May-19	11:13	6	Cal 500.0 ppb	61020	475.195	
30-May-19	11:15	7	Cal 1000.0 ppb	123276	967.943	
30-May-19	11:17	8	Cal 2500.0 ppb	308445	2530.731	
30-May-19	11:19	9	Cal 5000.0 ppb	570676	4992.791	
30-May-19	11:21	0	blank	228	9.900	
30-May-19	11:23	0	read baseline	0	8.188	BL
30-May-19	11:25	10	ICVL 500.0 ppb	59361	462.292	
30-May-19	11:27	11	ICV 2500.0 ppb	300443	2460.194	
30-May-19	11:29	1	ICB	89	8.859	
30-May-19	11:31	0	read baseline	0	8.188	BL UM
30-May-19	11:33	8	LCS	303744	2489.255	
30-May-19	11:35	8	LCSD	301427	2468.847	
30-May-19	11:37	12	.MB	4364	41.063	UM
30-May-19	11:39	13	.280-124168-c-1	-7737	-49.901	LO
30-May-19	11:41	14	MS 280-124168-c-1	-9671	-64.381	LO
30-May-19	11:43	15	MSD 280-124168-c-1	-13204	-90.792	LO
30-May-19	11:50	0	read baseline	0	8.188	BL
30-May-19	11:52	8	LCS	310485	2548.762	
30-May-19	11:54	8	LCSD	309471	2539.796	
30-May-19	11:56	12	MB	90	8.865	
30-May-19	11:58	13	280-124168-c-1	146	9.286	
30-May-19	12:00	14	MS 280-124168-c-1	131075	1030.835	
30-May-19	12:02	15	MSD 280-124168-c-1	133295	1048.785	
30-May-19	12:04	16	280-124168-c-2	186	9.585	
30-May-19	12:06	17	280-124168-c-3	311	10.529	
30-May-19	12:08	18	280-123922-e-1	186011	1481.124	
30-May-19	12:10	19	280-123922-d-2	211025	1690.397	
30-May-19	12:12	20	280-123922-c-3	107517	841.664	
30-May-19	12:14	21	280-123947-b-2	98077	15330.447	
30-May-19	12:16	22	280-123924-e-1	67	8.694	
30-May-19	12:18	0	Rinse	100	8.937	
30-May-19	12:20	0	Read Baseline	0	8.188	BL
30-May-19	12:22	6	CCVL 500 ppb	58335	454.312	
30-May-19	12:24	8	CCV 2500 ppb	297861	2437.484	
30-May-19	12:26	12	CCB	485	11.841	
30-May-19	12:28	0	Read Baseline	0	8.188	BL
30-May-19	12:30	23	280-123924-d-2	9179	77.426	
30-May-19	12:32	24	280-123924-c-3	307	10.499	
30-May-19	12:34	25	280-123924-e-4	36798	287.930	

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	12:36	26	MS 280-123924-c-4	158618	1254.990	
30-May-19	12:38	27	MSD 280-123924-c-4	166484	1319.605	
30-May-19	12:40	28	280-123924-e-5	18381	147.199	
30-May-19	12:42	29	280-123924-c-6	77531	604.279	
30-May-19	12:44	30	280-123924-c-7	2933	30.271	
30-May-19	12:46	31	280-123924-c-8	3185	32.172	
30-May-19	12:48	32	280-123924-c-9	3096	31.503	
30-May-19	12:50	0	Rinse	-236	6.415	
30-May-19	12:52	0	Read Baseline	0	8.188	BL
30-May-19	12:54	6	CCVL 500 ppb	58342	454.370	
30-May-19	12:56	8	CCV 2500 ppb	296742	2427.652	
30-May-19	12:58	12	CCB	603	12.725	
30-May-19	13:00	0	Read Baseline	0	8.188	BL
30-May-19	13:02	33	280-123924-c-10	2218	24.887	
30-May-19	13:04	34	280-123924-c-11	1753	21.383	
30-May-19	13:06	35	280-123924-c-12	3497	34.523	
30-May-19	13:08	36	280-123930-e-1	82256	641.432	
30-May-19	13:10	0	Rinse	345	10.784	
30-May-19	13:12	0	Read Baseline	0	8.188	BL
30-May-19	13:14	6	CCVL 500 ppb	59538	463.670	
30-May-19	13:16	8	CCV 2500 ppb	303993	2491.456	
30-May-19	13:18	12	CCB	398	11.186	
30-May-19	13:20	0	Read Baseline	0	8.188	BL
30-May-19	13:22	8	LCS	301638	2470.708	
30-May-19	13:24	8	LCSD	301428	2468.860	
30-May-19	13:26	12	MB	370	10.970	
30-May-19	13:28	37	280-123930-c-2	15354	124.213	
30-May-19	13:30	38	MS 280-123930-c-2	142208	1121.052	
30-May-19	13:32	39	MSD 280-123930-c-2	144106	1136.489	
30-May-19	13:34	40	280-123930-e-3	15971	128.895	
30-May-19	13:36	41	280-123930-c-4	23150	183.504	
30-May-19	13:38	42	280-123930-c-5	6642	58.253	
30-May-19	13:40	43	280-123981-d-1	78481	611.740	
30-May-19	13:42	44	280-123981-e-2	27694	218.186	
30-May-19	13:44	45	280-123981-c-3	-274	6.129	
30-May-19	13:46	46	280-123981-e-4	319	10.589	
30-May-19	13:48	0	Rinse	226	9.886	
30-May-19	13:50	0	Read Baseline	0	8.188	BL
30-May-19	13:52	6	CCVL 500 ppb	58773	457.718	
30-May-19	13:54	8	CCV 2500 ppb	303896	2490.598	
30-May-19	13:56	12	CCB	319	10.590	
30-May-19	13:58	0	Read Baseline	0	8.188	BL
30-May-19	14:00	47	280-123981-e-5	-70	7.663	
30-May-19	14:02	48	280-123981-d-6	3100	31.536	
30-May-19	14:04	49	280-123981-e-7	-248	6.325	
30-May-19	14:06	50	MS 280-123981-e-7	120358	944.480	
30-May-19	14:08	51	MSD 280-123981-e-7	128907	1013.326	
30-May-19	14:10	52	280-123981-c-8	477	11.779	
30-May-19	14:12	53	280-123981-e-9	161	9.397	
30-May-19	14:14	54	280-124244-a-1	55458	431.976	
30-May-19	14:16	55	280-124229-b-1	2030	23.469	
30-May-19	14:18	56	280-124229-b-2	-138	7.149	
30-May-19	14:20	0	Rinse	-263	6.210	
30-May-19	14:22	0	Read Baseline	0	8.188	BL
30-May-19	14:24	6	CCVL 500 ppb	59416	462.718	
30-May-19	14:26	8	CCV 2500 ppb	301106	2466.028	
30-May-19	14:28	12	CCB	377	11.027	

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	14:30	0	Read Baseline	0	8.188	BL
30-May-19	14:32	57	280-124229-b-3	591	12.637	
30-May-19	14:34	58	280-124229-b-4	10957	90.884	
30-May-19	14:36	59	280-124229-b-5	-95	7.476	
30-May-19	14:38	60	280-123760-e-1	272349	221467.359	
30-May-19	14:40	0	Rinse	181	9.548	
30-May-19	14:42	0	Read Baseline	0	8.188	BL
30-May-19	14:44	6	CCVL 500 ppb	61769	481.031	
30-May-19	14:46	8	CCV 2500 ppb	309865	2543.281	
30-May-19	14:48	12	CCB	520	12.100	
30-May-19	14:50	0	Read Baseline	0	8.188	BL
30-May-19	14:52	8	LCS	288419	2354.700	
30-May-19	14:54	8	LCSD	313714	2577.327	
30-May-19	14:56	12	MB	264	10.176	
30-May-19	14:58	61	280-123712-a-1	75216	58611.250	
30-May-19	15:00	62	MS 280-123712-a-1	213348	170996.875	
30-May-19	15:02	63	MSD 280-123712-a-1	211956	169823.797	
30-May-19	15:04	64	280-123712-a-2	72113	56179.426	
30-May-19	15:06	65	280-123590-a-1	44423	173305.375	
30-May-19	15:08	0	Rinse	62	8.651	
30-May-19	15:10	0	Read Baseline	0	8.188	BL
30-May-19	15:12	6	CCVL 500 ppb	58293	453.988	
30-May-19	15:14	8	CCV 2500 ppb	313425	2574.775	
30-May-19	15:16	12	CCB	201	9.697	
30-May-19	15:18	0	Read Baseline	0	8.188	BL

Peak Table:Ammonia

File name: C:\FLOW_4\053019.RST
Date: 30-May-19
Operator: MJS

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	12533	102.819733	
2	0	blk	1	CO	1	1	-101	7.426366	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
4	1	Cal 0.0 PPB	1	C	1	1	351	10.830211	
5	3	Cal 25.0 ppb	1	C	1	1	3030	31.003801	
6	4	Cal 50.0 ppb	1	C	1	1	6203	54.940498	
7	5	Cal 100.0 ppb	1	C	1	1	12605	103.365593	
8	6	Cal 500.0 ppb	1	C	1	1	61020	475.194672	
9	7	Cal 1000.0 ppb	1	C	1	1	123276	967.943176	
10	8	Cal 2500.0 ppb	1	C	1	1	308445	2530.731201	
11	9	Cal 5000.0 ppb	1	C	1	1	570676	4992.790527	
12	0	blank	1	BLNK	1	1	228	9.900016	
B	0	read baseline	1	RB	1	1	0	8.187531	BL
14	10	ICVL 500.0 ppb	1	U	1	1	59361	462.292480	
15	11	ICV 2500.0 ppb	1	U	1	1	300443	2460.193604	
16	1	ICB	1	U	1	1	89	8.859468	
B	0	read baseline	1	RB	1	1	0	8.187531	BL UM
18	8	LCS	1	U	1	1	303744	2489.255371	
19	8	LCSD	1	U	1	1	301427	2468.846924	
20	12	.MB	1	U	1	1	4364	41.062794	UM
21	13	.280-124168-c-1	1	U	1	1	-7737	-49.900867	LO
22	14	MS 280-124168-c-1	1	U	1	1	-9671	-64.381126	LO
23	15	MSD 280-124168-c-1	1	U	1	1	-13204	-90.791763	LO
B	0	read baseline	1	RB	1	1	0	8.187531	BL
25	8	LCS	1	U	1	1	310485	2548.761719	
26	8	LCSD	1	U	1	1	309471	2539.795898	
27	12	MB	1	U	1	1	90	8.865420	
28	13	280-124168-c-1	1	U	1	1	146	9.286325	
29	14	MS 280-124168-c-1	1	U	1	1	131075	1030.835327	
30	15	MSD 280-124168-c-1	1	U	1	1	133295	1048.784912	
31	16	280-124168-c-2	1	U	1	1	186	9.585053	
32	17	280-124168-c-3	1	U	1	1	311	10.529251	
33	18	280-123922-e-1	1	U	1	1	186011	1481.124268	
34	19	280-123922-d-2	1	U	1	1	211025	1690.396729	
35	20	280-123922-c-3	1	U	1	1	107517	841.663757	
36	21	280-123947-b-2	1	U	20	1	98077	15330.447266	
37	22	280-123924-e-1	1	U	1	1	67	8.694414	
38	0	Rinse	1	U	1	1	100	8.937119	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
40	6	CCVL 500 ppb	1	U	1	1	58335	454.312469	
41	8	CCV 2500 ppb	1	U	1	1	297861	2437.484375	
42	12	CCB	1	U	1	1	485	11.840541	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
44	23	280-123924-d-2	1	U	1	1	9179	77.425850	
45	24	280-123924-c-3	1	U	1	1	307	10.499029	
46	25	280-123924-c-4	1	U	1	1	36798	287.929779	
47	26	MS 280-123924-c-4	1	U	1	1	158618	1254.989624	
48	27	MSD 280-123924-c-4	1	U	1	1	166484	1319.604614	
49	28	280-123924-e-5	1	U	1	1	18381	147.198837	
50	29	280-123924-c-6	1	U	1	1	77531	604.278931	
51	30	280-123924-c-7	1	U	1	1	2933	30.271387	
52	31	280-123924-c-8	1	U	1	1	3185	32.171955	
53	32	280-123924-c-9	1	U	1	1	3096	31.503464	
54	0	Rinse	1	U	1	1	-236	6.414662	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
56	6	CCVL 500 ppb	1	U	1	1	58342	454.370270	
57	8	CCV 2500 ppb	1	U	1	1	296742	2427.651855	
58	12	CCB	1	U	1	1	603	12.725226	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
60	33	280-123924-c-10	1	U	1	1	2218	24.886900	
61	34	280-123924-c-11	1	U	1	1	1753	21.382565	
62	35	280-123924-c-12	1	U	1	1	3497	34.523472	
63	36	280-123930-e-1	1	U	1	1	82256	641.432190	
64	0	Rinse	1	U	1	1	345	10.784194	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
66	6	CCVL 500 ppb	1	U	1	1	59538	463.670349	
67	8	CCV 2500 ppb	1	U	1	1	303993	2491.456055	
68	12	CCB	1	U	1	1	398	11.185896	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
70	8	LCS	1	U	1	1	301638	2470.708252	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	8	LCSD	1	U	1	1	301428	2468.860107	
72	12	MB	1	U	1	1	370	10.970116	
73	37	280-123930-c-2	1	U	1	1	15354	124.213051	
74	38	MS 280-123930-c-2	1	U	1	1	142208	1121.051636	
75	39	MSD 280-123930-c-2	1	U	1	1	144106	1136.489258	
76	40	280-123930-e-3	1	U	1	1	15971	128.894516	
77	41	280-123930-c-4	1	U	1	1	23150	183.503891	
78	42	280-123930-c-5	1	U	1	1	6642	58.253437	
79	43	280-123981-d-1	1	U	1	1	78481	611.739990	
80	44	280-123981-e-2	1	U	1	1	27694	218.186264	
81	45	280-123981-c-3	1	U	1	1	-274	6.128890	
82	46	280-123981-e-4	1	U	1	1	319	10.588769	
83	0	Rinse	1	U	1	1	226	9.885809	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
85	6	CCVL 500 ppb	1	U	1	1	58773	457.717712	
86	8	CCV 2500 ppb	1	U	1	1	303896	2490.597656	
87	12	CCB	1	U	1	1	319	10.589765	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
89	47	280-123981-e-5	1	U	1	1	-70	7.663309	
90	48	280-123981-d-6	1	U	1	1	3100	31.535744	
91	49	280-123981-e-7	1	U	1	1	-248	6.324844	
92	50	MS 280-123981-e-7	1	U	1	1	120358	944.480103	
93	51	MSD 280-123981-e-7	1	U	1	1	128907	1013.326233	
94	52	280-123981-c-8	1	U	1	1	477	11.778512	
95	53	280-123981-e-9	1	U	1	1	161	9.396813	
96	54	280-124244-a-1	1	U	1	1	55458	431.976318	
97	55	280-124229-b-1	1	U	1	1	2030	23.469158	
98	56	280-124229-b-2	1	U	1	1	-138	7.149239	
99	0	Rinse	1	U	1	1	-263	6.209613	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
101	6	CCVL 500 ppb	1	U	1	1	59416	462.718384	
102	8	CCV 2500 ppb	1	U	1	1	301106	2466.027832	
103	12	CCB	1	U	1	1	377	11.026817	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
105	57	280-124229-b-3	1	U	1	1	591	12.636806	
106	58	280-124229-b-4	1	U	1	1	10957	90.884277	
107	59	280-124229-b-5	1	U	1	1	-95	7.475824	
108	60	280-123760-e-1	1	U	100	1	272349	221467.359375	
109	0	Rinse	1	U	1	1	181	9.547703	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
111	6	CCVL 500 ppb	1	U	1	1	61769	481.031189	
112	8	CCV 2500 ppb	1	U	1	1	309865	2543.281494	
113	12	CCB	1	U	1	1	520	12.099533	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
115	8	LCS	1	U	1	1	288419	2354.699951	
116	8	LCSD	1	U	1	1	313714	2577.327393	
117	12	MB	1	U	1	1	264	10.175629	
118	61	280-123712-a-1	1	U	100	1	75216	58611.250000	
119	62	MS 280-123712-a-1	1	U	100	1	213348	170996.875000	
120	63	MSD 280-123712-a-1	1	U	100	1	211956	169823.796875	
121	64	280-123712-a-2	1	U	100	1	72113	56179.425781	
122	65	280-123590-a-1	1	U	500	1	44423	173305.375000	
123	0	Rinse	1	U	1	1	62	8.651432	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
125	6	CCVL 500 ppb	1	U	1	1	58293	453.987793	
126	8	CCV 2500 ppb	1	U	1	1	313425	2574.775391	
127	12	CCB	1	U	1	1	201	9.697403	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL

Ammonia:Calibration 1: Peak 4-128

File name: C:\FLOW_4\053019.RST
Date: 30-May-19
Operator: MJS

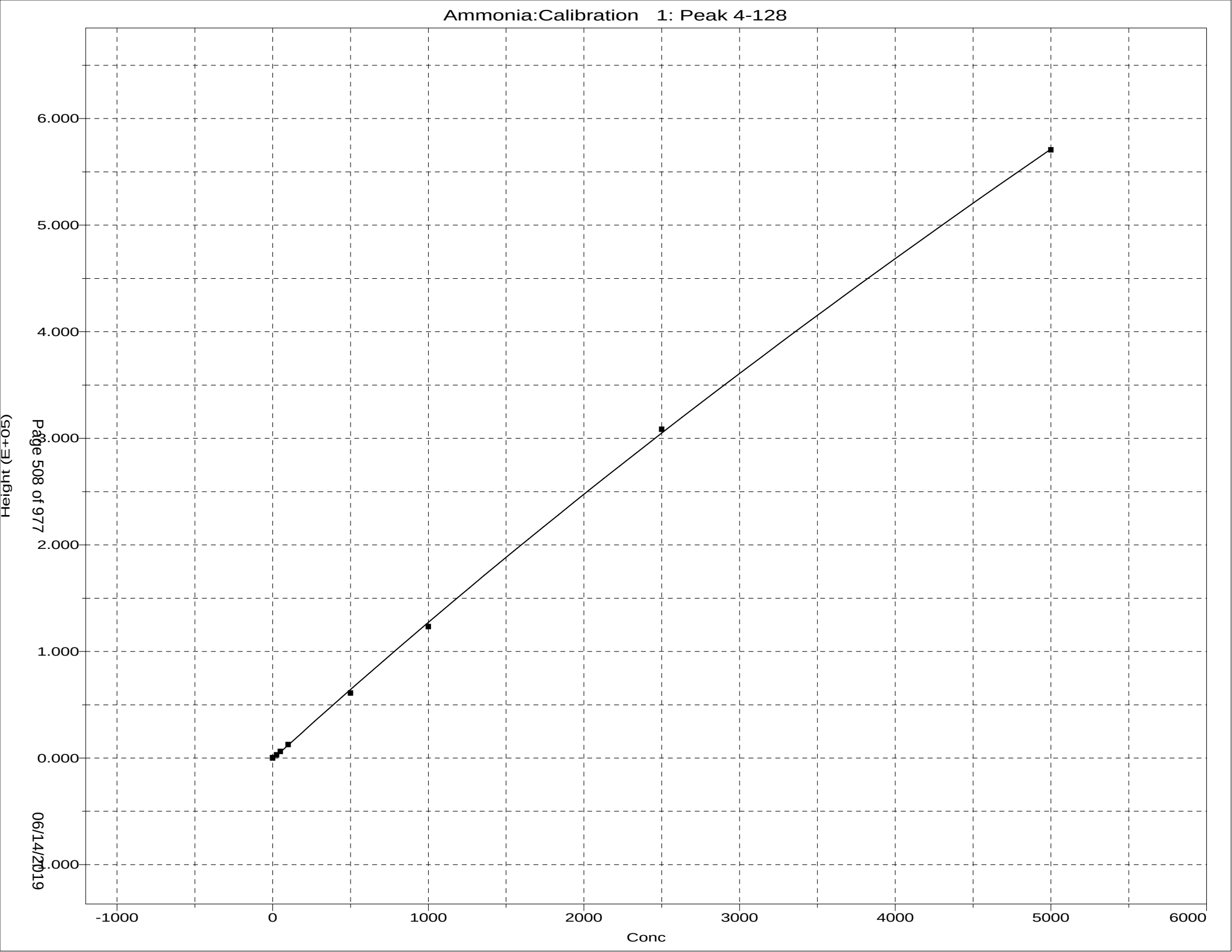
*	Name	Conc	Height
*	Cal 0.0 PPB	0.000000	351.201447
*	Cal 25.0 ppb	25.000000	3029.902344
*	Cal 50.0 ppb	50.000000	6203.047363
*	Cal 100.0 ppb	100.000000	12605.233398
*	Cal 500.0 ppb	500.000000	61019.695312
*	Cal 1000.0 ppb	1000.000000	123275.507812
*	Cal 2500.0 ppb	2500.000000	308444.718750
*	Cal 5000.0 ppb	5000.000000	570675.750000

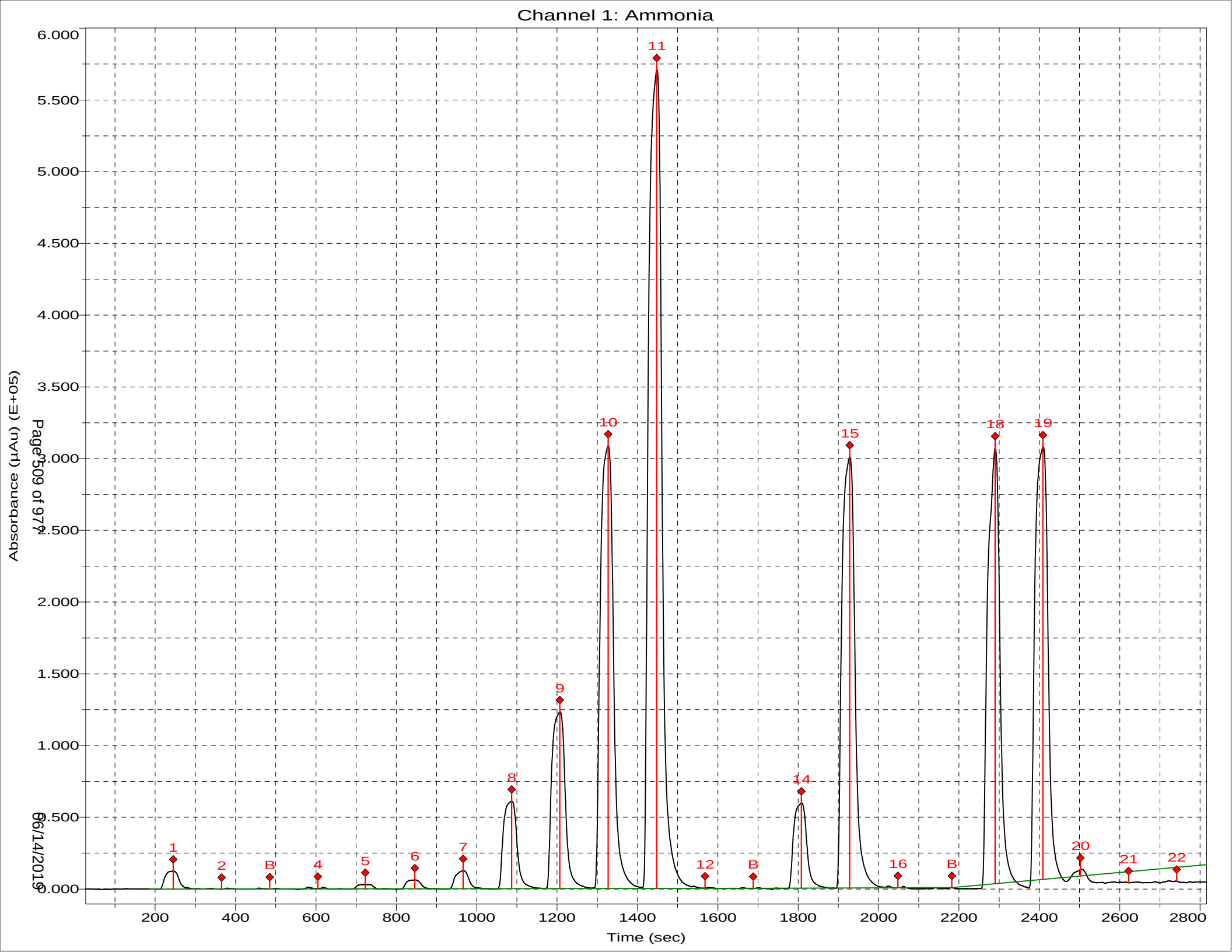
Calib Coef:
x=cyy+by+a
a: (intercept) 8.1875e+00
b: 7.5239e-03
c: 2.1214e-09

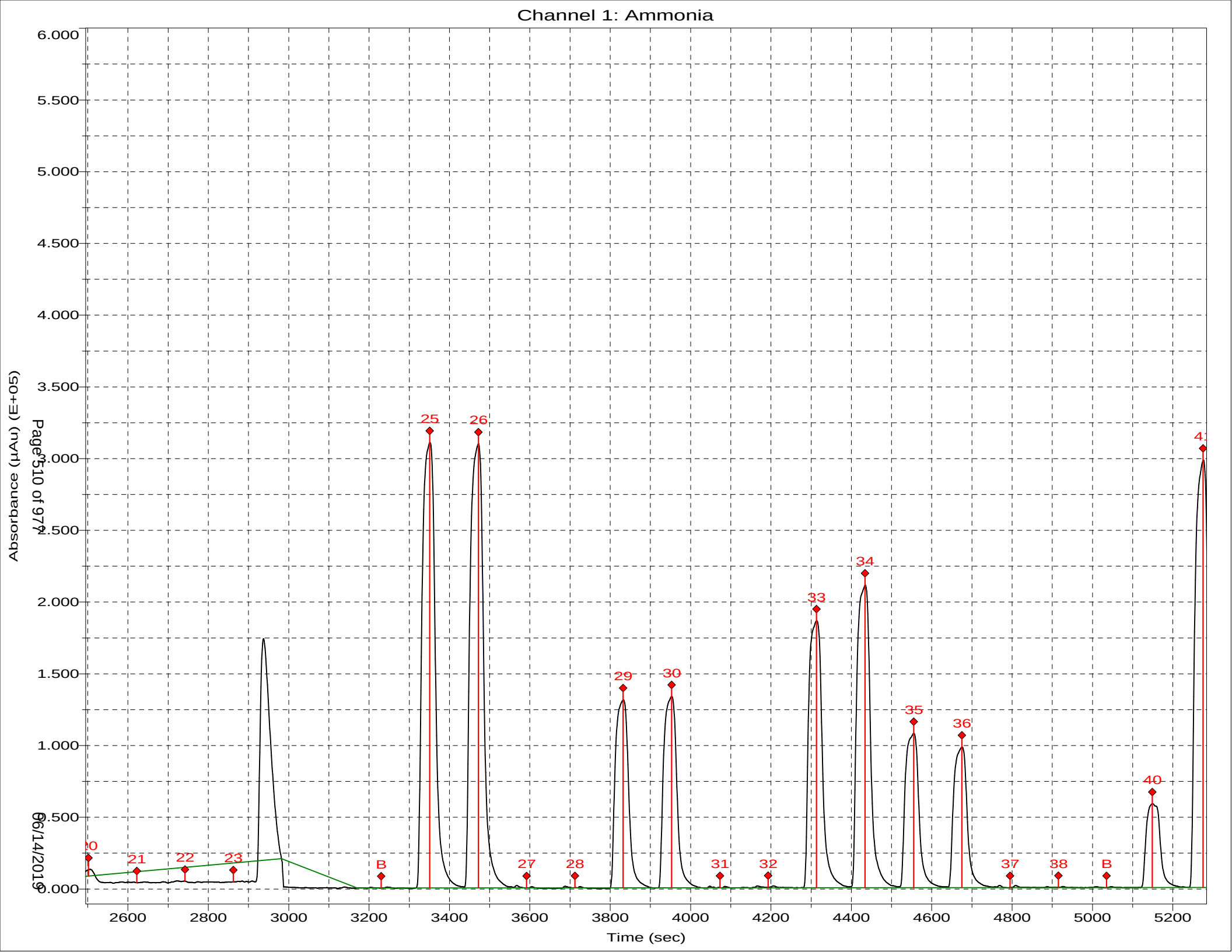
Corr Coef: 0.999938

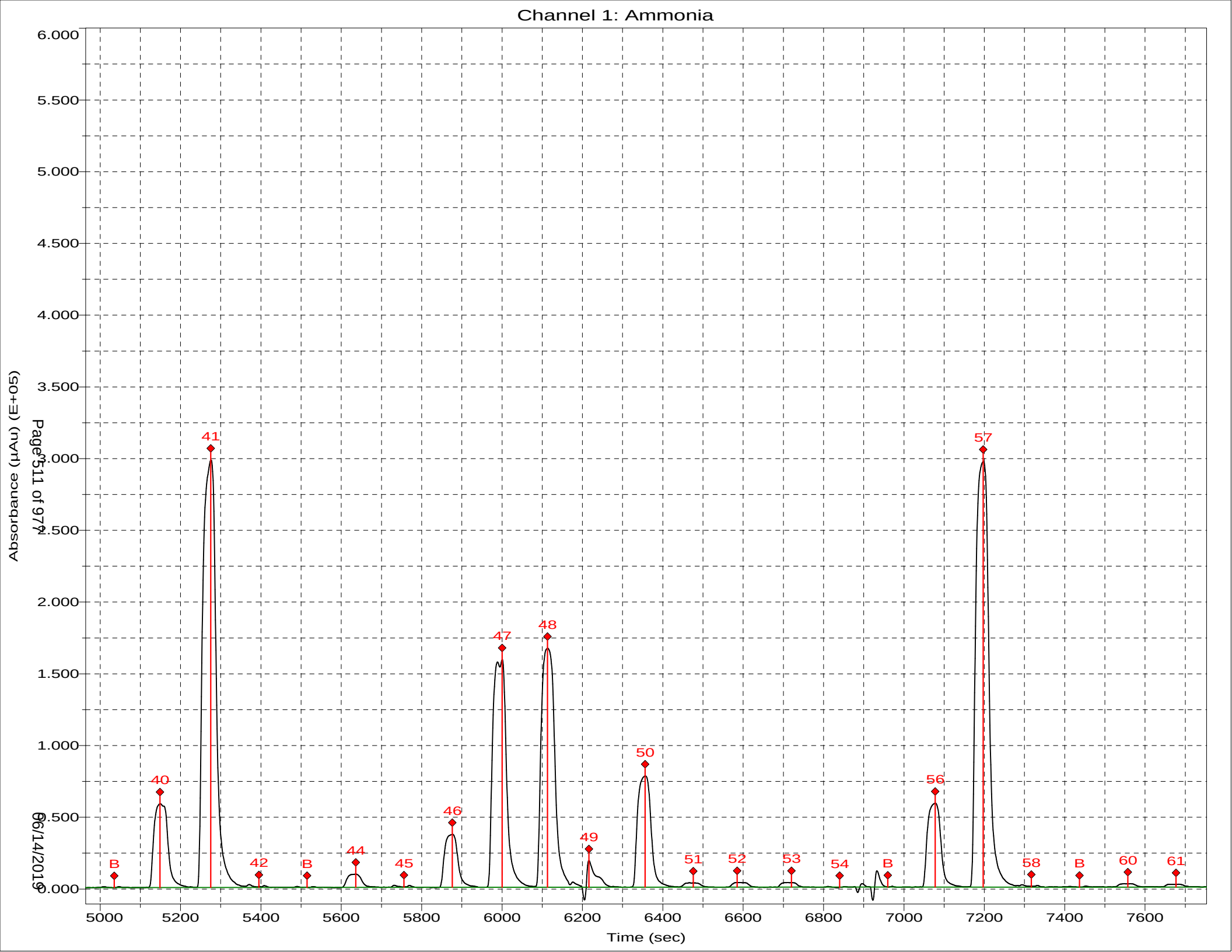
Carryover: 0%

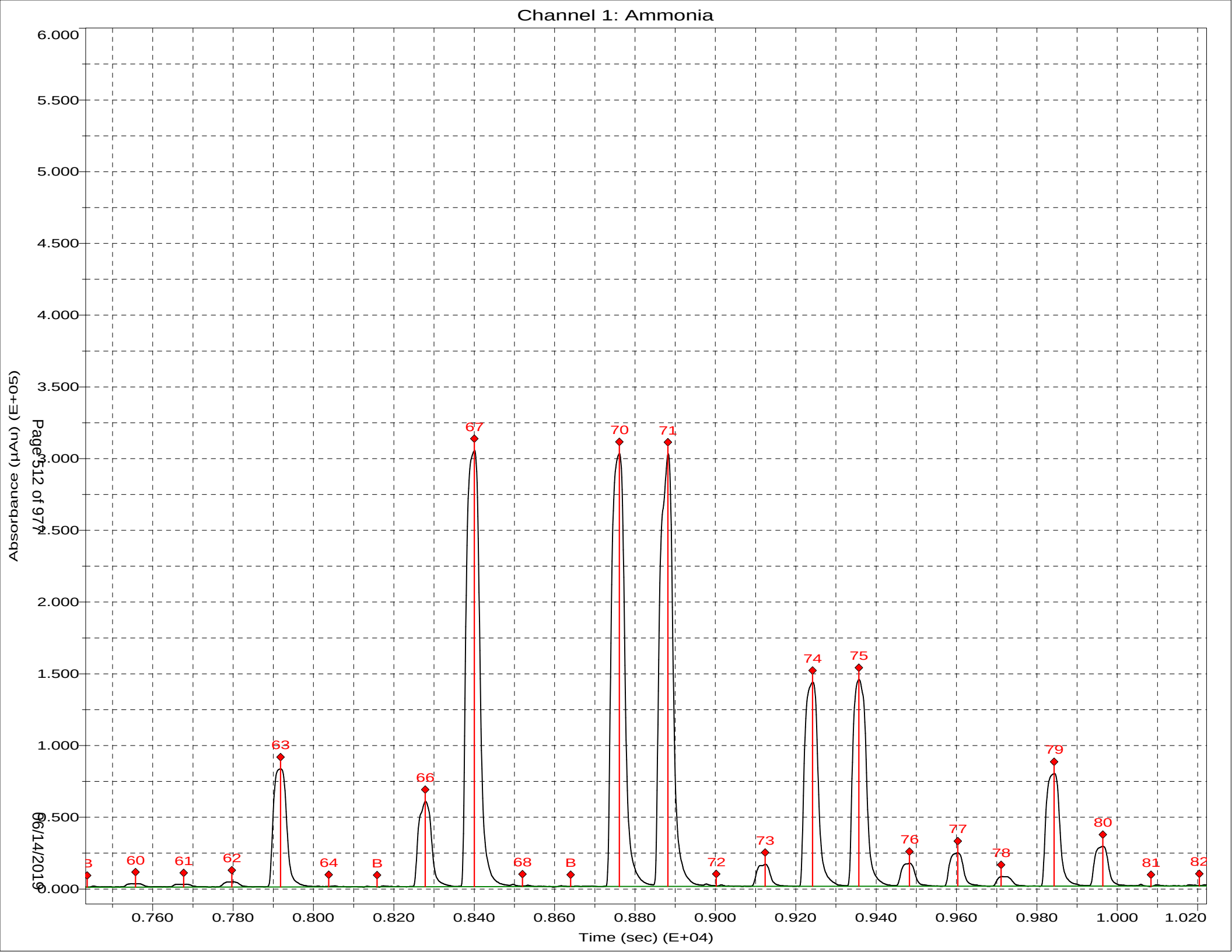
No Drift Peaks

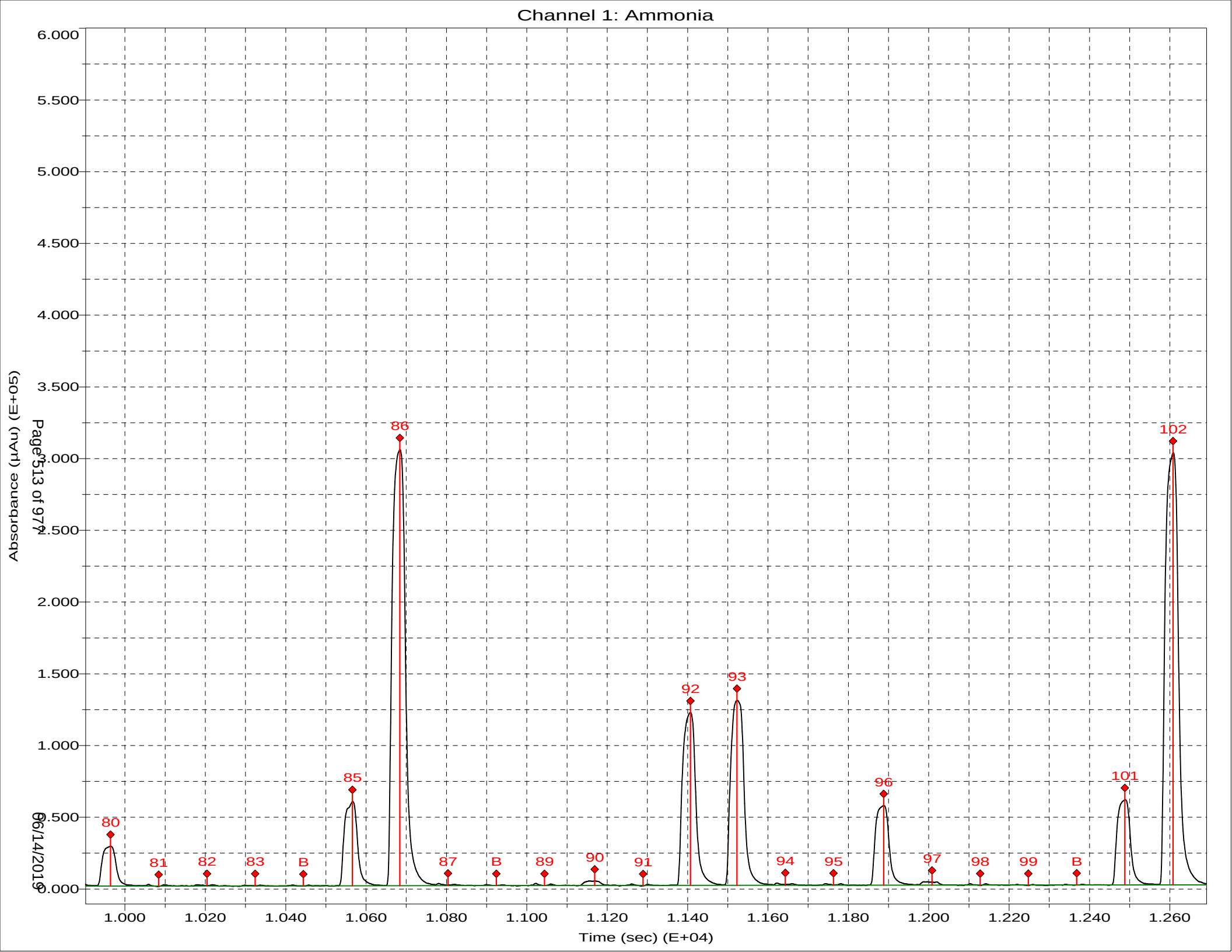

Ammonia:Calibration 1: Peak 4-128
Height (E+05)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
-1000
0
1000
2000
3000
4000
5000
6000
Conc

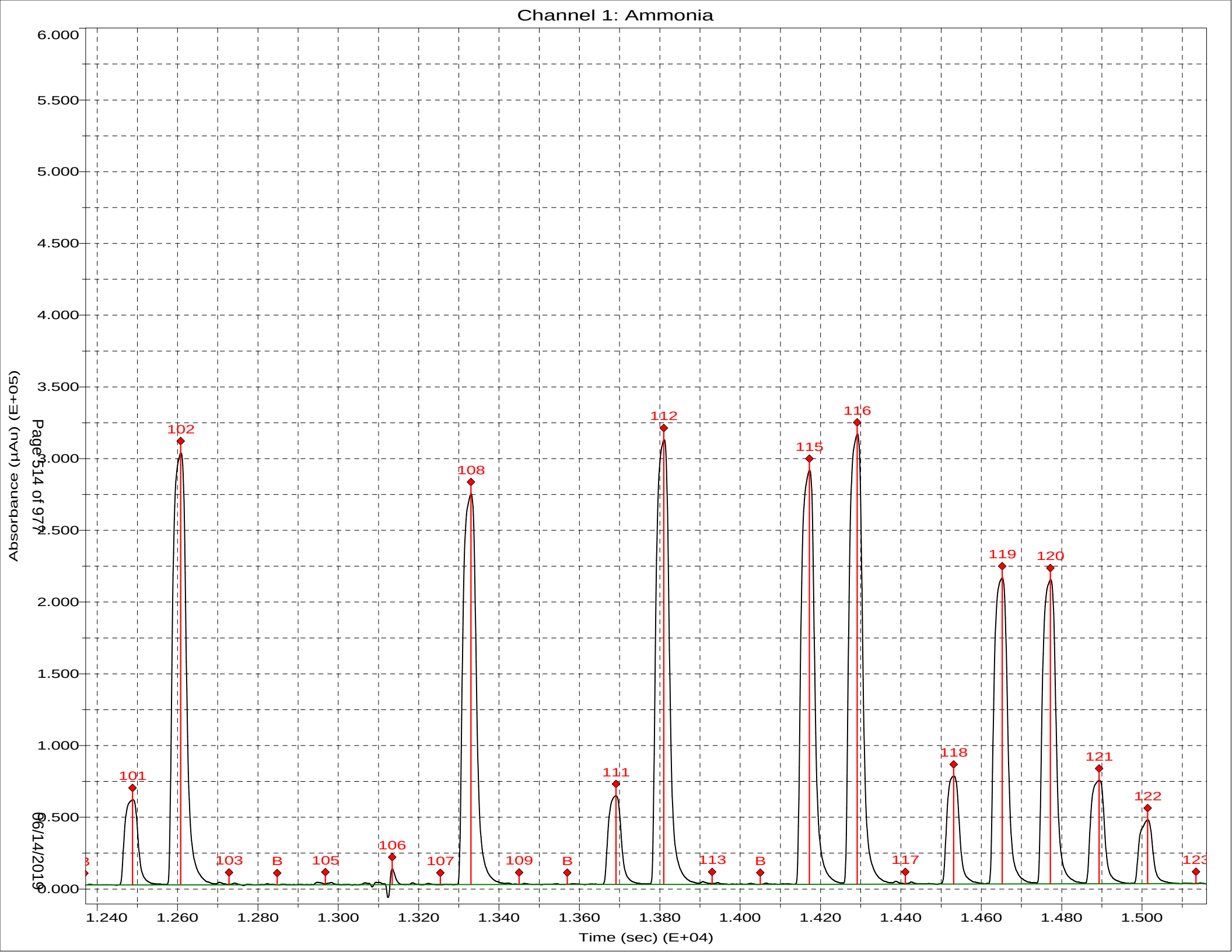

Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
21
22

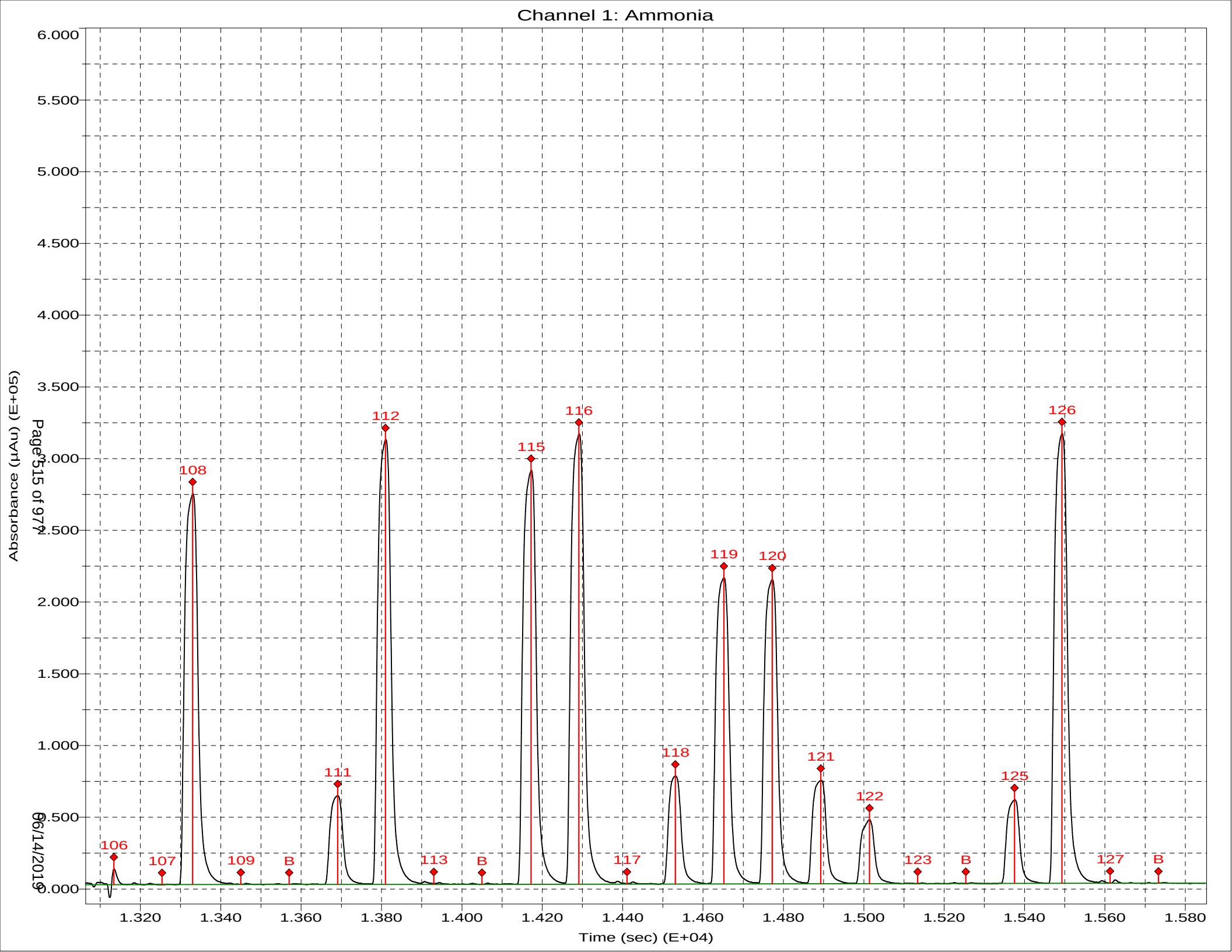

Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
Time (sec)
Page 510 of 979
06/14/2019
21
22
23
B
25
26
27
28
29
30
31
32
33
34
35
36
37
38
B
40


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
B
40
41
42
B
44
45
46
47
48
49
50
51
52
53
54
B
56
57
58
B
60
61


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.760
0.780
0.800
0.820
0.840
0.860
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
3
60
61
62
63
64
B
66
67
68
B
70
71
72
73
74
75
76
77
78
79
80
81
82
Page 512 of 972
06/14/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.000
1.020
1.040
1.060
1.080
1.100
1.120
1.140
1.160
1.180
1.200
1.220
1.240
1.260
Time (sec) (E+04)
80
81
82
83
B
85
86
87
B
89
90
91
92
93
94
95
96
97
98
99
B
101
102
Page 513 of 979
06/14/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.240
1.260
1.280
1.300
1.320
1.340
1.360
1.380
1.400
1.420
1.440
1.460
1.480
1.500
Time (sec) (E+04)
101
102
103
B
105
106
107
108
109
B
111
112
113
B
115
116
117
118
119
120
121
122
123
Page 514 of 979
06/14/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.320
1.340
1.360
1.380
1.400
1.420
1.440
1.460
1.480
1.500
1.520
1.540
1.560
1.580
106
107
108
109
B
111
112
113
B
115
116
117
118
119
120
121
122
123
B
125
126
127
B

Sample Table for 060519

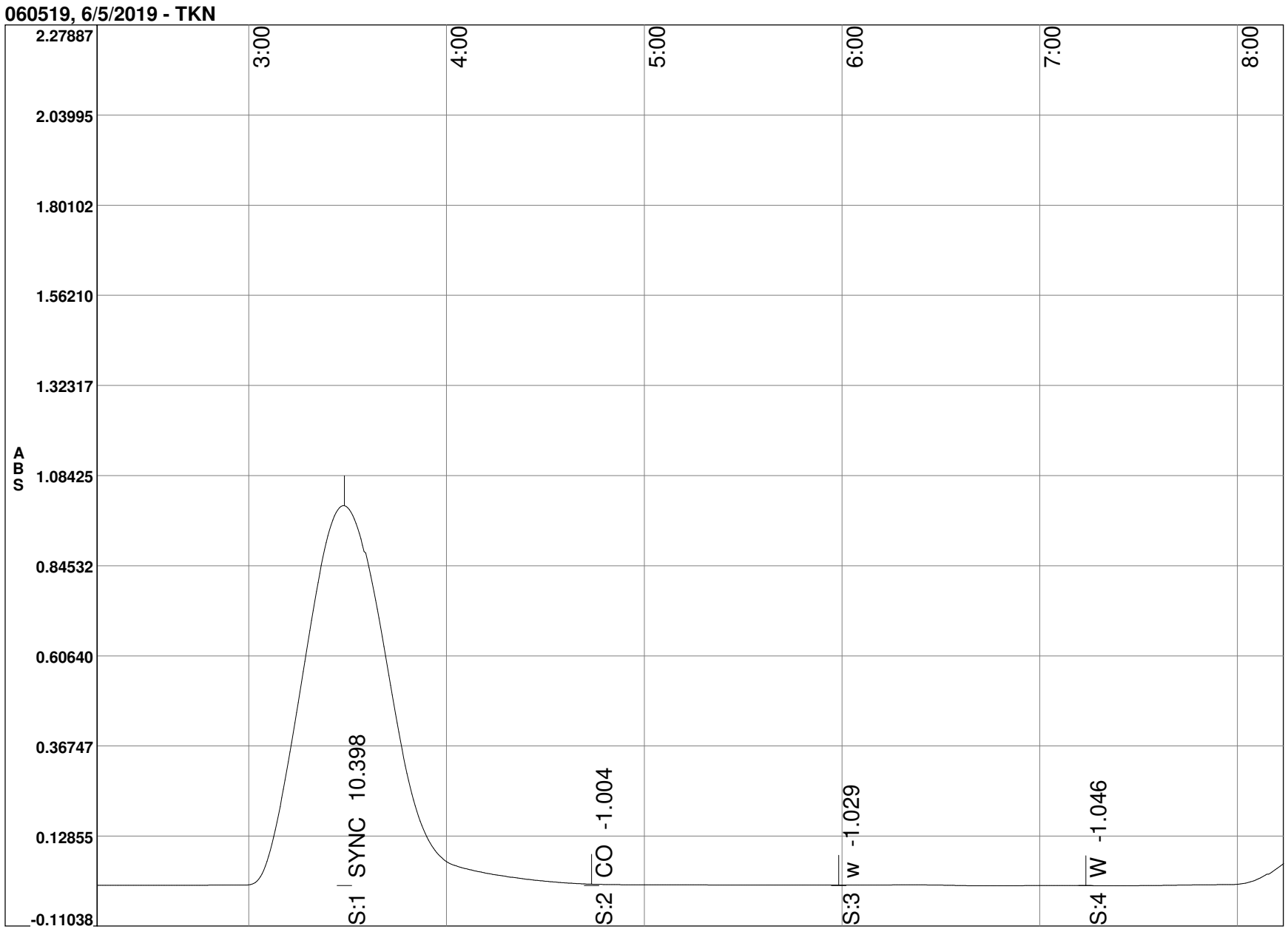
	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-460066/42-A	Unknown	4 ml
14	1:16	ICB 280-460066/43-A	Unknown	4 ml
15	1:17	xLCS 280-460465/1-A	Unknown	4 ml
16	1:18	MB 280-460465/2-A	Unknown	4 ml
17	1:19	280-123941-K-2-A	Unknown	4 ml
18	1:20	280-123941-K-2-B MS	Unknown	4 ml
19	1:21	280-123941-K-2-C MS	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	280-123941-K-4-A	Unknown	4 ml
22	1:24	280-123941-J-5-A	Unknown	4 ml
23	1:25	280-123941-K-6-A	Unknown	4 ml
24	1:26	280-123941-J-7-A	Unknown	4 ml
25	1:27	280-123941-J-9-A	Unknown	4 ml
26	1:28	280-123941-K-10-A	Unknown	4 ml
27	1:29	280-123941-J-11-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-460066/44-A	Unknown	4 ml
30	1:32	CCB 280-460066/45-A	Unknown	4 ml
31	1:33	280-123855-D-1-A	Unknown	4 ml
32	1:34	280-123855-C-2-A	Unknown	4 ml
33	1:35	280-123855-E-3-A	Unknown	4 ml
34	1:36	280-123855-E-3-B MS	Unknown	4 ml
35	1:37	280-123855-E-3-C MS	Unknown	4 ml
36	1:38	w	Blank	4 ml
37	1:39	280-123855-E-4-A	Unknown	4 ml
38	1:40	280-123855-C-5-A	Unknown	4 ml
39	1:41	280-123855-E-6-A	Unknown	4 ml
40	1:42	280-124106-D-1-A	Unknown	4 ml
41	1:43	280-124106-E-2-A	Unknown	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-460066/44-A	Unknown	4 ml
44	1:46	CCB 280-460066/45-A	Unknown	4 ml

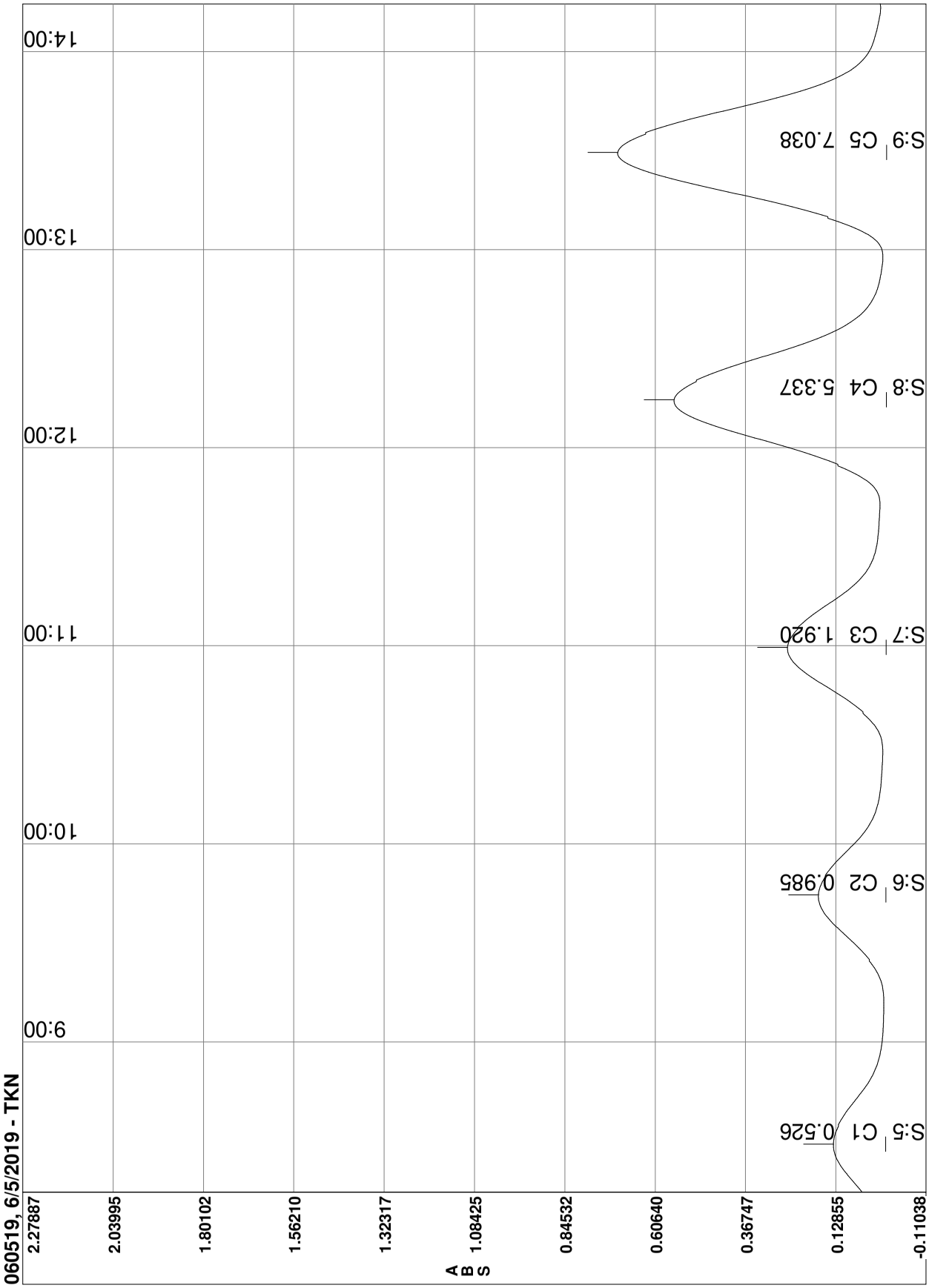
	Position	Identifier	Type	Cup Type
45	1:47	280-124106-D-3-A	Unknown	4 ml
46	1:48	280-124106-E-4-A	Unknown	4 ml
47	1:49	280-123930-E-1-A	Unknown	4 ml
48	1:50	280-123930-C-2-A	Unknown	4 ml
49	1:51	w	Blank	4 ml
50	1:52	LCS 280-460465/27-A	Unknown	4 ml
51	1:53	MB 280-460465/28-A	Unknown	4 ml
52	1:54	280-123930-E-3-A	Unknown	4 ml
53	1:55	280-123930-E-3-B MS	Unknown	4 ml
54	1:56	280-123930-E-3-C MS	Unknown	4 ml
55	1:57	LCS 280-460465/1-A	Unknown	4 ml
56	1:58	w	Blank	4 ml
57	1:59	CCV 280-460066/44-A	Unknown	4 ml
58	1:60	CCB 280-460066/45-A	Unknown	4 ml
59	2:1	280-123930-C-4-A	Unknown	4 ml
60	2:2	280-123930-C-5-A	Unknown	4 ml
61	2:3	280-123853-C-1-A	Unknown	4 ml
62	2:4	280-123853-C-2-A	Unknown	4 ml
63	2:5	280-123853-C-3-A	Unknown	4 ml
64	2:6	280-123853-C-4-A	Unknown	4 ml
65	2:7	280-123853-C-5-A	Unknown	4 ml
66	2:8	280-123853-C-6-A	Unknown	4 ml
67	2:9	280-123855-C-2-A	Unknown	4 ml
68	2:10	280-124106-D-3-A	Unknown	4 ml
69	2:11	w	Blank	4 ml
70	2:12	CCV 280-460066/44-A	Unknown	4 ml
71	2:13	CCB 280-460066/45-A	Unknown	4 ml
72	2:14	w	Blank	4 ml

Run Name: 060519
Configuration: TKN
Run date: 6/5/2019

	Position	Identifier	Type	Comme	Date	Time	otal	TKN Cor Ht	TKN mg/l
1	1:1	SYNC	SYNC	50;351.2	6/5/2019	5:30:29 PM	1	1.00520	10.398
2	1:2	CO	Carry over		6/5/2019	5:30:59 PM	1	0.00368	-1.004
3	1:3	w	Blank		6/5/2019	5:32:14 PM	1	0.00146	-1.029
4	1:4	W	Wash		6/5/2019	5:33:29 PM	1	0.00000	-1.046
5	1:5	C1	Calibrant		6/5/2019	5:34:44 PM	1	0.13805	0.526
6	1:6	C2	Calibrant		6/5/2019	5:35:59 PM	1	0.17838	0.985
7	1:7	C3	Calibrant		6/5/2019	5:37:14 PM	1	0.26048	1.920
8	1:8	C4	Calibrant		6/5/2019	5:38:30 PM	1	0.56067	5.337
9	1:9	C5	Calibrant		6/5/2019	5:39:45 PM	1	0.71009	7.038
10	1:10	C6	Calibrant		6/5/2019	5:40:59 PM	1	0.98734	10.194
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99749
		Intercept:							0.091847
		Linear coef:							0.087843
11	1:13	w	Blank		6/5/2019	5:42:14 PM	1	0.00049	-1.040
12	1:14	W	Wash		6/5/2019	5:43:29 PM	1	0.00000	-1.046
13	1:15	ICV 280-460066/42-A	Unknown		6/5/2019	5:44:44 PM	1	0.55757	5.302
14	1:16	ICB 280-460066/43-A	Unknown		6/5/2019	5:45:59 PM	1	0.06522	-0.303
15	1:17	xLCS 280-460465/1-A	Unknown		6/5/2019	5:47:14 PM	1	0.54253	5.130
16	1:18	MB 280-460465/2-A	Unknown		6/5/2019	5:48:29 PM	1	0.04191	-0.569
17	1:19	280-123941-K-2-A	Unknown		6/5/2019	5:49:44 PM	1	0.12201	0.343
18	1:20	280-123941-K-2-B MS	Unknown		6/5/2019	5:50:59 PM	1	0.37049	3.172
19	1:21	280-123941-K-2-C MSD	Unknown		6/5/2019	5:52:14 PM	1	0.42144	3.752
20	1:22	w	Blank		6/5/2019	5:53:29 PM	1	-0.00106	-1.058
21	1:23	280-123941-K-4-A	Unknown		6/5/2019	5:54:44 PM	1	0.12033	0.324
22	1:24	280-123941-J-5-A	Unknown		6/5/2019	5:55:59 PM	1	0.14577	0.614
23	0	AutoWash	AutoWash		6/5/2019	5:57:14 PM	1	-0.00018	-1.048
24	0	AutoWash	AutoWash		6/5/2019	5:58:29 PM	1	0.00000	-1.046
25	1:25	280-123941-K-6-A	Unknown		6/5/2019	5:59:44 PM	1	0.10928	0.198
26	1:26	280-123941-J-7-A	Unknown		6/5/2019	6:00:59 PM	1	0.06149	-0.346
27	1:27	280-123941-J-9-A	Unknown		6/5/2019	6:02:14 PM	1	0.05736	-0.393
28	1:28	280-123941-K-10-A	Unknown		6/5/2019	6:03:29 PM	1	0.03230	-0.678
29	1:29	280-123941-J-11-A	Unknown		6/5/2019	6:04:44 PM	1	0.04101	-0.579
30	1:30	w	Blank		6/5/2019	6:05:59 PM	1	0.53160	5.006
31	1:31	CCV 280-460066/44-A	Unknown		6/5/2019	6:07:14 PM	1	0.53351	5.028
32	1:32	CCB 280-460066/45-A	Unknown		6/5/2019	6:08:29 PM	1	0.05324	-0.439
33	1:33	280-123855-D-1-A	Unknown		6/5/2019	6:09:44 PM	1	0.05685	-0.398
34	1:34	280-123855-C-2-A	Unknown		6/5/2019	6:10:59 PM	1	1.80542	19.507
35	0	AutoWash	AutoWash		6/5/2019	6:12:15 PM	1	0.00416	-0.998
36	0	AutoWash	AutoWash		6/5/2019	6:13:30 PM	1	0.00000	-1.046
37	1:35	280-123855-E-3-A	Unknown		6/5/2019	6:14:45 PM	1	0.05408	-0.430
38	1:36	280-123855-E-3-B MS	Unknown		6/5/2019	6:15:59 PM	1	0.31382	2.527

	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
39	1:37	280-123855-E-3-C MSD	Unknown		6/5/2019	6:17:14 PM	1	0.29663	2.331
40	1:38	w	Blank		6/5/2019	6:18:29 PM	1	-0.00008	-1.046
41	1:39	280-123855-E-4-A	Unknown		6/5/2019	6:19:44 PM	1	0.05821	-0.383
42	1:40	280-123855-C-5-A	Unknown		6/5/2019	6:20:59 PM	1	0.07059	-0.242
43	1:41	280-123855-E-6-A	Unknown		6/5/2019	6:22:14 PM	1	0.05737	-0.392
44	1:42	280-124106-D-1-A	Unknown		6/5/2019	6:23:29 PM	1	0.29587	2.323
45	1:43	280-124106-E-2-A	Unknown		6/5/2019	6:24:44 PM	1	0.30181	2.390
46	1:44	w	Blank		6/5/2019	6:25:59 PM	1	0.00100	-1.034
47	0	AutoWash	AutoWash		6/5/2019	6:27:14 PM	1	0.00038	-1.041
48	0	AutoWash	AutoWash		6/5/2019	6:28:29 PM	1	0.00000	-1.046
49	1:45	CCV 280-460066/44-A	Unknown		6/5/2019	6:29:44 PM	1	0.53983	5.100
50	1:46	CCB 280-460066/45-A	Unknown		6/5/2019	6:30:59 PM	1	0.06710	-0.282
51	1:47	280-124106-D-3-A	Unknown		6/5/2019	6:32:14 PM	1	2.16763	23.631
52	1:48	280-124106-E-4-A	Unknown		6/5/2019	6:33:29 PM	1	0.10234	0.119
53	1:49	280-123930-E-1-A	Unknown		6/5/2019	6:34:44 PM	1	0.09826	0.073
54	1:50	280-123930-C-2-A	Unknown		6/5/2019	6:35:59 PM	1	0.07860	-0.151
55	1:51	w	Blank		6/5/2019	6:37:14 PM	1	-0.00136	-1.061
56	1:52	LCS 280-460465/27-A	Unknown		6/5/2019	6:38:29 PM	1	0.62892	6.114
57	1:53	MB 280-460465/28-A	Unknown		6/5/2019	6:39:44 PM	1	0.03475	-0.650
58	1:54	280-123930-E-3-A	Unknown		6/5/2019	6:40:59 PM	1	0.07280	-0.217
59	0	AutoWash	AutoWash		6/5/2019	6:42:14 PM	1	-0.00070	-1.054
60	0	AutoWash	AutoWash		6/5/2019	6:43:29 PM	1	0.00000	-1.046
61	1:55	280-123930-E-3-B MS	Unknown		6/5/2019	6:44:44 PM	1	0.30987	2.482
62	1:56	280-123930-E-3-C MSD	Unknown		6/5/2019	6:45:59 PM	1	0.31837	2.579
63	1:57	LCS 280-460465/1-A	Unknown		6/5/2019	6:47:14 PM	1	0.64100	6.251
64	1:58	w	Blank		6/5/2019	6:48:30 PM	1	0.00134	-1.030
65	1:59	CCV 280-460066/44-A	Unknown		6/5/2019	6:49:45 PM	1	0.54230	5.128
66	1:60	CCB 280-460066/45-A	Unknown		6/5/2019	6:50:59 PM	1	0.05353	-0.436
67	2:1	280-123930-C-4-A	Unknown		6/5/2019	6:52:14 PM	1	0.10624	0.164
68	2:2	280-123930-C-5-A	Unknown		6/5/2019	6:53:29 PM	1	0.56471	5.383
69	2:3	280-123853-C-1-A	Unknown		6/5/2019	6:54:44 PM	1	0.04731	-0.507
70	2:4	280-123853-C-2-A	Unknown		6/5/2019	6:55:59 PM	1	0.02639	-0.745
71	0	AutoWash	AutoWash		6/5/2019	6:57:14 PM	1	0.00006	-1.045
72	0	AutoWash	AutoWash		6/5/2019	6:58:29 PM	1	0.00000	-1.046
73	2:5	280-123853-C-3-A	Unknown		6/5/2019	6:59:44 PM	1	0.05868	-0.378
74	2:6	280-123853-C-4-A	Unknown		6/5/2019	7:00:59 PM	1	0.05340	-0.438
75	2:7	280-123853-C-5-A	Unknown		6/5/2019	7:02:14 PM	1	0.06098	-0.351
76	2:8	280-123853-C-6-A	Unknown		6/5/2019	7:03:29 PM	1	0.09323	0.016
77	2:9	280-123855-C-2-A	Unknown		6/5/2019	7:04:44 PM	5	0.43584	19.580
78	2:10	280-124106-D-3-A	Unknown		6/5/2019	7:05:59 PM	5	0.61600	29.835
79	2:11	w	Blank		6/5/2019	7:07:14 PM	1	-0.00250	-1.074
80	2:12	CCV 280-460066/44-A	Unknown		6/5/2019	7:08:29 PM	1	0.53521	5.047
81	2:13	CCB 280-460066/45-A	Unknown		6/5/2019	7:09:44 PM	1	0.04924	-0.485
82	2:14	w	Blank		6/5/2019	7:10:59 PM	1	-0.00230	-1.072
83	0	AutoWash	AutoWash		6/5/2019	7:12:14 PM	1	-0.00112	-1.058
84	0	AutoWash	AutoWash		6/5/2019	7:13:29 PM	1	0.00000	-1.046


060519, 6/5/2019 - TKN
2.27887
2.03995
1.80102
1.56210
1.32317
ABS
1.08425
0.84532
0.60640
0.36747
0.12855
-0.11038
3:00
4:00
5:00
6:00
7:00
8:00
S:1 SYNC 10.398
S:2 CO -1.004
S:3 w -1.029
S:4 W -1.046


060519, 6/5/2019 - TKN
ABS
2.27887
2.03995
1.80102
1.56210
1.32317
1.08425
0.84532
0.60640
0.36747
0.12855
-0.11038
9:00
10:00
11:00
12:00
13:00
14:00
S:5 C1 0.526
S:6 C2 0.985
S:7 C3 1.920
S:8 C4 5.337
S:9 C5 7.038

060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:10 C6 10.194
15:00
S:11 w -1.040
16:00
S:12 W -1.046
17:00
18:00
S:13 ICV 280-460066/42-A 5.302
19:00
S:14 ICB 280-460066/43-A -0.303
20:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

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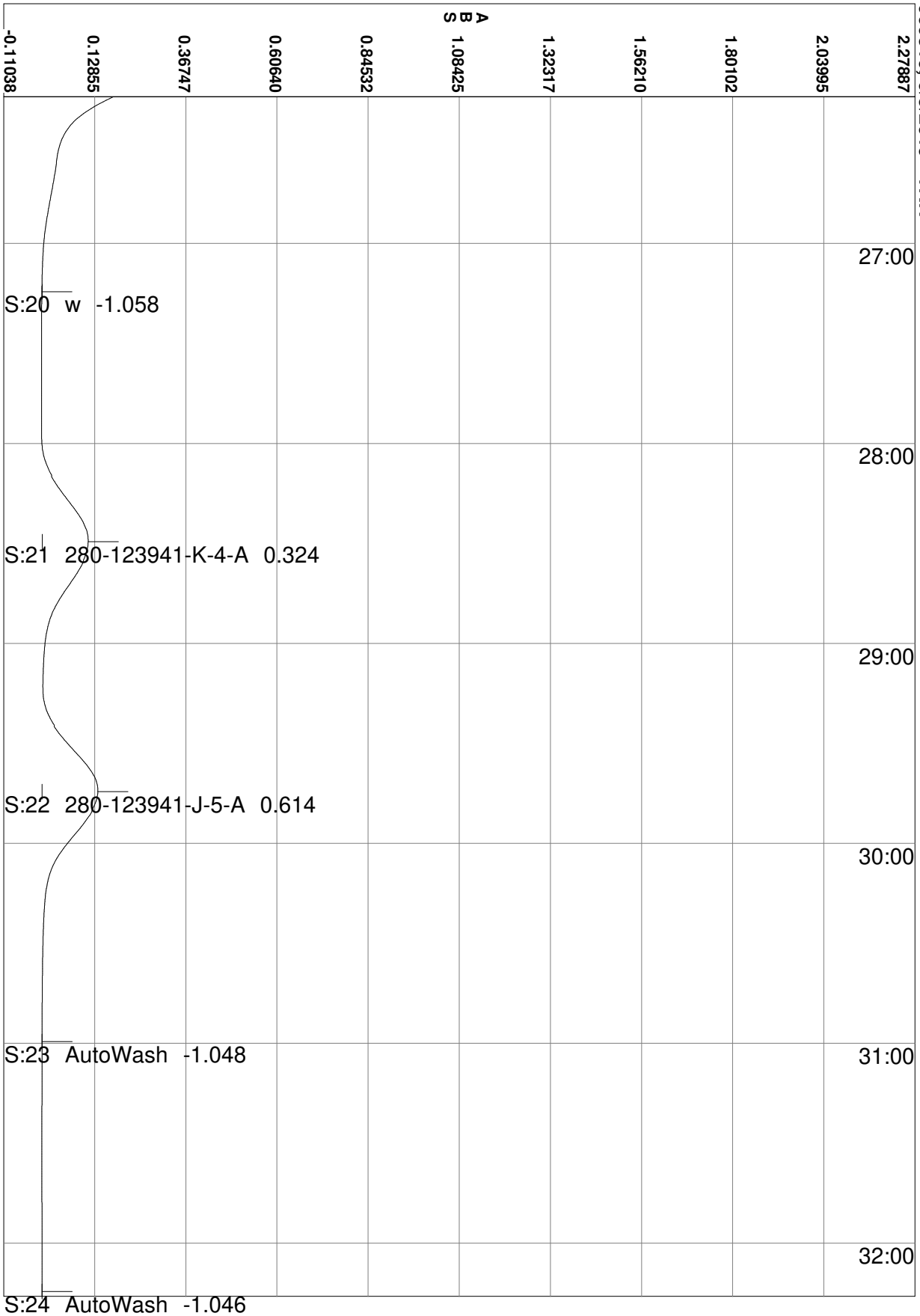
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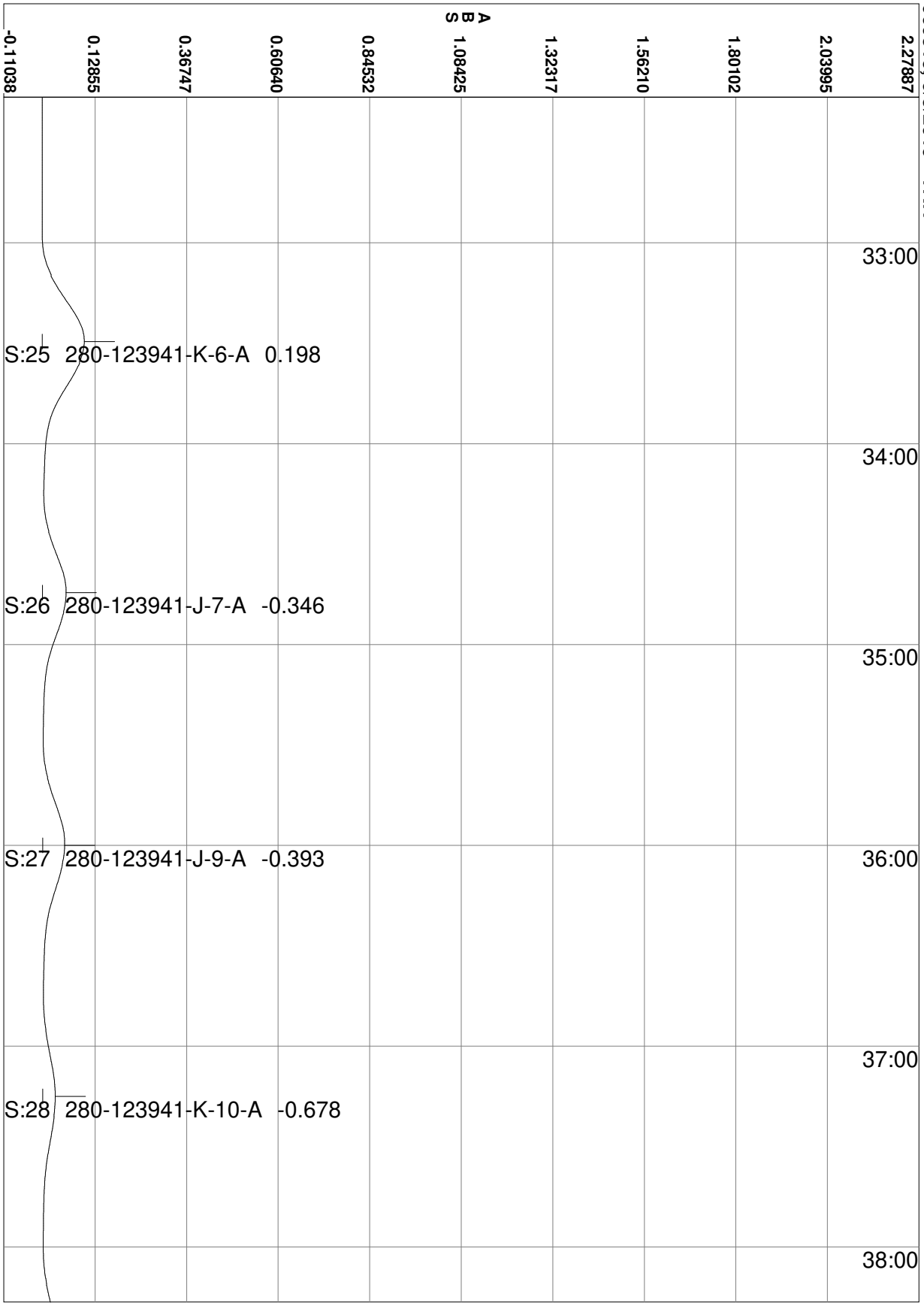
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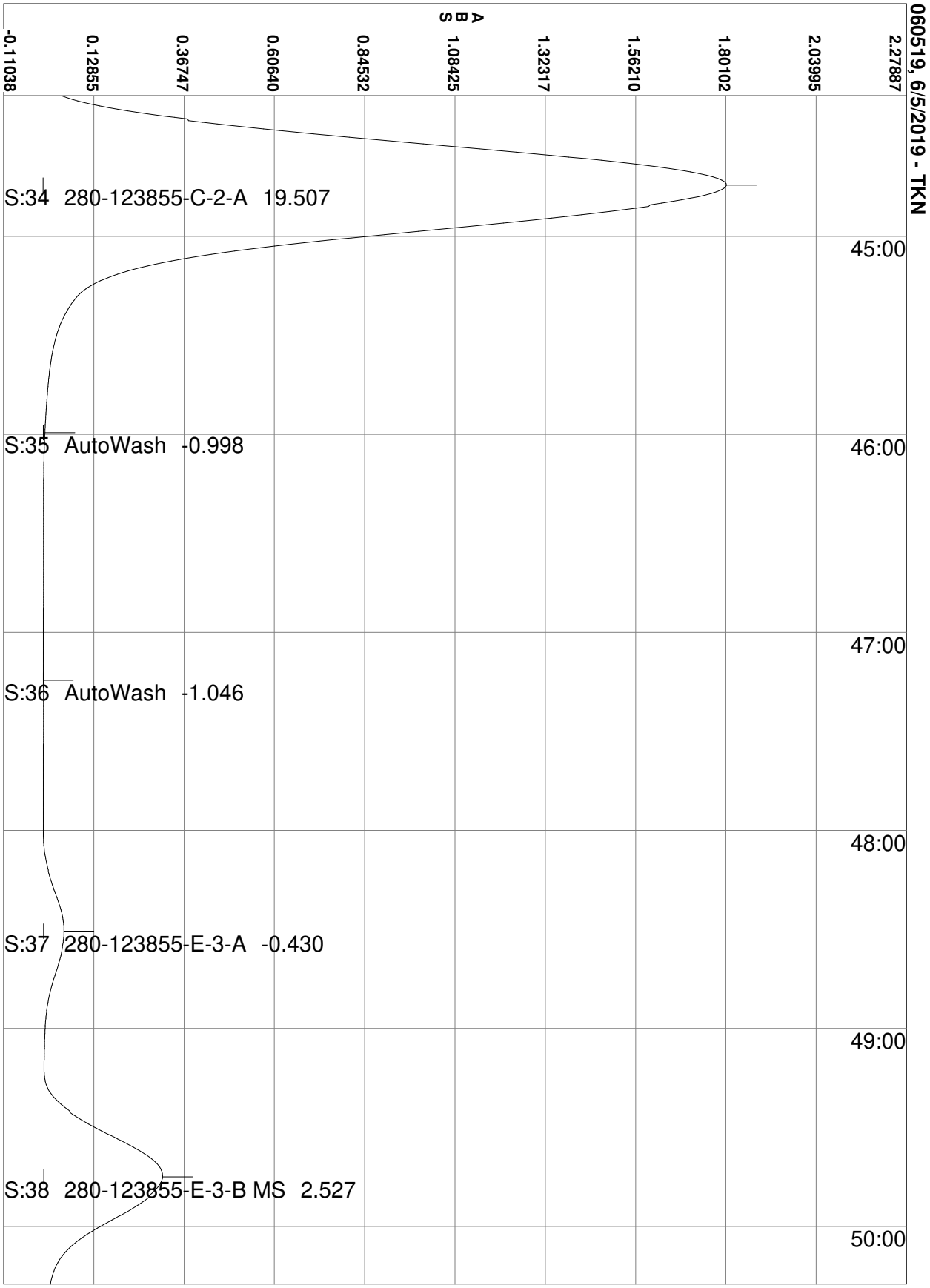
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26:00


060519, 6/5/2019 - TKN
ABS
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0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
27:00
28:00
29:00
30:00
31:00
32:00
S:20 w -1.058
S:21 280-123941-K-4-A 0.324
S:22 280-123941-J-5-A 0.614
S:23 AutoWash -1.048
S:24 AutoWash -1.046


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
33:00
34:00
35:00
36:00
37:00
38:00
S:25 280-123941-K-6-A 0.198
S:26 280-123941-J-7-A -0.346
S:27 280-123941-J-9-A -0.393
S:28 280-123941-K-10-A -0.678

060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:29 280-123941-J-11-A -0.579
39:00
S:30 w 5.006
40:00
S:31 CCV 280-460066/44-A 5.028
41:00
42:00
S:32 CCB 280-460066/45-A -0.439
43:00
S:33 280-123855-D-1-A -0.398
44:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:34 280-123855-C-2-A 19.507
45:00
S:35 AutoWash -0.998
46:00
S:36 AutoWash -1.046
47:00
S:37 280-123855-E-3-A -0.430
48:00
S:38 280-123855-E-3-B MS 2.527
49:00
50:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

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S:40 w -1.046 52:00

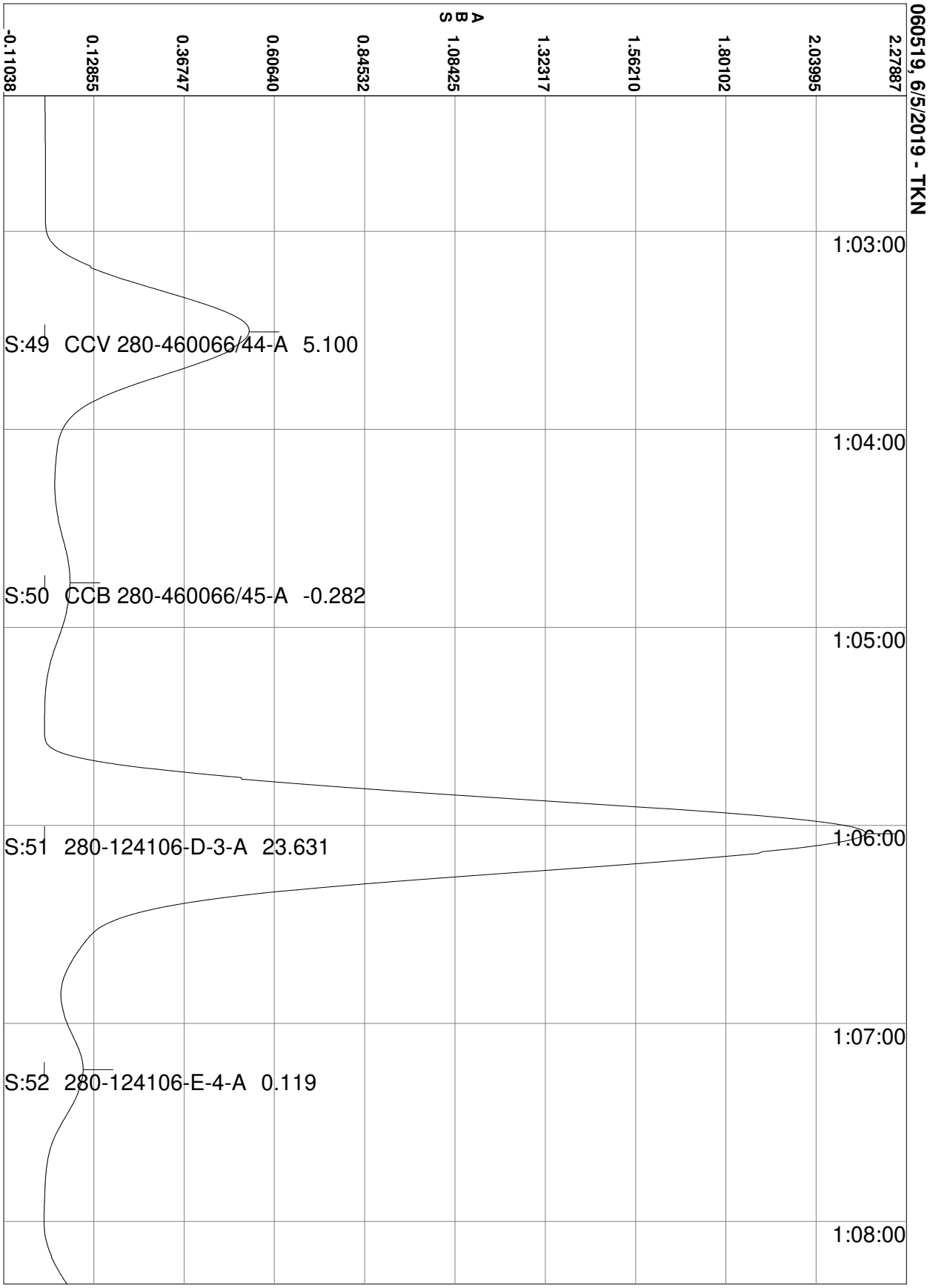
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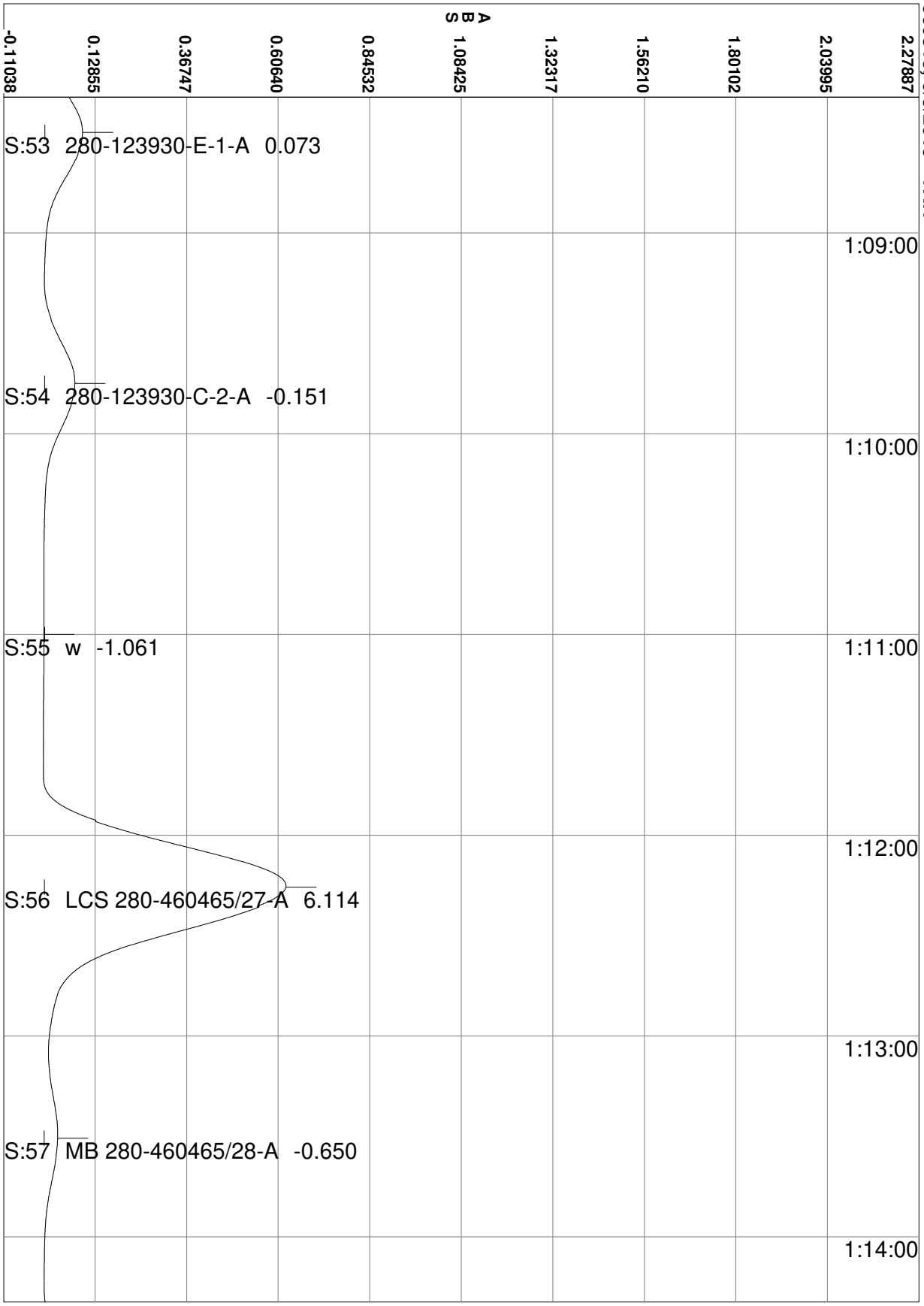
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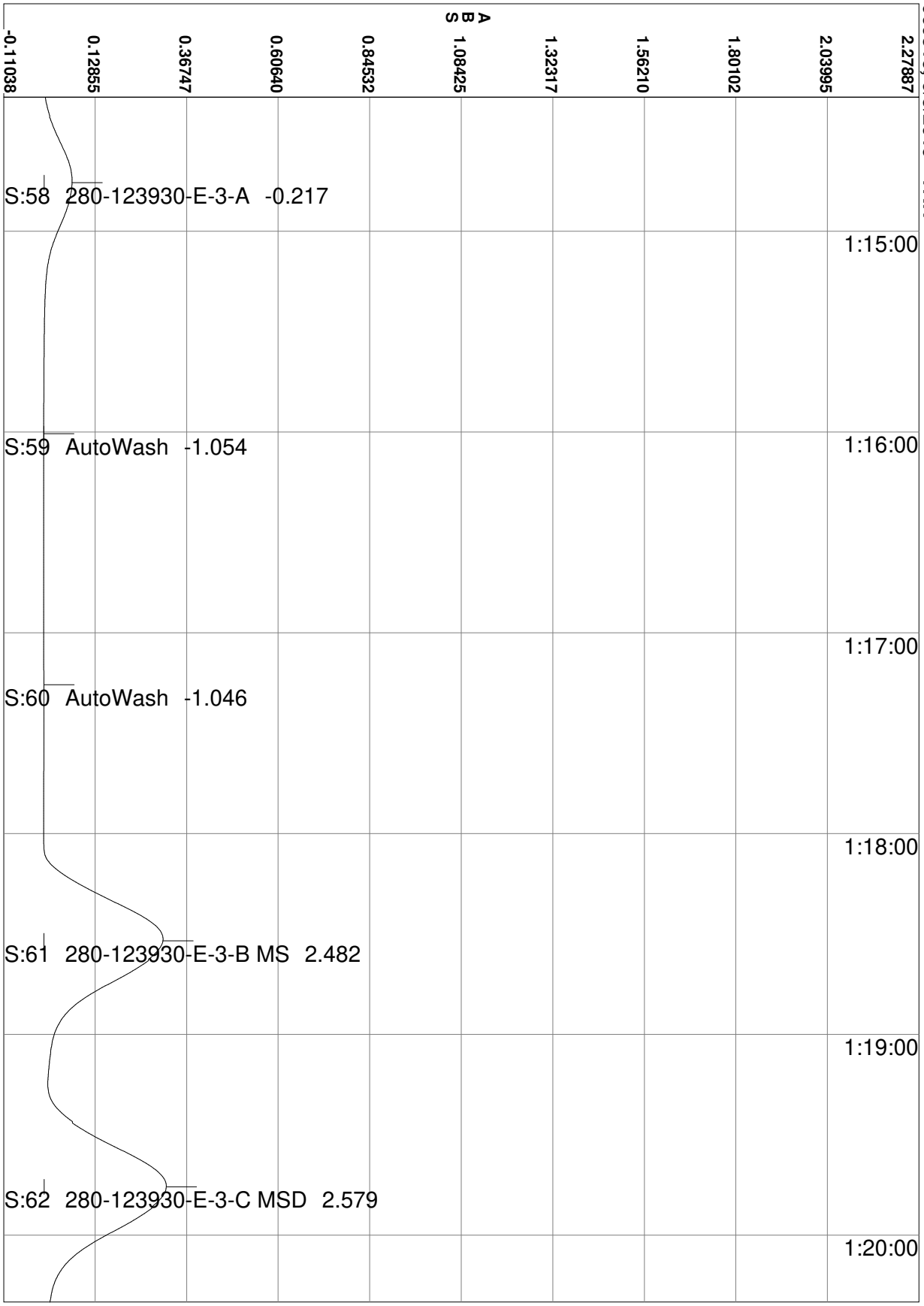
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56:00

060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
57:00
S:44 280-124106-D-1-A 2.323
58:00
S:45 280-124106-E-2-A 2.390
59:00
S:46 w -1.034
1:00:00
S:47 AutoWash -1.041
1:01:00
1:02:00
S:48 AutoWash -1.046


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
1:03:00
1:04:00
1:05:00
1:06:00
1:07:00
1:08:00
S:49 CCV 280-460066/44-A 5.100
S:50 CCB 280-460066/45-A -0.282
S:51 280-124106-D-3-A 23.631
S:52 280-124106-E-4-A 0.119


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:53 280-123930-E-1-A 0.073
S:54 280-123930-C-2-A -0.151
S:55 w -1.061
S:56 LCS 280-460465/27-A 6.114
S:57 MB 280-460465/28-A -0.650
1:09:00
1:10:00
1:11:00
1:12:00
1:13:00
1:14:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:58 280-123930-E-3-A -0.217
1:15:00
S:59 AutoWash -1.054
1:16:00
S:60 AutoWash -1.046
1:17:00
S:61 280-123930-E-3-B MS 2.482
1:18:00
S:62 280-123930-E-3-C MSD 2.579
1:19:00
1:20:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:63 LCS 280-460465/1-A 6.251 1:21:00

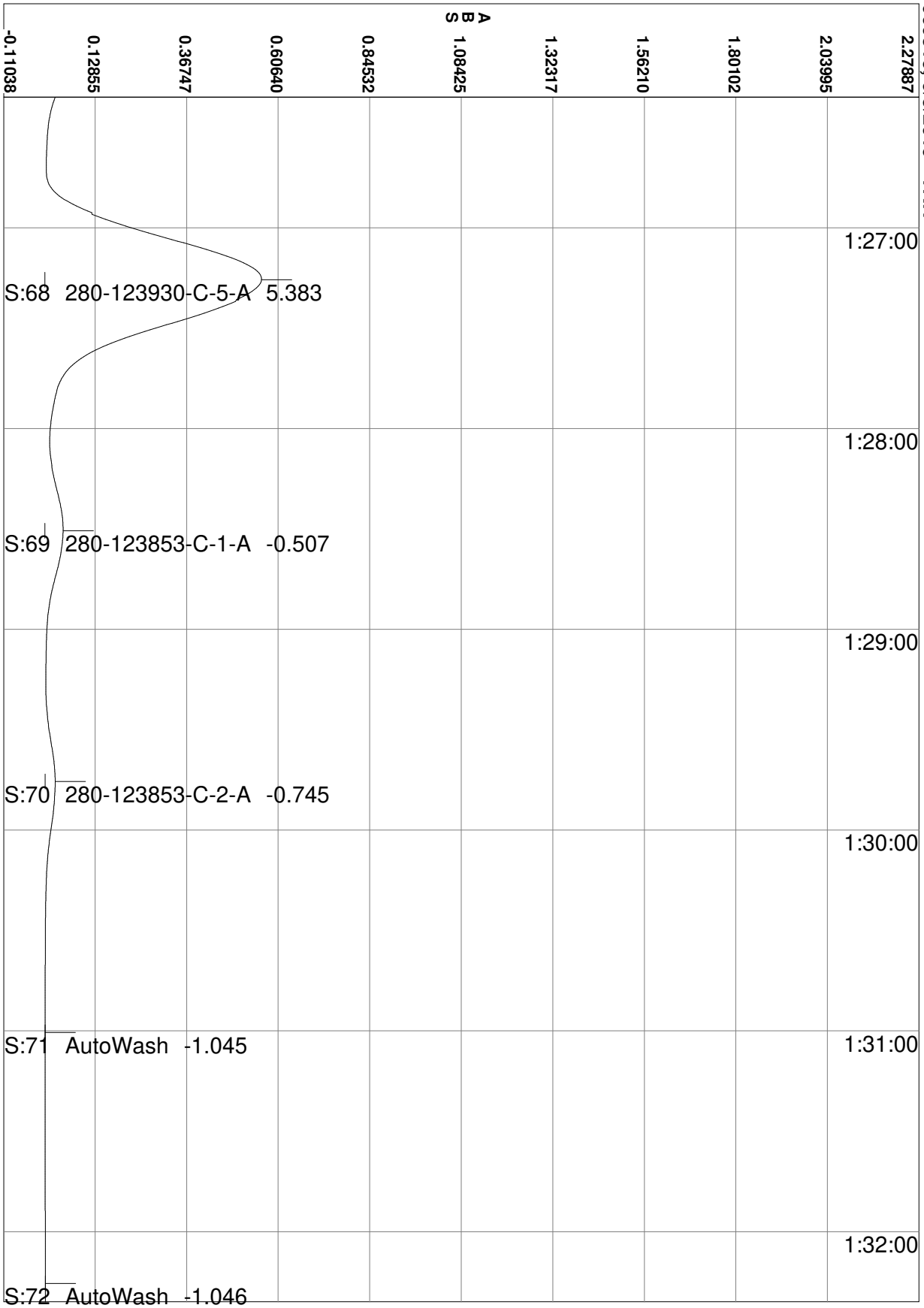
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S:65 CCV 280-460066/44-A 5.128 1:23:00

S:66 CCB 280-460066/45-A -0.436 1:24:00

S:67 280-123930-C-4-A 0.164 1:25:00

1:26:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
1:27:00
S:68 280-123930-C-5-A 5.383
1:28:00
S:69 280-123853-C-1-A -0.507
1:29:00
S:70 280-123853-C-2-A -0.745
1:30:00
S:71 AutoWash -1.045
1:31:00
1:32:00
S:72 AutoWash -1.046

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

1:33:00

S:73 280-123853-C-3-A -0.378

1:34:00

S:74 280-123853-C-4-A -0.438

1:35:00

S:75 280-123853-C-5-A -0.351

1:36:00

S:76 280-123853-C-6-A 0.016

1:37:00

1:38:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:77 280-123855-C-2-A 19.580

1:39:00

S:78 280-124106-D-3-A 29.835

1:40:00

S:79 w -1.074

1:41:00

1:42:00

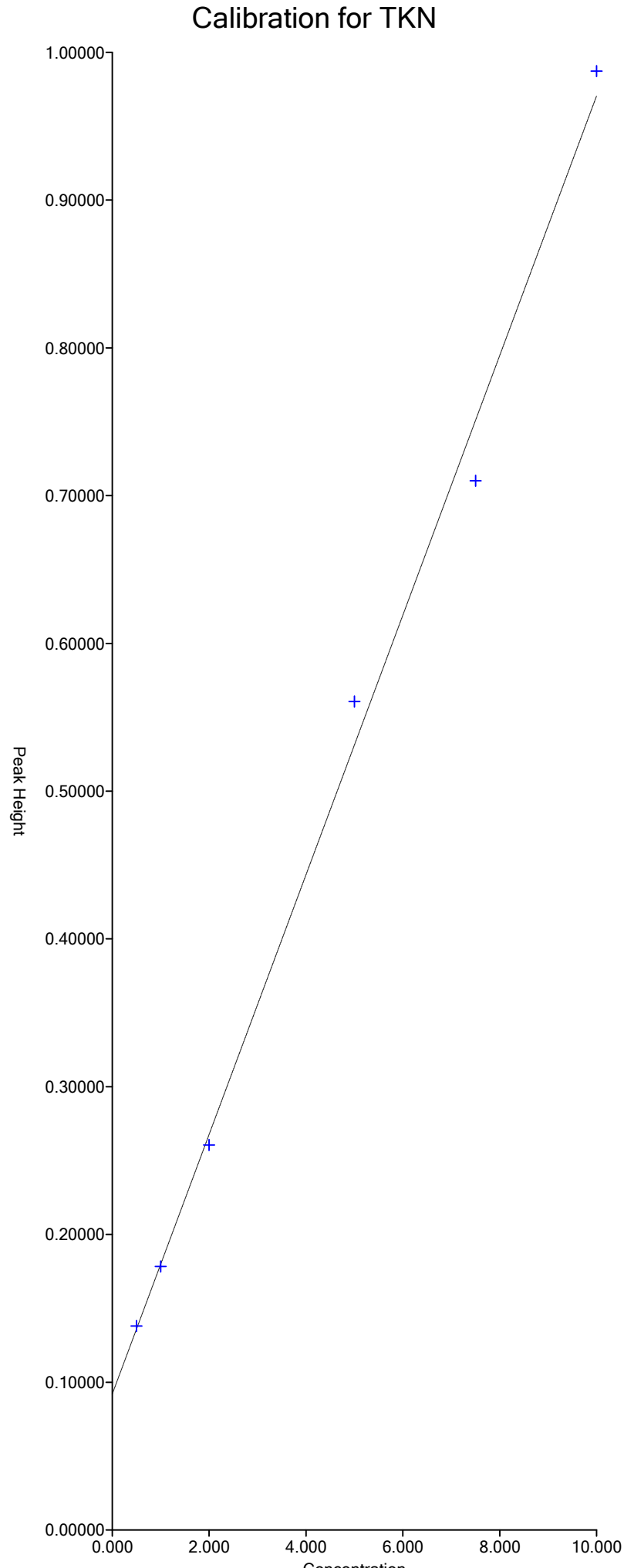
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1:43:00

S:81 CCB 280-460066/45-A -0.485

1:44:00

060519, 6/5/2019 - TKN



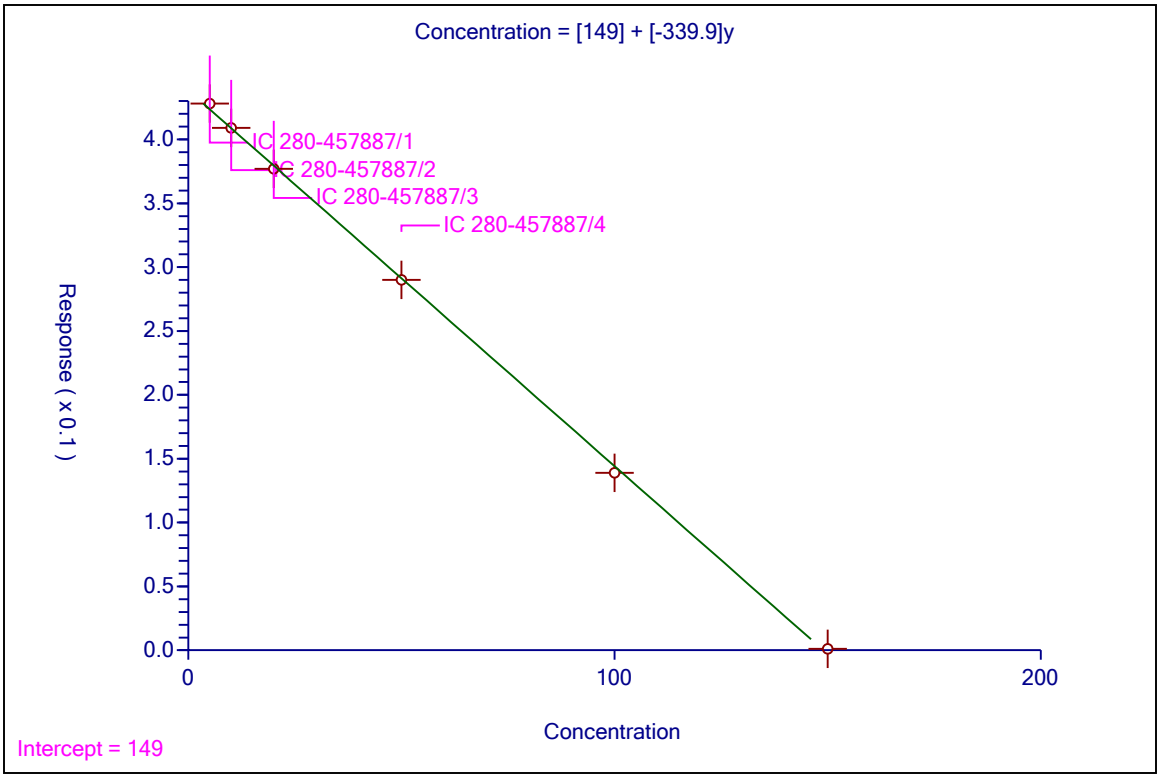
Segment 1: Equation: y = 0.08784x + 0.09185
Correlation: 0.9975
X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-457887/1	5.0	0.428			0.0856	Y
2	IC 280-457887/2	10.0	0.409			0.0409	Y
3	IC 280-457887/3	20.0	0.377			0.01885	Y
4	IC 280-457887/4	50.0	0.29			0.0058	Y
5	IC 280-457887/5	100.0	0.139			0.00139	Y
6	IC 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123027-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 16 Lab ID: **280-123027-K-1** Inj Date: 5/13/2019 7:39:00AM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.374	21.87740 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123112-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123113-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 17 Lab ID: **280-123113-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	11 J mg/L				

RS# 18 Lab ID: **280-123113-A-2** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.227	71.84270 mg/L	mg/L				

RS# 19 Lab ID: **280-123113-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 20 Lab ID: **280-123113-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.394	15.07940 mg/L	15 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90	110	

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123114-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 21 Lab ID: **280-123114-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.404	11.68040 mg/L	12 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123115-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

RS# 24 Lab ID: **280-123115-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 25 Lab ID: **280-123115-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.359	26.97590 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.148	98.69480	mg/L	mg/L	99	90	110

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	20 U mg/L				

Job Number: 280-123267-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 29 Lab ID: **280-123267-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 30 Lab ID: **280-123267-E-2** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.381	19.49810 mg/L	39 J mg/L				

RS# 31 Lab ID: **280-123267-E-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.340	33.43400 mg/L	mg/L				

RS# 32 Lab ID: **280-123267-E-4** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.061	128.2661 mg/L	mg/L				

RS# 33 Lab ID: **280-123267-B-5** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.428	3.522800 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	mg/L				

RS# 36 Lab ID: **280-123267-B-6** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	mg/L				

RS# 37 Lab ID: **280-123267-C-7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.464	-8.713600 mg/L	mg/L				

RS# 38 Lab ID: **280-123267-B-8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 39 Lab ID: **280-123267-D-9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.292	49.74920 mg/L	mg/L				

RS# 40 Lab ID: **CCV 280-457887/40** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 41 Lab ID: **CCB 280-457887/41** Inj Date: 5/13/2019 7:39:49AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123444-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 15 Lab ID: **280-123444-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

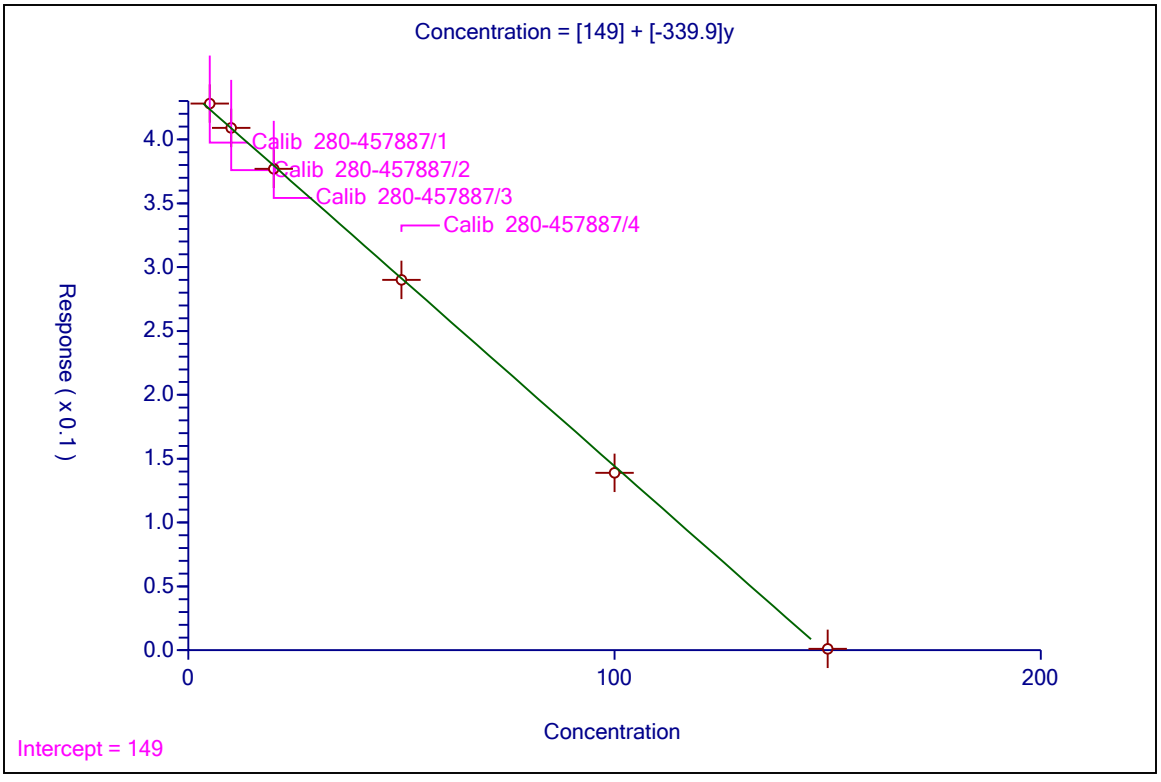
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 18 Lab ID: **280-123822-H-1** Inj Date: 6/8/2019 12:45:28PM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.390	16.43900 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123904-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 19 Lab ID: **280-123904-C-4** Inj Date: 6/8/2019 12:45:28PM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.371	22.89710 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

TALS Raw Data Report

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

Job Number: 280-123924-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	20 U mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 11 Lab ID: **280-123924-D-8** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.411	9.301100 mg/L	9.3 J mg/L				

RS# 12 Lab ID: **280-123924-E-9** Inj Date: 6/8/2019 12:45:28PM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.425	4.542500 mg/L	40 U mg/L				

RS# 13 Lab ID: **280-123924-C-10** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.237	68.44370 mg/L	mg/L				

RS# 14 Lab ID: **280-123924-E-11** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.321	39.89210 mg/L	mg/L				

RS# 15 Lab ID: **280-123924-E-12** Inj Date: 6/8/2019 12:45:28PM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.416	7.601600 mg/L	40 U mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

Job Number: 280-123930-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	20 U mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 23 Lab ID: **280-123930-D-2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.401	12.70010 mg/L	13 J mg/L				

RS# 24 Lab ID: **280-123930-C-3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.399	13.37990 mg/L	13 J mg/L				

RS# 25 Lab ID: **280-123930-D-4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.376	21.19760 mg/L	mg/L				

RS# 26 Lab ID: **280-123930-E-5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.390	16.43900 mg/L	16 J mg/L				

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123941-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 9 Lab ID: **280-123941-K-10** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	mg/L				

RS# 10 Lab ID: **280-123941-J-11** Inj Date: 6/8/2019 12:45:28PM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123945-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 27 Lab ID: **280-123945-G-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.350	30.03500 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

TALS Raw Data Report

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123947-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 30 Lab ID: **280-123947-B-2** Inj Date: 6/8/2019 12:45:28PM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.248	64.70480 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-460943/34** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-460943/35** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.451	-4.294900 mg/L	mg/L				

Job Number: 280-123972-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 32 Lab ID: **280-123972-B-1** Inj Date: 6/8/2019 12:50:52PM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	<-0.100	mg/L	mg/L				

RS# 33 Lab ID: **280-123972-B-2** Inj Date: 6/8/2019 12:50:52PM Dil: 10.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	<-0.100	mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-460943/34** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-460943/35** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.451	-4.294900 mg/L	mg/L				

Job Number: 280-124097-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 31 Lab ID: **280-124097-B-1** Inj Date: 6/8/2019 12:50:52PM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.423	5.222300 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-460943/34** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-460943/35** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.451	-4.294900 mg/L	mg/L				

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060919.RST
Sample table path	C:\FLOW_4\p060919.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	09-Jun-19
Time acquired	18:03

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
09-Jun-19	14:31	106	Sync	1286675	495.238	
09-Jun-19	14:34	0	Carryover	11097	0.792	
09-Jun-19	14:37	0	Carryover	2488	-2.651	LO
09-Jun-19	14:40	0	Read Baseline	-60	-3.671	BL
09-Jun-19	14:43	101	Cal 10.0 ppb	35673	10.614	
09-Jun-19	14:46	102	Cal 20.0 ppb	66664	22.983	
09-Jun-19	14:49	103	Cal 50.0 ppb	139083	51.814	
09-Jun-19	14:52	104	Cal 100 ppb	257194	98.619	
09-Jun-19	14:55	105	Cal 200 ppb	514138	199.516	
09-Jun-19	14:58	106	Cal 500 ppb	1299636	500.102	
09-Jun-19	15:01	0	Blank	-4059	-5.270	LO
09-Jun-19	15:04	0	Read Baseline	-1486	-4.241	BL
09-Jun-19	15:07	107	ICV 200 ppb	527062	204.558	
09-Jun-19	15:10	109	ICVL 100 ppb	273931	105.230	
09-Jun-19	15:13	0	ICB	-7526	-6.658	LO
09-Jun-19	15:16	0	Read Baseline	-9964	-7.634	BL
09-Jun-19	15:19	113	LCS 280-460948/1-A	503270	195.274	
09-Jun-19	15:22	114	MB 280-460948/2-A	23187	5.625	
09-Jun-19	15:25	115	580-86264-A-1-A	126009	46.616	
09-Jun-19	15:28	116	280-123922-G-1-A	19122	4.001	
09-Jun-19	15:31	117	280-123922-G-2-A	22395	5.309	
09-Jun-19	15:34	118	280-123922-G-3-A	26468	6.936	
09-Jun-19	15:37	119	280-123924-C-11-B	26906	7.112	
09-Jun-19	15:40	120	280-123924-D-12-B	32525	9.356	
09-Jun-19	15:43	121	280-123930-E-1-B	32281	9.259	
09-Jun-19	15:46	122	280-123930-C-2-B	36952	11.125	
09-Jun-19	15:49	0	Blank	1032	-3.233	LO
09-Jun-19	15:52	0	Read Baseline	1257	-3.144	BL
09-Jun-19	15:55	108	CCV 200 ppb	507380	196.879	
09-Jun-19	15:58	104	CCVL 100 ppb	266960	102.477	
09-Jun-19	16:01	0	CCB	978	-3.255	LO
09-Jun-19	16:04	0	Read Baseline	-1565	-4.272	BL
09-Jun-19	16:07	123	280-123930-E-3-D	40305	12.464	
09-Jun-19	16:10	124	280-123930-C-4-B	45657	14.601	
09-Jun-19	16:13	125	280-123930-C-4-C MS	504321	195.685	
09-Jun-19	16:16	126	280-123930-C-4-D MSD	578971	224.775	
09-Jun-19	16:19	127	280-123930-C-5-B	28732	7.841	
09-Jun-19	16:22	128	280-124038-J-1-A	3136935	1156.889	HI
09-Jun-19	16:25	129	280-124038-H-2-A	2881047	1069.303	HI
09-Jun-19	16:28	130	280-124038-I-3-A	205172	78.037	FL
09-Jun-19	16:31	131	280-124038-H-4-A	2466305	924.672	HI
09-Jun-19	16:34	132	280-124270-B-4-A	84415	30.059	FL

Result path C:\FLOW_4\P060919.RST
Sample table path C:\FLOW_4\p060919.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 09-Jun-19
Time acquired 18:03

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
09-Jun-19	16:37	0	Blank	8885	-0.092	LO
09-Jun-19	16:40	0	Read Baseline	-3067	-4.874	BL
09-Jun-19	16:43	108	CCV 200 ppb	535374	207.799	
09-Jun-19	16:46	104	CCVL 100 ppb	265862	102.044	
09-Jun-19	16:49	0	CCB	-7354	-6.589	LO
09-Jun-19	16:52	0	Read Baseline	-3460	-5.031	BL
09-Jun-19	16:55	133	280-124270-D-5-A	31369	8.895	
09-Jun-19	16:58	134	280-124270-D-6-A	24051	5.971	
09-Jun-19	17:01	135	280-124270-D-7-A	16361	2.897	
09-Jun-19	17:04	136	280-124270-D-7-B MS	455013	176.412	
09-Jun-19	17:07	137	280-124270-D-7-C MSD	474218	183.924	
09-Jun-19	17:10	138	280-124151-D-1-D	1671891	638.412	HI
09-Jun-19	17:13	139	LCS 280-460949/1-A	624498	242.463	FL
09-Jun-19	17:16	140	MB 280-460949/2-A	41960	13.124	FL
09-Jun-19	17:19	141	280-124151-C-2-A	4839752	1707.698	HI
09-Jun-19	17:22	142	280-124151-C-2-B MS	4693343	1662.528	HI
09-Jun-19	17:25	0	Blank	143187	53.445	
09-Jun-19	17:28	0	Read Baseline	642	-3.389	BL
09-Jun-19	17:31	108	CCV 200 ppb	506469	196.524	
09-Jun-19	17:34	104	CCVL 100 ppb	256793	98.461	
09-Jun-19	17:37	0	CCB	-12183	-8.522	LO
09-Jun-19	17:40	0	Read Baseline	-23526	-13.064	BL
09-Jun-19	17:43	143	280-124151-C-2-C MSD	4712803	1668.555	HI
09-Jun-19	17:46	144	280-124151-D-3-A	407321	157.725	FL
09-Jun-19	17:49	145	280-124151-D-4-A	4072925	1466.547	HI
09-Jun-19	17:52	146	280-124151-D-6-A	4293156	1536.962	HI
09-Jun-19	17:57	147	280-124038-J-1-A	925282	1791.633	
09-Jun-19	18:00	148	280-124038-H-2-A	n/m	n/m	n/m
09-Jun-19	18:03	149	280-124038-I-3-A	n/m	n/m	n/m

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060919.RST
Date: 09-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1286675	495.238159	
2	0	Carryover	1	CO	1	1	11097	0.792235	
3	0	Carryover	2	CO	1	1	2488	-2.650863	LO
B	0	Read Baseline	1	RB	1	1	-60	-3.670604	BL
5	101	Cal 10.0 ppb	1	C	1	1	35673	10.613757	
6	102	Cal 20.0 ppb	1	C	1	1	66664	22.982763	
7	103	Cal 50.0 ppb	1	C	1	1	139083	51.813549	
8	104	Cal 100 ppb	1	C	1	1	257194	98.619263	
9	105	Cal 200 ppb	1	C	1	1	514138	199.516449	
10	106	Cal 500 ppb	1	C	1	1	1299636	500.101685	
11	0	Blank	1	BLNK	1	1	-4059	-5.270422	LO
B	0	Read Baseline	1	RB	1	1	-1486	-4.240927	BL
13	107	ICV 200 ppb	1	U	1	1	527062	204.558014	
14	109	ICVL 100 ppb	1	U	1	1	273931	105.230148	
15	0	ICB	1	U	1	1	-7526	-6.657990	LO
B	0	Read Baseline	1	RB	1	1	-9964	-7.633920	BL
17	113	LCS 280-460948/1-A 1	U		1	1	503270	195.274353	
18	114	MB 280-460948/2-A 1	U		1	1	23187	5.625281	
19	115	580-86264-A-1-A 1	U		1	1	126009	46.616154	
20	116	280-123922-G-1-A 1	U		1	1	19122	4.000751	
21	117	280-123922-G-2-A 1	U		1	1	22395	5.308970	
22	118	280-123922-G-3-A 1	U		1	1	26468	6.936482	
23	119	280-123924-C-11-B 1	U		1	1	26906	7.111565	
24	120	280-123924-D-12-B 1	U		1	1	32525	9.356362	
25	121	280-123930-E-1-B 1	U		1	1	32281	9.258766	
26	122	280-123930-C-2-B 1	U		1	1	36952	11.124533	
27	0	Blank	1	BLNK	1	1	1032	-3.233443	LO
B	0	Read Baseline	1	RB	1	1	1257	-3.143666	BL
29	108	CCV 200 ppb	1	CCV	1	1	507380	196.879089	
30	104	CCVL 100 ppb	1	U	1	1	266960	102.477127	
31	0	CCB	1	U	1	1	978	-3.255191	LO
B	0	Read Baseline	1	RB	1	1	-1565	-4.272460	BL
33	123	280-123930-E-3-D 1	U		1	1	40305	12.463752	
34	124	280-123930-C-4-B 1	U		1	1	45657	14.600732	
35	125	280-123930-C-4-C MS 1	U		1	1	504321	195.684738	
36	126	280-123930-C-4-D MSD 1	U		1	1	578971	224.774826	
37	127	280-123930-C-5-B 1	U		1	1	28732	7.840890	
38	128	280-124038-J-1-A 1	U		1	1	3136935	1156.889160	HI
39	129	280-124038-H-2-A 1	U		1	1	2881047	1069.302734	HI
40	130	280-124038-I-3-A 1	U		1	1	205172	78.036606	FL
41	131	280-124038-H-4-A 1	U		1	1	2466305	924.671631	HI
42	132	280-124270-D-4-A 1	U		1	1	84415	30.058987	FL
43	0	Blank	1	BLNK	1	1	8885	-0.092288	LO
B	0	Read Baseline	1	RB	1	1	-3067	-4.873619	BL
45	108	CCV 200 ppb	1	CCV	1	1	535374	207.798599	
46	104	CCVL 100 ppb	1	U	1	1	265862	102.043587	
47	0	CCB	1	U	1	1	-7354	-6.589145	LO
B	0	Read Baseline	1	RB	1	1	-3460	-5.030814	BL
49	133	280-124270-D-5-A 1	U		1	1	31369	8.894743	
50	134	280-124270-D-6-A 1	U		1	1	24051	5.970714	
51	135	280-124270-D-7-A 1	U		1	1	16361	2.896896	
52	136	280-124270-D-7-B MS 1	U		1	1	455013	176.411545	
53	137	280-124270-D-7-C MSD 1	U		1	1	474218	183.923676	
54	138	280-124151-D-1-D 1	U		1	1	1671891	638.411926	HI
55	139	LCS 280-460949/1-A 1	U		1	1	624498	242.463379	FL
56	140	MB 280-460949/2-A 1	U		1	1	41960	13.124446	FL
57	141	280-124151-C-2-A 1	U		1	1	4839752	1707.697876	HI
58	142	280-124151-C-2-B MS 1	U		1	1	4693343	1662.527832	HI
59	0	Blank	1	BLNK	1	1	143187	53.444538	
B	0	Read Baseline	1	RB	1	1	642	-3.389388	BL
61	108	CCV 200 ppb	1	CCV	1	1	506469	196.523514	
62	104	CCVL 100 ppb	1	U	1	1	256793	98.460831	
63	0	CCB	1	U	1	1	-12183	-8.522326	LO
B	0	Read Baseline	1	RB	1	1	-23526	-13.064279	BL
65	143	280-124151-C-2-C MSD 1	U		1	1	4712803	1668.555298	HI
66	144	280-124151-D-3-A 1	U		1	1	407321	157.725357	FL
67	145	280-124151-D-4-A 1	U		1	1	4072925	1466.547241	HI
68	146	280-124151-D-6-A 1	U		1	1	4293156	1536.961670	HI
69	147	280-124038-J-1-A 1	U		5	1	925282	1791.633179	

Phenols, Total:Calibration 1: Peak 5-71

File name: C:\FLOW_4\P060919.RST
Date: 09-Jun-19
Operator: AM

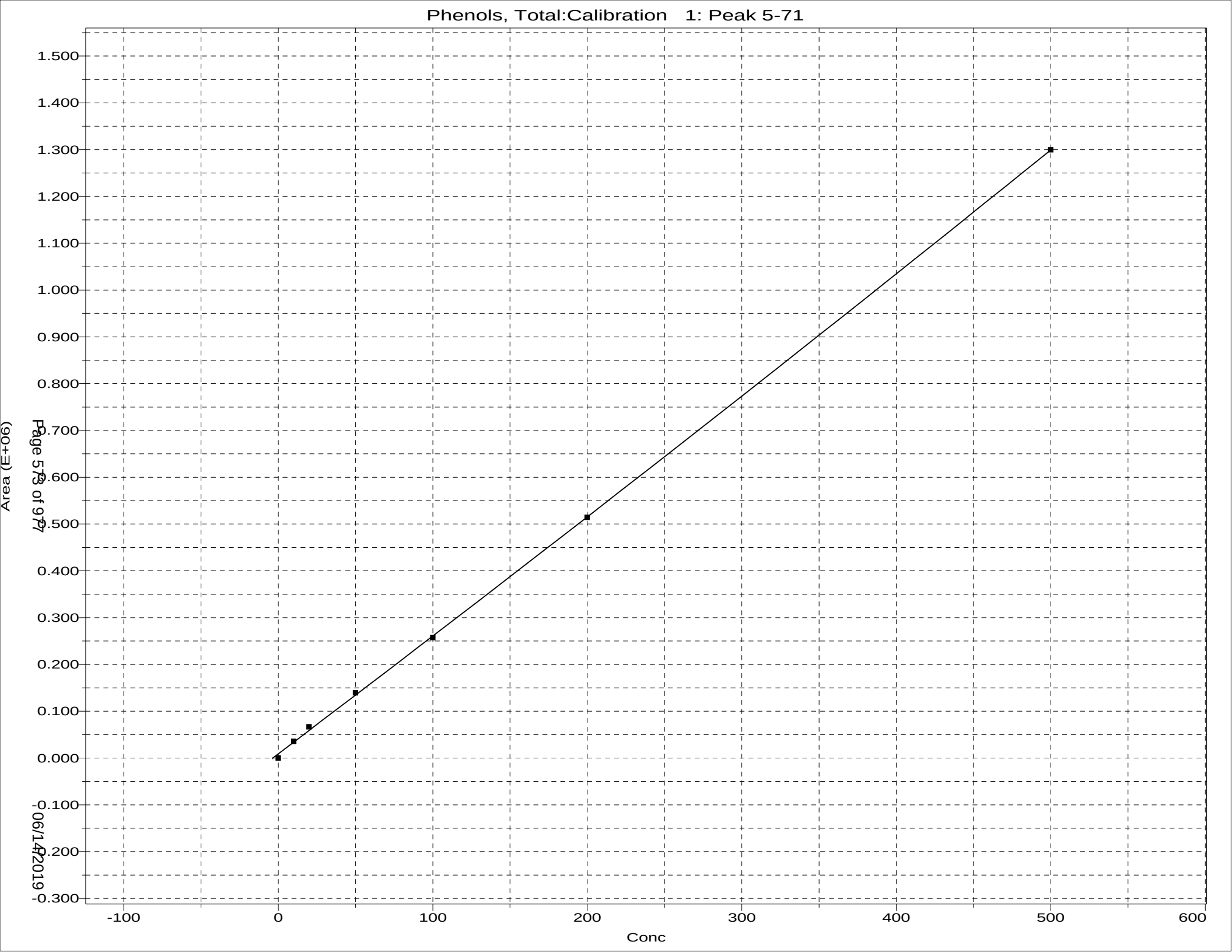
*	Name	Conc	Area
*	Cal 10.0 ppb	10.000000	35672.828125
*	Cal 20.0 ppb	20.000000	66664.453125
*	Cal 50.0 ppb	50.000000	139082.750000
*	Cal 100 ppb	100.000000	257194.125000
*	Cal 200 ppb	200.000000	514138.000000
*	Cal 500 ppb	500.000000	1299635.875000

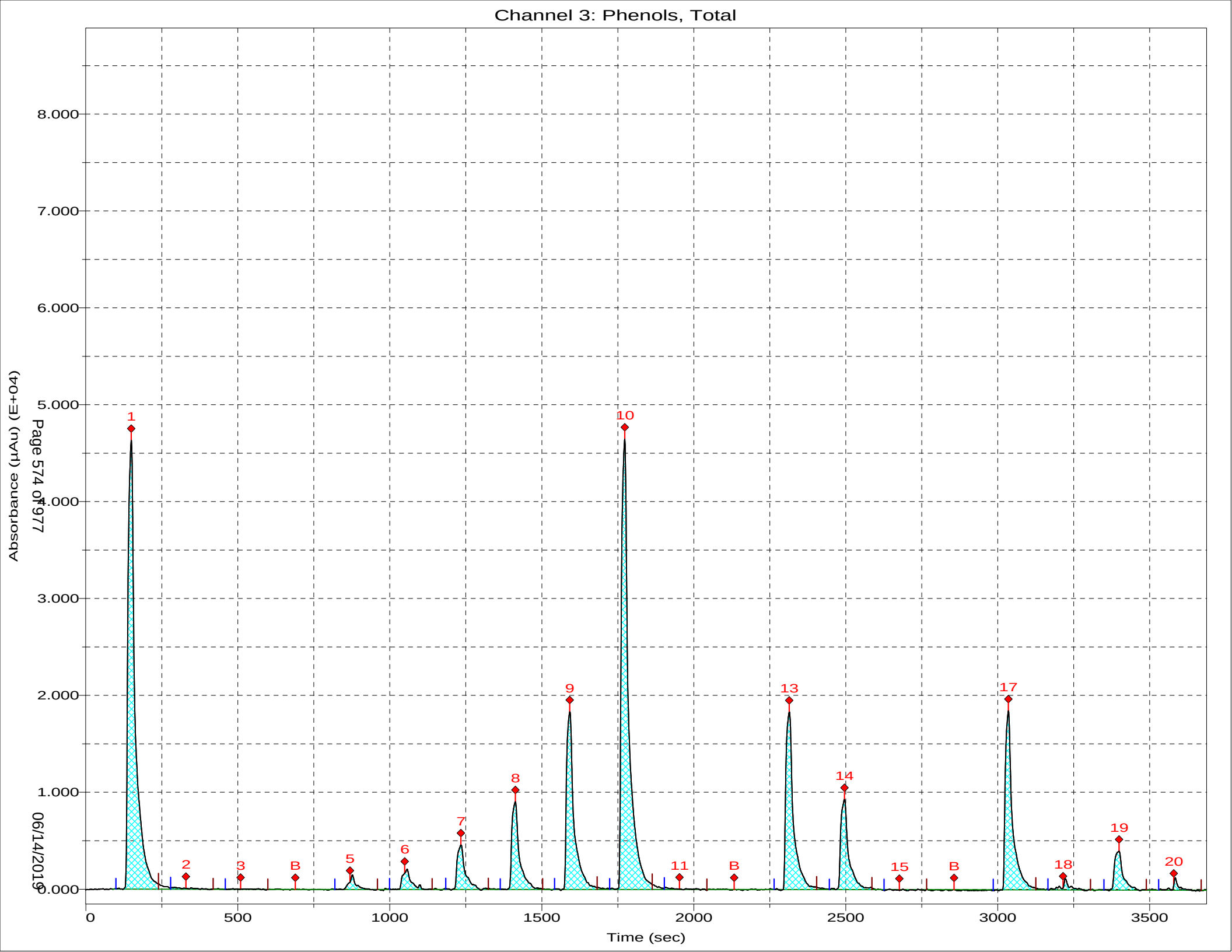
Calib Coef:
x=cyy+by+a
a: (intercept) -3.6464e+00
b: 4.0009e-04
c: -9.6058e-12

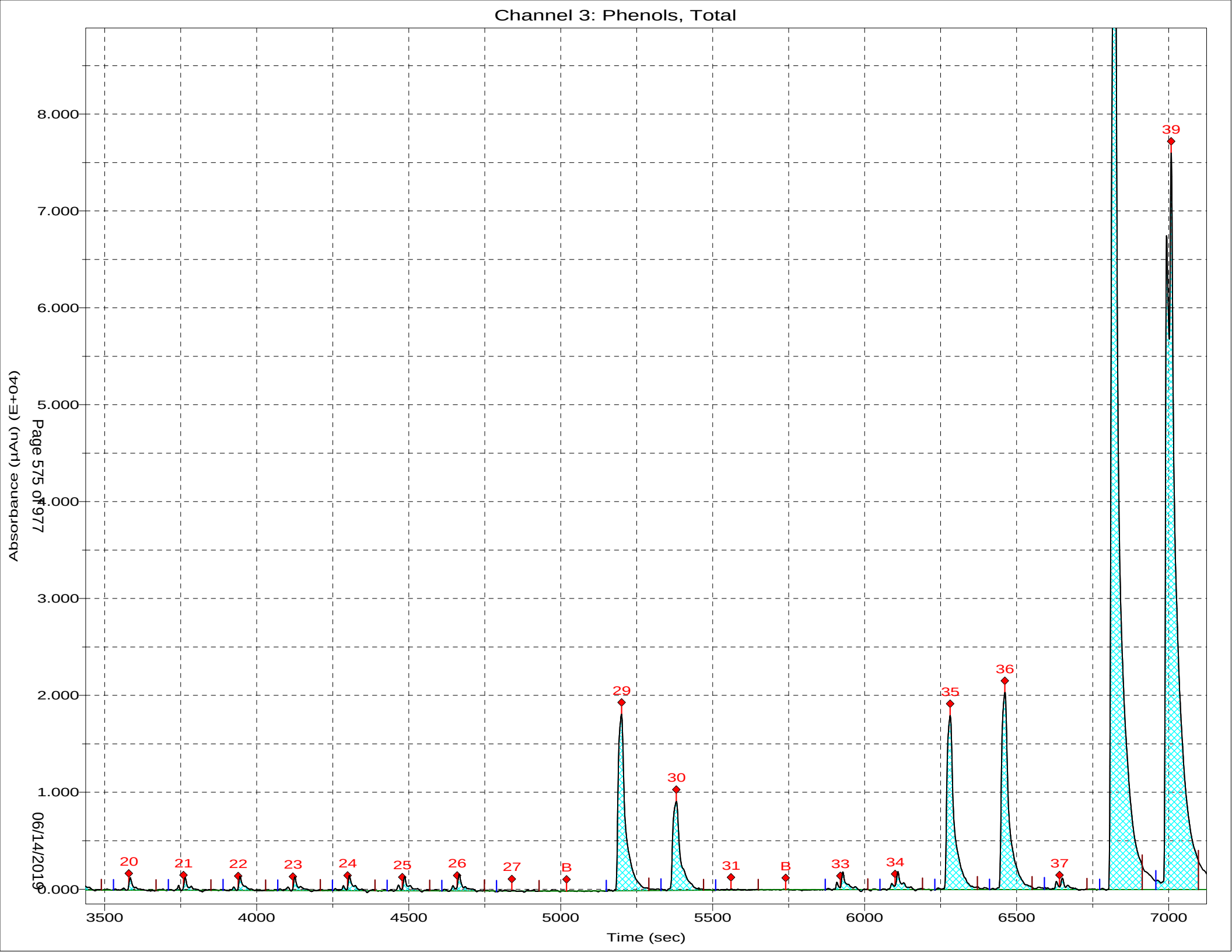
Corr Coef: 0.999927

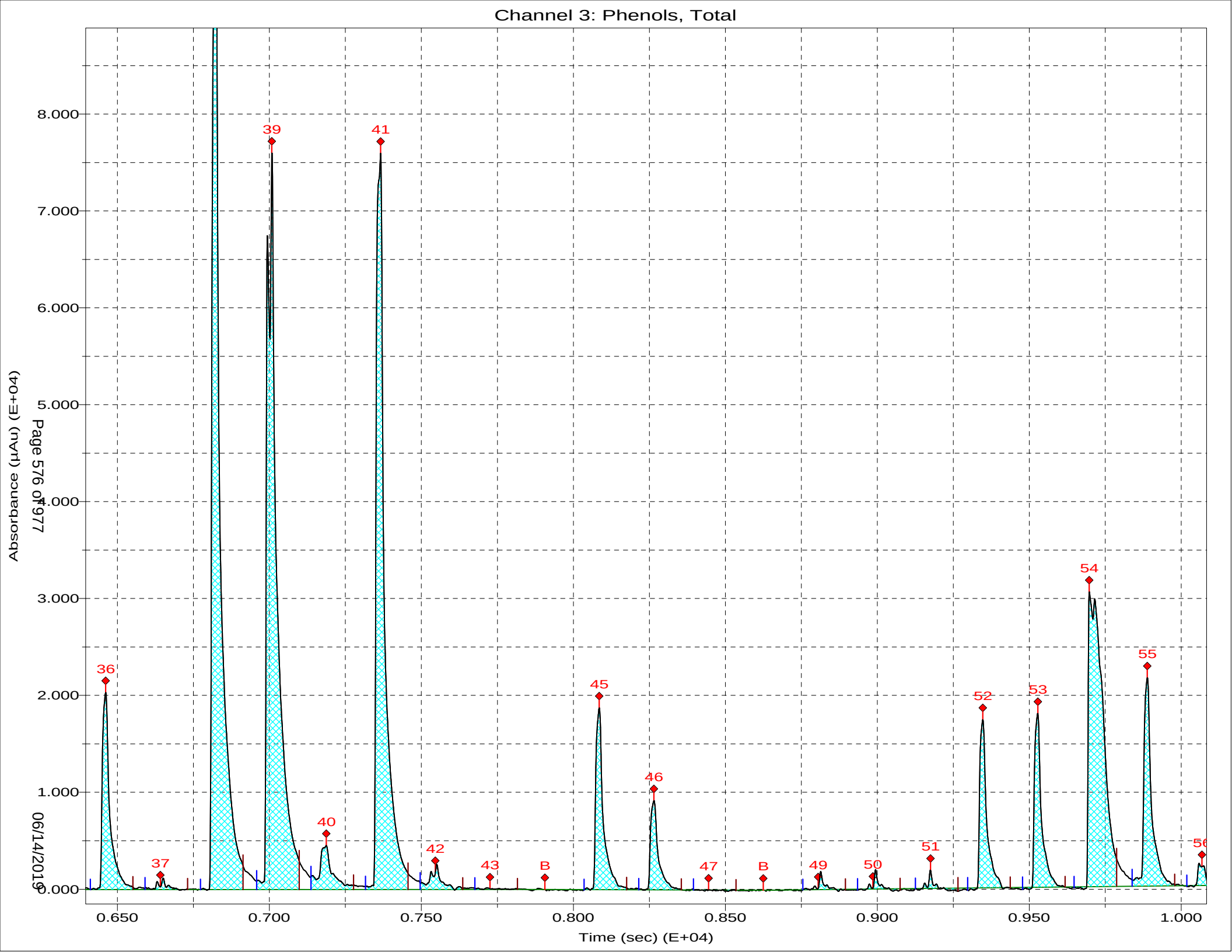
Carryover: 0.862%

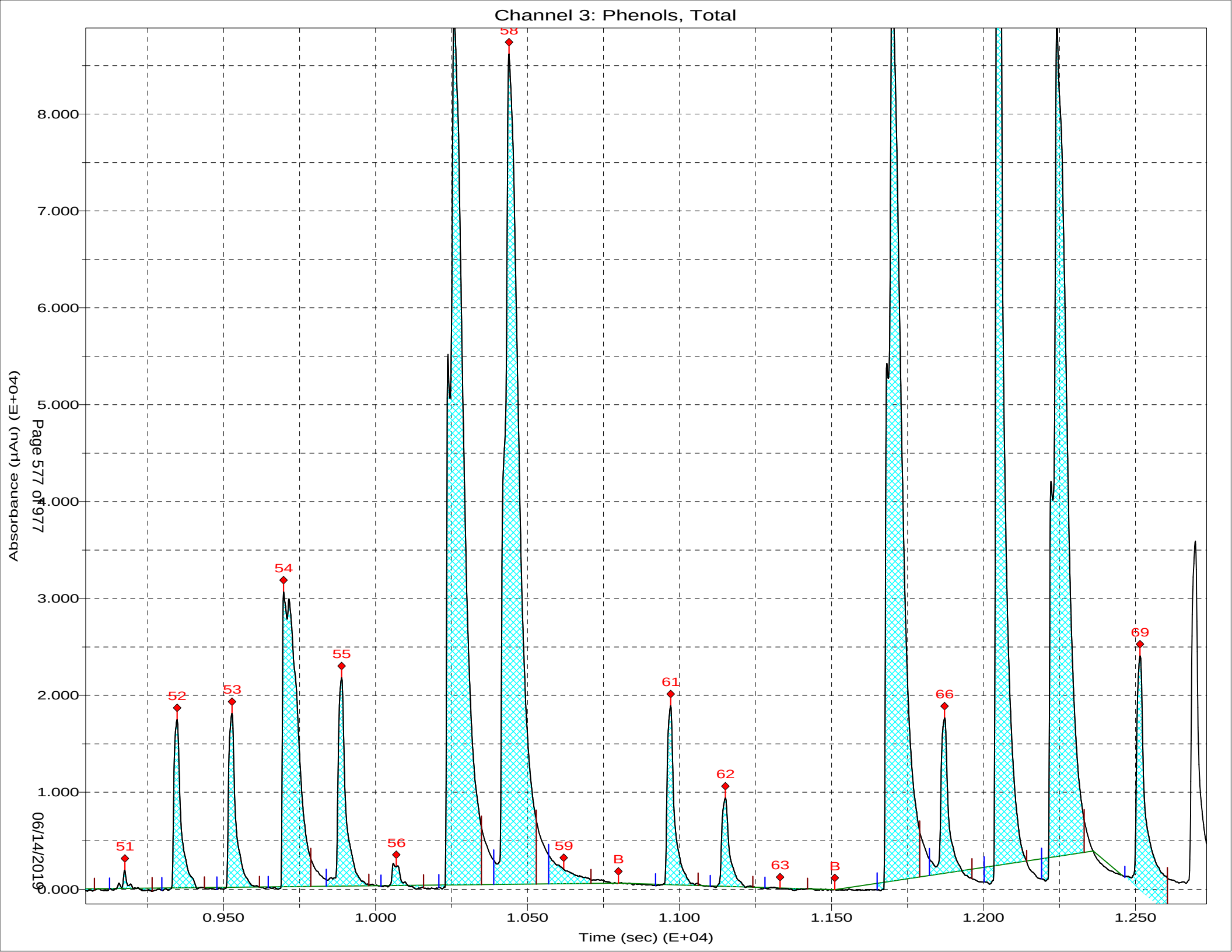
No Drift Peaks


Phenols, Total:Calibration 1: Peak 5-71
Area (E+06)
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-0.300
-100
0
100
200
300
400
500
600
Conc


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Page 574 of 977
06/14/2019
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
20
0
500
1000
1500
2000
2500
3000
3500
Time (sec)


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Page 575 of 977
06/14/2019
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37
39
3500
4000
4500
5000
5500
6000
6500
7000
Time (sec)


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
0.650
0.700
0.750
0.800
0.850
0.900
0.950
1.000
36
37
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55
56
Page 576 of 977
06/14/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
0.950
1.000
1.050
1.100
1.150
1.200
1.250
Time (sec) (E+04)
51
52
53
54
55
56
58
59
B
61
62
63
B
66
69
Page 577 of 977
06/14/2019

Color Bench Sheet

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Analyst: CKB	Batch #: 458642	SOP: DV-WC-0058 SM 2120B
Date: 5/17/19		

Calibration Standard TALS ID: COLOR STD_00018 1.0 N HCl TALS ID: N/A

1.0 N NaOH TALS ID: N/A

Sample ID	pH	Observed Color	Dilution Factor	Sample Centrifuged?	Final Color
Method Blank	7	<5	N/A	Yes (No)	ND
280-123924-I-1	7	15	N/A	Yes (No)	15
DU " " " "	7	15	N/A	Yes (No)	15
280-123924-I-2	7	5	N/A	Yes (No)	5
280-123924-I-3	7	10	N/A	Yes (No)	10
280-123924-J-4	7	15	5X	Yes (No)	75
280-123924-J-5	7	<5	N/A	Yes (No)	ND
280-123924-H-6	7	<5	N/A	Yes (No)	ND
280-123924-H-7	7	25	N/A	Yes (No)	25
280-123924-J-8	7	30	N/A	Yes (No)	30
280-123924-J-9	7	30	N/A	Yes (No)	30
280-123924-H-10	7	50	N/A	Yes (No)	50
280-123924-J-11	7	40	N/A	Yes (No)	40
DU " " " "	7	40	N/A	Yes (No)	40
280-123924-I-12	7	30	N/A	Yes (No)	30
280-123922-J-1	7	10	10X	Yes (No)	100
280-123922-H-2	7	15	10X	Yes (No)	150
280-123922-J-3	7	20	10X	Yes (No)	200
280-123930-H-1	7	5	10X	Yes (No)	50
280-123930-J-2	7	20	N/A	Yes (No)	20
280-123930-H-3	7	20	N/A	Yes (No)	20
280-123930-J-4	7	20	10X	Yes (No)	200
280-123930-I-5	7	25	N/A		25

Comments: _____

HARDNESS BY TITRATION -- Method 2340C

Analyst:	KS	**Titration Solutions**		**SOP Information:**	**Rep. / Detection Limits**
Date:	5/24/2019	Solution 1:	EDTA	Number: DV-WC-0060	MDL (mg/L) 1.3
Time:	15:29	ID #	_00090	Revision: 4	RL (mg/L) 5
Batch No.:	459401	Source:	RICCA	**Calibration Information**	Spike Concentrations:
		Normality:	0.01966	Std# Hard 00051	LCS Spike Vol (mL) 10
Pipette Verification				Made By: LabChem	MS Spike Vol (mL) 10
at 5 mL:	4.93 g			Concentration (mg/L): 1000	LCS conc. (mg/L) 1000.0
Brinkmann bottletop				Exp: 6/13/20	MS conc (mg/L) 1000.0
Buret 50					

Sample ID	Sample pH	Sample Volume	Buret Start	Buret Stop	Flags	Final mL	Sample Conc mg/L	Prep D.F.	Analyt. D.F.	Final Conc mg/L	Titrant TV
titrant stdz	7	10	0.00	10.27		10.27	1009.425	1	1	1009.42	0.01947
titrant stdz	7	10	0.00	10.08		10.08	990.750	1	1	990.75	0.01984

Buffer:	Hardness Buffer 00009	Exp:	7 15 2019
Calmagite Indicator:	0289-11_00008	Exp:	12 31 2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 02-May-2019 10:21:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:57 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.067	-0.025	366785	0.2000	0.3377	
2 Chloride	3.609	3.634	-0.025	2749324	1.00	1.24	
3 Nitrite as N	4.384	4.392	-0.008	1221417	NC	NC	
4 Bromide	5.300	5.300	0.000	261279	0.2000	0.2109	
5 Nitrate as N	6.009	5.992	0.017	1512184	NC	NC	
7 Orthophosphate as P	7.867	7.825	0.042	525912	NC	NC	
6 Sulfate	8.925	8.950	-0.025	2110627	1.00	1.15	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

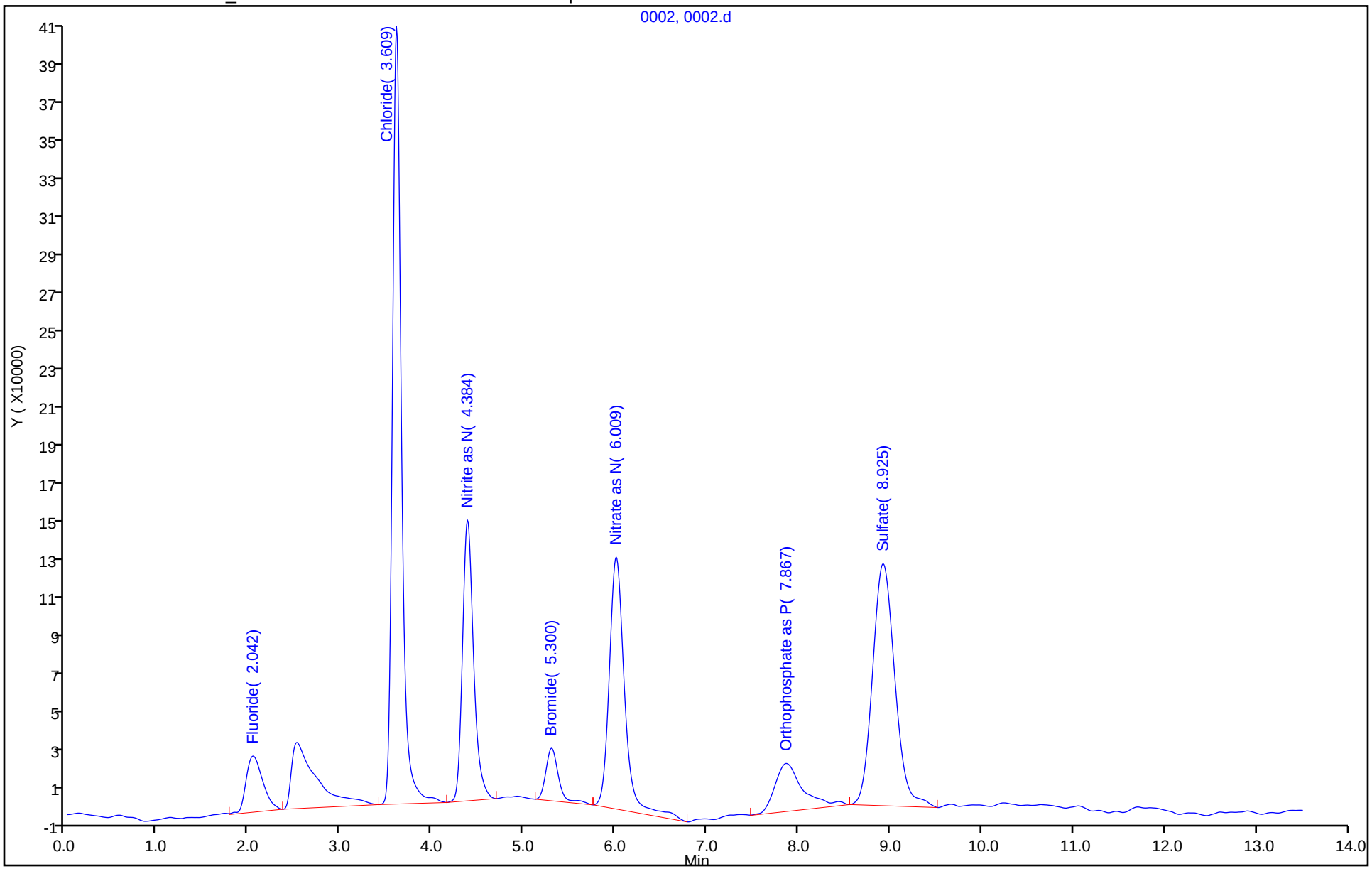
IC Cal low_00455 Amount Added: 0.02 Units: mL
IC CAL cl/so4_00254 Amount Added: 0.02 Units: mL

Report Date: 03-May-2019 07:54:57 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0002.d

Injection Date:	02-May-2019 10:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 02-May-2019 10:38:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:58 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.067	-0.033	372666	0.5000	0.3503	
2 Chloride	3.617	3.634	-0.017	6899153	2.50	2.37	
3 Nitrite as N	4.392	4.392	0.000	3131988	NC	NC	
4 Bromide	5.309	5.300	0.009	625822	0.5000	0.4928	
5 Nitrate as N	6.017	5.992	0.025	3555588	NC	NC	
7 Orthophosphate as P	7.859	7.825	0.034	1108069	NC	NC	
6 Sulfate	8.934	8.950	-0.016	5251435	2.50	2.41	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

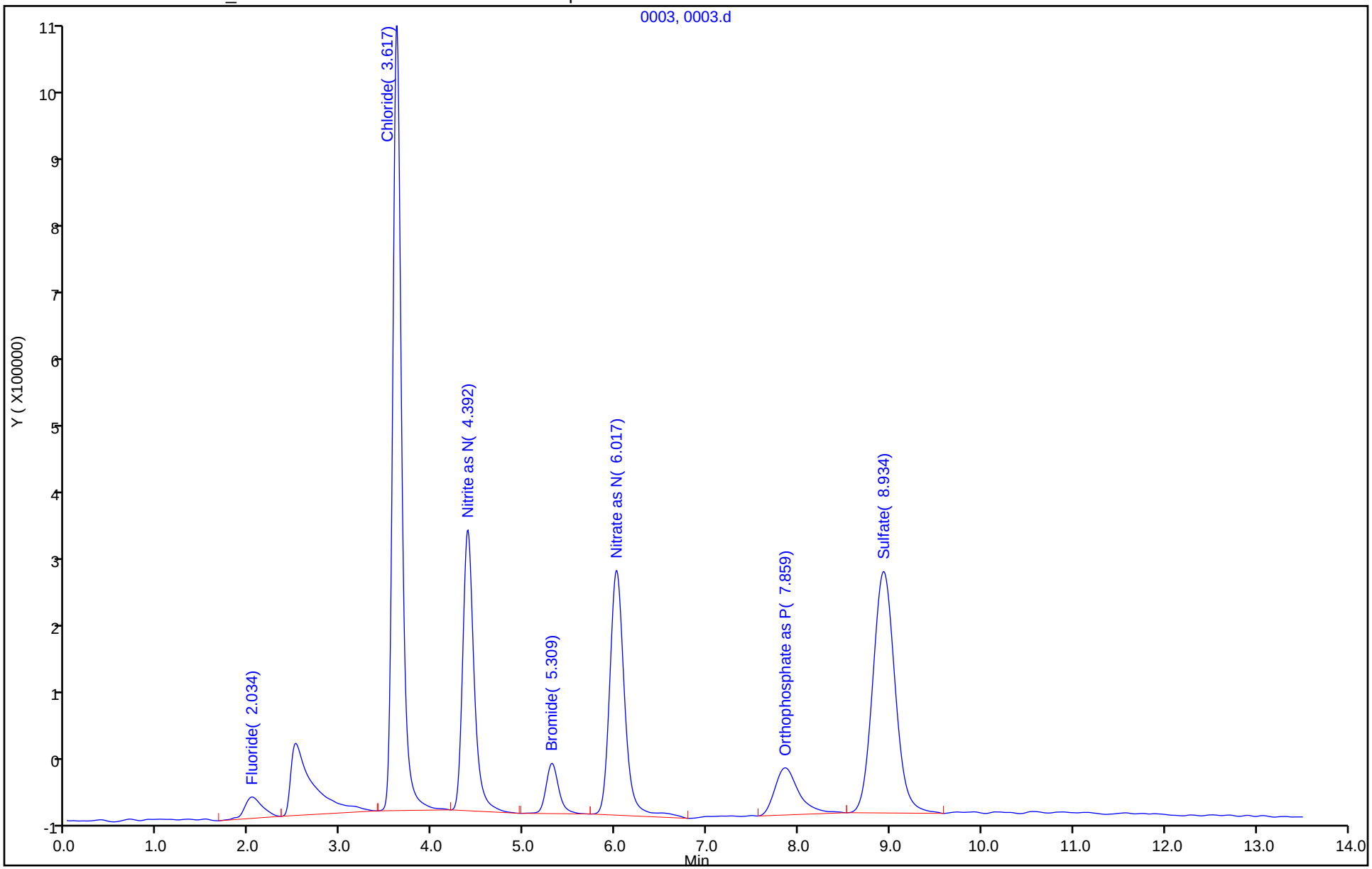
IC Cal low_00455 Amount Added: 0.05 Units: mL
IC CAL cl/so4_00254 Amount Added: 0.05 Units: mL

Report Date: 03-May-2019 07:54:58 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0003.d

Injection Date:	02-May-2019 10:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 02-May-2019 10:54:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:58 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.067	-0.050	495441	1.00	0.6135	
2 Chloride	3.617	3.634	-0.017	14033483	5.00	4.30	
3 Nitrite as N	4.392	4.392	0.000	6441564	NC	NC	
4 Bromide	5.309	5.300	0.009	1248307	1.00	0.9743	
5 Nitrate as N	6.009	5.992	0.017	7095802	NC	NC	
7 Orthophosphate as P	7.850	7.825	0.025	2292647	NC	NC	
6 Sulfate	8.934	8.950	-0.016	10751965	5.00	4.62	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

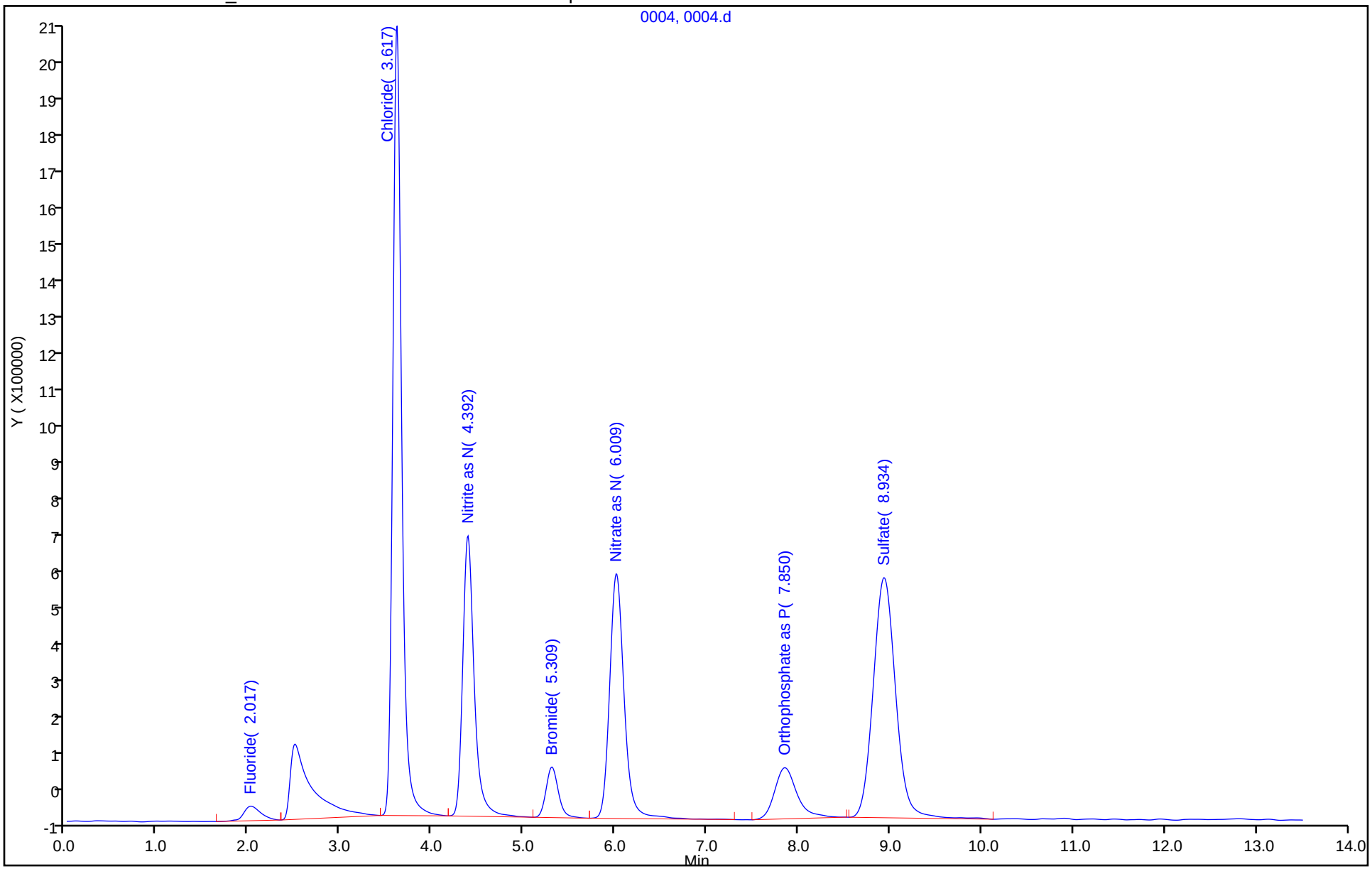
IC Cal low_00455 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00254 Amount Added: 0.10 Units: mL

Report Date: 03-May-2019 07:54:59 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0004.d

Injection Date:	02-May-2019 10:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 02-May-2019 11:11:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:59 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	2020138	4.00	3.88	
2 Chloride	3.634	3.634	0.000	203689540	60.0	55.7	
3 Nitrite as N	4.392	4.392	0.000	26199019	NC	NC	
4 Bromide	5.300	5.300	0.000	5053207	4.00	3.92	
5 Nitrate as N	6.000	6.000	0.000	29041817	NC	NC	
7 Orthophosphate as P	7.842	7.842	0.000	9583357	NC	NC	
6 Sulfate	8.959	8.959	0.000	142005890	60.0	57.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

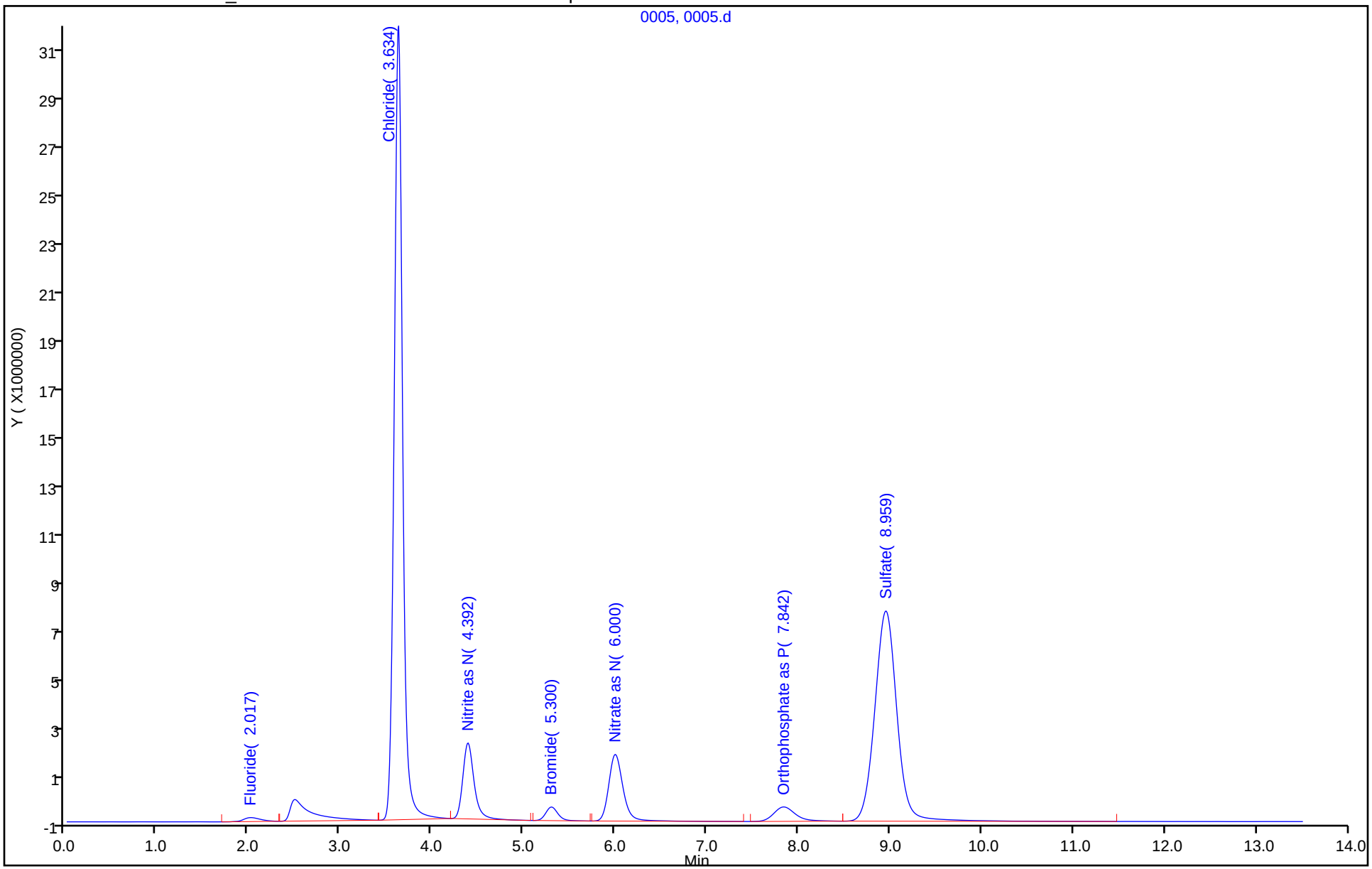
IC Cal low_00455 Amount Added: 0.40 Units: mL
IC CAL cl/so4_00254 Amount Added: 1.20 Units: mL

Report Date: 03-May-2019 07:54:59 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0005.d

Injection Date:	02-May-2019 11:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 02-May-2019 11:27:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:00 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	3480139	8.00	7.01	
2 Chloride	3.650	3.634	0.016	434615430	120.0	118.4	
3 Nitrite as N	4.392	4.392	0.000	53247138	NC	NC	
4 Bromide	5.300	5.300	0.000	10123490	8.00	7.84	
5 Nitrate as N	5.992	6.000	-0.008	59270420	NC	NC	
7 Orthophosphate as P	7.834	7.842	-0.008	19166572	NC	NC	
6 Sulfate	8.975	8.959	0.016	292630668	120.0	117.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

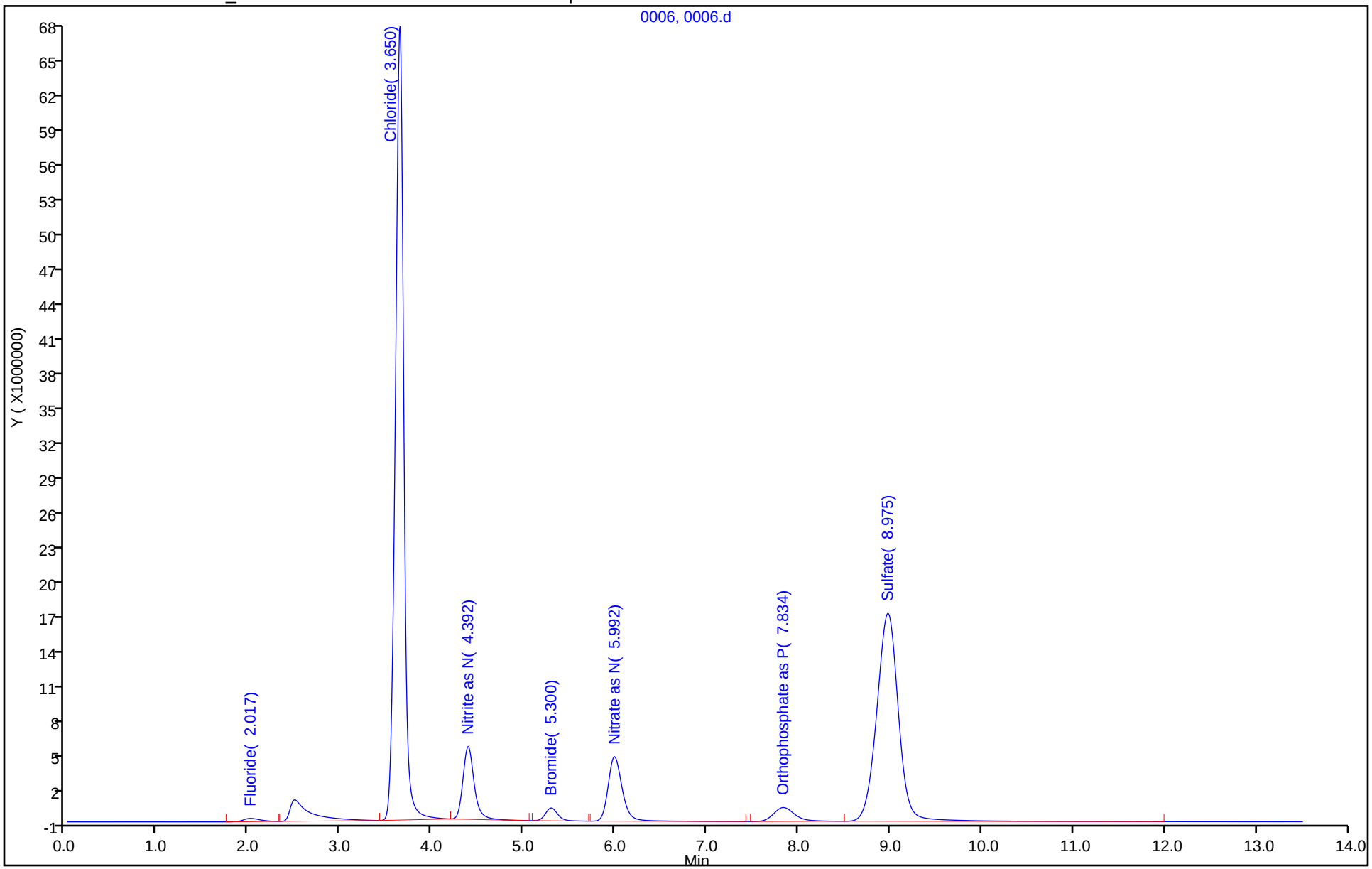
IC Cal low_00455 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00254 Amount Added: 2.40 Units: mL

Report Date: 03-May-2019 07:55:00 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0006.d

Injection Date:	02-May-2019 11:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 02-May-2019 11:43:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-007
Misc. Info.: 7 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:01 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	5578154	10.0	11.5	
2 Chloride	3.667	3.634	0.033	759596501	200.0	206.5	
3 Nitrite as N	4.392	4.392	0.000	70984538	NC	NC	
4 Bromide	5.292	5.300	-0.008	13261367	10.0	10.3	
5 Nitrate as N	5.984	6.000	-0.016	79286235	NC	NC	
7 Orthophosphate as P	7.825	7.842	-0.017	25804274	NC	NC	
6 Sulfate	9.000	8.959	0.041	511344409	200.0	205.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

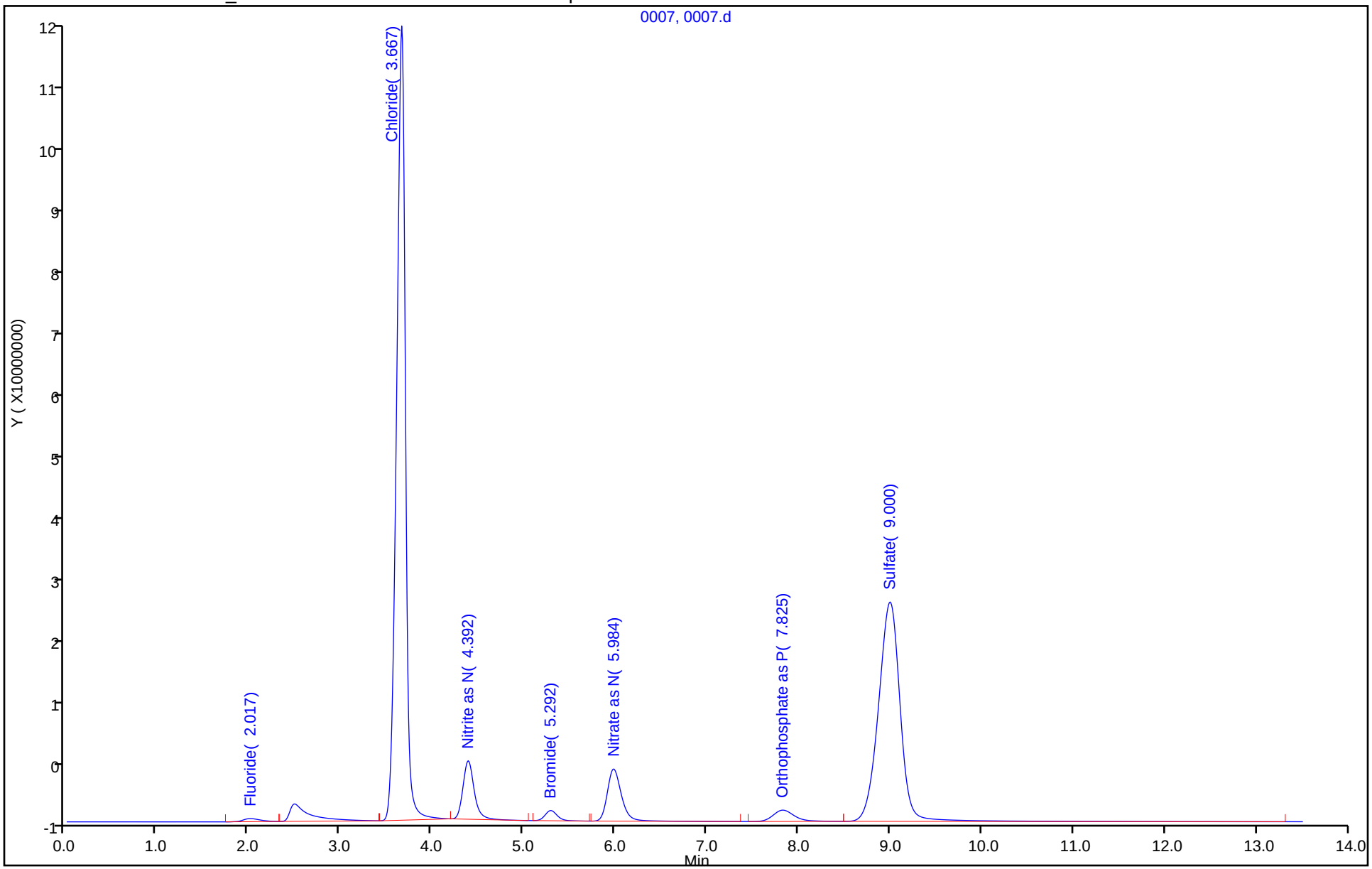
IC Cal low_00455 Amount Added: 1.00 Units: mL
IC CAL cl/so4_00254 Amount Added: 4.00 Units: mL

Report Date: 03-May-2019 07:55:02 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Injection Date:	02-May-2019 11:43:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



456731/32

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81509 Inst ID: 11 Analysis Date: 05/02/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
Dissolved	122281	12	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D)	1 & 8
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
122281	1,2,4,5,6,7	F (Cl) NO2 Br NO3 PO4 (SO4)	5x,10x,20x	limit.
	8,10,11	F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya. 5/6/19

456731/32

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81509 Inst ID: 11 Analysis Date: 05/02/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
Dissolved →	122281	12	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D)	1 & 8
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
122281	1,2,4,5,6,7	F (Cl) NO2 Br NO3 PO4 (SO4)	5x, 10x, 20x	limit.
	8, 10, 11	F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 03-May-2019 07:55:18
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b
Inj Date : 02-May-2019 10:21:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					209210	486585	R1, R4	).968*
2 Chloride					-183738	3887536		0.998
3 Nitrite as N	-244378	6864639		0.999				
4 Bromide					-11343	1292891		0.999
5 Nitrate as N	-164405	7626518		0.998				
7 Orthophosphate as P	-42386	2478276		0.998				
6 Sulfate					-758343	2493295		0.999

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit

Phaniya
5/6/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	03-May-2019 07:55:18

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b
Inj Date : 02-May-2019 10:21:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					209210	466585	R1, R4	).968*
2 Chloride					-183738	368753(		0.998
3 Nitrite as N	-244378	6864639		0.999				
4 Bromide					-11343	1292891		0.999
5 Nitrate as N	-164405	7626518		0.998				
7 Orthophosphate as P	-42386	2478276		0.998				
6 Sulfate					-758343	2493295		0.999

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 02-May-2019 12:00:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-008
Misc. Info.: 8 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:02 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	2447396	4.00	4.80	
2 Chloride	3.642	3.642	0.000	285894932	80.0	78.0	
3 Nitrite as N	4.392	4.392	0.000	25388265	NC	NC	
4 Bromide	5.309	5.309	0.000	5092734	4.00	3.95	
5 Nitrate as N	6.000	6.000	0.000	29556367	NC	NC	
7 Orthophosphate as P	7.842	7.842	0.000	9842771	NC	NC	
6 Sulfate	8.967	8.967	0.000	195183824	80.0	78.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

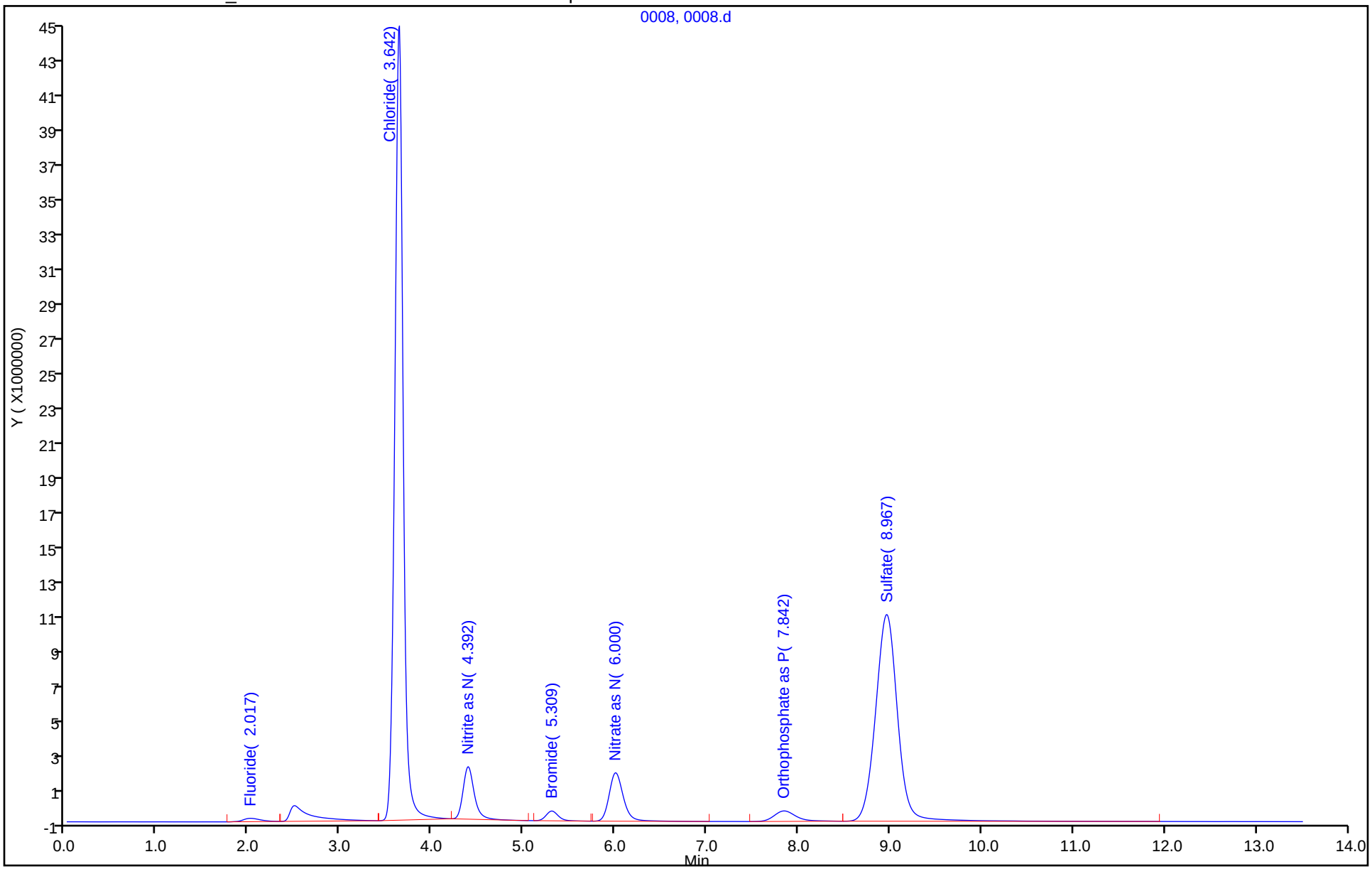
IC CL ICV_00016	Amount Added:	0.40	Units: mL
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00232	Amount Added:	0.40	Units: mL

Report Date: 03-May-2019 07:55:02 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0008.d

Injection Date:	02-May-2019 12:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 02-May-2019 12:16:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-009
Misc. Info.: 9 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:02 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

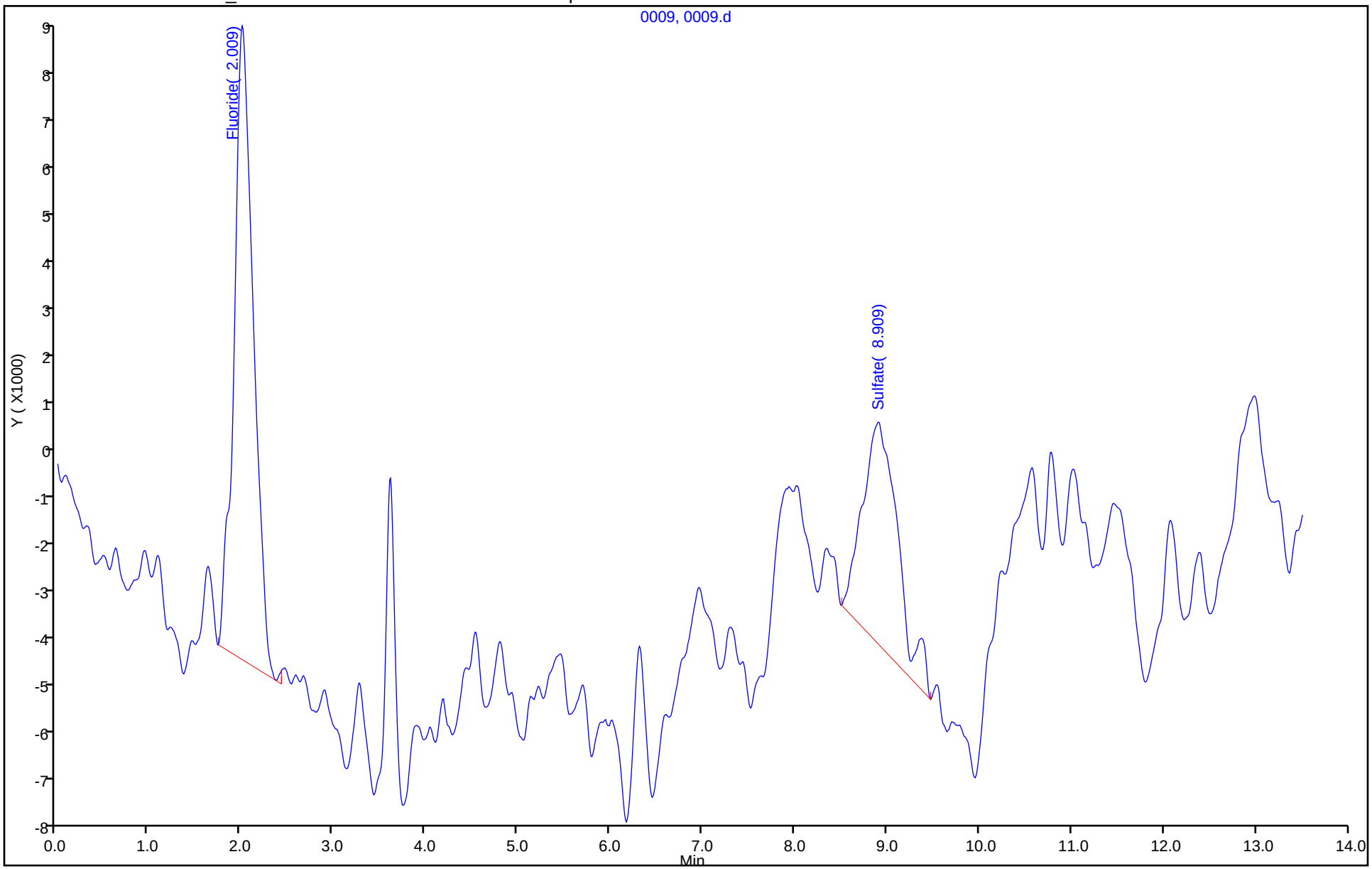
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.017	-0.008	184261		-0.0535	
2 Chloride		3.634				ND	
3 Nitrite as N		4.392				ND	
4 Bromide		5.300				ND	
5 Nitrate as N		6.000				ND	
7 Orthophosphate as P		7.842				ND	
6 Sulfate	8.909	8.959	-0.050	119116		0.3519	

Report Date: 03-May-2019 07:55:03 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0009.d

Injection Date:	02-May-2019 12:16:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

	Rush	Job No.	Samples	Anions	QC Req	HT Exp
	☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
	☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
	☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	NC	NC	M
2 Chloride	3.234	3.242	-0.008	4716909	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	1976056	0.2000	0.2135	a
4 Bromide	4.642	4.642	0.000	382484	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	2120855	0.2000	0.2208	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	0.2000	0.2189	a
6 Sulfate	6.409	6.434	-0.025	3612640	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

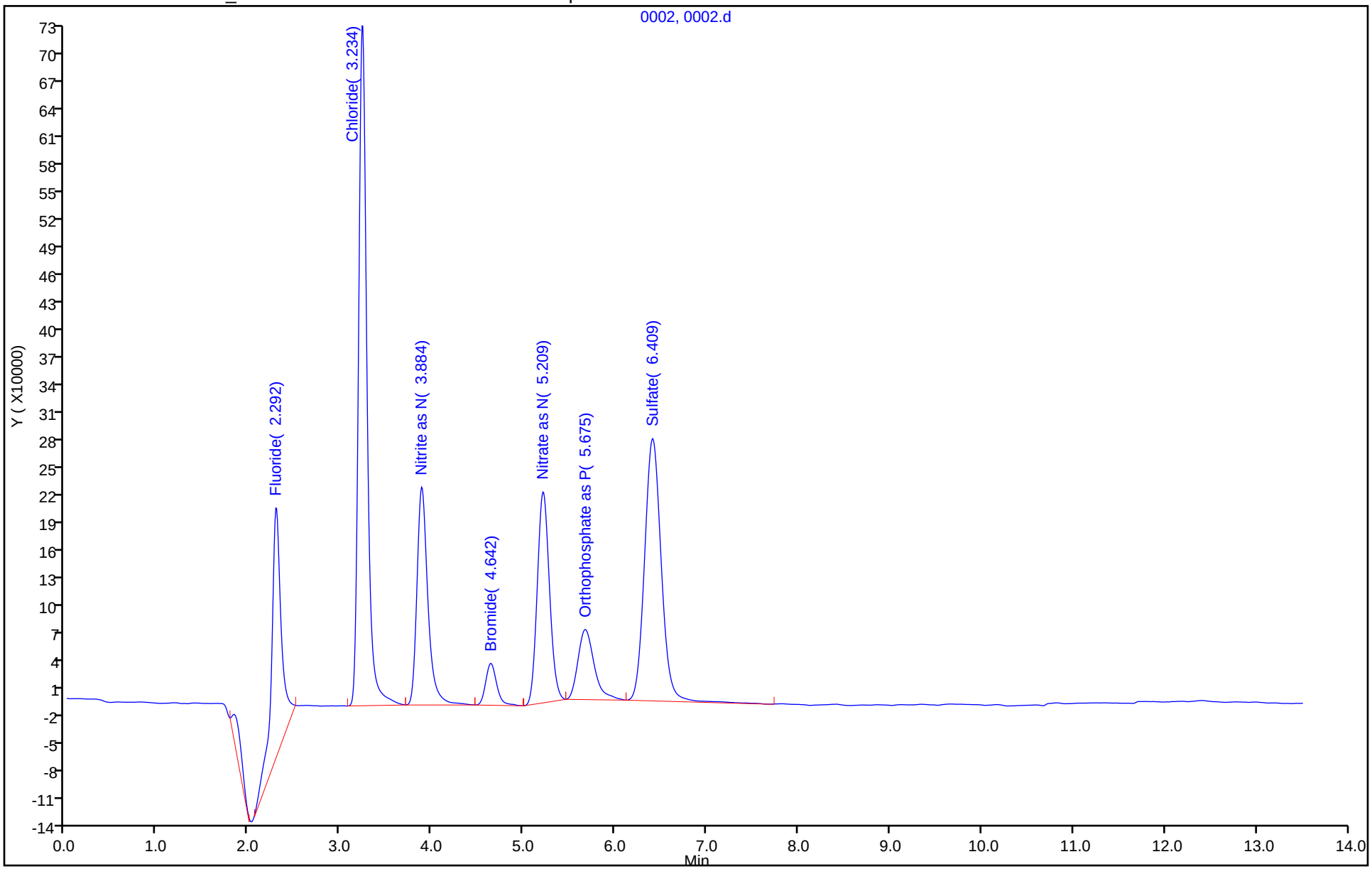
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

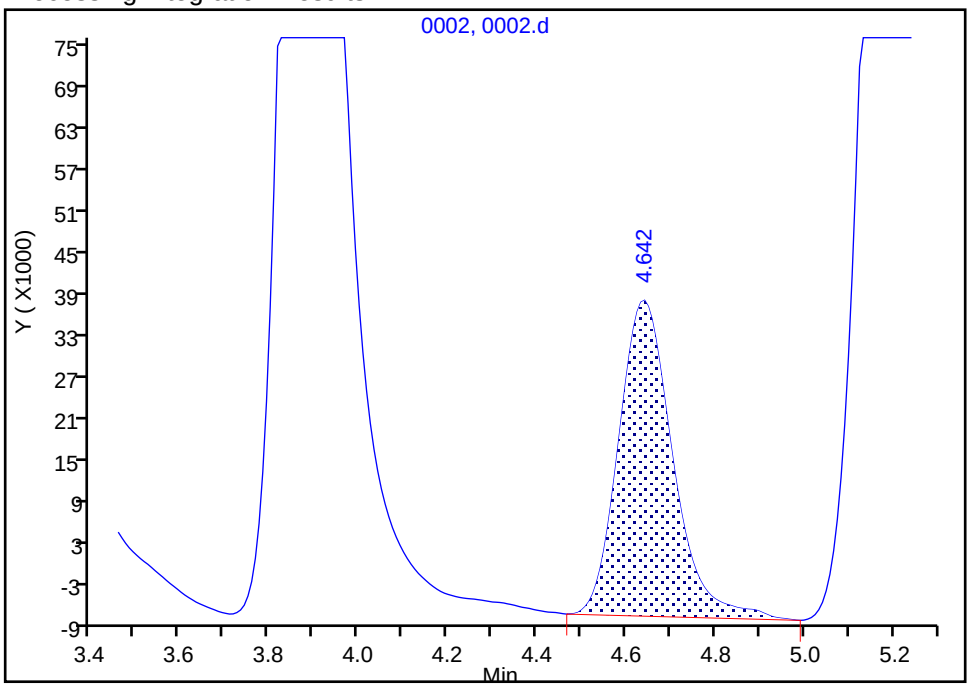
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

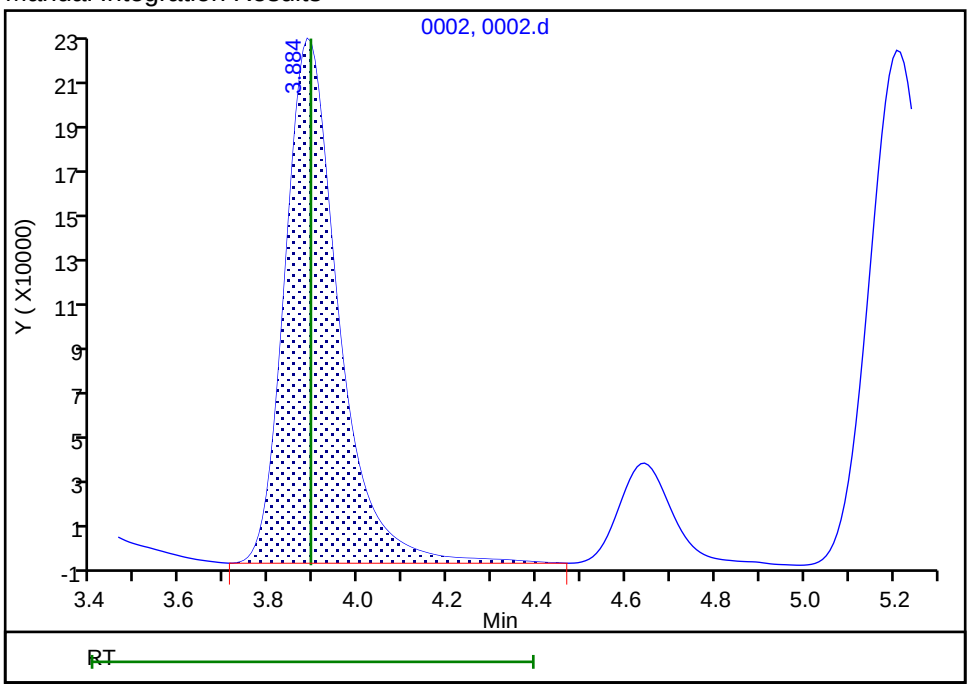
Processing Integration Results

RT: 4.64
Area: 382484
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 1976056
Amount: 0.213513
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:40
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

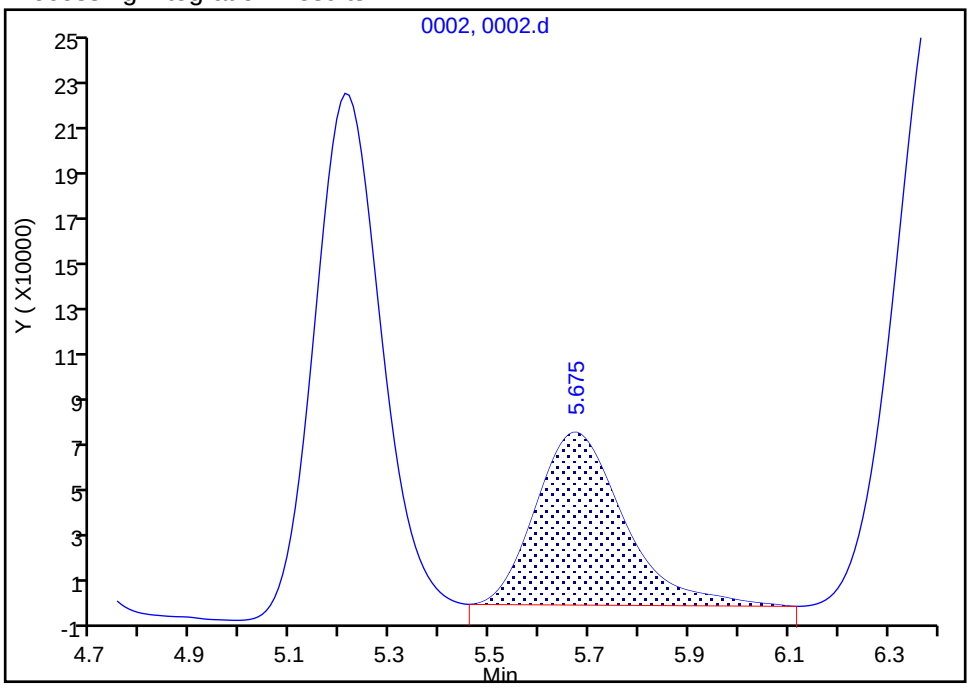
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

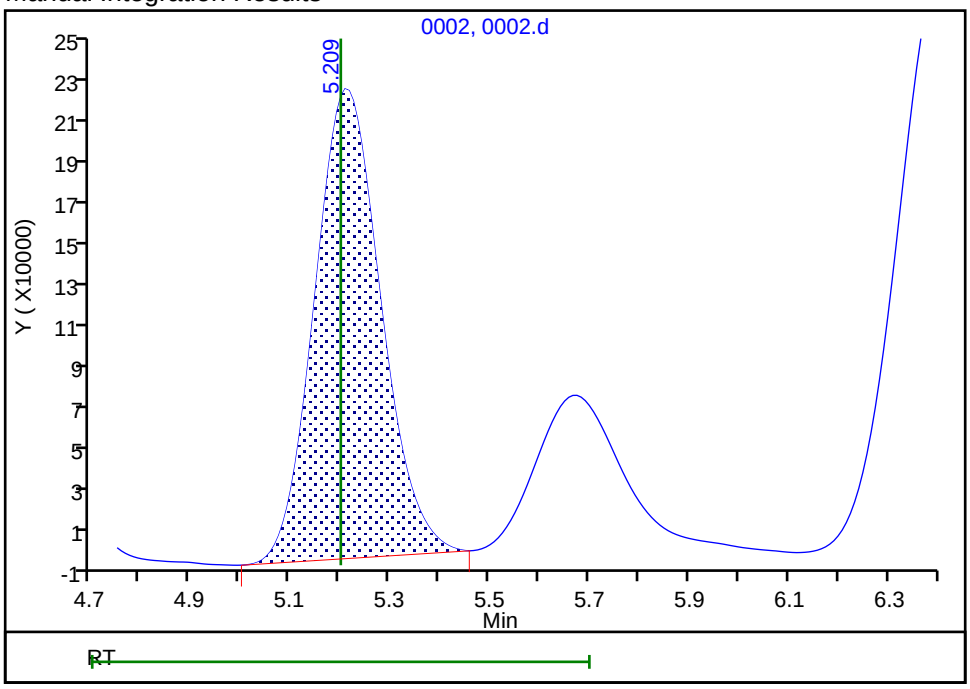
Processing Integration Results

RT: 5.68
Area: 939373
Amount: 0.215245
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 2120855
Amount: 0.220835
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

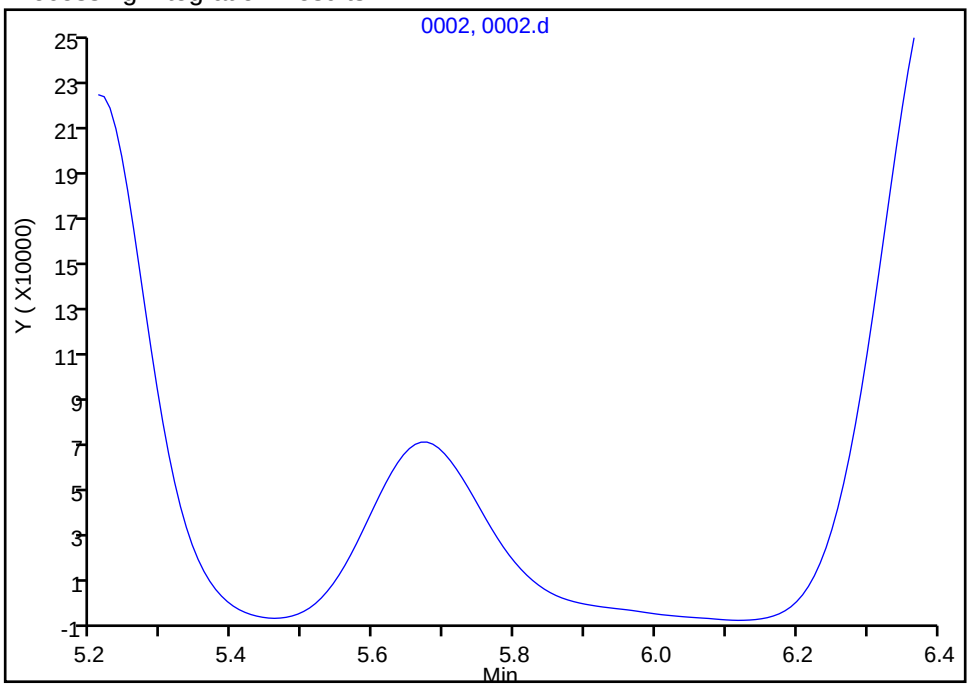
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

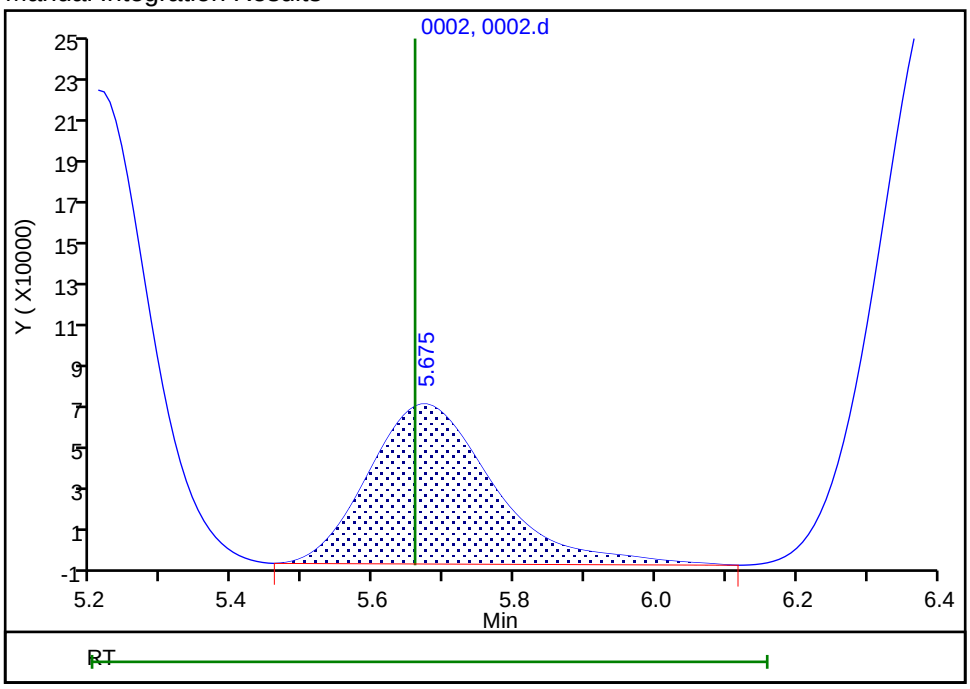
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.68
Area: 939373
Amount: 0.218915
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:07
Audit Action: Assigned Compound ID Audit Reason:

458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

	Rush	Job No.	Samples	Anions	QC Req	HT Exp
	☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
	☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
	☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	0.2000	0.1247	M
2 Chloride	3.234	3.242	-0.008	4716909	1.00	1.32	
3 Nitrite as N	3.884	3.892	-0.008	1976056	NC	NC	a
4 Bromide	4.642	4.642	0.000	382484	0.2000	0.2043	a
5 Nitrate as N	5.209	5.200	0.009	2120855	NC	NC	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	3612640	1.00	1.25	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

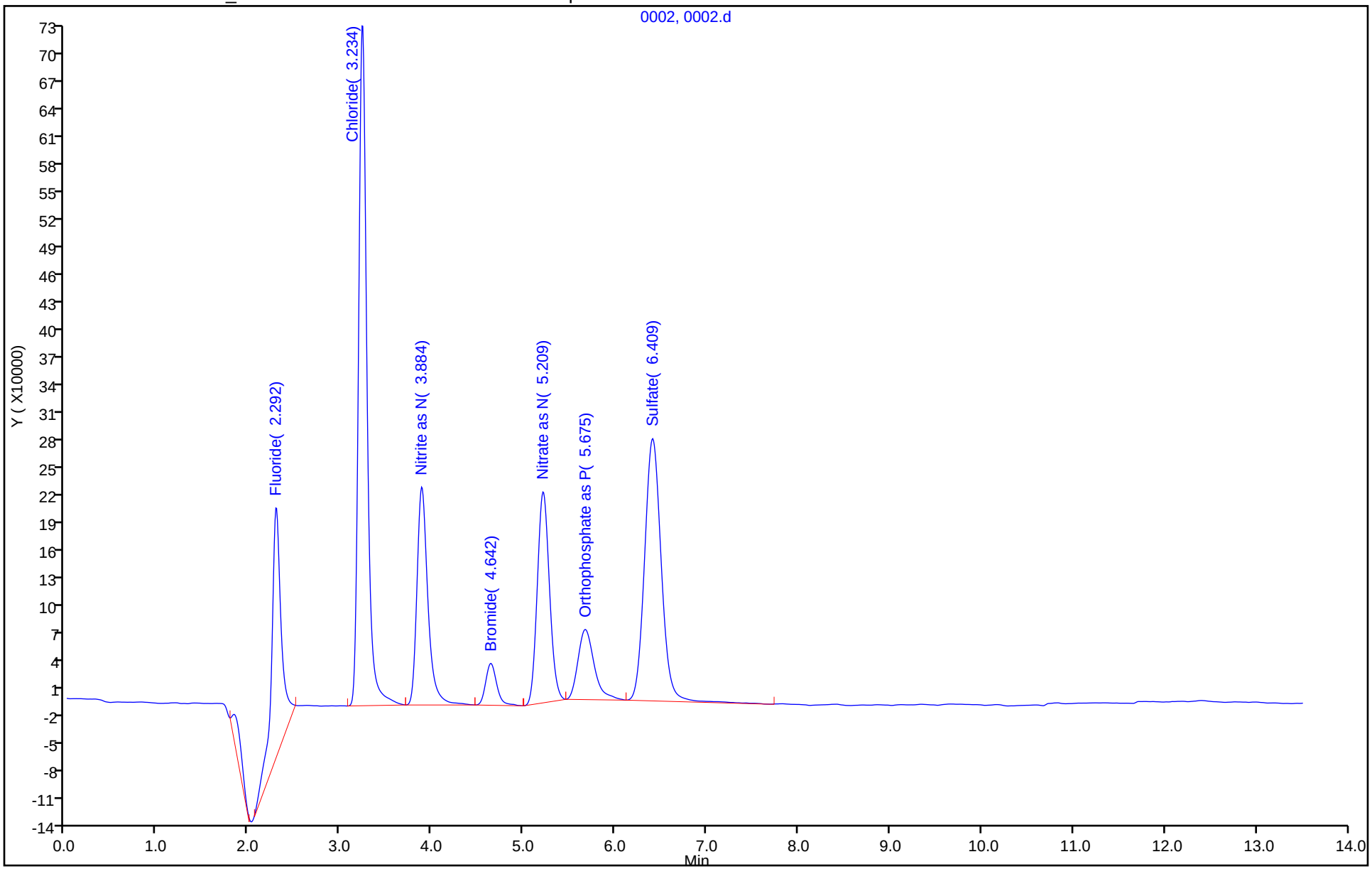
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

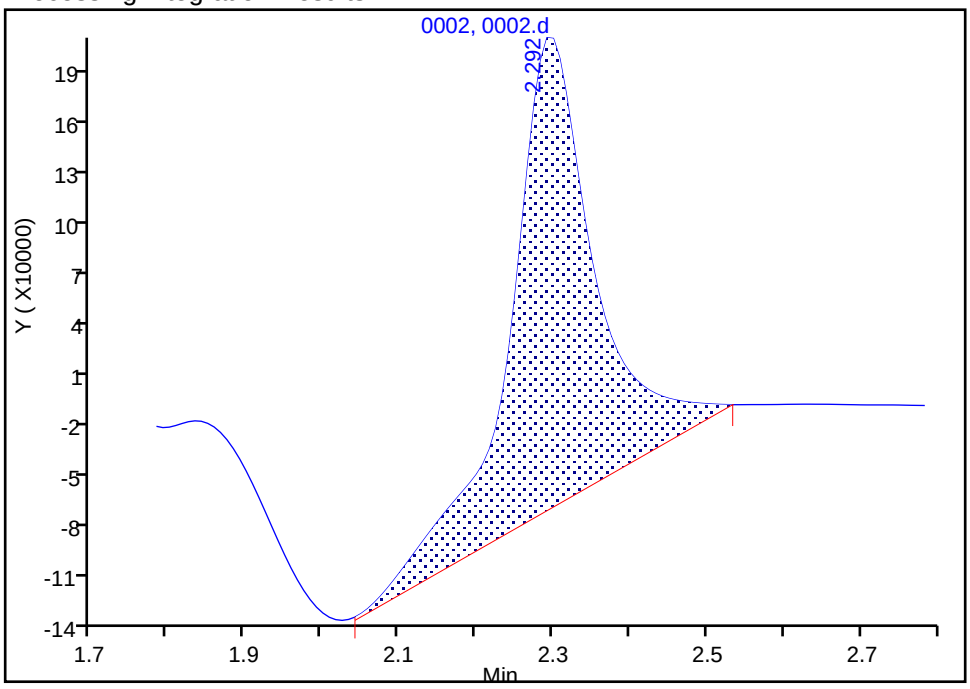
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

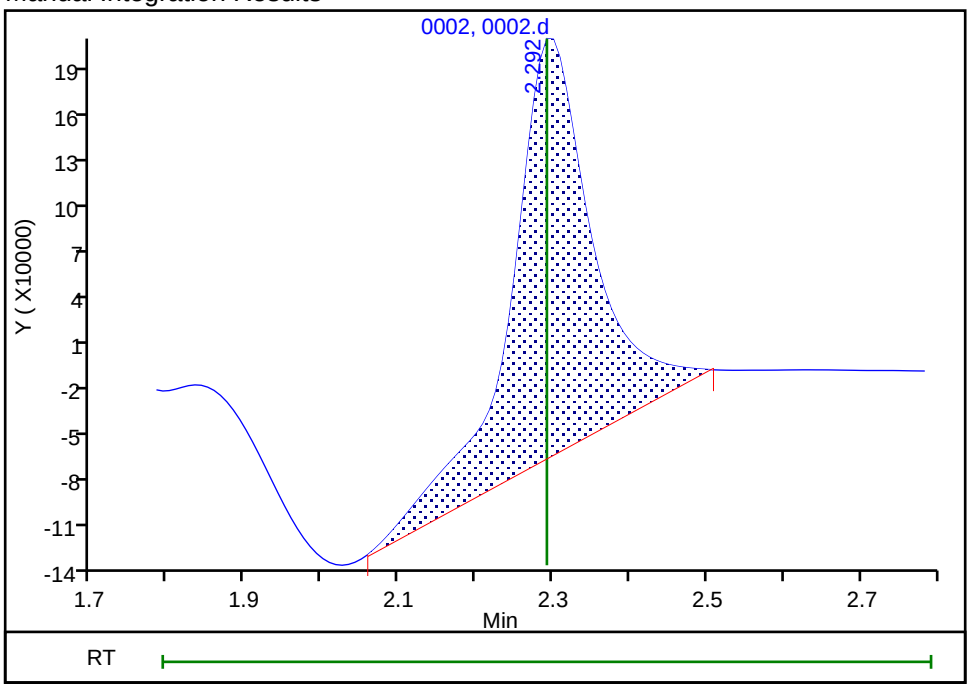
Processing Integration Results

RT: 2.29
Area: 2156044
Amount: 0.130825
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2026299
Amount: 0.124737
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:10:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

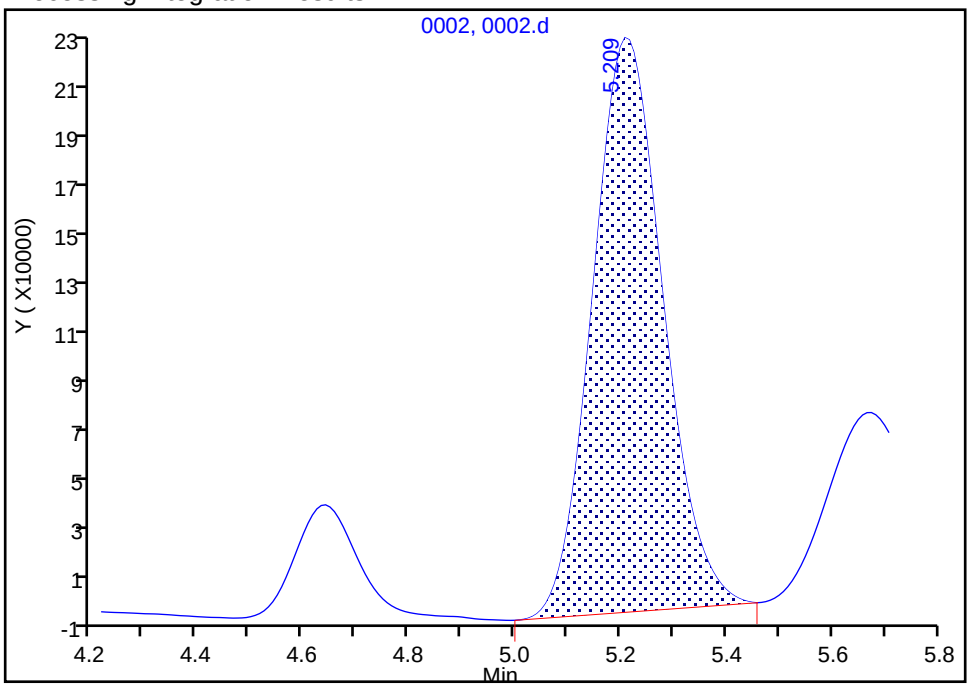
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

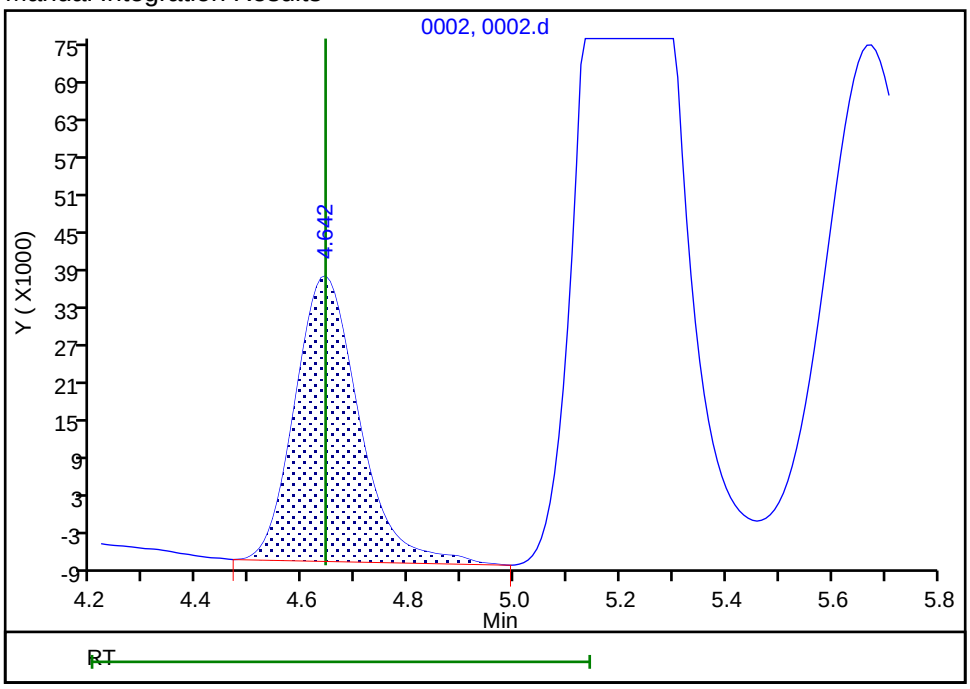
Processing Integration Results

RT: 5.21
Area: 2120855
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 382484
Amount: 0.204318
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

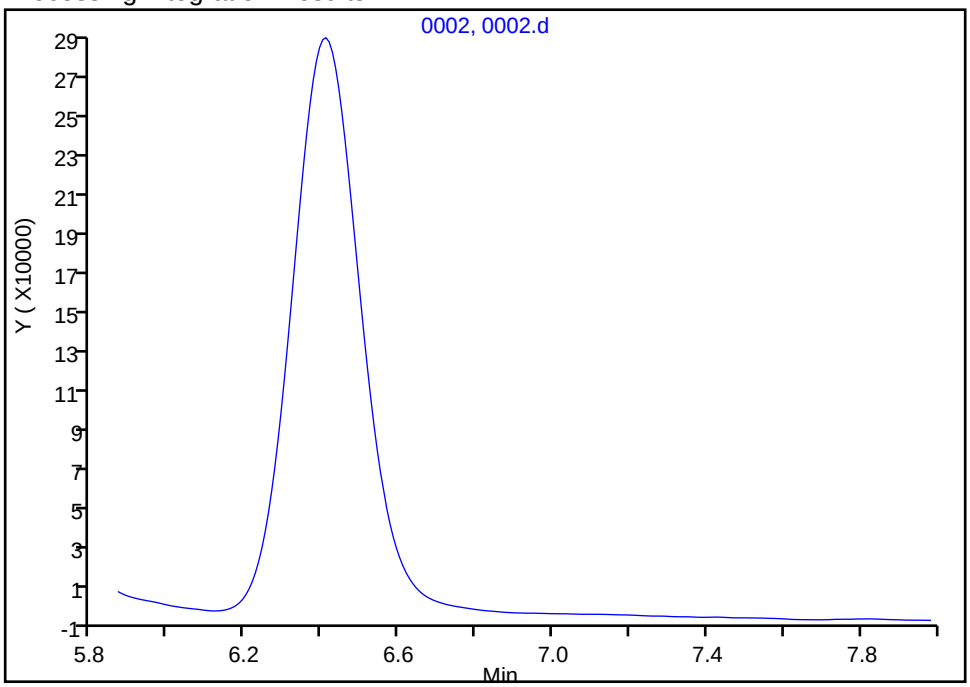
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

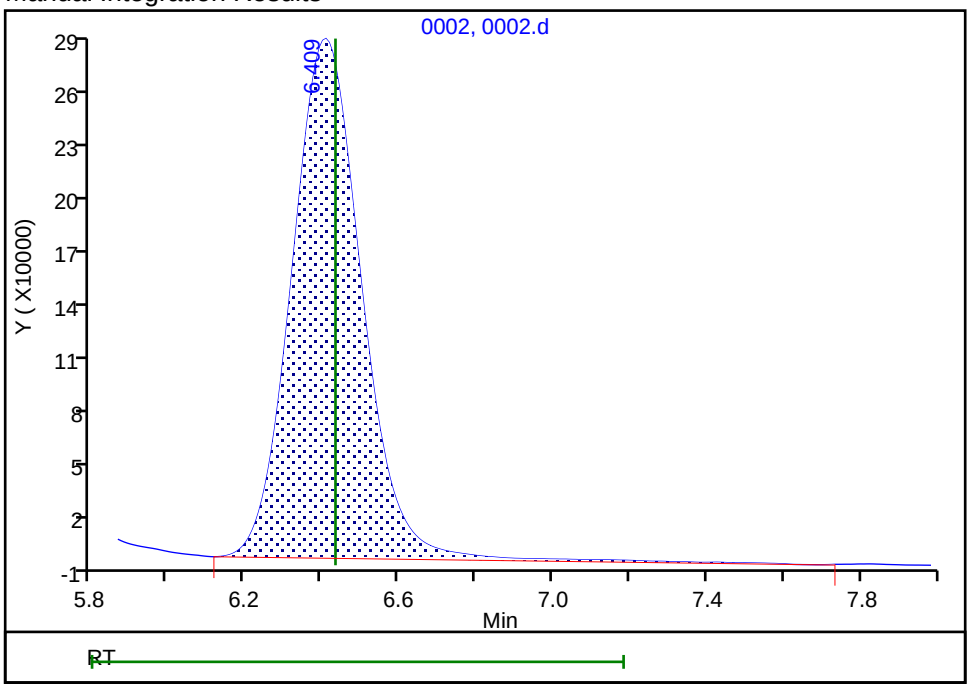
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 3612640
Amount: 1.245045
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:12
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	NC	NC	
2 Chloride	3.234	3.242	-0.008	11441790	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	4889442	0.5000	0.4912	a
4 Bromide	4.634	4.642	-0.008	953603	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	5219434	0.5000	0.4876	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	0.5000	0.4793	a
6 Sulfate	6.409	6.434	-0.025	8699908	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

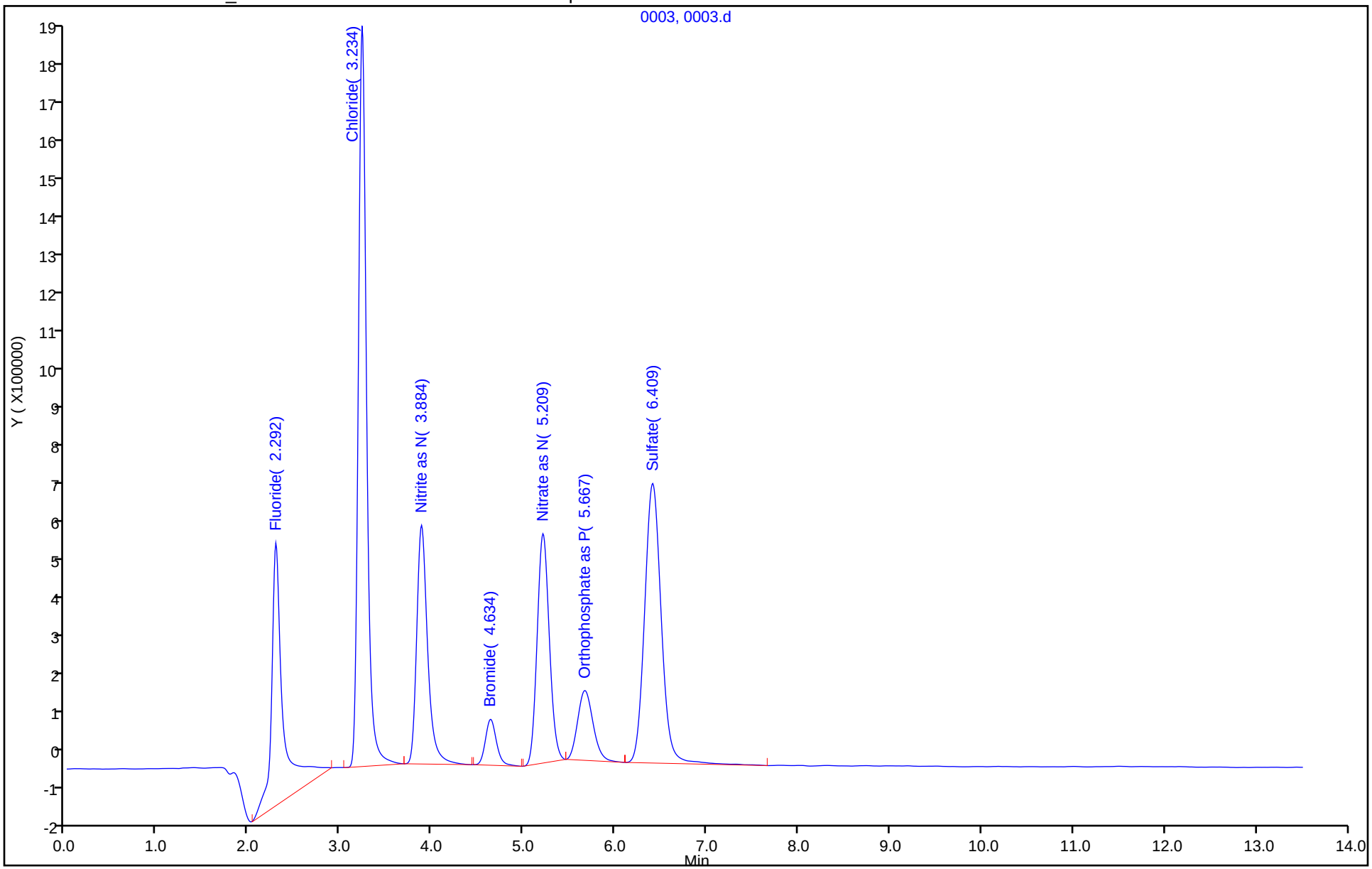
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

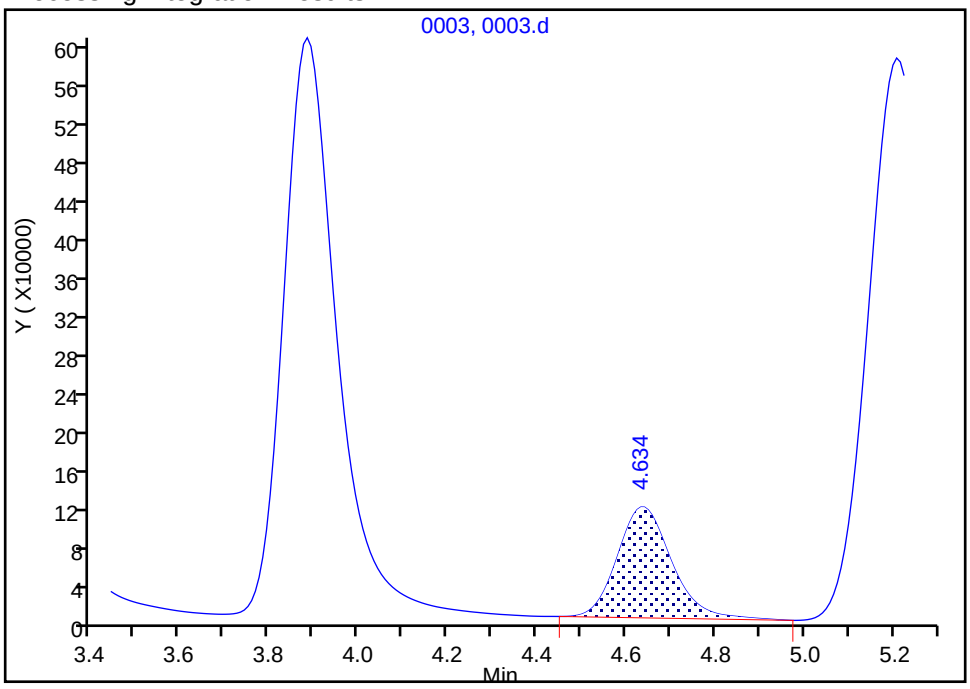
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

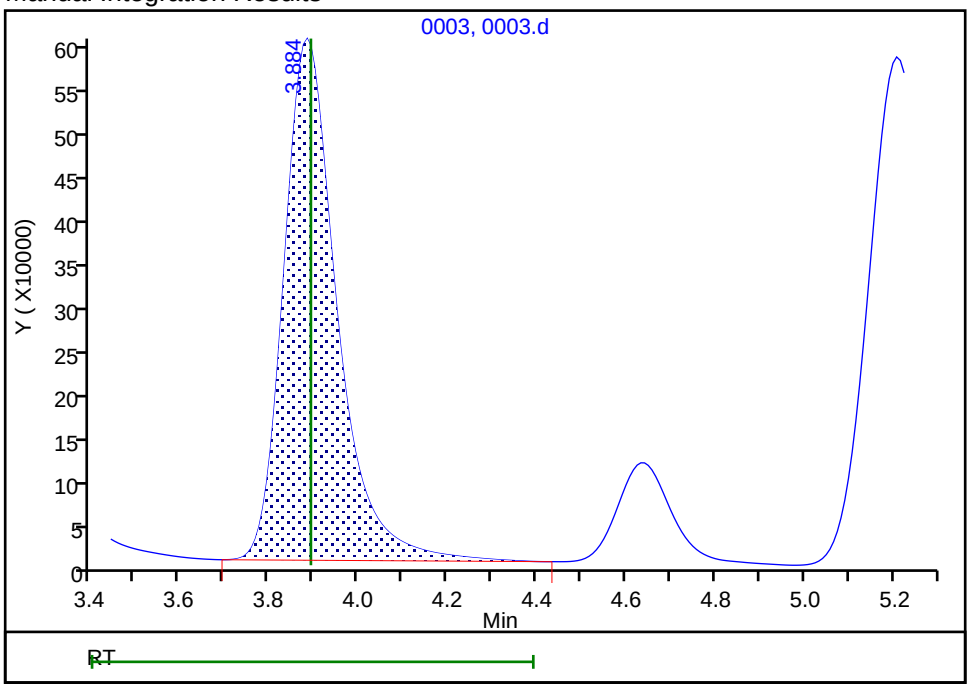
Processing Integration Results

RT: 4.63
Area: 953603
Amount: -0.100903
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 4889442
Amount: 0.491191
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

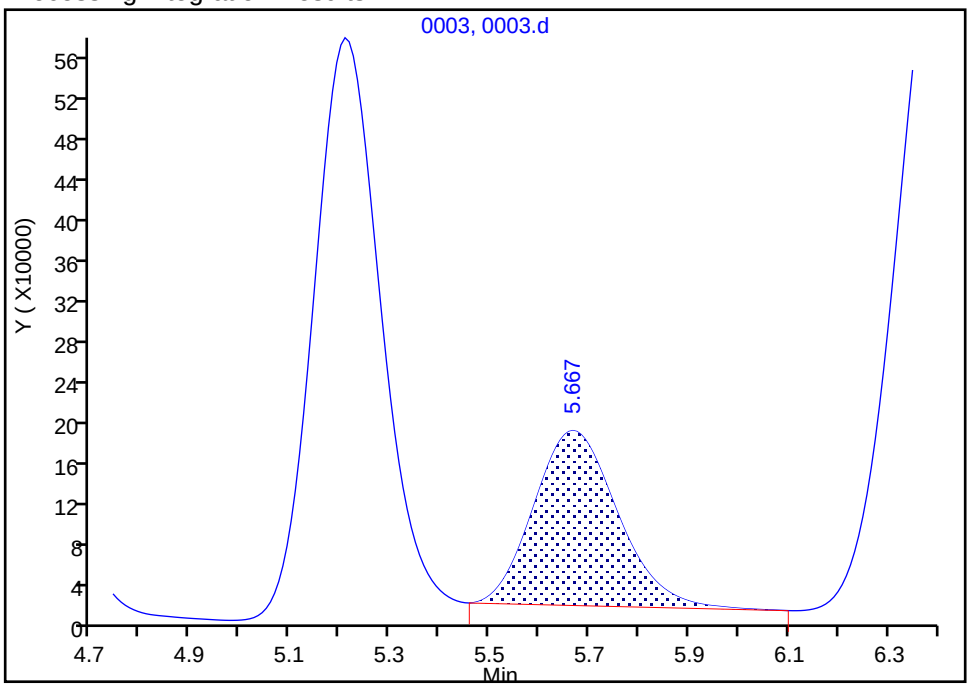
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

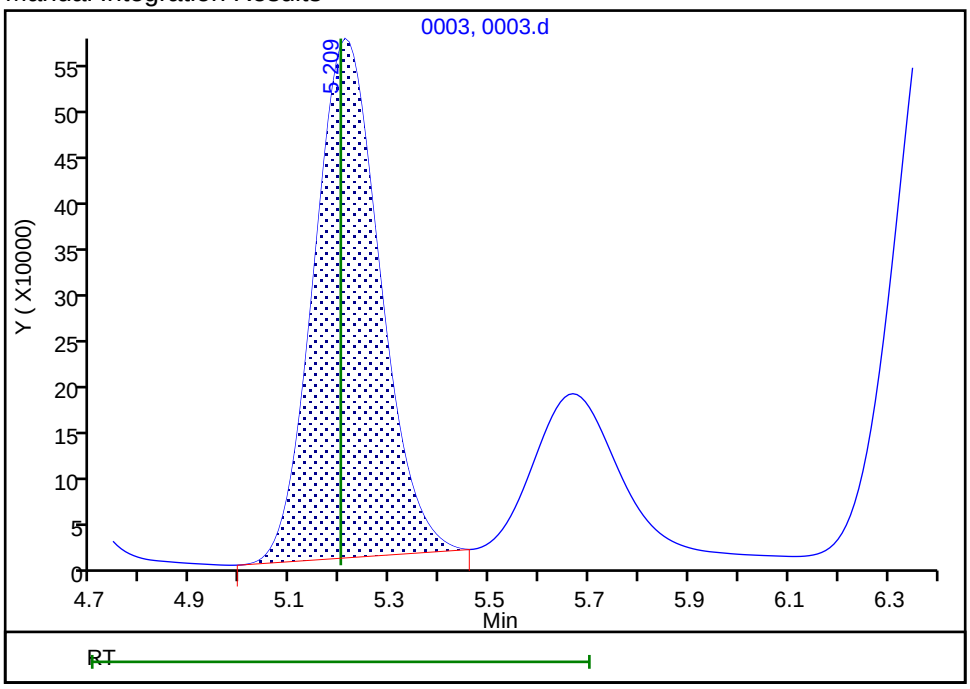
Processing Integration Results

RT: 5.67
Area: 2017876
Amount: 0.290238
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 5219434
Amount: 0.487631
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

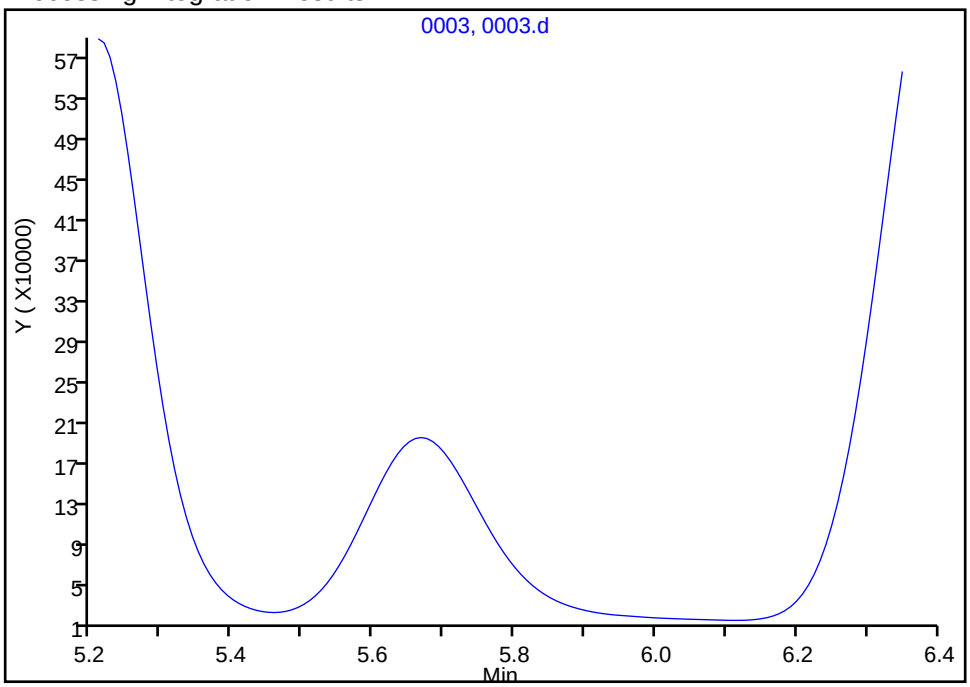
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

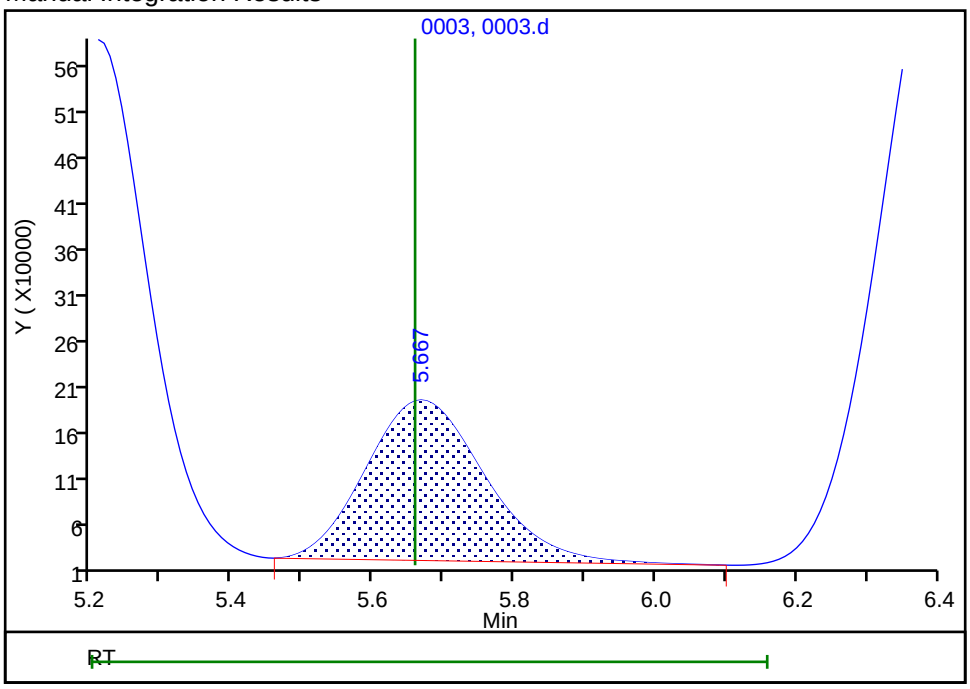
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 2017876
Amount: 0.479288
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	0.5000	0.6311	
2 Chloride	3.234	3.242	-0.008	11441790	2.50	2.32	
3 Nitrite as N	3.884	3.892	-0.008	4889442	NC	NC	a
4 Bromide	4.634	4.642	-0.008	953603	0.5000	0.4980	a
5 Nitrate as N	5.209	5.200	0.009	5219434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	8699908	2.50	2.38	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

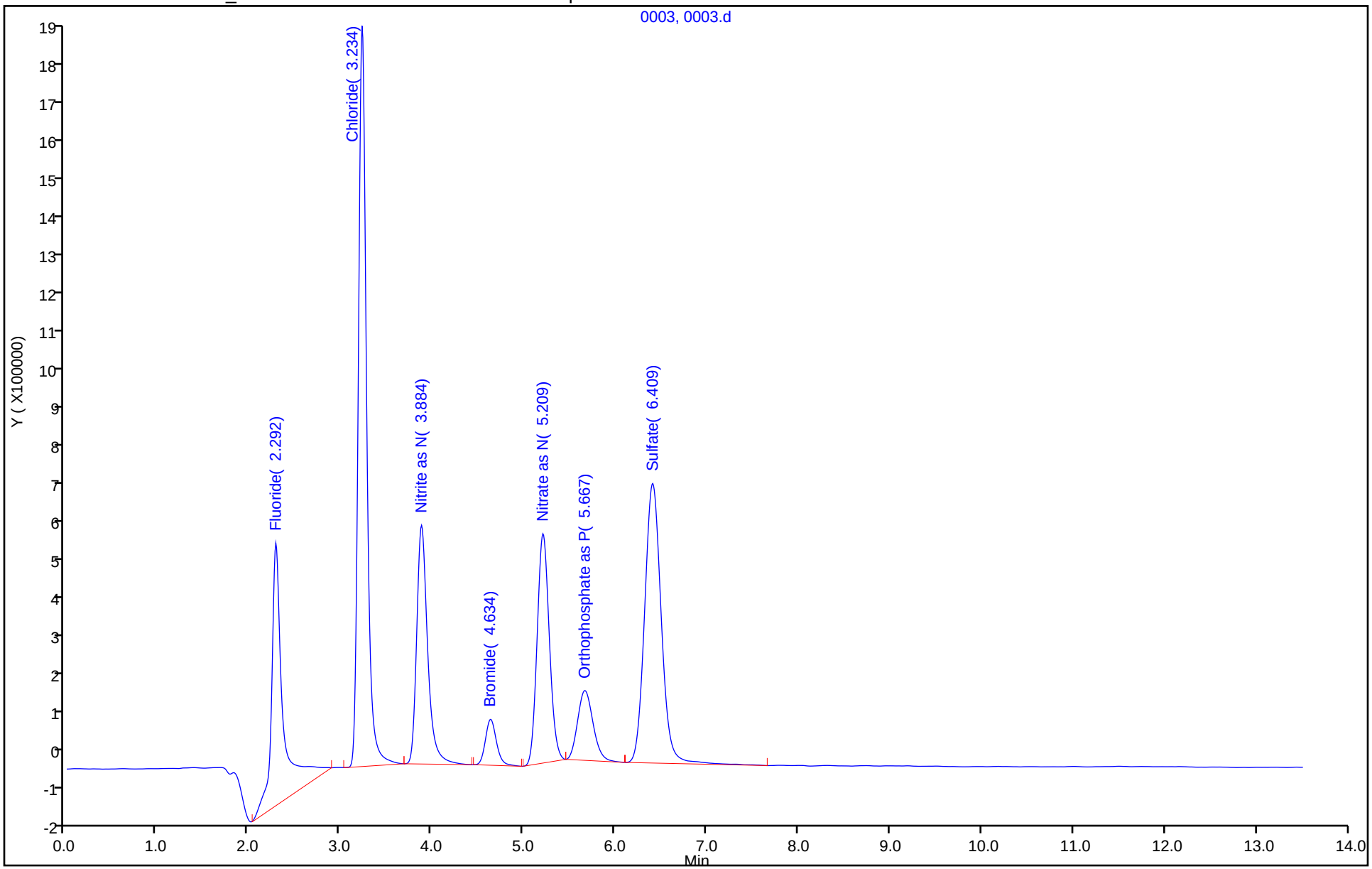
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

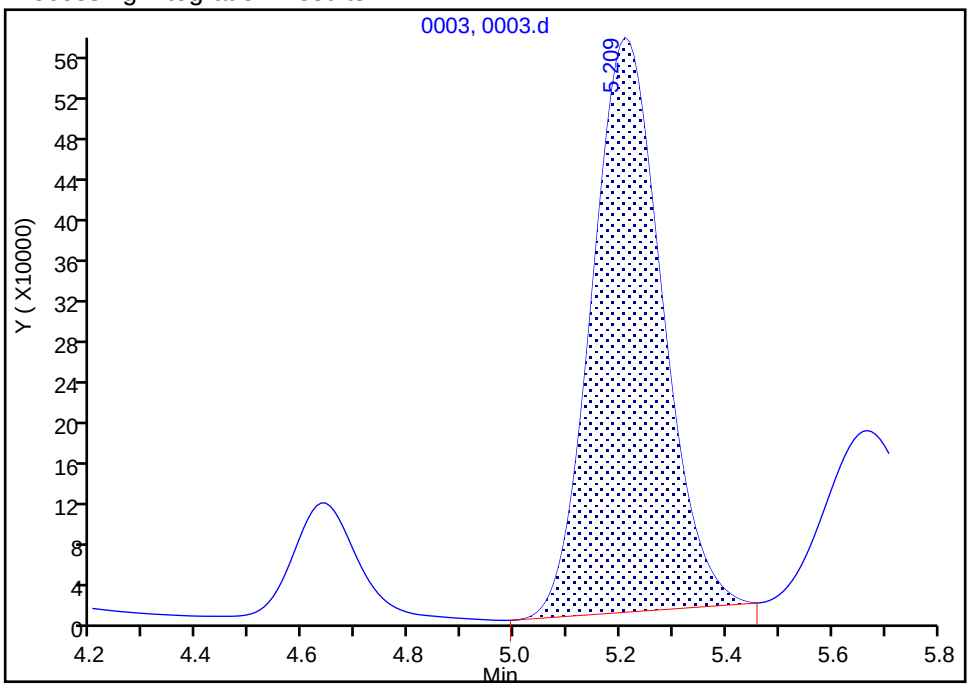
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

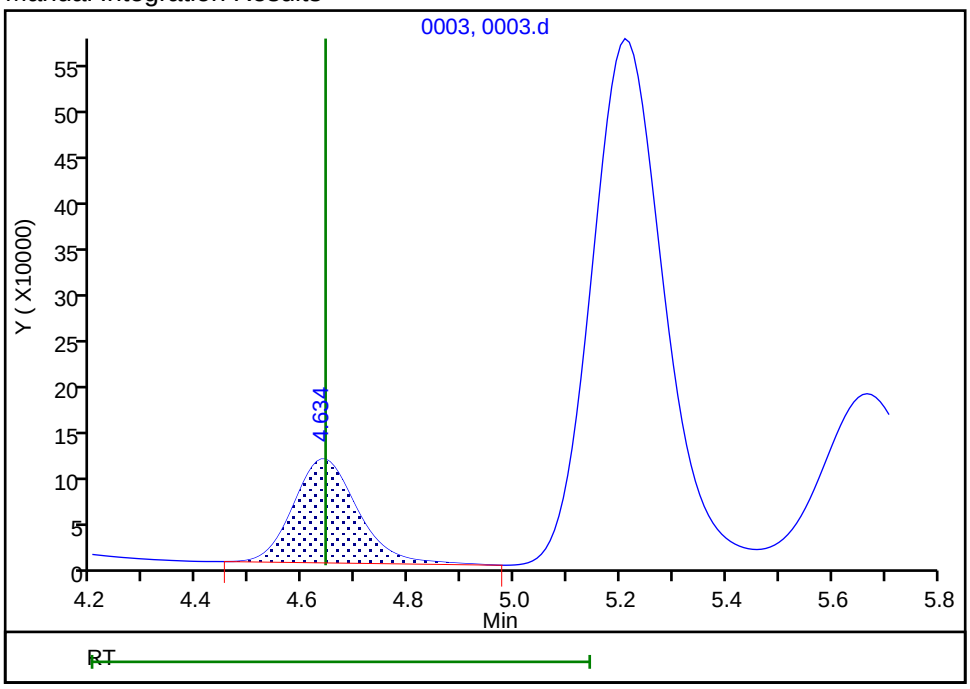
Processing Integration Results

RT: 5.21
Area: 5219434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 953603
Amount: 0.497971
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

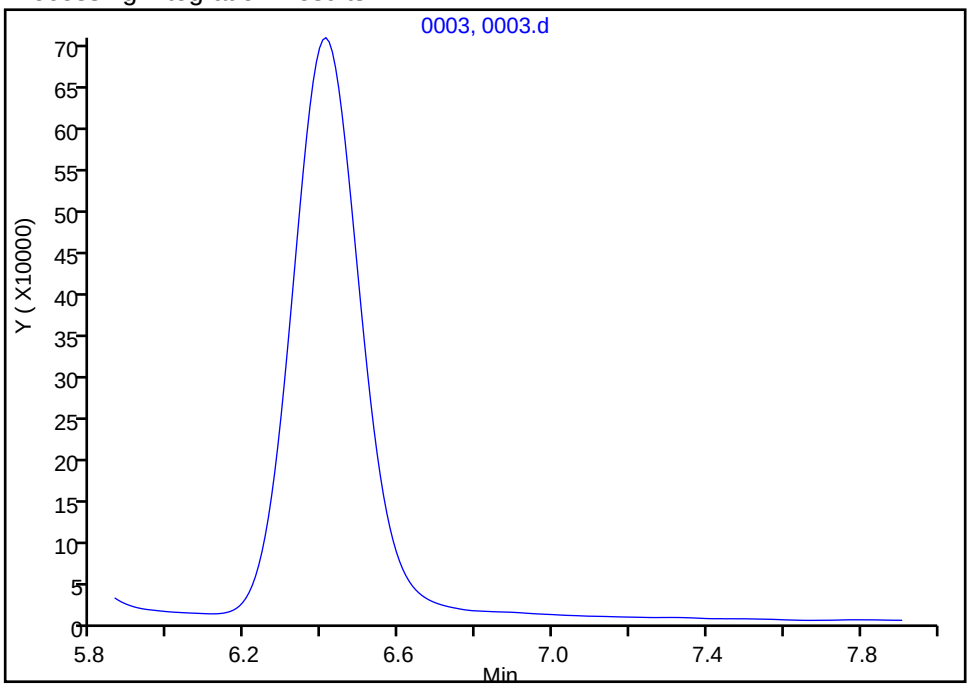
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

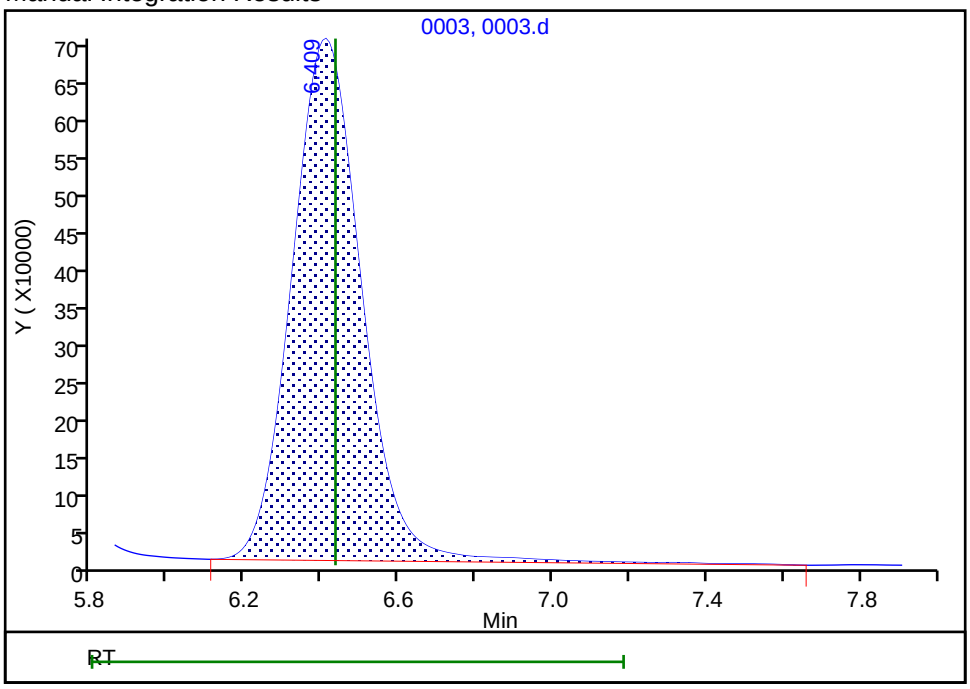
Processing Integration Results

Not Detected
Expected RT: 6.43



Manual Integration Results

RT: 6.41
Area: 8699908
Amount: 2.382508
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:24
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	NC	NC	
2 Chloride	3.234	3.242	-0.008	23461594	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	9866046	1.00	0.9655	a
4 Bromide	4.642	4.642	0.000	1893846	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	10516434	1.00	0.9437	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	1.00	0.9615	a
6 Sulfate	6.409	6.434	-0.025	17587626	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

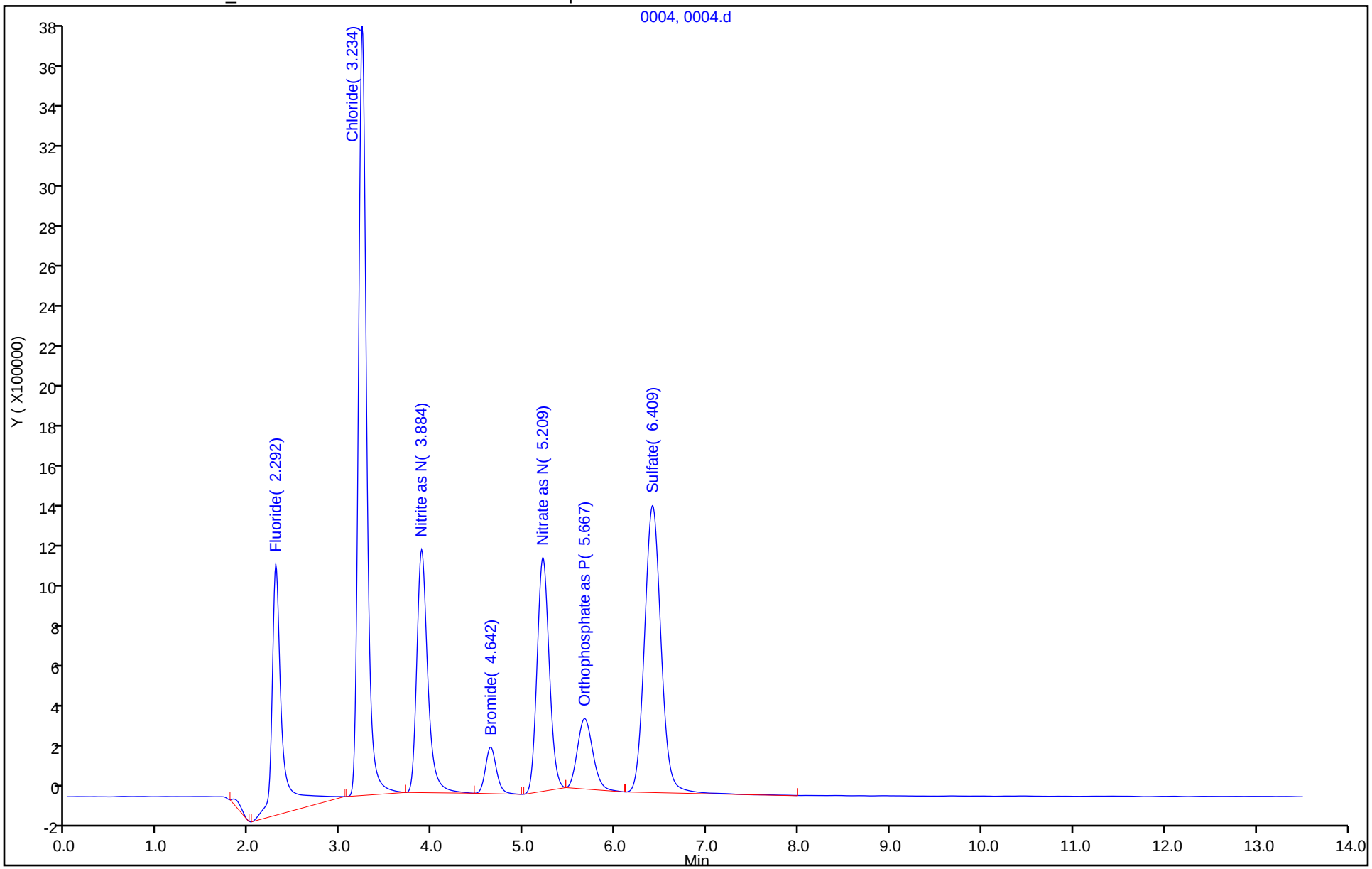
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

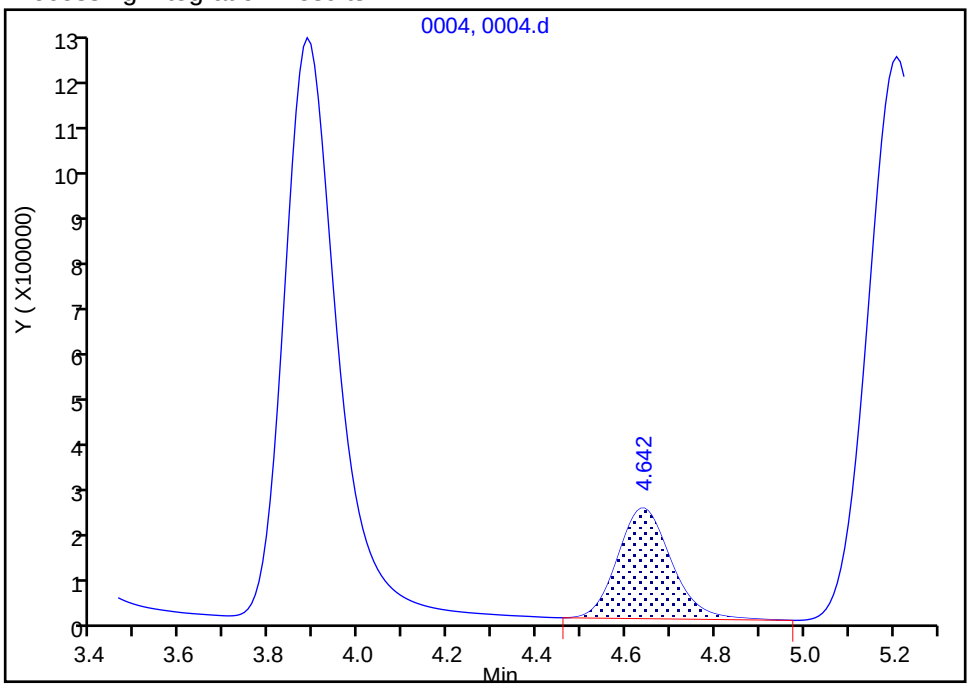
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

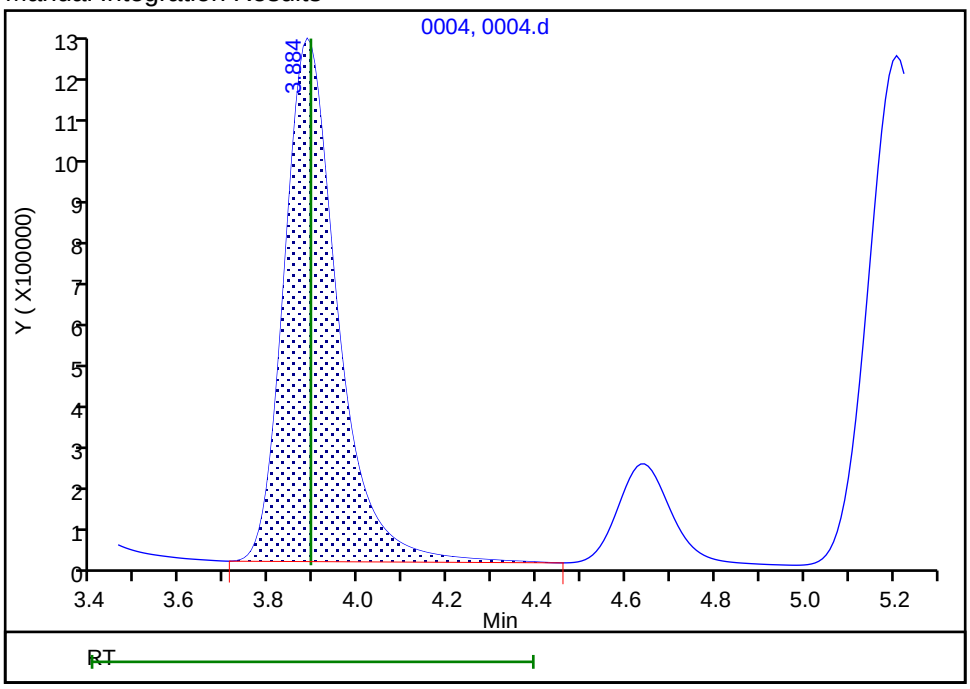
Processing Integration Results

RT: 4.64
Area: 1893846
Amount: -0.132556
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 9866046
Amount: 0.965516
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:43
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

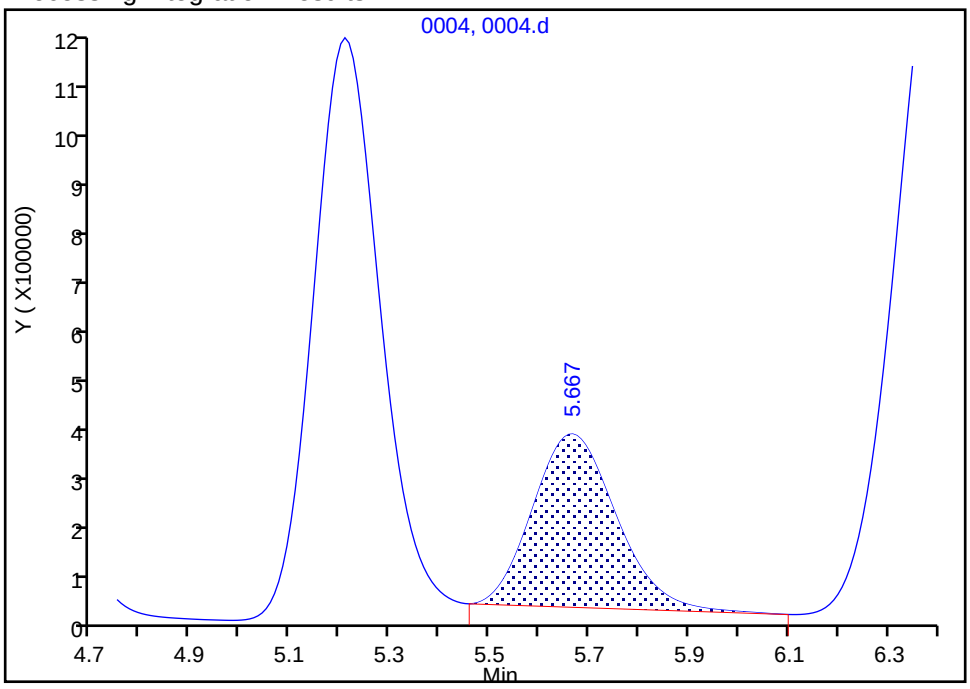
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

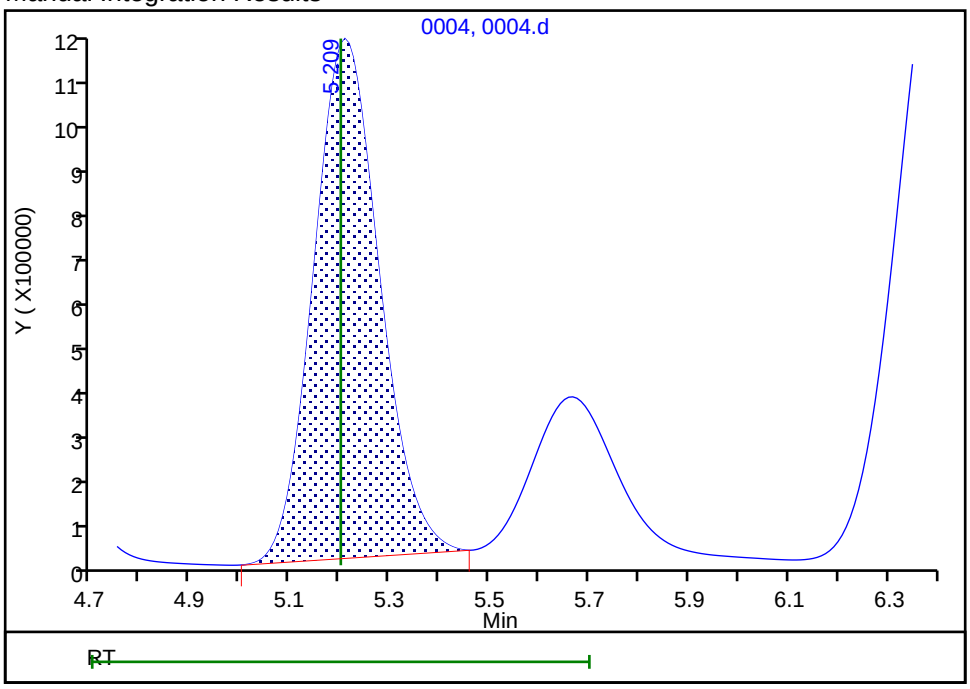
Processing Integration Results

RT: 5.67
Area: 4015320
Amount: 0.609716
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 10516434
Amount: 0.943717
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:47
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

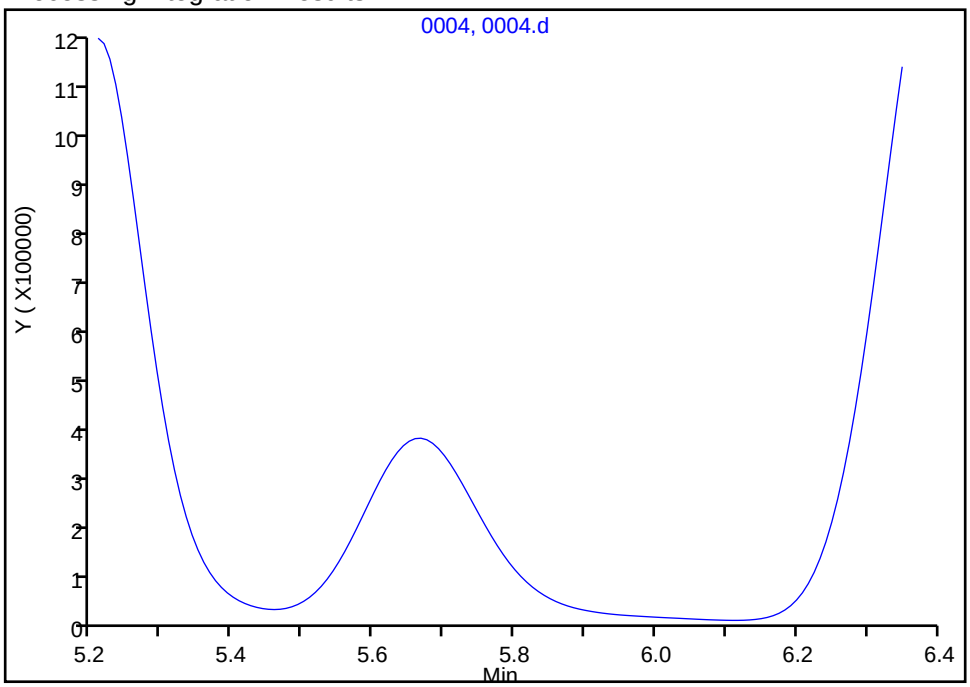
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d				
Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

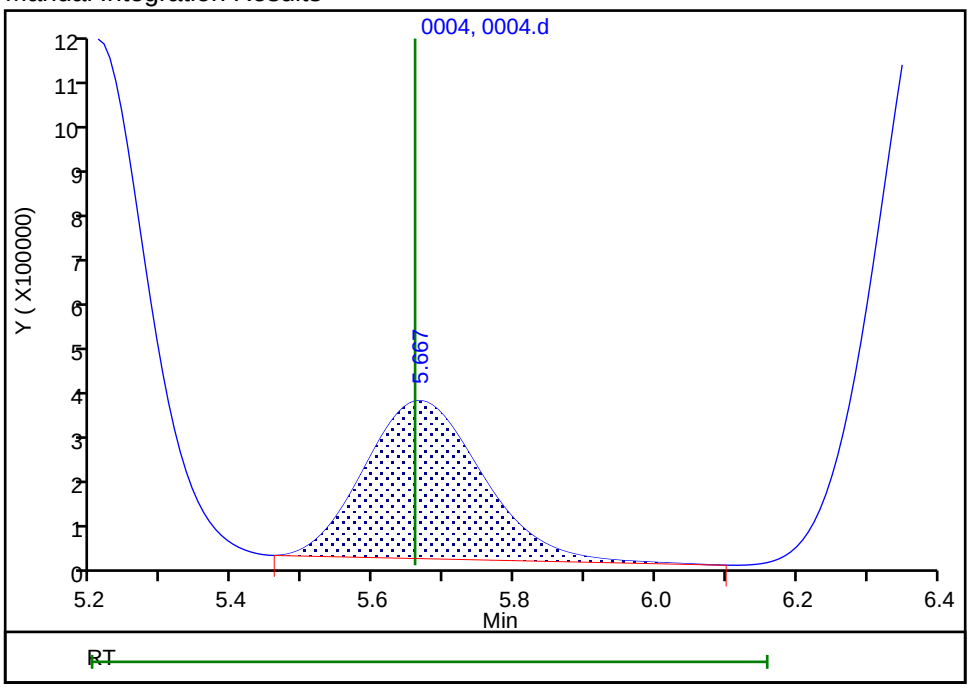
Processing Integration Results

Not Detected
Expected RT: 5.66



Manual Integration Results

RT: 5.67
Area: 4015320
Amount: 0.961514
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	1.00	1.16	
2 Chloride	3.234	3.242	-0.008	23461594	5.00	4.11	
3 Nitrite as N	3.884	3.892	-0.008	9866046	NC	NC	a
4 Bromide	4.642	4.642	0.000	1893846	1.00	0.9814	a
5 Nitrate as N	5.209	5.200	0.009	10516434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	17587626	5.00	4.37	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

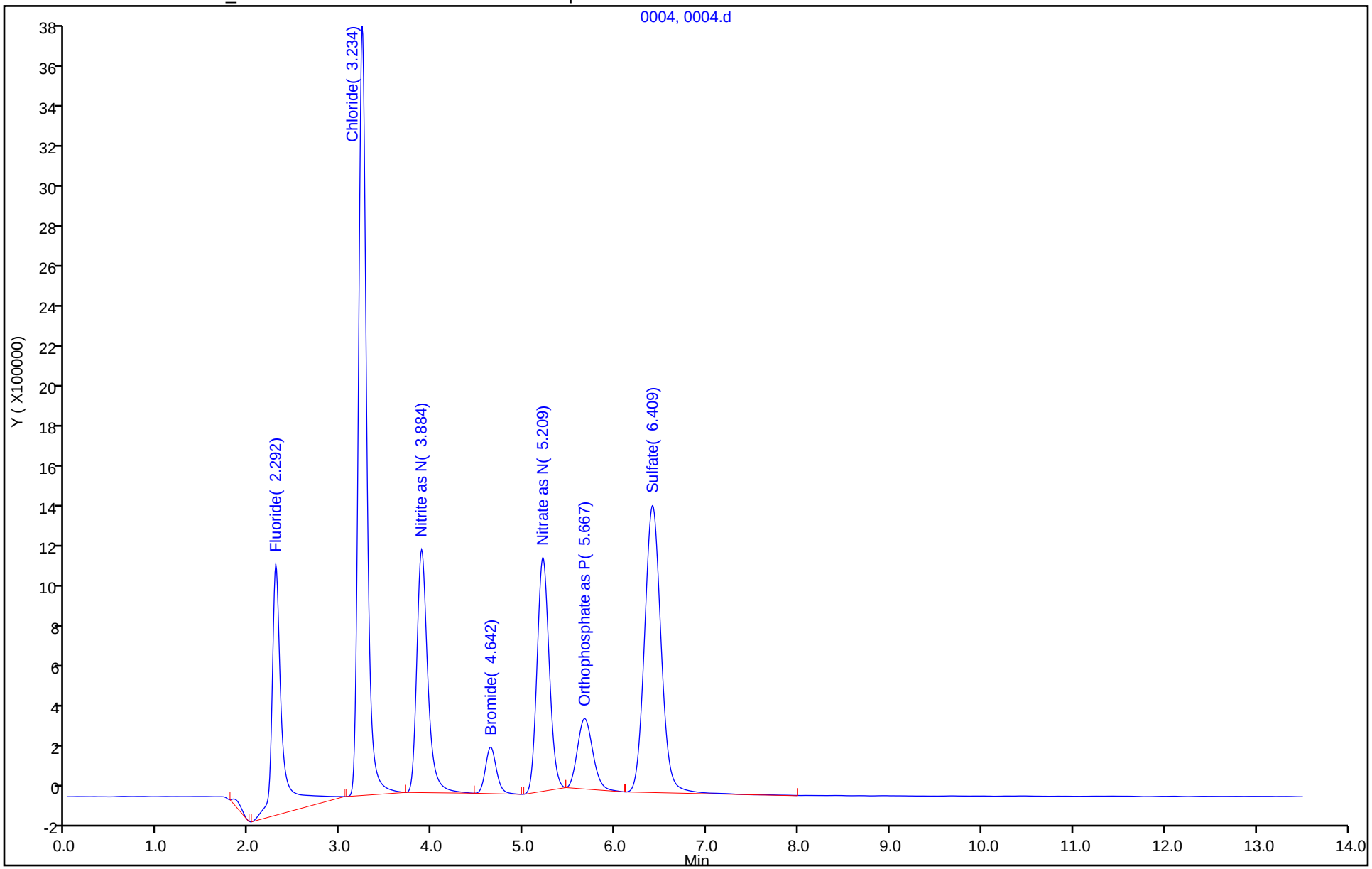
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

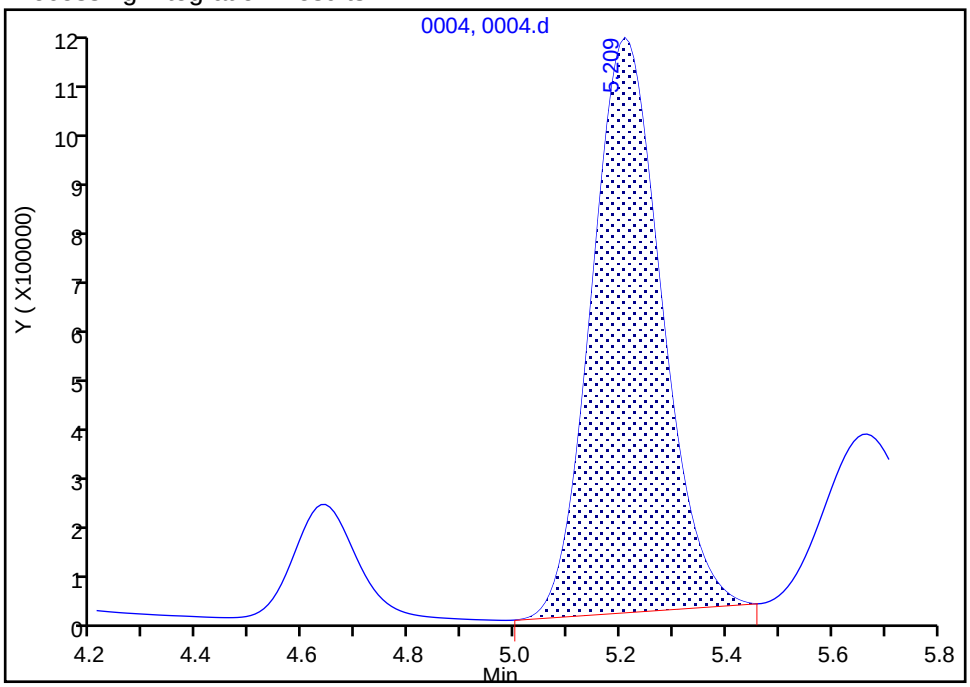
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

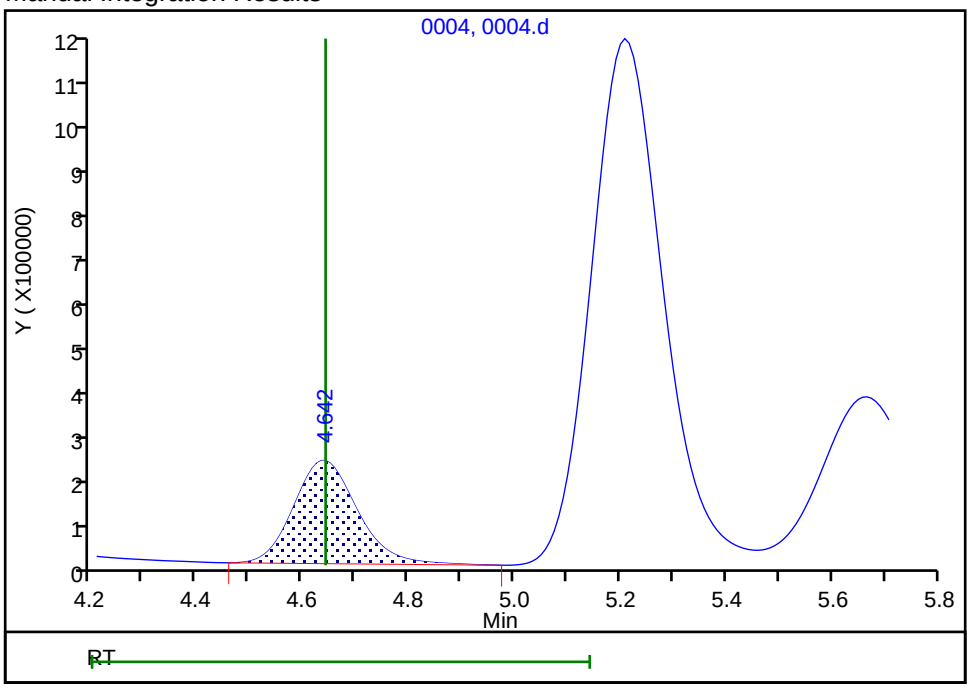
Processing Integration Results

RT: 5.21
Area: 10516434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 1893846
Amount: 0.981416
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:15
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

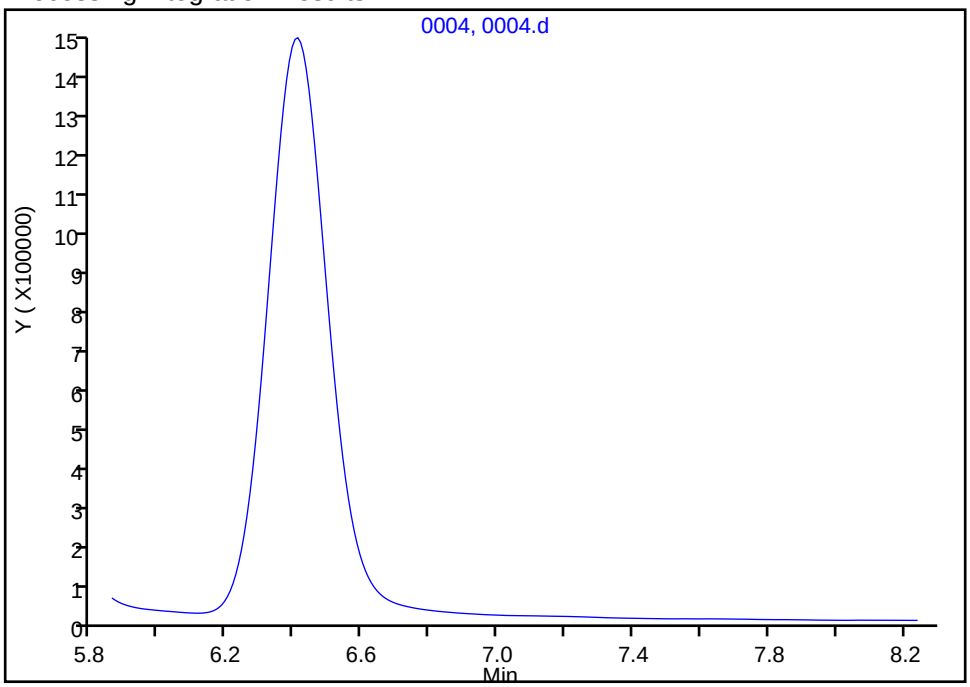
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

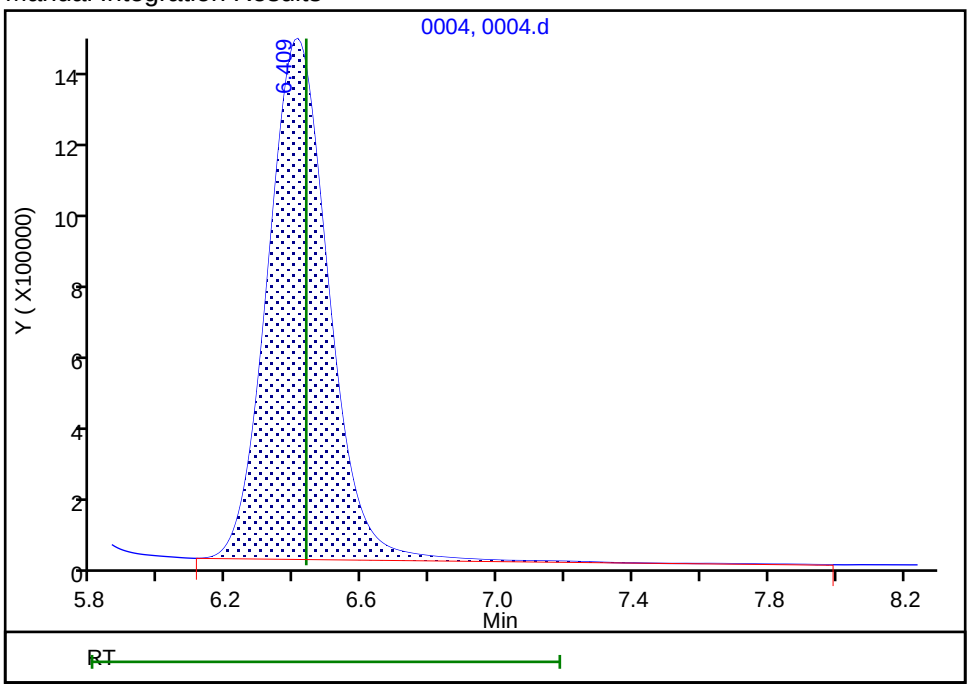
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 17587626
Amount: 4.369714
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:10
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	NC	NC	
2 Chloride	3.242	3.242	0.000	361228288	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	40367514	4.00	3.87	a
4 Bromide	4.634	4.634	0.000	7626440	NC	NC	a
5 Nitrate as N	5.200	5.200	0.000	43835884	4.00	3.81	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	4.00	3.88	a
6 Sulfate	6.434	6.434	0.000	241149184	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

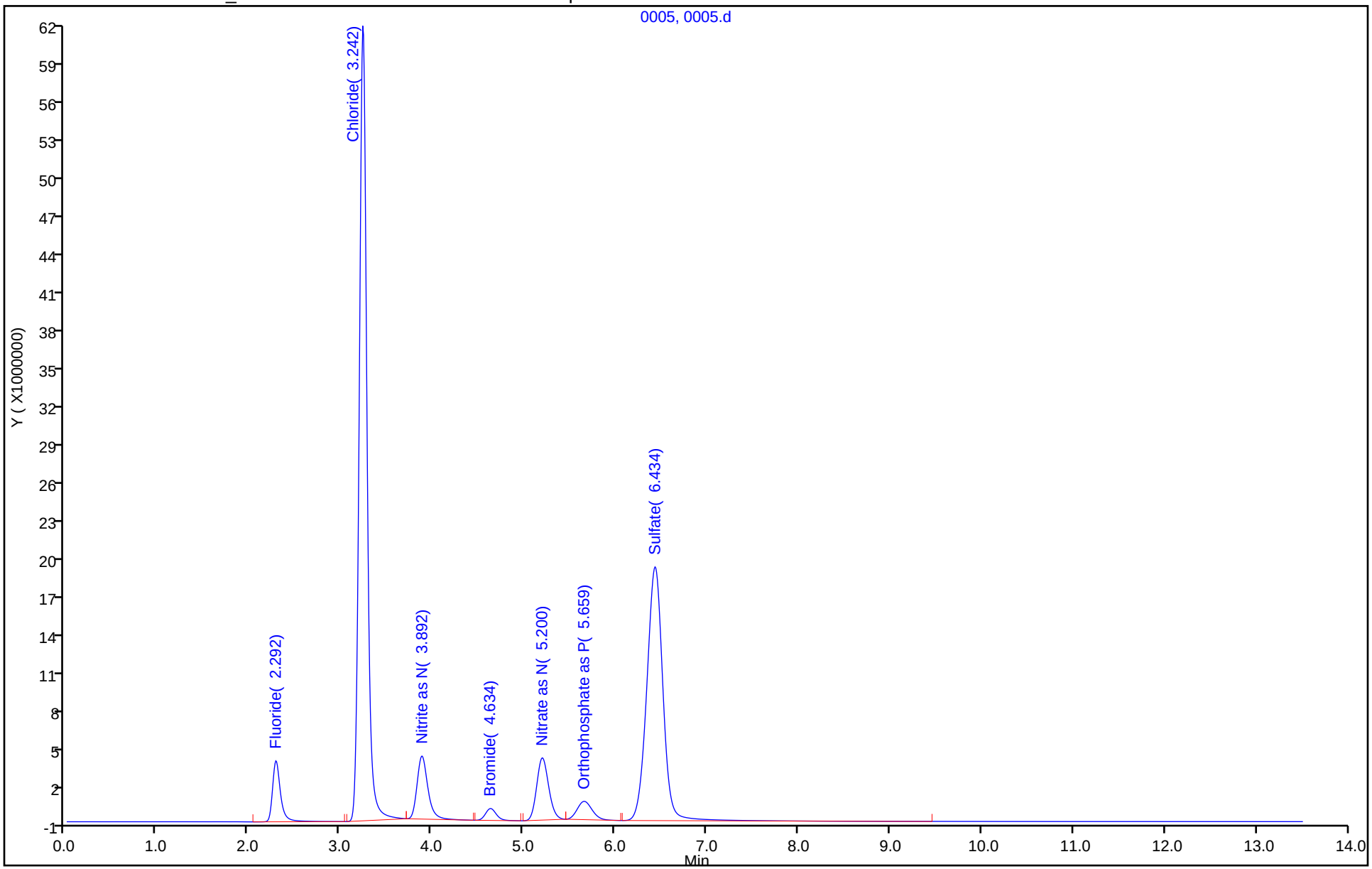
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

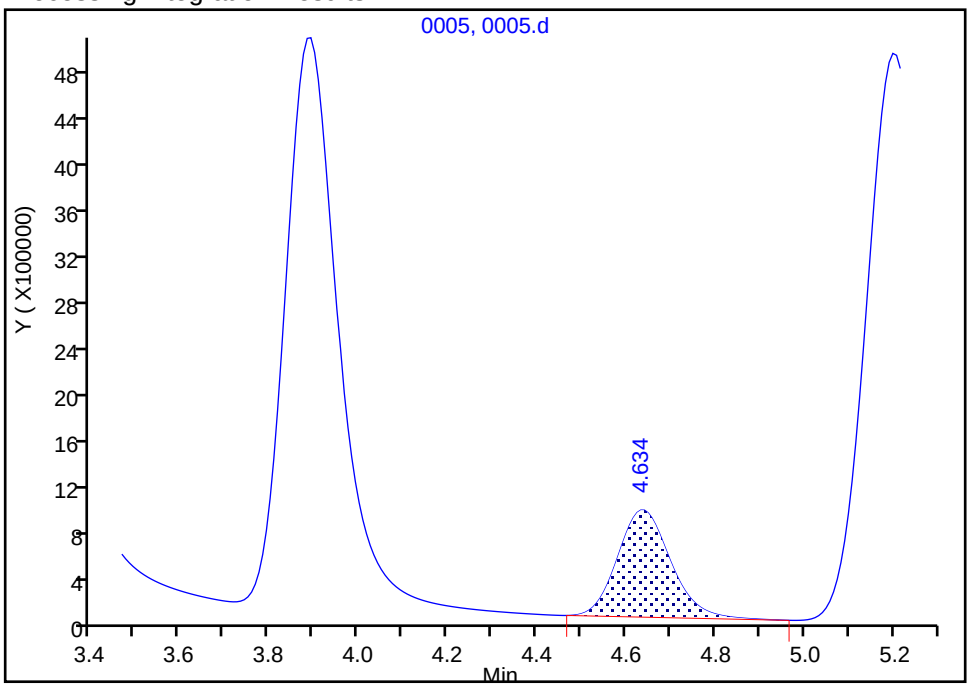
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

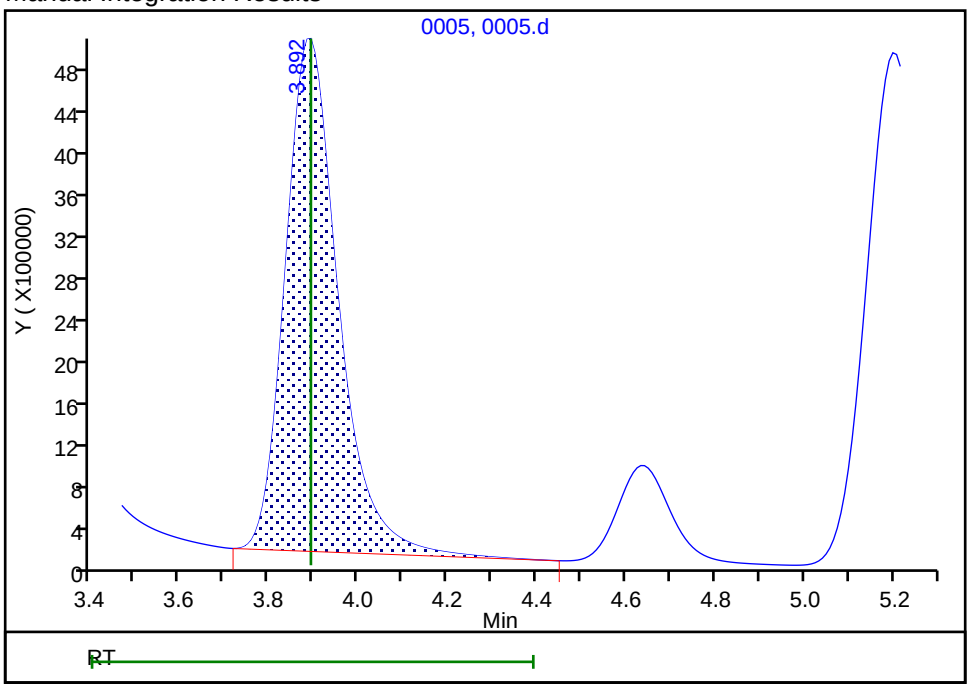
Processing Integration Results

RT: 4.63
Area: 7626440
Amount: 2.554556
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 40367514
Amount: 3.872644
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:32
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

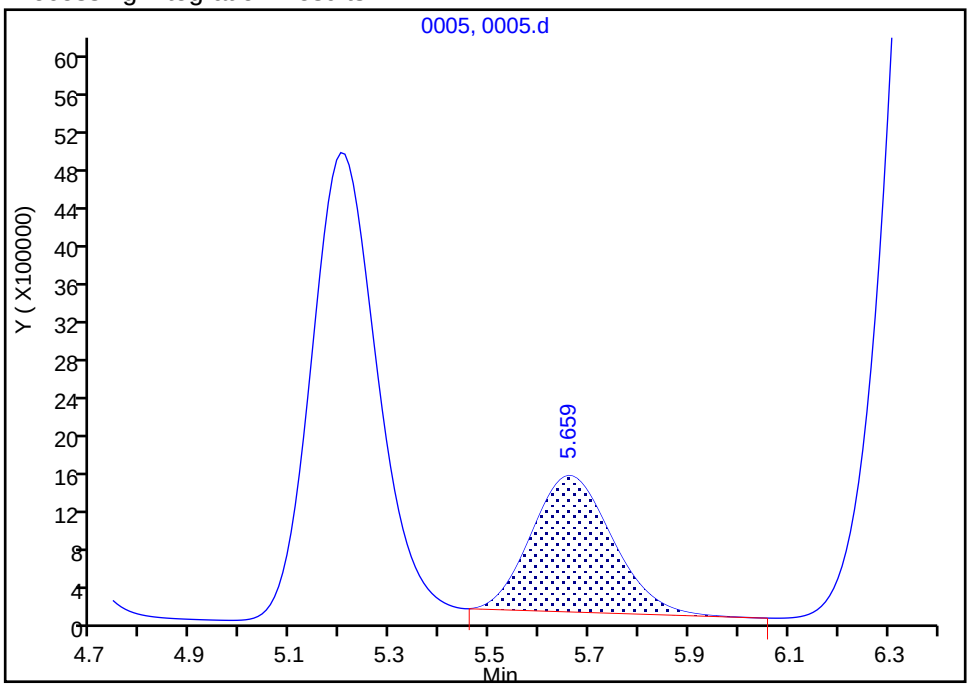
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d				
Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L4				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

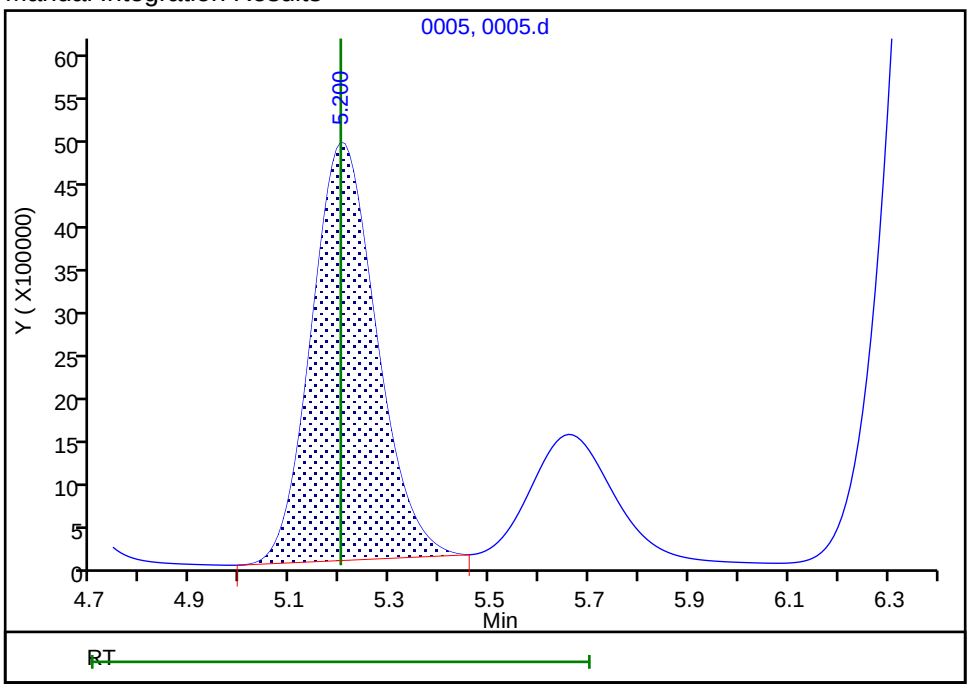
Processing Integration Results

RT: 5.66
Area: 16089342
Amount: 3.399959
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 43835884
Amount: 3.812608
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:36
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

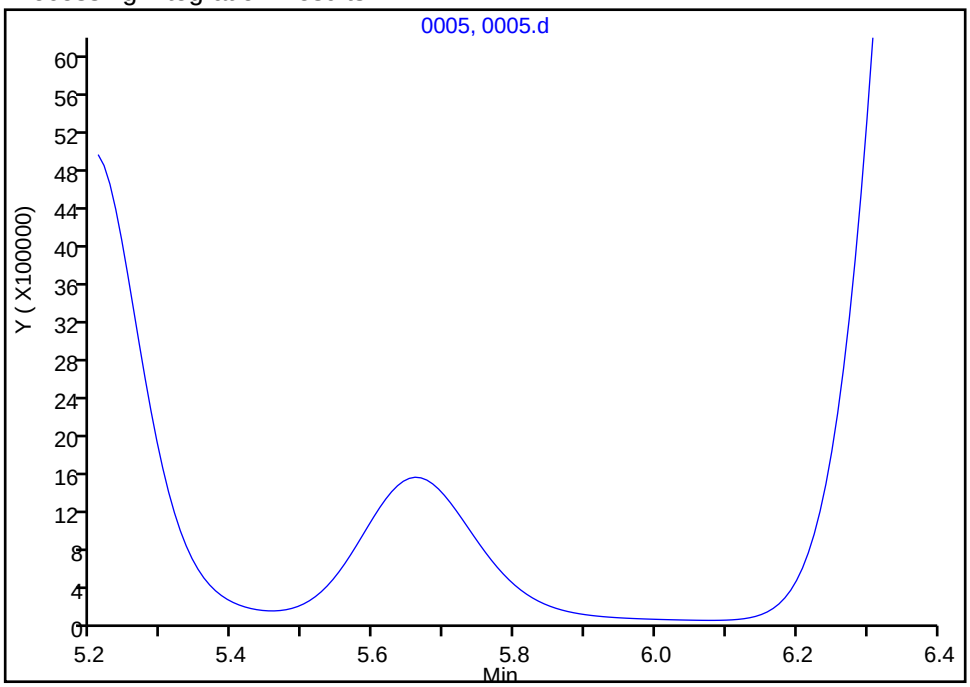
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

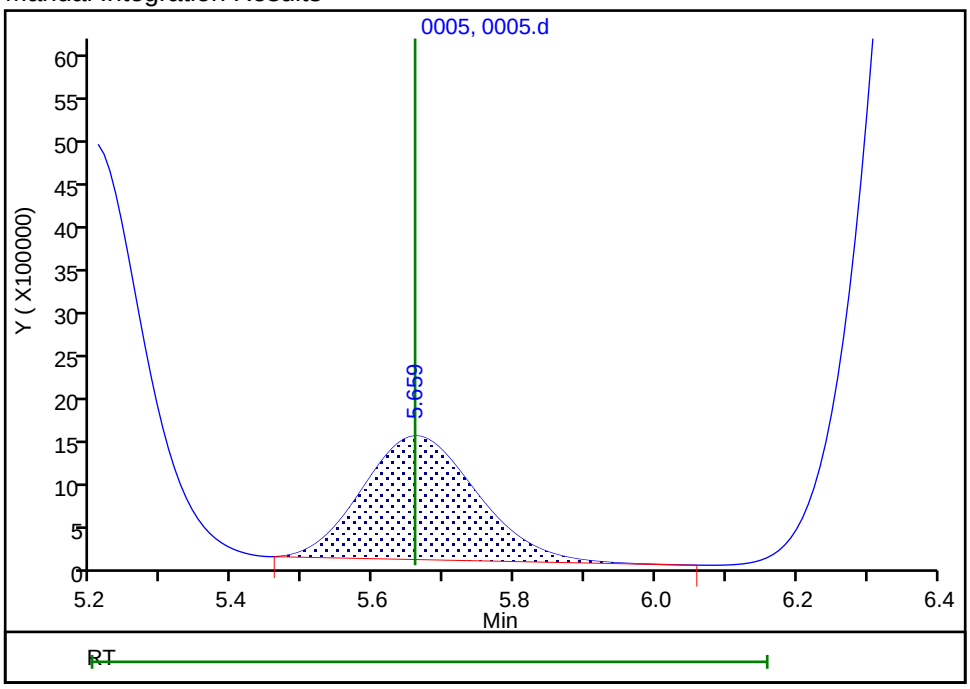
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 16089342
Amount: 3.876438
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	4.00	3.86	
2 Chloride	3.242	3.242	0.000	361228288	60.0	54.3	
3 Nitrite as N	3.892	3.892	0.000	40367514	NC	NC	a
4 Bromide	4.634	4.634	0.000	7626440	4.00	3.94	a
5 Nitrate as N	5.200	5.200	0.000	43835884	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	NC	NC	a
6 Sulfate	6.434	6.434	0.000	241149184	60.0	54.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

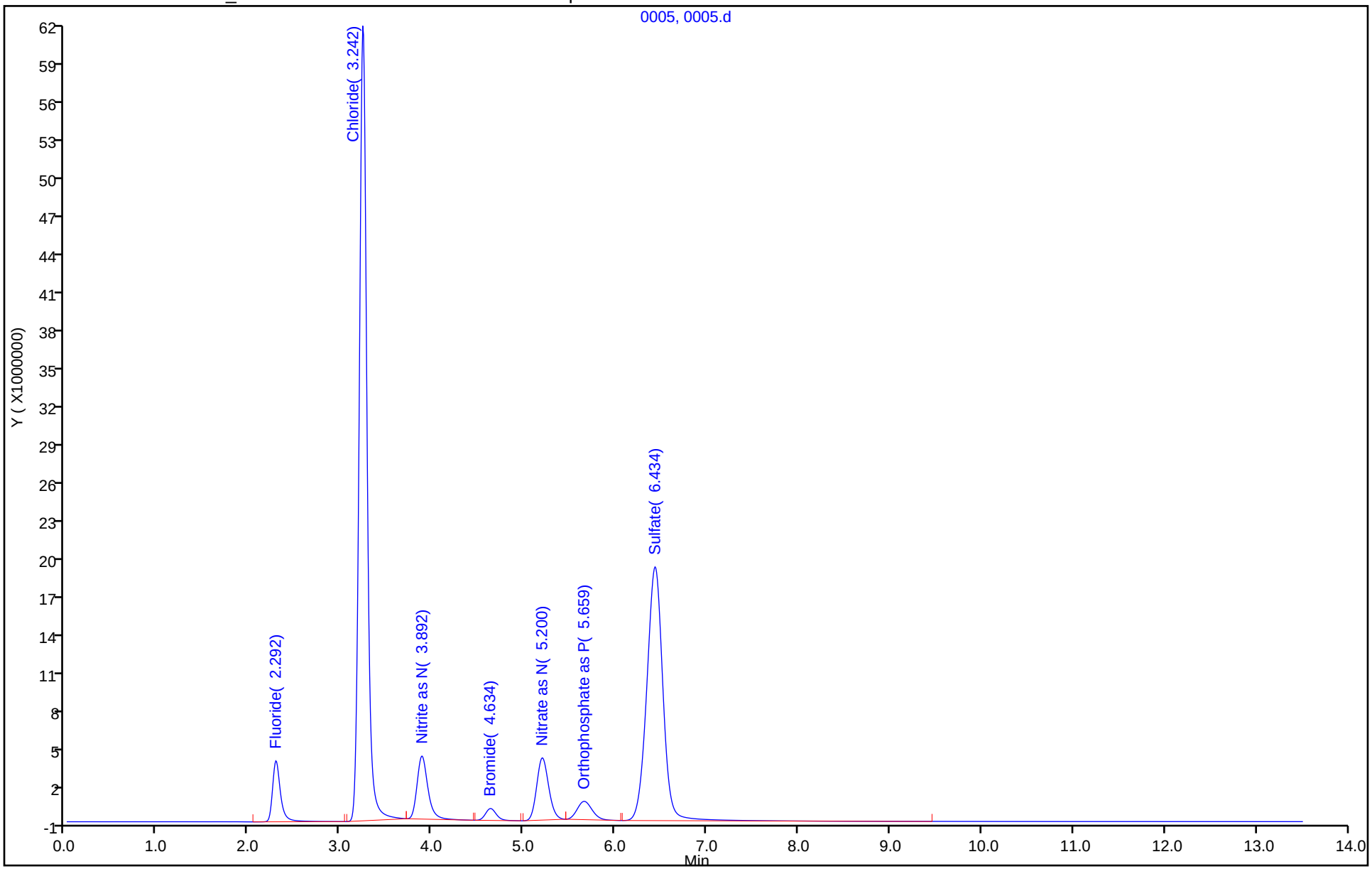
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

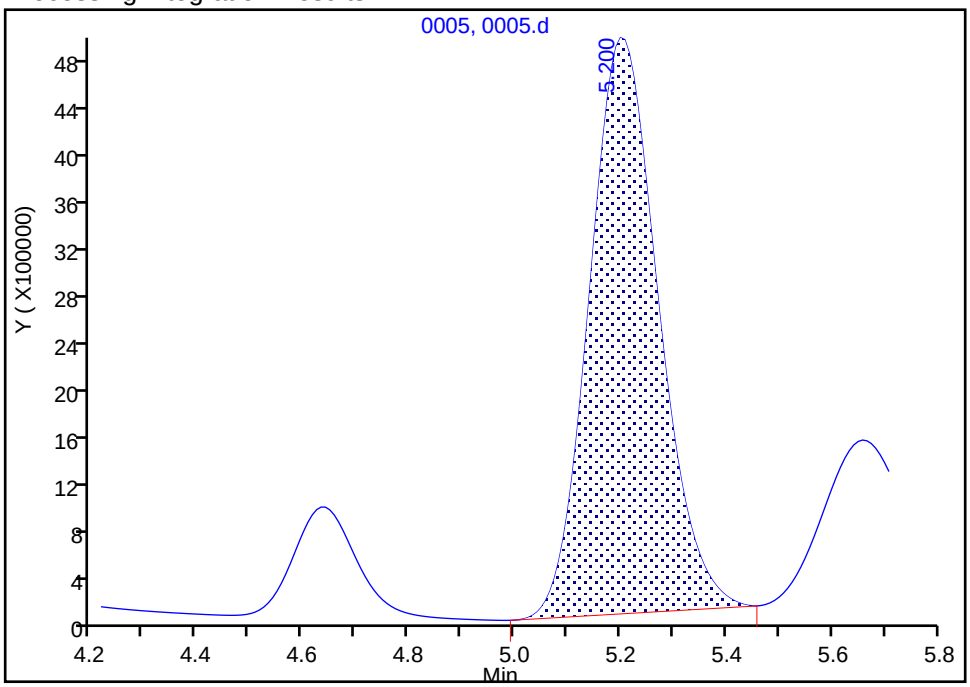
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

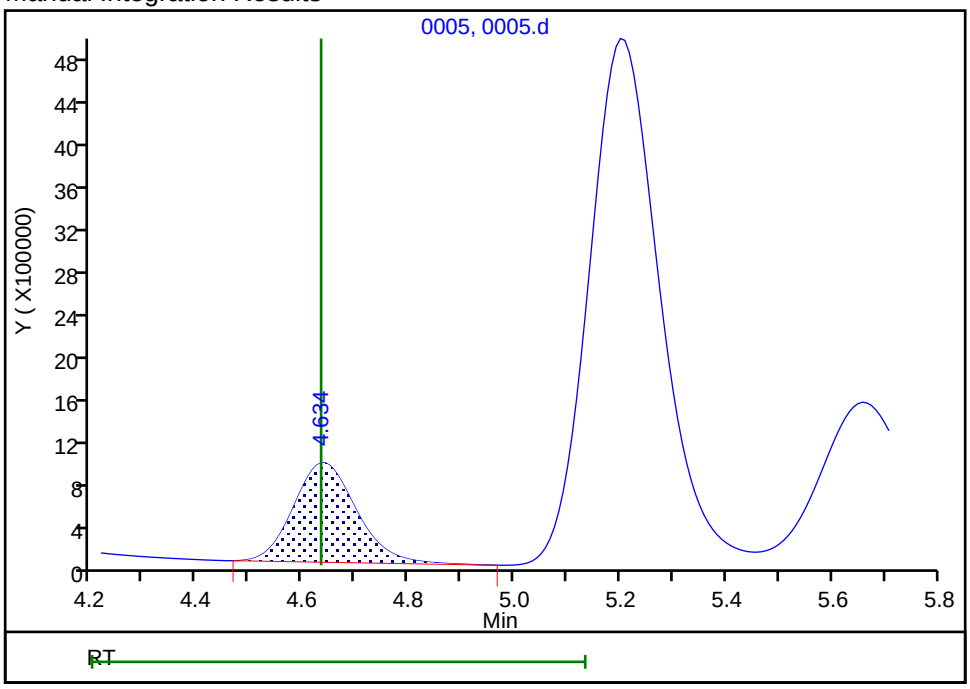
Processing Integration Results

RT: 5.20
Area: 43835884
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 7626440
Amount: 3.940762
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 08:31:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

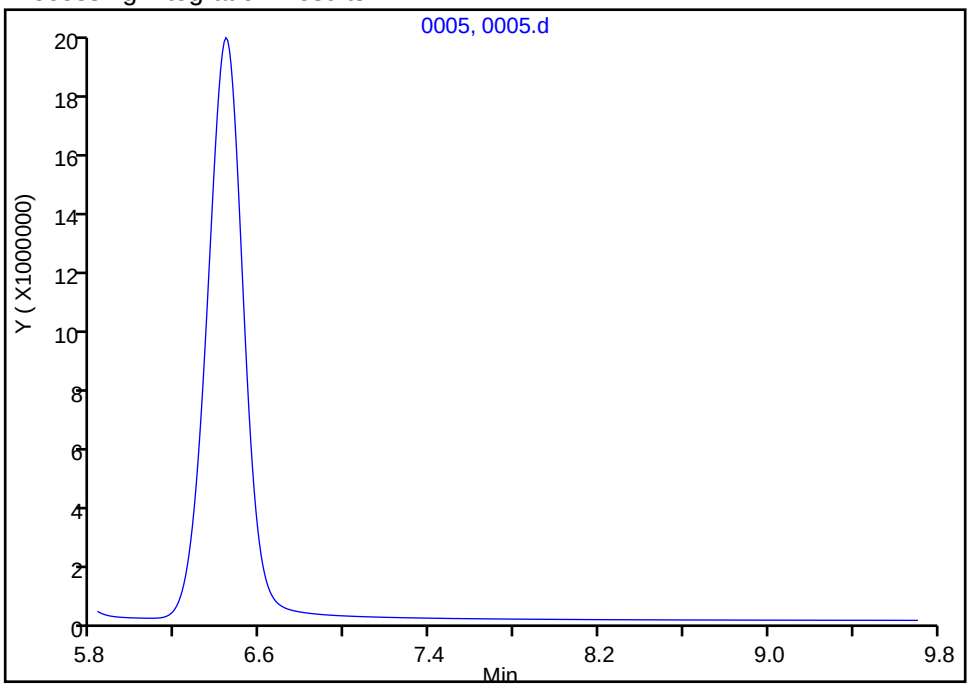
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

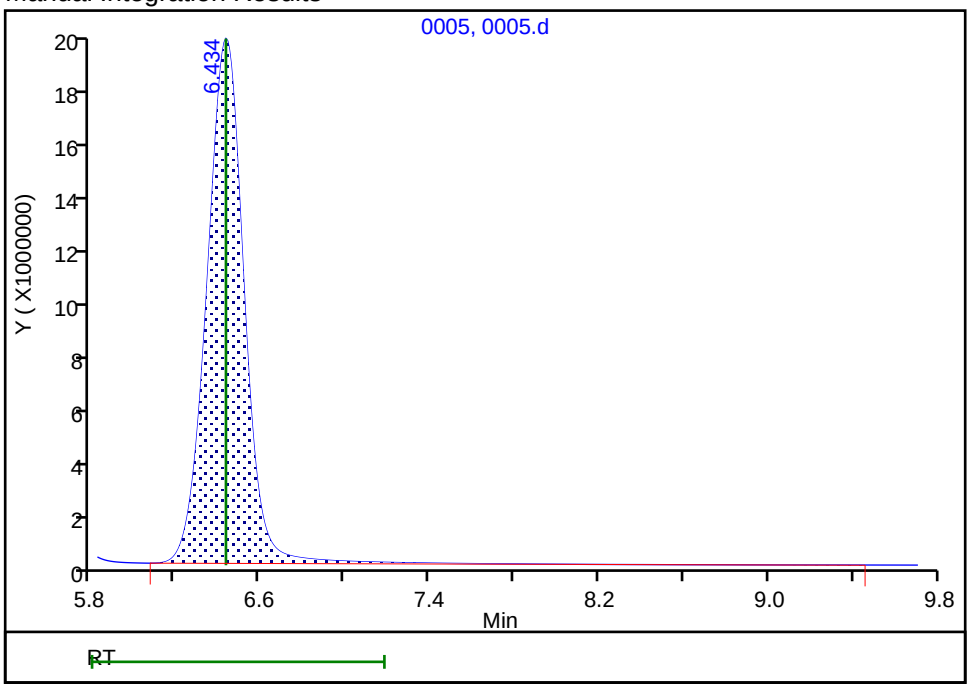
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.43
Area: 241149184
Amount: 54.355882
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:52
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	NC	NC	
2 Chloride	3.251	3.250	0.001	792237933	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	83950148	8.00	8.03	a
4 Bromide	4.634	4.642	-0.008	15499336	NC	NC	a
5 Nitrate as N	5.201	5.200	0.001	92548386	8.00	8.01	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	8.00	7.99	a
6 Sulfate	6.459	6.442	0.017	523125792	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

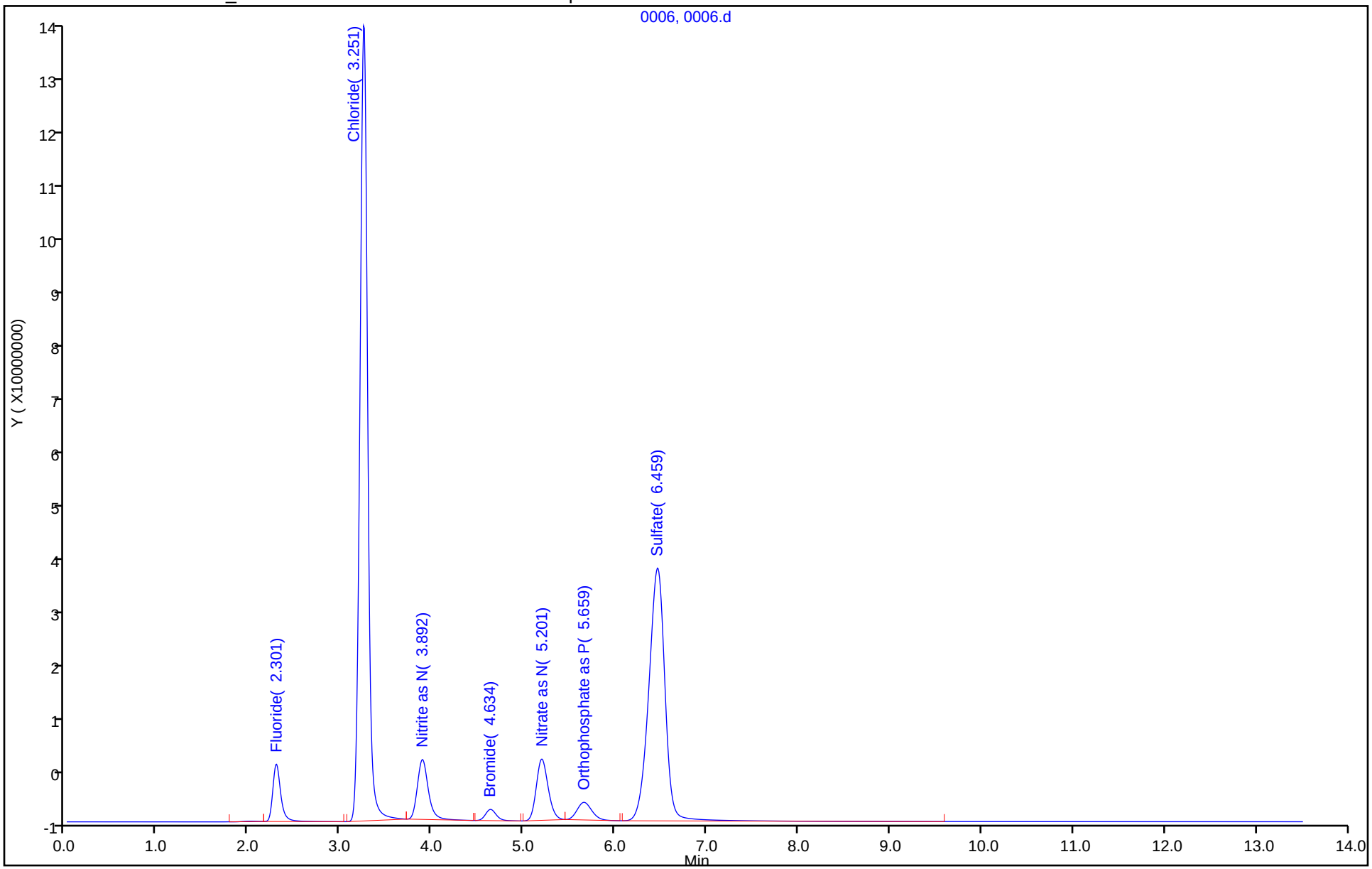
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

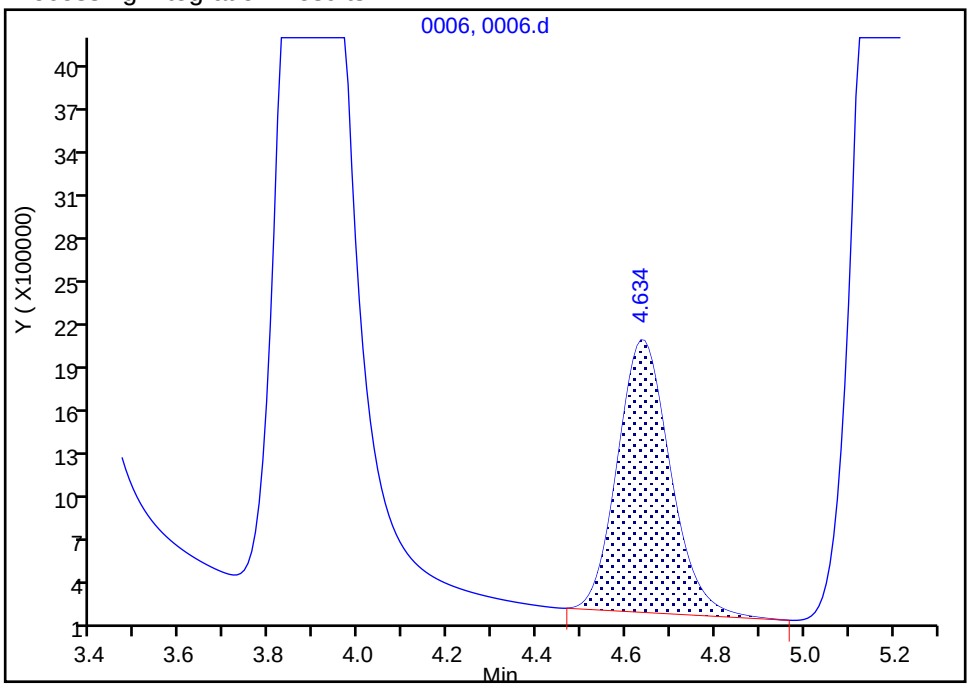
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

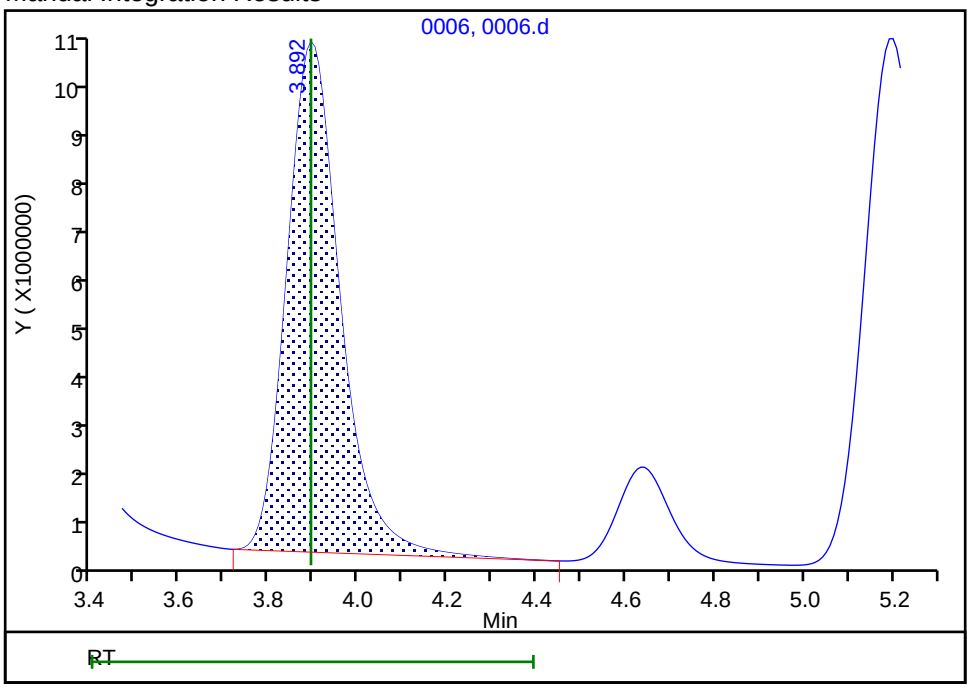
Processing Integration Results

RT: 4.63
Area: 15499336
Amount: 2.959649
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 83950148
Amount: 8.026551
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:18
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

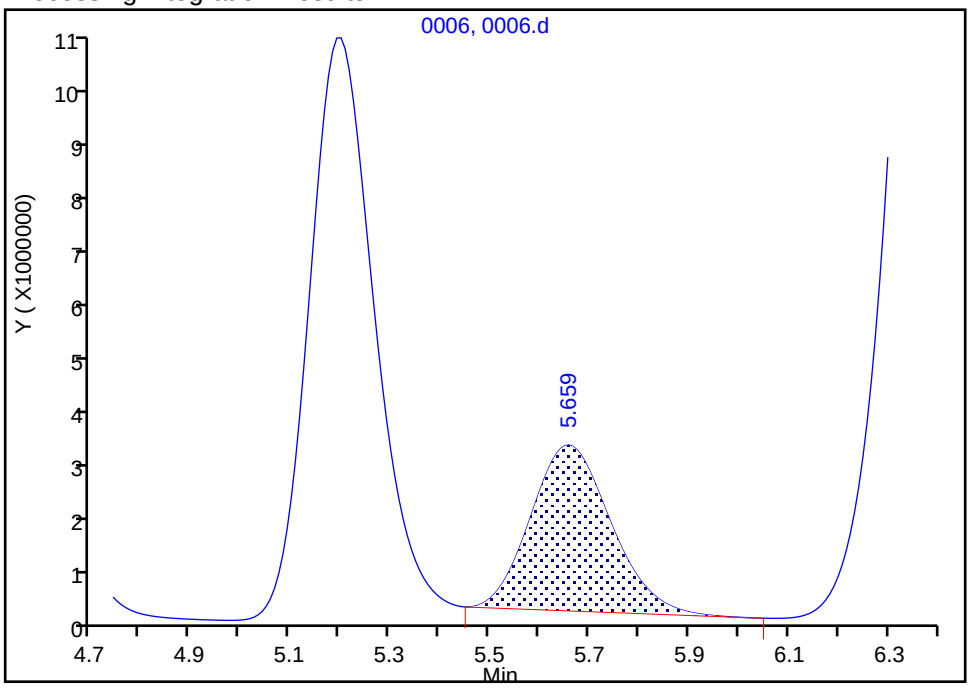
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

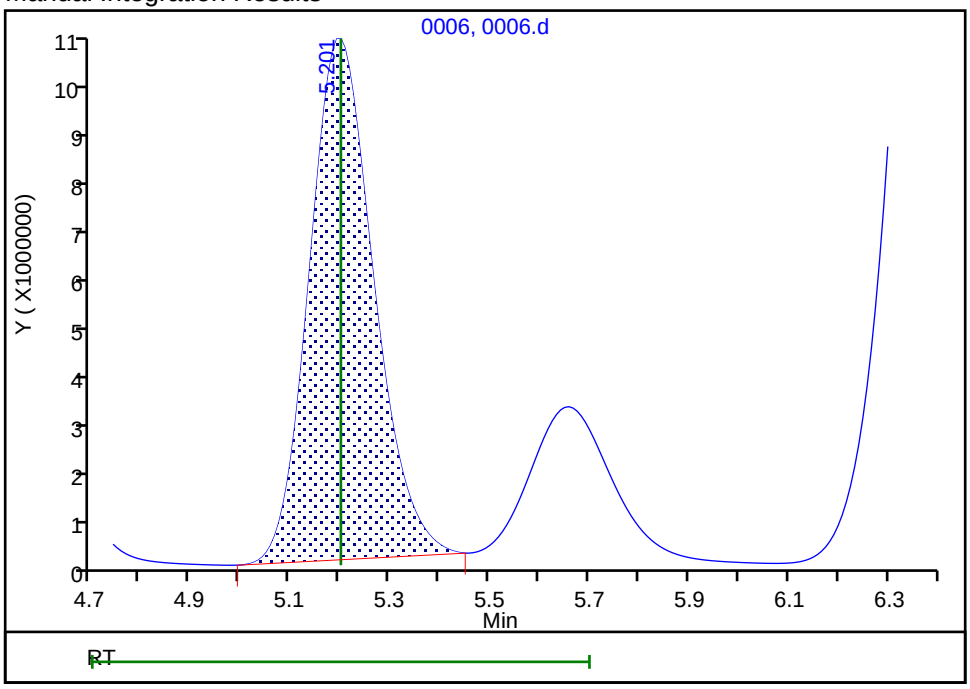
Processing Integration Results

RT: 5.66
Area: 33143352
Amount: 5.007844
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 92548386
Amount: 8.006881
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:22
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

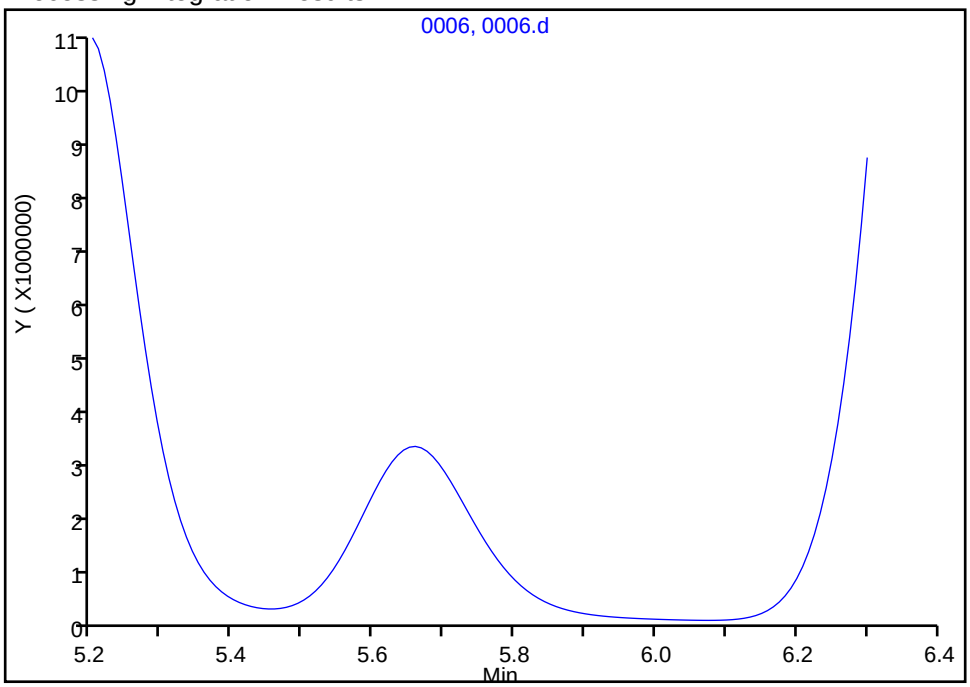
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

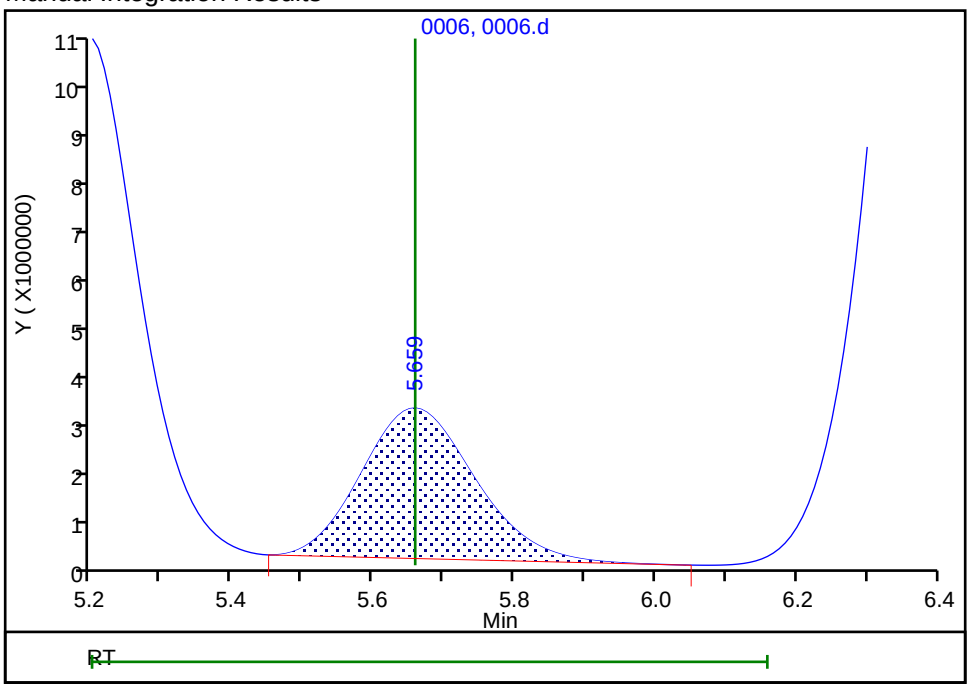
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 33143352
Amount: 7.993638
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:27
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	8.00	7.94	
2 Chloride	3.251	3.250	0.001	792237933	120.0	118.4	
3 Nitrite as N	3.892	3.892	0.000	83950148	NC	NC	a
4 Bromide	4.634	4.642	-0.008	15499336	8.00	7.98	a
5 Nitrate as N	5.201	5.200	0.001	92548386	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	NC	NC	a
6 Sulfate	6.459	6.442	0.017	523125792	120.0	117.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

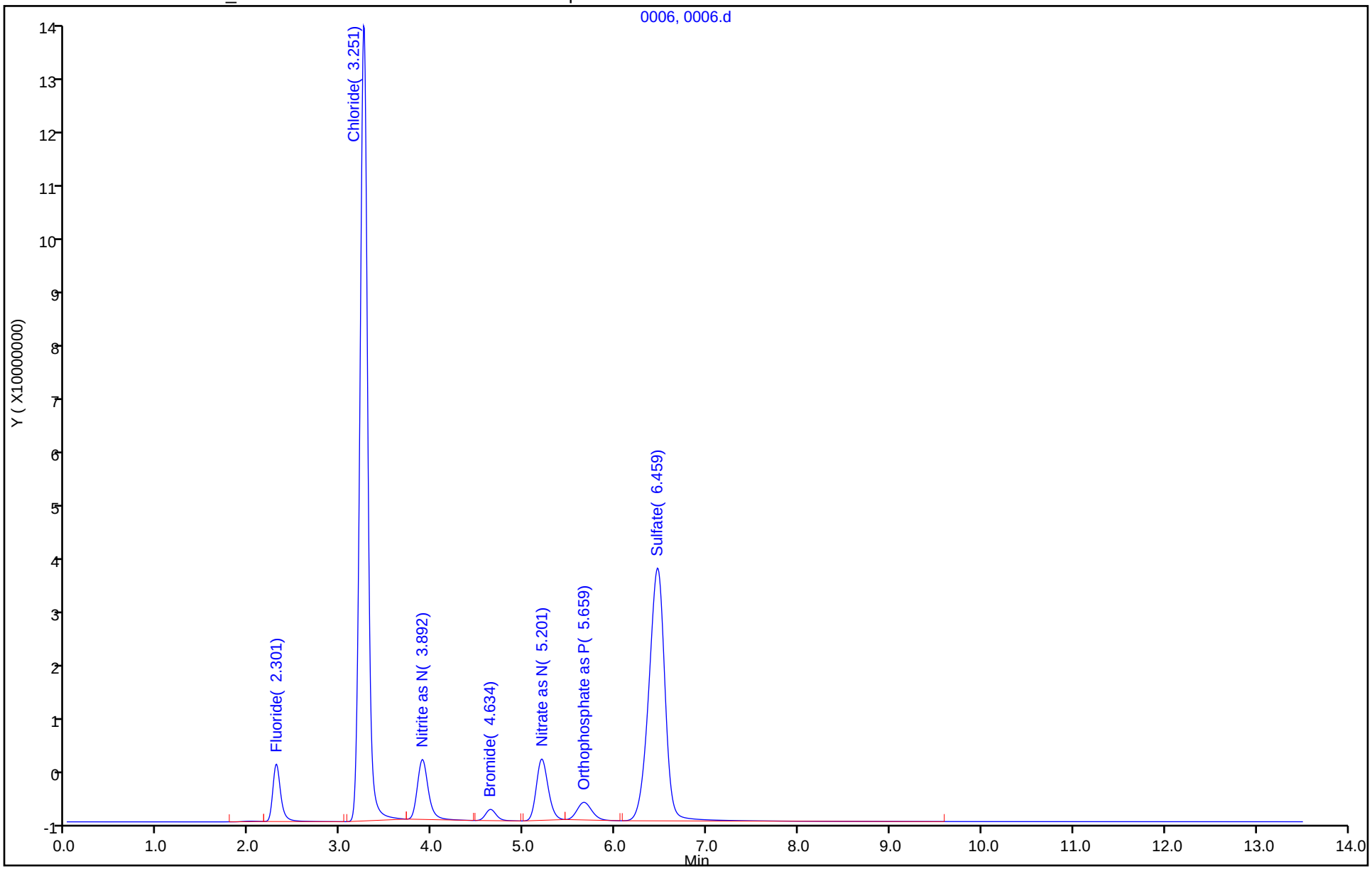
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

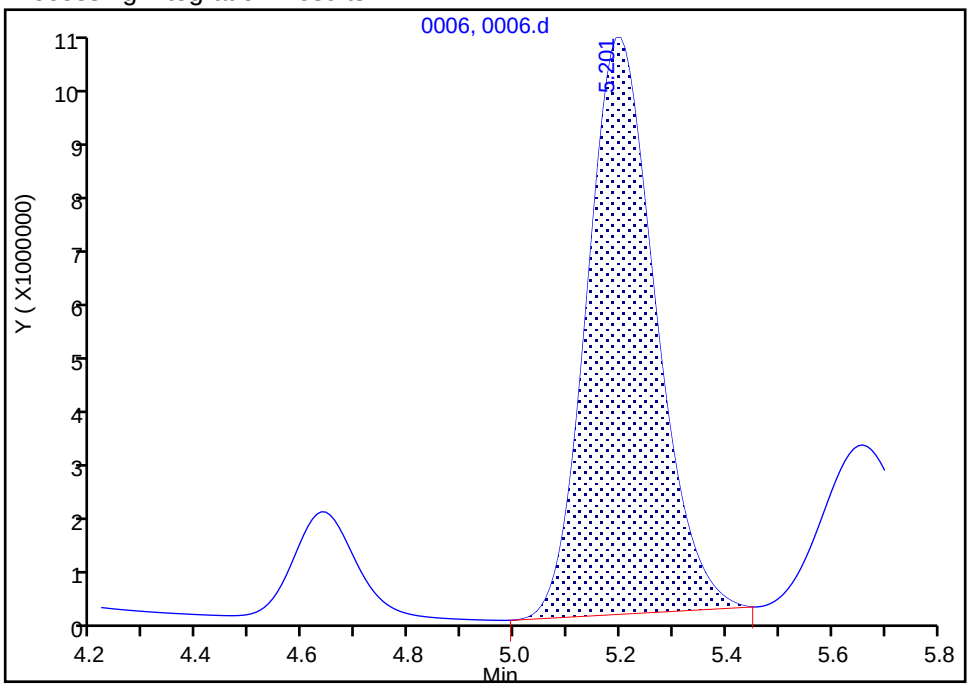
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d				
Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

4 Bromide, CAS: 24959-67-9

Signal: 1

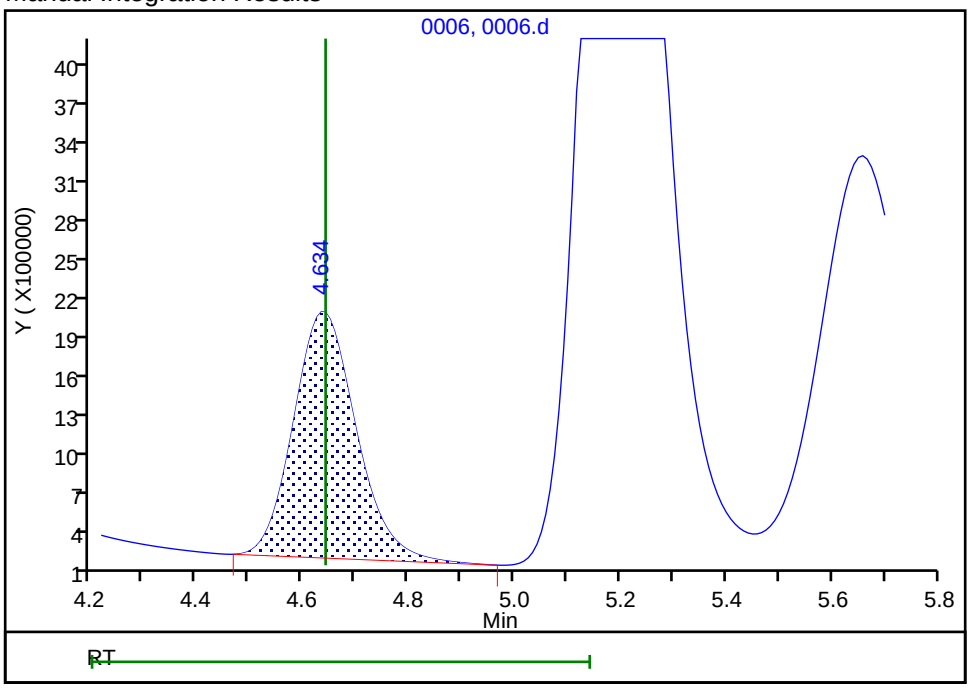
Processing Integration Results

RT: 5.20
Area: 92548386
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 15499336
Amount: 7.976961
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:37
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

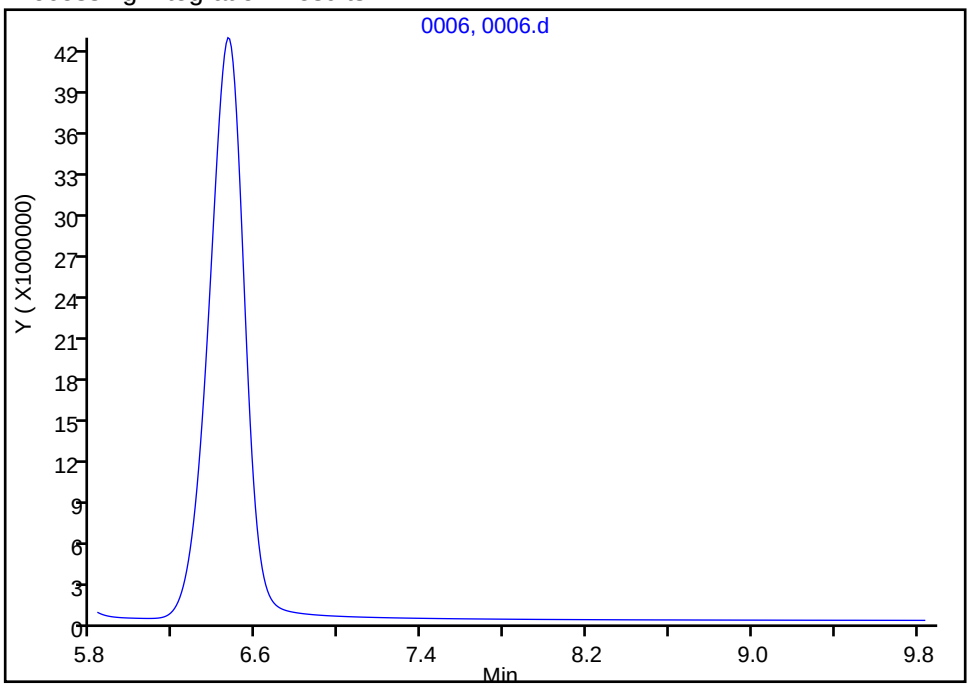
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

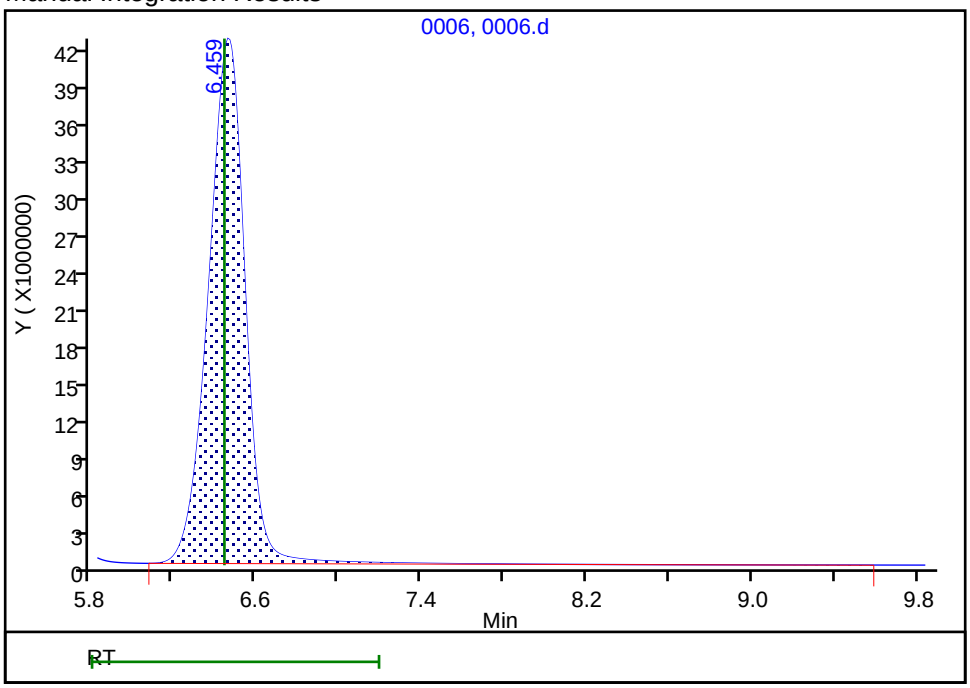
Not Detected
Expected RT: 6.44

Processing Integration Results



Manual Integration Results

RT: 6.46
Area: 523125792
Amount: 117.4031
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	NC	NC	
2 Chloride	3.267	3.250	0.017	1394323073	NC	NC	
3 Nitrite as N	3.901	3.892	0.009	106025591	10.0	10.1	
4 Bromide	4.642	4.642	0.000	19510403	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	118348380	10.0	10.2	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	10.0	10.2	
6 Sulfate	6.484	6.442	0.042	931644146	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

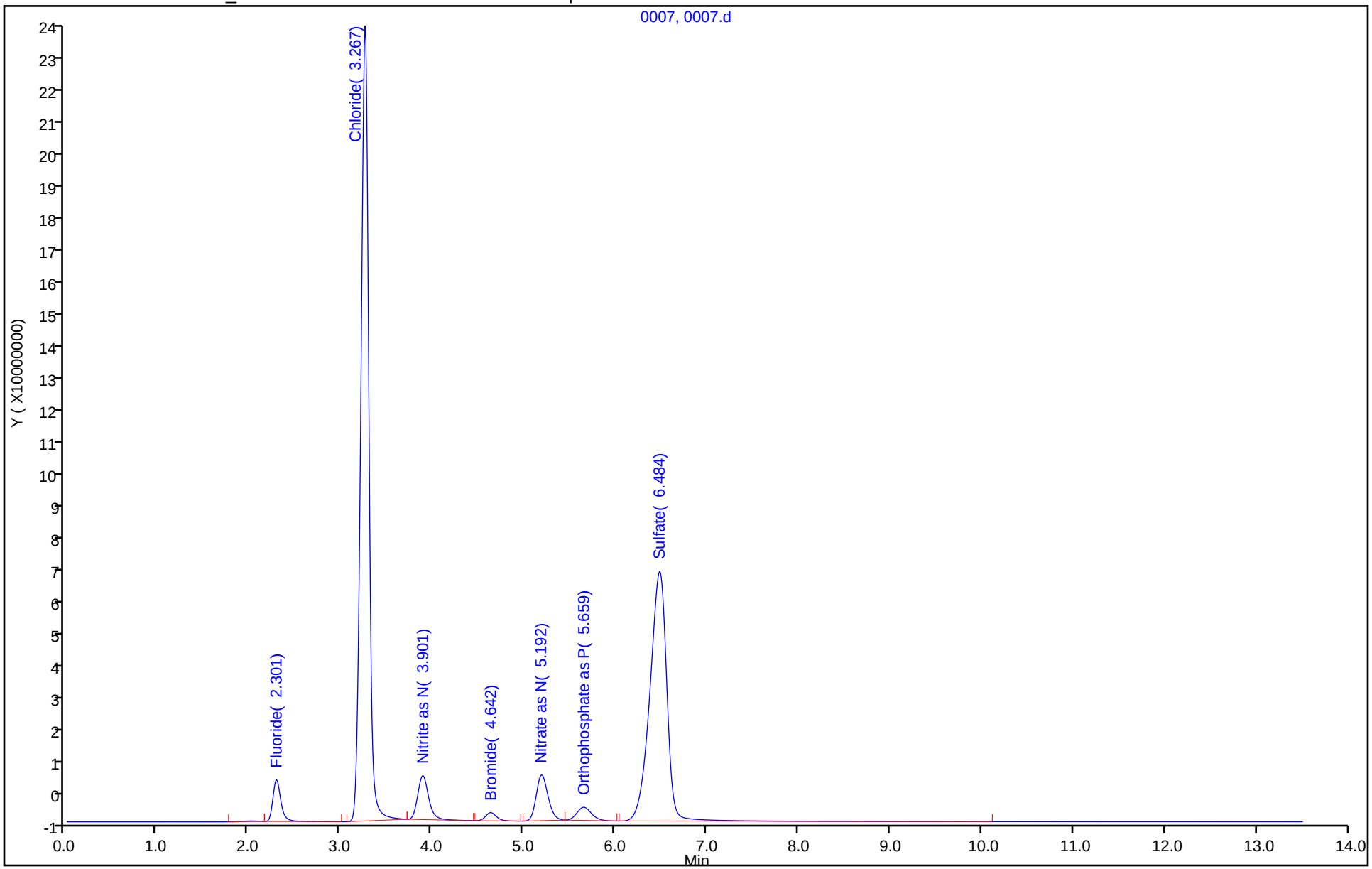
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	10.0	9.99	
2 Chloride	3.267	3.250	0.017	1394323073	200.0	208.0	
3 Nitrite as N	3.901	3.892	0.009	106025591	NC	NC	
4 Bromide	4.642	4.642	0.000	19510403	10.0	10.0	
5 Nitrate as N	5.192	5.200	-0.008	118348380	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	NC	NC	
6 Sulfate	6.484	6.442	0.042	931644146	200.0	208.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

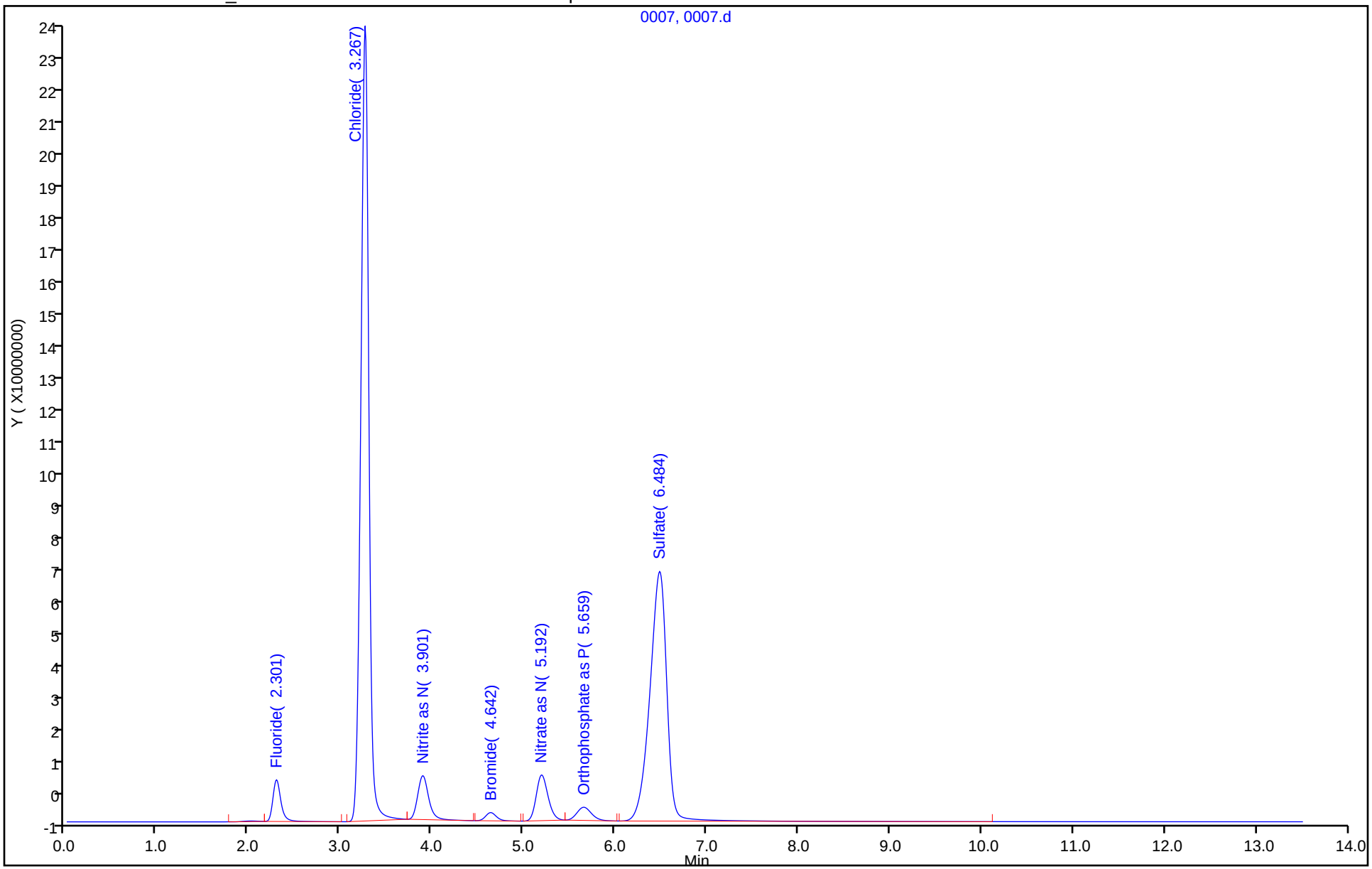
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 82000 Inst ID: 11 Analysis Date: 05-17-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123875	4 1 KES 5-17-19	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 1	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123899	4	F Cl NO2 Br NO3 (PO4) SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123875	1	F Cl NO2 Br NO3 PO4 SO4	100x, 1000x	dirt
123899	4	F Cl NO2 Br NO3 (PO4) SO4	100x, 1000x	dirt
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 20-May-2019 17:55:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 09:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37534254	NC	NC	
2 Chloride	3.242	3.242	0.000	636211327	NC	NC	
3 Nitrite as N	3.876	3.892	-0.016	51655603	5.00	4.95	
4 Bromide	4.609	4.634	-0.025	10186924	NC	NC	
5 Nitrate as N	5.167	5.200	-0.033	57599604	5.00	5.00	
7 Orthophosphate as P	5.617	5.659	-0.042	20945835	5.00	5.05	
6 Sulfate	6.392	6.434	-0.042	415954032	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

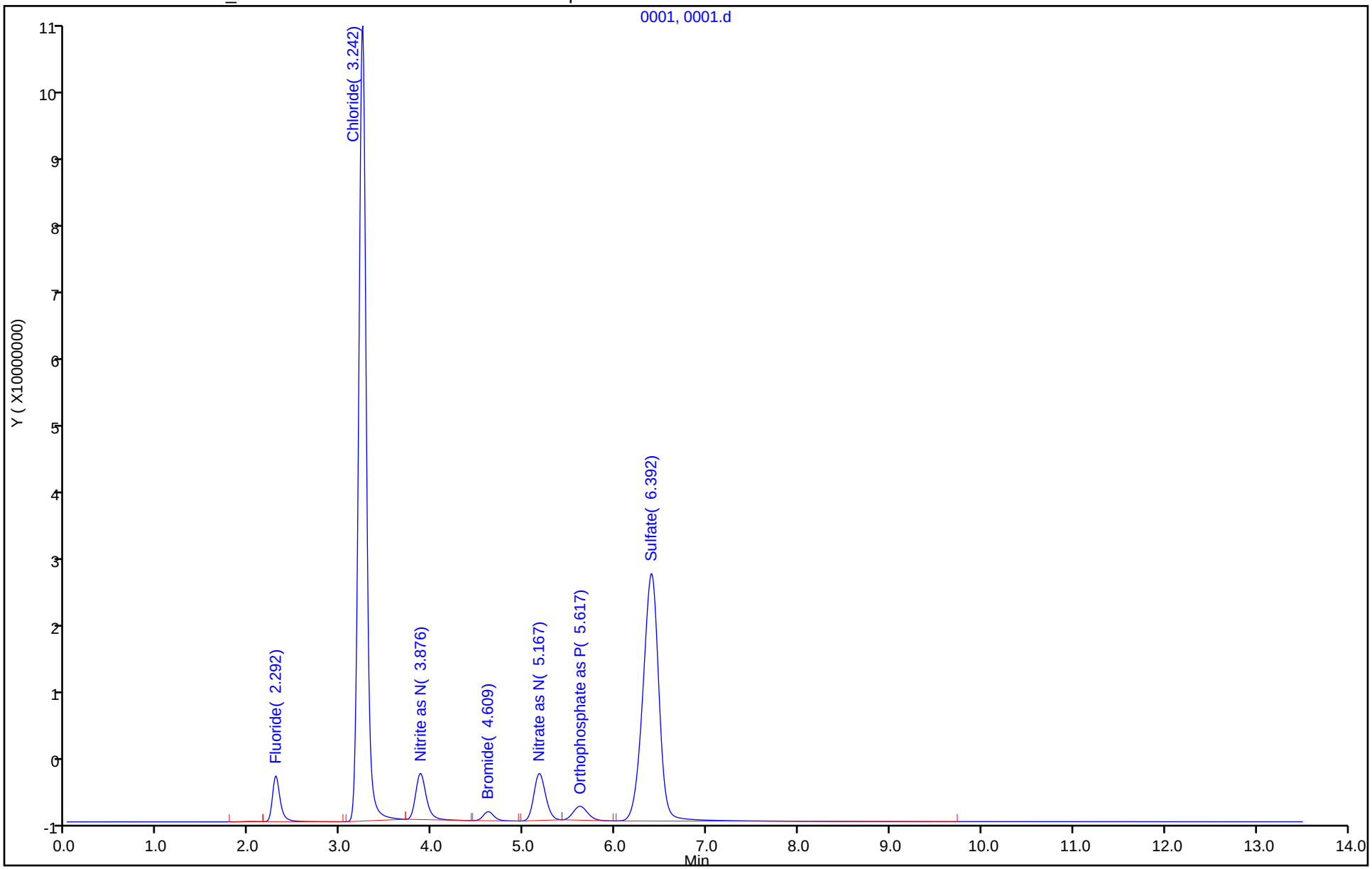
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:26 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d

Injection Date:	17-May-2019 09:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



IC Instrument Information

WL: 82000 Inst ID: 11 Analysis Date: 05-17-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123875	4 1 KES	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 1	
☐		5-17-19	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123899	4	F Cl NO2 Br NO3 (PO4) SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123875	1	F Cl NO2 Br NO3 PO4 SO4	100x, 1000x	dirt
123899	4	F Cl NO2 Br NO3 (PO4) SO4	100x, 1000x	dirt
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	20-May-2019 17:55:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 09:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37534254	5.00	5.02	
2 Chloride	3.242	3.242	0.000	636211327	100.0	95.2	
3 Nitrite as N	3.876	3.892	-0.016	51655603	NC	NC	
4 Bromide	4.609	4.634	-0.025	10186924	5.00	5.26	
5 Nitrate as N	5.167	5.200	-0.033	57599604	NC	NC	
7 Orthophosphate as P	5.617	5.659	-0.042	20945835	NC	NC	
6 Sulfate	6.392	6.434	-0.042	415954032	100.0	93.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

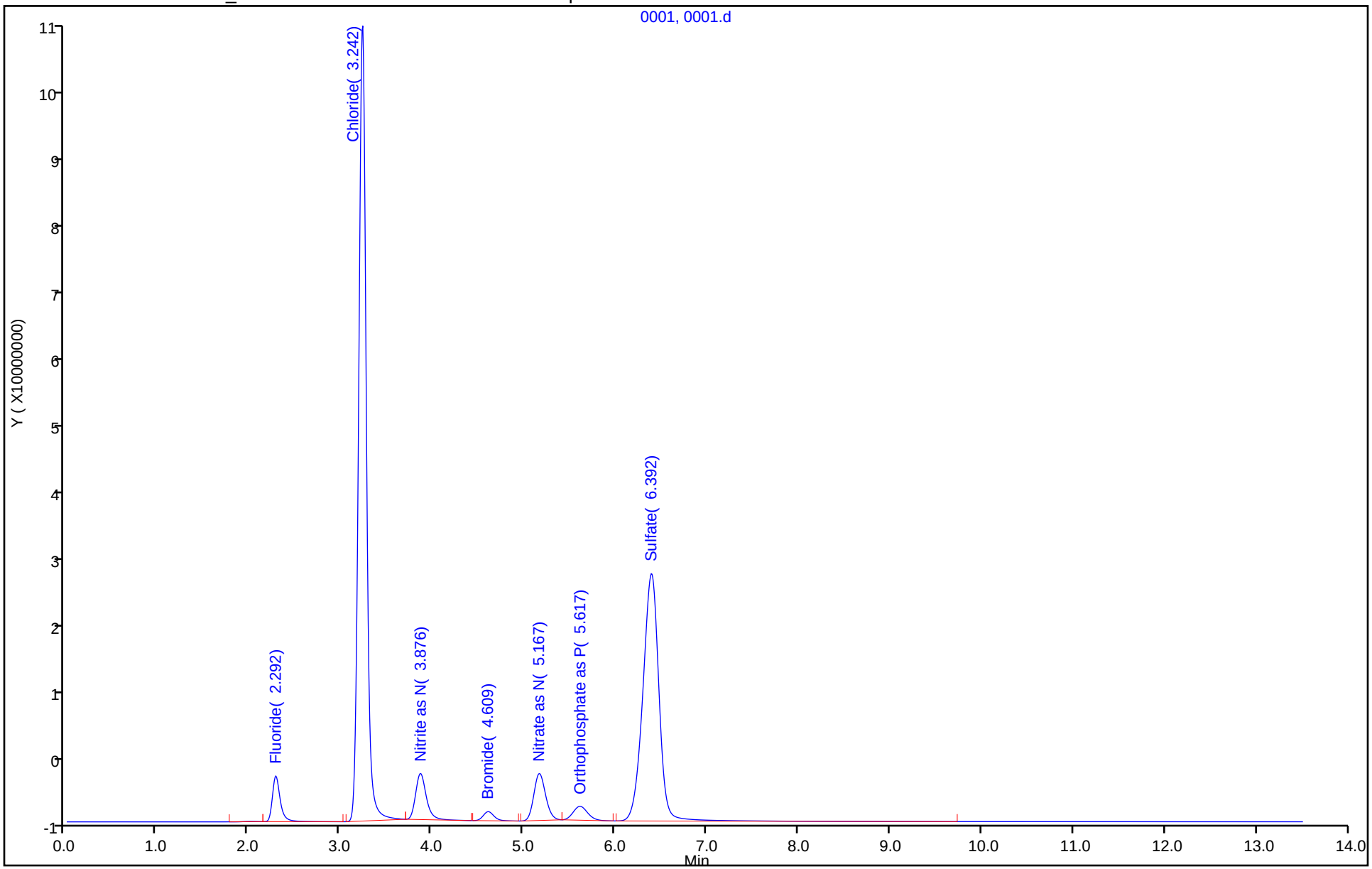
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:26 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d

Injection Date:	17-May-2019 09:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 10:03:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:53:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.292	0.425	25831		NC	M
2 Chloride	3.226	3.242	-0.016	63275		NC	M
3 Nitrite as N		3.892			ND		
4 Bromide		4.634			ND		
5 Nitrate as N		5.200			ND		
7 Orthophosphate as P		5.659			ND		
6 Sulfate		6.434			ND		

QC Flag Legend

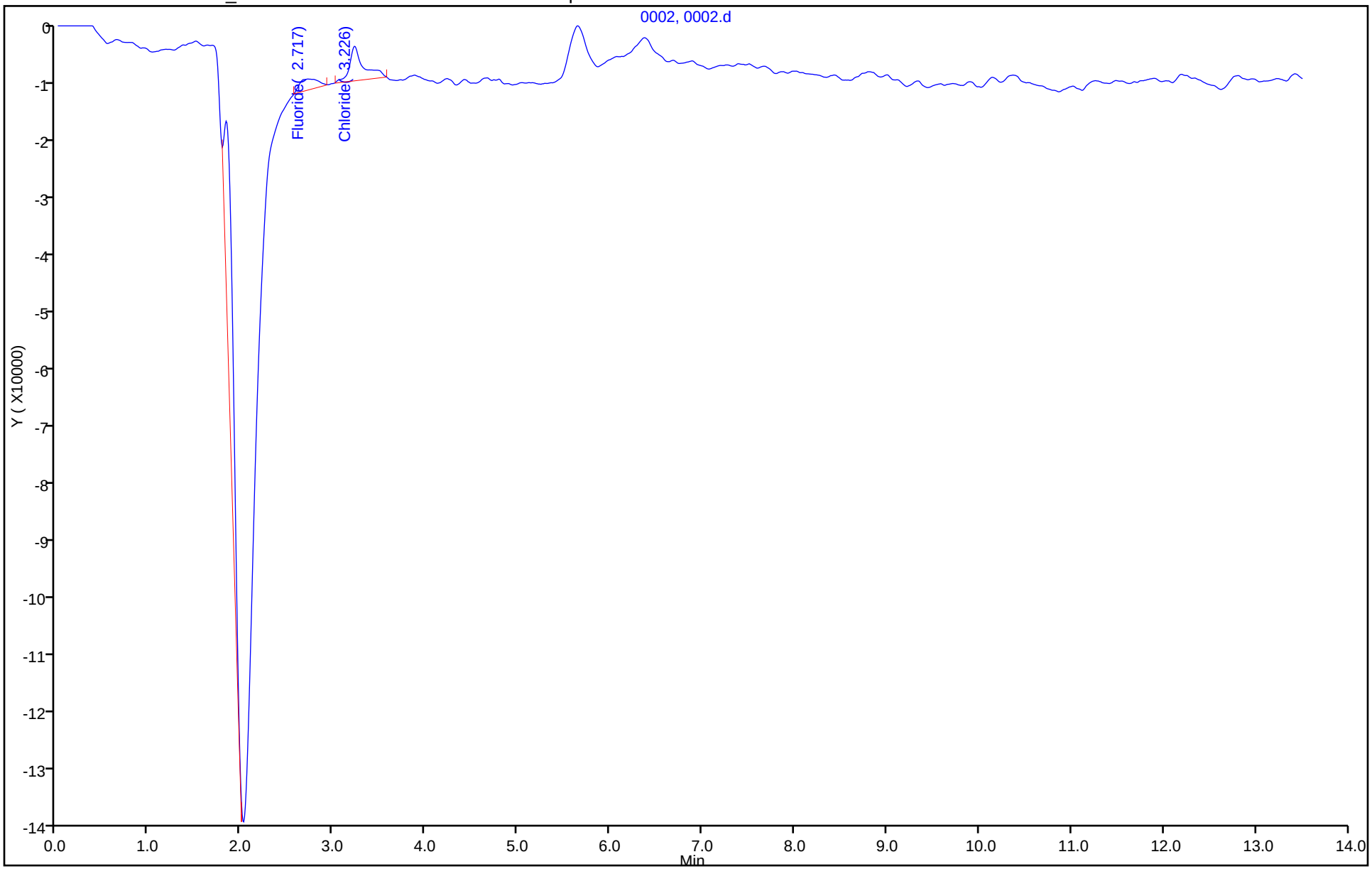
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:27 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d

Injection Date:	17-May-2019 10:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 10:03:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:53:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.292	0.425	25831		-0.1510	M
2 Chloride	3.226	3.242	-0.016	63275		0.6266	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P		5.659				ND	
6 Sulfate		6.434				ND	

QC Flag Legend

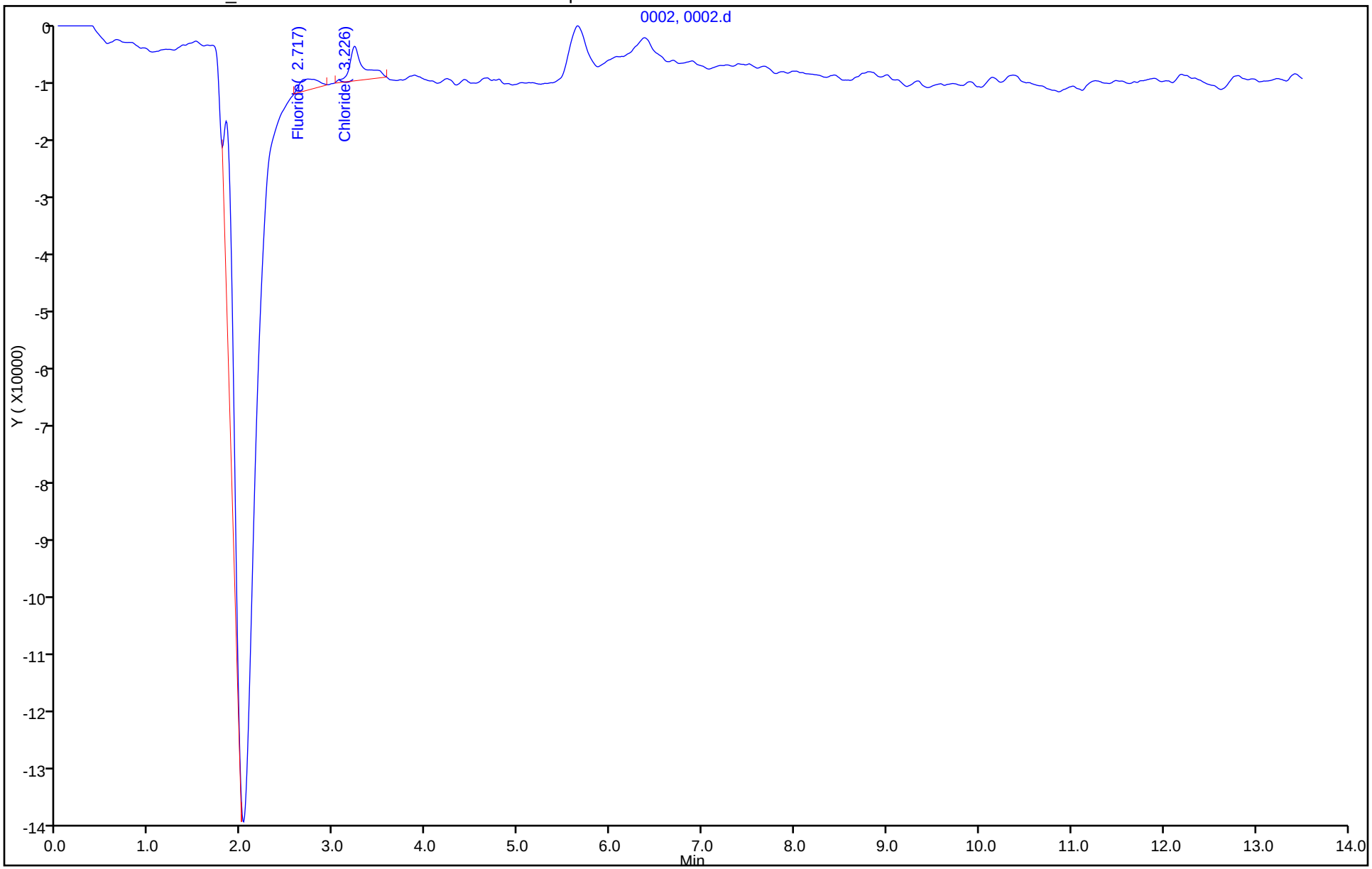
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:27 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d

Injection Date:	17-May-2019 10:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

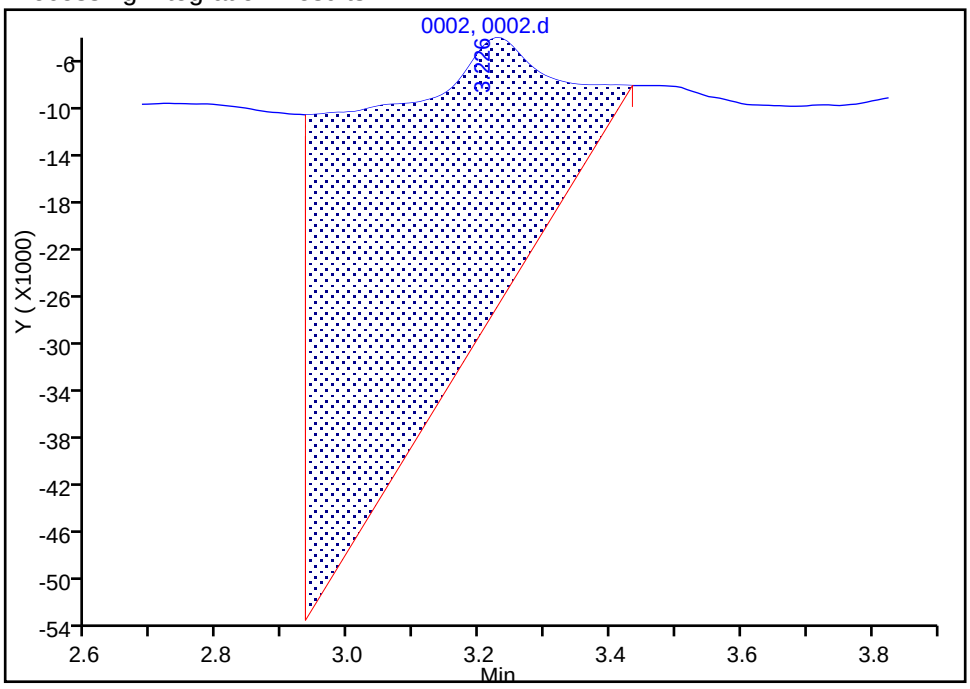
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d
Injection Date: 17-May-2019 10:03:00 Instrument ID: WC_IonChrom11
Lims ID: CCB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

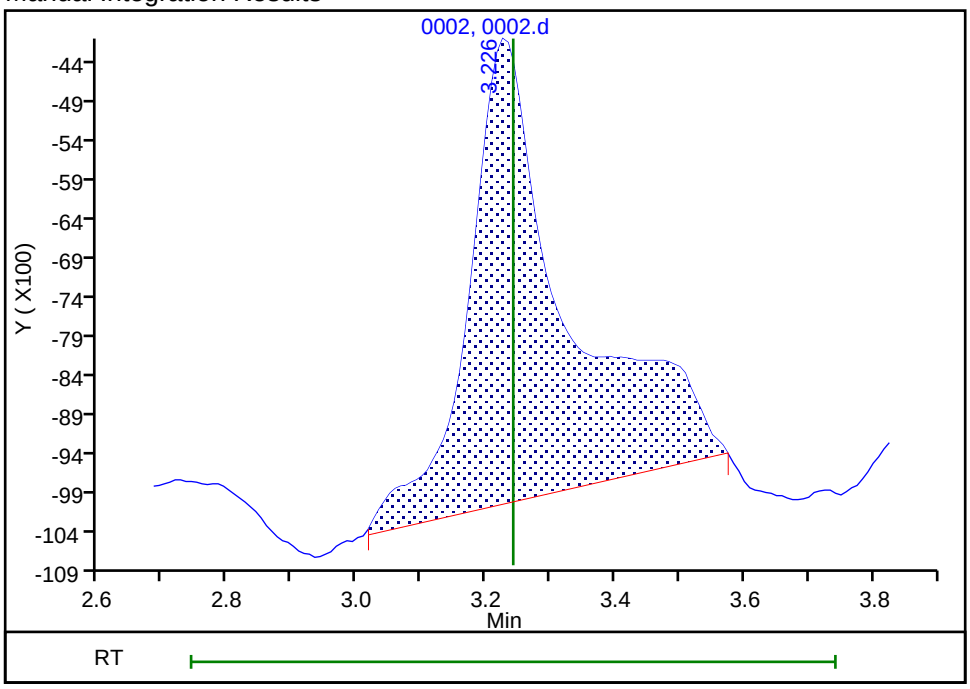
Processing Integration Results

RT: 3.23
Area: 680412
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 63275
Amount: 0.626597
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 07:53:52
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 17-May-2019 10:19:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3370541	NC	NC	
2 Chloride	3.225	3.242	-0.017	11162382	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	2000895	0.2000	0.2159	
4 Bromide	4.617	4.634	-0.017	404188	NC	NC	
5 Nitrate as N	5.184	5.200	-0.016	2220587	0.2000	0.2294	
7 Orthophosphate as P	5.625	5.659	-0.034	875786	0.2000	0.2036	
6 Sulfate	6.350	6.434	-0.084	8371770	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

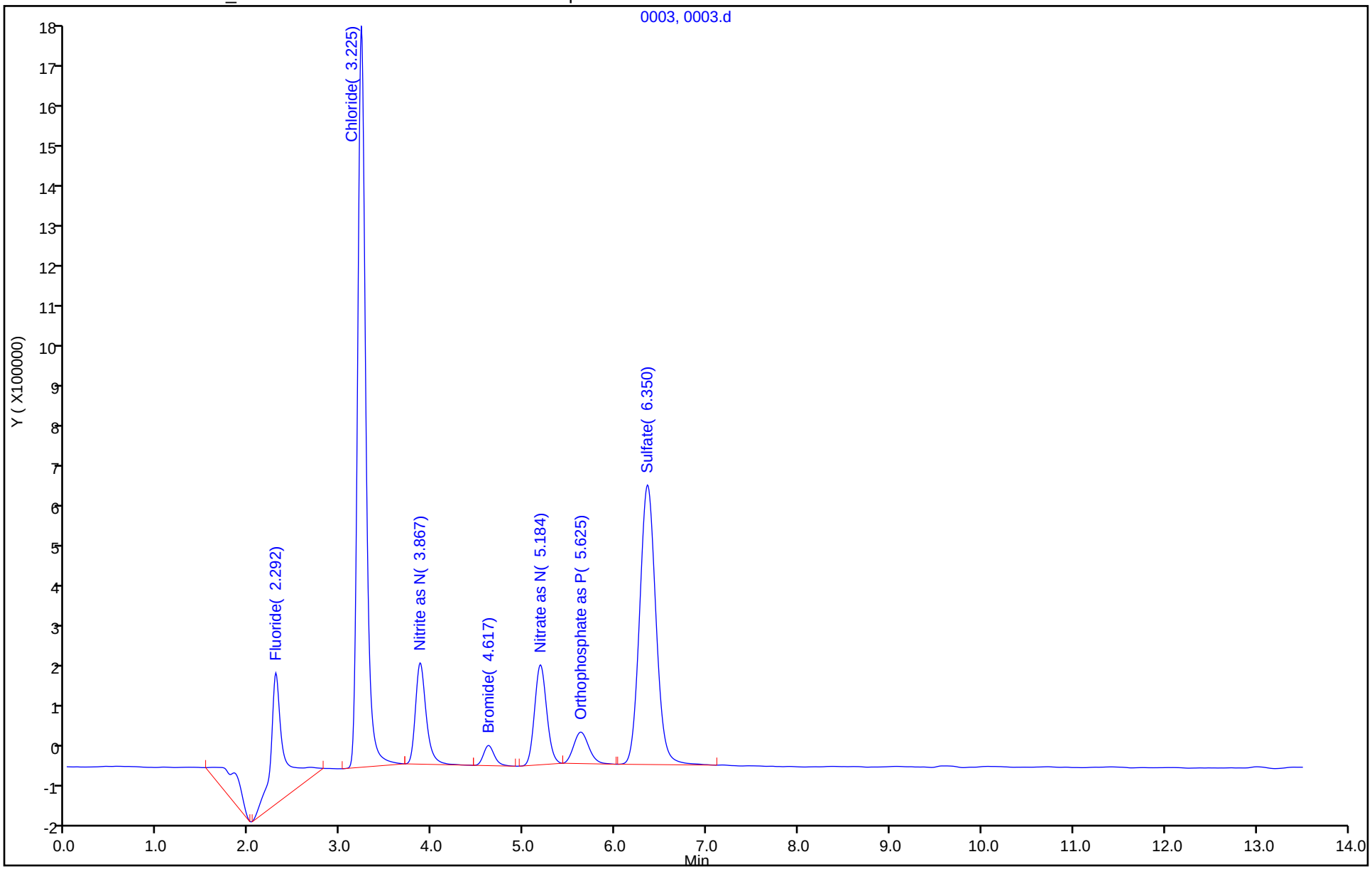
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d

Injection Date:	17-May-2019 10:19:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 17-May-2019 10:19:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3370541	0.2000	0.3100	
2 Chloride	3.225	3.242	-0.017	11162382	2.50	2.28	
3 Nitrite as N	3.867	3.892	-0.025	2000895	NC	NC	
4 Bromide	4.617	4.634	-0.017	404188	0.2000	0.2161	
5 Nitrate as N	5.184	5.200	-0.016	2220587	NC	NC	
7 Orthophosphate as P	5.625	5.659	-0.034	875786	NC	NC	
6 Sulfate	6.350	6.434	-0.084	8371770	2.50	2.31	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

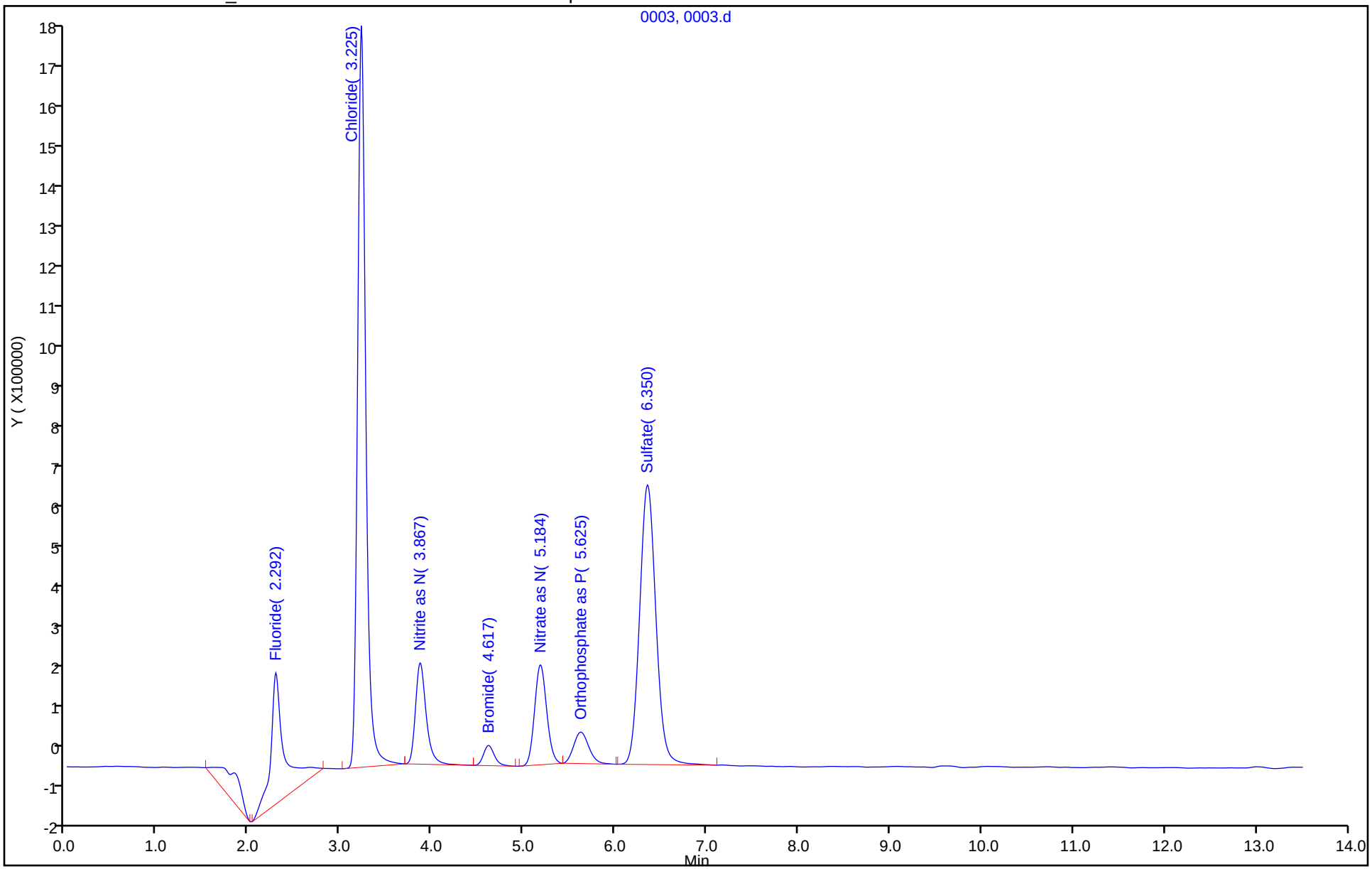
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d

Injection Date:	17-May-2019 10:19:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-May-2019 10:36:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37519209	NC	NC	
2 Chloride	3.242	3.242	0.000	637771422	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	51681403	5.00	4.95	
4 Bromide	4.609	4.634	-0.025	10158715	NC	NC	
5 Nitrate as N	5.167	5.200	-0.033	57678326	5.00	5.00	
7 Orthophosphate as P	5.617	5.659	-0.042	21167317	5.00	5.10	
6 Sulfate	6.400	6.434	-0.034	416705232	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

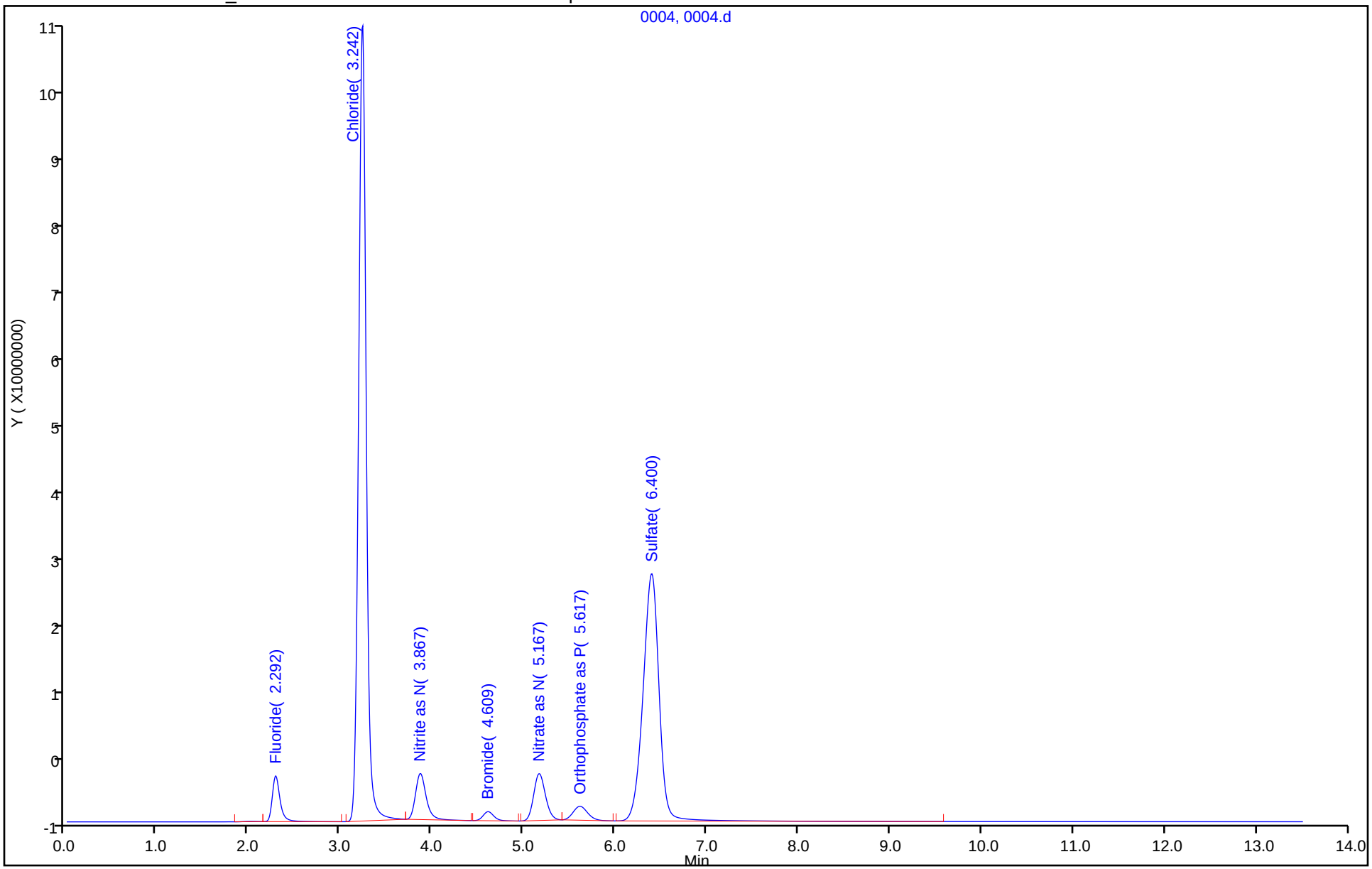
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d

Injection Date:	17-May-2019 10:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-May-2019 10:36:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37519209	5.00	5.02	
2 Chloride	3.242	3.242	0.000	637771422	100.0	95.5	
3 Nitrite as N	3.867	3.892	-0.025	51681403	NC	NC	
4 Bromide	4.609	4.634	-0.025	10158715	5.00	5.25	
5 Nitrate as N	5.167	5.200	-0.033	57678326	NC	NC	
7 Orthophosphate as P	5.617	5.659	-0.042	21167317	NC	NC	
6 Sulfate	6.400	6.434	-0.034	416705232	100.0	93.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

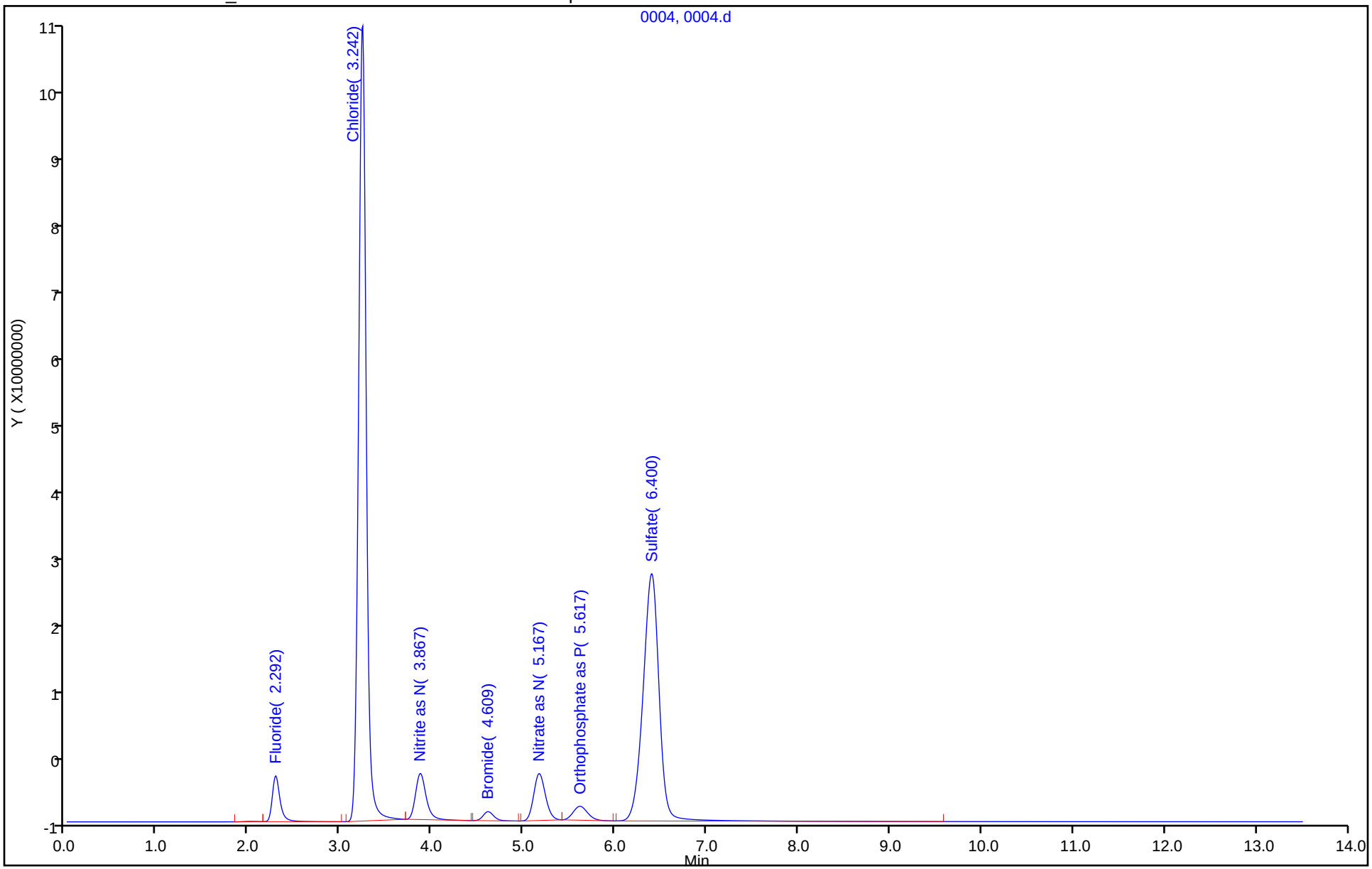
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d

Injection Date:	17-May-2019 10:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 17-May-2019 10:52:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37761341	NC	NC	
2 Chloride	3.242	3.242	0.000	642425114	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	52090587	5.00	4.99	
4 Bromide	4.609	4.634	-0.025	10244896	NC	NC	
5 Nitrate as N	5.167	5.200	-0.033	58061081	5.00	5.04	
7 Orthophosphate as P	5.609	5.659	-0.050	21441125	5.00	5.17	
6 Sulfate	6.392	6.434	-0.042	419646386	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

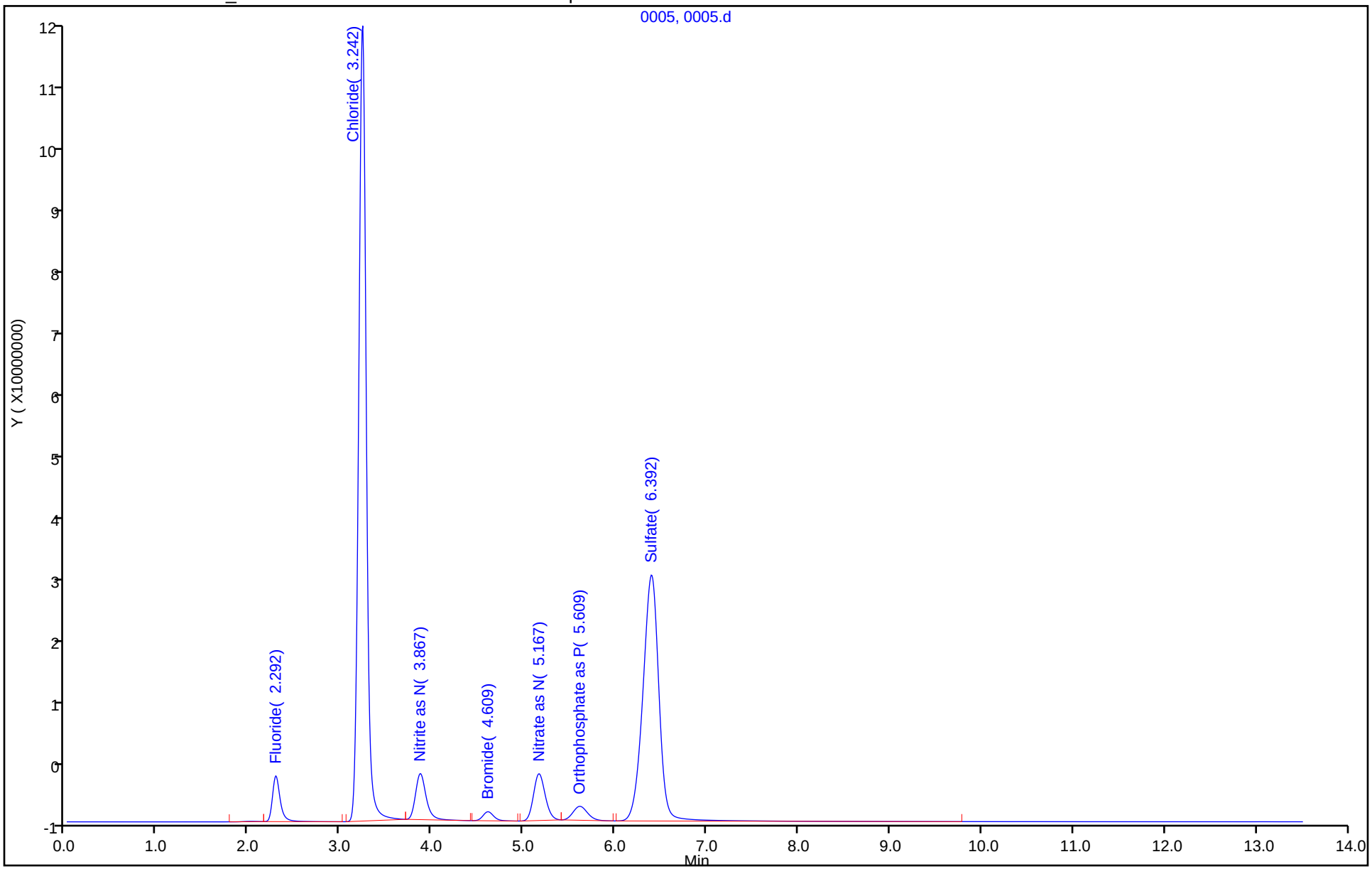
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d

Injection Date:	17-May-2019 10:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 17-May-2019 10:52:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37761341	5.00	5.05	
2 Chloride	3.242	3.242	0.000	642425114	100.0	96.2	
3 Nitrite as N	3.867	3.892	-0.025	52090587	NC	NC	
4 Bromide	4.609	4.634	-0.025	10244896	5.00	5.29	
5 Nitrate as N	5.167	5.200	-0.033	58061081	NC	NC	
7 Orthophosphate as P	5.609	5.659	-0.050	21441125	NC	NC	
6 Sulfate	6.392	6.434	-0.042	419646386	100.0	94.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

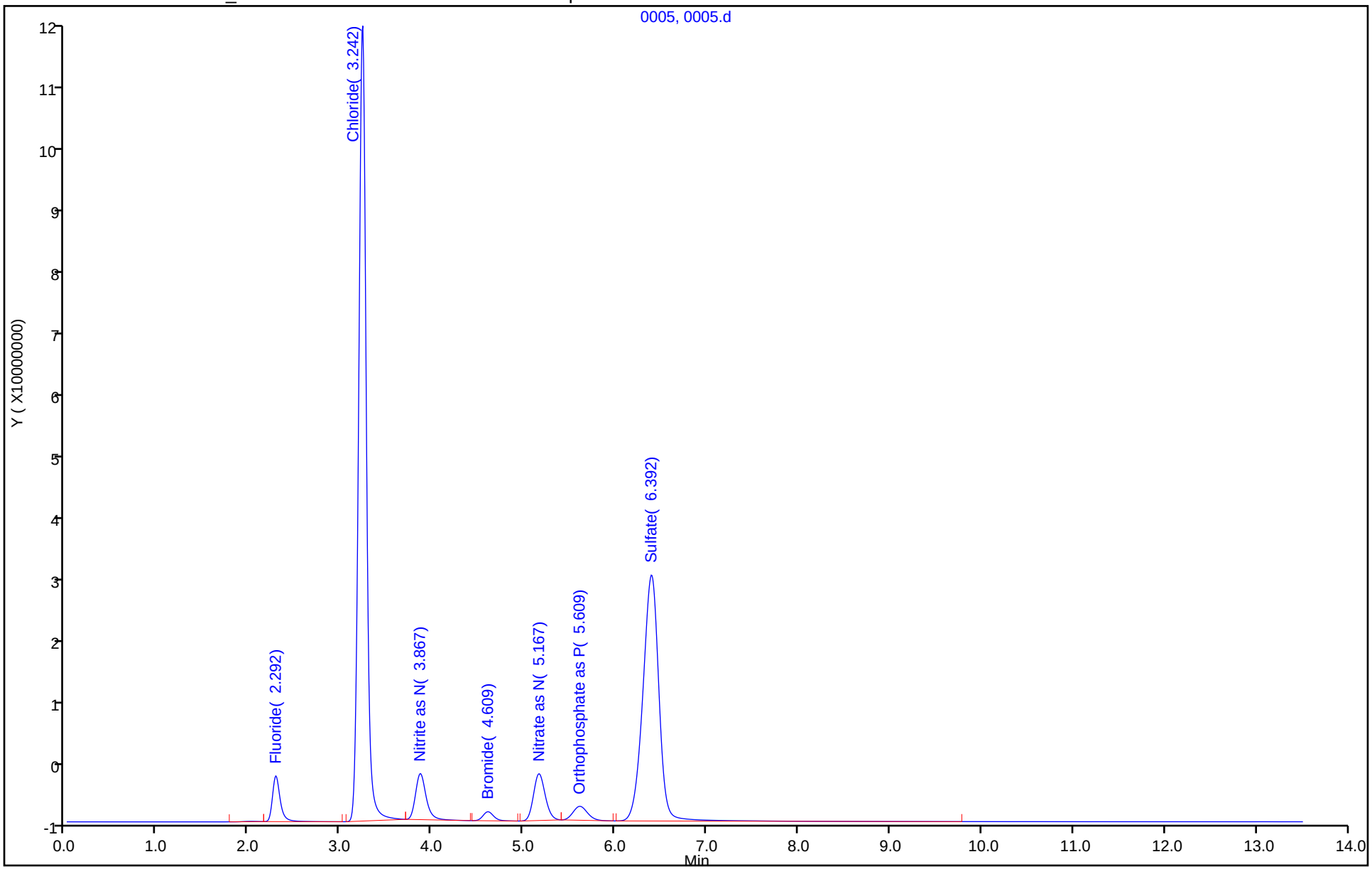
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d

Injection Date:	17-May-2019 10:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 17-May-2019 11:08:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:54:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.709	2.292	0.417	20711		NC	M
2 Chloride	3.225	3.242	-0.017	23519		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.642	5.659	-0.017	114145		0.0197	
6 Sulfate	5.909	6.434	-0.525	104185		NC	

QC Flag Legend

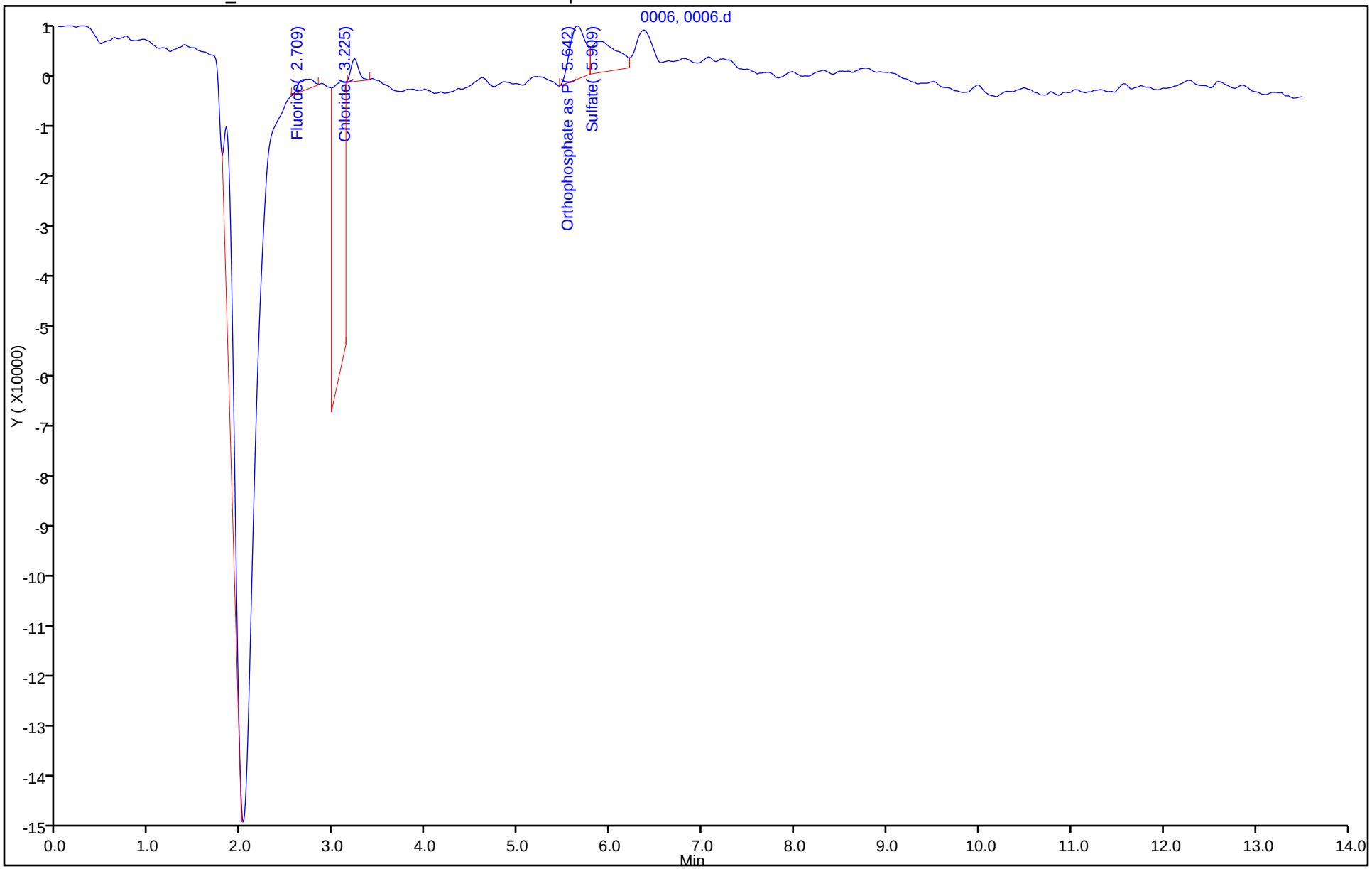
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d

Injection Date:	17-May-2019 11:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 17-May-2019 11:08:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:54:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.709	2.292	0.417	20711		-0.1517	M
2 Chloride	3.225	3.242	-0.017	23519		0.6207	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.642	5.659	-0.017	114145		NC	
6 Sulfate	5.909	6.434	-0.525	104185		0.4606	

QC Flag Legend

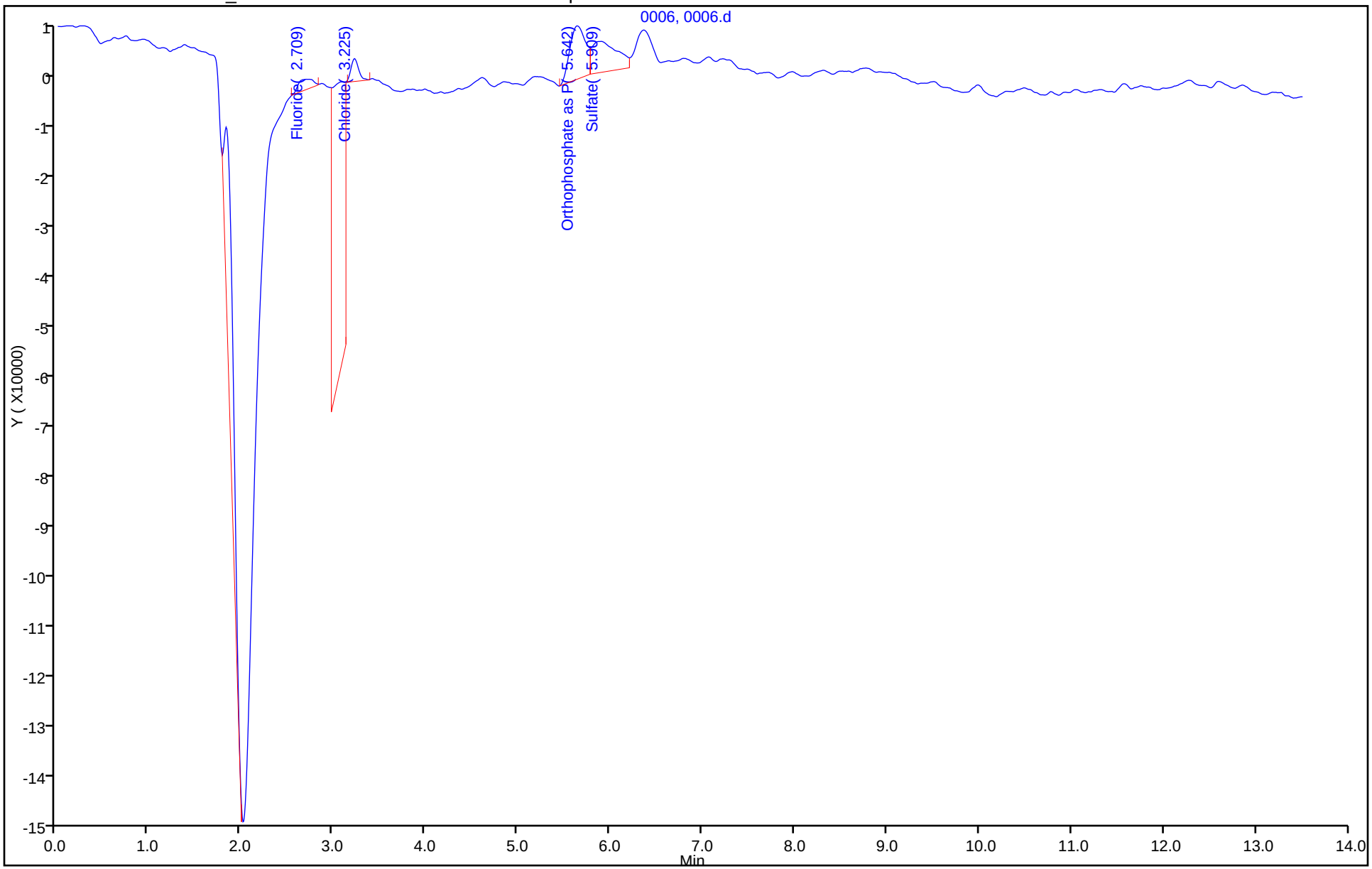
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d

Injection Date:	17-May-2019 11:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

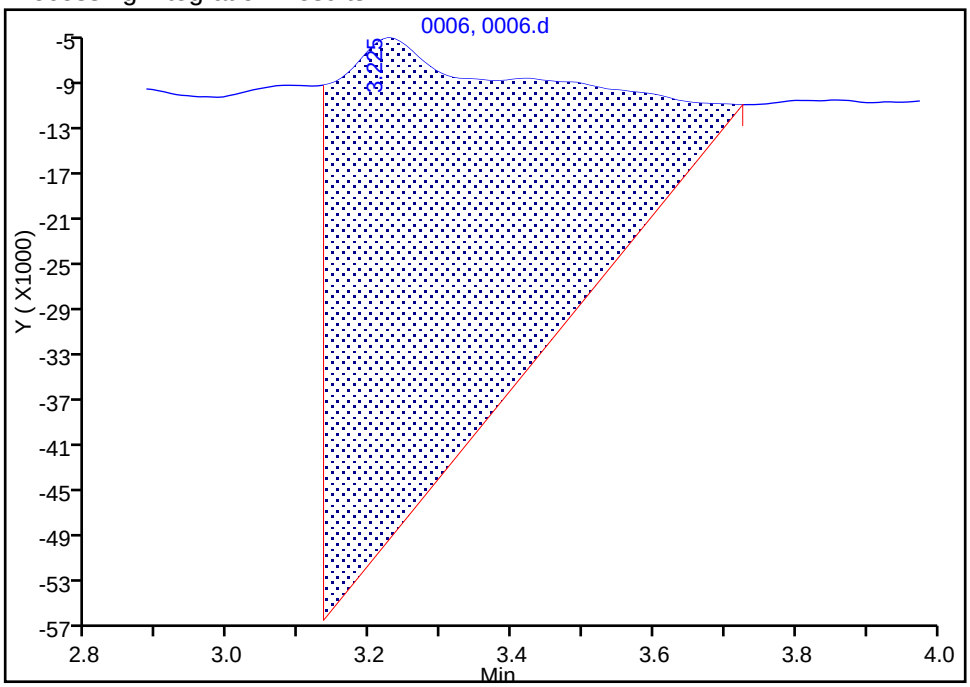
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d
Injection Date: 17-May-2019 11:08:00 Instrument ID: WC_IonChrom11
Lims ID: MB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

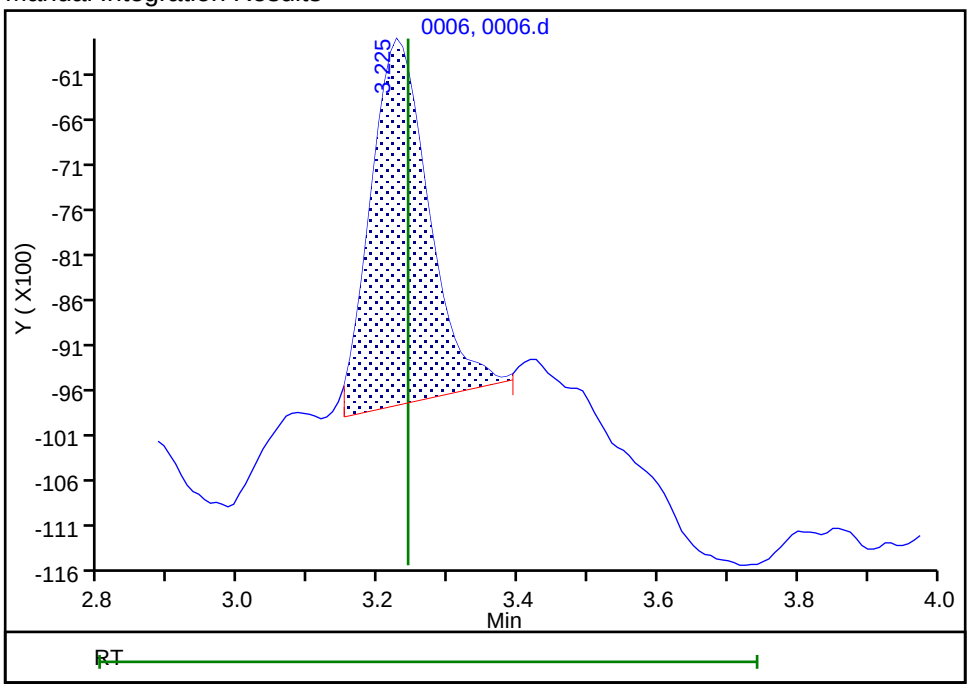
Processing Integration Results

RT: 3.23
Area: 876237
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 23519
Amount: 0.620685
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 07:54:13
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 21:14:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-017
Misc. Info.: 11605 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	38084969	NC	NC	
2 Chloride	3.234	3.242	-0.008	644920282	NC	NC	
3 Nitrite as N	3.859	3.892	-0.033	52024684	5.00	4.98	
4 Bromide	4.592	4.634	-0.042	10284595	NC	NC	
5 Nitrate as N	5.142	5.200	-0.058	58800537	5.00	5.10	
7 Orthophosphate as P	5.609	5.659	-0.050	21838921	5.00	5.26	
6 Sulfate	6.400	6.434	-0.034	422005317	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

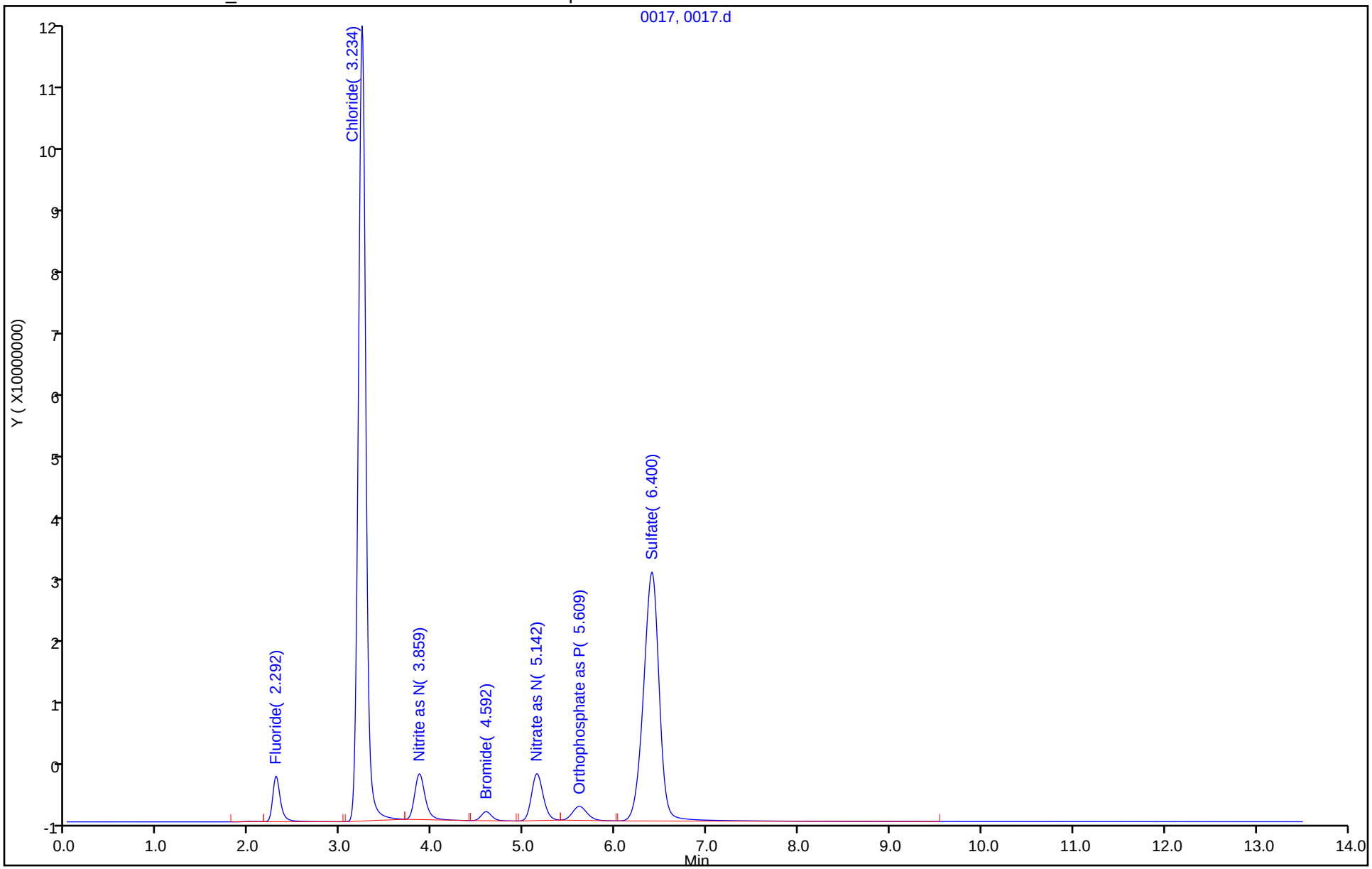
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d

Injection Date:	17-May-2019 21:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	17-May-2019 21:14:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-017				
Misc. Info.:	11605 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	20-May-2019 08:09:39	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	38084969	5.00	5.10	
2 Chloride	3.234	3.242	-0.008	644920282	100.0	96.5	
3 Nitrite as N	3.859	3.892	-0.033	52024684	NC	NC	
4 Bromide	4.592	4.634	-0.042	10284595	5.00	5.31	
5 Nitrate as N	5.142	5.200	-0.058	58800537	NC	NC	
7 Orthophosphate as P	5.609	5.659	-0.050	21838921	NC	NC	
6 Sulfate	6.400	6.434	-0.034	422005317	100.0	94.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

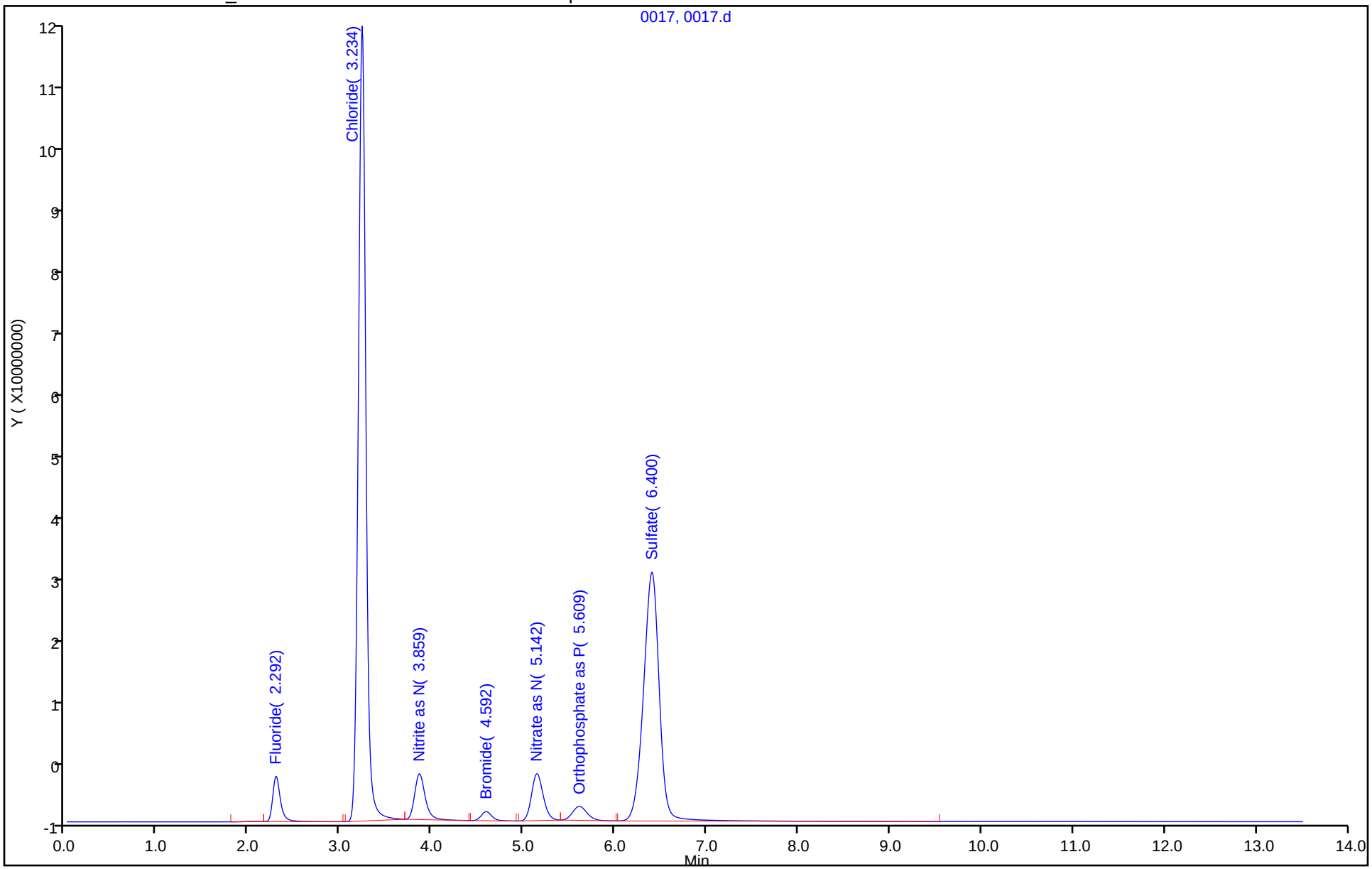
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d

Injection Date:	17-May-2019 21:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 21:30:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-018
Misc. Info.: 31545 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:56:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.692	2.292	0.400	33350		NC	M
2 Chloride	3.225	3.242	-0.017	83529		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.667	5.659	0.008	363632		0.0799	
6 Sulfate	6.375	6.434	-0.059	237941		NC	

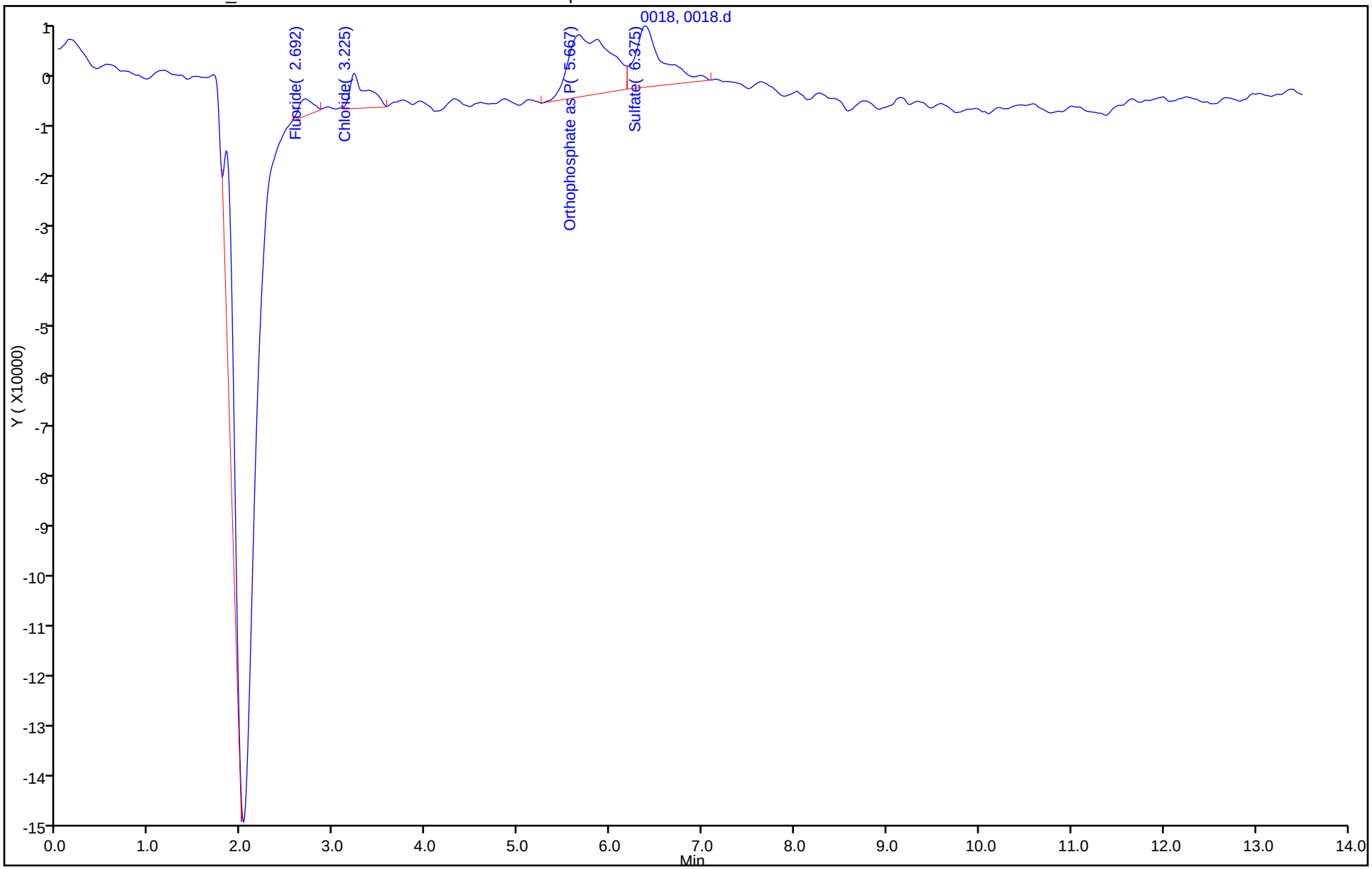
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:40 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d				
Injection Date:	17-May-2019 21:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 21:30:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-018
Misc. Info.: 31545 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:56:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.692	2.292	0.400	33350		-0.1500	M
2 Chloride	3.225	3.242	-0.017	83529		0.6296	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.667	5.659	0.008	363632		NC	
6 Sulfate	6.375	6.434	-0.059	237941		0.4905	

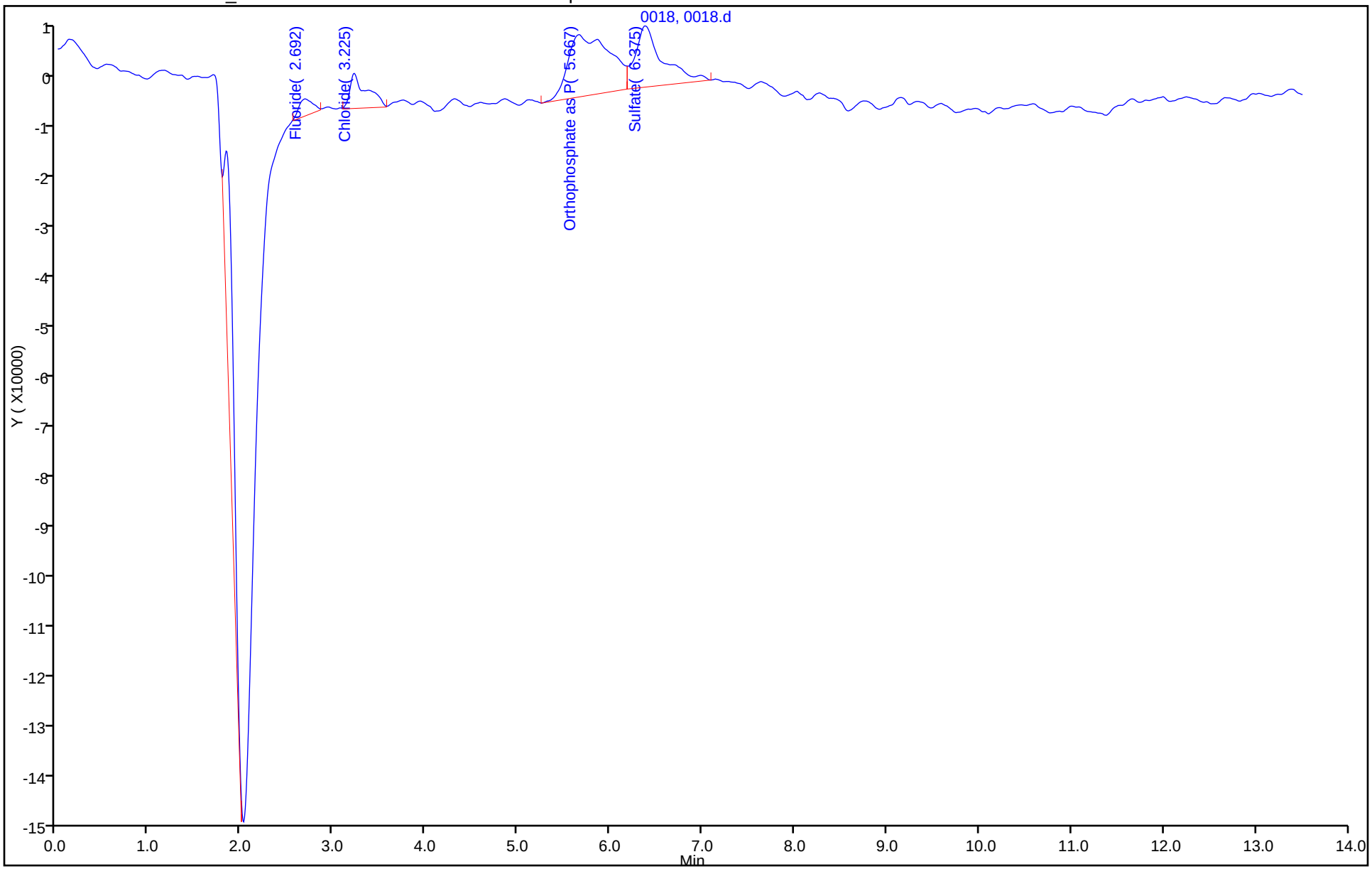
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d				
Injection Date:	17-May-2019 21:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

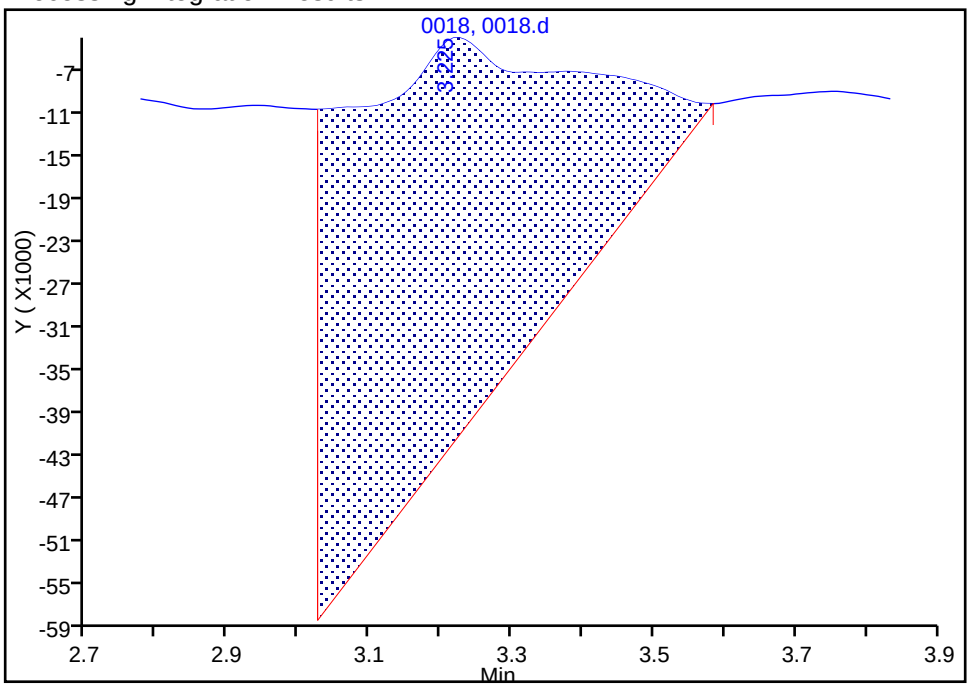
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d				
Injection Date:	17-May-2019 21:30:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ccb				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

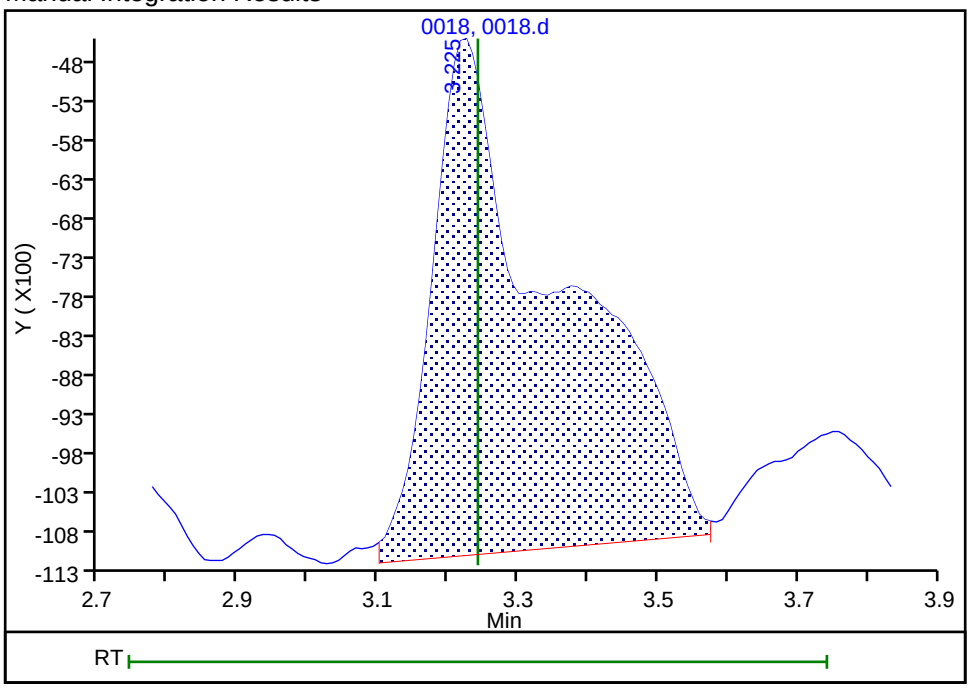
Processing Integration Results

RT: 3.23
Area: 878883
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 83529
Amount: 0.629610
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 07:56:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0028.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	18-May-2019 00:14:00	ALS Bottle#:	0	Worklist Smp#:	28
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-028				
Misc. Info.:	19195 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	20-May-2019 08:09:48	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37857449	NC	NC	
2 Chloride	3.234	3.242	-0.008	641844583	NC	NC	
3 Nitrite as N	3.859	3.892	-0.033	51745304	5.00	4.96	
4 Bromide	4.592	4.634	-0.042	10233649	NC	NC	
5 Nitrate as N	5.150	5.200	-0.050	58381343	5.00	5.07	
7 Orthophosphate as P	5.609	5.659	-0.050	21654464	5.00	5.22	
6 Sulfate	6.400	6.434	-0.034	420771463	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

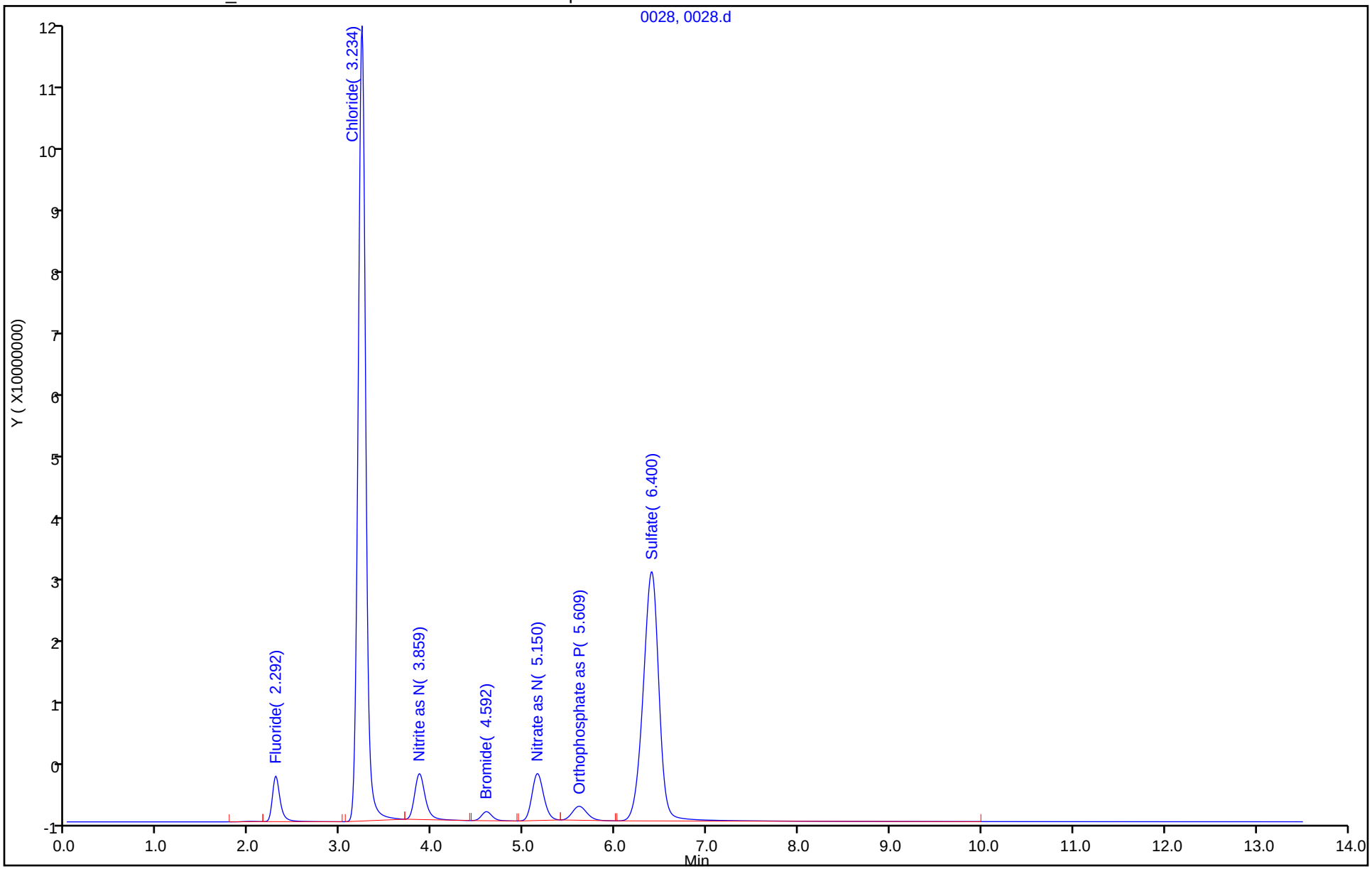
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0028.d

Injection Date:	18-May-2019 00:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0028.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	18-May-2019 00:14:00	ALS Bottle#:	0	Worklist Smp#:	28
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-028				
Misc. Info.:	19195 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	20-May-2019 08:09:48	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37857449	5.00	5.06	
2 Chloride	3.234	3.242	-0.008	641844583	100.0	96.1	
3 Nitrite as N	3.859	3.892	-0.033	51745304	NC	NC	
4 Bromide	4.592	4.634	-0.042	10233649	5.00	5.29	
5 Nitrate as N	5.150	5.200	-0.050	58381343	NC	NC	
7 Orthophosphate as P	5.609	5.659	-0.050	21654464	NC	NC	
6 Sulfate	6.400	6.434	-0.034	420771463	100.0	94.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

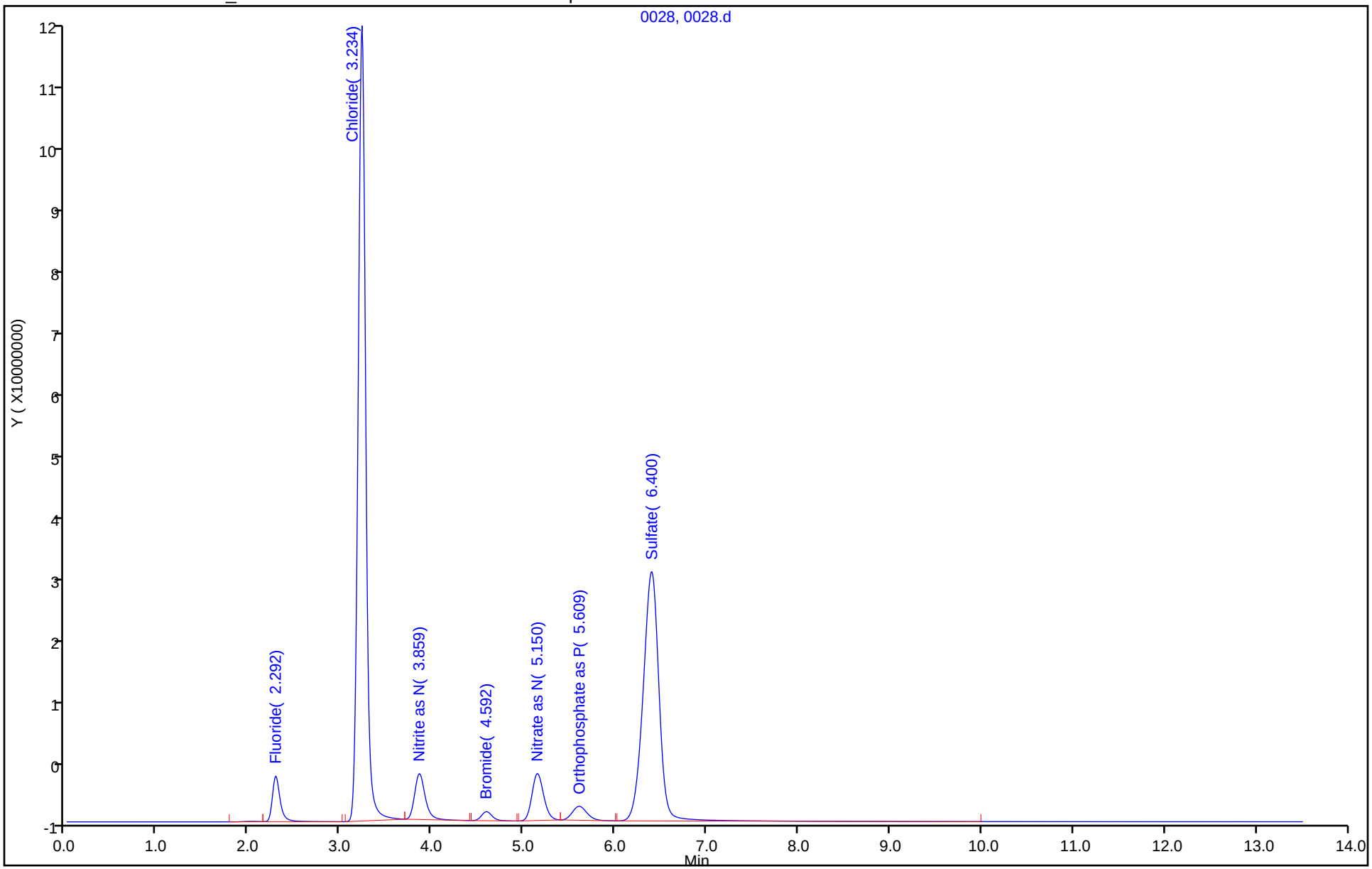
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0028.d

Injection Date:	18-May-2019 00:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 00:31:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-029
Misc. Info.: 7140 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:00:23

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.675	2.292	0.383	23780		NC	M
2 Chloride	3.225	3.242	-0.017	35802		NC	Ma
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.867	5.659	0.208	313732		0.0679	
6 Sulfate	6.375	6.434	-0.059	140432		NC	

QC Flag Legend

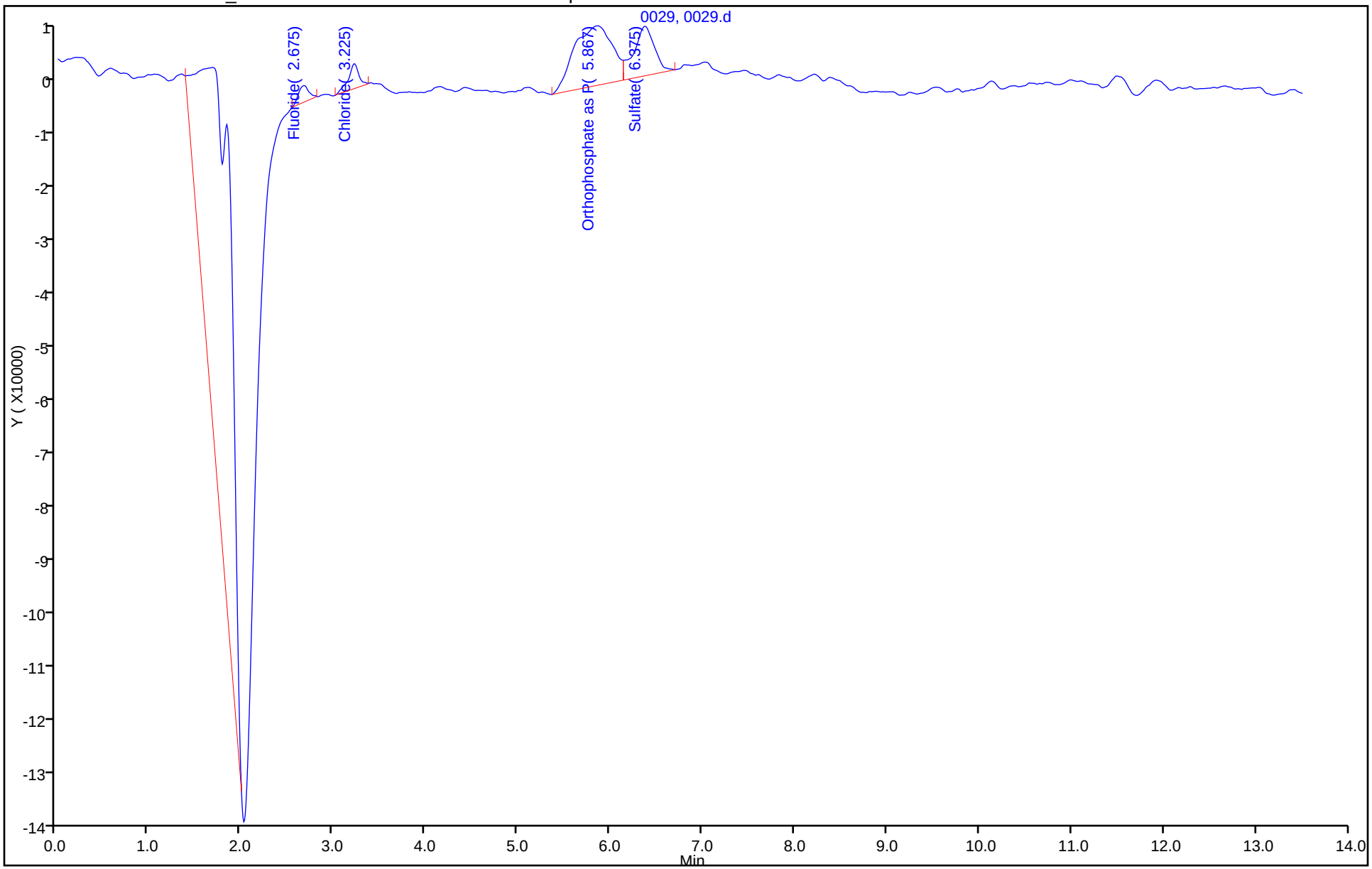
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 20-May-2019 08:09:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d

Injection Date:	18-May-2019 00:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 00:31:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-029
Misc. Info.: 7140 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:00:23

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.675	2.292	0.383	23780		-0.1513	M
2 Chloride	3.225	3.242	-0.017	35802		0.6225	Ma
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.867	5.659	0.208	313732		NC	
6 Sulfate	6.375	6.434	-0.059	140432		0.4687	

QC Flag Legend

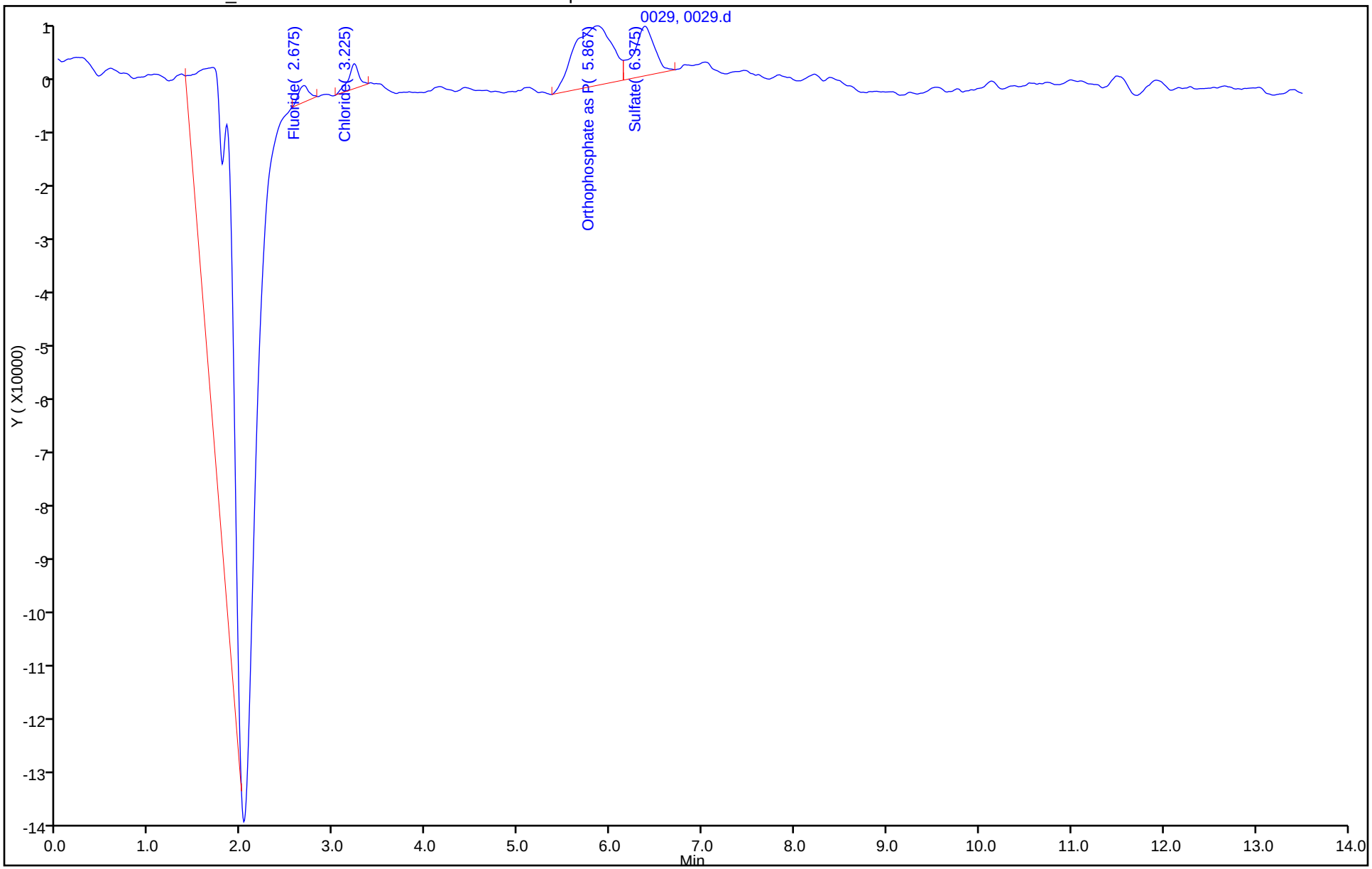
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 20-May-2019 08:09:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d

Injection Date:	18-May-2019 00:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



06/14/2019

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

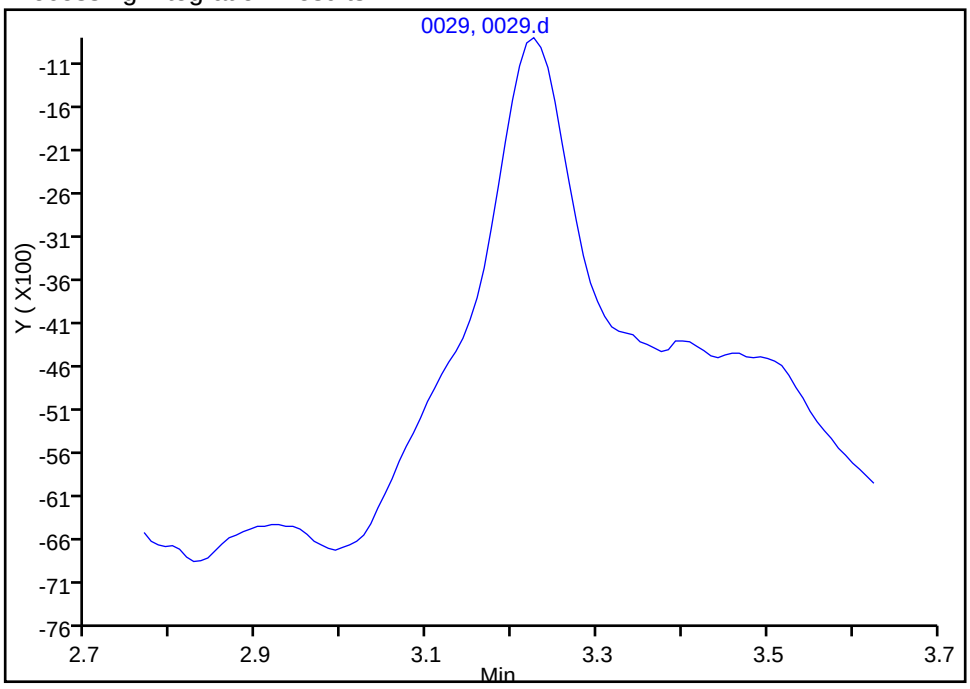
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0029.d
Injection Date: 18-May-2019 00:31:00 Instrument ID: WC_IonChrom11
Lims ID: ccb
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

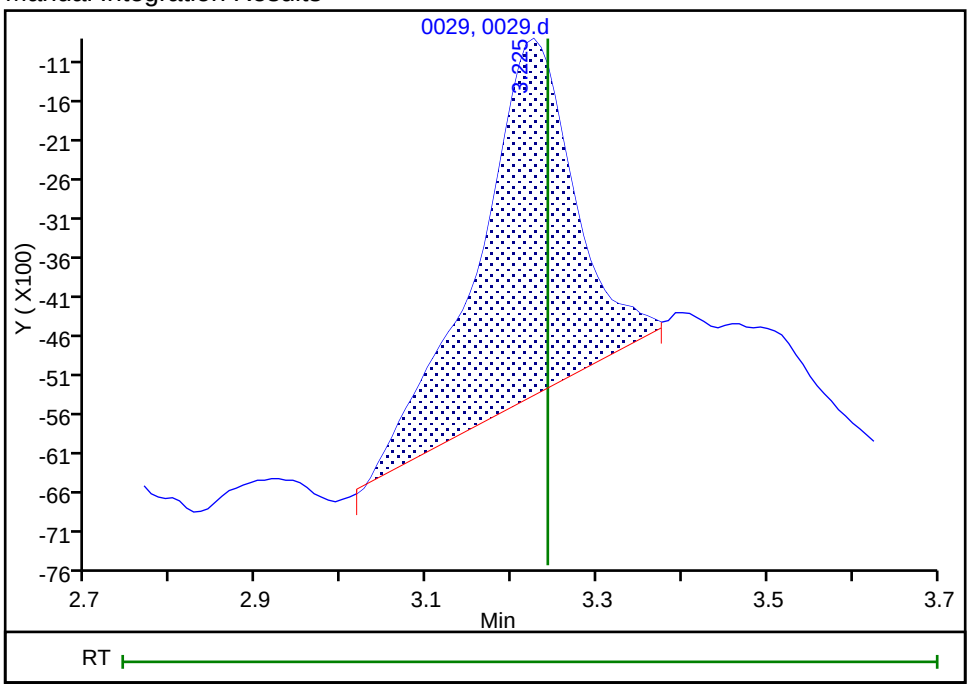
Not Detected
Expected RT: 3.24

Processing Integration Results



Manual Integration Results

RT: 3.23
Area: 35802
Amount: 0.622512
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:00:22
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0038.d
Lims ID: 280-123930-A-1
Client ID: LF2MW2-1_0519
Sample Type: Client
Inject. Date: 18-May-2019 02:58:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-038
Misc. Info.: 7722 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.276	2.292	-0.016	198211	NC	
2 Chloride	3.226	3.242	-0.016	66102437	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.626	4.634	-0.008	345797	NC	
5 Nitrate as N	5.259	5.200	0.059	448378	0.0768	
7 Orthophosphate as P	5.592	5.659	-0.067	3386873	0.8098	
6 Sulfate	6.392	6.434	-0.042	47240465	NC	

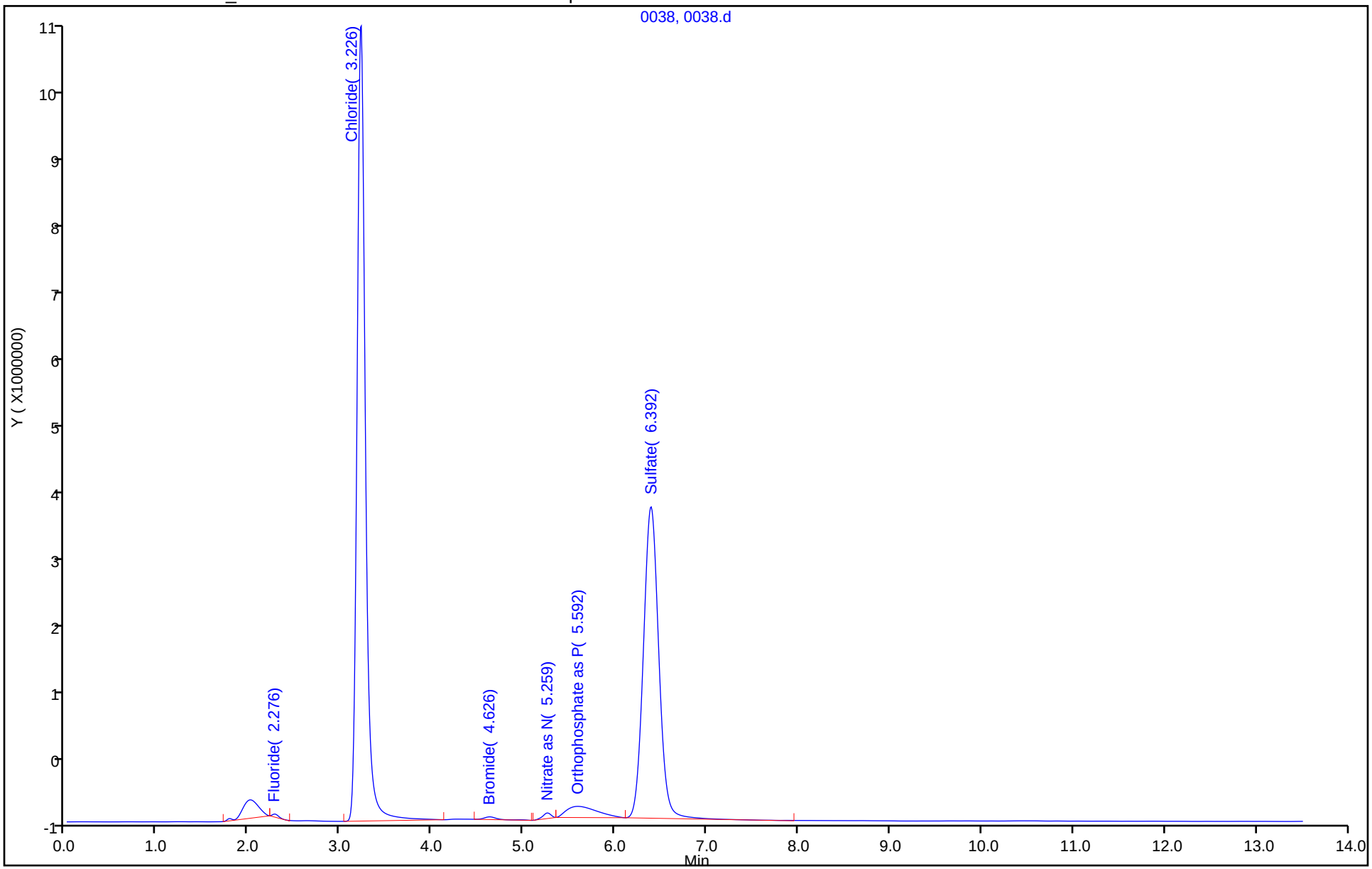
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0038.d				
Injection Date:	18-May-2019 02:58:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-A-1	Lab Sample ID:	280-123930-1	Worklist Smp#:	38
Client ID:	LF2MW2-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0038.d
Lims ID: 280-123930-A-1
Client ID: LF2MW2-1_0519
Sample Type: Client
Inject. Date: 18-May-2019 02:58:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-038
Misc. Info.: 7722 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.276	2.292	-0.016	198211	-0.1273	
2 Chloride	3.226	3.242	-0.016	66102437	10.4	
3 Nitrite as N		3.892			ND	
4 Bromide	4.626	4.634	-0.008	345797	0.1860	
5 Nitrate as N	5.259	5.200	0.059	448378	NC	
7 Orthophosphate as P	5.592	5.659	-0.067	3386873	NC	
6 Sulfate	6.392	6.434	-0.042	47240465	11.0	

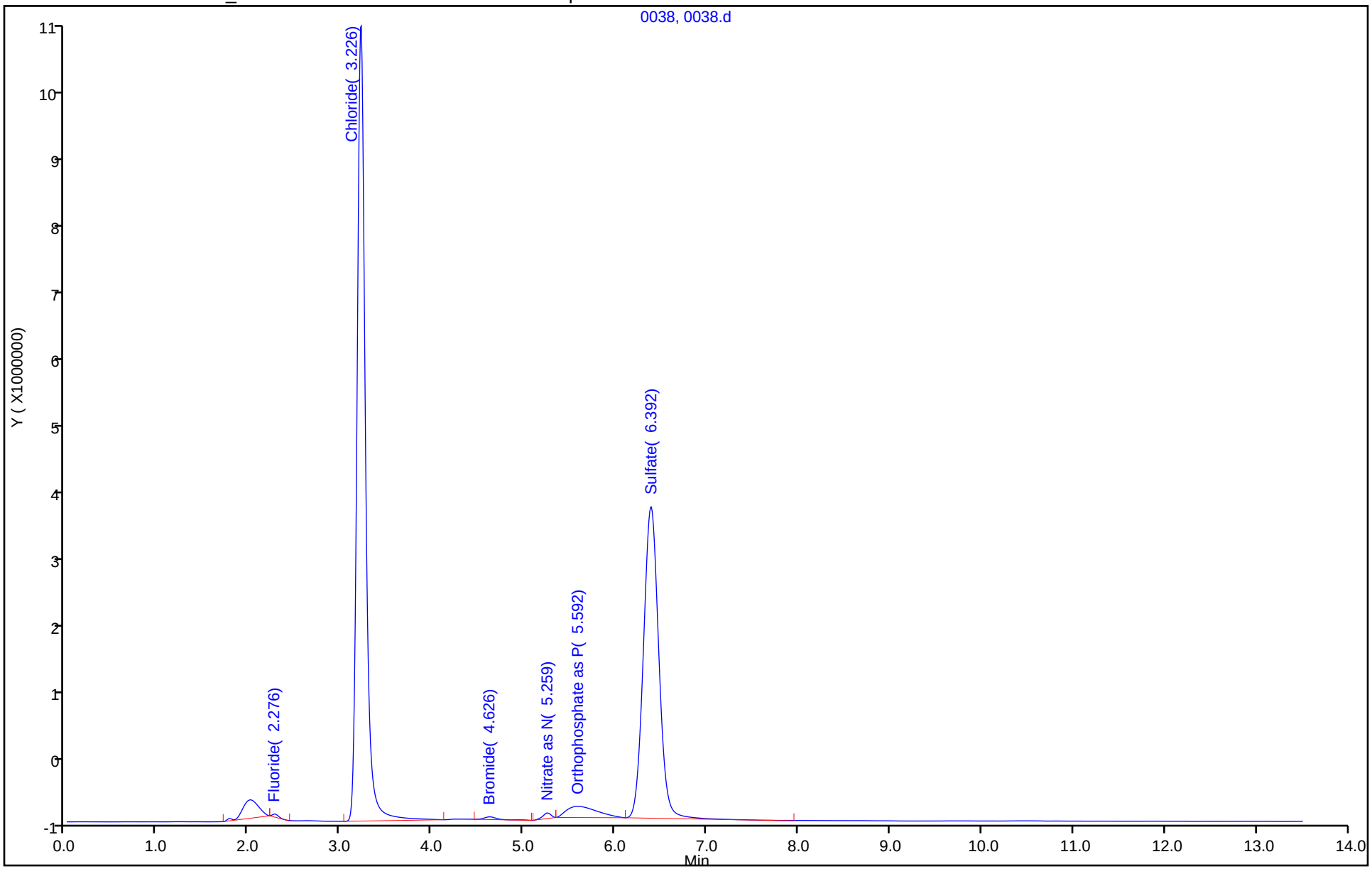
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0038.d				
Injection Date:	18-May-2019 02:58:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-A-1	Lab Sample ID:	280-123930-1	Worklist Smp#:	38
Client ID:	LF2MW2-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0039.d
Lims ID: 280-123930-A-2
Client ID: LF2MW2-12_0519
Sample Type: Client
Inject. Date: 18-May-2019 03:15:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-039
Misc. Info.: 13569 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	254449	NC	
2 Chloride	3.225	3.242	-0.017	4453279	NC	
3 Nitrite as N	3.975	3.892	0.083	203822	0.0446	
4 Bromide	4.675	4.634	0.041	1090755	NC	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.459	5.659	-0.200	9048399	2.18	
6 Sulfate	6.409	6.434	-0.025	78239778	NC	

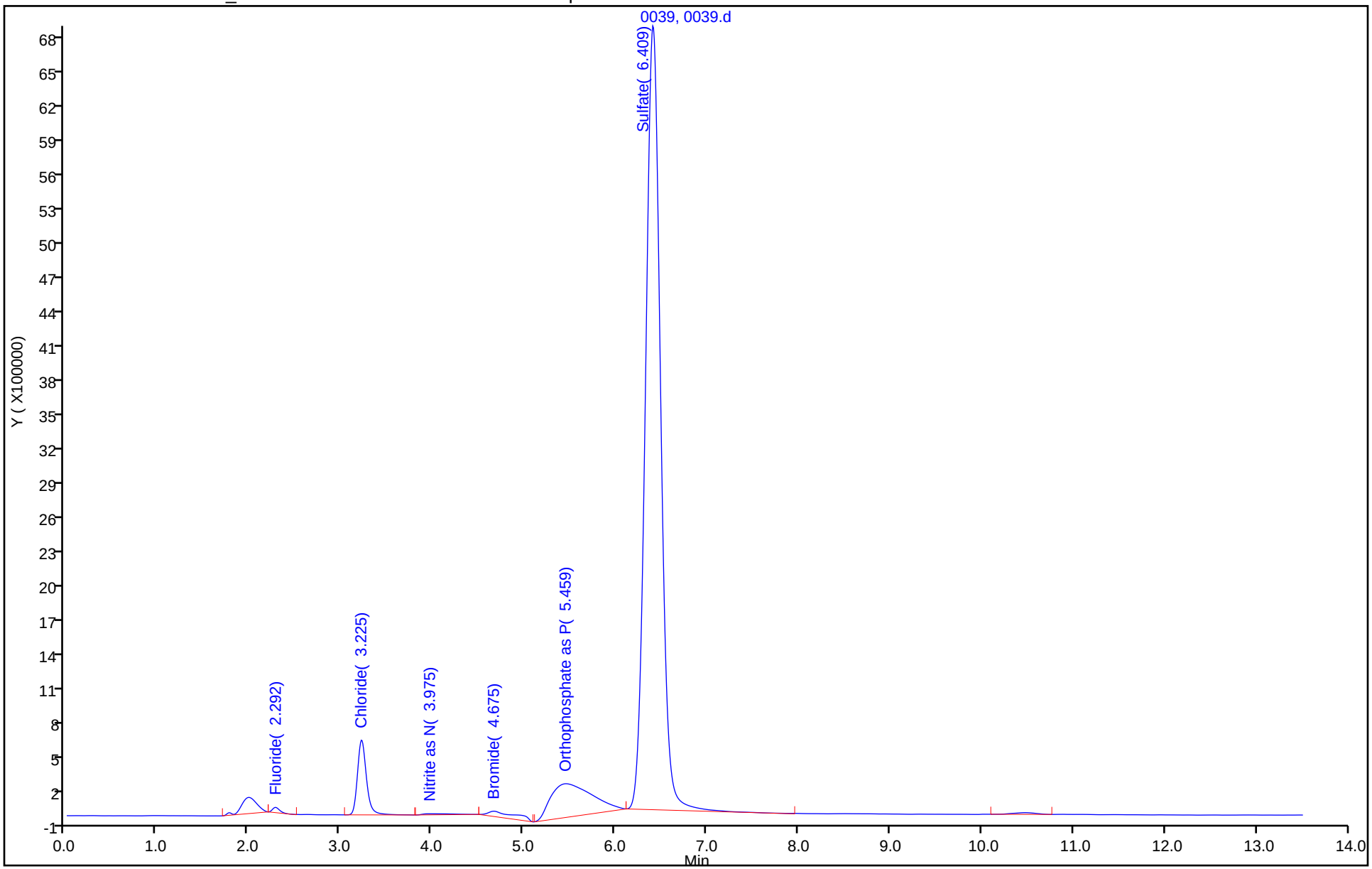
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0039.d				
Injection Date:	18-May-2019 03:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-A-2	Lab Sample ID:	280-123930-2	Worklist Smp#:	39
Client ID:	LF2MW2-12_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/14/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0039.d
Lims ID: 280-123930-A-2
Client ID: LF2MW2-12_0519
Sample Type: Client
Inject. Date: 18-May-2019 03:15:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-039
Misc. Info.: 13569 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	254449	-0.1195	
2 Chloride	3.225	3.242	-0.017	4453279	1.28	
3 Nitrite as N	3.975	3.892	0.083	203822	NC	
4 Bromide	4.675	4.634	0.041	1090755	0.5702	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.459	5.659	-0.200	9048399	NC	
6 Sulfate	6.409	6.434	-0.025	78239778	17.9	

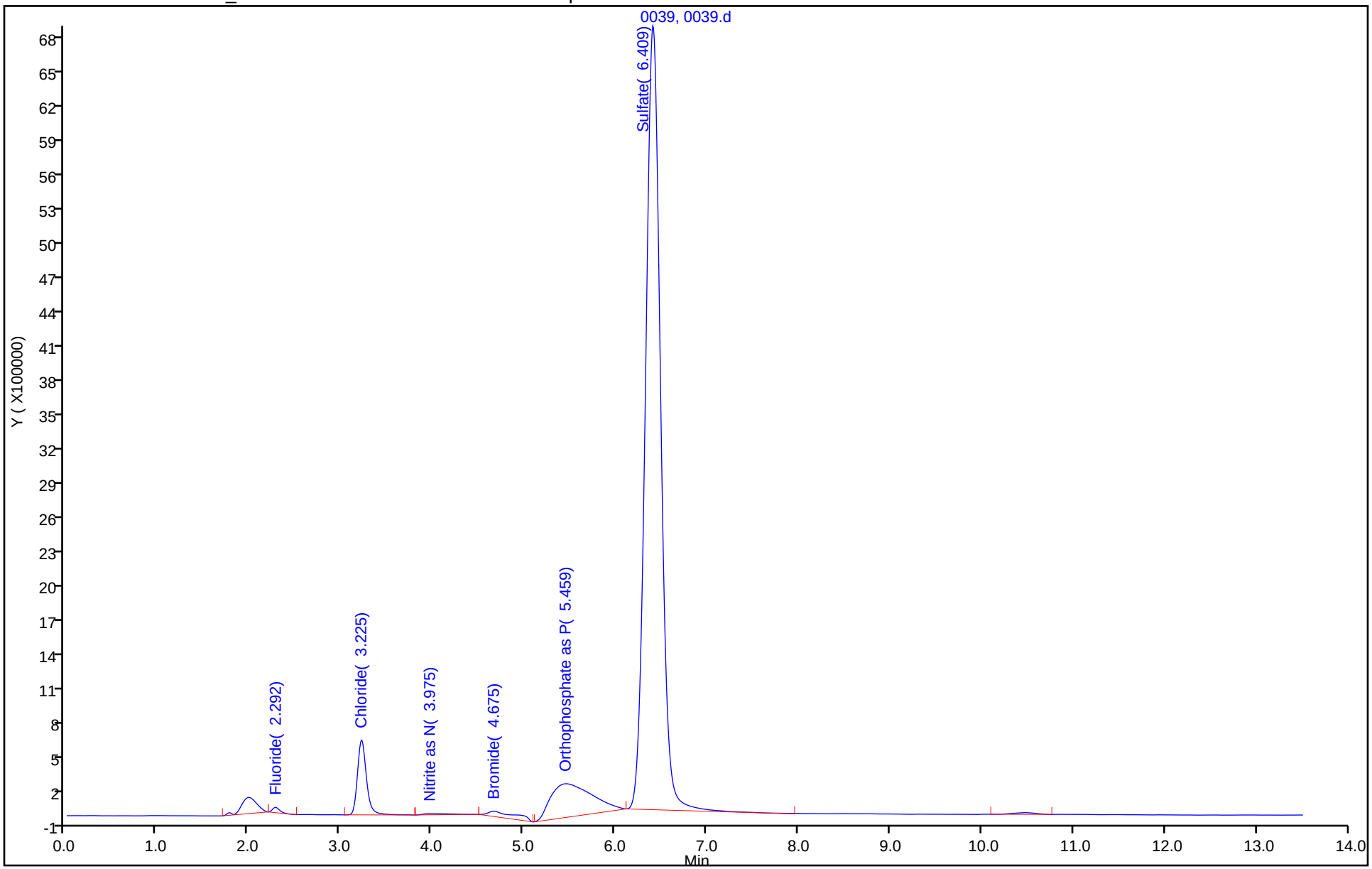
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0039.d				
Injection Date:	18-May-2019 03:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-A-2	Lab Sample ID:	280-123930-2	Worklist Smp#:	39
Client ID:	LF2MW2-12_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 03:31:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-040
Misc. Info.: 12043 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	34148076	NC	NC	
2 Chloride	3.234	3.242	-0.008	630538189	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	49504869	5.00	4.74	
4 Bromide	4.600	4.634	-0.034	9806141	NC	NC	
5 Nitrate as N	5.150	5.200	-0.050	55299211	5.00	4.80	
7 Orthophosphate as P	5.600	5.659	-0.059	22885698	5.00	5.52	
6 Sulfate	6.392	6.434	-0.042	412076222	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

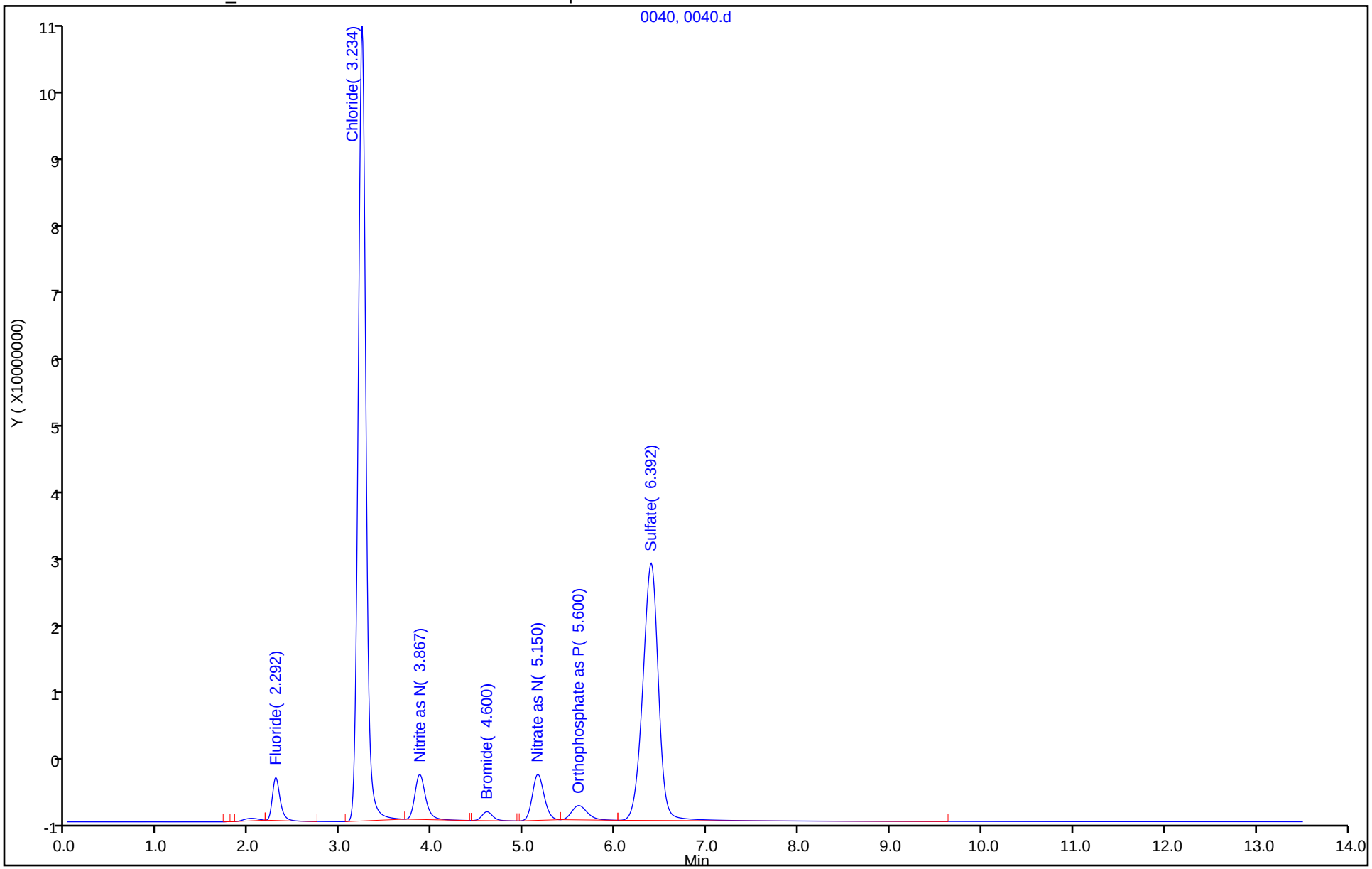
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d

Injection Date:	18-May-2019 03:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	18-May-2019 03:31:00	ALS Bottle#:	0	Worklist Smp#:	40
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-040				
Misc. Info.:	12043 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	20-May-2019 08:09:56	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	34148076	5.00	4.55	
2 Chloride	3.234	3.242	-0.008	630538189	100.0	94.4	
3 Nitrite as N	3.867	3.892	-0.025	49504869	NC	NC	
4 Bromide	4.600	4.634	-0.034	9806141	5.00	5.06	
5 Nitrate as N	5.150	5.200	-0.050	55299211	NC	NC	
7 Orthophosphate as P	5.600	5.659	-0.059	22885698	NC	NC	
6 Sulfate	6.392	6.434	-0.042	412076222	100.0	92.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

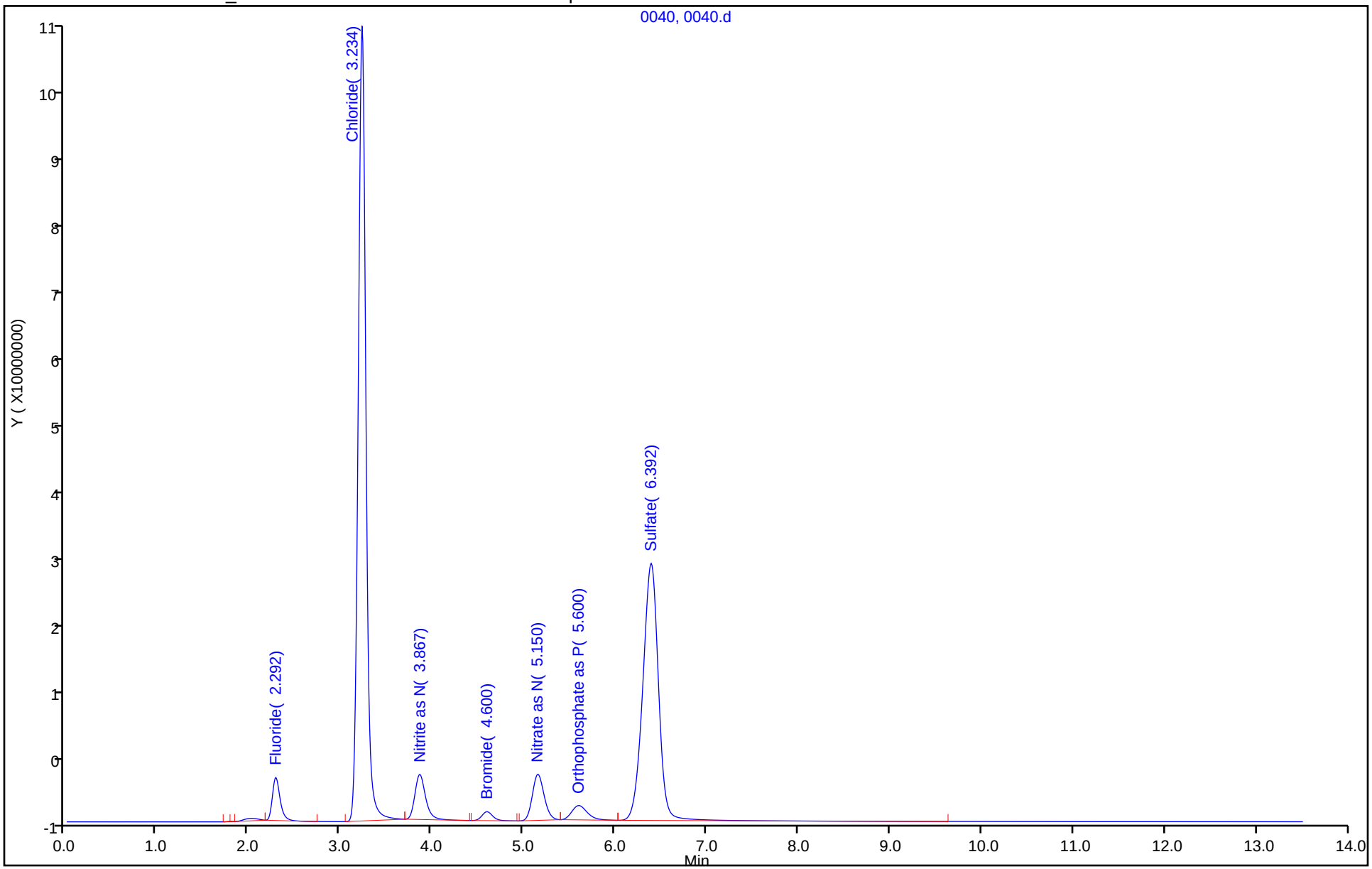
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d

Injection Date:	18-May-2019 03:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 03:48:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-041
Misc. Info.: 31086 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	5101652		NC	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.759	5.659	0.100	537628		0.1219	
6 Sulfate		6.434				ND	

QC Flag Legend

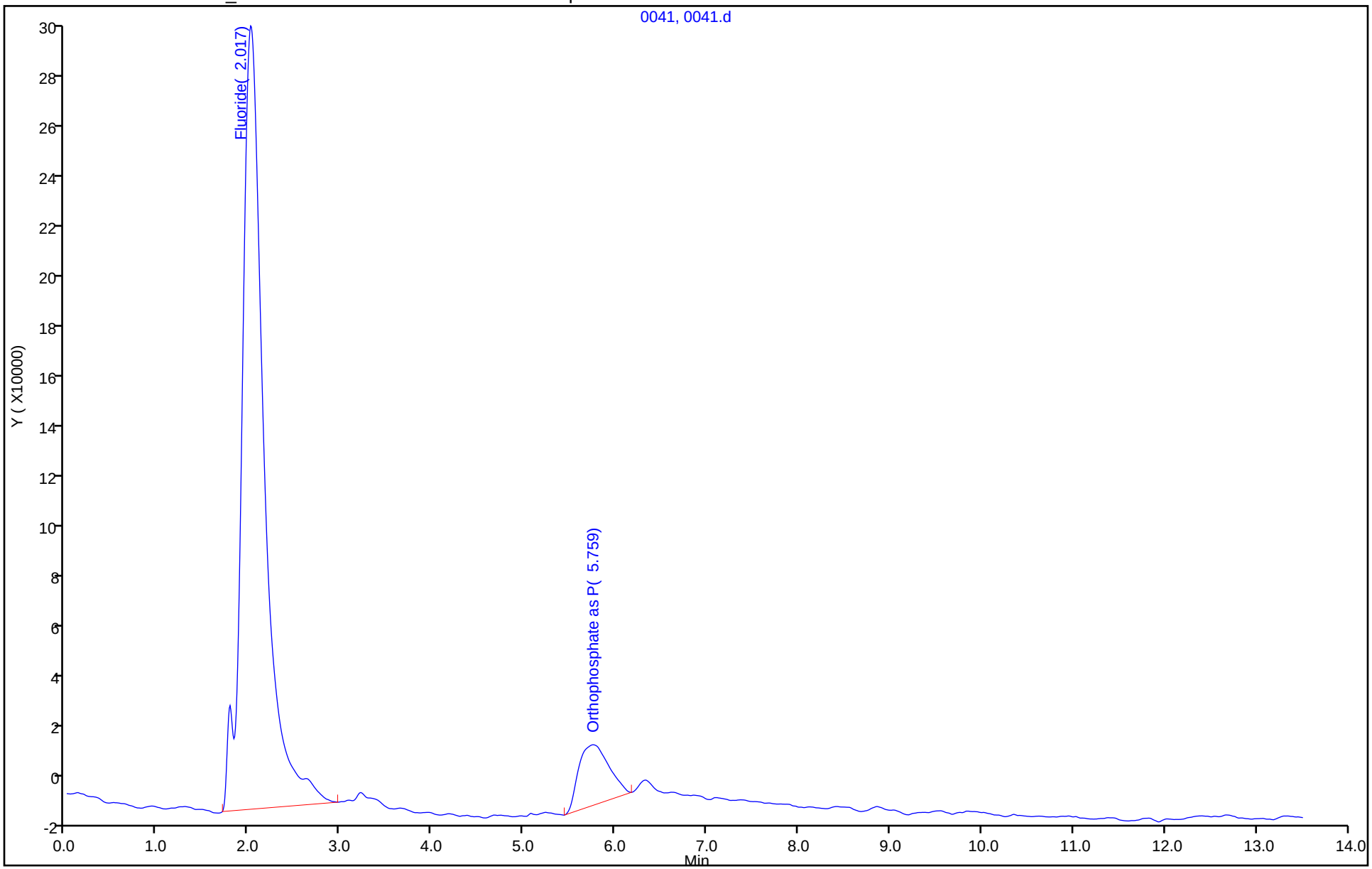
Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d

Injection Date:	18-May-2019 03:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	18-May-2019 03:48:00	ALS Bottle#:	0	Worklist Smp#:	41
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-041				
Misc. Info.:	31086 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	20-May-2019 08:09:56	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	5101652		0.5487	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.759	5.659	0.100	537628		NC	
6 Sulfate		6.434				ND	

QC Flag Legend

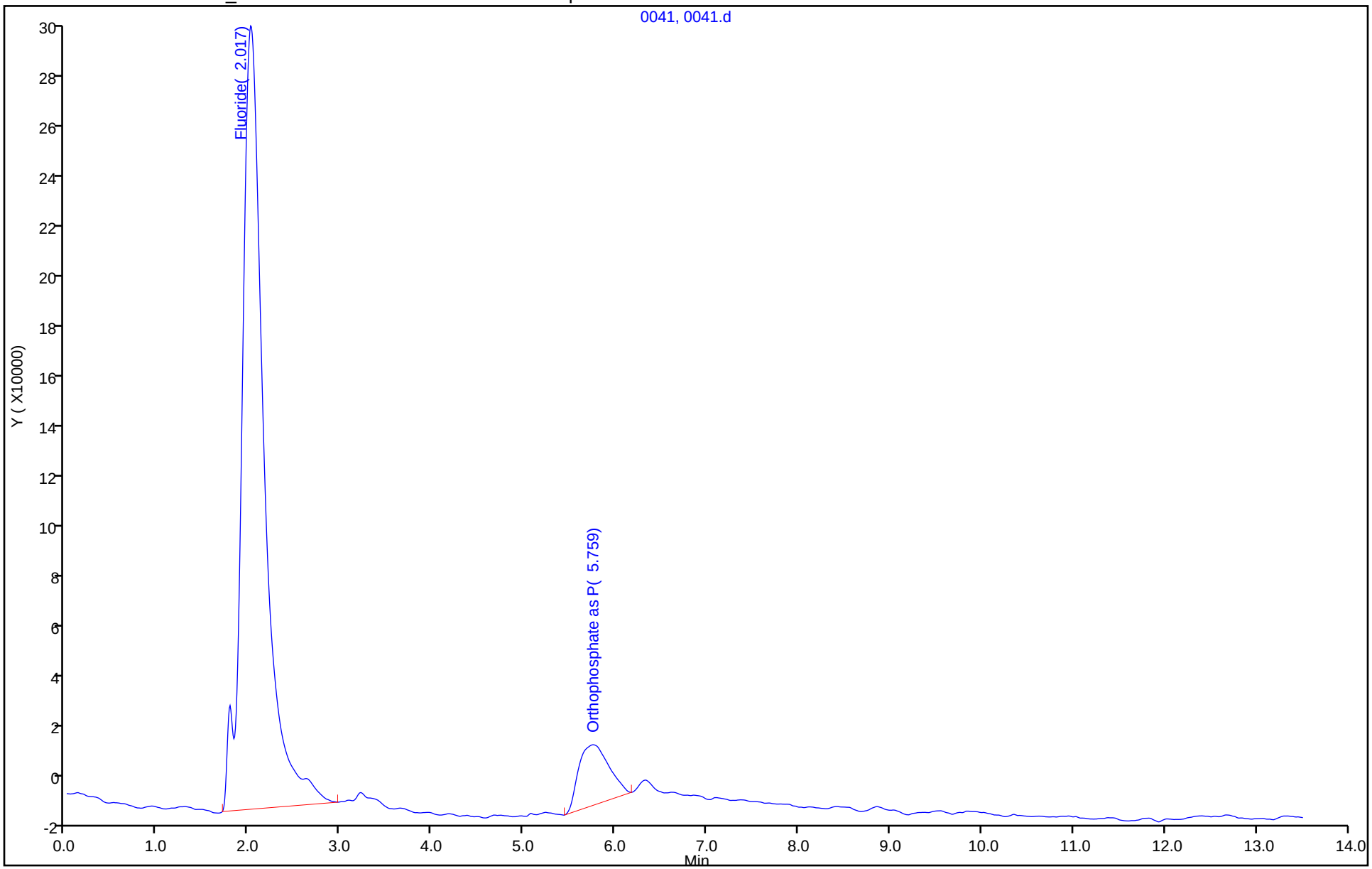
Processing Flags

NC - Not Calibrated

Report Date: 20-May-2019 08:09:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d				
Injection Date:	18-May-2019 03:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0043.d
Lims ID: 280-123930-A-3
Client ID: LF2MW2-12_0519-a
Sample Type: Client
Inject. Date: 18-May-2019 04:21:00 ALS Bottle#: 0 Worklist Smp#: 43
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-043
Misc. Info.: 11226 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	515720	NC	
2 Chloride	3.225	3.242	-0.017	4616471	NC	
3 Nitrite as N	3.950	3.892	0.058	221532	0.0463	
4 Bromide	4.667	4.634	0.033	1202084	NC	
5 Nitrate as N	5.275	5.200	0.075	12703602	1.13	
7 Orthophosphate as P		5.659			ND	
6 Sulfate	6.417	6.434	-0.017	78011661	NC	

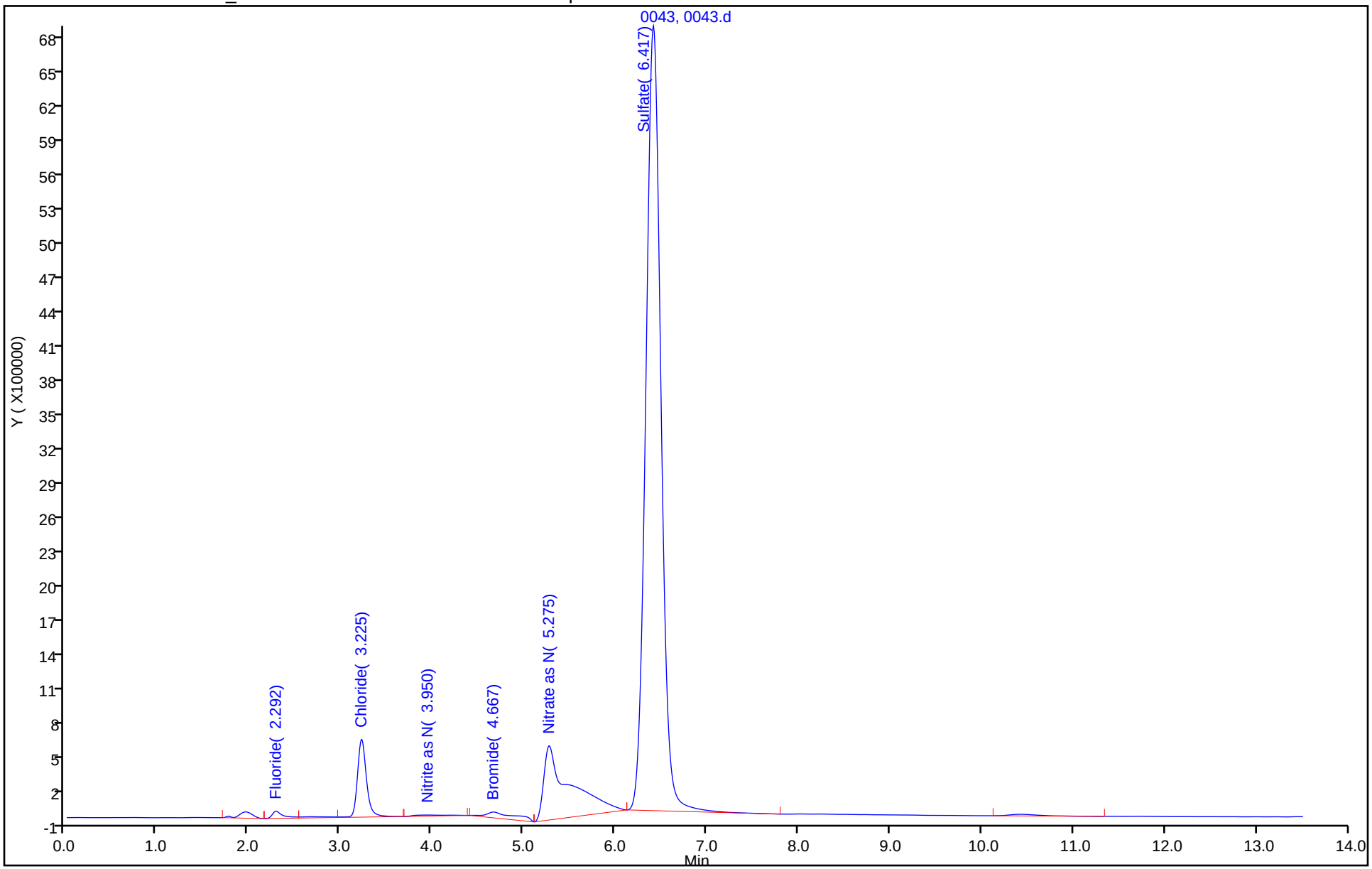
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0043.d				
Injection Date:	18-May-2019 04:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-A-3	Lab Sample ID:	280-123930-3	Worklist Smp#:	43
Client ID:	LF2MW2-12_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/14/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0043.d
Lims ID: 280-123930-A-3
Client ID: LF2MW2-12_0519-a
Sample Type: Client
Inject. Date: 18-May-2019 04:21:00 ALS Bottle#: 0 Worklist Smp#: 43
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-043
Misc. Info.: 11226 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	515720	-0.0835	
2 Chloride	3.225	3.242	-0.017	4616471	1.30	
3 Nitrite as N	3.950	3.892	0.058	221532	NC	
4 Bromide	4.667	4.634	0.033	1202084	0.6276	
5 Nitrate as N	5.275	5.200	0.075	12703602	NC	
7 Orthophosphate as P		5.659			ND	
6 Sulfate	6.417	6.434	-0.017	78011661	17.9	

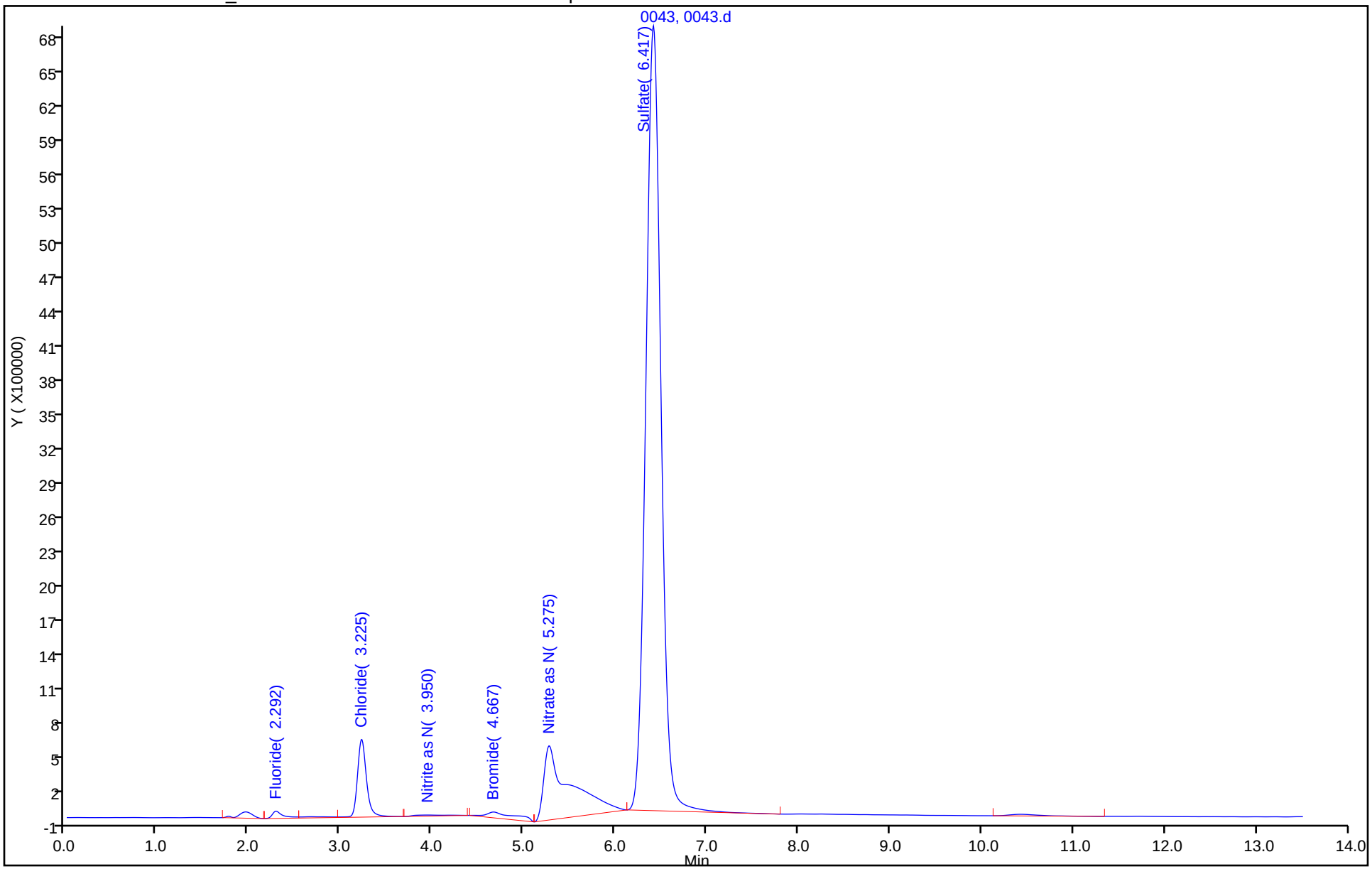
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Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0043.d				
Injection Date:	18-May-2019 04:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-A-3	Lab Sample ID:	280-123930-3	Worklist Smp#:	43
Client ID:	LF2MW2-12_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0045.d
Lims ID: 280-123930-B-4
Client ID: LF2MW2-4_0519
Sample Type: Client
Inject. Date: 18-May-2019 04:53:00 ALS Bottle#: 0 Worklist Smp#: 45
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-045
Misc. Info.: 6546 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.500	2.292	0.208	3119697	NC	
2 Chloride	3.225	3.242	-0.017	31423113	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.659	4.634	0.025	1177674	NC	
5 Nitrate as N	5.284	5.200	0.084	2257935	0.2326	
7 Orthophosphate as P	5.484	5.659	-0.175	7110255	1.71	
6 Sulfate	6.392	6.434	-0.042	11915518	NC	

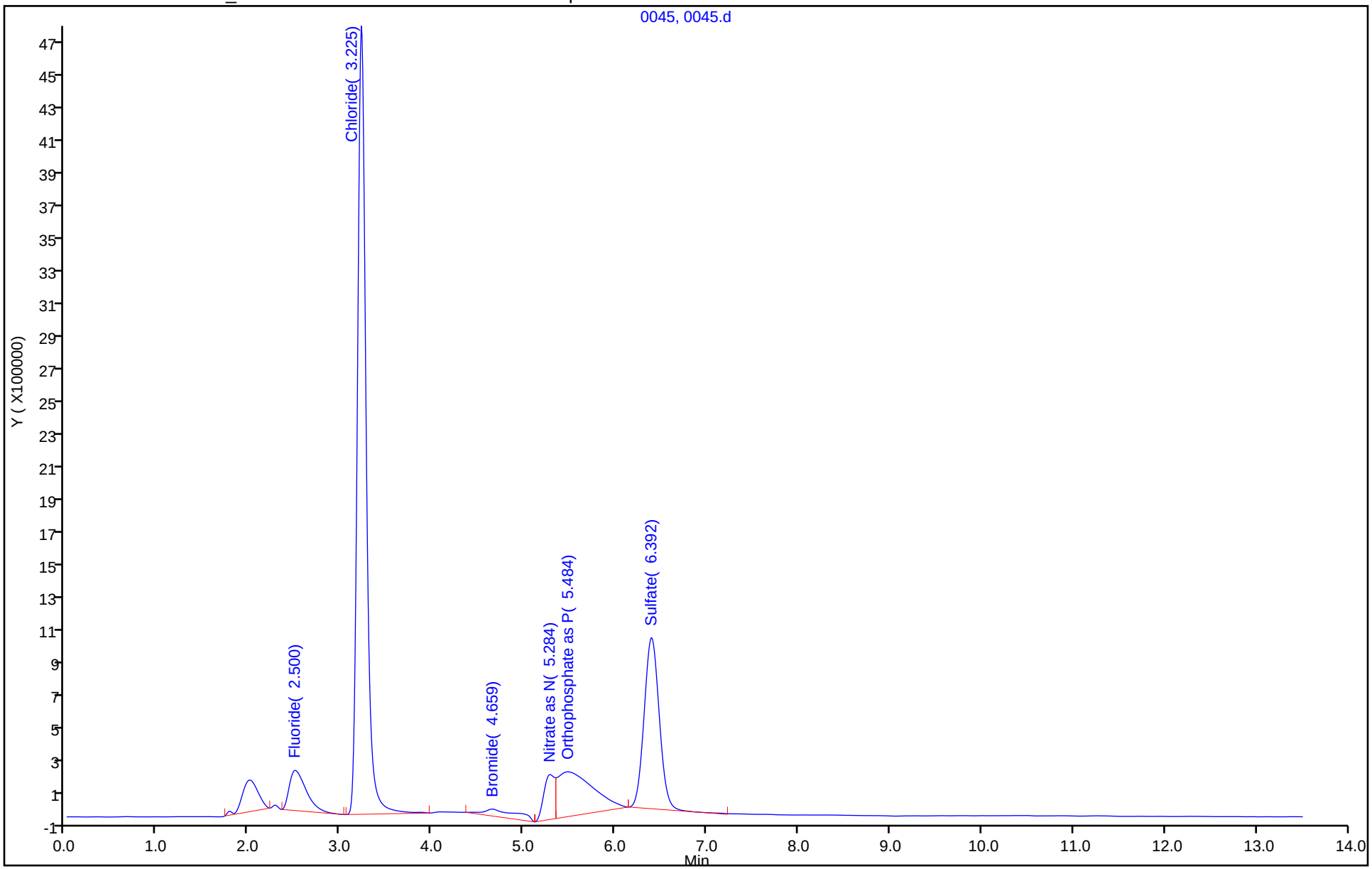
QC Flag Legend

Processing Flags
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Report Date: 20-May-2019 08:10:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0045.d				
Injection Date:	18-May-2019 04:53:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-B-4	Lab Sample ID:	280-123930-4	Worklist Smp#:	45
Client ID:	LF2MW2-4_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/14/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0045.d
Lims ID: 280-123930-B-4
Client ID: LF2MW2-4_0519
Sample Type: Client
Inject. Date: 18-May-2019 04:53:00 ALS Bottle#: 0 Worklist Smp#: 45
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-045
Misc. Info.: 6546 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.500	2.292	0.208	3119697	0.2755	
2 Chloride	3.225	3.242	-0.017	31423113	5.29	
3 Nitrite as N		3.892			ND	
4 Bromide	4.659	4.634	0.025	1177674	0.6150	
5 Nitrate as N	5.284	5.200	0.084	2257935	NC	
7 Orthophosphate as P	5.484	5.659	-0.175	7110255	NC	
6 Sulfate	6.392	6.434	-0.042	11915518	3.10	

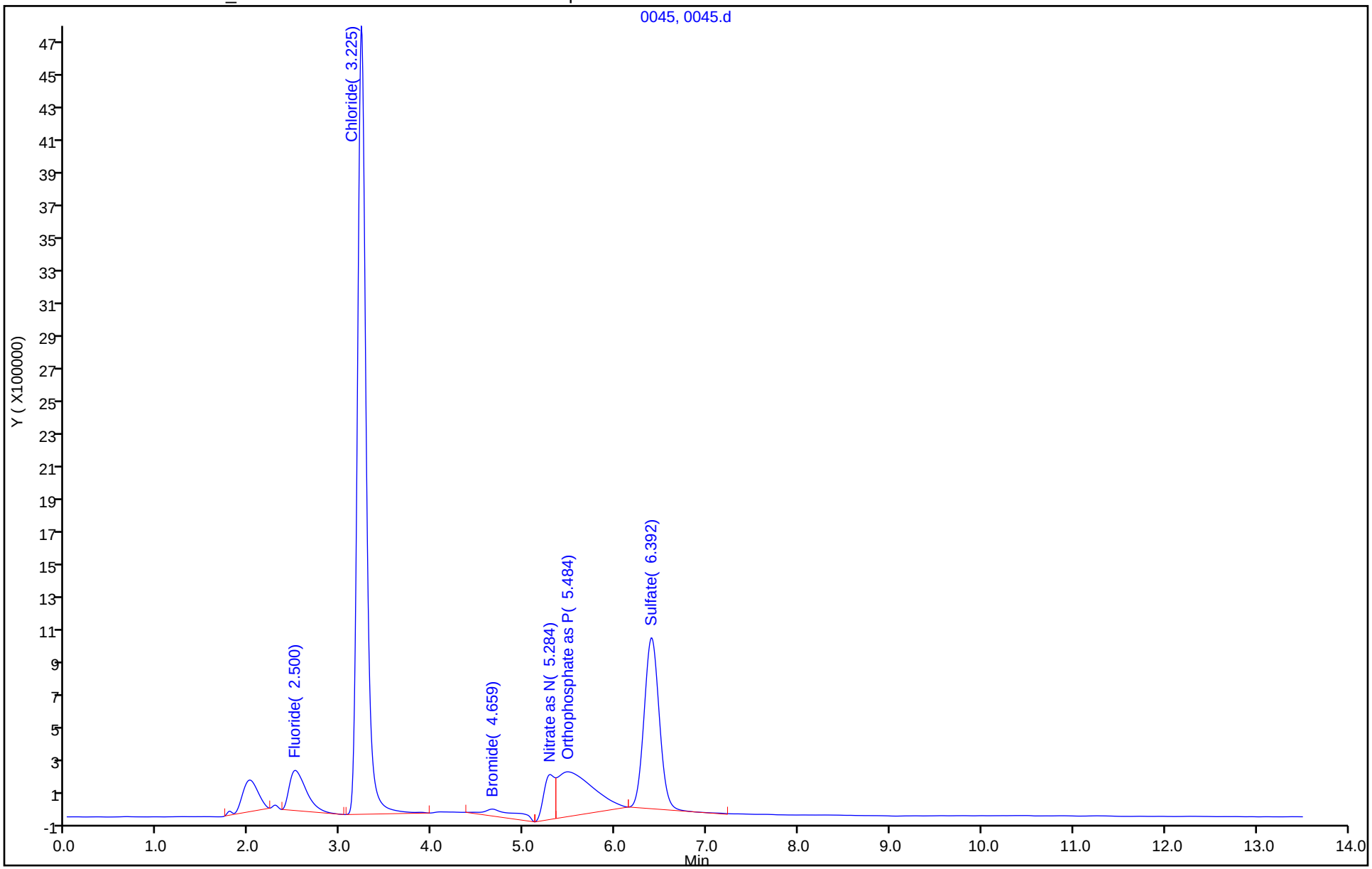
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Processing Flags
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Report Date: 20-May-2019 08:10:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0045.d				
Injection Date:	18-May-2019 04:53:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-B-4	Lab Sample ID:	280-123930-4	Worklist Smp#:	45
Client ID:	LF2MW2-4_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0047.d
Lims ID: 280-123930-A-5
Client ID: LF2MW2-13_0519
Sample Type: Client
Inject. Date: 18-May-2019 05:26:00 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-047
Misc. Info.: 10381 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	195916	NC	
2 Chloride	3.217	3.242	-0.025	2776067	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.651	4.634	0.017	167043	NC	
5 Nitrate as N	5.184	5.200	-0.016	762917	0.1039	
7 Orthophosphate as P	5.709	5.659	0.050	2205874	0.5247	
6 Sulfate	6.367	6.434	-0.067	556010	NC	

QC Flag Legend

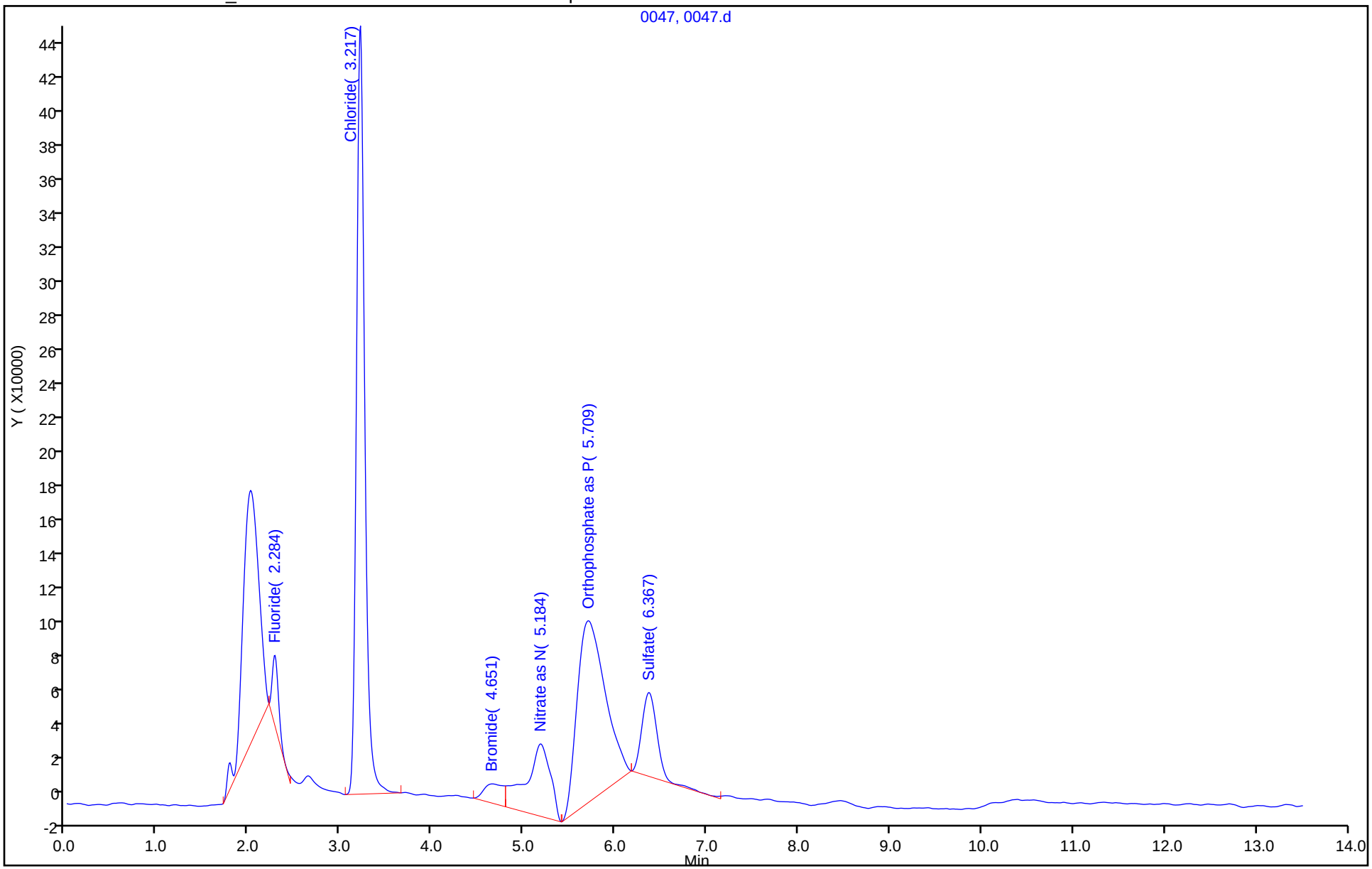
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Report Date: 20-May-2019 08:10:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0047.d

Injection Date:	18-May-2019 05:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-A-5	Lab Sample ID:	280-123930-5	Worklist Smp#:	47
Client ID:	LF2MW2-13_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0047.d
Lims ID: 280-123930-A-5
Client ID: LF2MW2-13_0519
Sample Type: Client
Inject. Date: 18-May-2019 05:26:00 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-047
Misc. Info.: 10381 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	195916	-0.1276	
2 Chloride	3.217	3.242	-0.025	2776067	1.03	
3 Nitrite as N		3.892			ND	
4 Bromide	4.651	4.634	0.017	167043	0.0938	
5 Nitrate as N	5.184	5.200	-0.016	762917	NC	
7 Orthophosphate as P	5.709	5.659	0.050	2205874	NC	
6 Sulfate	6.367	6.434	-0.067	556010	0.5616	

QC Flag Legend

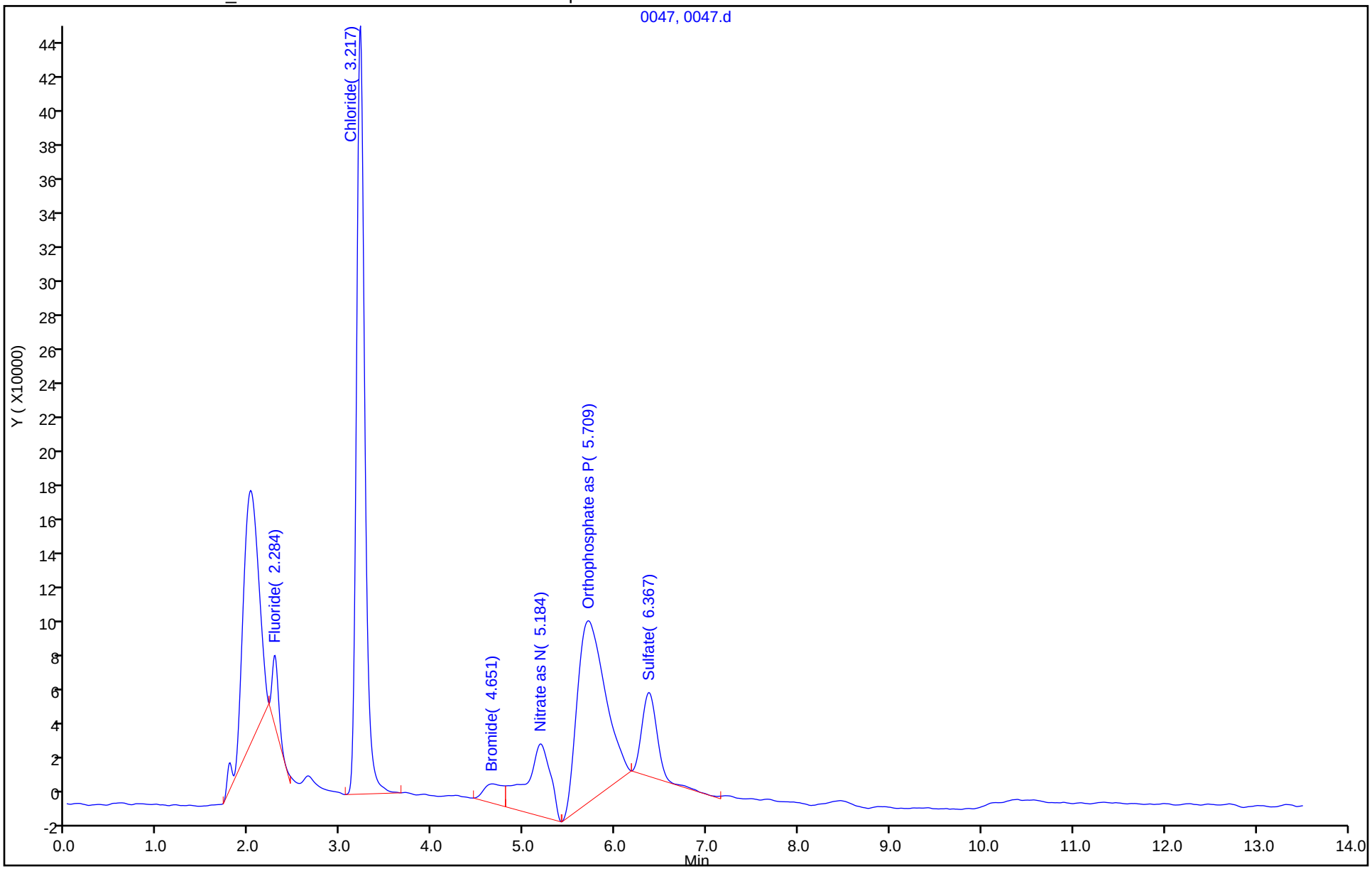
Processing Flags
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Report Date: 20-May-2019 08:10:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0047.d

Injection Date:	18-May-2019 05:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-A-5	Lab Sample ID:	280-123930-5	Worklist Smp#:	47
Client ID:	LF2MW2-13_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0052.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	18-May-2019 06:48:00	ALS Bottle#:	0	Worklist Smp#:	52
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-052				
Misc. Info.:	19644 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	20-May-2019 08:10:05	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37226261	NC	NC	
2 Chloride	3.234	3.242	-0.008	653178767	NC	NC	
3 Nitrite as N	3.859	3.892	-0.033	51138250	5.00	4.90	
4 Bromide	4.592	4.634	-0.042	10111016	NC	NC	
5 Nitrate as N	5.151	5.200	-0.049	57204907	5.00	4.96	
7 Orthophosphate as P	5.601	5.659	-0.058	23147997	5.00	5.58	
6 Sulfate	6.392	6.434	-0.042	425268869	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

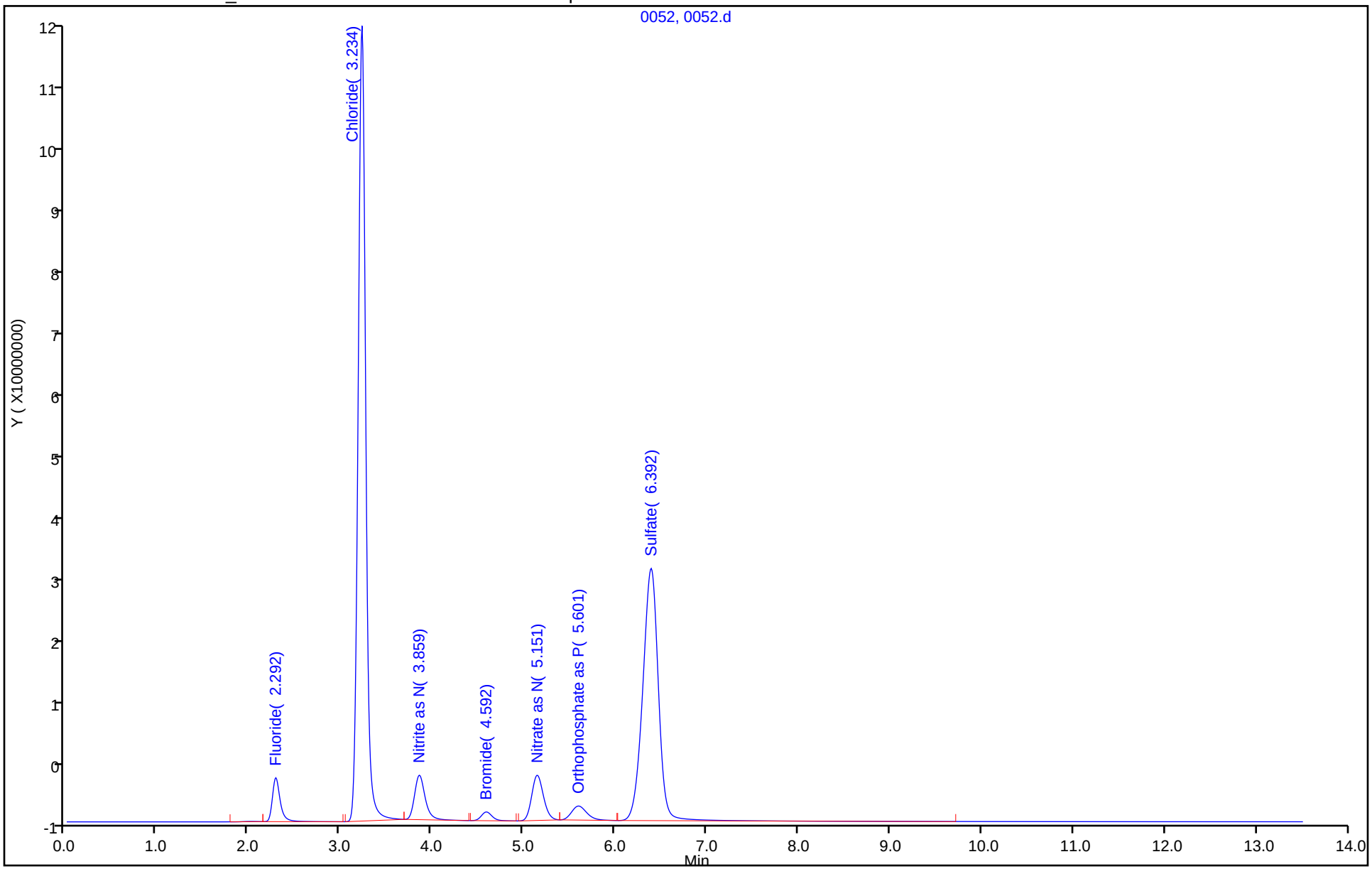
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:10:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0052.d

Injection Date:	18-May-2019 06:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	52
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0052.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	18-May-2019 06:48:00	ALS Bottle#:	0	Worklist Smp#:	52
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-052				
Misc. Info.:	19644 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	20-May-2019 08:10:05	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37226261	5.00	4.98	
2 Chloride	3.234	3.242	-0.008	653178767	100.0	97.8	
3 Nitrite as N	3.859	3.892	-0.033	51138250	NC	NC	
4 Bromide	4.592	4.634	-0.042	10111016	5.00	5.22	
5 Nitrate as N	5.151	5.200	-0.049	57204907	NC	NC	
7 Orthophosphate as P	5.601	5.659	-0.058	23147997	NC	NC	
6 Sulfate	6.392	6.434	-0.042	425268869	100.0	95.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

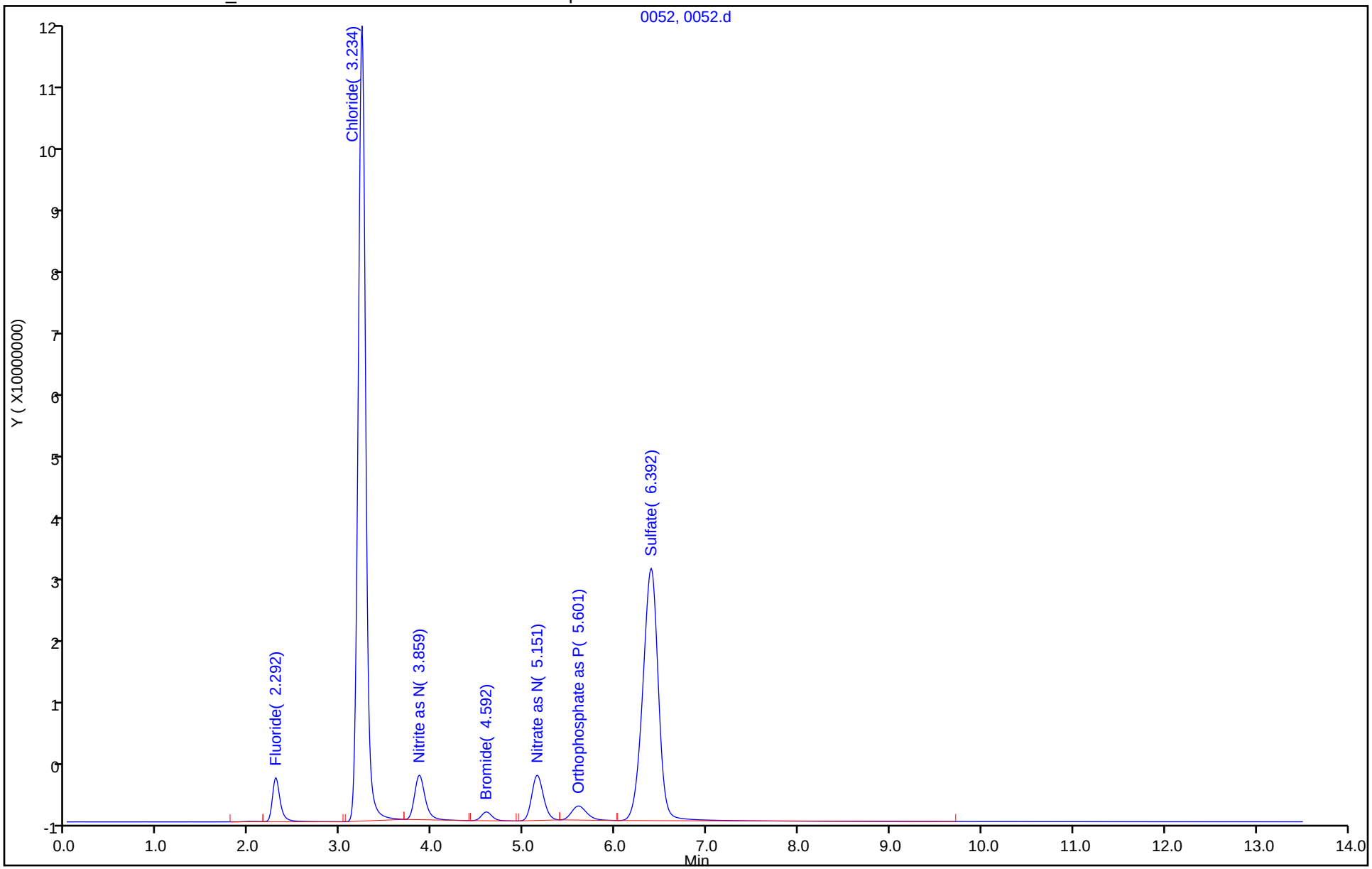
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:10:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0052.d

Injection Date:	18-May-2019 06:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	52
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0053.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 07:05:00 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-053
Misc. Info.: 26797 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:03:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.659	2.292	0.367	26611		NC	M
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.825	5.659	0.166	561408		0.1277	
6 Sulfate	6.375	6.434	-0.059	189440		NC	

QC Flag Legend

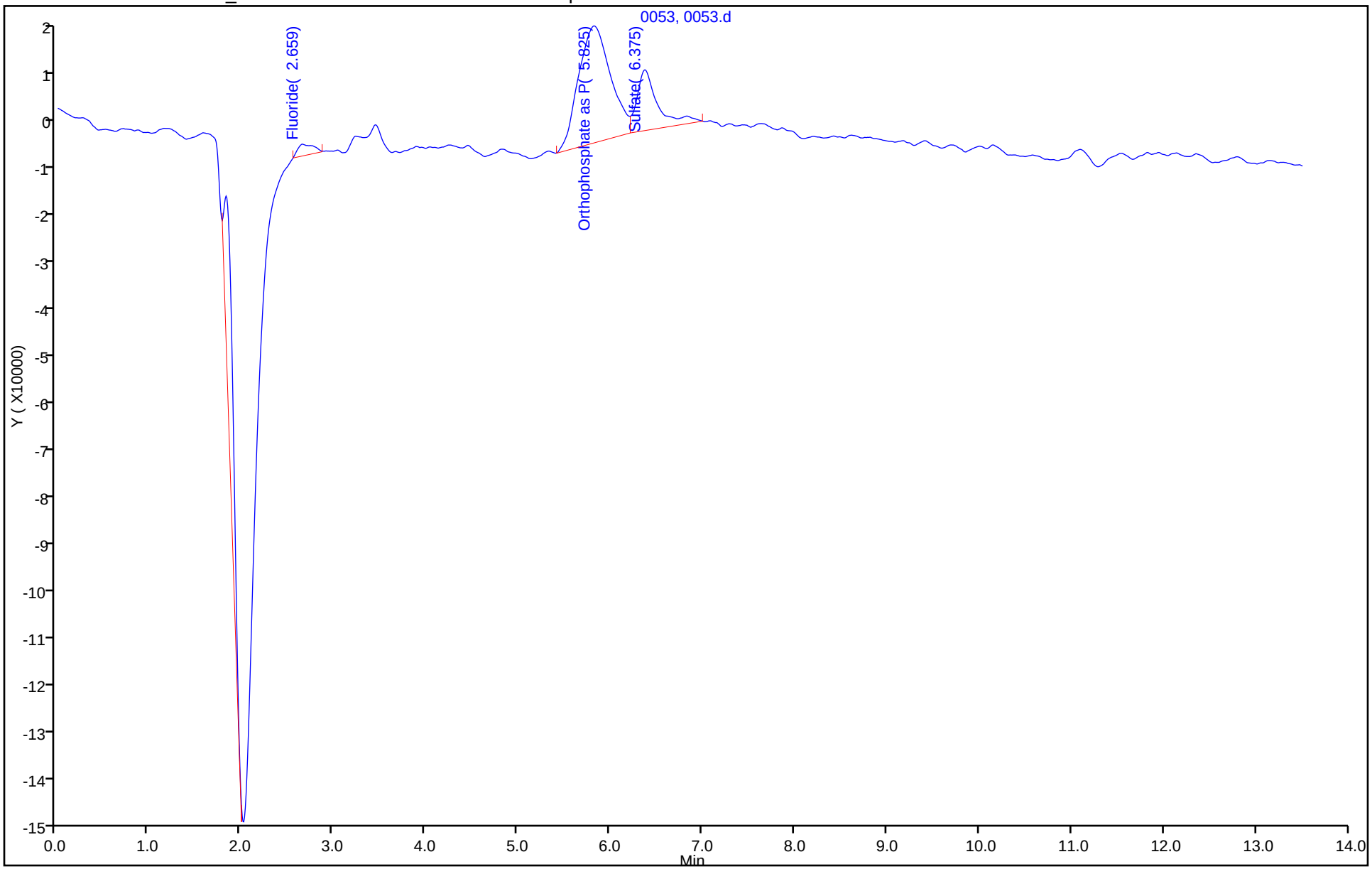
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:10:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0053.d

Injection Date:	18-May-2019 07:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	53
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/14/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0053.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 07:05:00 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-053
Misc. Info.: 26797 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:03:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.659	2.292	0.367	26611		-0.1509	M
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.825	5.659	0.166	561408		NC	
6 Sulfate	6.375	6.434	-0.059	189440		0.4797	

QC Flag Legend

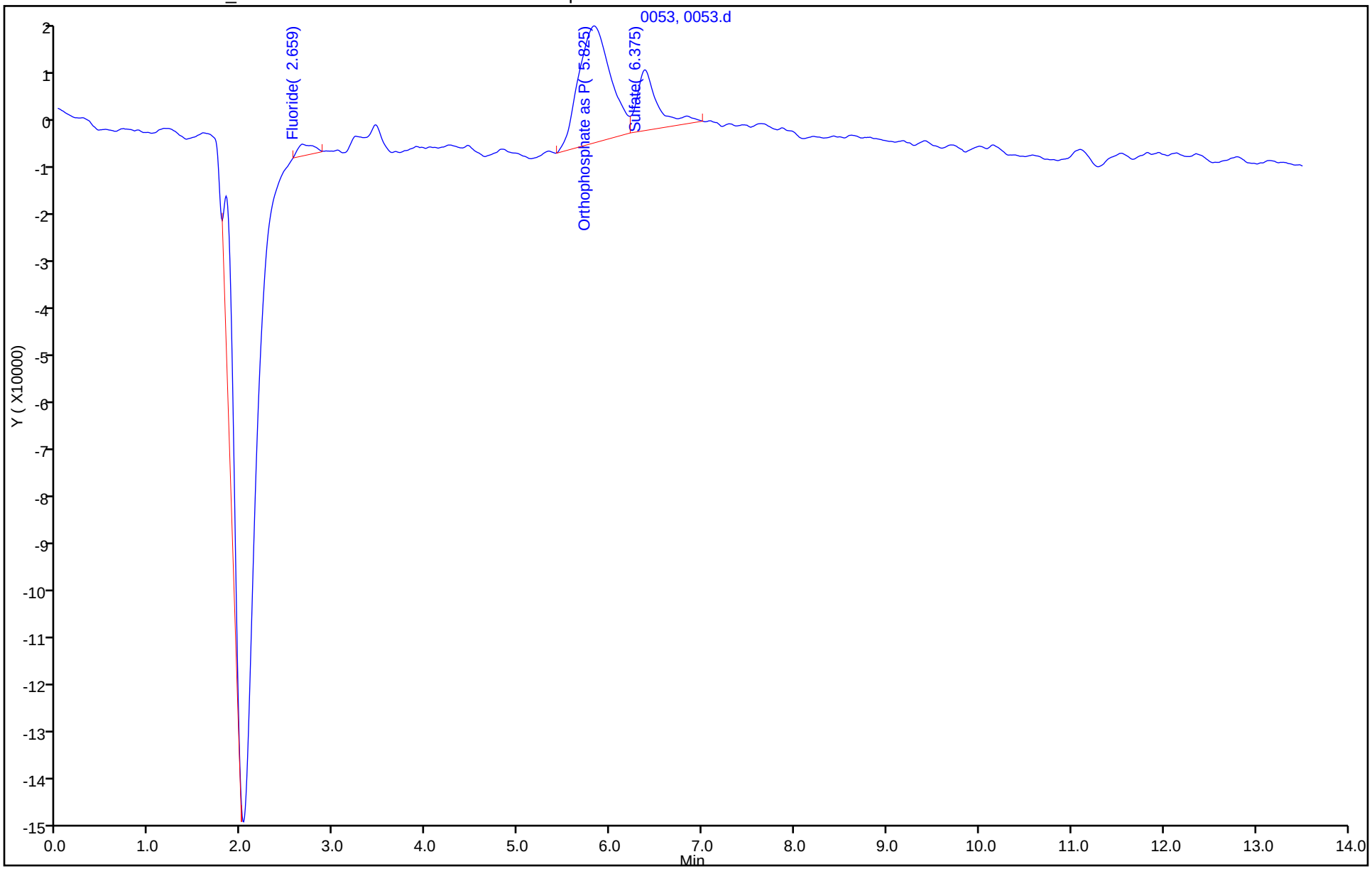
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:10:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0053.d

Injection Date:	18-May-2019 07:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	53
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-May-2019 15:30:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:56 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	1366393	NC	NC	
2 Chloride	3.209	3.225	-0.016	4569363	NC	NC	
3 Nitrite as N	3.842	3.850	-0.008	1909782	0.2000	0.2135	
4 Bromide	4.576	4.575	0.001	400482	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	2221862	0.2000	0.2220	
7 Orthophosphate as P	5.642	5.634	0.008	1282877	0.2000	0.2159	
6 Sulfate	6.359	6.409	-0.050	3422980	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

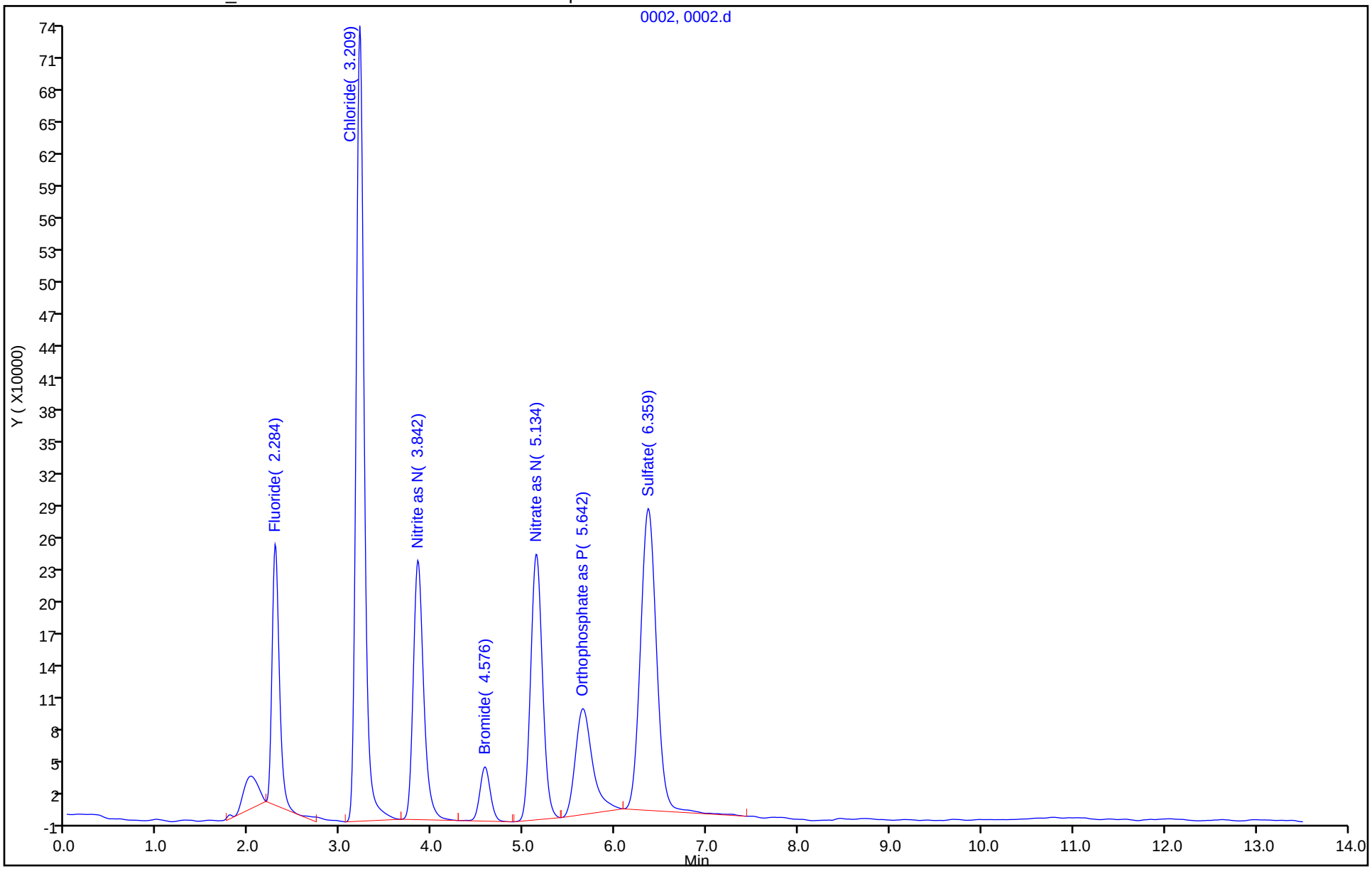
IC CAL cl/so4_00257 Amount Added: 0.02 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d

Injection Date:	20-May-2019 15:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-May-2019 15:30:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:56 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	1366393	0.2000	0.2154	
2 Chloride	3.209	3.225	-0.016	4569363	1.00	1.32	
3 Nitrite as N	3.842	3.850	-0.008	1909782	NC	NC	
4 Bromide	4.576	4.575	0.001	400482	0.2000	0.2052	
5 Nitrate as N	5.134	5.134	0.000	2221862	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	1282877	NC	NC	
6 Sulfate	6.359	6.409	-0.050	3422980	1.00	1.24	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

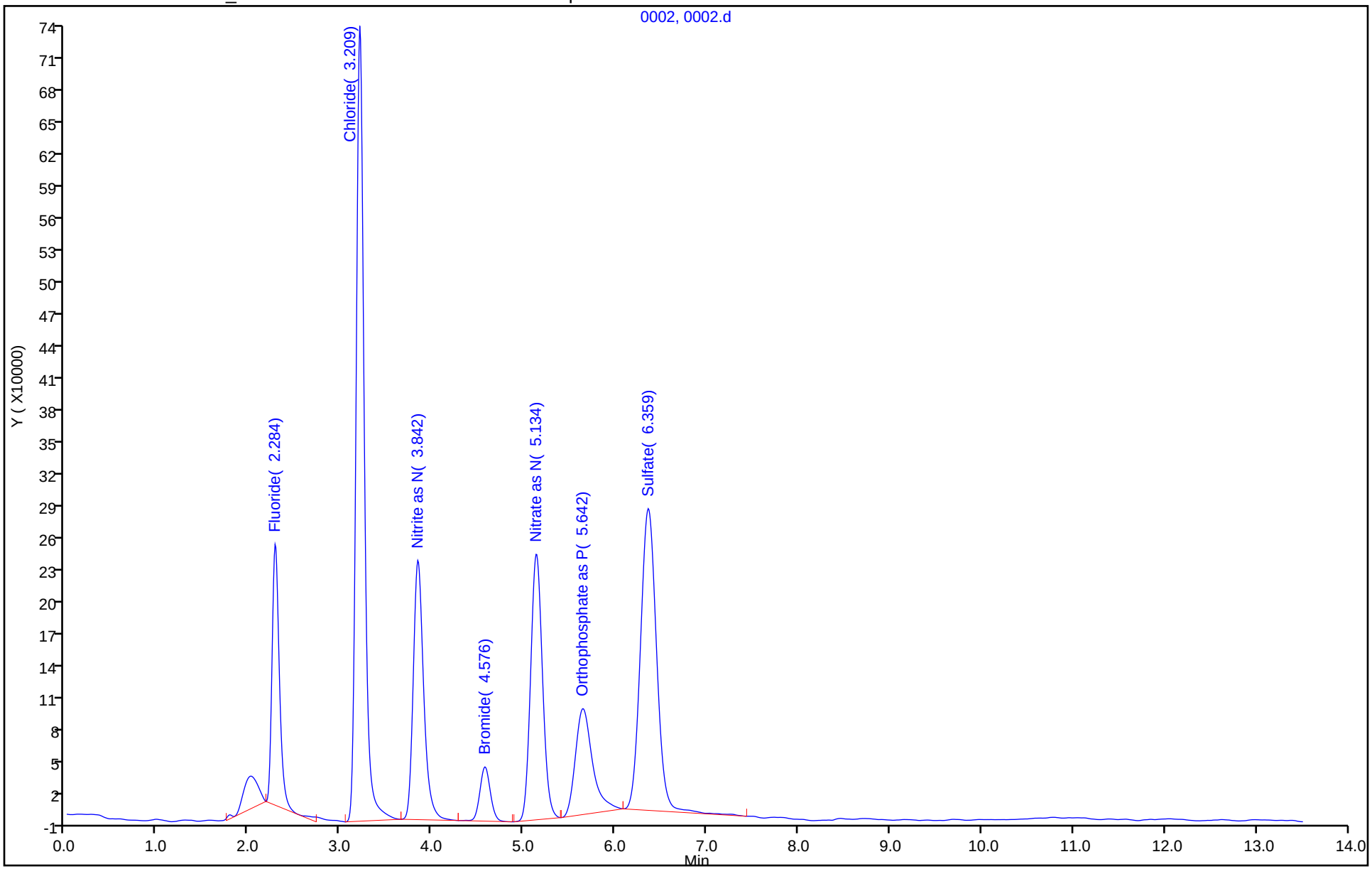
IC CAL cl/so4_00257 Amount Added: 0.02 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d

Injection Date:	20-May-2019 15:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-May-2019 15:47:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:57 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3430647	NC	NC	
2 Chloride	3.217	3.225	-0.008	11169540	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	4883590	0.5000	0.4916	
4 Bromide	4.575	4.575	0.000	1010337	NC	NC	
5 Nitrate as N	5.142	5.134	0.008	5516108	0.5000	0.4876	
7 Orthophosphate as P	5.642	5.634	0.008	2559825	0.5000	0.4883	
6 Sulfate	6.367	6.409	-0.042	8373202	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

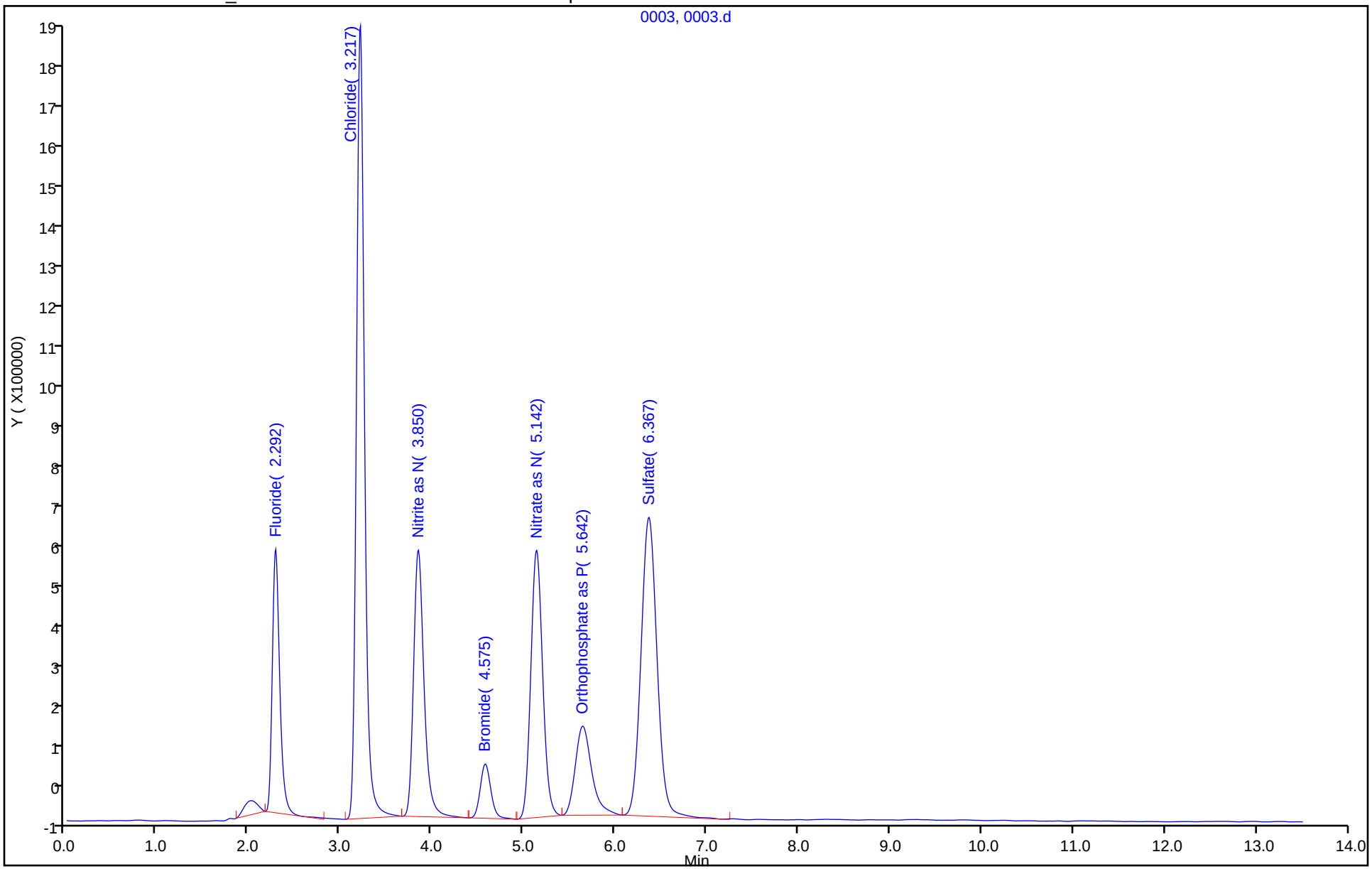
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d

Injection Date:	20-May-2019 15:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-May-2019 15:47:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:57 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3430647	0.5000	0.4876	
2 Chloride	3.217	3.225	-0.008	11169540	2.50	2.33	
3 Nitrite as N	3.850	3.850	0.000	4883590	NC	NC	
4 Bromide	4.575	4.575	0.000	1010337	0.5000	0.4998	
5 Nitrate as N	5.142	5.134	0.008	5516108	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	2559825	NC	NC	
6 Sulfate	6.367	6.409	-0.042	8373202	2.50	2.40	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

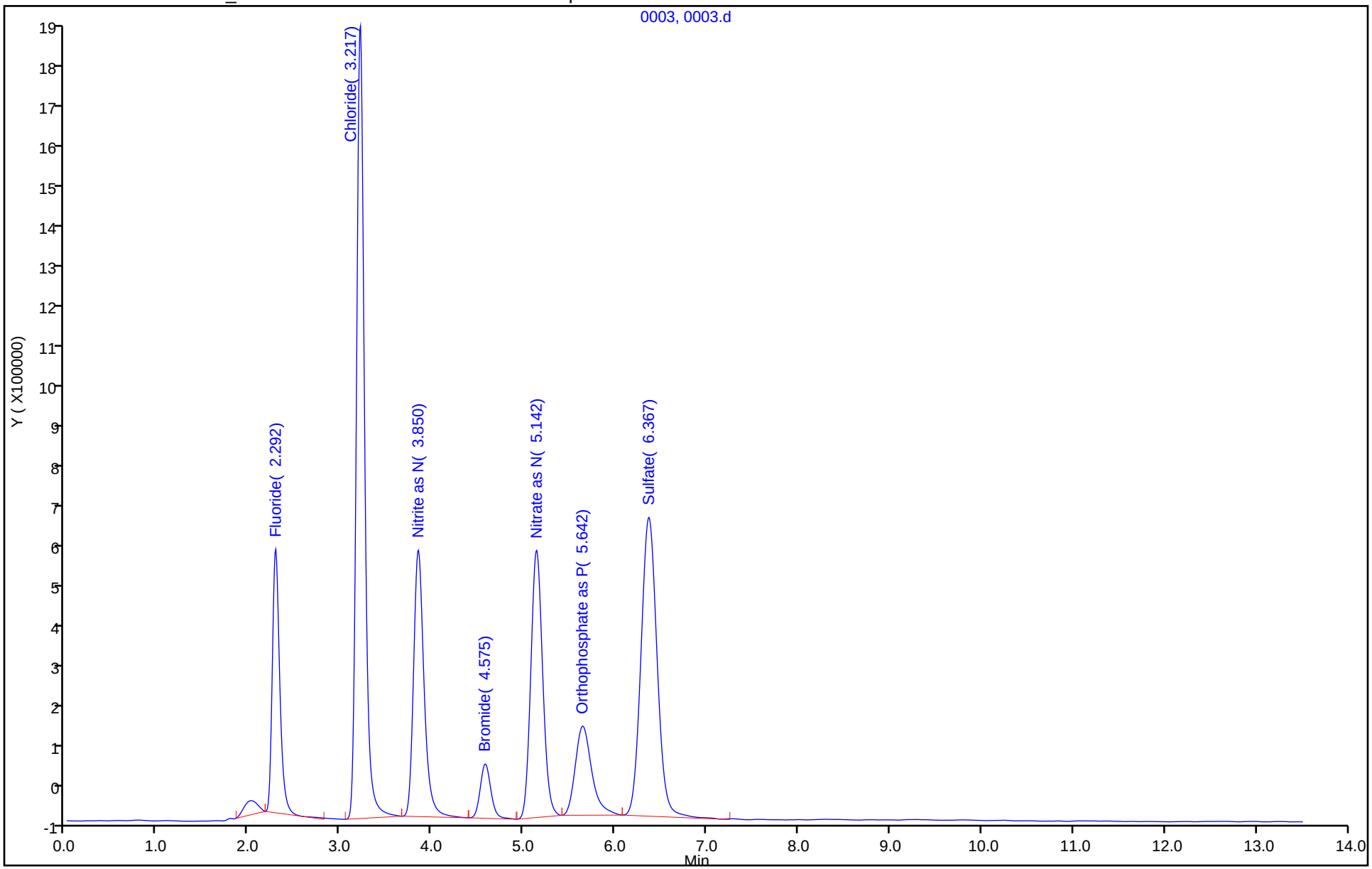
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d

Injection Date:	20-May-2019 15:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-May-2019 16:03:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	7044898	NC	NC	
2 Chloride	3.209	3.225	-0.016	22624207	NC	NC	
3 Nitrite as N	3.842	3.850	-0.008	9975765	1.00	0.9678	
4 Bromide	4.575	4.575	0.000	2013985	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	11156305	1.00	0.9423	
7 Orthophosphate as P	5.642	5.634	0.008	4766974	1.00	0.9591	
6 Sulfate	6.359	6.409	-0.050	16706402	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

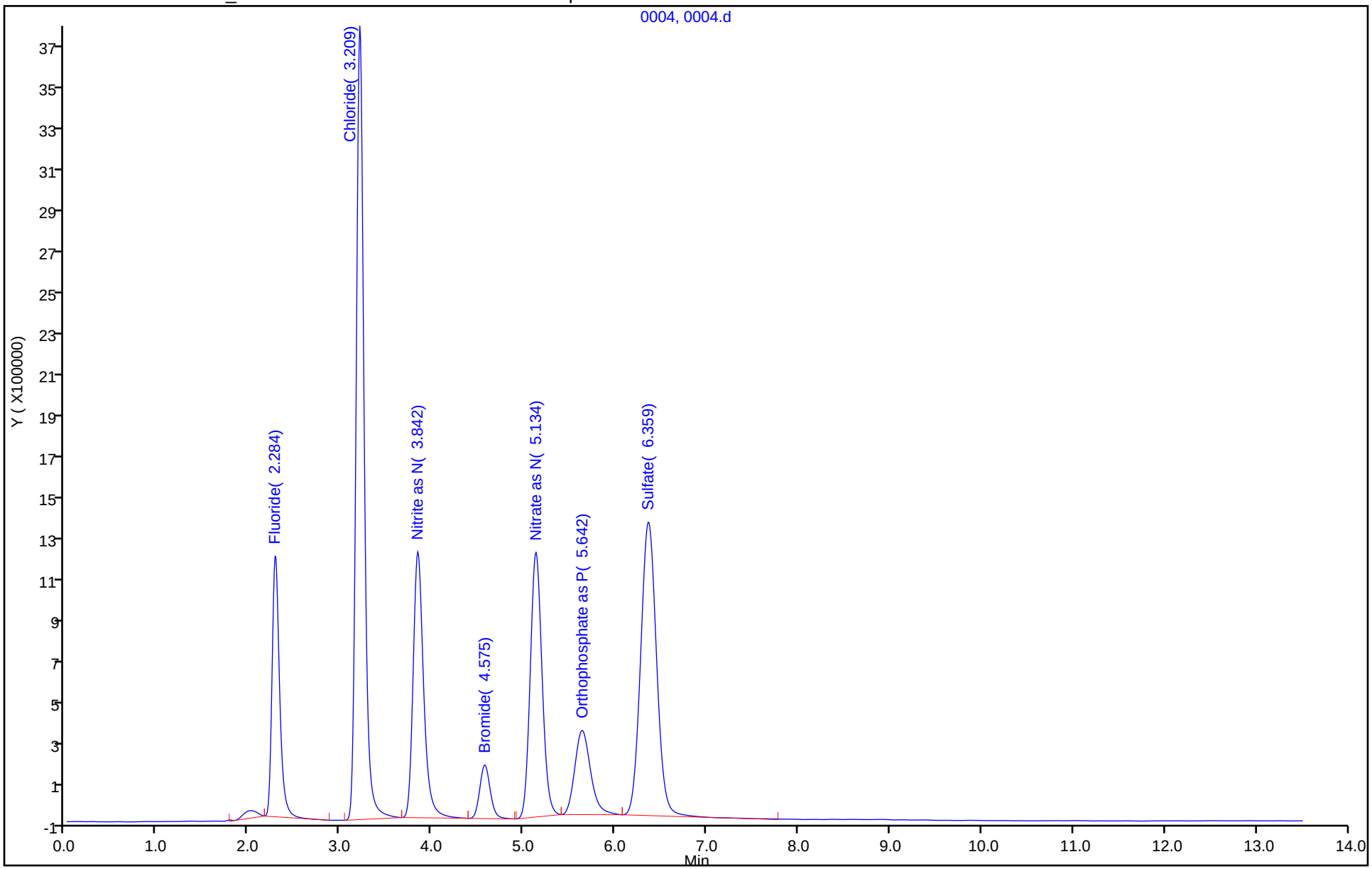
IC CAL cl/so4_00257	Amount Added:	0.10	Units: mL
IC Cal low_00459	Amount Added:	0.10	Units: mL

Report Date: 22-May-2019 07:58:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d

Injection Date:	20-May-2019 16:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-May-2019 16:03:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	7044898	1.00	0.9642	
2 Chloride	3.209	3.225	-0.016	22624207	5.00	4.08	
3 Nitrite as N	3.842	3.850	-0.008	9975765	NC	NC	
4 Bromide	4.575	4.575	0.000	2013985	1.00	0.9847	
5 Nitrate as N	5.134	5.134	0.000	11156305	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	4766974	NC	NC	
6 Sulfate	6.359	6.409	-0.050	16706402	5.00	4.34	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

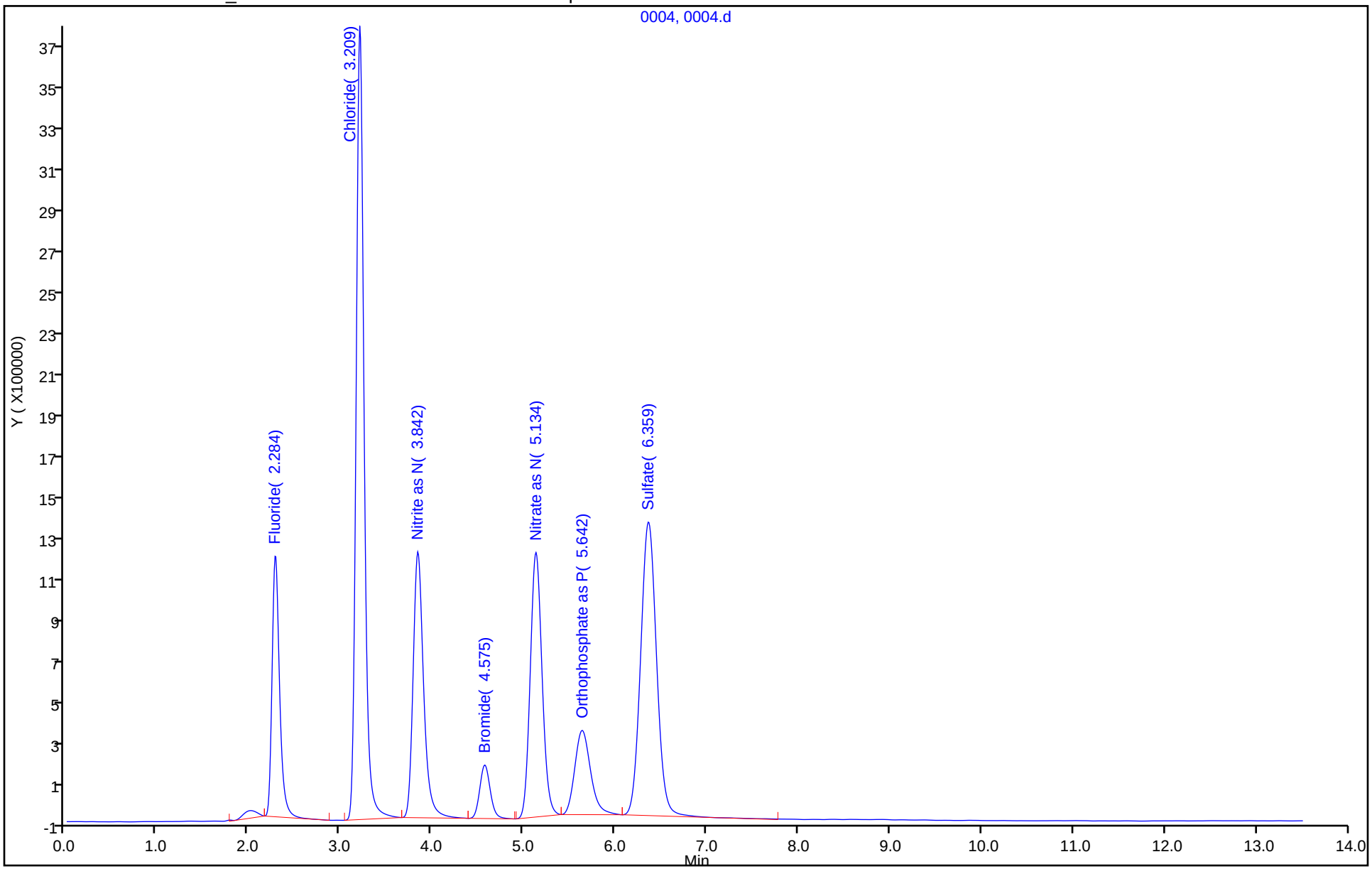
IC CAL cl/so4_00257	Amount Added:	0.10	Units: mL
IC Cal low_00459	Amount Added:	0.10	Units: mL

Report Date: 22-May-2019 07:58:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d

Injection Date:	20-May-2019 16:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d				
Lims ID:	std L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	20-May-2019 16:20:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-005				
Misc. Info.:	5 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29030461	NC	NC	
2 Chloride	3.225	3.225	0.000	351737681	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	40862664	4.00	3.86	
4 Bromide	4.575	4.575	0.000	8108630	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	46444411	4.00	3.79	
7 Orthophosphate as P	5.634	5.634	0.000	18453992	4.00	3.88	
6 Sulfate	6.392	6.392	0.000	231352897	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

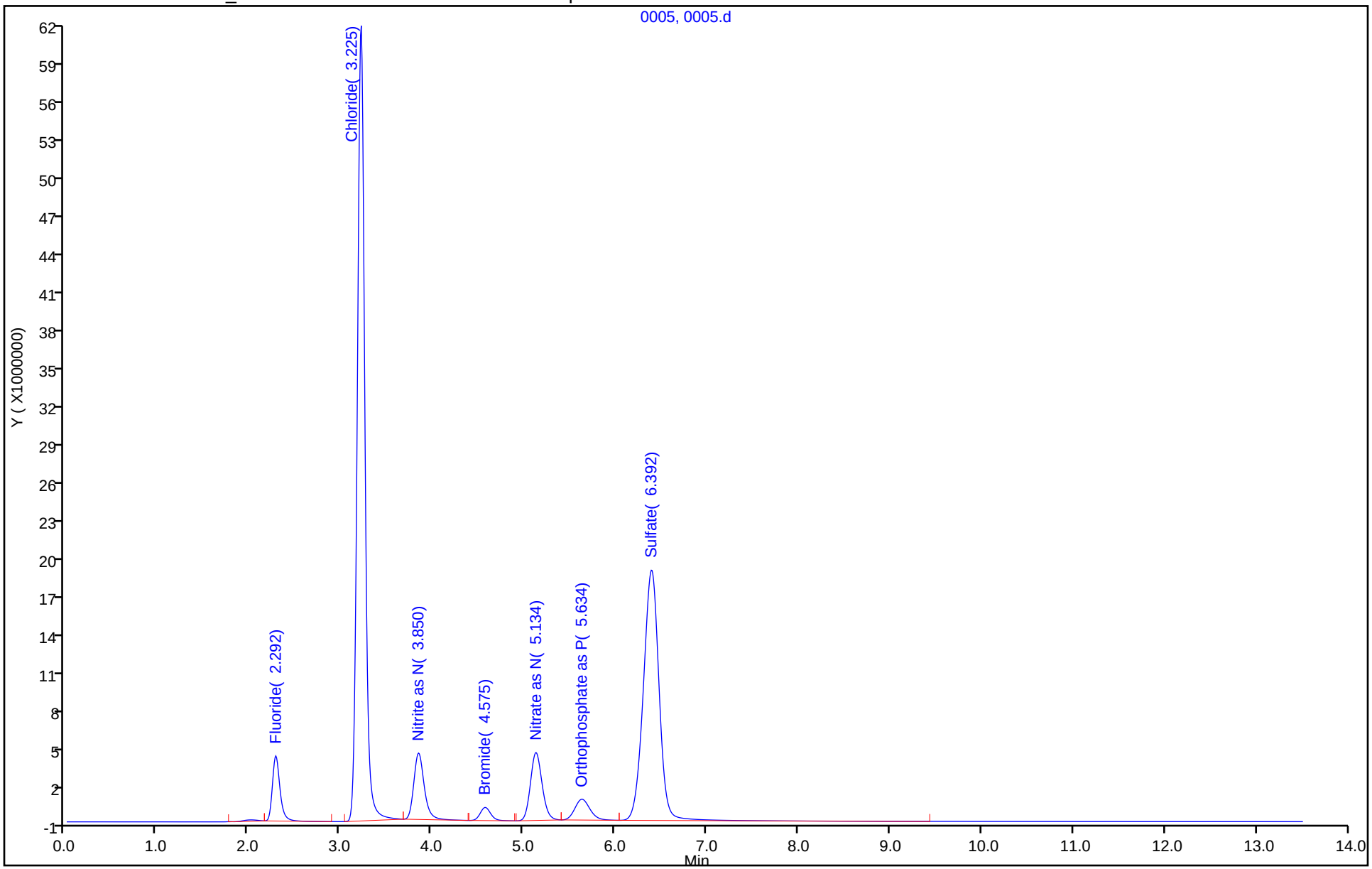
IC CAL cl/so4_00257	Amount Added:	1.20	Units: mL
IC Cal low_00459	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d

Injection Date:	20-May-2019 16:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d				
Lims ID:	std L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	20-May-2019 16:20:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-005				
Misc. Info.:	5 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29030461	4.00	3.86	
2 Chloride	3.225	3.225	0.000	351737681	60.0	54.5	
3 Nitrite as N	3.850	3.850	0.000	40862664	NC	NC	
4 Bromide	4.575	4.575	0.000	8108630	4.00	3.93	
5 Nitrate as N	5.134	5.134	0.000	46444411	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	18453992	NC	NC	
6 Sulfate	6.392	6.392	0.000	231352897	60.0	54.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

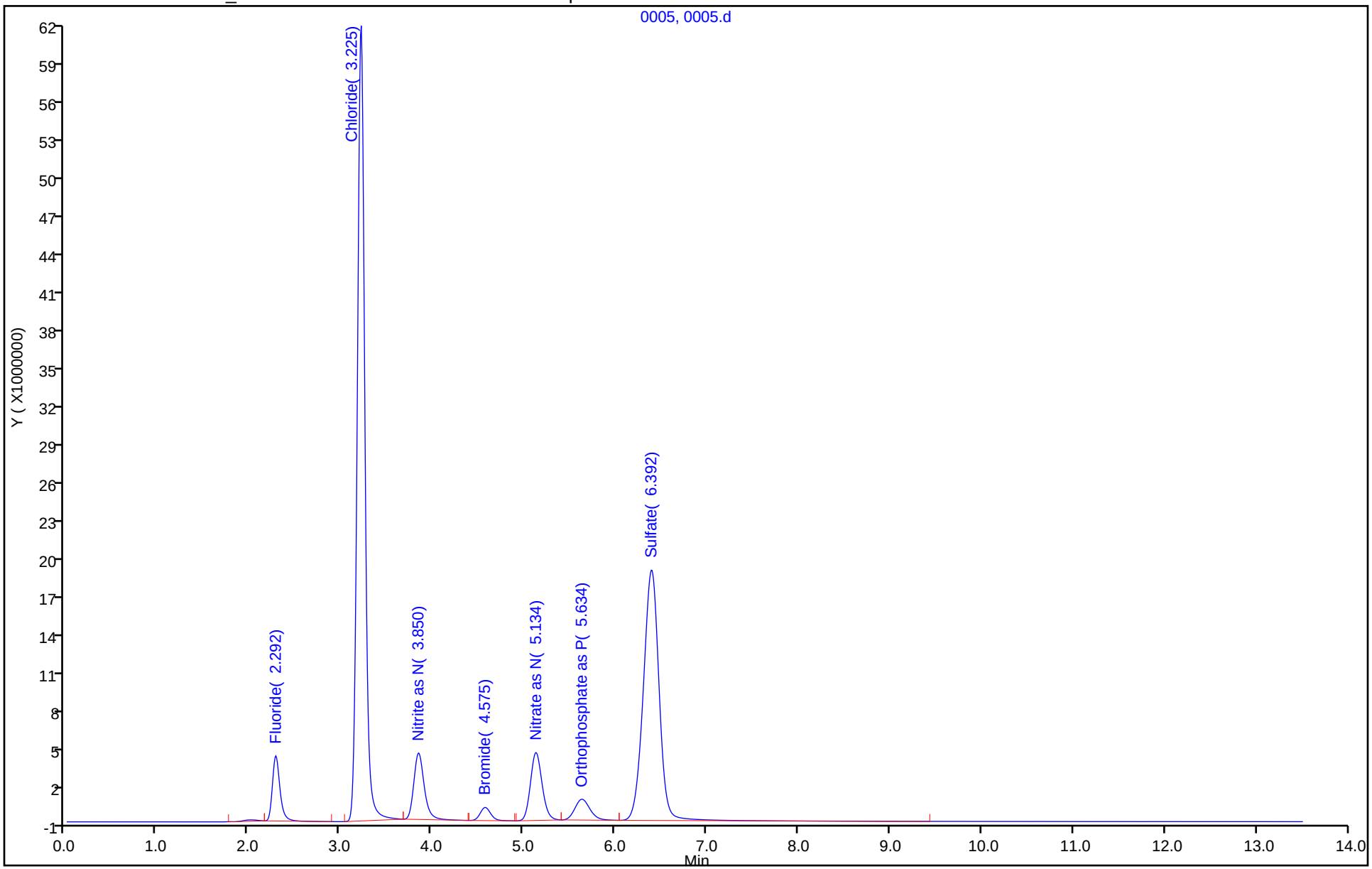
IC CAL cl/so4_00257	Amount Added:	1.20	Units: mL
IC Cal low_00459	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d

Injection Date:	20-May-2019 16:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d				
Lims ID:	std L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	20-May-2019 16:36:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:58:59	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	60687106	NC	NC	
2 Chloride	3.225	3.225	0.000	767710112	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	85254927	8.00	8.01	
4 Bromide	4.575	4.575	0.000	16491045	NC	NC	
5 Nitrate as N	5.117	5.134	-0.017	98595023	8.00	7.99	
7 Orthophosphate as P	5.625	5.634	-0.009	37609857	8.00	7.96	
6 Sulfate	6.417	6.392	0.025	499759358	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

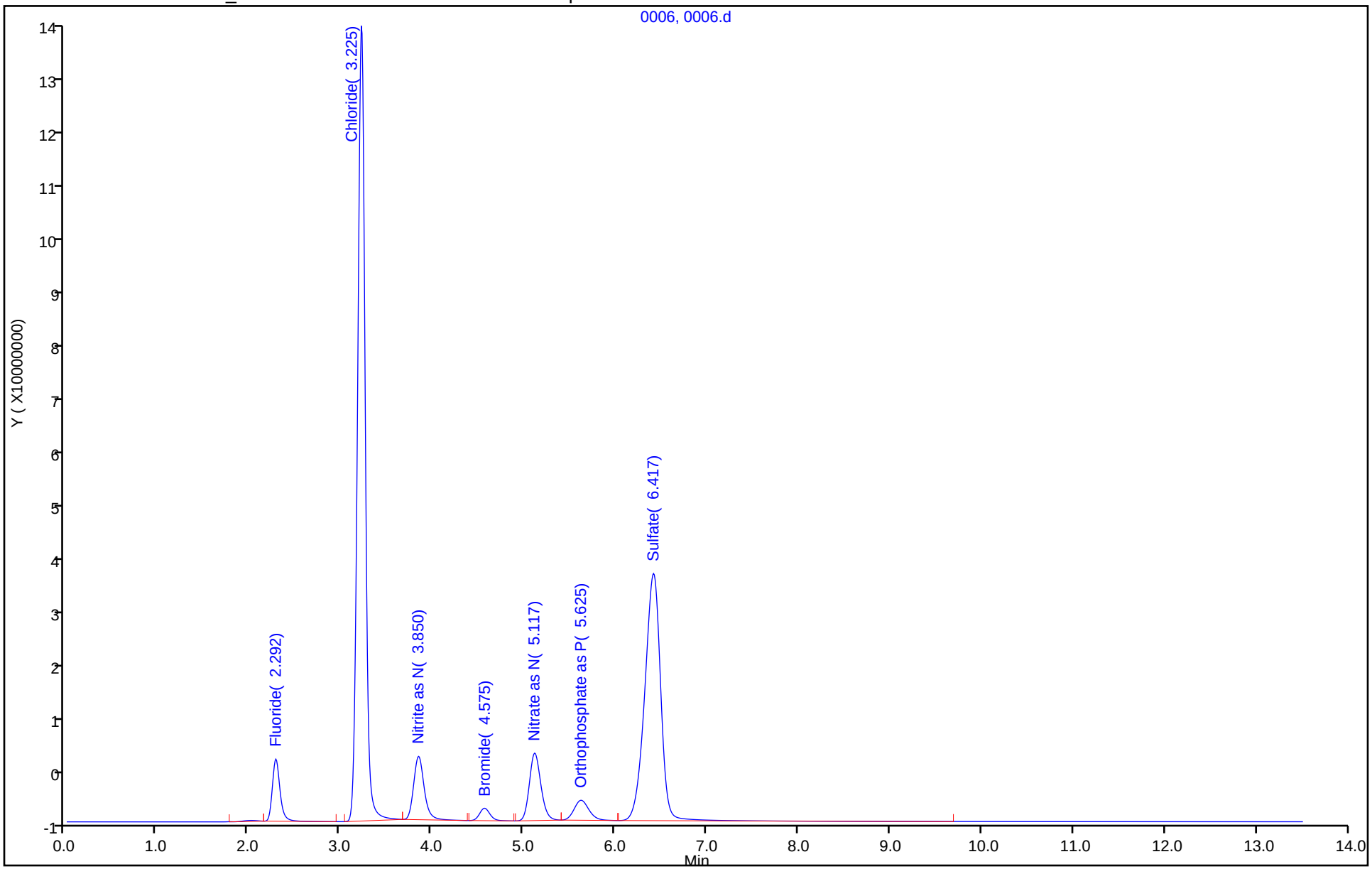
IC CAL cl/so4_00257	Amount Added:	2.40	Units: mL
IC Cal low_00459	Amount Added:	0.80	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d

Injection Date:	20-May-2019 16:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-May-2019 16:36:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:59 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	60687106	8.00	8.04	
2 Chloride	3.225	3.225	0.000	767710112	120.0	118.2	
3 Nitrite as N	3.850	3.850	0.000	85254927	NC	NC	
4 Bromide	4.575	4.575	0.000	16491045	8.00	7.98	
5 Nitrate as N	5.117	5.134	-0.017	98595023	NC	NC	
7 Orthophosphate as P	5.625	5.634	-0.009	37609857	NC	NC	
6 Sulfate	6.417	6.392	0.025	499759358	120.0	117.1	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

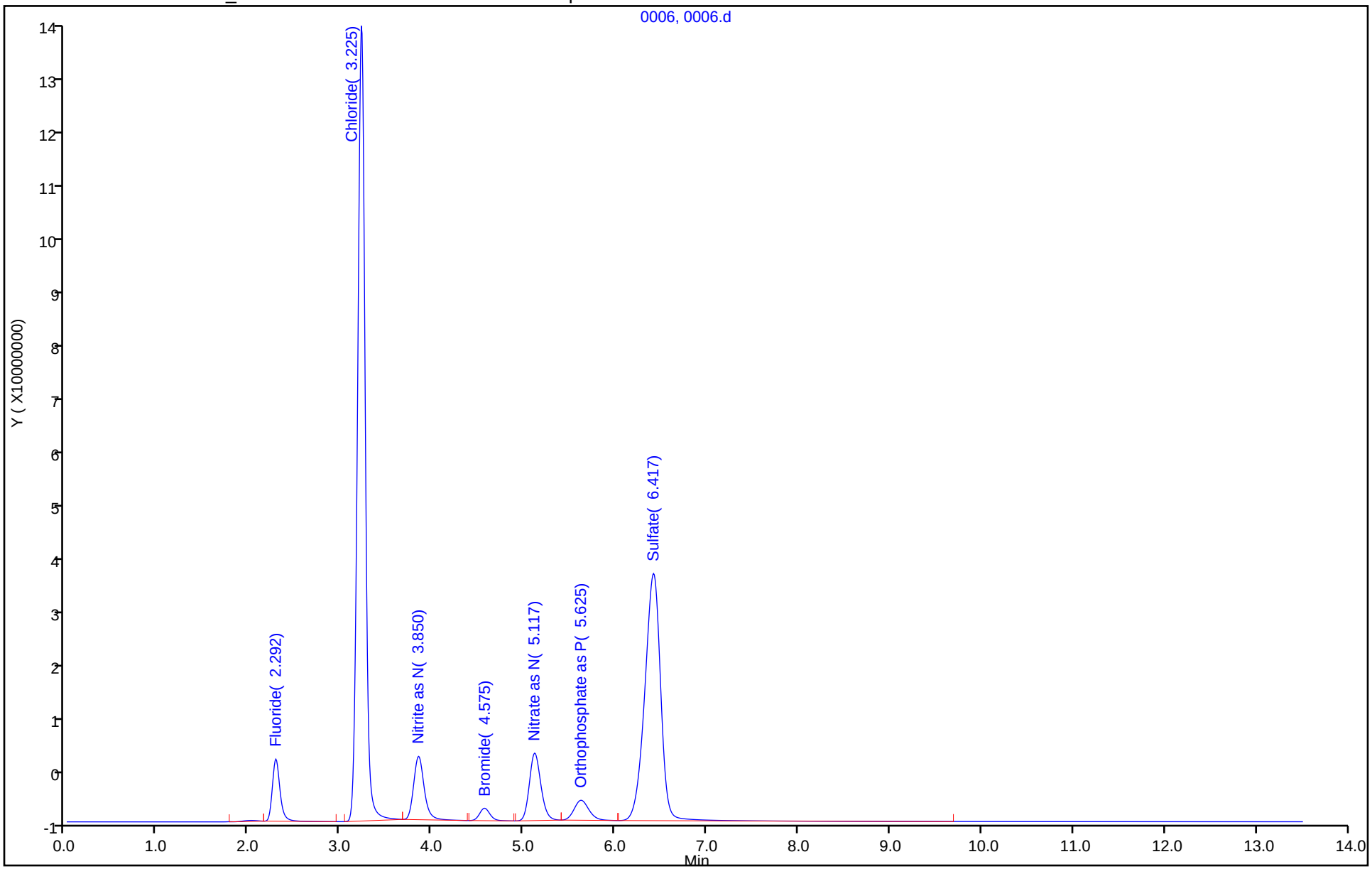
IC CAL cl/so4_00257 Amount Added: 2.40 Units: mL
IC Cal low_00459 Amount Added: 0.80 Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d

Injection Date:	20-May-2019 16:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	20-May-2019 16:52:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-007				
Misc. Info.:	7 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:00	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	76568117	NC	NC	
2 Chloride	3.242	3.225	0.017	1354016260	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	108323395	10.0	10.2	
4 Bromide	4.567	4.575	-0.008	20888090	NC	NC	
5 Nitrate as N	5.117	5.134	-0.017	126834114	10.0	10.3	
7 Orthophosphate as P	5.626	5.634	-0.008	48062818	10.0	10.2	
6 Sulfate	6.442	6.392	0.050	892937706	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

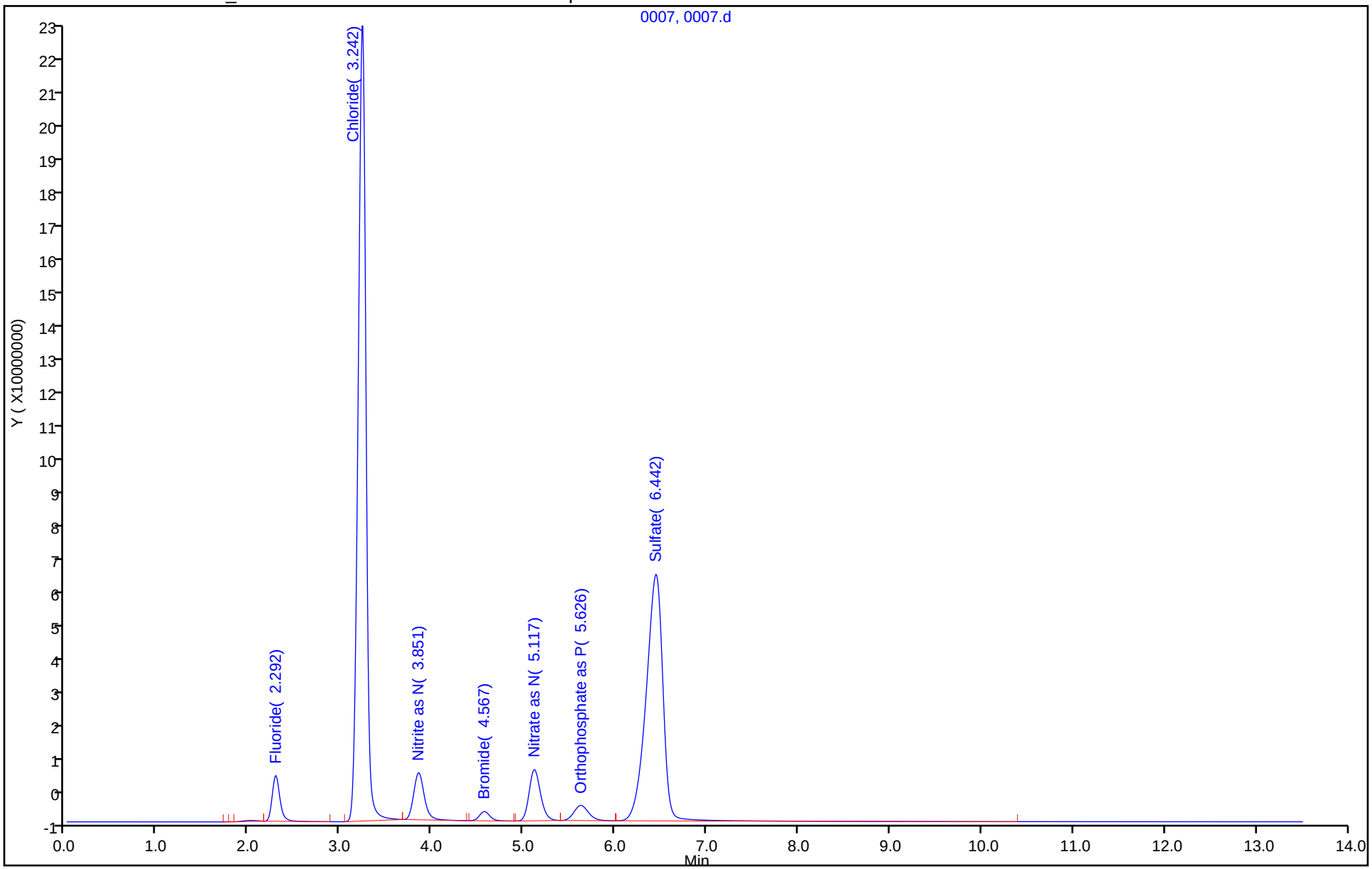
IC CAL cl/so4_00257	Amount Added:	4.00	Units: mL
IC Cal low_00459	Amount Added:	1.00	Units: mL

Report Date: 22-May-2019 07:59:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Injection Date:	20-May-2019 16:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	20-May-2019 16:52:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-007				
Misc. Info.:	7 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:00	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	76568117	10.0	10.1	
2 Chloride	3.242	3.225	0.017	1354016260	200.0	208.0	
3 Nitrite as N	3.851	3.850	0.001	108323395	NC	NC	
4 Bromide	4.567	4.575	-0.008	20888090	10.0	10.1	
5 Nitrate as N	5.117	5.134	-0.017	126834114	NC	NC	
7 Orthophosphate as P	5.626	5.634	-0.008	48062818	NC	NC	
6 Sulfate	6.442	6.392	0.050	892937706	200.0	208.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

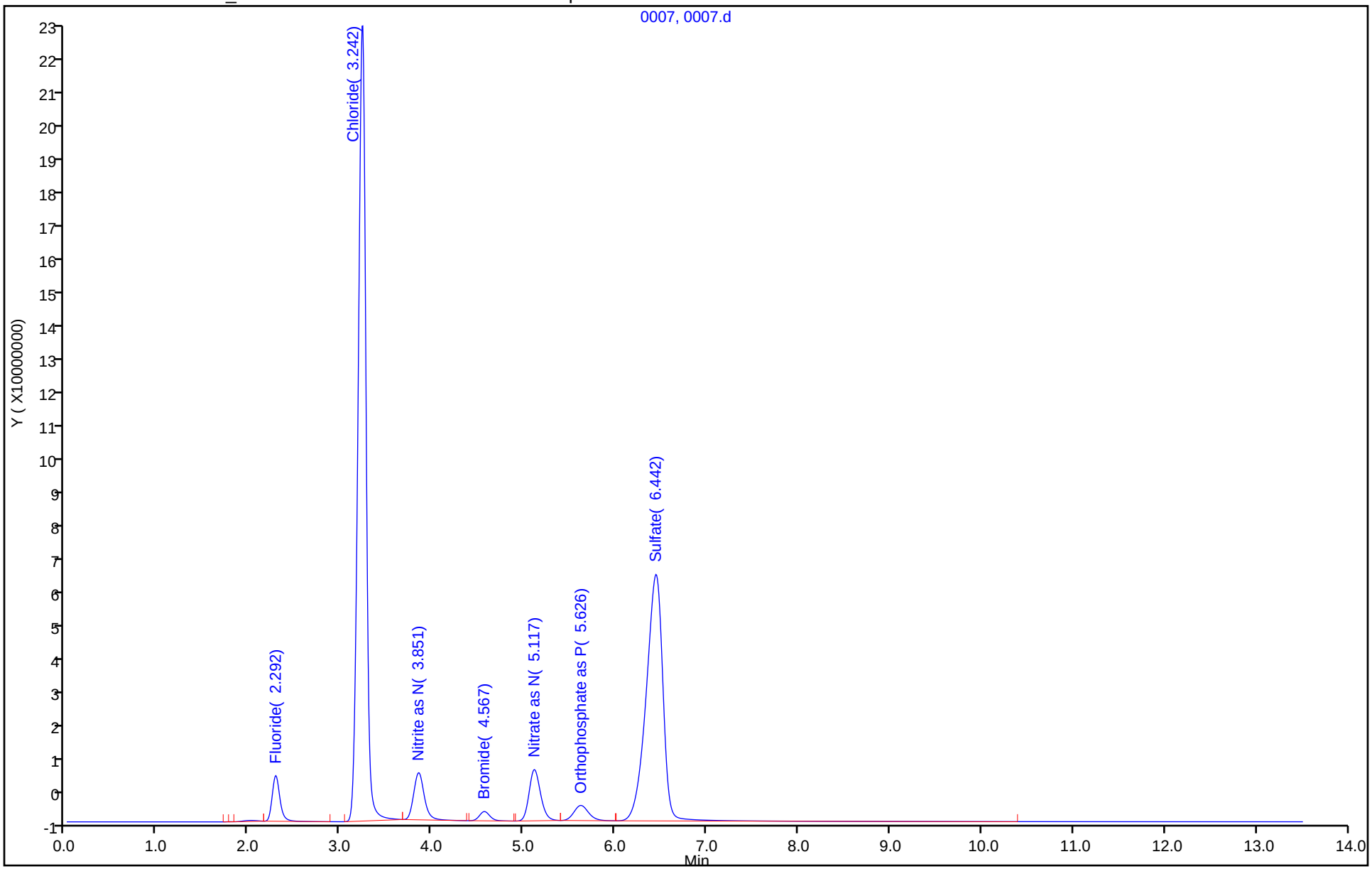
IC CAL cl/so4_00257	Amount Added:	4.00	Units: mL
IC Cal low_00459	Amount Added:	1.00	Units: mL

Report Date: 22-May-2019 07:59:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Injection Date:	20-May-2019 16:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Q598776/458797

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82062 Inst ID: 11 Analysis Date: 05/20/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123961	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	u
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3,4,5,6,7,8,9 rerun to confirm PO4
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	124053	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3,4,5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phurdpa 5/23/19

IC Instrument Information

WL: 82062 **Inst ID:** II **Analysis Date:** 05/20/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123960	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	11
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3, 4, 5, 6, 7, 8, 9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053 -	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved → ☐	124043 -	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
- 123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
- 123959	3, 4, 5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 22-May-2019 00:40:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Phuong
8/13/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	22-May-2019 00:40:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	20-May-2019 17:09:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-008				
Misc. Info.:	8 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	30124346	NC	NC	
2 Chloride	3.225	3.225	0.000	514674081	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	40475725	4.00	3.82	
4 Bromide	4.575	4.575	0.000	8642735	NC	NC	
5 Nitrate as N	5.125	5.125	0.000	50555562	4.00	4.12	
7 Orthophosphate as P	5.634	5.634	0.000	19556051	4.00	4.11	
6 Sulfate	6.400	6.400	0.000	336664856	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

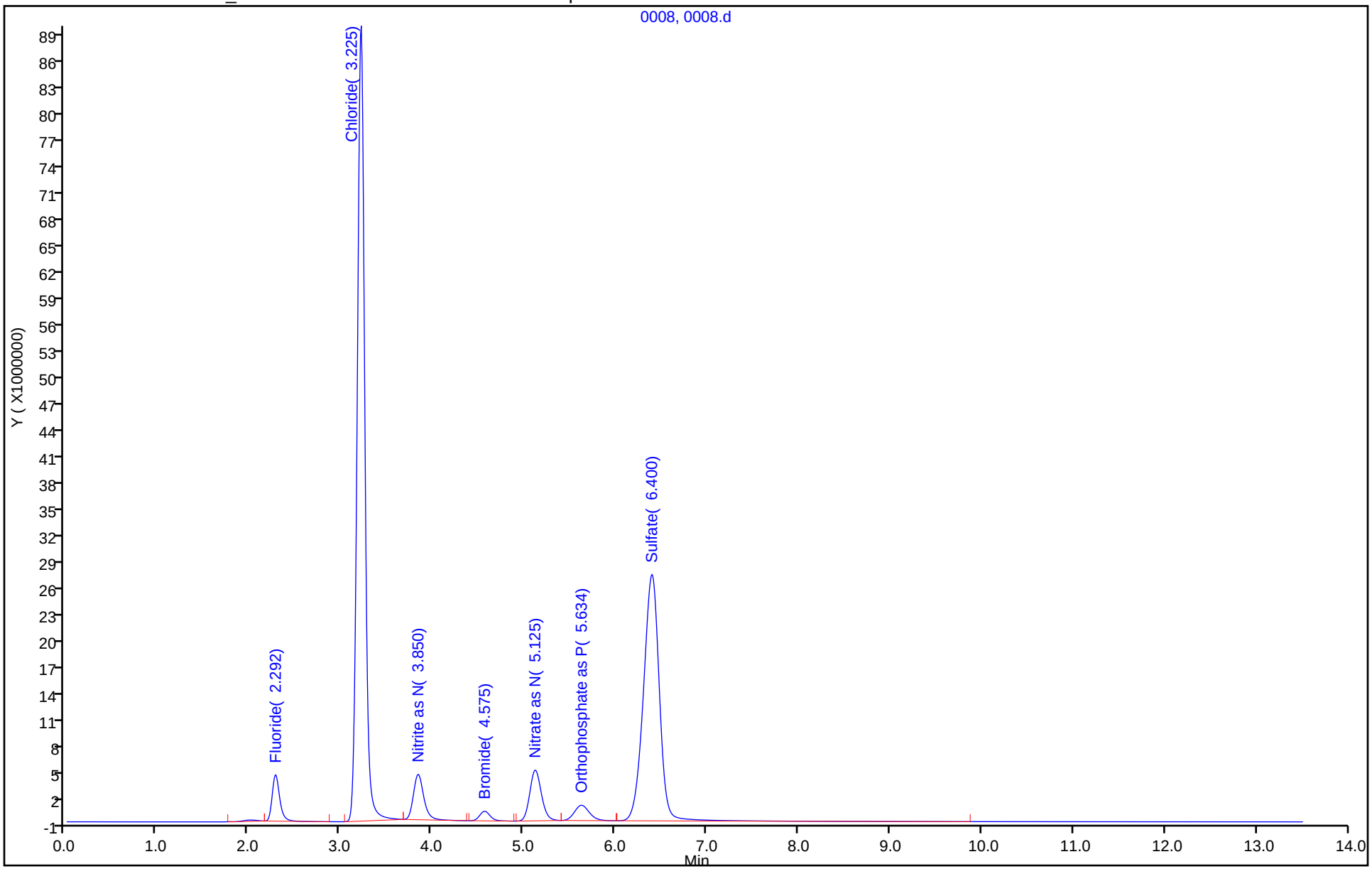
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00234	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:59:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d

Injection Date:	20-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Q598776/4598777

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82062 Inst ID: 11 Analysis Date: 05/20/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123961	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	u
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3,4,5,6,7,8,9 rerun to confirm PO4
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	124053	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3,4,5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuong 5/23/19

IC Instrument Information

WL: 82062 **Inst ID:** II **Analysis Date:** 05/20/19 **Analyst:** TT

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123960	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	1 & 6 II
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3, 4, 5, 6, 7, 8, 9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053 -	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	124043 -	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total →	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3, 4, 5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 22-May-2019 00:40:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Phuong
8/13/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	22-May-2019 00:40:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	20-May-2019 17:09:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-008				
Misc. Info.:	8 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	30124346	4.00	4.01	
2 Chloride	3.225	3.225	0.000	514674081	80.0	79.5	
3 Nitrite as N	3.850	3.850	0.000	40475725	NC	NC	
4 Bromide	4.575	4.575	0.000	8642735	4.00	4.19	
5 Nitrate as N	5.125	5.125	0.000	50555562	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	19556051	NC	NC	
6 Sulfate	6.400	6.400	0.000	336664856	80.0	79.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

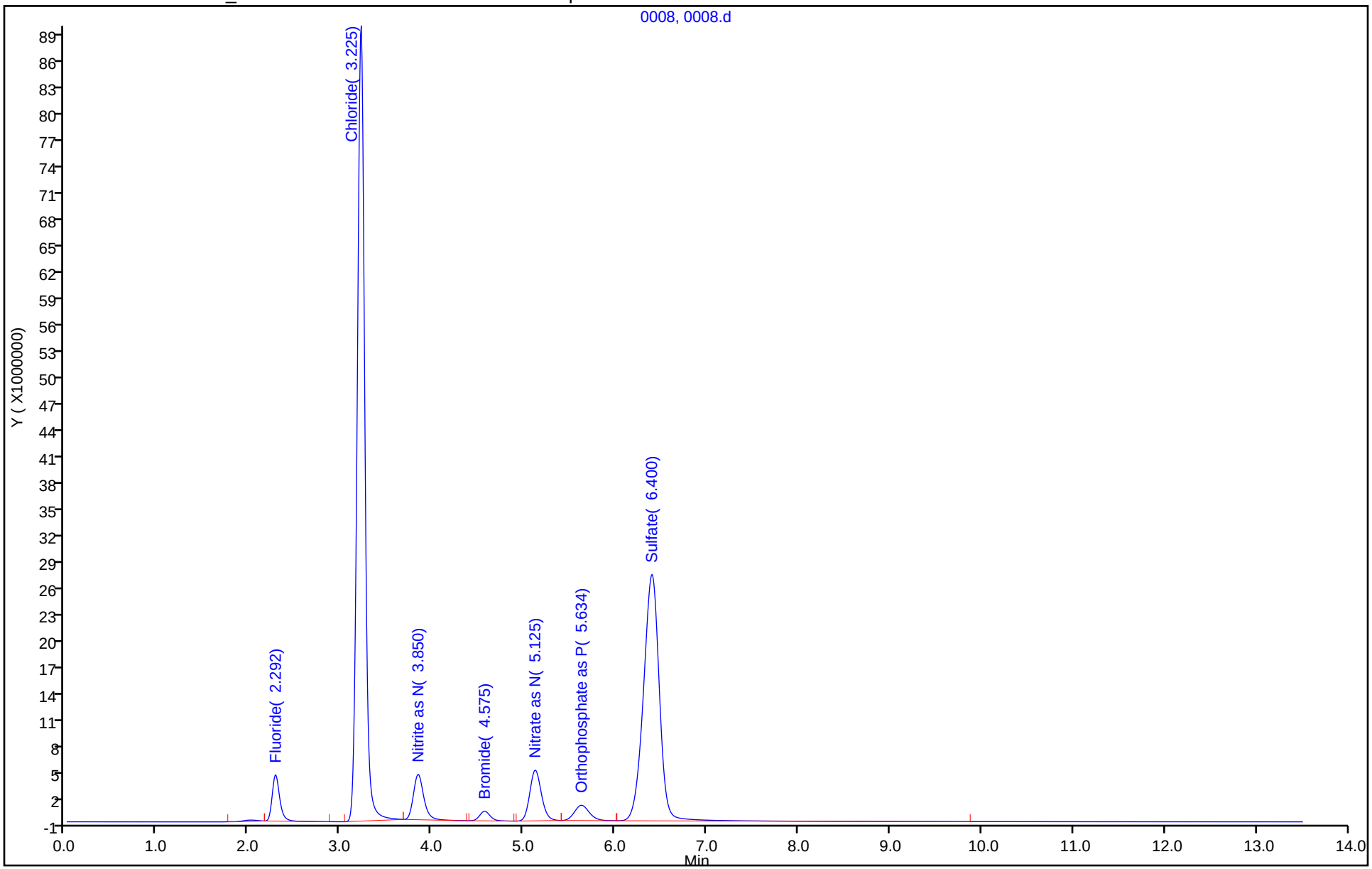
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00234	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:59:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d

Injection Date:	20-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	20-May-2019 17:25:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-009				
Misc. Info.:	9 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1286779		NC	
2 Chloride	3.225	3.225	0.000	112223		NC	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.709	5.634	0.075	318026		0.0102	
6 Sulfate		6.392				ND	

QC Flag Legend

Processing Flags

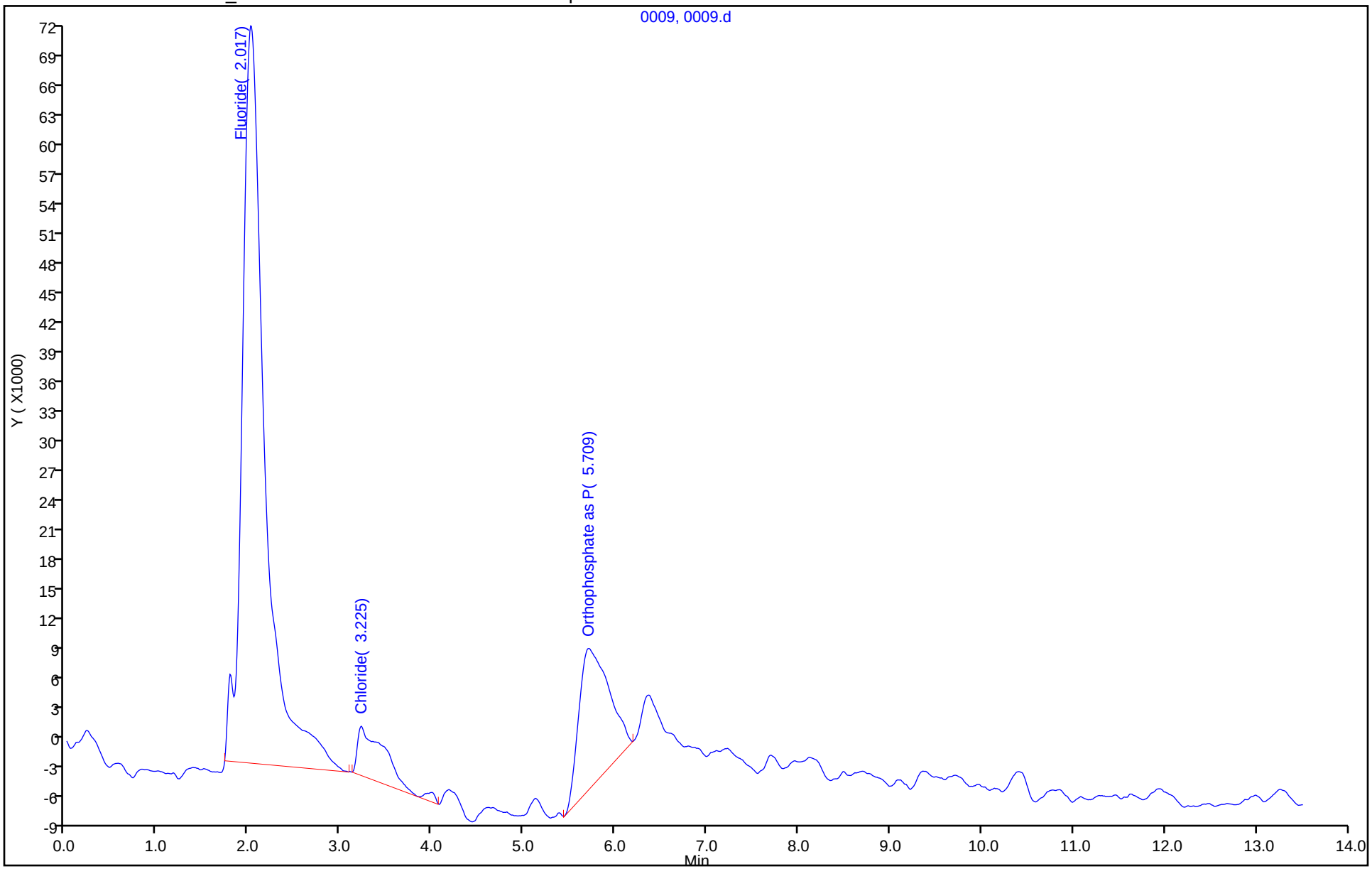
NC - Not Calibrated

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d

Injection Date:	20-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 20-May-2019 17:25:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-009
Misc. Info.: 9 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1286779		0.2049	
2 Chloride	3.225	3.225	0.000	112223		0.6351	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.709	5.634	0.075	318026		NC	
6 Sulfate		6.392				ND	

QC Flag Legend

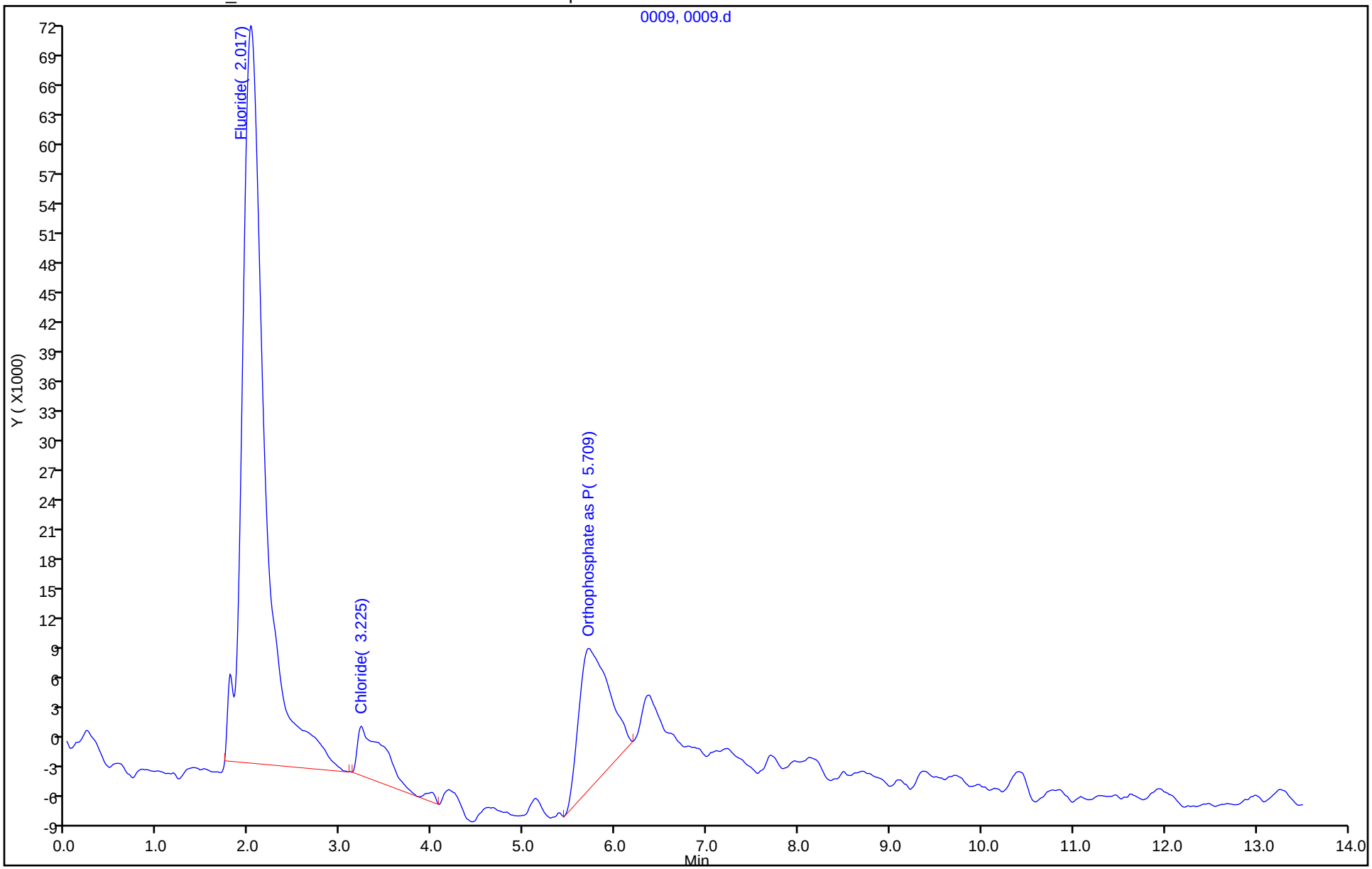
Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d

Injection Date:	20-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 82479 **Inst ID:** 11 **Analysis Date:** 06/03/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123930	4	F Cl NO2 Br NO3 (PO4) SO4	(MS/D) 2	2 rerun for PO4 because
☐	123924	12	F Cl NO2 Br NO3 (PO4) SO4	(MS/D) 1	ICCV failed in
Pantex ☐→	122314	2	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D) 4	batch 458552
☐	123491	1	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	~~123531~~	06/03/19 TP	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
~~123491~~	~~1~~	~~F Cl NO2 Br NO3 PO4 SO4~~	~~5x~~	~~wrong~~ 06/03/19 TP
+ 06/03/19 TP		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2019 08:22:34
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	04-Jun-2019 08:22:34
No.Compounds:	7		
Sublist:	chrom-Anions_IC11*sub1		
Limit Group:	Wet - Anions		

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d		
	Inj Date: 20-May-2019 15:30:00	Worklist: 82062	Sample#: 2
Level: 2	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d		
	Inj Date: 20-May-2019 15:47:00	Worklist: 82062	Sample#: 3
Level: 3	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d		
	Inj Date: 20-May-2019 16:03:00	Worklist: 82062	Sample#: 4
Level: 4	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d		
	Inj Date: 20-May-2019 16:20:00	Worklist: 82062	Sample#: 5
Level: 5	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d		
	Inj Date: 20-May-2019 16:36:00	Worklist: 82062	Sample#: 6
Level: 6	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d		
	Inj Date: 20-May-2019 16:52:00	Worklist: 82062	Sample#: 7

Start Cal Date: 20-May-2019 15:30:00 End Cal Date: 03-Jun-2019 17:04:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
9548910	9767180	9975765	10215666	10656866	10832340	-373888			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		10694239		
1909782	4883590	9975765	40862664	85254927	108323395				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				
5 Nitrate as N				Signal: 1					
11109310	11032216	11156305	11611103	12324378	12683411	-531250			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		12403178		
2221862	5516108	11156305	46444411	98595023	126834114				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				
7 Orthophosphate as P				Signal: 1					
6414385	5119650	4766974	4613498	4701232	4806282	270439			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		4688342		
1282877	2559825	4766974	18453992	37609857	48062818				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 03-Jun-2019 17:04:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34945986	NC	NC	
2 Chloride	3.459	3.492	-0.033	695312518	NC	NC	
3 Nitrite as N	4.176	4.217	-0.041	56246982	5.00	5.29	
4 Bromide	5.009	5.075	-0.066	10774228	NC	NC	
5 Nitrate as N	5.651	5.725	-0.074	66398624	5.00	5.40	
7 Orthophosphate as P	7.351	7.442	-0.091	24492990	5.00	5.17	
6 Sulfate	8.317	8.400	-0.083	449357616	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

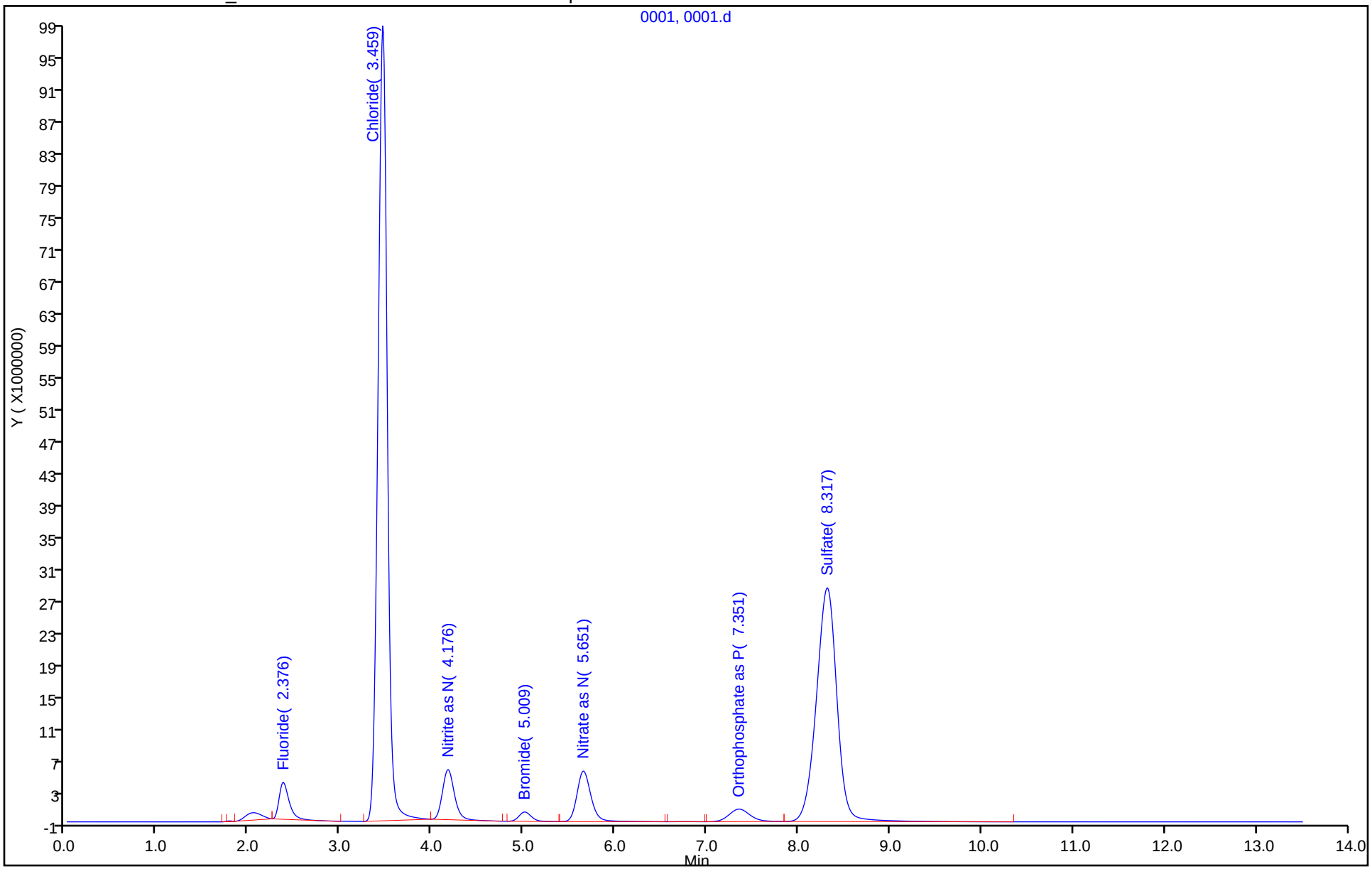
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:03:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0001.d

Injection Date:	03-Jun-2019 17:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



IC Instrument Information

WL: 82479 **Inst ID:** 11 **Analysis Date:** 06/03/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123930	4	F Cl NO2 Br NO3 (PO4) SO4	(MS/D) 2	2 rerun for PO4 because
☐	123924	12	F Cl NO2 Br NO3 (PO4) SO4	(MS/D) 1	ICCV failed in
Pantex ☐→	123114	2	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D) 4	batch 458552
☐	123491	1	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	~~123531~~	06/03/19 TP	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
~~123491~~	~~1~~	~~F Cl NO2 Br NO3 PO4 SO4~~	~~5x~~	~~wrong~~ 06/03/19 TP
06/03/19 TP		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	04-Jun-2019 08:22:34

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2019 08:22:34
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Inj Date: 20-May-2019 15:30:00 Worklist: 82062 Sample#: 2
Level: 2 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Inj Date: 20-May-2019 15:47:00 Worklist: 82062 Sample#: 3
Level: 3 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d
Inj Date: 20-May-2019 16:03:00 Worklist: 82062 Sample#: 4
Level: 4 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d
Inj Date: 20-May-2019 16:20:00 Worklist: 82062 Sample#: 5
Level: 5 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d
Inj Date: 20-May-2019 16:36:00 Worklist: 82062 Sample#: 6
Level: 6 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d
Inj Date: 20-May-2019 16:52:00 Worklist: 82062 Sample#: 7

Start Cal Date: 20-May-2019 15:30:00 End Cal Date: 03-Jun-2019 17:04:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
9548910	9767180	9975765	10215666	10656866	10832340	-373888			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		10694239		
1909782	4883590	9975765	40862664	85254927	108323395				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				
5 Nitrate as N				Signal: 1					
11109310	11032216	11156305	11611103	12324378	12683411	-531250			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		12403178		
2221862	5516108	11156305	46444411	98595023	126834114				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				
7 Orthophosphate as P				Signal: 1					
6414385	5119650	4766974	4613498	4701232	4806282	270439			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		4688342		
1282877	2559825	4766974	18453992	37609857	48062818				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 03-Jun-2019 17:04:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34945986	5.00	4.64	
2 Chloride	3.459	3.492	-0.033	695312518	100.0	107.1	
3 Nitrite as N	4.176	4.217	-0.041	56246982	NC	NC	
4 Bromide	5.009	5.075	-0.066	10774228	5.00	5.22	
5 Nitrate as N	5.651	5.725	-0.074	66398624	NC	NC	
7 Orthophosphate as P	7.351	7.442	-0.091	24492990	NC	NC	
6 Sulfate	8.317	8.400	-0.083	449357616	100.0	105.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

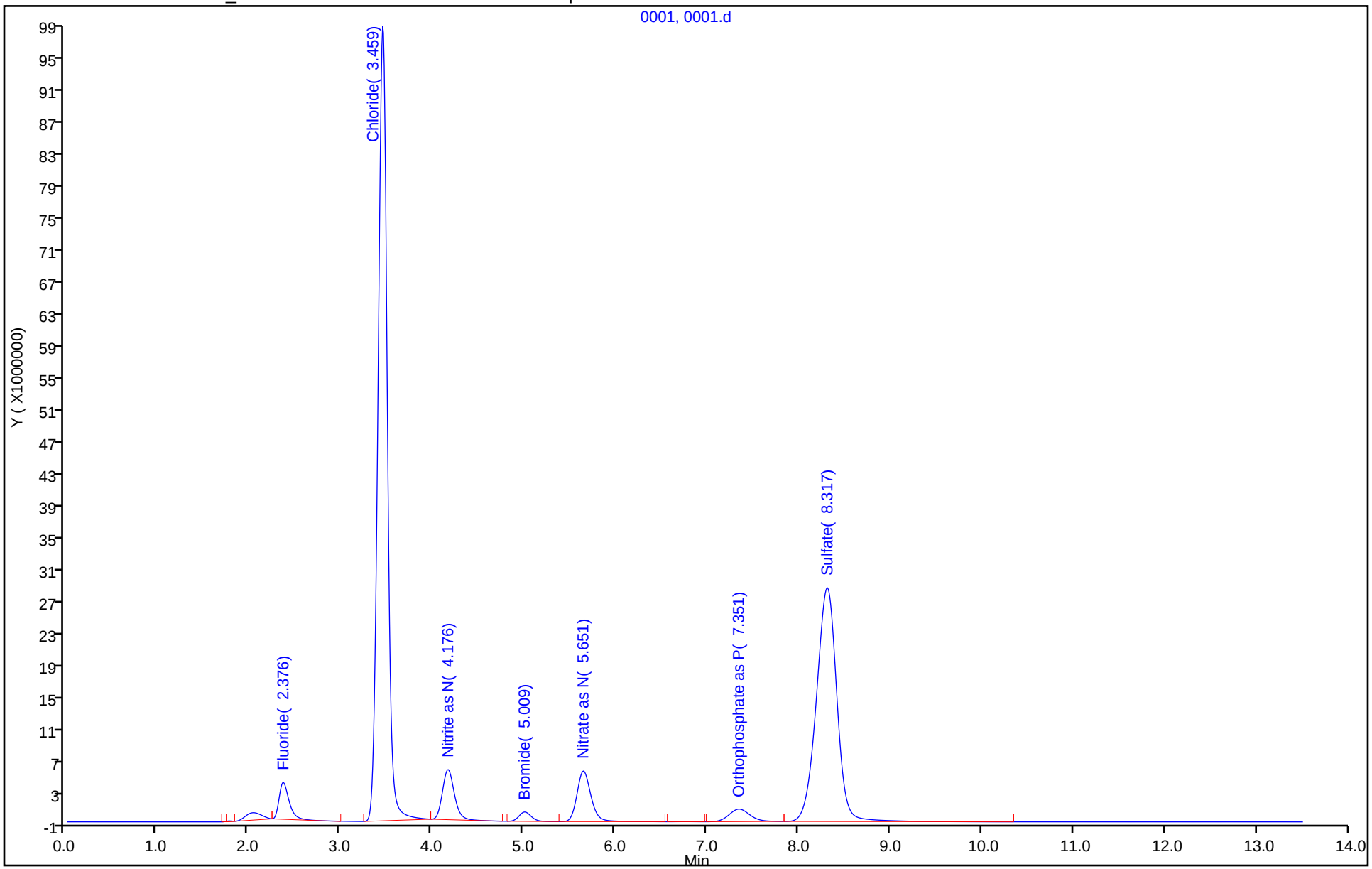
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:03:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0001.d

Injection Date:	03-Jun-2019 17:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 03-Jun-2019 17:20:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1828198		NC	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.417	7.442	-0.025	236056		-0.007334	
6 Sulfate		8.400				ND	

QC Flag Legend

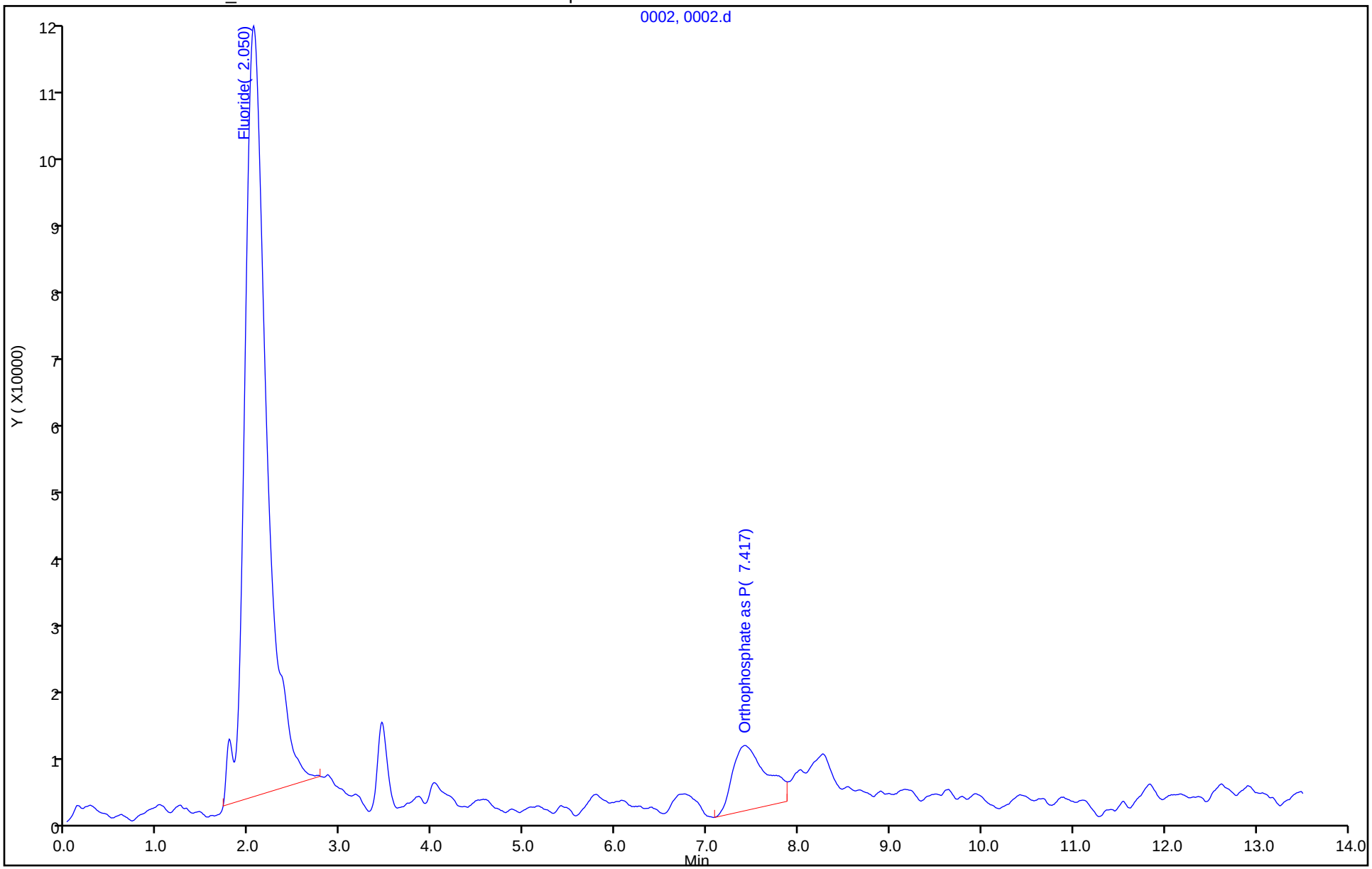
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0002.d

Injection Date:	03-Jun-2019 17:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0002.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	03-Jun-2019 17:20:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-002				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2019 17:03:51	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1828198		0.2763	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.417	7.442	-0.025	236056		NC	
6 Sulfate		8.400				ND	

QC Flag Legend

Processing Flags

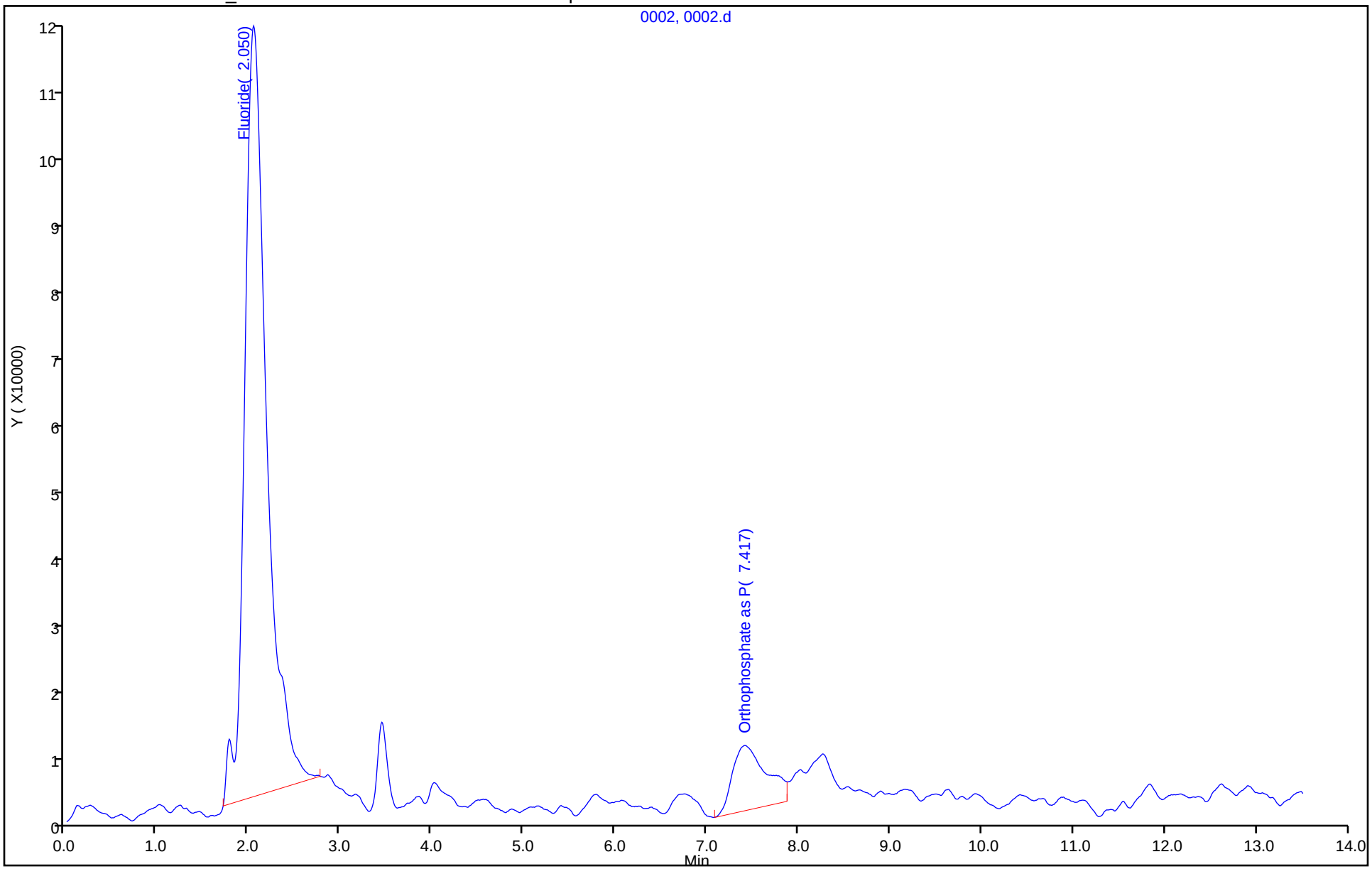
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0002.d

Injection Date:	03-Jun-2019 17:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 03-Jun-2019 17:36:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	1595665	NC	NC	
2 Chloride	3.451	3.492	-0.041	12465856	NC	NC	
3 Nitrite as N	4.176	4.217	-0.041	2275270	0.2000	0.2477	
4 Bromide	5.026	5.075	-0.049	462792	NC	NC	
5 Nitrate as N	5.676	5.725	-0.049	2625529	0.2000	0.2545	
7 Orthophosphate as P	7.384	7.442	-0.058	1080212	0.2000	0.1727	
6 Sulfate	8.292	8.400	-0.108	9463286	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

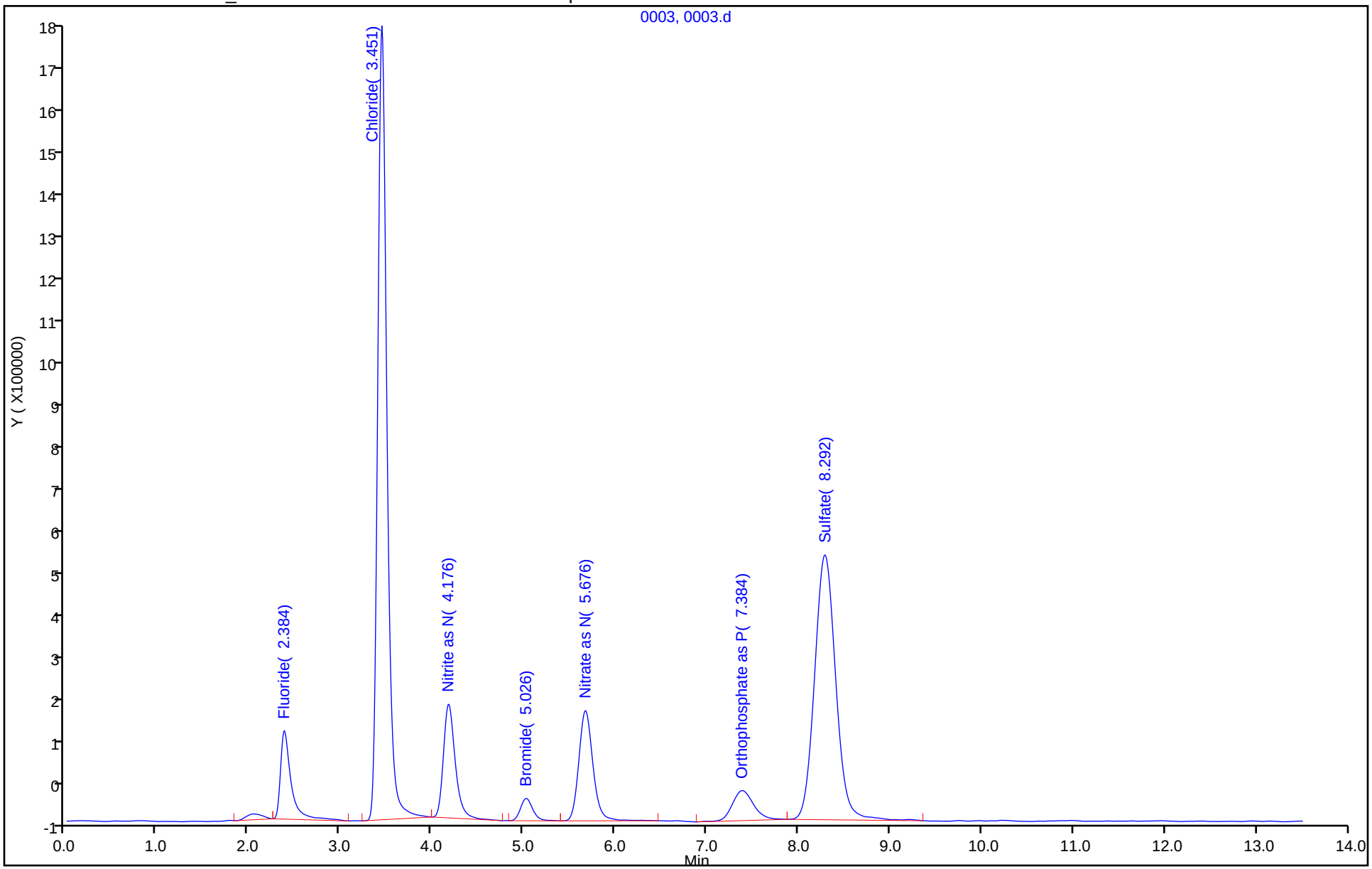
IC CAL cl/so4_00259 Amount Added: 0.05 Units: mL
IC Cal low_00462 Amount Added: 0.02 Units: mL

Report Date: 04-Jun-2019 17:04:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0003.d

Injection Date:	03-Jun-2019 17:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 03-Jun-2019 17:36:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	1595665	0.2000	0.2456	
2 Chloride	3.451	3.492	-0.041	12465856	2.50	2.53	
3 Nitrite as N	4.176	4.217	-0.041	2275270	NC	NC	
4 Bromide	5.026	5.075	-0.049	462792	0.2000	0.2353	
5 Nitrate as N	5.676	5.725	-0.049	2625529	NC	NC	
7 Orthophosphate as P	7.384	7.442	-0.058	1080212	NC	NC	
6 Sulfate	8.292	8.400	-0.108	9463286	2.50	2.65	

QC Flag Legend

Processing Flags
NC - Not Calibrated

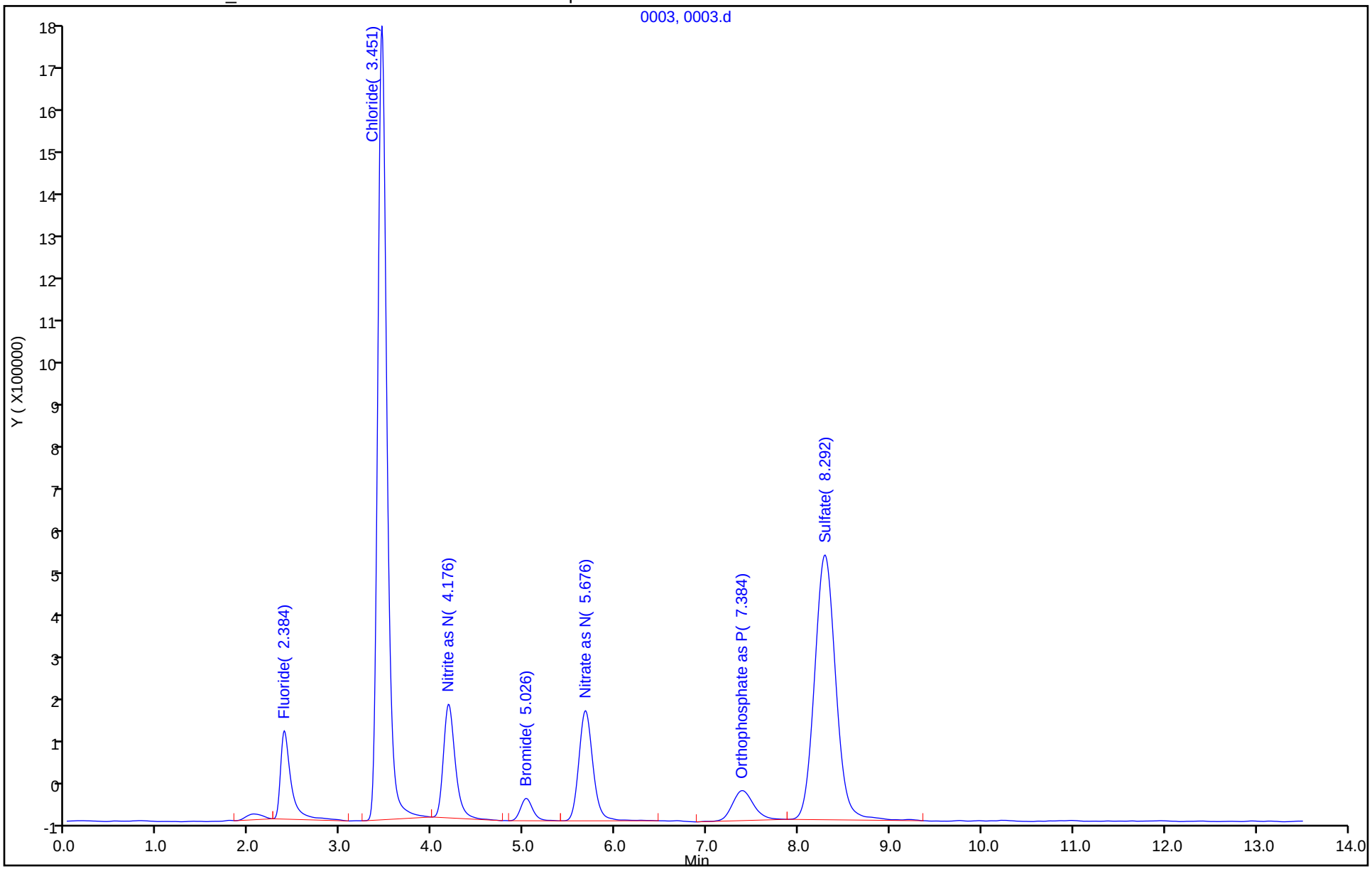
Reagents:

IC CAL cl/so4_00259 Amount Added: 0.05 Units: mL
IC Cal low_00462 Amount Added: 0.02 Units: mL

Report Date: 04-Jun-2019 17:04:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0003.d				
Injection Date:	03-Jun-2019 17:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 03-Jun-2019 17:53:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	34254859	NC	NC	
2 Chloride	3.459	3.492	-0.033	689905144	NC	NC	
3 Nitrite as N	4.175	4.217	-0.042	56208620	5.00	5.29	
4 Bromide	5.017	5.075	-0.058	10755576	NC	NC	
5 Nitrate as N	5.659	5.725	-0.066	65947409	5.00	5.36	
7 Orthophosphate as P	7.350	7.442	-0.092	24401840	5.00	5.15	
6 Sulfate	8.317	8.400	-0.083	446466449	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

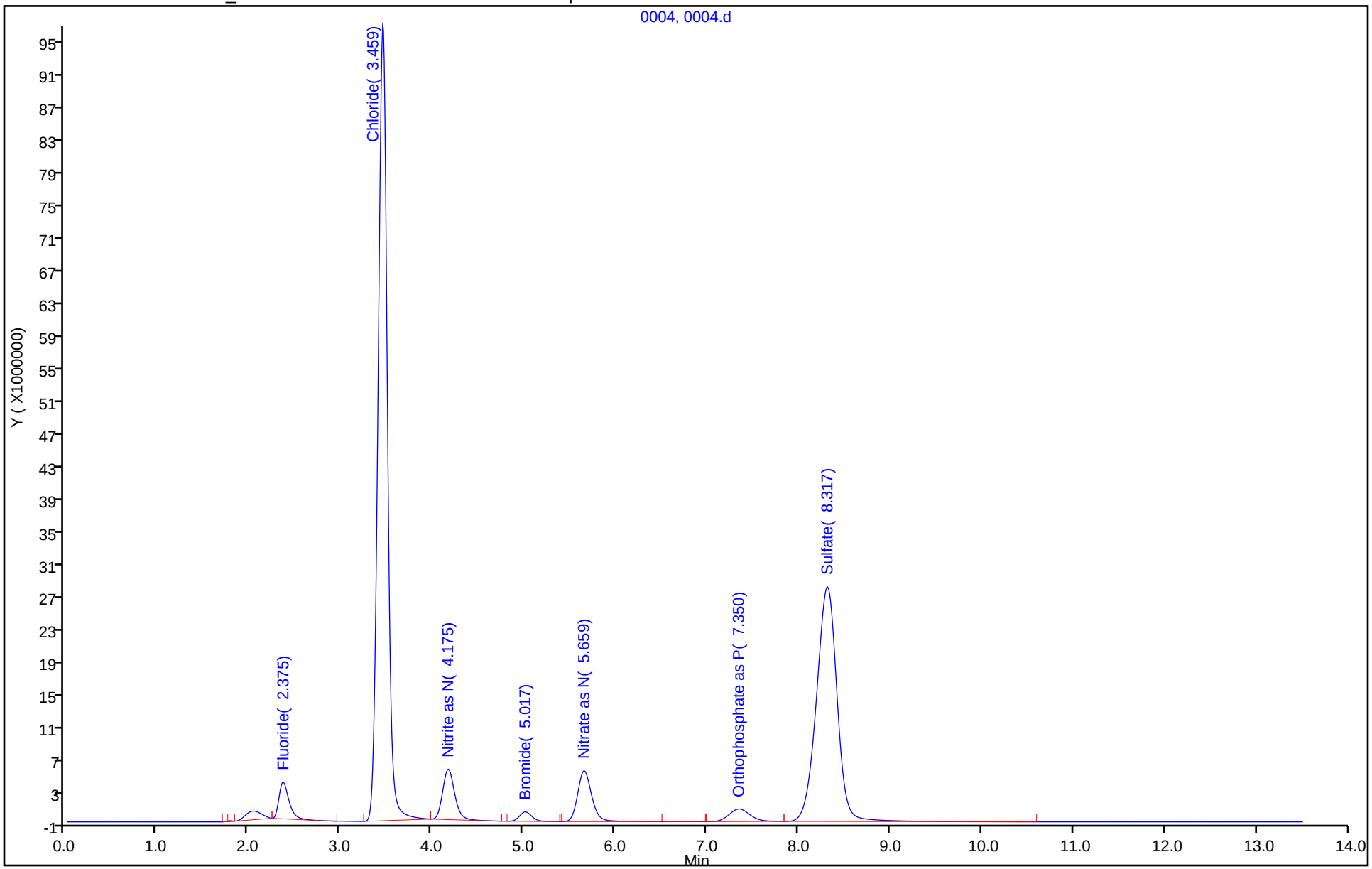
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0004.d

Injection Date:	03-Jun-2019 17:53:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 03-Jun-2019 17:53:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	34254859	5.00	4.55	
2 Chloride	3.459	3.492	-0.033	689905144	100.0	106.3	
3 Nitrite as N	4.175	4.217	-0.042	56208620	NC	NC	
4 Bromide	5.017	5.075	-0.058	10755576	5.00	5.21	
5 Nitrate as N	5.659	5.725	-0.066	65947409	NC	NC	
7 Orthophosphate as P	7.350	7.442	-0.092	24401840	NC	NC	
6 Sulfate	8.317	8.400	-0.083	446466449	100.0	104.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

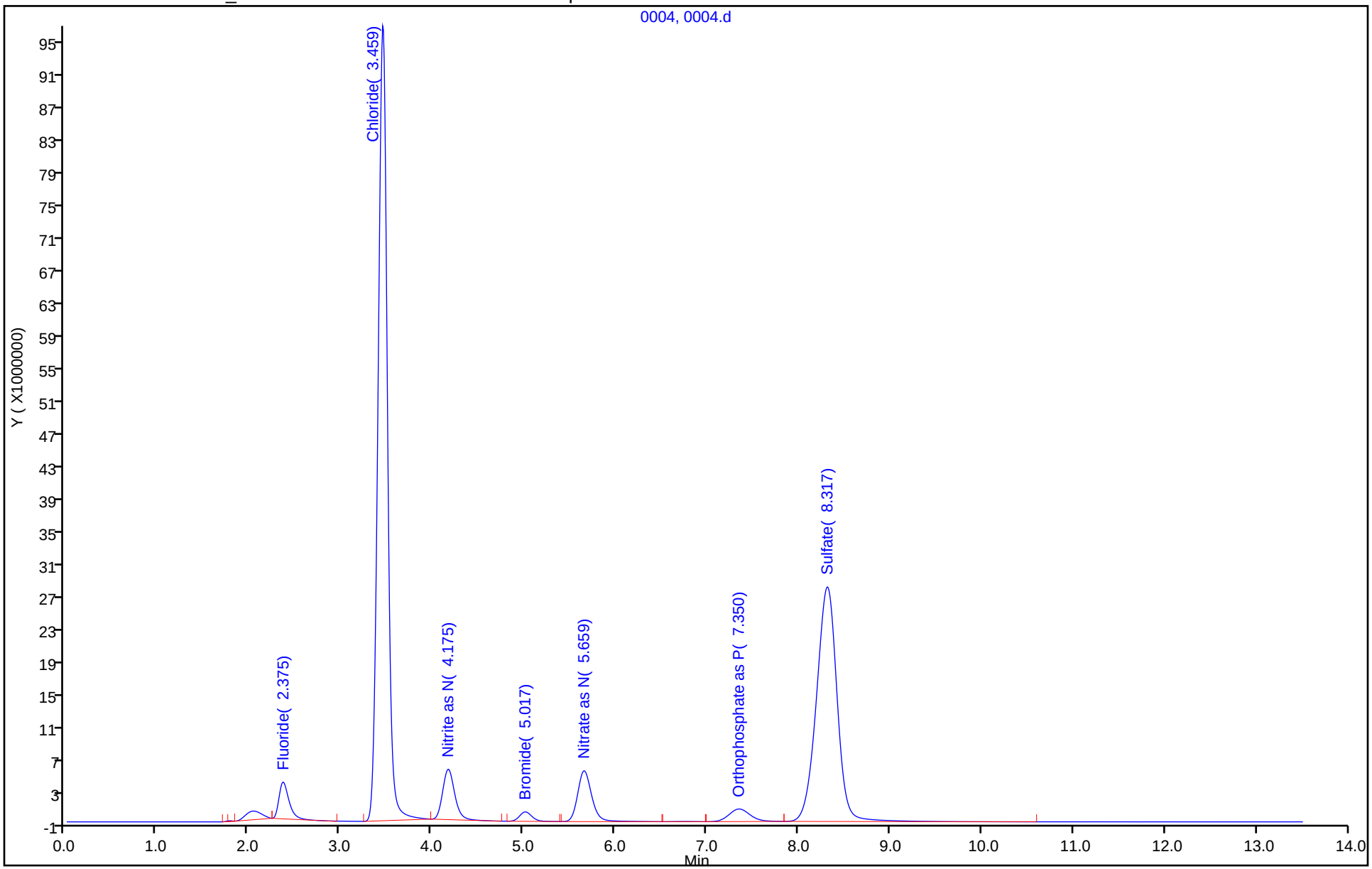
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0004.d

Injection Date:	03-Jun-2019 17:53:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 03-Jun-2019 18:09:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34907120	NC	NC	
2 Chloride	3.467	3.492	-0.025	693791329	NC	NC	
3 Nitrite as N	4.176	4.217	-0.041	56368553	5.00	5.31	
4 Bromide	5.017	5.075	-0.058	10780588	NC	NC	
5 Nitrate as N	5.659	5.725	-0.066	66343326	5.00	5.39	
7 Orthophosphate as P	7.359	7.442	-0.083	24612223	5.00	5.19	
6 Sulfate	8.317	8.400	-0.083	448593439	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

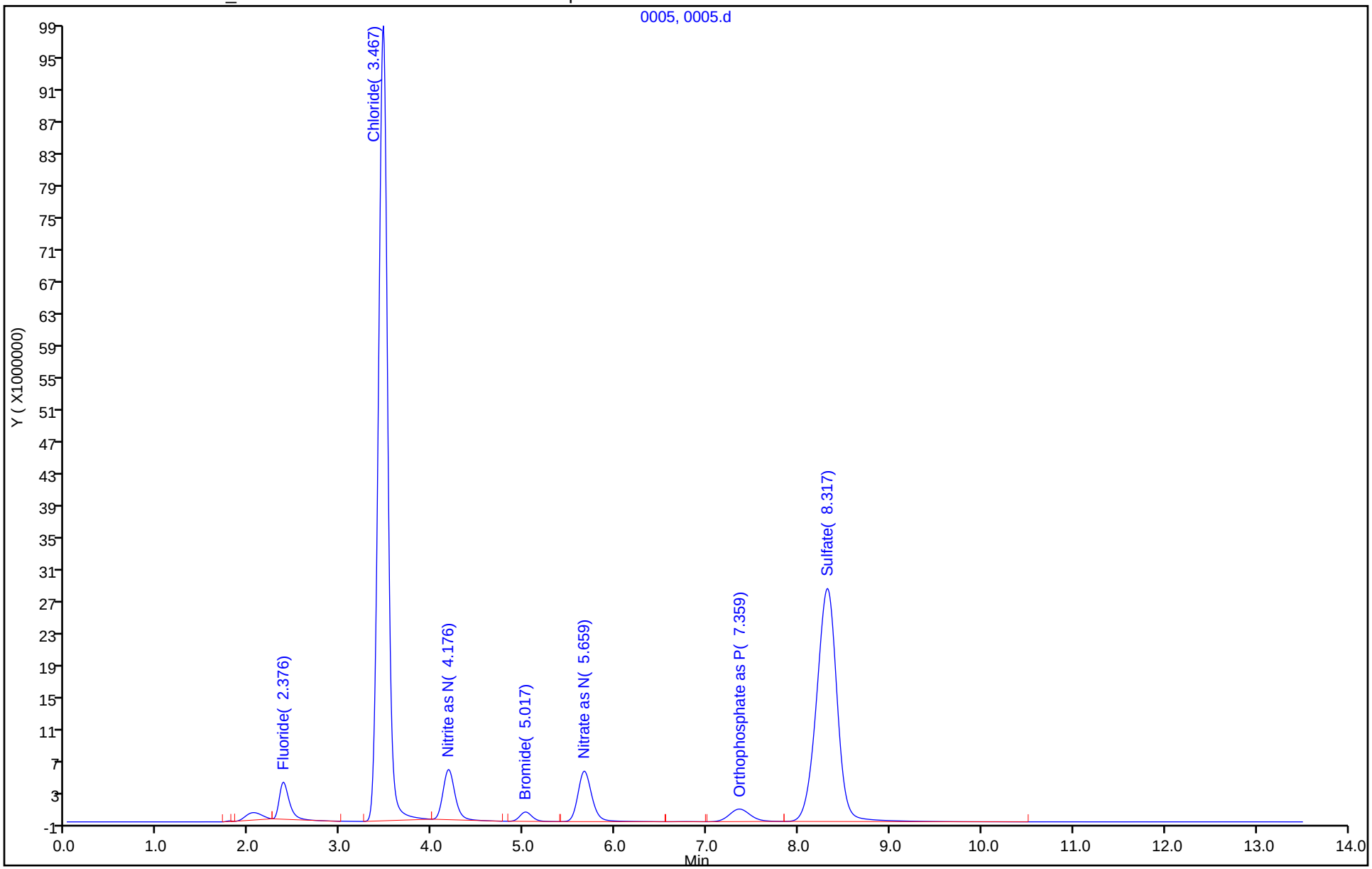
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0005.d

Injection Date:	03-Jun-2019 18:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 03-Jun-2019 18:09:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34907120	5.00	4.64	
2 Chloride	3.467	3.492	-0.025	693791329	100.0	106.9	
3 Nitrite as N	4.176	4.217	-0.041	56368553	NC	NC	
4 Bromide	5.017	5.075	-0.058	10780588	5.00	5.22	
5 Nitrate as N	5.659	5.725	-0.066	66343326	NC	NC	
7 Orthophosphate as P	7.359	7.442	-0.083	24612223	NC	NC	
6 Sulfate	8.317	8.400	-0.083	448593439	100.0	105.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

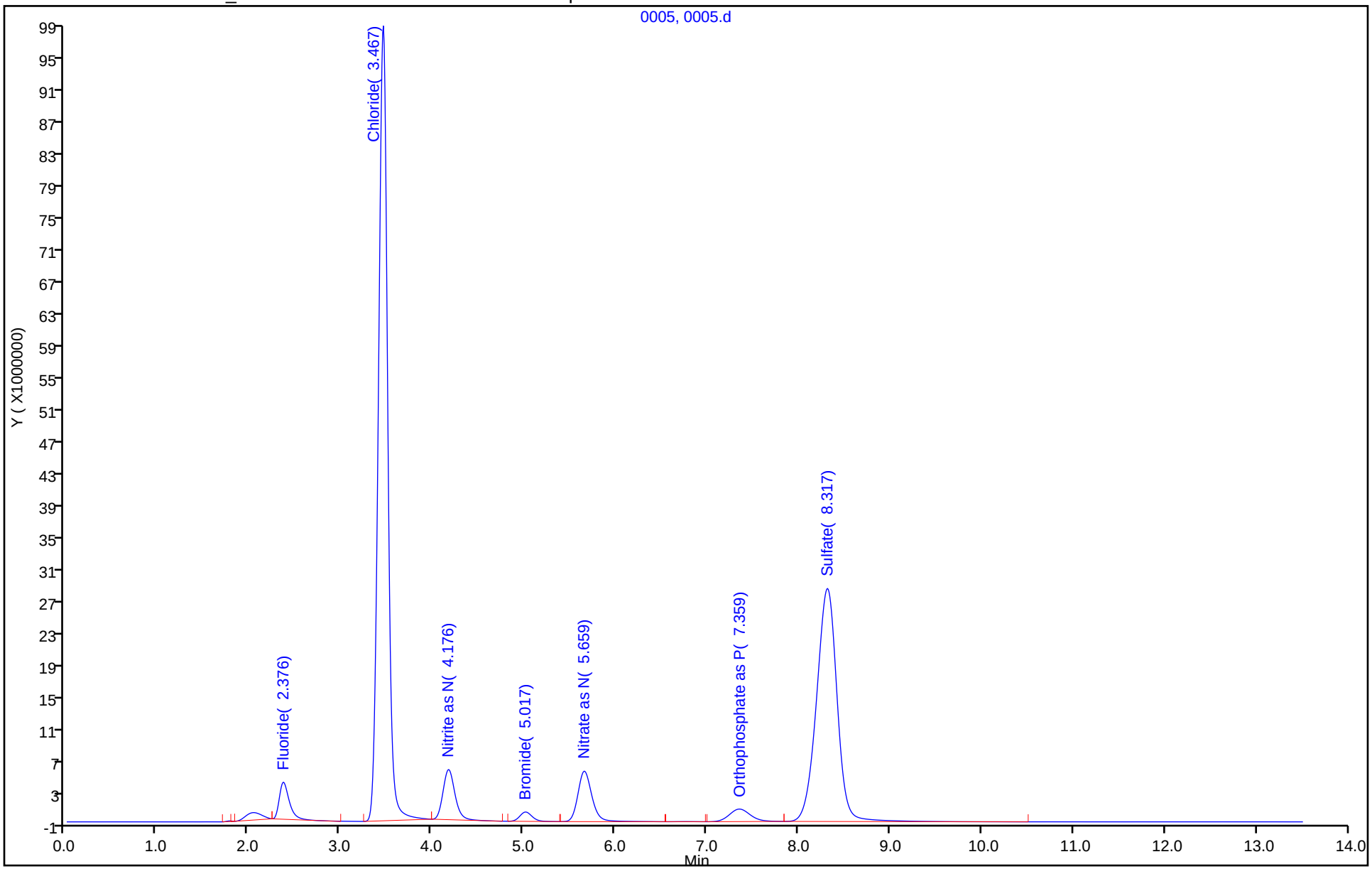
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0005.d

Injection Date:	03-Jun-2019 18:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0006.d				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	03-Jun-2019 18:26:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	04-Jun-2019 17:03:51	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1738770		NC	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.417	7.442	-0.025	147704		-0.0262	
6 Sulfate		8.400				ND	

QC Flag Legend

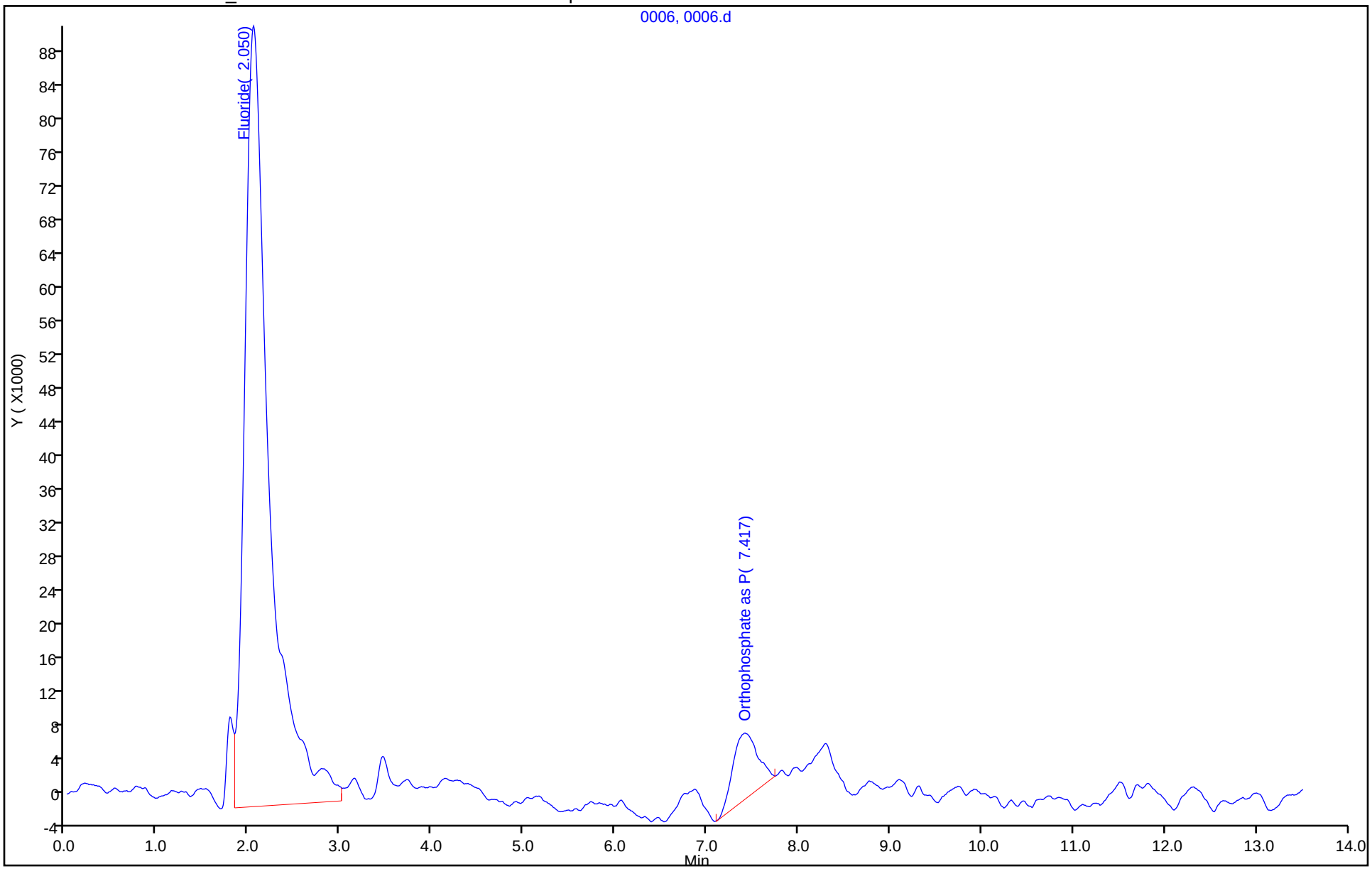
Processing Flags
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Report Date: 04-Jun-2019 17:04:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0006.d

Injection Date:	03-Jun-2019 18:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 03-Jun-2019 18:26:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1738770		0.2645	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.417	7.442	-0.025	147704		NC	
6 Sulfate		8.400				ND	

QC Flag Legend

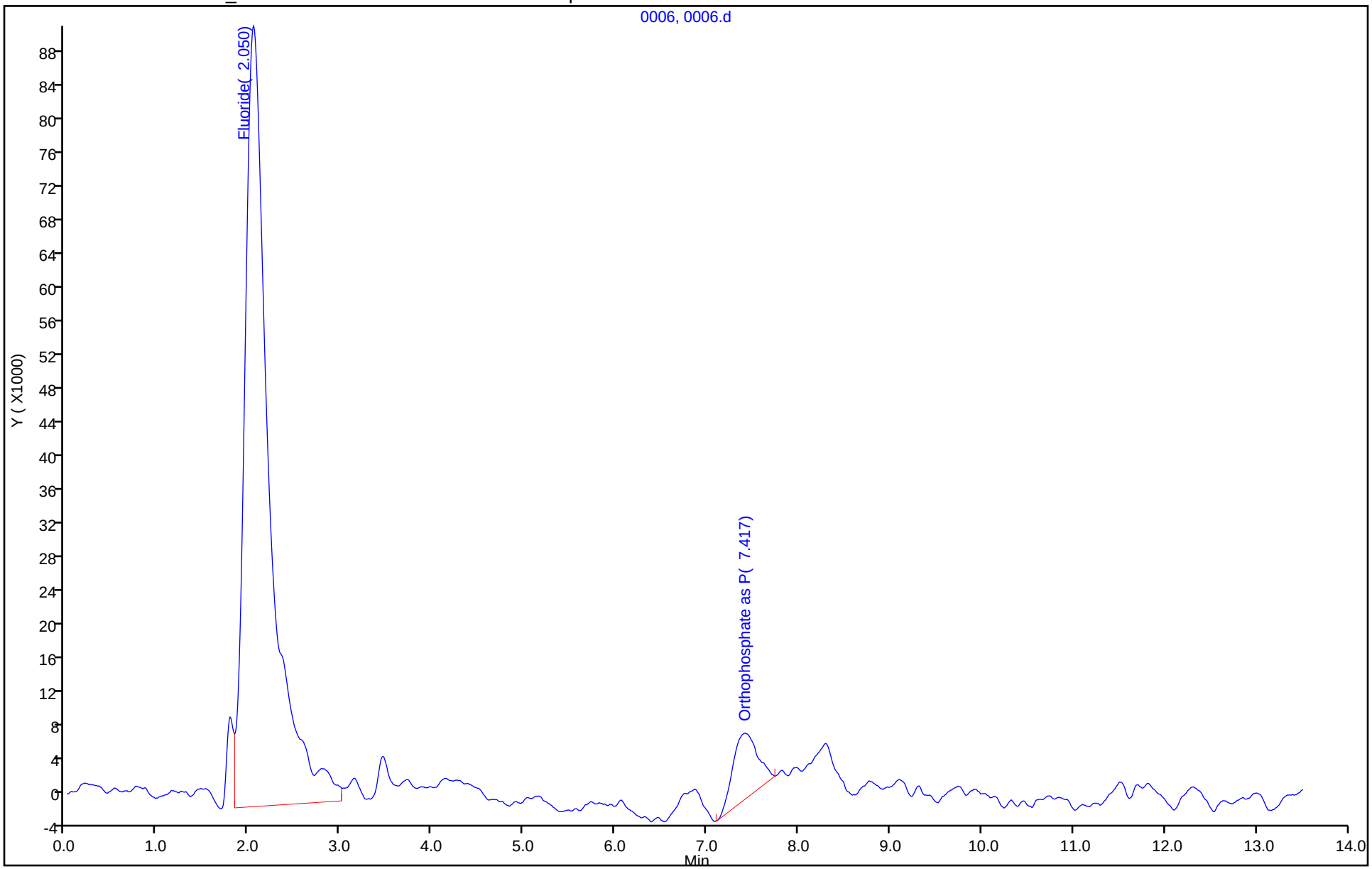
Processing Flags
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Report Date: 04-Jun-2019 17:04:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0006.d

Injection Date:	03-Jun-2019 18:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0007.d
Lims ID: 280-123930-I-2
Client ID: LF2MW-12_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 19:06:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-007
Misc. Info.: 7449 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	241480	0.0670	
2 Chloride	3.459	3.492	-0.033	4966340	1.38	
3 Nitrite as N		4.217			ND	
4 Bromide	5.109	5.075	0.034	308394	0.1607	
5 Nitrate as N	5.842	5.725	0.117	612689	NC	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.359	8.400	-0.041	86054573	20.5	

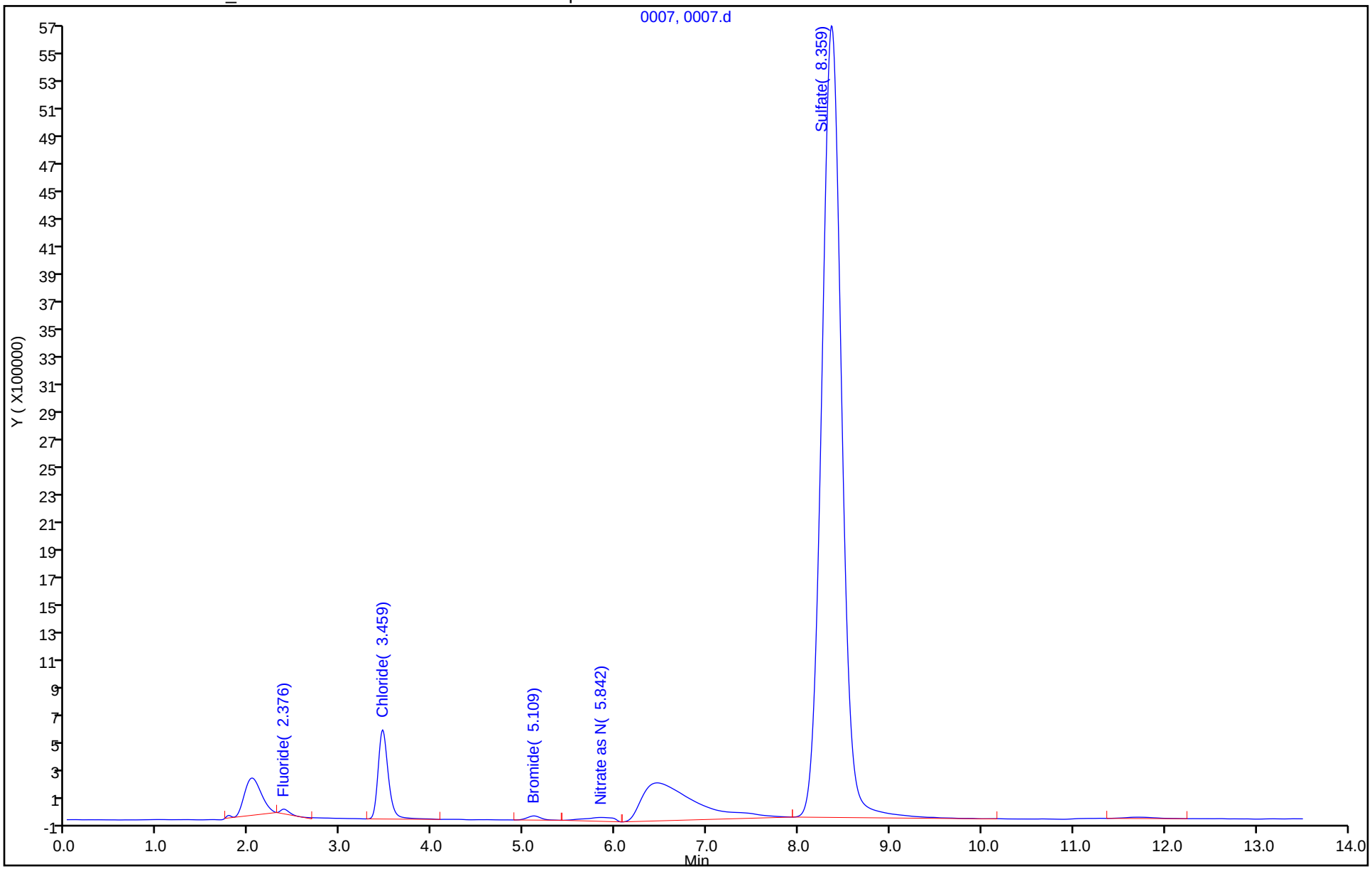
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0007.d				
Injection Date:	03-Jun-2019 19:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-2	Lab Sample ID:	280-123930-2	Worklist Smp#:	7
Client ID:	LF2MW-12_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0008.d
Lims ID: 280-123930-I-2 DU
Client ID:
Sample Type: DU
Inject. Date: 03-Jun-2019 19:22:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-008
Misc. Info.: 25681 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	236157		NC	
2 Chloride	3.459	3.492	-0.033	4953591		NC	
3 Nitrite as N		4.217				ND	
4 Bromide	5.109	5.075	0.034	276082		NC	
5 Nitrate as N	5.842	5.725	0.117	533583		0.0859	
7 Orthophosphate as P		7.442				ND	
6 Sulfate	8.367	8.400	-0.033	85223180		NC	

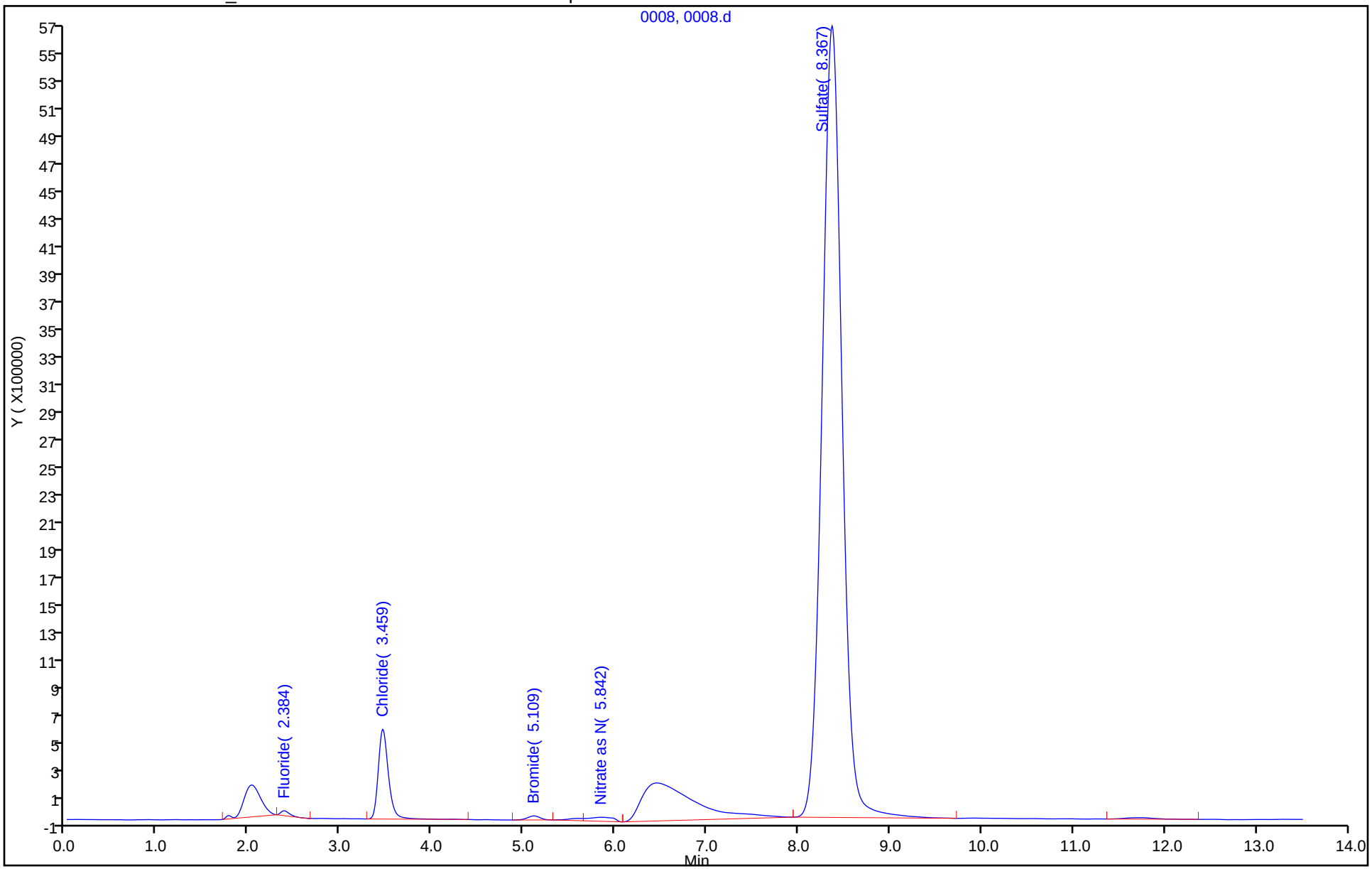
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0008.d				
Injection Date:	03-Jun-2019 19:22:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-2 DU			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0008.d
Lims ID: 280-123930-I-2 DU
Client ID:
Sample Type: DU
Inject. Date: 03-Jun-2019 19:22:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-008
Misc. Info.: 25681 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	236157		0.0663	
2 Chloride	3.459	3.492	-0.033	4953591		1.38	
3 Nitrite as N		4.217				ND	
4 Bromide	5.109	5.075	0.034	276082		0.1451	
5 Nitrate as N	5.842	5.725	0.117	533583		NC	
7 Orthophosphate as P		7.442				ND	
6 Sulfate	8.367	8.400	-0.033	85223180		20.3	

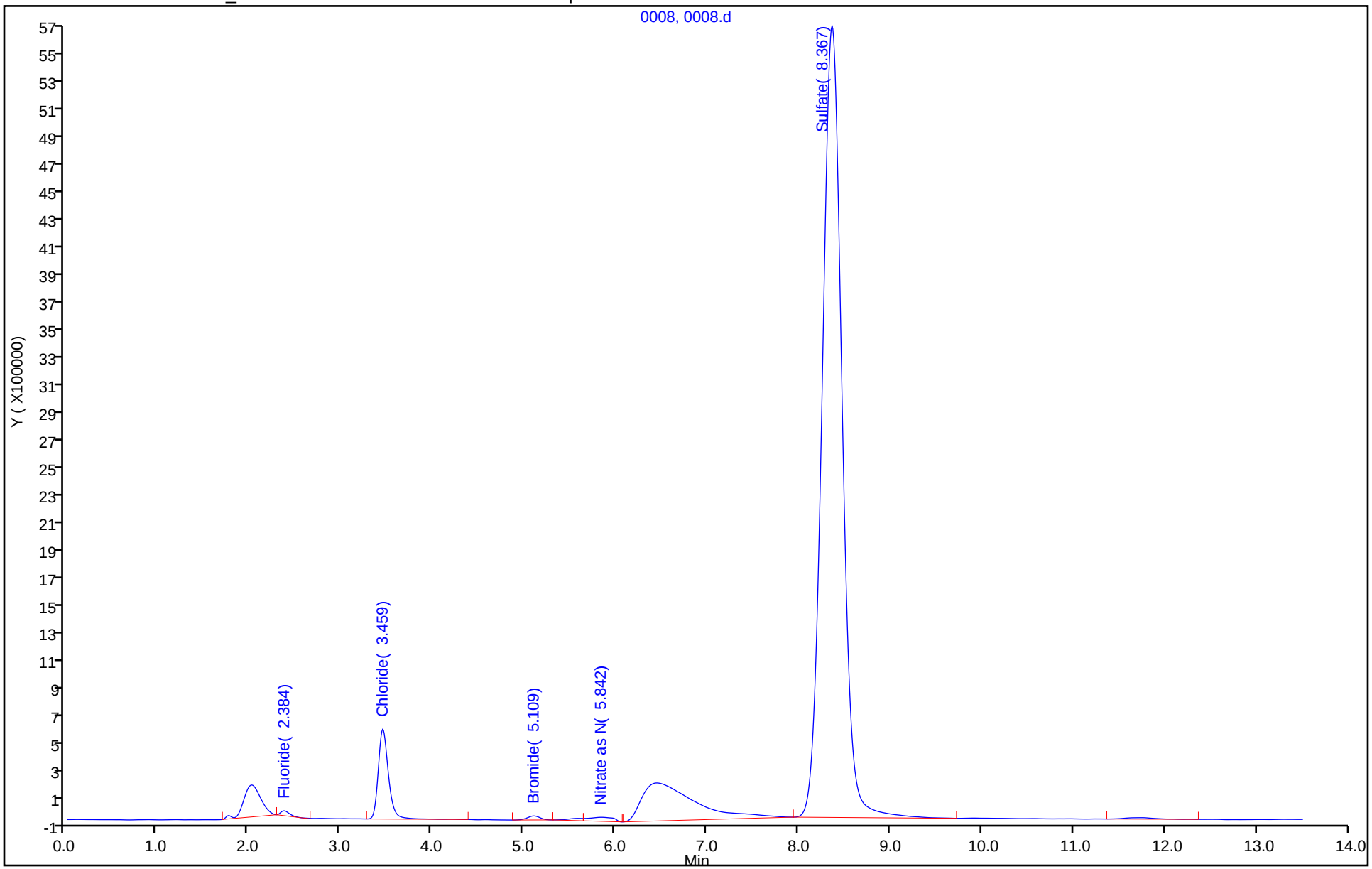
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0008.d				
Injection Date:	03-Jun-2019 19:22:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-2 DU			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0009.d
Lims ID: 280-123930-I-2 MS
Client ID:
Sample Type: MS
Inject. Date: 03-Jun-2019 19:39:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-009
Misc. Info.: 32749 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	40682785	NC	NC	
2 Chloride	3.459	3.492	-0.033	160647513	NC	NC	
3 Nitrite as N	4.209	4.217	-0.008	58121918	5.00	5.47	
4 Bromide	5.109	5.075	0.034	11654104	NC	NC	
5 Nitrate as N	5.826	5.725	0.101	65888629	5.00	5.36	
7 Orthophosphate as P	7.459	7.442	0.017	47596252	5.00	10.1	E
6 Sulfate	8.376	8.400	-0.024	198965557	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Reagents:

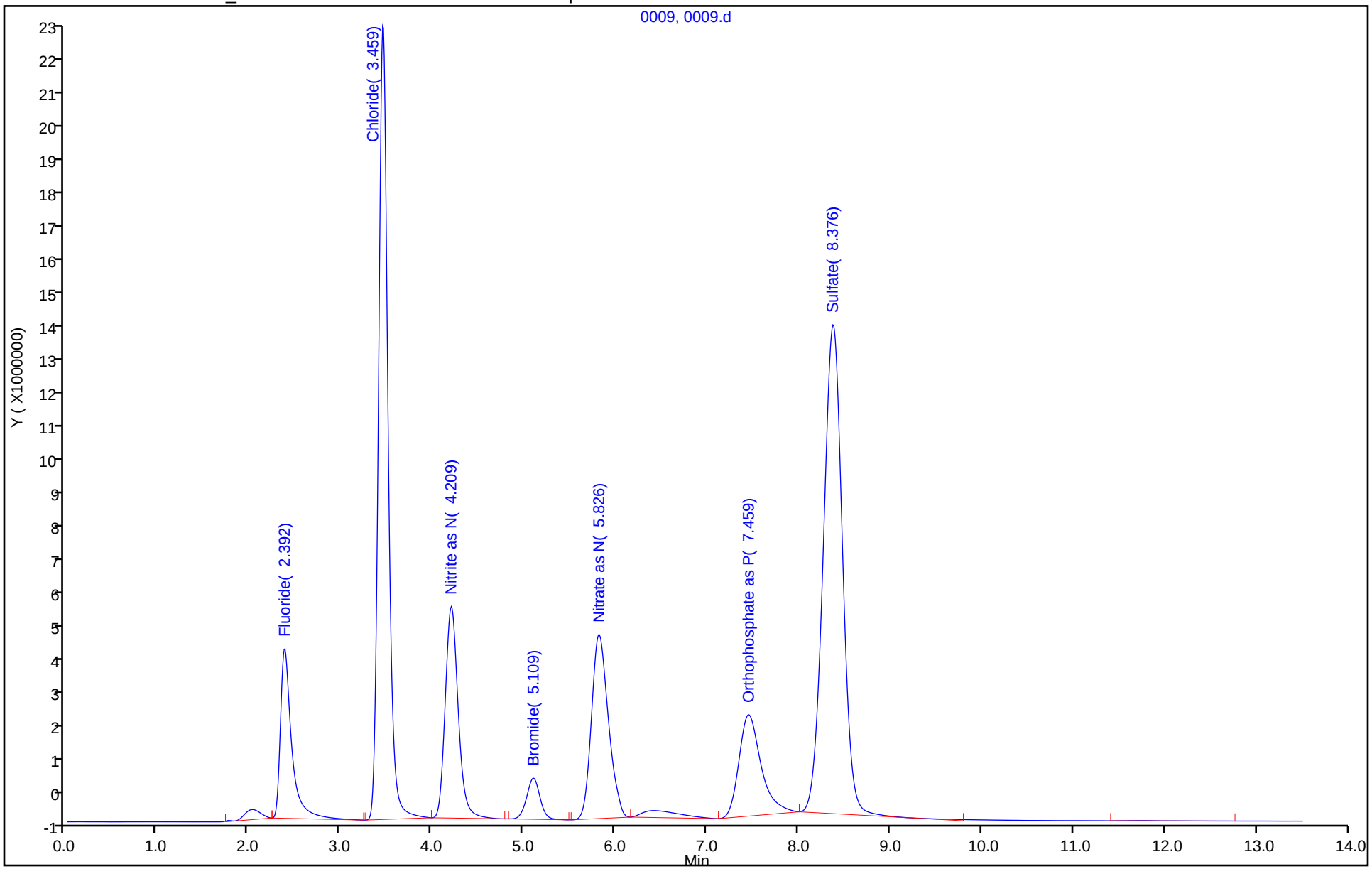
ICMS/MSD WEEK_00595 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2019 17:04:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0009.d

Injection Date:	03-Jun-2019 19:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-2 MS			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0009.d
Lims ID: 280-123930-I-2 MS
Client ID:
Sample Type: MS
Inject. Date: 03-Jun-2019 19:39:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-009
Misc. Info.: 32749 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	40682785	5.00	5.40	
2 Chloride	3.459	3.492	-0.033	160647513	25.0	25.2	
3 Nitrite as N	4.209	4.217	-0.008	58121918	NC	NC	
4 Bromide	5.109	5.075	0.034	11654104	5.00	5.64	
5 Nitrate as N	5.826	5.725	0.101	65888629	NC	NC	
7 Orthophosphate as P	7.459	7.442	0.017	47596252	NC	NC	
6 Sulfate	8.376	8.400	-0.024	198965557	25.0	46.9	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

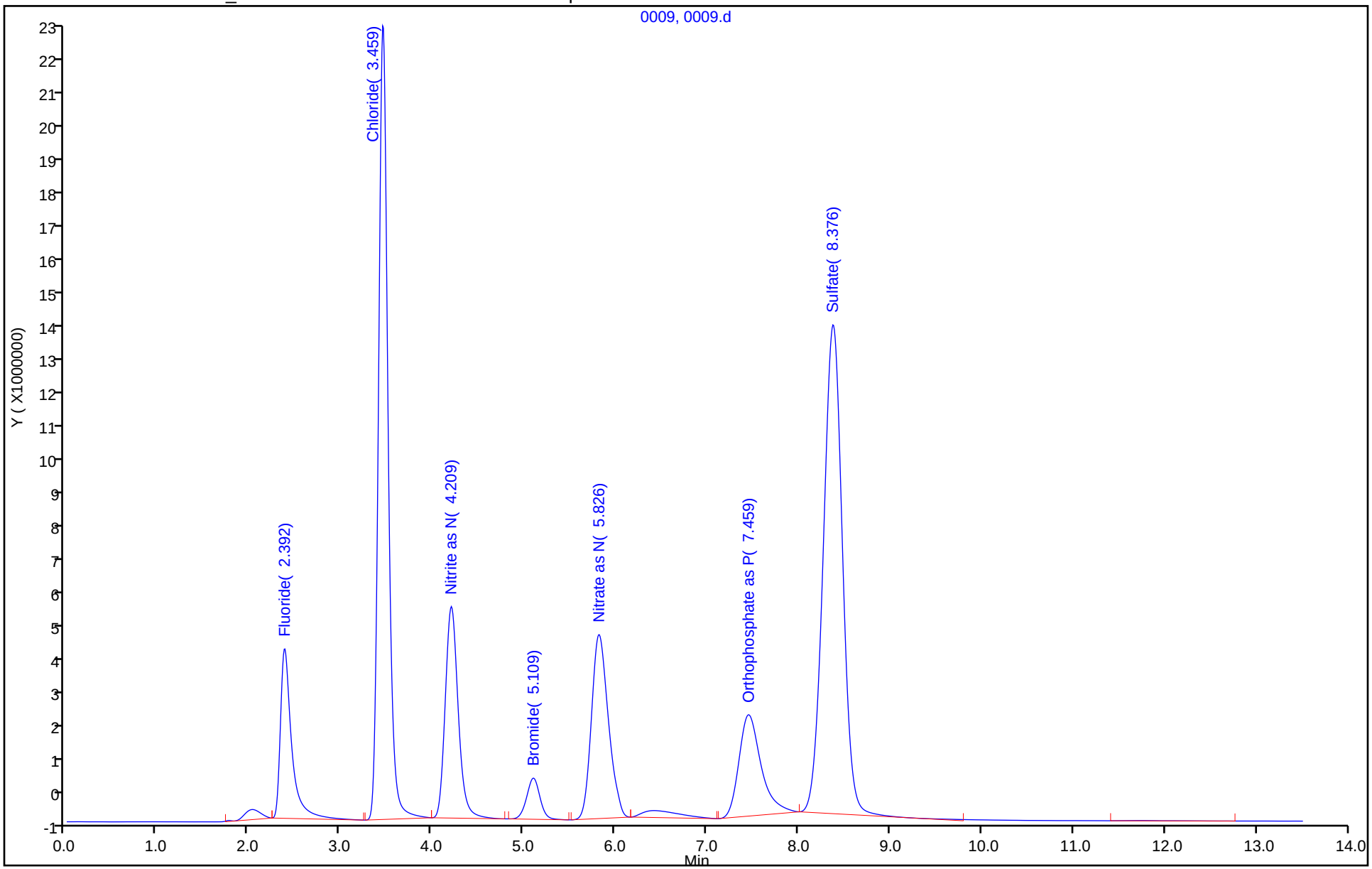
ICMS/MSD WEEK_00595 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2019 17:04:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0009.d

Injection Date:	03-Jun-2019 19:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-2 MS			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0010.d
Lims ID: 280-123930-I-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 03-Jun-2019 19:55:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-010
Misc. Info.: 193 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	44069462	NC	NC	
2 Chloride	3.459	3.492	-0.033	164052022	NC	NC	
3 Nitrite as N	4.209	4.217	-0.008	59585484	5.00	5.61	
4 Bromide	5.101	5.075	0.026	11707962	NC	NC	
5 Nitrate as N	5.817	5.725	0.092	67213491	5.00	5.46	
7 Orthophosphate as P	7.467	7.442	0.025	84312359	5.00	17.9	E
6 Sulfate	8.376	8.400	-0.024	200826184	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Reagents:

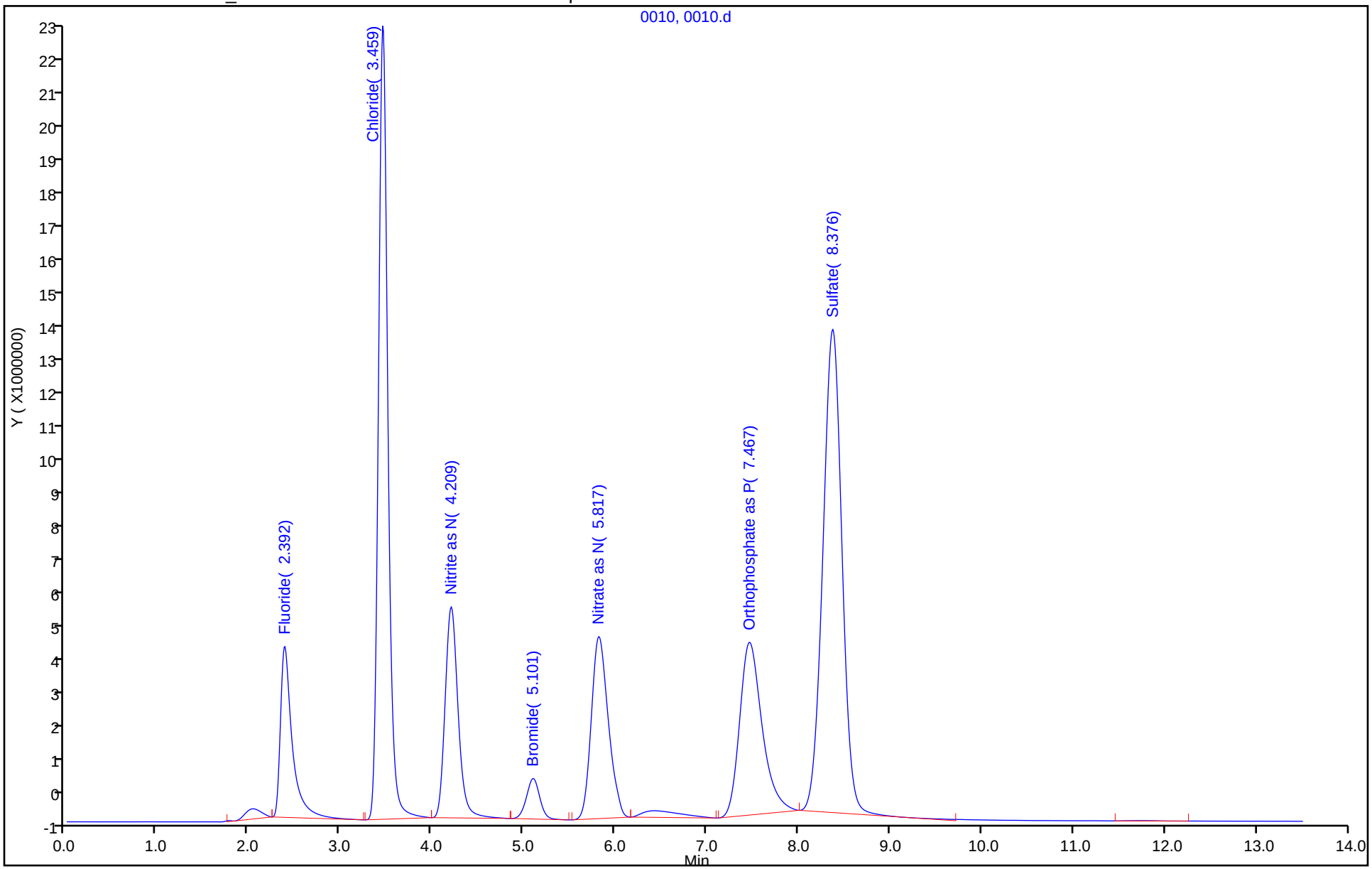
ICMS/MSD WEEK_00595 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2019 17:04:23 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0010.d

Injection Date:	03-Jun-2019 19:55:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-2 MSD			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0010.d
Lims ID: 280-123930-I-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 03-Jun-2019 19:55:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-010
Misc. Info.: 193 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	44069462	5.00	5.85	
2 Chloride	3.459	3.492	-0.033	164052022	25.0	25.7	
3 Nitrite as N	4.209	4.217	-0.008	59585484	NC	NC	
4 Bromide	5.101	5.075	0.026	11707962	5.00	5.67	
5 Nitrate as N	5.817	5.725	0.092	67213491	NC	NC	
7 Orthophosphate as P	7.467	7.442	0.025	84312359	NC	NC	
6 Sulfate	8.376	8.400	-0.024	200826184	25.0	47.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated

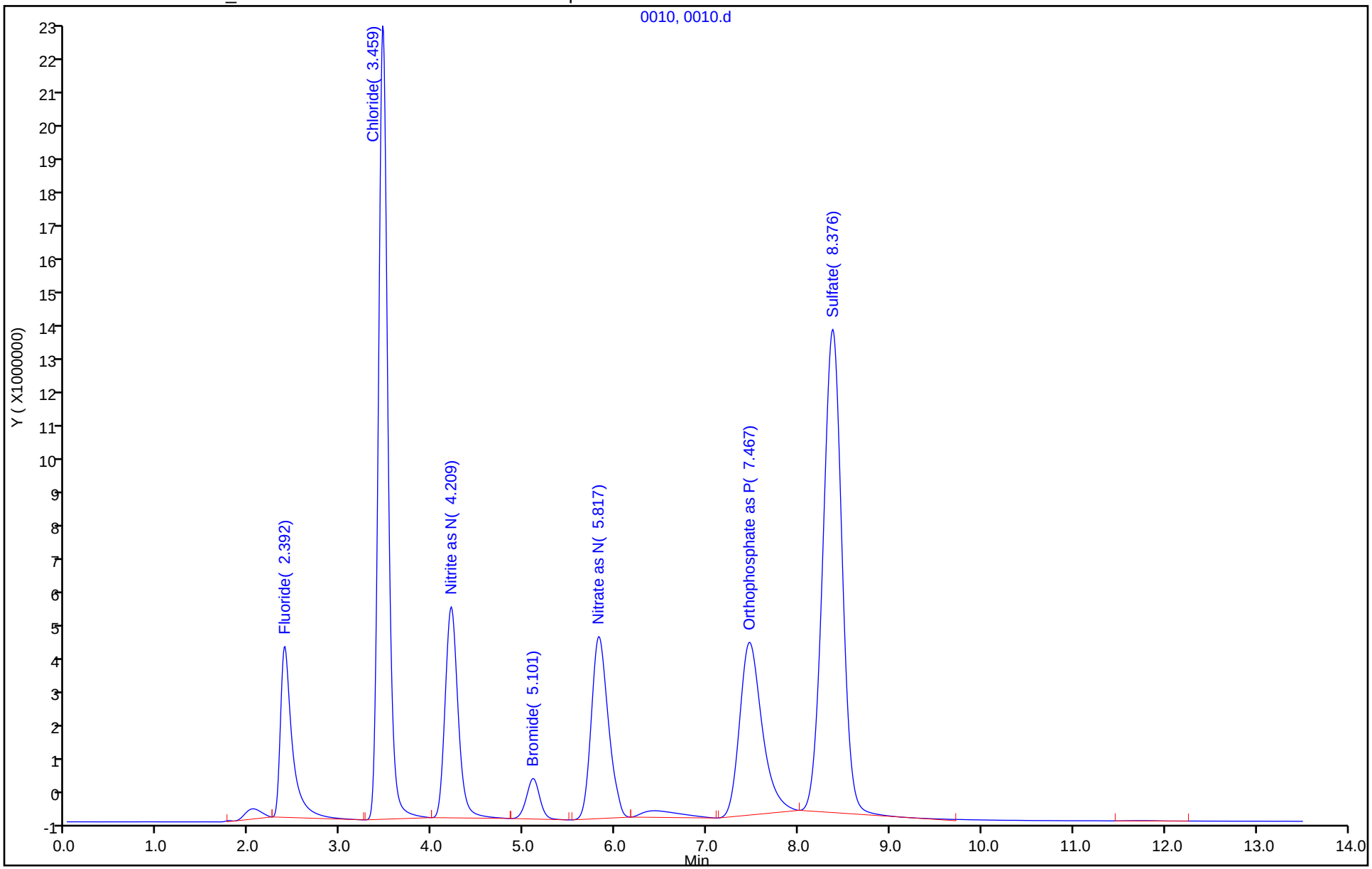
Reagents:

ICMS/MSD WEEK_00595 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2019 17:04:23 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0010.d				
Injection Date:	03-Jun-2019 19:55:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-2 MSD			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0011.d
Lims ID: 280-123930-H-3
Client ID: LF2MW-12_0519-a
Sample Type: Client
Inject. Date: 03-Jun-2019 20:11:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-011
Misc. Info.: 19712 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	528244	0.1049	
2 Chloride	3.459	3.492	-0.033	5096676	1.40	
3 Nitrite as N		4.217			ND	
4 Bromide	5.125	5.075	0.050	260169	0.1374	
5 Nitrate as N	5.850	5.725	0.125	467758	NC	
7 Orthophosphate as P	7.517	7.442	0.075	1197685	NC	
6 Sulfate	8.367	8.400	-0.033	87468773	20.9	

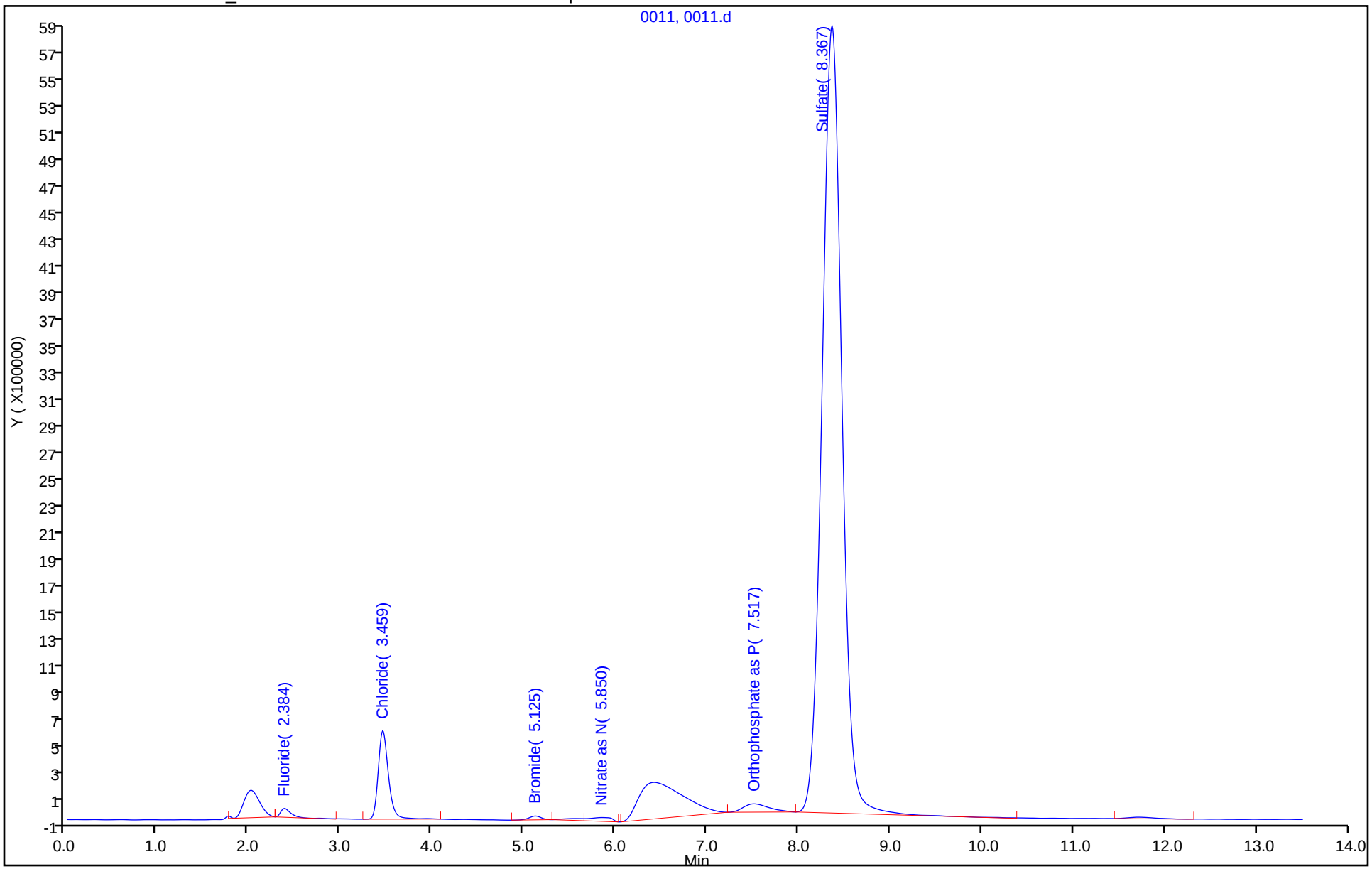
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:25 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0011.d				
Injection Date:	03-Jun-2019 20:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-H-3	Lab Sample ID:	280-123930-3	Worklist Smp#:	11
Client ID:	LF2MW-12_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0012.d
Lims ID: 280-123930-I-4
Client ID: LF2MW-4_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 20:28:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-012
Misc. Info.: 24318 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

First Level Reviewer: pedrickj Date: 04-Jun-2019 08:21:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.625	2.392	0.233	3282839	NC	a
2 Chloride	3.467	3.492	-0.025	36723902	NC	
3 Nitrite as N		4.217			ND	
4 Bromide	5.142	5.075	0.067	142445	NC	
5 Nitrate as N	5.875	5.725	0.150	2222157	0.2220	
7 Orthophosphate as P	7.475	7.442	0.033	803781	0.1138	
6 Sulfate	8.359	8.400	-0.041	15626396	NC	

QC Flag Legend

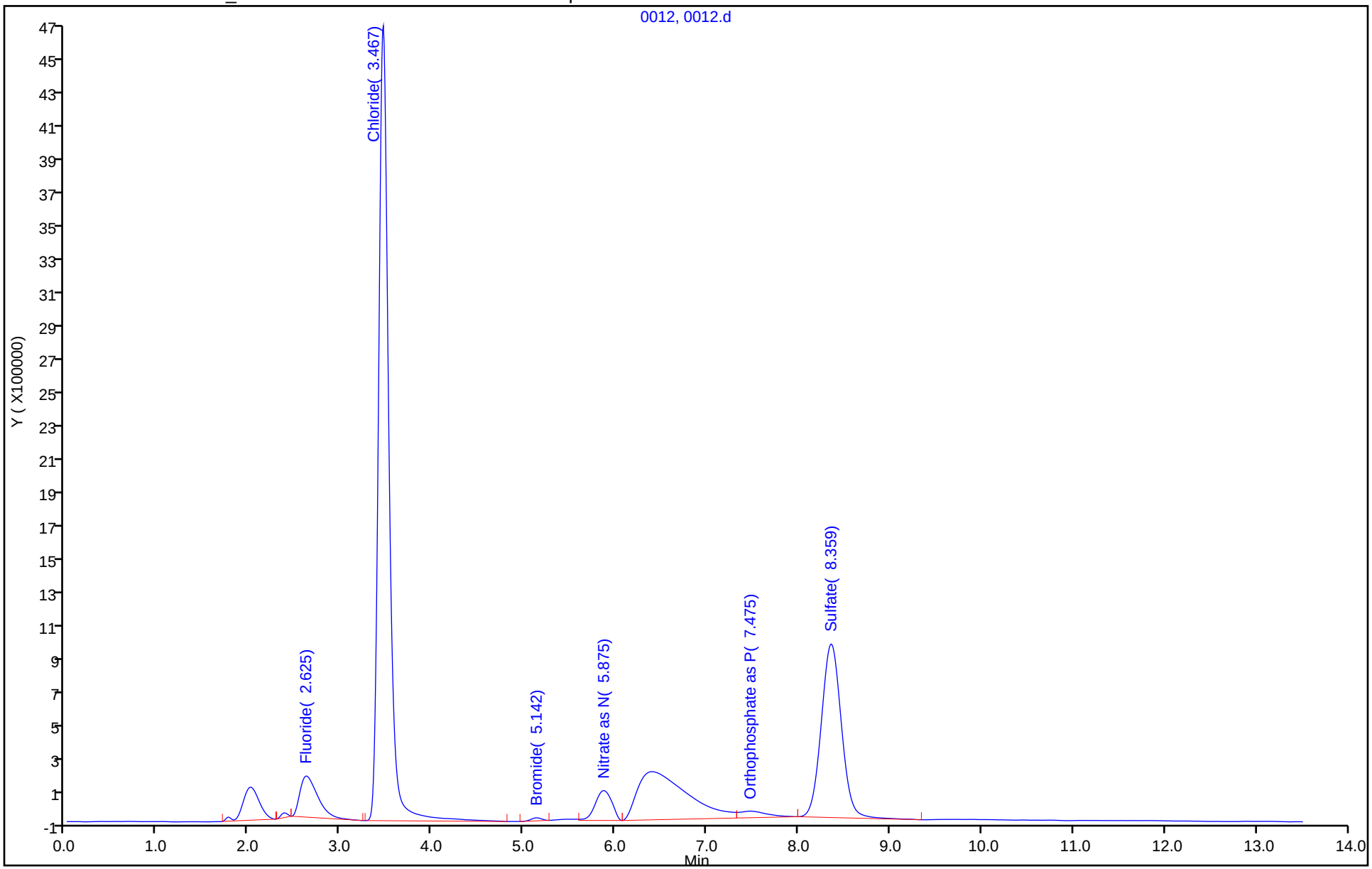
Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 04-Jun-2019 17:04:27 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0012.d

Injection Date:	03-Jun-2019 20:28:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-4	Lab Sample ID:	280-123930-4	Worklist Smp#:	12
Client ID:	LF2MW-4_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0012.d
Lims ID: 280-123930-I-4
Client ID: LF2MW-4_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 20:28:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-012
Misc. Info.: 24318 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

First Level Reviewer: pedrickj Date: 04-Jun-2019 08:21:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.625	2.392	0.233	3282839	0.4681	a
2 Chloride	3.467	3.492	-0.025	36723902	6.24	
3 Nitrite as N		4.217			ND	
4 Bromide	5.142	5.075	0.067	142445	0.0805	
5 Nitrate as N	5.875	5.725	0.150	2222157	NC	
7 Orthophosphate as P	7.475	7.442	0.033	803781	NC	
6 Sulfate	8.359	8.400	-0.041	15626396	4.09	

QC Flag Legend

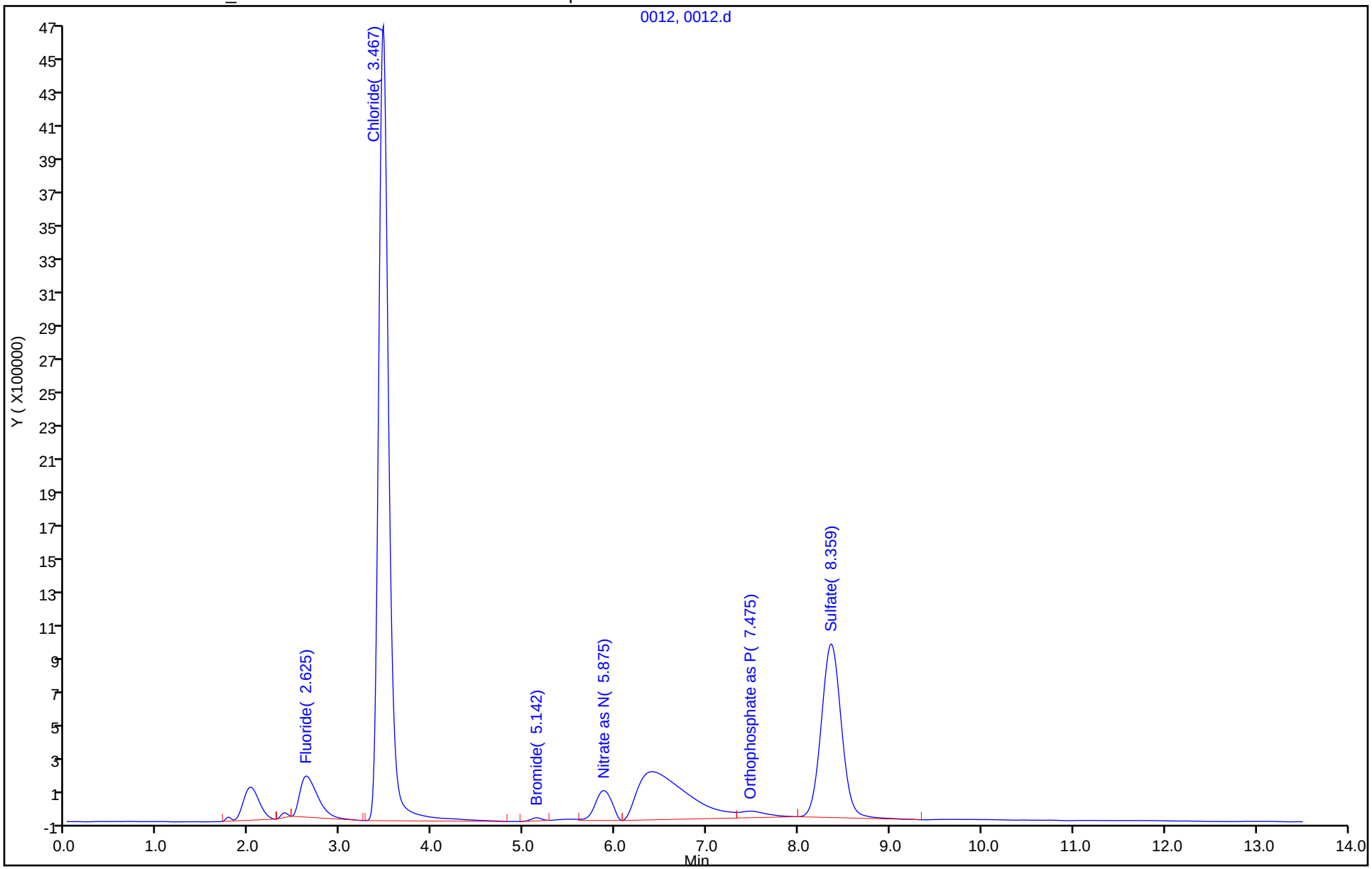
Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 04-Jun-2019 17:04:26 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0012.d

Injection Date:	03-Jun-2019 20:28:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-4	Lab Sample ID:	280-123930-4	Worklist Smp#:	12
Client ID:	LF2MW-4_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

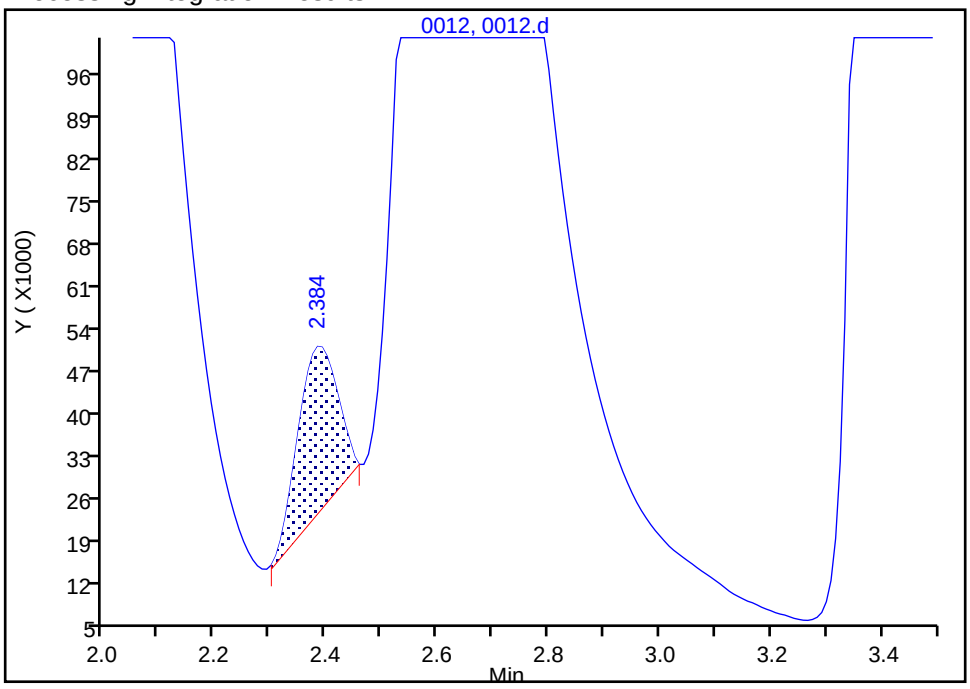
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0012.d				
Injection Date:	03-Jun-2019 20:28:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123930-I-4	Lab Sample ID:	280-123930-4		
Client ID:	LF2MW-4_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

1 Fluoride, CAS: 16984-48-8

Signal: 1

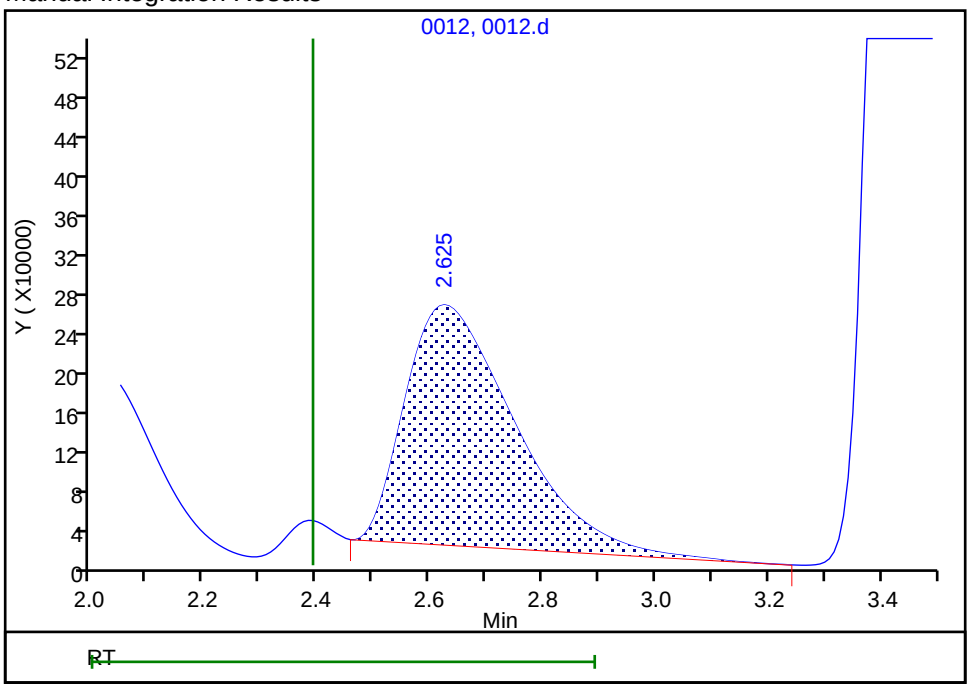
Processing Integration Results

RT: 2.38
Area: 137344
Amount: 0.053316
Amount Units: ug/ml



Manual Integration Results

RT: 2.63
Area: 3282839
Amount: 0.468096
Amount Units: ug/ml



Reviewer: pedrickj, 04-Jun-2019 08:21:23
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0013.d
Lims ID: 280-123930-I-5
Client ID: LF2MW -13_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 20:44:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-013
Misc. Info.: 23553 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	330943	NC	
2 Chloride	3.459	3.492	-0.033	3196877	NC	
3 Nitrite as N		4.217			ND	
4 Bromide		5.075			ND	
5 Nitrate as N	5.709	5.725	-0.016	423975	0.0770	
7 Orthophosphate as P	7.442	7.442	0.000	411240	0.0300	
6 Sulfate	8.325	8.400	-0.075	882261	NC	

QC Flag Legend

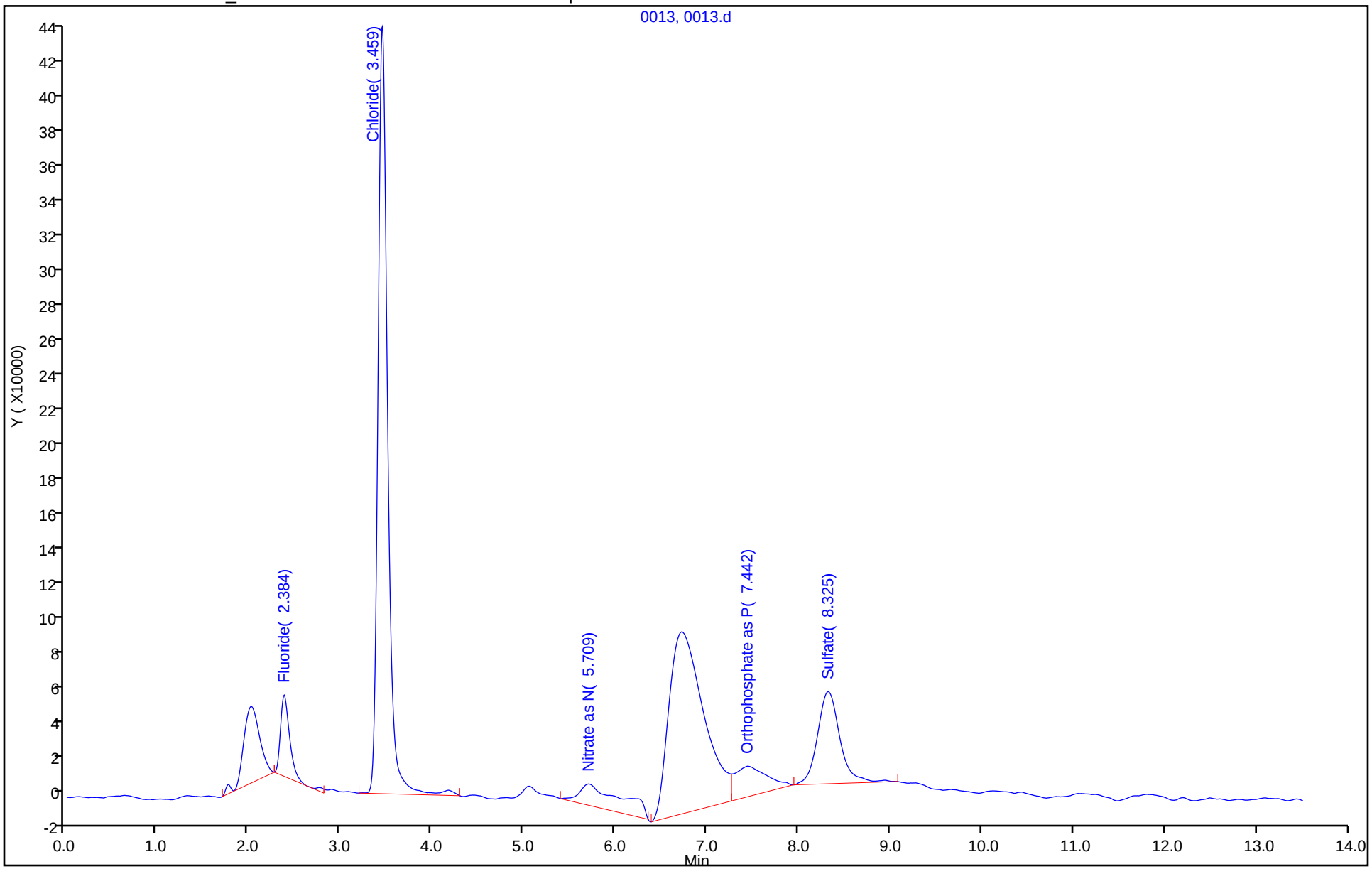
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0013.d

Injection Date:	03-Jun-2019 20:44:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-5	Lab Sample ID:	280-123930-5	Worklist Smp#:	13
Client ID:	LF2MW -13_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0013.d
Lims ID: 280-123930-I-5
Client ID: LF2MW -13_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 20:44:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-013
Misc. Info.: 23553 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	330943	0.0788	
2 Chloride	3.459	3.492	-0.033	3196877	1.11	
3 Nitrite as N		4.217			ND	
4 Bromide		5.075			ND	
5 Nitrate as N	5.709	5.725	-0.016	423975	NC	
7 Orthophosphate as P	7.442	7.442	0.000	411240	NC	
6 Sulfate	8.325	8.400	-0.075	882261	0.6500	

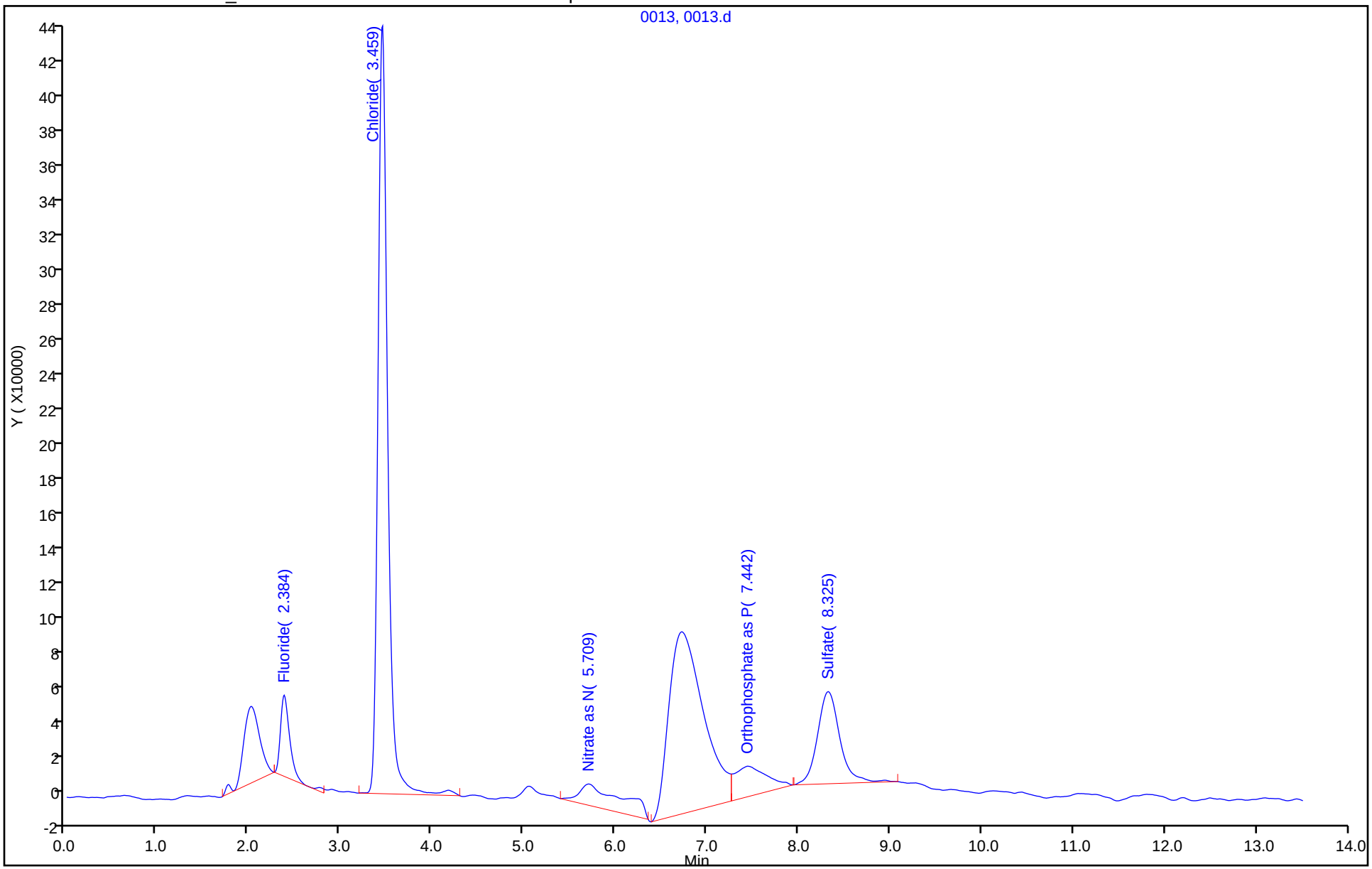
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0013.d				
Injection Date:	03-Jun-2019 20:44:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123930-I-5	Lab Sample ID:	280-123930-5	Worklist Smp#:	13
Client ID:	LF2MW -13_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 03-Jun-2019 21:50:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-017
Misc. Info.: 10406
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.367	2.392	-0.025	34635226	NC	NC	
2 Chloride	3.467	3.492	-0.025	690909679	NC	NC	
3 Nitrite as N	4.184	4.217	-0.033	56243985	5.00	5.29	
4 Bromide	5.034	5.075	-0.041	10752559	NC	NC	
5 Nitrate as N	5.675	5.725	-0.050	66161931	5.00	5.38	
7 Orthophosphate as P	7.350	7.442	-0.092	25440110	5.00	5.37	
6 Sulfate	8.309	8.400	-0.091	446734636	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

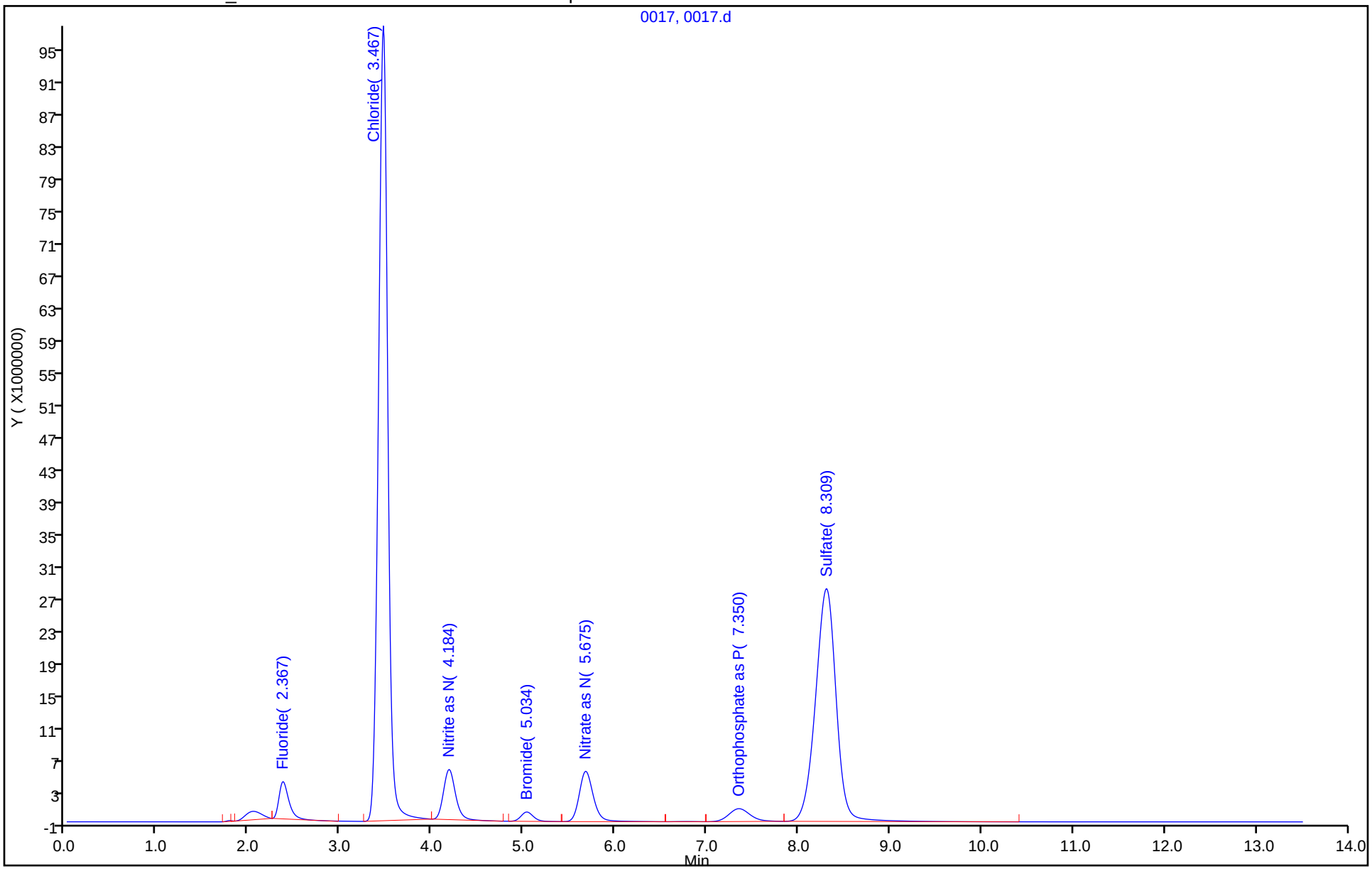
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:37 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0017.d

Injection Date:	03-Jun-2019 21:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0017.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	03-Jun-2019 21:50:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-017				
Misc. Info.:	10406				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2019 17:04:36	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.367	2.392	-0.025	34635226	5.00	4.60	
2 Chloride	3.467	3.492	-0.025	690909679	100.0	106.5	
3 Nitrite as N	4.184	4.217	-0.033	56243985	NC	NC	
4 Bromide	5.034	5.075	-0.041	10752559	5.00	5.21	
5 Nitrate as N	5.675	5.725	-0.050	66161931	NC	NC	
7 Orthophosphate as P	7.350	7.442	-0.092	25440110	NC	NC	
6 Sulfate	8.309	8.400	-0.091	446734636	100.0	104.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

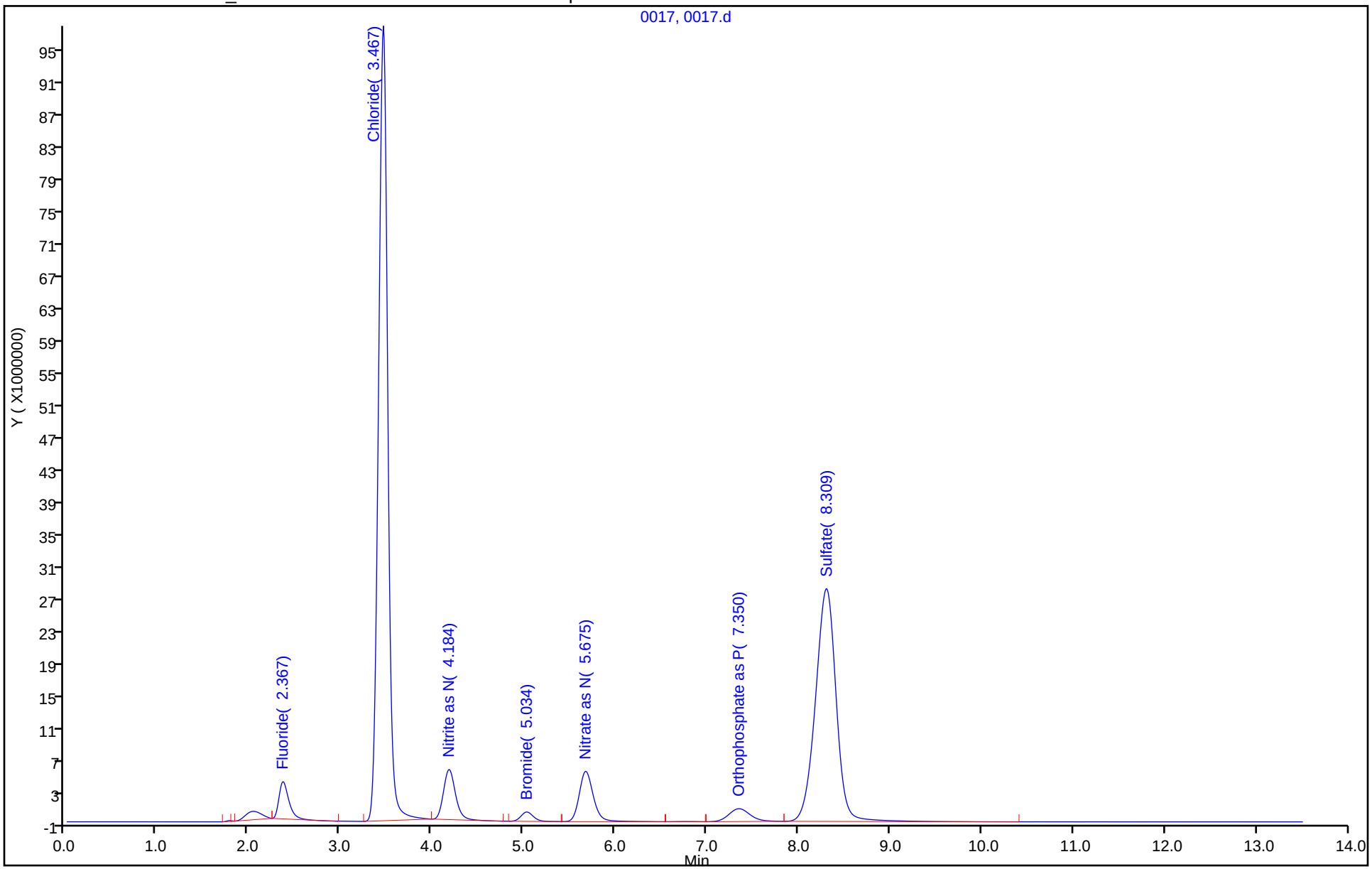
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0017.d

Injection Date:	03-Jun-2019 21:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0018.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	03-Jun-2019 22:06:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-018				
Misc. Info.:	7822				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	04-Jun-2019 17:04:36	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1170302		NC	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.400	7.442	-0.042	391905		0.0259	
6 Sulfate	8.250	8.400	-0.150	130074		NC	

QC Flag Legend

Processing Flags

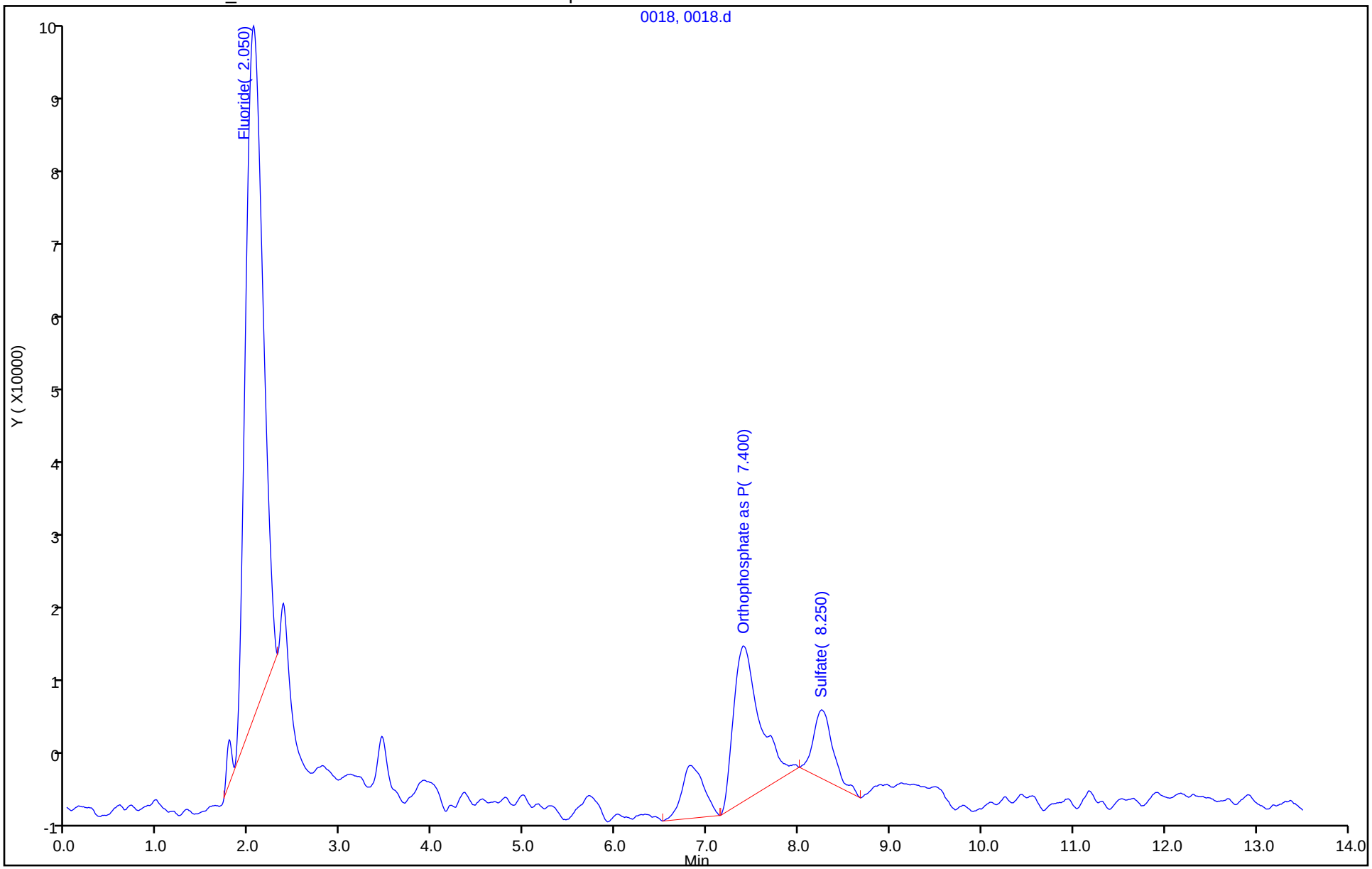
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0018.d

Injection Date:	03-Jun-2019 22:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0018.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	03-Jun-2019 22:06:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-018				
Misc. Info.:	7822				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2019 17:04:36	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1170302		0.1895	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.400	7.442	-0.042	391905		NC	
6 Sulfate	8.250	8.400	-0.150	130074		0.4743	

QC Flag Legend

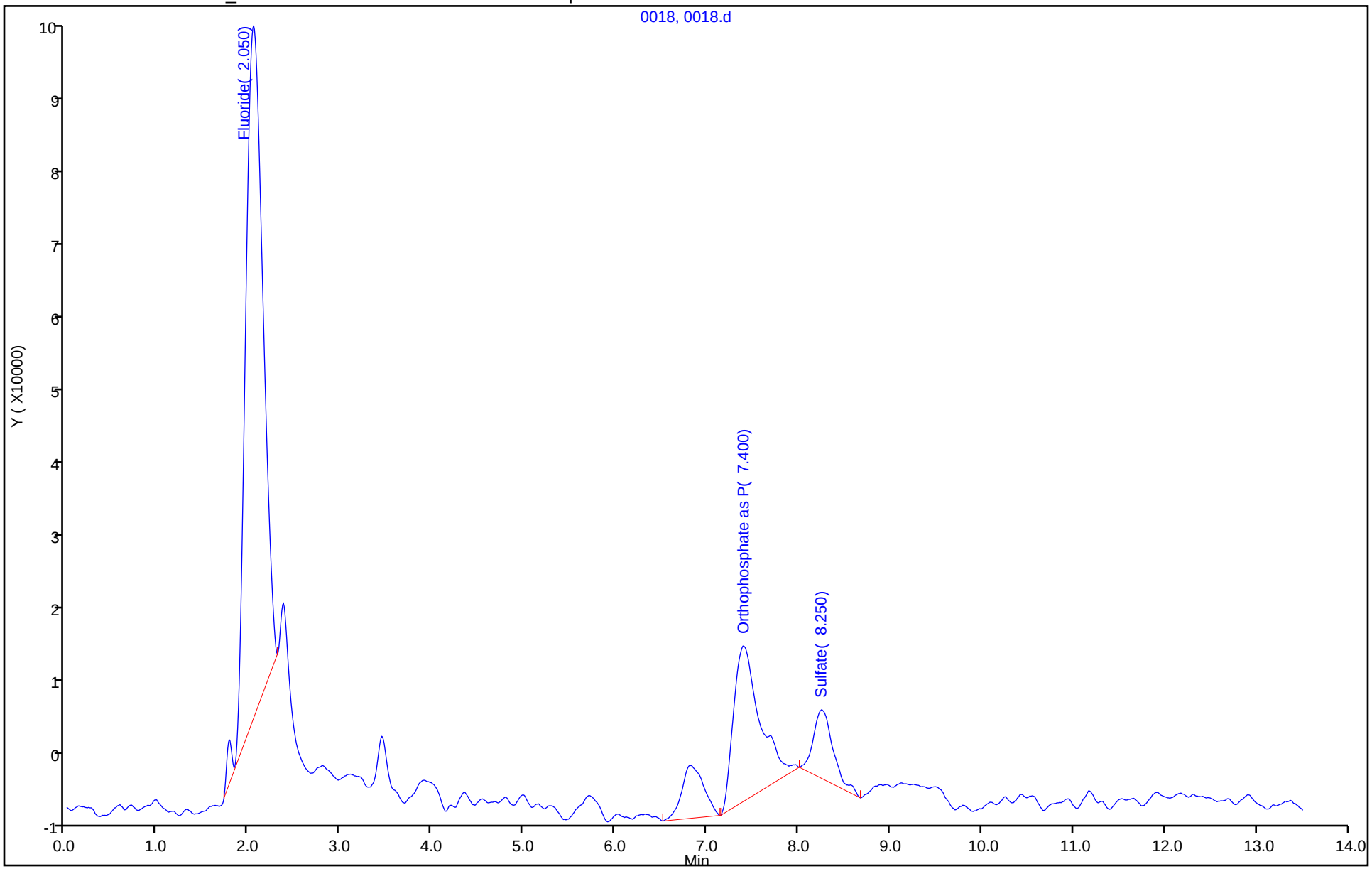
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0018.d

Injection Date:	03-Jun-2019 22:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\02.0000.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 26-Mar-2019 10:26:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0080219-002
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 27-Mar-2019 07:38:04 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0331

First Level Reviewer: pedrickj Date: 26-Mar-2019 12:31:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.084	2.084	0.000	5289453	0.2000	0.1906	
2 Chloride	3.442	3.392	0.050	16470902	1.00	1.00	
3 Nitrite as N	3.992	3.959	0.033	8717627	NC	NC	
4 Bromide	6.475	6.359	0.116	1163276	0.2000	0.2167	
5 Nitrate as N	7.067	6.842	0.225	8519974	NC	NC	
6 Sulfate	9.975	9.676	0.299	16881688	1.00	0.9818	
7 Orthophosphate as P	13.117	12.484	0.633	9392641	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

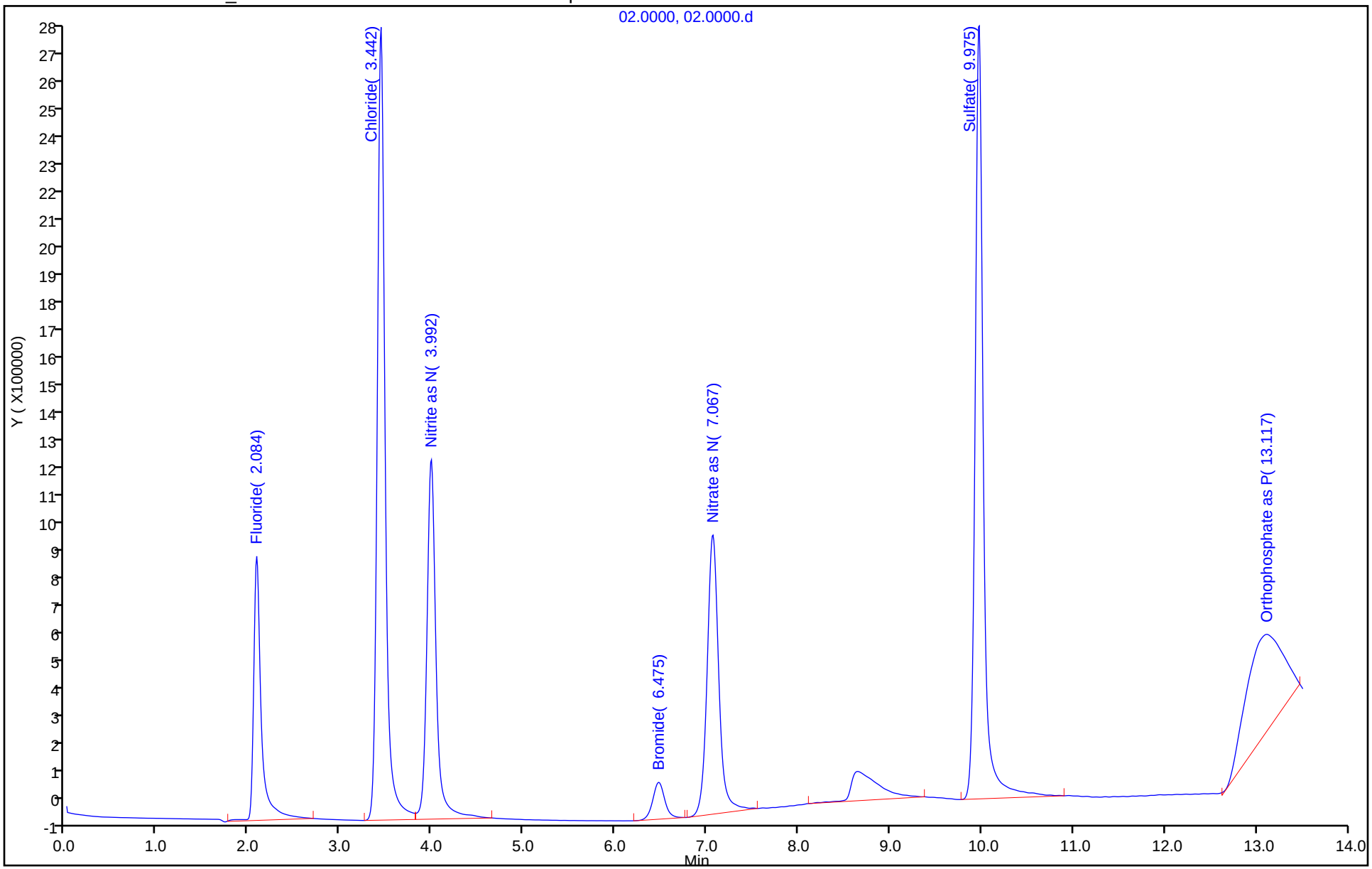
IC Cal low_00447 Amount Added: 0.02 Units: mL
IC CAL cl/so4_00249 Amount Added: 0.02 Units: mL

Report Date: 27-Mar-2019 07:38:04 Chrom Revision: 2.3 24-Mar-2019 20:11:04

TestAmerica Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\02.0000.d

Injection Date:	26-Mar-2019 10:26:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\03.0000.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 26-Mar-2019 10:42:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0080219-003
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 27-Mar-2019 07:38:05 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0331

First Level Reviewer: pedrickj Date: 26-Mar-2019 12:31:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.100	2.084	0.016	14678362	0.5000	0.5170	
2 Chloride	3.467	3.392	0.075	42745226	2.50	2.50	
3 Nitrite as N	4.017	3.959	0.058	23900691	NC	NC	
4 Bromide	6.484	6.359	0.125	3314000	0.5000	0.4890	
5 Nitrate as N	7.050	6.842	0.208	23055897	NC	NC	
6 Sulfate	9.975	9.676	0.299	37429950	2.50	2.52	
7 Orthophosphate as P	13.092	12.484	0.608	14520683	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

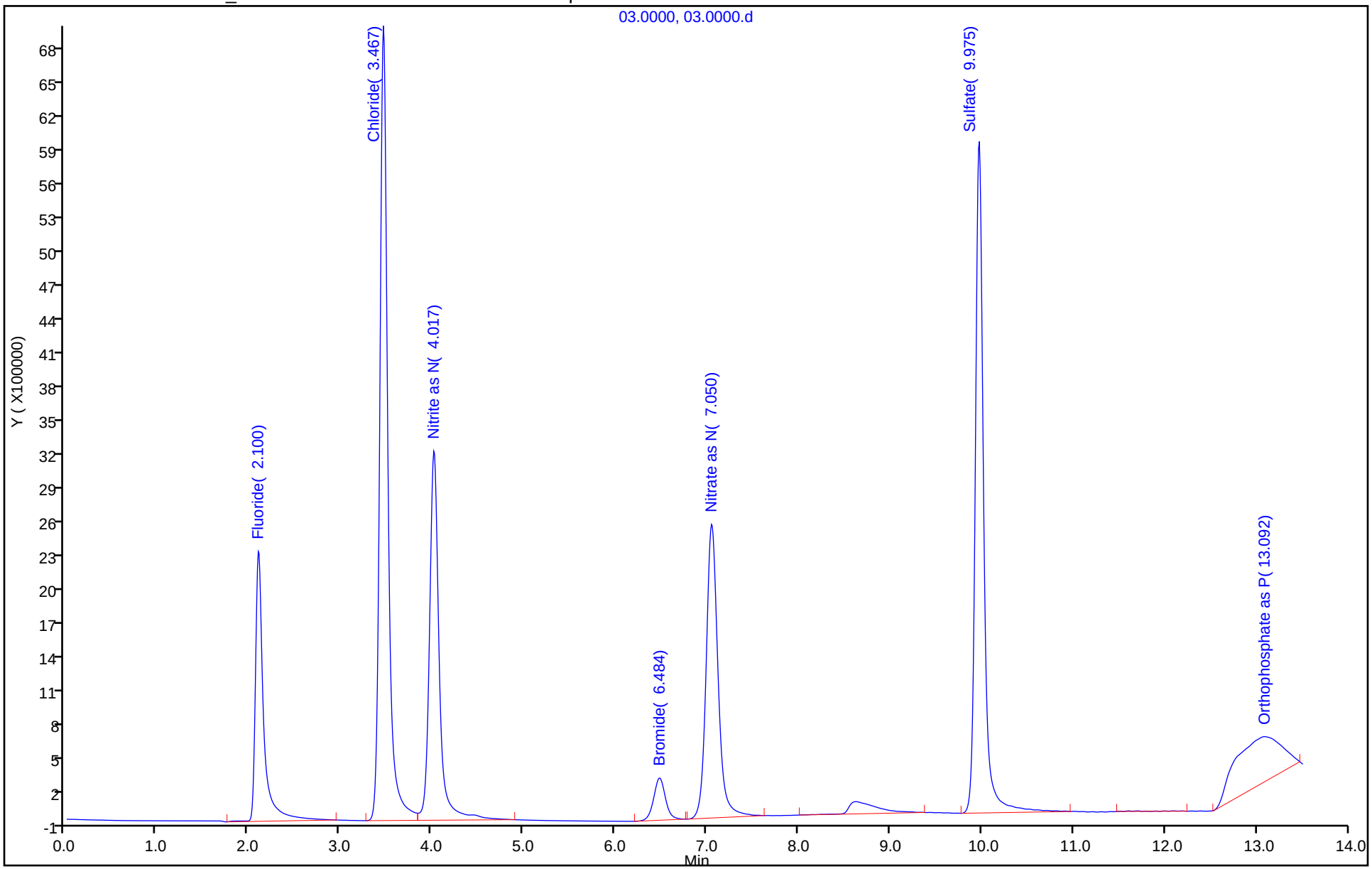
IC Cal low_00447 Amount Added: 0.05 Units: mL
IC CAL cl/so4_00249 Amount Added: 0.05 Units: mL

Report Date: 27-Mar-2019 07:38:05 Chrom Revision: 2.3 24-Mar-2019 20:11:04

TestAmerica Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\03.0000.d

Injection Date:	26-Mar-2019 10:42:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\04.0000.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 26-Mar-2019 10:58:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0080219-004
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 27-Mar-2019 07:38:06 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0331

First Level Reviewer: pedrickj Date: 26-Mar-2019 12:31:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.101	2.084	0.017	28806059	1.00	1.01	
2 Chloride	3.451	3.392	0.059	85601363	5.00	4.94	
3 Nitrite as N	4.001	3.959	0.042	45338396	NC	NC	
4 Bromide	6.451	6.359	0.092	6957030	1.00	0.9502	
5 Nitrate as N	7.009	6.842	0.167	46161382	NC	NC	
6 Sulfate	9.959	9.676	0.283	70000998	5.00	4.95	
7 Orthophosphate as P	13.009	12.484	0.525	24071816	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

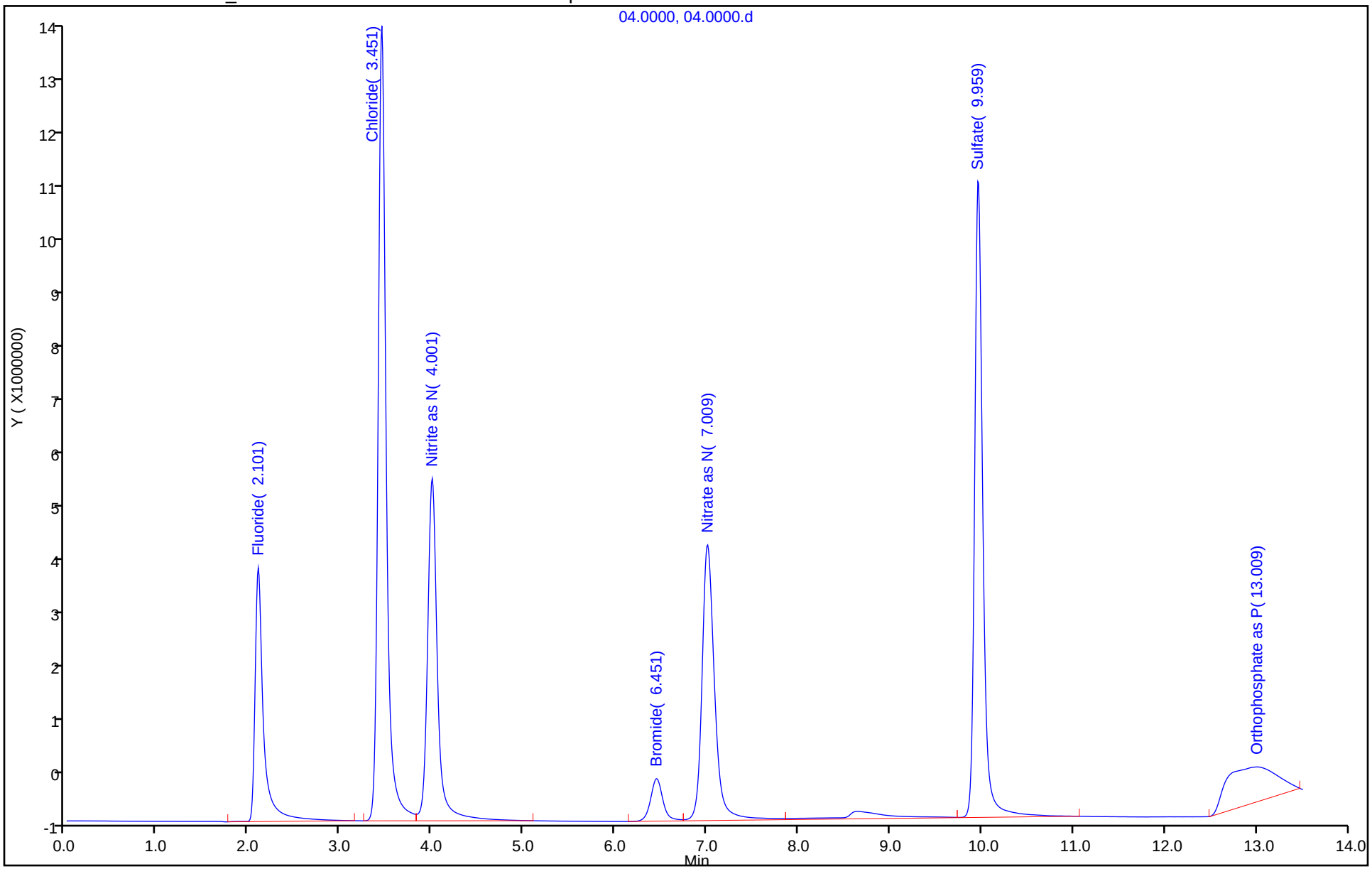
IC Cal low_00447 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00249 Amount Added: 0.10 Units: mL

Report Date: 27-Mar-2019 07:38:06 Chrom Revision: 2.3 24-Mar-2019 20:11:04

TestAmerica Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\04.0000.d

Injection Date:	26-Mar-2019 10:58:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\05.0000.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 26-Mar-2019 11:15:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0080219-005
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 27-Mar-2019 07:38:07 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0331

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.117	2.117	0.000	115776584	4.00	4.03	
2 Chloride	3.442	3.442	0.000	1063133298	60.0	60.7	
3 Nitrite as N	4.025	4.025	0.000	182487213	NC	NC	
4 Bromide	6.459	6.459	0.000	30082480	4.00	3.88	
5 Nitrate as N	6.959	6.959	0.000	185398465	NC	NC	
6 Sulfate	9.759	9.759	0.000	817838724	60.0	60.8	
7 Orthophosphate as P	12.442	12.442	0.000	82110114	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

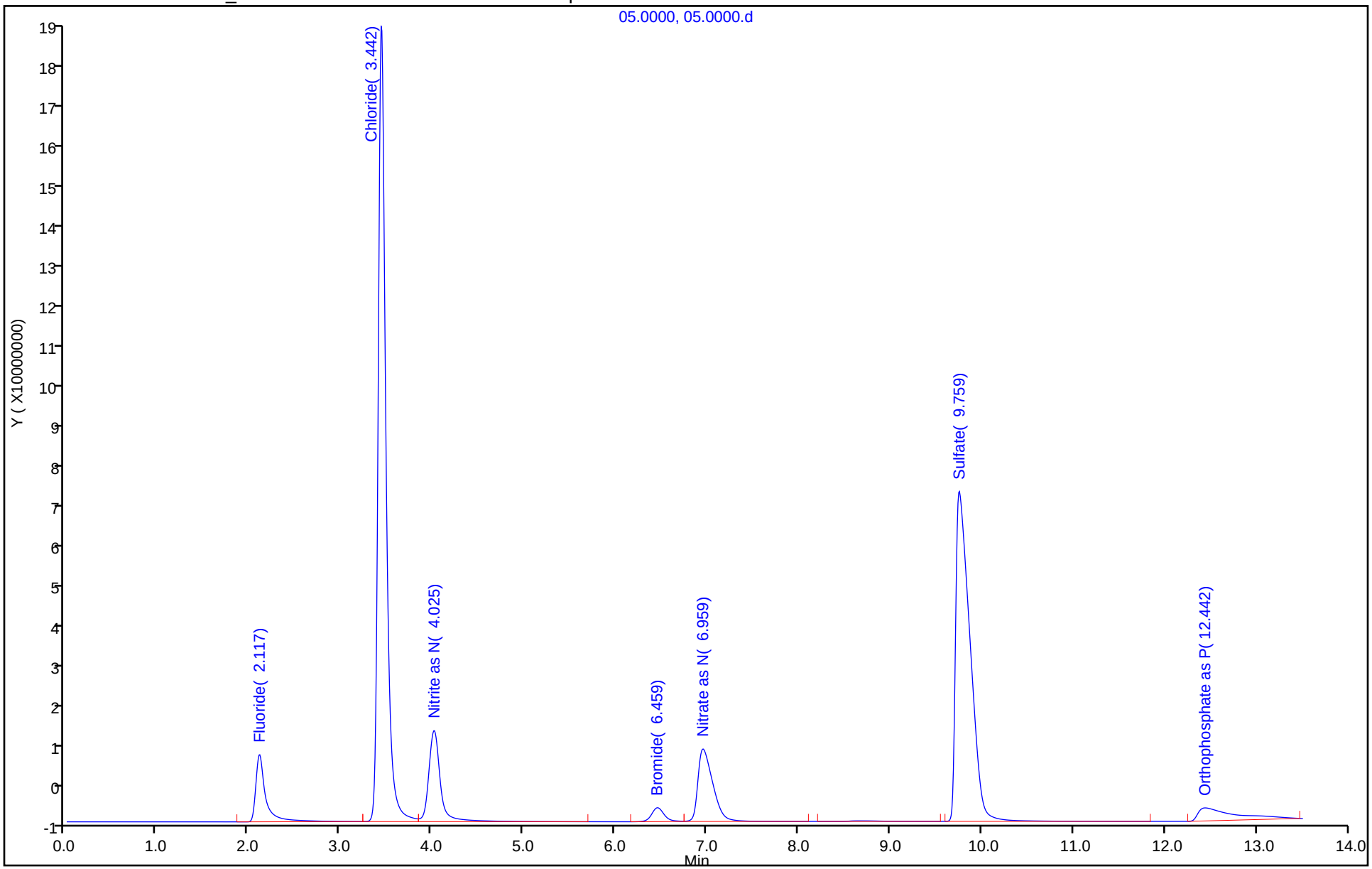
IC Cal low_00447 Amount Added: 0.40 Units: mL
IC CAL cl/so4_00249 Amount Added: 1.20 Units: mL

Report Date: 27-Mar-2019 07:38:07 Chrom Revision: 2.3 24-Mar-2019 20:11:04

TestAmerica Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\05.0000.d

Injection Date:	26-Mar-2019 11:15:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\06.0000.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 26-Mar-2019 11:31:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0080219-006
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 27-Mar-2019 07:38:08 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0331

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.109	2.117	-0.008	231766006	8.00	8.06	
2 Chloride	3.442	3.442	0.000	2119554047	120.0	121.0	
3 Nitrite as N	4.034	4.025	0.009	356070286	NC	NC	
4 Bromide	6.417	6.459	-0.042	63356804	8.00	8.09	
5 Nitrate as N	6.859	6.959	-0.100	377858733	NC	NC	
6 Sulfate	9.684	9.759	-0.075	1653644727	120.0	123.3	
7 Orthophosphate as P	12.317	12.442	-0.125	163669611	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

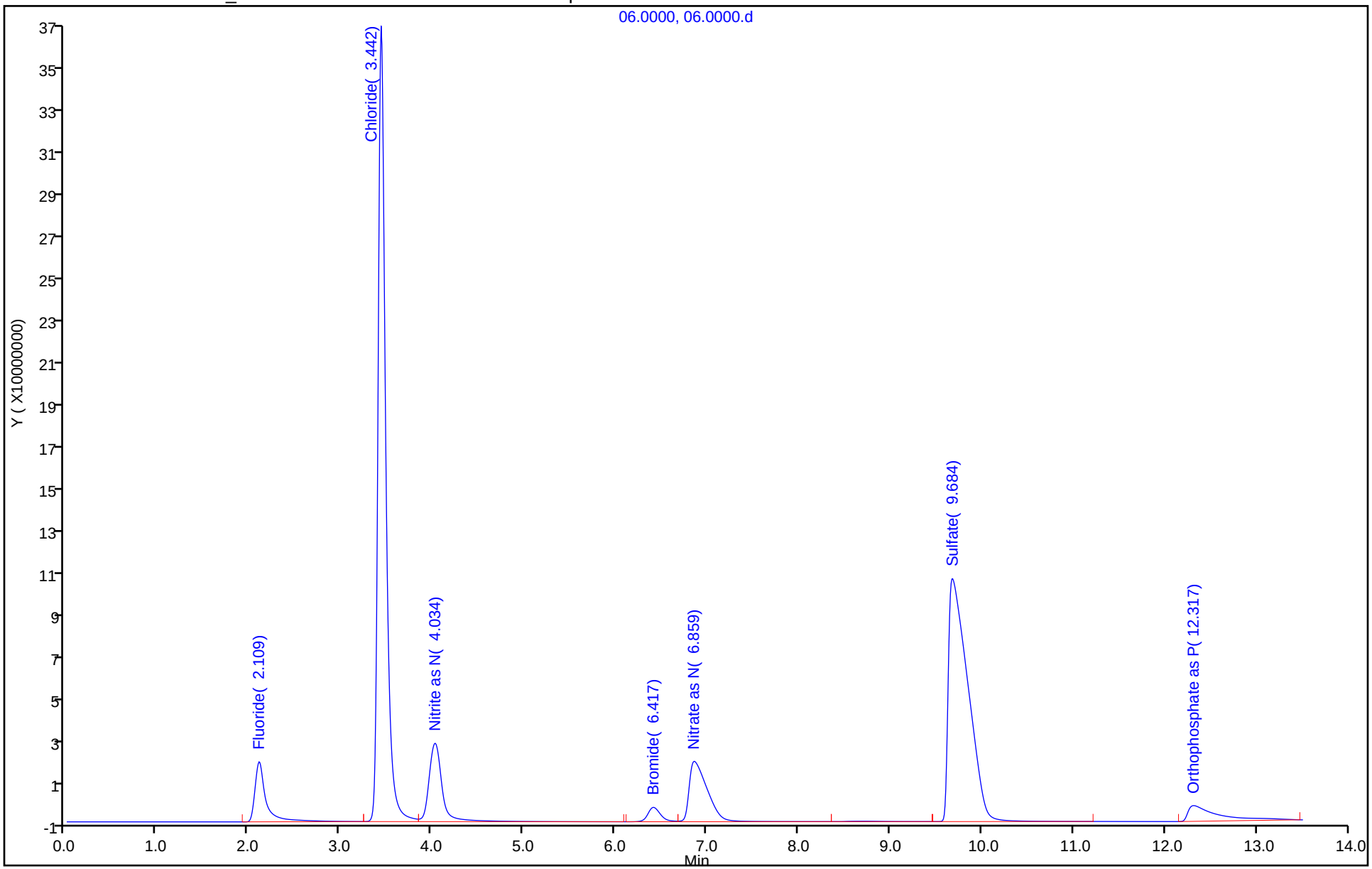
IC Cal low_00447 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00249 Amount Added: 2.40 Units: mL

Report Date: 27-Mar-2019 07:38:08 Chrom Revision: 2.3 24-Mar-2019 20:11:04

TestAmerica Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\06.0000.d

Injection Date:	26-Mar-2019 11:31:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 26-Mar-2019 11:48:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0080219-007
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 27-Mar-2019 07:38:09 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0331

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.100	2.117	-0.017	284170611	10.0	9.89	
2 Chloride	3.417	3.442	-0.025	3476378183	200.0	198.4	
3 Nitrite as N	4.000	4.025	-0.025	446238345	NC	NC	
4 Bromide	6.367	6.459	-0.092	79039626	10.0	10.1	
5 Nitrate as N	6.800	6.959	-0.159	470469157	NC	NC	
6 Sulfate	9.550	9.759	-0.209	2625368749	200.0	195.9	
7 Orthophosphate as P	12.309	12.442	-0.133	200846603	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

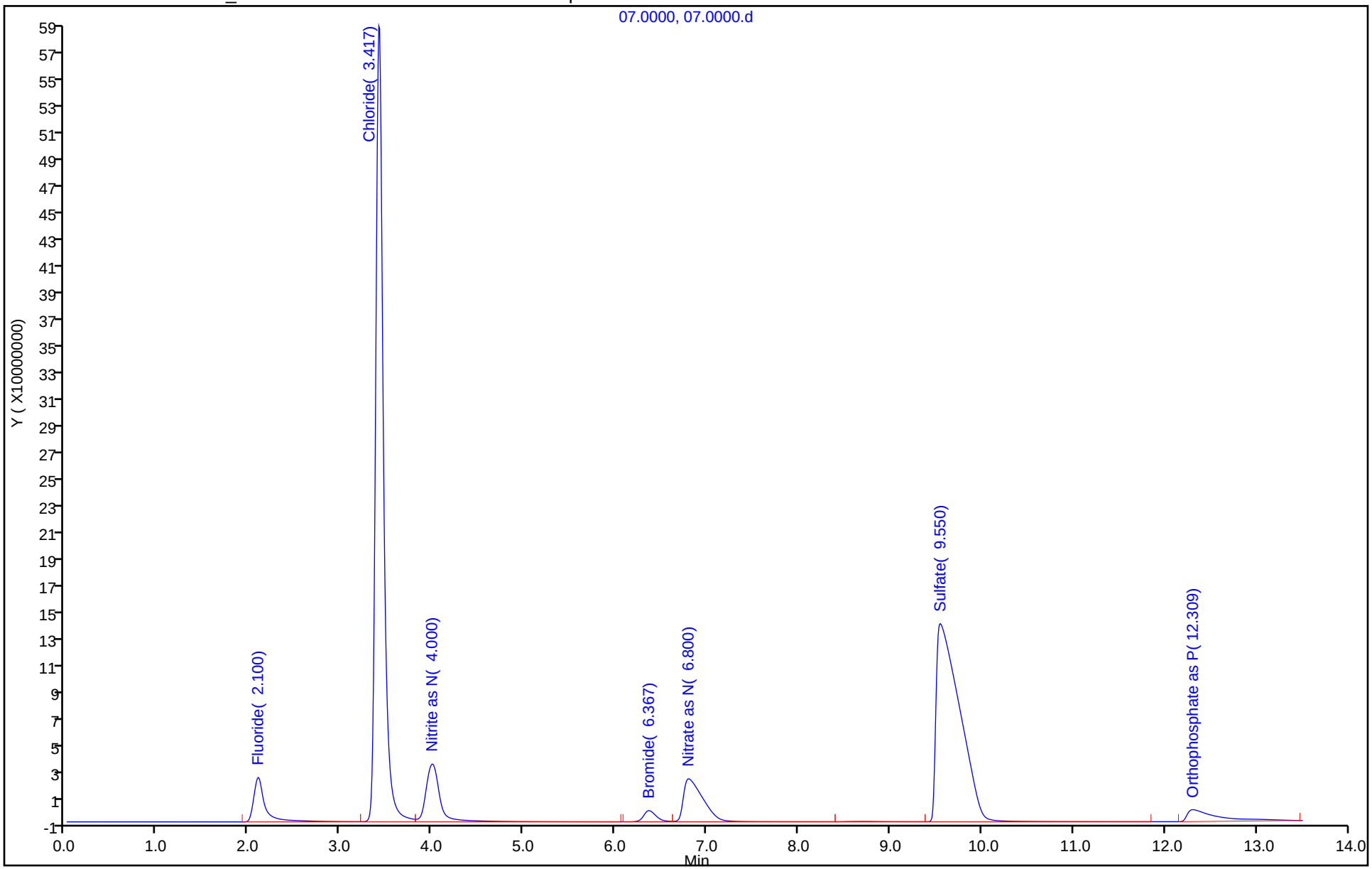
IC Cal low_00447 Amount Added: 1.00 Units: mL
IC CAL cl/so4_00249 Amount Added: 4.00 Units: mL

Report Date: 27-Mar-2019 07:38:09 Chrom Revision: 2.3 24-Mar-2019 20:11:04

TestAmerica Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Injection Date:	26-Mar-2019 11:48:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\Anions_IC7.m

Instrument:	WC_IonChrom7	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	27-Mar-2019 00:54:43

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b
Inj Date : 26-Mar-2019 10:26:00, Sublist: chrom-Anions_IC7*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-191662	2876105		1.000
2 Chloride					-105785	1752955		1.000
3 Nitrite as N	349490	447534		1.000				
4 Bromide					-548405	7898888		1.000
5 Nitrate as N	-845495	4711124		1.000				
6 Sulfate					3744126	1338146		0.999
7 Orthophosphate as P	5165198	1956203	R4	L.000*				

ICalib Error Legend

R4, Curve Zero Intercept is > Reporting Limit

IC Instrument Information

WL: 80219 Inst ID: 7 Analysis Date: 03/26/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
=	121118	1	F Cl NO2 Br (NO3) PO4 SO4	(MS/D) 2	run dil. out of HT
=	121540	1	F Cl NO2 Br (NO3) PO4 SO4	MS/D	"
=	121622	3	F (Cl) NO2 Br (NO3) PO4 SO4	MS/D	"
=	121639	5	F (Cl) NO2 Br (NO3) PO4 (SO4)	(MS/D) 3	
=	121637	2	F Cl (NO2) Br (NO3) PO4 (SO4)	MS/D	
=	121092	1	(F) Cl NO2 Br NO3 PO4 SO4	MS/D	
=			F Cl NO2 Br NO3 PO4 SO4	MS/D	
=			F Cl NO2 Br NO3 PO4 SO4	MS/D	
=			F Cl NO2 Br NO3 PO4 SO4	MS/D	
=			F Cl NO2 Br NO3 PO4 SO4	MS/D	
=			F Cl NO2 Br NO3 PO4 SO4	MS/D	
=			F Cl NO2 Br NO3 PO4 SO4	MS/D	
=			F Cl NO2 Br NO3 PO4 SO4	MS/D	
=			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
121118	2	F Cl NO2 Br (NO3) PO4 SO4	10x	dilution
121540	5	F Cl NO2 Br (NO3) PO4 SO4	100x	dilution
121622	2,3,5	F (Cl) NO2 Br (NO3) PO4 SO4	5x, 10x	dilution
121637	1,2	F Cl (NO2) Br (NO3) PO4 (SO4)	5x	conductivity
121639	1	F Cl NO2 Br NO3 PO4 (SO4)	5x	high
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\08.0000.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 26-Mar-2019 12:04:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0080219-008
Operator ID: Instrument ID: WC_IonChrom7
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 27-Mar-2019 07:38:09 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0331

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.109	2.109	0.000	123514768	4.00	4.30	
2 Chloride	3.442	3.442	0.000	1459651883	80.0	83.3	
3 Nitrite as N	4.025	4.025	0.000	194833793	NC	NC	
4 Bromide	6.450	6.450	0.000	32032651	4.00	4.12	
5 Nitrate as N	6.934	6.934	0.000	199718289	NC	NC	
6 Sulfate	9.717	9.717	0.000	1140459422	80.0	84.9	
7 Orthophosphate as P	12.475	12.475	0.000	90006323	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

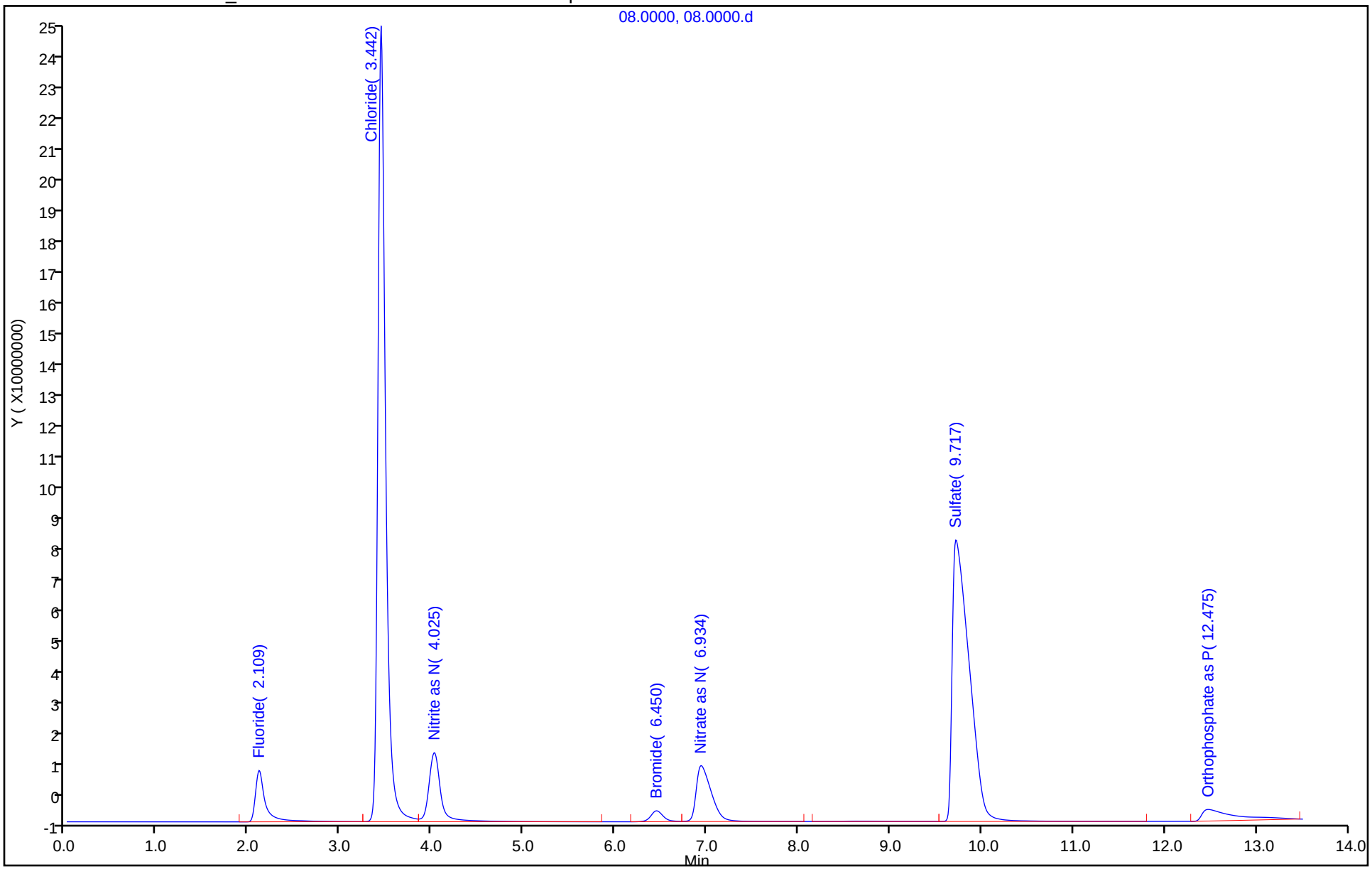
IC SO4 ICV_00018	Amount Added:	0.40	Units: mL
IC ICV 5_00228	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 27-Mar-2019 07:38:09 Chrom Revision: 2.3 24-Mar-2019 20:11:04

TestAmerica Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\08.0000.d

Injection Date:	26-Mar-2019 12:04:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	icv			Worklist Smp#:	8
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\09.0000.d
Lims ID: icb
Client ID:
Sample Type: ICB
Inject. Date: 26-Mar-2019 12:21:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0080219-009
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 27-Mar-2019 07:38:09 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0331

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.109	2.117	-0.008	167531		0.0125	
2 Chloride	3.450	3.442	0.008	473501		0.0874	
3 Nitrite as N		4.025				ND	
4 Bromide		6.459				ND	
5 Nitrate as N		6.959				ND	
6 Sulfate	9.984	9.759	0.225	1361217		-0.1781	
7 Orthophosphate as P	12.659	12.442	0.217	714380		NC	

QC Flag Legend

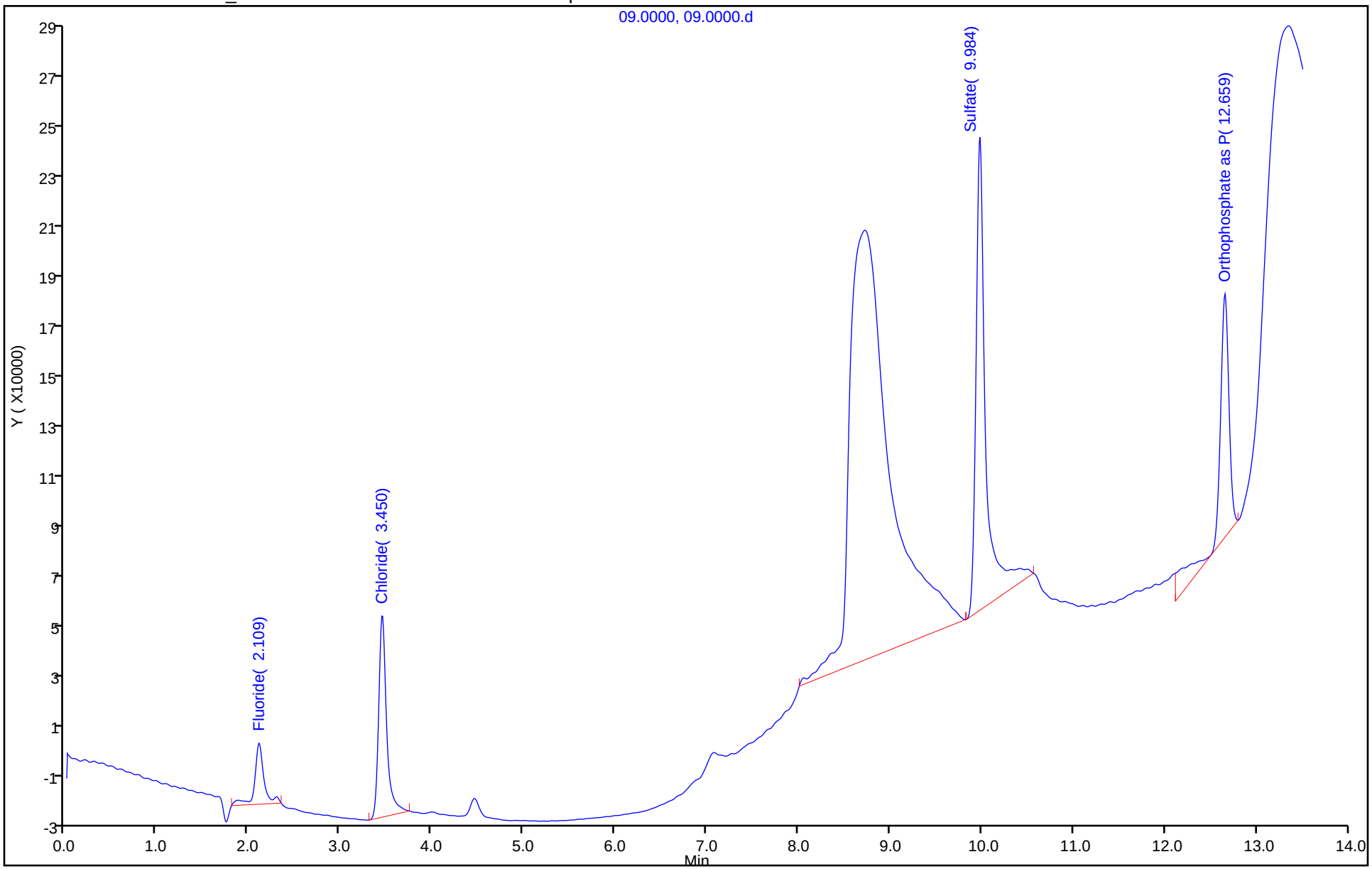
Processing Flags
NC - Not Calibrated

Report Date: 27-Mar-2019 07:38:10 Chrom Revision: 2.3 24-Mar-2019 20:11:04

TestAmerica Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\09.0000.d

Injection Date:	26-Mar-2019 12:21:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	icb			Worklist Smp#:	9
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Batch 461102 , 300.0 28D
CAL: 35768_451952

TestAmerica Denver

TestAmerica

2nd SCH 6/13/19

IC Instrument Information

WL: 92726 Inst ID: 7 Analysis Date: 6/11/19 Analyst: JP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123930	1	(F) Cl NO2 Br NO3 PO4 SO4	MS/D -1	
☐	123912	11	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123963	2	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	
☐	124034	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123942	1	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123919	3	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123944	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D -1	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
912		F Cl NO2 Br NO3 PO4 SO4	5,10,20,50	
963		F Cl NO2 Br NO3 PO4 SO4	5	
034		F Cl NO2 Br NO3 PO4 SO4	10	
942		F Cl NO2 Br NO3 PO4 SO4	5	
919		F Cl NO2 Br NO3 PO4 SO4	2.5	
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

IC Instrument Information

WL: 82726 Inst ID: 7 Analysis Date: 6/11/19 Analyst: JP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123930	1	(F) Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123912	11	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123963	2	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	
☐	124034	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123942	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123919	3	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	123944	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
912		F Cl NO2 Br NO3 PO4 SO4	5,10,20,50	
963		F Cl NO2 Br NO3 PO4 SO4	5	
034		F Cl NO2 Br NO3 PO4 SO4	10	
942		F Cl NO2 Br NO3 PO4 SO4	5	
919		F Cl NO2 Br NO3 PO4 SO4	2,5	
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190606-82599.b\Anions_IC7.m

Instrument:	WC_IonChrom7	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	07-Jun-2019 17:06:04

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b
Inj Date : 26-Mar-2019 10:26:00, Sublist: chrom-Anions_IC7*sub1

Detector 1: 0005

	Wet - Anions 28D				Wet - Anions			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	-191662	287610		1.000				
2 Chloride	-105785	175295		1.000				
3 Nitrite as N					349490	447534		1.000
4 Bromide	-548405	789888		1.000				
5 Nitrate as N					-845495	4711124		1.000
6 Sulfate	374412	133814		0.999				
7 Orthophosphate as P					516519	1956203	R4	1.000*

ICalib Error Legend
R4, Curve Zero Intercept is > Reporting Limit

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190606-82599.b\Anions_IC7.m
Instrument: WC_IonChrom7 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 07-Jun-2019 17:06:04
No.Compounds:7
Sublist: chrom-Anions_IC7*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1 \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\02.0000.d
Inj Date: 26-Mar-2019 10:26:00 Worklist: 80219 Sample#: 2
Level: 2 \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\03.0000.d
Inj Date: 26-Mar-2019 10:42:00 Worklist: 80219 Sample#: 3
Level: 3 \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\04.0000.d
Inj Date: 26-Mar-2019 10:58:00 Worklist: 80219 Sample#: 4
Level: 4 \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\05.0000.d
Inj Date: 26-Mar-2019 11:15:00 Worklist: 80219 Sample#: 5
Level: 5 \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\06.0000.d
Inj Date: 26-Mar-2019 11:31:00 Worklist: 80219 Sample#: 6
Level: 6 \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d
Inj Date: 26-Mar-2019 11:48:00 Worklist: 80219 Sample#: 7

Start Cal Date: 26-Mar-2019 10:26:00 End Cal Date: 06-Jun-2019 13:11:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride				Signal: 1					
26447265	29356724	28806059	28944146	28970751	28417061	-191662			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		28761057		
5289453	14678362	28806059	115776584	231766006	284170611				
80219(2)	80219(3)	80219(4)	80219(5)	80219(6)	80219(7)				
2 Chloride				Signal: 1					
16470902	17098090	17120273	17718888	17662950	17381891	-1057856			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		17529550		
16470902	42745226	85601363	1063133298	2119554047	3476378183				
80219(2)	80219(3)	80219(4)	80219(5)	80219(6)	80219(7)				
4 Bromide				Signal: 1					
5816380	6628000	6957030	7520620	7919601	7903963	-548405			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		7898888		
1163276	3314000	6957030	30082480	63356804	79039626				
80219(2)	80219(3)	80219(4)	80219(5)	80219(6)	80219(7)				
6 Sulfate				Signal: 1					
16881688	14971980	14000200	13630645	13780373	13126844	3744126			0.999
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		13381467		
16881688	37429950	70000998	817838724	1653644727	2625368749				
80219(2)	80219(3)	80219(4)	80219(5)	80219(6)	80219(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\01.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 11-Jun-2019 08:42:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-001
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 11-Jun-2019 13:03:38

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.967	1.984	-0.017	149449175	5.00	5.20	
2 Chloride	2.850	2.925	-0.075	1734349114	100.0	99.0	
3 Nitrite as N	3.225	3.300	-0.075	247288310	NC	NC	
4 Bromide	4.859	5.092	-0.233	38225256	5.00	4.91	a
5 Nitrate as N	5.209	5.534	-0.325	226194151	NC	NC	a
6 Sulfate	8.675	9.325	-0.650	1316128829	100.0	98.1	
7 Orthophosphate as P		13.167			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
a - User Assigned ID

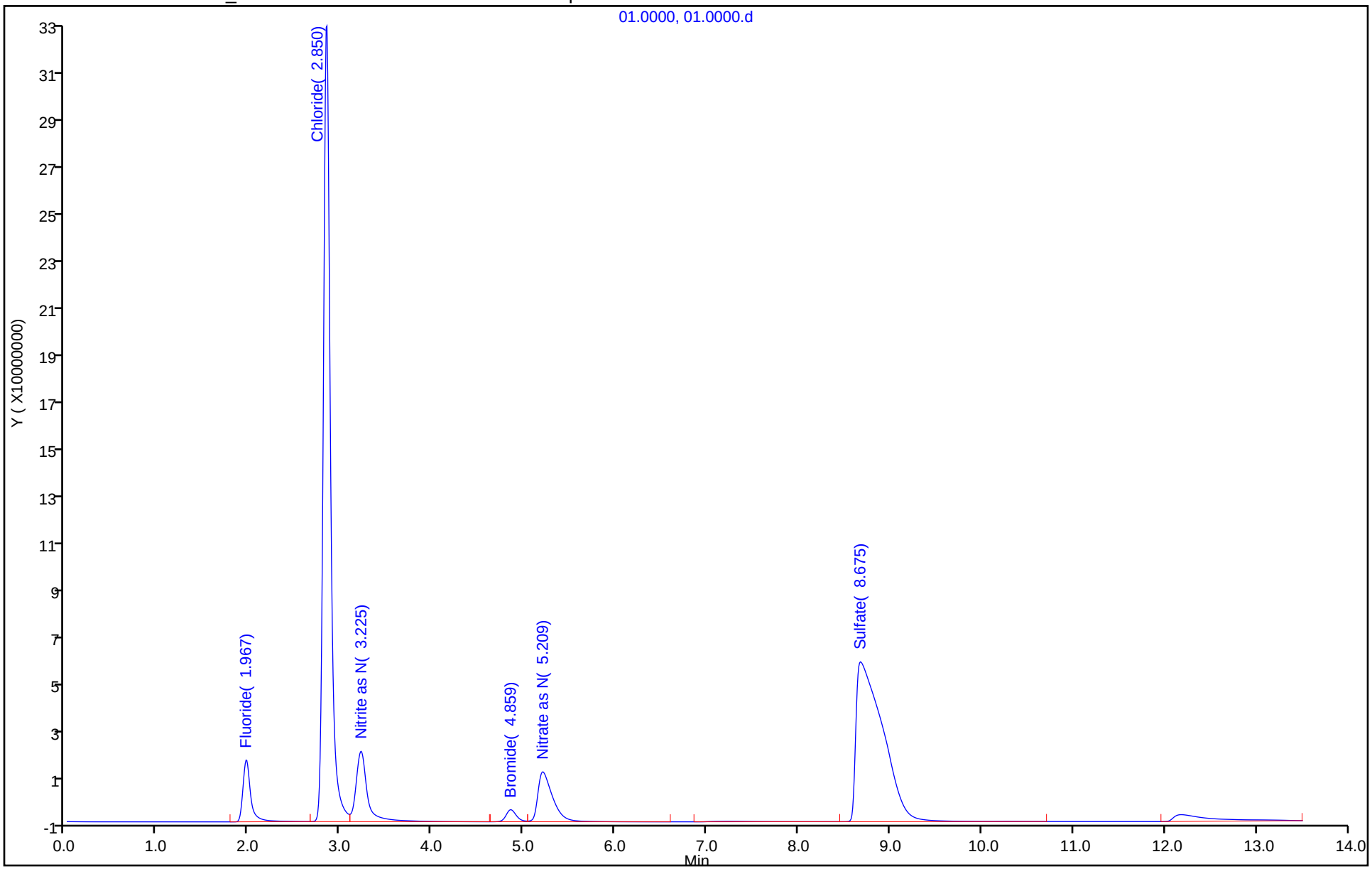
Reagents:

IC LCS_01601 Amount Added: 5.00 Units: mL

Report Date: 12-Jun-2019 08:29:31 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\01.0000.d				
Injection Date:	11-Jun-2019 08:42:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

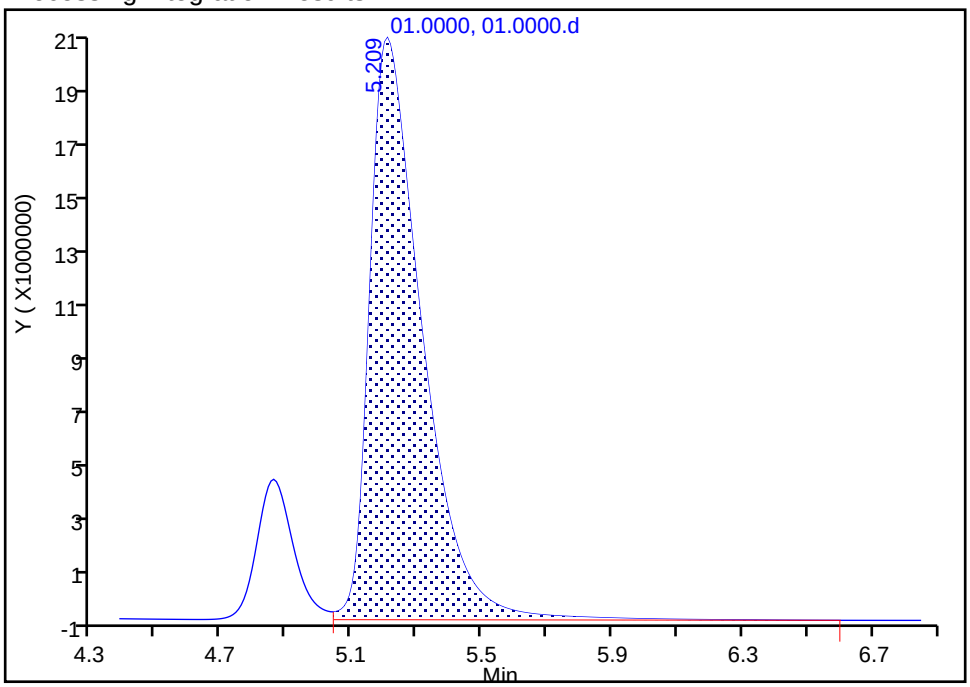
Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\01.0000.d
Injection Date: 11-Jun-2019 08:42:00 Instrument ID: WC_IonChrom7
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC7 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

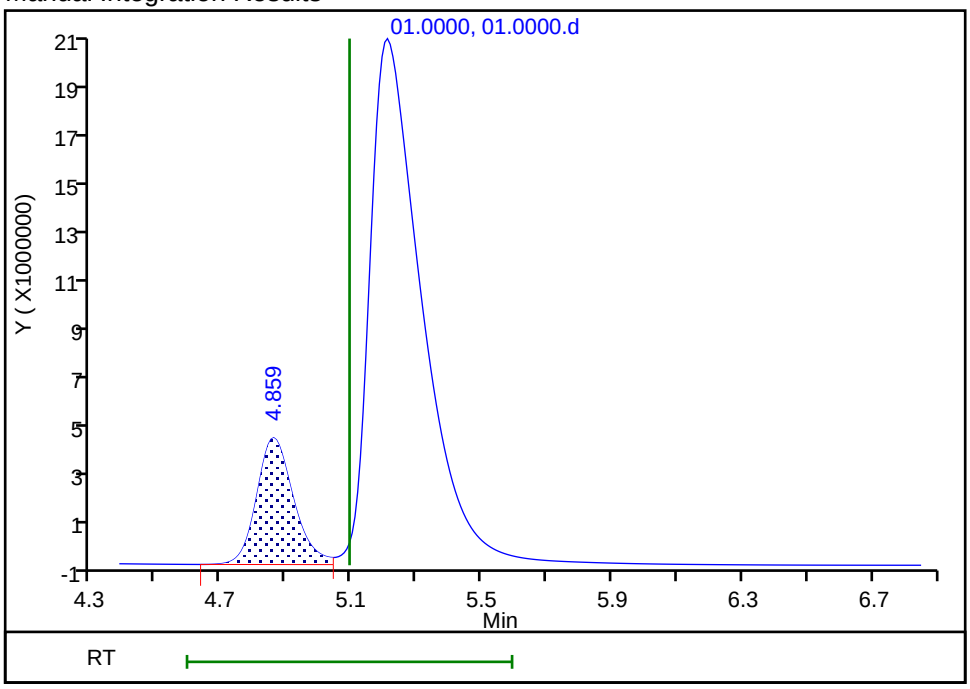
Processing Integration Results

RT: 5.21
Area: 226194151
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.86
Area: 38225256
Amount: 4.908749
Amount Units: ug/ml



Reviewer: pedrickj, 11-Jun-2019 13:03:36
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\02.0000.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 11-Jun-2019 08:57:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-002
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

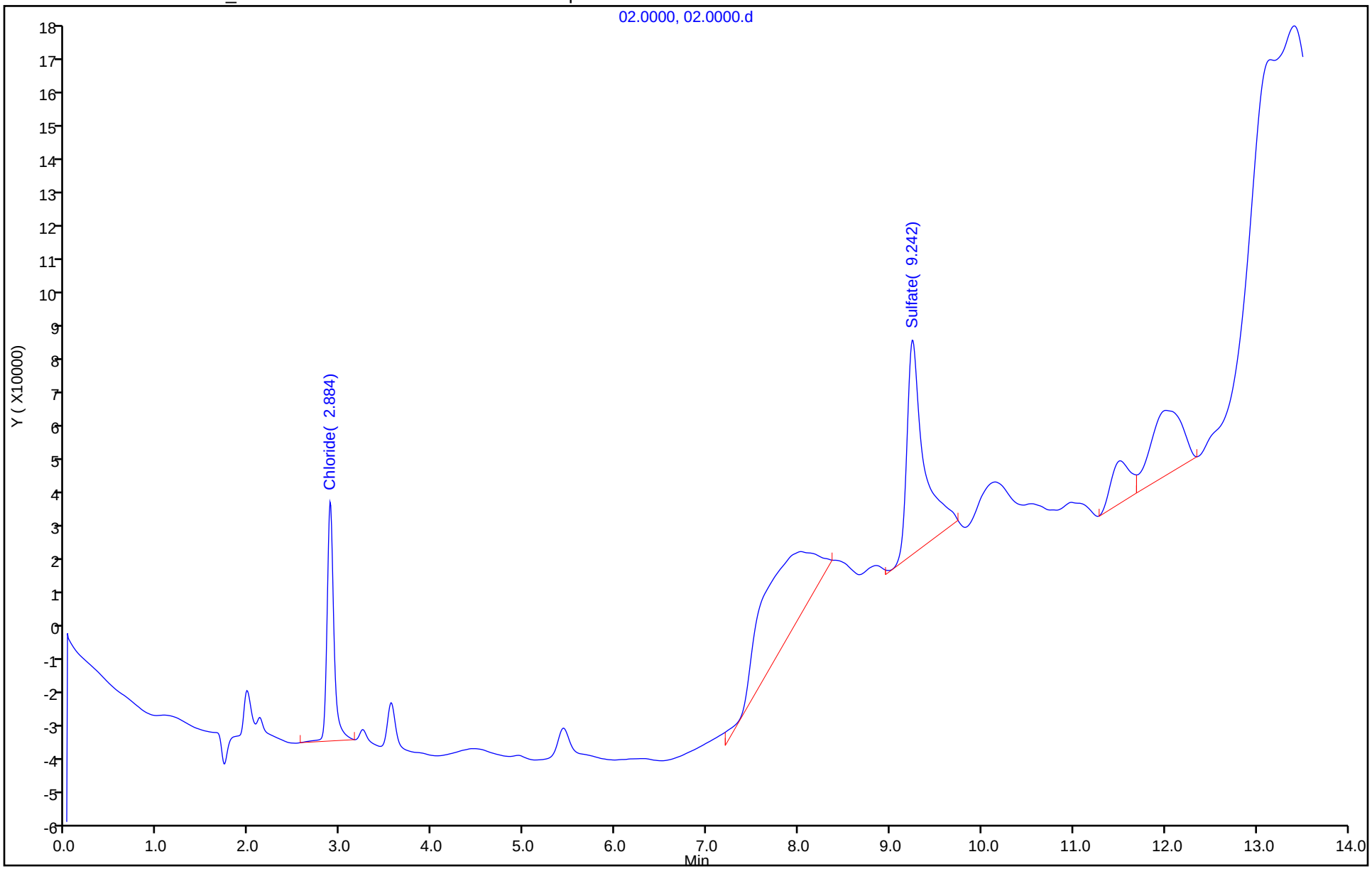
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		1.984				ND	
2 Chloride	2.884	2.925	-0.041	364055		0.0811	
3 Nitrite as N		3.300				ND	
4 Bromide		5.092				ND	
5 Nitrate as N		5.534				ND	
6 Sulfate	9.242	9.325	-0.083	804196		-0.2197	
7 Orthophosphate as P		13.167				ND	

Report Date: 12-Jun-2019 08:29:32 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\02.0000.d

Injection Date:	11-Jun-2019 08:57:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\03.0000.d
Lims ID: mrl
Client ID:
Sample Type: MRL
Inject. Date: 11-Jun-2019 09:14:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-003
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	1.984	0.016	6226925	0.2000	0.2232	
2 Chloride	2.975	2.925	0.050	42529270	2.50	2.49	
3 Nitrite as N	3.350	3.300	0.050	9640568	NC	NC	
4 Bromide	5.109	5.092	0.017	1317742	0.2000	0.2363	
5 Nitrate as N	5.584	5.534	0.050	8661521	NC	NC	
6 Sulfate	9.259	9.325	-0.066	31931977	2.50	2.11	
7 Orthophosphate as P	13.317	13.167	0.150	1317814	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

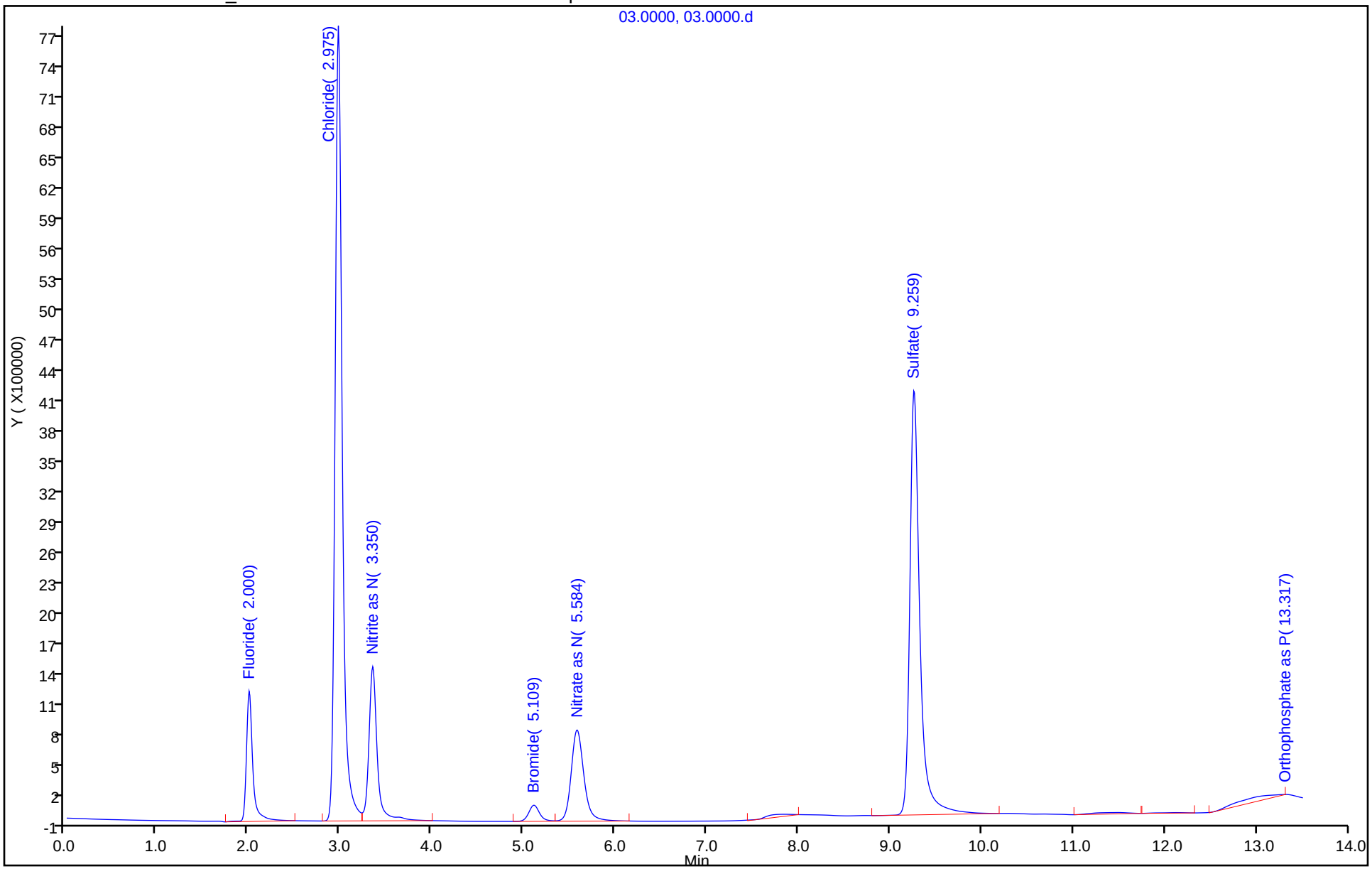
IC Cal low_00464 Amount Added: 0.02 Units: mL
IC CAL cl/so4_00260 Amount Added: 0.05 Units: mL

Report Date: 12-Jun-2019 08:29:33 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\03.0000.d

Injection Date:	11-Jun-2019 09:14:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	mrl			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\04.0000.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 11-Jun-2019 09:30:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	1.984	0.016	147955065	5.00	5.15	
2 Chloride	2.917	2.925	-0.008	1731689784	100.0	98.8	
3 Nitrite as N	3.325	3.300	0.025	236348904	NC	NC	
4 Bromide	5.000	5.092	-0.092	38102445	5.00	4.89	
5 Nitrate as N	5.375	5.534	-0.159	226004522	NC	NC	
6 Sulfate	8.867	9.325	-0.458	1316051910	100.0	98.1	
7 Orthophosphate as P		13.167			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

Reagents:

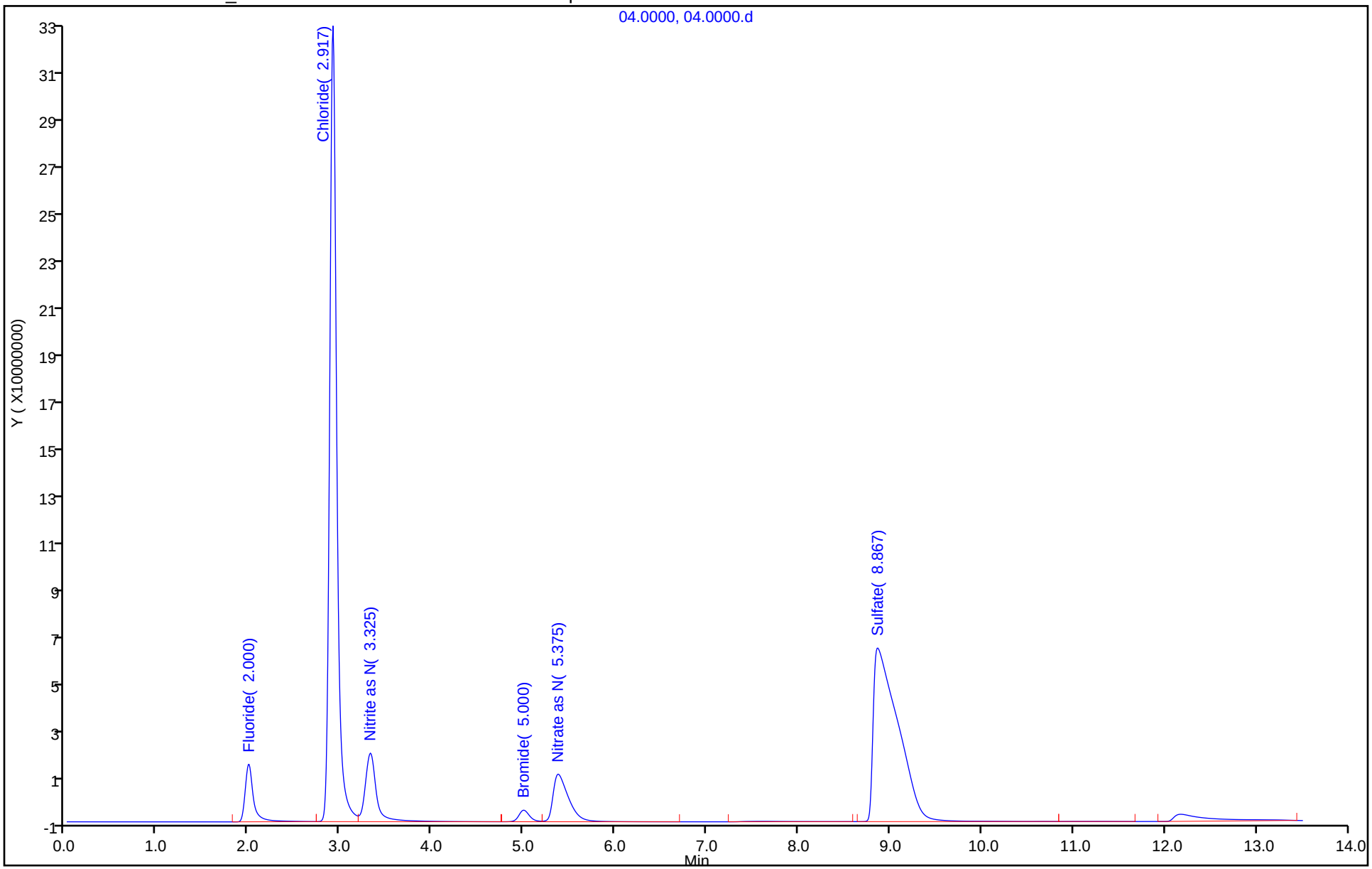
IC LCS_01601 Amount Added: 5.00 Units: mL

Report Date: 12-Jun-2019 08:29:33 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\04.0000.d

Injection Date:	11-Jun-2019 09:30:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\05.0000.d
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 11-Jun-2019 09:47:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.992	1.984	0.008	149222822	5.00	5.20	
2 Chloride	2.934	2.925	0.009	1735072636	100.0	99.0	
3 Nitrite as N	3.325	3.300	0.025	239939923	NC	NC	
4 Bromide	5.017	5.092	-0.075	38353075	5.00	4.92	
5 Nitrate as N	5.375	5.534	-0.159	226716717	NC	NC	
6 Sulfate	8.850	9.325	-0.475	1312148147	100.0	97.8	
7 Orthophosphate as P		13.167			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

Reagents:

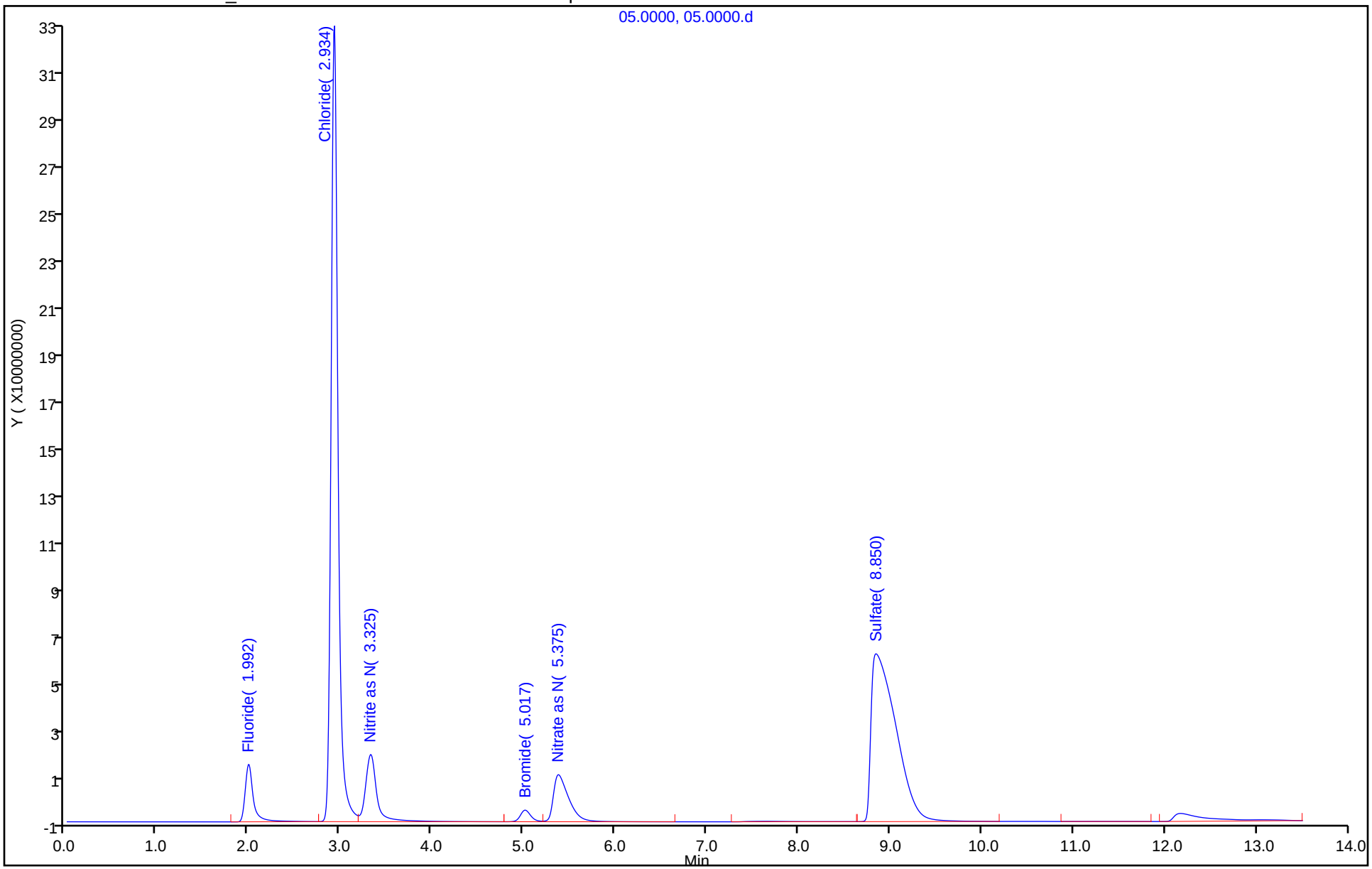
IC LCS_01601 Amount Added: 5.00 Units: mL

Report Date: 12-Jun-2019 08:29:34 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\05.0000.d

Injection Date:	11-Jun-2019 09:47:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	lcsd			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\06.0000.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 11-Jun-2019 10:03:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		1.984				ND	
2 Chloride	2.934	2.925	0.009	340035		0.0797	
3 Nitrite as N		3.300				ND	
4 Bromide		5.092				ND	
5 Nitrate as N		5.534				ND	
6 Sulfate	9.292	9.325	-0.033	770922		-0.2222	
7 Orthophosphate as P	13.334	13.167	0.167	460943		NC	

QC Flag Legend

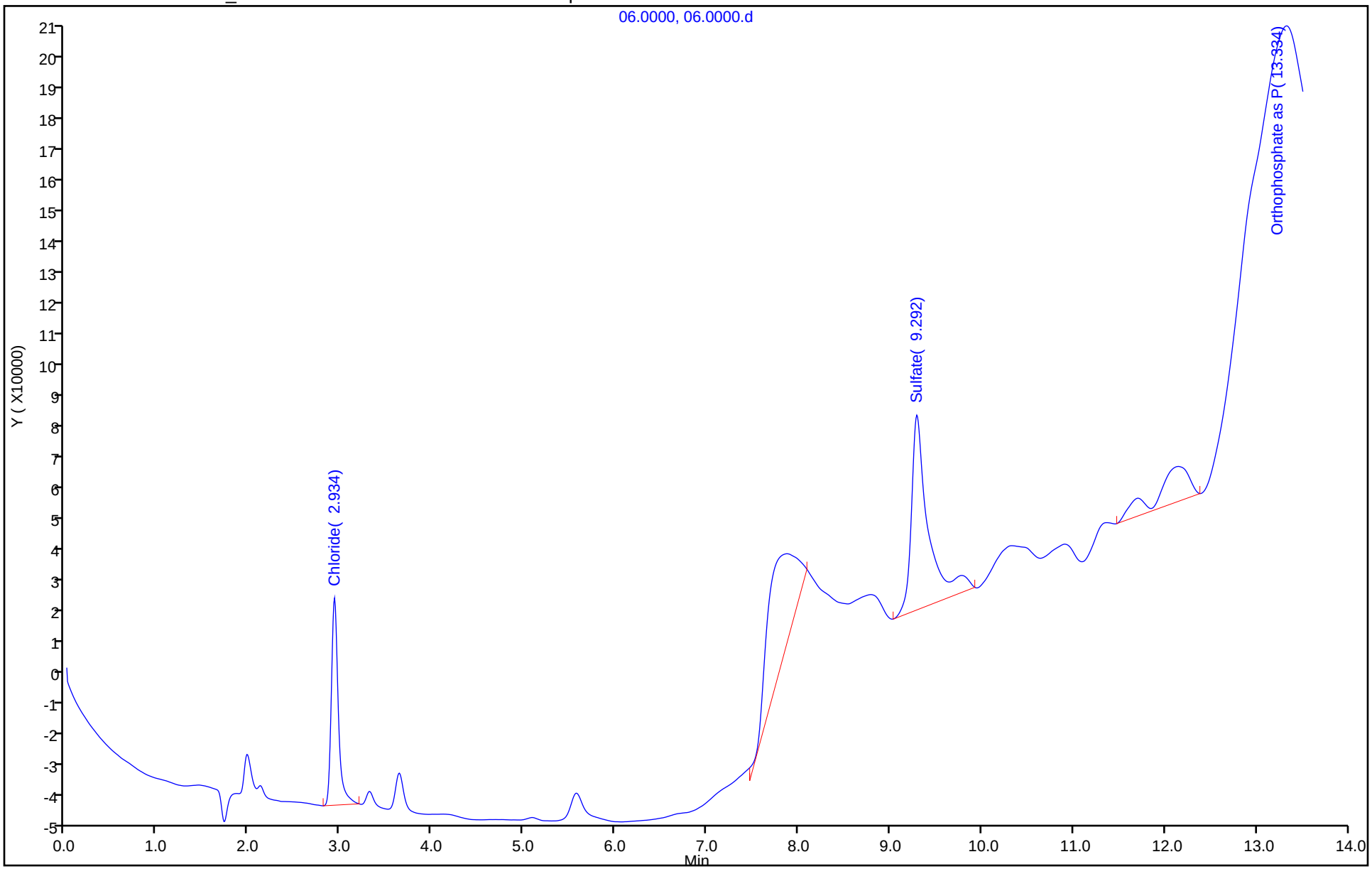
Processing Flags
NC - Not Calibrated

Report Date: 12-Jun-2019 08:29:34 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\06.0000.d

Injection Date:	11-Jun-2019 10:03:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\07.0000.d
Lims ID: 280-123930-I-1
Client ID: LF2MW2-1_0519
Sample Type: Client
Inject. Date: 11-Jun-2019 13:57:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-007
Misc. Info.: 4282 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:25:56

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	1.959	1.984	-0.025	3347732	0.1231	
2 Chloride	2.850	2.925	-0.075	239551637	13.7	
3 Nitrite as N		3.300			ND	
4 Bromide	4.759	5.092	-0.333	876516	0.1804	a
5 Nitrate as N	5.125	5.534	-0.409	3287383	NC	a
6 Sulfate	8.967	9.325	-0.358	185469157	13.6	
7 Orthophosphate as P	12.967	13.167	-0.200	298512	NC	

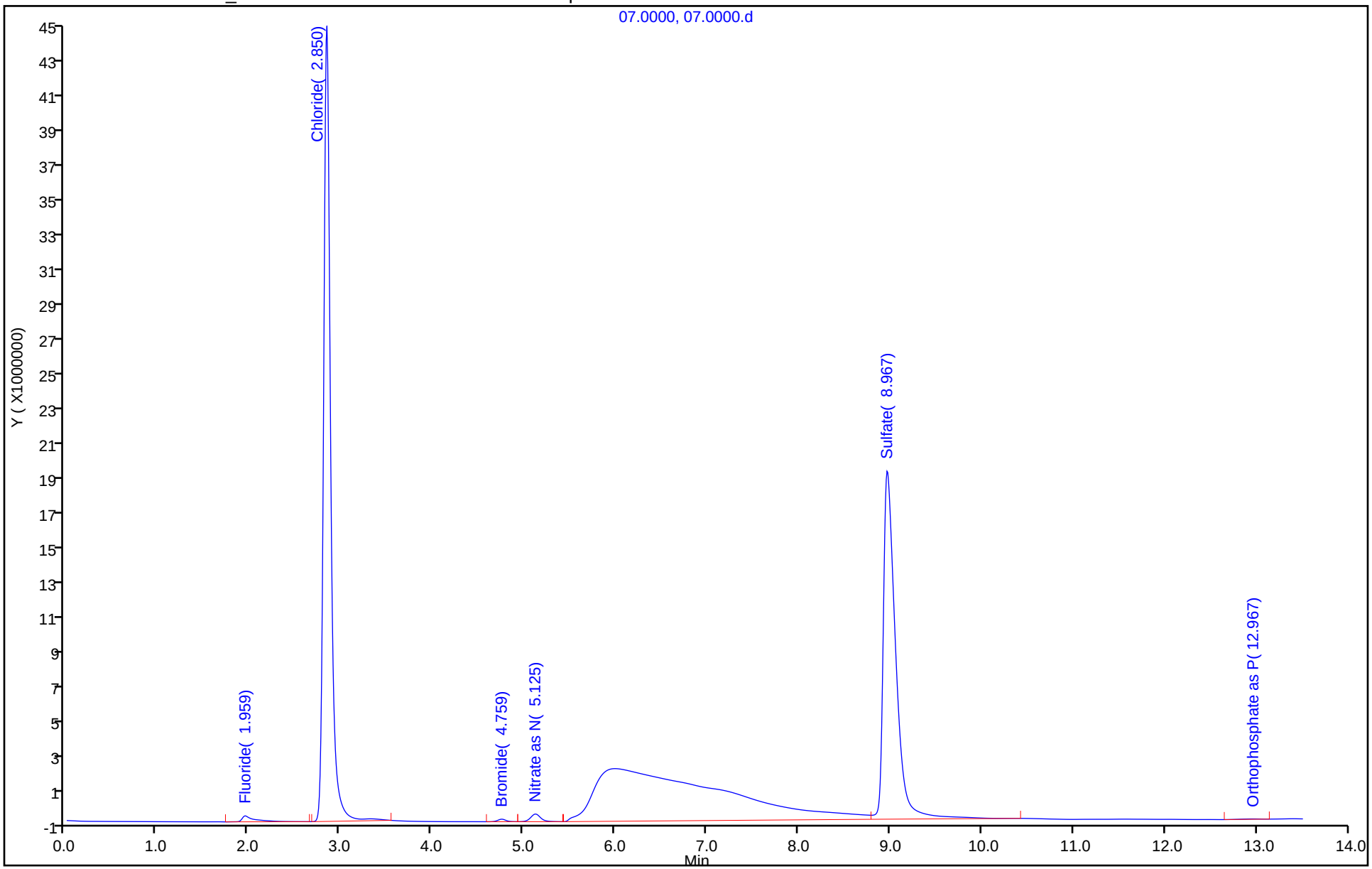
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 12-Jun-2019 08:29:35 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\07.0000.d				
Injection Date:	11-Jun-2019 13:57:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-123930-I-1	Lab Sample ID:	280-123930-1	Worklist Smp#:	7
Client ID:	LF2MW2-1_0519				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\08.0000.d
Lims ID: 280-123930-I-1 DU
Client ID:
Sample Type: DU
Inject. Date: 11-Jun-2019 14:13:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-008
Misc. Info.: 21840 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:26:06

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.975	1.984	-0.009	3354693		0.1233	
2 Chloride	2.934	2.925	0.009	236848808		13.6	
3 Nitrite as N		3.300				ND	
4 Bromide	4.884	5.092	-0.208	905933		0.1841	a
5 Nitrate as N	5.275	5.534	-0.259	3326133		NC	a
6 Sulfate	9.125	9.325	-0.200	189072352		13.8	
7 Orthophosphate as P	13.175	13.167	0.008	429847		NC	

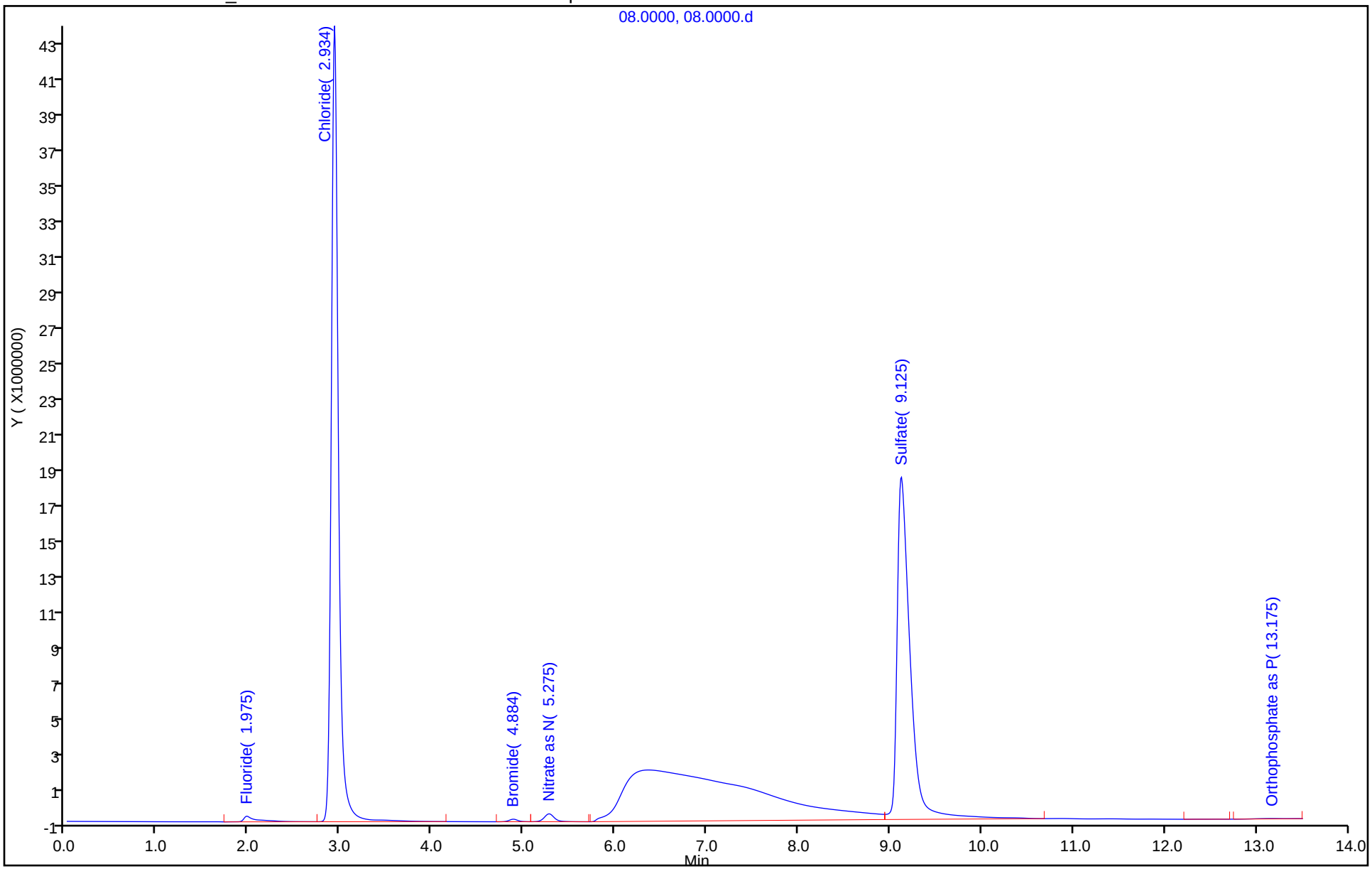
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 12-Jun-2019 08:29:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\08.0000.d				
Injection Date:	11-Jun-2019 14:13:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-123930-I-1 DU			Worklist Smp#:	8
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

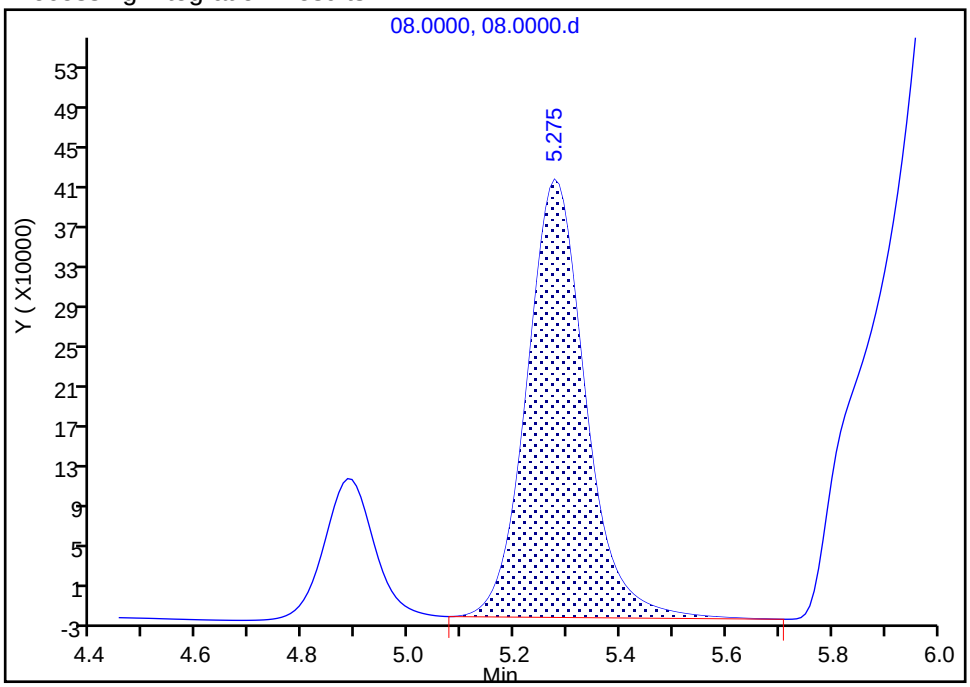
Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\08.0000.d
Injection Date: 11-Jun-2019 14:13:00 Instrument ID: WC_IonChrom7
Lims ID: 280-123930-I-1 DU
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: Anions_IC7 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

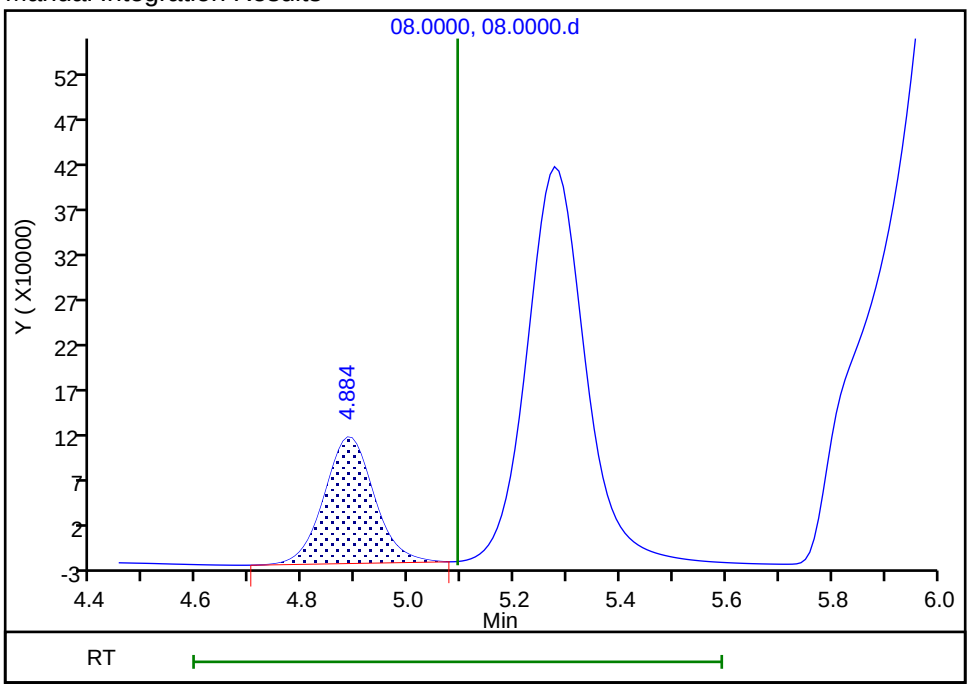
Processing Integration Results

RT: 5.28
Area: 3326133
Amount: 0.490517
Amount Units: ug/ml



Manual Integration Results

RT: 4.88
Area: 905933
Amount: 0.184119
Amount Units: ug/ml



Reviewer: pedrickj, 12-Jun-2019 08:26:04
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\09.0000.d
Lims ID: 280-123930-I-1 MS
Client ID:
Sample Type: MS
Inject. Date: 11-Jun-2019 14:29:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-009
Misc. Info.: 21481 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

First Level Reviewer: pedrickj Date: 12-Jun-2019 08:26:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	1.984	0.025	140134080	5.00	4.88	
2 Chloride	2.926	2.925	0.001	676603829	25.0	38.7	
3 Nitrite as N	3.342	3.300	0.042	212512439	NC	NC	
4 Bromide	4.876	5.092	-0.216	38672768	5.00	4.97	a
5 Nitrate as N	5.201	5.534	-0.333	227221369	NC	NC	a
6 Sulfate	9.017	9.325	-0.308	531471722	25.0	39.4	
7 Orthophosphate as P		13.167			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
a - User Assigned ID

Reagents:

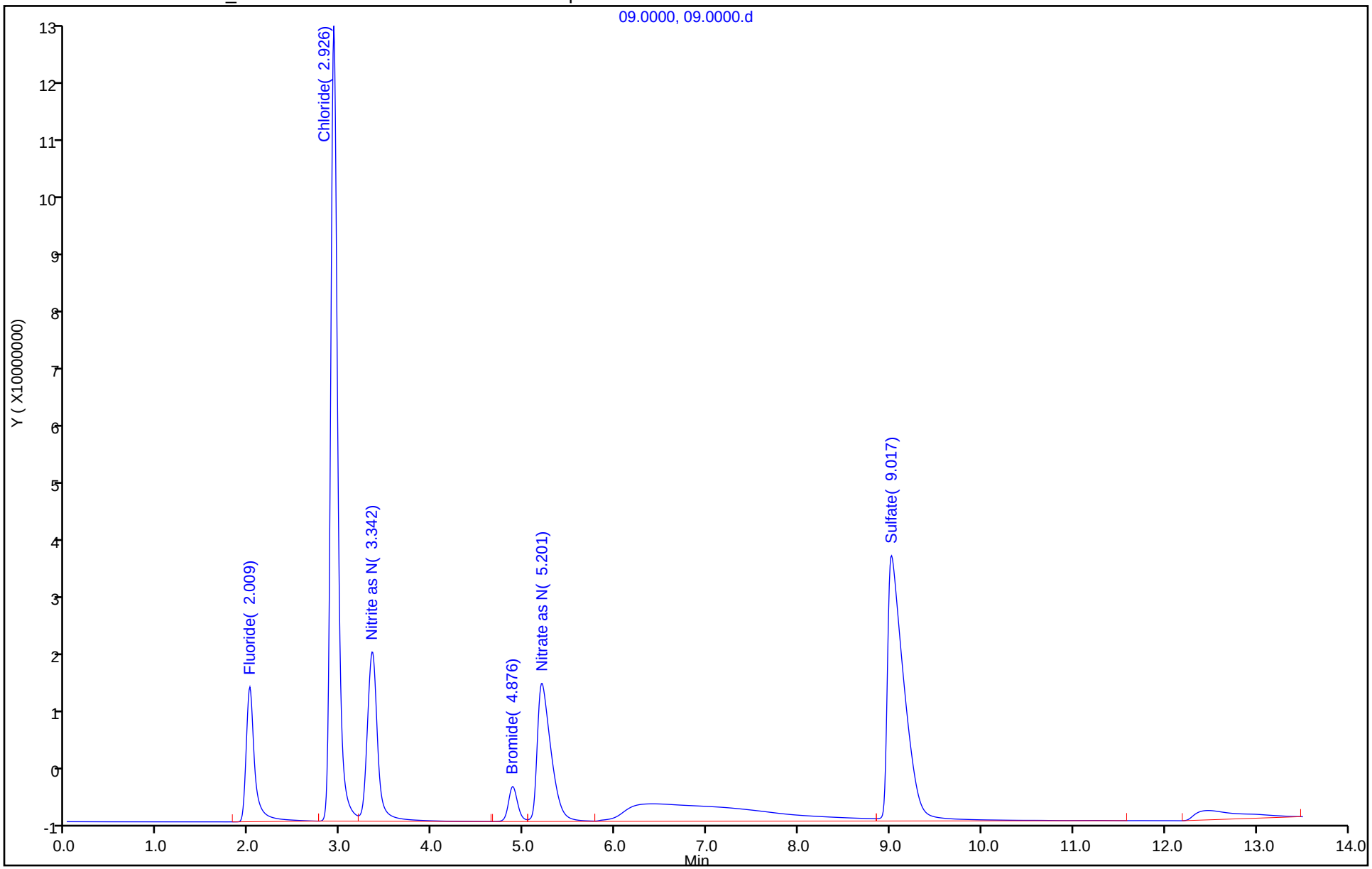
ICMS/MSD WEEK_00599 Amount Added: 0.05 Units: mL

Report Date: 12-Jun-2019 08:29:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\09.0000.d

Injection Date:	11-Jun-2019 14:29:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-123930-I-1 MS			Worklist Smp#:	9
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

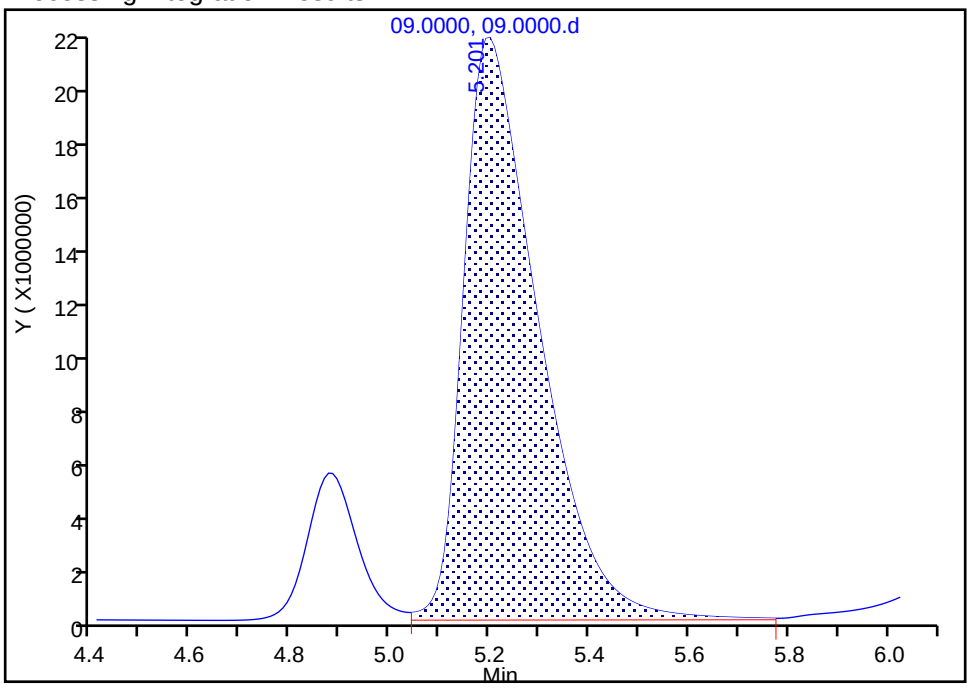
Data File:	\\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\09.0000.d		
Injection Date:	11-Jun-2019 14:29:00	Instrument ID:	WC_IonChrom7
Lims ID:	280-123930-I-1 MS		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 9
Injection Vol:	25.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

4 Bromide, CAS: 24959-67-9

Signal: 1

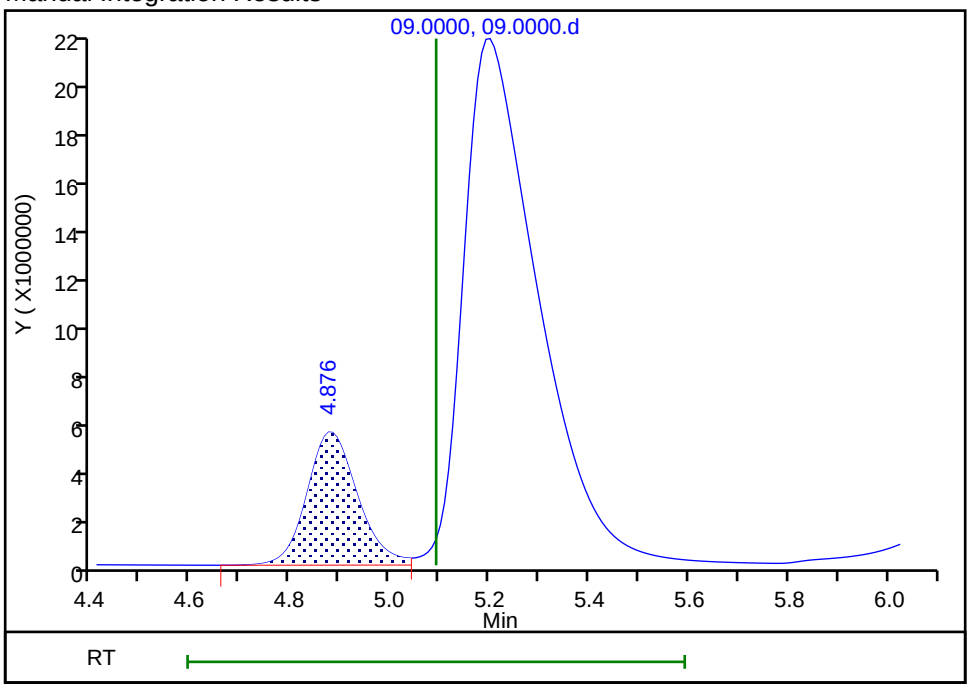
Processing Integration Results

RT: 5.20
Area: 227221369
Amount: 28.835675
Amount Units: ug/ml



Manual Integration Results

RT: 4.88
Area: 38672768
Amount: 4.965404
Amount Units: ug/ml



Reviewer: pedrickj, 12-Jun-2019 08:26:12
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\10.0000.d
Lims ID: 280-123930-I-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 11-Jun-2019 14:46:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-010
Misc. Info.: 28672 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:30 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.984	0.033	147366545	5.00	5.13	
2 Chloride	2.942	2.925	0.017	699511802	25.0	40.0	
3 Nitrite as N	3.342	3.300	0.042	223068760	NC	NC	
4 Bromide	4.950	5.092	-0.142	40530481	5.00	5.20	
5 Nitrate as N	5.267	5.534	-0.267	238177467	NC	NC	
6 Sulfate	9.067	9.325	-0.258	543230843	25.0	40.3	
7 Orthophosphate as P		13.167			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

Reagents:

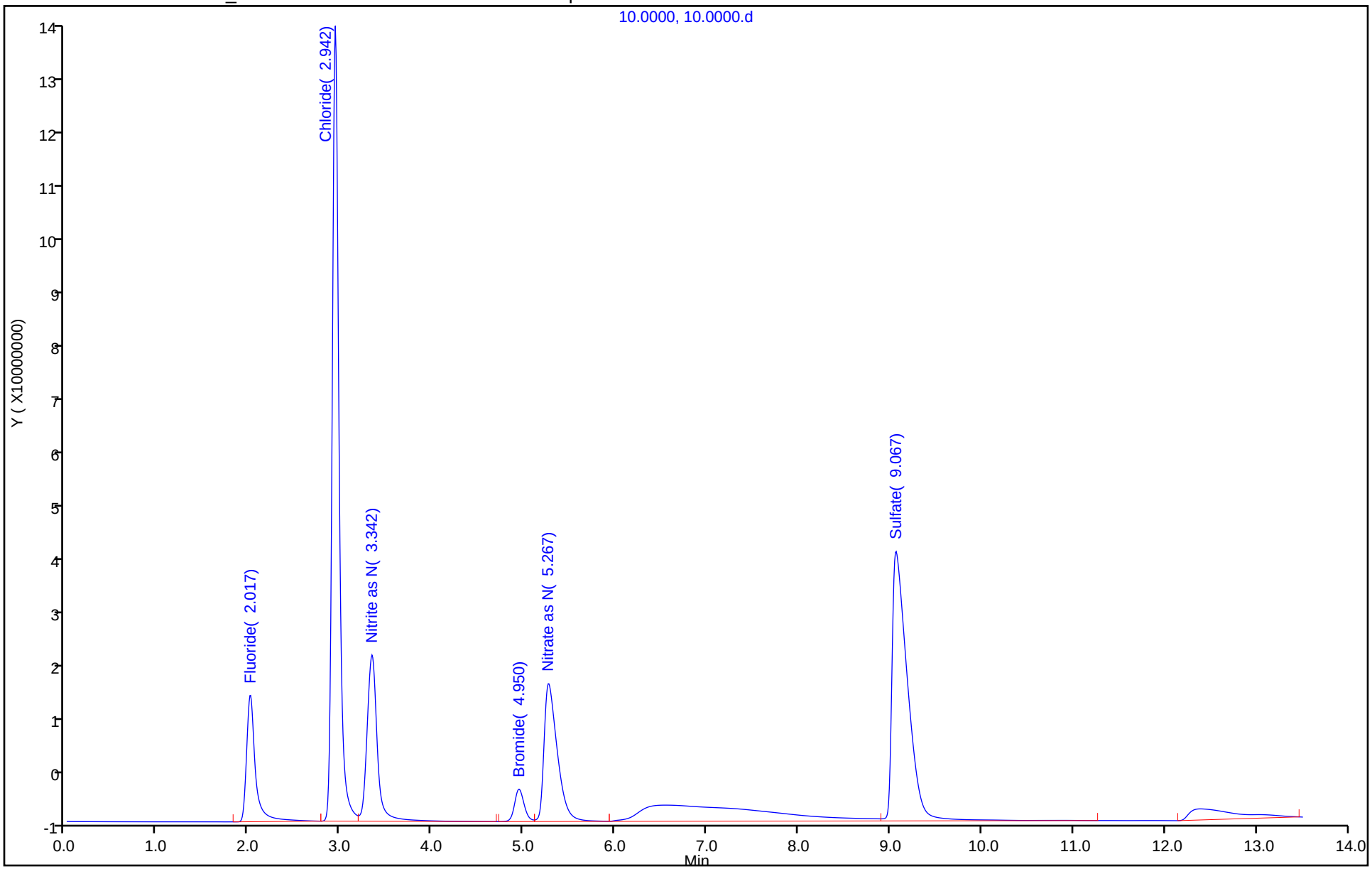
ICMS/MSD WEEK_00599 Amount Added: 0.05 Units: mL

Report Date: 12-Jun-2019 08:29:37 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\10.0000.d

Injection Date:	11-Jun-2019 14:46:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-123930-I-1 MSD			Worklist Smp#:	10
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\17.0000.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	11-Jun-2019 16:41:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082726-017				
Misc. Info.:	12829 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Sublist:	chrom-Anions_IC7*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	12-Jun-2019 08:29:40	Calib Date:	26-Mar-2019 11:48:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX0321				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.001	1.984	0.017	150202430	5.00	5.23	
2 Chloride	2.967	2.925	0.042	1733710366	100.0	99.0	
3 Nitrite as N	3.392	3.300	0.092	239116060	NC	NC	
4 Bromide	5.142	5.092	0.050	38373794	5.00	4.93	
5 Nitrate as N	5.509	5.534	-0.025	225200747	NC	NC	
6 Sulfate	9.009	9.325	-0.316	1316889627	100.0	98.1	
7 Orthophosphate as P		13.167			ND	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

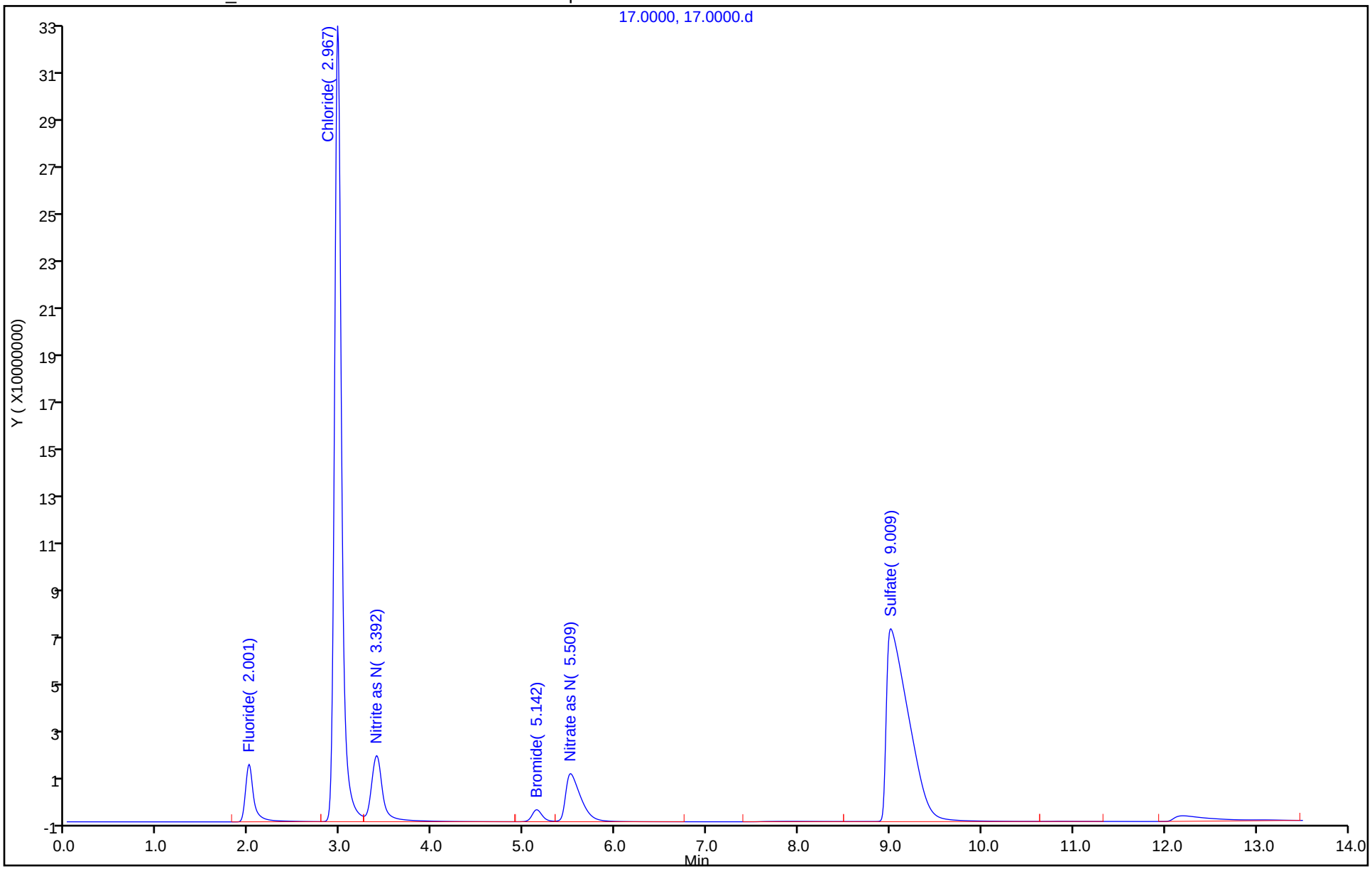
IC LCS_01601 Amount Added: 5.00 Units: mL

Report Date: 12-Jun-2019 08:29:40 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\17.0000.d

Injection Date:	11-Jun-2019 16:41:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\18.0000.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 11-Jun-2019 16:57:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082726-018
Misc. Info.: 5029 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 12-Jun-2019 08:29:40 Calib Date: 26-Mar-2019 11:48:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom7\20190326-80219.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX0321

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		1.984				ND	
2 Chloride		2.925				ND	
3 Nitrite as N	3.159	3.300	-0.141	300534		NC	
4 Bromide		5.092				ND	
5 Nitrate as N		5.534				ND	
6 Sulfate	9.242	9.325	-0.083	1953326		-0.1338	
7 Orthophosphate as P		13.167				ND	

QC Flag Legend

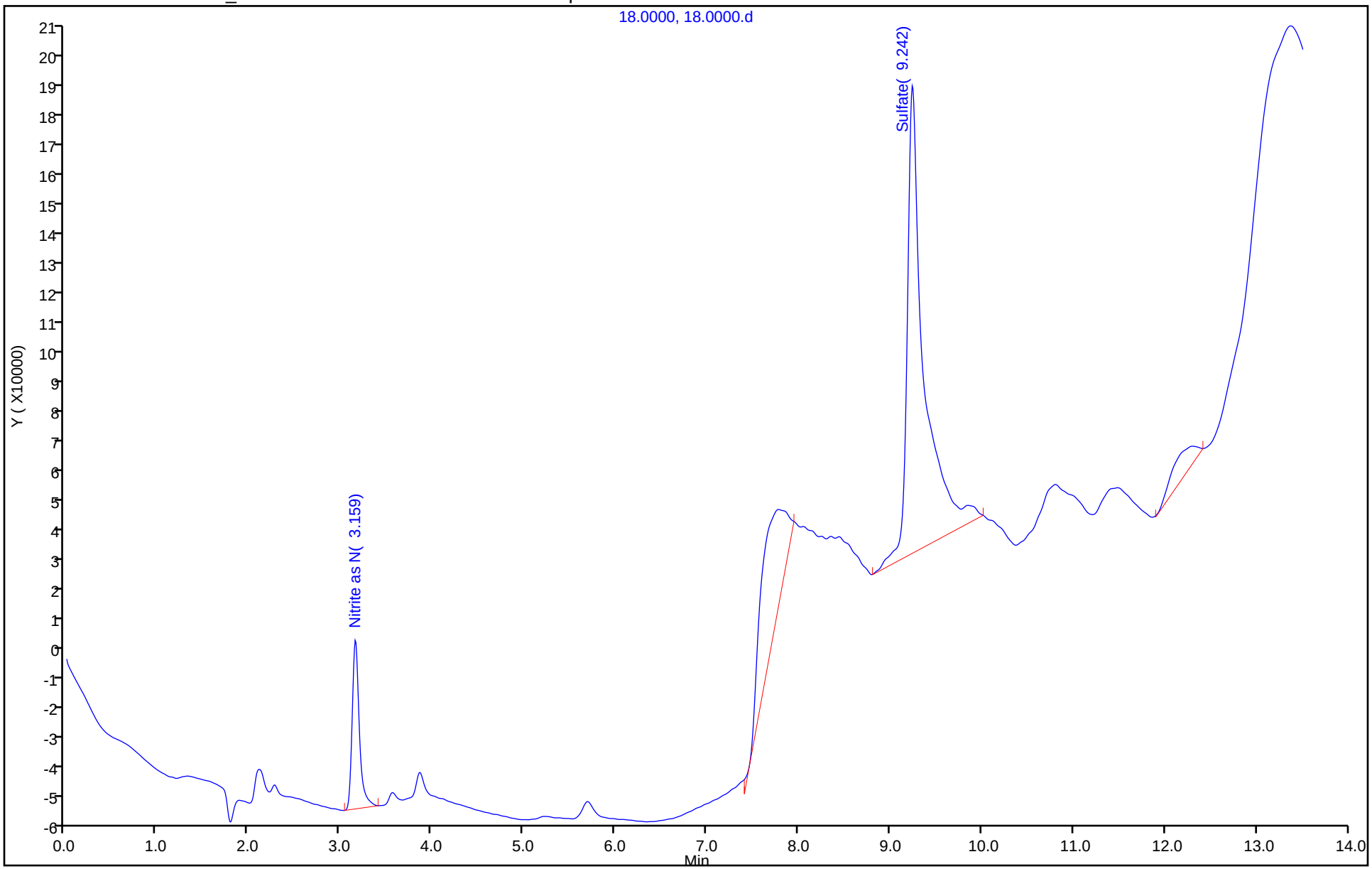
Processing Flags
NC - Not Calibrated

Report Date: 12-Jun-2019 08:29:41 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom7\20190611-82726.b\18.0000.d

Injection Date:	11-Jun-2019 16:57:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



pH CC 6/11/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	cc			1
2*	NPOC	ICB	1.000	cc			2
3*	NPOC	LCS	1.000	cc			3
4*	NPOC	MB	1.000	cc			4
5*	NPOC	TIC	1.000	cc			5
6*	NPOC	280-123867-b-1	1.000	cc			6
7*	NPOC	MS 280-123867-b-1	1.000	cc			7
8*	NPOC	MSD 280-123867-b-1	1.000	cc			8
9*	NPOC	280-123867-b-2	1.000	cc			9
10*	NPOC	280-124036-e-1	1.000	cc			10
11*	NPOC	280-124036-f-2	1.000	cc			11
12*	NPOC	280-123941-j-9	1.000	cc			12
13*	NPOC	280-124034-e-1	5x ~~1.000~~	cc	cloudy/stinky		13
14*	NPOC	280-124036-e-3	5x ~~1.000~~	cc	cloudy/stinky		14
15*	NPOC	CCV	1.000	cc			15
16*	NPOC	CCB	1.000	cc			16
17*	NPOC	280-124036-e-4	5x ~~1.000~~	cc	cloudy		17
18*	NPOC	280-124036-e-6	1.000	cc			18
19*	NPOC	280-123947-b-2	1.000	cc			19
20*	NPOC	280-123963-c-1	1.000	cc			20
21*	NPOC	MS 280-123963-c-1	1.000	cc			21
22*	NPOC	MSD 280-123963-c-1	1.000	cc			22
23*	NPOC	280-123963-c-2	1.000	cc			23
24*	NPOC	280-123941-k-10	1.000	cc			24
25*	NPOC	280-123941-j-11	1.000	cc			25
26*	NPOC	280-124055-b-1	1.000	cc			26
27*	NPOC	CCV	1.000	cc			27
28*	NPOC	CCB	1.000	cc			28
29*	NPOC	280-124055-b-2	1.000	cc			29
30*	NPOC	280-124055-b-3	1.000	cc			30
31*	NPOC	280-124055-b-4	1.000	cc			31
32*	NPOC	280-124055-b-5	1.000	cc			32
33*	NPOC	280-124055-b-6	1.000	cc			33
34*	NPOC	LCS	1.000	cc			34
35*	NPOC	MB	1.000	cc			35
36*	NPOC	TIC	1.000	cc			36
37*	NPOC	280-123924-g-6	1.000	cc			37
38*	NPOC	280-123924-e-7	1.000	cc			38
39*	NPOC	CCV	1.000	cc			39
40*	NPOC	CCB	1.000	cc			40
41*	NPOC	280-123924-e-8	1.000	cc			41
42*	NPOC	MS 280-123924-e-8	1.000	cc			42
43*	NPOC	MSD 280-123924-e-8	1.000	cc			43
44*	NPOC	280-123924-d-9	1.000	cc			44
45*	NPOC	280-123924-d-10	1.000	cc			45
46*	NPOC	280-123924-c-11	1.000	cc			46
47*	NPOC	280-123924-d-12	1.000	cc			47
48*	NPOC	280-123930-g-1	1.000	cc			48
49*	NPOC	280-123930-g-2	1.000	cc			49
50*	NPOC	280-123930-g-3	1.000	cc			50
51*	NPOC	CCV	1.000	cc			51

5310
1060

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	"			52
53*	NPOC	280-123930-g-4	1.000	"			53
54*	NPOC	280-123930-c-5	1.000	"			54
55*	NPOC	320-50447-g-1	1.000	"			55
56*	NPOC	MS 320-50447-g-1	1.000	"			56
57*	NPOC	MSD 320-50447-g-1	1.000	"			57
58*	NPOC	280-123981-g-1	1.000	"			58
59*	NPOC	280-123981-e-2	1.000	"			59
60*	NPOC	280-123981-e-3	1.000	"			60
61*	NPOC	280-123981-c-4	1.000	"			61
62*	NPOC	280-123981-e-5	1.000	"			62
63*	NPOC	CCV	1.000	"			63
64*	NPOC	CCB	1.000	"			64
65*	NPOC	280-123981-g-6	1.000	"			65
66*	NPOC	280-123981-g-7	1.000	"			66
67*	NPOC	CCV	1.000	"			67
68*	NPOC	CCB	1.000	"			68

Instr.Information

System TOC-V cpn 3
Instrument Options TOC/ASI/
Catalyst Regular Sensitivity

Sample

Sample Name: ICV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

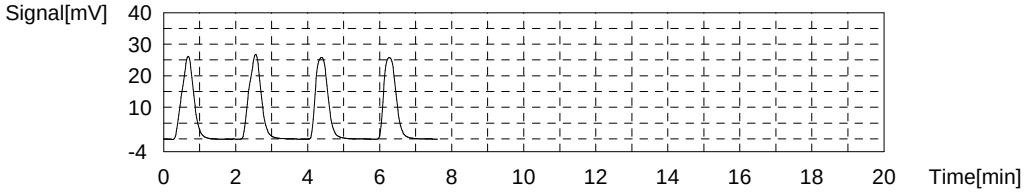
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.90mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.20	20.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:26:19 PM
2	62.89	21.22mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:28:22 PM
3	62.22	21.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:30:26 PM
4	61.43	20.73mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:32:30 PM

Mean Area 61.94
Mean Conc. 20.90mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

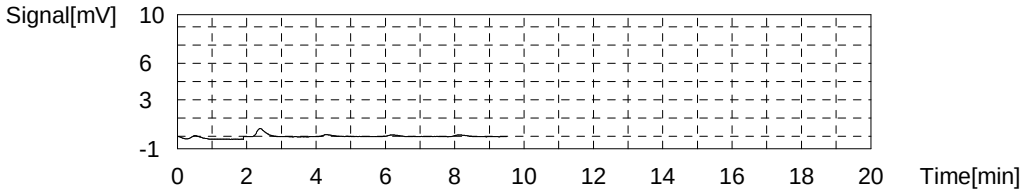
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01686mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4218	0.06099mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:41:02 PM
2	1.162	0.3118mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:43:06 PM
3	0.2553	0.00459mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:45:09 PM
4	0.2134	-0.00961mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:47:13 PM
5	0.2756	0.01146mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:49:17 PM

Mean Area 0.2915
Mean Conc. 0.01686mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

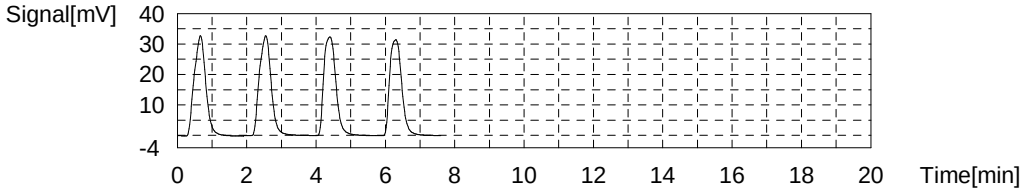
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.25	26.09mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:57:48 PM
2	77.70	26.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:59:52 PM
3	78.96	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:01:56 PM
4	76.34	25.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:03:59 PM

Mean Area 77.56
Mean Conc. 26.19mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

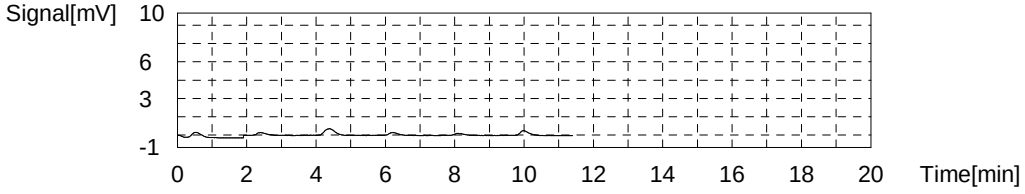
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06376mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7427	0.1697mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:12:32 PM
2	0.3859	0.04883mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:14:35 PM
3	1.128	0.3002mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:16:39 PM
4	0.3803	0.04693mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:18:43 PM
5	0.2769	0.01190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:20:47 PM
6	0.6768	0.1474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:22:51 PM

Mean Area 0.4300
Mean Conc. 0.06376mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

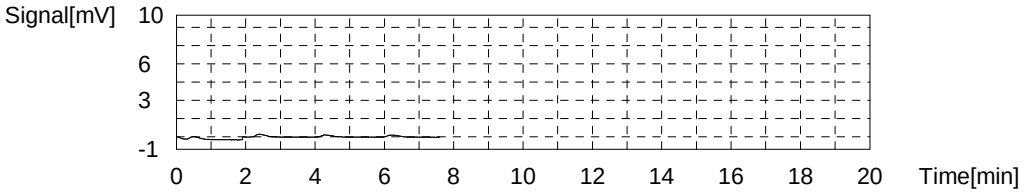
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04760mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3879	0.04951mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:31:17 PM
2	0.4132	0.05808mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:33:21 PM
3	0.3595	0.03989mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:35:24 PM
4	0.3685	0.04294mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:37:28 PM

Mean Area 0.3823
Mean Conc. 0.04760mg/L



Sample

Sample Name: 280-123867-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

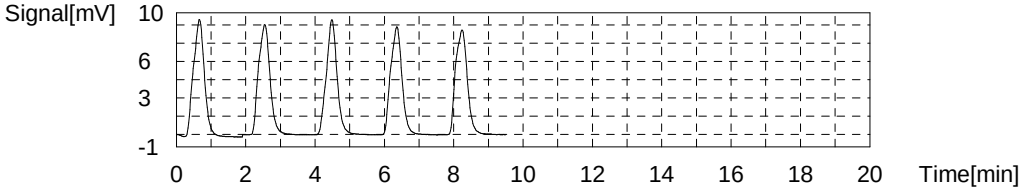
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.854mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.45	7.185mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:46:00 PM
2	20.86	6.985mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:48:03 PM
3	20.42	6.836mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:50:07 PM
4	20.30	6.795mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:52:11 PM
5	20.31	6.799mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:54:15 PM

Mean Area 20.47
Mean Conc. 6.854mg/L



Sample

Sample Name: MS 280-123867-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

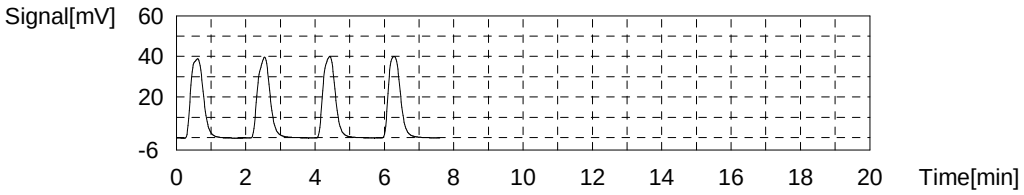
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.99	33.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:02:46 PM
2	98.37	33.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:04:50 PM
3	98.18	33.18mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:06:54 PM
4	96.42	32.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:08:58 PM

Mean Area 97.99
Mean Conc. 33.12mg/L



Sample

Sample Name: MSD 280-123867-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

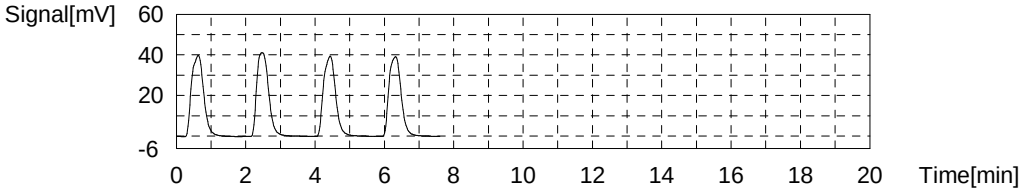
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.93mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.53	33.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:17:30 PM
2	98.53	33.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:19:33 PM
3	96.33	32.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:21:37 PM
4	96.37	32.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:23:41 PM

Mean Area 97.44
Mean Conc. 32.93mg/L



Sample

Sample Name: 280-123867-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

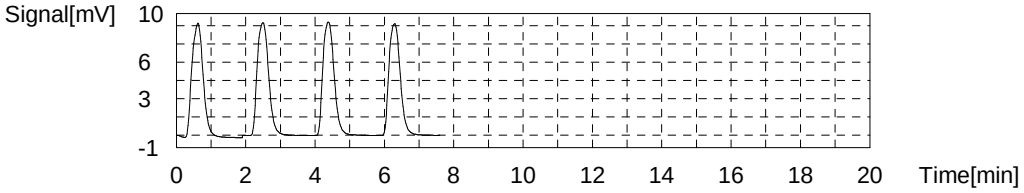
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.051mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.12	7.073mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:32:14 PM
2	21.26	7.121mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:34:17 PM
3	20.98	7.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:36:21 PM
4	20.86	6.985mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:38:25 PM

Mean Area 21.06
Mean Conc. 7.051mg/L



Sample

Sample Name: 280-124036-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

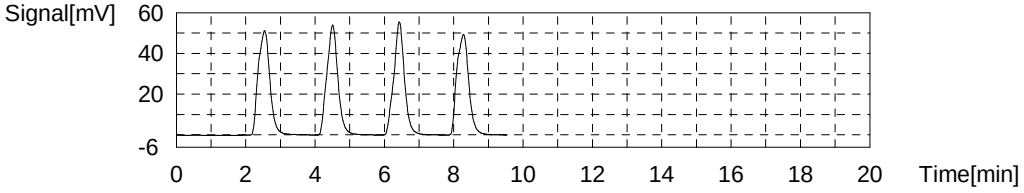
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:40.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3180	0.02583mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:46:57 PM
2	120.9	40.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:49:03 PM
3	120.8	40.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:51:06 PM
4	119.8	40.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:53:10 PM
5	119.2	40.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:55:14 PM

Mean Area 120.2
Mean Conc. 40.63mg/L



Sample

Sample Name: 280-124036-f-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

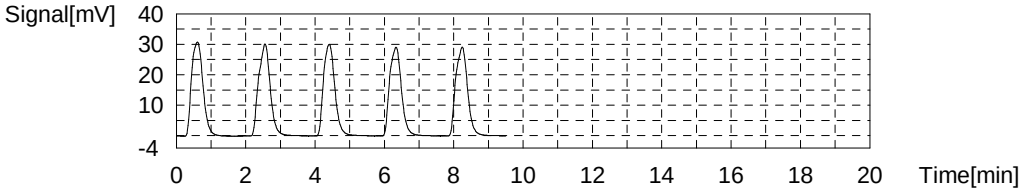
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.47mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	71.96	24.30mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:03:45 PM
2	70.67	23.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:05:48 PM
3	68.57	23.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:07:52 PM
4	69.40	23.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:09:56 PM
5	69.45	23.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:12:00 PM

Mean Area 69.52
Mean Conc. 23.47mg/L



Sample

Sample Name: 280-123941-j-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

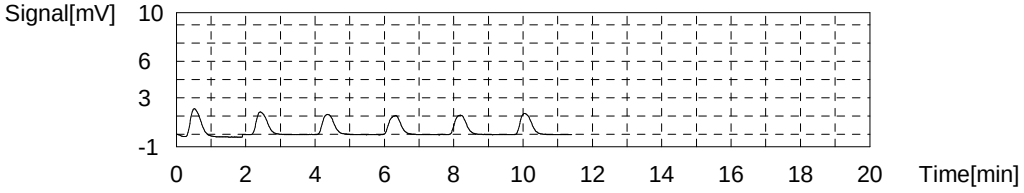
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.180mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.763	1.532mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:20:31 PM
2	3.995	1.272mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:22:35 PM
3	3.769	1.195mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:24:38 PM
4	3.636	1.150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:26:42 PM
5	3.685	1.166mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:28:46 PM
6	3.807	1.208mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:30:50 PM

Mean Area 3.724
Mean Conc. 1.180mg/L



Sample

Sample Name: 280-124034-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

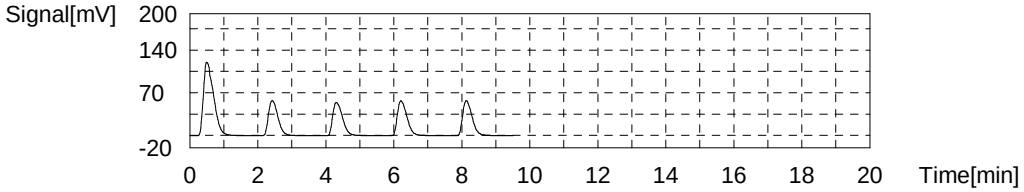
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:410.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	253.0	428.1mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:39:16 PM
2	112.1	412.4mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:41:19 PM
3	109.9	404.3mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:43:23 PM
4	112.7	414.6mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:45:28 PM
5	111.1	408.7mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:47:32 PM

Mean Area 111.5
Mean Conc. 410.0mg/L



Sample

Sample Name: 280-124036-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

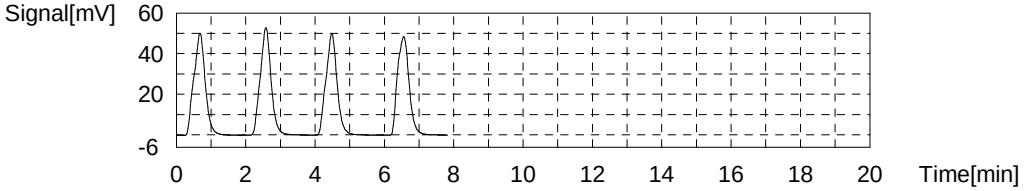
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:193.8mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	116.1	196.3mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:56:03 PM
2	115.6	195.4mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:58:07 PM
3	112.9	190.8mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:00:23 PM
4	114.0	192.7mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:02:27 PM

Mean Area 114.7
Mean Conc. 193.8mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

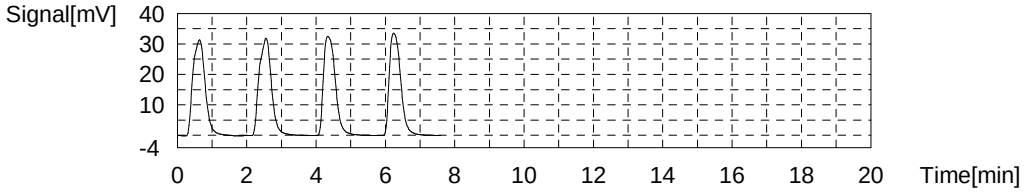
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.43mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.65	26.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:11:00 PM
2	79.22	26.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:13:04 PM
3	77.84	26.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:15:07 PM
4	77.29	26.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:17:11 PM

Mean Area 78.25
Mean Conc. 26.43mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

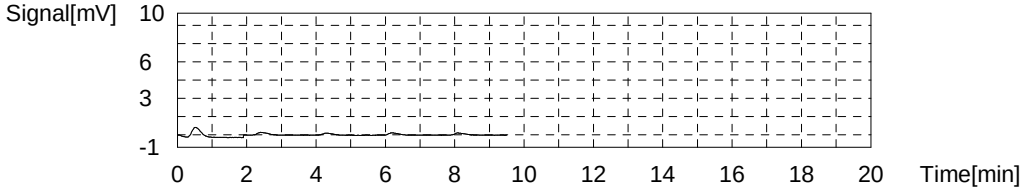
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03580mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.410	0.3958mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:25:43 PM
2	0.4172	0.05943mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:27:47 PM
3	0.3004	0.01986mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:29:50 PM
4	0.3568	0.03897mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:31:54 PM
5	0.3154	0.02495mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:33:58 PM

Mean Area 0.3475
Mean Conc. 0.03580mg/L



Sample

Sample Name: 280-124036-e-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

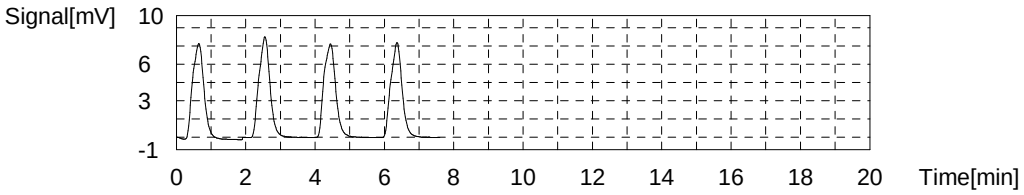
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:30.23mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.08	30.22mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:42:29 PM
2	18.34	30.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:44:33 PM
3	18.25	30.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:46:36 PM
4	17.68	29.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:48:40 PM

Mean Area 18.09
Mean Conc. 30.23mg/L



Sample

Sample Name: 280-124036-e-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

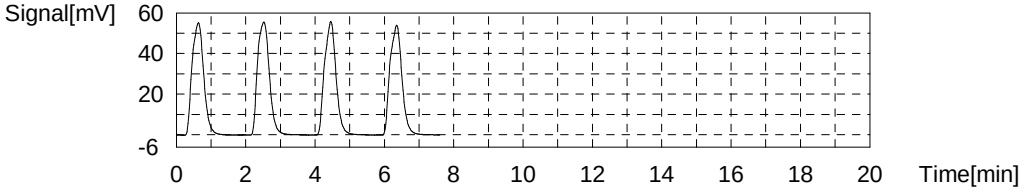
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:44.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	131.1	44.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:57:13 PM
2	132.9	44.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:59:16 PM
3	130.1	43.99mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:01:20 PM
4	130.6	44.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:03:24 PM

Mean Area 131.2
Mean Conc. 44.36mg/L



Sample

Sample Name: 280-123947-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

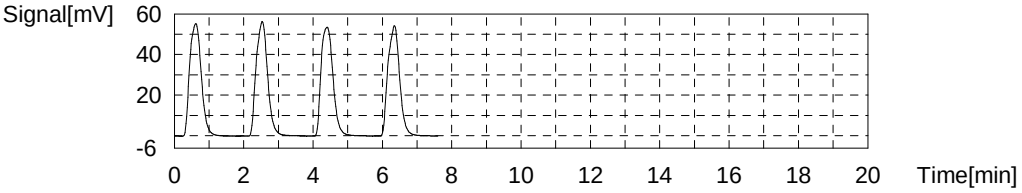
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:43.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	130.8	44.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:11:57 PM
2	130.7	44.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:14:00 PM
3	128.8	43.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:16:04 PM
4	128.7	43.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:18:08 PM

Mean Area 129.8
Mean Conc. 43.87mg/L



Sample

Sample Name: 280-123963-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

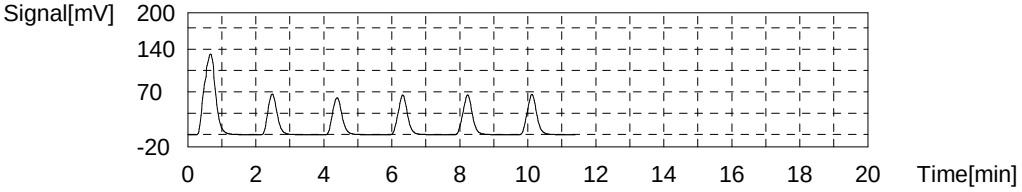
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:112.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	307.4	104.1mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:26:40 PM
2	126.4	112.6mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:28:43 PM
3	118.5	105.6mg/L	19uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:30:47 PM
4	124.8	111.2mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:32:51 PM
5	126.5	112.7mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:34:55 PM
6	129.1	115.0mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:36:59 PM

Mean Area 126.7
Mean Conc. 112.9mg/L



Sample

Sample Name: MS 280-123963-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

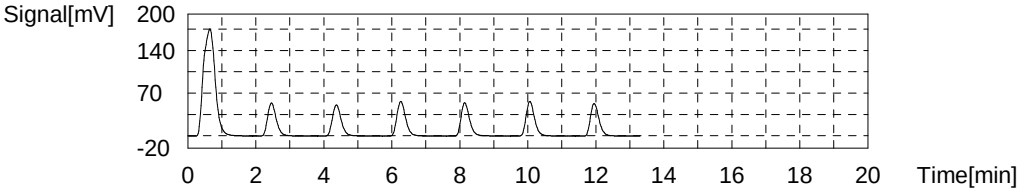
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:123.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	423.4	143.4mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:45:53 PM
2	96.70	125.9mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:47:56 PM
3	92.33	120.2mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:50:00 PM
4	102.2	133.1mg/L	13uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:52:04 PM
5	94.77	123.4mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:54:08 PM
6	98.62	128.4mg/L	13uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:56:12 PM
7	94.52	123.1mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:00:35 PM

Mean Area 94.58
Mean Conc. 123.2mg/L



Sample

Sample Name: MSD 280-123963-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

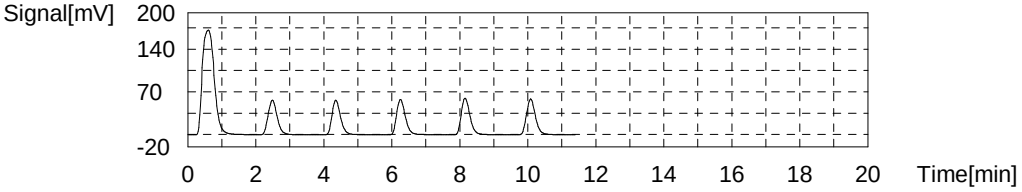
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:128.3mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	420.7	142.4mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:09:01 PM
2	105.4	127.4mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:11:04 PM
3	98.95	119.6mg/L	14uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:13:08 PM
4	103.9	125.6mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:15:12 PM
5	107.3	129.7mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:17:16 PM
6	107.7	130.2mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:19:20 PM

Mean Area 106.1
Mean Conc. 128.3mg/L



Sample

Sample Name: 280-123963-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

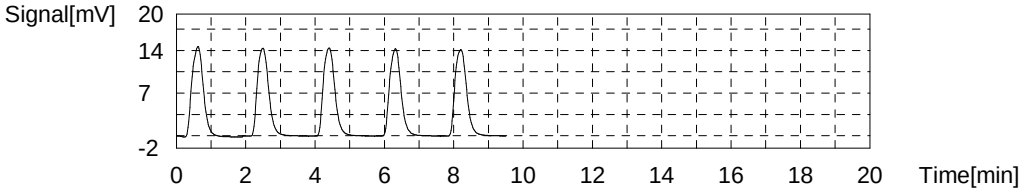
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.40	11.57mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:27:45 PM
2	32.74	11.01mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:29:48 PM
3	33.32	11.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:31:52 PM
4	32.85	11.05mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:33:56 PM
5	33.23	11.18mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:36:00 PM

Mean Area 33.03
Mean Conc. 11.11mg/L



Sample

Sample Name: 280-123941-k-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

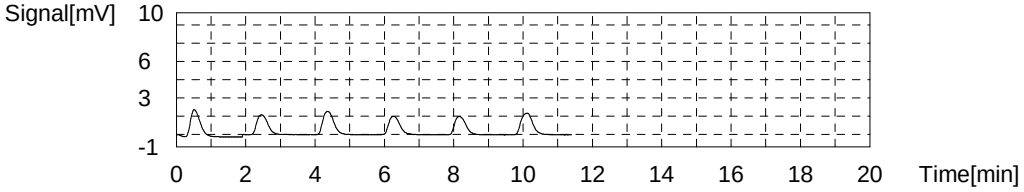
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.278mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.219	1.347mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:44:31 PM
2	3.554	1.122mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:46:34 PM
3	4.198	1.340mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:48:38 PM
4	3.331	1.047mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:50:42 PM
5	3.325	1.045mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:52:46 PM
6	4.090	1.304mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:54:50 PM

Mean Area 4.015
Mean Conc. 1.278mg/L



Sample

Sample Name: 280-123941-j-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

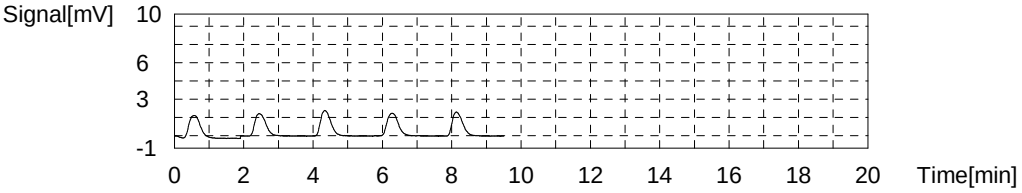
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.300mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.072	1.298mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:03:16 AM
2	4.011	1.277mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:05:20 AM
3	4.287	1.370mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:07:23 AM
4	4.129	1.317mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:09:27 AM
5	4.103	1.308mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:11:31 AM

Mean Area 4.079
Mean Conc. 1.300mg/L



Sample

Sample Name: 280-124055-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

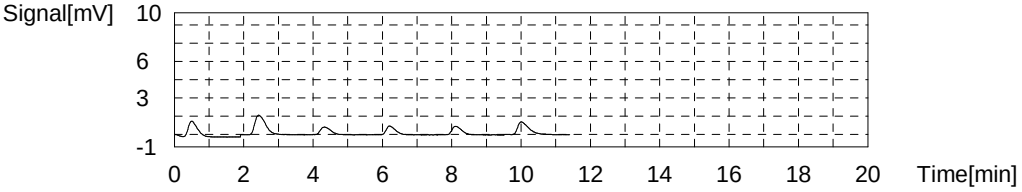
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4374mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.284	0.6919mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:20:02 AM
2	3.411	1.074mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:22:05 AM
3	1.269	0.3480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:24:09 AM
4	1.297	0.3575mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:26:13 AM
5	1.315	0.3636mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:28:17 AM
6	2.250	0.6803mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:30:21 AM

Mean Area 1.533
Mean Conc. 0.4374mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

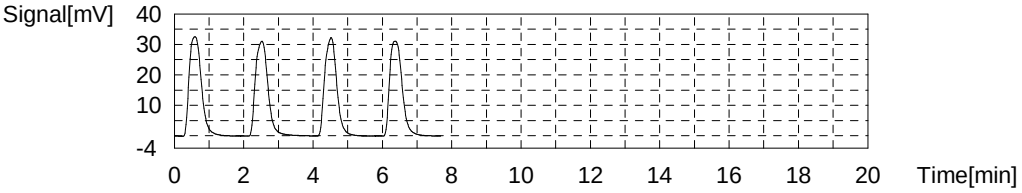
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.69mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.82	27.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:38:47 AM
2	78.38	26.47mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:40:55 AM
3	78.42	26.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:42:59 AM
4	78.43	26.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:45:03 AM

Mean Area 79.01
Mean Conc. 26.69mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

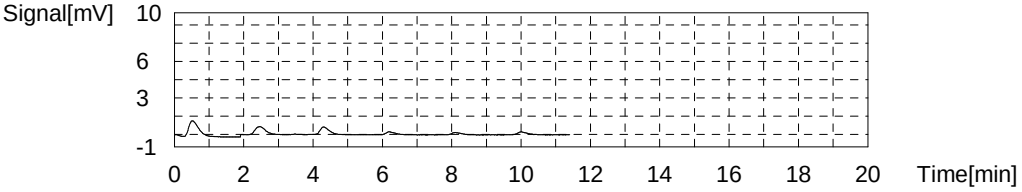
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1086mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.559	0.7850mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:53:35 AM
2	1.379	0.3853mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:55:39 AM
3	1.088	0.2867mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:57:43 AM
4	0.4048	0.05523mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:59:47 AM
5	0.3285	0.02938mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:01:51 AM
6	0.4282	0.06316mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:03:55 AM

Mean Area 0.5624
Mean Conc. 0.1086mg/L



Sample

Sample Name: 280-124055-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

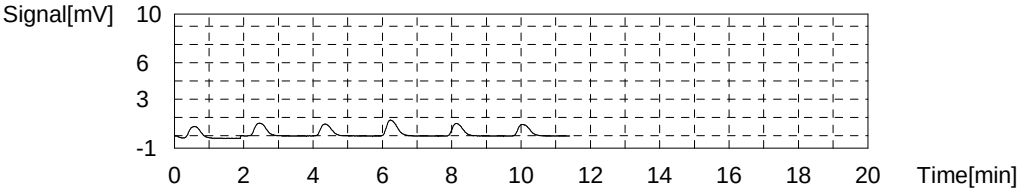
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6398mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.128	0.6390mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:12:21 AM
2	2.359	0.7173mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:14:24 AM
3	2.064	0.6173mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:16:28 AM
4	2.747	0.8487mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:18:32 AM
5	2.143	0.6441mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:20:36 AM
6	2.186	0.6587mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:22:40 AM

Mean Area 2.130
Mean Conc. 0.6398mg/L



Sample

Sample Name: 280-124055-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

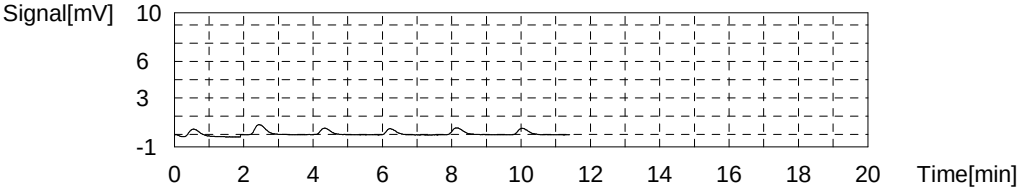
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2774mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.370	0.3822mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:31:06 AM
2	1.753	0.5120mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:33:09 AM
3	1.014	0.2616mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:35:13 AM
4	0.9642	0.2447mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:37:17 AM
5	1.193	0.3223mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:39:21 AM
6	1.071	0.2809mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:41:25 AM

Mean Area 1.061
Mean Conc. 0.2774mg/L



Sample

Sample Name: 280-124055-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

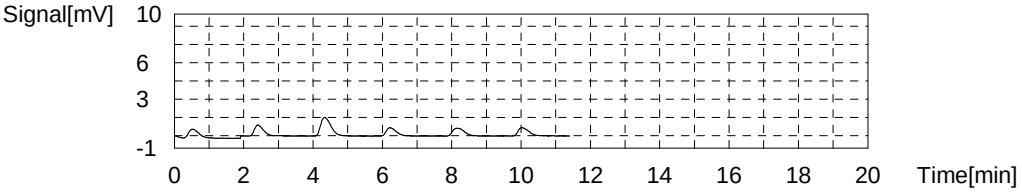
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3997mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.428	0.4019mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:49:51 AM
2	1.636	0.4723mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:51:54 AM
3	3.135	0.9802mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:53:58 AM
4	1.348	0.3748mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:56:02 AM
5	1.510	0.4297mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:58:06 AM
6	1.400	0.3924mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:00:10 AM

Mean Area 1.422
Mean Conc. 0.3997mg/L



Sample

Sample Name: 280-124055-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

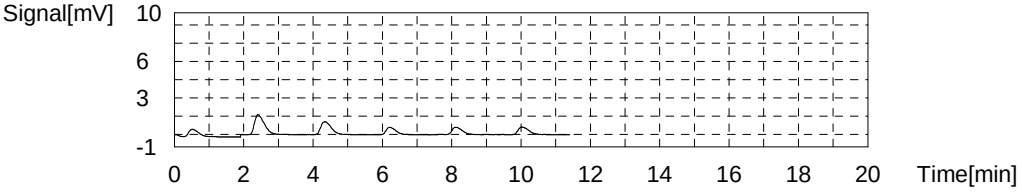
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3273mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.145	0.3060mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:08:36 AM
2	3.240	1.016mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:10:40 AM
3	2.179	0.6563mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:12:44 AM
4	1.177	0.3168mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:14:48 AM
5	1.192	0.3219mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:16:52 AM
6	1.318	0.3646mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:18:56 AM

Mean Area 1.208
Mean Conc. 0.3273mg/L



Sample

Sample Name: 280-124055-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

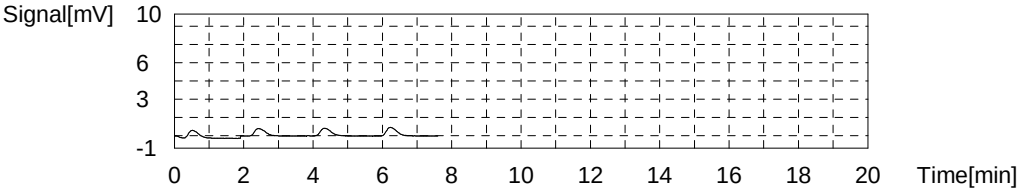
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3646mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.241	0.3385mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:27:22 AM
2	1.302	0.3592mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:29:25 AM
3	1.303	0.3595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:31:29 AM
4	1.426	0.4012mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:33:33 AM

Mean Area 1.318
Mean Conc. 0.3646mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

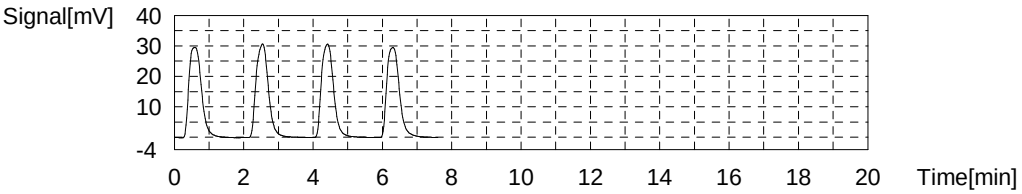
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.38	25.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:42:06 AM
2	76.03	25.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:44:09 AM
3	74.75	25.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:46:13 AM
4	74.93	25.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:48:17 AM

Mean Area 75.27
Mean Conc. 25.42mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

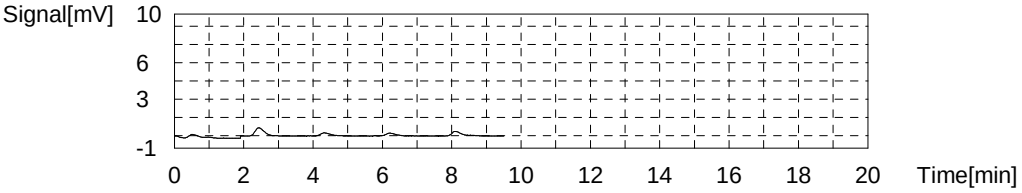
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09629mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5867	0.1169mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:56:49 AM
2	1.220	0.3314mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:58:53 AM
3	0.4959	0.08610mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:00:57 AM
4	0.4095	0.05683mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:03:01 AM
5	0.6119	0.1254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:05:05 AM

Mean Area 0.5260
Mean Conc. 0.09629mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

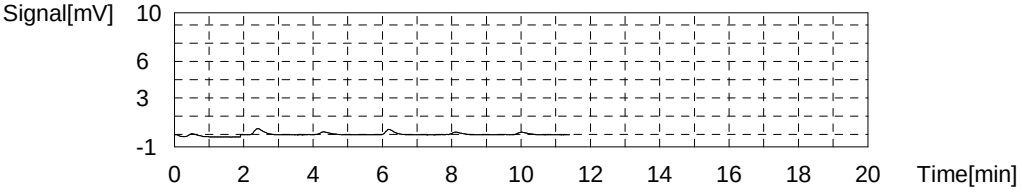
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05280mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4313	0.06421mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:13:37 AM
2	0.9287	0.2327mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:15:40 AM
3	0.4194	0.06018mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:17:44 AM
4	0.7335	0.1666mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:19:48 AM
5	0.3402	0.03335mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:21:52 AM
6	0.3996	0.05347mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:23:56 AM

Mean Area 0.3976
Mean Conc. 0.05280mg/L



Sample

Sample Name: 280-123924-g-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

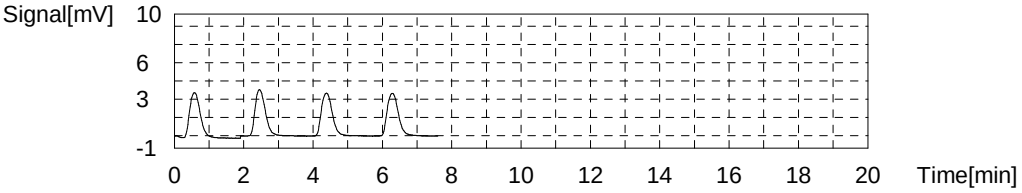
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.550mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.887	2.590mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:32:23 AM
2	7.770	2.550mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:34:26 AM
3	7.619	2.499mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:36:30 AM
4	7.797	2.560mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:38:34 AM

Mean Area 7.768
Mean Conc. 2.550mg/L



Sample

Sample Name: 280-123924-e-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

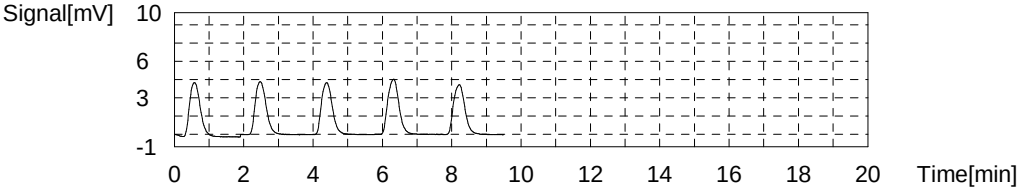
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.107mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.513	3.141mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:47:07 AM
2	9.498	3.136mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:49:10 AM
3	9.303	3.070mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:51:14 AM
4	10.18	3.367mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:53:18 AM
5	9.339	3.082mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:55:22 AM

Mean Area 9.413
Mean Conc. 3.107mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

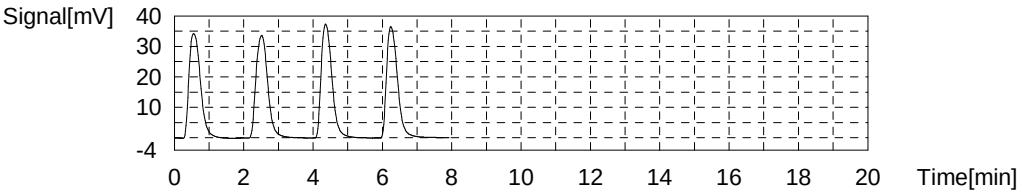
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.24mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.87	26.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:03:54 AM
2	79.86	26.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:05:57 AM
3	81.50	27.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:08:01 AM
4	81.31	27.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:10:24 AM

Mean Area 80.64
Mean Conc. 27.24mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

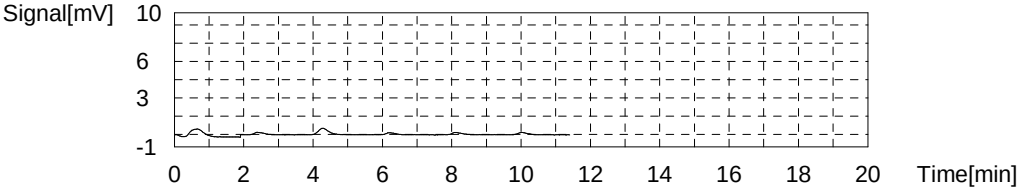
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02569mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.629	0.4700mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:18:56 AM
2	0.3505	0.03684mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:21:00 AM
3	1.056	0.2758mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:23:04 AM
4	0.2732	0.01065mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:25:08 AM
5	0.3070	0.02210mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:27:12 AM
6	0.3397	0.03318mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:29:16 AM

Mean Area 0.3176
Mean Conc. 0.02569mg/L



Sample

Sample Name: 280-123924-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

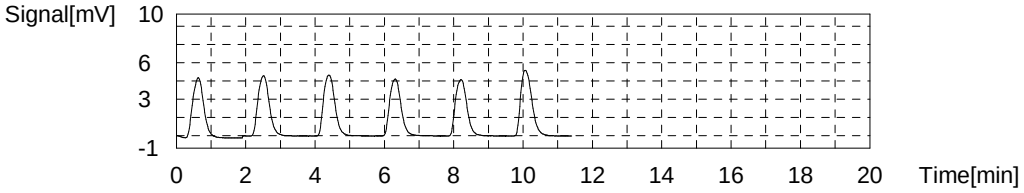
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.584mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.93	3.621mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:37:41 AM
2	11.16	3.699mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:39:45 AM
3	11.33	3.756mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:41:49 AM
4	10.58	3.502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:43:53 AM
5	10.61	3.513mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:45:57 AM
6	12.20	4.051mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:48:01 AM

Mean Area 10.82
Mean Conc. 3.584mg/L



Sample

Sample Name: MS 280-123924-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

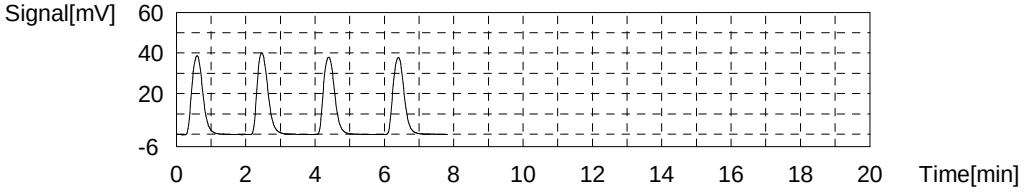
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:29.06mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.07	29.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:56:28 AM
2	87.49	29.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:58:31 AM
3	85.64	28.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:00:41 AM
4	84.89	28.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:02:52 AM

Mean Area 86.02
Mean Conc. 29.06mg/L



Sample

Sample Name: MSD 280-123924-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

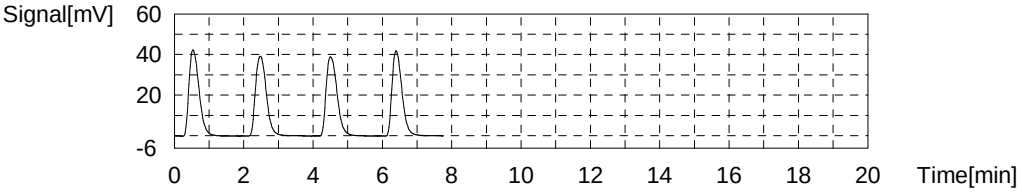
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:29.15mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.40	29.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:11:24 AM
2	86.56	29.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:13:37 AM
3	86.48	29.22mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:15:41 AM
4	84.67	28.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:17:45 AM

Mean Area 86.28
Mean Conc. 29.15mg/L



Sample

Sample Name: 280-123924-d-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

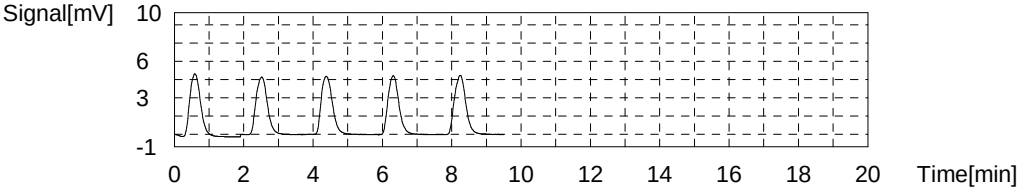
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.568mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.15	3.695mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:26:17 AM
2	10.70	3.543mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:28:21 AM
3	10.67	3.533mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:30:25 AM
4	10.64	3.523mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:32:29 AM
5	11.08	3.672mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:34:33 AM

Mean Area 10.77
Mean Conc. 3.568mg/L



Sample

Sample Name: 280-123924-d-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

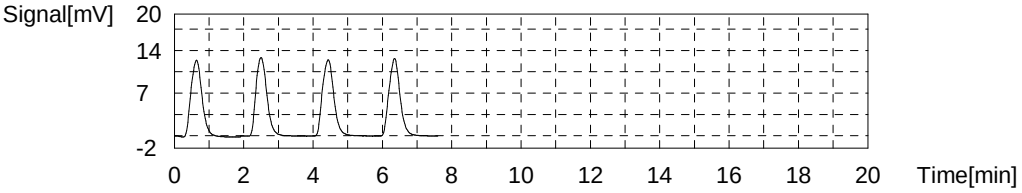
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.542mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.19	9.468mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:43:04 AM
2	28.33	9.516mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:45:08 AM
3	28.67	9.631mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:47:12 AM
4	28.44	9.553mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:49:16 AM

Mean Area 28.41
Mean Conc. 9.542mg/L



Sample

Sample Name: 280-123924-c-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

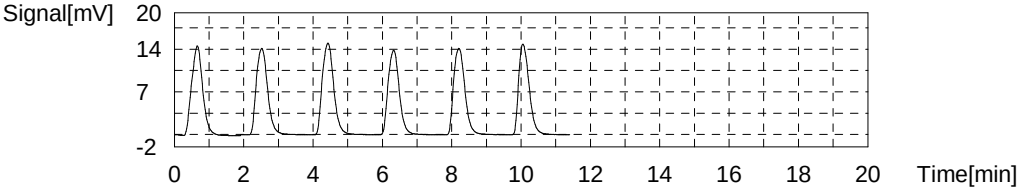
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.69mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.95	11.08mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:57:49 AM
2	32.32	10.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:59:52 AM
3	34.66	11.66mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:01:56 AM
4	31.23	10.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:04:00 AM
5	32.15	10.81mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:06:04 AM
6	31.47	10.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:08:08 AM

Mean Area 31.79
Mean Conc. 10.69mg/L



Sample

Sample Name: 280-123924-d-12
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

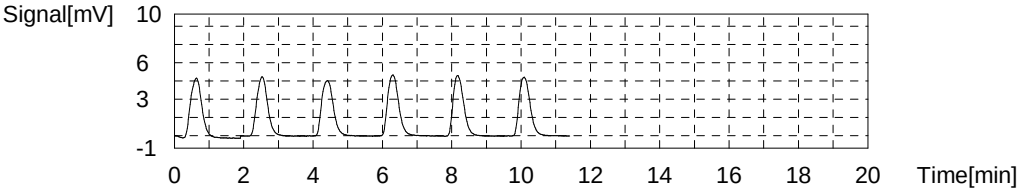
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.513mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.14	3.692mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:16:35 AM
2	10.62	3.516mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:18:38 AM
3	10.58	3.502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:20:42 AM
4	11.08	3.672mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:22:46 AM
5	10.59	3.506mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:24:50 AM
6	10.65	3.526mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:26:54 AM

Mean Area 10.61
Mean Conc. 3.513mg/L



Sample

Sample Name: 280-123930-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

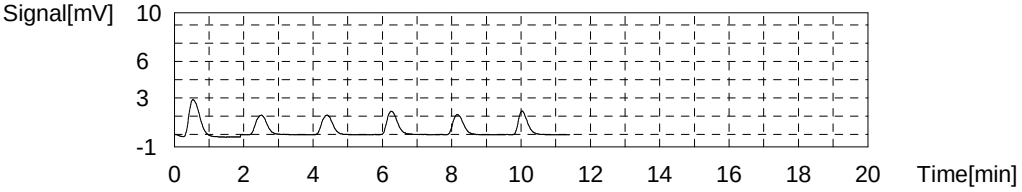
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.112mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.565	2.142mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:35:21 AM
2	3.536	1.116mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:37:24 AM
3	3.517	1.110mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:39:28 AM
4	4.013	1.278mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:41:32 AM
5	3.483	1.098mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:43:36 AM
6	3.559	1.124mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:45:40 AM

Mean Area 3.524
Mean Conc. 1.112mg/L



Sample

Sample Name: 280-123930-g-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

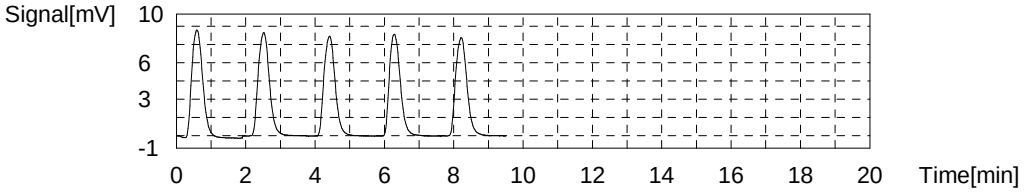
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.200mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.50	6.524mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:54:06 AM
2	19.02	6.362mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:56:10 AM
3	18.37	6.141mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:58:14 AM
4	18.42	6.158mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:00:18 AM
5	18.36	6.138mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:02:22 AM

Mean Area 18.54
Mean Conc. 6.200mg/L



Sample

Sample Name: 280-123930-g-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

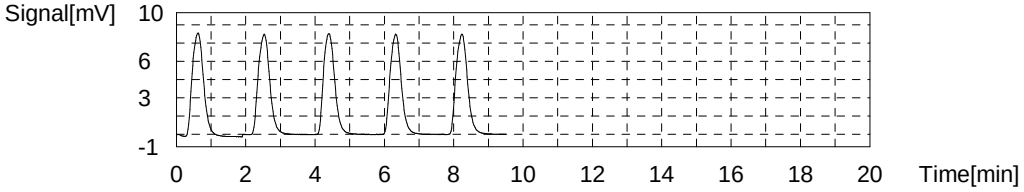
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.291mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.45	6.507mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:10:53 AM
2	19.00	6.355mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:12:57 AM
3	18.65	6.236mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:15:01 AM
4	18.47	6.175mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:17:05 AM
5	19.13	6.399mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:19:09 AM

Mean Area 18.81
Mean Conc. 6.291mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

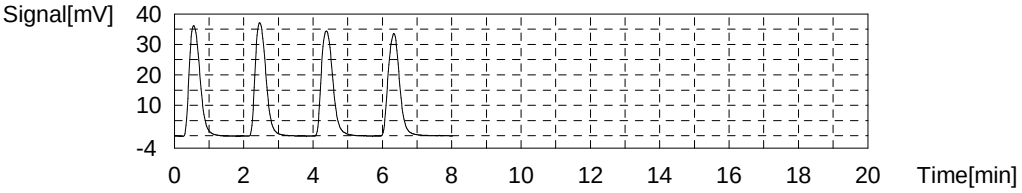
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.47	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:27:41 AM
2	80.63	27.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:29:44 AM
3	80.06	27.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:31:48 AM
4	78.11	26.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:34:17 AM

Mean Area 79.57
Mean Conc. 26.87mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

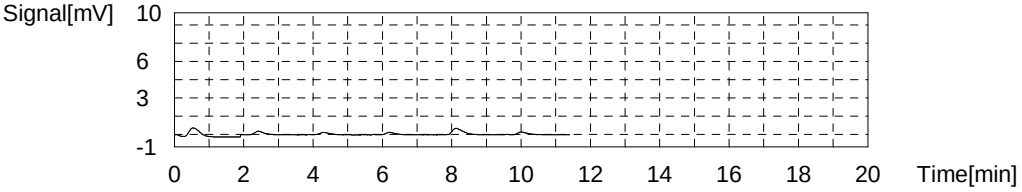
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04448mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.468	0.4154mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:42:49 AM
2	0.4979	0.08677mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:44:53 AM
3	0.3135	0.02430mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:46:57 AM
4	0.3113	0.02356mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:49:01 AM
5	1.062	0.2779mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:51:05 AM
6	0.3695	0.04327mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:53:09 AM

Mean Area 0.3730
Mean Conc. 0.04448mg/L



Sample

Sample Name: 280-123930-g-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

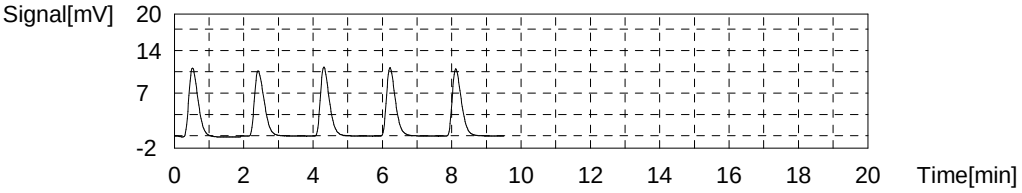
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.867mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.22	7.107mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:01:35 AM
2	20.94	7.012mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:03:39 AM
3	20.41	6.833mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:05:43 AM
4	20.30	6.795mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:07:47 AM
5	20.40	6.829mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:09:51 AM

Mean Area 20.51
Mean Conc. 6.867mg/L



Sample

Sample Name: 280-123930-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

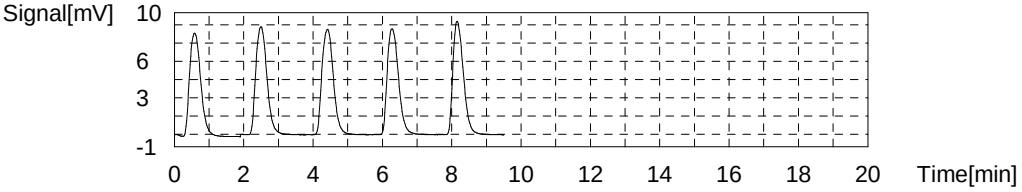
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.615mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.97	6.345mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:18:22 AM
2	19.83	6.636mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:20:26 AM
3	19.87	6.650mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:22:30 AM
4	19.71	6.595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:24:34 AM
5	19.66	6.578mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:26:38 AM

Mean Area 19.77
Mean Conc. 6.615mg/L



Sample

Sample Name: 320-50447-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

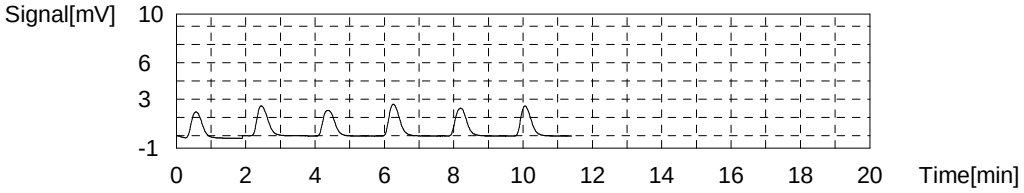
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.649mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.519	1.449mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:35:10 AM
2	5.270	1.703mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:37:13 AM
3	4.908	1.581mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:39:17 AM
4	5.559	1.801mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:41:21 AM
5	5.179	1.673mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:43:25 AM
6	5.081	1.639mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:45:29 AM

Mean Area 5.110
Mean Conc. 1.649mg/L



Sample

Sample Name: MS 320-50447-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

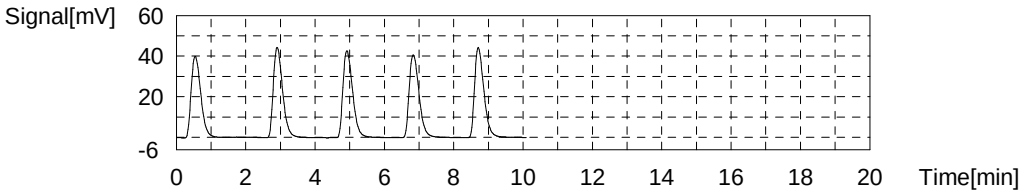
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.17mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.39	26.81mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:54:23 AM
2	84.58	28.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:56:34 AM
3	83.77	28.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:58:38 AM
4	81.65	27.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:00:42 AM
5	83.63	28.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:02:46 AM

Mean Area 83.41
Mean Conc. 28.17mg/L



Sample

Sample Name: MSD 320-50447-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

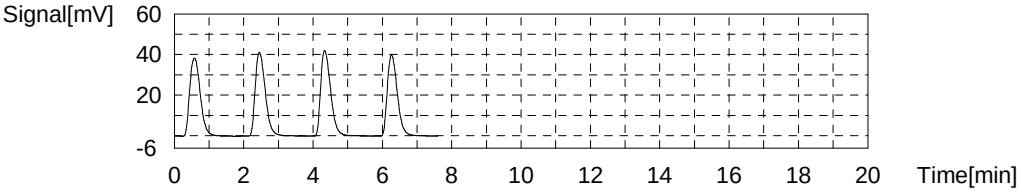
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.98mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.63	27.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:11:18 AM
2	83.63	28.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:13:22 AM
3	84.25	28.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:15:26 AM
4	80.78	27.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:17:30 AM

Mean Area 82.82
Mean Conc. 27.98mg/L



Sample

Sample Name: 280-123981-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

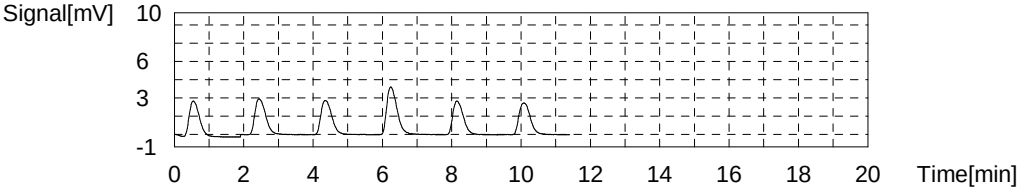
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.923mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.875	1.908mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:26:03 AM
2	6.333	2.064mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:28:07 AM
3	6.075	1.976mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:30:11 AM
4	8.184	2.691mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:32:15 AM
5	5.830	1.893mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:34:19 AM
6	5.898	1.916mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:36:23 AM

Mean Area 5.920
Mean Conc. 1.923mg/L



Sample

Sample Name: 280-123981-e-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

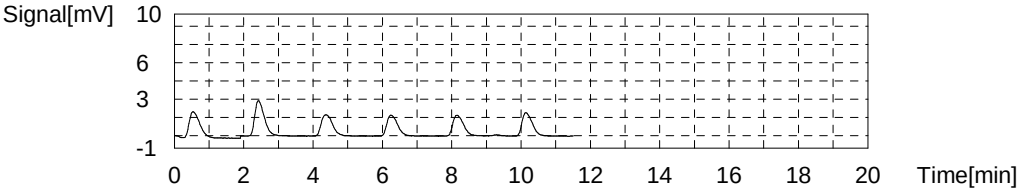
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.222mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.519	1.449mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:44:49 AM
2	5.556	1.800mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:46:53 AM
3	3.929	1.249mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:48:57 AM
4	3.696	1.170mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:51:01 AM
5	3.778	1.198mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:53:11 AM
6	3.991	1.270mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:55:15 AM

Mean Area 3.849
Mean Conc. 1.222mg/L



Sample

Sample Name: 280-123981-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

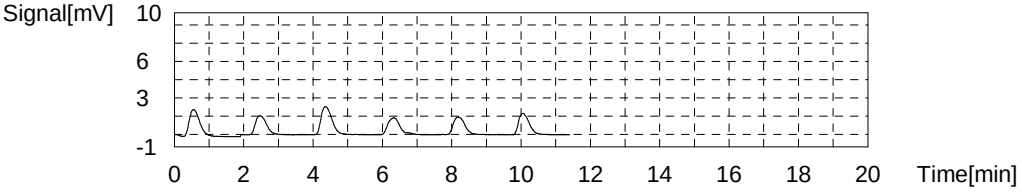
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.099mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.598	1.476mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:03:41 AM
2	3.485	1.099mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:05:45 AM
3	5.015	1.617mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:07:49 AM
4	3.428	1.079mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:09:53 AM
5	3.294	1.034mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:11:57 AM
6	3.738	1.184mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:14:01 AM

Mean Area 3.486
Mean Conc. 1.099mg/L



Sample

Sample Name: 280-123981-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

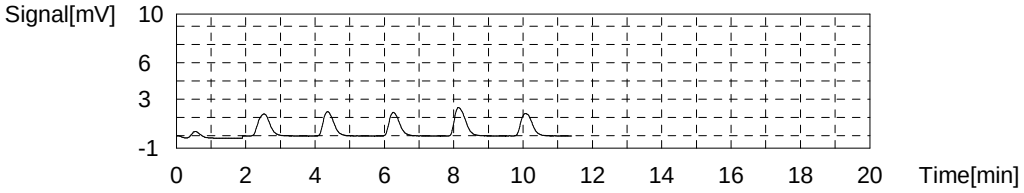
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.331mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8932	0.2207mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:22:27 AM
2	4.191	1.338mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:24:31 AM
3	4.213	1.345mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:26:35 AM
4	4.070	1.297mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:28:39 AM
5	5.130	1.656mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:30:43 AM
6	4.206	1.343mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:32:47 AM

Mean Area 4.170
Mean Conc. 1.331mg/L



Sample

Sample Name: 280-123981-e-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

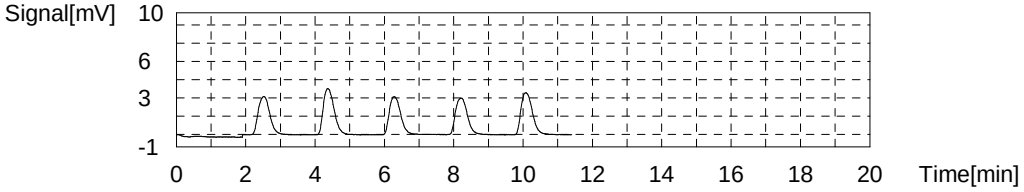
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.407mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:41:13 AM
2	7.286	2.386mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:43:17 AM
3	8.284	2.725mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:45:21 AM
4	7.075	2.315mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:47:25 AM
5	7.122	2.331mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:49:29 AM
6	7.903	2.595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:51:33 AM

Mean Area 7.347
Mean Conc. 2.407mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

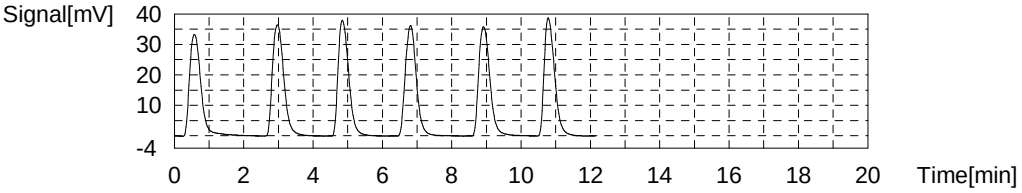
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.44mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.67	26.23mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:00:28 AM
2	84.43	28.52mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:02:32 AM
3	81.43	27.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:04:36 AM
4	80.80	27.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:06:55 AM
5	80.96	27.35mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:08:59 AM
6	81.77	27.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:11:03 AM

Mean Area 81.24
Mean Conc. 27.44mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

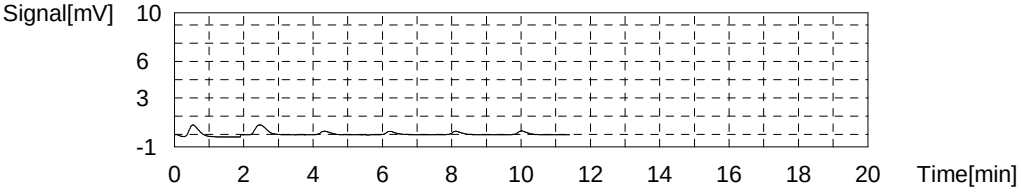
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09190mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.866	0.5503mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:19:29 AM
2	1.795	0.5262mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:21:33 AM
3	0.5541	0.1058mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:23:37 AM
4	0.4931	0.08515mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:25:41 AM
5	0.4854	0.08254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:27:45 AM
6	0.5195	0.09409mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:29:49 AM

Mean Area 0.5130
Mean Conc. 0.09190mg/L



Sample

Sample Name: 280-123981-g-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

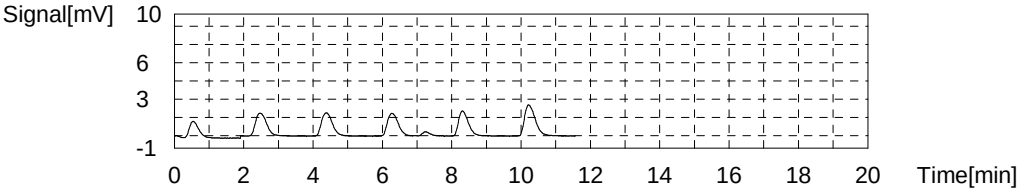
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.361mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.473	0.7559mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:38:15 AM
2	4.127	1.316mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:40:19 AM
3	4.177	1.333mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:42:23 AM
4	4.686	1.506mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:44:37 AM
5	4.047	1.289mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:46:41 AM
6	5.462	1.769mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:48:45 AM

Mean Area 4.259
Mean Conc. 1.361mg/L



Sample

Sample Name: 280-123981-g-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

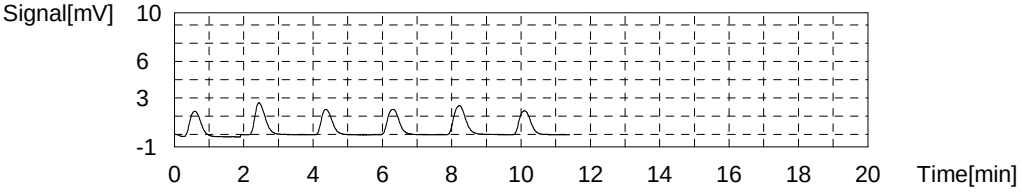
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.470mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.512	1.447mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:57:11 AM
2	5.378	1.740mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:59:15 AM
3	4.500	1.443mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:01:19 PM
4	4.827	1.553mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:03:23 PM
5	5.654	1.834mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:05:27 PM
6	4.482	1.437mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:07:31 PM

Mean Area 4.580
Mean Conc. 1.470mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

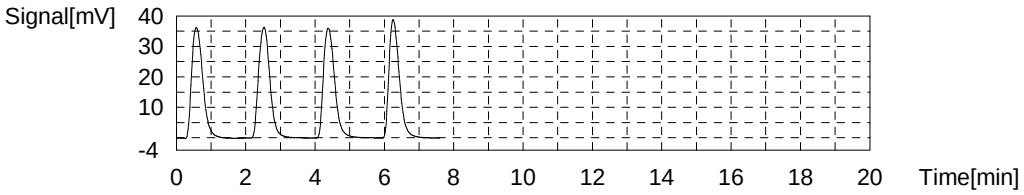
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.68mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.20	27.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:15:57 PM
2	82.74	27.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:18:01 PM
3	81.29	27.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:20:05 PM
4	81.56	27.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:22:09 PM

Mean Area 81.95
Mean Conc. 27.68mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

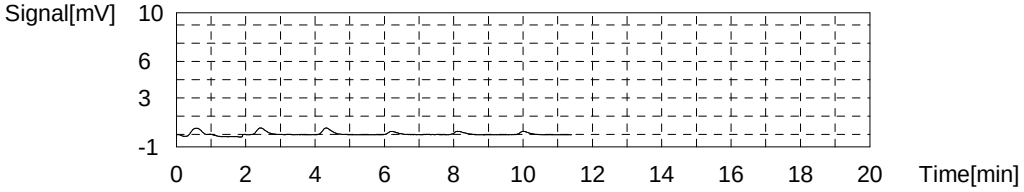
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1287mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.691	0.4910mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:30:42 PM
2	1.013	0.2613mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:32:46 PM
3	0.9979	0.2562mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:34:50 PM
4	0.4732	0.07841mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:36:54 PM
5	0.5450	0.1027mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:38:58 PM
6	0.4702	0.07739mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:41:02 PM

Mean Area 0.6216
Mean Conc. 0.1287mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

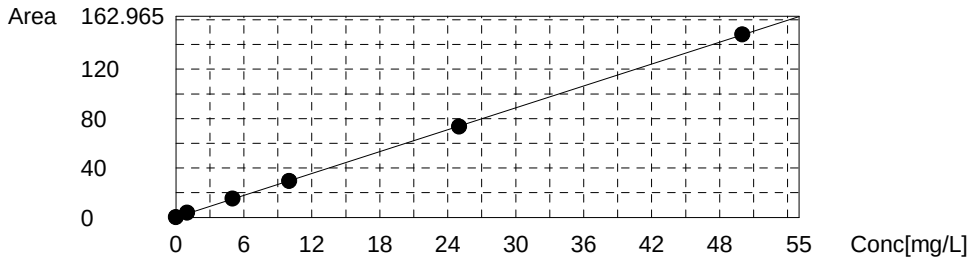
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

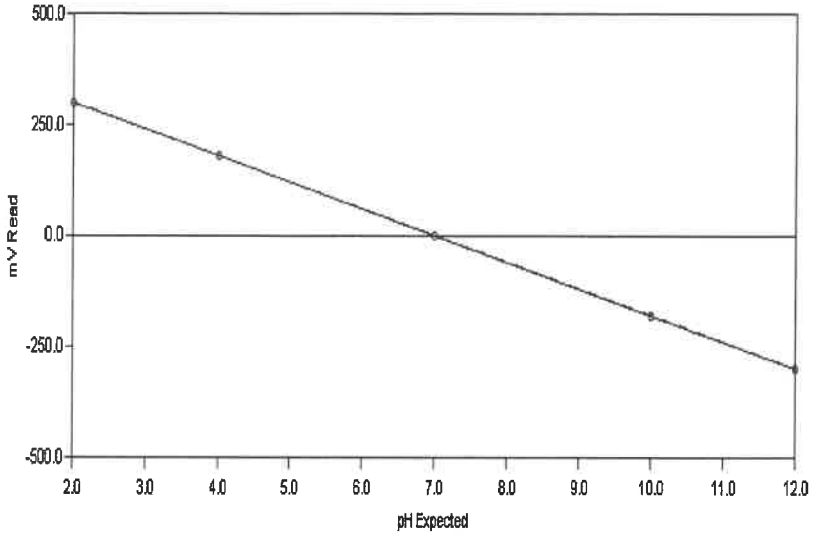
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



Calibration Record # 461



Calibration Settings

Calibration ID	PH	Date	5/24/2019
Channel	1	Time	5:27 PM
Probe Type	pH	Temperature	295.78 K 22.63 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.670	CorrCoeff	1.0000
Intercept	0.124	Equation: Y = (-59.670) X + (0.124)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.670	-65.00	-54.00
Intercept	0.124	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	297.85
	4.00	179.93
	7.00	0.61
	10.00	-180.17
	12.00	-297.60

Test America
Water Analysis Report

Analyst: SGB

Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
rinse	5/24/2019	5:32 PM	22.20	-1.00	9.22	-1.00	-1.00	-1.00	2.72	8.38	2.94	5.45	.00	.03	.11	.14	.02
check	5/24/2019	5:40 PM	22.08	-1.00	10.51	-1.00	-1.00	-1.00	92.81	198.94	13.33	185.61	.00	.93	1.99	-1.00	.02
b7	5/24/2019	5:42 PM	21.92	-1.00	7.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
lcs	5/24/2019	5:48 PM	21.76	-1.00	10.51	-1.00	-1.00	-1.00	93.68	195.97	8.62	187.35	.00	.94	1.96	-1.00	.02
mb	5/24/2019	6:12 PM	22.39	-1.00	7.30	-1.00	-1.00	-1.00	.00	2.43	2.43	.00	.00	.00	.05	.07	.02
280-123986-A-11	5/24/2019	6:18 PM	21.73	-1.00	7.41	-1.00	-1.00	-1.00	.00	187.14	187.14	.00	.00	.00	1.87	-1.00	.02
280-123986-A-11	5/24/2019	6:23 PM	21.48	-1.00	7.43	-1.00	-1.00	-1.00	.00	189.84	189.84	.00	.00	.00	1.90	-1.00	.02
280-123986-A-12	5/24/2019	6:29 PM	21.45	-1.00	7.52	-1.00	-1.00	-1.00	.00	192.48	192.48	.00	.00	.00	1.92	-1.00	.02
280-123986-A-1	5/24/2019	6:34 PM	21.51	-1.00	7.69	-1.00	-1.00	-1.00	.00	122.93	122.93	.00	.00	.00	1.23	-1.00	.02
280-123986-A-6	5/24/2019	6:39 PM	21.67	-1.00	7.80	-1.00	-1.00	-1.00	.00	149.83	149.83	.00	.00	.00	1.50	-1.00	.02
280-123986-A-7	5/24/2019	6:45 PM	21.61	-1.00	7.94	-1.00	-1.00	-1.00	.00	124.83	124.83	.00	.00	.00	1.25	-1.00	.02
280-123986-A-8	5/24/2019	6:52 PM	21.38	-1.00	7.60	-1.00	-1.00	-1.00	.00	532.96	532.96	.00	.00	.00	5.33	-1.00	.02
280-123842-A-1	5/24/2019	7:01 PM	21.44	-1.00	7.21	-1.00	-1.00	-1.00	.00	646.84	646.84	.00	.00	.00	6.47	-1.00	.02
280-123815-G-1	5/24/2019	7:07 PM	21.48	-1.00	8.11	-1.00	-1.00	-1.00	.00	180.90	180.90	.00	.00	.00	1.81	-1.00	.02
280-123291-B-1	5/24/2019	7:16 PM	21.31	-1.00	7.32	-1.00	-1.00	-1.00	.00	796.65	796.65	.00	.00	.00	7.97	-1.00	.02
ccv	5/24/2019	7:22 PM	21.31	-1.00	10.46	-1.00	-1.00	-1.00	95.91	199.19	7.37	191.82	.00	.96	1.99	-1.00	.02
ccb	5/24/2019	7:27 PM	21.35	-1.00	6.56	-1.00	-1.00	-1.00	.00	1.15	1.15	.00	.00	.00	.03	.05	.02
280-123843-A-2	5/24/2019	7:35 PM	21.31	-1.00	7.47	-1.00	-1.00	-1.00	.00	567.21	567.21	.00	.00	.00	5.67	-1.00	.02
280-123855-H-5	5/24/2019	7:40 PM	21.53	-1.00	7.98	-1.00	-1.00	-1.00	.00	218.11	218.11	.00	.00	.00	2.18	-1.00	.02
280-123855-J-4	5/24/2019	7:46 PM	21.69	-1.00	7.98	-1.00	-1.00	-1.00	.00	219.58	219.58	.00	.00	.00	2.20	-1.00	.02
280-123855-J-6	5/24/2019	7:52 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	216.63	216.63	.00	.00	.00	2.17	-1.00	.02
280-123855-I-1	5/24/2019	7:59 PM	21.56	-1.00	7.26	-1.00	-1.00	-1.00	.00	235.07	235.07	.00	.00	.00	2.35	-1.00	.02
280-123855-J-2	5/24/2019	8:04 PM	21.28	-1.00	10.56	-1.00	-1.00	-1.00	80.82	111.02	.00	60.41	50.61	.81	1.11	-1.00	.02
280-123855-J-3	5/24/2019	8:10 PM	21.31	-1.00	7.80	-1.00	-1.00	-1.00	.00	367.77	367.77	.00	.00	.00	3.68	-1.00	.02
280-123868-B-2	5/24/2019	8:16 PM	21.37	-1.00	7.96	-1.00	-1.00	-1.00	.00	138.62	138.62	.00	.00	.00	1.39	-1.00	.02
280-123868-B-1	5/24/2019	8:22 PM	21.32	-1.00	7.96	-1.00	-1.00	-1.00	.00	141.52	141.52	.00	.00	.00	1.42	-1.00	.02
280-123868-B-3	5/24/2019	8:25 PM	21.37	-1.00	4.09	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
ccv	5/24/2019	8:31 PM	21.31	-1.00	10.41	-1.00	-1.00	-1.00	91.66	196.42	13.11	183.32	.00	.92	1.96	-1.00	.02
ccb	5/24/2019	8:36 PM	21.64	-1.00	7.13	-1.00	-1.00	-1.00	.00	1.71	1.71	.00	.00	.00	.04	.05	.02
lcs	5/24/2019	8:42 PM	21.73	-1.00	10.42	-1.00	-1.00	-1.00	94.43	198.96	10.10	188.87	.00	.94	1.99	-1.00	.02
mb	5/24/2019	8:47 PM	21.87	-1.00	7.25	-1.00	-1.00	-1.00	.00	1.70	1.70	.00	.00	.00	.04	.05	.02
280-123882-B-1	5/24/2019	8:52 PM	21.63	-1.00	7.92	-1.00	-1.00	-1.00	.00	168.53	168.53	.00	.00	.00	1.69	-1.00	.02
du	5/24/2019	8:58 PM	21.50	-1.00	7.96	-1.00	-1.00	-1.00	.00	168.56	168.56	.00	.00	.00	1.69	-1.00	.02
280-123919-C-2	5/24/2019	9:03 PM	21.44	-1.00	6.66	-1.00	-1.00	-1.00	.00	1.60	1.60	.00	.00	.00	.03	.05	.02
280-123919-C-6	5/24/2019	9:08 PM	21.40	-1.00	7.65	-1.00	-1.00	-1.00	.00	185.45	185.45	.00	.00	.00	1.85	-1.00	.02
280-123919-C-5	5/24/2019	9:17 PM	21.38	-1.00	7.35	-1.00	-1.00	-1.00	.00	546.93	546.93	.00	.00	.00	5.47	-1.00	.02
280-123919-C-4	5/24/2019	9:22 PM	21.54	-1.00	7.63	-1.00	-1.00	-1.00	.00	185.98	185.98	.00	.00	.00	1.86	-1.00	.02
280-123922-J-1	5/24/2019	9:29 PM	21.51	-1.00	7.31	-1.00	-1.00	-1.00	.00	423.12	423.12	.00	.00	.00	4.23	-1.00	.02
280-123922-I-3	5/24/2019	9:36 PM	21.64	-1.00	7.35	-1.00	-1.00	-1.00	.00	377.60	377.60	.00	.00	.00	3.78	-1.00	.02
280-123922-H-2	5/24/2019	9:43 PM	21.86	-1.00	7.38	-1.00	-1.00	-1.00	.00	420.73	420.73	.00	.00	.00	4.21	-1.00	.02
280-123924-A-5	5/24/2019	9:48 PM	22.11	-1.00	8.11	-1.00	-1.00	-1.00	.00	163.70	163.70	.00	.00	.00	1.64	-1.00	.02
ccv	5/24/2019	9:55 PM	21.90	-1.00	10.39	-1.00	-1.00	-1.00	91.87	199.99	16.25	183.74	.00	.92	2.00	-1.00	.02
ccb	5/24/2019	9:59 PM	21.80	-1.00	6.37	-1.00	-1.00	-1.00	.00	.84	.84	.00	.00	.00	.03	.05	.02
280-123924-B-6	5/24/2019	10:06 PM	21.58	-1.00	7.89	-1.00	-1.00	-1.00	.00	410.82	410.82	.00	.00	.00	4.11	-1.00	.02
280-123924-B-7	5/24/2019	10:13 PM	21.66	-1.00	8.11	-1.00	-1.00	-1.00	.00	217.84	217.84	.00	.00	.00	2.18	-1.00	.02
280-123924-B-8	5/24/2019	10:18 PM	21.57	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.48	212.48	.00	.00	.00	2.12	-1.00	.02
280-123924-B-9	5/24/2019	10:24 PM	21.53	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.16	212.16	.00	.00	.00	2.12	-1.00	.02
280-123924-A-10	5/24/2019	10:30 PM	21.51	-1.00	7.30	-1.00	-1.00	-1.00	.00	86.68	86.68	.00	.00	.00	.87	-1.00	.02
280-123924-A-11	5/24/2019	10:35 PM	21.51	-1.00	7.77	-1.00	-1.00	-1.00	.00	89.64	89.64	.00	.00	.00	.90	-1.00	.02
280-123924-B-12	5/24/2019	10:41 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	209.92	209.92	.00	.00	.00	2.10	-1.00	.02
280-123930-I-1	5/24/2019	10:47 PM	21.89	-1.00	7.26	-1.00	-1.00	-1.00	.00	248.54	248.54	.00	.00	.00	2.49	-1.00	.02
280-123930-H-2	5/24/2019	10:54 PM	22.16	-1.00	7.38	-1.00	-1.00	-1.00	.00	492.40	492.40	.00	.00	.00	4.92	-1.00	.02
280-123930-I-3	5/24/2019	11:01 PM	22.07	-1.00	7.35	-1.00	-1.00	-1.00	.00	491.92	491.92	.00	.00	.00	4.92	-1.00	.02
ccv	5/24/2019	11:07 PM	21.95	-1.00	10.41	-1.00	-1.00	-1.00	86.66	197.59	24.28	173.31	.00	.87	1.98	-1.00	.02
ccb	5/24/2019	11:12 PM	21.85	-1.00	6.31	-1.00	-1.00	-1.00	.00	.99	.99	.00	.00	.00	.03	.05	.02
lcs	5/24/2019	11:18 PM	21.64	-1.00	10.38	-1.00	-1.00	-1.00	90.31	202.44	21.82	180.62	.00	.90	2.02	-1.00	.02
mb	5/24/2019	11:23 PM	21.70	-1.00	6.27	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.05	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123930-H-4	5/24/2019	11:30 PM	21.63	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.17	484.17	.00	.00	.00	4.84	-1.00	.02
du	5/24/2019	11:38 PM	21.73	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.73	484.73	.00	.00	.00	4.85	-1.00	.02
280-123930-J-5	5/24/2019	11:43 PM	21.79	-1.00	7.69	-1.00	-1.00	-1.00	.00	155.17	155.17	.00	.00	.00	1.55	-1.00	.02
280-123941-I-2	5/24/2019	11:50 PM	21.79	-1.00	8.28	-1.00	-1.00	-1.00	.00	362.95	362.95	.00	.00	.00	3.63	-1.00	.02
280-123941-I-4	5/24/2019	11:57 PM	21.95	-1.00	8.58	-1.00	-1.00	-1.00	25.24	424.38	373.91	50.48	.00	.25	4.24	-1.00	.02
280-123941-I-5	5/25/2019	12:05 AM	22.39	-1.00	7.94	-1.00	-1.00	-1.00	.00	576.32	576.32	.00	.00	.00	5.76	-1.00	.02
280-123941-I-6	5/25/2019	12:13 AM	22.32	-1.00	7.90	-1.00	-1.00	-1.00	.00	551.79	551.79	.00	.00	.00	5.52	-1.00	.02
280-123941-I-7	5/25/2019	12:21 AM	22.11	-1.00	7.60	-1.00	-1.00	-1.00	.00	582.27	582.27	.00	.00	.00	5.82	-1.00	.02
280-123941-I-9	5/25/2019	12:27 AM	22.02	-1.00	8.10	-1.00	-1.00	-1.00	.00	171.96	171.96	.00	.00	.00	1.72	-1.00	.02
280-123941-I-10	5/25/2019	12:34 AM	21.86	-1.00	7.94	-1.00	-1.00	-1.00	.00	410.36	410.36	.00	.00	.00	4.10	-1.00	.02
ccv	5/25/2019	12:40 AM	21.71	-1.00	10.37	-1.00	-1.00	-1.00	89.84	200.21	20.54	179.67	.00	.90	2.00	-1.00	.02
ccb	5/25/2019	12:44 AM	21.71	-1.00	6.54	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-123941-I-11	5/25/2019	12:53 AM	21.69	-1.00	8.03	-1.00	-1.00	-1.00	.00	488.04	488.04	.00	.00	.00	4.88	-1.00	.02
280-123942-C-1	5/25/2019	12:58 AM	21.71	-1.00	7.75	-1.00	-1.00	-1.00	.00	146.69	146.69	.00	.00	.00	1.47	-1.00	.02
280-123947-A-2	5/25/2019	1:08 AM	21.69	-1.00	7.64	-1.00	-1.00	-1.00	.00	845.54	845.54	.00	.00	.00	8.46	-1.00	.02
280-123955-A-1	5/25/2019	1:15 AM	21.79	-1.00	7.81	-1.00	-1.00	-1.00	.00	432.94	432.94	.00	.00	.00	4.33	-1.00	.02
280-123969-A-2	5/25/2019	1:21 AM	21.73	-1.00	9.91	-1.00	-1.00	-1.00	59.22	157.92	39.48	118.44	.00	.59	1.58	-1.00	.02
280-123969-C-4	5/25/2019	1:32 AM	21.96	-1.00	7.68	-1.00	-1.00	-1.00	.00	931.00	931.00	.00	.00	.00	9.31	-1.00	.02
280-123969-A-3	5/25/2019	1:40 AM	21.87	-1.00	8.14	-1.00	-1.00	-1.00	.00	561.64	561.64	.00	.00	.00	5.62	-1.00	.02
280-123969-C-5	5/25/2019	1:47 AM	21.64	-1.00	7.80	-1.00	-1.00	-1.00	.00	521.66	521.66	.00	.00	.00	5.22	-1.00	.02
280-123981-J-8	5/25/2019	1:53 AM	21.51	-1.00	8.02	-1.00	-1.00	-1.00	.00	202.09	202.09	.00	.00	.00	2.02	-1.00	.02
280-123981-J-3	5/25/2019	1:59 AM	21.37	-1.00	7.99	-1.00	-1.00	-1.00	.00	217.95	217.95	.00	.00	.00	2.18	-1.00	.02
ccv	5/25/2019	2:04 AM	21.25	-1.00	10.34	-1.00	-1.00	-1.00	89.34	200.92	22.25	178.67	.00	.89	2.01	-1.00	.02
ccb	5/25/2019	2:09 AM	21.32	-1.00	6.39	-1.00	-1.00	-1.00	.00	1.24	1.24	.00	.00	.00	.03	.05	.02
lcs	5/25/2019	2:15 AM	21.25	-1.00	10.32	-1.00	-1.00	-1.00	87.49	199.56	24.58	174.98	.00	.87	2.00	-1.00	.02
mb	5/25/2019	2:19 AM	21.30	-1.00	6.43	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.04	.02
280-123981-H-4	5/25/2019	2:26 AM	21.31	-1.00	7.90	-1.00	-1.00	-1.00	.00	333.37	333.37	.00	.00	.00	3.33	-1.00	.02
du	5/25/2019	2:33 AM	21.41	-1.00	7.92	-1.00	-1.00	-1.00	.00	336.92	336.92	.00	.00	.00	3.37	-1.00	.02
280-123981-J-9	5/25/2019	2:39 AM	21.92	-1.00	8.14	-1.00	-1.00	-1.00	.00	211.07	211.07	.00	.00	.00	2.11	-1.00	.02
280-123981-I-6	5/25/2019	2:45 AM	21.82	-1.00	7.98	-1.00	-1.00	-1.00	.00	238.01	238.01	.00	.00	.00	2.38	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123981-I-2	5/25/2019	2:50 AM	21.71	-1.00	8.16	-1.00	-1.00	-1.00	.00	151.85	151.85	.00	.00	.00	1.52	-1.00	.02
280-123981-J-7	5/25/2019	2:57 AM	21.64	-1.00	7.88	-1.00	-1.00	-1.00	.00	318.00	318.00	.00	.00	.00	3.18	-1.00	.02
280-123981-I-1	5/25/2019	3:04 AM	21.57	-1.00	7.83	-1.00	-1.00	-1.00	.00	480.47	480.47	.00	.00	.00	4.80	-1.00	.02
280-123981-J-5	5/25/2019	3:10 AM	21.57	-1.00	8.18	-1.00	-1.00	-1.00	.00	168.22	168.22	.00	.00	.00	1.68	-1.00	.02
280-123983-H-1	5/25/2019	3:15 AM	21.56	-1.00	7.68	-1.00	-1.00	-1.00	.00	80.51	80.51	.00	.00	.00	.81	-1.00	.02
280-123983-I-2	5/25/2019	3:21 AM	21.51	-1.00	7.97	-1.00	-1.00	-1.00	.00	157.17	157.17	.00	.00	.00	1.57	-1.00	.02
ccv	5/25/2019	3:27 AM	21.50	-1.00	10.31	-1.00	-1.00	-1.00	88.23	200.79	24.34	176.45	.00	.88	2.01	-1.00	.02
ccb	5/25/2019	3:31 AM	21.63	-1.00	6.41	-1.00	-1.00	-1.00	.00	1.07	1.07	.00	.00	.00	.03	.05	.02
280-123983-H-3	5/25/2019	3:37 AM	21.66	-1.00	7.48	-1.00	-1.00	-1.00	.00	133.40	133.40	.00	.00	.00	1.33	-1.00	.02
280-124012-C-2	5/25/2019	3:43 AM	21.79	-1.00	8.21	-1.00	-1.00	-1.00	.00	154.14	154.14	.00	.00	.00	1.54	-1.00	.02
280-124006-B-1	5/25/2019	3:49 AM	22.10	-1.00	8.17	-1.00	-1.00	-1.00	.00	187.63	187.63	.00	.00	.00	1.88	-1.00	.02
280-124014-A-1	5/25/2019	3:55 AM	22.02	-1.00	8.04	-1.00	-1.00	-1.00	.00	260.05	260.05	.00	.00	.00	2.60	-1.00	.02
280-124014-A-2	5/25/2019	4:02 AM	21.93	-1.00	7.99	-1.00	-1.00	-1.00	.00	471.35	471.35	.00	.00	.00	4.71	-1.00	.02
280-124036-D-1	5/25/2019	4:16 AM	21.90	-1.00	7.31	-1.00	-1.00	-1.00	.00	1,354.27	1,354.27	.00	.00	.00	13.54	-1.00	.02
280-124036-C-2	5/25/2019	4:34 AM	21.98	-1.00	7.80	-1.00	-1.00	-1.00	.00	1,920.50	1,920.50	.00	.00	.00	19.20	-1.00	.02
280-124036-C-3	5/25/2019	4:56 AM	22.07	-1.00	8.01	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124036-D-4	5/25/2019	5:12 AM	22.14	-1.00	8.09	-1.00	-1.00	-1.00	.00	1,605.88	1,605.88	.00	.00	.00	16.06	-1.00	.02
280-124036-C-6	5/25/2019	5:23 AM	22.16	-1.00	7.92	-1.00	-1.00	-1.00	.00	1,030.71	1,030.71	.00	.00	.00	10.31	-1.00	.02
ccv	5/25/2019	5:28 AM	22.08	-1.00	10.23	-1.00	-1.00	-1.00	84.01	201.28	33.25	168.03	.00	.84	2.01	-1.00	.02
ccb	5/25/2019	5:33 AM	22.03	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.11	1.11	.00	.00	.00	.03	.04	.02
lcs	5/25/2019	5:40 AM	21.98	-1.00	10.24	-1.00	-1.00	-1.00	85.95	205.96	34.06	171.90	.00	.86	2.06	-1.00	.02
mb	5/25/2019	5:45 AM	22.49	-1.00	6.46	-1.00	-1.00	-1.00	.00	1.41	1.41	.00	.00	.00	.03	.05	.02
280-124036-D-7	5/25/2019	5:55 AM	22.39	-1.00	7.87	-1.00	-1.00	-1.00	.00	994.91	994.91	.00	.00	.00	9.95	-1.00	.02
du	5/25/2019	6:06 AM	22.40	-1.00	7.88	-1.00	-1.00	-1.00	.00	1,000.38	1,000.38	.00	.00	.00	10.00	-1.00	.02
280-124036-D-8	5/25/2019	6:18 AM	22.39	-1.00	7.83	-1.00	-1.00	-1.00	.00	1,001.71	1,001.71	.00	.00	.00	10.02	-1.00	.02
280-124036-C-9	5/25/2019	6:23 AM	22.40	-1.00	6.30	-1.00	-1.00	-1.00	.00	1.28	1.28	.00	.00	.00	.03	.05	.02
280-124036-C-10	5/25/2019	6:44 AM	22.23	-1.00	8.74	-1.00	-1.00	-1.00	121.48	.00	-242.97	242.97	.00	1.21	.00	.00	.02
280-124053-F-3	5/25/2019	6:51 AM	22.42	-1.00	7.96	-1.00	-1.00	-1.00	.00	397.73	397.73	.00	.00	.00	3.98	-1.00	.02
280-124053-E-2	5/25/2019	6:57 AM	22.31	-1.00	7.92	-1.00	-1.00	-1.00	.00	284.93	284.93	.00	.00	.00	2.85	-1.00	.02
280-124070-F-5	5/25/2019	7:04 AM	22.28	-1.00	7.90	-1.00	-1.00	-1.00	.00	301.09	301.09	.00	.00	.00	3.01	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-124070-F-6	5/25/2019	7:10 AM	22.26	-1.00	7.96	-1.00	-1.00	-1.00	.00	213.13	213.13	.00	.00	.00	2.13	-1.00	.02
280-124070-F-3	5/25/2019	7:16 AM	22.32	-1.00	8.01	-1.00	-1.00	-1.00	.00	336.89	336.89	.00	.00	.00	3.37	-1.00	.02
ccv	5/25/2019	7:23 AM	22.40	-1.00	10.23	-1.00	-1.00	-1.00	82.94	206.67	40.79	165.88	.00	.83	2.07	-1.00	.02
ccb	5/25/2019	7:27 AM	22.70	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.18	1.18	.00	.00	.00	.03	.05	.02
280-124070-F-4	5/25/2019	7:33 AM	22.55	-1.00	7.95	-1.00	-1.00	-1.00	.00	266.39	266.39	.00	.00	.00	2.66	-1.00	.02
280-124070-F-1	5/25/2019	7:40 AM	22.49	-1.00	7.91	-1.00	-1.00	-1.00	.00	355.63	355.63	.00	.00	.00	3.56	-1.00	.02
280-124070-F-2	5/25/2019	7:46 AM	22.46	-1.00	7.98	-1.00	-1.00	-1.00	.00	246.93	246.93	.00	.00	.00	2.47	-1.00	.02
280-124156-E-1	5/25/2019	7:57 AM	22.43	-1.00	8.62	-1.00	-1.00	-1.00	36.56	1,039.07	965.95	73.12	.00	.37	10.39	-1.00	.02
280-123939-A-3	5/25/2019	8:02 AM	22.52	-1.00	8.14	-1.00	-1.00	-1.00	.00	82.75	82.75	.00	.00	.00	.83	-1.00	.02
280-123939-A-3 du	5/25/2019	8:07 AM	22.39	-1.00	8.21	-1.00	-1.00	-1.00	.00	83.01	83.01	.00	.00	.00	.83	-1.00	.02
280-123939-A-4	5/25/2019	8:12 AM	22.42	-1.00	6.28	-1.00	-1.00	-1.00	.00	.92	.92	.00	.00	.00	.03	.04	.02
280-124055-A-1	5/25/2019	8:17 AM	22.42	-1.00	7.08	-1.00	-1.00	-1.00	.00	71.71	71.71	.00	.00	.00	.72	-1.00	.02
280-124055-A-2	5/25/2019	8:23 AM	22.46	-1.00	8.05	-1.00	-1.00	-1.00	.00	197.82	197.82	.00	.00	.00	1.98	-1.00	.02
280-124055-A-3	5/25/2019	8:26 AM	22.54	-1.00	4.07	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
ccv	5/25/2019	8:32 AM	22.89	-1.00	10.11	-1.00	-1.00	-1.00	78.99	202.48	44.50	157.98	.00	.79	2.02	-1.00	.02
ccb	5/25/2019	8:37 AM	22.96	-1.00	6.88	-1.00	-1.00	-1.00	.00	1.91	1.91	.00	.00	.00	.04	.06	.02
lcs	5/25/2019	8:43 AM	22.98	-1.00	10.13	-1.00	-1.00	-1.00	77.19	200.11	45.73	154.37	.00	.77	2.00	-1.00	.02
mb	5/25/2019	8:48 AM	22.92	-1.00	6.71	-1.00	-1.00	-1.00	.00	1.63	1.63	.00	.00	.00	.03	.05	.02
280-124055-A-4	5/25/2019	8:53 AM	22.83	-1.00	7.37	-1.00	-1.00	-1.00	.00	40.22	40.22	.00	.00	.00	.40	-1.00	.02
280-124055-A-5	5/25/2019	8:56 AM	22.81	-1.00	3.81	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124055-A-6	5/25/2019	9:01 AM	22.80	-1.00	7.22	-1.00	-1.00	-1.00	.00	37.84	37.84	.00	.00	.00	.38	-1.00	.02
ccv	5/25/2019	9:07 AM	22.78	-1.00	10.18	-1.00	-1.00	-1.00	79.97	201.90	41.96	159.94	.00	.80	2.02	-1.00	.02
ccb	5/25/2019	9:12 AM	22.77	-1.00	6.57	-1.00	-1.00	-1.00	.00	1.75	1.75	.00	.00	.00	.03	.05	.02

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2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-459242

Analyst: Pedrick, Joshua A

Batch Open: 5/23/2019 1:30:00PM

Batch End:

Solids, Total Dissolved (TDS)

Conductivity JP 5/23/19

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
1	MB~280-459242/1 N/A	N/A		100	0.33	N/A	N/A	N/A		
2	LCS~280-459242/2 N/A	N/A		100		N/A	N/A	N/A		
3	280-123917-A-1 (2540C_Calcd)	N/A (280-123917-1)	Water	10	7200	5/30/19	8_Day_Rush	2		
4	280-123917-A-1 (2540C_Calcd)	N/A (280-123917-1)	Water	10	7200	5/30/19	8_Day_Rush	2		
5	280-123917-A-2 (2540C_Calcd)	N/A (280-123917-1)	Water	10	6000	5/30/19	8_Day_Rush	2		
6	280-123917-A-3 (2540C_Calcd)	N/A (280-123917-1)	Water	25	4000	5/30/19	8_Day_Rush	2		
7	280-123917-A-4 (2540C_Calcd)	N/A (280-123917-1)	Water	25	5300	5/30/19	8_Day_Rush	2		
8	280-123917-A-5 (2540C_Calcd)	N/A (280-123917-1)	Water	10	5900	5/30/19	8_Day_Rush	2		
9	280-123917-A-6 (2540C_Calcd)	N/A (280-123917-1)	Water	10	7400	5/30/19	8_Day_Rush	2		
10	280-123917-A-7 (2540C_Calcd)	N/A (280-123917-1)	Water	10	6600	5/30/19	8_Day_Rush	2		
11	280-123917-A-8 (2540C_Calcd)	N/A (280-123917-1)	Water	25	5700	5/30/19	8_Day_Rush	2		
12	280-123917-B-9 (2540C_Calcd)	N/A (280-123917-1)	Water	50	1900	5/30/19	8_Day_Rush	2		
13	280-123917-B-10 (2540C_Calcd)	N/A (280-123917-1)	Water	25	4400	5/30/19	8_Day_Rush	2		
14	280-123917-B-11 (2540C_Calcd)	N/A (280-123917-1)	Water	10	6600	5/30/19	8_Day_Rush	2		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-459242 Analyst: Pedrick, Joshua A Batch Open: 5/23/2019 1:30:00PM

Batch End:

15	280-123930-B-4 (2540C_Calcd)	N/A (280-123930-1)	Water	100	804	6/5/19	12_Days	4	
16	280-123930-A-5 (2540C_Calcd)	N/A (280-123930-1)	Water	100	282	6/5/19	12_Days	4	
17	280-123916-A-1 (2540C_Calcd)	N/A (280-123916-1)	Water	50	2100	6/5/19	12_Day_Rush	4	
18	280-123947-A-2 (2540C_Calcd)	N/A (280-123947-1)	Water	10	H	6/5/19	12_Day_Rush	2	
19	280-123953-A-1 (2540C_Calcd)	N/A (280-123953-1)	Water	10	6300	5/30/19	8_Day_Rush	2	
20	280-123953-A-2 (2540C_Calcd)	N/A (280-123953-1)	Water	10	6100	5/30/19	8_Day_Rush	2	
21	280-123953-A-3 (2540C_Calcd)	N/A (280-123953-1)	Water	10	6300	5/30/19	8_Day_Rush	2	
22	280-123953-A-4 (2540C_Calcd)	N/A (280-123953-1)	Water	10	6300	5/30/19	8_Day_Rush	2	
23	280-123953-A-4 (2540C_Calcd)	N/A (280-123953-1)	Water	10	6300	5/30/19	8_Day_Rush	2	

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

06/14/2019

Batch Number: 280-459268 Analyst: Cherry, Scott V Batch Open: 5/23/2019 4:24:00PM

Batch End:

Conductivity Solids, Total Dissolved (TDS)

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
1	MB~280-459268/1 N/A	N/A			100	N/A	N/A	N/A		
2	LCS~280-459268/2 N/A	N/A			100	N/A	N/A	N/A		
3	280-123943-A-1 (2540C_Calcd)	N/A (280-123943-1)	Water	Hist	50	6/5/19	12_Day_Rush	4		
4	280-123943-A-1 (2540C_Calcd)	N/A (280-123943-1)	Water	2	50	6/5/19	12_Day_Rush	4		
5	280-123930-J-1 (2540C_Calcd)	N/A (280-123930-1)	Water	492	100	6/5/19	12_Days	4		
6	280-123930-I-2 (2540C_Calcd)	N/A (280-123930-1)	Water	842	100	6/5/19	12_Days	4		
7	280-123930-J-3 (2540C_Calcd)	N/A (280-123930-1)	Water	828	100	6/5/19	12_Days	4		
8	280-123983-A-1 (2540C_Calcd)	N/A (280-123983-1)	Water	155.5	100	6/5/19	12_Days	4		
9	280-123983-B-2 (2540C_Calcd)	N/A (280-123983-1)	Water	289.2	100	6/5/19	12_Days	4		
10	280-123983-B-3 (2540C_Calcd)	N/A (280-123983-1)	Water	295.7	100	6/5/19	12_Days	4		
11	280-124034-C-1 (2540C_Calcd)	N/A (280-124034-1)	Water	5570	25	5/30/19	8_Days	2		
12	280-123981-I-1 (2540C_Calcd)	N/A (280-123981-1)	Water	913	100	6/5/19	12_Days	4		
13	280-123981-H-2 (2540C_Calcd)	N/A (280-123981-1)	Water	311	100	6/5/19	12_Days	4		
14	280-123981-H-3 (2540C_Calcd)	N/A (280-123981-1)	Water	374	100	6/5/19	12_Days	4		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-459268

Analyst: Cherry, Scott V

Batch Open: 5/23/2019 4:24:00PM

Batch End:

15	280-123981-I-4 (2540C_Calcd)	N/A (280-123981-1)	Water	555	100	6/5/19	12_Days	4	
16	280-123981-H-5 (2540C_Calcd)	N/A (280-123981-1)	Water	277.9	100	6/5/19	12_Days	4	
17	280-123981-J-6 (2540C_Calcd)	N/A (280-123981-1)	Water	414	100	6/5/19	12_Days	4	
18	280-123981-B-7 (2540C_Calcd)	N/A (280-123981-1)	Water	607	100	6/5/19	12_Days	4	
19	280-123981-I-8 (2540C_Calcd)	N/A (280-123981-1)	Water	353	100	6/5/19	12_Days	4	
20	280-123981-I-9 (2540C_Calcd)	N/A (280-123981-1)	Water	376	100	6/5/19	12_Days	4	
21	280-123922-A-1 (2540C_Calcd)	N/A (280-123922-1)	Water	735	100	6/5/19	12_Days	4	
22	280-123922-A-2 (2540C_Calcd)	N/A (280-123922-1)	Water	763	100	6/5/19	12_Days	4	
23	280-123922-B-3 (2540C_Calcd)	N/A (280-123922-1)	Water	670	100	6/5/19	12_Days	4	
24	280-123922-B-3 (2540C_Calcd)	N/A (280-123922-1)	Water	11	100	6/5/19	12_Days	4	

06/14/2019

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COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.466	149.1	-13.4408	-8.06448

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.478	149.1	-17.6264	-10.57584

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.459	149.1	-10.9992	-6.59952

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
5	-348.8	0.353	149.1	25.9736	77.9208

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.467	149.1	-13.7896	-8.27376

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.106	149.1	112.1272	67.27632

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.396	149.1	10.9752	6.58512

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.438	149.1	-3.6744	-2.20464

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.460	149.1	-11.348	-6.8088

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.478	149.1	-17.6264	-10.57584

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.032	149.1	137.9384	82.76304

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.440	149.1	-4.372	-2.6232

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.445	149.1	-6.116	-3.6696

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.435	149.1	-2.628	-1.5768

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.427	149.1	0.1624	0.09744

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.441	149.1	-4.7208	-2.83248

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.449	149.1	-7.5112	-4.50672

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.417	149.1	3.6504	2.19024

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.434	149.1	-2.2792	-1.36752

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.406	149.1	7.4872	4.49232

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.441	149.1	-4.7208	-2.83248

TALS Raw Data Report

Job Number: 280-123922-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	777777777	mg/L	0.611 J mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	366666667	mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen	366666666	mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 22 Lab ID: **280-123922-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		1.8494 mg/L	2.3 J mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 23 Lab ID: **280-123922-B-2** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		1.5694 mg/L	2.0 J mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 24 Lab ID: **280-123922-A-3** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123923-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen		366666666 mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	mg/L			NC	20

RS# 25 Lab ID: **280-123923-C-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		3.1491 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123924-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	777777777	mg/L	0.611 J mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	366666667	mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen	366666666	mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 10 Lab ID: **280-123924-A-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 11 Lab ID: **280-123924-A-2** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 12 Lab ID: **280-123924-B-3** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 13 Lab ID: **280-123924-A-4** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		4.76395 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 14 Lab ID: **280-123924-A-5** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 15 Lab ID: **280-123924-B-6** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 16 Lab ID: **280-123924-B-7** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 17 Lab ID: **280-123924-B-8** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 18 Lab ID: **280-123924-B-9** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 19 Lab ID: **280-123924-B-10** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		2.2094 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 20 Lab ID: **280-123924-B-11** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 21 Lab ID: **280-123924-A-12** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123930-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	0.611 J mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen		366666666 mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 7 Lab ID: **280-123930-B-2** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 8 Lab ID: **280-123930-B-3** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 9 Lab ID: **280-123930-A-4** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		3.4391 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 26 Lab ID: **LCS 280-458606/26** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		333333334 mg/L	mg/L	98	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 27 Lab ID: **MB 280-458606/27** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 28 Lab ID: **280-123930-B-5** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 29 Lab ID: **280-123930-B-5 DU** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

TALS Raw Data Report

Job Number: 280-123945-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	mg/L				

RS# 26 Lab ID: **LCS 280-458606/26** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		333333334 mg/L	mg/L	98	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 27 Lab ID: **MB 280-458606/27** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 28 Lab ID: **280-123930-B-5** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 29 Lab ID: **280-123930-B-5 DU** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

RS# 30 Lab ID: **280-123945-A-1** Inj Date: 5/17/2019 6:30:35PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		3.9041 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

Shipping and Receiving Documents

Chain of Custody Record 299611

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Marcia Oliva	Site Contact:	Date: 5/16/19	COC No:
Company Name: Bhate Environmental	Tel/Fax: 303.725.7631	Lab Contact:	Carrier:	___ of ___ COCs
Address: 445 Union Blvd. #129	Analysis Turnaround Time			Sampler:
City/State/Zip: Lakewood, CO 80228	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 303.725.7631	TAT if different from Below			Walk-in Client:
Fax: EMAIL: Moliva@bhate.com	☐ 2 weeks			Lab Sampling:
Project Name: GRIFFIS	☐ 1 week			
Site: LF002 LF#2	☐ 2 days			Job / SDG No.:
PO # 3342	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Alkalinity [2320B]	Color [2120B]	Anions [9056A-28D-300S]	Anions [9056A-48H-300S]	Hardness [2340C]	Total Metal-Boron [6010C-200S]	Ammonia [350.1]	TKN [351.2]	COD [410.4]	TOC [9060A]	Phenolics [9065A]	BOD [SM5210B-BOD5]	TDS [2540C-Calc]	Sample Specific Notes:
LF2MW2-1_0519	5/16/19	15:46		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF2MW-12_0519		15:45		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF2MW-12_0519-9		15:45		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF2MW-4_0519		17:02		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF2MW-13_0519		17:10		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	

280-123930 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm. ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
M. Cavanaugh	ECC	5/16/19 18:00		TADEO	5/17/19 0850
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			3.8, 5.7, 0.7, FRG, TO, Received by AHO		5/17/19

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06/14/2019

Login Sample Receipt Checklist

Client: Bhate Environmental

Job Number: 280-123930-1

Login Number: 123930
List Number: 1
Creator: Gomez, Alyssa I

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 280-123983-1

Job Description: Griffiss AFB, LF002 Landfill 2

For:
Bhate Environmental
445 Union Blvd Ste.129
Lakewood, CO 80226

Attention: Marcia Olive



Approved for release.
Kayse 1 Zalmai
Project Manager I
6/17/2019 2:21 PM

Kayse 1 Zalmai, Project Manager I
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
kayse.zalmai@testamericainc.com
06/17/2019

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Qualifiers

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE
Client: Bhate Environmental
Project: Griffiss AFB, LF002 Landfill 2
Report Number: 280-123983-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interfererences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/18/2019; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.7º C and 5.7º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for total metals (ICP) in accordance with 6010C. The samples were prepared on 05/28/2019 and analyzed on 05/29/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/31/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL KJELDAHL NITROGEN

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 06/06/2019 and analyzed on 06/07/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The samples were analyzed on 06/11/2019 and 06/12/2019.

Sample LF2SW-3_0519 (280-123983-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AND ORTHOPHOSPHATE AS P

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for nitrate-nitrite and orthophosphate as P in accordance with 9056A_48H_DOD5. The samples were analyzed on 05/19/2019.

Orthophosphate as P failed the recovery criteria high for LCS and LCSD 280-458688/4. The associated samples were ND for Orthophosphate; therefore, the data have been reported.

The matrix spike duplicate (MSD) recovery for analytical batch 280-458688 was outside control limits for orthophosphate, method 9056A_48HR. Sample matrix interference and/or non-homogeneity are suspected.

The continuing calibration verification (CCV) associated with batch 280-458688 recovered above the upper control limit for orthophosphate, method 9056A_48HR, batch 458688. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2), LF2SW-3_0519 (280-123983-3), (CCV 280-458688/17) and (CCV 280-458688/28).

Reanalysis of the following samples were performed outside of the analytical holding time to confirm PO4 result : LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3).
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFATE

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for sulfate in accordance with 9056A. The samples were analyzed on 05/19/2019 and 05/21/2019.

Fluoride was detected in method blank MB 280-458777/13 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

Sulfate failed the recovery criteria low for the MS and MSD of sample LF2SW-1_0519MS (280-123983-1) in batch 280-458689. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 06/13/2019.

Total Organic Carbon - Quad was detected in method blank MB 280-461601/4 at a level that was above the method detection limit but below the reporting limit.

Sample LF2SW-3_0519 (280-123983-3)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PHENOLICS, TOTAL RECOVERABLE

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for phenolics, total recoverable in accordance with EPA SW-846 Method 9066. The samples were prepared and analyzed on 06/06/2019.

Phenols, Total was detected in method blank MB 280-460749/2-A at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

COLOR

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for color in accordance with SM20 2120B - Colorimetric. The samples were analyzed on 05/18/2019.

Samples LF2SW-1_0519 (280-123983-1)[5X], LF2SW-2_0519 (280-123983-2)[5X] and LF2SW-3_0519 (280-123983-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for alkalinity in accordance with SM20 2320B. The samples were analyzed on 05/25/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HARDNESS

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for hardness in accordance with SM20 2340C. The samples were analyzed on 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 05/23/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND

Samples LF2SW-1_0519 (280-123983-1), LF2SW-2_0519 (280-123983-2) and LF2SW-3_0519 (280-123983-3) were analyzed for Biochemical Oxygen Demand in accordance with SM20 5210B. The samples were analyzed on 05/18/2019.

Biochemical Oxygen Demand was detected in method blank SCB 280-458674/1 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

The following samples in BOD batch 280-458674 were under depleted: (280-123966-D-1) and (280-123966-D-1 DU). Results have been reported and may be biased high. The sample was over diluted.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Bhate Environmental
Job ID: 280-123983-1
Project/Site: Griffiss AFB, LF002 Landfill 2

Client Sample ID: LF2SW-1_0519 — Lab Sample ID: 280-123983-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	9.7	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.042	J	0.10	0.022	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	0.93	J	1.0	0.69	mg/L	1		351.2	Total/NA
Chemical Oxygen Demand (COD)	68		20	8.7	mg/L	1		410.4	Total/NA
Nitrate Nitrite as N	0.051	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	1.3	J	3.0	1.0	mg/L	1		9056A	Total/NA
Nitrate	0.051	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	1.8	J J1	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	12		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.027		0.020	0.0068	mg/L	1		9066	Total/NA
Color	150	D	25	25	PCU	5		SM 2120B	Total/NA
Alkalinity	81		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	80		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	110		10	4.7	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	3.0		2.5	0.30	mg/L	1		SM5210B	Total/NA

Client Sample ID: LF2SW-2_0519 — Lab Sample ID: 280-123983-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	14	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.048	J	0.10	0.022	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand (COD)	20		20	8.7	mg/L	1		410.4	Total/NA
Chloride	1.1	J	3.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	0.074	J	1.0	0.060	mg/L	1		9056A	Total/NA
Sulfate	1.2	J	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	10		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.012	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	75	D	25	25	PCU	5		SM 2120B	Total/NA
Alkalinity	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	150		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	180		10	4.7	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	2.0	J	2.5	0.30	mg/L	1		SM5210B	Total/NA

Client Sample ID: LF2SW-3_0519 — Lab Sample ID: 280-123983-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	99	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.43		0.10	0.022	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand (COD)	1400	D	200	87	mg/L	10		410.4	Total/NA
Nitrate Nitrite as N	0.077	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	4.6		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.35	J Q	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.067	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.077	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	32		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	70		2.0	0.31	mg/L	2		9060A	Total/NA
Phenols, Total	0.32	J	0.50	0.17	mg/L	1		9066	Total/NA
Color	100	D	25	25	PCU	5		SM 2120B	Total/NA
Alkalinity	130		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	1100		30	3.0	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	230		10	4.7	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	6.3		2.5	0.30	mg/L	1		SM5210B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF2SW-1_0519
Lab Sample ID: 280-123983-1
Date Collected: 05/17/19 13:30
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**9.7**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:45	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.042**	**J**	0.10	0.022	mg/L			05/31/19 15:46	1
Nitrogen, Kjeldahl	**0.93**	**J**	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:02	1
Chemical Oxygen Demand (COD)	**68**		20	8.7	mg/L			06/11/19 09:08	1
Bromide	0.20	U M	0.50	0.11	mg/L			05/19/19 02:19	1
Nitrate Nitrite as N	**0.051**	**J**	0.50	0.042	mg/L			05/19/19 02:19	1
Chloride	**1.3**	**J**	3.0	1.0	mg/L			05/19/19 02:19	1
Orthophosphate as P	0.20	U J1 Q	0.50	0.19	mg/L			05/19/19 02:19	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/21/19 17:57	1
Nitrate	**0.051**	**J**	0.50	0.042	mg/L			05/19/19 02:19	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/19/19 02:19	1
Sulfate	**1.8**	**J J1**	5.0	1.0	mg/L			05/19/19 02:19	1
Total Organic Carbon - Quad	**12**		1.0	0.16	mg/L			06/13/19 04:40	1
Phenols, Total	**0.027**		0.020	0.0068	mg/L		06/06/19 17:53	06/06/19 21:30	1
Color	**150**	**D**	25	25	PCU			05/18/19 20:40	5
Alkalinity	**81**		10	3.1	mg/L			05/25/19 03:15	1
Hardness	**80**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**110**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	**3.0**		2.5	0.30	mg/L			05/18/19 13:59	1

Client Sample ID: LF2SW-2_0519
Lab Sample ID: 280-123983-2
Date Collected: 05/17/19 13:55
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**14**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.048**	**J**	0.10	0.022	mg/L			05/31/19 15:52	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:03	1
Chemical Oxygen Demand (COD)	**20**		20	8.7	mg/L			06/12/19 10:53	1
Bromide	0.20	U	0.50	0.11	mg/L			05/19/19 02:02	1
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/19/19 02:02	1
Chloride	**1.1**	**J**	3.0	1.0	mg/L			05/19/19 02:02	1
Orthophosphate as P	0.20	U Q	0.50	0.19	mg/L			05/19/19 02:02	1
Fluoride	**0.074**	**J**	1.0	0.060	mg/L			05/21/19 18:13	1
Nitrate	0.10	U M	0.50	0.042	mg/L			05/19/19 02:02	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/19/19 02:02	1
Sulfate	**1.2**	**J**	5.0	1.0	mg/L			05/19/19 02:02	1
Total Organic Carbon - Quad	**10**		1.0	0.16	mg/L			06/13/19 04:06	1
Phenols, Total	**0.012**	**J**	0.020	0.0068	mg/L		06/06/19 17:53	06/06/19 21:33	1
Color	**75**	**D**	25	25	PCU			05/18/19 20:40	5
Alkalinity	**160**		10	3.1	mg/L			05/25/19 03:21	1
Hardness	**150**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**180**		10	4.7	mg/L			05/23/19 16:24	1

Client Sample ID: LF2SW-2_0519
Lab Sample ID: 280-123983-2
Date Collected: 05/17/19 13:55
Matrix: Water
Date Received: 05/18/19 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	**2.0**	**J**	2.5	0.30	mg/L			05/18/19 13:59	1

Client Sample ID: LF2SW-3_0519
Lab Sample ID: 280-123983-3
Date Collected: 05/17/19 13:30
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**99**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:50	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.43**		0.10	0.022	mg/L			05/31/19 15:54	1
Nitrogen, Kjeldahl	13	U	25	17	mg/L		06/06/19 19:57	06/07/19 18:05	1
Chemical Oxygen Demand (COD)	**1400**	**D**	200	87	mg/L			06/12/19 10:53	10
Bromide	0.20	U M	0.50	0.11	mg/L			05/19/19 03:25	1
Nitrate Nitrite as N	**0.077**	**J**	0.50	0.042	mg/L			05/19/19 03:25	1
Chloride	**4.6**		3.0	1.0	mg/L			05/19/19 03:25	1
Orthophosphate as P	**0.35**	**J Q**	0.50	0.19	mg/L			05/19/19 03:25	1
Fluoride	**0.067**	**J**	1.0	0.060	mg/L			05/21/19 18:29	1
Nitrate	**0.077**	**J**	0.50	0.042	mg/L			05/19/19 03:25	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/19/19 03:25	1
Sulfate	**32**		5.0	1.0	mg/L			05/19/19 03:25	1
Total Organic Carbon - Quad	**70**		2.0	0.31	mg/L			06/13/19 19:17	2
Phenols, Total	**0.32**	**J**	0.50	0.17	mg/L		06/06/19 17:53	06/06/19 21:36	1
Color	**100**	**D**	25	25	PCU			05/18/19 21:10	5
Alkalinity	**130**		10	3.1	mg/L			05/25/19 03:37	1
Hardness	**1100**		30	3.0	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**230**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	**6.3**		2.5	0.30	mg/L			05/18/19 13:59	1

Default Detection Limits

Client: Bhate Environmental
Job ID: 280-123983-1
Project/Site: Griffiss AFB, LF002 Landfill 2

Method: 6010C - Metals (ICP)

Prep: 3010A

Analyte	LOQ	DL	Units
Boron	100	4.4	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Chemical Oxygen Demand (COD)	20	8.7	mg/L
Bromide	0.50	0.11	mg/L
Chloride	3.0	1.0	mg/L
Fluoride	1.0	0.060	mg/L
Nitrate	0.50	0.042	mg/L
Nitrate Nitrite as N	0.50	0.042	mg/L
Nitrite	0.50	0.049	mg/L
Orthophosphate as P	0.50	0.19	mg/L
Sulfate	5.0	1.0	mg/L
Total Organic Carbon - Quad	1.0	0.16	mg/L
Color	5.0	5.0	PCU
Alkalinity	10	3.1	mg/L
Hardness	3.0	0.30	mg/L
Total Dissolved Solids (TDS)	10	4.7	mg/L
Biochemical Oxygen Demand	2.0	0.24	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: Distill/Phenol

Analyte	LOQ	DL	Units
Phenols, Total	0.020	0.0068	mg/L

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-459132/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15	U	100	4.4	ug/L		05/28/19 18:00	05/29/19 11:30	1

Lab Sample ID: LCS 280-459132/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	957		ug/L		96	85 - 113

Lab Sample ID: LCSD 280-459132/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	965		ug/L		97	85 - 113	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-460082/20
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460082

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/31/19 15:44	1

Lab Sample ID: LCS 280-460082/31
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.70		mg/L		108	90 - 110

Lab Sample ID: 280-123983-1 MS
Client Sample ID: LF2SW-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460082

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.042	J	1.00	1.02		mg/L		97	90 - 110

Lab Sample ID: 280-123983-1 MSD
Client Sample ID: LF2SW-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460082

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.042	J	1.00	1.00		mg/L		96	90 - 110	2	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-460760/2-A
Matrix: Water
Analysis Batch: 460878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460760

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:17	1

Lab Sample ID: LCS 280-460760/1-A
Matrix: Water
Analysis Batch: 460878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	6.00	5.70		mg/L		95	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 280-461121/5
Matrix: Water
Analysis Batch: 461121

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/11/19 09:08	1

Lab Sample ID: LCS 280-461121/3
Matrix: Water
Analysis Batch: 461121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	91.6		mg/L		92	90 - 110

Lab Sample ID: LCSD 280-461121/4
Matrix: Water
Analysis Batch: 461121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	100	95.0		mg/L		95	90 - 110	4	11

Lab Sample ID: MB 280-461275/5
Matrix: Water
Analysis Batch: 461275

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/12/19 10:53	1

Lab Sample ID: LCS 280-461275/3
Matrix: Water
Analysis Batch: 461275

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	95.3		mg/L		95	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: LCSD 280-461275/4
Matrix: Water
Analysis Batch: 461275

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)			100	93.9		mg/L		94	90 - 110	1	11

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-458688/6
Matrix: Water
Analysis Batch: 458688

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/18/19 20:29	1
Orthophosphate as P	0.20	U Q	0.50	0.19	mg/L			05/18/19 20:29	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/18/19 20:29	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 20:29	1

Lab Sample ID: LCS 280-458688/4
Matrix: Water
Analysis Batch: 458688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N			10.0	10.5		mg/L		105	80 - 120		
Orthophosphate as P			5.00	5.95	M Q	mg/L		119	80 - 116		
Nitrate			5.00	5.40	M	mg/L		108	88 - 111		
Nitrite			5.00	5.10	M	mg/L		102	87 - 111		

Lab Sample ID: LCSD 280-458688/5
Matrix: Water
Analysis Batch: 458688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N			10.0	10.5		mg/L		105	80 - 120	0	10
Orthophosphate as P			5.00	5.95	M Q	mg/L		119	80 - 116	0	10
Nitrate			5.00	5.39	M	mg/L		108	88 - 111	0	10
Nitrite			5.00	5.10	M	mg/L		102	87 - 111	0	10

Lab Sample ID: MRL 280-458688/3
Matrix: Water
Analysis Batch: 458688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N			0.400	0.455	J	mg/L		114	50 - 150		
Orthophosphate as P			0.200	0.242	J M	mg/L		121	50 - 150		
Nitrate			0.200	0.234	J M	mg/L		117	50 - 150		
Nitrite			0.200	0.221	J M	mg/L		111	50 - 150		

Lab Sample ID: 280-123983-1 MS
Matrix: Water
Analysis Batch: 458688

Client Sample ID: LF2SW-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N	0.051	J	10.0	10.8		mg/L		108	80 - 120		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123983-1 MS
Client Sample ID: LF2SW-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458688

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Orthophosphate as P	0.20	U J1 Q	5.00	7.47	Q J1	mg/L		149	80 - 116
Nitrate	0.051	J	5.00	5.57		mg/L		110	88 - 111
Nitrite	0.10	U M	5.00	5.24		mg/L		105	87 - 111

Lab Sample ID: 280-123983-1 MSD
Client Sample ID: LF2SW-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458688

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.051	J	10.0	10.8		mg/L		107	80 - 120	0	10
Orthophosphate as P	0.20	U J1 Q	5.00	7.54	Q J1	mg/L		151	80 - 116	1	10
Nitrate	0.051	J	5.00	5.54		mg/L		110	88 - 111	1	10
Nitrite	0.10	U M	5.00	5.22		mg/L		104	87 - 111	0	10

Lab Sample ID: 280-123983-1 DU
Client Sample ID: LF2SW-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458688

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.051	J	0.0524	J	mg/L		3	10
Orthophosphate as P	0.20	U J1 Q	0.20	U Q	mg/L		NC	10
Nitrate	0.051	J	0.0524	J	mg/L		3	10
Nitrite	0.10	U M	0.10	U M	mg/L		NC	10

Lab Sample ID: MB 280-458689/6
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458689

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 20:29	1
Chloride	3.0	U	3.0	1.0	mg/L			05/18/19 20:29	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/18/19 20:29	1

Lab Sample ID: LCS 280-458689/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458689

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.32	M	mg/L		106	91 - 110
Chloride	100	101		mg/L		101	87 - 111
Sulfate	100	96.2	M	mg/L		96	87 - 112

Lab Sample ID: LCSD 280-458689/5
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458689

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.33	M	mg/L		107	91 - 110	0	10
Chloride	100	101		mg/L		101	87 - 111	0	10
Sulfate	100	96.3	M	mg/L		96	87 - 112	0	10

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MRL 280-458689/3
Matrix: Water
Analysis Batch: 458689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.214	J M	mg/L		107	50 - 150
Chloride	2.50	2.32	J	mg/L		93	50 - 150
Sulfate	2.50	2.33	J M	mg/L		93	50 - 150

Lab Sample ID: 280-123983-1 MS
Matrix: Water
Analysis Batch: 458689

Client Sample ID: LF2SW-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.20	U M	5.00	5.47		mg/L		109	91 - 110
Chloride	1.3	J	25.0	23.1		mg/L		87	87 - 111
Sulfate	1.8	J1	25.0	22.5	J1	mg/L		83	87 - 112

Lab Sample ID: 280-123983-1 MSD
Matrix: Water
Analysis Batch: 458689

Client Sample ID: LF2SW-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.20	U M	5.00	5.43		mg/L		109	91 - 110	1	10
Chloride	1.3	J	25.0	23.0		mg/L		87	87 - 111	1	10
Sulfate	1.8	J1	25.0	22.4	J1	mg/L		83	87 - 112	0	10

Lab Sample ID: 280-123983-1 DU
Matrix: Water
Analysis Batch: 458689

Client Sample ID: LF2SW-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.20	U M	0.20	U M	mg/L		NC	10
Chloride	1.3	J	1.32	J	mg/L		0.6	10
Sulfate	1.8	J1	1.77	J	mg/L		0.6	10

Lab Sample ID: MB 280-458776/13
Matrix: Water
Analysis Batch: 458776

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/20/19 18:31	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			05/20/19 18:31	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/20/19 18:31	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/20/19 18:31	1

Lab Sample ID: LCS 280-458776/11
Matrix: Water
Analysis Batch: 458776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	10.0	9.64		mg/L		96	80 - 120
Orthophosphate as P	5.00	4.88		mg/L		98	80 - 116
Nitrate	5.00	4.80		mg/L		96	88 - 111
Nitrite	5.00	4.84		mg/L		97	87 - 111

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCSD 280-458776/12
Matrix: Water
Analysis Batch: 458776

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	9.62		mg/L		96	80 - 120	0	10
Orthophosphate as P	5.00	4.86		mg/L		97	80 - 116	0	10
Nitrate	5.00	4.79		mg/L		96	88 - 111	0	10
Nitrite	5.00	4.83		mg/L		97	87 - 111	0	10

Lab Sample ID: MRL 280-458776/10
Matrix: Water
Analysis Batch: 458776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.443	J	mg/L		111	50 - 150
Orthophosphate as P	0.200	0.20	U	mg/L		84	50 - 150
Nitrate	0.200	0.225	J	mg/L		112	50 - 150
Nitrite	0.200	0.218	J	mg/L		109	50 - 150

Lab Sample ID: MB 280-458777/13
Matrix: Water
Analysis Batch: 458777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/20/19 18:31	1
Chloride	3.0	U	3.0	1.0	mg/L			05/20/19 18:31	1
Fluoride	0.126	J	1.0	0.060	mg/L			05/20/19 18:31	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/20/19 18:31	1

Lab Sample ID: LCS 280-458777/11
Matrix: Water
Analysis Batch: 458777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.94		mg/L		99	91 - 110
Chloride	100	97.9		mg/L		98	87 - 111
Fluoride	5.00	4.86		mg/L		97	88 - 112
Sulfate	100	96.8		mg/L		97	87 - 112

Lab Sample ID: LCSD 280-458777/12
Matrix: Water
Analysis Batch: 458777

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.92		mg/L		98	91 - 110	0	10
Chloride	100	97.6		mg/L		98	87 - 111	0	10
Fluoride	5.00	4.80		mg/L		96	88 - 112	1	10
Sulfate	100	96.6		mg/L		97	87 - 112	0	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 280-458777/10
Matrix: Water
Analysis Batch: 458777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.206	J	mg/L		103	50 - 150
Chloride	2.50	2.32	J	mg/L		93	50 - 150
Fluoride	0.200	0.215	J	mg/L		108	50 - 150
Sulfate	2.50	2.39	J	mg/L		96	50 - 150

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-461430/35
Matrix: Water
Analysis Batch: 461430

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/13/19 01:04	1

Lab Sample ID: LCS 280-461430/34
Matrix: Water
Analysis Batch: 461430

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	26.1		mg/L		104	88 - 112

Lab Sample ID: MB 280-461601/4
Matrix: Water
Analysis Batch: 461601

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.285	J	1.0	0.16	mg/L			06/13/19 18:38	1

Lab Sample ID: LCS 280-461601/3
Matrix: Water
Analysis Batch: 461601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	25.9		mg/L		104	88 - 112

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 280-460749/2-A
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460749

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.00830	J	0.020	0.0068	mg/L		06/06/19 17:53	06/06/19 21:00	1

Lab Sample ID: LCS 280-460749/1-A
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.208		mg/L		103	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-458692/1
Matrix: Water
Analysis Batch: 458692

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0	U	5.0	5.0	PCU			05/18/19 20:40	1

Lab Sample ID: 280-123983-2 DU
Matrix: Water
Analysis Batch: 458692

Client Sample ID: LF2SW-2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	75	D	75.0	D	PCU		0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-459576/83
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/25/19 02:19	1

Lab Sample ID: LCS 280-459576/82
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	200		mg/L		100	89 - 109

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 280-459417/2
Matrix: Water
Analysis Batch: 459417

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness	0.81	U	3.0	0.30	mg/L			05/24/19 16:44	1

Lab Sample ID: LCS 280-459417/1
Matrix: Water
Analysis Batch: 459417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness	398	397		mg/L		100	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-459268/1
Matrix: Water
Analysis Batch: 459268

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			05/23/19 16:24	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 280-459268/2
Matrix: Water
Analysis Batch: 459268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids (TDS)			500	503		mg/L		101	93 - 110		

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-458674/4
Matrix: Water
Analysis Batch: 458674

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Lab Sample ID: SCB 280-458674/1
Matrix: Water
Analysis Batch: 458674

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.644	J	2.0	0.24	mg/L			05/18/19 13:59	1

Lab Sample ID: USB 280-458674/2
Matrix: Water
Analysis Batch: 458674

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Lab Sample ID: LCS 280-458674/3
Matrix: Water
Analysis Batch: 458674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	205		mg/L		104	85 - 115		

Metals

Prep Batch: 459132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	3010A	
280-123983-2	LF2SW-2_0519	Total/NA	Water	3010A	
280-123983-3	LF2SW-3_0519	Total/NA	Water	3010A	
MB 280-459132/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-459132/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-459132/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 459798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	6010C	459132
280-123983-2	LF2SW-2_0519	Total/NA	Water	6010C	459132
280-123983-3	LF2SW-3_0519	Total/NA	Water	6010C	459132
MB 280-459132/1-A	Method Blank	Total/NA	Water	6010C	459132
LCS 280-459132/2-A	Lab Control Sample	Total/NA	Water	6010C	459132
LCSD 280-459132/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	459132

General Chemistry

Analysis Batch: 458674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	SM5210B	
280-123983-2	LF2SW-2_0519	Total/NA	Water	SM5210B	
280-123983-3	LF2SW-3_0519	Total/NA	Water	SM5210B	
MB 280-458674/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-458674/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-458674/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-458674/3	Lab Control Sample	Total/NA	Water	SM5210B	

Analysis Batch: 458688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	9056A	
280-123983-2	LF2SW-2_0519	Total/NA	Water	9056A	
280-123983-3	LF2SW-3_0519	Total/NA	Water	9056A	
MB 280-458688/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458688/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458688/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458688/3	Lab Control Sample	Total/NA	Water	9056A	
280-123983-1 MS	LF2SW-1_0519	Total/NA	Water	9056A	
280-123983-1 MSD	LF2SW-1_0519	Total/NA	Water	9056A	
280-123983-1 DU	LF2SW-1_0519	Total/NA	Water	9056A	

Analysis Batch: 458689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	9056A	
280-123983-2	LF2SW-2_0519	Total/NA	Water	9056A	
280-123983-3	LF2SW-3_0519	Total/NA	Water	9056A	
MB 280-458689/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458689/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458689/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458689/3	Lab Control Sample	Total/NA	Water	9056A	
280-123983-1 MS	LF2SW-1_0519	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 458689 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1 MSD	LF2SW-1_0519	Total/NA	Water	9056A	
280-123983-1 DU	LF2SW-1_0519	Total/NA	Water	9056A	

Analysis Batch: 458692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	SM 2120B	
280-123983-2	LF2SW-2_0519	Total/NA	Water	SM 2120B	
280-123983-3	LF2SW-3_0519	Total/NA	Water	SM 2120B	
MB 280-458692/1	Method Blank	Total/NA	Water	SM 2120B	
280-123983-2 DU	LF2SW-2_0519	Total/NA	Water	SM 2120B	

Analysis Batch: 458776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-458776/13	Method Blank	Total/NA	Water	9056A	
LCS 280-458776/11	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458776/12	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458776/10	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 458777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	9056A	
280-123983-2	LF2SW-2_0519	Total/NA	Water	9056A	
280-123983-3	LF2SW-3_0519	Total/NA	Water	9056A	
MB 280-458777/13	Method Blank	Total/NA	Water	9056A	
LCS 280-458777/11	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458777/12	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458777/10	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 459268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	SM 2540C	
280-123983-2	LF2SW-2_0519	Total/NA	Water	SM 2540C	
280-123983-3	LF2SW-3_0519	Total/NA	Water	SM 2540C	
MB 280-459268/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-459268/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 459417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	SM 2340C	
280-123983-2	LF2SW-2_0519	Total/NA	Water	SM 2340C	
280-123983-3	LF2SW-3_0519	Total/NA	Water	SM 2340C	
MB 280-459417/2	Method Blank	Total/NA	Water	SM 2340C	
LCS 280-459417/1	Lab Control Sample	Total/NA	Water	SM 2340C	

Analysis Batch: 459576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	SM 2320B	
280-123983-2	LF2SW-2_0519	Total/NA	Water	SM 2320B	
280-123983-3	LF2SW-3_0519	Total/NA	Water	SM 2320B	
MB 280-459576/83	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-459576/82	Lab Control Sample	Total/NA	Water	SM 2320B	

General Chemistry

Analysis Batch: 460082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	350.1	
280-123983-2	LF2SW-2_0519	Total/NA	Water	350.1	
280-123983-3	LF2SW-3_0519	Total/NA	Water	350.1	
MB 280-460082/20	Method Blank	Total/NA	Water	350.1	
LCS 280-460082/31	Lab Control Sample	Total/NA	Water	350.1	
280-123983-1 MS	LF2SW-1_0519	Total/NA	Water	350.1	
280-123983-1 MSD	LF2SW-1_0519	Total/NA	Water	350.1	

Prep Batch: 460749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	Distill/Phenol	
280-123983-2	LF2SW-2_0519	Total/NA	Water	Distill/Phenol	
280-123983-3	LF2SW-3_0519	Total/NA	Water	Distill/Phenol	
MB 280-460749/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460749/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Prep Batch: 460760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	351.2	
280-123983-2	LF2SW-2_0519	Total/NA	Water	351.2	
280-123983-3	LF2SW-3_0519	Total/NA	Water	351.2	
MB 280-460760/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-460760/1-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 460772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	9066	460749
280-123983-2	LF2SW-2_0519	Total/NA	Water	9066	460749
280-123983-3	LF2SW-3_0519	Total/NA	Water	9066	460749
MB 280-460749/2-A	Method Blank	Total/NA	Water	9066	460749
LCS 280-460749/1-A	Lab Control Sample	Total/NA	Water	9066	460749

Analysis Batch: 460878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	351.2	460760
280-123983-2	LF2SW-2_0519	Total/NA	Water	351.2	460760
280-123983-3	LF2SW-3_0519	Total/NA	Water	351.2	460760
MB 280-460760/2-A	Method Blank	Total/NA	Water	351.2	460760
LCS 280-460760/1-A	Lab Control Sample	Total/NA	Water	351.2	460760

Analysis Batch: 461121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	410.4	
MB 280-461121/5	Method Blank	Total/NA	Water	410.4	
LCS 280-461121/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-461121/4	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 461275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-2	LF2SW-2_0519	Total/NA	Water	410.4	
280-123983-3	LF2SW-3_0519	Total/NA	Water	410.4	

General Chemistry (Continued)

Analysis Batch: 461275 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-461275/5	Method Blank	Total/NA	Water	410.4	
LCS 280-461275/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-461275/4	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 461430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-1	LF2SW-1_0519	Total/NA	Water	9060A	
280-123983-2	LF2SW-2_0519	Total/NA	Water	9060A	
MB 280-461430/35	Method Blank	Total/NA	Water	9060A	
LCS 280-461430/34	Lab Control Sample	Total/NA	Water	9060A	

Analysis Batch: 461601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123983-3	LF2SW-3_0519	Total/NA	Water	9060A	
MB 280-461601/4	Method Blank	Total/NA	Water	9060A	
LCS 280-461601/3	Lab Control Sample	Total/NA	Water	9060A	

Client Sample ID: LF2SW-1_0519
Lab Sample ID: 280-123983-1
Date Collected: 05/17/19 13:30
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:45	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	460082	05/31/19 15:46	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:02	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461121	06/11/19 09:08	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/19/19 02:19	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/19/19 02:19	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/21/19 17:57	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461430	06/13/19 04:40	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 17:53	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 21:30	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		5	10 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 03:15	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 13:59	KES	TAL DEN

Client Sample ID: LF2SW-2_0519
Lab Sample ID: 280-123983-2
Date Collected: 05/17/19 13:55
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:47	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	460082	05/31/19 15:52	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:03	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461275	06/12/19 10:53	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/19/19 02:02	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/19/19 02:02	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/21/19 18:13	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461430	06/13/19 04:06	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 17:53	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 21:33	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		5	10 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 03:21	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 13:59	KES	TAL DEN

Lab Chronicle

Client: Bhate Environmental
Job ID: 280-123983-1
Project/Site: Griffiss AFB, LF002 Landfill 2

Client Sample ID: LF2SW-3_0519
Date Collected: 05/17/19 13:30
Date Received: 05/18/19 09:00

Lab Sample ID: 280-123983-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:50	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	460082	05/31/19 15:54	MJS	TAL DEN
Total/NA	Prep	351.2			1 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:05	SVC	TAL DEN
Total/NA	Analysis	410.4		10	2 mL	2 mL	461275	06/12/19 10:53	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/19/19 03:25	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/19/19 03:25	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/21/19 18:29	JAP	TAL DEN
Total/NA	Analysis	9060A		2	20 mL	20 mL	461601	06/13/19 19:17	JAM	TAL DEN
Total/NA	Prep	Distill/Phenol			2 mL	50 mL	460749	06/06/19 17:53	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 21:36	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		5	10 mL	50 mL	458692	05/18/19 21:10	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 03:37	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	2.5 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 13:59	KES	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Bhate Environmental
Job ID: 280-123983-1
Project/Site: Griffiss AFB, LF002 Landfill 2

Laboratory: Eurofins TestAmerica, Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD		2907.01	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2120B		Water	Color
SM 2340C		Water	Hardness

New York	NELAP	2	11964	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3010A	Water	Boron
9056A		Water	Bromide
9056A		Water	Chloride
9056A		Water	Fluoride
9056A		Water	Nitrate
9056A		Water	Nitrate Nitrite as N
9056A		Water	Nitrite
9056A		Water	Orthophosphate as P
9056A		Water	Sulfate
9060A		Water	Total Organic Carbon - Quad

Method Summary

Client: Bhate Environmental
Job ID: 280-123983-1
Project/Site: Griffiss AFB, LF002 Landfill 2

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
9066	Phenolics, Total Recoverable	SW846	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
Distill/Phenol	Distillation, Phenolics	None	TAL DEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Bhate Environmental
Job ID: 280-123983-1
Project/Site: Griffiss AFB, LF002 Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-123983-1	LF2SW-1_0519	Water	05/17/19 13:30	05/18/19 09:00	
280-123983-2	LF2SW-2_0519	Water	05/17/19 13:55	05/18/19 09:00	
280-123983-3	LF2SW-3_0519	Water	05/17/19 13:30	05/18/19 09:00	

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:04
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:04
Orthophosphate as P	5.68	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458327/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:05
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:06
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:07
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:07
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:07

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:08
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:08
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/15/19 19:10
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458328/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458328/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:07
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:07

Lab Sample ID: STD 280-458328/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	pedrickj	05/16/19 08:31
Sulfate	6.43	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:08
Sulfate	6.46	Peak assignment corrected	phantl	05/15/19 19:08

Lab Sample ID: ICB 280-458328/9 Client Sample ID:

Date Analyzed: 05/15/19 19:27 Lab File ID: 0009.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.72	Incomplete Integration	pedrickj	05/16/19 07:51
Chloride	3.23	Incomplete Integration	pedrickj	05/16/19 07:51

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458688

Lab Sample ID: CCV 280-458688/1 Client Sample ID:

Date Analyzed: 05/18/19 19:06 Lab File ID: 0001.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.27	Peak assignment corrected	sonnierk	05/18/19 20:06
Nitrate	5.82	Peak assignment corrected	sonnierk	05/18/19 20:06
Orthophosphate as P	7.59	Peak assignment corrected	sonnierk	05/18/19 20:06

Lab Sample ID: MRL 280-458688/3 Client Sample ID:

Date Analyzed: 05/18/19 19:39 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.26	Peak assignment corrected	sonnierk	05/18/19 20:08
Nitrate	5.83	Peak assignment corrected	sonnierk	05/18/19 20:08
Orthophosphate as P	7.60	Peak assignment corrected	sonnierk	05/18/19 20:08

Lab Sample ID: LCS 280-458688/4 Client Sample ID:

Date Analyzed: 05/18/19 19:56 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.27	Peak assignment corrected	sonnierk	05/18/19 20:32
Nitrate	5.81	Peak assignment corrected	sonnierk	05/18/19 20:32
Orthophosphate as P	7.58	Peak assignment corrected	sonnierk	05/18/19 20:31

Lab Sample ID: LCSD 280-458688/5 Client Sample ID:

Date Analyzed: 05/18/19 20:12 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.27	Peak assignment corrected	sonnierk	05/18/19 20:32
Nitrate	5.82	Peak assignment corrected	sonnierk	05/18/19 20:33
Orthophosphate as P	7.58	Peak assignment corrected	sonnierk	05/18/19 20:32

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458688

Lab Sample ID: 280-123983-2 Client Sample ID: LF2SW-2_0519

Date Analyzed: 05/19/19 02:02 Lab File ID: 0022.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate		Unspecified		
Nitrite		Unspecified		

Lab Sample ID: 280-123983-1 Client Sample ID: LF2SW-1_0519

Date Analyzed: 05/19/19 02:19 Lab File ID: 0023.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite		Unspecified		

Lab Sample ID: 280-123983-1 DU Client Sample ID: LF2SW-1_0519 DU

Date Analyzed: 05/19/19 02:35 Lab File ID: 0024.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite		Unspecified		

Lab Sample ID: 280-123983-3 Client Sample ID: LF2SW-3_0519

Date Analyzed: 05/19/19 03:25 Lab File ID: 0027.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite		Unspecified		

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458689

Lab Sample ID: CCV 280-458689/1 Client Sample ID:

Date Analyzed: 05/18/19 19:06 Lab File ID: 0001.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.15	Peak assignment corrected	sonnierk	05/18/19 20:07
Sulfate	8.51	Peak assignment corrected	sonnierk	05/18/19 20:07

Lab Sample ID: MRL 280-458689/3 Client Sample ID:

Date Analyzed: 05/18/19 19:39 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.15	Peak assignment corrected	sonnierk	05/18/19 20:08
Sulfate	8.45	Peak assignment corrected	sonnierk	05/18/19 20:08

Lab Sample ID: LCS 280-458689/4 Client Sample ID:

Date Analyzed: 05/18/19 19:56 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.14	Peak assignment corrected	sonnierk	05/18/19 20:32
Sulfate	8.50	Peak assignment corrected	sonnierk	05/18/19 20:32

Lab Sample ID: LCSD 280-458689/5 Client Sample ID:

Date Analyzed: 05/18/19 20:12 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.14	Peak assignment corrected	sonnierk	05/18/19 20:33
Sulfate	8.51	Peak assignment corrected	sonnierk	05/18/19 20:33

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458689

Lab Sample ID: 280-123983-1 Client Sample ID: LF2SW-1_0519

Date Analyzed: 05/19/19 02:19 Lab File ID: 0023.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide		Unspecified		

Lab Sample ID: 280-123983-1 DU Client Sample ID: LF2SW-1_0519 DU

Date Analyzed: 05/19/19 02:35 Lab File ID: 0024.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide		Unspecified		

Lab Sample ID: 280-123983-3 Client Sample ID: LF2SW-3_0519

Date Analyzed: 05/19/19 03:25 Lab File ID: 0027.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide		Unspecified		

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00367	06/04/19	05/28/19	Di Water, Lot na	100 mL	NH3 CAL STD_00030	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00030	02/28/20		Ricca, Lot 1808L28		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00350	06/04/19	05/28/19	na, Lot na	100 mL	NH3 ICV STD_00026	10 mL	Ammonia	99.6 mg/L
.NH3 ICV STD_00026	04/01/20		Inorganic Ventures, Lot M2-NH662533		(Purchased Reagent)		Ammonia	996 mg/L
Alk daily lcs_00821	05/27/19	05/20/19	Di Water, Lot na	1000 mL	Alk stk std_00016	4 mL	Alkalinity	200 mg/L
.Alk stk std_00016	06/30/20		Fischer, Lot 182564		(Purchased Reagent)		Alkalinity	50 g/L
BOD Std_00001_00046	02/15/24		HACH, Lot A9046		(Purchased Reagent)		Biochemical Oxygen Demand	198 mg/L
COD cal std_00048	09/01/20		Ricca, Lot 1904987		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1000 mg/L
COD icv std_00034	02/01/20		HACH, Lot A9057		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1005 mg/L
Hard lcs std_00052	04/12/21		Lab Chem, Lot H159-16		(Purchased Reagent)		Hardness	0.996 mg/mL
IC CAL cl/so4_00256	05/17/19	05/10/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00257	05/24/19	05/17/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00458	05/18/19	05/11/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC CL ICV_00016	10/31/19		ERA, Lot 091017		(Purchased Reagent)		Chloride	1000 mg/L
IC ICV 5_00233	05/16/19	05/09/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00016	0.5 mL	Nitrite	50 mg/L
					IC NO3 ICV_00014	0.5 mL	Nitrate	50 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					IC PO4 ICV_00015	0.5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L
.IC NO2 ICV_00016	05/31/20		ERA, Lot 020518		(Purchased Reagent)		Nitrite	1000 mg/L
.IC NO3 ICV_00014	12/31/19		ERA, Lot 031217		(Purchased Reagent)		Nitrate	1000 mg/L
.IC PO4 ICV_00015	06/30/19		ERA, Lot 060617		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC ICV 5_00234	05/27/19	05/20/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00016	0.5 mL	Nitrite	50 mg/L
					IC NO3 ICV_00014	0.5 mL	Nitrate	50 mg/L
					IC PO4 ICV_00015	0.5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L
.IC NO2 ICV_00016	05/31/20		ERA, Lot 020518		(Purchased Reagent)		Nitrite	1000 mg/L
.IC NO3 ICV_00014	12/31/19		ERA, Lot 031217		(Purchased Reagent)		Nitrate	1000 mg/L
.IC PO4 ICV_00015	06/30/19		ERA, Lot 060617		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC LCS_01579	05/19/19	05/18/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC LCS_01580	05/21/19	05/20/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Fluoride	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00017	06/30/19		ERA, Lot 210617		(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00592	05/21/19	05/14/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Bromide	499.924 mg/L
							Chloride	2499.92 mg/L
							Nitrate	500.003 mg/L
							Orthophosphate as P	500.058 mg/L
							Sulfate	2500.26 mg/L
					IC SPK N02SOL_00013	5 mL	Nitrite	499.973 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD Br_00003	1.2876 g	Bromide	999.847 mg/L
					IC MS/MSD CL_00002	8.2424 g	Chloride	4999.84 mg/L
					IC MS/MSD N03_00005	6.068 g	Nitrate	1000.01 mg/L
					IC MS/MSD P04_00002	4.3936 g	Orthophosphate as P	1000.12 mg/L
					IC MS/MSD S04_00005	9.0704 g	Sulfate	5000.51 mg/L
..IC MS/MSD Br_00003	09/29/21		FISHER, Lot 110569		(Purchased Reagent)		Bromide	0.77652 g/g
..IC MS/MSD CL_00002	01/13/21		FISHER, Lot 091363		(Purchased Reagent)		Chloride	0.6066 g/g
..IC MS/MSD N03_00005	09/27/28		FISHER, Lot 176192		(Purchased Reagent)		Nitrate	0.1648 g/g
..IC MS/MSD P04_00002	09/06/22		FISHER, Lot 112841		(Purchased Reagent)		Orthophosphate as P	0.22763 g/g
..IC MS/MSD S04_00005	09/29/20		FISHER, Lot 147276		(Purchased Reagent)		Sulfate	0.5513 g/g
.IC SPK N02SOL_00013	06/05/19	06/05/18	Di Water, Lot na	500 mL	IC MS/MSD N02_00002	2.4628 g	Nitrite	999.946 mg/L
..IC MS/MSD N02_00002	01/12/27		fisher, Lot 164254		(Purchased Reagent)		Nitrite	0.20301 g/g
ICP CCV_00380	06/04/19	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00840	250 mL	Boron	0.5 mg/L
.ICP ICAL1A_00840	06/25/20	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	1000 mL	ICP CAL STD 4_00003	10 mL	Boron	1 mg/L
..ICP CAL STD 4_00003	09/22/20		CPI, Lot 10094465-3		(Purchased Reagent)		Boron	100 mg/L
ICP ICSA_00186	03/18/20	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.Icp stk ICSA_00029	03/18/20		CPI, Lot 982821-1		(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICSAB_00213	06/03/19	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Li_00040	0.25 mL	Li	1 mg/L
					ICP ICSAB 1_00001	2.5 mL	Mo	1 mg/L
							Sb	1 mg/L
							Si	10 mg/L
							SiO2	21.4 mg/L
							Sn	1 mg/L
							Ti	1 mg/L
					ICP ICSAB 2_00001	2.5 mL	Ag	1 mg/L
							As	1 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ba	1 mg/L
							Be	0.5 mg/L
							Boron	10 mg/L
							Cd	1 mg/L
							Co	1 mg/L
							Cr	1 mg/L
							Cu	1 mg/L
							K	10 mg/L
							Mn	1 mg/L
							Na	10 mg/L
							Ni	1 mg/L
							P	10 mg/L
							Pb	1 mg/L
							Se	1 mg/L
							Sr	1 mg/L
							Tl	1 mg/L
							V	1 mg/L
							Zn	1 mg/L
					Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.1000 Li_00040	05/16/20		CPI, Lot 751942-43		(Purchased Reagent)		Li	1000 mg/L
.ICP ICSAB 1_00001	06/03/19		CPI, Lot 990624-2		(Purchased Reagent)		Mo	100 mg/L
							Sb	100 mg/L
							Si	1000 mg/L
							SiO2	2140 mg/L
							Sn	100 mg/L
							Ti	100 mg/L
.ICP ICSAB 2_00001	06/03/19		CPI, Lot 990626-2		(Purchased Reagent)		Ag	100 mg/L
							As	100 mg/L
							Ba	100 mg/L
							Be	50 mg/L
							Boron	1000 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							K	1000 mg/L
							Mn	100 mg/L
							Na	1000 mg/L
							Ni	100 mg/L
							P	1000 mg/L
							Pb	100 mg/L
							Se	100 mg/L
							Sr	100 mg/L
							Tl	100 mg/L
							V	100 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zn	100 mg/L
.Icp stk ICSA_00029	03/18/20	CPI, Lot 982821-1			(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICV_00824	10/16/19	05/29/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP CAL STD 4_00002	0.25 mL	Boron	0.25 ppm
.ICP CAL STD 4_00002	09/22/20	CPI, Lot 10094465-2			(Purchased Reagent)		Boron	100 mg/L
ICP LLCCV_02552	05/30/19	05/29/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV-2a_00010	1 mL	Boron	100 ppb
.ICP LLCCV-2a_00010	06/18/19	CPI, Lot 10090185-1			(Purchased Reagent)		Boron	10 mg/L
Phenol CAL 10_00730	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol CAL_00012	1 mL	Phenolics, Total Recoverable	10.07 mg/L
							Phenols, Total	10.07 mg/L
.Phenol CAL_00012	12/07/19	Lab Chem, Lot G341-02			(Purchased Reagent)		Phenolics, Total Recoverable	1007 mg/L
							Phenols, Total	1007 mg/L
Phenol ICV 10_00605	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol ICV_00013	1 mL	Phenols, Total	10 mg/L
.Phenol ICV_00013	02/29/20	ERA, Lot 090817			(Purchased Reagent)		Phenols, Total	1000 mg/L
PREP SPK 1_00008	05/13/20	CPI, Lot 993218-1			(Purchased Reagent)		As	200 mg/L
							Ba	200 mg/L
							Be	100 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							Li	100 mg/L
							Mn	100 mg/L
							Mo	100 mg/L
							Ni	100 mg/L
							Pb	100 mg/L
							Se	200 mg/L
							Si	200 mg/L
							SiO2	428 mg/L
							Sn	200 mg/L
							Sr	100 mg/L
							Ti	100 mg/L
							Tl	200 mg/L
							V	100 mg/L
PREP SPK 2_00004	05/13/20	CPI, Lot 992745-2			(Purchased Reagent)		Al	1000 mg/L
							Ca	5000 mg/L
							Fe	1000 mg/L
							K	5000 mg/L
							Mg	5000 mg/L
							Na	5000 mg/L
PREP SPK 3_00004	05/13/20	CPI, Lot 992746-1			(Purchased Reagent)		P	2000 mg/L
							Sulfur	1000 mg/L
							U	200 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							W	100 mg/L
PREP SPK 4_00004	05/08/20	CPI, Lot 10094085-3			(Purchased Reagent)		Bi	200 mg/L
							Boron	100 mg/L
							Th	100 mg/L
							Zn	50 mg/L
							Zr	50 mg/L
PREP SPK 4B_00001	04/16/20	CPI, Lot 10094085-2			(Purchased Reagent)		Ag	5 mg/L
PREP SPK 5_00002	10/10/19	04/10/19	5% HNO3, Lot 216908	250 mL	1000 Sb_00020	25 mL	Sb	100 mg/L
.1000 Sb_00020	03/08/20	CPI, Lot 153992-34			(Purchased Reagent)		Sb	1000 mg/L
TDS LCS_00537_00055	08/22/19	05/22/19	Di Water, Lot na	1000 mL	NaCl f_00004	0.5 g	Total Dissolved Solids (TDS)	500 mg/L
.NaCl f_00004	04/14/21	JT Baker, Lot J48622			(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g
TKN 25ppm_00794	07/01/19	05/31/19	Di Water, Lot 1	100 mL	TKN 100PPM_00108	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN 100PPM_00108	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21	nsi lab solutions, Lot 010617			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TKN ICV 25_00078	07/01/19	05/31/19	DI water, Lot 1	100 mL	TKN ICV 100_00070	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN ICV 100_00070	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20	ERA, Lot 281018			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TOC ICV Std_00037	01/31/20	Ricca, Lot 1807G06			(Purchased Reagent)		TOC Result 1	1000 ppm
							TOC Result 2	1000 ppm
							TOC Result 3	1000 ppm
							TOC Result 4	1000 ppm
							Total Organic Carbon - Quad	1000 ppm
TOC LCS Std_00046	03/31/21	Ultra Scientific, Lot CT-0920			(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm

Reagent

1000 Li_00040

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000291

SE Std Lithium (Li) – 1000 µg/mL

Lot #: 751942-43

Matrix: 5% HNO_3

5658289
ID: 1000 Li_00040
Exp:05/16/20 Prpd:CRR Opn:03/26/19
1000 Li CPI

Element	Certified Concentration & Uncertainty
Li	1002 ± 3 µg/mL (w/v)
	993 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	35	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<100	V	<1
Al	9	Cs	7	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	30	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	2	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Zn	<2
Ba	2	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	MAJOR	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

November 16, 2018
Certification Date

Chuck Goudreau, Certifying Officer

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

1000 Sb_00020

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Antimony (Sb) – 1000 µg/mL

Matrix: 5% HNO_3/tr. HF

5522333
ID: 1000 Sb_00020
Exp: 06/17/19 Prpd: SJS
1000 Sb CPI

Product #: TA-100023

Lot #: 153992-34

Element	Certified Concentration & Uncertainty
Sb	1000 ± 5 µg/mL (w/v)
	977 ± 5 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure antimony (Sb) metal dissolved in high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3102a, lot #140911**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<1000	V	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	<0.5	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	<0.5	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	0.6	Re	<0.2	Ta	<0.5	Zn	<2
Ba	<1	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	4	Os	<0.5	Sb	MAJOR	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	<2	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 17, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

Alk stk std_00016

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Quality Test / Release Date	06/05/2018
Lot Number	182564	Expiration Date	Jun/2020
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
COLOR	APHA	<= 5	<5
NORMALITY		Inclusive Between 0.995 - 1.000	1.000
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

BOD Std_00001_00046

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY: **ez GGA for BOD Test**
COMMODITY NUMBER: **2514420**
LOT NUMBER: **A9046**

MANUFACTURE DATE: **2/25/2019**

DATE OF ANALYSIS: **2/28/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
Confirmation test to ensure glutamic acid has been added.	To Pass	Passed
COD Concentration used to confirm the total concentration of Glucose-Glutamic Acid is correct.	884 to 956 mg/l	911.0 mg/l

The expiration date is Feb 2024

After preparation following the instruction sheet the BOD concentration is 198 mg/L.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

COD cal std_00048

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Potassium Acid Phthalate Standard, 1000 ppm Chemical Oxygen Demand (COD)

Lot Number: 1904987 **Product Number:** 5868

Manufacture Date: APR 05, 2019
Expiration Date: SEP 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is estimated based upon the volumetric method of preparation. It is certified that a COD of 500 mg/L should be obtained on a 25.0 mL aliquot of this standard solution diluted to 50 mL. The manufacturing specification for this product is Chemical Oxygen Demand (COD) = 1.000 ± 0.005 mg per mL at 20°C. This is the equivalent quantity of Oxygen that this standard solution will consume, based on the reduction of a Potassium Dichromate Standard Solution under the specified conditions in the ASTM D 1252-95 test methods.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Chemical Oxygen Demand (COD)	995-1005 ppm	1000 ppm

Specification	Reference
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg COD)	ASTM (D 1252 A)
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg/L)	ASTM (D 1252 B)
Stock Potassium Acid Phthalate	EPA (410.4)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5868-16	500 mL natural poly	18 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (04/05/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

COD icv std_00034

Certificate of Analysis List

For request number 1116752

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
2253929	9057	N/A	N/A	Chemical Oxygen Demand Standard Solution 1000 mg/l COD

Total Enclosures: 1

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY:**Chemical Oxygen Demand Standard Solution 1000 mg/l COD**

COMMODITY NUMBER: **2253929**	MANUFACTURE DATE:	DATE OF ANALYSIS:
LOT NUMBER: **A9057**	**3/2/2019**	**3/3/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
COD Concentration	950 to 1050 ppm	986.0 ppm

The expiration date is Feb 2020

The item 2253929 is traceable to NIST standards SRM 84L Potassium Hydrogen Phthalate LOT N/A.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

Hard lcs std_00052

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CALCIUM CARBONATE STANDARD 1mL = 1mg CaCO3 (0.01M)

Catalog Number: LC12700
Lot Number: J086-18

Mfg Date: 03/28/2019
Expiration Date: 03/28/2021

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Molarity	0.0100M +/- 0.0001M	0.0099M
Concentration mg CaCO3/mL	1.000 +/- 0.010mg CaCO3/mL	0.995 mg CaCO3/mL
Traceable to NIST	Calcium Carbonate	915b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted By: Greg Albright, Chemist Supervisor

An ISO9001:2008 certified company. Registration # 0306.01

Reagent

IC BR ICV_00012

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 1804F11 **Product Number:** 1180

Manufacture Date: APR 06, 2018
Expiration Date: SEP 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (04/06/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC BR ICV_00014

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Bromide
CATALOG NUMBER:	046 -125 mL; 987 - 500 mL
LOT NUMBER:	450817
ISSUE DATE:	September 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Bromide (KBr)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	1.2%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3184 Bromide
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 8/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC CL cal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-101CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018 Certifying Officer: Kathleen Cullin

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Reagent

IC CL cal_00058

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-154CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 997 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 996 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: APR - - 2019

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

Page 1 of 2
Rev. 0

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials -- Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX Fax: 732-603-9647

Reagent

IC CL ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Chloride
CATALOG NUMBER:	047 -125 mL; 988 - 500 mL
LOT NUMBER:	091017
ISSUE DATE:	October 17, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Chloride (NaCl)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9984 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3182 Chloride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC F ICV_00012

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Fluoride
CATALOG NUMBER:	050 -125 mL; 989 - 500 mL
LOT NUMBER:	230918
ISSUE DATE:	October 11, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Fluoride (KF)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9995 ± 0.0008 g/mL at 20.6°C and 752 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	3183 Fluoride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 9/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

Reagent

IC FL cal_00013

RICCA CHEMICAL COMPANY®

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customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F-

Lot Number: 4805C89 **Product Number:** 3173

Manufacture Date: MAY 07, 2018
Expiration Date: OCT 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1000 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC MS/MSD Br_00003

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S255	Mfg. Date 3/3/2011	
Lot Number	110569		
Description	SODIUM BROMIDE, A.C.S.		
Country of Origin	China	Recommended Retest Date	Mar-2016
Chemical Origin	Inorganic-non animal		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE GRANULATING POWDER
ASSAY	%	>= 99	99.5
BARIUM (Ba)	%	<= 0.002	<0.0020
BROMATE	%	<= 0.001	<0.0010
CALCIUM	%	<= 0.002	<0.0020
CHLORIDE	%	<= 0.2	0.09
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.001	<0.0010
PH 5% SOLN @ 25 DEG C		Inclusive Between 5.0 8.8	7.1
POTASSIUM (K)	%	<= 0.1	<0.10
SULFATE (SO4)	%	<= 0.002	<0.0020



Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD N02_00002

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

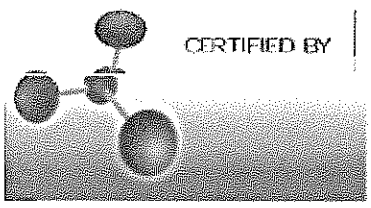
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

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Catalog Number	**S347**	**Quality Test / Release Date**	**9/9/2016**
Lot Number	**164254**		
Description	**SODIUM NITRITE, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Sep-2021**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	yELLOW-WHITE CRYSTALS
ASSAY	%	>= 97	98.6
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.001	<0.0010
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	%	<= 0.001	<0.0010
POTASSIUM (K)	%	<= 0.005	<0.0010
SULFATE (SO4)	%	<= 0.01	<0.010



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC MS/MSD N03_00005

Scientific

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ıir Lawn, NJ 07410
)1.796.7100 tel
)1.796.1329 fax

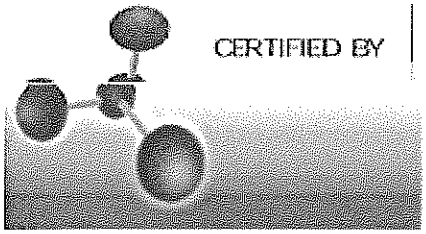
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

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ıtalog Number	**S343**	**Quality Test / Release Date**	**8/23/2017**
)t Number	**176192**		
escription	**SODIUM NITRATE, A.C.S.**		
)untry of Origin	**Mexico**	*** Suggested Retest Date**	**Aug-2022**
ıemical Origin	**Inorganic-non animal**		
SE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

sult name	Units	Specifications	Test Value
PEARANCE		REPORT	Clear to white crystals.
SAY	%	>= 99	99.7
LCIUM	%	<= 0.005	0.001
LORIDE	%	<= 0.001	<0.0010
AVY METALS (as Pb)	ppm	<= 5	<5.0
ENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
SOLUBLE MATTER	%	<= 0.005	<0.005
)ATE	ppm	<= 5	<5.0
)N (Fe)	ppm	<= 3	<3.0
.GNESIUM	%	<= 0.002	0.0002
TRITE (NO2)	%	<= 0.001	<0.0010
5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.3	6.7
OSPHATE (PO4)	ppm	<= 5	<5.0
LFATE (SO4)	%	<= 0.003	<0.0030



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Reagent

IC MS/MSD P04_00002

Fisher Scientific

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Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

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Catalog Number	**P386**	**Mfg. Date**	**9/19/2011**
Lot Number	**112841**		
Description	**POTASSIUM PHOSPHATE MONOBASIC NF/FCC/EP/BP**		
Country of Origin	**United States**		
Chemical Origin	**Inorganic**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

FCC Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	MG/KG	<= 3	<3
ASSAY	%	>= 98.0	99.7
FLUORIDES	MG/KG	<= 10	<5
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD (Pb)	MG/KG	<= 2	<2.0
LOSS ON DRYING PER FCC	%	<= 1	<1.0

NF Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	ppm	<= 3	<3
ASSAY	%	Inclusive Between 98.0 100.5	99.7
ENDOTOXINS	EU/Mg	<= 1	<0.02000
FLUORIDES	%	<= 0.001	<0.0005
HEAVY METALS (as PB)	%	<= 0.002	<0.002
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD	ppm	<= 5	<5
LOSS ON DRYING	%	<= 1.0	<1.0
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS

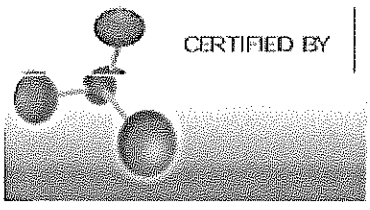
EP Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS

ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
BACTERIAL ENDOTOXINS	EU/Mg	<= 1	<0.02000
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER EP	%	<= 2.0	<1.0
PH (5 % SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

British Pharmacopela Grade Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS
ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER BP	%	<= 2.0	<1.0
PH (5% SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

Residual Solvents	No Class 1, Class 2, or Class 3 solvents, or any other solvents, are used in the manufacturing, handling, or storage of this storage, or in any cleaning process.



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD S04_00005

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

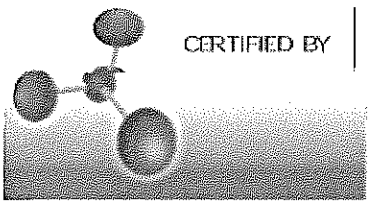
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

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Catalog Number	**P304**	**Quality Test / Release Date**	**3/2/2015**
Lot Number	**147276**		
Description	**POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Feb-2020**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99	99.4
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.005	<0.0050
NITROGEN COMPOUNDS	ppm	<= 5	<5
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.5	5.5
SODIUM (Na)	%	<= 0.02	<0.020



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC N02 CAL_00045

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2)

Lot Number: 1902672 **Product Number:** R5444900

Manufacture Date: FEB 04, 2019
Expiration Date: JUL 2019

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	995 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (02/04/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC N03 cal_00019

RICCA CHEMICAL COMPANY®

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customerservice@riccachemical.com

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2807E96 **Product Number:** 5459

Manufacture Date: JUL 24, 2018
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Andy Baumgartner (07/24/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC NO2 ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO_2-N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	020518
ISSUE DATE:	May 16, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite ($NaNO_2$)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	4.7%
MATRIX:	18 megohm deionized water
DENSITY:	1.0004 ± 0.0008 g/mL at 19.2°C and 752 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	-
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 5/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC P04 cal_00019

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Batesville, IN 47006
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Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H_2O

Lot Number: 4902D52 **Product Number:** AP1KW

Manufacture Date: FEB 08, 2019
Expiration Date: JAN 2021

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs (02/08/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC PO4 ICV_00015

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Phosphate as P (PO_4-P)
CATALOG NUMBER:	061 -125 mL; 993 - 500 mL
LOT NUMBER:	060617
ISSUE DATE:	June 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Dihydrogen Phosphate (KH_2PO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9996 ± 0.0008 g/mL at 23.5°C and 622 mm Hg
TRACEABILITY[3]:	103%
NIST/SRM:	3186 Phosphate
VERIFICATION METHOD:	Ion Chromatography
STORAGE: THIS	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC SO4 ICV_00017

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	210617
ISSUE DATE:	June 27, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9987 ± 0.0008 g/mL at 22.5°C and 757 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC sulfatecal_00053

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: AUG - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC sulfatecal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

ICP CAL STD 4_00002

CPI INTERNATIONAL

5617886
ID: ICP CAL STD 4_00002
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 SECONDARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-SS

Custom ISO G34 Second Source Standard

Lot #: 10094465-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 µg/mL	Ca	999.9 ± 5.0 µg/mL	Na	5000 ± 25 µg/mL
Al	99.98 ± 0.50 µg/mL	Fe	500.1 ± 2.5 µg/mL	Zn	100.0 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	10,000 ± 50 µg/mL	Zr	100.0 ± 0.5 µg/mL
Bi	200.0 ± 1.0 µg/mL	Mg	4000 ± 20 µg/mL		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP CAL STD 4_00003

CPI INTERNATIONAL

5617860
ID: ICP CAL STD 4_00001
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 PRIMARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-500

Custom ISO G34 Standard

Lot #: 10094465-3

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.1 ± 0.5 µg/mL	Ca	1000 ± 5 µg/mL	Na	5000 ± 25 µg/mL
Al	100.1 ± 0.5 µg/mL	Fe	500.3 ± 2.5 µg/mL	Zn	100.1 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	9999 ± 50 µg/mL	Zr	99.98 ± 0.50 µg/mL
Bi	200.2 ± 1.0 µg/mL	Mg	4001 ± 20 µg/mL		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
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Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP ICSAB 1_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

5471540
ID: ICP ICSAB 1_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 1 CPI

Lot #: 990624-2

Matrix: 5% HNO_3/0.5% HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.0 ± 0.5 mg/L
Sb	100.0 ± 0.5 mg/L	Sn	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-1		
Vendor	CPI		
Lot number	990624-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICPICSAB1_00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CR	Instrument ID	MT-025
Verification Date	1/30/19	Method Reference	U010B
ID of Standard Used for Verification	5528932/5528182	Batch # / Chrom Work List #	445975

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	N/A

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

TestAmerica
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Reagent ID: ICP ICSAB 1_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 1 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990624-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-1
Open Date:	01/29/2019		
Container(s):	5471540		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Mo					100.00000	mg/L
Sb					100.00000	mg/L
Si					1000.00000	mg/L
Sn					100.00000	mg/L
Ti					100.00000	mg/L

Sample Name: xICSAB sol 1 100x Acquired: 1/30/2019 11:16:24 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: reagent bottle check

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.02433**	**.01266**	**.01718**	**.01887**	**.00044**	**.02174**	**.47181**	**.00071**
Stddev	.00004	.00024	.00489	.00084	.00010	.00012	.00685	.00076	.00006
%RSD	7.0663	.98064	38.631	4.8888	.52301	27.840	31.508	.16192	8.4479
#1	.00053	.02450	.01612	.01658	.01880	.00035	.02659	.47235	.00067
#2	.00058	.02416	.00920	.01777	.01894	.00052	.01690	.47127	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00242**	**.00153**	**.02006**	**.56757**	**.01037**	**.47512**	**.00496**	**1.0133**
Stddev	.00010	.00025	.00005	.00110	.03642	.00435	.00725	.00001	.0039
%RSD	2.5510	10.211	3.1263	5.4797	6.4175	42.012	1.5261	.23393	.38063
#1	.00417	.00225	.00150	.02084	.54181	.00729	.47000	.00497	1.0160
#2	.00403	.00260	.00157	.01928	.59333	.01345	.48025	.00496	1.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49431**	**.00430**	**.08410**	**.01084**	**.03507**	**.99570**	**.01580**	**9.9173**	**21.223**
Stddev	.00501	.00053	.00063	.00088	.00283	.00482	.00254	.0370	.079
%RSD	1.0130	12.416	.75155	8.1609	8.0821	.48413	16.067	.37264	.37264
#1	.49077	.00468	.08455	.01146	.03707	.99230	.01760	9.8912	21.167
#2	.49785	.00392	.08365	.01021	.03306	.99911	.01401	9.9434	21.279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0648**	**.00964**	**.01036**	**1.0237**	**.01971**	**.02237**	**.00551**	**.00635**	**.00546**
Stddev	.0013	.00014	.00233	.0003	.00077	.01226	.00033	.00030	.00002
%RSD	.12116	1.4717	22.449	.02853	3.9220	54.809	6.0687	4.7932	.32279
#1	1.0658	.00954	.00871	1.0239	.02026	.03104	.00575	.00656	.00548
#2	1.0639	.00974	.01200	1.0235	.01916	.01370	.00527	.00613	.00545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4001.5**	**55629.**	**4846.2**
Stddev	8.9	65.	20.9
%RSD	.22316	.11631	.43220
#1	3995.2	55583.	4861.0
#2	4007.8	55674.	4831.4

Reagent

ICP ICSAB 2_00001

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-2		
Vendor	CPI		
Lot number	990626-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICP ICSAB 2-00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CL/CR	Instrument ID	MT_052 MT_025
Verification Date	1/21/19 1/29/19	Method Reference	L0103
ID of Standard Used for Verification	Calibration STDS	Batch # / Chrom Work List #	4449458/4455894

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

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Reagent ID: ICP ICSAB 2_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 2 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990626-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-2
Open Date:	01/29/2019		
Container(s):	5471537		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
As					100.00000	mg/L
B					1000.00000	mg/L
Ba					100.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					100.00000	mg/L
Cr					100.00000	mg/L
Cu					100.00000	mg/L
K					1000.00000	mg/L
Mn					100.00000	mg/L
Na					1000.00000	mg/L
Ni					100.00000	mg/L
P					1000.00000	mg/L
Pb					100.00000	mg/L
Se					100.00000	mg/L
Sr					100.00000	mg/L
Tl					100.00000	mg/L
V					100.00000	mg/L
Zn					100.00000	mg/L

52A012119.esws

Tuesday, January 22, 2019 7:50 AM

User: denmet

Workstation: DENPC507

Sample Name: ICSAB 2 100X

Date: 1/21/2019 2:07:16 PM

Rack:Tube: 1:90

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.966867	ppm	0.002732	0.28	27113.200000	Y 377.433
Al (394.401 nm)	-0.018589 u	ppm	0.000377	2.03	120.753000	Y 377.433
Al H (396.152 nm)	-0.080631 u	ppm	0.000855	1.06	12.478800	Y_R 377.433
As (188.980 nm)	0.937518	ppm	0.002548	0.27	1229.410000	Y 242.219
B (249.678 nm)	9.446880	ppm	0.011734	0.12	33938.900000	Y 242.219
Ba (493.408 nm)	0.969569	ppm	0.001606	0.17	87740.300000	Y_R 488.368
Be (234.861 nm)	0.466384	ppm	0.000072	0.02	26151.800000	Y_R 488.368
Bi (223.061 nm)	0.001837	ppm	0.002483	> 100.00	44.091400	Y 377.433
Ca (315.887 nm)	-0.003106 u	ppm	0.007441	> 100.00	18.818785	Y_R 377.433
Cd (214.439 nm)	0.974802	ppm	0.002985	0.31	25402.900000	Y 377.433
Co (228.615 nm)	0.978758	ppm	0.004920	0.50	20392.400000	Y 242.219
Cr (205.560 nm)	0.948655	ppm	0.001917	0.20	3826.770000	Y 377.433
Cu (324.754 nm)	0.971137	ppm	0.002614	0.27	45503.100000	Y 377.433
Fe (238.204 nm)	-0.000041 u	ppm	0.005163	> 100.00	10.116548	Y_R 377.433
Fe H (259.940 nm)	-0.222218 u	ppm	0.000618	0.28	1.482800	Y_R 377.433
K (766.491 nm)	9.955440	ppm	0.046489	0.47	11734.600000	Y_R2 488.368
Li (670.783 nm)	0.002338	ppm	0.002398	> 100.00	-636.367000	Y_R2 488.368
Mg (279.078 nm)	-0.004893 u	ppm	0.001386	28.33	1.042300	Y 377.433
Mn (257.610 nm)	0.984512	ppm	0.002227	0.23	189159.000000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000717	> 100.00	21.118500	Y 377.433
Na (589.592 nm)	9.389940	ppm	0.127054	1.35	4480.750000	Y_R2 488.368
Na H (589.593 nm)	7.370639 u	ppm	0.011086	0.15	3061.539033	Y_R4
Ni (231.604 nm)	0.972725	ppm	0.002305	0.24	3493.420000	Y 377.433
P (213.618 nm)	9.363070	ppm	0.023289	0.25	9381.970000	Y 242.219
Pb (220.353 nm)	0.994713	ppm	0.002048	0.21	2187.470000	Y 242.219
S (181.972 nm)	-0.017508 u	ppm	0.000015	0.09	2.280092	Y 377.433
Sb (206.834 nm)	0.001746 u	ppm	0.003005	> 100.00	29.044800	Y 377.433
Se (196.026 nm)	0.894485	ppm	0.006733	0.75	1281.770000	Y 242.219
Si (288.158 nm)	-0.001748 u	ppm	0.000507	29.01	377.617000	Y 377.433
Sn (189.925 nm)	-0.004588 u	ppm	0.000168	3.65	-1.654320	Y 377.433
Sr (421.552 nm)	0.967161	ppm	0.001611	0.17	106421.982008	Y_R 488.368
Th (288.505 nm)	-0.048933 u	ppm	0.005261	10.75	-112.903000	Y 377.433
Ti (336.122 nm)	0.000456	ppm	0.000097	21.34	-304.249000	Y 377.433
Tl (190.794 nm)	0.993837	ppm	0.000436	0.04	568.452000	Y 377.433
U (409.013 nm)	0.002082 u	ppm	0.006736	> 100.00	238.011000	Y 377.433
V (292.401 nm)	0.964201	ppm	0.002968	0.31	41257.400000	Y 377.433
Zn (206.200 nm)	0.992230	ppm	0.004980	0.50	3092.660000	Y 377.433
Zr (343.823 nm)	0.000098 u	ppm	0.000260	> 100.00	-51.254600	Y 377.433

Sample Name: ICSAB Sol 2 Acquired: 1/29/2019 15:38:12 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 100x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.96906**	**-.00340**	**1.0112**	**9.4842**	**1.0100**	**.49999**	**.00175**	**-.06604**	**.95028**
Stddev	.00070	.00005	.0084	.0140	.0002	.00072	.00805	.00493	.00089
%RSD	.07261	1.5359	.83124	.14767	.02300	.14445	460.44	7.4694	.09328
#1	.96857	-.00336	1.0053	9.4941	1.0102	.50051	.00744	-.06255	.95091
#2	.96956	-.00344	1.0172	9.4743	1.0099	.49948	-.00394	-.06953	.94966
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.02000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97510**	**.98255**	**1.0095**	**-.00152**	**10.088**	**.00379**	**-.00580**	**.91712**	**.00092**
Stddev	.00391	.00157	.0019	.00267	.030	.00092	.00435	.00154	.00057
%RSD	.40132	.16023	.18807	175.43	.29831	24.241	75.007	.16823	61.615
#1	.97787	.98367	1.0108	-.00342	10.109	.00443	-.00887	.91821	.00052
#2	.97233	.98144	1.0081	.00037	10.067	.00314	-.00272	.91603	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.062**	W **10.363**	**.97101**	**9.3122**	**.99342**	**.01022**	**-.00250**	**1.0041**	**-.01800**
Stddev	.003	.128	.00214	.0214	.00289	.00320	.00030	.0007	.00696
%RSD	.02670	1.2361	.22005	.22968	.29093	31.312	12.156	.06617	38.635
#1	10.060	10.273	.97252	9.3273	.99546	.01248	-.00271	1.0037	-.02292
#2	10.064	10.454	.96950	9.2970	.99137	.00795	-.00228	1.0046	-.01309
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.03853**	**-.00056**	**1.0257**	**.00369**	**.00020**	**1.0532**	**.01005**	**.92759**	**.89480**
Stddev	.01489	.00053	.0020	.00219	.00018	.0029	.01643	.00224	.00413
%RSD	38.635	93.658	.19274	59.457	90.526	.27479	163.59	.24111	.46200
#1	-.04905	-.00019	1.0271	.00524	.00032	1.0552	-.00157	.92917	.89772
#2	-.02800	-.00094	1.0243	.00214	.00007	1.0511	.02166	.92601	.89188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.00366**
Stddev	.00163
%RSD	44.615
#1	.00251
#2	.00482
Check ?	Chk Pass
High Limit	
Low Limit	

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

5471537
ID: ICP ICSAB 2_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 2 CPI

Lot #: 990626-2

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	99.98 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L
As	100.0 ± 0.5 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	100.1 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.1 ± 0.5 mg/L	Zn	100.1 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP LLCCV-2a_00010

Standard Verification Form TA-CM-OCT18-DENSR-500

Standard Information			
Vendor Standard Name	ICP LLCCV-2A		
Vendor	CPI International		
Lot number	# 10090185-1		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID ICP LLCCV-4-00010	
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	SS/CR	Instrument ID	MT-25/MT51
Verification Date	1/30/19	Method Reference	6010C
ID of Standard Used for Verification	ICP LLCCV4-00010	Batch # / Chrom Work List #	446036 446039
Attach to this form: formulary report , COA and data used for verification Attach to standard in TALS: this form and all supporting documentation including the original CoA			
See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐
New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.			
New Expiration Date:	5/19/19		

1st Level Review SS Date: 1/30/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00255**	**.00036**	**1.0047**	**.00032**
Stddev	.00007	.00061	.00058	.0085	.00017
%RSD	22.249	24.069	160.98	.84480	52.650
#1	.00038	.00212	-.00005	1.0107	.00020
#2	.00028	.00298	.00077	.99868	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00000**	**-.00048**	**-.00028**	**-.00042**
Stddev	.00001	.00553	.00256	.00005	.00010
%RSD	17.443	748150.	537.38	16.632	24.554
#1	.00003	-.00391	-.00229	-.00024	-.00035
#2	.00004	.00391	.00134	-.00031	-.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00130**	**.00088**	**.04958**	**.00161**
Stddev	.00008	.00040	.00450	.00732	.00228
%RSD	36.641	30.925	510.71	14.755	141.15
#1	.00028	-.00102	.00406	.05476	.00322
#2	.00017	-.00159	-.00230	.04441	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00017**	**.20636**	**.06243**	**-.00068**
Stddev	.00621	.00002	.00144	.00668	.00007
%RSD	704.64	12.859	.69592	10.708	10.347
#1	.00527	.00016	.20737	.06715	-.00073
#2	-.00351	.00019	.20534	.05770	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W **28.602**	**.00941**	**.93219**	**.20441**	**-.00477**
Stddev	.231	.00080	.00830	.00111	.00057
%RSD	.80679	8.5162	.89068	.54438	11.917
#1	28.765	.00998	.93806	.20519	-.00518
#2	28.439	.00885	.92632	.20362	-.00437
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000				
Low Limit	-6.0000				

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837
Line	288.158 {117}	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**6.9653**	**14.906**	**1.0635**	**.00005**	**.00074**
Stddev	.5657	1.211	.0080	.00010	.00128
%RSD	8.1224	8.1224	.75098	204.33	172.19
#1	6.5652	14.050	1.0691	.00012	-.00016
#2	7.3653	15.762	1.0578	-.00002	.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.10301**	**-.00165**	**-.01130**	**.00045**	**.00148**
Stddev	.00039	.00056	.00796	.00022	.00019
%RSD	.37486	34.177	70.407	49.618	12.553
#1	.10274	-.00125	-.00568	.00060	.00161
#2	.10328	-.00205	-.01693	.00029	.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.10737**
Stddev	.00304
%RSD	2.8315
#1	.10952
#2	.10522
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3890.6**	**54764.**	**4797.3**
Stddev	19.3	21.	3.8
%RSD	.49699	.03853	.07876
#1	3904.3	54779.	4794.6
#2	3876.9	54749.	4799.9

Sample Name: IIccv 2a

Date: 1/30/2019 2:27:53 PM

Rack:Tube: 3:12

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000048	3.81	-339.440000	Y 377.433
Al (167.019 nm)	0.001696	ppm	0.000845	49.83	1.871810	Y_R 377.433
Al H (396.152 nm)	-0.020587 u	ppm	0.002888	14.03	32.631734	Y_R 377.433
As (188.980 nm)	0.000723 u	ppm	0.002356	> 100.00	-0.970725	Y 242.219
B (249.678 nm)	0.813216	ppm	0.047006	5.78	21874.000000	Y 242.219
Ba (493.408 nm)	-0.000896 u	ppm	0.000024	2.69	598.598000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000016	> 100.00	-47.571600	Y_R 488.368
Bi (223.061 nm)	-0.004182 u	ppm	0.000579	13.85	11.245000	Y 377.433
Ca (315.887 nm)	0.022497	ppm	0.007400	32.89	-56.854280	Y_R 377.433
Cd (214.439 nm)	-0.000023 u	ppm	0.000024	> 100.00	5.258060	Y 377.433
Co (228.615 nm)	0.000071	ppm	0.000056	78.59	-38.009000	Y 242.219
Cr (205.560 nm)	0.000045	ppm	0.000039	86.68	-3.139690	Y 377.433
Cu (324.754 nm)	0.001245	ppm	0.000109	8.79	622.379000	Y 377.433
Fe (238.204 nm)	0.000681	ppm	0.000210	30.84	21.007438	Y_R 377.433
Fe H (259.940 nm)	-0.161781 u	ppm	0.002169	1.34	15.721500	Y_R 377.433
K (766.491 nm)	0.111372	ppm	0.057292	51.44	-830.133000	Y_R2 488.368
Li (670.783 nm)	0.009646	ppm	0.000473	4.90	-1348.180000	Y_R2 488.368
Mg (279.078 nm)	0.000264	ppm	0.000066	24.84	60.535800	Y 377.433
Mn (257.610 nm)	-0.000023 u	ppm	0.000008	35.49	70.205200	Y 377.433
Mo (202.032 nm)	0.169223	ppm	0.010445	6.17	1702.140000	Y 377.433
Na (589.592 nm)	-0.029006 u	ppm	0.010864	37.45	385.781000	Y_R2 488.368
Na H (589.593 nm)	-0.896086 u	ppm	0.020122	2.25	2225.768499	Y_R 488.368
Ni (231.604 nm)	0.000372 u	ppm	0.000677	> 100.00	0.134162	Y 377.433
P (213.618 nm)	23.045500 o	ppm	1.330770	5.77	58100.800000	Y 242.219
Pb (220.353 nm)	-0.001310 u	ppm	0.000331	25.30	-1.855490	Y 242.219
S (181.972 nm)	0.728365	ppm	0.040987	5.63	417.926408	Y 377.433
Sb (206.834 nm)	0.165059	ppm	0.009553	5.79	476.065000	Y 377.433
Se (196.026 nm)	-0.002999 u	ppm	0.001270	42.36	11.827200	Y 242.219
Si (288.158 nm)	5.208390	ppm	0.502562	9.65	48419.800000	Y 377.433
Sn (189.925 nm)	0.837532	ppm	0.048034	5.74	2234.630000	Y 377.433
Sr (421.552 nm)	0.000133	ppm	0.000061	46.11	158.521803	Y_R 488.368
Th (288.505 nm)	0.003026	ppm	0.000486	16.08	69.191200	Y 377.433
Ti (336.122 nm)	0.083021	ppm	0.004935	5.94	12374.600000	Y 377.433
Tl (190.794 nm)	0.000337	ppm	0.000105	31.25	-9.290920	Y 377.433
U (409.013 nm)	0.001927	ppm	0.000273	14.16	-152.923000	Y 377.433
V (292.401 nm)	-0.000419 u	ppm	0.000023	5.46	15.573700	Y 377.433
Zn (206.200 nm)	0.000466	ppm	0.000052	11.15	2.238410	Y 377.433
Zr (343.823 nm)	0.085063	ppm	0.005356	6.30	12032.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.937661	19025.790936	0.001064	0.11
Y 377.433	0.960036	985122.681103	0.000581	0.06
Y_R 377.433	1.006470	69104.000000	0.004101	0.41
Y_R 488.368	1.019670	40383.200000	0.014164	1.39
Y_R2 488.368	1.053637	81193.558986	0.004178	0.40

5500073
ID: ICP LLCCV-2a_00010
Exp: 05/18/18 Prpd: SJS
ICP LLCCV-2A CPI

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN5R-500

Custom ISO Guide 34 ICP LLCCV-2A

Lot #: 10090185-1

Matrix: 2% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
B	10.01 ± 0.05 µg/mL	S	10.01 ± 0.05 µg/mL	Sn	10.01 ± 0.05 µg/mL
Mo	2.01 ± 0.01 µg/mL	Sb	2.02 ± 0.01 µg/mL	Ti	1.00 ± 0.01 µg/mL
P	300.0 ± 1.5 µg/mL	Si	49.19 ± 0.25 µg/mL	Zr	1.01 ± 0.01 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 18, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

Icp stk ICSA_00029

CPI INTERNATIONAL

5514208
ID: lcp stk ICSA_00027
Exp: 07/08/19 Prpd: SJS
ICP stock ICSA solution

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 982821-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 8, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
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    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

NaCl f_00004

Sodium Chloride, Crystal

`BAKER ANALYZED´® A.C.S. Reagent

Product No. 3624
Lot No. J48622
Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO_3)	0.003 % max.	0.002 %
Phosphate (PO_4)	5 ppm max.	< 3 ppm
Sulfate (SO_4)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %
For Laboratory, Research or Manufacturing Use		
Country of Origin: USA		

ISO
Phillipsburg, NJ 9001.2008, 14001.2004
Paris, KY 9001.2008
Mexico City, Mexico 9001.2008
Deventer, The Netherlands 9001.2008, 14001.2004, 13485.2003
Selangor, Malaysia 9001.2008
Panoli, India 9001.2008
Gliwice, Poland 9001.2008, 17025.2005

Marcy M. Matlosz
Director of QA & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151
Avantor ™ Performance Materials. Inc. (formerly Mallinckrodt Baker, Inc.)
222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Reagent

NH3 CAL STD_00030

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 1808L28 **Product Number:** 5455

Manufacture Date: AUG 29, 2018
Expiration Date: FEB 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (08/29/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00026

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	M2-NH662533
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium Chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 996 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **993 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **997 ± 2 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\ (u_{char\ a})^2 + (w_b)^2\ (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

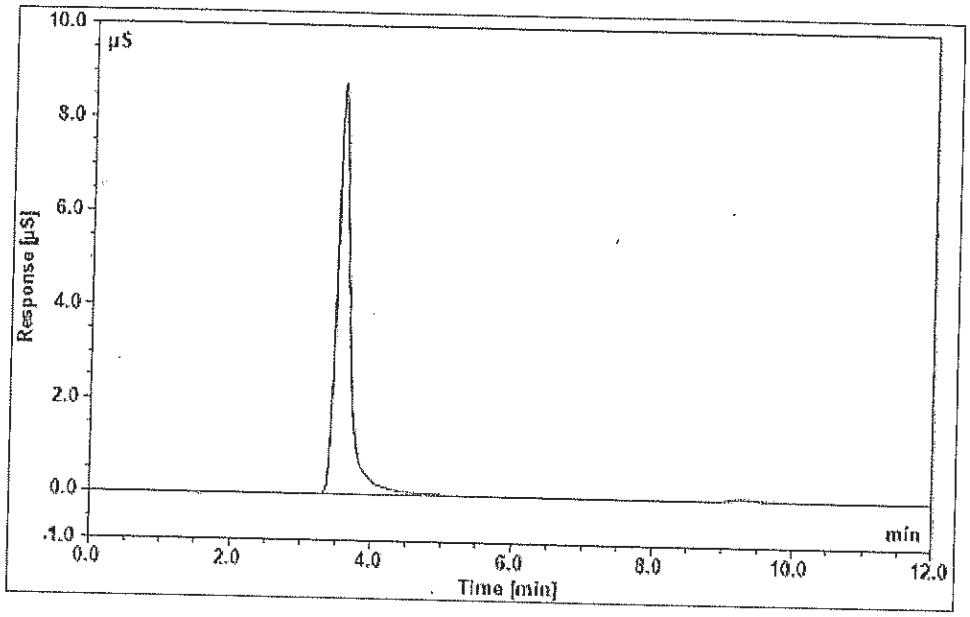
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS12A-5µm 3x150mm	**Eluent:**	20 mM MSA
Guard Column:	IonPac CG12A-5µm 3x30mm	**Eluent Flow Rate:**	0.50 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35° C
		Cell Temp:	35° C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	10 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	30 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 03, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- November 03, 2021

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

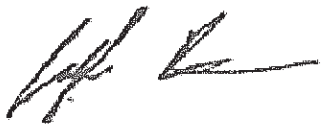
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

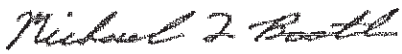
Certificate Prepared By:

Joseph Burns
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

Phenol CAL_00012

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: PHENOL STANDARD, 1000ppm (1mL = 1mg)

Mfg. Date: 12/07/2017

Catalog Number: LC18330

Exp. Date: 12/07/2019

Lot Number: G341-02

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm Phenol	1000ppm +/- 10ppm	1007 ppm
Concentration mg Phenol / L	1.000 + / - 0.010 mg/mL	1.007 mg/mL
Traceable to NIST	Potassium Dichromate	136f

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor



An ISO9001:2008 certified company. Registration # 0306-01

03/23/2018 5:05 PM

Form #17.13 07/28/2016

Reagent

Phenol ICV_00013

ERA

A Waters Company

Distributed by
SPEX CertiPrep
1-800-LAB-SPEX
www.spexcsp.com

Certificate of Analysis

PRODUCT:	1000 mg/L Phenol
CATALOG NUMBER:	982
LOT NUMBER:	090817
ISSUE DATE:	August 18, 2017
REVISION DATE:	August 2, 2018
STARTING MATERIAL:	Phenol (C_6H_5OH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.8%
MATRIX:	18 megohm deionized water and 1% (v/v) H_2SO_4
DENSITY:	1.0085 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	NA
VERIFICATION METHOD:	Spectrophotometry
STORAGE:	Store at 4 ± 2°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

PREP SPK 1_00008

CPI INTERNATIONAL

5643174
ID: PREP SPK 1_00008
Exp: 05/21/20 Prpd: MRJ
Metals Prep Spike Mix 1 C

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 993218-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.1 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.1 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 21, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
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F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

PREP SPK 4B_00001

5643188
ID: PREP SPK 4B_00001
Exp: 09/28/20 Prpd: MRJ
Metals Prep Spike 4B CPI

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN-B

Custom Spike Solution B

Lot #: 10094085-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty
Ag	5.00 ± 0.03 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 5.00 µg/mL by gravimetric methods using a single-element concentrate dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3151**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 28, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

TKN CAL STD_00017

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Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Catalog Number: IS-009, IS-009-500
Lot Number: 010617

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00011

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00037

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 4901G09 **Product Number:** 1847

Manufacture Date: JAN 22, 2019
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-32	1 L amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jim Gibbs (01/22/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00046

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1000 ± 5 µg/mL	NAA00089; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG No.:

Project: Griffiss AFB, LF002 Landfill 2

Client Sample ID	Lab Sample ID
LF2SW-1_0519	280-123983-1
LF2SW-2_0519	280-123983-2
LF2SW-3_0519	280-123983-3

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF2SW-1_0519 Lab Sample ID: 280-123983-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 13:30

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	9.7	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF2SW-2_0519 Lab Sample ID: 280-123983-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 13:55

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	14	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF2SW-3_0519 Lab Sample ID: 280-123983-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 13:30

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	99	100	15	4.4	ug/L	J		1	6010C

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

ICV Source: ICP ICV_00824 Concentration Units: ug/L

CCV Source: ICP CCV_00380

Analyte	ICV 280-459798/9 05/29/2019 07:49				ICV 280-459798/10 05/29/2019 07:56				CCV 280-459798/79 05/29/2019 11:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	246		250	99	250		250	100	495		500	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

ICV Source: ICP ICV_00824 Concentration Units: ug/L

CCV Source: ICP CCV_00380

Analyte	CCV 280-459798/91 05/29/2019 11:52				CCV 280-459798/104 05/29/2019 12:25				CCV 280-459798/115 05/29/2019 12:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	484		500	97	486		500	97	485		500	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

ICV Source: ICP LLCCV_02552 Concentration Units: ug/L

CCV Source: ICP LLCCV_02552

Analyte	ICVL 280-459798/11 05/29/2019 08:02				CCVL 280-459798/81 05/29/2019 11:27				CCVL 280-459798/93 05/29/2019 11:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	99.7	J	100	100	99.6	J	100	100	98.8	J	100	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

ICV Source: ICP LLCCV_02552 Concentration Units: ug/L

CCV Source: ICP LLCCV_02552

Analyte	CCVL 280-459798/106 05/29/2019 12:31				CCVL 280-459798/118 05/29/2019 13:07				CCVL 280-459798/119 05/29/2019 13:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	97.8	J	100	98	92.2	J	100	92	92.8	J	100	93

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Method: 6010C Instrument ID: MT_025

Lab Sample ID: CRI 280-459798/15 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_02552

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Boron	100	93.4	J	93	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-459798/14 05/29/2019 08:09		CCB 280-459798/80 05/29/2019 11:24		CCB 280-459798/92 05/29/2019 11:54		CCB 280-459798/105 05/29/2019 12:28	
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 280-459798/116 05/29/2019 12:58							
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-459132/1-A

Instrument Code: MT_025 Batch No.: 459798

CAS No.	Analyte	Concentration	C	Q	Method
7440-42-8	Boron	15	U		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Lab Sample ID: ICSA 280-459798/16 Instrument ID: MT_025

Lab File ID: 25A052919z.asc ICS Source: ICP ICSA_00186

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		**-1.43**	
Aluminum	*500000*	*507180*	*101*
Antimony		*-10.2*	
Arsenic		*-3.32*	
Barium		*1.77*	
Beryllium		*0.210*	
Cadmium		*0.200*	
Calcium	*500000*	*468580*	*94*
Cobalt		*-0.150*	
Copper		*2.07*	
Iron	*200000*	*187120*	*94*
Lead		*-3.35*	
Lithium		*-0.540*	
Magnesium	*500000*	*518090*	*104*
Manganese		*0.280*	
Molybdenum		*-0.350*	
Nickel		*2.35*	
Phosphorus		*5.99*	
Potassium		*-50.2*	
Selenium		*-2.81*	
Silicon		*10.3*	
Silver		*0.580*	
SiO2		*21.9*	
Thallium		*3.96*	
Tin		*-1.84*	
Titanium		*2.60*	
Vanadium		*0.930*	
Zinc		*-5.27*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Lab Sample ID: ICSAB 280-459798/17 Instrument ID: MT_025

Lab File ID: 25A052919z.asc ICS Source: ICP ICSAB_00213

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Boron	**10000**	**9684**	**97**
Aluminum	*500000*	*518950*	*104*
Antimony	*1000*	*985*	*98*
Arsenic	*1000*	*991*	*99*
Barium	*1000*	*998*	*100*
Beryllium	*500*	*494*	*99*
Cadmium	*1000*	*1014*	*101*
Calcium	*500000*	*480320*	*96*
Chromium	*1000*	*965*	*96*
Cobalt	*1000*	*930*	*93*
Copper	*1000*	*1082*	*108*
Iron	*200000*	*191790*	*96*
Lead	*1000*	*931*	*93*
Lithium	*1000*	*1037*	*104*
Magnesium	*500000*	*529350*	*106*
Manganese	*1000*	*1013*	*101*
Molybdenum	*1000*	*950*	*95*
Nickel	*1000*	*926*	*93*
Phosphorus	*10000*	*10026*	*100*
Potassium	*10000*	*10496*	*105*
Selenium	*1000*	*978*	*98*
Silicon	*10000*	*9903*	*99*
Silver	*1000*	*1120*	*112*
SiO2	*21400*	*21192*	*99*
Sodium	*10000*	*10550*	*106*
Strontium	*1000*	*1002*	*100*
Thallium	*1000*	*908*	*91*
Tin	*1000*	*932*	*93*
Titanium	*1000*	*1006*	*101*
Vanadium	*1000*	*1025*	*102*
Zinc	*1000*	*969*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-459132/2-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Boron	1000	957		96	85	113		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-459132/3-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	965		1000	97	85-113	1	20		6010C

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: MT_025

Method: 6010C DL Date: 02/03/2019 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Boron	208.9	100	4.37

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: MT_025

Method: 6010C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Boron		100	4.37

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	167.079													0.000386	
Aluminum	309.271														
Antimony	206.833		0.000026									0.009556		0.000031	
Arsenic	189.042		-0.000033						0.000012			0.000165		-0.000017	
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061		-0.000012			-0.000360						0.001346		0.000249	
Boron	208.959														
Cadmium	228.802			0.004373		-0.000173					-0.000030				
Calcium	317.933										-0.000132				
Chromium	205.552						-0.000889								
Cobalt	228.616					0.000052						0.000001		0.000000	
Copper	324.754														
Iron	259.940														
Iron	271.441										0.076500				
Lead	220.353		-0.000070					-0.000040	0.000001		-0.000688		0.000299		
Lithium	670.784								0.000017						
Magnesium	279.079													0.000221	
Manganese	257.610													0.000013	
Molybdenum	202.030														
Nickel	231.604						-0.000094		-0.000007		-0.000384			0.000000	
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090								-0.000016					0.000017	
Silicon	288.158											-0.013955			
Silver	328.068														
Sodium	589.592														
Sodium	818.326														
Strontium	407.771								0						
Sulfur	182.034		-0.000035						0.000017						

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.856								0.000002		0.001718	0.000274		-0.000032	
Thorium	283.730									-0.000364		-0.000133		0.000830	
Tin	189.989														
Titanium	334.904								0.000005			0.000255			
Uranium	370.152				0.002111				-0.000078			-0.009097		-0.000481	
Vanadium	292.402														
Zinc	206.200		0.000014					-0.000075				-0.000208		0.000023	
Zirconium	339.198													-0.000029	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Aluminum	309.271		0.001655												
Aluminum	167.079														
Antimony	206.833						-0.000005							0.000093	
Arsenic	189.042				0.000666							-0.000151	-0.000151		
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061														
Boron	208.959				0.040000										
Cadmium	228.802														
Calcium	317.933														
Chromium	205.552														
Cobalt	228.616			-0.000001	-0.001646		0.000125								
Copper	324.754				0.001137										
Iron	259.940														
Iron	271.441		0.000330												
Lead	220.353				-0.000710		0.000027					0.000363	0.000063		
Lithium	670.784														
Magnesium	279.079			-0.004762											
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604				0.000080										
Phosphorus	178.284				-0.001297										
Potassium	766.490														
Selenium	196.090			0.000890											
Silicon	288.158				-0.001696										
Silver	328.068			0.000114	-0.000029										
Sodium	818.326														
Sodium	589.592														
Strontium	407.771														
Sulfur	182.034			0.001895	-0.010027										

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Thallium	190.856			0.000471											
Thorium	283.730		-0.00000173		0.000298		0.000116								
Tin	189.989														
Titanium	334.904		0.000001		0.000993										
Uranium	370.152														
Vanadium	292.402			-0.000132	-0.015713										
Zinc	206.200				0.000123										
Zirconium	339.198				0.000270										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	167.079														
Aluminum	309.271														
Antimony	206.833		0.000161		-0.001976	0.000070		-0.000720							
Arsenic	189.042														
Barium	455.403							0.000631							
Beryllium	313.042		0		0.000024	0.000719									
Bismuth	223.061		-0.003027		-0.003000										
Boron	208.959														
Cadmium	228.802				-0.000172										
Calcium	317.933	-0.000543													
Chromium	205.552														
Cobalt	228.616		0.002396		0.000180										
Copper	324.754	0.004049	-0.000473		-0.000966	-0.000078		-0.004427							
Iron	259.940														
Iron	271.441					-0.209000		-0.033							
Lead	220.353		-0.000058		0.001102			-0.000169							
Lithium	670.784														
Magnesium	279.079		0.000196		0.001378										
Manganese	257.610	-0.000521			0.000099										
Molybdenum	202.030				-0.000094										
Nickel	231.604														
Phosphorus	178.284				0.000030										
Potassium	766.490														
Selenium	196.090	-0.000057			-0.000761										
Silicon	288.158														
Silver	328.068	0.000110			0.001056			0.004012							
Sodium	589.592														
Sodium	818.326														
Strontium	407.771														
Sulfur	182.034	0.000409				-0.001026									

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.856	-0.000005			0.000038	0.000848									
Thorium	283.730				0.020818			0.017935							
Tin	189.989	-0.000081	-0.000188		0.000171										
Titanium	334.904	0.007261			-0.000638										
Uranium	370.152	-0.003546	0.005713			0.003176		-0.002785							
Vanadium	292.402	0.001304	0.000377		-0.000269										
Zinc	206.200														
Zirconium	339.198	0.042435			-0.000206										

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123983-1

SDG No.:

Instrument ID: MT_025 Date: 04/09/2019 07:06

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Boron		90	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-459132/1-A	05/28/2019 18:00	459132		50	50
LCS 280-459132/2-A	05/28/2019 18:00	459132		50	50
LCSD 280-459132/3-A	05/28/2019 18:00	459132		50	50
280-123983-1	05/28/2019 18:00	459132		50	50
280-123983-2	05/28/2019 18:00	459132		50	50
280-123983-3	05/28/2019 18:00	459132		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: MT_025 Analysis Method: 6010C

Start Date: 05/29/2019 07:28 End Date: 05/29/2019 13:09

Lab Sample Id	D/F	Type	Time	Analytes
				B
ICIS 280-459798/1	1		07:28	X
IC 280-459798/2			07:31	X
IC 280-459798/3			07:33	X
ZZZZZZ			07:36	
ZZZZZZ			07:38	
ICVH 280-459798/6	1		07:41	X
ICVH 280-459798/7	1		07:43	X
ZZZZZZ			07:46	
ICV 280-459798/9	1		07:49	X
ICV 280-459798/10	1		07:56	X
ICVL 280-459798/11	1		08:02	X
CCVH 280-459798/12			08:04	
CCV 280-459798/13			08:07	
ICB 280-459798/14	1		08:09	X
CRI 280-459798/15	1		08:13	X
ICSA 280-459798/16	1		08:16	X
ICSAB 280-459798/17	1		08:18	X
LRA 280-459798/18			08:21	
CCVH 280-459798/19			08:23	
CCV 280-459798/20			08:26	
CCB 280-459798/21			08:28	
CCVL 280-459798/22			08:31	
CRI 280-459798/23			08:46	
ZZZZZZ			08:59	
ZZZZZZ			09:02	
ZZZZZZ			09:04	
ZZZZZZ			09:07	
ZZZZZZ			09:09	
ZZZZZZ			09:12	
ZZZZZZ			09:14	
ZZZZZZ			09:17	
ZZZZZZ			09:19	
CCVH 280-459798/33			09:22	
CCV 280-459798/34			09:25	
CCB 280-459798/35			09:28	
CCVL 280-459798/36			09:31	
ZZZZZZ			09:34	
ZZZZZZ			09:36	
ZZZZZZ			09:39	
ZZZZZZ			09:41	
ZZZZZZ			09:43	
ZZZZZZ			09:46	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: MT_025 Analysis Method: 6010C

Start Date: 05/29/2019 07:28 End Date: 05/29/2019 13:09

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			09:49	
CCVH 280-459798/44			09:53	
CCV 280-459798/45			09:55	
CCB 280-459798/46			09:58	
CCVL 280-459798/47			10:01	
ZZZZZZ			10:04	
ZZZZZZ			10:06	
ZZZZZZ			10:09	
ZZZZZZ			10:11	
ZZZZZZ			10:14	
ZZZZZZ			10:16	
ZZZZZZ			10:18	
ZZZZZZ			10:21	
CCVH 280-459798/56			10:23	
CCV 280-459798/57			10:26	
CCB 280-459798/58			10:28	
CCVL 280-459798/59			10:31	
ZZZZZZ			10:33	
ZZZZZZ			10:36	
ZZZZZZ			10:39	
ZZZZZZ			10:41	
ZZZZZZ			10:44	
ZZZZZZ			10:46	
CCVH 280-459798/66			10:49	
CCV 280-459798/67			10:51	
CCB 280-459798/68			10:54	
CCVL 280-459798/69			10:56	
ZZZZZZ			10:59	
ZZZZZZ			11:02	
ZZZZZZ			11:05	
ZZZZZZ			11:07	
ZZZZZZ			11:10	
ZZZZZZ			11:12	
ZZZZZZ			11:15	
ZZZZZZ			11:17	
CCVH 280-459798/78	1		11:19	X
CCV 280-459798/79	1		11:22	X
CCB 280-459798/80	1		11:24	X
CCVL 280-459798/81	1		11:27	X
MB 280-459132/1-A	1	T	11:30	X
LCS 280-459132/2-A	1	T	11:32	X
LCSD 280-459132/3-A	1	T	11:35	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: MT_025 Analysis Method: 6010C

Start Date: 05/29/2019 07:28 End Date: 05/29/2019 13:09

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			11:37	
ZZZZZZ			11:40	
ZZZZZZ			11:42	
ZZZZZZ			11:44	
ZZZZZZ			11:47	
CCVH 280-459798/90	1		11:49	X
CCV 280-459798/91	1		11:52	X
CCB 280-459798/92	1		11:54	X
CCVL 280-459798/93	1		11:57	X
ZZZZZZ			11:59	
ZZZZZZ			12:02	
ZZZZZZ			12:05	
ZZZZZZ			12:07	
ZZZZZZ			12:10	
ZZZZZZ			12:13	
ZZZZZZ			12:15	
ZZZZZZ			12:18	
ZZZZZZ			12:20	
CCVH 280-459798/103	1		12:23	X
CCV 280-459798/104	1		12:25	X
CCB 280-459798/105	1		12:28	X
CCVL 280-459798/106	1		12:31	X
ZZZZZZ			12:34	
ZZZZZZ			12:37	
ZZZZZZ			12:40	
ZZZZZZ			12:42	
280-123983-1	1	T	12:45	X
280-123983-2	1	T	12:47	X
280-123983-3	1	T	12:50	X
CCVH 280-459798/114	1		12:53	X
CCV 280-459798/115	1		12:55	X
CCB 280-459798/116	1		12:58	X
ZZZZZZ			13:01	
CCVL 280-459798/118	1		13:07	X
CCVL 280-459798/119	1		13:09	X

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

ICP Instrument ID: MT_025 Start Date: 05/29/2019 End Date: 05/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q	Element	Q
ICIS 280-459798/1	07:28										
ICVH 280-459798/6	07:41	101		99		100					
ICVH 280-459798/7	07:43	101		100		102					
ICV 280-459798/9	07:49	103		103		104					
ICV 280-459798/10	07:56	99		99		98					
ICVL 280-459798/11	08:02	102		102		102					
ICB 280-459798/14	08:09	100		101		100					
CRI 280-459798/15	08:13	106		105		101					
ICSA 280-459798/16	08:16	94		90		101					
ICSAB 280-459798/17	08:18	93		89		99					
CCVH 280-459798/78	11:19	102		101		103					
CCV 280-459798/79	11:22	102		102		104					
CCB 280-459798/80	11:24	104		105		104					
CCVL 280-459798/81	11:27	107		106		107					
MB 280-459132/1-A	11:30	106		106		106					
LCS 280-459132/2-A	11:32	104		103		107					
LCSD 280-459132/3-A	11:35	104		103		105					
CCVH 280-459798/90	11:49	103		103		105					
CCV 280-459798/91	11:52	103		101		103					
CCB 280-459798/92	11:54	105		105		104					
CCVL 280-459798/93	11:57	105		105		106					
CCVH 280-459798/103	12:23	102		102		104					
CCV 280-459798/104	12:25	102		101		103					
CCB 280-459798/105	12:28	104		104		104					
CCVL 280-459798/106	12:31	107		107		106					
280-123983-1	12:45	106		107		108					
280-123983-2	12:47	105		104		106					
280-123983-3	12:50	112		109		116					
CCVH 280-459798/114	12:53	104		102		105					
CCV 280-459798/115	12:55	103		103		105					
CCB 280-459798/116	12:58	103		103		103					
CCVL 280-459798/118	13:07	111		108		109					
CCVL 280-459798/119	13:09	109		110		112					

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 459132 Batch Start Date: 05/28/19 18:00 Batch Analyst: Lodl, Dagmara A

Batch Method: 3010A Batch End Date: 05/29/19 00:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	PREP SPK 1 00008	PREP SPK 2 00004	PREP SPK 3 00004
MB 280-459132/1		3010A, 6010C			50 mL	50 mL			
LCS 280-459132/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
LCSD 280-459132/3		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123983-F-1	LF2SW-1_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123983-F-2	LF2SW-2_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123983-F-3	LF2SW-3_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PREP SPK 4 00004	PREP SPK 4B 00001	PREP SPK 5 00002			
MB 280-459132/1		3010A, 6010C							
LCS 280-459132/2		3010A, 6010C		0.5 mL	0.5 mL	0.5 mL			
LCSD 280-459132/3		3010A, 6010C		0.5 mL	0.5 mL	0.5 mL			
280-123983-F-1	LF2SW-1_0519	3010A, 6010C	T						
280-123983-F-2	LF2SW-2_0519	3010A, 6010C	T						
280-123983-F-3	LF2SW-3_0519	3010A, 6010C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 459132 Batch Start Date: 05/28/19 18:00 Batch Analyst: Lodl, Dagmara A

Batch Method: 3010A Batch End Date: 05/29/19 00:05

Batch Notes	
Temperature - Corrected - End	92 Degrees C
Temperature - Corrected - Start	92 Degrees C
Digestion End Time	05/29/2019 00:05
Digestion Start Time	05/28/2019 18:00
Digestion Unit ID	04
Hydrochloric Acid ID	0000217157-05/03
Nitric Acid ID	0000216908-05/03
Pipette/Syringe/Dispenser ID	MET-116
Analyst ID - Spike Witness Analyst	QA-51
Thermometer ID	QA-46
Digestion Tube/Cup ID	1812114
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	93 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Name: ICIS Acquired: 5/29/2019 7:28:35 Type: Cal
Method: 6500_025(v8) Mode: IR Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00154**	**.00315**	**-.01601**	**-.00063**	**.00071**	**-.02046**	**-.00378**	**-.00341**	**.01282**	**.00166**	**.00047**	**-.00038**
Stddev	.00014	.00003	.00097	.00000	.00003	.00090	.00043	.00013	.00043	.00004	.00007	.00003
%RSD	9.1954	1.0494	6.0437	.25435	4.7528	4.3919	11.501	3.6672	3.3588	2.3754	15.585	9.1400
#1	-.00144	.00317	-.01533	-.00063	.00074	-.01982	-.00409	-.00350	.01252	.00163	.00041	-.00035
#2	-.00164	.00312	-.01669	-.00063	.00069	-.02109	-.00347	-.00332	.01313	.00169	.00052	-.00040

Elem	Cu3247	Fe2599	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00873**	**.00168**	**.00138**	**.01383**	**.01718**	**-.00001**	**.00001**	**.00075**	**.02050**	**-.02713**	**-.00103**	**.00027**
Stddev	.00016	.00057	.00016	.00408	.00005	.00022	.00012	.00004	.00348	.00199	.00010	.00006
%RSD	1.8620	33.835	11.250	29.501	.31846	1554.7	2297.9	5.4942	16.957	7.3515	9.7074	23.456
#1	.00885	.00128	.00127	.01671	.01722	.00014	.00009	.00072	.02296	-.02854	-.00096	.00022
#2	.00862	.00208	.00149	.01094	.01714	-.00017	-.00008	.00078	.01804	-.02572	-.00110	.00031

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00136**	**.00044**	**.00110**	**.00038**	**.00142**	**.00142**	**.00007**	**.00708**	**-.00074**	**-.00070**	**-.00021**	**-.00379**
Stddev	.00016	.00012	.00043	.00005	.00063	.00063	.00005	.00031	.00017	.00003	.00005	.00001
%RSD	11.800	27.341	39.354	14.198	44.630	44.630	82.648	4.3209	23.661	3.9758	24.428	.20987
#1	-.00125	.00035	.00141	.00034	.00187	.00187	.00010	.00730	-.00061	-.00068	-.00017	-.00380
#2	-.00147	.00052	.00079	.00042	.00097	.00097	.00003	.00686	-.00086	-.00072	-.00025	-.00379

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**-.00016**	**.00013**	**-.00424**
Stddev	.00014	.00000	.00088
%RSD	89.496	.64655	20.710
#1	-.00006	.00013	-.00362
#2	-.00026	.00013	-.00486

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3622.1**	**40724.**	**3251.3**
Stddev	5.2	130.	29.5
%RSD	.14398	.31883	.90787
#1	3618.4	40632.	3272.2
#2	3625.7	40816.	3230.5

Sample Name: ICAL1 Acquired: 5/29/2019 7:31:10 Type: Cal
Method: 6500_025(v8) Mode: IR Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.22768**	**.20835**	**.03592**	**.25979**	**4.6941**	**5.6264**	**.24172**	**1.5974**	**1.6670**	**.92706**	**.87267**	**.23838**	**.67684**
Stddev	.00004	.00069	.00015	.00027	.0246	.0149	.00005	.0086	.0007	.00043	.00150	.00020	.00432
%RSD	.01630	.32964	.40641	.10322	.52442	.26484	.02176	.53743	.04005	.04659	.17136	.08436	.63879
#1	.22771	.20883	.03603	.25960	4.6767	5.6159	.24168	1.5914	1.6675	.92676	.87161	.23852	.67378
#2	.22766	.20786	.03582	.25998	4.7115	5.6370	.24176	1.6035	1.6666	.92737	.87372	.23824	.67990

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.1891**	**.74424**	**1.1045**	**1.5213**	**.47784**	**7.3776**	**.79731**	**.23487**	**.08437**	**.04435**	**.23596**	**.23596**	**.10471**
Stddev	.0142	.00338	.0014	.0019	.00105	.0407	.00060	.00051	.00029	.00007	.00177	.00177	.00020
%RSD	.44644	.45476	.12750	.12759	.21872	.55214	.07477	.21635	.34364	.16476	.74939	.74939	.18995
#1	3.1790	.74184	1.1054	1.5227	.47857	7.3488	.79773	.23451	.08457	.04430	.23471	.23471	.10485
#2	3.1992	.74663	1.1035	1.5199	.47710	7.4064	.79689	.23523	.08416	.04440	.23721	.23721	.10457

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.8104**	**.37287**	**.08860**	**.24417**	**.03887**	**.29309**
Stddev	.0347	.00065	.00008	.00123	.00003	.00022
%RSD	.50972	.17404	.08909	.50314	.07715	.07475
#1	6.7858	.37333	.08855	.24504	.03889	.29294
#2	6.8349	.37241	.08866	.24330	.03885	.29325

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3580.9**	**40207.**	**3289.6**
Stddev	5.7	161.	45.7
%RSD	.15952	.39930	1.3905
#1	3585.0	40320.	3321.9
#2	3576.9	40093.	3257.2

Sample Name: ICAL2 Acquired: 5/29/2019 7:33:30 Type: Cal
Method: 6500_025(v8) Mode: IR Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Al3092	Fe2714	Na8183	P_1782	S_1820	Th2837	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.3711**	**.61099**	**2.0511**	**.57999**	**.24543**	**.61088**	**.00235**
Stddev	.0052	.00061	.0009	.00215	.00095	.00112	.00015
%RSD	.15460	.10017	.04324	.37105	.38890	.18405	6.5391
#1	3.3748	.61056	2.0505	.58151	.24610	.61009	.00246
#2	3.3674	.61142	2.0517	.57846	.24475	.61168	.00224

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3583.1**	**39985.**	**3303.1**
Stddev	5.2	249.	12.1
%RSD	.14442	.62198	.36543
#1	3579.5	40161.	3311.6
#2	3586.8	39809.	3294.5

Sample Name: S1-5708352 Acquired: 5/29/2019 7:36:02 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97451**	**.98118**	**.97563**	**.98121**	**.97025**	**.96475**	**1.9595**	**9.7302**	**.98064**	**.98341**	**.98122**	**.97360**	**4.8402**
Stddev	.00115	.00325	.01251	.00551	.00746	.00460	.0088	.0499	.00520	.00574	.00391	.00453	.0144
%RSD	.11806	.33121	1.2823	.56198	.76902	.47637	.45134	.51267	.52993	.58329	.39865	.46571	.29647
#1	.97370	.97889	.96679	.97731	.96497	.96150	1.9533	9.6949	.97696	.97935	.97846	.97039	4.8300
#2	.97532	.98348	.98448	.98511	.97552	.96800	1.9658	9.7654	.98431	.98747	.98399	.97681	4.8503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**97.293**	**.97185**	**39.022**	**.97185**	**.98481**	**48.422**	**.98220**	**-.00397**	**.98299**	**-.00322**	**.98212**	**.97731**	**9.6372**
Stddev	.571	.01053	.014	.00041	.00385	.245	.00118	.00128	.00333	.00343	.00620	.00499	.0142
%RSD	.58729	1.0834	.03511	.04243	.39078	.50584	.11991	32.258	.33892	106.42	.63156	.51087	.14698
#1	96.889	.96441	39.012	.97156	.98209	48.249	.98136	-.00487	.98063	-.00080	.97774	.97378	9.6272
#2	97.697	.97930	39.032	.97214	.98753	48.595	.98303	-.00306	.98535	-.00565	.98651	.98084	9.6472
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.624**	**.98788**	**.97061**	**-.00831**	**.96946**	**.98258**	**-.01112**	**.97039**	**.97055**	**.96816**
Stddev	.030	.00159	.00664	.00140	.00160	.00807	.00993	.00036	.00437	.01337
%RSD	.14698	.16128	.68422	16.851	.16456	.82092	89.341	.03729	.44978	1.3805
#1	20.602	.98676	.96591	-.00732	.96833	.97687	-.01814	.97013	.96746	.95871
#2	20.645	.98901	.97530	-.00931	.97059	.98828	-.00409	.97065	.97363	.97762
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3678.3**	**41351.**	**3375.5**
Stddev	14.3	12.	12.4
%RSD	.38962	.02953	.36667
#1	3688.5	41342.	3384.2
#2	3668.2	41360.	3366.7

Sample Name: S2-5713035 Acquired: 5/29/2019 7:38:33 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00207**	**100.96**	**-.00128**	**.00368**	**.00237**	**.00005**	**-.00457**	**.00847**	**.00006**	**.00434**	**.00055**	**.02140**
Stddev	.00189	.27	.00080	.00097	.00000	.00013	.00004	.00133	.00018	.00008	.00013	.00160
%RSD	91.319	.26642	62.889	26.265	.09750	249.87	.96568	15.733	277.83	1.8008	23.858	7.4820
#1	-.00340	100.77	-.00071	.00300	.00237	.00014	-.00454	.00941	-.00006	.00428	.00046	.02027
#2	-.00073	101.15	-.00184	.00437	.00237	-.00004	-.00460	.00752	.00019	.00439	.00065	.02253
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**100.68**	**.30918**	**.00619**	**.02803**	**.00509**	**-.00068**	**503.35**	**.00333**	**10.015**	**.00272**	**10.005**	**.00209**
Stddev	.07	.02209	.00538	.00180	.00007	.00036	.48	.00050	.031	.00157	.047	.00190
%RSD	.06576	7.1455	86.925	6.4100	1.4659	53.118	.09578	15.070	.30529	57.753	.46660	91.260
#1	100.64	.29356	.00239	.02930	.00503	-.00093	503.01	.00297	10.036	.00161	10.038	.00074
#2	100.73	.32480	.00999	.02676	.00514	-.00042	503.69	.00368	9.9929	.00383	9.9716	.00343
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00998**	**.04159**	**.08901**	**-.00302**	**.00018**	**9.9962**	**-.02939**	**-.00015**	F **1.0990**	**.00968**	**.00304**	**.20259**
Stddev	.00506	.01538	.03291	.00052	.00028	.0151	.00009	.00092	.0239	.00091	.00084	.00203
%RSD	50.745	36.977	36.977	17.124	158.15	.15115	.30482	610.34	2.1766	9.4185	27.554	1.0033
#1	.01356	.05247	.11228	-.00266	-.00002	9.9855	-.02945	-.00080	1.1159	.01032	.00363	.20116
#2	.00640	.03072	.06574	-.00339	.00038	10.007	-.02933	.00050	1.0821	.00903	.00245	.20403
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									1.0000			
Range									5.0000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3580.6**	**39714.**	**3289.7**
Stddev	.6	157.	17.5
%RSD	.01685	.39598	.53048
#1	3580.2	39603.	3302.1
#2	3581.1	39826.	3277.4

Sample Name: ICVH-5725435 Acquired: 5/29/2019 7:41:05 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00060**	**40.396**	**-.00592**	**-.00089**	**.00018**	**.00022**	**.00112**	**-.00097**	**-.00041**	**.00044**	**.00009**	**.00644**
Stddev	.00044	.139	.00112	.00008	.00102	.00005	.00171	.00078	.00020	.00052	.00034	.00176
%RSD	74.026	.34400	18.924	9.3082	559.89	23.745	151.85	80.949	48.514	118.36	370.98	27.311
#1	-.00091	40.495	-.00671	-.00083	-.00054	.00018	-.00008	-.00041	-.00027	.00007	-.00015	.00520
#2	-.00028	40.298	-.00512	-.00094	.00090	.00025	.00233	-.00152	-.00055	.00081	.00033	.00769
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**80.760**	**.18414**	**.00098**	**.00629**	**.00127**	**-.00053**	**81.018**	**.00004**	**3.8766**	**-.00132**	**3.9863**	**-.00306**
Stddev	.576	.02965	.00268	.00241	.00009	.00001	.848	.00012	.0312	.00028	.0028	.00246
%RSD	.71333	16.103	274.52	38.384	7.4656	1.0478	1.0464	298.56	.80556	20.878	.06975	80.152
#1	81.167	.20510	-.00092	.00458	.00133	-.00053	81.617	-.00005	3.8987	-.00151	3.9883	-.00480
#2	80.353	.16317	.00287	.00799	.00120	-.00053	80.418	.00013	3.8546	-.00112	3.9843	-.00133
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**.00826**	**.01768**	**.00066**	**-.00008**	**2.8980**	**-.00888**	**-.00045**	F **.44468**	**.00420**	**-.00435**	**.05757**
Stddev	.00085	.02535	.05425	.00105	.00006	.0108	.00042	.00005	.02135	.00047	.00007	.00073
%RSD	178.97	306.76	306.76	158.86	77.604	.37293	4.7140	10.048	4.8021	11.182	1.5172	1.2648
#1	-.00013	.02619	.05604	-.00008	-.00004	2.9056	-.00859	-.00048	.45978	.00387	-.00430	.05808
#2	.00108	-.00966	-.02067	.00140	-.00012	2.8903	-.00918	-.00042	.42958	.00454	-.00439	.05705
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.40000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3659.7**	**40229.**	**3244.2**
Stddev	6.6	9.	25.6
%RSD	.18166	.02296	.78940
#1	3655.0	40235.	3226.1
#2	3664.4	40222.	3262.3

Sample Name: ICVH-5725435 Acquired: 5/29/2019 7:43:51 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00058**	**40.057**	**-.00272**	**-.00060**	**.00019**	**.00020**	**.00088**	**-.00734**	**-.00020**	**.00015**	**-.00000**	**.00534**	**79.954**
Stddev	.00059	.166	.00202	.00103	.00025	.00003	.00435	.00487	.00029	.00019	.00017	.00001	.306
%RSD	101.69	.41563	74.148	171.71	131.01	16.021	492.92	66.344	144.77	129.82	3880.7	.09770	.38236
#1	-.00016	39.939	-.00415	-.00133	.00001	.00022	.00396	-.00390	.00000	.00001	-.00013	.00534	79.738
#2	-.00100	40.175	-.00129	.00013	.00036	.00018	-.00220	-.01079	-.00040	.00028	.00012	.00534	80.170
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.05476**	**-.00332**	**.00700**	**.00132**	**-.00115**	**80.113**	**-.00044**	**3.8886**	**.00014**	**3.9801**	**.00122**	**.00223**	**-.03197**
Stddev	.00462	.00087	.00304	.00000	.00027	.338	.00050	.0089	.00088	.0260	.00396	.00111	.00643
%RSD	8.4374	26.078	43.357	.20298	23.517	.42134	114.05	.22780	622.79	.65312	324.04	49.520	20.104
#1	-.05150	-.00393	.00486	.00132	-.00134	79.875	-.00009	3.8949	.00076	3.9984	.00402	.00302	-.03652
#2	-.05803	-.00271	.00915	.00132	-.00096	80.352	-.00080	3.8824	-.00048	3.9617	-.00158	.00145	-.02743
Check ?	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.06842**	**.00223**	**-.00029**	**2.8942**	**-.00904**	**.00158**	**.39164**	**.00350**	**-.00392**	**.05485**
Stddev	.01376	.00203	.00041	.0054	.00013	.00266	.01537	.00059	.00002	.00233
%RSD	20.104	91.098	142.97	.18627	1.4376	169.07	3.9252	16.847	.62475	4.2458
#1	-.07815	.00079	.00000	2.8904	-.00914	.00346	.38077	.00308	-.00394	.05320
#2	-.05870	.00367	-.00057	2.8980	-.00895	-.00031	.40251	.00391	-.00390	.05650
Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3673.3**	**40910.**	**3326.5**
Stddev	12.4	90.	21.4
%RSD	.33727	.21976	.64395
#1	3664.5	40846.	3311.4
#2	3682.1	40974.	3341.6

Sample Name: ICV-5725436 Acquired: 5/29/2019 7:46:42 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.24910**	**.24340**	W **.22676**	W **.23447**	**.25110**	**.25442**	**.48078**	**2.5167**	**.23680**	**.24056**	**.23843**	**.24462**
Stddev	.00397	.00077	.00165	.00030	.00020	.00073	.00120	.0085	.00015	.00034	.00052	.00576
%RSD	1.5928	.31546	.72719	.12738	.07841	.28799	.24864	.33931	.06336	.13962	.21738	2.3551
#1	.25190	.24395	.22792	.23426	.25124	.25390	.47993	2.5227	.23670	.24032	.23879	.24870
#2	.24629	.24286	.22559	.23468	.25096	.25494	.48163	2.5106	.23691	.24080	.23806	.24055
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.25000	.25000								
Range			-5.4900%	-5.4900%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2501**	**24.944**	**.25289**	**9.8721**	**.24850**	**.23806**	**12.515**	**.24202**	**-.00403**	**.24317**	**-.00800**	**.24454**
Stddev	.0121	.095	.00612	.1636	.00403	.00009	.004	.00106	.00153	.00092	.00469	.00220
%RSD	.96682	.38118	2.4194	1.6569	1.6216	.03762	.03555	.43652	37.894	.37681	58.689	.89952
#1	1.2587	24.877	.25722	9.9878	.25135	.23800	12.512	.24127	-.00511	.24381	-.00468	.24609
#2	1.2416	25.012	.24856	9.7565	.24565	.23813	12.518	.24276	-.00295	.24252	-.01132	.24298
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.22146**	**2.4868**	**5.3219**	**.24016**	**.25141**	**-.00335**	**.24246**	**.24572**	**.06798**	**.24178**	**.24481**	**.24941**
Stddev	.00102	.0198	.0424	.00011	.00005	.00270	.00507	.00348	.00457	.00443	.00389	.00100
%RSD	.46189	.79644	.79644	.04750	.02047	80.802	2.0892	1.4145	6.7283	1.8338	1.5880	.40137
#1	.22074	2.4728	5.2919	.24008	.25138	-.00143	.24605	.24818	.06474	.24492	.24756	.24870
#2	.22219	2.5009	5.3518	.24024	.25145	-.00526	.23888	.24326	.07121	.23865	.24206	.25012
Check ?	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value	.25000											
Range	-10.490%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3800.9**	**41775.**	**3347.5**
Stddev	4.2	196.	1.2
%RSD	.11180	.46937	.03436
#1	3803.9	41637.	3348.3
#2	3797.9	41914.	3346.7

Sample Name: ICV-5725436 Acquired: 5/29/2019 7:49:32 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.25298**	**.25348**	**.24669**	**.24634**	**.25203**	**.25452**	**.50575**	**2.5282**	**.24777**	**.25127**	**.24900**	**.24918**	**1.2490**
Stddev	.00028	.00016	.00371	.00075	.00126	.00031	.00041	.0097	.00066	.00054	.00012	.00005	.0048
%RSD	.10949	.06360	1.5039	.30639	.49843	.12266	.08065	.38313	.26510	.21678	.04714	.01996	.38508
#1	.25318	.25336	.24931	.24688	.25292	.25474	.50604	2.5350	.24823	.25166	.24891	.24922	1.2524
#2	.25279	.25359	.24406	.24581	.25114	.25430	.50546	2.5213	.24730	.25089	.24908	.24914	1.2456
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.977**	**.24979**	**9.9888**	**.25045**	**.24929**	**12.424**	**.25191**	**-.00051**	**.25097**	**-.00802**	**.25656**	**.24341**	**2.4958**
Stddev	.036	.00024	.0066	.00034	.00115	.067	.00082	.00230	.00096	.00055	.00014	.00032	.0633
%RSD	.14353	.09591	.06574	.13684	.46108	.53678	.32475	450.03	.38345	6.8246	.05469	.13097	2.5362
#1	25.002	.24996	9.9935	.25020	.25010	12.471	.25249	.00112	.25029	-.00764	.25666	.24319	2.4510
#2	24.951	.24962	9.9842	.25069	.24848	12.377	.25133	-.00214	.25165	-.00841	.25646	.24364	2.5405
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.3409**	**.24902**	**.25159**	**-.00490**	**.24433**	**.25429**	**.03650**	**.24499**	**.24424**	**.24792**
Stddev	.1354	.00085	.00130	.00039	.00085	.00327	.00864	.00043	.00147	.00208
%RSD	2.5362	.34048	.51520	8.0213	.34857	1.2873	23.661	.17738	.60333	.83781
#1	5.2451	.24842	.25251	-.00518	.24493	.25660	.04261	.24468	.24528	.24939
#2	5.4367	.24962	.25068	-.00463	.24373	.25197	.03040	.24529	.24320	.24645
Check ?	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3736.7**	**42145.**	**3376.8**
Stddev	2.3	35.	11.3
%RSD	.06088	.08329	.33372
#1	3738.3	42120.	3368.9
#2	3735.1	42170.	3384.8

Sample Name: ICV-5725436 Acquired: 5/29/2019 7:56:55 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.25300**	**.25762**	**.24455**	**.24959**	**.25277**	**.25580**	**.50732**	**2.5538**	**.24987**	**.25336**	**.25042**	**.25138**	**1.2541**
Stddev	.00020	.00052	.00315	.00103	.00047	.00058	.00308	.0069	.00144	.00136	.00187	.00098	.0054
%RSD	.07982	.20060	1.2869	.41331	.18619	.22827	.60668	.27103	.57681	.53561	.74712	.38916	.43279
#1	.25285	.25799	.24677	.25032	.25244	.25539	.50949	2.5586	.25089	.25432	.25175	.25069	1.2503
#2	.25314	.25726	.24232	.24886	.25311	.25621	.50514	2.5489	.24885	.25240	.24910	.25207	1.2580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.300**	**.25901**	**10.083**	**.25297**	**.25157**	**12.581**	**.25503**	**-.00123**	**.25430**	**.00180**	**.26132**	**.24588**	**2.5027**
Stddev	.085	.00495	.007	.00011	.00052	.110	.00016	.00076	.00066	.00616	.00107	.00301	.0443
%RSD	.33645	1.9095	.06624	.04534	.20475	.87418	.06460	61.459	.26146	342.33	.40810	1.2261	1.7706
#1	25.240	.26251	10.078	.25305	.25194	12.504	.25492	-.00177	.25477	.00616	.26207	.24374	2.5340
#2	25.360	.25552	10.088	.25289	.25121	12.659	.25515	-.00070	.25383	-.00256	.26056	.24801	2.4714
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.3558**	**.25077**	**.25255**	**-.00534**	**.24756**	**.26070**	**-.02060**	**.24807**	**.24831**	**.24770**
Stddev	.0948	.00070	.00034	.00124	.00006	.00285	.08160	.00009	.00145	.00270
%RSD	1.7706	.27843	.13553	23.223	.02272	1.0937	396.17	.03525	.58500	1.0911
#1	5.4228	.25126	.25231	-.00622	.24760	.26271	-.07830	.24800	.24728	.24579
#2	5.2887	.25028	.25279	-.00446	.24752	.25868	.03710	.24813	.24934	.24961
Check ?	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3576.5**	**40136.**	**3195.2**
Stddev	14.4	157.	33.1
%RSD	.40347	.39065	1.0359
#1	3566.3	40025.	3218.6
#2	3586.7	40247.	3171.8

Sample Name: ICVL-5725431 Acquired: 5/29/2019 8:02:22 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00800**	**.10551**	**.01060**	**.09966**	**.01067**	**.00117**	**.10925**	**.22177**	**.00530**	**.01116**	**.01046**	**.01560**
Stddev	.00033	.00101	.00659	.00013	.00066	.00002	.00128	.00014	.00001	.00029	.00030	.00026
%RSD	4.1043	.95723	62.218	.13453	6.1408	1.8259	1.1758	.06347	.13712	2.6185	2.8574	1.6648
#1	.00823	.10622	.00594	.09956	.01021	.00116	.11016	.22187	.00530	.01095	.01067	.01542
#2	.00777	.10479	.01526	.09975	.01114	.00119	.10834	.22167	.00531	.01137	.01024	.01579
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12624**	**3.0236**	**.01644**	**.20886**	**.01073**	**.01976**	**1.0400**	**.04228**	**2.9590**	**.01168**	**.09482**	**.02267**
Stddev	.00008	.1357	.00001	.00147	.00001	.00079	.0159	.00018	.0000	.00041	.00957	.00466
%RSD	.05993	4.4874	.06064	.70316	.11726	4.0031	1.5248	.42207	.00063	3.5425	10.094	20.560
#1	.12629	3.1195	.01643	.20990	.01074	.01920	1.0512	.04215	2.9590	.01198	.10159	.02597
#2	.12619	2.9277	.01645	.20782	.01072	.02032	1.0288	.04241	2.9590	.01139	.08805	.01938
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01691**	**.48052**	**1.0283**	**.10349**	**.00996**	**.01447**	**.00959**	**.01581**	F **.03691**	**.00997**	**.02274**	**.01167**
Stddev	.00115	.01525	.0326	.00074	.00042	.00049	.00015	.00138	.03907	.00015	.00025	.00194
%RSD	6.8180	3.1740	3.1740	.71619	4.2439	3.3649	1.5240	8.7512	105.87	1.5481	1.0832	16.662
#1	.01609	.46973	1.0052	.10402	.01026	.01413	.00948	.01679	.00928	.00986	.02291	.01029
#2	.01773	.49130	1.0514	.10297	.00966	.01482	.00969	.01483	.06453	.01008	.02256	.01304
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3678.9**	**41548.**	**3313.0**
Stddev	14.0	48.	24.8
%RSD	.38175	.11639	.74893
#1	3688.8	41514.	3295.5
#2	3669.0	41582.	3330.5

Sample Name: CCVH-5713036 Acquired: 5/29/2019 8:04:54 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**49.920**	**-.00402**	**.00142**	**.00141**	**.00019**	**-.00111**	**.00303**	**.00000**	**.00235**	**.00009**	**.01190**
Stddev	.00067	.072	.00033	.00103	.00037	.00000	.00352	.00519	.00022	.00022	.00022	.00006
%RSD	320.39	.14445	8.2980	72.109	26.025	1.7118	317.24	171.29	6582.0	9.4877	248.28	.52279
#1	-.00026	49.869	-.00379	.00070	.00167	.00020	-.00360	.00670	.00016	.00251	-.00007	.01195
#2	.00068	49.971	-.00426	.00215	.00115	.00019	.00138	-.00064	-.00015	.00219	.00025	.01186
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.526**	**.06694**	**.00049**	**.01406**	**.00246**	**-.00102**	**249.02**	**.00147**	**4.9713**	**.00244**	**4.9092**	**.00051**
Stddev	.043	.12833	.00553	.00225	.00006	.00034	.65	.00027	.0251	.00073	.0343	.00035
%RSD	.08651	191.71	1123.9	16.028	2.3789	33.001	.25973	18.295	.50586	29.783	.69865	68.533
#1	49.556	-.02380	.00440	.01246	.00250	-.00078	248.57	.00166	4.9891	.00192	4.9334	.00075
#2	49.496	.15768	-.00342	.01565	.00242	-.00126	249.48	.00128	4.9535	.00295	4.8849	.00026
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00106**	**-.01147**	**-.02454**	**-.00040**	**.00023**	**5.0012**	**-.01463**	**.00226**	F **.57467**	**.00544**	**-.00194**	**.09439**
Stddev	.00087	.01960	.04193	.00106	.00025	.0082	.00019	.00115	.00474	.00068	.00026	.00003
%RSD	82.173	170.85	170.85	262.04	109.79	.16408	1.2654	50.728	.82482	12.437	13.339	.03019
#1	.00044	-.02533	-.05420	.00035	.00005	5.0070	-.01476	.00307	.57802	.00592	-.00212	.09441
#2	.00168	.00239	.00511	-.00115	.00041	4.9954	-.01450	.00145	.57132	.00497	-.00176	.09437
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3584.4**	**40016.**	**3247.7**
Stddev	2.0	105.	83.3
%RSD	.05665	.26274	2.5639
#1	3583.0	40090.	3306.6
#2	3585.8	39942.	3188.8

Sample Name: CCV-5714928 Acquired: 5/29/2019 8:07:24 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47193**	**.47469**	**.45985**	**.46731**	**.47220**	**.47202**	**.94481**	**4.7316**	**.46789**	**.47239**	**.46971**	**.47207**	**2.3368**
Stddev	.00036	.00346	.00467	.00115	.00035	.00020	.00856	.0123	.00246	.00205	.00204	.00055	.0101
%RSD	.07624	.72809	1.0150	.24616	.07399	.04243	.90626	.25900	.52529	.43398	.43442	.11659	.43235
#1	.47168	.47714	.46315	.46812	.47195	.47188	.95087	4.7229	.46963	.47384	.47116	.47245	2.3296
#2	.47218	.47225	.45655	.46649	.47244	.47216	.93876	4.7402	.46615	.47094	.46827	.47168	2.3439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.466**	**.47771**	**18.756**	**.47136**	**.46662**	**23.753**	**.47259**	**-.00109**	**.46911**	**.00087**	**.46409**	**.46481**	**4.7130**
Stddev	.159	.00072	.027	.00029	.00258	.057	.00430	.00100	.00162	.00329	.00645	.00194	.0121
%RSD	.33503	.15093	.14414	.06208	.55384	.24059	.91081	92.075	.34513	380.28	1.3899	.41699	.25607
#1	47.353	.47720	18.737	.47115	.46845	23.793	.47563	-.00038	.47026	-.00146	.46865	.46619	4.7215
#2	47.578	.47822	18.775	.47156	.46479	23.712	.46954	-.00179	.46797	.00319	.45953	.46344	4.7044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.086**	**.47034**	**.47307**	**-.00273**	**.46806**	**.47433**	**.02307**	**.46762**	**.46575**	**.46484**
Stddev	.026	.00107	.00022	.00226	.00045	.01135	.04625	.00010	.00084	.00511
%RSD	.25607	.22814	.04588	82.809	.09659	2.3923	200.50	.02160	.17992	1.0989
#1	10.104	.47109	.47322	-.00113	.46838	.48236	-.00964	.46755	.46516	.46122
#2	10.068	.46958	.47292	-.00433	.46774	.46631	.05577	.46769	.46635	.46845
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3724.8**	**41917.**	**3381.1**
Stddev	2.7	77.	3.4
%RSD	.07261	.18417	.10067
#1	3722.9	41972.	3383.5
#2	3726.7	41863.	3378.7

Sample Name: ICB Acquired: 5/29/2019 8:09:50 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**-.00085**	**.00254**	**.00047**	**.00014**	**.00034**	**-.00016**	**-.00552**	**.00012**	**.00037**	**-.00037**	**-.00004**	**-.00268**
Stddev	.00077	.00010	.00284	.00016	.00015	.00018	.00413	.00112	.00010	.00019	.00004	.00027	.00676
%RSD	451.87	12.137	111.89	34.805	105.29	53.519	2543.0	20.249	79.779	49.842	10.075	697.83	252.64
#1	.00071	-.00093	.00053	.00059	.00025	.00021	-.00309	-.00631	.00005	.00050	-.00035	-.00023	-.00746
#2	-.00037	-.00078	.00455	.00035	.00004	.00047	.00276	-.00473	.00019	.00024	-.00040	.00015	.00210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11993**	**.00408**	**.00412**	**-.00001**	**.00033**	**.08086**	**.00017**	**-.00032**	**.00166**	**-.00800**	**-.00003**	**-.00434**	**.02113**
Stddev	.05571	.00679	.00180	.00007	.00021	.00511	.00014	.00151	.00168	.00197	.00321	.00008	.00514
%RSD	46.454	166.57	43.708	618.17	62.520	6.3145	79.805	470.08	100.74	24.664	10201.	1.7324	24.329
#1	.08054	-.00073	.00285	-.00006	.00019	.07725	.00027	.00074	.00048	-.00939	-.00230	-.00429	.02477
#2	.15933	.00888	.00540	.00004	.00048	.08447	.00008	-.00139	.00285	-.00660	.00224	-.00440	.01750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04523**	**.00164**	**.00028**	**-.00324**	**-.00029**	**.00427**	**.02178**	**.00001**	**-.00231**	**.00029**
Stddev	.01100	.00152	.00003	.00033	.00010	.00052	.01937	.00002	.00066	.00081
%RSD	24.329	93.123	9.5839	10.276	35.377	12.107	88.932	201.17	28.759	281.83
#1	.05301	.00056	.00030	-.00347	-.00022	.00390	.00808	.00003	-.00184	-.00029
#2	.03745	.00271	.00026	-.00300	-.00036	.00463	.03548	-.00001	-.00277	.00086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3633.8**	**41048.**	**3264.4**
Stddev	17.6	16.	2.0
%RSD	.48504	.03818	.06254
#1	3621.3	41037.	3262.9
#2	3646.2	41059.	3265.8

Sample Name: CRI-5725431 Acquired: 5/29/2019 8:13:19 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.00728**	**.09904**	**.01648**	**.09342**	**.00969**	**.00117**	**.10369**	**.19038**	**.00482**	**.01001**	**.00965**	**.01317**
Stddev	.00029	.00089	.00566	.00061	.00011	.00014	.00199	.00402	.00011	.00013	.00038	.00030
%RSD	3.9850	.89728	34.365	.65790	1.0943	11.877	1.9197	2.1142	2.1945	1.2845	3.9603	2.2679
#1	.00708	.09841	.02048	.09299	.00961	.00107	.10228	.19322	.00490	.01010	.00992	.01296
#2	.00749	.09967	.01247	.09386	.00976	.00127	.10509	.18753	.00475	.00992	.00938	.01338
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-20.490%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.12833**	**2.9815**	**.02120**	**.19808**	**.01028**	**.01880**	**1.0661**	**.03987**	**2.7997**	W **.01101**	**.08660**	**.01709**
Stddev	.00085	.0188	.00182	.00370	.00018	.00009	.0030	.00041	.0012	.00034	.00678	.00106
%RSD	.66045	.63147	8.6066	1.8670	1.7230	.47970	.28561	1.0184	.04402	3.0482	7.8283	6.2207
#1	.12773	2.9948	.02249	.19547	.01015	.01874	1.0639	.04016	2.8005	.01125	.08181	.01634
#2	.12893	2.9682	.01991	.20070	.01040	.01887	1.0682	.03958	2.7988	.01077	.09139	.01784
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value	.10000									.00900		
Range	20.490%									20.490%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01636**	**.51427**	**1.1005**	**.09798**	**.01023**	**.01327**	**.00930**	**.01638**	**.06731**	**.01044**	**.02005**	W **.00770**
Stddev	.00019	.03829	.0819	.00066	.00004	.00135	.00036	.00222	.05635	.00008	.00045	.00096
%RSD	1.1347	7.4458	7.4458	.67721	.37455	10.157	3.8460	13.539	83.717	.76008	2.2627	12.526
#1	.01623	.48720	1.0426	.09845	.01020	.01423	.00904	.01481	.02747	.01038	.01973	.00838
#2	.01649	.54135	1.1585	.09751	.01025	.01232	.00955	.01794	.10716	.01050	.02037	.00702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value												.01500
Range												-20.490%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3829.2**	**42870.**	**3280.1**
Stddev	2.9	250.	29.6
%RSD	.07525	.58310	.90383
#1	3831.3	42693.	3259.1
#2	3827.2	43047.	3301.0

Sample Name: ICSA-5714842 Acquired: 5/29/2019 8:16:23 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**507.18**	**-.00332**	**-.00143**	**.00177**	**.00021**	**-.00316**	**468.58**	**.00020**	**-.00015**	W **.00405**	**.00207**
Stddev	.00065	.59	.00152	.00003	.00046	.00020	.00386	.83	.00017	.00005	.00034	.00008
%RSD	112.42	.11609	45.835	2.2927	25.950	97.728	121.94	.17810	85.345	31.381	8.4057	3.8959
#1	.00104	507.59	-.00440	-.00145	.00144	.00035	-.00044	469.17	.00032	-.00018	.00429	.00212
#2	.00012	506.76	-.00225	-.00140	.00209	.00006	-.00589	467.99	.00008	-.00011	.00381	.00201
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit											.00260	
Low Limit											-.00260	

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**187.12**	**-.05024**	**-.00054**	**518.09**	**.00028**	**-.00035**	**.26525**	**.00235**	**.00599**	**-.00335**	**-.09807**	**-.01017**
Stddev	.97	.03259	.00173	4.49	.00013	.00029	.01088	.00041	.00577	.00214	.00062	.00378
%RSD	.52020	64.866	318.18	.86578	47.602	82.127	4.1015	17.466	96.297	63.895	.62923	37.140
#1	187.81	-.07328	.00068	521.26	.00037	-.00056	.27294	.00206	.00191	-.00486	-.09764	-.01285
#2	186.43	-.02720	-.00176	514.92	.00019	-.00015	.25755	.00264	.01006	-.00184	-.09851	-.00750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00281**	**.01025**	**.02193**	**-.00184**	W **.00783**	**-.00227**	W **.00260**	**.00396**	**-.20404**	**.00093**	**-.00527**	**-.00226**
Stddev	.00120	.00363	.00777	.00123	.00035	.00424	.00031	.00219	.08041	.00105	.00097	.00172
%RSD	42.839	35.417	35.417	67.058	4.4623	186.31	12.085	55.357	39.406	113.18	18.432	76.163
#1	-.00196	.00768	.01644	-.00271	.00808	.00072	.00238	.00241	-.26090	.00019	-.00596	-.00347
#2	-.00366	.01281	.02742	-.00097	.00759	-.00527	.00283	.00551	-.14719	.00167	-.00458	-.00104
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.00120		.00230					
Low Limit					-.00120		-.00230					

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3387.9**	**36506.**	**3286.3**
Stddev	36.1	115.	4.5
%RSD	1.0667	.31483	.13735
#1	3413.4	36424.	3283.1
#2	3362.3	36587.	3289.5

Sample Name: ICSAB-5707812 Acquired: 5/29/2019 8:18:57 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1196**	**518.95**	**.99094**	**9.6840**	**.99849**	**.49393**	**.98144**	**480.32**	**1.0142**	**.92956**	**.96460**	**1.0815**	**191.79**
Stddev	.0031	.30	.00891	.0301	.00048	.00108	.00688	.33	.0049	.00245	.00529	.0050	.64
%RSD	.27313	.05783	.89908	.31085	.04782	.21882	.70076	.06972	.48623	.26307	.54840	.46583	.33484
#1	1.1218	518.74	.99724	9.7053	.99883	.49317	.98630	480.56	1.0176	.93129	.96834	1.0779	191.33
#2	1.1174	519.16	.98464	9.6627	.99815	.49470	.97657	480.09	1.0107	.92783	.96086	1.0851	192.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.496**	**1.0372**	**529.35**	**1.0131**	**.94990**	**10.550**	**.92593**	**10.026**	**.93108**	**10.201**	**.98496**	**.97809**	**9.9029**
Stddev	.035	.0008	.37	.0009	.00660	.011	.00393	.042	.00740	.071	.00415	.00472	.0040
%RSD	.33037	.07979	.07049	.09044	.69488	.10621	.42402	.42239	.79520	.69573	.42151	.48254	.04013
#1	10.520	1.0366	529.08	1.0124	.95457	10.542	.92871	10.056	.93632	10.251	.98789	.97475	9.9057
#2	10.471	1.0377	529.61	1.0137	.94523	10.558	.92316	9.9957	.92585	10.151	.98202	.98143	9.9001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.192**	**.93243**	**1.0016**	**2.0613**	**1.0063**	**.90779**	**-.13258**	**1.0249**	**.96890**	**.98110**
Stddev	.009	.00566	.0001	.0046	.0002	.00345	.01076	.0015	.00620	.00370
%RSD	.04013	.60725	.01012	.22451	.02330	.37974	8.1179	.14246	.63996	.37721
#1	21.198	.93644	1.0015	2.0646	1.0064	.91023	-.14019	1.0259	.96451	.97848
#2	21.186	.92843	1.0017	2.0581	1.0061	.90535	-.12497	1.0238	.97328	.98371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3381.6**	**36241.**	**3224.5**
Stddev	5.7	64.	5.4
%RSD	.16888	.17563	.16742
#1	3377.6	36286.	3228.3
#2	3385.7	36196.	3220.7

Sample Name: LRA-5681702 Acquired: 5/29/2019 8:21:20 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00141**	**.32607**	**9.7222**	**9.7970**	**12.438**	**-.00461**	**-.01671**	**.07117**	**2.0653**	**5.0817**	**10.072**	**10.635**	**507.43**
Stddev	.00097	.00100	.0366	.0395	.084	.00022	.00343	.01512	.0089	.0194	.052	.039	2.23
%RSD	68.957	.30611	.37660	.40315	.67199	4.7516	20.525	21.250	.42871	.38101	.51657	.36296	.43919
#1	.00210	.32677	9.7481	9.8249	12.379	-.00446	-.01428	.08186	2.0715	5.0954	10.109	10.662	505.85
#2	.00072	.32536	9.6964	9.7690	12.497	-.00477	-.01913	.06047	2.0590	5.0680	10.035	10.608	509.00
Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.25654**	**.00094**	**-.04654**	**9.9920**	**4.9813**	**-.01044**	**10.261**	**-.02752**	**10.243**	**-.04772**	**.06020**	**4.8384**	**47.678**
Stddev	.02655	.00014	.00101	.0594	.0186	.02121	.042	.00244	.042	.00300	.00852	.0157	.328
%RSD	10.347	14.760	2.1670	.59423	.37286	203.17	.41321	8.8796	.41085	6.2936	14.147	.32489	.68861
#1	-.23777	.00084	-.04726	10.034	4.9944	.00456	10.291	-.02580	10.273	-.04984	.06623	4.8495	47.446
#2	-.27531	.00104	-.04583	9.9501	4.9682	-.02544	10.231	-.02925	10.214	-.04560	.05418	4.8273	47.910
Check ?	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**102.03**	**.00049**	**10.266**	**-.00268**	**9.9174**	**5.0872**	**.08803**	**9.9570**	**9.7098**	**.00066**
Stddev	.70	.00143	.081	.00049	.0324	.0254	.04984	.0311	.0305	.00150
%RSD	.68861	292.37	.78694	18.434	.32641	.49916	56.620	.31207	.31377	227.30
#1	101.53	-.00052	10.209	-.00303	9.9403	5.1052	.12328	9.9789	9.7314	.00172
#2	102.53	.00150	10.323	-.00233	9.8945	5.0693	.05279	9.9350	9.6883	-.00040
Check ?	None	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3666.3**	**41302.**	**3315.4**
Stddev	21.7	104.	15.1
%RSD	.59060	.25101	.45581
#1	3650.9	41229.	3304.7
#2	3681.6	41375.	3326.1

Sample Name: CCVH-5713036 Acquired: 5/29/2019 8:23:47 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**50.216**	**.00478**	**.03543**	**.00166**	**.00007**	**.00030**	**-.00518**	**-.00006**	**.00268**	**.00077**	**.01096**
Stddev	.00155	.116	.00426	.00252	.00027	.00016	.00032	.00240	.00039	.00023	.00047	.00010
%RSD	226.14	.23013	89.070	7.1071	16.530	224.27	106.39	46.394	649.87	8.5970	61.682	.87805
#1	.00041	50.134	.00780	.03721	.00146	.00018	.00007	-.00348	-.00033	.00285	.00111	.01103
#2	-.00178	50.298	.00177	.03365	.00185	-.00004	.00052	-.00688	.00021	.00252	.00043	.01090
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**50.091**	**-.05420**	**.00162**	**.01867**	**.00259**	**.00388**	**251.61**	**.00160**	**4.9382**	**.00337**	**4.8993**	**.00005**
Stddev	.457	.01082	.00149	.00107	.00003	.00127	.29	.00063	.0227	.00103	.0349	.00379
%RSD	.91146	19.967	92.151	5.7318	1.2512	32.856	.11671	39.492	.46056	30.568	.71247	7764.5
#1	49.768	-.04654	.00267	.01791	.00261	.00298	251.41	.00116	4.9543	.00409	4.9240	.00273
#2	50.414	-.06185	.00056	.01942	.00257	.00478	251.82	.00205	4.9221	.00264	4.8746	-.00263
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00490**	**.04582**	**.09805**	**-.00160**	**.00058**	**4.9771**	**-.01361**	**.00315**	F **.60045**	**.00527**	**.00066**	**.09737**
Stddev	.00446	.01485	.03178	.00033	.00028	.0133	.00009	.00011	.04024	.00092	.00015	.00121
%RSD	91.114	32.408	32.408	20.845	48.666	.26759	.64765	3.6450	6.7014	17.479	22.442	1.2378
#1	.00174	.05632	.12052	-.00184	.00038	4.9677	-.01368	.00323	.57200	.00593	.00077	.09652
#2	.00806	.03532	.07558	-.00137	.00078	4.9866	-.01355	.00307	.62891	.00462	.00056	.09823
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3652.3**	**40707.**	**3308.5**
Stddev	8.3	255.	12.8
%RSD	.22860	.62731	.38570
#1	3646.4	40887.	3317.5
#2	3658.2	40526.	3299.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 8:26:19 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49805**	**.50539**	**.49283**	**.51585**	**.50167**	**.49658**	**1.0001**	**5.0330**	**.49581**	**.50260**	**.50050**	**.50013**	**2.5198**
Stddev	.00160	.00000	.00035	.00058	.00000	.00047	.0005	.0092	.00105	.00038	.00224	.00460	.0003
%RSD	.32138	.00063	.07024	.11242	.00009	.09443	.04777	.18388	.21142	.07500	.44664	.91924	.01090
#1	.49919	.50538	.49308	.51626	.50167	.49691	1.0005	5.0396	.49655	.50287	.50208	.50338	2.5197
#2	.49692	.50539	.49259	.51544	.50167	.49625	.99978	5.0265	.49507	.50233	.49892	.49688	2.5200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.842**	**.50836**	**19.983**	**.50102**	**.49765**	**24.836**	**.50364**	**-.00199**	**.50039**	**.00426**	**.49620**	**.48274**	**4.9585**
Stddev	.026	.00747	.026	.00051	.00119	.005	.00038	.00019	.00265	.00037	.00105	.00570	.0100
%RSD	.05131	1.4700	.12792	.10228	.23953	.01927	.07496	9.3798	.53004	8.6489	.21062	1.1804	.20108
#1	49.824	.50308	19.965	.50138	.49850	24.840	.50338	-.00212	.50227	.00400	.49694	.48677	4.9515
#2	49.860	.51364	20.001	.50066	.49681	24.833	.50391	-.00185	.49852	.00452	.49547	.47871	4.9656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.611**	**.50626**	**.50393**	**-.00543**	**.49339**	**.50886**	**.00780**	**.49630**	**.49374**	**.49816**
Stddev	.021	.00039	.00036	.00017	.00056	.00060	.01145	.00148	.00051	.00239
%RSD	.20108	.07776	.07076	3.1823	.11446	.11790	146.76	.29898	.10270	.47914
#1	10.596	.50598	.50418	-.00555	.49299	.50929	-.00029	.49735	.49338	.49984
#2	10.626	.50653	.50367	-.00530	.49379	.50844	.01590	.49525	.49410	.49647
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3628.5**	**40848.**	**3299.7**
Stddev	4.9	135.	21.1
%RSD	.13524	.33005	.63964
#1	3631.9	40753.	3314.6
#2	3625.0	40943.	3284.8

Sample Name: CCB Acquired: 5/29/2019 8:28:45 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00129**	**.00208**	**.00124**	**.01499**	**.00031**	**.00025**	**.00089**	**-.01589**	**.00020**	**.00053**	**-.00010**	**.00018**	**.02776**
Stddev	.00027	.00170	.00273	.00117	.00047	.00021	.00217	.00059	.00039	.00026	.00016	.00043	.00788
%RSD	20.659	82.033	220.13	7.8034	150.31	82.680	243.83	3.6842	195.74	49.636	158.16	235.49	28.392
#1	.00110	.00087	-.00069	.01581	.00064	.00011	-.00064	-.01631	.00048	.00034	.00001	.00049	.02219
#2	.00148	.00328	.00317	.01416	-.00002	.00040	.00242	-.01548	-.00008	.00071	-.00022	-.00012	.03333
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02588**	**.00318**	**.00760**	**.00045**	**.00052**	**-.05312**	**-.00016**	**-.00101**	**.00016**	**.00180**	**-.00092**	**-.00588**	**-.00964**
Stddev	.11944	.00065	.00321	.00006	.00027	.00763	.00033	.00147	.00156	.01578	.00058	.00004	.02885
%RSD	461.56	20.368	42.188	12.321	51.478	14.363	203.43	145.57	984.20	877.04	63.449	.75992	299.26
#1	-.05858	.00272	.00533	.00049	.00033	-.04772	-.00039	.00003	.00126	-.00936	-.00051	-.00591	-.03004
#2	.11033	.00363	.00986	.00041	.00071	-.05851	.00007	-.00205	-.00095	.01296	-.00133	-.00585	.01076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.02063**	**.00051**	**-.00006**	**.00052**	**.00026**	**.00207**	**.00547**	**.00007**	**-.00276**	**-.00437**
Stddev	.06173	.00152	.00005	.00291	.00011	.00050	.08242	.00063	.00029	.00215
%RSD	299.26	295.58	73.948	556.06	43.315	24.087	1505.9	883.08	10.594	49.283
#1	-.06428	-.00056	-.00003	-.00154	.00018	.00172	.06375	-.00037	-.00255	-.00589
#2	.02302	.00159	-.00009	.00258	.00033	.00242	-.05281	.00051	-.00297	-.00284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3701.0**	**41665.**	**3310.6**
Stddev	1.4	307.	22.3
%RSD	.03700	.73765	.67272
#1	3700.0	41882.	3326.3
#2	3702.0	41447.	3294.8

Sample Name: CCVL-5725431 Acquired: 5/29/2019 8:31:23 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00759**	F **.20406**	**.01899**	**.10885**	**.01037**	**.00108**	**.10274**	**.19756**	**.00544**	**.01105**	**.01121**	**.01448**
Stddev	.00021	.14298	.00162	.00338	.00095	.00014	.00215	.00012	.00050	.00102	.00196	.00023
%RSD	2.8229	70.065	8.5217	3.1039	9.1799	13.317	2.0885	.05984	9.2174	9.2483	17.470	1.5882
#1	.00774	.30517	.02013	.11124	.01104	.00118	.10426	.19764	.00579	.01178	.01259	.01464
#2	.00743	.10296	.01784	.10646	.00969	.00098	.10122	.19748	.00508	.01033	.00982	.01432
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.10000										
Range		30.000%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.13180**	**2.8193**	**.01791**	**.21010**	**.01048**	**.02002**	**.93057**	**.04202**	**2.8355**	**.01088**	**.08354**	**.02016**
Stddev	.00563	.0959	.00478	.00267	.00006	.00085	.00285	.00260	.0000	.00188	.00200	.00377
%RSD	4.2683	3.4020	26.691	1.2695	.61052	4.2217	.30673	6.1803	.00035	17.321	2.3886	18.676
#1	.12782	2.7515	.01453	.20822	.01053	.02062	.92855	.04386	2.8355	.01221	.08213	.01750
#2	.13577	2.8871	.02129	.21199	.01043	.01942	.93259	.04018	2.8355	.00955	.08495	.02283
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.10000											
Range	30.000%											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01604**	**.50797**	**1.0871**	**.09865**	**.00965**	**.01508**	**.00903**	**.01695**	F **.00719**	**.01011**	**.02009**	**.01307**
Stddev	.00275	.03147	.0673	.00038	.00028	.00152	.00004	.00351	.03330	.00012	.00013	.00181
%RSD	17.141	6.1956	6.1956	.38585	2.9042	10.100	.45298	20.681	462.98	1.1473	.62486	13.833
#1	.01799	.53022	1.1347	.09892	.00945	.01400	.00906	.01943	-.01635	.01002	.02018	.01434
#2	.01410	.48571	1.0394	.09838	.00985	.01615	.00900	.01447	.03074	.01019	.02001	.01179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3831.8**	**43343.**	**3462.7**
Stddev	7.6	71.	12.5
%RSD	.19751	.16412	.36203
#1	3837.1	43293.	3471.6
#2	3826.4	43394.	3453.9

Sample Name: CRI- Acquired: 5/29/2019 8:46:55 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00191**	**.00070**	**.00366**	**.00002**	**.00021**	**-.00016**	**-.00515**	**-.00001**	**.00020**	**-.00030**	**-.00143**
Stddev	.00050	.00015	.00436	.00011	.00013	.00005	.00020	.00497	.00011	.00000	.00009	.00022
%RSD	1219.9	7.9647	622.11	3.0369	560.76	21.883	126.33	96.624	1535.9	1.3911	28.395	15.208
#1	-.00031	-.00180	-.00238	.00358	-.00007	.00025	-.00029	-.00866	.00007	.00020	-.00024	-.00158
#2	.00040	-.00201	.00379	.00374	.00012	.00018	-.00002	-.00163	-.00008	.00020	-.00037	-.00128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.09488**	**-.14574**	**.00119**	**-.00003**	**-.00007**	**-.00065**	**-.06932**	**-.00056**	**-.00197**	F **.01062**	**-.00359**	**-.00139**
Stddev	.00200	.06569	.00234	.00039	.00016	.00024	.00401	.00061	.00275	.00117	.00214	.00051
%RSD	2.1117	45.072	197.14	1202.5	220.09	37.367	5.7837	107.91	139.83	11.036	59.562	36.436
#1	.09630	-.19218	-.00047	-.00031	-.00018	-.00083	-.07216	-.00099	-.00392	.00979	-.00510	-.00104
#2	.09346	-.09929	.00285	.00024	.00004	-.00048	-.06649	-.00013	-.00002	.01145	-.00208	-.00175
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit	.05000									.01000		
Low Limit	-.05000									-.01000		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00527**	**.00033**	**.00070**	**.00099**	**-.00032**	**-.00203**	**.00027**	**.00148**	**.00955**	**.00101**	**-.00275**	**-.00067**
Stddev	.00030	.03549	.07596	.00091	.00030	.00229	.00054	.00161	.02621	.00021	.00037	.00045
%RSD	5.7048	10898.	10898.	92.152	92.571	112.97	200.25	109.30	274.56	20.433	13.583	67.294
#1	-.00506	.02542	.05441	.00163	-.00054	-.00041	.00065	.00262	.02808	.00086	-.00249	-.00098
#2	-.00548	-.02477	-.05301	.00034	-.00011	-.00365	-.00011	.00034	-.00899	.00116	-.00302	-.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.2**	**42852.**	**3396.5**
Stddev	50.4	267.	48.9
%RSD	1.3346	.62195	1.4402
#1	3741.6	43041.	3361.9
#2	3812.9	42664.	3431.1

Sample Name: MB 280-459283/1-B Acquired: 5/29/2019 8:59:37 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00103**	**.00054**	**.00003**	**.00057**	**.00020**	**-.00161**	**-.00826**	**-.00005**
Stddev	.00011	.00001	.00130	.00057	.00029	.00033	.00217	.00843	.00012
%RSD	109.59	1.0483	241.88	2212.8	51.591	165.07	134.69	102.06	235.58
#1	.00002	-.00104	.00145	-.00038	.00036	.00043	-.00314	-.01421	-.00013
#2	.00018	-.00102	-.00038	.00043	.00077	-.00003	-.00008	-.00230	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**-.00040**	**-.00087**	**.00349**	**-.04635**	**-.00213**	**.00965**	**.00010**	**-.00048**
Stddev	.00039	.00007	.00011	.00001	.03404	.00189	.00657	.00006	.00029
%RSD	117.56	17.779	12.264	.22156	73.440	88.718	68.049	57.696	60.088
#1	.00006	-.00045	-.00095	.00350	-.02228	-.00347	.00501	.00014	-.00028
#2	.00060	-.00035	-.00080	.00349	-.07042	-.00079	.01430	.00006	-.00068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.06412**	**-.00020**	**-.00105**	**.00233**	**.00178**	**-.00386**	**-.00313**	**.00446**	**.00953**
Stddev	.01553	.00033	.00491	.00017	.00045	.00200	.00731	.00753	.01612
%RSD	24.214	162.04	466.25	7.3418	25.013	51.749	233.35	169.09	169.09
#1	-.05314	.00003	.00242	.00245	.00210	-.00245	-.00830	.00978	.02093
#2	-.07510	-.00043	-.00452	.00221	.00147	-.00527	.00204	-.00087	-.00187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00159**	**-.00024**	**-.00158**	**.00030**	**.00198**	**-.02683**	**.00092**	**-.00190**	**.00030**
Stddev	.00085	.00007	.00433	.00019	.00161	.01116	.00054	.00075	.00048
%RSD	53.388	27.273	274.22	62.700	81.614	41.597	59.194	39.464	161.34
#1	.00099	-.00020	-.00464	.00017	.00084	-.03472	.00130	-.00243	.00064
#2	.00219	-.00029	.00148	.00043	.00312	-.01894	.00053	-.00137	-.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3792.3**	**42279.**	**3471.2**
Stddev	24.8	226.	6.8
%RSD	.65416	.53525	.19630
#1	3774.7	42439.	3466.4
#2	3809.8	42119.	3476.0

Sample Name: LCS 280-459283/2-B Acquired: 5/29/2019 9:02:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05116**	**10.304**	**1.9834**	**.98127**	**1.9986**	W **1.0262**	**1.9735**	**48.936**	**.99669**
Stddev	.00079	.079	.0090	.00115	.0035	.0031	.0028	.172	.00262
%RSD	1.5533	.76865	.45227	.11743	.17550	.30107	.14345	.35084	.26322
#1	.05060	10.248	1.9898	.98045	1.9962	1.0240	1.9755	48.815	.99854
#2	.05172	10.360	1.9771	.98208	2.0011	1.0284	1.9715	49.058	.99483
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.98064**	**.97964**	**1.0016**	**9.8342**	**49.277**	**1.0038**	**49.743**	**1.0137**	**.99593**
Stddev	.00217	.00032	.0018	.0069	.107	.0037	.008	.0007	.00309
%RSD	.22081	.03257	.18033	.06973	.21773	.36994	.01522	.06667	.31076
#1	.98217	.97986	1.0028	9.8391	49.201	1.0064	49.748	1.0133	.99812
#2	.97910	.97941	1.0003	9.8294	49.352	1.0011	49.738	1.0142	.99374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **49.717**	**.97929**	W **20.501**	**.98231**	**10.049**	**1.0594**	**1.9686**	**2.0779**	**4.4467**
Stddev	.146	.00070	.019	.00295	.011	.0032	.0080	.0103	.0220
%RSD	.29329	.07144	.09480	.30012	.10808	.30190	.40909	.49540	.49540
#1	49.614	.97978	20.514	.98023	10.056	1.0572	1.9743	2.0706	4.4311
#2	49.820	.97879	20.487	.98439	10.041	1.0617	1.9629	2.0852	4.4623
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9730**	**.99022**	**1.0250**	**1.0162**	**1.9524**	**2.3310**	**1.0116**	**.50007**	**.51455**
Stddev	.0004	.00310	.0008	.0005	.0001	.0014	.0005	.00038	.00653
%RSD	.02008	.31345	.08265	.05343	.00452	.06115	.04982	.07536	1.2695
#1	1.9733	.98803	1.0244	1.0166	1.9524	2.3300	1.0120	.49980	.50993
#2	1.9727	.99242	1.0256	1.0158	1.9523	2.3320	1.0113	.50033	.51917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3658.9**	**40667.**	**3343.5**
Stddev	4.3	171.	13.1
%RSD	.11821	.41968	.39265
#1	3655.9	40787.	3352.7
#2	3662.0	40546.	3334.2

Sample Name: 280-123838-B-1-B Acquired: 5/29/2019 9:04:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.00177**	**.01012**	**.48304**	**.12951**	**.00026**	**-.00475**	**189.35**	**.00054**
Stddev	.00101	.00053	.00808	.00110	.00028	.00016	.00004	.51	.00030
%RSD	185.18	29.861	79.877	.22872	.21987	61.984	.74013	.27186	55.031
#1	.00126	.00139	.00440	.48382	.12931	.00015	-.00472	188.99	.00033
#2	-.00017	.00214	.01584	.48226	.12972	.00038	-.00477	189.72	.00075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00387**	**.00015**	**.00020**	**.05466**	**.64214**	**.00713**	**109.98**	**2.9375**	**.00184**
Stddev	.00009	.00006	.00083	.00450	.08969	.00063	.31	.0105	.00038
%RSD	2.3333	36.634	420.65	8.2262	13.968	8.8251	.28121	.35620	20.514
#1	.00380	.00019	.00078	.05148	.70556	.00758	109.76	2.9301	.00157
#2	.00393	.00011	-.00039	.05784	.57872	.00669	110.20	2.9449	.00211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**73.510**	**.00277**	**.03168**	**.00013**	**4.0948**	**-.00191**	**-.00705**	**19.946**	**42.684**
Stddev	.817	.00005	.00010	.00034	.0339	.00434	.00464	.076	.162
%RSD	1.1107	1.7741	.32767	264.11	.82707	227.06	65.784	.37991	.37991
#1	74.088	.00280	.03175	-.00011	4.1188	.00116	-.01033	19.999	42.798
#2	72.933	.00273	.03160	.00036	4.0709	-.00499	-.00377	19.892	42.569
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00088**	**1.3279**	**-.00316**	**.00149**	**.00019**	**-.06063**	**.00036**	**-.00017**	**-.00259**
Stddev	.00050	.0039	.00390	.00005	.00254	.08232	.00067	.00061	.00580
%RSD	56.880	.29285	123.27	3.1987	1343.4	135.78	186.78	352.65	223.93
#1	-.00123	1.3251	-.00041	.00153	-.00160	-.11884	-.00012	-.00060	.00151
#2	-.00052	1.3306	-.00592	.00146	.00198	-.00242	.00084	.00026	-.00669
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3604.0**	**40393.**	**3391.6**
Stddev	4.3	167.	13.6
%RSD	.12006	.41301	.39967
#1	3607.1	40511.	3401.1
#2	3601.0	40275.	3382.0

Sample Name: 280-123838-B-2-B Acquired: 5/29/2019 9:07:06 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00199**	**.00828**	**.00469**	**.54497**	**.17506**	**.00025**	**-.00852**	**183.10**	**.00079**
Stddev	.00011	.00053	.00510	.00172	.00036	.00008	.00317	.16	.00035
%RSD	5.4333	6.4529	108.72	.31508	.20516	31.929	37.189	.08568	44.898
#1	.00191	.00790	.00108	.54618	.17480	.00019	-.01076	183.21	.00104
#2	.00207	.00866	.00829	.54375	.17531	.00030	-.00628	182.99	.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02699**	**-.00001**	**.00394**	**.20448**	**4.6189**	**.02925**	**152.50**	**7.4348**	**.00065**
Stddev	.00018	.00014	.00022	.00512	.0921	.00274	.32	.0014	.00011
%RSD	.66195	1777.3	5.5307	2.5060	1.9933	9.3824	.21130	.01928	16.283
#1	.02686	-.00010	.00409	.20811	4.5538	.03119	152.72	7.4338	.00058
#2	.02711	.00009	.00378	.20086	4.6840	.02730	152.27	7.4358	.00073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**168.60**	**.02554**	**.03197**	**.00084**	**1.5386**	**-.00173**	**-.00556**	**24.910**	**53.308**
Stddev	.14	.00027	.00343	.00029	.0131	.00234	.00232	.167	.356
%RSD	.08465	1.0614	10.714	34.600	.85215	135.66	41.725	.66849	.66849
#1	168.50	.02535	.03439	.00064	1.5478	-.00338	-.00392	25.028	53.560
#2	168.71	.02573	.02955	.00105	1.5293	-.00007	-.00720	24.792	53.056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00106**	**2.6637**	**-.00403**	**.00086**	**-.00589**	**-.01992**	**.00007**	**.01302**	**-.00085**
Stddev	.00006	.0042	.00066	.00045	.00227	.01576	.00017	.00004	.00209
%RSD	5.5627	.15637	16.440	51.522	38.568	79.125	237.16	.29843	247.07
#1	-.00110	2.6666	-.00356	.00055	-.00750	-.03106	.00019	.01299	.00063
#2	-.00102	2.6607	-.00450	.00118	-.00429	-.00877	-.00005	.01305	-.00233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3564.7**	**39383.**	**3296.1**
Stddev	2.6	11.	15.7
%RSD	.07271	.02916	.47578
#1	3562.9	39391.	3285.0
#2	3566.6	39375.	3307.2

Sample Name: 280-123838-B-3-B Acquired: 5/29/2019 9:09:42 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**-.00003**	**.00347**	**.51217**	**.11369**	**.00021**	**-.00428**	**134.87**	**.00045**
Stddev	.00063	.00015	.00205	.00279	.00013	.00011	.00651	.27	.00006
%RSD	91.202	533.84	59.136	.54559	.11260	55.267	152.24	.20078	13.025
#1	.00113	-.00014	.00492	.51415	.11360	.00013	-.00888	134.68	.00049
#2	.00024	.00008	.00202	.51020	.11378	.00029	.00033	135.06	.00040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00126**	**-.00015**	**-.00142**	**.08964**	**.64236**	**.00730**	**114.87**	**3.1476**	**.00485**
Stddev	.00049	.00010	.00103	.00524	.08561	.00452	.11	.0022	.00002
%RSD	38.870	64.611	73.008	5.8404	13.327	61.898	.09983	.07137	.44593
#1	.00161	-.00022	-.00069	.08594	.58182	.00411	114.79	3.1460	.00484
#2	.00092	-.00008	-.00215	.09334	.70289	.01050	114.95	3.1492	.00487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **61.256**	**61.940**	**.00135**	**.01665**	**.00061**	**.04869**	**-.00218**	**-.01177**	**17.112**
Stddev	.179	.094	.00002	.00065	.00047	.00488	.00499	.00062	.036
%RSD	.29159	.15142	1.4761	3.8908	77.409	10.024	229.33	5.3037	.20923
#1	61.129	61.874	.00134	.01619	.00027	.04524	-.00571	-.01221	17.137
#2	61.382	62.007	.00136	.01711	.00094	.05215	.00135	-.01133	17.086
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**36.619**	**-.00008**	**1.3010**	**-.00291**	**.00022**	**-.00259**	F **-.14100**	**.00043**	**-.00046**
Stddev	.077	.00142	.0044	.00086	.00016	.00230	.01900	.00063	.00036
%RSD	.20923	1738.8	.33798	29.505	73.419	88.582	13.478	146.01	78.909
#1	36.673	.00092	1.2979	-.00351	.00034	-.00097	-.15444	-.00001	-.00071
#2	36.564	-.00109	1.3041	-.00230	.00011	-.00422	-.12757	.00087	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							20.000		
Low Limit							-.12000		

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.00051**
Stddev	.00072
%RSD	140.71
#1	.00102
#2	.00000
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-123838-B-3-B Acquired: 5/29/2019 9:09:42 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3604.0**	**39412.**	**3218.6**
Stddev	6.9	297.	16.3
%RSD	.19274	.75321	.50542
#1	3599.1	39202.	3230.1
#2	3608.9	39622.	3207.1

Sample Name: 280-123838-B-4-B Acquired: 5/29/2019 9:12:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**.00392**	**.00405**	**.49646**	**.04259**	**.00022**	**-.00206**	**81.478**	**.00086**
Stddev	.00005	.00014	.00030	.00341	.00012	.00011	.00223	.379	.00020
%RSD	19.833	3.4588	7.4714	.68602	.27584	51.191	108.29	.46546	23.835
#1	-.00021	.00402	.00427	.49887	.04250	.00030	-.00363	81.210	.00100
#2	-.00028	.00382	.00384	.49405	.04267	.00014	-.00048	81.746	.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**-.00012**	**.00101**	**.00290**	**2.9409**	**.01420**	**88.763**	**.00367**	**.00750**
Stddev	.00030	.00022	.00027	.00233	.1442	.00299	.193	.00166	.00096
%RSD	62.614	186.78	26.836	80.520	4.9014	21.044	.21722	45.228	12.770
#1	-.00027	.00004	.00082	.00125	2.8390	.01631	88.627	.00250	.00818
#2	-.00070	-.00027	.00121	.00455	3.0429	.01209	88.900	.00485	.00682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**71.153**	**.00051**	**.02835**	**.00074**	**41.797**	**-.00077**	**-.00065**	**12.492**	**26.732**
Stddev	.770	.00088	.00008	.00204	.186	.00022	.00011	.000	.000
%RSD	1.0816	172.35	.27891	273.54	.44434	28.796	16.965	.00075	.00075
#1	70.609	.00113	.02829	-.00070	41.928	-.00061	-.00073	12.492	26.732
#2	71.697	-.00011	.02841	.00218	41.666	-.00092	-.00057	12.492	26.732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00139**	**.95399**	**-.00505**	**.00035**	**.00034**	**.00071**	**.00452**	**-.00114**	**.00029**
Stddev	.00084	.00755	.00114	.00024	.00211	.02431	.00012	.00066	.00104
%RSD	60.802	.79112	22.653	68.414	619.63	3440.3	2.6950	57.979	363.67
#1	.00198	.94866	-.00424	.00053	-.00115	-.01648	.00461	-.00160	-.00045
#2	.00079	.95933	-.00586	.00018	.00183	.01790	.00444	-.00067	.00102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3644.3**	**40733.**	**3336.3**
Stddev	.8	210.	5.1
%RSD	.02150	.51498	.15362
#1	3643.7	40882.	3332.7
#2	3644.9	40585.	3340.0

Sample Name: 280-123838-B-5-B Acquired: 5/29/2019 9:14:46 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.00718**	**.01301**	**.58317**	**.06073**	**.00031**	**-.00791**	**137.63**	**.00050**
Stddev	.00017	.00057	.00148	.00005	.00059	.00003	.00461	.15	.00030
%RSD	83.027	8.0047	11.396	.00879	.97149	9.8853	58.292	.11062	60.496
#1	-.00033	.00759	.01196	.58313	.06031	.00029	-.00465	137.52	.00029
#2	-.00009	.00677	.01405	.58320	.06114	.00033	-.01117	137.74	.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00132**	**-.00022**	**.00072**	**.23070**	**3.2936**	**.01845**	**121.78**	**3.6979**	**-.00047**
Stddev	.00012	.00034	.00040	.00674	.0356	.00261	.03	.0016	.00006
%RSD	9.3161	155.06	55.862	2.9222	1.0816	14.171	.02092	.04271	12.452
#1	.00123	.00002	.00043	.22594	3.2684	.02030	121.76	3.6968	-.00051
#2	.00140	-.00046	.00100	.23547	3.3188	.01660	121.79	3.6990	-.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**76.942**	**.00097**	**.02469**	**-.00137**	**.23063**	**.00363**	**-.00877**	**16.213**	**34.695**
Stddev	.563	.00060	.00086	.00029	.00078	.00140	.00454	.086	.183
%RSD	.73121	61.186	3.4974	21.370	.33644	38.625	51.806	.52738	.52738
#1	77.340	.00140	.02530	-.00158	.23118	.00264	-.00556	16.152	34.566
#2	76.544	.00055	.02408	-.00116	.23008	.00462	-.01198	16.273	34.825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00072**	**1.3919**	**-.00422**	**.00081**	**-.00101**	**-.07408**	**.00030**	**-.00053**	**-.00279**
Stddev	.00120	.0009	.00218	.00017	.00246	.01505	.00048	.00037	.00321
%RSD	166.33	.06659	51.587	20.992	243.18	20.318	158.98	70.361	114.92
#1	-.00013	1.3912	-.00576	.00093	.00073	-.06344	.00064	-.00026	-.00052
#2	.00157	1.3926	-.00268	.00069	-.00275	-.08473	-.00004	-.00079	-.00507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3584.4**	**40166.**	**3376.2**
Stddev	.7	38.	7.8
%RSD	.01862	.09521	.23168
#1	3583.9	40139.	3381.8
#2	3584.9	40193.	3370.7

Sample Name: 280-123838-B-6-B Acquired: 5/29/2019 9:17:19 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**-.00081**	**.01394**	**.59793**	**.07680**	**.00015**	**-.00236**	**96.819**	**.00001**
Stddev	.00158	.00009	.00001	.00109	.00038	.00016	.00064	.183	.00002
%RSD	253.81	10.555	.09451	.18170	.49736	105.45	26.947	.18944	140.17
#1	-.00050	-.00087	.01395	.59870	.07707	.00004	-.00191	96.690	.00000
#2	.00174	-.00075	.01394	.59716	.07653	.00026	-.00281	96.949	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**-.00022**	**-.00001**	**-.00512**	**2.4529**	**.00956**	**83.905**	**.00091**	**.00115**
Stddev	.00007	.00019	.00022	.00187	.0082	.00463	.072	.00004	.00030
%RSD	31.333	87.532	1878.6	36.581	.33577	48.450	.08556	3.8936	26.400
#1	-.00017	-.00036	-.00017	-.00644	2.4588	.01283	83.854	.00093	.00137
#2	-.00027	-.00008	.00014	-.00380	2.4471	.00628	83.955	.00088	.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**135.53**	**.00003**	**.03990**	**.00026**	**10.042**	**.00112**	**-.00773**	**17.318**	**37.060**
Stddev	.56	.00021	.00159	.00182	.033	.00075	.00568	.060	.128
%RSD	.41055	756.37	3.9887	692.70	.33181	66.897	73.463	.34530	.34530
#1	135.13	-.00012	.03877	-.00103	10.066	.00165	-.01175	17.275	36.969
#2	135.92	.00018	.04103	.00155	10.018	.00059	-.00372	17.360	37.150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00156**	**1.2511**	**-.00338**	**.00019**	**.00385**	**-.04613**	**.00245**	**-.00072**	**-.00188**
Stddev	.00049	.0032	.00137	.00028	.00041	.07166	.00013	.00004	.00163
%RSD	31.578	.25919	40.481	149.71	10.776	155.35	5.4625	5.4330	86.602
#1	-.00121	1.2488	-.00241	-.00001	.00355	.00454	.00236	-.00075	-.00303
#2	-.00191	1.2534	-.00434	.00038	.00414	-.09681	.00254	-.00069	-.00073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3645.7**	**40571.**	**3374.6**
Stddev	16.4	101.	17.7
%RSD	.44980	.24829	.52481
#1	3657.3	40642.	3387.1
#2	3634.2	40500.	3362.1

Sample Name: 280-123838-B-7-B Acquired: 5/29/2019 9:19:51 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00113**	**.00023**	**.00710**	**.57476**	**.10106**	**.00024**	**-.00356**	**114.54**	**.00041**
Stddev	.00078	.00042	.00540	.00504	.00003	.00010	.00421	.21	.00028
%RSD	69.120	184.10	76.051	.87650	.02918	42.757	118.27	.18533	69.102
#1	.00058	-.00007	.01092	.57832	.10104	.00017	-.00654	114.39	.00061
#2	.00168	.00053	.00328	.57120	.10108	.00031	-.00058	114.69	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.00041**	**.00046**	**.01727**	**2.1434**	**.01123**	**97.147**	**.00101**	**.00960**
Stddev	.00033	.00015	.00043	.00324	.0165	.00118	.247	.00017	.00019
%RSD	144.47	36.804	92.201	18.731	.77097	10.510	.25426	17.254	1.9854
#1	.00000	.00052	.00016	.01498	2.1551	.01206	96.972	.00089	.00973
#2	-.00046	.00030	.00076	.01956	2.1317	.01039	97.322	.00113	.00946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**84.095**	**.00025**	**.00870**	**-.00158**	**3.1459**	**.00364**	**-.00401**	**15.520**	**33.214**
Stddev	.081	.00025	.00290	.00108	.0348	.00066	.00221	.068	.146
%RSD	.09648	99.309	33.281	68.338	1.1057	18.168	55.241	.43996	.43996
#1	84.038	.00043	.01075	-.00235	3.1705	.00317	-.00244	15.472	33.110
#2	84.152	.00008	.00665	-.00082	3.1213	.00411	-.00557	15.569	33.317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**1.1621**	**-.00034**	**-.00003**	**.00328**	**-.06163**	**.00067**	**-.00103**	**.00047**
Stddev	.00179	.0001	.00019	.00008	.00527	.06527	.00051	.00011	.00471
%RSD	3061.3	.00797	56.610	273.11	160.66	105.91	76.251	10.383	1008.2
#1	-.00132	1.1620	-.00020	.00003	-.00045	-.10778	.00031	-.00095	.00380
#2	.00121	1.1622	-.00047	-.00008	.00701	-.01548	.00103	-.00110	-.00287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3591.3**	**40409.**	**3372.4**
Stddev	21.5	186.	6.3
%RSD	.59801	.46019	.18812
#1	3606.5	40540.	3376.9
#2	3576.1	40277.	3368.0

Sample Name: CCVH-5713036 Acquired: 5/29/2019 9:22:23 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00113**	**50.785**	**-.00315**	**.00364**	**.00108**	**.00022**	**-.00046**	**.02055**	**.00006**	**.00222**	**.00009**	**.01159**
Stddev	.00094	.417	.00177	.00029	.00047	.00010	.00421	.00412	.00015	.00019	.00057	.00105
%RSD	83.464	.82021	56.329	8.0367	43.489	43.411	912.72	20.045	267.21	8.5837	640.84	9.0544
#1	-.00046	50.491	-.00440	.00385	.00142	.00029	-.00344	.01764	-.00005	.00236	.00049	.01233
#2	-.00179	51.080	-.00189	.00344	.00075	.00016	.00252	.02346	.00016	.00209	-.00031	.01085
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.585**	**-.00600**	**.00496**	**.03105**	**.00277**	**-.00138**	**251.37**	**.00137**	**4.9505**	**.00371**	**4.9124**	**-.00037**
Stddev	.405	.00990	.00355	.00434	.00013	.00029	1.69	.00012	.0208	.00023	.0365	.00134
%RSD	.81751	165.13	71.625	13.985	4.6864	20.751	.67240	8.7494	.42017	6.2954	.74284	359.84
#1	49.298	.00101	.00747	.02798	.00286	-.00117	250.18	.00128	4.9652	.00355	4.9382	-.00132
#2	49.872	-.01300	.00245	.03412	.00268	-.00158	252.57	.00145	4.9358	.00388	4.8866	.00058
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00223**	**.02298**	**.04917**	**-.00031**	**.00037**	**5.0019**	**-.01551**	**.00141**	F **.58807**	**.00508**	**-.00006**	**.09622**
Stddev	.00147	.03082	.06595	.00076	.00014	.0037	.00012	.00109	.01553	.00071	.00011	.00545
%RSD	66.014	134.12	134.12	247.80	37.813	.07407	.74637	77.124	2.6405	13.953	200.51	5.6600
#1	.00328	.04477	.09580	-.00084	.00046	5.0045	-.01543	.00218	.59905	.00558	.00002	.09237
#2	.00119	.00119	.00254	.00023	.00027	4.9993	-.01559	.00064	.57709	.00458	-.00014	.10007
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3656.2**	**40446.**	**3266.6**
Stddev	15.7	124.	84.9
%RSD	.43070	.30724	2.5987
#1	3645.0	40534.	3326.6
#2	3667.3	40358.	3206.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 9:25:16 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49568**	**.51146**	**.49072**	**.49297**	**.49919**	**.49626**	**.99306**	**4.9637**	**.49361**	**.50176**	**.49631**	**.49914**	**2.4557**
Stddev	.00058	.00197	.00110	.00035	.00261	.00088	.00301	.0094	.00061	.00140	.00081	.00178	.0083
%RSD	.11646	.38599	.22387	.07056	.52187	.17794	.30273	.18901	.12334	.27930	.16323	.35613	.33711
#1	.49527	.51006	.49149	.49273	.50103	.49689	.99519	4.9703	.49404	.50275	.49688	.49789	2.4615
#2	.49609	.51285	.48994	.49322	.49735	.49564	.99094	4.9571	.49318	.50077	.49574	.50040	2.4498
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.408**	**.49749**	**20.049**	**.50290**	**.49277**	**25.035**	**.50241**	**-.00205**	**.49993**	**-.00017**	**.49517**	**.49379**	**4.9155**
Stddev	.317	.00323	.009	.00009	.00233	.088	.00016	.00593	.00227	.00122	.00600	.00176	.0114
%RSD	.64117	.64916	.04621	.01804	.47289	.35147	.03283	290.18	.45434	721.20	1.2125	.35544	.23214
#1	49.632	.49978	20.042	.50283	.49441	25.097	.50252	-.00624	.50153	.00069	.49092	.49255	4.9075
#2	49.184	.49521	20.055	.50296	.49112	24.973	.50229	.00215	.49832	-.00103	.49941	.49503	4.9236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.519**	**.49859**	**.49771**	**-.00771**	**.49834**	**.50685**	**.03626**	**.49782**	**.49871**	**.49242**
Stddev	.024	.00153	.00051	.00167	.00022	.00359	.00785	.00072	.00219	.00062
%RSD	.23214	.30737	.10187	21.682	.04343	.70909	21.661	.14395	.43882	.12582
#1	10.502	.49967	.49807	-.00889	.49819	.50430	.04181	.49732	.49716	.49199
#2	10.537	.49751	.49735	-.00653	.49850	.50939	.03070	.49833	.50026	.49286
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3663.6**	**40468.**	**3264.8**
Stddev	3.6	60.	11.2
%RSD	.09923	.14787	.34276
#1	3661.0	40510.	3256.9
#2	3666.2	40425.	3272.7

Sample Name: CCB Acquired: 5/29/2019 9:28:24 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00027**	**-.00130**	**.00239**	**.00235**	**.00016**	**.00002**	**-.00190**	**-.01368**	**.00012**	**.00019**	**-.00018**	**-.00060**	**-.00427**
Stddev	.00093	.00040	.00299	.00084	.00068	.00000	.00036	.00083	.00009	.00018	.00012	.00157	.00349
%RSD	338.79	30.347	125.02	35.994	434.24	8.5028	19.068	6.0465	72.710	95.474	64.713	260.57	81.903
#1	.00093	-.00102	.00028	.00294	.00063	.00003	-.00165	-.01426	.00006	.00032	-.00010	-.00171	-.00674
#2	-.00038	-.00158	.00450	.00175	-.00032	.00002	-.00216	-.01309	.00018	.00006	-.00027	.00051	-.00180
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05195**	**.00374**	**.00045**	**-.00006**	**.00014**	**.04744**	**.00008**	**.00052**	**.00290**	**-.00258**	**-.00163**	**-.00478**	**.00273**
Stddev	.05770	.00137	.00221	.00003	.00088	.00504	.00018	.00315	.00045	.00449	.00048	.00072	.03843
%RSD	111.07	36.734	494.78	60.389	631.12	10.620	234.76	610.18	15.522	174.00	29.610	15.116	1405.9
#1	.09275	.00277	.00201	-.00008	.00076	.04388	-.00005	-.00171	.00258	.00059	-.00129	-.00530	-.02444
#2	.01115	.00471	-.00111	-.00003	-.00048	.05100	.00021	.00274	.00322	-.00575	-.00198	-.00427	.02991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00585**	**.00051**	**-.00033**	**-.00512**	**-.00080**	**-.00225**	**.00803**	**.00033**	**-.00167**	**-.00149**
Stddev	.08224	.00044	.00003	.00392	.00084	.00073	.03909	.00096	.00062	.00069
%RSD	1405.9	85.505	8.5992	76.510	103.82	32.564	486.55	288.66	37.186	46.468
#1	-.05230	.00082	-.00031	-.00789	-.00140	-.00173	.03567	.00101	-.00210	-.00100
#2	.06400	.00020	-.00035	-.00235	-.00021	-.00276	-.01960	-.00034	-.00123	-.00198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3683.0**	**41087.**	**3282.8**
Stddev	12.1	151.	7.9
%RSD	.32915	.36846	.24121
#1	3674.4	41194.	3277.2
#2	3691.5	40980.	3288.4

Sample Name: CCVL-5725431 Acquired: 5/29/2019 9:31:35 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00639**	**.10335**	**.01474**	**.09994**	**.00985**	**.00117**	**.10448**	**.19966**	**.00503**	**.01040**	**.00972**	**.01355**
Stddev	.00015	.00061	.00111	.00186	.00025	.00007	.00165	.00660	.00039	.00014	.00057	.00036
%RSD	2.3464	.59440	7.5469	1.8614	2.5396	5.8016	1.5772	3.3033	7.7828	1.3131	5.8141	2.6321
#1	.00628	.10291	.01396	.10125	.00967	.00113	.10332	.20432	.00476	.01049	.00932	.01330
#2	.00650	.10378	.01553	.09862	.01003	.00122	.10565	.19500	.00531	.01030	.01012	.01380
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12265**	**3.0619**	**.02422**	**.20742**	**.01061**	**.02002**	**1.0331**	**.04233**	**2.9306**	F **.01228**	**.09229**	**.01881**
Stddev	.00114	.0171	.00488	.00184	.00002	.00032	.0002	.00007	.0053	.00225	.00037	.00304
%RSD	.93261	.55910	20.154	.88536	.20598	1.6164	.01825	.15738	.18125	18.336	.40307	16.177
#1	.12346	3.0497	.02077	.20872	.01059	.01979	1.0329	.04237	2.9343	.01068	.09203	.01666
#2	.12184	3.0740	.02767	.20612	.01062	.02025	1.0332	.04228	2.9268	.01387	.09256	.02096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value										.00900		
Range										30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01664**	**.53311**	**1.1408**	**.10287**	**.00991**	**.01307**	**.00963**	**.01749**	F **.01978**	**.01048**	**.01982**	F **.00910**
Stddev	.00501	.02122	.0454	.00235	.00012	.00357	.00042	.00091	.09536	.00022	.00035	.00133
%RSD	30.119	3.9812	3.9812	2.2827	1.2392	27.324	4.3786	5.1875	482.12	2.0703	1.7724	14.628
#1	.02018	.54811	1.1730	.10453	.00999	.01054	.00993	.01813	.08721	.01033	.02007	.00816
#2	.01309	.51810	1.1087	.10121	.00982	.01559	.00933	.01685	-.04765	.01064	.01957	.01004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value									.06000			.01500
Range									-30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3755.7**	**42019.**	**3341.9**
Stddev	2.9	147.	10.7
%RSD	.07623	.35015	.32118
#1	3753.7	42123.	3334.3
#2	3757.7	41915.	3349.5

Sample Name: 280-123838-B-8-D Acquired: 5/29/2019 9:34:17 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00033**	**.00312**	**.01800**	**.25866**	**.06253**	**.00012**	**-.00460**	**26.773**	**-.00004**
Stddev	.00162	.00007	.00043	.00249	.00016	.00013	.00267	.042	.00006
%RSD	493.81	2.2567	2.4013	.96343	.26381	106.29	58.029	.15551	164.98
#1	-.00147	.00307	.01830	.26042	.06265	.00003	-.00271	26.744	.00001
#2	.00082	.00317	.01769	.25690	.06242	.00021	-.00649	26.803	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00038**	**-.00025**	**.03851**	**7.9380**	**.00495**	**4.4786**	**.00250**	**.04163**
Stddev	.00011	.00021	.00024	.00022	.0512	.00323	.0153	.00007	.00016
%RSD	352.10	54.163	96.937	.57345	.64520	65.274	.34051	2.7656	.37390
#1	.00011	.00053	-.00042	.03835	7.9017	.00724	4.4894	.00245	.04174
#2	-.00005	.00023	-.00008	.03867	7.9742	.00267	4.4678	.00255	.04152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**75.409**	**.00075**	**.01749**	**.00039**	**22.026**	**.00086**	**-.00615**	**8.7443**	**18.713**
Stddev	.155	.00011	.00149	.00033	.160	.00082	.00201	.0195	.042
%RSD	.20542	14.696	8.4988	83.137	.72685	95.335	32.743	.22321	.22321
#1	75.300	.00068	.01644	.00016	22.139	.00144	-.00473	8.7305	18.683
#2	75.519	.00083	.01854	.00062	21.913	.00028	-.00757	8.7581	18.742
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.52013**	**-.00176**	**.00012**	**.00275**	**-.01661**	**.00220**	**-.00058**	**-.00287**
Stddev	.00084	.00039	.00300	.00069	.00103	.00212	.00105	.00027	.00225
%RSD	236.57	.07412	170.86	560.80	37.597	12.779	47.697	46.870	78.531
#1	-.00094	.51985	-.00388	-.00036	.00348	-.01811	.00294	-.00038	-.00128
#2	.00024	.52040	.00037	.00061	.00202	-.01511	.00145	-.00077	-.00446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3705.8**	**41160.**	**3413.6**
Stddev	5.8	74.	14.7
%RSD	.15727	.18076	.43047
#1	3709.9	41107.	3424.0
#2	3701.7	41212.	3403.3

Sample Name: 123838-B-8-D SD@5 Acquired: 5/29/2019 9:36:49 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**-.00141**	**.00223**	**.04619**	**.01220**	**.00015**	**-.00099**	**5.0749**	**-.00012**
Stddev	.00009	.00017	.00632	.00163	.00052	.00007	.00106	.0412	.00008
%RSD	12.746	11.770	283.20	3.5323	4.2498	49.467	106.81	.81268	72.318
#1	.00073	-.00153	.00670	.04734	.01256	.00020	-.00174	5.1041	-.00018
#2	.00061	-.00129	-.00224	.04504	.01183	.00010	-.00024	5.0458	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**-.00033**	**-.00081**	**.00574**	**1.4637**	**.00455**	**.84162**	**.00053**	**.00763**
Stddev	.00022	.00010	.00058	.00181	.1063	.00088	.00541	.00004	.00023
%RSD	72.140	28.933	71.837	31.521	7.2588	19.418	.64238	7.4338	3.0105
#1	.00015	-.00040	-.00040	.00702	1.5389	.00517	.84544	.00056	.00779
#2	.00047	-.00026	-.00122	.00446	1.3886	.00392	.83780	.00050	.00747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **14.091**	**-.00043**	**.00415**	**.00133**	**3.8705**	**-.00200**	**-.00375**	**1.6134**	**3.4526**
Stddev	.125	.00033	.00072	.00072	.0383	.00093	.00399	.0649	.1388
%RSD	.88397	77.841	17.301	54.448	.99018	46.731	106.44	4.0194	4.0194
#1	14.179	-.00019	.00364	.00184	3.8976	-.00265	-.00093	1.6592	3.5508
#2	14.003	-.00066	.00466	.00082	3.8434	-.00134	-.00657	1.5675	3.3545
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00121**	**.09919**	**-.00386**	**-.00022**	**.00053**	**-.00190**	**.00079**	**-.00267**	**-.00151**
Stddev	.00029	.00056	.00298	.00062	.00002	.00410	.00026	.00010	.00088
%RSD	23.982	.56896	77.174	285.28	4.4808	215.78	33.575	3.6813	58.212
#1	-.00141	.09959	-.00175	-.00066	.00055	-.00480	.00097	-.00274	-.00212
#2	-.00100	.09879	-.00597	.00022	.00051	.00100	.00060	-.00260	-.00089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3828.0**	**42647.**	**3418.1**
Stddev	18.7	94.	6.4
%RSD	.48762	.22124	.18749
#1	3814.8	42581.	3413.5
#2	3841.2	42714.	3422.6

Sample Name: 280-123838-B-8-E MS Acquired: 5/29/2019 9:39:24 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05366**	**10.512**	**2.0303**	**1.2313**	**2.0808**	W **1.0384**	**1.9342**	**77.038**	**1.0052**
Stddev	.00009	.000	.0051	.0001	.0045	.0036	.0098	.233	.0005
%RSD	.16007	.00466	.25231	.01233	.21733	.34453	.50650	.30260	.04731
#1	.05360	10.511	2.0339	1.2312	2.0776	1.0359	1.9411	76.874	1.0055
#2	.05372	10.512	2.0267	1.2314	2.0840	1.0409	1.9273	77.203	1.0049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.99001**	**.99107**	**1.0258**	**10.103**	**58.706**	**1.0152**	**55.873**	**1.0241**	**1.0458**
Stddev	.00221	.00366	.0015	.016	.221	.0009	.023	.0004	.0011
%RSD	.22287	.36936	.14676	.16094	.37602	.08857	.04104	.04441	.10784
#1	.99157	.99366	1.0269	10.091	58.550	1.0146	55.889	1.0238	1.0466
#2	.98845	.98848	1.0248	10.114	58.862	1.0159	55.856	1.0244	1.0450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**127.21**	**.98925**	W **20.881**	**.97959**	**32.339**	**1.0857**	**1.9919**	**10.947**	**23.426**
Stddev	.03	.00003	.022	.00348	.045	.0007	.0051	.023	.049
%RSD	.01965	.00344	.10541	.35508	.13846	.06079	.25465	.20761	.20761
#1	127.20	.98927	20.896	.98205	32.370	1.0852	1.9955	10.963	23.461
#2	127.23	.98923	20.865	.97713	32.307	1.0861	1.9884	10.931	23.392
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000						
Low Limit			-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9827**	**1.5229**	**1.0171**	**1.0286**	**1.9358**	**2.3176**	**1.0282**	**.49495**	**.46185**
Stddev	.0043	.0035	.0003	.0024	.0032	.0037	.0018	.00106	.00246
%RSD	.21684	.23232	.02619	.23267	.16790	.15834	.16995	.21502	.53288
#1	1.9857	1.5204	1.0170	1.0269	1.9381	2.3150	1.0295	.49420	.46011
#2	1.9796	1.5254	1.0173	1.0303	1.9335	2.3202	1.0270	.49571	.46359
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3696.4**	**40578.**	**3435.2**
Stddev	9.2	173.	1.5
%RSD	.24776	.42590	.04354
#1	3702.9	40700.	3436.2
#2	3689.9	40456.	3434.1

Sample Name: 280-123838-B-8-F MSD Acquired: 5/29/2019 9:41:43 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05388**	**10.352**	**1.9991**	**1.2266**	**2.0531**	W **1.0223**	**1.9328**	**75.596**	**.99388**
Stddev	.00053	.086	.0057	.0067	.0019	.0019	.0100	.026	.00414
%RSD	.99124	.83107	.28767	.54378	.09246	.18496	.51791	.03485	.41657
#1	.05350	10.291	2.0031	1.2313	2.0518	1.0210	1.9399	75.577	.99681
#2	.05426	10.413	1.9950	1.2218	2.0545	1.0236	1.9257	75.614	.99096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97922**	**.98092**	**1.0114**	**9.9315**	**58.006**	**1.0060**	**54.885**	**1.0090**	**1.0361**
Stddev	.00531	.00453	.0071	.0218	.089	.0119	.044	.0008	.0049
%RSD	.54225	.46213	.70151	.21933	.15328	1.1842	.08089	.07633	.47547
#1	.98297	.98413	1.0064	9.9161	58.068	1.0144	54.854	1.0085	1.0396
#2	.97547	.97772	1.0164	9.9469	57.943	.99755	54.917	1.0095	1.0326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**124.04**	**.97758**	W **20.630**	**.97075**	**31.696**	**1.0704**	**1.9731**	**10.608**	**22.701**
Stddev	.34	.00392	.125	.00696	.155	.0011	.0118	.019	.041
%RSD	.27765	.40132	.60811	.71702	.48776	.10336	.59718	.18004	.18004
#1	123.79	.98035	20.719	.97567	31.805	1.0712	1.9814	10.594	22.672
#2	124.28	.97480	20.541	.96582	31.586	1.0696	1.9648	10.622	22.730
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000						
Low Limit			-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9640**	**1.4979**	**1.0106**	**1.0106**	**1.9190**	**2.3209**	**1.0118**	**.49255**	**.47599**
Stddev	.0170	.0018	.0000	.0001	.0091	.0169	.0011	.00000	.00381
%RSD	.86313	.12114	.00036	.00767	.47569	.72974	.11272	.00089	.79964
#1	1.9760	1.4967	1.0106	1.0107	1.9254	2.3329	1.0110	.49255	.47330
#2	1.9520	1.4992	1.0106	1.0106	1.9125	2.3089	1.0126	.49256	.47868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3722.7**	**41135.**	**3463.3**
Stddev	8.3	65.	12.0
%RSD	.22215	.15917	.34786
#1	3728.6	41088.	3454.7
#2	3716.9	41181.	3471.8

Sample Name: 280-123838-B-8-D PDS Acquired: 5/29/2019 9:43:59 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04530**	**.95564**	**.20774**	**.35628**	**.15549**	**.04922**	**-.00217**	**44.108**	**.04910**
Stddev	.00001	.00450	.00303	.00102	.00004	.00003	.00075	.221	.00049
%RSD	.01269	.47064	1.4602	.28534	.02686	.05266	34.674	.50087	1.0048
#1	.04530	.95882	.20988	.35700	.15546	.04920	-.00164	43.952	.04945
#2	.04529	.95246	.20559	.35556	.15552	.04924	-.00270	44.264	.04875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04842**	**.04766**	**.05117**	**.98290**	**26.672**	**.10245**	**23.273**	**.05143**	**.09459**
Stddev	.00076	.00011	.00031	.00459	.041	.00014	.001	.00004	.00116
%RSD	1.5653	.23890	.61506	.46733	.15490	.14078	.00487	.07940	1.2284
#1	.04895	.04774	.05095	.98615	26.643	.10235	23.272	.05146	.09541
#2	.04788	.04758	.05139	.97965	26.701	.10255	23.273	.05140	.09377
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**91.154**	**.04874**	**2.0054**	**.09518**	**20.982**	**.11543**	**.18205**	**13.904**	**29.755**
Stddev	.116	.00022	.0144	.00034	.026	.00160	.00366	.055	.117
%RSD	.12730	.45155	.71957	.35258	.12514	1.3860	2.0127	.39469	.39469
#1	91.072	.04858	2.0156	.09494	21.001	.11429	.18464	13.866	29.672
#2	91.236	.04889	1.9952	.09542	20.964	.11656	.17946	13.943	29.839
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10616**	**.54180**	**.19495**	**.05315**	**.18951**	**.53510**	**.05022**	**.19565**	**.05925**
Stddev	.00035	.00268	.00166	.00024	.00315	.08051	.00045	.00163	.00404
%RSD	.32890	.49529	.85038	.45510	1.6619	15.045	.88664	.83323	6.8160
#1	.10641	.53990	.19612	.05332	.19173	.47817	.04990	.19450	.05639
#2	.10591	.54370	.19378	.05297	.18728	.59202	.05053	.19681	.06210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3791.1**	**42083.**	**3474.3**
Stddev	16.8	100.	41.2
%RSD	.44353	.23694	1.1855
#1	3803.0	42013.	3503.4
#2	3779.2	42154.	3445.2

Sample Name: 280-123838-B-10-B Acquired: 5/29/2019 9:46:24 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00104**	**-.00064**	**.01051**	**.50602**	**.10093**	**.00019**	**-.00498**	**182.46**	**.00070**
Stddev	.00054	.00001	.00105	.00742	.00066	.00013	.00029	.42	.00005
%RSD	52.056	2.0125	9.9993	1.4654	.65782	66.073	5.8457	.22763	7.7464
#1	.00142	-.00065	.01125	.51126	.10140	.00010	-.00478	182.76	.00074
#2	.00066	-.00063	.00976	.50077	.10046	.00028	-.00519	182.17	.00066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00720**	**.00018**	**-.00022**	**.05585**	**.60972**	**.01324**	**145.75**	**7.3312**	**.00592**
Stddev	.00006	.00010	.00021	.00077	.11232	.00079	.42	.0087	.00048
%RSD	.87412	57.812	94.609	1.3787	18.422	5.9371	.28593	.11825	8.0693
#1	.00724	.00025	-.00037	.05530	.68915	.01379	145.46	7.3374	.00625
#2	.00715	.00011	-.00007	.05639	.53030	.01268	146.05	7.3251	.00558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**75.968**	**.00240**	**.02384**	**.00082**	**.26196**	**-.00325**	**-.00898**	**22.179**	**47.462**
Stddev	.287	.00058	.00150	.00099	.00230	.00329	.00239	.009	.019
%RSD	.37822	24.173	6.2761	120.39	.87720	101.26	26.647	.04078	.04078
#1	76.171	.00199	.02278	.00153	.26358	-.00092	-.01067	22.185	47.476
#2	75.765	.00281	.02490	.00012	.26033	-.00558	-.00729	22.172	47.448
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**1.6401**	**-.00057**	**.00030**	**-.00536**	**-.06838**	**.00066**	**.00120**	**-.00043**
Stddev	.00157	.0036	.00064	.00032	.00273	.06408	.00026	.00065	.00474
%RSD	478.20	.21847	110.73	104.39	50.918	93.707	38.553	54.558	1096.9
#1	-.00078	1.6426	-.00012	.00052	-.00729	-.02307	.00084	.00074	-.00378
#2	.00144	1.6376	-.00102	.00008	-.00343	-.11370	.00048	.00166	.00292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3521.2**	**39168.**	**3285.5**
Stddev	3.4	177.	20.7
%RSD	.09775	.45086	.63078
#1	3518.7	39293.	3300.1
#2	3523.6	39043.	3270.8

Sample Name: Bottle 123513-A-9 Acquired: 5/29/2019 9:49:29 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: Bottle check K 150

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00156**	**.12386**	**-.00904**	**1.7606**	**.47335**	**.00031**	**.00030**	W **942.79**	**.00152**
Stddev	.00095	.00086	.01140	.0091	.00147	.00010	.00161	9.95	.00057
%RSD	60.853	.69766	126.15	.51908	.31117	32.094	540.59	1.0554	37.810
#1	.00089	.12325	-.01710	1.7671	.47231	.00024	.00143	935.75	.00192
#2	.00223	.12447	-.00098	1.7542	.47439	.00038	-.00084	949.83	.00111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								500.00	
Low Limit								-.40000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00080**	**.00004**	**-.00159**	**.20029**	**92.604**	W **2.2442**	W **703.22**	**.97041**	**-.00042**
Stddev	.00004	.00036	.00005	.00022	6.965	.0209	4.87	.00124	.00052
%RSD	4.8109	868.03	3.2422	.10861	7.5208	.93039	.69189	.12731	122.70
#1	.00083	.00029	-.00162	.20045	87.679	2.2295	699.78	.96954	-.00006
#2	.00077	-.00021	-.00155	.20014	97.528	2.2590	706.66	.97128	-.00079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass
High Limit						2.0000	500.00		
Low Limit						-.02000	-.40000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **14828.**	**.00980**	**.12057**	**-.00135**	**97.637**	**-.00314**	**.01258**	**4.0079**	**8.5770**
Stddev	55.	.00035	.00847	.00255	.622	.00045	.00401	.0520	.1113
%RSD	.37312	3.5782	7.0223	188.75	.63737	14.398	31.887	1.2978	1.2978
#1	14789.	.01005	.11458	.00045	98.077	-.00346	.00974	4.0447	8.6557
#2	14867.	.00955	.12655	-.00315	97.197	-.00282	.01542	3.9712	8.4983
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10000.								
Low Limit	9.0000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00581**	F **134.15**	**-.00536**	**.00504**	**.00277**	F **-.25090**	**-.00023**	**.00633**	**-.00171**
Stddev	.00056	.36	.00522	.00110	.00154	.03270	.00021	.00156	.00030
%RSD	9.6523	.26554	97.472	21.766	55.668	13.033	90.443	24.644	17.473
#1	-.00541	133.89	-.00905	.00581	.00168	-.22778	-.00008	.00523	-.00150
#2	-.00620	134.40	-.00167	.00426	.00387	-.27402	-.00038	.00743	-.00192
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		20.000				20.000			
Low Limit		-.02000				-.12000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**2831.2**	**29837.**	**2964.3**
Stddev	16.6	39.	13.7
%RSD	.58690	.13131	.46273
#1	2819.4	29865.	2954.6
#2	2842.9	29809.	2974.0

Sample Name: CCVH-5713036 Acquired: 5/29/2019 9:53:22 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**50.455**	**.00063**	**.00401**	**.00137**	**.00021**	**.00353**	**.05529**	**-.00011**	**.00244**	**.00001**	**.01137**
Stddev	.00036	.049	.00319	.00009	.00030	.00000	.00027	.01010	.00036	.00024	.00000	.00123
%RSD	387.13	.09674	503.51	2.1365	21.961	1.9073	7.6119	18.267	319.63	9.7753	7.1148	10.827
#1	-.00035	50.489	-.00162	.00395	.00116	.00021	.00334	.06243	.00014	.00228	.00001	.01224
#2	.00016	50.420	.00289	.00408	.00158	.00021	.00373	.04815	-.00037	.00261	.00001	.01050
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.030**	**1.3783**	**.00583**	**.05027**	**.00250**	**-.00133**	**251.67**	**.00149**	**4.9414**	**.00344**	**4.9140**	**-.00310**
Stddev	.075	.0555	.00316	.00545	.00001	.00040	.02	.00034	.0068	.00052	.0183	.00042
%RSD	.15250	4.0248	54.088	10.841	.20443	29.809	.00989	23.134	.13724	15.132	.37320	13.559
#1	49.083	1.3390	.00806	.05412	.00250	-.00161	251.69	.00124	4.9366	.00307	4.9269	-.00280
#2	48.977	1.4175	.00360	.04641	.00251	-.00105	251.65	.00173	4.9462	.00381	4.9010	-.00340
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00407**	**.03906**	**.08358**	**-.00057**	**.00839**	**5.0114**	**-.01526**	**.00041**	F **.58585**	**.00529**	**-.00240**	**.09925**
Stddev	.00190	.02473	.05292	.00078	.00121	.0055	.00050	.00040	.02958	.00058	.00028	.00280
%RSD	46.791	63.319	63.319	135.07	14.471	.11064	3.2497	98.054	5.0484	11.023	11.827	2.8204
#1	.00272	.02157	.04616	-.00112	.00925	5.0153	-.01561	.00013	.60676	.00487	-.00260	.10123
#2	.00542	.05654	.12100	-.00003	.00753	5.0075	-.01491	.00069	.56494	.00570	-.00220	.09727
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3784.5**	**41211.**	**3417.7**
Stddev	14.7	164.	3.2
%RSD	.38849	.39818	.09359
#1	3774.1	41095.	3420.0
#2	3794.9	41327.	3415.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 9:55:55 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48766**	**.50115**	**.48754**	**.48910**	**.49464**	**.49368**	**.98429**	**4.9301**	**.48521**	**.49519**	**.48797**	**.49328**
Stddev	.00199	.00545	.00118	.00099	.00201	.00104	.00106	.0341	.00217	.00127	.00236	.00114
%RSD	.40883	1.0876	.24132	.20268	.40628	.21031	.10783	.69178	.44623	.25661	.48402	.23034
#1	.48625	.50500	.48670	.48980	.49322	.49295	.98504	4.9060	.48674	.49609	.48964	.49408
#2	.48907	.49729	.48837	.48840	.49606	.49442	.98354	4.9542	.48368	.49429	.48630	.49248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.4436**	**49.647**	**.49741**	**19.793**	**.49657**	**.48629**	F **28.100**	**.49483**	**-.00373**	**.48896**	**.00413**	**.49029**
Stddev	.0128	.097	.00268	.028	.00122	.00295	.030	.00230	.00027	.00068	.00108	.00488
%RSD	.52270	.19602	.53853	.14024	.24513	.60669	.10521	.46544	7.3083	.13903	26.242	.99500
#1	2.4346	49.579	.49930	19.774	.49570	.48838	28.121	.49646	-.00354	.48944	.00336	.49374
#2	2.4526	49.716	.49551	19.813	.49743	.48421	28.079	.49320	-.00393	.48848	.00490	.48684
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	None	Chk Pass
Value							25.000					
Range							10.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49084**	**4.8737**	**10.430**	**.49055**	**.49103**	**-.00303**	**.49267**	**.49322**	**-.03298**	**.49609**	**.49382**	**.48918**
Stddev	.00475	.0181	.039	.00121	.00037	.00034	.00078	.00015	.00513	.00128	.00424	.00205
%RSD	.96760	.37067	.37067	.24675	.07620	11.394	.15916	.02948	15.567	.25825	.85858	.41866
#1	.49420	4.8609	10.402	.49140	.49077	-.00278	.49212	.49312	-.03661	.49518	.49082	.48773
#2	.48748	4.8865	10.457	.48969	.49130	-.00327	.49323	.49333	-.02935	.49699	.49682	.49062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3767.0**	**41817.**	**3399.4**
Stddev	7.5	178.	6.1
%RSD	.19809	.42514	.17929
#1	3761.7	41943.	3403.7
#2	3772.3	41691.	3395.1

Sample Name: CCB Acquired: 5/29/2019 9:58:21 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**-.00165**	**.00377**	**.00353**	**.00107**	**.00018**	**-.00255**	**-.00102**	**.00026**	**.00011**	**-.00026**	**-.00115**
Stddev	.00026	.00147	.00045	.00078	.00032	.00007	.00427	.00302	.00003	.00058	.00046	.00087
%RSD	531.80	88.658	11.937	21.993	30.150	37.561	167.05	297.41	11.009	524.34	179.36	76.123
#1	.00024	-.00062	.00409	.00298	.00084	.00023	.00046	.00112	.00028	.00052	.00007	-.00176
#2	-.00014	-.00269	.00345	.00407	.00130	.00014	-.00557	-.00315	.00024	-.00030	-.00058	-.00053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00755**	**.49592**	W **.00825**	**.00343**	**.00004**	**.00056**	F **2.6082**	**-.00003**	**.00233**	**.00240**	**-.00155**	**.00004**
Stddev	.00364	.02373	.00362	.00092	.00007	.00028	.0226	.00004	.00087	.00034	.00427	.00014
%RSD	48.173	4.7849	43.887	26.791	172.99	49.222	.86762	150.64	37.582	14.030	276.31	312.00
#1	-.00498	.51270	.00569	.00408	-.00001	.00037	2.6242	.00000	.00171	.00263	.00147	-.00005
#2	-.01012	.47914	.01082	.00278	.00009	.00076	2.5922	-.00006	.00294	.00216	-.00457	.00014
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.00500				.50000					
Low Limit			-.01000				-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00414**	**.02695**	**.05768**	**.00167**	**.00075**	**-.00023**	**.00010**	**-.00053**	**.01311**	**.00039**	**-.00209**	**-.00218**
Stddev	.00177	.01716	.03671	.00096	.00023	.00094	.00043	.00086	.01970	.00018	.00031	.00098
%RSD	42.621	63.654	63.654	57.585	30.315	402.45	424.38	163.11	150.25	45.149	14.666	44.941
#1	-.00539	.01482	.03172	.00099	.00091	-.00089	.00041	.00008	-.00082	.00052	-.00231	-.00149
#2	-.00290	.03908	.08364	.00236	.00059	.00043	-.00020	-.00113	.02704	.00027	-.00187	-.00287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3785.1**	**42361.**	**3428.3**
Stddev	6.6	181.	9.5
%RSD	.17515	.42778	.27789
#1	3789.8	42489.	3435.1
#2	3780.4	42233.	3421.6

Sample Name: CCVL-5725431 Acquired: 5/29/2019 10:01:41 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00688**	**.10296**	**.01469**	**.10098**	**.01046**	**.00128**	**.10274**	**.19525**	**.00466**	**.01076**	**.00996**	**.01493**
Stddev	.00017	.00090	.00316	.00082	.00055	.00013	.00252	.00157	.00033	.00009	.00031	.00035
%RSD	2.4841	.87227	21.501	.81610	5.3028	10.156	2.4501	.80320	7.1139	.83493	3.0811	2.3770
#1	.00700	.10233	.01245	.10156	.01007	.00119	.10096	.19414	.00443	.01083	.00974	.01518
#2	.00676	.10360	.01692	.10039	.01085	.00137	.10452	.19636	.00489	.01070	.01018	.01468
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12060**	**3.3504**	**.01867**	**.21584**	**.01064**	**.01940**	F **2.7270**	**.04155**	**2.9318**	F **.01263**	**.09450**	**.01952**
Stddev	.00332	.0172	.00269	.00005	.00001	.00036	.0359	.00022	.0014	.00046	.00151	.00675
%RSD	2.7539	.51362	14.405	.02195	.11906	1.8468	1.3178	.52187	.04763	3.6064	1.5926	34.562
#1	.11825	3.3626	.02057	.21581	.01063	.01965	2.7016	.04170	2.9328	.01231	.09557	.02429
#2	.12295	3.3382	.01677	.21587	.01065	.01914	2.7524	.04139	2.9308	.01295	.09344	.01475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							1.0000			.00900		
Range							30.000%			30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01606**	**.47213**	**1.0104**	**.10399**	**.01019**	**.01140**	**.00992**	**.01567**	F **.08559**	**.00938**	**.01787**	F **.00859**
Stddev	.00034	.02509	.0537	.00018	.00022	.00109	.00029	.00152	.00831	.00089	.00038	.00397
%RSD	2.1238	5.3140	5.3140	.17359	2.2032	9.6041	2.9305	9.6916	9.7109	9.4707	2.1058	46.207
#1	.01630	.45439	.97240	.10386	.01035	.01217	.00971	.01460	.07971	.00876	.01760	.01139
#2	.01581	.48987	1.0483	.10411	.01003	.01062	.01012	.01675	.09147	.01001	.01813	.00578
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value									.06000			.01500
Range									30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3838.5**	**42633.**	**3468.9**
Stddev	47.7	222.	23.9
%RSD	1.2414	.52135	.68814
#1	3804.8	42475.	3485.7
#2	3872.2	42790.	3452.0

Sample Name: MB 280-459483/1-A Acquired: 5/29/2019 10:04:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00044**	**-.00158**	**-.00066**	**.00143**	**.00027**	**.00020**	**.00105**	**-.00719**	**-.00009**
Stddev	.00028	.00015	.00450	.00035	.00030	.00012	.00055	.00061	.00032
%RSD	63.564	9.2196	678.64	24.358	111.41	58.391	52.311	8.4683	357.42
#1	-.00063	-.00148	.00252	.00167	.00049	.00012	.00066	-.00762	-.00032
#2	-.00024	-.00168	-.00385	.00118	.00006	.00028	.00143	-.00676	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00018**	**-.00070**	W **.05457**	**.25057**	**-.00157**	**.00636**	**.00140**	**-.00013**
Stddev	.00018	.00021	.00038	.00256	.01942	.00202	.00254	.00005	.00068
%RSD	218.38	116.10	53.708	4.7000	7.7494	128.56	40.003	3.5929	505.15
#1	.00021	-.00003	-.00096	.05639	.26431	-.00300	.00816	.00143	-.00061
#2	-.00004	-.00032	-.00043	.05276	.23684	-.00014	.00456	.00136	.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.05000					
Low Limit				-.05000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1.4862**	**.00034**	**-.00068**	**.00305**	**-.00015**	**-.00273**	**-.00297**	**-.00101**	**-.00217**
Stddev	.0054	.00023	.00202	.00112	.00057	.00549	.00089	.02806	.06004
%RSD	.36477	68.006	297.25	36.823	387.83	201.30	30.144	2767.8	2767.8
#1	1.4901	.00018	.00075	.00226	-.00055	-.00661	-.00233	.01883	.04029
#2	1.4824	.00051	-.00211	.00385	.00025	.00115	-.00360	-.02085	-.04463
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit	1.0000								
Low Limit	-1.0000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.00008**	**.00017**	**.00023**	**.00158**	**-.02912**	**-.00011**	**.00352**	**-.00265**
Stddev	.00200	.00008	.00114	.00015	.00217	.05648	.00033	.00022	.00160
%RSD	269.28	92.976	656.09	65.160	137.45	193.97	313.18	6.2032	60.655
#1	-.00067	.00003	-.00063	.00034	.00312	.01082	-.00034	.00367	-.00151
#2	.00215	.00014	.00098	.00013	.00004	-.06906	.00013	.00336	-.00378
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3808.0**	**42602.**	**3434.0**
Stddev	17.6	48.	9.0
%RSD	.46135	.11289	.26096
#1	3795.6	42636.	3440.3
#2	3820.5	42568.	3427.7

Sample Name: LCS 280-459483/2-A Acquired: 5/29/2019 10:06:52 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05279**	**10.248**	**1.9362**	**.96557**	**1.9642**	**.99402**	**1.9407**	**49.097**	**.96752**
Stddev	.00154	.010	.0105	.00531	.0076	.00455	.0138	.108	.00386
%RSD	2.9269	.09565	.54087	.54965	.38486	.45758	.71165	.22022	.39918
#1	.05388	10.241	1.9436	.96933	1.9588	.99080	1.9504	49.020	.97025
#2	.05169	10.255	1.9288	.96182	1.9695	.99723	1.9309	49.173	.96478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95627**	**.95491**	**.97790**	**9.7773**	**49.533**	**.97279**	**49.665**	**.98857**	**.97620**
Stddev	.00492	.00626	.00194	.0232	.149	.00173	.003	.00029	.00873
%RSD	.51426	.65522	.19869	.23769	.29986	.17733	.00509	.02945	.89477
#1	.95974	.95933	.97928	9.7609	49.428	.97157	49.663	.98837	.98238
#2	.95279	.95048	.97653	9.7938	49.638	.97401	49.667	.98878	.97002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **50.570**	**.95733**	**19.935**	**.96010**	**9.8794**	**1.0472**	**1.9051**	**1.9708**	**4.2175**
Stddev	.282	.00680	.101	.00551	.0057	.0089	.0072	.0310	.0663
%RSD	.55827	.71013	.50878	.57397	.05732	.84936	.37971	1.5719	1.5719
#1	50.371	.96214	20.007	.96400	9.8834	1.0535	1.9102	1.9927	4.2644
#2	50.770	.95253	19.864	.95620	9.8754	1.0410	1.9000	1.9489	4.1707
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9263**	**.97541**	**1.0132**	**.98914**	**1.9076**	**2.2596**	**.98743**	**.50697**	**.51533**
Stddev	.0117	.00372	.0020	.00297	.0078	.0161	.00151	.00118	.00107
%RSD	.60661	.38149	.19737	.30018	.40673	.71202	.15278	.23308	.20847
#1	1.9345	.97277	1.0146	.99124	1.9131	2.2483	.98636	.50781	.51457
#2	1.9180	.97804	1.0118	.98704	1.9022	2.2710	.98849	.50614	.51609
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3758.8**	**41618.**	**3477.7**
Stddev	8.9	146.	12.4
%RSD	.23666	.35190	.35751
#1	3752.5	41514.	3486.5
#2	3765.1	41721.	3468.9

Sample Name: LCSD 280-459483/3-A Acquired: 5/29/2019 10:09:09 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05181**	**10.256**	**1.9432**	**.96497**	**1.9775**	W **1.0027**	**1.9376**	**49.006**	**.97112**
Stddev	.00041	.024	.0051	.00225	.0036	.0023	.0054	.088	.00244
%RSD	.79723	.23001	.26380	.23334	.17934	.22815	.28016	.18015	.25151
#1	.05152	10.272	1.9469	.96656	1.9750	1.0011	1.9415	48.944	.97285
#2	.05210	10.239	1.9396	.96337	1.9800	1.0043	1.9338	49.069	.96940
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95930**	**.96024**	**.98422**	**9.7578**	**49.455**	**.98675**	**49.657**	**.99468**	**.98107**
Stddev	.00406	.00352	.00258	.0100	.071	.00229	.004	.00067	.00338
%RSD	.42311	.36658	.26212	.10239	.14294	.23206	.00898	.06693	.34427
#1	.96217	.96272	.98239	9.7508	49.405	.98513	49.661	.99421	.98345
#2	.95643	.95775	.98604	9.7649	49.505	.98837	49.654	.99515	.97868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **50.402**	**.96020**	W **20.002**	**.95970**	**9.8967**	**1.0487**	**1.9242**	**1.9845**	**4.2468**
Stddev	.025	.00152	.061	.00215	.0550	.0030	.0018	.0119	.0255
%RSD	.04874	.15864	.30585	.22413	.55604	.28877	.09470	.60103	.60103
#1	50.384	.96128	20.045	.96122	9.9356	1.0508	1.9255	1.9929	4.2649
#2	50.419	.95912	19.959	.95818	9.8577	1.0466	1.9229	1.9761	4.2288
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9335**	**.98098**	**1.0102**	**.99831**	**1.9088**	**2.3186**	**.99336**	**.48829**	**.51577**
Stddev	.0079	.00011	.0006	.00054	.0036	.0001	.00149	.00038	.00175
%RSD	.40713	.01105	.05400	.05434	.18945	.00478	.15012	.07830	.33894
#1	1.9390	.98105	1.0098	.99793	1.9113	2.3186	.99230	.48802	.51453
#2	1.9279	.98090	1.0106	.99870	1.9062	2.3187	.99441	.48856	.51700
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3782.7**	**41713.**	**3469.4**
Stddev	21.9	19.	20.7
%RSD	.57966	.04628	.59763
#1	3798.3	41727.	3484.0
#2	3767.2	41699.	3454.7

Sample Name: 280-123705-B-10-A Acquired: 5/29/2019 10:11:26 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00029**	**.03100**	**.00486**	**.00450**	**.00134**	**.00027**	**.00117**	**.21109**	**.00024**
Stddev	.00100	.00003	.00497	.00055	.00009	.00011	.00019	.00525	.00023
%RSD	343.16	.08219	102.22	12.133	6.4292	40.237	16.348	2.4891	94.553
#1	-.00100	.03099	.00135	.00411	.00140	.00019	.00104	.20738	.00040
#2	.00042	.03102	.00838	.00489	.00128	.00035	.00131	.21481	.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00039**	**-.00050**	**.02437**	**.28665**	**-.00075**	**.03726**	**.00137**	**.00121**
Stddev	.00045	.00008	.00124	.00506	.02040	.00063	.00137	.00010	.00027
%RSD	148.71	19.592	245.69	20.762	7.1168	83.653	3.6796	7.3076	22.585
#1	-.00002	.00034	-.00138	.02079	.27223	-.00119	.03629	.00144	.00101
#2	.00062	.00045	.00037	.02795	.30108	-.00031	.03822	.00130	.00140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.3440**	**.00050**	**.00368**	**.00261**	**.00851**	**-.00060**	**-.00044**	**.45838**	**.98094**
Stddev	.0099	.00046	.00003	.00246	.00313	.00343	.00521	.01170	.02503
%RSD	.73957	93.268	.83118	94.206	36.838	568.58	1180.0	2.5516	2.5516
#1	1.3511	.00083	.00366	.00435	.01072	-.00303	.00324	.45011	.96324
#2	1.3370	.00017	.00370	.00087	.00629	.00182	-.00412	.46665	.99864
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00134**	**.00049**	**-.00187**	**.00094**	**.00193**	**.05015**	**.00045**	**.01178**	**-.00084**
Stddev	.00005	.00015	.00128	.00067	.00135	.02707	.00045	.00023	.00006
%RSD	3.7604	30.563	68.563	70.708	69.839	53.991	99.450	1.9628	6.6964
#1	.00137	.00038	-.00096	.00047	.00288	.06929	.00077	.01194	-.00088
#2	.00130	.00059	-.00277	.00142	.00098	.03100	.00013	.01161	-.00080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3877.3**	**43575.**	**3534.1**
Stddev	1.0	78.	16.8
%RSD	.02515	.17987	.47564
#1	3876.6	43631.	3546.0
#2	3878.0	43520.	3522.2

Sample Name: 123705-B-10-A SD@5 Acquired: 5/29/2019 10:14:02 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.00481**	**.00174**	**.00235**	**.00075**	**.00024**	**.00043**	**.02304**	**.00015**
Stddev	.00003	.00042	.00343	.00045	.00057	.00010	.00123	.00136	.00009
%RSD	7.6906	8.7042	196.54	18.980	76.246	43.346	287.24	5.9021	61.916
#1	-.00046	.00451	.00417	.00266	.00116	.00031	-.00044	.02400	.00008
#2	-.00041	.00511	-.00068	.00203	.00035	.00016	.00130	.02207	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**-.00023**	**-.00263**	**.00195**	**.21437**	**.00154**	**.01545**	**.00020**	**.00004**
Stddev	.00005	.00013	.00040	.00213	.01979	.00165	.00039	.00010	.00002
%RSD	11.111	55.314	15.040	109.38	9.2308	106.80	2.5420	52.699	39.015
#1	.00052	-.00032	-.00291	.00345	.22836	.00038	.01517	.00012	.00003
#2	.00044	-.00014	-.00235	.00044	.20038	.00270	.01573	.00027	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0168**	**-.00098**	**.00144**	**-.00036**	**-.00059**	**-.00138**	**.00078**	**.08421**	**.18022**
Stddev	.0048	.00028	.00356	.00000	.01065	.00033	.00438	.03924	.08397
%RSD	.46777	28.457	246.88	.48270	1811.7	23.717	562.58	46.592	46.592
#1	1.0202	-.00118	.00396	-.00036	.00694	-.00114	.00388	.11196	.23959
#2	1.0134	-.00078	-.00108	-.00036	-.00811	-.00161	-.00232	.05647	.12084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00152**	**.00030**	**-.00135**	**-.00008**	**.00301**	**.01104**	**.00046**	**-.00252**	**-.00327**
Stddev	.00011	.00014	.00084	.00010	.00234	.00588	.00046	.00012	.00168
%RSD	7.4808	45.856	62.595	120.63	77.951	53.268	101.39	4.5650	51.450
#1	.00160	.00040	-.00075	-.00001	.00135	.00688	.00078	-.00261	-.00446
#2	.00144	.00021	-.00194	-.00015	.00466	.01520	.00013	-.00244	-.00208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3786.7**	**42751.**	**3462.3**
Stddev	21.0	45.	.7
%RSD	.55548	.10410	.01940
#1	3801.6	42720.	3461.8
#2	3771.9	42783.	3462.8

Sample Name: 123705-B-10-B MS Acquired: 5/29/2019 10:16:38 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05105**	**10.416**	**1.9585**	**.96742**	**1.9825**	W **1.0080**	**1.9510**	**49.458**	**.97461**
Stddev	.00034	.021	.0107	.00172	.0029	.0006	.0038	.008	.00646
%RSD	.67046	.20397	.54729	.17780	.14568	.05511	.19357	.01646	.66289
#1	.05130	10.431	1.9661	.96863	1.9845	1.0076	1.9536	49.452	.97918
#2	.05081	10.401	1.9509	.96620	1.9804	1.0084	1.9483	49.464	.97004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.96256**	**.96514**	**.97752**	**9.8297**	**49.783**	**.98846**	**49.736**	**.99565**	**.98538**
Stddev	.00680	.00628	.00212	.0211	.203	.00829	.125	.00101	.00844
%RSD	.70682	.65080	.21658	.21439	.40735	.83890	.25123	.10169	.85652
#1	.96737	.96958	.97901	9.8148	49.639	.99432	49.647	.99493	.99135
#2	.95775	.96070	.97602	9.8446	49.926	.98259	49.824	.99636	.97941
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **50.635**	**.96425**	W **20.171**	**.96340**	**9.9752**	**1.0548**	**1.9312**	**2.5213**	**5.3956**
Stddev	.026	.00593	.125	.00710	.0318	.0053	.0147	.0152	.0324
%RSD	.05089	.61513	.62075	.73669	.31880	.50685	.76302	.60084	.60084
#1	50.617	.96844	20.259	.96842	9.9977	1.0586	1.9416	2.5106	5.3726
#2	50.653	.96005	20.082	.95839	9.9528	1.0511	1.9208	2.5320	5.4185
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9387**	**.98224**	**1.0108**	**.99680**	**1.9206**	**2.2920**	**.99079**	**.49178**	**.51370**
Stddev	.0123	.00202	.0007	.00038	.0151	.0147	.00095	.00067	.00019
%RSD	.63233	.20583	.07054	.03791	.78410	.64104	.09574	.13548	.03609
#1	1.9474	.98367	1.0113	.99653	1.9312	2.3024	.99012	.49131	.51383
#2	1.9301	.98081	1.0103	.99706	1.9099	2.2816	.99146	.49225	.51357
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3762.0**	**41335.**	**3472.7**
Stddev	8.6	74.	18.6
%RSD	.22883	.17833	.53464
#1	3755.9	41387.	3485.8
#2	3768.1	41282.	3459.5

Sample Name: 123705-B-10-C MSD Acquired: 5/29/2019 10:18:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05079**	**10.374**	**1.9875**	**.98245**	**1.9917**	W **1.0104**	**1.9782**	**49.920**	**.98630**
Stddev	.00045	.093	.0015	.00248	.0043	.0043	.0054	.091	.00304
%RSD	.88165	.89392	.07571	.25257	.21699	.42501	.27118	.18254	.30846
#1	.05048	10.440	1.9885	.98421	1.9887	1.0074	1.9820	49.855	.98845
#2	.05111	10.309	1.9864	.98070	1.9948	1.0134	1.9744	49.984	.98415
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97414**	**.97675**	**.99050**	**9.9229**	**50.144**	**.99263**	**50.765**	**1.0108**	**.99846**
Stddev	.00275	.00448	.00375	.0025	.020	.00109	.016	.0004	.00468
%RSD	.28188	.45877	.37892	.02542	.04057	.10968	.03119	.03944	.46829
#1	.97609	.97992	.99316	9.9247	50.130	.99339	50.754	1.0111	1.0018
#2	.97220	.97358	.98785	9.9211	50.158	.99186	50.776	1.0105	.99515
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **51.147**	**.97771**	W **20.455**	**.97666**	**10.127**	**1.0463**	**1.9618**	**2.4968**	**5.3431**
Stddev	.116	.00166	.051	.00755	.077	.0009	.0001	.0080	.0172
%RSD	.22748	.16934	.24945	.77309	.75846	.08961	.00764	.32249	.32249
#1	51.064	.97888	20.491	.98200	10.181	1.0470	1.9619	2.4911	5.3309
#2	51.229	.97654	20.419	.97132	10.073	1.0456	1.9617	2.5025	5.3552
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9650**	**.98802**	**1.0314**	**1.0120**	**1.9435**	**2.3595**	**1.0061**	**.50067**	**.51631**
Stddev	.0069	.00198	.0028	.0000	.0066	.0377	.0061	.00219	.00151
%RSD	.35273	.20075	.27354	.00205	.33965	1.5967	.60639	.43772	.29264
#1	1.9699	.98662	1.0294	1.0120	1.9481	2.3329	1.0104	.49912	.51524
#2	1.9601	.98942	1.0334	1.0120	1.9388	2.3861	1.0018	.50222	.51738
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3742.3**	**41177.**	**3418.2**
Stddev	2.9	.	19.4
%RSD	.07631	.00118	.56768
#1	3740.3	41176.	3404.5
#2	3744.3	41177.	3432.0

Sample Name: 123705-B-10-A PDS Acquired: 5/29/2019 10:21:11 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04975**	**1.0013**	**.18713**	**.10176**	**.09980**	**.04945**	**.00023**	**19.309**	**.04875**
Stddev	.00049	.0027	.00658	.00077	.00018	.00013	.00016	.039	.00025
%RSD	.98084	.26460	3.5138	.75606	.17812	.25279	71.432	.19967	.51333
#1	.04940	1.0032	.18248	.10231	.09968	.04936	.00034	19.282	.04857
#2	.05009	.99942	.19178	.10122	.09993	.04954	.00011	19.337	.04892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04857**	**.04788**	**.05027**	**1.0045**	**19.314**	**.09787**	**19.370**	**.05027**	**.04978**
Stddev	.00005	.00010	.00035	.0155	.032	.00783	.011	.00008	.00116
%RSD	.10752	.20972	.70202	1.5468	.16665	8.0027	.05568	.16332	2.3375
#1	.04853	.04795	.05002	.99356	19.336	.10341	19.377	.05021	.04896
#2	.04861	.04781	.05051	1.0155	19.291	.09233	19.362	.05033	.05061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **20.357**	**.04834**	**1.9534**	**.09930**	**.00228**	**.09595**	**.18693**	**5.3240**	**11.393**
Stddev	.076	.00034	.0012	.00181	.00679	.00101	.00442	.0101	.022
%RSD	.37271	.70254	.06100	1.8209	297.56	1.0576	2.3632	.19008	.19008
#1	20.304	.04858	1.9525	.10058	-.00252	.09523	.19005	5.3168	11.378
#2	20.411	.04810	1.9542	.09802	.00709	.09667	.18381	5.3311	11.409
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09921**	**.04965**	**.20484**	**.04937**	**.19773**	**.54490**	**.04952**	**.19524**	**.05459**
Stddev	.00070	.00001	.00000	.00040	.00271	.02516	.00037	.00169	.00254
%RSD	.70584	.01139	.00212	.81431	1.3716	4.6168	.74727	.86518	4.6529
#1	.09970	.04965	.20484	.04965	.19965	.52711	.04925	.19643	.05638
#2	.09871	.04965	.20485	.04909	.19581	.56269	.04978	.19404	.05279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3802.6**	**42703.**	**3506.1**
Stddev	5.6	31.	9.1
%RSD	.14642	.07371	.25886
#1	3806.5	42725.	3512.6
#2	3798.6	42680.	3499.7

Sample Name: CCVH-5713036 Acquired: 5/29/2019 10:23:40 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00029**	**49.911**	**-.00232**	**.00266**	**.00110**	**.00021**	**.00076**	**.00137**	**-.00012**	**.00237**	**.00043**	**.00990**
Stddev	.00064	.034	.00606	.00103	.00008	.00007	.00301	.00028	.00011	.00001	.00007	.00048
%RSD	216.45	.06812	261.43	38.855	7.5437	34.165	394.79	20.211	91.723	.32277	16.193	4.8617
#1	.00016	49.887	.00197	.00193	.00104	.00016	.00289	.00117	-.00004	.00237	.00038	.01024
#2	-.00074	49.935	-.00661	.00339	.00116	.00026	-.00137	.00156	-.00020	.00238	.00048	.00956
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.534**	**.13899**	**.00468**	**.02131**	**.00248**	**-.00044**	**249.21**	**.00144**	**4.8961**	**.00359**	**4.8637**	**-.00030**
Stddev	.239	.02870	.00617	.00132	.00010	.00047	.45	.00026	.0287	.00068	.0287	.00684
%RSD	.49310	20.650	131.87	6.1957	3.9124	107.28	.18034	18.168	.58623	19.093	.59063	2286.8
#1	48.704	.11870	.00032	.02225	.00254	-.00078	249.53	.00162	4.9164	.00407	4.8840	-.00513
#2	48.365	.15928	.00905	.02038	.00241	-.00011	248.89	.00125	4.8758	.00310	4.8434	.00454
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.03903**	**.08352**	**-.00031**	**.00057**	**4.9908**	**-.01525**	**.00014**	F **.56129**	**.00514**	**-.00130**	**.09226**
Stddev	.00009	.04850	.10378	.00229	.00043	.0009	.00026	.00101	.01472	.00033	.00037	.00161
%RSD	87.936	124.26	124.26	749.32	74.611	.01739	1.7353	719.08	2.6219	6.4220	28.423	1.7402
#1	.00004	.00473	.01013	.00131	.00027	4.9914	-.01543	-.00058	.55088	.00490	-.00156	.09340
#2	.00017	.07332	.15690	-.00192	.00088	4.9902	-.01506	.00086	.57169	.00537	-.00104	.09113
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3763.1**	**41577.**	**3441.8**
Stddev	5.2	7.	55.5
%RSD	.13761	.01790	1.6111
#1	3759.5	41572.	3481.0
#2	3766.8	41583.	3402.6

Sample Name: CCV-5714928 Acquired: 5/29/2019 10:26:11 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48671**	**.49350**	**.48323**	**.48189**	**.49196**	**.49087**	**.97887**	**4.8653**	**.47981**	**.48791**	**.48090**	**.49197**	**2.4133**
Stddev	.00004	.00436	.00491	.00431	.00117	.00152	.00647	.0189	.00462	.00462	.00530	.00129	.0154
%RSD	.00910	.88356	1.0160	.89470	.23884	.30992	.66122	.38811	.96231	.94613	1.1027	.26202	.63946
#1	.48674	.49658	.48670	.48494	.49279	.48980	.98344	4.8520	.48308	.49118	.48465	.49288	2.4242
#2	.48668	.49042	.47976	.47884	.49113	.49195	.97429	4.8787	.47655	.48465	.47715	.49106	2.4024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.801**	**.49148**	**19.632**	**.49490**	**.48047**	**25.073**	**.48897**	**-.00046**	**.48732**	**.00116**	**.48265**	**.48635**	**4.8576**
Stddev	.093	.00249	.028	.00123	.00606	.002	.00311	.00138	.00727	.00754	.00961	.00487	.0362
%RSD	.19105	.50583	.14415	.24838	1.2618	.00783	.63627	300.79	1.4924	652.34	1.9915	1.0017	.74520
#1	48.867	.48972	19.652	.49577	.48475	25.072	.49117	.00052	.49246	.00648	.48945	.48979	4.8320
#2	48.735	.49324	19.612	.49403	.47618	25.074	.48677	-.00143	.48217	-.00417	.47586	.48290	4.8832
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.395**	**.48663**	**.48573**	**-.00557**	**.49216**	**.48588**	**-.00037**	**.49165**	**.48948**	**.48115**
Stddev	.077	.00039	.00185	.00039	.00034	.00285	.01919	.00307	.00032	.00021
%RSD	.74520	.07979	.38021	6.9188	.06871	.58666	5139.7	.62504	.06575	.04433
#1	10.341	.48635	.48704	-.00530	.49192	.48789	.01319	.49382	.48971	.48100
#2	10.450	.48690	.48443	-.00585	.49240	.48386	-.01394	.48948	.48925	.48130
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3787.0**	**42145.**	**3459.1**
Stddev	12.1	130.	10.4
%RSD	.31848	.30783	.30153
#1	3778.5	42237.	3466.5
#2	3795.5	42053.	3451.7

Sample Name: CCB Acquired: 5/29/2019 10:28:34 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00114**	**-.00206**	**.00364**	**.00231**	W **.00224**	W **.00149**	**-.00055**	**.06413**	**-.00008**	**.00019**	**-.00062**	**-.00146**
Stddev	.00079	.00025	.00852	.00083	.00322	.00196	.00384	.08715	.00020	.00003	.00006	.00146
%RSD	69.294	12.125	234.04	35.717	144.24	131.75	701.90	135.89	251.47	17.715	10.302	100.11
#1	-.00170	-.00224	.00966	.00290	-.00004	.00010	-.00326	.00251	.00006	.00021	-.00067	-.00250
#2	-.00058	-.00188	-.00238	.00173	.00451	.00287	.00217	.12576	-.00022	.00017	-.00058	-.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.00200	.00120						
Low Limit					-.00200	-.00120						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.03103**	**.26630**	**.00286**	**.00628**	**.00016**	**.00006**	F **.88824**	**-.00046**	**-.00216**	**.00137**	**-.00207**	**.00011**
Stddev	.04996	.15629	.00120	.00383	.00000	.00046	.28065	.00002	.00016	.00119	.00342	.00335
%RSD	160.98	58.691	41.963	60.988	2.8237	777.92	31.597	3.4174	7.4312	86.888	165.40	3006.5
#1	-.00429	.15578	.00201	.00899	.00016	.00038	.68978	-.00047	-.00205	.00053	-.00448	-.00226
#2	.06636	.37682	.00371	.00357	.00016	-.00027	1.0867	-.00044	-.00228	.00221	.00035	.00248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.50000					
Low Limit							-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00167**	**.01478**	**.03162**	**-.00009**	W **.00162**	**-.00087**	**-.00019**	**.00255**	**.00143**	**-.00055**	**-.00192**	**-.00036**
Stddev	.00319	.01916	.04101	.00099	.00220	.00084	.00014	.00290	.02022	.00129	.00020	.00023
%RSD	191.04	129.70	129.70	1080.1	135.56	96.570	76.848	113.45	1412.7	237.21	10.395	63.212
#1	.00059	.00122	.00262	.00061	.00007	-.00146	-.00009	.00460	.01573	.00037	-.00178	-.00020
#2	-.00393	.02833	.06062	-.00079	.00317	-.00027	-.00029	.00050	-.01287	-.00146	-.00206	-.00052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.00120							
Low Limit					-.00120							

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3759.0**	**41964.**	**3415.3**
Stddev	6.5	127.	40.6
%RSD	.17285	.30179	1.1894
#1	3754.4	42053.	3444.0
#2	3763.6	41874.	3386.6

Sample Name: CCVL-5725431 Acquired: 5/29/2019 10:31:12 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00674**	**.10435**	**.01850**	**.09899**	**.01089**	**.00129**	**.10581**	**.20927**	**.00481**	**.01025**	**.00966**	**.01405**
Stddev	.00190	.00026	.00351	.00081	.00000	.00007	.00164	.00166	.00022	.00016	.00022	.00113
%RSD	28.171	.25138	18.948	.81653	.02803	5.3842	1.5453	.79094	4.6770	1.6093	2.2354	8.0196
#1	.00539	.10417	.01602	.09956	.01089	.00134	.10465	.21044	.00496	.01013	.00982	.01325
#2	.00808	.10454	.02098	.09841	.01089	.00124	.10697	.20810	.00465	.01037	.00951	.01484
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12848**	**3.1527**	**.02294**	**.21650**	**.01074**	**.01935**	F **1.6002**	**.04138**	**2.9125**	**.01054**	**.08647**	**.01823**
Stddev	.00138	.1055	.00121	.00510	.00012	.00095	.0090	.00030	.0066	.00146	.00665	.00228
%RSD	1.0770	3.3471	5.2748	2.3552	1.1307	4.9025	.56226	.73027	.22735	13.897	7.6915	12.499
#1	.12750	3.2273	.02380	.22010	.01065	.02002	1.6066	.04160	2.9172	.00950	.09118	.01984
#2	.12945	3.0781	.02209	.21289	.01082	.01868	1.5938	.04117	2.9078	.01157	.08177	.01662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01656**	**.52601**	**1.1257**	**.10239**	**.00984**	**.01299**	**.00991**	**.01735**	**.04469**	**.00995**	**.01808**	**.01261**
Stddev	.00101	.01196	.0256	.00184	.00012	.00147	.00009	.00092	.04926	.00029	.00058	.00370
%RSD	6.0937	2.2744	2.2744	1.8019	1.2475	11.282	.85811	5.2845	110.21	2.9519	3.2289	29.368
#1	.01727	.53447	1.1438	.10369	.00976	.01402	.00997	.01800	.00986	.00975	.01849	.00999
#2	.01585	.51755	1.1076	.10108	.00993	.01195	.00985	.01670	.07953	.01016	.01767	.01523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3781.6**	**42281.**	**3399.4**
Stddev	7.1	428.	28.2
%RSD	.18794	1.0132	.82829
#1	3776.5	42584.	3379.5
#2	3786.6	41979.	3419.3

Sample Name: 280-123793-B-16-A Acquired: 5/29/2019 10:33:47 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.01653**	**.00129**	**.00255**	**.00109**	**.00011**	**.00056**	**.16242**	**-.00023**
Stddev	.00016	.00008	.00752	.00034	.00007	.00022	.00220	.00910	.00006
%RSD	339.87	.45733	583.77	13.297	5.9780	209.05	389.93	5.6024	26.525
#1	-.00006	.01658	-.00403	.00279	.00114	-.00005	.00212	.16886	-.00019
#2	.00016	.01647	.00661	.00231	.00105	.00027	-.00099	.15599	-.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.00026**	**-.00218**	**.00848**	**.13148**	**.00304**	**.01597**	**.00055**	**-.00036**
Stddev	.00045	.00035	.00131	.00276	.00568	.00293	.00376	.00005	.00023
%RSD	695.72	133.38	59.885	32.559	4.3167	96.186	23.541	9.2172	63.957
#1	.00025	-.00001	-.00126	.00653	.12747	.00511	.01863	.00058	-.00053
#2	-.00038	-.00051	-.00310	.01044	.13549	.00097	.01331	.00051	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.85082**	**-.00036**	**-.00025**	**.00145**	**-.00001**	**-.00152**	**-.00367**	**.43356**	**.92782**
Stddev	.00015	.00038	.00042	.00009	.01056	.00023	.00104	.00515	.01102
%RSD	.01804	106.12	172.16	5.8596	174180.	14.894	28.370	1.1876	1.1876
#1	.85072	-.00063	-.00054	.00139	.00746	-.00136	-.00440	.42992	.92003
#2	.85093	-.00009	.00005	.00151	-.00747	-.00168	-.00293	.43720	.93561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.00009**	**-.00223**	**.00028**	**.00088**	**-.00813**	**.00110**	**-.00098**	**-.00256**
Stddev	.00089	.00038	.00338	.00088	.00010	.04470	.00057	.00049	.00292
%RSD	753.47	415.96	151.96	314.14	11.405	550.13	52.131	50.039	114.09
#1	-.00075	-.00018	-.00462	.00090	.00081	.02348	.00150	-.00063	-.00462
#2	.00051	.00036	.00017	-.00034	.00096	-.03973	.00069	-.00133	-.00049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3842.9**	**42802.**	**3447.0**
Stddev	9.0	182.	14.2
%RSD	.23339	.42470	.41125
#1	3836.6	42931.	3437.0
#2	3849.2	42674.	3457.0

Sample Name: 280-123793-B-26-A Acquired: 5/29/2019 10:36:24 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**.00054**	**.00431**	**.00118**	**.00092**	**.00020**	**-.00354**	**.02913**	**-.00033**
Stddev	.00047	.00063	.00755	.00006	.00002	.00003	.00134	.00179	.00010
%RSD	99.442	116.61	175.17	5.1169	1.8034	14.345	38.007	6.1430	29.000
#1	-.00080	.00009	.00965	.00114	.00091	.00018	-.00259	.02786	-.00040
#2	-.00014	.00098	-.00103	.00122	.00093	.00022	-.00449	.03039	-.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.00003**	**.00008**	**-.00119**	**.08575**	**.00205**	**.04983**	**.00084**	**-.00044**
Stddev	.00007	.00040	.00113	.00391	.00499	.00169	.05416	.00099	.00056
%RSD	31.977	1479.6	1365.8	329.67	5.8237	82.273	108.71	117.58	128.41
#1	-.00027	-.00026	.00088	.00158	.08928	.00086	.08812	.00154	-.00004
#2	-.00017	.00031	-.00072	-.00395	.08222	.00325	.01153	.00014	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50263**	**-.00051**	**.00060**	**.00249**	**-.00302**	**.00053**	**-.00239**	**.00403**	**.00862**
Stddev	.00945	.00023	.00004	.00023	.00860	.00608	.00023	.01814	.03883
%RSD	1.8797	45.004	5.8378	9.0783	284.86	1153.4	9.6831	450.45	450.45
#1	.49595	-.00035	.00063	.00265	.00306	-.00377	-.00255	-.00880	-.01884
#2	.50931	-.00067	.00058	.00233	-.00910	.00483	-.00222	.01686	.03607
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00075**	**-.00028**	**-.00082**	**.00039**	**.00161**	**.04098**	**.00092**	**-.00025**	**.00120**
Stddev	.00033	.00005	.00231	.00095	.00412	.02310	.00026	.00052	.00182
%RSD	44.483	19.514	280.86	245.53	255.94	56.363	27.913	209.54	152.10
#1	.00099	-.00024	.00081	.00105	.00452	.02465	.00110	.00012	.00249
#2	.00052	-.00031	-.00246	-.00028	-.00130	.05732	.00074	-.00061	-.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3840.6**	**43217.**	**3507.1**
Stddev	2.4	138.	5.3
%RSD	.06217	.31950	.15233
#1	3842.3	43315.	3503.3
#2	3839.0	43120.	3510.8

Sample Name: 280-124017-B-10-A Acquired: 5/29/2019 10:39:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00143**	**.00382**	**.00212**	**.00056**	**.00080**	**.00020**	**.00141**	**.06143**	**-.00016**
Stddev	.00130	.00022	.00435	.00014	.00011	.00009	.00121	.01133	.00018
%RSD	91.264	5.8543	205.22	25.470	13.864	44.482	85.379	18.448	113.49
#1	-.00235	.00398	-.00096	.00046	.00088	.00013	.00056	.05341	-.00003
#2	-.00051	.00366	.00519	.00066	.00072	.00026	.00227	.06944	-.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**-.00029**	**-.00128**	**.00500**	**.14205**	**.00250**	**.00825**	**.00010**	**.00008**
Stddev	.00002	.00045	.00014	.00042	.04044	.00344	.00454	.00006	.00017
%RSD	5.5119	156.39	11.079	8.4384	28.470	137.53	55.089	63.849	214.49
#1	-.00032	.00003	-.00118	.00470	.17064	.00493	.01146	.00005	-.00004
#2	-.00030	-.00061	-.00138	.00530	.11345	.00007	.00504	.00014	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49717**	**-.00011**	**-.00103**	**.00211**	**-.00648**	**-.00015**	**-.00171**	**.02695**	**.05767**
Stddev	.00698	.00017	.00508	.00209	.01056	.00286	.00177	.02843	.06083
%RSD	1.4038	159.05	492.08	98.741	162.97	1968.7	103.63	105.48	105.48
#1	.49224	-.00023	.00256	.00359	.00099	.00188	-.00046	.04705	.10069
#2	.50211	.00001	-.00463	.00064	-.01394	-.00217	-.00296	.00685	.01466
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00102**	**-.00013**	**-.00021**	**-.00010**	**.00186**	**-.02279**	**.00001**	**-.00055**	**.00101**
Stddev	.00148	.00017	.00004	.00024	.00091	.03884	.00015	.00037	.00067
%RSD	145.14	123.51	16.935	227.79	48.817	170.44	1697.8	68.629	66.759
#1	-.00003	-.00025	-.00024	-.00027	.00251	.00468	-.00010	-.00028	.00053
#2	.00207	-.00002	-.00019	.00006	.00122	-.05025	.00011	-.00081	.00148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3830.7**	**43248.**	**3498.8**
Stddev	35.9	206.	18.5
%RSD	.93588	.47736	.52843
#1	3856.0	43102.	3485.7
#2	3805.3	43394.	3511.9

Sample Name: 280-124017-B-20-A Acquired: 5/29/2019 10:41:35 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00045**	**.01115**	**.00194**	**.00020**	**.00076**	**.00025**	**-.00118**	**.02511**	**-.00020**
Stddev	.00058	.00017	.00280	.00022	.00054	.00001	.00133	.00041	.00008
%RSD	126.46	1.4984	144.93	107.60	71.251	3.9016	112.60	1.6163	41.491
#1	-.00005	.01103	-.00005	.00036	.00114	.00024	-.00213	.02539	-.00014
#2	-.00086	.01126	.00392	.00005	.00037	.00026	-.00024	.02482	-.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**-.00033**	**-.00148**	**.01487**	**.15944**	**-.00099**	**.00696**	**.00035**	**-.00043**
Stddev	.00015	.00028	.00030	.00140	.03595	.00150	.00459	.00001	.00047
%RSD	60.004	84.750	20.034	9.4062	22.549	151.10	65.954	1.4640	108.93
#1	.00035	-.00053	-.00169	.01586	.13402	-.00205	.00371	.00036	-.00010
#2	.00014	-.00013	-.00127	.01388	.18486	.00007	.01020	.00035	-.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47638**	**-.00034**	**.00118**	**.00085**	**-.00564**	**-.00057**	**-.00551**	**.00615**	**.01317**
Stddev	.00576	.00101	.00014	.00123	.00937	.00206	.00052	.01616	.03458
%RSD	1.2097	293.54	11.606	144.40	166.29	357.51	9.5220	262.50	262.50
#1	.48046	.00037	.00128	.00172	.00099	-.00203	-.00588	.01758	.03762
#2	.47231	-.00105	.00109	-.00002	-.01226	.00088	-.00514	-.00527	-.01128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00158**	**-.00014**	**-.00205**	**.00044**	**.00379**	**.00267**	**.00013**	**-.00109**	**-.00055**
Stddev	.00012	.00006	.00212	.00025	.00554	.02807	.00014	.00036	.00218
%RSD	7.4115	43.555	103.36	56.288	145.91	1052.4	107.41	32.858	392.16
#1	.00149	-.00019	-.00055	.00061	-.00012	.02251	.00003	-.00083	-.00209
#2	.00166	-.00010	-.00354	.00026	.00771	-.01718	.00023	-.00134	.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3784.3**	**42466.**	**3436.2**
Stddev	6.4	162.	5.2
%RSD	.16877	.38132	.15174
#1	3779.8	42352.	3432.6
#2	3788.8	42581.	3439.9

Sample Name: 280-124118-B-10-A Acquired: 5/29/2019 10:44:11 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00103**	**.00692**	**.00591**	**-.00036**	**.00071**	**.00030**	**-.00121**	**.05333**	**.00002**
Stddev	.00001	.00008	.00621	.00102	.00006	.00017	.00034	.00195	.00019
%RSD	.85961	1.1064	105.15	283.26	8.1921	55.861	28.320	3.6591	936.25
#1	-.00104	.00687	.01030	-.00108	.00067	.00018	-.00097	.05471	-.00012
#2	-.00102	.00698	.00151	.00036	.00075	.00042	-.00145	.05195	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00014**	**-.00050**	**.10403**	**.15723**	**-.00204**	**.01039**	**.00076**	**-.00012**
Stddev	.00036	.00019	.00000	.00541	.06070	.00174	.00057	.00006	.00014
%RSD	447.82	135.18	.60203	5.1961	38.603	85.552	5.4793	7.8563	109.75
#1	-.00017	-.00001	-.00050	.10785	.11432	-.00327	.01079	.00081	-.00022
#2	.00033	-.00027	-.00050	.10020	.20015	-.00080	.00999	.00072	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.43259**	**-.00004**	**.00123**	**.00333**	**-.00084**	**-.00483**	**.00010**	**.03537**	**.07570**
Stddev	.01430	.00007	.00068	.00075	.00377	.00154	.00815	.00775	.01658
%RSD	3.3062	172.56	55.225	22.451	449.84	31.887	8417.8	21.897	21.897
#1	.44270	-.00009	.00171	.00280	-.00350	-.00374	-.00567	.02990	.06398
#2	.42248	.00001	.00075	.00386	.00183	-.00592	.00586	.04085	.08742
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**-.00014**	**-.00267**	**.00019**	**.00312**	**.05250**	**.00118**	**-.00155**	**-.00010**
Stddev	.00192	.00034	.00242	.00009	.00237	.05765	.00052	.00031	.00254
%RSD	249.63	243.04	90.539	45.457	75.822	109.81	43.950	20.296	2487.9
#1	-.00059	.00010	-.00096	.00013	.00145	.01173	.00155	-.00132	.00170
#2	.00213	-.00039	-.00438	.00025	.00479	.09326	.00081	-.00177	-.00190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3759.6**	**42740.**	**3410.2**
Stddev	11.7	203.	12.2
%RSD	.31153	.47606	.35660
#1	3767.9	42596.	3401.6
#2	3751.3	42884.	3418.8

Sample Name: 280-124121-B-10-A Acquired: 5/29/2019 10:46:46 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00030**	**.00242**	**-.00038**	**-.00038**	**.00058**	**.00020**	**.00068**	**.02145**	**-.00052**
Stddev	.00029	.00097	.00231	.00100	.00024	.00013	.00121	.00349	.00017
%RSD	98.878	40.256	609.37	263.81	41.481	67.609	177.51	16.281	32.006
#1	-.00009	.00173	-.00201	.00033	.00041	.00029	-.00017	.02392	-.00064
#2	-.00051	.00311	.00126	-.00109	.00075	.00010	.00154	.01898	-.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.00012**	**-.00128**	**.00558**	**.01700**	**-.00166**	**.00796**	**.00016**	**-.00045**
Stddev	.00029	.00006	.00057	.00196	.07499	.00252	.00075	.00010	.00083
%RSD	503.68	45.928	44.296	35.238	441.16	151.92	9.3859	60.807	186.41
#1	-.00026	.00016	-.00168	.00419	.07003	-.00344	.00849	.00023	.00014
#2	.00015	.00008	-.00088	.00696	-.03603	.00012	.00743	.00009	-.00104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42805**	**-.00020**	**.00135**	**.00385**	**-.00121**	**-.00018**	**-.00296**	**-.00454**	**-.00972**
Stddev	.00621	.00004	.00273	.00104	.00445	.00047	.00208	.03921	.08391
%RSD	1.4514	21.932	202.39	27.043	369.20	256.81	70.277	862.91	862.91
#1	.43244	-.00023	-.00058	.00459	.00194	.00015	-.00443	-.03227	-.06906
#2	.42365	-.00017	.00328	.00312	-.00436	-.00052	-.00149	.02318	.04961
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**-.00019**	**.00032**	**.00013**	**.00162**	**-.04048**	**.00044**	**-.00109**	**-.00224**
Stddev	.00093	.00021	.00172	.00020	.00059	.05155	.00074	.00017	.00209
%RSD	139.86	109.84	544.35	154.69	36.494	127.34	166.75	15.564	93.380
#1	.00001	-.00004	-.00090	.00028	.00204	-.00403	.00097	-.00097	-.00371
#2	.00132	-.00034	.00153	-.00001	.00120	-.07693	-.00008	-.00121	-.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3836.0**	**43061.**	**3460.7**
Stddev	.7	71.	17.6
%RSD	.01922	.16579	.50998
#1	3835.5	43112.	3448.2
#2	3836.5	43011.	3473.2

Sample Name: CCVH-5713036 Acquired: 5/29/2019 10:49:21 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00054**	**50.248**	**-.00226**	**.00013**	**.00176**	**.00025**	**-.00279**	**-.00254**	**-.00011**	**.00237**	**-.00002**	**.01073**	**49.397**
Stddev	.00028	.229	.00331	.00060	.00017	.00015	.00299	.00474	.00026	.00043	.00036	.00071	.156
%RSD	51.535	.45486	146.52	455.98	9.7910	61.961	107.38	186.31	231.17	18.304	1615.3	6.5751	.31545
#1	-.00074	50.086	.00008	.00055	.00163	.00014	-.00067	-.00590	-.00030	.00268	-.00028	.01123	49.287
#2	-.00035	50.409	-.00460	-.00029	.00188	.00036	-.00490	.00081	.00007	.00206	.00023	.01023	49.507
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.13042**	**.00396**	**.02383**	**.00250**	**-.00117**	**250.41**	**.00145**	**4.9128**	**.00404**	**4.8727**	**.00219**	**-.00509**	**.04730**
Stddev	.11842	.00237	.00019	.00012	.00049	1.91	.00067	.0295	.00037	.0240	.00206	.00493	.01455
%RSD	90.801	59.873	.79694	4.9414	41.900	.76413	45.860	.59984	9.1185	.49212	94.486	96.787	30.757
#1	.21415	.00564	.02397	.00259	-.00151	249.06	.00098	4.9337	.00378	4.8897	.00364	-.00858	.05759
#2	.04668	.00228	.02370	.00241	-.00082	251.77	.00192	4.8920	.00430	4.8558	.00073	-.00161	.03701
Check ?	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10122**	**.00040**	**.00002**	**4.9916**	**-.01561**	**.00254**	**.52251**	**.00556**	**-.00196**	**.10144**
Stddev	.03113	.00046	.00013	.0060	.00038	.00132	.00745	.00008	.00017	.00147
%RSD	30.757	114.51	811.97	.12011	2.4649	51.916	1.4265	1.4926	8.7281	1.4460
#1	.12323	.00008	.00011	4.9959	-.01533	.00347	.52778	.00562	-.00208	.10040
#2	.07921	.00073	-.00008	4.9874	-.01588	.00160	.51724	.00550	-.00184	.10248
Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3749.0**	**41625.**	**3423.8**
Stddev	6.9	67.	31.5
%RSD	.18437	.16165	.92121
#1	3753.9	41673.	3446.1
#2	3744.1	41578.	3401.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 10:51:52 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47526**	F **.63445**	**.48819**	**.47555**	**.48287**	**.48050**	**.96908**	**4.7972**	**.47658**	**.48517**	**.47941**	**.48047**
Stddev	.00310	.00101	.00941	.00115	.00064	.00036	.00015	.0060	.00149	.00184	.00203	.00140
%RSD	.65219	.15843	1.9269	.24088	.13272	.07426	.01575	.12462	.31360	.37947	.42242	.29201
#1	.47745	.63516	.49484	.47636	.48241	.48075	.96919	4.8014	.47764	.48647	.48084	.48146
#2	.47306	.63374	.48154	.47474	.48332	.48025	.96897	4.7930	.47553	.48387	.47798	.47947
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000										
Range		10.000%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.5076**	**47.949**	**.47750**	**19.301**	**.48576**	**.47853**	**25.093**	**.48701**	**.01214**	**.48495**	**.00839**	**.47858**
Stddev	.0086	.092	.00025	.035	.00097	.00104	.028	.00400	.00132	.00021	.01116	.00134
%RSD	.34330	.19135	.05314	.17919	.20056	.21805	.11289	.82220	10.845	.04307	133.04	.28045
#1	2.5015	47.884	.47732	19.325	.48645	.47927	25.073	.48984	.01307	.48509	.01629	.47953
#2	2.5137	48.014	.47768	19.276	.48507	.47779	25.113	.48418	.01121	.48480	.00050	.47763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47759**	**4.7637**	**10.194**	**.47980**	**.47763**	**.01010**	**.48206**	**.48328**	**.02062**	**.48112**	**.48028**	**.47124**
Stddev	.00451	.0153	.033	.00008	.00081	.00176	.00134	.00348	.03094	.00102	.00122	.00327
%RSD	.94356	.32142	.32142	.01717	.17057	17.467	.27740	.71982	150.04	.21124	.25348	.69408
#1	.47440	4.7745	10.217	.47986	.47705	.01134	.48301	.48574	-.00126	.48040	.48114	.46893
#2	.48078	4.7528	10.171	.47975	.47820	.00885	.48112	.48082	.04250	.48184	.47942	.47355
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3810.5**	**42694.**	**3496.9**
Stddev	10.0	75.	7.1
%RSD	.26327	.17633	.20195
#1	3817.6	42641.	3492.0
#2	3803.5	42748.	3501.9

Sample Name: CCB Acquired: 5/29/2019 10:54:16 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00125**	**-.00017**	**.00232**	**.00061**	**-.00023**	**.00013**	**.00076**	**-.01705**	**-.00033**	**.00012**	**-.00021**	**-.00130**
Stddev	.00085	.00101	.00629	.00109	.00042	.00004	.00627	.00208	.00015	.00002	.00036	.00143
%RSD	68.100	591.06	271.36	177.10	182.99	34.365	823.24	12.207	45.349	17.642	168.60	110.77
#1	-.00065	-.00088	-.00213	-.00015	.00007	.00010	-.00367	-.01852	-.00044	.00013	-.00047	-.00028
#2	-.00185	.00054	.00677	.00138	-.00052	.00016	.00519	-.01558	-.00023	.00010	.00004	-.00231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00175**	**.12065**	**.00293**	**.00428**	**.00003**	**.00039**	W **.45042**	**-.00085**	**-.00189**	**.00296**	**-.00680**	**-.00275**
Stddev	.00095	.05307	.00316	.00143	.00007	.00016	.03248	.00057	.00112	.00108	.00510	.00074
%RSD	54.374	43.987	108.04	33.274	223.01	40.895	7.2116	66.819	59.511	36.358	75.011	26.953
#1	-.00242	.15818	.00069	.00529	.00008	.00028	.47339	-.00125	-.00268	.00220	-.00319	-.00327
#2	-.00108	.08312	.00516	.00328	-.00002	.00051	.42745	-.00045	-.00109	.00372	-.01041	-.00222
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.35000					
Low Limit							-.35000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00767**	**.01642**	**.00160**	**-.00003**	**-.00023**	**.00025**	**.00013**	**.06909**	**.00031**	**-.00306**	**-.00136**
Stddev	.00211	.00495	.01060	.00092	.00004	.00025	.00020	.00355	.04900	.00112	.00019	.00125
%RSD	51.547	64.552	64.552	57.443	123.12	108.68	78.182	2803.3	70.916	367.77	6.3281	91.986
#1	.00559	.00417	.00893	.00095	-.00006	-.00041	.00011	-.00238	.03444	-.00049	-.00320	-.00225
#2	.00261	.01118	.02392	.00226	-.00000	-.00005	.00039	.00264	.10373	.00110	-.00293	-.00048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3792.1**	**42609.**	**3447.5**
Stddev	26.0	349.	15.7
%RSD	.68560	.81859	.45579
#1	3773.7	42362.	3458.6
#2	3810.5	42856.	3436.4

Sample Name: CCVL-5725431 Acquired: 5/29/2019 10:56:53 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00636**	**.10061**	**.01268**	**.09626**	**.01021**	**.00110**	**.10460**	**.19564**	**.00485**	**.00994**	**.00957**	**.01453**
Stddev	.00103	.00133	.00356	.00146	.00008	.00006	.00010	.00019	.00010	.00018	.00078	.00103
%RSD	16.120	1.3238	28.075	1.5139	.80635	5.4253	.09727	.09561	2.0638	1.8410	8.1983	7.0655
#1	.00709	.10155	.01520	.09729	.01015	.00105	.10467	.19577	.00492	.01007	.00902	.01525
#2	.00564	.09967	.01017	.09523	.01026	.00114	.10453	.19550	.00478	.00981	.01013	.01380
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12451**	**3.0901**	**.02460**	**.20985**	**.01055**	**.01942**	F **1.3421**	**.04083**	**2.8762**	**.00926**	**.09985**	**.01784**
Stddev	.00266	.0485	.00266	.00403	.00011	.00041	.0086	.00060	.0253	.00138	.00090	.00473
%RSD	2.1386	1.5696	10.815	1.9210	1.0124	2.1190	.64270	1.4596	.87808	14.853	.90461	26.507
#1	.12639	3.0558	.02648	.21270	.01063	.01913	1.3482	.04126	2.8941	.01024	.09921	.02118
#2	.12262	3.1244	.02272	.20700	.01048	.01972	1.3360	.04041	2.8583	.00829	.10049	.01449
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.01332**	**.48172**	**1.0309**	**.10024**	**.00956**	**.01332**	**.00951**	**.01681**	**.06065**	**.01012**	**.01786**	**.01434**
Stddev	.00289	.04591	.0983	.00257	.00028	.00111	.00001	.00036	.02499	.00136	.00014	.00260
%RSD	21.723	9.5303	9.5303	2.5670	2.9469	8.3477	.06640	2.1310	41.201	13.471	.79993	18.116
#1	.01537	.44925	.96140	.10206	.00976	.01253	.00951	.01706	.07832	.00916	.01776	.01617
#2	.01127	.51418	1.1003	.09842	.00937	.01410	.00952	.01656	.04298	.01108	.01796	.01250
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.02000											
Range	-30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3842.0**	**43035.**	**3484.2**
Stddev	2.4	80.	9.8
%RSD	.06277	.18679	.28117
#1	3840.3	43091.	3477.3
#2	3843.7	42978.	3491.2

Sample Name: MB 280-459200/1-A Acquired: 5/29/2019 10:59:32 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00063**	**.00555**	**-.00299**	**-.00046**	**.00076**	**.00041**	**-.00040**	**.01970**	**-.00024**
Stddev	.00047	.00036	.00397	.00027	.00038	.00031	.00648	.00273	.00023
%RSD	75.098	6.4786	132.74	59.147	50.252	75.671	1629.0	13.877	95.766
#1	-.00096	.00580	-.00018	-.00027	.00049	.00019	.00419	.01777	-.00040
#2	-.00030	.00529	-.00579	-.00065	.00103	.00063	-.00498	.02163	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00012**	**-.00123**	W **.05845**	**.02616**	**.00142**	**.01196**	**.00072**	**-.00043**
Stddev	.00039	.00028	.00076	.03065	.07800	.00271	.00564	.00001	.00012
%RSD	901.73	246.34	61.906	52.440	298.21	191.60	47.168	.73025	27.981
#1	.00032	-.00032	-.00069	.03677	-.02900	.00333	.00797	.00072	-.00052
#2	-.00023	.00009	-.00177	.08012	.08131	-.00050	.01595	.00073	-.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.05000					
Low Limit				-.05000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.46708**	**.00001**	**.00284**	**.00079**	**.01317**	**-.00201**	**.00087**	**.00177**	**.00378**
Stddev	.16270	.00066	.00203	.00056	.01048	.00446	.00468	.00908	.01942
%RSD	34.834	4405.9	71.613	70.373	79.606	222.16	540.12	514.00	514.00
#1	.35203	.00048	.00140	.00040	.00575	-.00516	.00417	.00818	.01751
#2	.58213	-.00045	.00428	.00118	.02058	.00115	-.00244	-.00465	-.00996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00155**	**-.00008**	**-.00340**	**.00005**	**.00149**	**.01862**	**.00074**	**.00261**	**-.00029**
Stddev	.00037	.00024	.00236	.00024	.00019	.03175	.00041	.00034	.00252
%RSD	23.761	301.06	69.408	509.98	12.709	170.50	55.674	13.050	882.95
#1	.00129	-.00025	-.00173	-.00012	.00136	.04107	.00103	.00286	.00150
#2	.00182	.00009	-.00507	.00022	.00162	-.00383	.00045	.00237	-.00207
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3821.6**	**43096.**	**3533.3**
Stddev	7.7	125.	28.5
%RSD	.20076	.29006	.80665
#1	3827.0	43184.	3553.5
#2	3816.1	43008.	3513.2

Sample Name: LCS 280-459200/2-A Acquired: 5/29/2019 11:02:43 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00100**	**9.9258**	**1.9455**	**.95371**	**1.9462**	**.99383**	**1.9279**	**48.213**	**.96830**
Stddev	.00059	.0533	.0120	.00251	.0000	.00258	.0028	.023	.00064
%RSD	58.468	.53736	.61725	.26287	.00132	.25964	.14565	.04802	.06573
#1	.00142	9.8881	1.9539	.95193	1.9462	.99566	1.9259	48.196	.96875
#2	.00059	9.9635	1.9370	.95548	1.9462	.99201	1.9299	48.229	.96785
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95552**	**.96016**	**.97001**	**9.6058**	**48.567**	**.97858**	**48.998**	**.99027**	**.97774**
Stddev	.00301	.00239	.00162	.0169	.048	.00417	.024	.00068	.00251
%RSD	.31532	.24883	.16733	.17637	.09884	.42572	.04845	.06871	.25712
#1	.95766	.96185	.97116	9.6178	48.533	.98153	48.981	.98979	.97952
#2	.95339	.95847	.96887	9.5939	48.601	.97564	49.015	.99075	.97596
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **48.643**	**.95943**	**19.838**	**.95654**	**9.7889**	**.00838**	**1.9183**	**1.9991**	**4.2780**
Stddev	.020	.00133	.019	.00492	.0208	.00176	.0002	.0179	.0383
%RSD	.04186	.13892	.09499	.51423	.21240	21.069	.01197	.89530	.89530
#1	48.657	.96037	19.851	.95306	9.7742	.00962	1.9182	2.0117	4.3051
#2	48.628	.95849	19.824	.96002	9.8036	.00713	1.9185	1.9864	4.2509
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9237**	**.96368**	**1.0068**	**.99294**	**1.9075**	**2.2351**	**.98215**	**.48487**	**.50532**
Stddev	.0063	.00073	.0004	.00062	.0096	.0132	.00028	.00078	.00270
%RSD	.32526	.07566	.04442	.06223	.50315	.59128	.02858	.16099	.53527
#1	1.9281	.96317	1.0065	.99250	1.9143	2.2257	.98195	.48542	.50724
#2	1.9193	.96420	1.0071	.99337	1.9007	2.2444	.98235	.48432	.50341
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3749.3**	**41527.**	**3459.3**
Stddev	9.1	234.	4.6
%RSD	.24194	.56466	.13355
#1	3742.9	41693.	3456.0
#2	3755.8	41362.	3462.6

Sample Name: 280-123647-C-1-E Acquired: 5/29/2019 11:05:02 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00059**	**.01309**	**.00053**	**.18304**	**.29865**	**.00018**	**-.00079**	**2.7785**	**-.00003**
Stddev	.00044	.00031	.00403	.00197	.00217	.00008	.00152	.0144	.00012
%RSD	74.456	2.3353	755.50	1.0780	.72626	43.475	192.04	.51980	402.52
#1	-.00090	.01288	.00338	.18443	.30018	.00012	-.00186	2.7887	-.00012
#2	-.00028	.01331	-.00232	.18164	.29712	.00023	.00028	2.7683	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00009**	**.00120**	**.44092**	**2.0179**	**.08242**	**.35516**	**.01363**	**.00202**
Stddev	.00032	.00016	.00007	.00289	.0639	.00381	.00036	.00003	.00025
%RSD	1291.4	186.41	5.8562	.65647	3.1669	4.6173	.10216	.18993	12.539
#1	.00025	.00020	.00125	.44296	2.0631	.07973	.35542	.01361	.00184
#2	-.00020	-.00003	.00115	.43887	1.9727	.08511	.35491	.01365	.00220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**387.22**	**.00004**	**.02761**	**.00014**	**.09282**	**.00102**	**-.00361**	**9.4557**	**20.235**
Stddev	2.41	.00009	.00164	.00140	.00828	.00202	.00023	.0685	.147
%RSD	.62267	198.53	5.9563	995.96	8.9172	198.80	6.3134	.72481	.72481
#1	388.92	.00010	.02645	.00113	.08697	-.00041	-.00345	9.5042	20.339
#2	385.51	-.00002	.02877	-.00085	.09867	.00244	-.00377	9.4072	20.132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.38490**	**-.00280**	**.00013**	**.00221**	**.04213**	**.00055**	**.00161**	**.00027**
Stddev	.00008	.00236	.00358	.00143	.00053	.01800	.00018	.00053	.00131
%RSD	232.92	.61403	127.57	1126.1	23.882	42.726	32.129	32.924	485.29
#1	.00002	.38657	-.00027	.00114	.00183	.05486	.00043	.00198	.00119
#2	-.00009	.38323	-.00533	-.00088	.00258	.02941	.00067	.00123	-.00065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3643.0**	**40726.**	**3428.2**
Stddev	6.7	78.	17.8
%RSD	.18348	.19093	.51966
#1	3647.7	40781.	3415.6
#2	3638.3	40671.	3440.8

Sample Name: 280-124074-D-1-A Acquired: 5/29/2019 11:07:38 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.01881**	**.00636**	**2.5075**	**.64746**	**.00017**	**-.00560**	**161.01**	**.00094**
Stddev	.00192	.00107	.00368	.0057	.00062	.00006	.00496	.35	.00007
%RSD	295.70	5.7040	57.890	.22935	.09507	32.974	88.449	.21704	7.2500
#1	.00071	.01805	.00896	2.5116	.64789	.00013	-.00911	161.26	.00089
#2	-.00200	.01956	.00376	2.5035	.64702	.00021	-.00210	160.77	.00099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01989**	**.00399**	**.00312**	**.47511**	**26.319**	**.01926**	**297.09**	**2.2718**	**.01234**
Stddev	.00025	.00001	.00054	.00433	.112	.00496	2.56	.0026	.00050
%RSD	1.2652	.19296	17.368	.91111	.42625	25.770	.86006	.11353	4.0436
#1	.01971	.00399	.00274	.47205	26.399	.01575	298.90	2.2737	.01269
#2	.02007	.00398	.00350	.47817	26.240	.02277	295.29	2.2700	.01198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**368.62**	**.24791**	**.31677**	**-.00106**	**52.767**	**-.00192**	**-.00366**	**20.762**	**44.430**
Stddev	.32	.00149	.00062	.00153	.180	.00443	.00488	.041	.088
%RSD	.08652	.60296	.19610	144.42	.34194	230.73	133.25	.19751	.19751
#1	368.85	.24897	.31634	.00002	52.895	.00121	-.00711	20.733	44.368
#2	368.40	.24685	.31721	-.00214	52.640	-.00505	-.00021	20.791	44.492
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00061**	**1.3476**	**-.00595**	**.00187**	**-.00062**	**-.00726**	**.00281**	**.01103**	**.00340**
Stddev	.00204	.0023	.00183	.00029	.00298	.01264	.00056	.00127	.00140
%RSD	332.41	.16850	30.694	15.625	477.75	174.15	20.071	11.512	41.252
#1	.00083	1.3493	-.00466	.00166	.00148	-.01620	.00241	.01193	.00241
#2	-.00205	1.3460	-.00724	.00208	-.00273	.00168	.00321	.01013	.00439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3586.7**	**40105.**	**3466.9**
Stddev	10.8	76.	11.0
%RSD	.30237	.18843	.31807
#1	3579.1	40158.	3459.1
#2	3594.4	40051.	3474.7

Sample Name: 280-124074-D-2-A Acquired: 5/29/2019 11:10:15 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.21034**	**.00864**	**.44144**	**.03588**	**.00036**	**-.00508**	**168.53**	**.00036**
Stddev	.00020	.00139	.00135	.00348	.00011	.00019	.00250	.53	.00016
%RSD	104.57	.66091	15.604	.78798	.29870	53.158	49.164	.31533	43.760
#1	-.00033	.21132	.00959	.44390	.03595	.00023	-.00331	168.91	.00025
#2	-.00005	.20936	.00769	.43898	.03580	.00050	-.00685	168.16	.00047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.00208**	**.00213**	**.32850**	**4.3222**	**.00905**	**112.69**	**.04161**	**.00204**
Stddev	.00027	.00025	.00114	.00009	.0906	.00123	.12	.00011	.00016
%RSD	35.882	12.117	53.694	.02788	2.0961	13.574	.10302	.25904	7.7552
#1	.00055	.00190	.00293	.32857	4.3863	.00992	112.61	.04169	.00193
#2	.00093	.00226	.00132	.32844	4.2582	.00818	112.77	.04153	.00215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **34.208**	**.00977**	**.07462**	**.00163**	F **216.55**	**-.00050**	**-.00550**	**10.062**	**21.534**
Stddev	.026	.00010	.00079	.00086	.71	.00508	.00002	.004	.009
%RSD	.07712	1.0507	1.0624	53.006	.32728	1014.4	.41797	.04034	.04034
#1	34.226	.00985	.07519	.00102	217.05	-.00409	-.00552	10.060	21.528
#2	34.189	.00970	.07406	.00224	216.05	.00309	-.00549	10.065	21.540
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500				200.00				
Low Limit	-.20000				-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**1.0017**	**-.00125**	**.00940**	**.00165**	**.01482**	**.00383**	**.00543**	**-.00028**
Stddev	.00041	.0050	.00178	.00156	.00104	.07577	.00109	.00009	.00223
%RSD	536.35	.49851	142.55	16.605	62.872	511.29	28.551	1.6971	792.70
#1	.00021	1.0053	-.00250	.01050	.00092	.06840	.00305	.00549	-.00185
#2	-.00036	.99822	.00001	.00829	.00238	-.03876	.00460	.00536	.00129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3666.7**	**41519.**	**3453.1**
Stddev	9.9	212.	24.4
%RSD	.27131	.51036	.70772
#1	3673.7	41369.	3435.8
#2	3659.6	41669.	3470.4

Sample Name: 280-124074-D-2-A Acquired: 5/29/2019 11:12:45 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00074**	**.04799**	**.00196**	**.10134**	**.00671**	**.00010**	**-.00058**	**34.899**	**.00043**
Stddev	.00089	.00028	.00152	.00286	.00020	.00004	.00264	.430	.00026
%RSD	120.52	.58464	77.621	2.8224	3.0102	40.316	455.71	1.2308	60.605
#1	-.00138	.04819	.00088	.09932	.00685	.00007	-.00244	34.595	.00025
#2	-.00011	.04779	.00303	.10336	.00657	.00012	.00129	35.203	.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00038**	**-.00032**	**.07567**	**1.0860**	**.00082**	**23.704**	**.00909**	**-.00058**
Stddev	.00018	.00025	.00138	.00354	.0082	.00297	.184	.00018	.00040
%RSD	137.56	64.587	431.73	4.6816	.75527	362.15	.77797	1.9550	68.038
#1	.00026	.00021	-.00129	.07317	1.0918	.00292	23.573	.00896	-.00086
#2	.00000	.00055	.00065	.07818	1.0802	-.00128	23.834	.00922	-.00030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.4987**	**.00184**	**.01558**	**.00268**	**47.262**	**-.00190**	**-.00262**	**2.0632**	**4.4152**
Stddev	.1161	.00039	.00172	.00097	.847	.00118	.00482	.0557	.1192
%RSD	1.5479	21.226	11.008	36.289	1.7924	61.953	183.63	2.7000	2.7000
#1	7.4166	.00157	.01437	.00337	46.663	-.00273	.00078	2.0238	4.3309
#2	7.5808	.00212	.01679	.00199	47.861	-.00107	-.00603	2.1026	4.4995
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00060**	**.20710**	**-.00244**	**.00186**	**.00280**	**.00576**	**.00124**	**-.00057**	**-.00055**
Stddev	.00082	.00209	.00116	.00001	.00037	.06777	.00076	.00049	.00405
%RSD	136.96	1.0104	47.532	.49949	13.262	1176.6	61.203	86.558	737.91
#1	-.00118	.20562	-.00162	.00187	.00307	-.04216	.00177	-.00091	-.00341
#2	-.00002	.20858	-.00326	.00185	.00254	.05368	.00070	-.00022	.00231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3754.8**	**42201.**	**3443.7**
Stddev	20.6	148.	16.3
%RSD	.54876	.35177	.47198
#1	3769.3	42306.	3455.2
#2	3740.2	42096.	3432.3

Sample Name: 280-124074-D-2-B MS Acquired: 5/29/2019 11:15:18 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00153**	**10.198**	**1.9789**	**1.3884**	**1.9557**	**.96570**	**1.9417**	**209.68**	**.97756**
Stddev	.00009	.024	.0032	.0038	.0050	.00303	.0022	.79	.00226
%RSD	5.9023	.23717	.16256	.27150	.25662	.31420	.11245	.37448	.23126
#1	.00160	10.181	1.9767	1.3911	1.9521	.96355	1.9433	209.12	.97916
#2	.00147	10.215	1.9812	1.3857	1.9592	.96784	1.9402	210.23	.97597
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.93388**	**.95738**	**.96828**	**9.7412**	**52.895**	**.97840**	**157.47**	**.99566**	**.98063**
Stddev	.00257	.00369	.00038	.0488	.157	.00065	.11	.00183	.00483
%RSD	.27550	.38538	.03906	.50042	.29660	.06648	.06725	.18398	.49282
#1	.93570	.95999	.96855	9.7067	52.784	.97794	157.40	.99437	.98405
#2	.93206	.95477	.96801	9.7756	53.006	.97886	157.55	.99696	.97721
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**82.957**	**.94826**	W **20.307**	**.93496**	F **224.19**	**.00660**	**1.9354**	**11.758**	**25.162**
Stddev	.636	.00497	.042	.00222	.57	.00195	.0068	.014	.029
%RSD	.76715	.52394	.20875	.23703	.25362	29.474	.35305	.11601	.11601
#1	82.507	.95177	20.337	.93653	224.59	.00798	1.9305	11.768	25.183
#2	83.407	.94475	20.277	.93339	223.78	.00523	1.9402	11.748	25.142
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000		200.00				
Low Limit			-6.0000		-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9172**	**1.9282**	**.96837**	**.97469**	**1.8458**	**2.2114**	**.96972**	**.46981**	**.48216**
Stddev	.0070	.0080	.00166	.00083	.0118	.0873	.00068	.00002	.00458
%RSD	.36654	.41375	.17192	.08547	.63697	3.9492	.06976	.00397	.95092
#1	1.9221	1.9226	.96720	.97410	1.8541	2.2732	.97020	.46980	.47892
#2	1.9122	1.9339	.96955	.97528	1.8375	2.1497	.96924	.46983	.48541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3628.9**	**40942.**	**3451.5**
Stddev	6.7	92.	7.5
%RSD	.18351	.22423	.21745
#1	3624.2	41007.	3456.8
#2	3633.6	40877.	3446.2

Sample Name: 280-124074-D-2-C MSD Acquired: 5/29/2019 11:17:35 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00270**	**10.307**	**2.0017**	**1.4045**	**2.0099**	**.98917**	**1.9688**	**213.52**	**.99420**
Stddev	.00028	.084	.0132	.0000	.0011	.00009	.0030	.03	.00071
%RSD	10.541	.81974	.65687	.00218	.05429	.00922	.15460	.01534	.07109
#1	.00250	10.366	2.0110	1.4045	2.0106	.98911	1.9667	213.55	.99470
#2	.00290	10.247	1.9924	1.4044	2.0091	.98924	1.9710	213.50	.99370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95091**	**.97598**	**.98078**	**9.9913**	**54.161**	**1.0111**	**158.90**	**1.0119**	**.99867**
Stddev	.00223	.00000	.00186	.0125	.009	.0028	.13	.0016	.00291
%RSD	.23426	.00020	.18945	.12534	.01646	.27746	.08270	.15785	.29091
#1	.95249	.97599	.98210	9.9825	54.168	1.0091	159.00	1.0130	1.0007
#2	.94934	.97598	.97947	10.000	54.155	1.0131	158.81	1.0107	.99661
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**84.988**	**.96424**	W **20.616**	**.95425**	F **225.03**	**.00516**	**1.9675**	**11.955**	**25.584**
Stddev	.087	.00119	.026	.00095	.50	.00460	.0024	.052	.111
%RSD	.10202	.12360	.12713	.09943	.22329	89.199	.12058	.43531	.43531
#1	84.926	.96508	20.634	.95492	225.39	.00190	1.9659	11.918	25.505
#2	85.049	.96340	20.597	.95358	224.68	.00841	1.9692	11.992	25.663
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000		200.00				
Low Limit			-6.0000		-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9476**	**1.9699**	**.98193**	**.99048**	**1.8762**	**2.2534**	**.98219**	**.47491**	**.49279**
Stddev	.0057	.0045	.00604	.00178	.0004	.0313	.00420	.00442	.00173
%RSD	.29533	.22604	.61519	.18021	.02040	1.3898	.42731	.93006	.35055
#1	1.9517	1.9730	.98620	.99174	1.8759	2.2756	.98516	.47803	.49157
#2	1.9436	1.9667	.97766	.98921	1.8764	2.2313	.97922	.47179	.49401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3612.2**	**40947.**	**3434.3**
Stddev	5.7	.	15.1
%RSD	.15757	.00044	.43905
#1	3616.3	40947.	3445.0
#2	3608.2	40946.	3423.7

Sample Name: CCVH-5713036 Acquired: 5/29/2019 11:19:56 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**50.378**	**-.00029**	**.00652**	**.00171**	**.00017**	**.00110**	**.02114**	**.00013**	**.00266**	**.00046**	**.01119**
Stddev	.00018	.097	.00034	.00002	.00052	.00003	.00090	.00205	.00031	.00004	.00001	.00119
%RSD	101.24	.19300	119.02	.30749	30.579	15.681	81.647	9.7064	239.80	1.6133	2.8856	10.664
#1	-.00030	50.446	-.00005	.00651	.00134	.00019	.00173	.02259	-.00009	.00263	.00045	.01034
#2	-.00005	50.309	-.00053	.00654	.00208	.00015	.00046	.01969	.00035	.00269	.00047	.01203
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.609**	**.23077**	**.00550**	**.02258**	**.00258**	**.00042**	**252.90**	**.00159**	**4.9336**	**.00261**	**4.9120**	**.00192**
Stddev	.209	.00531	.00214	.00367	.00009	.00016	1.05	.00036	.0329	.00002	.0547	.00585
%RSD	.42100	2.3025	38.867	16.242	3.3146	37.781	.41423	22.459	.66697	.73987	1.1138	304.49
#1	49.756	.23453	.00399	.01999	.00252	.00053	253.64	.00133	4.9569	.00262	4.9507	.00606
#2	49.461	.22702	.00701	.02518	.00264	.00031	252.16	.00184	4.9103	.00260	4.8733	-.00222
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00395**	**.00828**	**.01771**	**-.00017**	**.00025**	**5.0146**	**-.01535**	**.00376**	F **.56525**	**.00554**	**-.00062**	**.09899**
Stddev	.00388	.00322	.00689	.00020	.00002	.0140	.00004	.00146	.01349	.00004	.00044	.00377
%RSD	98.027	38.916	38.916	118.18	9.0375	.27993	.28436	38.914	2.3857	.72102	71.612	3.8044
#1	.00669	.00600	.01284	-.00032	.00027	5.0047	-.01538	.00480	.57479	.00557	-.00093	.10166
#2	.00121	.01055	.02259	-.00003	.00024	5.0245	-.01532	.00273	.55572	.00551	-.00030	.09633
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3694.2**	**41006.**	**3364.4**
Stddev	7.2	155.	3.6
%RSD	.19370	.37866	.10840
#1	3699.2	41116.	3361.8
#2	3689.1	40897.	3367.0

Sample Name: CCV-5714928 Acquired: 5/29/2019 11:22:26 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49121**	**.51718**	**.49094**	**.49496**	**.49588**	**.49419**	**.99824**	**4.9536**	**.49197**	**.50165**	**.49637**	**.49628**	**2.4405**
Stddev	.00136	.00377	.00453	.00212	.00469	.00494	.00798	.0356	.00240	.00340	.00324	.00254	.0237
%RSD	.27756	.72853	.92292	.42792	.94513	.99915	.79898	.71956	.48811	.67702	.65259	.51231	.97292
#1	.49025	.51984	.48773	.49346	.49920	.49768	.99260	4.9788	.49027	.49924	.49408	.49448	2.4573
#2	.49218	.51451	.49414	.49646	.49257	.49070	1.0039	4.9284	.49367	.50405	.49866	.49808	2.4237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.488**	**.50182**	**19.928**	**.50205**	**.49539**	**25.196**	**.50273**	**.00104**	**.50262**	**.05038**	**.49252**	**.49895**	**4.8912**
Stddev	.511	.00682	.043	.00051	.00129	.216	.00142	.00689	.00190	.05641	.00863	.00811	.0566
%RSD	1.0332	1.3597	.21440	.10245	.26047	.85662	.28254	663.27	.37709	111.98	1.7521	1.6245	1.1574
#1	49.850	.50665	19.898	.50168	.49447	25.349	.50172	.00591	.50128	.09026	.48641	.49322	4.9313
#2	49.127	.49700	19.958	.50241	.49630	25.043	.50373	-.00383	.50396	.01049	.49862	.50468	4.8512
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.467**	**.49876**	**.49230**	**-.00427**	**.49823**	**.49944**	**.08797**	**.49679**	**.49797**	**.48942**
Stddev	.121	.00584	.00316	.00034	.00049	.00198	.04631	.00012	.00116	.00111
%RSD	1.1574	1.1702	.64141	7.9213	.09768	.39632	52.640	.02318	.23289	.22621
#1	10.553	.49463	.49453	-.00403	.49858	.49804	.05523	.49671	.49879	.49020
#2	10.382	.50289	.49007	-.00451	.49789	.50084	.12071	.49688	.49715	.48863
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3679.9**	**41414.**	**3390.9**
Stddev	29.3	63.	34.4
%RSD	.79519	.15101	1.0152
#1	3700.6	41458.	3366.6
#2	3659.2	41370.	3415.2

Sample Name: CCB Acquired: 5/29/2019 11:24:53 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**-.00157**	**-.00141**	**.00367**	**.00012**	**.00027**	**-.00045**	**.00080**	**-.00011**	**.00028**	**-.00023**	**-.00157**
Stddev	.00015	.00017	.00030	.00197	.00038	.00016	.00234	.00472	.00011	.00029	.00026	.00140
%RSD	76.144	10.885	21.246	53.679	318.68	58.163	518.53	590.89	103.62	105.37	109.32	88.763
#1	.00031	-.00145	-.00162	.00506	-.00015	.00016	-.00210	-.00254	-.00019	.00007	-.00042	-.00256
#2	.00009	-.00170	-.00120	.00228	.00039	.00038	.00120	.00414	-.00003	.00048	-.00005	-.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00594**	**.12142**	**.00317**	**.00803**	**-.00000**	**.00035**	W **.46174**	**.00010**	**.00074**	**.00087**	**-.00085**	**-.00092**
Stddev	.00443	.02662	.00143	.00319	.00008	.00068	.00652	.00011	.00156	.00143	.00595	.00316
%RSD	74.637	21.921	45.142	39.760	1773.2	193.61	1.4119	111.49	209.88	164.02	699.05	344.76
#1	-.00281	.10260	.00418	.00577	-.00006	-.00013	.45713	.00002	-.00036	.00188	-.00506	-.00315
#2	-.00908	.14024	.00216	.01029	.00005	.00083	.46635	.00018	.00185	-.00014	.00336	.00132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.35000					
Low Limit							-.35000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**-.01110**	**-.02375**	**-.00052**	**-.00016**	**.00112**	**-.00020**	**.00099**	**-.01861**	**.00064**	**-.00152**	**-.00080**
Stddev	.00815	.00459	.00981	.00096	.00016	.00320	.00057	.00231	.00476	.00028	.00012	.00233
%RSD	3197.0	41.311	41.311	184.04	98.787	285.92	286.83	232.28	25.569	43.957	7.9251	291.43
#1	-.00551	-.01434	-.03069	-.00120	-.00028	.00338	-.00060	-.00064	-.02198	.00084	-.00161	.00085
#2	.00602	-.00786	-.01681	.00016	-.00005	-.00114	.00020	.00263	-.01525	.00044	-.00144	-.00245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3782.5**	**42630.**	**3397.6**
Stddev	24.5	13.	10.4
%RSD	.64659	.03121	.30524
#1	3765.3	42620.	3405.0
#2	3799.8	42639.	3390.3

Sample Name: CCVL-5725431 Acquired: 5/29/2019 11:27:30 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00637**	**.10084**	**.01447**	**.09963**	**.01068**	**.00129**	**.10497**	**.20189**	**.00492**	**.01054**	**.00962**	**.01394**
Stddev	.00148	.00094	.00123	.00071	.00069	.00010	.00378	.00810	.00014	.00014	.00019	.00167
%RSD	23.152	.93706	8.5166	.70914	6.4281	7.9330	3.6018	4.0137	2.8977	1.2891	1.9748	11.992
#1	.00533	.10151	.01360	.10013	.01019	.00122	.10765	.19616	.00502	.01044	.00949	.01276
#2	.00741	.10017	.01534	.09913	.01116	.00137	.10230	.20762	.00482	.01063	.00976	.01512
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.13351**	**3.1631**	**.02285**	**.20675**	**.01054**	**.01959**	F **1.3609**	**.04104**	**2.8941**	F **.01231**	**.09500**	**.01518**
Stddev	.00347	.0396	.00136	.00267	.00001	.00077	.0094	.00010	.0081	.00124	.00744	.00256
%RSD	2.5978	1.2533	5.9719	1.2918	.09039	3.9391	.68870	.23678	.28142	10.052	7.8321	16.874
#1	.13596	3.1911	.02382	.20863	.01053	.01905	1.3675	.04097	2.8999	.01319	.10026	.01700
#2	.13106	3.1351	.02189	.20486	.01055	.02014	1.3543	.04111	2.8883	.01144	.08974	.01337
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value	.10000						1.0000			.00900		
Range	30.000%						30.000%			30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01825**	**.51112**	**1.0938**	**.10097**	**.00972**	**.01273**	**.00983**	**.01725**	F **.11815**	**.01000**	**.01992**	**.01209**
Stddev	.00257	.02234	.0478	.00122	.00003	.00189	.00005	.00028	.01129	.00022	.00005	.00296
%RSD	14.083	4.3710	4.3710	1.2109	.28495	14.814	.51992	1.6146	9.5539	2.2043	.25351	24.494
#1	.02007	.49532	1.0600	.10011	.00970	.01406	.00987	.01706	.11017	.00984	.01996	.01418
#2	.01643	.52692	1.1276	.10184	.00974	.01139	.00979	.01745	.12613	.01016	.01989	.00999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3867.9**	**43288.**	**3483.1**
Stddev	.5	.	20.9
%RSD	.01253	.00071	.60084
#1	3868.2	43289.	3497.9
#2	3867.5	43288.	3468.3

Sample Name: MB 280-459132/1-A Acquired: 5/29/2019 11:30:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**.00545**	**.00413**	**.00242**	**.00058**	**.00018**	**-.00100**	**.00884**	**-.00028**
Stddev	.00016	.00020	.00374	.00006	.00011	.00012	.00262	.00089	.00015
%RSD	42.251	3.7475	90.449	2.4348	19.304	67.587	261.22	10.093	53.890
#1	-.00026	.00530	.00678	.00246	.00066	.00026	-.00286	.00947	-.00017
#2	-.00049	.00559	.00149	.00238	.00050	.00009	.00085	.00821	-.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.00005**	**-.00102**	F **.27348**	**.09360**	**.00199**	**.00482**	**.00174**	**-.00037**
Stddev	.00001	.00037	.00037	.01098	.07014	.00124	.00842	.00002	.00027
%RSD	23.120	776.23	36.718	4.0163	74.933	62.055	174.52	.93020	72.874
#1	.00007	-.00022	-.00128	.26572	.14320	.00286	.01078	.00172	-.00018
#2	.00005	.00031	-.00075	.28125	.04401	.00112	-.00113	.00175	-.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.10000					
Low Limit				-.10000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.37401**	**.00064**	**.00152**	**.00299**	**.01136**	**-.00185**	**-.00354**	**.00768**	**.01643**
Stddev	.01042	.00040	.00061	.00114	.00056	.00072	.00347	.02878	.06159
%RSD	2.7850	62.483	40.083	38.241	4.9478	38.815	98.091	374.94	374.94
#1	.38137	.00036	.00109	.00218	.01176	-.00236	-.00600	-.01267	-.02712
#2	.36664	.00092	.00196	.00380	.01096	-.00134	-.00108	.02803	.05997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00127**	**-.00019**	**-.00041**	**.00026**	**.00223**	**.01475**	**-.00000**	**-.00005**	**-.00601**
Stddev	.00037	.00009	.00032	.00064	.00123	.02691	.00053	.00015	.00162
%RSD	29.200	43.926	76.800	242.58	55.049	182.42	15295.	301.71	27.045
#1	.00101	-.00013	-.00064	.00072	.00310	.03379	.00037	-.00015	-.00486
#2	.00153	-.00025	-.00019	-.00019	.00136	-.00428	-.00038	.00006	-.00716
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3823.4**	**43189.**	**3443.1**
Stddev	2.1	56.	27.5
%RSD	.05363	.12973	.79994
#1	3824.8	43150.	3462.6
#2	3821.9	43229.	3423.6

Sample Name: LCS 280-459132/2-A Acquired: 5/29/2019 11:32:50 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05209**	**9.9543**	**1.9310**	**.95739**	**1.9585**	**.99399**	**1.9254**	**48.446**	**.96440**
Stddev	.00031	.0223	.0040	.00088	.0050	.00122	.0008	.145	.00049
%RSD	.59569	.22427	.20894	.09194	.25255	.12271	.03936	.30017	.05057
#1	.05231	9.9385	1.9338	.95677	1.9620	.99485	1.9260	48.548	.96474
#2	.05187	9.9701	1.9281	.95801	1.9550	.99312	1.9249	48.343	.96406
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95333**	**.95830**	**.96707**	**9.6508**	**48.846**	**.98242**	**48.735**	**.98400**	**.97587**
Stddev	.00204	.00192	.00202	.0242	.027	.00260	.128	.00383	.00427
%RSD	.21370	.19985	.20918	.25122	.05512	.26458	.26282	.38874	.43754
#1	.95477	.95966	.96564	9.6679	48.865	.98058	48.644	.98130	.97889
#2	.95189	.95695	.96850	9.6336	48.827	.98426	48.826	.98671	.97285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **48.809**	**.95716**	**19.862**	**.95690**	**9.8243**	**1.0412**	**1.9079**	**1.9732**	**4.2227**
Stddev	.059	.00226	.038	.00101	.0204	.0032	.0123	.0193	.0414
%RSD	.12004	.23599	.19287	.10598	.20722	.30611	.64510	.97983	.97983
#1	48.851	.95875	19.889	.95619	9.8099	1.0390	1.9166	1.9869	4.2519
#2	48.768	.95556	19.835	.95762	9.8387	1.0435	1.8992	1.9595	4.1934
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9229**	**.97493**	**.99966**	**.98248**	**1.9062**	**2.2579**	**.97835**	**.48407**	**.51129**
Stddev	.0063	.00265	.00553	.00326	.0125	.0011	.00524	.00415	.00005
%RSD	.32974	.27135	.55328	.33145	.65759	.04680	.53510	.85758	.01054
#1	1.9274	.97680	.99575	.98018	1.9150	2.2571	.97465	.48113	.51133
#2	1.9184	.97306	1.0036	.98478	1.8973	2.2586	.98205	.48700	.51126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3783.1**	**42009.**	**3481.8**
Stddev	11.1	207.	12.8
%RSD	.29225	.49315	.36783
#1	3790.9	42156.	3472.8
#2	3775.3	41863.	3490.9

Sample Name: LCSD 280-459132/3-A Acquired: 5/29/2019 11:35:06 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05176**	**10.099**	**1.9457**	**.96525**	**1.9713**	**.99944**	**1.9435**	**49.065**	**.97143**
Stddev	.00153	.065	.0105	.00186	.0001	.00157	.0021	.037	.00254
%RSD	2.9514	.64619	.54140	.19304	.00783	.15702	.10746	.07592	.26188
#1	.05284	10.146	1.9532	.96657	1.9715	.99833	1.9450	49.039	.97323
#2	.05068	10.053	1.9383	.96393	1.9712	1.0006	1.9420	49.091	.96963
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.96120**	**.96707**	**.97202**	**9.7418**	**49.659**	**.99278**	**49.365**	**.98908**	**.98612**
Stddev	.00286	.00151	.00483	.0005	.019	.00023	.040	.00073	.00299
%RSD	.29752	.15644	.49705	.00505	.03781	.02305	.08181	.07336	.30331
#1	.96322	.96814	.97544	9.7422	49.672	.99294	49.393	.98959	.98824
#2	.95918	.96600	.96860	9.7415	49.645	.99262	49.336	.98857	.98401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **49.427**	**.96441**	W **20.064**	**.96715**	**9.9262**	**1.0469**	**1.9170**	**1.9923**	**4.2635**
Stddev	.028	.00255	.034	.00158	.0032	.0113	.0033	.0046	.0098
%RSD	.05602	.26441	.16852	.16303	.03268	1.0796	.17336	.22958	.22958
#1	49.407	.96621	20.088	.96826	9.9285	1.0549	1.9193	1.9891	4.2566
#2	49.446	.96261	20.041	.96603	9.9239	1.0389	1.9146	1.9955	4.2704
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9429**	**.98275**	**1.0065**	**.98835**	**1.9291**	**2.2372**	**.98246**	**.48476**	**.51591**
Stddev	.0013	.00182	.0044	.00129	.0010	.0031	.00231	.00331	.00551
%RSD	.06421	.18516	.43583	.13087	.05222	.13676	.23507	.68373	1.0672
#1	1.9420	.98404	1.0096	.98927	1.9298	2.2350	.98410	.48711	.51980
#2	1.9438	.98147	1.0034	.98744	1.9284	2.2394	.98083	.48242	.51202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.3**	**41993.**	**3428.8**
Stddev	1.5	91.	13.1
%RSD	.04075	.21564	.38206
#1	3778.4	42058.	3438.1
#2	3776.2	41929.	3419.6

Sample Name: 280-123930-F-1-A Acquired: 5/29/2019 11:37:23 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00050**	**.01624**	**.02099**	**.03789**	**.07536**	**.00017**	**.00125**	**75.734**	**.00019**
Stddev	.00017	.00240	.00186	.00007	.00044	.00012	.00235	.130	.00028
%RSD	34.149	14.775	8.8813	.18087	.58026	67.443	187.49	.17117	151.34
#1	.00062	.01794	.02231	.03793	.07505	.00026	-.00041	75.642	-.00001
#2	.00038	.01455	.01967	.03784	.07567	.00009	.00291	75.826	.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00674**	**-.00017**	**.00116**	**12.830**	**1.9011**	**.01579**	**13.236**	W **10.570**	**.00064**
Stddev	.00013	.00067	.00037	.026	.0732	.00036	.022	.059	.00030
%RSD	1.9318	395.63	31.606	.20100	3.8532	2.2871	.16752	.56225	47.771
#1	.00683	.00030	.00142	12.812	1.9529	.01553	13.220	10.528	.00085
#2	.00664	-.00064	.00090	12.848	1.8493	.01604	13.252	10.612	.00042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.8568**	**.00435**	**.01847**	**.00216**	**4.5974**	**-.00452**	**-.00180**	**11.273**	**24.124**
Stddev	.0103	.00083	.00403	.00034	.0531	.00096	.00127	.027	.058
%RSD	.13131	19.191	21.815	15.813	1.1558	21.297	70.586	.24129	.24129
#1	7.8495	.00494	.02132	.00241	4.6350	-.00520	-.00270	11.254	24.083
#2	7.8641	.00376	.01562	.00192	4.5598	-.00384	-.00090	11.292	24.165
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00195**	**.23934**	**-.00317**	**.00063**	**-.00878**	**.00896**	**.00244**	**.00203**	**-.00088**
Stddev	.00017	.00030	.00441	.00049	.00283	.05786	.00035	.00062	.00043
%RSD	8.8118	.12376	139.47	78.603	32.198	645.52	14.264	30.375	48.750
#1	.00207	.23955	-.00004	.00028	-.01078	-.03195	.00269	.00247	-.00119
#2	.00183	.23913	-.00629	.00097	-.00678	.04988	.00220	.00160	-.00058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.6**	**42250.**	**3446.0**
Stddev	10.8	7.	12.6
%RSD	.28585	.01693	.36612
#1	3785.2	42255.	3454.9
#2	3770.0	42245.	3437.1

Sample Name: 123930-F-1-A SD@5 Acquired: 5/29/2019 11:40:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00092**	**.00185**	**.00941**	**.00953**	**.01461**	**.00009**	**-.00227**	**14.456**	**-.00026**
Stddev	.00083	.00079	.00214	.00031	.00002	.00010	.00052	.056	.00015
%RSD	89.862	42.774	22.691	3.3029	.12839	108.55	22.682	.38672	55.903
#1	-.00151	.00241	.00790	.00976	.01463	.00016	-.00191	14.417	-.00036
#2	-.00034	.00129	.01092	.00931	.01460	.00002	-.00264	14.496	-.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00169**	**.00007**	**-.00077**	**2.4296**	**.39665**	**.00475**	**2.6054**	**2.1290**	**.00014**
Stddev	.00040	.00036	.00137	.0142	.03488	.00067	.0132	.0137	.00039
%RSD	23.797	508.64	178.13	.58390	8.7931	14.090	.50718	.64118	286.35
#1	.00197	-.00019	.00020	2.4195	.42131	.00522	2.5961	2.1193	-.00014
#2	.00140	.00033	-.00174	2.4396	.37198	.00428	2.6148	2.1386	.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.7289**	**.00103**	**.00199**	**.00159**	**.93987**	**-.00042**	**-.00378**	**2.1019**	**4.4980**
Stddev	.0094	.00030	.00146	.00259	.02687	.00212	.00339	.0348	.0746
%RSD	.54307	28.783	73.136	162.83	2.8586	508.83	89.743	1.6575	1.6575
#1	1.7222	.00082	.00302	-.00024	.92087	-.00191	-.00618	2.0772	4.4452
#2	1.7355	.00124	.00096	.00342	.95887	.00108	-.00138	2.1265	4.5507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**.04543**	**-.00112**	**.00011**	**-.00094**	**.05968**	**.00049**	**-.00073**	**-.00004**
Stddev	.00069	.00012	.00154	.00007	.00119	.00658	.00040	.00053	.00358
%RSD	89.163	.26263	136.99	60.341	127.18	11.019	81.285	72.456	8327.5
#1	.00126	.04551	-.00221	.00007	-.00009	.06433	.00021	-.00110	.00249
#2	.00029	.04534	-.00004	.00016	-.00178	.05503	.00077	-.00035	-.00257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3801.4**	**42652.**	**3471.6**
Stddev	2.2	62.	3.3
%RSD	.05892	.14439	.09627
#1	3803.0	42608.	3473.9
#2	3799.9	42695.	3469.2

Sample Name: 280-123930-F-1-B MS Acquired: 5/29/2019 11:42:34 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05469**	**9.8446**	**1.9485**	**1.0077**	**2.0381**	**.99687**	**1.9437**	**120.37**	**.96580**
Stddev	.00012	.0811	.0030	.0028	.0101	.00464	.0048	.64	.00453
%RSD	.21326	.82413	.15258	.27580	.49509	.46517	.24467	.52810	.46921
#1	.05461	9.7873	1.9506	1.0096	2.0310	.99359	1.9470	119.92	.96900
#2	.05477	9.9020	1.9464	1.0057	2.0453	1.0002	1.9403	120.82	.96260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95224**	**.96016**	**.97448**	**21.710**	**50.132**	**1.0119**	**60.555**	W **11.044**	**.97906**
Stddev	.00412	.00363	.00557	.123	.405	.0065	.039	.029	.00534
%RSD	.43253	.37788	.57200	.56744	.80696	.64404	.06470	.25809	.54518
#1	.95515	.96272	.97843	21.623	49.846	1.0073	60.583	11.064	.98284
#2	.94933	.95759	.97054	21.797	50.418	1.0165	60.528	11.024	.97529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **55.397**	**57.133**	**.95351**	W **20.425**	**.94997**	**14.688**	**1.0489**	**1.8940**	**12.778**
Stddev	.278	.202	.00403	.063	.00110	.035	.0004	.0004	.001
%RSD	.50114	.35394	.42231	.30821	.11564	.23995	.03514	.02143	.00804
#1	55.200	56.990	.95636	20.469	.95075	14.713	1.0486	1.8937	12.778
#2	55.593	57.276	.95066	20.380	.94920	14.663	1.0492	1.8943	12.779
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500			20.000					
Low Limit	-.20000			-6.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.346**	**1.9264**	**1.2132**	**1.0117**	**.98834**	**1.8839**	**2.3070**	**.98722**	**.48947**
Stddev	.002	.0145	.0035	.0014	.00037	.0082	.0543	.00234	.00140
%RSD	.00804	.75437	.28629	.13598	.03707	.43538	2.3552	.23670	.28530
#1	27.344	1.9366	1.2108	1.0107	.98808	1.8897	2.3454	.98887	.48848
#2	27.347	1.9161	1.2157	1.0126	.98860	1.8781	2.2685	.98556	.49046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.52116**
Stddev	.00537
%RSD	1.0298
#1	.51737
#2	.52496
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-123930-F-1-B MS Acquired: 5/29/2019 11:42:34 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3748.9**	**41541.**	**3459.6**
Stddev	8.1	55.	6.2
%RSD	.21557	.13306	.17884
#1	3743.2	41501.	3463.9
#2	3754.7	41580.	3455.2

Sample Name: 280-123930-F-1-C MSD Acquired: 5/29/2019 11:44:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05150**	**9.9514**	**1.9271**	**.97754**	**1.9924**	**.97794**	**1.8787**	**117.99**	**.95019**
Stddev	.00067	.0098	.0063	.00113	.0022	.00176	.0097	.05	.00146
%RSD	1.3055	.09893	.32843	.11540	.11087	.17953	.51741	.03876	.15350
#1	.05198	9.9583	1.9226	.97674	1.9908	.97670	1.8856	117.95	.95123
#2	.05103	9.9444	1.9316	.97833	1.9940	.97918	1.8719	118.02	.94916
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.93495**	**.94181**	**.96810**	**21.371**	**50.251**	**.98621**	**60.184**	W **10.750**	**.95957**
Stddev	.00058	.00014	.00387	.015	.096	.00102	.006	.039	.00256
%RSD	.06223	.01461	.39974	.06841	.19090	.10357	.00963	.36260	.26698
#1	.93536	.94171	.97084	21.361	50.183	.98693	60.188	10.778	.96138
#2	.93454	.94190	.96536	21.382	50.319	.98548	60.179	10.723	.95776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **55.320**	**57.084**	**.93692**	**19.777**	**.93344**	**14.239**	**.98242**	**1.8645**	**12.465**
Stddev	.052	.320	.00332	.053	.00036	.012	.00116	.0004	.023
%RSD	.09400	.56017	.35387	.26869	.03893	.08747	.11766	.02413	.18780
#1	55.283	57.310	.93926	19.814	.93318	14.230	.98324	1.8642	12.448
#2	55.357	56.858	.93457	19.739	.93370	14.248	.98160	1.8648	12.481
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.674**	**1.8927**	**1.1815**	**.97474**	**.96801**	**1.8495**	**2.2793**	**.96655**	**.47795**
Stddev	.050	.0063	.0005	.00447	.00058	.0089	.0076	.00427	.00254
%RSD	.18780	.33397	.04188	.45891	.06034	.47833	.33357	.44134	.53152
#1	26.639	1.8972	1.1812	.97790	.96759	1.8558	2.2739	.96957	.47975
#2	26.710	1.8883	1.1819	.97158	.96842	1.8432	2.2847	.96354	.47616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.50441**
Stddev	.00143
%RSD	.28426
#1	.50340
#2	.50543
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-123930-F-1-C MSD Acquired: 5/29/2019 11:44:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3849.3**	**42825.**	**3600.7**
Stddev	19.9	42.	9.7
%RSD	.51687	.09862	.26812
#1	3863.4	42795.	3607.5
#2	3835.3	42854.	3593.9

Sample Name: 280-123930-F-1-A PDS Acquired: 5/29/2019 11:47:18 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05281**	**1.0193**	**.21606**	**.13636**	**.17586**	**.05239**	**-.00133**	**93.240**	**.05108**
Stddev	.00137	.0076	.00482	.00058	.00010	.00006	.00298	.032	.00032
%RSD	2.6017	.74397	2.2292	.42397	.05966	.11953	223.78	.03400	.62217
#1	.05184	1.0247	.21265	.13676	.17579	.05244	.00078	93.262	.05130
#2	.05378	1.0140	.21946	.13595	.17594	.05235	-.00344	93.217	.05086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05642**	**.05000**	**.05237**	**13.405**	**22.279**	**.11858**	**32.763**	W **10.193**	**.05006**
Stddev	.00056	.00013	.00073	.027	.027	.00063	.041	.052	.00073
%RSD	.99327	.25152	1.3872	.20341	.12301	.53513	.12405	.50720	1.4657
#1	.05682	.04991	.05186	13.386	22.259	.11903	32.792	10.230	.05058
#2	.05602	.05009	.05289	13.424	22.298	.11813	32.735	10.156	.04954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **27.905**	**.05395**	**2.0800**	**.10181**	**4.5390**	**.10291**	**.19080**	**15.856**	**33.932**
Stddev	.010	.00004	.0235	.00141	.0569	.00343	.00138	.087	.187
%RSD	.03531	.08304	1.1319	1.3899	1.2536	3.3310	.72104	.55069	.55069
#1	27.912	.05392	2.0966	.10281	4.5792	.10534	.19178	15.918	34.064
#2	27.898	.05398	2.0633	.10080	4.4987	.10049	.18983	15.794	33.800
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09954**	**.28399**	**.20257**	**.05010**	**.19542**	**.58323**	**.05261**	**.20158**	**.05912**
Stddev	.00052	.00071	.00267	.00035	.00034	.04882	.00049	.00048	.00480
%RSD	.52417	.25000	1.3205	.68998	.17233	8.3709	.93679	.23968	8.1256
#1	.09991	.28349	.20446	.04986	.19565	.54871	.05296	.20192	.05572
#2	.09917	.28450	.20067	.05035	.19518	.61775	.05226	.20124	.06251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3783.4**	**42619.**	**3503.1**
Stddev	1.1	158.	10.9
%RSD	.02867	.37097	.31144
#1	3784.2	42731.	3510.8
#2	3782.6	42507.	3495.4

Sample Name: CCVH-5713036 Acquired: 5/29/2019 11:49:50 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00107**	**49.048**	**.00198**	**.00271**	**.00062**	**.00019**	**.00054**	**.00737**	**-.00037**	**.00242**	**.00031**	**.01151**	**47.993**
Stddev	.00022	.098	.00038	.00082	.00095	.00053	.00030	.00352	.00035	.00032	.00018	.00083	.263
%RSD	20.339	.20027	19.320	30.313	153.26	284.39	55.908	47.784	94.685	13.336	59.262	7.2084	.54832
#1	-.00123	49.118	.00225	.00329	.00129	.00056	.00075	.00986	-.00012	.00219	.00018	.01209	48.179
#2	-.00092	48.979	.00171	.00213	-.00005	-.00019	.00032	.00488	-.00062	.00265	.00044	.01092	47.807
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.17294**	**.00235**	**.07774**	**.01515**	**-.00067**	**245.66**	**.00099**	**4.8356**	**.00366**	**4.8073**	**-.00130**	**.00327**	**.02354**
Stddev	.09897	.00384	.08674	.01725	.00012	1.74	.00030	.0260	.00156	.0209	.00286	.00212	.00896
%RSD	57.227	163.13	111.58	113.82	17.648	.70996	29.909	.53715	42.554	.43443	220.33	64.817	38.068
#1	.10296	.00507	.13907	.02735	-.00059	246.90	.00078	4.8540	.00256	4.8220	.00072	.00177	.02988
#2	.24293	-.00036	.01640	.00296	-.00075	244.43	.00120	4.8173	.00476	4.7925	-.00332	.00476	.01721
Check ?	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05038**	**-.00120**	**.00004**	**4.8755**	**-.01378**	**.00282**	**.48059**	**.00566**	**-.00129**	**.09664**
Stddev	.01918	.00026	.00031	.0074	.00100	.00132	.02251	.00110	.00002	.00331
%RSD	38.068	22.076	822.61	.15265	7.2523	46.712	4.6849	19.442	1.7537	3.4204
#1	.06394	-.00101	-.00018	4.8703	-.01308	.00189	.46467	.00644	-.00131	.09898
#2	.03682	-.00138	.00026	4.8808	-.01449	.00375	.49651	.00488	-.00127	.09430
Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3724.6**	**41875.**	**3419.1**
Stddev	1.8	693.	14.7
%RSD	.04818	1.6557	.42873
#1	3725.8	42365.	3408.7
#2	3723.3	41385.	3429.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 11:52:20 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48499**	**.49810**	**.48576**	**.48359**	**.49189**	**.48678**	**.97714**	**4.9021**	**.48493**	**.49472**	**.49183**	**.48857**	**2.4327**
Stddev	.00211	.00164	.00237	.00118	.00013	.00125	.00791	.0102	.00211	.00272	.00193	.00549	.0162
%RSD	.43513	.33006	.48714	.24421	.02738	.25774	.80954	.20790	.43552	.54948	.39229	1.1230	.66737
#1	.48350	.49927	.48744	.48443	.49179	.48767	.98273	4.9094	.48642	.49665	.49320	.48469	2.4442
#2	.48648	.49694	.48409	.48276	.49198	.48590	.97155	4.8949	.48343	.49280	.49047	.49245	2.4213
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.011**	**.49208**	**19.668**	**.49085**	**.48769**	**24.731**	**.49613**	**-.00087**	**.49324**	**.00258**	**.48345**	**.48224**	**4.8770**
Stddev	.207	.00432	.187	.00462	.00340	.042	.00214	.00090	.00313	.00079	.00399	.00266	.0237
%RSD	.42228	.87719	.95026	.94167	.69796	.16871	.43209	103.72	.63554	30.625	.82450	.55158	.48562
#1	49.157	.48902	19.535	.48758	.49009	24.760	.49765	-.00023	.49546	.00314	.48627	.48412	4.8938
#2	48.865	.49513	19.800	.49412	.48528	24.701	.49461	-.00151	.49103	.00202	.48063	.48036	4.8603
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.437**	**.49574**	**.48926**	**-.00442**	**.48644**	**.49716**	**-.04272**	**.48738**	**.48892**	**.48536**
Stddev	.051	.00034	.00043	.00086	.00513	.00231	.04530	.00253	.00313	.00181
%RSD	.48562	.06905	.08806	19.403	1.0553	.46558	106.03	.51850	.63984	.37384
#1	10.473	.49598	.48956	-.00502	.48281	.49880	-.07475	.48559	.48671	.48664
#2	10.401	.49549	.48895	-.00381	.49007	.49552	-.01069	.48917	.49113	.48408
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3727.0**	**41094.**	**3354.4**
Stddev	13.3	168.	18.9
%RSD	.35628	.40820	.56378
#1	3717.6	40975.	3341.0
#2	3736.4	41213.	3367.8

Sample Name: CCB Acquired: 5/29/2019 11:54:45 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**-.00218**	**.00212**	**.00207**	**.00010**	**.00016**	**-.00056**	**-.00865**	**.00010**	**.00041**	**-.00054**	**-.00080**	**-.00093**
Stddev	.00100	.00024	.00161	.00069	.00002	.00005	.00228	.00417	.00003	.00001	.00028	.00099	.00072
%RSD	212.29	11.066	76.069	33.168	21.462	29.016	409.75	48.180	34.087	2.1993	51.610	123.99	77.272
#1	.00024	-.00235	.00326	.00255	.00009	.00013	.00106	-.01160	.00013	.00041	-.00035	-.00010	-.00143
#2	-.00118	-.00201	.00098	.00158	.00012	.00019	-.00217	-.00570	.00008	.00040	-.00074	-.00150	-.00042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11810**	**-.00112**	**.00514**	**.00011**	**.00032**	**.34495**	**-.00043**	**.00033**	**.00190**	**-.00631**	**-.00210**	**-.00499**	**.00806**
Stddev	.16429	.00401	.00171	.00001	.00037	.00960	.00007	.00028	.00112	.00166	.00459	.00286	.00449
%RSD	139.12	356.58	33.188	10.491	114.80	2.7825	16.201	85.666	59.066	26.312	218.96	57.301	55.659
#1	.23427	.00171	.00634	.00010	.00006	.35173	-.00038	.00052	.00111	-.00749	.00115	-.00297	.00489
#2	.00192	-.00396	.00393	.00012	.00059	.33816	-.00048	.00013	.00269	-.00514	-.00535	-.00702	.01124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01726**	**.00077**	**-.00009**	**-.00038**	**-.00021**	**.00110**	**.00778**	**.00093**	**-.00275**	**.00009**
Stddev	.00960	.00066	.00012	.00256	.00061	.00069	.05738	.00008	.00001	.00022
%RSD	55.659	86.058	126.36	680.91	292.33	62.822	738.03	8.7415	.21813	235.91
#1	.01046	.00123	-.00001	-.00219	-.00064	.00158	.04835	.00087	-.00275	.00025
#2	.02405	.00030	-.00018	.00143	.00022	.00061	-.03280	.00098	-.00274	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3802.0**	**42712.**	**3392.1**
Stddev	2.1	239.	11.8
%RSD	.05540	.56069	.34900
#1	3800.5	42543.	3400.4
#2	3803.5	42882.	3383.7

Sample Name: CCVL-5725431 Acquired: 5/29/2019 11:57:20 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00785**	**.10366**	**.01911**	**.09881**	**.01066**	**.00126**	**.10082**	**.18943**	**.00467**	**.01062**	**.00974**	**.01472**
Stddev	.00056	.00057	.00246	.00128	.00043	.00008	.00108	.00785	.00035	.00038	.00006	.00120
%RSD	7.1874	.55257	12.870	1.2981	4.0446	6.1238	1.0687	4.1465	7.5871	3.5659	.61316	8.1867
#1	.00825	.10325	.02085	.09790	.01096	.00132	.10006	.18387	.00492	.01089	.00978	.01557
#2	.00746	.10406	.01737	.09971	.01035	.00121	.10158	.19498	.00442	.01036	.00970	.01386
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12350**	**2.9112**	**.02467**	**.20925**	**.01050**	**.01925**	**1.2929**	**.04088**	**2.8994**	F **.01208**	**.08810**	**.01885**
Stddev	.00182	.0056	.00392	.00392	.00001	.00004	.0094	.00007	.0090	.00211	.00447	.00389
%RSD	1.4727	.19271	15.903	1.8716	.10199	.18939	.72355	.18327	.31099	17.478	5.0681	20.622
#1	.12479	2.9152	.02190	.20648	.01050	.01927	1.2995	.04094	2.9058	.01059	.09126	.02160
#2	.12222	2.9073	.02745	.21202	.01051	.01922	1.2862	.04083	2.8930	.01358	.08495	.01610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value										.00900		
Range										30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01729**	**.50457**	**1.0798**	**.10418**	**.01008**	**.01322**	**.00969**	**.01721**	**.06845**	**.00963**	**.01758**	**.01176**
Stddev	.00300	.01371	.0293	.00096	.00005	.00023	.00060	.00069	.00415	.00018	.00053	.00019
%RSD	17.355	2.7167	2.7167	.92436	.45670	1.7049	6.2243	4.0194	6.0580	1.8919	3.0349	1.6497
#1	.01517	.51427	1.1005	.10350	.01011	.01338	.00927	.01672	.06552	.00950	.01721	.01163
#2	.01942	.49488	1.0590	.10486	.01005	.01306	.01012	.01770	.07138	.00975	.01796	.01190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3796.2**	**42879.**	**3440.8**
Stddev	6.0	112.	14.7
%RSD	.15736	.26089	.42855
#1	3800.4	42958.	3451.2
#2	3792.0	42800.	3430.4

Sample Name: 280-123930-F-2-A Acquired: 5/29/2019 11:59:53 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00070**	**.01070**	**.00498**	**.05620**	**.04804**	**.00015**	**-.00151**	**161.10**	**.00032**
Stddev	.00040	.00023	.00284	.00044	.00015	.00018	.00264	.13	.00043
%RSD	58.036	2.1197	57.023	.78369	.30816	120.96	174.77	.08082	132.43
#1	.00098	.01054	.00297	.05651	.04814	.00028	.00036	161.01	.00063
#2	.00041	.01086	.00699	.05589	.04793	.00002	-.00338	161.19	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00149**	**.00002**	**.00210**	**1.4930**	**4.6953**	**.00018**	**18.230**	**8.9474**	**-.00090**
Stddev	.00018	.00007	.00070	.0029	.0373	.00200	.037	.0537	.00006
%RSD	11.960	358.67	33.251	.19331	.79471	1083.1	.20079	.60075	6.3271
#1	.00161	-.00003	.00259	1.4910	4.6689	.00160	18.256	8.9854	-.00086
#2	.00136	.00007	.00161	1.4951	4.7217	-.00123	18.204	8.9094	-.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.1714**	**.00405**	**.01828**	**.00334**	**7.0490**	**-.00167**	**-.00989**	**4.6838**	**10.023**
Stddev	.0127	.00048	.00183	.00049	.0568	.00763	.00582	.0229	.049
%RSD	.40208	11.901	9.9853	14.635	.80516	456.90	58.835	.48837	.48837
#1	3.1624	.00439	.01699	.00368	7.0891	-.00707	-.01400	4.6676	9.9887
#2	3.1804	.00371	.01958	.00299	7.0089	.00373	-.00577	4.7000	10.058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00086**	**.42428**	**-.00151**	**.00002**	**-.00583**	**-.01295**	**.00189**	**.00070**	**.00108**
Stddev	.00076	.00067	.00114	.00007	.00107	.05526	.00007	.00011	.00031
%RSD	88.019	.15751	75.137	434.33	18.308	426.56	3.7737	15.405	28.358
#1	-.00139	.42381	-.00232	-.00003	-.00507	.02612	.00184	.00062	.00087
#2	-.00032	.42475	-.00071	.00006	-.00658	-.05203	.00194	.00077	.00130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3753.0**	**41796.**	**3422.5**
Stddev	19.3	23.	.6
%RSD	.51293	.05523	.01798
#1	3766.6	41780.	3422.9
#2	3739.4	41813.	3422.1

Sample Name: 280-123930-F-3-A Acquired: 5/29/2019 12:02:31 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.00231**	**.00886**	**.05670**	**.04662**	**.00029**	**-.00381**	**161.36**	**-.00009**
Stddev	.00160	.00026	.00343	.00192	.00036	.00022	.00344	.31	.00015
%RSD	508.29	11.351	38.684	3.3793	.76558	75.985	90.362	.18944	161.72
#1	-.00082	.00249	.01128	.05805	.04636	.00045	-.00624	161.14	-.00020
#2	.00144	.00212	.00643	.05534	.04687	.00013	-.00137	161.57	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00168**	**.00016**	**.00171**	**1.0727**	**4.5862**	**.00410**	**18.402**	**8.8682**	**-.00076**
Stddev	.00001	.00005	.00020	.0098	.0514	.00347	.046	.0038	.00031
%RSD	.59427	33.982	11.855	.91289	1.1204	84.636	.24763	.04291	41.206
#1	.00168	.00012	.00185	1.0658	4.6226	.00655	18.434	8.8709	-.00054
#2	.00169	.00020	.00157	1.0796	4.5499	.00164	18.369	8.8655	-.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.1877**	**.00316**	**.01436**	**.00081**	**7.2044**	**-.00506**	**-.01024**	**4.7494**	**10.164**
Stddev	.0141	.00048	.00342	.00049	.2798	.00225	.00669	.0588	.126
%RSD	.44389	15.049	23.815	61.082	3.8836	44.385	65.368	1.2377	1.2377
#1	3.1977	.00350	.01678	.00116	7.4022	-.00347	-.00551	4.7079	10.075
#2	3.1777	.00283	.01194	.00046	7.0065	-.00665	-.01497	4.7910	10.253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00116**	**.42322**	**-.00302**	**.00036**	**-.00584**	**.00818**	**.00192**	**.00025**	**.00138**
Stddev	.00067	.00080	.00145	.00000	.00027	.02025	.00033	.00068	.00196
%RSD	57.633	.18824	48.188	.66837	4.6314	247.56	17.382	271.97	142.24
#1	-.00069	.42265	-.00405	.00036	-.00565	.02249	.00168	.00073	.00277
#2	-.00164	.42378	-.00199	.00036	-.00603	-.00614	.00216	-.00023	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3772.6**	**42267.**	**3465.1**
Stddev	99.2	171.	18.5
%RSD	2.6282	.40420	.53314
#1	3702.5	42146.	3452.0
#2	3842.7	42388.	3478.1

Sample Name: 280-123930-F-4-A Acquired: 5/29/2019 12:05:22 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.08770**	**.01268**	**.01230**	**.05650**	**.00032**	**-.00287**	**151.80**	**-.00011**
Stddev	.00077	.00076	.00347	.00163	.00060	.00002	.00238	.24	.00009
%RSD	1334.1	.87167	27.377	13.238	1.0697	7.3651	82.725	.15790	80.132
#1	-.00049	.08824	.01513	.01345	.05692	.00034	-.00119	151.97	-.00005
#2	.00061	.08716	.01023	.01115	.05607	.00031	-.00456	151.63	-.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00254**	**-.00002**	**.00170**	**22.316**	**1.3209**	**.00171**	**20.876**	**3.5619**	**-.00116**
Stddev	.00027	.00051	.00055	.040	.0432	.00415	.046	.0072	.00030
%RSD	10.717	2171.1	32.369	.17792	3.2686	242.35	.21828	.20088	25.987
#1	.00235	-.00039	.00208	22.344	1.2904	.00465	20.843	3.5569	-.00095
#2	.00274	.00034	.00131	22.287	1.3514	-.00122	20.908	3.5670	-.00137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.0764**	**.00190**	**.03524**	**.00095**	**1.1705**	**-.00236**	**-.00308**	**9.6209**	**20.589**
Stddev	.0005	.00043	.00189	.00121	.0057	.00304	.00046	.0418	.090
%RSD	.01302	22.688	5.3504	127.05	.48363	128.41	14.763	.43489	.43489
#1	4.0760	.00160	.03657	.00181	1.1745	-.00022	-.00341	9.5913	20.525
#2	4.0767	.00221	.03391	.00010	1.1665	-.00451	-.00276	9.6505	20.652
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00104**	**.26018**	**-.00207**	**.00202**	**-.00317**	**-.02683**	**.00140**	**.01018**	**-.00190**
Stddev	.00060	.00045	.00189	.00014	.00139	.01753	.00025	.00132	.00150
%RSD	57.660	.17195	91.608	6.8365	43.737	65.336	17.925	12.976	79.191
#1	.00061	.26050	-.00073	.00212	-.00415	-.01444	.00122	.01111	-.00084
#2	.00146	.25986	-.00340	.00192	-.00219	-.03923	.00158	.00924	-.00296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3828.7**	**42678.**	**3476.8**
Stddev	14.8	150.	6.6
%RSD	.38711	.35164	.18893
#1	3818.2	42572.	3472.2
#2	3839.2	42784.	3481.5

Sample Name: 280-123930-F-5-A Acquired: 5/29/2019 12:07:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00078**	**.07931**	**-.00198**	**.01143**	**.01849**	**.00031**	**-.00287**	**51.321**	**.00030**
Stddev	.00007	.00071	.00250	.00081	.00042	.00000	.00029	.035	.00025
%RSD	9.0888	.90124	126.37	7.0627	2.2920	1.2871	10.036	.06772	83.790
#1	-.00083	.07981	-.00021	.01200	.01879	.00031	-.00267	51.346	.00048
#2	-.00073	.07880	-.00375	.01086	.01819	.00031	-.00308	51.297	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**.00004**	**-.00071**	**.28046**	**2.8694**	**.00319**	**4.9462**	**.74188**	**-.00001**
Stddev	.00038	.00001	.00108	.00218	.0011	.00521	.0092	.00037	.00011
%RSD	107.93	29.890	150.56	.77745	.03792	163.27	.18599	.04989	1115.7
#1	.00063	.00005	-.00148	.27892	2.8686	.00687	4.9396	.74214	.00007
#2	.00008	.00003	.00005	.28200	2.8702	-.00049	4.9527	.74161	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.5064**	**.00052**	**.03603**	**.00206**	**.09632**	**-.00234**	**-.00668**	**1.9371**	**4.1455**
Stddev	.0134	.00004	.00013	.00145	.00039	.00096	.00844	.0114	.0244
%RSD	.89127	7.4955	.36352	70.190	.40432	40.879	126.29	.58729	.58729
#1	1.4969	.00054	.03594	.00104	.09604	-.00302	-.00072	1.9291	4.1283
#2	1.5159	.00049	.03612	.00308	.09659	-.00167	-.01265	1.9452	4.1627
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00036**	**.11894**	**-.00183**	**.00199**	**-.00099**	**.03104**	**.00094**	**.00017**	**-.00401**
Stddev	.00042	.00013	.00377	.00055	.00125	.03181	.00016	.00030	.00321
%RSD	114.90	.10810	206.02	27.547	126.08	102.49	16.608	177.74	80.133
#1	-.00066	.11903	-.00450	.00161	-.00011	.05353	.00105	.00038	-.00174
#2	-.00007	.11885	.00084	.00238	-.00188	.00854	.00083	-.00004	-.00628
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3775.1**	**42484.**	**3463.8**
Stddev	6.7	11.	1.5
%RSD	.17856	.02544	.04378
#1	3770.3	42491.	3464.9
#2	3779.9	42476.	3462.7

Sample Name: 280-123981-F-1-A Acquired: 5/29/2019 12:10:29 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00034**	**.00448**	**.00091**	**.18674**	**.11557**	**.00011**	**-.00463**	**140.17**	**.00014**
Stddev	.00011	.00001	.00327	.00094	.00050	.00009	.00256	.45	.00017
%RSD	31.089	.33226	361.62	.50373	.42872	84.626	55.256	.32370	126.59
#1	-.00042	.00447	-.00141	.18740	.11522	.00004	-.00282	140.49	.00001
#2	-.00027	.00449	.00322	.18607	.11593	.00017	-.00643	139.84	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.00044**	**-.00015**	**4.0501**	**4.3400**	**.10413**	**35.028**	**.71018**	**-.00051**
Stddev	.00036	.00025	.00056	.0220	.0052	.00212	.002	.00048	.00008
%RSD	1382.7	55.861	380.33	.54351	.12073	2.0363	.00670	.06736	16.340
#1	.00023	.00062	.00025	4.0656	4.3363	.10263	35.027	.70984	-.00045
#2	-.00028	.00027	-.00054	4.0345	4.3437	.10563	35.030	.71052	-.00057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **16.994**	**-.00016**	**.01935**	**.00096**	**11.850**	**-.00097**	**-.00859**	**8.4286**	**18.037**
Stddev	.042	.00016	.00336	.00212	.069	.00076	.00040	.0026	.005
%RSD	.24677	99.392	17.384	221.18	.58385	78.493	4.6248	.03031	.03031
#1	17.024	-.00005	.01697	-.00054	11.899	-.00043	-.00887	8.4304	18.041
#2	16.964	-.00028	.02173	.00246	11.801	-.00150	-.00831	8.4268	18.033
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.94521**	**-.00394**	**.00058**	**.00166**	**-.03190**	**.00013**	**-.00045**	**-.00026**
Stddev	.00120	.00237	.00036	.00010	.00167	.05361	.00031	.00033	.00231
%RSD	435.57	.25054	9.0413	16.962	100.78	168.05	228.69	74.812	886.82
#1	-.00112	.94689	-.00419	.00065	.00048	-.06981	.00035	-.00068	-.00189
#2	.00057	.94354	-.00369	.00051	.00284	.00601	-.00008	-.00021	.00137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3746.0**	**42088.**	**3466.0**
Stddev	3.4	41.	25.4
%RSD	.09080	.09850	.73308
#1	3748.4	42059.	3448.0
#2	3743.6	42117.	3484.0

Sample Name: 280-123981-F-2-A Acquired: 5/29/2019 12:13:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00066**	**.00909**	**.00578**	**.01740**	**.02749**	**.00024**	**.00189**	**50.793**	**-.00011**
Stddev	.00089	.00051	.00085	.00086	.00022	.00003	.00060	.091	.00012
%RSD	134.42	5.6463	14.664	4.9354	.79550	11.575	31.599	.17984	110.08
#1	-.00003	.00946	.00518	.01801	.02734	.00022	.00147	50.728	-.00002
#2	-.00129	.00873	.00638	.01679	.02765	.00026	.00232	50.857	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00007**	**.00640**	**.23786**	**1.6740**	**.01503**	**8.5234**	**.06746**	**-.00033**
Stddev	.00025	.00006	.00023	.00295	.0333	.00235	.0208	.00007	.00002
%RSD	1055.4	87.535	3.5894	1.2421	1.9861	15.636	.24421	.11087	5.1479
#1	.00016	.00011	.00656	.23577	1.6505	.01337	8.5381	.06741	-.00034
#2	-.00020	.00003	.00624	.23995	1.6975	.01669	8.5086	.06752	-.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.2648**	**-.00030**	**.00943**	**.00370**	**5.6473**	**-.00285**	**-.00213**	**4.7669**	**10.201**
Stddev	.0042	.00028	.00106	.00024	.0509	.00314	.00189	.0017	.004
%RSD	.05708	93.243	11.283	6.4161	.90068	110.09	88.548	.03646	.03646
#1	7.2619	-.00010	.01019	.00386	5.6833	-.00507	-.00080	4.7657	10.199
#2	7.2677	-.00049	.00868	.00353	5.6114	-.00063	-.00347	4.7682	10.204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00126**	**.30891**	**-.00159**	**.00094**	**.00166**	**-.00039**	**.00072**	**.00434**	**.00049**
Stddev	.00026	.00095	.00199	.00019	.00084	.02420	.00071	.00028	.00464
%RSD	21.023	.30773	125.19	20.437	50.708	6174.2	99.577	6.4510	946.54
#1	.00107	.30824	-.00300	.00081	.00106	.01672	.00122	.00415	.00377
#2	.00144	.30958	-.00018	.00108	.00225	-.01751	.00021	.00454	-.00279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3806.0**	**42846.**	**3516.3**
Stddev	6.4	13.	12.6
%RSD	.16757	.03125	.35822
#1	3810.5	42836.	3525.2
#2	3801.5	42855.	3507.4

Sample Name: 280-123981-F-3-A Acquired: 5/29/2019 12:15:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.00356**	**.00202**	**.00817**	**.01415**	**.00011**	**-.00226**	**73.886**	**-.00014**
Stddev	.00082	.00016	.00090	.00131	.00088	.00004	.00350	.106	.00009
%RSD	176.35	4.3551	44.559	15.979	6.2324	31.664	154.60	.14314	63.927
#1	.00011	.00367	.00138	.00725	.01477	.00014	-.00474	73.961	-.00020
#2	-.00104	.00345	.00266	.00909	.01352	.00009	.00021	73.811	-.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.00041**	**-.00019**	**.02418**	**.81941**	**.00316**	**9.5700**	**.00899**	**-.00056**
Stddev	.00032	.00015	.00026	.00036	.02143	.00084	.0028	.00011	.00002
%RSD	125.82	35.465	133.33	1.4853	2.6147	26.614	.02934	1.2340	3.4344
#1	.00048	.00052	-.00038	.02444	.83456	.00256	9.5720	.00907	-.00058
#2	.00003	.00031	-.00001	.02393	.80426	.00375	9.5681	.00891	-.00055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2980**	**-.00063**	**.00011**	**.00242**	**.62304**	**-.00182**	**-.00155**	**5.0376**	**10.780**
Stddev	.0026	.00023	.00272	.00022	.01348	.00037	.00174	.0149	.032
%RSD	.19636	35.816	2429.8	9.2395	2.1636	20.543	112.35	.29619	.29619
#1	1.2962	-.00079	.00204	.00226	.61351	-.00156	-.00032	5.0481	10.803
#2	1.2998	-.00047	-.00181	.00258	.63257	-.00208	-.00278	5.0270	10.758
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.11122**	**-.00077**	**.00053**	**.00433**	**.03861**	**.00010**	**-.00011**	**.00025**
Stddev	.00114	.00030	.00196	.00034	.00024	.07276	.00054	.00033	.00099
%RSD	528.85	.26935	254.49	63.624	5.4421	188.43	557.65	300.25	389.45
#1	-.00102	.11144	-.00216	.00076	.00416	.09006	-.00029	.00012	.00095
#2	.00059	.11101	.00062	.00029	.00449	-.01283	.00048	-.00034	-.00045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3796.9**	**42756.**	**3504.5**
Stddev	19.9	99.	22.1
%RSD	.52349	.23263	.63178
#1	3810.9	42826.	3488.8
#2	3782.8	42686.	3520.2

Sample Name: 280-123981-F-4-A Acquired: 5/29/2019 12:18:07 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00053**	**.00343**	**.00241**	**.00870**	**.01490**	**.00032**	**.00024**	**78.713**	**-.00001**
Stddev	.00063	.00001	.00096	.00004	.00026	.00010	.00185	.163	.00040
%RSD	119.25	.39487	39.771	.51218	1.7305	29.829	765.20	.20649	4603.6
#1	-.00008	.00342	.00173	.00867	.01472	.00039	-.00106	78.598	-.00029
#2	-.00098	.00344	.00308	.00873	.01509	.00025	.00155	78.828	.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00036**	**-.00018**	**.02520**	**.93052**	**.00679**	**9.9149**	**.00367**	**-.00101**
Stddev	.00023	.00031	.00019	.00014	.04336	.00198	.0051	.00006	.00007
%RSD	201.97	85.192	102.30	.53852	4.6602	29.225	.05111	1.6244	6.7957
#1	.00028	.00058	-.00032	.02510	.96119	.00539	9.9113	.00372	-.00096
#2	-.00005	.00014	-.00005	.02530	.89986	.00819	9.9185	.00363	-.00106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.7810**	**-.00018**	**.00108**	**.00131**	**.65193**	**-.00494**	**-.00149**	**5.2348**	**11.203**
Stddev	.0356	.00040	.00185	.00050	.00494	.00009	.00153	.0305	.065
%RSD	1.9977	216.72	170.79	38.031	.75727	1.8538	103.11	.58217	.58217
#1	1.7558	.00010	-.00022	.00096	.65542	-.00487	-.00257	5.2133	11.156
#2	1.8061	-.00046	.00239	.00167	.64844	-.00500	-.00040	5.2564	11.249
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00091**	**.12372**	**-.00221**	**.00015**	**-.00112**	**.03460**	**.00027**	**-.00128**	**.00081**
Stddev	.00053	.00005	.00033	.00038	.00160	.02974	.00049	.00083	.00072
%RSD	57.833	.04286	15.173	253.35	143.51	85.975	183.51	64.619	89.819
#1	-.00054	.12376	-.00197	.00042	-.00225	.01356	.00061	-.00069	.00132
#2	-.00128	.12369	-.00244	-.00012	.00002	.05563	-.00008	-.00186	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3784.3**	**42822.**	**3438.0**
Stddev	13.1	205.	28.3
%RSD	.34601	.47948	.82287
#1	3793.5	42677.	3418.0
#2	3775.0	42967.	3458.0

Sample Name: 280-123981-F-5-A Acquired: 5/29/2019 12:20:42 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.27844**	**.00296**	**.00846**	**.01506**	**.00026**	**.00199**	**53.890**	**.00006**
Stddev	.00005	.00273	.00523	.00095	.00112	.00010	.00131	.246	.00043
%RSD	22.544	.98193	176.83	11.200	7.4415	39.052	66.070	.45684	696.32
#1	-.00025	.28037	-.00074	.00779	.01585	.00034	.00292	54.064	.00037
#2	-.00018	.27650	.00666	.00913	.01427	.00019	.00106	53.716	-.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00067**	**.00177**	**.25082**	**2.5554**	**.00283**	**5.4146**	**.01026**	**-.00029**
Stddev	.00002	.00017	.00014	.00198	.0293	.00337	.0141	.00010	.00002
%RSD	51.491	25.869	8.0648	.79126	1.1451	119.20	.26048	.96071	8.2277
#1	-.00003	.00080	.00167	.24942	2.5761	.00522	5.4245	.01019	-.00028
#2	-.00006	.00055	.00188	.25222	2.5347	.00044	5.4046	.01033	-.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9199**	**.00270**	**.00794**	**.00100**	**.65487**	**-.00009**	**-.00126**	**3.3944**	**7.2641**
Stddev	.0223	.00090	.00079	.00097	.00593	.00090	.00034	.0088	.0189
%RSD	1.1597	33.254	9.9317	97.388	.90514	961.84	27.112	.26030	.26030
#1	1.9357	.00333	.00850	.00169	.65907	.00054	-.00102	3.4007	7.2774
#2	1.9042	.00206	.00738	.00031	.65068	-.00073	-.00150	3.3882	7.2507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00145**	**.11820**	**-.00123**	**.00500**	**.00044**	**-.00705**	**.00125**	**-.00036**	**.00030**
Stddev	.00260	.00002	.00253	.00013	.00055	.01695	.00029	.00039	.00081
%RSD	179.64	.01428	206.55	2.5150	124.93	240.53	23.153	109.45	272.06
#1	.00329	.11821	.00056	.00491	.00005	-.01903	.00146	-.00064	.00087
#2	-.00039	.11818	-.00302	.00509	.00083	.00494	.00105	-.00008	-.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3795.7**	**42745.**	**3461.6**
Stddev	6.1	129.	12.4
%RSD	.16166	.30266	.35707
#1	3791.3	42837.	3452.9
#2	3800.0	42654.	3470.4

Sample Name: CCVH-5713036 Acquired: 5/29/2019 12:23:15 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00100**	**49.614**	**-.00254**	**-.00007**	**.00140**	**.00010**	**-.00091**	**.00550**	**-.00029**	**.00217**	**.00009**	**.01100**
Stddev	.00075	.154	.00491	.00020	.00034	.00003	.00138	.00114	.00026	.00027	.00004	.00044
%RSD	75.199	.31030	193.24	289.97	24.548	26.851	152.19	20.651	90.510	12.630	44.968	3.9537
#1	-.00153	49.722	-.00602	.00007	.00116	.00008	.00007	.00630	-.00010	.00198	.00006	.01131
#2	-.00047	49.505	.00093	-.00021	.00165	.00012	-.00189	.00470	-.00047	.00237	.00012	.01070
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.245**	**.12641**	**.00070**	**.01637**	**.00237**	**-.00101**	**250.15**	**.00150**	**4.9157**	**.00300**	**4.8783**	**.00081**
Stddev	.479	.04211	.00353	.00206	.00005	.00010	.81	.00017	.0192	.00125	.0074	.00152
%RSD	.97233	33.310	502.23	12.572	2.2615	9.4739	.32479	11.627	.39134	41.779	.15254	187.62
#1	49.584	.15618	.00320	.01491	.00240	-.00108	250.72	.00163	4.9293	.00389	4.8835	.00189
#2	48.907	.09663	-.00179	.01782	.00233	-.00094	249.57	.00138	4.9021	.00211	4.8730	-.00027
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00167**	**.02514**	**.05381**	**-.00061**	**-.00010**	**4.9398**	**-.01447**	**.00172**	F **.58038**	**.00526**	**-.00118**	**.09881**
Stddev	.00027	.03633	.07774	.00090	.00028	.0025	.00050	.00175	.03691	.00056	.00017	.00665
%RSD	16.449	144.47	144.47	147.08	281.27	.05041	3.4479	101.94	6.3595	10.697	14.711	6.7256
#1	-.00186	.05083	.10877	.00002	.00010	4.9416	-.01411	.00048	.60648	.00486	-.00130	.09411
#2	-.00147	-.00054	-.00116	-.00125	-.00030	4.9381	-.01482	.00296	.55428	.00566	-.00105	.10351
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3707.7**	**41435.**	**3386.6**
Stddev	17.3	44.	31.8
%RSD	.46795	.10645	.94033
#1	3720.0	41404.	3364.1
#2	3695.4	41466.	3409.1

Sample Name: CCV-5714928 Acquired: 5/29/2019 12:25:47 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48959**	**.53481**	**.48389**	**.48569**	**.49484**	**.48915**	**.98333**	**4.9049**	**.48629**	**.49551**	**.49125**	**.49422**	**2.4526**
Stddev	.00103	.00068	.00918	.00346	.00379	.00088	.00434	.0310	.00266	.00132	.00169	.00446	.0093
%RSD	.21006	.12696	1.8978	.71326	.76617	.18068	.44170	.63252	.54757	.26586	.34313	.90261	.37994
#1	.48886	.53529	.49038	.48814	.49752	.48977	.98640	4.9268	.48817	.49644	.49244	.49738	2.4592
#2	.49031	.53433	.47740	.48324	.49216	.48852	.98026	4.8830	.48440	.49458	.49006	.49107	2.4460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.269**	**.49531**	**19.815**	**.49478**	**.48938**	**24.932**	**.49637**	**.00171**	**.49626**	**.00676**	**.48767**	**.48015**	**4.8719**
Stddev	.142	.00107	.039	.00070	.00131	.046	.00090	.00043	.00490	.00475	.00190	.00552	.0322
%RSD	.28766	.21509	.19689	.14107	.26752	.18441	.18037	25.214	.98706	70.354	.38996	1.1501	.66135
#1	49.370	.49607	19.843	.49528	.49031	24.964	.49700	.00202	.49972	.00340	.48632	.47624	4.8491
#2	49.169	.49456	19.787	.49429	.48846	24.899	.49573	.00141	.49279	.01012	.48901	.48405	4.8947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.426**	**.49475**	**.49302**	**-.00008**	**.49068**	**.49767**	**-.05588**	**.48841**	**.49000**	**.48315**
Stddev	.069	.00238	.00266	.00413	.00055	.00272	.00743	.00082	.00243	.00748
%RSD	.66135	.48154	.53927	5171.0	.11130	.54667	13.291	.16712	.49643	1.5475
#1	10.377	.49644	.49490	-.00300	.49030	.49574	-.05063	.48899	.49172	.48843
#2	10.475	.49307	.49114	.00284	.49107	.49959	-.06113	.48783	.48828	.47786
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3698.4**	**41216.**	**3336.6**
Stddev	19.6	219.	5.8
%RSD	.52979	.53064	.17251
#1	3684.5	41062.	3332.5
#2	3712.2	41371.	3340.6

Sample Name: CCB Acquired: 5/29/2019 12:28:43 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**-.00184**	**.00066**	**.00049**	**.00071**	**.00020**	**-.00210**	**-.00351**	**-.00000**	**.00040**	**-.00039**	**-.00093**	**.01885**
Stddev	.00137	.00038	.00508	.00028	.00110	.00004	.00098	.00231	.00002	.00041	.00005	.00081	.00047
%RSD	2379.2	20.890	765.93	58.563	155.72	20.345	46.845	65.792	1606.7	102.43	12.648	86.729	2.4837
#1	.00102	-.00157	.00426	.00028	-.00007	.00018	-.00279	-.00514	.00001	.00068	-.00035	-.00036	.01852
#2	-.00091	-.00211	-.00293	.00069	.00149	.00023	-.00140	-.00188	-.00002	.00011	-.00042	-.00150	.01918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.06849**	**.00119**	**.00776**	**.00037**	**.00059**	**.27409**	**.00013**	**-.00013**	**.00235**	**-.00464**	**-.00176**	**-.00129**	**.01820**
Stddev	.06992	.00226	.00840	.00005	.00021	.01856	.00025	.00006	.00319	.00177	.00208	.00155	.02030
%RSD	102.09	189.53	108.26	14.079	34.920	6.7731	190.10	47.776	135.61	38.041	118.16	119.75	111.52
#1	.11793	.00278	.00182	.00041	.00073	.26096	.00031	-.00017	.00010	-.00339	-.00324	-.00020	.00385
#2	.01905	-.00040	.01369	.00033	.00044	.28721	-.00005	-.00008	.00460	-.00589	-.00029	-.00238	.03256
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.03895**	**.00059**	**-.00027**	**-.00191**	**-.00003**	**.00171**	**-.02232**	**.00081**	**-.00298**	**-.00055**
Stddev	.04344	.00006	.00017	.00163	.00038	.00063	.06575	.00097	.00044	.00108
%RSD	111.52	9.4032	65.473	85.020	1104.1	36.696	294.55	119.80	14.600	194.98
#1	.00823	.00055	-.00039	-.00306	-.00030	.00127	.02417	.00012	-.00267	-.00132
#2	.06967	.00063	-.00014	-.00076	.00023	.00215	-.06881	.00150	-.00329	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3770.2**	**42407.**	**3381.5**
Stddev	2.1	278.	12.1
%RSD	.05657	.65637	.35924
#1	3768.7	42210.	3372.9
#2	3771.7	42604.	3390.1

Sample Name: CCVL-5725431 Acquired: 5/29/2019 12:31:52 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00715**	**.10324**	**.01626**	**.09775**	**.01033**	**.00114**	**.10808**	**.19946**	**.00519**	**.01059**	**.01005**	**.01429**
Stddev	.00002	.00055	.00066	.00108	.00022	.00006	.00125	.00457	.00003	.00061	.00017	.00079
%RSD	.34304	.53446	4.0531	1.1047	2.1383	5.1411	1.1541	2.2899	.61599	5.7437	1.7112	5.5220
#1	.00717	.10363	.01673	.09699	.01048	.00118	.10720	.19623	.00521	.01102	.01017	.01485
#2	.00713	.10285	.01580	.09852	.01017	.00110	.10896	.20269	.00517	.01016	.00992	.01373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12254**	**3.0256**	**.01919**	**.19926**	**.01050**	**.01972**	**1.2135**	**.04181**	**2.9255**	**.00939**	**.09603**	**.01675**
Stddev	.00006	.0502	.00431	.00061	.00003	.00017	.0025	.00043	.0002	.00251	.00127	.00209
%RSD	.05152	1.6574	22.452	.30654	.24935	.85858	.20807	1.0265	.00757	26.783	1.3252	12.478
#1	.12259	3.0611	.01614	.19883	.01052	.01960	1.2117	.04212	2.9254	.01116	.09693	.01527
#2	.12250	2.9901	.02223	.19969	.01049	.01984	1.2153	.04151	2.9257	.00761	.09513	.01823
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01592**	**.49422**	**1.0576**	**.10201**	**.00983**	**.01263**	**.00946**	**.01574**	F **.12211**	**.01022**	**.01792**	**.01114**
Stddev	.00024	.02027	.0434	.00049	.00007	.00002	.00022	.00143	.00583	.00063	.00031	.00106
%RSD	1.5290	4.1024	4.1024	.47593	.75314	.18907	2.3384	9.0699	4.7728	6.1712	1.7159	9.5185
#1	.01575	.47988	1.0269	.10235	.00989	.01265	.00961	.01473	.12623	.00977	.01814	.01189
#2	.01610	.50855	1.0883	.10166	.00978	.01262	.00930	.01675	.11799	.01067	.01771	.01039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3881.5**	**43394.**	**3456.1**
Stddev	7.8	484.	18.4
%RSD	.20108	1.1163	.53189
#1	3876.0	43052.	3469.1
#2	3887.1	43737.	3443.1

Sample Name: 280-123981-F-6-A Acquired: 5/29/2019 12:34:54 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.01268**	**.00368**	**.05150**	**.04129**	**.00022**	**.00277**	**109.55**	**.00003**
Stddev	.00071	.00003	.00045	.00077	.00044	.00005	.00051	.33	.00002
%RSD	304.54	.26228	12.270	1.4953	1.0598	21.745	18.342	.30233	74.492
#1	-.00027	.01270	.00400	.05096	.04160	.00025	.00313	109.31	.00004
#2	.00073	.01266	.00336	.05204	.04098	.00019	.00241	109.78	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.00017**	**.00100**	**.51241**	**3.3725**	**.00453**	**10.932**	**.16503**	**-.00035**
Stddev	.00019	.00026	.00025	.00094	.0241	.00050	.044	.00052	.00068
%RSD	111.61	151.78	24.708	.18276	.71526	10.934	.39834	.31570	194.25
#1	-.00030	-.00001	.00082	.51174	3.3896	.00488	10.901	.16466	.00013
#2	-.00004	.00035	.00117	.51307	3.3555	.00418	10.963	.16539	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9122**	**.00046**	**.02019**	**.00170**	**.72899**	**-.00488**	**-.00374**	**4.4045**	**9.4257**
Stddev	.0299	.00004	.00168	.00016	.01727	.00299	.00260	.0030	.0065
%RSD	1.5659	9.6138	8.3054	9.2511	2.3697	61.278	69.534	.06877	.06877
#1	1.8910	.00050	.02138	.00159	.74121	-.00276	-.00559	4.4067	9.4302
#2	1.9334	.00043	.01901	.00181	.71678	-.00699	-.00190	4.4024	9.4211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.19737**	**-.00355**	**.00066**	**.00252**	**.06644**	**.00030**	**.00331**	**-.00022**
Stddev	.00204	.00089	.00123	.00021	.00215	.01249	.00023	.00032	.00170
%RSD	1344.4	.44847	34.691	32.313	85.473	18.801	75.393	9.5249	755.30
#1	-.00129	.19674	-.00442	.00081	.00404	.05761	.00014	.00309	-.00142
#2	.00160	.19800	-.00268	.00051	.00100	.07528	.00046	.00353	.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.9**	**42806.**	**3496.2**
Stddev	16.8	292.	.3
%RSD	.44368	.68279	.00836
#1	3789.8	43013.	3496.4
#2	3766.1	42599.	3496.0

Sample Name: 280-123981-F-7-A Acquired: 5/29/2019 12:37:27 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.03873**	**.00129**	**.00589**	**.05263**	**.00019**	**-.00319**	**104.21**	**.00025**
Stddev	.00089	.00087	.00081	.00035	.00041	.00008	.00327	.01	.00018
%RSD	1770.1	2.2590	62.984	5.9992	.77059	43.805	102.67	.01166	72.417
#1	.00058	.03934	.00071	.00564	.05234	.00013	-.00087	104.22	.00012
#2	-.00068	.03811	.00186	.00614	.05291	.00025	-.00550	104.20	.00038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00145**	**.02350**	**.00256**	**.19919**	**1.2966**	**.00122**	**17.533**	**2.3319**	**-.00029**
Stddev	.00010	.00030	.00050	.00259	.1255	.00512	.015	.0014	.00002
%RSD	7.1349	1.2575	19.431	1.2992	9.6794	418.38	.08731	.05889	8.2426
#1	.00153	.02330	.00291	.20102	1.3854	.00485	17.522	2.3329	-.00027
#2	.00138	.02371	.00221	.19736	1.2079	-.00240	17.544	2.3310	-.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.6948**	**.00880**	**.00398**	**.00076**	**5.9885**	**.00150**	**-.00278**	**4.3647**	**9.3404**
Stddev	.0221	.00042	.00145	.00041	.0421	.00385	.00151	.0251	.0537
%RSD	.38806	4.7498	36.390	54.460	.70365	256.65	54.146	.57450	.57450
#1	5.6791	.00850	.00500	.00047	6.0183	.00423	-.00172	4.3824	9.3783
#2	5.7104	.00909	.00296	.00105	5.9587	-.00122	-.00385	4.3469	9.3024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00158**	**.18895**	**.00012**	**.00159**	**-.00011**	**-.01070**	**.00078**	**.00497**	**.00027**
Stddev	.00173	.00005	.00242	.00050	.00109	.06200	.00019	.00014	.00137
%RSD	109.55	.02769	2054.2	31.781	987.69	579.30	23.857	2.8906	512.53
#1	.00280	.18891	.00183	.00194	.00066	-.05454	.00065	.00507	-.00070
#2	.00036	.18898	-.00159	.00123	-.00088	.03314	.00091	.00487	.00124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3744.0**	**42249.**	**3477.6**
Stddev	6.7	44.	14.1
%RSD	.17874	.10444	.40608
#1	3748.7	42218.	3487.5
#2	3739.2	42280.	3467.6

Sample Name: 280-123981-F-8-A Acquired: 5/29/2019 12:40:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.07545**	**.00144**	**.01295**	**.02737**	**.00011**	**-.00063**	**64.397**	**-.00006**
Stddev	.00028	.00006	.00217	.00011	.00102	.00005	.00170	.028	.00018
%RSD	845.05	.08420	150.72	.82527	3.7192	49.897	269.10	.04351	292.61
#1	.00017	.07549	.00297	.01288	.02665	.00015	.00057	64.377	-.00019
#2	-.00023	.07540	-.00009	.01303	.02809	.00007	-.00183	64.417	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**-.00027**	**.00004**	**.20783**	**.66377**	**.01005**	**8.1844**	**.09384**	**-.00016**
Stddev	.00039	.00013	.00118	.00024	.05309	.00340	.0045	.00018	.00039
%RSD	207.00	48.784	3226.7	.11742	7.9988	33.878	.05494	.19160	246.92
#1	-.00047	-.00018	-.00080	.20765	.70131	.01245	8.1875	.09371	-.00044
#2	.00009	-.00036	.00087	.20800	.62622	.00764	8.1812	.09396	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.2170**	**-.00033**	**.04213**	**.00093**	**.52159**	**-.00215**	**-.00383**	**3.4902**	**7.4690**
Stddev	.0154	.00015	.00261	.00123	.00393	.00161	.00312	.0272	.0583
%RSD	.47735	45.584	6.2048	131.68	.75311	74.906	81.565	.77985	.77985
#1	3.2062	-.00044	.04398	.00180	.52437	-.00329	-.00603	3.4709	7.4278
#2	3.2279	-.00022	.04028	.00006	.51881	-.00101	-.00162	3.5094	7.5102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.13721**	**.00710**	**.00015**	**-.00101**	**-.00073**	**.00049**	**.00082**	**.00234**
Stddev	.00193	.00003	.00008	.00004	.00274	.02418	.00008	.00016	.00137
%RSD	5359.3	.01932	1.1381	28.862	271.97	3324.4	15.346	19.287	58.400
#1	.00133	.13723	.00705	.00019	-.00295	.01637	.00054	.00093	.00137
#2	-.00140	.13720	.00716	.00012	.00093	-.01782	.00044	.00071	.00331
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3796.4**	**42769.**	**3501.2**
Stddev	3.9	20.	13.5
%RSD	.10223	.04686	.38465
#1	3799.1	42755.	3510.7
#2	3793.7	42783.	3491.6

Sample Name: 280-123981-F-9-A Acquired: 5/29/2019 12:42:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00052**	**.03290**	**.00038**	**.04184**	**.09927**	**.00022**	**.00053**	**71.626**	**.00003**
Stddev	.00043	.00020	.00238	.00033	.00451	.00023	.00410	3.342	.00006
%RSD	82.562	.60826	625.02	.79748	4.5436	102.19	769.56	4.6657	224.10
#1	.00082	.03304	-.00130	.04160	.09608	.00038	.00343	69.263	.00007
#2	.00021	.03275	.00206	.04207	.10246	.00006	-.00236	73.989	-.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00008**	**-.00032**	**.09929**	**1.9612**	**.00628**	**8.1410**	**.01105**	**-.00020**
Stddev	.00052	.00018	.00051	.00007	.0695	.00074	.0220	.00011	.00013
%RSD	302.42	239.85	157.07	.06885	3.5425	11.843	.27014	.95155	63.035
#1	.00053	.00021	-.00068	.09924	1.9121	.00575	8.1254	.01112	-.00029
#2	-.00019	-.00005	.00004	.09934	2.0103	.00680	8.1565	.01097	-.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.2797**	**-.00045**	**.02088**	**.00148**	**.98560**	**-.00465**	**-.00091**	**4.1522**	**8.8858**
Stddev	.0870	.00043	.00133	.00092	.00292	.00457	.00419	.2456	.5256
%RSD	3.8177	96.977	6.3581	62.416	.29605	98.210	460.80	5.9154	5.9154
#1	2.2181	-.00076	.02182	.00213	.98766	-.00142	-.00387	3.9785	8.5141
#2	2.3412	-.00014	.01994	.00083	.98353	-.00788	.00205	4.3259	9.2574
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00102**	**.47019**	**-.00265**	**.00054**	**.00018**	**.04608**	**.00009**	**.00281**	**.00010**
Stddev	.00009	.02153	.00011	.00020	.00379	.09226	.00017	.00056	.00292
%RSD	8.5789	4.5781	4.3294	36.443	2158.7	200.24	194.09	19.998	2805.7
#1	-.00108	.45497	-.00273	.00040	.00285	-.01916	.00021	.00321	-.00196
#2	-.00096	.48541	-.00257	.00067	-.00250	.11132	-.00003	.00241	.00217
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3833.4**	**43408.**	**3411.9**
Stddev	1.3	252.	142.3
%RSD	.03278	.58122	4.1696
#1	3832.5	43587.	3512.5
#2	3834.3	43230.	3311.3

Sample Name: 280-123983-F-1-A Acquired: 5/29/2019 12:45:07 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**.61340**	**.00252**	**.00968**	**.01575**	**.00017**	**-.00338**	**26.703**	**.00016**
Stddev	.00096	.00371	.00144	.00013	.00021	.00004	.00038	.078	.00043
%RSD	396.64	.60427	57.240	1.2939	1.3090	23.676	11.166	.29164	275.49
#1	-.00092	.61602	.00150	.00977	.01589	.00019	-.00365	26.758	-.00015
#2	.00044	.61078	.00354	.00959	.01560	.00014	-.00311	26.648	.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**.00087**	**.00372**	**2.7092**	**2.2499**	**.00579**	**3.4842**	**.20588**	**-.00049**
Stddev	.00034	.00016	.00059	.0115	.0170	.00123	.0050	.00029	.00007
%RSD	54.039	18.443	15.776	.42608	.75618	21.242	.14481	.14066	13.305
#1	.00038	.00098	.00413	2.7174	2.2619	.00667	3.4806	.20568	-.00045
#2	.00086	.00075	.00330	2.7010	2.2379	.00492	3.4878	.20609	-.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1340**	**.00139**	**.21676**	**.00558**	**.84771**	**-.00491**	**-.00437**	**1.8018**	**3.8559**
Stddev	.0148	.00002	.00010	.00018	.00016	.00104	.00299	.0221	.0473
%RSD	1.3049	1.1190	.04597	3.2260	.01928	21.194	68.457	1.2253	1.2253
#1	1.1445	.00140	.21683	.00545	.84783	-.00565	-.00226	1.8175	3.8894
#2	1.1236	.00138	.21669	.00571	.84760	-.00418	-.00649	1.7862	3.8225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00194**	**.06746**	**-.00287**	**.00821**	**.00293**	**.03483**	**.00220**	**.11038**	**.00236**
Stddev	.00280	.00004	.00065	.00039	.00078	.00235	.00012	.00003	.00194
%RSD	144.30	.05693	22.573	4.7293	26.583	6.7599	5.2388	.02838	82.107
#1	.00392	.06743	-.00333	.00848	.00348	.03649	.00212	.11036	.00099
#2	-.00004	.06748	-.00242	.00793	.00238	.03316	.00228	.11040	.00373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3844.9**	**43523.**	**3527.6**
Stddev	2.0	137.	20.4
%RSD	.05092	.31412	.57758
#1	3846.3	43620.	3542.0
#2	3843.5	43427.	3513.1

Sample Name: 280-123983-F-2-A Acquired: 5/29/2019 12:47:40 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00050**	**.02787**	**.00466**	**.01390**	**.01020**	**.00012**	**-.00280**	**48.937**	**-.00022**
Stddev	.00099	.00053	.00458	.00047	.00019	.00016	.00323	.115	.00010
%RSD	196.45	1.9175	98.151	3.3843	1.8731	132.81	115.53	.23573	45.385
#1	-.00120	.02825	.00790	.01423	.01006	.00001	-.00509	49.018	-.00029
#2	.00020	.02750	.00143	.01357	.01033	.00023	-.00051	48.855	-.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.00016**	**-.00020**	**.79746**	**2.3994**	**-.00025**	**5.2879**	**.52045**	**-.00062**
Stddev	.00033	.00031	.00043	.00061	.0252	.00302	.0079	.00168	.00000
%RSD	284.48	196.91	209.94	.07597	1.0510	1231.8	.15022	.32365	.07546
#1	-.00012	-.00006	-.00050	.79789	2.3815	-.00238	5.2935	.51926	-.00062
#2	.00035	.00038	.00010	.79703	2.4172	.00189	5.2823	.52164	-.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1627**	**-.00061**	**.11186**	**.00171**	**.43157**	**-.00326**	**-.00022**	**1.5503**	**3.3175**
Stddev	.0125	.00039	.00187	.00238	.00878	.00156	.00075	.0325	.0695
%RSD	1.0747	64.649	1.6692	139.30	2.0354	47.645	340.33	2.0944	2.0944
#1	1.1715	-.00033	.11318	.00339	.43778	-.00436	-.00075	1.5273	3.2684
#2	1.1539	-.00089	.11054	.00003	.42536	-.00216	.00031	1.5732	3.3667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**.13705**	**-.00198**	**.00098**	**.00267**	**-.02501**	**.00071**	**.00133**	**-.00314**
Stddev	.00016	.00017	.00010	.00043	.00326	.03353	.00021	.00028	.00196
%RSD	24.110	.12253	4.9097	43.261	122.37	134.11	29.355	21.298	62.251
#1	.00078	.13693	-.00204	.00128	.00497	-.04872	.00056	.00153	-.00176
#2	.00055	.13717	-.00191	.00068	.00036	-.00129	.00086	.00113	-.00452
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3786.5**	**42455.**	**3456.0**
Stddev	8.0	361.	13.8
%RSD	.21249	.85092	.39839
#1	3780.8	42711.	3446.2
#2	3792.2	42200.	3465.7

Sample Name: 280-123983-F-3-A Acquired: 5/29/2019 12:50:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00718**	**112.82**	**.04668**	**.09921**	**1.0749**	**.00662**	**.00359**	**219.64**	**.01519**
Stddev	.00018	.45	.00708	.00063	.0025	.00011	.00060	.41	.00019
%RSD	2.4714	.39506	15.172	.63173	.23109	1.6214	16.635	.18880	1.2255
#1	.00731	112.51	.04167	.09965	1.0732	.00654	.00317	219.35	.01532
#2	.00706	113.14	.05169	.09877	1.0767	.00669	.00401	219.93	.01506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.06954**	**.12077**	**.41102**	**154.30**	**9.2400**	**.22634**	**35.211**	F **67.487**	**.00166**
Stddev	.00095	.00138	.00080	.15	.0317	.00196	.043	.223	.00027
%RSD	1.3656	1.1452	.19440	.09997	.34265	.86807	.12355	.33020	16.084
#1	.07021	.12175	.41046	154.19	9.2176	.22773	35.180	67.329	.00147
#2	.06887	.11979	.41159	154.41	9.2623	.22495	35.241	67.645	.00185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit								20.000	
Low Limit								-.02000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.0178**	**.16446**	**13.781**	**.50365**	**16.569**	**-.00403**	**.00312**	W **53.882**	**115.31**
Stddev	.0150	.00166	.046	.00086	.022	.00012	.00113	.025	.05
%RSD	.49827	1.0101	.33670	.17100	.13120	2.9445	36.055	.04661	.04661
#1	3.0072	.16563	13.813	.50304	16.584	-.00411	.00392	53.864	115.27
#2	3.0285	.16328	13.748	.50426	16.553	-.00394	.00233	53.900	115.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								50.000	
Low Limit								-1.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01293**	**.95816**	**-.00512**	**.56484**	F **-.05771**	**.13732**	**.19372**	**1.2951**	**.02366**
Stddev	.00089	.00177	.00146	.00786	.00179	.00851	.00058	.0086	.00189
%RSD	6.8604	.18458	28.441	1.3913	3.0975	6.1973	.30094	.66260	7.9867
#1	.01230	.95691	-.00615	.55928	-.05645	.13130	.19413	1.2891	.02233
#2	.01355	.95941	-.00409	.57040	-.05898	.14334	.19331	1.3012	.02500
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					50.000				
Low Limit					-.03000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4071.4**	**44406.**	**3780.1**
Stddev	9.6	105.	18.7
%RSD	.23622	.23547	.49447
#1	4064.6	44480.	3793.3
#2	4078.2	44332.	3766.8

Sample Name: CCVH-5713036 Acquired: 5/29/2019 12:53:17 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00118**	**49.897**	**.00246**	**-.00119**	**.00153**	**.00027**	**.00031**	**.01178**	**-.00008**	**.00221**	**-.00013**	**.01091**
Stddev	.00114	.309	.00289	.00119	.00022	.00034	.00038	.00261	.00053	.00049	.00012	.00018
%RSD	96.637	.61926	117.56	100.08	14.092	128.11	122.97	22.188	694.77	21.970	91.278	1.6489
#1	-.00037	50.116	.00450	-.00203	.00138	.00051	.00057	.00994	-.00045	.00187	-.00005	.01078
#2	-.00199	49.679	.00042	-.00035	.00169	.00003	.00004	.01363	.00030	.00255	-.00021	.01104
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.038**	**.09863**	**.00191**	**.01412**	**.00525**	**-.00117**	**248.53**	**.00128**	**4.8949**	**.00463**	**4.8580**	**.00336**
Stddev	.269	.08317	.00117	.00926	.00028	.00046	1.35	.00079	.0293	.00031	.0162	.00014
%RSD	.54954	84.321	61.035	65.575	5.3435	39.554	.54259	61.296	.59843	6.7799	.33329	4.2926
#1	49.228	.15744	.00109	.00757	.00544	-.00084	249.49	.00184	4.9156	.00485	4.8695	.00326
#2	48.847	.03982	.00274	.02066	.00505	-.00149	247.58	.00073	4.8741	.00441	4.8466	.00346
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00199**	**.06319**	**.13523**	**-.00079**	**.00017**	**4.9582**	**-.01565**	**.00197**	F **.55927**	**.00502**	**-.00145**	**.09737**
Stddev	.00173	.01306	.02794	.00105	.00020	.0008	.00017	.00138	.04164	.00017	.00008	.00349
%RSD	87.195	20.665	20.665	132.86	120.10	.01503	1.0766	70.239	7.4454	3.4023	5.3677	3.5801
#1	-.00321	.05396	.11547	-.00005	.00003	4.9587	-.01553	.00294	.52982	.00515	-.00140	.09984
#2	-.00076	.07243	.15499	-.00153	.00031	4.9576	-.01577	.00099	.58871	.00490	-.00151	.09491
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3766.9**	**41698.**	**3401.3**
Stddev	4.8	47.	39.7
%RSD	.12681	.11216	1.1670
#1	3770.3	41665.	3373.2
#2	3763.5	41731.	3429.3

Sample Name: CCV-5714928 Acquired: 5/29/2019 12:55:50 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48512**	**.50517**	**.48039**	**.48465**	**.49315**	**.48855**	**.98562**	**4.8812**	**.48587**	**.49457**	**.48937**	**.49059**	**2.4077**
Stddev	.00132	.00144	.00011	.00138	.00027	.00084	.00734	.0140	.00150	.00036	.00288	.00000	.0064
%RSD	.27118	.28529	.02367	.28500	.05552	.17112	.74500	.28769	.30788	.07289	.58874	.00098	.26628
#1	.48419	.50619	.48031	.48563	.49296	.48914	.99082	4.8911	.48693	.49482	.49141	.49058	2.4123
#2	.48605	.50415	.48047	.48368	.49335	.48795	.98043	4.8712	.48481	.49431	.48733	.49059	2.4032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.956**	**.49291**	**19.573**	**.49118**	**.48655**	**24.608**	**.49439**	**-.00119**	**.49357**	**-.00608**	**.48999**	**.48488**	**4.8786**
Stddev	.132	.00286	.031	.00002	.00190	.044	.00027	.00220	.00033	.00926	.00332	.00415	.0305
%RSD	.26941	.58124	.15892	.00382	.38976	.17695	.05515	183.95	.06770	152.20	.67688	.85582	.62542
#1	48.863	.49493	19.595	.49120	.48790	24.638	.49458	-.00275	.49380	-.01263	.49233	.48195	4.8570
#2	49.050	.49088	19.551	.49117	.48521	24.577	.49420	.00036	.49333	.00046	.48764	.48781	4.9002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.440**	**.49161**	**.48942**	**-.00454**	**.48669**	**.49540**	**.03598**	**.48884**	**.48624**	**.48304**
Stddev	.065	.00261	.00065	.00379	.00047	.00059	.04661	.00099	.00130	.00027
%RSD	.62542	.52993	.13207	83.381	.09759	.11939	129.53	.20343	.26727	.05683
#1	10.394	.49346	.48988	-.00186	.48702	.49582	.00303	.48954	.48716	.48285
#2	10.486	.48977	.48896	-.00722	.48635	.49498	.06894	.48813	.48532	.48324
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3714.4**	**41951.**	**3405.8**
Stddev	2.2	171.	5.2
%RSD	.05857	.40827	.15286
#1	3712.8	42072.	3409.5
#2	3715.9	41830.	3402.1

Sample Name: CCB Acquired: 5/29/2019 12:58:38 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**-.00153**	**-.00008**	**.00044**	**.00023**	**.00023**	**.00000**	**.00716**	**-.00008**	**.00034**	**-.00024**	**-.00155**
Stddev	.00052	.00015	.00004	.00032	.00004	.00005	.00450	.00230	.00025	.00009	.00029	.00091
%RSD	150.21	10.101	49.056	73.298	17.990	21.498	100310.	32.123	308.34	27.348	123.24	58.577
#1	-.00002	-.00164	-.00011	.00021	.00020	.00027	-.00318	.00553	-.00026	.00041	-.00003	-.00091
#2	.00072	-.00142	-.00005	.00067	.00026	.00020	.00319	.00878	.00010	.00028	-.00045	-.00219
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00250**	**.03073**	**.00209**	**.00206**	**.00021**	**.00027**	W **.40646**	**-.00064**	**-.00003**	**.00161**	**.03004**	**-.00258**
Stddev	.00226	.03616	.00260	.00383	.00008	.00022	.00161	.00004	.00047	.00064	.00492	.00109
%RSD	90.464	117.69	124.33	185.73	36.264	82.044	.39658	6.7280	1519.8	39.798	16.379	42.141
#1	-.00410	.05630	.00393	.00477	.00026	.00011	.40760	-.00061	-.00036	.00115	.02656	-.00181
#2	-.00090	.00516	.00025	-.00065	.00015	.00043	.40532	-.00067	.00030	.00206	.03352	-.00335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.35000					
Low Limit							-.35000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**.00206**	**.00441**	**.00042**	**-.00026**	**-.00151**	**.00060**	**.00458**	**-.01338**	**.00019**	**-.00240**	**-.00102**
Stddev	.00526	.01665	.03563	.00020	.00018	.00043	.00004	.00318	.06871	.00030	.00061	.00243
%RSD	757.67	807.74	807.74	48.653	69.834	28.435	6.4709	69.403	513.51	157.28	25.623	237.27
#1	-.00441	.01384	.02961	.00028	-.00039	-.00121	.00057	.00683	.03521	-.00002	-.00196	-.00274
#2	.00302	-.00971	-.02078	.00057	-.00013	-.00181	.00063	.00233	-.06197	.00041	-.00283	.00069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3741.6**	**41863.**	**3361.7**
Stddev	1.3	229.	17.5
%RSD	.03421	.54631	.52039
#1	3740.7	42025.	3349.4
#2	3742.5	41702.	3374.1

Sample Name: CCVL-5725431 Acquired: 5/29/2019 13:01:46 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00565**	**.10296**	F **.02059**	**.09588**	**.01136**	**.00117**	**.10381**	**.19513**	**.00511**	**.01036**	**.00955**	**.01547**
Stddev	.00014	.00018	.00411	.00021	.00039	.00016	.00180	.00441	.00036	.00002	.00001	.00170
%RSD	2.4001	.17912	19.985	.21976	3.4022	13.537	1.7320	2.2609	6.9544	.20705	.08782	10.977
#1	.00555	.10309	.01768	.09602	.01109	.00128	.10254	.19825	.00537	.01034	.00955	.01427
#2	.00575	.10283	.02350	.09573	.01164	.00106	.10508	.19201	.00486	.01037	.00956	.01668
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000		.01500									
Range	-30.000%		30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11328**	**2.9536**	**.02444**	**.20419**	**.01053**	**.01915**	F **1.4664**	**.04196**	**2.8698**	**.01087**	**.12811**	**.01816**
Stddev	.00589	.0531	.00548	.00066	.00009	.00030	.0147	.00027	.0036	.00156	.00508	.00003
%RSD	5.2014	1.7977	22.410	.32380	.83088	1.5511	1.0024	.64969	.12441	14.333	3.9616	.17028
#1	.10912	2.9911	.02831	.20373	.01047	.01894	1.4560	.04177	2.8723	.01197	.13170	.01814
#2	.11745	2.9160	.02057	.20466	.01059	.01936	1.4768	.04215	2.8673	.00977	.12452	.01818
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01696**	**.52128**	**1.1155**	**.10222**	**.00993**	**.01156**	**.00929**	**.01702**	**.06793**	**.01023**	**.01782**	**.01239**
Stddev	.00464	.03837	.0821	.00007	.00013	.00080	.00053	.00138	.02472	.00046	.00056	.00328
%RSD	27.348	7.3615	7.3615	.06624	1.3432	6.9434	5.7542	8.1105	36.385	4.5287	3.1366	26.488
#1	.01368	.49415	1.0575	.10227	.01002	.01099	.00891	.01800	.05045	.01056	.01821	.01471
#2	.02024	.54842	1.1736	.10217	.00983	.01213	.00966	.01605	.08541	.00990	.01742	.01007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3793.3**	**42609.**	**3398.7**
Stddev	.3	218.	3.8
%RSD	.00814	.51087	.11064
#1	3793.1	42763.	3401.3
#2	3793.5	42455.	3396.0

Sample Name: CCVL-5725431 Acquired: 5/29/2019 13:07:35 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00657**	**.09662**	**.01490**	**.09221**	**.01028**	**.00118**	**.09969**	**.19588**	**.00462**	**.01013**	**.00951**	**.01467**
Stddev	.00094	.00013	.00801	.00030	.00052	.00000	.00398	.00301	.00008	.00031	.00002	.00043
%RSD	14.275	.13689	53.787	.32355	5.0214	.04721	3.9903	1.5371	1.7861	3.0598	.22594	2.9222
#1	.00724	.09653	.00923	.09200	.00991	.00118	.09688	.19375	.00456	.00991	.00949	.01497
#2	.00591	.09672	.02057	.09242	.01064	.00118	.10250	.19801	.00467	.01034	.00952	.01436
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11364**	**2.9109**	**.02159**	**.19957**	**.01041**	**.01814**	**1.1022**	**.03939**	**2.7402**	**.01155**	**.08827**	F **.01226**
Stddev	.00173	.1076	.00549	.00189	.00000	.00040	.0279	.00093	.0212	.00077	.00003	.00347
%RSD	1.5240	3.6954	25.435	.94677	.02649	2.2175	2.5350	2.3491	.77411	6.6280	.03794	28.305
#1	.11242	2.9870	.01771	.20090	.01042	.01843	1.1220	.03874	2.7252	.01101	.08825	.01472
#2	.11487	2.8348	.02547	.19823	.01041	.01786	1.0824	.04004	2.7552	.01209	.08830	.00981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value												.02000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.01350**	**.48272**	**1.0330**	**.09577**	**.00944**	**.01144**	**.00916**	**.01671**	F **.16812**	**.00996**	**.01870**	F **.00735**
Stddev	.00044	.02139	.0458	.00075	.00018	.00052	.00011	.00035	.00501	.00024	.00054	.00349
%RSD	3.2637	4.4310	4.4310	.77888	1.8676	4.5537	1.2553	2.1191	2.9776	2.3972	2.8682	47.431
#1	.01318	.49785	1.0654	.09630	.00931	.01107	.00908	.01696	.17166	.00979	.01832	.00982
#2	.01381	.46760	1.0007	.09524	.00956	.01181	.00924	.01646	.16458	.01013	.01908	.00489
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	.02000								.06000			.01500
Range	-30.000%								30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**4008.1**	**44030.**	**3545.6**
Stddev	3.0	70.	25.9
%RSD	.07501	.15949	.73082
#1	4010.2	43981.	3527.3
#2	4005.9	44080.	3563.9

Sample Name: CCVL-5725431 Acquired: 5/29/2019 13:09:54 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00547**	**.09796**	F **.02171**	**.09283**	**.00973**	**.00126**	**.10354**	**.18796**	**.00507**	**.01013**	**.00989**	**.01357**
Stddev	.00007	.00187	.00116	.00082	.00044	.00021	.00017	.00690	.00003	.00051	.00008	.00022
%RSD	1.3210	1.9066	5.3532	.88002	4.5288	16.303	.16851	3.6692	.51908	4.9864	.78387	1.6566
#1	.00542	.09928	.02253	.09341	.01004	.00140	.10342	.18308	.00505	.01049	.00984	.01373
#2	.00552	.09664	.02089	.09225	.00942	.00111	.10367	.19284	.00508	.00977	.00995	.01341
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000		.01500									
Range	-30.000%		30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10782**	**2.7591**	**.01590**	**.19365**	**.01031**	**.01801**	**1.0578**	**.03952**	**2.7625**	**.01152**	**.08111**	**.01834**
Stddev	.00147	.0624	.00207	.00328	.00002	.00000	.0171	.00017	.0012	.00027	.00193	.00025
%RSD	1.3622	2.2633	13.046	1.6962	.15331	.01248	1.6133	.42543	.04470	2.3345	2.3756	1.3768
#1	.10678	2.7150	.01737	.19133	.01030	.01801	1.0458	.03940	2.7616	.01133	.08248	.01851
#2	.10886	2.8033	.01443	.19597	.01032	.01800	1.0699	.03964	2.7634	.01171	.07975	.01816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01541**	**.48069**	**1.0287**	**.09713**	**.00944**	**.01061**	**.00866**	**.01622**	F **.10231**	**.01008**	**.01819**	F **.01021**
Stddev	.00504	.00905	.0194	.00138	.00014	.00188	.00014	.00008	.04425	.00004	.00068	.00232
%RSD	32.728	1.8821	1.8821	1.4219	1.4394	17.732	1.5779	.46975	43.249	.36904	3.7309	22.741
#1	.01897	.47429	1.0150	.09616	.00934	.00928	.00875	.01616	.13359	.01005	.01771	.01185
#2	.01184	.48708	1.0424	.09811	.00953	.01194	.00856	.01627	.07102	.01010	.01867	.00857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value									.06000			.01500
Range									30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3939.0**	**44927.**	**3644.8**
Stddev	12.6	36.	16.7
%RSD	.31880	.08056	.45852
#1	3947.9	44953.	3633.0
#2	3930.1	44902.	3656.6

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG No.:

Project: Griffiss AFB, LF002 Landfill 2

Client Sample ID	Lab Sample ID
LF2SW-1_0519	280-123983-1
LF2SW-2_0519	280-123983-2
LF2SW-3_0519	280-123983-3

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF2SW-1_0519 Lab Sample ID: 280-123983-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 13:30

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.042	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.93	1.0	0.50	0.69	mg/L	J		1	351.2
Chemical Oxygen Demand (COD)	68	20	20	8.7	mg/L			1	410.4
Phenols, Total	0.027	0.020	0.020	0.0068	mg/L			1	9066
Color	150	25	25	25	PCU		D	5	SM 2120B
Hardness	80	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U	M	1	9056A
Nitrate Nitrite as N	0.051	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	1.3	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	J1 Q	1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.051	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	1.8	5.0	3.0	1.0	mg/L	J	J1	1	9056A
Total Organic Carbon - Quad	12	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	81	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	110	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	3.0	2.5	0.74	0.30	mg/L			1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF2SW-2_0519 Lab Sample ID: 280-123983-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 13:55

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.048	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L			1	410.4
Phenols, Total	0.012	0.020	0.020	0.0068	mg/L	J		1	9066
Color	75	25	25	25	PCU		D	5	SM 2120B
Hardness	150	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Chloride	1.1	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	Q	1	9056A
Fluoride	0.074	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U	M	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	1.2	5.0	3.0	1.0	mg/L	J		1	9056A
Total Organic Carbon - Quad	10	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	160	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	180	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	2.0	2.5	0.74	0.30	mg/L	J		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF2SW-3_0519 Lab Sample ID: 280-123983-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 13:30

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.43	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	13	25	13	17	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	1400	200	200	87	mg/L		D	10	410.4
Phenols, Total	0.32	0.50	0.50	0.17	mg/L	J		1	9066
Color	100	25	25	25	PCU		D	5	SM 2120B
Hardness	1100	30	8.1	3.0	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U	M	1	9056A
Nitrate Nitrite as N	0.077	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	4.6	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.35	0.50	0.20	0.19	mg/L	J	Q	1	9056A
Fluoride	0.067	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.077	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	32	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	70	2.0	1.0	0.31	mg/L			2	9060A
Alkalinity	130	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	230	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	6.3	2.5	0.74	0.30	mg/L			1	SM5210B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: MJS Batch Start Date: 05/31/2019

Reporting Units: mg/L Analytical Batch No.: 460082

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	15:32	Ammonia	0.451	0.498	91	90-110		350.1 ICV_00350
15	ICV	15:34	Ammonia	2.54	2.49	102	90-110		350.1 ICV_00350
16	ICB	15:36	Ammonia	0.050				U	
35	CCVL	16:20	Ammonia	0.457	0.500	91	90-110		350.1 cal_00367
36	CCV	16:22	Ammonia	2.67	2.50	107	90-110		350.1 cal_00367
37	CCB	16:24	Ammonia	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: SVC Batch Start Date: 06/07/2019

Reporting Units: mg/L Analytical Batch No.: 460878

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:13	Nitrogen, Kjeldahl	5.02	5.00	100	90-110		TKN ICV 25_00078
14	ICB	17:15	Nitrogen, Kjeldahl	0.50				U	
31	CCV	17:36	Nitrogen, Kjeldahl	5.43	5.00	109	90-110		TKN 25ppm_00794
32	CCB	17:37	Nitrogen, Kjeldahl	0.50				U	
49	CCV	17:58	Nitrogen, Kjeldahl	5.02	5.00	100	90-110		TKN 25ppm_00794
50	CCB	18:00	Nitrogen, Kjeldahl	0.50				U	
65	CCV	18:18	Nitrogen, Kjeldahl	4.97	5.00	99	90-110		TKN 25ppm_00794
66	CCB	18:20	Nitrogen, Kjeldahl	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/11/2019

Reporting Units: mg/L Analytical Batch No.: 461121

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:08	Chemical Oxygen Demand (COD)	69.1	75.4	92	90-110		COD icv std_00034
2	ICB	09:08	Chemical Oxygen Demand (COD)	20				U	
16	CCV	09:08	Chemical Oxygen Demand (COD)	98.7	100	99	90-110		COD cal std_00048
17	CCB	09:08	Chemical Oxygen Demand (COD)	20				U	
28	CCV	09:08	Chemical Oxygen Demand (COD)	96.3	100	96	90-110		COD cal std_00048
29	CCB	09:08	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: KES Batch Start Date: 06/12/2019

Reporting Units: mg/L Analytical Batch No.: 461275

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	10:53	Chemical Oxygen Demand (COD)	69.5	75.4	92	90-110		COD icv std_00034
2	ICB	10:53	Chemical Oxygen Demand (COD)	20				U	
16	CCV	10:53	Chemical Oxygen Demand (COD)	95.6	100	96	90-110		COD cal std_00048
17	CCB	10:53	Chemical Oxygen Demand (COD)	20				U	
28	CCV	10:53	Chemical Oxygen Demand (COD)	93.9	100	94	90-110		COD cal std_00048
29	CCB	10:53	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: ARM Batch Start Date: 06/06/2019

Reporting Units: mg/L Analytical Batch No.: 460772

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:23	Phenols, Total	0.196	0.200	98	90-110		Phenol ICV 10_00605
14	ICVL	18:53	Phenols, Total	0.110	0.100	110	90-110		Phenol ICV 10_00605
15	ICB	18:56	Phenols, Total	0.020				U	
45	CCV	20:26	Phenols, Total	0.217	0.201	108	90-110		Phenol CAL 10_00730
47	CCB	20:32	Phenols, Total	0.020				U	
61	CCV	21:15	Phenols, Total	0.212	0.201	105	90-110		Phenol CAL 10_00730
62	CCVL	21:18	Phenols, Total	0.102	0.101	101	90-110		Phenol CAL 10_00730
63	CCB	21:21	Phenols, Total	0.020				U	
77	CCV	23:05	Phenols, Total	0.216	0.201	107	90-110		Phenol CAL 10_00730
78	CCVL	23:08	Phenols, Total	0.108	0.101	107	90-110		Phenol CAL 10_00730
79	CCB	23:11	Phenols, Total	0.020				U	
93	CCV	23:54	Phenols, Total	0.214	0.201	106	90-110		Phenol CAL 10_00730
94	CCVL	23:57	Phenols, Total	0.109	0.101	109	90-110		Phenol CAL 10_00730
95	CCB	00:00	Phenols, Total	0.020				U	
104	CCV	00:28	Phenols, Total	0.211	0.201	105	90-110		Phenol CAL 10_00730
105	CCVL	00:31	Phenols, Total	0.108	0.101	108	90-110		Phenol CAL 10_00730
106	CCB	00:34	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458327

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Nitrate Nitrite as N	8.06	8.00	101	90-110		
			Orthophosphate as P	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrate	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrite	3.83	4.00	96	90-110		IC ICV 5_00233
9	ICB	19:27	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458328

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Bromide	4.36	4.00	109	90-110		IC ICV 5_00233
			Chloride	76.8	80.0	96	90-110		IC CL ICV_00016
			Fluoride	4.12	4.00	103	90-110		IC ICV 5_00233
			Sulfate	75.6	80.0	94	90-110		IC SO4 ICV_00017
9	ICB	19:27	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: TLP Batch Start Date: 05/18/2019

Reporting Units: mg/L Analytical Batch No.: 458688

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	19:06	Nitrate Nitrite as N	10.5	10.0	105	90-110		
			Orthophosphate as P	5.92	5.00	118	90-110		IC LCS_01579
			Nitrate	5.40	5.00	108	90-110		IC LCS_01579
			Nitrite	5.09	5.00	102	90-110		IC LCS_01579
2	CCB	19:23	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
17	CCV	00:40	Nitrate Nitrite as N	10.5	10.0	105	90-110		
			Orthophosphate as P	6.04	5.00	121	90-110		IC LCS_01579
			Nitrate	5.38	5.00	108	90-110		IC LCS_01579
			Nitrite	5.09	5.00	102	90-110		IC LCS_01579
18	CCB	00:57	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
28	CCV	03:41	Nitrate Nitrite as N	10.5	10.0	105	90-110		
			Orthophosphate as P	6.19	5.00	124	90-110		IC LCS_01579
			Nitrate	5.37	5.00	107	90-110		IC LCS_01579
			Nitrite	5.11	5.00	102	90-110		IC LCS_01579
29	CCB	03:57	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: TLP Batch Start Date: 05/18/2019

Reporting Units: mg/L Analytical Batch No.: 458689

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	19:06	Bromide	5.31	5.00	106	90-110		IC LCS_01579
			Chloride	101	100	101	90-110		IC LCS_01579
			Sulfate	96.0	100	96	90-110		IC LCS_01579
2	CCB	19:23	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
17	CCV	00:40	Bromide	5.32	5.00	106	90-110		IC LCS_01579
			Chloride	101	100	101	90-110		IC LCS_01579
			Sulfate	96.2	100	96	90-110		IC LCS_01579
18	CCB	00:57	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
28	CCV	03:41	Bromide	5.32	5.00	106	90-110		IC LCS_01579
			Chloride	101	100	101	90-110		IC LCS_01579
			Sulfate	96.2	100	96	90-110		IC LCS_01579
29	CCB	03:57	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: JAP Batch Start Date: 05/20/2019

Reporting Units: mg/L Analytical Batch No.: 458776

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	17:09	Nitrate Nitrite as N	7.94	8.00	99	90-110		
			Orthophosphate as P	4.11	4.00	103	90-110		IC ICV 5_00234
			Nitrate as N	4.12	4.00	103	90-110		IC ICV 5_00234
			Nitrite as N	3.82	4.00	95	90-110		IC ICV 5_00234
9	ICB	17:25	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
24	CCV	22:56	Nitrate Nitrite as N	9.65	10.0	97	90-110		
			Orthophosphate as P	5.02	5.00	100	90-110		IC LCS_01580
			Nitrate as N	4.82	5.00	96	90-110		IC LCS_01580
			Nitrite as N	4.83	5.00	97	90-110		IC LCS_01580
25	CCB	23:12	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
36	CCV	16:35	Nitrate Nitrite as N	10.4	10.0	104	90-110		
			Orthophosphate as P	5.31	5.00	106	90-110		IC LCS_01580
			Nitrate as N	5.18	5.00	104	90-110		IC LCS_01580
			Nitrite as N	5.18	5.00	104	90-110		IC LCS_01580
37	CCB	16:51	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
44	CCV	18:46	Nitrate Nitrite as N	10.4	10.0	104	90-110		
			Orthophosphate as P	5.25	5.00	105	90-110		IC LCS_01580
			Nitrate as N	5.19	5.00	104	90-110		IC LCS_01580
			Nitrite as N	5.19	5.00	104	90-110		IC LCS_01580
45	CCB	19:02	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: JAP Batch Start Date: 05/20/2019

Reporting Units: mg/L Analytical Batch No.: 458777

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	17:09	Bromide	4.19	4.00	105	90-110		IC ICV 5_00234
			Chloride	79.5	80.0	99	90-110		IC CL ICV_00016
			Fluoride	4.01	4.00	100	90-110		IC ICV 5_00234
			Sulfate	79.0	80.0	99	90-110		IC SO4 ICV_00017
9	ICB	17:25	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.205				J	
			Sulfate	2.5				U	
24	CCV	22:56	Bromide	4.95	5.00	99	90-110		IC LCS_01580
			Chloride	98.4	100	98	90-110		IC LCS_01580
			Fluoride	4.87	5.00	97	90-110		IC LCS_01580
			Sulfate	97.2	100	97	90-110		IC LCS_01580
25	CCB	23:12	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.284				J	
			Sulfate	2.5				U	
36	CCV	16:35	Bromide	5.30	5.00	106	90-110		IC LCS_01580
			Chloride	107	100	107	90-110		IC LCS_01580
			Fluoride	5.24	5.00	105	90-110		IC LCS_01580
			Sulfate	107	100	107	90-110		IC LCS_01580
37	CCB	16:51	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.192				J	
			Sulfate	2.5				U	
44	CCV	18:46	Bromide	5.30	5.00	106	90-110		IC LCS_01580
			Chloride	107	100	107	90-110		IC LCS_01580
			Fluoride	5.26	5.00	105	90-110		IC LCS_01580
			Sulfate	107	100	107	90-110		IC LCS_01580
45	CCB	19:02	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.320				J	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/12/2019

Reporting Units: mg/L Analytical Batch No.: 461430

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	15:21	Total Organic Carbon - Quad	21.2	20.0	106	90-110		TOC ICV Std_00037
2	ICB	15:36	Total Organic Carbon - Quad	0.50				U	
27	CCV	22:43	Total Organic Carbon - Quad	26.6	25.0	106	90-110		TOC ICV Std_00037
28	CCB	23:00	Total Organic Carbon - Quad	0.50				U	
39	CCV	02:21	Total Organic Carbon - Quad	26.8	25.0	107	90-110		TOC ICV Std_00037
40	CCB	02:36	Total Organic Carbon - Quad	0.50				U	
51	CCV	05:47	Total Organic Carbon - Quad	26.5	25.0	106	90-110		TOC ICV Std_00037
52	CCB	06:02	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: JAM Batch Start Date: 06/13/2019

Reporting Units: mg/L Analytical Batch No.: 461601

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	17:47	Total Organic Carbon - Quad	21.1	20.0	105	90-110		TOC ICV Std_00037
2	ICB	18:04	Total Organic Carbon - Quad	0.190				J	
15	CCV	22:05	Total Organic Carbon - Quad	25.8	25.0	103	90-110		TOC ICV Std_00037
16	CCB	22:21	Total Organic Carbon - Quad	0.466				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Analyst: SGB Batch Start Date: 05/25/2019

Reporting Units: mg/L Analytical Batch No.: 459576

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
80	CCV	02:04	Alkalinity	201	200	100	90-110		Alk daily lcs 00821
81	CCB	02:09	Alkalinity	10				U	
94	CCV	03:27	Alkalinity	201	200	100	90-110		Alk daily lcs 00821
95	CCB	03:31	Alkalinity	10				U	
106	CCV	05:28	Alkalinity	201	200	101	90-110		Alk daily lcs 00821
107	CCB	05:33	Alkalinity	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 460082 Date: 05/31/2019 15:44							
350.1	MB 280-460082/20	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 460878 Date: 06/07/2019 17:17 Prep Batch: 460760 Date: 06/06/2019 19:57							
351.2	MB 280-460760/2-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 461121 Date: 06/11/2019 09:08							
410.4	MB 280-461121/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 461275 Date: 06/12/2019 10:53							
410.4	MB 280-461275/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 458688 Date: 05/18/2019 20:29							
9056A	MB 280-458688/6	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458688/6	Orthophosphate as P	0.20	U Q	mg/L	0.50	1
9056A	MB 280-458688/6	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458688/6	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458689 Date: 05/18/2019 20:29							
9056A	MB 280-458689/6	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458689/6	Chloride	3.0	U	mg/L	3.0	1
9056A	MB 280-458689/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 458776 Date: 05/20/2019 18:31							
9056A	MB 280-458776/13	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458776/13	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-458776/13	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458776/13	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458777 Date: 05/20/2019 18:31							
9056A	MB 280-458777/13	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458777/13	Chloride	3.0	U	mg/L	3.0	1
9056A	MB 280-458777/13	Fluoride	0.126	J	mg/L	1.0	1
9056A	MB 280-458777/13	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 461430 Date: 06/13/2019 01:04							
9060A	MB 280-461430/35	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 461601 Date: 06/13/2019 18:38							
9060A	MB 280-461601/4	Total Organic Carbon - Quad	0.285	J	mg/L	1.0	1
Batch ID: 460772 Date: 06/06/2019 21:00 Prep Batch: 460749 Date: 06/06/2019 17:53							
9066	MB 280-460749/2-A	Phenols, Total	0.00830	J	mg/L	0.020	1
Batch ID: 458692 Date: 05/18/2019 20:40							
SM 2120B	MB 280-458692/1	Color	5.0	U	PCU	5.0	1
Batch ID: 459576 Date: 05/25/2019 02:19							
SM 2320B	MB 280-459576/83	Alkalinity	10	U	mg/L	10	1
Batch ID: 459417 Date: 05/24/2019 16:44							
SM 2340C	MB 280-459417/2	Hardness	0.81	U	mg/L	3.0	1
Batch ID: 459268 Date: 05/23/2019 16:24							
SM 2540C	MB 280-459268/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 458674 Date: 05/18/2019 13:59							
SM5210B	MB 280-458674/4	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
UNSEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458674 Date: 05/18/2019 13:59							
SM5210B	USB 280-458674/2	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

FORM III-IN

3-IN
SEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458674 Date: 05/18/2019 13:59							
SM5210B	SCB 280-458674/1	Biochemical Oxygen Demand	0.644	J	mg/L	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 460082 Date: 05/31/2019 15:48											
350.1	280-123983-1	Ammonia	0.042	J	mg/L						
350.1	280-123983-1 MS	Ammonia	1.02		mg/L	1.00	97	90-110			
Batch ID: 458688 Date: 05/19/2019 02:52											
9056A	280-123983-1	Nitrate Nitrite as N	0.051	J	mg/L						
9056A	280-123983-1 MS	Nitrate Nitrite as N	10.8		mg/L	10.0	108	80-120			
9056A	280-123983-1	Orthophosphate as P	0.20	U	mg/L						J1 Q
9056A	280-123983-1 MS	Orthophosphate as P	7.47		mg/L	5.00	149	80-116			Q J1
9056A	280-123983-1	Nitrate	0.051	J	mg/L						
9056A	280-123983-1 MS	Nitrate	5.57		mg/L	5.00	110	88-111			
9056A	280-123983-1	Nitrite	0.10	U	mg/L						M
9056A	280-123983-1 MS	Nitrite	5.24		mg/L	5.00	105	87-111			
Batch ID: 458689 Date: 05/19/2019 02:52											
9056A	280-123983-1	Bromide	0.20	U	mg/L						M
9056A	280-123983-1 MS	Bromide	5.47		mg/L	5.00	109	91-110			
9056A	280-123983-1	Chloride	1.3	J	mg/L						
9056A	280-123983-1 MS	Chloride	23.1		mg/L	25.0	87	87-111			
9056A	280-123983-1	Sulfate	1.8	J	mg/L						J1
9056A	280-123983-1 MS	Sulfate	22.5		mg/L	25.0	83	87-112			J1

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 460082 Date: 05/31/2019 15:50											
350.1	280-123983-1 MSD	Ammonia	1.00		mg/L	1.00	96	90-110	2	10	
Batch ID: 458688 Date: 05/19/2019 03:08											
9056A	280-123983-1 MSD	Nitrate Nitrite as N	10.8		mg/L	10.0	107	80-120	0	10	
9056A	280-123983-1 MSD	Orthophosphate as P	7.54		mg/L	5.00	151	80-116	1	10	Q J1
9056A	280-123983-1 MSD	Nitrate	5.54		mg/L	5.00	110	88-111	1	10	
9056A	280-123983-1 MSD	Nitrite	5.22		mg/L	5.00	104	87-111	0	10	
Batch ID: 458689 Date: 05/19/2019 03:08											
9056A	280-123983-1 MSD	Bromide	5.43		mg/L	5.00	109	91-110	1	10	
9056A	280-123983-1 MSD	Chloride	23.0		mg/L	25.0	87	87-111	1	10	
9056A	280-123983-1 MSD	Sulfate	22.4		mg/L	25.0	83	87-112	0	10	J1

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 458688 Date: 05/19/2019 02:35								
9056A	LF2SW-1_0519	280-123983-1	Nitrate Nitrite as N	0.051	mg/L			J
9056A	LF2SW-1_0519	280-123983-1 DU	Nitrate Nitrite as N	0.0524	mg/L	3	10	J
9056A	LF2SW-1_0519	280-123983-1	Orthophosphate as P	0.20	mg/L			U
9056A	LF2SW-1_0519	280-123983-1 DU	Orthophosphate as P	0.20	mg/L	NC	10	U Q
9056A	LF2SW-1_0519	280-123983-1	Nitrate	0.051	mg/L			J
9056A	LF2SW-1_0519	280-123983-1 DU	Nitrate	0.0524	mg/L	3	10	J
9056A	LF2SW-1_0519	280-123983-1	Nitrite	0.10	mg/L			U
9056A	LF2SW-1_0519	280-123983-1 DU	Nitrite	0.10	mg/L	NC	10	U M
Batch ID: 458689 Date: 05/19/2019 02:35								
9056A	LF2SW-1_0519	280-123983-1	Bromide	0.20	mg/L			U
9056A	LF2SW-1_0519	280-123983-1 DU	Bromide	0.20	mg/L	NC	10	U M
9056A	LF2SW-1_0519	280-123983-1	Chloride	1.3	mg/L			J
9056A	LF2SW-1_0519	280-123983-1 DU	Chloride	1.32	mg/L	0.6	10	J
9056A	LF2SW-1_0519	280-123983-1	Sulfate	1.8	mg/L			J
9056A	LF2SW-1_0519	280-123983-1 DU	Sulfate	1.77	mg/L	0.6	10	J
Batch ID: 458692 Date: 05/18/2019 20:40								
SM 2120B	LF2SW-2_0519	280-123983-2	Color	75	PCU			
SM 2120B	LF2SW-2_0519	280-123983-2 DU	Color	75.0	PCU	0	20	D

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 460082	Date: 05/31/2019 16:12										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-460082/31	Ammonia	2.70		mg/L	2.50	108	90-110			
Batch ID: 460878	Date: 06/07/2019 17:16	Prep Batch: 460760	Date: 06/06/2019 19:57								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460760/1-A	Nitrogen, Kjeldahl	5.70		mg/L	6.00	95	90-110			
Batch ID: 461121	Date: 06/11/2019 09:08										
						LCS Source: COD cal std_00048					
410.4	LCS 280-461121/3	Chemical Oxygen Demand (COD)	91.6		mg/L	100	92	90-110	4	11	
Batch ID: 461275	Date: 06/12/2019 10:53										
						LCS Source: COD cal std_00048					
410.4	LCS 280-461275/3	Chemical Oxygen Demand (COD)	95.3		mg/L	100	95	90-110	1	11	
Batch ID: 458688	Date: 05/18/2019 19:56										
						LCS Source:					
9056A	LCS 280-458688/4	Nitrate Nitrite as N	10.5		mg/L	10.0	105	80-120	0	10	
						LCS Source: IC LCS_01579					
9056A	LCS 280-458688/4	Orthophosphate as P	5.95		mg/L	5.00	119	80-116	0	10	M Q
9056A	LCS 280-458688/4	Nitrate	5.40		mg/L	5.00	108	88-111	0	10	M
9056A	LCS 280-458688/4	Nitrite	5.10		mg/L	5.00	102	87-111	0	10	M
Batch ID: 458689	Date: 05/18/2019 19:56										
						LCS Source: IC LCS_01579					
9056A	LCS 280-458689/4	Bromide	5.32		mg/L	5.00	106	91-110	0	10	M
9056A	LCS 280-458689/4	Chloride	101		mg/L	100	101	87-111	0	10	
9056A	LCS 280-458689/4	Sulfate	96.2		mg/L	100	96	87-112	0	10	M
Batch ID: 458776	Date: 05/20/2019 17:58										
						LCS Source:					
9056A	LCS 280-458776/11	Nitrate Nitrite as N	9.64		mg/L	10.0	96	80-120	0	10	
						LCS Source: IC LCS_01580					
9056A	LCS 280-458776/11	Orthophosphate as P	4.88		mg/L	5.00	98	80-116	0	10	
9056A	LCS 280-458776/11	Nitrate	4.80		mg/L	5.00	96	88-111	0	10	
9056A	LCS 280-458776/11	Nitrite	4.84		mg/L	5.00	97	87-111	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458777	Date: 05/20/2019 17:58										
						LCS Source: IC LCS_01580					
9056A	LCS 280-458777/11	Bromide	4.94		mg/L	5.00	99	91-110	0	10	
9056A	LCS 280-458777/11	Chloride	97.9		mg/L	100	98	87-111	0	10	
9056A	LCS 280-458777/11	Fluoride	4.86		mg/L	5.00	97	88-112	1	10	
9056A	LCS 280-458777/11	Sulfate	96.8		mg/L	100	97	87-112	0	10	
Batch ID: 461430	Date: 06/13/2019 00:49										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-461430/34	Total Organic Carbon - Quad	26.1		mg/L	25.0	104	88-112			
Batch ID: 461601	Date: 06/13/2019 18:23										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-461601/3	Total Organic Carbon - Quad	25.9		mg/L	25.0	104	88-112			
Batch ID: 460772	Date: 06/06/2019 20:57	Prep Batch: 460749	Date: 06/06/2019 17:53								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460749/1-A	Phenols, Total	0.208		mg/L	0.201	103	90-110			
Batch ID: 459576	Date: 05/25/2019 02:15										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459576/82	Alkalinity	200		mg/L	200	100	89-109			
Batch ID: 459417	Date: 05/24/2019 16:44										
						LCS Source: Hard lcs std_00052					
SM 2340C	LCS 280-459417/1	Hardness	397		mg/L	398	100	90-110			
Batch ID: 459268	Date: 05/23/2019 16:24										
						LCS Source: TDS LCS_00537_00055					
SM 2540C	LCS 280-459268/2	Total Dissolved Solids (TDS)	503		mg/L	500	101	93-110			
Batch ID: 458674	Date: 05/18/2019 13:59										
						LCS Source: BOD Std_00001_00046					
SM5210B	LCS 280-458674/3	Biochemical Oxygen Demand	205		mg/L	198	104	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 461121	Date: 06/11/2019 09:08										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-461121/4	Chemical Oxygen Demand (COD)	95.0		mg/L	100	95	90-110	4	11	
Batch ID: 461275	Date: 06/12/2019 10:53										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-461275/4	Chemical Oxygen Demand (COD)	93.9		mg/L	100	94	90-110	1	11	
Batch ID: 458688	Date: 05/18/2019 20:12										
						LCSD Source:					
9056A	LCSD 280-458688/5	Nitrate Nitrite as N	10.5		mg/L	10.0	105	80-120	0	10	
						LCSD Source: IC LCS_01579					
9056A	LCSD 280-458688/5	Orthophosphate as P	5.95		mg/L	5.00	119	80-116	0	10	M Q
9056A	LCSD 280-458688/5	Nitrate	5.39		mg/L	5.00	108	88-111	0	10	M
9056A	LCSD 280-458688/5	Nitrite	5.10		mg/L	5.00	102	87-111	0	10	M
Batch ID: 458689	Date: 05/18/2019 20:12										
						LCSD Source: IC LCS_01579					
9056A	LCSD 280-458689/5	Bromide	5.33		mg/L	5.00	107	91-110	0	10	M
9056A	LCSD 280-458689/5	Chloride	101		mg/L	100	101	87-111	0	10	
9056A	LCSD 280-458689/5	Sulfate	96.3		mg/L	100	96	87-112	0	10	M
Batch ID: 458776	Date: 05/20/2019 18:15										
						LCSD Source:					
9056A	LCSD 280-458776/12	Nitrate Nitrite as N	9.62		mg/L	10.0	96	80-120	0	10	
						LCSD Source: IC LCS_01580					
9056A	LCSD 280-458776/12	Orthophosphate as P	4.86		mg/L	5.00	97	80-116	0	10	
9056A	LCSD 280-458776/12	Nitrate	4.79		mg/L	5.00	96	88-111	0	10	
9056A	LCSD 280-458776/12	Nitrite	4.83		mg/L	5.00	97	87-111	0	10	
Batch ID: 458777	Date: 05/20/2019 18:15										
						LCSD Source: IC LCS_01580					
9056A	LCSD 280-458777/12	Bromide	4.92		mg/L	5.00	98	91-110	0	10	
9056A	LCSD 280-458777/12	Chloride	97.6		mg/L	100	98	87-111	0	10	
9056A	LCSD 280-458777/12	Fluoride	4.80		mg/L	5.00	96	88-112	1	10	
9056A	LCSD 280-458777/12	Sulfate	96.6		mg/L	100	97	87-112	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458688	Date: 05/18/2019 19:39										
						LCS Source:					
9056A	MRL 280-458688/3	Nitrate Nitrite as N	0.455	J	mg/L	0.400	114	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458688/3	Orthophosphate as P	0.242	J	mg/L	0.200	121	50-150			M
9056A	MRL 280-458688/3	Nitrate	0.234	J	mg/L	0.200	117	50-150			M
9056A	MRL 280-458688/3	Nitrite	0.221	J	mg/L	0.200	111	50-150			M
Batch ID: 458689	Date: 05/18/2019 19:39										
						LCS Source: IC CAL cl/so4_00257					
9056A	MRL 280-458689/3	Chloride	2.32	J	mg/L	2.50	93	50-150			
9056A	MRL 280-458689/3	Sulfate	2.33	J	mg/L	2.50	93	50-150			M
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458689/3	Bromide	0.214	J	mg/L	0.200	107	50-150			M
Batch ID: 458776	Date: 05/20/2019 17:42										
						LCS Source:					
9056A	MRL 280-458776/10	Nitrate Nitrite as N	0.443	J	mg/L	0.400	111	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458776/10	Orthophosphate as P	0.20	U	mg/L	0.200	84	50-150			
9056A	MRL 280-458776/10	Nitrate	0.225	J	mg/L	0.200	112	50-150			
9056A	MRL 280-458776/10	Nitrite	0.218	J	mg/L	0.200	109	50-150			
Batch ID: 458777	Date: 05/20/2019 17:42										
						LCS Source: IC CAL cl/so4_00257					
9056A	MRL 280-458777/10	Chloride	2.32	J	mg/L	2.50	93	50-150			
9056A	MRL 280-458777/10	Sulfate	2.39	J	mg/L	2.50	96	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458777/10	Bromide	0.206	J	mg/L	0.200	103	50-150			
9056A	MRL 280-458777/10	Fluoride	0.215	J	mg/L	0.200	108	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 DL Date: 02/03/2019 00:00

Prep Method: Distill/Phenol

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (PCU)	
Color		5	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B XRL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (PCU)	
Color		5	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Hardness		3	0.3

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness		3	0.3

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.06
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.0597
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A DL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A XMDL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		10	3.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B DL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Biochemical Oxygen Demand		2	0.236

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123983-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B XMDL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Biochemical Oxygen Demand		2	0.236

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460749/1-A	06/06/2019 17:53	460749		50	50
MB 280-460749/2-A	06/06/2019 17:53	460749		50	50
280-123983-1	06/06/2019 17:53	460749		50	50
280-123983-2	06/06/2019 17:53	460749		50	50
280-123983-3	06/06/2019 17:53	460749		2	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460760/1-A	06/06/2019 19:57	460760		25	25
MB 280-460760/2-A	06/06/2019 19:57	460760		25	25
280-123983-1	06/06/2019 19:57	460760		25	25
280-123983-2	06/06/2019 19:57	460760		25	25
280-123983-3	06/06/2019 19:57	460760		1	25

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/31/2019 15:06 End Date: 05/31/2019 17:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			15:06																									
ZZZZZZ			15:08																									
ZZZZZZ			15:10																									
IC 280-460082/4			15:12	X																								
IC 280-460082/5			15:14	X																								
IC 280-460082/6			15:16	X																								
IC 280-460082/7			15:18	X																								
IC 280-460082/8			15:20	X																								
IC 280-460082/9			15:22	X																								
IC 280-460082/10			15:24	X																								
IC 280-460082/11			15:26	X																								
ZZZZZZ			15:28																									
ZZZZZZ			15:30																									
ICVL 280-460082/14	1		15:32	X																								
ICV 280-460082/15	1		15:34	X																								
ICB 280-460082/16	1		15:36	X																								
ZZZZZZ			15:38																									
ZZZZZZ			15:40																									
ZZZZZZ			15:42																									
MB 280-460082/20	1	T	15:44	X																								
280-123983-1	1	T	15:46	X																								
280-123983-1 MS	1	T	15:48	X																								
280-123983-1 MSD	1	T	15:50	X																								
280-123983-2	1	T	15:52	X																								
280-123983-3	1	T	15:54	X																								
ZZZZZZ			15:56																									
ZZZZZZ			16:04																									
ZZZZZZ			16:06																									
ZZZZZZ			16:08																									
ZZZZZZ			16:10																									
LCS 280-460082/31	1	T	16:12	X																								
ZZZZZZ			16:14																									
RINSE 280-460082/33			16:16																									
ZZZZZZ			16:18																									
CCVL 280-460082/35	1		16:20	X																								
CCV 280-460082/36	1		16:22	X																								
CCB 280-460082/37	1		16:24	X																								
ZZZZZZ			16:26																									
ZZZZZZ			16:28																									
ZZZZZZ			16:30																									
ZZZZZZ			16:32																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/31/2019 15:06 End Date: 05/31/2019 17:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			16:34																									
ZZZZZZ			16:36																									
ZZZZZZ			16:38																									
ZZZZZZ			16:40																									
ZZZZZZ			16:42																									
ZZZZZZ			16:44																									
ZZZZZZ			16:46																									
RINSE 280-460082/49			16:48																									
ZZZZZZ			16:50																									
CCVL 280-460082/51			16:52																									
CCV 280-460082/52			16:54																									
CCB 280-460082/53			16:56																									
ZZZZZZ			16:58																									
ZZZZZZ			17:00																									
ZZZZZZ			17:02																									
ZZZZZZ			17:04																									
ZZZZZZ			17:06																									
RINSE 280-460082/59			17:08																									
ZZZZZZ			17:10																									
CCVL 280-460082/61			17:12																									
CCV 280-460082/62			17:14																									
CCB 280-460082/63			17:16																									
ZZZZZZ			17:18																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			16:59																									
ZZZZZZ			17:00																									
ZZZZZZ			17:01																									
ZZZZZZ			17:02																									
IC 280-460066/36-A			17:03	X																								
IC 280-460066/37-A			17:05	X																								
IC 280-460066/38-A			17:06	X																								
IC 280-460066/39-A			17:07	X																								
IC 280-460066/40-A			17:08	X																								
IC 280-460066/41-A			17:10	X																								
ZZZZZZ			17:11																									
ZZZZZZ			17:12																									
ICV 280-460066/42-A	1		17:13	X																								
ICB 280-460066/43-A	1		17:15	X																								
LCS 280-460760/1-A	1	T	17:16	X																								
MB 280-460760/2-A	1	T	17:17	X																								
ZZZZZZ			17:18																									
ZZZZZZ			17:20																									
ZZZZZZ			17:21																									
ZZZZZZ			17:22																									
ZZZZZZ			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:26																									
ZZZZZZ			17:27																									
ZZZZZZ			17:28																									
ZZZZZZ			17:30																									
ZZZZZZ			17:31																									
ZZZZZZ			17:32																									
ZZZZZZ			17:33																									
ZZZZZZ			17:35																									
CCV 280-460066/44-A	1		17:36	X																								
CCB 280-460066/45-A	1		17:37	X																								
ZZZZZZ			17:38																									
ZZZZZZ			17:40																									
ZZZZZZ			17:41																									
ZZZZZZ			17:42																									
ZZZZZZ			17:43																									
ZZZZZZ			17:45																									
ZZZZZZ			17:46																									
ZZZZZZ			17:47																									
ZZZZZZ			17:48																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			17:50																									
ZZZZZZ			17:51																									
ZZZZZZ			17:52																									
ZZZZZZ			17:53																									
ZZZZZZ			17:55																									
ZZZZZZ			17:56																									
ZZZZZZ			17:57																									
CCV 280-460066/44-A	1		17:58	X																								
CCB 280-460066/45-A	1		18:00	X																								
ZZZZZZ			18:01																									
280-123983-1	1	T	18:02	X																								
280-123983-2	1	T	18:03	X																								
280-123983-3	1	T	18:05	X																								
ZZZZZZ			18:06																									
ZZZZZZ			18:07																									
ZZZZZZ			18:08																									
ZZZZZZ			18:10																									
ZZZZZZ			18:11																									
ZZZZZZ			18:12																									
ZZZZZZ			18:13																									
ZZZZZZ			18:15																									
ZZZZZZ			18:16																									
ZZZZZZ			18:17																									
CCV 280-460066/44-A	1		18:18	X																								
CCB 280-460066/45-A	1		18:20	X																								
ZZZZZZ			18:21																									
ZZZZZZ			18:22																									
ZZZZZZ			18:23																									
ZZZZZZ			18:25																									
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ZZZZZZ			18:28																									
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ZZZZZZ			18:32																									
ZZZZZZ			18:33																									
ZZZZZZ			18:35																									
ZZZZZZ			18:36																									
CCV 280-460066/44-A			18:37																									
CCB 280-460066/45-A			18:38																									
ZZZZZZ			18:40																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			18:41																									
ZZZZZZ			18:42																									
ZZZZZZ			18:43																									
ZZZZZZ			18:45																									
ZZZZZZ			18:46																									
ZZZZZZ			18:47																									
ZZZZZZ			18:48																									
ZZZZZZ			18:50																									
ZZZZZZ			18:51																									
ZZZZZZ			18:52																									
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ZZZZZZ			18:55																									
ZZZZZZ			18:56																									
ZZZZZZ			18:57																									
ZZZZZZ			18:58																									
CCV 280-460066/44-A			19:00																									
CCB 280-460066/45-A			19:01																									
ZZZZZZ			19:02																									
ZZZZZZ			19:03																									
CCV 280-460066/44-A			19:05																									
CCB 280-460066/45-A			19:06																									
ZZZZZZ			19:07																									
ZZZZZZ			19:08																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/11/2019 09:08 End Date: 06/11/2019 09:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-461121/1	1		09:08	X																								
ICB 280-461121/2	1		09:08	X																								
LCS 280-461121/3	1	T	09:08	X																								
LCSD 280-461121/4	1	T	09:08	X																								
MB 280-461121/5	1	T	09:08	X																								
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
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ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
CCV 280-461121/16	1		09:08	X																								
CCB 280-461121/17	1		09:08	X																								
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
280-123983-1	1	T	09:08	X																								
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
CCV 280-461121/28	1		09:08	X																								
CCB 280-461121/29	1		09:08	X																								
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
CCV 280-461121/34			09:08																									
CCB 280-461121/35			09:08																									

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/12/2019 10:53 End Date: 06/12/2019 10:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-461275/1	1		10:53	X																								
ICB 280-461275/2	1		10:53	X																								
LCS 280-461275/3	1	T	10:53	X																								
LCSD 280-461275/4	1	T	10:53	X																								
MB 280-461275/5	1	T	10:53	X																								
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
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ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
280-123983-2	1	T	10:53	X																								
CCV 280-461275/16	1		10:53	X																								
CCB 280-461275/17	1		10:53	X																								
280-123983-3	10	T	10:53	X																								
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
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ZZZZZZ			10:53																									
CCV 280-461275/28	1		10:53	X																								
CCB 280-461275/29	1		10:53	X																								
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
CCV 280-461275/34			10:53																									
CCB 280-461275/35			10:53																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			16:47																									
ZZZZZZ			16:50																									
ZZZZZZ			16:53																									
ZZZZZZ			16:56																									
IC 280-460772/5			16:59	X																								
IC 280-460772/6			17:02	X																								
IC 280-460772/7			17:05	X																								
IC 280-460772/8			17:08	X																								
IC 280-460772/9			17:11	X																								
IC 280-460772/10			17:14	X																								
ZZZZZZ			17:17																									
ZZZZZZ			17:20																									
ICV 280-460772/13	1		17:23	X																								
ICVL 280-460772/14	1		18:53	X																								
ICB 280-460772/15	1		18:56	X																								
ZZZZZZ			18:59																									
ZZZZZZ			19:02																									
ZZZZZZ			19:05																									
ZZZZZZ			19:08																									
ZZZZZZ			19:11																									
ZZZZZZ			19:14																									
ZZZZZZ			19:17																									
ZZZZZZ			19:20																									
ZZZZZZ			19:23																									
ZZZZZZ			19:26																									
ZZZZZZ			19:29																									
ZZZZZZ			19:32																									
ZZZZZZ			19:35																									
CCV 280-460772/29			19:38																									
CCVL 280-460772/30			19:41																									
CCB 280-460772/31			19:44																									
ZZZZZZ			19:47																									
ZZZZZZ			19:50																									
ZZZZZZ			19:53																									
ZZZZZZ			19:56																									
ZZZZZZ			19:59																									
ZZZZZZ			20:02																									
ZZZZZZ			20:05																									
ZZZZZZ			20:08																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			20:11																									
ZZZZZZ			20:14																									
ZZZZZZ			20:17																									
ZZZZZZ			20:20																									
ZZZZZZ			20:23																									
CCV 280-460772/45	1		20:26	X																								
CCVL 280-460772/46			20:29																									
CCB 280-460772/47	1		20:32	X																								
ZZZZZZ			20:35																									
ZZZZZZ			20:38																									
ZZZZZZ			20:41																									
ZZZZZZ			20:44																									
ZZZZZZ			20:47																									
ZZZZZZ			20:50																									
ZZZZZZ			20:53																									
LCS 280-460749/1-A	1	T	20:57	X																								
MB 280-460749/2-A	1	T	21:00	X																								
ZZZZZZ			21:03																									
ZZZZZZ			21:06																									
ZZZZZZ			21:09																									
ZZZZZZ			21:12																									
CCV 280-460772/61	1		21:15	X																								
CCVL 280-460772/62	1		21:18	X																								
CCB 280-460772/63	1		21:21	X																								
ZZZZZZ			21:24																									
ZZZZZZ			21:27																									
280-123983-1	1	T	21:30	X																								
280-123983-2	1	T	21:33	X																								
280-123983-3	1	T	21:36	X																								
ZZZZZZ			21:39																									
ZZZZZZ			21:42																									
ZZZZZZ			21:45																									
ZZZZZZ			21:48																									
ZZZZZZ			22:53																									
ZZZZZZ			22:56																									
ZZZZZZ			22:59																									
ZZZZZZ			23:02																									
CCV 280-460772/77	1		23:05	X																								
CCVL 280-460772/78	1		23:08	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																									
				PhenT																									
CCB 280-460772/79	1		23:11	X																									
ZZZZZZ			23:14																										
ZZZZZZ			23:17																										
ZZZZZZ			23:20																										
ZZZZZZ			23:23																										
ZZZZZZ			23:26																										
ZZZZZZ			23:29																										
ZZZZZZ			23:32																										
ZZZZZZ			23:35																										
ZZZZZZ			23:38																										
ZZZZZZ			23:41																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ZZZZZZ			23:51																										
CCV 280-460772/93	1		23:54	X																									
CCVL 280-460772/94	1		23:57	X																									
CCB 280-460772/95	1		00:00	X																									
ZZZZZZ			00:03																										
ZZZZZZ			00:06																										
ZZZZZZ			00:09																										
ZZZZZZ			00:13																										
ZZZZZZ			00:16																										
ZZZZZZ			00:19																										
ZZZZZZ			00:22																										
ZZZZZZ			00:25																										
CCV 280-460772/104	1		00:28	X																									
CCVL 280-460772/105	1		00:31	X																									
CCB 280-460772/106	1		00:34	X																									
ZZZZZZ			00:37																										

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2120B

Start Date: 05/18/2019 20:40 End Date: 05/18/2019 21:10

Lab Sample Id	D/F	Type	Time	Analytes																									
				Color																									
MB 280-458692/1	1	T	20:40	X																									
ZZZZZZ			20:40																										
ZZZZZZ			20:40																										
ZZZZZZ			20:40																										
ZZZZZZ			20:40																										
ZZZZZZ			20:40																										
ZZZZZZ			20:40																										
ZZZZZZ			20:40																										
ZZZZZZ			20:40																										
ZZZZZZ			20:40																										
ZZZZZZ			20:40																										
280-123983-1	5	T	20:40	X																									
280-123983-2	5	T	20:40	X																									
280-123983-2 DU	5	T	20:40	X																									
280-123983-3	5	T	21:10	X																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340C

Start Date: 05/24/2019 16:44 End Date: 05/24/2019 16:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
LCS 280-459417/1	1	T	16:44	X																								
MB 280-459417/2	1	T	16:44	X																								
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
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ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
280-123983-1	1	T	16:44	X																								
280-123983-2	1	T	16:44	X																								
280-123983-3	1	T	16:44	X																								
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
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ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
RTC 280-458327/1			17:16																											
STD 280-458327/2 IC	1		17:32	X	X	X	X																							
STD 280-458327/3 IC	1		17:49	X	X	X	X																							
STD 280-458327/4 IC	1		18:05	X	X	X	X																							
STD 280-458327/5 IC	1		18:21	X	X	X	X																							
STD 280-458327/6 IC	1		18:38	X	X	X	X																							
STD 280-458327/7 IC	1		18:54	X	X	X	X																							
ICV 280-458327/8	1		19:11	X	X	X	X																							
ICB 280-458327/9	1		19:27	X	X	X	X																							
ZZZZZZ			19:43																											
ZZZZZZ			20:00																											
ZZZZZZ			20:16																											
ZZZZZZ			20:33																											
ZZZZZZ			20:49																											
ZZZZZZ			21:06																											
ZZZZZZ			21:22																											
ZZZZZZ			21:38																											
ZZZZZZ			21:55																											
ZZZZZZ			22:11																											
ZZZZZZ			22:28																											
CCV 280-458327/21			22:44																											
CCB 280-458327/22			23:01																											
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:50																											
ZZZZZZ			00:06																											
ZZZZZZ			00:23																											
ZZZZZZ			00:39																											
ZZZZZZ			00:55																											
ZZZZZZ			01:12																											
ZZZZZZ			01:28																											
ZZZZZZ			01:45																											
CCV 280-458327/33			02:01																											

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCB 280-458327/34			02:17																											
ZZZZZZ			02:34																											
ZZZZZZ			02:50																											
ZZZZZZ			03:07																											
ZZZZZZ			03:23																											
ZZZZZZ			03:40																											
ZZZZZZ			03:56																											
ZZZZZZ			04:12																											
ZZZZZZ			04:29																											
ZZZZZZ			04:45																											
ZZZZZZ			05:02																											
CCV 280-458327/45			05:18																											
CCB 280-458327/46			05:34																											
ZZZZZZ			05:51																											
ZZZZZZ			06:07																											
ZZZZZZ			06:24																											
ZZZZZZ			08:25																											
ZZZZZZ			08:41																											
ZZZZZZ			08:57																											
ZZZZZZ			09:14																											
ZZZZZZ			09:30																											
ZZZZZZ			09:47																											
ZZZZZZ			10:03																											
CCV 280-458327/57			10:19																											
CCB 280-458327/58			10:36																											
ZZZZZZ			10:52																											
ZZZZZZ			11:09																											
ZZZZZZ			11:25																											
ZZZZZZ			11:42																											
ZZZZZZ			11:58																											
ZZZZZZ			12:14																											
ZZZZZZ			12:31																											
ZZZZZZ			12:47																											

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				NNO32	NO2-N	NO3	Orthophosasp																						
CCV 280-458327/67			13:04																										
CCB 280-458327/68			13:20																										

Prep Types:
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FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-458328/1			17:16																										
STD 280-458328/2 IC	1		17:32	X	X	X	X																						
STD 280-458328/3 IC	1		17:49	X	X	X	X																						
STD 280-458328/4 IC	1		18:05	X	X	X	X																						
STD 280-458328/5 IC	1		18:21	X	X	X	X																						
STD 280-458328/6 IC	1		18:38	X	X	X	X																						
STD 280-458328/7 IC	1		18:54	X	X	X	X																						
ICV 280-458328/8	1		19:11	X	X	X	X																						
ICB 280-458328/9	1		19:27	X	X	X	X																						
ZZZZZZ			19:43																										
ZZZZZZ			20:00																										
ZZZZZZ			20:16																										
ZZZZZZ			20:33																										
ZZZZZZ			20:49																										
ZZZZZZ			21:06																										
ZZZZZZ			21:22																										
ZZZZZZ			21:38																										
ZZZZZZ			21:55																										
ZZZZZZ			22:11																										
ZZZZZZ			22:28																										
CCV 280-458328/21			22:44																										
CCB 280-458328/22			23:01																										
ZZZZZZ			23:17																										
ZZZZZZ			23:33																										
ZZZZZZ			23:50																										
ZZZZZZ			00:06																										
ZZZZZZ			00:23																										
ZZZZZZ			00:39																										
ZZZZZZ			00:55																										
ZZZZZZ			01:12																										
ZZZZZZ			01:28																										
ZZZZZZ			01:45																										
CCV 280-458328/33			02:01																										
CCB 280-458328/34			02:17																										
ZZZZZZ			02:34																										
ZZZZZZ			02:50																										
ZZZZZZ			03:56																										
ZZZZZZ			04:12																										
ZZZZZZ			04:29																										
ZZZZZZ			04:45																										
ZZZZZZ			05:02																										

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																							
CCV 280-458328/45			05:18																										
CCB 280-458328/46			05:34																										
ZZZZZZ			05:51																										
ZZZZZZ			06:07																										
ZZZZZZ			06:24																										
ZZZZZZ			08:25																										
ZZZZZZ			08:41																										
ZZZZZZ			08:57																										
ZZZZZZ			09:14																										
ZZZZZZ			09:30																										
ZZZZZZ			09:47																										
ZZZZZZ			10:03																										
CCV 280-458328/57			10:19																										
CCB 280-458328/58			10:36																										
ZZZZZZ			10:52																										
ZZZZZZ			11:09																										
ZZZZZZ			11:25																										
ZZZZZZ			11:42																										
ZZZZZZ			11:58																										
ZZZZZZ			12:14																										
ZZZZZZ			12:31																										
ZZZZZZ			12:47																										
CCV 280-458328/67			13:04																										
CCB 280-458328/68			13:20																										

Prep Types:
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/18/2019 19:06 End Date: 05/19/2019 03:57

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCV 280-458688/1	1		19:06	X	X	X	X																							
CCB 280-458688/2	1		19:23	X	X	X	X																							
MRL 280-458688/3	1	T	19:39	X	X	X	X																							
LCS 280-458688/4	1	T	19:56	X	X	X	X																							
LCSD 280-458688/5	1	T	20:12	X	X	X	X																							
MB 280-458688/6	1	T	20:29	X	X	X	X																							
ZZZZZZ			21:56																											
ZZZZZZ			22:13																											
ZZZZZZ			22:29																											
ZZZZZZ			22:45																											
ZZZZZZ			23:02																											
ZZZZZZ			23:18																											
ZZZZZZ			23:35																											
ZZZZZZ			23:51																											
ZZZZZZ			00:08																											
ZZZZZZ			00:24																											
CCV 280-458688/17	1		00:40	X	X	X	X																							
CCB 280-458688/18	1		00:57	X	X	X	X																							
ZZZZZZ			01:13																											
ZZZZZZ			01:30																											
ZZZZZZ			01:46																											
280-123983-2	1	T	02:02	X	X	X	X																							
280-123983-1	1	T	02:19	X	X	X	X																							
280-123983-1 DU	1	T	02:35	X	X	X	X																							
280-123983-1 MS	1	T	02:52	X	X	X	X																							
280-123983-1 MSD	1	T	03:08	X	X	X	X																							
280-123983-3	1	T	03:25	X	X	X	X																							
CCV 280-458688/28	1		03:41	X	X	X	X																							
CCB 280-458688/29	1		03:57	X	X	X	X																							

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/18/2019 19:06 End Date: 05/19/2019 03:57

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	CL-	SO4																								
CCV 280-458689/1	1		19:06	X	X	X																								
CCB 280-458689/2	1		19:23	X	X	X																								
MRL 280-458689/3	1	T	19:39	X	X	X																								
LCS 280-458689/4	1	T	19:56	X	X	X																								
LCSD 280-458689/5	1	T	20:12	X	X	X																								
MB 280-458689/6	1	T	20:29	X	X	X																								
ZZZZZZ			21:56																											
ZZZZZZ			22:13																											
ZZZZZZ			22:29																											
ZZZZZZ			22:45																											
ZZZZZZ			23:02																											
ZZZZZZ			23:18																											
ZZZZZZ			23:35																											
ZZZZZZ			23:51																											
ZZZZZZ			00:08																											
ZZZZZZ			00:24																											
CCV 280-458689/17	1		00:40	X	X	X																								
CCB 280-458689/18	1		00:57	X	X	X																								
ZZZZZZ			01:13																											
ZZZZZZ			01:30																											
ZZZZZZ			01:46																											
280-123983-2	1	T	02:02	X	X	X																								
280-123983-1	1	T	02:19	X	X	X																								
280-123983-1 DU	1	T	02:35	X	X	X																								
280-123983-1 MS	1	T	02:52	X	X	X																								
280-123983-1 MSD	1	T	03:08	X	X	X																								
280-123983-3	1	T	03:25	X	X	X																								
CCV 280-458689/28	1		03:41	X	X	X																								
CCB 280-458689/29	1		03:57	X	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
RTC 280-458776/1			15:15																											
STD 280-458776/2 IC	1		15:30	X	X	X	X																							
STD 280-458776/3 IC	1		15:47	X	X	X	X																							
STD 280-458776/4 IC	1		16:03	X	X	X	X																							
STD 280-458776/5 IC	1		16:20	X	X	X	X																							
STD 280-458776/6 IC	1		16:36	X	X	X	X																							
STD 280-458776/7 IC	1		16:52	X	X	X	X																							
ICV 280-458776/8	1		17:09	X	X	X	X																							
ICB 280-458776/9	1		17:25	X	X	X	X																							
MRL 280-458776/10	1	T	17:42	X	X	X	X																							
LCS 280-458776/11	1	T	17:58	X	X	X	X																							
LCSD 280-458776/12	1	T	18:15	X	X	X	X																							
MB 280-458776/13	1	T	18:31	X	X	X	X																							
ZZZZZZ			20:12																											
ZZZZZZ			20:28																											
ZZZZZZ			20:45																											
ZZZZZZ			21:01																											
ZZZZZZ			21:18																											
ZZZZZZ			21:34																											
ZZZZZZ			21:50																											
ZZZZZZ			22:07																											
ZZZZZZ			22:23																											
ZZZZZZ			22:40																											
CCV 280-458776/24	1		22:56	X	X	X	X																							
CCB 280-458776/25	1		23:12	X	X	X	X																							
ZZZZZZ			23:29																											
ZZZZZZ			23:45																											
ZZZZZZ			14:24																											
ZZZZZZ			14:40																											
ZZZZZZ			14:56																											
ZZZZZZ			15:12																											
ZZZZZZ			15:29																											
ZZZZZZ			15:45																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
ZZZZZZ			16:02																											
ZZZZZZ			16:18																											
CCV 280-458776/36	1		16:35	X	X	X	X																							
CCB 280-458776/37	1		16:51	X	X	X	X																							
ZZZZZZ			17:07																											
ZZZZZZ			17:24																											
ZZZZZZ			17:40																											
ZZZZZZ			17:57																											
ZZZZZZ			18:13																											
ZZZZZZ			18:29																											
CCV 280-458776/44	1		18:46	X	X	X	X																							
CCB 280-458776/45	1		19:02	X	X	X	X																							
CCV 280-458776/46			19:19																											
CCB 280-458776/47			19:35																											
ZZZZZZ			19:51																											
ZZZZZZ			20:08																											
ZZZZZZ			21:06																											
ZZZZZZ			21:22																											
ZZZZZZ			21:38																											
ZZZZZZ			21:54																											
ZZZZZZ			22:11																											
ZZZZZZ			22:27																											
ZZZZZZ			22:44																											
ZZZZZZ			23:00																											
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:49																											
CCV 280-458776/61			00:06																											
CCB 280-458776/62			00:22																											

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-458777/1			15:15																										
STD 280-458777/2 IC	1		15:30	X	X	X	X																						
STD 280-458777/3 IC	1		15:47	X	X	X	X																						
STD 280-458777/4 IC	1		16:03	X	X	X	X																						
STD 280-458777/5 IC	1		16:20	X	X	X	X																						
STD 280-458777/6 IC	1		16:36	X	X	X	X																						
STD 280-458777/7 IC	1		16:52	X	X	X	X																						
ICV 280-458777/8	1		17:09	X	X	X	X																						
ICB 280-458777/9	1		17:25	X	X	X	X																						
MRL 280-458777/10	1	T	17:42	X	X	X	X																						
LCS 280-458777/11	1	T	17:58	X	X	X	X																						
LCSD 280-458777/12	1	T	18:15	X	X	X	X																						
MB 280-458777/13	1	T	18:31	X	X	X	X																						
ZZZZZZ			20:12																										
ZZZZZZ			20:28																										
ZZZZZZ			20:45																										
ZZZZZZ			21:01																										
ZZZZZZ			21:18																										
ZZZZZZ			21:34																										
ZZZZZZ			21:50																										
ZZZZZZ			22:07																										
ZZZZZZ			22:23																										
ZZZZZZ			22:40																										
CCV 280-458777/24	1		22:56	X	X	X	X																						
CCB 280-458777/25	1		23:12	X	X	X	X																						
ZZZZZZ			23:29																										
ZZZZZZ			23:45																										
ZZZZZZ			14:24																										
ZZZZZZ			14:40																										
ZZZZZZ			14:56																										
ZZZZZZ			15:12																										
ZZZZZZ			15:29																										
ZZZZZZ			15:45																										
ZZZZZZ			16:02																										
ZZZZZZ			16:18																										
CCV 280-458777/36	1		16:35	X	X	X	X																						
CCB 280-458777/37	1		16:51	X	X	X	X																						
ZZZZZZ			17:07																										
ZZZZZZ			17:24																										
ZZZZZZ			17:40																										
280-123983-1	1	T	17:57			X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																							
280-123983-2	1	T	18:13			X																							
280-123983-3	1	T	18:29			X																							
CCV 280-458777/44	1		18:46	X	X	X	X																						
CCB 280-458777/45	1		19:02	X	X	X	X																						
CCV 280-458777/46			19:19																										
CCB 280-458777/47			19:35																										
ZZZZZZ			19:51																										
ZZZZZZ			20:08																										
ZZZZZZ			21:06																										
ZZZZZZ			21:22																										
ZZZZZZ			21:38																										
ZZZZZZ			21:54																										
ZZZZZZ			22:11																										
ZZZZZZ			22:27																										
ZZZZZZ			22:44																										
ZZZZZZ			23:00																										
ZZZZZZ			23:17																										
ZZZZZZ			23:33																										
ZZZZZZ			23:49																										
CCV 280-458777/61			00:06																										
CCB 280-458777/62			00:22																										

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/12/2019 15:21 End Date: 06/13/2019 10:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				TOCQ																								
ICV 280-461430/1	1		15:21	X																								
ICB 280-461430/2	1		15:36	X																								
ZZZZZZ			15:52																									
ZZZZZZ			16:07																									
ZZZZZZ			16:28																									
ZZZZZZ			16:45																									
ZZZZZZ			16:59																									
ZZZZZZ			17:16																									
ZZZZZZ			17:35																									
ZZZZZZ			17:50																									
ZZZZZZ			18:10																									
ZZZZZZ			18:25																									
ZZZZZZ			18:42																									
ZZZZZZ			18:57																									
CCV 280-461430/15			19:16																									
CCB 280-461430/16			19:31																									
ZZZZZZ			19:52																									
ZZZZZZ			20:08																									
ZZZZZZ			20:25																									
ZZZZZZ			20:42																									
ZZZZZZ			21:03																									
ZZZZZZ			21:21																									
ZZZZZZ			21:38																									
ZZZZZZ			21:55																									
ZZZZZZ			22:12																									
ZZZZZZ			22:29																									
CCV 280-461430/27	1		22:43	X																								
CCB 280-461430/28	1		23:00	X																								
ZZZZZZ			23:21																									
ZZZZZZ			23:38																									
ZZZZZZ			23:54																									
ZZZZZZ			00:15																									
ZZZZZZ			00:34																									
LCS 280-461430/34	1	T	00:49	X																								
MB 280-461430/35	1	T	01:04	X																								
ZZZZZZ			01:27																									
ZZZZZZ			01:43																									
ZZZZZZ			02:04																									
CCV 280-461430/39	1		02:21	X																								
CCB 280-461430/40	1		02:36	X																								

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/12/2019 15:21 End Date: 06/13/2019 10:31

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ZZZZZZ			02:56																										
ZZZZZZ			03:15																										
ZZZZZZ			03:32																										
ZZZZZZ			03:49																										
280-123983-2	1	T	04:06	X																									
ZZZZZZ			04:23																										
280-123983-1	1	T	04:40	X																									
ZZZZZZ			04:56																										
ZZZZZZ			05:13																										
ZZZZZZ			05:30																										
CCV 280-461430/51	1		05:47	X																									
CCB 280-461430/52	1		06:02	X																									
ZZZZZZ			06:23																										
ZZZZZZ			06:39																										
ZZZZZZ			06:57																										
ZZZZZZ			07:14																										
ZZZZZZ			07:30																										
ZZZZZZ			07:47																										
ZZZZZZ			08:02																										
ZZZZZZ			08:21																										
ZZZZZZ			08:37																										
ZZZZZZ			08:54																										
CCV 280-461430/63			09:11																										
CCB 280-461430/64			09:26																										
ZZZZZZ			09:45																										
ZZZZZZ			10:00																										
CCV 280-461430/67			10:17																										
CCB 280-461430/68			10:31																										

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/13/2019 17:47 End Date: 06/14/2019 13:06

Lab Sample Id	D/F	Type	Time	Analytes
				TOCQ
ICV 280-461601/1	1		17:47	X
ICB 280-461601/2	1		18:04	X
LCS 280-461601/3	1	T	18:23	X
MB 280-461601/4	1	T	18:38	X
ZZZZZZ			18:58	
280-123983-3	2	T	19:17	X
ZZZZZZ			19:38	
ZZZZZZ			19:53	
ZZZZZZ			20:16	
ZZZZZZ			20:32	
ZZZZZZ			20:53	
ZZZZZZ			21:12	
ZZZZZZ			21:31	
ZZZZZZ			21:48	
CCV 280-461601/15	1		22:05	X
CCB 280-461601/16	1		22:21	X
ZZZZZZ			22:43	
ZZZZZZ			22:58	
ZZZZZZ			23:19	
ZZZZZZ			23:40	
ZZZZZZ			23:59	
ZZZZZZ			00:17	
ZZZZZZ			00:37	
ZZZZZZ			00:55	
ZZZZZZ			01:12	
ZZZZZZ			01:27	
CCV 280-461601/27			01:46	
CCB 280-461601/28			02:00	
ZZZZZZ			02:21	
ZZZZZZ			02:45	
ZZZZZZ			03:02	
ZZZZZZ			03:23	
ZZZZZZ			03:50	
ZZZZZZ			04:05	
ZZZZZZ			04:26	
ZZZZZZ			04:47	
ZZZZZZ			05:04	
ZZZZZZ			05:23	
CCV 280-461601/39			05:41	
CCB 280-461601/40			05:58	

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/13/2019 17:47 End Date: 06/14/2019 13:06

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ZZZZZZ			06:17																										
ZZZZZZ			06:36																										
ZZZZZZ			06:53																										
ZZZZZZ			07:12																										
ZZZZZZ			07:29																										
ZZZZZZ			07:47																										
ZZZZZZ			08:08																										
ZZZZZZ			08:25																										
ZZZZZZ			08:46																										
ZZZZZZ			09:03																										
ZZZZZZ			09:19																										
ZZZZZZ			09:38																										
CCV 280-461601/53			09:55																										
CCB 280-461601/54			10:10																										
ZZZZZZ			10:27																										
ZZZZZZ			10:44																										
ZZZZZZ			11:03																										
ZZZZZZ			11:20																										
ZZZZZZ			11:41																										
ZZZZZZ			11:59																										
ZZZZZZ			12:16																										
ZZZZZZ			12:35																										
CCV 280-461601/63			12:49																										
CCB 280-461601/64			13:06																										

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-459576/1			17:32																									
ZZZZZZ			17:40																									
ZZZZZZ			17:42																									
ZZZZZZ			17:48																									
ZZZZZZ			18:12																									
ZZZZZZ			18:18																									
ZZZZZZ			18:23																									
ZZZZZZ			18:29																									
ZZZZZZ			18:34																									
ZZZZZZ			18:39																									
ZZZZZZ			18:45																									
ZZZZZZ			18:52																									
ZZZZZZ			19:01																									
ZZZZZZ			19:07																									
ZZZZZZ			19:16																									
CCV 280-459576/16			19:22																									
CCB 280-459576/17			19:27																									
ZZZZZZ			19:35																									
ZZZZZZ			19:40																									
ZZZZZZ			19:46																									
ZZZZZZ			19:52																									
ZZZZZZ			19:59																									
ZZZZZZ			20:04																									
ZZZZZZ			20:10																									
ZZZZZZ			20:16																									
ZZZZZZ			20:22																									
ZZZZZZ			20:25																									
CCV 280-459576/28			20:31																									
CCB 280-459576/29			20:36																									
ZZZZZZ			20:42																									
ZZZZZZ			20:47																									
ZZZZZZ			20:52																									
ZZZZZZ			20:58																									
ZZZZZZ			21:03																									
ZZZZZZ			21:08																									
ZZZZZZ			21:17																									
ZZZZZZ			21:22																									
ZZZZZZ			21:29																									
ZZZZZZ			21:36																									
ZZZZZZ			21:43																									
ZZZZZZ			21:48																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
CCV 280-459576/42			21:55	
CCB 280-459576/43			21:59	
ZZZZZZ			22:06	
ZZZZZZ			22:13	
ZZZZZZ			22:18	
ZZZZZZ			22:24	
ZZZZZZ			22:30	
ZZZZZZ			22:35	
ZZZZZZ			22:41	
ZZZZZZ			22:47	
ZZZZZZ			22:54	
ZZZZZZ			23:01	
CCV 280-459576/54			23:07	
CCB 280-459576/55			23:12	
ZZZZZZ			23:18	
ZZZZZZ			23:23	
ZZZZZZ			23:30	
ZZZZZZ			23:38	
ZZZZZZ			23:43	
ZZZZZZ			23:50	
ZZZZZZ			23:57	
ZZZZZZ			00:05	
ZZZZZZ			00:13	
ZZZZZZ			00:21	
ZZZZZZ			00:27	
ZZZZZZ			00:34	
CCV 280-459576/68			00:40	
CCB 280-459576/69			00:44	
ZZZZZZ			00:53	
ZZZZZZ			00:58	
ZZZZZZ			01:08	
ZZZZZZ			01:15	
ZZZZZZ			01:21	
ZZZZZZ			01:32	
ZZZZZZ			01:40	
ZZZZZZ			01:47	
ZZZZZZ			01:53	
ZZZZZZ			01:59	
CCV 280-459576/80	1		02:04	X
CCB 280-459576/81	1		02:09	X
LCS 280-459576/82	1	T	02:15	X

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
MB 280-459576/83	1	T	02:19	X																								
ZZZZZZ			02:26																									
ZZZZZZ			02:33																									
ZZZZZZ			02:39																									
ZZZZZZ			02:45																									
ZZZZZZ			02:50																									
ZZZZZZ			02:57																									
ZZZZZZ			03:04																									
ZZZZZZ			03:10																									
280-123983-1	1	T	03:15	X																								
280-123983-2	1	T	03:21	X																								
CCV 280-459576/94	1		03:27	X																								
CCB 280-459576/95	1		03:31	X																								
280-123983-3	1	T	03:37	X																								
ZZZZZZ			03:43																									
ZZZZZZ			03:49																									
ZZZZZZ			03:55																									
ZZZZZZ			04:02																									
ZZZZZZ			04:16																									
ZZZZZZ			04:34																									
ZZZZZZ			04:56																									
ZZZZZZ			05:12																									
ZZZZZZ			05:23																									
CCV 280-459576/106	1		05:28	X																								
CCB 280-459576/107	1		05:33	X																								
ZZZZZZ			05:40																									
ZZZZZZ			05:45																									
ZZZZZZ			05:55																									
ZZZZZZ			06:06																									
ZZZZZZ			06:18																									
ZZZZZZ			06:23																									
ZZZZZZ			06:44																									
ZZZZZZ			06:51																									
ZZZZZZ			06:57																									
ZZZZZZ			07:04																									
ZZZZZZ			07:10																									
ZZZZZZ			07:16																									
CCV 280-459576/120			07:23																									
CCB 280-459576/121			07:27																									
ZZZZZZ			07:33																									
ZZZZZZ			07:40																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			07:46																									
ZZZZZZ			07:57																									
ZZZZZZ			08:02																									
ZZZZZZ			08:07																									
ZZZZZZ			08:12																									
ZZZZZZ			08:17																									
ZZZZZZ			08:23																									
ZZZZZZ			08:26																									
CCV 280-459576/132			08:32																									
CCB 280-459576/133			08:37																									
ZZZZZZ			08:43																									
ZZZZZZ			08:48																									
ZZZZZZ			08:53																									
ZZZZZZ			08:56																									
ZZZZZZ			09:01																									
CCV 280-459576/139			09:07																									
CCB 280-459576/140			09:12																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/23/2019 16:24 End Date: 05/23/2019 16:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-459268/1	1	T	16:24	X																								
LCS 280-459268/2	1	T	16:24	X																								
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
280-123983-1	1	T	16:24	X																								
280-123983-2	1	T	16:24	X																								
280-123983-3	1	T	16:24	X																								
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
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ZZZZZZ			16:24																									
ZZZZZZ			16:24																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM5210B

Start Date: 05/18/2019 13:59 End Date: 05/18/2019 14:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				BOD																								
SCB 280-458674/1	1	T	13:59	X																								
USB 280-458674/2	1	T	13:59	X																								
LCS 280-458674/3	1	T	13:59	X																								
MB 280-458674/4	1	T	13:59	X																								
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
280-123983-1	1	T	13:59	X																								
280-123983-2	1	T	13:59	X																								
280-123983-3	1	T	13:59	X																								
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			14:32																									
ZZZZZZ			14:32																									
ZZZZZZ			14:32																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 460082 Batch Start Date: 05/31/19 15:06 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
ICVL 280-460082/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-460082/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-460082/16		350.1			10 mL	10 mL			
MB 280-460082/20		350.1			10 mL	10 mL			
280-123983-C-1	LF2SW-1_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123983-C-1 MS	LF2SW-1_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123983-C-1 MSD	LF2SW-1_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123983-D-2	LF2SW-2_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123983-E-3	LF2SW-3_0519	350.1	T	N	10 mL	10 mL	<2 SU		
LCS 280-460082/31		350.1			100 mL	100 mL		2.5 mL	
CCVL 280-460082/35		350.1			100 mL	100 mL		0.5 mL	
CCV 280-460082/36		350.1			100 mL	100 mL		2.5 mL	
CCB 280-460082/37		350.1			10 mL	10 mL			

Batch Notes	
Carrier Identification	350.1 complex_00425
Hypochlorite ID	350.1 bleach_01069
Sodium Nitroprusside ID	350.1 color_00152
Pipette/Syringe/Dispenser ID	JPX100, JPX1000, JPX5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 460066 Batch Start Date: 05/31/19 16:12 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00794	TKN ICV 25 00078		
ICV 280-460066/42		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-460066/43		351.2, 351.2		25 mL	25 mL				
CCV 280-460066/44		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-460066/45		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	06/01/19 0400
Block Digestion Start time	05/31/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00126
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 460760 Batch Start Date: 06/06/19 19:57 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00794		
LCS 280-460760/1		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460760/2		351.2, 351.2		<2	25 mL	25 mL			
280-123983-E-1	LF2SW-1_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123983-C-2	LF2SW-2_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123983-D-3	LF2SW-3_0519	351.2, 351.2	T	<2	1 mL	25 mL			

Batch Notes	
Block Digestion End time	06/06/19 0430
Block Digestion Start time	06/06/19 2130
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00127
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 460878 Batch Start Date: 06/07/19 16:59 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-460066/42-A		351.2		4 mL					
ICB 280-460066/43-A		351.2		4 mL					
LCS 280-460760/1-A		351.2		4 mL					
MB 280-460760/2-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123983-E-1-A	LF2SW-1_0519	351.2	T	4 mL					
280-123983-C-2-A	LF2SW-2_0519	351.2	T	4 mL					
280-123983-D-3-A	LF2SW-3_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					

Batch Notes	
Buffer Reagent ID	TKN Buffer_00118
Hypochlorite ID	TKN hypo_00663
Sodium Nitroprusside ID	Sodium Nitro_00095
Pipette/Syringe/Dispenser ID	5000AD, 1000AD

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 457887 Batch Start Date: 05/13/19 07:39 Batch Analyst: Loux, Lauren P

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	COD cal std 00048			
IC 280-457887/1		410.4		50 mL	50 mL	0.25 mL			
IC 280-457887/2		410.4		50 mL	50 mL	0.5 mL			
IC 280-457887/3		410.4		50 mL	50 mL	1 mL			
IC 280-457887/4		410.4		50 mL	50 mL	2.5 mL			
IC 280-457887/5		410.4		50 mL	50 mL	5 mL			
IC 280-457887/6		410.4		50 mL	50 mL	7.5 mL			

Batch Notes	
Block Digestor ID	Hach4AA, Hach4BB, Hach6AA
Chlorine ID	HC850274
Temperature - Corrected - End	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Temperature - Corrected - Start	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Digestion End Time	05/13/2019 11:27
Digestion Start Time	05/13/2019 09:27
Pipette/Syringe/Dispenser ID	5000LL, 1000LL
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Temperature - Uncorrected - Start	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 461121 Batch Start Date: 06/11/19 09:08 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-461121/1		410.4		100 mL	100 mL				
ICB 280-461121/2		410.4		2 mL	2 mL				
LCS 280-461121/3		410.4		100 mL	100 mL				10 mL
LCSD 280-461121/4		410.4		100 mL	100 mL				10 mL
MB 280-461121/5		410.4		2 mL	2 mL				
CCV 280-461121/16		410.4		100 mL	100 mL				10 mL
CCB 280-461121/17		410.4		2 mL	2 mL				
280-123983-G-1	LF2SW-1_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-461121/28		410.4		100 mL	100 mL				10 mL
CCB 280-461121/29		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034					
ICV 280-461121/1		410.4		7.5 mL					
ICB 280-461121/2		410.4							
LCS 280-461121/3		410.4							
LCSD 280-461121/4		410.4							
MB 280-461121/5		410.4							
CCV 280-461121/16		410.4							
CCB 280-461121/17		410.4							
280-123983-G-1	LF2SW-1_0519	410.4	T						
CCV 280-461121/28		410.4							
CCB 280-461121/29		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 461121 Batch Start Date: 06/11/19 09:08 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Batch Notes	
Block Digestor ID	hach2, hach4
Chlorine ID	hc850274
Temperature - Corrected - End	Hach 2 BB 151, Hach 4 AA 149, Hach 4 BB 150 Degrees C
Temperature - Corrected - Start	Hach 2 BB 151, Hach 4 AA 149, Hach 4 BB 150 Degrees C
Digestion End Time	06/11/2019 14:45
Digestion Start Time	06/11/2019 12:45
Pipette/Syringe/Dispenser ID	wc5000ccj, wc1000cj
Sufficient Volume for Batch QC	yes
Temperature - Uncorrected - End	Hach 2 BB 150, Hach 4 AA 150, Hach 4 BB 150 Degrees C
Temperature - Uncorrected - Start	Hach 2 BB 150, Hach 4 AA 150, Hach 4 BB 150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 461275 Batch Start Date: 06/12/19 10:53 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-461275/1		410.4		100 mL	100 mL				
ICB 280-461275/2		410.4		2 mL	2 mL				
LCS 280-461275/3		410.4		100 mL	100 mL				10 mL
LCSD 280-461275/4		410.4		100 mL	100 mL				10 mL
MB 280-461275/5		410.4		2 mL	2 mL				
280-123983-C-2	LF2SW-2_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-461275/16		410.4		100 mL	100 mL				10 mL
CCB 280-461275/17		410.4		2 mL	2 mL				
280-123983-E-3	LF2SW-3_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-461275/28		410.4		100 mL	100 mL				10 mL
CCB 280-461275/29		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	AnalysisComment				
ICV 280-461275/1		410.4		7.5 mL					
ICB 280-461275/2		410.4							
LCS 280-461275/3		410.4							
LCSD 280-461275/4		410.4							
MB 280-461275/5		410.4							
280-123983-C-2	LF2SW-2_0519	410.4	T						
CCV 280-461275/16		410.4							
CCB 280-461275/17		410.4							
280-123983-E-3	LF2SW-3_0519	410.4	T		Dirty				
CCV 280-461275/28		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 461275 Batch Start Date: 06/12/19 10:53 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	AnalysisComment				
CCB 280-461275/29		410.4							

Batch Notes	
Batch Comment	KS trained by CJ
Block Digestor ID	Hach 2, Hach 4
Chlorine ID	HC864124
Temperature - Corrected - End	Hach 2 AA 150, Hach 2 BB 151, Hace 4 AA 149, Hach 4 BB 150 Degrees C
Temperature - Corrected - Start	Hach 2 AA 150, Hach 2 BB 151, Hace 4 AA 149, Hach 4 BB 150 Degrees C
Digestion End Time	06/08/2019 15:01
Digestion Start Time	06/12/2019 13:01
Pipette/Syringe/Dispenser ID	1000LL, AZ5000
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150, Hach 4 BB 150 Degrees C
Temperature - Uncorrected - Start	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150, Hach 4 BB 150 Degrees C
Vial Lot Number	A9112A, A9120

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 460749 Batch Start Date: 06/06/19 17:53 Batch Analyst: Moser, Angela R

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
LCS 280-460749/1		Distill/Phenol, 9066		50 mL	50 mL				1 mL
MB 280-460749/2		Distill/Phenol, 9066		50 mL	50 mL				
280-123983-G-1	LF2SW-1_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123983-G-2	LF2SW-2_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123983-G-3	LF2SW-3_0519	Distill/Phenol, 9066	T	2 mL	50 mL	n	<2 SU	4 SU	

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460772/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460772/14		9066		100 mL	100 mL		1 mL		
ICB 280-460772/15		9066		100 mL	100 mL				
CCV 280-460772/45		9066		100 mL	100 mL	2 mL			
CCB 280-460772/47		9066		100 mL	100 mL				
LCS 280-460749/1-A		9066		100 mL	100 mL				
MB 280-460749/2-A		9066		100 mL	100 mL				
CCV 280-460772/61		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/62		9066		100 mL	100 mL	1 mL			
CCB 280-460772/63		9066		100 mL	100 mL				
280-123983-G-1-B	LF2SW-1_0519	9066	T	100 mL	100 mL				
280-123983-G-2-B	LF2SW-2_0519	9066	T	100 mL	100 mL				
280-123983-G-3-B	LF2SW-3_0519	9066	T	100 mL	100 mL				
CCV 280-460772/77		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/78		9066		100 mL	100 mL	1 mL			
CCB 280-460772/79		9066		100 mL	100 mL				
CCV 280-460772/93		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/94		9066		100 mL	100 mL	1 mL			
CCB 280-460772/95		9066		100 mL	100 mL				
CCV 280-460772/104		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/105		9066		100 mL	100 mL	1 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
CCB 280-460772/106		9066		100 mL	100 mL				

Batch Notes	
Batch Comment	RK Training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00409
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458692 Batch Start Date: 05/18/19 20:40 Batch Analyst: Bryant, Chase K

Batch Method: SM 2120B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	AnalysisComment		
MB 280-458692/1		SM 2120B		7 SU	50 mL	50 mL			
280-123983-J-1	LF2SW-1_0519	SM 2120B	T	7 SU	10 mL	50 mL			
280-123983-H-2	LF2SW-2_0519	SM 2120B	T	7 SU	10 mL	50 mL			
280-123983-H-2 DU	LF2SW-2_0519	SM 2120B	T	7 SU	10 mL	50 mL			
280-123983-J-3	LF2SW-3_0519	SM 2120B	T	7 SU	10 mL	50 mL	turbid		

Batch Notes	
Batch Comment	KS trained by CKB
pH Meter ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 459417 Batch Start Date: 05/24/19 16:44 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
LCS 280-459417/1		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	10.10 mL
MB 280-459417/2		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	0.00 mL
280-123983-F-1	LF2SW-1_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	2.03 mL
280-123983-F-2	LF2SW-2_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	3.82 mL
280-123983-F-3	LF2SW-3_0519	SM 2340C	T	2.5 mL	25 mL	<2 SU	<2 SU	0.00 mL	2.75 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00052				
LCS 280-459417/1		SM 2340C		10.1 mL	10 mL				
MB 280-459417/2		SM 2340C		0 mL					
280-123983-F-1	LF2SW-1_0519	SM 2340C	T	2.03 mL					
280-123983-F-2	LF2SW-2_0519	SM 2340C	T	3.82 mL					
280-123983-F-3	LF2SW-3_0519	SM 2340C	T	2.75 mL					

Batch Notes	
Batch Comment	KS trained by DA
Buffer Reagent ID	Mg EDTA 00011
Indicator Reagent ID	Hardness ind 00008
Nominal Amount Used	25 mL
pH Strip ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000
Normality of First Titrant	0.01964 N
Titrant ID	EDTA Titrant 00090
Titrant Standardization Date	05/24/2019

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458327/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458327/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458327/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458327/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458327/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458327/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458327/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458327/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458327/2 IC		9056A							
STD 280-458327/3 IC		9056A							
STD 280-458327/4 IC		9056A							
STD 280-458327/5 IC		9056A							
STD 280-458327/6 IC		9056A							
STD 280-458327/7 IC		9056A							
ICV 280-458327/8		9056A		0.4 mL					
ICB 280-458327/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458328/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458328/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458328/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458328/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458328/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458328/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458328/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458328/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458328/2 IC		9056A							
STD 280-458328/3 IC		9056A							
STD 280-458328/4 IC		9056A							
STD 280-458328/5 IC		9056A							
STD 280-458328/6 IC		9056A							
STD 280-458328/7 IC		9056A							
ICV 280-458328/8		9056A		0.4 mL					
ICB 280-458328/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458688 Batch Start Date: 05/18/19 19:06 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01579	ICMS/MSD WEEK 00592
CCV 280-458688/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458688/2		9056A		5 mL	5 mL				
MRL 280-458688/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458688/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458688/5		9056A		5 mL	5 mL			5 mL	
MB 280-458688/6		9056A		5 mL	5 mL				
CCV 280-458688/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458688/18		9056A		5 mL	5 mL				
280-123983-I-2	LF2SW-2_0519	9056A	T	5 mL	5 mL				
280-123983-I-1	LF2SW-1_0519	9056A	T	5 mL	5 mL				
280-123983-I-1 DU	LF2SW-1_0519	9056A	T	5 mL	5 mL				
280-123983-I-1 MS	LF2SW-1_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123983-I-1 MSD	LF2SW-1_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123983-H-3	LF2SW-3_0519	9056A	T	5 mL	5 mL				
CCV 280-458688/28		9056A		5 mL	5 mL			5 mL	
CCB 280-458688/29		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00569
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458688 Batch Start Date: 05/18/19 19:06 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458689 Batch Start Date: 05/18/19 19:06 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01579	ICMS/MSD WEEK 00592
CCV 280-458689/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458689/2		9056A		5 mL	5 mL				
MRL 280-458689/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458689/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458689/5		9056A		5 mL	5 mL			5 mL	
MB 280-458689/6		9056A		5 mL	5 mL				
CCV 280-458689/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458689/18		9056A		5 mL	5 mL				
280-123983-I-2	LF2SW-2_0519	9056A	T	5 mL	5 mL				
280-123983-I-1	LF2SW-1_0519	9056A	T	5 mL	5 mL				
280-123983-I-1 DU	LF2SW-1_0519	9056A	T	5 mL	5 mL				
280-123983-I-1 MS	LF2SW-1_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123983-I-1 MSD	LF2SW-1_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123983-H-3	LF2SW-3_0519	9056A	T	5 mL	5 mL				
CCV 280-458689/28		9056A		5 mL	5 mL			5 mL	
CCB 280-458689/29		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00569
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458689 Batch Start Date: 05/18/19 19:06 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
STD 280-458776/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458776/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458776/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458776/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458776/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458776/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458776/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458776/9		9056A		5 mL	5 mL				
MRL 280-458776/10		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458776/11		9056A		5 mL	5 mL				
LCSD 280-458776/12		9056A		5 mL	5 mL				
MB 280-458776/13		9056A		5 mL	5 mL				
CCV 280-458776/24		9056A		5 mL	5 mL				
CCB 280-458776/25		9056A		5 mL	5 mL				
CCV 280-458776/36		9056A		5 mL	5 mL				
CCB 280-458776/37		9056A		5 mL	5 mL				
280-123983-H-1	LF2SW-1_0519	9056A	T	5 mL	5 mL				
280-123983-I-2	LF2SW-2_0519	9056A	T	5 mL	5 mL				
280-123983-H-3	LF2SW-3_0519	9056A	T	5 mL	5 mL				
CCV 280-458776/44		9056A		5 mL	5 mL				
CCB 280-458776/45		9056A		5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 01580	IC SO4 ICV 00017				
STD 280-458776/2 IC		9056A							
STD 280-458776/3 IC		9056A							
STD 280-458776/4 IC		9056A							
STD 280-458776/5 IC		9056A							
STD 280-458776/6 IC		9056A							
STD 280-458776/7 IC		9056A							
ICV 280-458776/8		9056A			0.4 mL				
ICB 280-458776/9		9056A							
MRL 280-458776/10		9056A							
LCS 280-458776/11		9056A		5 mL					
LCSD 280-458776/12		9056A		5 mL					
MB 280-458776/13		9056A							
CCV 280-458776/24		9056A		5 mL					
CCB 280-458776/25		9056A							
CCV 280-458776/36		9056A		5 mL					
CCB 280-458776/37		9056A							
280-123983-H-1	LF2SW-1_0519	9056A	T						
280-123983-I-2	LF2SW-2_0519	9056A	T						
280-123983-H-3	LF2SW-3_0519	9056A	T						
CCV 280-458776/44		9056A		5 mL					
CCB 280-458776/45		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11_eluent00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
STD 280-458777/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458777/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458777/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458777/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458777/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458777/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458777/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458777/9		9056A		5 mL	5 mL				
MRL 280-458777/10		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458777/11		9056A		5 mL	5 mL				
LCSD 280-458777/12		9056A		5 mL	5 mL				
MB 280-458777/13		9056A		5 mL	5 mL				
CCV 280-458777/24		9056A		5 mL	5 mL				
CCB 280-458777/25		9056A		5 mL	5 mL				
CCV 280-458777/36		9056A		5 mL	5 mL				
CCB 280-458777/37		9056A		5 mL	5 mL				
280-123983-H-1	LF2SW-1_0519	9056A	T	5 mL	5 mL				
280-123983-I-2	LF2SW-2_0519	9056A	T	5 mL	5 mL				
280-123983-H-3	LF2SW-3_0519	9056A	T	5 mL	5 mL				
CCV 280-458777/44		9056A		5 mL	5 mL				
CCB 280-458777/45		9056A		5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 01580	IC SO4 ICV 00017				
STD 280-458777/2 IC		9056A							
STD 280-458777/3 IC		9056A							
STD 280-458777/4 IC		9056A							
STD 280-458777/5 IC		9056A							
STD 280-458777/6 IC		9056A							
STD 280-458777/7 IC		9056A							
ICV 280-458777/8		9056A			0.4 mL				
ICB 280-458777/9		9056A							
MRL 280-458777/10		9056A							
LCS 280-458777/11		9056A		5 mL					
LCSD 280-458777/12		9056A		5 mL					
MB 280-458777/13		9056A							
CCV 280-458777/24		9056A		5 mL					
CCB 280-458777/25		9056A							
CCV 280-458777/36		9056A		5 mL					
CCB 280-458777/37		9056A							
280-123983-H-1	LF2SW-1_0519	9056A	T						
280-123983-I-2	LF2SW-2_0519	9056A	T						
280-123983-H-3	LF2SW-3_0519	9056A	T						
CCV 280-458777/44		9056A		5 mL					
CCB 280-458777/45		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11_eluent00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 461430 Batch Start Date: 06/12/19 15:21 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-461430/1		9060A		50 mL	50 mL	1 mL			
ICB 280-461430/2		9060A		20 mL	20 mL				
CCV 280-461430/27		9060A		200 mL	200 mL	5 mL			
CCB 280-461430/28		9060A		20 mL	20 mL				
LCS 280-461430/34		9060A		200 mL	200 mL		5 mL		
MB 280-461430/35		9060A		20 mL	20 mL				
CCV 280-461430/39		9060A		200 mL	200 mL	5 mL			
CCB 280-461430/40		9060A		20 mL	20 mL				
280-123983-D-2	LF2SW-2_0519	9060A	T	20 mL	20 mL				
280-123983-D-1	LF2SW-1_0519	9060A	T	20 mL	20 mL				
CCV 280-461430/51		9060A		200 mL	200 mL	5 mL			
CCB 280-461430/52		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Batch Comment	CJ TRAINING JM
Combustion Catylyst ID	17007d-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 461601 Batch Start Date: 06/13/19 17:47 Batch Analyst: Martinez, Joslyn A

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-461601/1		9060A		50 mL	50 mL	1 mL			
ICB 280-461601/2		9060A		20 mL	20 mL				
LCS 280-461601/3		9060A		200 mL	200 mL		5 mL		
MB 280-461601/4		9060A		20 mL	20 mL				
280-123983-E-3	LF2SW-3_0519	9060A	T	20 mL	20 mL				
CCV 280-461601/15		9060A		200 mL	200 mL	5 mL			
CCB 280-461601/16		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2% H2SO4_00317, H2SO4_00199
Batch Comment	JM TRAINED BY CJ
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
CCV 280-459576/80		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/81		SM 2320B		InitialAmount is blank					
LCS 280-459576/82		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459576/83		SM 2320B		InitialAmount is blank					
280-123983-H-1	LF2SW-1_0519	SM 2320B	T	InitialAmount is blank					
280-123983-I-2	LF2SW-2_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/94		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/95		SM 2320B		InitialAmount is blank					
280-123983-H-3	LF2SW-3_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/106		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/107		SM 2320B		InitialAmount is blank					

Batch Notes	
Acid ID	0.02 H2SO4_00260
pH Buffer 1 ID	pH 2.0 buffer_00079
pH Buffer 2 ID	pH 4. 0 buffer_00178
pH Buffer 3 ID	pH 7.0 buffer_00258
pH Buffer 4 ID	pH 10 buffer_00142
pH Buffer 5 ID	pH 12 buffer_00148
pH Buffer 6 ID	pH 7.0 buffer_00257
Sodium Carbonate ID	Alk Stk Std_00016
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000 ADI
Probe ID	PCE 86 pH 1105 sep14
Normality of First Titrant	0.02 N

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-459268/1		SM 2540C			3.8951A0383775	3.8951 g	100 mL	3.8950 g	3.8953 g
LCS 280-459268/2		SM 2540C			3.3709A0383776	3.3709 g	100 mL	3.4216 g	3.4212 g
280-123983-A-1	LF2SW-1_0519	SM 2540C	T	155.5 umhos/cm	3.4058A0383782	3.4058 g	100 mL	3.4162 g	3.4166 g
280-123983-B-2	LF2SW-2_0519	SM 2540C	T	289.2 umhos/cm	3.4327A0383783	3.4327 g	100 mL	3.4509 g	3.4511 g
280-123983-B-3	LF2SW-3_0519	SM 2540C	T	295.7 umhos/cm	3.3725A0383784	3.3725 g	100 mL	3.3955 g	3.3956 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 280-459268/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	-0.0001 g	0.0002 g	N/A g
LCS 280-459268/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0507 g	0.0503 g	N/A g
280-123983-A-1	LF2SW-1_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0104 g	0.0108 g	N/A g
280-123983-B-2	LF2SW-2_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0182 g	0.0184 g	N/A g
280-123983-B-3	LF2SW-3_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.023 g	0.0231 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00055		
MB 280-459268/1		SM 2540C		N/A g	100 mL	OK			
LCS 280-459268/2		SM 2540C		N/A g	100 mL	OK	100 mL		
280-123983-A-1	LF2SW-1_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123983-B-2	LF2SW-2_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123983-B-3	LF2SW-3_0519	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/31/2019 17:09
Date/Time - Out - CW (WT2)	06/01/2019 18:32
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/23/2019 16:13
Date/Time - Out	05/30/2019 10:00
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/30/2019 10:00 No Unit
Weight(WT1) Date/Time Out	05/31/2019 15:00
Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	Initial_DO	InitialTemp	Final pH	Bot1Num
SCB 280-458674/1		SM5210B				7.23	21.15 Celsius		1
USB 280-458674/2		SM5210B				7.22	21.19 Celsius		5
LCS 280-458674/3		SM5210B				7.23	21.14 Celsius		8
MB 280-458674/4		SM5210B				7.22	21.16 Celsius		11
280-123983-B-1	LF2SW-1_0519	SM5210B	T	7.11 SU	no	7.30	20.65 Celsius	7.11 SU	27
280-123983-A-2	LF2SW-2_0519	SM5210B	T	7.38 SU	no	7.31	20.52 Celsius	7.38 SU	30
280-123983-A-3	LF2SW-3_0519	SM5210B	T	6.72 SU	no	7.27	20.52 Celsius	6.72 SU	33

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
SCB 280-458674/1		SM5210B		21.09 Celsius	15 mL	7.23 mg/L	4.72 mg/L	2.51 mg/L	0.669 mg/L
USB 280-458674/2		SM5210B		21.13 Celsius	300 mL	7.23 mg/L	7.17 mg/L	0.06 mg/L	0.06 mg/L
LCS 280-458674/3		SM5210B		21.16 Celsius	6 mL	7.32 mg/L	2.47 mg/L	4.85 mg/L	210.32 mg/L
MB 280-458674/4		SM5210B		21.09 Celsius	300 mL	7.24 mg/L	6.59 mg/L	0.65 mg/L	0.006 mg/L
280-123983-B-1	LF2SW-1_0519	SM5210B	T	20.56 Celsius	60 mL	7.45 mg/L	6.16 mg/L	1.29 mg/L	3.232 mg/L
280-123983-A-2	LF2SW-2_0519	SM5210B	T	20.54 Celsius	60 mL	7.38 mg/L	6.34 mg/L	1.04 mg/L	1.982 mg/L
280-123983-A-3	LF2SW-3_0519	SM5210B	T	20.71 Celsius	25 mL	7.20 mg/L	5.85 mg/L	1.35 mg/L	8.477 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
SCB 280-458674/1		SM5210B		No. % DO < 50%	35 %	2	21.01 Celsius	20 mL	7.23 mg/L
USB 280-458674/2		SM5210B		Yes. USB		6	21.13 Celsius	300 mL	7.23 mg/L
LCS 280-458674/3		SM5210B		YES. Pass		9	21.15 Celsius	6 mL	7.30 mg/L
MB 280-458674/4		SM5210B		No. DO Deplete Fail					
280-123983-B-1	LF2SW-1_0519	SM5210B	T	No. DO Deplete Fail		28	19.95 Celsius	120 mL	7.61 mg/L
280-123983-A-2	LF2SW-2_0519	SM5210B	T	No. DO Deplete Fail		31	20.00 Celsius	120 mL	7.52 mg/L

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
280-123983-A-3	LF2SW-3_0519	SM5210B	T	No. DO Deplete Fail		34	20.12 Celsius	60 mL	6.94 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
SCB 280-458674/1		SM5210B		4.17 mg/L	42 %	3.06 mg/L	0.612 mg/L	Yes	3
USB 280-458674/2		SM5210B		7.14 mg/L		0.09 mg/L	0.09 mg/L	Yes. Pass	7
LCS 280-458674/3		SM5210B		2.57 mg/L		4.73 mg/L	204.32 mg/L	YES. Pass	10
MB 280-458674/4		SM5210B							
280-123983-B-1	LF2SW-1_0519	SM5210B	T	5.68 mg/L		1.93 mg/L	3.216 mg/L	No. DO Deplete Fail	29
280-123983-A-2	LF2SW-2_0519	SM5210B	T	6.05 mg/L		1.47 mg/L	2.066 mg/L	No. DO Deplete Fail	32
280-123983-A-3	LF2SW-3_0519	SM5210B	T	5.05 mg/L		1.89 mg/L	6.232 mg/L	No. DO Deplete Fail	35

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
SCB 280-458674/1		SM5210B		20.99 Celsius	25 mL	7.24 mg/L	3.13 mg/L	4.11 mg/L	0.658 mg/L
USB 280-458674/2		SM5210B		21.09 Celsius	300 mL	7.24 mg/L	7.12 mg/L	0.12 mg/L	0.12 mg/L
LCS 280-458674/3		SM5210B		21.13 Celsius	6 mL	7.29 mg/L	2.63 mg/L	4.66 mg/L	200.82 mg/L
MB 280-458674/4		SM5210B							
280-123983-B-1	LF2SW-1_0519	SM5210B	T	19.29 Celsius	240 mL	7.90 mg/L	4.88 mg/L	3.02 mg/L	2.971 mg/L
280-123983-A-2	LF2SW-2_0519	SM5210B	T	19.18 Celsius	240 mL	7.77 mg/L	5.54 mg/L	2.23 mg/L	1.983 mg/L
280-123983-A-3	LF2SW-3_0519	SM5210B	T	19.28 Celsius	240 mL	7.26 mg/L	1.56 mg/L	5.7 mg/L	6.321 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
SCB 280-458674/1		SM5210B		57 %	YES. Pass	4	21.02 Celsius	30 mL	7.23 mg/L
USB 280-458674/2		SM5210B			Yes. Pass				
LCS 280-458674/3		SM5210B			YES. Pass				

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GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
MB 280-458674/4		SM5210B							
280-123983-B-1	LF2SW-1_0519	SM5210B	T		YES. Pass				
280-123983-A-2	LF2SW-2_0519	SM5210B	T		YES. Pass				
280-123983-A-3	LF2SW-3_0519	SM5210B	T		YES. Pass				

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
SCB 280-458674/1		SM5210B		2.27 mg/L	4.96 mg/L	0.661 mg/L	69 %	YES. Pass	300 mL
USB 280-458674/2		SM5210B							300 mL
LCS 280-458674/3		SM5210B							300 mL
MB 280-458674/4		SM5210B							300 mL
280-123983-B-1	LF2SW-1_0519	SM5210B	T						300 mL
280-123983-A-2	LF2SW-2_0519	SM5210B	T						300 mL
280-123983-A-3	LF2SW-3_0519	SM5210B	T						300 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
SCB 280-458674/1		SM5210B		7.26	21.06 Celsius				
USB 280-458674/2		SM5210B		7.27	21.07 Celsius				
LCS 280-458674/3		SM5210B		7.27	21.04 Celsius	6 mL			
MB 280-458674/4		SM5210B		7.28	21.03 Celsius				
280-123983-B-1	LF2SW-1_0519	SM5210B	T	7.31	20.95 Celsius		pH temp= 12.1, color= dark tan/turbid/dirty		
280-123983-A-2	LF2SW-2_0519	SM5210B	T	7.31	20.94 Celsius		pH temp= 11.8, color= pale tan/turbid/slightly dirty		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
280-123983-A-3	LF2SW-3_0519	SM5210B	T	7.31	20.92 Celsius		pH temp= 11.6, color= dark brown/blackish/ turbid/dirty with suspended solids		

Batch Notes	
Barometer ID	YSI 5100 BOD Probe: 16H100313
Batch Comment	Room Temp= 21.23 EC trained by ckb
Calibration - Final Date/Time	05/23/2019 18:51
Calibration - Initial Date/Time	05/18/2019 14:32
Dilution Water ID	Elga water 18.2 micro ohms
Sulfuric Acid ID	1N H2SO4_00033
Incubator ID	BOD10
Sodium Hydroxide ID	1N NaOH_00047
Nitrification Inhibitor ID	Nitrogen inhibitor_00012
Nominal Amount Used	300 mL
Nutrient Buffer Pillow ID	BOD buffer_00038
pH Meter ID	SV-15261, QX1-15909
Pipette/Syringe/Dispenser ID	5000 BOD 1000BOD
Probe ID	YSI 5010 BOD Probe 15A100003
Residual Chlorine Pillow Lot #	free chlorine micro check lot: 111418
Amount of Seed added to each Sample	4 mL
Seed Correction	0.6436 mg/L
Seed ID	Polyseed_00020 Seeded @ 14:15 EC read back at 16:51 CKB
Thermometer ID	1000623508
Uncorrected Incubator Temp - Final	19.7 Celsius
Uncorrected Incubator Temp - Initial	19.90 Celsius
Barometric Pressure - Uncorrected	initial:621 final: 624

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123983-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Table - 053119.tbl

(1)

File name: C:\FLOW_4\053119.TBL
Date: 31-May-19

Cup	Name	Type	R	Dil	Wt		Comment		
5	Sync	SYNC	1	1	1				
0	blk	CO	1	1	1				
0	Read Baseline	RB	1	1	1				complex_00425
1	Cal 0.0 PPB	C	1	1	1				color _ 00152
3	Cal 25.0 ppb	C	1	1	1				
4	Cal 50.0 ppb	C	1	1	1				bleach _ 01069
5	Cal 100.0 ppb	C	1	1	1				
6	Cal 500.0 ppb	C	1	1	1				
7	Cal 1000.0 ppb	C	1	1	1				
8	Cal 2500.0 ppb	C	1	1	1				
9	Cal 5000.0 ppb	C	1	1	1				
0	blank	BLNK	1	1	1				
0	read baseline	RB	1	1	1				
10	ICVL 500.0 ppb	U	1	1	1				
11	ICV 2500.0 ppb	U	1	1	1				
1	ICB	U	1	1	1				
0	read baseline	RB	1	1	1				
8	LCS	U	1	1	1				
8	LCSD	U	1	1	1				
12	MB	U	1	1	1				
13	280-123983-C-1	U	1	1	1		L2		N
14	MS 280-123983-c-1	U	1	1	1				
15	MSD 280-123983-c-1	U	1	1	1				
16	280-123983-d-2	U	1	1	1		L2		N
17	280-123983-e-3	U	1	1	1		L2		N
18	280-124110-c-1	U	1	1	1		L2		N
19	280-124110-c-2	U	1	1	1		L2		N
20	280-124110-c-4	U	1	1	1		L2		N
21	280-124110-c-5	U	1	1	1		L2		N
22	280-124110-c-6	U	1	2	1		L2		N
0	Rinse	U	1	1	1				
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				
23	280-124110-c-7	U	1	1	1		L2		N
24	280-124337-b-2	U	1	~~5~~	mas 5/31/19	1	9		N
25	280-124337-b-1	U	1	1	1		L2		N
26	MS 280-124337-b-1	U	1	1	1				
27	MSD 280-124337-b-1	U	1	1	1				
28	280-124337-b-3	U	1	~~10~~	1		10		N
29	280-124337-b-4	U	1	1	1		L2		N
30	280-124337-b-5	U	1	1	1		L2		N
31	280-124337-b-6	U	1	~~5~~ 100	1		10		N
32	280-124337-b-7	U	1	1	1		L2		N
0	Rinse	U	1	1	1				
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				
33	280-124337-b-8	U	1	1	1		9	N	
34	280-124337-b-9	U	1	1	1		L2	N	
35	280-124337-b-10	U	1	1	1		L2	N	
36	280-124337-b-12	U	1	~~5~~	1		L2	N	

diluted for pH

diluted for pH

Run Results Report

Facility Name
Facility Location
Department
Operator Name MJS
Operator ID MJS
Platform FS 3000
Software Rev Code 222
Data system ID 57

Result path C:\FLOW_4\053119.RST
Sample table path C:\FLOW_4\053119.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 31-May-19
Time acquired 17:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
31-May-19	15:06	5	Sync	14027	103.805	
31-May-19	15:08	0	blk	-71	14.241	
31-May-19	15:10	0	Read Baseline	0	14.690	BL
31-May-19	15:12	1	Cal 0.0 PPB	251	16.273	
31-May-19	15:14	3	Cal 25.0 ppb	3397	36.116	
31-May-19	15:16	4	Cal 50.0 ppb	6404	55.166	
31-May-19	15:18	5	Cal 100.0 ppb	13754	102.057	
31-May-19	15:20	6	Cal 500.0 ppb	66053	449.309	
31-May-19	15:22	7	Cal 1000.0 ppb	138552	970.088	
31-May-19	15:24	8	Cal 2500.0 ppb	327584	2543.246	
31-May-19	15:26	9	Cal 5000.0 ppb	567504	4988.059	
31-May-19	15:28	0	blank	378	17.072	
31-May-19	15:30	0	read baseline	0	14.690	BL
31-May-19	15:32	10	ICVL 500.0 ppb	66368	451.475	
31-May-19	15:34	11	ICV 2500.0 ppb	327210	2539.825	
31-May-19	15:36	1	ICB	196	15.926	
31-May-19	15:38	0	read baseline	0	14.690	BL
31-May-19	15:40	8	LCS	283900	2152.051	
31-May-19	15:42	8	LCSD	338223	2641.029	
31-May-19	15:44	12	MB	219	16.068	
31-May-19	15:46	13	280-123983-C-1	4353	42.163	
31-May-19	15:48	14	MS 280-123983-c-1	144747	1016.711	
31-May-19	15:50	15	MSD 280-123983-c-1	142710	1001.343	
31-May-19	15:52	16	280-123983-d-2	5232	47.734	
31-May-19	15:54	17	280-123983-e-3	63283	430.319	
31-May-19	15:56	18	280-124110-c-1	31558	217.597	
31-May-19	16:04	19	280-124110-c-2	75062	511.531	
31-May-19	16:06	20	280-124110-c-4	231	16.142	
31-May-19	16:08	21	280-124110-c-5	65420	444.967	
31-May-19	16:10	22	280-124110-c-6	363390	5752.559	
31-May-19	16:12	8	LCS	345017	2703.995	
31-May-19	16:14	8	LCS	336633	2626.359	
31-May-19	16:16	0	Rinse	-111	13.993	
31-May-19	16:18	0	Read Baseline	0	14.690	BL
31-May-19	16:20	6	CCVL 500 ppb	67199	457.184	
31-May-19	16:22	8	CCV 2500 ppb	341793	2674.070	
31-May-19	16:24	12	CCB	304	16.605	
31-May-19	16:26	0	Read Baseline	0	14.690	BL
31-May-19	16:28	23	280-124110-c-7	108192	746.438	
31-May-19	16:30	24	280-124337-b-2	49501	1684.176	
31-May-19	16:32	25	280-124337-b-1	27180	188.933	
31-May-19	16:34	26	MS 280-124337-b-1	145429	1021.868	
31-May-19	16:36	27	MSD 280-124337-b-1	170921	1217.386	
31-May-19	16:38	28	280-124337-b-3	75828	5168.602	
31-May-19	16:40	29	280-124337-b-4	8102	65.956	
31-May-19	16:42	30	280-124337-b-5	-204	13.407	

Result path C:\FLOW_4\053119.RST
Sample table path C:\FLOW_4\053119.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 31-May-19
Time acquired 17:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
31-May-19	16:44	31	280-124337-b-6	6635	5662.798	
31-May-19	16:46	32	280-124337-b-7	32333	222.688	
31-May-19	16:48	0	Rinse	166	15.734	
31-May-19	16:50	0	Read Baseline	0	14.690	BL
31-May-19	16:52	6	CCVL 500 ppb	68942	469.191	
31-May-19	16:54	8	CCV 2500 ppb	343200	2687.116	
31-May-19	16:56	12	CCB	96	15.293	
31-May-19	16:58	0	Read Baseline	0	14.690	BL
31-May-19	17:00	33	280-124337-b-8	94449	647.833	
31-May-19	17:02	34	280-124337-b-9	2816	32.441	
31-May-19	17:04	35	280-124337-b-10	39763	271.773	
31-May-19	17:06	36	280-124337-b-12	18101	650.080	
31-May-19	17:08	0	Rinse	74	15.157	
31-May-19	17:10	0	Read Baseline	0	14.690	BL
31-May-19	17:12	6	CCVL 500 ppb	69349	471.993	
31-May-19	17:14	8	CCV 2500 ppb	341422	2670.627	
31-May-19	17:16	12	CCB	224	16.100	
31-May-19	17:18	0	Read Baseline	0	14.690	BL

Peak Table:Ammonia

File name: C:\FLOW_4\053119.RST
Date: 31-May-19
Operator: MJS

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	14027	103.805321	
2	0	blk	1	CO	1	1	-71	14.241029	
B	0	Read Baseline	1	RB	1	1	0	14.690481	BL
4	1	Cal 0.0 PPB	1	C	1	1	251	16.273212	
5	3	Cal 25.0 ppb	1	C	1	1	3397	36.116226	
6	4	Cal 50.0 ppb	1	C	1	1	6404	55.165638	
7	5	Cal 100.0 ppb	1	C	1	1	13754	102.056725	
8	6	Cal 500.0 ppb	1	C	1	1	66053	449.308716	
9	7	Cal 1000.0 ppb	1	C	1	1	138552	970.087891	
10	8	Cal 2500.0 ppb	1	C	1	1	327584	2543.246338	
11	9	Cal 5000.0 ppb	1	C	1	1	567504	4988.058594	
12	0	blank	1	BLNK	1	1	378	17.071707	
B	0	read baseline	1	RB	1	1	0	14.690481	BL
14	10	ICVL 500.0 ppb	1	U	1	1	66368	451.474701	
15	11	ICV 2500.0 ppb	1	U	1	1	327210	2539.825195	
16	1	ICB	1	U	1	1	196	15.925606	
B	0	read baseline	1	RB	1	1	0	14.690481	BL
18	8	LCS	1	U	1	1	283900	2152.051025	
19	8	LCSD	1	U	1	1	338223	2641.029053	
20	12	MB	1	U	1	1	219	16.068287	
21	13	280-123983-C-1	1	U	1	1	4353	42.162891	
22	14	MS 280-123983-c-1	1	U	1	1	144747	1016.710938	
23	15	MSD 280-123983-c-1	1	U	1	1	142710	1001.342529	
24	16	280-123983-d-2	1	U	1	1	5232	47.733624	
25	17	280-123983-e-3	1	U	1	1	63283	430.319244	
26	18	280-124110-c-1	1	U	1	1	31558	217.596588	
27	19	280-124110-c-2	1	U	1	1	75062	511.530853	
28	20	280-124110-c-4	1	U	1	1	231	16.141815	
29	21	280-124110-c-5	1	U	1	1	65420	444.967438	
30	22	280-124110-c-6	1	U	2	1	363390	5752.558594	
31	8	LCS	1	U	1	1	345017	2703.995361	
32	8	LCS	2	U	1	1	336633	2626.358887	
33	0	Rinse	1	U	1	1	-111	13.992956	
B	0	Read Baseline	1	RB	1	1	0	14.690481	BL
35	6	CCVL 500 ppb	1	U	1	1	67199	457.183960	
36	8	CCV 2500 ppb	1	U	1	1	341793	2674.069580	
37	12	CCB	1	U	1	1	304	16.604895	
B	0	Read Baseline	1	RB	1	1	0	14.690481	BL
39	23	280-124110-c-7	1	U	1	1	108192	746.437805	
40	24	280-124337-b-2	1	U	5	1	49501	1684.176025	
41	25	280-124337-b-1	1	U	1	1	27180	188.932541	
42	26	MS 280-124337-b-1	1	U	1	1	145429	1021.867798	
43	27	MSD 280-124337-b-1	1	U	1	1	170921	1217.386230	
44	28	280-124337-b-3	1	U	10	1	75828	5168.601562	
45	29	280-124337-b-4	1	U	1	1	8102	65.955559	
46	30	280-124337-b-5	1	U	1	1	-204	13.407471	
47	31	280-124337-b-6	1	U	100	1	6635	5662.798340	
48	32	280-124337-b-7	1	U	1	1	32333	222.687881	
49	0	Rinse	1	U	1	1	166	15.733857	
B	0	Read Baseline	1	RB	1	1	0	14.690481	BL
51	6	CCVL 500 ppb	1	U	1	1	68942	469.190887	
52	8	CCV 2500 ppb	1	U	1	1	343200	2687.115967	
53	12	CCB	1	U	1	1	96	15.292813	
B	0	Read Baseline	1	RB	1	1	0	14.690481	BL
55	33	280-124337-b-8	1	U	1	1	94449	647.832764	
56	34	280-124337-b-9	1	U	1	1	2816	32.441402	
57	35	280-124337-b-10	1	U	1	1	39763	271.772827	
58	36	280-124337-b-12	1	U	5	1	18101	650.080261	
59	0	Rinse	1	U	1	1	74	15.157468	
B	0	Read Baseline	1	RB	1	1	0	14.690481	BL
61	6	CCVL 500 ppb	1	U	1	1	69349	471.993408	
62	8	CCV 2500 ppb	1	U	1	1	341422	2670.626953	
63	12	CCB	1	U	1	1	224	16.100124	
B	0	Read Baseline	1	RB	1	1	0	14.690481	BL

Ammonia:Calibration 1: Peak 4-64

File name: C:\FLOW_4\053119.RST
Date: 31-May-19
Operator: MJS

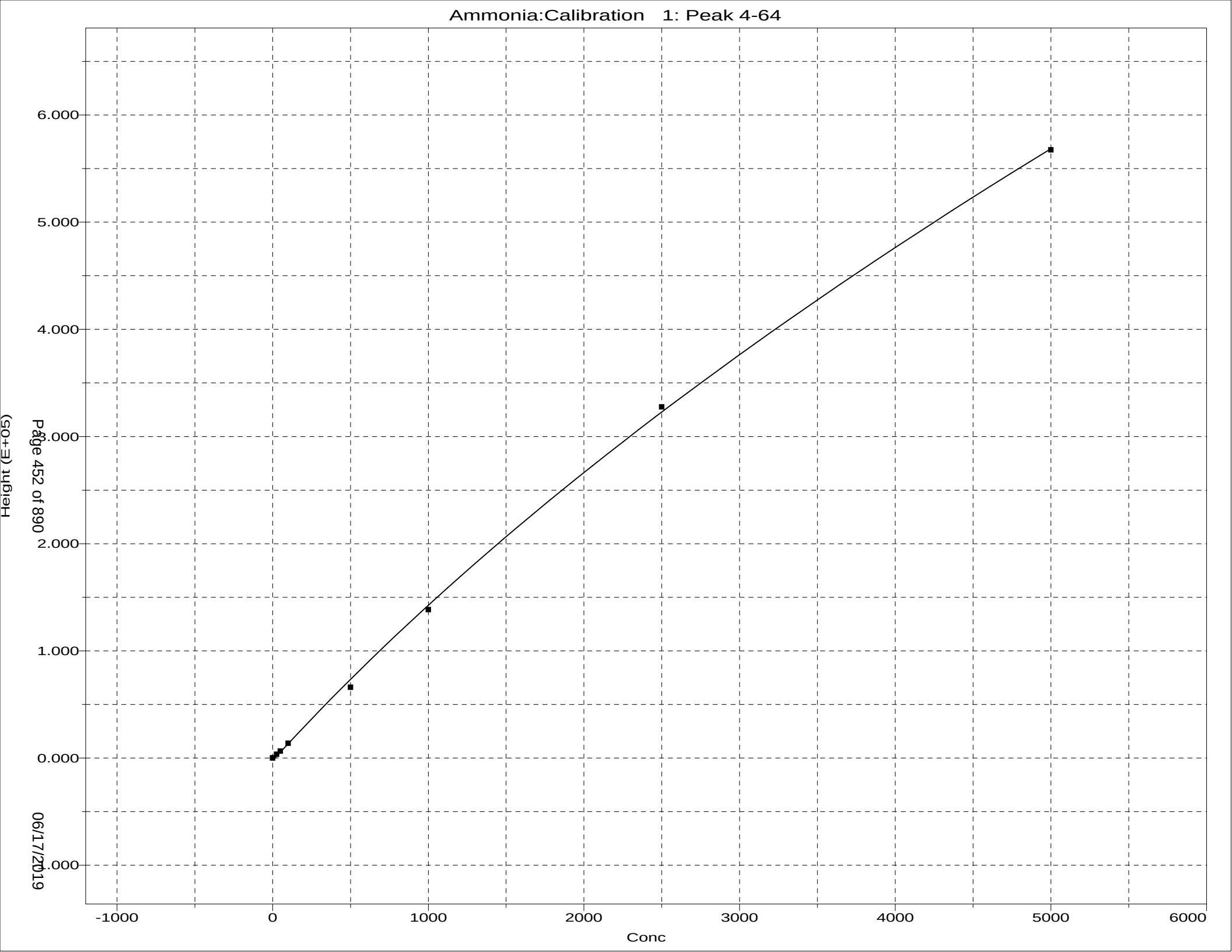
*	Name	Conc	Height
*	Cal 0.0 PPB	0.000000	251.493469
*	Cal 25.0 ppb	25.000000	3397.123779
*	Cal 50.0 ppb	50.000000	6404.175781
*	Cal 100.0 ppb	100.000000	13753.858398
*	Cal 500.0 ppb	500.000000	66052.648438
*	Cal 1000.0 ppb	1000.000000	138551.843750
*	Cal 2500.0 ppb	2500.000000	327584.406250
*	Cal 5000.0 ppb	5000.000000	567503.562500

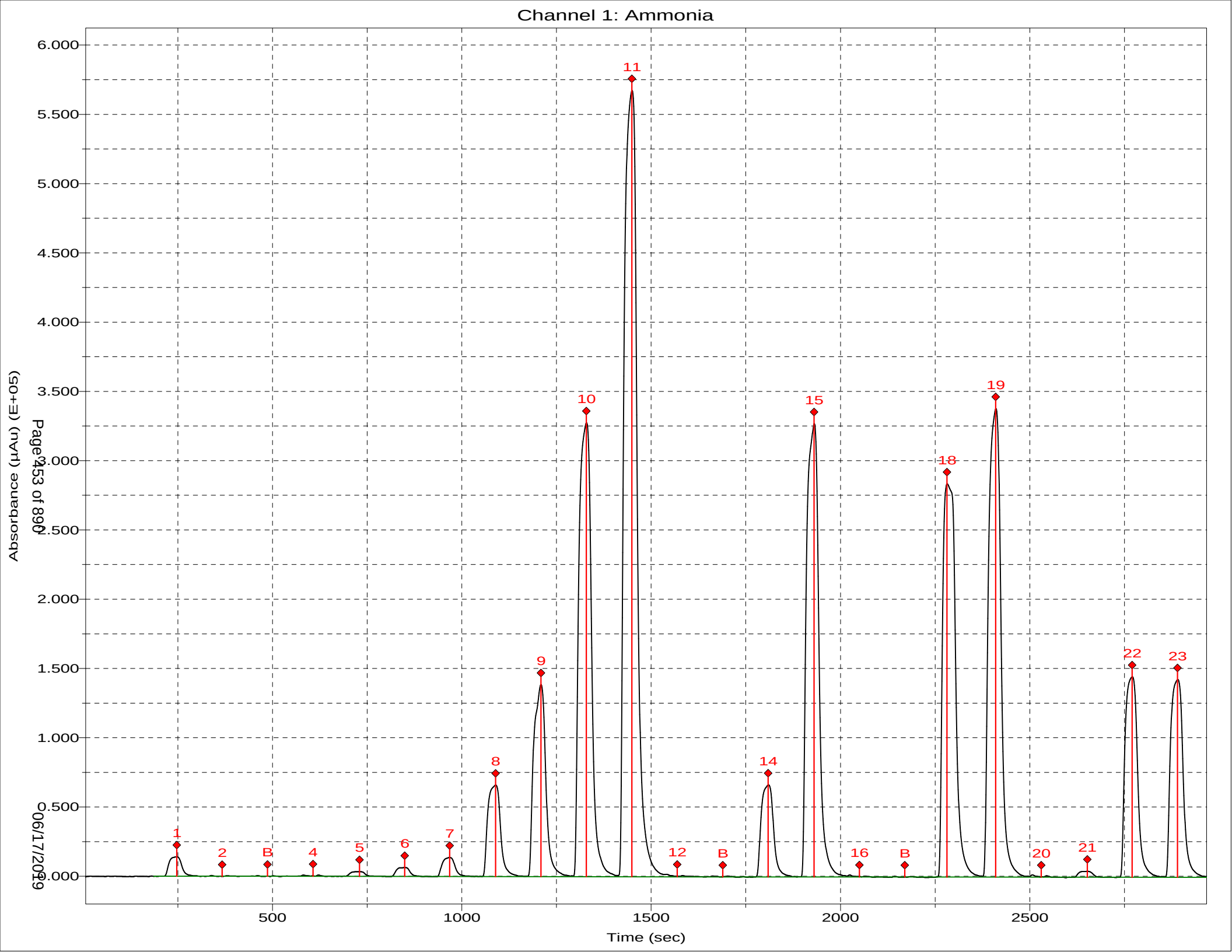
Calib Coef:
x=cyy+by+a
a: (intercept) 1.4690e+01
b: 6.2922e-03
c: 4.3548e-09

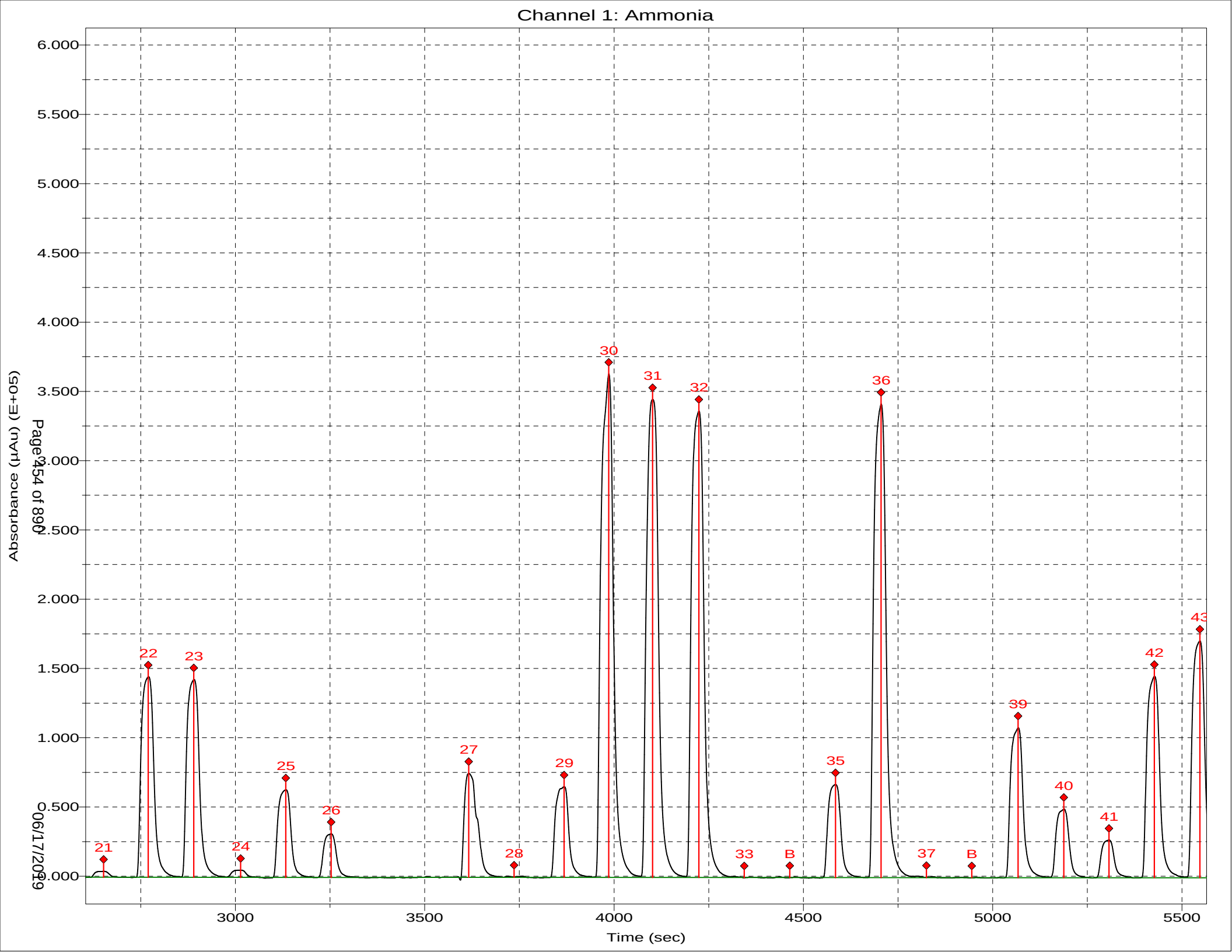
Corr Coef: 0.999868

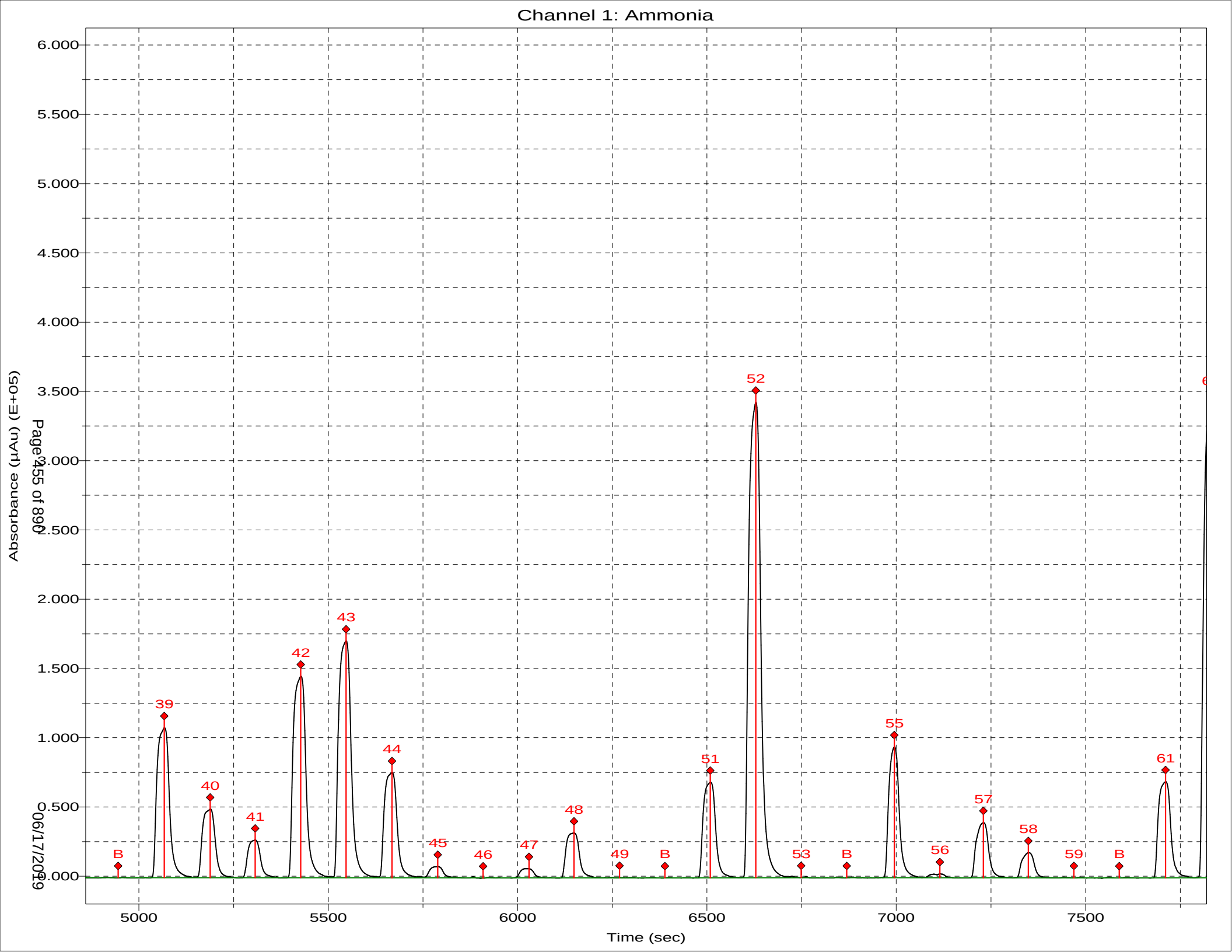
Carryover: 0%

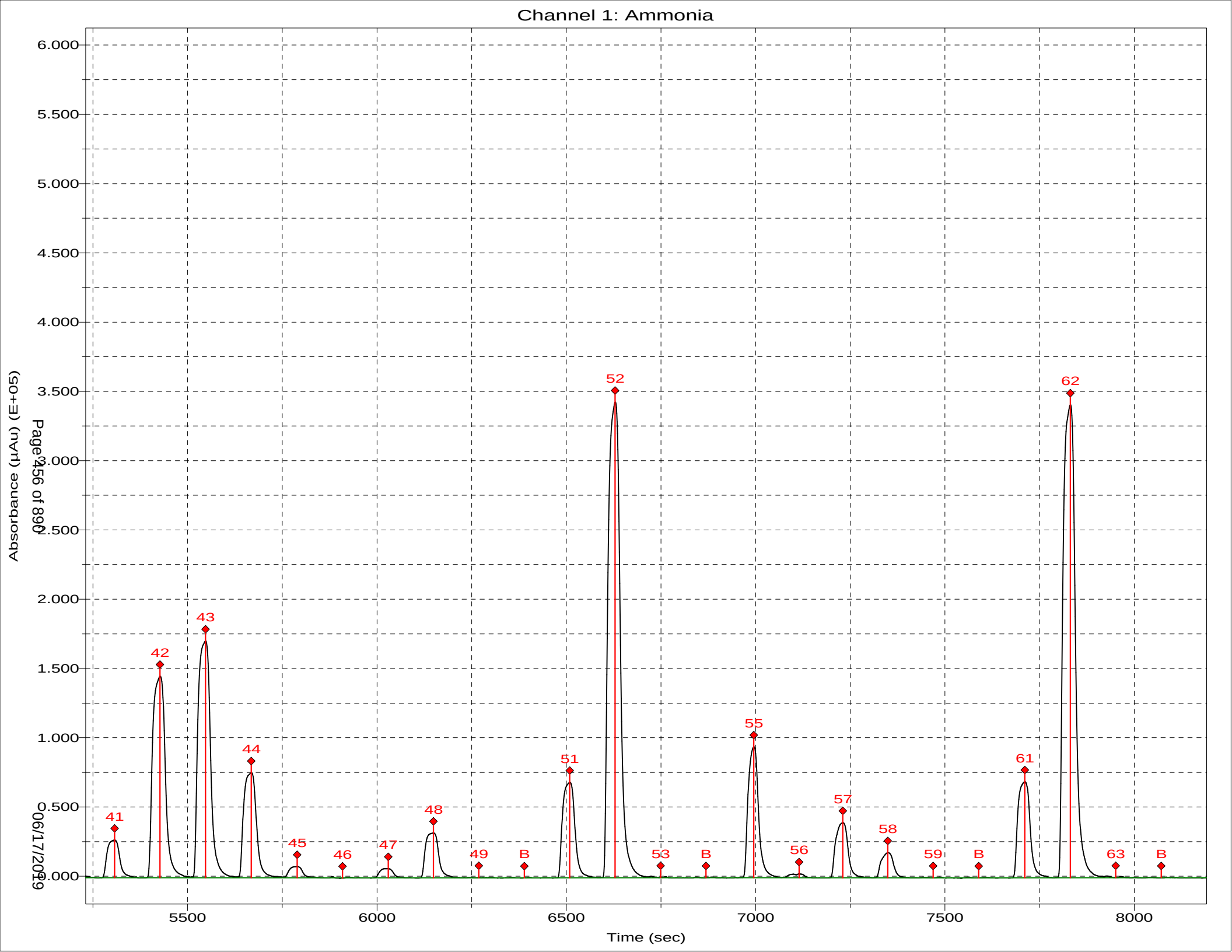
No Drift Peaks


Ammonia:Calibration 1: Peak 4-64
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Height (E+05)
-1000
0
1000
2000
3000
4000
5000
6000
Conc


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
500
1000
1500
2000
2500
Time (sec)
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
21
22
23
Page 453 of 890
06/17/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
3000
3500
4000
4500
5000
5500
Time (sec)
Page 454 of 890
06/17/2019
21
22
23
24
25
26
27
28
29
30
31
32
33
B
35
36
37
B
39
40
41
42
43


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
5000
5500
6000
6500
7000
7500
Time (sec)
Page 455 of 890
06/17/2019
B
39
40
41
42
43
44
45
46
47
48
49
B
51
52
53
B
55
56
57
58
59
B
61


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
5500
6000
6500
7000
7500
8000
Time (sec)
41
42
43
44
45
46
47
48
49
B
51
52
53
B
55
56
57
58
59
B
61
62
63
B

Sample Table for 060719

	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-460066/42-A	Unknown	4 ml
14	1:16	ICB 280-460066/43-A	Unknown	4 ml
15	1:17	LCS 280-460760/1-A	Unknown	4 ml
16	1:18	MB 280-460760/2-A	Unknown	4 ml
17	1:19	280-124223-A-1-B	Unknown	4 ml
18	1:20	280-124223-A-1-C MS	Unknown	4 ml
19	1:21	280-124223-A-1-D MS	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	280-124223-A-2-B	Unknown	4 ml
22	1:24	280-124223-A-3-B	Unknown	4 ml
23	1:25	280-124223-A-4-B	Unknown	4 ml
24	1:26	280-124223-A-5-B	Unknown	4 ml
25	1:27	280-124321-A-1-A	Unknown	4 ml
26	1:28	280-124073-F-1-A	Unknown	4 ml
27	1:29	280-124073-E-2-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-460066/44-A	Unknown	4 ml
30	1:32	CCB 280-460066/45-A	Unknown	4 ml
31	1:33	280-123981-E-1-A	Unknown	4 ml
32	1:34	280-123981-C-3-A	Unknown	4 ml
33	1:35	280-123981-D-2-B	Unknown	4 ml
34	1:36	280-123981-D-2-C MS	Unknown	4 ml
35	1:37	280-123981-D-2-D MS	Unknown	4 ml
36	1:38	w	Blank	4 ml
37	1:39	280-123981-E-4-A	Unknown	4 ml
38	1:40	280-123981-D-5-A	Unknown	4 ml
39	1:41	280-123981-D-6-A	Unknown	4 ml
40	1:42	280-123981-D-7-A	Unknown	4 ml
41	1:43	280-123981-E-8-A	Unknown	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-460066/44-A	Unknown	4 ml
44	1:46	CCB 280-460066/45-A	Unknown	4 ml

	Position	Identifier	Type	Cup Type
45	1:47	280-123981-C-9-A	Unknown	4 ml
46	1:48	280-123983-E-1-A	Unknown	4 ml
47	1:49	280-123983-C-2-A	Unknown	4 ml
48	1:50	280-123983-D-3-A	Unknown	4 ml
49	1:51	w	Blank	4 ml
50	1:52	LCS 280-460760/27-A	Unknown	4 ml
51	1:53	MB 280-460760/28-A	Unknown	4 ml
52	1:54	280-123969-C-2-A	Unknown	4 ml
53	1:55	280-123969-C-2-B MS	Unknown	4 ml
54	1:56	280-123969-C-2-C MS	Unknown	4 ml
55	1:57	280-124073-F-1-A	Unknown	4 ml
56	1:58	w	Blank	4 ml
57	1:59	CCV 280-460066/44-A	Unknown	4 ml
58	1:60	CCB 280-460066/45-A	Unknown	4 ml
59	2:1	280-123969-C-3-A	Unknown	4 ml
60	2:2	280-123969-D-4-A	Unknown	4 ml
61	2:3	280-123969-D-5-A	Unknown	4 ml
62	2:4	280-123922-C-1-A	Unknown	4 ml
63	2:5	280-123922-E-2-A	Unknown	4 ml
64	2:6	280-123922-C-3-A	Unknown	4 ml
65	2:7	280-123924-E-1-A	Unknown	4 ml
66	2:8	280-123924-D-2-A	Unknown	4 ml
67	2:9	280-123924-E-3-A	Unknown	4 ml
68	2:10	280-123924-D-4-A	Unknown	4 ml
69	2:11	w	Blank	4 ml
70	2:12	CCV 280-460066/44-A	Unknown	4 ml
71	2:13	CCB 280-460066/45-A	Unknown	4 ml
72	2:14	280-123924-D-4-B MS	Unknown	4 ml
73	2:15	280-123924-D-4-C MS	Unknown	4 ml
74	2:16	w	Blank	4 ml
75	2:17	280-123924-D-5-A	Unknown	4 ml
76	2:18	280-123924-C-6-A	Unknown	4 ml
77	2:19	280-123924-C-7-A	Unknown	4 ml
78	2:20	280-123924-E-8-A	Unknown	4 ml
79	2:21	280-123924-D-9-A	Unknown	4 ml
80	2:22	280-123924-C-10-A	Unknown	4 ml
81	2:23	280-123924-C-11-A	Unknown	4 ml
82	2:24	280-123924-D-12-A	Unknown	4 ml
83	2:25	w	Blank	4 ml
84	2:26	CCV 280-460066/44-A	Unknown	4 ml
85	2:27	CCB 280-460066/45-A	Unknown	4 ml
86	2:28	280-124073-E-2-A	Unknown	4 ml
87	2:29	w	Blank	4 ml
88	2:30	CCV 280-460066/44-A	Unknown	4 ml

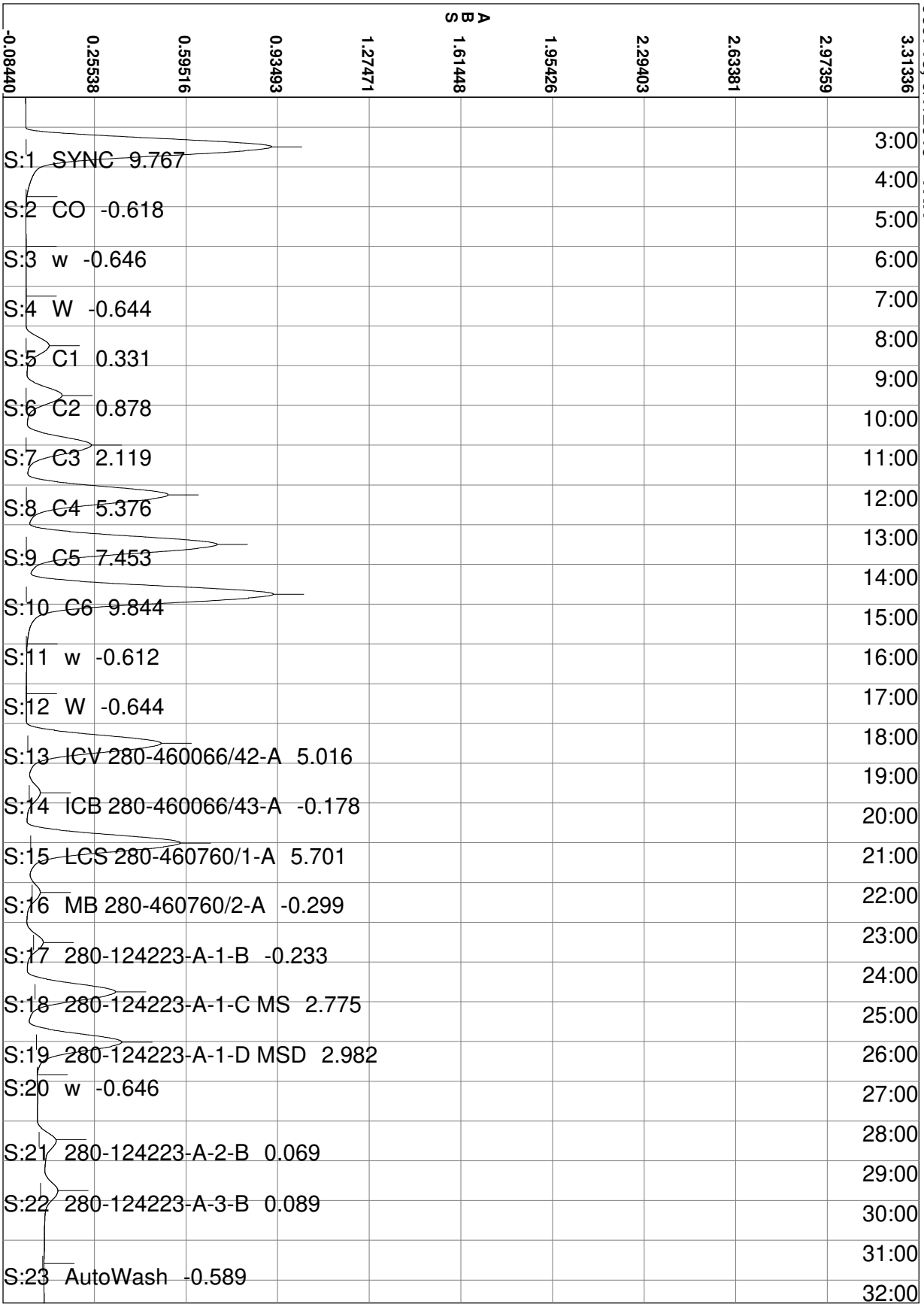
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89	2:31	CCB 280-460066/45-A	Unknown	4 ml

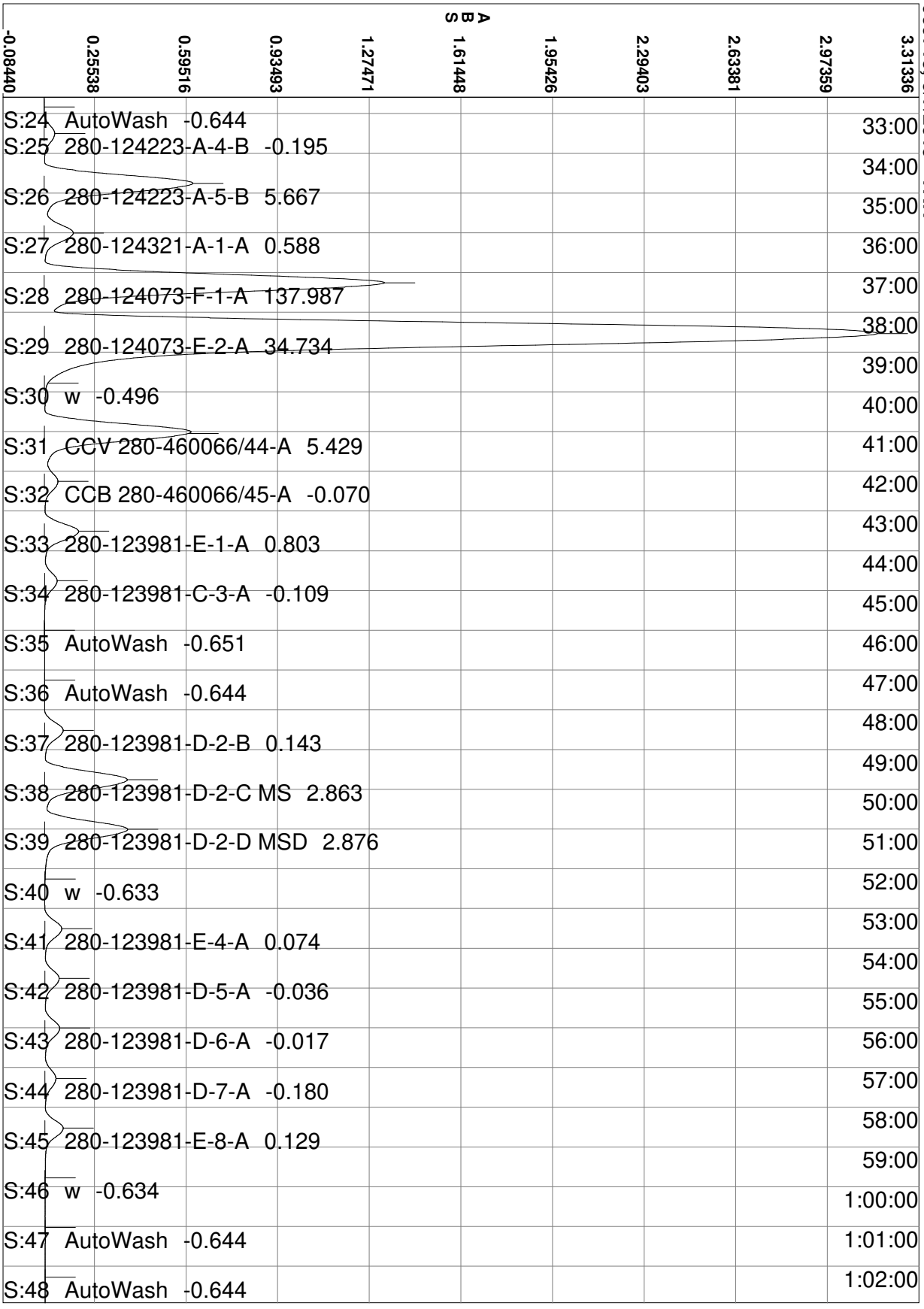
Run Name: 060719
Configuration: TKN
Run date: 6/7/2019

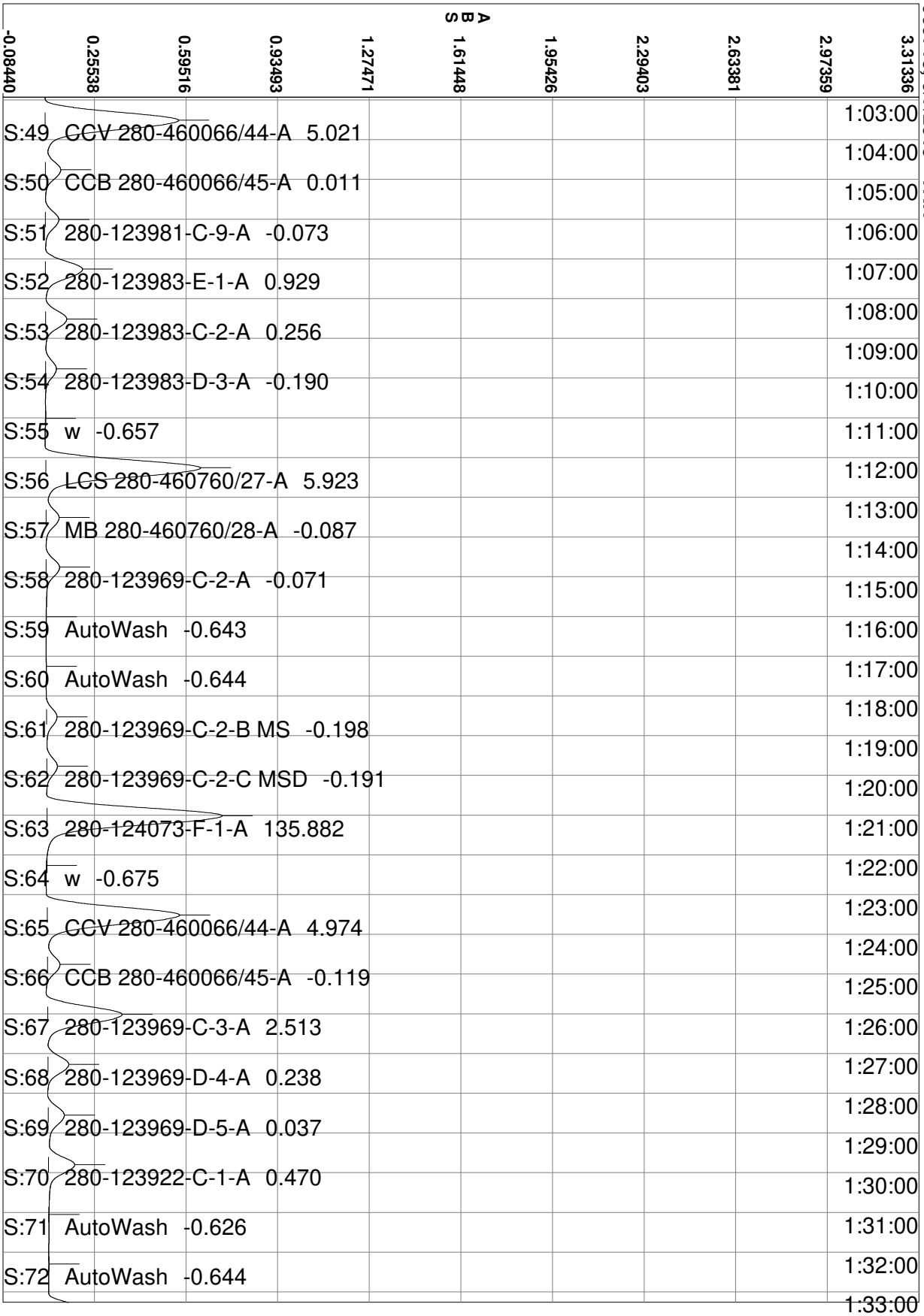
	Position	Identifier	Type	Comme	Date	Time	otal	TKN Cor Ht	TKN mg/l
1	1:1	SYNC	SYNC	50;351.2	6/7/2019	4:59:37 PM	1	0.90855	9.767
2	1:2	CO	Carry over		6/7/2019	5:00:07 PM	1	0.00233	-0.618
3	1:3	w	Blank		6/7/2019	5:01:22 PM	1	-0.00018	-0.646
4	1:4	W	Wash		6/7/2019	5:02:37 PM	1	0.00000	-0.644
5	1:5	C1	Calibrant		6/7/2019	5:03:52 PM	1	0.08507	0.331
6	1:6	C2	Calibrant		6/7/2019	5:05:07 PM	1	0.13281	0.878
7	1:7	C3	Calibrant		6/7/2019	5:06:22 PM	1	0.24110	2.119
8	1:8	C4	Calibrant		6/7/2019	5:07:37 PM	1	0.52538	5.376
9	1:9	C5	Calibrant		6/7/2019	5:08:52 PM	1	0.70662	7.453
10	1:10	C6	Calibrant		6/7/2019	5:10:07 PM	1	0.91529	9.844
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99847
		Intercept:							0.056224
		Linear coef:							0.087266
11	1:13	w	Blank		6/7/2019	5:11:22 PM	1	0.00283	-0.612
12	1:14	W	Wash		6/7/2019	5:12:37 PM	1	0.00000	-0.644
13	1:15	ICV 280-460066/42-A	Unknown		6/7/2019	5:13:52 PM	1	0.49392	5.016
14	1:16	ICB 280-460066/43-A	Unknown		6/7/2019	5:15:07 PM	1	0.04069	-0.178
15	1:17	LCS 280-460760/1-A	Unknown		6/7/2019	5:16:22 PM	1	0.55368	5.701
16	1:18	MB 280-460760/2-A	Unknown		6/7/2019	5:17:37 PM	1	0.03012	-0.299
17	1:19	280-124223-A-1-B	Unknown		6/7/2019	5:18:52 PM	1	0.03593	-0.233
18	1:20	280-124223-A-1-C MS	Unknown		6/7/2019	5:20:07 PM	1	0.29842	2.775
19	1:21	280-124223-A-1-D MSD	Unknown		6/7/2019	5:21:22 PM	1	0.31642	2.982
20	1:22	w	Blank		6/7/2019	5:22:37 PM	1	-0.00018	-0.646
21	1:23	280-124223-A-2-B	Unknown		6/7/2019	5:23:52 PM	1	0.06225	0.069
22	1:24	280-124223-A-3-B	Unknown		6/7/2019	5:25:07 PM	1	0.06401	0.089
23	0	AutoWash	AutoWash		6/7/2019	5:26:21 PM	1	0.00483	-0.589
24	0	AutoWash	AutoWash		6/7/2019	5:27:36 PM	1	0.00000	-0.644
25	1:25	280-124223-A-4-B	Unknown		6/7/2019	5:28:51 PM	1	0.03923	-0.195
26	1:26	280-124223-A-5-B	Unknown		6/7/2019	5:30:06 PM	1	0.55078	5.667
27	1:27	280-124321-A-1-A	Unknown		6/7/2019	5:31:21 PM	1	0.10751	0.588
28	1:28	280-124073-F-1-A	Unknown		6/7/2019	5:32:36 PM	10	1.26038	137.987
29	1:29	280-124073-E-2-A	Unknown		6/7/2019	5:33:52 PM	1	3.08733	34.734
30	1:30	w	Blank		6/7/2019	5:35:07 PM	1	0.01291	-0.496
31	1:31	CCV 280-460066/44-A	Unknown		6/7/2019	5:36:22 PM	1	0.53003	5.429
32	1:32	CCB 280-460066/45-A	Unknown		6/7/2019	5:37:37 PM	1	0.05011	-0.070
33	1:33	280-123981-E-1-A	Unknown		6/7/2019	5:38:52 PM	1	0.12627	0.803
34	1:34	280-123981-C-3-A	Unknown		6/7/2019	5:40:07 PM	1	0.04668	-0.109
35	0	AutoWash	AutoWash		6/7/2019	5:41:22 PM	1	-0.00056	-0.651
36	0	AutoWash	AutoWash		6/7/2019	5:42:37 PM	1	0.00000	-0.644
37	1:35	280-123981-D-2-B	Unknown		6/7/2019	5:43:52 PM	1	0.06866	0.143
38	1:36	280-123981-D-2-C MS	Unknown		6/7/2019	5:45:07 PM	1	0.30605	2.863

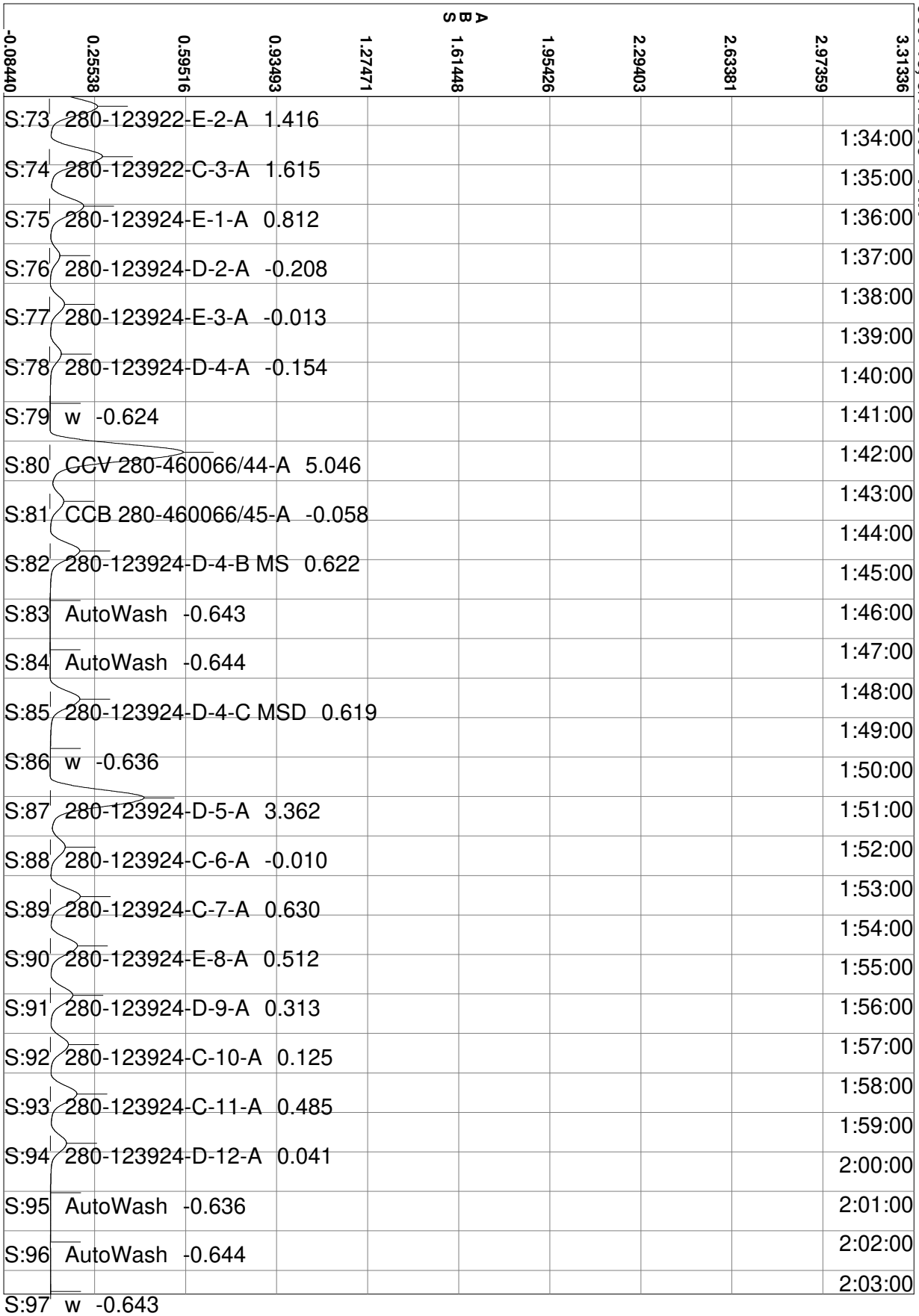
	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
39	1:37	280-123981-D-2-D MSD	Unknown		6/7/2019	5:46:22 PM	1	0.30718	2.876
40	1:38	w	Blank		6/7/2019	5:47:37 PM	1	0.00094	-0.633
41	1:39	280-123981-E-4-A	Unknown		6/7/2019	5:48:52 PM	1	0.06270	0.074
42	1:40	280-123981-D-5-A	Unknown		6/7/2019	5:50:07 PM	1	0.05308	-0.036
43	1:41	280-123981-D-6-A	Unknown		6/7/2019	5:51:22 PM	1	0.05477	-0.017
44	1:42	280-123981-D-7-A	Unknown		6/7/2019	5:52:37 PM	1	0.04053	-0.180
45	1:43	280-123981-E-8-A	Unknown		6/7/2019	5:53:52 PM	1	0.06745	0.129
46	1:44	w	Blank		6/7/2019	5:55:07 PM	1	0.00086	-0.634
47	0	AutoWash	AutoWash		6/7/2019	5:56:22 PM	1	0.00007	-0.644
48	0	AutoWash	AutoWash		6/7/2019	5:57:37 PM	1	0.00000	-0.644
49	1:45	CCV 280-460066/44-A	Unknown		6/7/2019	5:58:52 PM	1	0.49441	5.021
50	1:46	CCB 280-460066/45-A	Unknown		6/7/2019	6:00:07 PM	1	0.05721	0.011
51	1:47	280-123981-C-9-A	Unknown		6/7/2019	6:01:21 PM	1	0.04987	-0.073
52	1:48	280-123983-E-1-A	Unknown		6/7/2019	6:02:36 PM	1	0.13727	0.929
53	1:49	280-123983-C-2-A	Unknown		6/7/2019	6:03:51 PM	1	0.07852	0.256
54	1:50	280-123983-D-3-A	Unknown		6/7/2019	6:05:06 PM	1	0.03961	-0.190
55	1:51	w	Blank		6/7/2019	6:06:21 PM	1	-0.00114	-0.657
56	1:52	LCS 280-460760/27-A	Unknown		6/7/2019	6:07:36 PM	1	0.57313	5.923
57	1:53	MB 280-460760/28-A	Unknown		6/7/2019	6:08:52 PM	1	0.04866	-0.087
58	1:54	280-123969-C-2-A	Unknown		6/7/2019	6:10:07 PM	1	0.05005	-0.071
59	0	AutoWash	AutoWash		6/7/2019	6:11:22 PM	1	0.00009	-0.643
60	0	AutoWash	AutoWash		6/7/2019	6:12:37 PM	1	0.00000	-0.644
61	1:55	280-123969-C-2-B MS	Unknown		6/7/2019	6:13:52 PM	1	0.03892	-0.198
62	1:56	280-123969-C-2-C MSD	Unknown		6/7/2019	6:15:07 PM	1	0.03955	-0.191
63	1:57	280-124073-F-1-A	Unknown		6/7/2019	6:16:22 PM	20	0.64912	135.882
64	1:58	w	Blank		6/7/2019	6:17:37 PM	1	-0.00266	-0.675
65	1:59	CCV 280-460066/44-A	Unknown		6/7/2019	6:18:52 PM	1	0.49031	4.974
66	1:60	CCB 280-460066/45-A	Unknown		6/7/2019	6:20:07 PM	1	0.04584	-0.119
67	2:1	280-123969-C-3-A	Unknown		6/7/2019	6:21:22 PM	1	0.27554	2.513
68	2:2	280-123969-D-4-A	Unknown		6/7/2019	6:22:37 PM	1	0.07696	0.238
69	2:3	280-123969-D-5-A	Unknown		6/7/2019	6:23:52 PM	1	0.05949	0.037
70	2:4	280-123922-C-1-A	Unknown		6/7/2019	6:25:07 PM	1	0.09728	0.470
71	0	AutoWash	AutoWash		6/7/2019	6:26:22 PM	1	0.00162	-0.626
72	0	AutoWash	AutoWash		6/7/2019	6:27:37 PM	1	0.00000	-0.644
73	2:5	280-123922-E-2-A	Unknown		6/7/2019	6:28:52 PM	1	0.17979	1.416
74	2:6	280-123922-C-3-A	Unknown		6/7/2019	6:30:07 PM	1	0.19714	1.615
75	2:7	280-123924-E-1-A	Unknown		6/7/2019	6:31:22 PM	1	0.12708	0.812
76	2:8	280-123924-D-2-A	Unknown		6/7/2019	6:32:37 PM	1	0.03805	-0.208
77	2:9	280-123924-E-3-A	Unknown		6/7/2019	6:33:52 PM	1	0.05510	-0.013
78	2:10	280-123924-D-4-A	Unknown		6/7/2019	6:35:06 PM	1	0.04278	-0.154
79	2:11	w	Blank		6/7/2019	6:36:21 PM	1	0.00176	-0.624
80	2:12	CCV 280-460066/44-A	Unknown		6/7/2019	6:37:36 PM	1	0.49652	5.046
81	2:13	CCB 280-460066/45-A	Unknown		6/7/2019	6:38:51 PM	1	0.05118	-0.058
82	2:14	280-123924-D-4-B MS	Unknown		6/7/2019	6:40:06 PM	1	0.11047	0.622
83	0	AutoWash	AutoWash		6/7/2019	6:41:21 PM	1	0.00010	-0.643
84	0	AutoWash	AutoWash		6/7/2019	6:42:36 PM	1	0.00000	-0.644
85	2:15	280-123924-D-4-C MSD	Unknown		6/7/2019	6:43:52 PM	1	0.11023	0.619
86	2:16	w	Blank		6/7/2019	6:45:07 PM	1	0.00071	-0.636

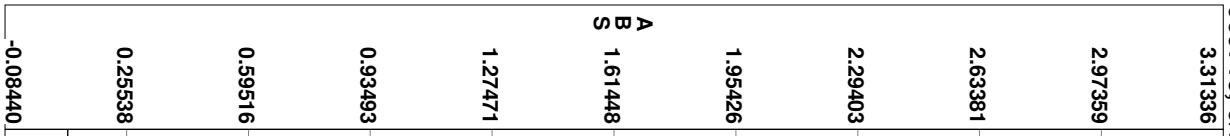
	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
87	2:17	280-123924-D-5-A	Unknown		6/7/2019	6:46:22 PM	1	0.34959	3.362
88	2:18	280-123924-C-6-A	Unknown		6/7/2019	6:47:37 PM	1	0.05535	-0.010
89	2:19	280-123924-C-7-A	Unknown		6/7/2019	6:48:52 PM	1	0.11124	0.630
90	2:20	280-123924-E-8-A	Unknown		6/7/2019	6:50:07 PM	1	0.10092	0.512
91	2:21	280-123924-D-9-A	Unknown		6/7/2019	6:51:22 PM	1	0.08357	0.313
92	2:22	280-123924-C-10-A	Unknown		6/7/2019	6:52:37 PM	1	0.06717	0.125
93	2:23	280-123924-C-11-A	Unknown		6/7/2019	6:53:52 PM	1	0.09851	0.485
94	2:24	280-123924-D-12-A	Unknown		6/7/2019	6:55:07 PM	1	0.05984	0.041
95	0	AutoWash	AutoWash		6/7/2019	6:56:22 PM	1	0.00073	-0.636
96	0	AutoWash	AutoWash		6/7/2019	6:57:37 PM	1	0.00000	-0.644
97	2:25	w	Blank		6/7/2019	6:58:52 PM	1	0.00011	-0.643
98	2:26	CCV 280-460066/44-A	Unknown		6/7/2019	7:00:07 PM	1	0.49477	5.025
99	2:27	CCB 280-460066/45-A	Unknown		6/7/2019	7:01:22 PM	1	0.05077	-0.063
100	2:28	280-124073-E-2-A	Unknown		6/7/2019	7:02:37 PM	10	0.87412	93.724
101	2:29	w	Blank		6/7/2019	7:03:52 PM	1	0.00172	-0.625
102	2:30	CCV 280-460066/44-A	Unknown		6/7/2019	7:05:07 PM	1	0.48876	4.956
103	2:31	CCB 280-460066/45-A	Unknown		6/7/2019	7:06:22 PM	1	0.05025	-0.068
104	0	AutoWash	AutoWash		6/7/2019	7:07:37 PM	1	-0.00094	-0.655
105	0	AutoWash	AutoWash		6/7/2019	7:08:52 PM	1	0.00000	-0.644


060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:1 SYNC 9.767
S:2 CO -0.618
S:3 w -0.646
S:4 W -0.644
S:5 C1 0.331
S:6 C2 0.878
S:7 C3 2.119
S:8 C4 5.376
S:9 C5 7.453
S:10 C6 9.844
S:11 w -0.612
S:12 W -0.644
S:13 ICV 280-460066/42-A 5.016
S:14 ICB 280-460066/43-A -0.178
S:15 LCS 280-460760/1-A 5.701
S:16 MB 280-460760/2-A -0.299
S:17 280-124223-A-1-B -0.233
S:18 280-124223-A-1-C MS 2.775
S:19 280-124223-A-1-D MSD 2.982
S:20 w -0.646
S:21 280-124223-A-2-B 0.069
S:22 280-124223-A-3-B 0.089
S:23 AutoWash -0.589
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060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:24 AutoWash -0.644
S:25 280-124223-A-4-B -0.195
S:26 280-124223-A-5-B 5.667
S:27 280-124321-A-1-A 0.588
S:28 280-124073-F-1-A 137.987
S:29 280-124073-E-2-A 34.734
S:30 w -0.496
S:31 CCV 280-460066/44-A 5.429
S:32 CCB 280-460066/45-A -0.070
S:33 280-123981-E-1-A 0.803
S:34 280-123981-C-3-A -0.109
S:35 AutoWash -0.651
S:36 AutoWash -0.644
S:37 280-123981-D-2-B 0.143
S:38 280-123981-D-2-C MS 2.863
S:39 280-123981-D-2-D MSD 2.876
S:40 w -0.633
S:41 280-123981-E-4-A 0.074
S:42 280-123981-D-5-A -0.036
S:43 280-123981-D-6-A -0.017
S:44 280-123981-D-7-A -0.180
S:45 280-123981-E-8-A 0.129
S:46 w -0.634
S:47 AutoWash -0.644
S:48 AutoWash -0.644
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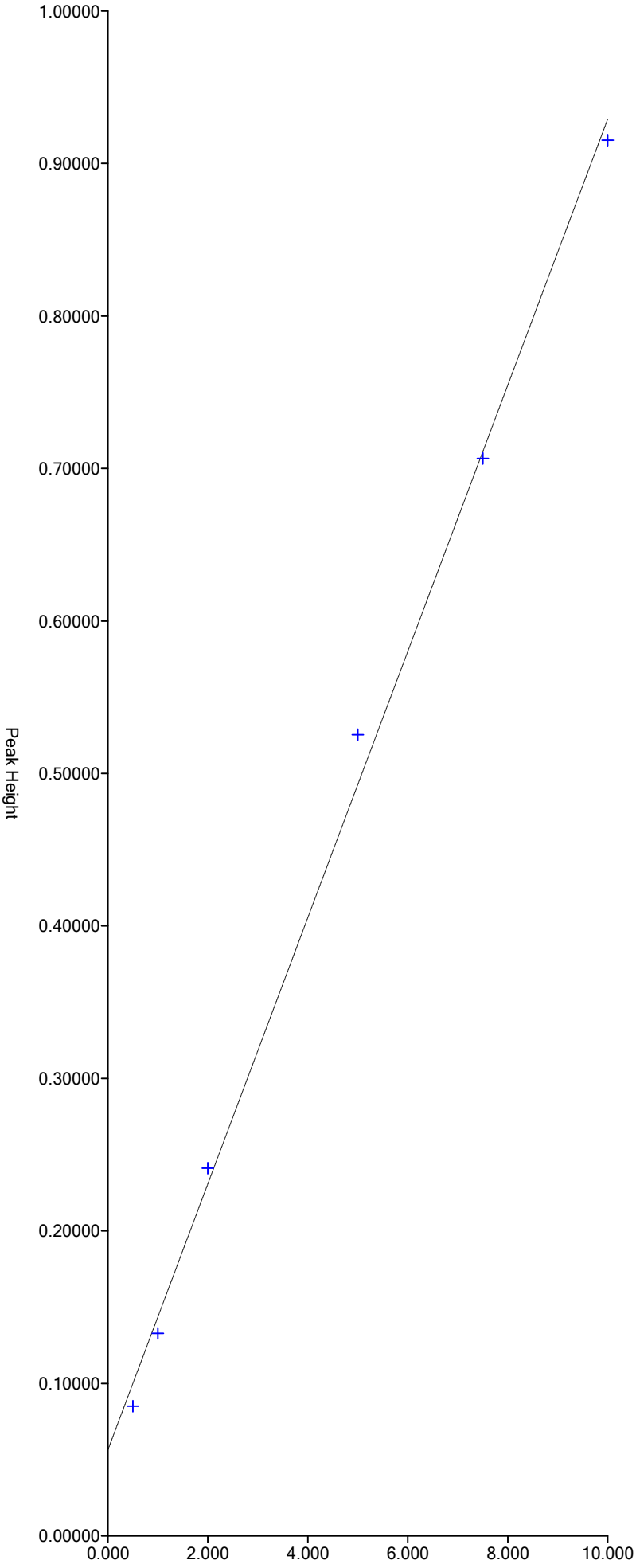

060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:49 CCV 280-460066/44-A 5.021
S:50 CCB 280-460066/45-A 0.011
S:51 280-123981-C-9-A -0.073
S:52 280-123983-E-1-A 0.929
S:53 280-123983-C-2-A 0.256
S:54 280-123983-D-3-A -0.190
S:55 w -0.657
S:56 LCS 280-460760/27-A 5.923
S:57 MB 280-460760/28-A -0.087
S:58 280-123969-C-2-A -0.071
S:59 AutoWash -0.643
S:60 AutoWash -0.644
S:61 280-123969-C-2-B MS -0.198
S:62 280-123969-C-2-C MSD -0.191
S:63 280-124073-F-1-A 135.882
S:64 w -0.675
S:65 CCV 280-460066/44-A 4.974
S:66 CCB 280-460066/45-A -0.119
S:67 280-123969-C-3-A 2.513
S:68 280-123969-D-4-A 0.238
S:69 280-123969-D-5-A 0.037
S:70 280-123922-C-1-A 0.470
S:71 AutoWash -0.626
S:72 AutoWash -0.644
1:03:00
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060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:73 280-123922-E-2-A 1.416
S:74 280-123922-C-3-A 1.615
S:75 280-123924-E-1-A 0.812
S:76 280-123924-D-2-A -0.208
S:77 280-123924-E-3-A -0.013
S:78 280-123924-D-4-A -0.154
S:79 w -0.624
S:80 CCV 280-460066/44-A 5.046
S:81 CCB 280-460066/45-A -0.058
S:82 280-123924-D-4-B MS 0.622
S:83 AutoWash -0.643
S:84 AutoWash -0.644
S:85 280-123924-D-4-C MSD 0.619
S:86 w -0.636
S:87 280-123924-D-5-A 3.362
S:88 280-123924-C-6-A -0.010
S:89 280-123924-C-7-A 0.630
S:90 280-123924-E-8-A 0.512
S:91 280-123924-D-9-A 0.313
S:92 280-123924-C-10-A 0.125
S:93 280-123924-C-11-A 0.485
S:94 280-123924-D-12-A 0.041
S:95 AutoWash -0.636
S:96 AutoWash -0.644
S:97 w -0.643
1:34:00
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2:02:00
2:03:00



	2:04:00
S:98 CCV 280-460066/44-A 5.025	2:05:00
S:99 CCB 280-460066/45-A -0.063	2:06:00
S:100 280-124073-E-2-A 93.724	2:07:00
S:101 w -0.625	2:08:00
	2:09:00
S:102 CCV 280-460066/44-A 4.956	2:10:00
S:103 CCB 280-460066/45-A -0.068	2:11:00
S:104 AutoWash -0.655	2:12:00
S:105 AutoWash -0.644	2:13:00
	2:14:00
	2:15:00
	2:16:00
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	2:21:00
	2:22:00
	2:23:00
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	2:30:00
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	2:32:00
	2:33:00

Calibration for TKN



Segment 1: Equation: y = 0.08727x + 0.05622
Correlation: 0.9985

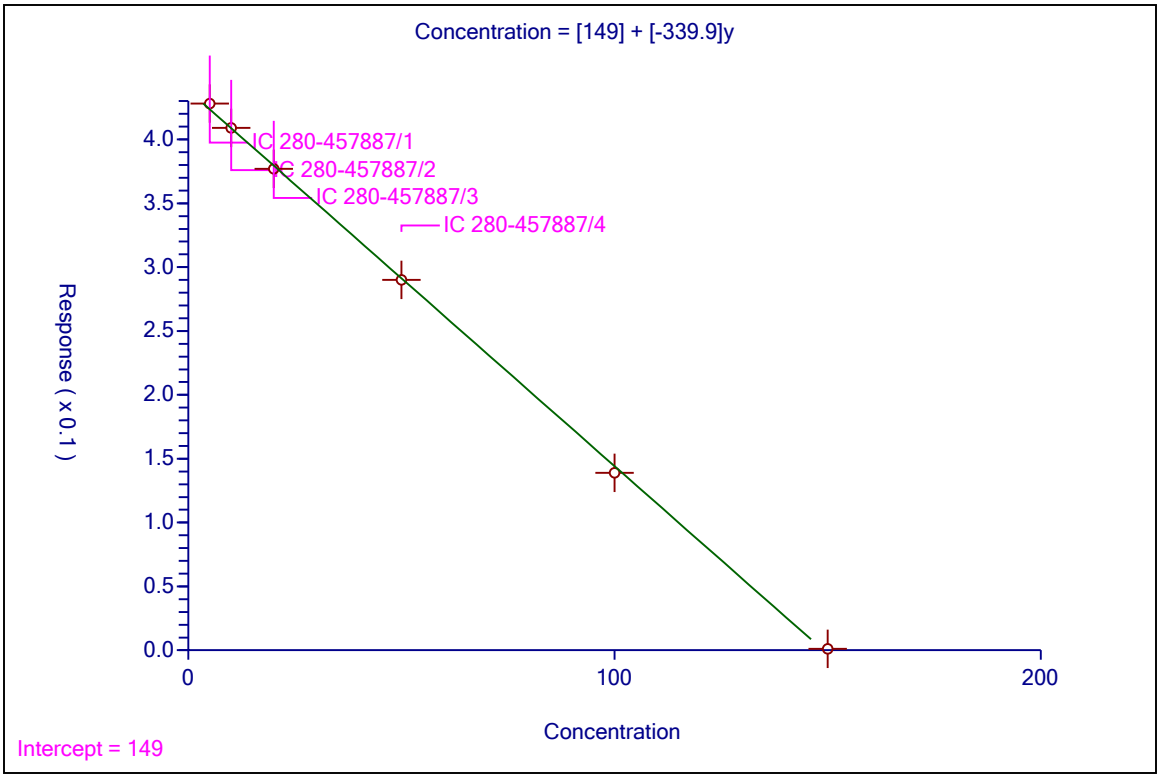
X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-457887/1	5.0	0.428			0.0856	Y
2	IC 280-457887/2	10.0	0.409			0.0409	Y
3	IC 280-457887/3	20.0	0.377			0.01885	Y
4	IC 280-457887/4	50.0	0.29			0.0058	Y
5	IC 280-457887/5	100.0	0.139			0.00139	Y
6	IC 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123027-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 16 Lab ID: **280-123027-K-1** Inj Date: 5/13/2019 7:39:00AM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.374	21.87740 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123112-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123113-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 17 Lab ID: **280-123113-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	11 J mg/L				

RS# 18 Lab ID: **280-123113-A-2** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.227	71.84270 mg/L	mg/L				

RS# 19 Lab ID: **280-123113-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 20 Lab ID: **280-123113-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.394	15.07940 mg/L	15 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90	110	

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123114-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 21 Lab ID: **280-123114-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.404	11.68040 mg/L	12 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123115-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

RS# 24 Lab ID: **280-123115-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 25 Lab ID: **280-123115-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.359	26.97590 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.148	98.69480	mg/L	mg/L	99	90	110

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	20 U mg/L				

Job Number: 280-123267-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 29 Lab ID: **280-123267-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 30 Lab ID: **280-123267-E-2** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.381	19.49810 mg/L	39 J mg/L				

RS# 31 Lab ID: **280-123267-E-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.340	33.43400 mg/L	mg/L				

RS# 32 Lab ID: **280-123267-E-4** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.061	128.2661 mg/L	mg/L				

RS# 33 Lab ID: **280-123267-B-5** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.428	3.522800 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	mg/L				

RS# 36 Lab ID: **280-123267-B-6** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	mg/L				

RS# 37 Lab ID: **280-123267-C-7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.464	-8.713600 mg/L	mg/L				

RS# 38 Lab ID: **280-123267-B-8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 39 Lab ID: **280-123267-D-9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.292	49.74920 mg/L	mg/L				

RS# 40 Lab ID: **CCV 280-457887/40** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 41 Lab ID: **CCB 280-457887/41** Inj Date: 5/13/2019 7:39:49AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123444-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 15 Lab ID: **280-123444-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

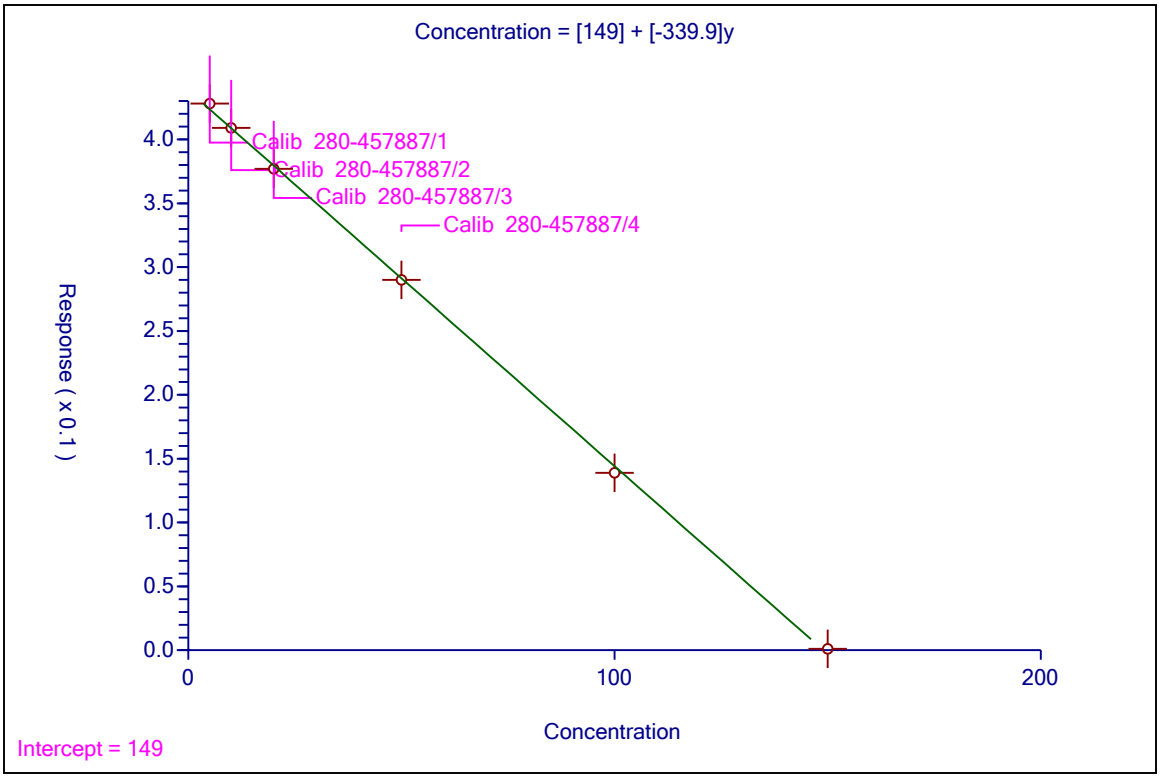
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 6 Lab ID: **280-123822-H-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.382	19.15820 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123904-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 10 Lab ID: **280-123904-B-3** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123969-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 19 Lab ID: **280-123969-C-2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 20 Lab ID: **280-123969-B-3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.425	4.542500 mg/L	mg/L				

RS# 21 Lab ID: **280-123969-B-3 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	103	90 110		

RS# 22 Lab ID: **280-123969-B-3 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.301	46.69010 mg/L	mg/L	93	90 110	10	11

RS# 23 Lab ID: **280-123969-D-4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.414	8.281400 mg/L	mg/L				

RS# 24 Lab ID: **280-123969-D-5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461121/28** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-461121/29** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123972-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 11 Lab ID: **280-123972-B-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	<-0.100	mg/L	mg/L				

RS# 12 Lab ID: **280-123972-A-2** Inj Date: 6/11/2019 9:08:00AM Dil: 20 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.100	115.0100 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123981-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123969-B-3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.425	4.542500 mg/L	20 U mg/L				

RS# 21 Lab ID: **280-123969-B-3 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	103	90 110		

RS# 22 Lab ID: **280-123969-B-3 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.301	46.69010 mg/L	mg/L	93	90 110	10	11

RS# 26 Lab ID: **280-123981-G-2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	20 U mg/L				

RS# 27 Lab ID: **280-123981-G-3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 28 Lab ID: **CCV 280-461121/28** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-461121/29** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	20 U mg/L				

RS# 30 Lab ID: **280-123981-G-4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	20 U mg/L				

RS# 31 Lab ID: **280-123981-G-5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.439	0.2161000 mg/L	20 U mg/L				

RS# 32 Lab ID: **280-123981-G-6** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 33 Lab ID: **280-123981-G-7** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	20 U mg/L				

RS# 34 Lab ID: **CCV 280-461121/34** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 35 Lab ID: **CCB 280-461121/35** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.458	-6.674200 mg/L	20 U mg/L				

Job Number: 280-123983-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123969-B-3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.425	4.542500 mg/L	20 U mg/L				

RS# 21 Lab ID: **280-123969-B-3 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	103	90 110		

RS# 22 Lab ID: **280-123969-B-3 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.301	46.69010 mg/L	mg/L	93	90 110	10	11

RS# 25 Lab ID: **280-123983-G-1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.237	68.44370 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461121/28** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

TALS Raw Data Report

RS# 29 Lab ID: **CCB 280-461121/29** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-124081-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 13 Lab ID: **280-124081-D-1** Inj Date: 6/11/2019 9:08:00AM Dil: 10 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	110 J mg/L				

RS# 14 Lab ID: **280-124081-D-2** Inj Date: 6/11/2019 9:08:00AM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.393	15.41930 mg/L	77 J mg/L				

RS# 15 Lab ID: **280-124081-D-3** Inj Date: 6/11/2019 9:08:00AM Dil: 20 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.329	37.17290 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 18 Lab ID: **280-124081-D-4** Inj Date: 6/11/2019 9:08:00AM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.366	24.59660 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461121/28** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-461121/29** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

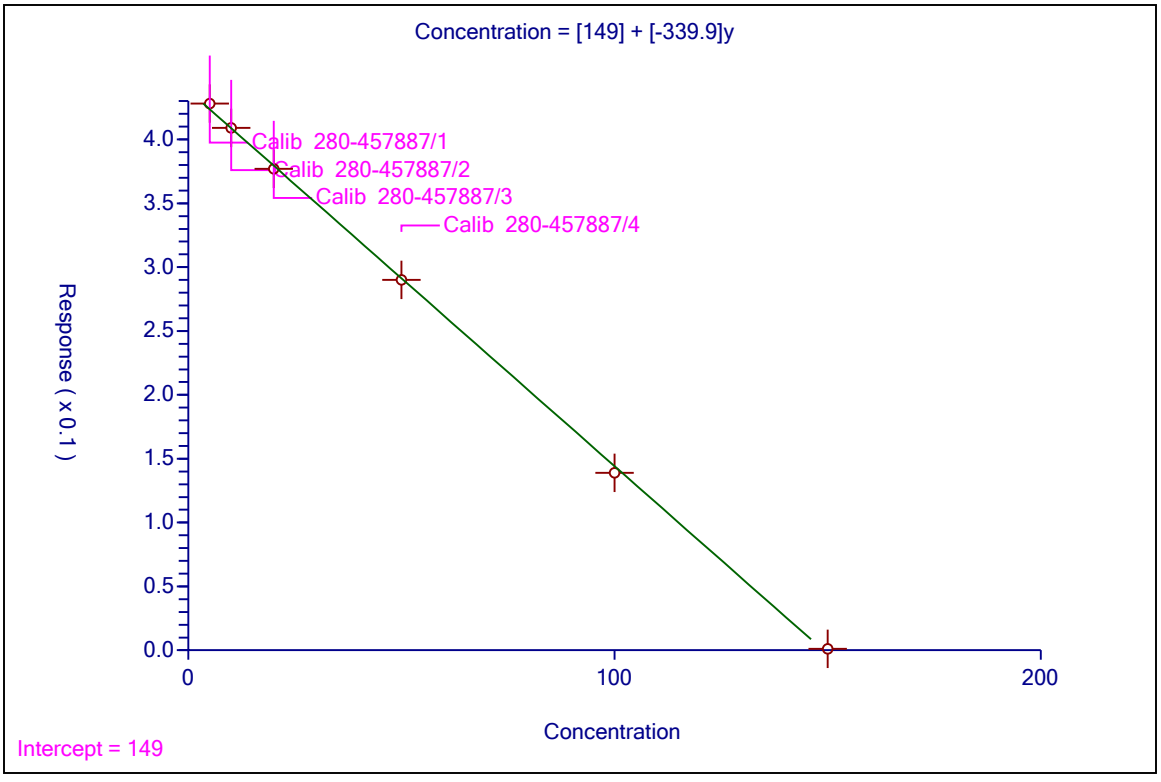
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 10 Lab ID: **280-123822-H-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L					

TALS Raw Data Report

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123904-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 9 Lab ID: **280-123904-B-3** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.398	13.71980 mg/L	mg/L					

TALS Raw Data Report

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123972-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 11 Lab ID: **280-123972-B-1** Inj Date: 6/12/2019 10:53:53AM Dil: 200.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.058	129.2858 mg/L	mg/L					

TALS Raw Data Report

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123981-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	20 U mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 12 Lab ID: **280-123981-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	20 U mg/L					

TALS Raw Data Report

RS# 13 Lab ID: **280-123981-D-8** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	20 U mg/L				

RS# 14 Lab ID: **280-123981-D-9** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.414	8.281400 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123983-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	20 U mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 15 Lab ID: **280-123983-C-2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.379	20.17790 mg/L	mg/L					

TALS Raw Data Report

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	20 U mg/L				

RS# 18 Lab ID: **280-123983-E-3** Inj Date: 6/12/2019 10:53:53AM Dil: 10.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.026	140.1626 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-124038-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

RS# 20 Lab ID: **280-124085-D-1** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.393	15.41930 mg/L	mg/L				

RS# 21 Lab ID: **280-124085-D-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.246	65.38460 mg/L	mg/L	100	90 110		

RS# 22 Lab ID: **280-124085-D-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.270	57.22700 mg/L	mg/L	84	90 110	13	11

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

RS# 30 Lab ID: **280-124038-J-1** Inj Date: 6/12/2019 10:53:53AM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.116	109.5716 mg/L	mg/L				

RS# 31 Lab ID: **280-124038-J-2** Inj Date: 6/12/2019 10:53:53AM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.259	60.96590 mg/L	mg/L				

RS# 32 Lab ID: **280-124038-J-3** Inj Date: 6/12/2019 10:53:53AM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L				

RS# 33 Lab ID: **280-124038-J-4** Inj Date: 6/12/2019 10:53:53AM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.277	54.84770 mg/L	mg/L				

TALS Raw Data Report

RS# 34 Lab ID: **CCV 280-461275/34** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 35 Lab ID: **CCB 280-461275/35** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-124085-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

RS# 20 Lab ID: **280-124085-D-1** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.393	15.41930 mg/L	mg/L				

RS# 21 Lab ID: **280-124085-D-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.246	65.38460 mg/L	mg/L	100	90 110		

RS# 22 Lab ID: **280-124085-D-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.270	57.22700 mg/L	mg/L	84	90 110	13	11

RS# 23 Lab ID: **280-124085-D-2** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.154	96.65540 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-124106-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

RS# 20 Lab ID: **280-124085-D-1** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.393	15.41930 mg/L	mg/L				

RS# 21 Lab ID: **280-124085-D-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.246	65.38460 mg/L	mg/L	100	90 110		

RS# 22 Lab ID: **280-124085-D-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.270	57.22700 mg/L	mg/L	84	90 110	13	11

RS# 24 Lab ID: **280-124106-D-1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.332	36.15320 mg/L	mg/L				

RS# 25 Lab ID: **280-124106-E-2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L				

RS# 26 Lab ID: **280-124106-E-3** Inj Date: 6/12/2019 10:53:53AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.311	43.29110 mg/L	mg/L				

RS# 27 Lab ID: **280-124106-D-4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.398	13.71980 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-124109-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

RS# 19 Lab ID: **280-124109-F-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.209	77.96090 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060619.RST
Sample table path	C:\FLOW_4\p060619.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	07-Jun-19
Time acquired	00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	16:47	106	Sync	1284746	532.010	HI
06-Jun-19	16:50	0	Carryover	11761	2.861	
06-Jun-19	16:53	0	Carryover	1222	-1.624	LO
06-Jun-19	16:56	0	Read Baseline	-538	-2.373	BL
06-Jun-19	16:59	101	Cal 10.0 ppb	33132	11.950	
06-Jun-19	17:02	102	Cal 20.0 ppb	57468	22.291	
06-Jun-19	17:05	103	Cal 50.0 ppb	116843	47.484	
06-Jun-19	17:08	104	Cal 100 ppb	242088	100.447	
06-Jun-19	17:11	105	Cal 200 ppb	478988	199.968	
06-Jun-19	17:14	106	Cal 500 ppb	1206011	500.004	
06-Jun-19	17:17	0	Blank	-4565	-4.087	LO
06-Jun-19	17:20	0	Read Baseline	876	-1.771	BL
06-Jun-19	17:23	107	ICV 200 ppb	470022	196.217	
06-Jun-19	18:53	109	ICVL 100 ppb	264459	109.882	
06-Jun-19	18:56	0	ICB	-2784	-3.329	LO
06-Jun-19	18:59	0	Read Baseline	-7211	-5.213	BL UM
06-Jun-19	19:02	113	LCS 280-460735/1-A	481696	201.101	
06-Jun-19	19:05	114	MB 280-460735/2-A	7136	0.893	
06-Jun-19	19:08	115	280-123273-G-19-B	7689	1.129	
06-Jun-19	19:11	116	280-123889-A-2-B	35443	12.932	
06-Jun-19	19:14	117	280-123993-B-2-B	48783	18.601	
06-Jun-19	19:17	118	280-123993-B-4-B	130790	53.394	
06-Jun-19	19:20	119	280-123853-G-4-A	26462	9.114	
06-Jun-19	19:23	120	280-123853-G-5-A	22970	7.629	
06-Jun-19	19:26	121	280-123853-G-6-A	20406	6.538	
06-Jun-19	19:29	122	280-123855-D-1-B	28502	9.981	
06-Jun-19	19:32	0	blank	-10935	-6.799	LO
06-Jun-19	19:35	0	read baseline	-15155	-8.596	BL
06-Jun-19	19:38	108	CCV 200 ppb	487488	203.523	
06-Jun-19	19:41	104	CCVL 100 ppb	246780	102.427	
06-Jun-19	19:44	0	CCB	6	-2.142	LO
06-Jun-19	19:47	0	read baseline	3191	-0.786	BL
06-Jun-19	19:50	123	280-123855-D-1-C MS	496482	207.283	
06-Jun-19	19:53	124	280-123855-D-1-D MSD	511992	213.764	
06-Jun-19	19:56	125	280-123855-C-2-B	21738	7.105	
06-Jun-19	19:59	126	280-123855-E-3-D	39628	14.711	
06-Jun-19	20:02	127	280-123855-E-4-B	20998	6.790	
06-Jun-19	20:05	128	280-123855-C-5-B	26770	9.245	
06-Jun-19	20:08	129	280-123972-B-1-A	737659	307.650	
06-Jun-19	20:11	130	280-123972-A-2-A	54507	21.033	
06-Jun-19	20:14	131	280-123981-G-1-A	472837	197.395	
06-Jun-19	20:17	132	280-123981-G-2-A	36575	13.413	

Result path C:\FLOW_4\P060619.RST
Sample table path C:\FLOW_4\p060619.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 07-Jun-19
Time acquired 00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	20:20	0	blank	7303	0.964	
06-Jun-19	20:23	0	read baseline	3039	-0.851	BL
06-Jun-19	20:26	108	CCV 200 ppb	518804	216.610	
06-Jun-19	20:29	104	CCVL 100 ppb	261180	108.500	
06-Jun-19	20:32	0	CCB	9128	1.741	
06-Jun-19	20:35	0	read baseline	3064	-0.840	BL
06-Jun-19	20:38	133	280-123981-G-3-A	31116	11.093	
06-Jun-19	20:41	134	280-123981-G-4-A	32959	11.876	
06-Jun-19	20:44	135	280-123981-G-5-A	28330	9.908	
06-Jun-19	20:47	136	280-123981-G-6-A	28401	9.938	
06-Jun-19	20:50	137	280-123981-G-6-B MS	493108	205.873	
06-Jun-19	20:53	138	280-123981-G-6-C MSD	496776	207.406	
06-Jun-19	20:57	139	LCS 280-460749/1-A	498298	208.042	
06-Jun-19	21:00	140	MB 280-460749/2-A	24545	8.299	
06-Jun-19	21:03	141	280-123981-G-7-A	31197	11.127	
06-Jun-19	21:06	142	280-123981-G-8-B	29210	10.282	
06-Jun-19	21:09	0	blank	4725	-0.133	LO
06-Jun-19	21:12	0	read baseline	3560	-0.629	BL
06-Jun-19	21:15	108	CCV 200 ppb	507874	212.044	
06-Jun-19	21:18	104	CCVL 100 ppb	245911	102.060	
06-Jun-19	21:21	0	CCB	-4681	-4.136	LO
06-Jun-19	21:24	0	read baseline	-5973	-4.686	BL
06-Jun-19	21:27	143	280-123981-G-9-B	23801	7.982	
06-Jun-19	21:30	144	280-123983-G-1-B	69644	27.462	
06-Jun-19	21:33	145	280-123983-G-2-B	34350	12.468	
06-Jun-19	21:36	146	280-123983-G-3-B	35107	12.789	
06-Jun-19	21:39	147	280-124270-D-1-B	41354	15.444	
06-Jun-19	21:42	148	280-124270-D-2-B	40819	15.217	
06-Jun-19	21:45	149	280-124270-D-3-B	29994	10.615	
06-Jun-19	21:48	150	x280-124270-D-3-C MS	26693	9.212	
06-Jun-19	22:53	151	x280-124270-D-3-D MS	436947	182.370	
06-Jun-19	22:56	152	x280-124038-I-4-A	23051	7.663	
06-Jun-19	22:59	0	blank	-14444	-8.293	LO
06-Jun-19	23:02	0	read baseline	18979	5.932	BL UM
06-Jun-19	23:05	108	CCV 200 ppb	517632	216.121	
06-Jun-19	23:08	104	CCVL 100 ppb	260517	108.220	
06-Jun-19	23:11	0	CCB	7489	1.043	
06-Jun-19	23:14	0	read baseline	6427	0.591	BL
06-Jun-19	23:17	153	280-123924-G-1-A	22649	7.492	
06-Jun-19	23:20	154	280-123924-G-2-A	27403	9.514	
06-Jun-19	23:23	155	280-123924-G-3-A	65091	25.529	
06-Jun-19	23:26	156	280-123924-G-4-A	54052	20.840	
06-Jun-19	23:29	157	280-123924-G-5-A	39673	14.730	
06-Jun-19	23:32	158	280-123924-G-6-A	39776	14.774	
06-Jun-19	23:35	159	280-123924-G-7-A	32623	11.733	
06-Jun-19	23:38	160	280-123924-G-8-A	39618	14.707	
06-Jun-19	23:41	201	280-123924-G-9-A	28542	9.998	
06-Jun-19	23:44	202	280-123924-G-10-A	32243	11.572	
06-Jun-19	23:48	0	blank	3165	-0.797	LO
06-Jun-19	23:51	0	read baseline	-768	-2.471	BL
06-Jun-19	23:54	108	CCV 200 ppb	512574	214.008	
06-Jun-19	23:57	104	CCVL 100 ppb	263342	109.411	
07-Jun-19	00:00	0	CCB	-5430	-4.456	LO
07-Jun-19	00:03	0	read baseline	-6178	-4.774	BL
07-Jun-19	00:06	203	280-123924-G-10-B MS	517054	215.879	
07-Jun-19	00:09	204	280-123924-G-10-C MS	507160	211.746	
07-Jun-19	00:13	150	280-124270-D-3-C MS	447375	186.738	

Result path C:\FLOW_4\P060619.RST
Sample table path C:\FLOW_4\p060619.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 07-Jun-19
Time acquired 00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
07-Jun-19	00:16	151	280-124270-D-3-D MSD	450311	187.967	
07-Jun-19	00:19	152	280-124038-I-4-A	67100	26.382	
07-Jun-19	00:22	0	blank	-433	-2.328	LO
07-Jun-19	00:25	0	read baseline	-8549	-5.783	BL
07-Jun-19	00:28	108	CCV 200 ppb	504486	210.628	
07-Jun-19	00:31	104	CCVL 100 ppb	261085	108.460	
07-Jun-19	00:34	0	CCB	5987	0.404	
07-Jun-19	00:37	0	read baseline	6920	0.801	BL

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060619.RST
Date: 07-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1284746	532.009644	HI
2	0	Carryover	1	CO	1	1	11761	2.860792	
3	0	Carryover	2	CO	1	1	1222	-1.623995	LO
B	0	Read Baseline	1	RB	1	1	-538	-2.372981	BL
5	101	Cal 10.0 ppb	1	C	1	1	33132	11.949753	
6	102	Cal 20.0 ppb	1	C	1	1	57468	22.291309	
7	103	Cal 50.0 ppb	1	C	1	1	116843	47.483776	
8	104	Cal 100 ppb	1	C	1	1	242088	100.447174	
9	105	Cal 200 ppb	1	C	1	1	478988	199.968140	
10	106	Cal 500 ppb	1	C	1	1	1206011	500.004059	
11	0	Blank	1	BLNK	1	1	-4565	-4.087067	LO
B	0	Read Baseline	1	RB	1	1	876	-1.771070	BL
13	107	ICV 200 ppb	1	U	1	1	470022	196.217255	
14	109	ICVL 100 ppb	1	U	1	1	264459	109.881981	
15	0	ICB	1	U	1	1	-2784	-3.328888	LO
B	0	Read Baseline	1	RB	1	1	-7211	-5.213415	BL UM
17	113	LCS 280-460735/1-A 1	U		1	1	481696	201.100876	
18	114	MB 280-460735/2-A 1	U		1	1	7136	0.892920	
19	115	280-123273-G-19-B 1	U		1	1	7689	1.128525	
20	116	280-123889-A-2-B 1	U		1	1	35443	12.932266	
21	117	280-123993-B-2-B 1	U		1	1	48783	18.601410	
22	118	280-123993-B-4-B 1	U		1	1	130790	53.393574	
23	119	280-123853-G-4-A 1	U		1	1	26462	9.113688	
24	120	280-123853-G-5-A 1	U		1	1	22970	7.628785	
25	121	280-123853-G-6-A 1	U		1	1	20406	6.538361	
26	122	280-123855-D-1-B 1	U		1	1	28502	9.981392	
27	0	blank	1	BLNK	1	1	-10935	-6.799056	LO
B	0	read baseline	1	RB	1	1	-15155	-8.596418	BL
29	108	CCV 200 ppb	1	CCV	1	1	487488	203.522873	
30	104	CCVL 100 ppb	1	U	1	1	246780	102.426888	
31	0	CCB	1	U	1	1	6	-2.141597	LO
B	0	read baseline	1	RB	1	1	3191	-0.785660	BL
33	123	280-123855-D-1-C MS 1	U		1	1	496482	207.283142	
34	124	280-123855-D-1-D MSD 1	U		1	1	511992	213.764450	
35	125	280-123855-C-2-B 1	U		1	1	21738	7.105095	
36	126	280-123855-E-3-D 1	U		1	1	39628	14.711295	
37	127	280-123855-E-4-B 1	U		1	1	20998	6.790325	
38	128	280-123855-C-5-B 1	U		1	1	26770	9.244663	
39	129	280-123972-B-1-A 1	U		1	1	737659	307.650177	
40	130	280-123972-A-2-A 1	U		1	1	54507	21.033207	
41	131	280-123981-G-1-A 1	U		1	1	472837	197.394958	
42	132	280-123981-G-2-A 1	U		1	1	36575	13.413217	
43	0	blank	1	BLNK	1	1	7303	0.964045	
B	0	read baseline	1	RB	1	1	3039	-0.850566	BL
45	108	CCV 200 ppb	1	CCV	1	1	518804	216.610123	
46	104	CCVL 100 ppb	1	U	1	1	261180	108.499573	
47	0	CCB	1	U	1	1	9128	1.740731	
B	0	read baseline	1	RB	1	1	3064	-0.840003	BL
49	133	280-123981-G-3-A 1	U		1	1	31116	11.092682	
50	134	280-123981-G-4-A 1	U		1	1	32959	11.876139	
51	135	280-123981-G-5-A 1	U		1	1	28330	9.908121	
52	136	280-123981-G-6-A 1	U		1	1	28401	9.938361	
53	137	280-123981-G-6-B MS 1	U		1	1	493108	205.872604	
54	138	280-123981-G-6-C MSD 1	U		1	1	496776	207.406219	
55	139	LCS 280-460749/1-A 1	U		1	1	498298	208.042267	
56	140	MB 280-460749/2-A 1	U		1	1	24545	8.298662	
57	141	280-123981-G-7-A 1	U		1	1	31197	11.127326	
58	142	280-123981-G-8-B 1	U		1	1	29210	10.282269	
59	0	blank	1	BLNK	1	1	4725	-0.132839	LO
B	0	read baseline	1	RB	1	1	3560	-0.628626	BL
61	108	CCV 200 ppb	1	CCV	1	1	507874	212.044113	
62	104	CCVL 100 ppb	1	U	1	1	245911	102.059959	
63	0	CCB	1	U	1	1	-4681	-4.136443	LO
B	0	read baseline	1	RB	1	1	-5973	-4.686414	BL
65	143	280-123981-G-9-B 1	U		1	1	23801	7.982085	
66	144	280-123983-G-1-B 1	U		1	1	69644	27.461996	
67	145	280-123983-G-2-B 1	U		1	1	34350	12.467785	
68	146	280-123983-G-3-B 1	U		1	1	35107	12.789383	
69	147	280-124270-D-1-B 1	U		1	1	41354	15.444472	
70	148	280-124270-D-2-B 1	U		1	1	40819	15.217384	

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
71	149	280-124270-D-3-B 1 U			1	1	29994	10.615470	
72	150	x280-124270-D-3-C MS 1 U			1	1	26693	9.211935	
73	151	x280-124270-D-3-D MS 1 U			1	1	436947	182.369995	
74	152	x280-124038-I-4-A 1 U			1	1	23051	7.663148	
75	0	blank	1	BLNK	1	1	-14444	-8.293395	LO
B	0	read baseline	1	RB	1	1	18979	5.931530	BL UM
77	108	CCV 200 ppb	1	CCV	1	1	517632	216.120605	
78	104	CCVL 100 ppb	1	U	1	1	260517	108.220367	
79	0	CCB	1	U	1	1	7489	1.043040	
B	0	read baseline	1	RB	1	1	6427	0.591272	BL
81	153	280-123924-G-1-A 1 U			1	1	22649	7.492246	
82	154	280-123924-G-2-A 1 U			1	1	27403	9.513841	
83	155	280-123924-G-3-A 1 U			1	1	65091	25.528692	
84	156	280-123924-G-4-A 1 U			1	1	54052	20.840273	
85	157	280-123924-G-5-A 1 U			1	1	39673	14.730239	
86	158	280-123924-G-6-A 1 U			1	1	39776	14.774037	
87	159	280-123924-G-7-A 1 U			1	1	32623	11.733281	
88	160	280-123924-G-8-A 1 U			1	1	39618	14.706872	
89	201	280-123924-G-9-A 1 U			1	1	28542	9.998407	
90	202	280-123924-G-10-A 1 U			1	1	32243	11.571870	
91	0	blank	1	BLNK	1	1	3165	-0.796679	LO
B	0	read baseline	1	RB	1	1	-768	-2.470809	BL
93	108	CCV 200 ppb	1	CCV	1	1	512574	214.007736	
94	104	CCVL 100 ppb	1	U	1	1	263342	109.411003	
95	0	CCB	1	U	1	1	-5430	-4.455504	LO
B	0	read baseline	1	RB	1	1	-6178	-4.773701	BL
97	203	280-123924-G-10-B MS 1 U			1	1	517054	215.879105	
98	204	280-123924-G-10-C MS 1 U			1	1	507160	211.745743	
99	150	280-124270-D-3-C MS 1 U			1	1	447375	186.737579	
100	151	280-124270-D-3-D MSD 1 U			1	1	450311	187.966812	
101	152	280-124038-I-4-A 1 U			1	1	67100	26.381832	
102	0	blank	1	BLNK	1	1	-433	-2.328184	LO
B	0	read baseline	1	RB	1	1	-8549	-5.783080	BL
104	108	CCV 200 ppb	1	CCV	1	1	504486	210.628342	
105	104	CCVL 100 ppb	1	U	1	1	261085	108.459816	
106	0	CCB	1	U	1	1	5987	0.404209	
B	0	read baseline	1	RB	1	1	6920	0.801121	BL

Phenols, Total:Calibration 1: Peak 5-107

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Date: 07-Jun-19
Operator: AM

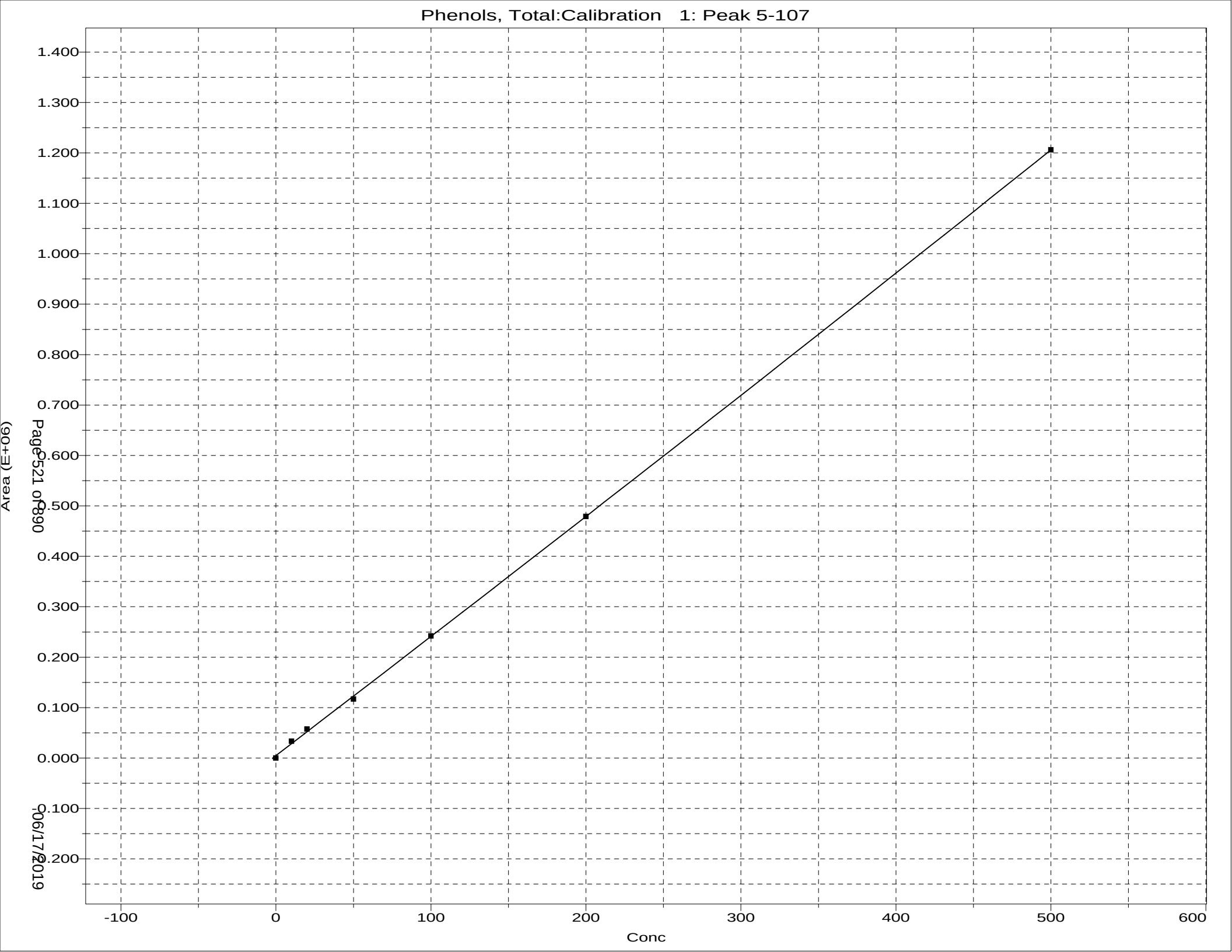
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*	Cal 10.0 ppb	10.000000	33131.878906
*	Cal 20.0 ppb	20.000000	57468.367188
*	Cal 50.0 ppb	50.000000	116842.929688
*	Cal 100 ppb	100.000000	242087.781250
*	Cal 200 ppb	200.000000	478987.968750
*	Cal 500 ppb	500.000000	1206011.125000

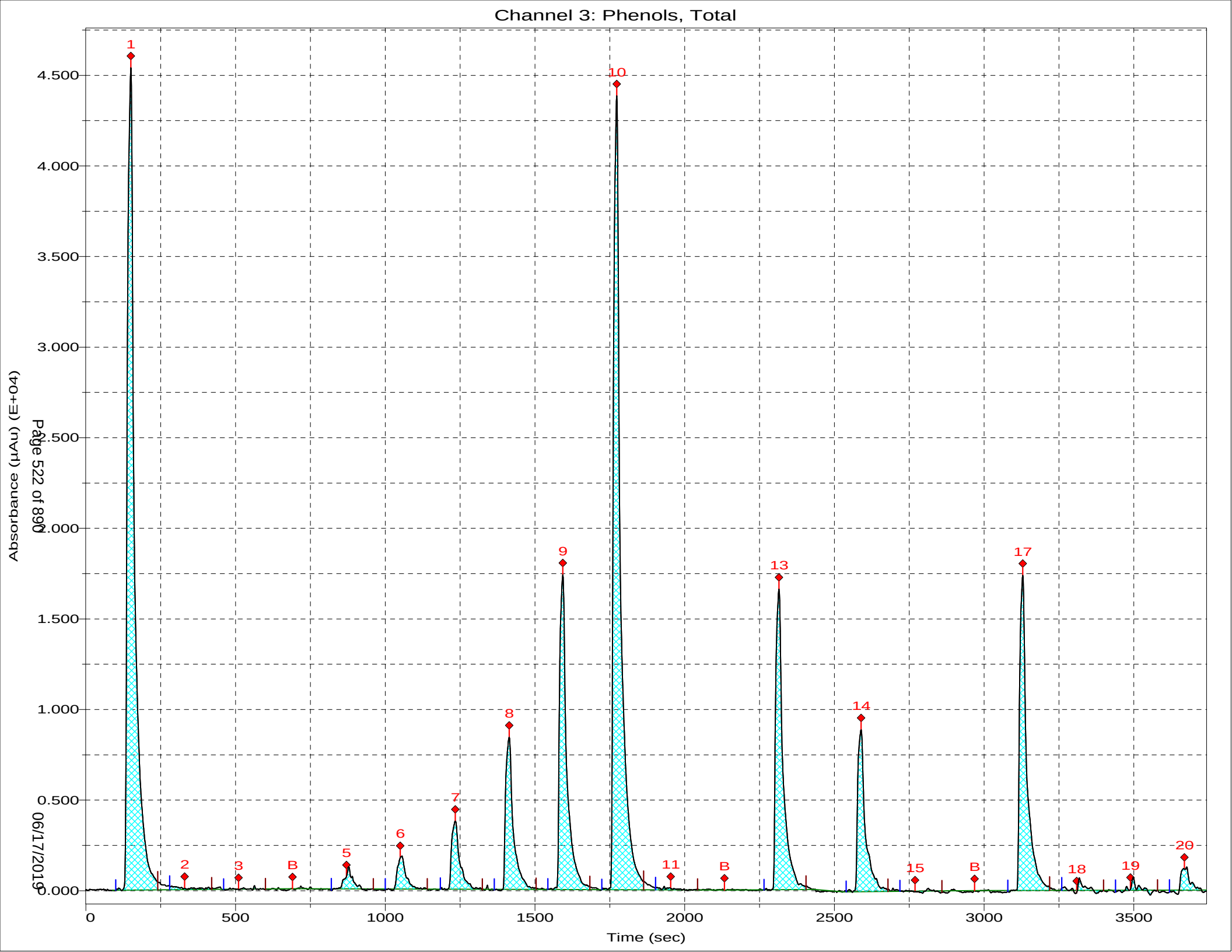
Calib Coef:
x=cyy+by+a
a: (intercept) -2.1439e+00
b: 4.2564e-04
c: -7.6828e-12

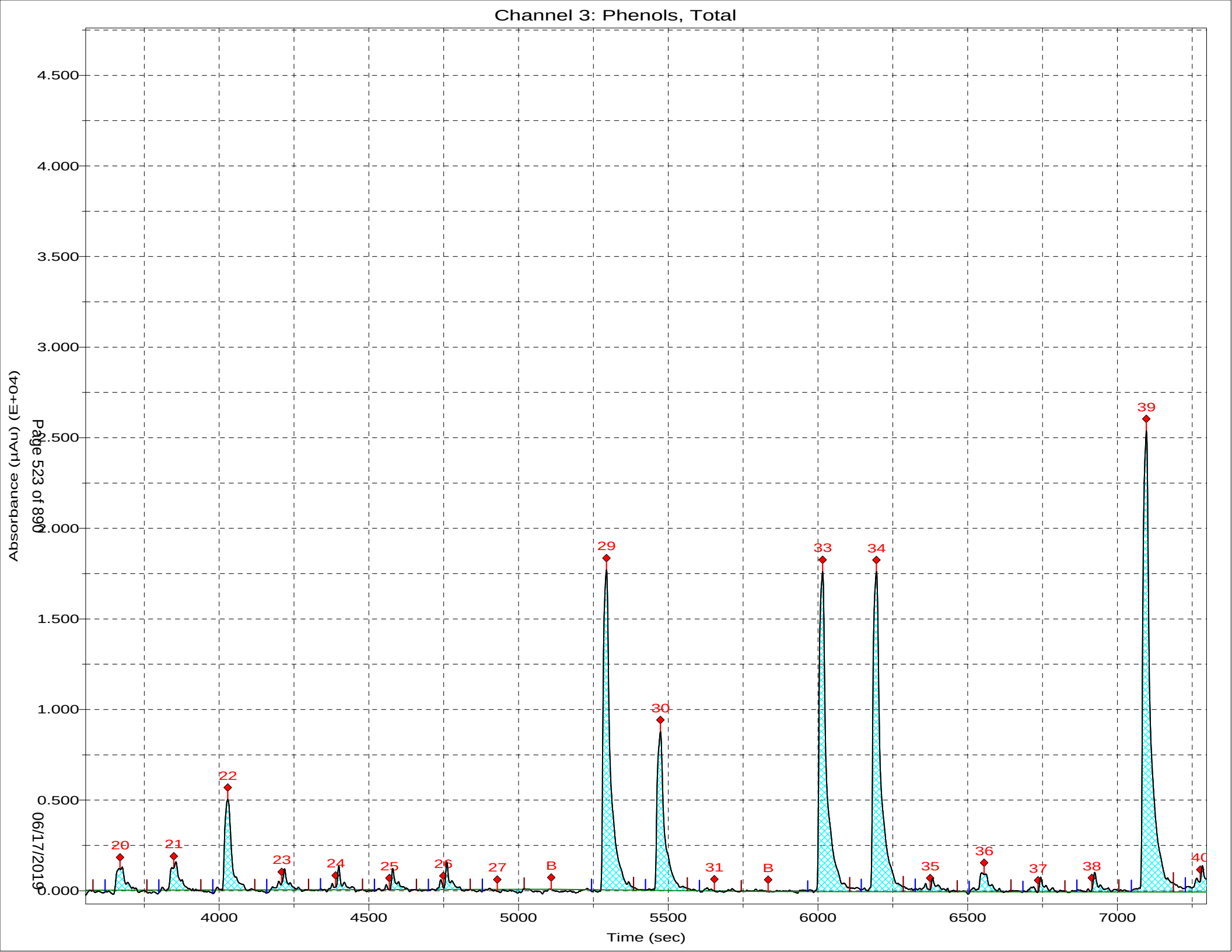
Corr Coef: 0.999948

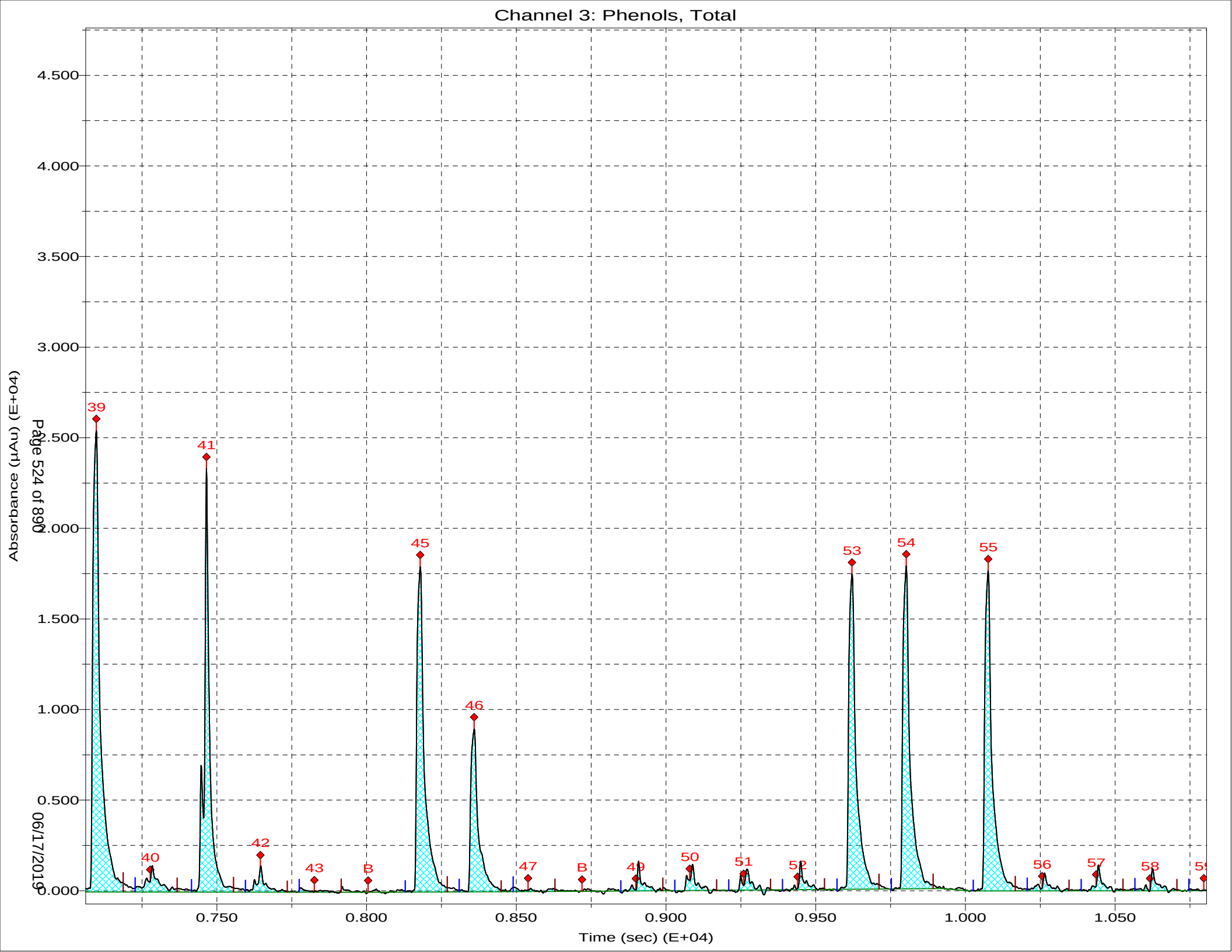
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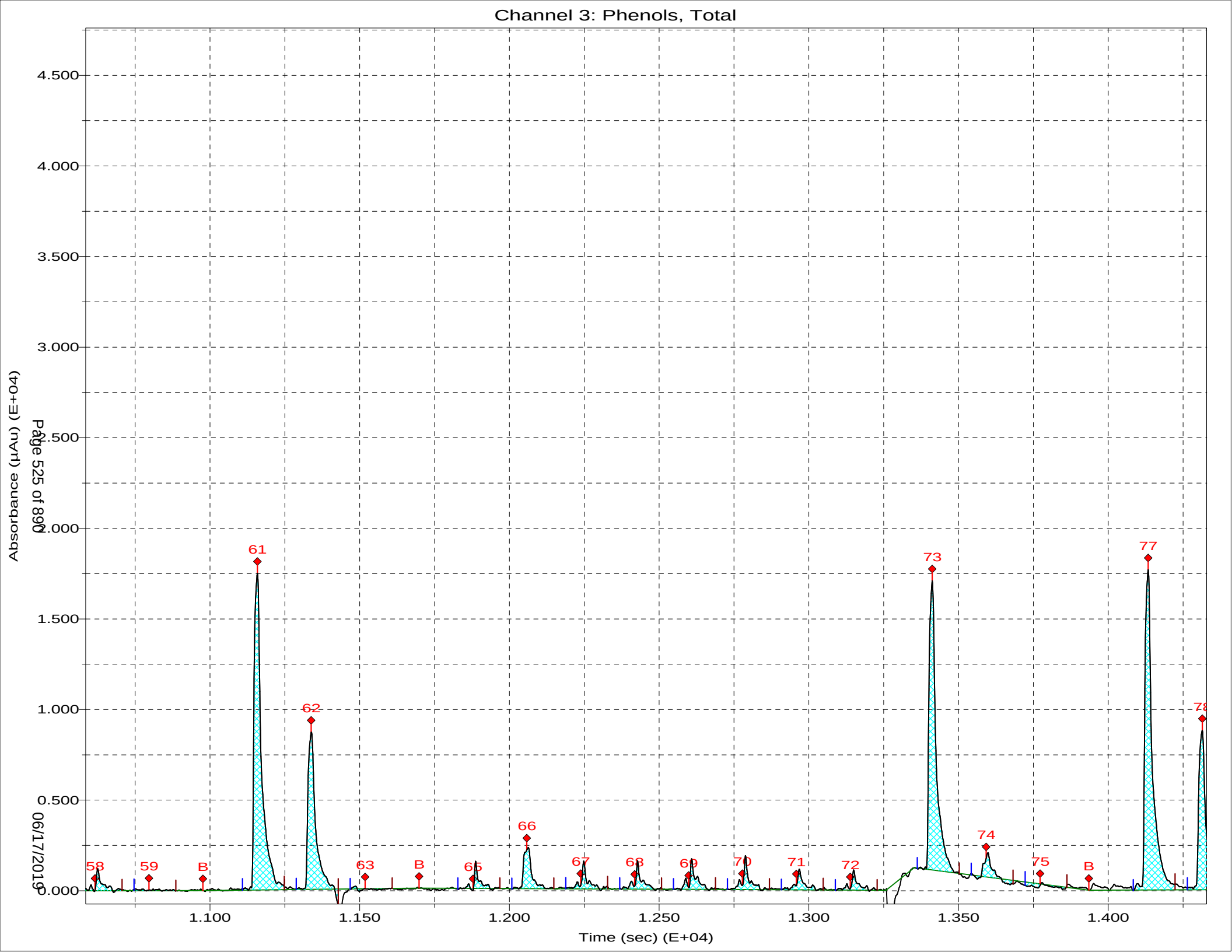
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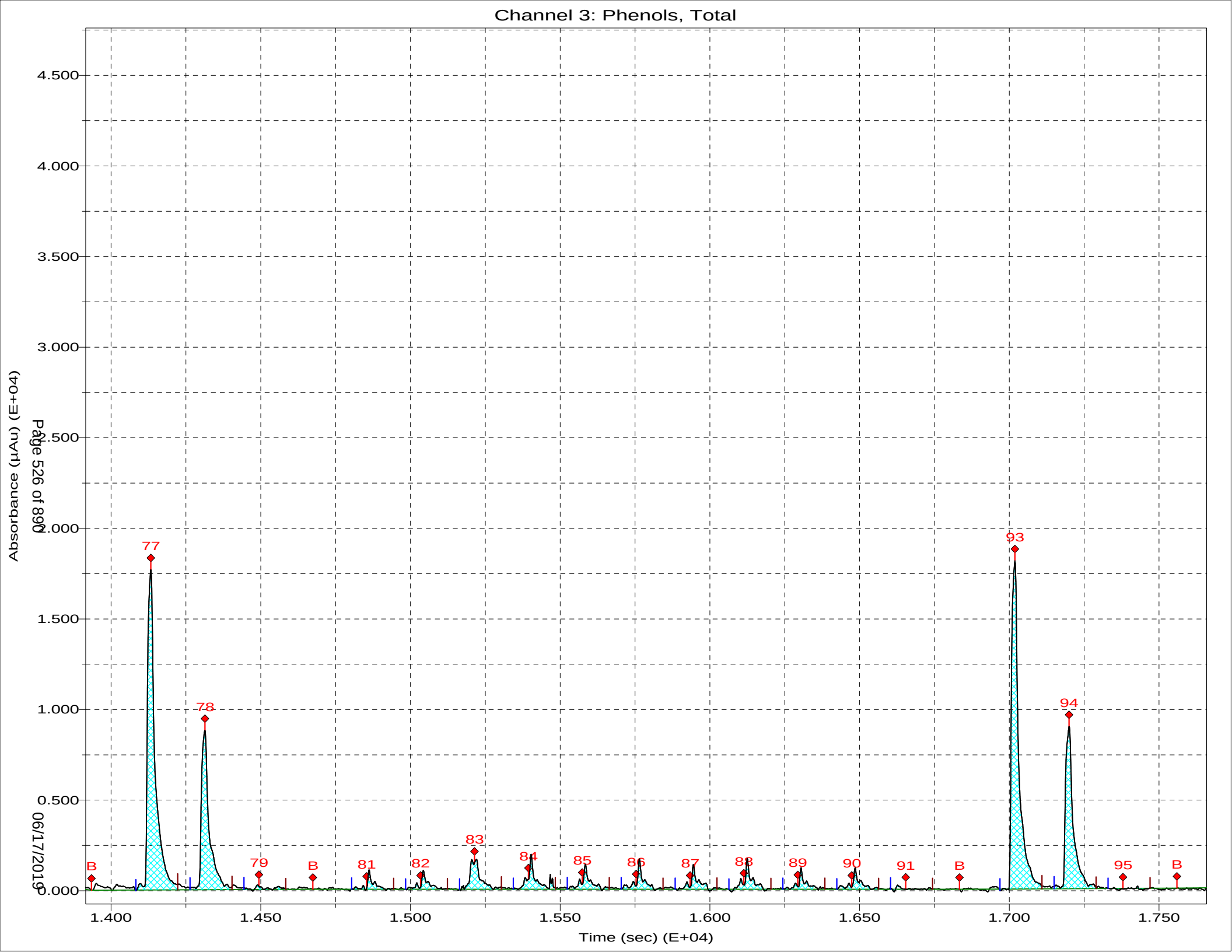

Phenols, Total:Calibration 1: Peak 5-107
Area (E+06)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-100
0
100
200
300
400
500
600
Conc

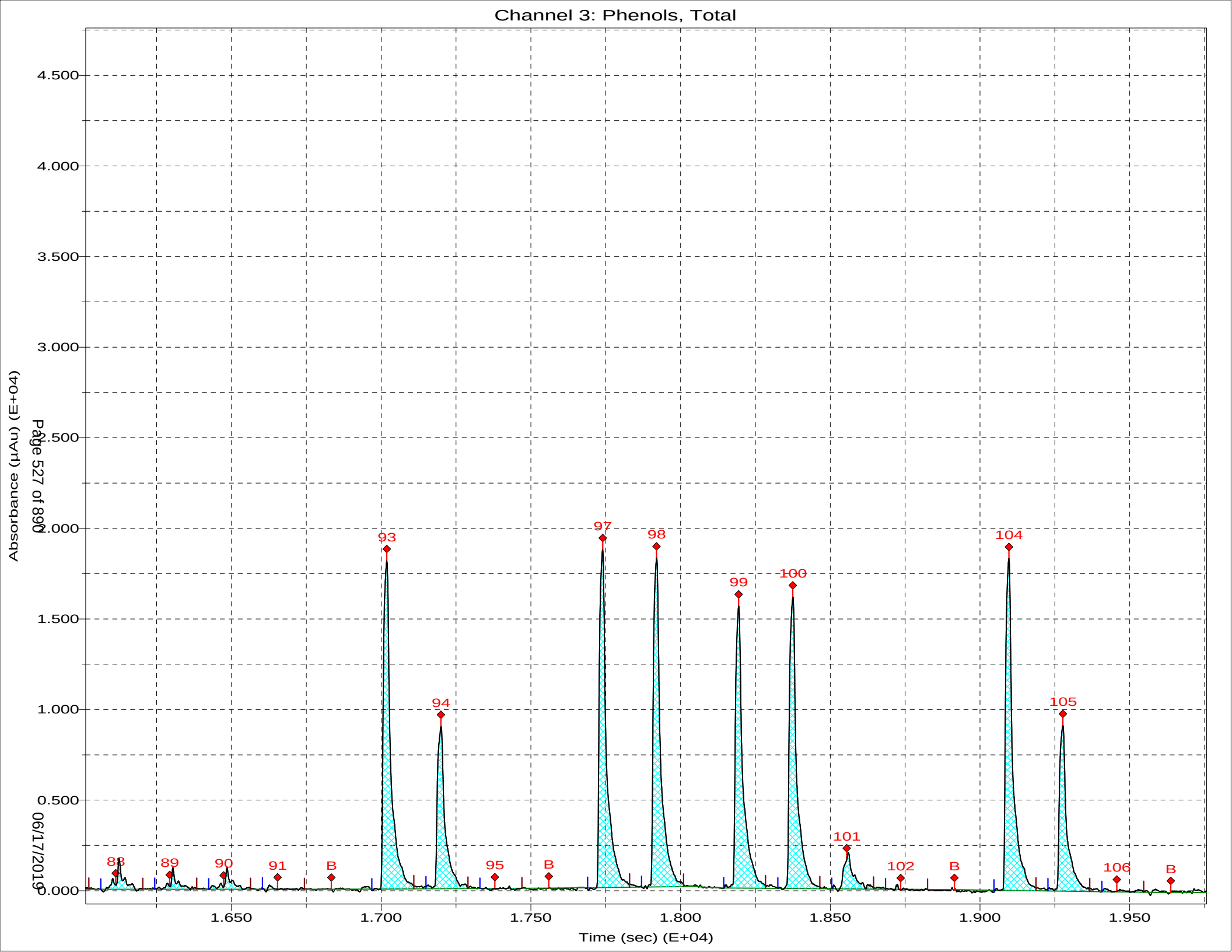

Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0
500
1000
1500
2000
2500
3000
3500
Time (sec)
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
20
Page 522 of 890
06/17/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
4000
4500
5000
5500
6000
6500
7000
Time (sec)
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37
38
39
40
Page 523 of 890
06/17/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.750
0.800
0.850
0.900
0.950
1.000
1.050
Time (sec) (E+04)
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55
56
57
58
Page 524 of 890
06/17/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Page 525 of 890
06/17/2019
58
59
B
61
62
63
B
65
66
67
68
69
70
71
72
73
74
75
B
77
78
1.100
1.150
1.200
1.250
1.300
1.350
1.400
Time (sec) (E+04)


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Time (sec) (E+04)
1.400
1.450
1.500
1.550
1.600
1.650
1.700
1.750
77
78
79
81
82
83
84
85
86
87
88
89
90
91
93
94
95
B
Page 526 of 890
06/17/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.650
1.700
1.750
1.800
1.850
1.900
1.950
Time (sec) (E+04)
88
89
90
91
B
93
94
95
B
97
98
99
100
101
102
B
104
105
106
B

Color Bench Sheet

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Analyst: CKB	Batch #: 458692	SOP: DV-WC-0058 SM 2120B
Date: 5/18/19		

Calibration Standard TALS ID: COLOR STD_00018 1.0 N HCl TALS ID: N/A
1.0 N NaOH TALS ID: N/A

Sample ID	pH	Observed Color	Dilution Factor	Sample Centrifuged?	Final Color
Method Blank	7	<5	N/A	Yes (No)	ND
280-123981-J-1	7	15	5x	Yes (No)	75
DU " " " "	7	15	5x	Yes (No)	75
280-123981-I-2	7	10	N/A	Yes (No)	10
280-123981-I-3	7	5	N/A	Yes (No)	5
280-123981-J-4	7	15	N/A	Yes (No)	15
280-123981-J-5	7	15	N/A	Yes (No)	15
280-123981-H-6	7	<5	N/A	Yes (No)	ND
280-123981-I-7	7	<5	N/A	Yes (No)	ND
280-123981-J-8	7	30	N/A	Yes (No)	30
280-123981-H-9	7	20	N/A	Yes (No)	20
280-123983-J-1	7	30	5x	Yes (No)	150
280-123983-H-2	7	15	5x	Yes (No)	75
DU " " " "	7	15	5x	Yes (No)	75
280-123983-J-3	7	20	5x	Yes (No)	100
				Yes No	
				Yes No	
		CKB		Yes No	
		5/18/19		Yes No	
				Yes No	
				Yes No	
				Yes No	

Comments: _____

HARDNESS BY TITRATION -- Method 2340C

Analyst:	KS	**Titration Solutions**		**SOP Information:**	**Rep. / Detection Limits**
Date:	5/24/2019	Solution 1:	EDTA	Number: DV-WC-0060	MDL (mg/L) 1.3
Time:	17:12	ID #	_00090	Revision: 4	RL (mg/L) 5
Batch No.:	459417	Source:	RICCA	**Calibration Information**	Spike Concentrations:
		Normality:	0.01964	Std# Hard 00051	LCS Spike Vol (mL) 10
Pipette Verification				Made By: LabChem	MS Spike Vol (mL) 10
at 5 mL:	4.93 g			Concentration (mg/L): 1000	LCS conc. (mg/L) 1000.0
Brinkmann bottletop				Exp: 6/13/20	MS conc (mg/L) 1000.0
Buret 50					

Sample ID	Sample pH	Sample Volume	Buret Start	Buret Stop	Flags	Final mL	Sample Conc mg/L	Prep D.F.	Analyt. D.F.	Final Conc mg/L	Titrant TV
titrant stdz	7	10	0.00	10.21		10.21	1002.461	1	1	1002.46	0.01959
titrant stdz	7	10	0.00	10.16		10.16	997.551	1	1	997.55	0.01969

Buffer:	Hardness Buffer 00011	Exp:	11 01 2019
Calmagite Indicator:	0289-11_00008	Exp:	12 31 2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	NC	NC	M
2 Chloride	3.234	3.242	-0.008	4716909	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	1976056	0.2000	0.2135	a
4 Bromide	4.642	4.642	0.000	382484	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	2120855	0.2000	0.2208	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	0.2000	0.2189	a
6 Sulfate	6.409	6.434	-0.025	3612640	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

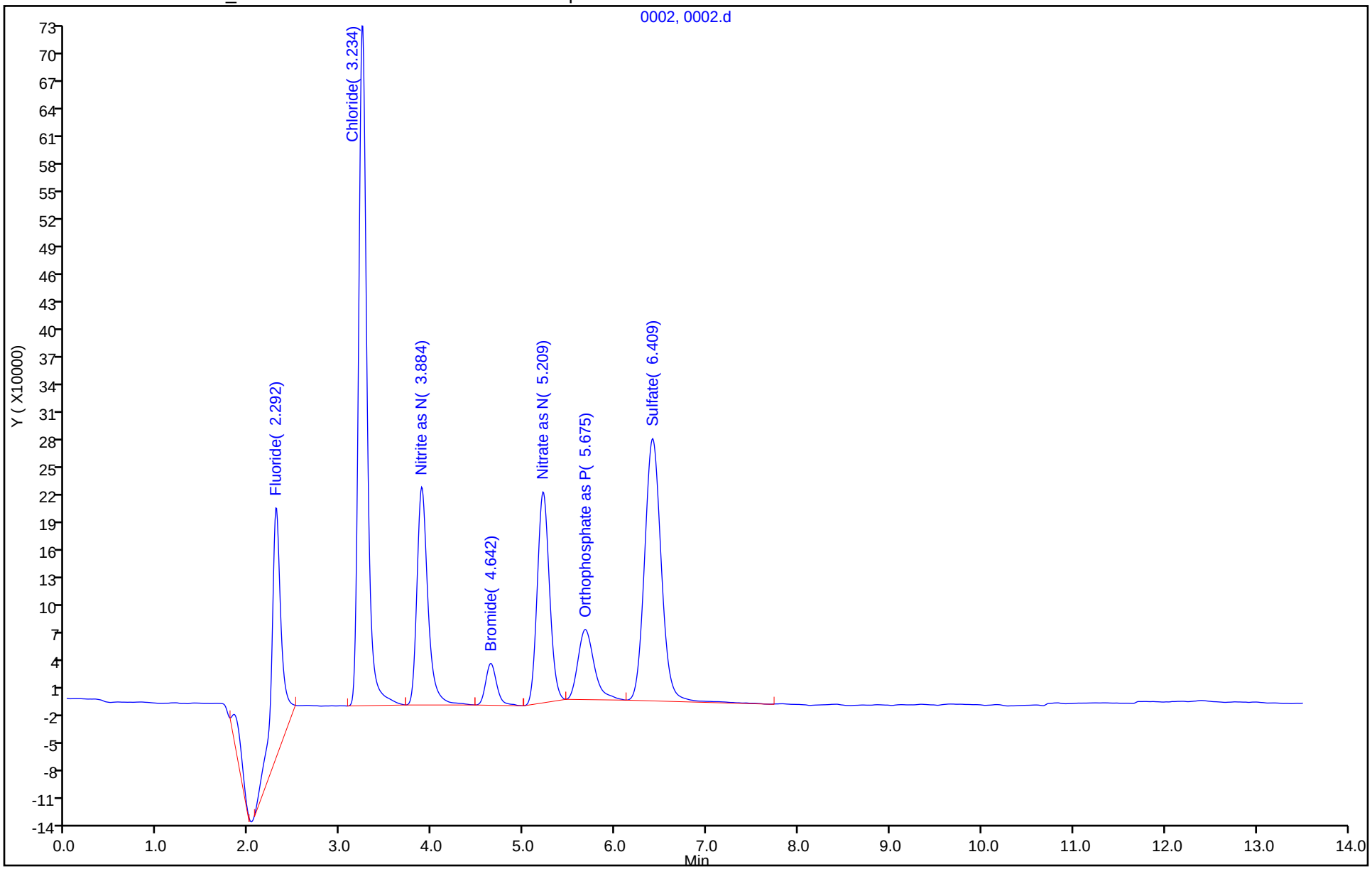
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

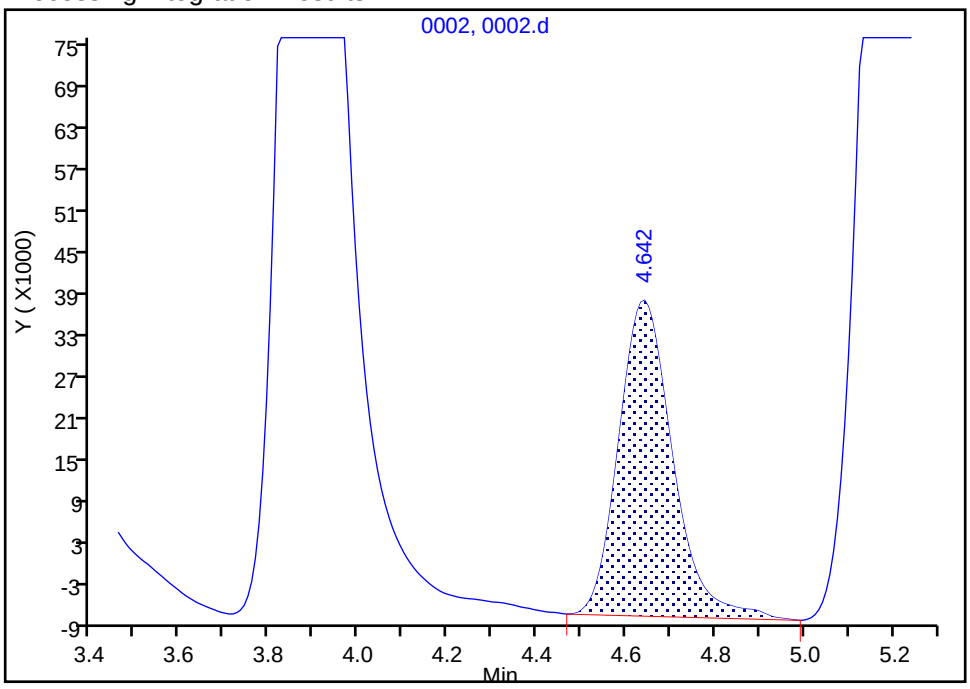
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Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

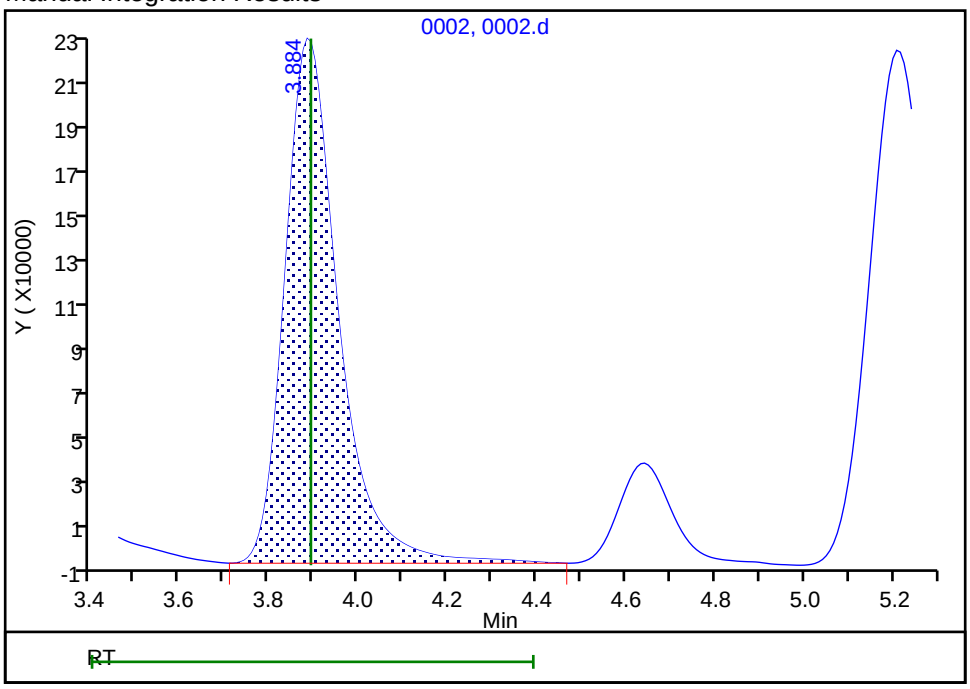
Processing Integration Results

RT: 4.64
Area: 382484
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 1976056
Amount: 0.213513
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:40
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

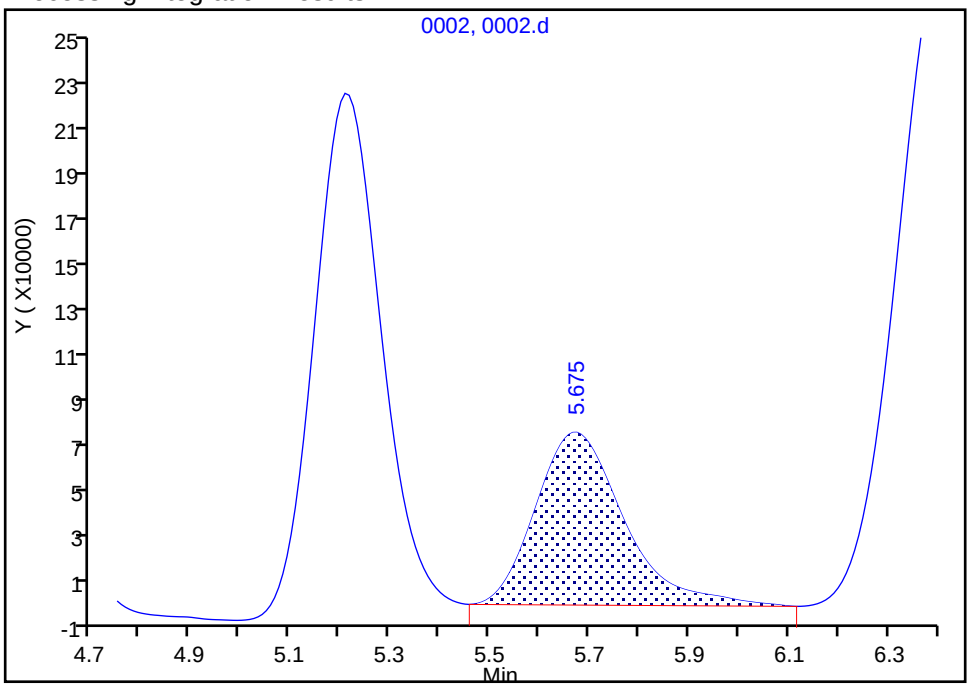
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

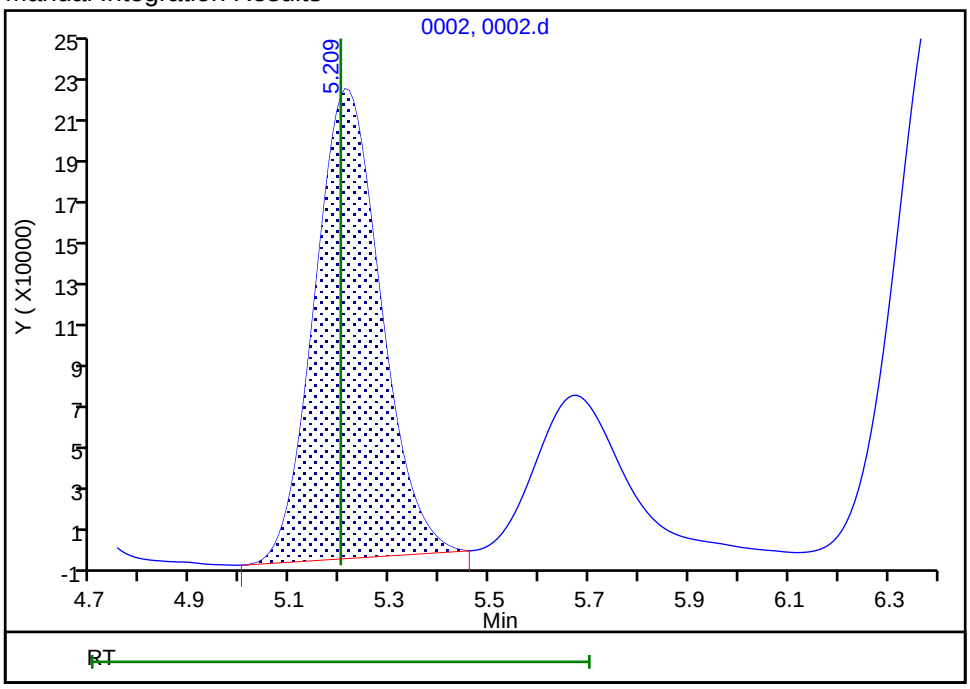
Processing Integration Results

RT: 5.68
Area: 939373
Amount: 0.215245
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 2120855
Amount: 0.220835
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

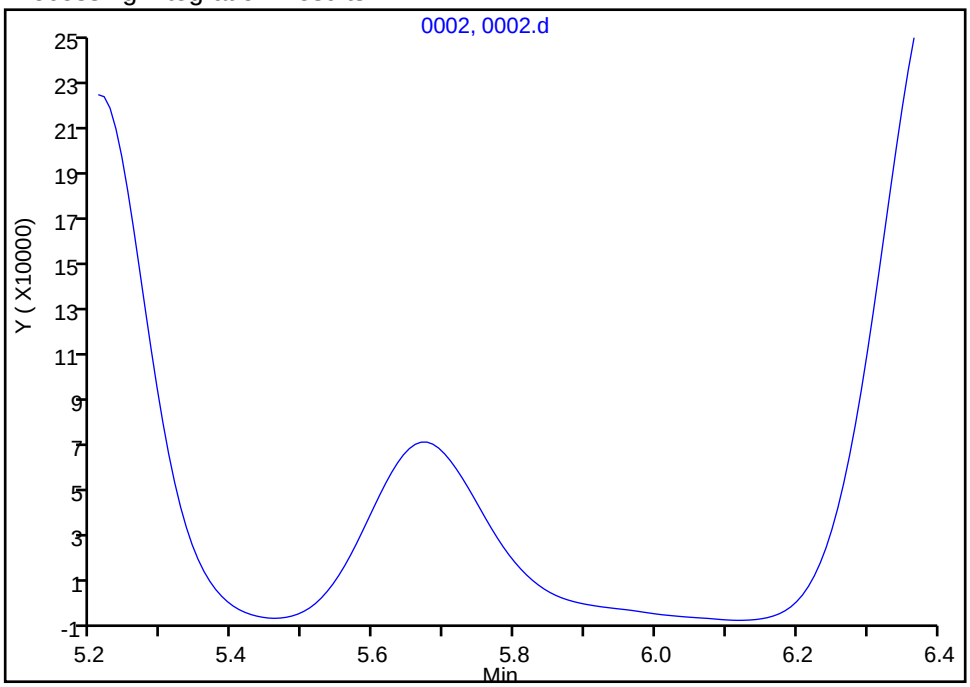
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

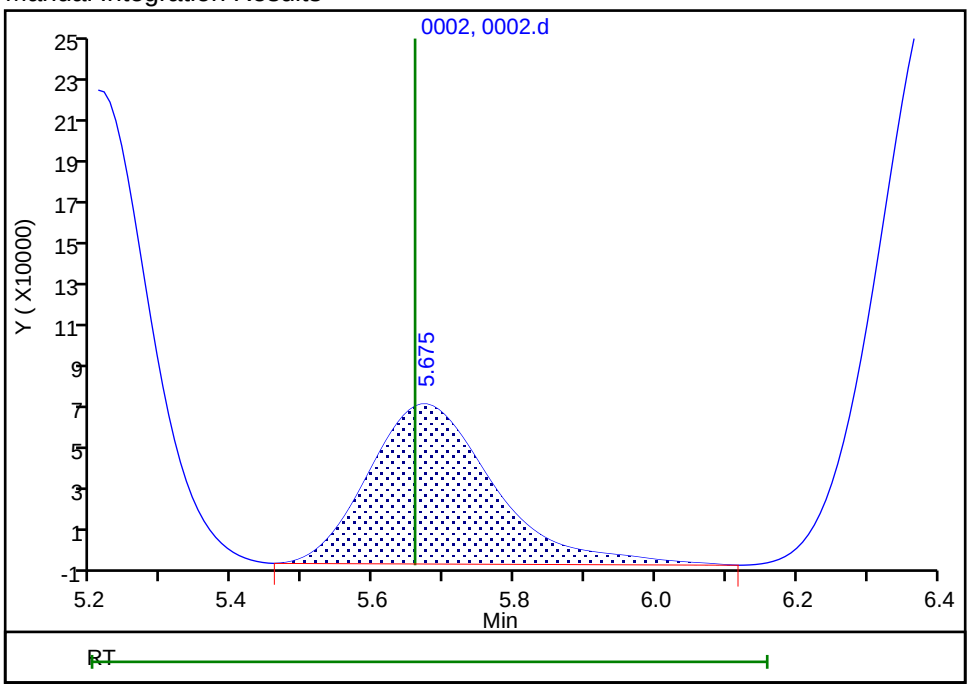
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.68
Area: 939373
Amount: 0.218915
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	0.2000	0.1247	M
2 Chloride	3.234	3.242	-0.008	4716909	1.00	1.32	
3 Nitrite as N	3.884	3.892	-0.008	1976056	NC	NC	a
4 Bromide	4.642	4.642	0.000	382484	0.2000	0.2043	a
5 Nitrate as N	5.209	5.200	0.009	2120855	NC	NC	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	3612640	1.00	1.25	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

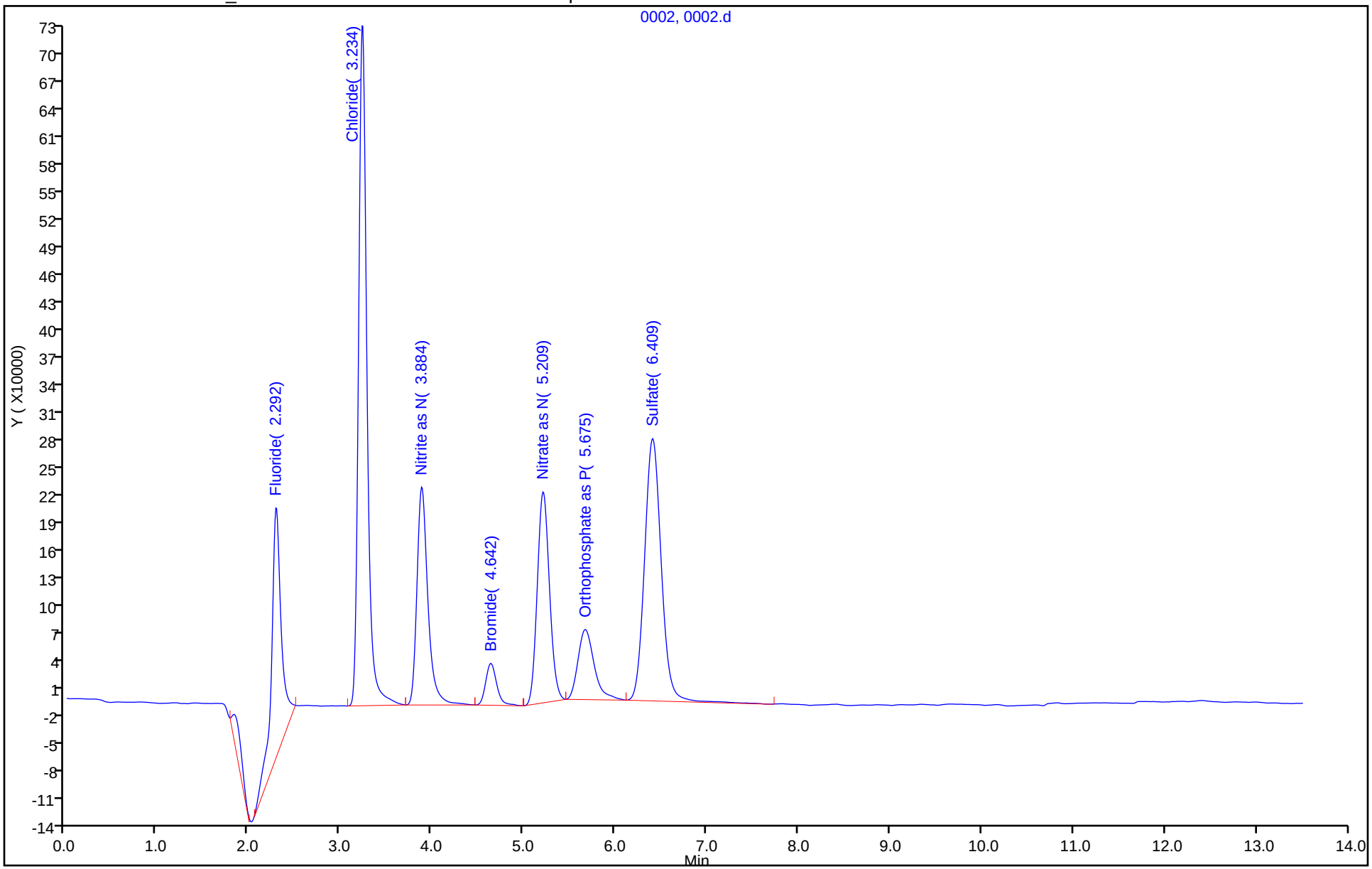
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

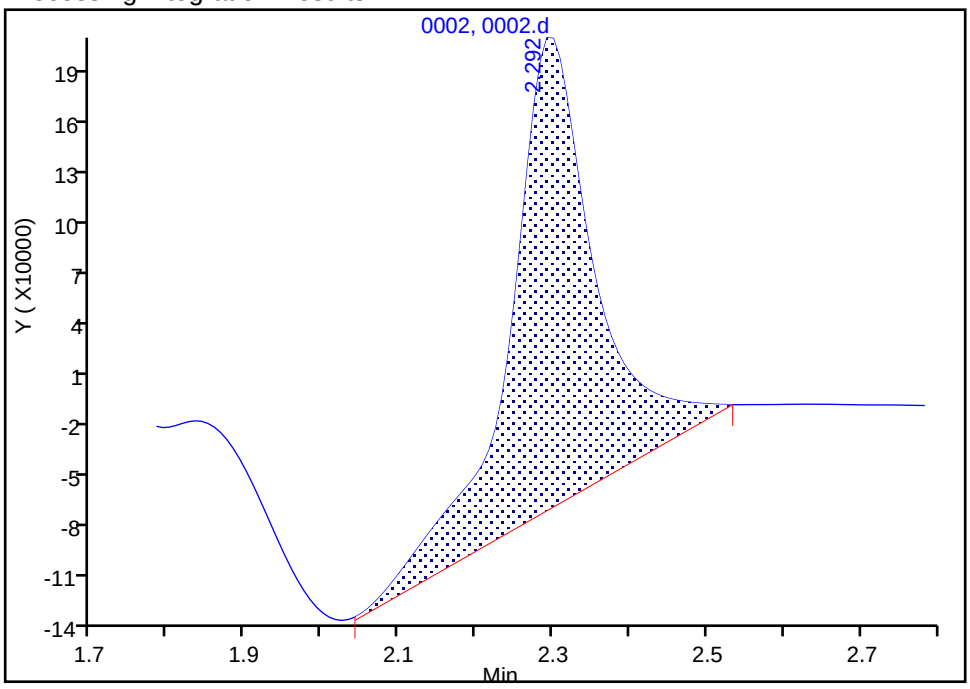
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d		
Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11
Lims ID:	std L1		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

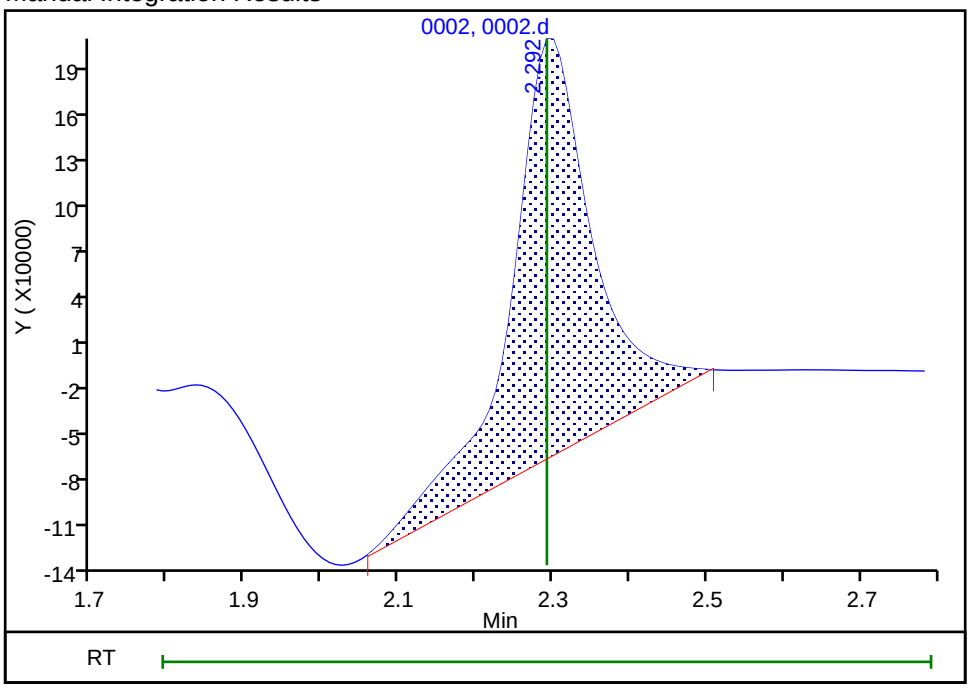
Processing Integration Results

RT: 2.29
Area: 2156044
Amount: 0.130825
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2026299
Amount: 0.124737
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:10:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

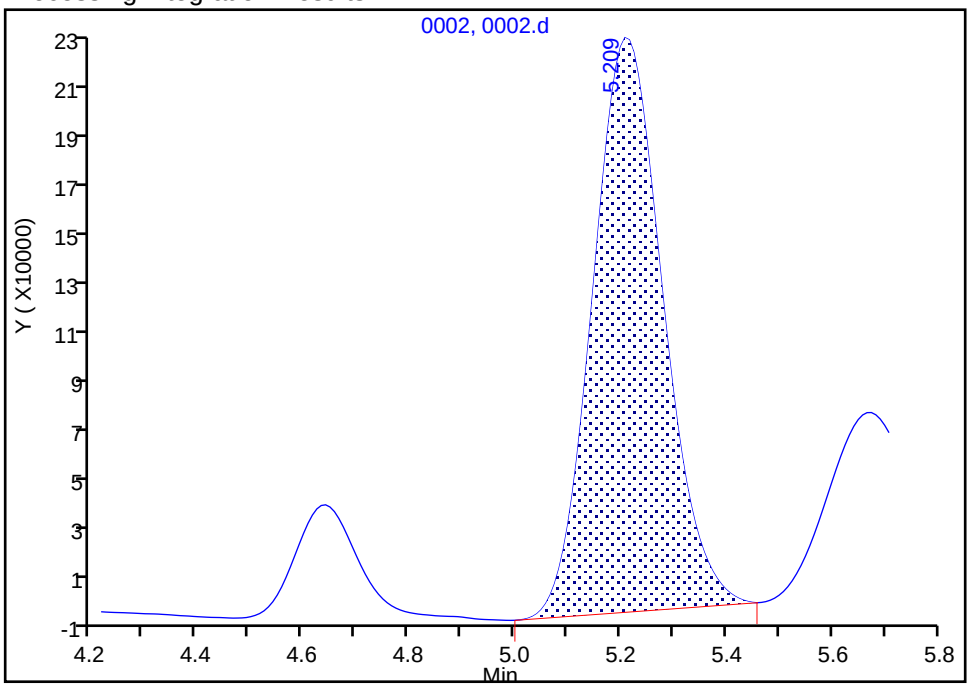
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

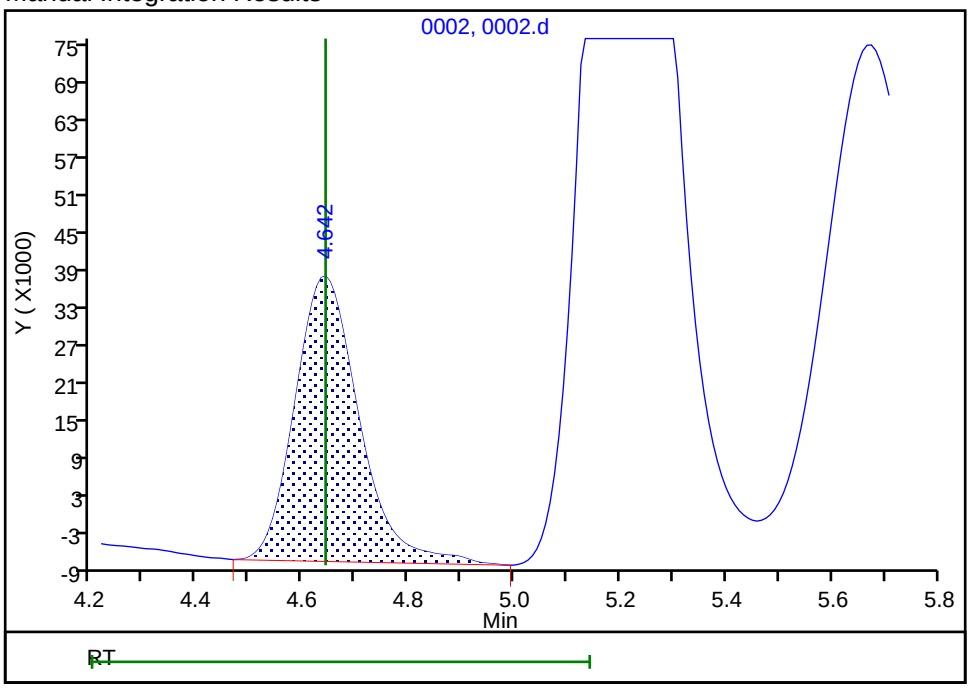
Processing Integration Results

RT: 5.21
Area: 2120855
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 382484
Amount: 0.204318
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

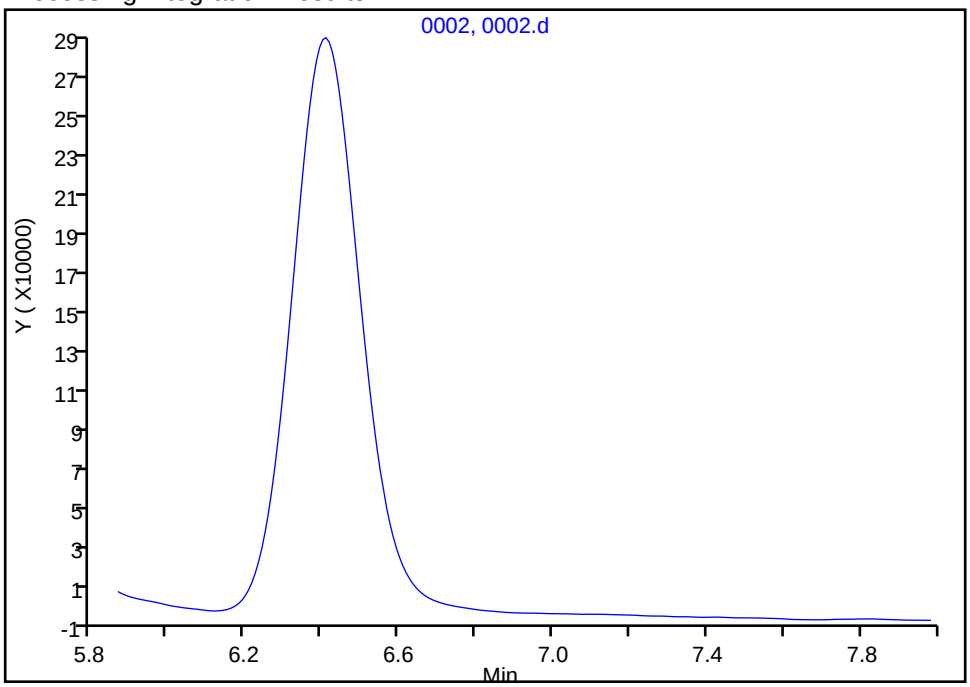
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

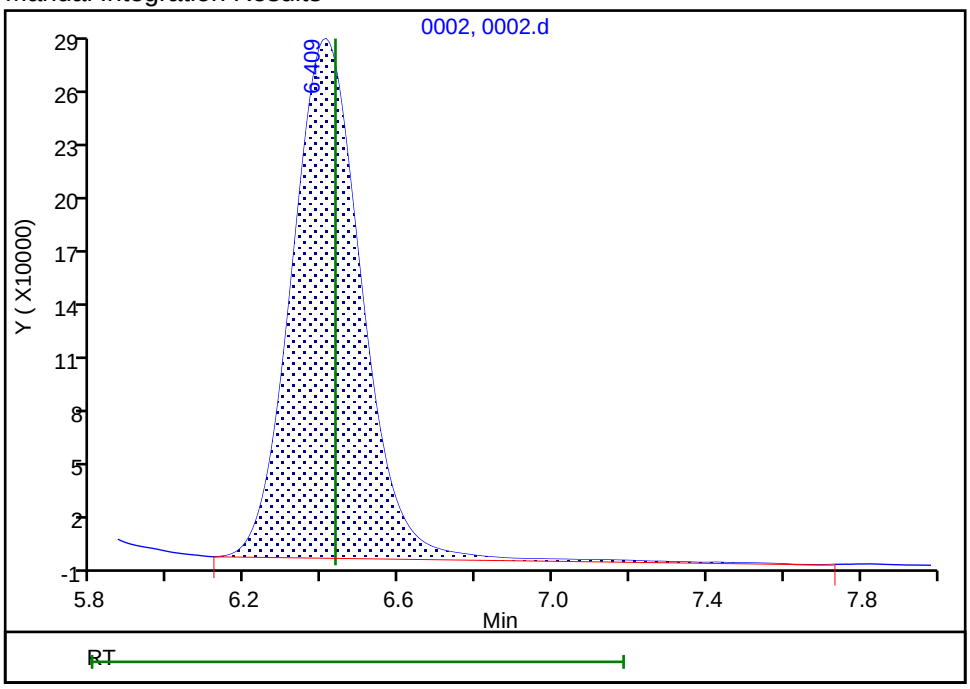
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 3612640
Amount: 1.245045
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:12
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	NC	NC	
2 Chloride	3.234	3.242	-0.008	11441790	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	4889442	0.5000	0.4912	a
4 Bromide	4.634	4.642	-0.008	953603	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	5219434	0.5000	0.4876	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	0.5000	0.4793	a
6 Sulfate	6.409	6.434	-0.025	8699908	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

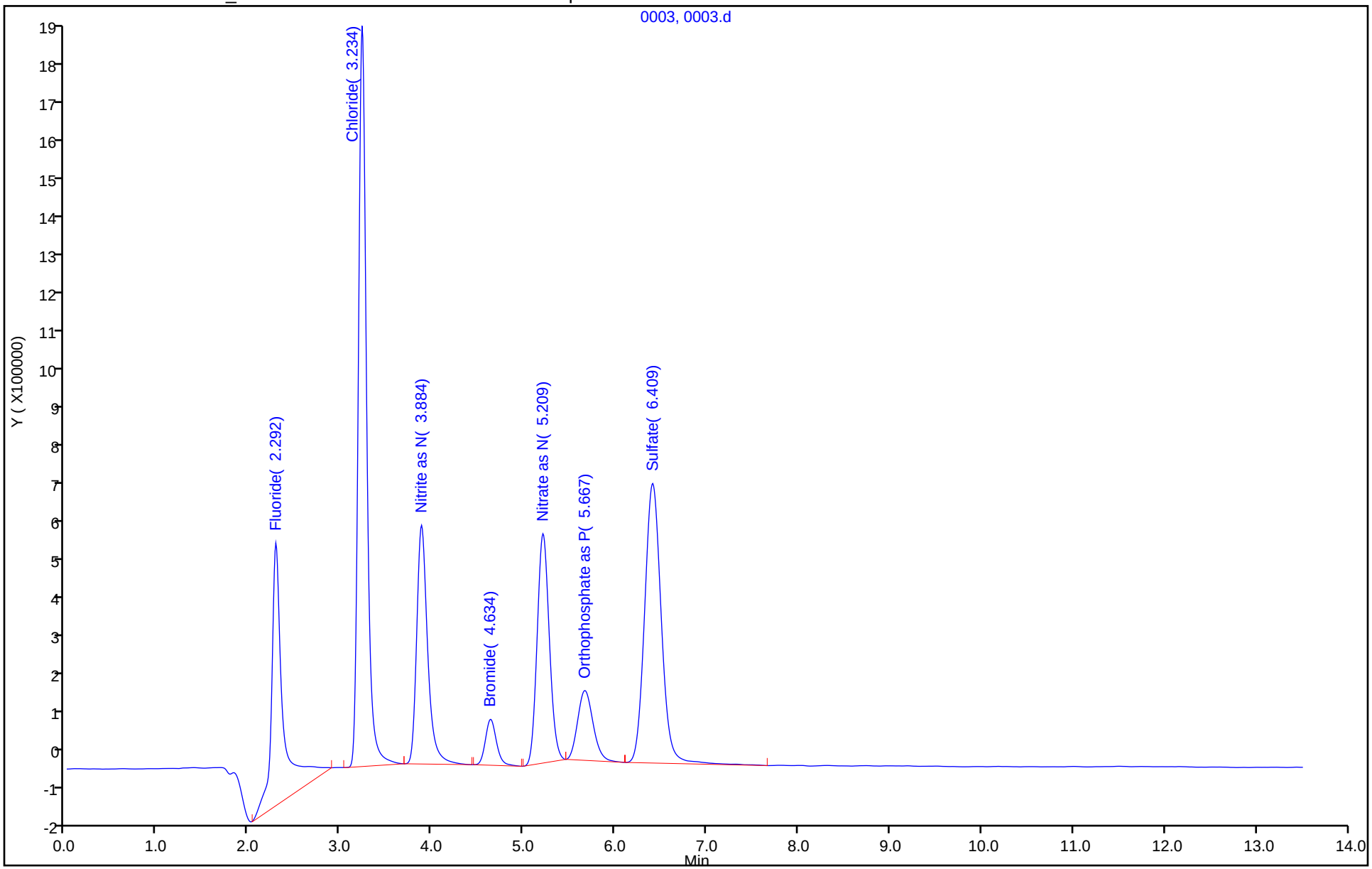
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

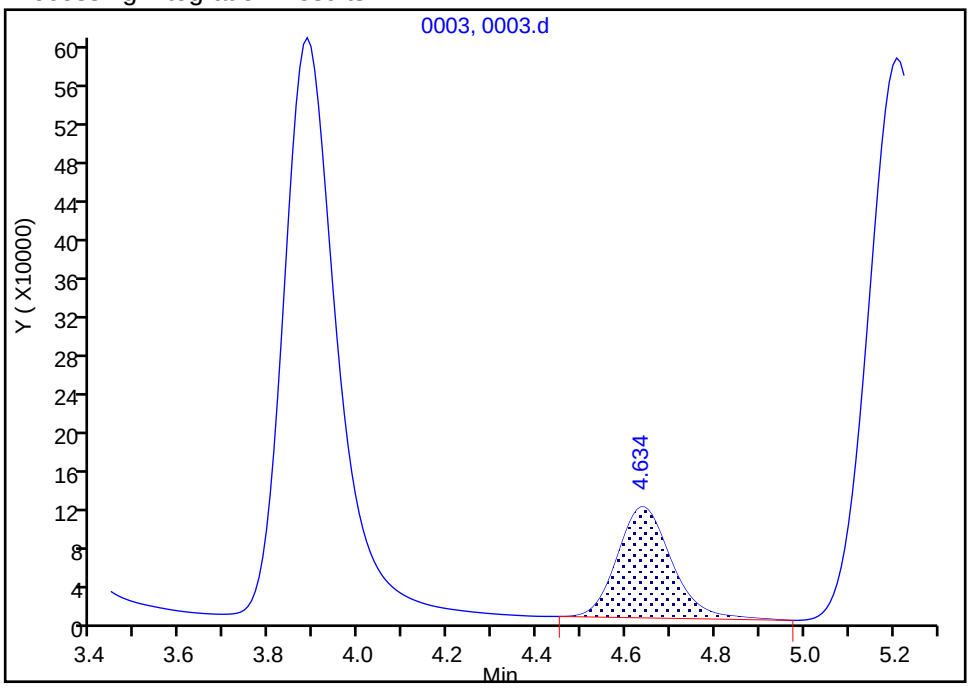
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

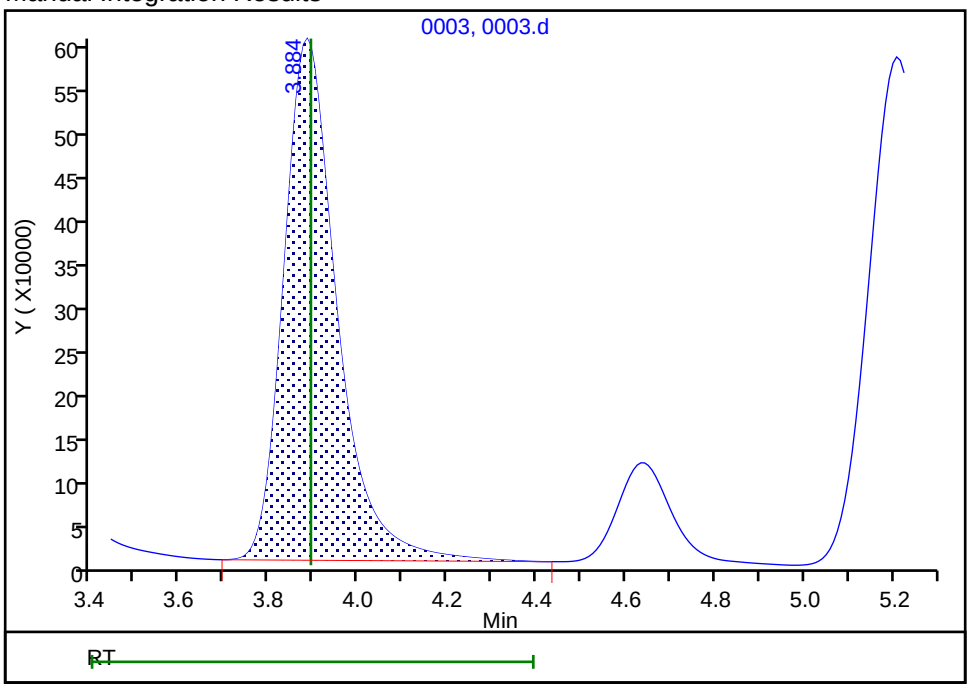
Processing Integration Results

RT: 4.63
Area: 953603
Amount: -0.100903
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 4889442
Amount: 0.491191
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

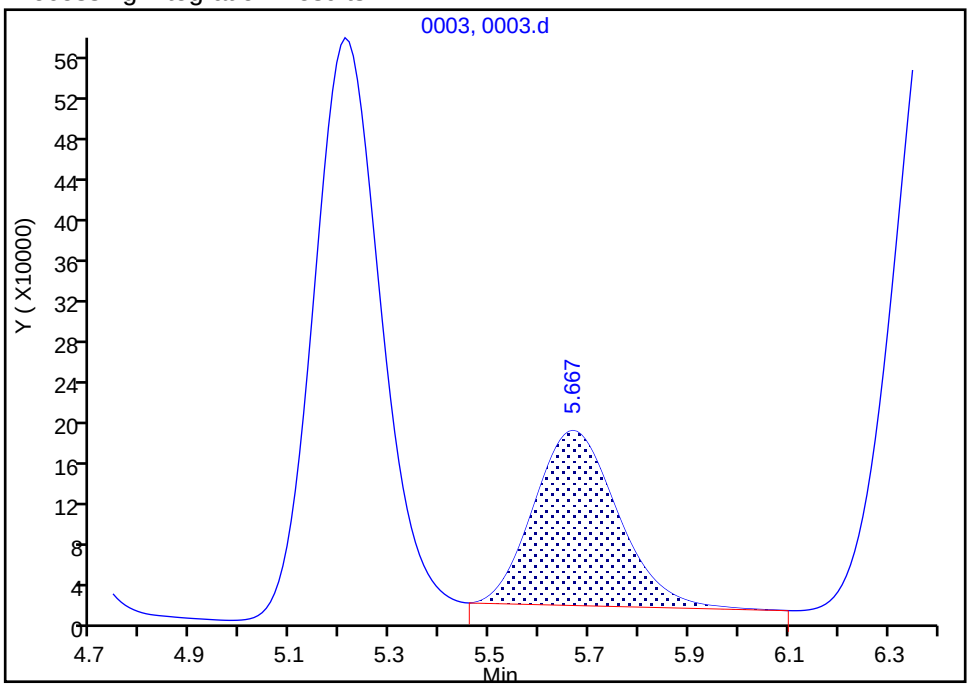
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

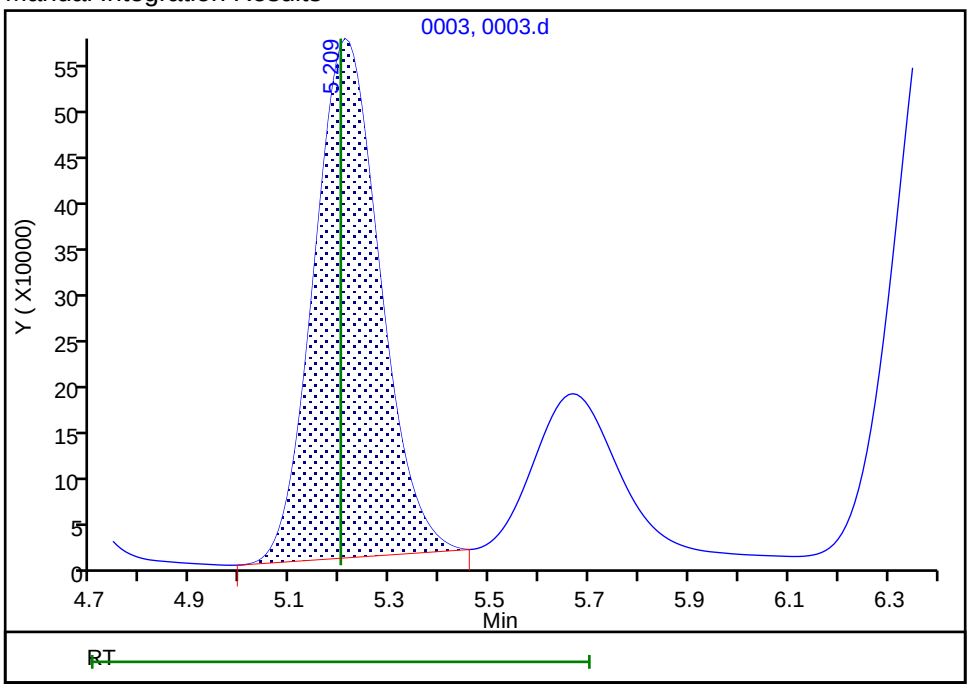
Processing Integration Results

RT: 5.67
Area: 2017876
Amount: 0.290238
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 5219434
Amount: 0.487631
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

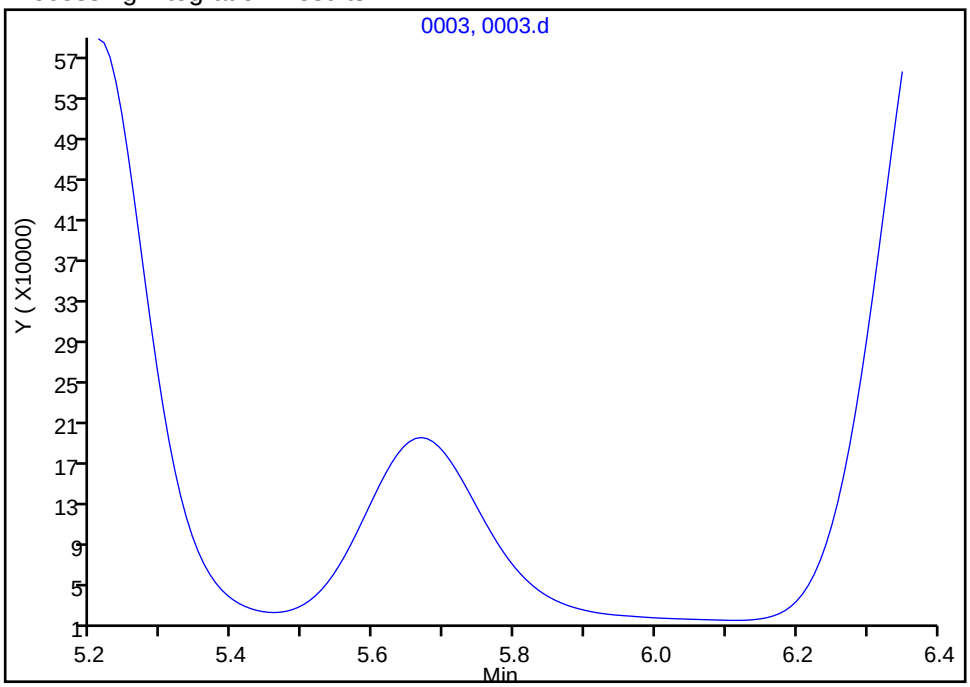
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

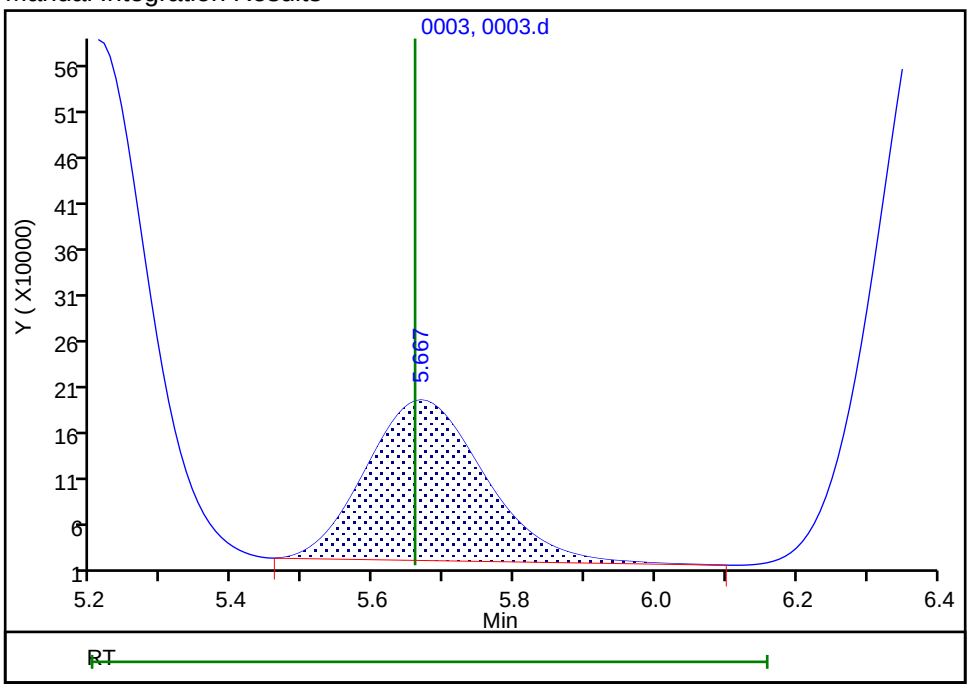
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 2017876
Amount: 0.479288
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	0.5000	0.6311	
2 Chloride	3.234	3.242	-0.008	11441790	2.50	2.32	
3 Nitrite as N	3.884	3.892	-0.008	4889442	NC	NC	a
4 Bromide	4.634	4.642	-0.008	953603	0.5000	0.4980	a
5 Nitrate as N	5.209	5.200	0.009	5219434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	8699908	2.50	2.38	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

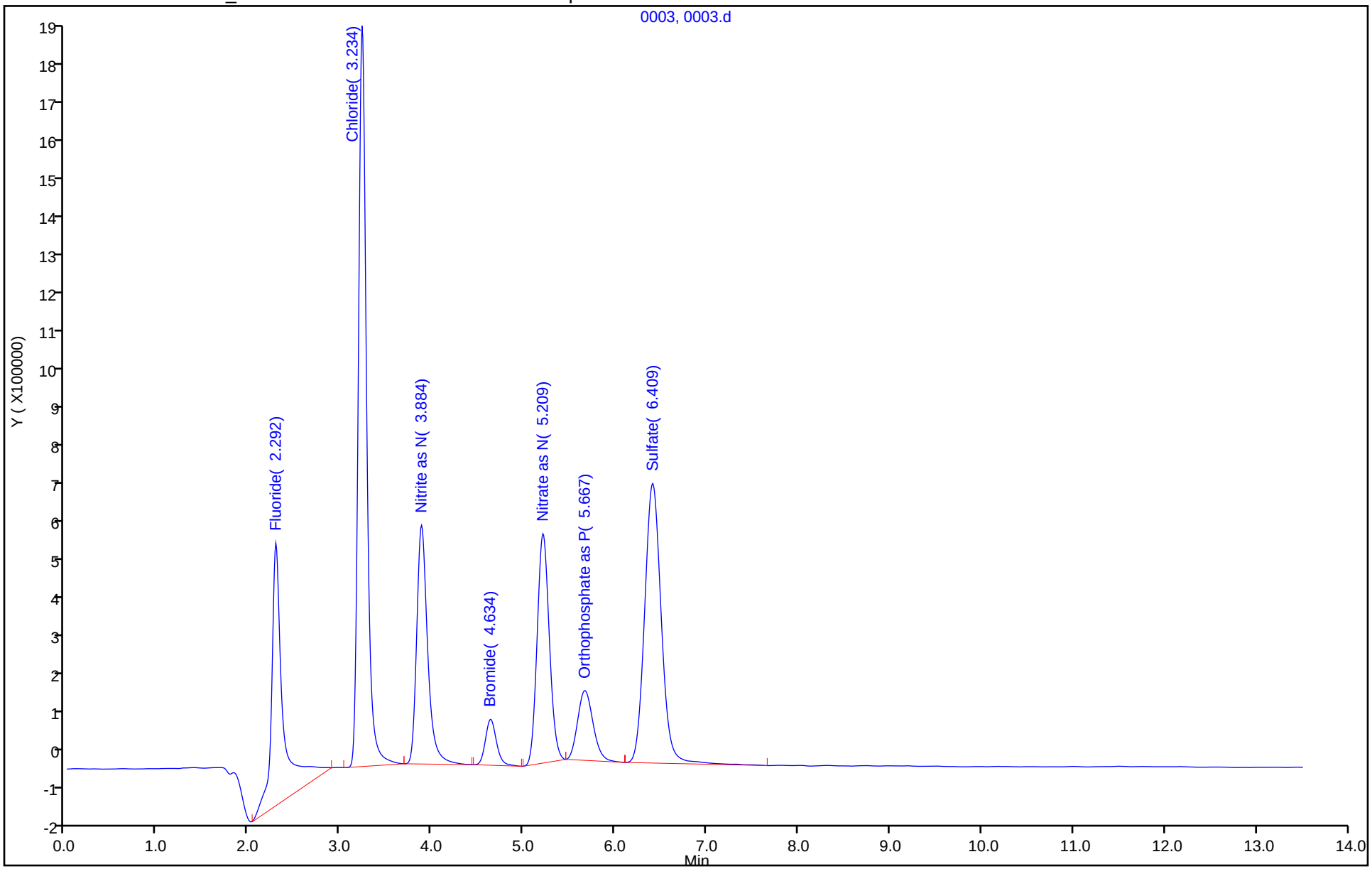
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

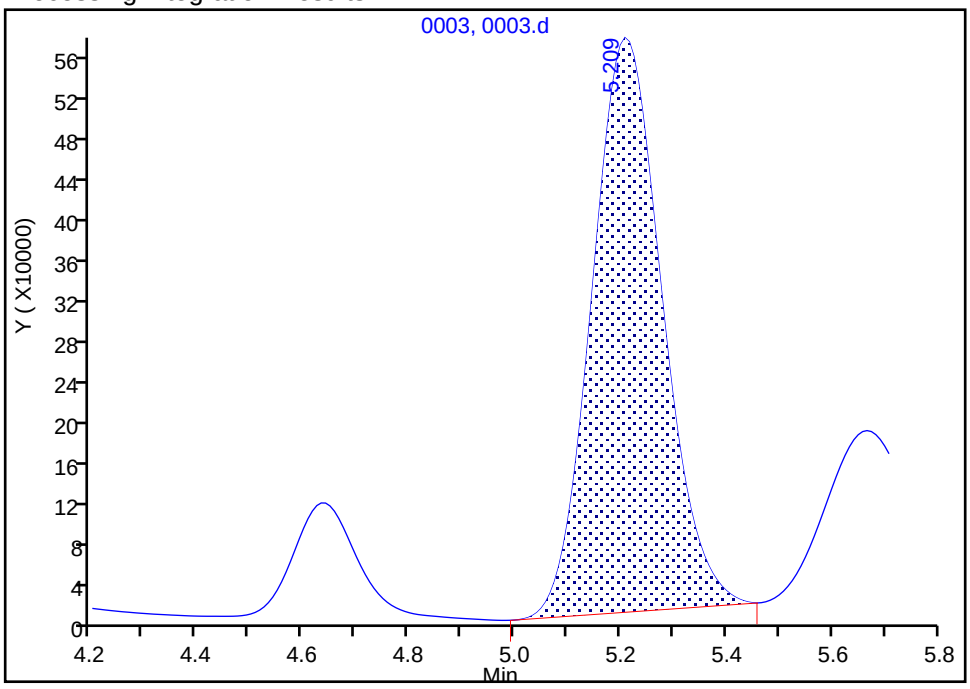
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

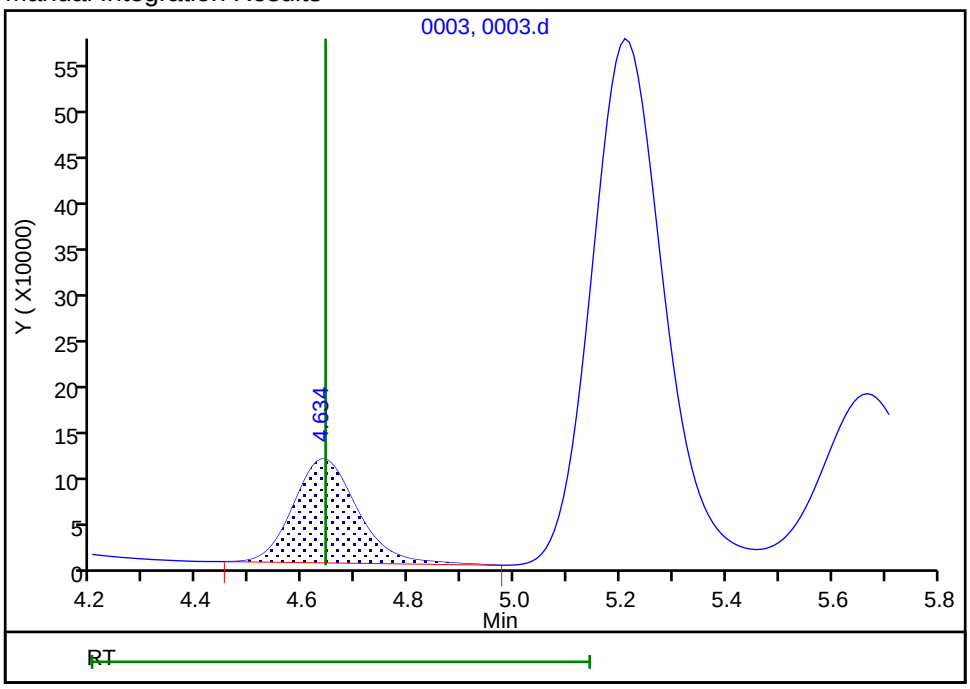
Processing Integration Results

RT: 5.21
Area: 5219434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 953603
Amount: 0.497971
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

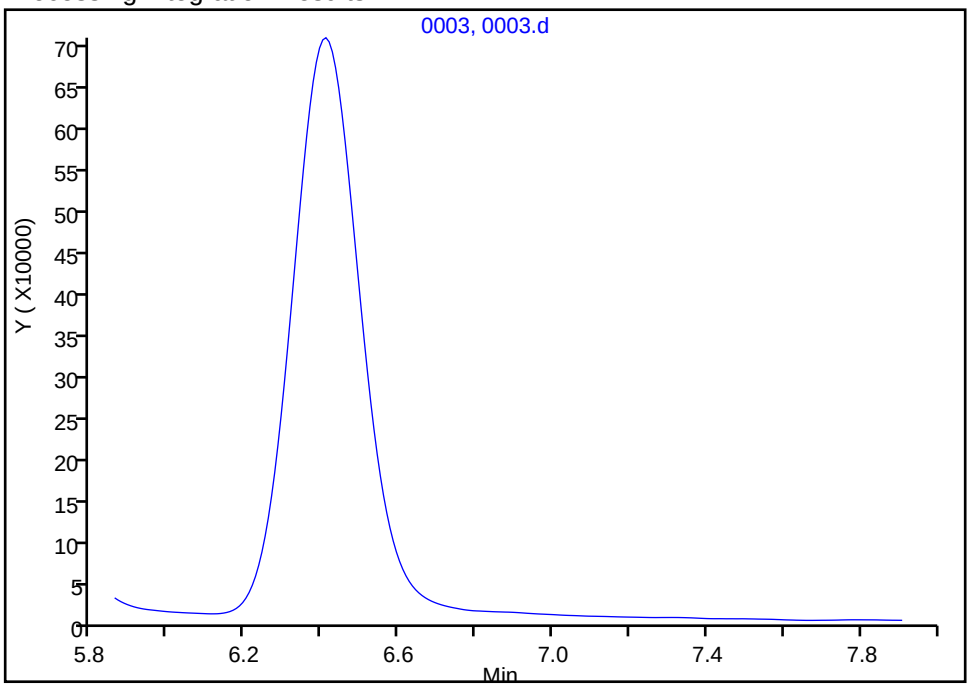
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

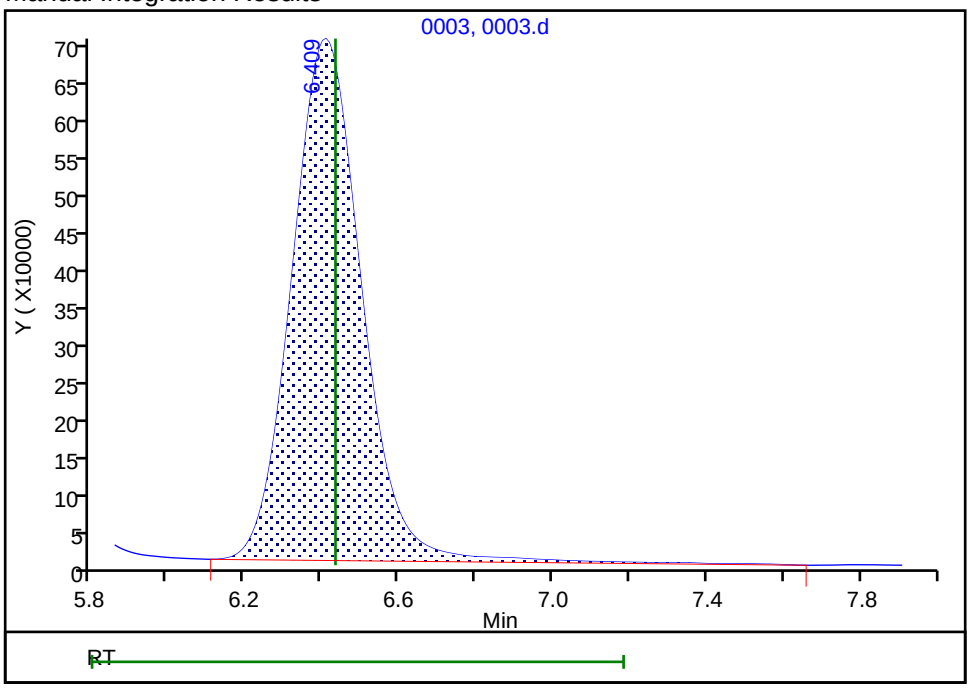
Processing Integration Results

Not Detected
Expected RT: 6.43



Manual Integration Results

RT: 6.41
Area: 8699908
Amount: 2.382508
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:24
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	NC	NC	
2 Chloride	3.234	3.242	-0.008	23461594	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	9866046	1.00	0.9655	a
4 Bromide	4.642	4.642	0.000	1893846	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	10516434	1.00	0.9437	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	1.00	0.9615	a
6 Sulfate	6.409	6.434	-0.025	17587626	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

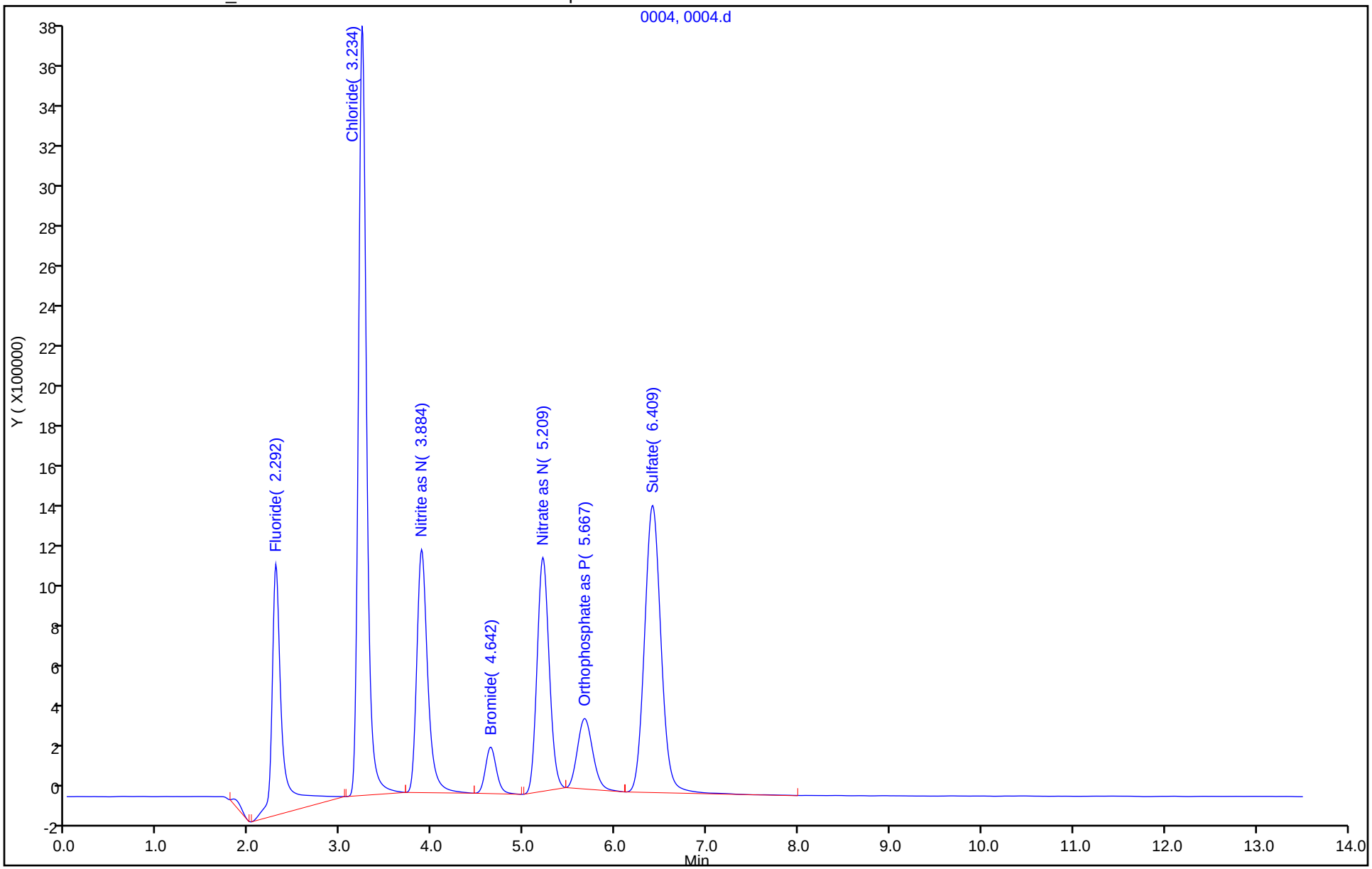
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

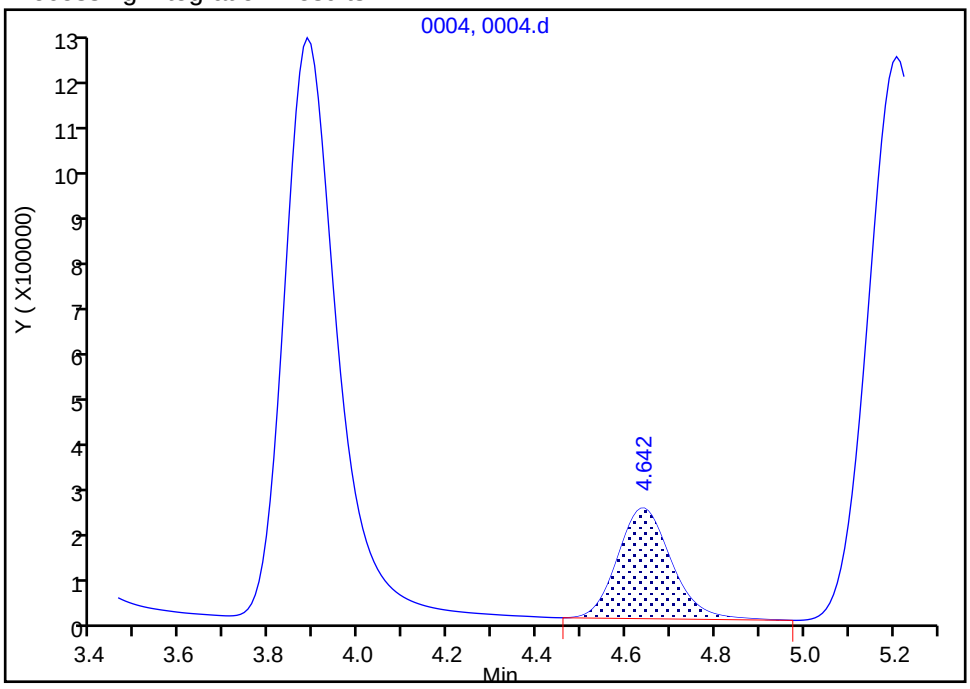
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

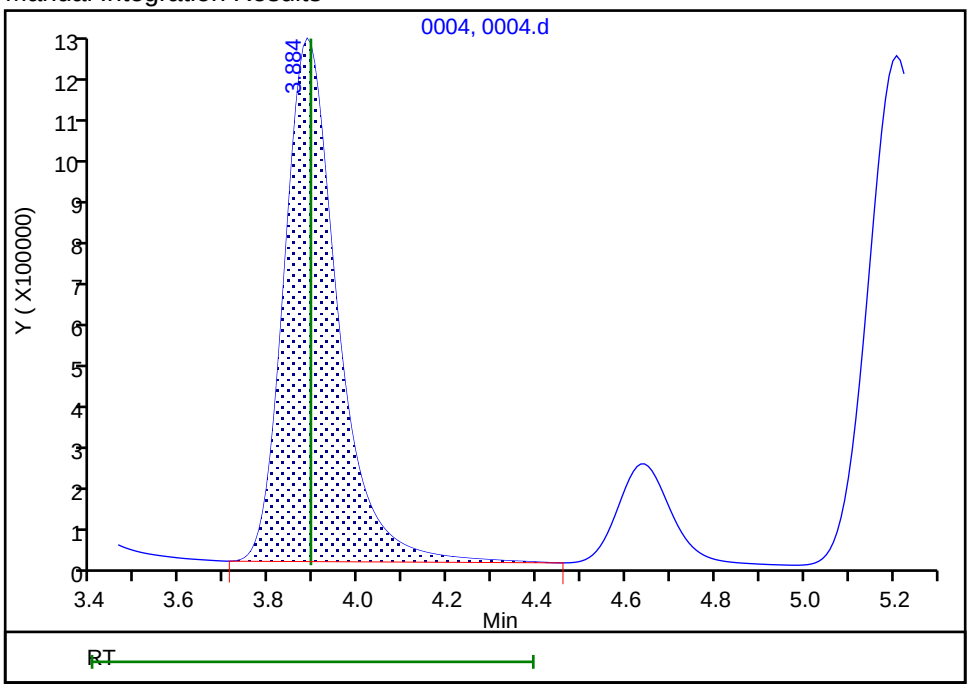
Processing Integration Results

RT: 4.64
Area: 1893846
Amount: -0.132556
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 9866046
Amount: 0.965516
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:43
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

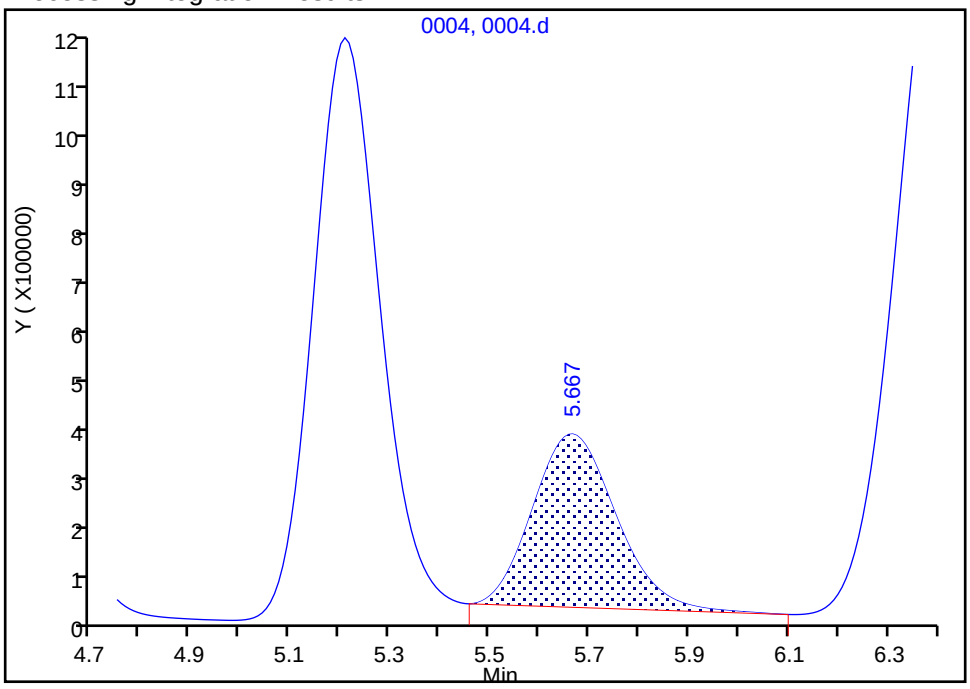
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

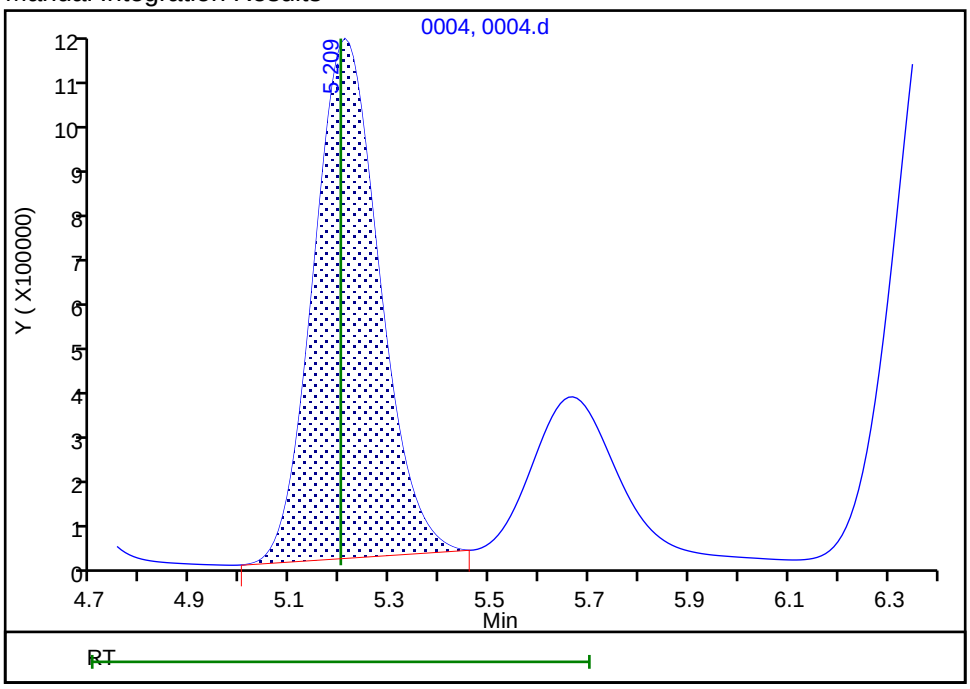
Processing Integration Results

RT: 5.67
Area: 4015320
Amount: 0.609716
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 10516434
Amount: 0.943717
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:47
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

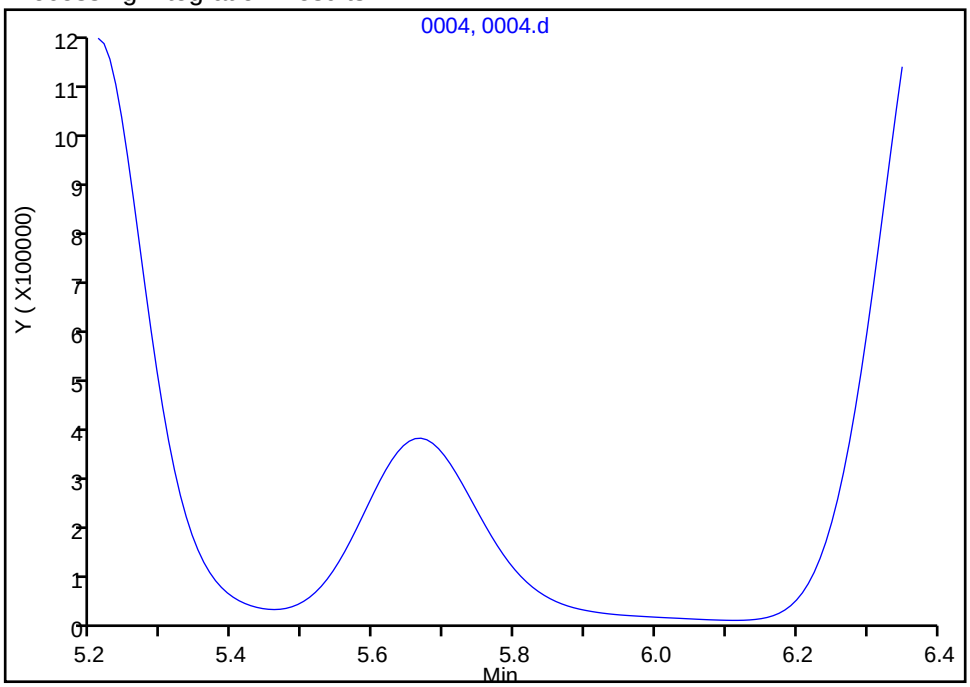
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

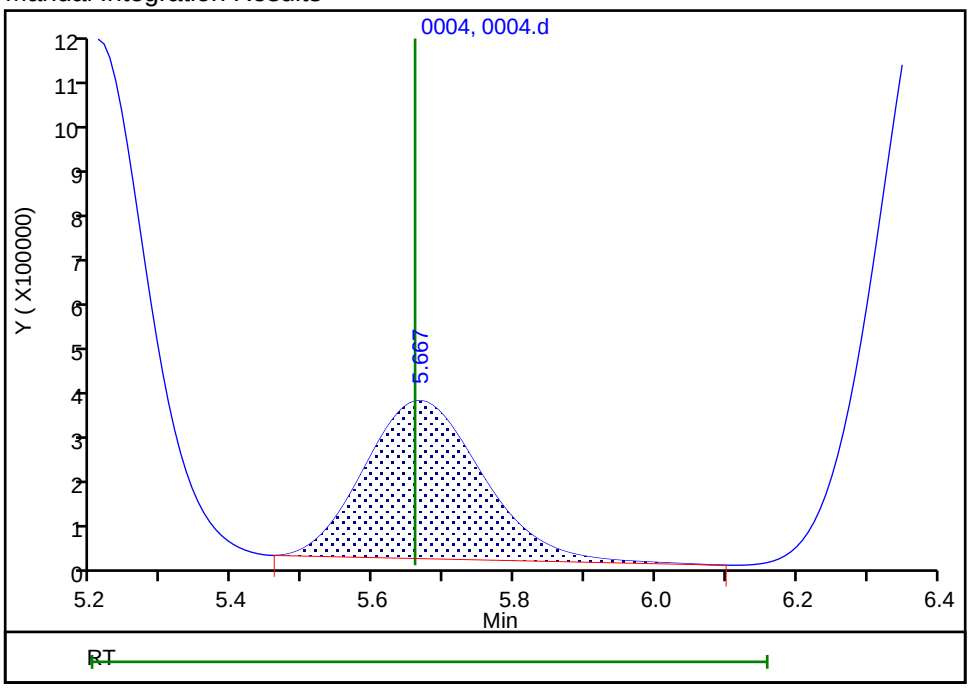
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 4015320
Amount: 0.961514
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	1.00	1.16	
2 Chloride	3.234	3.242	-0.008	23461594	5.00	4.11	
3 Nitrite as N	3.884	3.892	-0.008	9866046	NC	NC	a
4 Bromide	4.642	4.642	0.000	1893846	1.00	0.9814	a
5 Nitrate as N	5.209	5.200	0.009	10516434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	17587626	5.00	4.37	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

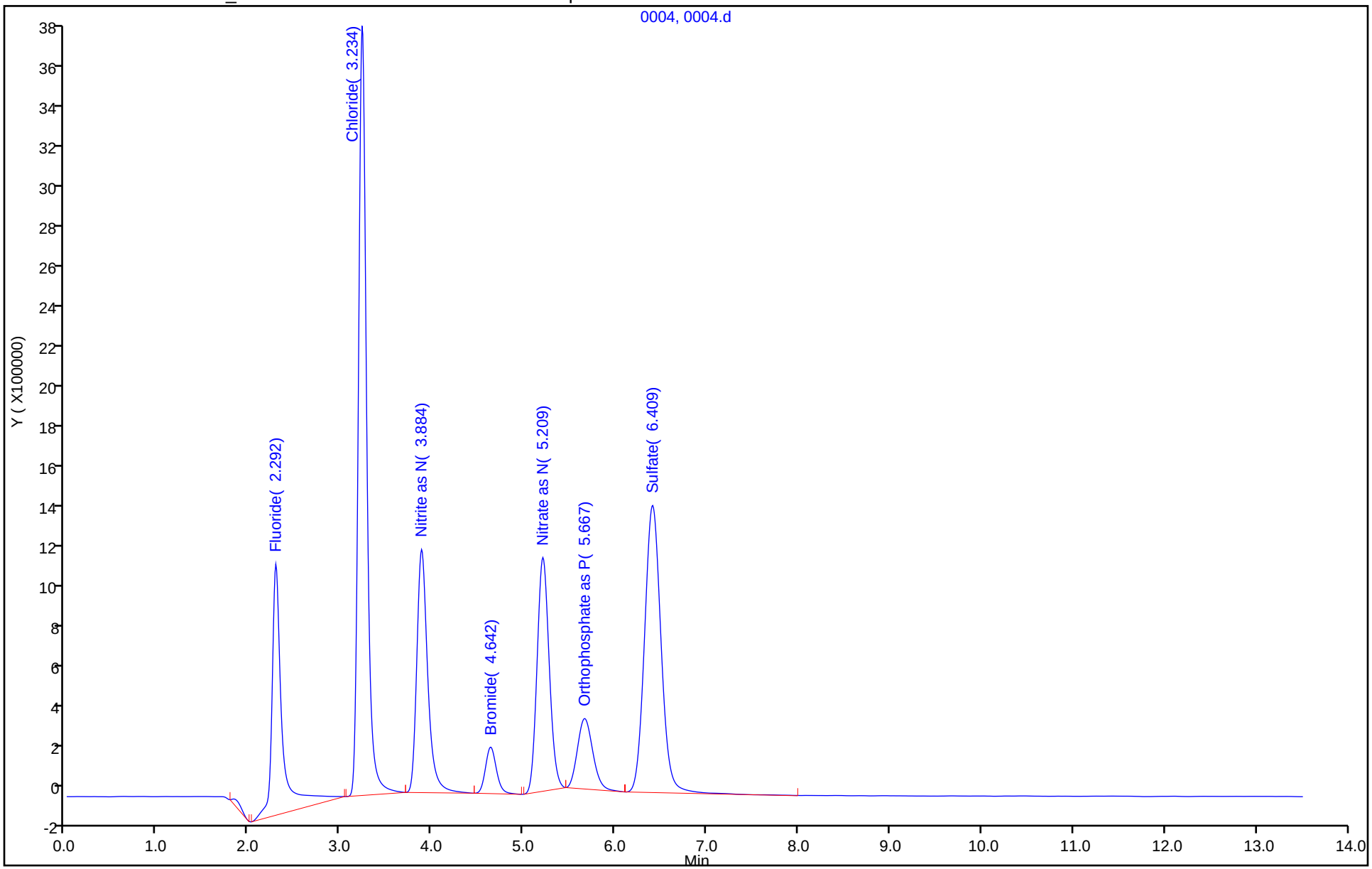
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

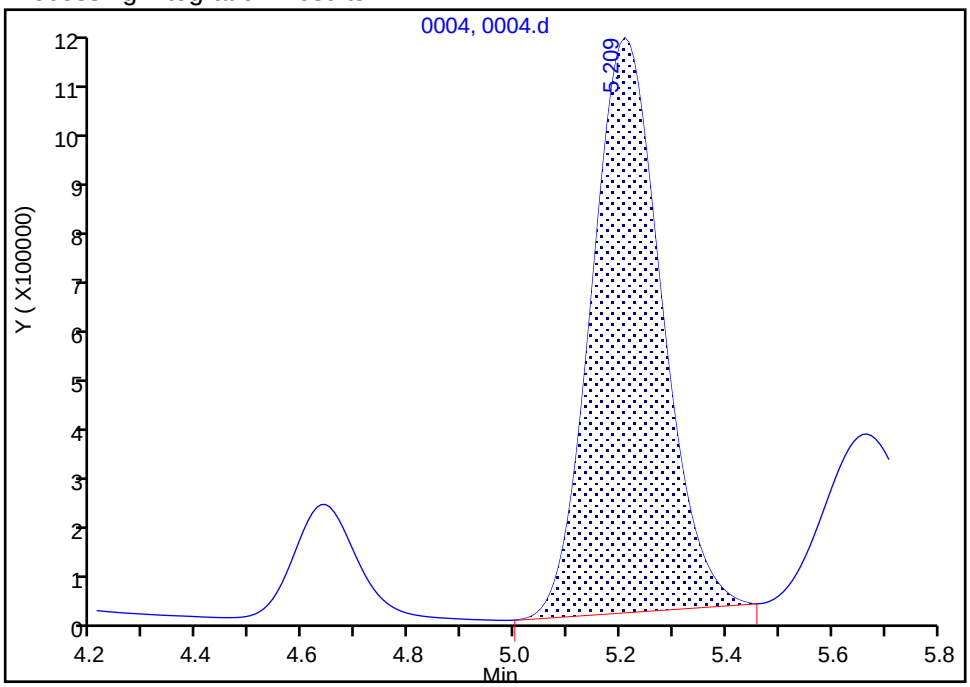
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

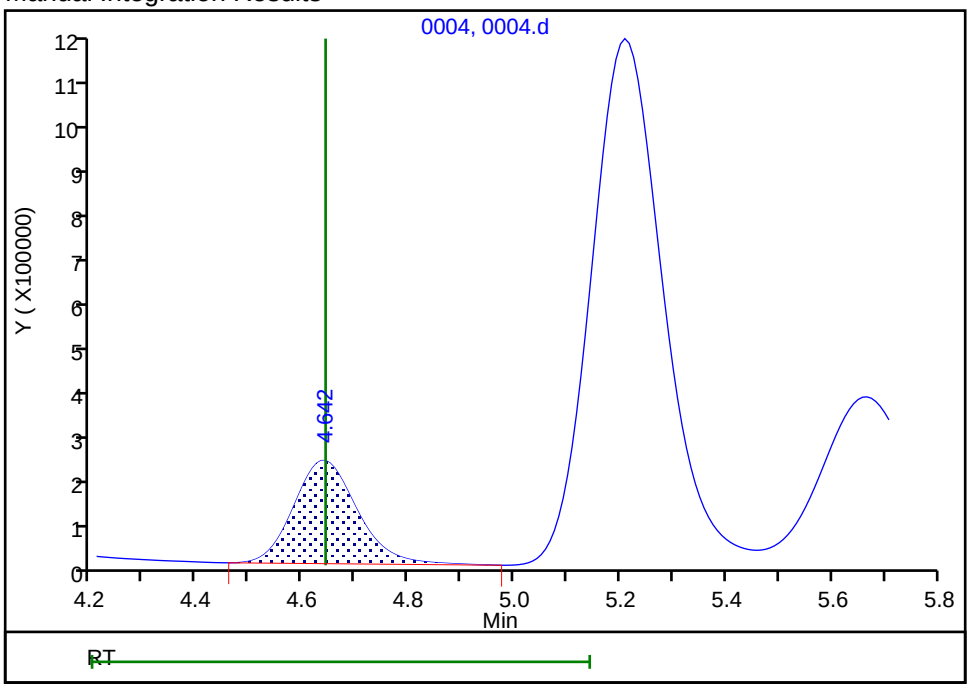
Processing Integration Results

RT: 5.21
Area: 10516434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 1893846
Amount: 0.981416
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:15
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

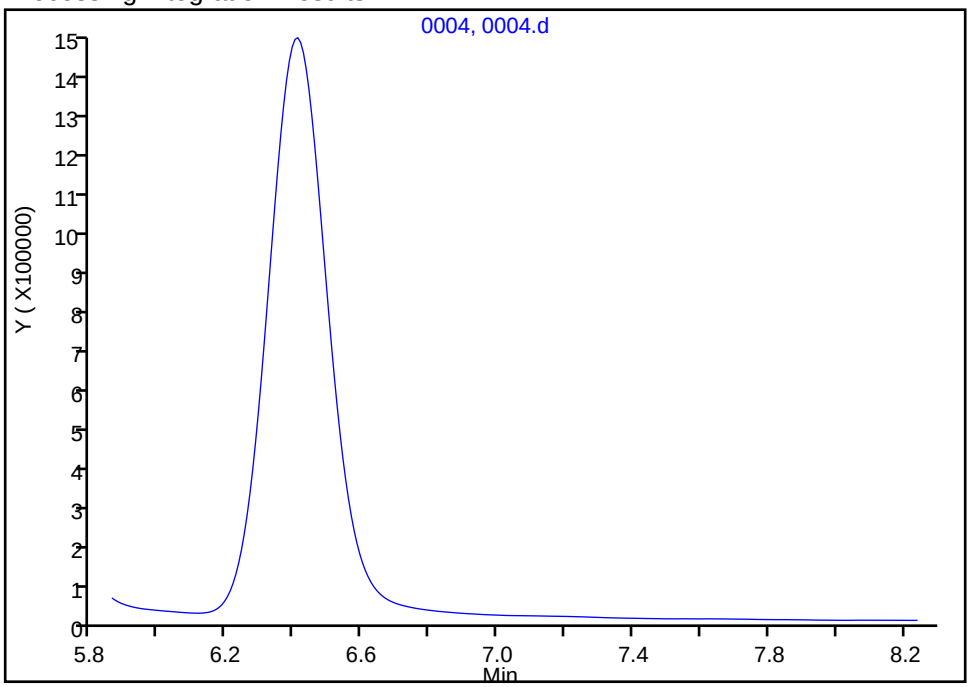
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

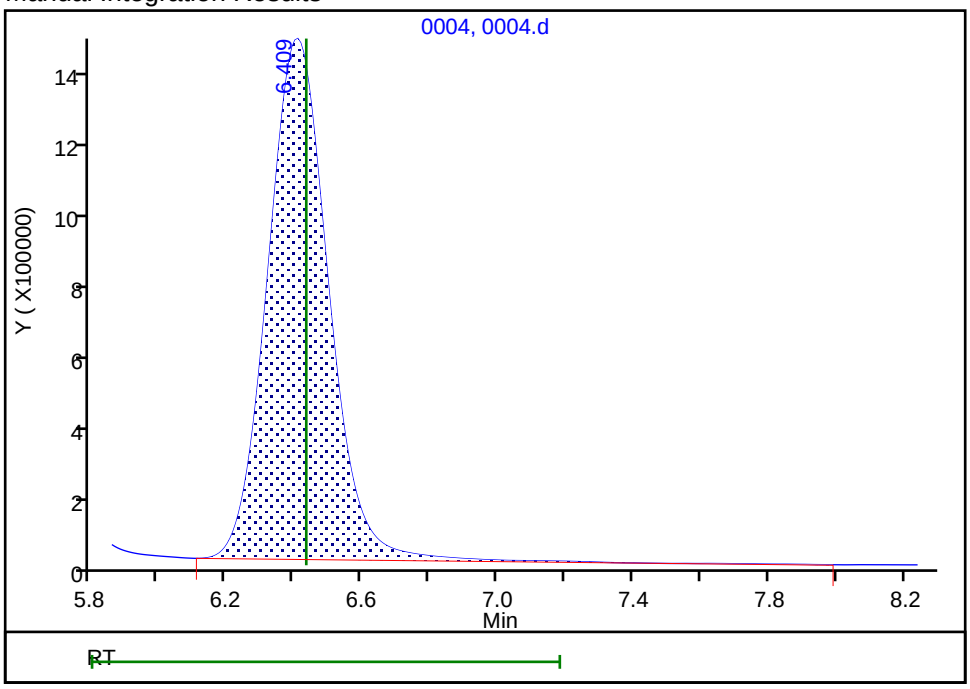
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 17587626
Amount: 4.369714
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:10
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	NC	NC	
2 Chloride	3.242	3.242	0.000	361228288	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	40367514	4.00	3.87	a
4 Bromide	4.634	4.634	0.000	7626440	NC	NC	a
5 Nitrate as N	5.200	5.200	0.000	43835884	4.00	3.81	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	4.00	3.88	a
6 Sulfate	6.434	6.434	0.000	241149184	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

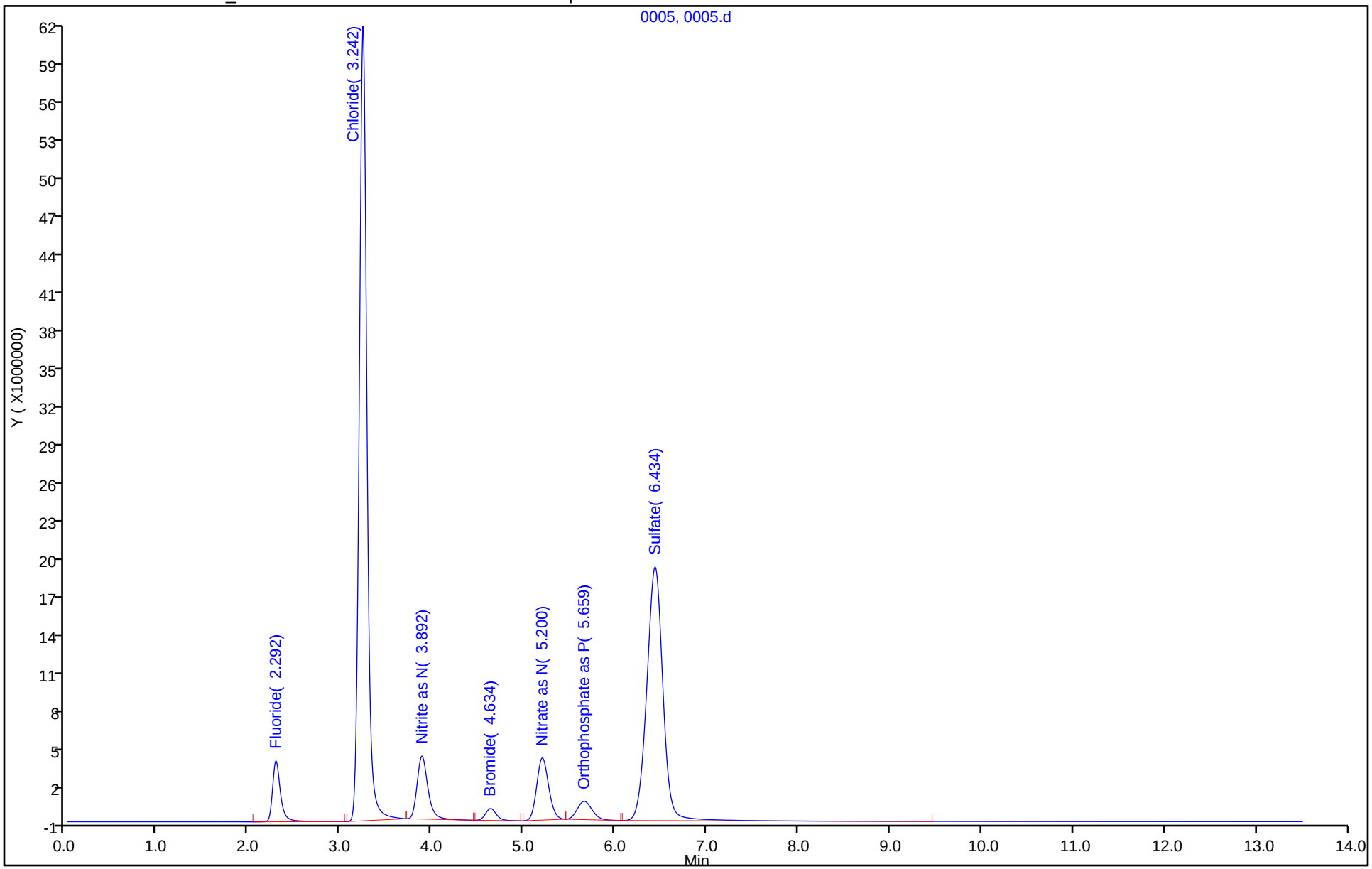
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

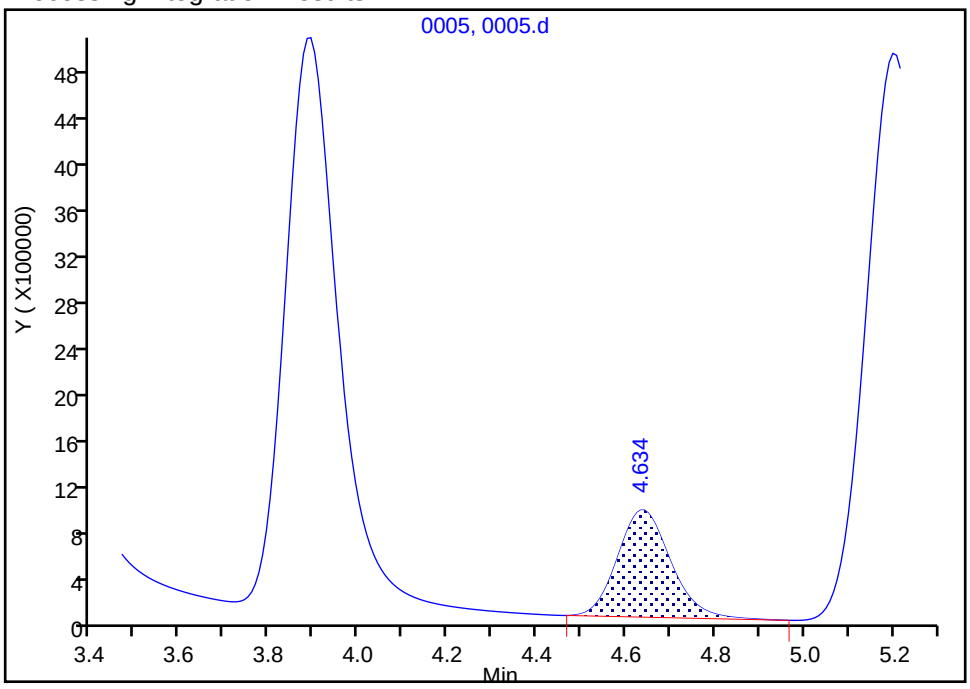
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

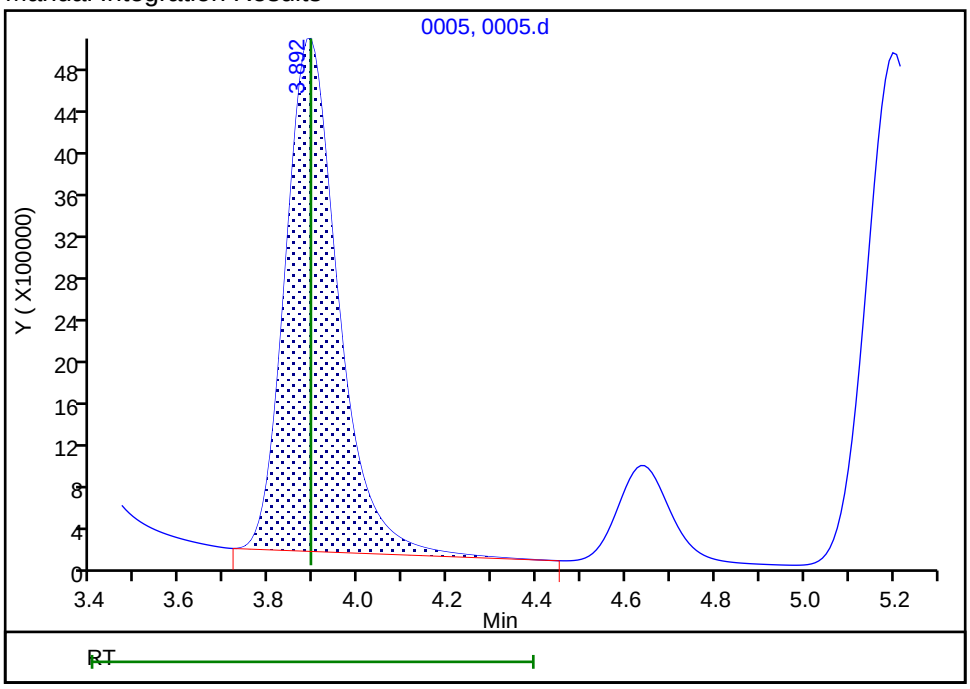
Processing Integration Results

RT: 4.63
Area: 7626440
Amount: 2.554556
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 40367514
Amount: 3.872644
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:32
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

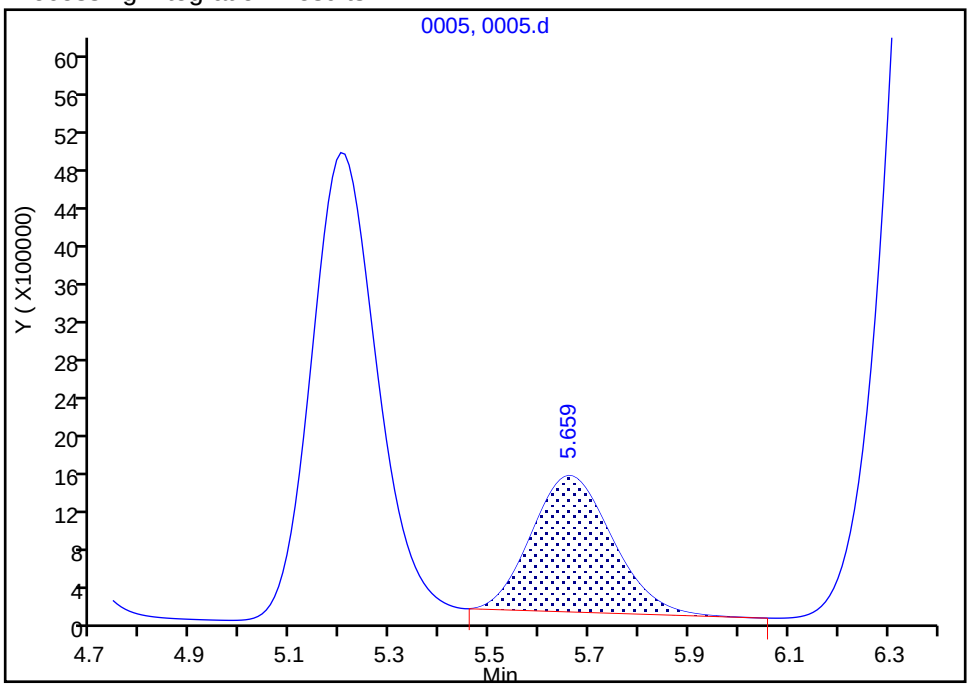
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

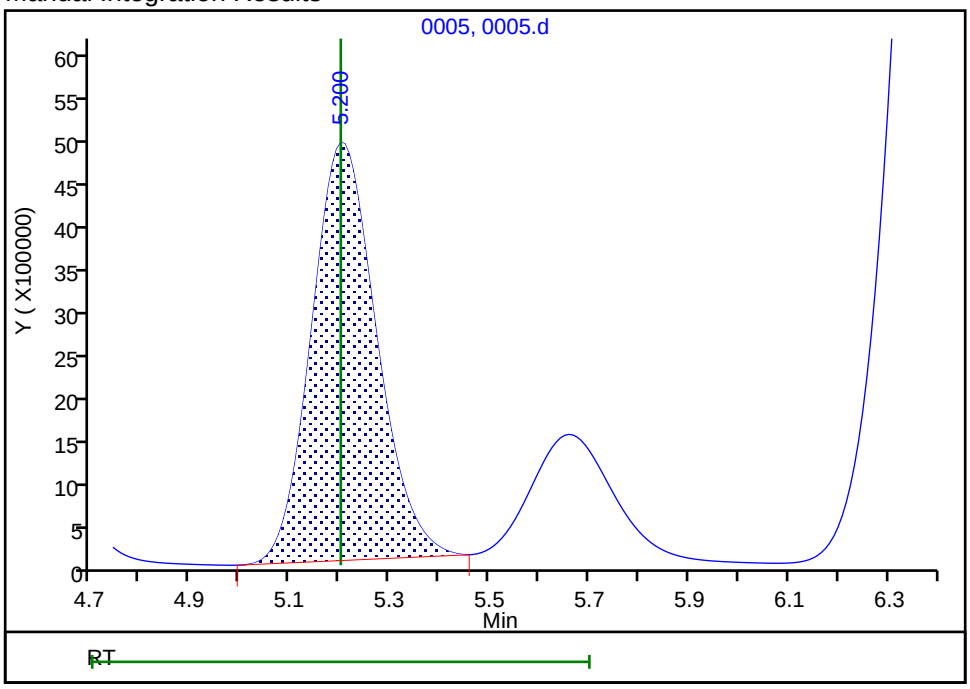
Processing Integration Results

RT: 5.66
Area: 16089342
Amount: 3.399959
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 43835884
Amount: 3.812608
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:36
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

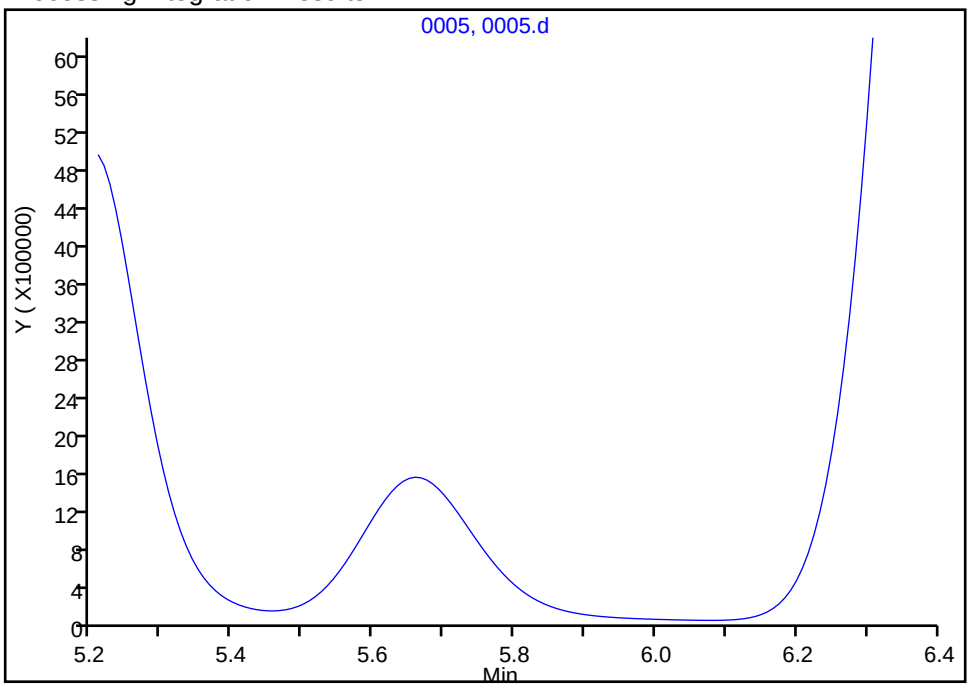
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

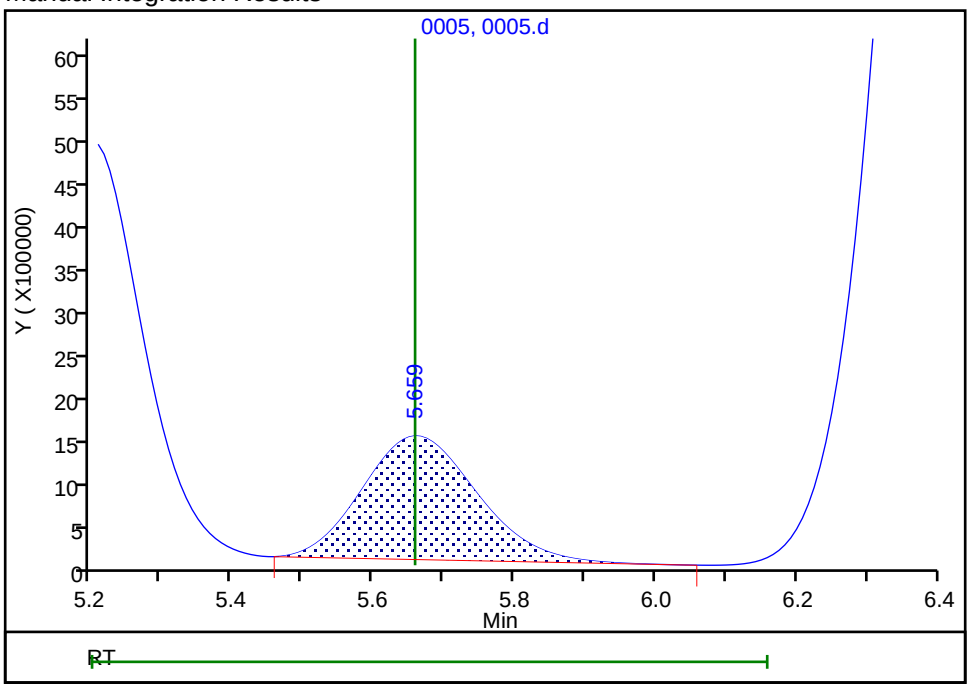
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 16089342
Amount: 3.876438
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	4.00	3.86	
2 Chloride	3.242	3.242	0.000	361228288	60.0	54.3	
3 Nitrite as N	3.892	3.892	0.000	40367514	NC	NC	a
4 Bromide	4.634	4.634	0.000	7626440	4.00	3.94	a
5 Nitrate as N	5.200	5.200	0.000	43835884	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	NC	NC	a
6 Sulfate	6.434	6.434	0.000	241149184	60.0	54.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

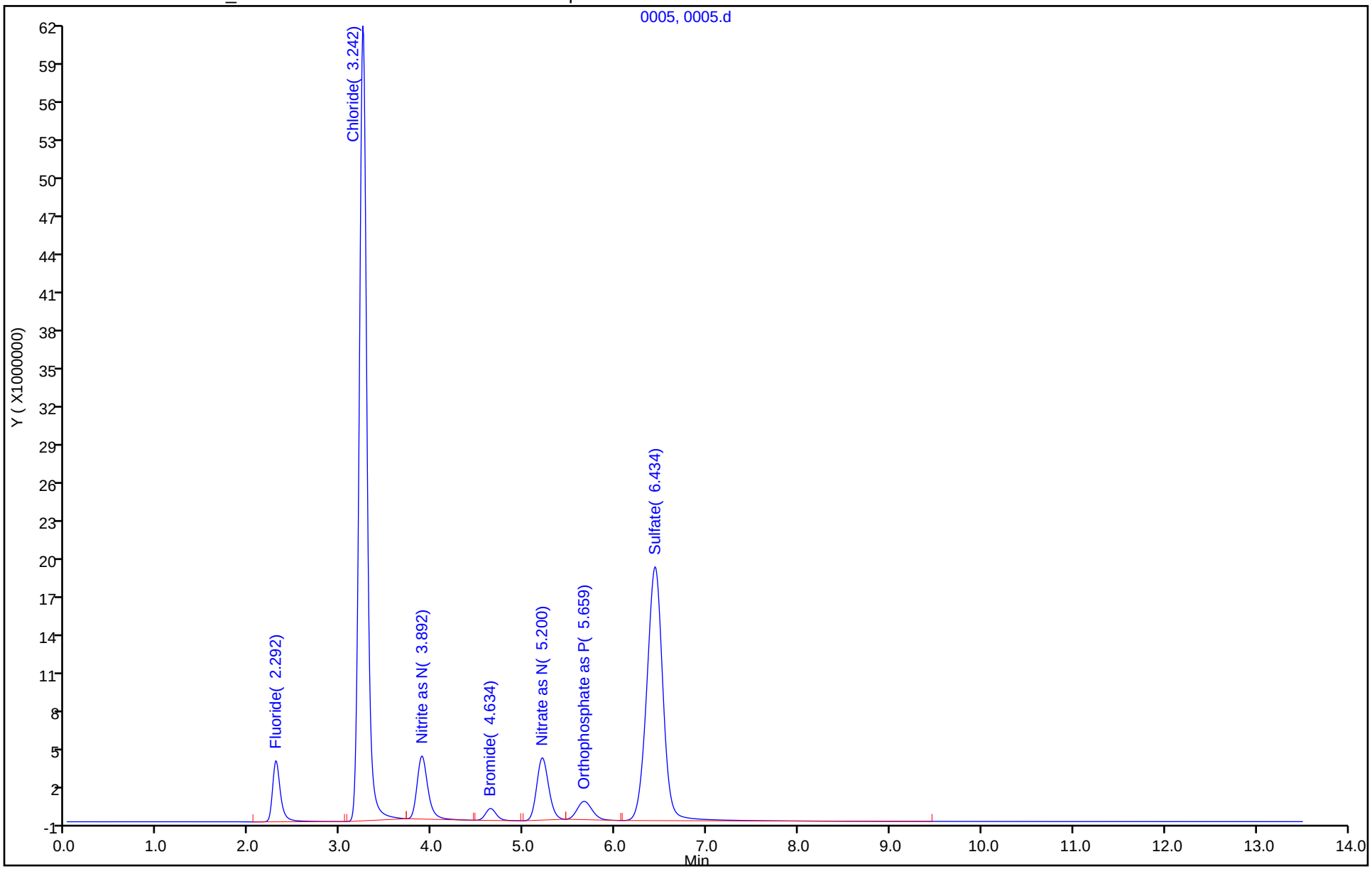
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

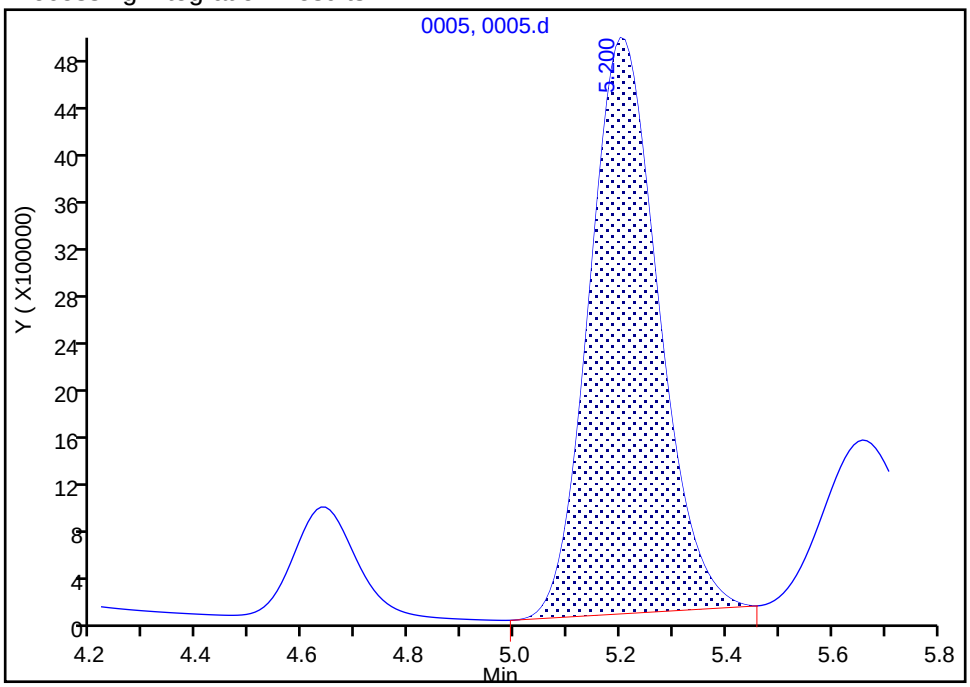
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

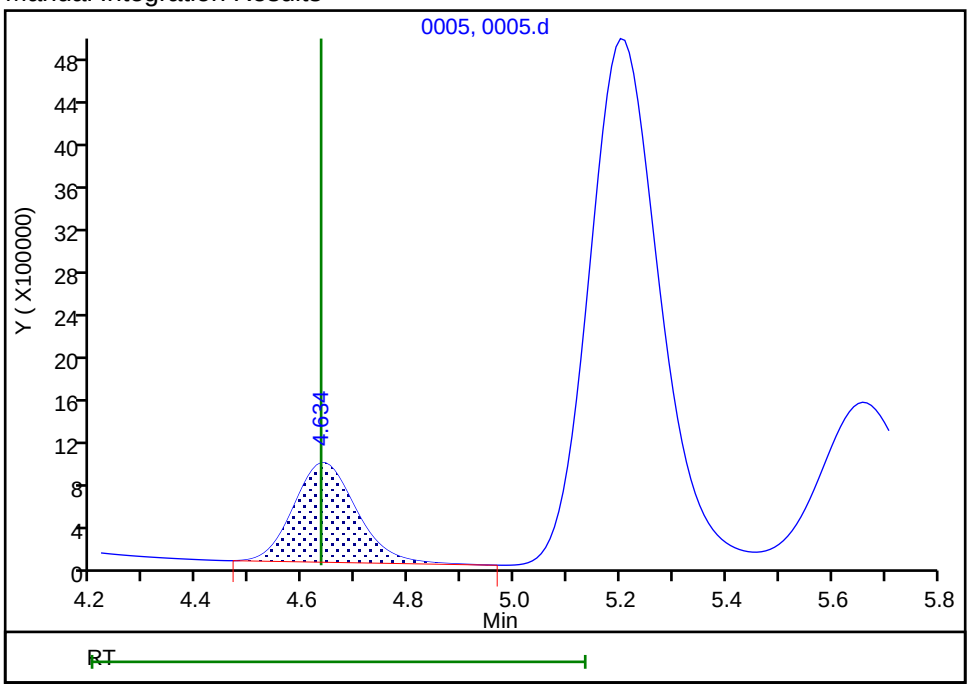
Processing Integration Results

RT: 5.20
Area: 43835884
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 7626440
Amount: 3.940762
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 08:31:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

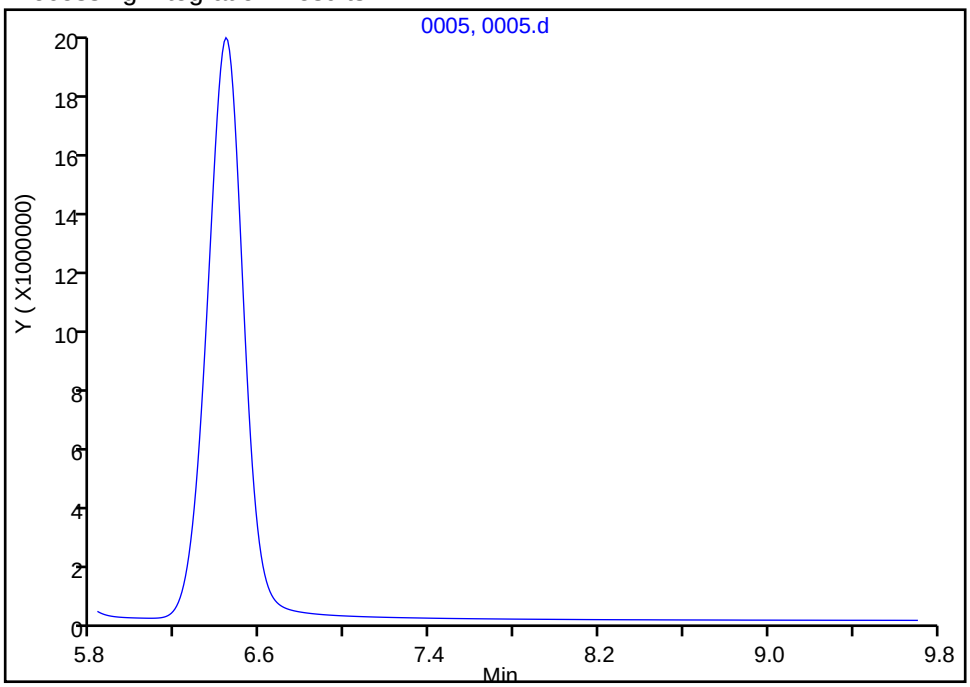
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d				
Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L4				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

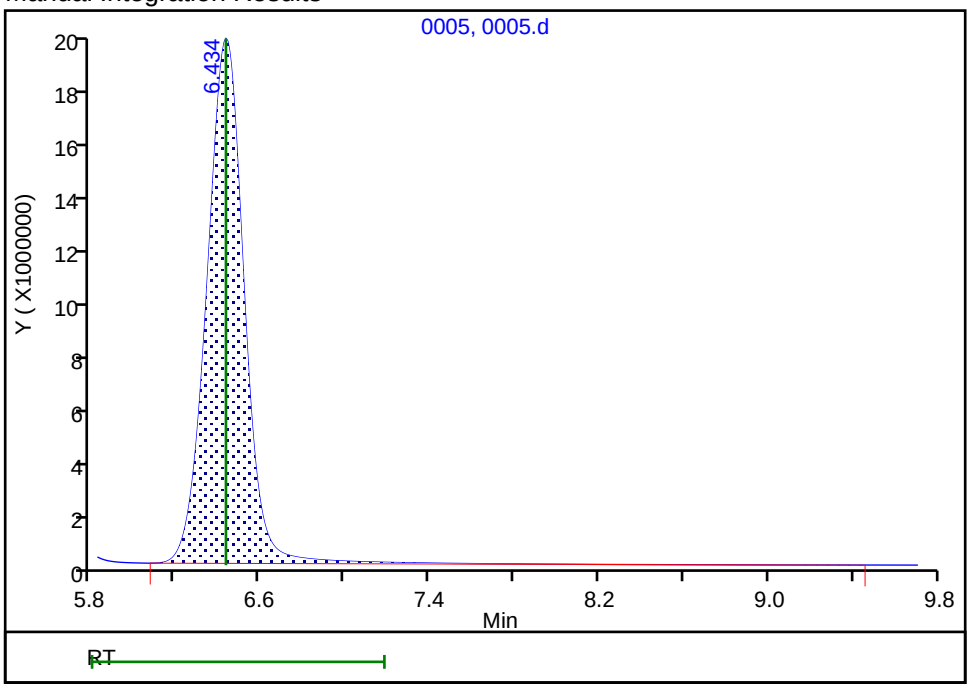
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.43
Area: 241149184
Amount: 54.355882
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:52
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	NC	NC	
2 Chloride	3.251	3.250	0.001	792237933	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	83950148	8.00	8.03	a
4 Bromide	4.634	4.642	-0.008	15499336	NC	NC	a
5 Nitrate as N	5.201	5.200	0.001	92548386	8.00	8.01	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	8.00	7.99	a
6 Sulfate	6.459	6.442	0.017	523125792	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

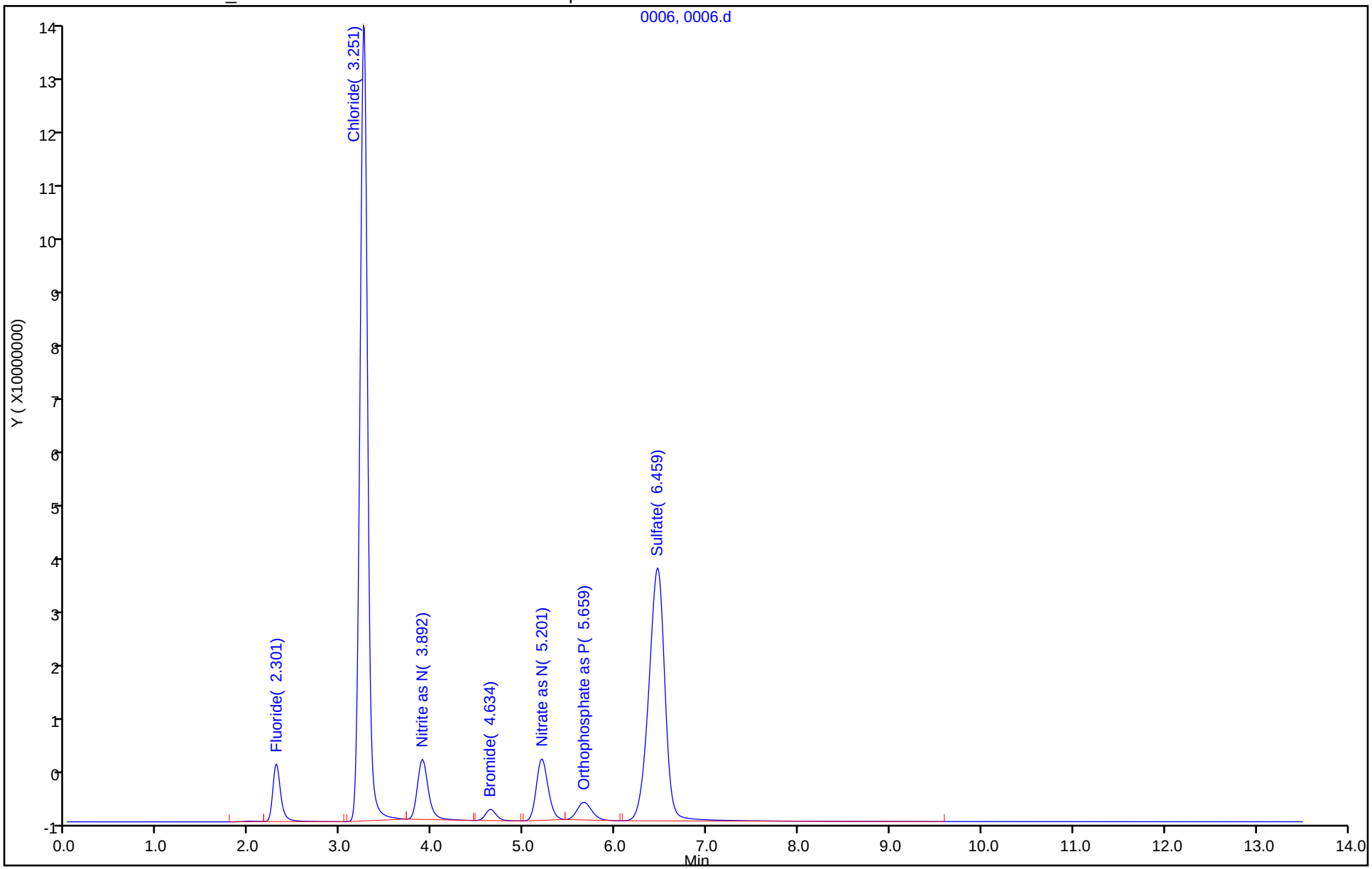
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

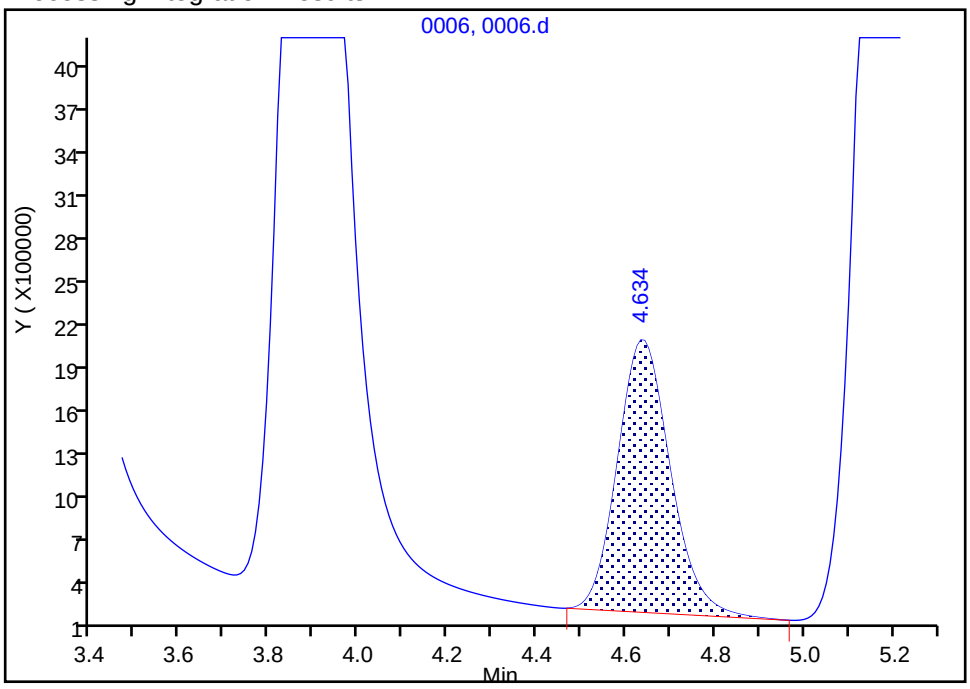
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

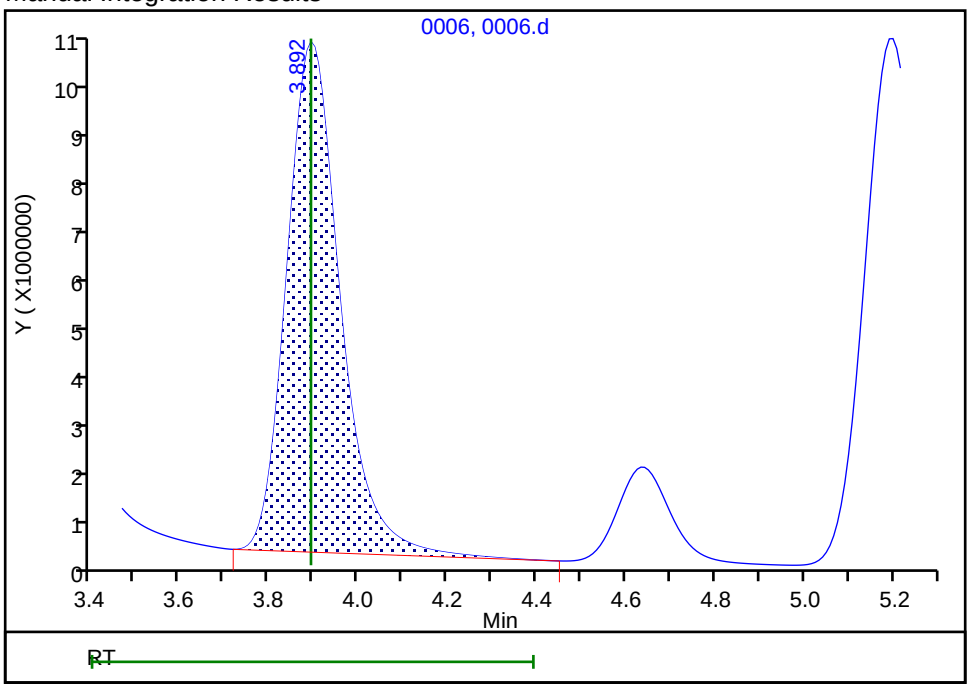
Processing Integration Results

RT: 4.63
Area: 15499336
Amount: 2.959649
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 83950148
Amount: 8.026551
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:18
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

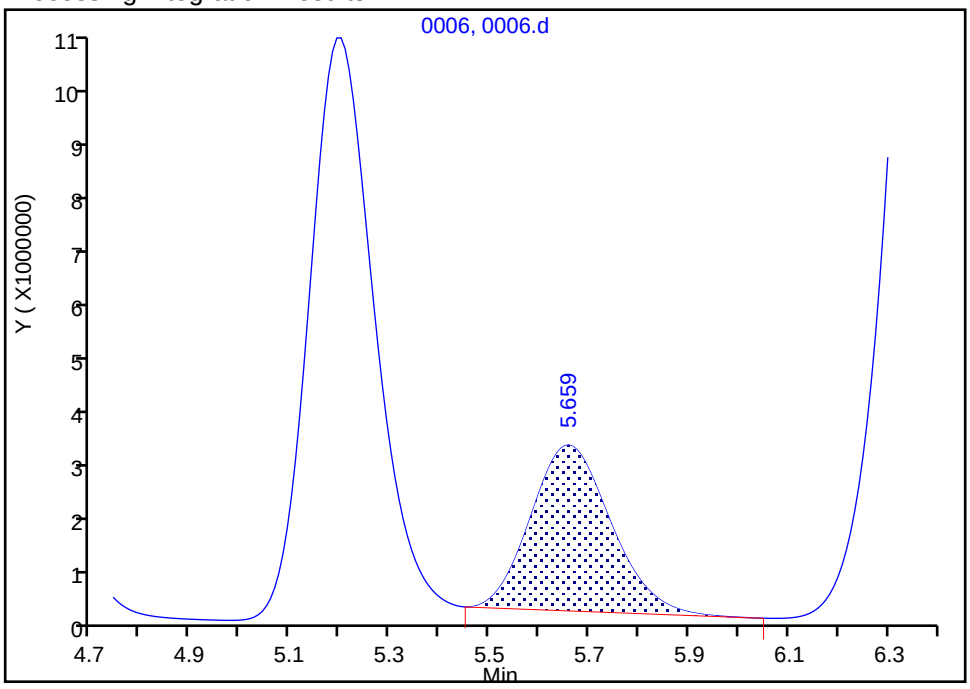
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

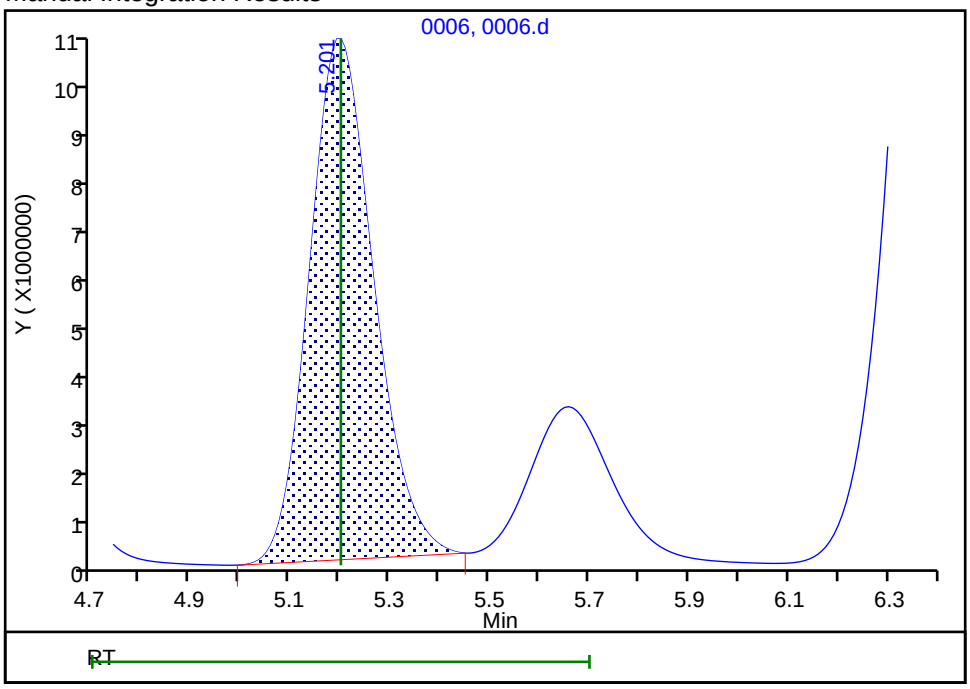
Processing Integration Results

RT: 5.66
Area: 33143352
Amount: 5.007844
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 92548386
Amount: 8.006881
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:22
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

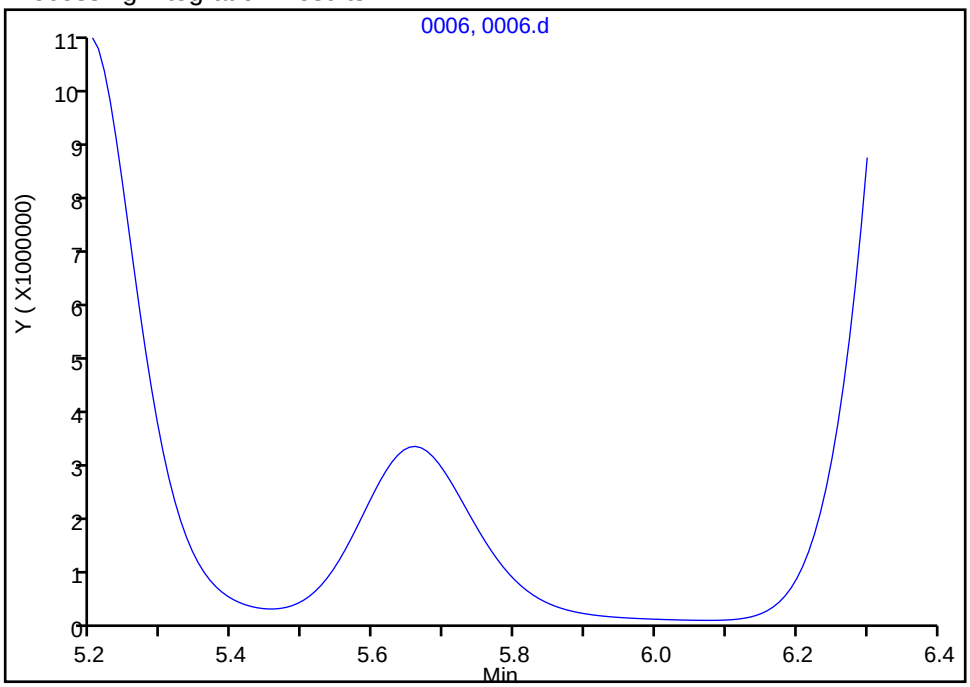
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

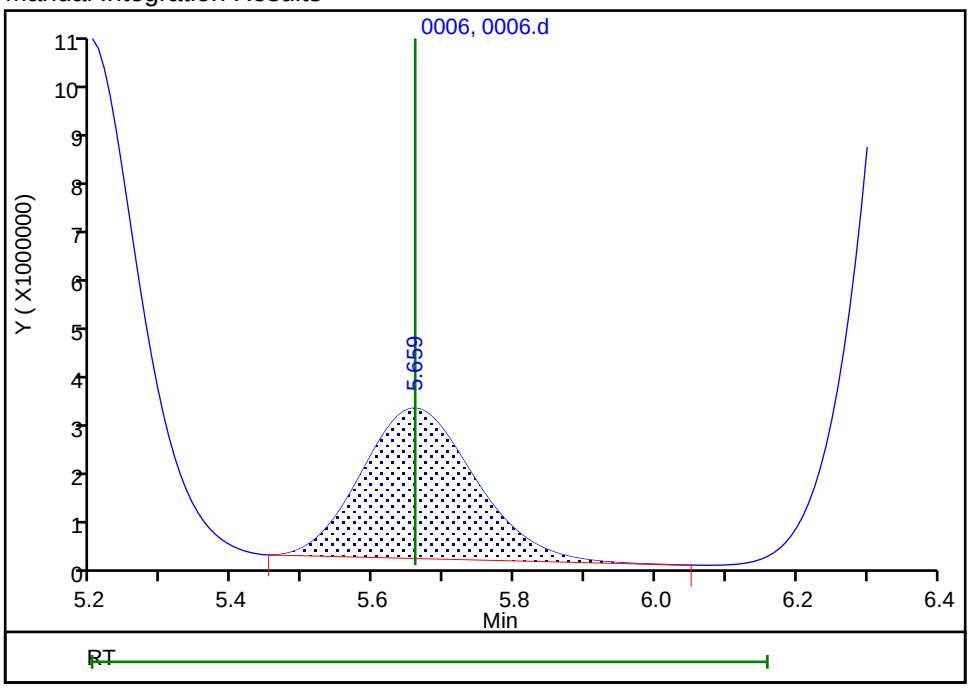
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 33143352
Amount: 7.993638
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:27
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	8.00	7.94	
2 Chloride	3.251	3.250	0.001	792237933	120.0	118.4	
3 Nitrite as N	3.892	3.892	0.000	83950148	NC	NC	a
4 Bromide	4.634	4.642	-0.008	15499336	8.00	7.98	a
5 Nitrate as N	5.201	5.200	0.001	92548386	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	NC	NC	a
6 Sulfate	6.459	6.442	0.017	523125792	120.0	117.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

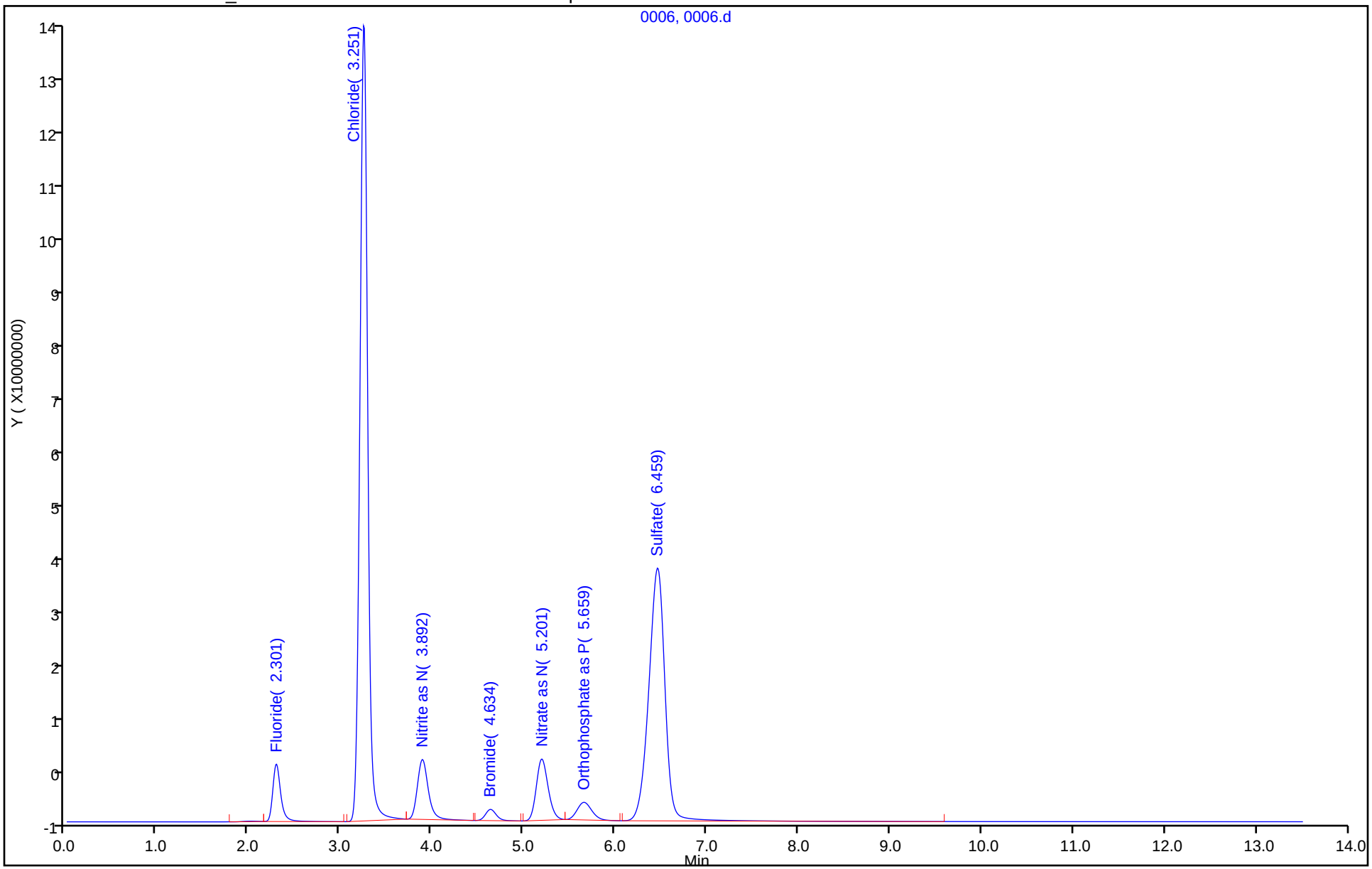
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

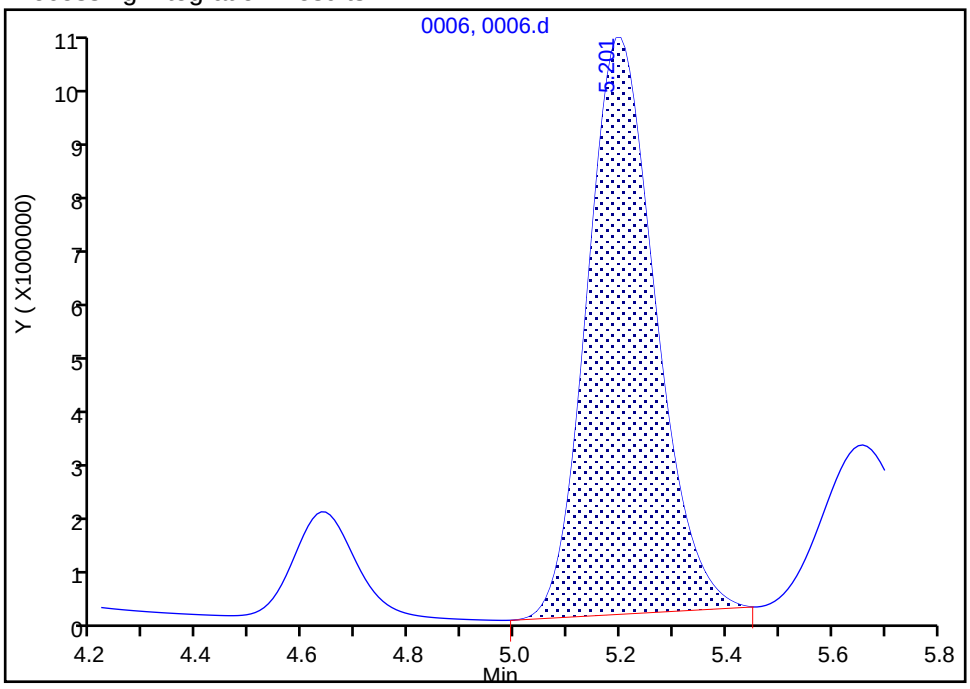
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d				
Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

4 Bromide, CAS: 24959-67-9

Signal: 1

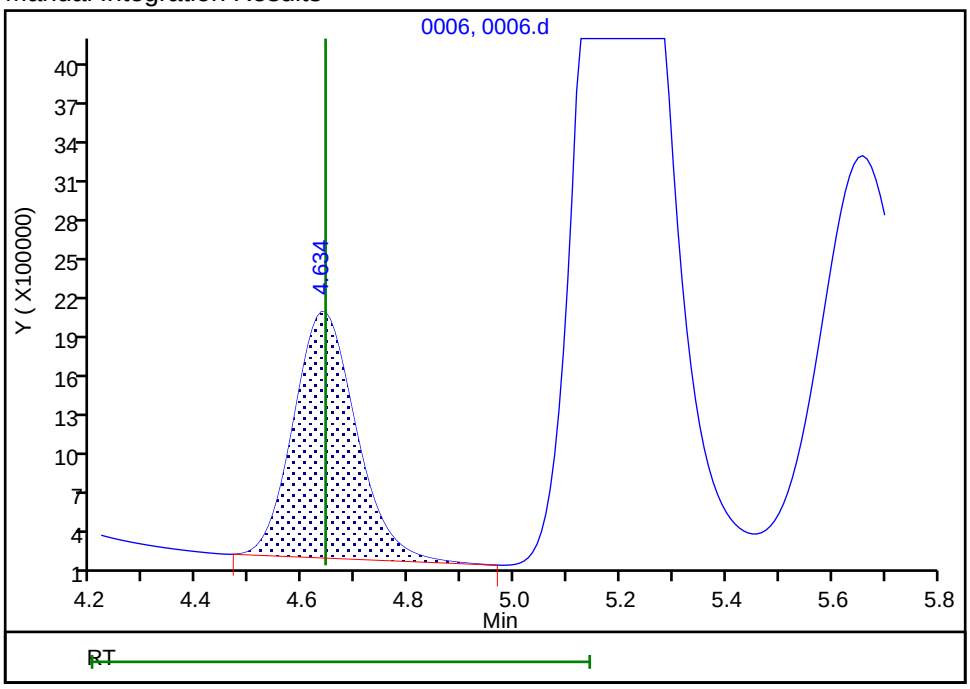
Processing Integration Results

RT: 5.20
Area: 92548386
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 15499336
Amount: 7.976961
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:37
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

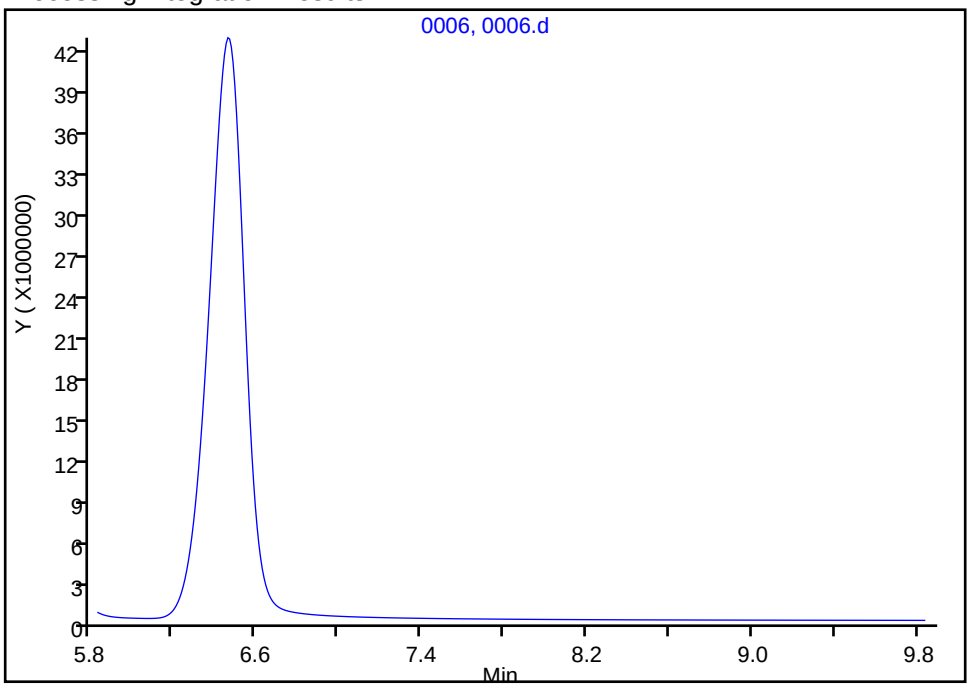
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

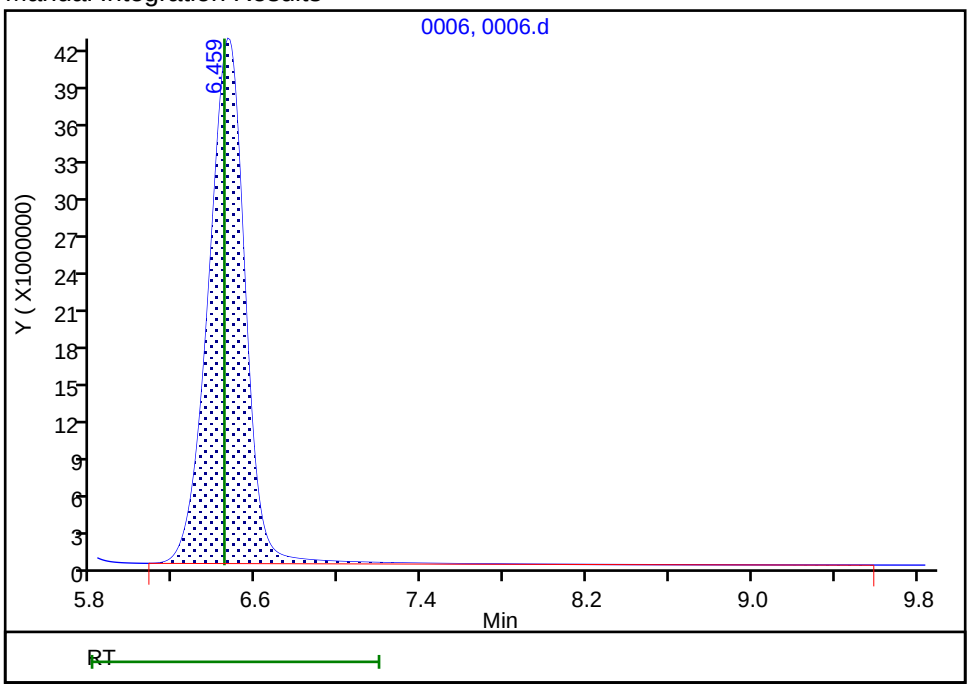
Not Detected
Expected RT: 6.44

Processing Integration Results



Manual Integration Results

RT: 6.46
Area: 523125792
Amount: 117.4031
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	NC	NC	
2 Chloride	3.267	3.250	0.017	1394323073	NC	NC	
3 Nitrite as N	3.901	3.892	0.009	106025591	10.0	10.1	
4 Bromide	4.642	4.642	0.000	19510403	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	118348380	10.0	10.2	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	10.0	10.2	
6 Sulfate	6.484	6.442	0.042	931644146	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

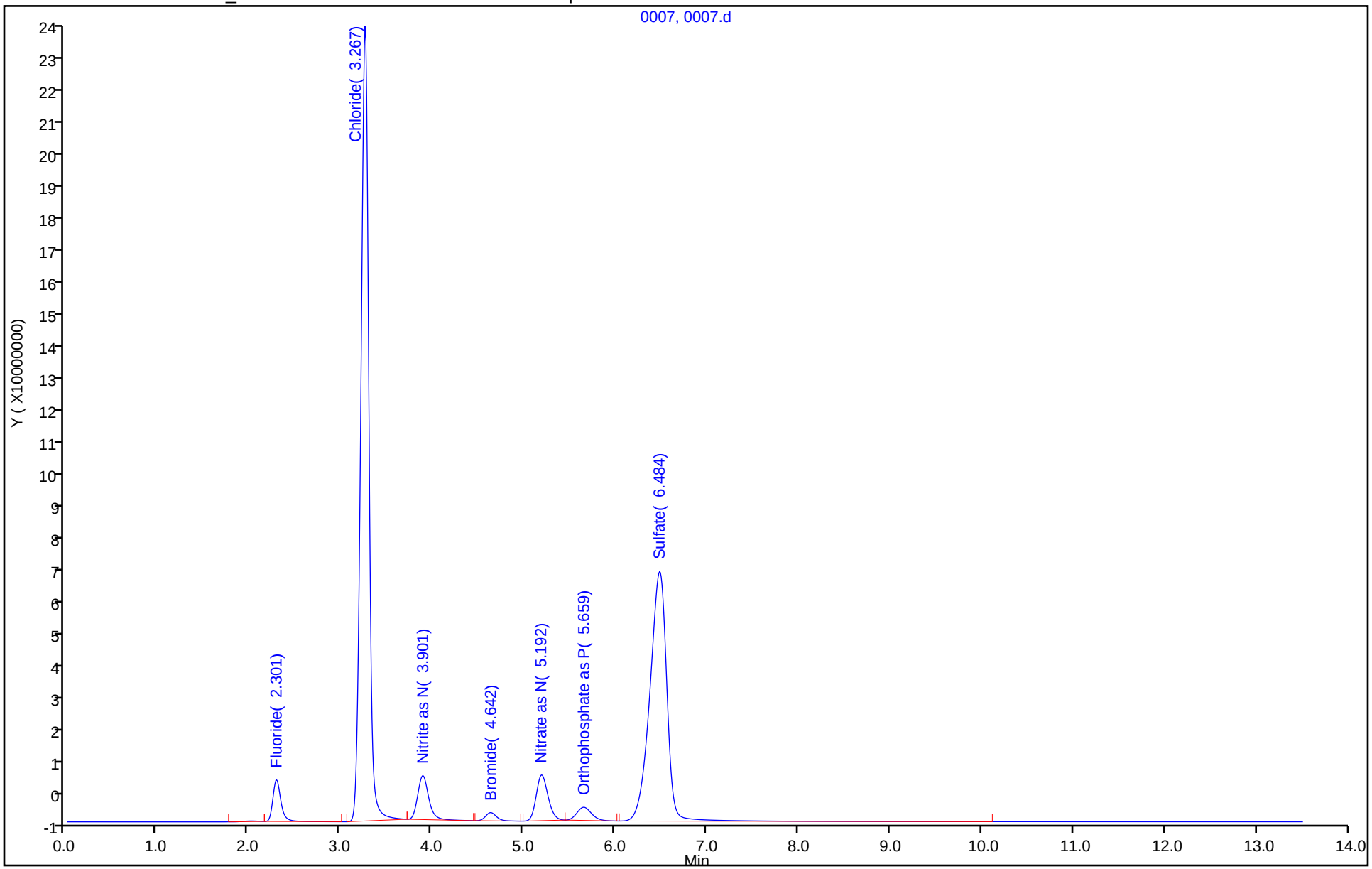
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-May-2019 18:54:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-007
Misc. Info.: 21691
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:07 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	10.0	9.99	
2 Chloride	3.267	3.250	0.017	1394323073	200.0	208.0	
3 Nitrite as N	3.901	3.892	0.009	106025591	NC	NC	
4 Bromide	4.642	4.642	0.000	19510403	10.0	10.0	
5 Nitrate as N	5.192	5.200	-0.008	118348380	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	NC	NC	
6 Sulfate	6.484	6.442	0.042	931644146	200.0	208.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

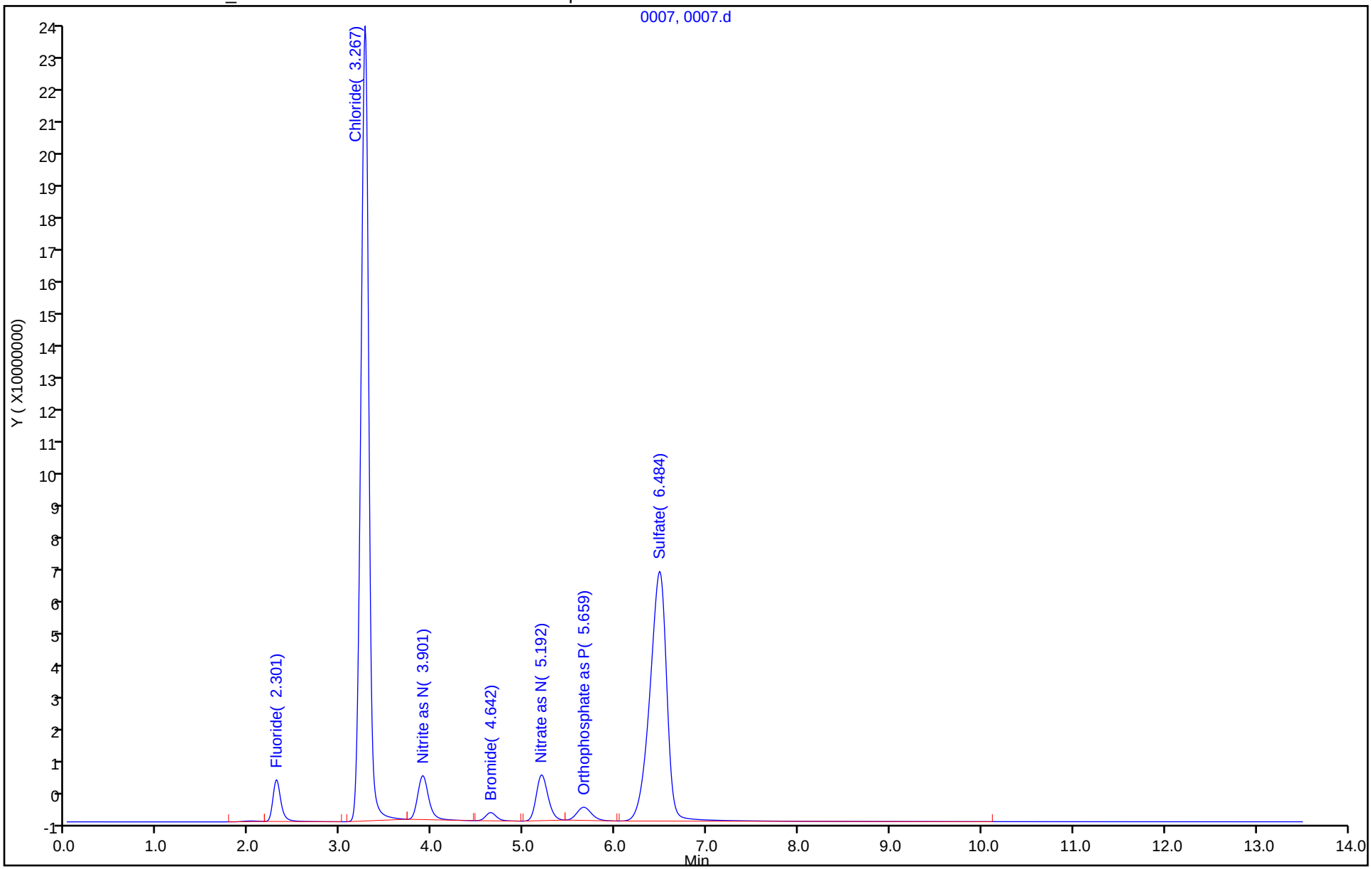
IC CAL cl/so4_00256 Amount Added: 4.00 Units: mL
IC Cal low_00458 Amount Added: 1.00 Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuwiya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	15-May-2019 19:11:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-008				
Misc. Info.:	24520				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:06	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	NC	NC	
2 Chloride	3.250	3.250	0.000	511999139	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	39889751	4.00	3.83	
4 Bromide	4.642	4.642	0.000	8464974	NC	NC	
5 Nitrate as N	5.200	5.200	0.000	48666748	4.00	4.23	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	4.00	4.23	
6 Sulfate	6.442	6.442	0.000	336075353	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

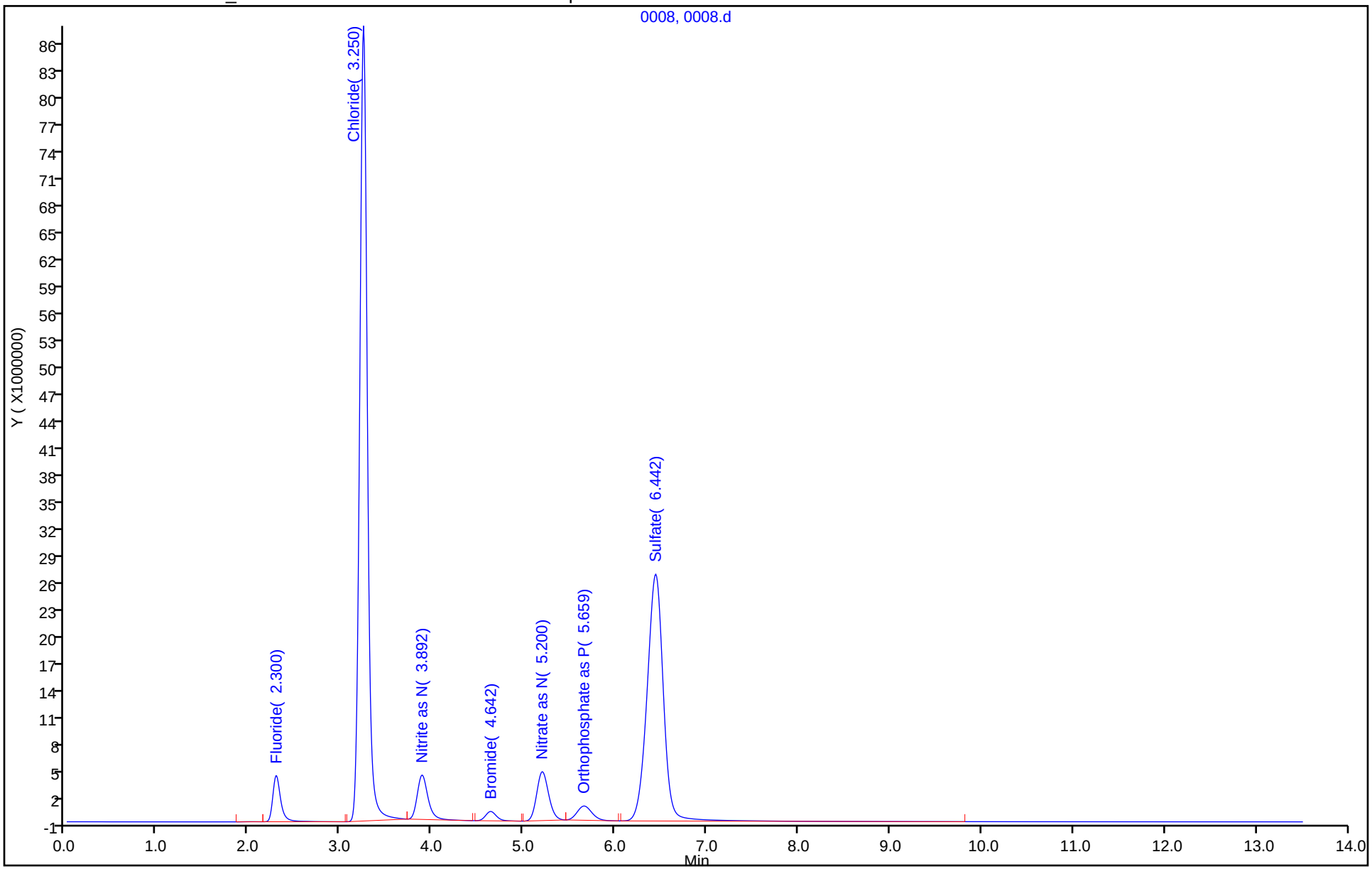
Reagents:

IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d				
Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

	Rush	Job No.	Samples	Anions	QC Req	HT Exp
	☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
	☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
	☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved	☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	15-May-2019 19:11:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-008				
Misc. Info.:	24520				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 07:56:06	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	4.00	4.12	
2 Chloride	3.250	3.250	0.000	511999139	80.0	76.8	
3 Nitrite as N	3.892	3.892	0.000	39889751	NC	NC	
4 Bromide	4.642	4.642	0.000	8464974	4.00	4.36	
5 Nitrate as N	5.200	5.200	0.000	48666748	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	NC	NC	
6 Sulfate	6.442	6.442	0.000	336075353	80.0	75.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

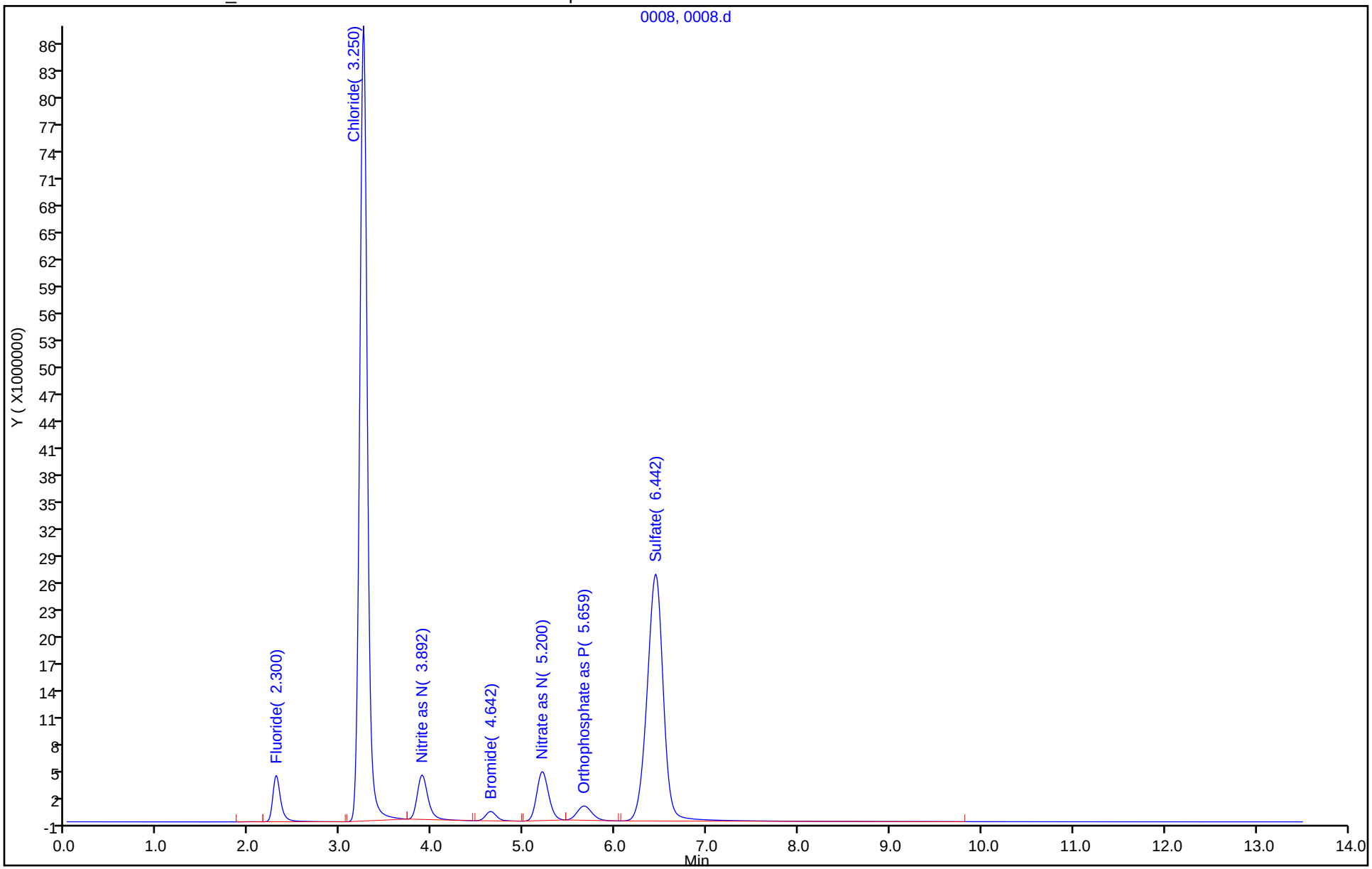
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d

Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		NC	M
2 Chloride	3.234	3.250	-0.016	71906		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		0.0412	
6 Sulfate	6.409	6.442	-0.033	254965		NC	

QC Flag Legend

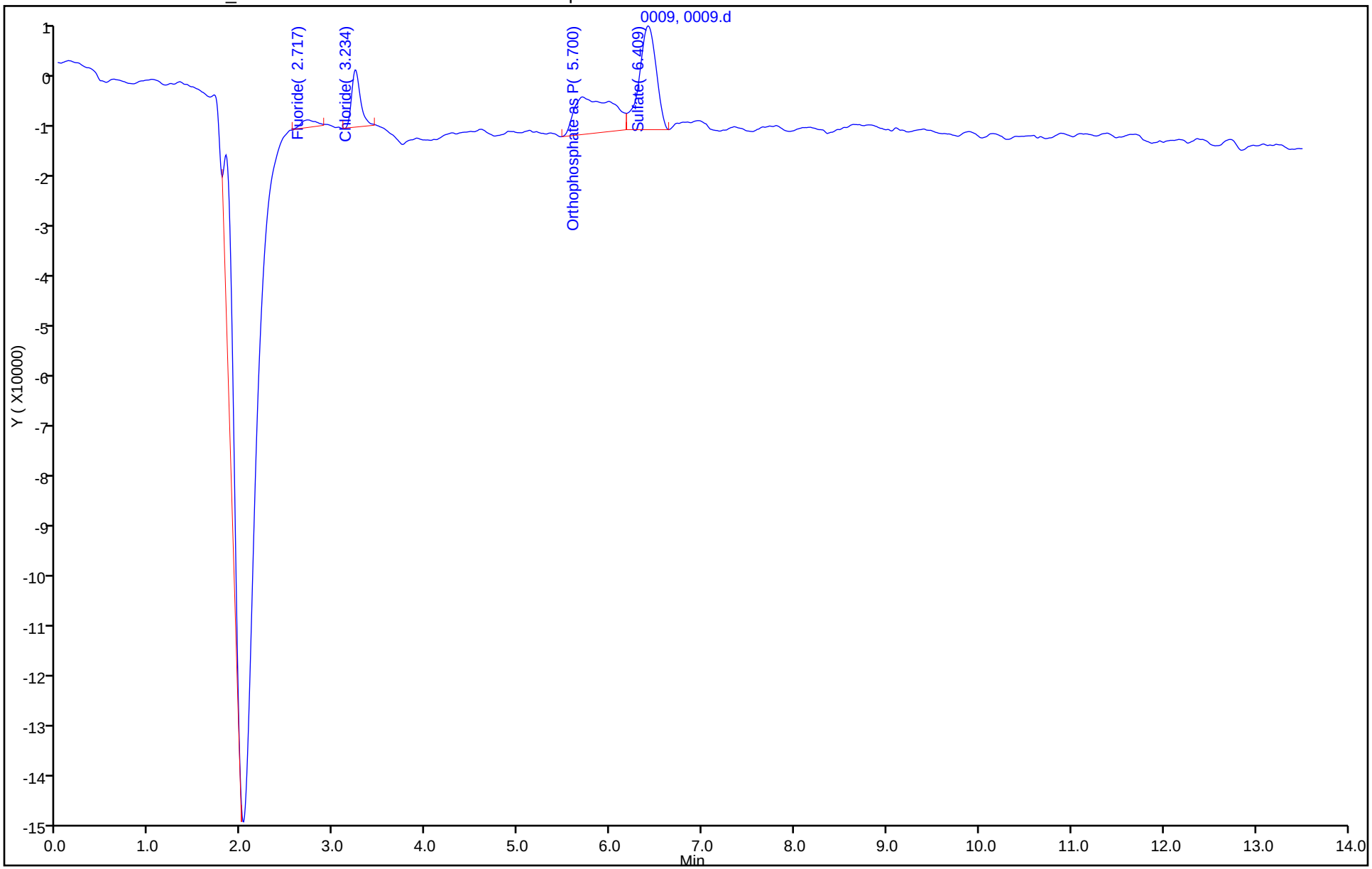
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		-0.1524	M
2 Chloride	3.234	3.250	-0.016	71906		0.6279	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		NC	
6 Sulfate	6.409	6.442	-0.033	254965		0.4943	

QC Flag Legend

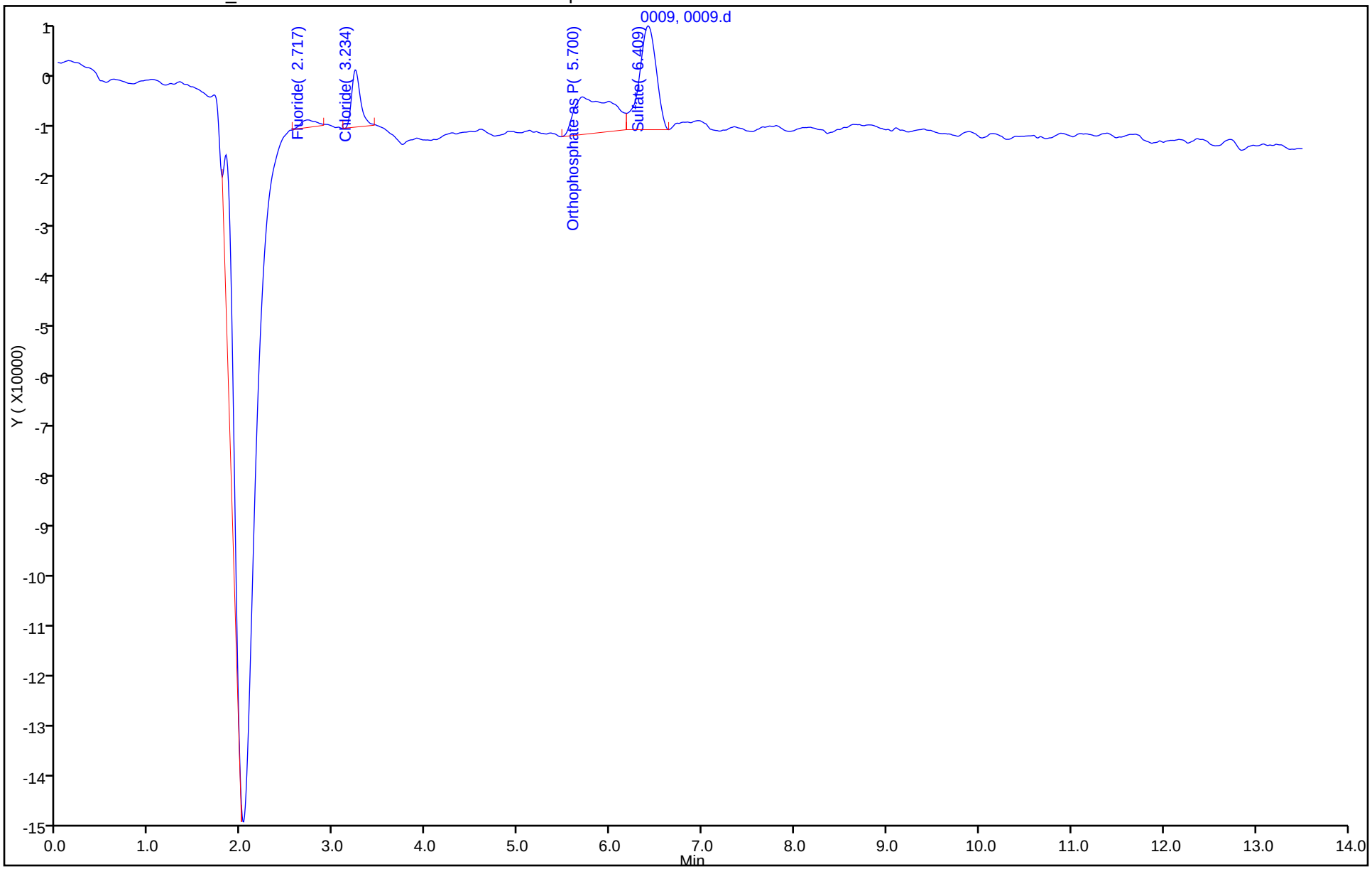
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

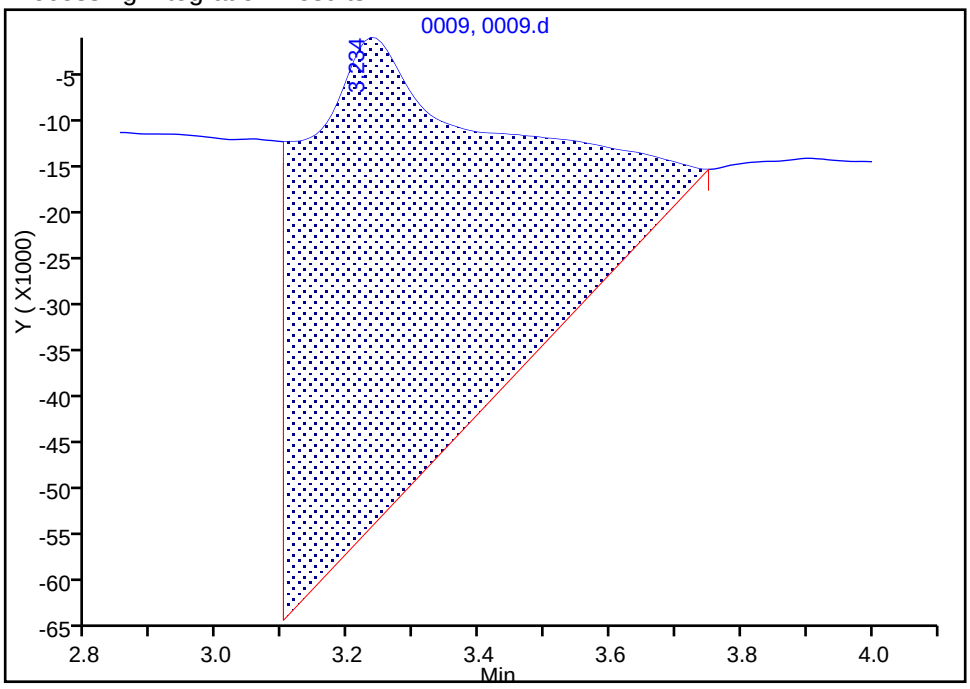
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d				
Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ICB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

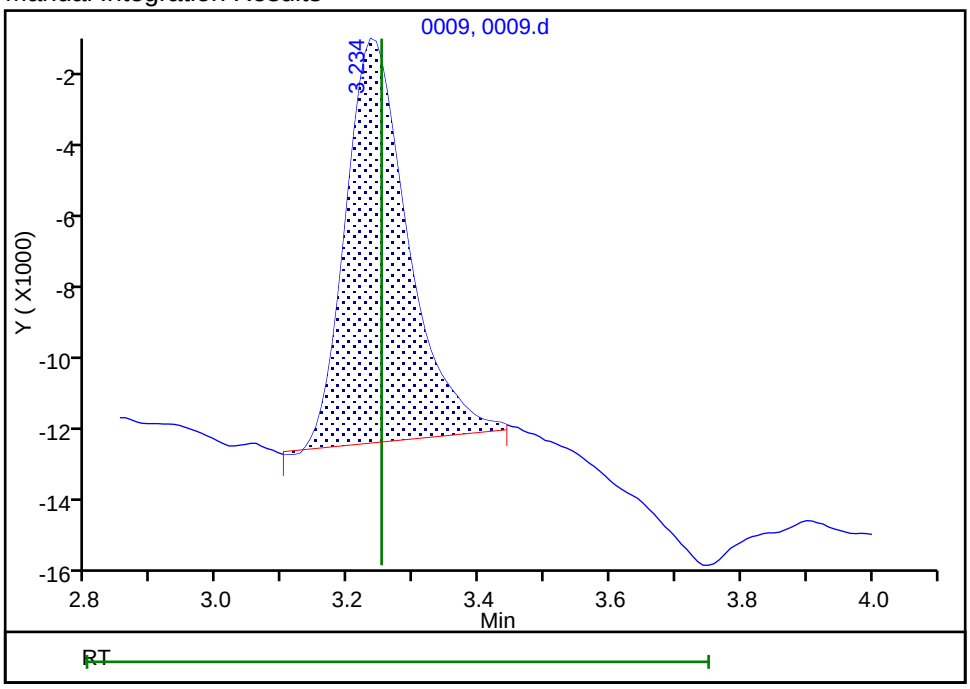
Processing Integration Results

RT: 3.23
Area: 1127161
Amount: 0.784817
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 71906
Amount: 0.627881
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

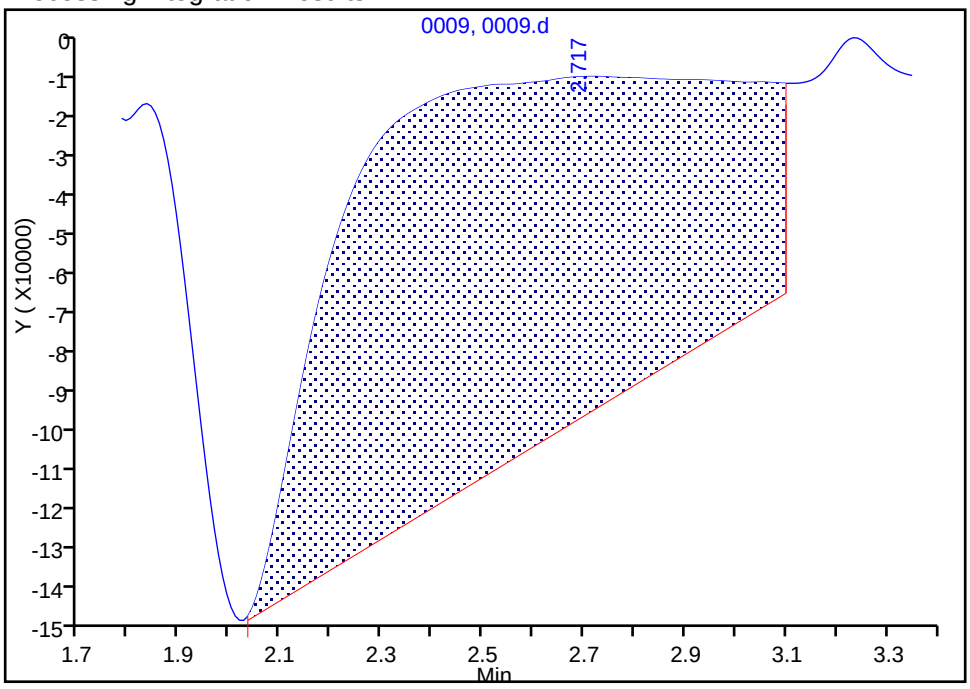
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d				
Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ICB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

1 Fluoride, CAS: 16984-48-8

Signal: 1

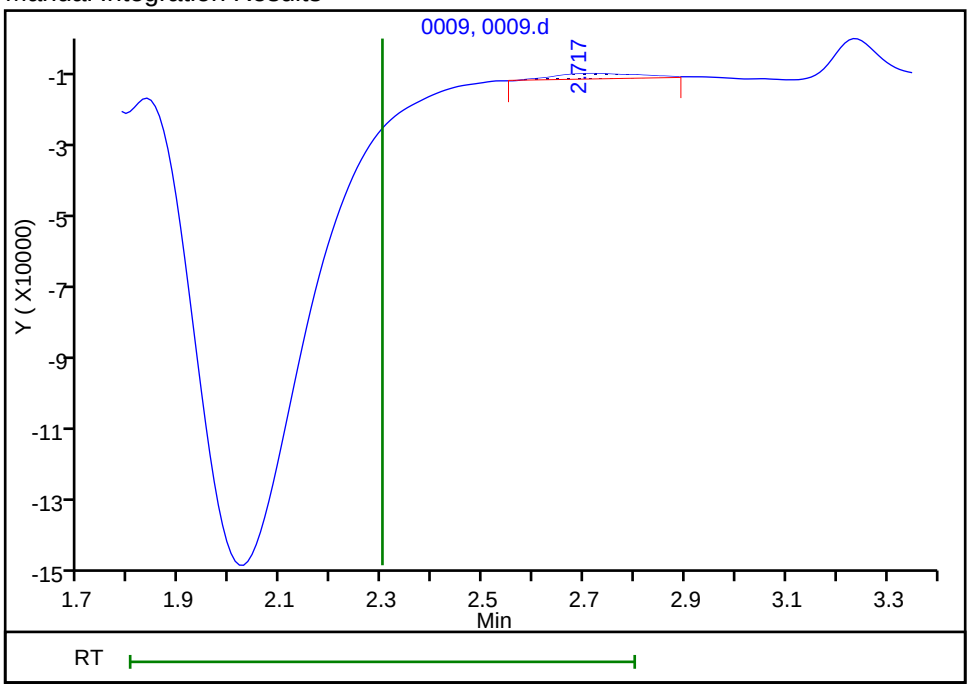
Processing Integration Results

RT: 2.72
Area: 4799643
Amount: 0.507035
Amount Units: ug/ml



Manual Integration Results

RT: 2.72
Area: 15994
Amount: -0.152378
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

458688 | 89

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82040 Inst ID: 11 Analysis Date: 5-18-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123981	1	F Cl NO2 Br NO3 PO4 SO4	5X	cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	20-May-2019 17:55:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 19:06:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:07:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38201029	NC	NC	
2 Chloride	3.534	3.534	0.000	674287788	NC	NC	
3 Nitrite as N	4.267	4.267	0.000	53169677	5.00	5.09	a
4 Bromide	5.151	5.151	0.000	10274306	NC	NC	a
5 Nitrate as N	5.817	5.817	0.000	62307261	5.00	5.40	a
7 Orthophosphate as P	7.592	7.592	0.000	24559806	5.00	5.92	a
6 Sulfate	8.509	8.509	0.000	427452415	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

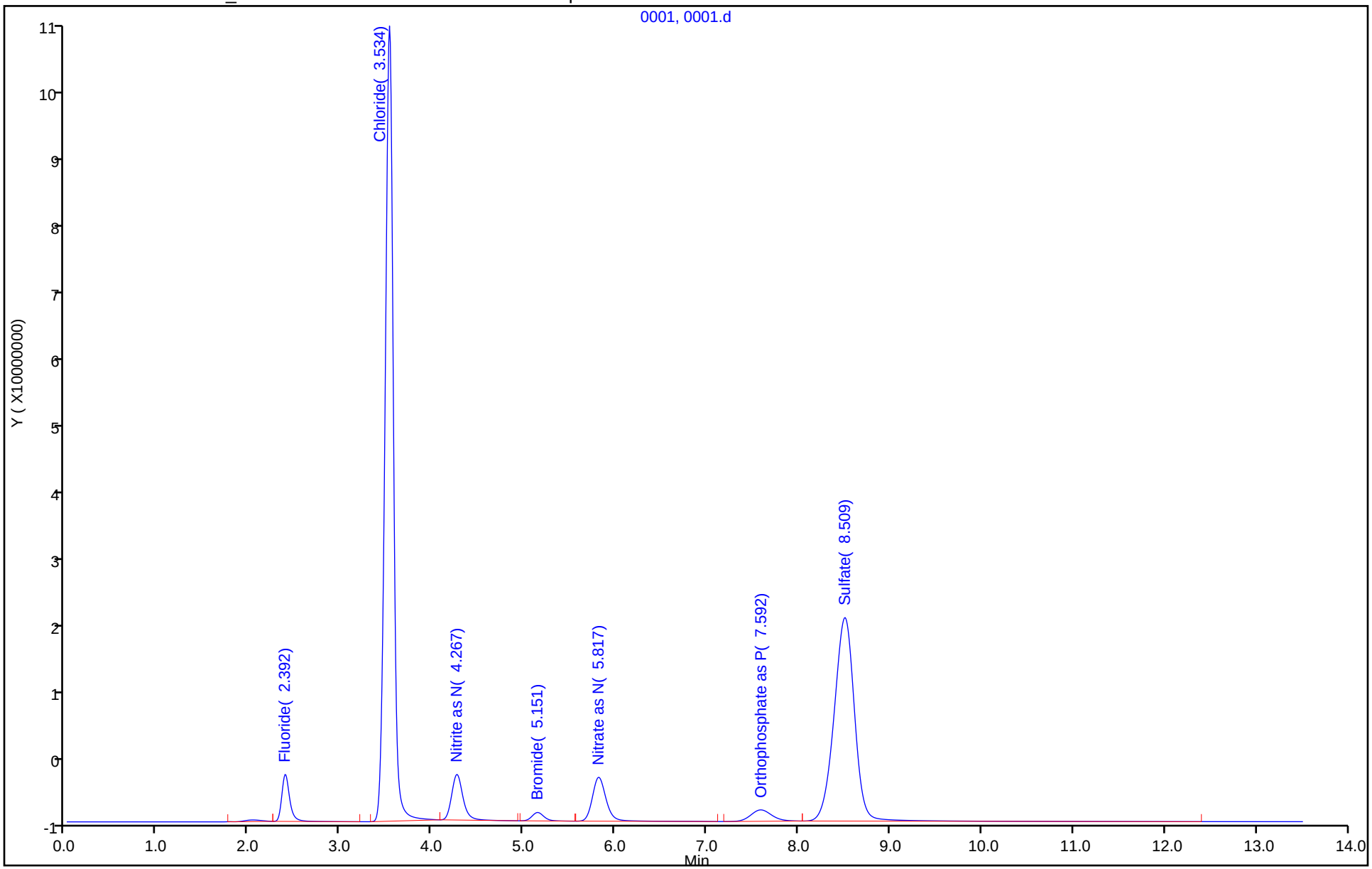
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:33 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d

Injection Date:	18-May-2019 19:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

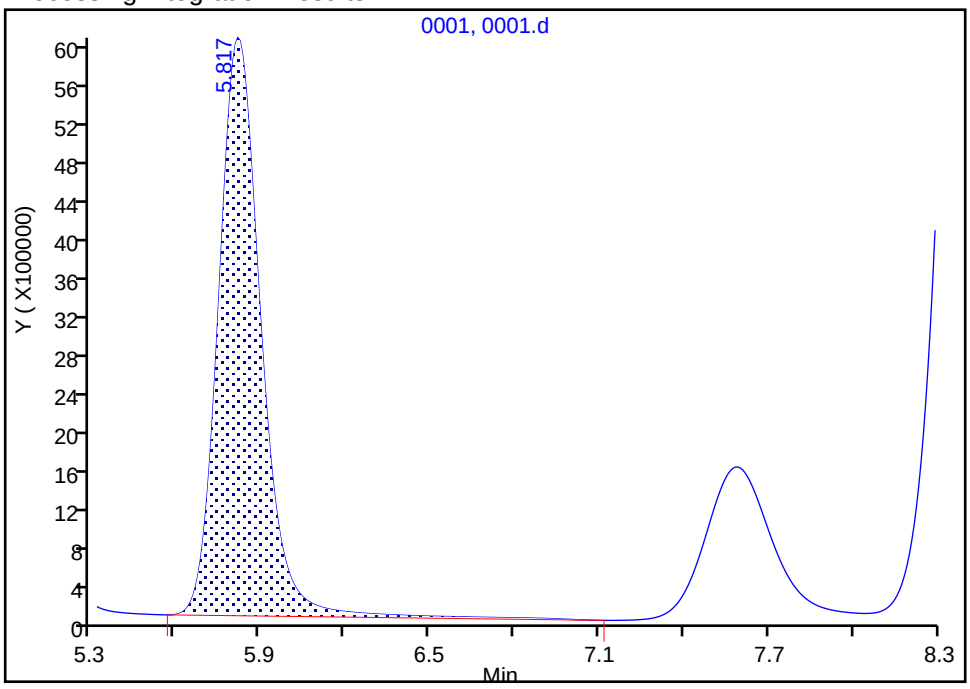
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d				
Injection Date:	18-May-2019 19:06:00	Instrument ID:	WC_IonChrom11		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

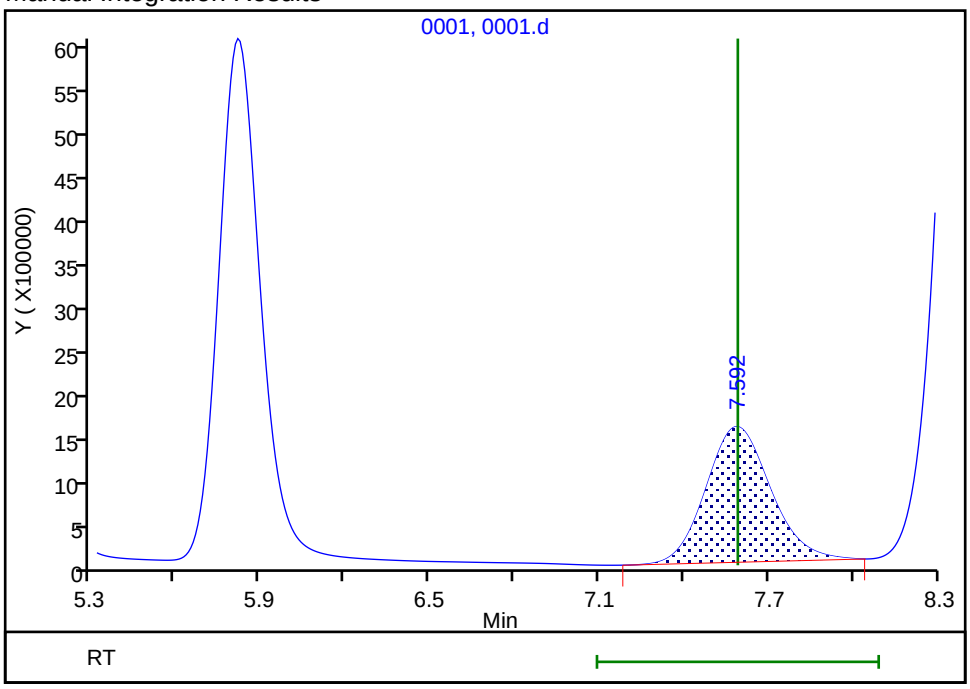
Processing Integration Results

RT: 5.82
Area: 62307261
Amount: 15.034423
Amount Units: ug/ml



Manual Integration Results

RT: 7.59
Area: 24559806
Amount: 5.921388
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:06:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

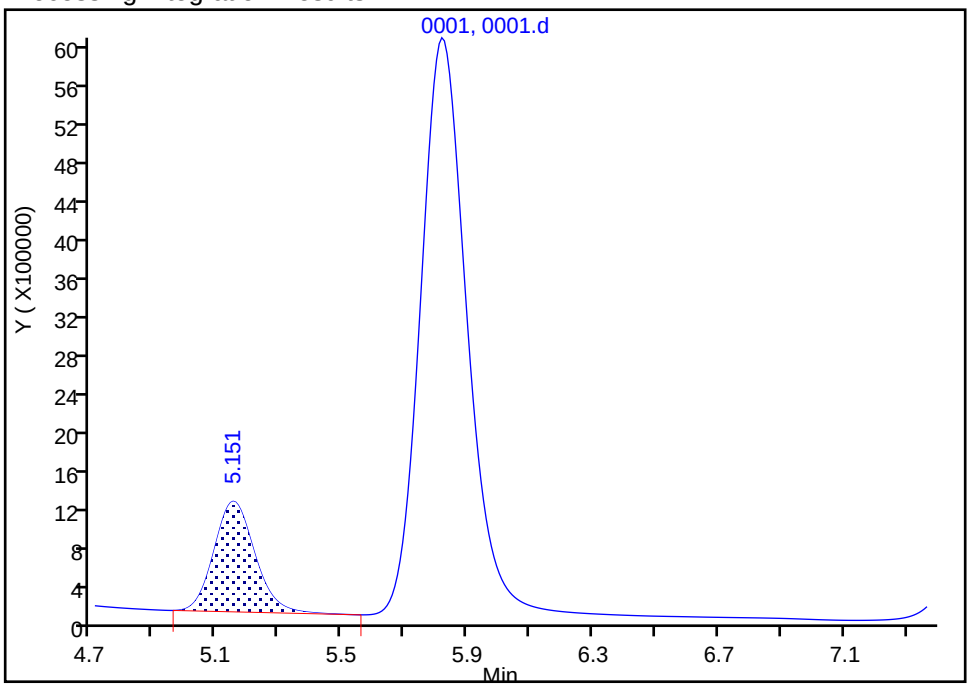
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Injection Date: 18-May-2019 19:06:00 Instrument ID: WC_IonChrom11
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

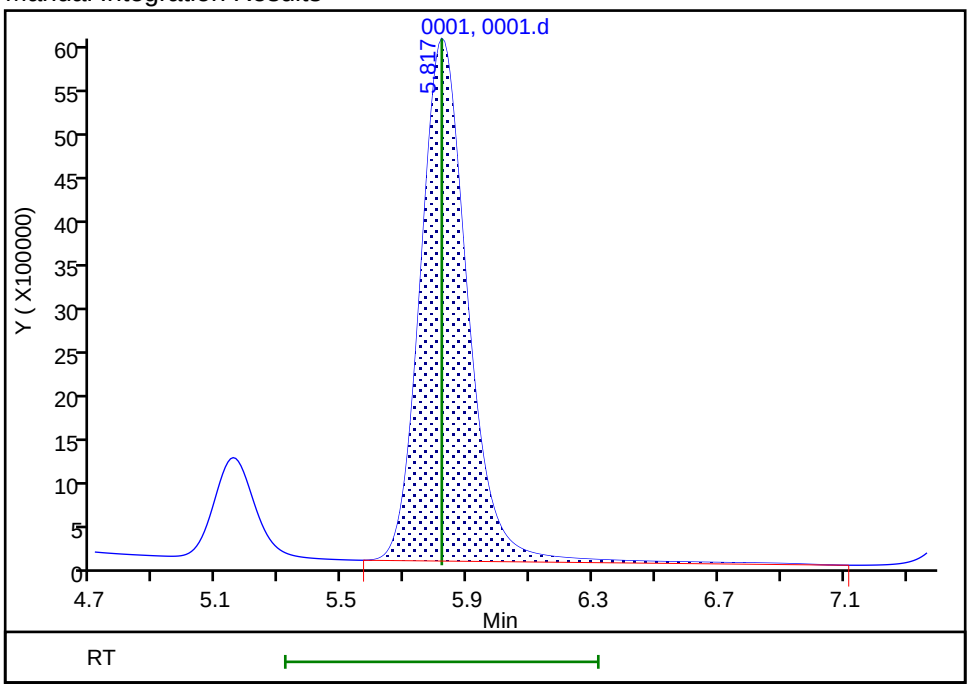
Processing Integration Results

RT: 5.15
Area: 10274306
Amount: 0.922869
Amount Units: ug/ml



Manual Integration Results

RT: 5.82
Area: 62307261
Amount: 5.403042
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:06:21
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

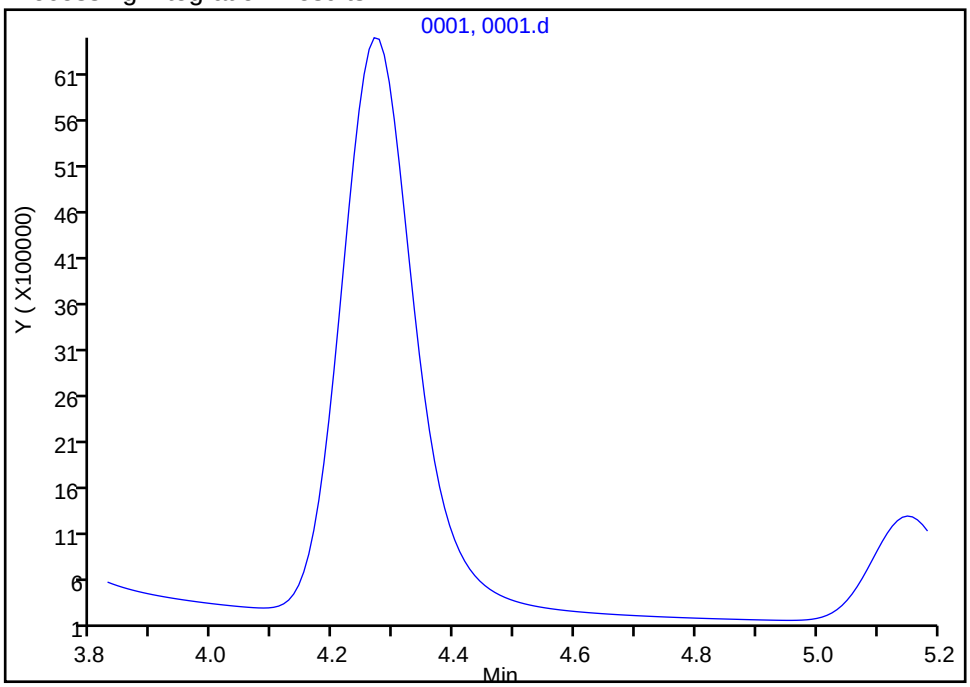
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Injection Date: 18-May-2019 19:06:00 Instrument ID: WC_IonChrom11
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

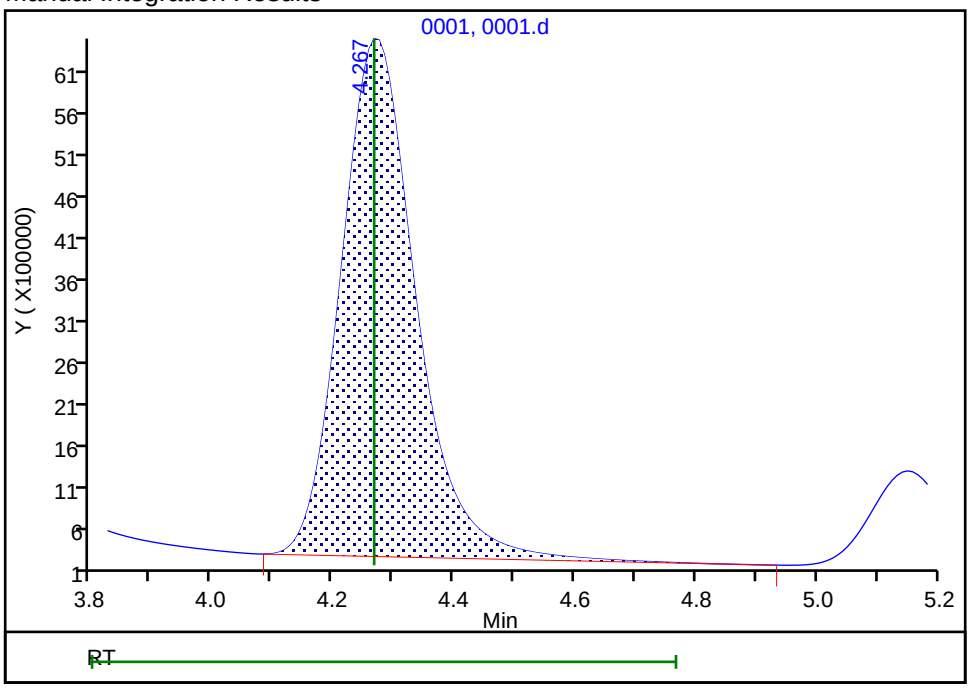
Not Detected
Expected RT: 4.27

Processing Integration Results



Manual Integration Results

RT: 4.27
Area: 53169677
Amount: 5.092832
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:06:27
Audit Action: Assigned Compound ID Audit Reason:

458688 | 89

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82040 Inst ID: 11 Analysis Date: 5-18-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123981	1	F Cl NO2 Br NO3 PO4 SO4	5X	cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 20-May-2019 17:55:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 19:06:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:07:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38201029	5.00	5.11	
2 Chloride	3.534	3.534	0.000	674287788	100.0	100.9	
3 Nitrite as N	4.267	4.267	0.000	53169677	NC	NC	a
4 Bromide	5.151	5.151	0.000	10274306	5.00	5.31	a
5 Nitrate as N	5.817	5.817	0.000	62307261	NC	NC	a
7 Orthophosphate as P	7.592	7.592	0.000	24559806	NC	NC	a
6 Sulfate	8.509	8.509	0.000	427452415	100.0	96.0	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

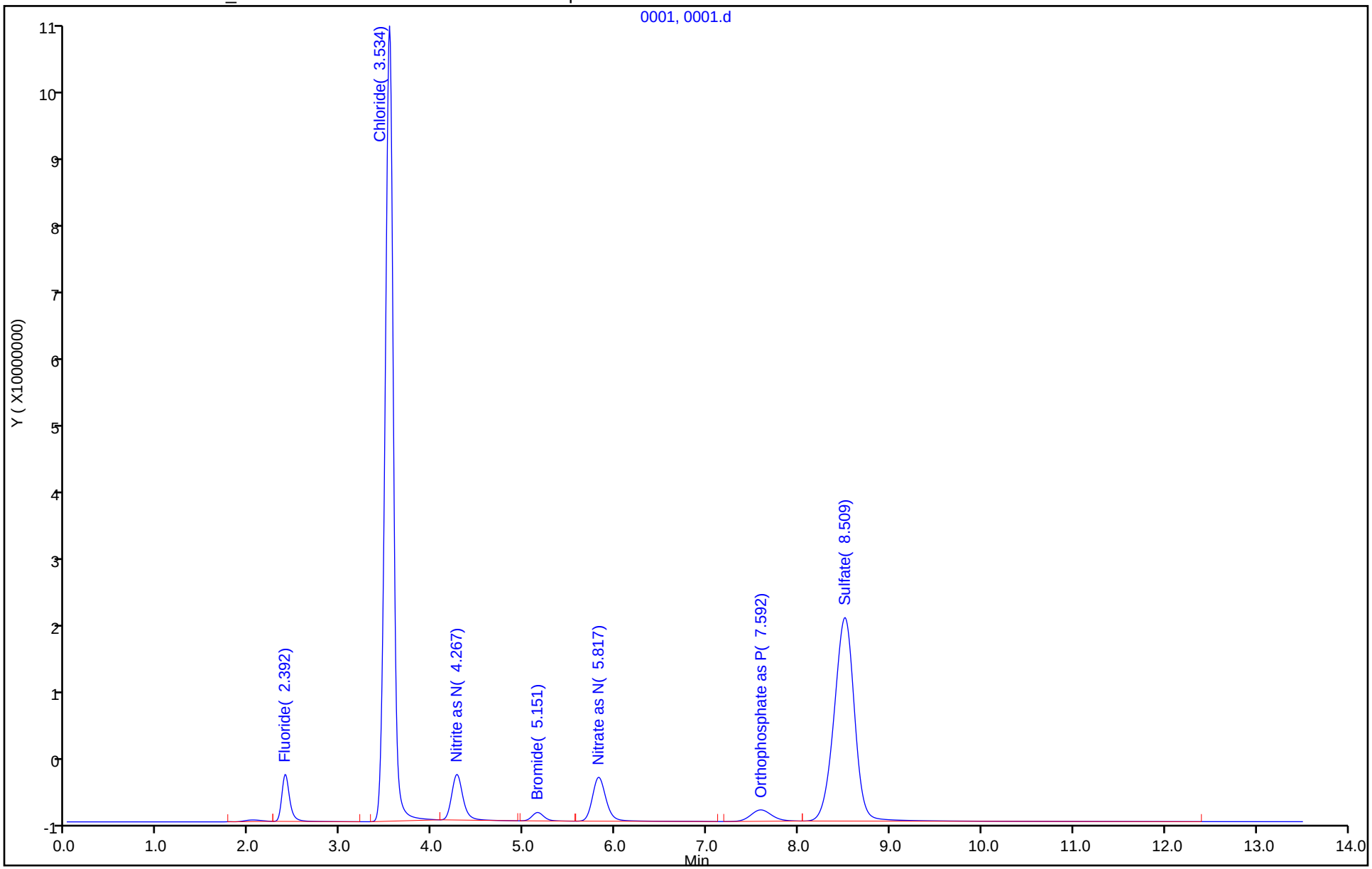
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:33 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d

Injection Date:	18-May-2019 19:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

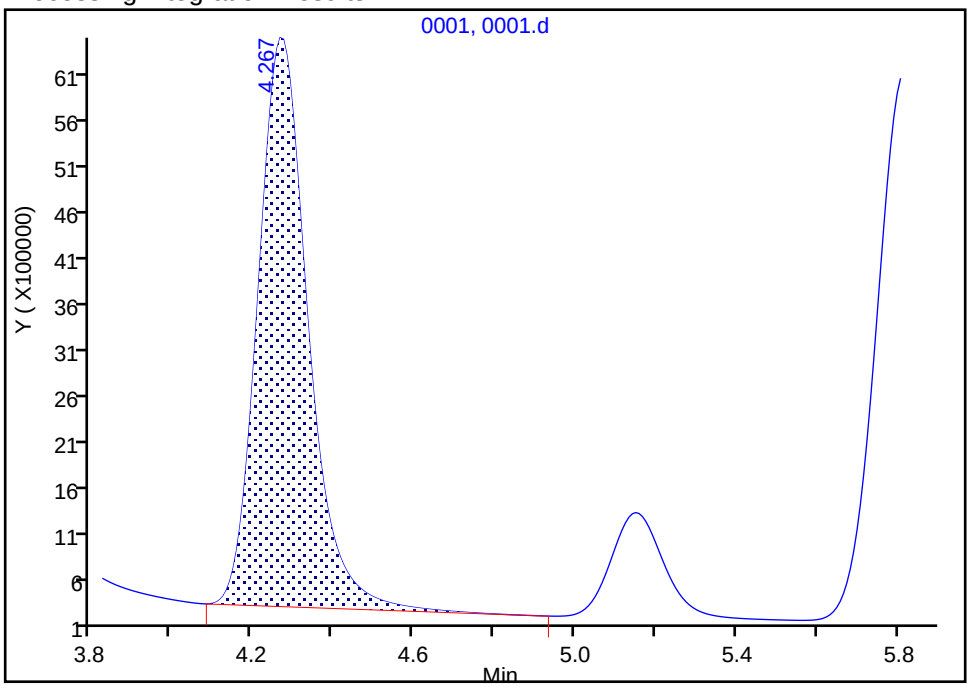
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Injection Date: 18-May-2019 19:06:00 Instrument ID: WC_IonChrom11
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

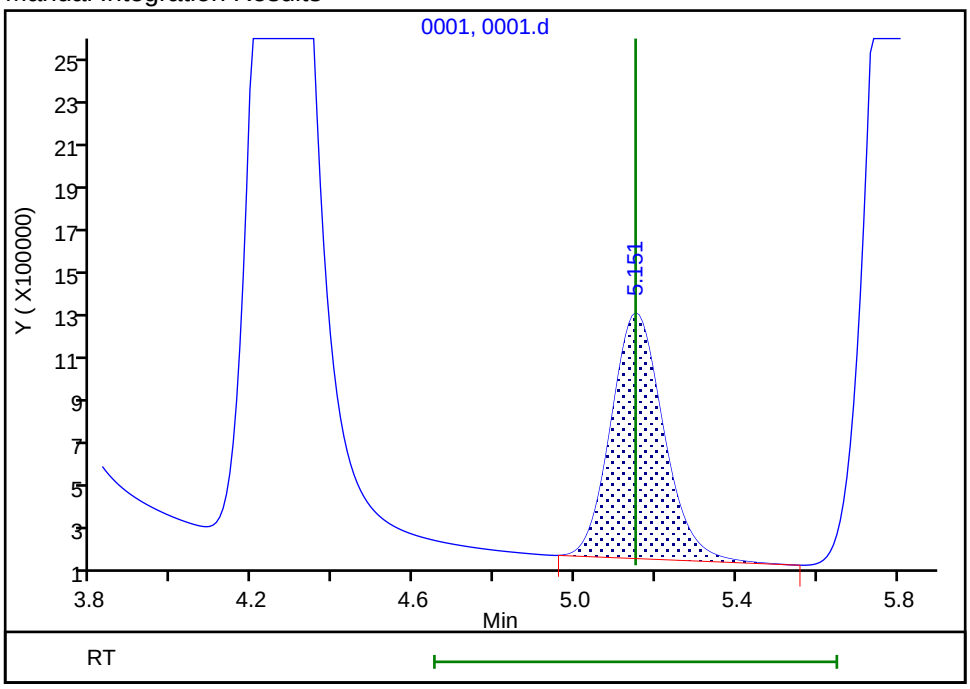
Processing Integration Results

RT: 4.27
Area: 53169677
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.15
Area: 10274306
Amount: 5.306323
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:07:05
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

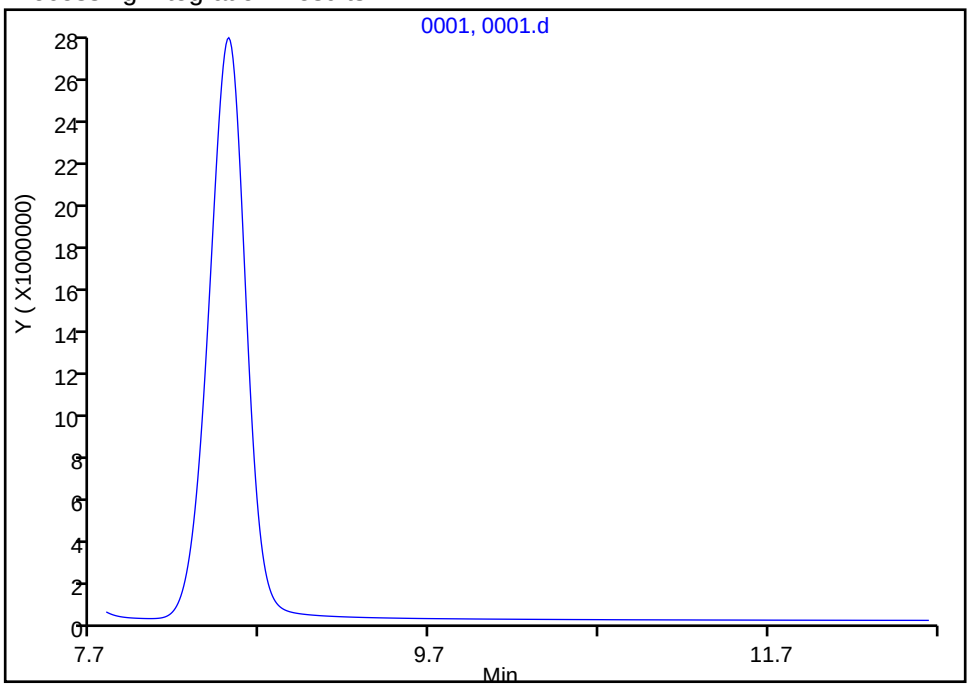
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Injection Date: 18-May-2019 19:06:00 Instrument ID: WC_IonChrom11
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

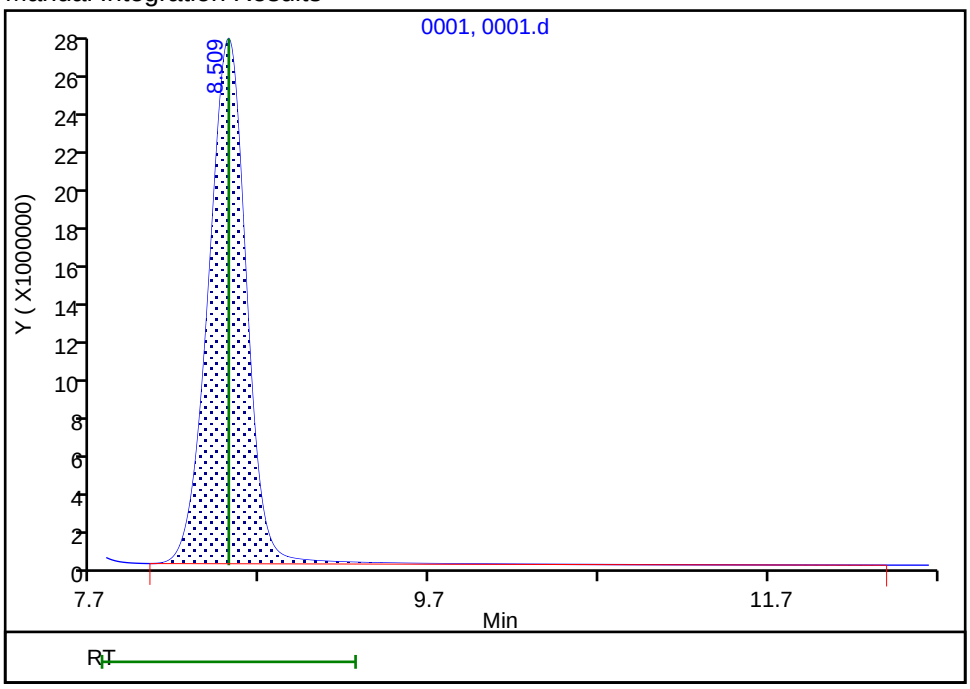
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.51
Area: 427452415
Amount: 96.011454
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:07:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0002.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	18-May-2019 19:23:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082040-002				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	21-May-2019 16:33:32	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0330				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.392	-0.350	485712		NC	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate		8.509				ND	

QC Flag Legend

Processing Flags

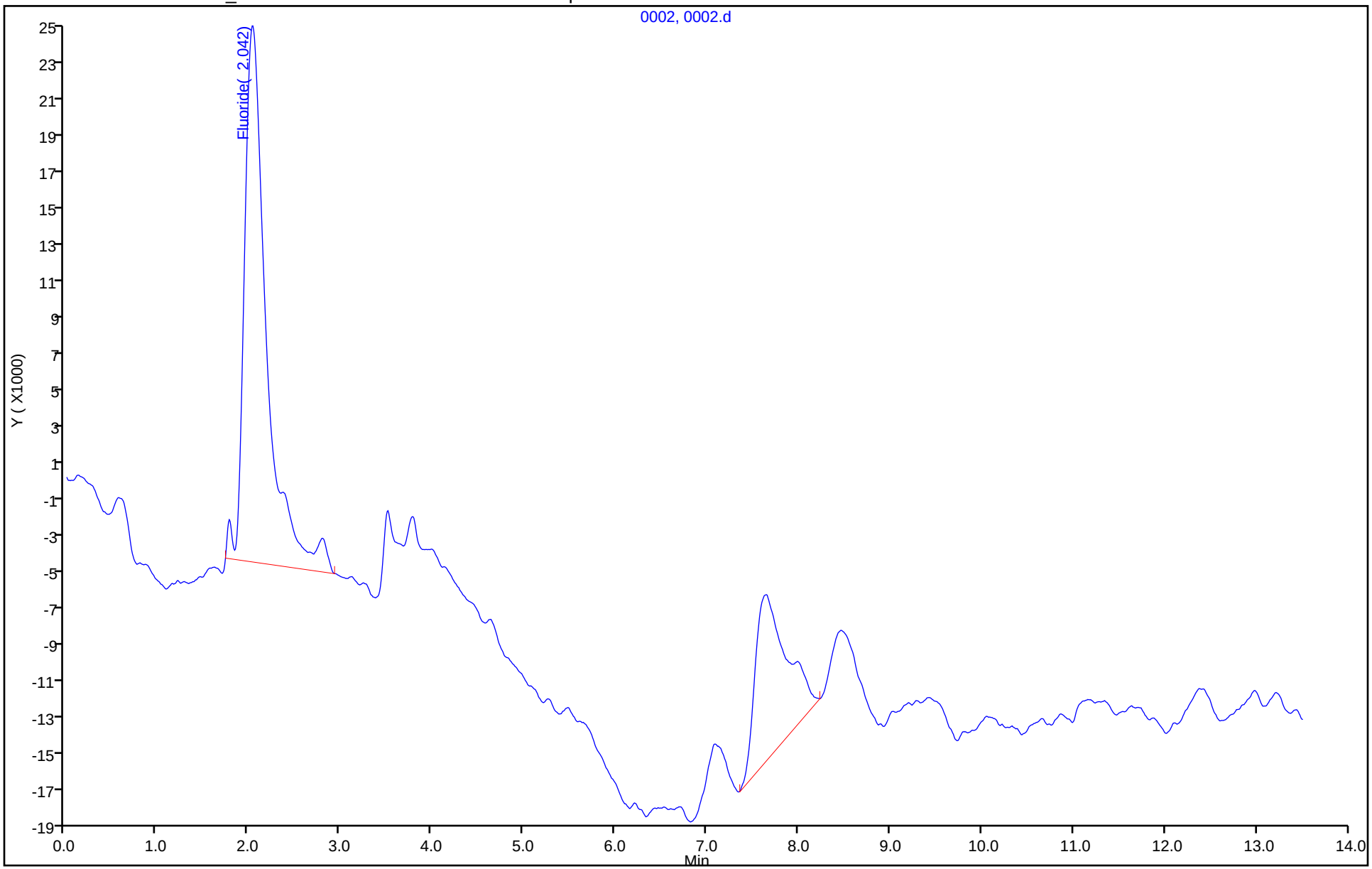
NC - Not Calibrated

Report Date: 21-May-2019 16:33:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0002.d

Injection Date:	18-May-2019 19:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 19:23:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

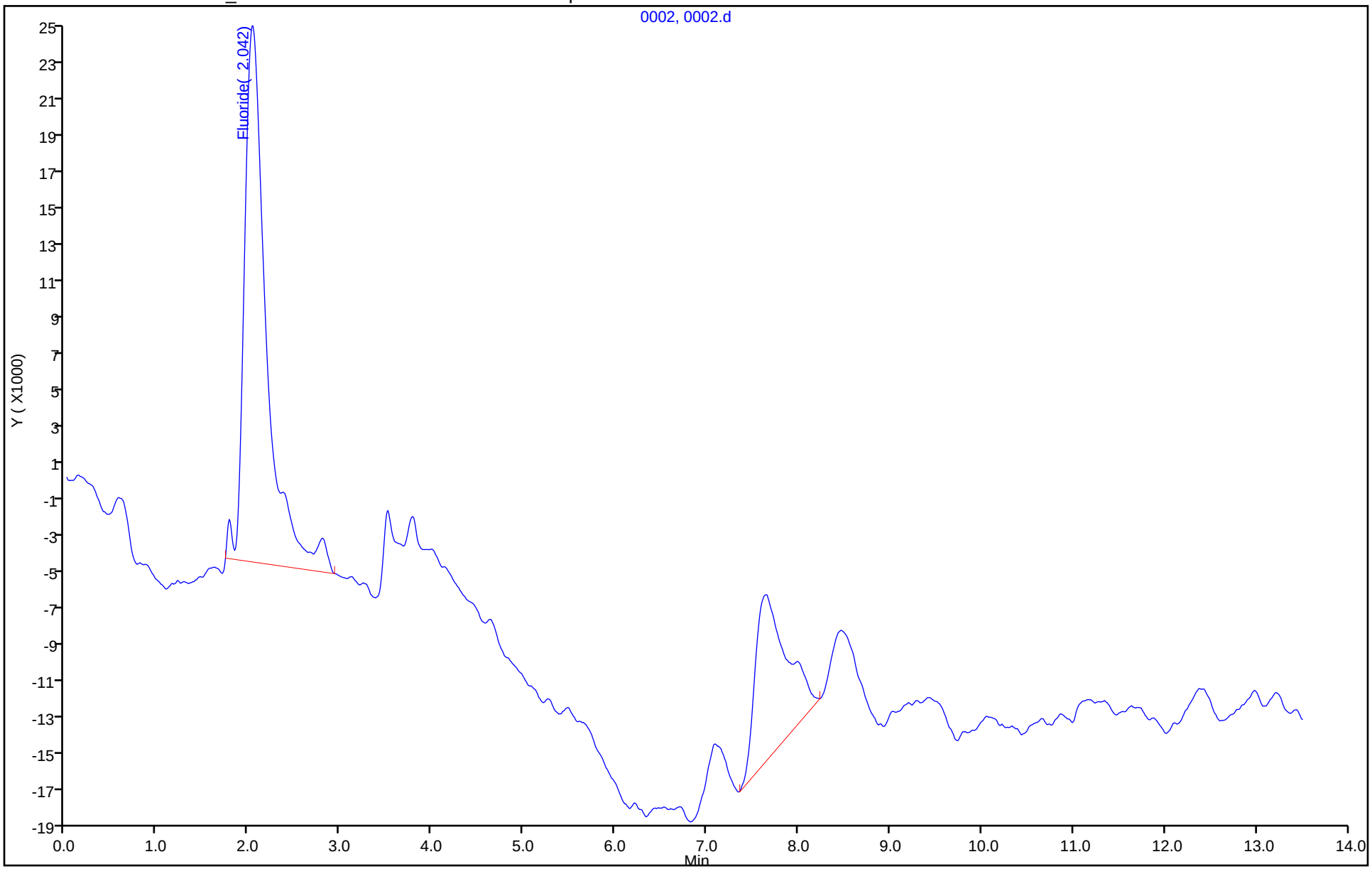
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.392	-0.350	485712		-0.0876	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate		8.509				ND	

Report Date: 21-May-2019 16:33:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0002.d

Injection Date:	18-May-2019 19:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 18-May-2019 19:39:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:09:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	1420096	NC	NC	a
2 Chloride	3.500	3.534	-0.034	11422875	NC	NC	
3 Nitrite as N	4.259	4.267	-0.008	2059576	0.2000	0.2215	a
4 Bromide	5.150	5.151	-0.001	400598	NC	NC	a
5 Nitrate as N	5.825	5.817	0.008	2279138	0.2000	0.2345	a
7 Orthophosphate as P	7.600	7.592	0.008	1034382	0.2000	0.2419	a
6 Sulfate	8.450	8.509	-0.059	8486633	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

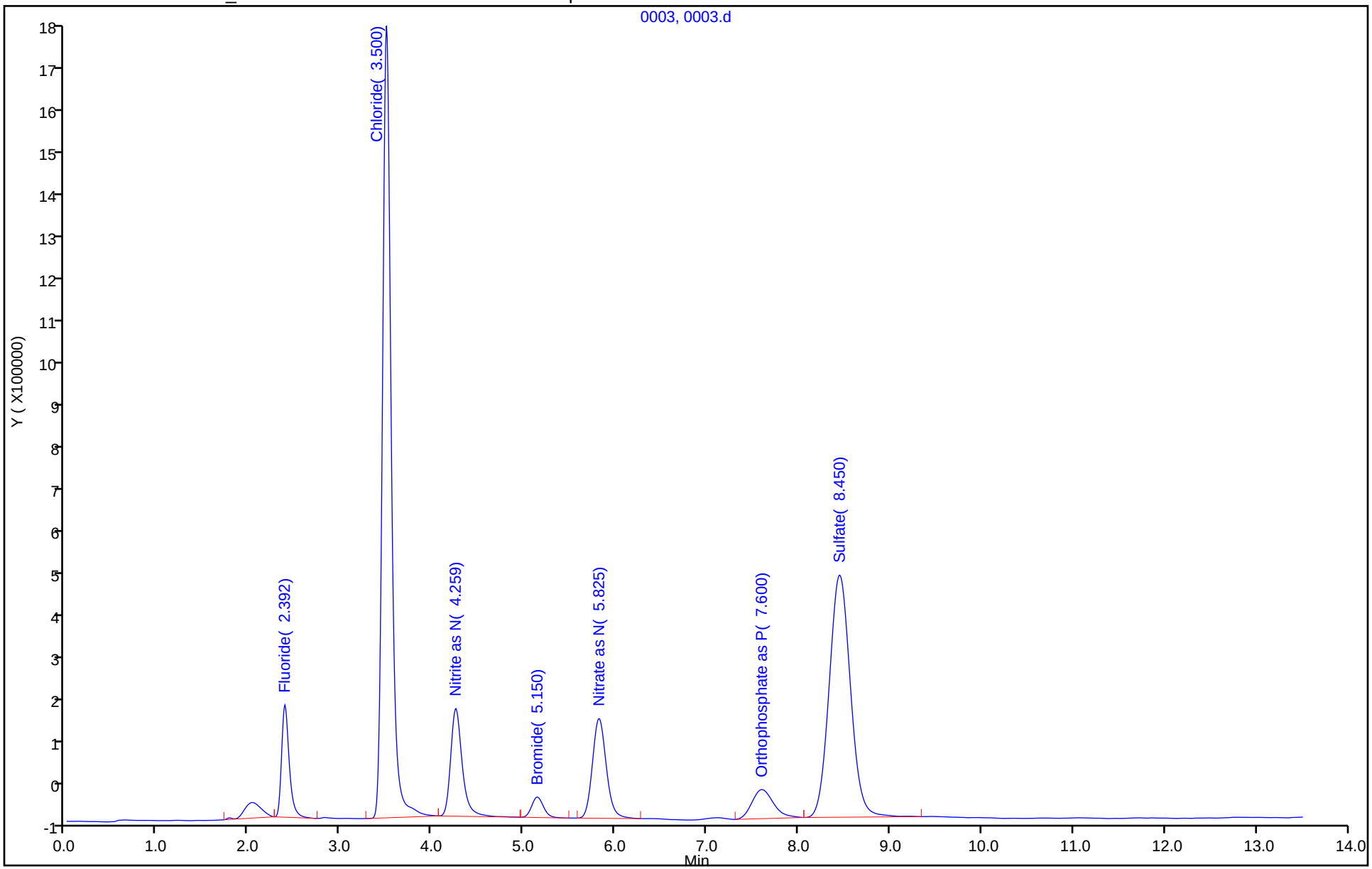
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 21-May-2019 16:33:37 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d

Injection Date:	18-May-2019 19:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

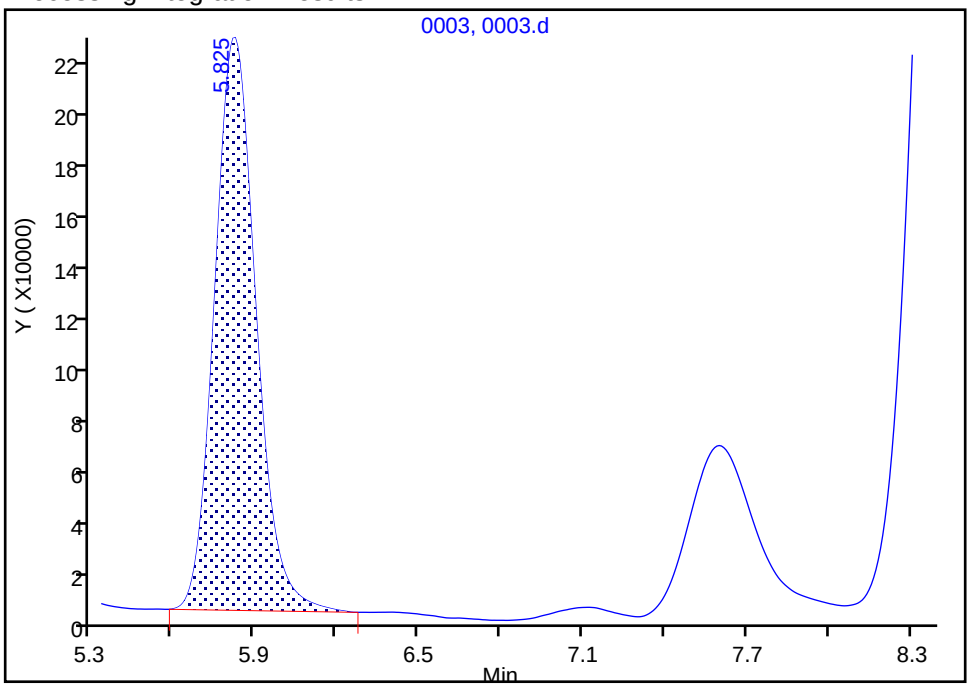
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

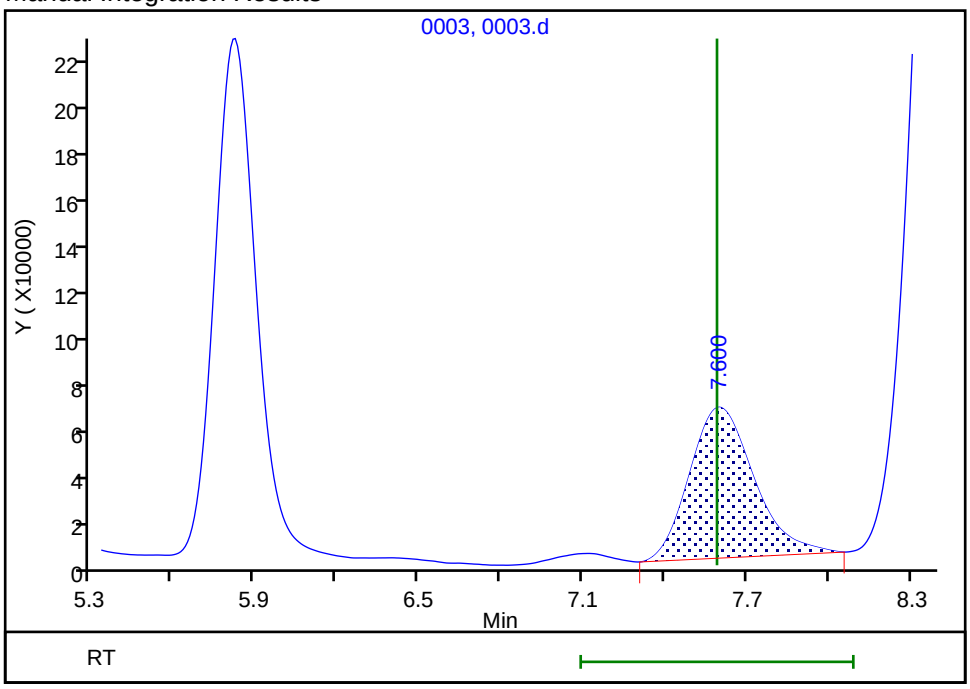
Processing Integration Results

RT: 5.83
Area: 2279138
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 7.60
Area: 1034382
Amount: 0.241852
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:54
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

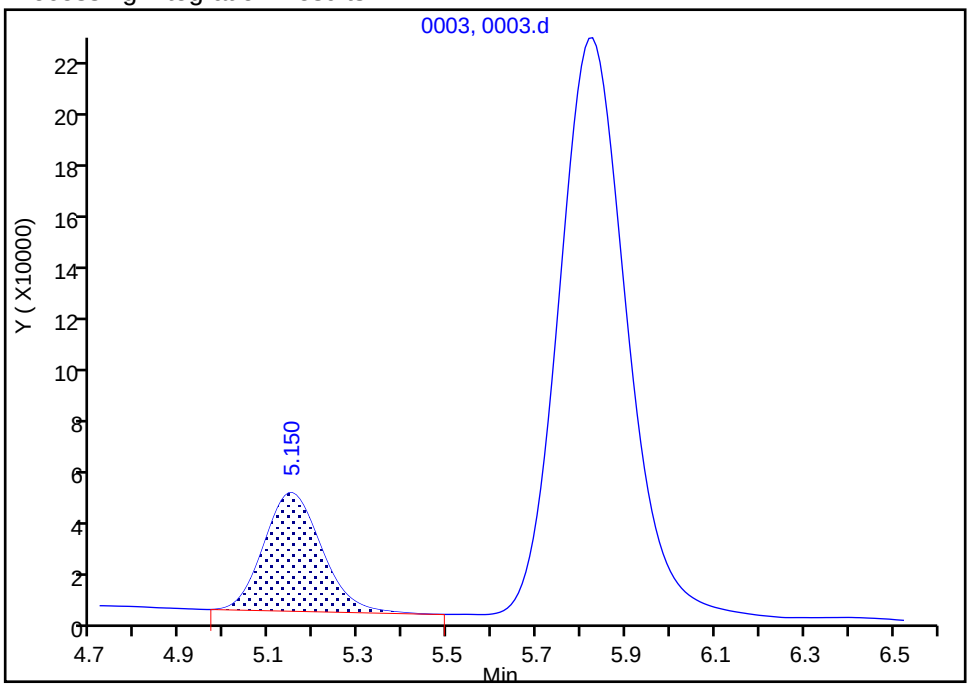
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

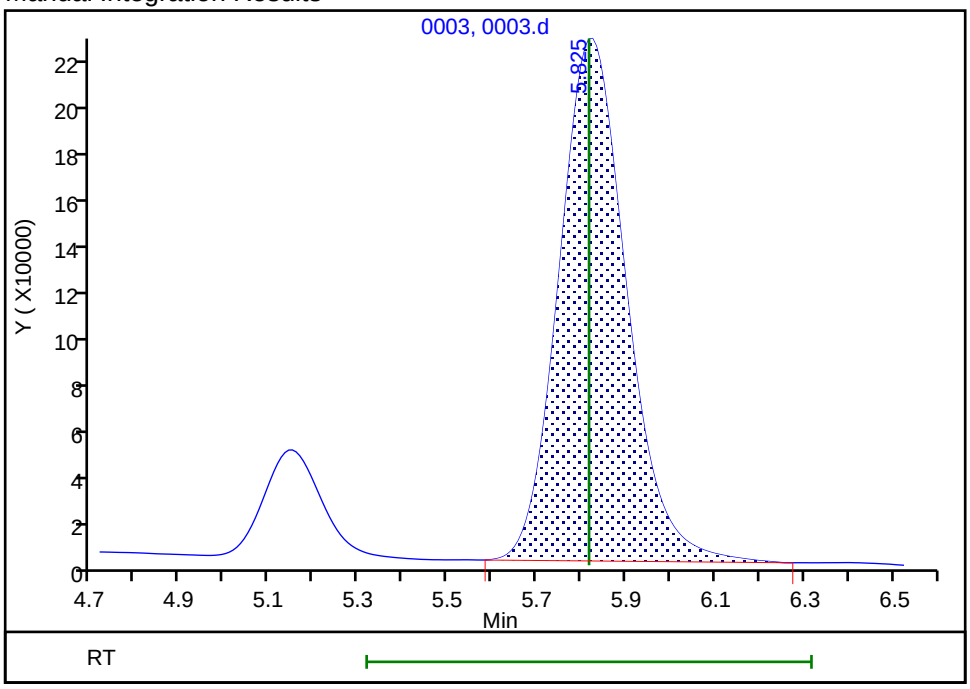
Processing Integration Results

RT: 5.15
Area: 400598
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.83
Area: 2279138
Amount: 0.234464
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:48
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

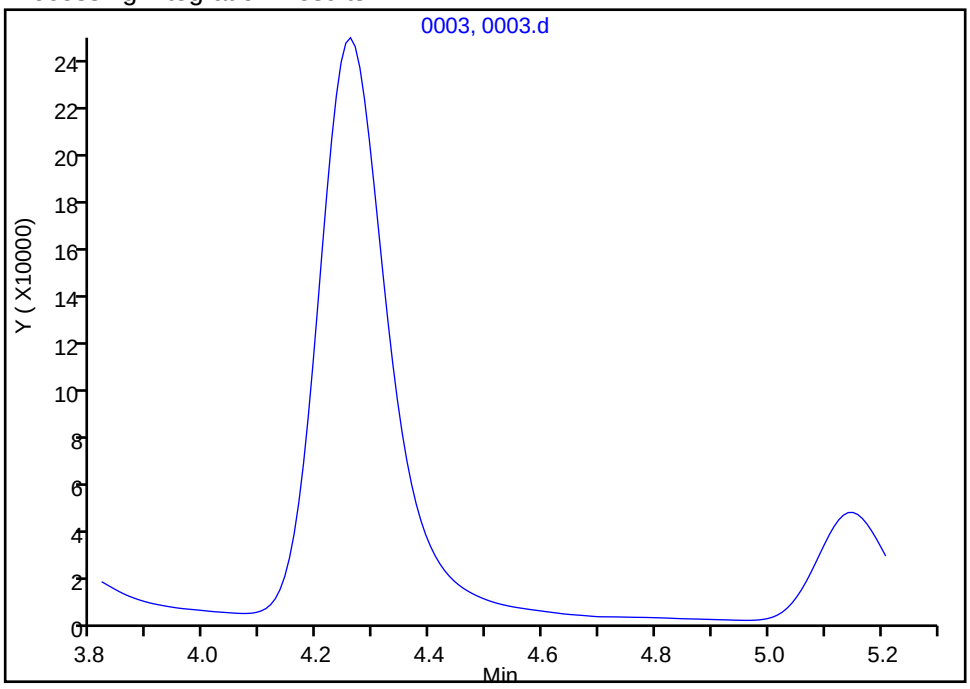
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

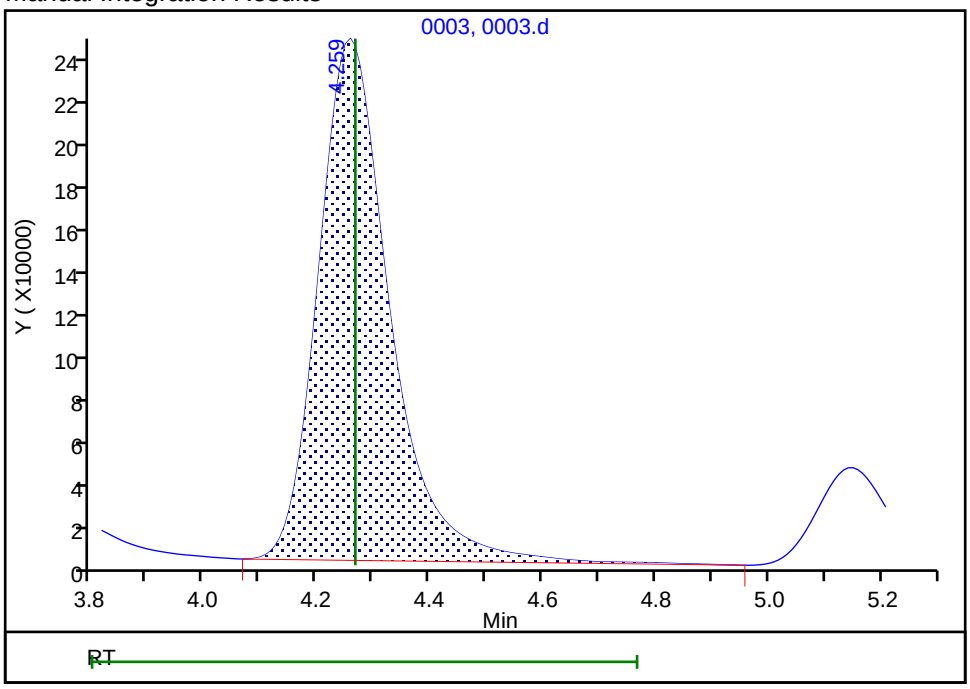
Not Detected
Expected RT: 4.27

Processing Integration Results



Manual Integration Results

RT: 4.26
Area: 2059576
Amount: 0.221473
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:41
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 18-May-2019 19:39:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:09:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	1420096	0.2000	0.0412	a
2 Chloride	3.500	3.534	-0.034	11422875	2.50	2.32	
3 Nitrite as N	4.259	4.267	-0.008	2059576	NC	NC	a
4 Bromide	5.150	5.151	-0.001	400598	0.2000	0.2142	a
5 Nitrate as N	5.825	5.817	0.008	2279138	NC	NC	a
7 Orthophosphate as P	7.600	7.592	0.008	1034382	NC	NC	a
6 Sulfate	8.450	8.509	-0.059	8486633	2.50	2.33	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

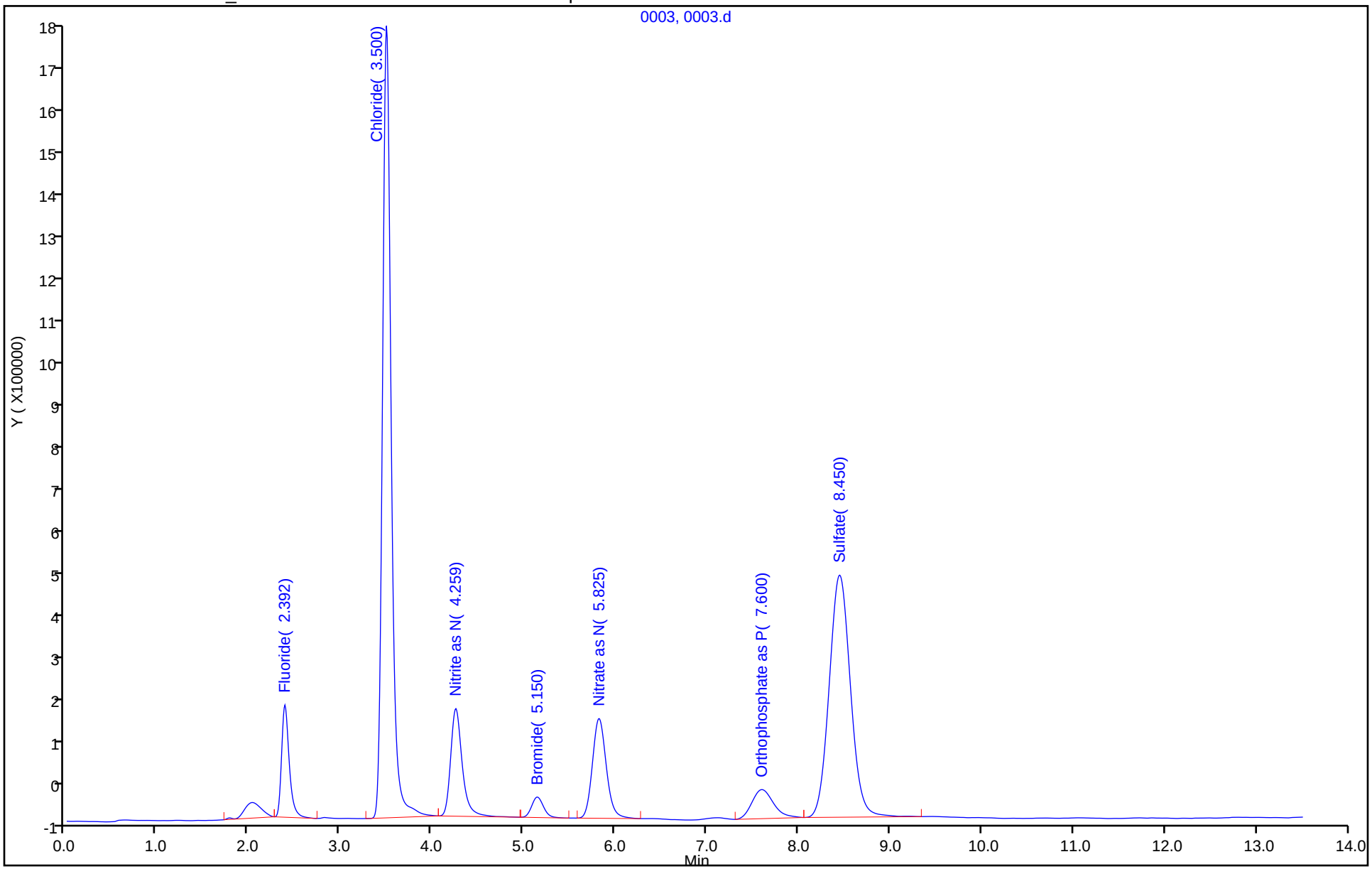
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 21-May-2019 16:33:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d

Injection Date:	18-May-2019 19:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

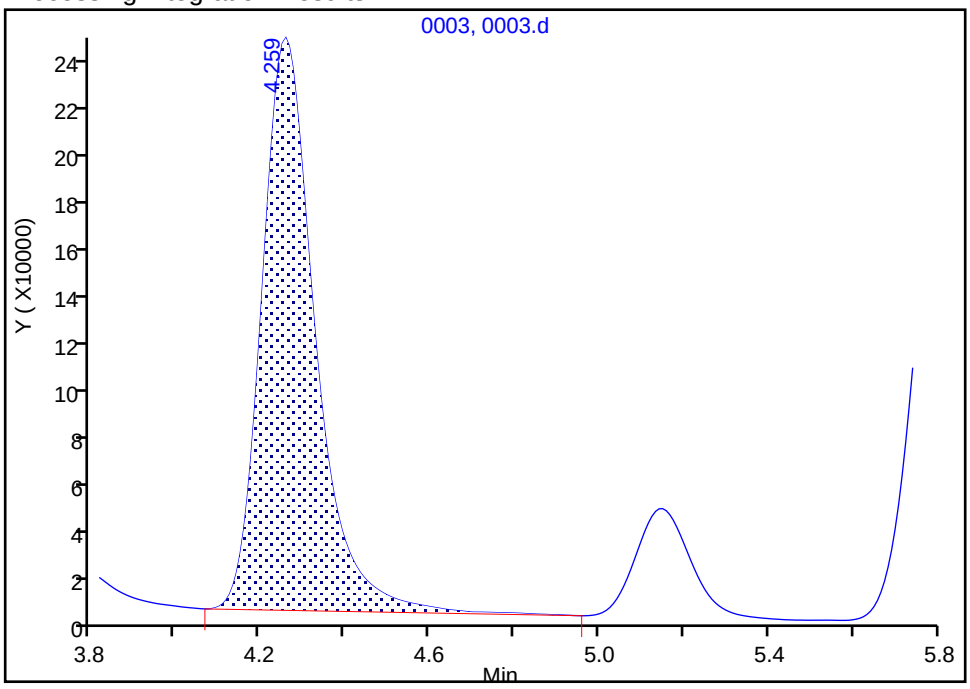
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

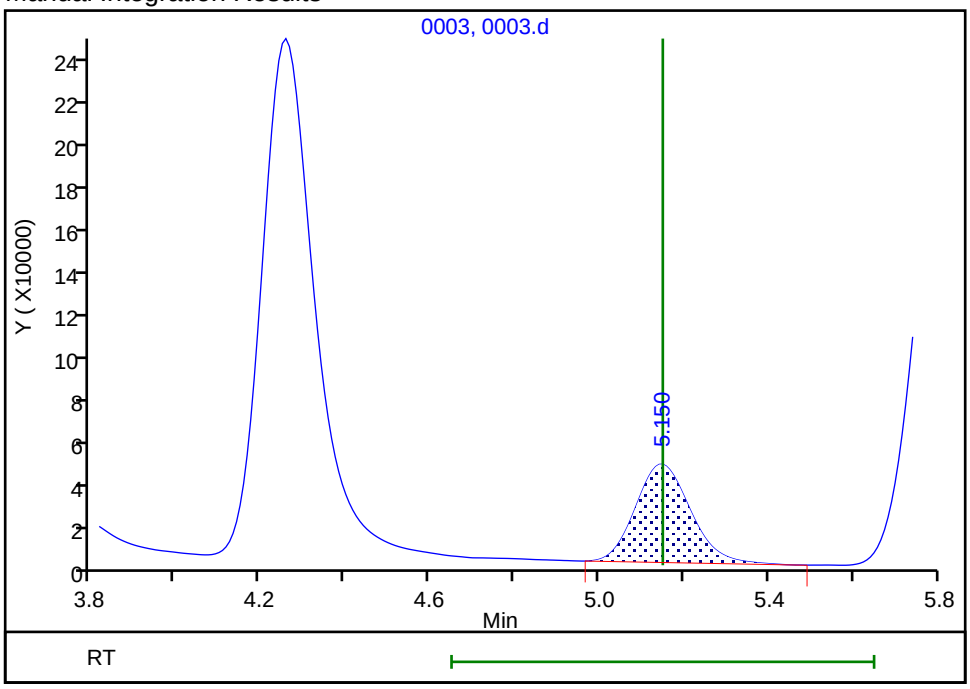
Processing Integration Results

RT: 4.26
Area: 2059576
Amount: 1.069813
Amount Units: ug/ml



Manual Integration Results

RT: 5.15
Area: 400598
Amount: 0.214243
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:08
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

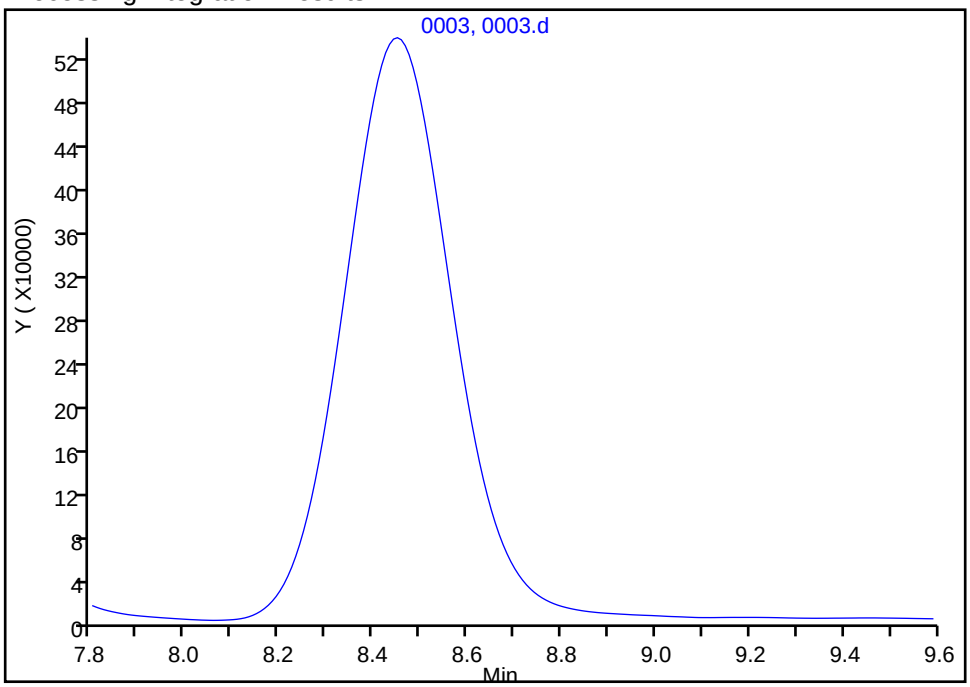
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

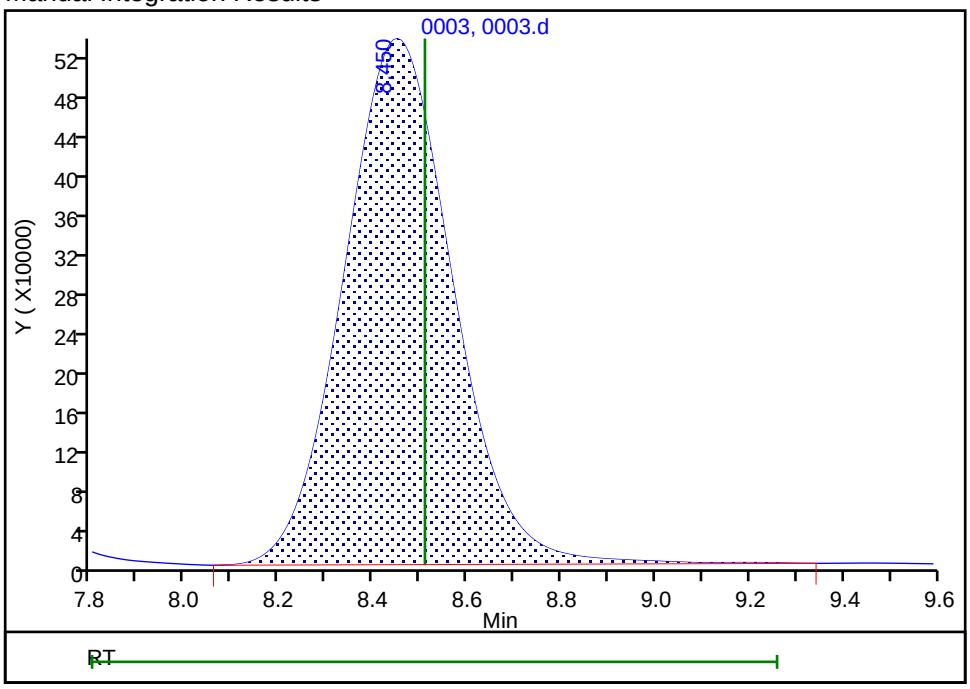
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.45
Area: 8486633
Amount: 2.334822
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:00
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-May-2019 19:56:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:32:35

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38230318	NC	NC	
2 Chloride	3.525	3.534	-0.009	673806057	NC	NC	
3 Nitrite as N	4.267	4.267	0.000	53245233	5.00	5.10	a
4 Bromide	5.142	5.151	-0.009	10295308	NC	NC	a
5 Nitrate as N	5.809	5.817	-0.008	62226380	5.00	5.40	a
7 Orthophosphate as P	7.584	7.592	-0.008	24659893	5.00	5.95	a
6 Sulfate	8.500	8.509	-0.009	428290582	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

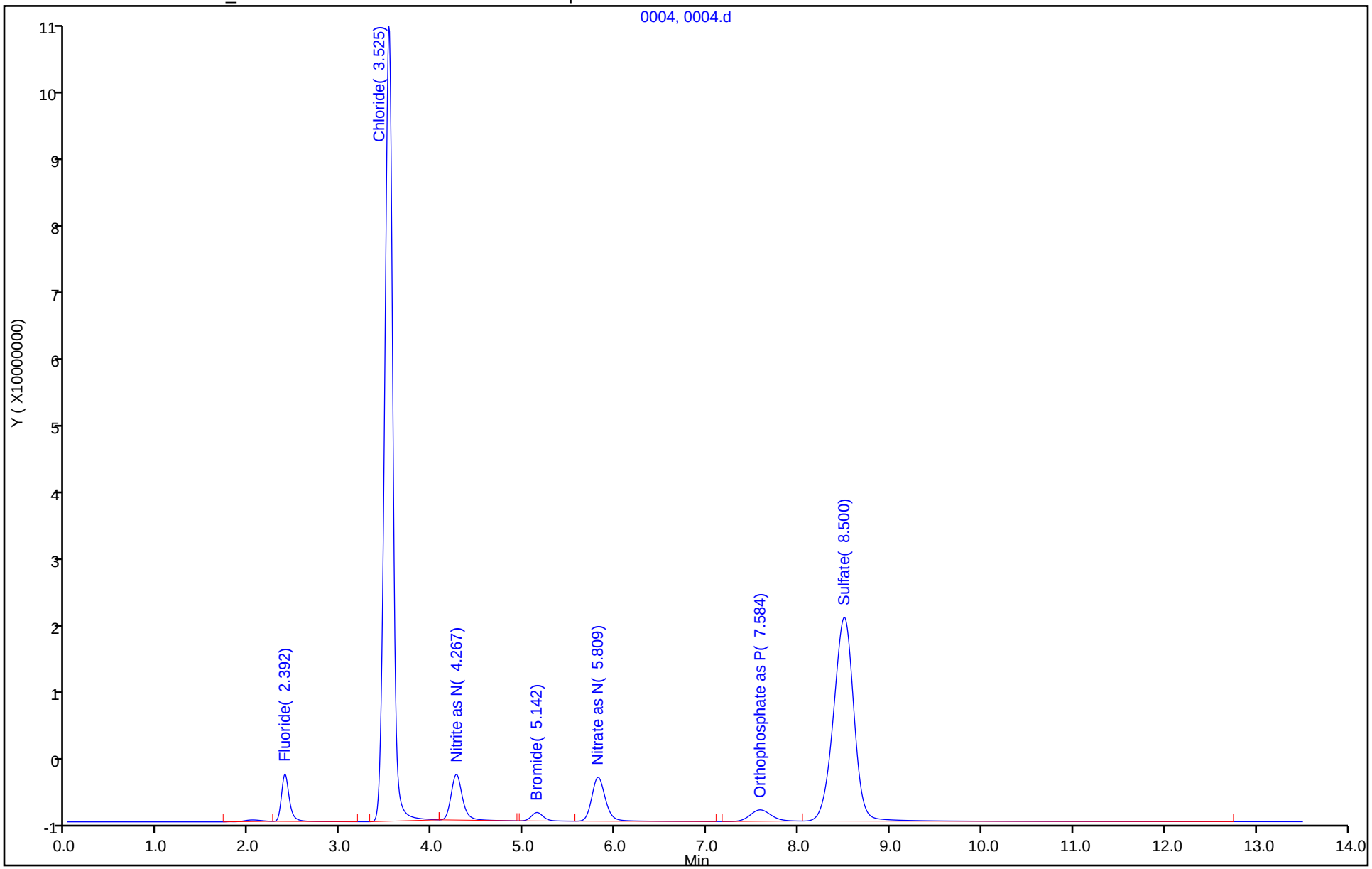
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d

Injection Date:	18-May-2019 19:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

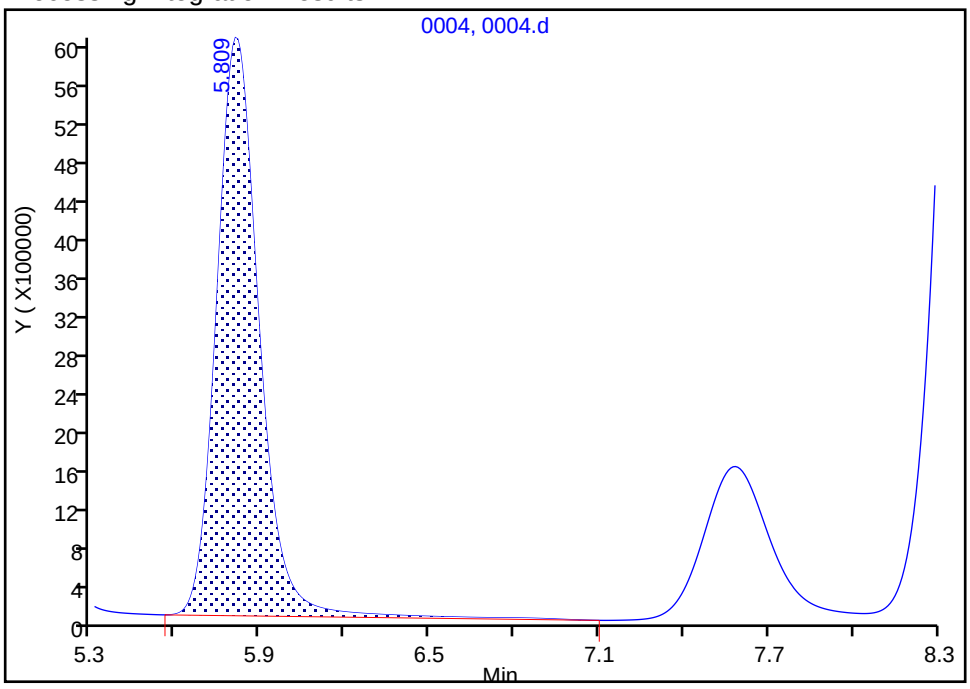
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

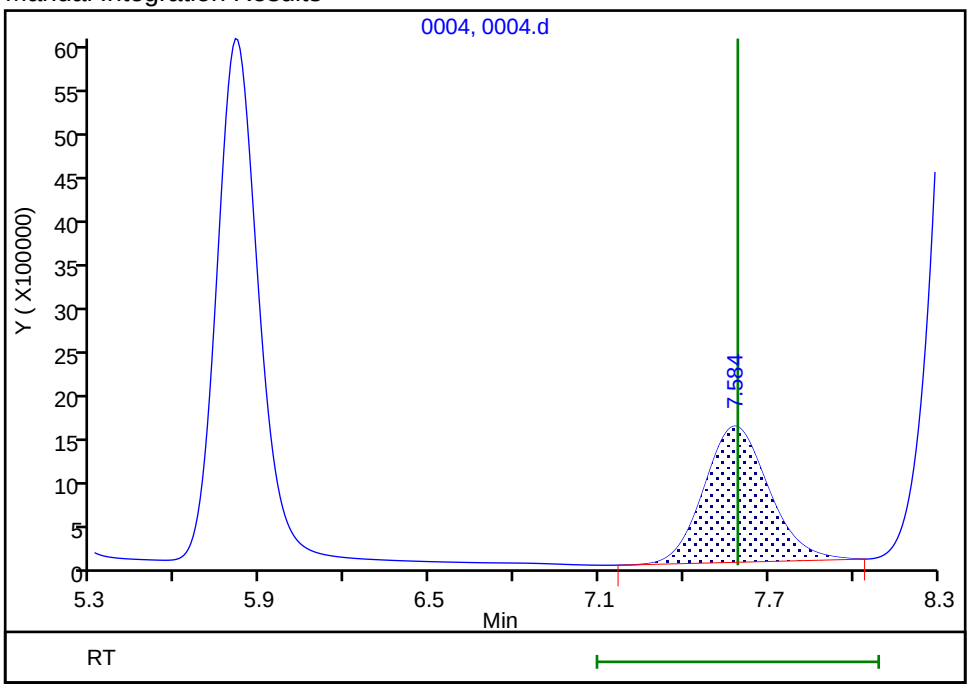
Processing Integration Results

RT: 5.81
Area: 62226380
Amount: 15.014897
Amount Units: ug/ml



Manual Integration Results

RT: 7.58
Area: 24659893
Amount: 5.945551
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:31:45
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

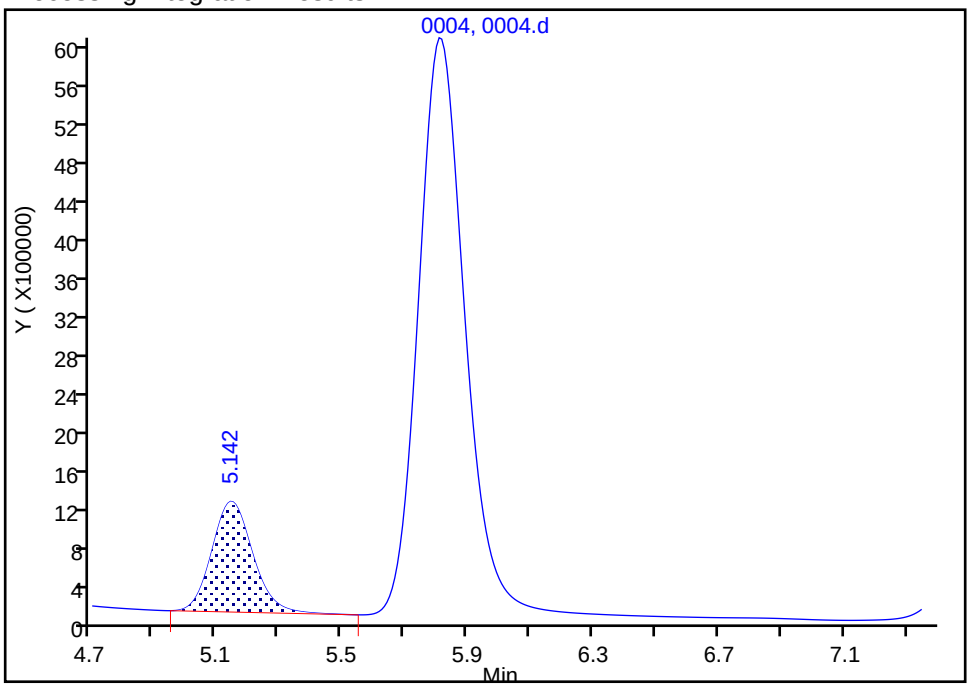
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

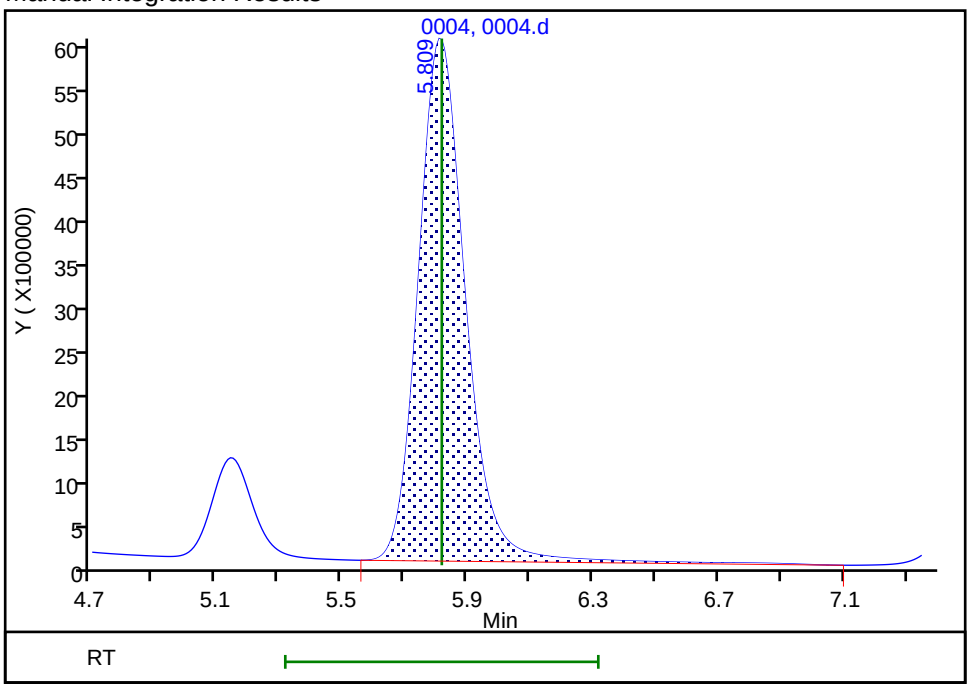
Processing Integration Results

RT: 5.14
Area: 10295308
Amount: 0.924677
Amount Units: ug/ml



Manual Integration Results

RT: 5.81
Area: 62226380
Amount: 5.396078
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:09
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

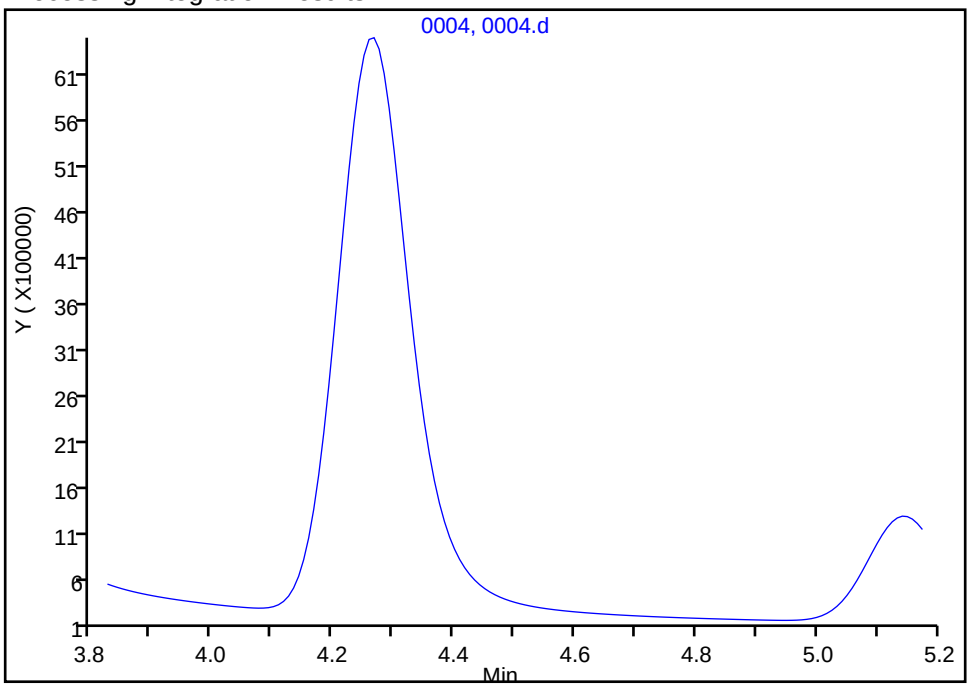
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

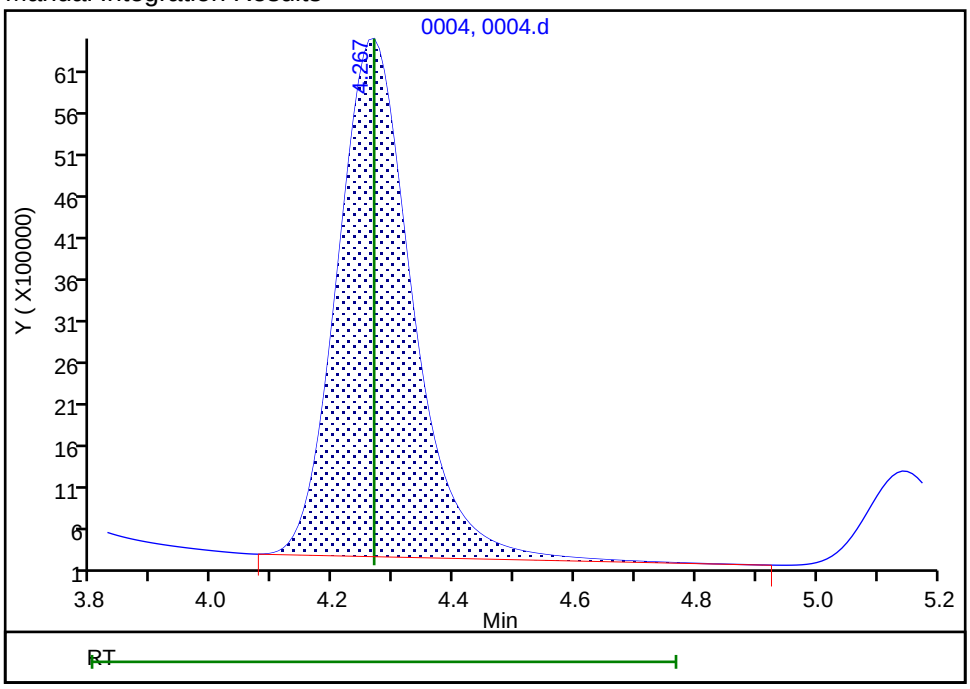
Not Detected
Expected RT: 4.27

Processing Integration Results



Manual Integration Results

RT: 4.27
Area: 53245233
Amount: 5.100033
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:03
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-May-2019 19:56:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:32:35

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38230318	5.00	5.12	
2 Chloride	3.525	3.534	-0.009	673806057	100.0	100.8	
3 Nitrite as N	4.267	4.267	0.000	53245233	NC	NC	a
4 Bromide	5.142	5.151	-0.009	10295308	5.00	5.32	a
5 Nitrate as N	5.809	5.817	-0.008	62226380	NC	NC	a
7 Orthophosphate as P	7.584	7.592	-0.008	24659893	NC	NC	a
6 Sulfate	8.500	8.509	-0.009	428290582	100.0	96.2	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

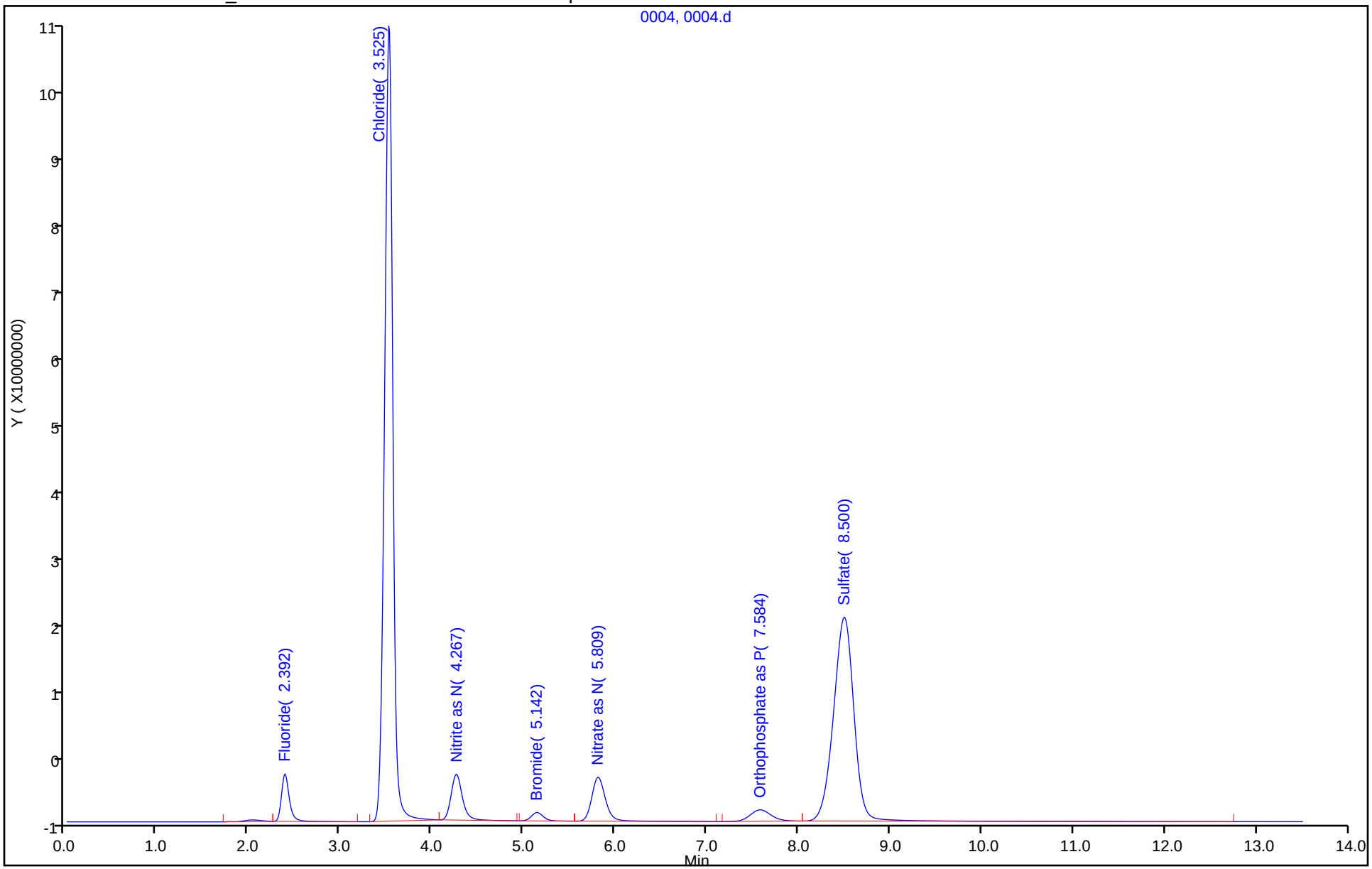
Reagents:

IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d				
Injection Date:	18-May-2019 19:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

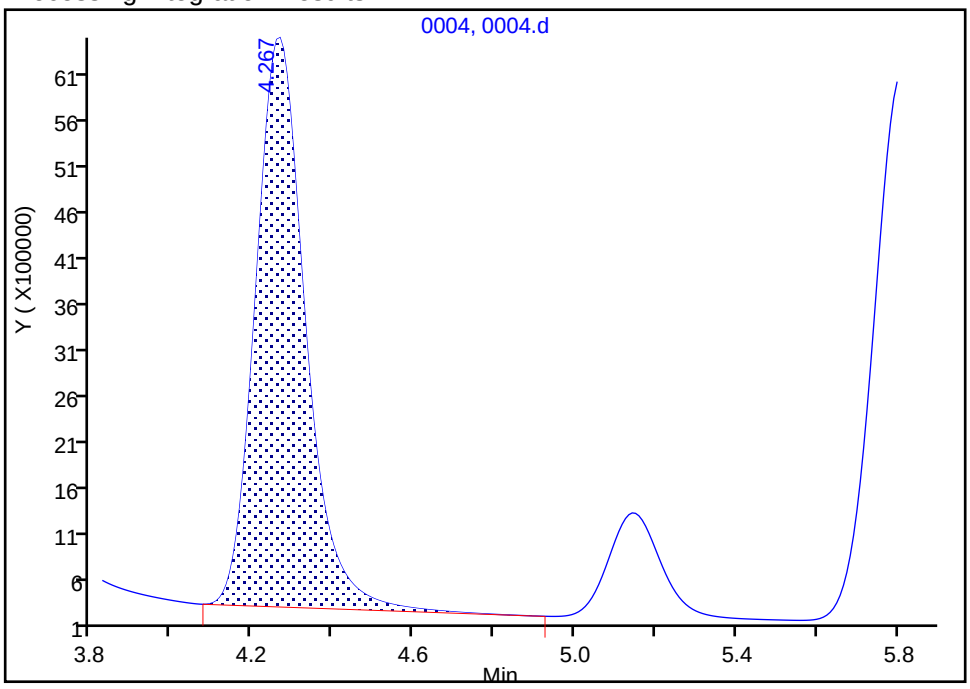
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

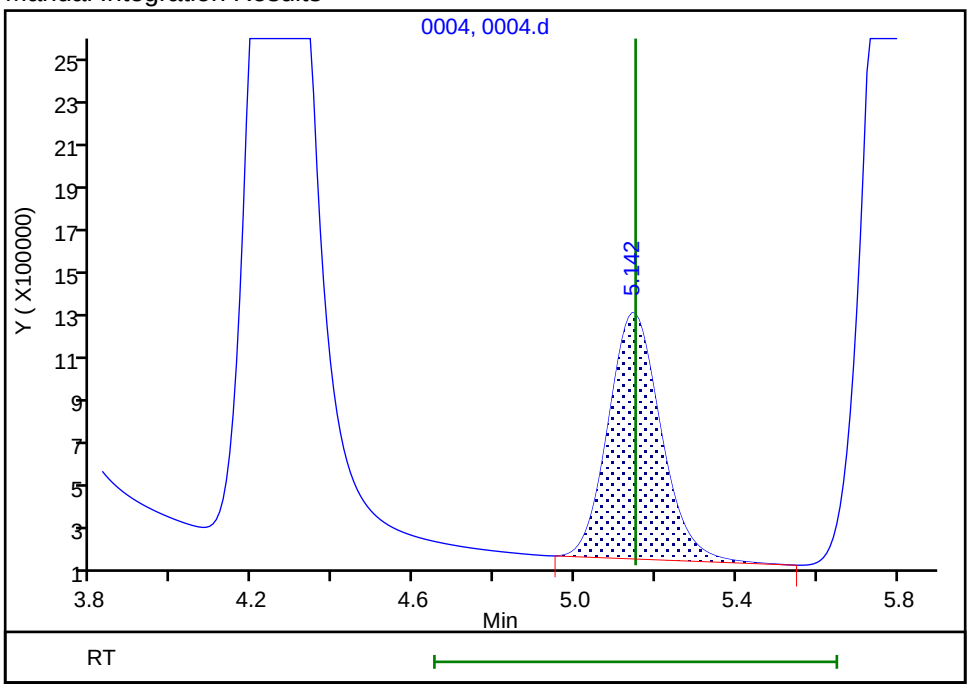
Processing Integration Results

RT: 4.27
Area: 53245233
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.14
Area: 10295308
Amount: 5.317154
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:27
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

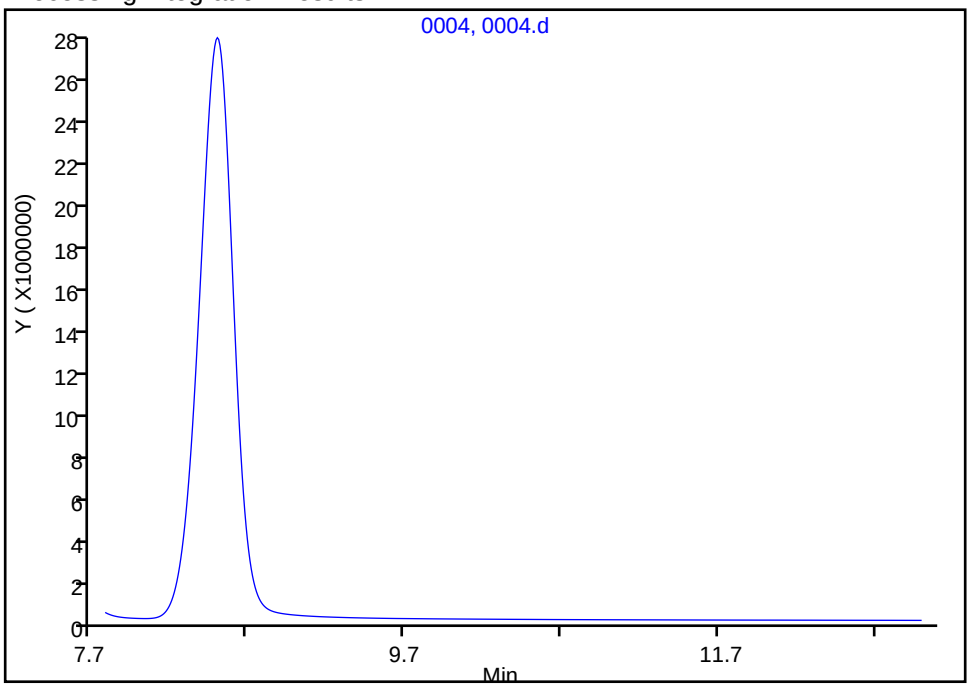
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

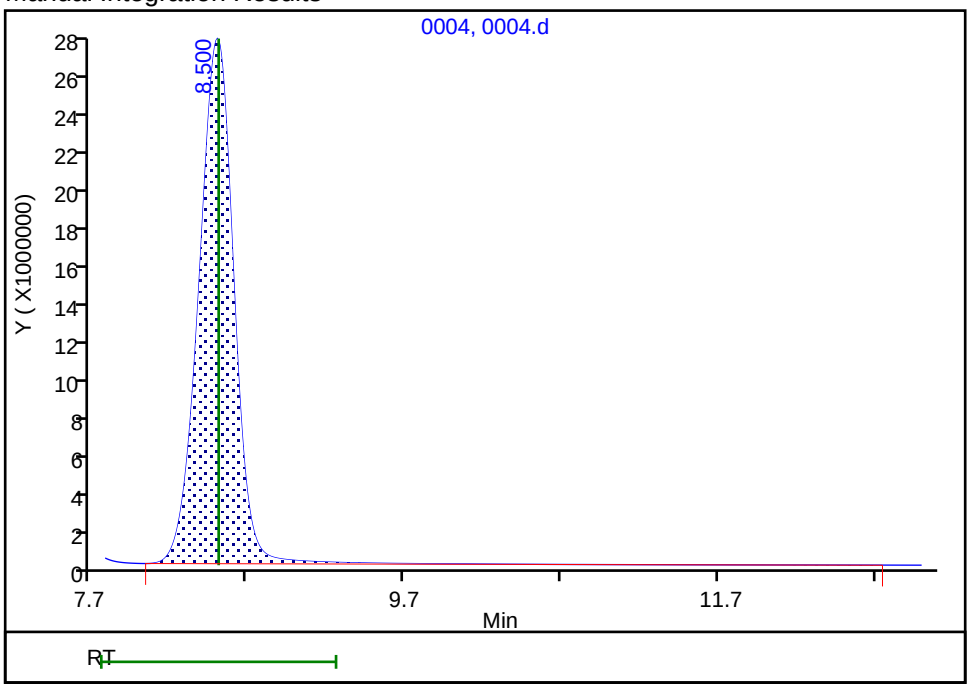
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.50
Area: 428290582
Amount: 96.198860
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:20
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 18-May-2019 20:12:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:33:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38142138	NC	NC	
2 Chloride	3.525	3.534	-0.009	673278288	NC	NC	
3 Nitrite as N	4.267	4.267	0.000	53275158	5.00	5.10	a
4 Bromide	5.142	5.151	-0.009	10312373	NC	NC	a
5 Nitrate as N	5.817	5.817	0.000	62103186	5.00	5.39	a
7 Orthophosphate as P	7.584	7.592	-0.008	24666018	5.00	5.95	a
6 Sulfate	8.509	8.509	0.000	428848702	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

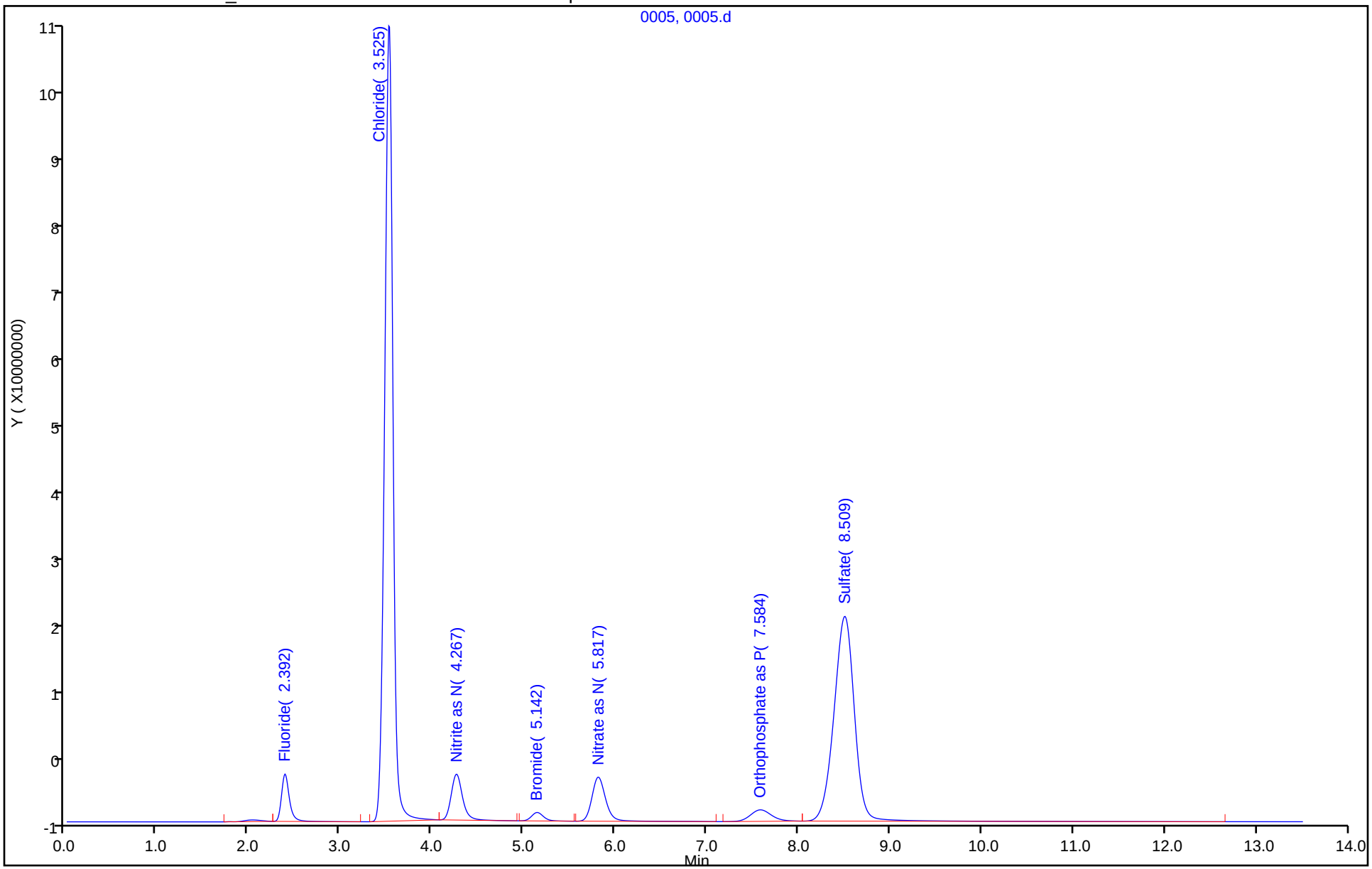
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:42 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d

Injection Date:	18-May-2019 20:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

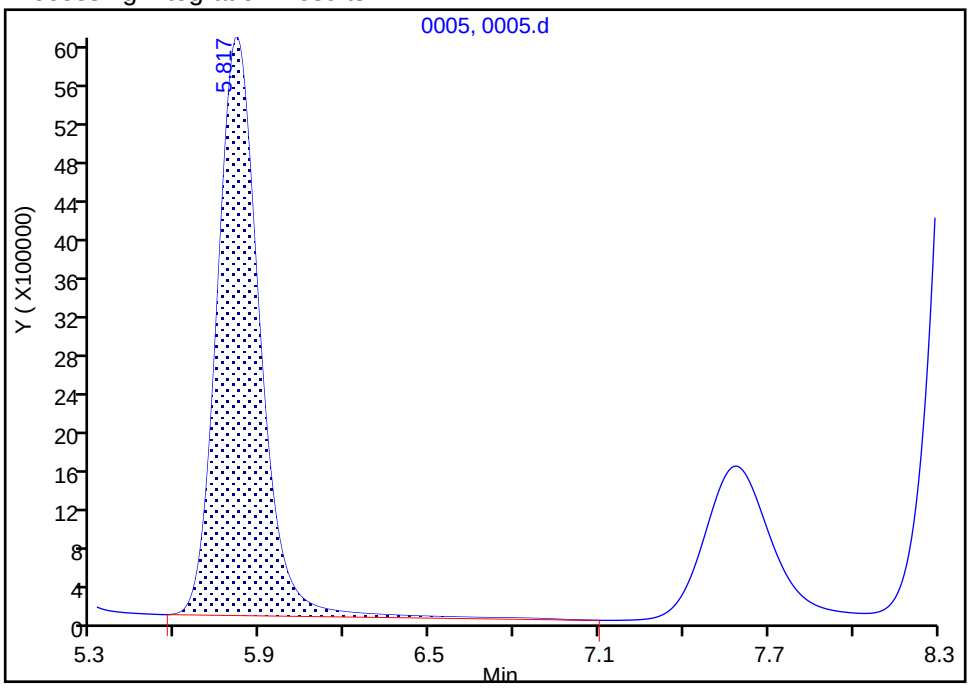
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

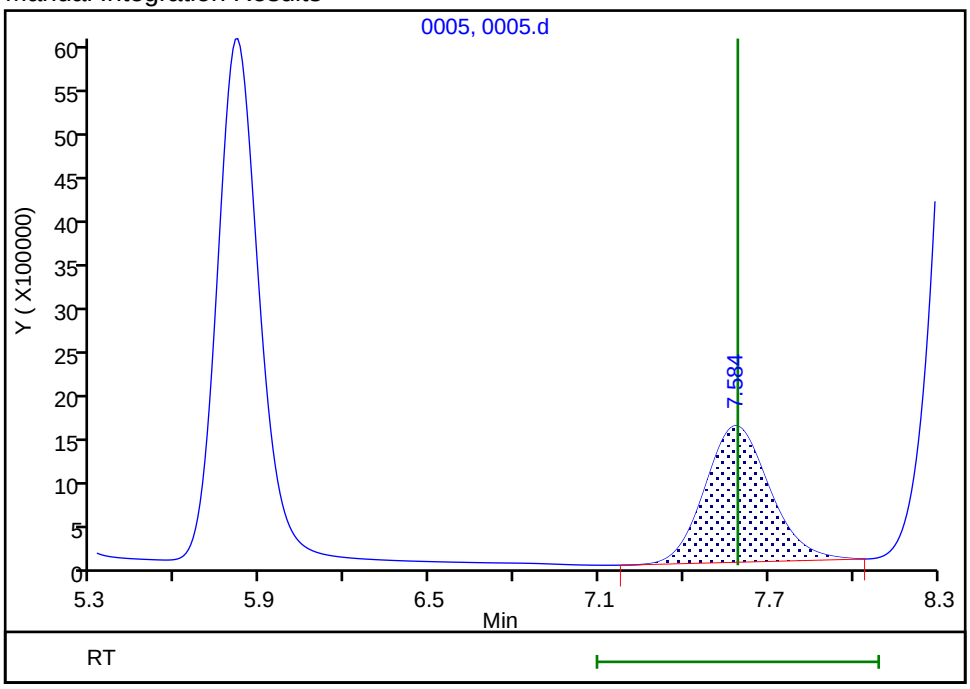
Processing Integration Results

RT: 5.82
Area: 62103186
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 7.58
Area: 24666018
Amount: 5.947030
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:45
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

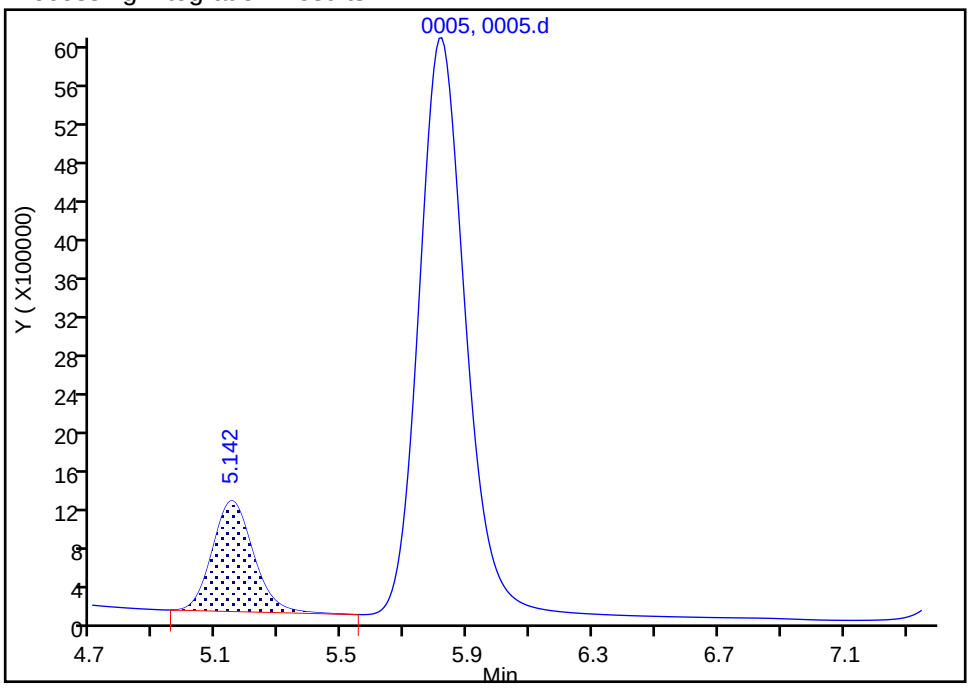
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

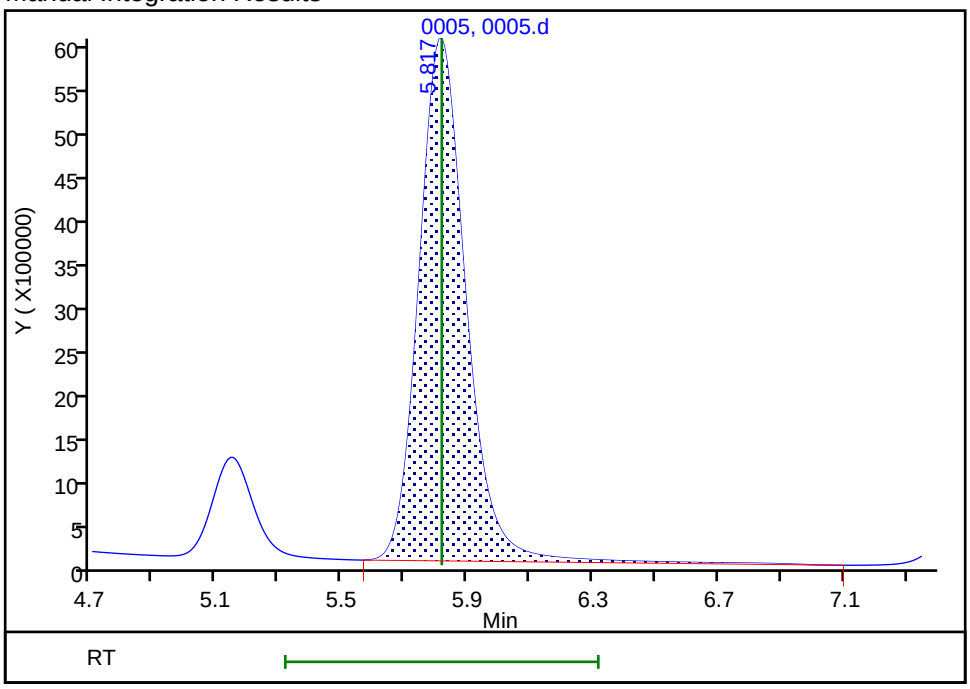
Processing Integration Results

RT: 5.14
Area: 10312373
Amount: 0.926146
Amount Units: ug/ml



Manual Integration Results

RT: 5.82
Area: 62103186
Amount: 5.385470
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:33:00
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

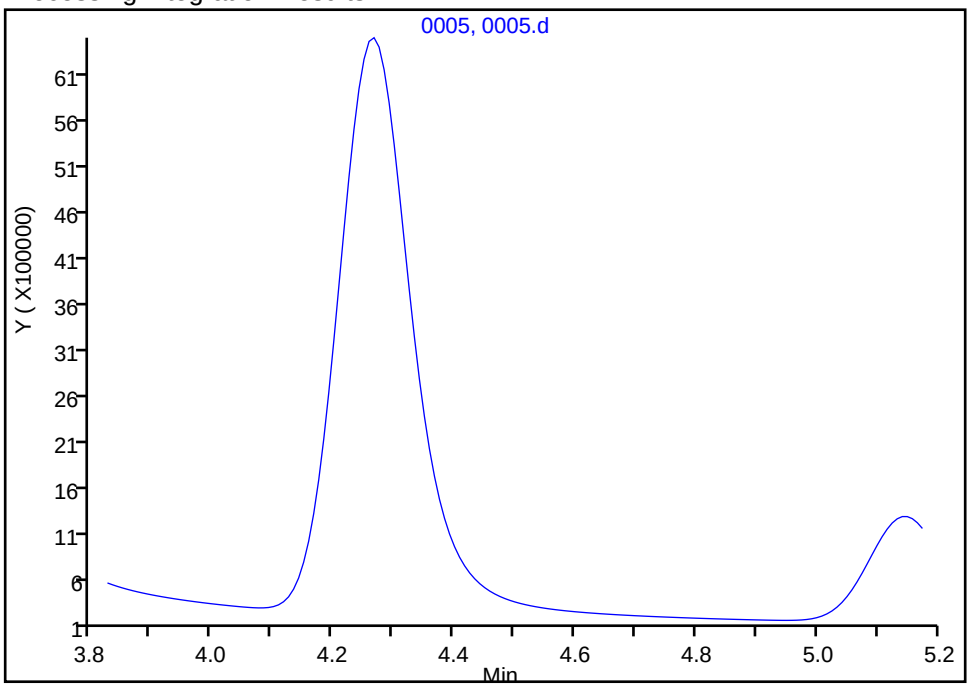
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

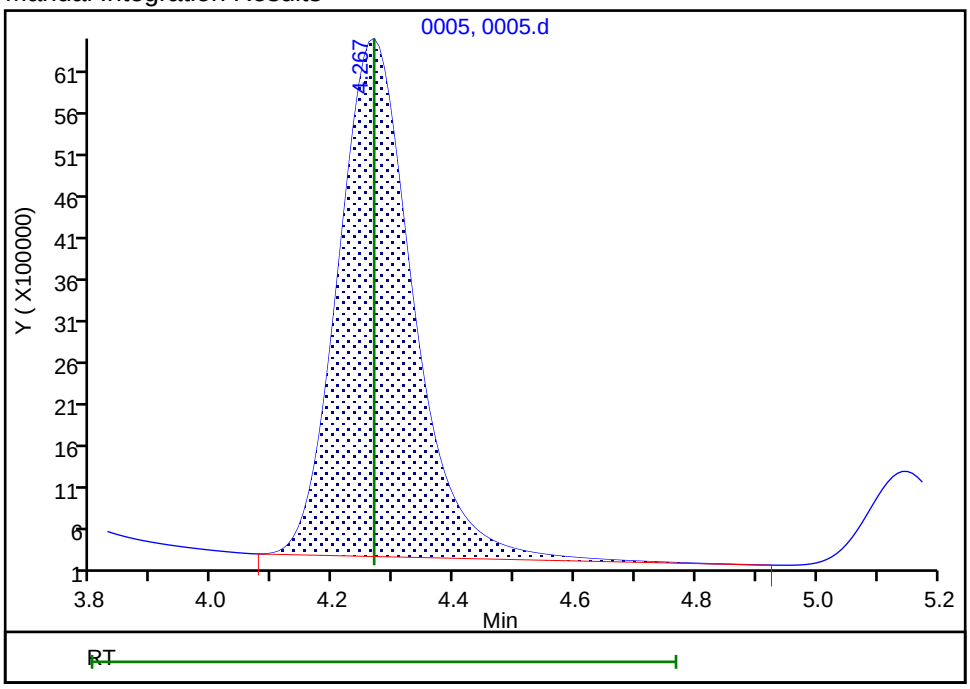
Not Detected
Expected RT: 4.27

Processing Integration Results



Manual Integration Results

RT: 4.27
Area: 53275158
Amount: 5.102885
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 18-May-2019 20:12:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:33:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38142138	5.00	5.10	
2 Chloride	3.525	3.534	-0.009	673278288	100.0	100.7	
3 Nitrite as N	4.267	4.267	0.000	53275158	NC	NC	a
4 Bromide	5.142	5.151	-0.009	10312373	5.00	5.33	a
5 Nitrate as N	5.817	5.817	0.000	62103186	NC	NC	a
7 Orthophosphate as P	7.584	7.592	-0.008	24666018	NC	NC	a
6 Sulfate	8.509	8.509	0.000	428848702	100.0	96.3	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

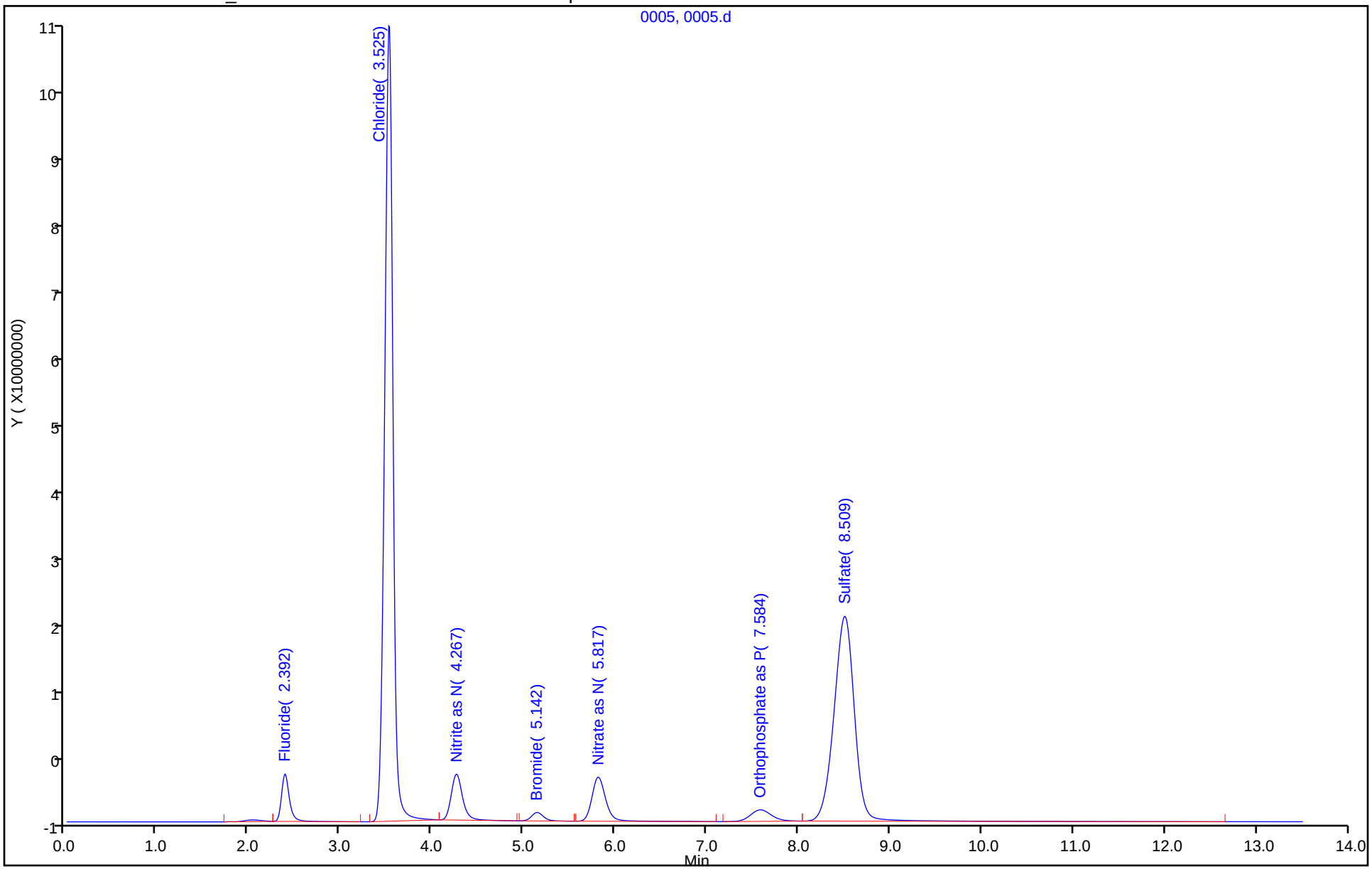
Reagents:

IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:42 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d				
Injection Date:	18-May-2019 20:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

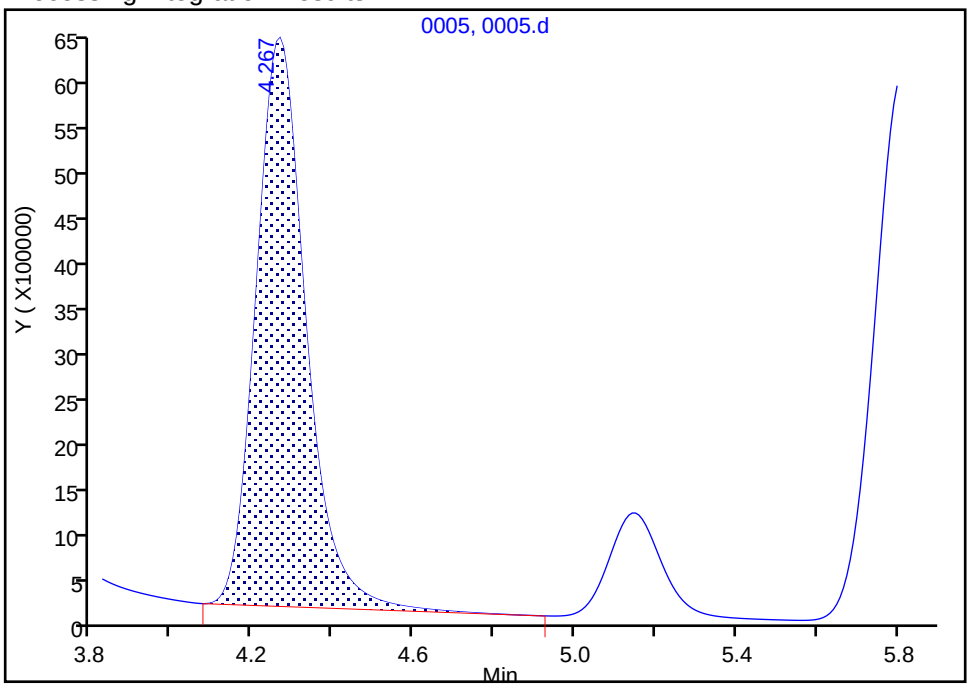
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

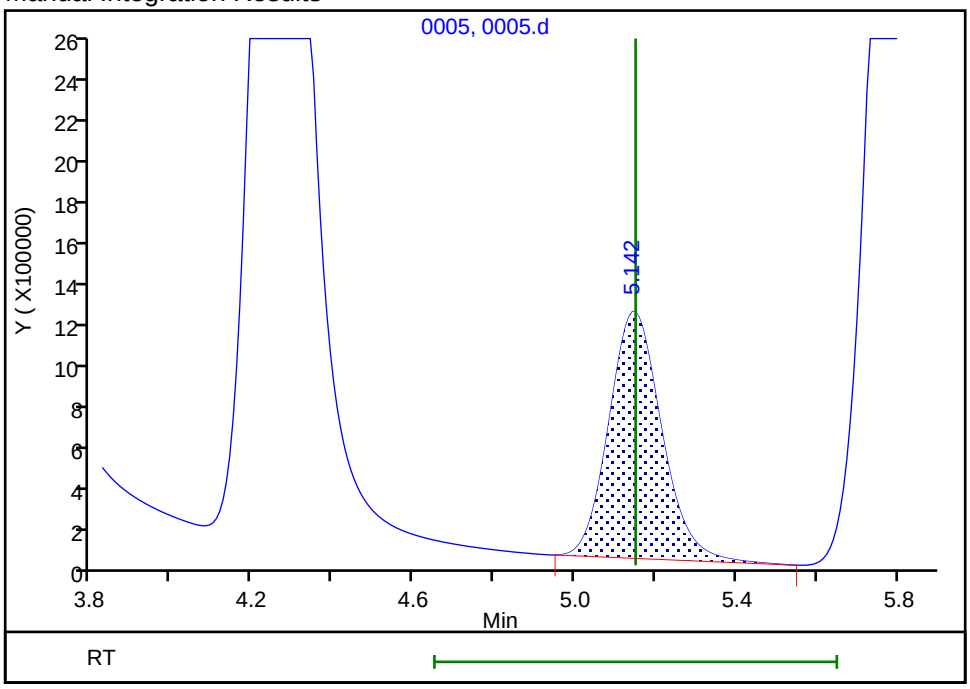
Processing Integration Results

RT: 4.27
Area: 53275158
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.14
Area: 10312373
Amount: 5.325955
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:33:08
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

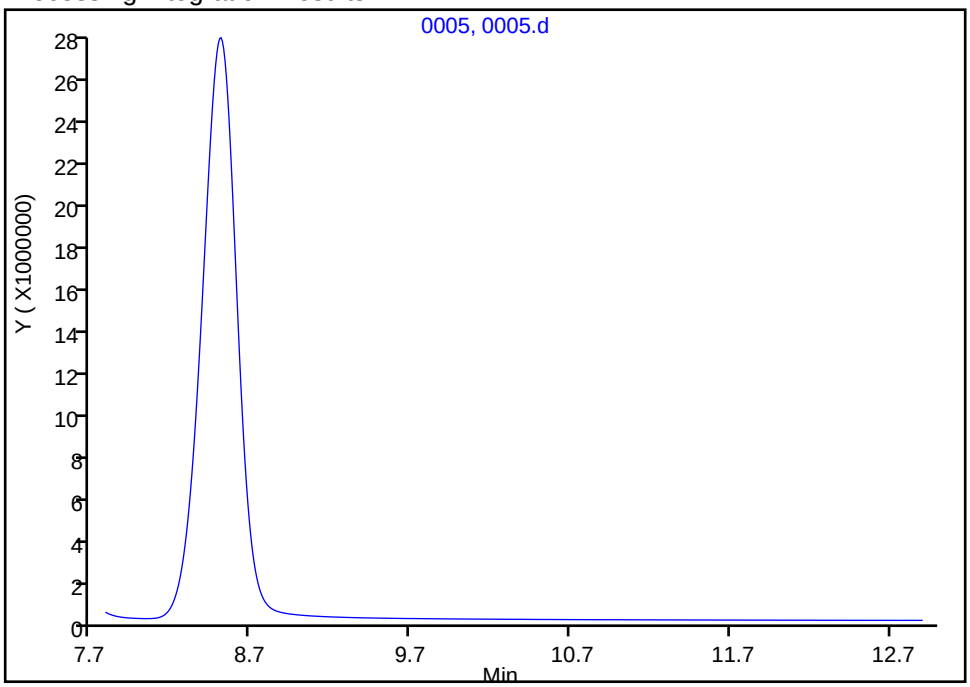
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

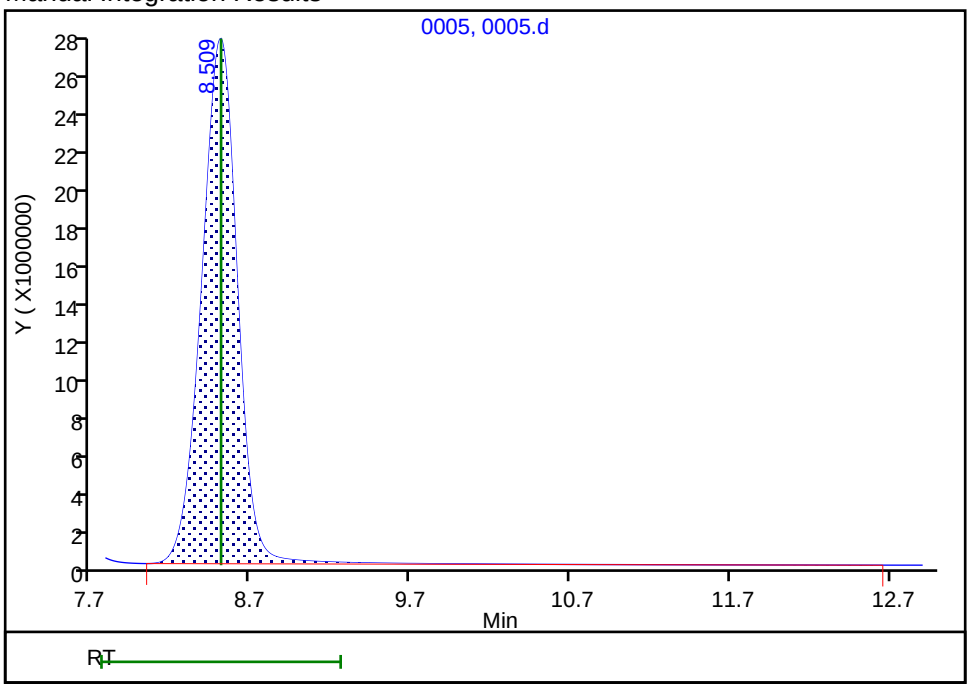
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.51
Area: 428848702
Amount: 96.323650
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:33:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 18-May-2019 20:29:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	341219		NC	
2 Chloride		3.534			ND		
3 Nitrite as N		4.267			ND		
4 Bromide		5.151			ND		
5 Nitrate as N		5.817			ND		
7 Orthophosphate as P		7.592			ND		
6 Sulfate	7.092	8.509	-1.417	101073		NC	

QC Flag Legend

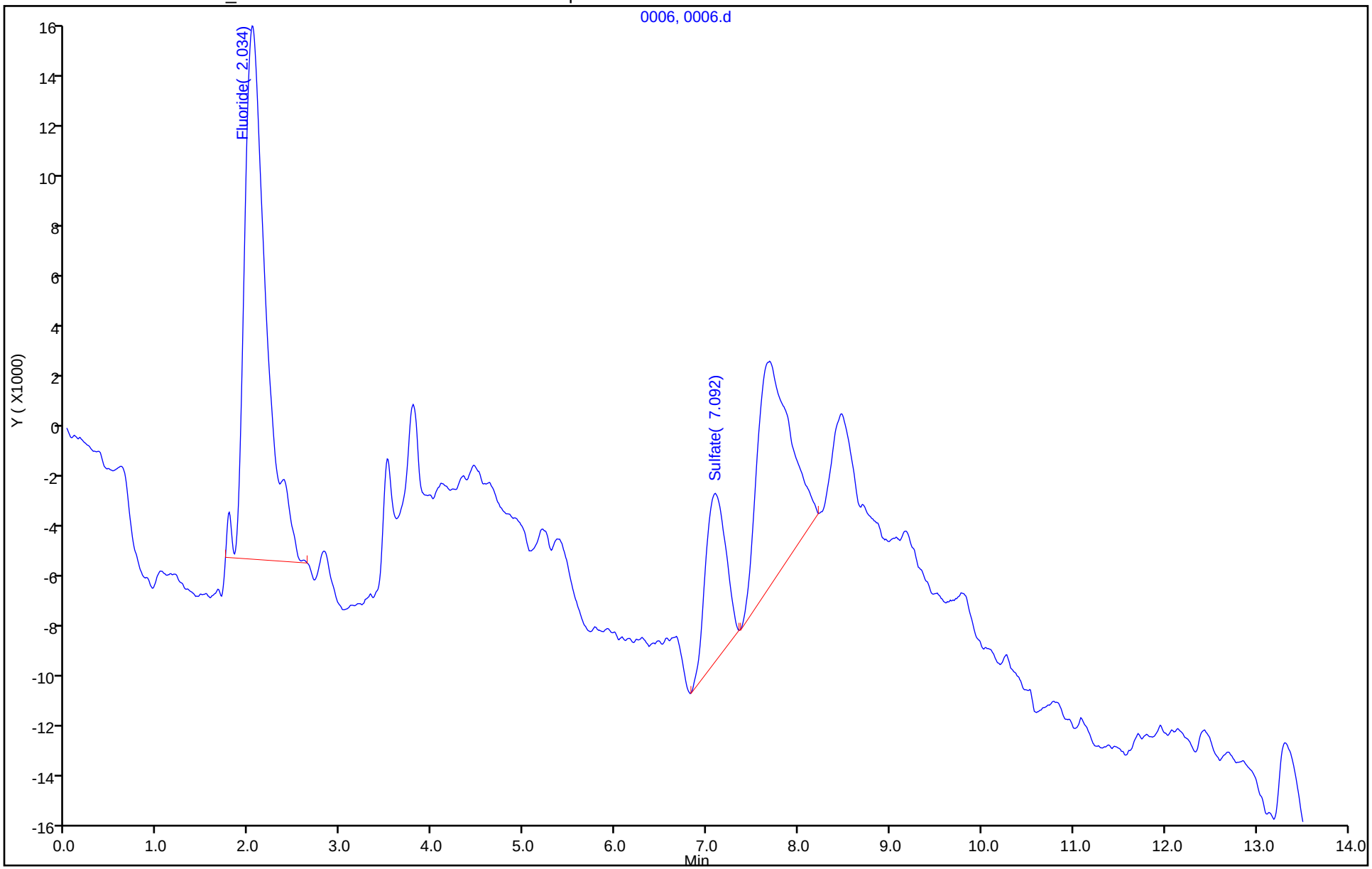
Processing Flags
NC - Not Calibrated

Report Date: 21-May-2019 16:33:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0006.d

Injection Date:	18-May-2019 20:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 18-May-2019 20:29:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

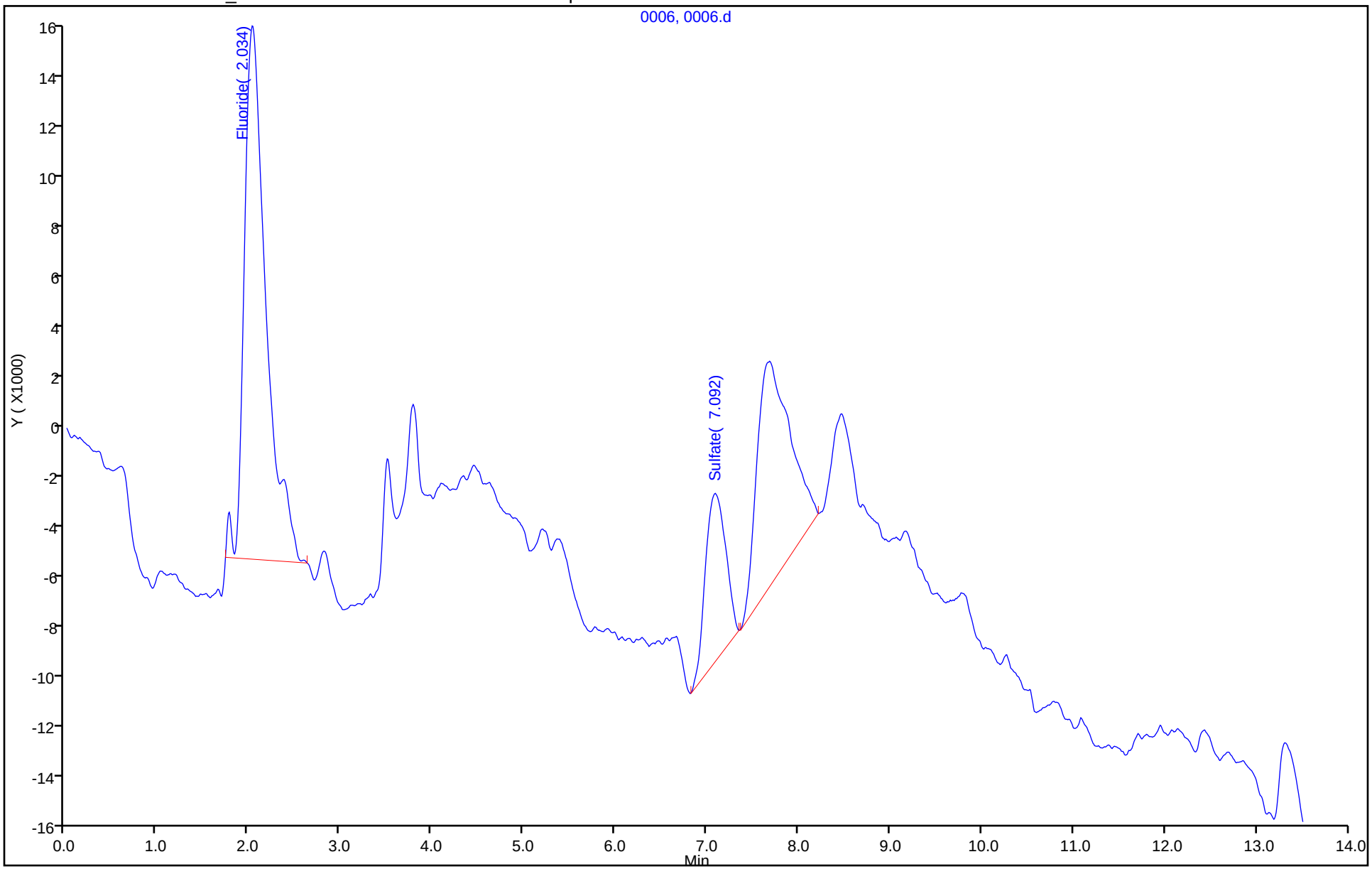
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	341219		-0.1075	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate	7.092	8.509	-1.417	101073		0.4599	

Report Date: 21-May-2019 16:33:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0006.d

Injection Date:	18-May-2019 20:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0017.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	19-May-2019 00:40:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082040-017				
Misc. Info.:	10588 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	21-May-2019 16:34:11	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0330				
First Level Reviewer: pedrickj		Date:	20-May-2019 08:15:20		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38279652	NC	NC	
2 Chloride	3.526	3.534	-0.008	674119846	NC	NC	
3 Nitrite as N	4.251	4.267	-0.016	53166603	5.00	5.09	
4 Bromide	5.126	5.151	-0.025	10299126	NC	NC	
5 Nitrate as N	5.792	5.817	-0.025	62017875	5.00	5.38	
7 Orthophosphate as P	7.584	7.592	-0.008	25039340	5.00	6.04	
6 Sulfate	8.509	8.509	0.000	428448330	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

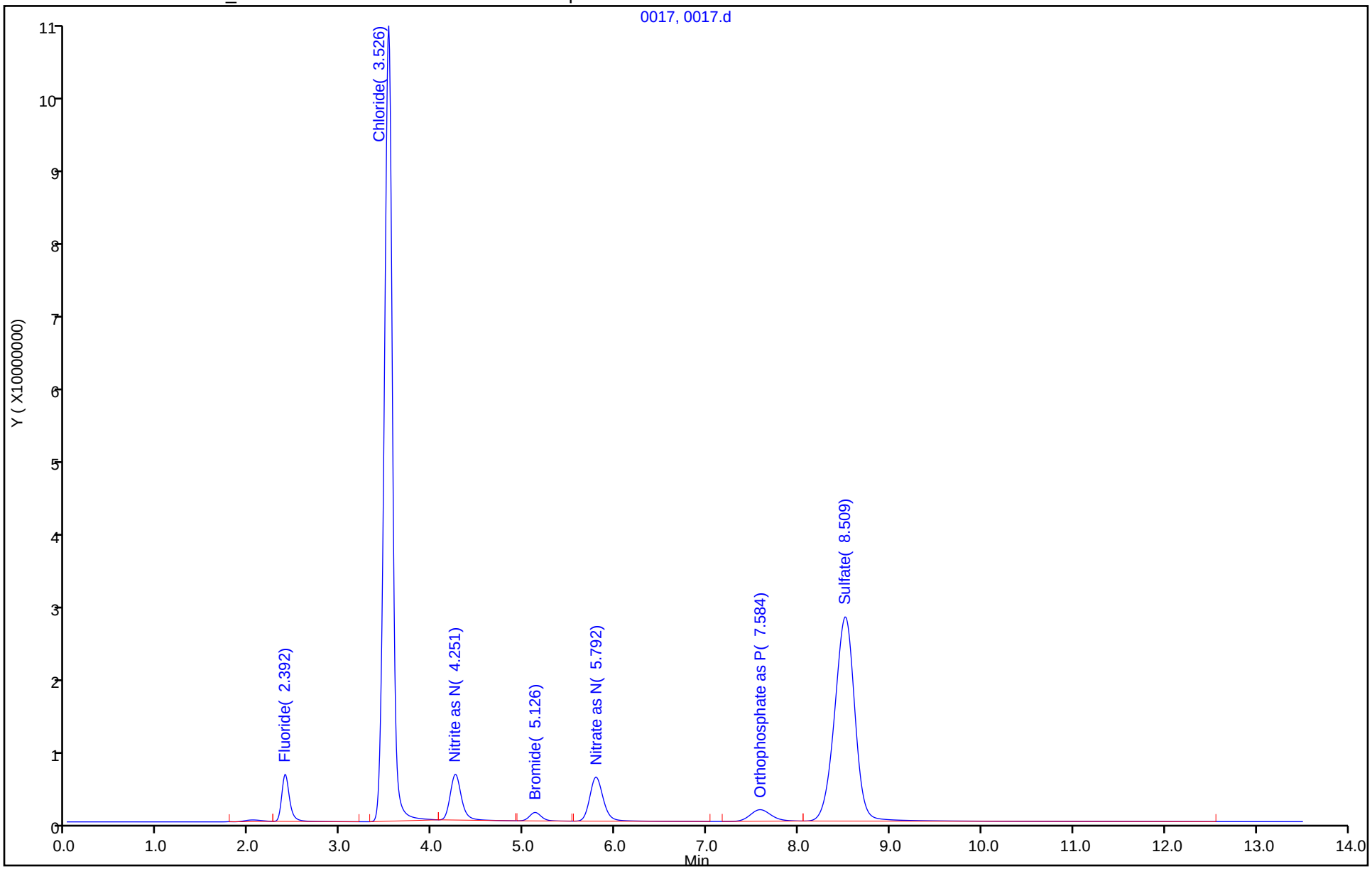
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:34:13 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0017.d

Injection Date:	19-May-2019 00:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0017.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	19-May-2019 00:40:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082040-017				
Misc. Info.:	10588 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	21-May-2019 16:34:11	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0330				
First Level Reviewer: pedrickj		Date:	20-May-2019 08:15:20		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38279652	5.00	5.12	
2 Chloride	3.526	3.534	-0.008	674119846	100.0	100.9	
3 Nitrite as N	4.251	4.267	-0.016	53166603	NC	NC	
4 Bromide	5.126	5.151	-0.025	10299126	5.00	5.32	
5 Nitrate as N	5.792	5.817	-0.025	62017875	NC	NC	
7 Orthophosphate as P	7.584	7.592	-0.008	25039340	NC	NC	
6 Sulfate	8.509	8.509	0.000	428448330	100.0	96.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

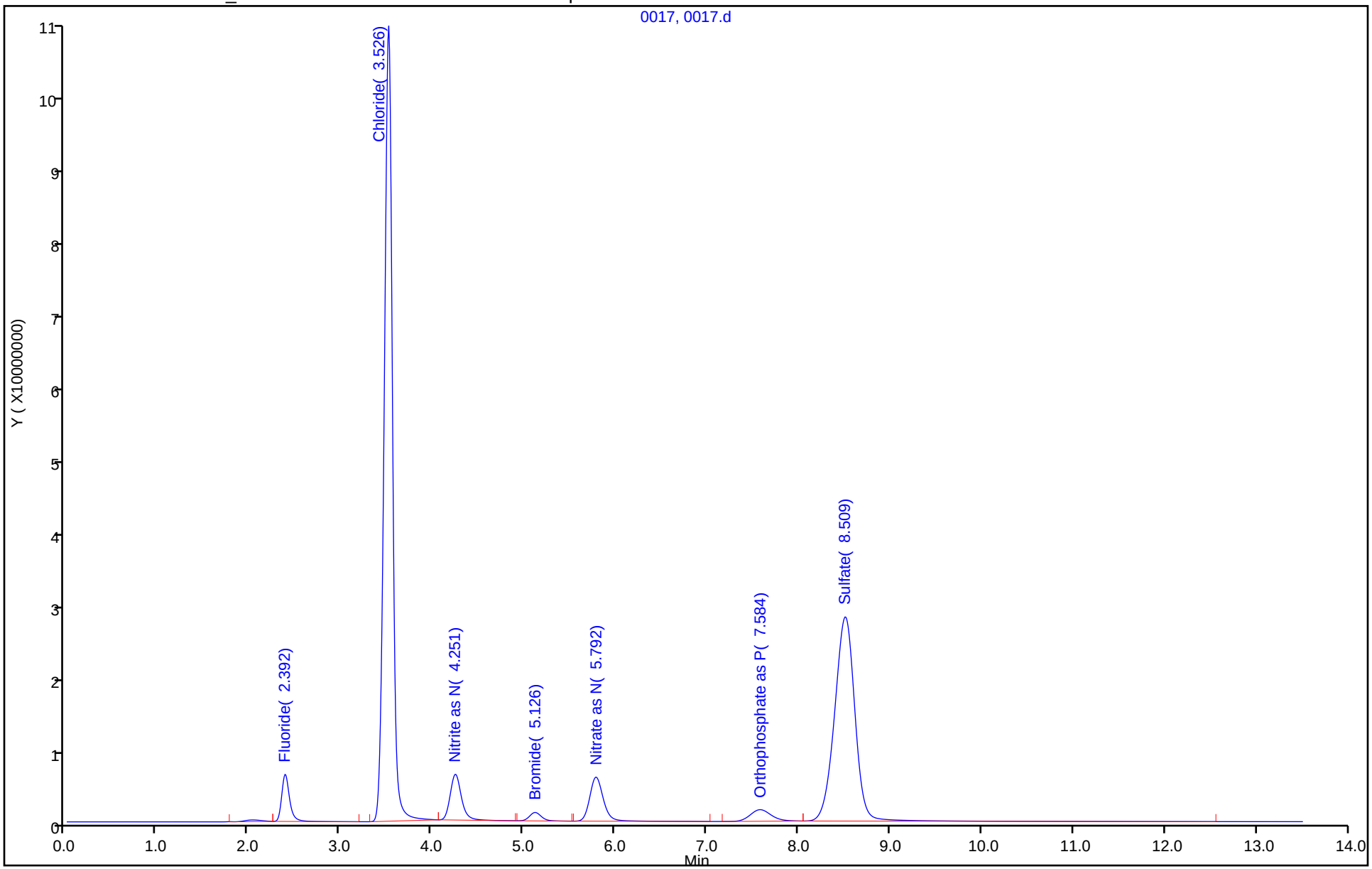
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:34:13 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0017.d

Injection Date:	19-May-2019 00:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0018.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	19-May-2019 00:57:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082040-018				
Misc. Info.:	29202 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	21-May-2019 16:34:11	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0330				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	508292		NC	
2 Chloride		3.534			ND		
3 Nitrite as N		4.267			ND		
4 Bromide		5.151			ND		
5 Nitrate as N		5.817			ND		
7 Orthophosphate as P		7.592			ND		
6 Sulfate	7.075	8.509	-1.434	187891		NC	

QC Flag Legend

Processing Flags

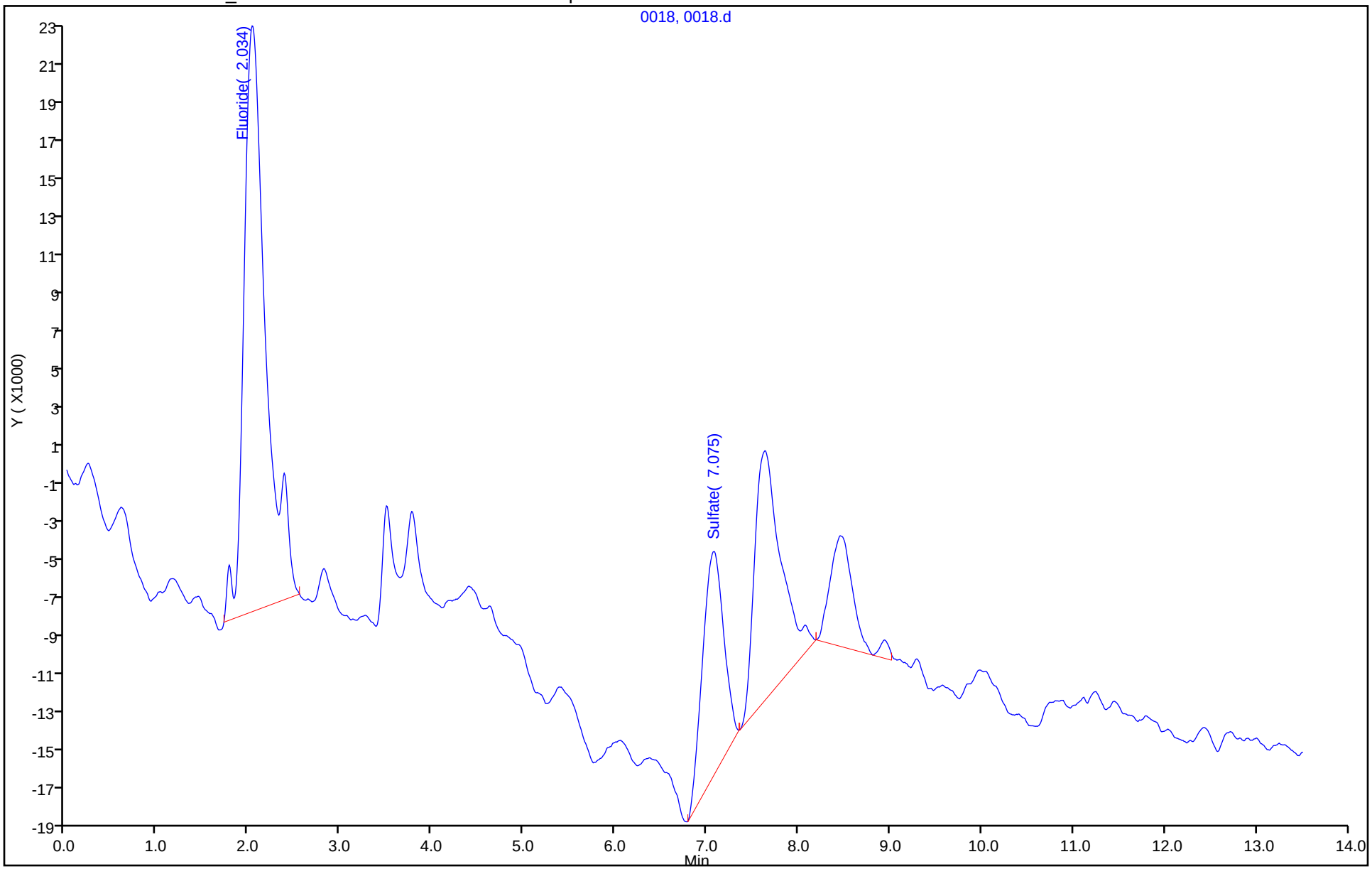
NC - Not Calibrated

Report Date: 21-May-2019 16:34:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0018.d

Injection Date:	19-May-2019 00:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0018.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	19-May-2019 00:57:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082040-018				
Misc. Info.:	29202 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	21-May-2019 16:34:11	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0330				

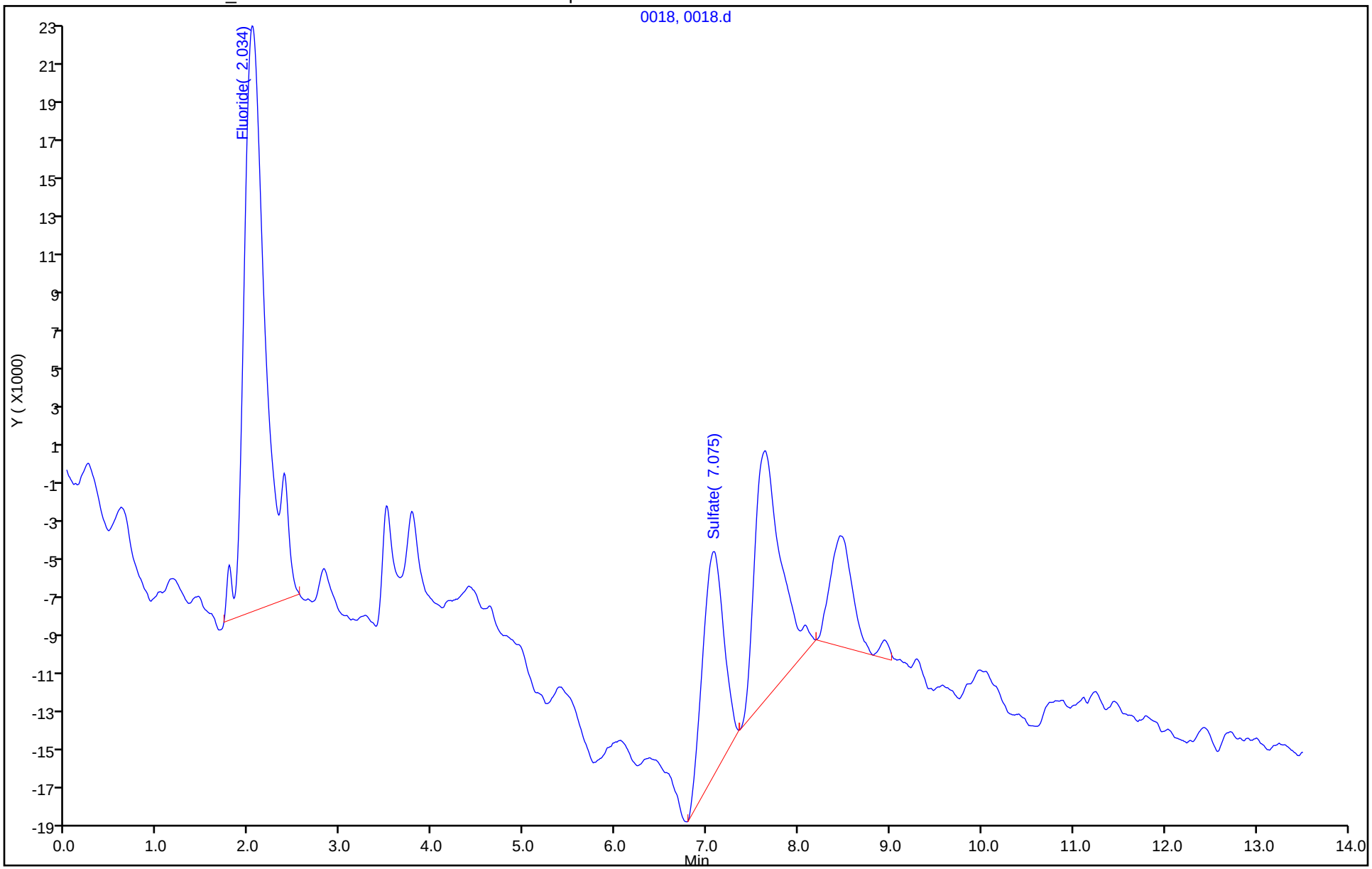
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	508292		-0.0845	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate	7.075	8.509	-1.434	187891		0.4793	

Report Date: 21-May-2019 16:34:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0018.d

Injection Date:	19-May-2019 00:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0022.d
Lims ID: 280-123983-I-2
Client ID: LF2SW-2_0519
Sample Type: Client
Inject. Date: 19-May-2019 02:02:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-022
Misc. Info.: 30913 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 17:39:31 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:00

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	347822	NC	
2 Chloride	3.492	3.534	-0.042	3410855	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N		5.817			ND	U
7 Orthophosphate as P	7.625	7.592	0.033	173542	0.0340	
6 Sulfate	8.475	8.509	-0.034	3361881	NC	

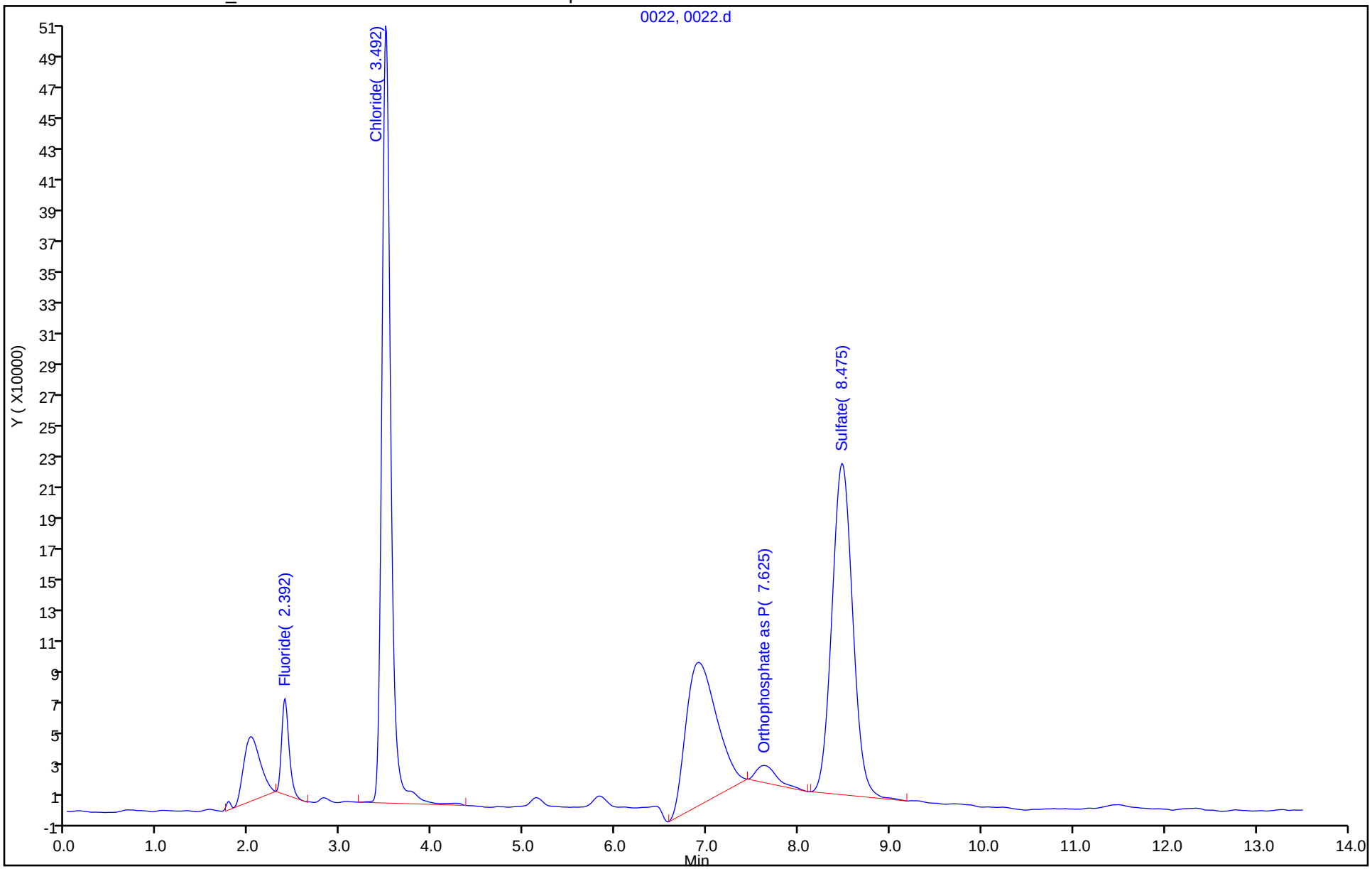
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 17:39:32 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0022.d				
Injection Date:	19-May-2019 02:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-2	Lab Sample ID:	280-123983-2	Worklist Smp#:	22
Client ID:	LF2SW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



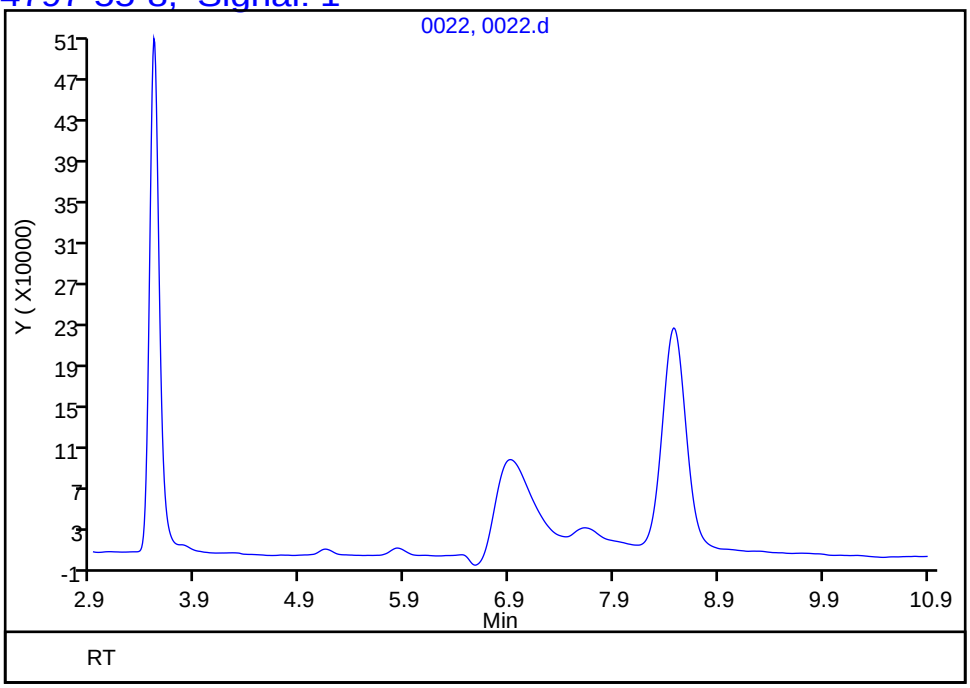
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0022.d
Injection Date: 19-May-2019 02:02:00 Instrument ID: WC_IonChrom11
Lims ID: 280-123983-I-2 Lab Sample ID: 280-123983-2
Client ID: LF2SW-2_0519
Operator ID: ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8, Signal: 1

RT: 6.91
Response: 2156742
Amount: 0.223925



Reviewer: pedrickj, 20-May-2019 08:16:00
Audit Action: Manually Integrated Audit Reason:

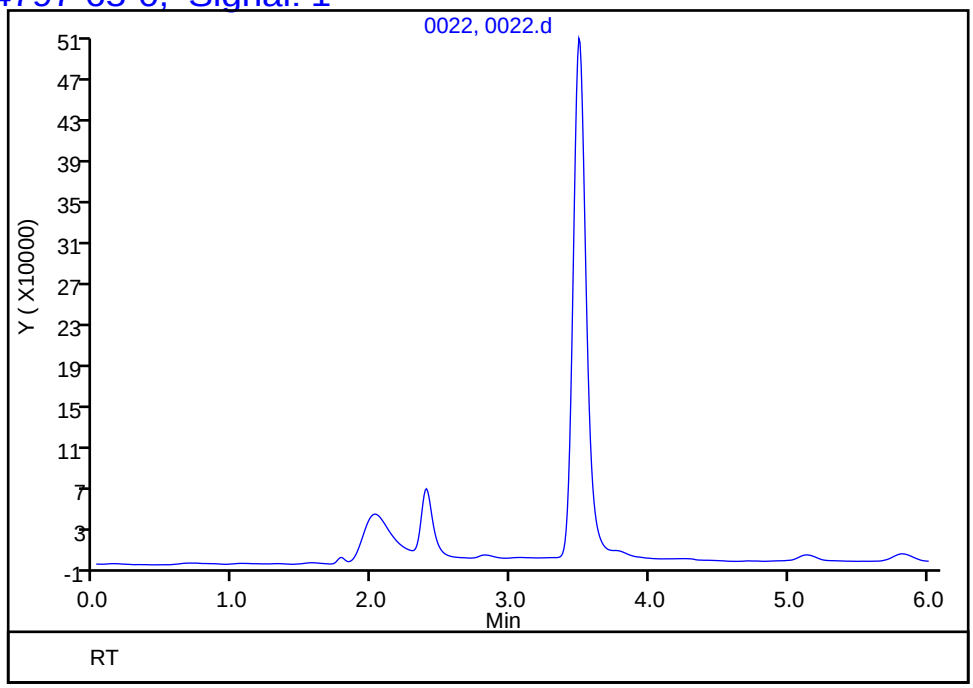
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0022.d				
Injection Date:	19-May-2019 02:02:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123983-I-2	Lab Sample ID:	280-123983-2		
Client ID:	LF2SW-2_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	22
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.03
Response: 544220
Amount: 0.077043



Reviewer: pedrickj, 20-May-2019 08:16:00
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0022.d
Lims ID: 280-123983-I-2
Client ID: LF2SW-2_0519
Sample Type: Client
Inject. Date: 19-May-2019 02:02:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-022
Misc. Info.: 30913 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 17:39:31 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:00

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	347822	-0.1066	
2 Chloride	3.492	3.534	-0.042	3410855	1.12	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N		5.817			ND	U
7 Orthophosphate as P	7.625	7.592	0.033	173542	NC	
6 Sulfate	8.475	8.509	-0.034	3361881	1.19	

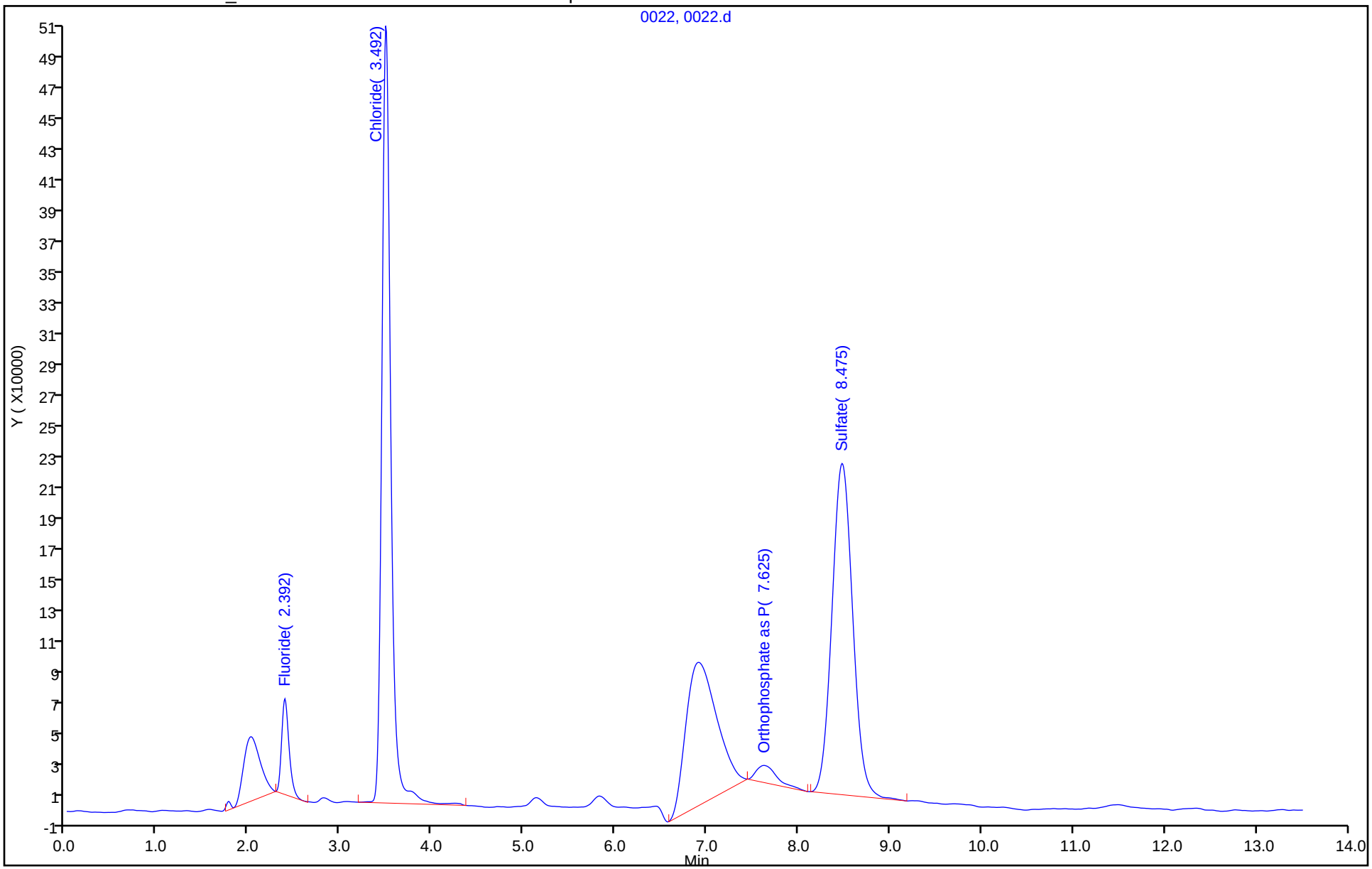
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 17:39:32 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0022.d				
Injection Date:	19-May-2019 02:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-2	Lab Sample ID:	280-123983-2	Worklist Smp#:	22
Client ID:	LF2SW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0023.d
Lims ID: 280-123983-I-1
Client ID: LF2SW-1_0519
Sample Type: Client
Inject. Date: 19-May-2019 02:19:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-023
Misc. Info.: 9990 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 17:32:40 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	191210	NC	
2 Chloride	3.492	3.534	-0.042	4775803	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	U
5 Nitrate as N	5.809	5.817	-0.008	144735	0.0507	
7 Orthophosphate as P	7.659	7.592	0.067	217487	0.0446	
6 Sulfate	8.467	8.509	-0.042	6000867	NC	

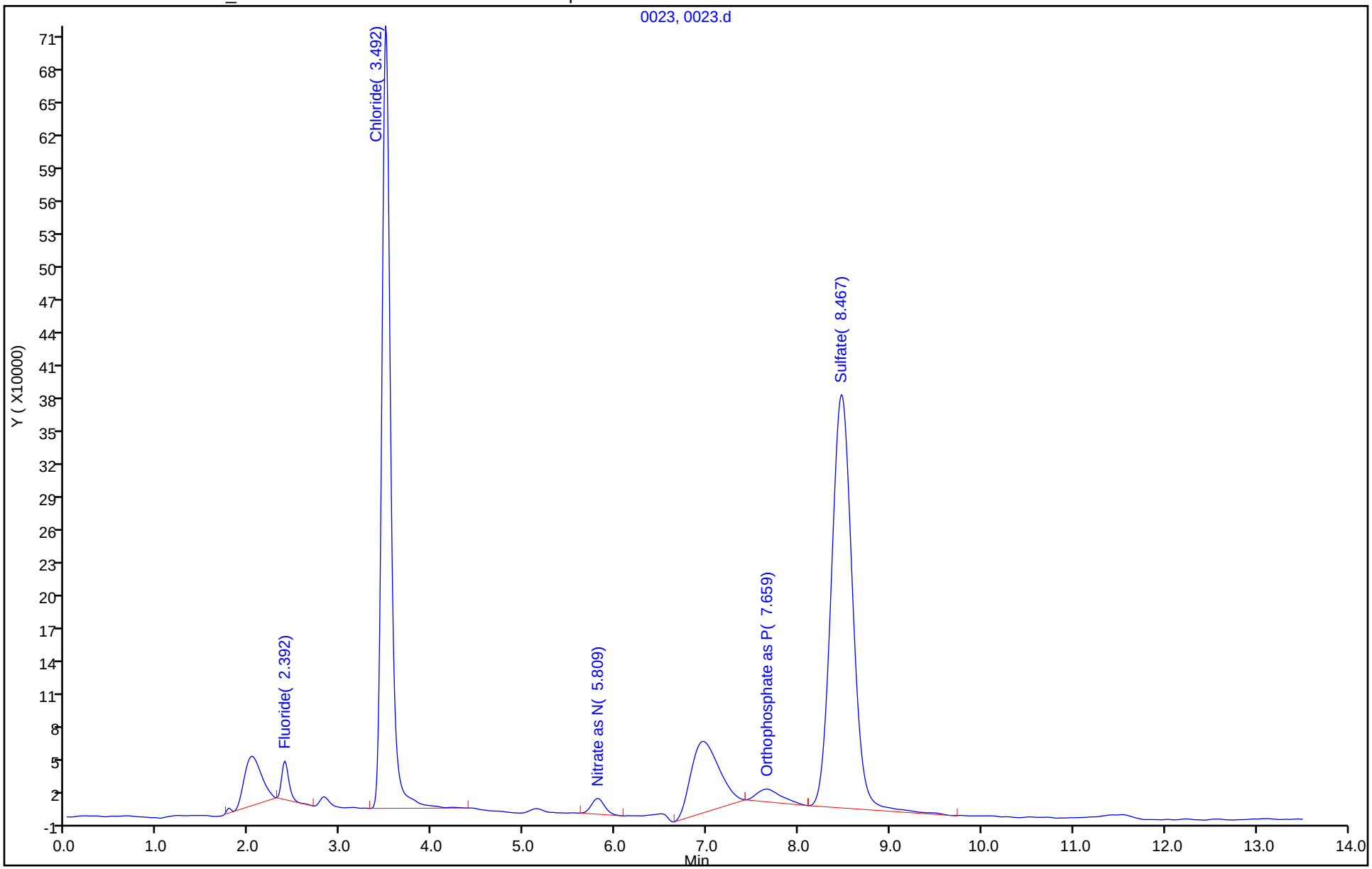
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 17:33:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0023.d				
Injection Date:	19-May-2019 02:19:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-1	Lab Sample ID:	280-123983-1	Worklist Smp#:	23
Client ID:	LF2SW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



User Disabled Compound Report

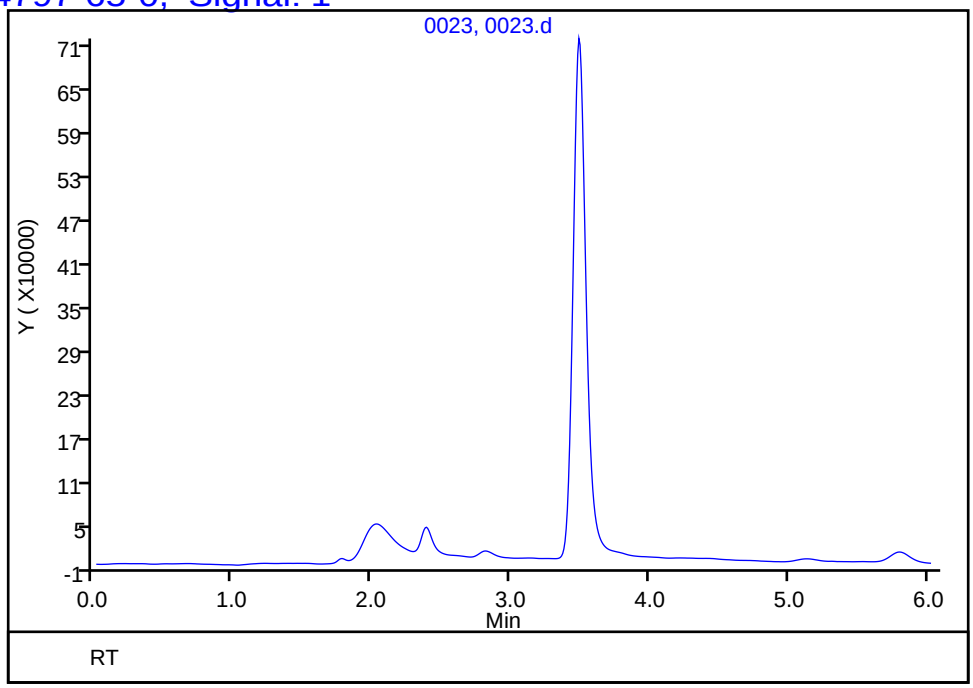
Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0023.d

Injection Date:	19-May-2019 02:19:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123983-I-1	Lab Sample ID:	280-123983-1		
Client ID:	LF2SW-1_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	23
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.03
Response: 599611
Amount: 0.082322



Reviewer: pedrickj, 20-May-2019 08:16:08
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0023.d
Lims ID: 280-123983-I-1
Client ID: LF2SW-1_0519
Sample Type: Client
Inject. Date: 19-May-2019 02:19:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-023
Misc. Info.: 9990 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 17:32:40 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	191210	-0.1282	
2 Chloride	3.492	3.534	-0.042	4775803	1.33	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	U
5 Nitrate as N	5.809	5.817	-0.008	144735	NC	
7 Orthophosphate as P	7.659	7.592	0.067	217487	NC	
6 Sulfate	8.467	8.509	-0.042	6000867	1.78	

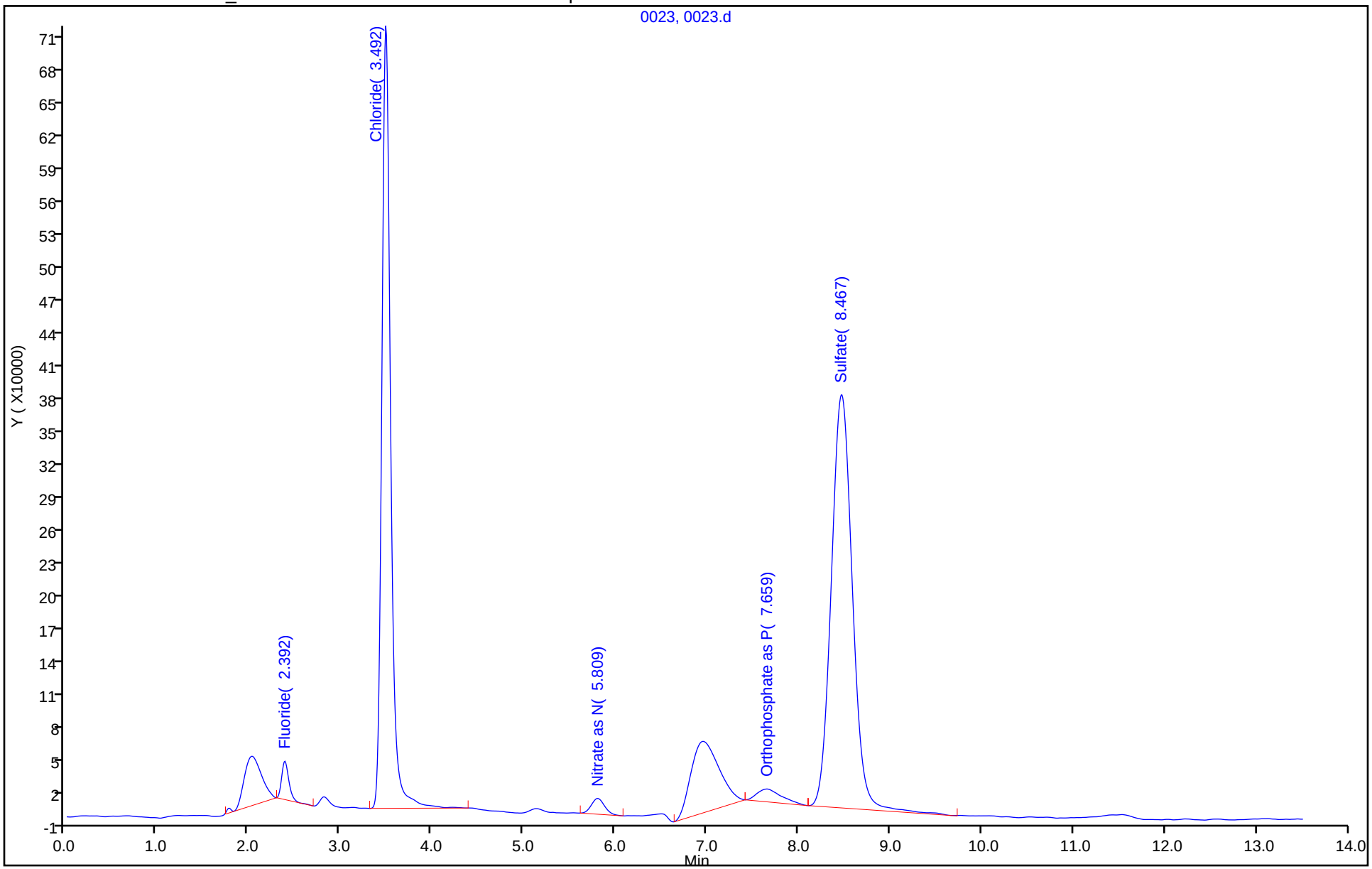
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 17:33:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0023.d				
Injection Date:	19-May-2019 02:19:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-1	Lab Sample ID:	280-123983-1	Worklist Smp#:	23
Client ID:	LF2SW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



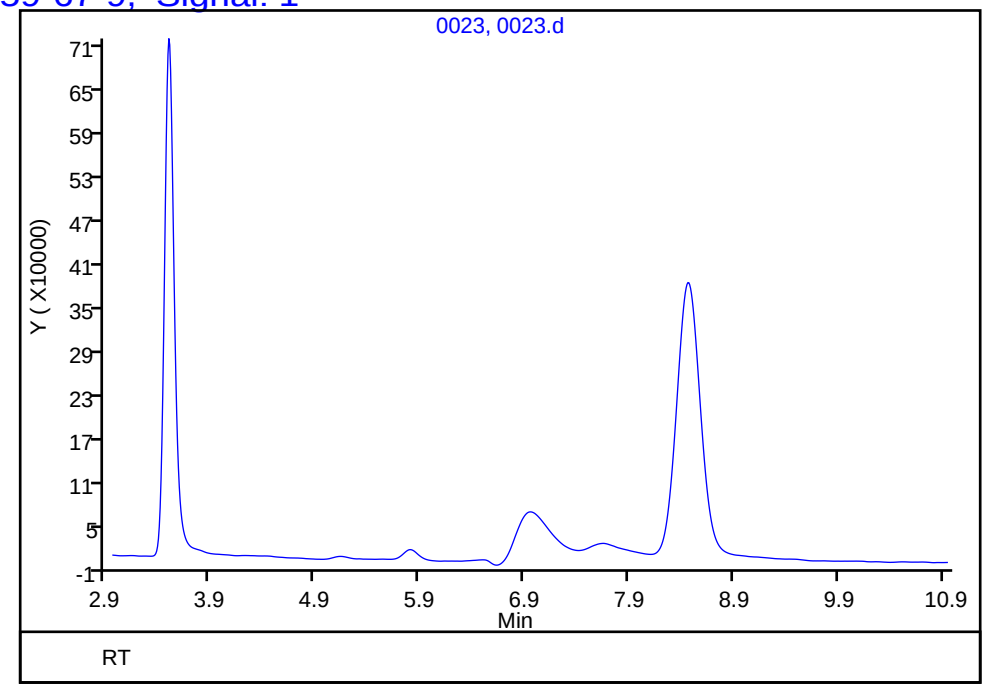
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0023.d
Injection Date: 19-May-2019 02:19:00 Instrument ID: WC_IonChrom11
Lims ID: 280-123983-I-1 Lab Sample ID: 280-123983-1
Client ID: LF2SW-1_0519
Operator ID: ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9, Signal: 1

RT: 6.96
Response: 1384304
Amount: 0.721561



Reviewer: pedrickj, 20-May-2019 08:16:08
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0024.d
Lims ID: 280-123983-I-1 DU
Client ID:
Sample Type: DU
Inject. Date: 19-May-2019 02:35:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-024
Misc. Info.: 1549 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 17:32:40 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	192185		NC	
2 Chloride	3.500	3.534	-0.034	4723441		NC	
3 Nitrite as N		4.267				ND	U
4 Bromide		5.151				ND	U
5 Nitrate as N	5.809	5.817	-0.008	164610		0.0524	
7 Orthophosphate as P	7.650	7.592	0.058	246908		0.0517	
6 Sulfate	8.475	8.509	-0.034	5953357		NC	

QC Flag Legend

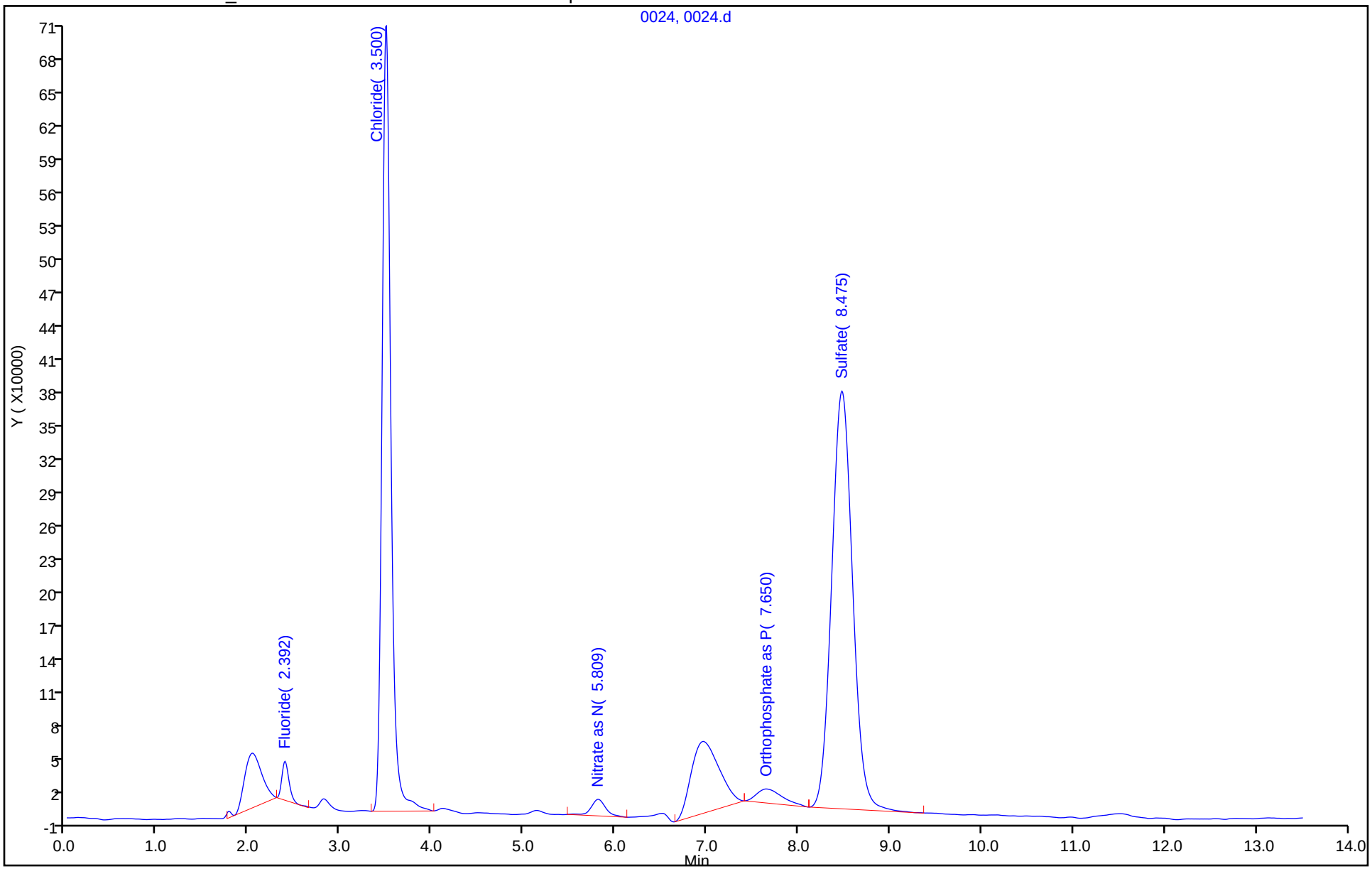
Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 17:33:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0024.d

Injection Date:	19-May-2019 02:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-1 DU			Worklist Smp#:	24
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



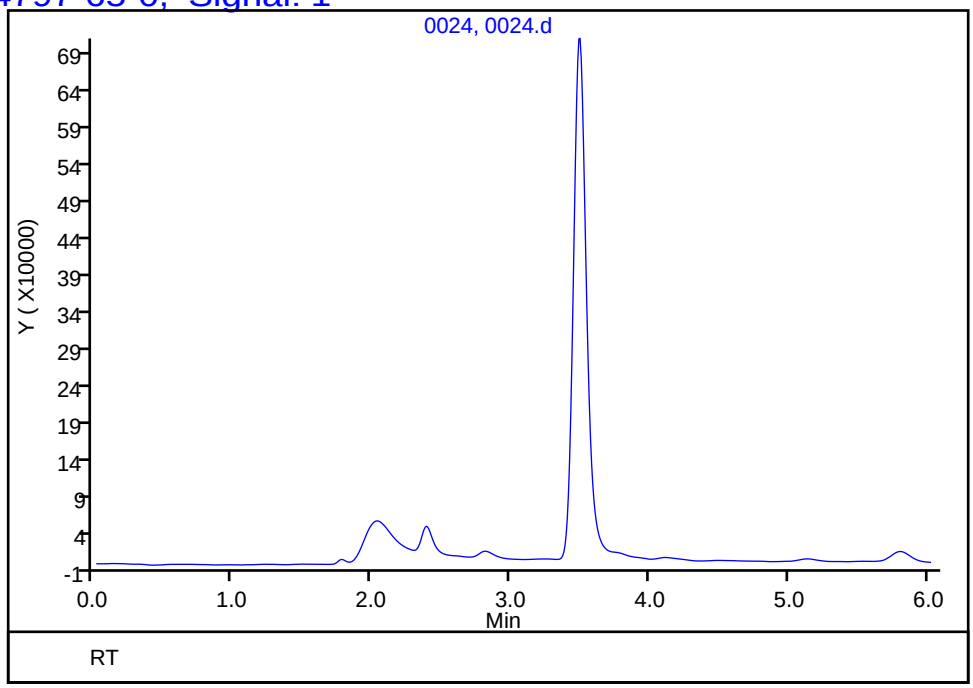
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0024.d
Injection Date: 19-May-2019 02:35:00 Instrument ID: WC_IonChrom11
Lims ID: 280-123983-I-1 DU
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.03
Response: 655422
Amount: 0.087642



Reviewer: pedrickj, 20-May-2019 08:16:19
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0024.d
Lims ID: 280-123983-I-1 DU
Client ID:
Sample Type: DU
Inject. Date: 19-May-2019 02:35:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-024
Misc. Info.: 1549 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 17:32:40 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	192185		-0.1281	
2 Chloride	3.500	3.534	-0.034	4723441		1.32	
3 Nitrite as N		4.267				ND	U
4 Bromide		5.151				ND	U
5 Nitrate as N	5.809	5.817	-0.008	164610		NC	
7 Orthophosphate as P	7.650	7.592	0.058	246908		NC	
6 Sulfate	8.475	8.509	-0.034	5953357		1.77	

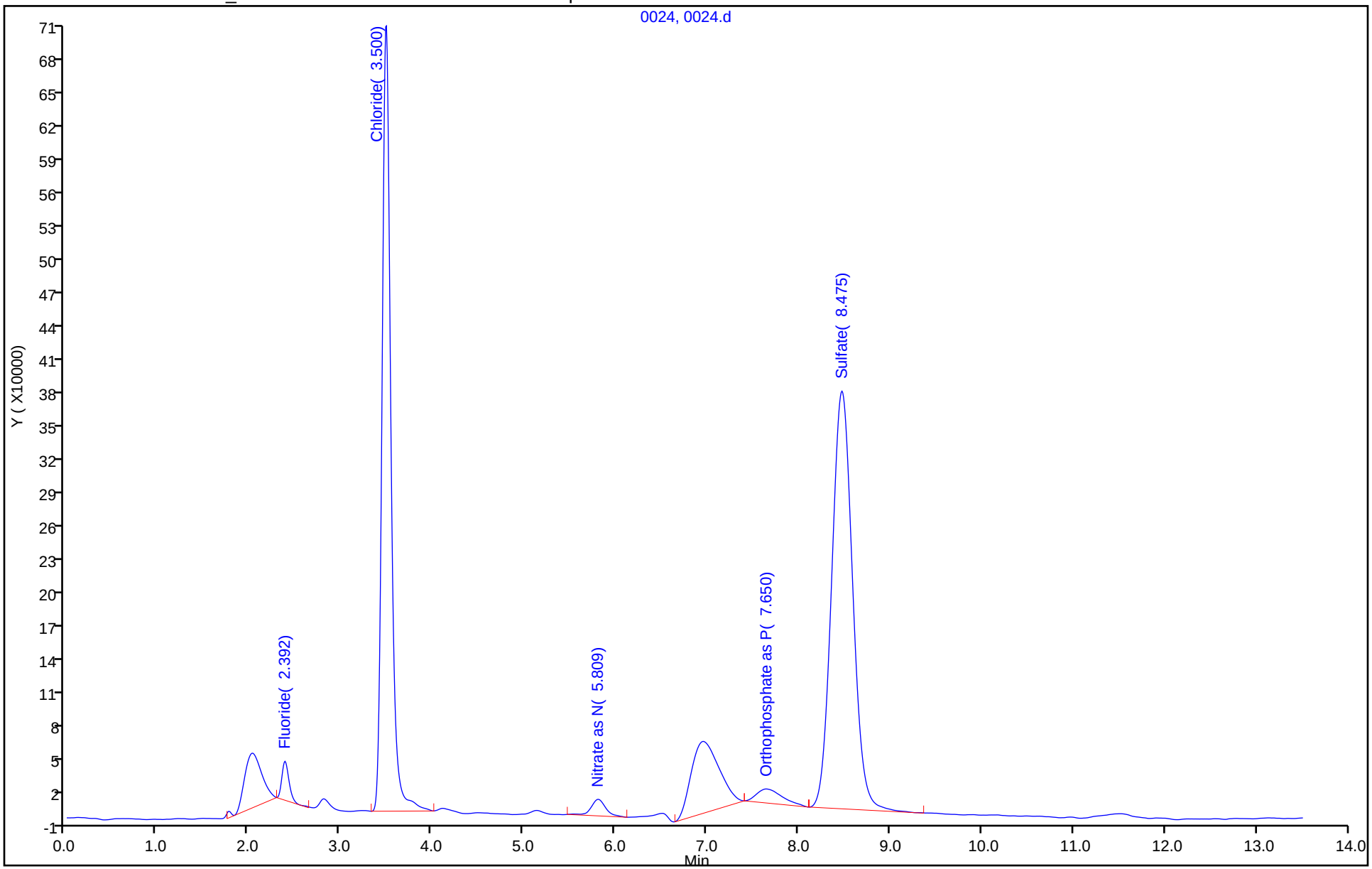
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 17:33:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0024.d				
Injection Date:	19-May-2019 02:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-1 DU			Worklist Smp#:	24
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



06/17/2019

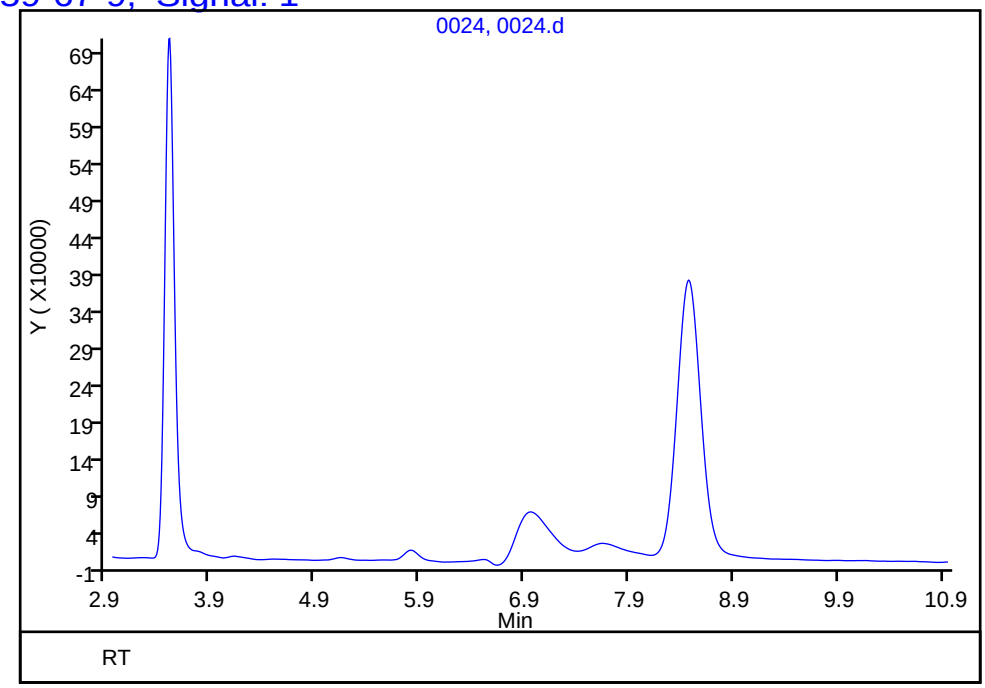
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0024.d
Injection Date: 19-May-2019 02:35:00 Instrument ID: WC_IonChrom11
Lims ID: 280-123983-I-1 DU
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9, Signal: 1

RT: 6.96
Response: 1363215
Amount: 0.710685



Reviewer: pedrickj, 20-May-2019 08:16:19
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0025.d
Lims ID: 280-123983-I-1 MS
Client ID:
Sample Type: MS
Inject. Date: 19-May-2019 02:52:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-025
Misc. Info.: 5600 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.400	2.392	0.008	38622294	NC	NC	
2 Chloride	3.509	3.534	-0.025	151122578	NC	NC	
3 Nitrite as N	4.259	4.267	-0.008	54679599	5.00	5.24	
4 Bromide	5.134	5.151	-0.017	10584138	NC	NC	
5 Nitrate as N	5.800	5.817	-0.017	64282344	5.00	5.57	
7 Orthophosphate as P	7.642	7.592	0.050	30981150	5.00	7.47	
6 Sulfate	8.484	8.509	-0.025	98808723	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

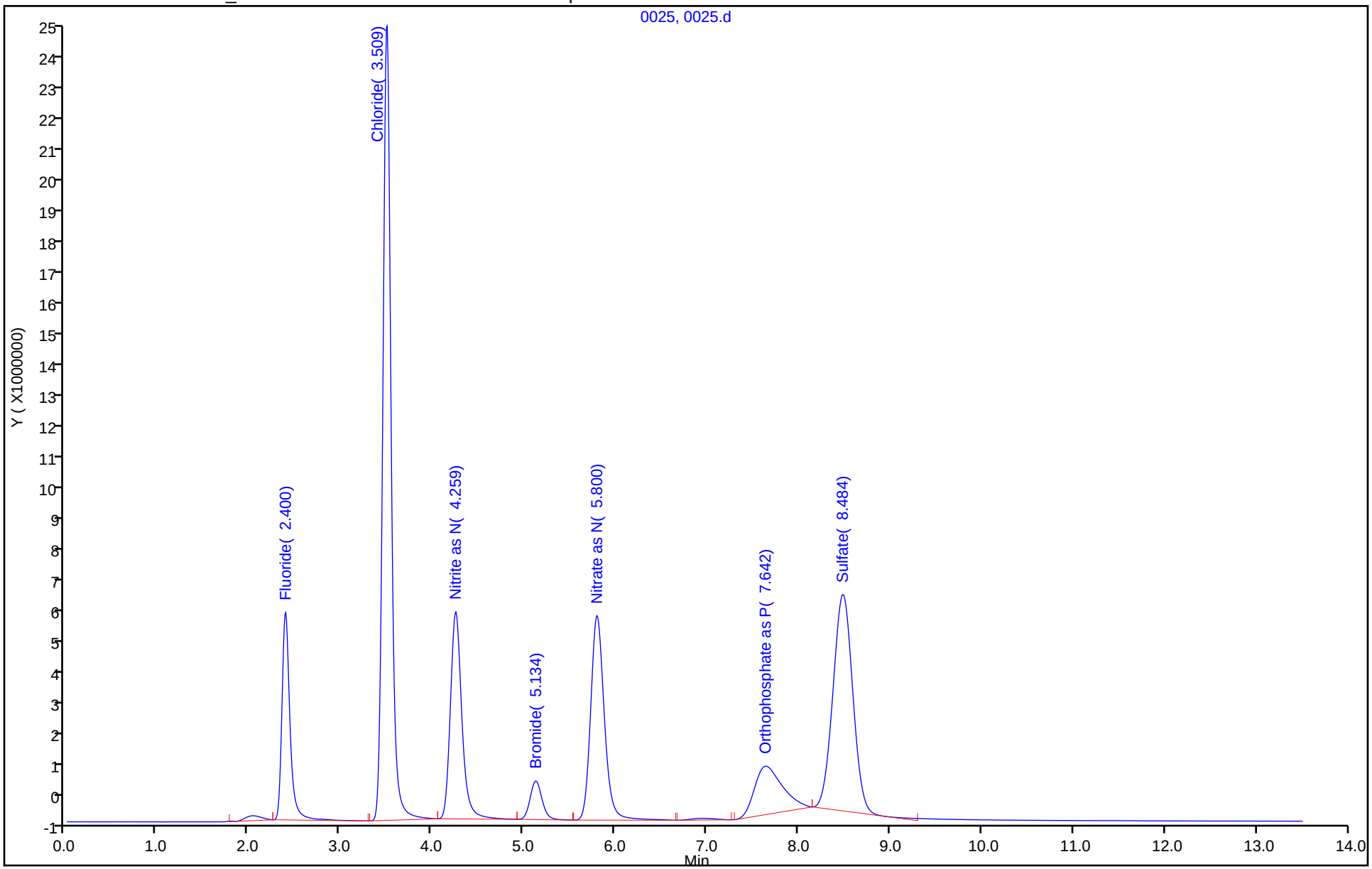
Reagents:

ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 21-May-2019 16:34:31 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0025.d				
Injection Date:	19-May-2019 02:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-1 MS			Worklist Smp#:	25
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0025.d
Lims ID: 280-123983-I-1 MS
Client ID:
Sample Type: MS
Inject. Date: 19-May-2019 02:52:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-025
Misc. Info.: 5600 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.400	2.392	0.008	38622294	5.00	5.17	
2 Chloride	3.509	3.534	-0.025	151122578	25.0	23.1	
3 Nitrite as N	4.259	4.267	-0.008	54679599	NC	NC	
4 Bromide	5.134	5.151	-0.017	10584138	5.00	5.47	
5 Nitrate as N	5.800	5.817	-0.017	64282344	NC	NC	
7 Orthophosphate as P	7.642	7.592	0.050	30981150	NC	NC	
6 Sulfate	8.484	8.509	-0.025	98808723	25.0	22.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated

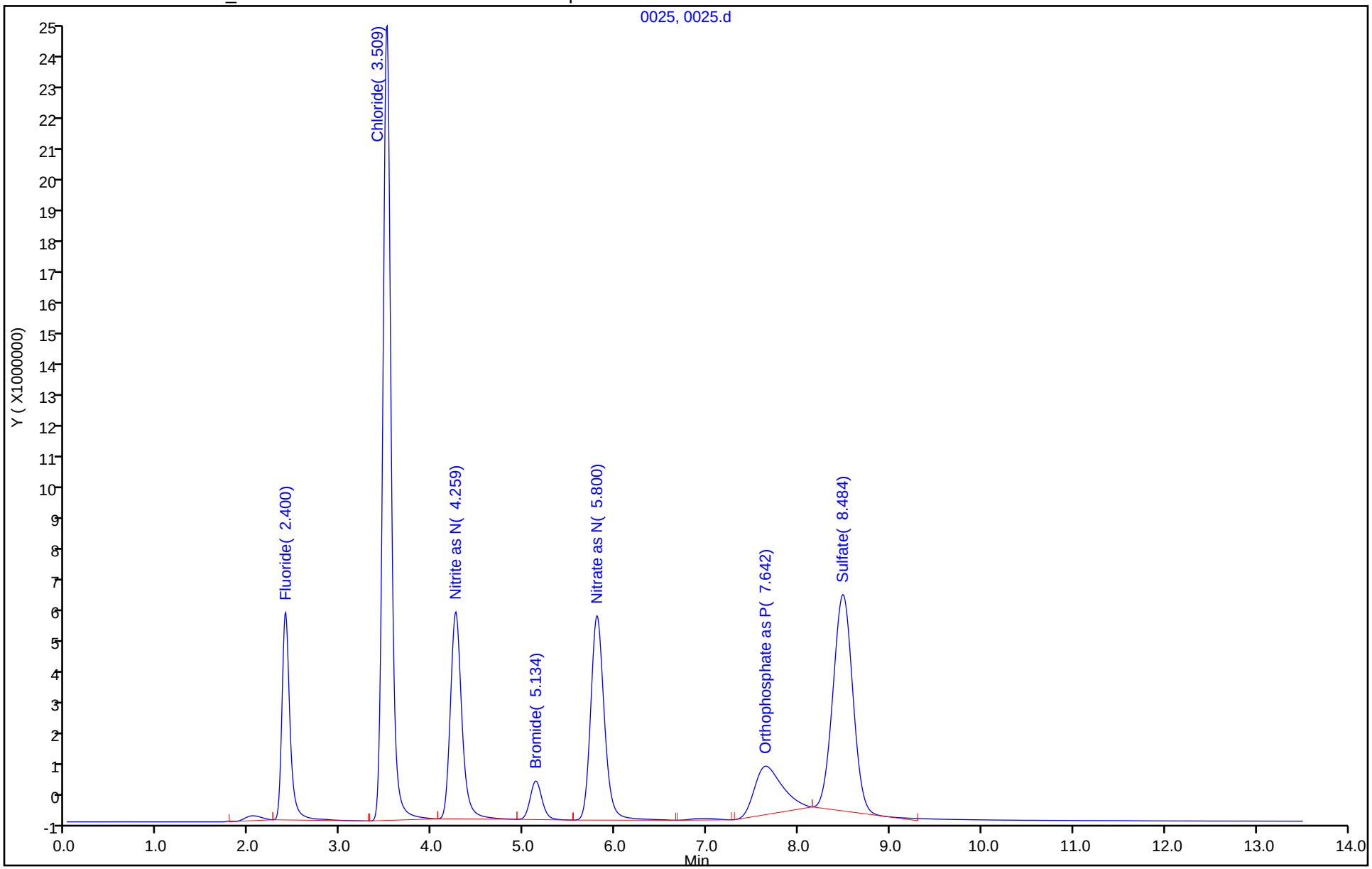
Reagents:

ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 21-May-2019 16:34:31 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0025.d				
Injection Date:	19-May-2019 02:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-1 MS			Worklist Smp#:	25
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0026.d
Lims ID: 280-123983-I-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 19-May-2019 03:08:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-026
Misc. Info.: 24672 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.401	2.392	0.009	38498268	NC	NC	
2 Chloride	3.509	3.534	-0.025	150325848	NC	NC	
3 Nitrite as N	4.259	4.267	-0.008	54485684	5.00	5.22	
4 Bromide	5.134	5.151	-0.017	10512766	NC	NC	
5 Nitrate as N	5.801	5.817	-0.016	63951028	5.00	5.54	
7 Orthophosphate as P	7.642	7.592	0.050	31262594	5.00	7.54	
6 Sulfate	8.492	8.509	-0.017	98322938	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

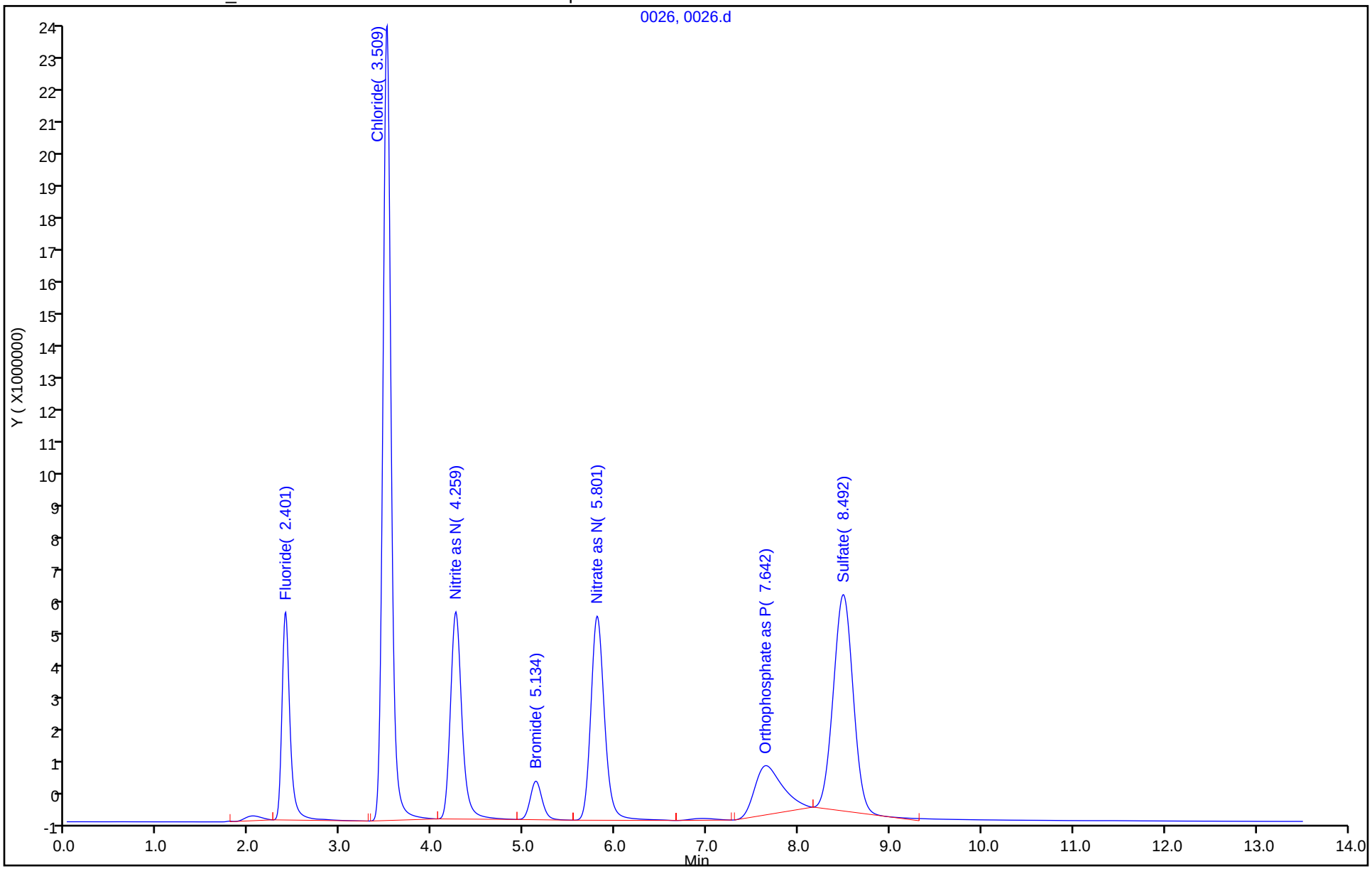
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 21-May-2019 16:34:32 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0026.d

Injection Date:	19-May-2019 03:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-1 MSD			Worklist Smp#:	26
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0026.d
Lims ID: 280-123983-I-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 19-May-2019 03:08:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-026
Misc. Info.: 24672 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.401	2.392	0.009	38498268	5.00	5.15	
2 Chloride	3.509	3.534	-0.025	150325848	25.0	23.0	
3 Nitrite as N	4.259	4.267	-0.008	54485684	NC	NC	
4 Bromide	5.134	5.151	-0.017	10512766	5.00	5.43	
5 Nitrate as N	5.801	5.817	-0.016	63951028	NC	NC	
7 Orthophosphate as P	7.642	7.592	0.050	31262594	NC	NC	
6 Sulfate	8.492	8.509	-0.017	98322938	25.0	22.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

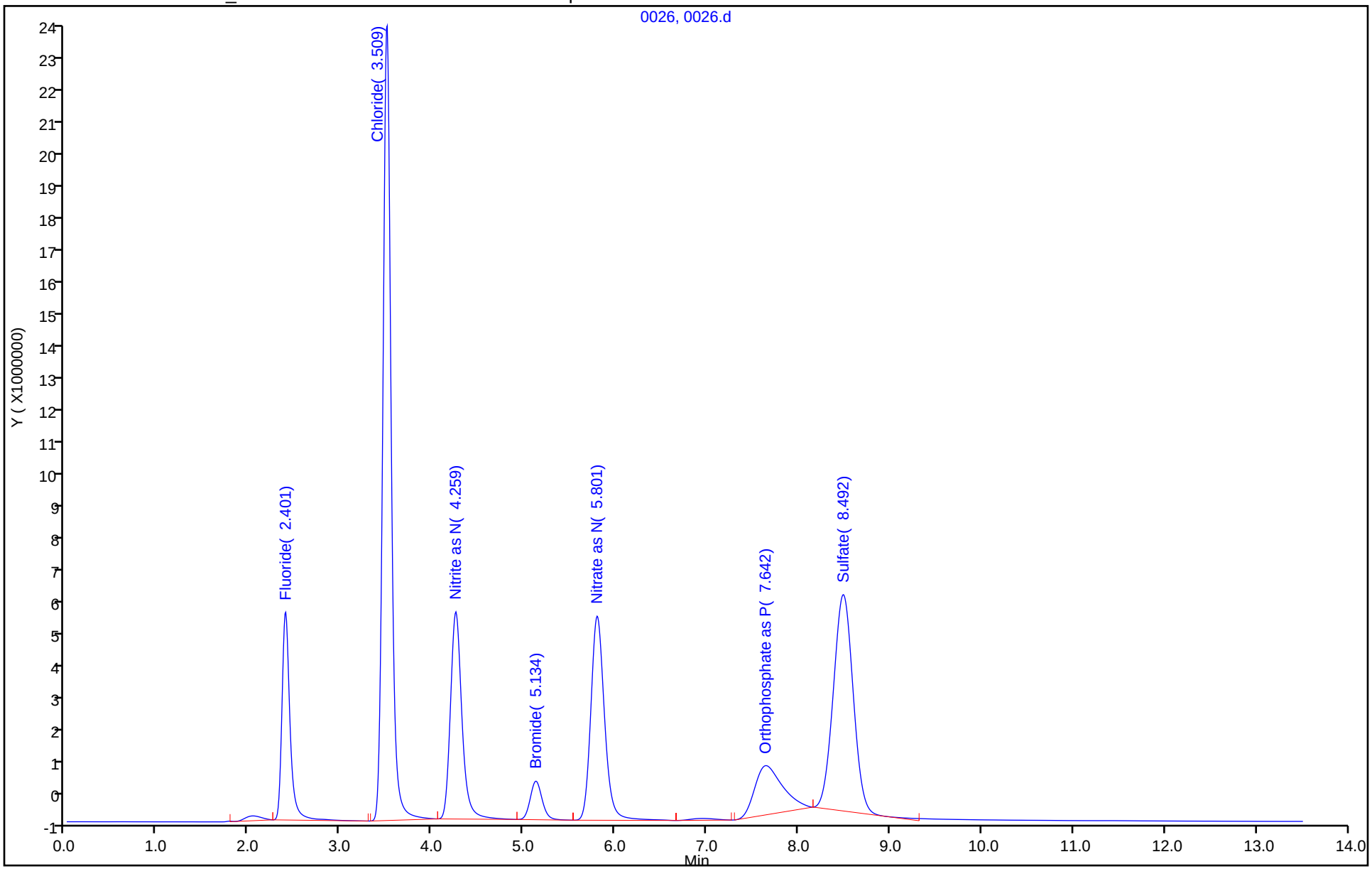
Reagents:

ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 21-May-2019 16:34:32 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0026.d				
Injection Date:	19-May-2019 03:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-1 MSD			Worklist Smp#:	26
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0027.d
Lims ID: 280-123983-H-3
Client ID: LF2SW-3_0519
Sample Type: Client
Inject. Date: 19-May-2019 03:25:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-027
Misc. Info.: 20715 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 17:32:40 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:38

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	348650	NC	
2 Chloride	3.501	3.534	-0.033	26898121	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	U
5 Nitrate as N	5.834	5.817	0.017	447098	0.0767	
7 Orthophosphate as P	7.667	7.592	0.075	1462155	0.3451	
6 Sulfate	8.509	8.509	0.000	141784136	NC	

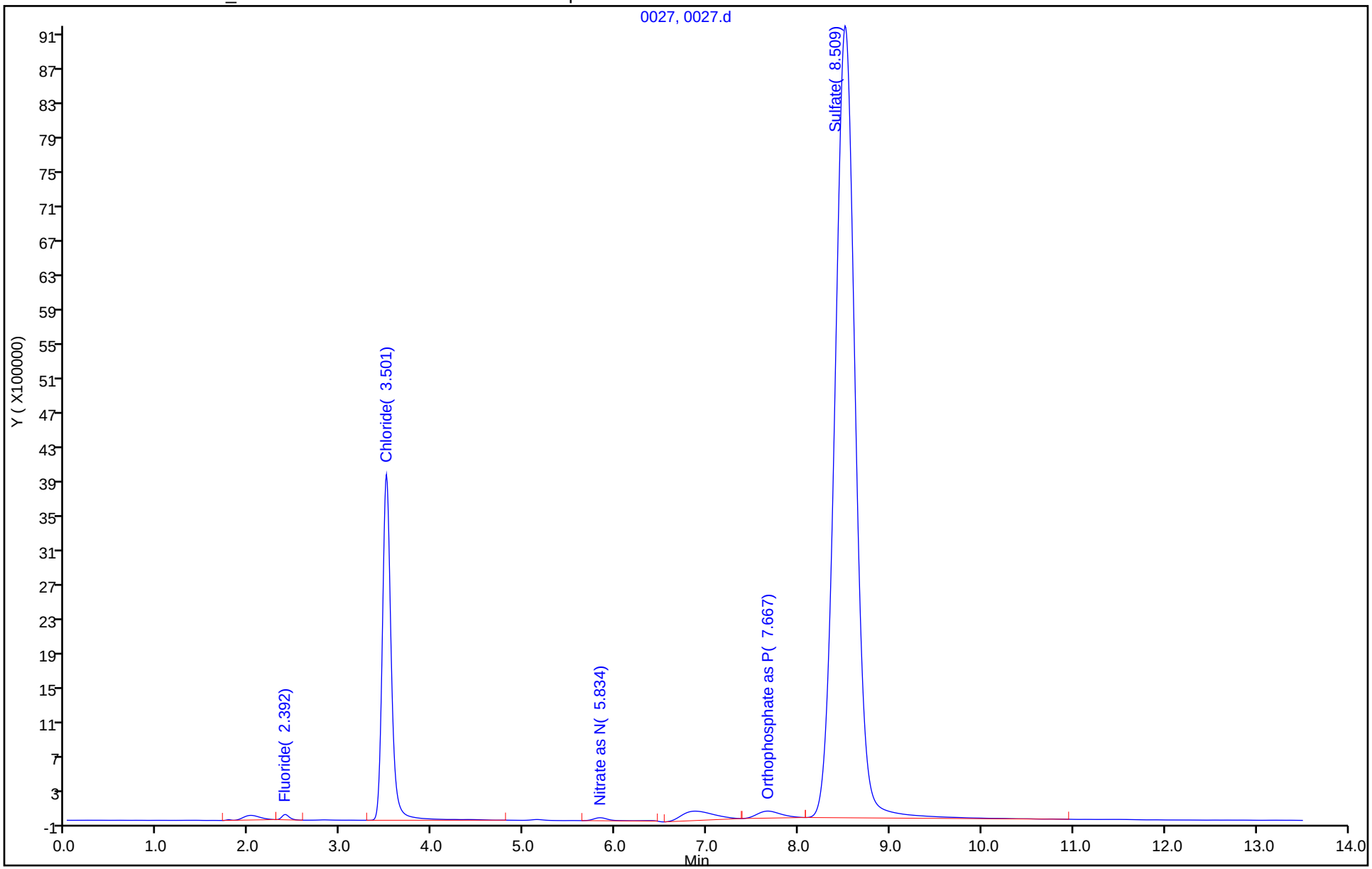
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 17:33:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0027.d				
Injection Date:	19-May-2019 03:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-H-3	Lab Sample ID:	280-123983-3	Worklist Smp#:	27
Client ID:	LF2SW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



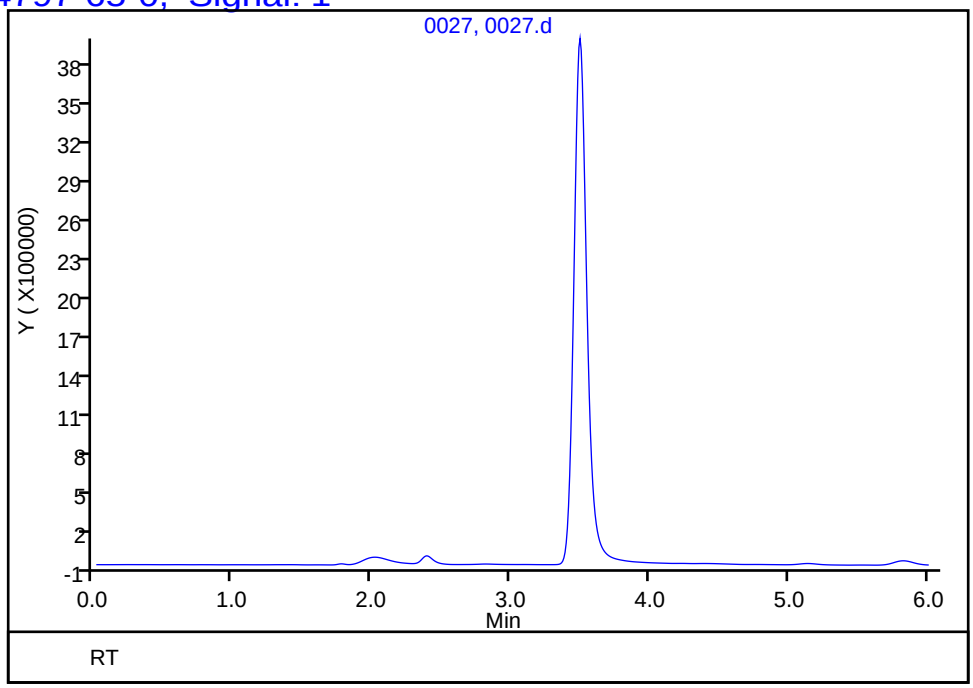
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0027.d				
Injection Date:	19-May-2019 03:25:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123983-H-3	Lab Sample ID:	280-123983-3		
Client ID:	LF2SW-3_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	27
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.02
Response: 692928
Amount: 0.091216



Reviewer: pedrickj, 20-May-2019 08:16:38
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0027.d
Lims ID: 280-123983-H-3
Client ID: LF2SW-3_0519
Sample Type: Client
Inject. Date: 19-May-2019 03:25:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-027
Misc. Info.: 20715 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 17:32:40 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:38

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	348650	-0.1065	
2 Chloride	3.501	3.534	-0.033	26898121	4.62	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	U
5 Nitrate as N	5.834	5.817	0.017	447098	NC	
7 Orthophosphate as P	7.667	7.592	0.075	1462155	NC	
6 Sulfate	8.509	8.509	0.000	141784136	32.1	

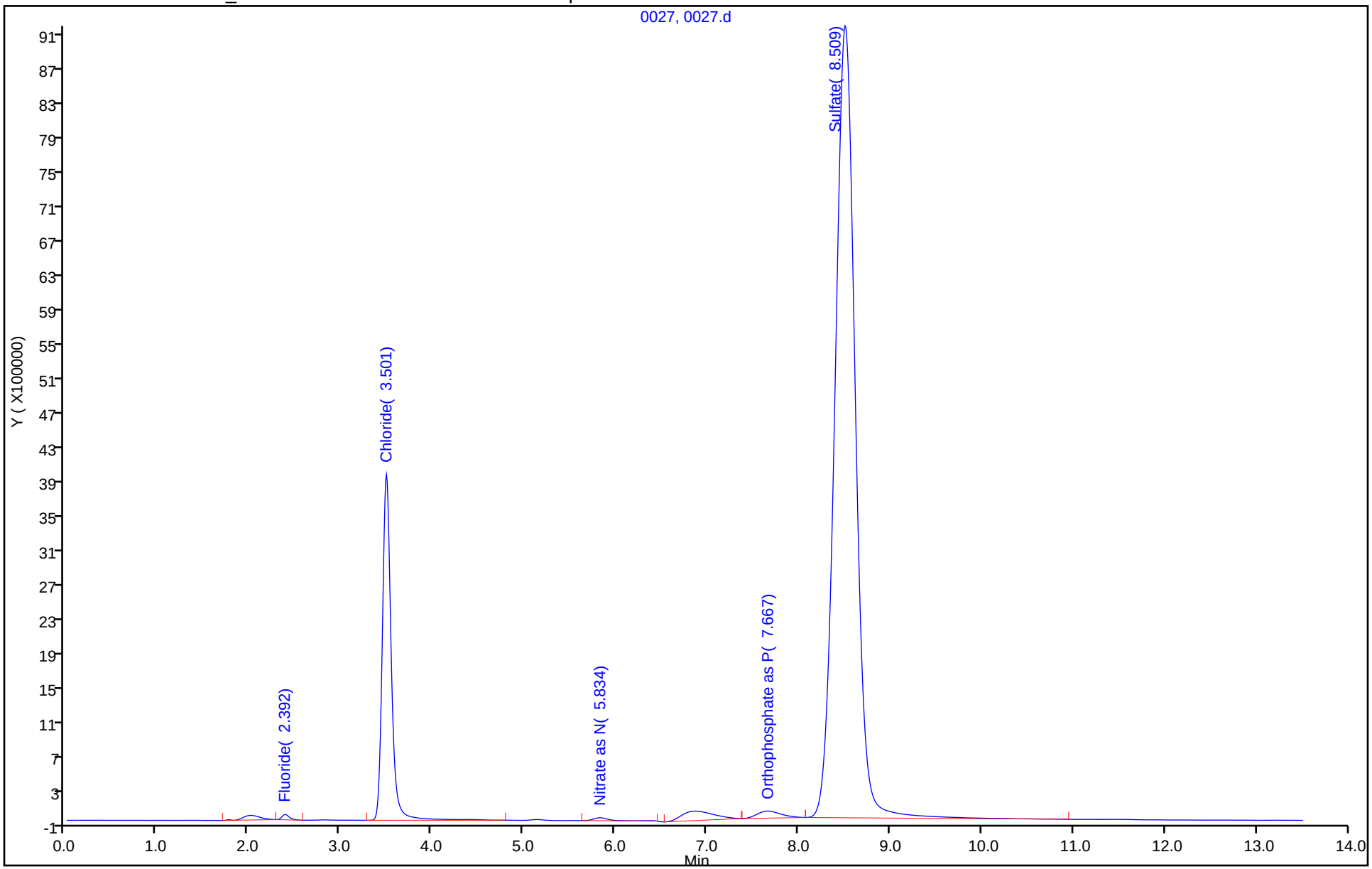
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 17:33:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0027.d				
Injection Date:	19-May-2019 03:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-H-3	Lab Sample ID:	280-123983-3	Worklist Smp#:	27
Client ID:	LF2SW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



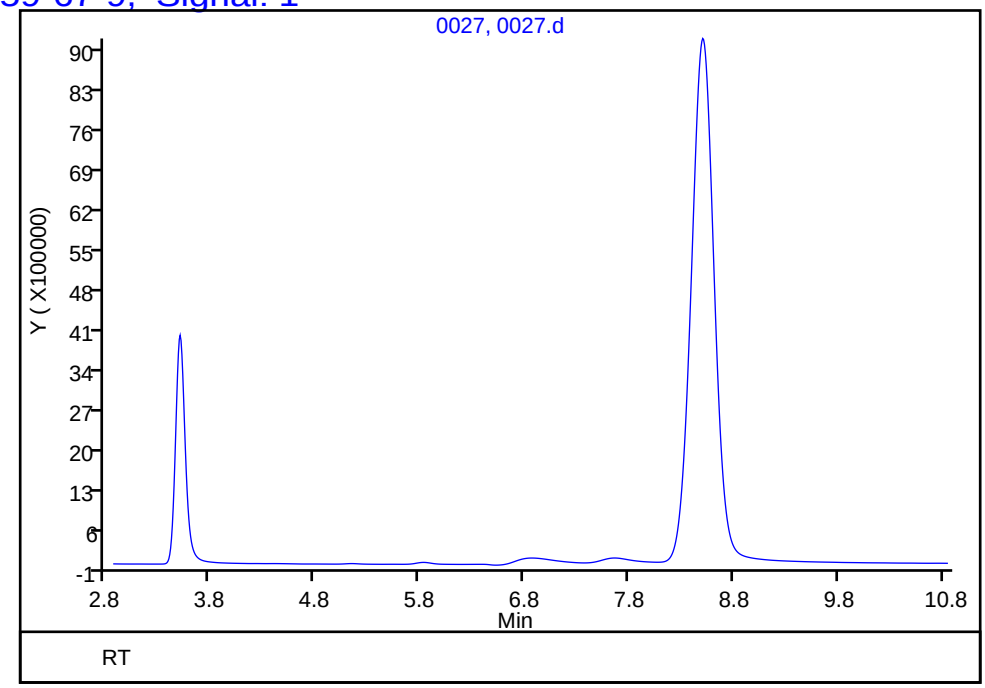
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0027.d				
Injection Date:	19-May-2019 03:25:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123983-H-3	Lab Sample ID:	280-123983-3		
Client ID:	LF2SW-3_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	27
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

4 Bromide, CAS: 24959-67-9, Signal: 1

RT: 6.87
Response: 2605833
Amount: 1.351529



Reviewer: pedrickj, 20-May-2019 08:16:38
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0028.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2019 03:41:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-028
Misc. Info.: 5461 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:34:35 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38401453	NC	NC	
2 Chloride	3.526	3.534	-0.008	675341584	NC	NC	
3 Nitrite as N	4.259	4.267	-0.008	53398815	5.00	5.11	
4 Bromide	5.126	5.151	-0.025	10304764	NC	NC	
5 Nitrate as N	5.792	5.817	-0.025	61867058	5.00	5.37	
7 Orthophosphate as P	7.584	7.592	-0.008	25681531	5.00	6.19	
6 Sulfate	8.517	8.509	0.008	428440541	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

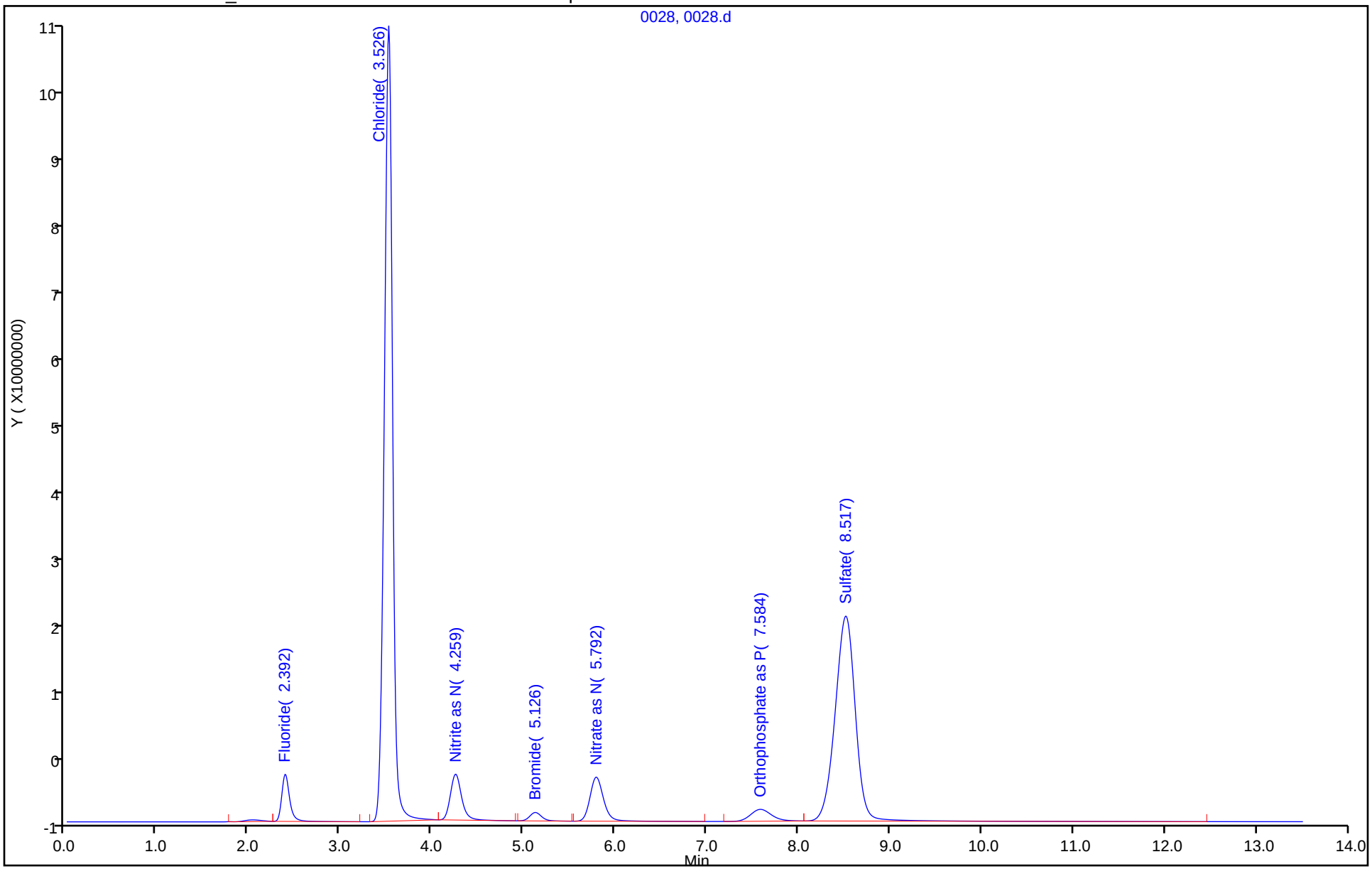
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:34:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0028.d

Injection Date:	19-May-2019 03:41:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0028.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2019 03:41:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-028
Misc. Info.: 5461 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:35 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38401453	5.00	5.14	
2 Chloride	3.526	3.534	-0.008	675341584	100.0	101.1	
3 Nitrite as N	4.259	4.267	-0.008	53398815	NC	NC	
4 Bromide	5.126	5.151	-0.025	10304764	5.00	5.32	
5 Nitrate as N	5.792	5.817	-0.025	61867058	NC	NC	
7 Orthophosphate as P	7.584	7.592	-0.008	25681531	NC	NC	
6 Sulfate	8.517	8.509	0.008	428440541	100.0	96.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

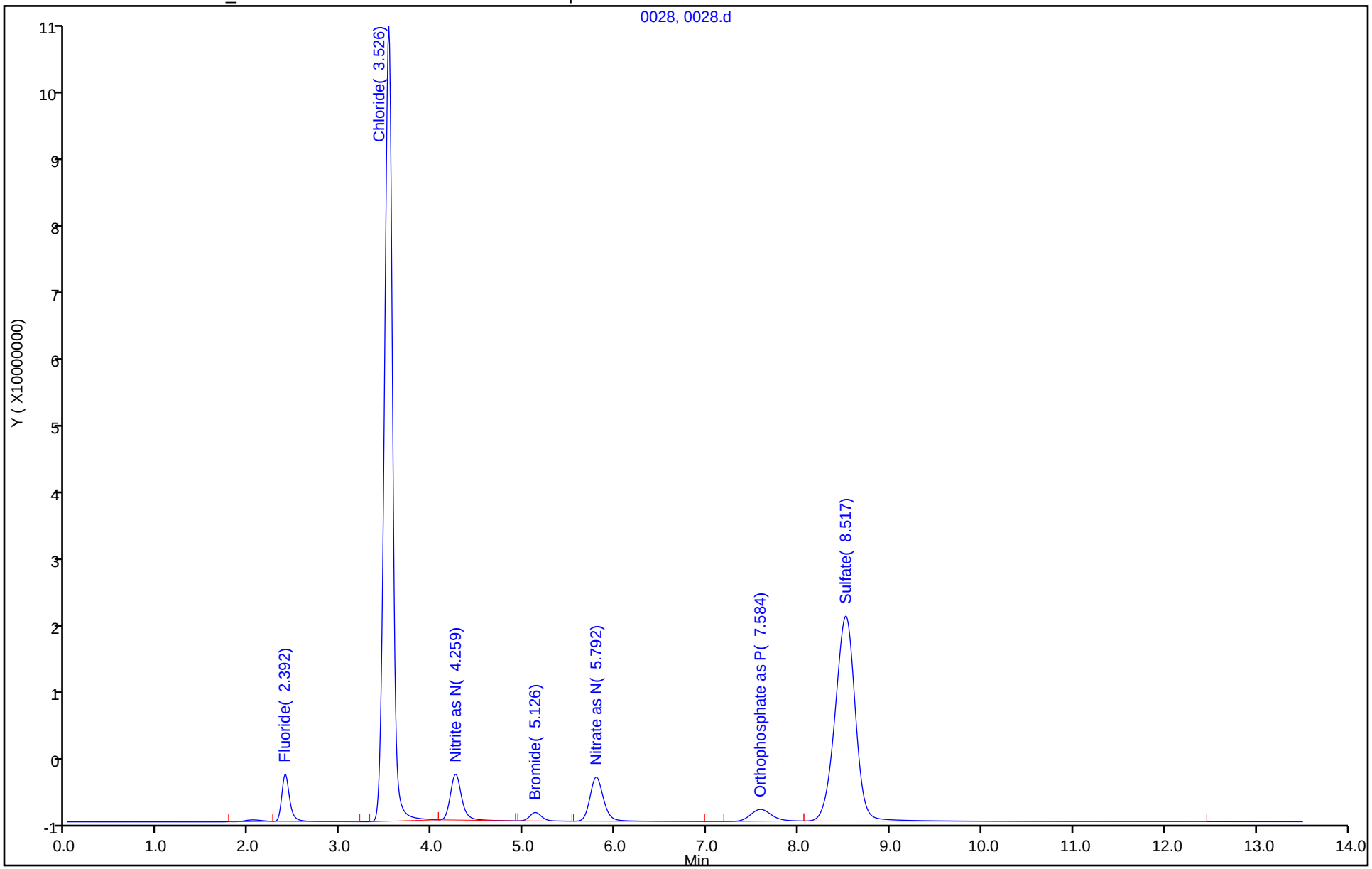
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:34:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0028.d

Injection Date:	19-May-2019 03:41:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0029.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	19-May-2019 03:57:00	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082040-029				
Misc. Info.:	13153 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	21-May-2019 16:34:35	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0330				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.392				ND	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate	7.059	8.509	-1.450	302265			NC

QC Flag Legend

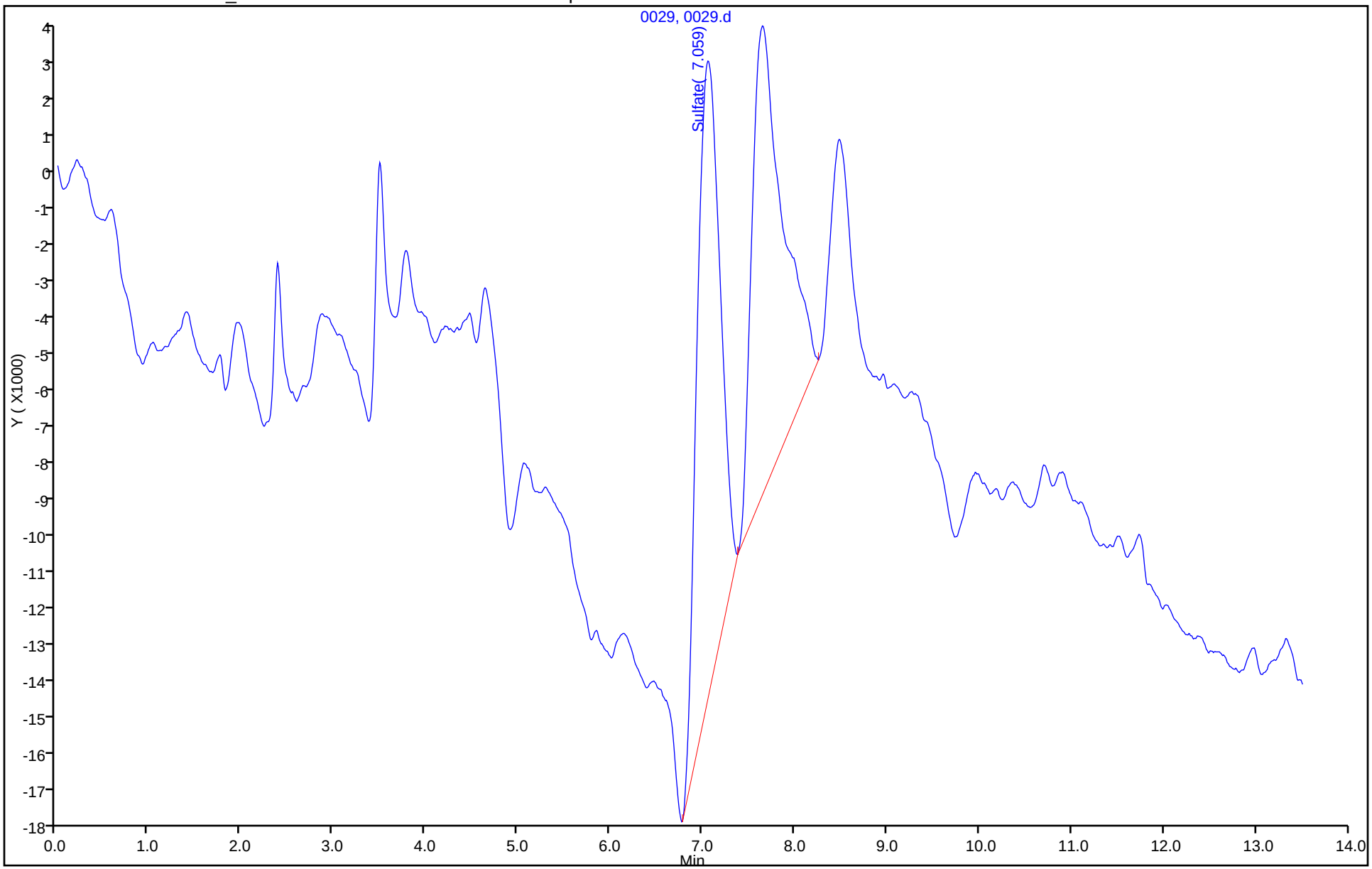
Processing Flags
NC - Not Calibrated

Report Date: 21-May-2019 16:34:37 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0029.d

Injection Date:	19-May-2019 03:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0029.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 19-May-2019 03:57:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-029
Misc. Info.: 13153 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:35 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

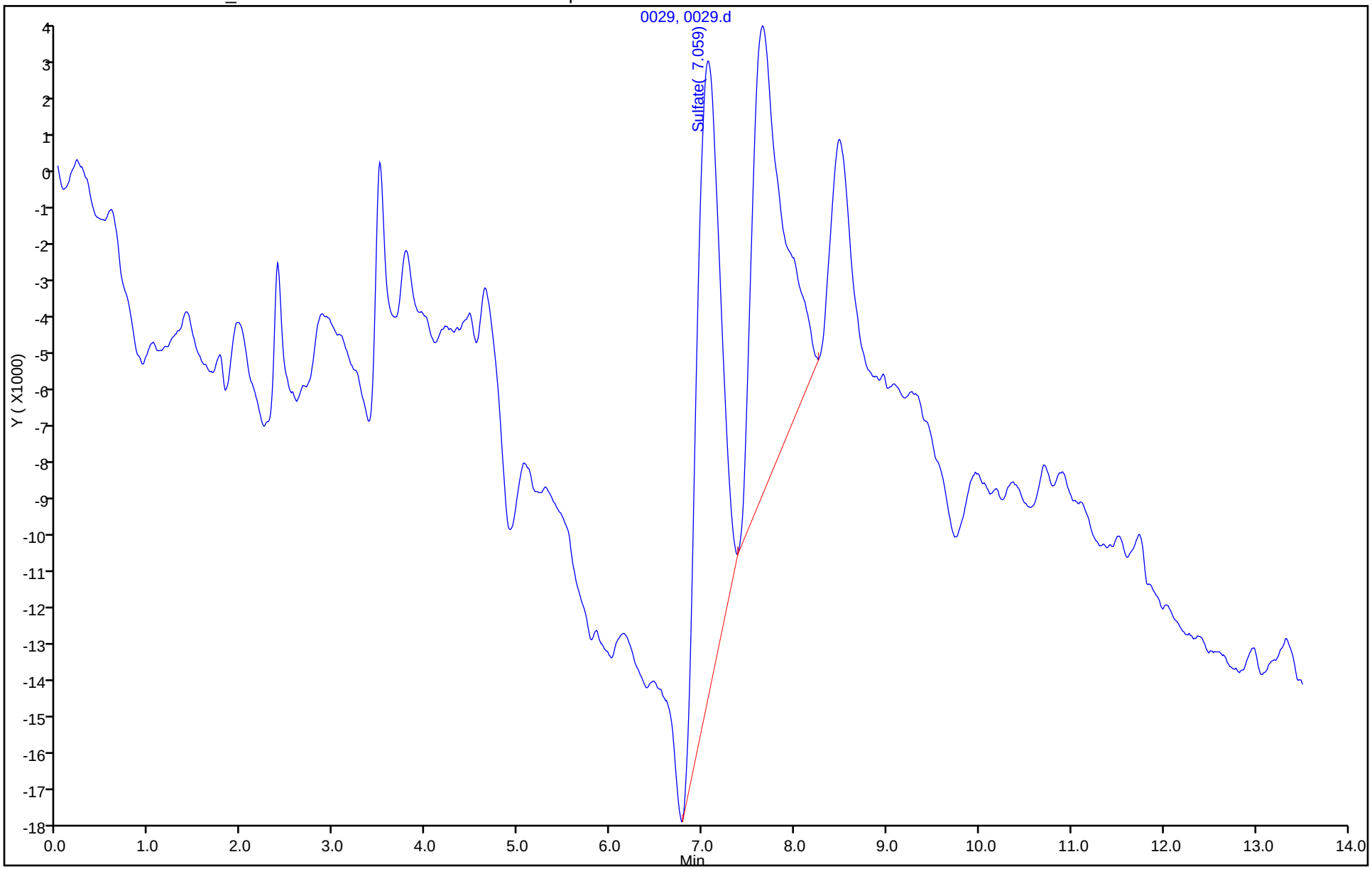
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.392				ND	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate	7.059	8.509	-1.450	302265		0.5049	

Report Date: 21-May-2019 16:34:37 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0029.d

Injection Date:	19-May-2019 03:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-May-2019 15:30:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:56 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	1366393	NC	NC	
2 Chloride	3.209	3.225	-0.016	4569363	NC	NC	
3 Nitrite as N	3.842	3.850	-0.008	1909782	0.2000	0.2135	
4 Bromide	4.576	4.575	0.001	400482	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	2221862	0.2000	0.2220	
7 Orthophosphate as P	5.642	5.634	0.008	1282877	0.2000	0.2159	
6 Sulfate	6.359	6.409	-0.050	3422980	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

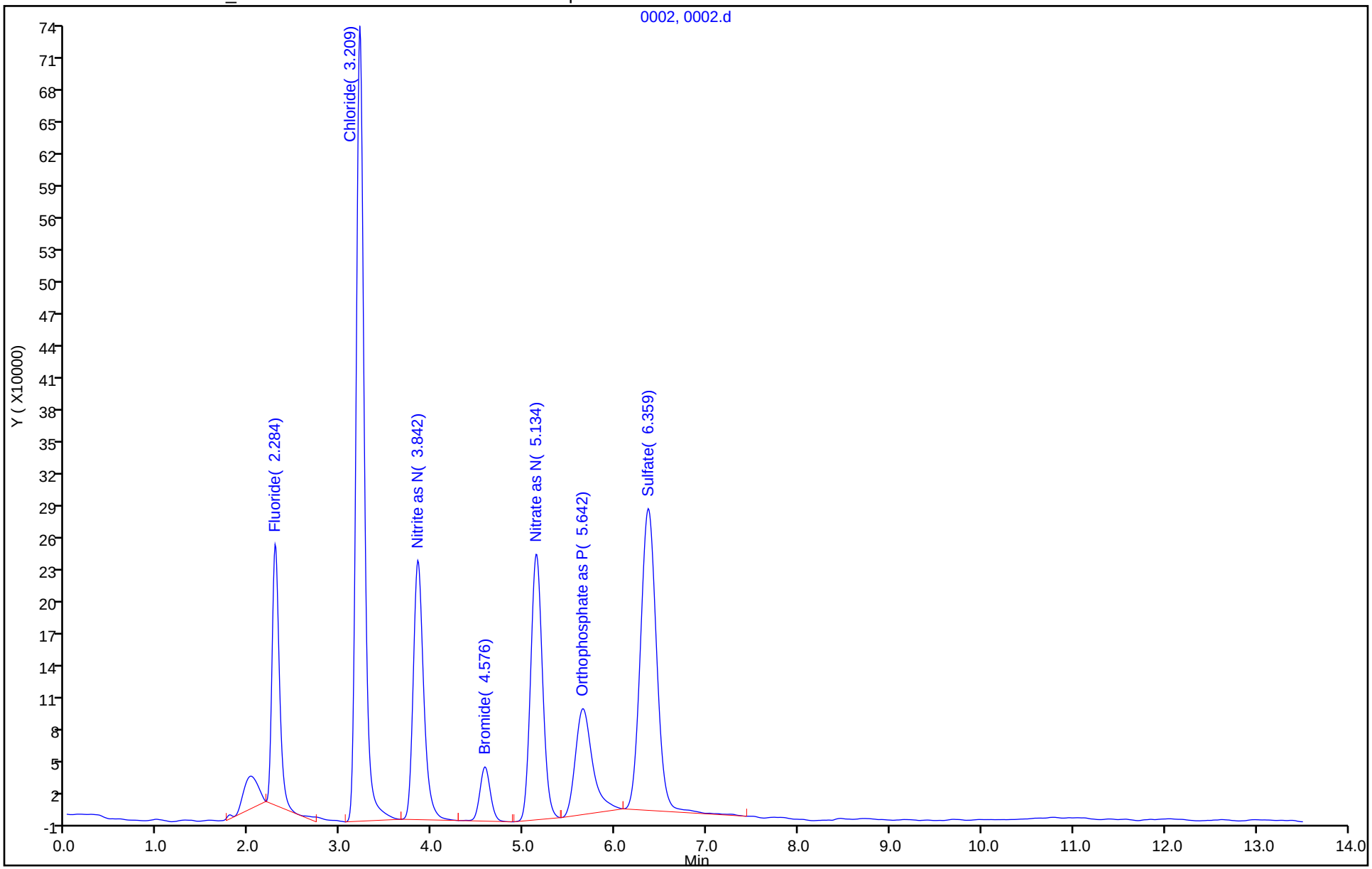
IC CAL cl/so4_00257 Amount Added: 0.02 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d

Injection Date:	20-May-2019 15:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-May-2019 15:30:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:56 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	1366393	0.2000	0.2154	
2 Chloride	3.209	3.225	-0.016	4569363	1.00	1.32	
3 Nitrite as N	3.842	3.850	-0.008	1909782	NC	NC	
4 Bromide	4.576	4.575	0.001	400482	0.2000	0.2052	
5 Nitrate as N	5.134	5.134	0.000	2221862	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	1282877	NC	NC	
6 Sulfate	6.359	6.409	-0.050	3422980	1.00	1.24	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

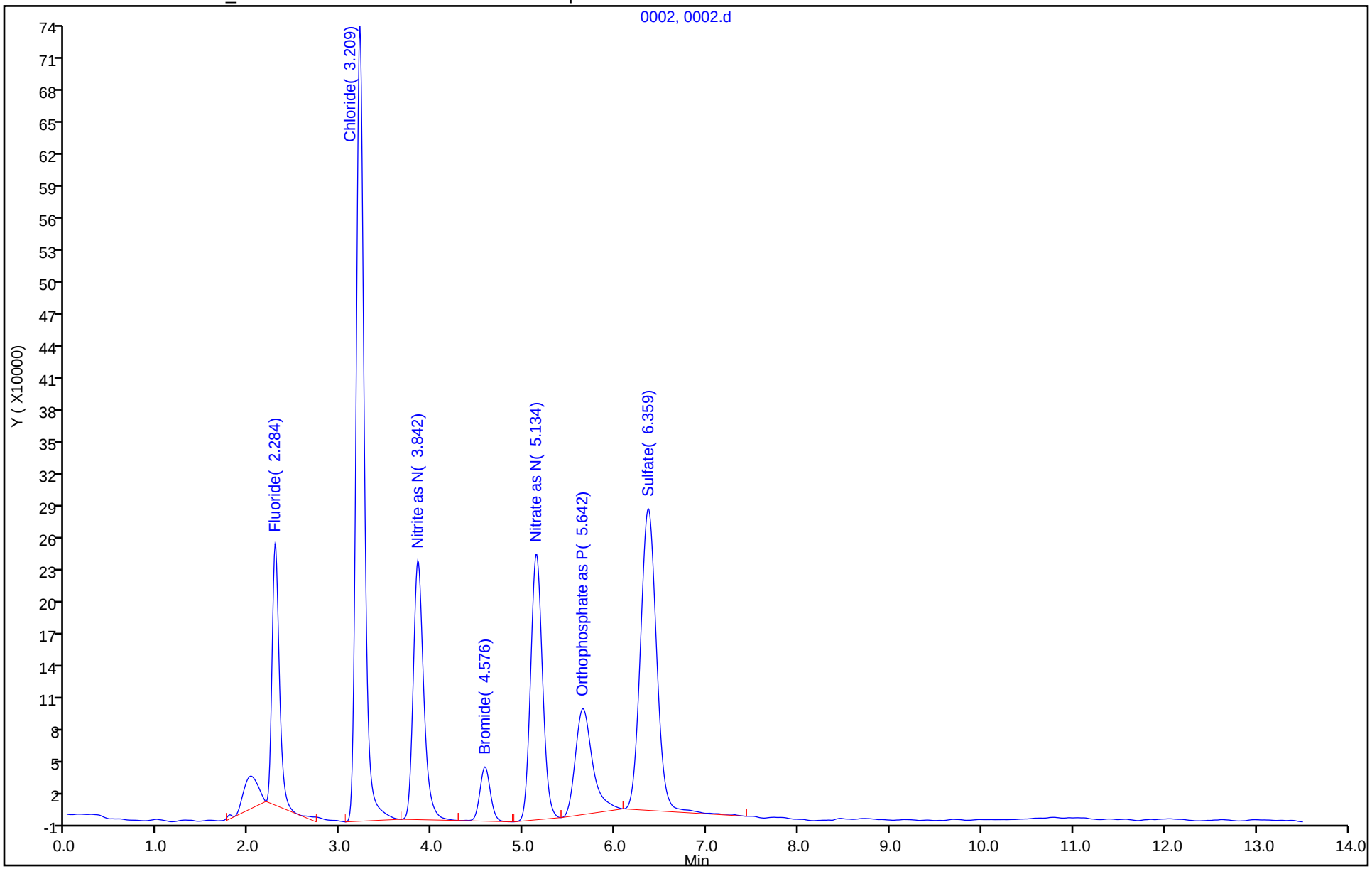
IC CAL cl/so4_00257 Amount Added: 0.02 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d

Injection Date:	20-May-2019 15:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-May-2019 15:47:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:57 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3430647	NC	NC	
2 Chloride	3.217	3.225	-0.008	11169540	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	4883590	0.5000	0.4916	
4 Bromide	4.575	4.575	0.000	1010337	NC	NC	
5 Nitrate as N	5.142	5.134	0.008	5516108	0.5000	0.4876	
7 Orthophosphate as P	5.642	5.634	0.008	2559825	0.5000	0.4883	
6 Sulfate	6.367	6.409	-0.042	8373202	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

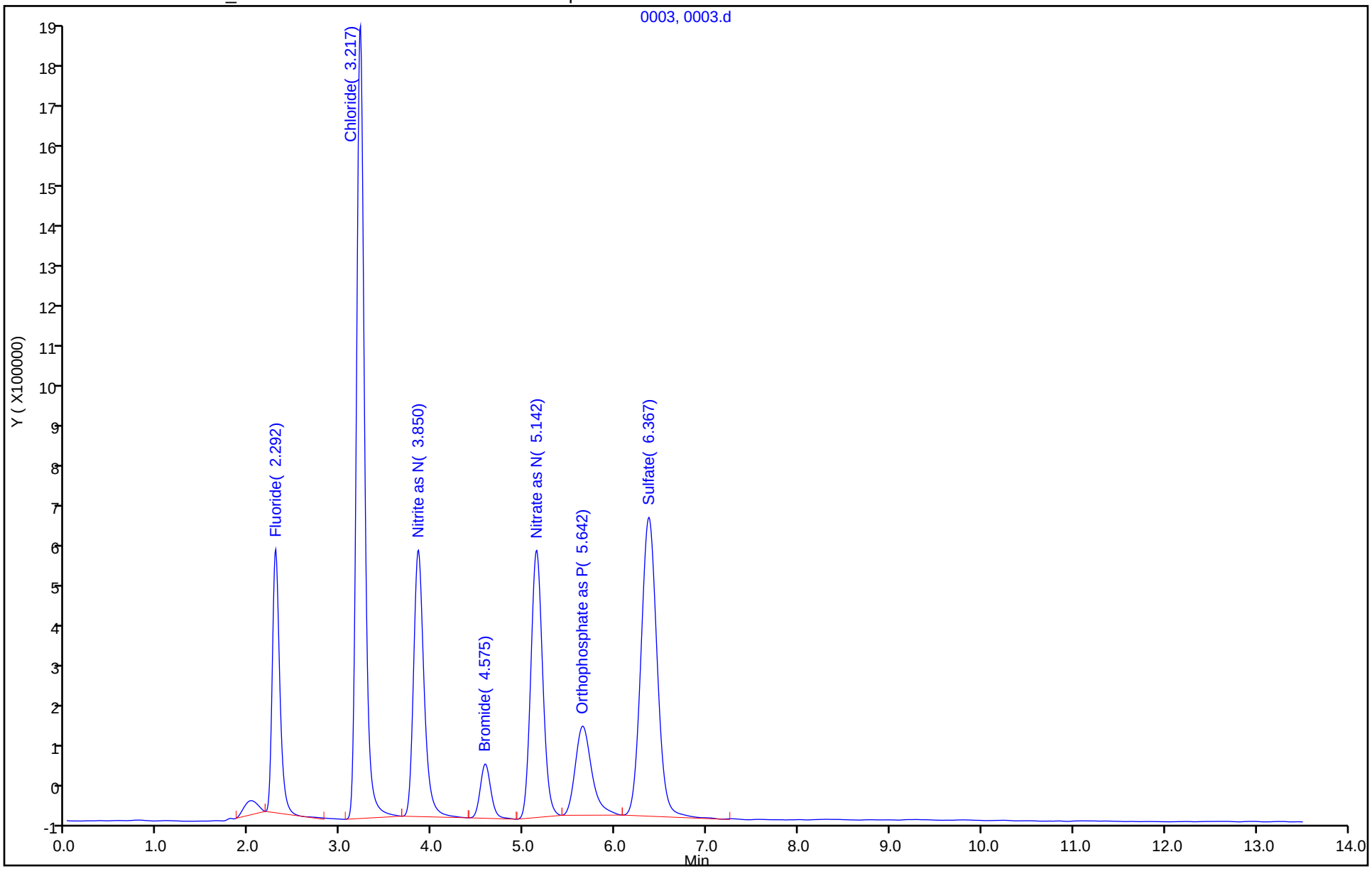
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d

Injection Date:	20-May-2019 15:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-May-2019 15:47:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:57 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3430647	0.5000	0.4876	
2 Chloride	3.217	3.225	-0.008	11169540	2.50	2.33	
3 Nitrite as N	3.850	3.850	0.000	4883590	NC	NC	
4 Bromide	4.575	4.575	0.000	1010337	0.5000	0.4998	
5 Nitrate as N	5.142	5.134	0.008	5516108	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	2559825	NC	NC	
6 Sulfate	6.367	6.409	-0.042	8373202	2.50	2.40	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

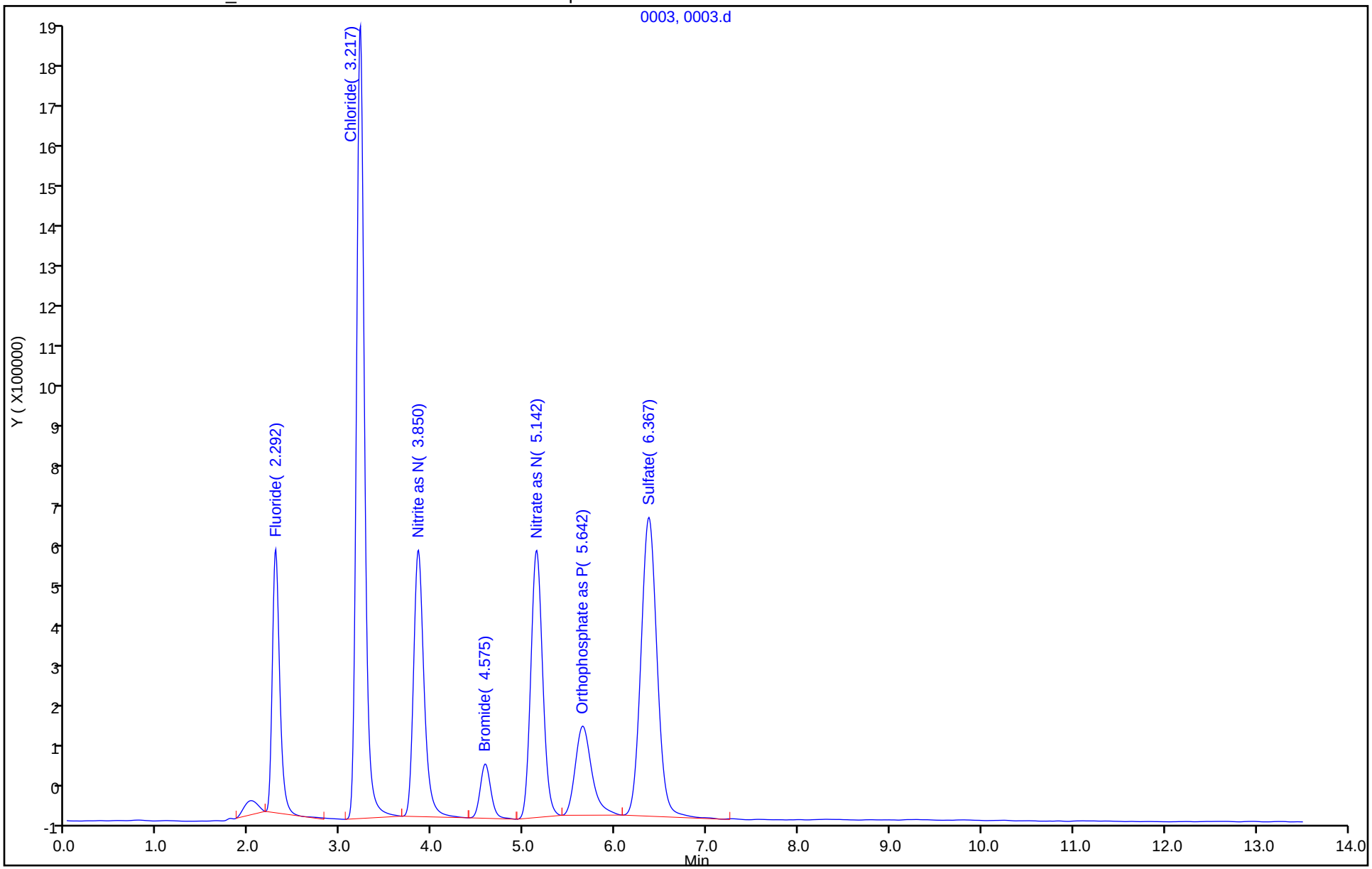
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d

Injection Date:	20-May-2019 15:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-May-2019 16:03:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	7044898	NC	NC	
2 Chloride	3.209	3.225	-0.016	22624207	NC	NC	
3 Nitrite as N	3.842	3.850	-0.008	9975765	1.00	0.9678	
4 Bromide	4.575	4.575	0.000	2013985	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	11156305	1.00	0.9423	
7 Orthophosphate as P	5.642	5.634	0.008	4766974	1.00	0.9591	
6 Sulfate	6.359	6.409	-0.050	16706402	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

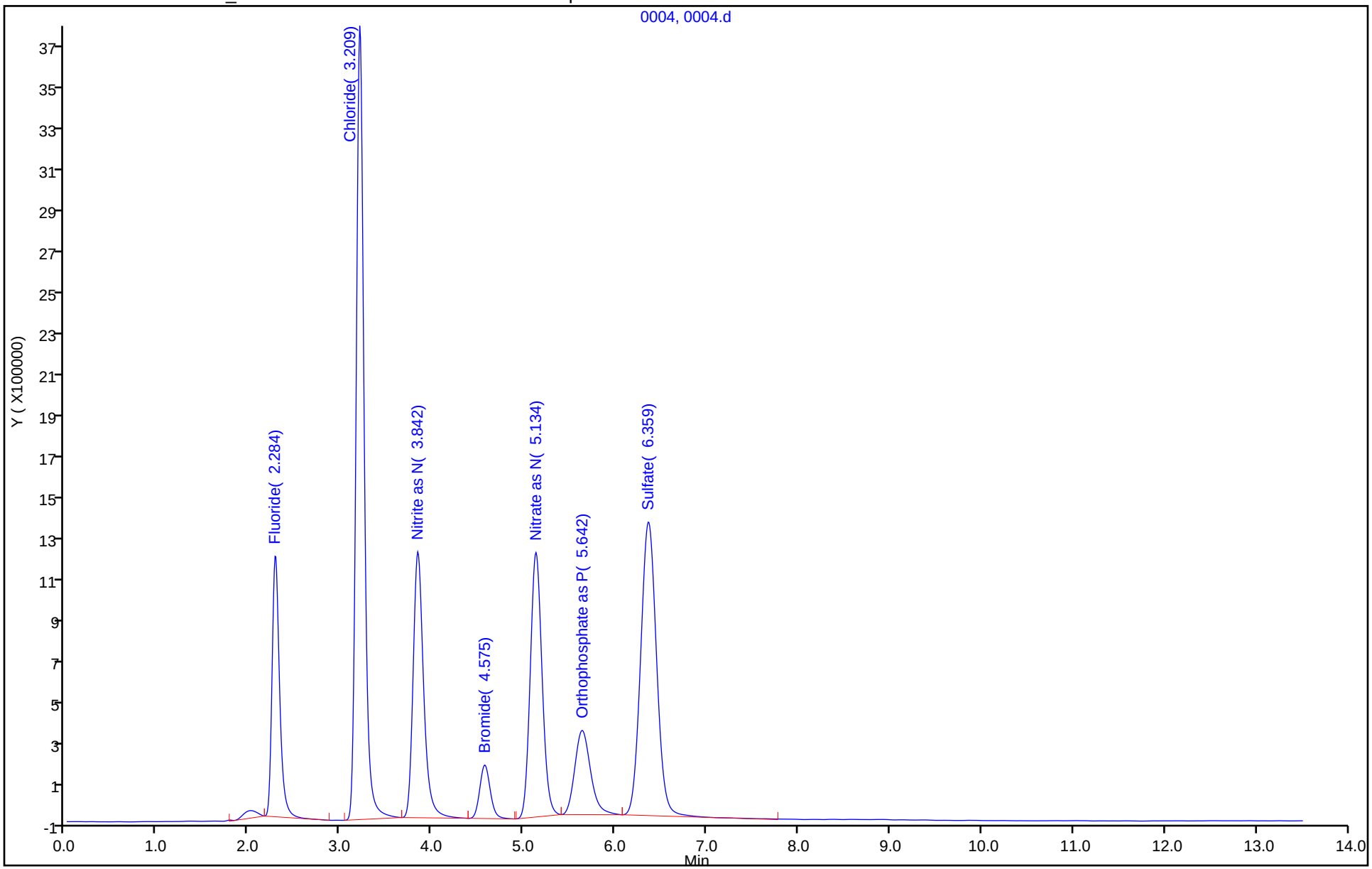
IC CAL cl/so4_00257	Amount Added:	0.10	Units: mL
IC Cal low_00459	Amount Added:	0.10	Units: mL

Report Date: 22-May-2019 07:58:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d

Injection Date:	20-May-2019 16:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-May-2019 16:03:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	7044898	1.00	0.9642	
2 Chloride	3.209	3.225	-0.016	22624207	5.00	4.08	
3 Nitrite as N	3.842	3.850	-0.008	9975765	NC	NC	
4 Bromide	4.575	4.575	0.000	2013985	1.00	0.9847	
5 Nitrate as N	5.134	5.134	0.000	11156305	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	4766974	NC	NC	
6 Sulfate	6.359	6.409	-0.050	16706402	5.00	4.34	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

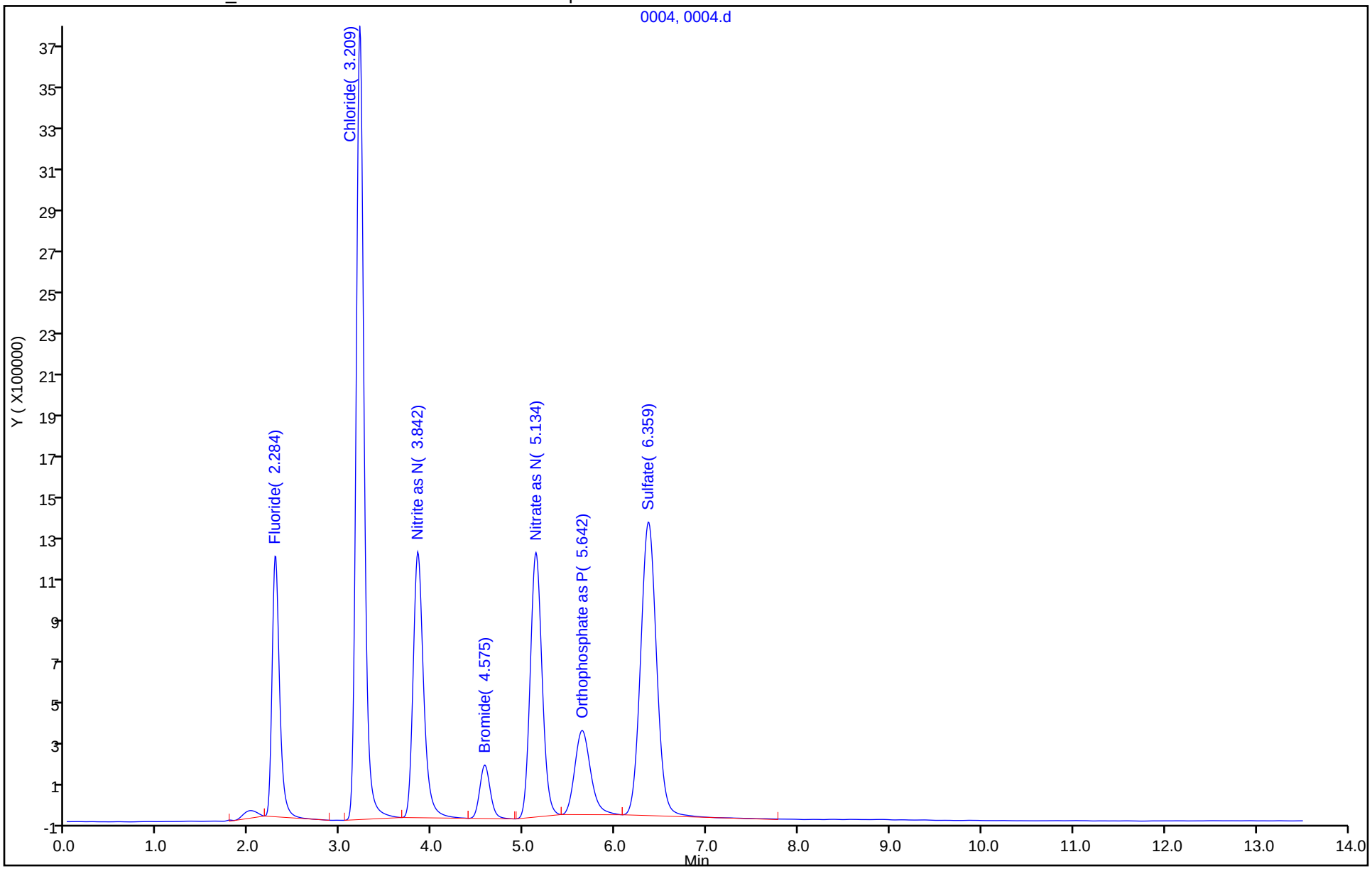
IC CAL cl/so4_00257	Amount Added:	0.10	Units: mL
IC Cal low_00459	Amount Added:	0.10	Units: mL

Report Date: 22-May-2019 07:58:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d

Injection Date:	20-May-2019 16:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d				
Lims ID:	std L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	20-May-2019 16:20:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-005				
Misc. Info.:	5 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29030461	NC	NC	
2 Chloride	3.225	3.225	0.000	351737681	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	40862664	4.00	3.86	
4 Bromide	4.575	4.575	0.000	8108630	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	46444411	4.00	3.79	
7 Orthophosphate as P	5.634	5.634	0.000	18453992	4.00	3.88	
6 Sulfate	6.392	6.392	0.000	231352897	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

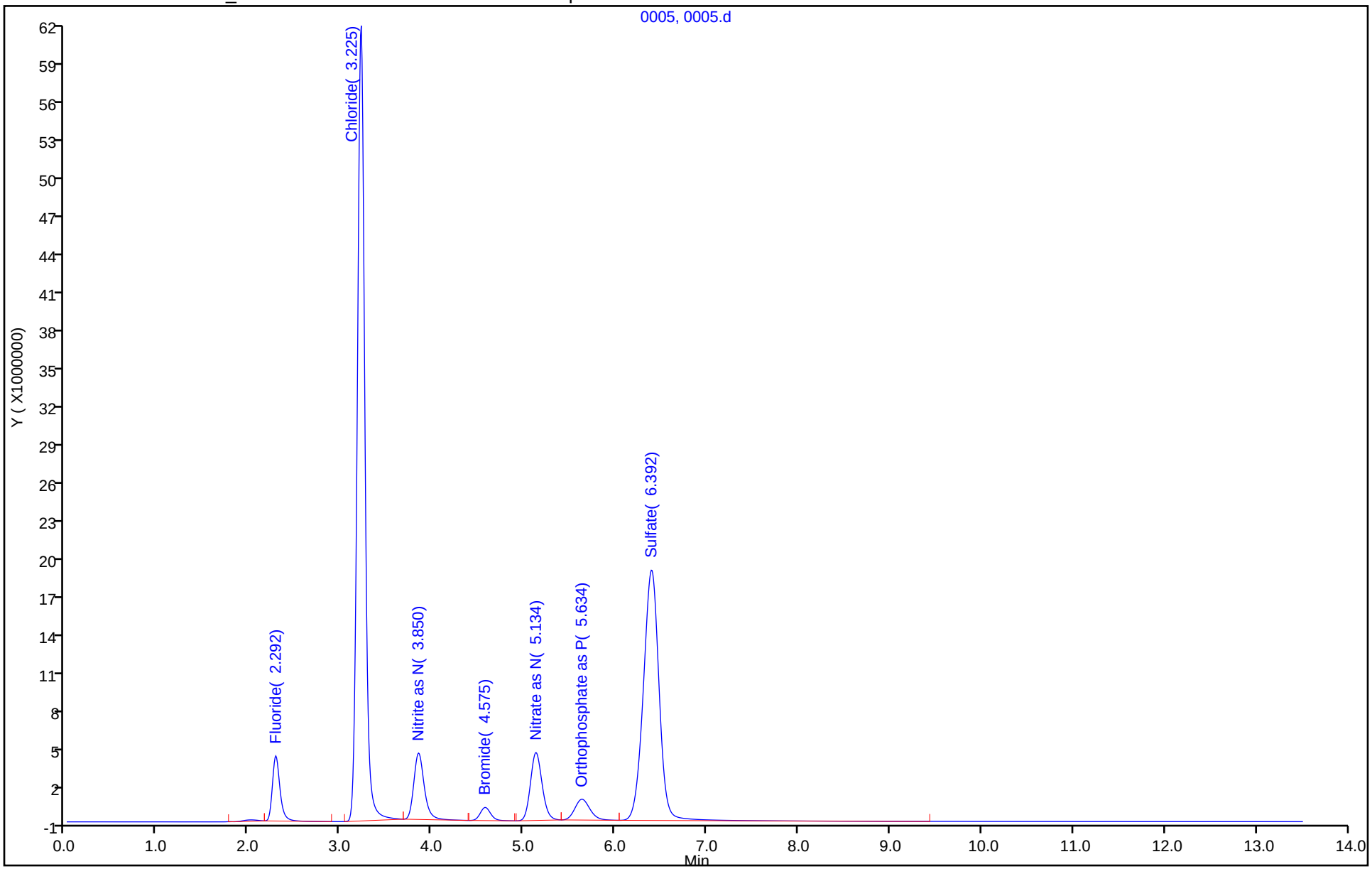
IC CAL cl/so4_00257	Amount Added:	1.20	Units: mL
IC Cal low_00459	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d

Injection Date:	20-May-2019 16:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d				
Lims ID:	std L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	20-May-2019 16:20:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-005				
Misc. Info.:	5 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29030461	4.00	3.86	
2 Chloride	3.225	3.225	0.000	351737681	60.0	54.5	
3 Nitrite as N	3.850	3.850	0.000	40862664	NC	NC	
4 Bromide	4.575	4.575	0.000	8108630	4.00	3.93	
5 Nitrate as N	5.134	5.134	0.000	46444411	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	18453992	NC	NC	
6 Sulfate	6.392	6.392	0.000	231352897	60.0	54.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

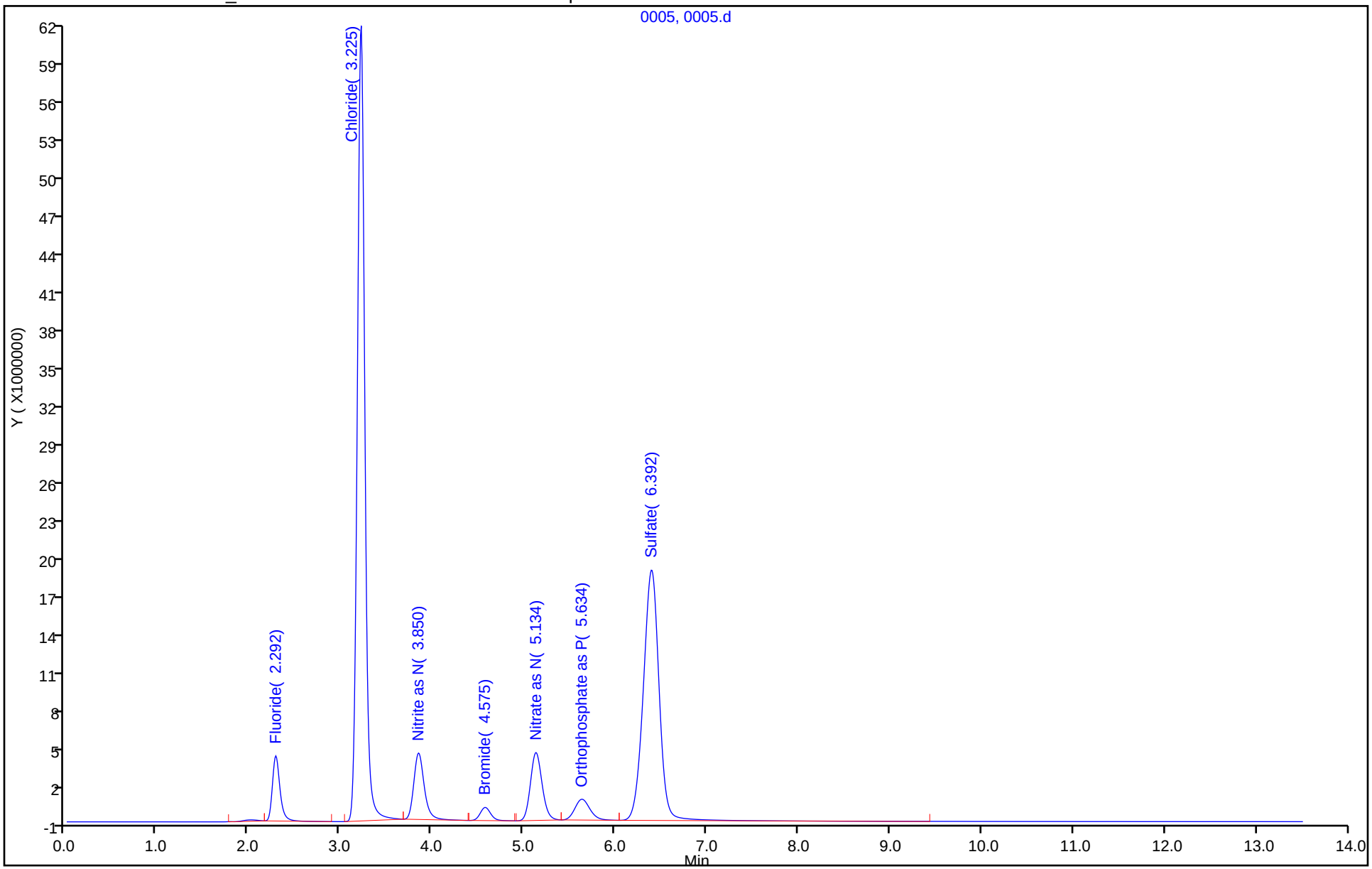
IC CAL cl/so4_00257	Amount Added:	1.20	Units: mL
IC Cal low_00459	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d

Injection Date:	20-May-2019 16:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d				
Lims ID:	std L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	20-May-2019 16:36:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:58:59	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	60687106	NC	NC	
2 Chloride	3.225	3.225	0.000	767710112	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	85254927	8.00	8.01	
4 Bromide	4.575	4.575	0.000	16491045	NC	NC	
5 Nitrate as N	5.117	5.134	-0.017	98595023	8.00	7.99	
7 Orthophosphate as P	5.625	5.634	-0.009	37609857	8.00	7.96	
6 Sulfate	6.417	6.392	0.025	499759358	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

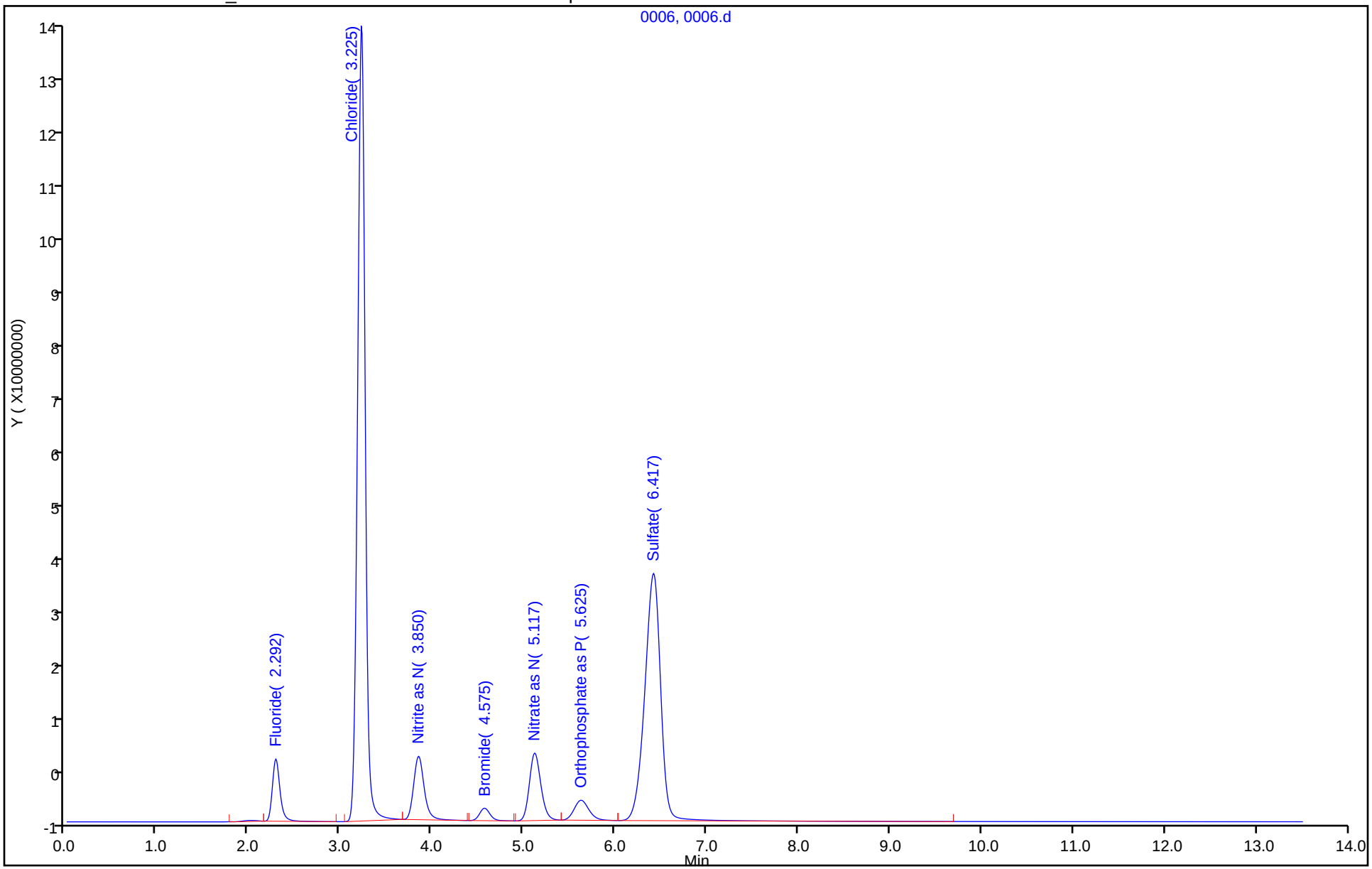
IC CAL cl/so4_00257	Amount Added:	2.40	Units: mL
IC Cal low_00459	Amount Added:	0.80	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d

Injection Date:	20-May-2019 16:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-May-2019 16:36:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:59 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	60687106	8.00	8.04	
2 Chloride	3.225	3.225	0.000	767710112	120.0	118.2	
3 Nitrite as N	3.850	3.850	0.000	85254927	NC	NC	
4 Bromide	4.575	4.575	0.000	16491045	8.00	7.98	
5 Nitrate as N	5.117	5.134	-0.017	98595023	NC	NC	
7 Orthophosphate as P	5.625	5.634	-0.009	37609857	NC	NC	
6 Sulfate	6.417	6.392	0.025	499759358	120.0	117.1	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

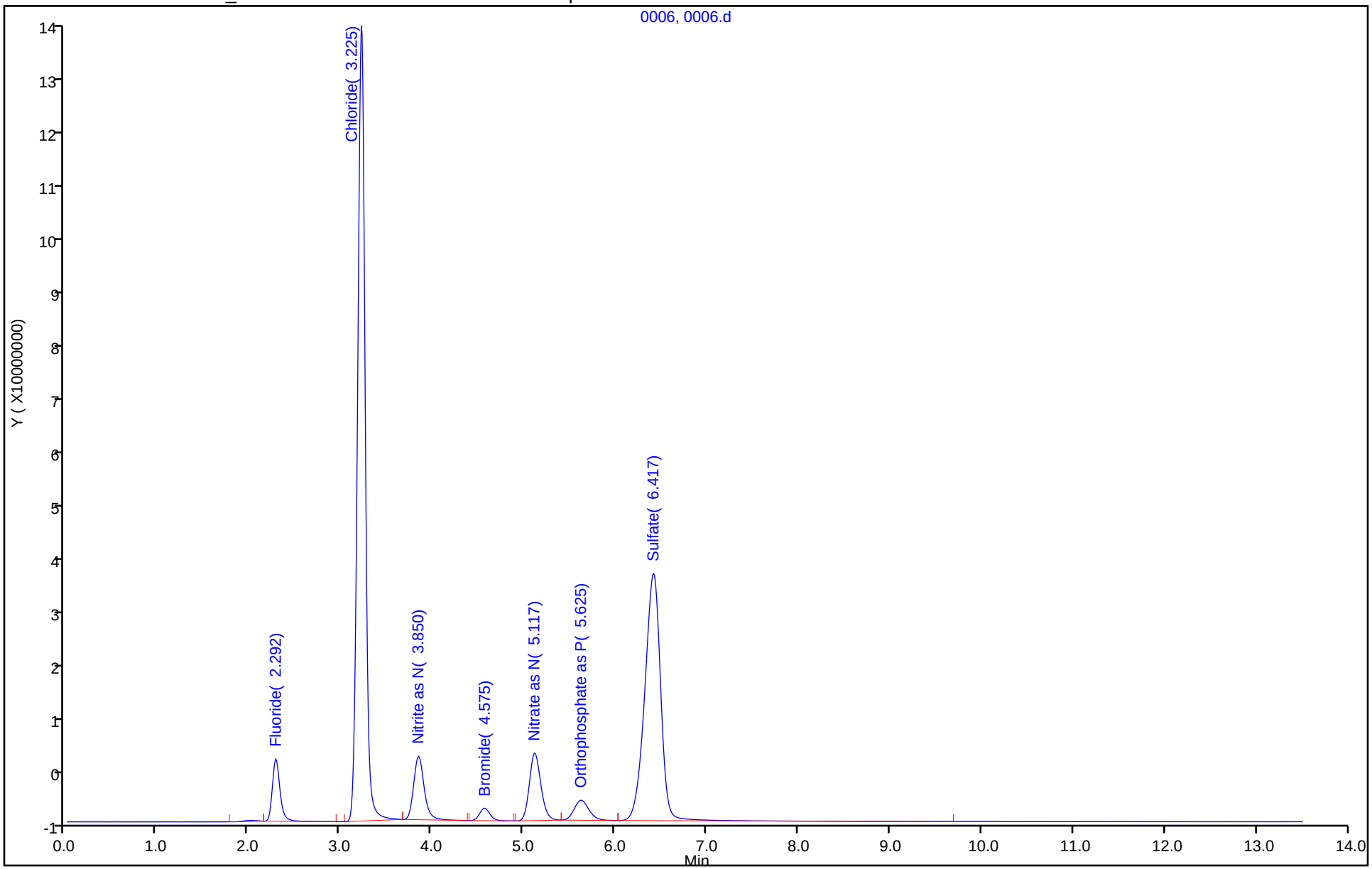
IC CAL cl/so4_00257 Amount Added: 2.40 Units: mL
IC Cal low_00459 Amount Added: 0.80 Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d

Injection Date:	20-May-2019 16:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	20-May-2019 16:52:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-007				
Misc. Info.:	7 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:00	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	76568117	NC	NC	
2 Chloride	3.242	3.225	0.017	1354016260	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	108323395	10.0	10.2	
4 Bromide	4.567	4.575	-0.008	20888090	NC	NC	
5 Nitrate as N	5.117	5.134	-0.017	126834114	10.0	10.3	
7 Orthophosphate as P	5.626	5.634	-0.008	48062818	10.0	10.2	
6 Sulfate	6.442	6.392	0.050	892937706	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

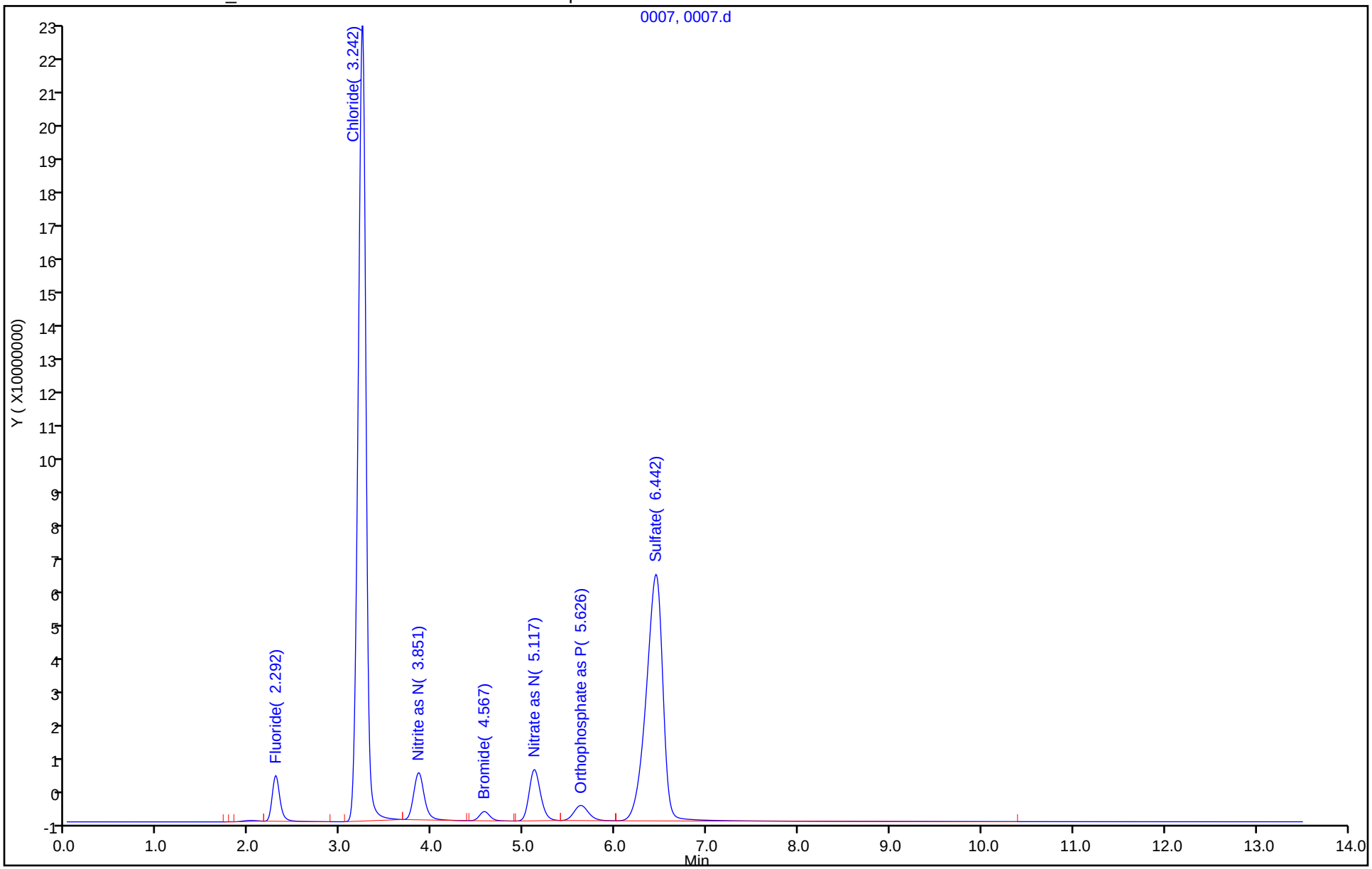
IC CAL cl/so4_00257	Amount Added:	4.00	Units: mL
IC Cal low_00459	Amount Added:	1.00	Units: mL

Report Date: 22-May-2019 07:59:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Injection Date:	20-May-2019 16:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	20-May-2019 16:52:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-007				
Misc. Info.:	7 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:00	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	76568117	10.0	10.1	
2 Chloride	3.242	3.225	0.017	1354016260	200.0	208.0	
3 Nitrite as N	3.851	3.850	0.001	108323395	NC	NC	
4 Bromide	4.567	4.575	-0.008	20888090	10.0	10.1	
5 Nitrate as N	5.117	5.134	-0.017	126834114	NC	NC	
7 Orthophosphate as P	5.626	5.634	-0.008	48062818	NC	NC	
6 Sulfate	6.442	6.392	0.050	892937706	200.0	208.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

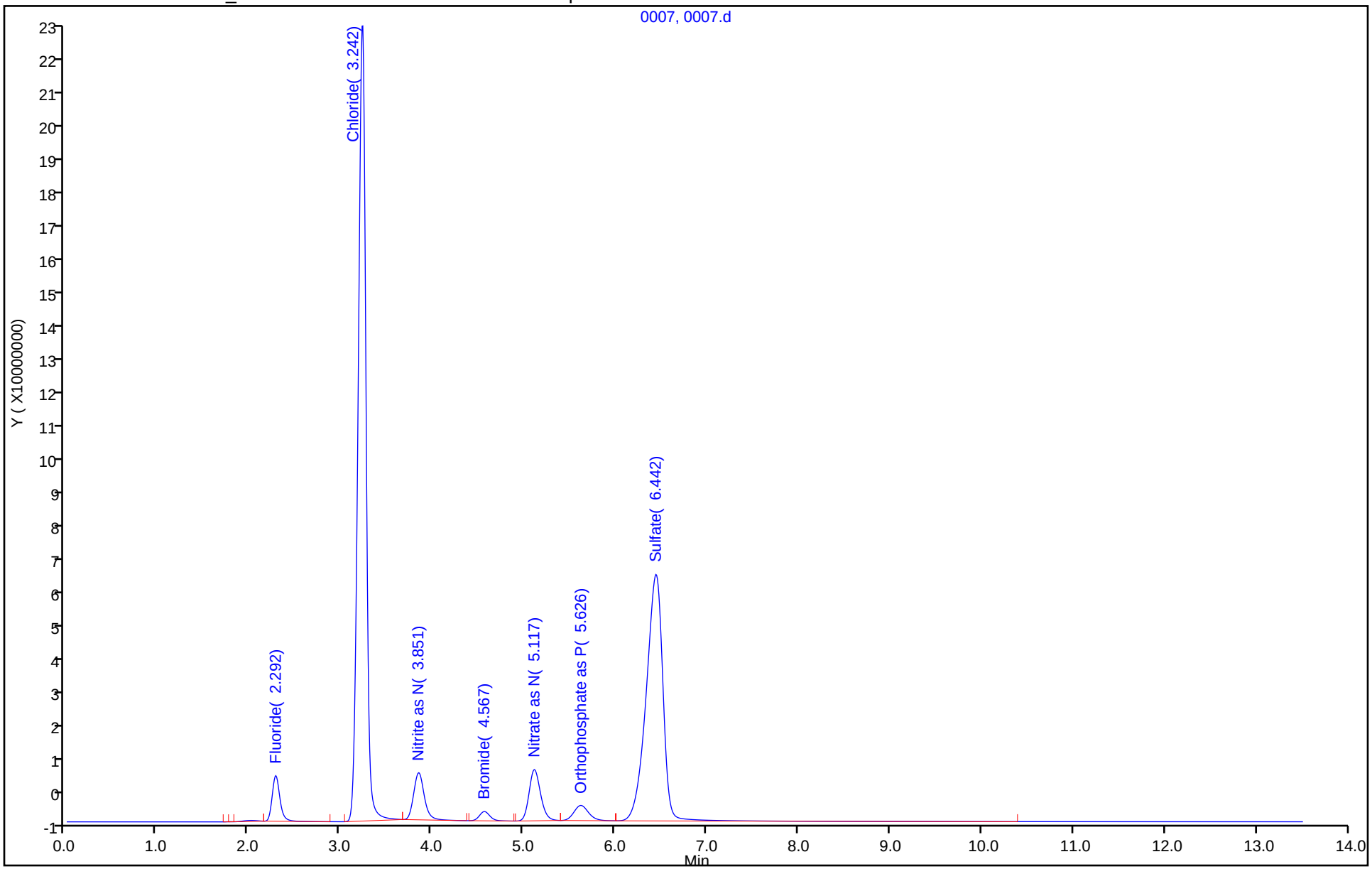
IC CAL cl/so4_00257	Amount Added:	4.00	Units: mL
IC Cal low_00459	Amount Added:	1.00	Units: mL

Report Date: 22-May-2019 07:59:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Injection Date:	20-May-2019 16:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



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TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82062 Inst ID: 11 Analysis Date: 05/20/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123961	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	u
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3,4,5,6,7,8,9 rerun to confirm PO4
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	124053	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3,4,5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuong 5/23/19

IC Instrument Information

WL: 82062 **Inst ID:** II **Analysis Date:** 05/20/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123960	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	11
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3, 4, 5, 6, 7, 8, 9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053 -	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	124043 -	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total →	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3, 4, 5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 22-May-2019 00:40:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Phuong 8/13/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	22-May-2019 00:40:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-May-2019 17:09:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-008
Misc. Info.: 8 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	30124346	NC	NC	
2 Chloride	3.225	3.225	0.000	514674081	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	40475725	4.00	3.82	
4 Bromide	4.575	4.575	0.000	8642735	NC	NC	
5 Nitrate as N	5.125	5.125	0.000	50555562	4.00	4.12	
7 Orthophosphate as P	5.634	5.634	0.000	19556051	4.00	4.11	
6 Sulfate	6.400	6.400	0.000	336664856	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

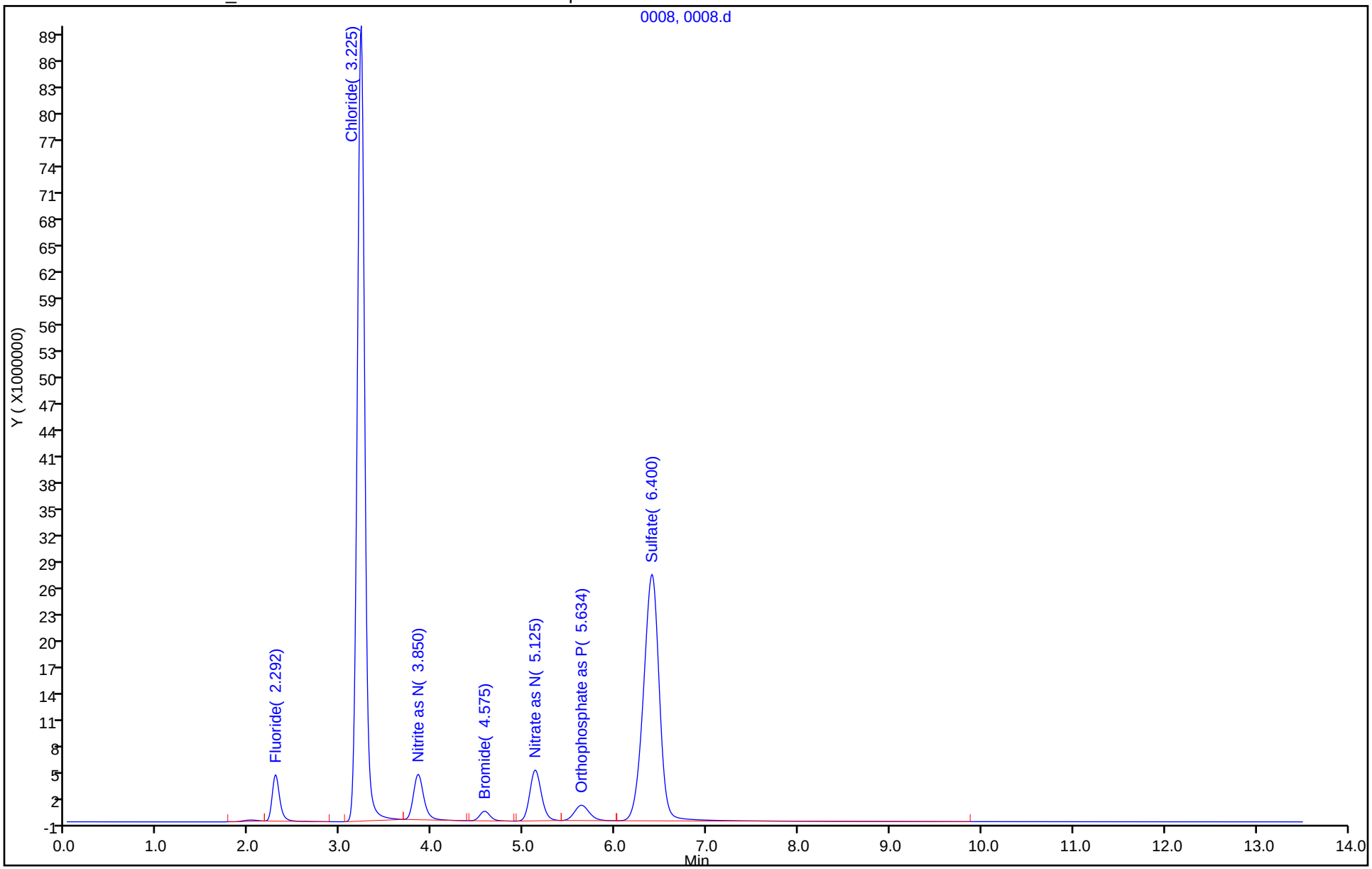
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00234	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:59:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d

Injection Date:	20-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



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TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82062 Inst ID: 11 Analysis Date: 05/20/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123961	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	u
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3,4,5,6,7,8,9 rerun to confirm PO4
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	124053	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3,4,5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuong 5/23/19

IC Instrument Information

WL: 82062 **Inst ID:** II **Analysis Date:** 05/20/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123960	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	1 & 6
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3, 4, 5, 6, 7, 8, 9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053 -	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	124043 -	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total →	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
- 123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
- 123959	3, 4, 5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 22-May-2019 00:40:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Phuong
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TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	22-May-2019 00:40:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-May-2019 17:09:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-008
Misc. Info.: 8 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	30124346	4.00	4.01	
2 Chloride	3.225	3.225	0.000	514674081	80.0	79.5	
3 Nitrite as N	3.850	3.850	0.000	40475725	NC	NC	
4 Bromide	4.575	4.575	0.000	8642735	4.00	4.19	
5 Nitrate as N	5.125	5.125	0.000	50555562	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	19556051	NC	NC	
6 Sulfate	6.400	6.400	0.000	336664856	80.0	79.0	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

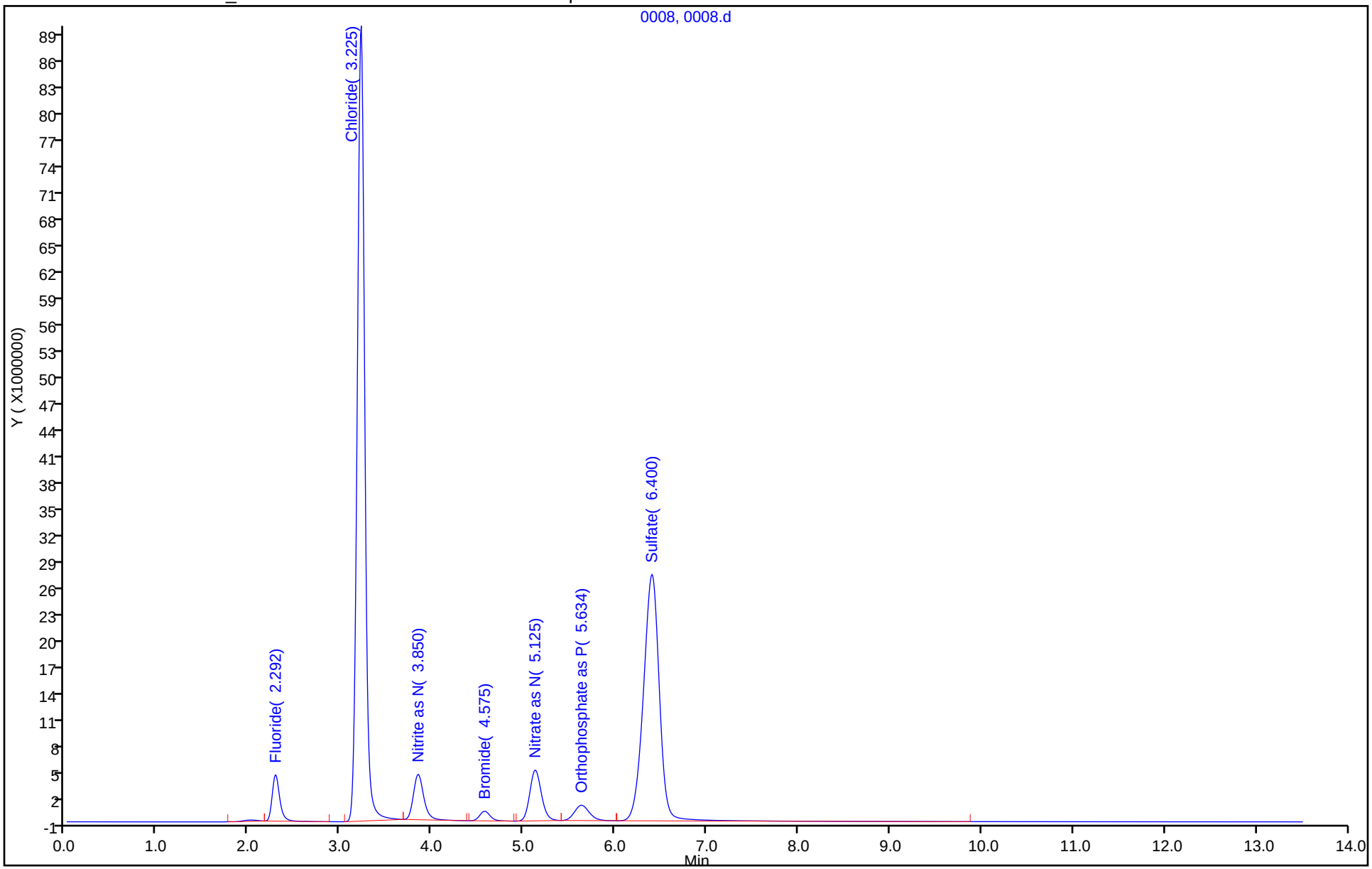
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00234	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:59:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d

Injection Date:	20-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 20-May-2019 17:25:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-009
Misc. Info.: 9 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1286779		NC	
2 Chloride	3.225	3.225	0.000	112223		NC	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.709	5.634	0.075	318026		0.0102	
6 Sulfate		6.392				ND	

QC Flag Legend

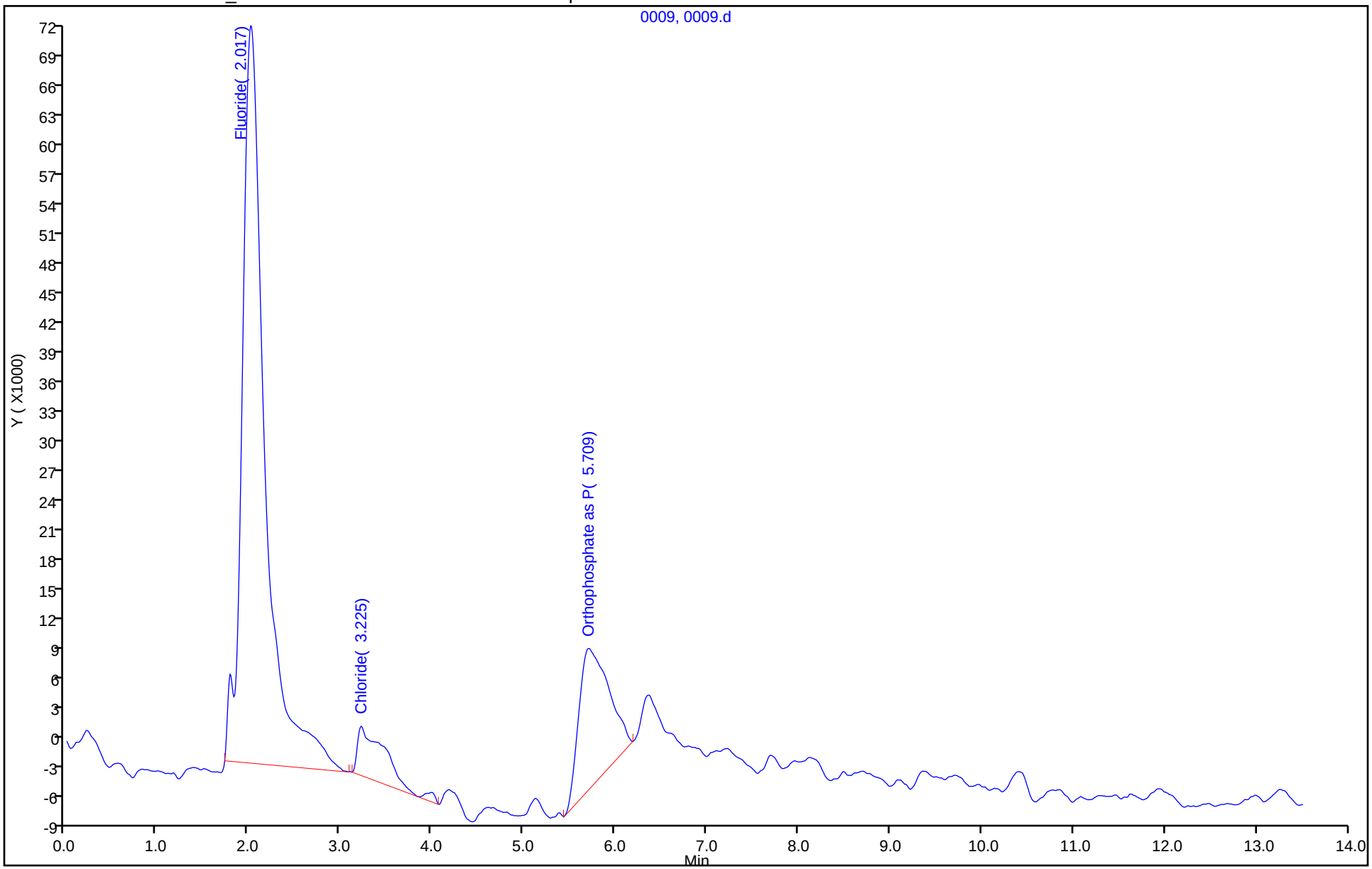
Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d

Injection Date:	20-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	20-May-2019 17:25:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-009				
Misc. Info.:	9 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1286779		0.2049	
2 Chloride	3.225	3.225	0.000	112223		0.6351	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.709	5.634	0.075	318026		NC	
6 Sulfate		6.392				ND	

QC Flag Legend

Processing Flags

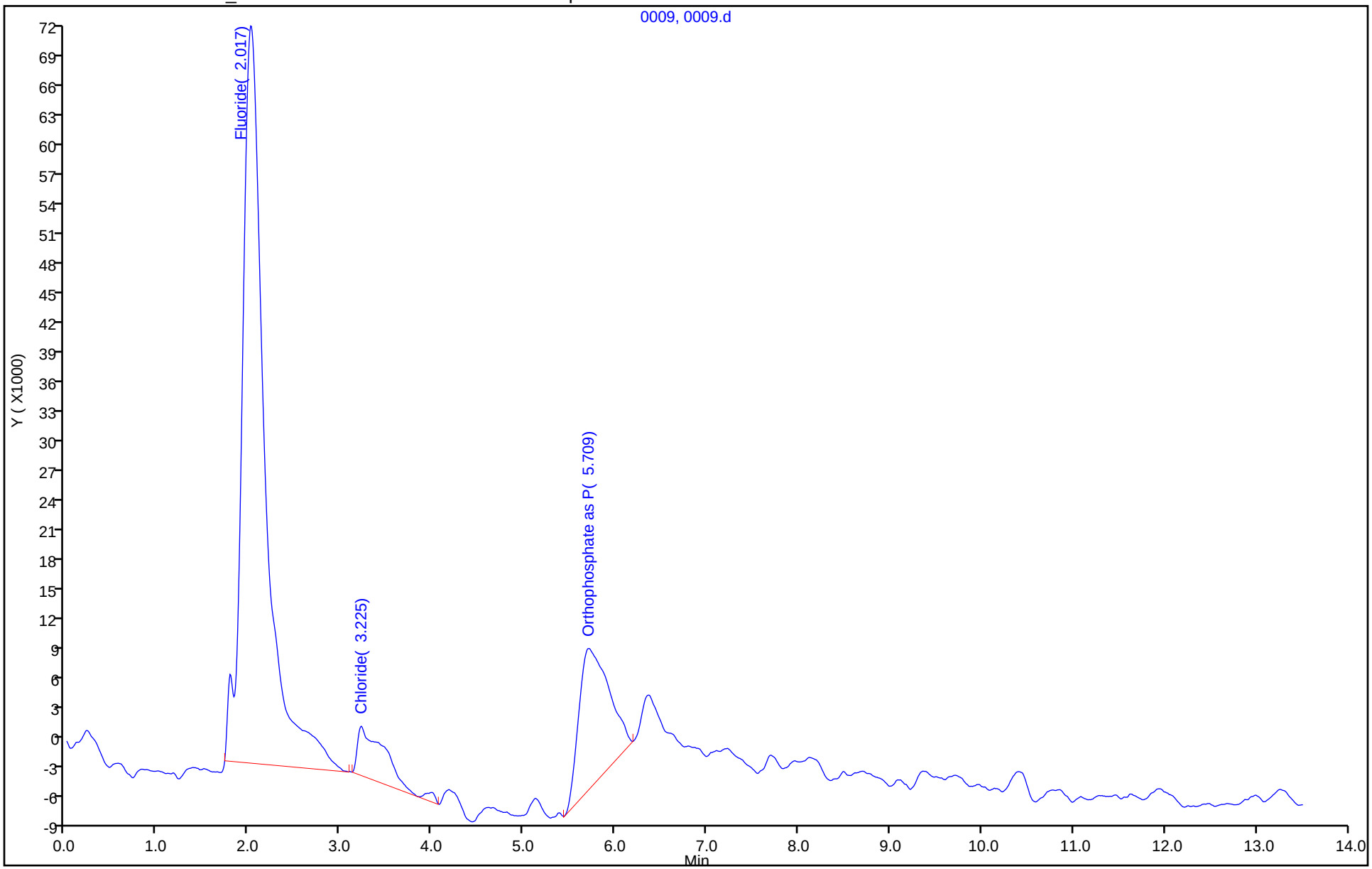
NC - Not Calibrated

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d

Injection Date:	20-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0010.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 20-May-2019 17:42:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-010
Misc. Info.: 10 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	1364923	NC	NC	
2 Chloride	3.217	3.225	-0.008	11091807	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	1958076	0.2000	0.2181	
4 Bromide	4.584	4.575	0.009	402285	NC	NC	
5 Nitrate as N	5.142	5.134	0.008	2253477	0.2000	0.2245	
7 Orthophosphate as P	5.642	5.634	0.008	1055199	0.2000	0.1674	
6 Sulfate	6.359	6.392	-0.033	8338671	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

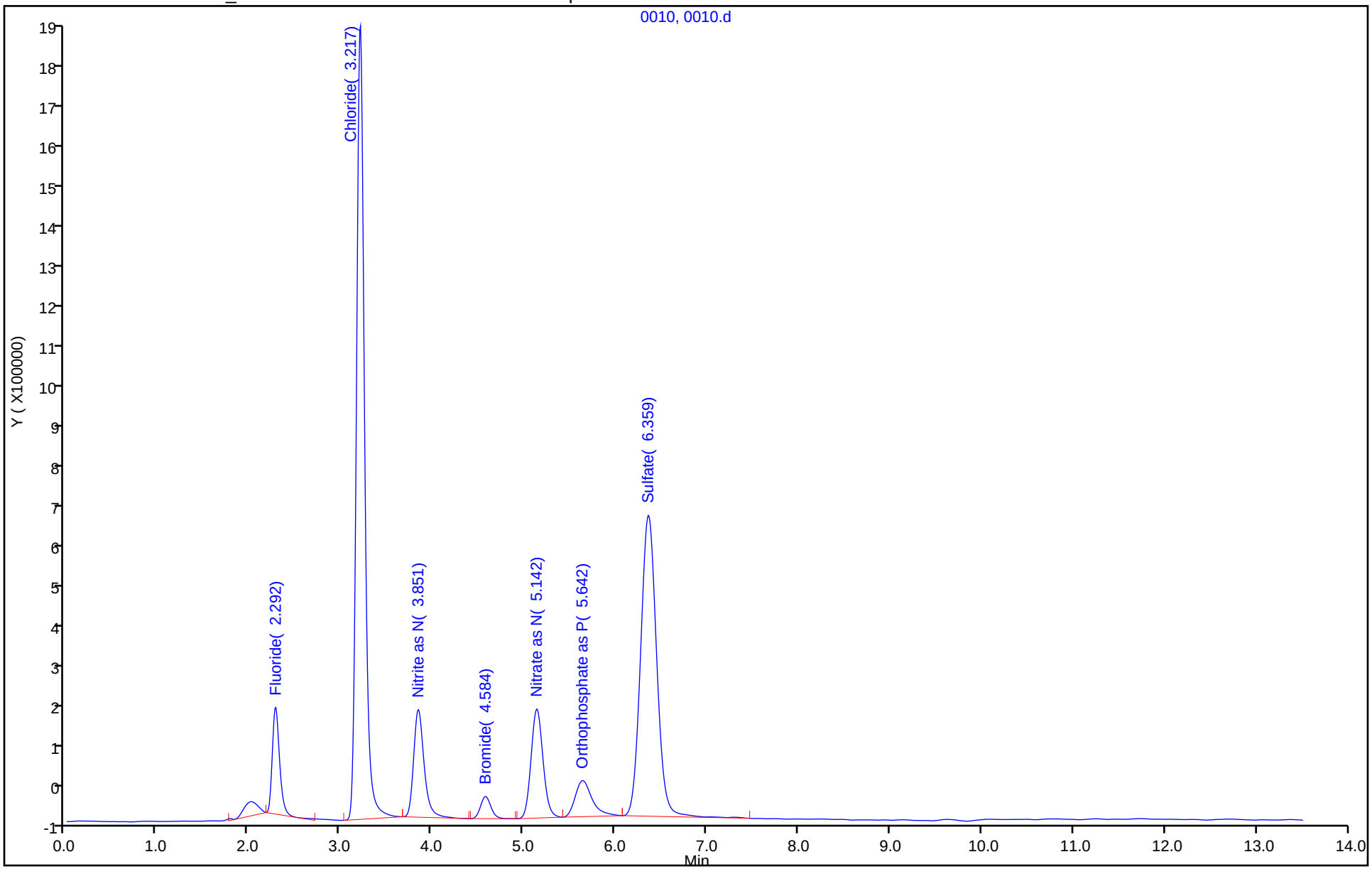
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0010.d

Injection Date:	20-May-2019 17:42:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0010.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 20-May-2019 17:42:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-010
Misc. Info.: 10 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	1364923	0.2000	0.2152	
2 Chloride	3.217	3.225	-0.008	11091807	2.50	2.32	
3 Nitrite as N	3.851	3.850	0.001	1958076	NC	NC	
4 Bromide	4.584	4.575	0.009	402285	0.2000	0.2060	
5 Nitrate as N	5.142	5.134	0.008	2253477	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	1055199	NC	NC	
6 Sulfate	6.359	6.392	-0.033	8338671	2.50	2.39	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

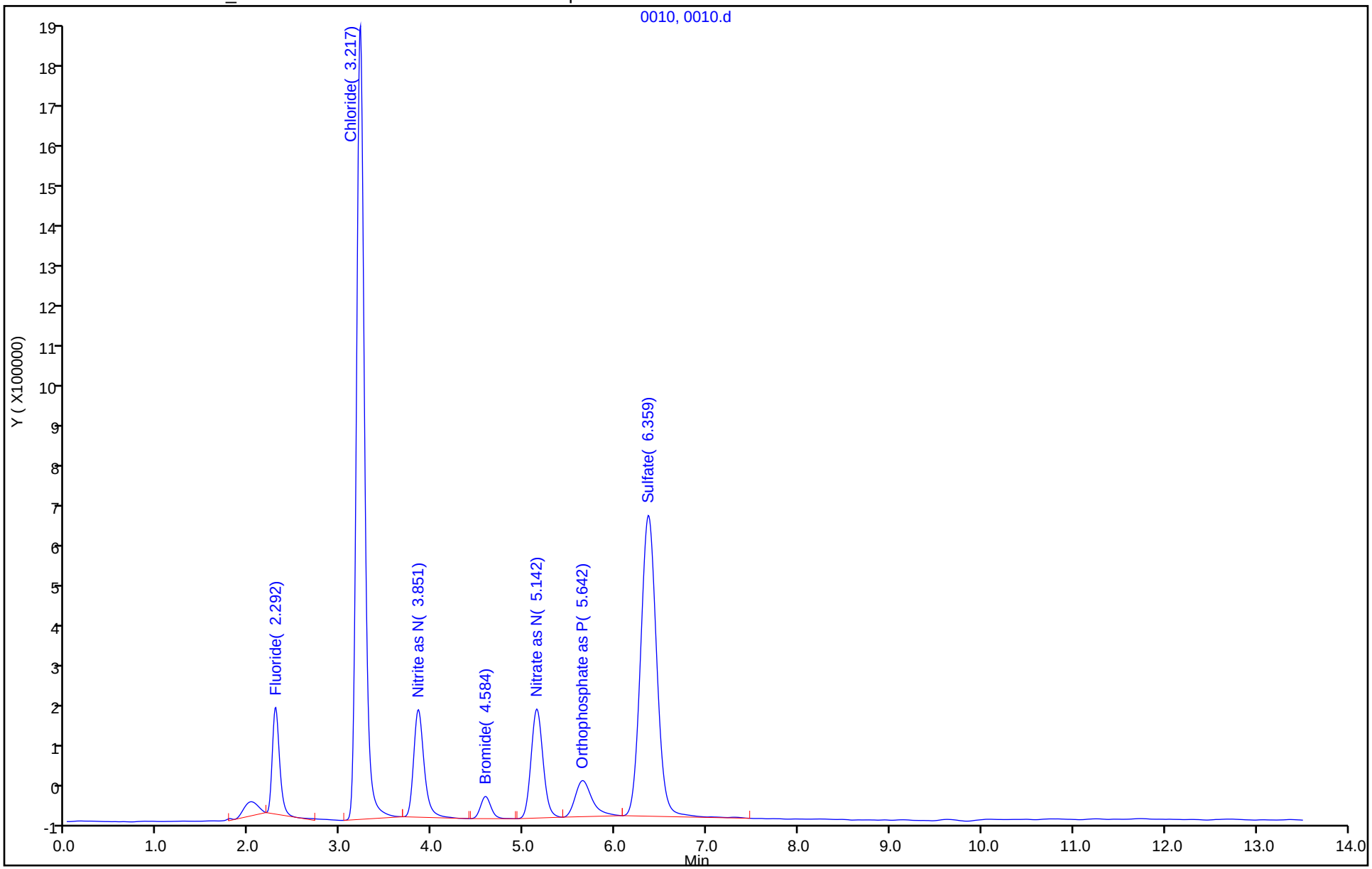
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0010.d

Injection Date:	20-May-2019 17:42:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0011.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-May-2019 17:58:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-011
Misc. Info.: 11 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36558497	NC	NC	
2 Chloride	3.234	3.225	0.009	634887407	NC	NC	
3 Nitrite as N	3.859	3.850	0.009	51420718	5.00	4.84	
4 Bromide	4.584	4.575	0.009	10202783	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	58950853	5.00	4.80	
7 Orthophosphate as P	5.634	5.634	0.000	23128993	5.00	4.88	
6 Sulfate	6.409	6.392	0.017	412642196	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

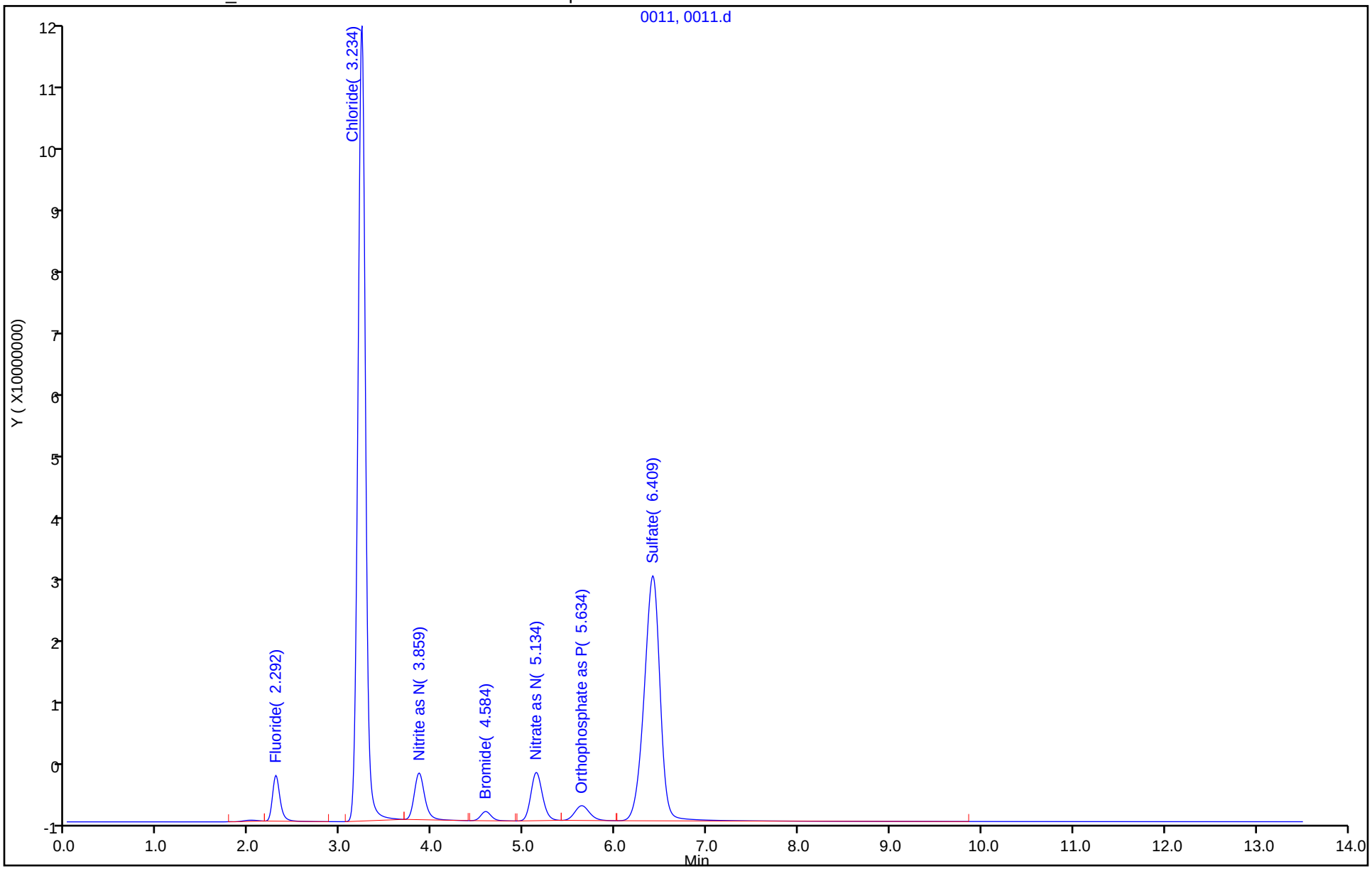
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0011.d

Injection Date:	20-May-2019 17:58:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	11
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0011.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-May-2019 17:58:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-011
Misc. Info.: 11 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36558497	5.00	4.86	
2 Chloride	3.234	3.225	0.009	634887407	100.0	97.9	
3 Nitrite as N	3.859	3.850	0.009	51420718	NC	NC	
4 Bromide	4.584	4.575	0.009	10202783	5.00	4.94	
5 Nitrate as N	5.134	5.134	0.000	58950853	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	23128993	NC	NC	
6 Sulfate	6.409	6.392	0.017	412642196	100.0	96.8	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

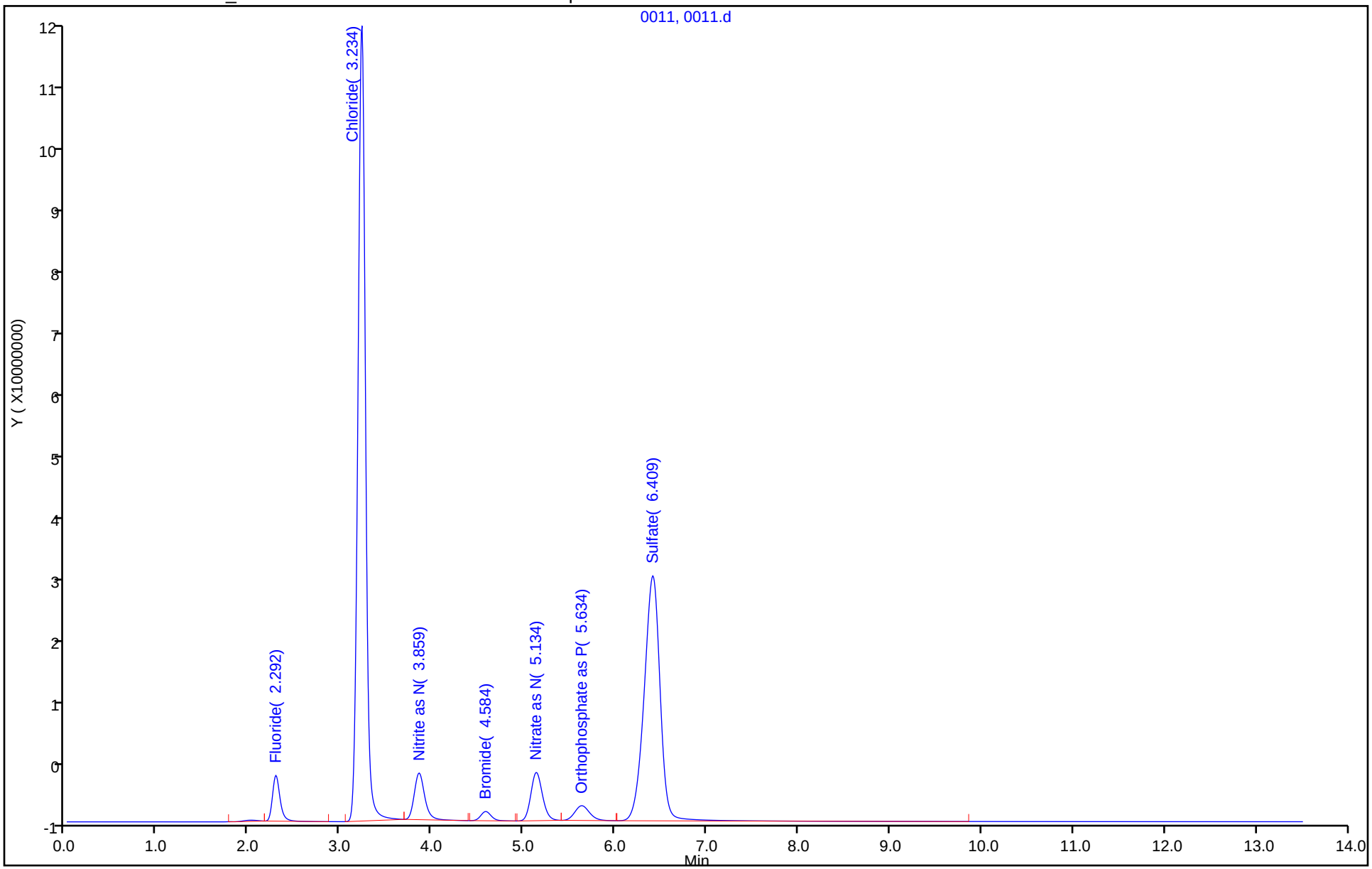
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0011.d

Injection Date:	20-May-2019 17:58:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	11
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0012.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 20-May-2019 18:15:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-012
Misc. Info.: 12 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36167138	NC	NC	
2 Chloride	3.225	3.225	0.000	633037412	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	51296329	5.00	4.83	
4 Bromide	4.584	4.575	0.009	10166383	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	58839118	5.00	4.79	
7 Orthophosphate as P	5.625	5.634	-0.009	23053779	5.00	4.86	
6 Sulfate	6.409	6.392	0.017	412037280	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

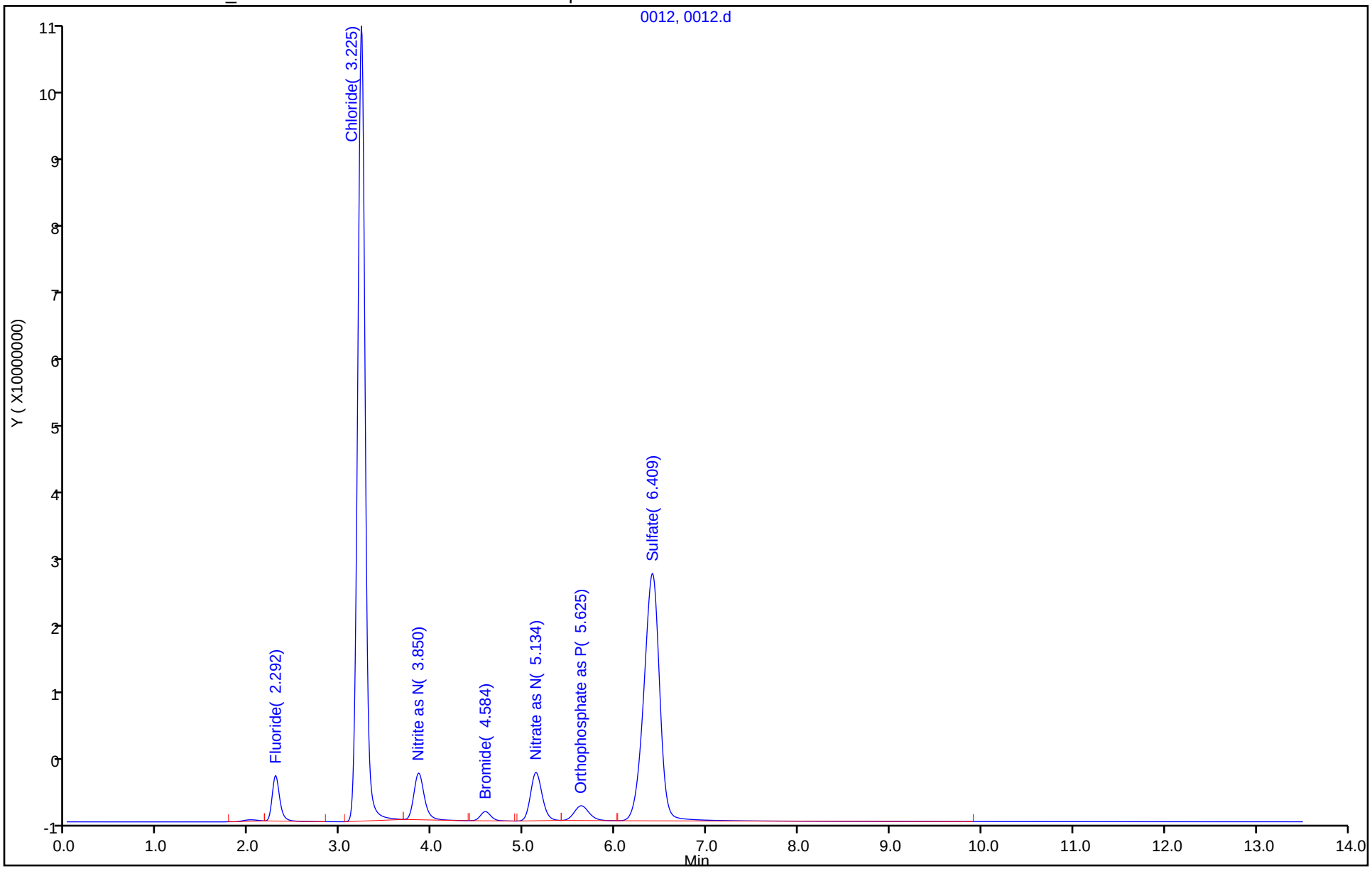
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0012.d

Injection Date:	20-May-2019 18:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	12
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0012.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 20-May-2019 18:15:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-012
Misc. Info.: 12 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36167138	5.00	4.80	
2 Chloride	3.225	3.225	0.000	633037412	100.0	97.6	
3 Nitrite as N	3.850	3.850	0.000	51296329	NC	NC	
4 Bromide	4.584	4.575	0.009	10166383	5.00	4.92	
5 Nitrate as N	5.134	5.134	0.000	58839118	NC	NC	
7 Orthophosphate as P	5.625	5.634	-0.009	23053779	NC	NC	
6 Sulfate	6.409	6.392	0.017	412037280	100.0	96.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

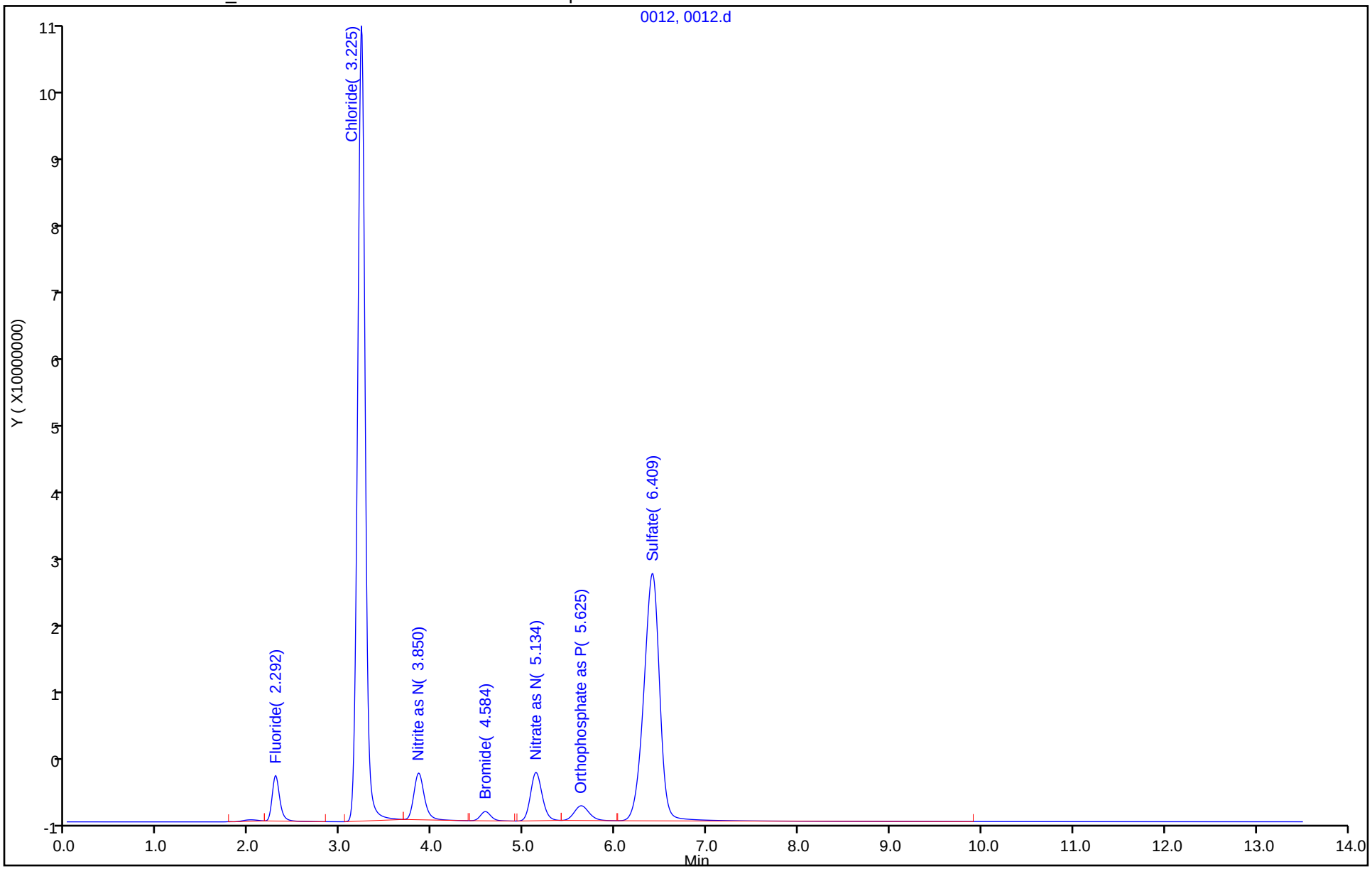
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0012.d

Injection Date:	20-May-2019 18:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	12
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0013.d				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	20-May-2019 18:31:00	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-013				
Misc. Info.:	13 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	687755		NC	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.692	5.634	0.058	294419		0.005115	
6 Sulfate		6.392				ND	

QC Flag Legend

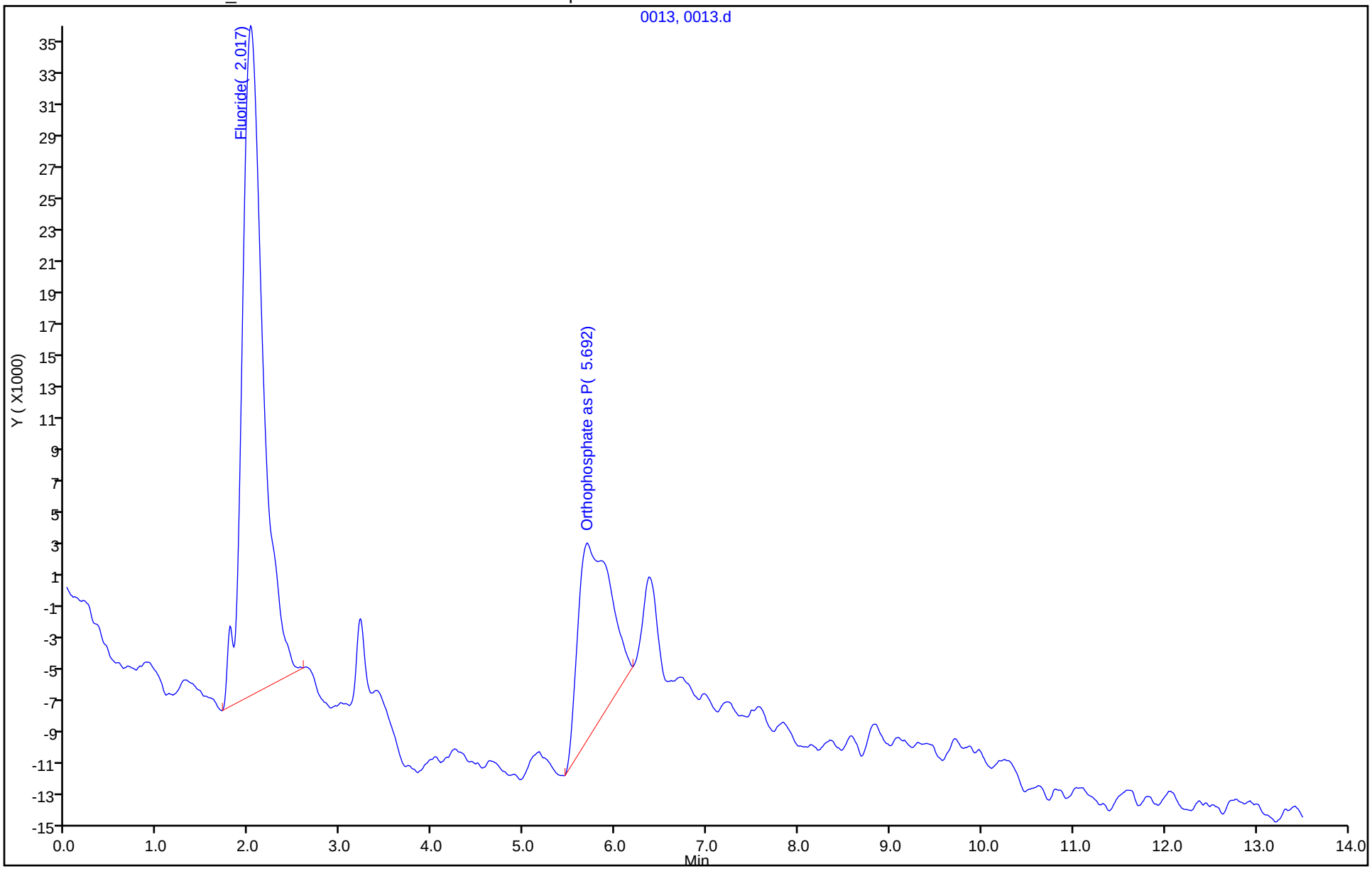
Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0013.d

Injection Date:	20-May-2019 18:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	13
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0013.d				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	20-May-2019 18:31:00	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-013				
Misc. Info.:	13 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	687755		0.1259	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.692	5.634	0.058	294419		NC	
6 Sulfate		6.392				ND	

QC Flag Legend

Processing Flags

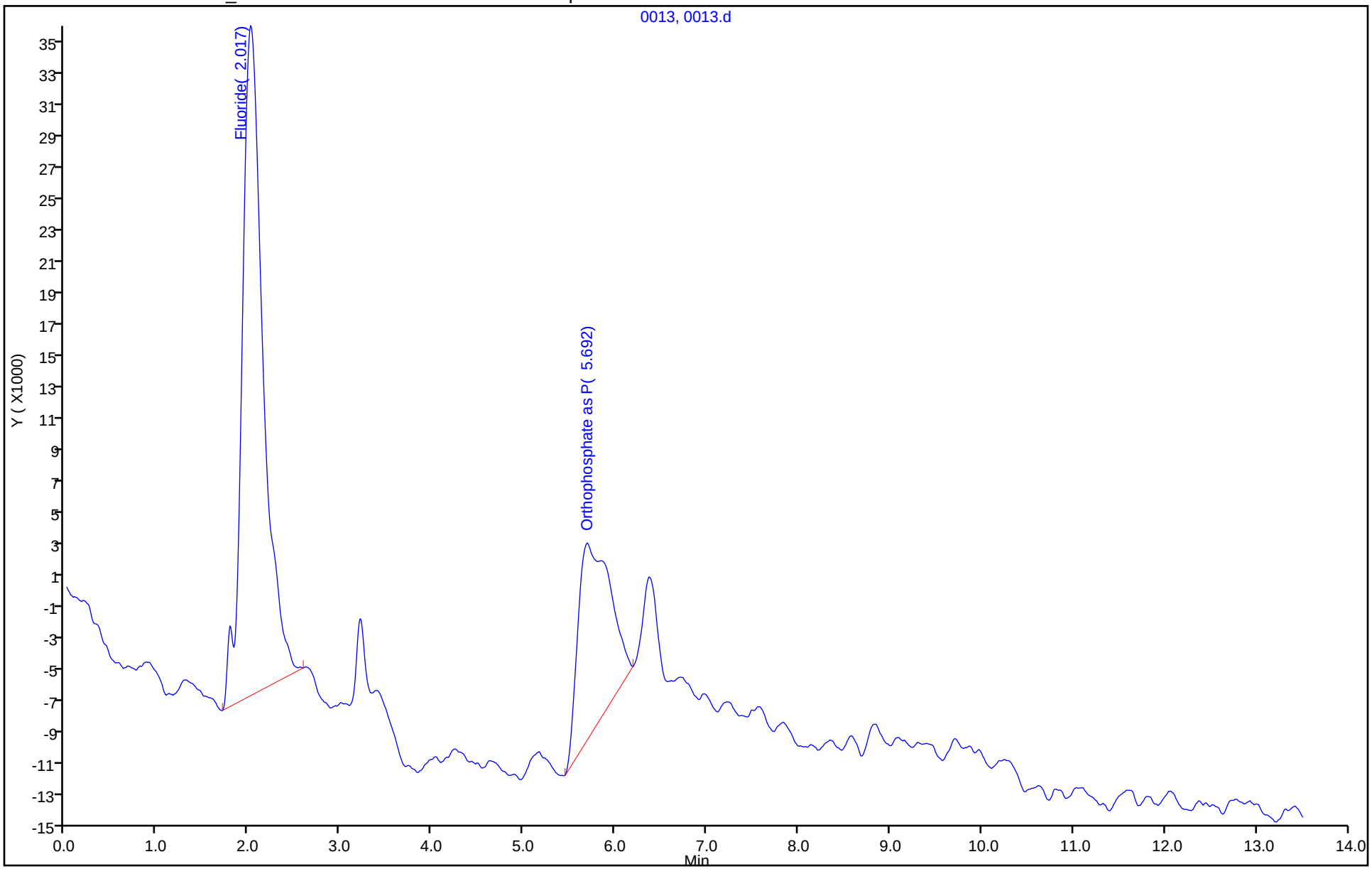
NC - Not Calibrated

Report Date: 22-May-2019 07:59:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0013.d

Injection Date:	20-May-2019 18:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	13
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0024.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2019 22:56:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-024
Misc. Info.: 23768
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36659765	NC	NC	
2 Chloride	3.226	3.225	0.001	638165093	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	51289648	5.00	4.83	
4 Bromide	4.584	4.575	0.009	10221843	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	59212110	5.00	4.82	
7 Orthophosphate as P	5.626	5.634	-0.008	23817802	5.00	5.02	
6 Sulfate	6.401	6.392	0.009	414425791	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

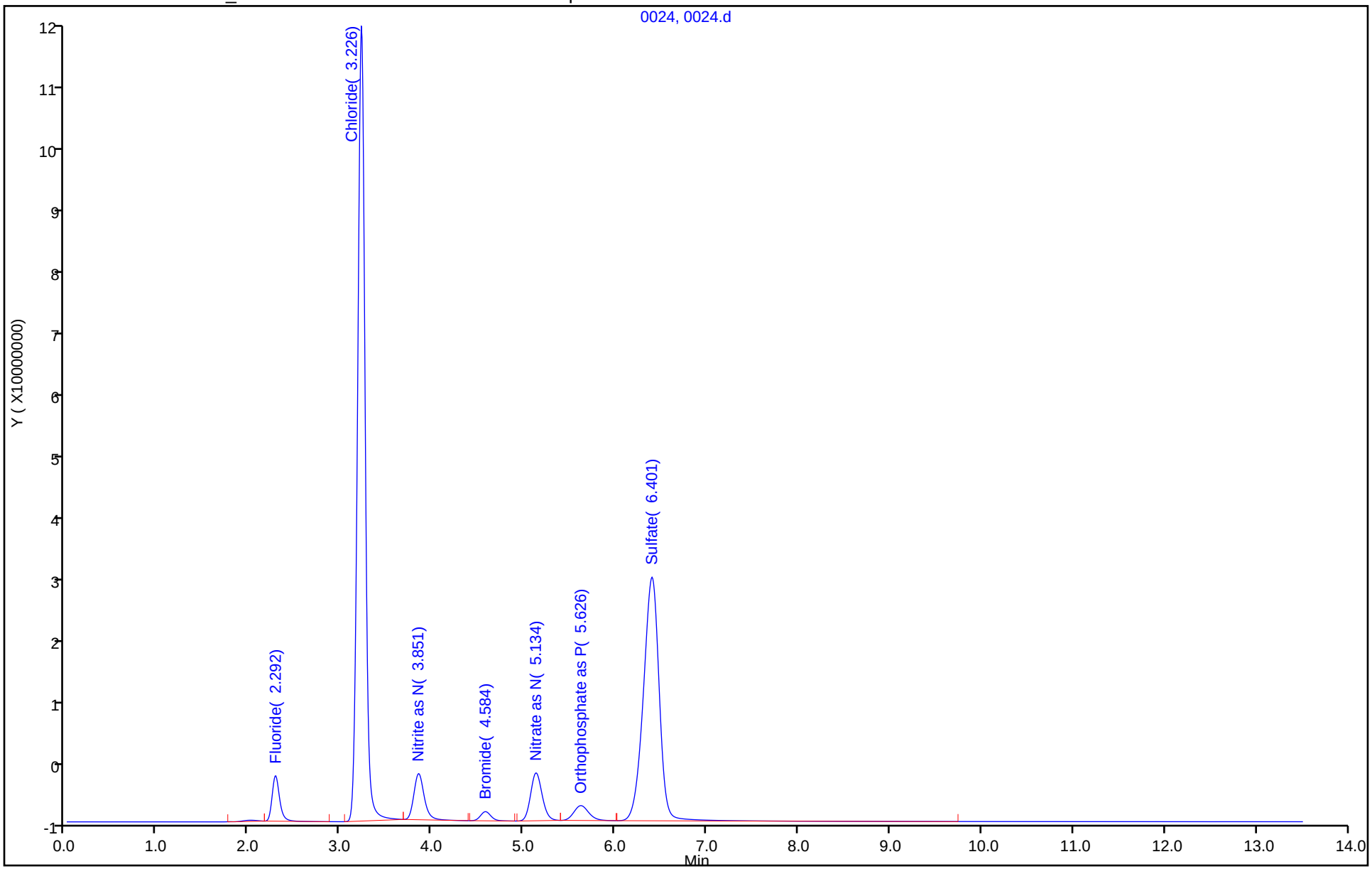
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0024.d

Injection Date:	20-May-2019 22:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	24
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0024.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2019 22:56:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-024
Misc. Info.: 23768
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36659765	5.00	4.87	
2 Chloride	3.226	3.225	0.001	638165093	100.0	98.4	
3 Nitrite as N	3.851	3.850	0.001	51289648	NC	NC	
4 Bromide	4.584	4.575	0.009	10221843	5.00	4.95	
5 Nitrate as N	5.134	5.134	0.000	59212110	NC	NC	
7 Orthophosphate as P	5.626	5.634	-0.008	23817802	NC	NC	
6 Sulfate	6.401	6.392	0.009	414425791	100.0	97.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

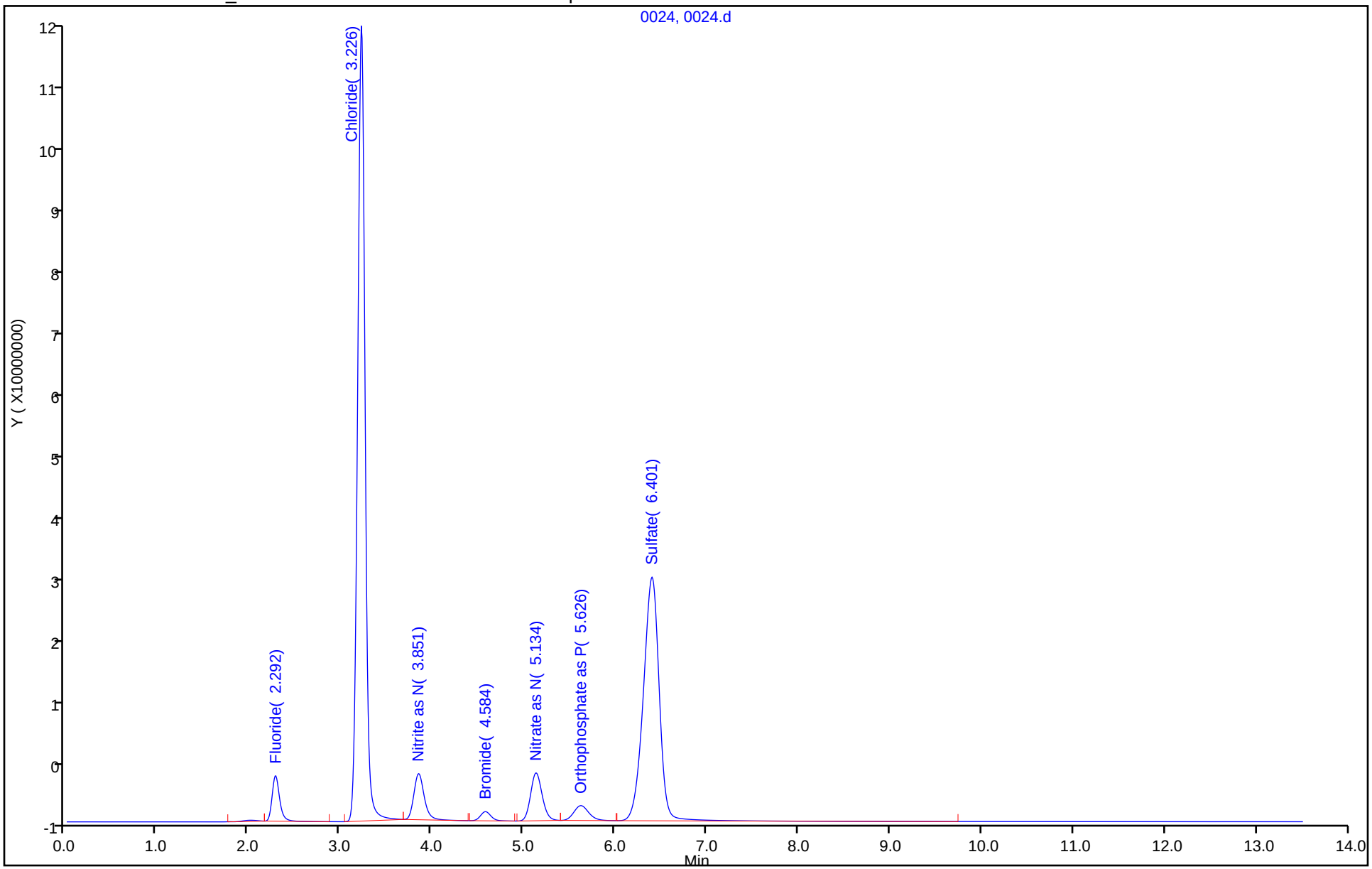
Reagents:

IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0024.d				
Injection Date:	20-May-2019 22:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	24
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0025.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	20-May-2019 23:12:00	ALS Bottle#:	0	Worklist Smp#:	25
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-025				
Misc. Info.:	25688				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:10	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1884807		NC	
2 Chloride	3.234	3.225	0.009	173600		NC	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.775	5.634	0.141	355321		0.0181	
6 Sulfate	6.367	6.392	-0.025	198565		NC	

QC Flag Legend

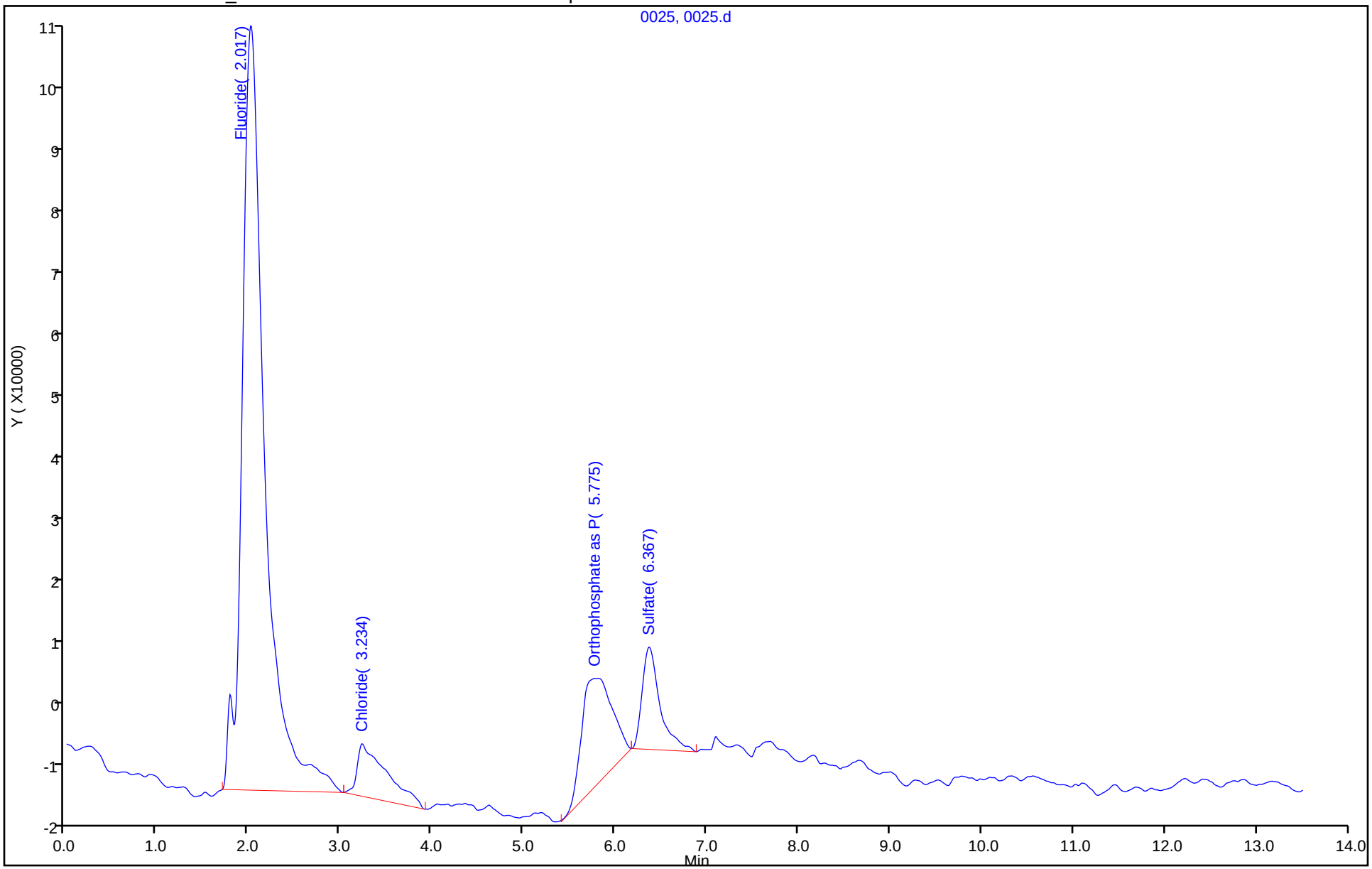
Processing Flags

NC - Not Calibrated

Report Date: 22-May-2019 07:59:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0025.d				
Injection Date:	20-May-2019 23:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	25
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0025.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	20-May-2019 23:12:00	ALS Bottle#:	0	Worklist Smp#:	25
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-025				
Misc. Info.:	25688				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:10	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1884807		0.2837	
2 Chloride	3.234	3.225	0.009	173600		0.6445	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.775	5.634	0.141	355321		NC	
6 Sulfate	6.367	6.392	-0.025	198565		0.4903	

QC Flag Legend

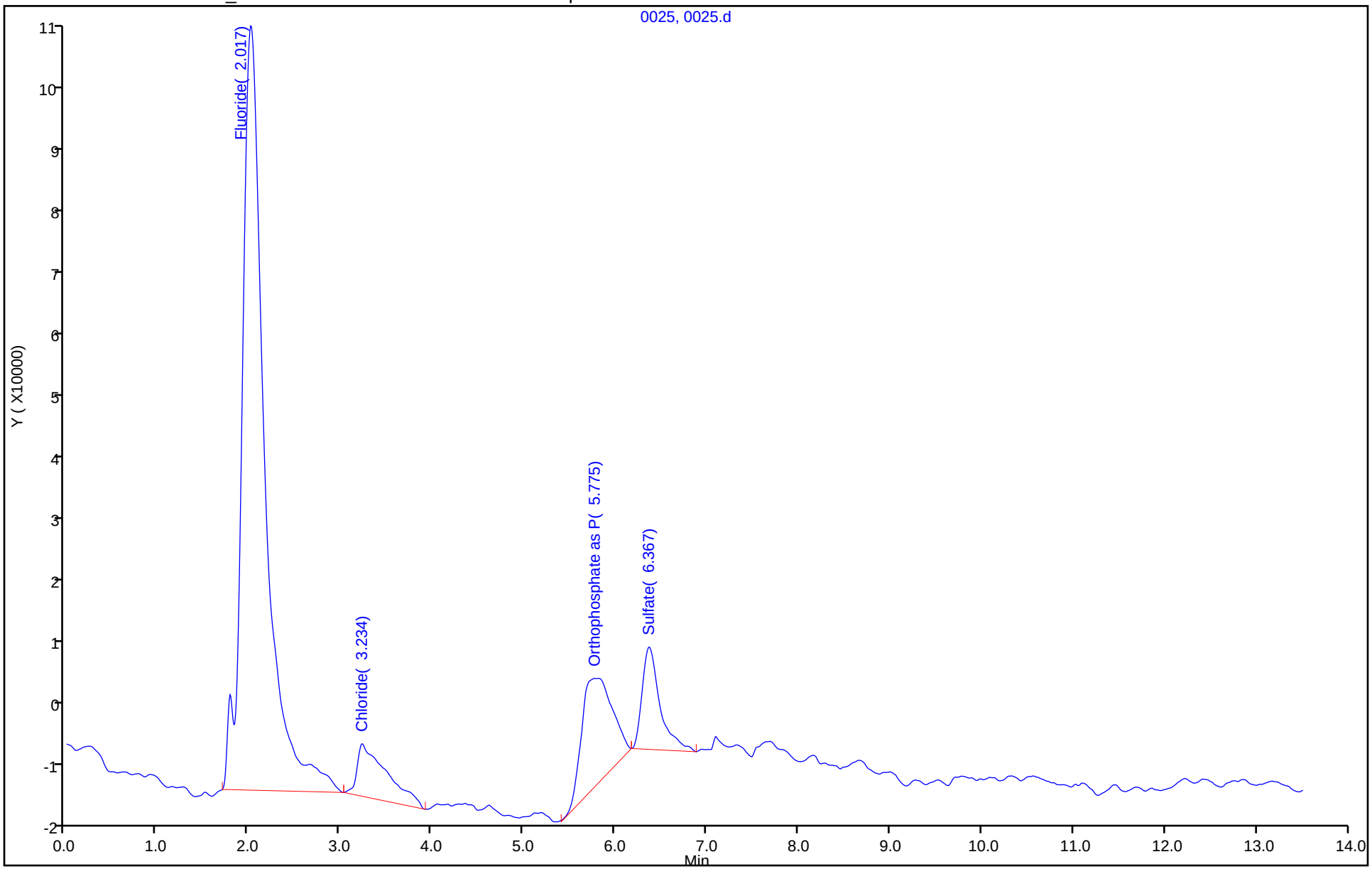
Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0025.d

Injection Date:	20-May-2019 23:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	25
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



06/17/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0036.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-May-2019 16:35:00	ALS Bottle#:	0	Worklist Smp#:	36
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-036				
Misc. Info.:	1426				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:17	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39486453	NC	NC	
2 Chloride	3.226	3.225	0.001	695013684	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	54994480	5.00	5.18	
4 Bromide	4.584	4.575	0.009	10938518	NC	NC	
5 Nitrate as N	5.142	5.134	0.008	63686262	5.00	5.18	
7 Orthophosphate as P	5.617	5.634	-0.017	25169291	5.00	5.31	
6 Sulfate	6.401	6.392	0.009	455669222	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

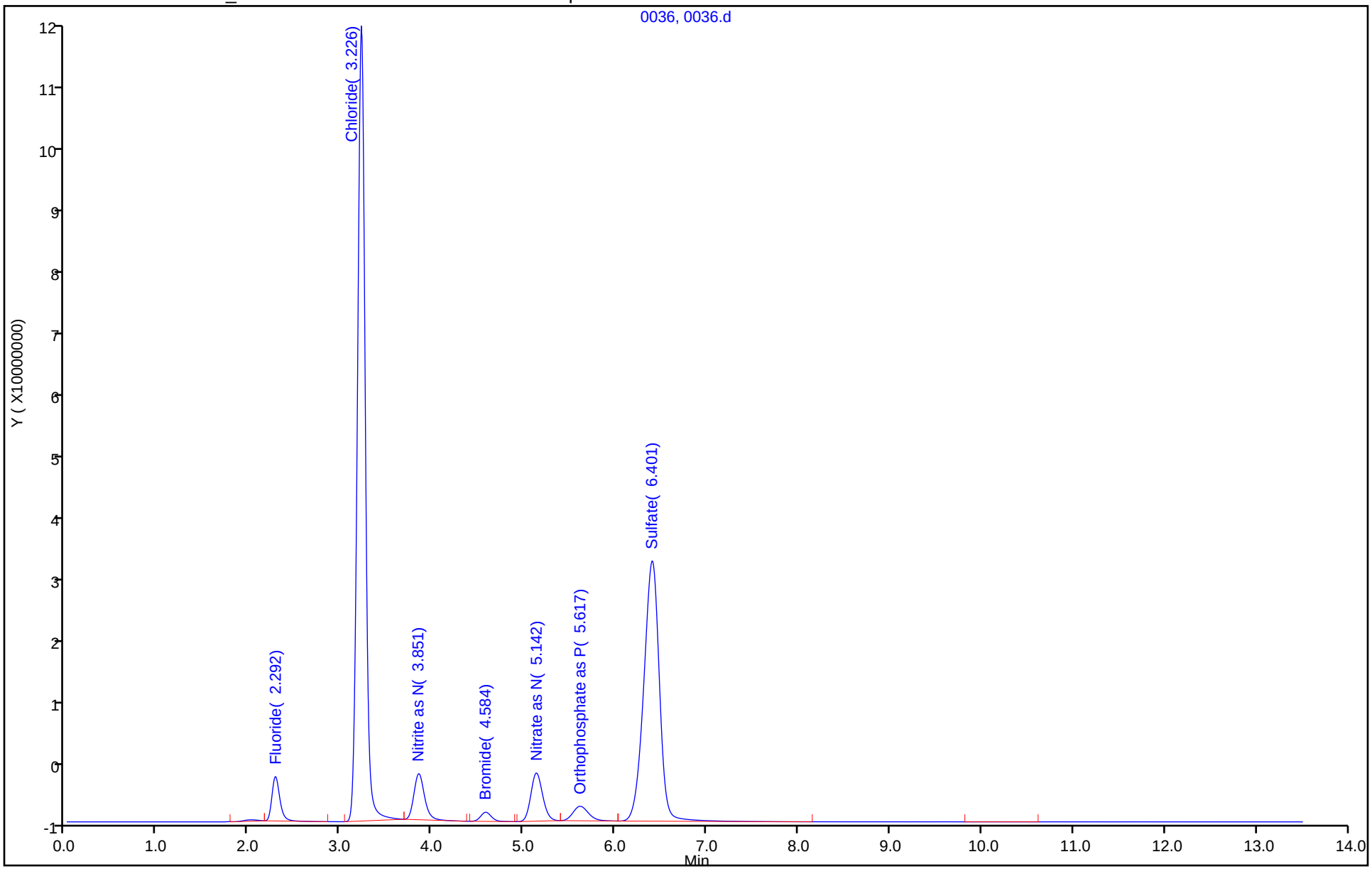
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0036.d

Injection Date:	21-May-2019 16:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	36
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0036.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-May-2019 16:35:00	ALS Bottle#:	0	Worklist Smp#:	36
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-036				
Misc. Info.:	1426				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:17	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39486453	5.00	5.24	
2 Chloride	3.226	3.225	0.001	695013684	100.0	107.1	
3 Nitrite as N	3.851	3.850	0.001	54994480	NC	NC	
4 Bromide	4.584	4.575	0.009	10938518	5.00	5.30	
5 Nitrate as N	5.142	5.134	0.008	63686262	NC	NC	
7 Orthophosphate as P	5.617	5.634	-0.017	25169291	NC	NC	
6 Sulfate	6.401	6.392	0.009	455669222	100.0	106.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

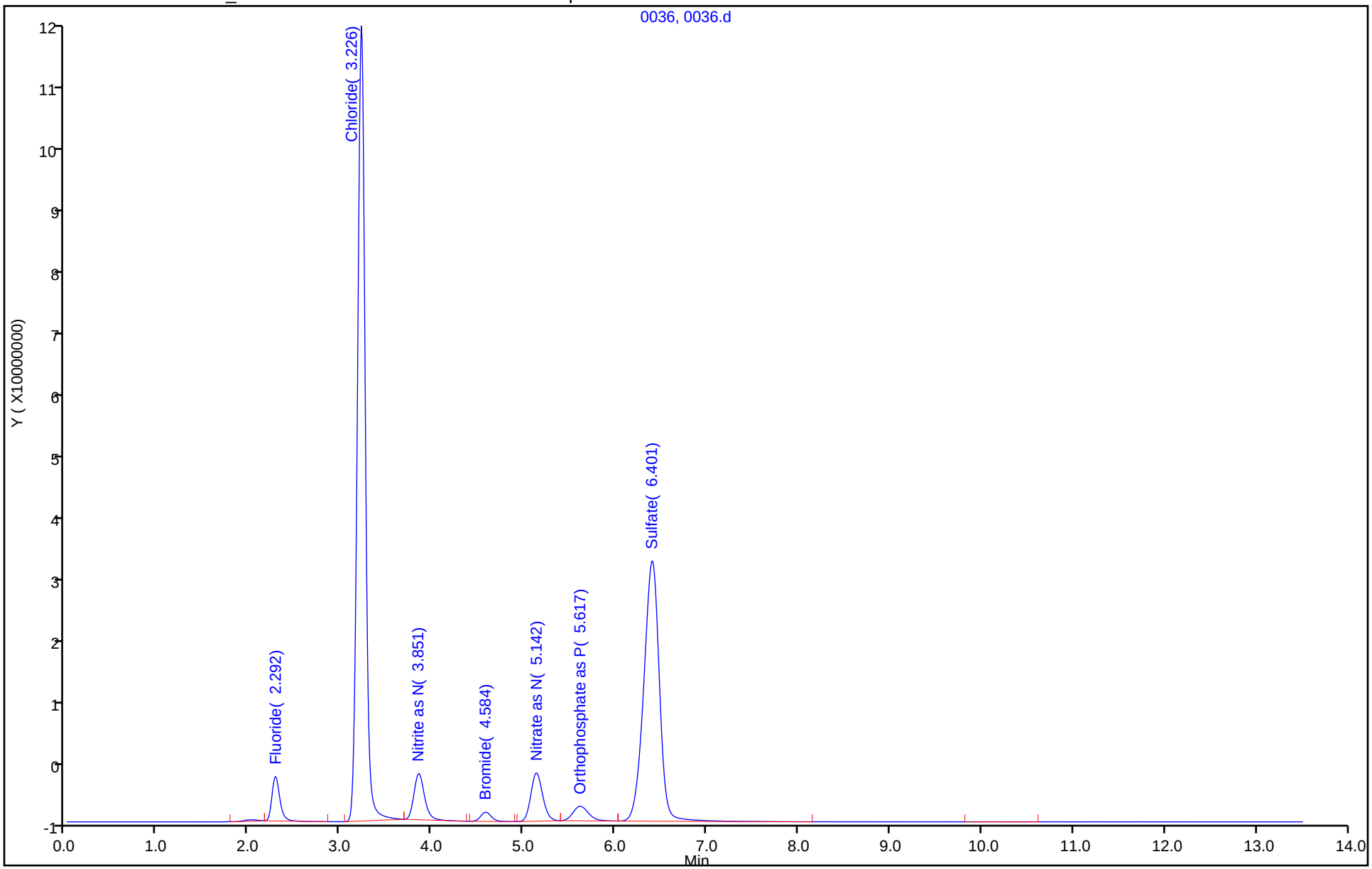
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0036.d

Injection Date:	21-May-2019 16:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	36
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0037.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	21-May-2019 16:51:00	ALS Bottle#:	0	Worklist Smp#:	37
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-037				
Misc. Info.:	3583				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:17	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	1189064		NC	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.859	5.634	0.225	738297		0.0998	
6 Sulfate	6.375	6.392	-0.017	200987		NC	

QC Flag Legend

Processing Flags

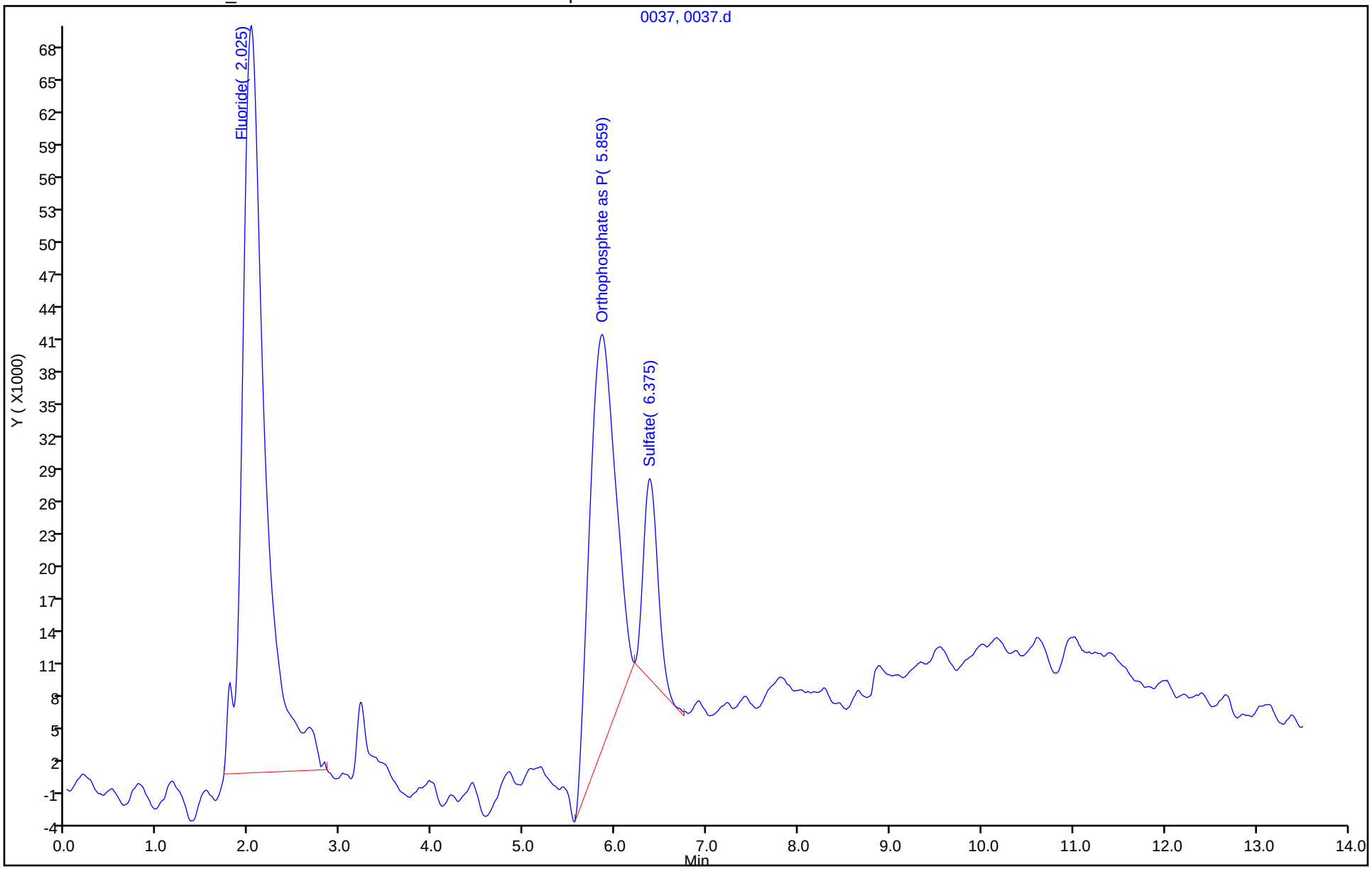
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Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0037.d

Injection Date:	21-May-2019 16:51:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	37
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0037.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	21-May-2019 16:51:00	ALS Bottle#:	0	Worklist Smp#:	37
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-037				
Misc. Info.:	3583				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:17	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	1189064		0.1920	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.859	5.634	0.225	738297		NC	
6 Sulfate	6.375	6.392	-0.017	200987		0.4909	

QC Flag Legend

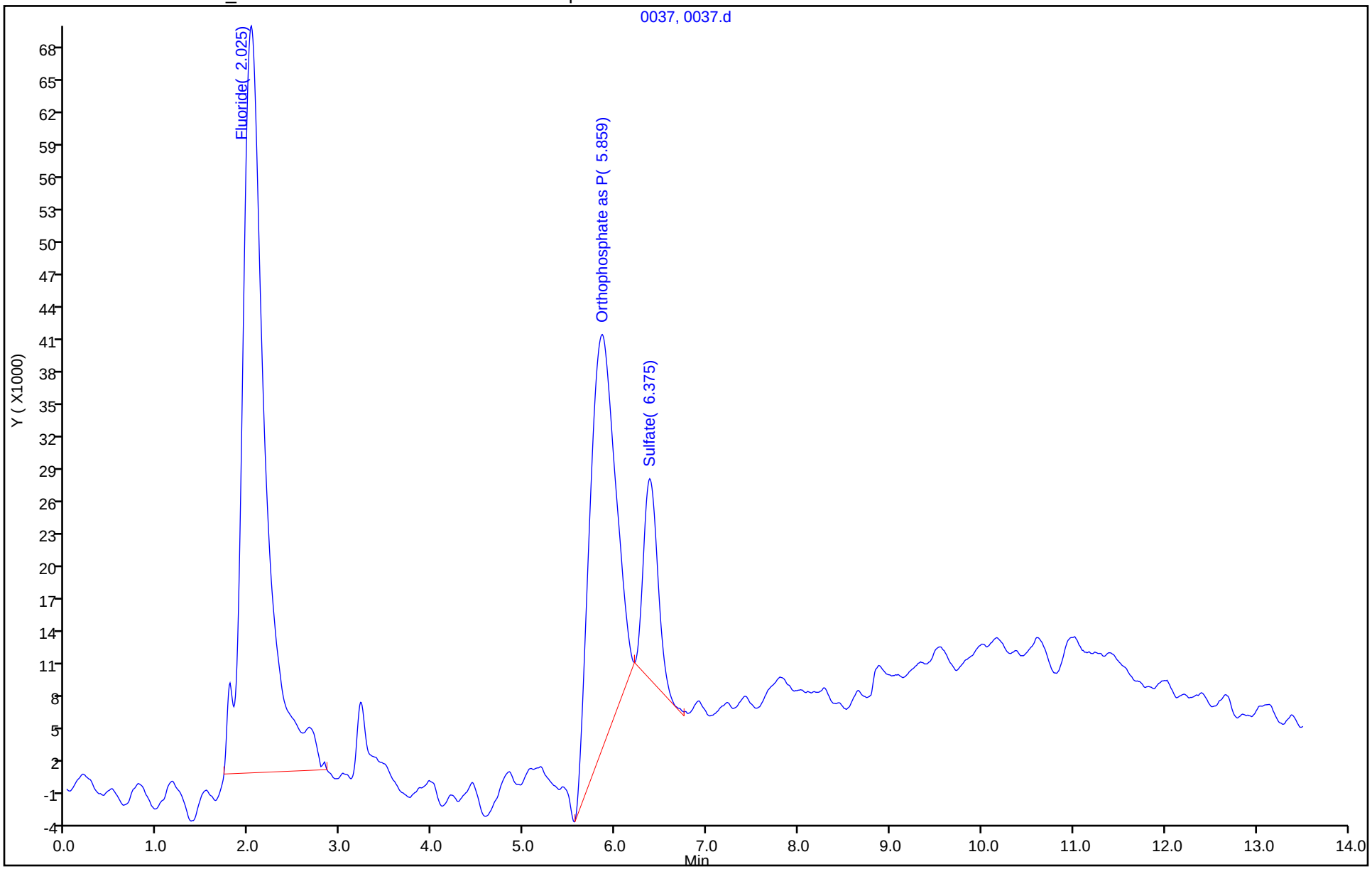
Processing Flags
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Report Date: 22-May-2019 07:59:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0037.d

Injection Date:	21-May-2019 16:51:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	37
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0041.d				
Lims ID:	280-123983-H-1				
Client ID:	LF2SW-1_0519				
Sample Type:	Client				
Inject. Date:	21-May-2019 17:57:00	ALS Bottle#:	0	Worklist Smp#:	41
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-041				
Misc. Info.:	24056 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:17	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				
First Level Reviewer: pedrickj		Date:	22-May-2019 07:58:11		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	142886	0.0540	
2 Chloride	3.209	3.225	-0.016	5150597	1.41	
3 Nitrite as N		3.850			ND	
4 Bromide	4.592	4.575	0.017	41990	0.0320	Ma
5 Nitrate as N	5.159	5.134	0.025	382109	NC	
7 Orthophosphate as P	5.759	5.634	0.125	1692491	NC	
6 Sulfate	6.367	6.392	-0.025	6591059	1.98	

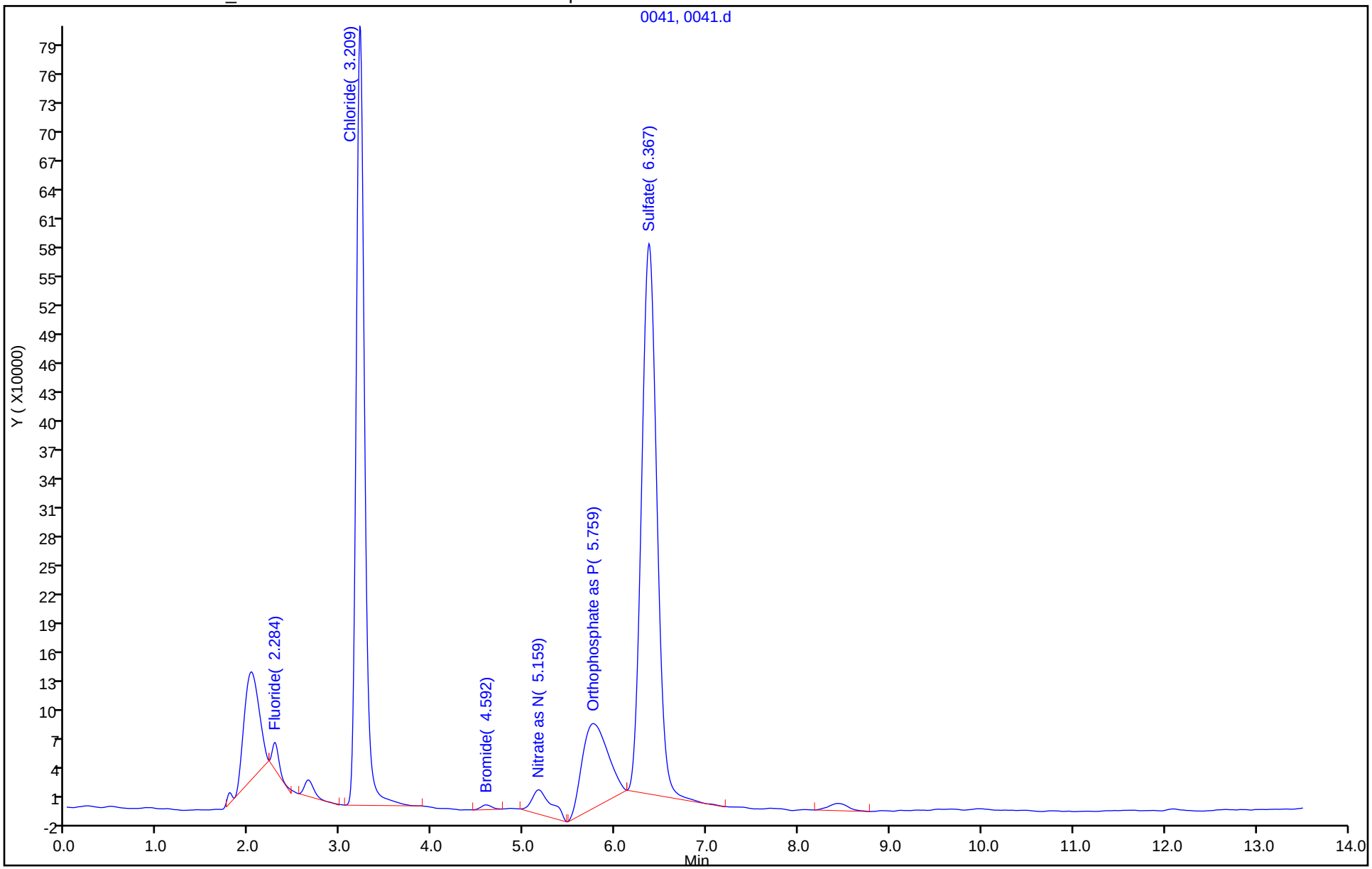
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 22-May-2019 07:59:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0041.d				
Injection Date:	21-May-2019 17:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-H-1	Lab Sample ID:	280-123983-1	Worklist Smp#:	41
Client ID:	LF2SW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0042.d
Lims ID: 280-123983-I-2
Client ID: LF2SW-2_0519
Sample Type: Client
Inject. Date: 21-May-2019 18:13:00 ALS Bottle#: 0 Worklist Smp#: 42
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-042
Misc. Info.: 30929 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:17 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

First Level Reviewer: pedrickj Date: 22-May-2019 07:58:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	293263	0.0739	
2 Chloride	3.209	3.225	-0.016	3642280	1.18	
3 Nitrite as N		3.850			ND	
4 Bromide	4.592	4.575	0.017	51611	0.0366	Ma
5 Nitrate as N	5.175	5.134	0.041	464394	NC	
7 Orthophosphate as P	5.725	5.634	0.091	2516540	NC	
6 Sulfate	6.375	6.392	-0.017	3809479	1.33	

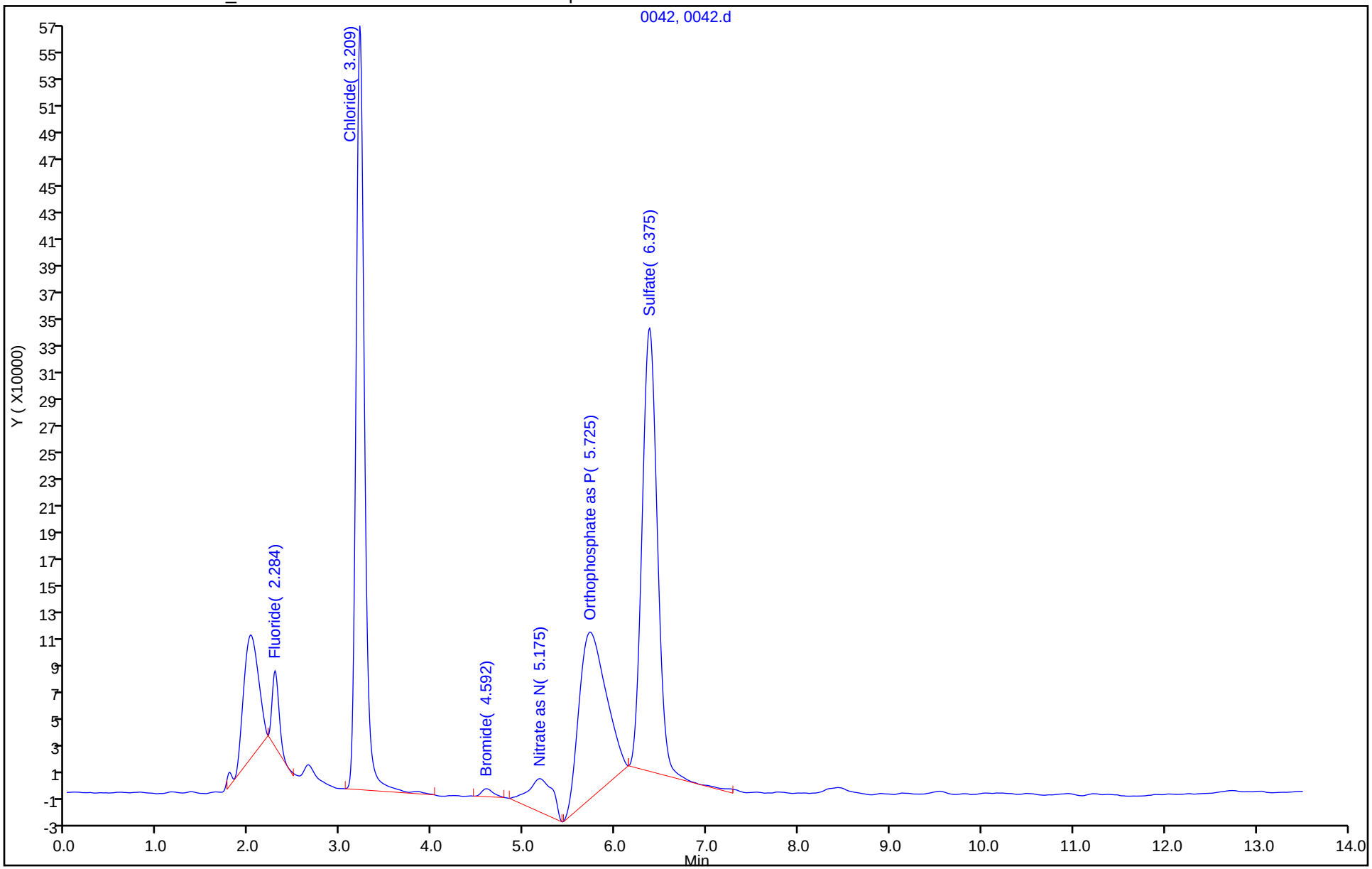
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 22-May-2019 07:59:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0042.d				
Injection Date:	21-May-2019 18:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-I-2	Lab Sample ID:	280-123983-2	Worklist Smp#:	42
Client ID:	LF2SW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0043.d
Lims ID: 280-123983-H-3
Client ID: LF2SW-3_0519
Sample Type: Client
Inject. Date: 21-May-2019 18:29:00 ALS Bottle#: 0 Worklist Smp#: 43
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-043
Misc. Info.: 15562 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:17 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	244347	0.0674	
2 Chloride	3.209	3.225	-0.016	28946626	5.05	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.175	5.134	0.041	927002	NC	
7 Orthophosphate as P	5.717	5.634	0.083	2363679	NC	
6 Sulfate	6.400	6.392	0.008	157123713	37.1	

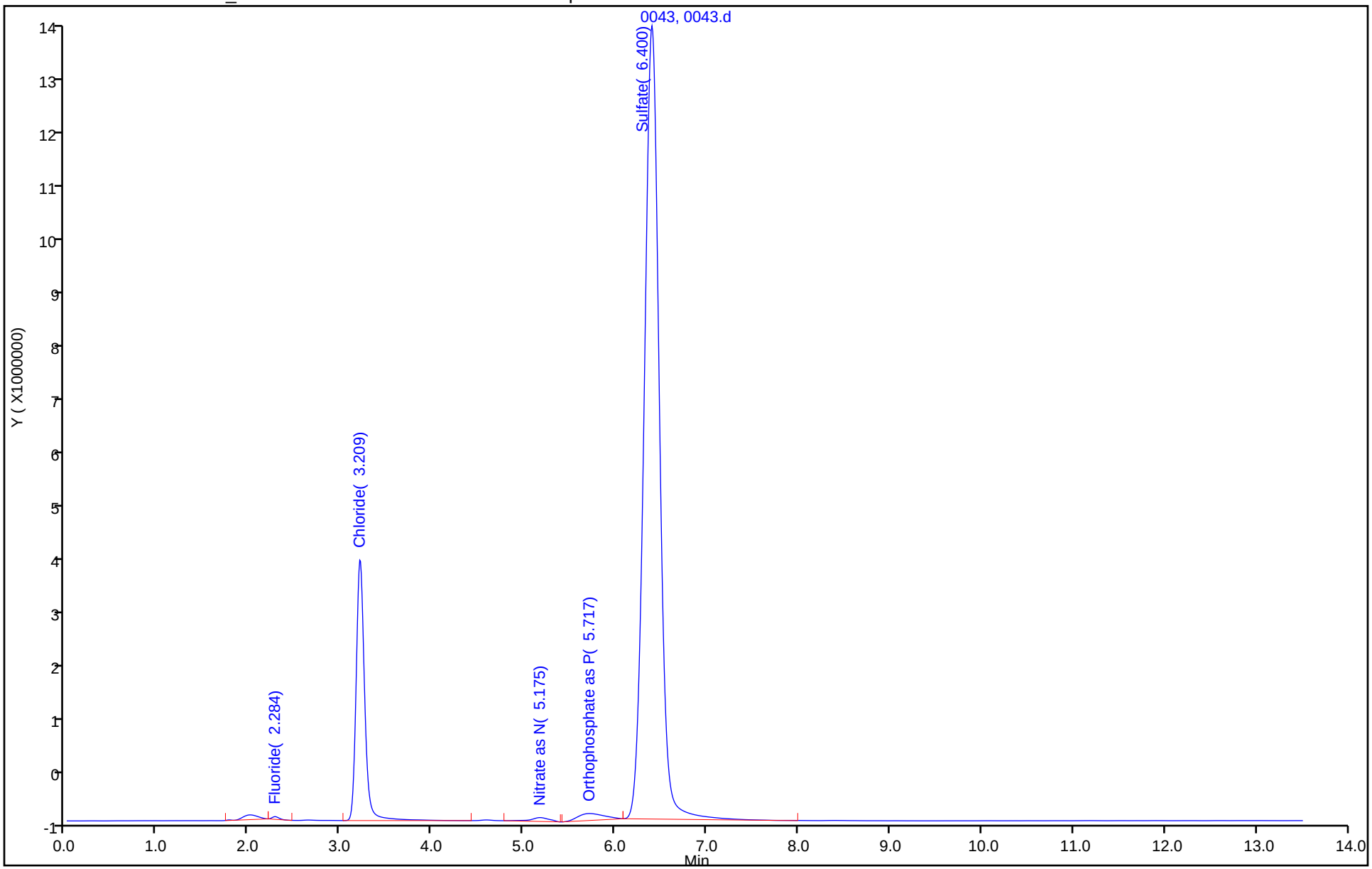
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0043.d				
Injection Date:	21-May-2019 18:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123983-H-3	Lab Sample ID:	280-123983-3	Worklist Smp#:	43
Client ID:	LF2SW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0044.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 21-May-2019 18:46:00 ALS Bottle#: 0 Worklist Smp#: 44
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-044
Misc. Info.: 7176
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:21 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	39601701	NC	NC	
2 Chloride	3.226	3.225	0.001	696511621	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	55084280	5.00	5.19	
4 Bromide	4.576	4.575	0.001	10948340	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	63876560	5.00	5.19	
7 Orthophosphate as P	5.617	5.634	-0.017	24900416	5.00	5.25	
6 Sulfate	6.409	6.392	0.017	457818739	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

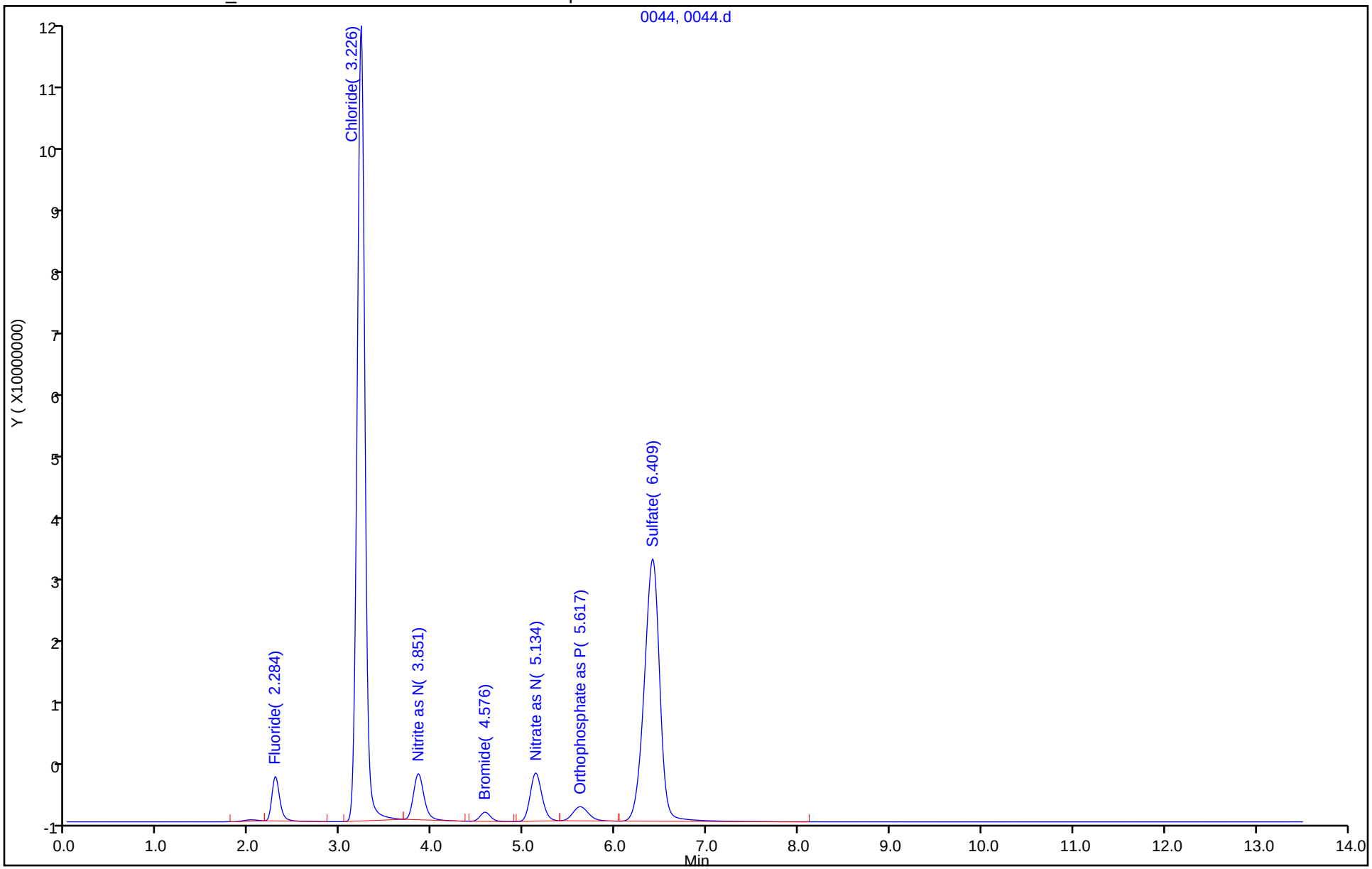
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:22 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0044.d

Injection Date:	21-May-2019 18:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	44
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/17/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0044.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-May-2019 18:46:00	ALS Bottle#:	0	Worklist Smp#:	44
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-044				
Misc. Info.:	7176				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:21	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	39601701	5.00	5.26	
2 Chloride	3.226	3.225	0.001	696511621	100.0	107.3	
3 Nitrite as N	3.851	3.850	0.001	55084280	NC	NC	
4 Bromide	4.576	4.575	0.001	10948340	5.00	5.30	
5 Nitrate as N	5.134	5.134	0.000	63876560	NC	NC	
7 Orthophosphate as P	5.617	5.634	-0.017	24900416	NC	NC	
6 Sulfate	6.409	6.392	0.017	457818739	100.0	107.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

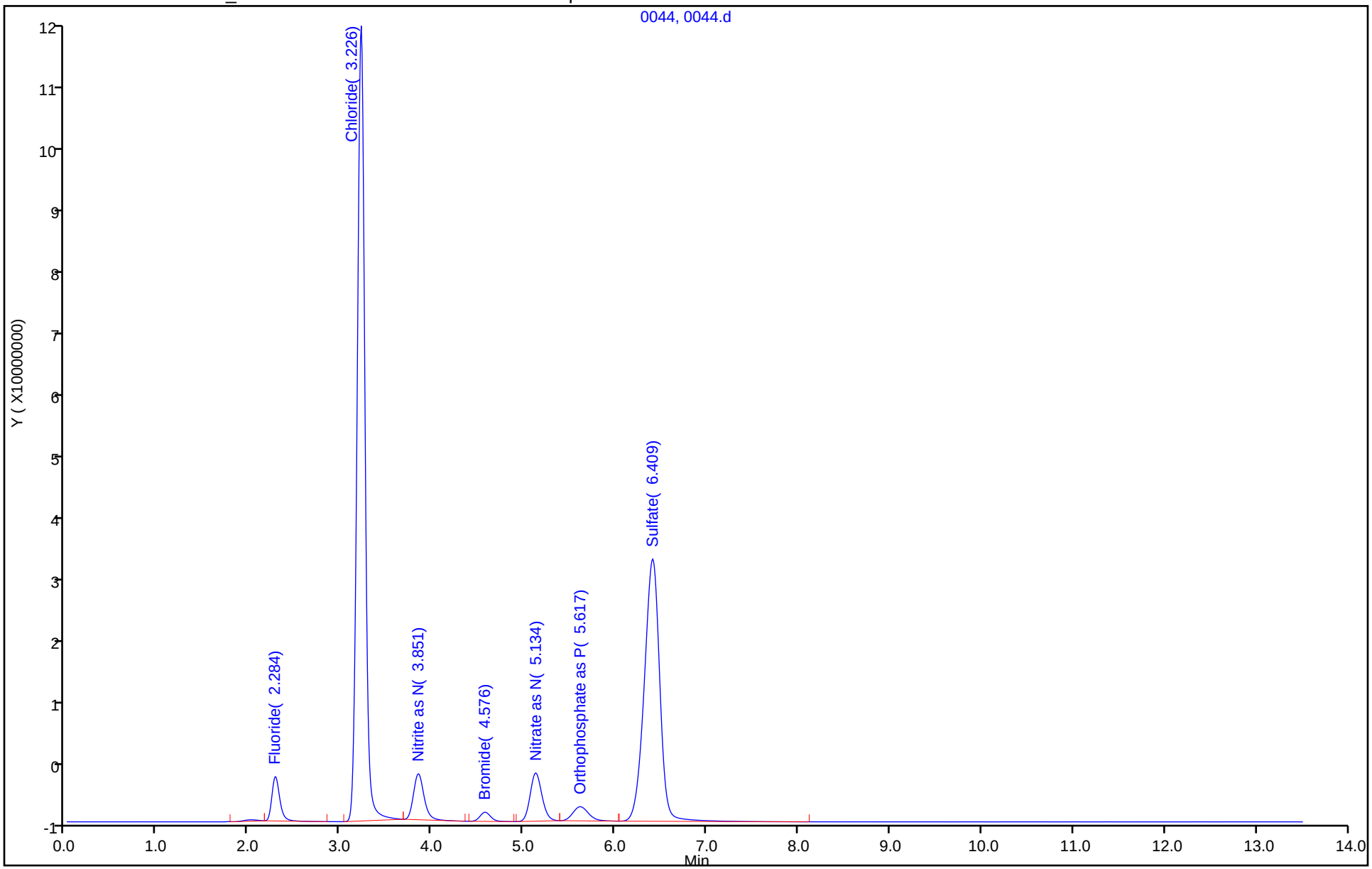
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:22 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0044.d

Injection Date:	21-May-2019 18:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	44
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0045.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 21-May-2019 19:02:00 ALS Bottle#: 0 Worklist Smp#: 45
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-045
Misc. Info.: 707
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:21 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.026	2.292	-0.266	2158466		NC	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.842	5.634	0.208	669362		0.0851	
6 Sulfate	6.376	6.392	-0.016	209247		NC	

QC Flag Legend

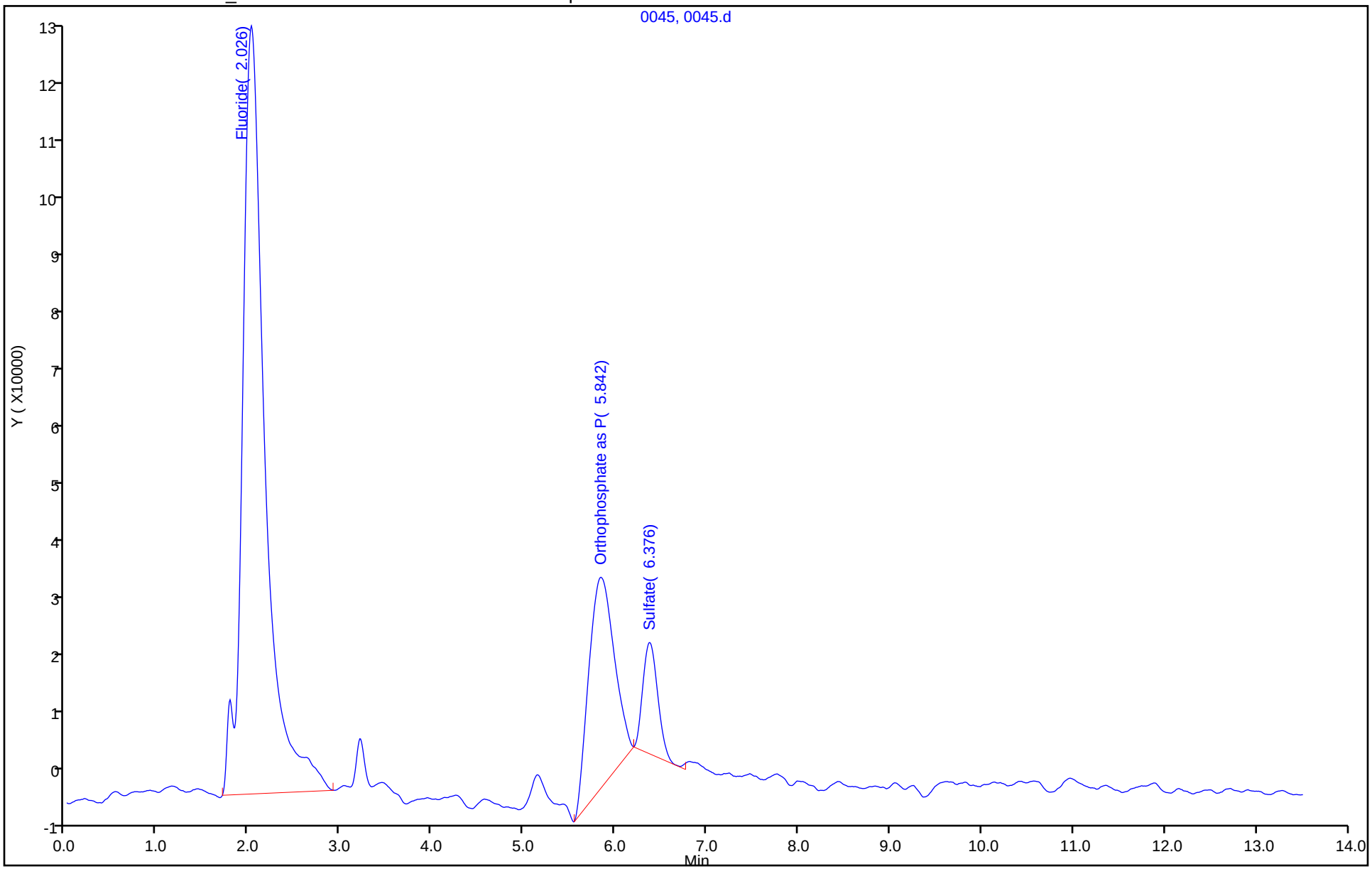
Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:22 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0045.d

Injection Date:	21-May-2019 19:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	45
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0045.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	21-May-2019 19:02:00	ALS Bottle#:	0	Worklist Smp#:	45
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-045				
Misc. Info.:	707				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:21	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.026	2.292	-0.266	2158466		0.3198	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.842	5.634	0.208	669362		NC	
6 Sulfate	6.376	6.392	-0.016	209247		0.4928	

QC Flag Legend

Processing Flags

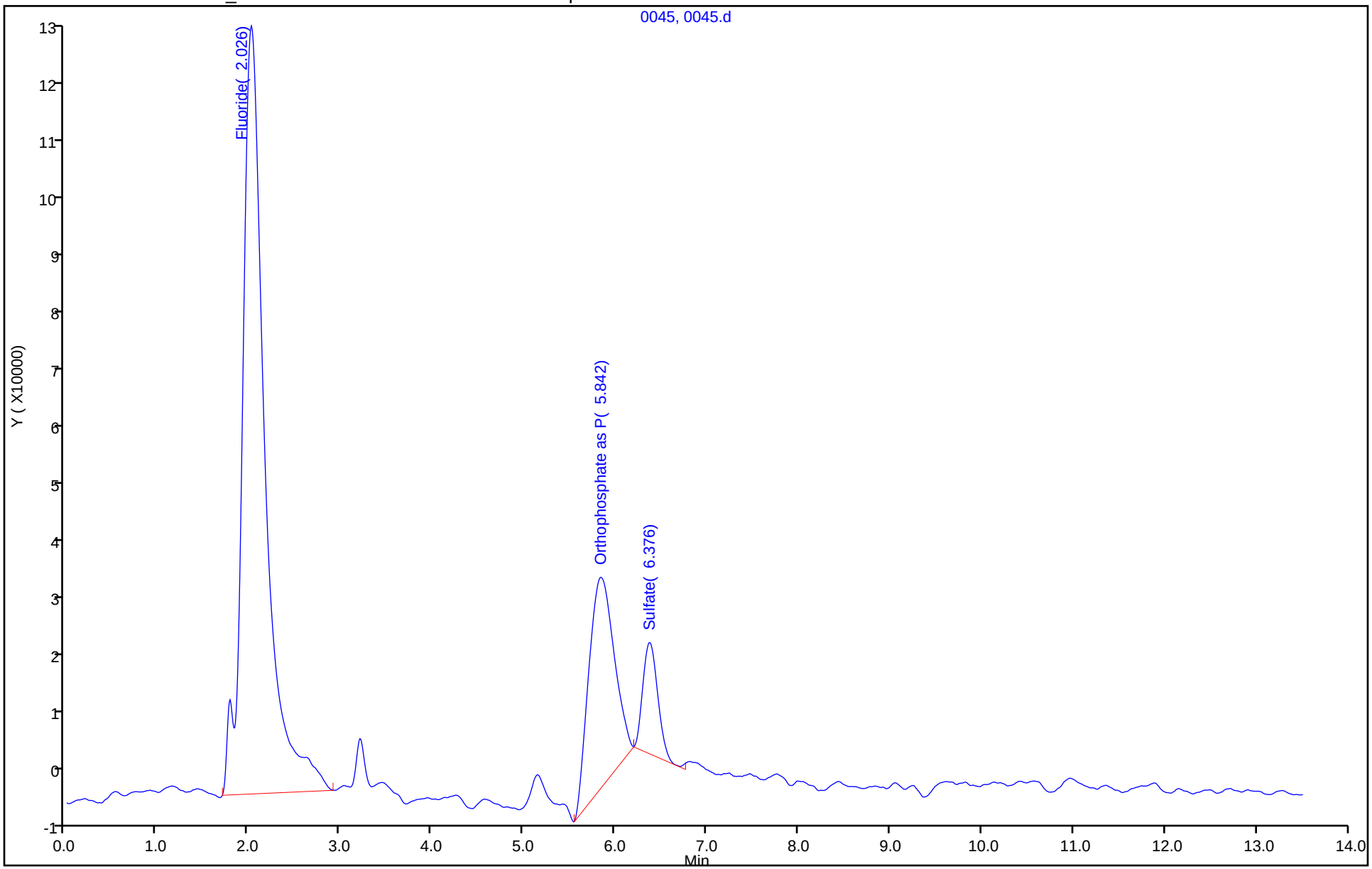
NC - Not Calibrated

Report Date: 22-May-2019 07:59:22 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0045.d

Injection Date:	21-May-2019 19:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	45
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



6/12/19 pH

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	CL			1
2*	NPOC	ICB	1.000	CL			2
3*	NPOC	LCS	1.000	CL			3
4*	NPOC	MB	1.000	CL			4
5*	NPOC	TIC	1.000	CL			5
6*	NPOC	280-124036-f-7	5x ~~1.000~~	CL	cloudy		6
7*	NPOC	280-124036-e-8	2x 5x ~~1.000~~	CL	cloudy		7
8*	NPOC	280-124036-e-9	1.000	CL			8
9*	NPOC	280-124036-e-10	5x ~~1.000~~	CL	cloudy		9
10*	NPOC	280-124095-c-1	1.000	CL			10
11*	NPOC	MS 280-124095-c-1	1.000	CL			11
12*	NPOC	MSD 280-124095-c-1	1.000	CL			12
13*	NPOC	280-124095-d-2	1.000	CL			13
14*	NPOC	280-124095-c-3	1.000	CL			14
15*	NPOC	CCV	1.000	CL			15
16*	NPOC	CCB	1.000	CL			16
17*	NPOC	280-124095-d-4	1.000	CL			17
18*	NPOC	280-124095-d-5	1.000	CL			18
19*	NPOC	280-124095-d-6	1.000	CL			19
20*	NPOC	280-124095-d-7	1.000	CL			20
21*	NPOC	280-124110-c-1	1.000	CL			21
22*	NPOC	MS 280-124110-c-1	1.000	CL			22
23*	NPOC	MSD 280-124110-c-1	1.000	CL			23
24*	NPOC	280-124110-c-2	1.000	CL			24
25*	NPOC	280-124110-d-4	1.000	CL			25
26*	NPOC	280-124110-d-5	1.000	CL			26
27*	NPOC	CCV	1.000	CL			27
28*	NPOC	CCB	1.000	CL			28
29*	NPOC	280-124110-c-6	1.000	CL			29
30*	NPOC	280-124110-c-7	1.000	CL			30
31*	NPOC	280-124061-d-1	1.000	CL			31
32*	NPOC	280-124109-g-1	10x ~~1.000~~	~~2~~ 8	historic		32
33*	NPOC	280-124088-c-1	1.000	CL			33
34*	NPOC	LCS	1.000	CL			34
35*	NPOC	MB	1.000	CL			35
36*	NPOC	TIC	1.000	CL			36
37*	NPOC	280-123981-g-6	1.000	CL			37
38*	NPOC	280-123981-d-7	1.000	CL			38
39*	NPOC	CCV	1.000	CL			39
40*	NPOC	CCB	1.000	CL			40
41*	NPOC	280-123981-g-8	1.000	CL			41
42*	NPOC	MS 280-123981-g-8	1.000	CL			42
43*	NPOC	MSD 280-123981-g-8	1.000	CL			43
44*	NPOC	280-123981-g-9	1.000	CL			44
45*	NPOC	280-123983-d-2	1.000	CL			45
46*	NPOC	280-123983-d-3	1.000	CL			46
47*	NPOC	280-123983-~~c-3~~ d-1	1.000	CL			47
48*	NPOC	280-124044-b-1	1.000	CL			48
49*	NPOC	280-124044-b-2	1.000	CL			49
50*	NPOC	280-124044-b-3	1.000	CL			50
51*	NPOC	CCV	1.000	CL			51

pH ed 6/12/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	"			52
53*	NPOC	280-124044-b-4	1.000	"			53
54*	NPOC	280-124044-b-5	1.000	"			54
55*	NPOC	MS 280-124044-b-5	1.000	"			55
56*	NPOC	MSD 280-124044-b-5	1.000	"			56
57*	NPOC	280-124044-b-6	1.000	"			57
58*	NPOC	280-124053-a-2	1.000	"			58
59*	NPOC	280-124053-a-3	1.000	"			59
60*	NPOC	280-124106-e-1	1.000	"			60
61*	NPOC	280-124106-d-2	1.000	"			61
62*	NPOC	280-124106-d-3	1.000	"			62
63*	NPOC	CCV	1.000	"			63
64*	NPOC	CCB	1.000	"			64
65*	NPOC	280-124106-e-4	1.000	"			65
66*	NPOC	280-124139-a-1	1.000	"			66
67*	NPOC	CCV	1.000	"			67
68*	NPOC	CCB	1.000	"			68

Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	ICV
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

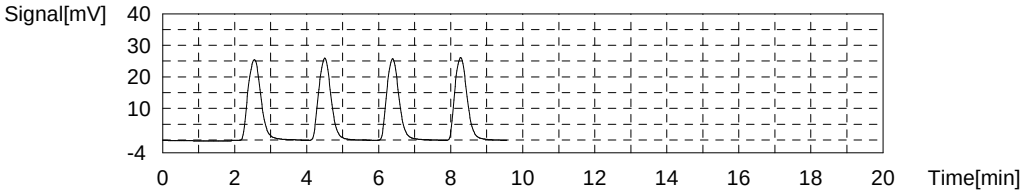
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:19:12 PM
2	64.46	21.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:21:19 PM
3	62.61	21.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:23:23 PM
4	61.43	20.73mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:25:27 PM
5	62.62	21.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:27:31 PM

Mean Area 62.78
Mean Conc. 21.19mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

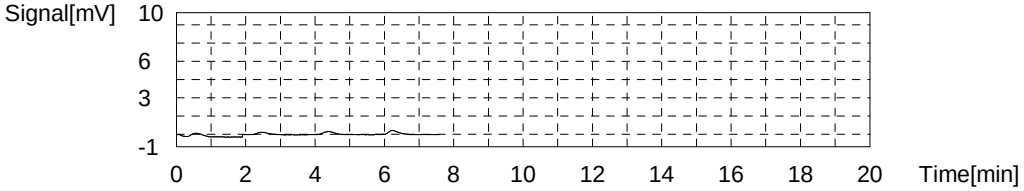
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09634mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5524	0.1052mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:36:01 PM
2	0.4079	0.05628mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:38:05 PM
3	0.5252	0.09602mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:40:09 PM
4	0.6190	0.1278mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:42:13 PM

Mean Area 0.5261
Mean Conc. 0.09634mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

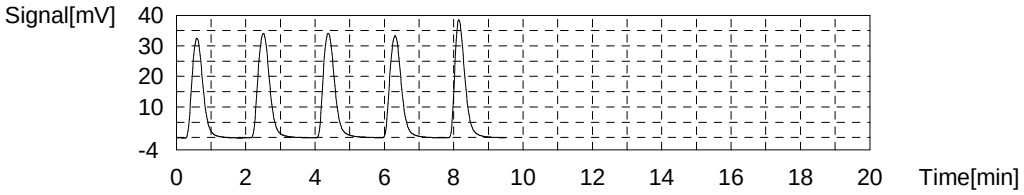
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.72mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	72.78	24.57mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:50:44 PM
2	80.41	27.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:52:48 PM
3	78.91	26.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:54:52 PM
4	78.30	26.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:56:56 PM
5	78.82	26.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:59:00 PM

Mean Area 79.11
Mean Conc. 26.72mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

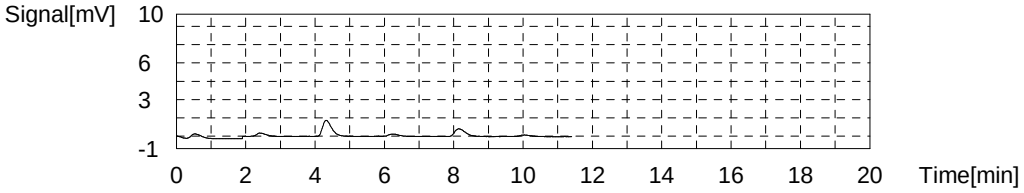
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06134mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6748	0.1467mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:07:30 PM
2	0.4737	0.07857mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:09:34 PM
3	2.406	0.7332mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:11:38 PM
4	0.3443	0.03474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:13:42 PM
5	1.321	0.3656mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:15:46 PM
6	0.1985	-0.01466mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:17:50 PM

Mean Area 0.4228
Mean Conc. 0.06134mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

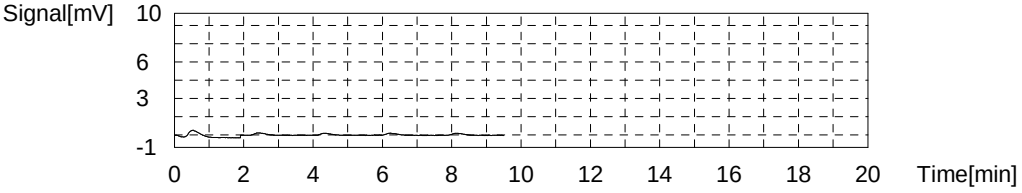
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03977mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.175	0.3162mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:26:15 PM
2	0.4001	0.05364mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:28:19 PM
3	0.3279	0.02918mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:30:23 PM
4	0.3445	0.03480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:32:27 PM
5	0.3641	0.04144mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:34:31 PM

Mean Area 0.3592
Mean Conc. 0.03977mg/L



Sample

Sample Name: 280-124036-f-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

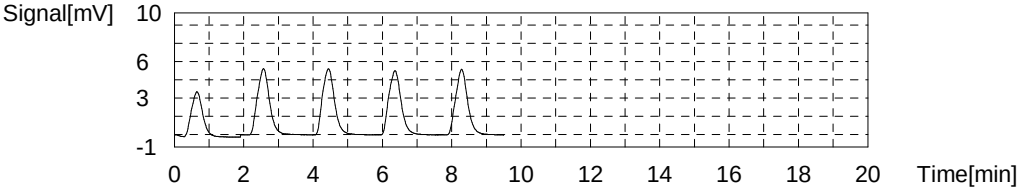
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:21.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.286	13.63mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:43:01 PM
2	13.06	21.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:45:05 PM
3	13.03	21.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:47:09 PM
4	13.03	21.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:49:13 PM
5	12.93	21.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:51:17 PM

Mean Area 13.01
Mean Conc. 21.63mg/L



Sample

Sample Name: 280-124036-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

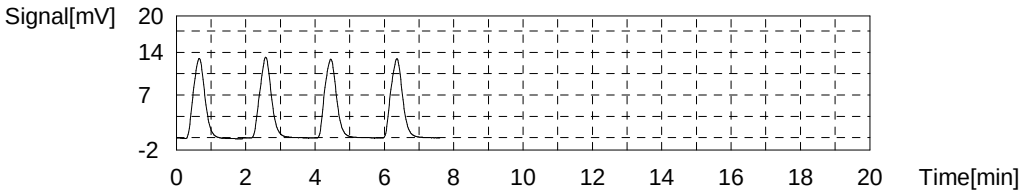
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:20.67mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.68	20.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:59:47 PM
2	30.91	20.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:01:51 PM
3	30.57	20.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:03:55 PM
4	30.82	20.72mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:05:59 PM

Mean Area 30.74
Mean Conc. 20.67mg/L



Sample

Sample Name: 280-124036-e-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

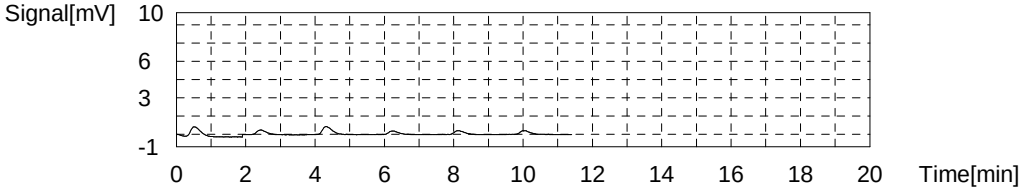
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1290mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.515	0.4313mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:14:30 PM
2	0.7368	0.1677mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:16:34 PM
3	1.281	0.3521mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:18:38 PM
4	0.5375	0.1002mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:20:42 PM
5	0.6251	0.1299mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:22:46 PM
6	0.5910	0.1183mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:24:50 PM

Mean Area 0.6226
Mean Conc. 0.1290mg/L



Sample

Sample Name: 280-124036-e-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

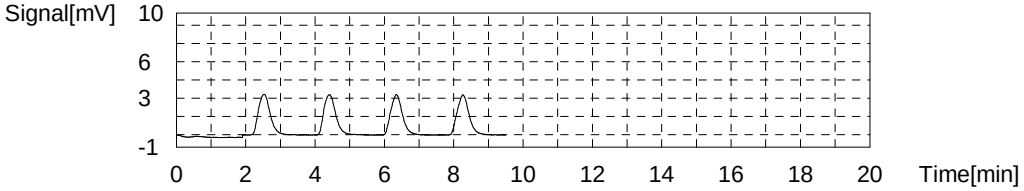
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:12.85mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.4095mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:33:15 PM
2	7.864	12.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:35:19 PM
3	7.828	12.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:37:23 PM
4	7.797	12.80mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:39:27 PM
5	7.815	12.83mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:41:31 PM

Mean Area 7.826
Mean Conc. 12.85mg/L



Sample

Sample Name: 280-124095-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

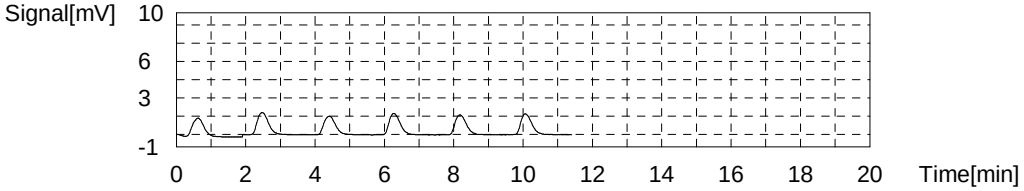
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.127mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.412	1.074mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:50:01 PM
2	4.054	1.292mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:52:05 PM
3	3.532	1.115mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:54:09 PM
4	3.854	1.224mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:56:13 PM
5	3.623	1.145mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:58:17 PM
6	3.702	1.172mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:00:21 PM

Mean Area 3.567
Mean Conc. 1.127mg/L



Sample

Sample Name: MS 280-124095-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

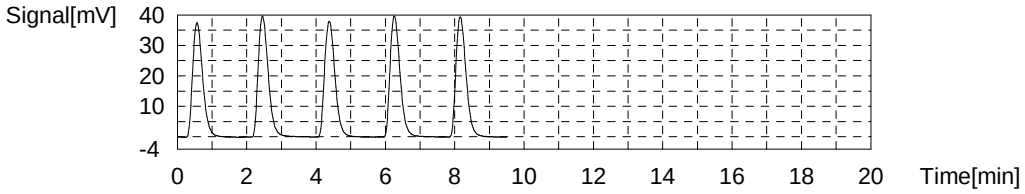
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.62	25.88mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:08:46 PM
2	80.57	27.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:10:50 PM
3	79.73	26.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:12:54 PM
4	80.42	27.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:14:58 PM
5	80.70	27.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:17:02 PM

Mean Area 80.36
Mean Conc. 27.14mg/L



Sample

Sample Name: MSD 280-124095-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

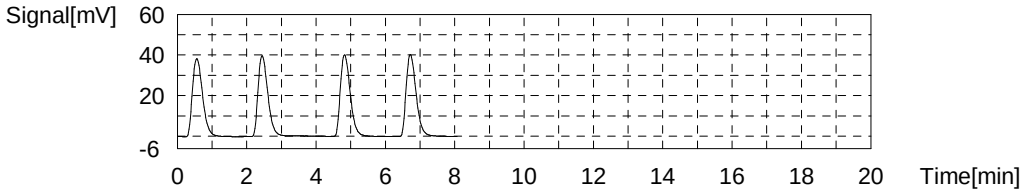
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.09mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.57	26.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:25:32 PM
2	79.47	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:28:04 PM
3	80.42	27.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:30:08 PM
4	81.32	27.47mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:32:12 PM

Mean Area 80.20
Mean Conc. 27.09mg/L



Sample

Sample Name: 280-124095-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

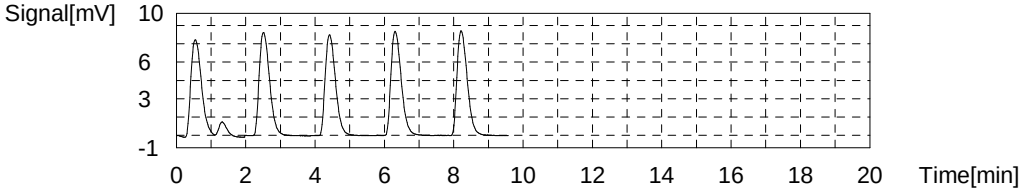
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.873mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.59	6.555mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:40:47 PM
2	17.69	5.911mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:42:51 PM
3	17.19	5.742mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:44:55 PM
4	17.73	5.925mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:46:59 PM
5	17.70	5.914mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:49:03 PM

Mean Area 17.58
Mean Conc. 5.873mg/L



Sample

Sample Name: 280-124095-c-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

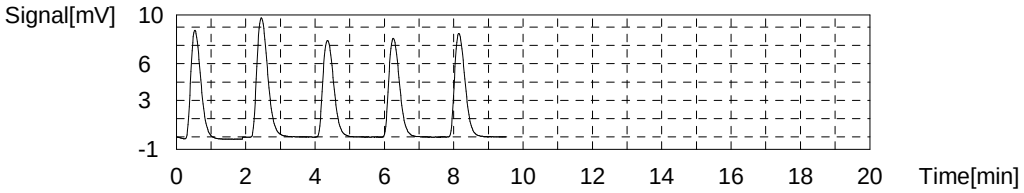
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.916mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.03	6.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:57:33 PM
2	21.47	7.192mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:59:37 PM
3	17.41	5.816mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:01:41 PM
4	17.49	5.843mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:03:45 PM
5	17.89	5.979mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:05:49 PM

Mean Area 17.70
Mean Conc. 5.916mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

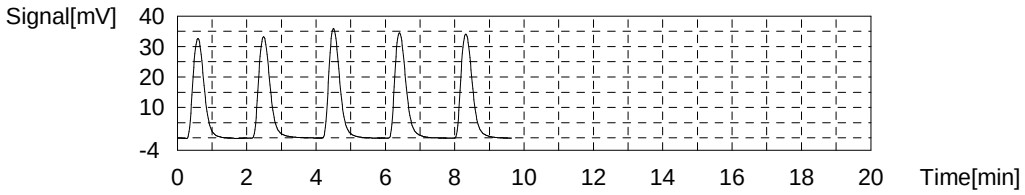
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	73.82	24.93mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:14:19 PM
2	77.12	26.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:16:31 PM
3	79.90	26.99mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:18:35 PM
4	78.13	26.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:20:39 PM
5	78.87	26.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:22:43 PM

Mean Area 78.51
Mean Conc. 26.51mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

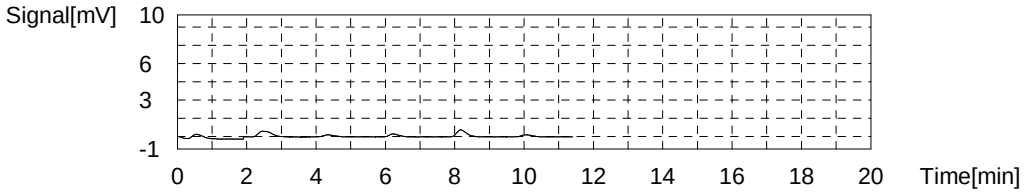
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06690mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6753	0.1469mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:31:13 PM
2	1.301	0.3588mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:33:17 PM
3	0.3034	0.02088mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:35:21 PM
4	0.4381	0.06651mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:37:25 PM
5	1.096	0.2894mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:39:29 PM
6	0.3402	0.03335mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:41:33 PM

Mean Area 0.4393
Mean Conc. 0.06690mg/L



Sample

Sample Name: 280-124095-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

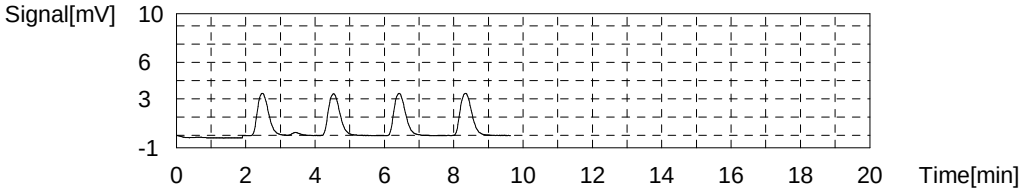
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.645mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:49:58 PM
2	8.185	2.691mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:52:10 PM
3	7.974	2.620mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:54:14 PM
4	7.974	2.620mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:56:18 PM
5	8.066	2.651mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:58:22 PM

Mean Area 8.050
Mean Conc. 2.645mg/L



Sample

Sample Name: 280-124095-d-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

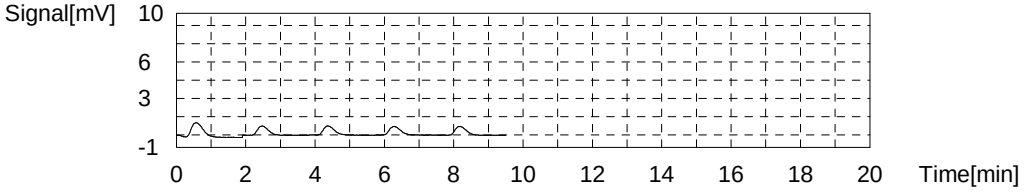
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4606mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.687	0.8284mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:06:52 PM
2	1.608	0.4629mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:08:56 PM
3	1.631	0.4706mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:11:00 PM
4	1.559	0.4463mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:13:04 PM
5	1.608	0.4629mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:15:08 PM

Mean Area 1.602
Mean Conc. 0.4606mg/L



Sample

Sample Name: 280-124095-d-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

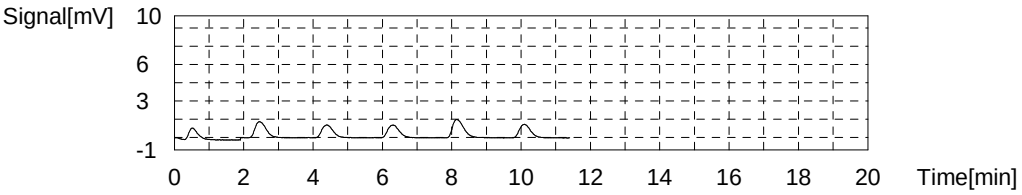
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7707mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.661	0.4808mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:23:38 PM
2	2.894	0.8985mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:25:42 PM
3	2.342	0.7115mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:27:46 PM
4	2.397	0.7301mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:29:50 PM
5	3.356	1.055mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:31:54 PM
6	2.434	0.7427mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:33:58 PM

Mean Area 2.517
Mean Conc. 0.7707mg/L



Sample

Sample Name: 280-124095-d-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

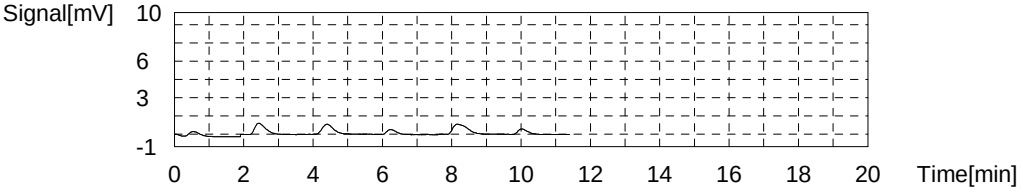
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2809mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7671	0.1780mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:42:23 PM
2	2.007	0.5980mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:44:27 PM
3	1.860	0.5482mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:46:31 PM
4	0.7744	0.1804mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:48:35 PM
5	2.426	0.7400mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:50:39 PM
6	0.8824	0.2170mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:52:43 PM

Mean Area 1.071
Mean Conc. 0.2809mg/L



Sample

Sample Name: 280-124110-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

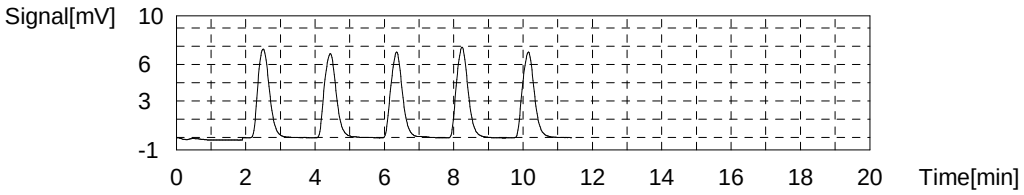
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.584mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1784	-0.02147mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:01:08 PM
2	16.88	5.637mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:03:12 PM
3	16.59	5.538mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:05:16 PM
4	16.68	5.569mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:07:20 PM
5	17.50	5.847mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:09:24 PM
6	16.75	5.593mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:11:28 PM

Mean Area 16.73
Mean Conc. 5.584mg/L



Sample

Sample Name: MS 280-124110-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

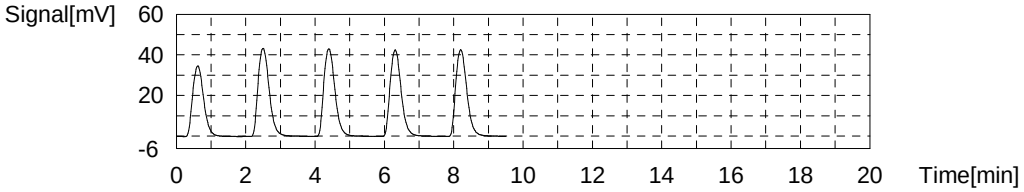
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.56mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.47	26.16mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:19:53 PM
2	97.45	32.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:21:57 PM
3	96.78	32.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:24:01 PM
4	95.45	32.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:26:05 PM
5	95.67	32.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:28:09 PM

Mean Area 96.34
Mean Conc. 32.56mg/L



Sample

Sample Name: MSD 280-124110-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

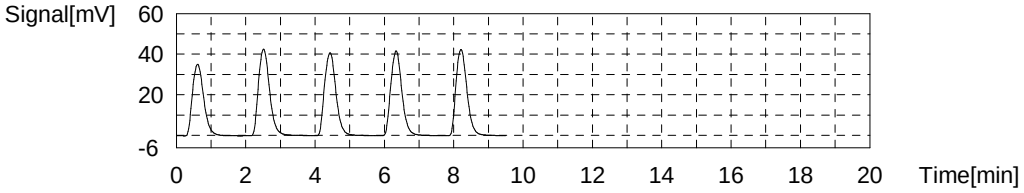
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.90mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.14	27.07mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:36:39 PM
2	95.64	32.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:38:43 PM
3	94.04	31.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:40:47 PM
4	94.00	31.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:42:51 PM
5	93.93	31.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:44:55 PM

Mean Area 94.40
Mean Conc. 31.90mg/L



Sample

Sample Name: 280-124110-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

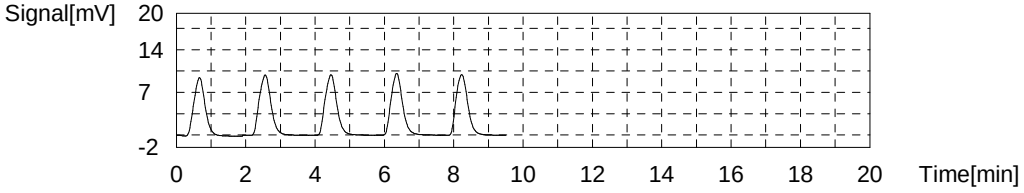
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.805mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.54	7.215mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:53:25 PM
2	23.27	7.801mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:55:29 PM
3	23.30	7.812mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:57:33 PM
4	23.35	7.829mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:59:37 PM
5	23.20	7.778mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:01:41 PM

Mean Area 23.28
Mean Conc. 7.805mg/L



Sample

Sample Name: 280-124110-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

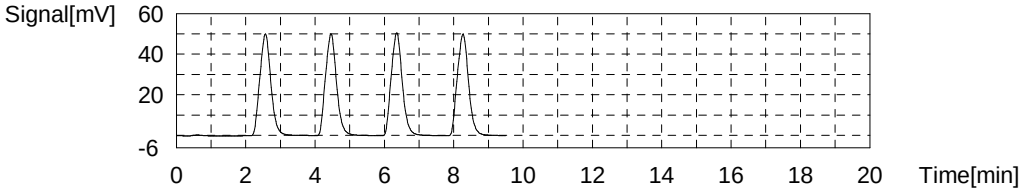
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:38.06mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8124	0.1933mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:10:11 PM
2	111.2	37.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:12:15 PM
3	112.0	37.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:14:19 PM
4	113.7	38.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:16:23 PM
5	113.5	38.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:18:27 PM

Mean Area 112.6
Mean Conc. 38.06mg/L



Sample

Sample Name: 280-124110-d-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

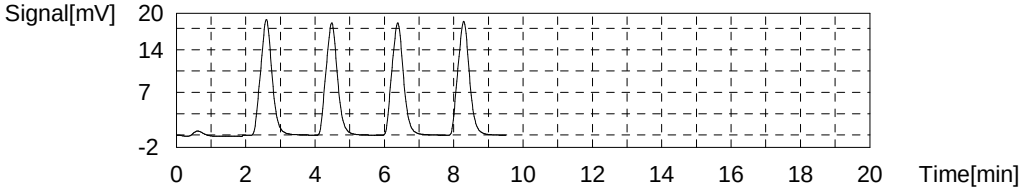
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.70mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.662	0.4811mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:26:57 PM
2	43.97	14.81mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:29:01 PM
3	43.01	14.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:31:05 PM
4	43.43	14.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:33:09 PM
5	44.07	14.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:35:13 PM

Mean Area 43.62
Mean Conc. 14.70mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

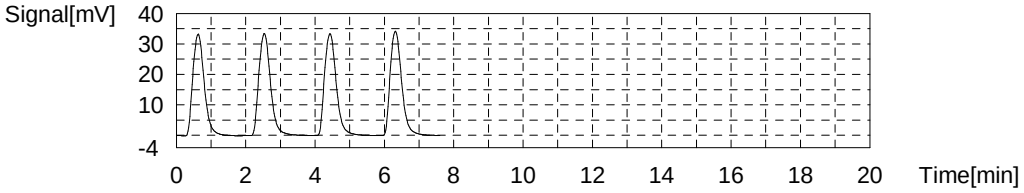
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.56mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.15	26.05mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:43:43 PM
2	78.92	26.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:45:47 PM
3	78.92	26.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:47:51 PM
4	79.54	26.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:49:55 PM

Mean Area 78.63
Mean Conc. 26.56mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

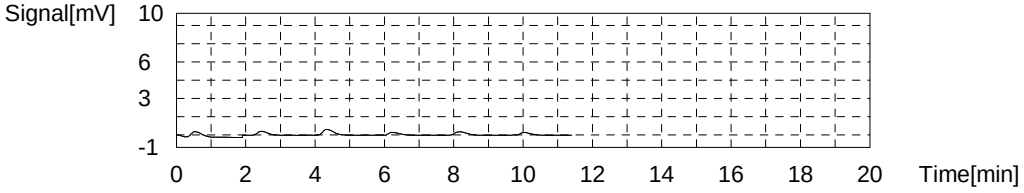
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1038mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8423	0.2034mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:58:26 PM
2	0.6465	0.1371mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:00:30 PM
3	0.9669	0.2457mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:02:34 PM
4	0.4653	0.07573mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:04:38 PM
5	0.6746	0.1466mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:06:42 PM
6	0.4066	0.05584mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:08:46 PM

Mean Area 0.5483
Mean Conc. 0.1038mg/L



Sample

Sample Name: 280-124110-c-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

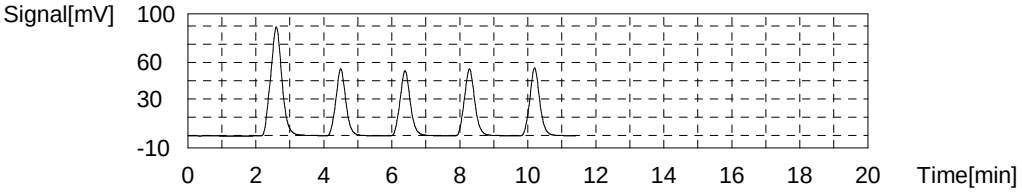
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:69.10mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2137	-0.00951mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:17:11 PM
2	208.0	70.38mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:19:16 PM
3	112.9	68.22mg/L	28uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:21:20 PM
4	112.9	68.22mg/L	28uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:23:24 PM
5	117.0	70.70mg/L	28uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:25:27 PM
6	114.6	69.25mg/L	28uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:27:31 PM

Mean Area 114.4
Mean Conc. 69.10mg/L



Sample

Sample Name: 280-124110-c-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

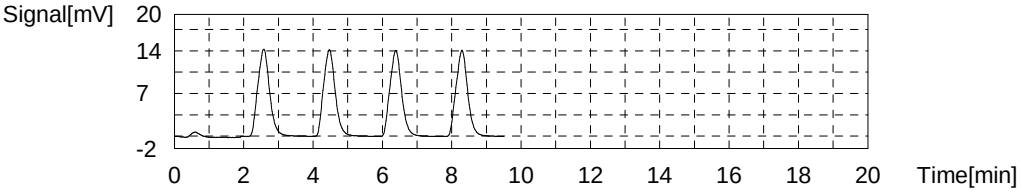
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.474	0.4175mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:35:56 PM
2	34.02	11.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:38:00 PM
3	33.44	11.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:40:04 PM
4	33.45	11.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:42:08 PM
5	33.39	11.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:44:12 PM

Mean Area 33.58
Mean Conc. 11.29mg/L



Sample

Sample Name: 280-124061-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

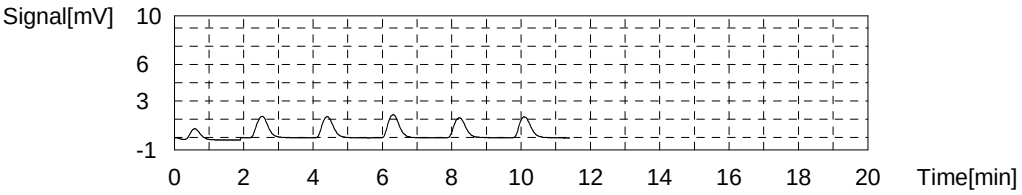
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.247mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.733	0.5052mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:52:42 PM
2	4.039	1.286mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:54:46 PM
3	3.893	1.237mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:56:50 PM
4	4.267	1.364mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:58:54 PM
5	3.828	1.215mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:00:58 AM
6	3.934	1.251mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:03:02 AM

Mean Area 3.924
Mean Conc. 1.247mg/L



Sample

Sample Name: 280-124109-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

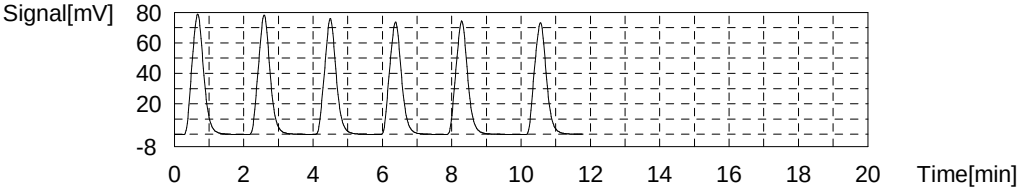
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:599.6mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	187.0	632.7mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:11:27 AM
2	184.7	624.9mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:13:31 AM
3	178.1	602.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:15:35 AM
4	177.3	599.8mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:17:39 AM
5	177.0	598.8mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:20:06 AM
6	176.5	597.1mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:22:10 AM

Mean Area 177.2
Mean Conc. 599.6mg/L



Sample

Sample Name: 280-124088-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

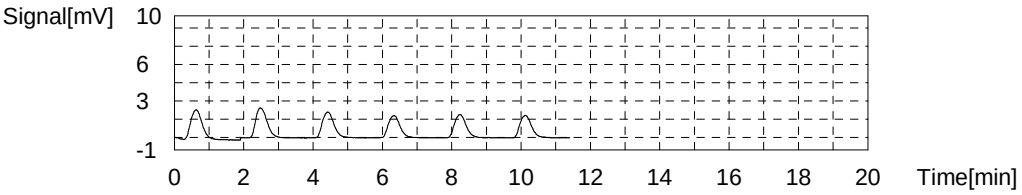
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.429mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.483	1.776mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:30:36 AM
2	5.586	1.811mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:32:40 AM
3	4.897	1.577mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:34:44 AM
4	4.226	1.350mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:36:48 AM
5	4.426	1.418mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:38:52 AM
6	4.292	1.372mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:40:56 AM

Mean Area 4.460
Mean Conc. 1.429mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

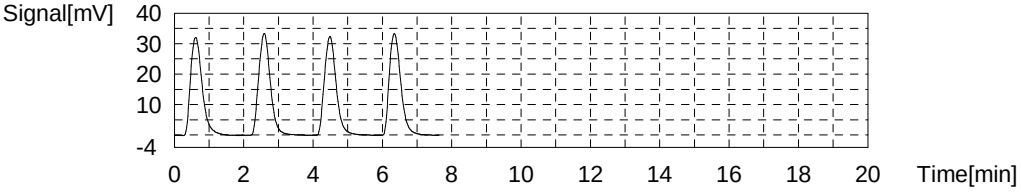
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.21	25.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:49:24 AM
2	78.36	26.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:51:28 AM
3	76.91	25.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:53:32 AM
4	77.76	26.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:55:36 AM

Mean Area 77.31
Mean Conc. 26.11mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

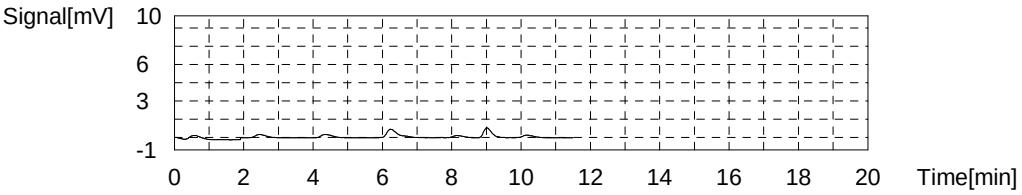
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1014mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6834	0.1496mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:04:08 AM
2	0.5326	0.09853mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:06:12 AM
3	0.5658	0.1098mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:08:16 AM
4	1.472	0.4168mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:10:20 AM
5	1.663	0.4815mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:12:30 AM
6	0.3825	0.04768mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:14:34 AM

Mean Area 0.5411
Mean Conc. 0.1014mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

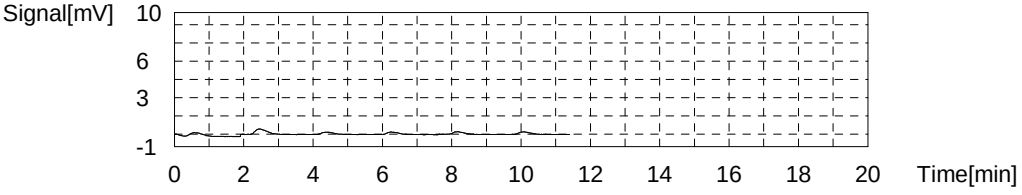
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06079mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6660	0.1437mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:23:00 AM
2	1.033	0.2681mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:25:04 AM
3	0.3933	0.05134mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:27:08 AM
4	0.4093	0.05676mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:29:12 AM
5	0.4511	0.07092mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:31:16 AM
6	0.4311	0.06414mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:33:20 AM

Mean Area 0.4212
Mean Conc. 0.06079mg/L



Sample

Sample Name: 280-123981-g-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

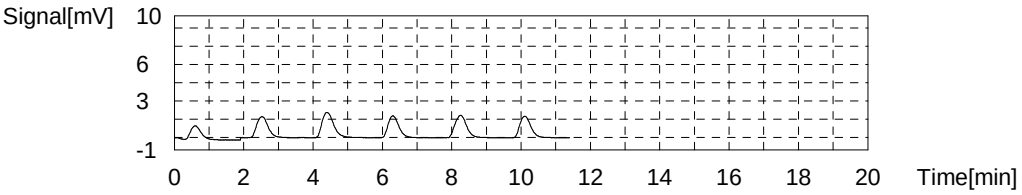
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.271mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.333	0.7085mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:41:46 AM
2	3.944	1.254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:43:50 AM
3	4.825	1.553mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:45:54 AM
4	3.872	1.230mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:47:58 AM
5	4.257	1.360mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:50:02 AM
6	3.895	1.238mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:52:06 AM

Mean Area 3.992
Mean Conc. 1.271mg/L



Sample

Sample Name: 280-123981-d-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

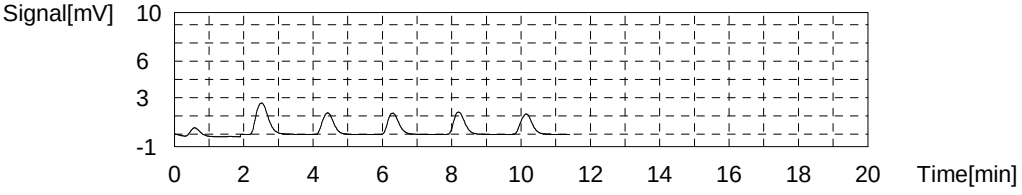
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.260mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.258	0.3443mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:00:31 AM
2	6.368	2.075mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:02:35 AM
3	4.038	1.286mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:04:39 AM
4	3.892	1.237mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:06:43 AM
5	4.019	1.280mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:08:47 AM
6	3.890	1.236mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:10:51 AM

Mean Area 3.960
Mean Conc. 1.260mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

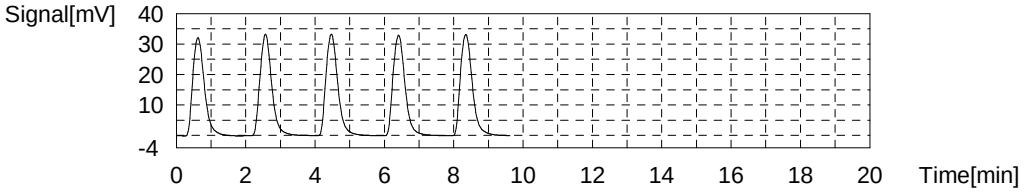
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.80mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.02	25.67mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:19:17 AM
2	78.42	26.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:21:22 AM
3	79.61	26.89mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:23:28 AM
4	79.46	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:25:35 AM
5	79.92	26.99mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:27:39 AM

Mean Area 79.35
Mean Conc. 26.80mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

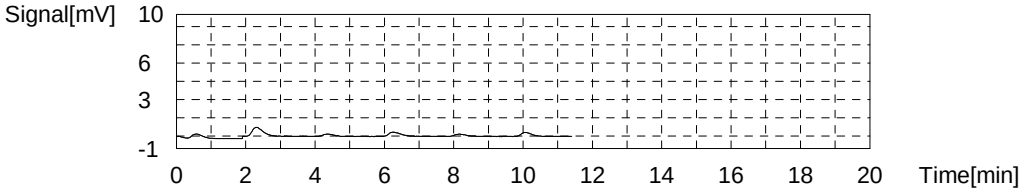
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09465mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6784	0.1479mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:36:10 AM
2	1.614	0.4649mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:38:14 AM
3	0.3936	0.05144mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:40:18 AM
4	0.7799	0.1823mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:42:22 AM
5	0.3843	0.04829mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:44:26 AM
6	0.6283	0.1310mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:46:30 AM

Mean Area 0.5212
Mean Conc. 0.09465mg/L



Sample

Sample Name: 280-123981-g-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

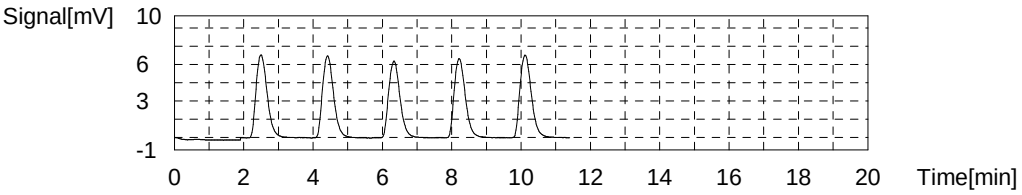
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.933mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:54:55 AM
2	15.19	5.064mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:56:59 AM
3	15.06	5.020mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:59:03 AM
4	14.43	4.807mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:01:07 AM
5	14.53	4.841mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:03:11 AM
6	15.63	5.213mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:05:15 AM

Mean Area 14.80
Mean Conc. 4.933mg/L



Sample

Sample Name: MS 280-123981-g-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

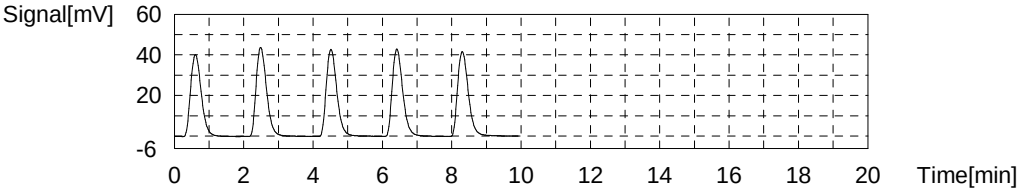
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:30.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.06	29.41mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:13:41 AM
2	92.47	31.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:15:52 AM
3	91.57	30.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:17:56 AM
4	91.35	30.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:20:00 AM
5	90.99	30.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:22:22 AM

Mean Area 91.60
Mean Conc. 30.95mg/L



Sample

Sample Name: MSD 280-123981-g-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

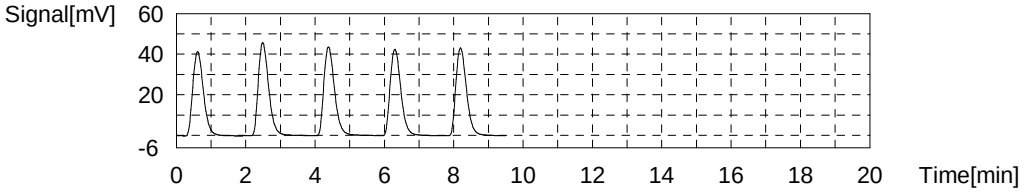
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.71mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.34	30.18mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:30:53 AM
2	95.82	32.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:32:57 AM
3	94.27	31.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:35:01 AM
4	92.82	31.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:37:05 AM
5	92.47	31.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:39:09 AM

Mean Area 93.84
Mean Conc. 31.71mg/L



Sample

Sample Name: 280-123981-g-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

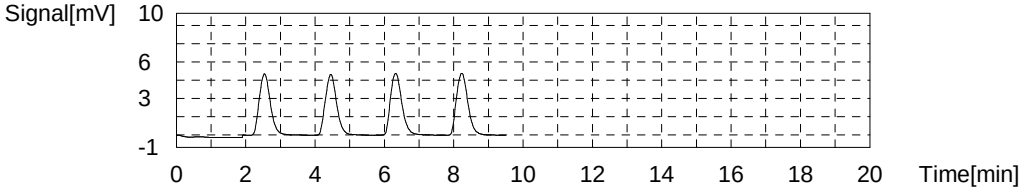
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.802mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:47:40 AM
2	11.25	3.729mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:49:44 AM
3	11.33	3.756mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:51:48 AM
4	11.58	3.841mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:53:52 AM
5	11.70	3.882mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:55:56 AM

Mean Area 11.47
Mean Conc. 3.802mg/L



Sample

Sample Name: 280-123983-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

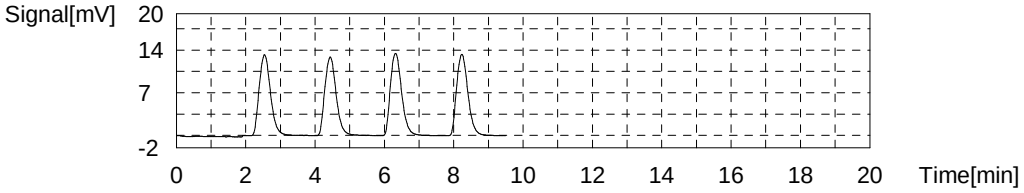
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:04:27 AM
2	30.33	10.19mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:06:31 AM
3	29.55	9.929mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:08:35 AM
4	30.90	10.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:10:39 AM
5	30.46	10.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:12:43 AM

Mean Area 30.31
Mean Conc. 10.19mg/L



Sample

Sample Name: 280-123983-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

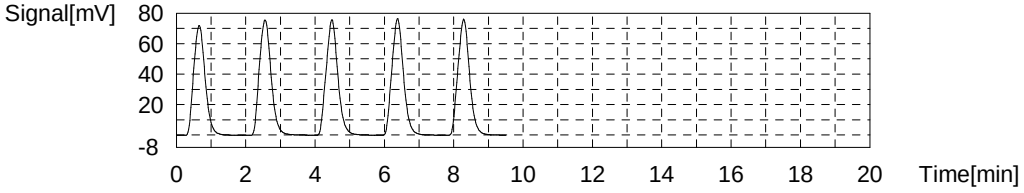
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:60.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	166.8	56.43mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:21:14 AM
2	179.0	60.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:23:18 AM
3	179.6	60.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:25:22 AM
4	179.2	60.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:27:26 AM
5	178.7	60.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:29:30 AM

Mean Area 179.1
Mean Conc. 60.60mg/L



Sample

Sample Name: 280-123983-D-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

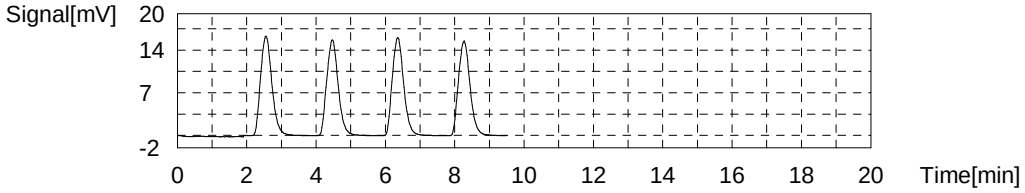
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:38:01 AM
2	37.49	12.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:40:05 AM
3	36.45	12.27mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:42:09 AM
4	37.18	12.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:44:13 AM
5	36.28	12.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:46:17 AM

Mean Area 36.85
Mean Conc. 12.40mg/L



Sample

Sample Name: 280-124044-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

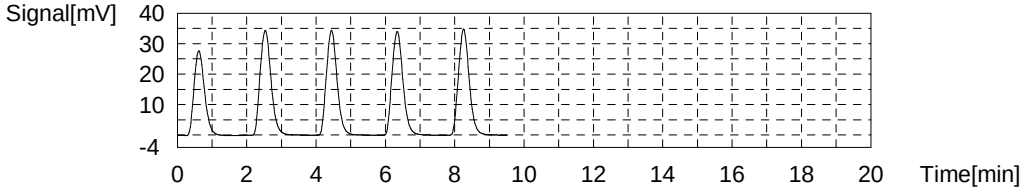
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.58	19.76mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:54:48 AM
2	76.23	25.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:56:52 AM
3	74.43	25.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:58:56 AM
4	75.62	25.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:01:00 AM
5	75.69	25.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:03:04 AM

Mean Area 75.49
Mean Conc. 25.49mg/L



Sample

Sample Name: 280-124044-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

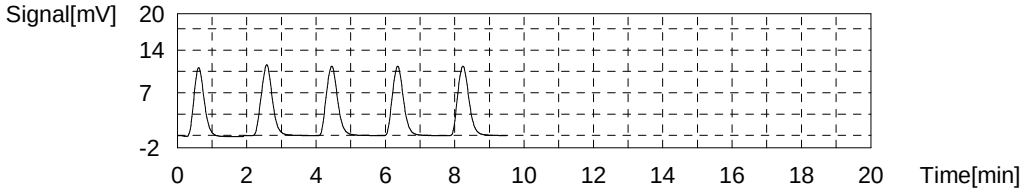
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:8.645mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.13	7.754mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:11:35 AM
2	25.89	8.689mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:13:39 AM
3	25.85	8.676mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:15:43 AM
4	25.51	8.560mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:17:47 AM
5	25.79	8.655mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:19:51 AM

Mean Area 25.76
Mean Conc. 8.645mg/L



Sample

Sample Name: 280-124044-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

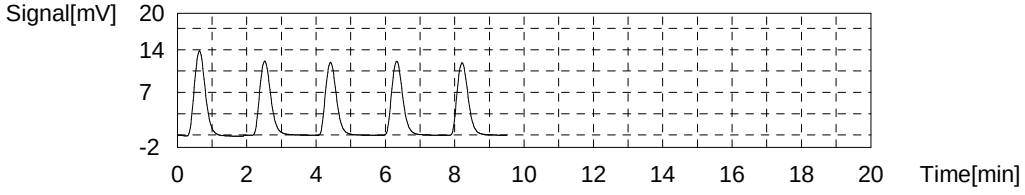
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.034mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.85	10.37mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:28:22 AM
2	27.39	9.197mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:30:26 AM
3	26.41	8.865mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:32:30 AM
4	27.28	9.160mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:34:34 AM
5	26.55	8.913mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:36:38 AM

Mean Area 26.91
Mean Conc. 9.034mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

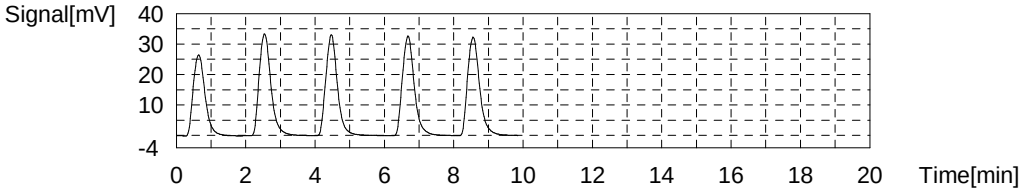
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.52mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.37	21.39mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:45:09 AM
2	79.33	26.79mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:47:13 AM
3	77.49	26.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:49:36 AM
4	78.45	26.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:51:40 AM
5	78.85	26.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:53:46 AM

Mean Area 78.53
Mean Conc. 26.52mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

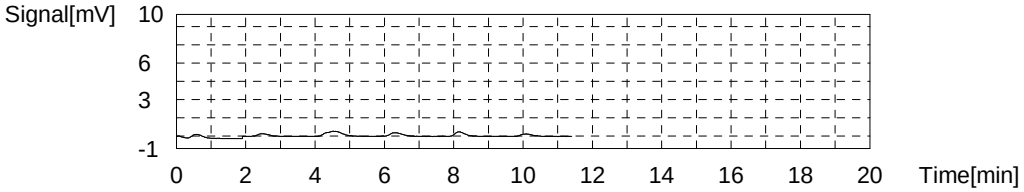
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09516mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5812	0.1150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:02:17 AM
2	0.4104	0.05713mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:04:21 AM
3	1.314	0.3633mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:06:25 AM
4	0.6789	0.1481mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:08:29 AM
5	0.7154	0.1605mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:10:33 AM
6	0.4201	0.06042mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:12:37 AM

Mean Area 0.5227
Mean Conc. 0.09516mg/L



Sample

Sample Name: 280-124044-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

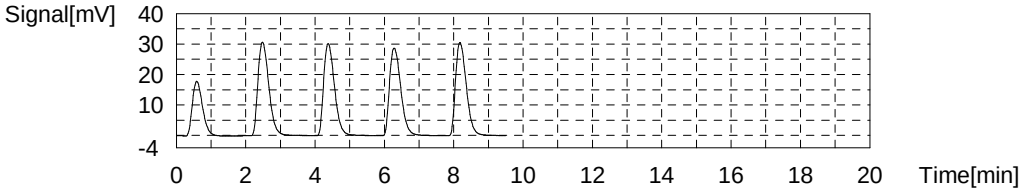
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.95	12.44mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:21:03 AM
2	67.28	22.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:23:07 AM
3	65.96	22.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:25:11 AM
4	65.77	22.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:27:15 AM
5	66.46	22.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:29:19 AM

Mean Area 66.37
Mean Conc. 22.40mg/L



Sample

Sample Name: 280-124044-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

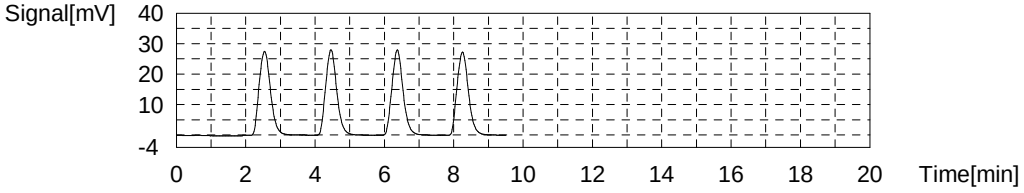
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.27mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2641	0.00757mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:37:50 AM
2	63.35	21.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:39:54 AM
3	62.91	21.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:41:58 AM
4	63.06	21.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:44:02 AM
5	62.82	21.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:46:06 AM

Mean Area 63.03
Mean Conc. 21.27mg/L



Sample

Sample Name: MS 280-124044-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

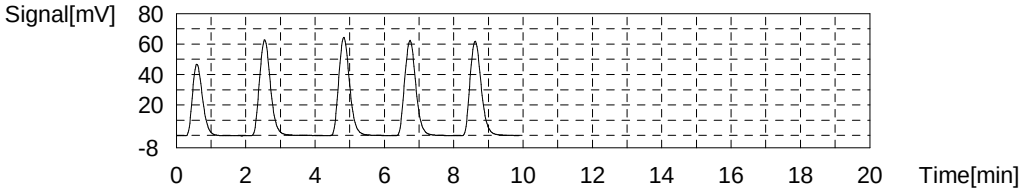
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:47.57mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	95.58	32.30mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:54:38 AM
2	139.9	47.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:57:05 AM
3	141.6	47.89mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:59:09 AM
4	140.7	47.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:01:13 AM
5	140.4	47.48mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:03:17 AM

Mean Area 140.7
Mean Conc. 47.57mg/L



Sample

Sample Name: MSD 280-124044-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

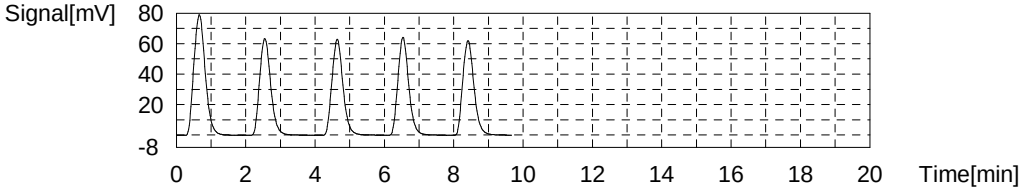
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:47.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.7	61.81mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:11:49 AM
2	142.1	48.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:14:03 AM
3	140.5	47.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:16:07 AM
4	140.1	47.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:18:11 AM
5	140.3	47.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:20:15 AM

Mean Area 140.8
Mean Conc. 47.60mg/L



Sample

Sample Name: 280-124044-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

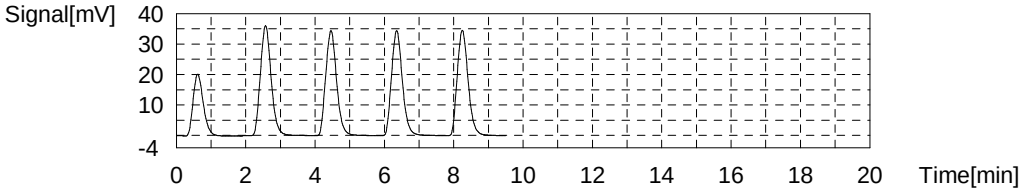
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.84mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.69	14.04mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:28:47 AM
2	78.37	26.47mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:30:51 AM
3	75.94	25.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:32:55 AM
4	75.74	25.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:34:59 AM
5	75.98	25.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:37:03 AM

Mean Area 76.51
Mean Conc. 25.84mg/L



Sample

Sample Name: 280-124053-a-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

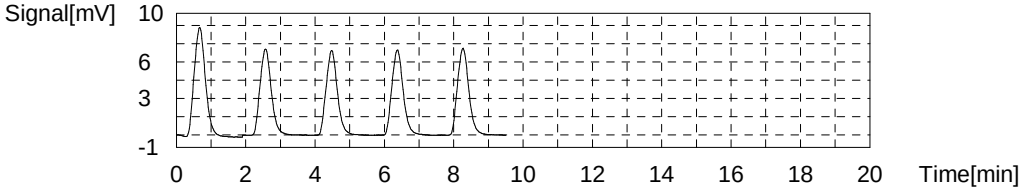
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.343mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.31	6.799mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:45:35 AM
2	16.00	5.339mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:47:39 AM
3	15.78	5.264mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:49:43 AM
4	16.02	5.345mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:51:47 AM
5	16.25	5.423mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:53:51 AM

Mean Area 16.01
Mean Conc. 5.343mg/L



Sample

Sample Name: 280-124053-a-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

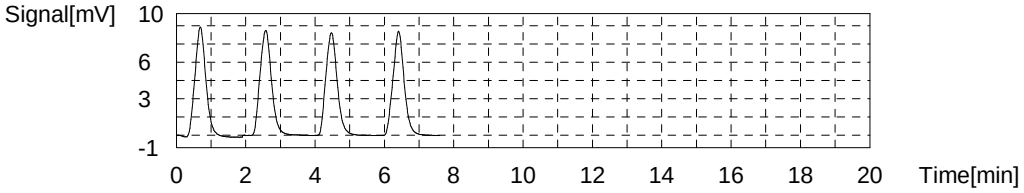
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.578mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.96	6.680mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:02:23 AM
2	19.95	6.677mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:04:27 AM
3	19.39	6.487mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:06:31 AM
4	19.34	6.470mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:08:35 AM

Mean Area 19.66
Mean Conc. 6.578mg/L



Sample

Sample Name: 280-124106-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

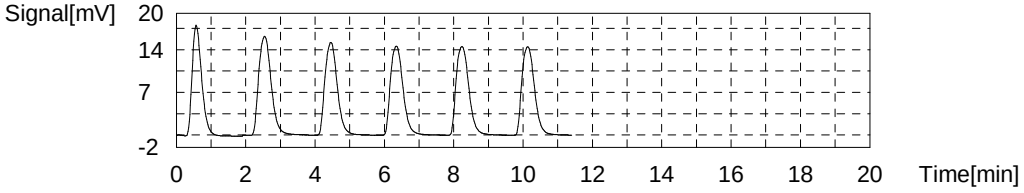
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.58mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.93	11.75mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:17:08 AM
2	40.82	13.75mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:19:12 AM
3	37.97	12.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:21:16 AM
4	37.15	12.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:23:20 AM
5	37.39	12.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:25:24 AM
6	36.94	12.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:27:28 AM

Mean Area 37.36
Mean Conc. 12.58mg/L



Sample

Sample Name: 280-124106-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

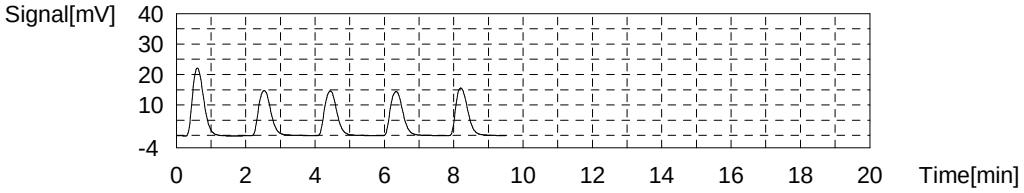
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.42	17.00mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:35:54 AM
2	36.60	12.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:37:58 AM
3	36.02	12.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:40:02 AM
4	36.61	12.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:42:06 AM
5	37.52	12.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:44:10 AM

Mean Area 36.69
Mean Conc. 12.35mg/L



Sample

Sample Name: 280-124106-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

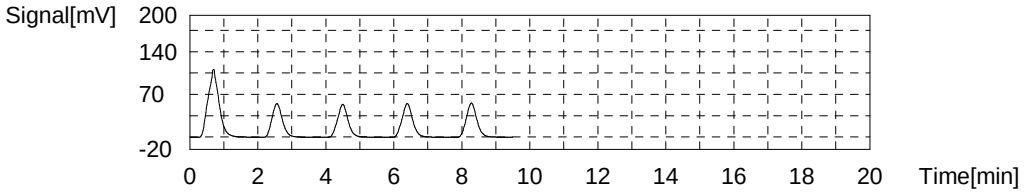
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:87.71mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	251.3	85.05mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:52:42 AM
2	118.5	87.19mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:54:46 AM
3	116.4	85.64mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:56:50 AM
4	120.7	88.81mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:58:54 AM
5	121.2	89.18mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:00:57 AM

Mean Area 119.2
Mean Conc. 87.71mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

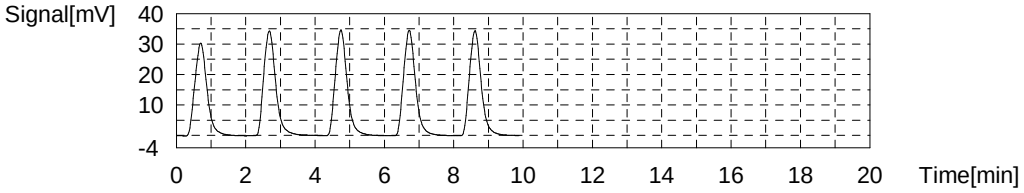
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.80	25.26mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:09:37 AM
2	82.75	27.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:11:50 AM
3	82.75	27.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:13:58 AM
4	82.66	27.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:16:02 AM
5	81.88	27.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:18:09 AM

Mean Area 82.51
Mean Conc. 27.87mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

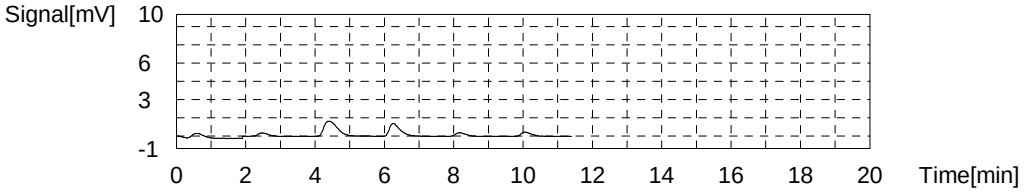
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1395mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8110	0.1928mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:26:41 AM
2	0.5207	0.09450mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:28:45 AM
3	3.368	1.059mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:30:49 AM
4	2.312	0.7014mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:32:53 AM
5	0.6078	0.1240mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:34:57 AM
6	0.6750	0.1468mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:37:01 AM

Mean Area 0.6536
Mean Conc. 0.1395mg/L



Sample

Sample Name: 280-124106-e-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

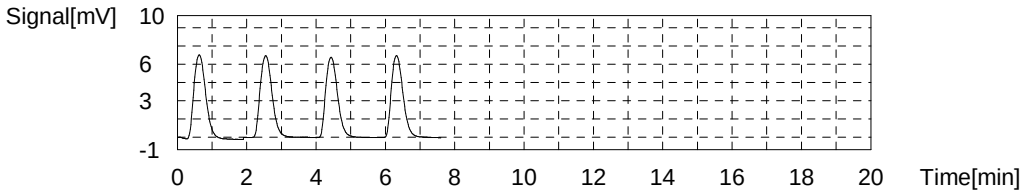
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.331mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.37	5.464mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:45:27 AM
2	16.04	5.352mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:47:31 AM
3	15.74	5.250mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:49:35 AM
4	15.76	5.257mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:51:39 AM

Mean Area 15.98
Mean Conc. 5.331mg/L



Sample

Sample Name: 280-124139-a-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

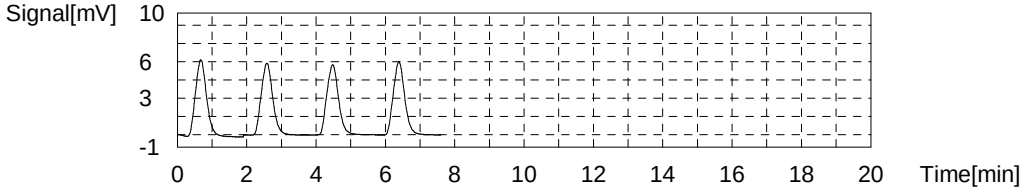
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.575mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.01	4.664mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:00:12 AM
2	13.61	4.529mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:02:16 AM
3	13.53	4.502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:04:20 AM
4	13.83	4.603mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:06:24 AM

Mean Area 13.75
Mean Conc. 4.575mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

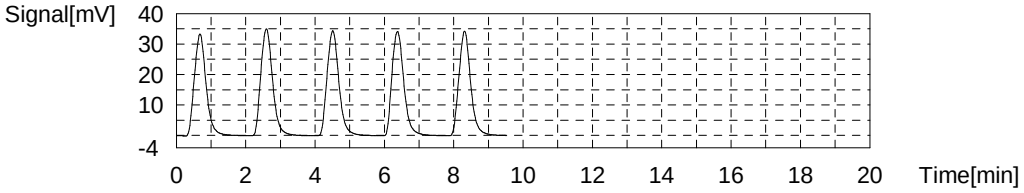
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.79mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.80	26.61mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:14:58 AM
2	83.56	28.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:17:02 AM
3	82.52	27.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:19:06 AM
4	82.04	27.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:21:10 AM
5	81.02	27.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:23:14 AM

Mean Area 82.28
Mean Conc. 27.79mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

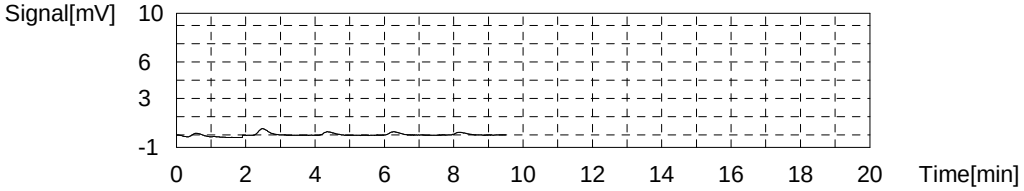
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09758mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5208	0.09453mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:31:46 AM
2	1.062	0.2779mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:33:50 AM
3	0.5917	0.1186mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:35:54 AM
4	0.5508	0.1047mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:37:58 AM
5	0.4559	0.07254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:40:02 AM

Mean Area 0.5298
Mean Conc. 0.09758mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

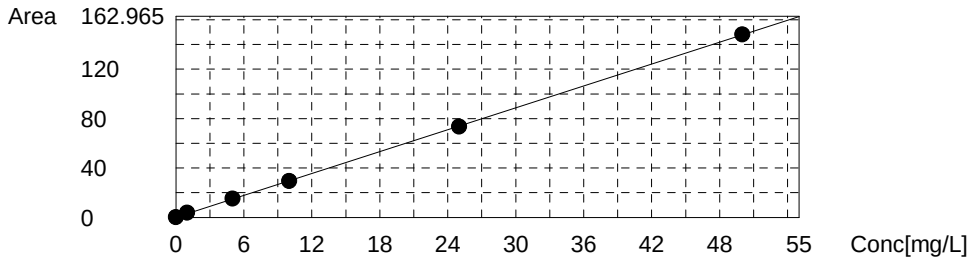
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



6/13/19 GM DH

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000				1
2*	NPOC	ICB	1.000				2
3*	NPOC	LCS	1.000				3
4*	NPOC	MB	1.000				4
5*	NPOC	TIC	1.000				5
6*	NPOC	280-123983-e-3	2 ~~1.000~~		rerun		6
7*	NPOC	280-124053-a-2	1.000				7
8*	NPOC	280-124053-a-3	1.000				8
9*	NPOC	280-124044-b-4	1.000				9
10*	NPOC	280-124044-b-5	1.000				10
11*	NPOC	280-124044-b-5 ms	6/13/19 1.000				11
12*	NPOC	280-124044-b-5 msD	1.000				12
13*	NPOC	280-124044-b-6	GM 1.000				13
14*	NPOC	280-124106-e-1	2x ~~1.000~~		high chloride / rerun		14
15*	NPOC	CCV	2x 1.000				15
16*	NPOC	CCB	2 1.000				16
17*	NPOC	280-124106-d-2	2x ~~1.000~~		high chloride / rerun		17
18*	NPOC	280-124106-d-3	2x ~~1.000~~		high chloride / rerun		18
19*	NPOC	280-124106-e-4	2x ~~1.000~~		high chloride / rerun		19
20*	NPOC	280-124139-a-1	1.000				20
21*	NPOC	280-124139-a-2	1.000				21
22*	NPOC	280-124139-a-3	1.000				22
23*	NPOC	280-124139-a-4	1.000				23
24*	NPOC	280-124139-a-5	1.000				24
25*	NPOC	280-124139-a-6	1.000				25
26*	NPOC	280-124139-a-7	1.000				26
27*	NPOC	CCV	1.000				27
28*	NPOC	CCB	1.000				28
29*	NPOC	280-124139-a-7 MS	1.000		6/13/19		29
30*	NPOC	280-124139-a-7 MSD	1.000		GM		30
31*	NPOC	280-124139-a-8	1.000		Q		31
32*	NPOC	280-124189-g-1	2x ~~1.000~~		green		32
33*	NPOC	LCS	1.000				33
34*	NPOC	MB	1.000				34
35*	NPOC	TIC	1.000				35
36*	NPOC	280-124109-g-1	20x ~~1.000~~	8	rerun		36
37*	NPOC	280-124107-h-1	1.000				37
38*	NPOC	280-124165-b-1	1.000				38
39*	NPOC	CCV	1.000				39
40*	NPOC	CCB	1.000				40
41*	NPOC	280-124165-b-2	1.000				41
42*	NPOC	280-124165-b-2 MS	1.000				42
43*	NPOC	280-124165-b-2 MSD	1.000				43
44*	NPOC	~~280-124167-c-6~~	1.000				44
45*	NPOC	280-124171-d-1	1.000				45
46*	NPOC	280-124171-c-2	1.000				46
47*	NPOC	280-124171-c-3	1.000				47
48*	NPOC	280-124171-c-7	1.000				48
49*	NPOC	280-124171-c-10	1.000				49
50*	NPOC	~~280-124211-b-1~~	1.000				50
51*	NPOC	~~CCV~~ 124229_1	1.000				51

6/14/19

TOC
5310B

	Analysis	Sample Name	Manual Diluti	Result	Notes	Date / Time	Vial
52*	NPOC	~~CCB~~ D4229-2	1.000				52
53*	NPOC	~~280-124229-b-1~~ CCV	1.000				53
54*	NPOC	~~280-124229-b-2~~ CCB	1.000				54
55*	NPOC	280-124229-b-2 MS	1.000				55
56*	NPOC	280-124229-b-2 MSD	1.000				56
57*	NPOC	280-124229-b-3	1.000				57
58*	NPOC	280-124229-b-4	1.000				58
59*	NPOC	280-124229-b-5	1.000				59
60*	NPOC	280-124269-c-1	1.000				60
61*	NPOC	280-124269-c-3	1.000				61
62*	NPOC	280-124269-d-3	1.000				62
63*	NPOC	CCV	1.000				63
64*	NPOC	CCB	1.000				64

Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	ICV
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

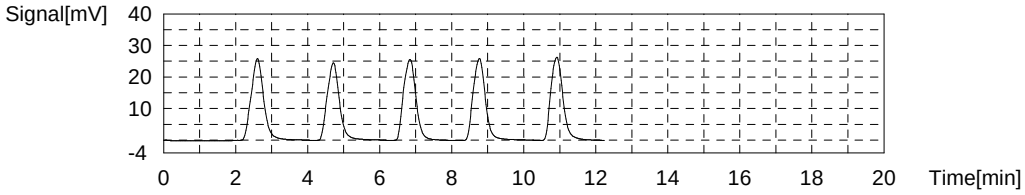
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.07mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:44:53 PM
2	63.21	21.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:47:11 PM
3	58.64	19.78mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:49:29 PM
4	62.32	21.03mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:51:35 PM
5	61.64	20.80mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:53:55 PM
6	62.61	21.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:56:03 PM

Mean Area	62.45
Mean Conc.	21.07mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

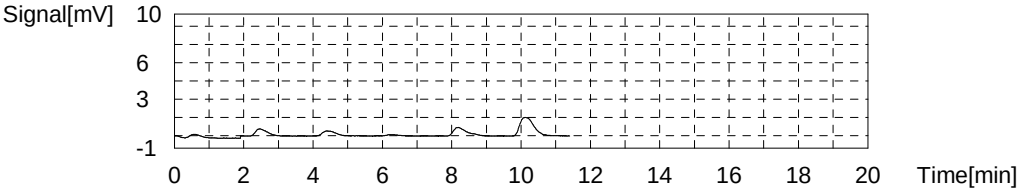
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1898mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5698	0.1111mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:04:28 PM
2	1.394	0.3904mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:06:32 PM
3	1.051	0.2742mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:08:36 PM
4	0.1938	-0.01625mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:10:40 PM
5	1.912	0.5658mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:12:44 PM
6	4.214	1.346mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:14:47 PM

Mean Area 0.8022
Mean Conc. 0.1898mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

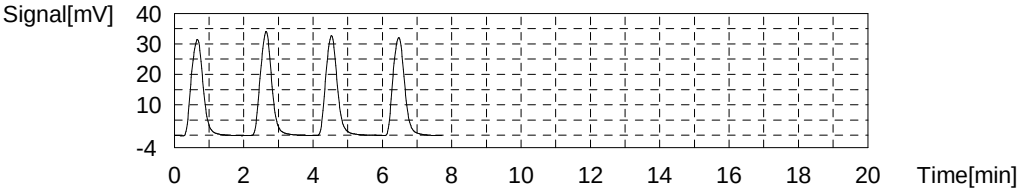
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.88mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.65	25.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:23:17 PM
2	78.55	26.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:25:21 PM
3	76.45	25.82mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:27:28 PM
4	75.91	25.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:29:32 PM

Mean Area 76.64
Mean Conc. 25.88mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

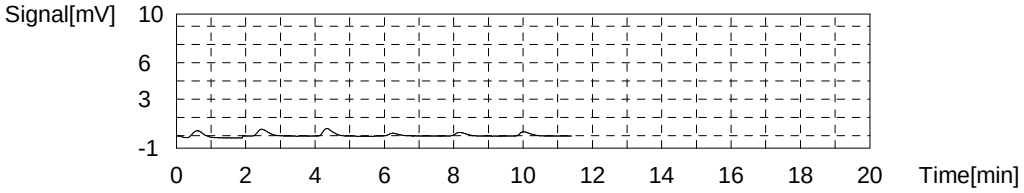
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2846mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.223	0.3324mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:38:03 PM
2	1.175	0.3162mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:40:07 PM
3	1.222	0.3321mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:42:11 PM
4	0.3918	0.05083mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:44:15 PM
5	0.6226	0.1290mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:46:18 PM
6	0.7078	0.1579mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:48:22 PM

Mean Area 1.082
Mean Conc. 0.2846mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

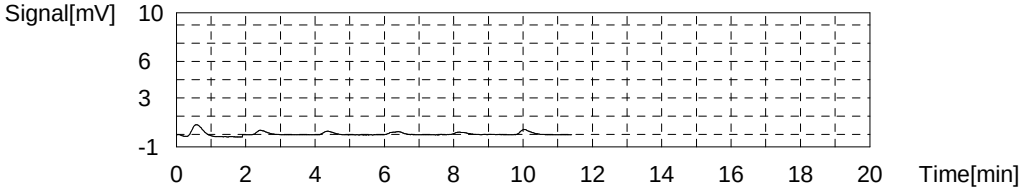
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1149mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.051	0.6129mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:56:48 PM
2	0.7159	0.1606mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:58:52 PM
3	0.5639	0.1091mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:00:56 PM
4	0.6017	0.1219mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:03:00 PM
5	0.4422	0.06790mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:05:04 PM
6	0.8818	0.2168mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:07:08 PM

Mean Area 0.5809
Mean Conc. 0.1149mg/L



Sample

Sample Name: 280-123983-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

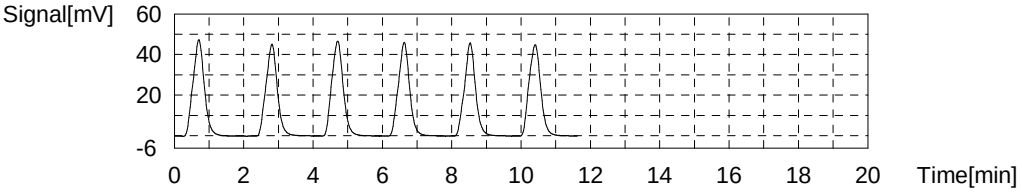
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:70.30mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	109.2	73.83mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:15:46 PM
2	103.4	69.90mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:17:50 PM
3	108.0	73.01mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:19:54 PM
4	104.1	70.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:21:58 PM
5	102.1	69.01mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:24:01 PM
6	106.4	71.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:26:05 PM

Mean Area 104.0
Mean Conc. 70.30mg/L



Sample

Sample Name: 280-124053-a-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

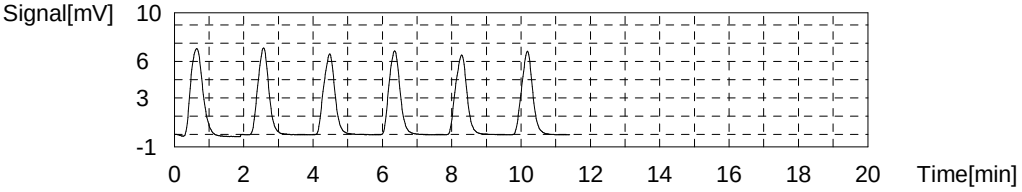
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.048mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.69	5.911mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:34:31 PM
2	15.70	5.237mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:36:35 PM
3	15.02	5.007mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:38:39 PM
4	15.37	5.125mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:40:43 PM
5	14.99	4.996mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:42:46 PM
6	15.19	5.064mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:44:50 PM

Mean Area 15.14
Mean Conc. 5.048mg/L



Sample

Sample Name: 280-124053-a-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

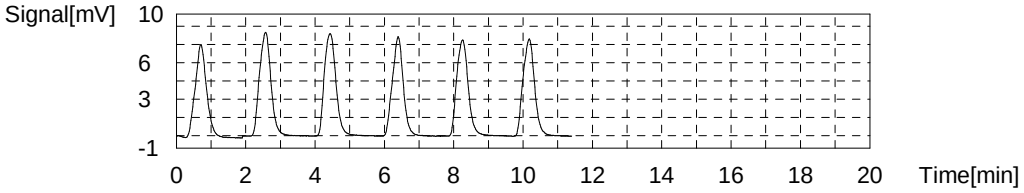
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.047mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.50	5.847mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:53:16 PM
2	19.60	6.558mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:55:20 PM
3	19.56	6.545mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:57:24 PM
4	17.93	5.992mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:59:28 PM
5	18.27	6.108mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:01:31 PM
6	18.67	6.243mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:03:35 PM

Mean Area 18.09
Mean Conc. 6.047mg/L



Sample

Sample Name: 280-124044-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

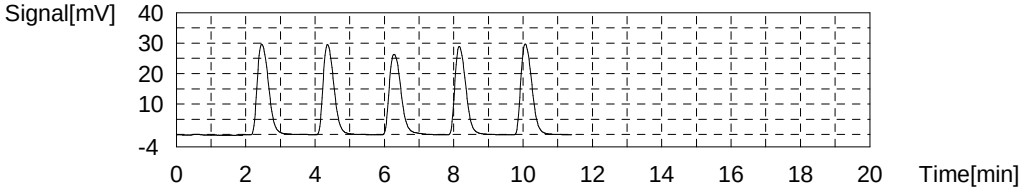
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.74mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4570	0.07292mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:12:01 PM
2	67.51	22.79mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:14:05 PM
3	64.25	21.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:16:09 PM
4	63.36	21.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:18:13 PM
5	63.65	21.48mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:20:17 PM
6	66.39	22.41mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:22:20 PM

Mean Area 64.41
Mean Conc. 21.74mg/L



Sample

Sample Name: 280-124044-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

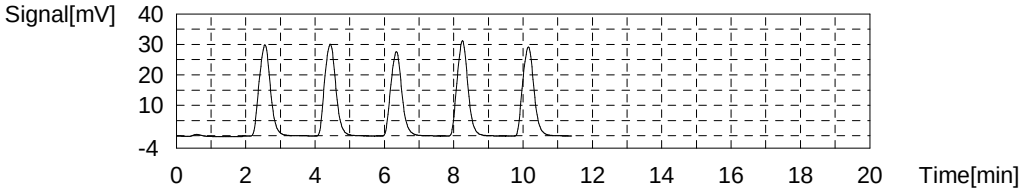
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.097	0.2897mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:30:46 PM
2	67.90	22.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:32:50 PM
3	68.57	23.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:34:54 PM
4	62.41	21.06mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:36:58 PM
5	68.60	23.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:39:01 PM
6	66.91	22.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:41:05 PM

Mean Area 68.00
Mean Conc. 22.95mg/L



Sample

Sample Name: 280-124044-b-5 ms
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

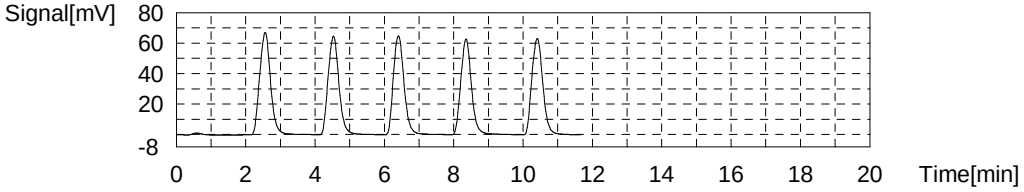
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:47.15mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.063	0.6170mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:49:31 PM
2	147.3	49.82mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:51:40 PM
3	142.0	48.02mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:53:44 PM
4	140.1	47.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:55:49 PM
5	134.8	45.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:58:03 PM
6	140.8	47.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:00:06 PM

Mean Area 139.4
Mean Conc. 47.15mg/L



Sample

Sample Name: 280-124044-b-5 msD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

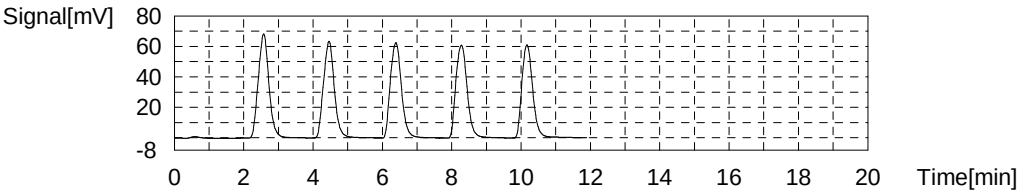
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:46.90mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.745	0.5093mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:08:32 PM
2	147.0	49.72mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:10:36 PM
3	139.0	47.01mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:12:43 PM
4	141.3	47.79mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:14:47 PM
5	139.2	47.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:16:50 PM
6	135.2	45.72mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:19:20 PM

Mean Area 138.7
Mean Conc. 46.90mg/L



Sample

Sample Name: 280-124044-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

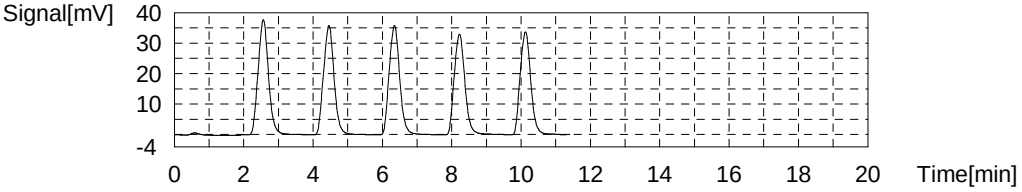
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.99mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.242	0.3389mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:27:46 PM
2	78.99	26.68mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:29:50 PM
3	76.21	25.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:31:54 PM
4	76.29	25.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:33:58 PM
5	71.15	24.02mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:36:01 PM
6	72.43	24.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:38:05 PM

Mean Area 74.02
Mean Conc. 24.99mg/L



Sample

Sample Name: 280-124106-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

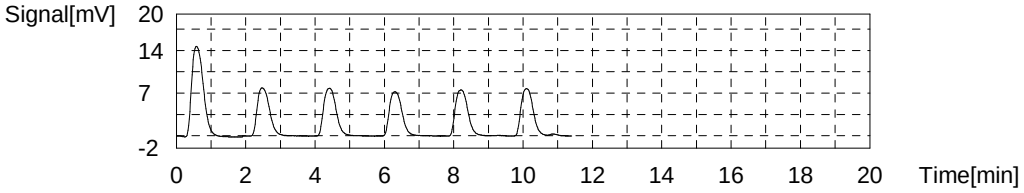
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:12.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.04	23.58mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:46:31 PM
2	19.35	12.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:48:35 PM
3	19.60	13.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:50:39 PM
4	18.22	12.18mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:52:43 PM
5	18.97	12.69mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:54:46 PM
6	19.47	13.03mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:56:50 PM

Mean Area 19.35
Mean Conc. 12.95mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

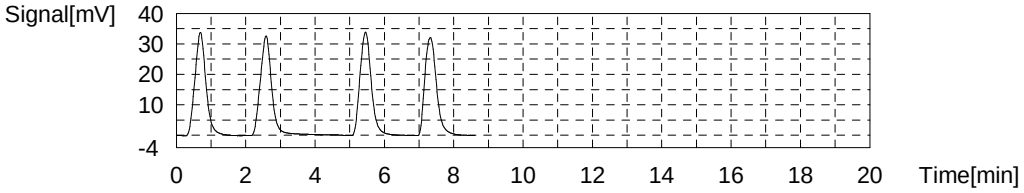
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.79mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.09	25.70mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:05:16 PM
2	75.84	25.61mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:08:20 PM
3	77.38	26.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:10:24 PM
4	76.18	25.73mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:12:28 PM

Mean Area 76.37
Mean Conc. 25.79mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

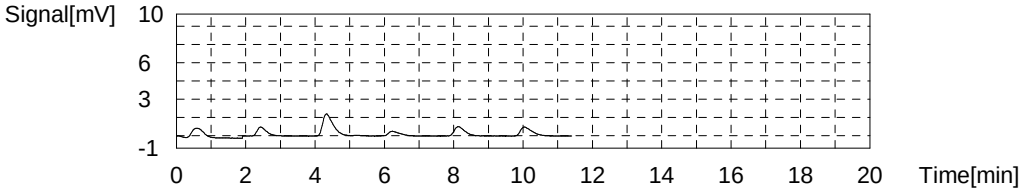
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4656mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.792	0.5252mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:21:00 PM
2	1.369	0.3819mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:23:04 PM
3	3.730	1.182mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:25:08 PM
4	0.8329	0.2003mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:27:12 PM
5	1.600	0.4601mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:29:15 PM
6	1.703	0.4950mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:31:19 PM

Mean Area 1.616
Mean Conc. 0.4656mg/L



Sample

Sample Name: 280-124106-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

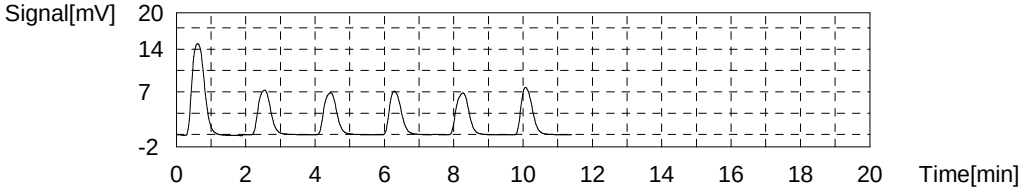
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:11.62mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.48	25.23mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:39:45 PM
2	18.20	12.17mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:41:49 PM
3	17.53	11.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:43:53 PM
4	16.94	11.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:45:57 PM
5	17.54	11.72mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:48:00 PM
6	17.54	11.72mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:50:04 PM

Mean Area 17.39
Mean Conc. 11.62mg/L



Sample

Sample Name: 280-124106-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

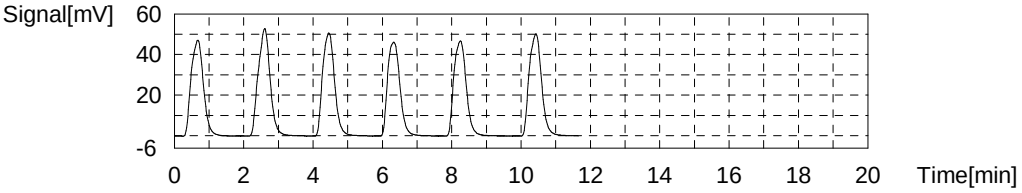
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:79.89mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	117.5	79.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:58:30 PM
2	127.6	86.29mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:00:34 PM
3	122.5	82.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:02:38 PM
4	115.4	78.03mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:04:42 PM
5	117.2	79.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:07:00 PM
6	125.9	85.14mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:09:04 PM

Mean Area 118.1
Mean Conc. 79.89mg/L



Sample

Sample Name: 280-124106-e-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

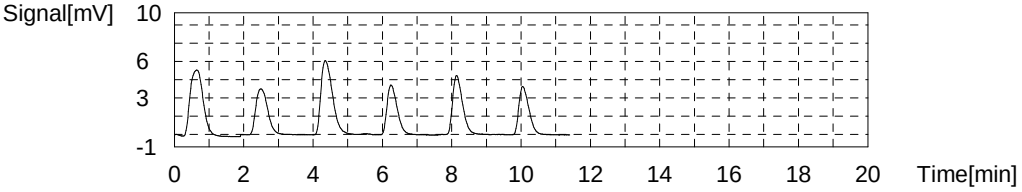
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:5.781mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.06	9.363mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:17:30 PM
2	8.987	5.925mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:19:34 PM
3	14.27	9.505mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:21:38 PM
4	8.413	5.536mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:23:42 PM
5	9.704	6.411mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:25:46 PM
6	7.989	5.249mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:27:49 PM

Mean Area 8.773
Mean Conc. 5.781mg/L



Sample

Sample Name: 280-124139-a-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

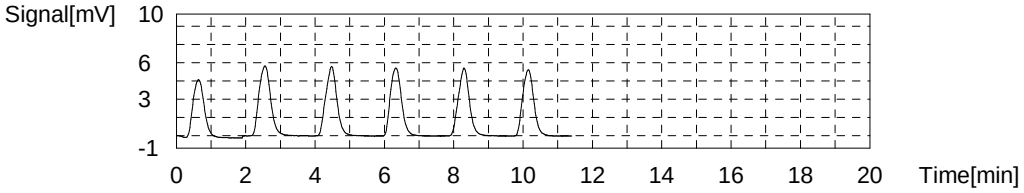
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.149mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.68	3.536mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:36:15 PM
2	13.44	4.471mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:38:19 PM
3	12.80	4.254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:40:23 PM
4	12.60	4.187mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:42:26 PM
5	12.31	4.088mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:44:30 PM
6	12.24	4.065mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:46:34 PM

Mean Area 12.49
Mean Conc. 4.149mg/L



Sample

Sample Name: 280-124139-a-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

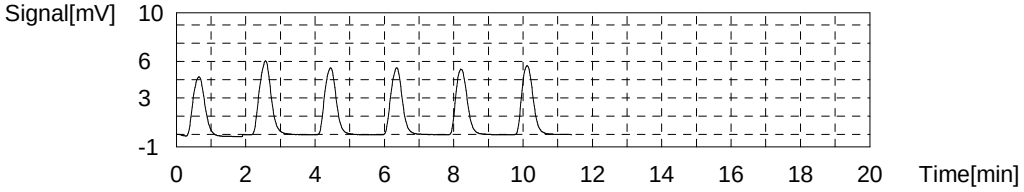
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.178mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.42	3.787mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:55:00 PM
2	14.32	4.769mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:57:04 PM
3	12.68	4.214mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 11:59:08 PM
4	12.59	4.183mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:01:12 AM
5	12.27	4.075mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:03:15 AM
6	12.76	4.241mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:05:19 AM

Mean Area 12.58
Mean Conc. 4.178mg/L



Sample

Sample Name: 280-124139-a-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

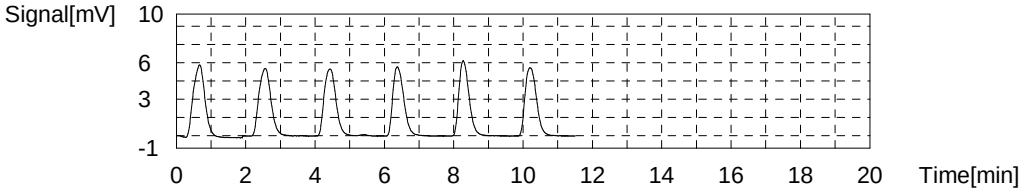
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.254mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.96	4.647mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:13:45 AM
2	13.41	4.461mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:15:49 AM
3	13.20	4.390mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:17:59 AM
4	12.50	4.153mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:20:03 AM
5	12.56	4.173mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:22:06 AM
6	12.94	4.302mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:24:10 AM

Mean Area 12.80
Mean Conc. 4.254mg/L



Sample

Sample Name: 280-124139-a-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

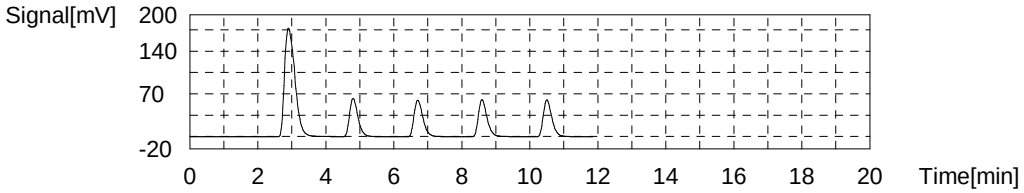
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:123.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9486	0.2395mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:33:03 AM
2	381.4	129.1mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:35:07 AM
3	110.2	124.4mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:37:11 AM
4	110.1	124.2mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:39:14 AM
5	108.5	122.4mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:41:18 AM
6	107.1	120.9mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:43:22 AM

Mean Area 109.0
Mean Conc. 123.0mg/L



Sample

Sample Name: 280-124139-a-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

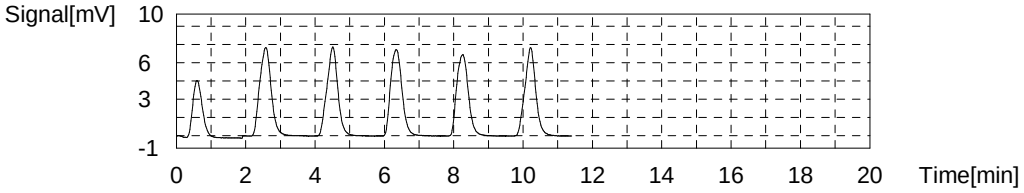
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.350mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.964	2.955mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:51:47 AM
2	16.78	5.603mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:53:51 AM
3	16.11	5.376mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:55:55 AM
4	16.37	5.464mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:57:58 AM
5	15.67	5.227mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:00:02 AM
6	15.98	5.332mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:02:06 AM

Mean Area 16.03
Mean Conc. 5.350mg/L



Sample

Sample Name: 280-124139-a-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

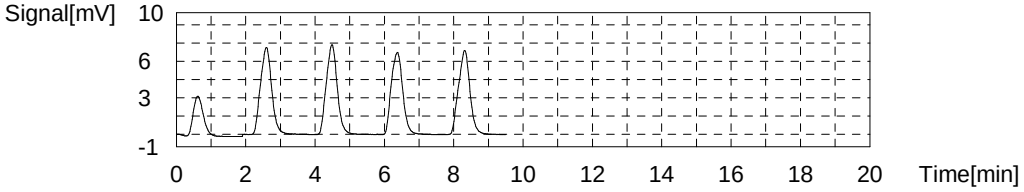
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.346mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.606	2.156mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:10:32 AM
2	16.12	5.379mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:12:36 AM
3	16.38	5.467mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:14:40 AM
4	15.65	5.220mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:16:44 AM
5	15.94	5.318mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:18:47 AM

Mean Area 16.02
Mean Conc. 5.346mg/L



Sample

Sample Name: 280-124139-a-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

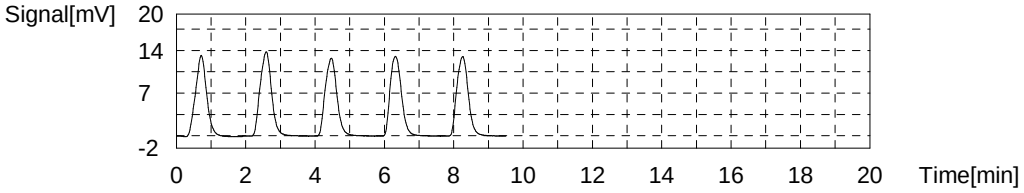
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.12	10.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:27:18 AM
2	31.91	10.73mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:29:22 AM
3	30.21	10.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:31:26 AM
4	29.95	10.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:33:30 AM
5	30.13	10.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:35:34 AM

Mean Area 30.10
Mean Conc. 10.12mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

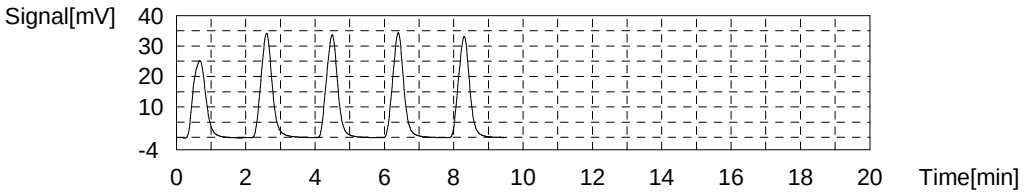
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.85mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.12	21.98mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:44:04 AM
2	77.55	26.19mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:46:08 AM
3	76.86	25.96mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:48:12 AM
4	76.73	25.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:50:16 AM
5	75.03	25.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:52:19 AM

Mean Area 76.54
Mean Conc. 25.85mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

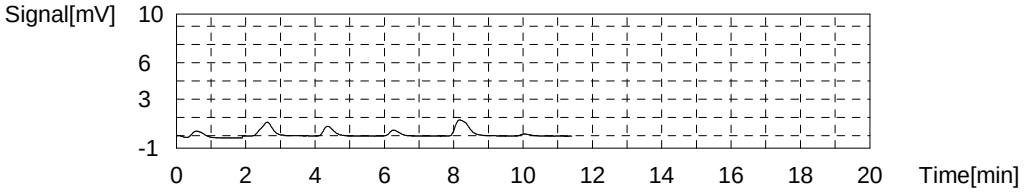
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2535mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.187	0.3202mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:00:50 AM
2	2.625	0.8074mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:02:54 AM
3	1.582	0.4540mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:04:58 AM
4	0.9114	0.2269mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:07:01 AM
5	3.499	1.103mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:09:05 AM
6	0.2795	0.01278mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:11:09 AM

Mean Area 0.9900
Mean Conc. 0.2535mg/L



Sample

Sample Name: 280-124139-a-7 MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

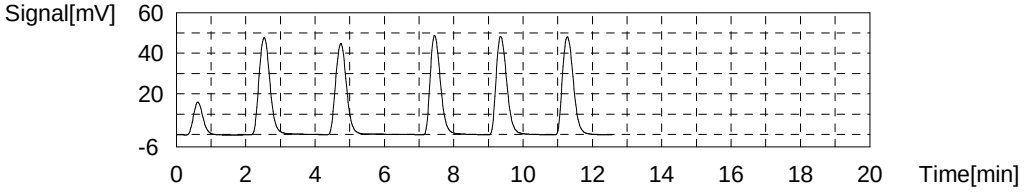
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:35.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	31.24	10.50mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:19:35 AM
2	105.9	35.79mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:21:57 AM
3	99.87	33.75mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:24:53 AM
4	101.9	34.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:26:57 AM
5	104.4	35.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:29:00 AM
6	106.9	36.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:31:04 AM

Mean Area 104.8
Mean Conc. 35.41mg/L



Sample

Sample Name: 280-124139-a-7 MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

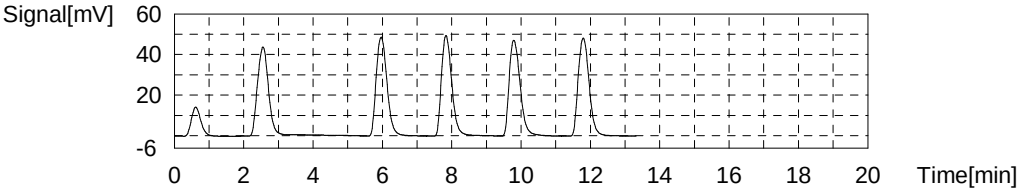
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:35.68mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.28	9.160mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:39:30 AM
2	101.1	34.17mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:43:07 AM
3	106.3	35.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:45:11 AM
4	103.7	35.05mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:47:17 AM
5	105.4	35.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:49:25 AM
6	106.8	36.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 2:51:44 AM

Mean Area 105.6
Mean Conc. 35.68mg/L



Sample

Sample Name: 280-124139-a-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

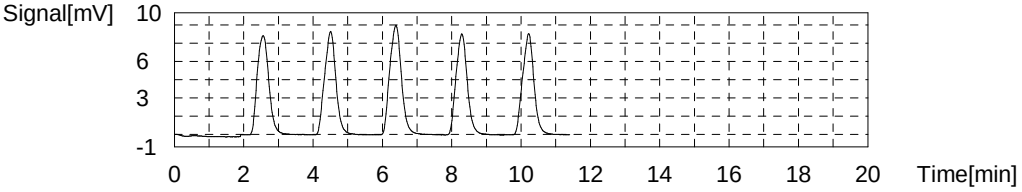
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.380mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:00:10 AM
2	19.04	6.368mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:02:14 AM
3	19.44	6.504mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:04:18 AM
4	21.31	7.137mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:06:22 AM
5	18.86	6.307mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:08:25 AM
6	18.96	6.341mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:10:29 AM

Mean Area 19.08
Mean Conc. 6.380mg/L



Sample

Sample Name: 280-124189-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

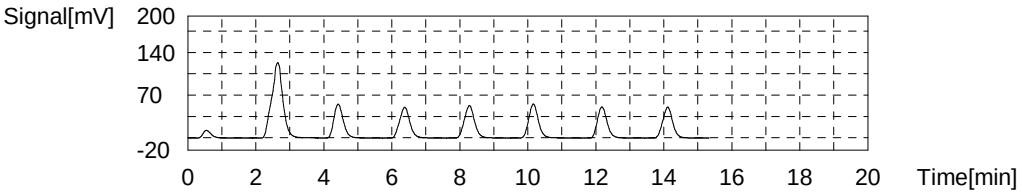
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:177.3mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.93	14.02mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:18:56 AM
2	284.3	192.5mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:21:00 AM
3	107.1	181.3mg/L	20uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:23:03 AM
4	106.2	179.7mg/L	20uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:25:07 AM
5	111.8	189.2mg/L	20uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:27:11 AM
6	110.8	187.5mg/L	20uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:29:23 AM
7	101.9	172.4mg/L	20uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:33:46 AM
8	103.8	175.7mg/L	20uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:38:10 AM

Mean Area 104.8
Mean Conc. 177.3mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

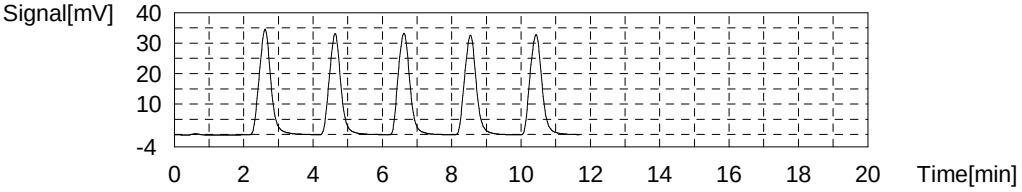
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6793	0.1482mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:46:37 AM
2	80.94	27.34mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:48:49 AM
3	76.64	25.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:50:59 AM
4	78.47	26.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:53:03 AM
5	77.27	26.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:55:06 AM
6	79.00	26.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 3:57:13 AM

Mean Area 77.84
Mean Conc. 26.29mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

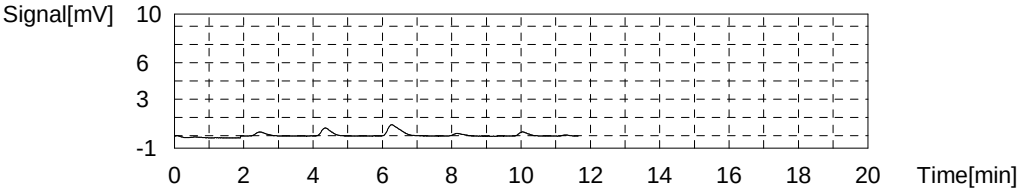
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06612mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:05:39 AM
2	0.6656	0.1436mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:07:43 AM
3	1.277	0.3507mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:09:47 AM
4	2.272	0.6878mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:11:51 AM
5	0.3955	0.05208mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:13:54 AM
6	0.6866	0.1507mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:16:13 AM

Mean Area 0.4369
Mean Conc. 0.06612mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

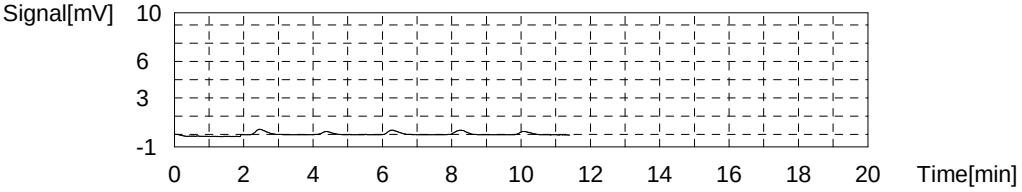
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1788mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:24:40 AM
2	0.9168	0.2287mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:26:44 AM
3	0.4819	0.08135mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:28:48 AM
4	0.7654	0.1774mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:30:51 AM
5	0.7919	0.1864mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:32:55 AM
6	0.6039	0.1227mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:34:59 AM

Mean Area 0.7695
Mean Conc. 0.1788mg/L



Sample

Sample Name: 280-124109-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

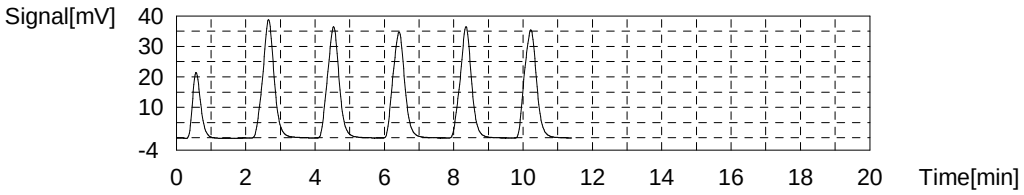
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:576.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.78	240.8mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:43:26 AM
2	89.62	605.6mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:45:30 AM
3	86.21	582.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:47:34 AM
4	83.49	564.1mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:49:37 AM
5	84.15	568.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:51:41 AM
6	87.27	589.7mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 4:53:45 AM

Mean Area 85.28
Mean Conc. 576.2mg/L



Sample

Sample Name: 280-124107-h-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

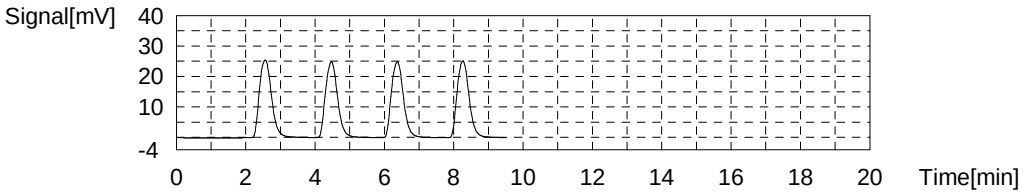
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:02:11 AM
2	62.33	21.03mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:04:15 AM
3	60.48	20.41mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:06:19 AM
4	60.62	20.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:08:23 AM
5	60.78	20.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:10:26 AM

Mean Area 61.05
Mean Conc. 20.60mg/L



Sample

Sample Name: 280-124165-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

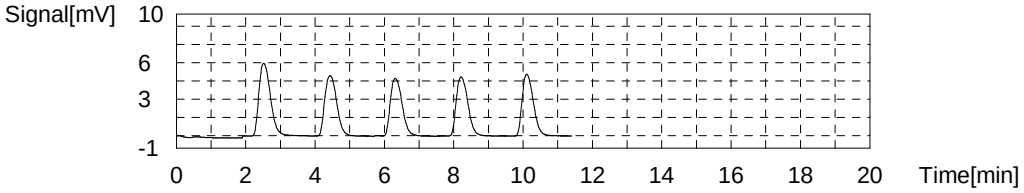
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.827mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:18:58 AM
2	13.81	4.597mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:21:02 AM
3	12.01	3.987mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:23:06 AM
4	11.26	3.733mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:25:09 AM
5	11.37	3.770mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:27:13 AM
6	11.51	3.817mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:29:17 AM

Mean Area 11.54
Mean Conc. 3.827mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

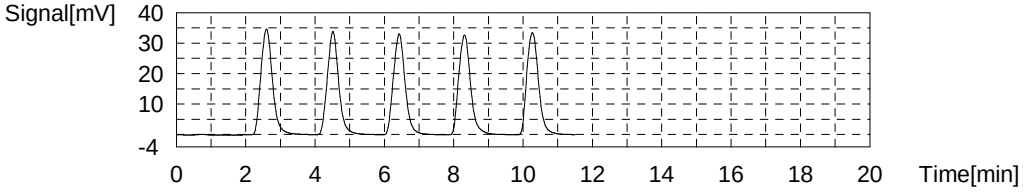
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.48mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4612	0.07434mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:37:43 AM
2	81.23	27.44mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:39:47 AM
3	77.79	26.27mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:41:52 AM
4	78.11	26.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:43:55 AM
5	78.23	26.42mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:46:04 AM
6	79.48	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:48:08 AM

Mean Area 78.40
Mean Conc. 26.48mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

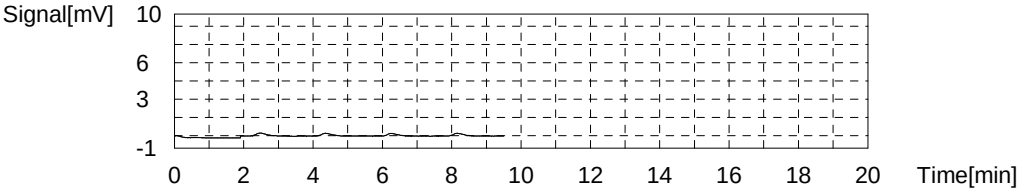
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06372mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:56:35 AM
2	0.4967	0.08637mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 5:58:39 AM
3	0.4037	0.05486mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:00:43 AM
4	0.4096	0.05686mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:02:46 AM
5	0.4094	0.05679mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:04:50 AM

Mean Area 0.4299
Mean Conc. 0.06372mg/L



Sample

Sample Name: 280-124165-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

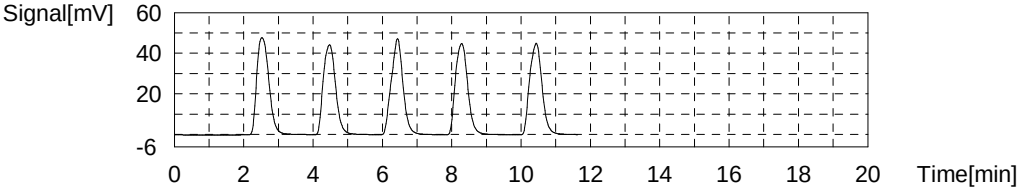
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:37.82mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:13:22 AM
2	117.0	39.56mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:15:26 AM
3	110.5	37.35mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:17:29 AM
4	112.4	38.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:19:33 AM
5	111.9	37.83mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:21:51 AM
6	112.7	38.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:23:55 AM

Mean Area 111.9
Mean Conc. 37.82mg/L



Sample

Sample Name: 280-124165-b-2 MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

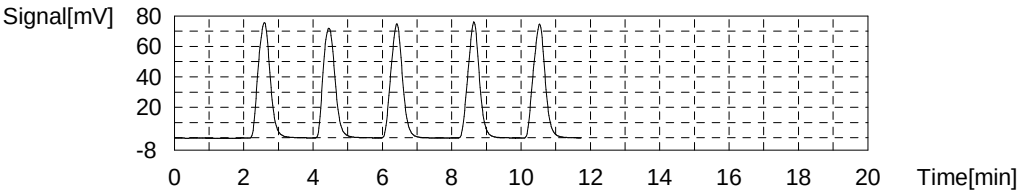
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:59.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3179	0.02579mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:32:21 AM
2	183.6	62.12mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:34:25 AM
3	173.9	58.83mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:36:29 AM
4	177.3	59.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:38:51 AM
5	175.2	59.27mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:40:55 AM
6	179.0	60.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:42:59 AM

Mean Area 176.4
Mean Conc. 59.66mg/L



Sample

Sample Name: 280-124165-b-2 MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

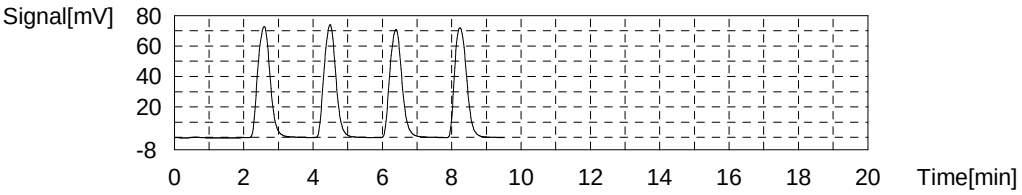
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:59.81mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6744	0.1466mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:51:30 AM
2	181.6	61.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:53:34 AM
3	177.1	59.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:55:38 AM
4	174.0	58.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:57:42 AM
5	174.4	59.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 6:59:46 AM

Mean Area 176.8
Mean Conc. 59.81mg/L



Sample

Sample Name:
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

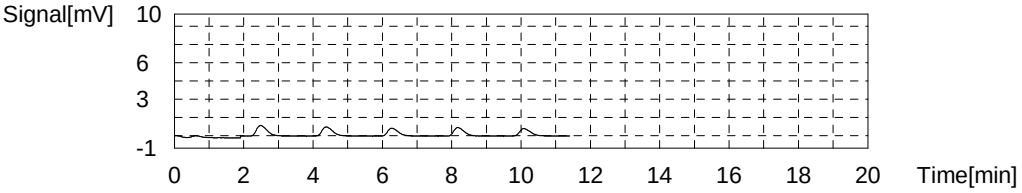
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3920mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2698	0.00950mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:08:17 AM
2	1.858	0.5475mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:10:21 AM
3	1.557	0.4456mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:12:25 AM
4	1.368	0.3815mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:14:28 AM
5	1.408	0.3951mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:16:32 AM
6	1.263	0.3460mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:18:36 AM

Mean Area 1.399
Mean Conc. 0.3920mg/L



Sample

Sample Name: 280-124171-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

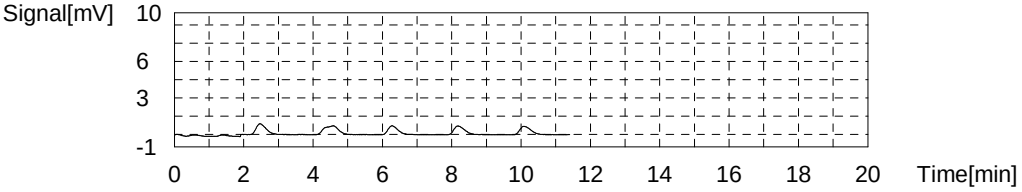
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4469mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2930	0.01736mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:27:03 AM
2	1.800	0.5279mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:29:07 AM
3	2.069	0.6190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:31:10 AM
4	1.428	0.4019mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:33:14 AM
5	1.516	0.4317mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:35:18 AM
6	1.500	0.4263mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:37:22 AM

Mean Area 1.561
Mean Conc. 0.4469mg/L



Sample

Sample Name: 280-124171-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

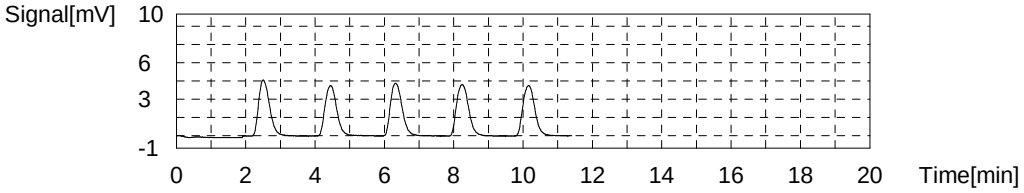
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.339mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:45:48 AM
2	10.11	3.343mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:47:52 AM
3	9.620	3.177mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:49:56 AM
4	10.14	3.353mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:51:59 AM
5	10.21	3.377mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:54:03 AM
6	9.929	3.282mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 7:56:07 AM

Mean Area 10.10
Mean Conc. 3.339mg/L



Sample

Sample Name: 280-124171-c-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

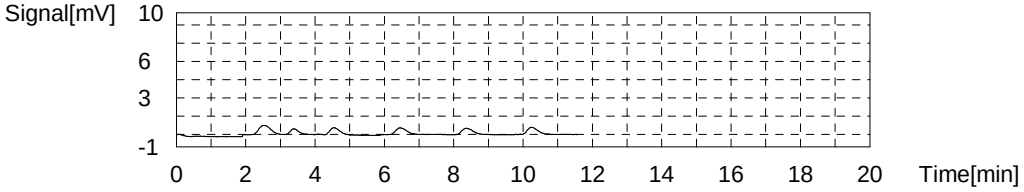
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3101mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:04:33 AM
2	2.606	0.8010mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:06:47 AM
3	1.147	0.3067mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:08:51 AM
4	1.154	0.3090mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:10:54 AM
5	1.150	0.3077mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:12:59 AM
6	1.177	0.3168mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:15:02 AM

Mean Area 1.157
Mean Conc. 0.3101mg/L



Sample

Sample Name: 280-124171-c-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

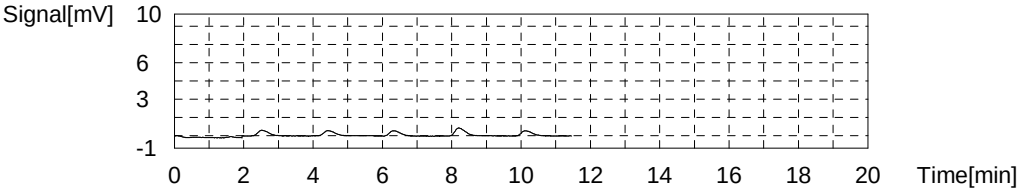
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2352mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1098	-0.04471mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:23:32 AM
2	0.9926	0.2544mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:25:36 AM
3	0.8919	0.2203mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:27:40 AM
4	0.9614	0.2438mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:29:43 AM
5	1.339	0.3717mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:31:47 AM
6	0.8980	0.2223mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:33:51 AM

Mean Area 0.9360
Mean Conc. 0.2352mg/L



Sample

Sample Name: 280-124171-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

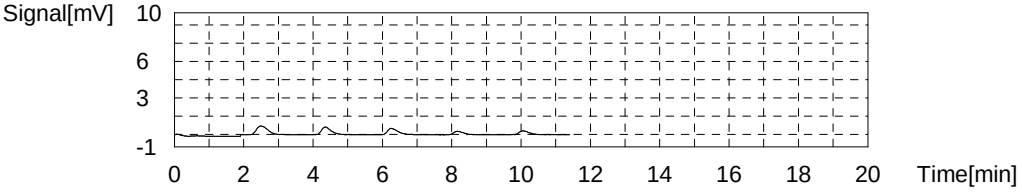
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2006mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:42:18 AM
2	1.588	0.4561mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:44:22 AM
3	1.181	0.3182mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:46:25 AM
4	1.040	0.2704mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:48:29 AM
5	0.5494	0.1042mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:50:33 AM
6	0.5654	0.1096mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 8:52:37 AM

Mean Area 0.8339
Mean Conc. 0.2006mg/L



Sample

Sample Name:
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

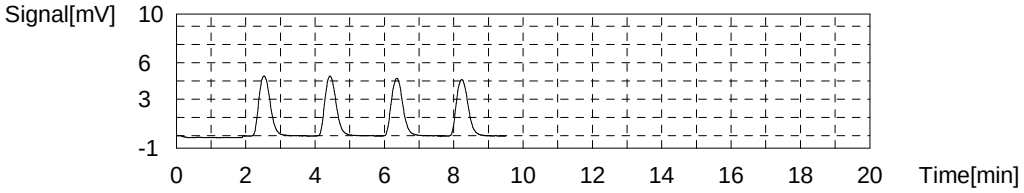
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.651mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:01:03 AM
2	11.23	3.723mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:03:07 AM
3	11.03	3.655mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:05:11 AM
4	10.96	3.631mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:07:14 AM
5	10.85	3.594mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:09:18 AM

Mean Area 11.02
Mean Conc. 3.651mg/L



Sample

Sample Name: 280-124229-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

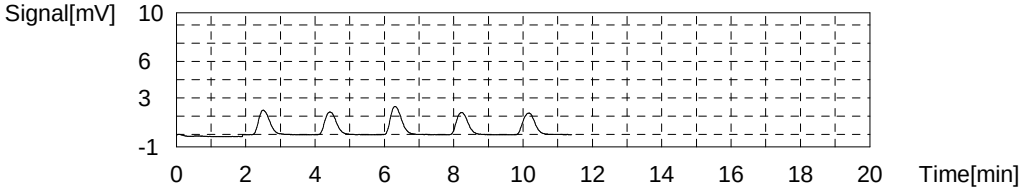
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.368mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:17:50 AM
2	4.380	1.402mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:19:54 AM
3	4.310	1.378mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:21:58 AM
4	5.104	1.647mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:24:01 AM
5	4.184	1.336mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:26:05 AM
6	4.248	1.357mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:28:09 AM

Mean Area 4.281
Mean Conc. 1.368mg/L



Sample

Sample Name: 280-124229-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

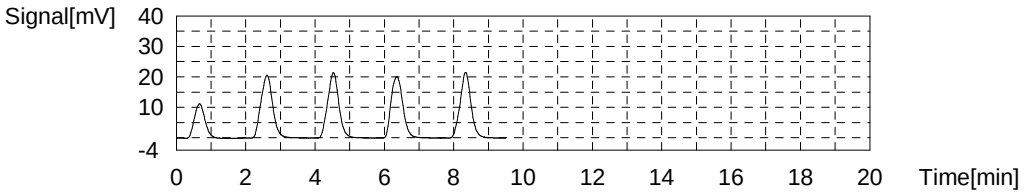
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.24mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.29	8.147mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:36:36 AM
2	48.71	16.42mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:38:40 AM
3	48.71	16.42mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:40:43 AM
4	47.92	16.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:42:47 AM
5	47.32	15.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:44:51 AM

Mean Area 48.16
Mean Conc. 16.24mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

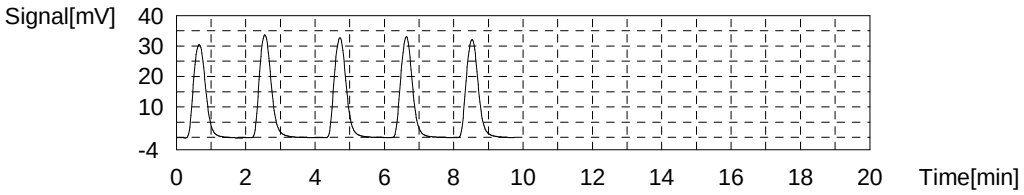
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.69mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.45	25.14mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:53:23 AM
2	80.66	27.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:55:42 AM
3	78.95	26.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:57:46 AM
4	78.20	26.41mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 9:59:49 AM
5	78.33	26.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:01:53 AM

Mean Area 79.03
Mean Conc. 26.69mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

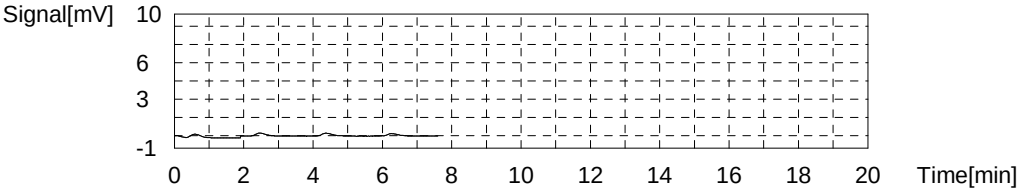
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06951mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5063	0.08962mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:10:25 AM
2	0.4561	0.07261mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:12:29 AM
3	0.4446	0.06872mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:14:33 AM
4	0.3808	0.04710mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:16:36 AM

Mean Area 0.4470
Mean Conc. 0.06951mg/L



Sample

Sample Name: 280-124229-b-2 MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

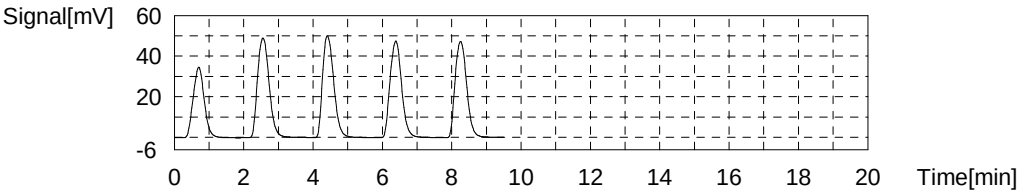
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:38.13mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.63	26.22mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:25:10 AM
2	115.0	38.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:27:14 AM
3	113.5	38.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:29:18 AM
4	111.9	37.83mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:31:21 AM
5	110.8	37.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:33:25 AM

Mean Area 112.8
Mean Conc. 38.13mg/L



Sample

Sample Name: 280-124229-b-2 MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

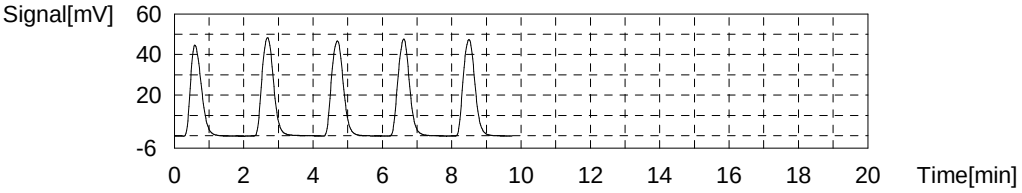
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:37.99mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.39	33.25mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:42:06 AM
2	113.9	38.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:44:16 AM
3	112.1	37.90mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:46:19 AM
4	111.3	37.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:48:23 AM
5	112.2	37.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:50:27 AM

Mean Area 112.4
Mean Conc. 37.99mg/L



Sample

Sample Name: 280-124229-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

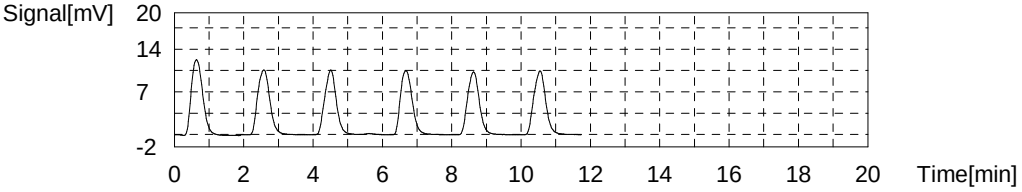
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:8.326mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.49	9.570mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 10:59:00 AM
2	26.09	8.757mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:01:04 AM
3	25.05	8.405mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:03:27 AM
4	24.74	8.299mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:05:31 AM
5	24.36	8.171mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:07:35 AM
6	25.12	8.428mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:09:39 AM

Mean Area 24.82
Mean Conc. 8.326mg/L



Sample

Sample Name: 280-124229-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

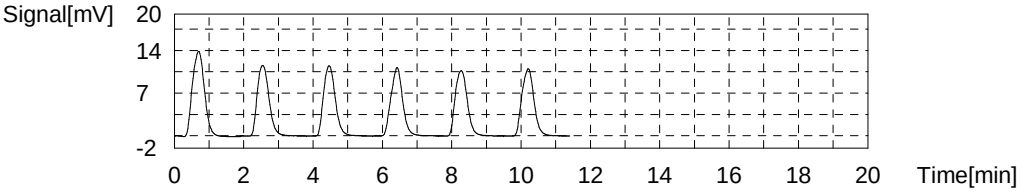
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.079mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.06	11.46mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:18:06 AM
2	27.49	9.231mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:20:10 AM
3	27.33	9.177mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:22:13 AM
4	26.37	8.852mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:24:17 AM
5	26.15	8.777mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:26:21 AM
6	26.97	9.055mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:28:25 AM

Mean Area 27.04
Mean Conc. 9.079mg/L



Sample

Sample Name: 280-124229-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

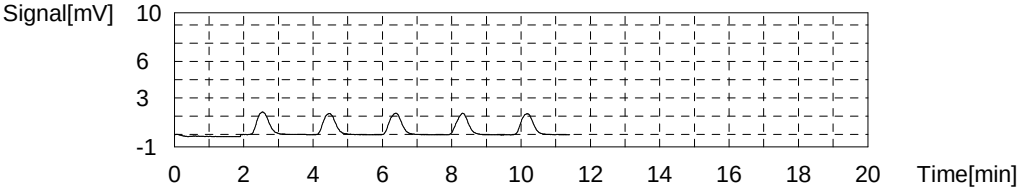
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.348mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:36:52 AM
2	4.386	1.404mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:38:56 AM
3	4.244	1.356mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:41:00 AM
4	4.340	1.388mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:43:03 AM
5	4.131	1.318mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:45:07 AM
6	4.173	1.332mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:47:11 AM

Mean Area 4.222
Mean Conc. 1.348mg/L



Sample

Sample Name: 280-124269-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

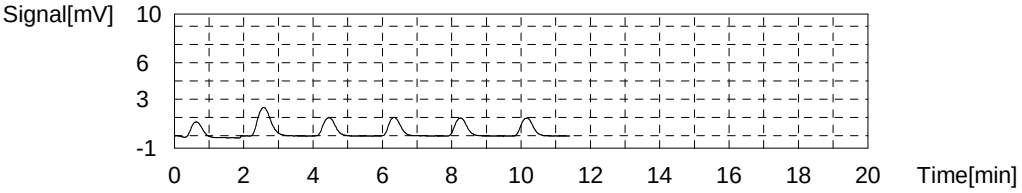
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.118mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.820	0.8735mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:55:38 AM
2	6.101	1.985mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:57:42 AM
3	3.616	1.143mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 11:59:46 AM
4	3.520	1.111mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:01:49 PM
5	3.499	1.103mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:03:53 PM
6	3.532	1.115mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:05:57 PM

Mean Area 3.542
Mean Conc. 1.118mg/L



Sample

Sample Name: 280-124269-c-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

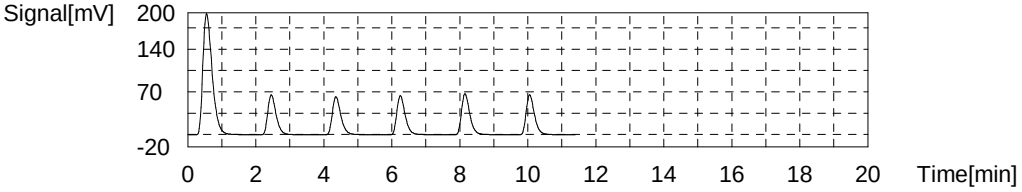
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:125.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	380.6	128.9mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:14:25 PM
2	112.1	126.5mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:16:28 PM
3	109.0	123.0mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:18:32 PM
4	110.2	124.4mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:20:36 PM
5	114.5	129.2mg/L	15uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:22:40 PM
6	111.6	125.9mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:24:44 PM

Mean Area 110.7
Mean Conc. 125.0mg/L



Sample

Sample Name: 280-124269-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

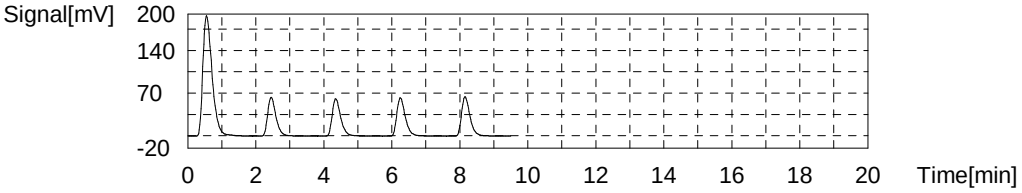
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:122.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	377.6	127.8mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:33:11 PM
2	108.5	122.4mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:35:14 PM
3	106.5	120.2mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:37:18 PM
4	109.3	123.3mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:39:22 PM
5	111.3	125.6mg/L	15uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:41:26 PM

Mean Area 108.9
Mean Conc. 122.9mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

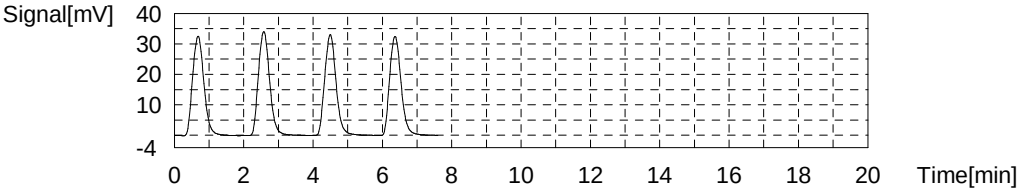
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.68mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.99	25.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:49:59 PM
2	77.53	26.18mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:52:03 PM
3	76.17	25.72mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:54:07 PM
4	75.50	25.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 12:56:10 PM

Mean Area 76.05
Mean Conc. 25.68mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

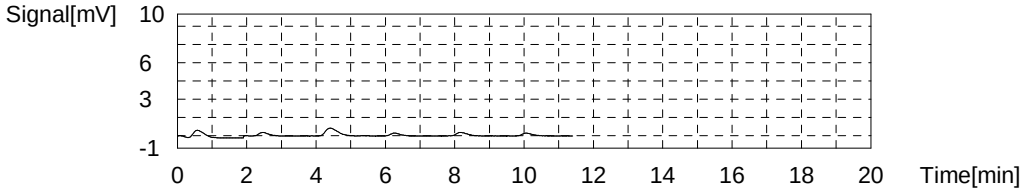
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08597mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.254	0.3429mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:04:44 PM
2	0.5440	0.1024mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:06:48 PM
3	1.541	0.4402mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:08:51 PM
4	0.4221	0.06109mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:10:55 PM
5	0.5792	0.1143mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:12:59 PM
6	0.4368	0.06607mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/14/2019 1:15:03 PM

Mean Area	0.4955
Mean Conc.	0.08597mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

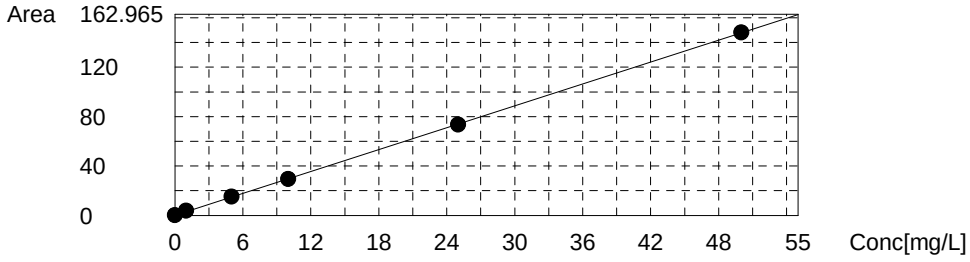
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

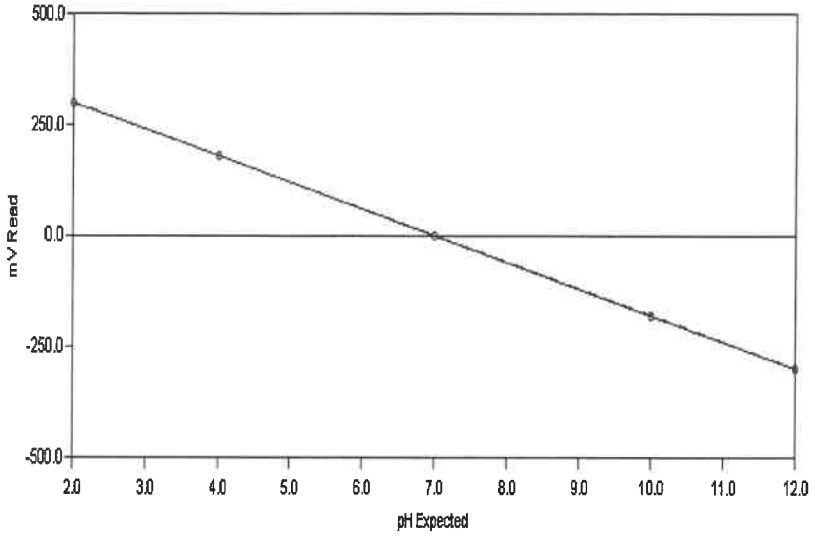
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



Calibration Record # 461



Calibration Settings

Calibration ID	PH	Date	5/24/2019
Channel	1	Time	5:27 PM
Probe Type	pH	Temperature	295.78 K 22.63 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.670	CorrCoeff	1.0000
Intercept	0.124	Equation: Y = (-59.670) X + (0.124)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.670	-65.00	-54.00
Intercept	0.124	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	297.85
	4.00	179.93
	7.00	0.61
	10.00	-180.17
	12.00	-297.60

Test America
Water Analysis Report

Analyst: SGB

Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
rinse	5/24/2019	5:32 PM	22.20	-1.00	9.22	-1.00	-1.00	-1.00	2.72	8.38	2.94	5.45	.00	.03	.11	.14	.02
check	5/24/2019	5:40 PM	22.08	-1.00	10.51	-1.00	-1.00	-1.00	92.81	198.94	13.33	185.61	.00	.93	1.99	-1.00	.02
b7	5/24/2019	5:42 PM	21.92	-1.00	7.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
lcs	5/24/2019	5:48 PM	21.76	-1.00	10.51	-1.00	-1.00	-1.00	93.68	195.97	8.62	187.35	.00	.94	1.96	-1.00	.02
mb	5/24/2019	6:12 PM	22.39	-1.00	7.30	-1.00	-1.00	-1.00	.00	2.43	2.43	.00	.00	.00	.05	.07	.02
280-123986-A-11	5/24/2019	6:18 PM	21.73	-1.00	7.41	-1.00	-1.00	-1.00	.00	187.14	187.14	.00	.00	.00	1.87	-1.00	.02
280-123986-A-11	5/24/2019	6:23 PM	21.48	-1.00	7.43	-1.00	-1.00	-1.00	.00	189.84	189.84	.00	.00	.00	1.90	-1.00	.02
280-123986-A-12	5/24/2019	6:29 PM	21.45	-1.00	7.52	-1.00	-1.00	-1.00	.00	192.48	192.48	.00	.00	.00	1.92	-1.00	.02
280-123986-A-1	5/24/2019	6:34 PM	21.51	-1.00	7.69	-1.00	-1.00	-1.00	.00	122.93	122.93	.00	.00	.00	1.23	-1.00	.02
280-123986-A-6	5/24/2019	6:39 PM	21.67	-1.00	7.80	-1.00	-1.00	-1.00	.00	149.83	149.83	.00	.00	.00	1.50	-1.00	.02
280-123986-A-7	5/24/2019	6:45 PM	21.61	-1.00	7.94	-1.00	-1.00	-1.00	.00	124.83	124.83	.00	.00	.00	1.25	-1.00	.02
280-123986-A-8	5/24/2019	6:52 PM	21.38	-1.00	7.60	-1.00	-1.00	-1.00	.00	532.96	532.96	.00	.00	.00	5.33	-1.00	.02
280-123842-A-1	5/24/2019	7:01 PM	21.44	-1.00	7.21	-1.00	-1.00	-1.00	.00	646.84	646.84	.00	.00	.00	6.47	-1.00	.02
280-123815-G-1	5/24/2019	7:07 PM	21.48	-1.00	8.11	-1.00	-1.00	-1.00	.00	180.90	180.90	.00	.00	.00	1.81	-1.00	.02
280-123291-B-1	5/24/2019	7:16 PM	21.31	-1.00	7.32	-1.00	-1.00	-1.00	.00	796.65	796.65	.00	.00	.00	7.97	-1.00	.02
ccv	5/24/2019	7:22 PM	21.31	-1.00	10.46	-1.00	-1.00	-1.00	95.91	199.19	7.37	191.82	.00	.96	1.99	-1.00	.02
ccb	5/24/2019	7:27 PM	21.35	-1.00	6.56	-1.00	-1.00	-1.00	.00	1.15	1.15	.00	.00	.00	.03	.05	.02
280-123843-A-2	5/24/2019	7:35 PM	21.31	-1.00	7.47	-1.00	-1.00	-1.00	.00	567.21	567.21	.00	.00	.00	5.67	-1.00	.02
280-123855-H-5	5/24/2019	7:40 PM	21.53	-1.00	7.98	-1.00	-1.00	-1.00	.00	218.11	218.11	.00	.00	.00	2.18	-1.00	.02
280-123855-J-4	5/24/2019	7:46 PM	21.69	-1.00	7.98	-1.00	-1.00	-1.00	.00	219.58	219.58	.00	.00	.00	2.20	-1.00	.02
280-123855-J-6	5/24/2019	7:52 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	216.63	216.63	.00	.00	.00	2.17	-1.00	.02
280-123855-I-1	5/24/2019	7:59 PM	21.56	-1.00	7.26	-1.00	-1.00	-1.00	.00	235.07	235.07	.00	.00	.00	2.35	-1.00	.02
280-123855-J-2	5/24/2019	8:04 PM	21.28	-1.00	10.56	-1.00	-1.00	-1.00	80.82	111.02	.00	60.41	50.61	.81	1.11	-1.00	.02
280-123855-J-3	5/24/2019	8:10 PM	21.31	-1.00	7.80	-1.00	-1.00	-1.00	.00	367.77	367.77	.00	.00	.00	3.68	-1.00	.02
280-123868-B-2	5/24/2019	8:16 PM	21.37	-1.00	7.96	-1.00	-1.00	-1.00	.00	138.62	138.62	.00	.00	.00	1.39	-1.00	.02
280-123868-B-1	5/24/2019	8:22 PM	21.32	-1.00	7.96	-1.00	-1.00	-1.00	.00	141.52	141.52	.00	.00	.00	1.42	-1.00	.02
280-123868-B-3	5/24/2019	8:25 PM	21.37	-1.00	4.09	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02

PC-TitratION PLUS by Man-Tech Associates, Inc.

GENERAL RESULTS REPORT.SRW

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
ccv	5/24/2019	8:31 PM	21.31	-1.00	10.41	-1.00	-1.00	-1.00	91.66	196.42	13.11	183.32	.00	.92	1.96	-1.00	.02
ccb	5/24/2019	8:36 PM	21.64	-1.00	7.13	-1.00	-1.00	-1.00	.00	1.71	1.71	.00	.00	.00	.04	.05	.02
lcs	5/24/2019	8:42 PM	21.73	-1.00	10.42	-1.00	-1.00	-1.00	94.43	198.96	10.10	188.87	.00	.94	1.99	-1.00	.02
mb	5/24/2019	8:47 PM	21.87	-1.00	7.25	-1.00	-1.00	-1.00	.00	1.70	1.70	.00	.00	.00	.04	.05	.02
280-123882-B-1	5/24/2019	8:52 PM	21.63	-1.00	7.92	-1.00	-1.00	-1.00	.00	168.53	168.53	.00	.00	.00	1.69	-1.00	.02
du	5/24/2019	8:58 PM	21.50	-1.00	7.96	-1.00	-1.00	-1.00	.00	168.56	168.56	.00	.00	.00	1.69	-1.00	.02
280-123919-C-2	5/24/2019	9:03 PM	21.44	-1.00	6.66	-1.00	-1.00	-1.00	.00	1.60	1.60	.00	.00	.00	.03	.05	.02
280-123919-C-6	5/24/2019	9:08 PM	21.40	-1.00	7.65	-1.00	-1.00	-1.00	.00	185.45	185.45	.00	.00	.00	1.85	-1.00	.02
280-123919-C-5	5/24/2019	9:17 PM	21.38	-1.00	7.35	-1.00	-1.00	-1.00	.00	546.93	546.93	.00	.00	.00	5.47	-1.00	.02
280-123919-C-4	5/24/2019	9:22 PM	21.54	-1.00	7.63	-1.00	-1.00	-1.00	.00	185.98	185.98	.00	.00	.00	1.86	-1.00	.02
280-123922-J-1	5/24/2019	9:29 PM	21.51	-1.00	7.31	-1.00	-1.00	-1.00	.00	423.12	423.12	.00	.00	.00	4.23	-1.00	.02
280-123922-I-3	5/24/2019	9:36 PM	21.64	-1.00	7.35	-1.00	-1.00	-1.00	.00	377.60	377.60	.00	.00	.00	3.78	-1.00	.02
280-123922-H-2	5/24/2019	9:43 PM	21.86	-1.00	7.38	-1.00	-1.00	-1.00	.00	420.73	420.73	.00	.00	.00	4.21	-1.00	.02
280-123924-A-5	5/24/2019	9:48 PM	22.11	-1.00	8.11	-1.00	-1.00	-1.00	.00	163.70	163.70	.00	.00	.00	1.64	-1.00	.02
ccv	5/24/2019	9:55 PM	21.90	-1.00	10.39	-1.00	-1.00	-1.00	91.87	199.99	16.25	183.74	.00	.92	2.00	-1.00	.02
ccb	5/24/2019	9:59 PM	21.80	-1.00	6.37	-1.00	-1.00	-1.00	.00	.84	.84	.00	.00	.00	.03	.05	.02
280-123924-B-6	5/24/2019	10:06 PM	21.58	-1.00	7.89	-1.00	-1.00	-1.00	.00	410.82	410.82	.00	.00	.00	4.11	-1.00	.02
280-123924-B-7	5/24/2019	10:13 PM	21.66	-1.00	8.11	-1.00	-1.00	-1.00	.00	217.84	217.84	.00	.00	.00	2.18	-1.00	.02
280-123924-B-8	5/24/2019	10:18 PM	21.57	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.48	212.48	.00	.00	.00	2.12	-1.00	.02
280-123924-B-9	5/24/2019	10:24 PM	21.53	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.16	212.16	.00	.00	.00	2.12	-1.00	.02
280-123924-A-10	5/24/2019	10:30 PM	21.51	-1.00	7.30	-1.00	-1.00	-1.00	.00	86.68	86.68	.00	.00	.00	.87	-1.00	.02
280-123924-A-11	5/24/2019	10:35 PM	21.51	-1.00	7.77	-1.00	-1.00	-1.00	.00	89.64	89.64	.00	.00	.00	.90	-1.00	.02
280-123924-B-12	5/24/2019	10:41 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	209.92	209.92	.00	.00	.00	2.10	-1.00	.02
280-123930-I-1	5/24/2019	10:47 PM	21.89	-1.00	7.26	-1.00	-1.00	-1.00	.00	248.54	248.54	.00	.00	.00	2.49	-1.00	.02
280-123930-H-2	5/24/2019	10:54 PM	22.16	-1.00	7.38	-1.00	-1.00	-1.00	.00	492.40	492.40	.00	.00	.00	4.92	-1.00	.02
280-123930-I-3	5/24/2019	11:01 PM	22.07	-1.00	7.35	-1.00	-1.00	-1.00	.00	491.92	491.92	.00	.00	.00	4.92	-1.00	.02
ccv	5/24/2019	11:07 PM	21.95	-1.00	10.41	-1.00	-1.00	-1.00	86.66	197.59	24.28	173.31	.00	.87	1.98	-1.00	.02
ccb	5/24/2019	11:12 PM	21.85	-1.00	6.31	-1.00	-1.00	-1.00	.00	.99	.99	.00	.00	.00	.03	.05	.02
lcs	5/24/2019	11:18 PM	21.64	-1.00	10.38	-1.00	-1.00	-1.00	90.31	202.44	21.82	180.62	.00	.90	2.02	-1.00	.02
mb	5/24/2019	11:23 PM	21.70	-1.00	6.27	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.05	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123930-H-4	5/24/2019	11:30 PM	21.63	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.17	484.17	.00	.00	.00	4.84	-1.00	.02
du	5/24/2019	11:38 PM	21.73	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.73	484.73	.00	.00	.00	4.85	-1.00	.02
280-123930-J-5	5/24/2019	11:43 PM	21.79	-1.00	7.69	-1.00	-1.00	-1.00	.00	155.17	155.17	.00	.00	.00	1.55	-1.00	.02
280-123941-I-2	5/24/2019	11:50 PM	21.79	-1.00	8.28	-1.00	-1.00	-1.00	.00	362.95	362.95	.00	.00	.00	3.63	-1.00	.02
280-123941-I-4	5/24/2019	11:57 PM	21.95	-1.00	8.58	-1.00	-1.00	-1.00	25.24	424.38	373.91	50.48	.00	.25	4.24	-1.00	.02
280-123941-I-5	5/25/2019	12:05 AM	22.39	-1.00	7.94	-1.00	-1.00	-1.00	.00	576.32	576.32	.00	.00	.00	5.76	-1.00	.02
280-123941-I-6	5/25/2019	12:13 AM	22.32	-1.00	7.90	-1.00	-1.00	-1.00	.00	551.79	551.79	.00	.00	.00	5.52	-1.00	.02
280-123941-I-7	5/25/2019	12:21 AM	22.11	-1.00	7.60	-1.00	-1.00	-1.00	.00	582.27	582.27	.00	.00	.00	5.82	-1.00	.02
280-123941-I-9	5/25/2019	12:27 AM	22.02	-1.00	8.10	-1.00	-1.00	-1.00	.00	171.96	171.96	.00	.00	.00	1.72	-1.00	.02
280-123941-I-10	5/25/2019	12:34 AM	21.86	-1.00	7.94	-1.00	-1.00	-1.00	.00	410.36	410.36	.00	.00	.00	4.10	-1.00	.02
ccv	5/25/2019	12:40 AM	21.71	-1.00	10.37	-1.00	-1.00	-1.00	89.84	200.21	20.54	179.67	.00	.90	2.00	-1.00	.02
ccb	5/25/2019	12:44 AM	21.71	-1.00	6.54	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-123941-I-11	5/25/2019	12:53 AM	21.69	-1.00	8.03	-1.00	-1.00	-1.00	.00	488.04	488.04	.00	.00	.00	4.88	-1.00	.02
280-123942-C-1	5/25/2019	12:58 AM	21.71	-1.00	7.75	-1.00	-1.00	-1.00	.00	146.69	146.69	.00	.00	.00	1.47	-1.00	.02
280-123947-A-2	5/25/2019	1:08 AM	21.69	-1.00	7.64	-1.00	-1.00	-1.00	.00	845.54	845.54	.00	.00	.00	8.46	-1.00	.02
280-123955-A-1	5/25/2019	1:15 AM	21.79	-1.00	7.81	-1.00	-1.00	-1.00	.00	432.94	432.94	.00	.00	.00	4.33	-1.00	.02
280-123969-A-2	5/25/2019	1:21 AM	21.73	-1.00	9.91	-1.00	-1.00	-1.00	59.22	157.92	39.48	118.44	.00	.59	1.58	-1.00	.02
280-123969-C-4	5/25/2019	1:32 AM	21.96	-1.00	7.68	-1.00	-1.00	-1.00	.00	931.00	931.00	.00	.00	.00	9.31	-1.00	.02
280-123969-A-3	5/25/2019	1:40 AM	21.87	-1.00	8.14	-1.00	-1.00	-1.00	.00	561.64	561.64	.00	.00	.00	5.62	-1.00	.02
280-123969-C-5	5/25/2019	1:47 AM	21.64	-1.00	7.80	-1.00	-1.00	-1.00	.00	521.66	521.66	.00	.00	.00	5.22	-1.00	.02
280-123981-J-8	5/25/2019	1:53 AM	21.51	-1.00	8.02	-1.00	-1.00	-1.00	.00	202.09	202.09	.00	.00	.00	2.02	-1.00	.02
280-123981-J-3	5/25/2019	1:59 AM	21.37	-1.00	7.99	-1.00	-1.00	-1.00	.00	217.95	217.95	.00	.00	.00	2.18	-1.00	.02
ccv	5/25/2019	2:04 AM	21.25	-1.00	10.34	-1.00	-1.00	-1.00	89.34	200.92	22.25	178.67	.00	.89	2.01	-1.00	.02
ccb	5/25/2019	2:09 AM	21.32	-1.00	6.39	-1.00	-1.00	-1.00	.00	1.24	1.24	.00	.00	.00	.03	.05	.02
lcs	5/25/2019	2:15 AM	21.25	-1.00	10.32	-1.00	-1.00	-1.00	87.49	199.56	24.58	174.98	.00	.87	2.00	-1.00	.02
mb	5/25/2019	2:19 AM	21.30	-1.00	6.43	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.04	.02
280-123981-H-4	5/25/2019	2:26 AM	21.31	-1.00	7.90	-1.00	-1.00	-1.00	.00	333.37	333.37	.00	.00	.00	3.33	-1.00	.02
du	5/25/2019	2:33 AM	21.41	-1.00	7.92	-1.00	-1.00	-1.00	.00	336.92	336.92	.00	.00	.00	3.37	-1.00	.02
280-123981-J-9	5/25/2019	2:39 AM	21.92	-1.00	8.14	-1.00	-1.00	-1.00	.00	211.07	211.07	.00	.00	.00	2.11	-1.00	.02
280-123981-I-6	5/25/2019	2:45 AM	21.82	-1.00	7.98	-1.00	-1.00	-1.00	.00	238.01	238.01	.00	.00	.00	2.38	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123981-I-2	5/25/2019	2:50 AM	21.71	-1.00	8.16	-1.00	-1.00	-1.00	.00	151.85	151.85	.00	.00	.00	1.52	-1.00	.02
280-123981-J-7	5/25/2019	2:57 AM	21.64	-1.00	7.88	-1.00	-1.00	-1.00	.00	318.00	318.00	.00	.00	.00	3.18	-1.00	.02
280-123981-I-1	5/25/2019	3:04 AM	21.57	-1.00	7.83	-1.00	-1.00	-1.00	.00	480.47	480.47	.00	.00	.00	4.80	-1.00	.02
280-123981-J-5	5/25/2019	3:10 AM	21.57	-1.00	8.18	-1.00	-1.00	-1.00	.00	168.22	168.22	.00	.00	.00	1.68	-1.00	.02
280-123983-H-1	5/25/2019	3:15 AM	21.56	-1.00	7.68	-1.00	-1.00	-1.00	.00	80.51	80.51	.00	.00	.00	.81	-1.00	.02
280-123983-I-2	5/25/2019	3:21 AM	21.51	-1.00	7.97	-1.00	-1.00	-1.00	.00	157.17	157.17	.00	.00	.00	1.57	-1.00	.02
ccv	5/25/2019	3:27 AM	21.50	-1.00	10.31	-1.00	-1.00	-1.00	88.23	200.79	24.34	176.45	.00	.88	2.01	-1.00	.02
ccb	5/25/2019	3:31 AM	21.63	-1.00	6.41	-1.00	-1.00	-1.00	.00	1.07	1.07	.00	.00	.00	.03	.05	.02
280-123983-H-3	5/25/2019	3:37 AM	21.66	-1.00	7.48	-1.00	-1.00	-1.00	.00	133.40	133.40	.00	.00	.00	1.33	-1.00	.02
280-124012-C-2	5/25/2019	3:43 AM	21.79	-1.00	8.21	-1.00	-1.00	-1.00	.00	154.14	154.14	.00	.00	.00	1.54	-1.00	.02
280-124006-B-1	5/25/2019	3:49 AM	22.10	-1.00	8.17	-1.00	-1.00	-1.00	.00	187.63	187.63	.00	.00	.00	1.88	-1.00	.02
280-124014-A-1	5/25/2019	3:55 AM	22.02	-1.00	8.04	-1.00	-1.00	-1.00	.00	260.05	260.05	.00	.00	.00	2.60	-1.00	.02
280-124014-A-2	5/25/2019	4:02 AM	21.93	-1.00	7.99	-1.00	-1.00	-1.00	.00	471.35	471.35	.00	.00	.00	4.71	-1.00	.02
280-124036-D-1	5/25/2019	4:16 AM	21.90	-1.00	7.31	-1.00	-1.00	-1.00	.00	1,354.27	1,354.27	.00	.00	.00	13.54	-1.00	.02
280-124036-C-2	5/25/2019	4:34 AM	21.98	-1.00	7.80	-1.00	-1.00	-1.00	.00	1,920.50	1,920.50	.00	.00	.00	19.20	-1.00	.02
280-124036-C-3	5/25/2019	4:56 AM	22.07	-1.00	8.01	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124036-D-4	5/25/2019	5:12 AM	22.14	-1.00	8.09	-1.00	-1.00	-1.00	.00	1,605.88	1,605.88	.00	.00	.00	16.06	-1.00	.02
280-124036-C-6	5/25/2019	5:23 AM	22.16	-1.00	7.92	-1.00	-1.00	-1.00	.00	1,030.71	1,030.71	.00	.00	.00	10.31	-1.00	.02
ccv	5/25/2019	5:28 AM	22.08	-1.00	10.23	-1.00	-1.00	-1.00	84.01	201.28	33.25	168.03	.00	.84	2.01	-1.00	.02
ccb	5/25/2019	5:33 AM	22.03	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.11	1.11	.00	.00	.00	.03	.04	.02
lcs	5/25/2019	5:40 AM	21.98	-1.00	10.24	-1.00	-1.00	-1.00	85.95	205.96	34.06	171.90	.00	.86	2.06	-1.00	.02
mb	5/25/2019	5:45 AM	22.49	-1.00	6.46	-1.00	-1.00	-1.00	.00	1.41	1.41	.00	.00	.00	.03	.05	.02
280-124036-D-7	5/25/2019	5:55 AM	22.39	-1.00	7.87	-1.00	-1.00	-1.00	.00	994.91	994.91	.00	.00	.00	9.95	-1.00	.02
du	5/25/2019	6:06 AM	22.40	-1.00	7.88	-1.00	-1.00	-1.00	.00	1,000.38	1,000.38	.00	.00	.00	10.00	-1.00	.02
280-124036-D-8	5/25/2019	6:18 AM	22.39	-1.00	7.83	-1.00	-1.00	-1.00	.00	1,001.71	1,001.71	.00	.00	.00	10.02	-1.00	.02
280-124036-C-9	5/25/2019	6:23 AM	22.40	-1.00	6.30	-1.00	-1.00	-1.00	.00	1.28	1.28	.00	.00	.00	.03	.05	.02
280-124036-C-10	5/25/2019	6:44 AM	22.23	-1.00	8.74	-1.00	-1.00	-1.00	121.48	.00	-242.97	242.97	.00	1.21	.00	.00	.02
280-124053-F-3	5/25/2019	6:51 AM	22.42	-1.00	7.96	-1.00	-1.00	-1.00	.00	397.73	397.73	.00	.00	.00	3.98	-1.00	.02
280-124053-E-2	5/25/2019	6:57 AM	22.31	-1.00	7.92	-1.00	-1.00	-1.00	.00	284.93	284.93	.00	.00	.00	2.85	-1.00	.02
280-124070-F-5	5/25/2019	7:04 AM	22.28	-1.00	7.90	-1.00	-1.00	-1.00	.00	301.09	301.09	.00	.00	.00	3.01	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-124070-F-6	5/25/2019	7:10 AM	22.26	-1.00	7.96	-1.00	-1.00	-1.00	.00	213.13	213.13	.00	.00	.00	2.13	-1.00	.02
280-124070-F-3	5/25/2019	7:16 AM	22.32	-1.00	8.01	-1.00	-1.00	-1.00	.00	336.89	336.89	.00	.00	.00	3.37	-1.00	.02
ccv	5/25/2019	7:23 AM	22.40	-1.00	10.23	-1.00	-1.00	-1.00	82.94	206.67	40.79	165.88	.00	.83	2.07	-1.00	.02
ccb	5/25/2019	7:27 AM	22.70	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.18	1.18	.00	.00	.00	.03	.05	.02
280-124070-F-4	5/25/2019	7:33 AM	22.55	-1.00	7.95	-1.00	-1.00	-1.00	.00	266.39	266.39	.00	.00	.00	2.66	-1.00	.02
280-124070-F-1	5/25/2019	7:40 AM	22.49	-1.00	7.91	-1.00	-1.00	-1.00	.00	355.63	355.63	.00	.00	.00	3.56	-1.00	.02
280-124070-F-2	5/25/2019	7:46 AM	22.46	-1.00	7.98	-1.00	-1.00	-1.00	.00	246.93	246.93	.00	.00	.00	2.47	-1.00	.02
280-124156-E-1	5/25/2019	7:57 AM	22.43	-1.00	8.62	-1.00	-1.00	-1.00	36.56	1,039.07	965.95	73.12	.00	.37	10.39	-1.00	.02
280-123939-A-3	5/25/2019	8:02 AM	22.52	-1.00	8.14	-1.00	-1.00	-1.00	.00	82.75	82.75	.00	.00	.00	.83	-1.00	.02
280-123939-A-3 du	5/25/2019	8:07 AM	22.39	-1.00	8.21	-1.00	-1.00	-1.00	.00	83.01	83.01	.00	.00	.00	.83	-1.00	.02
280-123939-A-4	5/25/2019	8:12 AM	22.42	-1.00	6.28	-1.00	-1.00	-1.00	.00	.92	.92	.00	.00	.00	.03	.04	.02
280-124055-A-1	5/25/2019	8:17 AM	22.42	-1.00	7.08	-1.00	-1.00	-1.00	.00	71.71	71.71	.00	.00	.00	.72	-1.00	.02
280-124055-A-2	5/25/2019	8:23 AM	22.46	-1.00	8.05	-1.00	-1.00	-1.00	.00	197.82	197.82	.00	.00	.00	1.98	-1.00	.02
280-124055-A-3	5/25/2019	8:26 AM	22.54	-1.00	4.07	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
ccv	5/25/2019	8:32 AM	22.89	-1.00	10.11	-1.00	-1.00	-1.00	78.99	202.48	44.50	157.98	.00	.79	2.02	-1.00	.02
ccb	5/25/2019	8:37 AM	22.96	-1.00	6.88	-1.00	-1.00	-1.00	.00	1.91	1.91	.00	.00	.00	.04	.06	.02
lcs	5/25/2019	8:43 AM	22.98	-1.00	10.13	-1.00	-1.00	-1.00	77.19	200.11	45.73	154.37	.00	.77	2.00	-1.00	.02
mb	5/25/2019	8:48 AM	22.92	-1.00	6.71	-1.00	-1.00	-1.00	.00	1.63	1.63	.00	.00	.00	.03	.05	.02
280-124055-A-4	5/25/2019	8:53 AM	22.83	-1.00	7.37	-1.00	-1.00	-1.00	.00	40.22	40.22	.00	.00	.00	.40	-1.00	.02
280-124055-A-5	5/25/2019	8:56 AM	22.81	-1.00	3.81	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124055-A-6	5/25/2019	9:01 AM	22.80	-1.00	7.22	-1.00	-1.00	-1.00	.00	37.84	37.84	.00	.00	.00	.38	-1.00	.02
ccv	5/25/2019	9:07 AM	22.78	-1.00	10.18	-1.00	-1.00	-1.00	79.97	201.90	41.96	159.94	.00	.80	2.02	-1.00	.02
ccb	5/25/2019	9:12 AM	22.77	-1.00	6.57	-1.00	-1.00	-1.00	.00	1.75	1.75	.00	.00	.00	.03	.05	.02

PC-TitratION PLUS by Man-Tech Associates, Inc.

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2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

06/17/2019

Batch Number: 280-459268

Analyst: Cherry, Scott V

Batch Open: 5/23/2019 4:24:00PM

Batch End:

Conductivity Solids, Total Dissolved (TDS)

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
1	MB~280-459268/1 N/A	N/A			100	N/A	N/A	N/A		
2	LCS~280-459268/2 N/A	N/A			100	N/A	N/A	N/A		
3	280-123943-A-1 (2540C_Calcd)	N/A (280-123943-1)	Water	Hist	50	6/5/19	12_Day_Rush	4		
4	280-123943-A-1 (2540C_Calcd)	N/A (280-123943-1)	Water	2	50	6/5/19	12_Day_Rush	4		
5	280-123930-J-1 (2540C_Calcd)	N/A (280-123930-1)	Water	492	100	6/5/19	12_Days	4		
6	280-123930-I-2 (2540C_Calcd)	N/A (280-123930-1)	Water	842	100	6/5/19	12_Days	4		
7	280-123930-J-3 (2540C_Calcd)	N/A (280-123930-1)	Water	828	100	6/5/19	12_Days	4		
8	280-123983-A-1 (2540C_Calcd)	N/A (280-123983-1)	Water	155.5	100	6/5/19	12_Days	4		
9	280-123983-B-2 (2540C_Calcd)	N/A (280-123983-1)	Water	289.2	100	6/5/19	12_Days	4		
10	280-123983-B-3 (2540C_Calcd)	N/A (280-123983-1)	Water	295.7	100	6/5/19	12_Days	4		
11	280-124034-C-1 (2540C_Calcd)	N/A (280-124034-1)	Water	5570	25	5/30/19	8_Days	2		
12	280-123981-I-1 (2540C_Calcd)	N/A (280-123981-1)	Water	913	100	6/5/19	12_Days	4		
13	280-123981-H-2 (2540C_Calcd)	N/A (280-123981-1)	Water	311	100	6/5/19	12_Days	4		
14	280-123981-H-3 (2540C_Calcd)	N/A (280-123981-1)	Water	374	100	6/5/19	12_Days	4		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-459268

Analyst: Cherry, Scott V

Batch Open: 5/23/2019 4:24:00PM

Batch End:

15	280-123981-I-4 (2540C_Calcd)	N/A (280-123981-1)	Water	555	100	6/5/19	12_Days	4	
16	280-123981-H-5 (2540C_Calcd)	N/A (280-123981-1)	Water	277.9	100	6/5/19	12_Days	4	
17	280-123981-J-6 (2540C_Calcd)	N/A (280-123981-1)	Water	414	100	6/5/19	12_Days	4	
18	280-123981-B-7 (2540C_Calcd)	N/A (280-123981-1)	Water	607	100	6/5/19	12_Days	4	
19	280-123981-I-8 (2540C_Calcd)	N/A (280-123981-1)	Water	353	100	6/5/19	12_Days	4	
20	280-123981-I-9 (2540C_Calcd)	N/A (280-123981-1)	Water	376	100	6/5/19	12_Days	4	
21	280-123922-A-1 (2540C_Calcd)	N/A (280-123922-1)	Water	735	100	6/5/19	12_Days	4	
22	280-123922-A-2 (2540C_Calcd)	N/A (280-123922-1)	Water	763	100	6/5/19	12_Days	4	
23	280-123922-B-3 (2540C_Calcd)	N/A (280-123922-1)	Water	670	100	6/5/19	12_Days	4	
24	280-123922-B-3 (2540C_Calcd)	N/A (280-123922-1)	Water	11	100	6/5/19	12_Days	4	

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COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.353	149.1	25.9736	15.58416

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.070	149.1	124.684	74.8104

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.410	149.1	6.092	3.6552

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
50	-348.8	0.414	149.1	4.6968	140.904

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.457	149.1	-10.3016	-6.18096

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.440	149.1	-4.372	-2.6232

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.446	149.1	-6.4648	-3.87888

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.461	149.1	-11.6968	-7.01808

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.442	149.1	-5.0696	-3.04176

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.456	149.1	-9.9528	-5.97168

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.464	149.1	-12.7432	-7.64592

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.316	149.1	38.8792	23.32752

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.424	149.1	1.2088	0.72528

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.351	149.1	26.6712	16.00272

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.389	149.1	13.4168	8.05008

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.262	149.1	57.7144	34.62864

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.142	149.1	99.5704	59.74224

Job Number: 280-123959-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	144444443	mg/L	0.644 J r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	000000003	mg/L	0.59 U r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	666666666	mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	0.59 U r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	30 U r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	30 U r

RS# 7 Lab ID: **280-123959-A-4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		4.0096 mg/L	r
Carbonaceous Bioch		mg/L	r

RS# 8 Lab ID: **280-123959-A-5** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		2.1664 mg/L	r
Carbonaceous Bioch		mg/L	r

Job Number: 280-123960-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	144444443	mg/L	0.644 J r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	000000003	mg/L	0.59 U r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	366666666	mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	0.59 U r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	30 U r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	30 U r

RS# 9 Lab ID: **280-123960-A-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

Job Number: 280-123966-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		144444443 mg/L	r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		000000003 mg/L	r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		666666666 mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	r

Job Number: 280-123981-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	144444443	mg/L	0.644 J r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	000000003	mg/L	0.59 U r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	666666666	mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	0.59 U r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	30 U r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	30 U r

RS# 13 Lab ID: **280-123981-A-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 14 Lab ID: **280-123981-A-2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 15 Lab ID: **280-123981-B-3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 16 Lab ID: **280-123981-A-4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 17 Lab ID: **280-123981-B-5** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 18 Lab ID: **280-123981-A-6** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 19 Lab ID: **280-123981-B-7** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 20 Lab ID: **280-123981-A-8** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 21 Lab ID: **280-123981-B-9** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		1.5564 mg/L	1.9 J r
Carbonaceous Bioch		mg/L	r

Job Number: 280-123983-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	444444443	mg/L	0.644 J r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	000000003	mg/L	0.59 U r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	666666666	mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	0.59 U r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	30 U r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	30 U r

RS# 10 Lab ID: **280-123983-B-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		2.3764 mg/L	r
Carbonaceous Bioch		mg/L	r

RS# 11 Lab ID: **280-123983-A-2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		1.5864 mg/L	2.0 J r
Carbonaceous Bioch		mg/L	r

RS# 12 Lab ID: **280-123983-A-3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		5.0564 mg/L	r
Carbonaceous Bioch		mg/L	r

Shipping and Receiving Documents

Chain of Custody Record 317887

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Marcia Oliva	Site Contact:	Date: 5/17/19	COC No:
Company Name: Bhate Environmental	Tel/Fax: 303-725-7631	Lab Contact:	Carrier:	___ of ___ COCs
Address: 445 Union Blvd. #129	Analysis Turnaround Time			Sampler: H. Cavanagh, G. Carmichael
City/State/Zip: Lakewood, CO 80228	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 303-725-7631	TAT if different from Below			Walk-in Client:
Fax: EMAIL: molive@bhate.com	☐ 2 weeks			Lab Sampling:
Project Name: GRIFFIS	☐ 1 week			
Site: LF002 Landfill 2	☐ 2 days			Job / SDG No.:
PO # 3342	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Alkalinity [2320B]	Color [2120B]	Anions [9056A-28D-DOS]	Anions [9056A-48H-DOS]	Hardness [2340C]	Total Metal-Boron [6010C-DOS]	Ammonia [350.1]	TKN [351.2]	COD [410.4]	Toc [9060A]	Phenolics [9065]	BOD [SM5210B-Borosil]	TDS [2540c Calc]	Sample Specific Notes:
LF2SW-1-0519	5/17/19	13:30		SW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF2SW-2-0519	↓	13:55		SW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF2SW-3-0519	↓	13:30		SW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	

280-123983 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

IR9

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 0.7, 5.7 Corr'd: 0.7, 5.7 | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
H. Cavanagh	ECC	5/17/19 16:00		TA DEN	5-18-19 0900
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

06/17/2019

Login Sample Receipt Checklist

Client: Bhate Environmental

Job Number: 280-123983-1

Login Number: 123983
List Number: 1
Creator: Paul, Ryan D

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 280-123981-1

Job Description: Griffiss AFB, LF003 Landfill 7

For:
Bhate Environmental
445 Union Blvd Ste.129
Lakewood, CO 80226

Attention: Marcia Olive



Approved for release.
Kayse 1 Zalmai
Project Manager I
6/14/2019 3:46 PM

Kayse 1 Zalmai, Project Manager I
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
kayse.zalmai@testamericainc.com
06/14/2019

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Definitions/Glossary

Client: Bhate Environmental
Job ID: 280-123981-1
Project/Site: Griffiss AFB, LF003 Landfill 7

Qualifiers

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
H	Sample was prepped or analyzed beyond the specified holding time
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE
Client: Bhate Environmental
Project: Griffiss AFB, LF003 Landfill 7
Report Number: 280-123981-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interfererences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/18/2019; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.3º C, 1.8º C, 5.5º C, 5.6º C and 5.8º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for total metals (ICP) in accordance with 6010C. The samples were prepared on 05/28/2019 and analyzed on 05/29/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/30/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL KJELDAHL NITROGEN

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 06/06/2019 and analyzed on 06/07/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The samples were analyzed on 06/11/2019 and 06/12/2019.

The following samples were diluted due to the nature of the sample matrix: (280-123904-C-1), (280-123904-C-1 MS) and (280-123904-C-1 MSD). Elevated reporting limits (RLs) are provided.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AND ORTHOPHOSPHATE AS P

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for nitrate-nitrite and orthophosphate as P in accordance with 9056A_48H_DOD5. The samples were analyzed on 05/18/2019, 05/19/2019, 05/20/2019 and 05/21/2019.

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 280-458688 recovered outside control limits for the following analytes: orthophosphate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Nitrate failed the recovery criteria high for the MSD of sample LF7MW-23_0519MSD (280-123981-2) in batch 280-458688.

Orthophosphate as P failed the recovery criteria high for the MS and MSD of sample LF7MW-26_0519MS/MSD (280-123981-3) in batch 280-458776. Also, Orthophosphate as P exceeded the RPD limit. Sample matrix interference is suspected.

Orthophosphate as P failed the recovery criteria low for the MSD of sample LF7MW-28_0519MSD (280-123981-6) in batch 280-458776. Sample matrix interference is suspected.

Nitrate Nitrite as N exceeded the RPD limit for the duplicate of sample LF7MW-26_0519DU (280-123981-3). Sample non homogeneity is suspected.

The continuing calibration verification (CCV) associated with batch 280-458688 recovered above the upper control limit for orthophosphate, method 9056A_48HR, batch 458688. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), (CCV 280-458688/1) and (CCV 280-458688/17).

Reanalysis of the following samples were performed outside of the analytical holding time due to over-range results :LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFATE

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for sulfate in accordance with 9056A. The samples were analyzed on 05/18/2019, 05/19/2019, 05/20/2019 and 05/21/2019.

Fluoride was detected in method blank MB 280-458777/13 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

Bromide failed the recovery criteria high for the MS and MSD of sample LF7MW-26_0519MS (280-123981-3) in batch 280-458777. Sample matrix interference is suspected.

Sample LF7MW-22_0519 (280-123981-1)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 06/12/2019 and 06/13/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PHENOLICS, TOTAL RECOVERABLE

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for phenolics, total recoverable in accordance with EPA SW-846 Method 9066. The samples were prepared and analyzed on 06/06/2019.

Phenols, Total was detected in method blank MB 280-460749/2-A at a level was above the method detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

COLOR

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for color in accordance with SM20 2120B - Colorimetric. The samples were analyzed on 05/18/2019.

Sample LF7MW-22_0519 (280-123981-1)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for alkalinity in accordance with SM20 2320B. The samples were analyzed on 05/25/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HARDNESS

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for hardness in accordance with SM20 2340C. The samples were analyzed on 06/05/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 05/23/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND

Samples LF7MW-22_0519 (280-123981-1), LF7MW-23_0519 (280-123981-2), LF7MW-26_0519 (280-123981-3), LF7MW-26_0519-a (280-123981-4), LF7MW-27_0519 (280-123981-5), LF7MW-28_0519 (280-123981-6), LF7MW-30_0519 (280-123981-7), LF7WL-3_0519 (280-123981-8) and LF7WL-4_0519 (280-123981-9) were analyzed for Biochemical Oxygen Demand in accordance with SM20 5210B. The samples were analyzed on 05/18/2019.

Biochemical Oxygen Demand was detected in method blank SCB 280-458674/1 at a level that was above the method detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

The following samples in BOD batch 280-458674 were under depleted: (280-123966-D-1) and (280-123966-D-1 DU). Results have been reported and may be biased high. The sample was over diluted.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Bhate Environmental
Job ID: 280-123981-1
Project/Site: Griffiss AFB, LF003 Landfill 7

Client Sample ID: LF7MW-22_0519 — Lab Sample ID: 280-123981-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	190		100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.61		0.10	0.022	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	0.80	J	1.0	0.69	mg/L	1		351.2	Total/NA
Bromide	0.34	J	0.50	0.11	mg/L	1		9056A	Total/NA
Nitrate Nitrite as N	0.14	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	19		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.30	J Q	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.073	J	0.50	0.042	mg/L	1		9056A	Total/NA
Nitrite	0.063	J	0.50	0.049	mg/L	1		9056A	Total/NA
Sulfate	29		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	1.9		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.20		0.020	0.0068	mg/L	1		9066	Total/NA
Color	75	D	25	25	PCU	5		SM 2120B	Total/NA
Alkalinity	480		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	470		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	520		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF7MW-23_0519 — Lab Sample ID: 280-123981-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	17	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.22		0.10	0.022	mg/L	1		350.1	Total/NA
Chloride	4.3		3.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	0.071	J	1.0	0.060	mg/L	1		9056A	Total/NA
Sulfate	14		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	1.2		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.013	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	10		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	150		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	150		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	180		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF7MW-26_0519 — Lab Sample ID: 280-123981-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	8.2	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.11	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	1.4	J	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.43	J H J1	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.086	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.11	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	1.9	J	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	1.1		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.011	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	5.0		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	220		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	200		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	230		10	4.7	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Bhate Environmental
Job ID: 280-123981-1
Project/Site: Griffiss AFB, LF003 Landfill 7

Client Sample ID: LF7MW-26_0519-a
Lab Sample ID: 280-123981-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	8.7	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.052	J	0.50	0.042	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.85	H	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.071	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.052	J M	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	2.2	J	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	1.3		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.012	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	15		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	330		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	220		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	340		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF7MW-27_0519
Lab Sample ID: 280-123981-5

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	8.5	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.27	J	0.50	0.042	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.38	J H	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.089	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.27	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	2.1	J	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	2.4		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0099	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	15		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	170		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	150		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	180		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF7MW-28_0519
Lab Sample ID: 280-123981-6

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	52	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.032	J	0.10	0.022	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.11	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	2.1	J	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.58	H J1	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.084	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.11	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	2.0	J	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	1.3		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0099	J	0.020	0.0068	mg/L	1		9066	Total/NA
Alkalinity	240		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	310		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	250		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF7MW-30_0519
Lab Sample ID: 280-123981-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	5.9	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	1.3		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	5.5		3.0	1.0	mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF7MW-30_0519 (Continued)
Lab Sample ID: 280-123981-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Orthophosphate as P	0.44	J H	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.086	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	1.3		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	12		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	1.3		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.011	J	0.020	0.0068	mg/L	1		9066	Total/NA
Alkalinity	320		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	320		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	370		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF7WL-3_0519
Lab Sample ID: 280-123981-8

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	13	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.051	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	1.8	J	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.50	H	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.069	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.051	J M	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	1.9	J	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	4.9		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.010	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	30		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	200		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	190		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	220		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF7WL-4_0519
Lab Sample ID: 280-123981-9

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	42	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.050	J	0.50	0.042	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.48	J H	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.050	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	2.6	J	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	3.8		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0080	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	20		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	210		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	200		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	230		10	4.7	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	1.9	J	2.5	0.30	mg/L	1		SM5210B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF7MW-22_0519
Lab Sample ID: 280-123981-1

Date Collected: 05/17/19 12:25
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**190**		100	4.4	ug/L		05/28/19 18:00	05/29/19 12:10	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.61**		0.10	0.022	mg/L			05/30/19 13:40	1
Nitrogen, Kjeldahl	**0.80**	**J**	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:38	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/12/19 10:53	1
Bromide	**0.34**	**J**	0.50	0.11	mg/L			05/18/19 23:02	1
Nitrate Nitrite as N	**0.14**	**J**	0.50	0.042	mg/L			05/18/19 23:02	1
Chloride	**19**		3.0	1.0	mg/L			05/18/19 23:02	1
Orthophosphate as P	**0.30**	**J Q**	0.50	0.19	mg/L			05/18/19 23:02	1
Fluoride	0.50	U	5.0	0.30	mg/L			05/18/19 23:18	5
Nitrate	**0.073**	**J**	0.50	0.042	mg/L			05/18/19 23:02	1
Nitrite	**0.063**	**J**	0.50	0.049	mg/L			05/18/19 23:02	1
Sulfate	**29**		5.0	1.0	mg/L			05/18/19 23:02	1
Total Organic Carbon - Quad	**1.9**		1.0	0.16	mg/L			06/12/19 09:26	1
Phenols, Total	**0.20**		0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 20:14	1
Color	**75**	**D**	25	25	PCU			05/18/19 20:40	5
Alkalinity	**480**		10	3.1	mg/L			05/25/19 03:04	1
Hardness	**470**		3.0	0.30	mg/L			06/05/19 10:02	1
Total Dissolved Solids (TDS)	**520**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Client Sample ID: LF7MW-23_0519
Lab Sample ID: 280-123981-2

Date Collected: 05/17/19 09:50
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**17**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:13	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.22**		0.10	0.022	mg/L			05/30/19 13:42	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:43	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/11/19 09:08	1
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 21:56	1
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/18/19 21:56	1
Chloride	**4.3**		3.0	1.0	mg/L			05/18/19 21:56	1
Orthophosphate as P	0.20	U Q	0.50	0.19	mg/L			05/18/19 21:56	1
Fluoride	**0.071**	**J**	1.0	0.060	mg/L			05/20/19 22:40	1
Nitrate	0.10	U M J1	0.50	0.042	mg/L			05/18/19 21:56	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/18/19 21:56	1
Sulfate	**14**		5.0	1.0	mg/L			05/18/19 21:56	1
Total Organic Carbon - Quad	**1.2**		1.0	0.16	mg/L			06/12/19 09:48	1
Phenols, Total	**0.013**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 20:17	1
Color	**10**		5.0	5.0	PCU			05/18/19 20:40	1
Alkalinity	**150**		10	3.1	mg/L			05/25/19 02:50	1
Hardness	**150**		3.0	0.30	mg/L			06/05/19 10:02	1
Total Dissolved Solids (TDS)	**180**		10	4.7	mg/L			05/23/19 16:24	1

Client Sample ID: LF7MW-23_0519
Lab Sample ID: 280-123981-2
Date Collected: 05/17/19 09:50
Matrix: Water
Date Received: 05/18/19 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Client Sample ID: LF7MW-26_0519
Lab Sample ID: 280-123981-3
Date Collected: 05/17/19 10:55
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**8.2**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:15	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 13:44	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:40	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/11/19 09:08	1
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 23:35	1
Nitrate Nitrite as N	**0.11**	**J**	0.50	0.042	mg/L			05/18/19 23:35	1
Chloride	**1.4**	**J**	3.0	1.0	mg/L			05/18/19 23:35	1
Orthophosphate as P	**0.43**	**J H J1**	0.50	0.19	mg/L			05/20/19 23:29	1
Fluoride	**0.086**	**J**	1.0	0.060	mg/L			05/20/19 23:29	1
Nitrate	**0.11**	**J**	0.50	0.042	mg/L			05/18/19 23:35	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/18/19 23:35	1
Sulfate	**1.9**	**J**	5.0	1.0	mg/L			05/18/19 23:35	1
Total Organic Carbon - Quad	**1.1**		1.0	0.16	mg/L			06/12/19 10:05	1
Phenols, Total	**0.011**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 20:38	1
Color	**5.0**		5.0	5.0	PCU			05/18/19 20:40	1
Alkalinity	**220**		10	3.1	mg/L			05/25/19 01:59	1
Hardness	**200**		3.0	0.30	mg/L			06/05/19 10:02	1
Total Dissolved Solids (TDS)	**230**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Client Sample ID: LF7MW-26_0519-a
Lab Sample ID: 280-123981-4
Date Collected: 05/17/19 10:55
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**8.7**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:18	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 13:46	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:48	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/11/19 09:08	1
Bromide	0.20	U M	0.50	0.11	mg/L			05/18/19 23:51	1
Nitrate Nitrite as N	**0.052**	**J**	0.50	0.042	mg/L			05/18/19 23:51	1
Chloride	3.0	U	3.0	1.0	mg/L			05/18/19 23:51	1
Orthophosphate as P	**0.85**	**H**	0.50	0.19	mg/L			05/21/19 14:56	1
Fluoride	**0.071**	**J**	1.0	0.060	mg/L			05/21/19 14:56	1
Nitrate	**0.052**	**J M**	0.50	0.042	mg/L			05/18/19 23:51	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/18/19 23:51	1

Client Sample ID: LF7MW-26_0519-a
Lab Sample ID: 280-123981-4

Date Collected: 05/17/19 10:55
Matrix: Water
Date Received: 05/18/19 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2.2**	**J**	5.0	1.0	mg/L			05/18/19 23:51	1
Total Organic Carbon - Quad	**1.3**		1.0	0.16	mg/L			06/12/19 10:24	1
Phenols, Total	**0.012**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 20:41	1
Color	**15**		5.0	5.0	PCU			05/18/19 20:40	1
Alkalinity	**330**		10	3.1	mg/L			05/25/19 02:26	1
Hardness	**220**		3.0	0.30	mg/L			06/05/19 10:02	1
Total Dissolved Solids (TDS)	**340**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Client Sample ID: LF7MW-27_0519
Lab Sample ID: 280-123981-5

Date Collected: 05/17/19 09:45
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**8.5**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:20	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 14:00	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:50	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/11/19 09:08	1
Bromide	0.20	U	0.50	0.11	mg/L			05/19/19 00:08	1
Nitrate Nitrite as N	**0.27**	**J**	0.50	0.042	mg/L			05/19/19 00:08	1
Chloride	3.0	U	3.0	1.0	mg/L			05/19/19 00:08	1
Orthophosphate as P	**0.38**	**J H**	0.50	0.19	mg/L			05/21/19 15:12	1
Fluoride	**0.089**	**J**	1.0	0.060	mg/L			05/21/19 15:12	1
Nitrate	**0.27**	**J**	0.50	0.042	mg/L			05/19/19 00:08	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/19/19 00:08	1
Sulfate	**2.1**	**J**	5.0	1.0	mg/L			05/19/19 00:08	1
Total Organic Carbon - Quad	**2.4**		1.0	0.16	mg/L			06/12/19 10:43	1
Phenols, Total	**0.0099**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 20:44	1
Color	**15**		5.0	5.0	PCU			05/18/19 20:40	1
Alkalinity	**170**		10	3.1	mg/L			05/25/19 03:10	1
Hardness	**150**		3.0	0.30	mg/L			06/05/19 10:02	1
Total Dissolved Solids (TDS)	**180**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Client Sample ID: LF7MW-28_0519
Lab Sample ID: 280-123981-6

Date Collected: 05/17/19 11:05
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**52**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:34	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.032**	**J**	0.10	0.022	mg/L			05/30/19 14:02	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:51	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/11/19 09:08	1

Client Sample ID: LF7MW-28_0519
Lab Sample ID: 280-123981-6

Date Collected: 05/17/19 11:05
Matrix: Water
Date Received: 05/18/19 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/19/19 00:24	1
Nitrate Nitrite as N	**0.11**	**J**	0.50	0.042	mg/L			05/19/19 00:24	1
Chloride	**2.1**	**J**	3.0	1.0	mg/L			05/19/19 00:24	1
Orthophosphate as P	**0.58**	**H J1**	0.50	0.19	mg/L			05/21/19 15:29	1
Fluoride	**0.084**	**J**	1.0	0.060	mg/L			05/21/19 15:29	1
Nitrate	**0.11**	**J**	0.50	0.042	mg/L			05/19/19 00:24	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/19/19 00:24	1
Sulfate	**2.0**	**J**	5.0	1.0	mg/L			05/19/19 00:24	1
Total Organic Carbon - Quad	**1.3**		1.0	0.16	mg/L			06/13/19 01:43	1
Phenols, Total	**0.0099**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 20:47	1
Color	5.0	U	5.0	5.0	PCU			05/18/19 20:40	1
Alkalinity	**240**		10	3.1	mg/L			05/25/19 02:45	1
Hardness	**310**		3.0	0.30	mg/L			06/05/19 10:02	1
Total Dissolved Solids (TDS)	**250**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Client Sample ID: LF7MW-30_0519
Lab Sample ID: 280-123981-7

Date Collected: 05/17/19 12:15
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**5.9**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:37	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 14:04	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:52	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/11/19 09:08	1
Bromide	0.20	U	0.50	0.11	mg/L			05/19/19 01:13	1
Nitrate Nitrite as N	**1.3**		0.50	0.042	mg/L			05/19/19 01:13	1
Chloride	**5.5**		3.0	1.0	mg/L			05/19/19 01:13	1
Orthophosphate as P	**0.44**	**J H**	0.50	0.19	mg/L			05/21/19 17:07	1
Fluoride	**0.086**	**J**	1.0	0.060	mg/L			05/21/19 17:07	1
Nitrate	**1.3**		0.50	0.042	mg/L			05/19/19 01:13	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/19/19 01:13	1
Sulfate	**12**		5.0	1.0	mg/L			05/19/19 01:13	1
Total Organic Carbon - Quad	**1.3**		1.0	0.16	mg/L			06/13/19 02:04	1
Phenols, Total	**0.011**	**J**	0.020	0.0068	mg/L		06/06/19 17:53	06/06/19 21:03	1
Color	5.0	U	5.0	5.0	PCU			05/18/19 20:40	1
Alkalinity	**320**		10	3.1	mg/L			05/25/19 02:57	1
Hardness	**320**		3.0	0.30	mg/L			06/05/19 10:02	1
Total Dissolved Solids (TDS)	**370**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 14:32	1

Client Sample ID: LF7WL-3_0519
Lab Sample ID: 280-123981-8
Date Collected: 05/17/19 13:00
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**13**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:40	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 14:10	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:53	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/12/19 10:53	1
Bromide	0.20	U M	0.50	0.11	mg/L			05/19/19 01:30	1
Nitrate Nitrite as N	**0.051**	**J**	0.50	0.042	mg/L			05/19/19 01:30	1
Chloride	**1.8**	**J**	3.0	1.0	mg/L			05/19/19 01:30	1
Orthophosphate as P	**0.50**	**H**	0.50	0.19	mg/L			05/21/19 17:24	1
Fluoride	**0.069**	**J**	1.0	0.060	mg/L			05/21/19 17:24	1
Nitrate	**0.051**	**J M**	0.50	0.042	mg/L			05/19/19 01:30	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/19/19 01:30	1
Sulfate	**1.9**	**J**	5.0	1.0	mg/L			05/19/19 01:30	1
Total Organic Carbon - Quad	**4.9**		1.0	0.16	mg/L			06/13/19 02:56	1
Phenols, Total	**0.010**	**J**	0.020	0.0068	mg/L		06/06/19 17:53	06/06/19 21:06	1
Color	**30**		5.0	5.0	PCU			05/18/19 20:40	1
Alkalinity	**200**		10	3.1	mg/L			05/25/19 01:53	1
Hardness	**190**		3.0	0.30	mg/L			06/05/19 10:02	1
Total Dissolved Solids (TDS)	**220**		10	4.7	mg/L			05/23/19 16:24	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 14:32	1

Client Sample ID: LF7WL-4_0519
Lab Sample ID: 280-123981-9
Date Collected: 05/17/19 10:15
Matrix: Water
Date Received: 05/18/19 09:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**42**	**J**	100	4.4	ug/L		05/28/19 18:00	05/29/19 12:42	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 14:12	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:01	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/12/19 10:53	1
Bromide	0.20	U	0.50	0.11	mg/L			05/19/19 01:46	1
Nitrate Nitrite as N	**0.050**	**J**	0.50	0.042	mg/L			05/19/19 01:46	1
Chloride	3.0	U	3.0	1.0	mg/L			05/19/19 01:46	1
Orthophosphate as P	**0.48**	**J H**	0.50	0.19	mg/L			05/21/19 17:40	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/21/19 17:40	1
Nitrate	**0.050**	**J**	0.50	0.042	mg/L			05/19/19 01:46	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/19/19 01:46	1
Sulfate	**2.6**	**J**	5.0	1.0	mg/L			05/19/19 01:46	1
Total Organic Carbon - Quad	**3.8**		1.0	0.16	mg/L			06/13/19 03:49	1
Phenols, Total	**0.0080**	**J**	0.020	0.0068	mg/L		06/06/19 17:53	06/06/19 21:27	1
Color	**20**		5.0	5.0	PCU			05/18/19 20:40	1
Alkalinity	**210**		10	3.1	mg/L			05/25/19 02:39	1
Hardness	**200**		3.0	0.30	mg/L			06/05/19 10:02	1
Total Dissolved Solids (TDS)	**230**		10	4.7	mg/L			05/23/19 16:24	1

Client Sample ID: LF7WL-4_0519
Lab Sample ID: 280-123981-9

Date Collected: 05/17/19 10:15
Matrix: Water
Date Received: 05/18/19 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	1.9	J	2.5	0.30	mg/L			05/18/19 14:32	1

Default Detection Limits

Client: Bhate Environmental
Job ID: 280-123981-1
Project/Site: Griffiss AFB, LF003 Landfill 7

Method: 6010C - Metals (ICP)

Prep: 3010A

Analyte	LOQ	DL	Units
Boron	100	4.4	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Chemical Oxygen Demand (COD)	20	8.7	mg/L
Bromide	0.50	0.11	mg/L
Chloride	3.0	1.0	mg/L
Fluoride	1.0	0.060	mg/L
Nitrate	0.50	0.042	mg/L
Nitrate Nitrite as N	0.50	0.042	mg/L
Nitrite	0.50	0.049	mg/L
Orthophosphate as P	0.50	0.19	mg/L
Sulfate	5.0	1.0	mg/L
Total Organic Carbon - Quad	1.0	0.16	mg/L
Color	5.0	5.0	PCU
Alkalinity	10	3.1	mg/L
Hardness	3.0	0.30	mg/L
Total Dissolved Solids (TDS)	10	4.7	mg/L
Biochemical Oxygen Demand	2.0	0.24	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: Distill/Phenol

Analyte	LOQ	DL	Units
Phenols, Total	0.020	0.0068	mg/L

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-459132/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15	U	100	4.4	ug/L		05/28/19 18:00	05/29/19 11:30	1

Lab Sample ID: LCS 280-459132/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	957		ug/L		96	85 - 113

Lab Sample ID: LCSD 280-459132/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459798
Prep Batch: 459132

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	965		ug/L		97	85 - 113	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-459963/72
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 13:26	1

Lab Sample ID: LCS 280-459963/70
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.47		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-459963/71
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.47		mg/L		99	90 - 110	0	10

Lab Sample ID: 280-123981-7 MS
Client Sample ID: LF7MW-30_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.050	U	1.00	0.944		mg/L		94	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 280-123981-7 MSD
Client Sample ID: LF7MW-30_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.050	U	1.00	1.01		mg/L		101	90 - 110	7	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-460760/2-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460878
Prep Batch: 460760

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 17:17	1

Lab Sample ID: LCS 280-460760/1-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460878
Prep Batch: 460760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	6.00	5.70		mg/L		95	90 - 110

Lab Sample ID: 280-123981-2 MS
Client Sample ID: LF7MW-23_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460878
Prep Batch: 460760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	0.50	U	3.00	2.86		mg/L		95	90 - 110

Lab Sample ID: 280-123981-2 MSD
Client Sample ID: LF7MW-23_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460878
Prep Batch: 460760

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	0.50	U	3.00	2.88		mg/L		96	90 - 110	0	25

Method: 410.4 - COD

Lab Sample ID: MB 280-461121/5
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461121

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/11/19 09:08	1

Lab Sample ID: LCS 280-461121/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	91.6		mg/L		92	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: LCSD 280-461121/4
Matrix: Water
Analysis Batch: 461121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)			100	95.0		mg/L		95	90 - 110	4	11

Lab Sample ID: MB 280-461275/5
Matrix: Water
Analysis Batch: 461275

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/12/19 10:53	1

Lab Sample ID: LCS 280-461275/3
Matrix: Water
Analysis Batch: 461275

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)			100	95.3		mg/L		95	90 - 110

Lab Sample ID: LCSD 280-461275/4
Matrix: Water
Analysis Batch: 461275

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)			100	93.9		mg/L		94	90 - 110	1	11

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-458688/6
Matrix: Water
Analysis Batch: 458688

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/18/19 20:29	1
Orthophosphate as P	0.20	U Q	0.50	0.19	mg/L			05/18/19 20:29	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/18/19 20:29	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 20:29	1

Lab Sample ID: LCS 280-458688/4
Matrix: Water
Analysis Batch: 458688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N			10.0	10.5		mg/L		105	80 - 120
Orthophosphate as P			5.00	5.95	M Q	mg/L		119	80 - 116
Nitrate			5.00	5.40	M	mg/L		108	88 - 111
Nitrite			5.00	5.10	M	mg/L		102	87 - 111

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-458688/5
Matrix: Water
Analysis Batch: 458688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	10.5		mg/L		105	80 - 120	0	10
Orthophosphate as P	5.00	5.95	M Q	mg/L		119	80 - 116	0	10
Nitrate	5.00	5.39	M	mg/L		108	88 - 111	0	10
Nitrite	5.00	5.10	M	mg/L		102	87 - 111	0	10

Lab Sample ID: MRL 280-458688/3
Matrix: Water
Analysis Batch: 458688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.455	J	mg/L		114	50 - 150
Orthophosphate as P	0.200	0.242	J M	mg/L		121	50 - 150
Nitrate	0.200	0.234	J M	mg/L		117	50 - 150
Nitrite	0.200	0.221	J M	mg/L		111	50 - 150

Lab Sample ID: 280-123981-2 MS
Matrix: Water
Analysis Batch: 458688

Client Sample ID: LF7MW-23_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.10	U	10.0	10.7		mg/L		107	80 - 120
Orthophosphate as P	0.20	U Q	5.00	4.05	Q	mg/L		81	80 - 116
Nitrate	0.10	U M J1	5.00	5.52		mg/L		110	88 - 111
Nitrite	0.10	U M	5.00	5.20		mg/L		104	87 - 111

Lab Sample ID: 280-123981-2 MSD
Matrix: Water
Analysis Batch: 458688

Client Sample ID: LF7MW-23_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U	10.0	10.9		mg/L		109	80 - 120	1	10
Orthophosphate as P	0.20	U Q	5.00	4.13	Q	mg/L		83	80 - 116	2	10
Nitrate	0.10	U M J1	5.00	5.61	J1	mg/L		112	88 - 111	2	10
Nitrite	0.10	U M	5.00	5.24		mg/L		105	87 - 111	1	10

Lab Sample ID: 280-123981-2 DU
Matrix: Water
Analysis Batch: 458688

Client Sample ID: LF7MW-23_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U	0.10	U	mg/L		NC	10
Orthophosphate as P	0.20	U Q	0.20	U Q	mg/L		NC	10
Nitrate	0.10	U M J1	0.10	U M	mg/L		NC	10
Nitrite	0.10	U M	0.10	U M	mg/L		NC	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 280-458689/6
Matrix: Water
Analysis Batch: 458689

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 20:29	1
Chloride	3.0	U	3.0	1.0	mg/L			05/18/19 20:29	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/18/19 20:29	1

Lab Sample ID: LCS 280-458689/4
Matrix: Water
Analysis Batch: 458689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.32	M	mg/L		106	91 - 110
Chloride	100	101		mg/L		101	87 - 111
Sulfate	100	96.2	M	mg/L		96	87 - 112

Lab Sample ID: LCSD 280-458689/5
Matrix: Water
Analysis Batch: 458689

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.33	M	mg/L		107	91 - 110	0	10
Chloride	100	101		mg/L		101	87 - 111	0	10
Sulfate	100	96.3	M	mg/L		96	87 - 112	0	10

Lab Sample ID: MRL 280-458689/3
Matrix: Water
Analysis Batch: 458689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.214	J M	mg/L		107	50 - 150
Chloride	2.50	2.32	J	mg/L		93	50 - 150
Sulfate	2.50	2.33	J M	mg/L		93	50 - 150

Lab Sample ID: 280-123981-2 MS
Matrix: Water
Analysis Batch: 458689

Client Sample ID: LF7MW-23_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.20	U	5.00	5.41		mg/L		108	91 - 110
Chloride	4.3		25.0	26.8		mg/L		90	87 - 111
Sulfate	14		25.0	35.7		mg/L		88	87 - 112

Lab Sample ID: 280-123981-2 MSD
Matrix: Water
Analysis Batch: 458689

Client Sample ID: LF7MW-23_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.20	U	5.00	5.50		mg/L		110	91 - 110	2	10
Chloride	4.3		25.0	27.1		mg/L		91	87 - 111	1	10
Sulfate	14		25.0	36.4		mg/L		90	87 - 112	2	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123981-2 DU
Matrix: Water
Analysis Batch: 458689

Client Sample ID: LF7MW-23_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.20	U	0.20	U	mg/L		NC	10
Chloride	4.3		4.31		mg/L		0.5	10
Sulfate	14		13.8		mg/L		0.09	10

Lab Sample ID: MB 280-458776/13
Matrix: Water
Analysis Batch: 458776

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/20/19 18:31	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			05/20/19 18:31	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/20/19 18:31	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/20/19 18:31	1

Lab Sample ID: LCS 280-458776/11
Matrix: Water
Analysis Batch: 458776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	10.0	9.64		mg/L		96	80 - 120
Orthophosphate as P	5.00	4.88		mg/L		98	80 - 116
Nitrate	5.00	4.80		mg/L		96	88 - 111
Nitrite	5.00	4.84		mg/L		97	87 - 111

Lab Sample ID: LCSD 280-458776/12
Matrix: Water
Analysis Batch: 458776

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	9.62		mg/L		96	80 - 120	0	10
Orthophosphate as P	5.00	4.86		mg/L		97	80 - 116	0	10
Nitrate	5.00	4.79		mg/L		96	88 - 111	0	10
Nitrite	5.00	4.83		mg/L		97	87 - 111	0	10

Lab Sample ID: MRL 280-458776/10
Matrix: Water
Analysis Batch: 458776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.443	J	mg/L		111	50 - 150
Orthophosphate as P	0.200	0.20	U	mg/L		84	50 - 150
Nitrate	0.200	0.225	J	mg/L		112	50 - 150
Nitrite	0.200	0.218	J	mg/L		109	50 - 150

Lab Sample ID: 280-123981-3 MS
Matrix: Water
Analysis Batch: 458776

Client Sample ID: LF7MW-26_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.16	J H	10.0	10.9		mg/L		107	80 - 120

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123981-3 MS
Client Sample ID: LF7MW-26_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458776

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Orthophosphate as P	0.43	H J1	5.00	9.96	J1	mg/L		191	80 - 116
Nitrate	0.16	J H	5.00	5.47		mg/L		106	88 - 111
Nitrite	0.10	U H	5.00	5.38		mg/L		108	87 - 111

Lab Sample ID: 280-123981-3 MSD
Client Sample ID: LF7MW-26_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458776

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.16	J H	10.0	11.1		mg/L		109	80 - 120	2	10
Orthophosphate as P	0.43	H J1	5.00	8.90	J1	mg/L		169	80 - 116	11	10
Nitrate	0.16	J H	5.00	5.57		mg/L		108	88 - 111	2	10
Nitrite	0.10	U H	5.00	5.49		mg/L		110	87 - 111	2	10

Lab Sample ID: 280-123981-6 MS
Client Sample ID: LF7MW-28_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458776

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.16	J H	10.0	10.7		mg/L		106	80 - 120
Orthophosphate as P	0.58	H J1	5.00	4.79		mg/L		84	80 - 116
Nitrate	0.16	J H	5.00	5.41		mg/L		105	88 - 111
Nitrite	0.10	U H	5.00	5.33		mg/L		107	87 - 111

Lab Sample ID: 280-123981-6 MSD
Client Sample ID: LF7MW-28_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458776

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.16	J H	10.0	10.9		mg/L		108	80 - 120	2	10
Orthophosphate as P	0.58	H J1	5.00	4.54	J1	mg/L		79	80 - 116	5	10
Nitrate	0.16	J H	5.00	5.50		mg/L		107	88 - 111	2	10
Nitrite	0.10	U H	5.00	5.44		mg/L		109	87 - 111	2	10

Lab Sample ID: 280-123981-3 DU
Client Sample ID: LF7MW-26_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458776

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.16	J H	0.182	J	mg/L		13	10
Orthophosphate as P	0.43	H J1	0.429	J	mg/L		0.05	10
Nitrate	0.16	J H	0.182	J	mg/L		10	10
Nitrite	0.10	U H	0.10	U	mg/L		NC	10

Lab Sample ID: 280-123981-6 DU
Client Sample ID: LF7MW-28_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458776

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.16	J H	0.154	J	mg/L		4	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123981-6 DU
Client Sample ID: LF7MW-28_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458776

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Orthophosphate as P	0.58	H J1	0.569		mg/L		1	10
Nitrate	0.16	J H	0.154	J	mg/L		2	10
Nitrite	0.10	U H	0.10	U	mg/L		NC	10

Lab Sample ID: MB 280-458777/13
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458777

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/20/19 18:31	1
Chloride	3.0	U	3.0	1.0	mg/L			05/20/19 18:31	1
Fluoride	0.126	J	1.0	0.060	mg/L			05/20/19 18:31	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/20/19 18:31	1

Lab Sample ID: LCS 280-458777/11
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.94		mg/L		99	91 - 110
Chloride	100	97.9		mg/L		98	87 - 111
Fluoride	5.00	4.86		mg/L		97	88 - 112
Sulfate	100	96.8		mg/L		97	87 - 112

Lab Sample ID: LCSD 280-458777/12
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458777

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.92		mg/L		98	91 - 110	0	10
Chloride	100	97.6		mg/L		98	87 - 111	0	10
Fluoride	5.00	4.80		mg/L		96	88 - 112	1	10
Sulfate	100	96.6		mg/L		97	87 - 112	0	10

Lab Sample ID: MRL 280-458777/10
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458777

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.206	J	mg/L		103	50 - 150
Chloride	2.50	2.32	J	mg/L		93	50 - 150
Fluoride	0.200	0.215	J	mg/L		108	50 - 150
Sulfate	2.50	2.39	J	mg/L		96	50 - 150

Lab Sample ID: 280-123981-3 MS
Client Sample ID: LF7MW-26_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.20	U J1	5.00	5.53	J1	mg/L		111	91 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123981-3 MS — **Client Sample ID: LF7MW-26_0519**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 458777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.5	J	25.0	25.7		mg/L		97	87 - 111
Fluoride	0.086	J	5.00	5.23		mg/L		103	88 - 112
Sulfate	2.0	J	25.0	26.4		mg/L		98	87 - 112

Lab Sample ID: 280-123981-3 MSD — **Client Sample ID: LF7MW-26_0519**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 458777

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.20	U J1	5.00	5.66	J1	mg/L		113	91 - 110	2	10
Chloride	1.5	J	25.0	26.3		mg/L		99	87 - 111	2	10
Fluoride	0.086	J	5.00	5.29		mg/L		104	88 - 112	1	10
Sulfate	2.0	J	25.0	27.2		mg/L		101	87 - 112	3	10

Lab Sample ID: 280-123981-6 MS — **Client Sample ID: LF7MW-28_0519**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 458777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.17	J	5.00	5.48		mg/L		106	91 - 110
Chloride	2.2	J	25.0	26.4		mg/L		97	87 - 111
Fluoride	0.084	J	5.00	5.00		mg/L		98	88 - 112
Sulfate	2.3	J	25.0	27.0		mg/L		99	87 - 112

Lab Sample ID: 280-123981-6 MSD — **Client Sample ID: LF7MW-28_0519**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 458777

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.17	J	5.00	5.60		mg/L		109	91 - 110	2	10
Chloride	2.2	J	25.0	26.8		mg/L		98	87 - 111	2	10
Fluoride	0.084	J	5.00	5.07		mg/L		100	88 - 112	2	10
Sulfate	2.3	J	25.0	27.5		mg/L		101	87 - 112	2	10

Lab Sample ID: 280-123981-3 DU — **Client Sample ID: LF7MW-26_0519**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 458777

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.20	U J1	0.20	U	mg/L		NC	10
Chloride	1.5	J	1.44	J	mg/L		1	10
Fluoride	0.086	J	0.0927	J	mg/L		8	10
Sulfate	2.0	J	1.97	J	mg/L		0.3	10

Lab Sample ID: 280-123981-6 DU — **Client Sample ID: LF7MW-28_0519**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 458777

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.17	J	0.20	U	mg/L		NC	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123981-6 DU
Client Sample ID: LF7MW-28_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458777

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	2.2	J	2.23	J	mg/L		0.8	10
Fluoride	0.084	J	0.0851	J	mg/L		0.8	10
Sulfate	2.3	J	2.25	J	mg/L		2	10

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-461295/35
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461295

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/12/19 02:56	1

Lab Sample ID: LCS 280-461295/34
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461295

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	25.4		mg/L		102	88 - 112

Lab Sample ID: MB 280-461430/35
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461430

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/13/19 01:04	1

Lab Sample ID: LCS 280-461430/34
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	26.1		mg/L		104	88 - 112

Lab Sample ID: 280-123981-8 MS
Client Sample ID: LF7WL-3_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461430

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	4.9		25.0	30.9		mg/L		104	88 - 112

Lab Sample ID: 280-123981-8 MSD
Client Sample ID: LF7WL-3_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 461430

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	4.9		25.0	31.7		mg/L		107	88 - 112	2	15

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 280-460735/2-A
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460735

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 19:05	1

Lab Sample ID: LCS 280-460735/1-A
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.201		mg/L		100	90 - 110

Lab Sample ID: 280-123981-6 MS
Matrix: Water
Analysis Batch: 460772

Client Sample ID: LF7MW-28_0519
Prep Type: Total/NA
Prep Batch: 460735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.0099	J	0.201	0.206		mg/L		97	72 - 118

Lab Sample ID: 280-123981-6 MSD
Matrix: Water
Analysis Batch: 460772

Client Sample ID: LF7MW-28_0519
Prep Type: Total/NA
Prep Batch: 460735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenols, Total	0.0099	J	0.201	0.207		mg/L		98	72 - 118	1	16

Lab Sample ID: MB 280-460749/2-A
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460749

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.00830	J	0.020	0.0068	mg/L		06/06/19 17:53	06/06/19 21:00	1

Lab Sample ID: LCS 280-460749/1-A
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.208		mg/L		103	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-458692/1
Matrix: Water
Analysis Batch: 458692

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0	U	5.0	5.0	PCU			05/18/19 20:40	1

Method: SM 2120B - Color, Colorimetric (Continued)

Lab Sample ID: 280-123981-1 DU
Matrix: Water
Analysis Batch: 458692

Client Sample ID: LF7MW-22_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Color	75	D		75.0	D	PCU				0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-459576/57
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/24/19 23:23	1

Lab Sample ID: MB 280-459576/83
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/25/19 02:19	1

Lab Sample ID: LCS 280-459576/56
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			200	202		mg/L		101	89 - 109		

Lab Sample ID: LCS 280-459576/82
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			200	200		mg/L		100	89 - 109		

Lab Sample ID: 280-123981-4 DU
Matrix: Water
Analysis Batch: 459576

Client Sample ID: LF7MW-26_0519-a
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	330			337		mg/L				1	10

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 280-460544/2
Matrix: Water
Analysis Batch: 460544

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness	0.81	U	3.0	0.30	mg/L			06/05/19 10:02	1

Method: SM 2340C - Hardness, Total (mg/l as CaC03) (Continued)

Lab Sample ID: LCS 280-460544/1
Matrix: Water
Analysis Batch: 460544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness			398	397		mg/L		100	90 - 110		

Lab Sample ID: 280-123981-1 MS
Matrix: Water
Analysis Batch: 460544

Client Sample ID: LF7MW-22_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness	470		398	875		mg/L		100	90 - 110		

Lab Sample ID: 280-123981-1 MSD
Matrix: Water
Analysis Batch: 460544

Client Sample ID: LF7MW-22_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hardness	470		398	868		mg/L		99	90 - 110	1	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-459268/1
Matrix: Water
Analysis Batch: 459268

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			05/23/19 16:24	1

Lab Sample ID: LCS 280-459268/2
Matrix: Water
Analysis Batch: 459268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids (TDS)			500	503		mg/L		101	93 - 110		

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-458674/4
Matrix: Water
Analysis Batch: 458674

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Lab Sample ID: SCB 280-458674/1
Matrix: Water
Analysis Batch: 458674

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.644	J	2.0	0.24	mg/L			05/18/19 13:59	1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: USB 280-458674/2
Matrix: Water
Analysis Batch: 458674

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/18/19 13:59	1

Lab Sample ID: LCS 280-458674/3
Matrix: Water
Analysis Batch: 458674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	205		mg/L		104	85 - 115		

Metals

Prep Batch: 459132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	3010A	
280-123981-2	LF7MW-23_0519	Total/NA	Water	3010A	
280-123981-3	LF7MW-26_0519	Total/NA	Water	3010A	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	3010A	
280-123981-5	LF7MW-27_0519	Total/NA	Water	3010A	
280-123981-6	LF7MW-28_0519	Total/NA	Water	3010A	
280-123981-7	LF7MW-30_0519	Total/NA	Water	3010A	
280-123981-8	LF7WL-3_0519	Total/NA	Water	3010A	
280-123981-9	LF7WL-4_0519	Total/NA	Water	3010A	
MB 280-459132/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-459132/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-459132/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 459798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	6010C	459132
280-123981-2	LF7MW-23_0519	Total/NA	Water	6010C	459132
280-123981-3	LF7MW-26_0519	Total/NA	Water	6010C	459132
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	6010C	459132
280-123981-5	LF7MW-27_0519	Total/NA	Water	6010C	459132
280-123981-6	LF7MW-28_0519	Total/NA	Water	6010C	459132
280-123981-7	LF7MW-30_0519	Total/NA	Water	6010C	459132
280-123981-8	LF7WL-3_0519	Total/NA	Water	6010C	459132
280-123981-9	LF7WL-4_0519	Total/NA	Water	6010C	459132
MB 280-459132/1-A	Method Blank	Total/NA	Water	6010C	459132
LCS 280-459132/2-A	Lab Control Sample	Total/NA	Water	6010C	459132
LCSD 280-459132/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	459132

General Chemistry

Analysis Batch: 458674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	SM5210B	
280-123981-2	LF7MW-23_0519	Total/NA	Water	SM5210B	
280-123981-3	LF7MW-26_0519	Total/NA	Water	SM5210B	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	SM5210B	
280-123981-5	LF7MW-27_0519	Total/NA	Water	SM5210B	
280-123981-6	LF7MW-28_0519	Total/NA	Water	SM5210B	
280-123981-7	LF7MW-30_0519	Total/NA	Water	SM5210B	
280-123981-8	LF7WL-3_0519	Total/NA	Water	SM5210B	
280-123981-9	LF7WL-4_0519	Total/NA	Water	SM5210B	
MB 280-458674/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-458674/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-458674/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-458674/3	Lab Control Sample	Total/NA	Water	SM5210B	

Analysis Batch: 458688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	9056A	
280-123981-2	LF7MW-23_0519	Total/NA	Water	9056A	
280-123981-3	LF7MW-26_0519	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 458688 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	9056A	
280-123981-5	LF7MW-27_0519	Total/NA	Water	9056A	
280-123981-6	LF7MW-28_0519	Total/NA	Water	9056A	
280-123981-7	LF7MW-30_0519	Total/NA	Water	9056A	
280-123981-8	LF7WL-3_0519	Total/NA	Water	9056A	
280-123981-9	LF7WL-4_0519	Total/NA	Water	9056A	
MB 280-458688/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458688/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458688/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458688/3	Lab Control Sample	Total/NA	Water	9056A	
280-123981-2 MS	LF7MW-23_0519	Total/NA	Water	9056A	
280-123981-2 MSD	LF7MW-23_0519	Total/NA	Water	9056A	
280-123981-2 DU	LF7MW-23_0519	Total/NA	Water	9056A	

Analysis Batch: 458689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	9056A	
280-123981-1	LF7MW-22_0519	Total/NA	Water	9056A	
280-123981-2	LF7MW-23_0519	Total/NA	Water	9056A	
280-123981-3	LF7MW-26_0519	Total/NA	Water	9056A	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	9056A	
280-123981-5	LF7MW-27_0519	Total/NA	Water	9056A	
280-123981-6	LF7MW-28_0519	Total/NA	Water	9056A	
280-123981-7	LF7MW-30_0519	Total/NA	Water	9056A	
280-123981-8	LF7WL-3_0519	Total/NA	Water	9056A	
280-123981-9	LF7WL-4_0519	Total/NA	Water	9056A	
MB 280-458689/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458689/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458689/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458689/3	Lab Control Sample	Total/NA	Water	9056A	
280-123981-2 MS	LF7MW-23_0519	Total/NA	Water	9056A	
280-123981-2 MSD	LF7MW-23_0519	Total/NA	Water	9056A	
280-123981-2 DU	LF7MW-23_0519	Total/NA	Water	9056A	

Analysis Batch: 458692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	SM 2120B	
280-123981-2	LF7MW-23_0519	Total/NA	Water	SM 2120B	
280-123981-3	LF7MW-26_0519	Total/NA	Water	SM 2120B	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	SM 2120B	
280-123981-5	LF7MW-27_0519	Total/NA	Water	SM 2120B	
280-123981-6	LF7MW-28_0519	Total/NA	Water	SM 2120B	
280-123981-7	LF7MW-30_0519	Total/NA	Water	SM 2120B	
280-123981-8	LF7WL-3_0519	Total/NA	Water	SM 2120B	
280-123981-9	LF7WL-4_0519	Total/NA	Water	SM 2120B	
MB 280-458692/1	Method Blank	Total/NA	Water	SM 2120B	
280-123981-1 DU	LF7MW-22_0519	Total/NA	Water	SM 2120B	

Analysis Batch: 458776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-3	LF7MW-26_0519	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 458776 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	9056A	
280-123981-5	LF7MW-27_0519	Total/NA	Water	9056A	
280-123981-6	LF7MW-28_0519	Total/NA	Water	9056A	
280-123981-7	LF7MW-30_0519	Total/NA	Water	9056A	
280-123981-8	LF7WL-3_0519	Total/NA	Water	9056A	
280-123981-9	LF7WL-4_0519	Total/NA	Water	9056A	
MB 280-458776/13	Method Blank	Total/NA	Water	9056A	
LCS 280-458776/11	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458776/12	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458776/10	Lab Control Sample	Total/NA	Water	9056A	
280-123981-3 MS	LF7MW-26_0519	Total/NA	Water	9056A	
280-123981-3 MSD	LF7MW-26_0519	Total/NA	Water	9056A	
280-123981-6 MS	LF7MW-28_0519	Total/NA	Water	9056A	
280-123981-6 MSD	LF7MW-28_0519	Total/NA	Water	9056A	
280-123981-3 DU	LF7MW-26_0519	Total/NA	Water	9056A	
280-123981-6 DU	LF7MW-28_0519	Total/NA	Water	9056A	

Analysis Batch: 458777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-2	LF7MW-23_0519	Total/NA	Water	9056A	
280-123981-3	LF7MW-26_0519	Total/NA	Water	9056A	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	9056A	
280-123981-5	LF7MW-27_0519	Total/NA	Water	9056A	
280-123981-6	LF7MW-28_0519	Total/NA	Water	9056A	
280-123981-7	LF7MW-30_0519	Total/NA	Water	9056A	
280-123981-8	LF7WL-3_0519	Total/NA	Water	9056A	
280-123981-9	LF7WL-4_0519	Total/NA	Water	9056A	
MB 280-458777/13	Method Blank	Total/NA	Water	9056A	
LCS 280-458777/11	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458777/12	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458777/10	Lab Control Sample	Total/NA	Water	9056A	
280-123981-3 MS	LF7MW-26_0519	Total/NA	Water	9056A	
280-123981-3 MSD	LF7MW-26_0519	Total/NA	Water	9056A	
280-123981-6 MS	LF7MW-28_0519	Total/NA	Water	9056A	
280-123981-6 MSD	LF7MW-28_0519	Total/NA	Water	9056A	
280-123981-3 DU	LF7MW-26_0519	Total/NA	Water	9056A	
280-123981-6 DU	LF7MW-28_0519	Total/NA	Water	9056A	

Analysis Batch: 459268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	SM 2540C	
280-123981-2	LF7MW-23_0519	Total/NA	Water	SM 2540C	
280-123981-3	LF7MW-26_0519	Total/NA	Water	SM 2540C	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	SM 2540C	
280-123981-5	LF7MW-27_0519	Total/NA	Water	SM 2540C	
280-123981-6	LF7MW-28_0519	Total/NA	Water	SM 2540C	
280-123981-7	LF7MW-30_0519	Total/NA	Water	SM 2540C	
280-123981-8	LF7WL-3_0519	Total/NA	Water	SM 2540C	
280-123981-9	LF7WL-4_0519	Total/NA	Water	SM 2540C	
MB 280-459268/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-459268/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 459576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	SM 2320B	
280-123981-2	LF7MW-23_0519	Total/NA	Water	SM 2320B	
280-123981-3	LF7MW-26_0519	Total/NA	Water	SM 2320B	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	SM 2320B	
280-123981-5	LF7MW-27_0519	Total/NA	Water	SM 2320B	
280-123981-6	LF7MW-28_0519	Total/NA	Water	SM 2320B	
280-123981-7	LF7MW-30_0519	Total/NA	Water	SM 2320B	
280-123981-8	LF7WL-3_0519	Total/NA	Water	SM 2320B	
280-123981-9	LF7WL-4_0519	Total/NA	Water	SM 2320B	
MB 280-459576/57	Method Blank	Total/NA	Water	SM 2320B	
MB 280-459576/83	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-459576/56	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 280-459576/82	Lab Control Sample	Total/NA	Water	SM 2320B	
280-123981-4 DU	LF7MW-26_0519-a	Total/NA	Water	SM 2320B	

Analysis Batch: 459963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	350.1	
280-123981-2	LF7MW-23_0519	Total/NA	Water	350.1	
280-123981-3	LF7MW-26_0519	Total/NA	Water	350.1	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	350.1	
280-123981-5	LF7MW-27_0519	Total/NA	Water	350.1	
280-123981-6	LF7MW-28_0519	Total/NA	Water	350.1	
280-123981-7	LF7MW-30_0519	Total/NA	Water	350.1	
280-123981-8	LF7WL-3_0519	Total/NA	Water	350.1	
280-123981-9	LF7WL-4_0519	Total/NA	Water	350.1	
MB 280-459963/72	Method Blank	Total/NA	Water	350.1	
LCS 280-459963/70	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-459963/71	Lab Control Sample Dup	Total/NA	Water	350.1	
280-123981-7 MS	LF7MW-30_0519	Total/NA	Water	350.1	
280-123981-7 MSD	LF7MW-30_0519	Total/NA	Water	350.1	

Analysis Batch: 460544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	SM 2340C	
280-123981-2	LF7MW-23_0519	Total/NA	Water	SM 2340C	
280-123981-3	LF7MW-26_0519	Total/NA	Water	SM 2340C	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	SM 2340C	
280-123981-5	LF7MW-27_0519	Total/NA	Water	SM 2340C	
280-123981-6	LF7MW-28_0519	Total/NA	Water	SM 2340C	
280-123981-7	LF7MW-30_0519	Total/NA	Water	SM 2340C	
280-123981-8	LF7WL-3_0519	Total/NA	Water	SM 2340C	
280-123981-9	LF7WL-4_0519	Total/NA	Water	SM 2340C	
MB 280-460544/2	Method Blank	Total/NA	Water	SM 2340C	
LCS 280-460544/1	Lab Control Sample	Total/NA	Water	SM 2340C	
280-123981-1 MS	LF7MW-22_0519	Total/NA	Water	SM 2340C	
280-123981-1 MSD	LF7MW-22_0519	Total/NA	Water	SM 2340C	

Prep Batch: 460735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	Distill/Phenol	

General Chemistry (Continued)

Prep Batch: 460735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-2	LF7MW-23_0519	Total/NA	Water	Distill/Phenol	
280-123981-3	LF7MW-26_0519	Total/NA	Water	Distill/Phenol	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	Distill/Phenol	
280-123981-5	LF7MW-27_0519	Total/NA	Water	Distill/Phenol	
280-123981-6	LF7MW-28_0519	Total/NA	Water	Distill/Phenol	
MB 280-460735/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460735/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
280-123981-6 MS	LF7MW-28_0519	Total/NA	Water	Distill/Phenol	
280-123981-6 MSD	LF7MW-28_0519	Total/NA	Water	Distill/Phenol	

Prep Batch: 460749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-7	LF7MW-30_0519	Total/NA	Water	Distill/Phenol	
280-123981-8	LF7WL-3_0519	Total/NA	Water	Distill/Phenol	
280-123981-9	LF7WL-4_0519	Total/NA	Water	Distill/Phenol	
MB 280-460749/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460749/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Prep Batch: 460760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	351.2	
280-123981-2	LF7MW-23_0519	Total/NA	Water	351.2	
280-123981-3	LF7MW-26_0519	Total/NA	Water	351.2	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	351.2	
280-123981-5	LF7MW-27_0519	Total/NA	Water	351.2	
280-123981-6	LF7MW-28_0519	Total/NA	Water	351.2	
280-123981-7	LF7MW-30_0519	Total/NA	Water	351.2	
280-123981-8	LF7WL-3_0519	Total/NA	Water	351.2	
280-123981-9	LF7WL-4_0519	Total/NA	Water	351.2	
MB 280-460760/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-460760/1-A	Lab Control Sample	Total/NA	Water	351.2	
280-123981-2 MS	LF7MW-23_0519	Total/NA	Water	351.2	
280-123981-2 MSD	LF7MW-23_0519	Total/NA	Water	351.2	

Analysis Batch: 460772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	9066	460735
280-123981-2	LF7MW-23_0519	Total/NA	Water	9066	460735
280-123981-3	LF7MW-26_0519	Total/NA	Water	9066	460735
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	9066	460735
280-123981-5	LF7MW-27_0519	Total/NA	Water	9066	460735
280-123981-6	LF7MW-28_0519	Total/NA	Water	9066	460735
280-123981-7	LF7MW-30_0519	Total/NA	Water	9066	460749
280-123981-8	LF7WL-3_0519	Total/NA	Water	9066	460749
280-123981-9	LF7WL-4_0519	Total/NA	Water	9066	460749
MB 280-460735/2-A	Method Blank	Total/NA	Water	9066	460735
MB 280-460749/2-A	Method Blank	Total/NA	Water	9066	460749
LCS 280-460735/1-A	Lab Control Sample	Total/NA	Water	9066	460735
LCS 280-460749/1-A	Lab Control Sample	Total/NA	Water	9066	460749
280-123981-6 MS	LF7MW-28_0519	Total/NA	Water	9066	460735
280-123981-6 MSD	LF7MW-28_0519	Total/NA	Water	9066	460735

General Chemistry

Analysis Batch: 460878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	351.2	460760
280-123981-2	LF7MW-23_0519	Total/NA	Water	351.2	460760
280-123981-3	LF7MW-26_0519	Total/NA	Water	351.2	460760
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	351.2	460760
280-123981-5	LF7MW-27_0519	Total/NA	Water	351.2	460760
280-123981-6	LF7MW-28_0519	Total/NA	Water	351.2	460760
280-123981-7	LF7MW-30_0519	Total/NA	Water	351.2	460760
280-123981-8	LF7WL-3_0519	Total/NA	Water	351.2	460760
280-123981-9	LF7WL-4_0519	Total/NA	Water	351.2	460760
MB 280-460760/2-A	Method Blank	Total/NA	Water	351.2	460760
LCS 280-460760/1-A	Lab Control Sample	Total/NA	Water	351.2	460760
280-123981-2 MS	LF7MW-23_0519	Total/NA	Water	351.2	460760
280-123981-2 MSD	LF7MW-23_0519	Total/NA	Water	351.2	460760

Analysis Batch: 461121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-2	LF7MW-23_0519	Total/NA	Water	410.4	
280-123981-3	LF7MW-26_0519	Total/NA	Water	410.4	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	410.4	
280-123981-5	LF7MW-27_0519	Total/NA	Water	410.4	
280-123981-6	LF7MW-28_0519	Total/NA	Water	410.4	
280-123981-7	LF7MW-30_0519	Total/NA	Water	410.4	
MB 280-461121/5	Method Blank	Total/NA	Water	410.4	
LCS 280-461121/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-461121/4	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 461275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	410.4	
280-123981-8	LF7WL-3_0519	Total/NA	Water	410.4	
280-123981-9	LF7WL-4_0519	Total/NA	Water	410.4	
MB 280-461275/5	Method Blank	Total/NA	Water	410.4	
LCS 280-461275/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-461275/4	Lab Control Sample Dup	Total/NA	Water	410.4	

Analysis Batch: 461295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-1	LF7MW-22_0519	Total/NA	Water	9060A	
280-123981-2	LF7MW-23_0519	Total/NA	Water	9060A	
280-123981-3	LF7MW-26_0519	Total/NA	Water	9060A	
280-123981-4	LF7MW-26_0519-a	Total/NA	Water	9060A	
280-123981-5	LF7MW-27_0519	Total/NA	Water	9060A	
MB 280-461295/35	Method Blank	Total/NA	Water	9060A	
LCS 280-461295/34	Lab Control Sample	Total/NA	Water	9060A	

Analysis Batch: 461430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123981-6	LF7MW-28_0519	Total/NA	Water	9060A	
280-123981-7	LF7MW-30_0519	Total/NA	Water	9060A	
280-123981-8	LF7WL-3_0519	Total/NA	Water	9060A	
280-123981-9	LF7WL-4_0519	Total/NA	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 461430 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-461430/35	Method Blank	Total/NA	Water	9060A	
LCS 280-461430/34	Lab Control Sample	Total/NA	Water	9060A	
280-123981-8 MS	LF7WL-3_0519	Total/NA	Water	9060A	
280-123981-8 MSD	LF7WL-3_0519	Total/NA	Water	9060A	

Client Sample ID: LF7MW-22_0519
Lab Sample ID: 280-123981-1

Date Collected: 05/17/19 12:25
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:10	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:40	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 17:38	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461275	06/12/19 10:53	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/18/19 23:02	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/18/19 23:02	TLP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458689	05/18/19 23:18	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 09:26	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 20:14	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		5	10 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 03:04	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	460544	06/05/19 10:02	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 13:59	KES	TAL DEN

Client Sample ID: LF7MW-23_0519
Lab Sample ID: 280-123981-2

Date Collected: 05/17/19 09:50
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:13	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:42	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 17:43	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461121	06/11/19 09:08	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/18/19 21:56	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/18/19 21:56	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/20/19 22:40	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 09:48	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 20:17	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 02:50	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	460544	06/05/19 10:02	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 13:59	KES	TAL DEN

Client Sample ID: LF7MW-26_0519
Lab Sample ID: 280-123981-3

Date Collected: 05/17/19 10:55
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:15	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:44	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 17:40	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461121	06/11/19 09:08	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/18/19 23:35	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/18/19 23:35	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458776	05/20/19 23:29	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/20/19 23:29	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 10:05	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 20:38	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 01:59	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	460544	06/05/19 10:02	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 13:59	KES	TAL DEN

Client Sample ID: LF7MW-26_0519-a
Lab Sample ID: 280-123981-4

Date Collected: 05/17/19 10:55
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:18	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:46	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 17:48	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461121	06/11/19 09:08	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/18/19 23:51	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/18/19 23:51	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458776	05/21/19 14:56	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/21/19 14:56	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 10:24	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 20:41	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 02:26	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	460544	06/05/19 10:02	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 13:59	KES	TAL DEN

Client Sample ID: LF7MW-27_0519
Lab Sample ID: 280-123981-5

Date Collected: 05/17/19 09:45
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:20	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 14:00	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 17:50	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461121	06/11/19 09:08	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/19/19 00:08	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/19/19 00:08	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458776	05/21/19 15:12	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/21/19 15:12	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 10:43	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 20:44	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 03:10	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	460544	06/05/19 10:02	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 13:59	KES	TAL DEN

Client Sample ID: LF7MW-28_0519
Lab Sample ID: 280-123981-6

Date Collected: 05/17/19 11:05
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:34	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 14:02	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 17:51	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461121	06/11/19 09:08	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/19/19 00:24	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/19/19 00:24	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458776	05/21/19 15:29	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/21/19 15:29	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461430	06/13/19 01:43	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 20:47	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 02:45	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	460544	06/05/19 10:02	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 13:59	KES	TAL DEN

Client Sample ID: LF7MW-30_0519
Lab Sample ID: 280-123981-7

Date Collected: 05/17/19 12:15
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:37	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 14:04	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 17:52	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461121	06/11/19 09:08	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/19/19 01:13	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/19/19 01:13	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458776	05/21/19 17:07	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/21/19 17:07	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461430	06/13/19 02:04	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 17:53	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 21:03	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 02:57	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	460544	06/05/19 10:02	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 14:32	KES	TAL DEN

Client Sample ID: LF7WL-3_0519
Lab Sample ID: 280-123981-8

Date Collected: 05/17/19 13:00
Matrix: Water
Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:40	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 14:10	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 17:53	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461275	06/12/19 10:53	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/19/19 01:30	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/19/19 01:30	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458776	05/21/19 17:24	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/21/19 17:24	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461430	06/13/19 02:56	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 17:53	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 21:06	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 01:53	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	460544	06/05/19 10:02	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 14:32	KES	TAL DEN

Lab Chronicle

Client: Bhate Environmental
Job ID: 280-123981-1
Project/Site: Griffiss AFB, LF003 Landfill 7

Client Sample ID: LF7WL-4_0519
Lab Sample ID: 280-123981-9

Date Collected: 05/17/19 10:15
Matrix: Water

Date Received: 05/18/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459132	05/28/19 18:00	DAL	TAL DEN
Total/NA	Analysis	6010C		1			459798	05/29/19 12:42	CRR	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 14:12	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:01	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	461275	06/12/19 10:53	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458688	05/19/19 01:46	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458689	05/19/19 01:46	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458776	05/21/19 17:40	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458777	05/21/19 17:40	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461430	06/13/19 03:49	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 17:53	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 21:27	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458692	05/18/19 20:40	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/25/19 02:39	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	460544	06/05/19 10:02	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459268	05/23/19 16:24	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458674	05/18/19 14:32	KES	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Bhate Environmental
Job ID: 280-123981-1
Project/Site: Griffiss AFB, LF003 Landfill 7

Laboratory: Eurofins TestAmerica, Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD		2907.01	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2120B		Water	Color
SM 2340C		Water	Hardness

New York	NELAP	2	11964	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3010A	Water	Boron
9056A		Water	Bromide
9056A		Water	Chloride
9056A		Water	Fluoride
9056A		Water	Nitrate
9056A		Water	Nitrate Nitrite as N
9056A		Water	Nitrite
9056A		Water	Orthophosphate as P
9056A		Water	Sulfate
9060A		Water	Total Organic Carbon - Quad

Method Summary

Client: Bhate Environmental
Job ID: 280-123981-1
Project/Site: Griffiss AFB, LF003 Landfill 7

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
9066	Phenolics, Total Recoverable	SW846	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
Distill/Phenol	Distillation, Phenolics	None	TAL DEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Bhate Environmental
Job ID: 280-123981-1
Project/Site: Griffiss AFB, LF003 Landfill 7

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-123981-1	LF7MW-22_0519	Water	05/17/19 12:25	05/18/19 09:00	
280-123981-2	LF7MW-23_0519	Water	05/17/19 09:50	05/18/19 09:00	
280-123981-3	LF7MW-26_0519	Water	05/17/19 10:55	05/18/19 09:00	
280-123981-4	LF7MW-26_0519-a	Water	05/17/19 10:55	05/18/19 09:00	
280-123981-5	LF7MW-27_0519	Water	05/17/19 09:45	05/18/19 09:00	
280-123981-6	LF7MW-28_0519	Water	05/17/19 11:05	05/18/19 09:00	
280-123981-7	LF7MW-30_0519	Water	05/17/19 12:15	05/18/19 09:00	
280-123981-8	LF7WL-3_0519	Water	05/17/19 13:00	05/18/19 09:00	
280-123981-9	LF7WL-4_0519	Water	05/17/19 10:15	05/18/19 09:00	

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:04
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:04
Orthophosphate as P	5.68	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458327/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:05
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:06
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:07
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:07
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:08
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:08
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/15/19 19:10
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458328/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458328/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:07
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:07

Lab Sample ID: STD 280-458328/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	pedrickj	05/16/19 08:31
Sulfate	6.43	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:08
Sulfate	6.46	Peak assignment corrected	phantl	05/15/19 19:08

Lab Sample ID: ICB 280-458328/9 Client Sample ID:

Date Analyzed: 05/15/19 19:27 Lab File ID: 0009.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.72	Incomplete Integration	pedrickj	05/16/19 07:51
Chloride	3.23	Incomplete Integration	pedrickj	05/16/19 07:51

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458688

Lab Sample ID: CCV 280-458688/1 Client Sample ID:

Date Analyzed: 05/18/19 19:06 Lab File ID: 0001.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.27	Peak assignment corrected	sonnierk	05/18/19 20:06
Nitrate	5.82	Peak assignment corrected	sonnierk	05/18/19 20:06
Orthophosphate as P	7.59	Peak assignment corrected	sonnierk	05/18/19 20:06

Lab Sample ID: MRL 280-458688/3 Client Sample ID:

Date Analyzed: 05/18/19 19:39 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.26	Peak assignment corrected	sonnierk	05/18/19 20:08
Nitrate	5.83	Peak assignment corrected	sonnierk	05/18/19 20:08
Orthophosphate as P	7.60	Peak assignment corrected	sonnierk	05/18/19 20:08

Lab Sample ID: LCS 280-458688/4 Client Sample ID:

Date Analyzed: 05/18/19 19:56 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.27	Peak assignment corrected	sonnierk	05/18/19 20:32
Nitrate	5.81	Peak assignment corrected	sonnierk	05/18/19 20:32
Orthophosphate as P	7.58	Peak assignment corrected	sonnierk	05/18/19 20:31

Lab Sample ID: LCSD 280-458688/5 Client Sample ID:

Date Analyzed: 05/18/19 20:12 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.27	Peak assignment corrected	sonnierk	05/18/19 20:32
Nitrate	5.82	Peak assignment corrected	sonnierk	05/18/19 20:33
Orthophosphate as P	7.58	Peak assignment corrected	sonnierk	05/18/19 20:32

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458688

Lab Sample ID: 280-123981-2 Client Sample ID: LF7MW-23_0519

Date Analyzed: 05/18/19 21:56 Lab File ID: 0007.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate		Peak assignment corrected	pedrickj	05/20/19 08:13
Nitrite		Unspecified		
Orthophosphate as P		Peak assignment corrected	pedrickj	05/20/19 08:12

Lab Sample ID: 280-123981-2 DU Client Sample ID: LF7MW-23_0519 DU

Date Analyzed: 05/18/19 22:13 Lab File ID: 0008.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate		Peak assignment corrected	pedrickj	05/20/19 08:13
Nitrite		Unspecified		

Lab Sample ID: 280-123981-3 Client Sample ID: LF7MW-26_0519

Date Analyzed: 05/18/19 23:35 Lab File ID: 0013.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite		Unspecified		

Lab Sample ID: 280-123981-4 Client Sample ID: LF7MW-26_0519-a

Date Analyzed: 05/18/19 23:51 Lab File ID: 0014.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate	6.28	Peak assignment corrected	phantl	05/21/19 17:35
Nitrite		Unspecified		

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458688

Lab Sample ID: 280-123981-5 Client Sample ID: LF7MW-27_0519

Date Analyzed: 05/19/19 00:08 Lab File ID: 0015.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite		Unspecified		

Lab Sample ID: 280-123981-6 Client Sample ID: LF7MW-28_0519

Date Analyzed: 05/19/19 00:24 Lab File ID: 0016.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite		Unspecified		

Lab Sample ID: 280-123981-7 Client Sample ID: LF7MW-30_0519

Date Analyzed: 05/19/19 01:13 Lab File ID: 0019.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite		Unspecified		

Lab Sample ID: 280-123981-8 Client Sample ID: LF7WL-3_0519

Date Analyzed: 05/19/19 01:30 Lab File ID: 0020.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate	6.38	Peak assignment corrected	phantl	05/21/19 17:41
Nitrite		Unspecified		

Lab Sample ID: 280-123981-9 Client Sample ID: LF7WL-4_0519

Date Analyzed: 05/19/19 01:46 Lab File ID: 0021.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite		Unspecified		

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458689

Lab Sample ID: CCV 280-458689/1 Client Sample ID:

Date Analyzed: 05/18/19 19:06 Lab File ID: 0001.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.15	Peak assignment corrected	sonnierk	05/18/19 20:07
Sulfate	8.51	Peak assignment corrected	sonnierk	05/18/19 20:07

Lab Sample ID: MRL 280-458689/3 Client Sample ID:

Date Analyzed: 05/18/19 19:39 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.15	Peak assignment corrected	sonnierk	05/18/19 20:08
Sulfate	8.45	Peak assignment corrected	sonnierk	05/18/19 20:08

Lab Sample ID: LCS 280-458689/4 Client Sample ID:

Date Analyzed: 05/18/19 19:56 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.14	Peak assignment corrected	sonnierk	05/18/19 20:32
Sulfate	8.50	Peak assignment corrected	sonnierk	05/18/19 20:32

Lab Sample ID: LCSD 280-458689/5 Client Sample ID:

Date Analyzed: 05/18/19 20:12 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.14	Peak assignment corrected	sonnierk	05/18/19 20:33
Sulfate	8.51	Peak assignment corrected	sonnierk	05/18/19 20:33

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458689

Lab Sample ID: 280-123981-4 Client Sample ID: LF7MW-26_0519-a

Date Analyzed: 05/18/19 23:51 Lab File ID: 0014.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.87	Peak assignment corrected	phantl	05/21/19 17:35

Lab Sample ID: 280-123981-8 Client Sample ID: LF7WL-3_0519

Date Analyzed: 05/19/19 01:30 Lab File ID: 0020.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.84	Peak assignment corrected	phantl	05/21/19 17:41

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00367	06/04/19	05/28/19	Di Water, Lot na	100 mL	NH3 CAL STD_00030	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00030	02/28/20		Ricca, Lot 1808L28		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00350	06/04/19	05/28/19	na, Lot na	100 mL	NH3 ICV STD_00026	10 mL	Ammonia	99.6 mg/L
.NH3 ICV STD_00026	04/01/20		Inorganic Ventures, Lot M2-NH662533		(Purchased Reagent)		Ammonia	996 mg/L
Alk daily lcs_00821	05/27/19	05/20/19	Di Water, Lot na	1000 mL	Alk stk std_00016	4 mL	Alkalinity	200 mg/L
.Alk stk std_00016	06/30/20		Fischer, Lot 182564		(Purchased Reagent)		Alkalinity	50 g/L
BOD Std_00001_00046	02/15/24		HACH, Lot A9046		(Purchased Reagent)		Biochemical Oxygen Demand	198 mg/L
COD cal std_00048	09/01/20		Ricca, Lot 1904987		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1000 mg/L
COD icv std_00034	02/01/20		HACH, Lot A9057		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1005 mg/L
Hard lcs std_00052	04/12/21		Lab Chem, Lot H159-16		(Purchased Reagent)		Hardness	0.996 mg/mL
IC CAL cl/so4_00256	05/17/19	05/10/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00257	05/24/19	05/17/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00458	05/18/19	05/11/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC CL ICV_00016	10/31/19		ERA, Lot 091017		(Purchased Reagent)		Chloride	1000 mg/L
IC ICV 5_00233	05/16/19	05/09/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00016	0.5 mL	Nitrite	50 mg/L
					IC NO3 ICV_00014	0.5 mL	Nitrate	50 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					IC PO4 ICV_00015	0.5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L
.IC NO2 ICV_00016	05/31/20		ERA, Lot 020518		(Purchased Reagent)		Nitrite	1000 mg/L
.IC NO3 ICV_00014	12/31/19		ERA, Lot 031217		(Purchased Reagent)		Nitrate	1000 mg/L
.IC PO4 ICV_00015	06/30/19		ERA, Lot 060617		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC ICV 5_00234	05/27/19	05/20/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00016	0.5 mL	Nitrite	50 mg/L
					IC NO3 ICV_00014	0.5 mL	Nitrate	50 mg/L
					IC PO4 ICV_00015	0.5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L
.IC NO2 ICV_00016	05/31/20		ERA, Lot 020518		(Purchased Reagent)		Nitrite	1000 mg/L
.IC NO3 ICV_00014	12/31/19		ERA, Lot 031217		(Purchased Reagent)		Nitrate	1000 mg/L
.IC PO4 ICV_00015	06/30/19		ERA, Lot 060617		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC LCS_01579	05/19/19	05/18/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC LCS_01580	05/21/19	05/20/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Fluoride	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00017	06/30/19		ERA, Lot 210617		(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00592	05/21/19	05/14/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Bromide	499.924 mg/L
							Chloride	2499.92 mg/L
							Fluoride	499.957 mg/L
							Nitrate	500.003 mg/L
							Orthophosphate as P	500.058 mg/L
							Sulfate	2500.26 mg/L
					IC SPK N02SOL_00013	5 mL	Nitrite	499.973 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD Br_00003	1.2876 g	Bromide	999.847 mg/L
					IC MS/MSD CL_00002	8.2424 g	Chloride	4999.84 mg/L
					IC MS/MSD F_00002	2.21 g	Fluoride	999.914 mg/L
					IC MS/MSD N03_00005	6.068 g	Nitrate	1000.01 mg/L
					IC MS/MSD P04_00002	4.3936 g	Orthophosphate as P	1000.12 mg/L
					IC MS/MSD S04_00005	9.0704 g	Sulfate	5000.51 mg/L
..IC MS/MSD Br_00003	09/29/21		FISHER, Lot 110569		(Purchased Reagent)		Bromide	0.77652 g/g
..IC MS/MSD CL_00002	01/13/21		FISHER, Lot 091363		(Purchased Reagent)		Chloride	0.6066 g/g
..IC MS/MSD F_00002	09/29/21		FISHER, Lot 110901		(Purchased Reagent)		Fluoride	0.45245 g/g
..IC MS/MSD N03_00005	09/27/28		FISHER, Lot 176192		(Purchased Reagent)		Nitrate	0.1648 g/g
..IC MS/MSD P04_00002	09/06/22		FISHER, Lot 112841		(Purchased Reagent)		Orthophosphate as P	0.22763 g/g
..IC MS/MSD S04_00005	09/29/20		FISHER, Lot 147276		(Purchased Reagent)		Sulfate	0.5513 g/g
.IC SPK N02SOL_00013	06/05/19	06/05/18	Di Water, Lot na	500 mL	IC MS/MSD N02_00002	2.4628 g	Nitrite	999.946 mg/L
..IC MS/MSD N02_00002	01/12/27		fisher, Lot 164254		(Purchased Reagent)		Nitrite	0.20301 g/g
ICP CCV_00380	06/04/19	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00840	250 mL	Boron	0.5 mg/L
.ICP ICAL1A_00840	06/25/20	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	1000 mL	ICP CAL STD 4_00003	10 mL	Boron	1 mg/L
..ICP CAL STD 4_00003	09/22/20		CPI, Lot 10094465-3		(Purchased Reagent)		Boron	100 mg/L
ICP ICSA_00186	03/18/20	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.Icp stk ICSA_00029	03/18/20		CPI, Lot 982821-1		(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICSAB_00213	06/03/19	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Li_00040	0.25 mL	Li	1 mg/L
					ICP ICSAB 1_00001	2.5 mL	Mo	1 mg/L
							Sb	1 mg/L
							Si	10 mg/L
							SiO2	21.4 mg/L
							Sn	1 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ti	1 mg/L
					ICP ICSAB 2_00001	2.5 mL	Ag	1 mg/L
							As	1 mg/L
							Ba	1 mg/L
							Be	0.5 mg/L
							Boron	10 mg/L
							Cd	1 mg/L
							Co	1 mg/L
							Cr	1 mg/L
							Cu	1 mg/L
							K	10 mg/L
							Mn	1 mg/L
							Na	10 mg/L
							Ni	1 mg/L
							P	10 mg/L
							Pb	1 mg/L
							Se	1 mg/L
							Sr	1 mg/L
							Tl	1 mg/L
							V	1 mg/L
							Zn	1 mg/L
					Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.1000 Li_00040	05/16/20		CPI, Lot 751942-43		(Purchased Reagent)		Li	1000 mg/L
.ICP ICSAB 1_00001	06/03/19		CPI, Lot 990624-2		(Purchased Reagent)		Mo	100 mg/L
							Sb	100 mg/L
							Si	1000 mg/L
							SiO2	2140 mg/L
							Sn	100 mg/L
							Ti	100 mg/L
.ICP ICSAB 2_00001	06/03/19		CPI, Lot 990626-2		(Purchased Reagent)		Ag	100 mg/L
							As	100 mg/L
							Ba	100 mg/L
							Be	50 mg/L
							Boron	1000 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							K	1000 mg/L
							Mn	100 mg/L
							Na	1000 mg/L
							Ni	100 mg/L
							P	1000 mg/L
							Pb	100 mg/L
							Se	100 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sr	100 mg/L
							Tl	100 mg/L
							V	100 mg/L
							Zn	100 mg/L
.Icp stk ICSA_00029	03/18/20	CPI, Lot 982821-1			(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICV_00824	10/16/19	05/29/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP CAL STD 4_00002	0.25 mL	Boron	0.25 ppm
.ICP CAL STD 4_00002	09/22/20	CPI, Lot 10094465-2			(Purchased Reagent)		Boron	100 mg/L
ICP LLCCV_02552	05/30/19	05/29/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV-2a_00010	1 mL	Boron	100 ppb
.ICP LLCCV-2a_00010	06/18/19	CPI, Lot 10090185-1			(Purchased Reagent)		Boron	10 mg/L
Phenol CAL 10_00730	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol CAL_00012	1 mL	Phenolics, Total Recoverable	10.07 mg/L
							Phenols, Total	10.07 mg/L
.Phenol CAL_00012	12/07/19	Lab Chem, Lot G341-02			(Purchased Reagent)		Phenolics, Total Recoverable	1007 mg/L
							Phenols, Total	1007 mg/L
Phenol ICV 10_00605	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol ICV_00013	1 mL	Phenols, Total	10 mg/L
.Phenol ICV_00013	02/29/20	ERA, Lot 090817			(Purchased Reagent)		Phenols, Total	1000 mg/L
PREP SPK 1_00008	05/13/20	CPI, Lot 993218-1			(Purchased Reagent)		As	200 mg/L
							Ba	200 mg/L
							Be	100 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							Li	100 mg/L
							Mn	100 mg/L
							Mo	100 mg/L
							Ni	100 mg/L
							Pb	100 mg/L
							Se	200 mg/L
							Si	200 mg/L
							SiO2	428 mg/L
							Sn	200 mg/L
							Sr	100 mg/L
							Ti	100 mg/L
							Tl	200 mg/L
							V	100 mg/L
PREP SPK 2_00004	05/13/20	CPI, Lot 992745-2			(Purchased Reagent)		Al	1000 mg/L
							Ca	5000 mg/L
							Fe	1000 mg/L
							K	5000 mg/L
							Mg	5000 mg/L
							Na	5000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
PREP SPK 3_00004	05/13/20		CPI, Lot 992746-1		(Purchased Reagent)		P	2000 mg/L
							Sulfur	1000 mg/L
							U	200 mg/L
							W	100 mg/L
PREP SPK 4_00004	05/08/20		CPI, Lot 10094085-3		(Purchased Reagent)		Bi	200 mg/L
							Boron	100 mg/L
							Th	100 mg/L
							Zn	50 mg/L
							Zr	50 mg/L
PREP SPK 4B_00001	04/16/20		CPI, Lot 10094085-2		(Purchased Reagent)		Ag	5 mg/L
PREP SPK 5_00002	10/10/19	04/10/19	5% HNO3, Lot 216908	250 mL	1000 Sb_00020	25 mL	Sb	100 mg/L
.1000 Sb_00020	03/08/20		CPI, Lot 153992-34		(Purchased Reagent)		Sb	1000 mg/L
TDS LCS_00537_00055	08/22/19	05/22/19	Di Water, Lot na	1000 mL	NaCl f_00004	0.5 g	Total Dissolved Solids (TDS)	500 mg/L
.NaCl f_00004	04/14/21		JT Baker, Lot J48622		(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g
TKN 25ppm_00794	07/01/19	05/31/19	Di Water, Lot 1	100 mL	TKN 100PPM_00108	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN 100PPM_00108	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21		nsi lab solutions, Lot 010617		(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TKN ICV 25_00078	07/01/19	05/31/19	DI water, Lot 1	100 mL	TKN ICV 100_00070	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN ICV 100_00070	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20		ERA, Lot 281018		(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TOC ICV Std_00037	01/31/20		Ricca, Lot 1807G06		(Purchased Reagent)		TOC Result 1	1000 ppm
							TOC Result 2	1000 ppm
							TOC Result 3	1000 ppm
							TOC Result 4	1000 ppm
							Total Organic Carbon - Quad	1000 ppm
TOC LCS Std_00046	03/31/21		Ultra Scientific, Lot CT-0920		(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm

Reagent

1000 Li_00040

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000291

SE Std Lithium (Li) – 1000 µg/mL

Lot #: 751942-43

Matrix: 5% HNO_3

5658289
ID: 1000 Li_00040
Exp:05/16/20 Prpd:CRR Opn:03/26/19
1000 Li CPI

Element	Certified Concentration & Uncertainty
Li	1002 ± 3 µg/mL (w/v)
	993 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	35	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<100	V	<1
Al	9	Cs	7	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	30	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	2	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Zn	<2
Ba	2	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	MAJOR	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

November 16, 2018
Certification Date

Chuck Goudreau, Certifying Officer

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

1000 Sb_00020

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

5522333
ID: 1000 Sb_00020
Exp: 06/17/19 Prpd: SJS
1000 Sb CPI

Product #: TA-100023

SE Std Antimony (Sb) – 1000 µg/mL

Lot #: 153992-34

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty
Sb	1000 ± 5 µg/mL (w/v)
	977 ± 5 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure antimony (Sb) metal dissolved in high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3102a, lot #140911**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<1000	V	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	<0.5	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	<0.5	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	0.6	Re	<0.2	Ta	<0.5	Zn	<2
Ba	<1	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	4	Os	<0.5	Sb	MAJOR	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	<2	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 17, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
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Europe
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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

Alk stk std_00016

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Quality Test / Release Date	06/05/2018
Lot Number	182564	Expiration Date	Jun/2020
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
COLOR	APHA	<= 5	<5
NORMALITY		Inclusive Between 0.995 - 1.000	1.000
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

BOD Std_00001_00046

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY: **ez GGA for BOD Test**
COMMODITY NUMBER: **2514420**
LOT NUMBER: **A9046**

MANUFACTURE DATE: **2/25/2019**

DATE OF ANALYSIS: **2/28/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
Confirmation test to ensure glutamic acid has been added.	To Pass	Passed
COD Concentration used to confirm the total concentration of Glucose-Glutamic Acid is correct.	884 to 956 mg/l	911.0 mg/l

The expiration date is Feb 2024

After preparation following the instruction sheet the BOD concentration is 198 mg/L.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

COD cal std_00048

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Potassium Acid Phthalate Standard, 1000 ppm Chemical Oxygen Demand (COD)

Lot Number: 1904987 **Product Number:** 5868

Manufacture Date: APR 05, 2019
Expiration Date: SEP 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is estimated based upon the volumetric method of preparation. It is certified that a COD of 500 mg/L should be obtained on a 25.0 mL aliquot of this standard solution diluted to 50 mL. The manufacturing specification for this product is Chemical Oxygen Demand (COD) = 1.000 ± 0.005 mg per mL at 20°C. This is the equivalent quantity of Oxygen that this standard solution will consume, based on the reduction of a Potassium Dichromate Standard Solution under the specified conditions in the ASTM D 1252-95 test methods.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Chemical Oxygen Demand (COD)	995-1005 ppm	1000 ppm

Specification	Reference
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg COD)	ASTM (D 1252 A)
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg/L)	ASTM (D 1252 B)
Stock Potassium Acid Phthalate	EPA (410.4)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5868-16	500 mL natural poly	18 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (04/05/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

COD icv std_00034

Certificate of Analysis List

For request number 1116752

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
2253929	9057	N/A	N/A	Chemical Oxygen Demand Standard Solution 1000 mg/l COD

Total Enclosures: 1

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY:**Chemical Oxygen Demand Standard Solution 1000 mg/l COD**

COMMODITY NUMBER: **2253929**	MANUFACTURE DATE:	DATE OF ANALYSIS:
LOT NUMBER: **A9057**	**3/2/2019**	**3/3/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
COD Concentration	950 to 1050 ppm	986.0 ppm

The expiration date is Feb 2020

The item 2253929 is traceable to NIST standards SRM 84L Potassium Hydrogen Phthalate LOT N/A.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

Hard lcs std_00052

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CALCIUM CARBONATE STANDARD 1mL = 1mg CaCO3 (0.01M)

Catalog Number: LC12700
Lot Number: J086-18

Mfg Date: 03/28/2019
Expiration Date: 03/28/2021

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Molarity	0.0100M +/- 0.0001M	0.0099M
Concentration mg CaCO3/mL	1.000 +/- 0.010mg CaCO3/mL	0.995 mg CaCO3/mL
Traceable to NIST	Calcium Carbonate	915b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted By: Greg Albright, Chemist Supervisor

An ISO9001:2008 certified company. Registration # 0306.01

Reagent

IC BR ICV_00012

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
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1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 1804F11 **Product Number:** 1180

Manufacture Date: APR 06, 2018
Expiration Date: SEP 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (04/06/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC BR ICV_00014

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Bromide
CATALOG NUMBER:	046 -125 mL; 987 - 500 mL
LOT NUMBER:	450817
ISSUE DATE:	September 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Bromide (KBr)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	1.2%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3184 Bromide
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 8/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC CL cal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-101CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018 Certifying Officer: Kathleen Cullin

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Reagent

IC CL cal_00058

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-154CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 997 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 996 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: APR - - 2019

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials -- Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep
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Phone: 1-800-LAB-SPEX • Fax: 732-603-9647

Reagent

IC CL ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Chloride
CATALOG NUMBER:	047 -125 mL; 988 - 500 mL
LOT NUMBER:	091017
ISSUE DATE:	October 17, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Chloride (NaCl)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9984 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3182 Chloride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC F ICV_00012

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Fluoride
CATALOG NUMBER:	050 -125 mL; 989 - 500 mL
LOT NUMBER:	230918
ISSUE DATE:	October 11, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Fluoride (KF)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9995 ± 0.0008 g/mL at 20.6°C and 752 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	3183 Fluoride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 9/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC FL cal_00013

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F⁻

Lot Number: 4805C89 **Product Number:** 3173

Manufacture Date: MAY 07, 2018
Expiration Date: OCT 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1000 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC MS/MSD Br_00003

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S255	Mfg. Date	3/3/2011
Lot Number	110569		
Description	SODIUM BROMIDE, A.C.S.		
Country of Origin	China	Recommended Retest Date	Mar-2016
Chemical Origin	Inorganic-non animal		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE GRANULATING POWDER
ASSAY	%	>= 99	99.5
BARIUM (Ba)	%	<= 0.002	<0.0020
BROMATE	%	<= 0.001	<0.0010
CALCIUM	%	<= 0.002	<0.0020
CHLORIDE	%	<= 0.2	0.09
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.001	<0.0010
PH 5% SOLN @ 25 DEG C		Inclusive Between 5.0 8.8	7.1
POTASSIUM (K)	%	<= 0.1	<0.10
SULFATE (SO4)	%	<= 0.002	<0.0020



Edgar E. Hans

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD F_00002

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB.

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Catalog Number	**S299**	**Mfg. Date**	**3/18/2011**
Lot Number	**110901**		
Description	**SODIUM FLUORIDE, A.C.S.**		
Country of Origin	**India**	**Recommended Retest Date**	**Mar-2016**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE POWDER
ASSAY	%	>= 99	99.2
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.003	<0.0030
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.02	0.010
IRON (Fe)	%	<= 0.003	<0.0030
LOSS ON DRYING @ 105 C	%	<= 0.3	0.30
POTASSIUM (K)	%	<= 0.02	0.003
SODIUM FLUOSILICATE	%	<= 0.1	0.01
SULFATE (SO4)	%	<= 0.03	<0.030
SULFITE	%	<= 0.005	0.003
TITRATABLE ACID	mEq/g	<= 0.03	0.020
TITRATABLE BASE	mEq/g	<= 0.01	0.001



Edgar E. Hau

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD N02_00002

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

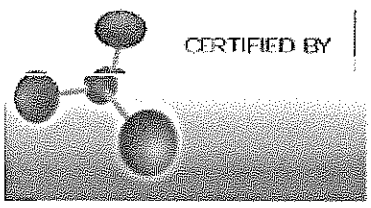
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

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Catalog Number	**S347**	**Quality Test / Release Date**	**9/9/2016**
Lot Number	**164254**		
Description	**SODIUM NITRITE, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Sep-2021**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	yELLOW-WHITE CRYSTALS
ASSAY	%	>= 97	98.6
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.001	<0.0010
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	%	<= 0.001	<0.0010
POTASSIUM (K)	%	<= 0.005	<0.0010
SULFATE (SO4)	%	<= 0.01	<0.010



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC MS/MSD N03_00005

Scientific

Reagent Lane
ıir Lawn, NJ 07410
)1.796.7100 tel
)1.796.1329 fax

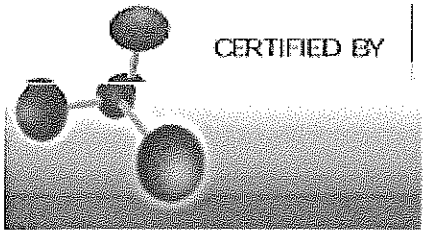
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

s is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been plied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability l fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. ıer does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

ıtalog Number	**S343**	**Quality Test / Release Date**	**8/23/2017**
)t Number	**176192**		
escription	**SODIUM NITRATE, A.C.S.**		
)untry of Origin	**Mexico**	*** Suggested Retest Date**	**Aug-2022**
ıemical Origin	**Inorganic-non animal**		
SE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

sult name	Units	Specifications	Test Value
PEARANCE		REPORT	Clear to white crystals.
SAY	%	>= 99	99.7
LCIUM	%	<= 0.005	0.001
LORIDE	%	<= 0.001	<0.0010
AVY METALS (as Pb)	ppm	<= 5	<5.0
ENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
SOLUBLE MATTER	%	<= 0.005	<0.005
)ATE	ppm	<= 5	<5.0
)N (Fe)	ppm	<= 3	<3.0
.GNESIUM	%	<= 0.002	0.0002
TRITE (NO2)	%	<= 0.001	<0.0010
5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.3	6.7
OSPHATE (PO4)	ppm	<= 5	<5.0
LFATE (SO4)	%	<= 0.003	<0.0030



CERTIFIED BY

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Reagent

IC MS/MSD P04_00002

Fisher Scientific

1 Reagent Lane
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Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P386**	**Mfg. Date**	**9/19/2011**
Lot Number	**112841**		
Description	**POTASSIUM PHOSPHATE MONOBASIC NF/FCC/EP/BP**		
Country of Origin	**United States**		
Chemical Origin	**Inorganic**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

FCC Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	MG/KG	<= 3	<3
ASSAY	%	>= 98.0	99.7
FLUORIDES	MG/KG	<= 10	<5
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD (Pb)	MG/KG	<= 2	<2.0
LOSS ON DRYING PER FCC	%	<= 1	<1.0

NF Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	ppm	<= 3	<3
ASSAY	%	Inclusive Between 98.0 100.5	99.7
ENDOTOXINS	EU/Mg	<= 1	<0.02000
FLUORIDES	%	<= 0.001	<0.0005
HEAVY METALS (as PB)	%	<= 0.002	<0.002
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD	ppm	<= 5	<5
LOSS ON DRYING	%	<= 1.0	<1.0
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS

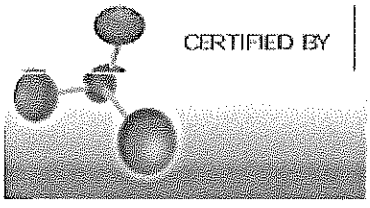
EP Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS

ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
BACTERIAL ENDOTOXINS	EU/Mg	<= 1	<0.02000
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER EP	%	<= 2.0	<1.0
PH (5 % SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

British Pharmacopela Grade Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS
ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER BP	%	<= 2.0	<1.0
PH (5% SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

Residual Solvents	No Class 1, Class 2, or Class 3 solvents, or any other solvents, are used in the manufacturing, handling, or storage of this storage, or in any cleaning process.



Elgan E. Hans

Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD S04_00005

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

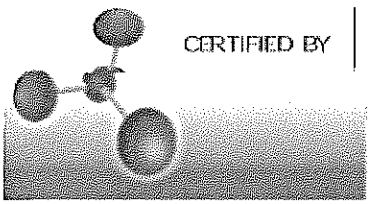
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P304**	**Quality Test / Release Date**	**3/2/2015**
Lot Number	**147276**		
Description	**POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Feb-2020**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99	99.4
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.005	<0.0050
NITROGEN COMPOUNDS	ppm	<= 5	<5
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.5	5.5
SODIUM (Na)	%	<= 0.02	<0.020



CERTIFIED BY

Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC N02 CAL_00045

RICCA CHEMICAL COMPANY®

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Arlington, TX 76012
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customerservice@riccachemical.com

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2)

Lot Number: 1902672 **Product Number:** R5444900

Manufacture Date: FEB 04, 2019
Expiration Date: JUL 2019

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	995 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (02/04/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC N03 cal_00019

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Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2807E96 **Product Number:** 5459

Manufacture Date: JUL 24, 2018
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Andy Baumgartner (07/24/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC NO2 ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO_2-N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	020518
ISSUE DATE:	May 16, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite ($NaNO_2$)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	4.7%
MATRIX:	18 megohm deionized water
DENSITY:	1.0004 ± 0.0008 g/mL at 19.2°C and 752 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	-
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 5/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC P04 cal_00019

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Batesville, IN 47006
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Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H_2O

Lot Number: 4902D52 **Product Number:** AP1KW

Manufacture Date: FEB 08, 2019
Expiration Date: JAN 2021

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs (02/08/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC PO4 ICV_00015

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Phosphate as P (PO_4-P)
CATALOG NUMBER:	061 -125 mL; 993 - 500 mL
LOT NUMBER:	060617
ISSUE DATE:	June 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Dihydrogen Phosphate (KH_2PO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9996 ± 0.0008 g/mL at 23.5°C and 622 mm Hg
TRACEABILITY[3]:	103%
NIST/SRM:	3186 Phosphate
VERIFICATION METHOD:	Ion Chromatography
STORAGE: THIS	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
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CERTIFICATE NO. 1539.03

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CERTIFICATE NO. 1539.02

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Reagent

IC SO4 ICV_00017

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	210617
ISSUE DATE:	June 27, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9987 ± 0.0008 g/mL at 22.5°C and 757 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

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CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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Reagent

IC sulfatecal_00053

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: AUG - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC sulfatecal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

ICP CAL STD 4_00002

CPI INTERNATIONAL

5617886
ID: ICP CAL STD 4_00002
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 SECONDARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-SS

Custom ISO G34 Second Source Standard

Lot #: 10094465-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 µg/mL	Ca	999.9 ± 5.0 µg/mL	Na	5000 ± 25 µg/mL
Al	99.98 ± 0.50 µg/mL	Fe	500.1 ± 2.5 µg/mL	Zn	100.0 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	10,000 ± 50 µg/mL	Zr	100.0 ± 0.5 µg/mL
Bi	200.0 ± 1.0 µg/mL	Mg	4000 ± 20 µg/mL		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP CAL STD 4_00003

CPI INTERNATIONAL

5617860
ID: ICP CAL STD 4_00001
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 PRIMARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-500

Custom ISO G34 Standard

Lot #: 10094465-3

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.1 ± 0.5 µg/mL	Ca	1000 ± 5 µg/mL	Na	5000 ± 25 µg/mL
Al	100.1 ± 0.5 µg/mL	Fe	500.3 ± 2.5 µg/mL	Zn	100.1 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	9999 ± 50 µg/mL	Zr	99.98 ± 0.50 µg/mL
Bi	200.2 ± 1.0 µg/mL	Mg	4001 ± 20 µg/mL		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
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F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP ICSAB 1_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

5471540
ID: ICP ICSAB 1_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 1 CPI

Lot #: 990624-2

Matrix: 5% HNO_3/0.5% HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.0 ± 0.5 mg/L
Sb	100.0 ± 0.5 mg/L	Sn	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

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Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

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As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-1		
Vendor	CPI		
Lot number	990624-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICPICSAB1_00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CR	Instrument ID	MT-025
Verification Date	1/30/19	Method Reference	U010B
ID of Standard Used for Verification	5528932/5528182	Batch # / Chrom Work List #	445975

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:

Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	N/A

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



Reagent ID: ICP ICSAB 1_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 1 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990624-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-1
Open Date:	01/29/2019		
Container(s):	5471540		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Mo					100.00000	mg/L
Sb					100.00000	mg/L
Si					1000.00000	mg/L
Sn					100.00000	mg/L
Ti					100.00000	mg/L

Sample Name: xICSAB sol 1 100x Acquired: 1/30/2019 11:16:24 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: reagent bottle check

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.02433**	**.01266**	**.01718**	**.01887**	**.00044**	**.02174**	**.47181**	**.00071**
Stddev	.00004	.00024	.00489	.00084	.00010	.00012	.00685	.00076	.00006
%RSD	7.0663	.98064	38.631	4.8888	.52301	27.840	31.508	.16192	8.4479
#1	.00053	.02450	.01612	.01658	.01880	.00035	.02659	.47235	.00067
#2	.00058	.02416	.00920	.01777	.01894	.00052	.01690	.47127	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00242**	**.00153**	**.02006**	**.56757**	**.01037**	**.47512**	**.00496**	**1.0133**
Stddev	.00010	.00025	.00005	.00110	.03642	.00435	.00725	.00001	.0039
%RSD	2.5510	10.211	3.1263	5.4797	6.4175	42.012	1.5261	.23393	.38063
#1	.00417	.00225	.00150	.02084	.54181	.00729	.47000	.00497	1.0160
#2	.00403	.00260	.00157	.01928	.59333	.01345	.48025	.00496	1.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49431**	**.00430**	**.08410**	**.01084**	**.03507**	**.99570**	**.01580**	**9.9173**	**21.223**
Stddev	.00501	.00053	.00063	.00088	.00283	.00482	.00254	.0370	.079
%RSD	1.0130	12.416	.75155	8.1609	8.0821	.48413	16.067	.37264	.37264
#1	.49077	.00468	.08455	.01146	.03707	.99230	.01760	9.8912	21.167
#2	.49785	.00392	.08365	.01021	.03306	.99911	.01401	9.9434	21.279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0648**	**.00964**	**.01036**	**1.0237**	**.01971**	**.02237**	**.00551**	**.00635**	**.00546**
Stddev	.0013	.00014	.00233	.0003	.00077	.01226	.00033	.00030	.00002
%RSD	.12116	1.4717	22.449	.02853	3.9220	54.809	6.0687	4.7932	.32279
#1	1.0658	.00954	.00871	1.0239	.02026	.03104	.00575	.00656	.00548
#2	1.0639	.00974	.01200	1.0235	.01916	.01370	.00527	.00613	.00545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4001.5**	**55629.**	**4846.2**
Stddev	8.9	65.	20.9
%RSD	.22316	.11631	.43220
#1	3995.2	55583.	4861.0
#2	4007.8	55674.	4831.4

Reagent

ICP ICSAB 2_00001

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-2		
Vendor	CPI		
Lot number	990626-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICP ICSAB 2-00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CL/CR	Instrument ID	MT_052 MT_025
Verification Date	1/21/19 1/29/19	Method Reference	L0103
ID of Standard Used for Verification	Calibration STDS	Batch # / Chrom Work List #	444958/445894

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
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MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICP ICSAB 2_00001

Reagent ID: ICP ICSAB 2_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 2 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990626-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-2
Open Date:	01/29/2019		
Container(s):	5471537		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
As					100.00000	mg/L
B					1000.00000	mg/L
Ba					100.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					100.00000	mg/L
Cr					100.00000	mg/L
Cu					100.00000	mg/L
K					1000.00000	mg/L
Mn					100.00000	mg/L
Na					1000.00000	mg/L
Ni					100.00000	mg/L
P					1000.00000	mg/L
Pb					100.00000	mg/L
Se					100.00000	mg/L
Sr					100.00000	mg/L
Tl					100.00000	mg/L
V					100.00000	mg/L
Zn					100.00000	mg/L

52A012119.esws

Tuesday, January 22, 2019 7:50 AM

User: denmet

Workstation: DENPC507

Sample Name: ICSAB 2 100X

Date: 1/21/2019 2:07:16 PM

Rack:Tube: 1:90

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.966867	ppm	0.002732	0.28	27113.200000	Y 377.433
Al (394.401 nm)	-0.018589 u	ppm	0.000377	2.03	120.753000	Y 377.433
Al H (396.152 nm)	-0.080631 u	ppm	0.000855	1.06	12.478800	Y_R 377.433
As (188.980 nm)	0.937518	ppm	0.002548	0.27	1229.410000	Y 242.219
B (249.678 nm)	9.446880	ppm	0.011734	0.12	33938.900000	Y 242.219
Ba (493.408 nm)	0.969569	ppm	0.001606	0.17	87740.300000	Y_R 488.368
Be (234.861 nm)	0.466384	ppm	0.000072	0.02	26151.800000	Y_R 488.368
Bi (223.061 nm)	0.001837	ppm	0.002483	> 100.00	44.091400	Y 377.433
Ca (315.887 nm)	-0.003106 u	ppm	0.007441	> 100.00	18.818785	Y_R 377.433
Cd (214.439 nm)	0.974802	ppm	0.002985	0.31	25402.900000	Y 377.433
Co (228.615 nm)	0.978758	ppm	0.004920	0.50	20392.400000	Y 242.219
Cr (205.560 nm)	0.948655	ppm	0.001917	0.20	3826.770000	Y 377.433
Cu (324.754 nm)	0.971137	ppm	0.002614	0.27	45503.100000	Y 377.433
Fe (238.204 nm)	-0.000041 u	ppm	0.005163	> 100.00	10.116548	Y_R 377.433
Fe H (259.940 nm)	-0.222218 u	ppm	0.000618	0.28	1.482800	Y_R 377.433
K (766.491 nm)	9.955440	ppm	0.046489	0.47	11734.600000	Y_R2 488.368
Li (670.783 nm)	0.002338	ppm	0.002398	> 100.00	-636.367000	Y_R2 488.368
Mg (279.078 nm)	-0.004893 u	ppm	0.001386	28.33	1.042300	Y 377.433
Mn (257.610 nm)	0.984512	ppm	0.002227	0.23	189159.000000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000717	> 100.00	21.118500	Y 377.433
Na (589.592 nm)	9.389940	ppm	0.127054	1.35	4480.750000	Y_R2 488.368
Na H (589.593 nm)	7.370639 u	ppm	0.011086	0.15	3061.539033	Y_R4
Ni (231.604 nm)	0.972725	ppm	0.002305	0.24	3493.420000	Y 377.433
P (213.618 nm)	9.363070	ppm	0.023289	0.25	9381.970000	Y 242.219
Pb (220.353 nm)	0.994713	ppm	0.002048	0.21	2187.470000	Y 242.219
S (181.972 nm)	-0.017508 u	ppm	0.000015	0.09	2.280092	Y 377.433
Sb (206.834 nm)	0.001746 u	ppm	0.003005	> 100.00	29.044800	Y 377.433
Se (196.026 nm)	0.894485	ppm	0.006733	0.75	1281.770000	Y 242.219
Si (288.158 nm)	-0.001748 u	ppm	0.000507	29.01	377.617000	Y 377.433
Sn (189.925 nm)	-0.004588 u	ppm	0.000168	3.65	-1.654320	Y 377.433
Sr (421.552 nm)	0.967161	ppm	0.001611	0.17	106421.982008	Y_R 488.368
Th (288.505 nm)	-0.048933 u	ppm	0.005261	10.75	-112.903000	Y 377.433
Ti (336.122 nm)	0.000456	ppm	0.000097	21.34	-304.249000	Y 377.433
Tl (190.794 nm)	0.993837	ppm	0.000436	0.04	568.452000	Y 377.433
U (409.013 nm)	0.002082 u	ppm	0.006736	> 100.00	238.011000	Y 377.433
V (292.401 nm)	0.964201	ppm	0.002968	0.31	41257.400000	Y 377.433
Zn (206.200 nm)	0.992230	ppm	0.004980	0.50	3092.660000	Y 377.433
Zr (343.823 nm)	0.000098 u	ppm	0.000260	> 100.00	-51.254600	Y 377.433

Sample Name: ICSAB Sol 2 Acquired: 1/29/2019 15:38:12 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 100x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .96906	-.00340	1.0112	9.4842	1.0100	.49999	.00175	-.06604	.95028
Stddev	.00070	.00005	.0084	.0140	.0002	.00072	.00805	.00493	.00089
%RSD	.07261	1.5359	.83124	.14767	.02300	.14445	460.44	7.4694	.09328
#1	.96857	-.00336	1.0053	9.4941	1.0102	.50051	.00744	-.06255	.95091
#2	.96956	-.00344	1.0172	9.4743	1.0099	.49948	-.00394	-.06953	.94966
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.02000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97510	.98255	1.0095	-.00152	10.088	.00379	-.00580	.91712	.00092
Stddev	.00391	.00157	.0019	.00267	.030	.00092	.00435	.00154	.00057
%RSD	.40132	.16023	.18807	175.43	.29831	24.241	75.007	.16823	61.615
#1	.97787	.98367	1.0108	-.00342	10.109	.00443	-.00887	.91821	.00052
#2	.97233	.98144	1.0081	.00037	10.067	.00314	-.00272	.91603	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.062	W 10.363	.97101	9.3122	.99342	.01022	-.00250	1.0041	-.01800
Stddev	.003	.128	.00214	.0214	.00289	.00320	.00030	.0007	.00696
%RSD	.02670	1.2361	.22005	.22968	.29093	31.312	12.156	.06617	38.635
#1	10.060	10.273	.97252	9.3273	.99546	.01248	-.00271	1.0037	-.02292
#2	10.064	10.454	.96950	9.2970	.99137	.00795	-.00228	1.0046	-.01309
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03853	-.00056	1.0257	.00369	.00020	1.0532	.01005	.92759	.89480
Stddev	.01489	.00053	.0020	.00219	.00018	.0029	.01643	.00224	.00413
%RSD	38.635	93.658	.19274	59.457	90.526	.27479	163.59	.24111	.46200
#1	-.04905	-.00019	1.0271	.00524	.00032	1.0552	-.00157	.92917	.89772
#2	-.02800	-.00094	1.0243	.00214	.00007	1.0511	.02166	.92601	.89188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.00366
Stddev	.00163
%RSD	44.615
#1	.00251
#2	.00482
Check ?	Chk Pass
High Limit	
Low Limit	

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

5471537
ID: ICP ICSAB 2_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 2 CPI

Lot #: 990626-2

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	99.98 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L
As	100.0 ± 0.5 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	100.1 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.1 ± 0.5 mg/L	Zn	100.1 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP LLCCV-2a_00010

Standard Verification Form TA-CM-OCT18-DENSR-500

Standard Information			
Vendor Standard Name	ICP LLCCV-2A		
Vendor	CPI International		
Lot number	# 10090185-1		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID ICP LLCCV-4-00010	
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	SS/CR	Instrument ID	MT-25/MT51
Verification Date	1/30/19	Method Reference	6010C
ID of Standard Used for Verification	ICP LLCCV4-00010	Batch # / Chrom Work List #	446036 446039
Attach to this form: formulary report , COA and data used for verification Attach to standard in TALS: this form and all supporting documentation including the original CoA			
See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐
New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.			
New Expiration Date:	5/19/19		

1st Level Review SS Date: 1/30/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00255**	**.00036**	**1.0047**	**.00032**
Stddev	.00007	.00061	.00058	.0085	.00017
%RSD	22.249	24.069	160.98	.84480	52.650
#1	.00038	.00212	-.00005	1.0107	.00020
#2	.00028	.00298	.00077	.99868	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00000**	**-.00048**	**-.00028**	**-.00042**
Stddev	.00001	.00553	.00256	.00005	.00010
%RSD	17.443	748150.	537.38	16.632	24.554
#1	.00003	-.00391	-.00229	-.00024	-.00035
#2	.00004	.00391	.00134	-.00031	-.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00130**	**.00088**	**.04958**	**.00161**
Stddev	.00008	.00040	.00450	.00732	.00228
%RSD	36.641	30.925	510.71	14.755	141.15
#1	.00028	-.00102	.00406	.05476	.00322
#2	.00017	-.00159	-.00230	.04441	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00017**	**.20636**	**.06243**	**-.00068**
Stddev	.00621	.00002	.00144	.00668	.00007
%RSD	704.64	12.859	.69592	10.708	10.347
#1	.00527	.00016	.20737	.06715	-.00073
#2	-.00351	.00019	.20534	.05770	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W **28.602**	**.00941**	**.93219**	**.20441**	**-.00477**
Stddev	.231	.00080	.00830	.00111	.00057
%RSD	.80679	8.5162	.89068	.54438	11.917
#1	28.765	.00998	.93806	.20519	-.00518
#2	28.439	.00885	.92632	.20362	-.00437
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000				
Low Limit	-6.0000				

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837
Line	288.158 {117}	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**6.9653**	**14.906**	**1.0635**	**.00005**	**.00074**
Stddev	.5657	1.211	.0080	.00010	.00128
%RSD	8.1224	8.1224	.75098	204.33	172.19
#1	6.5652	14.050	1.0691	.00012	-.00016
#2	7.3653	15.762	1.0578	-.00002	.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.10301**	**-.00165**	**-.01130**	**.00045**	**.00148**
Stddev	.00039	.00056	.00796	.00022	.00019
%RSD	.37486	34.177	70.407	49.618	12.553
#1	.10274	-.00125	-.00568	.00060	.00161
#2	.10328	-.00205	-.01693	.00029	.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.10737**
Stddev	.00304
%RSD	2.8315
#1	.10952
#2	.10522
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3890.6**	**54764.**	**4797.3**
Stddev	19.3	21.	3.8
%RSD	.49699	.03853	.07876
#1	3904.3	54779.	4794.6
#2	3876.9	54749.	4799.9

Sample Name: IIccv 2a

Date: 1/30/2019 2:27:53 PM

Rack:Tube: 3:12

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000048	3.81	-339.440000	Y 377.433
Al (167.019 nm)	0.001696	ppm	0.000845	49.83	1.871810	Y_R 377.433
Al H (396.152 nm)	-0.020587 u	ppm	0.002888	14.03	32.631734	Y_R 377.433
As (188.980 nm)	0.000723 u	ppm	0.002356	> 100.00	-0.970725	Y 242.219
B (249.678 nm)	0.813216	ppm	0.047006	5.78	21874.000000	Y 242.219
Ba (493.408 nm)	-0.000896 u	ppm	0.000024	2.69	598.598000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000016	> 100.00	-47.571600	Y_R 488.368
Bi (223.061 nm)	-0.004182 u	ppm	0.000579	13.85	11.245000	Y 377.433
Ca (315.887 nm)	0.022497	ppm	0.007400	32.89	-56.854280	Y_R 377.433
Cd (214.439 nm)	-0.000023 u	ppm	0.000024	> 100.00	5.258060	Y 377.433
Co (228.615 nm)	0.000071	ppm	0.000056	78.59	-38.009000	Y 242.219
Cr (205.560 nm)	0.000045	ppm	0.000039	86.68	-3.139690	Y 377.433
Cu (324.754 nm)	0.001245	ppm	0.000109	8.79	622.379000	Y 377.433
Fe (238.204 nm)	0.000681	ppm	0.000210	30.84	21.007438	Y_R 377.433
Fe H (259.940 nm)	-0.161781 u	ppm	0.002169	1.34	15.721500	Y_R 377.433
K (766.491 nm)	0.111372	ppm	0.057292	51.44	-830.133000	Y_R2 488.368
Li (670.783 nm)	0.009646	ppm	0.000473	4.90	-1348.180000	Y_R2 488.368
Mg (279.078 nm)	0.000264	ppm	0.000066	24.84	60.535800	Y 377.433
Mn (257.610 nm)	-0.000023 u	ppm	0.000008	35.49	70.205200	Y 377.433
Mo (202.032 nm)	0.169223	ppm	0.010445	6.17	1702.140000	Y 377.433
Na (589.592 nm)	-0.029006 u	ppm	0.010864	37.45	385.781000	Y_R2 488.368
Na H (589.593 nm)	-0.896086 u	ppm	0.020122	2.25	2225.768499	Y_R 488.368
Ni (231.604 nm)	0.000372 u	ppm	0.000677	> 100.00	0.134162	Y 377.433
P (213.618 nm)	23.045500 o	ppm	1.330770	5.77	58100.800000	Y 242.219
Pb (220.353 nm)	-0.001310 u	ppm	0.000331	25.30	-1.855490	Y 242.219
S (181.972 nm)	0.728365	ppm	0.040987	5.63	417.926408	Y 377.433
Sb (206.834 nm)	0.165059	ppm	0.009553	5.79	476.065000	Y 377.433
Se (196.026 nm)	-0.002999 u	ppm	0.001270	42.36	11.827200	Y 242.219
Si (288.158 nm)	5.208390	ppm	0.502562	9.65	48419.800000	Y 377.433
Sn (189.925 nm)	0.837532	ppm	0.048034	5.74	2234.630000	Y 377.433
Sr (421.552 nm)	0.000133	ppm	0.000061	46.11	158.521803	Y_R 488.368
Th (288.505 nm)	0.003026	ppm	0.000486	16.08	69.191200	Y 377.433
Ti (336.122 nm)	0.083021	ppm	0.004935	5.94	12374.600000	Y 377.433
Tl (190.794 nm)	0.000337	ppm	0.000105	31.25	-9.290920	Y 377.433
U (409.013 nm)	0.001927	ppm	0.000273	14.16	-152.923000	Y 377.433
V (292.401 nm)	-0.000419 u	ppm	0.000023	5.46	15.573700	Y 377.433
Zn (206.200 nm)	0.000466	ppm	0.000052	11.15	2.238410	Y 377.433
Zr (343.823 nm)	0.085063	ppm	0.005356	6.30	12032.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.937661	19025.790936	0.001064	0.11
Y 377.433	0.960036	985122.681103	0.000581	0.06
Y_R 377.433	1.006470	69104.000000	0.004101	0.41
Y_R 488.368	1.019670	40383.200000	0.014164	1.39
Y_R2 488.368	1.053637	81193.558986	0.004178	0.40

5500073
ID: ICP LLCCV-2a_00010
Exp: 05/18/18 Prpd: SJS
ICP LLCCV-2A CPI

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN5R-500

Custom ISO Guide 34 ICP LLCCV-2A

Lot #: 10090185-1

Matrix: 2% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
B	10.01 ± 0.05 µg/mL	S	10.01 ± 0.05 µg/mL	Sn	10.01 ± 0.05 µg/mL
Mo	2.01 ± 0.01 µg/mL	Sb	2.02 ± 0.01 µg/mL	Ti	1.00 ± 0.01 µg/mL
P	300.0 ± 1.5 µg/mL	Si	49.19 ± 0.25 µg/mL	Zr	1.01 ± 0.01 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 18, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

Icp stk ICSA_00029

CPI INTERNATIONAL

5514208
ID: lcp stk ICSA_00027
Exp: 07/08/19 Prpd: SJS
ICP stock ICSA solution

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 982821-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 8, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

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Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

NaCl f_00004

Sodium Chloride, Crystal

`BAKER ANALYZED´® A.C.S. Reagent

Product No. 3624
Lot No. J48622
Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO_3)	0.003 % max.	0.002 %
Phosphate (PO_4)	5 ppm max.	< 3 ppm
Sulfate (SO_4)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %
For Laboratory, Research or Manufacturing Use		
Country of Origin: USA		

ISO
Phillipsburg, NJ 9001.2008, 14001.2004
Paris, KY 9001.2008
Mexico City, Mexico 9001.2008
Deventer, The Netherlands 9001.2008, 14001.2004, 13485.2003
Selangor, Malaysia 9001.2008
Panoli, India 9001.2008
Gliwice, Poland 9001.2008, 17025.2005

Marcy M. Matlosz
Director of QA & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151
Avantor ™ Performance Materials. Inc. (formerly Mallinckrodt Baker, Inc.)
222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Reagent

NH3 CAL STD_00030

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 1808L28 **Product Number:** 5455

Manufacture Date: AUG 29, 2018
Expiration Date: FEB 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (08/29/2018)

Quality Control Supervisor

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00026

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	M2-NH662533
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium Chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 996 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **993 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **997 ± 2 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\ (u_{char\ a})^2 + (w_b)^2\ (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

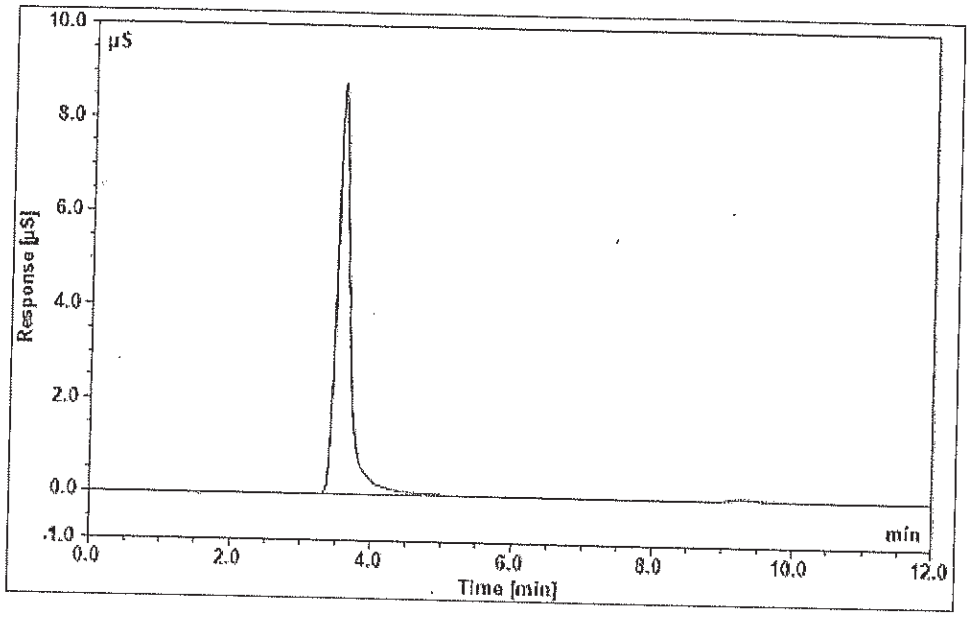
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS12A-5µm 3x150mm	**Eluent:**	20 mM MSA
Guard Column:	IonPac CG12A-5µm 3x30mm	**Eluent Flow Rate:**	0.50 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35° C
		Cell Temp:	35° C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	10 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	30 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 03, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- November 03, 2021

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

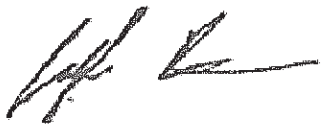
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

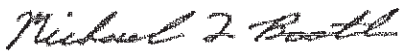
Certificate Prepared By:

Joseph Burns
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

Phenol CAL_00012

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: PHENOL STANDARD, 1000ppm (1mL = 1mg)

Mfg. Date: 12/07/2017

Catalog Number: LC18330

Exp. Date: 12/07/2019

Lot Number: G341-02

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm Phenol	1000ppm +/- 10ppm	1007 ppm
Concentration mg Phenol / L	1.000 + / - 0.010 mg/mL	1.007 mg/mL
Traceable to NIST	Potassium Dichromate	136f

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor

Greg Albright

An ISO9001:2008 certified company. Registration # 0306-01

03/23/2018 5:05 PM

Form #17.13 07/28/2016

Reagent

Phenol ICV_00013

ERA

A Waters Company

Distributed by
SPEX CertiPrep
1-800-LAB-SPEX
www.spexcsp.com

Certificate of Analysis

PRODUCT:	1000 mg/L Phenol
CATALOG NUMBER:	982
LOT NUMBER:	090817
ISSUE DATE:	August 18, 2017
REVISION DATE:	August 2, 2018
STARTING MATERIAL:	Phenol (C_6H_5OH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.8%
MATRIX:	18 megohm deionized water and 1% (v/v) H_2SO_4
DENSITY:	1.0085 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	NA
VERIFICATION METHOD:	Spectrophotometry
STORAGE:	Store at 4 ± 2°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

PREP SPK 1_00008

CPI INTERNATIONAL

5643174
ID: PREP SPK 1_00008
Exp: 05/21/20 Prpd: MRJ
Metals Prep Spike Mix 1 C

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 993218-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.1 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.1 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 21, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

PREP SPK 4B_00001

5643188
ID: PREP SPK 4B_00001
Exp: 09/28/20 Prpd: MRJ
Metals Prep Spike 4B CPI

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN-B

Custom Spike Solution B

Lot #: 10094085-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty
Ag	5.00 ± 0.03 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 5.00 µg/mL by gravimetric methods using a single-element concentrate dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3151**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 28, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

TKN CAL STD_00017

nsi lab solutions
protect more. test more.
7212 ACC Blvd. | Raleigh, NC 27617 | 800.234.7837

Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Catalog Number: IS-009, IS-009-500
Lot Number: 010617

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00011

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00037

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 4901G09 **Product Number:** 1847

Manufacture Date: JAN 22, 2019
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-32	1 L amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jim Gibbs (01/22/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00046

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1000 ± 5 µg/mL	NAA00089; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG No.:

Project: Griffiss AFB, LF003 Landfill 7

Client Sample ID	Lab Sample ID
LF7MW-22_0519	280-123981-1
LF7MW-23_0519	280-123981-2
LF7MW-26_0519	280-123981-3
LF7MW-26_0519-a	280-123981-4
LF7MW-27_0519	280-123981-5
LF7MW-28_0519	280-123981-6
LF7MW-30_0519	280-123981-7
LF7WL-3_0519	280-123981-8
LF7WL-4_0519	280-123981-9

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF7MW-22_0519 Lab Sample ID: 280-123981-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 12:25

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	190	100	15	4.4	ug/L			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF7MW-23_0519 Lab Sample ID: 280-123981-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 09:50

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	17	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF7MW-26_0519 Lab Sample ID: 280-123981-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 10:55

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	8.2	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF7MW-26_0519-a
Lab Sample ID: 280-123981-4
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123981-1
SDG ID.:
Matrix: Water
Date Sampled: 05/17/2019 10:55
Reporting Basis: WET
Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	8.7	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF7MW-27_0519 Lab Sample ID: 280-123981-5

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 09:45

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	8.5	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF7MW-28_0519 Lab Sample ID: 280-123981-6

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 11:05

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	52	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF7MW-30_0519 Lab Sample ID: 280-123981-7

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 12:15

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	5.9	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF7WL-3_0519 Lab Sample ID: 280-123981-8

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 13:00

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	13	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF7WL-4_0519 Lab Sample ID: 280-123981-9

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 10:15

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	42	100	15	4.4	ug/L	J		1	6010C

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

ICV Source: ICP ICV_00824 Concentration Units: ug/L

CCV Source: ICP CCV_00380

Analyte	ICV 280-459798/9 05/29/2019 07:49				ICV 280-459798/10 05/29/2019 07:56				CCV 280-459798/79 05/29/2019 11:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	246		250	99	250		250	100	495		500	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

ICV Source: ICP ICV_00824 Concentration Units: ug/L

CCV Source: ICP CCV_00380

Analyte	CCV 280-459798/91 05/29/2019 11:52				CCV 280-459798/104 05/29/2019 12:25				CCV 280-459798/115 05/29/2019 12:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	484		500	97	486		500	97	485		500	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

ICV Source: ICP LLCCV_02552 Concentration Units: ug/L

CCV Source: ICP LLCCV_02552

Analyte	ICVL 280-459798/11 05/29/2019 08:02				CCVL 280-459798/81 05/29/2019 11:27				CCVL 280-459798/93 05/29/2019 11:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	99.7	J	100	100	99.6	J	100	100	98.8	J	100	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

ICV Source: ICP LLCCV_02552 Concentration Units: ug/L

CCV Source: ICP LLCCV_02552

Analyte	CCVL 280-459798/106 05/29/2019 12:31				CCVL 280-459798/118 05/29/2019 13:07				CCVL 280-459798/119 05/29/2019 13:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	97.8	J	100	98	92.2	J	100	92	92.8	J	100	93

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Method: 6010C Instrument ID: MT_025

Lab Sample ID: CRI 280-459798/15 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_02552

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Boron	100	93.4	J	93	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-459798/14 05/29/2019 08:09		CCB 280-459798/80 05/29/2019 11:24		CCB 280-459798/92 05/29/2019 11:54		CCB 280-459798/105 05/29/2019 12:28	
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 280-459798/116 05/29/2019 12:58							
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-459132/1-A

Instrument Code: MT_025 Batch No.: 459798

CAS No.	Analyte	Concentration	C	Q	Method
7440-42-8	Boron	15	U		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Lab Sample ID: ICSA 280-459798/16 Instrument ID: MT_025

Lab File ID: 25A052919z.asc ICS Source: ICP ICSA_00186

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		**-1.43**	
Aluminum	*500000*	*507180*	*101*
Antimony		*-10.2*	
Arsenic		*-3.32*	
Barium		*1.77*	
Beryllium		*0.210*	
Cadmium		*0.200*	
Calcium	*500000*	*468580*	*94*
Cobalt		*-0.150*	
Copper		*2.07*	
Iron	*200000*	*187120*	*94*
Lead		*-3.35*	
Lithium		*-0.540*	
Magnesium	*500000*	*518090*	*104*
Manganese		*0.280*	
Molybdenum		*-0.350*	
Nickel		*2.35*	
Phosphorus		*5.99*	
Potassium		*-50.2*	
Selenium		*-2.81*	
Silicon		*10.3*	
Silver		*0.580*	
SiO2		*21.9*	
Thallium		*3.96*	
Tin		*-1.84*	
Titanium		*2.60*	
Vanadium		*0.930*	
Zinc		*-5.27*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Lab Sample ID: ICSAB 280-459798/17 Instrument ID: MT_025

Lab File ID: 25A052919z.asc ICS Source: ICP ICSAB_00213

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Boron	**10000**	**9684**	**97**
Aluminum	*500000*	*518950*	*104*
Antimony	*1000*	*985*	*98*
Arsenic	*1000*	*991*	*99*
Barium	*1000*	*998*	*100*
Beryllium	*500*	*494*	*99*
Cadmium	*1000*	*1014*	*101*
Calcium	*500000*	*480320*	*96*
Chromium	*1000*	*965*	*96*
Cobalt	*1000*	*930*	*93*
Copper	*1000*	*1082*	*108*
Iron	*200000*	*191790*	*96*
Lead	*1000*	*931*	*93*
Lithium	*1000*	*1037*	*104*
Magnesium	*500000*	*529350*	*106*
Manganese	*1000*	*1013*	*101*
Molybdenum	*1000*	*950*	*95*
Nickel	*1000*	*926*	*93*
Phosphorus	*10000*	*10026*	*100*
Potassium	*10000*	*10496*	*105*
Selenium	*1000*	*978*	*98*
Silicon	*10000*	*9903*	*99*
Silver	*1000*	*1120*	*112*
SiO2	*21400*	*21192*	*99*
Sodium	*10000*	*10550*	*106*
Strontium	*1000*	*1002*	*100*
Thallium	*1000*	*908*	*91*
Tin	*1000*	*932*	*93*
Titanium	*1000*	*1006*	*101*
Vanadium	*1000*	*1025*	*102*
Zinc	*1000*	*969*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-459132/2-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Boron	1000	957		96	85	113		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-459132/3-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	965		1000	97	85-113	1	20		6010C

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: MT_025

Method: 6010C DL Date: 02/03/2019 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Boron	208.9	100	4.37

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: MT_025

Method: 6010C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Boron		100	4.37

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	167.079													0.000386	
Aluminum	309.271														
Antimony	206.833		0.000026									0.009556		0.000031	
Arsenic	189.042		-0.000033						0.000012			0.000165		-0.000017	
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061		-0.000012			-0.000360						0.001346		0.000249	
Boron	208.959														
Cadmium	228.802			0.004373		-0.000173					-0.000030				
Calcium	317.933										-0.000132				
Chromium	205.552						-0.000889								
Cobalt	228.616					0.000052						0.000001		0.000000	
Copper	324.754														
Iron	259.940														
Iron	271.441										0.076500				
Lead	220.353		-0.000070					-0.000040	0.000001		-0.000688		0.000299		
Lithium	670.784								0.000017						
Magnesium	279.079													0.000221	
Manganese	257.610													0.000013	
Molybdenum	202.030														
Nickel	231.604						-0.000094		-0.000007		-0.000384			0.000000	
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090								-0.000016					0.000017	
Silicon	288.158											-0.013955			
Silver	328.068														
Sodium	589.592														
Sodium	818.326														
Strontium	407.771								0						
Sulfur	182.034		-0.000035						0.000017						

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.856								0.000002		0.001718	0.000274		-0.000032	
Thorium	283.730									-0.000364		-0.000133		0.000830	
Tin	189.989														
Titanium	334.904								0.000005			0.000255			
Uranium	370.152				0.002111				-0.000078			-0.009097		-0.000481	
Vanadium	292.402														
Zinc	206.200		0.000014					-0.000075				-0.000208		0.000023	
Zirconium	339.198													-0.000029	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Aluminum	309.271		0.001655												
Aluminum	167.079														
Antimony	206.833						-0.000005							0.000093	
Arsenic	189.042				0.000666							-0.000151	-0.000151		
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061														
Boron	208.959				0.040000										
Cadmium	228.802														
Calcium	317.933														
Chromium	205.552														
Cobalt	228.616			-0.000001	-0.001646		0.000125								
Copper	324.754				0.001137										
Iron	259.940														
Iron	271.441		0.000330												
Lead	220.353				-0.000710		0.000027					0.000363	0.000063		
Lithium	670.784														
Magnesium	279.079			-0.004762											
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604				0.000080										
Phosphorus	178.284				-0.001297										
Potassium	766.490														
Selenium	196.090			0.000890											
Silicon	288.158				-0.001696										
Silver	328.068			0.000114	-0.000029										
Sodium	818.326														
Sodium	589.592														
Strontium	407.771														
Sulfur	182.034			0.001895	-0.010027										

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Thallium	190.856			0.000471											
Thorium	283.730		-0.00000173		0.000298		0.000116								
Tin	189.989														
Titanium	334.904		0.000001		0.000993										
Uranium	370.152														
Vanadium	292.402			-0.000132	-0.015713										
Zinc	206.200				0.000123										
Zirconium	339.198				0.000270										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	167.079														
Aluminum	309.271														
Antimony	206.833		0.000161		-0.001976	0.000070		-0.000720							
Arsenic	189.042														
Barium	455.403							0.000631							
Beryllium	313.042		0		0.000024	0.000719									
Bismuth	223.061		-0.003027		-0.003000										
Boron	208.959														
Cadmium	228.802				-0.000172										
Calcium	317.933	-0.000543													
Chromium	205.552														
Cobalt	228.616		0.002396		0.000180										
Copper	324.754	0.004049	-0.000473		-0.000966	-0.000078		-0.004427							
Iron	259.940														
Iron	271.441					-0.209000		-0.033							
Lead	220.353		-0.000058		0.001102			-0.000169							
Lithium	670.784														
Magnesium	279.079		0.000196		0.001378										
Manganese	257.610	-0.000521			0.000099										
Molybdenum	202.030				-0.000094										
Nickel	231.604														
Phosphorus	178.284				0.000030										
Potassium	766.490														
Selenium	196.090	-0.000057			-0.000761										
Silicon	288.158														
Silver	328.068	0.000110			0.001056			0.004012							
Sodium	589.592														
Sodium	818.326														
Strontium	407.771														
Sulfur	182.034	0.000409				-0.001026									

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG No.:

ICP-AES Instrument ID: MT_025 Date: 12/17/2018

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.856	-0.000005			0.000038	0.000848									
Thorium	283.730				0.020818			0.017935							
Tin	189.989	-0.000081	-0.000188		0.000171										
Titanium	334.904	0.007261			-0.000638										
Uranium	370.152	-0.003546	0.005713			0.003176		-0.002785							
Vanadium	292.402	0.001304	0.000377		-0.000269										
Zinc	206.200														
Zirconium	339.198	0.042435			-0.000206										

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123981-1

SDG No.:

Instrument ID: MT_025 Date: 04/09/2019 07:06

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Boron		90	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-459132/1-A	05/28/2019 18:00	459132		50	50
LCS 280-459132/2-A	05/28/2019 18:00	459132		50	50
LCSD 280-459132/3-A	05/28/2019 18:00	459132		50	50
280-123981-1	05/28/2019 18:00	459132		50	50
280-123981-2	05/28/2019 18:00	459132		50	50
280-123981-3	05/28/2019 18:00	459132		50	50
280-123981-4	05/28/2019 18:00	459132		50	50
280-123981-5	05/28/2019 18:00	459132		50	50
280-123981-6	05/28/2019 18:00	459132		50	50
280-123981-7	05/28/2019 18:00	459132		50	50
280-123981-8	05/28/2019 18:00	459132		50	50
280-123981-9	05/28/2019 18:00	459132		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: MT_025 Analysis Method: 6010C

Start Date: 05/29/2019 07:28 End Date: 05/29/2019 13:09

Lab Sample Id	D/F	Type	Time	Analytes
				B
ICIS 280-459798/1	1		07:28	X
IC 280-459798/2			07:31	X
IC 280-459798/3			07:33	X
ZZZZZZ			07:36	
ZZZZZZ			07:38	
ICVH 280-459798/6	1		07:41	X
ICVH 280-459798/7	1		07:43	X
ZZZZZZ			07:46	
ICV 280-459798/9	1		07:49	X
ICV 280-459798/10	1		07:56	X
ICVL 280-459798/11	1		08:02	X
CCVH 280-459798/12			08:04	
CCV 280-459798/13			08:07	
ICB 280-459798/14	1		08:09	X
CRI 280-459798/15	1		08:13	X
ICSA 280-459798/16	1		08:16	X
ICSAB 280-459798/17	1		08:18	X
LRA 280-459798/18			08:21	
CCVH 280-459798/19			08:23	
CCV 280-459798/20			08:26	
CCB 280-459798/21			08:28	
CCVL 280-459798/22			08:31	
CRI 280-459798/23			08:46	
ZZZZZZ			08:59	
ZZZZZZ			09:02	
ZZZZZZ			09:04	
ZZZZZZ			09:07	
ZZZZZZ			09:09	
ZZZZZZ			09:12	
ZZZZZZ			09:14	
ZZZZZZ			09:17	
ZZZZZZ			09:19	
CCVH 280-459798/33			09:22	
CCV 280-459798/34			09:25	
CCB 280-459798/35			09:28	
CCVL 280-459798/36			09:31	
ZZZZZZ			09:34	
ZZZZZZ			09:36	
ZZZZZZ			09:39	
ZZZZZZ			09:41	
ZZZZZZ			09:43	
ZZZZZZ			09:46	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: MT_025 Analysis Method: 6010C

Start Date: 05/29/2019 07:28 End Date: 05/29/2019 13:09

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			09:49	
CCVH 280-459798/44			09:53	
CCV 280-459798/45			09:55	
CCB 280-459798/46			09:58	
CCVL 280-459798/47			10:01	
ZZZZZZ			10:04	
ZZZZZZ			10:06	
ZZZZZZ			10:09	
ZZZZZZ			10:11	
ZZZZZZ			10:14	
ZZZZZZ			10:16	
ZZZZZZ			10:18	
ZZZZZZ			10:21	
CCVH 280-459798/56			10:23	
CCV 280-459798/57			10:26	
CCB 280-459798/58			10:28	
CCVL 280-459798/59			10:31	
ZZZZZZ			10:33	
ZZZZZZ			10:36	
ZZZZZZ			10:39	
ZZZZZZ			10:41	
ZZZZZZ			10:44	
ZZZZZZ			10:46	
CCVH 280-459798/66			10:49	
CCV 280-459798/67			10:51	
CCB 280-459798/68			10:54	
CCVL 280-459798/69			10:56	
ZZZZZZ			10:59	
ZZZZZZ			11:02	
ZZZZZZ			11:05	
ZZZZZZ			11:07	
ZZZZZZ			11:10	
ZZZZZZ			11:12	
ZZZZZZ			11:15	
ZZZZZZ			11:17	
CCVH 280-459798/78	1		11:19	X
CCV 280-459798/79	1		11:22	X
CCB 280-459798/80	1		11:24	X
CCVL 280-459798/81	1		11:27	X
MB 280-459132/1-A	1	T	11:30	X
LCS 280-459132/2-A	1	T	11:32	X
LCSD 280-459132/3-A	1	T	11:35	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: MT_025 Analysis Method: 6010C

Start Date: 05/29/2019 07:28 End Date: 05/29/2019 13:09

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			11:37	
ZZZZZZ			11:40	
ZZZZZZ			11:42	
ZZZZZZ			11:44	
ZZZZZZ			11:47	
CCVH 280-459798/90	1		11:49	X
CCV 280-459798/91	1		11:52	X
CCB 280-459798/92	1		11:54	X
CCVL 280-459798/93	1		11:57	X
ZZZZZZ			11:59	
ZZZZZZ			12:02	
ZZZZZZ			12:05	
ZZZZZZ			12:07	
280-123981-1	1	T	12:10	X
280-123981-2	1	T	12:13	X
280-123981-3	1	T	12:15	X
280-123981-4	1	T	12:18	X
280-123981-5	1	T	12:20	X
CCVH 280-459798/103	1		12:23	X
CCV 280-459798/104	1		12:25	X
CCB 280-459798/105	1		12:28	X
CCVL 280-459798/106	1		12:31	X
280-123981-6	1	T	12:34	X
280-123981-7	1	T	12:37	X
280-123981-8	1	T	12:40	X
280-123981-9	1	T	12:42	X
ZZZZZZ			12:45	
ZZZZZZ			12:47	
ZZZZZZ			12:50	
CCVH 280-459798/114	1		12:53	X
CCV 280-459798/115	1		12:55	X
CCB 280-459798/116	1		12:58	X
ZZZZZZ			13:01	
CCVL 280-459798/118	1		13:07	X
CCVL 280-459798/119	1		13:09	X

Prep Types:
T = Total/NA

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

ICP Instrument ID: MT_025 Start Date: 05/29/2019 End Date: 05/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q	Element	Q
ICIS 280-459798/1	07:28										
ICVH 280-459798/6	07:41	101		99		100					
ICVH 280-459798/7	07:43	101		100		102					
ICV 280-459798/9	07:49	103		103		104					
ICV 280-459798/10	07:56	99		99		98					
ICVL 280-459798/11	08:02	102		102		102					
ICB 280-459798/14	08:09	100		101		100					
CRI 280-459798/15	08:13	106		105		101					
ICSA 280-459798/16	08:16	94		90		101					
ICSAB 280-459798/17	08:18	93		89		99					
CCVH 280-459798/78	11:19	102		101		103					
CCV 280-459798/79	11:22	102		102		104					
CCB 280-459798/80	11:24	104		105		104					
CCVL 280-459798/81	11:27	107		106		107					
MB 280-459132/1-A	11:30	106		106		106					
LCS 280-459132/2-A	11:32	104		103		107					
LCSD 280-459132/3-A	11:35	104		103		105					
CCVH 280-459798/90	11:49	103		103		105					
CCV 280-459798/91	11:52	103		101		103					
CCB 280-459798/92	11:54	105		105		104					
CCVL 280-459798/93	11:57	105		105		106					
280-123981-1	12:10	103		103		107					
280-123981-2	12:13	105		105		108					
280-123981-3	12:15	105		105		108					
280-123981-4	12:18	104		105		106					
280-123981-5	12:20	105		105		106					
CCVH 280-459798/103	12:23	102		102		104					
CCV 280-459798/104	12:25	102		101		103					
CCB 280-459798/105	12:28	104		104		104					
CCVL 280-459798/106	12:31	107		107		106					
280-123981-6	12:34	104		105		108					
280-123981-7	12:37	103		104		107					
280-123981-8	12:40	105		105		108					
280-123981-9	12:42	106		107		105					
CCVH 280-459798/114	12:53	104		102		105					
CCV 280-459798/115	12:55	103		103		105					
CCB 280-459798/116	12:58	103		103		103					
CCVL 280-459798/118	13:07	111		108		109					
CCVL 280-459798/119	13:09	109		110		112					

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459132 Batch Start Date: 05/28/19 18:00 Batch Analyst: Lodl, Dagmara A

Batch Method: 3010A Batch End Date: 05/29/19 00:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	PREP SPK 1 00008	PREP SPK 2 00004	PREP SPK 3 00004
MB 280-459132/1		3010A, 6010C			50 mL	50 mL			
LCS 280-459132/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
LCSD 280-459132/3		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123981-F-1	LF7MW-22_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123981-F-2	LF7MW-23_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123981-F-3	LF7MW-26_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123981-F-4	LF7MW-26_0519-a	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123981-F-5	LF7MW-27_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123981-F-6	LF7MW-28_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123981-F-7	LF7MW-30_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123981-F-8	LF7WL-3_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123981-F-9	LF7WL-4_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PREP SPK 4 00004	PREP SPK 4B 00001	PREP SPK 5 00002			
MB 280-459132/1		3010A, 6010C							
LCS 280-459132/2		3010A, 6010C		0.5 mL	0.5 mL	0.5 mL			
LCSD 280-459132/3		3010A, 6010C		0.5 mL	0.5 mL	0.5 mL			
280-123981-F-1	LF7MW-22_0519	3010A, 6010C	T						
280-123981-F-2	LF7MW-23_0519	3010A, 6010C	T						
280-123981-F-3	LF7MW-26_0519	3010A, 6010C	T						
280-123981-F-4	LF7MW-26_0519-a	3010A, 6010C	T						
280-123981-F-5	LF7MW-27_0519	3010A, 6010C	T						
280-123981-F-6	LF7MW-28_0519	3010A, 6010C	T						
280-123981-F-7	LF7MW-30_0519	3010A, 6010C	T						
280-123981-F-8	LF7WL-3_0519	3010A, 6010C	T						
280-123981-F-9	LF7WL-4_0519	3010A, 6010C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459132 Batch Start Date: 05/28/19 18:00 Batch Analyst: Lodl, Dagmara A

Batch Method: 3010A Batch End Date: 05/29/19 00:05

Batch Notes	
Temperature - Corrected - End	92 Degrees C
Temperature - Corrected - Start	92 Degrees C
Digestion End Time	05/29/2019 00:05
Digestion Start Time	05/28/2019 18:00
Digestion Unit ID	04
Hydrochloric Acid ID	0000217157-05/03
Nitric Acid ID	0000216908-05/03
Pipette/Syringe/Dispenser ID	MET-116
Analyst ID - Spike Witness Analyst	QA-51
Thermometer ID	QA-46
Digestion Tube/Cup ID	1812114
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	93 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Name: ICIS Acquired: 5/29/2019 7:28:35 Type: Cal
Method: 6500_025(v8) Mode: IR Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00154**	**.00315**	**-.01601**	**-.00063**	**.00071**	**-.02046**	**-.00378**	**-.00341**	**.01282**	**.00166**	**.00047**	**-.00038**
Stddev	.00014	.00003	.00097	.00000	.00003	.00090	.00043	.00013	.00043	.00004	.00007	.00003
%RSD	9.1954	1.0494	6.0437	.25435	4.7528	4.3919	11.501	3.6672	3.3588	2.3754	15.585	9.1400
#1	-.00144	.00317	-.01533	-.00063	.00074	-.01982	-.00409	-.00350	.01252	.00163	.00041	-.00035
#2	-.00164	.00312	-.01669	-.00063	.00069	-.02109	-.00347	-.00332	.01313	.00169	.00052	-.00040

Elem	Cu3247	Fe2599	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00873**	**.00168**	**.00138**	**.01383**	**.01718**	**-.00001**	**.00001**	**.00075**	**.02050**	**-.02713**	**-.00103**	**.00027**
Stddev	.00016	.00057	.00016	.00408	.00005	.00022	.00012	.00004	.00348	.00199	.00010	.00006
%RSD	1.8620	33.835	11.250	29.501	.31846	1554.7	2297.9	5.4942	16.957	7.3515	9.7074	23.456
#1	.00885	.00128	.00127	.01671	.01722	.00014	.00009	.00072	.02296	-.02854	-.00096	.00022
#2	.00862	.00208	.00149	.01094	.01714	-.00017	-.00008	.00078	.01804	-.02572	-.00110	.00031

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00136**	**.00044**	**.00110**	**.00038**	**.00142**	**.00142**	**.00007**	**.00708**	**-.00074**	**-.00070**	**-.00021**	**-.00379**
Stddev	.00016	.00012	.00043	.00005	.00063	.00063	.00005	.00031	.00017	.00003	.00005	.00001
%RSD	11.800	27.341	39.354	14.198	44.630	44.630	82.648	4.3209	23.661	3.9758	24.428	.20987
#1	-.00125	.00035	.00141	.00034	.00187	.00187	.00010	.00730	-.00061	-.00068	-.00017	-.00380
#2	-.00147	.00052	.00079	.00042	.00097	.00097	.00003	.00686	-.00086	-.00072	-.00025	-.00379

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**-.00016**	**.00013**	**-.00424**
Stddev	.00014	.00000	.00088
%RSD	89.496	.64655	20.710
#1	-.00006	.00013	-.00362
#2	-.00026	.00013	-.00486

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3622.1**	**40724.**	**3251.3**
Stddev	5.2	130.	29.5
%RSD	.14398	.31883	.90787
#1	3618.4	40632.	3272.2
#2	3625.7	40816.	3230.5

Sample Name: ICAL1 Acquired: 5/29/2019 7:31:10 Type: Cal
Method: 6500_025(v8) Mode: IR Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.22768**	**.20835**	**.03592**	**.25979**	**4.6941**	**5.6264**	**.24172**	**1.5974**	**1.6670**	**.92706**	**.87267**	**.23838**	**.67684**
Stddev	.00004	.00069	.00015	.00027	.0246	.0149	.00005	.0086	.0007	.00043	.00150	.00020	.00432
%RSD	.01630	.32964	.40641	.10322	.52442	.26484	.02176	.53743	.04005	.04659	.17136	.08436	.63879
#1	.22771	.20883	.03603	.25960	4.6767	5.6159	.24168	1.5914	1.6675	.92676	.87161	.23852	.67378
#2	.22766	.20786	.03582	.25998	4.7115	5.6370	.24176	1.6035	1.6666	.92737	.87372	.23824	.67990

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.1891**	**.74424**	**1.1045**	**1.5213**	**.47784**	**7.3776**	**.79731**	**.23487**	**.08437**	**.04435**	**.23596**	**.23596**	**.10471**
Stddev	.0142	.00338	.0014	.0019	.00105	.0407	.00060	.00051	.00029	.00007	.00177	.00177	.00020
%RSD	.44644	.45476	.12750	.12759	.21872	.55214	.07477	.21635	.34364	.16476	.74939	.74939	.18995
#1	3.1790	.74184	1.1054	1.5227	.47857	7.3488	.79773	.23451	.08457	.04430	.23471	.23471	.10485
#2	3.1992	.74663	1.1035	1.5199	.47710	7.4064	.79689	.23523	.08416	.04440	.23721	.23721	.10457

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.8104**	**.37287**	**.08860**	**.24417**	**.03887**	**.29309**
Stddev	.0347	.00065	.00008	.00123	.00003	.00022
%RSD	.50972	.17404	.08909	.50314	.07715	.07475
#1	6.7858	.37333	.08855	.24504	.03889	.29294
#2	6.8349	.37241	.08866	.24330	.03885	.29325

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3580.9**	**40207.**	**3289.6**
Stddev	5.7	161.	45.7
%RSD	.15952	.39930	1.3905
#1	3585.0	40320.	3321.9
#2	3576.9	40093.	3257.2

Sample Name: ICAL2 Acquired: 5/29/2019 7:33:30 Type: Cal
Method: 6500_025(v8) Mode: IR Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Al3092	Fe2714	Na8183	P_1782	S_1820	Th2837	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.3711**	**.61099**	**2.0511**	**.57999**	**.24543**	**.61088**	**.00235**
Stddev	.0052	.00061	.0009	.00215	.00095	.00112	.00015
%RSD	.15460	.10017	.04324	.37105	.38890	.18405	6.5391
#1	3.3748	.61056	2.0505	.58151	.24610	.61009	.00246
#2	3.3674	.61142	2.0517	.57846	.24475	.61168	.00224

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3583.1**	**39985.**	**3303.1**
Stddev	5.2	249.	12.1
%RSD	.14442	.62198	.36543
#1	3579.5	40161.	3311.6
#2	3586.8	39809.	3294.5

Sample Name: S1-5708352 Acquired: 5/29/2019 7:36:02 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97451**	**.98118**	**.97563**	**.98121**	**.97025**	**.96475**	**1.9595**	**9.7302**	**.98064**	**.98341**	**.98122**	**.97360**	**4.8402**
Stddev	.00115	.00325	.01251	.00551	.00746	.00460	.0088	.0499	.00520	.00574	.00391	.00453	.0144
%RSD	.11806	.33121	1.2823	.56198	.76902	.47637	.45134	.51267	.52993	.58329	.39865	.46571	.29647
#1	.97370	.97889	.96679	.97731	.96497	.96150	1.9533	9.6949	.97696	.97935	.97846	.97039	4.8300
#2	.97532	.98348	.98448	.98511	.97552	.96800	1.9658	9.7654	.98431	.98747	.98399	.97681	4.8503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**97.293**	**.97185**	**39.022**	**.97185**	**.98481**	**48.422**	**.98220**	**-.00397**	**.98299**	**-.00322**	**.98212**	**.97731**	**9.6372**
Stddev	.571	.01053	.014	.00041	.00385	.245	.00118	.00128	.00333	.00343	.00620	.00499	.0142
%RSD	.58729	1.0834	.03511	.04243	.39078	.50584	.11991	32.258	.33892	106.42	.63156	.51087	.14698
#1	96.889	.96441	39.012	.97156	.98209	48.249	.98136	-.00487	.98063	-.00080	.97774	.97378	9.6272
#2	97.697	.97930	39.032	.97214	.98753	48.595	.98303	-.00306	.98535	-.00565	.98651	.98084	9.6472
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.624**	**.98788**	**.97061**	**-.00831**	**.96946**	**.98258**	**-.01112**	**.97039**	**.97055**	**.96816**
Stddev	.030	.00159	.00664	.00140	.00160	.00807	.00993	.00036	.00437	.01337
%RSD	.14698	.16128	.68422	16.851	.16456	.82092	89.341	.03729	.44978	1.3805
#1	20.602	.98676	.96591	-.00732	.96833	.97687	-.01814	.97013	.96746	.95871
#2	20.645	.98901	.97530	-.00931	.97059	.98828	-.00409	.97065	.97363	.97762
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3678.3**	**41351.**	**3375.5**
Stddev	14.3	12.	12.4
%RSD	.38962	.02953	.36667
#1	3688.5	41342.	3384.2
#2	3668.2	41360.	3366.7

Sample Name: S2-5713035 Acquired: 5/29/2019 7:38:33 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00207**	**100.96**	**-.00128**	**.00368**	**.00237**	**.00005**	**-.00457**	**.00847**	**.00006**	**.00434**	**.00055**	**.02140**
Stddev	.00189	.27	.00080	.00097	.00000	.00013	.00004	.00133	.00018	.00008	.00013	.00160
%RSD	91.319	.26642	62.889	26.265	.09750	249.87	.96568	15.733	277.83	1.8008	23.858	7.4820
#1	-.00340	100.77	-.00071	.00300	.00237	.00014	-.00454	.00941	-.00006	.00428	.00046	.02027
#2	-.00073	101.15	-.00184	.00437	.00237	-.00004	-.00460	.00752	.00019	.00439	.00065	.02253
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**100.68**	**.30918**	**.00619**	**.02803**	**.00509**	**-.00068**	**503.35**	**.00333**	**10.015**	**.00272**	**10.005**	**.00209**
Stddev	.07	.02209	.00538	.00180	.00007	.00036	.48	.00050	.031	.00157	.047	.00190
%RSD	.06576	7.1455	86.925	6.4100	1.4659	53.118	.09578	15.070	.30529	57.753	.46660	91.260
#1	100.64	.29356	.00239	.02930	.00503	-.00093	503.01	.00297	10.036	.00161	10.038	.00074
#2	100.73	.32480	.00999	.02676	.00514	-.00042	503.69	.00368	9.9929	.00383	9.9716	.00343
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00998**	**.04159**	**.08901**	**-.00302**	**.00018**	**9.9962**	**-.02939**	**-.00015**	F **1.0990**	**.00968**	**.00304**	**.20259**
Stddev	.00506	.01538	.03291	.00052	.00028	.0151	.00009	.00092	.0239	.00091	.00084	.00203
%RSD	50.745	36.977	36.977	17.124	158.15	.15115	.30482	610.34	2.1766	9.4185	27.554	1.0033
#1	.01356	.05247	.11228	-.00266	-.00002	9.9855	-.02945	-.00080	1.1159	.01032	.00363	.20116
#2	.00640	.03072	.06574	-.00339	.00038	10.007	-.02933	.00050	1.0821	.00903	.00245	.20403
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									1.0000			
Range									5.0000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3580.6**	**39714.**	**3289.7**
Stddev	.6	157.	17.5
%RSD	.01685	.39598	.53048
#1	3580.2	39603.	3302.1
#2	3581.1	39826.	3277.4

Sample Name: ICVH-5725435 Acquired: 5/29/2019 7:41:05 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00060**	**40.396**	**-.00592**	**-.00089**	**.00018**	**.00022**	**.00112**	**-.00097**	**-.00041**	**.00044**	**.00009**	**.00644**
Stddev	.00044	.139	.00112	.00008	.00102	.00005	.00171	.00078	.00020	.00052	.00034	.00176
%RSD	74.026	.34400	18.924	9.3082	559.89	23.745	151.85	80.949	48.514	118.36	370.98	27.311
#1	-.00091	40.495	-.00671	-.00083	-.00054	.00018	-.00008	-.00041	-.00027	.00007	-.00015	.00520
#2	-.00028	40.298	-.00512	-.00094	.00090	.00025	.00233	-.00152	-.00055	.00081	.00033	.00769
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**80.760**	**.18414**	**.00098**	**.00629**	**.00127**	**-.00053**	**81.018**	**.00004**	**3.8766**	**-.00132**	**3.9863**	**-.00306**
Stddev	.576	.02965	.00268	.00241	.00009	.00001	.848	.00012	.0312	.00028	.0028	.00246
%RSD	.71333	16.103	274.52	38.384	7.4656	1.0478	1.0464	298.56	.80556	20.878	.06975	80.152
#1	81.167	.20510	-.00092	.00458	.00133	-.00053	81.617	-.00005	3.8987	-.00151	3.9883	-.00480
#2	80.353	.16317	.00287	.00799	.00120	-.00053	80.418	.00013	3.8546	-.00112	3.9843	-.00133
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**.00826**	**.01768**	**.00066**	**-.00008**	**2.8980**	**-.00888**	**-.00045**	F **.44468**	**.00420**	**-.00435**	**.05757**
Stddev	.00085	.02535	.05425	.00105	.00006	.0108	.00042	.00005	.02135	.00047	.00007	.00073
%RSD	178.97	306.76	306.76	158.86	77.604	.37293	4.7140	10.048	4.8021	11.182	1.5172	1.2648
#1	-.00013	.02619	.05604	-.00008	-.00004	2.9056	-.00859	-.00048	.45978	.00387	-.00430	.05808
#2	.00108	-.00966	-.02067	.00140	-.00012	2.8903	-.00918	-.00042	.42958	.00454	-.00439	.05705
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.40000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3659.7**	**40229.**	**3244.2**
Stddev	6.6	9.	25.6
%RSD	.18166	.02296	.78940
#1	3655.0	40235.	3226.1
#2	3664.4	40222.	3262.3

Sample Name: ICVH-5725435 Acquired: 5/29/2019 7:43:51 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00058**	**40.057**	**-.00272**	**-.00060**	**.00019**	**.00020**	**.00088**	**-.00734**	**-.00020**	**.00015**	**-.00000**	**.00534**	**79.954**
Stddev	.00059	.166	.00202	.00103	.00025	.00003	.00435	.00487	.00029	.00019	.00017	.00001	.306
%RSD	101.69	.41563	74.148	171.71	131.01	16.021	492.92	66.344	144.77	129.82	3880.7	.09770	.38236
#1	-.00016	39.939	-.00415	-.00133	.00001	.00022	.00396	-.00390	.00000	.00001	-.00013	.00534	79.738
#2	-.00100	40.175	-.00129	.00013	.00036	.00018	-.00220	-.01079	-.00040	.00028	.00012	.00534	80.170
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.05476**	**-.00332**	**.00700**	**.00132**	**-.00115**	**80.113**	**-.00044**	**3.8886**	**.00014**	**3.9801**	**.00122**	**.00223**	**-.03197**
Stddev	.00462	.00087	.00304	.00000	.00027	.338	.00050	.0089	.00088	.0260	.00396	.00111	.00643
%RSD	8.4374	26.078	43.357	.20298	23.517	.42134	114.05	.22780	622.79	.65312	324.04	49.520	20.104
#1	-.05150	-.00393	.00486	.00132	-.00134	79.875	-.00009	3.8949	.00076	3.9984	.00402	.00302	-.03652
#2	-.05803	-.00271	.00915	.00132	-.00096	80.352	-.00080	3.8824	-.00048	3.9617	-.00158	.00145	-.02743
Check ?	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.06842**	**.00223**	**-.00029**	**2.8942**	**-.00904**	**.00158**	**.39164**	**.00350**	**-.00392**	**.05485**
Stddev	.01376	.00203	.00041	.0054	.00013	.00266	.01537	.00059	.00002	.00233
%RSD	20.104	91.098	142.97	.18627	1.4376	169.07	3.9252	16.847	.62475	4.2458
#1	-.07815	.00079	.00000	2.8904	-.00914	.00346	.38077	.00308	-.00394	.05320
#2	-.05870	.00367	-.00057	2.8980	-.00895	-.00031	.40251	.00391	-.00390	.05650
Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3673.3**	**40910.**	**3326.5**
Stddev	12.4	90.	21.4
%RSD	.33727	.21976	.64395
#1	3664.5	40846.	3311.4
#2	3682.1	40974.	3341.6

Sample Name: ICV-5725436 Acquired: 5/29/2019 7:46:42 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.24910**	**.24340**	W **.22676**	W **.23447**	**.25110**	**.25442**	**.48078**	**2.5167**	**.23680**	**.24056**	**.23843**	**.24462**
Stddev	.00397	.00077	.00165	.00030	.00020	.00073	.00120	.0085	.00015	.00034	.00052	.00576
%RSD	1.5928	.31546	.72719	.12738	.07841	.28799	.24864	.33931	.06336	.13962	.21738	2.3551
#1	.25190	.24395	.22792	.23426	.25124	.25390	.47993	2.5227	.23670	.24032	.23879	.24870
#2	.24629	.24286	.22559	.23468	.25096	.25494	.48163	2.5106	.23691	.24080	.23806	.24055
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.25000	.25000								
Range			-5.4900%	-5.4900%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2501**	**24.944**	**.25289**	**9.8721**	**.24850**	**.23806**	**12.515**	**.24202**	**-.00403**	**.24317**	**-.00800**	**.24454**
Stddev	.0121	.095	.00612	.1636	.00403	.00009	.004	.00106	.00153	.00092	.00469	.00220
%RSD	.96682	.38118	2.4194	1.6569	1.6216	.03762	.03555	.43652	37.894	.37681	58.689	.89952
#1	1.2587	24.877	.25722	9.9878	.25135	.23800	12.512	.24127	-.00511	.24381	-.00468	.24609
#2	1.2416	25.012	.24856	9.7565	.24565	.23813	12.518	.24276	-.00295	.24252	-.01132	.24298
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.22146**	**2.4868**	**5.3219**	**.24016**	**.25141**	**-.00335**	**.24246**	**.24572**	**.06798**	**.24178**	**.24481**	**.24941**
Stddev	.00102	.0198	.0424	.00011	.00005	.00270	.00507	.00348	.00457	.00443	.00389	.00100
%RSD	.46189	.79644	.79644	.04750	.02047	80.802	2.0892	1.4145	6.7283	1.8338	1.5880	.40137
#1	.22074	2.4728	5.2919	.24008	.25138	-.00143	.24605	.24818	.06474	.24492	.24756	.24870
#2	.22219	2.5009	5.3518	.24024	.25145	-.00526	.23888	.24326	.07121	.23865	.24206	.25012
Check ?	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value	.25000											
Range	-10.490%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3800.9**	**41775.**	**3347.5**
Stddev	4.2	196.	1.2
%RSD	.11180	.46937	.03436
#1	3803.9	41637.	3348.3
#2	3797.9	41914.	3346.7

Sample Name: ICV-5725436 Acquired: 5/29/2019 7:49:32 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.25298**	**.25348**	**.24669**	**.24634**	**.25203**	**.25452**	**.50575**	**2.5282**	**.24777**	**.25127**	**.24900**	**.24918**	**1.2490**
Stddev	.00028	.00016	.00371	.00075	.00126	.00031	.00041	.0097	.00066	.00054	.00012	.00005	.0048
%RSD	.10949	.06360	1.5039	.30639	.49843	.12266	.08065	.38313	.26510	.21678	.04714	.01996	.38508
#1	.25318	.25336	.24931	.24688	.25292	.25474	.50604	2.5350	.24823	.25166	.24891	.24922	1.2524
#2	.25279	.25359	.24406	.24581	.25114	.25430	.50546	2.5213	.24730	.25089	.24908	.24914	1.2456
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.977**	**.24979**	**9.9888**	**.25045**	**.24929**	**12.424**	**.25191**	**-.00051**	**.25097**	**-.00802**	**.25656**	**.24341**	**2.4958**
Stddev	.036	.00024	.0066	.00034	.00115	.067	.00082	.00230	.00096	.00055	.00014	.00032	.0633
%RSD	.14353	.09591	.06574	.13684	.46108	.53678	.32475	450.03	.38345	6.8246	.05469	.13097	2.5362
#1	25.002	.24996	9.9935	.25020	.25010	12.471	.25249	.00112	.25029	-.00764	.25666	.24319	2.4510
#2	24.951	.24962	9.9842	.25069	.24848	12.377	.25133	-.00214	.25165	-.00841	.25646	.24364	2.5405
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.3409**	**.24902**	**.25159**	**-.00490**	**.24433**	**.25429**	**.03650**	**.24499**	**.24424**	**.24792**
Stddev	.1354	.00085	.00130	.00039	.00085	.00327	.00864	.00043	.00147	.00208
%RSD	2.5362	.34048	.51520	8.0213	.34857	1.2873	23.661	.17738	.60333	.83781
#1	5.2451	.24842	.25251	-.00518	.24493	.25660	.04261	.24468	.24528	.24939
#2	5.4367	.24962	.25068	-.00463	.24373	.25197	.03040	.24529	.24320	.24645
Check ?	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3736.7**	**42145.**	**3376.8**
Stddev	2.3	35.	11.3
%RSD	.06088	.08329	.33372
#1	3738.3	42120.	3368.9
#2	3735.1	42170.	3384.8

Sample Name: ICV-5725436 Acquired: 5/29/2019 7:56:55 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.25300**	**.25762**	**.24455**	**.24959**	**.25277**	**.25580**	**.50732**	**2.5538**	**.24987**	**.25336**	**.25042**	**.25138**	**1.2541**
Stddev	.00020	.00052	.00315	.00103	.00047	.00058	.00308	.0069	.00144	.00136	.00187	.00098	.0054
%RSD	.07982	.20060	1.2869	.41331	.18619	.22827	.60668	.27103	.57681	.53561	.74712	.38916	.43279
#1	.25285	.25799	.24677	.25032	.25244	.25539	.50949	2.5586	.25089	.25432	.25175	.25069	1.2503
#2	.25314	.25726	.24232	.24886	.25311	.25621	.50514	2.5489	.24885	.25240	.24910	.25207	1.2580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.300**	**.25901**	**10.083**	**.25297**	**.25157**	**12.581**	**.25503**	**-.00123**	**.25430**	**.00180**	**.26132**	**.24588**	**2.5027**
Stddev	.085	.00495	.007	.00011	.00052	.110	.00016	.00076	.00066	.00616	.00107	.00301	.0443
%RSD	.33645	1.9095	.06624	.04534	.20475	.87418	.06460	61.459	.26146	342.33	.40810	1.2261	1.7706
#1	25.240	.26251	10.078	.25305	.25194	12.504	.25492	-.00177	.25477	.00616	.26207	.24374	2.5340
#2	25.360	.25552	10.088	.25289	.25121	12.659	.25515	-.00070	.25383	-.00256	.26056	.24801	2.4714
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.3558**	**.25077**	**.25255**	**-.00534**	**.24756**	**.26070**	**-.02060**	**.24807**	**.24831**	**.24770**
Stddev	.0948	.00070	.00034	.00124	.00006	.00285	.08160	.00009	.00145	.00270
%RSD	1.7706	.27843	.13553	23.223	.02272	1.0937	396.17	.03525	.58500	1.0911
#1	5.4228	.25126	.25231	-.00622	.24760	.26271	-.07830	.24800	.24728	.24579
#2	5.2887	.25028	.25279	-.00446	.24752	.25868	.03710	.24813	.24934	.24961
Check ?	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3576.5**	**40136.**	**3195.2**
Stddev	14.4	157.	33.1
%RSD	.40347	.39065	1.0359
#1	3566.3	40025.	3218.6
#2	3586.7	40247.	3171.8

Sample Name: ICVL-5725431 Acquired: 5/29/2019 8:02:22 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00800**	**.10551**	**.01060**	**.09966**	**.01067**	**.00117**	**.10925**	**.22177**	**.00530**	**.01116**	**.01046**	**.01560**
Stddev	.00033	.00101	.00659	.00013	.00066	.00002	.00128	.00014	.00001	.00029	.00030	.00026
%RSD	4.1043	.95723	62.218	.13453	6.1408	1.8259	1.1758	.06347	.13712	2.6185	2.8574	1.6648
#1	.00823	.10622	.00594	.09956	.01021	.00116	.11016	.22187	.00530	.01095	.01067	.01542
#2	.00777	.10479	.01526	.09975	.01114	.00119	.10834	.22167	.00531	.01137	.01024	.01579
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12624**	**3.0236**	**.01644**	**.20886**	**.01073**	**.01976**	**1.0400**	**.04228**	**2.9590**	**.01168**	**.09482**	**.02267**
Stddev	.00008	.1357	.00001	.00147	.00001	.00079	.0159	.00018	.0000	.00041	.00957	.00466
%RSD	.05993	4.4874	.06064	.70316	.11726	4.0031	1.5248	.42207	.00063	3.5425	10.094	20.560
#1	.12629	3.1195	.01643	.20990	.01074	.01920	1.0512	.04215	2.9590	.01198	.10159	.02597
#2	.12619	2.9277	.01645	.20782	.01072	.02032	1.0288	.04241	2.9590	.01139	.08805	.01938
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01691**	**.48052**	**1.0283**	**.10349**	**.00996**	**.01447**	**.00959**	**.01581**	F **.03691**	**.00997**	**.02274**	**.01167**
Stddev	.00115	.01525	.0326	.00074	.00042	.00049	.00015	.00138	.03907	.00015	.00025	.00194
%RSD	6.8180	3.1740	3.1740	.71619	4.2439	3.3649	1.5240	8.7512	105.87	1.5481	1.0832	16.662
#1	.01609	.46973	1.0052	.10402	.01026	.01413	.00948	.01679	.00928	.00986	.02291	.01029
#2	.01773	.49130	1.0514	.10297	.00966	.01482	.00969	.01483	.06453	.01008	.02256	.01304
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3678.9**	**41548.**	**3313.0**
Stddev	14.0	48.	24.8
%RSD	.38175	.11639	.74893
#1	3688.8	41514.	3295.5
#2	3669.0	41582.	3330.5

Sample Name: CCVH-5713036 Acquired: 5/29/2019 8:04:54 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**49.920**	**-.00402**	**.00142**	**.00141**	**.00019**	**-.00111**	**.00303**	**.00000**	**.00235**	**.00009**	**.01190**
Stddev	.00067	.072	.00033	.00103	.00037	.00000	.00352	.00519	.00022	.00022	.00022	.00006
%RSD	320.39	.14445	8.2980	72.109	26.025	1.7118	317.24	171.29	6582.0	9.4877	248.28	.52279
#1	-.00026	49.869	-.00379	.00070	.00167	.00020	-.00360	.00670	.00016	.00251	-.00007	.01195
#2	.00068	49.971	-.00426	.00215	.00115	.00019	.00138	-.00064	-.00015	.00219	.00025	.01186
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.526**	**.06694**	**.00049**	**.01406**	**.00246**	**-.00102**	**249.02**	**.00147**	**4.9713**	**.00244**	**4.9092**	**.00051**
Stddev	.043	.12833	.00553	.00225	.00006	.00034	.65	.00027	.0251	.00073	.0343	.00035
%RSD	.08651	191.71	1123.9	16.028	2.3789	33.001	.25973	18.295	.50586	29.783	.69865	68.533
#1	49.556	-.02380	.00440	.01246	.00250	-.00078	248.57	.00166	4.9891	.00192	4.9334	.00075
#2	49.496	.15768	-.00342	.01565	.00242	-.00126	249.48	.00128	4.9535	.00295	4.8849	.00026
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00106**	**-.01147**	**-.02454**	**-.00040**	**.00023**	**5.0012**	**-.01463**	**.00226**	F **.57467**	**.00544**	**-.00194**	**.09439**
Stddev	.00087	.01960	.04193	.00106	.00025	.0082	.00019	.00115	.00474	.00068	.00026	.00003
%RSD	82.173	170.85	170.85	262.04	109.79	.16408	1.2654	50.728	.82482	12.437	13.339	.03019
#1	.00044	-.02533	-.05420	.00035	.00005	5.0070	-.01476	.00307	.57802	.00592	-.00212	.09441
#2	.00168	.00239	.00511	-.00115	.00041	4.9954	-.01450	.00145	.57132	.00497	-.00176	.09437
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3584.4**	**40016.**	**3247.7**
Stddev	2.0	105.	83.3
%RSD	.05665	.26274	2.5639
#1	3583.0	40090.	3306.6
#2	3585.8	39942.	3188.8

Sample Name: CCV-5714928 Acquired: 5/29/2019 8:07:24 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47193**	**.47469**	**.45985**	**.46731**	**.47220**	**.47202**	**.94481**	**4.7316**	**.46789**	**.47239**	**.46971**	**.47207**	**2.3368**
Stddev	.00036	.00346	.00467	.00115	.00035	.00020	.00856	.0123	.00246	.00205	.00204	.00055	.0101
%RSD	.07624	.72809	1.0150	.24616	.07399	.04243	.90626	.25900	.52529	.43398	.43442	.11659	.43235
#1	.47168	.47714	.46315	.46812	.47195	.47188	.95087	4.7229	.46963	.47384	.47116	.47245	2.3296
#2	.47218	.47225	.45655	.46649	.47244	.47216	.93876	4.7402	.46615	.47094	.46827	.47168	2.3439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.466**	**.47771**	**18.756**	**.47136**	**.46662**	**23.753**	**.47259**	**-.00109**	**.46911**	**.00087**	**.46409**	**.46481**	**4.7130**
Stddev	.159	.00072	.027	.00029	.00258	.057	.00430	.00100	.00162	.00329	.00645	.00194	.0121
%RSD	.33503	.15093	.14414	.06208	.55384	.24059	.91081	92.075	.34513	380.28	1.3899	.41699	.25607
#1	47.353	.47720	18.737	.47115	.46845	23.793	.47563	-.00038	.47026	-.00146	.46865	.46619	4.7215
#2	47.578	.47822	18.775	.47156	.46479	23.712	.46954	-.00179	.46797	.00319	.45953	.46344	4.7044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.086**	**.47034**	**.47307**	**-.00273**	**.46806**	**.47433**	**.02307**	**.46762**	**.46575**	**.46484**
Stddev	.026	.00107	.00022	.00226	.00045	.01135	.04625	.00010	.00084	.00511
%RSD	.25607	.22814	.04588	82.809	.09659	2.3923	200.50	.02160	.17992	1.0989
#1	10.104	.47109	.47322	-.00113	.46838	.48236	-.00964	.46755	.46516	.46122
#2	10.068	.46958	.47292	-.00433	.46774	.46631	.05577	.46769	.46635	.46845
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3724.8**	**41917.**	**3381.1**
Stddev	2.7	77.	3.4
%RSD	.07261	.18417	.10067
#1	3722.9	41972.	3383.5
#2	3726.7	41863.	3378.7

Sample Name: ICB Acquired: 5/29/2019 8:09:50 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**-.00085**	**.00254**	**.00047**	**.00014**	**.00034**	**-.00016**	**-.00552**	**.00012**	**.00037**	**-.00037**	**-.00004**	**-.00268**
Stddev	.00077	.00010	.00284	.00016	.00015	.00018	.00413	.00112	.00010	.00019	.00004	.00027	.00676
%RSD	451.87	12.137	111.89	34.805	105.29	53.519	2543.0	20.249	79.779	49.842	10.075	697.83	252.64
#1	.00071	-.00093	.00053	.00059	.00025	.00021	-.00309	-.00631	.00005	.00050	-.00035	-.00023	-.00746
#2	-.00037	-.00078	.00455	.00035	.00004	.00047	.00276	-.00473	.00019	.00024	-.00040	.00015	.00210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11993**	**.00408**	**.00412**	**-.00001**	**.00033**	**.08086**	**.00017**	**-.00032**	**.00166**	**-.00800**	**-.00003**	**-.00434**	**.02113**
Stddev	.05571	.00679	.00180	.00007	.00021	.00511	.00014	.00151	.00168	.00197	.00321	.00008	.00514
%RSD	46.454	166.57	43.708	618.17	62.520	6.3145	79.805	470.08	100.74	24.664	10201.	1.7324	24.329
#1	.08054	-.00073	.00285	-.00006	.00019	.07725	.00027	.00074	.00048	-.00939	-.00230	-.00429	.02477
#2	.15933	.00888	.00540	.00004	.00048	.08447	.00008	-.00139	.00285	-.00660	.00224	-.00440	.01750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04523**	**.00164**	**.00028**	**-.00324**	**-.00029**	**.00427**	**.02178**	**.00001**	**-.00231**	**.00029**
Stddev	.01100	.00152	.00003	.00033	.00010	.00052	.01937	.00002	.00066	.00081
%RSD	24.329	93.123	9.5839	10.276	35.377	12.107	88.932	201.17	28.759	281.83
#1	.05301	.00056	.00030	-.00347	-.00022	.00390	.00808	.00003	-.00184	-.00029
#2	.03745	.00271	.00026	-.00300	-.00036	.00463	.03548	-.00001	-.00277	.00086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3633.8**	**41048.**	**3264.4**
Stddev	17.6	16.	2.0
%RSD	.48504	.03818	.06254
#1	3621.3	41037.	3262.9
#2	3646.2	41059.	3265.8

Sample Name: CRI-5725431 Acquired: 5/29/2019 8:13:19 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.00728**	**.09904**	**.01648**	**.09342**	**.00969**	**.00117**	**.10369**	**.19038**	**.00482**	**.01001**	**.00965**	**.01317**
Stddev	.00029	.00089	.00566	.00061	.00011	.00014	.00199	.00402	.00011	.00013	.00038	.00030
%RSD	3.9850	.89728	34.365	.65790	1.0943	11.877	1.9197	2.1142	2.1945	1.2845	3.9603	2.2679
#1	.00708	.09841	.02048	.09299	.00961	.00107	.10228	.19322	.00490	.01010	.00992	.01296
#2	.00749	.09967	.01247	.09386	.00976	.00127	.10509	.18753	.00475	.00992	.00938	.01338
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-20.490%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.12833**	**2.9815**	**.02120**	**.19808**	**.01028**	**.01880**	**1.0661**	**.03987**	**2.7997**	W **.01101**	**.08660**	**.01709**
Stddev	.00085	.0188	.00182	.00370	.00018	.00009	.0030	.00041	.0012	.00034	.00678	.00106
%RSD	.66045	.63147	8.6066	1.8670	1.7230	.47970	.28561	1.0184	.04402	3.0482	7.8283	6.2207
#1	.12773	2.9948	.02249	.19547	.01015	.01874	1.0639	.04016	2.8005	.01125	.08181	.01634
#2	.12893	2.9682	.01991	.20070	.01040	.01887	1.0682	.03958	2.7988	.01077	.09139	.01784
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value	.10000									.00900		
Range	20.490%									20.490%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01636**	**.51427**	**1.1005**	**.09798**	**.01023**	**.01327**	**.00930**	**.01638**	**.06731**	**.01044**	**.02005**	W **.00770**
Stddev	.00019	.03829	.0819	.00066	.00004	.00135	.00036	.00222	.05635	.00008	.00045	.00096
%RSD	1.1347	7.4458	7.4458	.67721	.37455	10.157	3.8460	13.539	83.717	.76008	2.2627	12.526
#1	.01623	.48720	1.0426	.09845	.01020	.01423	.00904	.01481	.02747	.01038	.01973	.00838
#2	.01649	.54135	1.1585	.09751	.01025	.01232	.00955	.01794	.10716	.01050	.02037	.00702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value												.01500
Range												-20.490%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3829.2**	**42870.**	**3280.1**
Stddev	2.9	250.	29.6
%RSD	.07525	.58310	.90383
#1	3831.3	42693.	3259.1
#2	3827.2	43047.	3301.0

Sample Name: ICSA-5714842 Acquired: 5/29/2019 8:16:23 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**507.18**	**-.00332**	**-.00143**	**.00177**	**.00021**	**-.00316**	**468.58**	**.00020**	**-.00015**	W **.00405**	**.00207**
Stddev	.00065	.59	.00152	.00003	.00046	.00020	.00386	.83	.00017	.00005	.00034	.00008
%RSD	112.42	.11609	45.835	2.2927	25.950	97.728	121.94	.17810	85.345	31.381	8.4057	3.8959
#1	.00104	507.59	-.00440	-.00145	.00144	.00035	-.00044	469.17	.00032	-.00018	.00429	.00212
#2	.00012	506.76	-.00225	-.00140	.00209	.00006	-.00589	467.99	.00008	-.00011	.00381	.00201
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit											.00260	
Low Limit											-.00260	

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**187.12**	**-.05024**	**-.00054**	**518.09**	**.00028**	**-.00035**	**.26525**	**.00235**	**.00599**	**-.00335**	**-.09807**	**-.01017**
Stddev	.97	.03259	.00173	4.49	.00013	.00029	.01088	.00041	.00577	.00214	.00062	.00378
%RSD	.52020	64.866	318.18	.86578	47.602	82.127	4.1015	17.466	96.297	63.895	.62923	37.140
#1	187.81	-.07328	.00068	521.26	.00037	-.00056	.27294	.00206	.00191	-.00486	-.09764	-.01285
#2	186.43	-.02720	-.00176	514.92	.00019	-.00015	.25755	.00264	.01006	-.00184	-.09851	-.00750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00281**	**.01025**	**.02193**	**-.00184**	W **.00783**	**-.00227**	W **.00260**	**.00396**	**-.20404**	**.00093**	**-.00527**	**-.00226**
Stddev	.00120	.00363	.00777	.00123	.00035	.00424	.00031	.00219	.08041	.00105	.00097	.00172
%RSD	42.839	35.417	35.417	67.058	4.4623	186.31	12.085	55.357	39.406	113.18	18.432	76.163
#1	-.00196	.00768	.01644	-.00271	.00808	.00072	.00238	.00241	-.26090	.00019	-.00596	-.00347
#2	-.00366	.01281	.02742	-.00097	.00759	-.00527	.00283	.00551	-.14719	.00167	-.00458	-.00104
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.00120		.00230					
Low Limit					-.00120		-.00230					

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3387.9**	**36506.**	**3286.3**
Stddev	36.1	115.	4.5
%RSD	1.0667	.31483	.13735
#1	3413.4	36424.	3283.1
#2	3362.3	36587.	3289.5

Sample Name: ICSAB-5707812 Acquired: 5/29/2019 8:18:57 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1196**	**518.95**	**.99094**	**9.6840**	**.99849**	**.49393**	**.98144**	**480.32**	**1.0142**	**.92956**	**.96460**	**1.0815**	**191.79**
Stddev	.0031	.30	.00891	.0301	.00048	.00108	.00688	.33	.0049	.00245	.00529	.0050	.64
%RSD	.27313	.05783	.89908	.31085	.04782	.21882	.70076	.06972	.48623	.26307	.54840	.46583	.33484
#1	1.1218	518.74	.99724	9.7053	.99883	.49317	.98630	480.56	1.0176	.93129	.96834	1.0779	191.33
#2	1.1174	519.16	.98464	9.6627	.99815	.49470	.97657	480.09	1.0107	.92783	.96086	1.0851	192.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.496**	**1.0372**	**529.35**	**1.0131**	**.94990**	**10.550**	**.92593**	**10.026**	**.93108**	**10.201**	**.98496**	**.97809**	**9.9029**
Stddev	.035	.0008	.37	.0009	.00660	.011	.00393	.042	.00740	.071	.00415	.00472	.0040
%RSD	.33037	.07979	.07049	.09044	.69488	.10621	.42402	.42239	.79520	.69573	.42151	.48254	.04013
#1	10.520	1.0366	529.08	1.0124	.95457	10.542	.92871	10.056	.93632	10.251	.98789	.97475	9.9057
#2	10.471	1.0377	529.61	1.0137	.94523	10.558	.92316	9.9957	.92585	10.151	.98202	.98143	9.9001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.192**	**.93243**	**1.0016**	**2.0613**	**1.0063**	**.90779**	**-.13258**	**1.0249**	**.96890**	**.98110**
Stddev	.009	.00566	.0001	.0046	.0002	.00345	.01076	.0015	.00620	.00370
%RSD	.04013	.60725	.01012	.22451	.02330	.37974	8.1179	.14246	.63996	.37721
#1	21.198	.93644	1.0015	2.0646	1.0064	.91023	-.14019	1.0259	.96451	.97848
#2	21.186	.92843	1.0017	2.0581	1.0061	.90535	-.12497	1.0238	.97328	.98371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3381.6**	**36241.**	**3224.5**
Stddev	5.7	64.	5.4
%RSD	.16888	.17563	.16742
#1	3377.6	36286.	3228.3
#2	3385.7	36196.	3220.7

Sample Name: LRA-5681702 Acquired: 5/29/2019 8:21:20 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00141**	**.32607**	**9.7222**	**9.7970**	**12.438**	**-.00461**	**-.01671**	**.07117**	**2.0653**	**5.0817**	**10.072**	**10.635**	**507.43**
Stddev	.00097	.00100	.0366	.0395	.084	.00022	.00343	.01512	.0089	.0194	.052	.039	2.23
%RSD	68.957	.30611	.37660	.40315	.67199	4.7516	20.525	21.250	.42871	.38101	.51657	.36296	.43919
#1	.00210	.32677	9.7481	9.8249	12.379	-.00446	-.01428	.08186	2.0715	5.0954	10.109	10.662	505.85
#2	.00072	.32536	9.6964	9.7690	12.497	-.00477	-.01913	.06047	2.0590	5.0680	10.035	10.608	509.00
Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.25654**	**.00094**	**-.04654**	**9.9920**	**4.9813**	**-.01044**	**10.261**	**-.02752**	**10.243**	**-.04772**	**.06020**	**4.8384**	**47.678**
Stddev	.02655	.00014	.00101	.0594	.0186	.02121	.042	.00244	.042	.00300	.00852	.0157	.328
%RSD	10.347	14.760	2.1670	.59423	.37286	203.17	.41321	8.8796	.41085	6.2936	14.147	.32489	.68861
#1	-.23777	.00084	-.04726	10.034	4.9944	.00456	10.291	-.02580	10.273	-.04984	.06623	4.8495	47.446
#2	-.27531	.00104	-.04583	9.9501	4.9682	-.02544	10.231	-.02925	10.214	-.04560	.05418	4.8273	47.910
Check ?	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**102.03**	**.00049**	**10.266**	**-.00268**	**9.9174**	**5.0872**	**.08803**	**9.9570**	**9.7098**	**.00066**
Stddev	.70	.00143	.081	.00049	.0324	.0254	.04984	.0311	.0305	.00150
%RSD	.68861	292.37	.78694	18.434	.32641	.49916	56.620	.31207	.31377	227.30
#1	101.53	-.00052	10.209	-.00303	9.9403	5.1052	.12328	9.9789	9.7314	.00172
#2	102.53	.00150	10.323	-.00233	9.8945	5.0693	.05279	9.9350	9.6883	-.00040
Check ?	None	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3666.3**	**41302.**	**3315.4**
Stddev	21.7	104.	15.1
%RSD	.59060	.25101	.45581
#1	3650.9	41229.	3304.7
#2	3681.6	41375.	3326.1

Sample Name: CCVH-5713036 Acquired: 5/29/2019 8:23:47 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**50.216**	**.00478**	**.03543**	**.00166**	**.00007**	**.00030**	**-.00518**	**-.00006**	**.00268**	**.00077**	**.01096**
Stddev	.00155	.116	.00426	.00252	.00027	.00016	.00032	.00240	.00039	.00023	.00047	.00010
%RSD	226.14	.23013	89.070	7.1071	16.530	224.27	106.39	46.394	649.87	8.5970	61.682	.87805
#1	.00041	50.134	.00780	.03721	.00146	.00018	.00007	-.00348	-.00033	.00285	.00111	.01103
#2	-.00178	50.298	.00177	.03365	.00185	-.00004	.00052	-.00688	.00021	.00252	.00043	.01090
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**50.091**	**-.05420**	**.00162**	**.01867**	**.00259**	**.00388**	**251.61**	**.00160**	**4.9382**	**.00337**	**4.8993**	**.00005**
Stddev	.457	.01082	.00149	.00107	.00003	.00127	.29	.00063	.0227	.00103	.0349	.00379
%RSD	.91146	19.967	92.151	5.7318	1.2512	32.856	.11671	39.492	.46056	30.568	.71247	7764.5
#1	49.768	-.04654	.00267	.01791	.00261	.00298	251.41	.00116	4.9543	.00409	4.9240	.00273
#2	50.414	-.06185	.00056	.01942	.00257	.00478	251.82	.00205	4.9221	.00264	4.8746	-.00263
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00490**	**.04582**	**.09805**	**-.00160**	**.00058**	**4.9771**	**-.01361**	**.00315**	F **.60045**	**.00527**	**.00066**	**.09737**
Stddev	.00446	.01485	.03178	.00033	.00028	.0133	.00009	.00011	.04024	.00092	.00015	.00121
%RSD	91.114	32.408	32.408	20.845	48.666	.26759	.64765	3.6450	6.7014	17.479	22.442	1.2378
#1	.00174	.05632	.12052	-.00184	.00038	4.9677	-.01368	.00323	.57200	.00593	.00077	.09652
#2	.00806	.03532	.07558	-.00137	.00078	4.9866	-.01355	.00307	.62891	.00462	.00056	.09823
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3652.3**	**40707.**	**3308.5**
Stddev	8.3	255.	12.8
%RSD	.22860	.62731	.38570
#1	3646.4	40887.	3317.5
#2	3658.2	40526.	3299.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 8:26:19 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49805**	**.50539**	**.49283**	**.51585**	**.50167**	**.49658**	**1.0001**	**5.0330**	**.49581**	**.50260**	**.50050**	**.50013**	**2.5198**
Stddev	.00160	.00000	.00035	.00058	.00000	.00047	.0005	.0092	.00105	.00038	.00224	.00460	.0003
%RSD	.32138	.00063	.07024	.11242	.00009	.09443	.04777	.18388	.21142	.07500	.44664	.91924	.01090
#1	.49919	.50538	.49308	.51626	.50167	.49691	1.0005	5.0396	.49655	.50287	.50208	.50338	2.5197
#2	.49692	.50539	.49259	.51544	.50167	.49625	.99978	5.0265	.49507	.50233	.49892	.49688	2.5200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.842**	**.50836**	**19.983**	**.50102**	**.49765**	**24.836**	**.50364**	**-.00199**	**.50039**	**.00426**	**.49620**	**.48274**	**4.9585**
Stddev	.026	.00747	.026	.00051	.00119	.005	.00038	.00019	.00265	.00037	.00105	.00570	.0100
%RSD	.05131	1.4700	.12792	.10228	.23953	.01927	.07496	9.3798	.53004	8.6489	.21062	1.1804	.20108
#1	49.824	.50308	19.965	.50138	.49850	24.840	.50338	-.00212	.50227	.00400	.49694	.48677	4.9515
#2	49.860	.51364	20.001	.50066	.49681	24.833	.50391	-.00185	.49852	.00452	.49547	.47871	4.9656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.611**	**.50626**	**.50393**	**-.00543**	**.49339**	**.50886**	**.00780**	**.49630**	**.49374**	**.49816**
Stddev	.021	.00039	.00036	.00017	.00056	.00060	.01145	.00148	.00051	.00239
%RSD	.20108	.07776	.07076	3.1823	.11446	.11790	146.76	.29898	.10270	.47914
#1	10.596	.50598	.50418	-.00555	.49299	.50929	-.00029	.49735	.49338	.49984
#2	10.626	.50653	.50367	-.00530	.49379	.50844	.01590	.49525	.49410	.49647
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3628.5**	**40848.**	**3299.7**
Stddev	4.9	135.	21.1
%RSD	.13524	.33005	.63964
#1	3631.9	40753.	3314.6
#2	3625.0	40943.	3284.8

Sample Name: CCB Acquired: 5/29/2019 8:28:45 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00129**	**.00208**	**.00124**	**.01499**	**.00031**	**.00025**	**.00089**	**-.01589**	**.00020**	**.00053**	**-.00010**	**.00018**	**.02776**
Stddev	.00027	.00170	.00273	.00117	.00047	.00021	.00217	.00059	.00039	.00026	.00016	.00043	.00788
%RSD	20.659	82.033	220.13	7.8034	150.31	82.680	243.83	3.6842	195.74	49.636	158.16	235.49	28.392
#1	.00110	.00087	-.00069	.01581	.00064	.00011	-.00064	-.01631	.00048	.00034	.00001	.00049	.02219
#2	.00148	.00328	.00317	.01416	-.00002	.00040	.00242	-.01548	-.00008	.00071	-.00022	-.00012	.03333
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02588**	**.00318**	**.00760**	**.00045**	**.00052**	**-.05312**	**-.00016**	**-.00101**	**.00016**	**.00180**	**-.00092**	**-.00588**	**-.00964**
Stddev	.11944	.00065	.00321	.00006	.00027	.00763	.00033	.00147	.00156	.01578	.00058	.00004	.02885
%RSD	461.56	20.368	42.188	12.321	51.478	14.363	203.43	145.57	984.20	877.04	63.449	.75992	299.26
#1	-.05858	.00272	.00533	.00049	.00033	-.04772	-.00039	.00003	.00126	-.00936	-.00051	-.00591	-.03004
#2	.11033	.00363	.00986	.00041	.00071	-.05851	.00007	-.00205	-.00095	.01296	-.00133	-.00585	.01076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.02063**	**.00051**	**-.00006**	**.00052**	**.00026**	**.00207**	**.00547**	**.00007**	**-.00276**	**-.00437**
Stddev	.06173	.00152	.00005	.00291	.00011	.00050	.08242	.00063	.00029	.00215
%RSD	299.26	295.58	73.948	556.06	43.315	24.087	1505.9	883.08	10.594	49.283
#1	-.06428	-.00056	-.00003	-.00154	.00018	.00172	.06375	-.00037	-.00255	-.00589
#2	.02302	.00159	-.00009	.00258	.00033	.00242	-.05281	.00051	-.00297	-.00284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3701.0**	**41665.**	**3310.6**
Stddev	1.4	307.	22.3
%RSD	.03700	.73765	.67272
#1	3700.0	41882.	3326.3
#2	3702.0	41447.	3294.8

Sample Name: CCVL-5725431 Acquired: 5/29/2019 8:31:23 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00759**	F **.20406**	**.01899**	**.10885**	**.01037**	**.00108**	**.10274**	**.19756**	**.00544**	**.01105**	**.01121**	**.01448**
Stddev	.00021	.14298	.00162	.00338	.00095	.00014	.00215	.00012	.00050	.00102	.00196	.00023
%RSD	2.8229	70.065	8.5217	3.1039	9.1799	13.317	2.0885	.05984	9.2174	9.2483	17.470	1.5882
#1	.00774	.30517	.02013	.11124	.01104	.00118	.10426	.19764	.00579	.01178	.01259	.01464
#2	.00743	.10296	.01784	.10646	.00969	.00098	.10122	.19748	.00508	.01033	.00982	.01432
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.10000										
Range		30.000%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.13180**	**2.8193**	**.01791**	**.21010**	**.01048**	**.02002**	**.93057**	**.04202**	**2.8355**	**.01088**	**.08354**	**.02016**
Stddev	.00563	.0959	.00478	.00267	.00006	.00085	.00285	.00260	.0000	.00188	.00200	.00377
%RSD	4.2683	3.4020	26.691	1.2695	.61052	4.2217	.30673	6.1803	.00035	17.321	2.3886	18.676
#1	.12782	2.7515	.01453	.20822	.01053	.02062	.92855	.04386	2.8355	.01221	.08213	.01750
#2	.13577	2.8871	.02129	.21199	.01043	.01942	.93259	.04018	2.8355	.00955	.08495	.02283
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.10000											
Range	30.000%											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01604**	**.50797**	**1.0871**	**.09865**	**.00965**	**.01508**	**.00903**	**.01695**	F **.00719**	**.01011**	**.02009**	**.01307**
Stddev	.00275	.03147	.0673	.00038	.00028	.00152	.00004	.00351	.03330	.00012	.00013	.00181
%RSD	17.141	6.1956	6.1956	.38585	2.9042	10.100	.45298	20.681	462.98	1.1473	.62486	13.833
#1	.01799	.53022	1.1347	.09892	.00945	.01400	.00906	.01943	-.01635	.01002	.02018	.01434
#2	.01410	.48571	1.0394	.09838	.00985	.01615	.00900	.01447	.03074	.01019	.02001	.01179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3831.8**	**43343.**	**3462.7**
Stddev	7.6	71.	12.5
%RSD	.19751	.16412	.36203
#1	3837.1	43293.	3471.6
#2	3826.4	43394.	3453.9

Sample Name: CRI- Acquired: 5/29/2019 8:46:55 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00191**	**.00070**	**.00366**	**.00002**	**.00021**	**-.00016**	**-.00515**	**-.00001**	**.00020**	**-.00030**	**-.00143**
Stddev	.00050	.00015	.00436	.00011	.00013	.00005	.00020	.00497	.00011	.00000	.00009	.00022
%RSD	1219.9	7.9647	622.11	3.0369	560.76	21.883	126.33	96.624	1535.9	1.3911	28.395	15.208
#1	-.00031	-.00180	-.00238	.00358	-.00007	.00025	-.00029	-.00866	.00007	.00020	-.00024	-.00158
#2	.00040	-.00201	.00379	.00374	.00012	.00018	-.00002	-.00163	-.00008	.00020	-.00037	-.00128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.09488**	**-.14574**	**.00119**	**-.00003**	**-.00007**	**-.00065**	**-.06932**	**-.00056**	**-.00197**	F **.01062**	**-.00359**	**-.00139**
Stddev	.00200	.06569	.00234	.00039	.00016	.00024	.00401	.00061	.00275	.00117	.00214	.00051
%RSD	2.1117	45.072	197.14	1202.5	220.09	37.367	5.7837	107.91	139.83	11.036	59.562	36.436
#1	.09630	-.19218	-.00047	-.00031	-.00018	-.00083	-.07216	-.00099	-.00392	.00979	-.00510	-.00104
#2	.09346	-.09929	.00285	.00024	.00004	-.00048	-.06649	-.00013	-.00002	.01145	-.00208	-.00175
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit	.05000									.01000		
Low Limit	-.05000									-.01000		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00527**	**.00033**	**.00070**	**.00099**	**-.00032**	**-.00203**	**.00027**	**.00148**	**.00955**	**.00101**	**-.00275**	**-.00067**
Stddev	.00030	.03549	.07596	.00091	.00030	.00229	.00054	.00161	.02621	.00021	.00037	.00045
%RSD	5.7048	10898.	10898.	92.152	92.571	112.97	200.25	109.30	274.56	20.433	13.583	67.294
#1	-.00506	.02542	.05441	.00163	-.00054	-.00041	.00065	.00262	.02808	.00086	-.00249	-.00098
#2	-.00548	-.02477	-.05301	.00034	-.00011	-.00365	-.00011	.00034	-.00899	.00116	-.00302	-.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.2**	**42852.**	**3396.5**
Stddev	50.4	267.	48.9
%RSD	1.3346	.62195	1.4402
#1	3741.6	43041.	3361.9
#2	3812.9	42664.	3431.1

Sample Name: MB 280-459283/1-B Acquired: 5/29/2019 8:59:37 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00103**	**.00054**	**.00003**	**.00057**	**.00020**	**-.00161**	**-.00826**	**-.00005**
Stddev	.00011	.00001	.00130	.00057	.00029	.00033	.00217	.00843	.00012
%RSD	109.59	1.0483	241.88	2212.8	51.591	165.07	134.69	102.06	235.58
#1	.00002	-.00104	.00145	-.00038	.00036	.00043	-.00314	-.01421	-.00013
#2	.00018	-.00102	-.00038	.00043	.00077	-.00003	-.00008	-.00230	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**-.00040**	**-.00087**	**.00349**	**-.04635**	**-.00213**	**.00965**	**.00010**	**-.00048**
Stddev	.00039	.00007	.00011	.00001	.03404	.00189	.00657	.00006	.00029
%RSD	117.56	17.779	12.264	.22156	73.440	88.718	68.049	57.696	60.088
#1	.00006	-.00045	-.00095	.00350	-.02228	-.00347	.00501	.00014	-.00028
#2	.00060	-.00035	-.00080	.00349	-.07042	-.00079	.01430	.00006	-.00068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.06412**	**-.00020**	**-.00105**	**.00233**	**.00178**	**-.00386**	**-.00313**	**.00446**	**.00953**
Stddev	.01553	.00033	.00491	.00017	.00045	.00200	.00731	.00753	.01612
%RSD	24.214	162.04	466.25	7.3418	25.013	51.749	233.35	169.09	169.09
#1	-.05314	.00003	.00242	.00245	.00210	-.00245	-.00830	.00978	.02093
#2	-.07510	-.00043	-.00452	.00221	.00147	-.00527	.00204	-.00087	-.00187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00159**	**-.00024**	**-.00158**	**.00030**	**.00198**	**-.02683**	**.00092**	**-.00190**	**.00030**
Stddev	.00085	.00007	.00433	.00019	.00161	.01116	.00054	.00075	.00048
%RSD	53.388	27.273	274.22	62.700	81.614	41.597	59.194	39.464	161.34
#1	.00099	-.00020	-.00464	.00017	.00084	-.03472	.00130	-.00243	.00064
#2	.00219	-.00029	.00148	.00043	.00312	-.01894	.00053	-.00137	-.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3792.3**	**42279.**	**3471.2**
Stddev	24.8	226.	6.8
%RSD	.65416	.53525	.19630
#1	3774.7	42439.	3466.4
#2	3809.8	42119.	3476.0

Sample Name: LCS 280-459283/2-B Acquired: 5/29/2019 9:02:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05116**	**10.304**	**1.9834**	**.98127**	**1.9986**	W **1.0262**	**1.9735**	**48.936**	**.99669**
Stddev	.00079	.079	.0090	.00115	.0035	.0031	.0028	.172	.00262
%RSD	1.5533	.76865	.45227	.11743	.17550	.30107	.14345	.35084	.26322
#1	.05060	10.248	1.9898	.98045	1.9962	1.0240	1.9755	48.815	.99854
#2	.05172	10.360	1.9771	.98208	2.0011	1.0284	1.9715	49.058	.99483
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.98064**	**.97964**	**1.0016**	**9.8342**	**49.277**	**1.0038**	**49.743**	**1.0137**	**.99593**
Stddev	.00217	.00032	.0018	.0069	.107	.0037	.008	.0007	.00309
%RSD	.22081	.03257	.18033	.06973	.21773	.36994	.01522	.06667	.31076
#1	.98217	.97986	1.0028	9.8391	49.201	1.0064	49.748	1.0133	.99812
#2	.97910	.97941	1.0003	9.8294	49.352	1.0011	49.738	1.0142	.99374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **49.717**	**.97929**	W **20.501**	**.98231**	**10.049**	**1.0594**	**1.9686**	**2.0779**	**4.4467**
Stddev	.146	.00070	.019	.00295	.011	.0032	.0080	.0103	.0220
%RSD	.29329	.07144	.09480	.30012	.10808	.30190	.40909	.49540	.49540
#1	49.614	.97978	20.514	.98023	10.056	1.0572	1.9743	2.0706	4.4311
#2	49.820	.97879	20.487	.98439	10.041	1.0617	1.9629	2.0852	4.4623
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9730**	**.99022**	**1.0250**	**1.0162**	**1.9524**	**2.3310**	**1.0116**	**.50007**	**.51455**
Stddev	.0004	.00310	.0008	.0005	.0001	.0014	.0005	.00038	.00653
%RSD	.02008	.31345	.08265	.05343	.00452	.06115	.04982	.07536	1.2695
#1	1.9733	.98803	1.0244	1.0166	1.9524	2.3300	1.0120	.49980	.50993
#2	1.9727	.99242	1.0256	1.0158	1.9523	2.3320	1.0113	.50033	.51917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3658.9**	**40667.**	**3343.5**
Stddev	4.3	171.	13.1
%RSD	.11821	.41968	.39265
#1	3655.9	40787.	3352.7
#2	3662.0	40546.	3334.2

Sample Name: 280-123838-B-1-B Acquired: 5/29/2019 9:04:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.00177**	**.01012**	**.48304**	**.12951**	**.00026**	**-.00475**	**189.35**	**.00054**
Stddev	.00101	.00053	.00808	.00110	.00028	.00016	.00004	.51	.00030
%RSD	185.18	29.861	79.877	.22872	.21987	61.984	.74013	.27186	55.031
#1	.00126	.00139	.00440	.48382	.12931	.00015	-.00472	188.99	.00033
#2	-.00017	.00214	.01584	.48226	.12972	.00038	-.00477	189.72	.00075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00387**	**.00015**	**.00020**	**.05466**	**.64214**	**.00713**	**109.98**	**2.9375**	**.00184**
Stddev	.00009	.00006	.00083	.00450	.08969	.00063	.31	.0105	.00038
%RSD	2.3333	36.634	420.65	8.2262	13.968	8.8251	.28121	.35620	20.514
#1	.00380	.00019	.00078	.05148	.70556	.00758	109.76	2.9301	.00157
#2	.00393	.00011	-.00039	.05784	.57872	.00669	110.20	2.9449	.00211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**73.510**	**.00277**	**.03168**	**.00013**	**4.0948**	**-.00191**	**-.00705**	**19.946**	**42.684**
Stddev	.817	.00005	.00010	.00034	.0339	.00434	.00464	.076	.162
%RSD	1.1107	1.7741	.32767	264.11	.82707	227.06	65.784	.37991	.37991
#1	74.088	.00280	.03175	-.00011	4.1188	.00116	-.01033	19.999	42.798
#2	72.933	.00273	.03160	.00036	4.0709	-.00499	-.00377	19.892	42.569
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00088**	**1.3279**	**-.00316**	**.00149**	**.00019**	**-.06063**	**.00036**	**-.00017**	**-.00259**
Stddev	.00050	.0039	.00390	.00005	.00254	.08232	.00067	.00061	.00580
%RSD	56.880	.29285	123.27	3.1987	1343.4	135.78	186.78	352.65	223.93
#1	-.00123	1.3251	-.00041	.00153	-.00160	-.11884	-.00012	-.00060	.00151
#2	-.00052	1.3306	-.00592	.00146	.00198	-.00242	.00084	.00026	-.00669
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3604.0**	**40393.**	**3391.6**
Stddev	4.3	167.	13.6
%RSD	.12006	.41301	.39967
#1	3607.1	40511.	3401.1
#2	3601.0	40275.	3382.0

Sample Name: 280-123838-B-2-B Acquired: 5/29/2019 9:07:06 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00199**	**.00828**	**.00469**	**.54497**	**.17506**	**.00025**	**-.00852**	**183.10**	**.00079**
Stddev	.00011	.00053	.00510	.00172	.00036	.00008	.00317	.16	.00035
%RSD	5.4333	6.4529	108.72	.31508	.20516	31.929	37.189	.08568	44.898
#1	.00191	.00790	.00108	.54618	.17480	.00019	-.01076	183.21	.00104
#2	.00207	.00866	.00829	.54375	.17531	.00030	-.00628	182.99	.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02699**	**-.00001**	**.00394**	**.20448**	**4.6189**	**.02925**	**152.50**	**7.4348**	**.00065**
Stddev	.00018	.00014	.00022	.00512	.0921	.00274	.32	.0014	.00011
%RSD	.66195	1777.3	5.5307	2.5060	1.9933	9.3824	.21130	.01928	16.283
#1	.02686	-.00010	.00409	.20811	4.5538	.03119	152.72	7.4338	.00058
#2	.02711	.00009	.00378	.20086	4.6840	.02730	152.27	7.4358	.00073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**168.60**	**.02554**	**.03197**	**.00084**	**1.5386**	**-.00173**	**-.00556**	**24.910**	**53.308**
Stddev	.14	.00027	.00343	.00029	.0131	.00234	.00232	.167	.356
%RSD	.08465	1.0614	10.714	34.600	.85215	135.66	41.725	.66849	.66849
#1	168.50	.02535	.03439	.00064	1.5478	-.00338	-.00392	25.028	53.560
#2	168.71	.02573	.02955	.00105	1.5293	-.00007	-.00720	24.792	53.056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00106**	**2.6637**	**-.00403**	**.00086**	**-.00589**	**-.01992**	**.00007**	**.01302**	**-.00085**
Stddev	.00006	.0042	.00066	.00045	.00227	.01576	.00017	.00004	.00209
%RSD	5.5627	.15637	16.440	51.522	38.568	79.125	237.16	.29843	247.07
#1	-.00110	2.6666	-.00356	.00055	-.00750	-.03106	.00019	.01299	.00063
#2	-.00102	2.6607	-.00450	.00118	-.00429	-.00877	-.00005	.01305	-.00233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3564.7**	**39383.**	**3296.1**
Stddev	2.6	11.	15.7
%RSD	.07271	.02916	.47578
#1	3562.9	39391.	3285.0
#2	3566.6	39375.	3307.2

Sample Name: 280-123838-B-3-B Acquired: 5/29/2019 9:09:42 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**-.00003**	**.00347**	**.51217**	**.11369**	**.00021**	**-.00428**	**134.87**	**.00045**
Stddev	.00063	.00015	.00205	.00279	.00013	.00011	.00651	.27	.00006
%RSD	91.202	533.84	59.136	.54559	.11260	55.267	152.24	.20078	13.025
#1	.00113	-.00014	.00492	.51415	.11360	.00013	-.00888	134.68	.00049
#2	.00024	.00008	.00202	.51020	.11378	.00029	.00033	135.06	.00040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00126**	**-.00015**	**-.00142**	**.08964**	**.64236**	**.00730**	**114.87**	**3.1476**	**.00485**
Stddev	.00049	.00010	.00103	.00524	.08561	.00452	.11	.0022	.00002
%RSD	38.870	64.611	73.008	5.8404	13.327	61.898	.09983	.07137	.44593
#1	.00161	-.00022	-.00069	.08594	.58182	.00411	114.79	3.1460	.00484
#2	.00092	-.00008	-.00215	.09334	.70289	.01050	114.95	3.1492	.00487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **61.256**	**61.940**	**.00135**	**.01665**	**.00061**	**.04869**	**-.00218**	**-.01177**	**17.112**
Stddev	.179	.094	.00002	.00065	.00047	.00488	.00499	.00062	.036
%RSD	.29159	.15142	1.4761	3.8908	77.409	10.024	229.33	5.3037	.20923
#1	61.129	61.874	.00134	.01619	.00027	.04524	-.00571	-.01221	17.137
#2	61.382	62.007	.00136	.01711	.00094	.05215	.00135	-.01133	17.086
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**36.619**	**-.00008**	**1.3010**	**-.00291**	**.00022**	**-.00259**	F **-.14100**	**.00043**	**-.00046**
Stddev	.077	.00142	.0044	.00086	.00016	.00230	.01900	.00063	.00036
%RSD	.20923	1738.8	.33798	29.505	73.419	88.582	13.478	146.01	78.909
#1	36.673	.00092	1.2979	-.00351	.00034	-.00097	-.15444	-.00001	-.00071
#2	36.564	-.00109	1.3041	-.00230	.00011	-.00422	-.12757	.00087	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							20.000		
Low Limit							-.12000		

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.00051**
Stddev	.00072
%RSD	140.71
#1	.00102
#2	.00000
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-123838-B-3-B Acquired: 5/29/2019 9:09:42 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3604.0**	**39412.**	**3218.6**
Stddev	6.9	297.	16.3
%RSD	.19274	.75321	.50542
#1	3599.1	39202.	3230.1
#2	3608.9	39622.	3207.1

Sample Name: 280-123838-B-4-B Acquired: 5/29/2019 9:12:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**.00392**	**.00405**	**.49646**	**.04259**	**.00022**	**-.00206**	**81.478**	**.00086**
Stddev	.00005	.00014	.00030	.00341	.00012	.00011	.00223	.379	.00020
%RSD	19.833	3.4588	7.4714	.68602	.27584	51.191	108.29	.46546	23.835
#1	-.00021	.00402	.00427	.49887	.04250	.00030	-.00363	81.210	.00100
#2	-.00028	.00382	.00384	.49405	.04267	.00014	-.00048	81.746	.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**-.00012**	**.00101**	**.00290**	**2.9409**	**.01420**	**88.763**	**.00367**	**.00750**
Stddev	.00030	.00022	.00027	.00233	.1442	.00299	.193	.00166	.00096
%RSD	62.614	186.78	26.836	80.520	4.9014	21.044	.21722	45.228	12.770
#1	-.00027	.00004	.00082	.00125	2.8390	.01631	88.627	.00250	.00818
#2	-.00070	-.00027	.00121	.00455	3.0429	.01209	88.900	.00485	.00682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**71.153**	**.00051**	**.02835**	**.00074**	**41.797**	**-.00077**	**-.00065**	**12.492**	**26.732**
Stddev	.770	.00088	.00008	.00204	.186	.00022	.00011	.000	.000
%RSD	1.0816	172.35	.27891	273.54	.44434	28.796	16.965	.00075	.00075
#1	70.609	.00113	.02829	-.00070	41.928	-.00061	-.00073	12.492	26.732
#2	71.697	-.00011	.02841	.00218	41.666	-.00092	-.00057	12.492	26.732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00139**	**.95399**	**-.00505**	**.00035**	**.00034**	**.00071**	**.00452**	**-.00114**	**.00029**
Stddev	.00084	.00755	.00114	.00024	.00211	.02431	.00012	.00066	.00104
%RSD	60.802	.79112	22.653	68.414	619.63	3440.3	2.6950	57.979	363.67
#1	.00198	.94866	-.00424	.00053	-.00115	-.01648	.00461	-.00160	-.00045
#2	.00079	.95933	-.00586	.00018	.00183	.01790	.00444	-.00067	.00102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3644.3**	**40733.**	**3336.3**
Stddev	.8	210.	5.1
%RSD	.02150	.51498	.15362
#1	3643.7	40882.	3332.7
#2	3644.9	40585.	3340.0

Sample Name: 280-123838-B-5-B Acquired: 5/29/2019 9:14:46 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.00718**	**.01301**	**.58317**	**.06073**	**.00031**	**-.00791**	**137.63**	**.00050**
Stddev	.00017	.00057	.00148	.00005	.00059	.00003	.00461	.15	.00030
%RSD	83.027	8.0047	11.396	.00879	.97149	9.8853	58.292	.11062	60.496
#1	-.00033	.00759	.01196	.58313	.06031	.00029	-.00465	137.52	.00029
#2	-.00009	.00677	.01405	.58320	.06114	.00033	-.01117	137.74	.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00132**	**-.00022**	**.00072**	**.23070**	**3.2936**	**.01845**	**121.78**	**3.6979**	**-.00047**
Stddev	.00012	.00034	.00040	.00674	.0356	.00261	.03	.0016	.00006
%RSD	9.3161	155.06	55.862	2.9222	1.0816	14.171	.02092	.04271	12.452
#1	.00123	.00002	.00043	.22594	3.2684	.02030	121.76	3.6968	-.00051
#2	.00140	-.00046	.00100	.23547	3.3188	.01660	121.79	3.6990	-.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**76.942**	**.00097**	**.02469**	**-.00137**	**.23063**	**.00363**	**-.00877**	**16.213**	**34.695**
Stddev	.563	.00060	.00086	.00029	.00078	.00140	.00454	.086	.183
%RSD	.73121	61.186	3.4974	21.370	.33644	38.625	51.806	.52738	.52738
#1	77.340	.00140	.02530	-.00158	.23118	.00264	-.00556	16.152	34.566
#2	76.544	.00055	.02408	-.00116	.23008	.00462	-.01198	16.273	34.825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00072**	**1.3919**	**-.00422**	**.00081**	**-.00101**	**-.07408**	**.00030**	**-.00053**	**-.00279**
Stddev	.00120	.0009	.00218	.00017	.00246	.01505	.00048	.00037	.00321
%RSD	166.33	.06659	51.587	20.992	243.18	20.318	158.98	70.361	114.92
#1	-.00013	1.3912	-.00576	.00093	.00073	-.06344	.00064	-.00026	-.00052
#2	.00157	1.3926	-.00268	.00069	-.00275	-.08473	-.00004	-.00079	-.00507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3584.4**	**40166.**	**3376.2**
Stddev	.7	38.	7.8
%RSD	.01862	.09521	.23168
#1	3583.9	40139.	3381.8
#2	3584.9	40193.	3370.7

Sample Name: 280-123838-B-6-B Acquired: 5/29/2019 9:17:19 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**-.00081**	**.01394**	**.59793**	**.07680**	**.00015**	**-.00236**	**96.819**	**.00001**
Stddev	.00158	.00009	.00001	.00109	.00038	.00016	.00064	.183	.00002
%RSD	253.81	10.555	.09451	.18170	.49736	105.45	26.947	.18944	140.17
#1	-.00050	-.00087	.01395	.59870	.07707	.00004	-.00191	96.690	.00000
#2	.00174	-.00075	.01394	.59716	.07653	.00026	-.00281	96.949	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**-.00022**	**-.00001**	**-.00512**	**2.4529**	**.00956**	**83.905**	**.00091**	**.00115**
Stddev	.00007	.00019	.00022	.00187	.0082	.00463	.072	.00004	.00030
%RSD	31.333	87.532	1878.6	36.581	.33577	48.450	.08556	3.8936	26.400
#1	-.00017	-.00036	-.00017	-.00644	2.4588	.01283	83.854	.00093	.00137
#2	-.00027	-.00008	.00014	-.00380	2.4471	.00628	83.955	.00088	.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**135.53**	**.00003**	**.03990**	**.00026**	**10.042**	**.00112**	**-.00773**	**17.318**	**37.060**
Stddev	.56	.00021	.00159	.00182	.033	.00075	.00568	.060	.128
%RSD	.41055	756.37	3.9887	692.70	.33181	66.897	73.463	.34530	.34530
#1	135.13	-.00012	.03877	-.00103	10.066	.00165	-.01175	17.275	36.969
#2	135.92	.00018	.04103	.00155	10.018	.00059	-.00372	17.360	37.150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00156**	**1.2511**	**-.00338**	**.00019**	**.00385**	**-.04613**	**.00245**	**-.00072**	**-.00188**
Stddev	.00049	.0032	.00137	.00028	.00041	.07166	.00013	.00004	.00163
%RSD	31.578	.25919	40.481	149.71	10.776	155.35	5.4625	5.4330	86.602
#1	-.00121	1.2488	-.00241	-.00001	.00355	.00454	.00236	-.00075	-.00303
#2	-.00191	1.2534	-.00434	.00038	.00414	-.09681	.00254	-.00069	-.00073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3645.7**	**40571.**	**3374.6**
Stddev	16.4	101.	17.7
%RSD	.44980	.24829	.52481
#1	3657.3	40642.	3387.1
#2	3634.2	40500.	3362.1

Sample Name: 280-123838-B-7-B Acquired: 5/29/2019 9:19:51 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00113**	**.00023**	**.00710**	**.57476**	**.10106**	**.00024**	**-.00356**	**114.54**	**.00041**
Stddev	.00078	.00042	.00540	.00504	.00003	.00010	.00421	.21	.00028
%RSD	69.120	184.10	76.051	.87650	.02918	42.757	118.27	.18533	69.102
#1	.00058	-.00007	.01092	.57832	.10104	.00017	-.00654	114.39	.00061
#2	.00168	.00053	.00328	.57120	.10108	.00031	-.00058	114.69	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.00041**	**.00046**	**.01727**	**2.1434**	**.01123**	**97.147**	**.00101**	**.00960**
Stddev	.00033	.00015	.00043	.00324	.0165	.00118	.247	.00017	.00019
%RSD	144.47	36.804	92.201	18.731	.77097	10.510	.25426	17.254	1.9854
#1	.00000	.00052	.00016	.01498	2.1551	.01206	96.972	.00089	.00973
#2	-.00046	.00030	.00076	.01956	2.1317	.01039	97.322	.00113	.00946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**84.095**	**.00025**	**.00870**	**-.00158**	**3.1459**	**.00364**	**-.00401**	**15.520**	**33.214**
Stddev	.081	.00025	.00290	.00108	.0348	.00066	.00221	.068	.146
%RSD	.09648	99.309	33.281	68.338	1.1057	18.168	55.241	.43996	.43996
#1	84.038	.00043	.01075	-.00235	3.1705	.00317	-.00244	15.472	33.110
#2	84.152	.00008	.00665	-.00082	3.1213	.00411	-.00557	15.569	33.317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**1.1621**	**-.00034**	**-.00003**	**.00328**	**-.06163**	**.00067**	**-.00103**	**.00047**
Stddev	.00179	.0001	.00019	.00008	.00527	.06527	.00051	.00011	.00471
%RSD	3061.3	.00797	56.610	273.11	160.66	105.91	76.251	10.383	1008.2
#1	-.00132	1.1620	-.00020	.00003	-.00045	-.10778	.00031	-.00095	.00380
#2	.00121	1.1622	-.00047	-.00008	.00701	-.01548	.00103	-.00110	-.00287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3591.3**	**40409.**	**3372.4**
Stddev	21.5	186.	6.3
%RSD	.59801	.46019	.18812
#1	3606.5	40540.	3376.9
#2	3576.1	40277.	3368.0

Sample Name: CCVH-5713036 Acquired: 5/29/2019 9:22:23 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00113**	**50.785**	**-.00315**	**.00364**	**.00108**	**.00022**	**-.00046**	**.02055**	**.00006**	**.00222**	**.00009**	**.01159**
Stddev	.00094	.417	.00177	.00029	.00047	.00010	.00421	.00412	.00015	.00019	.00057	.00105
%RSD	83.464	.82021	56.329	8.0367	43.489	43.411	912.72	20.045	267.21	8.5837	640.84	9.0544
#1	-.00046	50.491	-.00440	.00385	.00142	.00029	-.00344	.01764	-.00005	.00236	.00049	.01233
#2	-.00179	51.080	-.00189	.00344	.00075	.00016	.00252	.02346	.00016	.00209	-.00031	.01085
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.585**	**-.00600**	**.00496**	**.03105**	**.00277**	**-.00138**	**251.37**	**.00137**	**4.9505**	**.00371**	**4.9124**	**-.00037**
Stddev	.405	.00990	.00355	.00434	.00013	.00029	1.69	.00012	.0208	.00023	.0365	.00134
%RSD	.81751	165.13	71.625	13.985	4.6864	20.751	.67240	8.7494	.42017	6.2954	.74284	359.84
#1	49.298	.00101	.00747	.02798	.00286	-.00117	250.18	.00128	4.9652	.00355	4.9382	-.00132
#2	49.872	-.01300	.00245	.03412	.00268	-.00158	252.57	.00145	4.9358	.00388	4.8866	.00058
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00223**	**.02298**	**.04917**	**-.00031**	**.00037**	**5.0019**	**-.01551**	**.00141**	F **.58807**	**.00508**	**-.00006**	**.09622**
Stddev	.00147	.03082	.06595	.00076	.00014	.0037	.00012	.00109	.01553	.00071	.00011	.00545
%RSD	66.014	134.12	134.12	247.80	37.813	.07407	.74637	77.124	2.6405	13.953	200.51	5.6600
#1	.00328	.04477	.09580	-.00084	.00046	5.0045	-.01543	.00218	.59905	.00558	.00002	.09237
#2	.00119	.00119	.00254	.00023	.00027	4.9993	-.01559	.00064	.57709	.00458	-.00014	.10007
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3656.2**	**40446.**	**3266.6**
Stddev	15.7	124.	84.9
%RSD	.43070	.30724	2.5987
#1	3645.0	40534.	3326.6
#2	3667.3	40358.	3206.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 9:25:16 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49568**	**.51146**	**.49072**	**.49297**	**.49919**	**.49626**	**.99306**	**4.9637**	**.49361**	**.50176**	**.49631**	**.49914**	**2.4557**
Stddev	.00058	.00197	.00110	.00035	.00261	.00088	.00301	.0094	.00061	.00140	.00081	.00178	.0083
%RSD	.11646	.38599	.22387	.07056	.52187	.17794	.30273	.18901	.12334	.27930	.16323	.35613	.33711
#1	.49527	.51006	.49149	.49273	.50103	.49689	.99519	4.9703	.49404	.50275	.49688	.49789	2.4615
#2	.49609	.51285	.48994	.49322	.49735	.49564	.99094	4.9571	.49318	.50077	.49574	.50040	2.4498
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.408**	**.49749**	**20.049**	**.50290**	**.49277**	**25.035**	**.50241**	**-.00205**	**.49993**	**-.00017**	**.49517**	**.49379**	**4.9155**
Stddev	.317	.00323	.009	.00009	.00233	.088	.00016	.00593	.00227	.00122	.00600	.00176	.0114
%RSD	.64117	.64916	.04621	.01804	.47289	.35147	.03283	290.18	.45434	721.20	1.2125	.35544	.23214
#1	49.632	.49978	20.042	.50283	.49441	25.097	.50252	-.00624	.50153	.00069	.49092	.49255	4.9075
#2	49.184	.49521	20.055	.50296	.49112	24.973	.50229	.00215	.49832	-.00103	.49941	.49503	4.9236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.519**	**.49859**	**.49771**	**-.00771**	**.49834**	**.50685**	**.03626**	**.49782**	**.49871**	**.49242**
Stddev	.024	.00153	.00051	.00167	.00022	.00359	.00785	.00072	.00219	.00062
%RSD	.23214	.30737	.10187	21.682	.04343	.70909	21.661	.14395	.43882	.12582
#1	10.502	.49967	.49807	-.00889	.49819	.50430	.04181	.49732	.49716	.49199
#2	10.537	.49751	.49735	-.00653	.49850	.50939	.03070	.49833	.50026	.49286
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3663.6**	**40468.**	**3264.8**
Stddev	3.6	60.	11.2
%RSD	.09923	.14787	.34276
#1	3661.0	40510.	3256.9
#2	3666.2	40425.	3272.7

Sample Name: CCB Acquired: 5/29/2019 9:28:24 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00027**	**-.00130**	**.00239**	**.00235**	**.00016**	**.00002**	**-.00190**	**-.01368**	**.00012**	**.00019**	**-.00018**	**-.00060**	**-.00427**
Stddev	.00093	.00040	.00299	.00084	.00068	.00000	.00036	.00083	.00009	.00018	.00012	.00157	.00349
%RSD	338.79	30.347	125.02	35.994	434.24	8.5028	19.068	6.0465	72.710	95.474	64.713	260.57	81.903
#1	.00093	-.00102	.00028	.00294	.00063	.00003	-.00165	-.01426	.00006	.00032	-.00010	-.00171	-.00674
#2	-.00038	-.00158	.00450	.00175	-.00032	.00002	-.00216	-.01309	.00018	.00006	-.00027	.00051	-.00180
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05195**	**.00374**	**.00045**	**-.00006**	**.00014**	**.04744**	**.00008**	**.00052**	**.00290**	**-.00258**	**-.00163**	**-.00478**	**.00273**
Stddev	.05770	.00137	.00221	.00003	.00088	.00504	.00018	.00315	.00045	.00449	.00048	.00072	.03843
%RSD	111.07	36.734	494.78	60.389	631.12	10.620	234.76	610.18	15.522	174.00	29.610	15.116	1405.9
#1	.09275	.00277	.00201	-.00008	.00076	.04388	-.00005	-.00171	.00258	.00059	-.00129	-.00530	-.02444
#2	.01115	.00471	-.00111	-.00003	-.00048	.05100	.00021	.00274	.00322	-.00575	-.00198	-.00427	.02991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00585**	**.00051**	**-.00033**	**-.00512**	**-.00080**	**-.00225**	**.00803**	**.00033**	**-.00167**	**-.00149**
Stddev	.08224	.00044	.00003	.00392	.00084	.00073	.03909	.00096	.00062	.00069
%RSD	1405.9	85.505	8.5992	76.510	103.82	32.564	486.55	288.66	37.186	46.468
#1	-.05230	.00082	-.00031	-.00789	-.00140	-.00173	.03567	.00101	-.00210	-.00100
#2	.06400	.00020	-.00035	-.00235	-.00021	-.00276	-.01960	-.00034	-.00123	-.00198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3683.0**	**41087.**	**3282.8**
Stddev	12.1	151.	7.9
%RSD	.32915	.36846	.24121
#1	3674.4	41194.	3277.2
#2	3691.5	40980.	3288.4

Sample Name: CCVL-5725431 Acquired: 5/29/2019 9:31:35 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00639**	**.10335**	**.01474**	**.09994**	**.00985**	**.00117**	**.10448**	**.19966**	**.00503**	**.01040**	**.00972**	**.01355**
Stddev	.00015	.00061	.00111	.00186	.00025	.00007	.00165	.00660	.00039	.00014	.00057	.00036
%RSD	2.3464	.59440	7.5469	1.8614	2.5396	5.8016	1.5772	3.3033	7.7828	1.3131	5.8141	2.6321
#1	.00628	.10291	.01396	.10125	.00967	.00113	.10332	.20432	.00476	.01049	.00932	.01330
#2	.00650	.10378	.01553	.09862	.01003	.00122	.10565	.19500	.00531	.01030	.01012	.01380
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12265**	**3.0619**	**.02422**	**.20742**	**.01061**	**.02002**	**1.0331**	**.04233**	**2.9306**	F **.01228**	**.09229**	**.01881**
Stddev	.00114	.0171	.00488	.00184	.00002	.00032	.0002	.00007	.0053	.00225	.00037	.00304
%RSD	.93261	.55910	20.154	.88536	.20598	1.6164	.01825	.15738	.18125	18.336	.40307	16.177
#1	.12346	3.0497	.02077	.20872	.01059	.01979	1.0329	.04237	2.9343	.01068	.09203	.01666
#2	.12184	3.0740	.02767	.20612	.01062	.02025	1.0332	.04228	2.9268	.01387	.09256	.02096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value										.00900		
Range										30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01664**	**.53311**	**1.1408**	**.10287**	**.00991**	**.01307**	**.00963**	**.01749**	F **.01978**	**.01048**	**.01982**	F **.00910**
Stddev	.00501	.02122	.0454	.00235	.00012	.00357	.00042	.00091	.09536	.00022	.00035	.00133
%RSD	30.119	3.9812	3.9812	2.2827	1.2392	27.324	4.3786	5.1875	482.12	2.0703	1.7724	14.628
#1	.02018	.54811	1.1730	.10453	.00999	.01054	.00993	.01813	.08721	.01033	.02007	.00816
#2	.01309	.51810	1.1087	.10121	.00982	.01559	.00933	.01685	-.04765	.01064	.01957	.01004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value									.06000			.01500
Range									-30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3755.7**	**42019.**	**3341.9**
Stddev	2.9	147.	10.7
%RSD	.07623	.35015	.32118
#1	3753.7	42123.	3334.3
#2	3757.7	41915.	3349.5

Sample Name: 280-123838-B-8-D Acquired: 5/29/2019 9:34:17 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00033**	**.00312**	**.01800**	**.25866**	**.06253**	**.00012**	**-.00460**	**26.773**	**-.00004**
Stddev	.00162	.00007	.00043	.00249	.00016	.00013	.00267	.042	.00006
%RSD	493.81	2.2567	2.4013	.96343	.26381	106.29	58.029	.15551	164.98
#1	-.00147	.00307	.01830	.26042	.06265	.00003	-.00271	26.744	.00001
#2	.00082	.00317	.01769	.25690	.06242	.00021	-.00649	26.803	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00038**	**-.00025**	**.03851**	**7.9380**	**.00495**	**4.4786**	**.00250**	**.04163**
Stddev	.00011	.00021	.00024	.00022	.0512	.00323	.0153	.00007	.00016
%RSD	352.10	54.163	96.937	.57345	.64520	65.274	.34051	2.7656	.37390
#1	.00011	.00053	-.00042	.03835	7.9017	.00724	4.4894	.00245	.04174
#2	-.00005	.00023	-.00008	.03867	7.9742	.00267	4.4678	.00255	.04152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**75.409**	**.00075**	**.01749**	**.00039**	**22.026**	**.00086**	**-.00615**	**8.7443**	**18.713**
Stddev	.155	.00011	.00149	.00033	.160	.00082	.00201	.0195	.042
%RSD	.20542	14.696	8.4988	83.137	.72685	95.335	32.743	.22321	.22321
#1	75.300	.00068	.01644	.00016	22.139	.00144	-.00473	8.7305	18.683
#2	75.519	.00083	.01854	.00062	21.913	.00028	-.00757	8.7581	18.742
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.52013**	**-.00176**	**.00012**	**.00275**	**-.01661**	**.00220**	**-.00058**	**-.00287**
Stddev	.00084	.00039	.00300	.00069	.00103	.00212	.00105	.00027	.00225
%RSD	236.57	.07412	170.86	560.80	37.597	12.779	47.697	46.870	78.531
#1	-.00094	.51985	-.00388	-.00036	.00348	-.01811	.00294	-.00038	-.00128
#2	.00024	.52040	.00037	.00061	.00202	-.01511	.00145	-.00077	-.00446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3705.8**	**41160.**	**3413.6**
Stddev	5.8	74.	14.7
%RSD	.15727	.18076	.43047
#1	3709.9	41107.	3424.0
#2	3701.7	41212.	3403.3

Sample Name: 123838-B-8-D SD@5 Acquired: 5/29/2019 9:36:49 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**-.00141**	**.00223**	**.04619**	**.01220**	**.00015**	**-.00099**	**5.0749**	**-.00012**
Stddev	.00009	.00017	.00632	.00163	.00052	.00007	.00106	.0412	.00008
%RSD	12.746	11.770	283.20	3.5323	4.2498	49.467	106.81	.81268	72.318
#1	.00073	-.00153	.00670	.04734	.01256	.00020	-.00174	5.1041	-.00018
#2	.00061	-.00129	-.00224	.04504	.01183	.00010	-.00024	5.0458	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**-.00033**	**-.00081**	**.00574**	**1.4637**	**.00455**	**.84162**	**.00053**	**.00763**
Stddev	.00022	.00010	.00058	.00181	.1063	.00088	.00541	.00004	.00023
%RSD	72.140	28.933	71.837	31.521	7.2588	19.418	.64238	7.4338	3.0105
#1	.00015	-.00040	-.00040	.00702	1.5389	.00517	.84544	.00056	.00779
#2	.00047	-.00026	-.00122	.00446	1.3886	.00392	.83780	.00050	.00747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **14.091**	**-.00043**	**.00415**	**.00133**	**3.8705**	**-.00200**	**-.00375**	**1.6134**	**3.4526**
Stddev	.125	.00033	.00072	.00072	.0383	.00093	.00399	.0649	.1388
%RSD	.88397	77.841	17.301	54.448	.99018	46.731	106.44	4.0194	4.0194
#1	14.179	-.00019	.00364	.00184	3.8976	-.00265	-.00093	1.6592	3.5508
#2	14.003	-.00066	.00466	.00082	3.8434	-.00134	-.00657	1.5675	3.3545
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00121**	**.09919**	**-.00386**	**-.00022**	**.00053**	**-.00190**	**.00079**	**-.00267**	**-.00151**
Stddev	.00029	.00056	.00298	.00062	.00002	.00410	.00026	.00010	.00088
%RSD	23.982	.56896	77.174	285.28	4.4808	215.78	33.575	3.6813	58.212
#1	-.00141	.09959	-.00175	-.00066	.00055	-.00480	.00097	-.00274	-.00212
#2	-.00100	.09879	-.00597	.00022	.00051	.00100	.00060	-.00260	-.00089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3828.0**	**42647.**	**3418.1**
Stddev	18.7	94.	6.4
%RSD	.48762	.22124	.18749
#1	3814.8	42581.	3413.5
#2	3841.2	42714.	3422.6

Sample Name: 280-123838-B-8-E MS Acquired: 5/29/2019 9:39:24 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05366**	**10.512**	**2.0303**	**1.2313**	**2.0808**	W **1.0384**	**1.9342**	**77.038**	**1.0052**
Stddev	.00009	.000	.0051	.0001	.0045	.0036	.0098	.233	.0005
%RSD	.16007	.00466	.25231	.01233	.21733	.34453	.50650	.30260	.04731
#1	.05360	10.511	2.0339	1.2312	2.0776	1.0359	1.9411	76.874	1.0055
#2	.05372	10.512	2.0267	1.2314	2.0840	1.0409	1.9273	77.203	1.0049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.99001**	**.99107**	**1.0258**	**10.103**	**58.706**	**1.0152**	**55.873**	**1.0241**	**1.0458**
Stddev	.00221	.00366	.0015	.016	.221	.0009	.023	.0004	.0011
%RSD	.22287	.36936	.14676	.16094	.37602	.08857	.04104	.04441	.10784
#1	.99157	.99366	1.0269	10.091	58.550	1.0146	55.889	1.0238	1.0466
#2	.98845	.98848	1.0248	10.114	58.862	1.0159	55.856	1.0244	1.0450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**127.21**	**.98925**	W **20.881**	**.97959**	**32.339**	**1.0857**	**1.9919**	**10.947**	**23.426**
Stddev	.03	.00003	.022	.00348	.045	.0007	.0051	.023	.049
%RSD	.01965	.00344	.10541	.35508	.13846	.06079	.25465	.20761	.20761
#1	127.20	.98927	20.896	.98205	32.370	1.0852	1.9955	10.963	23.461
#2	127.23	.98923	20.865	.97713	32.307	1.0861	1.9884	10.931	23.392
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000						
Low Limit			-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9827**	**1.5229**	**1.0171**	**1.0286**	**1.9358**	**2.3176**	**1.0282**	**.49495**	**.46185**
Stddev	.0043	.0035	.0003	.0024	.0032	.0037	.0018	.00106	.00246
%RSD	.21684	.23232	.02619	.23267	.16790	.15834	.16995	.21502	.53288
#1	1.9857	1.5204	1.0170	1.0269	1.9381	2.3150	1.0295	.49420	.46011
#2	1.9796	1.5254	1.0173	1.0303	1.9335	2.3202	1.0270	.49571	.46359
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3696.4**	**40578.**	**3435.2**
Stddev	9.2	173.	1.5
%RSD	.24776	.42590	.04354
#1	3702.9	40700.	3436.2
#2	3689.9	40456.	3434.1

Sample Name: 280-123838-B-8-F MSD Acquired: 5/29/2019 9:41:43 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05388**	**10.352**	**1.9991**	**1.2266**	**2.0531**	W **1.0223**	**1.9328**	**75.596**	**.99388**
Stddev	.00053	.086	.0057	.0067	.0019	.0019	.0100	.026	.00414
%RSD	.99124	.83107	.28767	.54378	.09246	.18496	.51791	.03485	.41657
#1	.05350	10.291	2.0031	1.2313	2.0518	1.0210	1.9399	75.577	.99681
#2	.05426	10.413	1.9950	1.2218	2.0545	1.0236	1.9257	75.614	.99096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97922**	**.98092**	**1.0114**	**9.9315**	**58.006**	**1.0060**	**54.885**	**1.0090**	**1.0361**
Stddev	.00531	.00453	.0071	.0218	.089	.0119	.044	.0008	.0049
%RSD	.54225	.46213	.70151	.21933	.15328	1.1842	.08089	.07633	.47547
#1	.98297	.98413	1.0064	9.9161	58.068	1.0144	54.854	1.0085	1.0396
#2	.97547	.97772	1.0164	9.9469	57.943	.99755	54.917	1.0095	1.0326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**124.04**	**.97758**	W **20.630**	**.97075**	**31.696**	**1.0704**	**1.9731**	**10.608**	**22.701**
Stddev	.34	.00392	.125	.00696	.155	.0011	.0118	.019	.041
%RSD	.27765	.40132	.60811	.71702	.48776	.10336	.59718	.18004	.18004
#1	123.79	.98035	20.719	.97567	31.805	1.0712	1.9814	10.594	22.672
#2	124.28	.97480	20.541	.96582	31.586	1.0696	1.9648	10.622	22.730
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000						
Low Limit			-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9640**	**1.4979**	**1.0106**	**1.0106**	**1.9190**	**2.3209**	**1.0118**	**.49255**	**.47599**
Stddev	.0170	.0018	.0000	.0001	.0091	.0169	.0011	.00000	.00381
%RSD	.86313	.12114	.00036	.00767	.47569	.72974	.11272	.00089	.79964
#1	1.9760	1.4967	1.0106	1.0107	1.9254	2.3329	1.0110	.49255	.47330
#2	1.9520	1.4992	1.0106	1.0106	1.9125	2.3089	1.0126	.49256	.47868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3722.7**	**41135.**	**3463.3**
Stddev	8.3	65.	12.0
%RSD	.22215	.15917	.34786
#1	3728.6	41088.	3454.7
#2	3716.9	41181.	3471.8

Sample Name: 280-123838-B-8-D PDS Acquired: 5/29/2019 9:43:59 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04530**	**.95564**	**.20774**	**.35628**	**.15549**	**.04922**	**-.00217**	**44.108**	**.04910**
Stddev	.00001	.00450	.00303	.00102	.00004	.00003	.00075	.221	.00049
%RSD	.01269	.47064	1.4602	.28534	.02686	.05266	34.674	.50087	1.0048
#1	.04530	.95882	.20988	.35700	.15546	.04920	-.00164	43.952	.04945
#2	.04529	.95246	.20559	.35556	.15552	.04924	-.00270	44.264	.04875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04842**	**.04766**	**.05117**	**.98290**	**26.672**	**.10245**	**23.273**	**.05143**	**.09459**
Stddev	.00076	.00011	.00031	.00459	.041	.00014	.001	.00004	.00116
%RSD	1.5653	.23890	.61506	.46733	.15490	.14078	.00487	.07940	1.2284
#1	.04895	.04774	.05095	.98615	26.643	.10235	23.272	.05146	.09541
#2	.04788	.04758	.05139	.97965	26.701	.10255	23.273	.05140	.09377
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**91.154**	**.04874**	**2.0054**	**.09518**	**20.982**	**.11543**	**.18205**	**13.904**	**29.755**
Stddev	.116	.00022	.0144	.00034	.026	.00160	.00366	.055	.117
%RSD	.12730	.45155	.71957	.35258	.12514	1.3860	2.0127	.39469	.39469
#1	91.072	.04858	2.0156	.09494	21.001	.11429	.18464	13.866	29.672
#2	91.236	.04889	1.9952	.09542	20.964	.11656	.17946	13.943	29.839
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10616**	**.54180**	**.19495**	**.05315**	**.18951**	**.53510**	**.05022**	**.19565**	**.05925**
Stddev	.00035	.00268	.00166	.00024	.00315	.08051	.00045	.00163	.00404
%RSD	.32890	.49529	.85038	.45510	1.6619	15.045	.88664	.83323	6.8160
#1	.10641	.53990	.19612	.05332	.19173	.47817	.04990	.19450	.05639
#2	.10591	.54370	.19378	.05297	.18728	.59202	.05053	.19681	.06210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3791.1**	**42083.**	**3474.3**
Stddev	16.8	100.	41.2
%RSD	.44353	.23694	1.1855
#1	3803.0	42013.	3503.4
#2	3779.2	42154.	3445.2

Sample Name: 280-123838-B-10-B Acquired: 5/29/2019 9:46:24 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459376 6010B (As Fe Mn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00104**	**-.00064**	**.01051**	**.50602**	**.10093**	**.00019**	**-.00498**	**182.46**	**.00070**
Stddev	.00054	.00001	.00105	.00742	.00066	.00013	.00029	.42	.00005
%RSD	52.056	2.0125	9.9993	1.4654	.65782	66.073	5.8457	.22763	7.7464
#1	.00142	-.00065	.01125	.51126	.10140	.00010	-.00478	182.76	.00074
#2	.00066	-.00063	.00976	.50077	.10046	.00028	-.00519	182.17	.00066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00720**	**.00018**	**-.00022**	**.05585**	**.60972**	**.01324**	**145.75**	**7.3312**	**.00592**
Stddev	.00006	.00010	.00021	.00077	.11232	.00079	.42	.0087	.00048
%RSD	.87412	57.812	94.609	1.3787	18.422	5.9371	.28593	.11825	8.0693
#1	.00724	.00025	-.00037	.05530	.68915	.01379	145.46	7.3374	.00625
#2	.00715	.00011	-.00007	.05639	.53030	.01268	146.05	7.3251	.00558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**75.968**	**.00240**	**.02384**	**.00082**	**.26196**	**-.00325**	**-.00898**	**22.179**	**47.462**
Stddev	.287	.00058	.00150	.00099	.00230	.00329	.00239	.009	.019
%RSD	.37822	24.173	6.2761	120.39	.87720	101.26	26.647	.04078	.04078
#1	76.171	.00199	.02278	.00153	.26358	-.00092	-.01067	22.185	47.476
#2	75.765	.00281	.02490	.00012	.26033	-.00558	-.00729	22.172	47.448
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**1.6401**	**-.00057**	**.00030**	**-.00536**	**-.06838**	**.00066**	**.00120**	**-.00043**
Stddev	.00157	.0036	.00064	.00032	.00273	.06408	.00026	.00065	.00474
%RSD	478.20	.21847	110.73	104.39	50.918	93.707	38.553	54.558	1096.9
#1	-.00078	1.6426	-.00012	.00052	-.00729	-.02307	.00084	.00074	-.00378
#2	.00144	1.6376	-.00102	.00008	-.00343	-.11370	.00048	.00166	.00292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3521.2**	**39168.**	**3285.5**
Stddev	3.4	177.	20.7
%RSD	.09775	.45086	.63078
#1	3518.7	39293.	3300.1
#2	3523.6	39043.	3270.8

Sample Name: Bottle 123513-A-9 Acquired: 5/29/2019 9:49:29 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: Bottle check K 150

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00156**	**.12386**	**-.00904**	**1.7606**	**.47335**	**.00031**	**.00030**	W **942.79**	**.00152**
Stddev	.00095	.00086	.01140	.0091	.00147	.00010	.00161	9.95	.00057
%RSD	60.853	.69766	126.15	.51908	.31117	32.094	540.59	1.0554	37.810
#1	.00089	.12325	-.01710	1.7671	.47231	.00024	.00143	935.75	.00192
#2	.00223	.12447	-.00098	1.7542	.47439	.00038	-.00084	949.83	.00111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								500.00	
Low Limit								-.40000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00080**	**.00004**	**-.00159**	**.20029**	**92.604**	W **2.2442**	W **703.22**	**.97041**	**-.00042**
Stddev	.00004	.00036	.00005	.00022	6.965	.0209	4.87	.00124	.00052
%RSD	4.8109	868.03	3.2422	.10861	7.5208	.93039	.69189	.12731	122.70
#1	.00083	.00029	-.00162	.20045	87.679	2.2295	699.78	.96954	-.00006
#2	.00077	-.00021	-.00155	.20014	97.528	2.2590	706.66	.97128	-.00079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass
High Limit						2.0000	500.00		
Low Limit						-.02000	-.40000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **14828.**	**.00980**	**.12057**	**-.00135**	**97.637**	**-.00314**	**.01258**	**4.0079**	**8.5770**
Stddev	55.	.00035	.00847	.00255	.622	.00045	.00401	.0520	.1113
%RSD	.37312	3.5782	7.0223	188.75	.63737	14.398	31.887	1.2978	1.2978
#1	14789.	.01005	.11458	.00045	98.077	-.00346	.00974	4.0447	8.6557
#2	14867.	.00955	.12655	-.00315	97.197	-.00282	.01542	3.9712	8.4983
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10000.								
Low Limit	9.0000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00581**	F **134.15**	**-.00536**	**.00504**	**.00277**	F **-.25090**	**-.00023**	**.00633**	**-.00171**
Stddev	.00056	.36	.00522	.00110	.00154	.03270	.00021	.00156	.00030
%RSD	9.6523	.26554	97.472	21.766	55.668	13.033	90.443	24.644	17.473
#1	-.00541	133.89	-.00905	.00581	.00168	-.22778	-.00008	.00523	-.00150
#2	-.00620	134.40	-.00167	.00426	.00387	-.27402	-.00038	.00743	-.00192
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		20.000				20.000			
Low Limit		-.02000				-.12000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**2831.2**	**29837.**	**2964.3**
Stddev	16.6	39.	13.7
%RSD	.58690	.13131	.46273
#1	2819.4	29865.	2954.6
#2	2842.9	29809.	2974.0

Sample Name: CCVH-5713036 Acquired: 5/29/2019 9:53:22 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**50.455**	**.00063**	**.00401**	**.00137**	**.00021**	**.00353**	**.05529**	**-.00011**	**.00244**	**.00001**	**.01137**
Stddev	.00036	.049	.00319	.00009	.00030	.00000	.00027	.01010	.00036	.00024	.00000	.00123
%RSD	387.13	.09674	503.51	2.1365	21.961	1.9073	7.6119	18.267	319.63	9.7753	7.1148	10.827
#1	-.00035	50.489	-.00162	.00395	.00116	.00021	.00334	.06243	.00014	.00228	.00001	.01224
#2	.00016	50.420	.00289	.00408	.00158	.00021	.00373	.04815	-.00037	.00261	.00001	.01050
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.030**	**1.3783**	**.00583**	**.05027**	**.00250**	**-.00133**	**251.67**	**.00149**	**4.9414**	**.00344**	**4.9140**	**-.00310**
Stddev	.075	.0555	.00316	.00545	.00001	.00040	.02	.00034	.0068	.00052	.0183	.00042
%RSD	.15250	4.0248	54.088	10.841	.20443	29.809	.00989	23.134	.13724	15.132	.37320	13.559
#1	49.083	1.3390	.00806	.05412	.00250	-.00161	251.69	.00124	4.9366	.00307	4.9269	-.00280
#2	48.977	1.4175	.00360	.04641	.00251	-.00105	251.65	.00173	4.9462	.00381	4.9010	-.00340
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00407**	**.03906**	**.08358**	**-.00057**	**.00839**	**5.0114**	**-.01526**	**.00041**	F **.58585**	**.00529**	**-.00240**	**.09925**
Stddev	.00190	.02473	.05292	.00078	.00121	.0055	.00050	.00040	.02958	.00058	.00028	.00280
%RSD	46.791	63.319	63.319	135.07	14.471	.11064	3.2497	98.054	5.0484	11.023	11.827	2.8204
#1	.00272	.02157	.04616	-.00112	.00925	5.0153	-.01561	.00013	.60676	.00487	-.00260	.10123
#2	.00542	.05654	.12100	-.00003	.00753	5.0075	-.01491	.00069	.56494	.00570	-.00220	.09727
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3784.5**	**41211.**	**3417.7**
Stddev	14.7	164.	3.2
%RSD	.38849	.39818	.09359
#1	3774.1	41095.	3420.0
#2	3794.9	41327.	3415.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 9:55:55 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48766**	**.50115**	**.48754**	**.48910**	**.49464**	**.49368**	**.98429**	**4.9301**	**.48521**	**.49519**	**.48797**	**.49328**
Stddev	.00199	.00545	.00118	.00099	.00201	.00104	.00106	.0341	.00217	.00127	.00236	.00114
%RSD	.40883	1.0876	.24132	.20268	.40628	.21031	.10783	.69178	.44623	.25661	.48402	.23034
#1	.48625	.50500	.48670	.48980	.49322	.49295	.98504	4.9060	.48674	.49609	.48964	.49408
#2	.48907	.49729	.48837	.48840	.49606	.49442	.98354	4.9542	.48368	.49429	.48630	.49248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.4436**	**49.647**	**.49741**	**19.793**	**.49657**	**.48629**	F **28.100**	**.49483**	**-.00373**	**.48896**	**.00413**	**.49029**
Stddev	.0128	.097	.00268	.028	.00122	.00295	.030	.00230	.00027	.00068	.00108	.00488
%RSD	.52270	.19602	.53853	.14024	.24513	.60669	.10521	.46544	7.3083	.13903	26.242	.99500
#1	2.4346	49.579	.49930	19.774	.49570	.48838	28.121	.49646	-.00354	.48944	.00336	.49374
#2	2.4526	49.716	.49551	19.813	.49743	.48421	28.079	.49320	-.00393	.48848	.00490	.48684
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	None	Chk Pass
Value							25.000					
Range							10.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49084**	**4.8737**	**10.430**	**.49055**	**.49103**	**-.00303**	**.49267**	**.49322**	**-.03298**	**.49609**	**.49382**	**.48918**
Stddev	.00475	.0181	.039	.00121	.00037	.00034	.00078	.00015	.00513	.00128	.00424	.00205
%RSD	.96760	.37067	.37067	.24675	.07620	11.394	.15916	.02948	15.567	.25825	.85858	.41866
#1	.49420	4.8609	10.402	.49140	.49077	-.00278	.49212	.49312	-.03661	.49518	.49082	.48773
#2	.48748	4.8865	10.457	.48969	.49130	-.00327	.49323	.49333	-.02935	.49699	.49682	.49062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3767.0**	**41817.**	**3399.4**
Stddev	7.5	178.	6.1
%RSD	.19809	.42514	.17929
#1	3761.7	41943.	3403.7
#2	3772.3	41691.	3395.1

Sample Name: CCB Acquired: 5/29/2019 9:58:21 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**-.00165**	**.00377**	**.00353**	**.00107**	**.00018**	**-.00255**	**-.00102**	**.00026**	**.00011**	**-.00026**	**-.00115**
Stddev	.00026	.00147	.00045	.00078	.00032	.00007	.00427	.00302	.00003	.00058	.00046	.00087
%RSD	531.80	88.658	11.937	21.993	30.150	37.561	167.05	297.41	11.009	524.34	179.36	76.123
#1	.00024	-.00062	.00409	.00298	.00084	.00023	.00046	.00112	.00028	.00052	.00007	-.00176
#2	-.00014	-.00269	.00345	.00407	.00130	.00014	-.00557	-.00315	.00024	-.00030	-.00058	-.00053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00755**	**.49592**	W **.00825**	**.00343**	**.00004**	**.00056**	F **2.6082**	**-.00003**	**.00233**	**.00240**	**-.00155**	**.00004**
Stddev	.00364	.02373	.00362	.00092	.00007	.00028	.0226	.00004	.00087	.00034	.00427	.00014
%RSD	48.173	4.7849	43.887	26.791	172.99	49.222	.86762	150.64	37.582	14.030	276.31	312.00
#1	-.00498	.51270	.00569	.00408	-.00001	.00037	2.6242	.00000	.00171	.00263	.00147	-.00005
#2	-.01012	.47914	.01082	.00278	.00009	.00076	2.5922	-.00006	.00294	.00216	-.00457	.00014
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.00500				.50000					
Low Limit			-.01000				-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00414**	**.02695**	**.05768**	**.00167**	**.00075**	**-.00023**	**.00010**	**-.00053**	**.01311**	**.00039**	**-.00209**	**-.00218**
Stddev	.00177	.01716	.03671	.00096	.00023	.00094	.00043	.00086	.01970	.00018	.00031	.00098
%RSD	42.621	63.654	63.654	57.585	30.315	402.45	424.38	163.11	150.25	45.149	14.666	44.941
#1	-.00539	.01482	.03172	.00099	.00091	-.00089	.00041	.00008	-.00082	.00052	-.00231	-.00149
#2	-.00290	.03908	.08364	.00236	.00059	.00043	-.00020	-.00113	.02704	.00027	-.00187	-.00287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3785.1**	**42361.**	**3428.3**
Stddev	6.6	181.	9.5
%RSD	.17515	.42778	.27789
#1	3789.8	42489.	3435.1
#2	3780.4	42233.	3421.6

Sample Name: CCVL-5725431 Acquired: 5/29/2019 10:01:41 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00688**	**.10296**	**.01469**	**.10098**	**.01046**	**.00128**	**.10274**	**.19525**	**.00466**	**.01076**	**.00996**	**.01493**
Stddev	.00017	.00090	.00316	.00082	.00055	.00013	.00252	.00157	.00033	.00009	.00031	.00035
%RSD	2.4841	.87227	21.501	.81610	5.3028	10.156	2.4501	.80320	7.1139	.83493	3.0811	2.3770
#1	.00700	.10233	.01245	.10156	.01007	.00119	.10096	.19414	.00443	.01083	.00974	.01518
#2	.00676	.10360	.01692	.10039	.01085	.00137	.10452	.19636	.00489	.01070	.01018	.01468
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12060**	**3.3504**	**.01867**	**.21584**	**.01064**	**.01940**	F **2.7270**	**.04155**	**2.9318**	F **.01263**	**.09450**	**.01952**
Stddev	.00332	.0172	.00269	.00005	.00001	.00036	.0359	.00022	.0014	.00046	.00151	.00675
%RSD	2.7539	.51362	14.405	.02195	.11906	1.8468	1.3178	.52187	.04763	3.6064	1.5926	34.562
#1	.11825	3.3626	.02057	.21581	.01063	.01965	2.7016	.04170	2.9328	.01231	.09557	.02429
#2	.12295	3.3382	.01677	.21587	.01065	.01914	2.7524	.04139	2.9308	.01295	.09344	.01475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							1.0000			.00900		
Range							30.000%			30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01606**	**.47213**	**1.0104**	**.10399**	**.01019**	**.01140**	**.00992**	**.01567**	F **.08559**	**.00938**	**.01787**	F **.00859**
Stddev	.00034	.02509	.0537	.00018	.00022	.00109	.00029	.00152	.00831	.00089	.00038	.00397
%RSD	2.1238	5.3140	5.3140	.17359	2.2032	9.6041	2.9305	9.6916	9.7109	9.4707	2.1058	46.207
#1	.01630	.45439	.97240	.10386	.01035	.01217	.00971	.01460	.07971	.00876	.01760	.01139
#2	.01581	.48987	1.0483	.10411	.01003	.01062	.01012	.01675	.09147	.01001	.01813	.00578
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value									.06000			.01500
Range									30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3838.5**	**42633.**	**3468.9**
Stddev	47.7	222.	23.9
%RSD	1.2414	.52135	.68814
#1	3804.8	42475.	3485.7
#2	3872.2	42790.	3452.0

Sample Name: MB 280-459483/1-A Acquired: 5/29/2019 10:04:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00044**	**-.00158**	**-.00066**	**.00143**	**.00027**	**.00020**	**.00105**	**-.00719**	**-.00009**
Stddev	.00028	.00015	.00450	.00035	.00030	.00012	.00055	.00061	.00032
%RSD	63.564	9.2196	678.64	24.358	111.41	58.391	52.311	8.4683	357.42
#1	-.00063	-.00148	.00252	.00167	.00049	.00012	.00066	-.00762	-.00032
#2	-.00024	-.00168	-.00385	.00118	.00006	.00028	.00143	-.00676	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00018**	**-.00070**	W **.05457**	**.25057**	**-.00157**	**.00636**	**.00140**	**-.00013**
Stddev	.00018	.00021	.00038	.00256	.01942	.00202	.00254	.00005	.00068
%RSD	218.38	116.10	53.708	4.7000	7.7494	128.56	40.003	3.5929	505.15
#1	.00021	-.00003	-.00096	.05639	.26431	-.00300	.00816	.00143	-.00061
#2	-.00004	-.00032	-.00043	.05276	.23684	-.00014	.00456	.00136	.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.05000					
Low Limit				-.05000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1.4862**	**.00034**	**-.00068**	**.00305**	**-.00015**	**-.00273**	**-.00297**	**-.00101**	**-.00217**
Stddev	.0054	.00023	.00202	.00112	.00057	.00549	.00089	.02806	.06004
%RSD	.36477	68.006	297.25	36.823	387.83	201.30	30.144	2767.8	2767.8
#1	1.4901	.00018	.00075	.00226	-.00055	-.00661	-.00233	.01883	.04029
#2	1.4824	.00051	-.00211	.00385	.00025	.00115	-.00360	-.02085	-.04463
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit	1.0000								
Low Limit	-1.0000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.00008**	**.00017**	**.00023**	**.00158**	**-.02912**	**-.00011**	**.00352**	**-.00265**
Stddev	.00200	.00008	.00114	.00015	.00217	.05648	.00033	.00022	.00160
%RSD	269.28	92.976	656.09	65.160	137.45	193.97	313.18	6.2032	60.655
#1	-.00067	.00003	-.00063	.00034	.00312	.01082	-.00034	.00367	-.00151
#2	.00215	.00014	.00098	.00013	.00004	-.06906	.00013	.00336	-.00378
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3808.0**	**42602.**	**3434.0**
Stddev	17.6	48.	9.0
%RSD	.46135	.11289	.26096
#1	3795.6	42636.	3440.3
#2	3820.5	42568.	3427.7

Sample Name: LCS 280-459483/2-A Acquired: 5/29/2019 10:06:52 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05279**	**10.248**	**1.9362**	**.96557**	**1.9642**	**.99402**	**1.9407**	**49.097**	**.96752**
Stddev	.00154	.010	.0105	.00531	.0076	.00455	.0138	.108	.00386
%RSD	2.9269	.09565	.54087	.54965	.38486	.45758	.71165	.22022	.39918
#1	.05388	10.241	1.9436	.96933	1.9588	.99080	1.9504	49.020	.97025
#2	.05169	10.255	1.9288	.96182	1.9695	.99723	1.9309	49.173	.96478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95627**	**.95491**	**.97790**	**9.7773**	**49.533**	**.97279**	**49.665**	**.98857**	**.97620**
Stddev	.00492	.00626	.00194	.0232	.149	.00173	.003	.00029	.00873
%RSD	.51426	.65522	.19869	.23769	.29986	.17733	.00509	.02945	.89477
#1	.95974	.95933	.97928	9.7609	49.428	.97157	49.663	.98837	.98238
#2	.95279	.95048	.97653	9.7938	49.638	.97401	49.667	.98878	.97002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **50.570**	**.95733**	**19.935**	**.96010**	**9.8794**	**1.0472**	**1.9051**	**1.9708**	**4.2175**
Stddev	.282	.00680	.101	.00551	.0057	.0089	.0072	.0310	.0663
%RSD	.55827	.71013	.50878	.57397	.05732	.84936	.37971	1.5719	1.5719
#1	50.371	.96214	20.007	.96400	9.8834	1.0535	1.9102	1.9927	4.2644
#2	50.770	.95253	19.864	.95620	9.8754	1.0410	1.9000	1.9489	4.1707
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9263**	**.97541**	**1.0132**	**.98914**	**1.9076**	**2.2596**	**.98743**	**.50697**	**.51533**
Stddev	.0117	.00372	.0020	.00297	.0078	.0161	.00151	.00118	.00107
%RSD	.60661	.38149	.19737	.30018	.40673	.71202	.15278	.23308	.20847
#1	1.9345	.97277	1.0146	.99124	1.9131	2.2483	.98636	.50781	.51457
#2	1.9180	.97804	1.0118	.98704	1.9022	2.2710	.98849	.50614	.51609
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3758.8**	**41618.**	**3477.7**
Stddev	8.9	146.	12.4
%RSD	.23666	.35190	.35751
#1	3752.5	41514.	3486.5
#2	3765.1	41721.	3468.9

Sample Name: LCSD 280-459483/3-A Acquired: 5/29/2019 10:09:09 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05181**	**10.256**	**1.9432**	**.96497**	**1.9775**	W **1.0027**	**1.9376**	**49.006**	**.97112**
Stddev	.00041	.024	.0051	.00225	.0036	.0023	.0054	.088	.00244
%RSD	.79723	.23001	.26380	.23334	.17934	.22815	.28016	.18015	.25151
#1	.05152	10.272	1.9469	.96656	1.9750	1.0011	1.9415	48.944	.97285
#2	.05210	10.239	1.9396	.96337	1.9800	1.0043	1.9338	49.069	.96940
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95930**	**.96024**	**.98422**	**9.7578**	**49.455**	**.98675**	**49.657**	**.99468**	**.98107**
Stddev	.00406	.00352	.00258	.0100	.071	.00229	.004	.00067	.00338
%RSD	.42311	.36658	.26212	.10239	.14294	.23206	.00898	.06693	.34427
#1	.96217	.96272	.98239	9.7508	49.405	.98513	49.661	.99421	.98345
#2	.95643	.95775	.98604	9.7649	49.505	.98837	49.654	.99515	.97868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **50.402**	**.96020**	W **20.002**	**.95970**	**9.8967**	**1.0487**	**1.9242**	**1.9845**	**4.2468**
Stddev	.025	.00152	.061	.00215	.0550	.0030	.0018	.0119	.0255
%RSD	.04874	.15864	.30585	.22413	.55604	.28877	.09470	.60103	.60103
#1	50.384	.96128	20.045	.96122	9.9356	1.0508	1.9255	1.9929	4.2649
#2	50.419	.95912	19.959	.95818	9.8577	1.0466	1.9229	1.9761	4.2288
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9335**	**.98098**	**1.0102**	**.99831**	**1.9088**	**2.3186**	**.99336**	**.48829**	**.51577**
Stddev	.0079	.00011	.0006	.00054	.0036	.0001	.00149	.00038	.00175
%RSD	.40713	.01105	.05400	.05434	.18945	.00478	.15012	.07830	.33894
#1	1.9390	.98105	1.0098	.99793	1.9113	2.3186	.99230	.48802	.51453
#2	1.9279	.98090	1.0106	.99870	1.9062	2.3187	.99441	.48856	.51700
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3782.7**	**41713.**	**3469.4**
Stddev	21.9	19.	20.7
%RSD	.57966	.04628	.59763
#1	3798.3	41727.	3484.0
#2	3767.2	41699.	3454.7

Sample Name: 280-123705-B-10-A Acquired: 5/29/2019 10:11:26 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00029**	**.03100**	**.00486**	**.00450**	**.00134**	**.00027**	**.00117**	**.21109**	**.00024**
Stddev	.00100	.00003	.00497	.00055	.00009	.00011	.00019	.00525	.00023
%RSD	343.16	.08219	102.22	12.133	6.4292	40.237	16.348	2.4891	94.553
#1	-.00100	.03099	.00135	.00411	.00140	.00019	.00104	.20738	.00040
#2	.00042	.03102	.00838	.00489	.00128	.00035	.00131	.21481	.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00039**	**-.00050**	**.02437**	**.28665**	**-.00075**	**.03726**	**.00137**	**.00121**
Stddev	.00045	.00008	.00124	.00506	.02040	.00063	.00137	.00010	.00027
%RSD	148.71	19.592	245.69	20.762	7.1168	83.653	3.6796	7.3076	22.585
#1	-.00002	.00034	-.00138	.02079	.27223	-.00119	.03629	.00144	.00101
#2	.00062	.00045	.00037	.02795	.30108	-.00031	.03822	.00130	.00140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.3440**	**.00050**	**.00368**	**.00261**	**.00851**	**-.00060**	**-.00044**	**.45838**	**.98094**
Stddev	.0099	.00046	.00003	.00246	.00313	.00343	.00521	.01170	.02503
%RSD	.73957	93.268	.83118	94.206	36.838	568.58	1180.0	2.5516	2.5516
#1	1.3511	.00083	.00366	.00435	.01072	-.00303	.00324	.45011	.96324
#2	1.3370	.00017	.00370	.00087	.00629	.00182	-.00412	.46665	.99864
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00134**	**.00049**	**-.00187**	**.00094**	**.00193**	**.05015**	**.00045**	**.01178**	**-.00084**
Stddev	.00005	.00015	.00128	.00067	.00135	.02707	.00045	.00023	.00006
%RSD	3.7604	30.563	68.563	70.708	69.839	53.991	99.450	1.9628	6.6964
#1	.00137	.00038	-.00096	.00047	.00288	.06929	.00077	.01194	-.00088
#2	.00130	.00059	-.00277	.00142	.00098	.03100	.00013	.01161	-.00080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3877.3**	**43575.**	**3534.1**
Stddev	1.0	78.	16.8
%RSD	.02515	.17987	.47564
#1	3876.6	43631.	3546.0
#2	3878.0	43520.	3522.2

Sample Name: 123705-B-10-A SD@5 Acquired: 5/29/2019 10:14:02 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.00481**	**.00174**	**.00235**	**.00075**	**.00024**	**.00043**	**.02304**	**.00015**
Stddev	.00003	.00042	.00343	.00045	.00057	.00010	.00123	.00136	.00009
%RSD	7.6906	8.7042	196.54	18.980	76.246	43.346	287.24	5.9021	61.916
#1	-.00046	.00451	.00417	.00266	.00116	.00031	-.00044	.02400	.00008
#2	-.00041	.00511	-.00068	.00203	.00035	.00016	.00130	.02207	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**-.00023**	**-.00263**	**.00195**	**.21437**	**.00154**	**.01545**	**.00020**	**.00004**
Stddev	.00005	.00013	.00040	.00213	.01979	.00165	.00039	.00010	.00002
%RSD	11.111	55.314	15.040	109.38	9.2308	106.80	2.5420	52.699	39.015
#1	.00052	-.00032	-.00291	.00345	.22836	.00038	.01517	.00012	.00003
#2	.00044	-.00014	-.00235	.00044	.20038	.00270	.01573	.00027	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0168**	**-.00098**	**.00144**	**-.00036**	**-.00059**	**-.00138**	**.00078**	**.08421**	**.18022**
Stddev	.0048	.00028	.00356	.00000	.01065	.00033	.00438	.03924	.08397
%RSD	.46777	28.457	246.88	.48270	1811.7	23.717	562.58	46.592	46.592
#1	1.0202	-.00118	.00396	-.00036	.00694	-.00114	.00388	.11196	.23959
#2	1.0134	-.00078	-.00108	-.00036	-.00811	-.00161	-.00232	.05647	.12084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00152**	**.00030**	**-.00135**	**-.00008**	**.00301**	**.01104**	**.00046**	**-.00252**	**-.00327**
Stddev	.00011	.00014	.00084	.00010	.00234	.00588	.00046	.00012	.00168
%RSD	7.4808	45.856	62.595	120.63	77.951	53.268	101.39	4.5650	51.450
#1	.00160	.00040	-.00075	-.00001	.00135	.00688	.00078	-.00261	-.00446
#2	.00144	.00021	-.00194	-.00015	.00466	.01520	.00013	-.00244	-.00208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3786.7**	**42751.**	**3462.3**
Stddev	21.0	45.	.7
%RSD	.55548	.10410	.01940
#1	3801.6	42720.	3461.8
#2	3771.9	42783.	3462.8

Sample Name: 123705-B-10-B MS Acquired: 5/29/2019 10:16:38 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05105**	**10.416**	**1.9585**	**.96742**	**1.9825**	W **1.0080**	**1.9510**	**49.458**	**.97461**
Stddev	.00034	.021	.0107	.00172	.0029	.0006	.0038	.008	.00646
%RSD	.67046	.20397	.54729	.17780	.14568	.05511	.19357	.01646	.66289
#1	.05130	10.431	1.9661	.96863	1.9845	1.0076	1.9536	49.452	.97918
#2	.05081	10.401	1.9509	.96620	1.9804	1.0084	1.9483	49.464	.97004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.96256**	**.96514**	**.97752**	**9.8297**	**49.783**	**.98846**	**49.736**	**.99565**	**.98538**
Stddev	.00680	.00628	.00212	.0211	.203	.00829	.125	.00101	.00844
%RSD	.70682	.65080	.21658	.21439	.40735	.83890	.25123	.10169	.85652
#1	.96737	.96958	.97901	9.8148	49.639	.99432	49.647	.99493	.99135
#2	.95775	.96070	.97602	9.8446	49.926	.98259	49.824	.99636	.97941
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **50.635**	**.96425**	W **20.171**	**.96340**	**9.9752**	**1.0548**	**1.9312**	**2.5213**	**5.3956**
Stddev	.026	.00593	.125	.00710	.0318	.0053	.0147	.0152	.0324
%RSD	.05089	.61513	.62075	.73669	.31880	.50685	.76302	.60084	.60084
#1	50.617	.96844	20.259	.96842	9.9977	1.0586	1.9416	2.5106	5.3726
#2	50.653	.96005	20.082	.95839	9.9528	1.0511	1.9208	2.5320	5.4185
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9387**	**.98224**	**1.0108**	**.99680**	**1.9206**	**2.2920**	**.99079**	**.49178**	**.51370**
Stddev	.0123	.00202	.0007	.00038	.0151	.0147	.00095	.00067	.00019
%RSD	.63233	.20583	.07054	.03791	.78410	.64104	.09574	.13548	.03609
#1	1.9474	.98367	1.0113	.99653	1.9312	2.3024	.99012	.49131	.51383
#2	1.9301	.98081	1.0103	.99706	1.9099	2.2816	.99146	.49225	.51357
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3762.0**	**41335.**	**3472.7**
Stddev	8.6	74.	18.6
%RSD	.22883	.17833	.53464
#1	3755.9	41387.	3485.8
#2	3768.1	41282.	3459.5

Sample Name: 123705-B-10-C MSD Acquired: 5/29/2019 10:18:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05079**	**10.374**	**1.9875**	**.98245**	**1.9917**	W **1.0104**	**1.9782**	**49.920**	**.98630**
Stddev	.00045	.093	.0015	.00248	.0043	.0043	.0054	.091	.00304
%RSD	.88165	.89392	.07571	.25257	.21699	.42501	.27118	.18254	.30846
#1	.05048	10.440	1.9885	.98421	1.9887	1.0074	1.9820	49.855	.98845
#2	.05111	10.309	1.9864	.98070	1.9948	1.0134	1.9744	49.984	.98415
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit						1.0000			
Low Limit						-.00200			

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97414**	**.97675**	**.99050**	**9.9229**	**50.144**	**.99263**	**50.765**	**1.0108**	**.99846**
Stddev	.00275	.00448	.00375	.0025	.020	.00109	.016	.0004	.00468
%RSD	.28188	.45877	.37892	.02542	.04057	.10968	.03119	.03944	.46829
#1	.97609	.97992	.99316	9.9247	50.130	.99339	50.754	1.0111	1.0018
#2	.97220	.97358	.98785	9.9211	50.158	.99186	50.776	1.0105	.99515
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **51.147**	**.97771**	W **20.455**	**.97666**	**10.127**	**1.0463**	**1.9618**	**2.4968**	**5.3431**
Stddev	.116	.00166	.051	.00755	.077	.0009	.0001	.0080	.0172
%RSD	.22748	.16934	.24945	.77309	.75846	.08961	.00764	.32249	.32249
#1	51.064	.97888	20.491	.98200	10.181	1.0470	1.9619	2.4911	5.3309
#2	51.229	.97654	20.419	.97132	10.073	1.0456	1.9617	2.5025	5.3552
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9650**	**.98802**	**1.0314**	**1.0120**	**1.9435**	**2.3595**	**1.0061**	**.50067**	**.51631**
Stddev	.0069	.00198	.0028	.0000	.0066	.0377	.0061	.00219	.00151
%RSD	.35273	.20075	.27354	.00205	.33965	1.5967	.60639	.43772	.29264
#1	1.9699	.98662	1.0294	1.0120	1.9481	2.3329	1.0104	.49912	.51524
#2	1.9601	.98942	1.0334	1.0120	1.9388	2.3861	1.0018	.50222	.51738
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3742.3**	**41177.**	**3418.2**
Stddev	2.9	.	19.4
%RSD	.07631	.00118	.56768
#1	3740.3	41176.	3404.5
#2	3744.3	41177.	3432.0

Sample Name: 123705-B-10-A PDS Acquired: 5/29/2019 10:21:11 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04975**	**1.0013**	**.18713**	**.10176**	**.09980**	**.04945**	**.00023**	**19.309**	**.04875**
Stddev	.00049	.0027	.00658	.00077	.00018	.00013	.00016	.039	.00025
%RSD	.98084	.26460	3.5138	.75606	.17812	.25279	71.432	.19967	.51333
#1	.04940	1.0032	.18248	.10231	.09968	.04936	.00034	19.282	.04857
#2	.05009	.99942	.19178	.10122	.09993	.04954	.00011	19.337	.04892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04857**	**.04788**	**.05027**	**1.0045**	**19.314**	**.09787**	**19.370**	**.05027**	**.04978**
Stddev	.00005	.00010	.00035	.0155	.032	.00783	.011	.00008	.00116
%RSD	.10752	.20972	.70202	1.5468	.16665	8.0027	.05568	.16332	2.3375
#1	.04853	.04795	.05002	.99356	19.336	.10341	19.377	.05021	.04896
#2	.04861	.04781	.05051	1.0155	19.291	.09233	19.362	.05033	.05061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **20.357**	**.04834**	**1.9534**	**.09930**	**.00228**	**.09595**	**.18693**	**5.3240**	**11.393**
Stddev	.076	.00034	.0012	.00181	.00679	.00101	.00442	.0101	.022
%RSD	.37271	.70254	.06100	1.8209	297.56	1.0576	2.3632	.19008	.19008
#1	20.304	.04858	1.9525	.10058	-.00252	.09523	.19005	5.3168	11.378
#2	20.411	.04810	1.9542	.09802	.00709	.09667	.18381	5.3311	11.409
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09921**	**.04965**	**.20484**	**.04937**	**.19773**	**.54490**	**.04952**	**.19524**	**.05459**
Stddev	.00070	.00001	.00000	.00040	.00271	.02516	.00037	.00169	.00254
%RSD	.70584	.01139	.00212	.81431	1.3716	4.6168	.74727	.86518	4.6529
#1	.09970	.04965	.20484	.04965	.19965	.52711	.04925	.19643	.05638
#2	.09871	.04965	.20485	.04909	.19581	.56269	.04978	.19404	.05279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3802.6**	**42703.**	**3506.1**
Stddev	5.6	31.	9.1
%RSD	.14642	.07371	.25886
#1	3806.5	42725.	3512.6
#2	3798.6	42680.	3499.7

Sample Name: CCVH-5713036 Acquired: 5/29/2019 10:23:40 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00029**	**49.911**	**-.00232**	**.00266**	**.00110**	**.00021**	**.00076**	**.00137**	**-.00012**	**.00237**	**.00043**	**.00990**
Stddev	.00064	.034	.00606	.00103	.00008	.00007	.00301	.00028	.00011	.00001	.00007	.00048
%RSD	216.45	.06812	261.43	38.855	7.5437	34.165	394.79	20.211	91.723	.32277	16.193	4.8617
#1	.00016	49.887	.00197	.00193	.00104	.00016	.00289	.00117	-.00004	.00237	.00038	.01024
#2	-.00074	49.935	-.00661	.00339	.00116	.00026	-.00137	.00156	-.00020	.00238	.00048	.00956
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.534**	**.13899**	**.00468**	**.02131**	**.00248**	**-.00044**	**249.21**	**.00144**	**4.8961**	**.00359**	**4.8637**	**-.00030**
Stddev	.239	.02870	.00617	.00132	.00010	.00047	.45	.00026	.0287	.00068	.0287	.00684
%RSD	.49310	20.650	131.87	6.1957	3.9124	107.28	.18034	18.168	.58623	19.093	.59063	2286.8
#1	48.704	.11870	.00032	.02225	.00254	-.00078	249.53	.00162	4.9164	.00407	4.8840	-.00513
#2	48.365	.15928	.00905	.02038	.00241	-.00011	248.89	.00125	4.8758	.00310	4.8434	.00454
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.03903**	**.08352**	**-.00031**	**.00057**	**4.9908**	**-.01525**	**.00014**	F **.56129**	**.00514**	**-.00130**	**.09226**
Stddev	.00009	.04850	.10378	.00229	.00043	.0009	.00026	.00101	.01472	.00033	.00037	.00161
%RSD	87.936	124.26	124.26	749.32	74.611	.01739	1.7353	719.08	2.6219	6.4220	28.423	1.7402
#1	.00004	.00473	.01013	.00131	.00027	4.9914	-.01543	-.00058	.55088	.00490	-.00156	.09340
#2	.00017	.07332	.15690	-.00192	.00088	4.9902	-.01506	.00086	.57169	.00537	-.00104	.09113
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3763.1**	**41577.**	**3441.8**
Stddev	5.2	7.	55.5
%RSD	.13761	.01790	1.6111
#1	3759.5	41572.	3481.0
#2	3766.8	41583.	3402.6

Sample Name: CCV-5714928 Acquired: 5/29/2019 10:26:11 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48671**	**.49350**	**.48323**	**.48189**	**.49196**	**.49087**	**.97887**	**4.8653**	**.47981**	**.48791**	**.48090**	**.49197**	**2.4133**
Stddev	.00004	.00436	.00491	.00431	.00117	.00152	.00647	.0189	.00462	.00462	.00530	.00129	.0154
%RSD	.00910	.88356	1.0160	.89470	.23884	.30992	.66122	.38811	.96231	.94613	1.1027	.26202	.63946
#1	.48674	.49658	.48670	.48494	.49279	.48980	.98344	4.8520	.48308	.49118	.48465	.49288	2.4242
#2	.48668	.49042	.47976	.47884	.49113	.49195	.97429	4.8787	.47655	.48465	.47715	.49106	2.4024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.801**	**.49148**	**19.632**	**.49490**	**.48047**	**25.073**	**.48897**	**-.00046**	**.48732**	**.00116**	**.48265**	**.48635**	**4.8576**
Stddev	.093	.00249	.028	.00123	.00606	.002	.00311	.00138	.00727	.00754	.00961	.00487	.0362
%RSD	.19105	.50583	.14415	.24838	1.2618	.00783	.63627	300.79	1.4924	652.34	1.9915	1.0017	.74520
#1	48.867	.48972	19.652	.49577	.48475	25.072	.49117	.00052	.49246	.00648	.48945	.48979	4.8320
#2	48.735	.49324	19.612	.49403	.47618	25.074	.48677	-.00143	.48217	-.00417	.47586	.48290	4.8832
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.395**	**.48663**	**.48573**	**-.00557**	**.49216**	**.48588**	**-.00037**	**.49165**	**.48948**	**.48115**
Stddev	.077	.00039	.00185	.00039	.00034	.00285	.01919	.00307	.00032	.00021
%RSD	.74520	.07979	.38021	6.9188	.06871	.58666	5139.7	.62504	.06575	.04433
#1	10.341	.48635	.48704	-.00530	.49192	.48789	.01319	.49382	.48971	.48100
#2	10.450	.48690	.48443	-.00585	.49240	.48386	-.01394	.48948	.48925	.48130
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3787.0**	**42145.**	**3459.1**
Stddev	12.1	130.	10.4
%RSD	.31848	.30783	.30153
#1	3778.5	42237.	3466.5
#2	3795.5	42053.	3451.7

Sample Name: CCB Acquired: 5/29/2019 10:28:34 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00114**	**-.00206**	**.00364**	**.00231**	W **.00224**	W **.00149**	**-.00055**	**.06413**	**-.00008**	**.00019**	**-.00062**	**-.00146**
Stddev	.00079	.00025	.00852	.00083	.00322	.00196	.00384	.08715	.00020	.00003	.00006	.00146
%RSD	69.294	12.125	234.04	35.717	144.24	131.75	701.90	135.89	251.47	17.715	10.302	100.11
#1	-.00170	-.00224	.00966	.00290	-.00004	.00010	-.00326	.00251	.00006	.00021	-.00067	-.00250
#2	-.00058	-.00188	-.00238	.00173	.00451	.00287	.00217	.12576	-.00022	.00017	-.00058	-.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.00200	.00120						
Low Limit					-.00200	-.00120						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.03103**	**.26630**	**.00286**	**.00628**	**.00016**	**.00006**	F **.88824**	**-.00046**	**-.00216**	**.00137**	**-.00207**	**.00011**
Stddev	.04996	.15629	.00120	.00383	.00000	.00046	.28065	.00002	.00016	.00119	.00342	.00335
%RSD	160.98	58.691	41.963	60.988	2.8237	777.92	31.597	3.4174	7.4312	86.888	165.40	3006.5
#1	-.00429	.15578	.00201	.00899	.00016	.00038	.68978	-.00047	-.00205	.00053	-.00448	-.00226
#2	.06636	.37682	.00371	.00357	.00016	-.00027	1.0867	-.00044	-.00228	.00221	.00035	.00248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.50000					
Low Limit							-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00167**	**.01478**	**.03162**	**-.00009**	W **.00162**	**-.00087**	**-.00019**	**.00255**	**.00143**	**-.00055**	**-.00192**	**-.00036**
Stddev	.00319	.01916	.04101	.00099	.00220	.00084	.00014	.00290	.02022	.00129	.00020	.00023
%RSD	191.04	129.70	129.70	1080.1	135.56	96.570	76.848	113.45	1412.7	237.21	10.395	63.212
#1	.00059	.00122	.00262	.00061	.00007	-.00146	-.00009	.00460	.01573	.00037	-.00178	-.00020
#2	-.00393	.02833	.06062	-.00079	.00317	-.00027	-.00029	.00050	-.01287	-.00146	-.00206	-.00052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.00120							
Low Limit					-.00120							

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3759.0**	**41964.**	**3415.3**
Stddev	6.5	127.	40.6
%RSD	.17285	.30179	1.1894
#1	3754.4	42053.	3444.0
#2	3763.6	41874.	3386.6

Sample Name: CCVL-5725431 Acquired: 5/29/2019 10:31:12 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00674**	**.10435**	**.01850**	**.09899**	**.01089**	**.00129**	**.10581**	**.20927**	**.00481**	**.01025**	**.00966**	**.01405**
Stddev	.00190	.00026	.00351	.00081	.00000	.00007	.00164	.00166	.00022	.00016	.00022	.00113
%RSD	28.171	.25138	18.948	.81653	.02803	5.3842	1.5453	.79094	4.6770	1.6093	2.2354	8.0196
#1	.00539	.10417	.01602	.09956	.01089	.00134	.10465	.21044	.00496	.01013	.00982	.01325
#2	.00808	.10454	.02098	.09841	.01089	.00124	.10697	.20810	.00465	.01037	.00951	.01484
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12848**	**3.1527**	**.02294**	**.21650**	**.01074**	**.01935**	F **1.6002**	**.04138**	**2.9125**	**.01054**	**.08647**	**.01823**
Stddev	.00138	.1055	.00121	.00510	.00012	.00095	.0090	.00030	.0066	.00146	.00665	.00228
%RSD	1.0770	3.3471	5.2748	2.3552	1.1307	4.9025	.56226	.73027	.22735	13.897	7.6915	12.499
#1	.12750	3.2273	.02380	.22010	.01065	.02002	1.6066	.04160	2.9172	.00950	.09118	.01984
#2	.12945	3.0781	.02209	.21289	.01082	.01868	1.5938	.04117	2.9078	.01157	.08177	.01662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01656**	**.52601**	**1.1257**	**.10239**	**.00984**	**.01299**	**.00991**	**.01735**	**.04469**	**.00995**	**.01808**	**.01261**
Stddev	.00101	.01196	.0256	.00184	.00012	.00147	.00009	.00092	.04926	.00029	.00058	.00370
%RSD	6.0937	2.2744	2.2744	1.8019	1.2475	11.282	.85811	5.2845	110.21	2.9519	3.2289	29.368
#1	.01727	.53447	1.1438	.10369	.00976	.01402	.00997	.01800	.00986	.00975	.01849	.00999
#2	.01585	.51755	1.1076	.10108	.00993	.01195	.00985	.01670	.07953	.01016	.01767	.01523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3781.6**	**42281.**	**3399.4**
Stddev	7.1	428.	28.2
%RSD	.18794	1.0132	.82829
#1	3776.5	42584.	3379.5
#2	3786.6	41979.	3419.3

Sample Name: 280-123793-B-16-A Acquired: 5/29/2019 10:33:47 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.01653**	**.00129**	**.00255**	**.00109**	**.00011**	**.00056**	**.16242**	**-.00023**
Stddev	.00016	.00008	.00752	.00034	.00007	.00022	.00220	.00910	.00006
%RSD	339.87	.45733	583.77	13.297	5.9780	209.05	389.93	5.6024	26.525
#1	-.00006	.01658	-.00403	.00279	.00114	-.00005	.00212	.16886	-.00019
#2	.00016	.01647	.00661	.00231	.00105	.00027	-.00099	.15599	-.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.00026**	**-.00218**	**.00848**	**.13148**	**.00304**	**.01597**	**.00055**	**-.00036**
Stddev	.00045	.00035	.00131	.00276	.00568	.00293	.00376	.00005	.00023
%RSD	695.72	133.38	59.885	32.559	4.3167	96.186	23.541	9.2172	63.957
#1	.00025	-.00001	-.00126	.00653	.12747	.00511	.01863	.00058	-.00053
#2	-.00038	-.00051	-.00310	.01044	.13549	.00097	.01331	.00051	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.85082**	**-.00036**	**-.00025**	**.00145**	**-.00001**	**-.00152**	**-.00367**	**.43356**	**.92782**
Stddev	.00015	.00038	.00042	.00009	.01056	.00023	.00104	.00515	.01102
%RSD	.01804	106.12	172.16	5.8596	174180.	14.894	28.370	1.1876	1.1876
#1	.85072	-.00063	-.00054	.00139	.00746	-.00136	-.00440	.42992	.92003
#2	.85093	-.00009	.00005	.00151	-.00747	-.00168	-.00293	.43720	.93561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.00009**	**-.00223**	**.00028**	**.00088**	**-.00813**	**.00110**	**-.00098**	**-.00256**
Stddev	.00089	.00038	.00338	.00088	.00010	.04470	.00057	.00049	.00292
%RSD	753.47	415.96	151.96	314.14	11.405	550.13	52.131	50.039	114.09
#1	-.00075	-.00018	-.00462	.00090	.00081	.02348	.00150	-.00063	-.00462
#2	.00051	.00036	.00017	-.00034	.00096	-.03973	.00069	-.00133	-.00049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3842.9**	**42802.**	**3447.0**
Stddev	9.0	182.	14.2
%RSD	.23339	.42470	.41125
#1	3836.6	42931.	3437.0
#2	3849.2	42674.	3457.0

Sample Name: 280-123793-B-26-A Acquired: 5/29/2019 10:36:24 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**.00054**	**.00431**	**.00118**	**.00092**	**.00020**	**-.00354**	**.02913**	**-.00033**
Stddev	.00047	.00063	.00755	.00006	.00002	.00003	.00134	.00179	.00010
%RSD	99.442	116.61	175.17	5.1169	1.8034	14.345	38.007	6.1430	29.000
#1	-.00080	.00009	.00965	.00114	.00091	.00018	-.00259	.02786	-.00040
#2	-.00014	.00098	-.00103	.00122	.00093	.00022	-.00449	.03039	-.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.00003**	**.00008**	**-.00119**	**.08575**	**.00205**	**.04983**	**.00084**	**-.00044**
Stddev	.00007	.00040	.00113	.00391	.00499	.00169	.05416	.00099	.00056
%RSD	31.977	1479.6	1365.8	329.67	5.8237	82.273	108.71	117.58	128.41
#1	-.00027	-.00026	.00088	.00158	.08928	.00086	.08812	.00154	-.00004
#2	-.00017	.00031	-.00072	-.00395	.08222	.00325	.01153	.00014	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50263**	**-.00051**	**.00060**	**.00249**	**-.00302**	**.00053**	**-.00239**	**.00403**	**.00862**
Stddev	.00945	.00023	.00004	.00023	.00860	.00608	.00023	.01814	.03883
%RSD	1.8797	45.004	5.8378	9.0783	284.86	1153.4	9.6831	450.45	450.45
#1	.49595	-.00035	.00063	.00265	.00306	-.00377	-.00255	-.00880	-.01884
#2	.50931	-.00067	.00058	.00233	-.00910	.00483	-.00222	.01686	.03607
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00075**	**-.00028**	**-.00082**	**.00039**	**.00161**	**.04098**	**.00092**	**-.00025**	**.00120**
Stddev	.00033	.00005	.00231	.00095	.00412	.02310	.00026	.00052	.00182
%RSD	44.483	19.514	280.86	245.53	255.94	56.363	27.913	209.54	152.10
#1	.00099	-.00024	.00081	.00105	.00452	.02465	.00110	.00012	.00249
#2	.00052	-.00031	-.00246	-.00028	-.00130	.05732	.00074	-.00061	-.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3840.6**	**43217.**	**3507.1**
Stddev	2.4	138.	5.3
%RSD	.06217	.31950	.15233
#1	3842.3	43315.	3503.3
#2	3839.0	43120.	3510.8

Sample Name: 280-124017-B-10-A Acquired: 5/29/2019 10:39:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00143**	**.00382**	**.00212**	**.00056**	**.00080**	**.00020**	**.00141**	**.06143**	**-.00016**
Stddev	.00130	.00022	.00435	.00014	.00011	.00009	.00121	.01133	.00018
%RSD	91.264	5.8543	205.22	25.470	13.864	44.482	85.379	18.448	113.49
#1	-.00235	.00398	-.00096	.00046	.00088	.00013	.00056	.05341	-.00003
#2	-.00051	.00366	.00519	.00066	.00072	.00026	.00227	.06944	-.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**-.00029**	**-.00128**	**.00500**	**.14205**	**.00250**	**.00825**	**.00010**	**.00008**
Stddev	.00002	.00045	.00014	.00042	.04044	.00344	.00454	.00006	.00017
%RSD	5.5119	156.39	11.079	8.4384	28.470	137.53	55.089	63.849	214.49
#1	-.00032	.00003	-.00118	.00470	.17064	.00493	.01146	.00005	-.00004
#2	-.00030	-.00061	-.00138	.00530	.11345	.00007	.00504	.00014	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49717**	**-.00011**	**-.00103**	**.00211**	**-.00648**	**-.00015**	**-.00171**	**.02695**	**.05767**
Stddev	.00698	.00017	.00508	.00209	.01056	.00286	.00177	.02843	.06083
%RSD	1.4038	159.05	492.08	98.741	162.97	1968.7	103.63	105.48	105.48
#1	.49224	-.00023	.00256	.00359	.00099	.00188	-.00046	.04705	.10069
#2	.50211	.00001	-.00463	.00064	-.01394	-.00217	-.00296	.00685	.01466
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00102**	**-.00013**	**-.00021**	**-.00010**	**.00186**	**-.02279**	**.00001**	**-.00055**	**.00101**
Stddev	.00148	.00017	.00004	.00024	.00091	.03884	.00015	.00037	.00067
%RSD	145.14	123.51	16.935	227.79	48.817	170.44	1697.8	68.629	66.759
#1	-.00003	-.00025	-.00024	-.00027	.00251	.00468	-.00010	-.00028	.00053
#2	.00207	-.00002	-.00019	.00006	.00122	-.05025	.00011	-.00081	.00148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3830.7**	**43248.**	**3498.8**
Stddev	35.9	206.	18.5
%RSD	.93588	.47736	.52843
#1	3856.0	43102.	3485.7
#2	3805.3	43394.	3511.9

Sample Name: 280-124017-B-20-A Acquired: 5/29/2019 10:41:35 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00045**	**.01115**	**.00194**	**.00020**	**.00076**	**.00025**	**-.00118**	**.02511**	**-.00020**
Stddev	.00058	.00017	.00280	.00022	.00054	.00001	.00133	.00041	.00008
%RSD	126.46	1.4984	144.93	107.60	71.251	3.9016	112.60	1.6163	41.491
#1	-.00005	.01103	-.00005	.00036	.00114	.00024	-.00213	.02539	-.00014
#2	-.00086	.01126	.00392	.00005	.00037	.00026	-.00024	.02482	-.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**-.00033**	**-.00148**	**.01487**	**.15944**	**-.00099**	**.00696**	**.00035**	**-.00043**
Stddev	.00015	.00028	.00030	.00140	.03595	.00150	.00459	.00001	.00047
%RSD	60.004	84.750	20.034	9.4062	22.549	151.10	65.954	1.4640	108.93
#1	.00035	-.00053	-.00169	.01586	.13402	-.00205	.00371	.00036	-.00010
#2	.00014	-.00013	-.00127	.01388	.18486	.00007	.01020	.00035	-.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47638**	**-.00034**	**.00118**	**.00085**	**-.00564**	**-.00057**	**-.00551**	**.00615**	**.01317**
Stddev	.00576	.00101	.00014	.00123	.00937	.00206	.00052	.01616	.03458
%RSD	1.2097	293.54	11.606	144.40	166.29	357.51	9.5220	262.50	262.50
#1	.48046	.00037	.00128	.00172	.00099	-.00203	-.00588	.01758	.03762
#2	.47231	-.00105	.00109	-.00002	-.01226	.00088	-.00514	-.00527	-.01128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00158**	**-.00014**	**-.00205**	**.00044**	**.00379**	**.00267**	**.00013**	**-.00109**	**-.00055**
Stddev	.00012	.00006	.00212	.00025	.00554	.02807	.00014	.00036	.00218
%RSD	7.4115	43.555	103.36	56.288	145.91	1052.4	107.41	32.858	392.16
#1	.00149	-.00019	-.00055	.00061	-.00012	.02251	.00003	-.00083	-.00209
#2	.00166	-.00010	-.00354	.00026	.00771	-.01718	.00023	-.00134	.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3784.3**	**42466.**	**3436.2**
Stddev	6.4	162.	5.2
%RSD	.16877	.38132	.15174
#1	3779.8	42352.	3432.6
#2	3788.8	42581.	3439.9

Sample Name: 280-124118-B-10-A Acquired: 5/29/2019 10:44:11 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00103**	**.00692**	**.00591**	**-.00036**	**.00071**	**.00030**	**-.00121**	**.05333**	**.00002**
Stddev	.00001	.00008	.00621	.00102	.00006	.00017	.00034	.00195	.00019
%RSD	.85961	1.1064	105.15	283.26	8.1921	55.861	28.320	3.6591	936.25
#1	-.00104	.00687	.01030	-.00108	.00067	.00018	-.00097	.05471	-.00012
#2	-.00102	.00698	.00151	.00036	.00075	.00042	-.00145	.05195	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00014**	**-.00050**	**.10403**	**.15723**	**-.00204**	**.01039**	**.00076**	**-.00012**
Stddev	.00036	.00019	.00000	.00541	.06070	.00174	.00057	.00006	.00014
%RSD	447.82	135.18	.60203	5.1961	38.603	85.552	5.4793	7.8563	109.75
#1	-.00017	-.00001	-.00050	.10785	.11432	-.00327	.01079	.00081	-.00022
#2	.00033	-.00027	-.00050	.10020	.20015	-.00080	.00999	.00072	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.43259**	**-.00004**	**.00123**	**.00333**	**-.00084**	**-.00483**	**.00010**	**.03537**	**.07570**
Stddev	.01430	.00007	.00068	.00075	.00377	.00154	.00815	.00775	.01658
%RSD	3.3062	172.56	55.225	22.451	449.84	31.887	8417.8	21.897	21.897
#1	.44270	-.00009	.00171	.00280	-.00350	-.00374	-.00567	.02990	.06398
#2	.42248	.00001	.00075	.00386	.00183	-.00592	.00586	.04085	.08742
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**-.00014**	**-.00267**	**.00019**	**.00312**	**.05250**	**.00118**	**-.00155**	**-.00010**
Stddev	.00192	.00034	.00242	.00009	.00237	.05765	.00052	.00031	.00254
%RSD	249.63	243.04	90.539	45.457	75.822	109.81	43.950	20.296	2487.9
#1	-.00059	.00010	-.00096	.00013	.00145	.01173	.00155	-.00132	.00170
#2	.00213	-.00039	-.00438	.00025	.00479	.09326	.00081	-.00177	-.00190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3759.6**	**42740.**	**3410.2**
Stddev	11.7	203.	12.2
%RSD	.31153	.47606	.35660
#1	3767.9	42596.	3401.6
#2	3751.3	42884.	3418.8

Sample Name: 280-124121-B-10-A Acquired: 5/29/2019 10:46:46 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459483 6010B (Cu Pb Sb Zn) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00030**	**.00242**	**-.00038**	**-.00038**	**.00058**	**.00020**	**.00068**	**.02145**	**-.00052**
Stddev	.00029	.00097	.00231	.00100	.00024	.00013	.00121	.00349	.00017
%RSD	98.878	40.256	609.37	263.81	41.481	67.609	177.51	16.281	32.006
#1	-.00009	.00173	-.00201	.00033	.00041	.00029	-.00017	.02392	-.00064
#2	-.00051	.00311	.00126	-.00109	.00075	.00010	.00154	.01898	-.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.00012**	**-.00128**	**.00558**	**.01700**	**-.00166**	**.00796**	**.00016**	**-.00045**
Stddev	.00029	.00006	.00057	.00196	.07499	.00252	.00075	.00010	.00083
%RSD	503.68	45.928	44.296	35.238	441.16	151.92	9.3859	60.807	186.41
#1	-.00026	.00016	-.00168	.00419	.07003	-.00344	.00849	.00023	.00014
#2	.00015	.00008	-.00088	.00696	-.03603	.00012	.00743	.00009	-.00104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42805**	**-.00020**	**.00135**	**.00385**	**-.00121**	**-.00018**	**-.00296**	**-.00454**	**-.00972**
Stddev	.00621	.00004	.00273	.00104	.00445	.00047	.00208	.03921	.08391
%RSD	1.4514	21.932	202.39	27.043	369.20	256.81	70.277	862.91	862.91
#1	.43244	-.00023	-.00058	.00459	.00194	.00015	-.00443	-.03227	-.06906
#2	.42365	-.00017	.00328	.00312	-.00436	-.00052	-.00149	.02318	.04961
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**-.00019**	**.00032**	**.00013**	**.00162**	**-.04048**	**.00044**	**-.00109**	**-.00224**
Stddev	.00093	.00021	.00172	.00020	.00059	.05155	.00074	.00017	.00209
%RSD	139.86	109.84	544.35	154.69	36.494	127.34	166.75	15.564	93.380
#1	.00001	-.00004	-.00090	.00028	.00204	-.00403	.00097	-.00097	-.00371
#2	.00132	-.00034	.00153	-.00001	.00120	-.07693	-.00008	-.00121	-.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3836.0**	**43061.**	**3460.7**
Stddev	.7	71.	17.6
%RSD	.01922	.16579	.50998
#1	3835.5	43112.	3448.2
#2	3836.5	43011.	3473.2

Sample Name: CCVH-5713036 Acquired: 5/29/2019 10:49:21 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00054**	**50.248**	**-.00226**	**.00013**	**.00176**	**.00025**	**-.00279**	**-.00254**	**-.00011**	**.00237**	**-.00002**	**.01073**	**49.397**
Stddev	.00028	.229	.00331	.00060	.00017	.00015	.00299	.00474	.00026	.00043	.00036	.00071	.156
%RSD	51.535	.45486	146.52	455.98	9.7910	61.961	107.38	186.31	231.17	18.304	1615.3	6.5751	.31545
#1	-.00074	50.086	.00008	.00055	.00163	.00014	-.00067	-.00590	-.00030	.00268	-.00028	.01123	49.287
#2	-.00035	50.409	-.00460	-.00029	.00188	.00036	-.00490	.00081	.00007	.00206	.00023	.01023	49.507
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.13042**	**.00396**	**.02383**	**.00250**	**-.00117**	**250.41**	**.00145**	**4.9128**	**.00404**	**4.8727**	**.00219**	**-.00509**	**.04730**
Stddev	.11842	.00237	.00019	.00012	.00049	1.91	.00067	.0295	.00037	.0240	.00206	.00493	.01455
%RSD	90.801	59.873	.79694	4.9414	41.900	.76413	45.860	.59984	9.1185	.49212	94.486	96.787	30.757
#1	.21415	.00564	.02397	.00259	-.00151	249.06	.00098	4.9337	.00378	4.8897	.00364	-.00858	.05759
#2	.04668	.00228	.02370	.00241	-.00082	251.77	.00192	4.8920	.00430	4.8558	.00073	-.00161	.03701
Check ?	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10122**	**.00040**	**.00002**	**4.9916**	**-.01561**	**.00254**	**.52251**	**.00556**	**-.00196**	**.10144**
Stddev	.03113	.00046	.00013	.0060	.00038	.00132	.00745	.00008	.00017	.00147
%RSD	30.757	114.51	811.97	.12011	2.4649	51.916	1.4265	1.4926	8.7281	1.4460
#1	.12323	.00008	.00011	4.9959	-.01533	.00347	.52778	.00562	-.00208	.10040
#2	.07921	.00073	-.00008	4.9874	-.01588	.00160	.51724	.00550	-.00184	.10248
Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3749.0**	**41625.**	**3423.8**
Stddev	6.9	67.	31.5
%RSD	.18437	.16165	.92121
#1	3753.9	41673.	3446.1
#2	3744.1	41578.	3401.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 10:51:52 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47526**	F **.63445**	**.48819**	**.47555**	**.48287**	**.48050**	**.96908**	**4.7972**	**.47658**	**.48517**	**.47941**	**.48047**
Stddev	.00310	.00101	.00941	.00115	.00064	.00036	.00015	.0060	.00149	.00184	.00203	.00140
%RSD	.65219	.15843	1.9269	.24088	.13272	.07426	.01575	.12462	.31360	.37947	.42242	.29201
#1	.47745	.63516	.49484	.47636	.48241	.48075	.96919	4.8014	.47764	.48647	.48084	.48146
#2	.47306	.63374	.48154	.47474	.48332	.48025	.96897	4.7930	.47553	.48387	.47798	.47947
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000										
Range		10.000%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.5076**	**47.949**	**.47750**	**19.301**	**.48576**	**.47853**	**25.093**	**.48701**	**.01214**	**.48495**	**.00839**	**.47858**
Stddev	.0086	.092	.00025	.035	.00097	.00104	.028	.00400	.00132	.00021	.01116	.00134
%RSD	.34330	.19135	.05314	.17919	.20056	.21805	.11289	.82220	10.845	.04307	133.04	.28045
#1	2.5015	47.884	.47732	19.325	.48645	.47927	25.073	.48984	.01307	.48509	.01629	.47953
#2	2.5137	48.014	.47768	19.276	.48507	.47779	25.113	.48418	.01121	.48480	.00050	.47763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47759**	**4.7637**	**10.194**	**.47980**	**.47763**	**.01010**	**.48206**	**.48328**	**.02062**	**.48112**	**.48028**	**.47124**
Stddev	.00451	.0153	.033	.00008	.00081	.00176	.00134	.00348	.03094	.00102	.00122	.00327
%RSD	.94356	.32142	.32142	.01717	.17057	17.467	.27740	.71982	150.04	.21124	.25348	.69408
#1	.47440	4.7745	10.217	.47986	.47705	.01134	.48301	.48574	-.00126	.48040	.48114	.46893
#2	.48078	4.7528	10.171	.47975	.47820	.00885	.48112	.48082	.04250	.48184	.47942	.47355
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3810.5**	**42694.**	**3496.9**
Stddev	10.0	75.	7.1
%RSD	.26327	.17633	.20195
#1	3817.6	42641.	3492.0
#2	3803.5	42748.	3501.9

Sample Name: CCB Acquired: 5/29/2019 10:54:16 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00125**	**-.00017**	**.00232**	**.00061**	**-.00023**	**.00013**	**.00076**	**-.01705**	**-.00033**	**.00012**	**-.00021**	**-.00130**
Stddev	.00085	.00101	.00629	.00109	.00042	.00004	.00627	.00208	.00015	.00002	.00036	.00143
%RSD	68.100	591.06	271.36	177.10	182.99	34.365	823.24	12.207	45.349	17.642	168.60	110.77
#1	-.00065	-.00088	-.00213	-.00015	.00007	.00010	-.00367	-.01852	-.00044	.00013	-.00047	-.00028
#2	-.00185	.00054	.00677	.00138	-.00052	.00016	.00519	-.01558	-.00023	.00010	.00004	-.00231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00175**	**.12065**	**.00293**	**.00428**	**.00003**	**.00039**	W **.45042**	**-.00085**	**-.00189**	**.00296**	**-.00680**	**-.00275**
Stddev	.00095	.05307	.00316	.00143	.00007	.00016	.03248	.00057	.00112	.00108	.00510	.00074
%RSD	54.374	43.987	108.04	33.274	223.01	40.895	7.2116	66.819	59.511	36.358	75.011	26.953
#1	-.00242	.15818	.00069	.00529	.00008	.00028	.47339	-.00125	-.00268	.00220	-.00319	-.00327
#2	-.00108	.08312	.00516	.00328	-.00002	.00051	.42745	-.00045	-.00109	.00372	-.01041	-.00222
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.35000					
Low Limit							-.35000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00767**	**.01642**	**.00160**	**-.00003**	**-.00023**	**.00025**	**.00013**	**.06909**	**.00031**	**-.00306**	**-.00136**
Stddev	.00211	.00495	.01060	.00092	.00004	.00025	.00020	.00355	.04900	.00112	.00019	.00125
%RSD	51.547	64.552	64.552	57.443	123.12	108.68	78.182	2803.3	70.916	367.77	6.3281	91.986
#1	.00559	.00417	.00893	.00095	-.00006	-.00041	.00011	-.00238	.03444	-.00049	-.00320	-.00225
#2	.00261	.01118	.02392	.00226	-.00000	-.00005	.00039	.00264	.10373	.00110	-.00293	-.00048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3792.1**	**42609.**	**3447.5**
Stddev	26.0	349.	15.7
%RSD	.68560	.81859	.45579
#1	3773.7	42362.	3458.6
#2	3810.5	42856.	3436.4

Sample Name: CCVL-5725431 Acquired: 5/29/2019 10:56:53 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00636**	**.10061**	**.01268**	**.09626**	**.01021**	**.00110**	**.10460**	**.19564**	**.00485**	**.00994**	**.00957**	**.01453**
Stddev	.00103	.00133	.00356	.00146	.00008	.00006	.00010	.00019	.00010	.00018	.00078	.00103
%RSD	16.120	1.3238	28.075	1.5139	.80635	5.4253	.09727	.09561	2.0638	1.8410	8.1983	7.0655
#1	.00709	.10155	.01520	.09729	.01015	.00105	.10467	.19577	.00492	.01007	.00902	.01525
#2	.00564	.09967	.01017	.09523	.01026	.00114	.10453	.19550	.00478	.00981	.01013	.01380
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12451**	**3.0901**	**.02460**	**.20985**	**.01055**	**.01942**	F **1.3421**	**.04083**	**2.8762**	**.00926**	**.09985**	**.01784**
Stddev	.00266	.0485	.00266	.00403	.00011	.00041	.0086	.00060	.0253	.00138	.00090	.00473
%RSD	2.1386	1.5696	10.815	1.9210	1.0124	2.1190	.64270	1.4596	.87808	14.853	.90461	26.507
#1	.12639	3.0558	.02648	.21270	.01063	.01913	1.3482	.04126	2.8941	.01024	.09921	.02118
#2	.12262	3.1244	.02272	.20700	.01048	.01972	1.3360	.04041	2.8583	.00829	.10049	.01449
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.01332**	**.48172**	**1.0309**	**.10024**	**.00956**	**.01332**	**.00951**	**.01681**	**.06065**	**.01012**	**.01786**	**.01434**
Stddev	.00289	.04591	.0983	.00257	.00028	.00111	.00001	.00036	.02499	.00136	.00014	.00260
%RSD	21.723	9.5303	9.5303	2.5670	2.9469	8.3477	.06640	2.1310	41.201	13.471	.79993	18.116
#1	.01537	.44925	.96140	.10206	.00976	.01253	.00951	.01706	.07832	.00916	.01776	.01617
#2	.01127	.51418	1.1003	.09842	.00937	.01410	.00952	.01656	.04298	.01108	.01796	.01250
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.02000											
Range	-30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3842.0**	**43035.**	**3484.2**
Stddev	2.4	80.	9.8
%RSD	.06277	.18679	.28117
#1	3840.3	43091.	3477.3
#2	3843.7	42978.	3491.2

Sample Name: MB 280-459200/1-A Acquired: 5/29/2019 10:59:32 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00063**	**.00555**	**-.00299**	**-.00046**	**.00076**	**.00041**	**-.00040**	**.01970**	**-.00024**
Stddev	.00047	.00036	.00397	.00027	.00038	.00031	.00648	.00273	.00023
%RSD	75.098	6.4786	132.74	59.147	50.252	75.671	1629.0	13.877	95.766
#1	-.00096	.00580	-.00018	-.00027	.00049	.00019	.00419	.01777	-.00040
#2	-.00030	.00529	-.00579	-.00065	.00103	.00063	-.00498	.02163	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00012**	**-.00123**	W **.05845**	**.02616**	**.00142**	**.01196**	**.00072**	**-.00043**
Stddev	.00039	.00028	.00076	.03065	.07800	.00271	.00564	.00001	.00012
%RSD	901.73	246.34	61.906	52.440	298.21	191.60	47.168	.73025	27.981
#1	.00032	-.00032	-.00069	.03677	-.02900	.00333	.00797	.00072	-.00052
#2	-.00023	.00009	-.00177	.08012	.08131	-.00050	.01595	.00073	-.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.05000					
Low Limit				-.05000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.46708**	**.00001**	**.00284**	**.00079**	**.01317**	**-.00201**	**.00087**	**.00177**	**.00378**
Stddev	.16270	.00066	.00203	.00056	.01048	.00446	.00468	.00908	.01942
%RSD	34.834	4405.9	71.613	70.373	79.606	222.16	540.12	514.00	514.00
#1	.35203	.00048	.00140	.00040	.00575	-.00516	.00417	.00818	.01751
#2	.58213	-.00045	.00428	.00118	.02058	.00115	-.00244	-.00465	-.00996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00155**	**-.00008**	**-.00340**	**.00005**	**.00149**	**.01862**	**.00074**	**.00261**	**-.00029**
Stddev	.00037	.00024	.00236	.00024	.00019	.03175	.00041	.00034	.00252
%RSD	23.761	301.06	69.408	509.98	12.709	170.50	55.674	13.050	882.95
#1	.00129	-.00025	-.00173	-.00012	.00136	.04107	.00103	.00286	.00150
#2	.00182	.00009	-.00507	.00022	.00162	-.00383	.00045	.00237	-.00207
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3821.6**	**43096.**	**3533.3**
Stddev	7.7	125.	28.5
%RSD	.20076	.29006	.80665
#1	3827.0	43184.	3553.5
#2	3816.1	43008.	3513.2

Sample Name: LCS 280-459200/2-A Acquired: 5/29/2019 11:02:43 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00100**	**9.9258**	**1.9455**	**.95371**	**1.9462**	**.99383**	**1.9279**	**48.213**	**.96830**
Stddev	.00059	.0533	.0120	.00251	.0000	.00258	.0028	.023	.00064
%RSD	58.468	.53736	.61725	.26287	.00132	.25964	.14565	.04802	.06573
#1	.00142	9.8881	1.9539	.95193	1.9462	.99566	1.9259	48.196	.96875
#2	.00059	9.9635	1.9370	.95548	1.9462	.99201	1.9299	48.229	.96785
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95552**	**.96016**	**.97001**	**9.6058**	**48.567**	**.97858**	**48.998**	**.99027**	**.97774**
Stddev	.00301	.00239	.00162	.0169	.048	.00417	.024	.00068	.00251
%RSD	.31532	.24883	.16733	.17637	.09884	.42572	.04845	.06871	.25712
#1	.95766	.96185	.97116	9.6178	48.533	.98153	48.981	.98979	.97952
#2	.95339	.95847	.96887	9.5939	48.601	.97564	49.015	.99075	.97596
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **48.643**	**.95943**	**19.838**	**.95654**	**9.7889**	**.00838**	**1.9183**	**1.9991**	**4.2780**
Stddev	.020	.00133	.019	.00492	.0208	.00176	.0002	.0179	.0383
%RSD	.04186	.13892	.09499	.51423	.21240	21.069	.01197	.89530	.89530
#1	48.657	.96037	19.851	.95306	9.7742	.00962	1.9182	2.0117	4.3051
#2	48.628	.95849	19.824	.96002	9.8036	.00713	1.9185	1.9864	4.2509
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9237**	**.96368**	**1.0068**	**.99294**	**1.9075**	**2.2351**	**.98215**	**.48487**	**.50532**
Stddev	.0063	.00073	.0004	.00062	.0096	.0132	.00028	.00078	.00270
%RSD	.32526	.07566	.04442	.06223	.50315	.59128	.02858	.16099	.53527
#1	1.9281	.96317	1.0065	.99250	1.9143	2.2257	.98195	.48542	.50724
#2	1.9193	.96420	1.0071	.99337	1.9007	2.2444	.98235	.48432	.50341
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3749.3**	**41527.**	**3459.3**
Stddev	9.1	234.	4.6
%RSD	.24194	.56466	.13355
#1	3742.9	41693.	3456.0
#2	3755.8	41362.	3462.6

Sample Name: 280-123647-C-1-E Acquired: 5/29/2019 11:05:02 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00059**	**.01309**	**.00053**	**.18304**	**.29865**	**.00018**	**-.00079**	**2.7785**	**-.00003**
Stddev	.00044	.00031	.00403	.00197	.00217	.00008	.00152	.0144	.00012
%RSD	74.456	2.3353	755.50	1.0780	.72626	43.475	192.04	.51980	402.52
#1	-.00090	.01288	.00338	.18443	.30018	.00012	-.00186	2.7887	-.00012
#2	-.00028	.01331	-.00232	.18164	.29712	.00023	.00028	2.7683	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00009**	**.00120**	**.44092**	**2.0179**	**.08242**	**.35516**	**.01363**	**.00202**
Stddev	.00032	.00016	.00007	.00289	.0639	.00381	.00036	.00003	.00025
%RSD	1291.4	186.41	5.8562	.65647	3.1669	4.6173	.10216	.18993	12.539
#1	.00025	.00020	.00125	.44296	2.0631	.07973	.35542	.01361	.00184
#2	-.00020	-.00003	.00115	.43887	1.9727	.08511	.35491	.01365	.00220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**387.22**	**.00004**	**.02761**	**.00014**	**.09282**	**.00102**	**-.00361**	**9.4557**	**20.235**
Stddev	2.41	.00009	.00164	.00140	.00828	.00202	.00023	.0685	.147
%RSD	.62267	198.53	5.9563	995.96	8.9172	198.80	6.3134	.72481	.72481
#1	388.92	.00010	.02645	.00113	.08697	-.00041	-.00345	9.5042	20.339
#2	385.51	-.00002	.02877	-.00085	.09867	.00244	-.00377	9.4072	20.132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.38490**	**-.00280**	**.00013**	**.00221**	**.04213**	**.00055**	**.00161**	**.00027**
Stddev	.00008	.00236	.00358	.00143	.00053	.01800	.00018	.00053	.00131
%RSD	232.92	.61403	127.57	1126.1	23.882	42.726	32.129	32.924	485.29
#1	.00002	.38657	-.00027	.00114	.00183	.05486	.00043	.00198	.00119
#2	-.00009	.38323	-.00533	-.00088	.00258	.02941	.00067	.00123	-.00065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3643.0**	**40726.**	**3428.2**
Stddev	6.7	78.	17.8
%RSD	.18348	.19093	.51966
#1	3647.7	40781.	3415.6
#2	3638.3	40671.	3440.8

Sample Name: 280-124074-D-1-A Acquired: 5/29/2019 11:07:38 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.01881**	**.00636**	**2.5075**	**.64746**	**.00017**	**-.00560**	**161.01**	**.00094**
Stddev	.00192	.00107	.00368	.0057	.00062	.00006	.00496	.35	.00007
%RSD	295.70	5.7040	57.890	.22935	.09507	32.974	88.449	.21704	7.2500
#1	.00071	.01805	.00896	2.5116	.64789	.00013	-.00911	161.26	.00089
#2	-.00200	.01956	.00376	2.5035	.64702	.00021	-.00210	160.77	.00099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01989**	**.00399**	**.00312**	**.47511**	**26.319**	**.01926**	**297.09**	**2.2718**	**.01234**
Stddev	.00025	.00001	.00054	.00433	.112	.00496	2.56	.0026	.00050
%RSD	1.2652	.19296	17.368	.91111	.42625	25.770	.86006	.11353	4.0436
#1	.01971	.00399	.00274	.47205	26.399	.01575	298.90	2.2737	.01269
#2	.02007	.00398	.00350	.47817	26.240	.02277	295.29	2.2700	.01198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**368.62**	**.24791**	**.31677**	**-.00106**	**52.767**	**-.00192**	**-.00366**	**20.762**	**44.430**
Stddev	.32	.00149	.00062	.00153	.180	.00443	.00488	.041	.088
%RSD	.08652	.60296	.19610	144.42	.34194	230.73	133.25	.19751	.19751
#1	368.85	.24897	.31634	.00002	52.895	.00121	-.00711	20.733	44.368
#2	368.40	.24685	.31721	-.00214	52.640	-.00505	-.00021	20.791	44.492
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00061**	**1.3476**	**-.00595**	**.00187**	**-.00062**	**-.00726**	**.00281**	**.01103**	**.00340**
Stddev	.00204	.0023	.00183	.00029	.00298	.01264	.00056	.00127	.00140
%RSD	332.41	.16850	30.694	15.625	477.75	174.15	20.071	11.512	41.252
#1	.00083	1.3493	-.00466	.00166	.00148	-.01620	.00241	.01193	.00241
#2	-.00205	1.3460	-.00724	.00208	-.00273	.00168	.00321	.01013	.00439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3586.7**	**40105.**	**3466.9**
Stddev	10.8	76.	11.0
%RSD	.30237	.18843	.31807
#1	3579.1	40158.	3459.1
#2	3594.4	40051.	3474.7

Sample Name: 280-124074-D-2-A Acquired: 5/29/2019 11:10:15 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.21034**	**.00864**	**.44144**	**.03588**	**.00036**	**-.00508**	**168.53**	**.00036**
Stddev	.00020	.00139	.00135	.00348	.00011	.00019	.00250	.53	.00016
%RSD	104.57	.66091	15.604	.78798	.29870	53.158	49.164	.31533	43.760
#1	-.00033	.21132	.00959	.44390	.03595	.00023	-.00331	168.91	.00025
#2	-.00005	.20936	.00769	.43898	.03580	.00050	-.00685	168.16	.00047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.00208**	**.00213**	**.32850**	**4.3222**	**.00905**	**112.69**	**.04161**	**.00204**
Stddev	.00027	.00025	.00114	.00009	.0906	.00123	.12	.00011	.00016
%RSD	35.882	12.117	53.694	.02788	2.0961	13.574	.10302	.25904	7.7552
#1	.00055	.00190	.00293	.32857	4.3863	.00992	112.61	.04169	.00193
#2	.00093	.00226	.00132	.32844	4.2582	.00818	112.77	.04153	.00215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **34.208**	**.00977**	**.07462**	**.00163**	F **216.55**	**-.00050**	**-.00550**	**10.062**	**21.534**
Stddev	.026	.00010	.00079	.00086	.71	.00508	.00002	.004	.009
%RSD	.07712	1.0507	1.0624	53.006	.32728	1014.4	.41797	.04034	.04034
#1	34.226	.00985	.07519	.00102	217.05	-.00409	-.00552	10.060	21.528
#2	34.189	.00970	.07406	.00224	216.05	.00309	-.00549	10.065	21.540
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500				200.00				
Low Limit	-.20000				-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**1.0017**	**-.00125**	**.00940**	**.00165**	**.01482**	**.00383**	**.00543**	**-.00028**
Stddev	.00041	.0050	.00178	.00156	.00104	.07577	.00109	.00009	.00223
%RSD	536.35	.49851	142.55	16.605	62.872	511.29	28.551	1.6971	792.70
#1	.00021	1.0053	-.00250	.01050	.00092	.06840	.00305	.00549	-.00185
#2	-.00036	.99822	.00001	.00829	.00238	-.03876	.00460	.00536	.00129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3666.7**	**41519.**	**3453.1**
Stddev	9.9	212.	24.4
%RSD	.27131	.51036	.70772
#1	3673.7	41369.	3435.8
#2	3659.6	41669.	3470.4

Sample Name: 280-124074-D-2-A Acquired: 5/29/2019 11:12:45 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00074**	**.04799**	**.00196**	**.10134**	**.00671**	**.00010**	**-.00058**	**34.899**	**.00043**
Stddev	.00089	.00028	.00152	.00286	.00020	.00004	.00264	.430	.00026
%RSD	120.52	.58464	77.621	2.8224	3.0102	40.316	455.71	1.2308	60.605
#1	-.00138	.04819	.00088	.09932	.00685	.00007	-.00244	34.595	.00025
#2	-.00011	.04779	.00303	.10336	.00657	.00012	.00129	35.203	.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00038**	**-.00032**	**.07567**	**1.0860**	**.00082**	**23.704**	**.00909**	**-.00058**
Stddev	.00018	.00025	.00138	.00354	.0082	.00297	.184	.00018	.00040
%RSD	137.56	64.587	431.73	4.6816	.75527	362.15	.77797	1.9550	68.038
#1	.00026	.00021	-.00129	.07317	1.0918	.00292	23.573	.00896	-.00086
#2	.00000	.00055	.00065	.07818	1.0802	-.00128	23.834	.00922	-.00030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.4987**	**.00184**	**.01558**	**.00268**	**47.262**	**-.00190**	**-.00262**	**2.0632**	**4.4152**
Stddev	.1161	.00039	.00172	.00097	.847	.00118	.00482	.0557	.1192
%RSD	1.5479	21.226	11.008	36.289	1.7924	61.953	183.63	2.7000	2.7000
#1	7.4166	.00157	.01437	.00337	46.663	-.00273	.00078	2.0238	4.3309
#2	7.5808	.00212	.01679	.00199	47.861	-.00107	-.00603	2.1026	4.4995
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00060**	**.20710**	**-.00244**	**.00186**	**.00280**	**.00576**	**.00124**	**-.00057**	**-.00055**
Stddev	.00082	.00209	.00116	.00001	.00037	.06777	.00076	.00049	.00405
%RSD	136.96	1.0104	47.532	.49949	13.262	1176.6	61.203	86.558	737.91
#1	-.00118	.20562	-.00162	.00187	.00307	-.04216	.00177	-.00091	-.00341
#2	-.00002	.20858	-.00326	.00185	.00254	.05368	.00070	-.00022	.00231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3754.8**	**42201.**	**3443.7**
Stddev	20.6	148.	16.3
%RSD	.54876	.35177	.47198
#1	3769.3	42306.	3455.2
#2	3740.2	42096.	3432.3

Sample Name: 280-124074-D-2-B MS Acquired: 5/29/2019 11:15:18 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00153**	**10.198**	**1.9789**	**1.3884**	**1.9557**	**.96570**	**1.9417**	**209.68**	**.97756**
Stddev	.00009	.024	.0032	.0038	.0050	.00303	.0022	.79	.00226
%RSD	5.9023	.23717	.16256	.27150	.25662	.31420	.11245	.37448	.23126
#1	.00160	10.181	1.9767	1.3911	1.9521	.96355	1.9433	209.12	.97916
#2	.00147	10.215	1.9812	1.3857	1.9592	.96784	1.9402	210.23	.97597
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.93388**	**.95738**	**.96828**	**9.7412**	**52.895**	**.97840**	**157.47**	**.99566**	**.98063**
Stddev	.00257	.00369	.00038	.0488	.157	.00065	.11	.00183	.00483
%RSD	.27550	.38538	.03906	.50042	.29660	.06648	.06725	.18398	.49282
#1	.93570	.95999	.96855	9.7067	52.784	.97794	157.40	.99437	.98405
#2	.93206	.95477	.96801	9.7756	53.006	.97886	157.55	.99696	.97721
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**82.957**	**.94826**	W **20.307**	**.93496**	F **224.19**	**.00660**	**1.9354**	**11.758**	**25.162**
Stddev	.636	.00497	.042	.00222	.57	.00195	.0068	.014	.029
%RSD	.76715	.52394	.20875	.23703	.25362	29.474	.35305	.11601	.11601
#1	82.507	.95177	20.337	.93653	224.59	.00798	1.9305	11.768	25.183
#2	83.407	.94475	20.277	.93339	223.78	.00523	1.9402	11.748	25.142
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000		200.00				
Low Limit			-6.0000		-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9172**	**1.9282**	**.96837**	**.97469**	**1.8458**	**2.2114**	**.96972**	**.46981**	**.48216**
Stddev	.0070	.0080	.00166	.00083	.0118	.0873	.00068	.00002	.00458
%RSD	.36654	.41375	.17192	.08547	.63697	3.9492	.06976	.00397	.95092
#1	1.9221	1.9226	.96720	.97410	1.8541	2.2732	.97020	.46980	.47892
#2	1.9122	1.9339	.96955	.97528	1.8375	2.1497	.96924	.46983	.48541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3628.9**	**40942.**	**3451.5**
Stddev	6.7	92.	7.5
%RSD	.18351	.22423	.21745
#1	3624.2	41007.	3456.8
#2	3633.6	40877.	3446.2

Sample Name: 280-124074-D-2-C MSD Acquired: 5/29/2019 11:17:35 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459200 200.7 (Fe)

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00270**	**10.307**	**2.0017**	**1.4045**	**2.0099**	**.98917**	**1.9688**	**213.52**	**.99420**
Stddev	.00028	.084	.0132	.0000	.0011	.00009	.0030	.03	.00071
%RSD	10.541	.81974	.65687	.00218	.05429	.00922	.15460	.01534	.07109
#1	.00250	10.366	2.0110	1.4045	2.0106	.98911	1.9667	213.55	.99470
#2	.00290	10.247	1.9924	1.4044	2.0091	.98924	1.9710	213.50	.99370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95091**	**.97598**	**.98078**	**9.9913**	**54.161**	**1.0111**	**158.90**	**1.0119**	**.99867**
Stddev	.00223	.00000	.00186	.0125	.009	.0028	.13	.0016	.00291
%RSD	.23426	.00020	.18945	.12534	.01646	.27746	.08270	.15785	.29091
#1	.95249	.97599	.98210	9.9825	54.168	1.0091	159.00	1.0130	1.0007
#2	.94934	.97598	.97947	10.000	54.155	1.0131	158.81	1.0107	.99661
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**84.988**	**.96424**	W **20.616**	**.95425**	F **225.03**	**.00516**	**1.9675**	**11.955**	**25.584**
Stddev	.087	.00119	.026	.00095	.50	.00460	.0024	.052	.111
%RSD	.10202	.12360	.12713	.09943	.22329	89.199	.12058	.43531	.43531
#1	84.926	.96508	20.634	.95492	225.39	.00190	1.9659	11.918	25.505
#2	85.049	.96340	20.597	.95358	224.68	.00841	1.9692	11.992	25.663
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			20.000		200.00				
Low Limit			-6.0000		-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9476**	**1.9699**	**.98193**	**.99048**	**1.8762**	**2.2534**	**.98219**	**.47491**	**.49279**
Stddev	.0057	.0045	.00604	.00178	.0004	.0313	.00420	.00442	.00173
%RSD	.29533	.22604	.61519	.18021	.02040	1.3898	.42731	.93006	.35055
#1	1.9517	1.9730	.98620	.99174	1.8759	2.2756	.98516	.47803	.49157
#2	1.9436	1.9667	.97766	.98921	1.8764	2.2313	.97922	.47179	.49401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3612.2**	**40947.**	**3434.3**
Stddev	5.7	.	15.1
%RSD	.15757	.00044	.43905
#1	3616.3	40947.	3445.0
#2	3608.2	40946.	3423.7

Sample Name: CCVH-5713036 Acquired: 5/29/2019 11:19:56 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**50.378**	**-.00029**	**.00652**	**.00171**	**.00017**	**.00110**	**.02114**	**.00013**	**.00266**	**.00046**	**.01119**
Stddev	.00018	.097	.00034	.00002	.00052	.00003	.00090	.00205	.00031	.00004	.00001	.00119
%RSD	101.24	.19300	119.02	.30749	30.579	15.681	81.647	9.7064	239.80	1.6133	2.8856	10.664
#1	-.00030	50.446	-.00005	.00651	.00134	.00019	.00173	.02259	-.00009	.00263	.00045	.01034
#2	-.00005	50.309	-.00053	.00654	.00208	.00015	.00046	.01969	.00035	.00269	.00047	.01203
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.609**	**.23077**	**.00550**	**.02258**	**.00258**	**.00042**	**252.90**	**.00159**	**4.9336**	**.00261**	**4.9120**	**.00192**
Stddev	.209	.00531	.00214	.00367	.00009	.00016	1.05	.00036	.0329	.00002	.0547	.00585
%RSD	.42100	2.3025	38.867	16.242	3.3146	37.781	.41423	22.459	.66697	.73987	1.1138	304.49
#1	49.756	.23453	.00399	.01999	.00252	.00053	253.64	.00133	4.9569	.00262	4.9507	.00606
#2	49.461	.22702	.00701	.02518	.00264	.00031	252.16	.00184	4.9103	.00260	4.8733	-.00222
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00395**	**.00828**	**.01771**	**-.00017**	**.00025**	**5.0146**	**-.01535**	**.00376**	F **.56525**	**.00554**	**-.00062**	**.09899**
Stddev	.00388	.00322	.00689	.00020	.00002	.0140	.00004	.00146	.01349	.00004	.00044	.00377
%RSD	98.027	38.916	38.916	118.18	9.0375	.27993	.28436	38.914	2.3857	.72102	71.612	3.8044
#1	.00669	.00600	.01284	-.00032	.00027	5.0047	-.01538	.00480	.57479	.00557	-.00093	.10166
#2	.00121	.01055	.02259	-.00003	.00024	5.0245	-.01532	.00273	.55572	.00551	-.00030	.09633
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3694.2**	**41006.**	**3364.4**
Stddev	7.2	155.	3.6
%RSD	.19370	.37866	.10840
#1	3699.2	41116.	3361.8
#2	3689.1	40897.	3367.0

Sample Name: CCV-5714928 Acquired: 5/29/2019 11:22:26 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49121**	**.51718**	**.49094**	**.49496**	**.49588**	**.49419**	**.99824**	**4.9536**	**.49197**	**.50165**	**.49637**	**.49628**	**2.4405**
Stddev	.00136	.00377	.00453	.00212	.00469	.00494	.00798	.0356	.00240	.00340	.00324	.00254	.0237
%RSD	.27756	.72853	.92292	.42792	.94513	.99915	.79898	.71956	.48811	.67702	.65259	.51231	.97292
#1	.49025	.51984	.48773	.49346	.49920	.49768	.99260	4.9788	.49027	.49924	.49408	.49448	2.4573
#2	.49218	.51451	.49414	.49646	.49257	.49070	1.0039	4.9284	.49367	.50405	.49866	.49808	2.4237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.488**	**.50182**	**19.928**	**.50205**	**.49539**	**25.196**	**.50273**	**.00104**	**.50262**	**.05038**	**.49252**	**.49895**	**4.8912**
Stddev	.511	.00682	.043	.00051	.00129	.216	.00142	.00689	.00190	.05641	.00863	.00811	.0566
%RSD	1.0332	1.3597	.21440	.10245	.26047	.85662	.28254	663.27	.37709	111.98	1.7521	1.6245	1.1574
#1	49.850	.50665	19.898	.50168	.49447	25.349	.50172	.00591	.50128	.09026	.48641	.49322	4.9313
#2	49.127	.49700	19.958	.50241	.49630	25.043	.50373	-.00383	.50396	.01049	.49862	.50468	4.8512
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.467**	**.49876**	**.49230**	**-.00427**	**.49823**	**.49944**	**.08797**	**.49679**	**.49797**	**.48942**
Stddev	.121	.00584	.00316	.00034	.00049	.00198	.04631	.00012	.00116	.00111
%RSD	1.1574	1.1702	.64141	7.9213	.09768	.39632	52.640	.02318	.23289	.22621
#1	10.553	.49463	.49453	-.00403	.49858	.49804	.05523	.49671	.49879	.49020
#2	10.382	.50289	.49007	-.00451	.49789	.50084	.12071	.49688	.49715	.48863
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3679.9**	**41414.**	**3390.9**
Stddev	29.3	63.	34.4
%RSD	.79519	.15101	1.0152
#1	3700.6	41458.	3366.6
#2	3659.2	41370.	3415.2

Sample Name: CCB Acquired: 5/29/2019 11:24:53 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**-.00157**	**-.00141**	**.00367**	**.00012**	**.00027**	**-.00045**	**.00080**	**-.00011**	**.00028**	**-.00023**	**-.00157**
Stddev	.00015	.00017	.00030	.00197	.00038	.00016	.00234	.00472	.00011	.00029	.00026	.00140
%RSD	76.144	10.885	21.246	53.679	318.68	58.163	518.53	590.89	103.62	105.37	109.32	88.763
#1	.00031	-.00145	-.00162	.00506	-.00015	.00016	-.00210	-.00254	-.00019	.00007	-.00042	-.00256
#2	.00009	-.00170	-.00120	.00228	.00039	.00038	.00120	.00414	-.00003	.00048	-.00005	-.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00594**	**.12142**	**.00317**	**.00803**	**-.00000**	**.00035**	W **.46174**	**.00010**	**.00074**	**.00087**	**-.00085**	**-.00092**
Stddev	.00443	.02662	.00143	.00319	.00008	.00068	.00652	.00011	.00156	.00143	.00595	.00316
%RSD	74.637	21.921	45.142	39.760	1773.2	193.61	1.4119	111.49	209.88	164.02	699.05	344.76
#1	-.00281	.10260	.00418	.00577	-.00006	-.00013	.45713	.00002	-.00036	.00188	-.00506	-.00315
#2	-.00908	.14024	.00216	.01029	.00005	.00083	.46635	.00018	.00185	-.00014	.00336	.00132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.35000					
Low Limit							-.35000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**-.01110**	**-.02375**	**-.00052**	**-.00016**	**.00112**	**-.00020**	**.00099**	**-.01861**	**.00064**	**-.00152**	**-.00080**
Stddev	.00815	.00459	.00981	.00096	.00016	.00320	.00057	.00231	.00476	.00028	.00012	.00233
%RSD	3197.0	41.311	41.311	184.04	98.787	285.92	286.83	232.28	25.569	43.957	7.9251	291.43
#1	-.00551	-.01434	-.03069	-.00120	-.00028	.00338	-.00060	-.00064	-.02198	.00084	-.00161	.00085
#2	.00602	-.00786	-.01681	.00016	-.00005	-.00114	.00020	.00263	-.01525	.00044	-.00144	-.00245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3782.5**	**42630.**	**3397.6**
Stddev	24.5	13.	10.4
%RSD	.64659	.03121	.30524
#1	3765.3	42620.	3405.0
#2	3799.8	42639.	3390.3

Sample Name: CCVL-5725431 Acquired: 5/29/2019 11:27:30 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00637**	**.10084**	**.01447**	**.09963**	**.01068**	**.00129**	**.10497**	**.20189**	**.00492**	**.01054**	**.00962**	**.01394**
Stddev	.00148	.00094	.00123	.00071	.00069	.00010	.00378	.00810	.00014	.00014	.00019	.00167
%RSD	23.152	.93706	8.5166	.70914	6.4281	7.9330	3.6018	4.0137	2.8977	1.2891	1.9748	11.992
#1	.00533	.10151	.01360	.10013	.01019	.00122	.10765	.19616	.00502	.01044	.00949	.01276
#2	.00741	.10017	.01534	.09913	.01116	.00137	.10230	.20762	.00482	.01063	.00976	.01512
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.13351**	**3.1631**	**.02285**	**.20675**	**.01054**	**.01959**	F **1.3609**	**.04104**	**2.8941**	F **.01231**	**.09500**	**.01518**
Stddev	.00347	.0396	.00136	.00267	.00001	.00077	.0094	.00010	.0081	.00124	.00744	.00256
%RSD	2.5978	1.2533	5.9719	1.2918	.09039	3.9391	.68870	.23678	.28142	10.052	7.8321	16.874
#1	.13596	3.1911	.02382	.20863	.01053	.01905	1.3675	.04097	2.8999	.01319	.10026	.01700
#2	.13106	3.1351	.02189	.20486	.01055	.02014	1.3543	.04111	2.8883	.01144	.08974	.01337
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value	.10000						1.0000			.00900		
Range	30.000%						30.000%			30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01825**	**.51112**	**1.0938**	**.10097**	**.00972**	**.01273**	**.00983**	**.01725**	F **.11815**	**.01000**	**.01992**	**.01209**
Stddev	.00257	.02234	.0478	.00122	.00003	.00189	.00005	.00028	.01129	.00022	.00005	.00296
%RSD	14.083	4.3710	4.3710	1.2109	.28495	14.814	.51992	1.6146	9.5539	2.2043	.25351	24.494
#1	.02007	.49532	1.0600	.10011	.00970	.01406	.00987	.01706	.11017	.00984	.01996	.01418
#2	.01643	.52692	1.1276	.10184	.00974	.01139	.00979	.01745	.12613	.01016	.01989	.00999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3867.9**	**43288.**	**3483.1**
Stddev	.5	.	20.9
%RSD	.01253	.00071	.60084
#1	3868.2	43289.	3497.9
#2	3867.5	43288.	3468.3

Sample Name: MB 280-459132/1-A Acquired: 5/29/2019 11:30:14 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: 5/28 Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**.00545**	**.00413**	**.00242**	**.00058**	**.00018**	**-.00100**	**.00884**	**-.00028**
Stddev	.00016	.00020	.00374	.00006	.00011	.00012	.00262	.00089	.00015
%RSD	42.251	3.7475	90.449	2.4348	19.304	67.587	261.22	10.093	53.890
#1	-.00026	.00530	.00678	.00246	.00066	.00026	-.00286	.00947	-.00017
#2	-.00049	.00559	.00149	.00238	.00050	.00009	.00085	.00821	-.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.00005**	**-.00102**	F **.27348**	**.09360**	**.00199**	**.00482**	**.00174**	**-.00037**
Stddev	.00001	.00037	.00037	.01098	.07014	.00124	.00842	.00002	.00027
%RSD	23.120	776.23	36.718	4.0163	74.933	62.055	174.52	.93020	72.874
#1	.00007	-.00022	-.00128	.26572	.14320	.00286	.01078	.00172	-.00018
#2	.00005	.00031	-.00075	.28125	.04401	.00112	-.00113	.00175	-.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.10000					
Low Limit				-.10000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.37401**	**.00064**	**.00152**	**.00299**	**.01136**	**-.00185**	**-.00354**	**.00768**	**.01643**
Stddev	.01042	.00040	.00061	.00114	.00056	.00072	.00347	.02878	.06159
%RSD	2.7850	62.483	40.083	38.241	4.9478	38.815	98.091	374.94	374.94
#1	.38137	.00036	.00109	.00218	.01176	-.00236	-.00600	-.01267	-.02712
#2	.36664	.00092	.00196	.00380	.01096	-.00134	-.00108	.02803	.05997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00127**	**-.00019**	**-.00041**	**.00026**	**.00223**	**.01475**	**-.00000**	**-.00005**	**-.00601**
Stddev	.00037	.00009	.00032	.00064	.00123	.02691	.00053	.00015	.00162
%RSD	29.200	43.926	76.800	242.58	55.049	182.42	15295.	301.71	27.045
#1	.00101	-.00013	-.00064	.00072	.00310	.03379	.00037	-.00015	-.00486
#2	.00153	-.00025	-.00019	-.00019	.00136	-.00428	-.00038	.00006	-.00716
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3823.4**	**43189.**	**3443.1**
Stddev	2.1	56.	27.5
%RSD	.05363	.12973	.79994
#1	3824.8	43150.	3462.6
#2	3821.9	43229.	3423.6

Sample Name: LCS 280-459132/2-A Acquired: 5/29/2019 11:32:50 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05209**	**9.9543**	**1.9310**	**.95739**	**1.9585**	**.99399**	**1.9254**	**48.446**	**.96440**
Stddev	.00031	.0223	.0040	.00088	.0050	.00122	.0008	.145	.00049
%RSD	.59569	.22427	.20894	.09194	.25255	.12271	.03936	.30017	.05057
#1	.05231	9.9385	1.9338	.95677	1.9620	.99485	1.9260	48.548	.96474
#2	.05187	9.9701	1.9281	.95801	1.9550	.99312	1.9249	48.343	.96406
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95333**	**.95830**	**.96707**	**9.6508**	**48.846**	**.98242**	**48.735**	**.98400**	**.97587**
Stddev	.00204	.00192	.00202	.0242	.027	.00260	.128	.00383	.00427
%RSD	.21370	.19985	.20918	.25122	.05512	.26458	.26282	.38874	.43754
#1	.95477	.95966	.96564	9.6679	48.865	.98058	48.644	.98130	.97889
#2	.95189	.95695	.96850	9.6336	48.827	.98426	48.826	.98671	.97285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **48.809**	**.95716**	**19.862**	**.95690**	**9.8243**	**1.0412**	**1.9079**	**1.9732**	**4.2227**
Stddev	.059	.00226	.038	.00101	.0204	.0032	.0123	.0193	.0414
%RSD	.12004	.23599	.19287	.10598	.20722	.30611	.64510	.97983	.97983
#1	48.851	.95875	19.889	.95619	9.8099	1.0390	1.9166	1.9869	4.2519
#2	48.768	.95556	19.835	.95762	9.8387	1.0435	1.8992	1.9595	4.1934
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9229**	**.97493**	**.99966**	**.98248**	**1.9062**	**2.2579**	**.97835**	**.48407**	**.51129**
Stddev	.0063	.00265	.00553	.00326	.0125	.0011	.00524	.00415	.00005
%RSD	.32974	.27135	.55328	.33145	.65759	.04680	.53510	.85758	.01054
#1	1.9274	.97680	.99575	.98018	1.9150	2.2571	.97465	.48113	.51133
#2	1.9184	.97306	1.0036	.98478	1.8973	2.2586	.98205	.48700	.51126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3783.1**	**42009.**	**3481.8**
Stddev	11.1	207.	12.8
%RSD	.29225	.49315	.36783
#1	3790.9	42156.	3472.8
#2	3775.3	41863.	3490.9

Sample Name: LCSD 280-459132/3-A Acquired: 5/29/2019 11:35:06 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05176**	**10.099**	**1.9457**	**.96525**	**1.9713**	**.99944**	**1.9435**	**49.065**	**.97143**
Stddev	.00153	.065	.0105	.00186	.0001	.00157	.0021	.037	.00254
%RSD	2.9514	.64619	.54140	.19304	.00783	.15702	.10746	.07592	.26188
#1	.05284	10.146	1.9532	.96657	1.9715	.99833	1.9450	49.039	.97323
#2	.05068	10.053	1.9383	.96393	1.9712	1.0006	1.9420	49.091	.96963
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.96120**	**.96707**	**.97202**	**9.7418**	**49.659**	**.99278**	**49.365**	**.98908**	**.98612**
Stddev	.00286	.00151	.00483	.0005	.019	.00023	.040	.00073	.00299
%RSD	.29752	.15644	.49705	.00505	.03781	.02305	.08181	.07336	.30331
#1	.96322	.96814	.97544	9.7422	49.672	.99294	49.393	.98959	.98824
#2	.95918	.96600	.96860	9.7415	49.645	.99262	49.336	.98857	.98401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **49.427**	**.96441**	W **20.064**	**.96715**	**9.9262**	**1.0469**	**1.9170**	**1.9923**	**4.2635**
Stddev	.028	.00255	.034	.00158	.0032	.0113	.0033	.0046	.0098
%RSD	.05602	.26441	.16852	.16303	.03268	1.0796	.17336	.22958	.22958
#1	49.407	.96621	20.088	.96826	9.9285	1.0549	1.9193	1.9891	4.2566
#2	49.446	.96261	20.041	.96603	9.9239	1.0389	1.9146	1.9955	4.2704
Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500		20.000						
Low Limit	-.20000		-6.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9429**	**.98275**	**1.0065**	**.98835**	**1.9291**	**2.2372**	**.98246**	**.48476**	**.51591**
Stddev	.0013	.00182	.0044	.00129	.0010	.0031	.00231	.00331	.00551
%RSD	.06421	.18516	.43583	.13087	.05222	.13676	.23507	.68373	1.0672
#1	1.9420	.98404	1.0096	.98927	1.9298	2.2350	.98410	.48711	.51980
#2	1.9438	.98147	1.0034	.98744	1.9284	2.2394	.98083	.48242	.51202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.3**	**41993.**	**3428.8**
Stddev	1.5	91.	13.1
%RSD	.04075	.21564	.38206
#1	3778.4	42058.	3438.1
#2	3776.2	41929.	3419.6

Sample Name: 280-123930-F-1-A Acquired: 5/29/2019 11:37:23 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00050**	**.01624**	**.02099**	**.03789**	**.07536**	**.00017**	**.00125**	**75.734**	**.00019**
Stddev	.00017	.00240	.00186	.00007	.00044	.00012	.00235	.130	.00028
%RSD	34.149	14.775	8.8813	.18087	.58026	67.443	187.49	.17117	151.34
#1	.00062	.01794	.02231	.03793	.07505	.00026	-.00041	75.642	-.00001
#2	.00038	.01455	.01967	.03784	.07567	.00009	.00291	75.826	.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00674**	**-.00017**	**.00116**	**12.830**	**1.9011**	**.01579**	**13.236**	W **10.570**	**.00064**
Stddev	.00013	.00067	.00037	.026	.0732	.00036	.022	.059	.00030
%RSD	1.9318	395.63	31.606	.20100	3.8532	2.2871	.16752	.56225	47.771
#1	.00683	.00030	.00142	12.812	1.9529	.01553	13.220	10.528	.00085
#2	.00664	-.00064	.00090	12.848	1.8493	.01604	13.252	10.612	.00042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.8568**	**.00435**	**.01847**	**.00216**	**4.5974**	**-.00452**	**-.00180**	**11.273**	**24.124**
Stddev	.0103	.00083	.00403	.00034	.0531	.00096	.00127	.027	.058
%RSD	.13131	19.191	21.815	15.813	1.1558	21.297	70.586	.24129	.24129
#1	7.8495	.00494	.02132	.00241	4.6350	-.00520	-.00270	11.254	24.083
#2	7.8641	.00376	.01562	.00192	4.5598	-.00384	-.00090	11.292	24.165
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00195**	**.23934**	**-.00317**	**.00063**	**-.00878**	**.00896**	**.00244**	**.00203**	**-.00088**
Stddev	.00017	.00030	.00441	.00049	.00283	.05786	.00035	.00062	.00043
%RSD	8.8118	.12376	139.47	78.603	32.198	645.52	14.264	30.375	48.750
#1	.00207	.23955	-.00004	.00028	-.01078	-.03195	.00269	.00247	-.00119
#2	.00183	.23913	-.00629	.00097	-.00678	.04988	.00220	.00160	-.00058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.6**	**42250.**	**3446.0**
Stddev	10.8	7.	12.6
%RSD	.28585	.01693	.36612
#1	3785.2	42255.	3454.9
#2	3770.0	42245.	3437.1

Sample Name: 123930-F-1-A SD@5 Acquired: 5/29/2019 11:40:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00092**	**.00185**	**.00941**	**.00953**	**.01461**	**.00009**	**-.00227**	**14.456**	**-.00026**
Stddev	.00083	.00079	.00214	.00031	.00002	.00010	.00052	.056	.00015
%RSD	89.862	42.774	22.691	3.3029	.12839	108.55	22.682	.38672	55.903
#1	-.00151	.00241	.00790	.00976	.01463	.00016	-.00191	14.417	-.00036
#2	-.00034	.00129	.01092	.00931	.01460	.00002	-.00264	14.496	-.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00169**	**.00007**	**-.00077**	**2.4296**	**.39665**	**.00475**	**2.6054**	**2.1290**	**.00014**
Stddev	.00040	.00036	.00137	.0142	.03488	.00067	.0132	.0137	.00039
%RSD	23.797	508.64	178.13	.58390	8.7931	14.090	.50718	.64118	286.35
#1	.00197	-.00019	.00020	2.4195	.42131	.00522	2.5961	2.1193	-.00014
#2	.00140	.00033	-.00174	2.4396	.37198	.00428	2.6148	2.1386	.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.7289**	**.00103**	**.00199**	**.00159**	**.93987**	**-.00042**	**-.00378**	**2.1019**	**4.4980**
Stddev	.0094	.00030	.00146	.00259	.02687	.00212	.00339	.0348	.0746
%RSD	.54307	28.783	73.136	162.83	2.8586	508.83	89.743	1.6575	1.6575
#1	1.7222	.00082	.00302	-.00024	.92087	-.00191	-.00618	2.0772	4.4452
#2	1.7355	.00124	.00096	.00342	.95887	.00108	-.00138	2.1265	4.5507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**.04543**	**-.00112**	**.00011**	**-.00094**	**.05968**	**.00049**	**-.00073**	**-.00004**
Stddev	.00069	.00012	.00154	.00007	.00119	.00658	.00040	.00053	.00358
%RSD	89.163	.26263	136.99	60.341	127.18	11.019	81.285	72.456	8327.5
#1	.00126	.04551	-.00221	.00007	-.00009	.06433	.00021	-.00110	.00249
#2	.00029	.04534	-.00004	.00016	-.00178	.05503	.00077	-.00035	-.00257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3801.4**	**42652.**	**3471.6**
Stddev	2.2	62.	3.3
%RSD	.05892	.14439	.09627
#1	3803.0	42608.	3473.9
#2	3799.9	42695.	3469.2

Sample Name: 280-123930-F-1-B MS Acquired: 5/29/2019 11:42:34 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05469**	**9.8446**	**1.9485**	**1.0077**	**2.0381**	**.99687**	**1.9437**	**120.37**	**.96580**
Stddev	.00012	.0811	.0030	.0028	.0101	.00464	.0048	.64	.00453
%RSD	.21326	.82413	.15258	.27580	.49509	.46517	.24467	.52810	.46921
#1	.05461	9.7873	1.9506	1.0096	2.0310	.99359	1.9470	119.92	.96900
#2	.05477	9.9020	1.9464	1.0057	2.0453	1.0002	1.9403	120.82	.96260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.95224**	**.96016**	**.97448**	**21.710**	**50.132**	**1.0119**	**60.555**	W **11.044**	**.97906**
Stddev	.00412	.00363	.00557	.123	.405	.0065	.039	.029	.00534
%RSD	.43253	.37788	.57200	.56744	.80696	.64404	.06470	.25809	.54518
#1	.95515	.96272	.97843	21.623	49.846	1.0073	60.583	11.064	.98284
#2	.94933	.95759	.97054	21.797	50.418	1.0165	60.528	11.024	.97529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **55.397**	**57.133**	**.95351**	W **20.425**	**.94997**	**14.688**	**1.0489**	**1.8940**	**12.778**
Stddev	.278	.202	.00403	.063	.00110	.035	.0004	.0004	.001
%RSD	.50114	.35394	.42231	.30821	.11564	.23995	.03514	.02143	.00804
#1	55.200	56.990	.95636	20.469	.95075	14.713	1.0486	1.8937	12.778
#2	55.593	57.276	.95066	20.380	.94920	14.663	1.0492	1.8943	12.779
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500			20.000					
Low Limit	-.20000			-6.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.346**	**1.9264**	**1.2132**	**1.0117**	**.98834**	**1.8839**	**2.3070**	**.98722**	**.48947**
Stddev	.002	.0145	.0035	.0014	.00037	.0082	.0543	.00234	.00140
%RSD	.00804	.75437	.28629	.13598	.03707	.43538	2.3552	.23670	.28530
#1	27.344	1.9366	1.2108	1.0107	.98808	1.8897	2.3454	.98887	.48848
#2	27.347	1.9161	1.2157	1.0126	.98860	1.8781	2.2685	.98556	.49046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.52116**
Stddev	.00537
%RSD	1.0298
#1	.51737
#2	.52496
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-123930-F-1-B MS Acquired: 5/29/2019 11:42:34 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3748.9**	**41541.**	**3459.6**
Stddev	8.1	55.	6.2
%RSD	.21557	.13306	.17884
#1	3743.2	41501.	3463.9
#2	3754.7	41580.	3455.2

Sample Name: 280-123930-F-1-C MSD Acquired: 5/29/2019 11:44:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05150**	**9.9514**	**1.9271**	**.97754**	**1.9924**	**.97794**	**1.8787**	**117.99**	**.95019**
Stddev	.00067	.0098	.0063	.00113	.0022	.00176	.0097	.05	.00146
%RSD	1.3055	.09893	.32843	.11540	.11087	.17953	.51741	.03876	.15350
#1	.05198	9.9583	1.9226	.97674	1.9908	.97670	1.8856	117.95	.95123
#2	.05103	9.9444	1.9316	.97833	1.9940	.97918	1.8719	118.02	.94916
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.93495**	**.94181**	**.96810**	**21.371**	**50.251**	**.98621**	**60.184**	W **10.750**	**.95957**
Stddev	.00058	.00014	.00387	.015	.096	.00102	.006	.039	.00256
%RSD	.06223	.01461	.39974	.06841	.19090	.10357	.00963	.36260	.26698
#1	.93536	.94171	.97084	21.361	50.183	.98693	60.188	10.778	.96138
#2	.93454	.94190	.96536	21.382	50.319	.98548	60.179	10.723	.95776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **55.320**	**57.084**	**.93692**	**19.777**	**.93344**	**14.239**	**.98242**	**1.8645**	**12.465**
Stddev	.052	.320	.00332	.053	.00036	.012	.00116	.0004	.023
%RSD	.09400	.56017	.35387	.26869	.03893	.08747	.11766	.02413	.18780
#1	55.283	57.310	.93926	19.814	.93318	14.230	.98324	1.8642	12.448
#2	55.357	56.858	.93457	19.739	.93370	14.248	.98160	1.8648	12.481
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.674**	**1.8927**	**1.1815**	**.97474**	**.96801**	**1.8495**	**2.2793**	**.96655**	**.47795**
Stddev	.050	.0063	.0005	.00447	.00058	.0089	.0076	.00427	.00254
%RSD	.18780	.33397	.04188	.45891	.06034	.47833	.33357	.44134	.53152
#1	26.639	1.8972	1.1812	.97790	.96759	1.8558	2.2739	.96957	.47975
#2	26.710	1.8883	1.1819	.97158	.96842	1.8432	2.2847	.96354	.47616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.50441**
Stddev	.00143
%RSD	.28426
#1	.50340
#2	.50543
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-123930-F-1-C MSD Acquired: 5/29/2019 11:44:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3849.3**	**42825.**	**3600.7**
Stddev	19.9	42.	9.7
%RSD	.51687	.09862	.26812
#1	3863.4	42795.	3607.5
#2	3835.3	42854.	3593.9

Sample Name: 280-123930-F-1-A PDS Acquired: 5/29/2019 11:47:18 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05281**	**1.0193**	**.21606**	**.13636**	**.17586**	**.05239**	**-.00133**	**93.240**	**.05108**
Stddev	.00137	.0076	.00482	.00058	.00010	.00006	.00298	.032	.00032
%RSD	2.6017	.74397	2.2292	.42397	.05966	.11953	223.78	.03400	.62217
#1	.05184	1.0247	.21265	.13676	.17579	.05244	.00078	93.262	.05130
#2	.05378	1.0140	.21946	.13595	.17594	.05235	-.00344	93.217	.05086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05642**	**.05000**	**.05237**	**13.405**	**22.279**	**.11858**	**32.763**	W **10.193**	**.05006**
Stddev	.00056	.00013	.00073	.027	.027	.00063	.041	.052	.00073
%RSD	.99327	.25152	1.3872	.20341	.12301	.53513	.12405	.50720	1.4657
#1	.05682	.04991	.05186	13.386	22.259	.11903	32.792	10.230	.05058
#2	.05602	.05009	.05289	13.424	22.298	.11813	32.735	10.156	.04954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								10.000	
Low Limit								-.02000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **27.905**	**.05395**	**2.0800**	**.10181**	**4.5390**	**.10291**	**.19080**	**15.856**	**33.932**
Stddev	.010	.00004	.0235	.00141	.0569	.00343	.00138	.087	.187
%RSD	.03531	.08304	1.1319	1.3899	1.2536	3.3310	.72104	.55069	.55069
#1	27.912	.05392	2.0966	.10281	4.5792	.10534	.19178	15.918	34.064
#2	27.898	.05398	2.0633	.10080	4.4987	.10049	.18983	15.794	33.800
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09954**	**.28399**	**.20257**	**.05010**	**.19542**	**.58323**	**.05261**	**.20158**	**.05912**
Stddev	.00052	.00071	.00267	.00035	.00034	.04882	.00049	.00048	.00480
%RSD	.52417	.25000	1.3205	.68998	.17233	8.3709	.93679	.23968	8.1256
#1	.09991	.28349	.20446	.04986	.19565	.54871	.05296	.20192	.05572
#2	.09917	.28450	.20067	.05035	.19518	.61775	.05226	.20124	.06251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3783.4**	**42619.**	**3503.1**
Stddev	1.1	158.	10.9
%RSD	.02867	.37097	.31144
#1	3784.2	42731.	3510.8
#2	3782.6	42507.	3495.4

Sample Name: CCVH-5713036 Acquired: 5/29/2019 11:49:50 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00107**	**49.048**	**.00198**	**.00271**	**.00062**	**.00019**	**.00054**	**.00737**	**-.00037**	**.00242**	**.00031**	**.01151**	**47.993**
Stddev	.00022	.098	.00038	.00082	.00095	.00053	.00030	.00352	.00035	.00032	.00018	.00083	.263
%RSD	20.339	.20027	19.320	30.313	153.26	284.39	55.908	47.784	94.685	13.336	59.262	7.2084	.54832
#1	-.00123	49.118	.00225	.00329	.00129	.00056	.00075	.00986	-.00012	.00219	.00018	.01209	48.179
#2	-.00092	48.979	.00171	.00213	-.00005	-.00019	.00032	.00488	-.00062	.00265	.00044	.01092	47.807
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.17294**	**.00235**	**.07774**	**.01515**	**-.00067**	**245.66**	**.00099**	**4.8356**	**.00366**	**4.8073**	**-.00130**	**.00327**	**.02354**
Stddev	.09897	.00384	.08674	.01725	.00012	1.74	.00030	.0260	.00156	.0209	.00286	.00212	.00896
%RSD	57.227	163.13	111.58	113.82	17.648	.70996	29.909	.53715	42.554	.43443	220.33	64.817	38.068
#1	.10296	.00507	.13907	.02735	-.00059	246.90	.00078	4.8540	.00256	4.8220	.00072	.00177	.02988
#2	.24293	-.00036	.01640	.00296	-.00075	244.43	.00120	4.8173	.00476	4.7925	-.00332	.00476	.01721
Check ?	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05038**	**-.00120**	**.00004**	**4.8755**	**-.01378**	**.00282**	**.48059**	**.00566**	**-.00129**	**.09664**
Stddev	.01918	.00026	.00031	.0074	.00100	.00132	.02251	.00110	.00002	.00331
%RSD	38.068	22.076	822.61	.15265	7.2523	46.712	4.6849	19.442	1.7537	3.4204
#1	.06394	-.00101	-.00018	4.8703	-.01308	.00189	.46467	.00644	-.00131	.09898
#2	.03682	-.00138	.00026	4.8808	-.01449	.00375	.49651	.00488	-.00127	.09430
Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3724.6**	**41875.**	**3419.1**
Stddev	1.8	693.	14.7
%RSD	.04818	1.6557	.42873
#1	3725.8	42365.	3408.7
#2	3723.3	41385.	3429.5

Sample Name: CCV-5714928 Acquired: 5/29/2019 11:52:20 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48499**	**.49810**	**.48576**	**.48359**	**.49189**	**.48678**	**.97714**	**4.9021**	**.48493**	**.49472**	**.49183**	**.48857**	**2.4327**
Stddev	.00211	.00164	.00237	.00118	.00013	.00125	.00791	.0102	.00211	.00272	.00193	.00549	.0162
%RSD	.43513	.33006	.48714	.24421	.02738	.25774	.80954	.20790	.43552	.54948	.39229	1.1230	.66737
#1	.48350	.49927	.48744	.48443	.49179	.48767	.98273	4.9094	.48642	.49665	.49320	.48469	2.4442
#2	.48648	.49694	.48409	.48276	.49198	.48590	.97155	4.8949	.48343	.49280	.49047	.49245	2.4213
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.011**	**.49208**	**19.668**	**.49085**	**.48769**	**24.731**	**.49613**	**-.00087**	**.49324**	**.00258**	**.48345**	**.48224**	**4.8770**
Stddev	.207	.00432	.187	.00462	.00340	.042	.00214	.00090	.00313	.00079	.00399	.00266	.0237
%RSD	.42228	.87719	.95026	.94167	.69796	.16871	.43209	103.72	.63554	30.625	.82450	.55158	.48562
#1	49.157	.48902	19.535	.48758	.49009	24.760	.49765	-.00023	.49546	.00314	.48627	.48412	4.8938
#2	48.865	.49513	19.800	.49412	.48528	24.701	.49461	-.00151	.49103	.00202	.48063	.48036	4.8603
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.437**	**.49574**	**.48926**	**-.00442**	**.48644**	**.49716**	**-.04272**	**.48738**	**.48892**	**.48536**
Stddev	.051	.00034	.00043	.00086	.00513	.00231	.04530	.00253	.00313	.00181
%RSD	.48562	.06905	.08806	19.403	1.0553	.46558	106.03	.51850	.63984	.37384
#1	10.473	.49598	.48956	-.00502	.48281	.49880	-.07475	.48559	.48671	.48664
#2	10.401	.49549	.48895	-.00381	.49007	.49552	-.01069	.48917	.49113	.48408
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3727.0**	**41094.**	**3354.4**
Stddev	13.3	168.	18.9
%RSD	.35628	.40820	.56378
#1	3717.6	40975.	3341.0
#2	3736.4	41213.	3367.8

Sample Name: CCB Acquired: 5/29/2019 11:54:45 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**-.00218**	**.00212**	**.00207**	**.00010**	**.00016**	**-.00056**	**-.00865**	**.00010**	**.00041**	**-.00054**	**-.00080**	**-.00093**
Stddev	.00100	.00024	.00161	.00069	.00002	.00005	.00228	.00417	.00003	.00001	.00028	.00099	.00072
%RSD	212.29	11.066	76.069	33.168	21.462	29.016	409.75	48.180	34.087	2.1993	51.610	123.99	77.272
#1	.00024	-.00235	.00326	.00255	.00009	.00013	.00106	-.01160	.00013	.00041	-.00035	-.00010	-.00143
#2	-.00118	-.00201	.00098	.00158	.00012	.00019	-.00217	-.00570	.00008	.00040	-.00074	-.00150	-.00042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11810**	**-.00112**	**.00514**	**.00011**	**.00032**	**.34495**	**-.00043**	**.00033**	**.00190**	**-.00631**	**-.00210**	**-.00499**	**.00806**
Stddev	.16429	.00401	.00171	.00001	.00037	.00960	.00007	.00028	.00112	.00166	.00459	.00286	.00449
%RSD	139.12	356.58	33.188	10.491	114.80	2.7825	16.201	85.666	59.066	26.312	218.96	57.301	55.659
#1	.23427	.00171	.00634	.00010	.00006	.35173	-.00038	.00052	.00111	-.00749	.00115	-.00297	.00489
#2	.00192	-.00396	.00393	.00012	.00059	.33816	-.00048	.00013	.00269	-.00514	-.00535	-.00702	.01124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01726**	**.00077**	**-.00009**	**-.00038**	**-.00021**	**.00110**	**.00778**	**.00093**	**-.00275**	**.00009**
Stddev	.00960	.00066	.00012	.00256	.00061	.00069	.05738	.00008	.00001	.00022
%RSD	55.659	86.058	126.36	680.91	292.33	62.822	738.03	8.7415	.21813	235.91
#1	.01046	.00123	-.00001	-.00219	-.00064	.00158	.04835	.00087	-.00275	.00025
#2	.02405	.00030	-.00018	.00143	.00022	.00061	-.03280	.00098	-.00274	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3802.0**	**42712.**	**3392.1**
Stddev	2.1	239.	11.8
%RSD	.05540	.56069	.34900
#1	3800.5	42543.	3400.4
#2	3803.5	42882.	3383.7

Sample Name: CCVL-5725431 Acquired: 5/29/2019 11:57:20 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00785**	**.10366**	**.01911**	**.09881**	**.01066**	**.00126**	**.10082**	**.18943**	**.00467**	**.01062**	**.00974**	**.01472**
Stddev	.00056	.00057	.00246	.00128	.00043	.00008	.00108	.00785	.00035	.00038	.00006	.00120
%RSD	7.1874	.55257	12.870	1.2981	4.0446	6.1238	1.0687	4.1465	7.5871	3.5659	.61316	8.1867
#1	.00825	.10325	.02085	.09790	.01096	.00132	.10006	.18387	.00492	.01089	.00978	.01557
#2	.00746	.10406	.01737	.09971	.01035	.00121	.10158	.19498	.00442	.01036	.00970	.01386
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12350**	**2.9112**	**.02467**	**.20925**	**.01050**	**.01925**	**1.2929**	**.04088**	**2.8994**	F **.01208**	**.08810**	**.01885**
Stddev	.00182	.0056	.00392	.00392	.00001	.00004	.0094	.00007	.0090	.00211	.00447	.00389
%RSD	1.4727	.19271	15.903	1.8716	.10199	.18939	.72355	.18327	.31099	17.478	5.0681	20.622
#1	.12479	2.9152	.02190	.20648	.01050	.01927	1.2995	.04094	2.9058	.01059	.09126	.02160
#2	.12222	2.9073	.02745	.21202	.01051	.01922	1.2862	.04083	2.8930	.01358	.08495	.01610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value										.00900		
Range										30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01729**	**.50457**	**1.0798**	**.10418**	**.01008**	**.01322**	**.00969**	**.01721**	**.06845**	**.00963**	**.01758**	**.01176**
Stddev	.00300	.01371	.0293	.00096	.00005	.00023	.00060	.00069	.00415	.00018	.00053	.00019
%RSD	17.355	2.7167	2.7167	.92436	.45670	1.7049	6.2243	4.0194	6.0580	1.8919	3.0349	1.6497
#1	.01517	.51427	1.1005	.10350	.01011	.01338	.00927	.01672	.06552	.00950	.01721	.01163
#2	.01942	.49488	1.0590	.10486	.01005	.01306	.01012	.01770	.07138	.00975	.01796	.01190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3796.2**	**42879.**	**3440.8**
Stddev	6.0	112.	14.7
%RSD	.15736	.26089	.42855
#1	3800.4	42958.	3451.2
#2	3792.0	42800.	3430.4

Sample Name: 280-123930-F-2-A Acquired: 5/29/2019 11:59:53 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00070**	**.01070**	**.00498**	**.05620**	**.04804**	**.00015**	**-.00151**	**161.10**	**.00032**
Stddev	.00040	.00023	.00284	.00044	.00015	.00018	.00264	.13	.00043
%RSD	58.036	2.1197	57.023	.78369	.30816	120.96	174.77	.08082	132.43
#1	.00098	.01054	.00297	.05651	.04814	.00028	.00036	161.01	.00063
#2	.00041	.01086	.00699	.05589	.04793	.00002	-.00338	161.19	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00149**	**.00002**	**.00210**	**1.4930**	**4.6953**	**.00018**	**18.230**	**8.9474**	**-.00090**
Stddev	.00018	.00007	.00070	.0029	.0373	.00200	.037	.0537	.00006
%RSD	11.960	358.67	33.251	.19331	.79471	1083.1	.20079	.60075	6.3271
#1	.00161	-.00003	.00259	1.4910	4.6689	.00160	18.256	8.9854	-.00086
#2	.00136	.00007	.00161	1.4951	4.7217	-.00123	18.204	8.9094	-.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.1714**	**.00405**	**.01828**	**.00334**	**7.0490**	**-.00167**	**-.00989**	**4.6838**	**10.023**
Stddev	.0127	.00048	.00183	.00049	.0568	.00763	.00582	.0229	.049
%RSD	.40208	11.901	9.9853	14.635	.80516	456.90	58.835	.48837	.48837
#1	3.1624	.00439	.01699	.00368	7.0891	-.00707	-.01400	4.6676	9.9887
#2	3.1804	.00371	.01958	.00299	7.0089	.00373	-.00577	4.7000	10.058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00086**	**.42428**	**-.00151**	**.00002**	**-.00583**	**-.01295**	**.00189**	**.00070**	**.00108**
Stddev	.00076	.00067	.00114	.00007	.00107	.05526	.00007	.00011	.00031
%RSD	88.019	.15751	75.137	434.33	18.308	426.56	3.7737	15.405	28.358
#1	-.00139	.42381	-.00232	-.00003	-.00507	.02612	.00184	.00062	.00087
#2	-.00032	.42475	-.00071	.00006	-.00658	-.05203	.00194	.00077	.00130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3753.0**	**41796.**	**3422.5**
Stddev	19.3	23.	.6
%RSD	.51293	.05523	.01798
#1	3766.6	41780.	3422.9
#2	3739.4	41813.	3422.1

Sample Name: 280-123930-F-3-A Acquired: 5/29/2019 12:02:31 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.00231**	**.00886**	**.05670**	**.04662**	**.00029**	**-.00381**	**161.36**	**-.00009**
Stddev	.00160	.00026	.00343	.00192	.00036	.00022	.00344	.31	.00015
%RSD	508.29	11.351	38.684	3.3793	.76558	75.985	90.362	.18944	161.72
#1	-.00082	.00249	.01128	.05805	.04636	.00045	-.00624	161.14	-.00020
#2	.00144	.00212	.00643	.05534	.04687	.00013	-.00137	161.57	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00168**	**.00016**	**.00171**	**1.0727**	**4.5862**	**.00410**	**18.402**	**8.8682**	**-.00076**
Stddev	.00001	.00005	.00020	.0098	.0514	.00347	.046	.0038	.00031
%RSD	.59427	33.982	11.855	.91289	1.1204	84.636	.24763	.04291	41.206
#1	.00168	.00012	.00185	1.0658	4.6226	.00655	18.434	8.8709	-.00054
#2	.00169	.00020	.00157	1.0796	4.5499	.00164	18.369	8.8655	-.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.1877**	**.00316**	**.01436**	**.00081**	**7.2044**	**-.00506**	**-.01024**	**4.7494**	**10.164**
Stddev	.0141	.00048	.00342	.00049	.2798	.00225	.00669	.0588	.126
%RSD	.44389	15.049	23.815	61.082	3.8836	44.385	65.368	1.2377	1.2377
#1	3.1977	.00350	.01678	.00116	7.4022	-.00347	-.00551	4.7079	10.075
#2	3.1777	.00283	.01194	.00046	7.0065	-.00665	-.01497	4.7910	10.253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00116**	**.42322**	**-.00302**	**.00036**	**-.00584**	**.00818**	**.00192**	**.00025**	**.00138**
Stddev	.00067	.00080	.00145	.00000	.00027	.02025	.00033	.00068	.00196
%RSD	57.633	.18824	48.188	.66837	4.6314	247.56	17.382	271.97	142.24
#1	-.00069	.42265	-.00405	.00036	-.00565	.02249	.00168	.00073	.00277
#2	-.00164	.42378	-.00199	.00036	-.00603	-.00614	.00216	-.00023	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3772.6**	**42267.**	**3465.1**
Stddev	99.2	171.	18.5
%RSD	2.6282	.40420	.53314
#1	3702.5	42146.	3452.0
#2	3842.7	42388.	3478.1

Sample Name: 280-123930-F-4-A Acquired: 5/29/2019 12:05:22 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.08770**	**.01268**	**.01230**	**.05650**	**.00032**	**-.00287**	**151.80**	**-.00011**
Stddev	.00077	.00076	.00347	.00163	.00060	.00002	.00238	.24	.00009
%RSD	1334.1	.87167	27.377	13.238	1.0697	7.3651	82.725	.15790	80.132
#1	-.00049	.08824	.01513	.01345	.05692	.00034	-.00119	151.97	-.00005
#2	.00061	.08716	.01023	.01115	.05607	.00031	-.00456	151.63	-.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00254**	**-.00002**	**.00170**	**22.316**	**1.3209**	**.00171**	**20.876**	**3.5619**	**-.00116**
Stddev	.00027	.00051	.00055	.040	.0432	.00415	.046	.0072	.00030
%RSD	10.717	2171.1	32.369	.17792	3.2686	242.35	.21828	.20088	25.987
#1	.00235	-.00039	.00208	22.344	1.2904	.00465	20.843	3.5569	-.00095
#2	.00274	.00034	.00131	22.287	1.3514	-.00122	20.908	3.5670	-.00137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.0764**	**.00190**	**.03524**	**.00095**	**1.1705**	**-.00236**	**-.00308**	**9.6209**	**20.589**
Stddev	.0005	.00043	.00189	.00121	.0057	.00304	.00046	.0418	.090
%RSD	.01302	22.688	5.3504	127.05	.48363	128.41	14.763	.43489	.43489
#1	4.0760	.00160	.03657	.00181	1.1745	-.00022	-.00341	9.5913	20.525
#2	4.0767	.00221	.03391	.00010	1.1665	-.00451	-.00276	9.6505	20.652
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00104**	**.26018**	**-.00207**	**.00202**	**-.00317**	**-.02683**	**.00140**	**.01018**	**-.00190**
Stddev	.00060	.00045	.00189	.00014	.00139	.01753	.00025	.00132	.00150
%RSD	57.660	.17195	91.608	6.8365	43.737	65.336	17.925	12.976	79.191
#1	.00061	.26050	-.00073	.00212	-.00415	-.01444	.00122	.01111	-.00084
#2	.00146	.25986	-.00340	.00192	-.00219	-.03923	.00158	.00924	-.00296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3828.7**	**42678.**	**3476.8**
Stddev	14.8	150.	6.6
%RSD	.38711	.35164	.18893
#1	3818.2	42572.	3472.2
#2	3839.2	42784.	3481.5

Sample Name: 280-123930-F-5-A Acquired: 5/29/2019 12:07:55 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00078**	**.07931**	**-.00198**	**.01143**	**.01849**	**.00031**	**-.00287**	**51.321**	**.00030**
Stddev	.00007	.00071	.00250	.00081	.00042	.00000	.00029	.035	.00025
%RSD	9.0888	.90124	126.37	7.0627	2.2920	1.2871	10.036	.06772	83.790
#1	-.00083	.07981	-.00021	.01200	.01879	.00031	-.00267	51.346	.00048
#2	-.00073	.07880	-.00375	.01086	.01819	.00031	-.00308	51.297	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**.00004**	**-.00071**	**.28046**	**2.8694**	**.00319**	**4.9462**	**.74188**	**-.00001**
Stddev	.00038	.00001	.00108	.00218	.0011	.00521	.0092	.00037	.00011
%RSD	107.93	29.890	150.56	.77745	.03792	163.27	.18599	.04989	1115.7
#1	.00063	.00005	-.00148	.27892	2.8686	.00687	4.9396	.74214	.00007
#2	.00008	.00003	.00005	.28200	2.8702	-.00049	4.9527	.74161	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.5064**	**.00052**	**.03603**	**.00206**	**.09632**	**-.00234**	**-.00668**	**1.9371**	**4.1455**
Stddev	.0134	.00004	.00013	.00145	.00039	.00096	.00844	.0114	.0244
%RSD	.89127	7.4955	.36352	70.190	.40432	40.879	126.29	.58729	.58729
#1	1.4969	.00054	.03594	.00104	.09604	-.00302	-.00072	1.9291	4.1283
#2	1.5159	.00049	.03612	.00308	.09659	-.00167	-.01265	1.9452	4.1627
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00036**	**.11894**	**-.00183**	**.00199**	**-.00099**	**.03104**	**.00094**	**.00017**	**-.00401**
Stddev	.00042	.00013	.00377	.00055	.00125	.03181	.00016	.00030	.00321
%RSD	114.90	.10810	206.02	27.547	126.08	102.49	16.608	177.74	80.133
#1	-.00066	.11903	-.00450	.00161	-.00011	.05353	.00105	.00038	-.00174
#2	-.00007	.11885	.00084	.00238	-.00188	.00854	.00083	-.00004	-.00628
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3775.1**	**42484.**	**3463.8**
Stddev	6.7	11.	1.5
%RSD	.17856	.02544	.04378
#1	3770.3	42491.	3464.9
#2	3779.9	42476.	3462.7

Sample Name: 280-123981-F-1-A Acquired: 5/29/2019 12:10:29 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00034**	**.00448**	**.00091**	**.18674**	**.11557**	**.00011**	**-.00463**	**140.17**	**.00014**
Stddev	.00011	.00001	.00327	.00094	.00050	.00009	.00256	.45	.00017
%RSD	31.089	.33226	361.62	.50373	.42872	84.626	55.256	.32370	126.59
#1	-.00042	.00447	-.00141	.18740	.11522	.00004	-.00282	140.49	.00001
#2	-.00027	.00449	.00322	.18607	.11593	.00017	-.00643	139.84	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.00044**	**-.00015**	**4.0501**	**4.3400**	**.10413**	**35.028**	**.71018**	**-.00051**
Stddev	.00036	.00025	.00056	.0220	.0052	.00212	.002	.00048	.00008
%RSD	1382.7	55.861	380.33	.54351	.12073	2.0363	.00670	.06736	16.340
#1	.00023	.00062	.00025	4.0656	4.3363	.10263	35.027	.70984	-.00045
#2	-.00028	.00027	-.00054	4.0345	4.3437	.10563	35.030	.71052	-.00057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **16.994**	**-.00016**	**.01935**	**.00096**	**11.850**	**-.00097**	**-.00859**	**8.4286**	**18.037**
Stddev	.042	.00016	.00336	.00212	.069	.00076	.00040	.0026	.005
%RSD	.24677	99.392	17.384	221.18	.58385	78.493	4.6248	.03031	.03031
#1	17.024	-.00005	.01697	-.00054	11.899	-.00043	-.00887	8.4304	18.041
#2	16.964	-.00028	.02173	.00246	11.801	-.00150	-.00831	8.4268	18.033
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	10.500								
Low Limit	-.20000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.94521**	**-.00394**	**.00058**	**.00166**	**-.03190**	**.00013**	**-.00045**	**-.00026**
Stddev	.00120	.00237	.00036	.00010	.00167	.05361	.00031	.00033	.00231
%RSD	435.57	.25054	9.0413	16.962	100.78	168.05	228.69	74.812	886.82
#1	-.00112	.94689	-.00419	.00065	.00048	-.06981	.00035	-.00068	-.00189
#2	.00057	.94354	-.00369	.00051	.00284	.00601	-.00008	-.00021	.00137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3746.0**	**42088.**	**3466.0**
Stddev	3.4	41.	25.4
%RSD	.09080	.09850	.73308
#1	3748.4	42059.	3448.0
#2	3743.6	42117.	3484.0

Sample Name: 280-123981-F-2-A Acquired: 5/29/2019 12:13:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00066**	**.00909**	**.00578**	**.01740**	**.02749**	**.00024**	**.00189**	**50.793**	**-.00011**
Stddev	.00089	.00051	.00085	.00086	.00022	.00003	.00060	.091	.00012
%RSD	134.42	5.6463	14.664	4.9354	.79550	11.575	31.599	.17984	110.08
#1	-.00003	.00946	.00518	.01801	.02734	.00022	.00147	50.728	-.00002
#2	-.00129	.00873	.00638	.01679	.02765	.00026	.00232	50.857	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00007**	**.00640**	**.23786**	**1.6740**	**.01503**	**8.5234**	**.06746**	**-.00033**
Stddev	.00025	.00006	.00023	.00295	.0333	.00235	.0208	.00007	.00002
%RSD	1055.4	87.535	3.5894	1.2421	1.9861	15.636	.24421	.11087	5.1479
#1	.00016	.00011	.00656	.23577	1.6505	.01337	8.5381	.06741	-.00034
#2	-.00020	.00003	.00624	.23995	1.6975	.01669	8.5086	.06752	-.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.2648**	**-.00030**	**.00943**	**.00370**	**5.6473**	**-.00285**	**-.00213**	**4.7669**	**10.201**
Stddev	.0042	.00028	.00106	.00024	.0509	.00314	.00189	.0017	.004
%RSD	.05708	93.243	11.283	6.4161	.90068	110.09	88.548	.03646	.03646
#1	7.2619	-.00010	.01019	.00386	5.6833	-.00507	-.00080	4.7657	10.199
#2	7.2677	-.00049	.00868	.00353	5.6114	-.00063	-.00347	4.7682	10.204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00126**	**.30891**	**-.00159**	**.00094**	**.00166**	**-.00039**	**.00072**	**.00434**	**.00049**
Stddev	.00026	.00095	.00199	.00019	.00084	.02420	.00071	.00028	.00464
%RSD	21.023	.30773	125.19	20.437	50.708	6174.2	99.577	6.4510	946.54
#1	.00107	.30824	-.00300	.00081	.00106	.01672	.00122	.00415	.00377
#2	.00144	.30958	-.00018	.00108	.00225	-.01751	.00021	.00454	-.00279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3806.0**	**42846.**	**3516.3**
Stddev	6.4	13.	12.6
%RSD	.16757	.03125	.35822
#1	3810.5	42836.	3525.2
#2	3801.5	42855.	3507.4

Sample Name: 280-123981-F-3-A Acquired: 5/29/2019 12:15:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.00356**	**.00202**	**.00817**	**.01415**	**.00011**	**-.00226**	**73.886**	**-.00014**
Stddev	.00082	.00016	.00090	.00131	.00088	.00004	.00350	.106	.00009
%RSD	176.35	4.3551	44.559	15.979	6.2324	31.664	154.60	.14314	63.927
#1	.00011	.00367	.00138	.00725	.01477	.00014	-.00474	73.961	-.00020
#2	-.00104	.00345	.00266	.00909	.01352	.00009	.00021	73.811	-.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.00041**	**-.00019**	**.02418**	**.81941**	**.00316**	**9.5700**	**.00899**	**-.00056**
Stddev	.00032	.00015	.00026	.00036	.02143	.00084	.0028	.00011	.00002
%RSD	125.82	35.465	133.33	1.4853	2.6147	26.614	.02934	1.2340	3.4344
#1	.00048	.00052	-.00038	.02444	.83456	.00256	9.5720	.00907	-.00058
#2	.00003	.00031	-.00001	.02393	.80426	.00375	9.5681	.00891	-.00055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2980**	**-.00063**	**.00011**	**.00242**	**.62304**	**-.00182**	**-.00155**	**5.0376**	**10.780**
Stddev	.0026	.00023	.00272	.00022	.01348	.00037	.00174	.0149	.032
%RSD	.19636	35.816	2429.8	9.2395	2.1636	20.543	112.35	.29619	.29619
#1	1.2962	-.00079	.00204	.00226	.61351	-.00156	-.00032	5.0481	10.803
#2	1.2998	-.00047	-.00181	.00258	.63257	-.00208	-.00278	5.0270	10.758
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.11122**	**-.00077**	**.00053**	**.00433**	**.03861**	**.00010**	**-.00011**	**.00025**
Stddev	.00114	.00030	.00196	.00034	.00024	.07276	.00054	.00033	.00099
%RSD	528.85	.26935	254.49	63.624	5.4421	188.43	557.65	300.25	389.45
#1	-.00102	.11144	-.00216	.00076	.00416	.09006	-.00029	.00012	.00095
#2	.00059	.11101	.00062	.00029	.00449	-.01283	.00048	-.00034	-.00045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3796.9**	**42756.**	**3504.5**
Stddev	19.9	99.	22.1
%RSD	.52349	.23263	.63178
#1	3810.9	42826.	3488.8
#2	3782.8	42686.	3520.2

Sample Name: 280-123981-F-4-A Acquired: 5/29/2019 12:18:07 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00053**	**.00343**	**.00241**	**.00870**	**.01490**	**.00032**	**.00024**	**78.713**	**-.00001**
Stddev	.00063	.00001	.00096	.00004	.00026	.00010	.00185	.163	.00040
%RSD	119.25	.39487	39.771	.51218	1.7305	29.829	765.20	.20649	4603.6
#1	-.00008	.00342	.00173	.00867	.01472	.00039	-.00106	78.598	-.00029
#2	-.00098	.00344	.00308	.00873	.01509	.00025	.00155	78.828	.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00036**	**-.00018**	**.02520**	**.93052**	**.00679**	**9.9149**	**.00367**	**-.00101**
Stddev	.00023	.00031	.00019	.00014	.04336	.00198	.0051	.00006	.00007
%RSD	201.97	85.192	102.30	.53852	4.6602	29.225	.05111	1.6244	6.7957
#1	.00028	.00058	-.00032	.02510	.96119	.00539	9.9113	.00372	-.00096
#2	-.00005	.00014	-.00005	.02530	.89986	.00819	9.9185	.00363	-.00106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.7810**	**-.00018**	**.00108**	**.00131**	**.65193**	**-.00494**	**-.00149**	**5.2348**	**11.203**
Stddev	.0356	.00040	.00185	.00050	.00494	.00009	.00153	.0305	.065
%RSD	1.9977	216.72	170.79	38.031	.75727	1.8538	103.11	.58217	.58217
#1	1.7558	.00010	-.00022	.00096	.65542	-.00487	-.00257	5.2133	11.156
#2	1.8061	-.00046	.00239	.00167	.64844	-.00500	-.00040	5.2564	11.249
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00091**	**.12372**	**-.00221**	**.00015**	**-.00112**	**.03460**	**.00027**	**-.00128**	**.00081**
Stddev	.00053	.00005	.00033	.00038	.00160	.02974	.00049	.00083	.00072
%RSD	57.833	.04286	15.173	253.35	143.51	85.975	183.51	64.619	89.819
#1	-.00054	.12376	-.00197	.00042	-.00225	.01356	.00061	-.00069	.00132
#2	-.00128	.12369	-.00244	-.00012	.00002	.05563	-.00008	-.00186	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3784.3**	**42822.**	**3438.0**
Stddev	13.1	205.	28.3
%RSD	.34601	.47948	.82287
#1	3793.5	42677.	3418.0
#2	3775.0	42967.	3458.0

Sample Name: 280-123981-F-5-A Acquired: 5/29/2019 12:20:42 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.27844**	**.00296**	**.00846**	**.01506**	**.00026**	**.00199**	**53.890**	**.00006**
Stddev	.00005	.00273	.00523	.00095	.00112	.00010	.00131	.246	.00043
%RSD	22.544	.98193	176.83	11.200	7.4415	39.052	66.070	.45684	696.32
#1	-.00025	.28037	-.00074	.00779	.01585	.00034	.00292	54.064	.00037
#2	-.00018	.27650	.00666	.00913	.01427	.00019	.00106	53.716	-.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00067**	**.00177**	**.25082**	**2.5554**	**.00283**	**5.4146**	**.01026**	**-.00029**
Stddev	.00002	.00017	.00014	.00198	.0293	.00337	.0141	.00010	.00002
%RSD	51.491	25.869	8.0648	.79126	1.1451	119.20	.26048	.96071	8.2277
#1	-.00003	.00080	.00167	.24942	2.5761	.00522	5.4245	.01019	-.00028
#2	-.00006	.00055	.00188	.25222	2.5347	.00044	5.4046	.01033	-.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9199**	**.00270**	**.00794**	**.00100**	**.65487**	**-.00009**	**-.00126**	**3.3944**	**7.2641**
Stddev	.0223	.00090	.00079	.00097	.00593	.00090	.00034	.0088	.0189
%RSD	1.1597	33.254	9.9317	97.388	.90514	961.84	27.112	.26030	.26030
#1	1.9357	.00333	.00850	.00169	.65907	.00054	-.00102	3.4007	7.2774
#2	1.9042	.00206	.00738	.00031	.65068	-.00073	-.00150	3.3882	7.2507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00145**	**.11820**	**-.00123**	**.00500**	**.00044**	**-.00705**	**.00125**	**-.00036**	**.00030**
Stddev	.00260	.00002	.00253	.00013	.00055	.01695	.00029	.00039	.00081
%RSD	179.64	.01428	206.55	2.5150	124.93	240.53	23.153	109.45	272.06
#1	.00329	.11821	.00056	.00491	.00005	-.01903	.00146	-.00064	.00087
#2	-.00039	.11818	-.00302	.00509	.00083	.00494	.00105	-.00008	-.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3795.7**	**42745.**	**3461.6**
Stddev	6.1	129.	12.4
%RSD	.16166	.30266	.35707
#1	3791.3	42837.	3452.9
#2	3800.0	42654.	3470.4

Sample Name: CCVH-5713036 Acquired: 5/29/2019 12:23:15 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00100**	**49.614**	**-.00254**	**-.00007**	**.00140**	**.00010**	**-.00091**	**.00550**	**-.00029**	**.00217**	**.00009**	**.01100**
Stddev	.00075	.154	.00491	.00020	.00034	.00003	.00138	.00114	.00026	.00027	.00004	.00044
%RSD	75.199	.31030	193.24	289.97	24.548	26.851	152.19	20.651	90.510	12.630	44.968	3.9537
#1	-.00153	49.722	-.00602	.00007	.00116	.00008	.00007	.00630	-.00010	.00198	.00006	.01131
#2	-.00047	49.505	.00093	-.00021	.00165	.00012	-.00189	.00470	-.00047	.00237	.00012	.01070
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.245**	**.12641**	**.00070**	**.01637**	**.00237**	**-.00101**	**250.15**	**.00150**	**4.9157**	**.00300**	**4.8783**	**.00081**
Stddev	.479	.04211	.00353	.00206	.00005	.00010	.81	.00017	.0192	.00125	.0074	.00152
%RSD	.97233	33.310	502.23	12.572	2.2615	9.4739	.32479	11.627	.39134	41.779	.15254	187.62
#1	49.584	.15618	.00320	.01491	.00240	-.00108	250.72	.00163	4.9293	.00389	4.8835	.00189
#2	48.907	.09663	-.00179	.01782	.00233	-.00094	249.57	.00138	4.9021	.00211	4.8730	-.00027
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00167**	**.02514**	**.05381**	**-.00061**	**-.00010**	**4.9398**	**-.01447**	**.00172**	F **.58038**	**.00526**	**-.00118**	**.09881**
Stddev	.00027	.03633	.07774	.00090	.00028	.0025	.00050	.00175	.03691	.00056	.00017	.00665
%RSD	16.449	144.47	144.47	147.08	281.27	.05041	3.4479	101.94	6.3595	10.697	14.711	6.7256
#1	-.00186	.05083	.10877	.00002	.00010	4.9416	-.01411	.00048	.60648	.00486	-.00130	.09411
#2	-.00147	-.00054	-.00116	-.00125	-.00030	4.9381	-.01482	.00296	.55428	.00566	-.00105	.10351
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3707.7**	**41435.**	**3386.6**
Stddev	17.3	44.	31.8
%RSD	.46795	.10645	.94033
#1	3720.0	41404.	3364.1
#2	3695.4	41466.	3409.1

Sample Name: CCV-5714928 Acquired: 5/29/2019 12:25:47 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48959**	**.53481**	**.48389**	**.48569**	**.49484**	**.48915**	**.98333**	**4.9049**	**.48629**	**.49551**	**.49125**	**.49422**	**2.4526**
Stddev	.00103	.00068	.00918	.00346	.00379	.00088	.00434	.0310	.00266	.00132	.00169	.00446	.0093
%RSD	.21006	.12696	1.8978	.71326	.76617	.18068	.44170	.63252	.54757	.26586	.34313	.90261	.37994
#1	.48886	.53529	.49038	.48814	.49752	.48977	.98640	4.9268	.48817	.49644	.49244	.49738	2.4592
#2	.49031	.53433	.47740	.48324	.49216	.48852	.98026	4.8830	.48440	.49458	.49006	.49107	2.4460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.269**	**.49531**	**19.815**	**.49478**	**.48938**	**24.932**	**.49637**	**.00171**	**.49626**	**.00676**	**.48767**	**.48015**	**4.8719**
Stddev	.142	.00107	.039	.00070	.00131	.046	.00090	.00043	.00490	.00475	.00190	.00552	.0322
%RSD	.28766	.21509	.19689	.14107	.26752	.18441	.18037	25.214	.98706	70.354	.38996	1.1501	.66135
#1	49.370	.49607	19.843	.49528	.49031	24.964	.49700	.00202	.49972	.00340	.48632	.47624	4.8491
#2	49.169	.49456	19.787	.49429	.48846	24.899	.49573	.00141	.49279	.01012	.48901	.48405	4.8947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.426**	**.49475**	**.49302**	**-.00008**	**.49068**	**.49767**	**-.05588**	**.48841**	**.49000**	**.48315**
Stddev	.069	.00238	.00266	.00413	.00055	.00272	.00743	.00082	.00243	.00748
%RSD	.66135	.48154	.53927	5171.0	.11130	.54667	13.291	.16712	.49643	1.5475
#1	10.377	.49644	.49490	-.00300	.49030	.49574	-.05063	.48899	.49172	.48843
#2	10.475	.49307	.49114	.00284	.49107	.49959	-.06113	.48783	.48828	.47786
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3698.4**	**41216.**	**3336.6**
Stddev	19.6	219.	5.8
%RSD	.52979	.53064	.17251
#1	3684.5	41062.	3332.5
#2	3712.2	41371.	3340.6

Sample Name: CCB Acquired: 5/29/2019 12:28:43 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**-.00184**	**.00066**	**.00049**	**.00071**	**.00020**	**-.00210**	**-.00351**	**-.00000**	**.00040**	**-.00039**	**-.00093**	**.01885**
Stddev	.00137	.00038	.00508	.00028	.00110	.00004	.00098	.00231	.00002	.00041	.00005	.00081	.00047
%RSD	2379.2	20.890	765.93	58.563	155.72	20.345	46.845	65.792	1606.7	102.43	12.648	86.729	2.4837
#1	.00102	-.00157	.00426	.00028	-.00007	.00018	-.00279	-.00514	.00001	.00068	-.00035	-.00036	.01852
#2	-.00091	-.00211	-.00293	.00069	.00149	.00023	-.00140	-.00188	-.00002	.00011	-.00042	-.00150	.01918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.06849**	**.00119**	**.00776**	**.00037**	**.00059**	**.27409**	**.00013**	**-.00013**	**.00235**	**-.00464**	**-.00176**	**-.00129**	**.01820**
Stddev	.06992	.00226	.00840	.00005	.00021	.01856	.00025	.00006	.00319	.00177	.00208	.00155	.02030
%RSD	102.09	189.53	108.26	14.079	34.920	6.7731	190.10	47.776	135.61	38.041	118.16	119.75	111.52
#1	.11793	.00278	.00182	.00041	.00073	.26096	.00031	-.00017	.00010	-.00339	-.00324	-.00020	.00385
#2	.01905	-.00040	.01369	.00033	.00044	.28721	-.00005	-.00008	.00460	-.00589	-.00029	-.00238	.03256
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.03895**	**.00059**	**-.00027**	**-.00191**	**-.00003**	**.00171**	**-.02232**	**.00081**	**-.00298**	**-.00055**
Stddev	.04344	.00006	.00017	.00163	.00038	.00063	.06575	.00097	.00044	.00108
%RSD	111.52	9.4032	65.473	85.020	1104.1	36.696	294.55	119.80	14.600	194.98
#1	.00823	.00055	-.00039	-.00306	-.00030	.00127	.02417	.00012	-.00267	-.00132
#2	.06967	.00063	-.00014	-.00076	.00023	.00215	-.06881	.00150	-.00329	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3770.2**	**42407.**	**3381.5**
Stddev	2.1	278.	12.1
%RSD	.05657	.65637	.35924
#1	3768.7	42210.	3372.9
#2	3771.7	42604.	3390.1

Sample Name: CCVL-5725431 Acquired: 5/29/2019 12:31:52 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00715**	**.10324**	**.01626**	**.09775**	**.01033**	**.00114**	**.10808**	**.19946**	**.00519**	**.01059**	**.01005**	**.01429**
Stddev	.00002	.00055	.00066	.00108	.00022	.00006	.00125	.00457	.00003	.00061	.00017	.00079
%RSD	.34304	.53446	4.0531	1.1047	2.1383	5.1411	1.1541	2.2899	.61599	5.7437	1.7112	5.5220
#1	.00717	.10363	.01673	.09699	.01048	.00118	.10720	.19623	.00521	.01102	.01017	.01485
#2	.00713	.10285	.01580	.09852	.01017	.00110	.10896	.20269	.00517	.01016	.00992	.01373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12254**	**3.0256**	**.01919**	**.19926**	**.01050**	**.01972**	**1.2135**	**.04181**	**2.9255**	**.00939**	**.09603**	**.01675**
Stddev	.00006	.0502	.00431	.00061	.00003	.00017	.0025	.00043	.0002	.00251	.00127	.00209
%RSD	.05152	1.6574	22.452	.30654	.24935	.85858	.20807	1.0265	.00757	26.783	1.3252	12.478
#1	.12259	3.0611	.01614	.19883	.01052	.01960	1.2117	.04212	2.9254	.01116	.09693	.01527
#2	.12250	2.9901	.02223	.19969	.01049	.01984	1.2153	.04151	2.9257	.00761	.09513	.01823
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01592**	**.49422**	**1.0576**	**.10201**	**.00983**	**.01263**	**.00946**	**.01574**	F **.12211**	**.01022**	**.01792**	**.01114**
Stddev	.00024	.02027	.0434	.00049	.00007	.00002	.00022	.00143	.00583	.00063	.00031	.00106
%RSD	1.5290	4.1024	4.1024	.47593	.75314	.18907	2.3384	9.0699	4.7728	6.1712	1.7159	9.5185
#1	.01575	.47988	1.0269	.10235	.00989	.01265	.00961	.01473	.12623	.00977	.01814	.01189
#2	.01610	.50855	1.0883	.10166	.00978	.01262	.00930	.01675	.11799	.01067	.01771	.01039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value									.06000			
Range									30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3881.5**	**43394.**	**3456.1**
Stddev	7.8	484.	18.4
%RSD	.20108	1.1163	.53189
#1	3876.0	43052.	3469.1
#2	3887.1	43737.	3443.1

Sample Name: 280-123981-F-6-A Acquired: 5/29/2019 12:34:54 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.01268**	**.00368**	**.05150**	**.04129**	**.00022**	**.00277**	**109.55**	**.00003**
Stddev	.00071	.00003	.00045	.00077	.00044	.00005	.00051	.33	.00002
%RSD	304.54	.26228	12.270	1.4953	1.0598	21.745	18.342	.30233	74.492
#1	-.00027	.01270	.00400	.05096	.04160	.00025	.00313	109.31	.00004
#2	.00073	.01266	.00336	.05204	.04098	.00019	.00241	109.78	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.00017**	**.00100**	**.51241**	**3.3725**	**.00453**	**10.932**	**.16503**	**-.00035**
Stddev	.00019	.00026	.00025	.00094	.0241	.00050	.044	.00052	.00068
%RSD	111.61	151.78	24.708	.18276	.71526	10.934	.39834	.31570	194.25
#1	-.00030	-.00001	.00082	.51174	3.3896	.00488	10.901	.16466	.00013
#2	-.00004	.00035	.00117	.51307	3.3555	.00418	10.963	.16539	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9122**	**.00046**	**.02019**	**.00170**	**.72899**	**-.00488**	**-.00374**	**4.4045**	**9.4257**
Stddev	.0299	.00004	.00168	.00016	.01727	.00299	.00260	.0030	.0065
%RSD	1.5659	9.6138	8.3054	9.2511	2.3697	61.278	69.534	.06877	.06877
#1	1.8910	.00050	.02138	.00159	.74121	-.00276	-.00559	4.4067	9.4302
#2	1.9334	.00043	.01901	.00181	.71678	-.00699	-.00190	4.4024	9.4211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.19737**	**-.00355**	**.00066**	**.00252**	**.06644**	**.00030**	**.00331**	**-.00022**
Stddev	.00204	.00089	.00123	.00021	.00215	.01249	.00023	.00032	.00170
%RSD	1344.4	.44847	34.691	32.313	85.473	18.801	75.393	9.5249	755.30
#1	-.00129	.19674	-.00442	.00081	.00404	.05761	.00014	.00309	-.00142
#2	.00160	.19800	-.00268	.00051	.00100	.07528	.00046	.00353	.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3777.9**	**42806.**	**3496.2**
Stddev	16.8	292.	.3
%RSD	.44368	.68279	.00836
#1	3789.8	43013.	3496.4
#2	3766.1	42599.	3496.0

Sample Name: 280-123981-F-7-A Acquired: 5/29/2019 12:37:27 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.03873**	**.00129**	**.00589**	**.05263**	**.00019**	**-.00319**	**104.21**	**.00025**
Stddev	.00089	.00087	.00081	.00035	.00041	.00008	.00327	.01	.00018
%RSD	1770.1	2.2590	62.984	5.9992	.77059	43.805	102.67	.01166	72.417
#1	.00058	.03934	.00071	.00564	.05234	.00013	-.00087	104.22	.00012
#2	-.00068	.03811	.00186	.00614	.05291	.00025	-.00550	104.20	.00038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00145**	**.02350**	**.00256**	**.19919**	**1.2966**	**.00122**	**17.533**	**2.3319**	**-.00029**
Stddev	.00010	.00030	.00050	.00259	.1255	.00512	.015	.0014	.00002
%RSD	7.1349	1.2575	19.431	1.2992	9.6794	418.38	.08731	.05889	8.2426
#1	.00153	.02330	.00291	.20102	1.3854	.00485	17.522	2.3329	-.00027
#2	.00138	.02371	.00221	.19736	1.2079	-.00240	17.544	2.3310	-.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.6948**	**.00880**	**.00398**	**.00076**	**5.9885**	**.00150**	**-.00278**	**4.3647**	**9.3404**
Stddev	.0221	.00042	.00145	.00041	.0421	.00385	.00151	.0251	.0537
%RSD	.38806	4.7498	36.390	54.460	.70365	256.65	54.146	.57450	.57450
#1	5.6791	.00850	.00500	.00047	6.0183	.00423	-.00172	4.3824	9.3783
#2	5.7104	.00909	.00296	.00105	5.9587	-.00122	-.00385	4.3469	9.3024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00158**	**.18895**	**.00012**	**.00159**	**-.00011**	**-.01070**	**.00078**	**.00497**	**.00027**
Stddev	.00173	.00005	.00242	.00050	.00109	.06200	.00019	.00014	.00137
%RSD	109.55	.02769	2054.2	31.781	987.69	579.30	23.857	2.8906	512.53
#1	.00280	.18891	.00183	.00194	.00066	-.05454	.00065	.00507	-.00070
#2	.00036	.18898	-.00159	.00123	-.00088	.03314	.00091	.00487	.00124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3744.0**	**42249.**	**3477.6**
Stddev	6.7	44.	14.1
%RSD	.17874	.10444	.40608
#1	3748.7	42218.	3487.5
#2	3739.2	42280.	3467.6

Sample Name: 280-123981-F-8-A Acquired: 5/29/2019 12:40:00 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.07545**	**.00144**	**.01295**	**.02737**	**.00011**	**-.00063**	**64.397**	**-.00006**
Stddev	.00028	.00006	.00217	.00011	.00102	.00005	.00170	.028	.00018
%RSD	845.05	.08420	150.72	.82527	3.7192	49.897	269.10	.04351	292.61
#1	.00017	.07549	.00297	.01288	.02665	.00015	.00057	64.377	-.00019
#2	-.00023	.07540	-.00009	.01303	.02809	.00007	-.00183	64.417	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**-.00027**	**.00004**	**.20783**	**.66377**	**.01005**	**8.1844**	**.09384**	**-.00016**
Stddev	.00039	.00013	.00118	.00024	.05309	.00340	.0045	.00018	.00039
%RSD	207.00	48.784	3226.7	.11742	7.9988	33.878	.05494	.19160	246.92
#1	-.00047	-.00018	-.00080	.20765	.70131	.01245	8.1875	.09371	-.00044
#2	.00009	-.00036	.00087	.20800	.62622	.00764	8.1812	.09396	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.2170**	**-.00033**	**.04213**	**.00093**	**.52159**	**-.00215**	**-.00383**	**3.4902**	**7.4690**
Stddev	.0154	.00015	.00261	.00123	.00393	.00161	.00312	.0272	.0583
%RSD	.47735	45.584	6.2048	131.68	.75311	74.906	81.565	.77985	.77985
#1	3.2062	-.00044	.04398	.00180	.52437	-.00329	-.00603	3.4709	7.4278
#2	3.2279	-.00022	.04028	.00006	.51881	-.00101	-.00162	3.5094	7.5102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.13721**	**.00710**	**.00015**	**-.00101**	**-.00073**	**.00049**	**.00082**	**.00234**
Stddev	.00193	.00003	.00008	.00004	.00274	.02418	.00008	.00016	.00137
%RSD	5359.3	.01932	1.1381	28.862	271.97	3324.4	15.346	19.287	58.400
#1	.00133	.13723	.00705	.00019	-.00295	.01637	.00054	.00093	.00137
#2	-.00140	.13720	.00716	.00012	.00093	-.01782	.00044	.00071	.00331
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3796.4**	**42769.**	**3501.2**
Stddev	3.9	20.	13.5
%RSD	.10223	.04686	.38465
#1	3799.1	42755.	3510.7
#2	3793.7	42783.	3491.6

Sample Name: 280-123981-F-9-A Acquired: 5/29/2019 12:42:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00052**	**.03290**	**.00038**	**.04184**	**.09927**	**.00022**	**.00053**	**71.626**	**.00003**
Stddev	.00043	.00020	.00238	.00033	.00451	.00023	.00410	3.342	.00006
%RSD	82.562	.60826	625.02	.79748	4.5436	102.19	769.56	4.6657	224.10
#1	.00082	.03304	-.00130	.04160	.09608	.00038	.00343	69.263	.00007
#2	.00021	.03275	.00206	.04207	.10246	.00006	-.00236	73.989	-.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00008**	**-.00032**	**.09929**	**1.9612**	**.00628**	**8.1410**	**.01105**	**-.00020**
Stddev	.00052	.00018	.00051	.00007	.0695	.00074	.0220	.00011	.00013
%RSD	302.42	239.85	157.07	.06885	3.5425	11.843	.27014	.95155	63.035
#1	.00053	.00021	-.00068	.09924	1.9121	.00575	8.1254	.01112	-.00029
#2	-.00019	-.00005	.00004	.09934	2.0103	.00680	8.1565	.01097	-.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.2797**	**-.00045**	**.02088**	**.00148**	**.98560**	**-.00465**	**-.00091**	**4.1522**	**8.8858**
Stddev	.0870	.00043	.00133	.00092	.00292	.00457	.00419	.2456	.5256
%RSD	3.8177	96.977	6.3581	62.416	.29605	98.210	460.80	5.9154	5.9154
#1	2.2181	-.00076	.02182	.00213	.98766	-.00142	-.00387	3.9785	8.5141
#2	2.3412	-.00014	.01994	.00083	.98353	-.00788	.00205	4.3259	9.2574
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00102**	**.47019**	**-.00265**	**.00054**	**.00018**	**.04608**	**.00009**	**.00281**	**.00010**
Stddev	.00009	.02153	.00011	.00020	.00379	.09226	.00017	.00056	.00292
%RSD	8.5789	4.5781	4.3294	36.443	2158.7	200.24	194.09	19.998	2805.7
#1	-.00108	.45497	-.00273	.00040	.00285	-.01916	.00021	.00321	-.00196
#2	-.00096	.48541	-.00257	.00067	-.00250	.11132	-.00003	.00241	.00217
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3833.4**	**43408.**	**3411.9**
Stddev	1.3	252.	142.3
%RSD	.03278	.58122	4.1696
#1	3832.5	43587.	3512.5
#2	3834.3	43230.	3311.3

Sample Name: 280-123983-F-1-A Acquired: 5/29/2019 12:45:07 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**.61340**	**.00252**	**.00968**	**.01575**	**.00017**	**-.00338**	**26.703**	**.00016**
Stddev	.00096	.00371	.00144	.00013	.00021	.00004	.00038	.078	.00043
%RSD	396.64	.60427	57.240	1.2939	1.3090	23.676	11.166	.29164	275.49
#1	-.00092	.61602	.00150	.00977	.01589	.00019	-.00365	26.758	-.00015
#2	.00044	.61078	.00354	.00959	.01560	.00014	-.00311	26.648	.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**.00087**	**.00372**	**2.7092**	**2.2499**	**.00579**	**3.4842**	**.20588**	**-.00049**
Stddev	.00034	.00016	.00059	.0115	.0170	.00123	.0050	.00029	.00007
%RSD	54.039	18.443	15.776	.42608	.75618	21.242	.14481	.14066	13.305
#1	.00038	.00098	.00413	2.7174	2.2619	.00667	3.4806	.20568	-.00045
#2	.00086	.00075	.00330	2.7010	2.2379	.00492	3.4878	.20609	-.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1340**	**.00139**	**.21676**	**.00558**	**.84771**	**-.00491**	**-.00437**	**1.8018**	**3.8559**
Stddev	.0148	.00002	.00010	.00018	.00016	.00104	.00299	.0221	.0473
%RSD	1.3049	1.1190	.04597	3.2260	.01928	21.194	68.457	1.2253	1.2253
#1	1.1445	.00140	.21683	.00545	.84783	-.00565	-.00226	1.8175	3.8894
#2	1.1236	.00138	.21669	.00571	.84760	-.00418	-.00649	1.7862	3.8225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00194**	**.06746**	**-.00287**	**.00821**	**.00293**	**.03483**	**.00220**	**.11038**	**.00236**
Stddev	.00280	.00004	.00065	.00039	.00078	.00235	.00012	.00003	.00194
%RSD	144.30	.05693	22.573	4.7293	26.583	6.7599	5.2388	.02838	82.107
#1	.00392	.06743	-.00333	.00848	.00348	.03649	.00212	.11036	.00099
#2	-.00004	.06748	-.00242	.00793	.00238	.03316	.00228	.11040	.00373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3844.9**	**43523.**	**3527.6**
Stddev	2.0	137.	20.4
%RSD	.05092	.31412	.57758
#1	3846.3	43620.	3542.0
#2	3843.5	43427.	3513.1

Sample Name: 280-123983-F-2-A Acquired: 5/29/2019 12:47:40 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00050**	**.02787**	**.00466**	**.01390**	**.01020**	**.00012**	**-.00280**	**48.937**	**-.00022**
Stddev	.00099	.00053	.00458	.00047	.00019	.00016	.00323	.115	.00010
%RSD	196.45	1.9175	98.151	3.3843	1.8731	132.81	115.53	.23573	45.385
#1	-.00120	.02825	.00790	.01423	.01006	.00001	-.00509	49.018	-.00029
#2	.00020	.02750	.00143	.01357	.01033	.00023	-.00051	48.855	-.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.00016**	**-.00020**	**.79746**	**2.3994**	**-.00025**	**5.2879**	**.52045**	**-.00062**
Stddev	.00033	.00031	.00043	.00061	.0252	.00302	.0079	.00168	.00000
%RSD	284.48	196.91	209.94	.07597	1.0510	1231.8	.15022	.32365	.07546
#1	-.00012	-.00006	-.00050	.79789	2.3815	-.00238	5.2935	.51926	-.00062
#2	.00035	.00038	.00010	.79703	2.4172	.00189	5.2823	.52164	-.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1627**	**-.00061**	**.11186**	**.00171**	**.43157**	**-.00326**	**-.00022**	**1.5503**	**3.3175**
Stddev	.0125	.00039	.00187	.00238	.00878	.00156	.00075	.0325	.0695
%RSD	1.0747	64.649	1.6692	139.30	2.0354	47.645	340.33	2.0944	2.0944
#1	1.1715	-.00033	.11318	.00339	.43778	-.00436	-.00075	1.5273	3.2684
#2	1.1539	-.00089	.11054	.00003	.42536	-.00216	.00031	1.5732	3.3667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**.13705**	**-.00198**	**.00098**	**.00267**	**-.02501**	**.00071**	**.00133**	**-.00314**
Stddev	.00016	.00017	.00010	.00043	.00326	.03353	.00021	.00028	.00196
%RSD	24.110	.12253	4.9097	43.261	122.37	134.11	29.355	21.298	62.251
#1	.00078	.13693	-.00204	.00128	.00497	-.04872	.00056	.00153	-.00176
#2	.00055	.13717	-.00191	.00068	.00036	-.00129	.00086	.00113	-.00452
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3786.5**	**42455.**	**3456.0**
Stddev	8.0	361.	13.8
%RSD	.21249	.85092	.39839
#1	3780.8	42711.	3446.2
#2	3792.2	42200.	3465.7

Sample Name: 280-123983-F-3-A Acquired: 5/29/2019 12:50:33 Type: Unk
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 459132 6010C (B) Q5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00718**	**112.82**	**.04668**	**.09921**	**1.0749**	**.00662**	**.00359**	**219.64**	**.01519**
Stddev	.00018	.45	.00708	.00063	.0025	.00011	.00060	.41	.00019
%RSD	2.4714	.39506	15.172	.63173	.23109	1.6214	16.635	.18880	1.2255
#1	.00731	112.51	.04167	.09965	1.0732	.00654	.00317	219.35	.01532
#2	.00706	113.14	.05169	.09877	1.0767	.00669	.00401	219.93	.01506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.06954**	**.12077**	**.41102**	**154.30**	**9.2400**	**.22634**	**35.211**	F **67.487**	**.00166**
Stddev	.00095	.00138	.00080	.15	.0317	.00196	.043	.223	.00027
%RSD	1.3656	1.1452	.19440	.09997	.34265	.86807	.12355	.33020	16.084
#1	.07021	.12175	.41046	154.19	9.2176	.22773	35.180	67.329	.00147
#2	.06887	.11979	.41159	154.41	9.2623	.22495	35.241	67.645	.00185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit								20.000	
Low Limit								-.02000	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.0178**	**.16446**	**13.781**	**.50365**	**16.569**	**-.00403**	**.00312**	W **53.882**	**115.31**
Stddev	.0150	.00166	.046	.00086	.022	.00012	.00113	.025	.05
%RSD	.49827	1.0101	.33670	.17100	.13120	2.9445	36.055	.04661	.04661
#1	3.0072	.16563	13.813	.50304	16.584	-.00411	.00392	53.864	115.27
#2	3.0285	.16328	13.748	.50426	16.553	-.00394	.00233	53.900	115.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit								50.000	
Low Limit								-1.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01293**	**.95816**	**-.00512**	**.56484**	F **-.05771**	**.13732**	**.19372**	**1.2951**	**.02366**
Stddev	.00089	.00177	.00146	.00786	.00179	.00851	.00058	.0086	.00189
%RSD	6.8604	.18458	28.441	1.3913	3.0975	6.1973	.30094	.66260	7.9867
#1	.01230	.95691	-.00615	.55928	-.05645	.13130	.19413	1.2891	.02233
#2	.01355	.95941	-.00409	.57040	-.05898	.14334	.19331	1.3012	.02500
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					50.000				
Low Limit					-.03000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4071.4**	**44406.**	**3780.1**
Stddev	9.6	105.	18.7
%RSD	.23622	.23547	.49447
#1	4064.6	44480.	3793.3
#2	4078.2	44332.	3766.8

Sample Name: CCVH-5713036 Acquired: 5/29/2019 12:53:17 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00118**	**49.897**	**.00246**	**-.00119**	**.00153**	**.00027**	**.00031**	**.01178**	**-.00008**	**.00221**	**-.00013**	**.01091**
Stddev	.00114	.309	.00289	.00119	.00022	.00034	.00038	.00261	.00053	.00049	.00012	.00018
%RSD	96.637	.61926	117.56	100.08	14.092	128.11	122.97	22.188	694.77	21.970	91.278	1.6489
#1	-.00037	50.116	.00450	-.00203	.00138	.00051	.00057	.00994	-.00045	.00187	-.00005	.01078
#2	-.00199	49.679	.00042	-.00035	.00169	.00003	.00004	.01363	.00030	.00255	-.00021	.01104
Check ?	None	Chk Pass	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.038**	**.09863**	**.00191**	**.01412**	**.00525**	**-.00117**	**248.53**	**.00128**	**4.8949**	**.00463**	**4.8580**	**.00336**
Stddev	.269	.08317	.00117	.00926	.00028	.00046	1.35	.00079	.0293	.00031	.0162	.00014
%RSD	.54954	84.321	61.035	65.575	5.3435	39.554	.54259	61.296	.59843	6.7799	.33329	4.2926
#1	49.228	.15744	.00109	.00757	.00544	-.00084	249.49	.00184	4.9156	.00485	4.8695	.00326
#2	48.847	.03982	.00274	.02066	.00505	-.00149	247.58	.00073	4.8741	.00441	4.8466	.00346
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	Chk Pass	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00199**	**.06319**	**.13523**	**-.00079**	**.00017**	**4.9582**	**-.01565**	**.00197**	F **.55927**	**.00502**	**-.00145**	**.09737**
Stddev	.00173	.01306	.02794	.00105	.00020	.0008	.00017	.00138	.04164	.00017	.00008	.00349
%RSD	87.195	20.665	20.665	132.86	120.10	.01503	1.0766	70.239	7.4454	3.4023	5.3677	3.5801
#1	-.00321	.05396	.11547	-.00005	.00003	4.9587	-.01553	.00294	.52982	.00515	-.00140	.09984
#2	-.00076	.07243	.15499	-.00153	.00031	4.9576	-.01577	.00099	.58871	.00490	-.00151	.09491
Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Fail	None	None	None
Value									.50000			
Range									10.490%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3766.9**	**41698.**	**3401.3**
Stddev	4.8	47.	39.7
%RSD	.12681	.11216	1.1670
#1	3770.3	41665.	3373.2
#2	3763.5	41731.	3429.3

Sample Name: CCV-5714928 Acquired: 5/29/2019 12:55:50 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48512**	**.50517**	**.48039**	**.48465**	**.49315**	**.48855**	**.98562**	**4.8812**	**.48587**	**.49457**	**.48937**	**.49059**	**2.4077**
Stddev	.00132	.00144	.00011	.00138	.00027	.00084	.00734	.0140	.00150	.00036	.00288	.00000	.0064
%RSD	.27118	.28529	.02367	.28500	.05552	.17112	.74500	.28769	.30788	.07289	.58874	.00098	.26628
#1	.48419	.50619	.48031	.48563	.49296	.48914	.99082	4.8911	.48693	.49482	.49141	.49058	2.4123
#2	.48605	.50415	.48047	.48368	.49335	.48795	.98043	4.8712	.48481	.49431	.48733	.49059	2.4032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.956**	**.49291**	**19.573**	**.49118**	**.48655**	**24.608**	**.49439**	**-.00119**	**.49357**	**-.00608**	**.48999**	**.48488**	**4.8786**
Stddev	.132	.00286	.031	.00002	.00190	.044	.00027	.00220	.00033	.00926	.00332	.00415	.0305
%RSD	.26941	.58124	.15892	.00382	.38976	.17695	.05515	183.95	.06770	152.20	.67688	.85582	.62542
#1	48.863	.49493	19.595	.49120	.48790	24.638	.49458	-.00275	.49380	-.01263	.49233	.48195	4.8570
#2	49.050	.49088	19.551	.49117	.48521	24.577	.49420	.00036	.49333	.00046	.48764	.48781	4.9002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.440**	**.49161**	**.48942**	**-.00454**	**.48669**	**.49540**	**.03598**	**.48884**	**.48624**	**.48304**
Stddev	.065	.00261	.00065	.00379	.00047	.00059	.04661	.00099	.00130	.00027
%RSD	.62542	.52993	.13207	83.381	.09759	.11939	129.53	.20343	.26727	.05683
#1	10.394	.49346	.48988	-.00186	.48702	.49582	.00303	.48954	.48716	.48285
#2	10.486	.48977	.48896	-.00722	.48635	.49498	.06894	.48813	.48532	.48324
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3714.4**	**41951.**	**3405.8**
Stddev	2.2	171.	5.2
%RSD	.05857	.40827	.15286
#1	3712.8	42072.	3409.5
#2	3715.9	41830.	3402.1

Sample Name: CCB Acquired: 5/29/2019 12:58:38 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**-.00153**	**-.00008**	**.00044**	**.00023**	**.00023**	**.00000**	**.00716**	**-.00008**	**.00034**	**-.00024**	**-.00155**
Stddev	.00052	.00015	.00004	.00032	.00004	.00005	.00450	.00230	.00025	.00009	.00029	.00091
%RSD	150.21	10.101	49.056	73.298	17.990	21.498	100310.	32.123	308.34	27.348	123.24	58.577
#1	-.00002	-.00164	-.00011	.00021	.00020	.00027	-.00318	.00553	-.00026	.00041	-.00003	-.00091
#2	.00072	-.00142	-.00005	.00067	.00026	.00020	.00319	.00878	.00010	.00028	-.00045	-.00219
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00250**	**.03073**	**.00209**	**.00206**	**.00021**	**.00027**	W **.40646**	**-.00064**	**-.00003**	**.00161**	**.03004**	**-.00258**
Stddev	.00226	.03616	.00260	.00383	.00008	.00022	.00161	.00004	.00047	.00064	.00492	.00109
%RSD	90.464	117.69	124.33	185.73	36.264	82.044	.39658	6.7280	1519.8	39.798	16.379	42.141
#1	-.00410	.05630	.00393	.00477	.00026	.00011	.40760	-.00061	-.00036	.00115	.02656	-.00181
#2	-.00090	.00516	.00025	-.00065	.00015	.00043	.40532	-.00067	.00030	.00206	.03352	-.00335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							.35000					
Low Limit							-.35000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**.00206**	**.00441**	**.00042**	**-.00026**	**-.00151**	**.00060**	**.00458**	**-.01338**	**.00019**	**-.00240**	**-.00102**
Stddev	.00526	.01665	.03563	.00020	.00018	.00043	.00004	.00318	.06871	.00030	.00061	.00243
%RSD	757.67	807.74	807.74	48.653	69.834	28.435	6.4709	69.403	513.51	157.28	25.623	237.27
#1	-.00441	.01384	.02961	.00028	-.00039	-.00121	.00057	.00683	.03521	-.00002	-.00196	-.00274
#2	.00302	-.00971	-.02078	.00057	-.00013	-.00181	.00063	.00233	-.06197	.00041	-.00283	.00069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3741.6**	**41863.**	**3361.7**
Stddev	1.3	229.	17.5
%RSD	.03421	.54631	.52039
#1	3740.7	42025.	3349.4
#2	3742.5	41702.	3374.1

Sample Name: CCVL-5725431 Acquired: 5/29/2019 13:01:46 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00565**	**.10296**	F **.02059**	**.09588**	**.01136**	**.00117**	**.10381**	**.19513**	**.00511**	**.01036**	**.00955**	**.01547**
Stddev	.00014	.00018	.00411	.00021	.00039	.00016	.00180	.00441	.00036	.00002	.00001	.00170
%RSD	2.4001	.17912	19.985	.21976	3.4022	13.537	1.7320	2.2609	6.9544	.20705	.08782	10.977
#1	.00555	.10309	.01768	.09602	.01109	.00128	.10254	.19825	.00537	.01034	.00955	.01427
#2	.00575	.10283	.02350	.09573	.01164	.00106	.10508	.19201	.00486	.01037	.00956	.01668
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000		.01500									
Range	-30.000%		30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11328**	**2.9536**	**.02444**	**.20419**	**.01053**	**.01915**	F **1.4664**	**.04196**	**2.8698**	**.01087**	**.12811**	**.01816**
Stddev	.00589	.0531	.00548	.00066	.00009	.00030	.0147	.00027	.0036	.00156	.00508	.00003
%RSD	5.2014	1.7977	22.410	.32380	.83088	1.5511	1.0024	.64969	.12441	14.333	3.9616	.17028
#1	.10912	2.9911	.02831	.20373	.01047	.01894	1.4560	.04177	2.8723	.01197	.13170	.01814
#2	.11745	2.9160	.02057	.20466	.01059	.01936	1.4768	.04215	2.8673	.00977	.12452	.01818
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01696**	**.52128**	**1.1155**	**.10222**	**.00993**	**.01156**	**.00929**	**.01702**	**.06793**	**.01023**	**.01782**	**.01239**
Stddev	.00464	.03837	.0821	.00007	.00013	.00080	.00053	.00138	.02472	.00046	.00056	.00328
%RSD	27.348	7.3615	7.3615	.06624	1.3432	6.9434	5.7542	8.1105	36.385	4.5287	3.1366	26.488
#1	.01368	.49415	1.0575	.10227	.01002	.01099	.00891	.01800	.05045	.01056	.01821	.01471
#2	.02024	.54842	1.1736	.10217	.00983	.01213	.00966	.01605	.08541	.00990	.01742	.01007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3793.3**	**42609.**	**3398.7**
Stddev	.3	218.	3.8
%RSD	.00814	.51087	.11064
#1	3793.1	42763.	3401.3
#2	3793.5	42455.	3396.0

Sample Name: CCVL-5725431 Acquired: 5/29/2019 13:07:35 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00657**	**.09662**	**.01490**	**.09221**	**.01028**	**.00118**	**.09969**	**.19588**	**.00462**	**.01013**	**.00951**	**.01467**
Stddev	.00094	.00013	.00801	.00030	.00052	.00000	.00398	.00301	.00008	.00031	.00002	.00043
%RSD	14.275	.13689	53.787	.32355	5.0214	.04721	3.9903	1.5371	1.7861	3.0598	.22594	2.9222
#1	.00724	.09653	.00923	.09200	.00991	.00118	.09688	.19375	.00456	.00991	.00949	.01497
#2	.00591	.09672	.02057	.09242	.01064	.00118	.10250	.19801	.00467	.01034	.00952	.01436
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000											
Range	-30.000%											

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11364**	**2.9109**	**.02159**	**.19957**	**.01041**	**.01814**	**1.1022**	**.03939**	**2.7402**	**.01155**	**.08827**	F **.01226**
Stddev	.00173	.1076	.00549	.00189	.00000	.00040	.0279	.00093	.0212	.00077	.00003	.00347
%RSD	1.5240	3.6954	25.435	.94677	.02649	2.2175	2.5350	2.3491	.77411	6.6280	.03794	28.305
#1	.11242	2.9870	.01771	.20090	.01042	.01843	1.1220	.03874	2.7252	.01101	.08825	.01472
#2	.11487	2.8348	.02547	.19823	.01041	.01786	1.0824	.04004	2.7552	.01209	.08830	.00981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value												.02000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.01350**	**.48272**	**1.0330**	**.09577**	**.00944**	**.01144**	**.00916**	**.01671**	F **.16812**	**.00996**	**.01870**	F **.00735**
Stddev	.00044	.02139	.0458	.00075	.00018	.00052	.00011	.00035	.00501	.00024	.00054	.00349
%RSD	3.2637	4.4310	4.4310	.77888	1.8676	4.5537	1.2553	2.1191	2.9776	2.3972	2.8682	47.431
#1	.01318	.49785	1.0654	.09630	.00931	.01107	.00908	.01696	.17166	.00979	.01832	.00982
#2	.01381	.46760	1.0007	.09524	.00956	.01181	.00924	.01646	.16458	.01013	.01908	.00489
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	.02000								.06000			.01500
Range	-30.000%								30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**4008.1**	**44030.**	**3545.6**
Stddev	3.0	70.	25.9
%RSD	.07501	.15949	.73082
#1	4010.2	43981.	3527.3
#2	4005.9	44080.	3563.9

Sample Name: CCVL-5725431 Acquired: 5/29/2019 13:09:54 Type: QC
Method: 6500_025(v8) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.00547**	**.09796**	F **.02171**	**.09283**	**.00973**	**.00126**	**.10354**	**.18796**	**.00507**	**.01013**	**.00989**	**.01357**
Stddev	.00007	.00187	.00116	.00082	.00044	.00021	.00017	.00690	.00003	.00051	.00008	.00022
%RSD	1.3210	1.9066	5.3532	.88002	4.5288	16.303	.16851	3.6692	.51908	4.9864	.78387	1.6566
#1	.00542	.09928	.02253	.09341	.01004	.00140	.10342	.18308	.00505	.01049	.00984	.01373
#2	.00552	.09664	.02089	.09225	.00942	.00111	.10367	.19284	.00508	.00977	.00995	.01341
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.01000		.01500									
Range	-30.000%		30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10782**	**2.7591**	**.01590**	**.19365**	**.01031**	**.01801**	**1.0578**	**.03952**	**2.7625**	**.01152**	**.08111**	**.01834**
Stddev	.00147	.0624	.00207	.00328	.00002	.00000	.0171	.00017	.0012	.00027	.00193	.00025
%RSD	1.3622	2.2633	13.046	1.6962	.15331	.01248	1.6133	.42543	.04470	2.3345	2.3756	1.3768
#1	.10678	2.7150	.01737	.19133	.01030	.01801	1.0458	.03940	2.7616	.01133	.08248	.01851
#2	.10886	2.8033	.01443	.19597	.01032	.01800	1.0699	.03964	2.7634	.01171	.07975	.01816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01541**	**.48069**	**1.0287**	**.09713**	**.00944**	**.01061**	**.00866**	**.01622**	F **.10231**	**.01008**	**.01819**	F **.01021**
Stddev	.00504	.00905	.0194	.00138	.00014	.00188	.00014	.00008	.04425	.00004	.00068	.00232
%RSD	32.728	1.8821	1.8821	1.4219	1.4394	17.732	1.5779	.46975	43.249	.36904	3.7309	22.741
#1	.01897	.47429	1.0150	.09616	.00934	.00928	.00875	.01616	.13359	.01005	.01771	.01185
#2	.01184	.48708	1.0424	.09811	.00953	.01194	.00856	.01627	.07102	.01010	.01867	.00857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value									.06000			.01500
Range									30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	**3939.0**	**44927.**	**3644.8**
Stddev	12.6	36.	16.7
%RSD	.31880	.08056	.45852
#1	3947.9	44953.	3633.0
#2	3930.1	44902.	3656.6

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG No.:

Project: Griffiss AFB, LF003 Landfill 7

Client Sample ID	Lab Sample ID
LF7MW-22_0519	280-123981-1
LF7MW-23_0519	280-123981-2
LF7MW-26_0519	280-123981-3
LF7MW-26_0519-a	280-123981-4
LF7MW-27_0519	280-123981-5
LF7MW-28_0519	280-123981-6
LF7MW-30_0519	280-123981-7
LF7WL-3_0519	280-123981-8
LF7WL-4_0519	280-123981-9

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF7MW-22_0519 Lab Sample ID: 280-123981-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 12:25

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.61	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	0.80	1.0	0.50	0.69	mg/L	J		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.20	0.020	0.020	0.0068	mg/L			1	9066
Color	75	25	25	25	PCU		D	5	SM 2120B
Hardness	470	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.34	0.50	0.20	0.11	mg/L	J		1	9056A
Nitrate Nitrite as N	0.14	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	19	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.30	0.50	0.20	0.19	mg/L	J	Q	1	9056A
Fluoride	0.50	5.0	0.50	0.30	mg/L	U		5	9056A
Nitrate	0.073	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.063	0.50	0.10	0.049	mg/L	J		1	9056A
Sulfate	29	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	1.9	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	480	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	520	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF7MW-23_0519 Lab Sample ID: 280-123981-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 09:50

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.22	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.013	0.020	0.020	0.0068	mg/L	J		1	9066
Color	10	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	150	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Chloride	4.3	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	Q	1	9056A
Fluoride	0.071	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U	M J1	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	14	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	1.2	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	150	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	180	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF7MW-26_0519 Lab Sample ID: 280-123981-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 10:55

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.011	0.020	0.020	0.0068	mg/L	J		1	9066
Color	5.0	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	200	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.11	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	1.4	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.43	0.50	0.20	0.19	mg/L	J	H J1	1	9056A
Fluoride	0.086	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.11	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	1.9	5.0	3.0	1.0	mg/L	J		1	9056A
Total Organic Carbon - Quad	1.1	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	220	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	230	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF7MW-26_0519-a
Lab Sample ID: 280-123981-4
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123981-1
SDG ID.:
Matrix: Water
Date Sampled: 05/17/2019 10:55
Reporting Basis: WET
Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.012	0.020	0.020	0.0068	mg/L	J		1	9066
Color	15	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	220	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U	M	1	9056A
Nitrate Nitrite as N	0.052	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	3.0	3.0	3.0	1.0	mg/L	U		1	9056A
Orthophosphate as P	0.85	0.50	0.20	0.19	mg/L		H	1	9056A
Fluoride	0.071	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.052	0.50	0.10	0.042	mg/L	J	M	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	2.2	5.0	3.0	1.0	mg/L	J		1	9056A
Total Organic Carbon - Quad	1.3	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	330	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	340	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF7MW-27_0519 Lab Sample ID: 280-123981-5

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 09:45

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.0099	0.020	0.020	0.0068	mg/L	J		1	9066
Color	15	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	150	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.27	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	3.0	3.0	3.0	1.0	mg/L	U		1	9056A
Orthophosphate as P	0.38	0.50	0.20	0.19	mg/L	J	H	1	9056A
Fluoride	0.089	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.27	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	2.1	5.0	3.0	1.0	mg/L	J		1	9056A
Total Organic Carbon - Quad	2.4	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	170	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	180	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF7MW-28_0519 Lab Sample ID: 280-123981-6

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 11:05

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.032	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.0099	0.020	0.020	0.0068	mg/L	J		1	9066
Color	5.0	5.0	5.0	5.0	PCU	U		1	SM 2120B
Hardness	310	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.11	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	2.1	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.58	0.50	0.20	0.19	mg/L		H J1	1	9056A
Fluoride	0.084	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.11	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	2.0	5.0	3.0	1.0	mg/L	J		1	9056A
Total Organic Carbon - Quad	1.3	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	240	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	250	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF7MW-30_0519 Lab Sample ID: 280-123981-7

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 12:15

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.011	0.020	0.020	0.0068	mg/L	J		1	9066
Color	5.0	5.0	5.0	5.0	PCU	U		1	SM 2120B
Hardness	320	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	1.3	0.50	0.10	0.042	mg/L			1	9056A
Chloride	5.5	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.44	0.50	0.20	0.19	mg/L	J	H	1	9056A
Fluoride	0.086	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	1.3	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	12	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	1.3	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	320	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	370	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF7WL-3_0519 Lab Sample ID: 280-123981-8

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 13:00

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.010	0.020	0.020	0.0068	mg/L	J		1	9066
Color	30	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	190	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U	M	1	9056A
Nitrate Nitrite as N	0.051	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	1.8	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.50	0.50	0.20	0.19	mg/L		H	1	9056A
Fluoride	0.069	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.051	0.50	0.10	0.042	mg/L	J	M	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	1.9	5.0	3.0	1.0	mg/L	J		1	9056A
Total Organic Carbon - Quad	4.9	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	200	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	220	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF7WL-4_0519 Lab Sample ID: 280-123981-9

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG ID.:

Matrix: Water Date Sampled: 05/17/2019 10:15

Reporting Basis: WET Date Received: 05/18/2019 09:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.0080	0.020	0.020	0.0068	mg/L	J		1	9066
Color	20	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	200	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.050	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	3.0	3.0	3.0	1.0	mg/L	U		1	9056A
Orthophosphate as P	0.48	0.50	0.20	0.19	mg/L	J	H	1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.050	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	2.6	5.0	3.0	1.0	mg/L	J		1	9056A
Total Organic Carbon - Quad	3.8	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	210	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	230	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	1.9	2.5	0.74	0.30	mg/L	J		1	SM5210B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: MJS Batch Start Date: 05/30/2019

Reporting Units: mg/L Analytical Batch No.: 459963

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	11:25	Ammonia	0.462	0.498	93	90-110		350.1 ICV_00350
15	ICV	11:27	Ammonia	2.46	2.49	99	90-110		350.1 ICV_00350
16	ICB	11:29	Ammonia	0.050				U	
66	CCVL	13:14	Ammonia	0.464	0.500	93	90-110		350.1 cal_00367
67	CCV	13:16	Ammonia	2.49	2.50	100	90-110		350.1 cal_00367
68	CCB	13:18	Ammonia	0.050				U	
85	CCVL	13:52	Ammonia	0.458	0.500	92	90-110		350.1 cal_00367
86	CCV	13:54	Ammonia	2.49	2.50	100	90-110		350.1 cal_00367
87	CCB	13:56	Ammonia	0.050				U	
101	CCVL	14:24	Ammonia	0.463	0.500	93	90-110		350.1 cal_00367
102	CCV	14:26	Ammonia	2.47	2.50	99	90-110		350.1 cal_00367
103	CCB	14:28	Ammonia	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: SVC Batch Start Date: 06/07/2019

Reporting Units: mg/L Analytical Batch No.: 460878

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:13	Nitrogen, Kjeldahl	5.02	5.00	100	90-110		TKN ICV 25_00078
14	ICB	17:15	Nitrogen, Kjeldahl	0.50				U	
31	CCV	17:36	Nitrogen, Kjeldahl	5.43	5.00	109	90-110		TKN 25ppm_00794
32	CCB	17:37	Nitrogen, Kjeldahl	0.50				U	
49	CCV	17:58	Nitrogen, Kjeldahl	5.02	5.00	100	90-110		TKN 25ppm_00794
50	CCB	18:00	Nitrogen, Kjeldahl	0.50				U	
65	CCV	18:18	Nitrogen, Kjeldahl	4.97	5.00	99	90-110		TKN 25ppm_00794
66	CCB	18:20	Nitrogen, Kjeldahl	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/11/2019

Reporting Units: mg/L Analytical Batch No.: 461121

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:08	Chemical Oxygen Demand (COD)	69.1	75.4	92	90-110		COD icv std_00034
2	ICB	09:08	Chemical Oxygen Demand (COD)	20				U	
16	CCV	09:08	Chemical Oxygen Demand (COD)	98.7	100	99	90-110		COD cal std_00048
17	CCB	09:08	Chemical Oxygen Demand (COD)	20				U	
28	CCV	09:08	Chemical Oxygen Demand (COD)	96.3	100	96	90-110		COD cal std_00048
29	CCB	09:08	Chemical Oxygen Demand (COD)	20				U	
34	CCV	09:08	Chemical Oxygen Demand (COD)	96.3	100	96	90-110		COD cal std_00048
35	CCB	09:08	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: KES Batch Start Date: 06/12/2019

Reporting Units: mg/L Analytical Batch No.: 461275

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	10:53	Chemical Oxygen Demand (COD)	69.5	75.4	92	90-110		COD icv std_00034
2	ICB	10:53	Chemical Oxygen Demand (COD)	20				U	
16	CCV	10:53	Chemical Oxygen Demand (COD)	95.6	100	96	90-110		COD cal std_00048
17	CCB	10:53	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: ARM Batch Start Date: 06/06/2019

Reporting Units: mg/L Analytical Batch No.: 460772

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:23	Phenols, Total	0.196	0.200	98	90-110		Phenol ICV 10_00605
14	ICVL	18:53	Phenols, Total	0.110	0.100	110	90-110		Phenol ICV 10_00605
15	ICB	18:56	Phenols, Total	0.020				U	
29	CCV	19:38	Phenols, Total	0.204	0.201	101	90-110		Phenol CAL 10_00730
30	CCVL	19:41	Phenols, Total	0.102	0.101	102	90-110		Phenol CAL 10_00730
31	CCB	19:44	Phenols, Total	0.020				U	
45	CCV	20:26	Phenols, Total	0.217	0.201	108	90-110		Phenol CAL 10_00730
46	CCVL	20:29	Phenols, Total	0.109	0.101	108	90-110		Phenol CAL 10_00730
47	CCB	20:32	Phenols, Total	0.020				U	
61	CCV	21:15	Phenols, Total	0.212	0.201	105	90-110		Phenol CAL 10_00730
62	CCVL	21:18	Phenols, Total	0.102	0.101	101	90-110		Phenol CAL 10_00730
63	CCB	21:21	Phenols, Total	0.020				U	
77	CCV	23:05	Phenols, Total	0.216	0.201	107	90-110		Phenol CAL 10_00730
78	CCVL	23:08	Phenols, Total	0.108	0.101	107	90-110		Phenol CAL 10_00730
79	CCB	23:11	Phenols, Total	0.020				U	
93	CCV	23:54	Phenols, Total	0.214	0.201	106	90-110		Phenol CAL 10_00730
94	CCVL	23:57	Phenols, Total	0.109	0.101	109	90-110		Phenol CAL 10_00730
95	CCB	00:00	Phenols, Total	0.020				U	
104	CCV	00:28	Phenols, Total	0.211	0.201	105	90-110		Phenol CAL 10_00730
105	CCVL	00:31	Phenols, Total	0.108	0.101	108	90-110		Phenol CAL 10_00730
106	CCB	00:34	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458327

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Nitrate Nitrite as N	8.06	8.00	101	90-110		
			Orthophosphate as P	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrate	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrite	3.83	4.00	96	90-110		IC ICV 5_00233
9	ICB	19:27	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458328

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Bromide	4.36	4.00	109	90-110		IC ICV 5_00233
			Chloride	76.8	80.0	96	90-110		IC CL ICV_00016
			Fluoride	4.12	4.00	103	90-110		IC ICV 5_00233
			Sulfate	75.6	80.0	94	90-110		IC SO4 ICV_00017
9	ICB	19:27	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: TLP Batch Start Date: 05/18/2019

Reporting Units: mg/L Analytical Batch No.: 458688

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	19:06	Nitrate Nitrite as N	10.5	10.0	105	90-110		
			Orthophosphate as P	5.92	5.00	118	90-110		IC LCS_01579
			Nitrate	5.40	5.00	108	90-110		IC LCS_01579
			Nitrite	5.09	5.00	102	90-110		IC LCS_01579
2	CCB	19:23	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
17	CCV	00:40	Nitrate Nitrite as N	10.5	10.0	105	90-110		
			Orthophosphate as P	6.04	5.00	121	90-110		IC LCS_01579
			Nitrate	5.38	5.00	108	90-110		IC LCS_01579
			Nitrite	5.09	5.00	102	90-110		IC LCS_01579
18	CCB	00:57	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
28	CCV	03:41	Nitrate Nitrite as N	10.5	10.0	105	90-110		
			Orthophosphate as P	6.19	5.00	124	90-110		IC LCS_01579
			Nitrate	5.37	5.00	107	90-110		IC LCS_01579
			Nitrite	5.11	5.00	102	90-110		IC LCS_01579
29	CCB	03:57	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: TLP Batch Start Date: 05/18/2019

Reporting Units: mg/L Analytical Batch No.: 458689

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	19:06	Bromide	5.31	5.00	106	90-110		IC LCS_01579
			Chloride	101	100	101	90-110		IC LCS_01579
			Sulfate	96.0	100	96	90-110		IC LCS_01579
2	CCB	19:23	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
17	CCV	00:40	Bromide	5.32	5.00	106	90-110		IC LCS_01579
			Chloride	101	100	101	90-110		IC LCS_01579
			Sulfate	96.2	100	96	90-110		IC LCS_01579
18	CCB	00:57	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
28	CCV	03:41	Bromide	5.32	5.00	106	90-110		IC LCS_01579
			Chloride	101	100	101	90-110		IC LCS_01579
			Sulfate	96.2	100	96	90-110		IC LCS_01579
29	CCB	03:57	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: JAP Batch Start Date: 05/20/2019

Reporting Units: mg/L Analytical Batch No.: 458776

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	17:09	Nitrate Nitrite as N	7.94	8.00	99	90-110		
			Orthophosphate as P	4.11	4.00	103	90-110		IC ICV 5_00234
			Nitrate as N	4.12	4.00	103	90-110		IC ICV 5_00234
			Nitrite as N	3.82	4.00	95	90-110		IC ICV 5_00234
9	ICB	17:25	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
24	CCV	22:56	Nitrate Nitrite as N	9.65	10.0	97	90-110		
			Orthophosphate as P	5.02	5.00	100	90-110		IC LCS_01580
			Nitrate as N	4.82	5.00	96	90-110		IC LCS_01580
			Nitrite as N	4.83	5.00	97	90-110		IC LCS_01580
25	CCB	23:12	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
36	CCV	16:35	Nitrate Nitrite as N	10.4	10.0	104	90-110		
			Orthophosphate as P	5.31	5.00	106	90-110		IC LCS_01580
			Nitrate as N	5.18	5.00	104	90-110		IC LCS_01580
			Nitrite as N	5.18	5.00	104	90-110		IC LCS_01580
37	CCB	16:51	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
44	CCV	18:46	Nitrate Nitrite as N	10.4	10.0	104	90-110		
			Orthophosphate as P	5.25	5.00	105	90-110		IC LCS_01580
			Nitrate as N	5.19	5.00	104	90-110		IC LCS_01580
			Nitrite as N	5.19	5.00	104	90-110		IC LCS_01580
45	CCB	19:02	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: JAP Batch Start Date: 05/20/2019

Reporting Units: mg/L Analytical Batch No.: 458777

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	17:09	Bromide	4.19	4.00	105	90-110		IC ICV 5_00234
			Chloride	79.5	80.0	99	90-110		IC CL ICV_00016
			Fluoride	4.01	4.00	100	90-110		IC ICV 5_00234
			Sulfate	79.0	80.0	99	90-110		IC SO4 ICV_00017
9	ICB	17:25	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.205				J	
			Sulfate	2.5				U	
24	CCV	22:56	Bromide	4.95	5.00	99	90-110		IC LCS_01580
			Chloride	98.4	100	98	90-110		IC LCS_01580
			Fluoride	4.87	5.00	97	90-110		IC LCS_01580
			Sulfate	97.2	100	97	90-110		IC LCS_01580
25	CCB	23:12	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.284				J	
			Sulfate	2.5				U	
36	CCV	16:35	Bromide	5.30	5.00	106	90-110		IC LCS_01580
			Chloride	107	100	107	90-110		IC LCS_01580
			Fluoride	5.24	5.00	105	90-110		IC LCS_01580
			Sulfate	107	100	107	90-110		IC LCS_01580
37	CCB	16:51	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.192				J	
			Sulfate	2.5				U	
44	CCV	18:46	Bromide	5.30	5.00	106	90-110		IC LCS_01580
			Chloride	107	100	107	90-110		IC LCS_01580
			Fluoride	5.26	5.00	105	90-110		IC LCS_01580
			Sulfate	107	100	107	90-110		IC LCS_01580
45	CCB	19:02	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.320				J	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/11/2019

Reporting Units: mg/L Analytical Batch No.: 461295

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	17:26	Total Organic Carbon - Quad	20.9	20.0	105	90-110		TOC ICV Std_00037
2	ICB	17:41	Total Organic Carbon - Quad	0.50				U	
27	CCV	00:38	Total Organic Carbon - Quad	26.7	25.0	107	90-110		TOC ICV Std_00037
28	CCB	00:57	Total Organic Carbon - Quad	0.50				U	
39	CCV	04:03	Total Organic Carbon - Quad	27.2	25.0	109	90-110		TOC ICV Std_00037
40	CCB	04:21	Total Organic Carbon - Quad	0.50				U	
51	CCV	07:27	Total Organic Carbon - Quad	26.9	25.0	107	90-110		TOC ICV Std_00037
52	CCB	07:44	Total Organic Carbon - Quad	0.50				U	
63	CCV	11:04	Total Organic Carbon - Quad	27.4	25.0	110	90-110		TOC ICV Std_00037
64	CCB	11:23	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/12/2019

Reporting Units: mg/L Analytical Batch No.: 461430

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	15:21	Total Organic Carbon - Quad	21.2	20.0	106	90-110		TOC ICV Std_00037
2	ICB	15:36	Total Organic Carbon - Quad	0.50				U	
27	CCV	22:43	Total Organic Carbon - Quad	26.6	25.0	106	90-110		TOC ICV Std_00037
28	CCB	23:00	Total Organic Carbon - Quad	0.50				U	
39	CCV	02:21	Total Organic Carbon - Quad	26.8	25.0	107	90-110		TOC ICV Std_00037
40	CCB	02:36	Total Organic Carbon - Quad	0.50				U	
51	CCV	05:47	Total Organic Carbon - Quad	26.5	25.0	106	90-110		TOC ICV Std_00037
52	CCB	06:02	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Analyst: SGB Batch Start Date: 05/24/2019

Reporting Units: mg/L Analytical Batch No.: 459576

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
54	CCV	23:07	Alkalinity	198	200	99	90-110		Alk daily lcs 00821
55	CCB	23:12	Alkalinity	10				U	
68	CCV	00:40	Alkalinity	200	200	100	90-110		Alk daily lcs 00821
69	CCB	00:44	Alkalinity	10				U	
80	CCV	02:04	Alkalinity	201	200	100	90-110		Alk daily lcs 00821
81	CCB	02:09	Alkalinity	10				U	
94	CCV	03:27	Alkalinity	201	200	100	90-110		Alk daily lcs 00821
95	CCB	03:31	Alkalinity	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 459963 Date: 05/30/2019 13:26							
350.1	MB 280-459963/72	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 460878 Date: 06/07/2019 17:17 Prep Batch: 460760 Date: 06/06/2019 19:57							
351.2	MB 280-460760/2-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 461121 Date: 06/11/2019 09:08							
410.4	MB 280-461121/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 461275 Date: 06/12/2019 10:53							
410.4	MB 280-461275/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 458688 Date: 05/18/2019 20:29							
9056A	MB 280-458688/6	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458688/6	Orthophosphate as P	0.20	U Q	mg/L	0.50	1
9056A	MB 280-458688/6	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458688/6	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458689 Date: 05/18/2019 20:29							
9056A	MB 280-458689/6	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458689/6	Chloride	3.0	U	mg/L	3.0	1
9056A	MB 280-458689/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 458776 Date: 05/20/2019 18:31							
9056A	MB 280-458776/13	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458776/13	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-458776/13	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458776/13	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458777 Date: 05/20/2019 18:31							
9056A	MB 280-458777/13	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458777/13	Chloride	3.0	U	mg/L	3.0	1
9056A	MB 280-458777/13	Fluoride	0.126	J	mg/L	1.0	1
9056A	MB 280-458777/13	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 461295 Date: 06/12/2019 02:56							
9060A	MB 280-461295/35	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 461430 Date: 06/13/2019 01:04							
9060A	MB 280-461430/35	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 460772 Date: 06/06/2019 19:05 Prep Batch: 460735 Date: 06/06/2019 15:30							
9066	MB 280-460735/2-A	Phenols, Total	0.020	U	mg/L	0.020	1
Batch ID: 460772 Date: 06/06/2019 21:00 Prep Batch: 460749 Date: 06/06/2019 17:53							
9066	MB 280-460749/2-A	Phenols, Total	0.00830	J	mg/L	0.020	1
Batch ID: 458692 Date: 05/18/2019 20:40							
SM 2120B	MB 280-458692/1	Color	5.0	U	PCU	5.0	1
Batch ID: 459576 Date: 05/24/2019 23:23							
SM 2320B	MB 280-459576/57	Alkalinity	10	U	mg/L	10	1
Batch ID: 459576 Date: 05/25/2019 02:19							
SM 2320B	MB 280-459576/83	Alkalinity	10	U	mg/L	10	1
Batch ID: 460544 Date: 06/05/2019 10:02							
SM 2340C	MB 280-460544/2	Hardness	0.81	U	mg/L	3.0	1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 459268	Date: 05/23/2019 16:24						
SM 2540C	MB 280-459268/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 458674	Date: 05/18/2019 13:59						
SM5210B	MB 280-458674/4	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
UNSEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458674 Date: 05/18/2019 13:59							
SM5210B	USB 280-458674/2	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
SEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458674 Date: 05/18/2019 13:59							
SM5210B	SCB 280-458674/1	Biochemical Oxygen Demand	0.644	J	mg/L	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963 Date: 05/30/2019 14:06											
350.1	280-123981-7	Ammonia	0.050	U	mg/L						
350.1	280-123981-7 MS	Ammonia	0.944		mg/L	1.00	94	90-110			
Batch ID: 460878 Date: 06/07/2019 17:45 Prep Batch: 460760 Date: 06/06/2019 19:57											
351.2	280-123981-2	Nitrogen, Kjeldahl	0.50	U	mg/L						
351.2	280-123981-2 MS	Nitrogen, Kjeldahl	2.86		mg/L	3.00	95	90-110			
Batch ID: 458688 Date: 05/18/2019 22:29											
9056A	280-123981-2	Nitrate Nitrite as N	0.10	U	mg/L						
9056A	280-123981-2 MS	Nitrate Nitrite as N	10.7		mg/L	10.0	107	80-120			
9056A	280-123981-2	Orthophosphate as P	0.20	U	mg/L						Q
9056A	280-123981-2 MS	Orthophosphate as P	4.05		mg/L	5.00	81	80-116			Q
9056A	280-123981-2	Nitrate	0.10	U	mg/L						M J1
9056A	280-123981-2 MS	Nitrate	5.52		mg/L	5.00	110	88-111			
9056A	280-123981-2	Nitrite	0.10	U	mg/L						M
9056A	280-123981-2 MS	Nitrite	5.20		mg/L	5.00	104	87-111			
Batch ID: 458689 Date: 05/18/2019 22:29											
9056A	280-123981-2	Bromide	0.20	U	mg/L						
9056A	280-123981-2 MS	Bromide	5.41		mg/L	5.00	108	91-110			
9056A	280-123981-2	Chloride	4.3		mg/L						
9056A	280-123981-2 MS	Chloride	26.8		mg/L	25.0	90	87-111			
9056A	280-123981-2	Sulfate	14		mg/L						
9056A	280-123981-2 MS	Sulfate	35.7		mg/L	25.0	88	87-112			
Batch ID: 458776 Date: 05/21/2019 14:24											
9056A	280-123981-3	Nitrate Nitrite as N	0.16	J	mg/L						H
9056A	280-123981-3 MS	Nitrate Nitrite as N	10.9		mg/L	10.0	107	80-120			
9056A	280-123981-3	Orthophosphate as P	0.43	J	mg/L						H J1
9056A	280-123981-3 MS	Orthophosphate as P	9.96		mg/L	5.00	191	80-116			J1
9056A	280-123981-3	Nitrate	0.16	J	mg/L						H
9056A	280-123981-3 MS	Nitrate	5.47		mg/L	5.00	106	88-111			
9056A	280-123981-3	Nitrite	0.10	U	mg/L						H
9056A	280-123981-3 MS	Nitrite	5.38		mg/L	5.00	108	87-111			
Batch ID: 458777 Date: 05/21/2019 14:24											
9056A	280-123981-3	Bromide	0.20	U	mg/L						J1
9056A	280-123981-3 MS	Bromide	5.53		mg/L	5.00	111	91-110			J1
9056A	280-123981-3	Chloride	1.5	J	mg/L						
9056A	280-123981-3 MS	Chloride	25.7		mg/L	25.0	97	87-111			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
9056A	280-123981-3	Fluoride	0.086	J	mg/L						
9056A	280-123981-3 MS	Fluoride	5.23		mg/L	5.00	103	88-112			
9056A	280-123981-3	Sulfate	2.0	J	mg/L						
9056A	280-123981-3 MS	Sulfate	26.4		mg/L	25.0	98	87-112			
Batch ID: 458776 Date: 05/21/2019 16:02											
9056A	280-123981-6	Nitrate Nitrite as N	0.16	J	mg/L						H
9056A	280-123981-6 MS	Nitrate Nitrite as N	10.7		mg/L	10.0	106	80-120			
9056A	280-123981-6	Orthophosphate as P	0.58		mg/L						H J1
9056A	280-123981-6 MS	Orthophosphate as P	4.79		mg/L	5.00	84	80-116			
9056A	280-123981-6	Nitrate	0.16	J	mg/L						H
9056A	280-123981-6 MS	Nitrate	5.41		mg/L	5.00	105	88-111			
9056A	280-123981-6	Nitrite	0.10	U	mg/L						H
9056A	280-123981-6 MS	Nitrite	5.33		mg/L	5.00	107	87-111			
Batch ID: 458777 Date: 05/21/2019 16:02											
9056A	280-123981-6	Bromide	0.17	J	mg/L						
9056A	280-123981-6 MS	Bromide	5.48		mg/L	5.00	106	91-110			
9056A	280-123981-6	Chloride	2.2	J	mg/L						
9056A	280-123981-6 MS	Chloride	26.4		mg/L	25.0	97	87-111			
9056A	280-123981-6	Fluoride	0.084	J	mg/L						
9056A	280-123981-6 MS	Fluoride	5.00		mg/L	5.00	98	88-112			
9056A	280-123981-6	Sulfate	2.3	J	mg/L						
9056A	280-123981-6 MS	Sulfate	27.0		mg/L	25.0	99	87-112			
Batch ID: 461430 Date: 06/13/2019 03:15											
9060A	280-123981-8	Total Organic Carbon - Quad	4.9		mg/L						
9060A	280-123981-8 MS	Total Organic Carbon - Quad	30.9		mg/L	25.0	104	88-112			
Batch ID: 460772 Date: 06/06/2019 20:50 Prep Batch: 460735 Date: 06/06/2019 15:30											
9066	280-123981-6	Phenols, Total	0.0099	J	mg/L						
9066	280-123981-6 MS	Phenols, Total	0.206		mg/L	0.201	97	72-118			
Batch ID: 460544 Date: 06/05/2019 10:02											
SM 2340C	280-123981-1	Hardness	470		mg/L						
SM 2340C	280-123981-1 MS	Hardness	875		mg/L	398	100	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963 Date: 05/30/2019 14:08											
350.1	280-123981-7 MSD	Ammonia	1.01		mg/L	1.00	101	90-110	7	10	
Batch ID: 460878 Date: 06/07/2019 17:46			Prep Batch: 460760			Date: 06/06/2019 19:57					
351.2	280-123981-2 MSD	Nitrogen, Kjeldahl	2.88		mg/L	3.00	96	90-110	0	25	
Batch ID: 458688 Date: 05/18/2019 22:45											
9056A	280-123981-2 MSD	Nitrate Nitrite as N	10.9		mg/L	10.0	109	80-120	1	10	
9056A	280-123981-2 MSD	Orthophosphate as P	4.13		mg/L	5.00	83	80-116	2	10	Q
9056A	280-123981-2 MSD	Nitrate	5.61		mg/L	5.00	112	88-111	2	10	J1
9056A	280-123981-2 MSD	Nitrite	5.24		mg/L	5.00	105	87-111	1	10	
Batch ID: 458689 Date: 05/18/2019 22:45											
9056A	280-123981-2 MSD	Bromide	5.50		mg/L	5.00	110	91-110	2	10	
9056A	280-123981-2 MSD	Chloride	27.1		mg/L	25.0	91	87-111	1	10	
9056A	280-123981-2 MSD	Sulfate	36.4		mg/L	25.0	90	87-112	2	10	
Batch ID: 458776 Date: 05/21/2019 14:40											
9056A	280-123981-3 MSD	Nitrate Nitrite as N	11.1		mg/L	10.0	109	80-120	2	10	
9056A	280-123981-3 MSD	Orthophosphate as P	8.90		mg/L	5.00	169	80-116	11	10	J1
9056A	280-123981-3 MSD	Nitrate	5.57		mg/L	5.00	108	88-111	2	10	
9056A	280-123981-3 MSD	Nitrite	5.49		mg/L	5.00	110	87-111	2	10	
Batch ID: 458777 Date: 05/21/2019 14:40											
9056A	280-123981-3 MSD	Bromide	5.66		mg/L	5.00	113	91-110	2	10	J1
9056A	280-123981-3 MSD	Chloride	26.3		mg/L	25.0	99	87-111	2	10	
9056A	280-123981-3 MSD	Fluoride	5.29		mg/L	5.00	104	88-112	1	10	
9056A	280-123981-3 MSD	Sulfate	27.2		mg/L	25.0	101	87-112	3	10	
Batch ID: 458776 Date: 05/21/2019 16:18											
9056A	280-123981-6 MSD	Nitrate Nitrite as N	10.9		mg/L	10.0	108	80-120	2	10	
9056A	280-123981-6 MSD	Orthophosphate as P	4.54		mg/L	5.00	79	80-116	5	10	J1
9056A	280-123981-6 MSD	Nitrate	5.50		mg/L	5.00	107	88-111	2	10	
9056A	280-123981-6 MSD	Nitrite	5.44		mg/L	5.00	109	87-111	2	10	
Batch ID: 458777 Date: 05/21/2019 16:18											
9056A	280-123981-6 MSD	Bromide	5.60		mg/L	5.00	109	91-110	2	10	
9056A	280-123981-6 MSD	Chloride	26.8		mg/L	25.0	98	87-111	2	10	
9056A	280-123981-6 MSD	Fluoride	5.07		mg/L	5.00	100	88-112	2	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
9056A	280-123981-6 MSD	Sulfate	27.5		mg/L	25.0	101	87-112	2	10	
Batch ID: 461430 Date: 06/13/2019 03:32											
9060A	280-123981-8 MSD	Total Organic Carbon - Quad	31.7		mg/L	25.0	107	88-112	2	15	
Batch ID: 460772 Date: 06/06/2019 20:53			Prep Batch: 460735			Date: 06/06/2019 15:30					
9066	280-123981-6 MSD	Phenols, Total	0.207		mg/L	0.201	98	72-118	1	16	
Batch ID: 460544 Date: 06/05/2019 10:02											
SM 2340C	280-123981-1 MSD	Hardness	868		mg/L	398	99	90-110	1	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 458688 Date: 05/18/2019 22:13								
9056A	LF7MW-23_0519	280-123981-2	Nitrate Nitrite as N	0.10	mg/L			U
9056A	LF7MW-23_0519	280-123981-2 DU	Nitrate Nitrite as N	0.10	mg/L	NC	10	U
9056A	LF7MW-23_0519	280-123981-2	Orthophosphate as P	0.20	mg/L			U
9056A	LF7MW-23_0519	280-123981-2 DU	Orthophosphate as P	0.20	mg/L	NC	10	U Q
9056A	LF7MW-23_0519	280-123981-2	Nitrate	0.10	mg/L			U
9056A	LF7MW-23_0519	280-123981-2 DU	Nitrate	0.10	mg/L	NC	10	U M
9056A	LF7MW-23_0519	280-123981-2	Nitrite	0.10	mg/L			U
9056A	LF7MW-23_0519	280-123981-2 DU	Nitrite	0.10	mg/L	NC	10	U M
Batch ID: 458689 Date: 05/18/2019 22:13								
9056A	LF7MW-23_0519	280-123981-2	Bromide	0.20	mg/L			U
9056A	LF7MW-23_0519	280-123981-2 DU	Bromide	0.20	mg/L	NC	10	U
9056A	LF7MW-23_0519	280-123981-2	Chloride	4.3	mg/L			
9056A	LF7MW-23_0519	280-123981-2 DU	Chloride	4.31	mg/L	0.5	10	
9056A	LF7MW-23_0519	280-123981-2	Sulfate	14	mg/L			
9056A	LF7MW-23_0519	280-123981-2 DU	Sulfate	13.8	mg/L	0.09	10	
Batch ID: 458776 Date: 05/20/2019 23:45								
9056A	LF7MW-26_0519	280-123981-3	Nitrate Nitrite as N	0.16	mg/L			J
9056A	LF7MW-26_0519	280-123981-3 DU	Nitrate Nitrite as N	0.182	mg/L	13	10	J
9056A	LF7MW-26_0519	280-123981-3	Orthophosphate as P	0.43	mg/L			J
9056A	LF7MW-26_0519	280-123981-3 DU	Orthophosphate as P	0.429	mg/L	0.05	10	J
9056A	LF7MW-26_0519	280-123981-3	Nitrate	0.16	mg/L			J
9056A	LF7MW-26_0519	280-123981-3 DU	Nitrate	0.182	mg/L	10	10	J
9056A	LF7MW-26_0519	280-123981-3	Nitrite	0.10	mg/L			U
9056A	LF7MW-26_0519	280-123981-3 DU	Nitrite	0.10	mg/L	NC	10	U
Batch ID: 458777 Date: 05/20/2019 23:45								
9056A	LF7MW-26_0519	280-123981-3	Bromide	0.20	mg/L			U
9056A	LF7MW-26_0519	280-123981-3 DU	Bromide	0.20	mg/L	NC	10	U
9056A	LF7MW-26_0519	280-123981-3	Chloride	1.5	mg/L			J
9056A	LF7MW-26_0519	280-123981-3 DU	Chloride	1.44	mg/L	1	10	J
9056A	LF7MW-26_0519	280-123981-3	Fluoride	0.086	mg/L			J
9056A	LF7MW-26_0519	280-123981-3 DU	Fluoride	0.0927	mg/L	8	10	J
9056A	LF7MW-26_0519	280-123981-3	Sulfate	2.0	mg/L			J
9056A	LF7MW-26_0519	280-123981-3 DU	Sulfate	1.97	mg/L	0.3	10	J
Batch ID: 458776 Date: 05/21/2019 15:45								
9056A	LF7MW-28_0519	280-123981-6	Nitrate Nitrite as N	0.16	mg/L			J
9056A	LF7MW-28_0519	280-123981-6 DU	Nitrate Nitrite as N	0.154	mg/L	4	10	J
9056A	LF7MW-28_0519	280-123981-6	Orthophosphate as P	0.58	mg/L			
9056A	LF7MW-28_0519	280-123981-6 DU	Orthophosphate as P	0.569	mg/L	1	10	
9056A	LF7MW-28_0519	280-123981-6	Nitrate	0.16	mg/L			J
9056A	LF7MW-28_0519	280-123981-6 DU	Nitrate	0.154	mg/L	2	10	J
9056A	LF7MW-28_0519	280-123981-6	Nitrite	0.10	mg/L			U
9056A	LF7MW-28_0519	280-123981-6 DU	Nitrite	0.10	mg/L	NC	10	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 458777 Date: 05/21/2019 15:45								
9056A	LF7MW-28_0519	280-123981-6	Bromide	0.17	mg/L			J
9056A	LF7MW-28_0519	280-123981-6 DU	Bromide	0.20	mg/L	NC	10	U
9056A	LF7MW-28_0519	280-123981-6	Chloride	2.2	mg/L			J
9056A	LF7MW-28_0519	280-123981-6 DU	Chloride	2.23	mg/L	0.8	10	J
9056A	LF7MW-28_0519	280-123981-6	Fluoride	0.084	mg/L			J
9056A	LF7MW-28_0519	280-123981-6 DU	Fluoride	0.0851	mg/L	0.8	10	J
9056A	LF7MW-28_0519	280-123981-6	Sulfate	2.3	mg/L			J
9056A	LF7MW-28_0519	280-123981-6 DU	Sulfate	2.25	mg/L	2	10	J
Batch ID: 458692 Date: 05/18/2019 20:40								
SM 2120B	LF7MW-22_0519	280-123981-1	Color	75	PCU			
SM 2120B	LF7MW-22_0519	280-123981-1 DU	Color	75.0	PCU	0	20	D
Batch ID: 459576 Date: 05/25/2019 02:33								
SM 2320B	LF7MW-26_0519-a	280-123981-4	Alkalinity	330	mg/L			
SM 2320B	LF7MW-26_0519-a	280-123981-4 DU	Alkalinity	337	mg/L	1	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963	Date: 05/30/2019 13:22										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-459963/70	Ammonia	2.47		mg/L	2.50	99	90-110	0	10	
Batch ID: 460878	Date: 06/07/2019 17:16	Prep Batch: 460760	Date: 06/06/2019 19:57								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460760/1-A	Nitrogen, Kjeldahl	5.70		mg/L	6.00	95	90-110			
Batch ID: 461121	Date: 06/11/2019 09:08										
						LCS Source: COD cal std_00048					
410.4	LCS 280-461121/3	Chemical Oxygen Demand (COD)	91.6		mg/L	100	92	90-110	4	11	
Batch ID: 461275	Date: 06/12/2019 10:53										
						LCS Source: COD cal std_00048					
410.4	LCS 280-461275/3	Chemical Oxygen Demand (COD)	95.3		mg/L	100	95	90-110	1	11	
Batch ID: 458688	Date: 05/18/2019 19:56										
						LCS Source:					
9056A	LCS 280-458688/4	Nitrate Nitrite as N	10.5		mg/L	10.0	105	80-120	0	10	
						LCS Source: IC LCS_01579					
9056A	LCS 280-458688/4	Orthophosphate as P	5.95		mg/L	5.00	119	80-116	0	10	M Q
9056A	LCS 280-458688/4	Nitrate	5.40		mg/L	5.00	108	88-111	0	10	M
9056A	LCS 280-458688/4	Nitrite	5.10		mg/L	5.00	102	87-111	0	10	M
Batch ID: 458689	Date: 05/18/2019 19:56										
						LCS Source: IC LCS_01579					
9056A	LCS 280-458689/4	Bromide	5.32		mg/L	5.00	106	91-110	0	10	M
9056A	LCS 280-458689/4	Chloride	101		mg/L	100	101	87-111	0	10	
9056A	LCS 280-458689/4	Sulfate	96.2		mg/L	100	96	87-112	0	10	M
Batch ID: 458776	Date: 05/20/2019 17:58										
						LCS Source:					
9056A	LCS 280-458776/11	Nitrate Nitrite as N	9.64		mg/L	10.0	96	80-120	0	10	
						LCS Source: IC LCS_01580					
9056A	LCS 280-458776/11	Orthophosphate as P	4.88		mg/L	5.00	98	80-116	0	10	
9056A	LCS 280-458776/11	Nitrate	4.80		mg/L	5.00	96	88-111	0	10	
9056A	LCS 280-458776/11	Nitrite	4.84		mg/L	5.00	97	87-111	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458777	Date: 05/20/2019 17:58										
						LCS Source: IC LCS_01580					
9056A	LCS 280-458777/11	Bromide	4.94		mg/L	5.00	99	91-110	0	10	
9056A	LCS 280-458777/11	Chloride	97.9		mg/L	100	98	87-111	0	10	
9056A	LCS 280-458777/11	Fluoride	4.86		mg/L	5.00	97	88-112	1	10	
9056A	LCS 280-458777/11	Sulfate	96.8		mg/L	100	97	87-112	0	10	
Batch ID: 461295	Date: 06/12/2019 02:42										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-461295/34	Total Organic Carbon - Quad	25.4		mg/L	25.0	102	88-112			
Batch ID: 461430	Date: 06/13/2019 00:49										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-461430/34	Total Organic Carbon - Quad	26.1		mg/L	25.0	104	88-112			
Batch ID: 460772	Date: 06/06/2019 19:02	Prep Batch: 460735	Date: 06/06/2019 15:30								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460735/1-A	Phenols, Total	0.201		mg/L	0.201	100	90-110			
Batch ID: 460772	Date: 06/06/2019 20:57	Prep Batch: 460749	Date: 06/06/2019 17:53								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460749/1-A	Phenols, Total	0.208		mg/L	0.201	103	90-110			
Batch ID: 459576	Date: 05/24/2019 23:18										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459576/56	Alkalinity	202		mg/L	200	101	89-109			
Batch ID: 459576	Date: 05/25/2019 02:15										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459576/82	Alkalinity	200		mg/L	200	100	89-109			
Batch ID: 460544	Date: 06/05/2019 10:02										
						LCS Source: Hard lcs std_00052					
SM 2340C	LCS 280-460544/1	Hardness	397		mg/L	398	100	90-110			
Batch ID: 459268	Date: 05/23/2019 16:24										
						LCS Source: TDS LCS_00537_00055					
SM 2540C	LCS 280-459268/2	Total Dissolved Solids (TDS)	503		mg/L	500	101	93-110			
Batch ID: 458674	Date: 05/18/2019 13:59										
						LCS Source: BOD Std_00001_00046					
SM5210B	LCS 280-458674/3	Biochemical Oxygen Demand	205		mg/L	198	104	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963	Date: 05/30/2019 13:24										
						LCSD Source: 350.1 cal_00367					
350.1	LCSD 280-459963/71	Ammonia	2.47		mg/L	2.50	99	90-110	0	10	
Batch ID: 461121	Date: 06/11/2019 09:08										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-461121/4	Chemical Oxygen Demand (COD)	95.0		mg/L	100	95	90-110	4	11	
Batch ID: 461275	Date: 06/12/2019 10:53										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-461275/4	Chemical Oxygen Demand (COD)	93.9		mg/L	100	94	90-110	1	11	
Batch ID: 458688	Date: 05/18/2019 20:12										
						LCSD Source:					
9056A	LCSD 280-458688/5	Nitrate Nitrite as N	10.5		mg/L	10.0	105	80-120	0	10	
						LCSD Source: IC LCS_01579					
9056A	LCSD 280-458688/5	Orthophosphate as P	5.95		mg/L	5.00	119	80-116	0	10	M Q
9056A	LCSD 280-458688/5	Nitrate	5.39		mg/L	5.00	108	88-111	0	10	M
9056A	LCSD 280-458688/5	Nitrite	5.10		mg/L	5.00	102	87-111	0	10	M
Batch ID: 458689	Date: 05/18/2019 20:12										
						LCSD Source: IC LCS_01579					
9056A	LCSD 280-458689/5	Bromide	5.33		mg/L	5.00	107	91-110	0	10	M
9056A	LCSD 280-458689/5	Chloride	101		mg/L	100	101	87-111	0	10	
9056A	LCSD 280-458689/5	Sulfate	96.3		mg/L	100	96	87-112	0	10	M
Batch ID: 458776	Date: 05/20/2019 18:15										
						LCSD Source:					
9056A	LCSD 280-458776/12	Nitrate Nitrite as N	9.62		mg/L	10.0	96	80-120	0	10	
						LCSD Source: IC LCS_01580					
9056A	LCSD 280-458776/12	Orthophosphate as P	4.86		mg/L	5.00	97	80-116	0	10	
9056A	LCSD 280-458776/12	Nitrate	4.79		mg/L	5.00	96	88-111	0	10	
9056A	LCSD 280-458776/12	Nitrite	4.83		mg/L	5.00	97	87-111	0	10	
Batch ID: 458777	Date: 05/20/2019 18:15										
						LCSD Source: IC LCS_01580					
9056A	LCSD 280-458777/12	Bromide	4.92		mg/L	5.00	98	91-110	0	10	
9056A	LCSD 280-458777/12	Chloride	97.6		mg/L	100	98	87-111	0	10	
9056A	LCSD 280-458777/12	Fluoride	4.80		mg/L	5.00	96	88-112	1	10	
9056A	LCSD 280-458777/12	Sulfate	96.6		mg/L	100	97	87-112	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458688	Date: 05/18/2019 19:39										
						LCS Source:					
9056A	MRL 280-458688/3	Nitrate Nitrite as N	0.455	J	mg/L	0.400	114	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458688/3	Orthophosphate as P	0.242	J	mg/L	0.200	121	50-150			M
9056A	MRL 280-458688/3	Nitrate	0.234	J	mg/L	0.200	117	50-150			M
9056A	MRL 280-458688/3	Nitrite	0.221	J	mg/L	0.200	111	50-150			M
Batch ID: 458689	Date: 05/18/2019 19:39										
						LCS Source: IC CAL cl/so4_00257					
9056A	MRL 280-458689/3	Chloride	2.32	J	mg/L	2.50	93	50-150			
9056A	MRL 280-458689/3	Sulfate	2.33	J	mg/L	2.50	93	50-150			M
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458689/3	Bromide	0.214	J	mg/L	0.200	107	50-150			M
Batch ID: 458776	Date: 05/20/2019 17:42										
						LCS Source:					
9056A	MRL 280-458776/10	Nitrate Nitrite as N	0.443	J	mg/L	0.400	111	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458776/10	Orthophosphate as P	0.20	U	mg/L	0.200	84	50-150			
9056A	MRL 280-458776/10	Nitrate	0.225	J	mg/L	0.200	112	50-150			
9056A	MRL 280-458776/10	Nitrite	0.218	J	mg/L	0.200	109	50-150			
Batch ID: 458777	Date: 05/20/2019 17:42										
						LCS Source: IC CAL cl/so4_00257					
9056A	MRL 280-458777/10	Chloride	2.32	J	mg/L	2.50	93	50-150			
9056A	MRL 280-458777/10	Sulfate	2.39	J	mg/L	2.50	96	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458777/10	Bromide	0.206	J	mg/L	0.200	103	50-150			
9056A	MRL 280-458777/10	Fluoride	0.215	J	mg/L	0.200	108	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 DL Date: 02/03/2019 00:00

Prep Method: Distill/Phenol

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (PCU)	
Color		5	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B XRL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (PCU)	
Color		5	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Hardness		3	0.3

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness		3	0.3

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.06
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.0597
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A DL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A XMDL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		10	3.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B DL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Biochemical Oxygen Demand		2	0.236

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123981-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B XMDL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Biochemical Oxygen Demand		2	0.236

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460735/1-A	06/06/2019 15:30	460735		50	50
MB 280-460735/2-A	06/06/2019 15:30	460735		50	50
280-123981-1	06/06/2019 15:30	460735		50	50
280-123981-2	06/06/2019 15:30	460735		50	50
280-123981-3	06/06/2019 15:30	460735		50	50
280-123981-4	06/06/2019 15:30	460735		50	50
280-123981-5	06/06/2019 15:30	460735		50	50
280-123981-6	06/06/2019 15:30	460735		50	50
280-123981-6 MS	06/06/2019 15:30	460735		50	50
280-123981-6 MSD	06/06/2019 15:30	460735		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460749/1-A	06/06/2019 17:53	460749		50	50
MB 280-460749/2-A	06/06/2019 17:53	460749		50	50
280-123981-7	06/06/2019 17:53	460749		50	50
280-123981-8	06/06/2019 17:53	460749		50	50
280-123981-9	06/06/2019 17:53	460749		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460760/1-A	06/06/2019 19:57	460760		25	25
MB 280-460760/2-A	06/06/2019 19:57	460760		25	25
280-123981-1	06/06/2019 19:57	460760		25	25
280-123981-3	06/06/2019 19:57	460760		25	25
280-123981-2	06/06/2019 19:57	460760		25	25
280-123981-2 MS	06/06/2019 19:57	460760		25	25
280-123981-2 MSD	06/06/2019 19:57	460760		25	25
280-123981-4	06/06/2019 19:57	460760		25	25
280-123981-5	06/06/2019 19:57	460760		25	25
280-123981-6	06/06/2019 19:57	460760		25	25
280-123981-7	06/06/2019 19:57	460760		25	25
280-123981-8	06/06/2019 19:57	460760		25	25
280-123981-9	06/06/2019 19:57	460760		25	25

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:03																									
IC 280-459963/4			11:05	X																								
IC 280-459963/5			11:07	X																								
IC 280-459963/6			11:09	X																								
IC 280-459963/7			11:11	X																								
IC 280-459963/8			11:13	X																								
IC 280-459963/9			11:15	X																								
IC 280-459963/10			11:17	X																								
IC 280-459963/11			11:19	X																								
ZZZZZZ			11:21																									
ZZZZZZ			11:23																									
ICVL 280-459963/14	1		11:25	X																								
ICV 280-459963/15	1		11:27	X																								
ICB 280-459963/16	1		11:29	X																								
ZZZZZZ			11:31																									
ZZZZZZ			11:33																									
ZZZZZZ			11:35																									
ZZZZZZ			11:37																									
ZZZZZZ			11:39																									
ZZZZZZ			11:41																									
ZZZZZZ			11:43																									
ZZZZZZ			11:50																									
ZZZZZZ			11:52																									
ZZZZZZ			11:54																									
ZZZZZZ			11:56																									
ZZZZZZ			11:58																									
ZZZZZZ			12:00																									
ZZZZZZ			12:02																									
ZZZZZZ			12:04																									
ZZZZZZ			12:06																									
ZZZZZZ			12:08																									
ZZZZZZ			12:10																									
ZZZZZZ			12:12																									
ZZZZZZ			12:14																									
ZZZZZZ			12:16																									
RINSE 280-459963/38			12:18																									
ZZZZZZ			12:20																									
CCVL 280-459963/40			12:22																									
CCV 280-459963/41			12:24																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
CCB 280-459963/42			12:26																									
ZZZZZZ			12:28																									
ZZZZZZ			12:30																									
ZZZZZZ			12:32																									
ZZZZZZ			12:34																									
ZZZZZZ			12:36																									
ZZZZZZ			12:38																									
ZZZZZZ			12:40																									
ZZZZZZ			12:42																									
ZZZZZZ			12:44																									
ZZZZZZ			12:46																									
ZZZZZZ			12:48																									
RINSE 280-459963/54			12:50																									
ZZZZZZ			12:52																									
CCVL 280-459963/56			12:54																									
CCV 280-459963/57			12:56																									
CCB 280-459963/58			12:58																									
ZZZZZZ			13:00																									
ZZZZZZ			13:02																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									
ZZZZZZ			13:08																									
RINSE 280-459963/64			13:10																									
ZZZZZZ			13:12																									
CCVL 280-459963/66	1		13:14	X																								
CCV 280-459963/67	1		13:16	X																								
CCB 280-459963/68	1		13:18	X																								
ZZZZZZ			13:20																									
LCS 280-459963/70	1	T	13:22	X																								
LCSD 280-459963/71	1	T	13:24	X																								
MB 280-459963/72	1	T	13:26	X																								
ZZZZZZ			13:28																									
ZZZZZZ			13:30																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
280-123981-1	1	T	13:40	X																								
280-123981-2	1	T	13:42	X																								
280-123981-3	1	T	13:44	X																								
280-123981-4	1	T	13:46	X																								

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
RINSE 280-459963/83			13:48																									
ZZZZZZ			13:50																									
CCVL 280-459963/85	1		13:52	X																								
CCV 280-459963/86	1		13:54	X																								
CCB 280-459963/87	1		13:56	X																								
ZZZZZZ			13:58																									
280-123981-5	1	T	14:00	X																								
280-123981-6	1	T	14:02	X																								
280-123981-7	1	T	14:04	X																								
280-123981-7 MS	1	T	14:06	X																								
280-123981-7 MSD	1	T	14:08	X																								
280-123981-8	1	T	14:10	X																								
280-123981-9	1	T	14:12	X																								
ZZZZZZ			14:14																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
RINSE 280-459963/99			14:20																									
ZZZZZZ			14:22																									
CCVL 280-459963/101	1		14:24	X																								
CCV 280-459963/102	1		14:26	X																								
CCB 280-459963/103	1		14:28	X																								
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
RINSE 280-459963/109			14:40																									
ZZZZZZ			14:42																									
CCVL 280-459963/111			14:44																									
CCV 280-459963/112			14:46																									
CCB 280-459963/113			14:48																									
ZZZZZZ			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
RINSE 280-459963/123			15:08																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			15:10																									
CCVL 280-459963/125			15:12																									
CCV 280-459963/126			15:14																									
CCB 280-459963/127			15:16																									
ZZZZZZ			15:18																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			16:59																									
ZZZZZZ			17:00																									
ZZZZZZ			17:01																									
ZZZZZZ			17:02																									
IC 280-460066/36-A			17:03	X																								
IC 280-460066/37-A			17:05	X																								
IC 280-460066/38-A			17:06	X																								
IC 280-460066/39-A			17:07	X																								
IC 280-460066/40-A			17:08	X																								
IC 280-460066/41-A			17:10	X																								
ZZZZZZ			17:11																									
ZZZZZZ			17:12																									
ICV 280-460066/42-A	1		17:13	X																								
ICB 280-460066/43-A	1		17:15	X																								
LCS 280-460760/1-A	1	T	17:16	X																								
MB 280-460760/2-A	1	T	17:17	X																								
ZZZZZZ			17:18																									
ZZZZZZ			17:20																									
ZZZZZZ			17:21																									
ZZZZZZ			17:22																									
ZZZZZZ			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:26																									
ZZZZZZ			17:27																									
ZZZZZZ			17:28																									
ZZZZZZ			17:30																									
ZZZZZZ			17:31																									
ZZZZZZ			17:32																									
ZZZZZZ			17:33																									
ZZZZZZ			17:35																									
CCV 280-460066/44-A	1		17:36	X																								
CCB 280-460066/45-A	1		17:37	X																								
280-123981-1	1	T	17:38	X																								
280-123981-3	1	T	17:40	X																								
ZZZZZZ			17:41																									
ZZZZZZ			17:42																									
280-123981-2	1	T	17:43	X																								
280-123981-2 MS	1	T	17:45	X																								
280-123981-2 MSD	1	T	17:46	X																								
ZZZZZZ			17:47																									
280-123981-4	1	T	17:48	X																								

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
280-123981-5	1	T	17:50	X																								
280-123981-6	1	T	17:51	X																								
280-123981-7	1	T	17:52	X																								
280-123981-8	1	T	17:53	X																								
ZZZZZZ			17:55																									
ZZZZZZ			17:56																									
ZZZZZZ			17:57																									
CCV 280-460066/44-A	1		17:58	X																								
CCB 280-460066/45-A	1		18:00	X																								
280-123981-9	1	T	18:01	X																								
ZZZZZZ			18:02																									
ZZZZZZ			18:03																									
ZZZZZZ			18:05																									
ZZZZZZ			18:06																									
ZZZZZZ			18:07																									
ZZZZZZ			18:08																									
ZZZZZZ			18:10																									
ZZZZZZ			18:11																									
ZZZZZZ			18:12																									
ZZZZZZ			18:13																									
ZZZZZZ			18:15																									
ZZZZZZ			18:16																									
ZZZZZZ			18:17																									
CCV 280-460066/44-A	1		18:18	X																								
CCB 280-460066/45-A	1		18:20	X																								
ZZZZZZ			18:21																									
ZZZZZZ			18:22																									
ZZZZZZ			18:23																									
ZZZZZZ			18:25																									
ZZZZZZ			18:26																									
ZZZZZZ			18:27																									
ZZZZZZ			18:28																									
ZZZZZZ			18:30																									
ZZZZZZ			18:31																									
ZZZZZZ			18:32																									
ZZZZZZ			18:33																									
ZZZZZZ			18:35																									
ZZZZZZ			18:36																									
CCV 280-460066/44-A			18:37																									
CCB 280-460066/45-A			18:38																									
ZZZZZZ			18:40																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			18:41																									
ZZZZZZ			18:42																									
ZZZZZZ			18:43																									
ZZZZZZ			18:45																									
ZZZZZZ			18:46																									
ZZZZZZ			18:47																									
ZZZZZZ			18:48																									
ZZZZZZ			18:50																									
ZZZZZZ			18:51																									
ZZZZZZ			18:52																									
ZZZZZZ			18:53																									
ZZZZZZ			18:55																									
ZZZZZZ			18:56																									
ZZZZZZ			18:57																									
ZZZZZZ			18:58																									
CCV 280-460066/44-A			19:00																									
CCB 280-460066/45-A			19:01																									
ZZZZZZ			19:02																									
ZZZZZZ			19:03																									
CCV 280-460066/44-A			19:05																									
CCB 280-460066/45-A			19:06																									
ZZZZZZ			19:07																									
ZZZZZZ			19:08																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/11/2019 09:08 End Date: 06/11/2019 09:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-461121/1	1		09:08	X																								
ICB 280-461121/2	1		09:08	X																								
LCS 280-461121/3	1	T	09:08	X																								
LCSD 280-461121/4	1	T	09:08	X																								
MB 280-461121/5	1	T	09:08	X																								
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
CCV 280-461121/16	1		09:08	X																								
CCB 280-461121/17	1		09:08	X																								
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
ZZZZZZ			09:08																									
280-123981-2	1	T	09:08	X																								
280-123981-3	1	T	09:08	X																								
CCV 280-461121/28	1		09:08	X																								
CCB 280-461121/29	1		09:08	X																								
280-123981-4	1	T	09:08	X																								
280-123981-5	1	T	09:08	X																								
280-123981-6	1	T	09:08	X																								
280-123981-7	1	T	09:08	X																								
CCV 280-461121/34	1		09:08	X																								
CCB 280-461121/35	1		09:08	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/12/2019 10:53 End Date: 06/12/2019 10:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-461275/1	1		10:53	X																								
ICB 280-461275/2	1		10:53	X																								
LCS 280-461275/3	1	T	10:53	X																								
LCSD 280-461275/4	1	T	10:53	X																								
MB 280-461275/5	1	T	10:53	X																								
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
280-123981-1	1	T	10:53	X																								
280-123981-8	1	T	10:53	X																								
280-123981-9	1	T	10:53	X																								
ZZZZZZ			10:53																									
CCV 280-461275/16	1		10:53	X																								
CCB 280-461275/17	1		10:53	X																								
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
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ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
CCV 280-461275/28			10:53																									
CCB 280-461275/29			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
ZZZZZZ			10:53																									
CCV 280-461275/34			10:53																									
CCB 280-461275/35			10:53																									

Prep Types:
T = Total/NA

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			16:47	
ZZZZZZ			16:50	
ZZZZZZ			16:53	
ZZZZZZ			16:56	
IC 280-460772/5			16:59	X
IC 280-460772/6			17:02	X
IC 280-460772/7			17:05	X
IC 280-460772/8			17:08	X
IC 280-460772/9			17:11	X
IC 280-460772/10			17:14	X
ZZZZZZ			17:17	
ZZZZZZ			17:20	
ICV 280-460772/13	1		17:23	X
ICVL 280-460772/14	1		18:53	X
ICB 280-460772/15	1		18:56	X
ZZZZZZ			18:59	
LCS 280-460735/1-A	1	T	19:02	X
MB 280-460735/2-A	1	T	19:05	X
ZZZZZZ			19:08	
ZZZZZZ			19:11	
ZZZZZZ			19:14	
ZZZZZZ			19:17	
ZZZZZZ			19:20	
ZZZZZZ			19:23	
ZZZZZZ			19:26	
ZZZZZZ			19:29	
ZZZZZZ			19:32	
ZZZZZZ			19:35	
CCV 280-460772/29	1		19:38	X
CCVL 280-460772/30	1		19:41	X
CCB 280-460772/31	1		19:44	X
ZZZZZZ			19:47	
ZZZZZZ			19:50	
ZZZZZZ			19:53	
ZZZZZZ			19:56	
ZZZZZZ			19:59	
ZZZZZZ			20:02	
ZZZZZZ			20:05	
ZZZZZZ			20:08	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			20:11																									
280-123981-1	1	T	20:14	X																								
280-123981-2	1	T	20:17	X																								
ZZZZZZ			20:20																									
ZZZZZZ			20:23																									
CCV 280-460772/45	1		20:26	X																								
CCVL 280-460772/46	1		20:29	X																								
CCB 280-460772/47	1		20:32	X																								
ZZZZZZ			20:35																									
280-123981-3	1	T	20:38	X																								
280-123981-4	1	T	20:41	X																								
280-123981-5	1	T	20:44	X																								
280-123981-6	1	T	20:47	X																								
280-123981-6 MS	1	T	20:50	X																								
280-123981-6 MSD	1	T	20:53	X																								
LCS 280-460749/1-A	1	T	20:57	X																								
MB 280-460749/2-A	1	T	21:00	X																								
280-123981-7	1	T	21:03	X																								
280-123981-8	1	T	21:06	X																								
ZZZZZZ			21:09																									
ZZZZZZ			21:12																									
CCV 280-460772/61	1		21:15	X																								
CCVL 280-460772/62	1		21:18	X																								
CCB 280-460772/63	1		21:21	X																								
ZZZZZZ			21:24																									
280-123981-9	1	T	21:27	X																								
ZZZZZZ			21:30																									
ZZZZZZ			21:33																									
ZZZZZZ			21:36																									
ZZZZZZ			21:39																									
ZZZZZZ			21:42																									
ZZZZZZ			21:45																									
ZZZZZZ			21:48																									
ZZZZZZ			22:53																									
ZZZZZZ			22:56																									
ZZZZZZ			22:59																									
ZZZZZZ			23:02																									
CCV 280-460772/77	1		23:05	X																								
CCVL 280-460772/78	1		23:08	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																									
				PhenT																									
CCB 280-460772/79	1		23:11	X																									
ZZZZZZ			23:14																										
ZZZZZZ			23:17																										
ZZZZZZ			23:20																										
ZZZZZZ			23:23																										
ZZZZZZ			23:26																										
ZZZZZZ			23:29																										
ZZZZZZ			23:32																										
ZZZZZZ			23:35																										
ZZZZZZ			23:38																										
ZZZZZZ			23:41																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ZZZZZZ			23:51																										
CCV 280-460772/93	1		23:54	X																									
CCVL 280-460772/94	1		23:57	X																									
CCB 280-460772/95	1		00:00	X																									
ZZZZZZ			00:03																										
ZZZZZZ			00:06																										
ZZZZZZ			00:09																										
ZZZZZZ			00:13																										
ZZZZZZ			00:16																										
ZZZZZZ			00:19																										
ZZZZZZ			00:22																										
ZZZZZZ			00:25																										
CCV 280-460772/104	1		00:28	X																									
CCVL 280-460772/105	1		00:31	X																									
CCB 280-460772/106	1		00:34	X																									
ZZZZZZ			00:37																										

Prep Types:
T = Total/NA

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2120B

Start Date: 05/18/2019 20:40 End Date: 05/18/2019 21:10

Lab Sample Id	D/F	Type	Time	Analytes																								
				Color																								
MB 280-458692/1	1	T	20:40	X																								
280-123981-1	5	T	20:40	X																								
280-123981-1 DU	5	T	20:40	X																								
280-123981-2	1	T	20:40	X																								
280-123981-3	1	T	20:40	X																								
280-123981-4	1	T	20:40	X																								
280-123981-5	1	T	20:40	X																								
280-123981-6	1	T	20:40	X																								
280-123981-7	1	T	20:40	X																								
280-123981-8	1	T	20:40	X																								
280-123981-9	1	T	20:40	X																								
ZZZZZZ			20:40																									
ZZZZZZ			20:40																									
ZZZZZZ			20:40																									
ZZZZZZ			21:10																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340C

Start Date: 06/05/2019 10:02 End Date: 06/05/2019 10:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
LCS 280-460544/1	1	T	10:02	X																								
MB 280-460544/2	1	T	10:02	X																								
280-123981-1	1	T	10:02	X																								
280-123981-1 MS	1	T	10:02	X																								
280-123981-1 MSD	1	T	10:02	X																								
280-123981-2	1	T	10:02	X																								
280-123981-3	1	T	10:02	X																								
280-123981-4	1	T	10:02	X																								
280-123981-5	1	T	10:02	X																								
280-123981-6	1	T	10:02	X																								
280-123981-7	1	T	10:02	X																								
280-123981-8	1	T	10:02	X																								
280-123981-9	1	T	10:02	X																								
ZZZZZZ			10:02																									
ZZZZZZ			10:02																									
ZZZZZZ			10:02																									
ZZZZZZ			10:02																									
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ZZZZZZ			10:02																									
ZZZZZZ			10:02																									
ZZZZZZ			10:02																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
RTC 280-458327/1			17:16																											
STD 280-458327/2 IC	1		17:32	X	X	X	X																							
STD 280-458327/3 IC	1		17:49	X	X	X	X																							
STD 280-458327/4 IC	1		18:05	X	X	X	X																							
STD 280-458327/5 IC	1		18:21	X	X	X	X																							
STD 280-458327/6 IC	1		18:38	X	X	X	X																							
STD 280-458327/7 IC	1		18:54	X	X	X	X																							
ICV 280-458327/8	1		19:11	X	X	X	X																							
ICB 280-458327/9	1		19:27	X	X	X	X																							
ZZZZZZ			19:43																											
ZZZZZZ			20:00																											
ZZZZZZ			20:16																											
ZZZZZZ			20:33																											
ZZZZZZ			20:49																											
ZZZZZZ			21:06																											
ZZZZZZ			21:22																											
ZZZZZZ			21:38																											
ZZZZZZ			21:55																											
ZZZZZZ			22:11																											
ZZZZZZ			22:28																											
CCV 280-458327/21			22:44																											
CCB 280-458327/22			23:01																											
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:50																											
ZZZZZZ			00:06																											
ZZZZZZ			00:23																											
ZZZZZZ			00:39																											
ZZZZZZ			00:55																											
ZZZZZZ			01:12																											
ZZZZZZ			01:28																											
ZZZZZZ			01:45																											
CCV 280-458327/33			02:01																											

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCB 280-458327/34			02:17																											
ZZZZZZ			02:34																											
ZZZZZZ			02:50																											
ZZZZZZ			03:07																											
ZZZZZZ			03:23																											
ZZZZZZ			03:40																											
ZZZZZZ			03:56																											
ZZZZZZ			04:12																											
ZZZZZZ			04:29																											
ZZZZZZ			04:45																											
ZZZZZZ			05:02																											
CCV 280-458327/45			05:18																											
CCB 280-458327/46			05:34																											
ZZZZZZ			05:51																											
ZZZZZZ			06:07																											
ZZZZZZ			06:24																											
ZZZZZZ			08:25																											
ZZZZZZ			08:41																											
ZZZZZZ			08:57																											
ZZZZZZ			09:14																											
ZZZZZZ			09:30																											
ZZZZZZ			09:47																											
ZZZZZZ			10:03																											
CCV 280-458327/57			10:19																											
CCB 280-458327/58			10:36																											
ZZZZZZ			10:52																											
ZZZZZZ			11:09																											
ZZZZZZ			11:25																											
ZZZZZZ			11:42																											
ZZZZZZ			11:58																											
ZZZZZZ			12:14																											
ZZZZZZ			12:31																											
ZZZZZZ			12:47																											

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCV 280-458327/67			13:04																											
CCB 280-458327/68			13:20																											

Prep Types:
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-458328/1			17:16																										
STD 280-458328/2 IC	1		17:32	X	X	X	X																						
STD 280-458328/3 IC	1		17:49	X	X	X	X																						
STD 280-458328/4 IC	1		18:05	X	X	X	X																						
STD 280-458328/5 IC	1		18:21	X	X	X	X																						
STD 280-458328/6 IC	1		18:38	X	X	X	X																						
STD 280-458328/7 IC	1		18:54	X	X	X	X																						
ICV 280-458328/8	1		19:11	X	X	X	X																						
ICB 280-458328/9	1		19:27	X	X	X	X																						
ZZZZZZ			19:43																										
ZZZZZZ			20:00																										
ZZZZZZ			20:16																										
ZZZZZZ			20:33																										
ZZZZZZ			20:49																										
ZZZZZZ			21:06																										
ZZZZZZ			21:22																										
ZZZZZZ			21:38																										
ZZZZZZ			21:55																										
ZZZZZZ			22:11																										
ZZZZZZ			22:28																										
CCV 280-458328/21			22:44																										
CCB 280-458328/22			23:01																										
ZZZZZZ			23:17																										
ZZZZZZ			23:33																										
ZZZZZZ			23:50																										
ZZZZZZ			00:06																										
ZZZZZZ			00:23																										
ZZZZZZ			00:39																										
ZZZZZZ			00:55																										
ZZZZZZ			01:12																										
ZZZZZZ			01:28																										
ZZZZZZ			01:45																										
CCV 280-458328/33			02:01																										
CCB 280-458328/34			02:17																										
ZZZZZZ			02:34																										
ZZZZZZ			02:50																										
ZZZZZZ			03:56																										
ZZZZZZ			04:12																										
ZZZZZZ			04:29																										
ZZZZZZ			04:45																										
ZZZZZZ			05:02																										

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																							
CCV 280-458328/45			05:18																										
CCB 280-458328/46			05:34																										
ZZZZZZ			05:51																										
ZZZZZZ			06:07																										
ZZZZZZ			06:24																										
ZZZZZZ			08:25																										
ZZZZZZ			08:41																										
ZZZZZZ			08:57																										
ZZZZZZ			09:14																										
ZZZZZZ			09:30																										
ZZZZZZ			09:47																										
ZZZZZZ			10:03																										
CCV 280-458328/57			10:19																										
CCB 280-458328/58			10:36																										
ZZZZZZ			10:52																										
ZZZZZZ			11:09																										
ZZZZZZ			11:25																										
ZZZZZZ			11:42																										
ZZZZZZ			11:58																										
ZZZZZZ			12:14																										
ZZZZZZ			12:31																										
ZZZZZZ			12:47																										
CCV 280-458328/67			13:04																										
CCB 280-458328/68			13:20																										

Prep Types:
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/18/2019 19:06 End Date: 05/19/2019 03:57

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCV 280-458688/1	1		19:06	X	X	X	X																							
CCB 280-458688/2	1		19:23	X	X	X	X																							
MRL 280-458688/3	1	T	19:39	X	X	X	X																							
LCS 280-458688/4	1	T	19:56	X	X	X	X																							
LCSD 280-458688/5	1	T	20:12	X	X	X	X																							
MB 280-458688/6	1	T	20:29	X	X	X	X																							
280-123981-2	1	T	21:56	X	X	X	X																							
280-123981-2 DU	1	T	22:13	X	X	X	X																							
280-123981-2 MS	1	T	22:29	X	X	X	X																							
280-123981-2 MSD	1	T	22:45	X	X	X	X																							
280-123981-1	1	T	23:02	X	X	X	X																							
ZZZZZZ			23:18																											
280-123981-3	1	T	23:35	X	X	X																								
280-123981-4	1	T	23:51	X	X	X																								
280-123981-5	1	T	00:08	X	X	X																								
280-123981-6	1	T	00:24	X	X	X																								
CCV 280-458688/17	1		00:40	X	X	X	X																							
CCB 280-458688/18	1		00:57	X	X	X	X																							
280-123981-7	1	T	01:13	X	X	X																								
280-123981-8	1	T	01:30	X	X	X																								
280-123981-9	1	T	01:46	X	X	X																								
ZZZZZZ			02:02																											
ZZZZZZ			02:19																											
ZZZZZZ			02:35																											
ZZZZZZ			02:52																											
ZZZZZZ			03:08																											
ZZZZZZ			03:25																											
CCV 280-458688/28	1		03:41	X	X	X	X																							
CCB 280-458688/29	1		03:57	X	X	X	X																							

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/18/2019 19:06 End Date: 05/19/2019 03:57

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	F	SO4																							
CCV 280-458689/1	1		19:06	X	X		X																							
CCB 280-458689/2	1		19:23	X	X		X																							
MRL 280-458689/3	1	T	19:39	X	X		X																							
LCS 280-458689/4	1	T	19:56	X	X		X																							
LCSD 280-458689/5	1	T	20:12	X	X		X																							
MB 280-458689/6	1	T	20:29	X	X		X																							
280-123981-2	1	T	21:56	X	X		X																							
280-123981-2 DU	1	T	22:13	X	X		X																							
280-123981-2 MS	1	T	22:29	X	X		X																							
280-123981-2 MSD	1	T	22:45	X	X		X																							
280-123981-1	1	T	23:02	X	X		X																							
280-123981-1	5	T	23:18			X																								
280-123981-3	1	T	23:35	X	X		X																							
280-123981-4	1	T	23:51	X	X		X																							
280-123981-5	1	T	00:08	X	X		X																							
280-123981-6	1	T	00:24	X	X		X																							
CCV 280-458689/17	1		00:40	X	X		X																							
CCB 280-458689/18	1		00:57	X	X		X																							
280-123981-7	1	T	01:13	X	X		X																							
280-123981-8	1	T	01:30	X	X		X																							
280-123981-9	1	T	01:46	X	X		X																							
ZZZZZZ			02:02																											
ZZZZZZ			02:19																											
ZZZZZZ			02:35																											
ZZZZZZ			02:52																											
ZZZZZZ			03:08																											
ZZZZZZ			03:25																											
CCV 280-458689/28	1		03:41	X	X		X																							
CCB 280-458689/29	1		03:57	X	X		X																							

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
RTC 280-458776/1			15:15																											
STD 280-458776/2 IC	1		15:30	X	X	X	X																							
STD 280-458776/3 IC	1		15:47	X	X	X	X																							
STD 280-458776/4 IC	1		16:03	X	X	X	X																							
STD 280-458776/5 IC	1		16:20	X	X	X	X																							
STD 280-458776/6 IC	1		16:36	X	X	X	X																							
STD 280-458776/7 IC	1		16:52	X	X	X	X																							
ICV 280-458776/8	1		17:09	X	X	X	X																							
ICB 280-458776/9	1		17:25	X	X	X	X																							
MRL 280-458776/10	1	T	17:42	X	X	X	X																							
LCS 280-458776/11	1	T	17:58	X	X	X	X																							
LCSD 280-458776/12	1	T	18:15	X	X	X	X																							
MB 280-458776/13	1	T	18:31	X	X	X	X																							
ZZZZZZ			20:12																											
ZZZZZZ			20:28																											
ZZZZZZ			20:45																											
ZZZZZZ			21:01																											
ZZZZZZ			21:18																											
ZZZZZZ			21:34																											
ZZZZZZ			21:50																											
ZZZZZZ			22:07																											
ZZZZZZ			22:23																											
ZZZZZZ			22:40																											
CCV 280-458776/24	1		22:56	X	X	X	X																							
CCB 280-458776/25	1		23:12	X	X	X	X																							
280-123981-3	1	T	23:29				X																							
280-123981-3 DU	1	T	23:45	X	X	X	X																							
280-123981-3 MS	1	T	14:24	X	X	X	X																							
280-123981-3 MSD	1	T	14:40	X	X	X	X																							
280-123981-4	1	T	14:56				X																							
280-123981-5	1	T	15:12				X																							
280-123981-6	1	T	15:29				X																							
280-123981-6 DU	1	T	15:45	X	X	X	X																							

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
280-123981-6 MS	1	T	16:02	X	X	X	X																							
280-123981-6 MSD	1	T	16:18	X	X	X	X																							
CCV 280-458776/36	1		16:35	X	X	X	X																							
CCB 280-458776/37	1		16:51	X	X	X	X																							
280-123981-7	1	T	17:07				X																							
280-123981-8	1	T	17:24				X																							
280-123981-9	1	T	17:40				X																							
ZZZZZZ			17:57																											
ZZZZZZ			18:13																											
ZZZZZZ			18:29																											
CCV 280-458776/44	1		18:46	X	X	X	X																							
CCB 280-458776/45	1		19:02	X	X	X	X																							
CCV 280-458776/46			19:19																											
CCB 280-458776/47			19:35																											
ZZZZZZ			19:51																											
ZZZZZZ			20:08																											
ZZZZZZ			21:06																											
ZZZZZZ			21:22																											
ZZZZZZ			21:38																											
ZZZZZZ			21:54																											
ZZZZZZ			22:11																											
ZZZZZZ			22:27																											
ZZZZZZ			22:44																											
ZZZZZZ			23:00																											
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:49																											
CCV 280-458776/61			00:06																											
CCB 280-458776/62			00:22																											

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	F	SO4																							
RTC 280-458777/1			15:15																											
STD 280-458777/2 IC	1		15:30	X	X	X	X																							
STD 280-458777/3 IC	1		15:47	X	X	X	X																							
STD 280-458777/4 IC	1		16:03	X	X	X	X																							
STD 280-458777/5 IC	1		16:20	X	X	X	X																							
STD 280-458777/6 IC	1		16:36	X	X	X	X																							
STD 280-458777/7 IC	1		16:52	X	X	X	X																							
ICV 280-458777/8	1		17:09	X	X	X	X																							
ICB 280-458777/9	1		17:25	X	X	X	X																							
MRL 280-458777/10	1	T	17:42	X	X	X	X																							
LCS 280-458777/11	1	T	17:58	X	X	X	X																							
LCSD 280-458777/12	1	T	18:15	X	X	X	X																							
MB 280-458777/13	1	T	18:31	X	X	X	X																							
ZZZZZZ			20:12																											
ZZZZZZ			20:28																											
ZZZZZZ			20:45																											
ZZZZZZ			21:01																											
ZZZZZZ			21:18																											
ZZZZZZ			21:34																											
ZZZZZZ			21:50																											
ZZZZZZ			22:07																											
ZZZZZZ			22:23																											
280-123981-2	1	T	22:40			X																								
CCV 280-458777/24	1		22:56	X	X	X	X																							
CCB 280-458777/25	1		23:12	X	X	X	X																							
280-123981-3	1	T	23:29			X																								
280-123981-3 DU	1	T	23:45	X	X	X	X																							
280-123981-3 MS	1	T	14:24	X	X	X	X																							
280-123981-3 MSD	1	T	14:40	X	X	X	X																							
280-123981-4	1	T	14:56			X																								
280-123981-5	1	T	15:12			X																								
280-123981-6	1	T	15:29			X																								
280-123981-6 DU	1	T	15:45	X	X	X	X																							
280-123981-6 MS	1	T	16:02	X	X	X	X																							
280-123981-6 MSD	1	T	16:18	X	X	X	X																							
CCV 280-458777/36	1		16:35	X	X	X	X																							
CCB 280-458777/37	1		16:51	X	X	X	X																							
280-123981-7	1	T	17:07			X																								
280-123981-8	1	T	17:24			X																								
280-123981-9	1	T	17:40			X																								
ZZZZZZ			17:57																											

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																							
ZZZZZZ			18:13																										
ZZZZZZ			18:29																										
CCV 280-458777/44	1		18:46	X	X	X	X																						
CCB 280-458777/45	1		19:02	X	X	X	X																						
CCV 280-458777/46			19:19																										
CCB 280-458777/47			19:35																										
ZZZZZZ			19:51																										
ZZZZZZ			20:08																										
ZZZZZZ			21:06																										
ZZZZZZ			21:22																										
ZZZZZZ			21:38																										
ZZZZZZ			21:54																										
ZZZZZZ			22:11																										
ZZZZZZ			22:27																										
ZZZZZZ			22:44																										
ZZZZZZ			23:00																										
ZZZZZZ			23:17																										
ZZZZZZ			23:33																										
ZZZZZZ			23:49																										
CCV 280-458777/61			00:06																										
CCB 280-458777/62			00:22																										

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/11/2019 17:26 End Date: 06/12/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes
				TOCQ
ICV 280-461295/1	1		17:26	X
ICB 280-461295/2	1		17:41	X
ZZZZZZ			17:57	
ZZZZZZ			18:14	
ZZZZZZ			18:31	
ZZZZZZ			18:48	
ZZZZZZ			19:02	
ZZZZZZ			19:17	
ZZZZZZ			19:32	
ZZZZZZ			19:49	
ZZZZZZ			20:05	
ZZZZZZ			20:24	
ZZZZZZ			20:41	
ZZZZZZ			20:56	
CCV 280-461295/15			21:11	
CCB 280-461295/16			21:27	
ZZZZZZ			21:42	
ZZZZZZ			21:57	
ZZZZZZ			22:11	
ZZZZZZ			22:28	
ZZZZZZ			22:47	
ZZZZZZ			23:11	
ZZZZZZ			23:29	
ZZZZZZ			23:44	
ZZZZZZ			00:03	
ZZZZZZ			00:24	
CCV 280-461295/27	1		00:38	X
CCB 280-461295/28	1		00:57	X
ZZZZZZ			01:12	
ZZZZZZ			01:35	
ZZZZZZ			01:49	
ZZZZZZ			02:08	
ZZZZZZ			02:27	
LCS 280-461295/34	1	T	02:42	X
MB 280-461295/35	1	T	02:56	X
ZZZZZZ			03:13	
ZZZZZZ			03:32	
ZZZZZZ			03:47	
CCV 280-461295/39	1		04:03	X
CCB 280-461295/40	1		04:21	X

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/11/2019 17:26 End Date: 06/12/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ZZZZZZ			04:37																										
ZZZZZZ			04:56																										
ZZZZZZ			05:11																										
ZZZZZZ			05:28																										
ZZZZZZ			05:43																										
ZZZZZZ			05:59																										
ZZZZZZ			06:18																										
ZZZZZZ			06:37																										
ZZZZZZ			06:56																										
ZZZZZZ			07:12																										
CCV 280-461295/51	1		07:27	X																									
CCB 280-461295/52	1		07:44	X																									
ZZZZZZ			08:03																										
ZZZZZZ			08:20																										
ZZZZZZ			08:37																										
ZZZZZZ			08:56																										
ZZZZZZ			09:11																										
280-123981-1	1	T	09:26	X																									
280-123981-2	1	T	09:48	X																									
280-123981-3	1	T	10:05	X																									
280-123981-4	1	T	10:24	X																									
280-123981-5	1	T	10:43	X																									
CCV 280-461295/63	1		11:04	X																									
CCB 280-461295/64	1		11:23	X																									
ZZZZZZ			11:40																										
ZZZZZZ			11:57																										
CCV 280-461295/67			12:15																										
CCB 280-461295/68			12:34																										

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/12/2019 15:21 End Date: 06/13/2019 10:31

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ICV 280-461430/1	1		15:21	X																									
ICB 280-461430/2	1		15:36	X																									
ZZZZZZ			15:52																										
ZZZZZZ			16:07																										
ZZZZZZ			16:28																										
ZZZZZZ			16:45																										
ZZZZZZ			16:59																										
ZZZZZZ			17:16																										
ZZZZZZ			17:35																										
ZZZZZZ			17:50																										
ZZZZZZ			18:10																										
ZZZZZZ			18:25																										
ZZZZZZ			18:42																										
ZZZZZZ			18:57																										
CCV 280-461430/15			19:16																										
CCB 280-461430/16			19:31																										
ZZZZZZ			19:52																										
ZZZZZZ			20:08																										
ZZZZZZ			20:25																										
ZZZZZZ			20:42																										
ZZZZZZ			21:03																										
ZZZZZZ			21:21																										
ZZZZZZ			21:38																										
ZZZZZZ			21:55																										
ZZZZZZ			22:12																										
ZZZZZZ			22:29																										
CCV 280-461430/27	1		22:43	X																									
CCB 280-461430/28	1		23:00	X																									
ZZZZZZ			23:21																										
ZZZZZZ			23:38																										
ZZZZZZ			23:54																										
ZZZZZZ			00:15																										
ZZZZZZ			00:34																										
LCS 280-461430/34	1	T	00:49	X																									
MB 280-461430/35	1	T	01:04	X																									
ZZZZZZ			01:27																										
280-123981-6	1	T	01:43	X																									
280-123981-7	1	T	02:04	X																									
CCV 280-461430/39	1		02:21	X																									
CCB 280-461430/40	1		02:36	X																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/12/2019 15:21 End Date: 06/13/2019 10:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				TOCQ																								
280-123981-8	1	T	02:56	X																								
280-123981-8 MS	1	T	03:15	X																								
280-123981-8 MSD	1	T	03:32	X																								
280-123981-9	1	T	03:49	X																								
ZZZZZZ			04:06																									
ZZZZZZ			04:23																									
ZZZZZZ			04:40																									
ZZZZZZ			04:56																									
ZZZZZZ			05:13																									
ZZZZZZ			05:30																									
CCV 280-461430/51	1		05:47	X																								
CCB 280-461430/52	1		06:02	X																								
ZZZZZZ			06:23																									
ZZZZZZ			06:39																									
ZZZZZZ			06:57																									
ZZZZZZ			07:14																									
ZZZZZZ			07:30																									
ZZZZZZ			07:47																									
ZZZZZZ			08:02																									
ZZZZZZ			08:21																									
ZZZZZZ			08:37																									
ZZZZZZ			08:54																									
CCV 280-461430/63			09:11																									
CCB 280-461430/64			09:26																									
ZZZZZZ			09:45																									
ZZZZZZ			10:00																									
CCV 280-461430/67			10:17																									
CCB 280-461430/68			10:31																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-459576/1			17:32																									
ZZZZZZ			17:40																									
ZZZZZZ			17:42																									
ZZZZZZ			17:48																									
ZZZZZZ			18:12																									
ZZZZZZ			18:18																									
ZZZZZZ			18:23																									
ZZZZZZ			18:29																									
ZZZZZZ			18:34																									
ZZZZZZ			18:39																									
ZZZZZZ			18:45																									
ZZZZZZ			18:52																									
ZZZZZZ			19:01																									
ZZZZZZ			19:07																									
ZZZZZZ			19:16																									
CCV 280-459576/16			19:22																									
CCB 280-459576/17			19:27																									
ZZZZZZ			19:35																									
ZZZZZZ			19:40																									
ZZZZZZ			19:46																									
ZZZZZZ			19:52																									
ZZZZZZ			19:59																									
ZZZZZZ			20:04																									
ZZZZZZ			20:10																									
ZZZZZZ			20:16																									
ZZZZZZ			20:22																									
ZZZZZZ			20:25																									
CCV 280-459576/28			20:31																									
CCB 280-459576/29			20:36																									
ZZZZZZ			20:42																									
ZZZZZZ			20:47																									
ZZZZZZ			20:52																									
ZZZZZZ			20:58																									
ZZZZZZ			21:03																									
ZZZZZZ			21:08																									
ZZZZZZ			21:17																									
ZZZZZZ			21:22																									
ZZZZZZ			21:29																									
ZZZZZZ			21:36																									
ZZZZZZ			21:43																									
ZZZZZZ			21:48																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
CCV 280-459576/42			21:55																									
CCB 280-459576/43			21:59																									
ZZZZZZ			22:06																									
ZZZZZZ			22:13																									
ZZZZZZ			22:18																									
ZZZZZZ			22:24																									
ZZZZZZ			22:30																									
ZZZZZZ			22:35																									
ZZZZZZ			22:41																									
ZZZZZZ			22:47																									
ZZZZZZ			22:54																									
ZZZZZZ			23:01																									
CCV 280-459576/54	1		23:07	X																								
CCB 280-459576/55	1		23:12	X																								
LCS 280-459576/56	1	T	23:18	X																								
MB 280-459576/57	1	T	23:23	X																								
ZZZZZZ			23:30																									
ZZZZZZ			23:38																									
ZZZZZZ			23:43																									
ZZZZZZ			23:50																									
ZZZZZZ			23:57																									
ZZZZZZ			00:05																									
ZZZZZZ			00:13																									
ZZZZZZ			00:21																									
ZZZZZZ			00:27																									
ZZZZZZ			00:34																									
CCV 280-459576/68	1		00:40	X																								
CCB 280-459576/69	1		00:44	X																								
ZZZZZZ			00:53																									
ZZZZZZ			00:58																									
ZZZZZZ			01:08																									
ZZZZZZ			01:15																									
ZZZZZZ			01:21																									
ZZZZZZ			01:32																									
ZZZZZZ			01:40																									
ZZZZZZ			01:47																									
280-123981-8	1	T	01:53	X																								
280-123981-3	1	T	01:59	X																								
CCV 280-459576/80	1		02:04	X																								
CCB 280-459576/81	1		02:09	X																								
LCS 280-459576/82	1	T	02:15	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
MB 280-459576/83	1	T	02:19	X																								
280-123981-4	1	T	02:26	X																								
280-123981-4 DU	1	T	02:33	X																								
280-123981-9	1	T	02:39	X																								
280-123981-6	1	T	02:45	X																								
280-123981-2	1	T	02:50	X																								
280-123981-7	1	T	02:57	X																								
280-123981-1	1	T	03:04	X																								
280-123981-5	1	T	03:10	X																								
ZZZZZZ			03:15																									
ZZZZZZ			03:21																									
CCV 280-459576/94	1		03:27	X																								
CCB 280-459576/95	1		03:31	X																								
ZZZZZZ			03:37																									
ZZZZZZ			03:43																									
ZZZZZZ			03:49																									
ZZZZZZ			03:55																									
ZZZZZZ			04:02																									
ZZZZZZ			04:16																									
ZZZZZZ			04:34																									
ZZZZZZ			04:56																									
ZZZZZZ			05:12																									
ZZZZZZ			05:23																									
CCV 280-459576/106			05:28																									
CCB 280-459576/107			05:33																									
ZZZZZZ			05:40																									
ZZZZZZ			05:45																									
ZZZZZZ			05:55																									
ZZZZZZ			06:06																									
ZZZZZZ			06:18																									
ZZZZZZ			06:23																									
ZZZZZZ			06:44																									
ZZZZZZ			06:51																									
ZZZZZZ			06:57																									
ZZZZZZ			07:04																									
ZZZZZZ			07:10																									
ZZZZZZ			07:16																									
CCV 280-459576/120			07:23																									
CCB 280-459576/121			07:27																									
ZZZZZZ			07:33																									
ZZZZZZ			07:40																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			07:46																									
ZZZZZZ			07:57																									
ZZZZZZ			08:02																									
ZZZZZZ			08:07																									
ZZZZZZ			08:12																									
ZZZZZZ			08:17																									
ZZZZZZ			08:23																									
ZZZZZZ			08:26																									
CCV 280-459576/132			08:32																									
CCB 280-459576/133			08:37																									
ZZZZZZ			08:43																									
ZZZZZZ			08:48																									
ZZZZZZ			08:53																									
ZZZZZZ			08:56																									
ZZZZZZ			09:01																									
CCV 280-459576/139			09:07																									
CCB 280-459576/140			09:12																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/23/2019 16:24 End Date: 05/23/2019 16:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-459268/1	1	T	16:24	X																								
LCS 280-459268/2	1	T	16:24	X																								
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
280-123981-1	1	T	16:24	X																								
280-123981-2	1	T	16:24	X																								
280-123981-3	1	T	16:24	X																								
280-123981-4	1	T	16:24	X																								
280-123981-5	1	T	16:24	X																								
280-123981-6	1	T	16:24	X																								
280-123981-7	1	T	16:24	X																								
280-123981-8	1	T	16:24	X																								
280-123981-9	1	T	16:24	X																								
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									
ZZZZZZ			16:24																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM5210B

Start Date: 05/18/2019 13:59 End Date: 05/18/2019 14:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				BOD																								
SCB 280-458674/1	1	T	13:59	X																								
USB 280-458674/2	1	T	13:59	X																								
LCS 280-458674/3	1	T	13:59	X																								
MB 280-458674/4	1	T	13:59	X																								
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
280-123981-1	1	T	13:59	X																								
280-123981-2	1	T	13:59	X																								
280-123981-3	1	T	13:59	X																								
280-123981-4	1	T	13:59	X																								
280-123981-5	1	T	13:59	X																								
280-123981-6	1	T	13:59	X																								
280-123981-7	1	T	14:32	X																								
280-123981-8	1	T	14:32	X																								
280-123981-9	1	T	14:32	X																								

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459963 Batch Start Date: 05/30/19 10:59 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
ICVL 280-459963/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-459963/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-459963/16		350.1			10 mL	10 mL			
CCVL 280-459963/66		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459963/67		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/68		350.1			10 mL	10 mL			
LCS 280-459963/70		350.1			100 mL	100 mL		2.5 mL	
LCSD 280-459963/71		350.1			100 mL	100 mL		2.5 mL	
MB 280-459963/72		350.1			10 mL	10 mL			
280-123981-D-1	LF7MW-22_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123981-E-2	LF7MW-23_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123981-C-3	LF7MW-26_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123981-E-4	LF7MW-26_0519-a	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459963/85		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459963/86		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/87		350.1			10 mL	10 mL			
280-123981-E-5	LF7MW-27_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123981-D-6	LF7MW-28_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123981-E-7	LF7MW-30_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123981-E-7 MS	LF7MW-30_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123981-E-7 MSD	LF7MW-30_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123981-C-8	LF7WL-3_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123981-E-9	LF7WL-4_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459963/101		350.1			100 mL	100 mL		0.5 mL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459963 Batch Start Date: 05/30/19 10:59 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
CCV 280-459963/102		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/103		350.1			10 mL	10 mL			

Batch Notes	
Carrier Identification	350.1 complex_00424
Hypochlorite ID	350.1 bleach_01068
Sodium Nitroprusside ID	350.1 color_00152
Pipette/Syringe/Dispenser ID	JPX100, JPX1000, JPX5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460066 Batch Start Date: 05/31/19 16:12 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00794	TKN ICV 25 00078		
ICV 280-460066/42		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-460066/43		351.2, 351.2		25 mL	25 mL				
CCV 280-460066/44		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-460066/45		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	06/01/19 0400
Block Digestion Start time	05/31/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00126
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460760 Batch Start Date: 06/06/19 19:57 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00794		
LCS 280-460760/1		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460760/2		351.2, 351.2		<2	25 mL	25 mL			
280-123981-E-1	LF7MW-22_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123981-C-3	LF7MW-26_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123981-D-2	LF7MW-23_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123981-D-2 MS	LF7MW-23_0519	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123981-D-2 MSD	LF7MW-23_0519	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123981-E-4	LF7MW-26_0519-a	351.2, 351.2	T	<2	25 mL	25 mL			
280-123981-D-5	LF7MW-27_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123981-D-6	LF7MW-28_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123981-D-7	LF7MW-30_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123981-E-8	LF7WL-3_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123981-C-9	LF7WL-4_0519	351.2, 351.2	T	<2	25 mL	25 mL			

Batch Notes	
Block Digestion End time	06/06/19 0430
Block Digestion Start time	06/06/19 2130
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00127
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460878 Batch Start Date: 06/07/19 16:59 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-460066/42-A		351.2		4 mL					
ICB 280-460066/43-A		351.2		4 mL					
LCS 280-460760/1-A		351.2		4 mL					
MB 280-460760/2-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123981-E-1-A	LF7MW-22_0519	351.2	T	4 mL					
280-123981-C-3-A	LF7MW-26_0519	351.2	T	4 mL					
280-123981-D-2-B	LF7MW-23_0519	351.2	T	4 mL					
280-123981-D-2-C MS	LF7MW-23_0519	351.2	T	4 mL					
280-123981-D-2-D MSD	LF7MW-23_0519	351.2	T	4 mL					
280-123981-E-4-A	LF7MW-26_0519-a	351.2	T	4 mL					
280-123981-D-5-A	LF7MW-27_0519	351.2	T	4 mL					
280-123981-D-6-A	LF7MW-28_0519	351.2	T	4 mL					
280-123981-D-7-A	LF7MW-30_0519	351.2	T	4 mL					
280-123981-E-8-A	LF7WL-3_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123981-C-9-A	LF7WL-4_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460878 Batch Start Date: 06/07/19 16:59 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Batch Notes	
Buffer Reagent ID	TKN Buffer_00118
Hypochlorite ID	TKN hypo_00663
Sodium Nitroprusside ID	Sodium Nitro_00095
Pipette/Syringe/Dispenser ID	5000AD, 1000AD

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 457887 Batch Start Date: 05/13/19 07:39 Batch Analyst: Loux, Lauren P

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	COD cal std 00048			
IC 280-457887/1		410.4		50 mL	50 mL	0.25 mL			
IC 280-457887/2		410.4		50 mL	50 mL	0.5 mL			
IC 280-457887/3		410.4		50 mL	50 mL	1 mL			
IC 280-457887/4		410.4		50 mL	50 mL	2.5 mL			
IC 280-457887/5		410.4		50 mL	50 mL	5 mL			
IC 280-457887/6		410.4		50 mL	50 mL	7.5 mL			

Batch Notes	
Block Digestor ID	Hach4AA, Hach4BB, Hach6AA
Chlorine ID	HC850274
Temperature - Corrected - End	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Temperature - Corrected - Start	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Digestion End Time	05/13/2019 11:27
Digestion Start Time	05/13/2019 09:27
Pipette/Syringe/Dispenser ID	5000LL, 1000LL
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Temperature - Uncorrected - Start	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 461121 Batch Start Date: 06/11/19 09:08 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-461121/1		410.4		100 mL	100 mL				
ICB 280-461121/2		410.4		2 mL	2 mL				
LCS 280-461121/3		410.4		100 mL	100 mL				10 mL
LCSD 280-461121/4		410.4		100 mL	100 mL				10 mL
MB 280-461121/5		410.4		2 mL	2 mL				
CCV 280-461121/16		410.4		100 mL	100 mL				10 mL
CCB 280-461121/17		410.4		2 mL	2 mL				
280-123981-G-2	LF7MW-23_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123981-G-3	LF7MW-26_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-461121/28		410.4		100 mL	100 mL				10 mL
CCB 280-461121/29		410.4		2 mL	2 mL				
280-123981-G-4	LF7MW-26_0519-a	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123981-G-5	LF7MW-27_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123981-G-6	LF7MW-28_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123981-G-7	LF7MW-30_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-461121/34		410.4		100 mL	100 mL				10 mL
CCB 280-461121/35		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034					
ICV 280-461121/1		410.4		7.5 mL					
ICB 280-461121/2		410.4							
LCS 280-461121/3		410.4							
LCSD 280-461121/4		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 461121 Batch Start Date: 06/11/19 09:08 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034					
MB 280-461121/5		410.4							
CCV 280-461121/16		410.4							
CCB 280-461121/17		410.4							
280-123981-G-2	LF7MW-23_0519	410.4	T						
280-123981-G-3	LF7MW-26_0519	410.4	T						
CCV 280-461121/28		410.4							
CCB 280-461121/29		410.4							
280-123981-G-4	LF7MW-26_0519-a	410.4	T						
280-123981-G-5	LF7MW-27_0519	410.4	T						
280-123981-G-6	LF7MW-28_0519	410.4	T						
280-123981-G-7	LF7MW-30_0519	410.4	T						
CCV 280-461121/34		410.4							
CCB 280-461121/35		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 461121 Batch Start Date: 06/11/19 09:08 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Batch Notes	
Block Digestor ID	hach2, hach4
Chlorine ID	hc850274
Temperature - Corrected - End	Hach 2 BB 151, Hach 4 AA 149, Hach 4 BB 150 Degrees C
Temperature - Corrected - Start	Hach 2 BB 151, Hach 4 AA 149, Hach 4 BB 150 Degrees C
Digestion End Time	06/11/2019 14:45
Digestion Start Time	06/11/2019 12:45
Pipette/Syringe/Dispenser ID	wc5000ccj, wc1000cj
Sufficient Volume for Batch QC	yes
Temperature - Uncorrected - End	Hach 2 BB 150, Hach 4 AA 150, Hach 4 BB 150 Degrees C
Temperature - Uncorrected - Start	Hach 2 BB 150, Hach 4 AA 150, Hach 4 BB 150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 461275 Batch Start Date: 06/12/19 10:53 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-461275/1		410.4		100 mL	100 mL				
ICB 280-461275/2		410.4		2 mL	2 mL				
LCS 280-461275/3		410.4		100 mL	100 mL				10 mL
LCSD 280-461275/4		410.4		100 mL	100 mL				10 mL
MB 280-461275/5		410.4		2 mL	2 mL				
280-123981-C-1	LF7MW-22_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123981-D-8	LF7WL-3_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123981-D-9	LF7WL-4_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-461275/16		410.4		100 mL	100 mL				10 mL
CCB 280-461275/17		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034					
ICV 280-461275/1		410.4		7.5 mL					
ICB 280-461275/2		410.4							
LCS 280-461275/3		410.4							
LCSD 280-461275/4		410.4							
MB 280-461275/5		410.4							
280-123981-C-1	LF7MW-22_0519	410.4	T						
280-123981-D-8	LF7WL-3_0519	410.4	T						
280-123981-D-9	LF7WL-4_0519	410.4	T						
CCV 280-461275/16		410.4							
CCB 280-461275/17		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 461275 Batch Start Date: 06/12/19 10:53 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Batch Notes	
Batch Comment	KS trained by CJ
Block Digestor ID	Hach 2, Hach 4
Chlorine ID	HC864124
Temperature - Corrected - End	Hach 2 AA 150, Hach 2 BB 151, Hace 4 AA 149, Hach 4 BB 150 Degrees C
Temperature - Corrected - Start	Hach 2 AA 150, Hach 2 BB 151, Hace 4 AA 149, Hach 4 BB 150 Degrees C
Digestion End Time	06/08/2019 15:01
Digestion Start Time	06/12/2019 13:01
Pipette/Syringe/Dispenser ID	1000LL, AZ5000
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150, Hach 4 BB 150 Degrees C
Temperature - Uncorrected - Start	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150, Hach 4 BB 150 Degrees C
Vial Lot Number	A9112A, A9120

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460735 Batch Start Date: 06/06/19 15:30 Batch Analyst: Moser, Angela R

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
LCS 280-460735/1		Distill/Phenol, 9066		50 mL	50 mL				1 mL
MB 280-460735/2		Distill/Phenol, 9066		50 mL	50 mL				
280-123981-G-1	LF7MW-22_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123981-G-2	LF7MW-23_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123981-G-3	LF7MW-26_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123981-G-4	LF7MW-26_0519-a	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123981-G-5	LF7MW-27_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123981-G-6	LF7MW-28_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123981-G-6 MS	LF7MW-28_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123981-G-6 MSD	LF7MW-28_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460749 Batch Start Date: 06/06/19 17:53 Batch Analyst: Moser, Angela R

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
LCS 280-460749/1		Distill/Phenol, 9066		50 mL	50 mL				1 mL
MB 280-460749/2		Distill/Phenol, 9066		50 mL	50 mL				
280-123981-G-7	LF7MW-30_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123981-G-8	LF7WL-3_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123981-G-9	LF7WL-4_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460772/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460772/14		9066		100 mL	100 mL		1 mL		
ICB 280-460772/15		9066		100 mL	100 mL				
LCS 280-460735/1-A		9066		100 mL	100 mL				
MB 280-460735/2-A		9066		100 mL	100 mL				
CCV 280-460772/29		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/30		9066		100 mL	100 mL	1 mL			
CCB 280-460772/31		9066		100 mL	100 mL				
280-123981-G-1-A	LF7MW-22_0519	9066	T	100 mL	100 mL				
280-123981-G-2-A	LF7MW-23_0519	9066	T	100 mL	100 mL				
CCV 280-460772/45		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/46		9066		100 mL	100 mL	1 mL			
CCB 280-460772/47		9066		100 mL	100 mL				
280-123981-G-3-A	LF7MW-26_0519	9066	T	100 mL	100 mL				
280-123981-G-4-A	LF7MW-26_0519-a	9066	T	100 mL	100 mL				
280-123981-G-5-A	LF7MW-27_0519	9066	T	100 mL	100 mL				
280-123981-G-6-A	LF7MW-28_0519	9066	T	100 mL	100 mL				
280-123981-G-6-B MS	LF7MW-28_0519	9066	T	100 mL	100 mL				
280-123981-G-6-C MSD	LF7MW-28_0519	9066	T	100 mL	100 mL				
LCS 280-460749/1-A		9066		100 mL	100 mL				
MB 280-460749/2-A		9066		100 mL	100 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
280-123981-G-7-A	LF7MW-30_0519	9066	T	100 mL	100 mL				
280-123981-G-8-B	LF7WL-3_0519	9066	T	100 mL	100 mL				
CCV 280-460772/61		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/62		9066		100 mL	100 mL	1 mL			
CCB 280-460772/63		9066		100 mL	100 mL				
280-123981-G-9-B	LF7WL-4_0519	9066	T	100 mL	100 mL				
CCV 280-460772/77		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/78		9066		100 mL	100 mL	1 mL			
CCB 280-460772/79		9066		100 mL	100 mL				
CCV 280-460772/93		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/94		9066		100 mL	100 mL	1 mL			
CCB 280-460772/95		9066		100 mL	100 mL				
CCV 280-460772/104		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/105		9066		100 mL	100 mL	1 mL			
CCB 280-460772/106		9066		100 mL	100 mL				

Batch Notes	
Batch Comment	RK Training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00409
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458692 Batch Start Date: 05/18/19 20:40 Batch Analyst: Bryant, Chase K

Batch Method: SM 2120B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	AnalysisComment		
MB 280-458692/1		SM 2120B		7 SU	50 mL	50 mL			
280-123981-J-1	LF7MW-22_0519	SM 2120B	T	7 SU	10 mL	50 mL	turbid		
280-123981-J-1 DU	LF7MW-22_0519	SM 2120B	T	7 SU	10 mL	50 mL			
280-123981-I-2	LF7MW-23_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123981-I-3	LF7MW-26_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123981-J-4	LF7MW-26_0519-a	SM 2120B	T	7 SU	50 mL	50 mL			
280-123981-J-5	LF7MW-27_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123981-H-6	LF7MW-28_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123981-I-7	LF7MW-30_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123981-J-8	LF7WL-3_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123981-H-9	LF7WL-4_0519	SM 2120B	T	7 SU	50 mL	50 mL			

Batch Notes	
Batch Comment	KS trained by CKB
pH Meter ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460544 Batch Start Date: 06/05/19 10:02 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
LCS 280-460544/1		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	10.29 mL
MB 280-460544/2		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	0.00 mL
280-123981-F-1	LF7MW-22_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	12.30 mL
280-123981-F-1 MS	LF7MW-22_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	22.67 mL
280-123981-F-1 MSD	LF7MW-22_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	22.48 mL
280-123981-F-2	LF7MW-23_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	3.92 mL
280-123981-F-3	LF7MW-26_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	5.27 mL
280-123981-F-4	LF7MW-26_0519-a	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	5.66 mL
280-123981-F-5	LF7MW-27_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	3.85 mL
280-123981-F-6	LF7MW-28_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	7.99 mL
280-123981-F-7	LF7MW-30_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	8.17 mL
280-123981-F-8	LF7WL-3_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	4.80 mL
280-123981-F-9	LF7WL-4_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	5.10 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00052				
LCS 280-460544/1		SM 2340C		10.29 mL	10 mL				
MB 280-460544/2		SM 2340C		0 mL					
280-123981-F-1	LF7MW-22_0519	SM 2340C	T	12.3 mL					
280-123981-F-1 MS	LF7MW-22_0519	SM 2340C	T	22.67 mL	10 mL				
280-123981-F-1 MSD	LF7MW-22_0519	SM 2340C	T	22.48 mL	10 mL				
280-123981-F-2	LF7MW-23_0519	SM 2340C	T	3.92 mL					
280-123981-F-3	LF7MW-26_0519	SM 2340C	T	5.27 mL					
280-123981-F-4	LF7MW-26_0519-a	SM 2340C	T	5.66 mL					
280-123981-F-5	LF7MW-27_0519	SM 2340C	T	3.85 mL					
280-123981-F-6	LF7MW-28_0519	SM 2340C	T	7.99 mL					
280-123981-F-7	LF7MW-30_0519	SM 2340C	T	8.17 mL					
280-123981-F-8	LF7WL-3_0519	SM 2340C	T	4.8 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 460544 Batch Start Date: 06/05/19 10:02 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00052				
280-123981-F-9	LF7WL-4_0519	SM 2340C	T	5.1 mL					

Batch Notes	
Batch Comment	KS trained by DA
Buffer Reagent ID	Mg EDTA 00011
Indicator Reagent ID	Hardness ind 00008
Nominal Amount Used	25 mL
pH Strip ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000
Normality of First Titrant	0.01930 N
Titrant ID	EDTA Titrant 00090
Titrant Standardization Date	06/05/2019

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458327/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458327/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458327/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458327/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458327/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458327/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458327/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458327/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458327/2 IC		9056A							
STD 280-458327/3 IC		9056A							
STD 280-458327/4 IC		9056A							
STD 280-458327/5 IC		9056A							
STD 280-458327/6 IC		9056A							
STD 280-458327/7 IC		9056A							
ICV 280-458327/8		9056A		0.4 mL					
ICB 280-458327/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458328/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458328/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458328/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458328/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458328/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458328/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458328/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458328/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458328/2 IC		9056A							
STD 280-458328/3 IC		9056A							
STD 280-458328/4 IC		9056A							
STD 280-458328/5 IC		9056A							
STD 280-458328/6 IC		9056A							
STD 280-458328/7 IC		9056A							
ICV 280-458328/8		9056A		0.4 mL					
ICB 280-458328/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458688 Batch Start Date: 05/18/19 19:06 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01579	ICMS/MSD WEEK 00592
CCV 280-458688/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458688/2		9056A		5 mL	5 mL				
MRL 280-458688/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458688/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458688/5		9056A		5 mL	5 mL			5 mL	
MB 280-458688/6		9056A		5 mL	5 mL				
280-123981-I-2	LF7MW-23_0519	9056A	T	5 mL	5 mL				
280-123981-I-2 DU	LF7MW-23_0519	9056A	T	5 mL	5 mL				
280-123981-I-2 MS	LF7MW-23_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123981-I-2 MSD	LF7MW-23_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123981-J-1	LF7MW-22_0519	9056A	T	5 mL	5 mL				
280-123981-J-1	LF7MW-22_0519	9056A	T	5 mL	5 mL				
280-123981-I-3	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-J-4	LF7MW-26_0519-a	9056A	T	5 mL	5 mL				
280-123981-J-5	LF7MW-27_0519	9056A	T	5 mL	5 mL				
280-123981-H-6	LF7MW-28_0519	9056A	T	5 mL	5 mL				
CCV 280-458688/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458688/18		9056A		5 mL	5 mL				
280-123981-I-7	LF7MW-30_0519	9056A	T	5 mL	5 mL				
280-123981-J-8	LF7WL-3_0519	9056A	T	5 mL	5 mL				
280-123981-H-9	LF7WL-4_0519	9056A	T	5 mL	5 mL				
CCV 280-458688/28		9056A		5 mL	5 mL			5 mL	
CCB 280-458688/29		9056A		5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458688 Batch Start Date: 05/18/19 19:06 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00569
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458689 Batch Start Date: 05/18/19 19:06 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01579	ICMS/MSD WEEK 00592
CCV 280-458689/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458689/2		9056A		5 mL	5 mL				
MRL 280-458689/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458689/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458689/5		9056A		5 mL	5 mL			5 mL	
MB 280-458689/6		9056A		5 mL	5 mL				
280-123981-I-2	LF7MW-23_0519	9056A	T	5 mL	5 mL				
280-123981-I-2 DU	LF7MW-23_0519	9056A	T	5 mL	5 mL				
280-123981-I-2 MS	LF7MW-23_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123981-I-2 MSD	LF7MW-23_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123981-J-1	LF7MW-22_0519	9056A	T	5 mL	5 mL				
280-123981-J-1	LF7MW-22_0519	9056A	T	5 mL	5 mL				
280-123981-I-3	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-J-4	LF7MW-26_0519-a	9056A	T	5 mL	5 mL				
280-123981-J-5	LF7MW-27_0519	9056A	T	5 mL	5 mL				
280-123981-H-6	LF7MW-28_0519	9056A	T	5 mL	5 mL				
CCV 280-458689/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458689/18		9056A		5 mL	5 mL				
280-123981-I-7	LF7MW-30_0519	9056A	T	5 mL	5 mL				
280-123981-J-8	LF7WL-3_0519	9056A	T	5 mL	5 mL				
280-123981-H-9	LF7WL-4_0519	9056A	T	5 mL	5 mL				
CCV 280-458689/28		9056A		5 mL	5 mL			5 mL	
CCB 280-458689/29		9056A		5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458689 Batch Start Date: 05/18/19 19:06 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00569
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
STD 280-458776/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458776/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458776/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458776/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458776/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458776/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458776/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458776/9		9056A		5 mL	5 mL				
MRL 280-458776/10		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458776/11		9056A		5 mL	5 mL				
LCSD 280-458776/12		9056A		5 mL	5 mL				
MB 280-458776/13		9056A		5 mL	5 mL				
280-123981-J-1	LF7MW-22_0519	9056A	T	5 mL	5 mL				
280-123981-I-2	LF7MW-23_0519	9056A	T	5 mL	5 mL				
CCV 280-458776/24		9056A		5 mL	5 mL				
CCB 280-458776/25		9056A		5 mL	5 mL				
280-123981-I-3	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-I-3 DU	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-I-3 MS	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-I-3 MSD	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-J-4	LF7MW-26_0519-a	9056A	T	5 mL	5 mL				
280-123981-J-5	LF7MW-27_0519	9056A	T	5 mL	5 mL				
280-123981-H-6	LF7MW-28_0519	9056A	T	5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
280-123981-H-6 DU	LF7MW-28_0519	9056A	T	5 mL	5 mL				
280-123981-H-6 MS	LF7MW-28_0519	9056A	T	5 mL	5 mL				
280-123981-H-6 MSD	LF7MW-28_0519	9056A	T	5 mL	5 mL				
CCV 280-458776/36		9056A		5 mL	5 mL				
CCB 280-458776/37		9056A		5 mL	5 mL				
280-123981-I-7	LF7MW-30_0519	9056A	T	5 mL	5 mL				
280-123981-J-8	LF7WL-3_0519	9056A	T	5 mL	5 mL				
280-123981-H-9	LF7WL-4_0519	9056A	T	5 mL	5 mL				
CCV 280-458776/44		9056A		5 mL	5 mL				
CCB 280-458776/45		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 01580	IC SO4 ICV 00017	ICMS/MSD WEEK 00592			
STD 280-458776/2 IC		9056A							
STD 280-458776/3 IC		9056A							
STD 280-458776/4 IC		9056A							
STD 280-458776/5 IC		9056A							
STD 280-458776/6 IC		9056A							
STD 280-458776/7 IC		9056A							
ICV 280-458776/8		9056A			0.4 mL				
ICB 280-458776/9		9056A							
MRL 280-458776/10		9056A							
LCS 280-458776/11		9056A		5 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 01580	IC SO4 ICV 00017	ICMS/MSD WEEK 00592			
LCSD 280-458776/12		9056A		5 mL					
MB 280-458776/13		9056A							
280-123981-J-1	LF7MW-22_0519	9056A	T						
280-123981-I-2	LF7MW-23_0519	9056A	T						
CCV 280-458776/24		9056A		5 mL					
CCB 280-458776/25		9056A							
280-123981-I-3	LF7MW-26_0519	9056A	T						
280-123981-I-3 DU	LF7MW-26_0519	9056A	T						
280-123981-I-3 MS	LF7MW-26_0519	9056A	T			0.05 mL			
280-123981-I-3 MSD	LF7MW-26_0519	9056A	T			0.05 mL			
280-123981-J-4	LF7MW-26_0519-a	9056A	T						
280-123981-J-5	LF7MW-27_0519	9056A	T						
280-123981-H-6	LF7MW-28_0519	9056A	T						
280-123981-H-6 DU	LF7MW-28_0519	9056A	T						
280-123981-H-6 MS	LF7MW-28_0519	9056A	T			0.05 mL			
280-123981-H-6 MSD	LF7MW-28_0519	9056A	T			0.05 mL			
CCV 280-458776/36		9056A		5 mL					
CCB 280-458776/37		9056A							
280-123981-I-7	LF7MW-30_0519	9056A	T						
280-123981-J-8	LF7WL-3_0519	9056A	T						
280-123981-H-9	LF7WL-4_0519	9056A	T						
CCV 280-458776/44		9056A		5 mL					
CCB 280-458776/45		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11_eluent00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
STD 280-458777/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458777/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458777/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458777/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458777/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458777/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458777/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458777/9		9056A		5 mL	5 mL				
MRL 280-458777/10		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458777/11		9056A		5 mL	5 mL				
LCSD 280-458777/12		9056A		5 mL	5 mL				
MB 280-458777/13		9056A		5 mL	5 mL				
280-123981-J-1	LF7MW-22_0519	9056A	T	5 mL	5 mL				
280-123981-I-2	LF7MW-23_0519	9056A	T	5 mL	5 mL				
CCV 280-458777/24		9056A		5 mL	5 mL				
CCB 280-458777/25		9056A		5 mL	5 mL				
280-123981-I-3	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-I-3 DU	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-I-3 MS	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-I-3 MSD	LF7MW-26_0519	9056A	T	5 mL	5 mL				
280-123981-J-4	LF7MW-26_0519-a	9056A	T	5 mL	5 mL				
280-123981-J-5	LF7MW-27_0519	9056A	T	5 mL	5 mL				
280-123981-H-6	LF7MW-28_0519	9056A	T	5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
280-123981-H-6 DU	LF7MW-28_0519	9056A	T	5 mL	5 mL				
280-123981-H-6 MS	LF7MW-28_0519	9056A	T	5 mL	5 mL				
280-123981-H-6 MSD	LF7MW-28_0519	9056A	T	5 mL	5 mL				
CCV 280-458777/36		9056A		5 mL	5 mL				
CCB 280-458777/37		9056A		5 mL	5 mL				
280-123981-I-7	LF7MW-30_0519	9056A	T	5 mL	5 mL				
280-123981-J-8	LF7WL-3_0519	9056A	T	5 mL	5 mL				
280-123981-H-9	LF7WL-4_0519	9056A	T	5 mL	5 mL				
CCV 280-458777/44		9056A		5 mL	5 mL				
CCB 280-458777/45		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 01580	IC SO4 ICV 00017	ICMS/MSD WEEK 00592			
STD 280-458777/2 IC		9056A							
STD 280-458777/3 IC		9056A							
STD 280-458777/4 IC		9056A							
STD 280-458777/5 IC		9056A							
STD 280-458777/6 IC		9056A							
STD 280-458777/7 IC		9056A							
ICV 280-458777/8		9056A			0.4 mL				
ICB 280-458777/9		9056A							
MRL 280-458777/10		9056A							
LCS 280-458777/11		9056A		5 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 01580	IC SO4 ICV 00017	ICMS/MSD WEEK 00592			
LCSD 280-458777/12		9056A		5 mL					
MB 280-458777/13		9056A							
280-123981-J-1	LF7MW-22_0519	9056A	T						
280-123981-I-2	LF7MW-23_0519	9056A	T						
CCV 280-458777/24		9056A		5 mL					
CCB 280-458777/25		9056A							
280-123981-I-3	LF7MW-26_0519	9056A	T						
280-123981-I-3 DU	LF7MW-26_0519	9056A	T						
280-123981-I-3 MS	LF7MW-26_0519	9056A	T			0.05 mL			
280-123981-I-3 MSD	LF7MW-26_0519	9056A	T			0.05 mL			
280-123981-J-4	LF7MW-26_0519-a	9056A	T						
280-123981-J-5	LF7MW-27_0519	9056A	T						
280-123981-H-6	LF7MW-28_0519	9056A	T						
280-123981-H-6 DU	LF7MW-28_0519	9056A	T						
280-123981-H-6 MS	LF7MW-28_0519	9056A	T			0.05 mL			
280-123981-H-6 MSD	LF7MW-28_0519	9056A	T			0.05 mL			
CCV 280-458777/36		9056A		5 mL					
CCB 280-458777/37		9056A							
280-123981-I-7	LF7MW-30_0519	9056A	T						
280-123981-J-8	LF7WL-3_0519	9056A	T						
280-123981-H-9	LF7WL-4_0519	9056A	T						
CCV 280-458777/44		9056A		5 mL					
CCB 280-458777/45		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11_eluent00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 461295 Batch Start Date: 06/11/19 17:26 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-461295/1		9060A		50 mL	50 mL	1 mL			
ICB 280-461295/2		9060A		20 mL	20 mL				
CCV 280-461295/27		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/28		9060A		20 mL	20 mL				
LCS 280-461295/34		9060A		200 mL	200 mL		5 mL		
MB 280-461295/35		9060A		20 mL	20 mL				
CCV 280-461295/39		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/40		9060A		20 mL	20 mL				
CCV 280-461295/51		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/52		9060A		20 mL	20 mL				
280-123981-G-1	LF7MW-22_0519	9060A	T	20 mL	20 mL				
280-123981-E-2	LF7MW-23_0519	9060A	T	20 mL	20 mL				
280-123981-E-3	LF7MW-26_0519	9060A	T	20 mL	20 mL				
280-123981-C-4	LF7MW-26_0519-a	9060A	T	20 mL	20 mL				
280-123981-E-5	LF7MW-27_0519	9060A	T	20 mL	20 mL				
CCV 280-461295/63		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/64		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4)_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000AZ, WC1000LL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 461295 Batch Start Date: 06/11/19 17:26 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 461430 Batch Start Date: 06/12/19 15:21 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-461430/1		9060A		50 mL	50 mL	1 mL			
ICB 280-461430/2		9060A		20 mL	20 mL				
CCV 280-461430/27		9060A		200 mL	200 mL	5 mL			
CCB 280-461430/28		9060A		20 mL	20 mL				
LCS 280-461430/34		9060A		200 mL	200 mL		5 mL		
MB 280-461430/35		9060A		20 mL	20 mL				
280-123981-G-6	LF7MW-28_0519	9060A	T	20 mL	20 mL				
280-123981-D-7	LF7MW-30_0519	9060A	T	20 mL	20 mL				
CCV 280-461430/39		9060A		200 mL	200 mL	5 mL			
CCB 280-461430/40		9060A		20 mL	20 mL				
280-123981-G-8	LF7WL-3_0519	9060A	T	20 mL	20 mL				
280-123981-G-8 MS	LF7WL-3_0519	9060A	T	50 mL	50 mL		1.25 mL		
280-123981-G-8 MSD	LF7WL-3_0519	9060A	T	50 mL	50 mL		1.25 mL		
280-123981-G-9	LF7WL-4_0519	9060A	T	20 mL	20 mL				
CCV 280-461430/51		9060A		200 mL	200 mL	5 mL			
CCB 280-461430/52		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Batch Comment	CJ TRAINING JM
Combustion Catylyst ID	17007d-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 461430 Batch Start Date: 06/12/19 15:21 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
CCV 280-459576/54		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/55		SM 2320B		InitialAmount is blank					
LCS 280-459576/56		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459576/57		SM 2320B		InitialAmount is blank					
CCV 280-459576/68		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/69		SM 2320B		InitialAmount is blank					
280-123981-J-8	LF7WL-3_0519	SM 2320B	T	InitialAmount is blank					
280-123981-J-3	LF7MW-26_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/80		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/81		SM 2320B		InitialAmount is blank					
LCS 280-459576/82		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459576/83		SM 2320B		InitialAmount is blank					
280-123981-H-4	LF7MW-26_0519-a	SM 2320B	T	InitialAmount is blank					
280-123981-H-4 DU	LF7MW-26_0519-a	SM 2320B	T	InitialAmount is blank					
280-123981-J-9	LF7WL-4_0519	SM 2320B	T	InitialAmount is blank					
280-123981-I-6	LF7MW-28_0519	SM 2320B	T	InitialAmount is blank					
280-123981-I-2	LF7MW-23_0519	SM 2320B	T	InitialAmount is blank					
280-123981-J-7	LF7MW-30_0519	SM 2320B	T	InitialAmount is blank					
280-123981-I-1	LF7MW-22_0519	SM 2320B	T	InitialAmount is blank					
280-123981-J-5	LF7MW-27_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/94		SM 2320B		InitialAmount is blank	10 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
CCB 280-459576/95		SM 2320B		InitialAmount is blank					

Batch Notes	
Acid ID	0.02 H2SO4_00260
pH Buffer 1 ID	pH 2.0 buffer_00079
pH Buffer 2 ID	pH 4. 0 buffer_00178
pH Buffer 3 ID	pH 7.0 buffer_00258
pH Buffer 4 ID	pH 10 buffer_00142
pH Buffer 5 ID	pH 12 buffer_00148
pH Buffer 6 ID	pH 7.0 buffer_00257
Sodium Carbonate ID	Alk Stk Std_00016
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000 ADI
Probe ID	PCE 86 pH 1105 sep14
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-459268/1		SM 2540C			3.8951A0383775	3.8951 g	100 mL	3.8950 g	3.8953 g
LCS 280-459268/2		SM 2540C			3.3709A0383776	3.3709 g	100 mL	3.4216 g	3.4212 g
280-123981-I-1	LF7MW-22_0519	SM 2540C	T	913 umhos/cm	3.4196A0383786	3.4196 g	100 mL	3.4720 g	3.4716 g
280-123981-H-2	LF7MW-23_0519	SM 2540C	T	311 umhos/cm	3.3737A0383787	3.3737 g	100 mL	3.3911 g	3.3916 g
280-123981-H-3	LF7MW-26_0519	SM 2540C	T	374 umhos/cm	3.3768A0383788	3.3768 g	100 mL	3.3996 g	3.3997 g
280-123981-I-4	LF7MW-26_0519-a	SM 2540C	T	555 umhos/cm	3.8329A0383789	3.8329 g	100 mL	3.8670 g	3.8671 g
280-123981-H-5	LF7MW-27_0519	SM 2540C	T	277.9 umhos/cm	3.8915A0383790	3.8915 g	100 mL	3.9094 g	3.9097 g
280-123981-J-6	LF7MW-28_0519	SM 2540C	T	414 umhos/cm	3.7956A0383791	3.7956 g	100 mL	3.8204 g	3.8209 g
280-123981-B-7	LF7MW-30_0519	SM 2540C	T	607 umhos/cm	3.8910A0383792	3.8910 g	100 mL	3.9275 g	3.9279 g
280-123981-I-8	LF7WL-3_0519	SM 2540C	T	353 umhos/cm	3.8229A0383793	3.8229 g	100 mL	3.8447 g	3.8452 g
280-123981-I-9	LF7WL-4_0519	SM 2540C	T	376 umhos/cm	3.3956A0383794	3.3956 g	100 mL	3.4186 g	3.4183 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 280-459268/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	-0.0001 g	0.0002 g	N/A g
LCS 280-459268/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0507 g	0.0503 g	N/A g
280-123981-I-1	LF7MW-22_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0524 g	0.052 g	N/A g
280-123981-H-2	LF7MW-23_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0174 g	0.0179 g	N/A g
280-123981-H-3	LF7MW-26_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0228 g	0.0229 g	N/A g
280-123981-I-4	LF7MW-26_0519-a	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0341 g	0.0342 g	N/A g
280-123981-H-5	LF7MW-27_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0179 g	0.0182 g	N/A g
280-123981-J-6	LF7MW-28_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0248 g	0.0253 g	N/A g
280-123981-B-7	LF7MW-30_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0365 g	0.0369 g	N/A g
280-123981-I-8	LF7WL-3_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0218 g	0.0223 g	N/A g
280-123981-I-9	LF7WL-4_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.023 g	0.0227 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00055		
MB 280-459268/1		SM 2540C		N/A g	100 mL	OK			
LCS 280-459268/2		SM 2540C		N/A g	100 mL	OK	100 mL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00055		
280-123981-I-1	LF7MW-22_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123981-H-2	LF7MW-23_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123981-H-3	LF7MW-26_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123981-I-4	LF7MW-26_0519-a	SM 2540C	T	N/A g	100 mL	OK			
280-123981-H-5	LF7MW-27_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123981-J-6	LF7MW-28_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123981-B-7	LF7MW-30_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123981-I-8	LF7WL-3_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123981-I-9	LF7WL-4_0519	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/31/2019 17:09
Date/Time - Out - CW (WT2)	06/01/2019 18:32
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/23/2019 16:13
Date/Time - Out	05/30/2019 10:00
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/30/2019 10:00 No Unit
Weight(WT1) Date/Time Out	05/31/2019 15:00
Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 459268 Batch Start Date: 05/23/19 16:24 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	Initial_DO	InitialTemp	Final pH	Bot1Num
SCB 280-458674/1		SM5210B				7.23	21.15 Celsius		1
USB 280-458674/2		SM5210B				7.22	21.19 Celsius		5
LCS 280-458674/3		SM5210B				7.23	21.14 Celsius		8
MB 280-458674/4		SM5210B				7.22	21.16 Celsius		11
280-123981-A-1	LF7MW-22_0519	SM5210B	T	6.85 SU	no	7.28	20.40 Celsius	6.85 SU	36
280-123981-A-2	LF7MW-23_0519	SM5210B	T	7.58 SU	no	7.30	20.32 Celsius	7.58 SU	39
280-123981-B-3	LF7MW-26_0519	SM5210B	T	7.56 SU	no	7.30	20.24 Celsius	7.56 SU	42
280-123981-A-4	LF7MW-26_0519-a	SM5210B	T	7.37 SU	no	7.28	20.17 Celsius	7.37 SU	45
280-123981-B-5	LF7MW-27_0519	SM5210B	T	7.75 SU	no	7.29	20.05 Celsius	7.75 SU	48
280-123981-A-6	LF7MW-28_0519	SM5210B	T	7.30 SU	no	7.30	19.97 Celsius	7.30 SU	51
280-123981-B-7	LF7MW-30_0519	SM5210B	T	7.13 SU	no	7.29	19.94 Celsius	7.13 SU	54
280-123981-A-8	LF7WL-3_0519	SM5210B	T	7.38 SU	no	7.30	19.88 Celsius	7.38 SU	57
280-123981-B-9	LF7WL-4_0519	SM5210B	T	7.64 SU	no	7.30	19.81 Celsius	7.64 SU	60

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
SCB 280-458674/1		SM5210B		21.09 Celsius	15 mL	7.23 mg/L	4.72 mg/L	2.51 mg/L	0.669 mg/L
USB 280-458674/2		SM5210B		21.13 Celsius	300 mL	7.23 mg/L	7.17 mg/L	0.06 mg/L	0.06 mg/L
LCS 280-458674/3		SM5210B		21.16 Celsius	6 mL	7.32 mg/L	2.47 mg/L	4.85 mg/L	210.32 mg/L
MB 280-458674/4		SM5210B		21.09 Celsius	300 mL	7.24 mg/L	6.59 mg/L	0.65 mg/L	0.006 mg/L
280-123981-A-1	LF7MW-22_0519	SM5210B	T	20.62 Celsius	60 mL	7.13 mg/L	6.39 mg/L	0.74 mg/L	0.482 mg/L
280-123981-A-2	LF7MW-23_0519	SM5210B	T	20.48 Celsius	60 mL	7.00 mg/L	6.18 mg/L	0.82 mg/L	0.882 mg/L
280-123981-B-3	LF7MW-26_0519	SM5210B	T	20.52 Celsius	60 mL	7.60 mg/L	6.85 mg/L	0.75 mg/L	0.532 mg/L
280-123981-A-4	LF7MW-26_0519-a	SM5210B	T	20.51 Celsius	60 mL	7.52 mg/L	6.77 mg/L	0.75 mg/L	0.532 mg/L
280-123981-B-5	LF7MW-27_0519	SM5210B	T	20.50 Celsius	60 mL	7.47 mg/L	6.76 mg/L	0.71 mg/L	0.332 mg/L
280-123981-A-6	LF7MW-28_0519	SM5210B	T	20.48 Celsius	60 mL	7.36 mg/L	6.59 mg/L	0.77 mg/L	0.632 mg/L
280-123981-B-7	LF7MW-30_0519	SM5210B	T	20.33 Celsius	60 mL	7.36 mg/L	6.63 mg/L	0.73 mg/L	0.432 mg/L
280-123981-A-8	LF7WL-3_0519	SM5210B	T	20.51 Celsius	25 mL	7.34 mg/L	6.50 mg/L	0.84 mg/L	2.357 mg/L

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
280-123981-B-9	LF7WL-4_0519	SM5210B	T	20.29 Celsius	60 mL	7.51 mg/L	6.49 mg/L	1.02 mg/L	1.882 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
SCB 280-458674/1		SM5210B		No. % DO < 50%	35 %	2	21.01 Celsius	20 mL	7.23 mg/L
USB 280-458674/2		SM5210B		Yes. USB		6	21.13 Celsius	300 mL	7.23 mg/L
LCS 280-458674/3		SM5210B		YES. Pass		9	21.15 Celsius	6 mL	7.30 mg/L
MB 280-458674/4		SM5210B		No. DO Deplete Fail					
280-123981-A-1	LF7MW-22_0519	SM5210B	T	No. DO Deplete Fail		37	19.94 Celsius	120 mL	6.84 mg/L
280-123981-A-2	LF7MW-23_0519	SM5210B	T	No. DO Deplete Fail		40	19.90 Celsius	120 mL	6.55 mg/L
280-123981-B-3	LF7MW-26_0519	SM5210B	T	No. DO Deplete Fail		43	20.01 Celsius	120 mL	7.74 mg/L
280-123981-A-4	LF7MW-26_0519-a	SM5210B	T	No. DO Deplete Fail		46	19.86 Celsius	120 mL	7.87 mg/L
280-123981-B-5	LF7MW-27_0519	SM5210B	T	No. DO Deplete Fail		49	19.81 Celsius	120 mL	7.76 mg/L
280-123981-A-6	LF7MW-28_0519	SM5210B	T	No. DO Deplete Fail		52	19.88 Celsius	120 mL	7.40 mg/L
280-123981-B-7	LF7MW-30_0519	SM5210B	T	No. DO Deplete Fail		55	19.98 Celsius	120 mL	7.43 mg/L
280-123981-A-8	LF7WL-3_0519	SM5210B	T	No. DO Deplete Fail		58	20.18 Celsius	60 mL	7.40 mg/L
280-123981-B-9	LF7WL-4_0519	SM5210B	T	No. DO Deplete Fail		61	20.02 Celsius	120 mL	7.75 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
SCB 280-458674/1		SM5210B		4.17 mg/L	42 %	3.06 mg/L	0.612 mg/L	Yes	3
USB 280-458674/2		SM5210B		7.14 mg/L		0.09 mg/L	0.09 mg/L	Yes. Pass	7
LCS 280-458674/3		SM5210B		2.57 mg/L		4.73 mg/L	204.32 mg/L	YES. Pass	10
MB 280-458674/4		SM5210B							
280-123981-A-1	LF7MW-22_0519	SM5210B	T	6.18 mg/L		0.66 mg/L	0.041 mg/L	No. DO Deplete Fail	38

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
280-123981-A-2	LF7MW-23_0519	SM5210B	T	5.72 mg/L		0.83 mg/L	0.466 mg/L	No. DO Deplete Fail	41
280-123981-B-3	LF7MW-26_0519	SM5210B	T	7.00 mg/L		0.74 mg/L	0.241 mg/L	No. DO Deplete Fail	44
280-123981-A-4	LF7MW-26_0519-a	SM5210B	T	6.99 mg/L		0.88 mg/L	0.591 mg/L	No. DO Deplete Fail	47
280-123981-B-5	LF7MW-27_0519	SM5210B	T	6.88 mg/L		0.88 mg/L	0.591 mg/L	No. DO Deplete Fail	50
280-123981-A-6	LF7MW-28_0519	SM5210B	T	6.55 mg/L		0.85 mg/L	0.516 mg/L	No. DO Deplete Fail	53
280-123981-B-7	LF7MW-30_0519	SM5210B	T	6.74 mg/L		0.69 mg/L	0.116 mg/L	No. DO Deplete Fail	56
280-123981-A-8	LF7WL-3_0519	SM5210B	T	6.47 mg/L		0.93 mg/L	1.432 mg/L	No. DO Deplete Fail	59
280-123981-B-9	LF7WL-4_0519	SM5210B	T	6.50 mg/L		1.25 mg/L	1.516 mg/L	No. DO Deplete Fail	62

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
SCB 280-458674/1		SM5210B		20.99 Celsius	25 mL	7.24 mg/L	3.13 mg/L	4.11 mg/L	0.658 mg/L
USB 280-458674/2		SM5210B		21.09 Celsius	300 mL	7.24 mg/L	7.12 mg/L	0.12 mg/L	0.12 mg/L
LCS 280-458674/3		SM5210B		21.13 Celsius	6 mL	7.29 mg/L	2.63 mg/L	4.66 mg/L	200.82 mg/L
MB 280-458674/4		SM5210B							
280-123981-A-1	LF7MW-22_0519	SM5210B	T	19.46 Celsius	240 mL	7.42 mg/L	6.57 mg/L	0.85 mg/L	0.258 mg/L
280-123981-A-2	LF7MW-23_0519	SM5210B	T	19.33 Celsius	240 mL	7.53 mg/L	6.54 mg/L	0.99 mg/L	0.433 mg/L
280-123981-B-3	LF7MW-26_0519	SM5210B	T	19.35 Celsius	240 mL	7.97 mg/L	7.15 mg/L	0.82 mg/L	0.22 mg/L
280-123981-A-4	LF7MW-26_0519-a	SM5210B	T	19.21 Celsius	240 mL	7.90 mg/L	7.11 mg/L	0.79 mg/L	0.183 mg/L
280-123981-B-5	LF7MW-27_0519	SM5210B	T	19.42 Celsius	240 mL	7.87 mg/L	7.08 mg/L	0.79 mg/L	0.183 mg/L
280-123981-A-6	LF7MW-28_0519	SM5210B	T	19.38 Celsius	240 mL	7.53 mg/L	6.43 mg/L	1.1 mg/L	0.571 mg/L
280-123981-B-7	LF7MW-30_0519	SM5210B	T	19.43 Celsius	240 mL	7.60 mg/L	6.67 mg/L	0.93 mg/L	0.358 mg/L
280-123981-A-8	LF7WL-3_0519	SM5210B	T	19.25 Celsius	240 mL	7.84 mg/L	6.05 mg/L	1.79 mg/L	1.433 mg/L
280-123981-B-9	LF7WL-4_0519	SM5210B	T	19.68 Celsius	240 mL	7.94 mg/L	5.74 mg/L	2.2 mg/L	1.946 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
SCB 280-458674/1		SM5210B		57 %	YES. Pass	4	21.02 Celsius	30 mL	7.23 mg/L
USB 280-458674/2		SM5210B			Yes. Pass				
LCS 280-458674/3		SM5210B			YES. Pass				
MB 280-458674/4		SM5210B							
280-123981-A-1	LF7MW-22_0519	SM5210B	T		NO. Deplete Fail				
280-123981-A-2	LF7MW-23_0519	SM5210B	T		NO. Deplete Fail				
280-123981-B-3	LF7MW-26_0519	SM5210B	T		NO. Deplete Fail				
280-123981-A-4	LF7MW-26_0519-a	SM5210B	T		NO. Deplete Fail				
280-123981-B-5	LF7MW-27_0519	SM5210B	T		NO. Deplete Fail				
280-123981-A-6	LF7MW-28_0519	SM5210B	T		NO. Deplete Fail				
280-123981-B-7	LF7MW-30_0519	SM5210B	T		NO. Deplete Fail				
280-123981-A-8	LF7WL-3_0519	SM5210B	T		NO. Deplete Fail				
280-123981-B-9	LF7WL-4_0519	SM5210B	T		YES. Pass				

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
SCB 280-458674/1		SM5210B		2.27 mg/L	4.96 mg/L	0.661 mg/L	69 %	YES. Pass	300 mL
USB 280-458674/2		SM5210B							300 mL
LCS 280-458674/3		SM5210B							300 mL
MB 280-458674/4		SM5210B							300 mL
280-123981-A-1	LF7MW-22_0519	SM5210B	T						300 mL
280-123981-A-2	LF7MW-23_0519	SM5210B	T						300 mL
280-123981-B-3	LF7MW-26_0519	SM5210B	T						300 mL
280-123981-A-4	LF7MW-26_0519-a	SM5210B	T						300 mL
280-123981-B-5	LF7MW-27_0519	SM5210B	T						300 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
280-123981-A-6	LF7MW-28_0519	SM5210B	T						300 mL
280-123981-B-7	LF7MW-30_0519	SM5210B	T						300 mL
280-123981-A-8	LF7WL-3_0519	SM5210B	T						300 mL
280-123981-B-9	LF7WL-4_0519	SM5210B	T						300 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
SCB 280-458674/1		SM5210B		7.26	21.06 Celsius				
USB 280-458674/2		SM5210B		7.27	21.07 Celsius				
LCS 280-458674/3		SM5210B		7.27	21.04 Celsius	6 mL			
MB 280-458674/4		SM5210B		7.28	21.03 Celsius				
280-123981-A-1	LF7MW-22_0519	SM5210B	T	7.29	20.97 Celsius		pH teamp= 15.5, color= pale orange/slightly turbid		
280-123981-A-2	LF7MW-23_0519	SM5210B	T	7.32	20.91 Celsius		pH temp= 15.8, color= clear		
280-123981-B-3	LF7MW-26_0519	SM5210B	T	7.32	20.89 Celsius		pH temp= 15.2, color= clear		
280-123981-A-4	LF7MW-26_0519-a	SM5210B	T	7.32	20.89 Celsius		pH temp= 15.1, color= clear		
280-123981-B-5	LF7MW-27_0519	SM5210B	T	7.31	20.91 Celsius		pH temp= 15.1, color= clear		
280-123981-A-6	LF7MW-28_0519	SM5210B	T	7.31	20.93 Celsius		pH temp= 15.8, color= clear		
280-123981-B-7	LF7MW-30_0519	SM5210B	T	7.32	20.89 Celsius		pH temp= 15.6, color= clear/slightly turbid		
280-123981-A-8	LF7WL-3_0519	SM5210B	T	7.35	20.94 Celsius		pH temp= 15.0, color= clear/turbid/suspended dirt/solids		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
280-123981-B-9	LF7WL-4_0519	SM5210B	T	7.31	20.97 Celsius		pH temp= 15.0, color= clear/turbid/suspended disrt/solids		

Batch Notes	
Barometer ID	YSI 5100 BOD Probe: 16H100313
Batch Comment	Room Temp= 21.23 EC trained by ckb
Calibration - Final Date/Time	05/23/2019 18:51
Calibration - Initial Date/Time	05/18/2019 14:32
Dilution Water ID	Elga water 18.2 micro ohms
Sulfuric Acid ID	1N H2SO4_00033
Incubator ID	BOD10
Sodium Hydroxide ID	1N NaOH_00047
Nitrification Inhibitor ID	Nitrogen inhibitor_00012
Nominal Amount Used	300 mL
Nutrient Buffer Pillow ID	BOD buffer_00038
pH Meter ID	SV-15261, QX1-15909
Pipette/Syringe/Dispenser ID	5000 BOD 1000BOD
Probe ID	YSI 5010 BOD Probe 15A100003
Residual Chlorine Pillow Lot #	free chlorine micro check lot: 111418
Amount of Seed added to each Sample	4 mL
Seed Correction	0.6436 mg/L
Seed ID	Polyseed_00020 Seeded @ 14:15 EC read back at 16:51 CKB
Thermometer ID	1000623508
Uncorrected Incubator Temp - Final	19.7 Celsius
Uncorrected Incubator Temp - Initial	19.90 Celsius
Barometric Pressure - Uncorrected	initial:621 final: 624

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123981-1

SDG No.:

Batch Number: 458674 Batch Start Date: 05/18/19 13:59 Batch Analyst: Sonnier, Kelly E

Batch Method: SM5210B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Table - 053019.tbl

File name: C:\FLOW_4\053019.TBL
Date: 30-May-19

Cup	Name	Type	R	Dil	Wt	Comment
5	Sync	SYNC	1	1	1	
0	blk	CO	1	1	1	
0	Read Baseline	RB	1	1	1	
1	Cal 0.0 PPB	C	1	1	1	
3	Cal 25.0 ppb	C	1	1	1	
4	Cal 50.0 ppb	C	1	1	1	
5	Cal 100.0 ppb	C	1	1	1	
6	Cal 500.0 ppb	C	1	1	1	
7	Cal 1000.0 ppb	C	1	1	1	
8	Cal 2500.0 ppb	C	1	1	1	
9	Cal 5000.0 ppb	C	1	1	1	
0	blank	BLNK	1	1	1	
0	read baseline	RB	1	1	1	
10	ICVL 500.0 ppb	U	1	1	1	pH Cl-
11	ICV 2500.0 ppb	U	1	1	1	
1	ICB	U	1	1	1	
0	read baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	2
13	280-124168-c-1	U	1	1	1	2
14	MS 280-124168-c-1	U	1	1	1	
15	MSD 280-124168-c-1	U	1	1	1	
16	280-124168-c-2	U	1	1	1	7 2
17	280-124168-c-3	U	1	1	1	2 2
18	280-123922-e-1	U	1	1	1	2 2
19	280-123922-d-2	U	1	1	1	2 2
20	280-123922-c-3	U	1	1	1	2 2
21	280-123947-b-2	U	1	20	1	2 2
22	280-123924-e-1	U	1	1	1	2 2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
23	280-123924-d-2	U	1	1	1	2 2 2
24	280-123924-c-3	U	1	1	1	2 2
25	280-123924-c-4	U	1	1	1	2 2
26	MS 280-123924-c-4	U	1	1	1	
27	MSD 280-123924-c-4	U	1	1	1	
28	280-123924-e-5	U	1	1	1	2 2 2
29	280-123924-c-6	U	1	1	1	2 2 2
30	280-123924-c-7	U	1	1	1	2 2 2
31	280-123924-c-8	U	1	1	1	2 2 2
32	280-123924-c-9	U	1	1	1	2 2 2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
33	280-123924-c-10	U	1	1	1	2 2 2 2
34	280-123924-c-11	U	1	1	1	2 2 2 2
35	280-123924-c-12	U	1	1	1	2 2 2 2
36	280-123930-e-1	U	1	1	1	2 2

Cup	Name	Type	R	Dil	Wt	Comment
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	
37	280-123930-c-2	U	1	1	1	L2 N
38	MS 280-123930-c-2	U	1	1	1	
39	MSD 280-123930-c-2	U	1	1	1	N
40	280-123930-e-3	U	1	1	1	L2
41	280-123930-c-4	U	1	1	1	L2
42	280-123930-c-5	U	1	1	1	L2
43	280-123981-d-1	U	1	1	1	L2
44	280-123981-e-2	U	1	1	1	L2
45	280-123981-c-3	U	1	1	1	L2
46	280-123981-e-4	U	1	1	1	L2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
47	280-123981-e-5	U	1	1	1	L2
48	280-123981-d-6	U	1	1	1	L2
49	280-123981-e-7	U	1	1	1	L2
50	MS 280-123981-e-7	U	1	1	1	
51	MSD 280-123981-e-7	U	1	1	1	L2
52	280-123981-c-8	U	1	1	1	L2
53	280-123981-e-9	U	1	1	1	L2
54	280-124244-a-1	U	1	1	1	L2
55	280-124229-b-1	U	1	1	1	L2
56	280-124229-b-2	U	1	1	1	L2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
57	280-124229-b-3	U	1	1	1	L2 N
58	280-124229-b-4	U	1	1	1	L2 N
59	280-124229-b-5	U	1	1	1	L2 N unpreserved
60	280-123760-e-1	U	1	~~1~~ 500	1	7 N
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	
61	280-123712-a-1	U	1	100	1	L2 N
62	MS 280-123712-a-1	U	1	100	1	
63	MSD 280-123712-a-1	U	1	100	1	
64	280-123712-a-2	U	1	100	1	L2 N
65	280-123590-a-1	U	1	500	1	L2 N
0	Rinse	U	1	1	1	

Cup	Name	Type	R	Dil	Wt	Comment
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	

Run Results Report

Facility Name
Facility Location
Department
Operator Name MJS
Operator ID MJS
Platform FS 3000
Software Rev Code 222
Data system ID 57

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	10:59	5	Sync	12533	102.820	
30-May-19	11:01	0	blk	-101	7.426	
30-May-19	11:03	0	Read Baseline	0	8.188	BL
30-May-19	11:05	1	Cal 0.0 PPB	351	10.830	
30-May-19	11:07	3	Cal 25.0 ppb	3030	31.004	
30-May-19	11:09	4	Cal 50.0 ppb	6203	54.940	
30-May-19	11:11	5	Cal 100.0 ppb	12605	103.366	
30-May-19	11:13	6	Cal 500.0 ppb	61020	475.195	
30-May-19	11:15	7	Cal 1000.0 ppb	123276	967.943	
30-May-19	11:17	8	Cal 2500.0 ppb	308445	2530.731	
30-May-19	11:19	9	Cal 5000.0 ppb	570676	4992.791	
30-May-19	11:21	0	blank	228	9.900	
30-May-19	11:23	0	read baseline	0	8.188	BL
30-May-19	11:25	10	ICVL 500.0 ppb	59361	462.292	
30-May-19	11:27	11	ICV 2500.0 ppb	300443	2460.194	
30-May-19	11:29	1	ICB	89	8.859	
30-May-19	11:31	0	read baseline	0	8.188	BL UM
30-May-19	11:33	8	LCS	303744	2489.255	
30-May-19	11:35	8	LCSD	301427	2468.847	
30-May-19	11:37	12	.MB	4364	41.063	UM
30-May-19	11:39	13	.280-124168-c-1	-7737	-49.901	LO
30-May-19	11:41	14	MS 280-124168-c-1	-9671	-64.381	LO
30-May-19	11:43	15	MSD 280-124168-c-1	-13204	-90.792	LO
30-May-19	11:50	0	read baseline	0	8.188	BL
30-May-19	11:52	8	LCS	310485	2548.762	
30-May-19	11:54	8	LCSD	309471	2539.796	
30-May-19	11:56	12	MB	90	8.865	
30-May-19	11:58	13	280-124168-c-1	146	9.286	
30-May-19	12:00	14	MS 280-124168-c-1	131075	1030.835	
30-May-19	12:02	15	MSD 280-124168-c-1	133295	1048.785	
30-May-19	12:04	16	280-124168-c-2	186	9.585	
30-May-19	12:06	17	280-124168-c-3	311	10.529	
30-May-19	12:08	18	280-123922-e-1	186011	1481.124	
30-May-19	12:10	19	280-123922-d-2	211025	1690.397	
30-May-19	12:12	20	280-123922-c-3	107517	841.664	
30-May-19	12:14	21	280-123947-b-2	98077	15330.447	
30-May-19	12:16	22	280-123924-e-1	67	8.694	
30-May-19	12:18	0	Rinse	100	8.937	
30-May-19	12:20	0	Read Baseline	0	8.188	BL
30-May-19	12:22	6	CCVL 500 ppb	58335	454.312	
30-May-19	12:24	8	CCV 2500 ppb	297861	2437.484	
30-May-19	12:26	12	CCB	485	11.841	
30-May-19	12:28	0	Read Baseline	0	8.188	BL
30-May-19	12:30	23	280-123924-d-2	9179	77.426	
30-May-19	12:32	24	280-123924-c-3	307	10.499	
30-May-19	12:34	25	280-123924-c-4	36798	287.930	

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	12:36	26	MS 280-123924-c-4	158618	1254.990	
30-May-19	12:38	27	MSD 280-123924-c-4	166484	1319.605	
30-May-19	12:40	28	280-123924-e-5	18381	147.199	
30-May-19	12:42	29	280-123924-c-6	77531	604.279	
30-May-19	12:44	30	280-123924-c-7	2933	30.271	
30-May-19	12:46	31	280-123924-c-8	3185	32.172	
30-May-19	12:48	32	280-123924-c-9	3096	31.503	
30-May-19	12:50	0	Rinse	-236	6.415	
30-May-19	12:52	0	Read Baseline	0	8.188	BL
30-May-19	12:54	6	CCVL 500 ppb	58342	454.370	
30-May-19	12:56	8	CCV 2500 ppb	296742	2427.652	
30-May-19	12:58	12	CCB	603	12.725	
30-May-19	13:00	0	Read Baseline	0	8.188	BL
30-May-19	13:02	33	280-123924-c-10	2218	24.887	
30-May-19	13:04	34	280-123924-c-11	1753	21.383	
30-May-19	13:06	35	280-123924-c-12	3497	34.523	
30-May-19	13:08	36	280-123930-e-1	82256	641.432	
30-May-19	13:10	0	Rinse	345	10.784	
30-May-19	13:12	0	Read Baseline	0	8.188	BL
30-May-19	13:14	6	CCVL 500 ppb	59538	463.670	
30-May-19	13:16	8	CCV 2500 ppb	303993	2491.456	
30-May-19	13:18	12	CCB	398	11.186	
30-May-19	13:20	0	Read Baseline	0	8.188	BL
30-May-19	13:22	8	LCS	301638	2470.708	
30-May-19	13:24	8	LCSD	301428	2468.860	
30-May-19	13:26	12	MB	370	10.970	
30-May-19	13:28	37	280-123930-c-2	15354	124.213	
30-May-19	13:30	38	MS 280-123930-c-2	142208	1121.052	
30-May-19	13:32	39	MSD 280-123930-c-2	144106	1136.489	
30-May-19	13:34	40	280-123930-e-3	15971	128.895	
30-May-19	13:36	41	280-123930-c-4	23150	183.504	
30-May-19	13:38	42	280-123930-c-5	6642	58.253	
30-May-19	13:40	43	280-123981-d-1	78481	611.740	
30-May-19	13:42	44	280-123981-e-2	27694	218.186	
30-May-19	13:44	45	280-123981-c-3	-274	6.129	
30-May-19	13:46	46	280-123981-e-4	319	10.589	
30-May-19	13:48	0	Rinse	226	9.886	
30-May-19	13:50	0	Read Baseline	0	8.188	BL
30-May-19	13:52	6	CCVL 500 ppb	58773	457.718	
30-May-19	13:54	8	CCV 2500 ppb	303896	2490.598	
30-May-19	13:56	12	CCB	319	10.590	
30-May-19	13:58	0	Read Baseline	0	8.188	BL
30-May-19	14:00	47	280-123981-e-5	-70	7.663	
30-May-19	14:02	48	280-123981-d-6	3100	31.536	
30-May-19	14:04	49	280-123981-e-7	-248	6.325	
30-May-19	14:06	50	MS 280-123981-e-7	120358	944.480	
30-May-19	14:08	51	MSD 280-123981-e-7	128907	1013.326	
30-May-19	14:10	52	280-123981-c-8	477	11.779	
30-May-19	14:12	53	280-123981-e-9	161	9.397	
30-May-19	14:14	54	280-124244-a-1	55458	431.976	
30-May-19	14:16	55	280-124229-b-1	2030	23.469	
30-May-19	14:18	56	280-124229-b-2	-138	7.149	
30-May-19	14:20	0	Rinse	-263	6.210	
30-May-19	14:22	0	Read Baseline	0	8.188	BL
30-May-19	14:24	6	CCVL 500 ppb	59416	462.718	
30-May-19	14:26	8	CCV 2500 ppb	301106	2466.028	
30-May-19	14:28	12	CCB	377	11.027	

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	14:30	0	Read Baseline	0	8.188	BL
30-May-19	14:32	57	280-124229-b-3	591	12.637	
30-May-19	14:34	58	280-124229-b-4	10957	90.884	
30-May-19	14:36	59	280-124229-b-5	-95	7.476	
30-May-19	14:38	60	280-123760-e-1	272349	221467.359	
30-May-19	14:40	0	Rinse	181	9.548	
30-May-19	14:42	0	Read Baseline	0	8.188	BL
30-May-19	14:44	6	CCVL 500 ppb	61769	481.031	
30-May-19	14:46	8	CCV 2500 ppb	309865	2543.281	
30-May-19	14:48	12	CCB	520	12.100	
30-May-19	14:50	0	Read Baseline	0	8.188	BL
30-May-19	14:52	8	LCS	288419	2354.700	
30-May-19	14:54	8	LCSD	313714	2577.327	
30-May-19	14:56	12	MB	264	10.176	
30-May-19	14:58	61	280-123712-a-1	75216	58611.250	
30-May-19	15:00	62	MS 280-123712-a-1	213348	170996.875	
30-May-19	15:02	63	MSD 280-123712-a-1	211956	169823.797	
30-May-19	15:04	64	280-123712-a-2	72113	56179.426	
30-May-19	15:06	65	280-123590-a-1	44423	173305.375	
30-May-19	15:08	0	Rinse	62	8.651	
30-May-19	15:10	0	Read Baseline	0	8.188	BL
30-May-19	15:12	6	CCVL 500 ppb	58293	453.988	
30-May-19	15:14	8	CCV 2500 ppb	313425	2574.775	
30-May-19	15:16	12	CCB	201	9.697	
30-May-19	15:18	0	Read Baseline	0	8.188	BL

Peak Table:Ammonia

File name: C:\FLOW_4\053019.RST
Date: 30-May-19
Operator: MJS

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	12533	102.819733	
2	0	blk	1	CO	1	1	-101	7.426366	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
4	1	Cal 0.0 PPB	1	C	1	1	351	10.830211	
5	3	Cal 25.0 ppb	1	C	1	1	3030	31.003801	
6	4	Cal 50.0 ppb	1	C	1	1	6203	54.940498	
7	5	Cal 100.0 ppb	1	C	1	1	12605	103.365593	
8	6	Cal 500.0 ppb	1	C	1	1	61020	475.194672	
9	7	Cal 1000.0 ppb	1	C	1	1	123276	967.943176	
10	8	Cal 2500.0 ppb	1	C	1	1	308445	2530.731201	
11	9	Cal 5000.0 ppb	1	C	1	1	570676	4992.790527	
12	0	blank	1	BLNK	1	1	228	9.900016	
B	0	read baseline	1	RB	1	1	0	8.187531	BL
14	10	ICVL 500.0 ppb	1	U	1	1	59361	462.292480	
15	11	ICV 2500.0 ppb	1	U	1	1	300443	2460.193604	
16	1	ICB	1	U	1	1	89	8.859468	
B	0	read baseline	1	RB	1	1	0	8.187531	BL UM
18	8	LCS	1	U	1	1	303744	2489.255371	
19	8	LCSD	1	U	1	1	301427	2468.846924	
20	12	.MB	1	U	1	1	4364	41.062794	UM
21	13	.280-124168-c-1	1	U	1	1	-7737	-49.900867	LO
22	14	MS 280-124168-c-1	1	U	1	1	-9671	-64.381126	LO
23	15	MSD 280-124168-c-1	1	U	1	1	-13204	-90.791763	LO
B	0	read baseline	1	RB	1	1	0	8.187531	BL
25	8	LCS	1	U	1	1	310485	2548.761719	
26	8	LCSD	1	U	1	1	309471	2539.795898	
27	12	MB	1	U	1	1	90	8.865420	
28	13	280-124168-c-1	1	U	1	1	146	9.286325	
29	14	MS 280-124168-c-1	1	U	1	1	131075	1030.835327	
30	15	MSD 280-124168-c-1	1	U	1	1	133295	1048.784912	
31	16	280-124168-c-2	1	U	1	1	186	9.585053	
32	17	280-124168-c-3	1	U	1	1	311	10.529251	
33	18	280-123922-e-1	1	U	1	1	186011	1481.124268	
34	19	280-123922-d-2	1	U	1	1	211025	1690.396729	
35	20	280-123922-c-3	1	U	1	1	107517	841.663757	
36	21	280-123947-b-2	1	U	20	1	98077	15330.447266	
37	22	280-123924-e-1	1	U	1	1	67	8.694414	
38	0	Rinse	1	U	1	1	100	8.937119	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
40	6	CCVL 500 ppb	1	U	1	1	58335	454.312469	
41	8	CCV 2500 ppb	1	U	1	1	297861	2437.484375	
42	12	CCB	1	U	1	1	485	11.840541	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
44	23	280-123924-d-2	1	U	1	1	9179	77.425850	
45	24	280-123924-c-3	1	U	1	1	307	10.499029	
46	25	280-123924-c-4	1	U	1	1	36798	287.929779	
47	26	MS 280-123924-c-4	1	U	1	1	158618	1254.989624	
48	27	MSD 280-123924-c-4	1	U	1	1	166484	1319.604614	
49	28	280-123924-e-5	1	U	1	1	18381	147.198837	
50	29	280-123924-c-6	1	U	1	1	77531	604.278931	
51	30	280-123924-c-7	1	U	1	1	2933	30.271387	
52	31	280-123924-c-8	1	U	1	1	3185	32.171955	
53	32	280-123924-c-9	1	U	1	1	3096	31.503464	
54	0	Rinse	1	U	1	1	-236	6.414662	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
56	6	CCVL 500 ppb	1	U	1	1	58342	454.370270	
57	8	CCV 2500 ppb	1	U	1	1	296742	2427.651855	
58	12	CCB	1	U	1	1	603	12.725226	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
60	33	280-123924-c-10	1	U	1	1	2218	24.886900	
61	34	280-123924-c-11	1	U	1	1	1753	21.382565	
62	35	280-123924-c-12	1	U	1	1	3497	34.523472	
63	36	280-123930-e-1	1	U	1	1	82256	641.432190	
64	0	Rinse	1	U	1	1	345	10.784194	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
66	6	CCVL 500 ppb	1	U	1	1	59538	463.670349	
67	8	CCV 2500 ppb	1	U	1	1	303993	2491.456055	
68	12	CCB	1	U	1	1	398	11.185896	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
70	8	LCS	1	U	1	1	301638	2470.708252	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	8	LCSD	1	U	1	1	301428	2468.860107	
72	12	MB	1	U	1	1	370	10.970116	
73	37	280-123930-c-2	1	U	1	1	15354	124.213051	
74	38	MS 280-123930-c-2	1	U	1	1	142208	1121.051636	
75	39	MSD 280-123930-c-2	1	U	1	1	144106	1136.489258	
76	40	280-123930-e-3	1	U	1	1	15971	128.894516	
77	41	280-123930-c-4	1	U	1	1	23150	183.503891	
78	42	280-123930-c-5	1	U	1	1	6642	58.253437	
79	43	280-123981-d-1	1	U	1	1	78481	611.739990	
80	44	280-123981-e-2	1	U	1	1	27694	218.186264	
81	45	280-123981-c-3	1	U	1	1	-274	6.128890	
82	46	280-123981-e-4	1	U	1	1	319	10.588769	
83	0	Rinse	1	U	1	1	226	9.885809	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
85	6	CCVL 500 ppb	1	U	1	1	58773	457.717712	
86	8	CCV 2500 ppb	1	U	1	1	303896	2490.597656	
87	12	CCB	1	U	1	1	319	10.589765	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
89	47	280-123981-e-5	1	U	1	1	-70	7.663309	
90	48	280-123981-d-6	1	U	1	1	3100	31.535744	
91	49	280-123981-e-7	1	U	1	1	-248	6.324844	
92	50	MS 280-123981-e-7	1	U	1	1	120358	944.480103	
93	51	MSD 280-123981-e-7	1	U	1	1	128907	1013.326233	
94	52	280-123981-c-8	1	U	1	1	477	11.778512	
95	53	280-123981-e-9	1	U	1	1	161	9.396813	
96	54	280-124244-a-1	1	U	1	1	55458	431.976318	
97	55	280-124229-b-1	1	U	1	1	2030	23.469158	
98	56	280-124229-b-2	1	U	1	1	-138	7.149239	
99	0	Rinse	1	U	1	1	-263	6.209613	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
101	6	CCVL 500 ppb	1	U	1	1	59416	462.718384	
102	8	CCV 2500 ppb	1	U	1	1	301106	2466.027832	
103	12	CCB	1	U	1	1	377	11.026817	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
105	57	280-124229-b-3	1	U	1	1	591	12.636806	
106	58	280-124229-b-4	1	U	1	1	10957	90.884277	
107	59	280-124229-b-5	1	U	1	1	-95	7.475824	
108	60	280-123760-e-1	1	U	100	1	272349	221467.359375	
109	0	Rinse	1	U	1	1	181	9.547703	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
111	6	CCVL 500 ppb	1	U	1	1	61769	481.031189	
112	8	CCV 2500 ppb	1	U	1	1	309865	2543.281494	
113	12	CCB	1	U	1	1	520	12.099533	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
115	8	LCS	1	U	1	1	288419	2354.699951	
116	8	LCSD	1	U	1	1	313714	2577.327393	
117	12	MB	1	U	1	1	264	10.175629	
118	61	280-123712-a-1	1	U	100	1	75216	58611.250000	
119	62	MS 280-123712-a-1	1	U	100	1	213348	170996.875000	
120	63	MSD 280-123712-a-1	1	U	100	1	211956	169823.796875	
121	64	280-123712-a-2	1	U	100	1	72113	56179.425781	
122	65	280-123590-a-1	1	U	500	1	44423	173305.375000	
123	0	Rinse	1	U	1	1	62	8.651432	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
125	6	CCVL 500 ppb	1	U	1	1	58293	453.987793	
126	8	CCV 2500 ppb	1	U	1	1	313425	2574.775391	
127	12	CCB	1	U	1	1	201	9.697403	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL

Ammonia:Calibration 1: Peak 4-128

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Date: 30-May-19
Operator: MJS

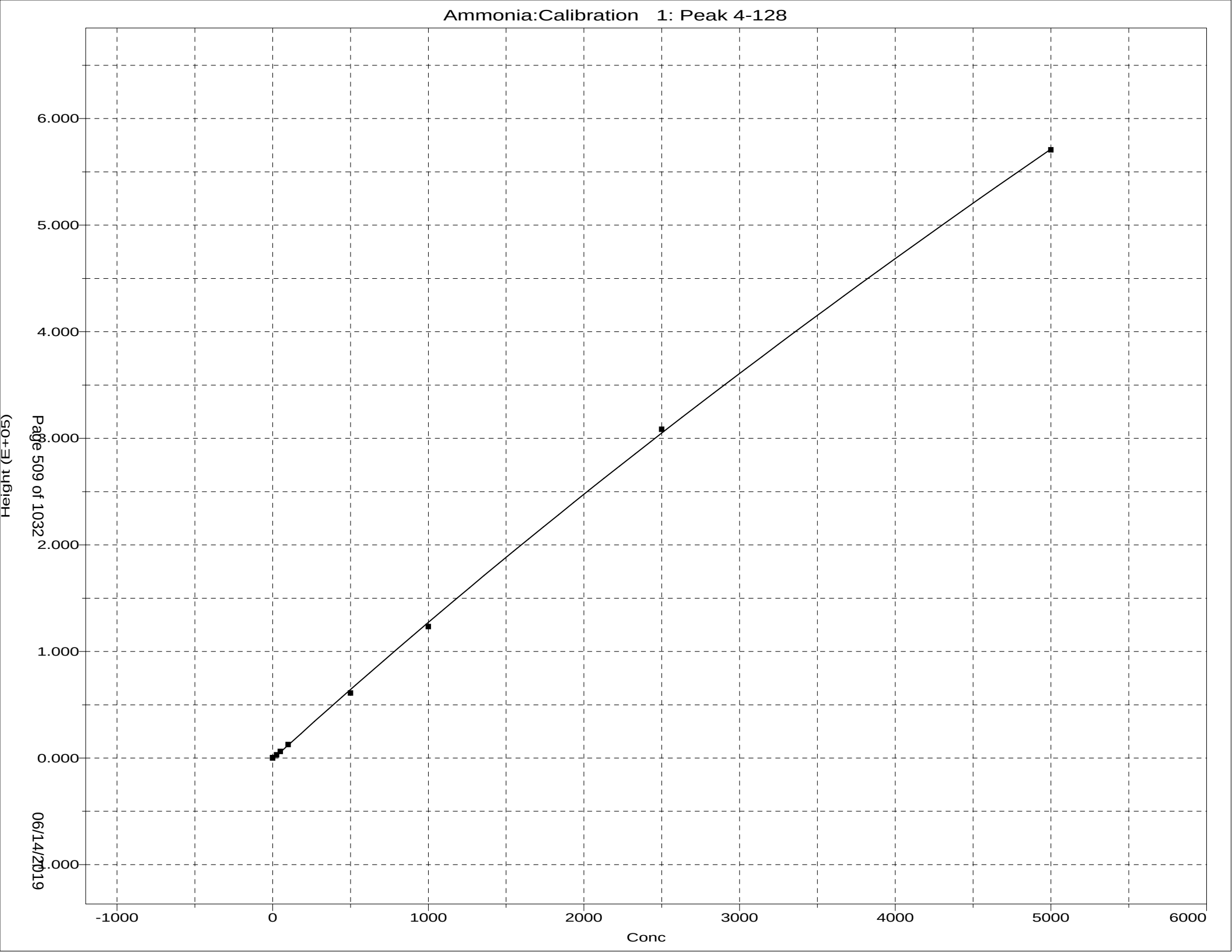
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*	Cal 25.0 ppb	25.000000	3029.902344
*	Cal 50.0 ppb	50.000000	6203.047363
*	Cal 100.0 ppb	100.000000	12605.233398
*	Cal 500.0 ppb	500.000000	61019.695312
*	Cal 1000.0 ppb	1000.000000	123275.507812
*	Cal 2500.0 ppb	2500.000000	308444.718750
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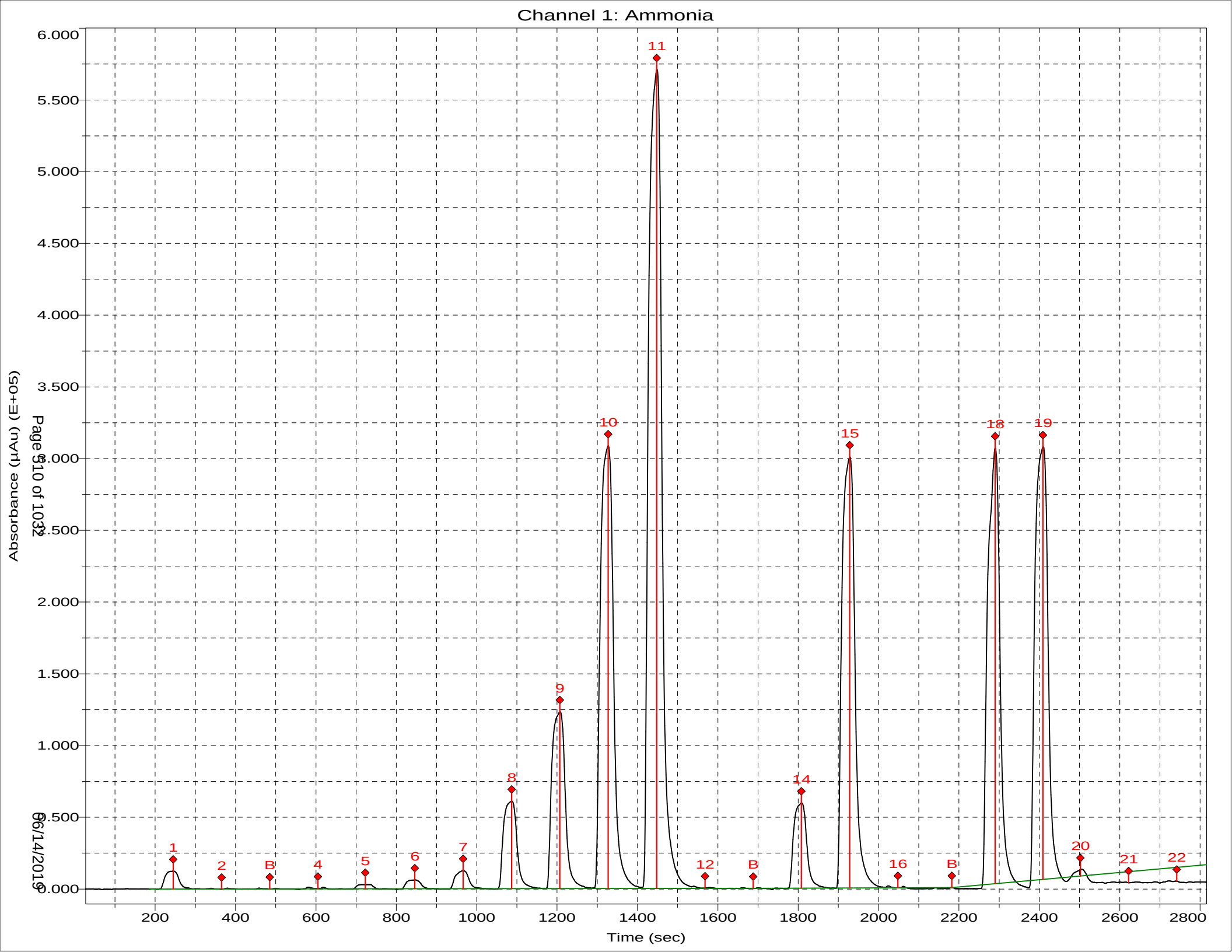
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b: 7.5239e-03
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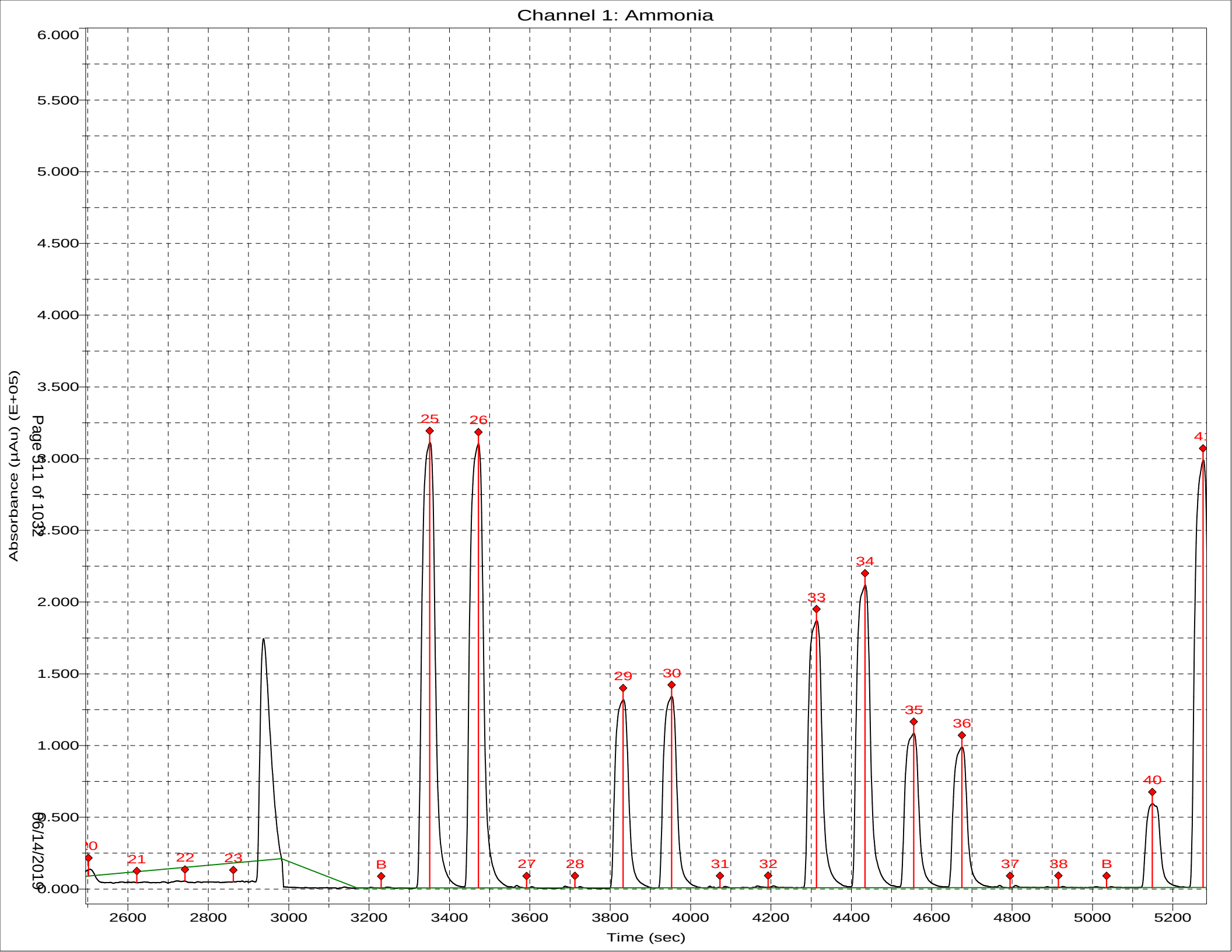
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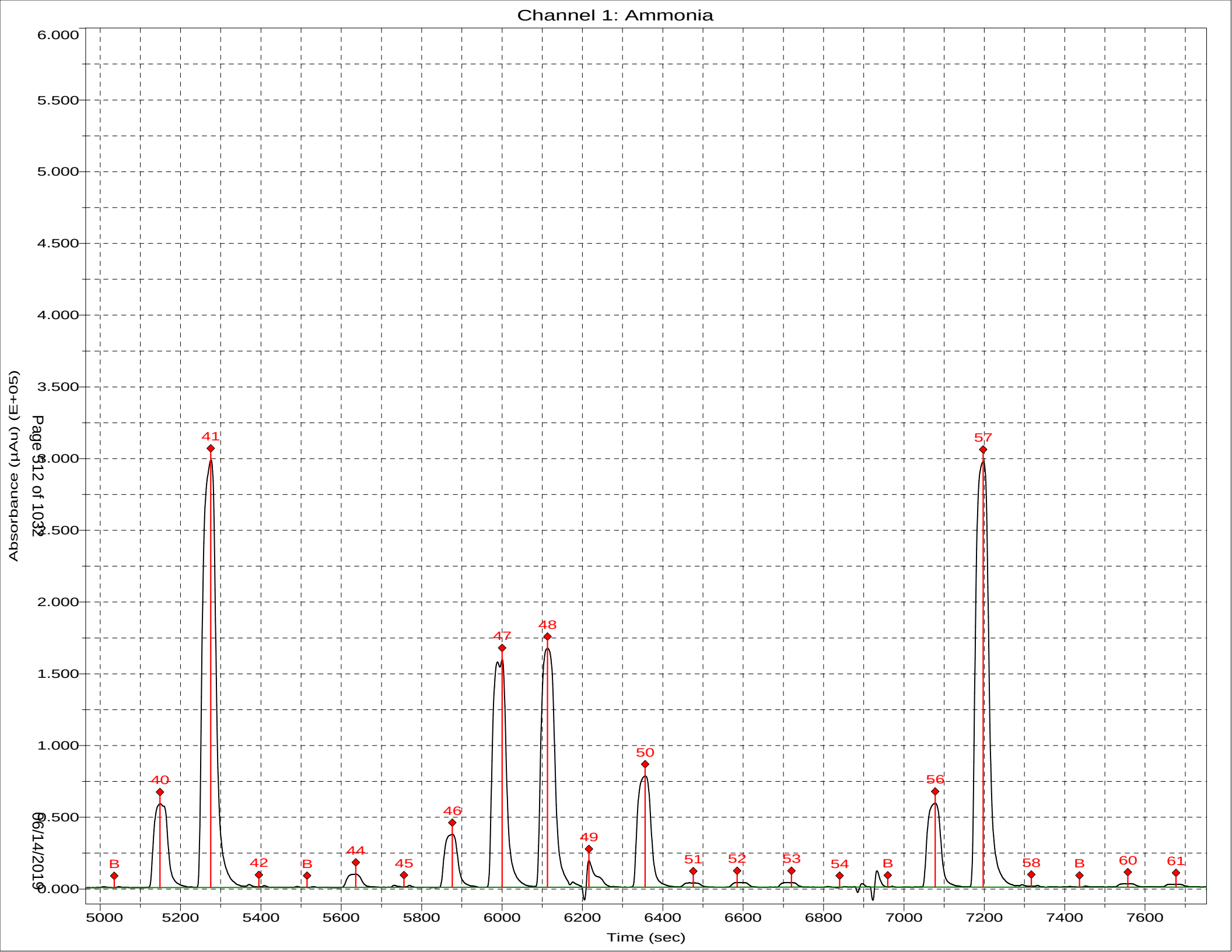
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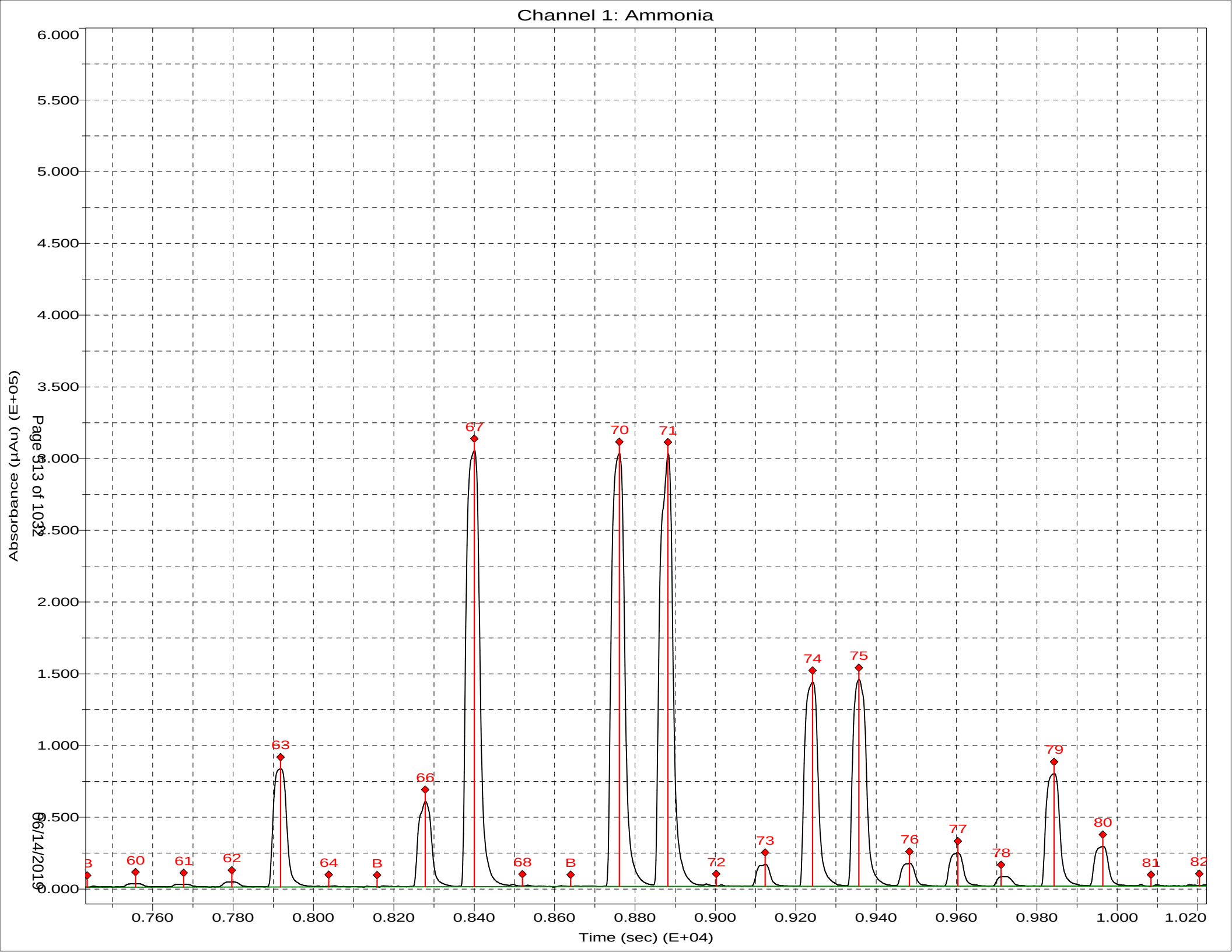
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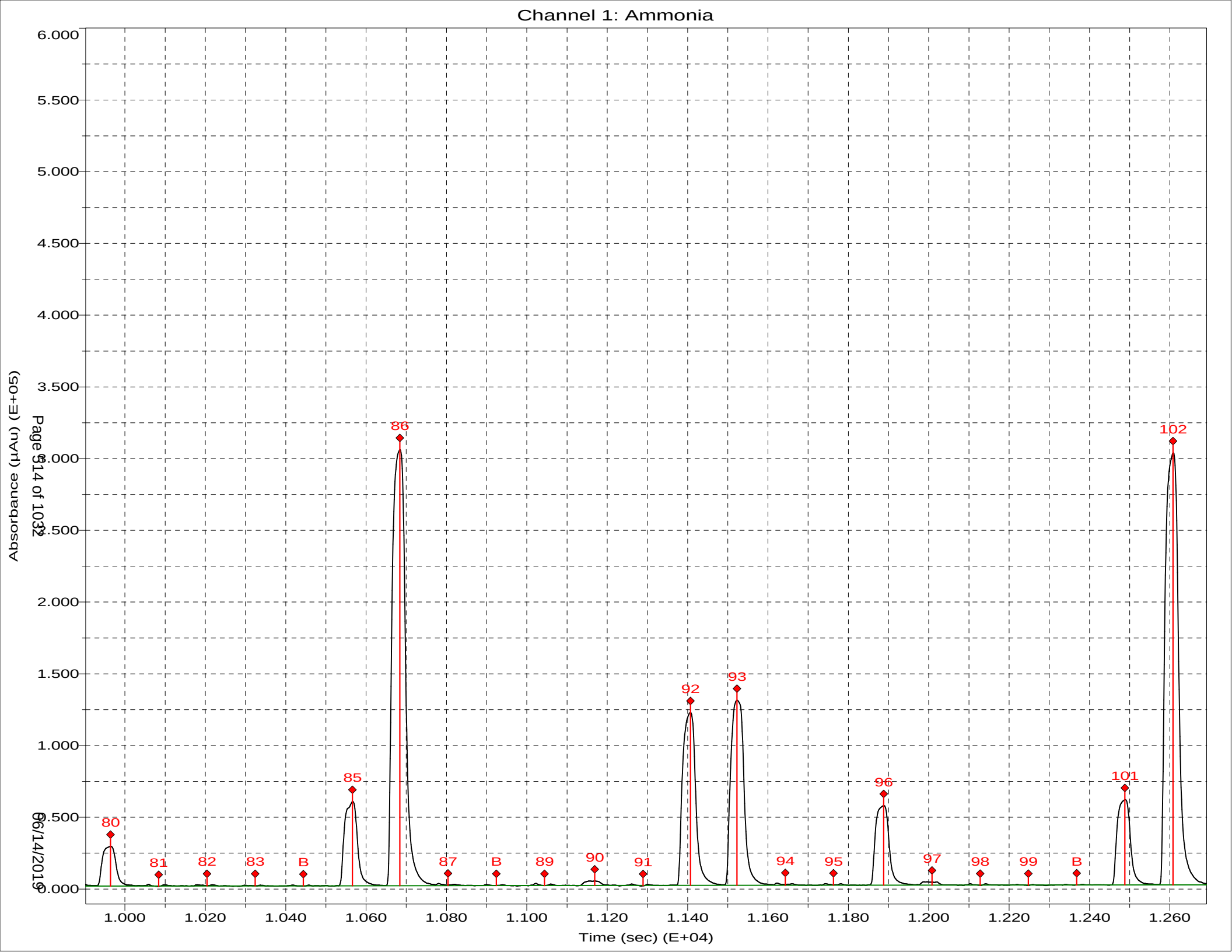

Ammonia:Calibration 1: Peak 4-128
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Height (E+05)
-1000
0
1000
2000
3000
4000
5000
6000
Conc

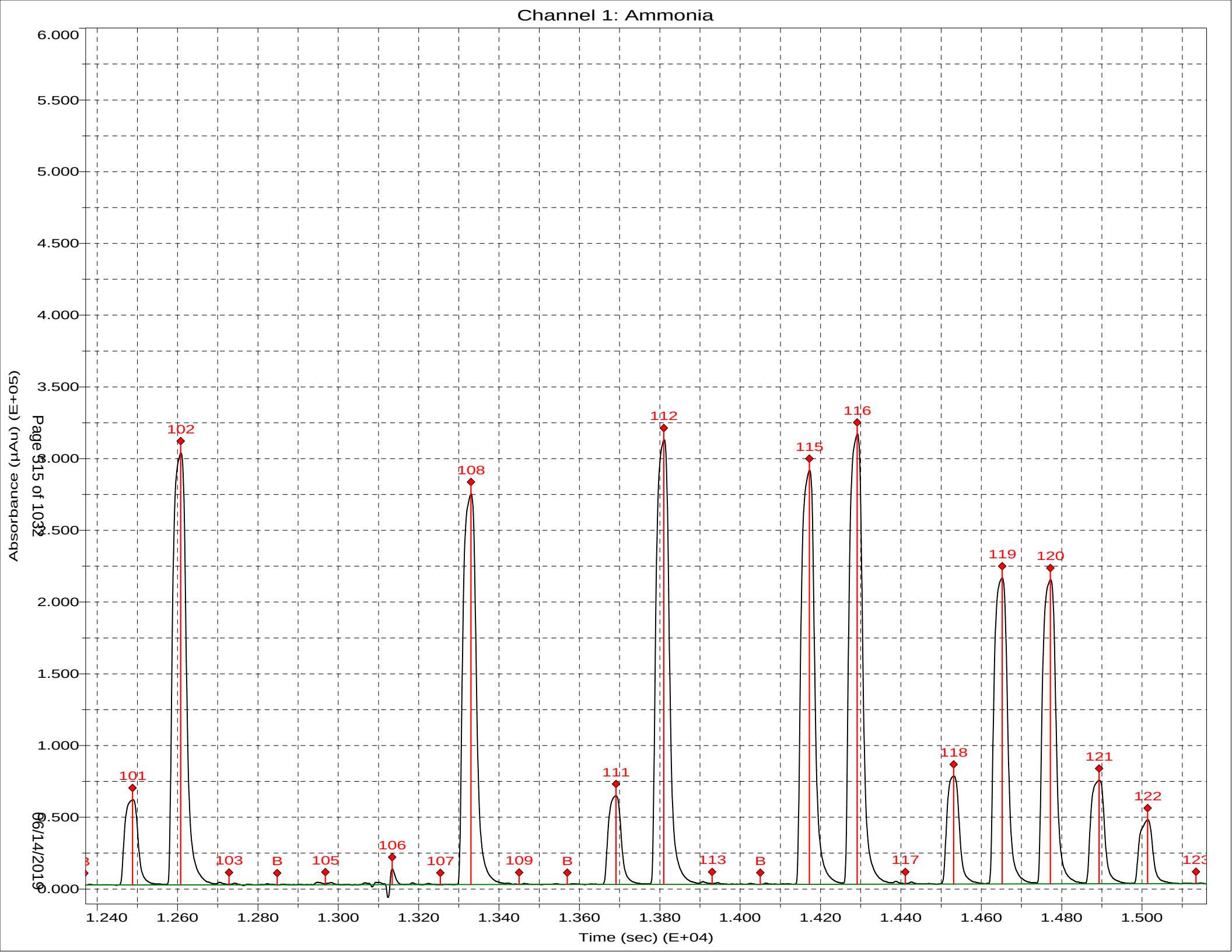

Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
21
22

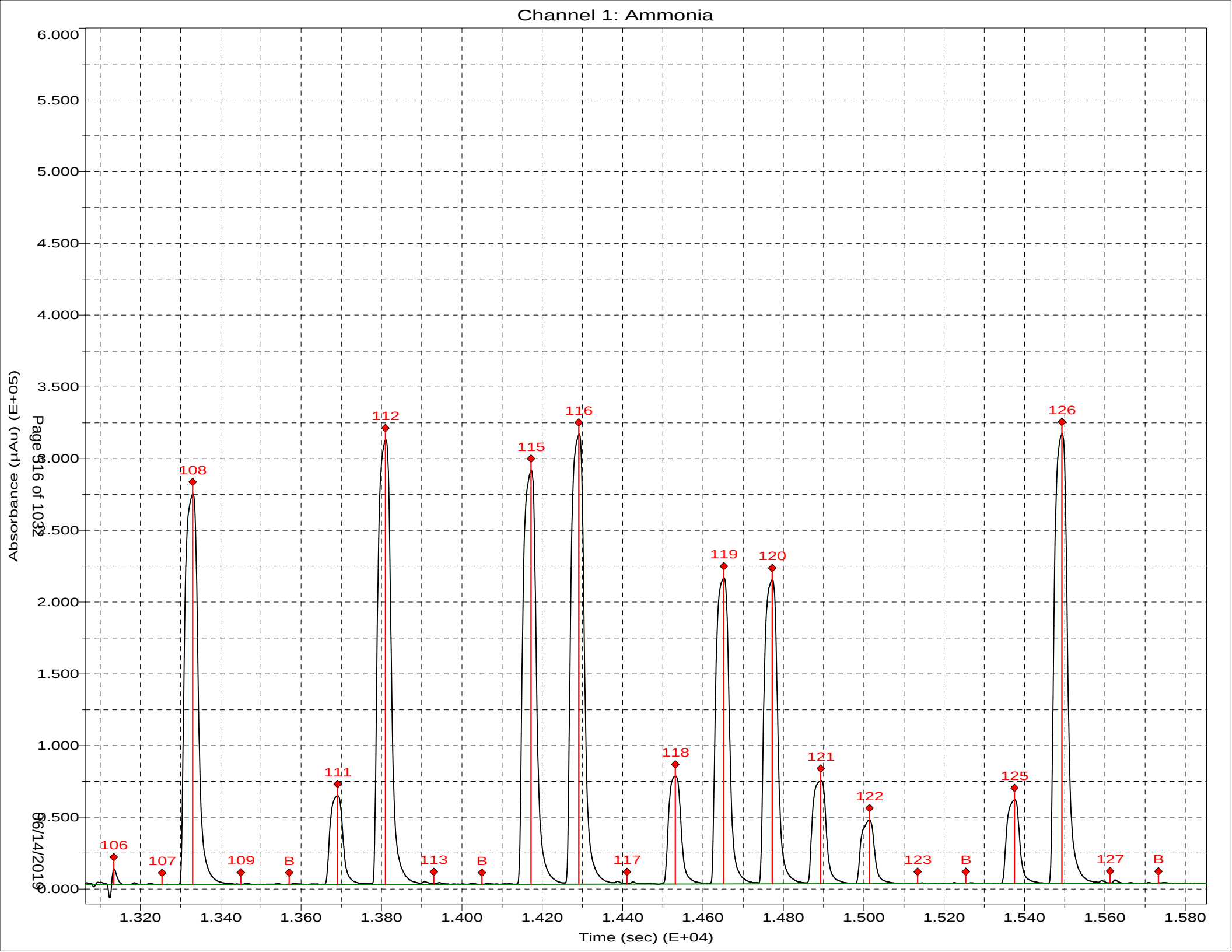

Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
Time (sec)
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06/14/2019
21
22
23
B
25
26
27
28
29
30
31
32
33
34
35
36
37
38
B
40


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
B
40
41
42
B
44
45
46
47
48
49
50
51
52
53
54
B
56
57
58
B
60
61


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.760
0.780
0.800
0.820
0.840
0.860
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
60
61
62
63
64
B
66
67
68
B
70
71
72
73
74
75
76
77
78
79
80
81
82


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
80
81
82
83
B
85
86
87
B
89
90
91
92
93
94
95
96
97
98
99
B
101
102
1.000
1.020
1.040
1.060
1.080
1.100
1.120
1.140
1.160
1.180
1.200
1.220
1.240
1.260
Time (sec) (E+04)
Page 514 of 1032
06/14/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.240
1.260
1.280
1.300
1.320
1.340
1.360
1.380
1.400
1.420
1.440
1.460
1.480
1.500
Time (sec) (E+04)
101
102
103
B
105
106
107
108
109
B
111
112
113
B
115
116
117
118
119
120
121
122
123
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Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.320
1.340
1.360
1.380
1.400
1.420
1.440
1.460
1.480
1.500
1.520
1.540
1.560
1.580
106
107
108
109
B
111
112
113
B
115
116
117
118
119
120
121
122
123
B
125
126
127
B

Sample Table for 060719

	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-460066/42-A	Unknown	4 ml
14	1:16	ICB 280-460066/43-A	Unknown	4 ml
15	1:17	LCS 280-460760/1-A	Unknown	4 ml
16	1:18	MB 280-460760/2-A	Unknown	4 ml
17	1:19	280-124223-A-1-B	Unknown	4 ml
18	1:20	280-124223-A-1-C MS	Unknown	4 ml
19	1:21	280-124223-A-1-D MS	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	280-124223-A-2-B	Unknown	4 ml
22	1:24	280-124223-A-3-B	Unknown	4 ml
23	1:25	280-124223-A-4-B	Unknown	4 ml
24	1:26	280-124223-A-5-B	Unknown	4 ml
25	1:27	280-124321-A-1-A	Unknown	4 ml
26	1:28	280-124073-F-1-A	Unknown	4 ml
27	1:29	280-124073-E-2-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-460066/44-A	Unknown	4 ml
30	1:32	CCB 280-460066/45-A	Unknown	4 ml
31	1:33	280-123981-E-1-A	Unknown	4 ml
32	1:34	280-123981-C-3-A	Unknown	4 ml
33	1:35	280-123981-D-2-B	Unknown	4 ml
34	1:36	280-123981-D-2-C MS	Unknown	4 ml
35	1:37	280-123981-D-2-D MS	Unknown	4 ml
36	1:38	w	Blank	4 ml
37	1:39	280-123981-E-4-A	Unknown	4 ml
38	1:40	280-123981-D-5-A	Unknown	4 ml
39	1:41	280-123981-D-6-A	Unknown	4 ml
40	1:42	280-123981-D-7-A	Unknown	4 ml
41	1:43	280-123981-E-8-A	Unknown	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-460066/44-A	Unknown	4 ml
44	1:46	CCB 280-460066/45-A	Unknown	4 ml

	Position	Identifier	Type	Cup Type
45	1:47	280-123981-C-9-A	Unknown	4 ml
46	1:48	280-123983-E-1-A	Unknown	4 ml
47	1:49	280-123983-C-2-A	Unknown	4 ml
48	1:50	280-123983-D-3-A	Unknown	4 ml
49	1:51	w	Blank	4 ml
50	1:52	LCS 280-460760/27-A	Unknown	4 ml
51	1:53	MB 280-460760/28-A	Unknown	4 ml
52	1:54	280-123969-C-2-A	Unknown	4 ml
53	1:55	280-123969-C-2-B MS	Unknown	4 ml
54	1:56	280-123969-C-2-C MS	Unknown	4 ml
55	1:57	280-124073-F-1-A	Unknown	4 ml
56	1:58	w	Blank	4 ml
57	1:59	CCV 280-460066/44-A	Unknown	4 ml
58	1:60	CCB 280-460066/45-A	Unknown	4 ml
59	2:1	280-123969-C-3-A	Unknown	4 ml
60	2:2	280-123969-D-4-A	Unknown	4 ml
61	2:3	280-123969-D-5-A	Unknown	4 ml
62	2:4	280-123922-C-1-A	Unknown	4 ml
63	2:5	280-123922-E-2-A	Unknown	4 ml
64	2:6	280-123922-C-3-A	Unknown	4 ml
65	2:7	280-123924-E-1-A	Unknown	4 ml
66	2:8	280-123924-D-2-A	Unknown	4 ml
67	2:9	280-123924-E-3-A	Unknown	4 ml
68	2:10	280-123924-D-4-A	Unknown	4 ml
69	2:11	w	Blank	4 ml
70	2:12	CCV 280-460066/44-A	Unknown	4 ml
71	2:13	CCB 280-460066/45-A	Unknown	4 ml
72	2:14	280-123924-D-4-B MS	Unknown	4 ml
73	2:15	280-123924-D-4-C MS	Unknown	4 ml
74	2:16	w	Blank	4 ml
75	2:17	280-123924-D-5-A	Unknown	4 ml
76	2:18	280-123924-C-6-A	Unknown	4 ml
77	2:19	280-123924-C-7-A	Unknown	4 ml
78	2:20	280-123924-E-8-A	Unknown	4 ml
79	2:21	280-123924-D-9-A	Unknown	4 ml
80	2:22	280-123924-C-10-A	Unknown	4 ml
81	2:23	280-123924-C-11-A	Unknown	4 ml
82	2:24	280-123924-D-12-A	Unknown	4 ml
83	2:25	w	Blank	4 ml
84	2:26	CCV 280-460066/44-A	Unknown	4 ml
85	2:27	CCB 280-460066/45-A	Unknown	4 ml
86	2:28	280-124073-E-2-A	Unknown	4 ml
87	2:29	w	Blank	4 ml
88	2:30	CCV 280-460066/44-A	Unknown	4 ml

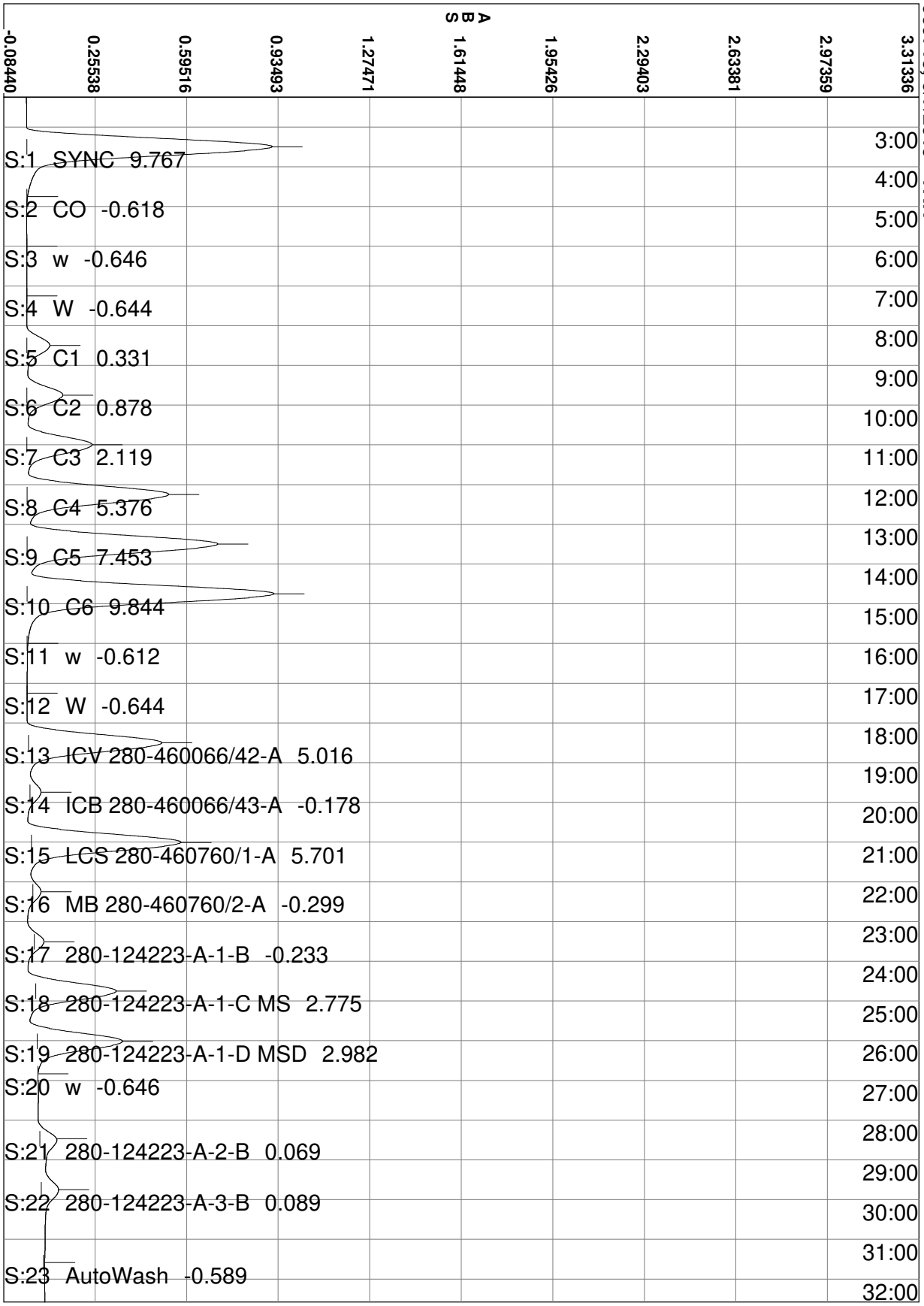
	Position	Identifier	Type	Cup Type
89	2:31	CCB 280-460066/45-A	Unknown	4 ml

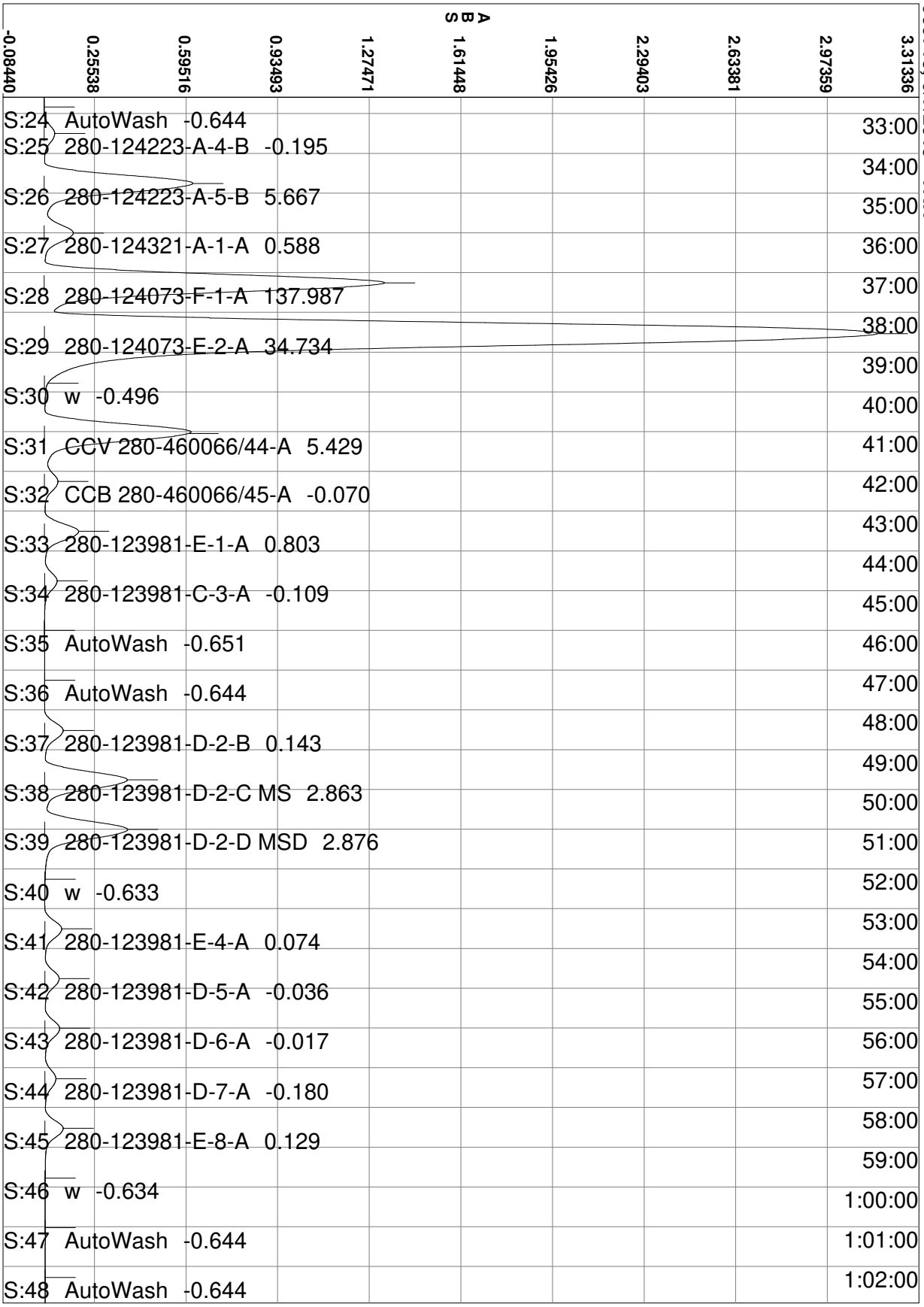
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Configuration: TKN
Run date: 6/7/2019

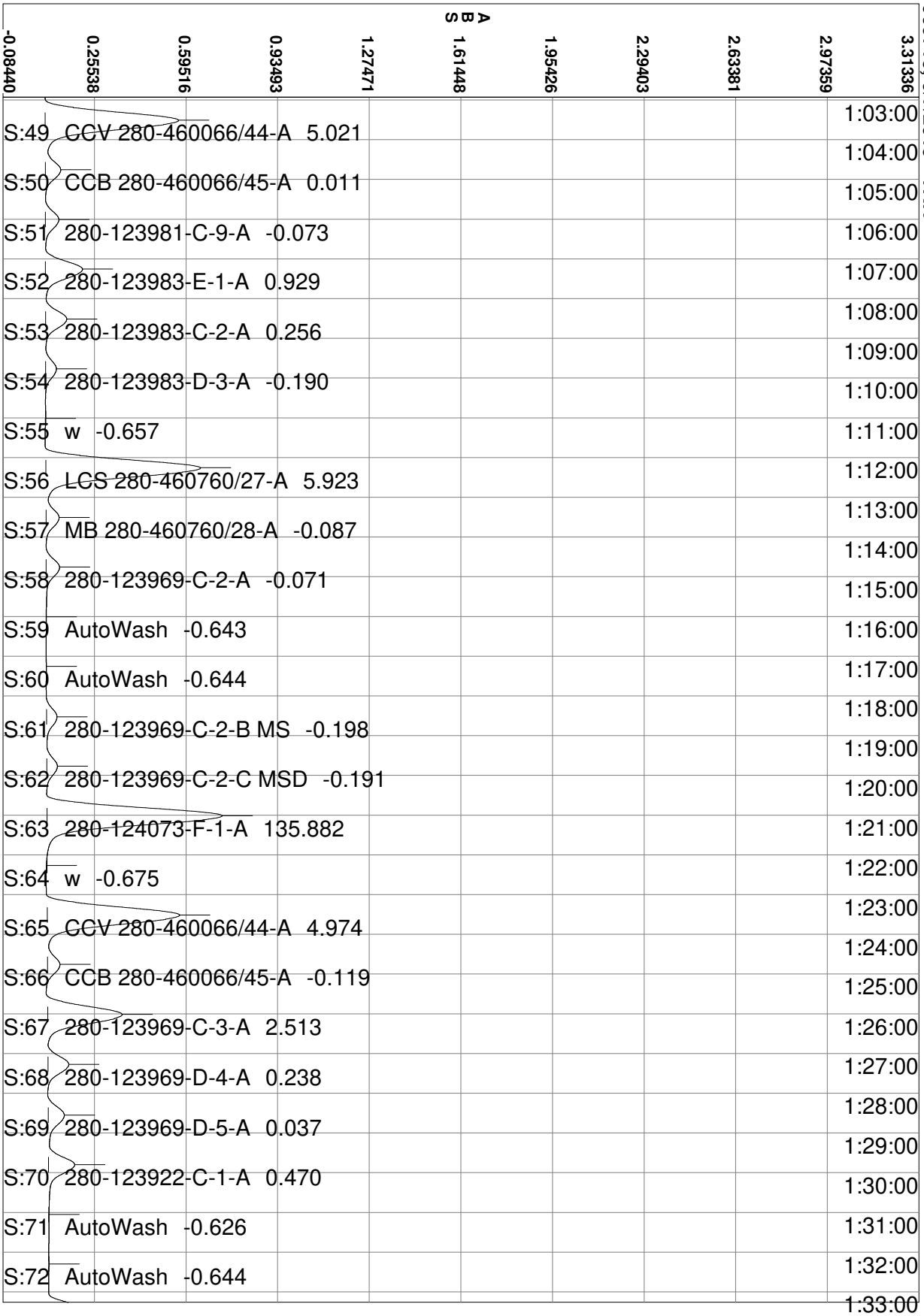
	Position	Identifier	Type	Comme	Date	Time	otal	TKN Cor Ht	TKN mg/l
1	1:1	SYNC	SYNC	50;351.2	6/7/2019	4:59:37 PM	1	0.90855	9.767
2	1:2	CO	Carry over		6/7/2019	5:00:07 PM	1	0.00233	-0.618
3	1:3	w	Blank		6/7/2019	5:01:22 PM	1	-0.00018	-0.646
4	1:4	W	Wash		6/7/2019	5:02:37 PM	1	0.00000	-0.644
5	1:5	C1	Calibrant		6/7/2019	5:03:52 PM	1	0.08507	0.331
6	1:6	C2	Calibrant		6/7/2019	5:05:07 PM	1	0.13281	0.878
7	1:7	C3	Calibrant		6/7/2019	5:06:22 PM	1	0.24110	2.119
8	1:8	C4	Calibrant		6/7/2019	5:07:37 PM	1	0.52538	5.376
9	1:9	C5	Calibrant		6/7/2019	5:08:52 PM	1	0.70662	7.453
10	1:10	C6	Calibrant		6/7/2019	5:10:07 PM	1	0.91529	9.844
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99847
		Intercept:							0.056224
		Linear coef:							0.087266
11	1:13	w	Blank		6/7/2019	5:11:22 PM	1	0.00283	-0.612
12	1:14	W	Wash		6/7/2019	5:12:37 PM	1	0.00000	-0.644
13	1:15	ICV 280-460066/42-A	Unknown		6/7/2019	5:13:52 PM	1	0.49392	5.016
14	1:16	ICB 280-460066/43-A	Unknown		6/7/2019	5:15:07 PM	1	0.04069	-0.178
15	1:17	LCS 280-460760/1-A	Unknown		6/7/2019	5:16:22 PM	1	0.55368	5.701
16	1:18	MB 280-460760/2-A	Unknown		6/7/2019	5:17:37 PM	1	0.03012	-0.299
17	1:19	280-124223-A-1-B	Unknown		6/7/2019	5:18:52 PM	1	0.03593	-0.233
18	1:20	280-124223-A-1-C MS	Unknown		6/7/2019	5:20:07 PM	1	0.29842	2.775
19	1:21	280-124223-A-1-D MSD	Unknown		6/7/2019	5:21:22 PM	1	0.31642	2.982
20	1:22	w	Blank		6/7/2019	5:22:37 PM	1	-0.00018	-0.646
21	1:23	280-124223-A-2-B	Unknown		6/7/2019	5:23:52 PM	1	0.06225	0.069
22	1:24	280-124223-A-3-B	Unknown		6/7/2019	5:25:07 PM	1	0.06401	0.089
23	0	AutoWash	AutoWash		6/7/2019	5:26:21 PM	1	0.00483	-0.589
24	0	AutoWash	AutoWash		6/7/2019	5:27:36 PM	1	0.00000	-0.644
25	1:25	280-124223-A-4-B	Unknown		6/7/2019	5:28:51 PM	1	0.03923	-0.195
26	1:26	280-124223-A-5-B	Unknown		6/7/2019	5:30:06 PM	1	0.55078	5.667
27	1:27	280-124321-A-1-A	Unknown		6/7/2019	5:31:21 PM	1	0.10751	0.588
28	1:28	280-124073-F-1-A	Unknown		6/7/2019	5:32:36 PM	10	1.26038	137.987
29	1:29	280-124073-E-2-A	Unknown		6/7/2019	5:33:52 PM	1	3.08733	34.734
30	1:30	w	Blank		6/7/2019	5:35:07 PM	1	0.01291	-0.496
31	1:31	CCV 280-460066/44-A	Unknown		6/7/2019	5:36:22 PM	1	0.53003	5.429
32	1:32	CCB 280-460066/45-A	Unknown		6/7/2019	5:37:37 PM	1	0.05011	-0.070
33	1:33	280-123981-E-1-A	Unknown		6/7/2019	5:38:52 PM	1	0.12627	0.803
34	1:34	280-123981-C-3-A	Unknown		6/7/2019	5:40:07 PM	1	0.04668	-0.109
35	0	AutoWash	AutoWash		6/7/2019	5:41:22 PM	1	-0.00056	-0.651
36	0	AutoWash	AutoWash		6/7/2019	5:42:37 PM	1	0.00000	-0.644
37	1:35	280-123981-D-2-B	Unknown		6/7/2019	5:43:52 PM	1	0.06866	0.143
38	1:36	280-123981-D-2-C MS	Unknown		6/7/2019	5:45:07 PM	1	0.30605	2.863

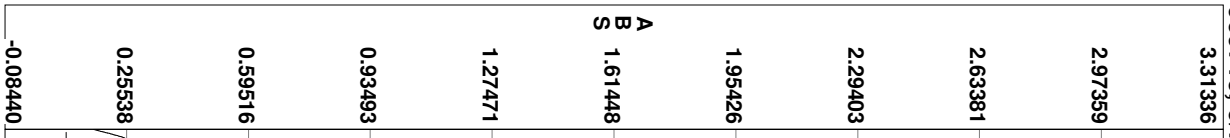
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39	1:37	280-123981-D-2-D MSD	Unknown		6/7/2019	5:46:22 PM	1	0.30718	2.876
40	1:38	w	Blank		6/7/2019	5:47:37 PM	1	0.00094	-0.633
41	1:39	280-123981-E-4-A	Unknown		6/7/2019	5:48:52 PM	1	0.06270	0.074
42	1:40	280-123981-D-5-A	Unknown		6/7/2019	5:50:07 PM	1	0.05308	-0.036
43	1:41	280-123981-D-6-A	Unknown		6/7/2019	5:51:22 PM	1	0.05477	-0.017
44	1:42	280-123981-D-7-A	Unknown		6/7/2019	5:52:37 PM	1	0.04053	-0.180
45	1:43	280-123981-E-8-A	Unknown		6/7/2019	5:53:52 PM	1	0.06745	0.129
46	1:44	w	Blank		6/7/2019	5:55:07 PM	1	0.00086	-0.634
47	0	AutoWash	AutoWash		6/7/2019	5:56:22 PM	1	0.00007	-0.644
48	0	AutoWash	AutoWash		6/7/2019	5:57:37 PM	1	0.00000	-0.644
49	1:45	CCV 280-460066/44-A	Unknown		6/7/2019	5:58:52 PM	1	0.49441	5.021
50	1:46	CCB 280-460066/45-A	Unknown		6/7/2019	6:00:07 PM	1	0.05721	0.011
51	1:47	280-123981-C-9-A	Unknown		6/7/2019	6:01:21 PM	1	0.04987	-0.073
52	1:48	280-123983-E-1-A	Unknown		6/7/2019	6:02:36 PM	1	0.13727	0.929
53	1:49	280-123983-C-2-A	Unknown		6/7/2019	6:03:51 PM	1	0.07852	0.256
54	1:50	280-123983-D-3-A	Unknown		6/7/2019	6:05:06 PM	1	0.03961	-0.190
55	1:51	w	Blank		6/7/2019	6:06:21 PM	1	-0.00114	-0.657
56	1:52	LCS 280-460760/27-A	Unknown		6/7/2019	6:07:36 PM	1	0.57313	5.923
57	1:53	MB 280-460760/28-A	Unknown		6/7/2019	6:08:52 PM	1	0.04866	-0.087
58	1:54	280-123969-C-2-A	Unknown		6/7/2019	6:10:07 PM	1	0.05005	-0.071
59	0	AutoWash	AutoWash		6/7/2019	6:11:22 PM	1	0.00009	-0.643
60	0	AutoWash	AutoWash		6/7/2019	6:12:37 PM	1	0.00000	-0.644
61	1:55	280-123969-C-2-B MS	Unknown		6/7/2019	6:13:52 PM	1	0.03892	-0.198
62	1:56	280-123969-C-2-C MSD	Unknown		6/7/2019	6:15:07 PM	1	0.03955	-0.191
63	1:57	280-124073-F-1-A	Unknown		6/7/2019	6:16:22 PM	20	0.64912	135.882
64	1:58	w	Blank		6/7/2019	6:17:37 PM	1	-0.00266	-0.675
65	1:59	CCV 280-460066/44-A	Unknown		6/7/2019	6:18:52 PM	1	0.49031	4.974
66	1:60	CCB 280-460066/45-A	Unknown		6/7/2019	6:20:07 PM	1	0.04584	-0.119
67	2:1	280-123969-C-3-A	Unknown		6/7/2019	6:21:22 PM	1	0.27554	2.513
68	2:2	280-123969-D-4-A	Unknown		6/7/2019	6:22:37 PM	1	0.07696	0.238
69	2:3	280-123969-D-5-A	Unknown		6/7/2019	6:23:52 PM	1	0.05949	0.037
70	2:4	280-123922-C-1-A	Unknown		6/7/2019	6:25:07 PM	1	0.09728	0.470
71	0	AutoWash	AutoWash		6/7/2019	6:26:22 PM	1	0.00162	-0.626
72	0	AutoWash	AutoWash		6/7/2019	6:27:37 PM	1	0.00000	-0.644
73	2:5	280-123922-E-2-A	Unknown		6/7/2019	6:28:52 PM	1	0.17979	1.416
74	2:6	280-123922-C-3-A	Unknown		6/7/2019	6:30:07 PM	1	0.19714	1.615
75	2:7	280-123924-E-1-A	Unknown		6/7/2019	6:31:22 PM	1	0.12708	0.812
76	2:8	280-123924-D-2-A	Unknown		6/7/2019	6:32:37 PM	1	0.03805	-0.208
77	2:9	280-123924-E-3-A	Unknown		6/7/2019	6:33:52 PM	1	0.05510	-0.013
78	2:10	280-123924-D-4-A	Unknown		6/7/2019	6:35:06 PM	1	0.04278	-0.154
79	2:11	w	Blank		6/7/2019	6:36:21 PM	1	0.00176	-0.624
80	2:12	CCV 280-460066/44-A	Unknown		6/7/2019	6:37:36 PM	1	0.49652	5.046
81	2:13	CCB 280-460066/45-A	Unknown		6/7/2019	6:38:51 PM	1	0.05118	-0.058
82	2:14	280-123924-D-4-B MS	Unknown		6/7/2019	6:40:06 PM	1	0.11047	0.622
83	0	AutoWash	AutoWash		6/7/2019	6:41:21 PM	1	0.00010	-0.643
84	0	AutoWash	AutoWash		6/7/2019	6:42:36 PM	1	0.00000	-0.644
85	2:15	280-123924-D-4-C MSD	Unknown		6/7/2019	6:43:52 PM	1	0.11023	0.619
86	2:16	w	Blank		6/7/2019	6:45:07 PM	1	0.00071	-0.636

	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
87	2:17	280-123924-D-5-A	Unknown		6/7/2019	6:46:22 PM	1	0.34959	3.362
88	2:18	280-123924-C-6-A	Unknown		6/7/2019	6:47:37 PM	1	0.05535	-0.010
89	2:19	280-123924-C-7-A	Unknown		6/7/2019	6:48:52 PM	1	0.11124	0.630
90	2:20	280-123924-E-8-A	Unknown		6/7/2019	6:50:07 PM	1	0.10092	0.512
91	2:21	280-123924-D-9-A	Unknown		6/7/2019	6:51:22 PM	1	0.08357	0.313
92	2:22	280-123924-C-10-A	Unknown		6/7/2019	6:52:37 PM	1	0.06717	0.125
93	2:23	280-123924-C-11-A	Unknown		6/7/2019	6:53:52 PM	1	0.09851	0.485
94	2:24	280-123924-D-12-A	Unknown		6/7/2019	6:55:07 PM	1	0.05984	0.041
95	0	AutoWash	AutoWash		6/7/2019	6:56:22 PM	1	0.00073	-0.636
96	0	AutoWash	AutoWash		6/7/2019	6:57:37 PM	1	0.00000	-0.644
97	2:25	w	Blank		6/7/2019	6:58:52 PM	1	0.00011	-0.643
98	2:26	CCV 280-460066/44-A	Unknown		6/7/2019	7:00:07 PM	1	0.49477	5.025
99	2:27	CCB 280-460066/45-A	Unknown		6/7/2019	7:01:22 PM	1	0.05077	-0.063
100	2:28	280-124073-E-2-A	Unknown		6/7/2019	7:02:37 PM	10	0.87412	93.724
101	2:29	w	Blank		6/7/2019	7:03:52 PM	1	0.00172	-0.625
102	2:30	CCV 280-460066/44-A	Unknown		6/7/2019	7:05:07 PM	1	0.48876	4.956
103	2:31	CCB 280-460066/45-A	Unknown		6/7/2019	7:06:22 PM	1	0.05025	-0.068
104	0	AutoWash	AutoWash		6/7/2019	7:07:37 PM	1	-0.00094	-0.655
105	0	AutoWash	AutoWash		6/7/2019	7:08:52 PM	1	0.00000	-0.644

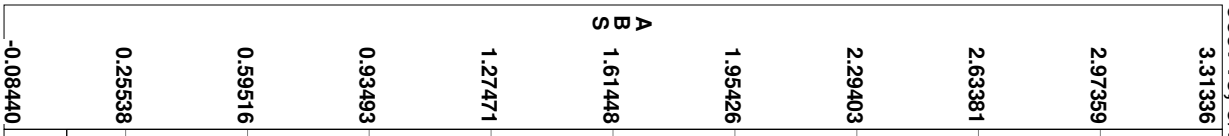

060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:1 SYNC 9.767
S:2 CO -0.618
S:3 w -0.646
S:4 W -0.644
S:5 C1 0.331
S:6 C2 0.878
S:7 C3 2.119
S:8 C4 5.376
S:9 C5 7.453
S:10 C6 9.844
S:11 w -0.612
S:12 W -0.644
S:13 ICV 280-460066/42-A 5.016
S:14 ICB 280-460066/43-A -0.178
S:15 LCS 280-460760/1-A 5.701
S:16 MB 280-460760/2-A -0.299
S:17 280-124223-A-1-B -0.233
S:18 280-124223-A-1-C MS 2.775
S:19 280-124223-A-1-D MSD 2.982
S:20 w -0.646
S:21 280-124223-A-2-B 0.069
S:22 280-124223-A-3-B 0.089
S:23 AutoWash -0.589
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
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31:00
32:00


060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:24 AutoWash -0.644
S:25 280-124223-A-4-B -0.195
S:26 280-124223-A-5-B 5.667
S:27 280-124321-A-1-A 0.588
S:28 280-124073-F-1-A 137.987
S:29 280-124073-E-2-A 34.734
S:30 w -0.496
S:31 CCV 280-460066/44-A 5.429
S:32 CCB 280-460066/45-A -0.070
S:33 280-123981-E-1-A 0.803
S:34 280-123981-C-3-A -0.109
S:35 AutoWash -0.651
S:36 AutoWash -0.644
S:37 280-123981-D-2-B 0.143
S:38 280-123981-D-2-C MS 2.863
S:39 280-123981-D-2-D MSD 2.876
S:40 w -0.633
S:41 280-123981-E-4-A 0.074
S:42 280-123981-D-5-A -0.036
S:43 280-123981-D-6-A -0.017
S:44 280-123981-D-7-A -0.180
S:45 280-123981-E-8-A 0.129
S:46 w -0.634
S:47 AutoWash -0.644
S:48 AutoWash -0.644
33:00
34:00
35:00
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1:02:00


060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:49 CCV 280-460066/44-A 5.021
S:50 CCB 280-460066/45-A 0.011
S:51 280-123981-C-9-A -0.073
S:52 280-123983-E-1-A 0.929
S:53 280-123983-C-2-A 0.256
S:54 280-123983-D-3-A -0.190
S:55 w -0.657
S:56 LCS 280-460760/27-A 5.923
S:57 MB 280-460760/28-A -0.087
S:58 280-123969-C-2-A -0.071
S:59 AutoWash -0.643
S:60 AutoWash -0.644
S:61 280-123969-C-2-B MS -0.198
S:62 280-123969-C-2-C MSD -0.191
S:63 280-124073-F-1-A 135.882
S:64 w -0.675
S:65 CCV 280-460066/44-A 4.974
S:66 CCB 280-460066/45-A -0.119
S:67 280-123969-C-3-A 2.513
S:68 280-123969-D-4-A 0.238
S:69 280-123969-D-5-A 0.037
S:70 280-123922-C-1-A 0.470
S:71 AutoWash -0.626
S:72 AutoWash -0.644
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1:04:00
1:05:00
1:06:00
1:07:00
1:08:00
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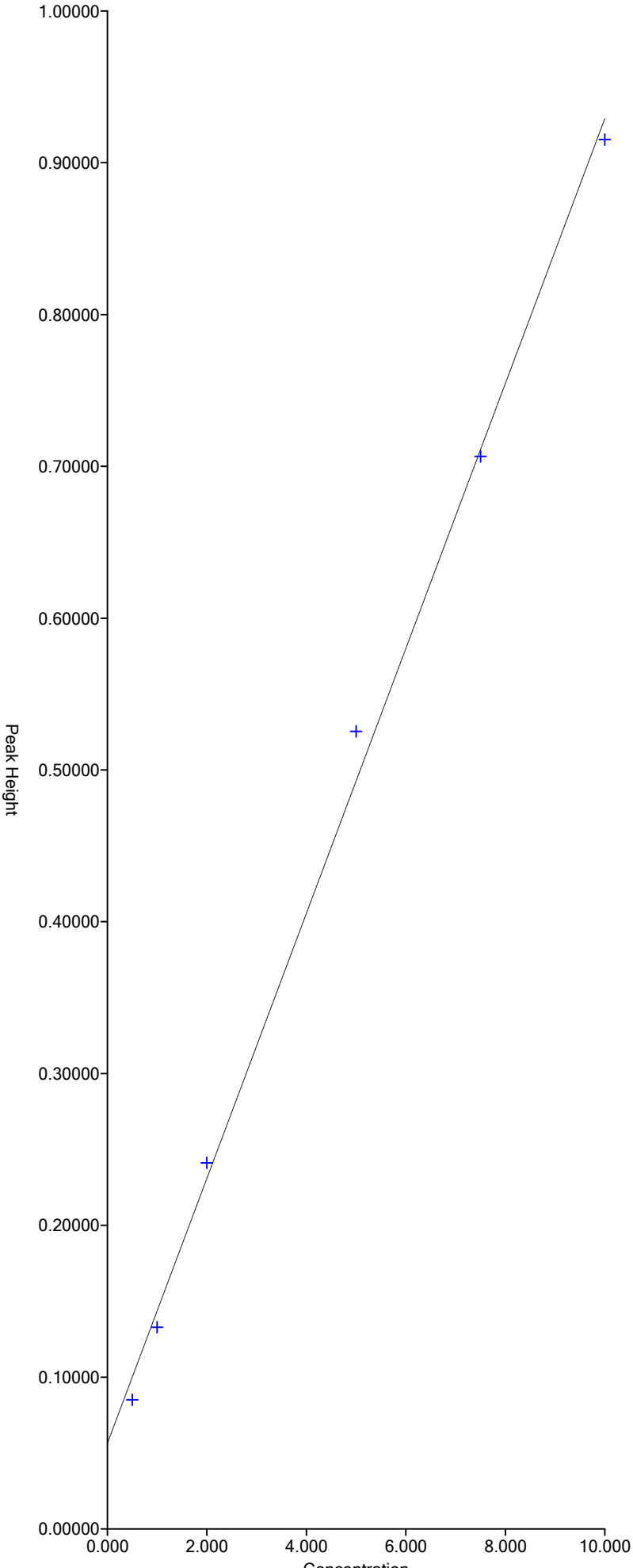
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S:75 280-123924-E-1-A 0.812 1:36:00
S:76 280-123924-D-2-A -0.208 1:37:00
S:77 280-123924-E-3-A -0.013 1:38:00
S:78 280-123924-D-4-A -0.154 1:39:00
S:79 w -0.624 1:40:00
S:80 CCV 280-460066/44-A 5.046 1:41:00
S:81 CCB 280-460066/45-A -0.058 1:42:00
S:82 280-123924-D-4-B MS 0.622 1:43:00
S:83 AutoWash -0.643 1:44:00
S:84 AutoWash -0.644 1:45:00
S:85 280-123924-D-4-C MSD 0.619 1:46:00
S:86 w -0.636 1:47:00
S:87 280-123924-D-5-A 3.362 1:48:00
S:88 280-123924-C-6-A -0.010 1:49:00
S:89 280-123924-C-7-A 0.630 1:50:00
S:90 280-123924-E-8-A 0.512 1:51:00
S:91 280-123924-D-9-A 0.313 1:52:00
S:92 280-123924-C-10-A 0.125 1:53:00
S:93 280-123924-C-11-A 0.485 1:54:00
S:94 280-123924-D-12-A 0.041 1:55:00
S:95 AutoWash -0.636 1:56:00
S:96 AutoWash -0.644 1:57:00
S:97 w -0.643 1:58:00
1:59:00
2:00:00
2:01:00
2:02:00
2:03:00



060719, 6/7/2019 - TKN

	2:04:00
S:98 CCV 280-460066/44-A 5.025	2:05:00
S:99 CCB 280-460066/45-A -0.063	2:06:00
S:100 280-124073-E-2-A 93.724	2:07:00
S:101 w -0.625	2:08:00
S:102 CCV 280-460066/44-A 4.956	2:09:00
S:103 CCB 280-460066/45-A -0.068	2:10:00
S:104 AutoWash -0.655	2:11:00
S:105 AutoWash -0.644	2:12:00
	2:13:00
	2:14:00
	2:15:00
	2:16:00
	2:17:00
	2:18:00
	2:19:00
	2:20:00
	2:21:00
	2:22:00
	2:23:00
	2:24:00
	2:25:00
	2:26:00
	2:27:00
	2:28:00
	2:29:00
	2:30:00
	2:31:00
	2:32:00
	2:33:00

Calibration for TKN



Segment 1: Equation: y = 0.08727x + 0.05622
Correlation: 0.9985

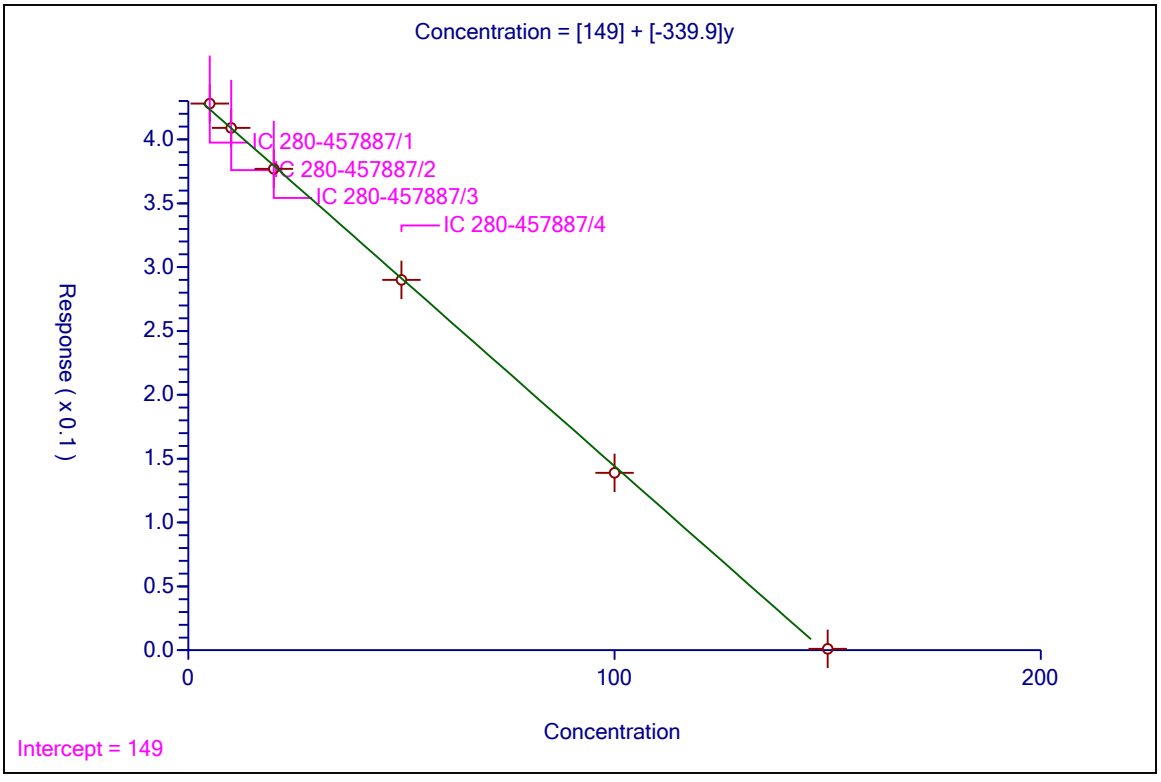
X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-457887/1	5.0	0.428			0.0856	Y
2	IC 280-457887/2	10.0	0.409			0.0409	Y
3	IC 280-457887/3	20.0	0.377			0.01885	Y
4	IC 280-457887/4	50.0	0.29			0.0058	Y
5	IC 280-457887/5	100.0	0.139			0.00139	Y
6	IC 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123027-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 16 Lab ID: **280-123027-K-1** Inj Date: 5/13/2019 7:39:00AM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.374	21.87740 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123112-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123113-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 17 Lab ID: **280-123113-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	11 J mg/L				

RS# 18 Lab ID: **280-123113-A-2** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.227	71.84270 mg/L	mg/L				

RS# 19 Lab ID: **280-123113-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 20 Lab ID: **280-123113-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.394	15.07940 mg/L	15 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90	110	

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123114-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 21 Lab ID: **280-123114-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.404	11.68040 mg/L	12 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123115-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

RS# 24 Lab ID: **280-123115-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 25 Lab ID: **280-123115-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.359	26.97590 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.148	98.69480	mg/L	mg/L	99	90	110

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	20 U mg/L				

Job Number: 280-123267-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 29 Lab ID: **280-123267-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 30 Lab ID: **280-123267-E-2** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.381	19.49810 mg/L	39 J mg/L				

RS# 31 Lab ID: **280-123267-E-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.340	33.43400 mg/L	mg/L				

RS# 32 Lab ID: **280-123267-E-4** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.061	128.2661 mg/L	mg/L				

RS# 33 Lab ID: **280-123267-B-5** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.428	3.522800 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	mg/L				

RS# 36 Lab ID: **280-123267-B-6** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	mg/L				

RS# 37 Lab ID: **280-123267-C-7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.464	-8.713600 mg/L	mg/L				

RS# 38 Lab ID: **280-123267-B-8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 39 Lab ID: **280-123267-D-9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.292	49.74920 mg/L	mg/L				

RS# 40 Lab ID: **CCV 280-457887/40** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 41 Lab ID: **CCB 280-457887/41** Inj Date: 5/13/2019 7:39:49AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123444-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 15 Lab ID: **280-123444-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

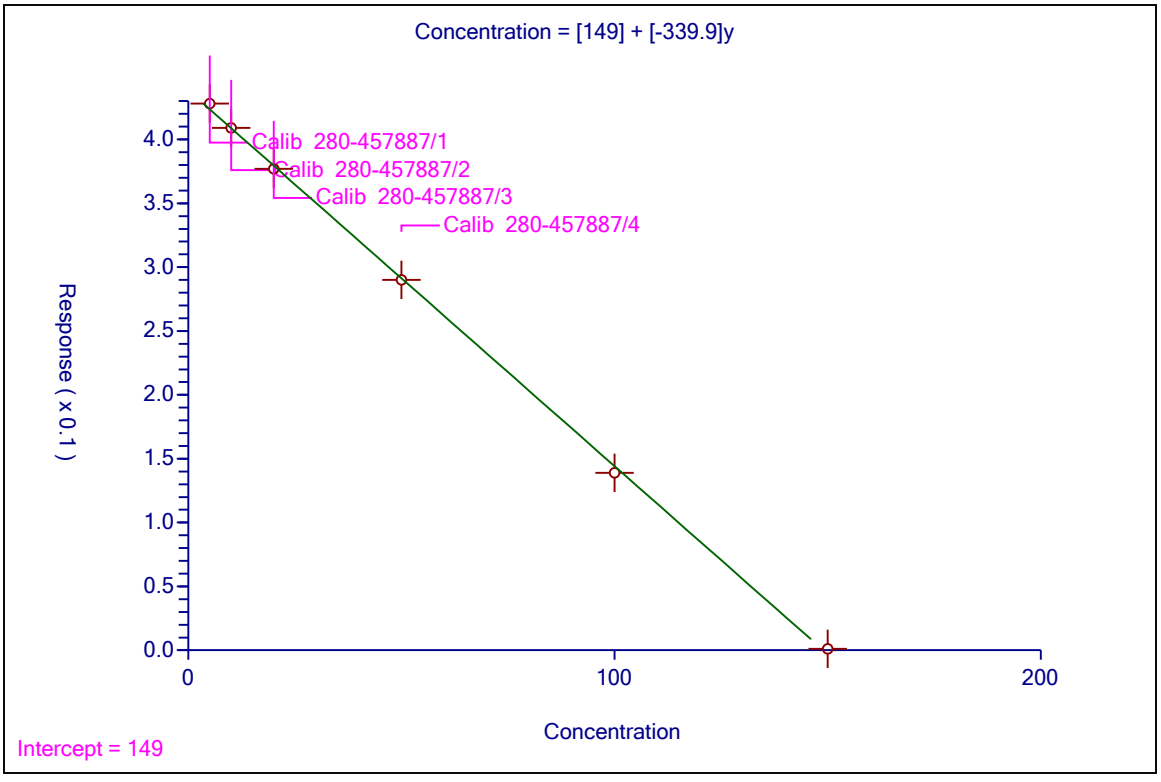
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 6 Lab ID: **280-123822-H-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.382	19.15820 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123904-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 10 Lab ID: **280-123904-B-3** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123969-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 19 Lab ID: **280-123969-C-2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 20 Lab ID: **280-123969-B-3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.425	4.542500 mg/L	mg/L				

RS# 21 Lab ID: **280-123969-B-3 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	103	90 110		

RS# 22 Lab ID: **280-123969-B-3 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.301	46.69010 mg/L	mg/L	93	90 110	10	11

RS# 23 Lab ID: **280-123969-D-4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.414	8.281400 mg/L	mg/L				

RS# 24 Lab ID: **280-123969-D-5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461121/28** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-461121/29** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123972-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 11 Lab ID: **280-123972-B-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	<-0.100	mg/L	mg/L				

RS# 12 Lab ID: **280-123972-A-2** Inj Date: 6/11/2019 9:08:00AM Dil: 20 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.100	115.0100 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123981-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123969-B-3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.425	4.542500 mg/L	20 U mg/L				

RS# 21 Lab ID: **280-123969-B-3 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	103	90 110		

RS# 22 Lab ID: **280-123969-B-3 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.301	46.69010 mg/L	mg/L	93	90 110	10	11

RS# 26 Lab ID: **280-123981-G-2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	20 U mg/L				

RS# 27 Lab ID: **280-123981-G-3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 28 Lab ID: **CCV 280-461121/28** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-461121/29** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	20 U mg/L				

RS# 30 Lab ID: **280-123981-G-4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	20 U mg/L				

RS# 31 Lab ID: **280-123981-G-5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.439	0.2161000 mg/L	20 U mg/L				

RS# 32 Lab ID: **280-123981-G-6** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 33 Lab ID: **280-123981-G-7** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	20 U mg/L				

RS# 34 Lab ID: **CCV 280-461121/34** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 35 Lab ID: **CCB 280-461121/35** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.458	-6.674200 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123983-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123969-B-3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.425	4.542500 mg/L	20 U mg/L				

RS# 21 Lab ID: **280-123969-B-3 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	103	90 110		

RS# 22 Lab ID: **280-123969-B-3 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.301	46.69010 mg/L	mg/L	93	90 110	10	11

RS# 25 Lab ID: **280-123983-G-1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.237	68.44370 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461121/28** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

TALS Raw Data Report

RS# 29 Lab ID: **CCB 280-461121/29** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-124081-1
LIMS Batch: 461121
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461121/1** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.235	69.12350 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461121/2** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-461121/3** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.169	91.55690 mg/L	mg/L	92	90 110		

RS# 4 Lab ID: **LCSD 280-461121/4** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.159	94.95590 mg/L	mg/L	95	90 110	4	11

RS# 5 Lab ID: **MB 280-461121/5** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 8 Lab ID: **280-123904-C-1 MS** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	112	90 110		

RS# 9 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/11/2019 9:08:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	112	90 110	1	11

RS# 13 Lab ID: **280-124081-D-1** Inj Date: 6/11/2019 9:08:00AM Dil: 10 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	110 J mg/L				

RS# 14 Lab ID: **280-124081-D-2** Inj Date: 6/11/2019 9:08:00AM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.393	15.41930 mg/L	77 J mg/L				

RS# 15 Lab ID: **280-124081-D-3** Inj Date: 6/11/2019 9:08:00AM Dil: 20 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.329	37.17290 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-461121/16** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 17 Lab ID: **CCB 280-461121/17** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 18 Lab ID: **280-124081-D-4** Inj Date: 6/11/2019 9:08:00AM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.366	24.59660 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461121/28** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-461121/29** Inj Date: 6/11/2019 9:08:00AM Dil: 1.0 Meth: 410.4

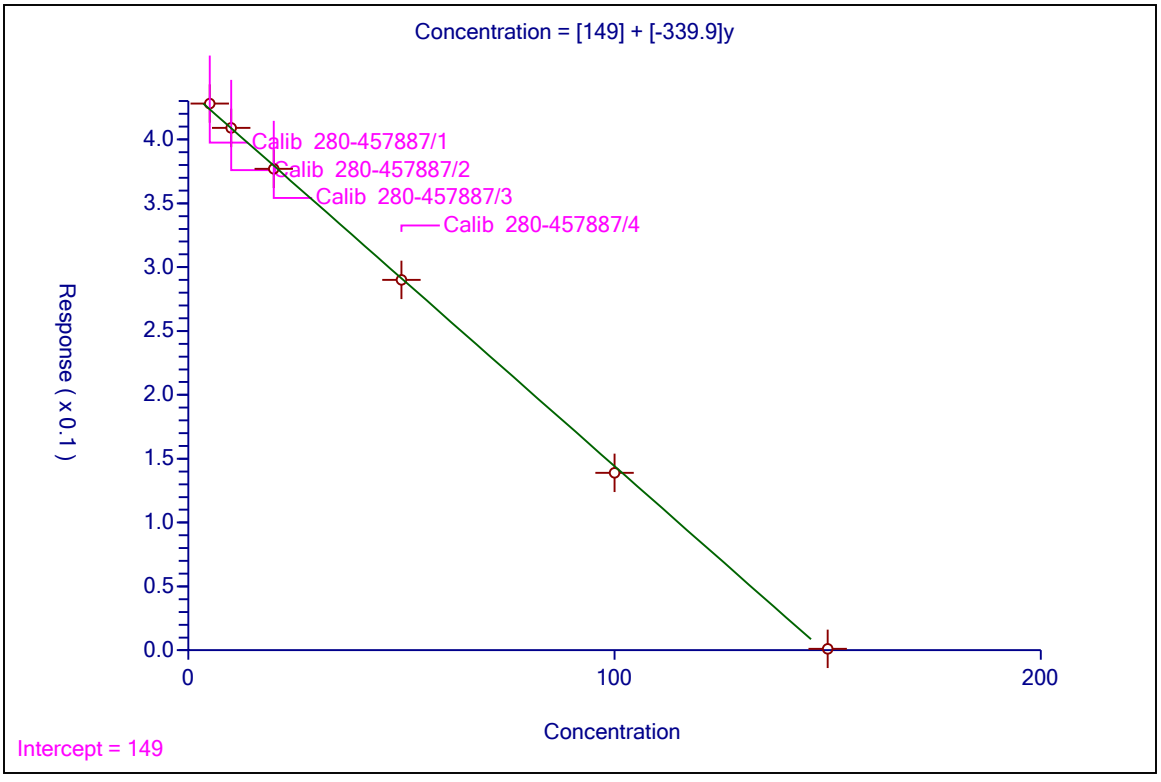
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.449	-3.615100 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 10 Lab ID: **280-123822-H-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L					

TALS Raw Data Report

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123904-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 9 Lab ID: **280-123904-B-3** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.398	13.71980 mg/L	mg/L					

TALS Raw Data Report

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123972-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 11 Lab ID: **280-123972-B-1** Inj Date: 6/12/2019 10:53:53AM Dil: 200.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.058	129.2858 mg/L	mg/L					

TALS Raw Data Report

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123981-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90 110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90 110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L				

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90 110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90 110	1	11

RS# 12 Lab ID: **280-123981-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	20 U mg/L				

TALS Raw Data Report

RS# 13 Lab ID: **280-123981-D-8** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	20 U mg/L				

RS# 14 Lab ID: **280-123981-D-9** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.414	8.281400 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123983-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	20 U mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 15 Lab ID: **280-123983-C-2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.379	20.17790 mg/L	mg/L					

TALS Raw Data Report

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	20 U mg/L				

RS# 18 Lab ID: **280-123983-E-3** Inj Date: 6/12/2019 10:53:53AM Dil: 10.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.026	140.1626 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-124038-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

RS# 20 Lab ID: **280-124085-D-1** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.393	15.41930 mg/L	mg/L				

RS# 21 Lab ID: **280-124085-D-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.246	65.38460 mg/L	mg/L	100	90 110		

RS# 22 Lab ID: **280-124085-D-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.270	57.22700 mg/L	mg/L	84	90 110	13	11

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

RS# 30 Lab ID: **280-124038-J-1** Inj Date: 6/12/2019 10:53:53AM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.116	109.5716 mg/L	mg/L				

RS# 31 Lab ID: **280-124038-J-2** Inj Date: 6/12/2019 10:53:53AM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.259	60.96590 mg/L	mg/L				

RS# 32 Lab ID: **280-124038-J-3** Inj Date: 6/12/2019 10:53:53AM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L				

RS# 33 Lab ID: **280-124038-J-4** Inj Date: 6/12/2019 10:53:53AM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.277	54.84770 mg/L	mg/L				

TALS Raw Data Report

RS# 34 Lab ID: **CCV 280-461275/34** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 35 Lab ID: **CCB 280-461275/35** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-124085-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

RS# 20 Lab ID: **280-124085-D-1** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.393	15.41930 mg/L	mg/L				

RS# 21 Lab ID: **280-124085-D-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.246	65.38460 mg/L	mg/L	100	90 110		

RS# 22 Lab ID: **280-124085-D-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.270	57.22700 mg/L	mg/L	84	90 110	13	11

RS# 23 Lab ID: **280-124085-D-2** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.154	96.65540 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-124106-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

RS# 20 Lab ID: **280-124085-D-1** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.393	15.41930 mg/L	mg/L				

RS# 21 Lab ID: **280-124085-D-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.246	65.38460 mg/L	mg/L	100	90 110		

RS# 22 Lab ID: **280-124085-D-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.270	57.22700 mg/L	mg/L	84	90 110	13	11

RS# 24 Lab ID: **280-124106-D-1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.332	36.15320 mg/L	mg/L				

RS# 25 Lab ID: **280-124106-E-2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L				

RS# 26 Lab ID: **280-124106-E-3** Inj Date: 6/12/2019 10:53:53AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.311	43.29110 mg/L	mg/L				

RS# 27 Lab ID: **280-124106-D-4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.398	13.71980 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-124109-1
LIMS Batch: 461275
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-461275/1** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	92	90	110		

RS# 2 Lab ID: **ICB 280-461275/2** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-461275/3** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90	110		

RS# 4 Lab ID: **LCSD 280-461275/4** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90	110	1	11

RS# 5 Lab ID: **MB 280-461275/5** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L					

RS# 6 Lab ID: **280-123904-C-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L					

RS# 7 Lab ID: **280-123904-C-1 MS** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.170	91.21700 mg/L	mg/L	107	90	110		

RS# 8 Lab ID: **280-123904-C-1 MSD** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.173	90.19730 mg/L	mg/L	105	90	110	1	11

RS# 16 Lab ID: **CCV 280-461275/16** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-461275/17** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.462	-8.033800 mg/L	mg/L				

RS# 19 Lab ID: **280-124109-F-1** Inj Date: 6/12/2019 10:53:53AM Dil: 20.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.209	77.96090 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-461275/28** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.162	93.93620 mg/L	mg/L	94	90 110		

RS# 29 Lab ID: **CCB 280-461275/29** Inj Date: 6/12/2019 10:53:53AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060619.RST
Sample table path	C:\FLOW_4\p060619.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	07-Jun-19
Time acquired	00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	16:47	106	Sync	1284746	532.010	HI
06-Jun-19	16:50	0	Carryover	11761	2.861	
06-Jun-19	16:53	0	Carryover	1222	-1.624	LO
06-Jun-19	16:56	0	Read Baseline	-538	-2.373	BL
06-Jun-19	16:59	101	Cal 10.0 ppb	33132	11.950	
06-Jun-19	17:02	102	Cal 20.0 ppb	57468	22.291	
06-Jun-19	17:05	103	Cal 50.0 ppb	116843	47.484	
06-Jun-19	17:08	104	Cal 100 ppb	242088	100.447	
06-Jun-19	17:11	105	Cal 200 ppb	478988	199.968	
06-Jun-19	17:14	106	Cal 500 ppb	1206011	500.004	
06-Jun-19	17:17	0	Blank	-4565	-4.087	LO
06-Jun-19	17:20	0	Read Baseline	876	-1.771	BL
06-Jun-19	17:23	107	ICV 200 ppb	470022	196.217	
06-Jun-19	18:53	109	ICVL 100 ppb	264459	109.882	
06-Jun-19	18:56	0	ICB	-2784	-3.329	LO
06-Jun-19	18:59	0	Read Baseline	-7211	-5.213	BL UM
06-Jun-19	19:02	113	LCS 280-460735/1-A	481696	201.101	
06-Jun-19	19:05	114	MB 280-460735/2-A	7136	0.893	
06-Jun-19	19:08	115	280-123273-G-19-B	7689	1.129	
06-Jun-19	19:11	116	280-123889-A-2-B	35443	12.932	
06-Jun-19	19:14	117	280-123993-B-2-B	48783	18.601	
06-Jun-19	19:17	118	280-123993-B-4-B	130790	53.394	
06-Jun-19	19:20	119	280-123853-G-4-A	26462	9.114	
06-Jun-19	19:23	120	280-123853-G-5-A	22970	7.629	
06-Jun-19	19:26	121	280-123853-G-6-A	20406	6.538	
06-Jun-19	19:29	122	280-123855-D-1-B	28502	9.981	
06-Jun-19	19:32	0	blank	-10935	-6.799	LO
06-Jun-19	19:35	0	read baseline	-15155	-8.596	BL
06-Jun-19	19:38	108	CCV 200 ppb	487488	203.523	
06-Jun-19	19:41	104	CCVL 100 ppb	246780	102.427	
06-Jun-19	19:44	0	CCB	6	-2.142	LO
06-Jun-19	19:47	0	read baseline	3191	-0.786	BL
06-Jun-19	19:50	123	280-123855-D-1-C MS	496482	207.283	
06-Jun-19	19:53	124	280-123855-D-1-D MSD	511992	213.764	
06-Jun-19	19:56	125	280-123855-C-2-B	21738	7.105	
06-Jun-19	19:59	126	280-123855-E-3-D	39628	14.711	
06-Jun-19	20:02	127	280-123855-E-4-B	20998	6.790	
06-Jun-19	20:05	128	280-123855-C-5-B	26770	9.245	
06-Jun-19	20:08	129	280-123972-B-1-A	737659	307.650	
06-Jun-19	20:11	130	280-123972-A-2-A	54507	21.033	
06-Jun-19	20:14	131	280-123981-G-1-A	472837	197.395	
06-Jun-19	20:17	132	280-123981-G-2-A	36575	13.413	

Result path C:\FLOW_4\P060619.RST
Sample table path C:\FLOW_4\p060619.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 07-Jun-19
Time acquired 00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	20:20	0	blank	7303	0.964	
06-Jun-19	20:23	0	read baseline	3039	-0.851	BL
06-Jun-19	20:26	108	CCV 200 ppb	518804	216.610	
06-Jun-19	20:29	104	CCVL 100 ppb	261180	108.500	
06-Jun-19	20:32	0	CCB	9128	1.741	
06-Jun-19	20:35	0	read baseline	3064	-0.840	BL
06-Jun-19	20:38	133	280-123981-G-3-A	31116	11.093	
06-Jun-19	20:41	134	280-123981-G-4-A	32959	11.876	
06-Jun-19	20:44	135	280-123981-G-5-A	28330	9.908	
06-Jun-19	20:47	136	280-123981-G-6-A	28401	9.938	
06-Jun-19	20:50	137	280-123981-G-6-B MS	493108	205.873	
06-Jun-19	20:53	138	280-123981-G-6-C MSD	496776	207.406	
06-Jun-19	20:57	139	LCS 280-460749/1-A	498298	208.042	
06-Jun-19	21:00	140	MB 280-460749/2-A	24545	8.299	
06-Jun-19	21:03	141	280-123981-G-7-A	31197	11.127	
06-Jun-19	21:06	142	280-123981-G-8-B	29210	10.282	
06-Jun-19	21:09	0	blank	4725	-0.133	LO
06-Jun-19	21:12	0	read baseline	3560	-0.629	BL
06-Jun-19	21:15	108	CCV 200 ppb	507874	212.044	
06-Jun-19	21:18	104	CCVL 100 ppb	245911	102.060	
06-Jun-19	21:21	0	CCB	-4681	-4.136	LO
06-Jun-19	21:24	0	read baseline	-5973	-4.686	BL
06-Jun-19	21:27	143	280-123981-G-9-B	23801	7.982	
06-Jun-19	21:30	144	280-123983-G-1-B	69644	27.462	
06-Jun-19	21:33	145	280-123983-G-2-B	34350	12.468	
06-Jun-19	21:36	146	280-123983-G-3-B	35107	12.789	
06-Jun-19	21:39	147	280-124270-D-1-B	41354	15.444	
06-Jun-19	21:42	148	280-124270-D-2-B	40819	15.217	
06-Jun-19	21:45	149	280-124270-D-3-B	29994	10.615	
06-Jun-19	21:48	150	x280-124270-D-3-C MS	26693	9.212	
06-Jun-19	22:53	151	x280-124270-D-3-D MS	436947	182.370	
06-Jun-19	22:56	152	x280-124038-I-4-A	23051	7.663	
06-Jun-19	22:59	0	blank	-14444	-8.293	LO
06-Jun-19	23:02	0	read baseline	18979	5.932	BL UM
06-Jun-19	23:05	108	CCV 200 ppb	517632	216.121	
06-Jun-19	23:08	104	CCVL 100 ppb	260517	108.220	
06-Jun-19	23:11	0	CCB	7489	1.043	
06-Jun-19	23:14	0	read baseline	6427	0.591	BL
06-Jun-19	23:17	153	280-123924-G-1-A	22649	7.492	
06-Jun-19	23:20	154	280-123924-G-2-A	27403	9.514	
06-Jun-19	23:23	155	280-123924-G-3-A	65091	25.529	
06-Jun-19	23:26	156	280-123924-G-4-A	54052	20.840	
06-Jun-19	23:29	157	280-123924-G-5-A	39673	14.730	
06-Jun-19	23:32	158	280-123924-G-6-A	39776	14.774	
06-Jun-19	23:35	159	280-123924-G-7-A	32623	11.733	
06-Jun-19	23:38	160	280-123924-G-8-A	39618	14.707	
06-Jun-19	23:41	201	280-123924-G-9-A	28542	9.998	
06-Jun-19	23:44	202	280-123924-G-10-A	32243	11.572	
06-Jun-19	23:48	0	blank	3165	-0.797	LO
06-Jun-19	23:51	0	read baseline	-768	-2.471	BL
06-Jun-19	23:54	108	CCV 200 ppb	512574	214.008	
06-Jun-19	23:57	104	CCVL 100 ppb	263342	109.411	
07-Jun-19	00:00	0	CCB	-5430	-4.456	LO
07-Jun-19	00:03	0	read baseline	-6178	-4.774	BL
07-Jun-19	00:06	203	280-123924-G-10-B MS	517054	215.879	
07-Jun-19	00:09	204	280-123924-G-10-C MS	507160	211.746	
07-Jun-19	00:13	150	280-124270-D-3-C MS	447375	186.738	

Result path C:\FLOW_4\P060619.RST
Sample table path C:\FLOW_4\p060619.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 07-Jun-19
Time acquired 00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
07-Jun-19	00:16	151	280-124270-D-3-D MSD	450311	187.967	
07-Jun-19	00:19	152	280-124038-I-4-A	67100	26.382	
07-Jun-19	00:22	0	blank	-433	-2.328	LO
07-Jun-19	00:25	0	read baseline	-8549	-5.783	BL
07-Jun-19	00:28	108	CCV 200 ppb	504486	210.628	
07-Jun-19	00:31	104	CCVL 100 ppb	261085	108.460	
07-Jun-19	00:34	0	CCB	5987	0.404	
07-Jun-19	00:37	0	read baseline	6920	0.801	BL

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060619.RST
Date: 07-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1284746	532.009644	HI
2	0	Carryover	1	CO	1	1	11761	2.860792	
3	0	Carryover	2	CO	1	1	1222	-1.623995	LO
B	0	Read Baseline	1	RB	1	1	-538	-2.372981	BL
5	101	Cal 10.0 ppb	1	C	1	1	33132	11.949753	
6	102	Cal 20.0 ppb	1	C	1	1	57468	22.291309	
7	103	Cal 50.0 ppb	1	C	1	1	116843	47.483776	
8	104	Cal 100 ppb	1	C	1	1	242088	100.447174	
9	105	Cal 200 ppb	1	C	1	1	478988	199.968140	
10	106	Cal 500 ppb	1	C	1	1	1206011	500.004059	
11	0	Blank	1	BLNK	1	1	-4565	-4.087067	LO
B	0	Read Baseline	1	RB	1	1	876	-1.771070	BL
13	107	ICV 200 ppb	1	U	1	1	470022	196.217255	
14	109	ICVL 100 ppb	1	U	1	1	264459	109.881981	
15	0	ICB	1	U	1	1	-2784	-3.328888	LO
B	0	Read Baseline	1	RB	1	1	-7211	-5.213415	BL UM
17	113	LCS 280-460735/1-A 1	U		1	1	481696	201.100876	
18	114	MB 280-460735/2-A 1	U		1	1	7136	0.892920	
19	115	280-123273-G-19-B 1	U		1	1	7689	1.128525	
20	116	280-123889-A-2-B 1	U		1	1	35443	12.932266	
21	117	280-123993-B-2-B 1	U		1	1	48783	18.601410	
22	118	280-123993-B-4-B 1	U		1	1	130790	53.393574	
23	119	280-123853-G-4-A 1	U		1	1	26462	9.113688	
24	120	280-123853-G-5-A 1	U		1	1	22970	7.628785	
25	121	280-123853-G-6-A 1	U		1	1	20406	6.538361	
26	122	280-123855-D-1-B 1	U		1	1	28502	9.981392	
27	0	blank	1	BLNK	1	1	-10935	-6.799056	LO
B	0	read baseline	1	RB	1	1	-15155	-8.596418	BL
29	108	CCV 200 ppb	1	CCV	1	1	487488	203.522873	
30	104	CCVL 100 ppb	1	U	1	1	246780	102.426888	
31	0	CCB	1	U	1	1	6	-2.141597	LO
B	0	read baseline	1	RB	1	1	3191	-0.785660	BL
33	123	280-123855-D-1-C MS 1	U		1	1	496482	207.283142	
34	124	280-123855-D-1-D MSD 1	U		1	1	511992	213.764450	
35	125	280-123855-C-2-B 1	U		1	1	21738	7.105095	
36	126	280-123855-E-3-D 1	U		1	1	39628	14.711295	
37	127	280-123855-E-4-B 1	U		1	1	20998	6.790325	
38	128	280-123855-C-5-B 1	U		1	1	26770	9.244663	
39	129	280-123972-B-1-A 1	U		1	1	737659	307.650177	
40	130	280-123972-A-2-A 1	U		1	1	54507	21.033207	
41	131	280-123981-G-1-A 1	U		1	1	472837	197.394958	
42	132	280-123981-G-2-A 1	U		1	1	36575	13.413217	
43	0	blank	1	BLNK	1	1	7303	0.964045	
B	0	read baseline	1	RB	1	1	3039	-0.850566	BL
45	108	CCV 200 ppb	1	CCV	1	1	518804	216.610123	
46	104	CCVL 100 ppb	1	U	1	1	261180	108.499573	
47	0	CCB	1	U	1	1	9128	1.740731	
B	0	read baseline	1	RB	1	1	3064	-0.840003	BL
49	133	280-123981-G-3-A 1	U		1	1	31116	11.092682	
50	134	280-123981-G-4-A 1	U		1	1	32959	11.876139	
51	135	280-123981-G-5-A 1	U		1	1	28330	9.908121	
52	136	280-123981-G-6-A 1	U		1	1	28401	9.938361	
53	137	280-123981-G-6-B MS 1	U		1	1	493108	205.872604	
54	138	280-123981-G-6-C MSD 1	U		1	1	496776	207.406219	
55	139	LCS 280-460749/1-A 1	U		1	1	498298	208.042267	
56	140	MB 280-460749/2-A 1	U		1	1	24545	8.298662	
57	141	280-123981-G-7-A 1	U		1	1	31197	11.127326	
58	142	280-123981-G-8-B 1	U		1	1	29210	10.282269	
59	0	blank	1	BLNK	1	1	4725	-0.132839	LO
B	0	read baseline	1	RB	1	1	3560	-0.628626	BL
61	108	CCV 200 ppb	1	CCV	1	1	507874	212.044113	
62	104	CCVL 100 ppb	1	U	1	1	245911	102.059959	
63	0	CCB	1	U	1	1	-4681	-4.136443	LO
B	0	read baseline	1	RB	1	1	-5973	-4.686414	BL
65	143	280-123981-G-9-B 1	U		1	1	23801	7.982085	
66	144	280-123983-G-1-B 1	U		1	1	69644	27.461996	
67	145	280-123983-G-2-B 1	U		1	1	34350	12.467785	
68	146	280-123983-G-3-B 1	U		1	1	35107	12.789383	
69	147	280-124270-D-1-B 1	U		1	1	41354	15.444472	
70	148	280-124270-D-2-B 1	U		1	1	40819	15.217384	

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
71	149	280-124270-D-3-B 1 U			1	1	29994	10.615470	
72	150	x280-124270-D-3-C MS 1 U			1	1	26693	9.211935	
73	151	x280-124270-D-3-D MS 1 U			1	1	436947	182.369995	
74	152	x280-124038-I-4-A 1 U			1	1	23051	7.663148	
75	0	blank	1	BLNK	1	1	-14444	-8.293395	LO
B	0	read baseline	1	RB	1	1	18979	5.931530	BL UM
77	108	CCV 200 ppb	1	CCV	1	1	517632	216.120605	
78	104	CCVL 100 ppb	1	U	1	1	260517	108.220367	
79	0	CCB	1	U	1	1	7489	1.043040	
B	0	read baseline	1	RB	1	1	6427	0.591272	BL
81	153	280-123924-G-1-A 1 U			1	1	22649	7.492246	
82	154	280-123924-G-2-A 1 U			1	1	27403	9.513841	
83	155	280-123924-G-3-A 1 U			1	1	65091	25.528692	
84	156	280-123924-G-4-A 1 U			1	1	54052	20.840273	
85	157	280-123924-G-5-A 1 U			1	1	39673	14.730239	
86	158	280-123924-G-6-A 1 U			1	1	39776	14.774037	
87	159	280-123924-G-7-A 1 U			1	1	32623	11.733281	
88	160	280-123924-G-8-A 1 U			1	1	39618	14.706872	
89	201	280-123924-G-9-A 1 U			1	1	28542	9.998407	
90	202	280-123924-G-10-A 1 U			1	1	32243	11.571870	
91	0	blank	1	BLNK	1	1	3165	-0.796679	LO
B	0	read baseline	1	RB	1	1	-768	-2.470809	BL
93	108	CCV 200 ppb	1	CCV	1	1	512574	214.007736	
94	104	CCVL 100 ppb	1	U	1	1	263342	109.411003	
95	0	CCB	1	U	1	1	-5430	-4.455504	LO
B	0	read baseline	1	RB	1	1	-6178	-4.773701	BL
97	203	280-123924-G-10-B MS 1 U			1	1	517054	215.879105	
98	204	280-123924-G-10-C MS 1 U			1	1	507160	211.745743	
99	150	280-124270-D-3-C MS 1 U			1	1	447375	186.737579	
100	151	280-124270-D-3-D MSD 1 U			1	1	450311	187.966812	
101	152	280-124038-I-4-A 1 U			1	1	67100	26.381832	
102	0	blank	1	BLNK	1	1	-433	-2.328184	LO
B	0	read baseline	1	RB	1	1	-8549	-5.783080	BL
104	108	CCV 200 ppb	1	CCV	1	1	504486	210.628342	
105	104	CCVL 100 ppb	1	U	1	1	261085	108.459816	
106	0	CCB	1	U	1	1	5987	0.404209	
B	0	read baseline	1	RB	1	1	6920	0.801121	BL

Phenols, Total:Calibration 1: Peak 5-107

File name: C:\FLOW_4\P060619.RST
Date: 07-Jun-19
Operator: AM

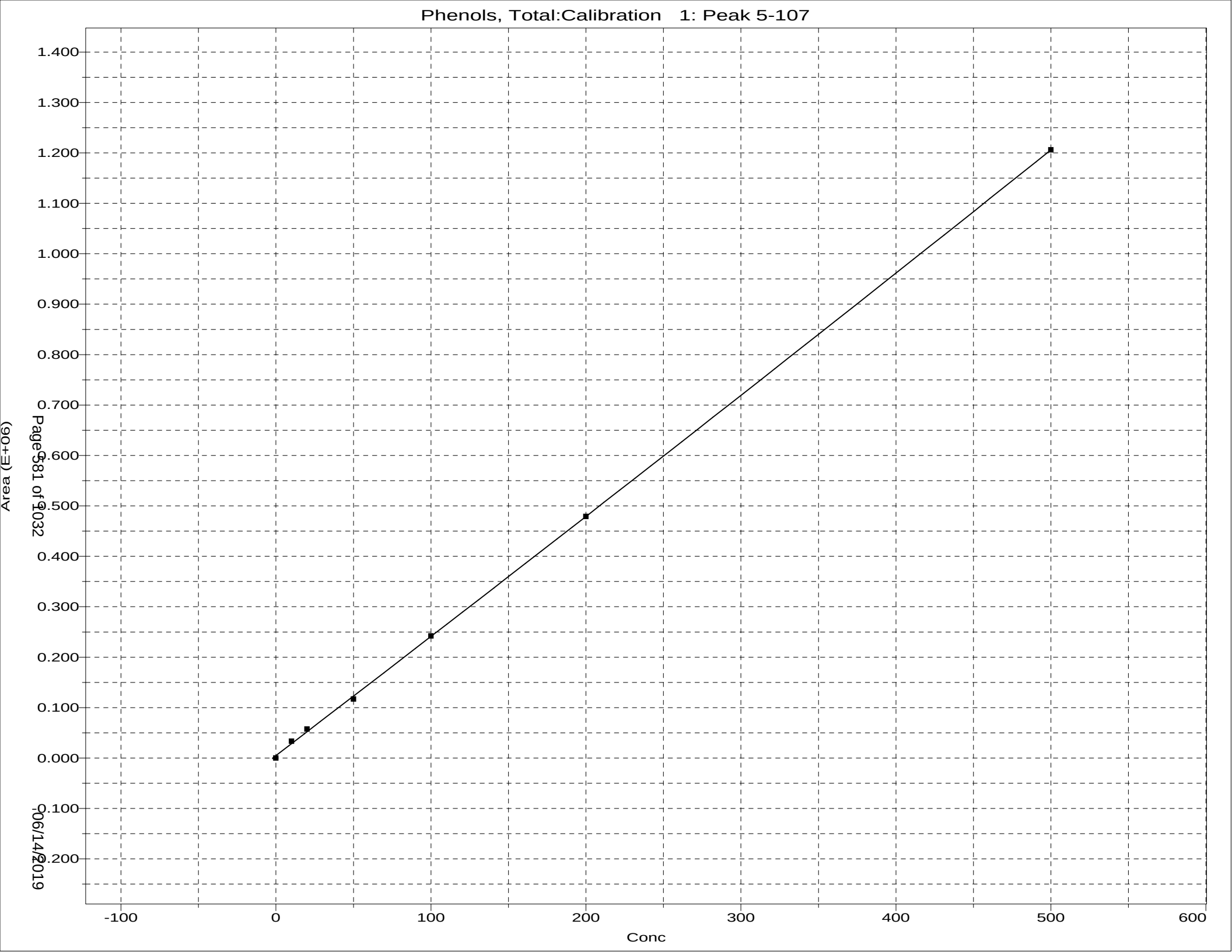
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*	Cal 10.0 ppb	10.000000	33131.878906
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*	Cal 50.0 ppb	50.000000	116842.929688
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*	Cal 200 ppb	200.000000	478987.968750
*	Cal 500 ppb	500.000000	1206011.125000

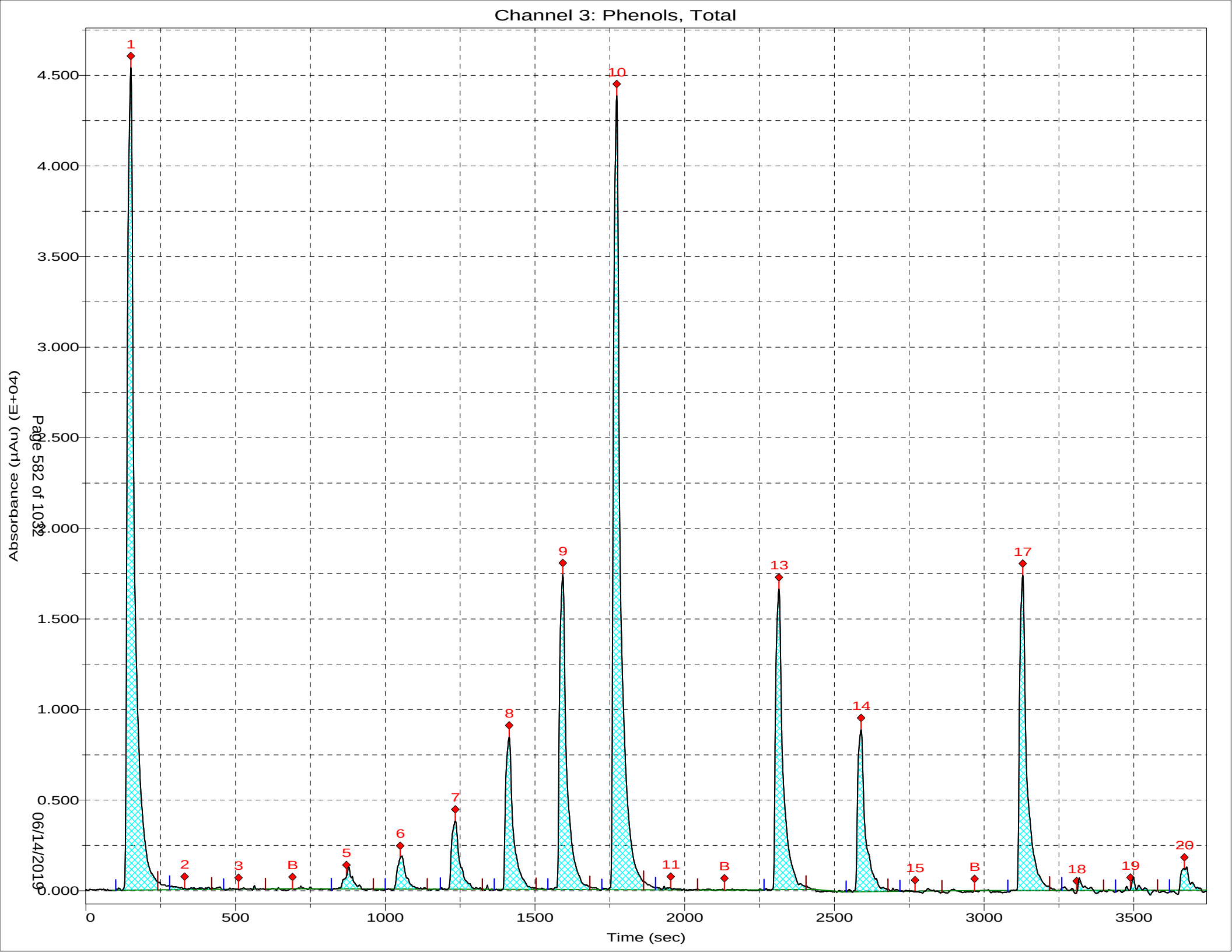
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a: (intercept) -2.1439e+00
b: 4.2564e-04
c: -7.6828e-12

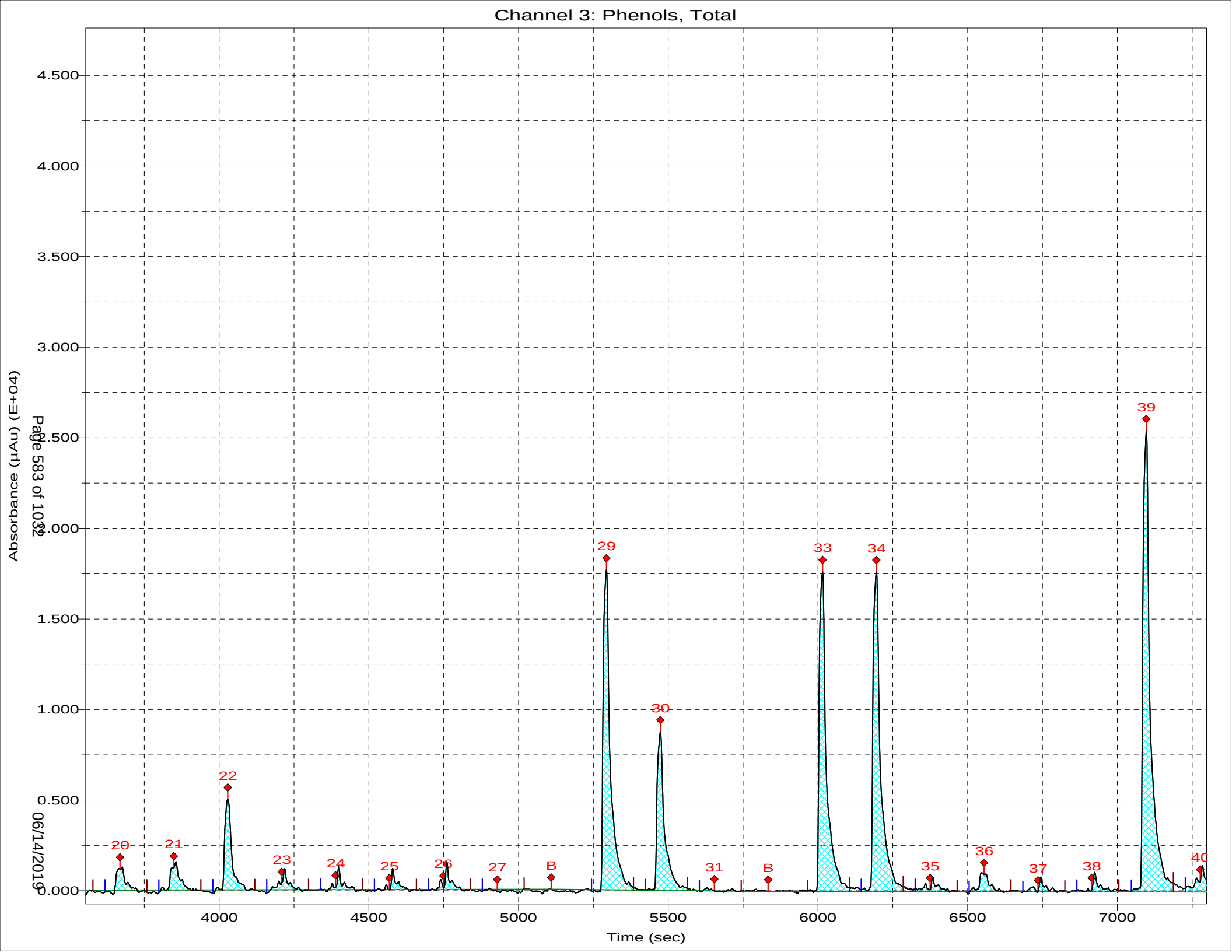
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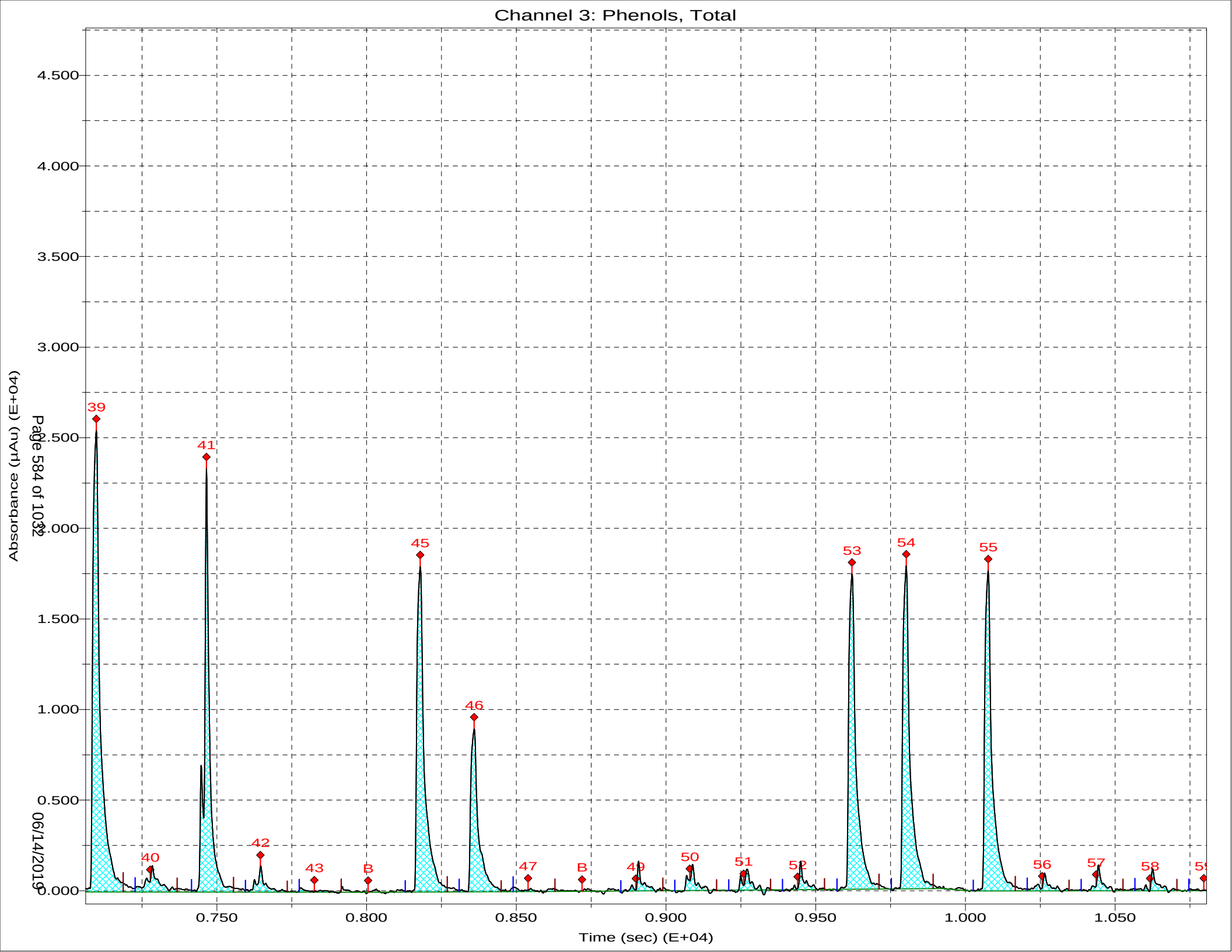
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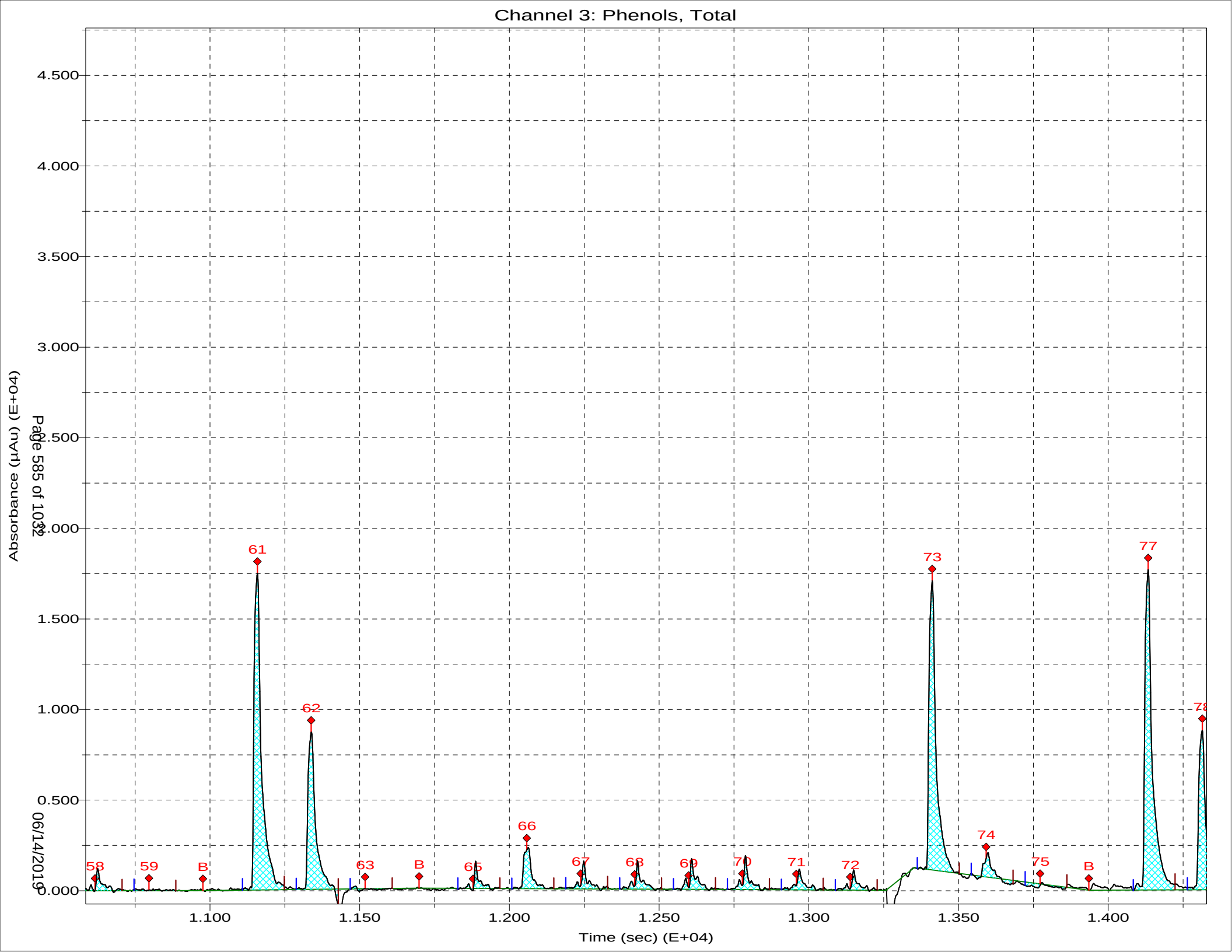
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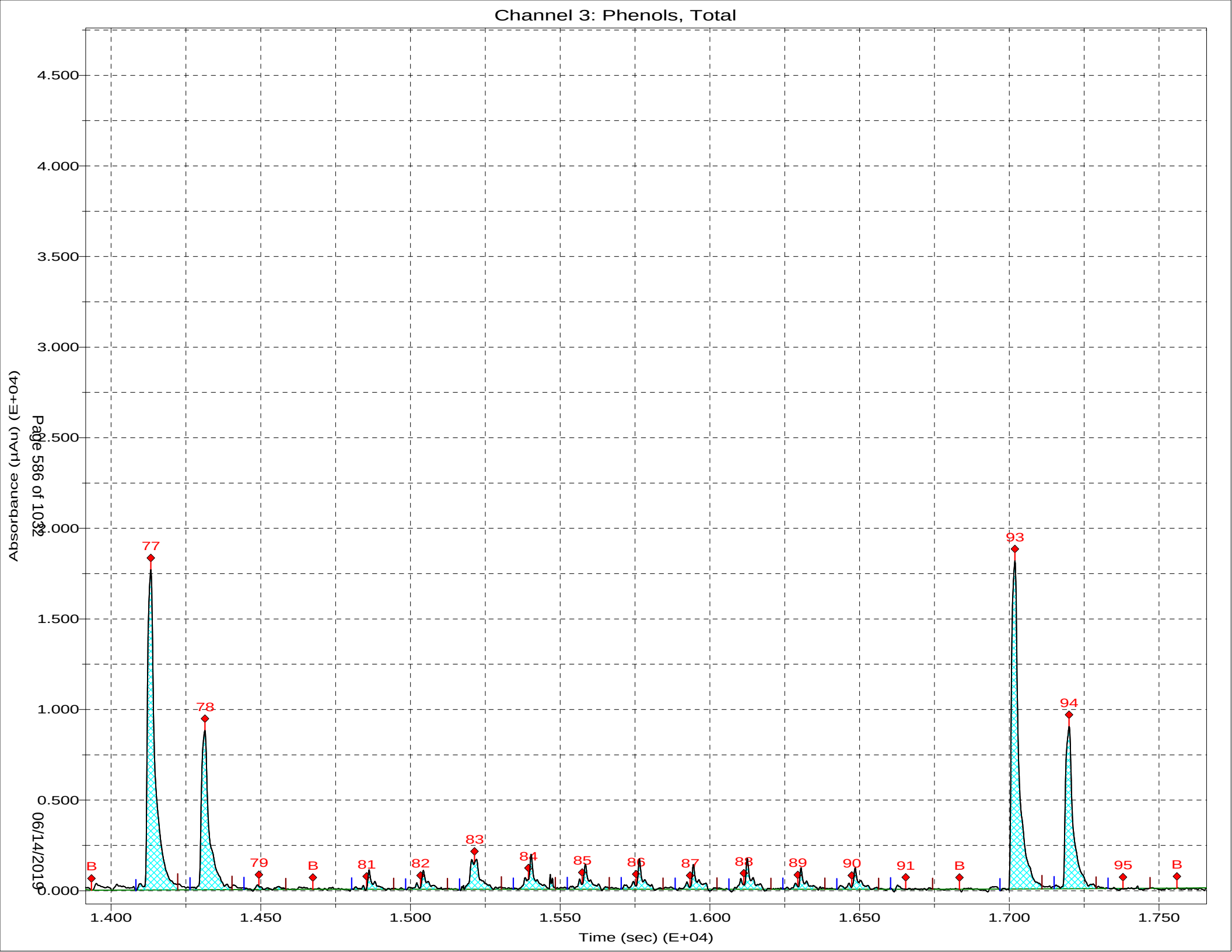

Phenols, Total:Calibration 1: Peak 5-107
Area (E+06)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-100
0
100
200
300
400
500
600
Conc

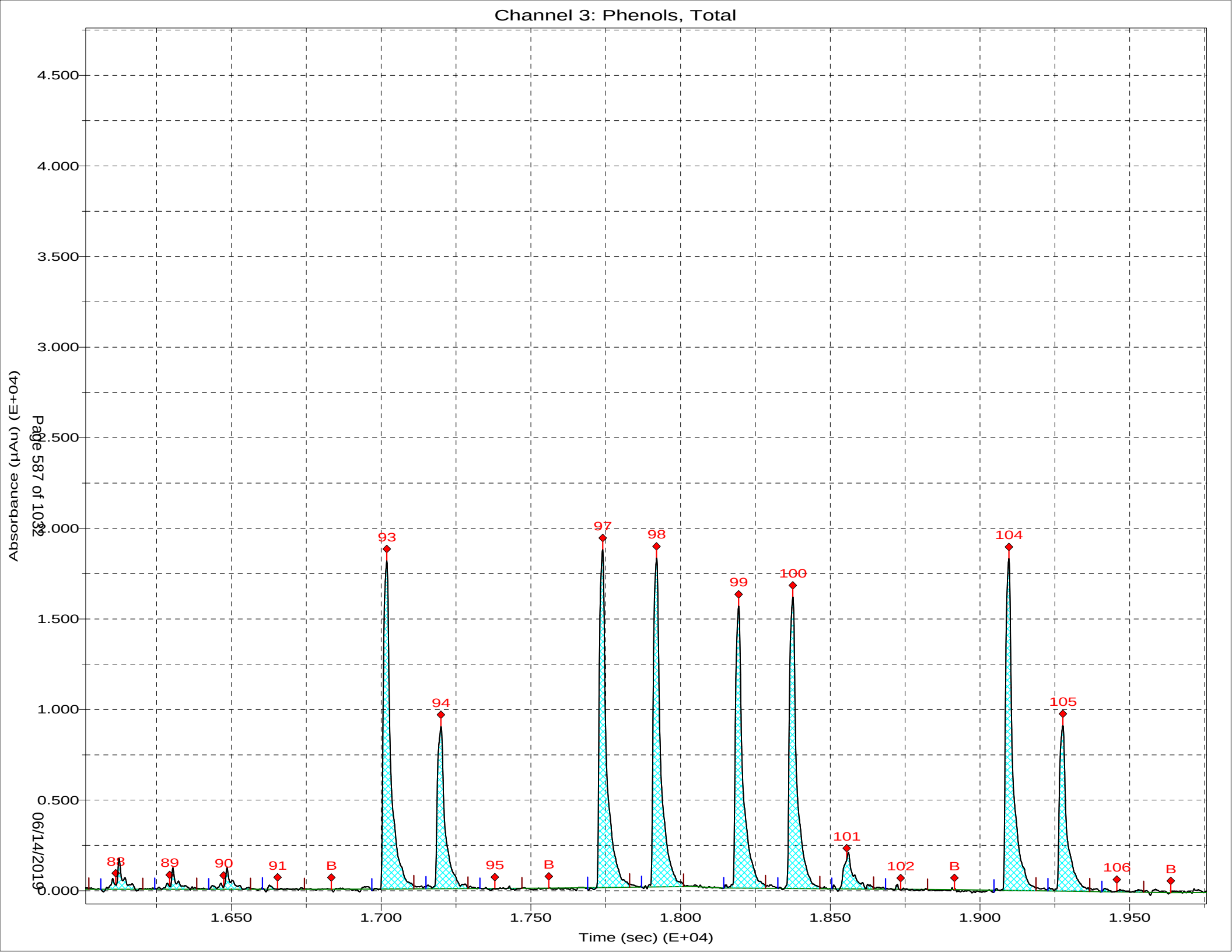

Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0
500
1000
1500
2000
2500
3000
3500
Time (sec)
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
20
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Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
4000
4500
5000
5500
6000
6500
7000
Time (sec)
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37
38
39
40


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.750
0.800
0.850
0.900
0.950
1.000
1.050
Time (sec) (E+04)
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55
56
57
58
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Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
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06/14/2019
58
59
B
61
62
63
B
65
66
67
68
69
70
71
72
73
74
75
B
77
78
1.100
1.150
1.200
1.250
1.300
1.350
1.400
Time (sec) (E+04)


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Time (sec) (E+04)
1.400
1.450
1.500
1.550
1.600
1.650
1.700
1.750
77
78
79
81
82
83
84
85
86
87
88
89
90
91
93
94
95
B
Page 586 of 1032
06/14/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Page 587 of 1032
06/14/2019
88
89
90
91
B
93
94
95
B
97
98
99
100
101
102
B
104
105
106
B
1.650
1.700
1.750
1.800
1.850
1.900
1.950
Time (sec) (E+04)

Color Bench Sheet

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Analyst: CKB	Batch #: 458692	SOP: DV-WC-0058 SM 2120B
Date: 5/18/19		

Calibration Standard TALS ID: COLOR STD_00018 1.0 N HCl TALS ID: N/A

1.0 N NaOH TALS ID: N/A

Sample ID	pH	Observed Color	Dilution Factor	Sample Centrifuged?	Final Color
Method Blank	7	<5	N/A	Yes (No)	ND
280-123981-J-1	7	15	5x	Yes (No)	75
DU " " " "	7	15	5x	Yes (No)	75
280-123981-I-2	7	10	N/A	Yes (No)	10
280-123981-I-3	7	5	N/A	Yes (No)	5
280-123981-J-4	7	15	N/A	Yes (No)	15
280-123981-J-5	7	15	N/A	Yes (No)	15
280-123981-H-6	7	<5	N/A	Yes (No)	ND
280-123981-I-7	7	<5	N/A	Yes (No)	ND
280-123981-J-8	7	30	N/A	Yes (No)	30
280-123981-H-9	7	20	N/A	Yes (No)	20
280-123983-J-1	7	30	5x	Yes (No)	150
280-123983-H-2	7	15	5x	Yes (No)	75
DU " " " "	7	15	5x	Yes (No)	75
280-123983-J-3	7	20	5x	Yes (No)	100
				Yes No	
				Yes No	
		CKB		Yes No	
		5/18/19		Yes No	
				Yes No	
				Yes No	
				Yes No	

Comments: _____

HARDNESS BY TITRATION -- Method 2340C

Analyst:	KS	**Titration Solutions**		**SOP Information:**	**Rep. / Detection Limits**
Date:	6/5/2019	Solution 1:	EDTA	Number: DV-WC-0060	MDL (mg/L) 1.3
Time:	10:08	ID #	_00090	Revision: 4	RL (mg/L) 5
Batch No.:	460544	Source:	RICCA	**Calibration Information**	Spike Concentrations:
		Normality:	0.01930	Std# Hard 00052	LCS Spike Vol (mL) 10
Pipette Verification				Made By: LabChem	MS Spike Vol (mL) 10
at 5 mL:	4.94 g			Concentration (mg/L): 1000	LCS conc. (mg/L) 1000.0
Brinkmann bottletop				Exp: 4/12/21	MS conc (mg/L) 1000.0
Buret 50					

Sample ID	Sample pH	Sample Volume	Buret Start	Buret Stop	Flags	Final mL	Sample Conc mg/L	Prep D.F.	Analyt. D.F.	Final Conc mg/L	Titrant TV
titrant stdz	7	10	0.00	10.52		10.52	1015.181	1	1	1015.18	0.01901
titrant stdz	7	10	0.00	10.21		10.21	985.266	1	1	985.27	0.01959

Buffer:	Hardness Buffer 00011	Exp:	11 01 2019
Calmagite Indicator:	0289-11_00008	Exp:	12 31 2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	NC	NC	M
2 Chloride	3.234	3.242	-0.008	4716909	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	1976056	0.2000	0.2135	a
4 Bromide	4.642	4.642	0.000	382484	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	2120855	0.2000	0.2208	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	0.2000	0.2189	a
6 Sulfate	6.409	6.434	-0.025	3612640	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

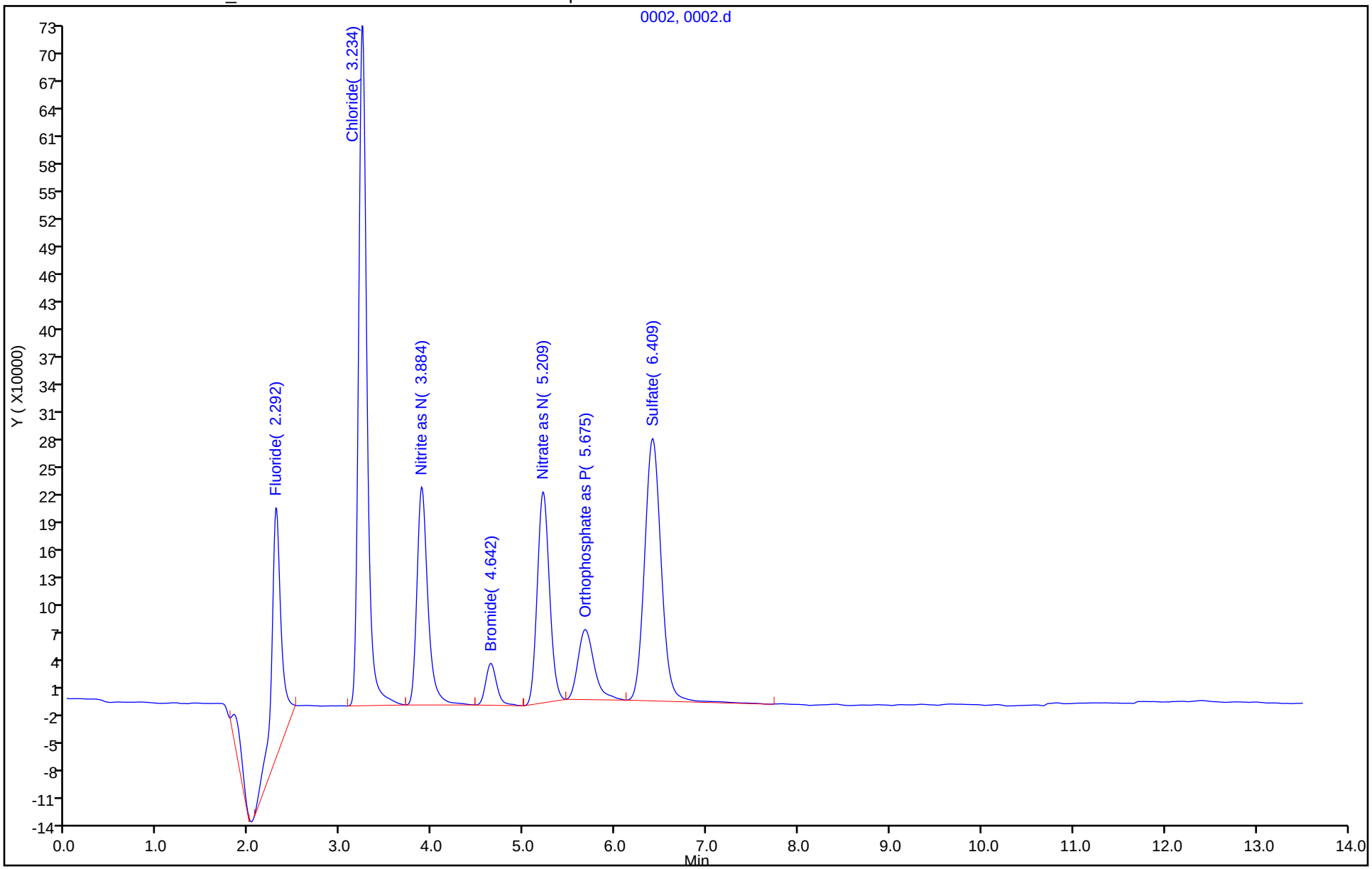
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

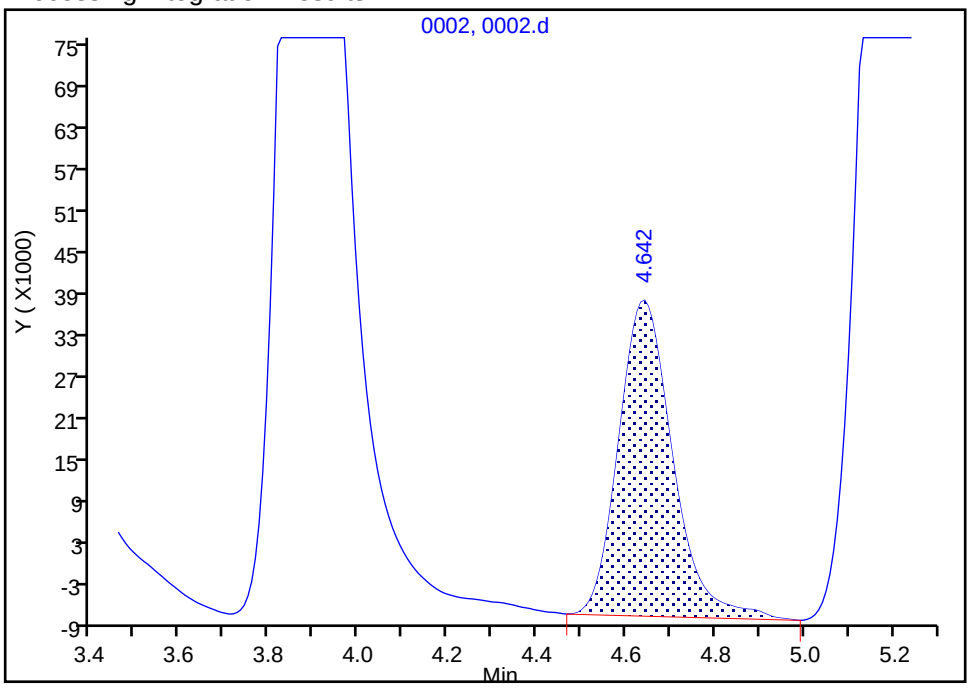
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

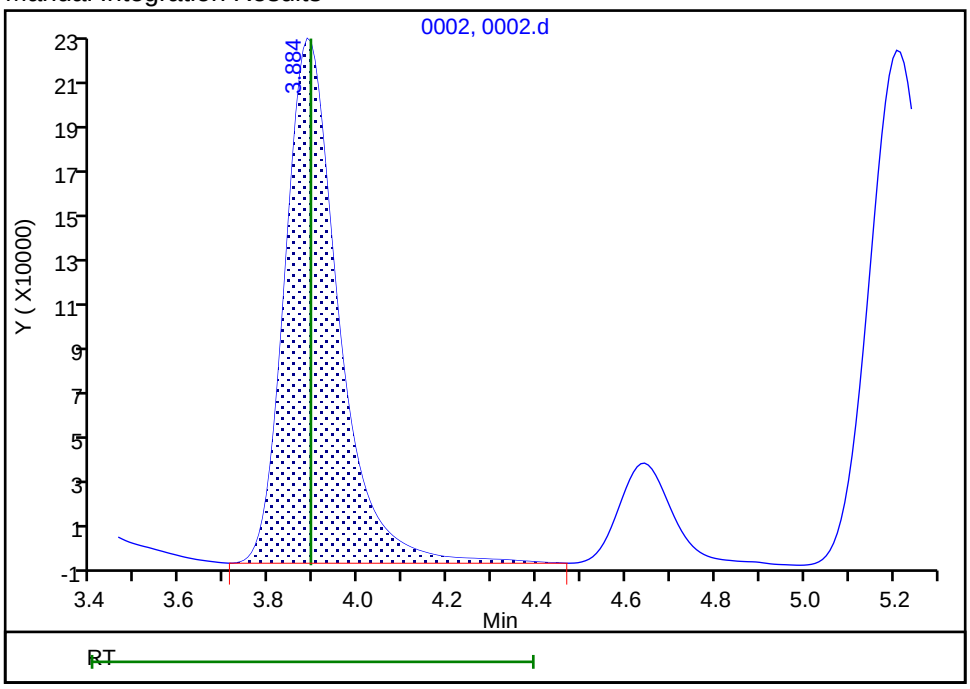
Processing Integration Results

RT: 4.64
Area: 382484
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 1976056
Amount: 0.213513
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:40
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

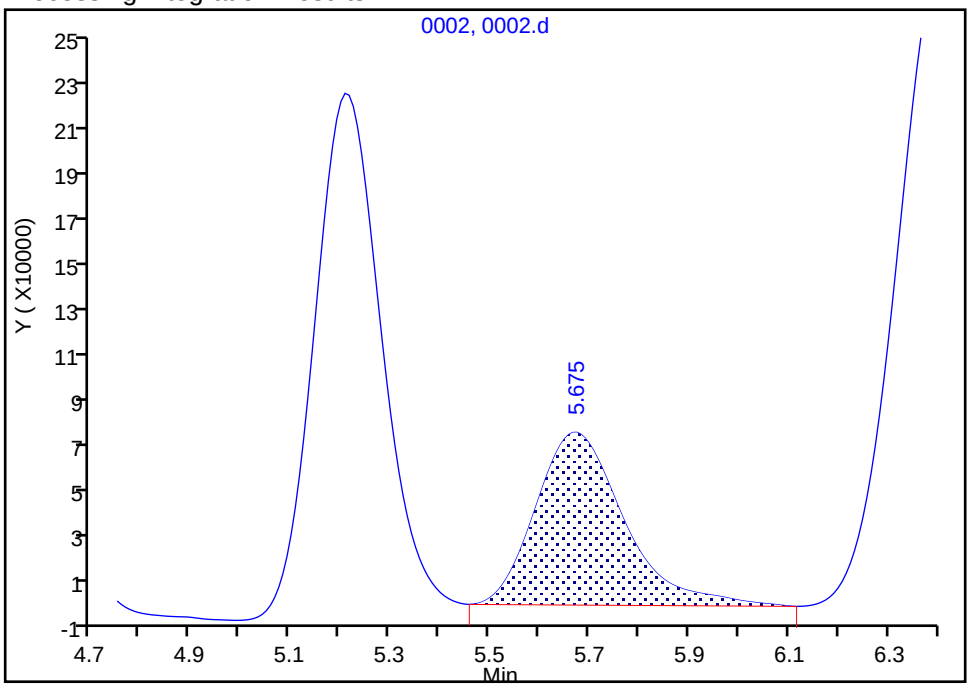
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

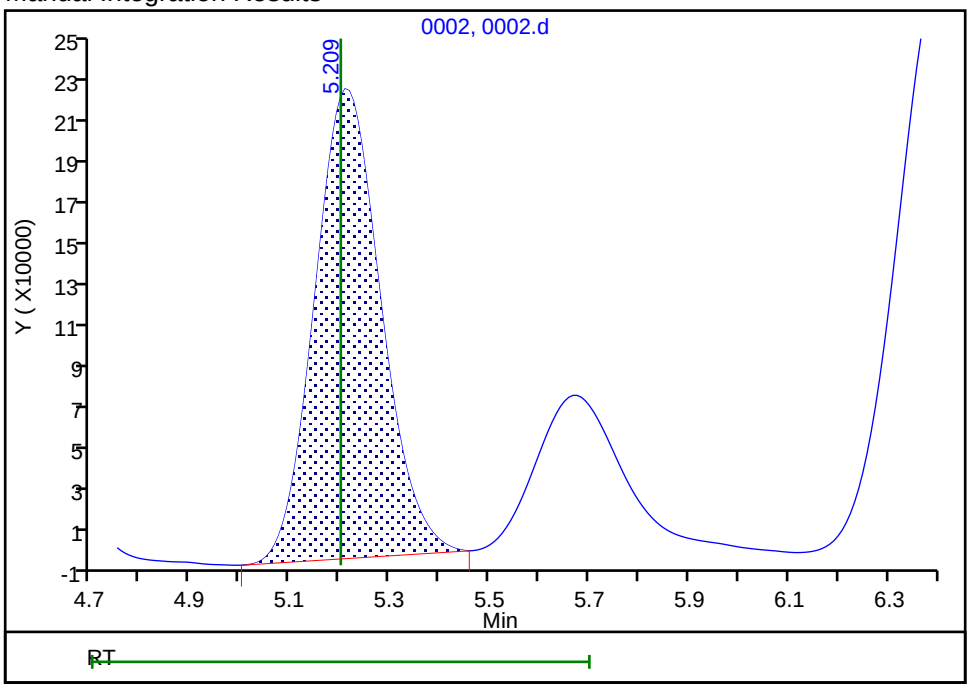
Processing Integration Results

RT: 5.68
Area: 939373
Amount: 0.215245
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 2120855
Amount: 0.220835
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

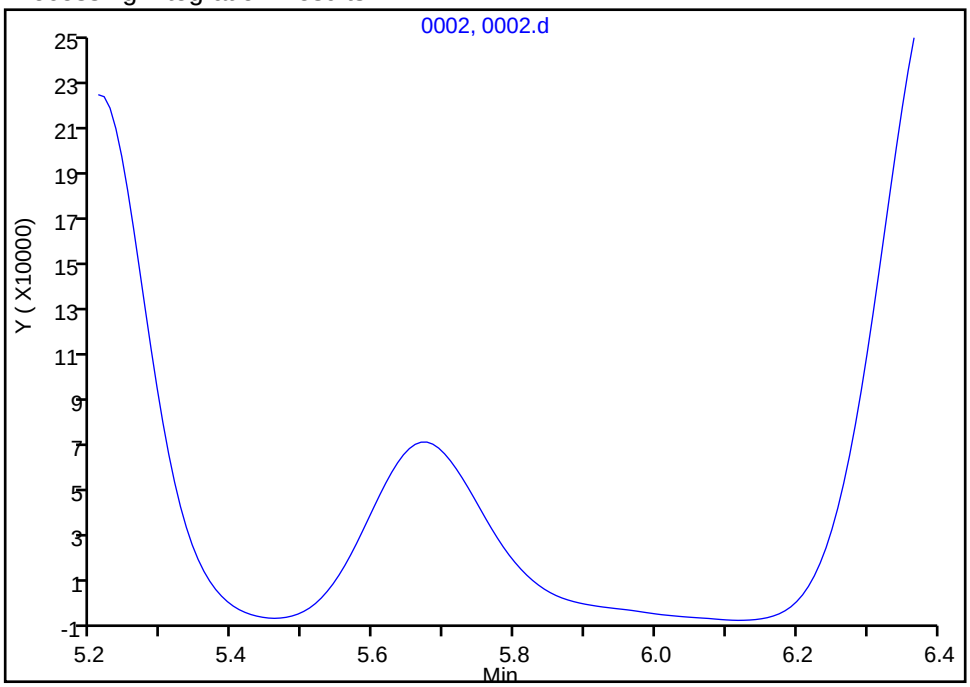
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

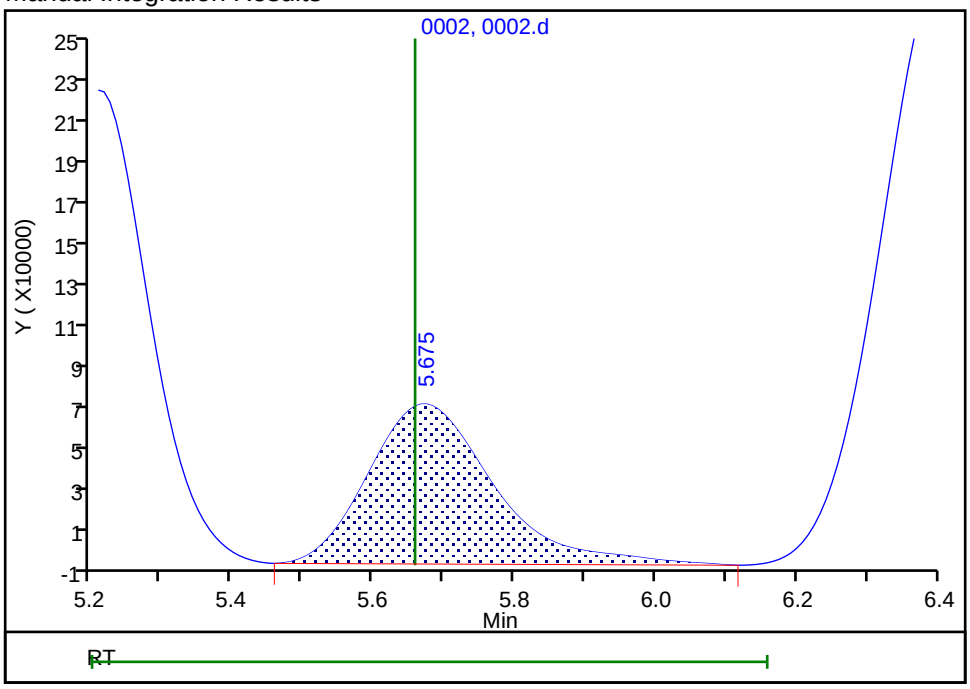
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.68
Area: 939373
Amount: 0.218915
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	0.2000	0.1247	M
2 Chloride	3.234	3.242	-0.008	4716909	1.00	1.32	
3 Nitrite as N	3.884	3.892	-0.008	1976056	NC	NC	a
4 Bromide	4.642	4.642	0.000	382484	0.2000	0.2043	a
5 Nitrate as N	5.209	5.200	0.009	2120855	NC	NC	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	3612640	1.00	1.25	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

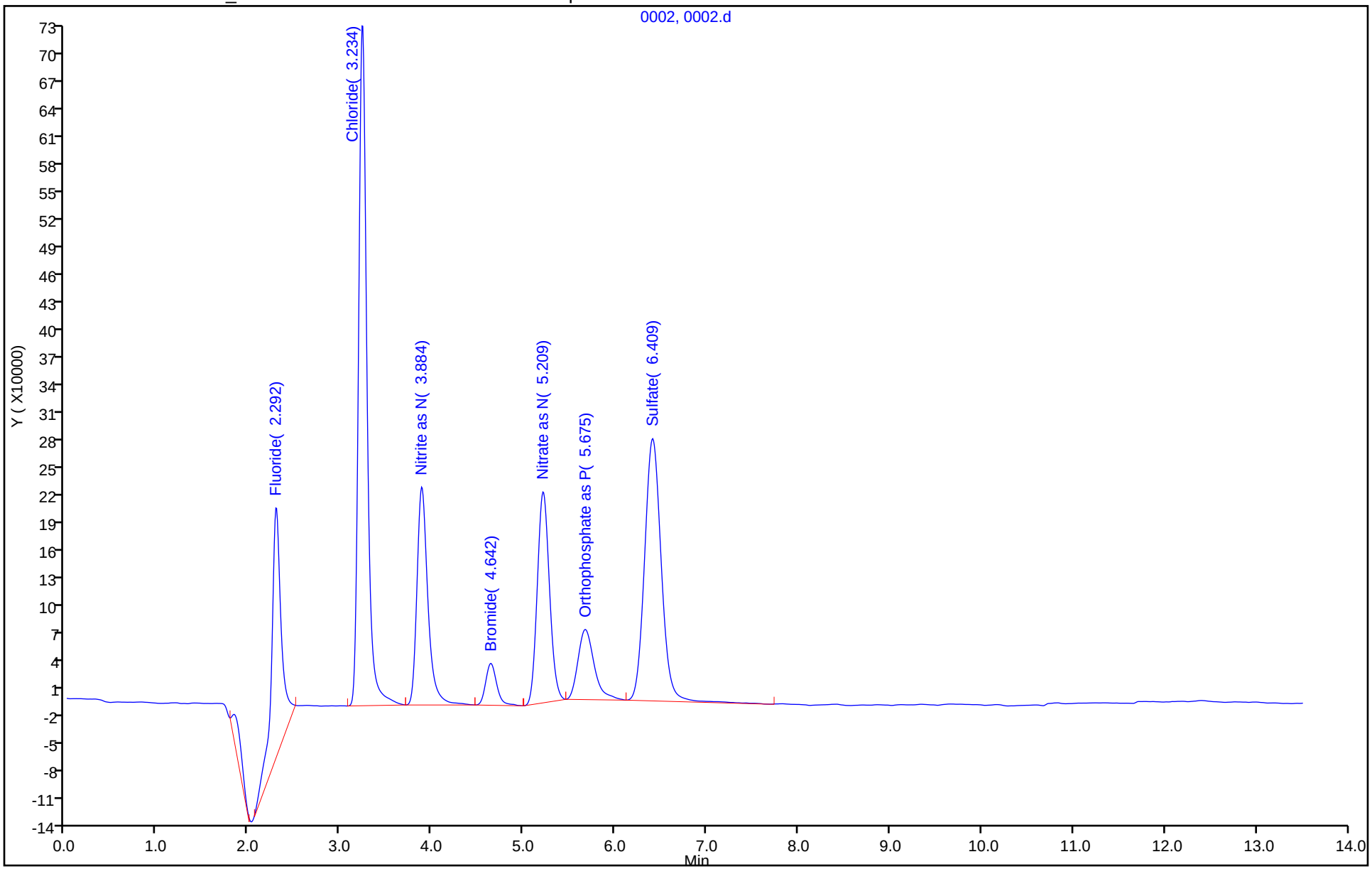
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

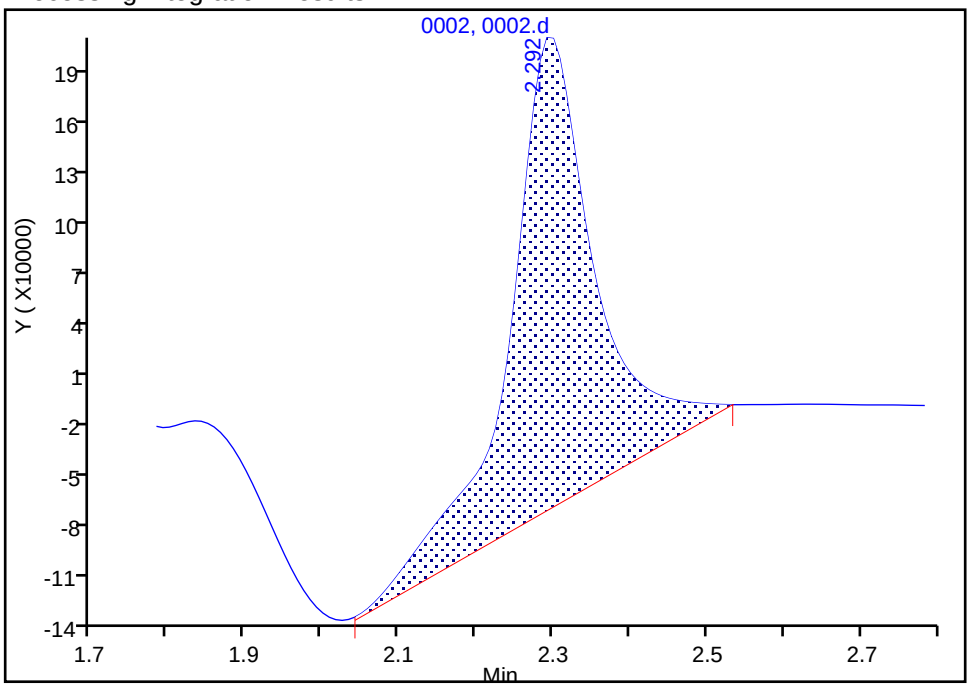
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d				
Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L1				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

1 Fluoride, CAS: 16984-48-8

Signal: 1

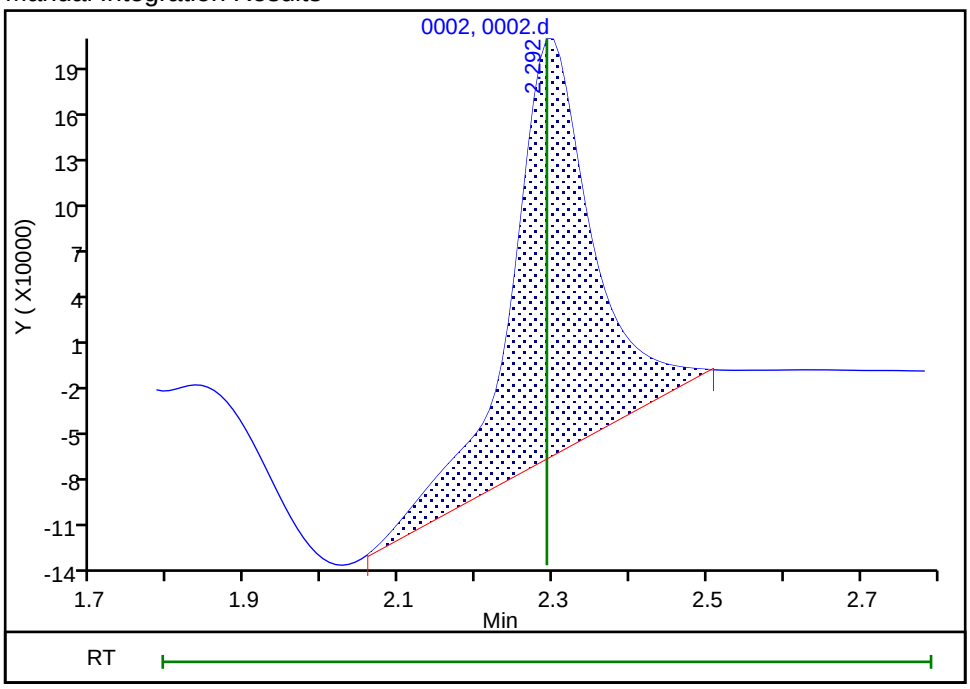
Processing Integration Results

RT: 2.29
Area: 2156044
Amount: 0.130825
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2026299
Amount: 0.124737
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:10:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

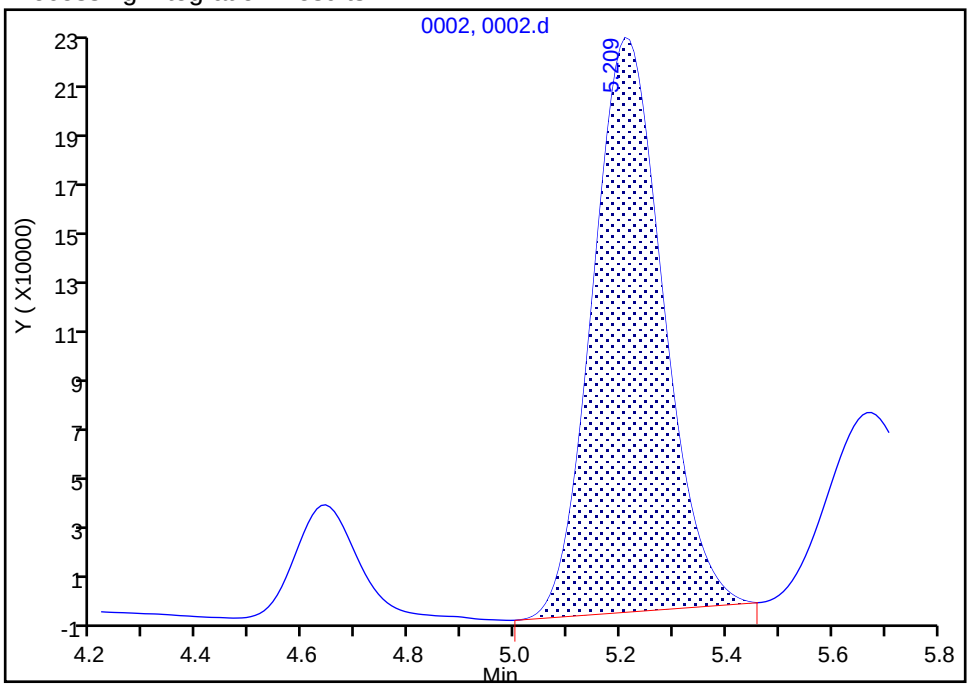
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

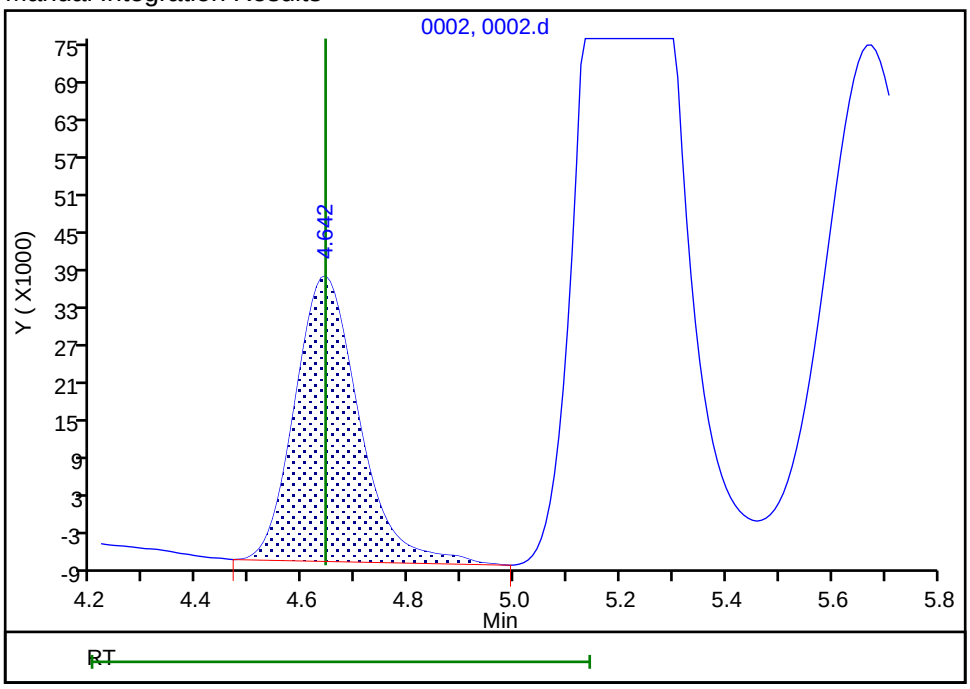
Processing Integration Results

RT: 5.21
Area: 2120855
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 382484
Amount: 0.204318
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

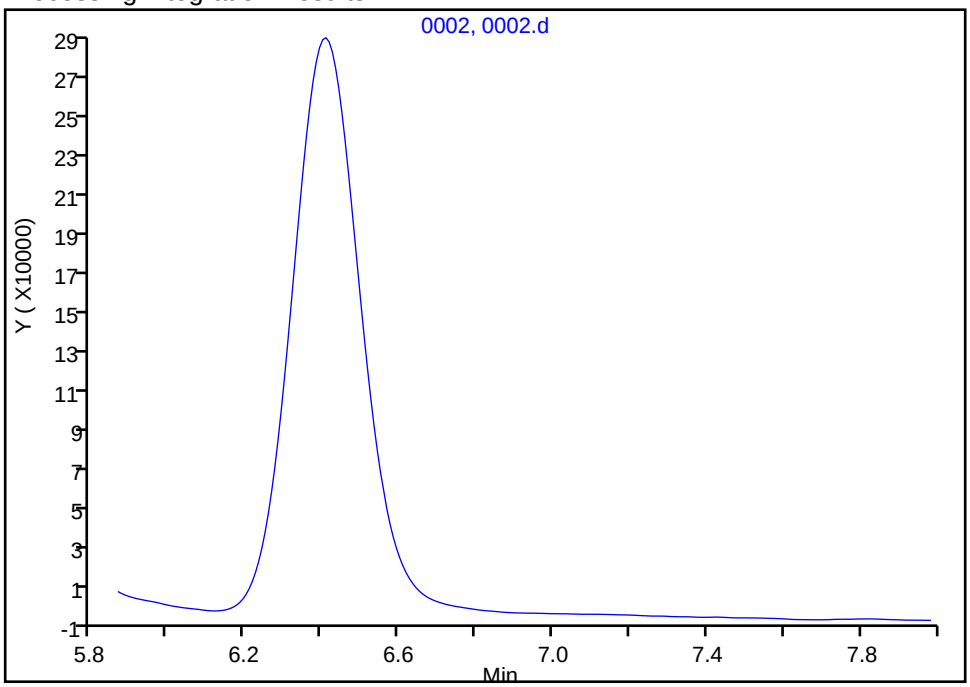
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

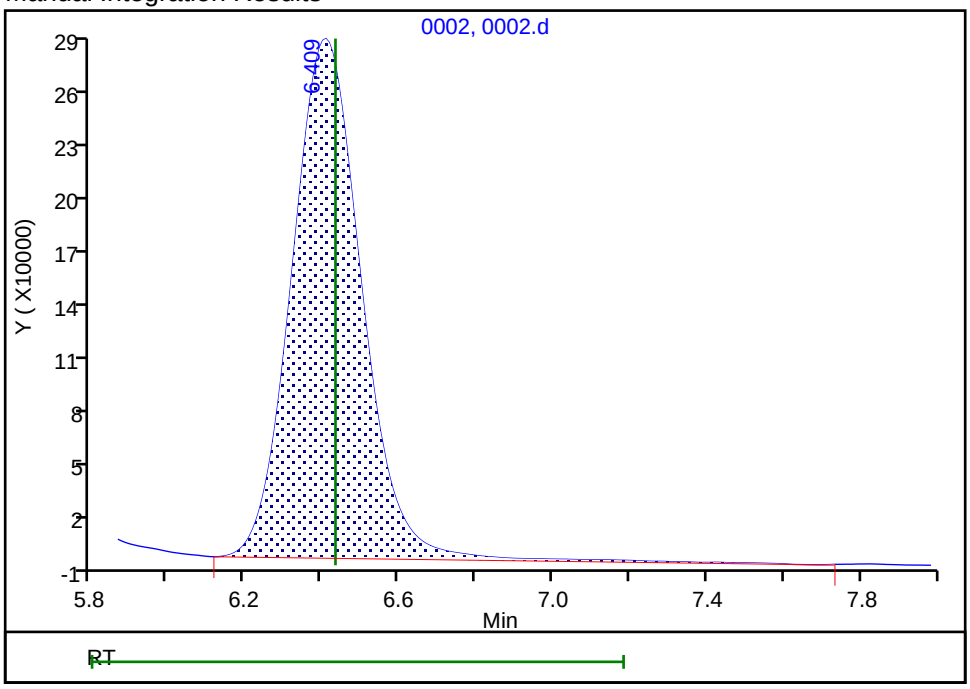
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 3612640
Amount: 1.245045
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:12
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	NC	NC	
2 Chloride	3.234	3.242	-0.008	11441790	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	4889442	0.5000	0.4912	a
4 Bromide	4.634	4.642	-0.008	953603	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	5219434	0.5000	0.4876	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	0.5000	0.4793	a
6 Sulfate	6.409	6.434	-0.025	8699908	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

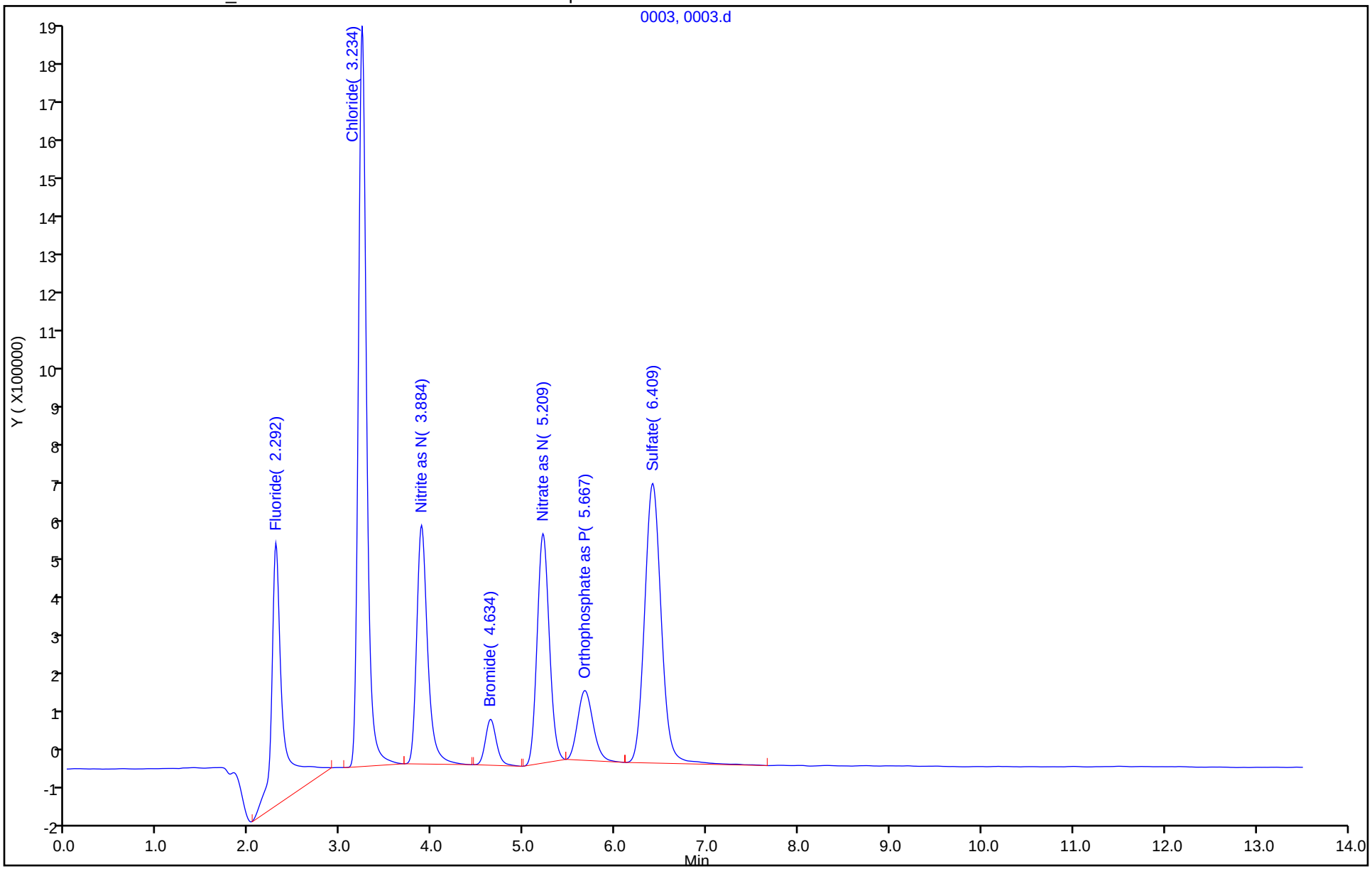
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

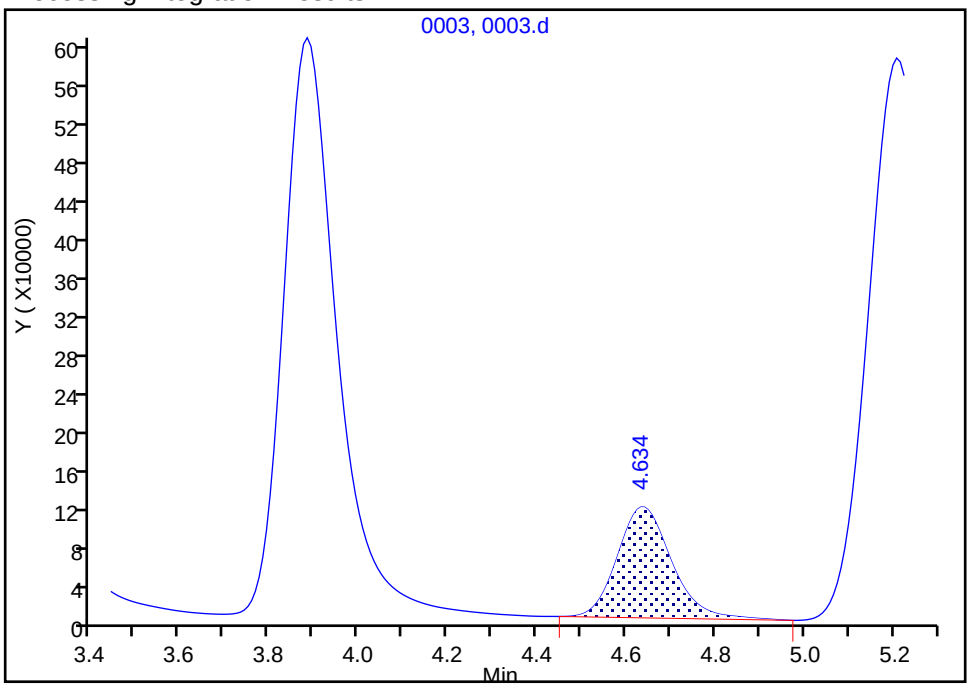
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

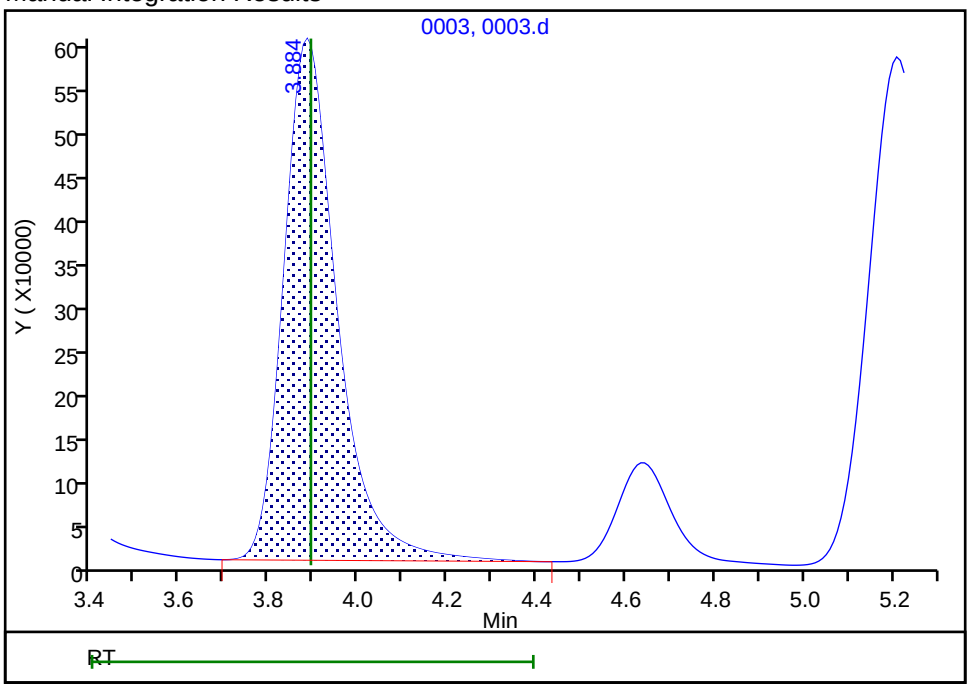
Processing Integration Results

RT: 4.63
Area: 953603
Amount: -0.100903
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 4889442
Amount: 0.491191
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

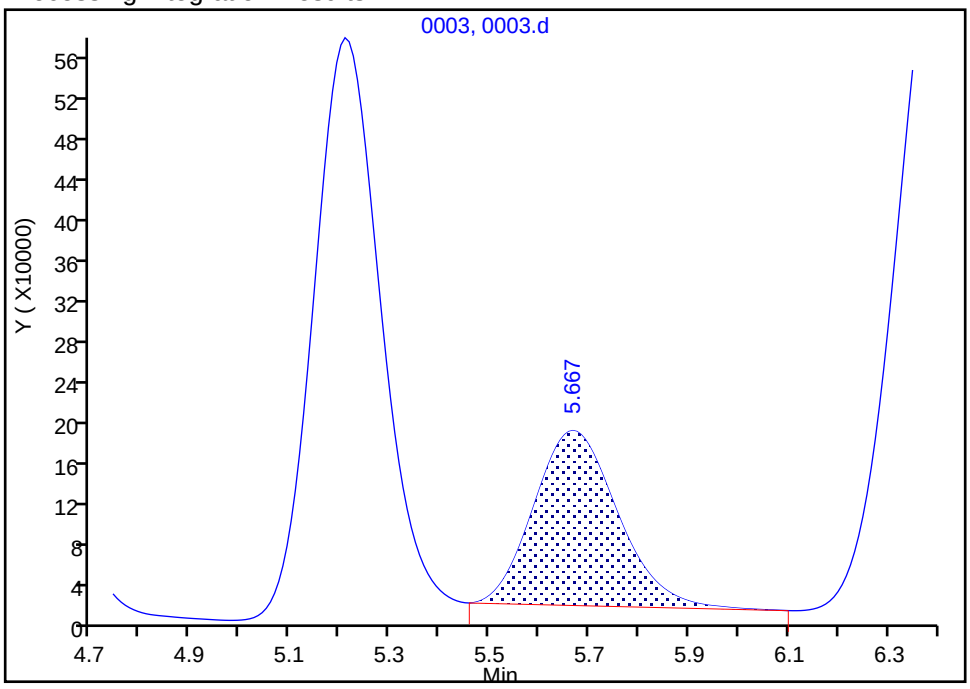
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

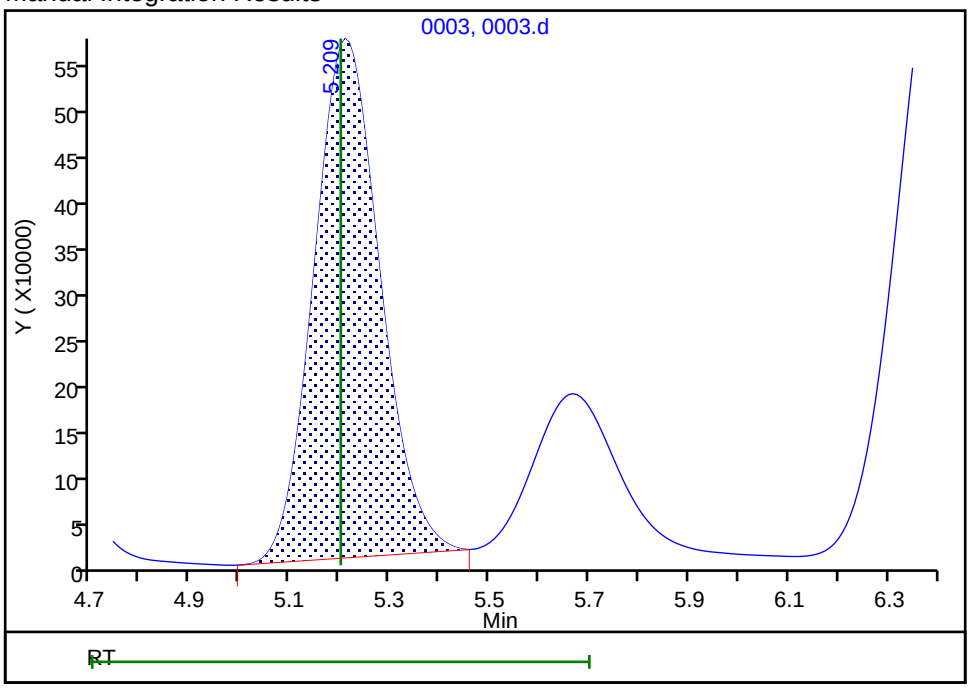
Processing Integration Results

RT: 5.67
Area: 2017876
Amount: 0.290238
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 5219434
Amount: 0.487631
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

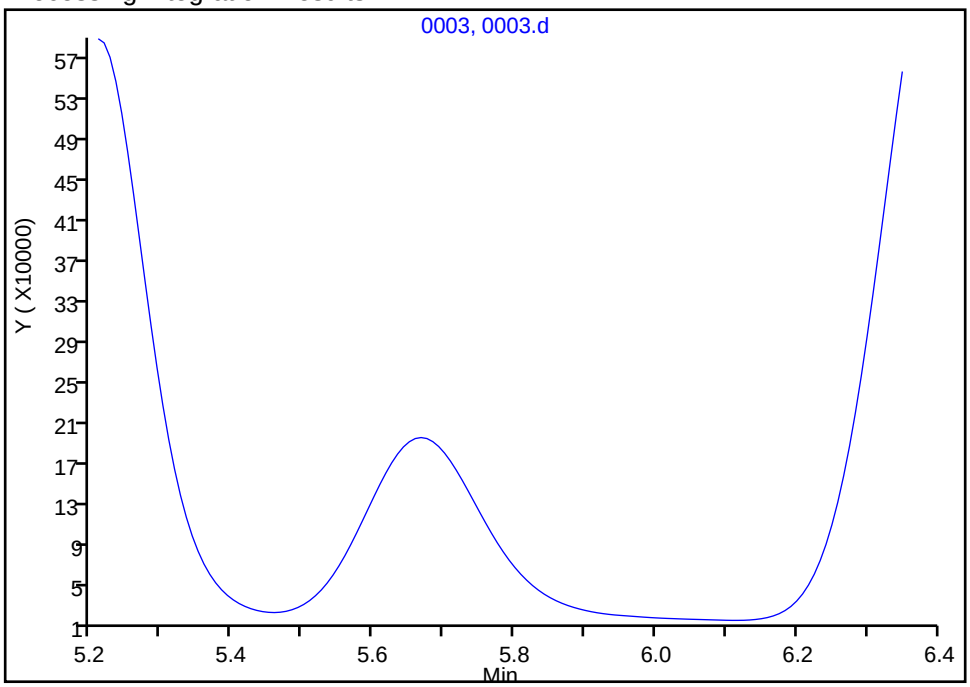
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

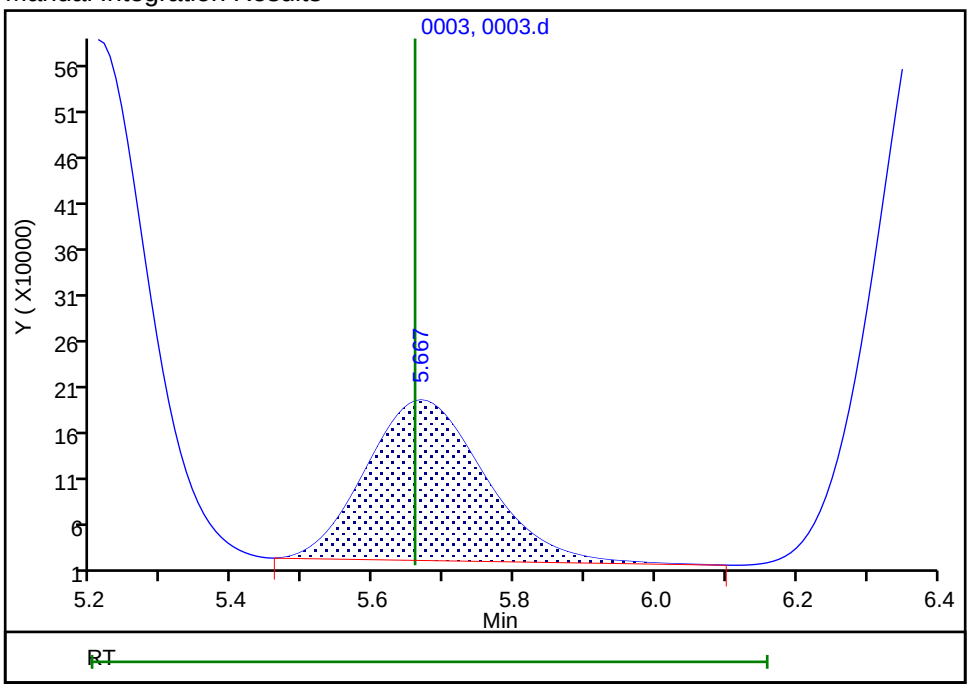
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 2017876
Amount: 0.479288
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	0.5000	0.6311	
2 Chloride	3.234	3.242	-0.008	11441790	2.50	2.32	
3 Nitrite as N	3.884	3.892	-0.008	4889442	NC	NC	a
4 Bromide	4.634	4.642	-0.008	953603	0.5000	0.4980	a
5 Nitrate as N	5.209	5.200	0.009	5219434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	8699908	2.50	2.38	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

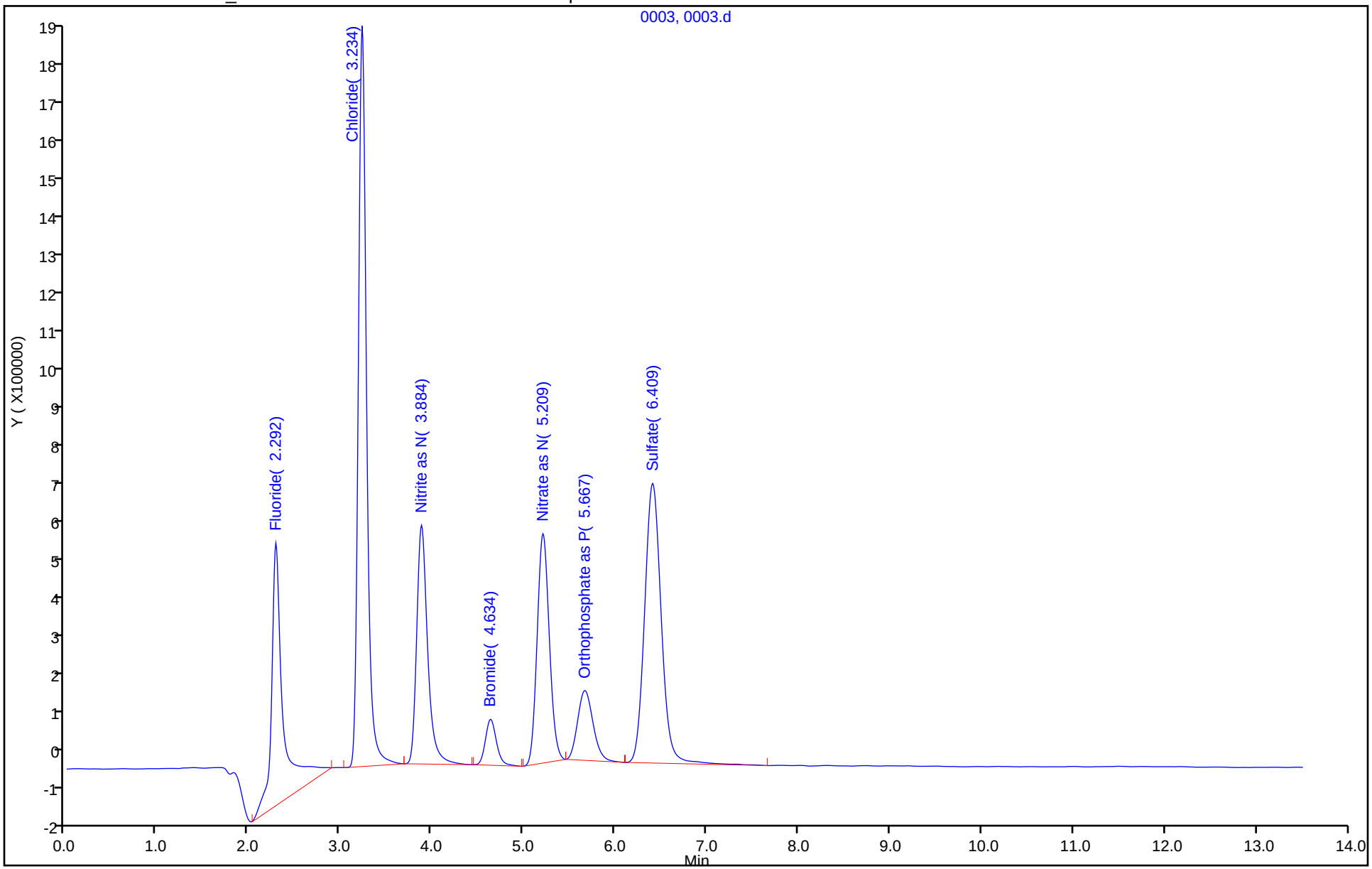
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

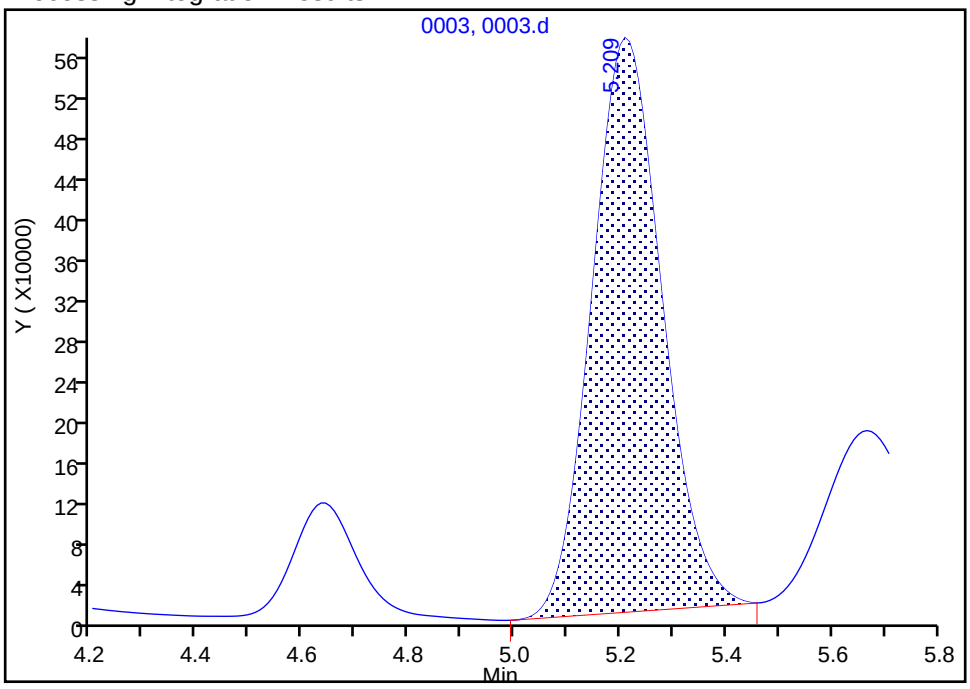
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

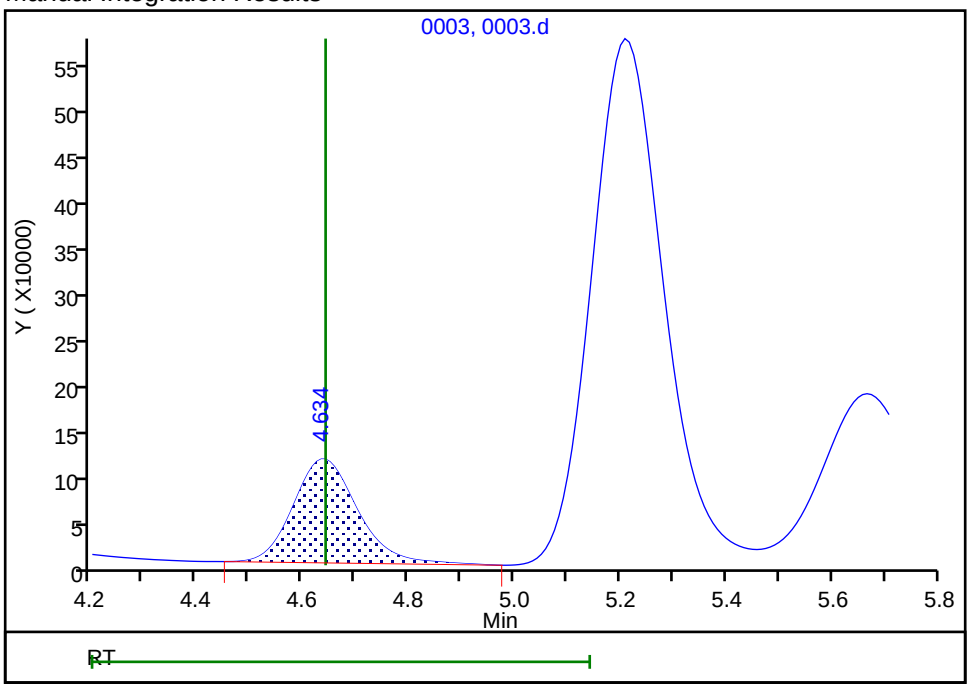
Processing Integration Results

RT: 5.21
Area: 5219434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 953603
Amount: 0.497971
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

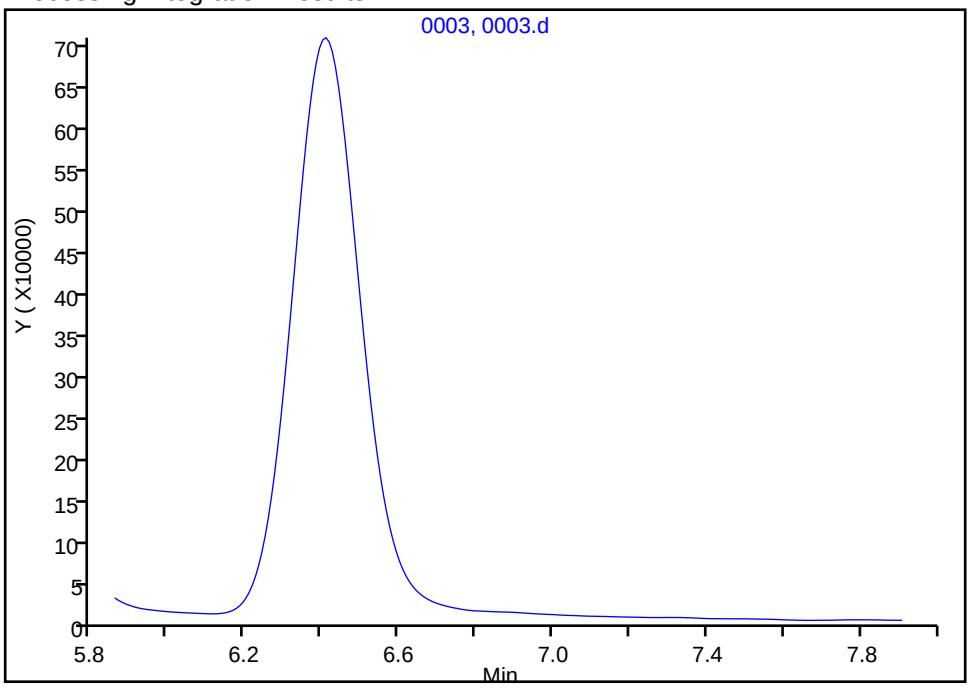
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

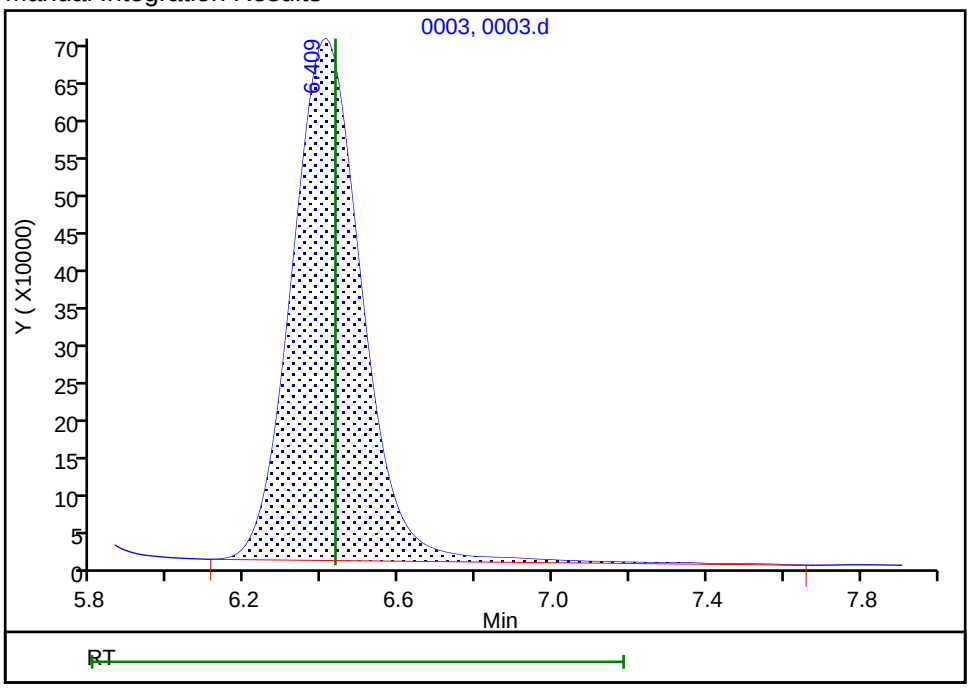
Processing Integration Results

Not Detected
Expected RT: 6.43



Manual Integration Results

RT: 6.41
Area: 8699908
Amount: 2.382508
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:24
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	NC	NC	
2 Chloride	3.234	3.242	-0.008	23461594	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	9866046	1.00	0.9655	a
4 Bromide	4.642	4.642	0.000	1893846	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	10516434	1.00	0.9437	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	1.00	0.9615	a
6 Sulfate	6.409	6.434	-0.025	17587626	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

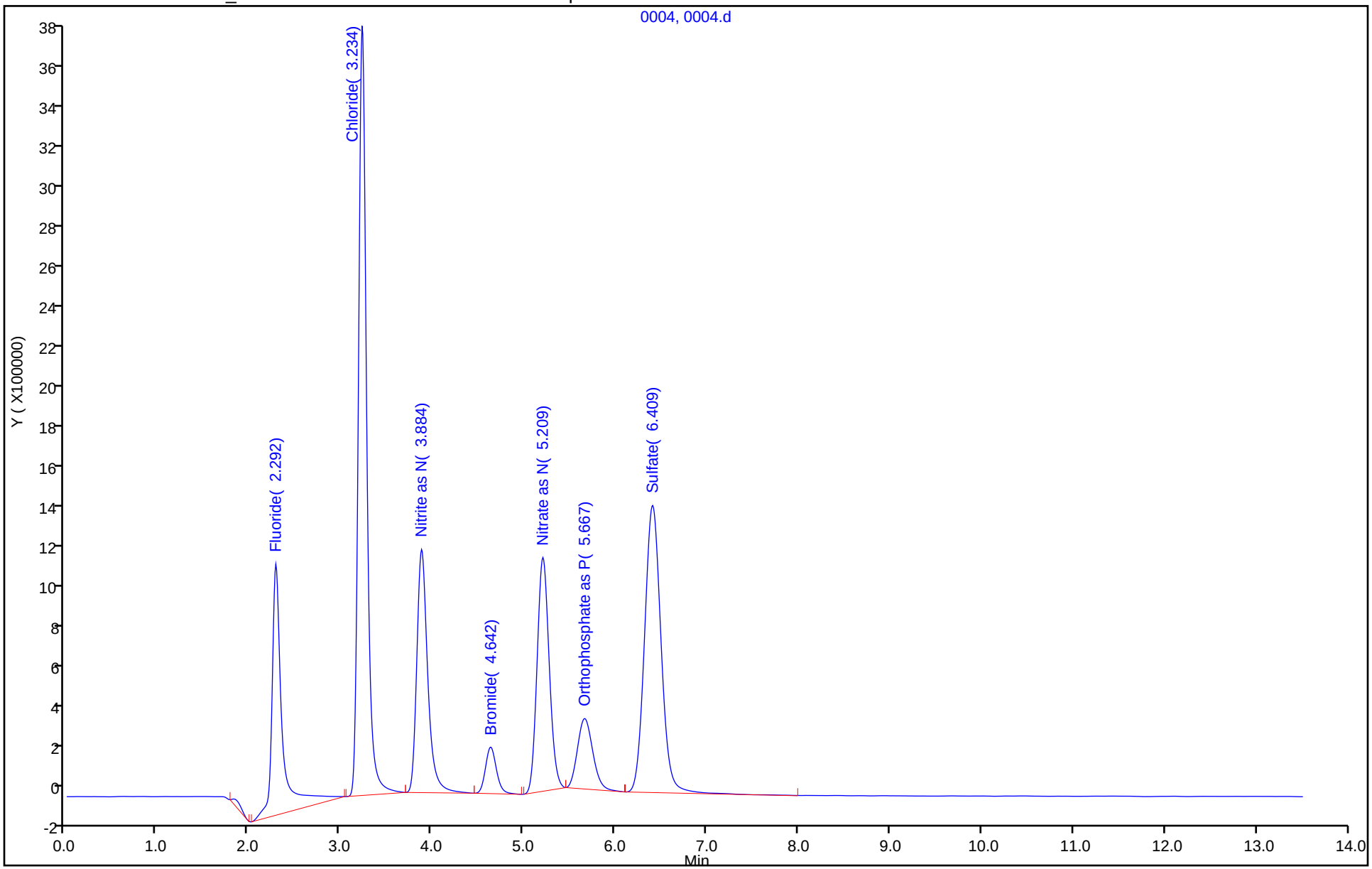
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

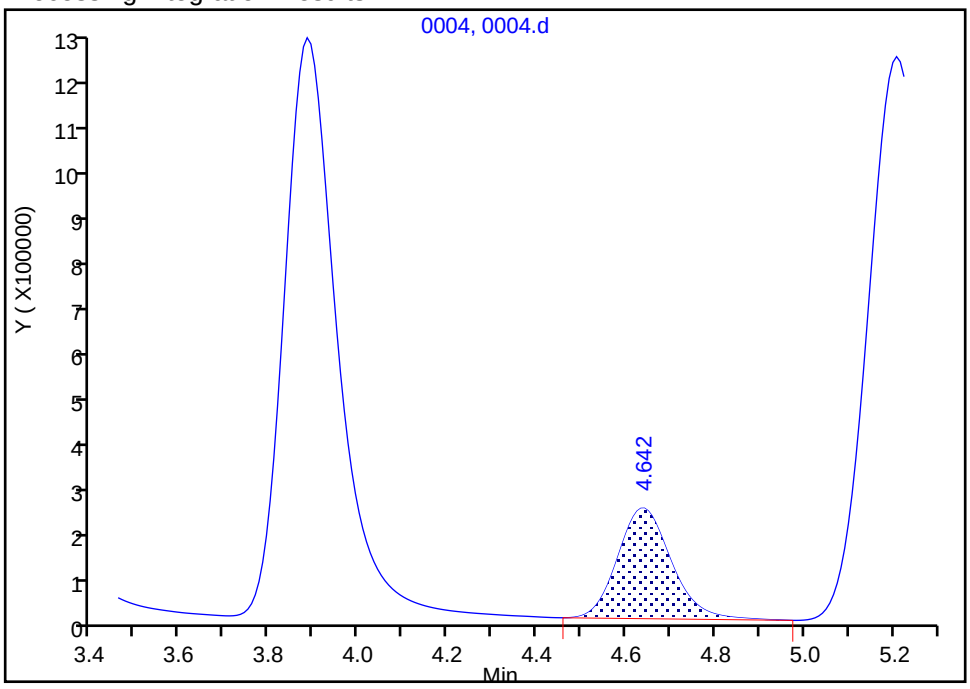
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

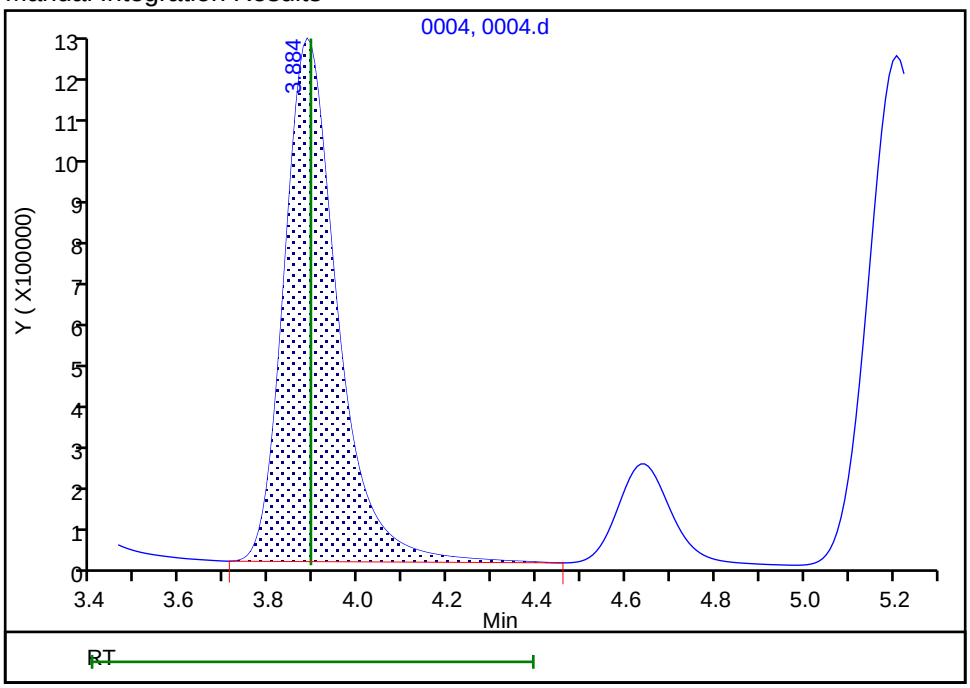
Processing Integration Results

RT: 4.64
Area: 1893846
Amount: -0.132556
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 9866046
Amount: 0.965516
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:43
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

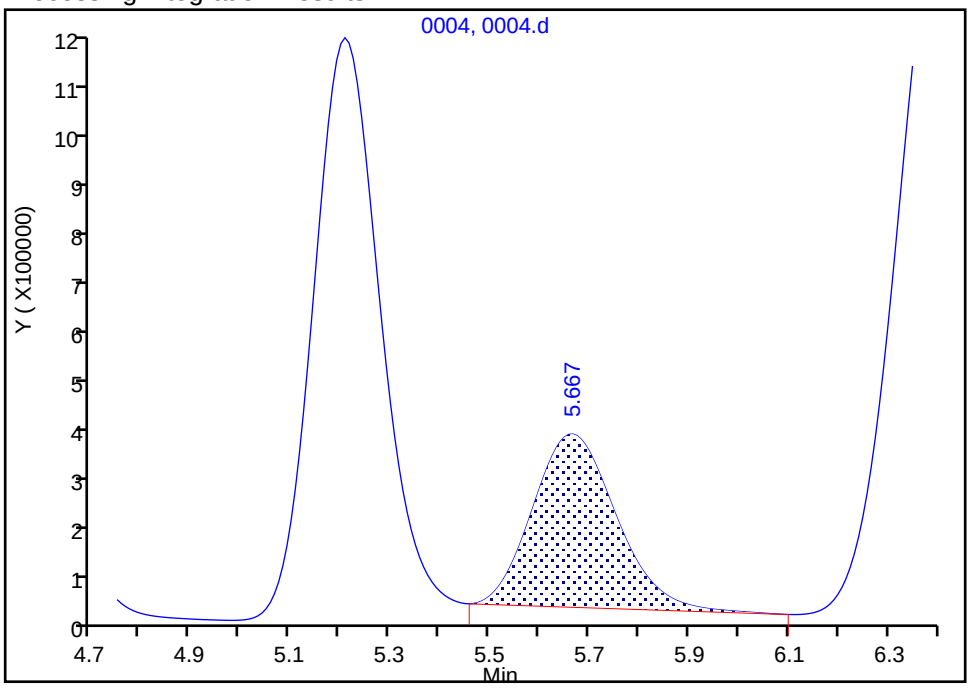
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

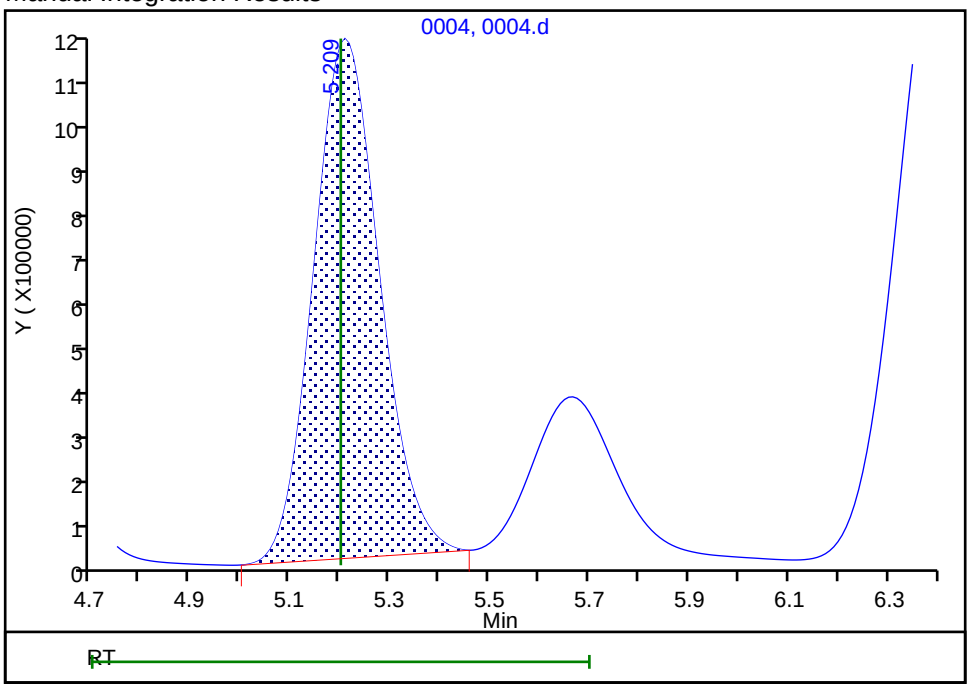
Processing Integration Results

RT: 5.67
Area: 4015320
Amount: 0.609716
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 10516434
Amount: 0.943717
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:47
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

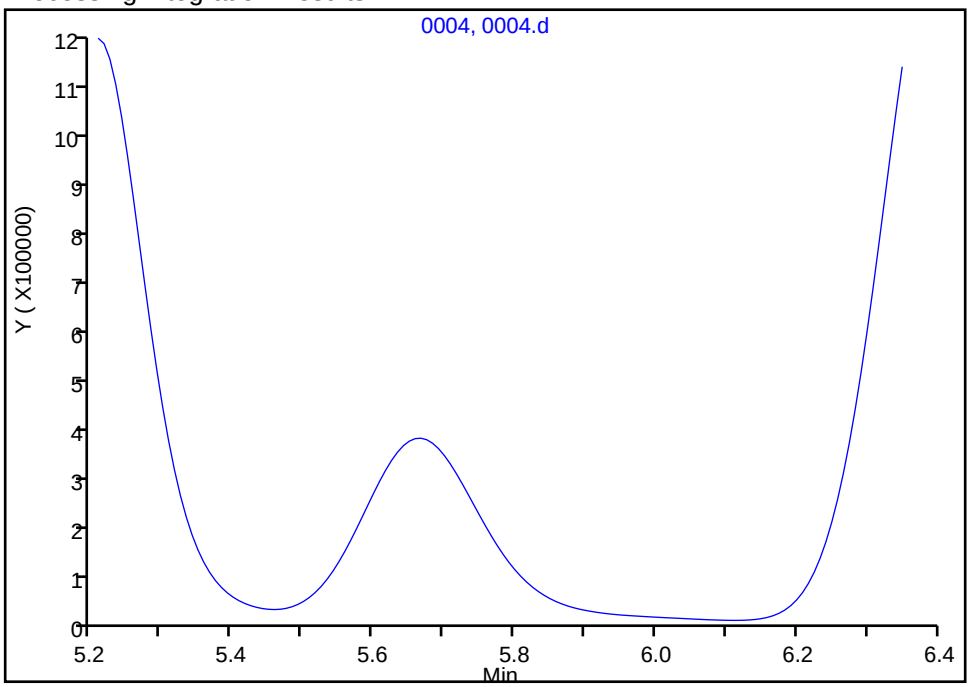
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

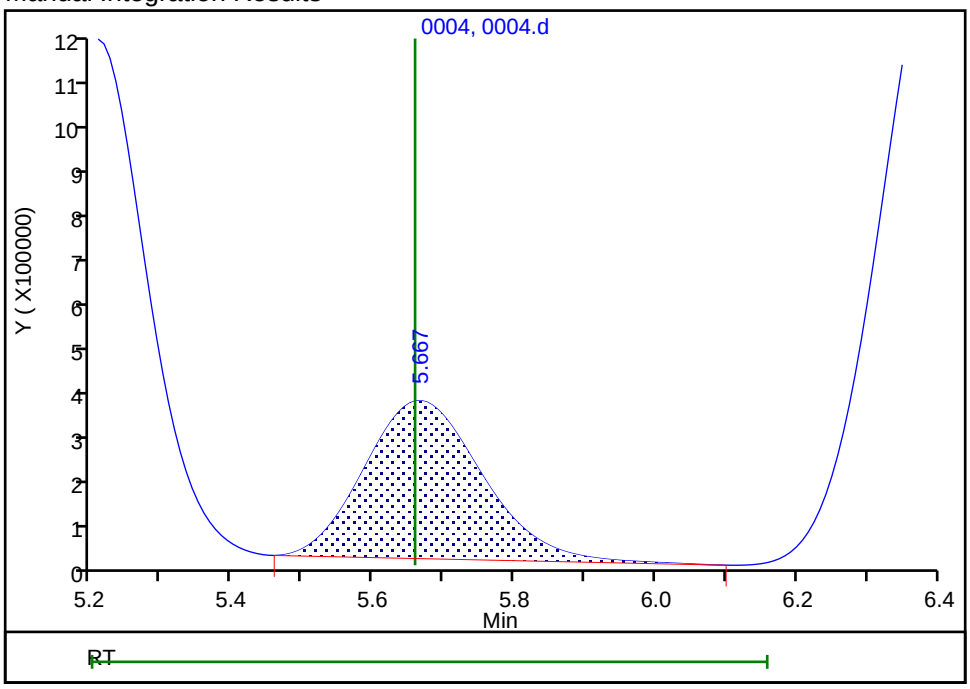
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 4015320
Amount: 0.961514
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	1.00	1.16	
2 Chloride	3.234	3.242	-0.008	23461594	5.00	4.11	
3 Nitrite as N	3.884	3.892	-0.008	9866046	NC	NC	a
4 Bromide	4.642	4.642	0.000	1893846	1.00	0.9814	a
5 Nitrate as N	5.209	5.200	0.009	10516434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	17587626	5.00	4.37	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

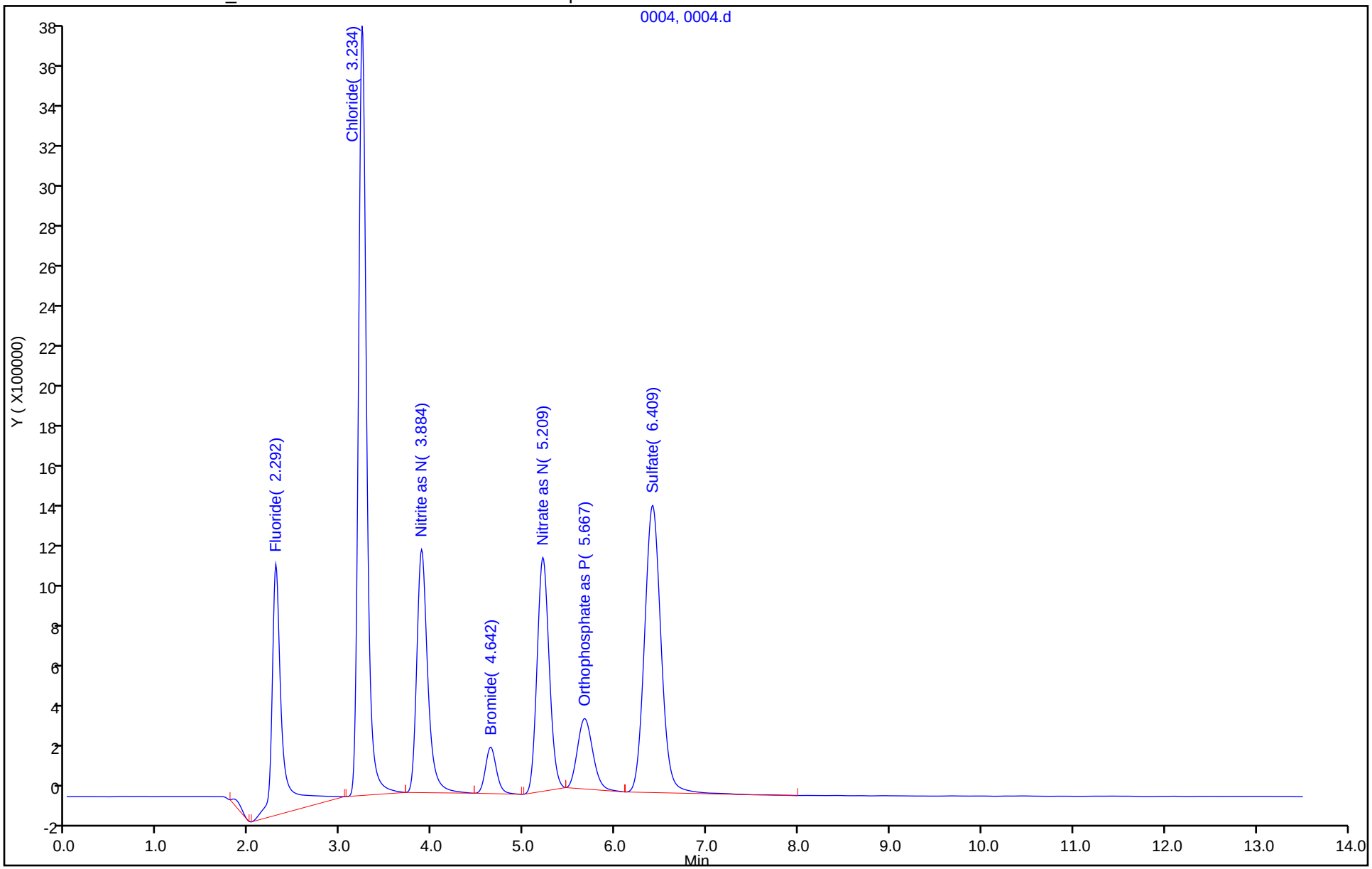
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

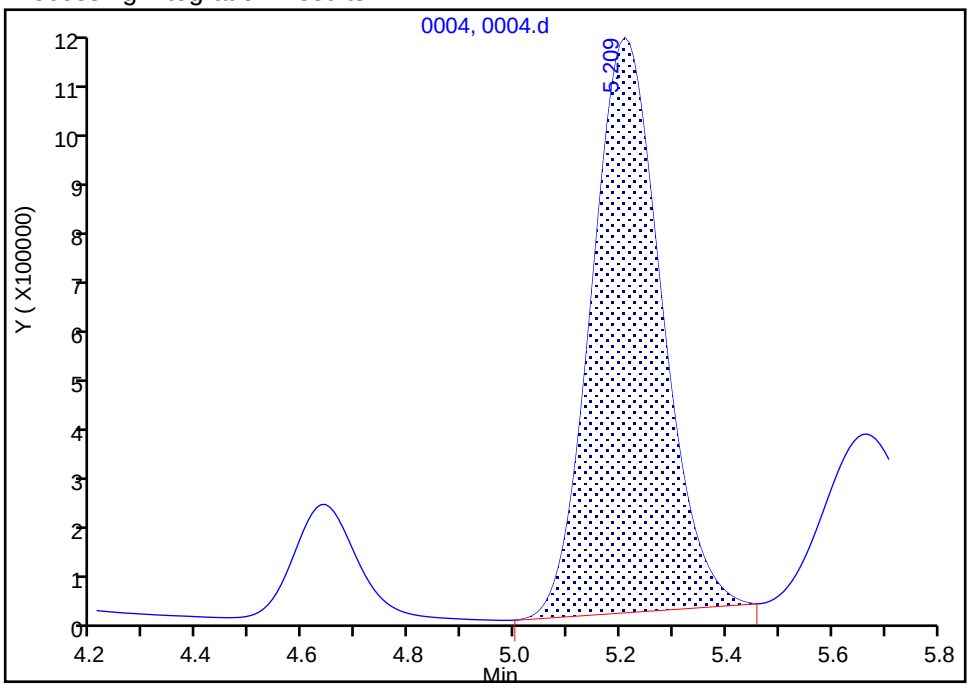
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

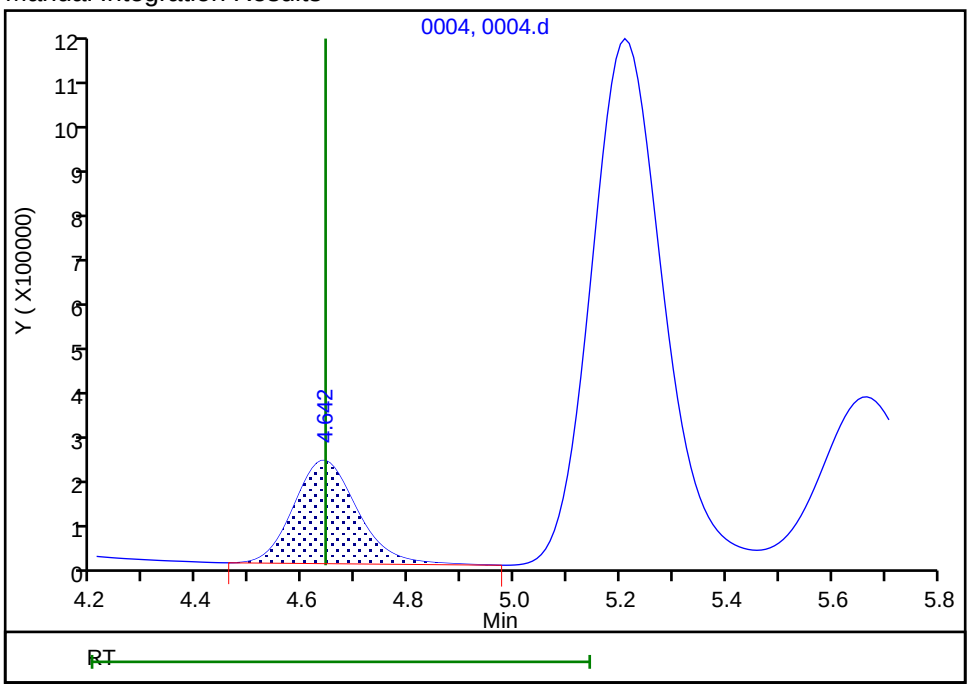
Processing Integration Results

RT: 5.21
Area: 10516434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 1893846
Amount: 0.981416
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:15
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

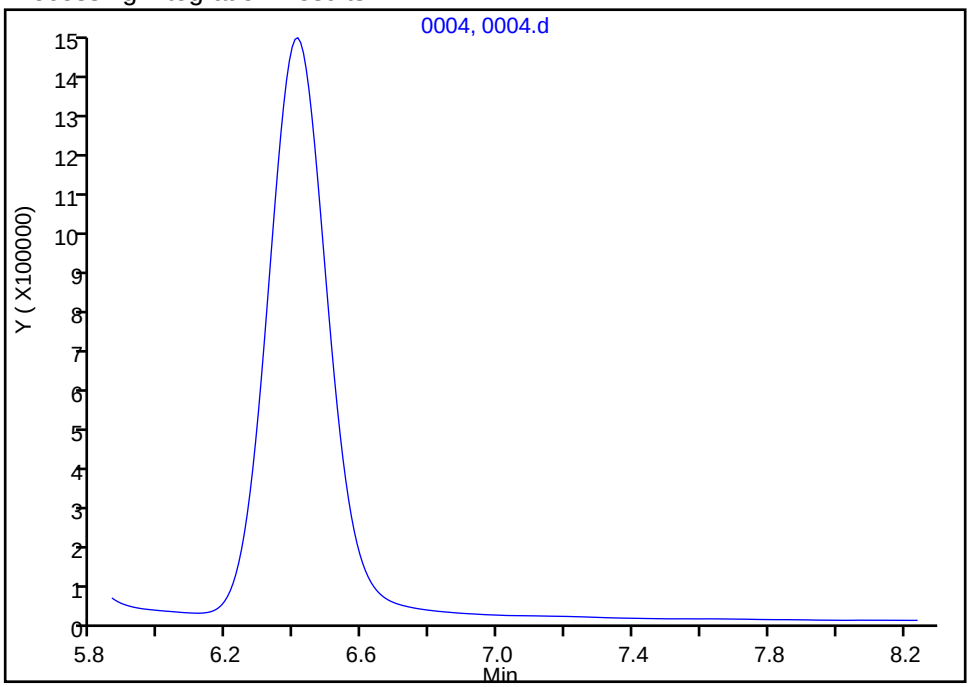
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

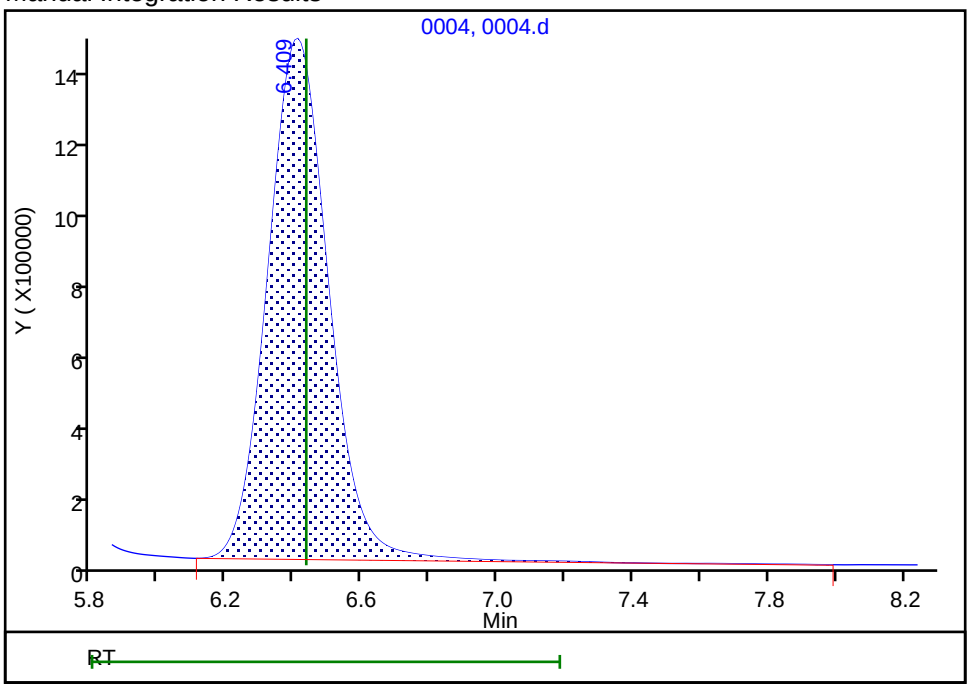
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 17587626
Amount: 4.369714
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:10
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	NC	NC	
2 Chloride	3.242	3.242	0.000	361228288	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	40367514	4.00	3.87	a
4 Bromide	4.634	4.634	0.000	7626440	NC	NC	a
5 Nitrate as N	5.200	5.200	0.000	43835884	4.00	3.81	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	4.00	3.88	a
6 Sulfate	6.434	6.434	0.000	241149184	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

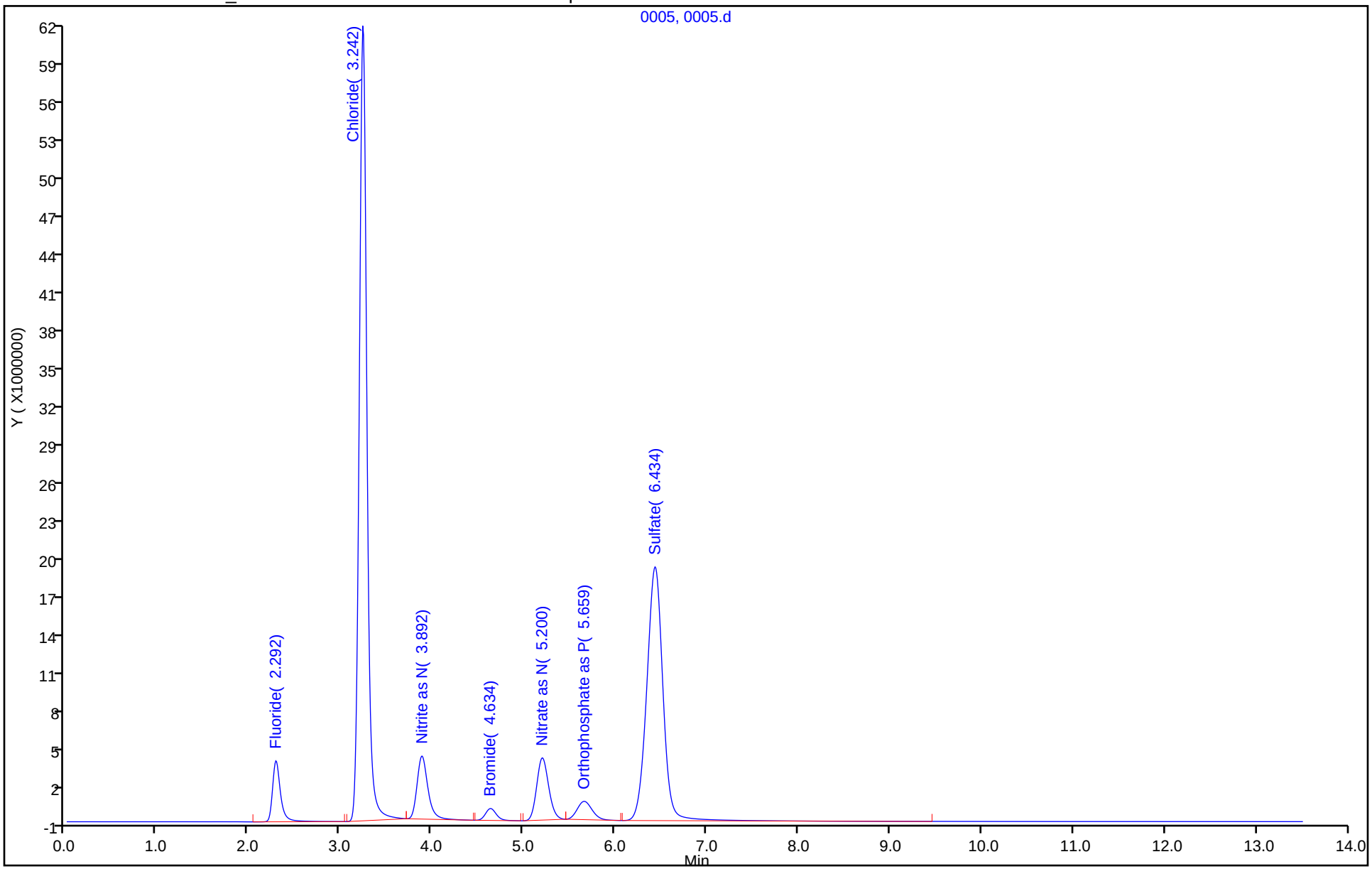
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

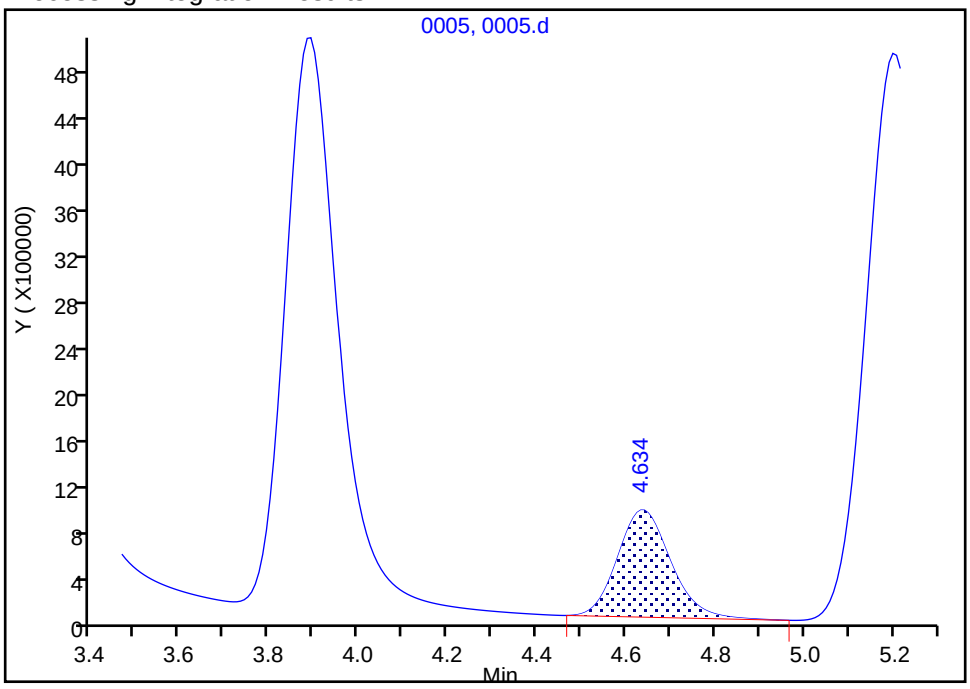
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

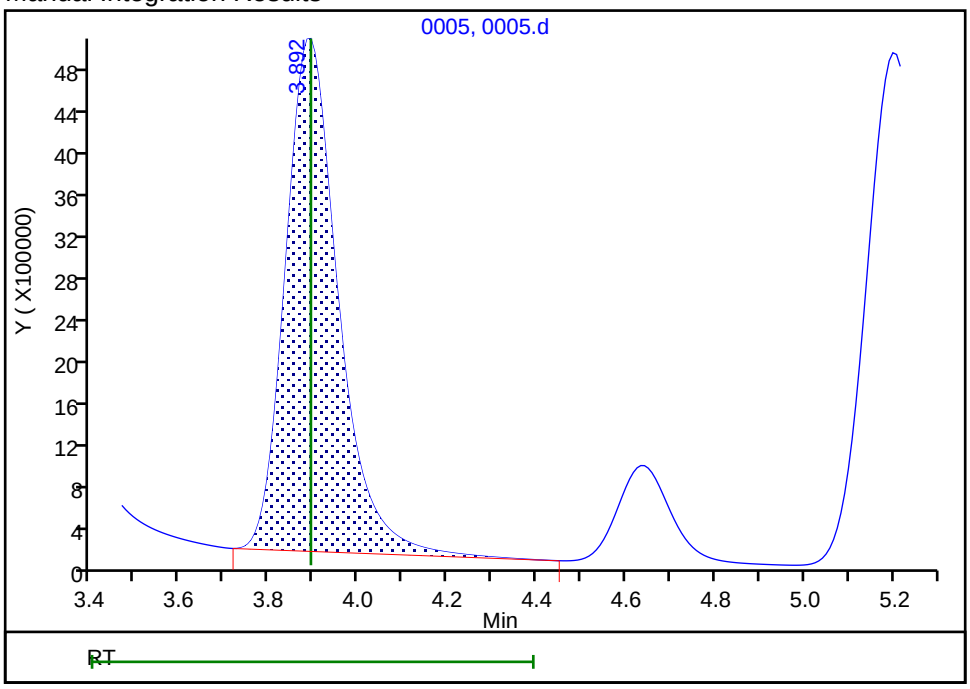
Processing Integration Results

RT: 4.63
Area: 7626440
Amount: 2.554556
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 40367514
Amount: 3.872644
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:32
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

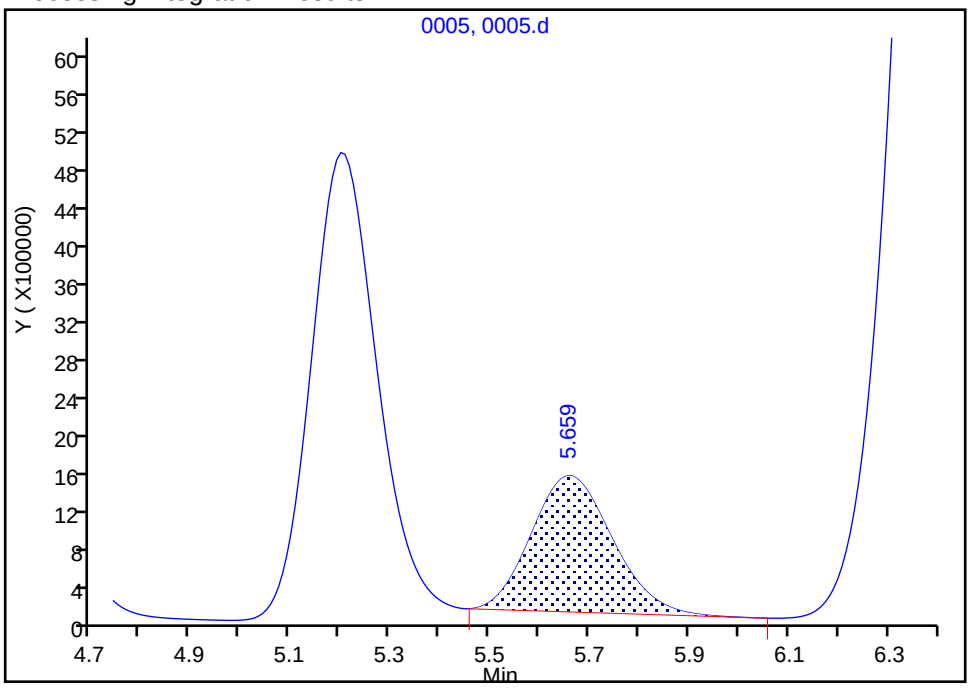
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

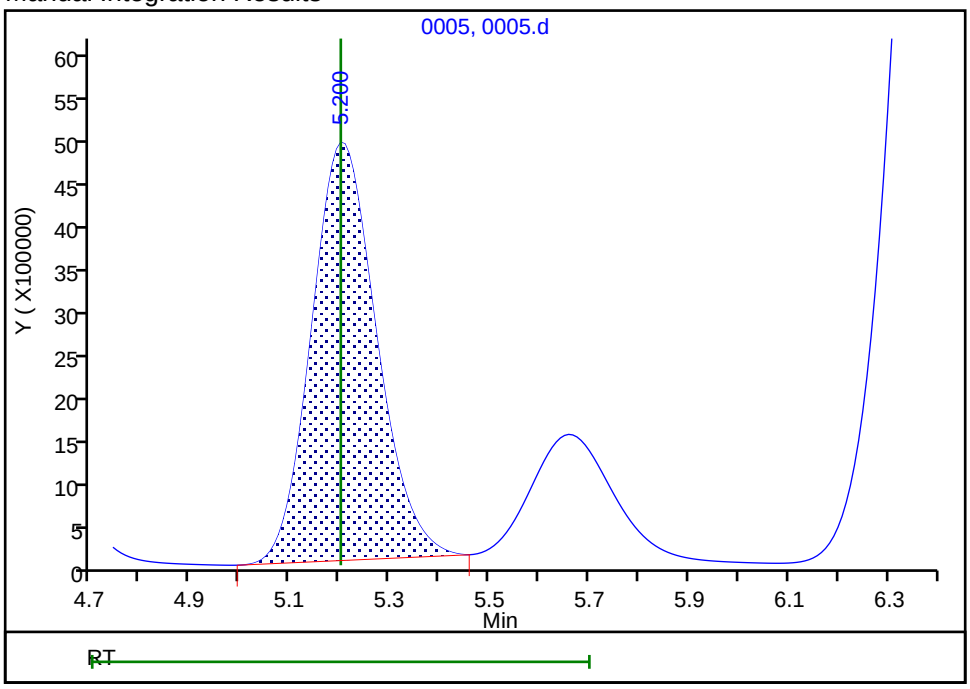
Processing Integration Results

RT: 5.66
Area: 16089342
Amount: 3.399959
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 43835884
Amount: 3.812608
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:36
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

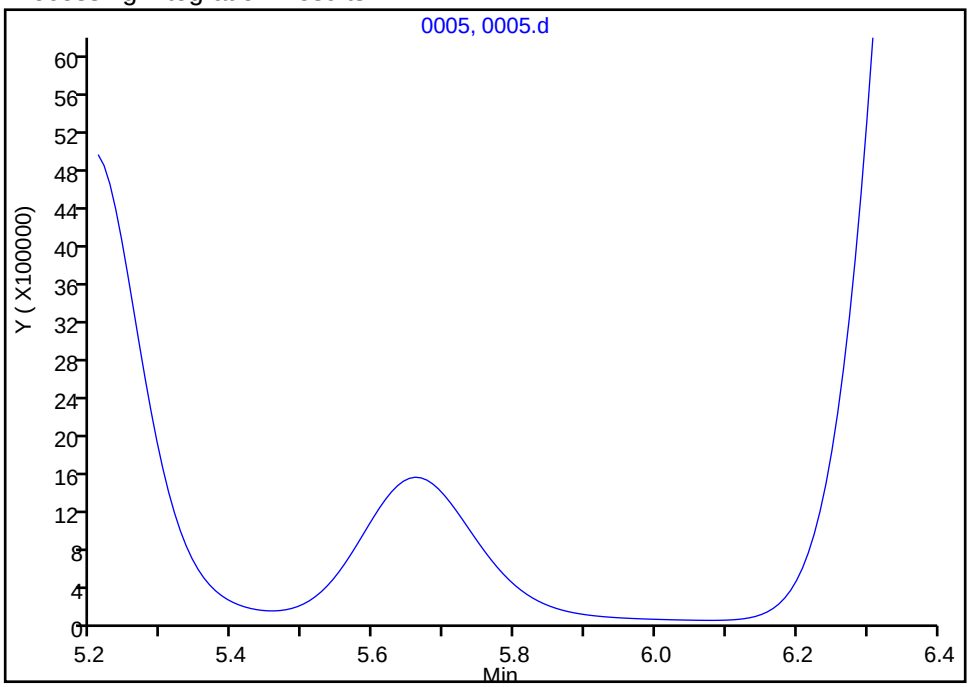
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

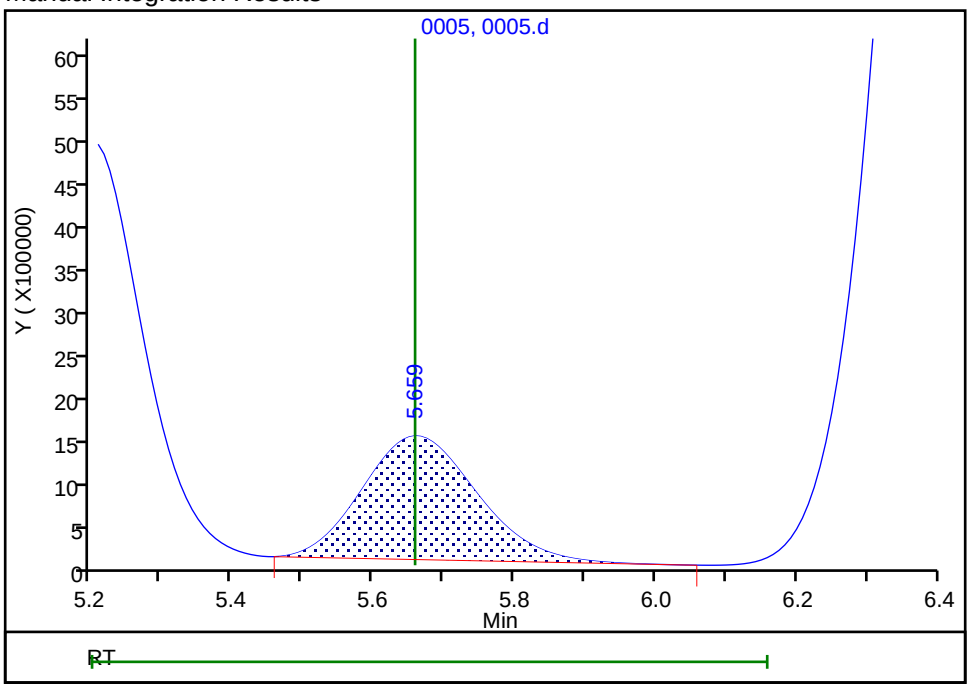
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 16089342
Amount: 3.876438
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	4.00	3.86	
2 Chloride	3.242	3.242	0.000	361228288	60.0	54.3	
3 Nitrite as N	3.892	3.892	0.000	40367514	NC	NC	a
4 Bromide	4.634	4.634	0.000	7626440	4.00	3.94	a
5 Nitrate as N	5.200	5.200	0.000	43835884	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	NC	NC	a
6 Sulfate	6.434	6.434	0.000	241149184	60.0	54.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

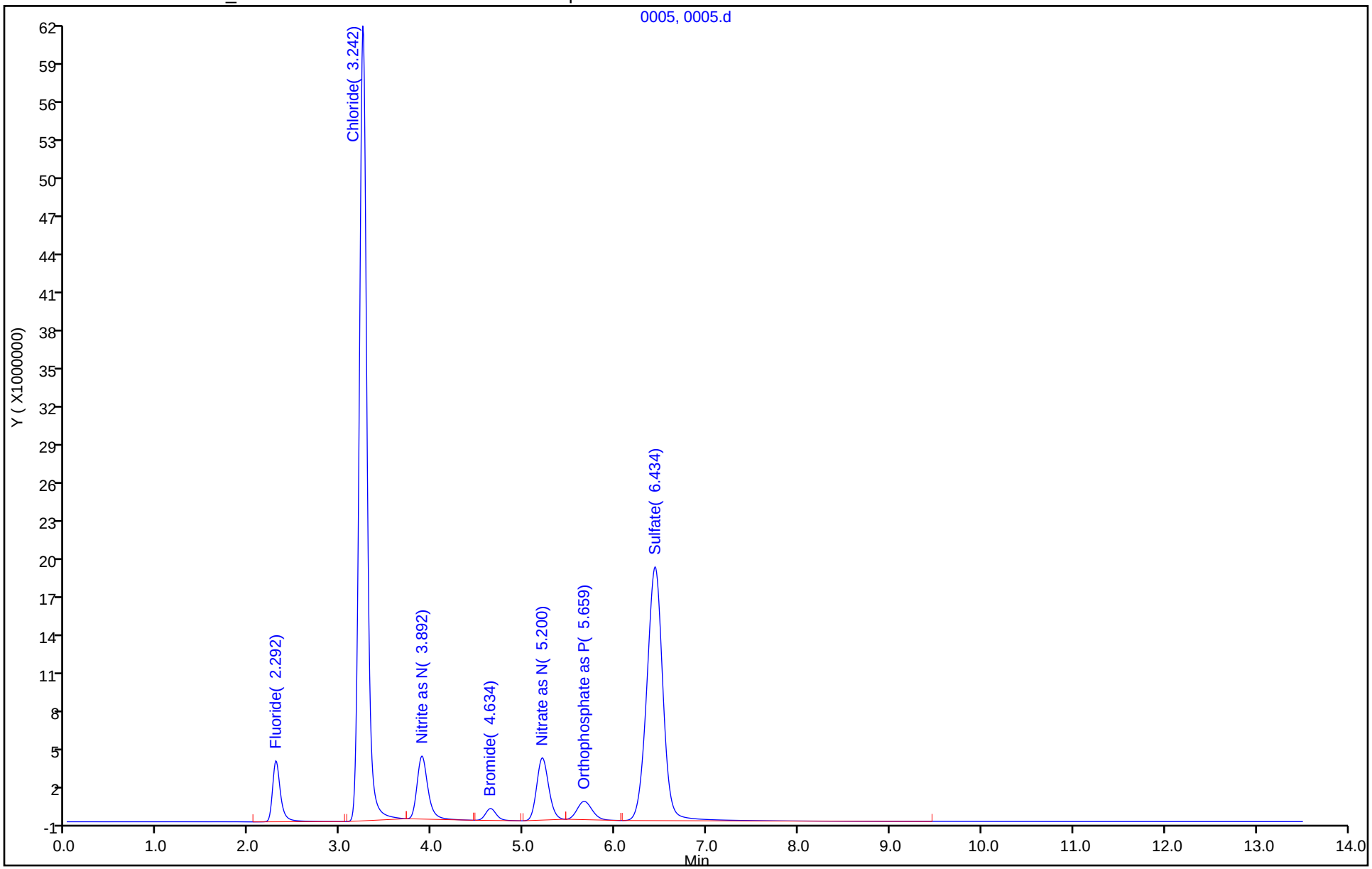
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

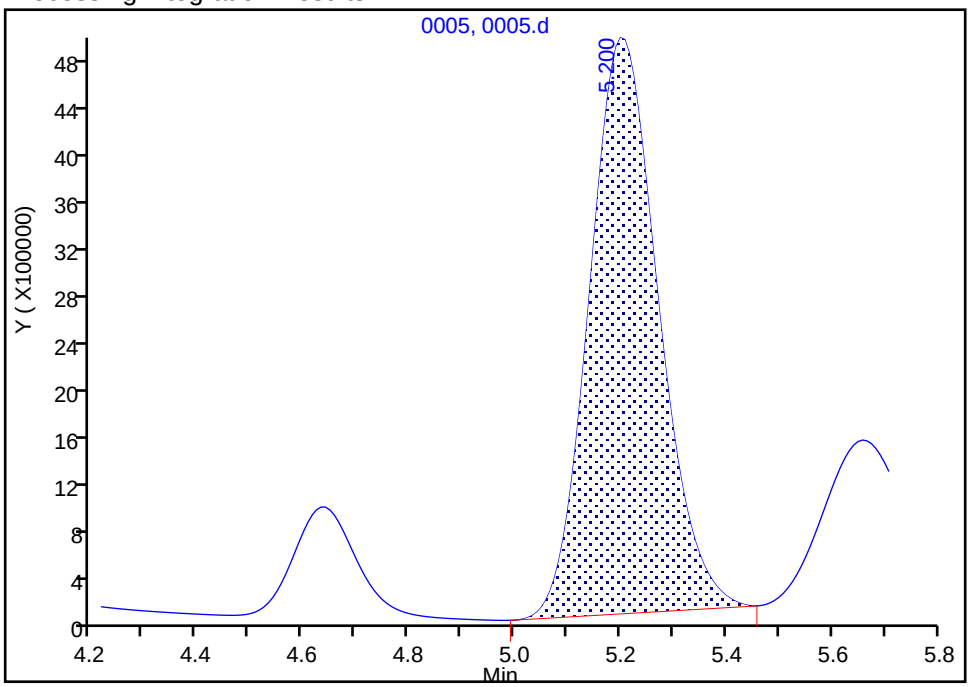
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

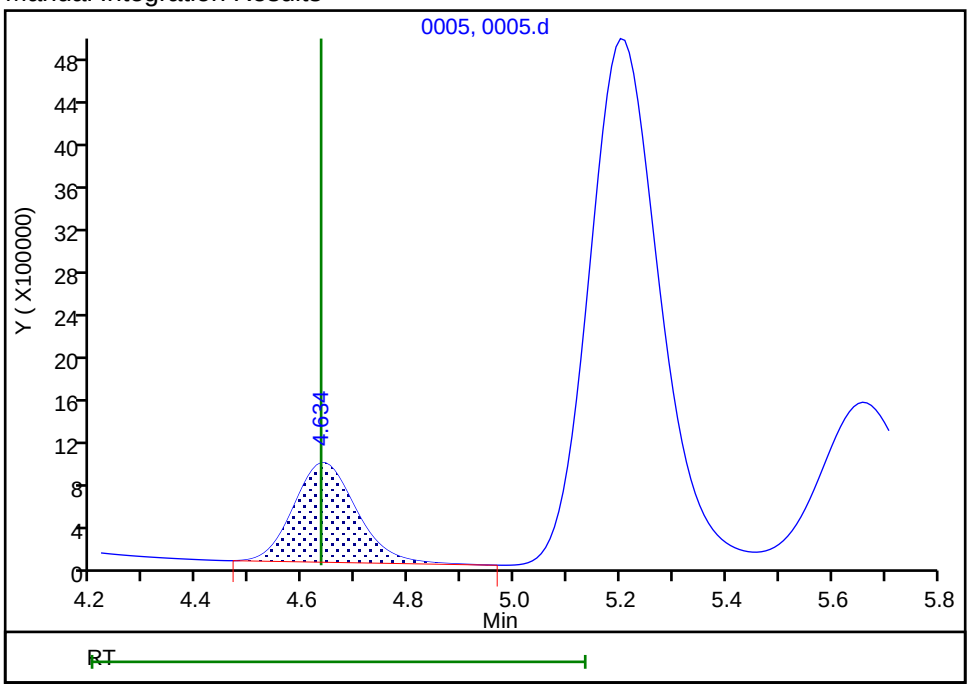
Processing Integration Results

RT: 5.20
Area: 43835884
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 7626440
Amount: 3.940762
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 08:31:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

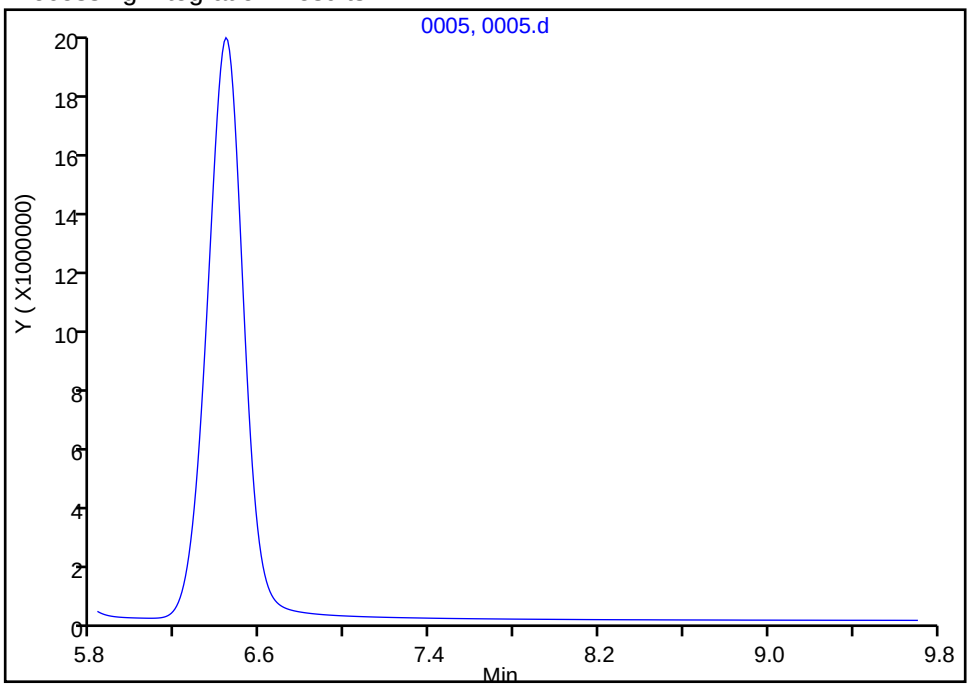
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

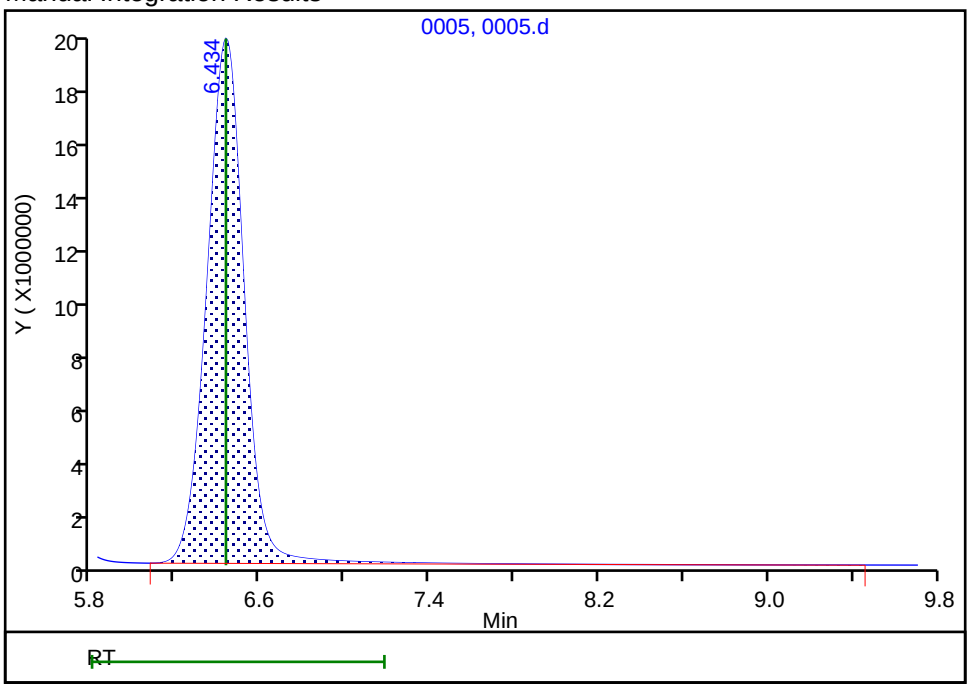
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.43
Area: 241149184
Amount: 54.355882
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:52
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	NC	NC	
2 Chloride	3.251	3.250	0.001	792237933	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	83950148	8.00	8.03	a
4 Bromide	4.634	4.642	-0.008	15499336	NC	NC	a
5 Nitrate as N	5.201	5.200	0.001	92548386	8.00	8.01	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	8.00	7.99	a
6 Sulfate	6.459	6.442	0.017	523125792	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

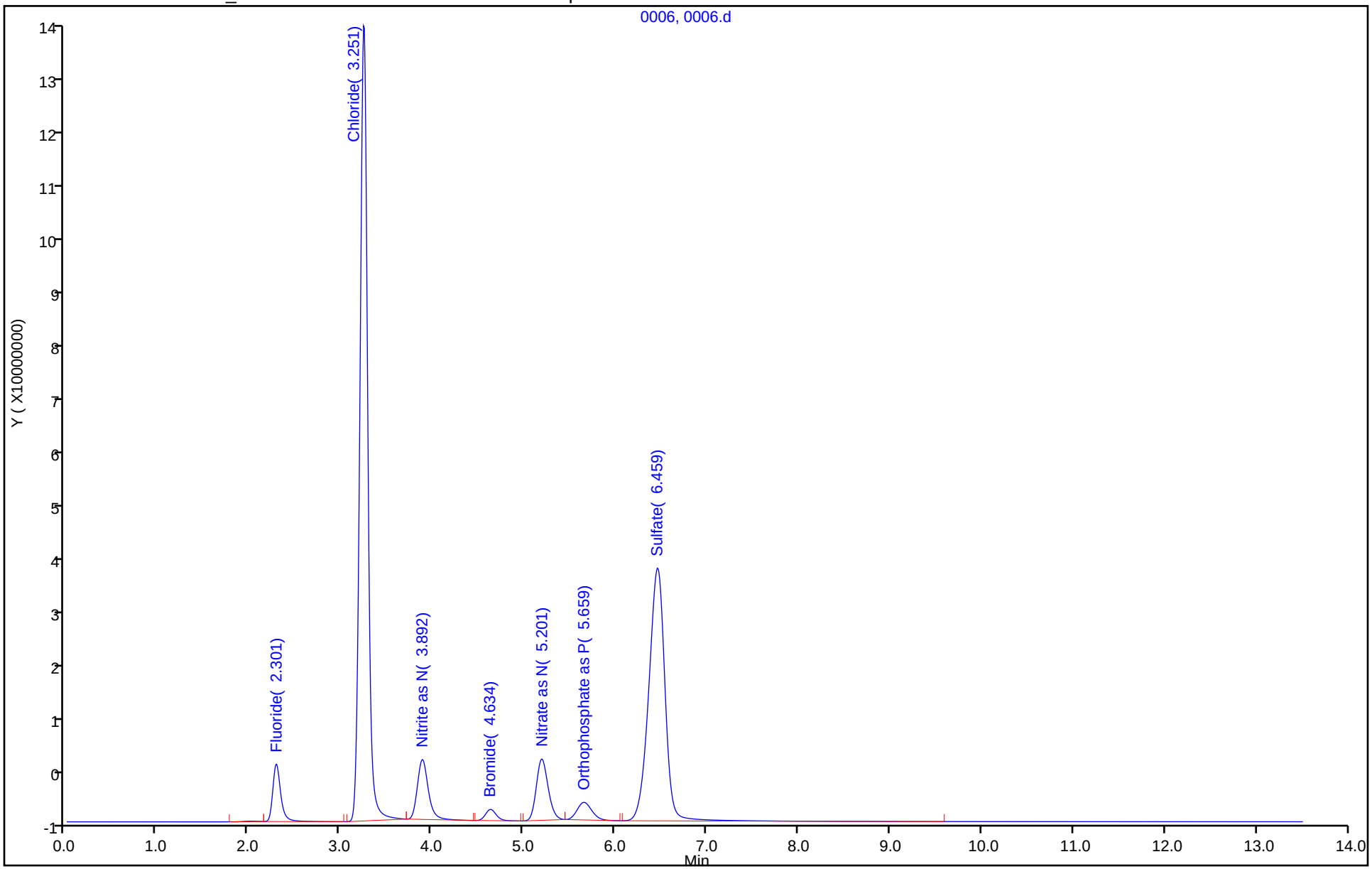
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

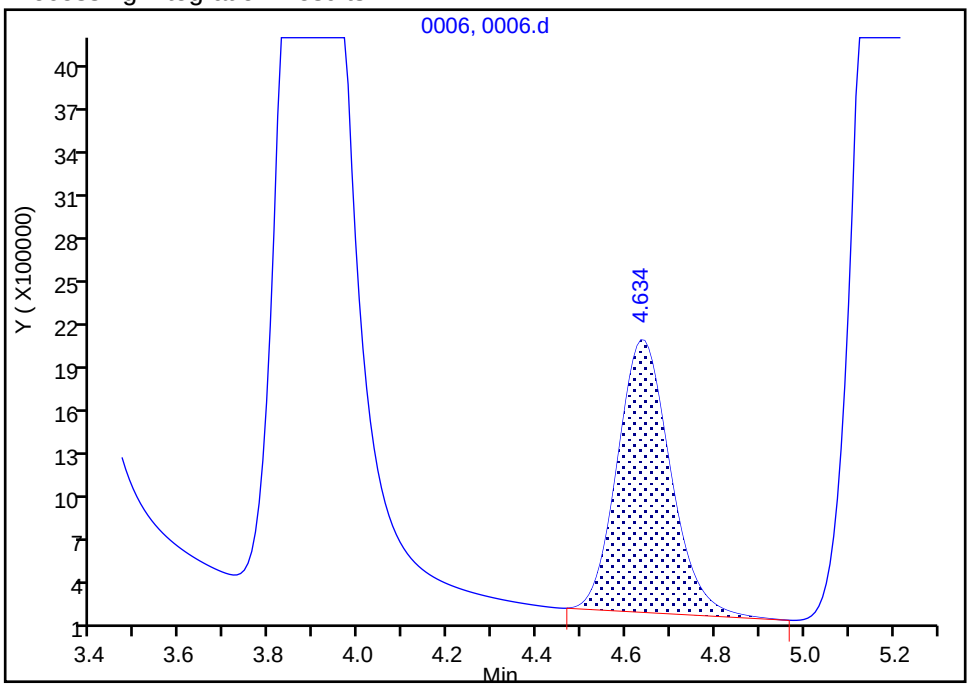
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

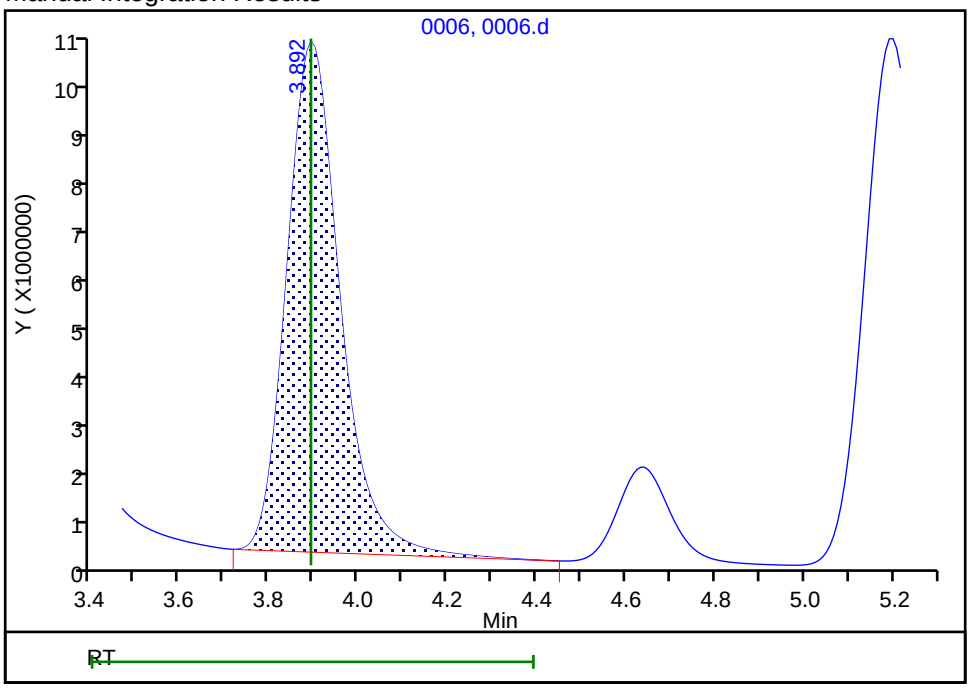
Processing Integration Results

RT: 4.63
Area: 15499336
Amount: 2.959649
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 83950148
Amount: 8.026551
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:18
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

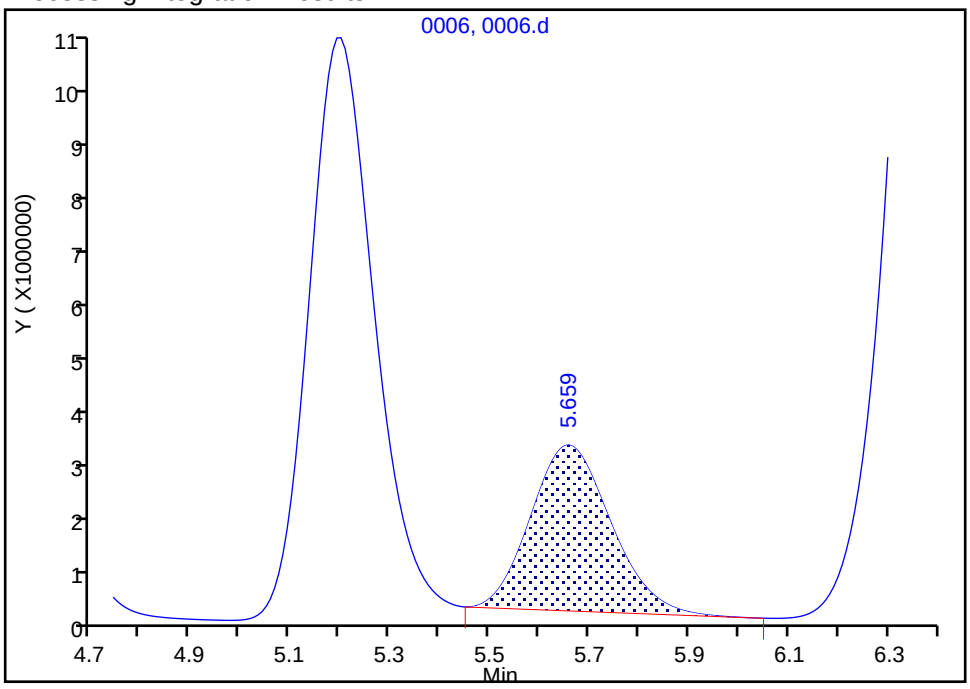
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

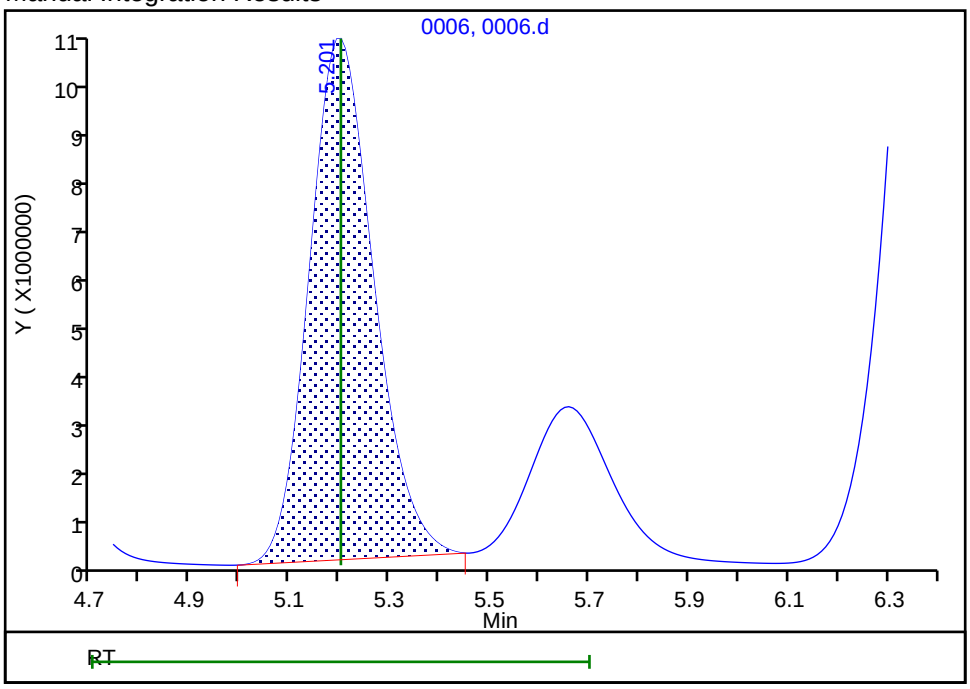
Processing Integration Results

RT: 5.66
Area: 33143352
Amount: 5.007844
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 92548386
Amount: 8.006881
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:22
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

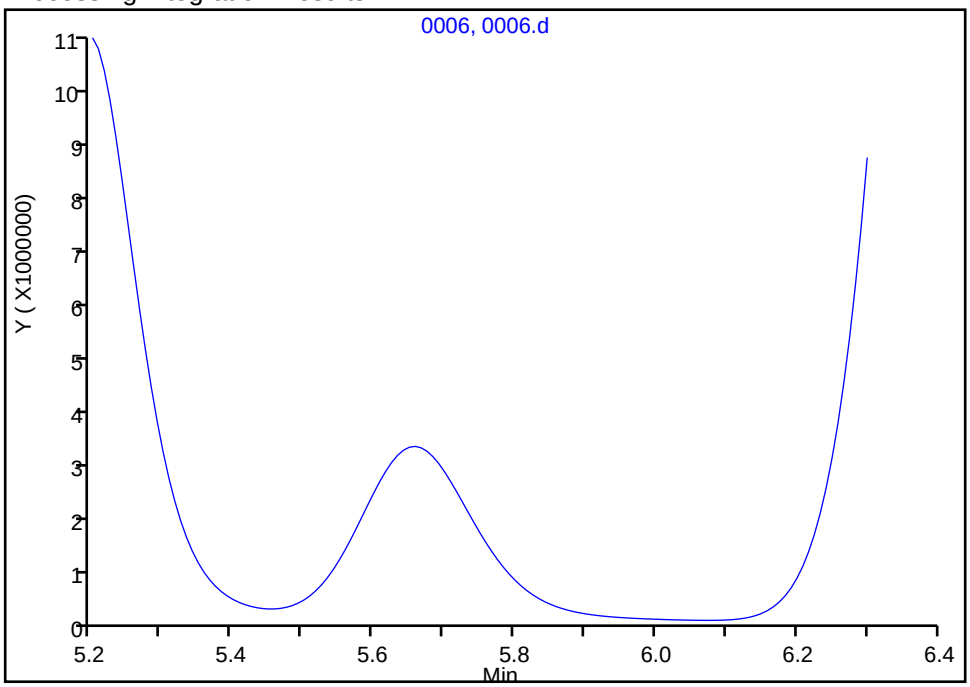
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

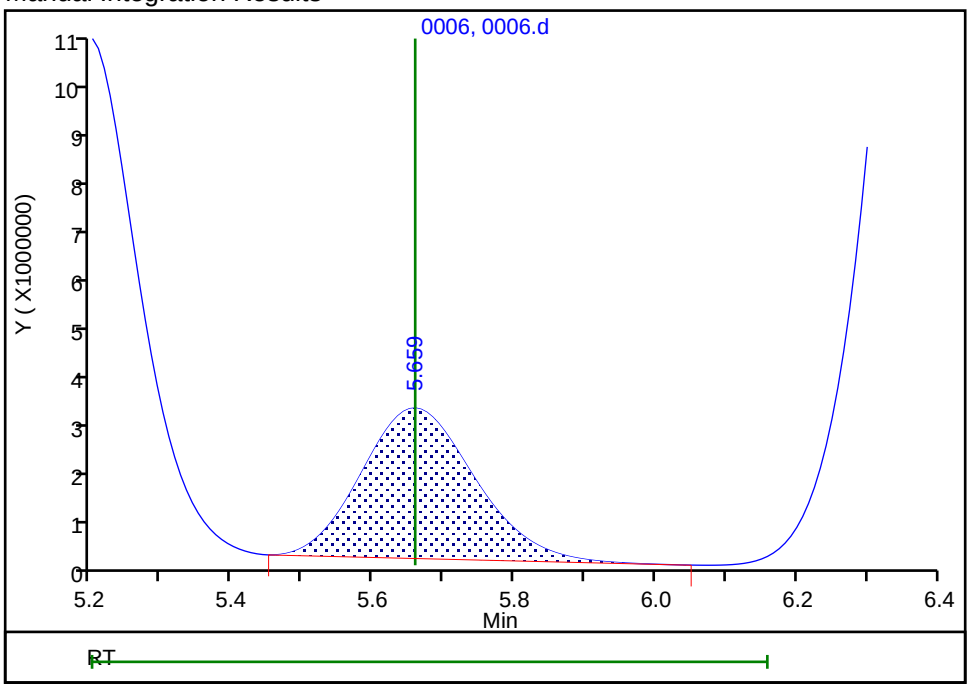
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 33143352
Amount: 7.993638
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:27
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	8.00	7.94	
2 Chloride	3.251	3.250	0.001	792237933	120.0	118.4	
3 Nitrite as N	3.892	3.892	0.000	83950148	NC	NC	a
4 Bromide	4.634	4.642	-0.008	15499336	8.00	7.98	a
5 Nitrate as N	5.201	5.200	0.001	92548386	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	NC	NC	a
6 Sulfate	6.459	6.442	0.017	523125792	120.0	117.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

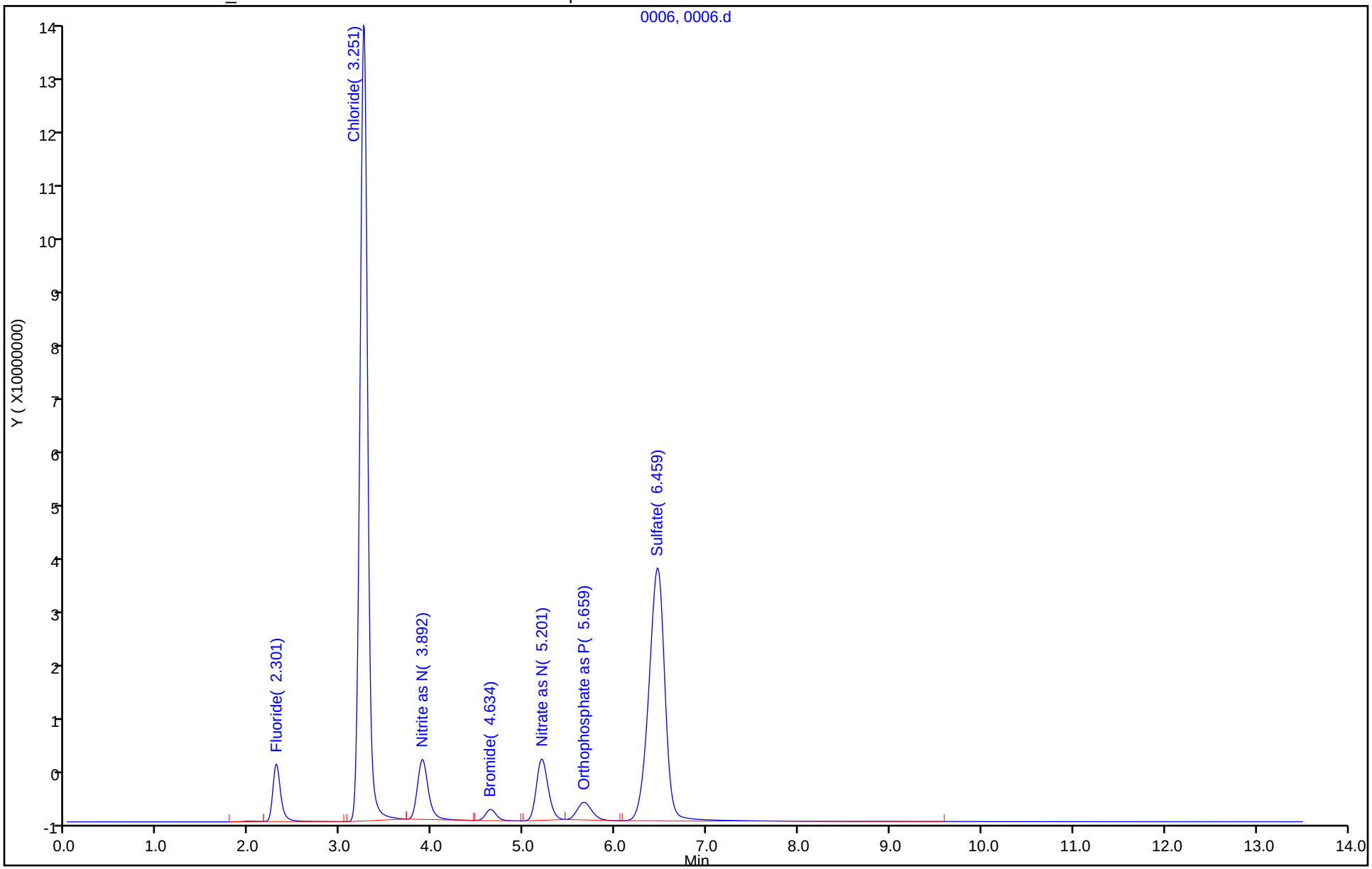
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

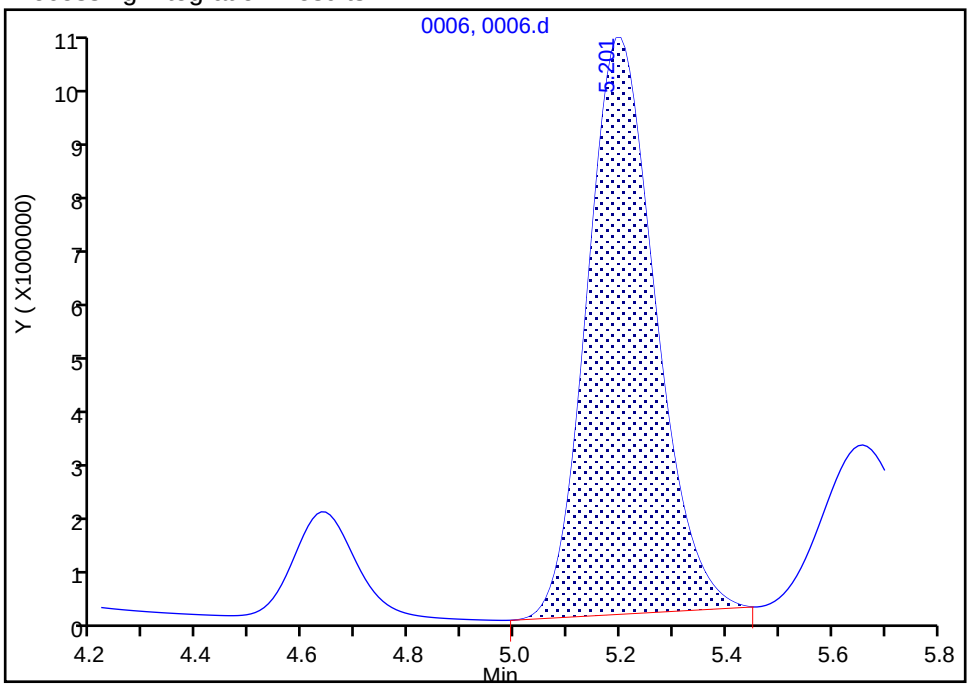
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

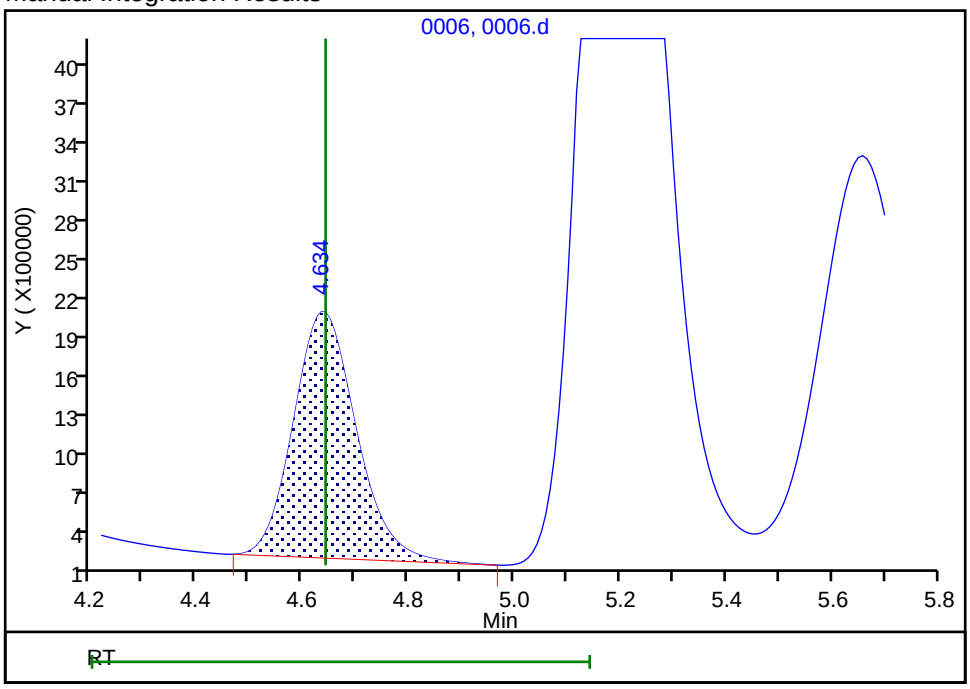
Processing Integration Results

RT: 5.20
Area: 92548386
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 15499336
Amount: 7.976961
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:37
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

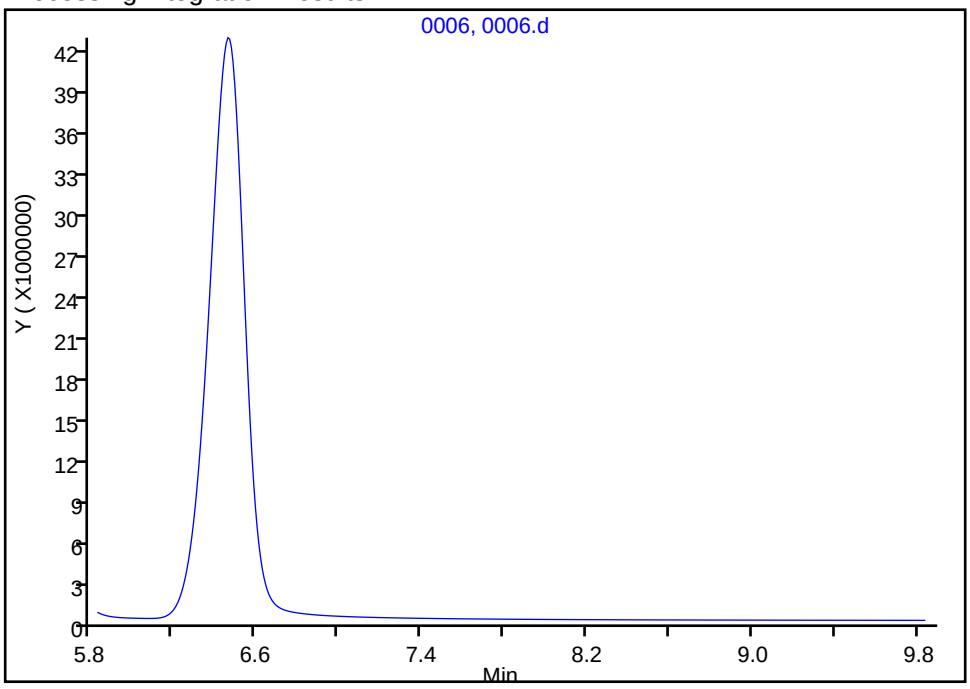
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

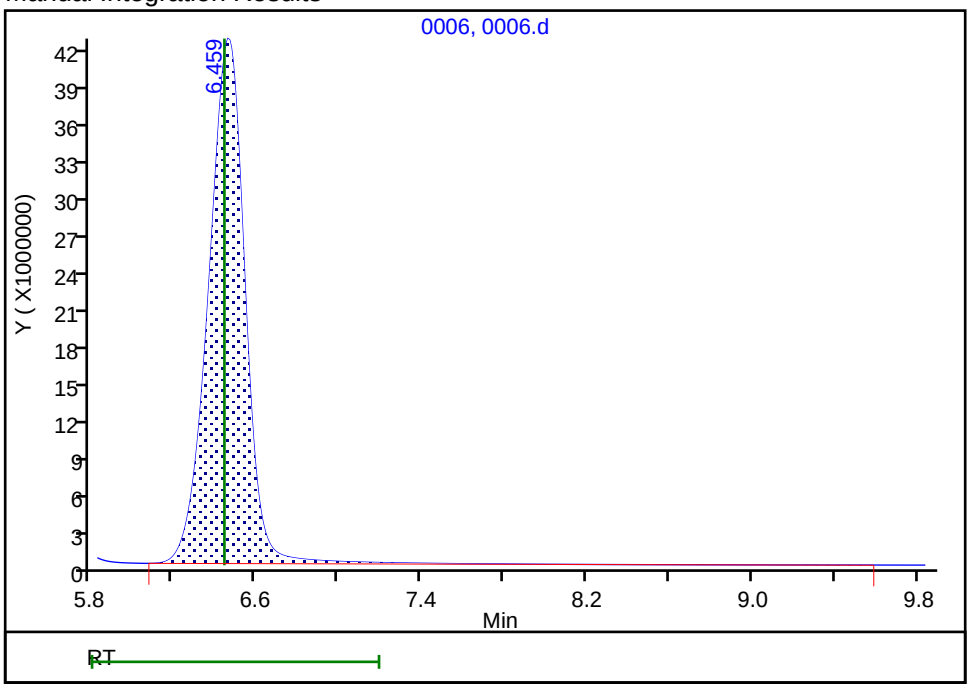
Not Detected
Expected RT: 6.44

Processing Integration Results



Manual Integration Results

RT: 6.46
Area: 523125792
Amount: 117.4031
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	NC	NC	
2 Chloride	3.267	3.250	0.017	1394323073	NC	NC	
3 Nitrite as N	3.901	3.892	0.009	106025591	10.0	10.1	
4 Bromide	4.642	4.642	0.000	19510403	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	118348380	10.0	10.2	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	10.0	10.2	
6 Sulfate	6.484	6.442	0.042	931644146	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

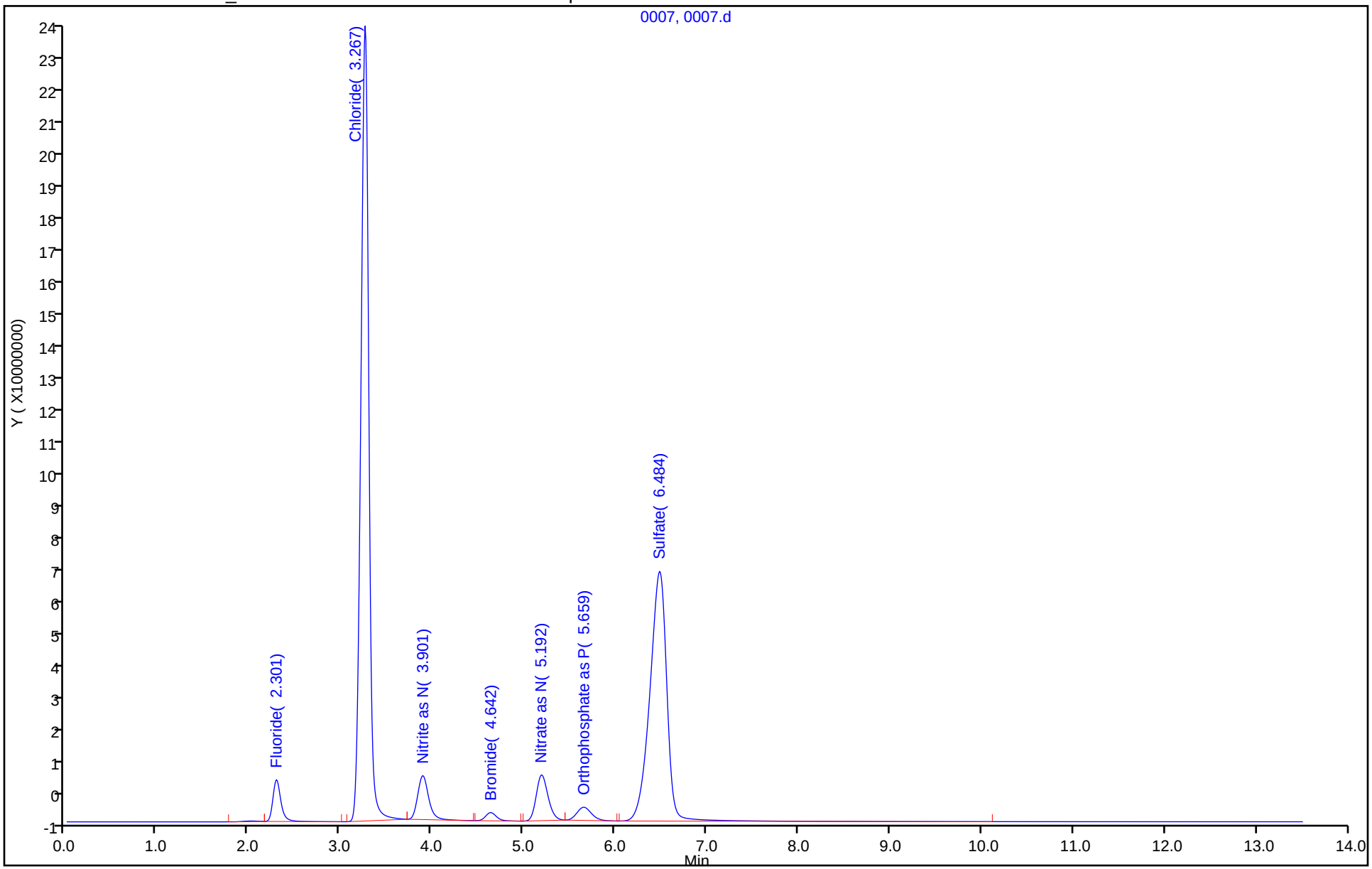
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	10.0	9.99	
2 Chloride	3.267	3.250	0.017	1394323073	200.0	208.0	
3 Nitrite as N	3.901	3.892	0.009	106025591	NC	NC	
4 Bromide	4.642	4.642	0.000	19510403	10.0	10.0	
5 Nitrate as N	5.192	5.200	-0.008	118348380	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	NC	NC	
6 Sulfate	6.484	6.442	0.042	931644146	200.0	208.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

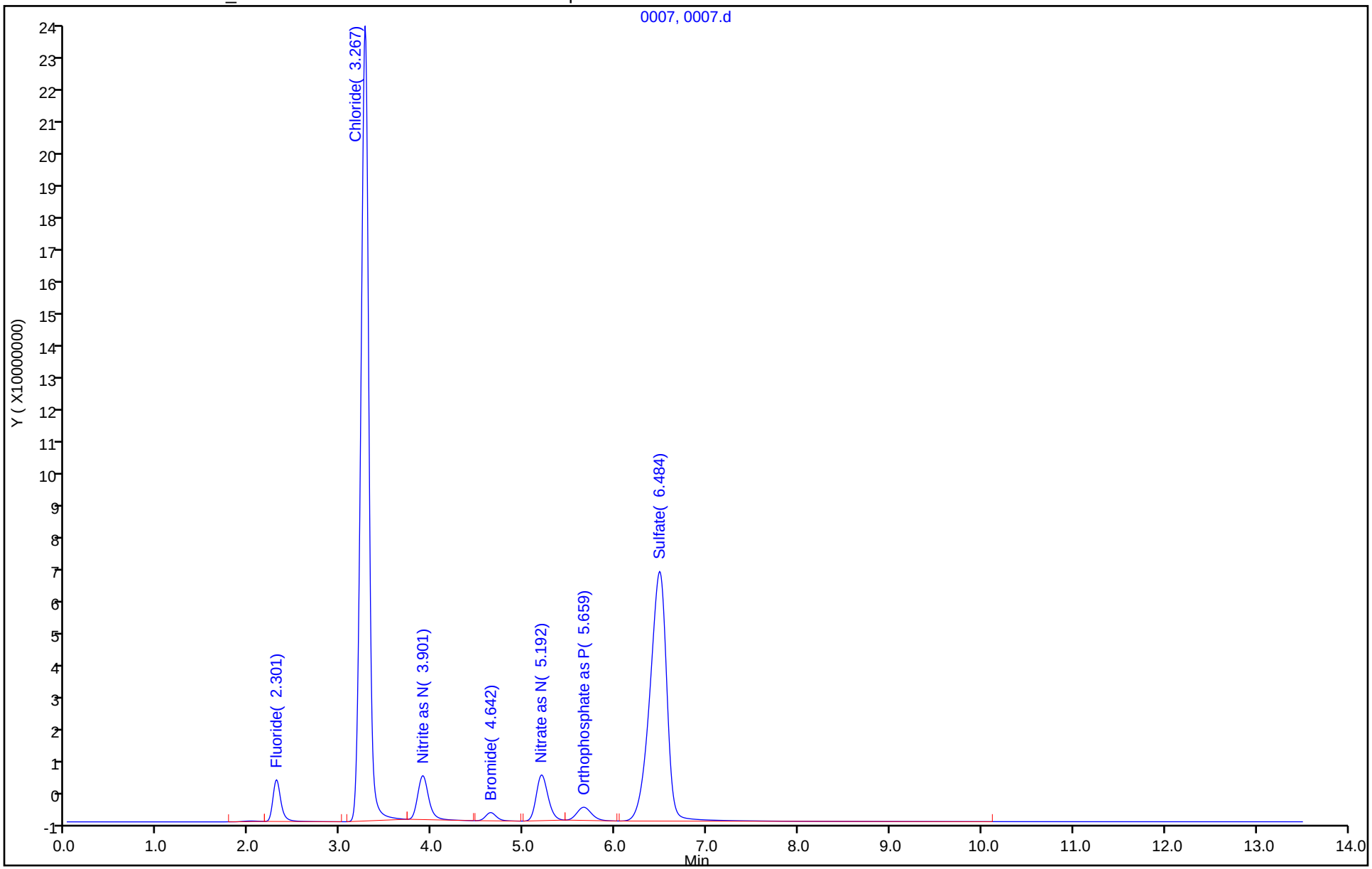
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 15-May-2019 19:11:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-008
Misc. Info.: 24520
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:06 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	NC	NC	
2 Chloride	3.250	3.250	0.000	511999139	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	39889751	4.00	3.83	
4 Bromide	4.642	4.642	0.000	8464974	NC	NC	
5 Nitrate as N	5.200	5.200	0.000	48666748	4.00	4.23	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	4.00	4.23	
6 Sulfate	6.442	6.442	0.000	336075353	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

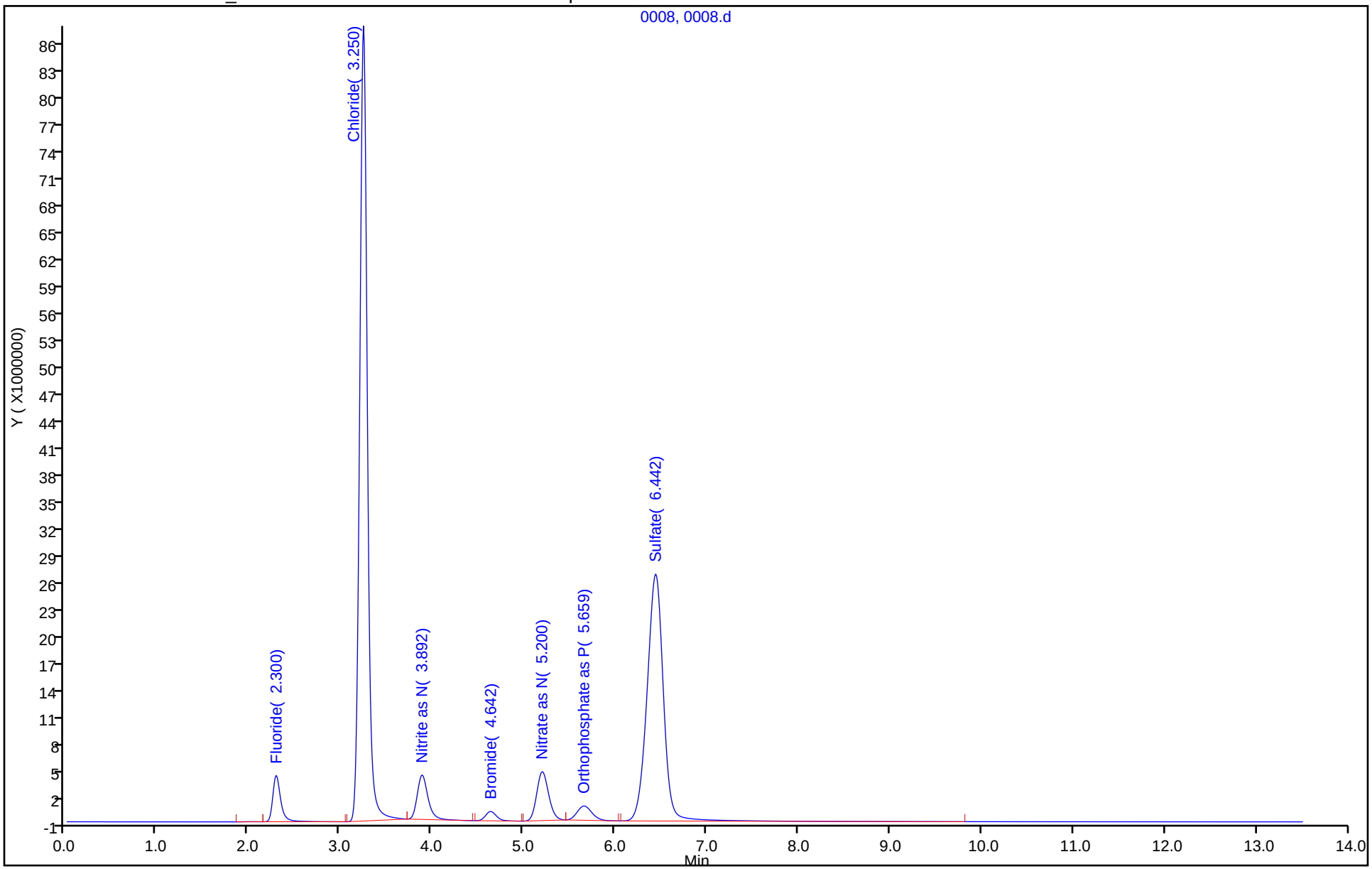
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d

Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** II **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
8 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	15-May-2019 19:11:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-008				
Misc. Info.:	24520				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 07:56:06	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	4.00	4.12	
2 Chloride	3.250	3.250	0.000	511999139	80.0	76.8	
3 Nitrite as N	3.892	3.892	0.000	39889751	NC	NC	
4 Bromide	4.642	4.642	0.000	8464974	4.00	4.36	
5 Nitrate as N	5.200	5.200	0.000	48666748	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	NC	NC	
6 Sulfate	6.442	6.442	0.000	336075353	80.0	75.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

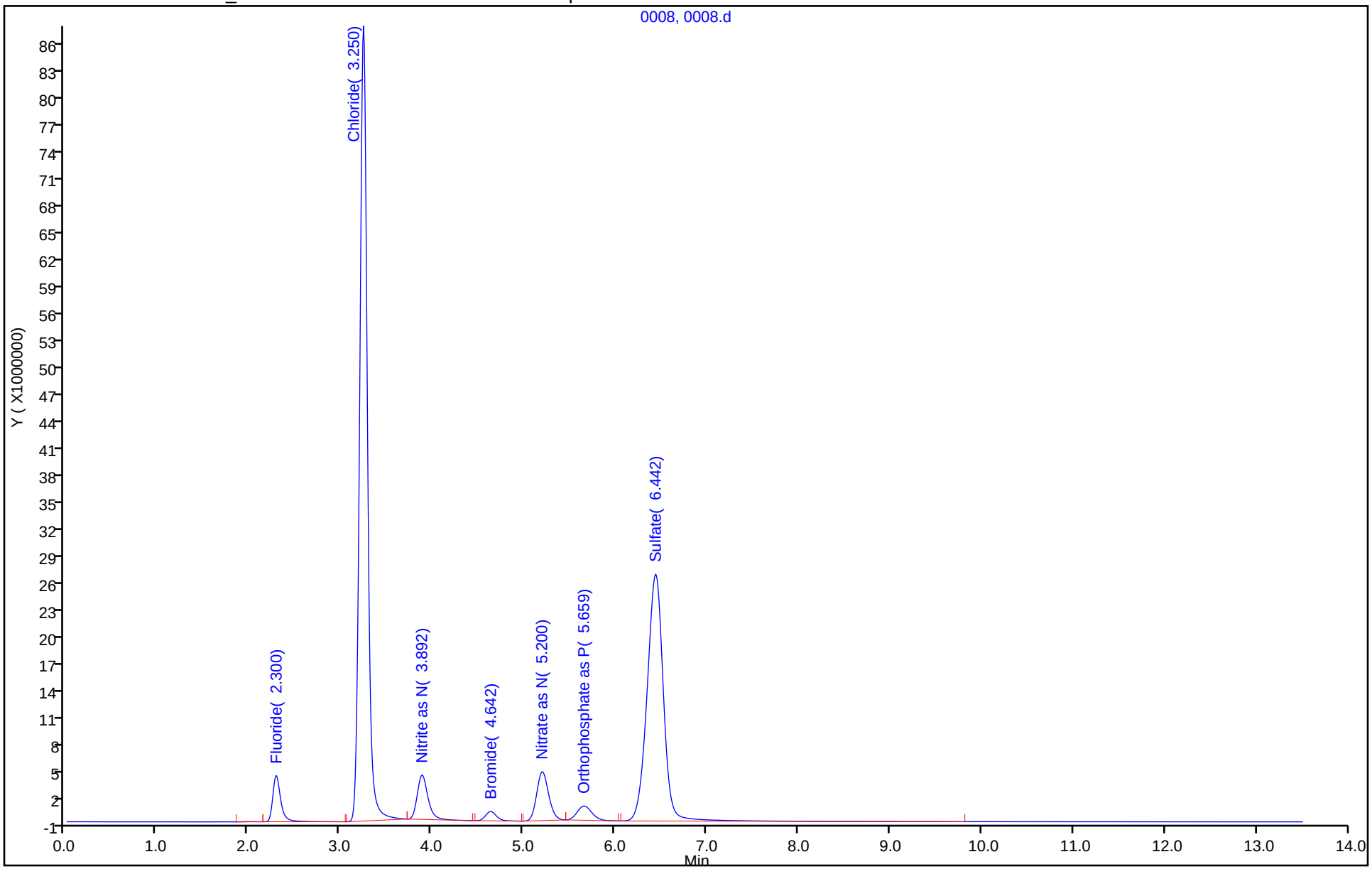
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d

Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		NC	M
2 Chloride	3.234	3.250	-0.016	71906		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		0.0412	
6 Sulfate	6.409	6.442	-0.033	254965		NC	

QC Flag Legend

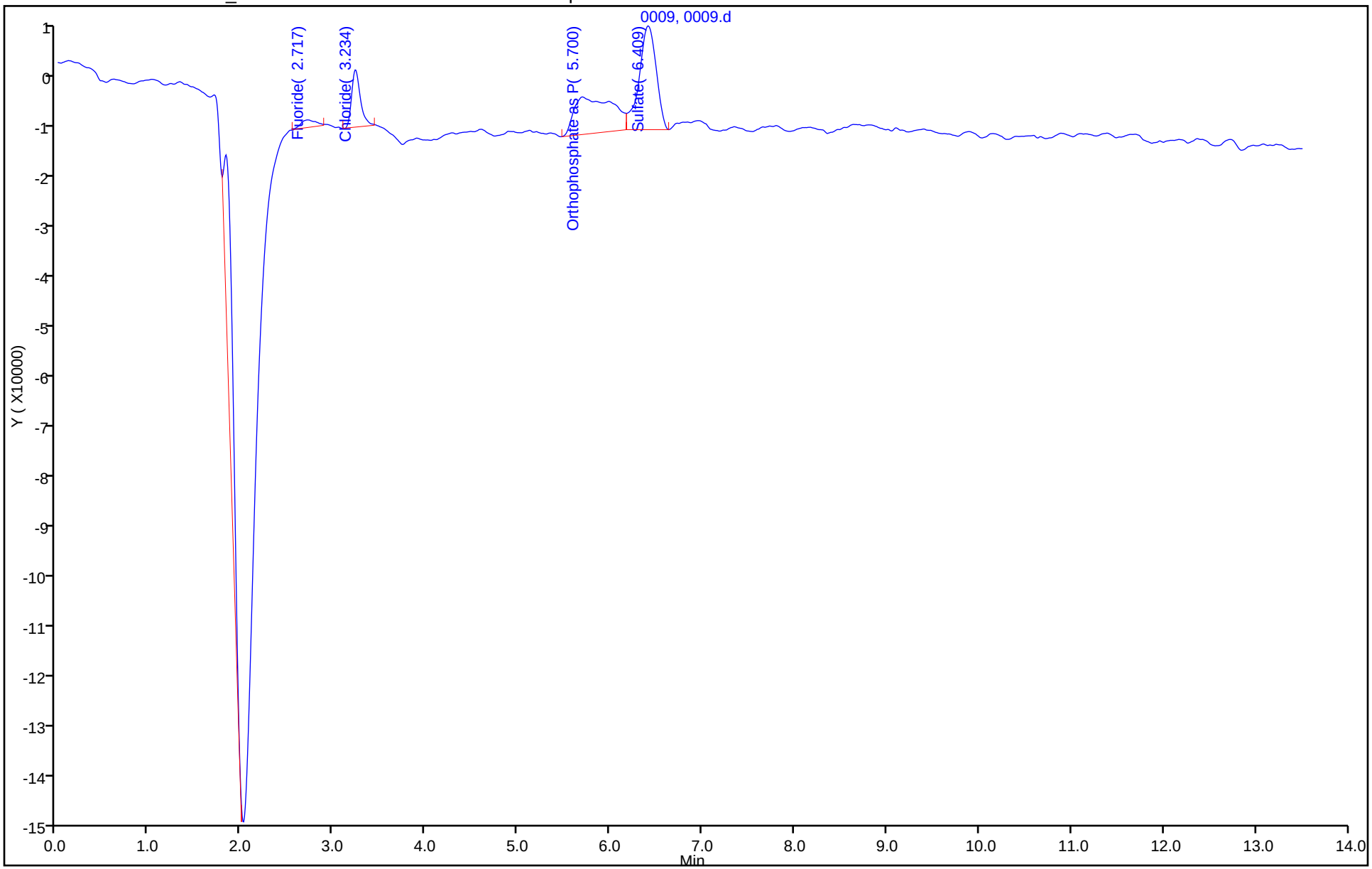
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		-0.1524	M
2 Chloride	3.234	3.250	-0.016	71906		0.6279	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		NC	
6 Sulfate	6.409	6.442	-0.033	254965		0.4943	

QC Flag Legend

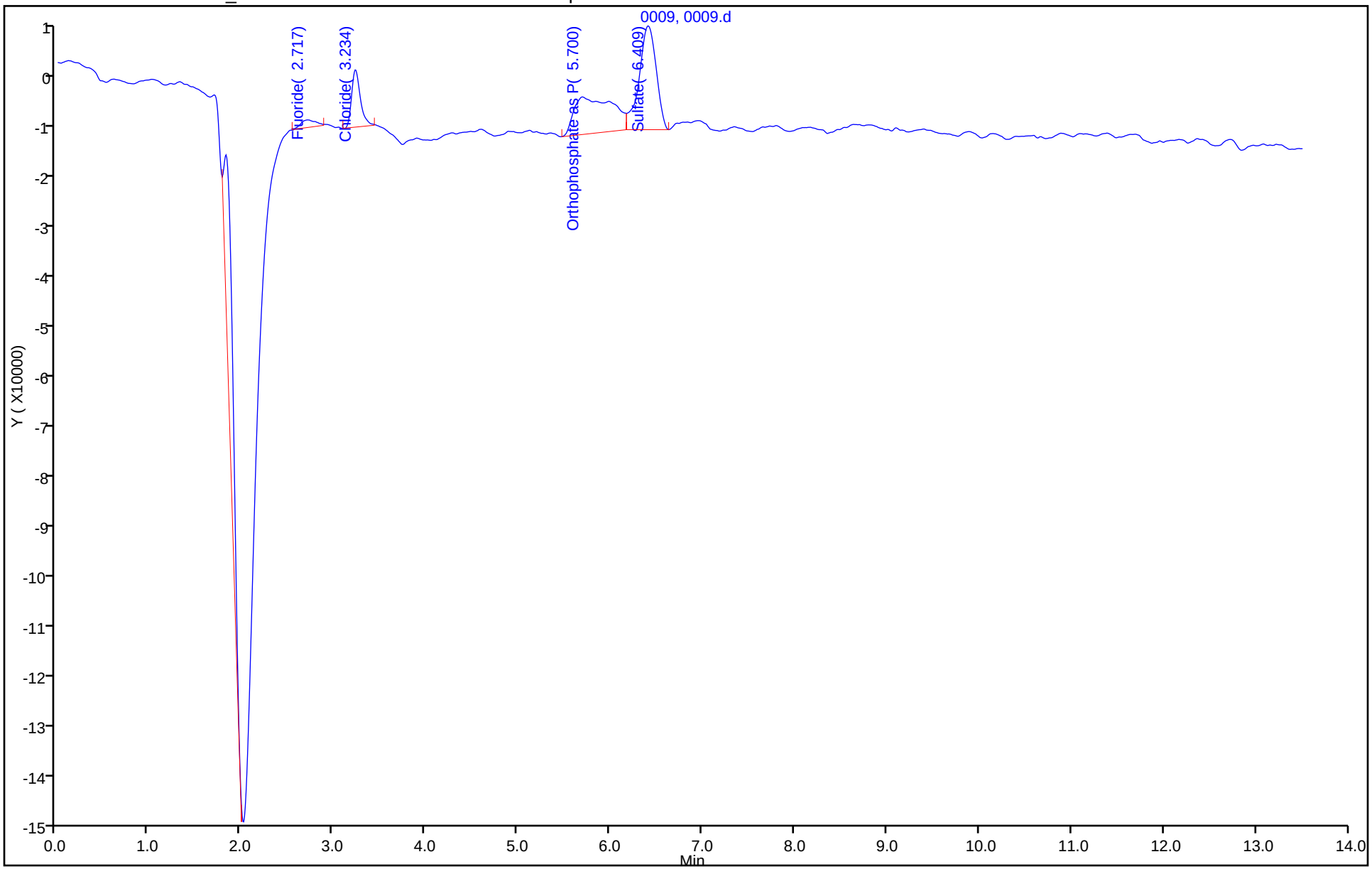
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

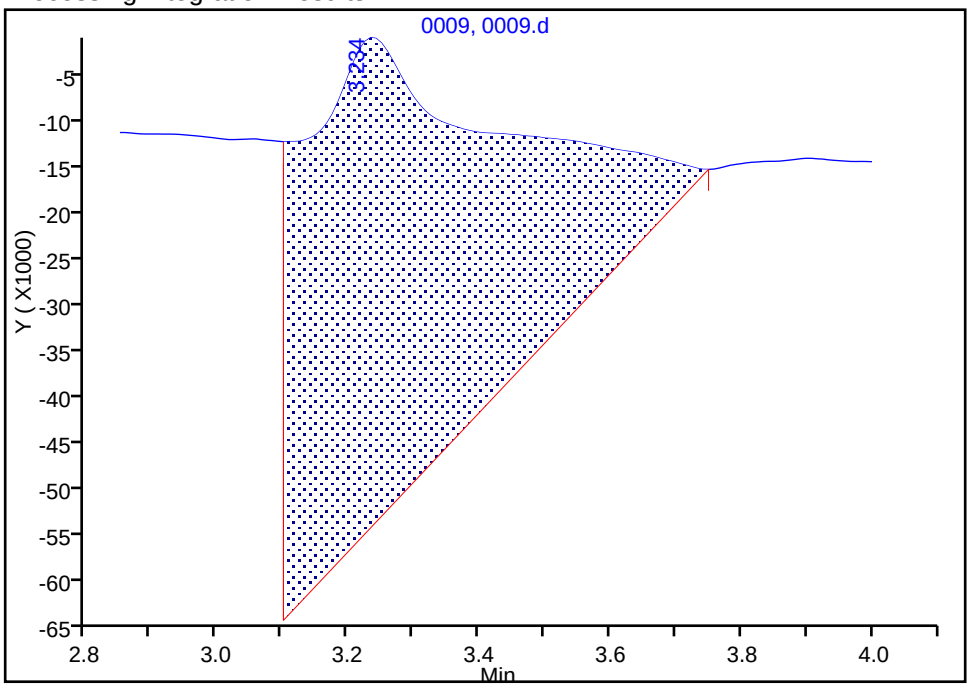
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Injection Date: 15-May-2019 19:27:00 Instrument ID: WC_IonChrom11
Lims ID: ICB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

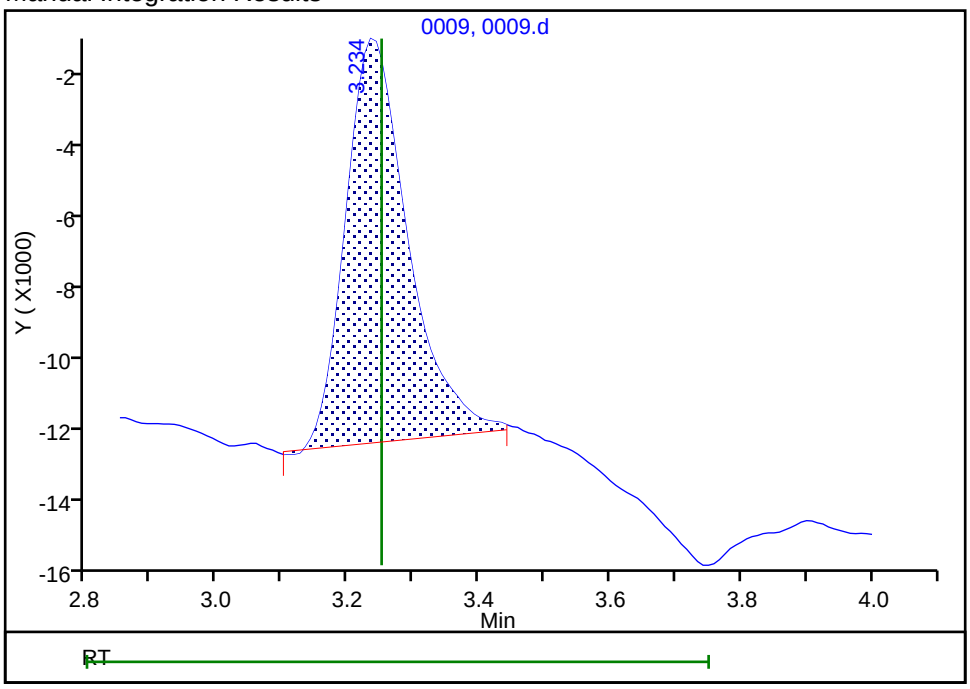
Processing Integration Results

RT: 3.23
Area: 1127161
Amount: 0.784817
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 71906
Amount: 0.627881
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

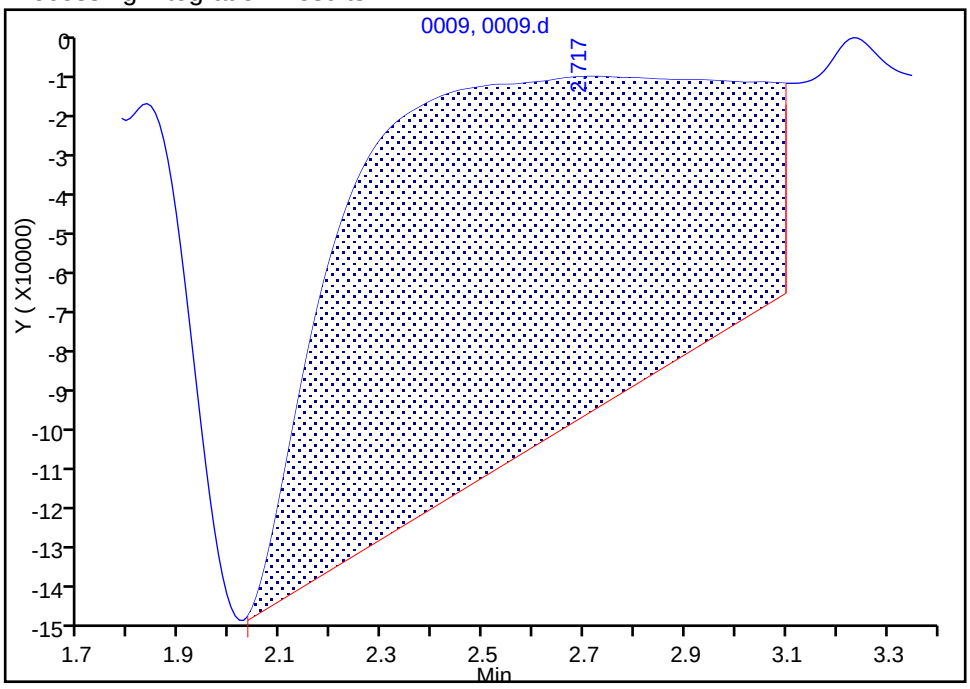
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d		
Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11
Lims ID:	ICB		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

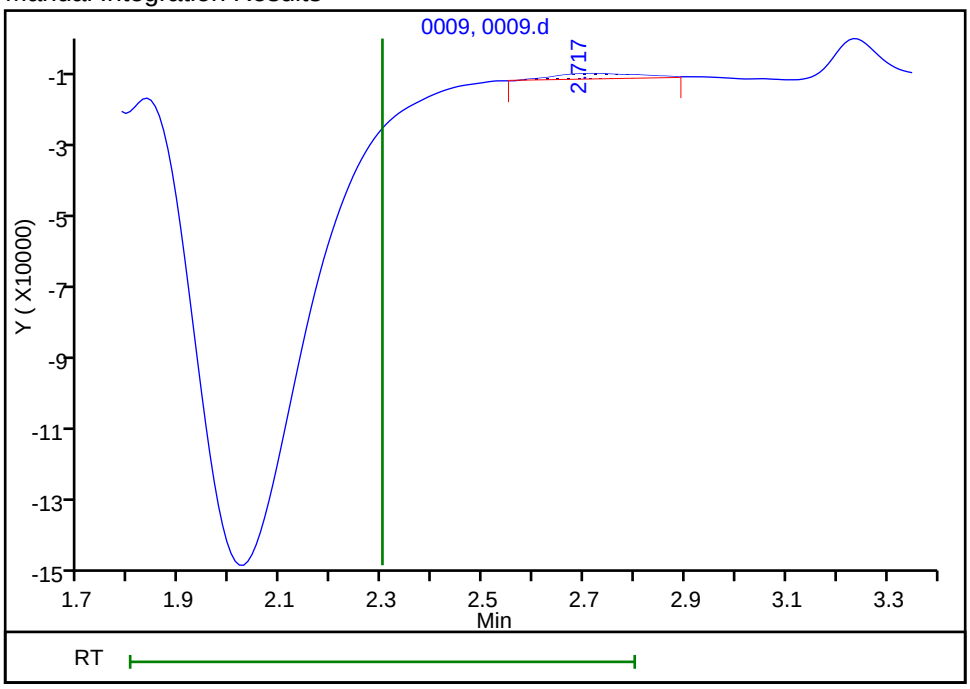
Processing Integration Results

RT: 2.72
Area: 4799643
Amount: 0.507035
Amount Units: ug/ml



Manual Integration Results

RT: 2.72
Area: 15994
Amount: -0.152378
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

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TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82040 Inst ID: 11 Analysis Date: 5-18-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123981	1	F Cl NO2 Br NO3 PO4 SO4	5X	cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 20-May-2019 17:55:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 19:06:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:07:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38201029	NC	NC	
2 Chloride	3.534	3.534	0.000	674287788	NC	NC	
3 Nitrite as N	4.267	4.267	0.000	53169677	5.00	5.09	a
4 Bromide	5.151	5.151	0.000	10274306	NC	NC	a
5 Nitrate as N	5.817	5.817	0.000	62307261	5.00	5.40	a
7 Orthophosphate as P	7.592	7.592	0.000	24559806	5.00	5.92	a
6 Sulfate	8.509	8.509	0.000	427452415	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

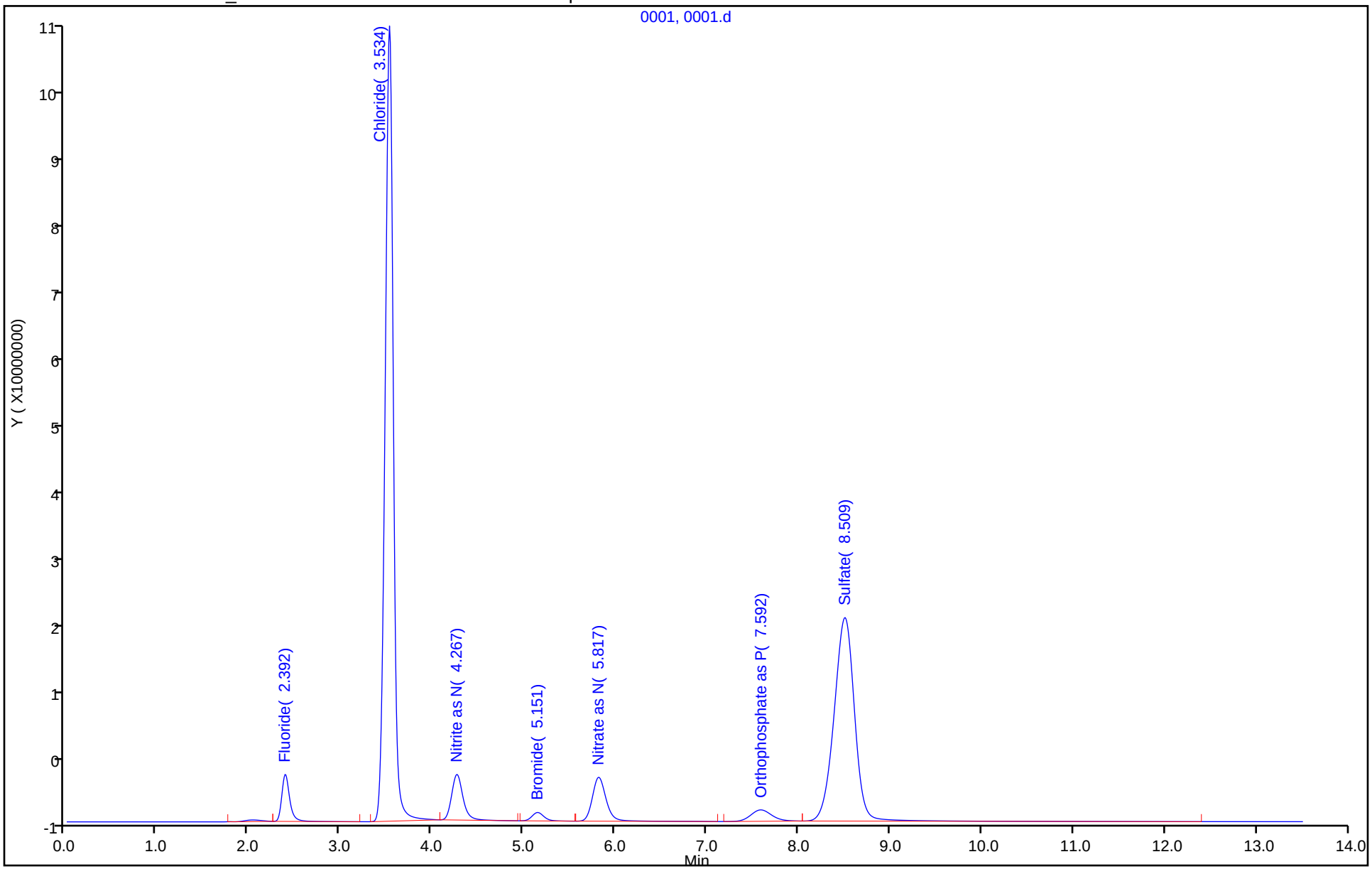
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:33 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d

Injection Date:	18-May-2019 19:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

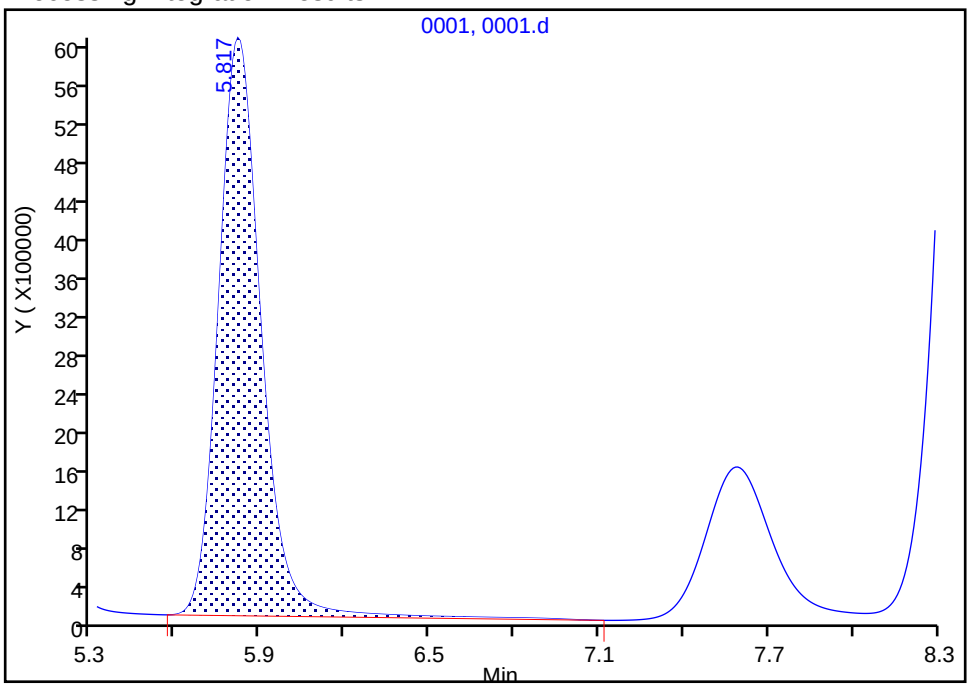
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d				
Injection Date:	18-May-2019 19:06:00	Instrument ID:	WC_IonChrom11		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

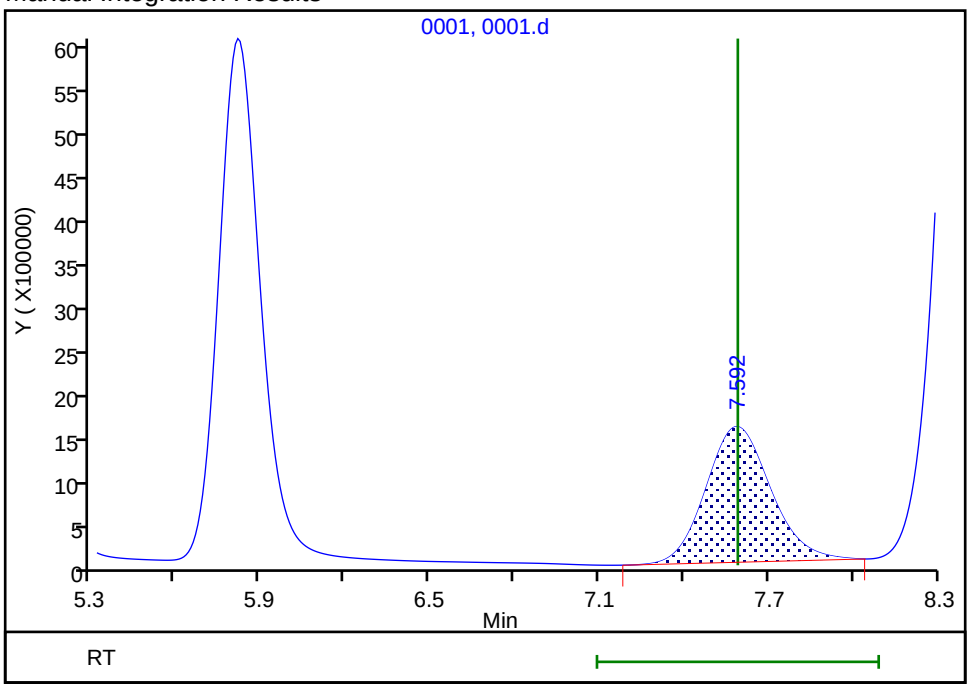
Processing Integration Results

RT: 5.82
Area: 62307261
Amount: 15.034423
Amount Units: ug/ml



Manual Integration Results

RT: 7.59
Area: 24559806
Amount: 5.921388
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:06:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

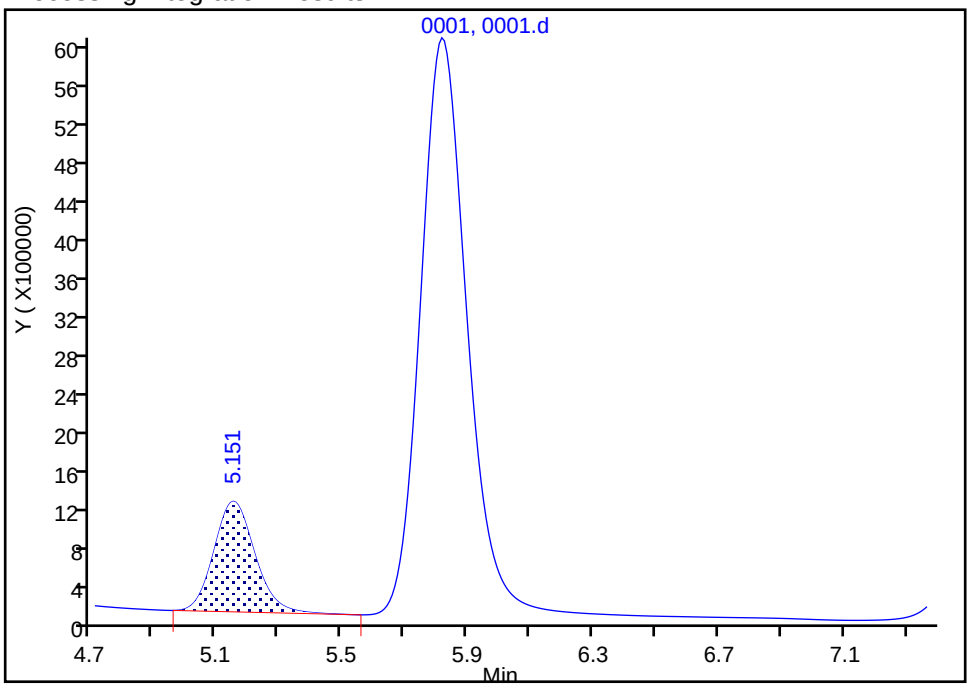
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Injection Date: 18-May-2019 19:06:00 Instrument ID: WC_IonChrom11
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

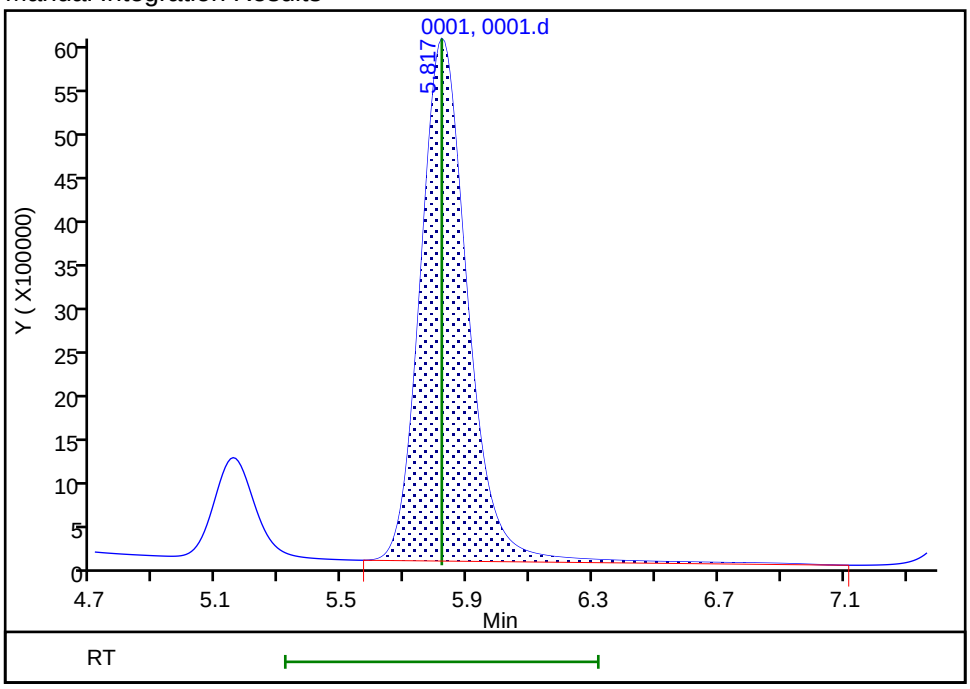
Processing Integration Results

RT: 5.15
Area: 10274306
Amount: 0.922869
Amount Units: ug/ml



Manual Integration Results

RT: 5.82
Area: 62307261
Amount: 5.403042
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:06:21
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

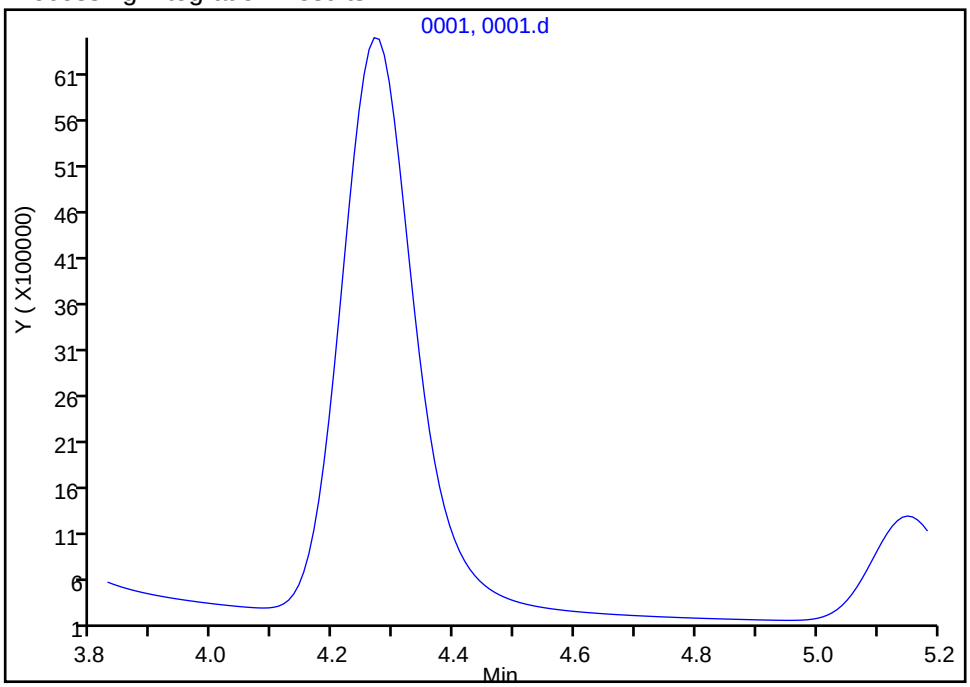
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Injection Date: 18-May-2019 19:06:00 Instrument ID: WC_IonChrom11
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

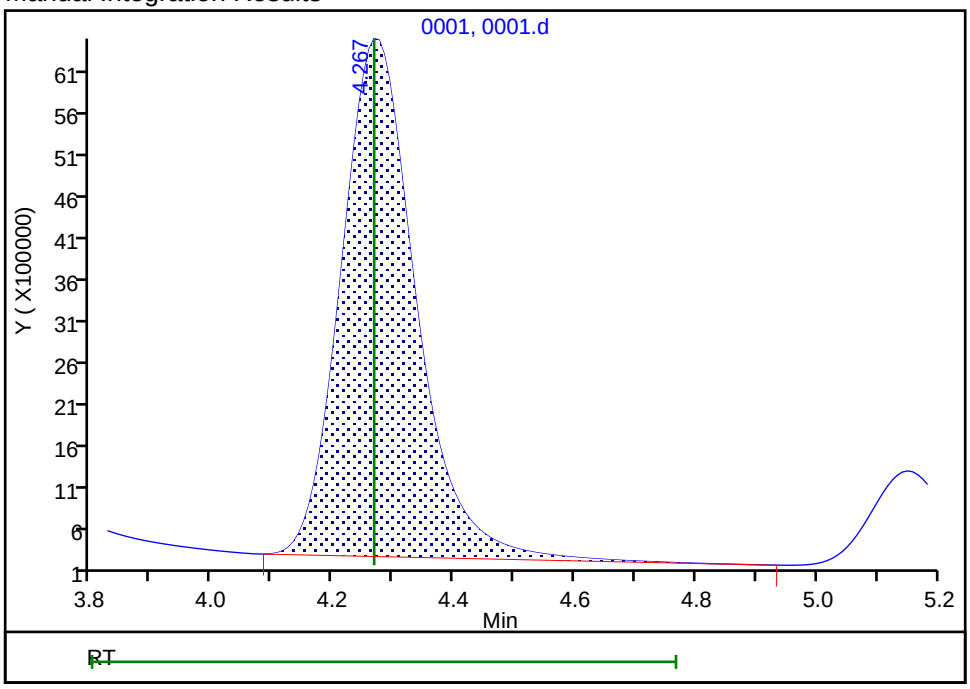
Not Detected
Expected RT: 4.27

Processing Integration Results



Manual Integration Results

RT: 4.27
Area: 53169677
Amount: 5.092832
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:06:27
Audit Action: Assigned Compound ID Audit Reason:

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TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82040 Inst ID: 11 Analysis Date: 5-18-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123981	9	(F) (Cl) (NO2) (Br) (NO3) (PO4) (SO4)	MS/D	
☐	123983	3	(F) (Cl) (NO2) (Br) (NO3) (PO4) (SO4)	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123981	1	(F) (Cl) (NO2) (Br) (NO3) (PO4) (SO4)	5X	cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 20-May-2019 17:55:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 19:06:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:07:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38201029	5.00	5.11	
2 Chloride	3.534	3.534	0.000	674287788	100.0	100.9	
3 Nitrite as N	4.267	4.267	0.000	53169677	NC	NC	a
4 Bromide	5.151	5.151	0.000	10274306	5.00	5.31	a
5 Nitrate as N	5.817	5.817	0.000	62307261	NC	NC	a
7 Orthophosphate as P	7.592	7.592	0.000	24559806	NC	NC	a
6 Sulfate	8.509	8.509	0.000	427452415	100.0	96.0	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

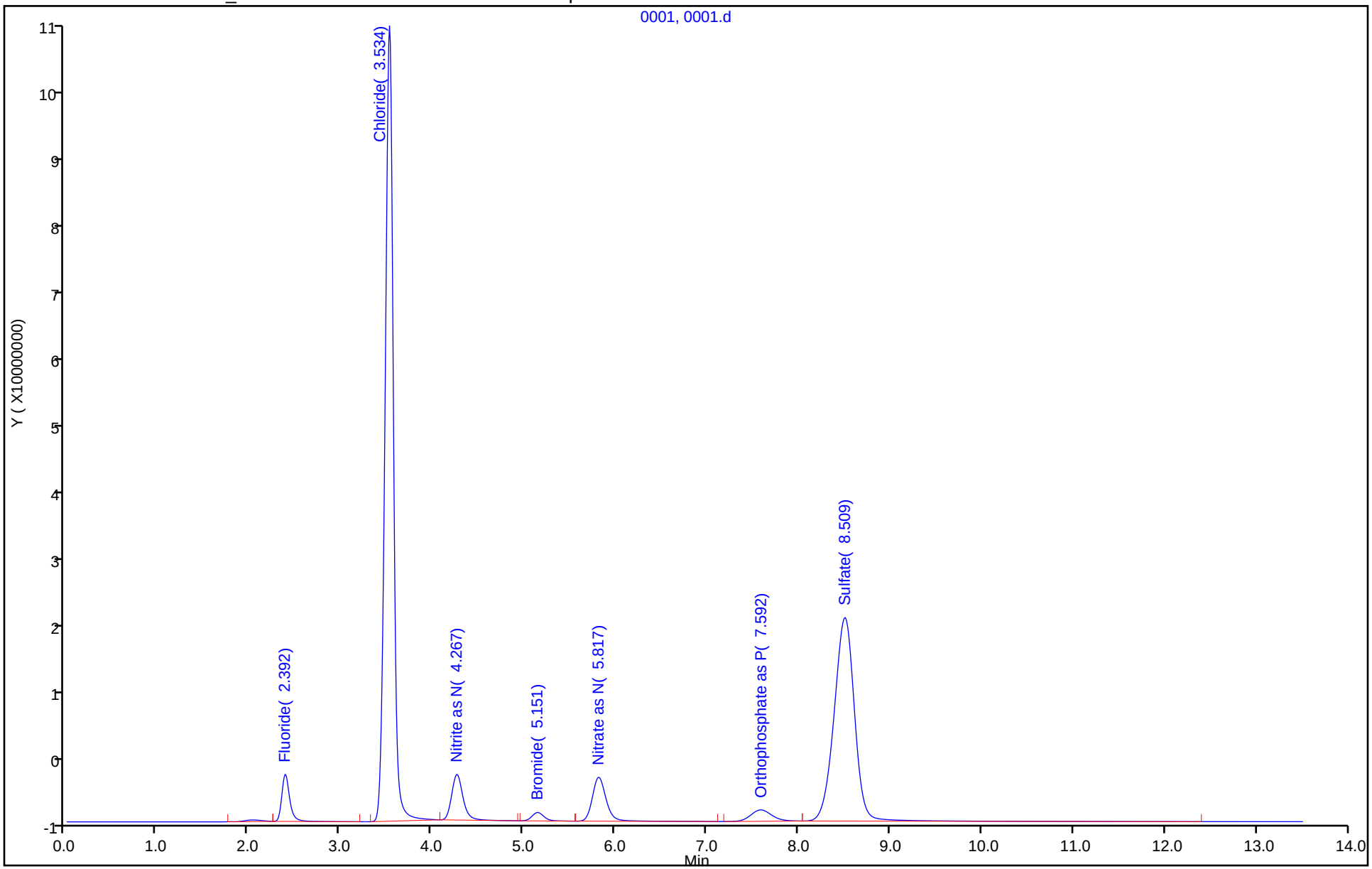
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:33 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d

Injection Date:	18-May-2019 19:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

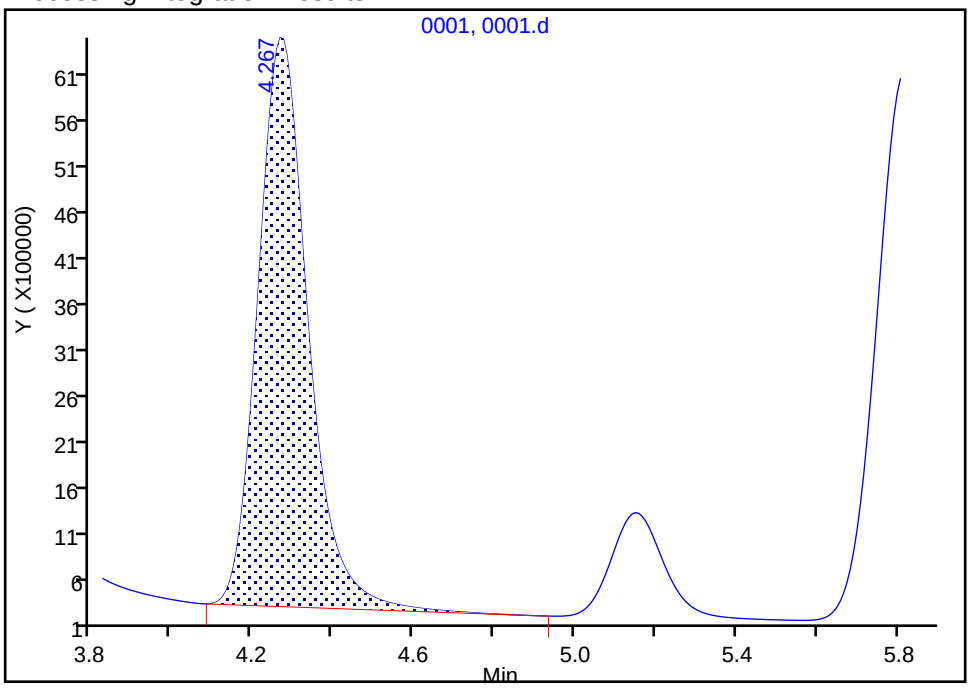
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Injection Date: 18-May-2019 19:06:00 Instrument ID: WC_IonChrom11
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

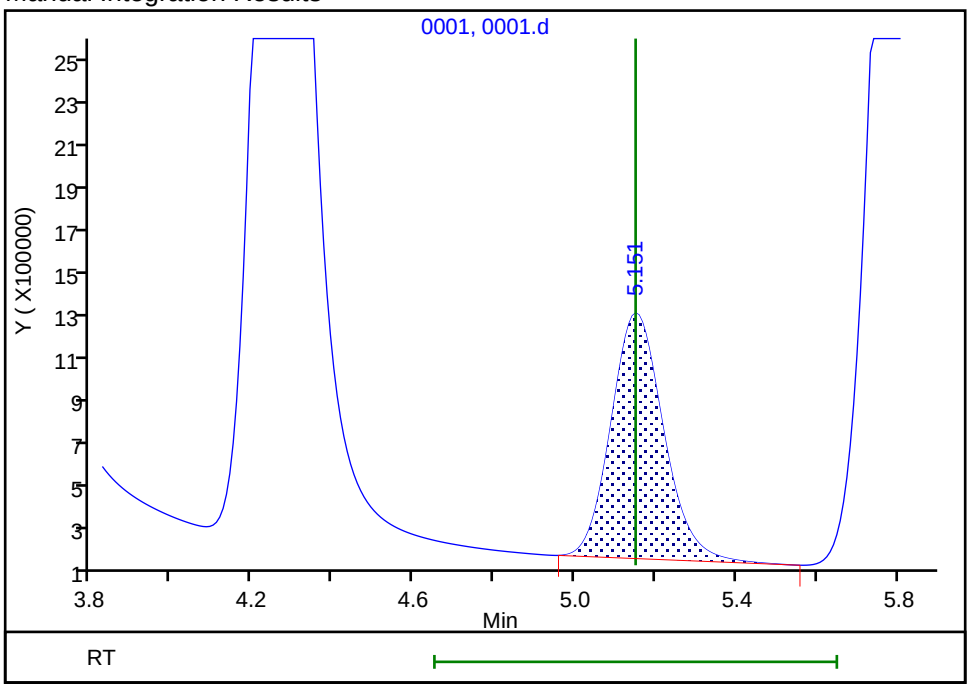
Processing Integration Results

RT: 4.27
Area: 53169677
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.15
Area: 10274306
Amount: 5.306323
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:07:05
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

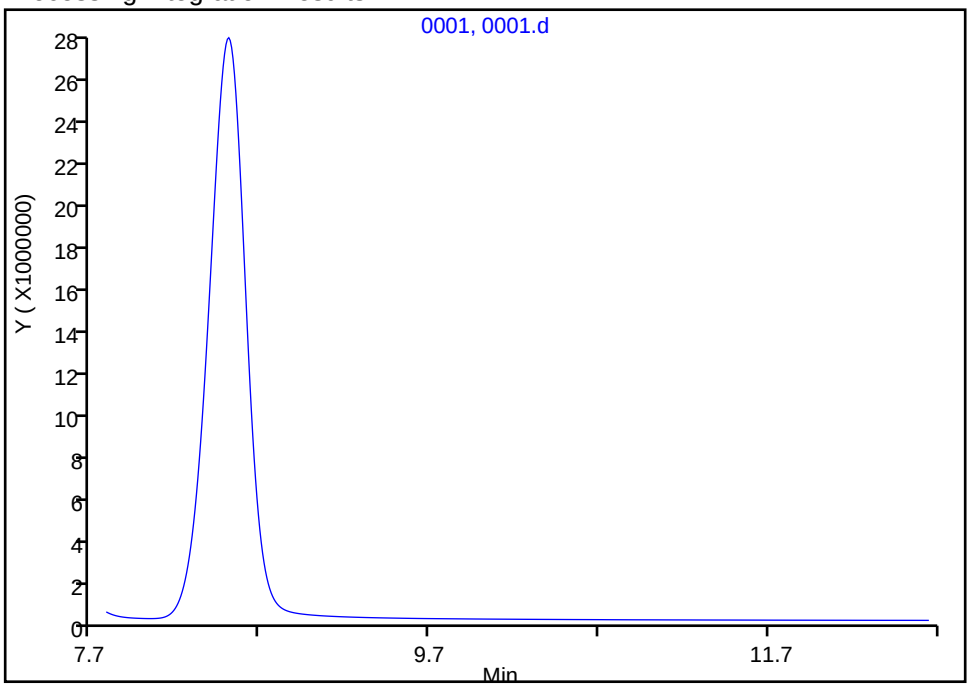
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0001.d
Injection Date: 18-May-2019 19:06:00 Instrument ID: WC_IonChrom11
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

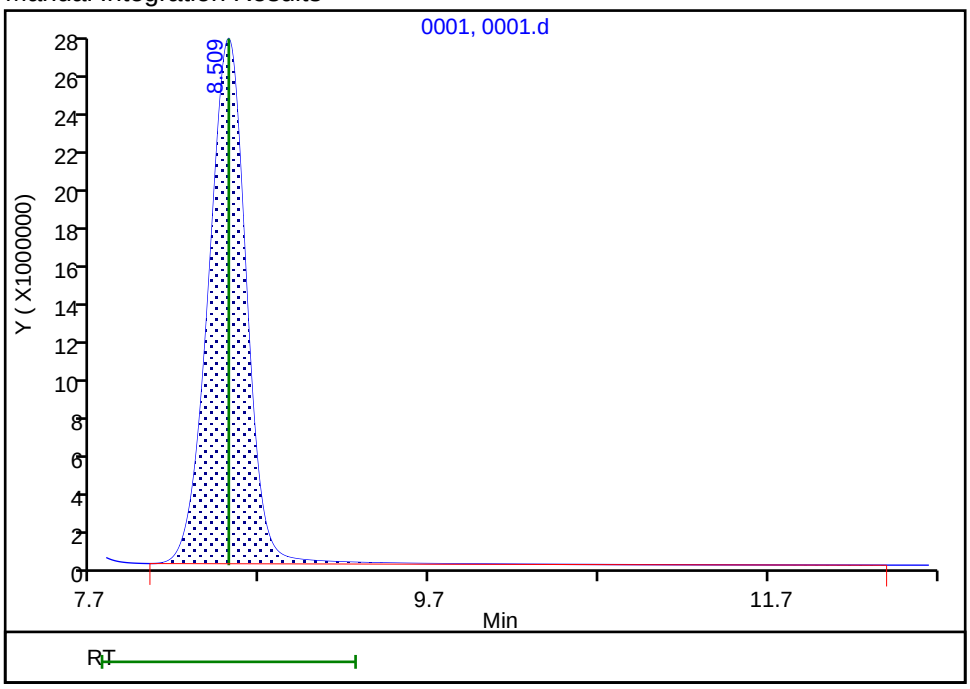
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.51
Area: 427452415
Amount: 96.011454
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:07:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 19:23:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.392	-0.350	485712		NC	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate		8.509				ND	

QC Flag Legend

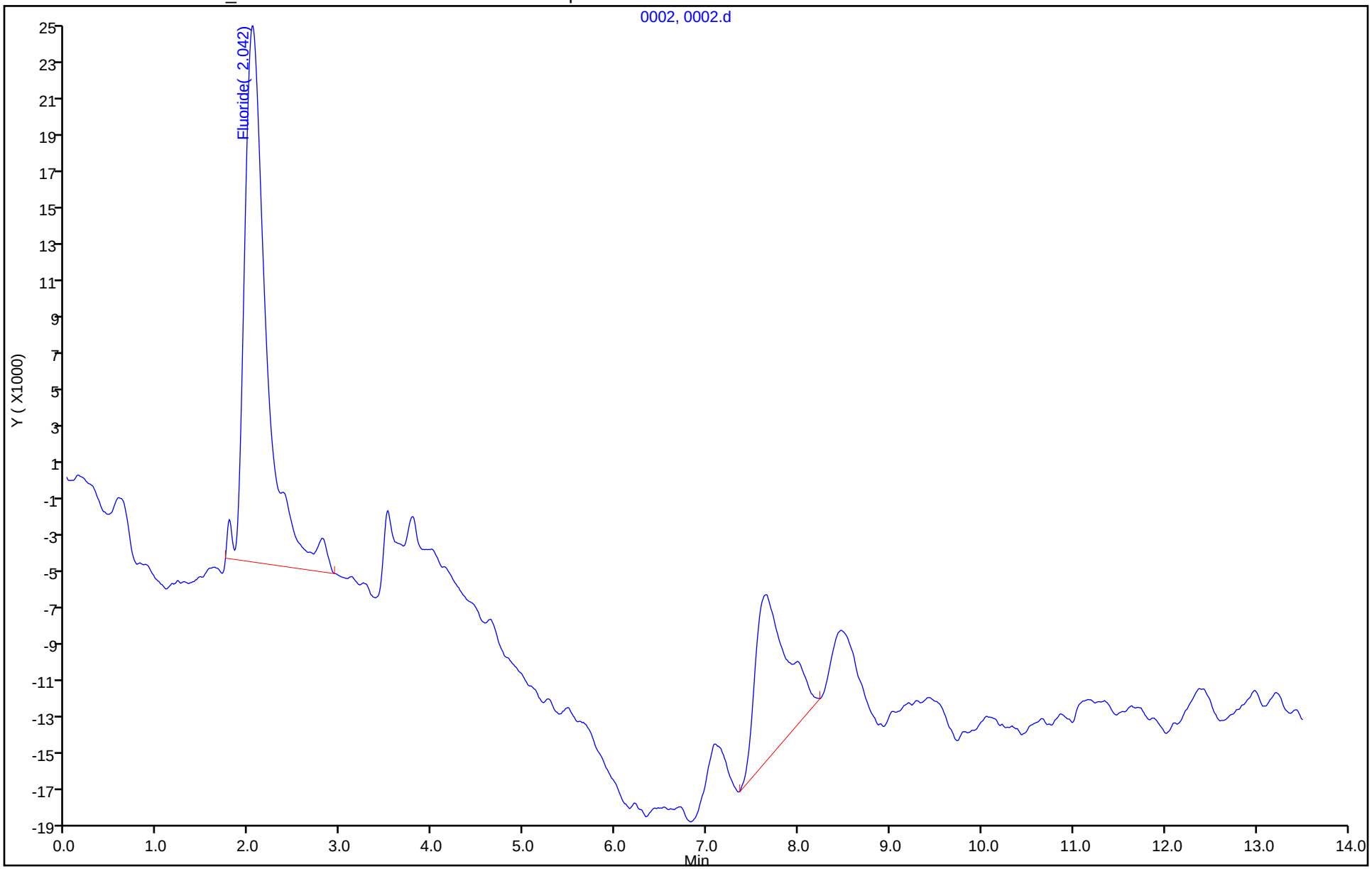
Processing Flags
NC - Not Calibrated

Report Date: 21-May-2019 16:33:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0002.d

Injection Date:	18-May-2019 19:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 19:23:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

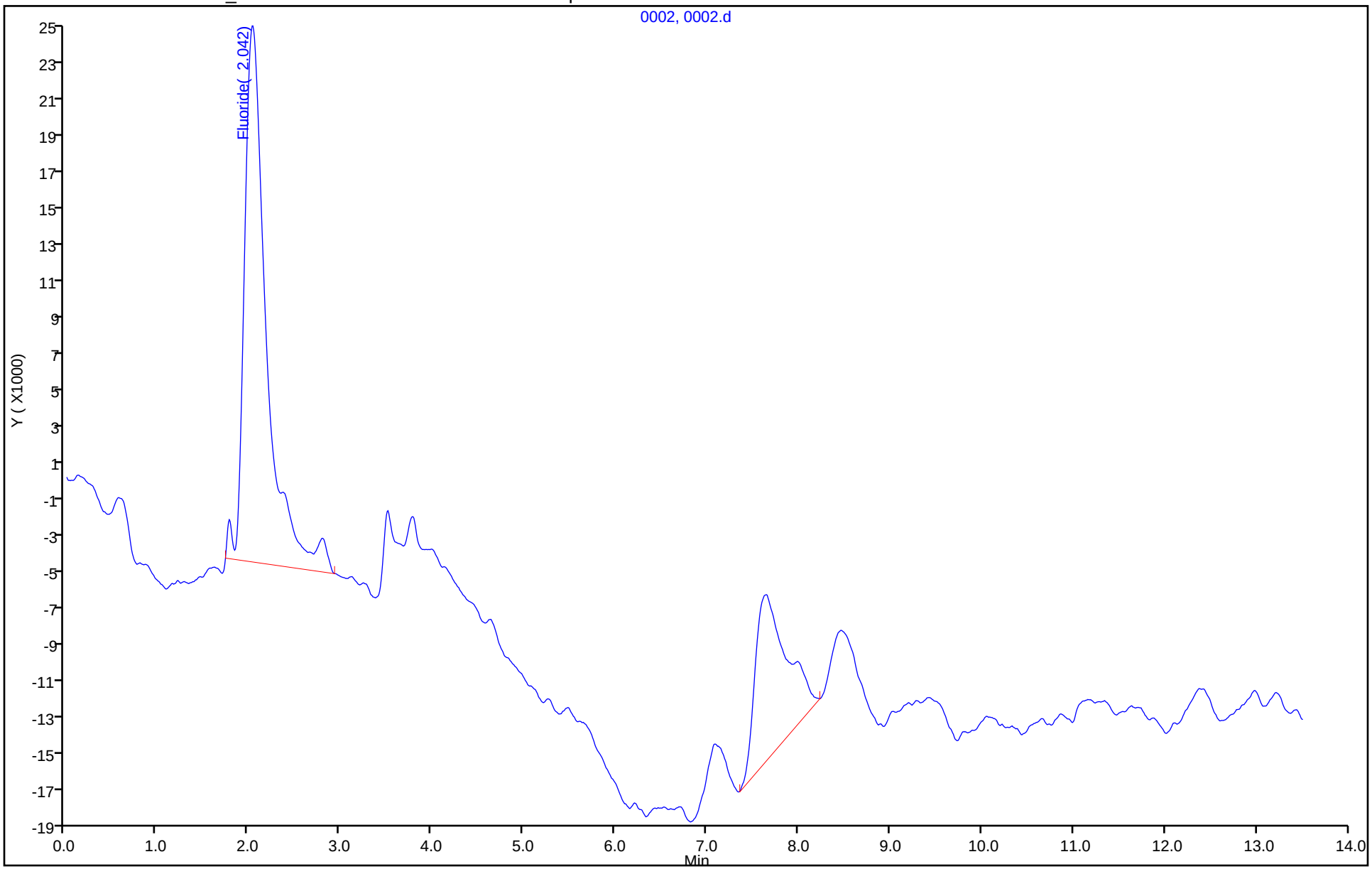
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.392	-0.350	485712		-0.0876	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate		8.509				ND	

Report Date: 21-May-2019 16:33:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0002.d

Injection Date:	18-May-2019 19:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 18-May-2019 19:39:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:09:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	1420096	NC	NC	a
2 Chloride	3.500	3.534	-0.034	11422875	NC	NC	
3 Nitrite as N	4.259	4.267	-0.008	2059576	0.2000	0.2215	a
4 Bromide	5.150	5.151	-0.001	400598	NC	NC	a
5 Nitrate as N	5.825	5.817	0.008	2279138	0.2000	0.2345	a
7 Orthophosphate as P	7.600	7.592	0.008	1034382	0.2000	0.2419	a
6 Sulfate	8.450	8.509	-0.059	8486633	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

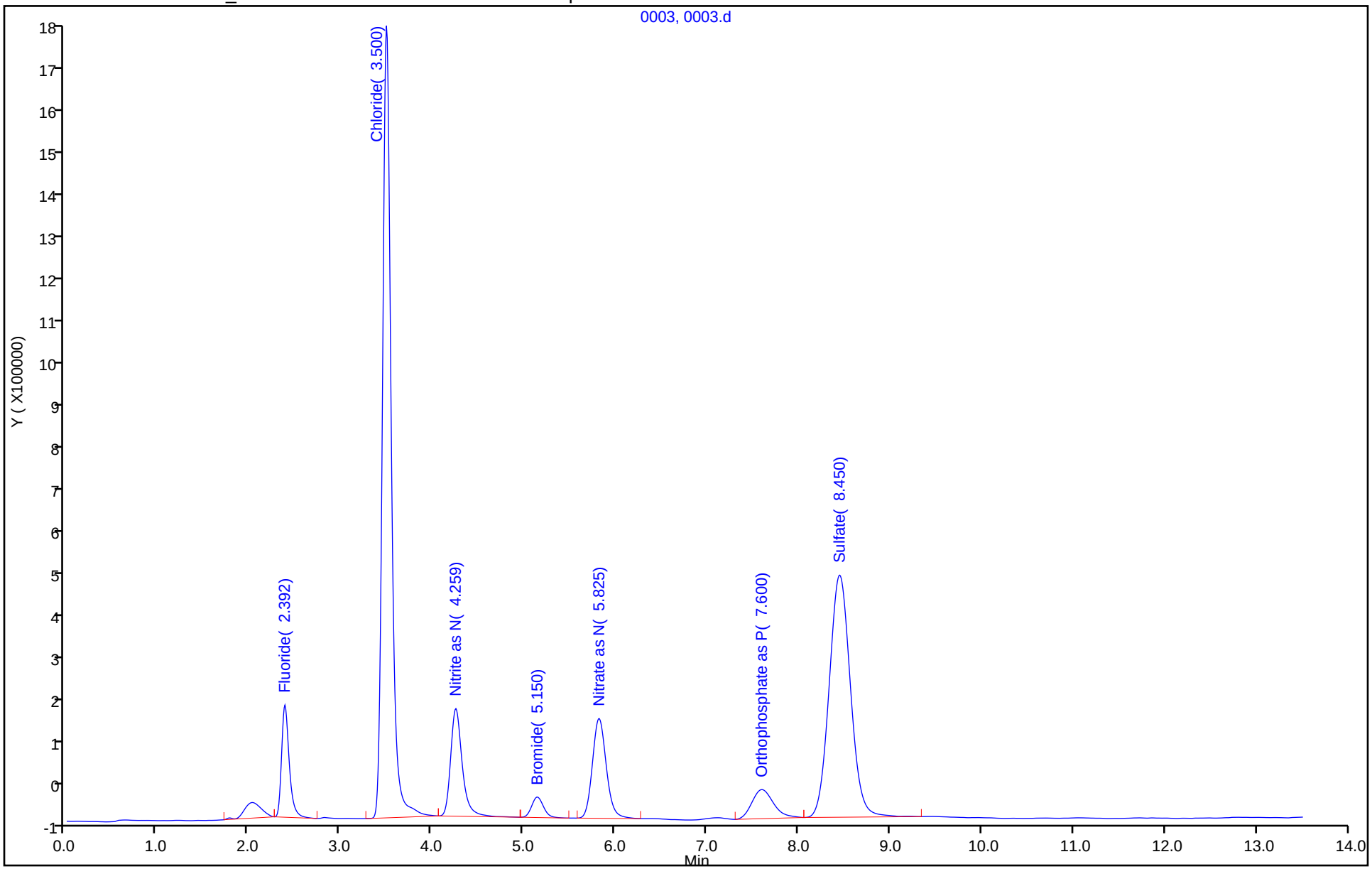
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 21-May-2019 16:33:37 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d

Injection Date:	18-May-2019 19:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

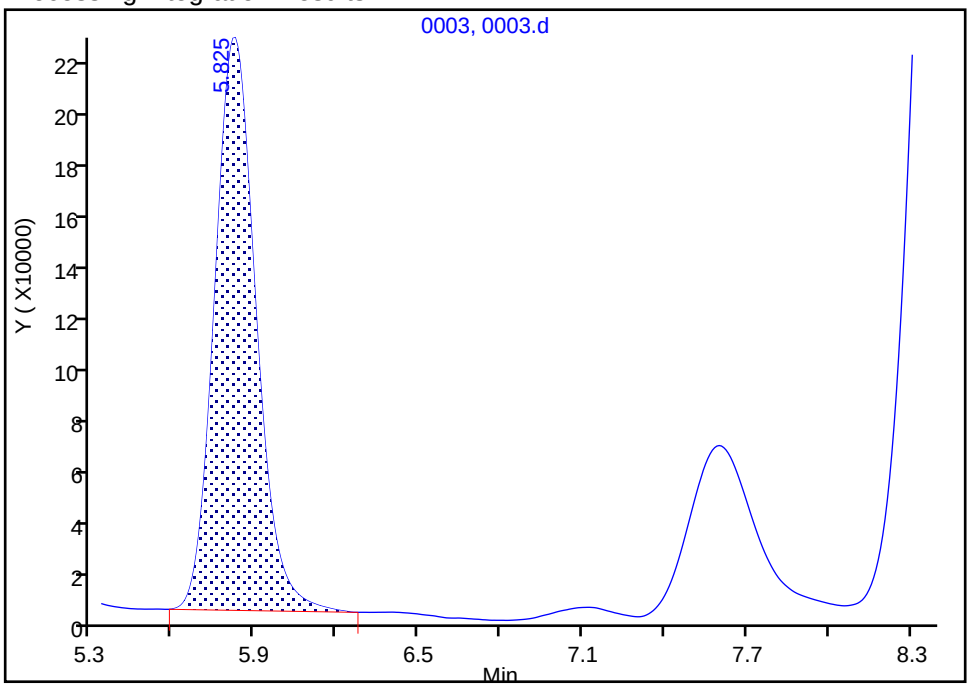
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

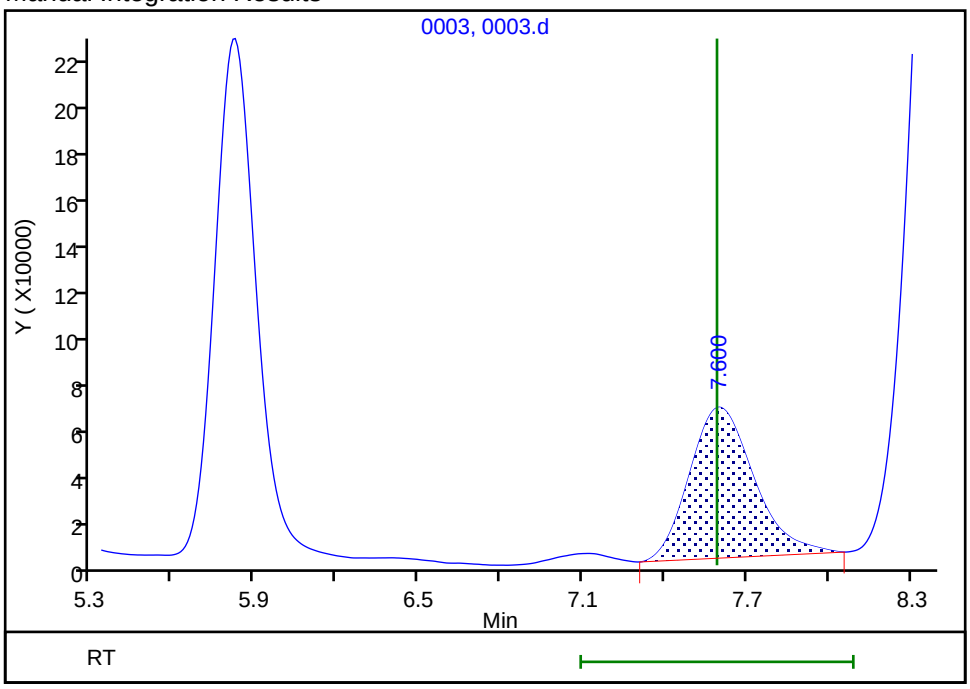
Processing Integration Results

RT: 5.83
Area: 2279138
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 7.60
Area: 1034382
Amount: 0.241852
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:54
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

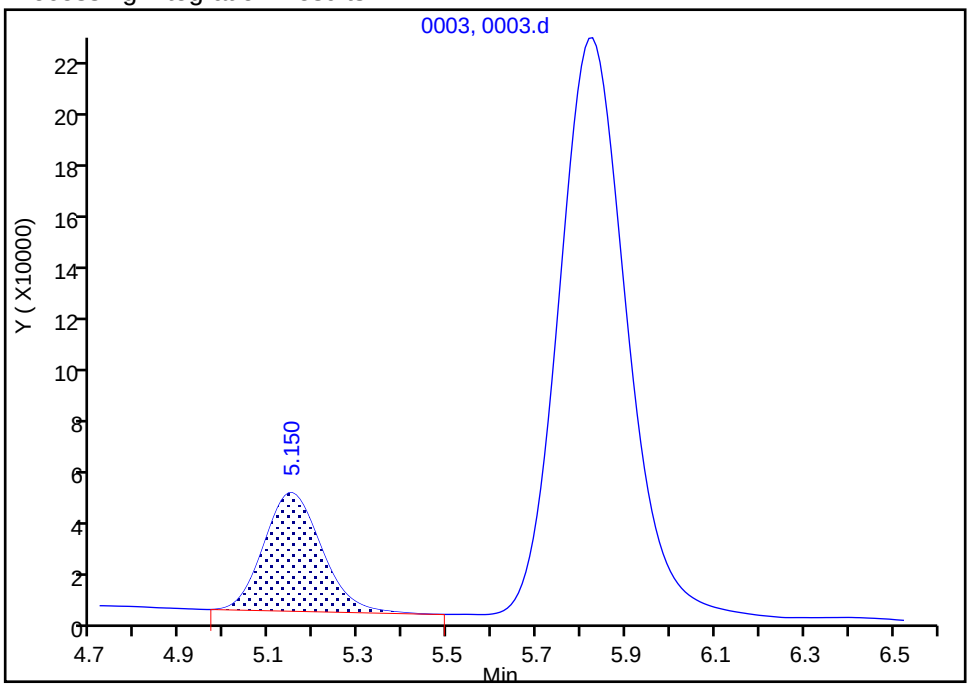
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

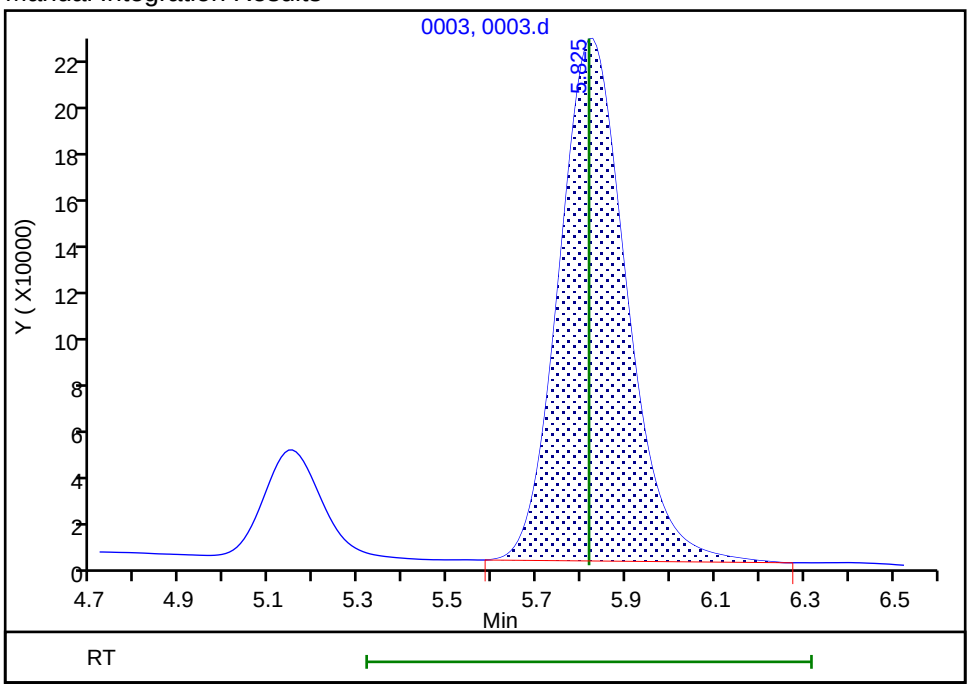
Processing Integration Results

RT: 5.15
Area: 400598
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.83
Area: 2279138
Amount: 0.234464
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:48
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

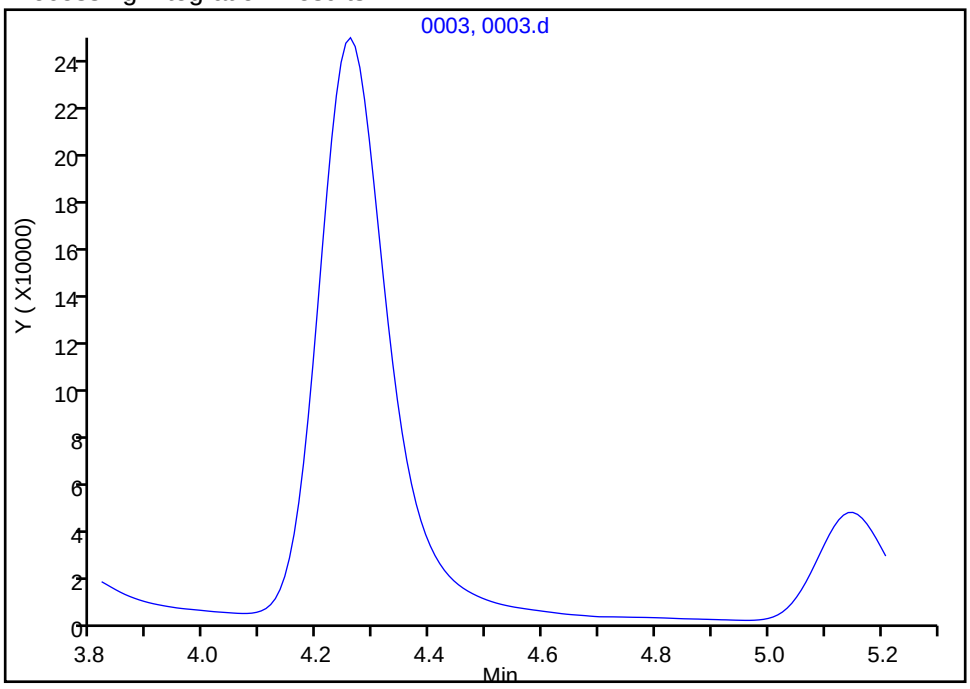
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

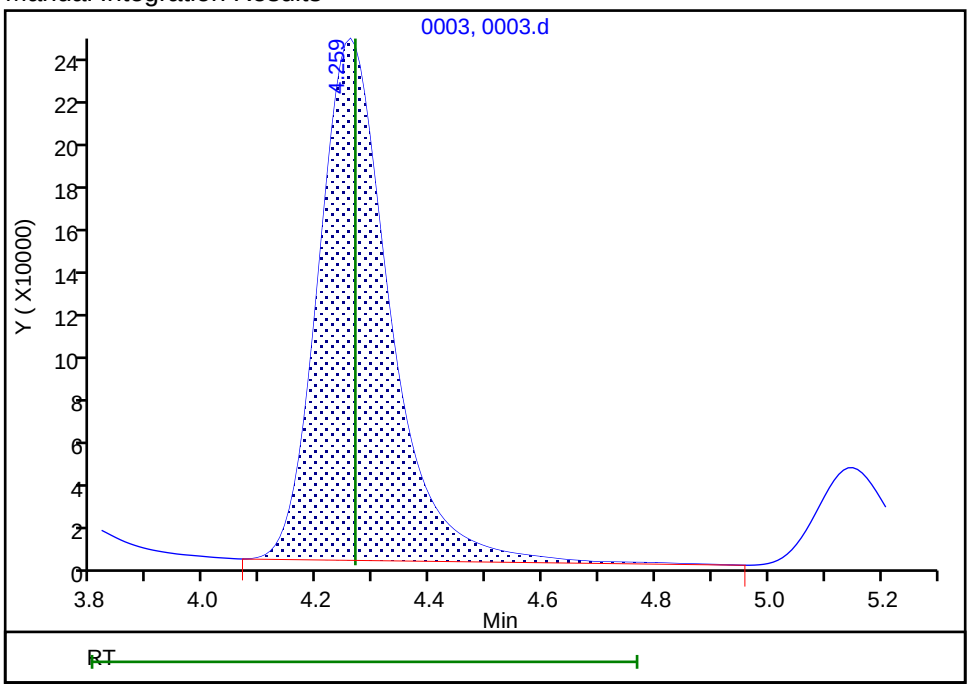
Not Detected
Expected RT: 4.27

Processing Integration Results



Manual Integration Results

RT: 4.26
Area: 2059576
Amount: 0.221473
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:41
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 18-May-2019 19:39:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:09:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	1420096	0.2000	0.0412	a
2 Chloride	3.500	3.534	-0.034	11422875	2.50	2.32	
3 Nitrite as N	4.259	4.267	-0.008	2059576	NC	NC	a
4 Bromide	5.150	5.151	-0.001	400598	0.2000	0.2142	a
5 Nitrate as N	5.825	5.817	0.008	2279138	NC	NC	a
7 Orthophosphate as P	7.600	7.592	0.008	1034382	NC	NC	a
6 Sulfate	8.450	8.509	-0.059	8486633	2.50	2.33	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

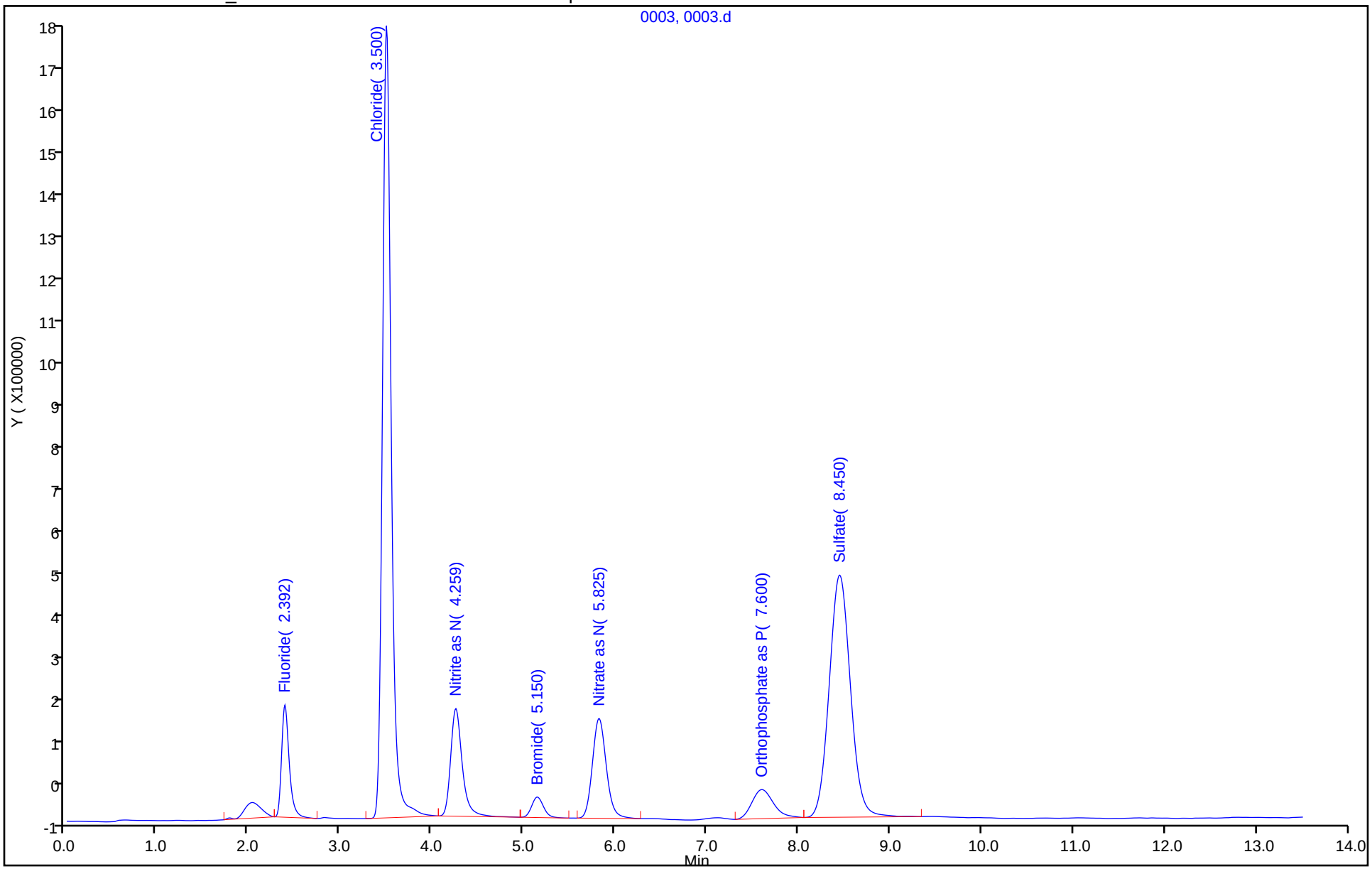
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 21-May-2019 16:33:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d

Injection Date:	18-May-2019 19:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

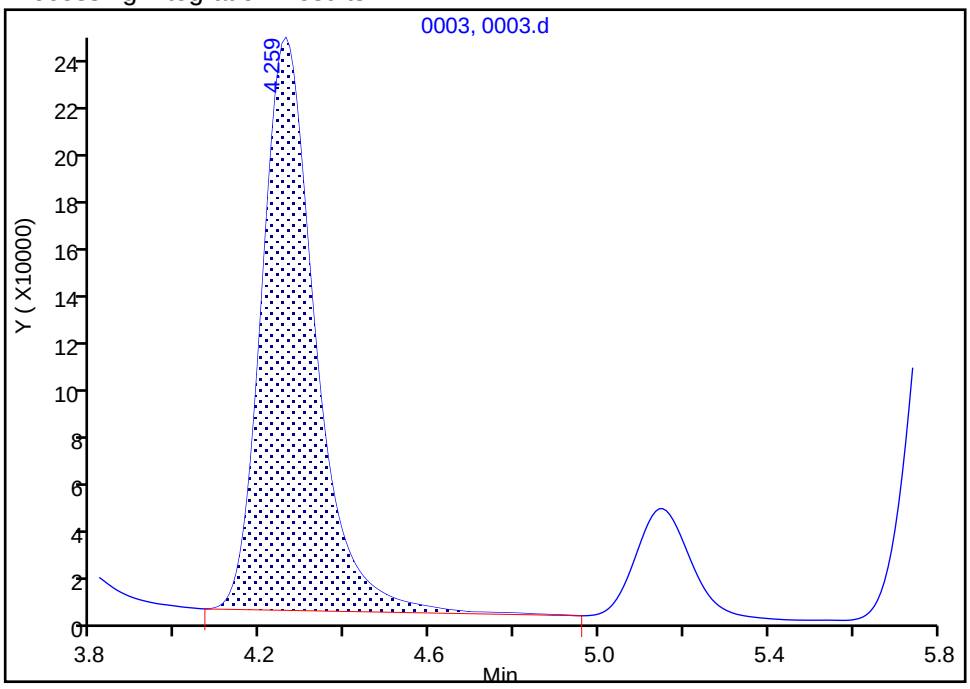
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

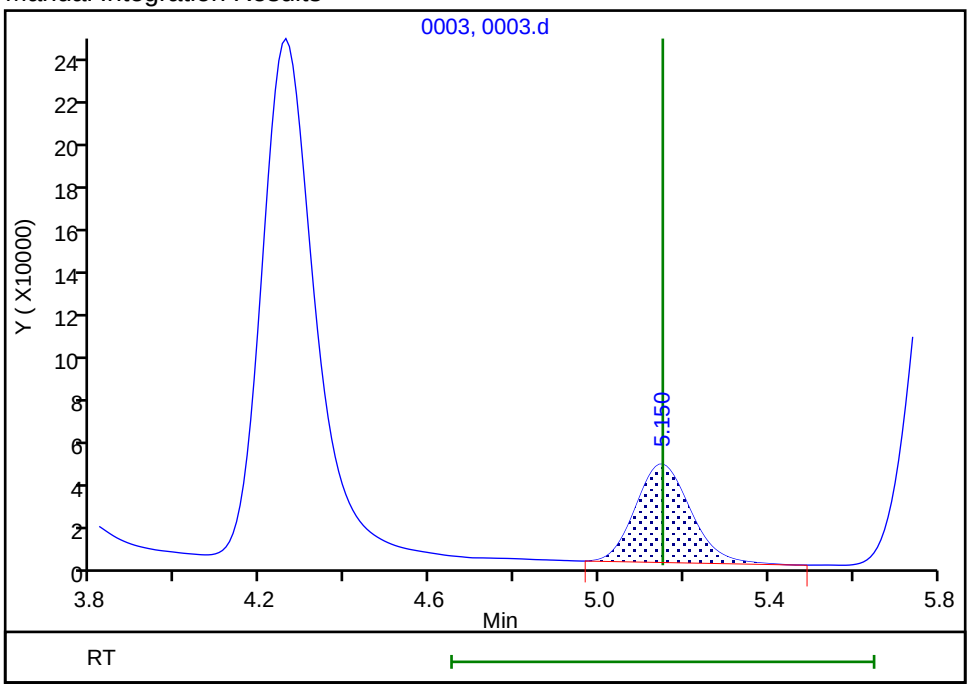
Processing Integration Results

RT: 4.26
Area: 2059576
Amount: 1.069813
Amount Units: ug/ml



Manual Integration Results

RT: 5.15
Area: 400598
Amount: 0.214243
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:08
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

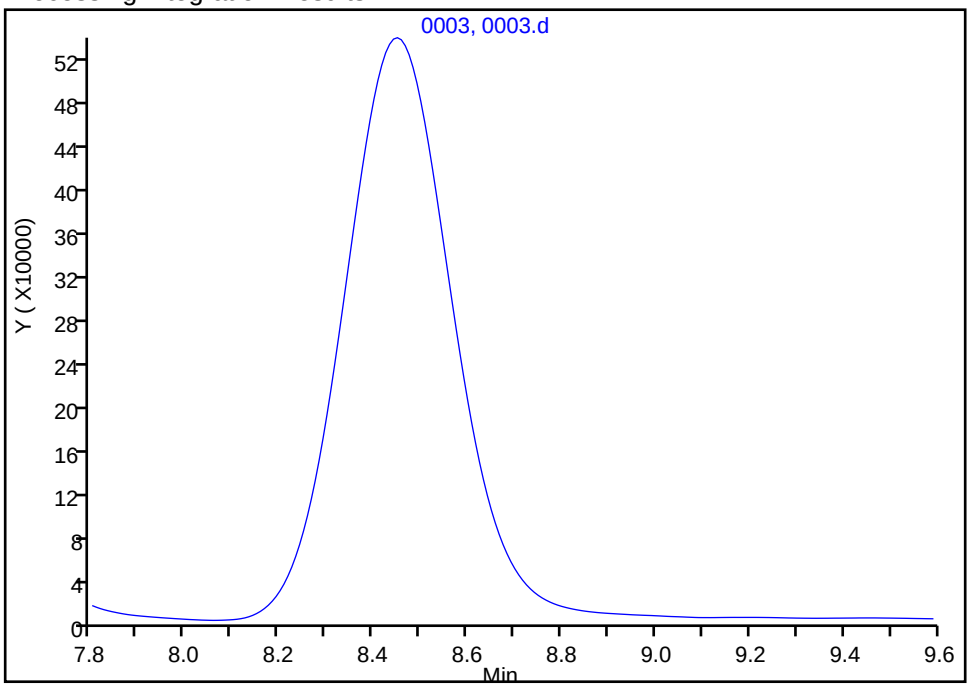
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0003.d
Injection Date: 18-May-2019 19:39:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

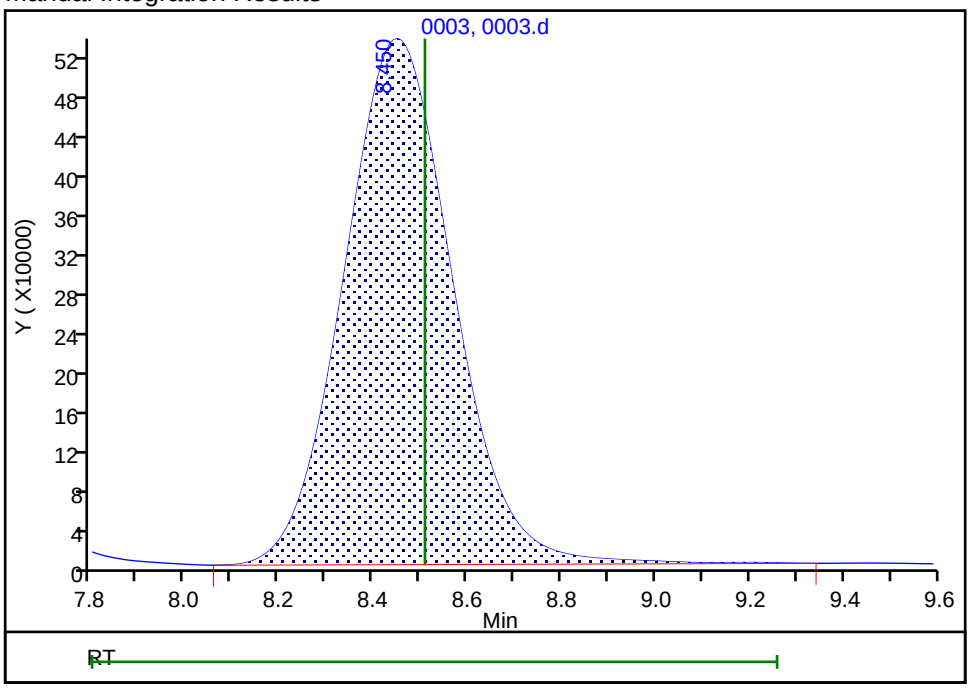
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.45
Area: 8486633
Amount: 2.334822
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:08:00
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-May-2019 19:56:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:32:35

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38230318	NC	NC	
2 Chloride	3.525	3.534	-0.009	673806057	NC	NC	
3 Nitrite as N	4.267	4.267	0.000	53245233	5.00	5.10	a
4 Bromide	5.142	5.151	-0.009	10295308	NC	NC	a
5 Nitrate as N	5.809	5.817	-0.008	62226380	5.00	5.40	a
7 Orthophosphate as P	7.584	7.592	-0.008	24659893	5.00	5.95	a
6 Sulfate	8.500	8.509	-0.009	428290582	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

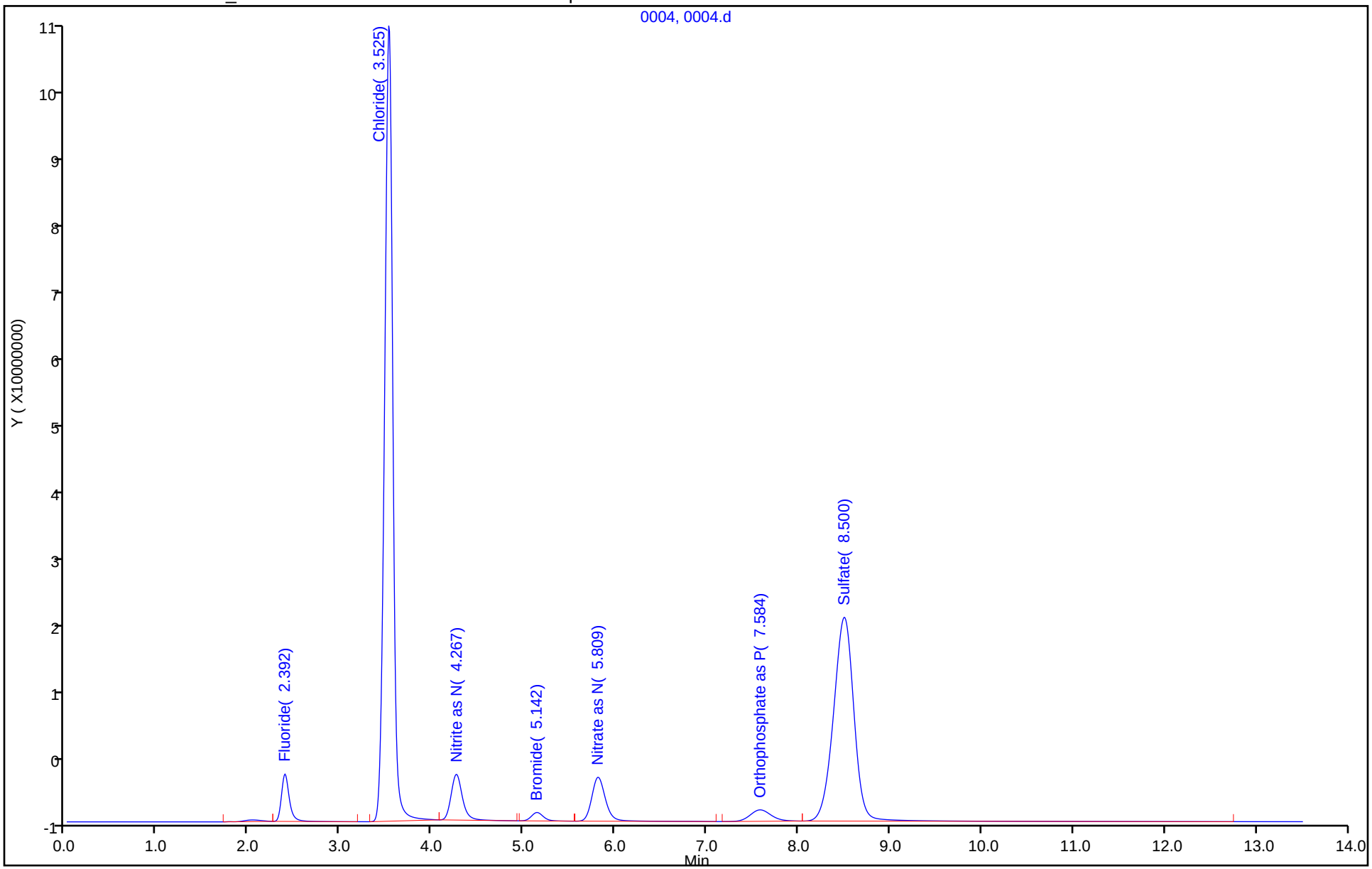
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d

Injection Date:	18-May-2019 19:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

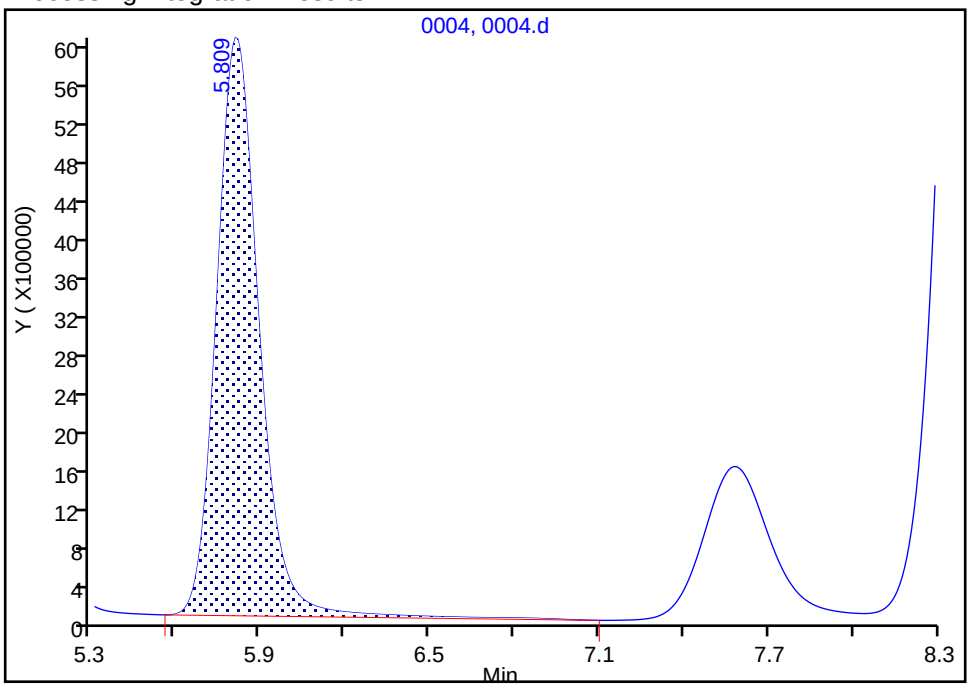
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

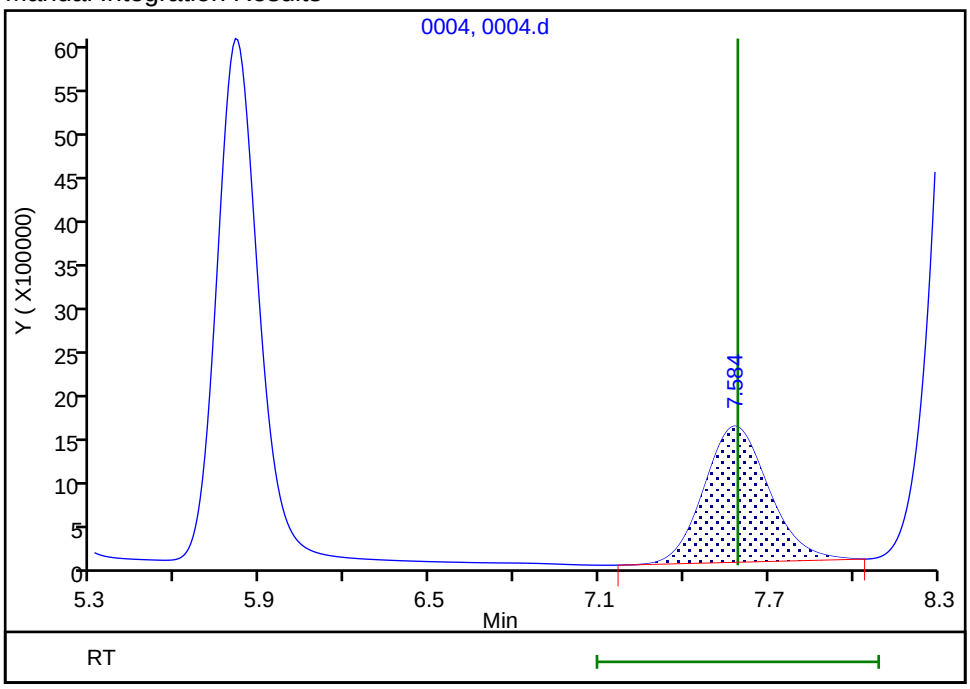
Processing Integration Results

RT: 5.81
Area: 62226380
Amount: 15.014897
Amount Units: ug/ml



Manual Integration Results

RT: 7.58
Area: 24659893
Amount: 5.945551
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:31:45
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

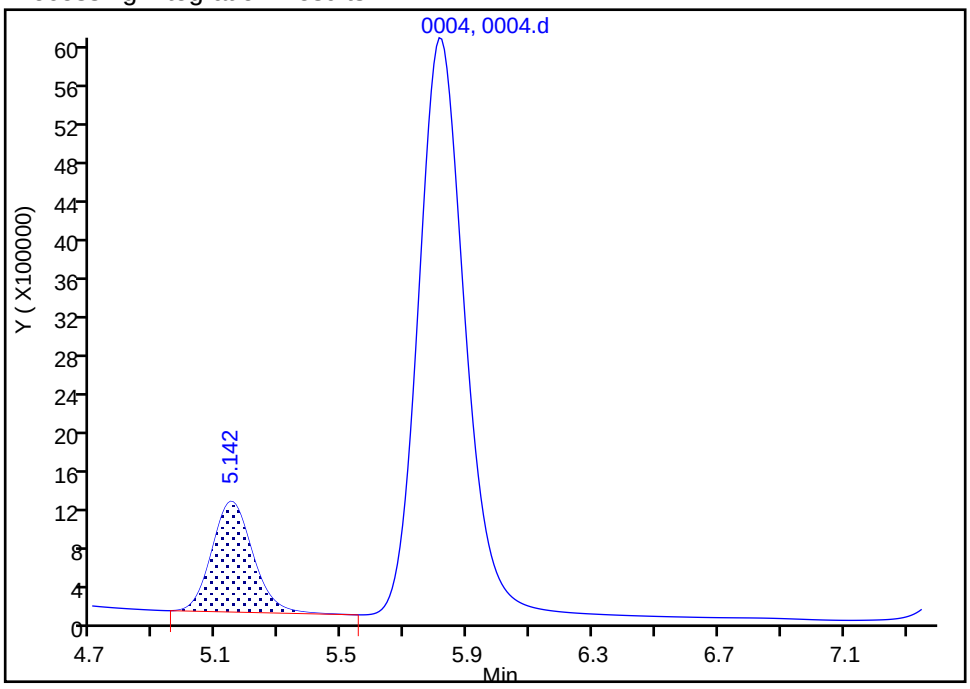
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

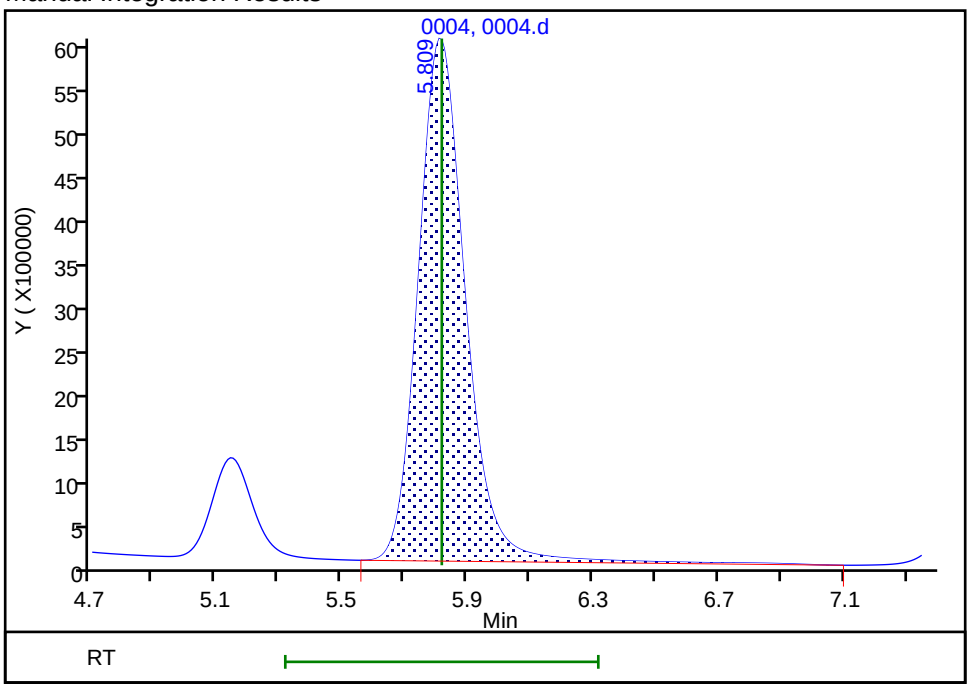
Processing Integration Results

RT: 5.14
Area: 10295308
Amount: 0.924677
Amount Units: ug/ml



Manual Integration Results

RT: 5.81
Area: 62226380
Amount: 5.396078
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:09
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

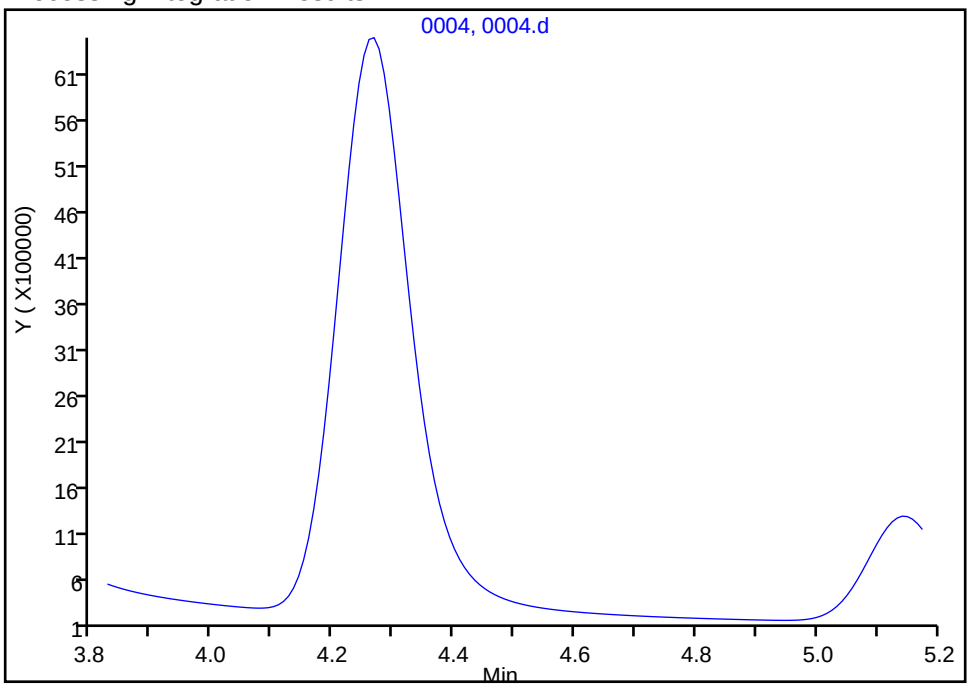
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

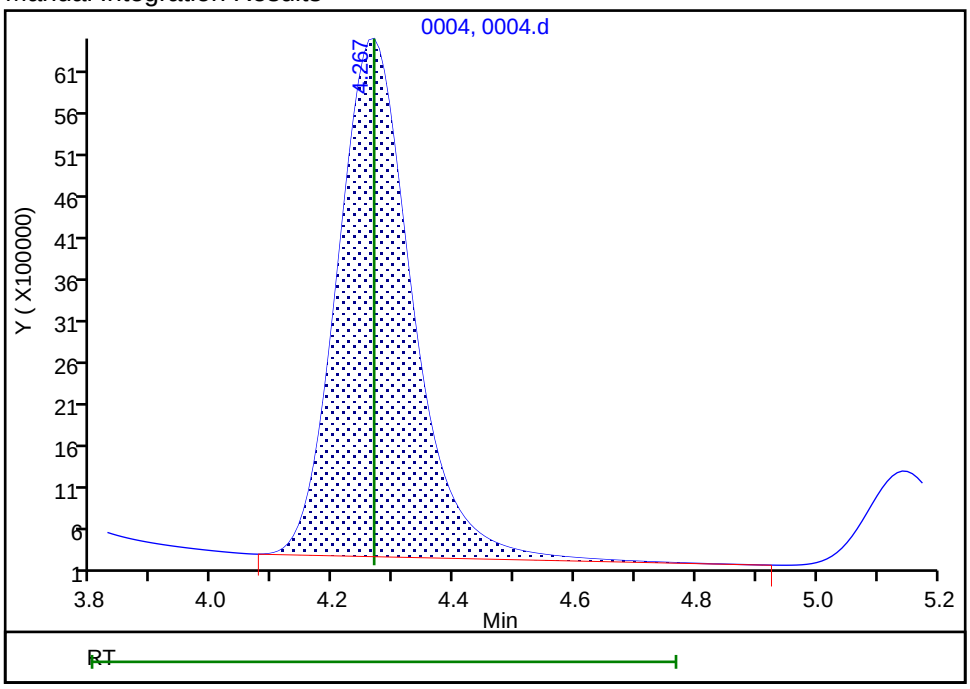
Processing Integration Results

Not Detected
Expected RT: 4.27



Manual Integration Results

RT: 4.27
Area: 53245233
Amount: 5.100033
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:03
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-May-2019 19:56:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:32:35

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38230318	5.00	5.12	
2 Chloride	3.525	3.534	-0.009	673806057	100.0	100.8	
3 Nitrite as N	4.267	4.267	0.000	53245233	NC	NC	a
4 Bromide	5.142	5.151	-0.009	10295308	5.00	5.32	a
5 Nitrate as N	5.809	5.817	-0.008	62226380	NC	NC	a
7 Orthophosphate as P	7.584	7.592	-0.008	24659893	NC	NC	a
6 Sulfate	8.500	8.509	-0.009	428290582	100.0	96.2	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

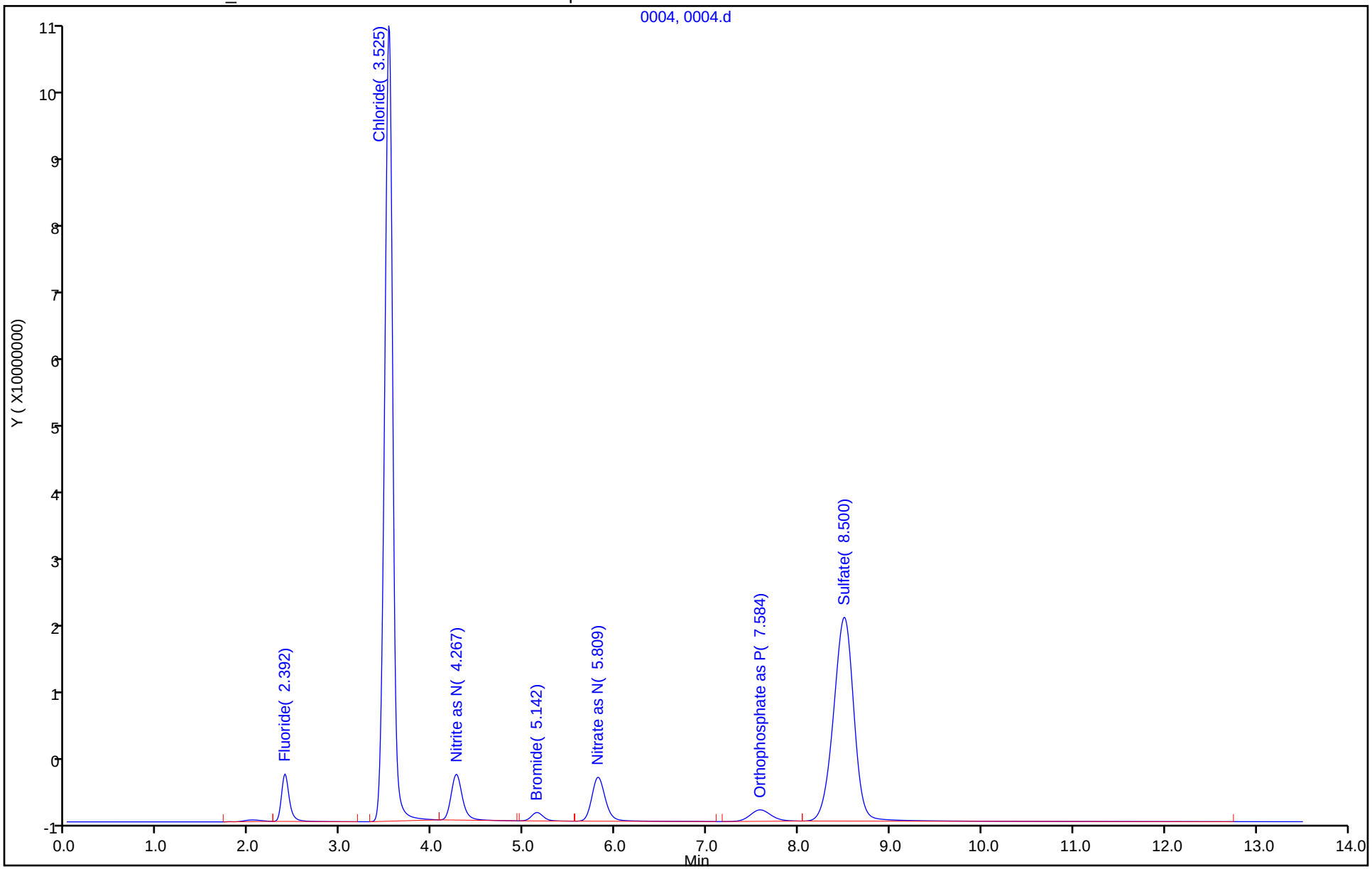
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d

Injection Date:	18-May-2019 19:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

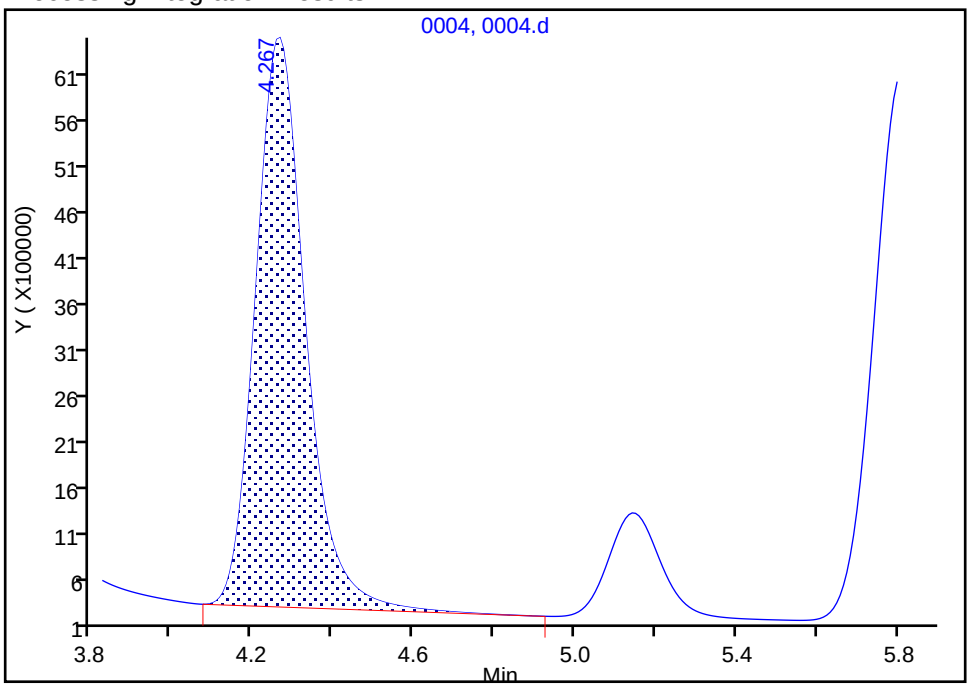
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

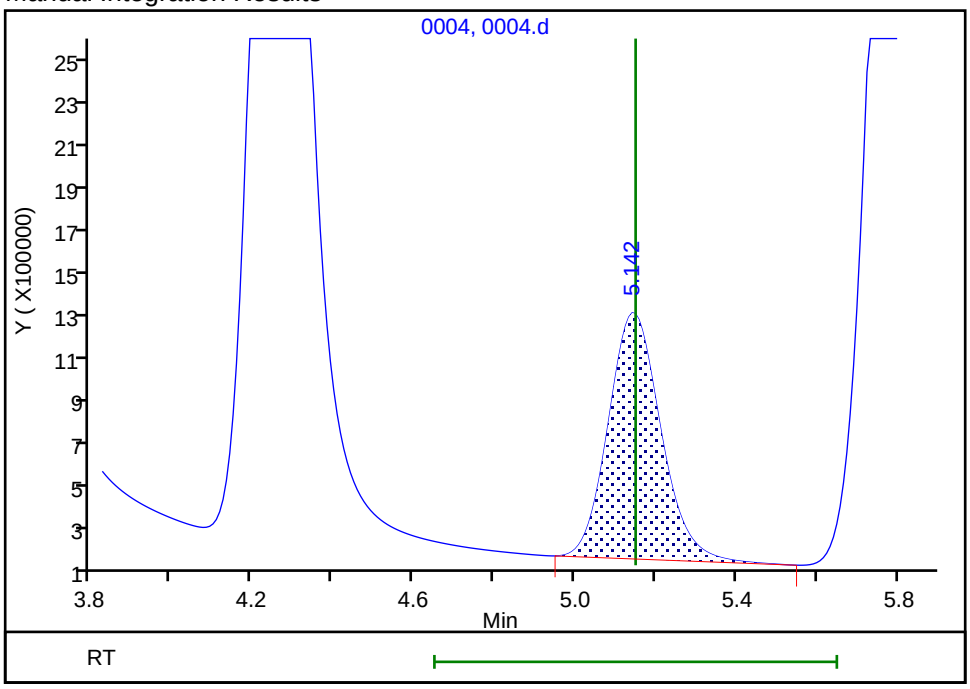
Processing Integration Results

RT: 4.27
Area: 53245233
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.14
Area: 10295308
Amount: 5.317154
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:27
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

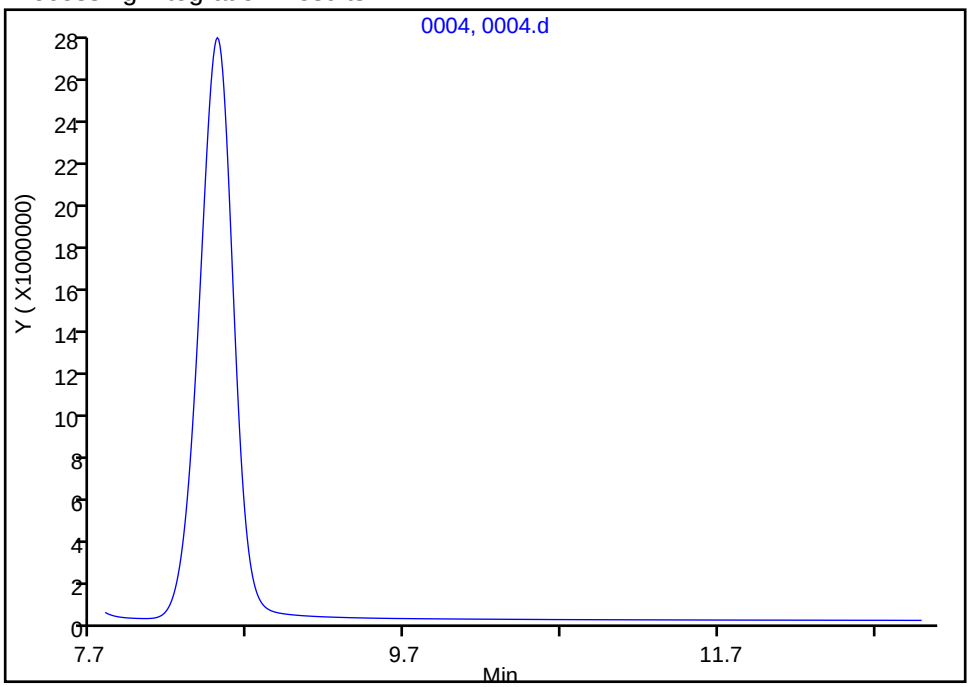
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0004.d
Injection Date: 18-May-2019 19:56:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

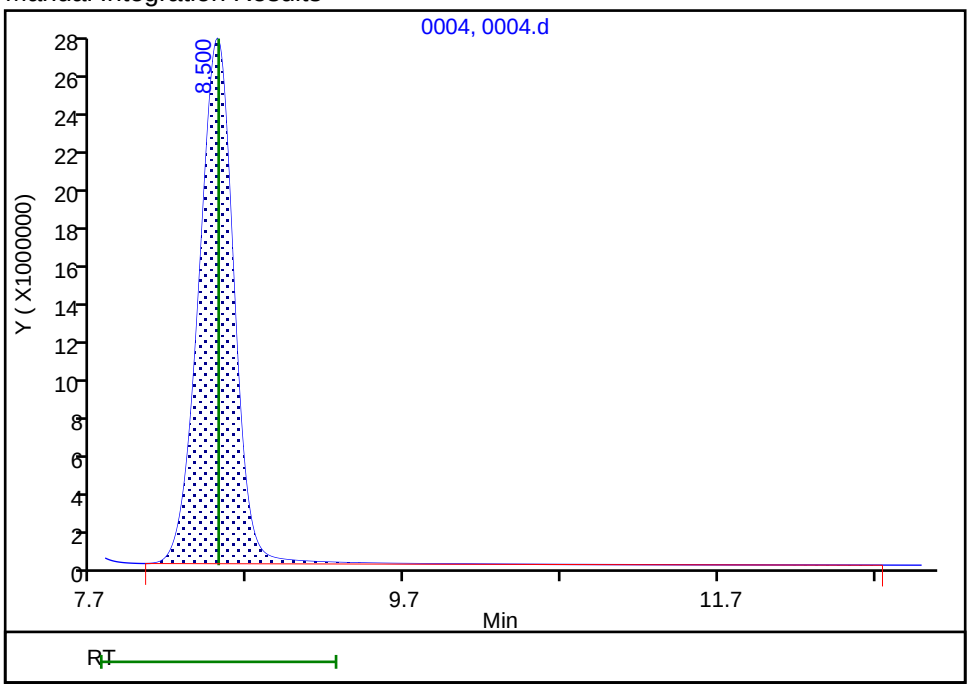
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.50
Area: 428290582
Amount: 96.198860
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:20
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 18-May-2019 20:12:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:33:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38142138	NC	NC	
2 Chloride	3.525	3.534	-0.009	673278288	NC	NC	
3 Nitrite as N	4.267	4.267	0.000	53275158	5.00	5.10	a
4 Bromide	5.142	5.151	-0.009	10312373	NC	NC	a
5 Nitrate as N	5.817	5.817	0.000	62103186	5.00	5.39	a
7 Orthophosphate as P	7.584	7.592	-0.008	24666018	5.00	5.95	a
6 Sulfate	8.509	8.509	0.000	428848702	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

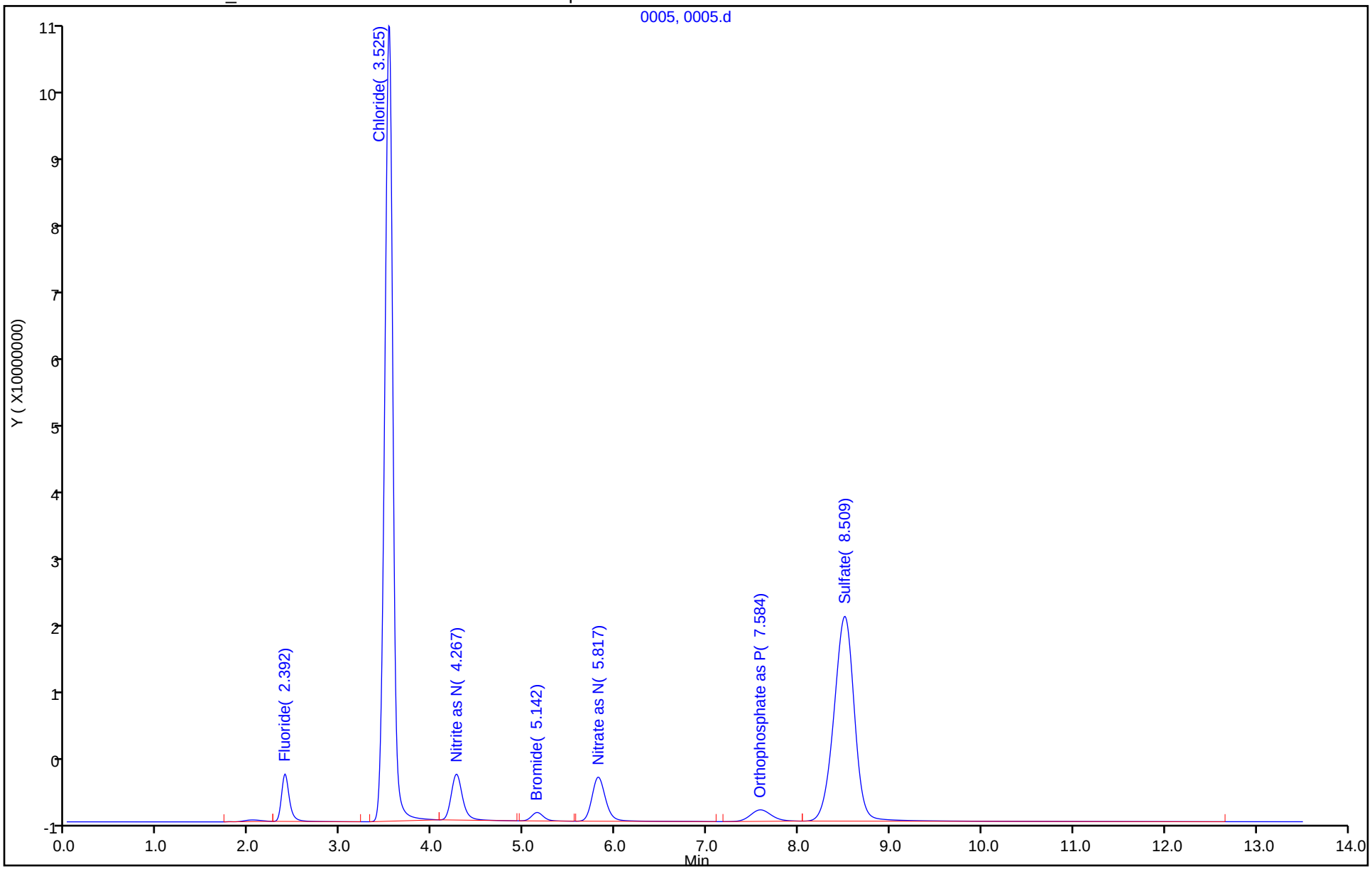
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:42 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d

Injection Date:	18-May-2019 20:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

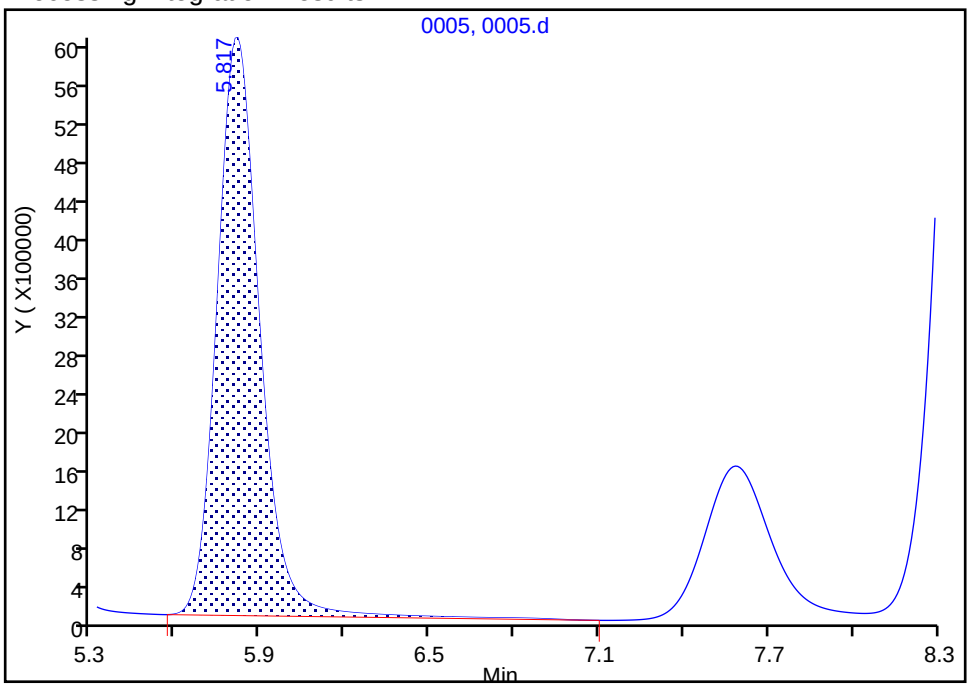
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

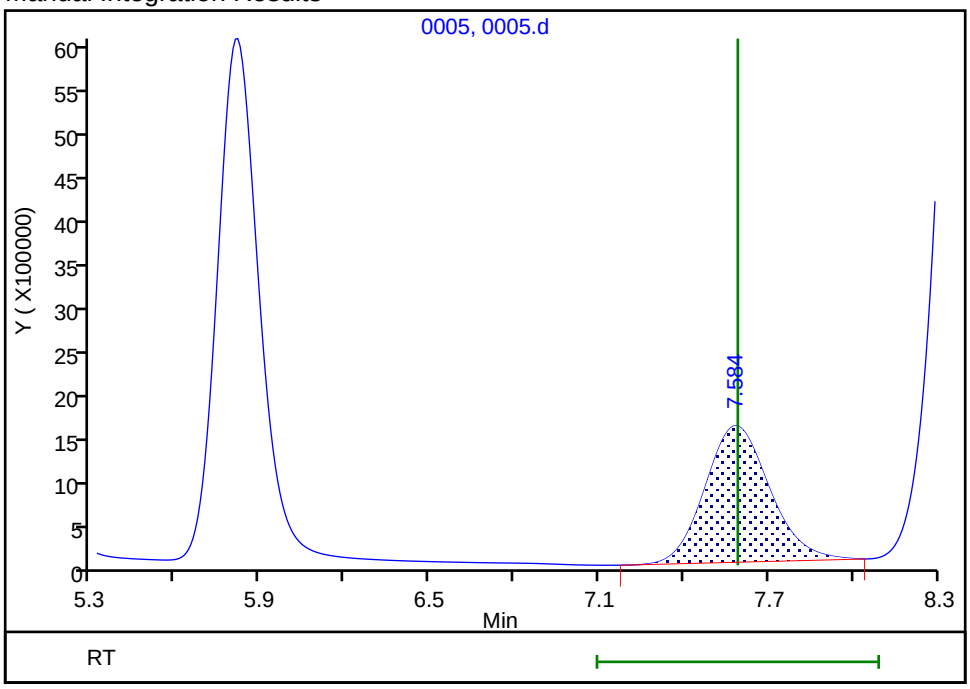
Processing Integration Results

RT: 5.82
Area: 62103186
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 7.58
Area: 24666018
Amount: 5.947030
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:45
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

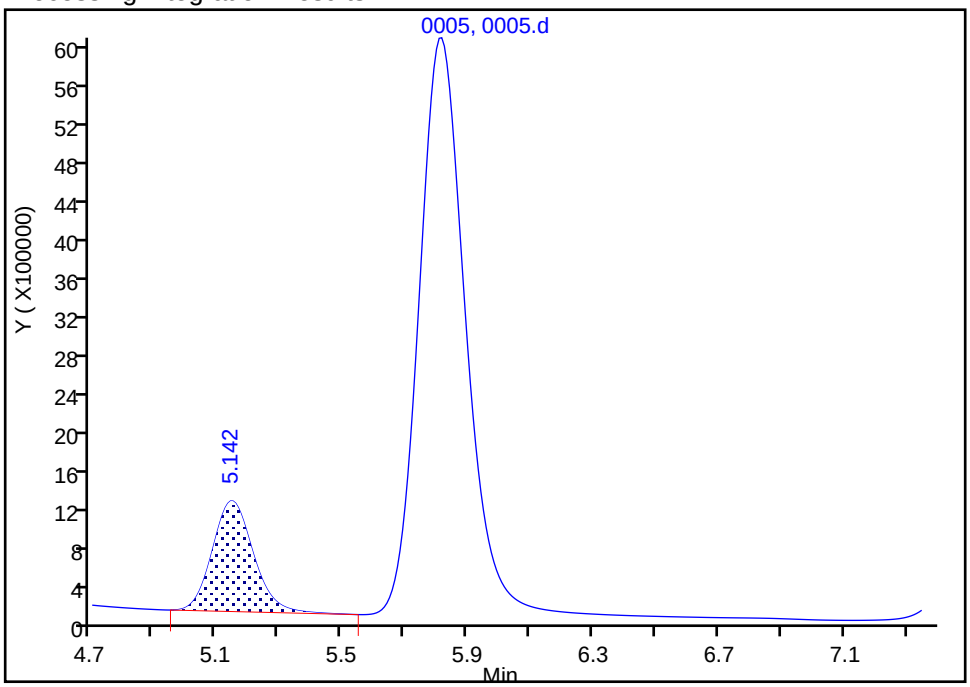
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

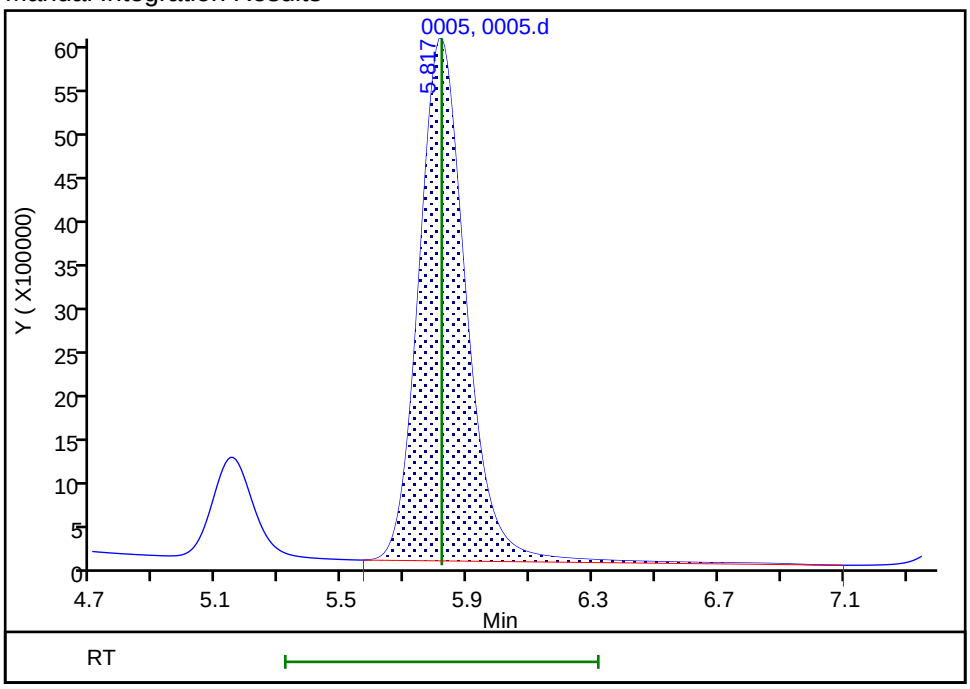
Processing Integration Results

RT: 5.14
Area: 10312373
Amount: 0.926146
Amount Units: ug/ml



Manual Integration Results

RT: 5.82
Area: 62103186
Amount: 5.385470
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:33:00
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

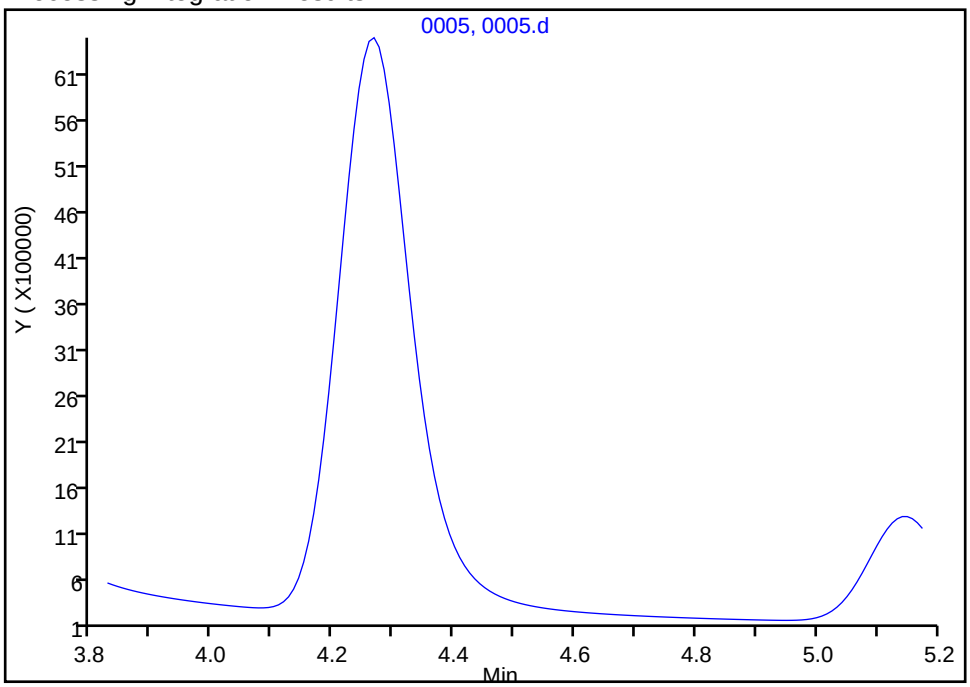
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

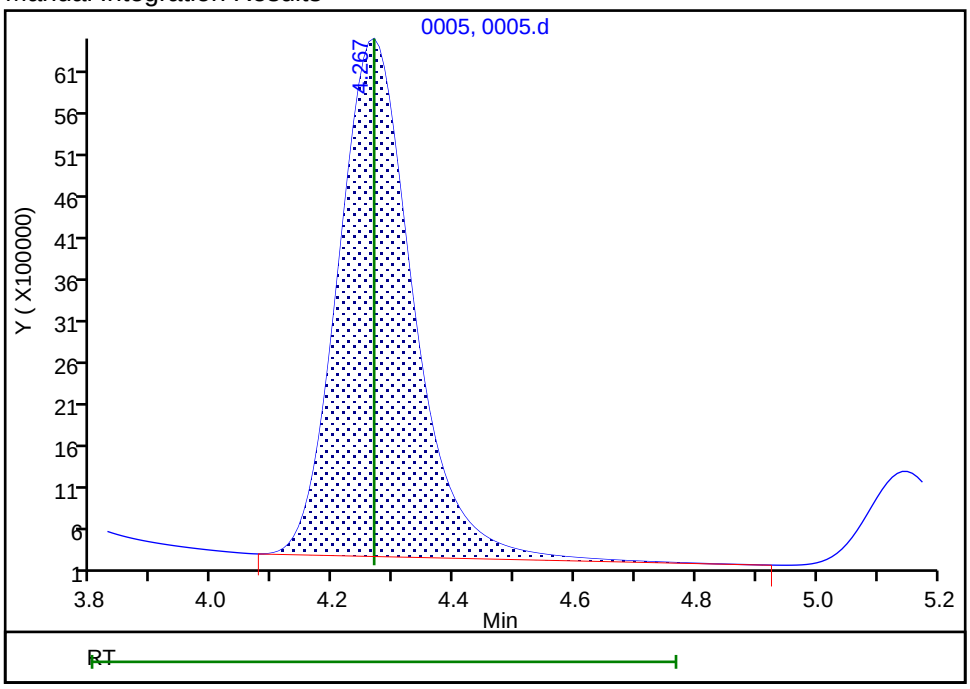
Not Detected
Expected RT: 4.27

Processing Integration Results



Manual Integration Results

RT: 4.27
Area: 53275158
Amount: 5.102885
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:32:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 18-May-2019 20:12:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: sonnierk Date: 18-May-2019 20:33:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38142138	5.00	5.10	
2 Chloride	3.525	3.534	-0.009	673278288	100.0	100.7	
3 Nitrite as N	4.267	4.267	0.000	53275158	NC	NC	a
4 Bromide	5.142	5.151	-0.009	10312373	5.00	5.33	a
5 Nitrate as N	5.817	5.817	0.000	62103186	NC	NC	a
7 Orthophosphate as P	7.584	7.592	-0.008	24666018	NC	NC	a
6 Sulfate	8.509	8.509	0.000	428848702	100.0	96.3	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

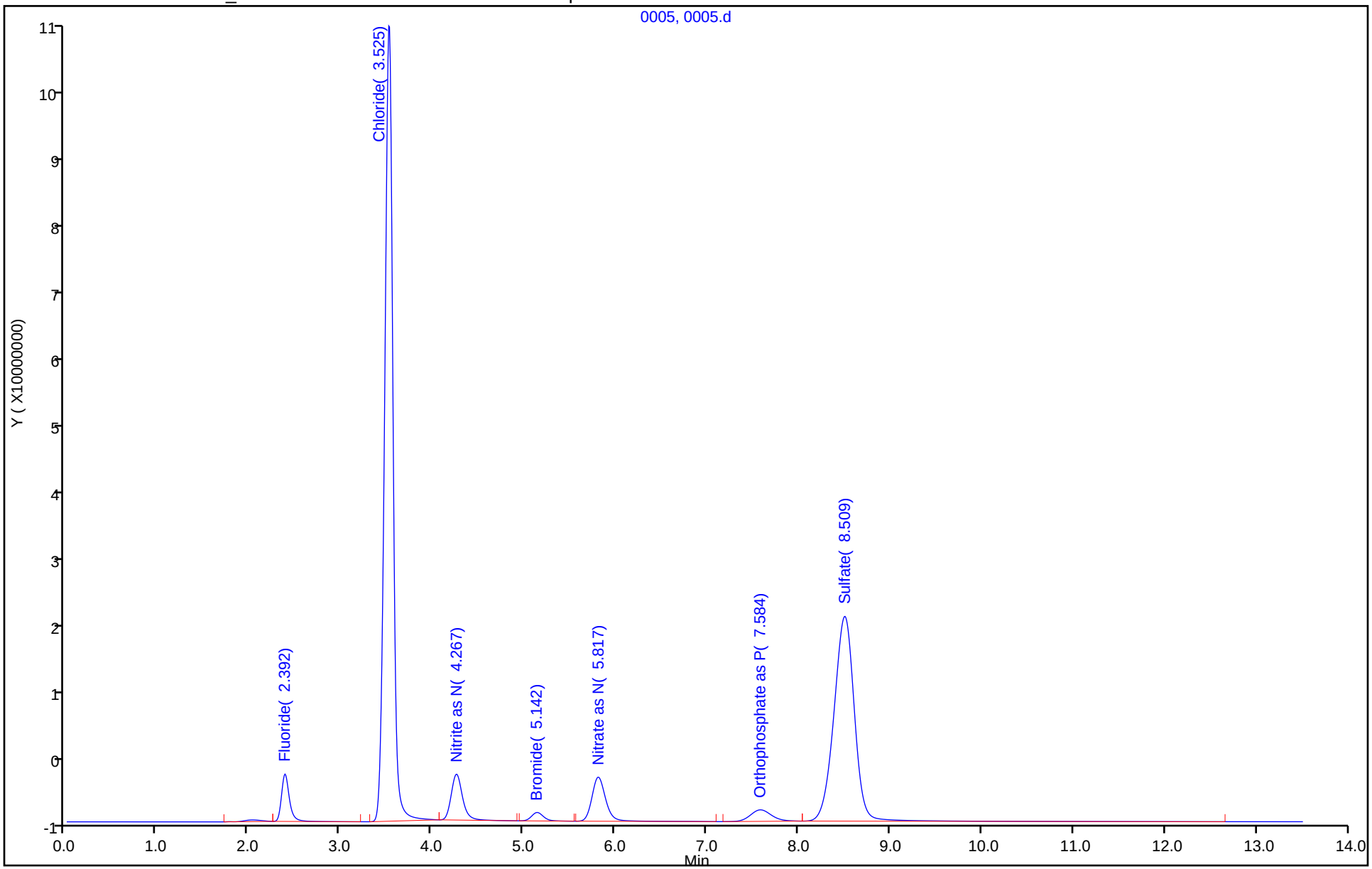
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:33:42 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d

Injection Date:	18-May-2019 20:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

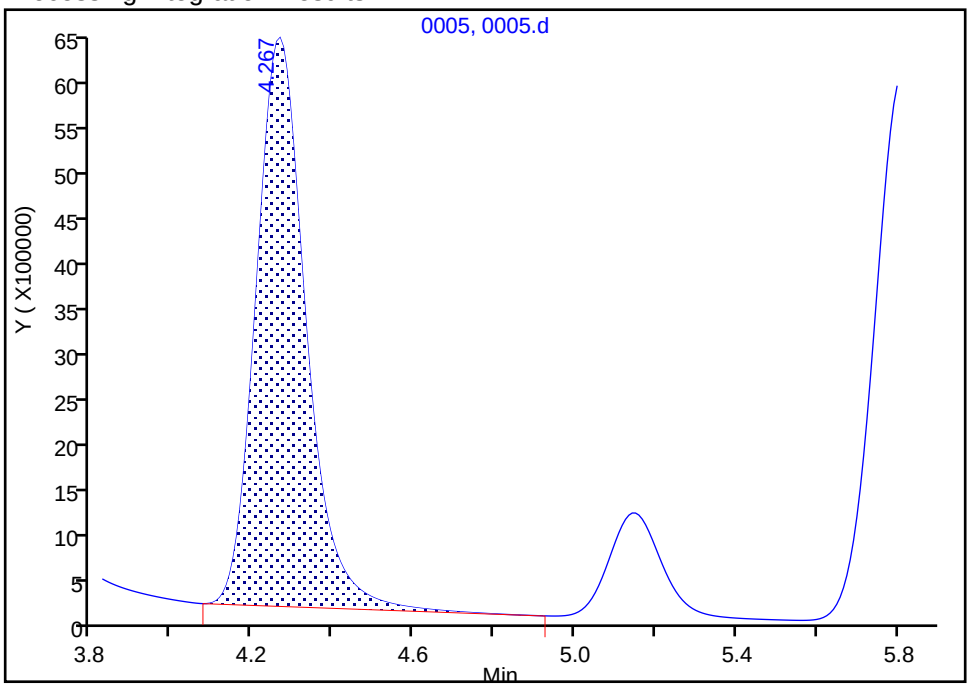
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

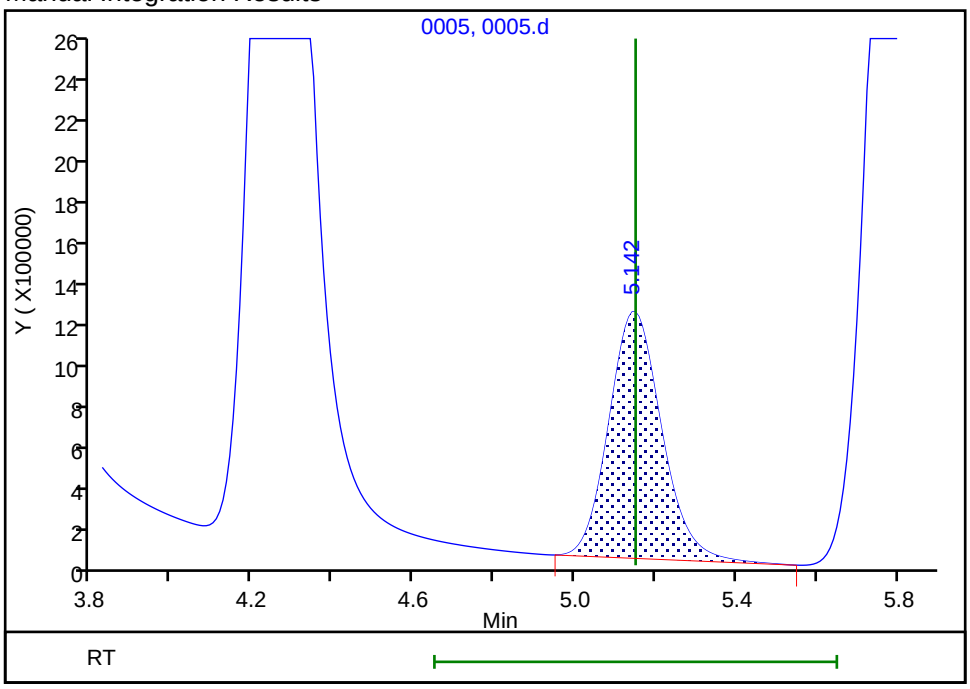
Processing Integration Results

RT: 4.27
Area: 53275158
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.14
Area: 10312373
Amount: 5.325955
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:33:08
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

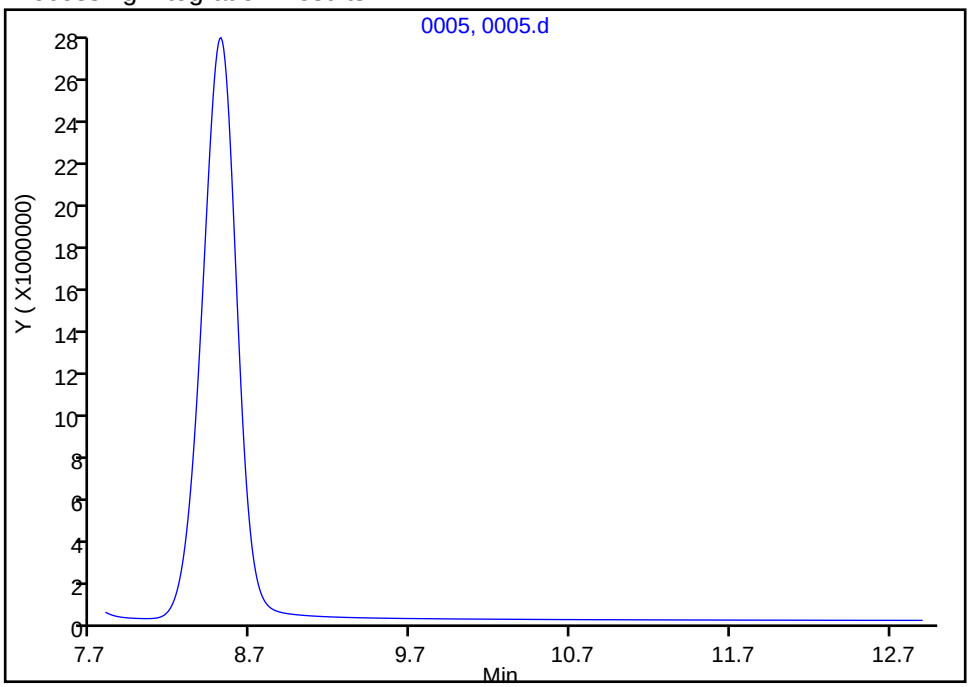
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0005.d
Injection Date: 18-May-2019 20:12:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

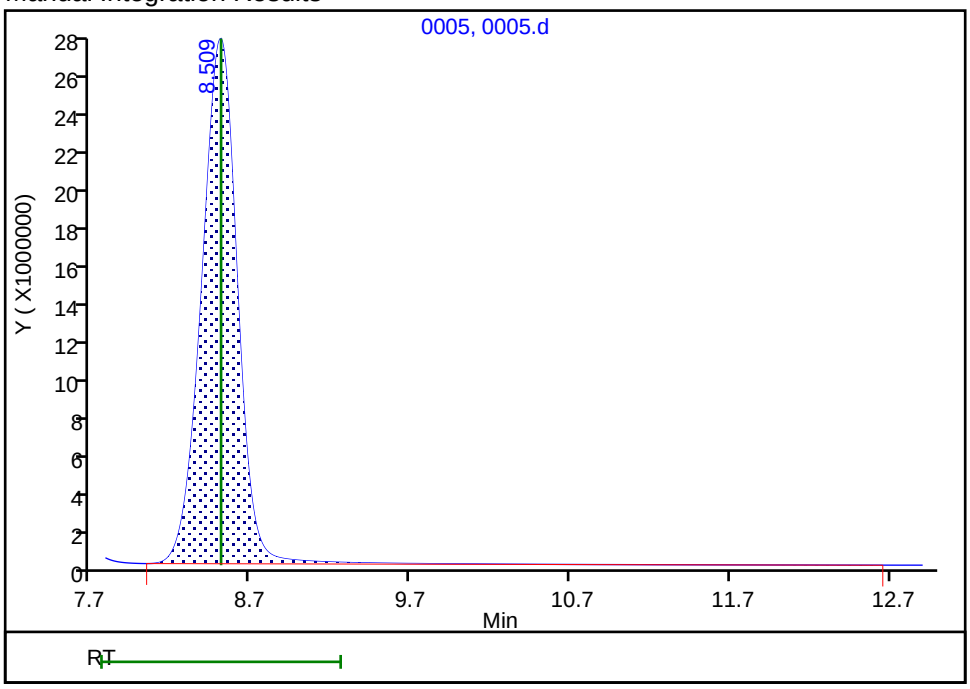
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.51
Area: 428848702
Amount: 96.323650
Amount Units: ug/ml



Reviewer: sonnierk, 18-May-2019 20:33:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0006.d				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	18-May-2019 20:29:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082040-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	21-May-2019 16:33:32	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0330				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	341219		NC	
2 Chloride		3.534			ND		
3 Nitrite as N		4.267			ND		
4 Bromide		5.151			ND		
5 Nitrate as N		5.817			ND		
7 Orthophosphate as P		7.592			ND		
6 Sulfate	7.092	8.509	-1.417	101073		NC	

QC Flag Legend

Processing Flags

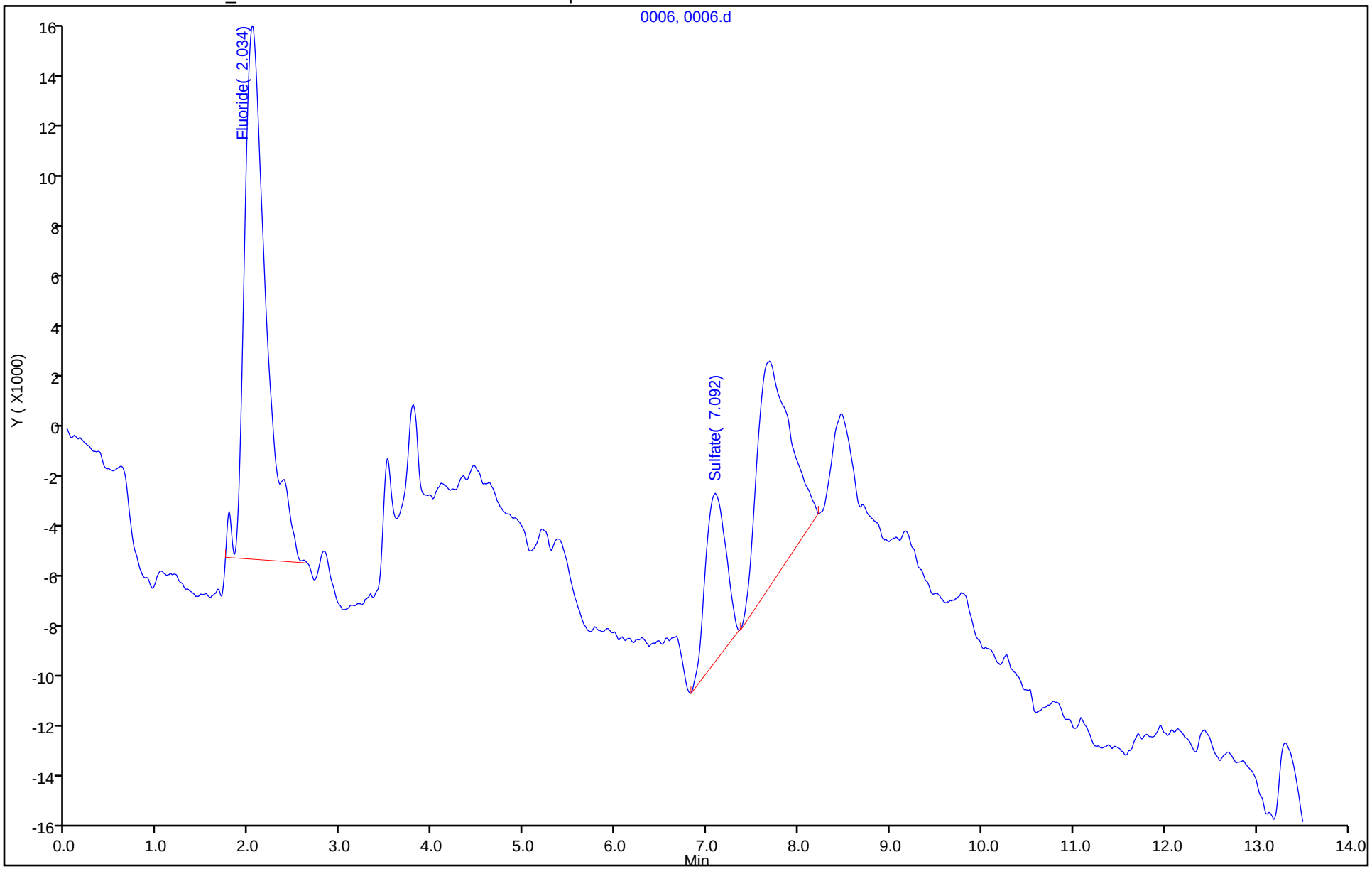
NC - Not Calibrated

Report Date: 21-May-2019 16:33:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0006.d

Injection Date:	18-May-2019 20:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 18-May-2019 20:29:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

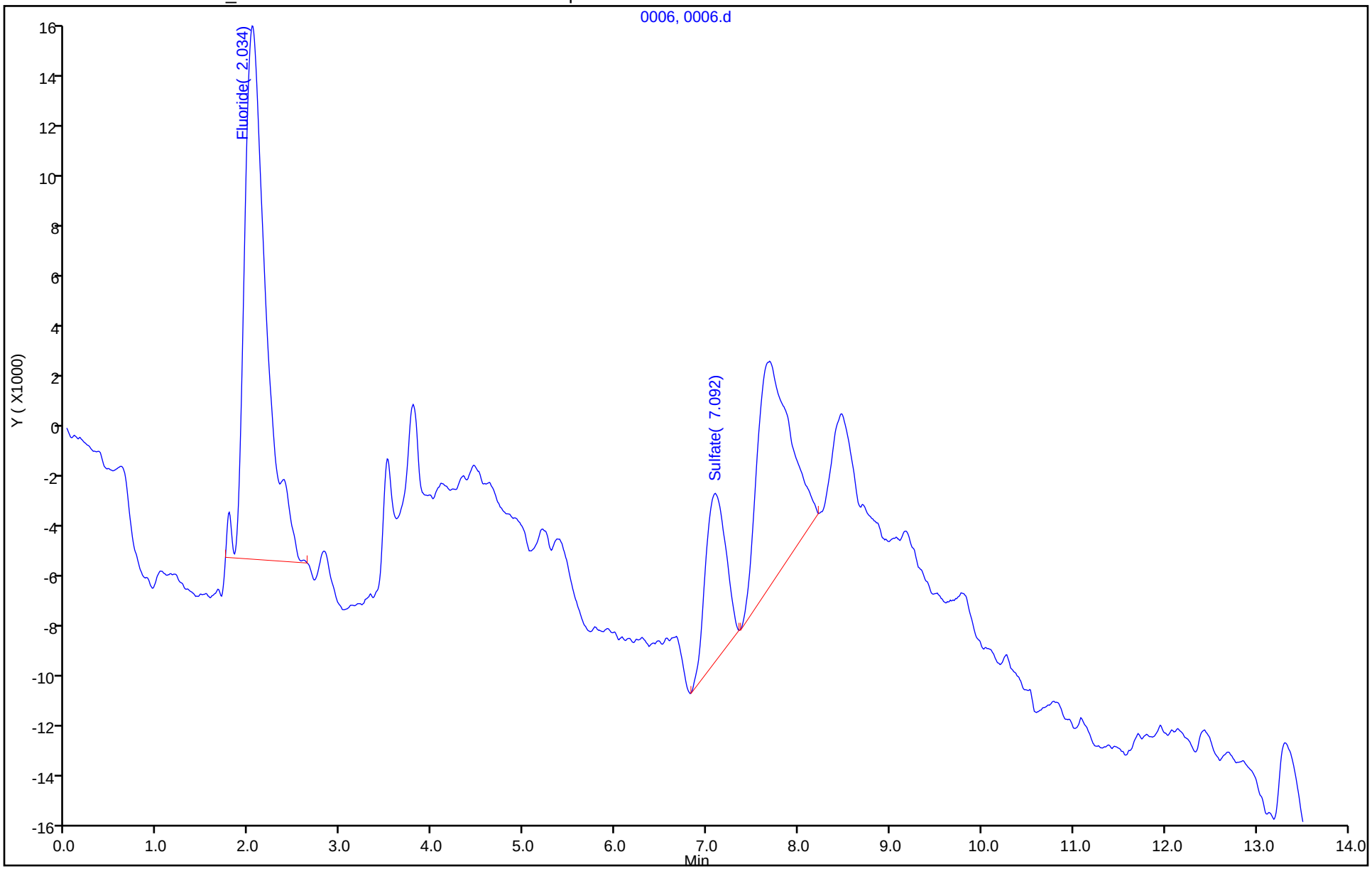
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	341219		-0.1075	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate	7.092	8.509	-1.417	101073		0.4599	

Report Date: 21-May-2019 16:33:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0006.d

Injection Date:	18-May-2019 20:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0007.d
Lims ID: 280-123981-I-2
Client ID: LF7MW-23_0519
Sample Type: Client
Inject. Date: 18-May-2019 21:56:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-007
Misc. Info.: 3878 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:11:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	337276	NC	
2 Chloride	3.492	3.534	-0.042	24969549	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide	5.126	5.151	-0.025	127558	NC	
5 Nitrate as N		5.817			ND	Ua
7 Orthophosphate as P		7.592			ND	a
6 Sulfate	8.492	8.509	-0.017	59835235	NC	

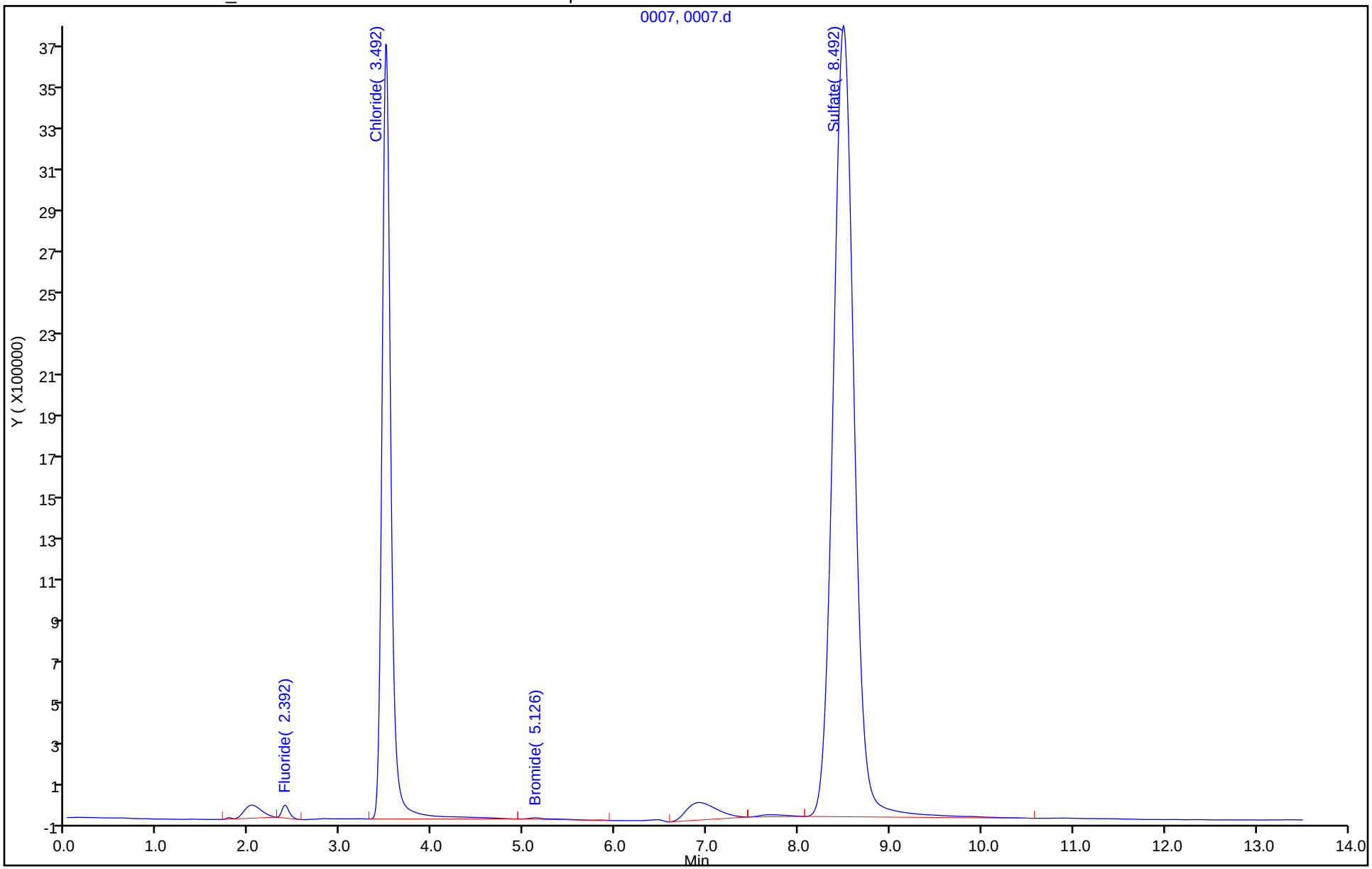
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 21-May-2019 16:33:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0007.d				
Injection Date:	18-May-2019 21:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-2	Lab Sample ID:	280-123981-2	Worklist Smp#:	7
Client ID:	LF7MW-23_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



User Disabled Compound Report

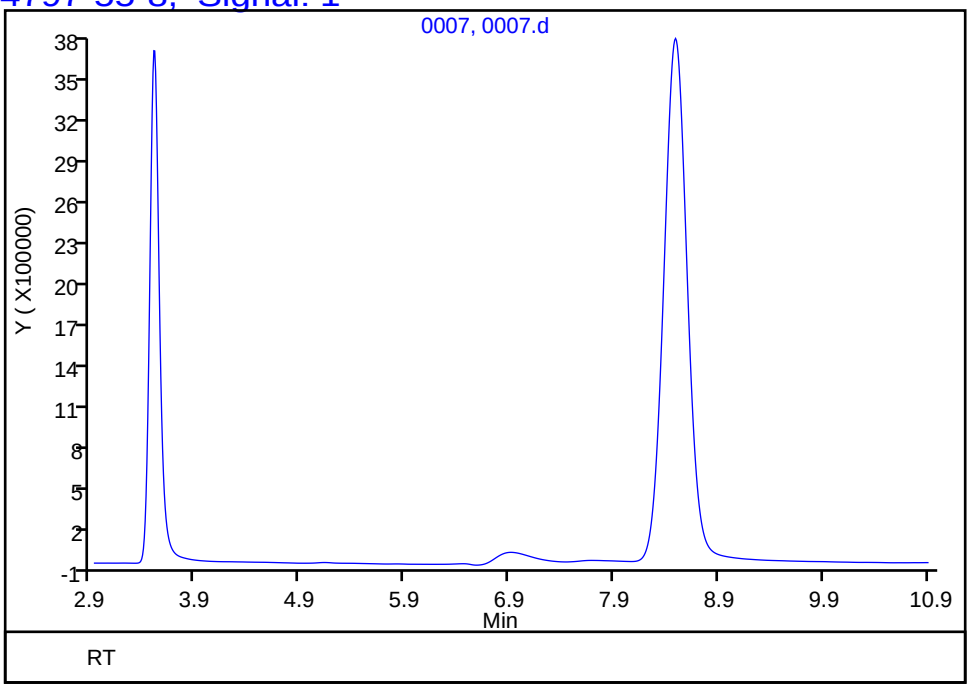
Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0007.d

Injection Date:	18-May-2019 21:56:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-I-2	Lab Sample ID:	280-123981-2		
Client ID:	LF7MW-23_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8, Signal: 1

RT: 6.92
Response: 1919907
Amount: 0.203533



Reviewer: pedrickj, 20-May-2019 08:13:05
Audit Action: Assigned Compound ID Audit Reason:

User Disabled Compound Report

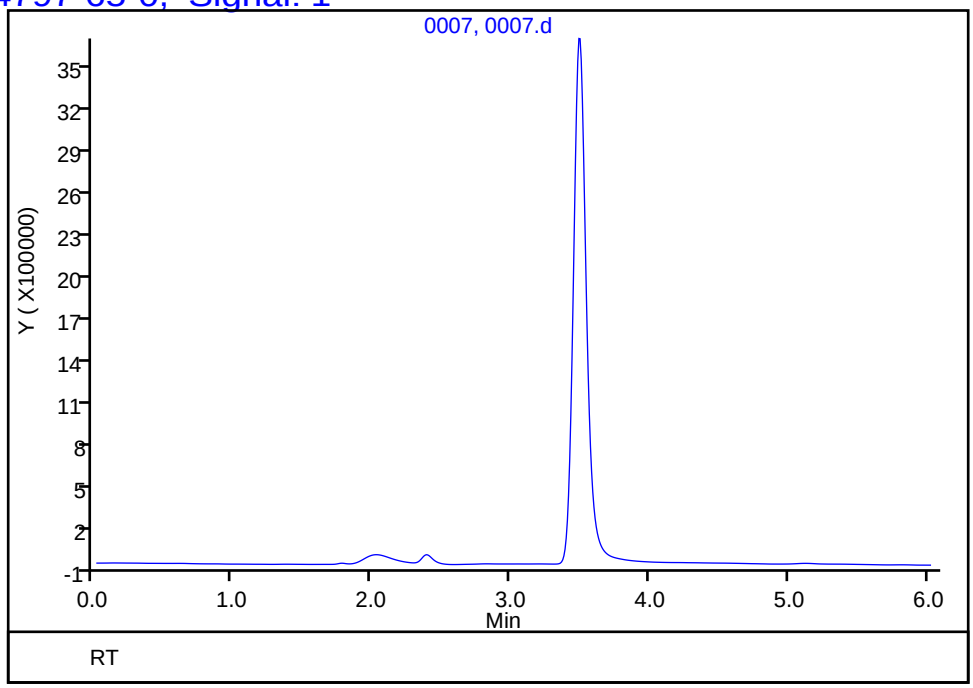
Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0007.d

Injection Date:	18-May-2019 21:56:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-I-2	Lab Sample ID:	280-123981-2		
Client ID:	LF7MW-23_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.03
Response: 837228
Amount: 0.104970



Reviewer: pedrickj, 20-May-2019 08:11:39
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0007.d
Lims ID: 280-123981-I-2
Client ID: LF7MW-23_0519
Sample Type: Client
Inject. Date: 18-May-2019 21:56:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-007
Misc. Info.: 3878 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:11:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	337276	-0.1081	
2 Chloride	3.492	3.534	-0.042	24969549	4.33	
3 Nitrite as N		4.267			ND	U
4 Bromide	5.126	5.151	-0.025	127558	0.0734	
5 Nitrate as N		5.817			ND	Ua
7 Orthophosphate as P		7.592			ND	a
6 Sulfate	8.492	8.509	-0.017	59835235	13.8	

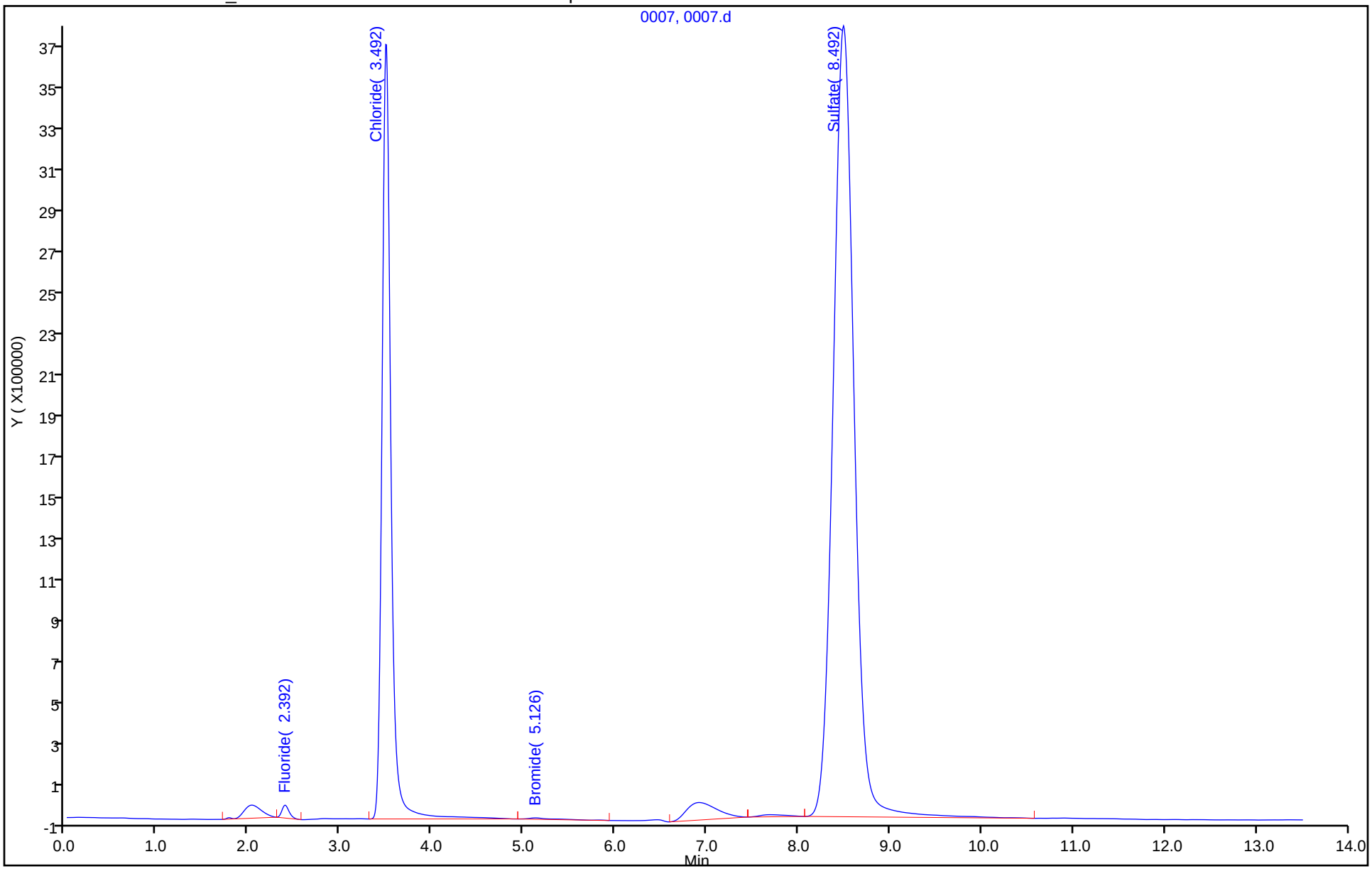
QC Flag Legend

Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 21-May-2019 16:33:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0007.d				
Injection Date:	18-May-2019 21:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-2	Lab Sample ID:	280-123981-2	Worklist Smp#:	7
Client ID:	LF7MW-23_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0008.d
Lims ID: 280-123981-I-2 DU
Client ID:
Sample Type: DU
Inject. Date: 18-May-2019 22:13:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-008
Misc. Info.: 31537 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:11:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	328288		NC	
2 Chloride	3.492	3.534	-0.042	24814891		NC	
3 Nitrite as N		4.267				ND	U
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	Ua
7 Orthophosphate as P		7.592				ND	a
6 Sulfate	8.492	8.509	-0.017	59891244		NC	

QC Flag Legend

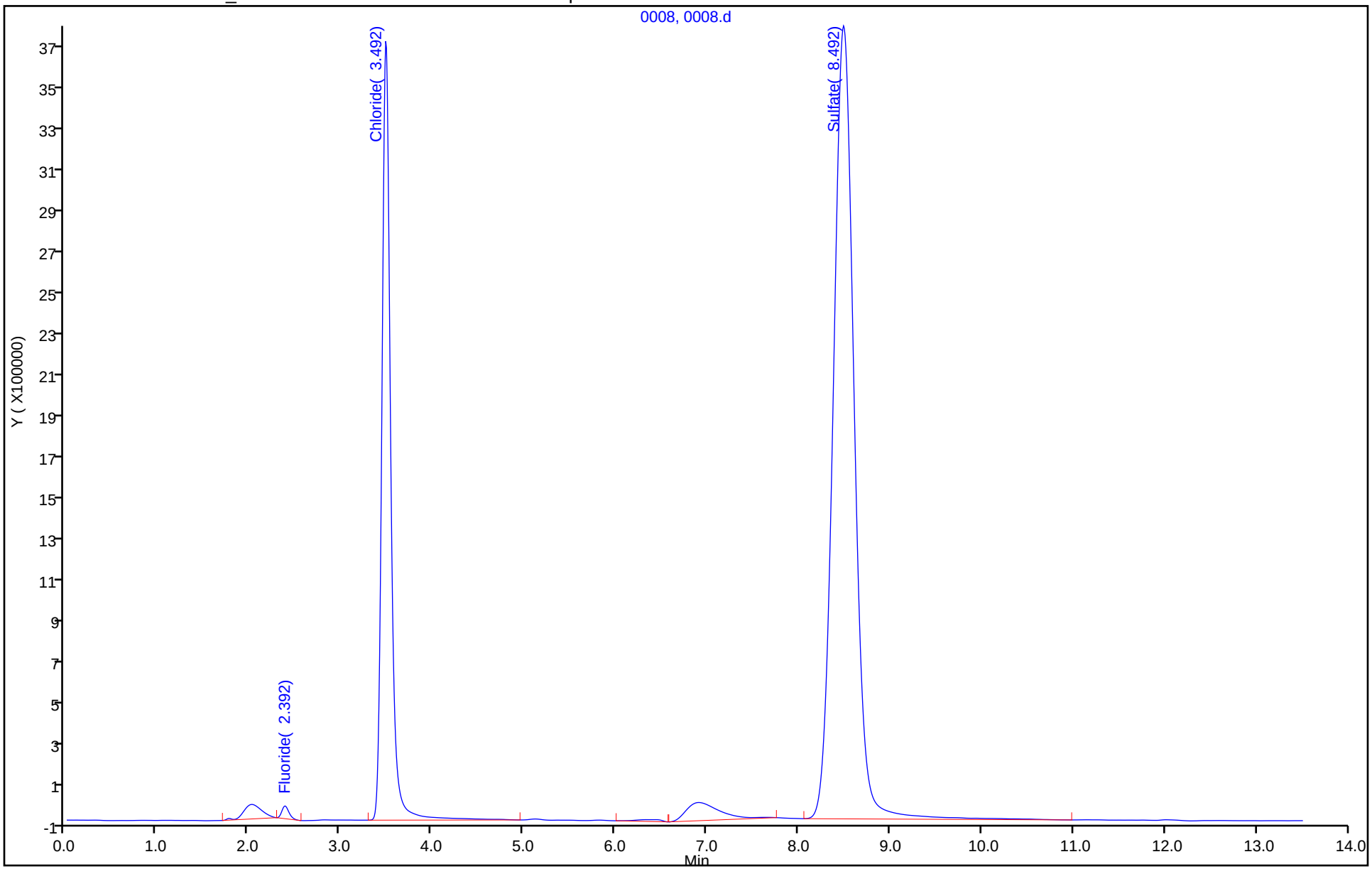
Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 21-May-2019 16:33:53 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0008.d

Injection Date:	18-May-2019 22:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-2 DU			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



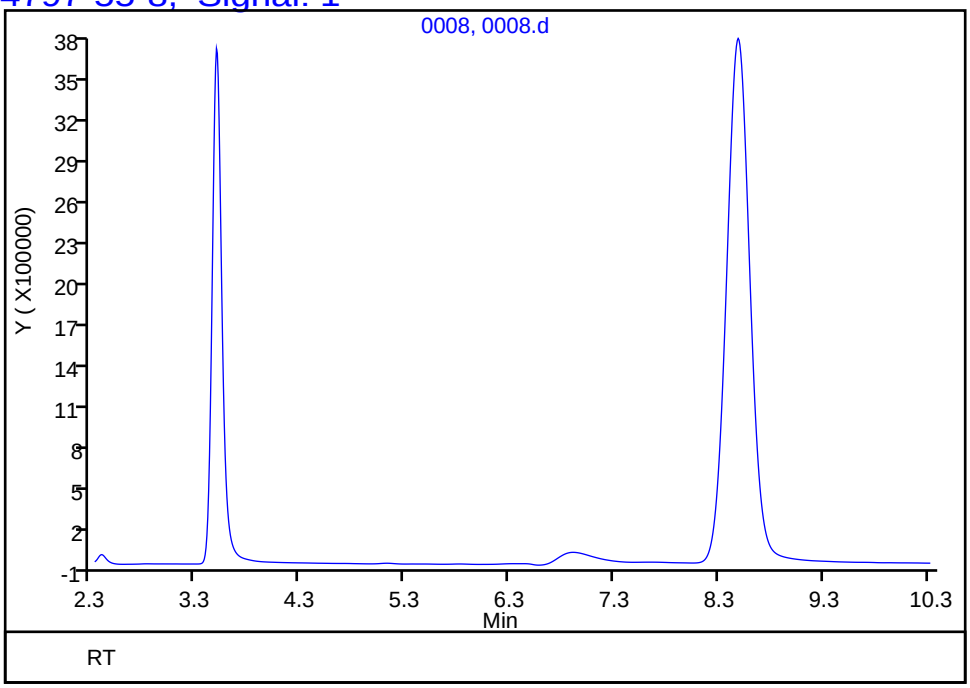
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0008.d
Injection Date: 18-May-2019 22:13:00 Instrument ID: WC_IonChrom11
Lims ID: 280-123981-I-2 DU
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8, Signal: 1

RT: 6.33
Response: 166997
Amount: 0.052603



Reviewer: pedrickj, 20-May-2019 08:13:09
Audit Action: Assigned Compound ID Audit Reason:

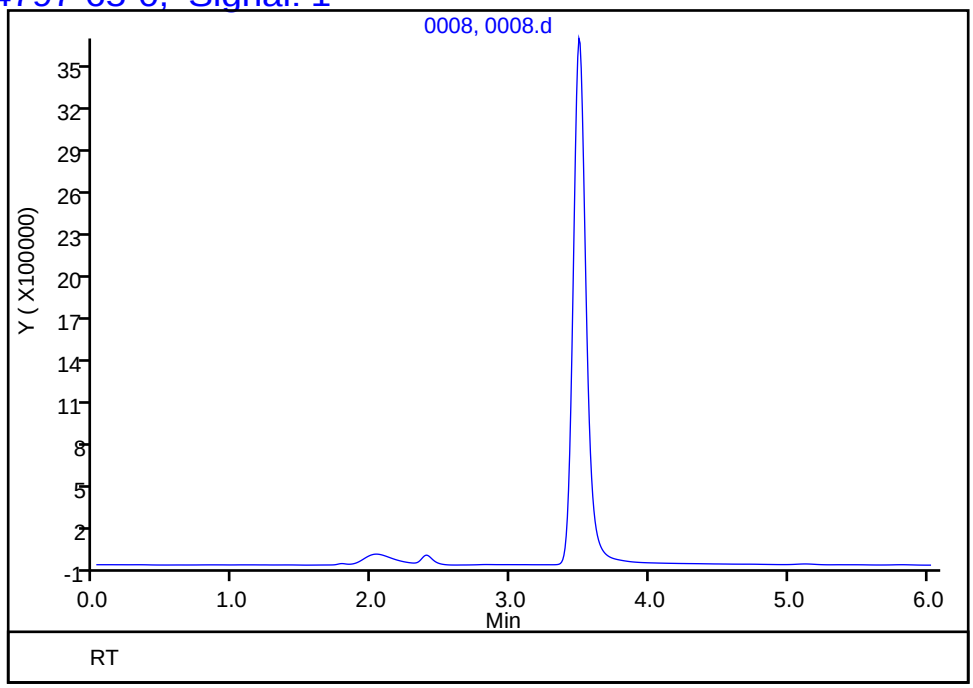
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0008.d
Injection Date: 18-May-2019 22:13:00 Instrument ID: WC_IonChrom11
Lims ID: 280-123981-I-2 DU
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.03
Response: 945608
Amount: 0.115300



Reviewer: pedrickj, 20-May-2019 08:11:45
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0008.d
Lims ID: 280-123981-I-2 DU
Client ID:
Sample Type: DU
Inject. Date: 18-May-2019 22:13:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-008
Misc. Info.: 31537 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:11:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	328288		-0.1093	
2 Chloride	3.492	3.534	-0.042	24814891		4.31	
3 Nitrite as N		4.267				ND	U
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	Ua
7 Orthophosphate as P		7.592				ND	a
6 Sulfate	8.492	8.509	-0.017	59891244		13.8	

QC Flag Legend

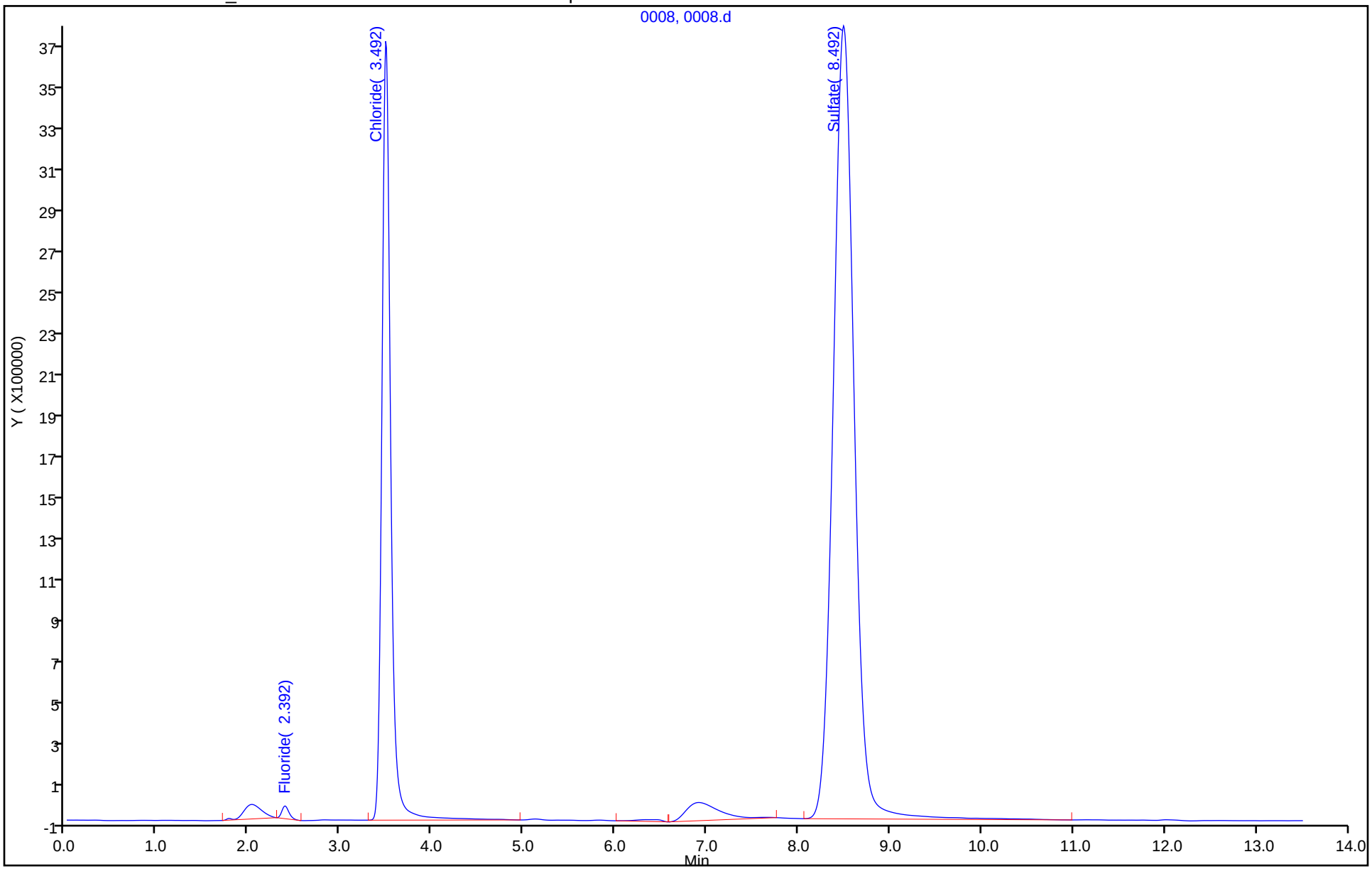
Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 21-May-2019 16:33:53 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0008.d

Injection Date:	18-May-2019 22:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-2 DU			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0009.d
Lims ID: 280-123981-I-2 MS
Client ID:
Sample Type: MS
Inject. Date: 18-May-2019 22:29:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-009
Misc. Info.: 27882 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:12:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38258856	NC	NC	
2 Chloride	3.500	3.534	-0.034	175723446	NC	NC	
3 Nitrite as N	4.250	4.267	-0.017	54295261	5.00	5.20	
4 Bromide	5.125	5.151	-0.026	10467509	NC	NC	
5 Nitrate as N	5.792	5.817	-0.025	63716525	5.00	5.52	
7 Orthophosphate as P	7.675	7.592	0.083	16798797	5.00	4.05	
6 Sulfate	8.500	8.509	-0.009	157792966	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

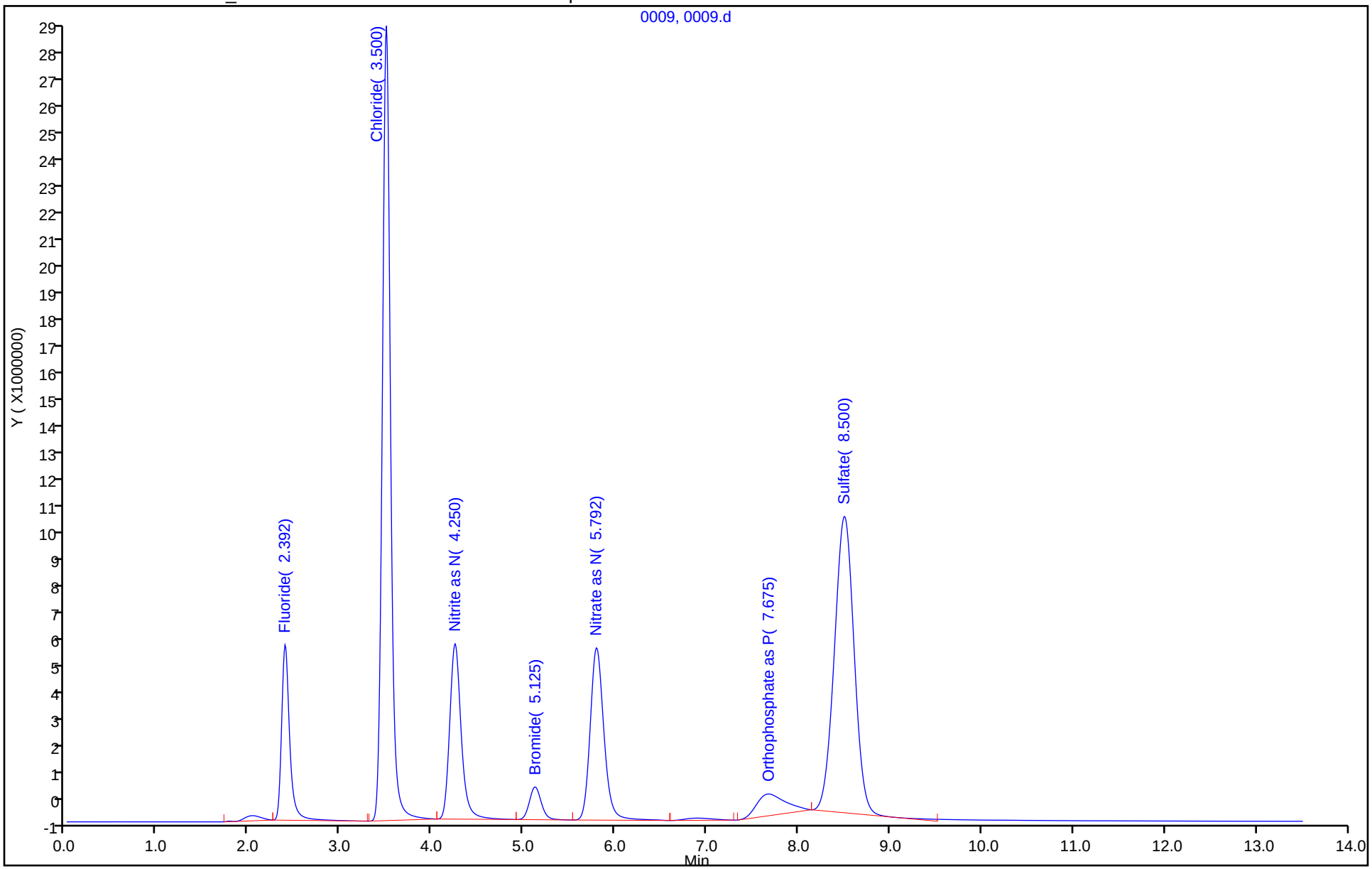
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 21-May-2019 16:33:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0009.d

Injection Date:	18-May-2019 22:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-2 MS			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0009.d
Lims ID: 280-123981-I-2 MS
Client ID:
Sample Type: MS
Inject. Date: 18-May-2019 22:29:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-009
Misc. Info.: 27882 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:12:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38258856	5.00	5.12	
2 Chloride	3.500	3.534	-0.034	175723446	25.0	26.8	
3 Nitrite as N	4.250	4.267	-0.017	54295261	NC	NC	
4 Bromide	5.125	5.151	-0.026	10467509	5.00	5.41	
5 Nitrate as N	5.792	5.817	-0.025	63716525	NC	NC	
7 Orthophosphate as P	7.675	7.592	0.083	16798797	NC	NC	
6 Sulfate	8.500	8.509	-0.009	157792966	25.0	35.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

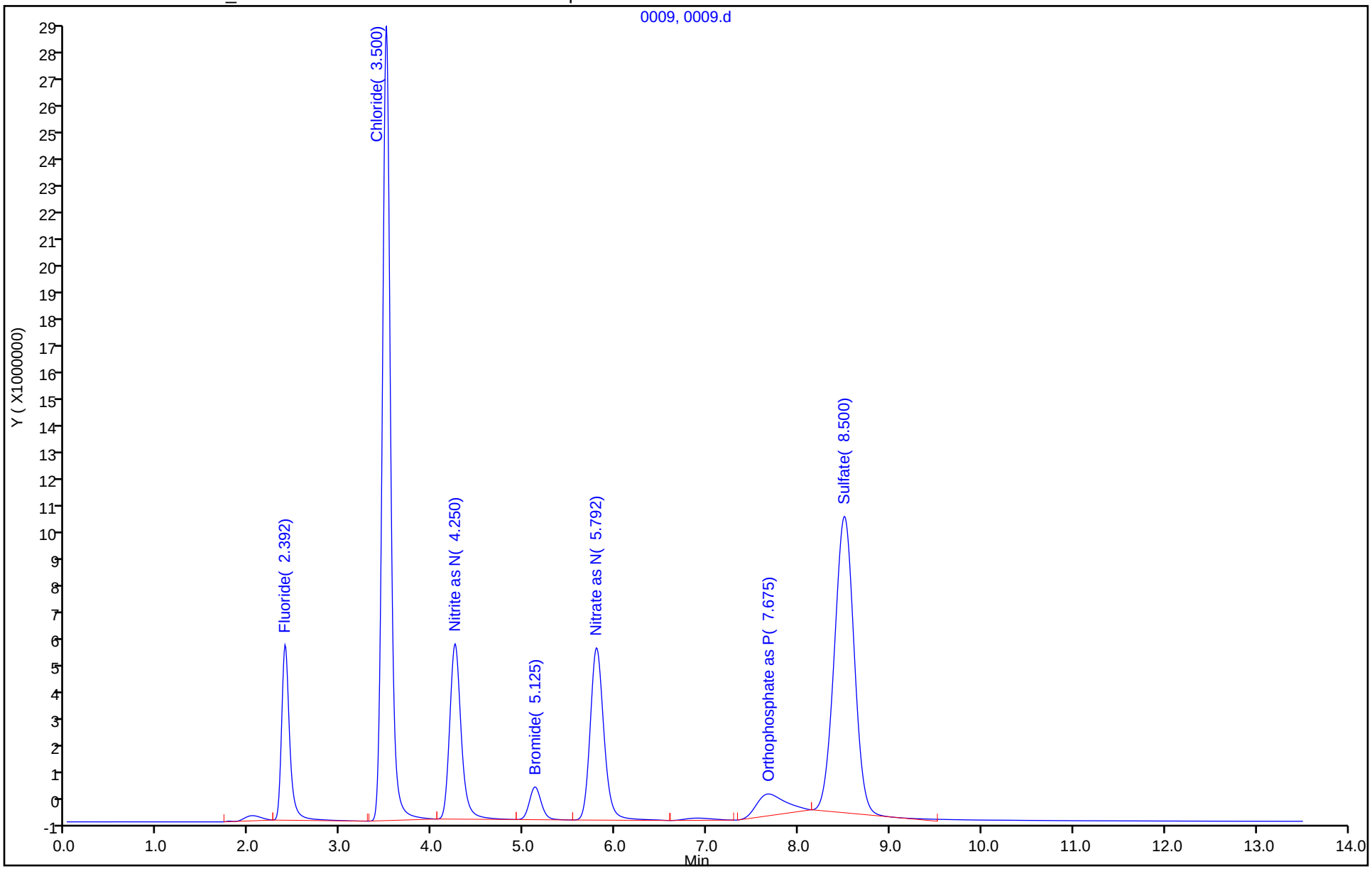
Reagents:

ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 21-May-2019 16:33:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0009.d				
Injection Date:	18-May-2019 22:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-2 MS			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0010.d
Lims ID: 280-123981-I-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 18-May-2019 22:45:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-010
Misc. Info.: 31460 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:12:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	39122166	NC	NC	
2 Chloride	3.500	3.534	-0.034	177773456	NC	NC	
3 Nitrite as N	4.250	4.267	-0.017	54758121	5.00	5.24	
4 Bromide	5.125	5.151	-0.026	10654659	NC	NC	
5 Nitrate as N	5.800	5.817	-0.017	64705692	5.00	5.61	
7 Orthophosphate as P	7.675	7.592	0.083	17137919	5.00	4.13	
6 Sulfate	8.509	8.509	0.000	160751262	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

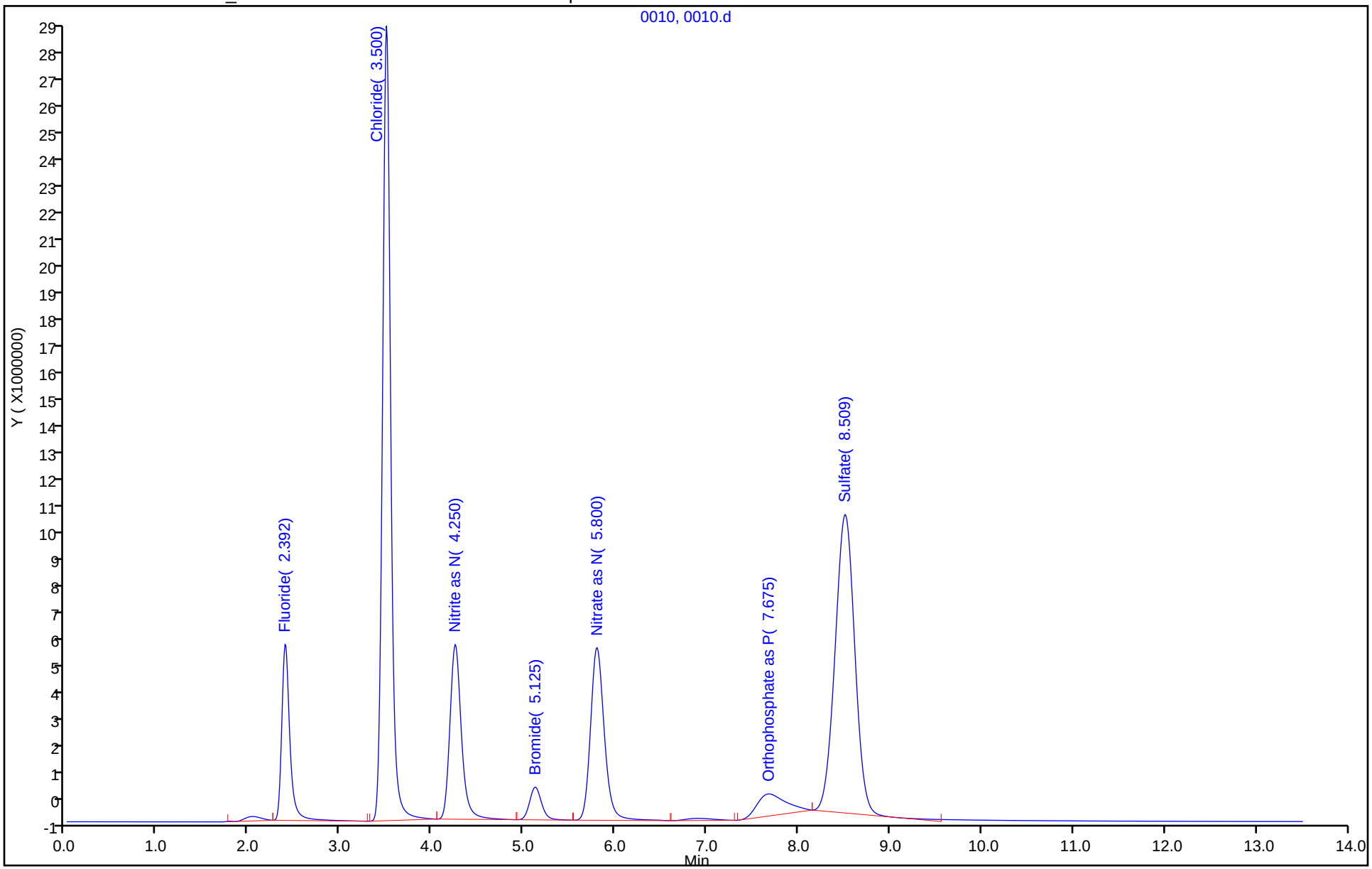
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 21-May-2019 16:33:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0010.d

Injection Date:	18-May-2019 22:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-2 MSD			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0010.d
Lims ID: 280-123981-I-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 18-May-2019 22:45:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-010
Misc. Info.: 31460 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:12:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	39122166	5.00	5.24	
2 Chloride	3.500	3.534	-0.034	177773456	25.0	27.1	
3 Nitrite as N	4.250	4.267	-0.017	54758121	NC	NC	
4 Bromide	5.125	5.151	-0.026	10654659	5.00	5.50	
5 Nitrate as N	5.800	5.817	-0.017	64705692	NC	NC	
7 Orthophosphate as P	7.675	7.592	0.083	17137919	NC	NC	
6 Sulfate	8.509	8.509	0.000	160751262	25.0	36.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

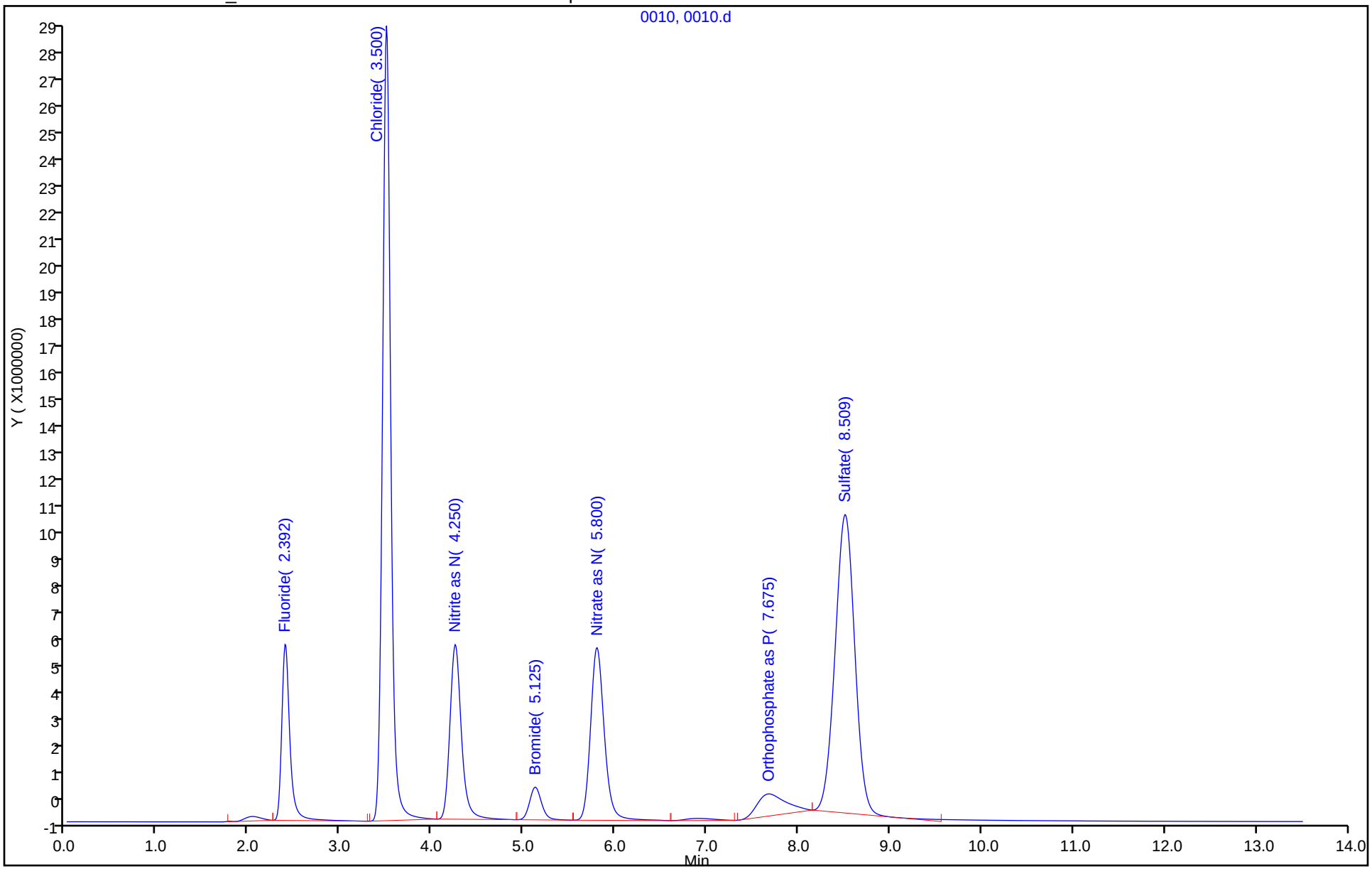
Reagents:

ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 21-May-2019 16:33:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0010.d				
Injection Date:	18-May-2019 22:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-2 MSD			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0011.d
Lims ID: 280-123981-J-1
Client ID: LF7MW-22_0519
Sample Type: Client
Inject. Date: 18-May-2019 23:02:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-011
Misc. Info.: 22907 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:12:55

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	170045	NC	
2 Chloride	3.509	3.534	-0.025	124056720	NC	
3 Nitrite as N	4.542	4.267	0.275	392299	0.0626	
4 Bromide	5.184	5.151	0.033	651267	NC	
5 Nitrate as N	5.950	5.817	0.133	398645	0.0725	
7 Orthophosphate as P	7.692	7.592	0.100	1272080	0.2992	
6 Sulfate	8.534	8.509	0.025	129543492	NC	

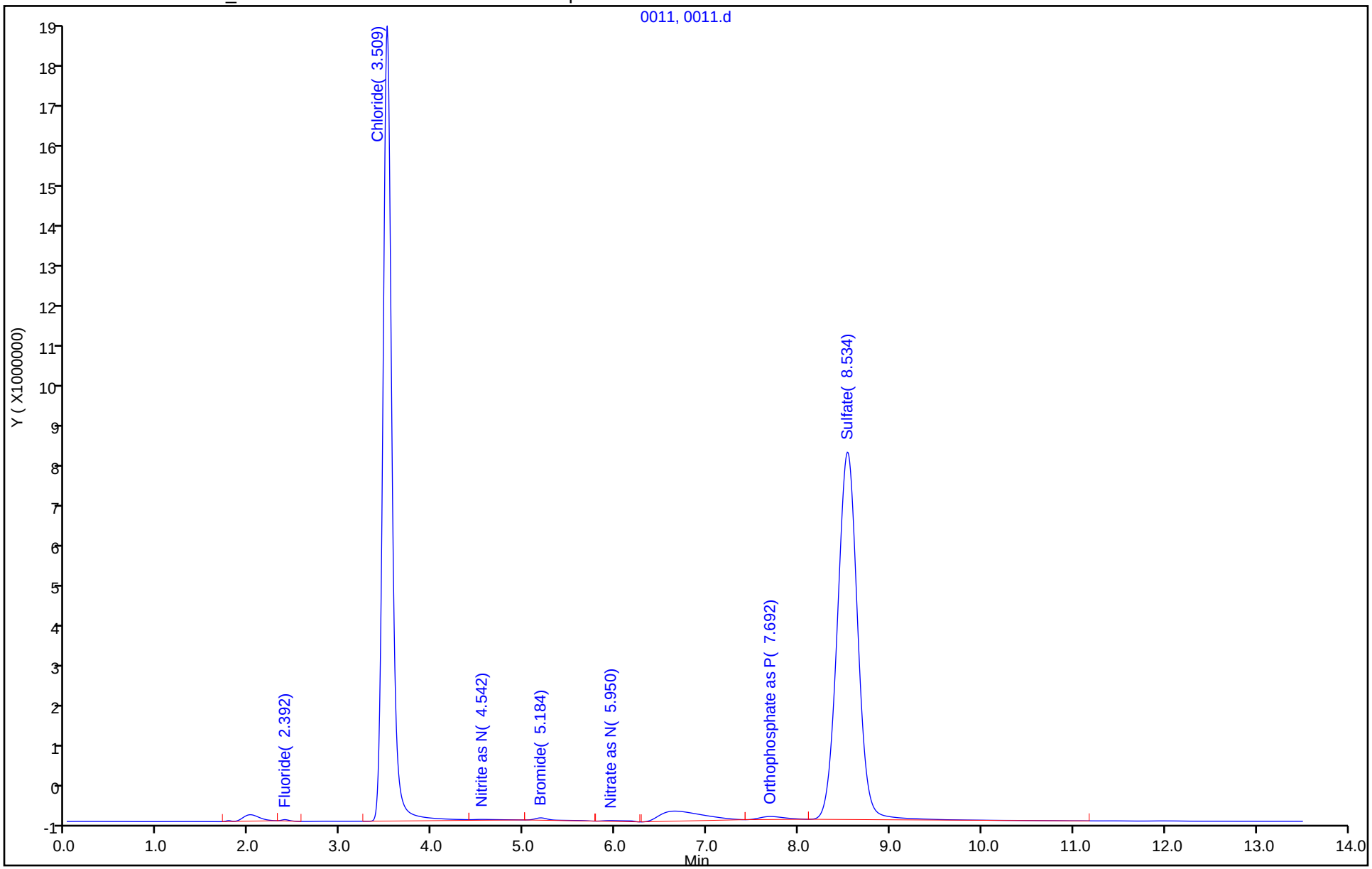
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 21-May-2019 16:34:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0011.d				
Injection Date:	18-May-2019 23:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-1	Lab Sample ID:	280-123981-1	Worklist Smp#:	11
Client ID:	LF7MW-22_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0011.d
Lims ID: 280-123981-J-1
Client ID: LF7MW-22_0519
Sample Type: Client
Inject. Date: 18-May-2019 23:02:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-011
Misc. Info.: 22907 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:12:55

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	170045	-0.1311	
2 Chloride	3.509	3.534	-0.025	124056720	19.1	
3 Nitrite as N	4.542	4.267	0.275	392299	NC	
4 Bromide	5.184	5.151	0.033	651267	0.3435	
5 Nitrate as N	5.950	5.817	0.133	398645	NC	
7 Orthophosphate as P	7.692	7.592	0.100	1272080	NC	
6 Sulfate	8.534	8.509	0.025	129543492	29.4	

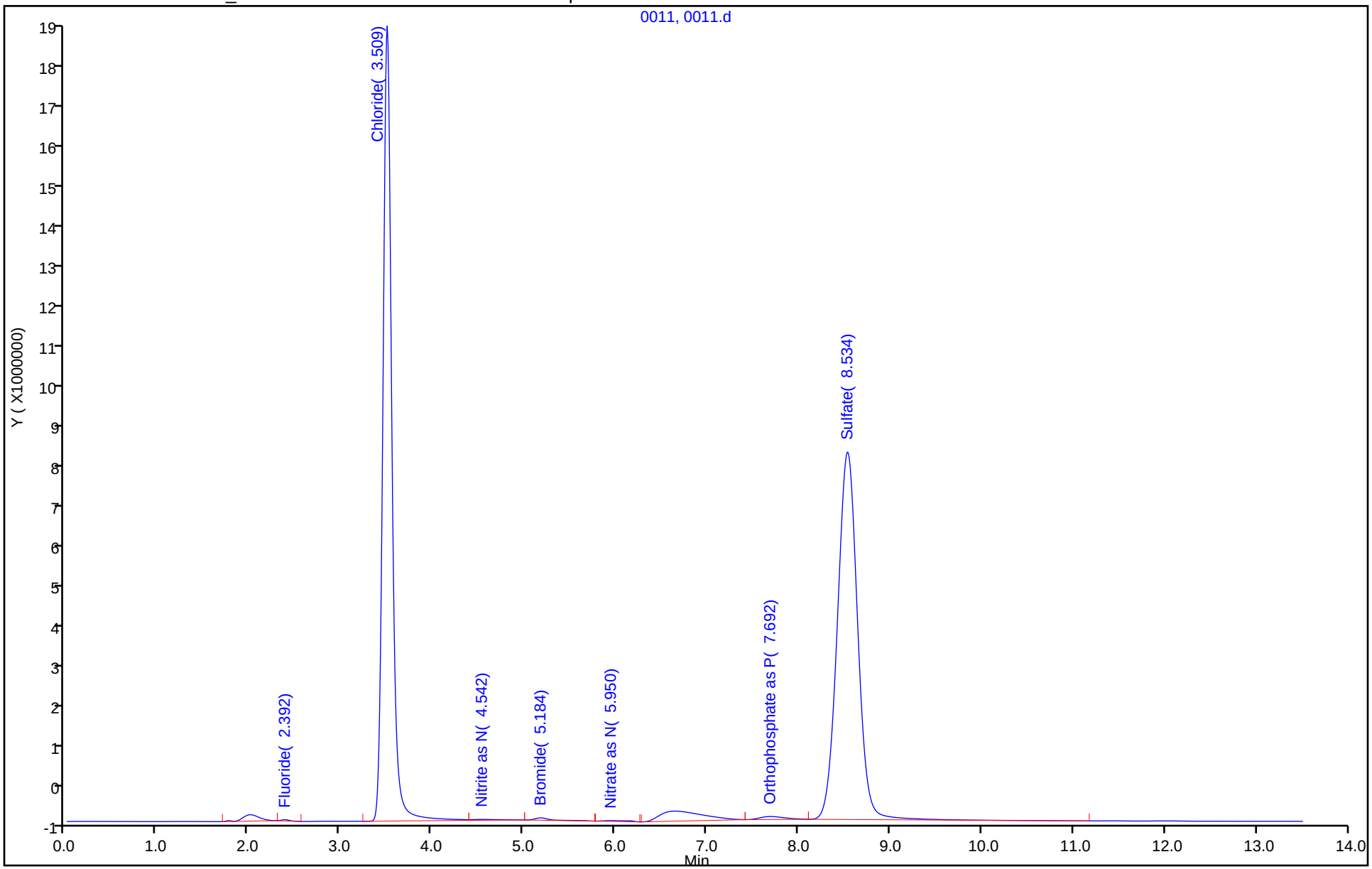
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 21-May-2019 16:34:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0011.d				
Injection Date:	18-May-2019 23:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-1	Lab Sample ID:	280-123981-1	Worklist Smp#:	11
Client ID:	LF7MW-22_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0012.d
Lims ID: 280-123981-J-1
Client ID: LF7MW-22_0519
Sample Type: Client
Inject. Date: 18-May-2019 23:18:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0082040-012
Misc. Info.: 20055 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:13:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	1221214	0.0138	
2 Chloride	3.492	3.534	-0.042	21954323	3.88	
3 Nitrite as N		4.267			ND	
4 Bromide	5.134	5.151	-0.017	104021	0.0613	
5 Nitrate as N		5.817			ND	U
7 Orthophosphate as P	7.759	7.592	0.167	122884	NC	
6 Sulfate	8.484	8.509	-0.025	24267234	5.86	

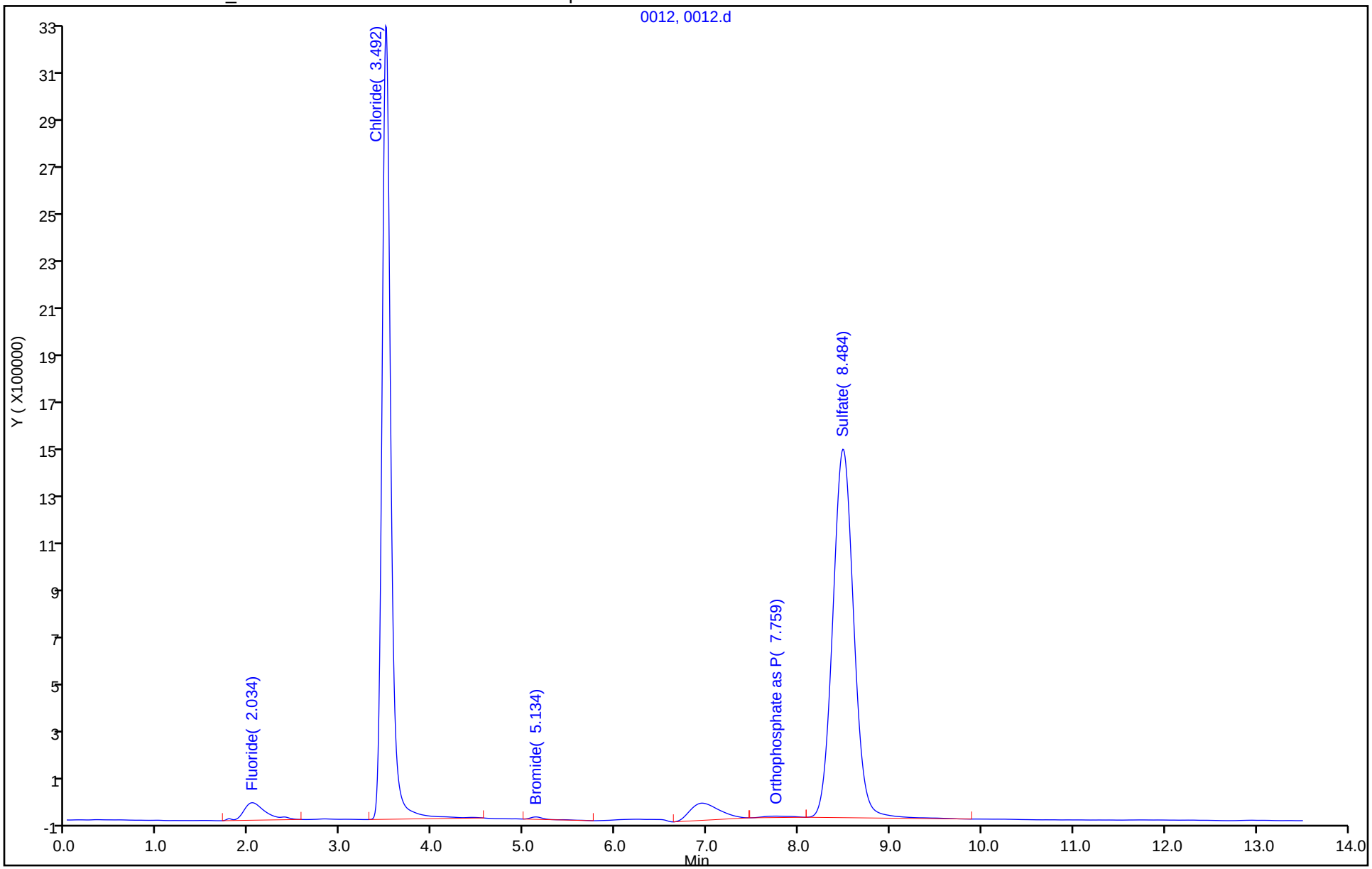
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0012.d				
Injection Date:	18-May-2019 23:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-1	Lab Sample ID:	280-123981-1	Worklist Smp#:	12
Client ID:	LF7MW-22_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0013.d
Lims ID: 280-123981-I-3
Client ID: LF7MW-26_0519
Sample Type: Client
Inject. Date: 18-May-2019 23:35:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-013
Misc. Info.: 32589 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:14:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	447374	NC	
2 Chloride	3.492	3.534	-0.042	5524768	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	5.825	5.817	0.008	834824	0.1101	
7 Orthophosphate as P	6.867	7.592	-0.725	3289680	0.7863	
6 Sulfate	8.492	8.509	-0.017	6561585	NC	

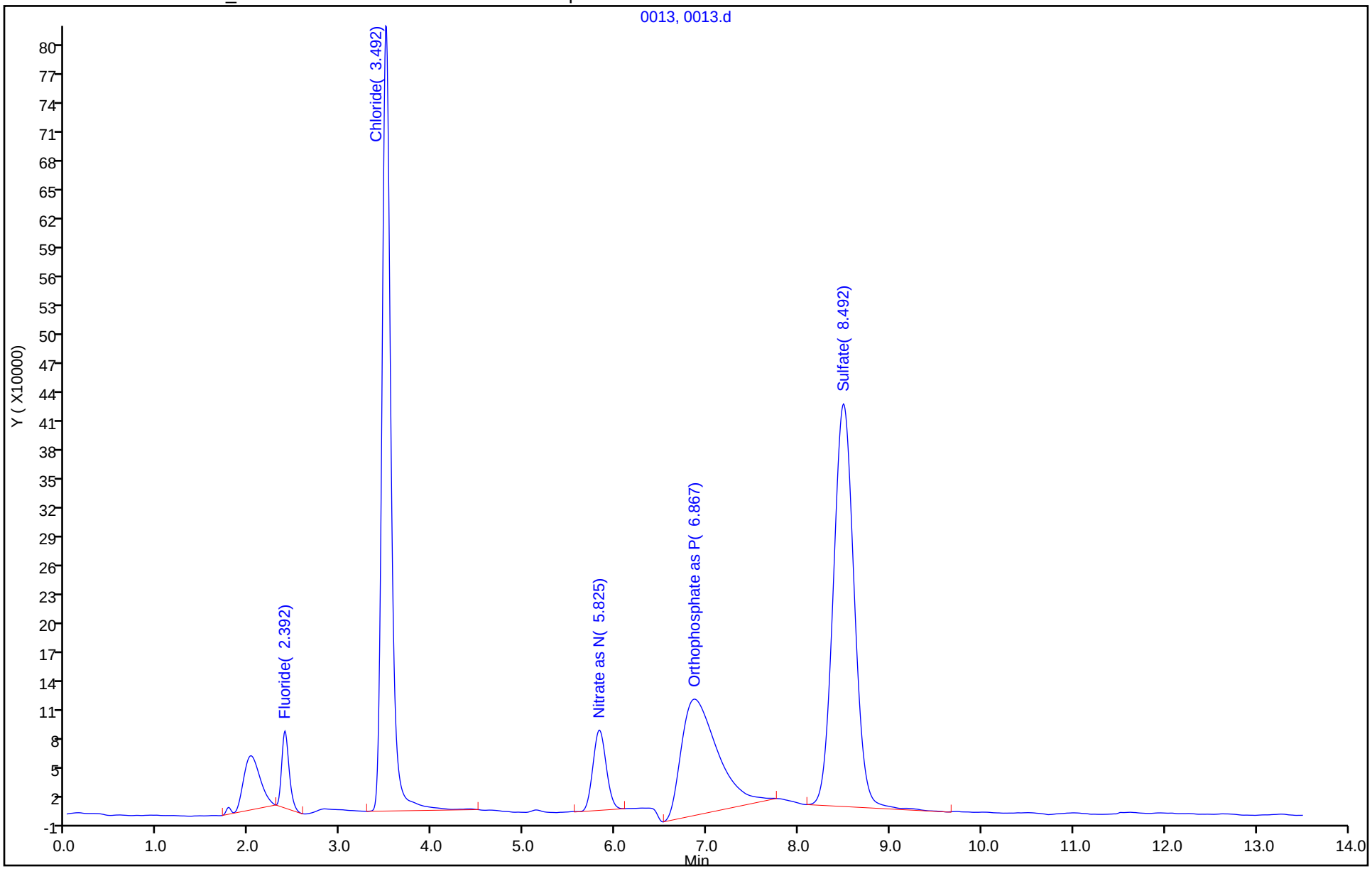
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0013.d				
Injection Date:	18-May-2019 23:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3	Lab Sample ID:	280-123981-3	Worklist Smp#:	13
Client ID:	LF7MW-26_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



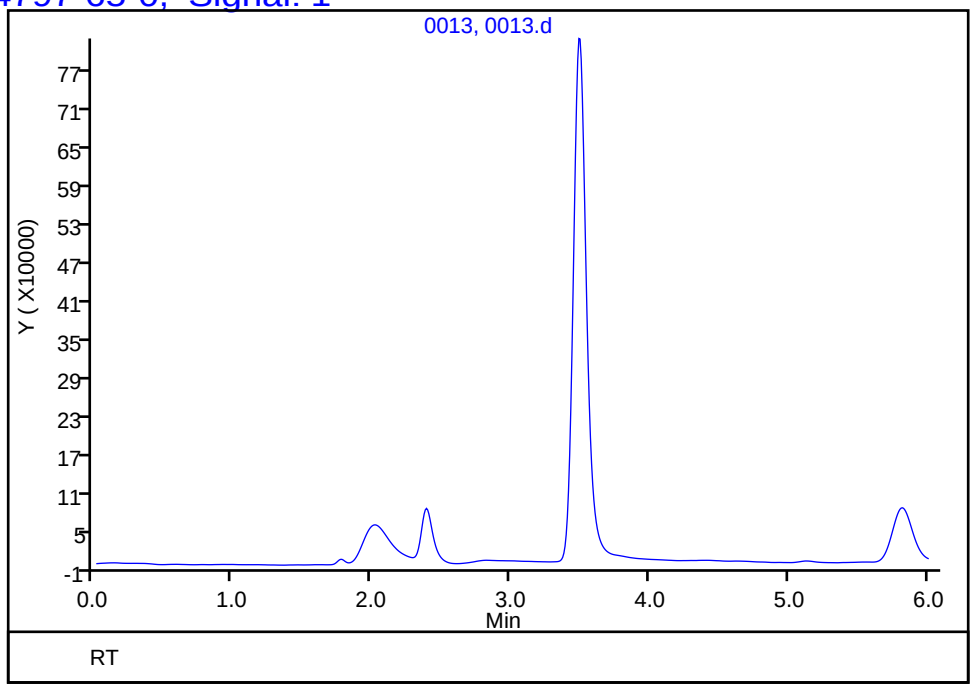
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0013.d
Injection Date: 18-May-2019 23:35:00 Instrument ID: WC_IonChrom11
Lims ID: 280-123981-I-3 Lab Sample ID: 280-123981-3
Client ID: LF7MW-26_0519
Operator ID: ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.02
Response: 724075
Amount: 0.094185



Reviewer: pedrickj, 20-May-2019 08:14:02
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0013.d
Lims ID: 280-123981-I-3
Client ID: LF7MW-26_0519
Sample Type: Client
Inject. Date: 18-May-2019 23:35:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-013
Misc. Info.: 32589 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:14:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	447374	-0.0929	
2 Chloride	3.492	3.534	-0.042	5524768	1.44	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	5.825	5.817	0.008	834824	NC	
7 Orthophosphate as P	6.867	7.592	-0.725	3289680	NC	
6 Sulfate	8.492	8.509	-0.017	6561585	1.90	

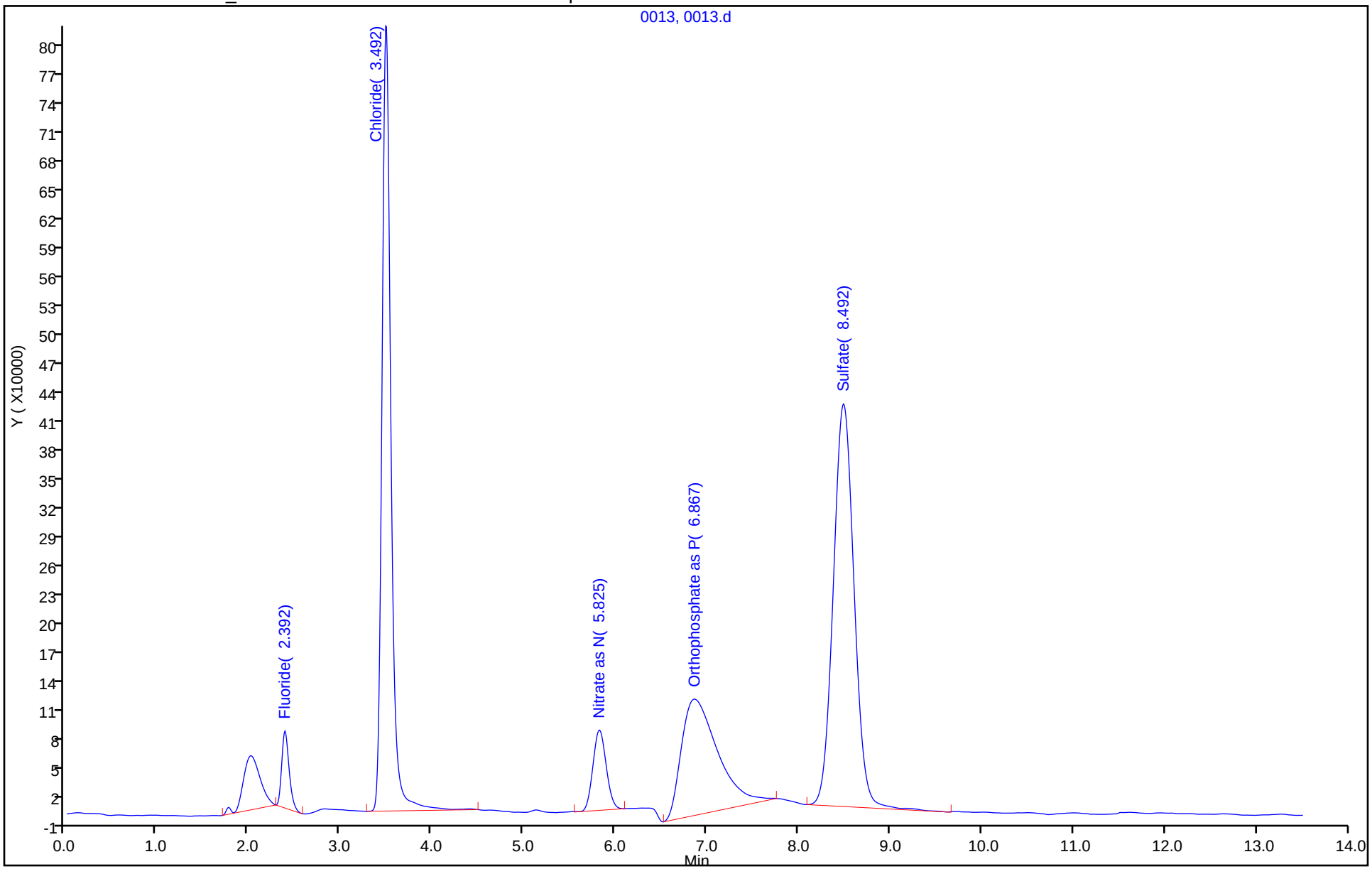
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0013.d				
Injection Date:	18-May-2019 23:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3	Lab Sample ID:	280-123981-3	Worklist Smp#:	13
Client ID:	LF7MW-26_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0014.d
Lims ID: 280-123981-J-4
Client ID: LF7MW-26_0519-a
Sample Type: Client
Inject. Date: 18-May-2019 23:51:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-014
Misc. Info.: 14712 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 17:35:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:14:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	294621	NC	
2 Chloride	3.500	3.534	-0.034	1499657	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide	5.867	5.151	0.716	123458	NC	a
5 Nitrate as N	6.284	5.817	0.467	156227	0.0517	a
7 Orthophosphate as P	6.784	7.592	-0.808	5803357	1.39	
6 Sulfate	8.500	8.509	-0.009	8056133	NC	

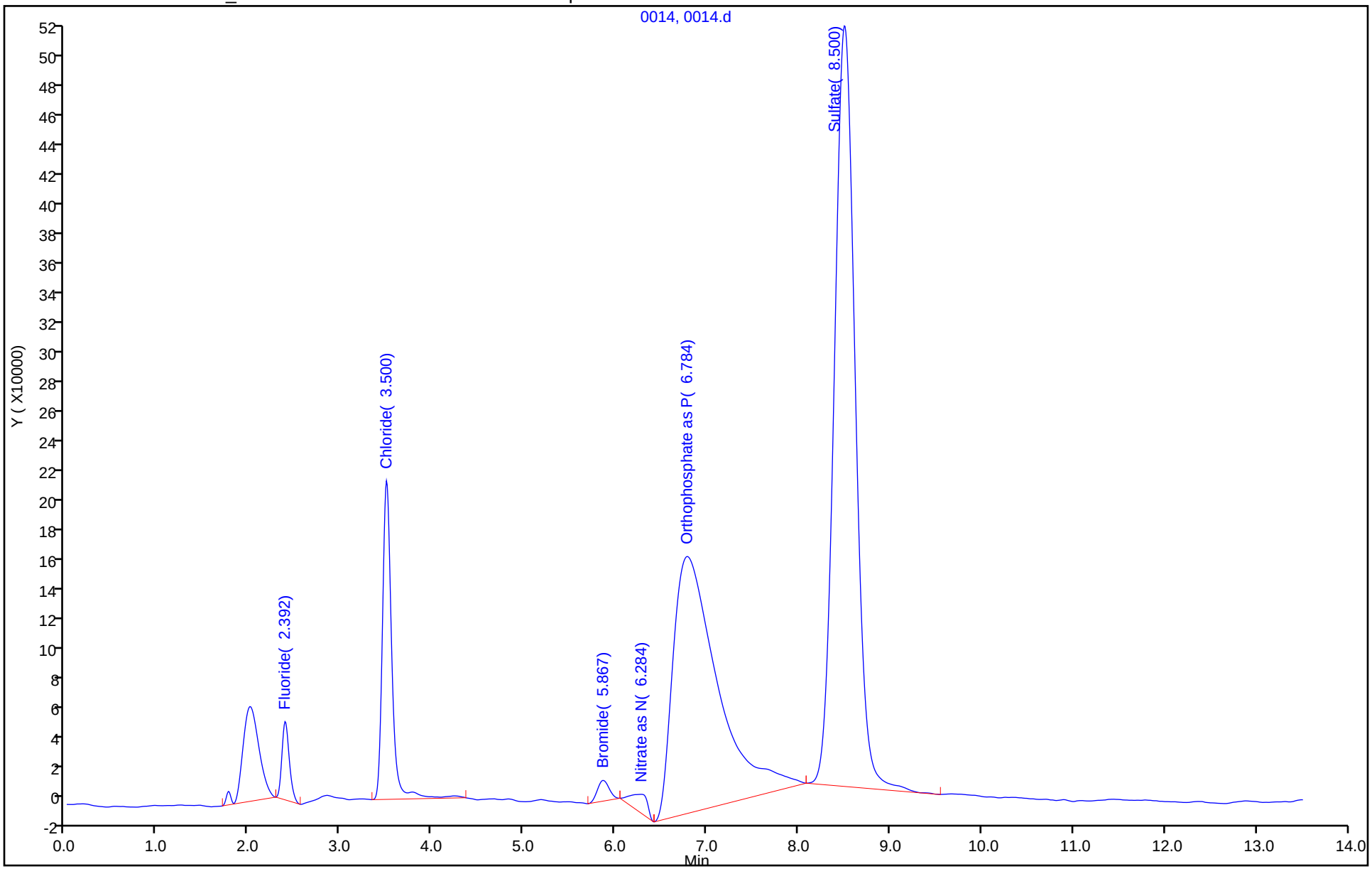
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 21-May-2019 17:35:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0014.d				
Injection Date:	18-May-2019 23:51:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-4	Lab Sample ID:	280-123981-4	Worklist Smp#:	14
Client ID:	LF7MW-26_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

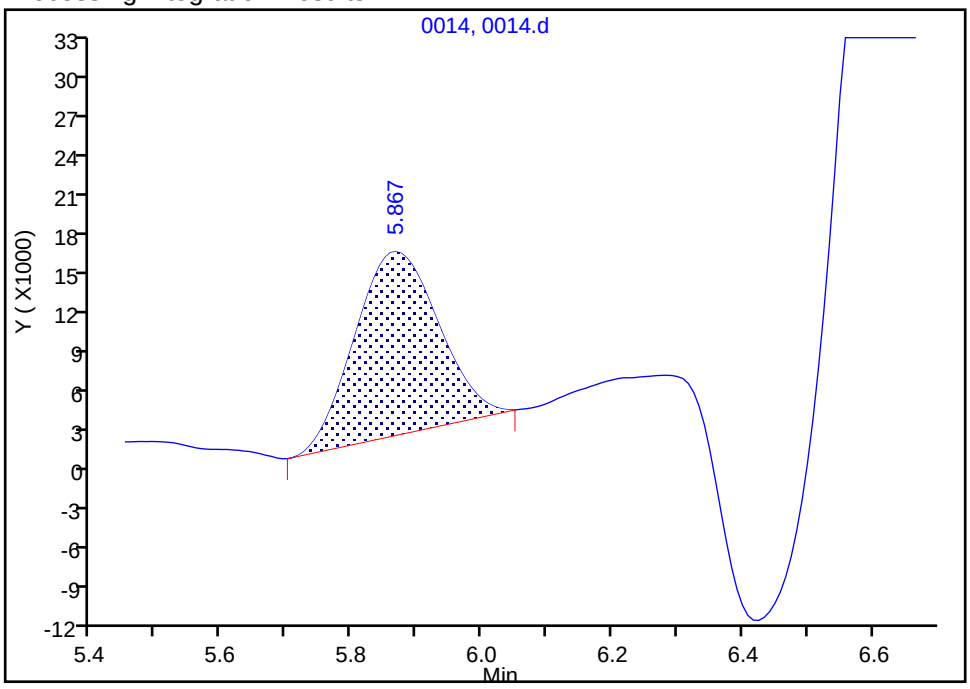
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0014.d				
Injection Date:	18-May-2019 23:51:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-J-4	Lab Sample ID:	280-123981-4		
Client ID:	LF7MW-26_0519-a				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

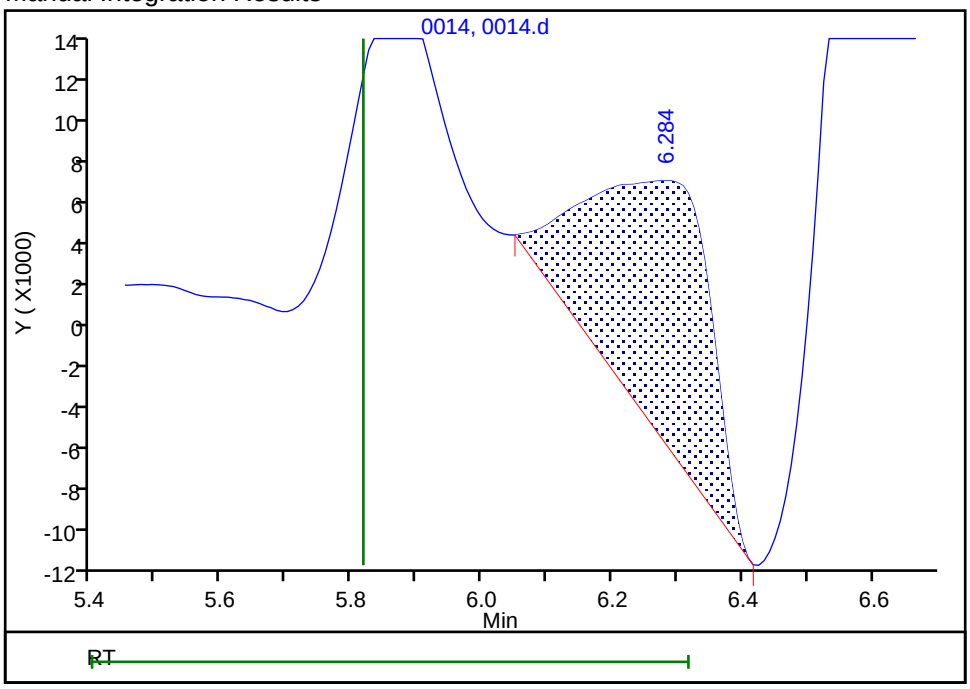
Processing Integration Results

RT: 5.87
Area: 123458
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 6.28
Area: 156227
Amount: 0.051676
Amount Units: ug/ml



Reviewer: phantl, 21-May-2019 17:35:38
Audit Action: Assigned Compound ID Audit Reason:

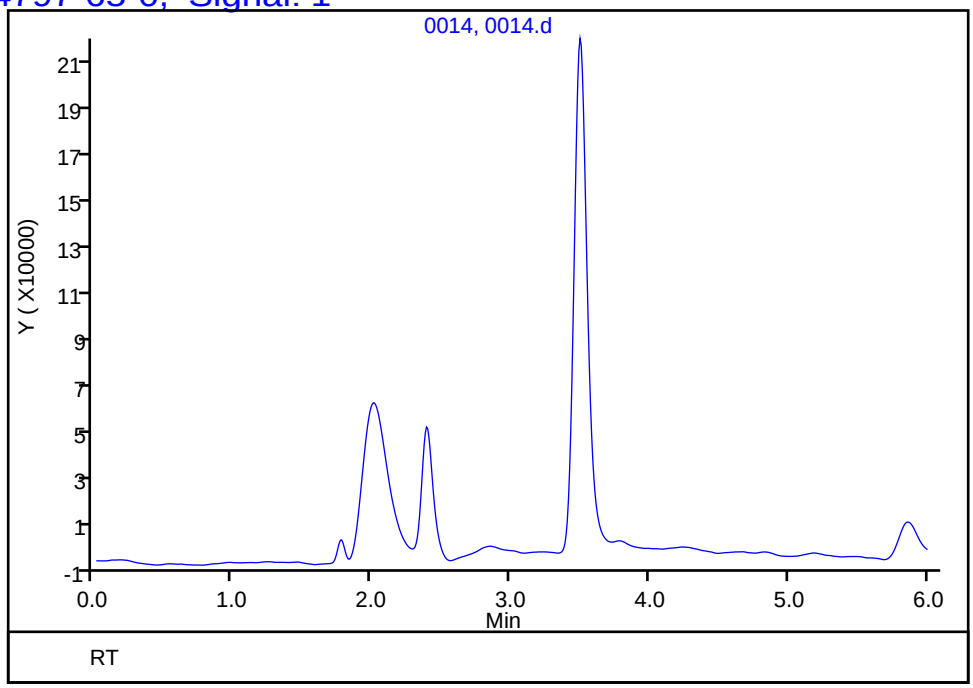
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0014.d				
Injection Date:	18-May-2019 23:51:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-J-4	Lab Sample ID:	280-123981-4		
Client ID:	LF7MW-26_0519-a				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.01
Response: 793125
Amount: 0.100766



Reviewer: pedrickj, 20-May-2019 08:14:52
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0014.d
Lims ID: 280-123981-J-4
Client ID: LF7MW-26_0519-a
Sample Type: Client
Inject. Date: 18-May-2019 23:51:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-014
Misc. Info.: 14712 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 17:41:25 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:14:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	294621	-0.1140	
2 Chloride	3.500	3.534	-0.034	1499657	0.8402	
3 Nitrite as N		4.267			ND	U
4 Bromide	5.867	5.151	0.716	123458	0.0713	a
5 Nitrate as N	6.284	5.817	0.467	156227	NC	a
7 Orthophosphate as P	6.784	7.592	-0.808	5803357	NC	
6 Sulfate	8.500	8.509	-0.009	8056133	2.24	

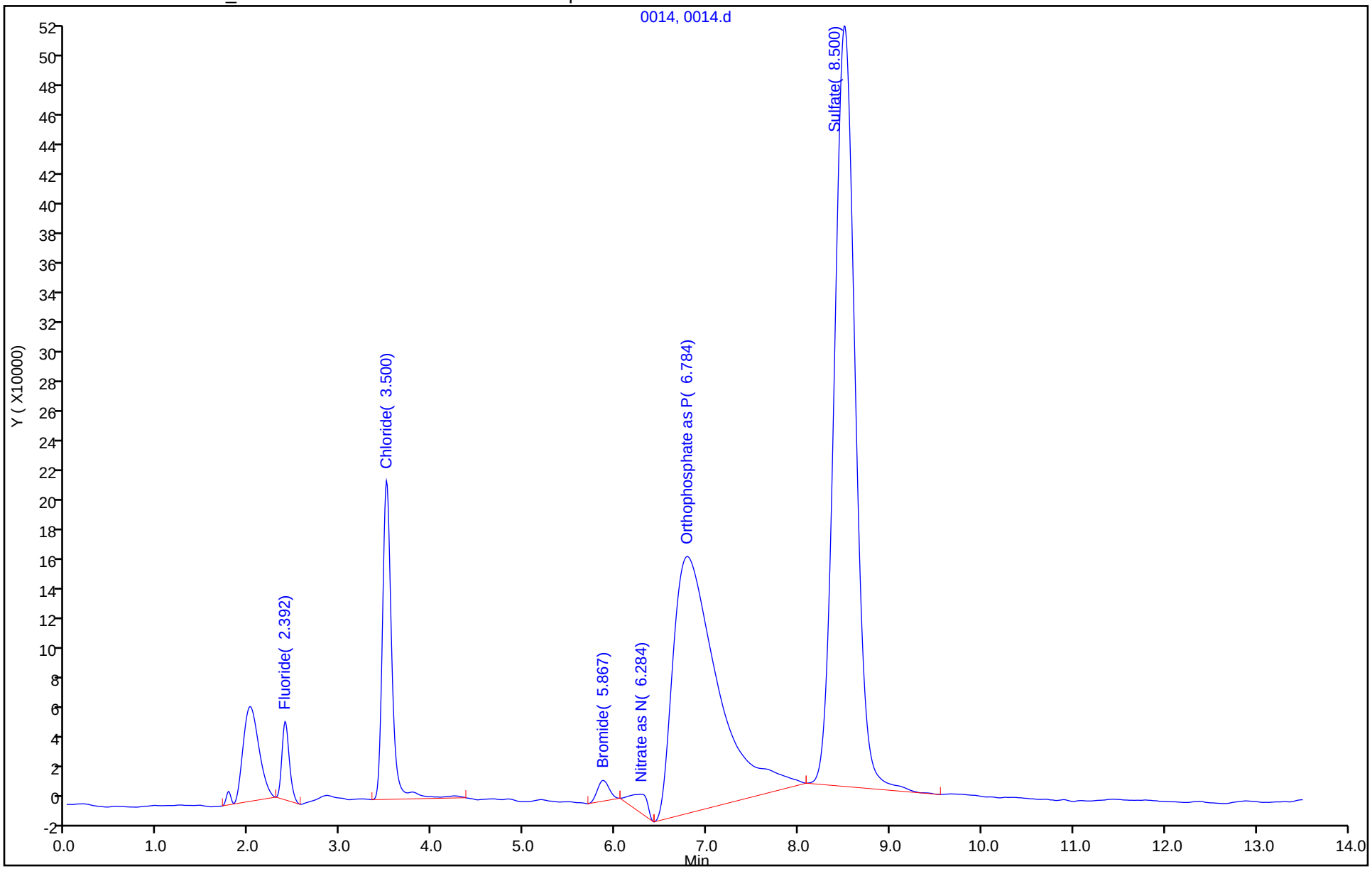
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 21-May-2019 17:46:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0014.d				
Injection Date:	18-May-2019 23:51:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-4	Lab Sample ID:	280-123981-4	Worklist Smp#:	14
Client ID:	LF7MW-26_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

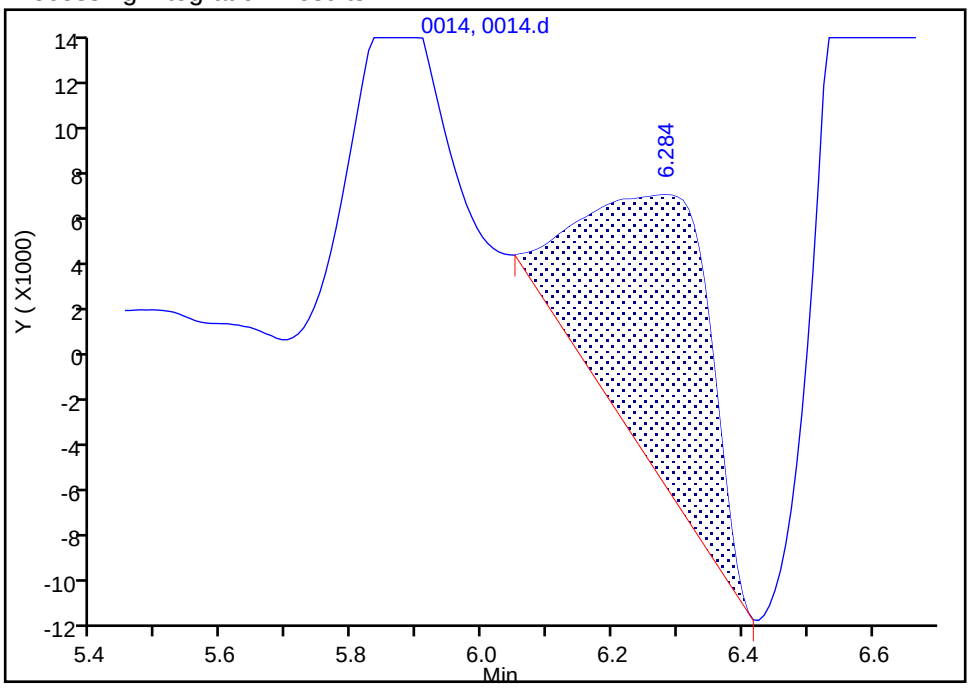
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0014.d				
Injection Date:	18-May-2019 23:51:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-J-4	Lab Sample ID:	280-123981-4		
Client ID:	LF7MW-26_0519-a				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

4 Bromide, CAS: 24959-67-9

Signal: 1

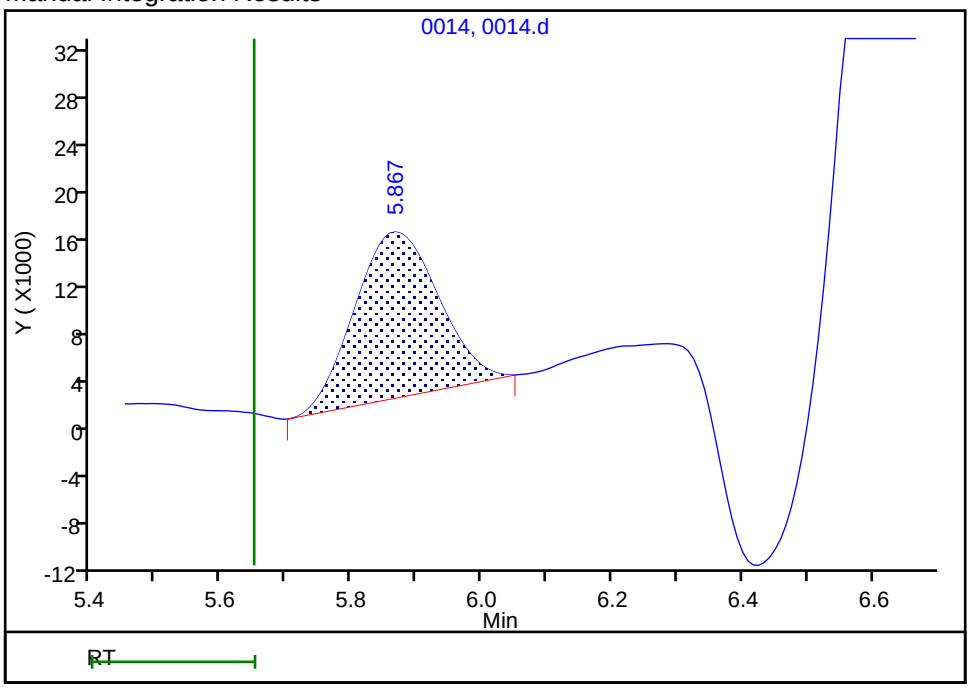
Processing Integration Results

RT: 6.28
Area: 156227
Amount: 0.088216
Amount Units: ug/ml



Manual Integration Results

RT: 5.87
Area: 123458
Amount: 0.071316
Amount Units: ug/ml



Reviewer: phantl, 21-May-2019 17:35:23
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0015.d
Lims ID: 280-123981-J-5
Client ID: LF7MW-27_0519
Sample Type: Client
Inject. Date: 19-May-2019 00:08:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-015
Misc. Info.: 28861 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:03

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	449225	NC	
2 Chloride	3.500	3.534	-0.034	1110074	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	5.817	5.817	0.000	2634749	0.2651	
7 Orthophosphate as P	6.909	7.592	-0.683	2929086	0.6993	
6 Sulfate	8.484	8.509	-0.025	7214441	NC	

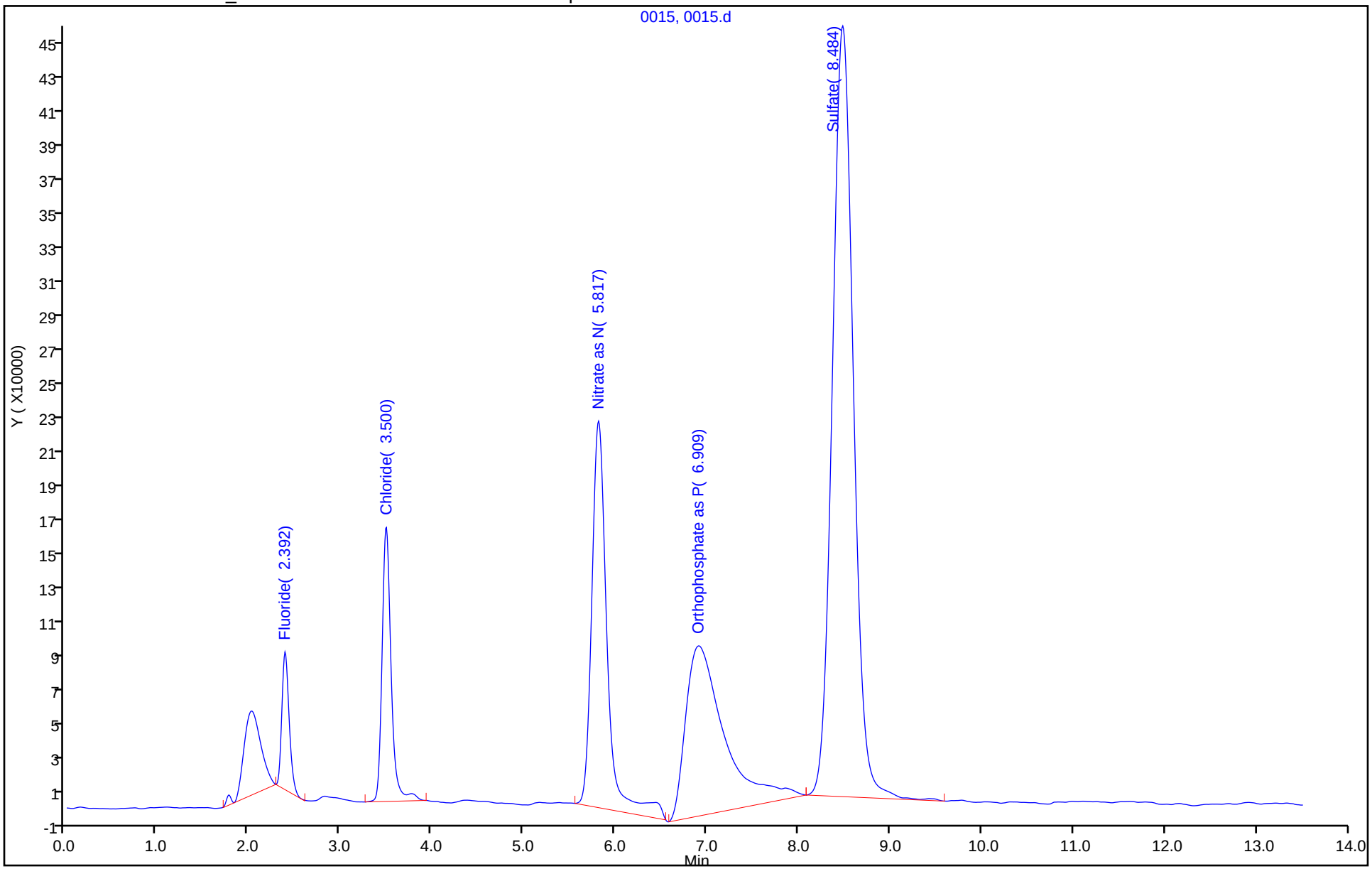
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0015.d				
Injection Date:	19-May-2019 00:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-5	Lab Sample ID:	280-123981-5	Worklist Smp#:	15
Client ID:	LF7MW-27_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



User Disabled Compound Report

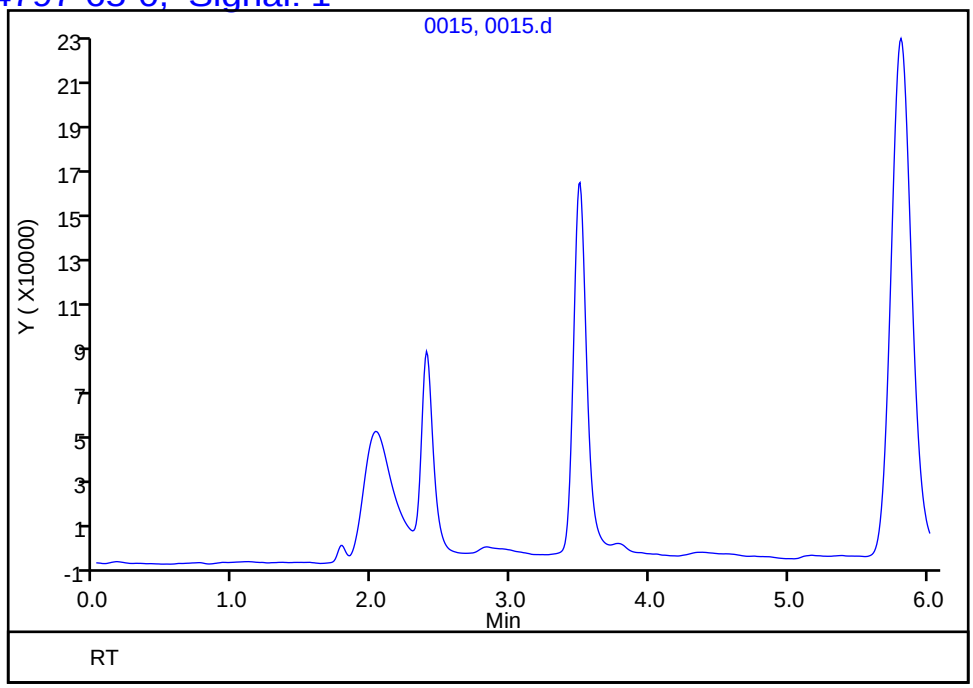
Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0015.d

Injection Date:	19-May-2019 00:08:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-J-5	Lab Sample ID:	280-123981-5		
Client ID:	LF7MW-27_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.03
Response: 651166
Amount: 0.087236



Reviewer: pedrickj, 20-May-2019 08:15:03
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0015.d
Lims ID: 280-123981-J-5
Client ID: LF7MW-27_0519
Sample Type: Client
Inject. Date: 19-May-2019 00:08:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-015
Misc. Info.: 28861 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:03

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	449225	-0.0927	
2 Chloride	3.500	3.534	-0.034	1110074	0.7823	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	5.817	5.817	0.000	2634749	NC	
7 Orthophosphate as P	6.909	7.592	-0.683	2929086	NC	
6 Sulfate	8.484	8.509	-0.025	7214441	2.05	

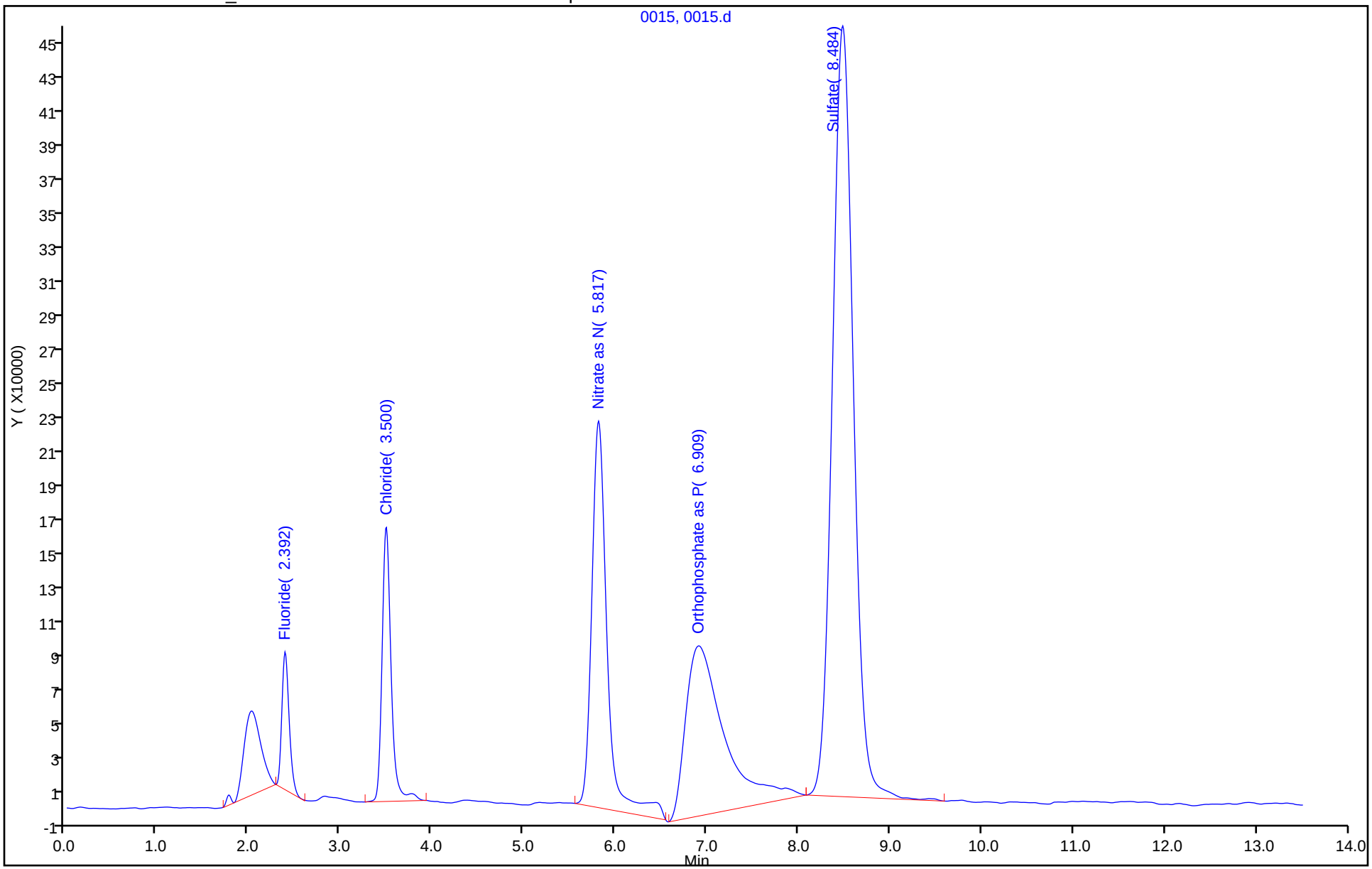
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0015.d				
Injection Date:	19-May-2019 00:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-5	Lab Sample ID:	280-123981-5	Worklist Smp#:	15
Client ID:	LF7MW-27_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0016.d
Lims ID: 280-123981-H-6
Client ID: LF7MW-28_0519
Sample Type: Client
Inject. Date: 19-May-2019 00:24:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-016
Misc. Info.: 29394 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:12

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	423879	NC	
2 Chloride	3.500	3.534	-0.034	9637020	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	5.834	5.817	0.017	888360	0.1147	
7 Orthophosphate as P	6.850	7.592	-0.742	4311398	1.03	
6 Sulfate	8.492	8.509	-0.017	7172557	NC	

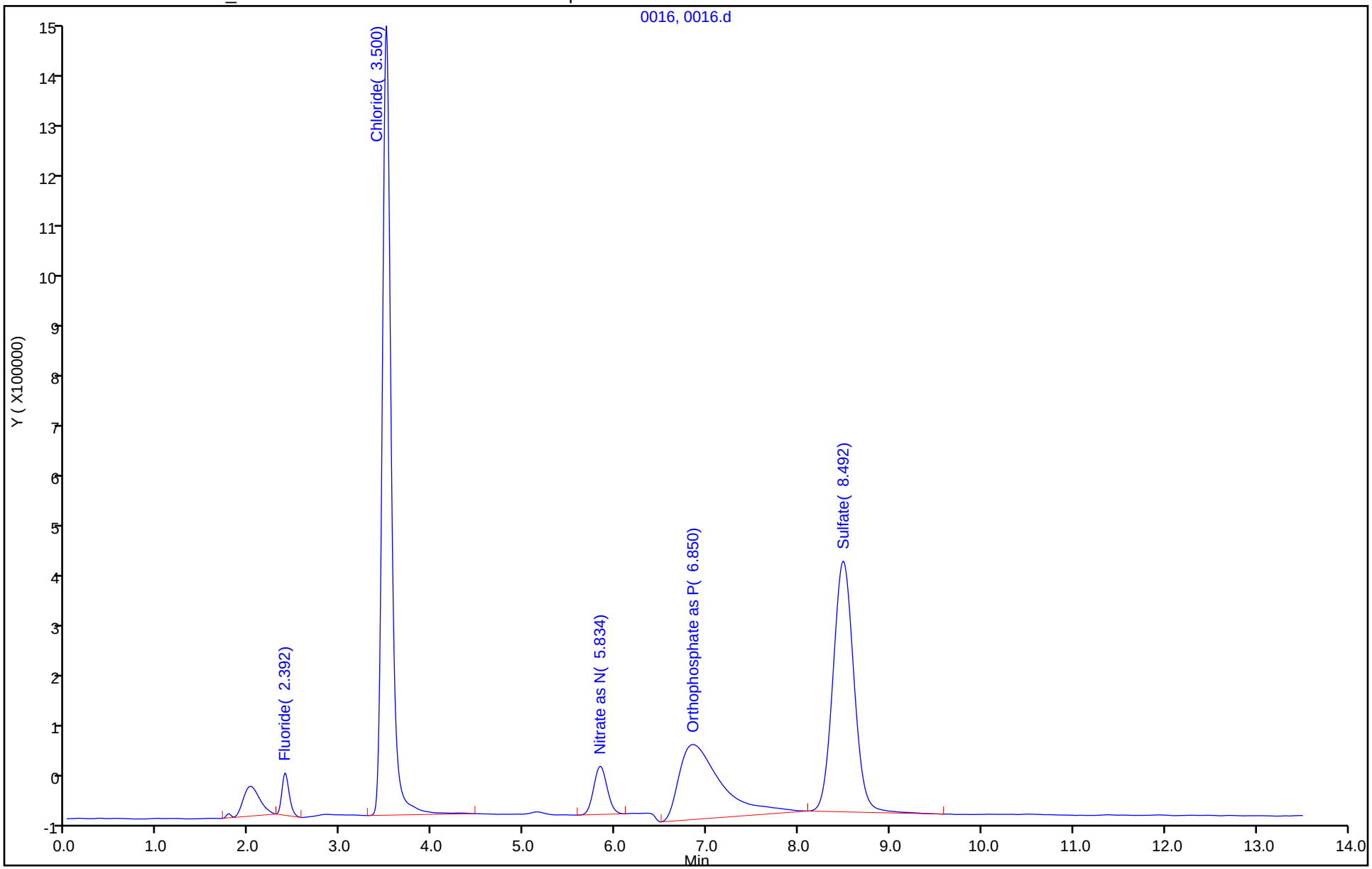
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0016.d				
Injection Date:	19-May-2019 00:24:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6	Lab Sample ID:	280-123981-6	Worklist Smp#:	16
Client ID:	LF7MW-28_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



User Disabled Compound Report

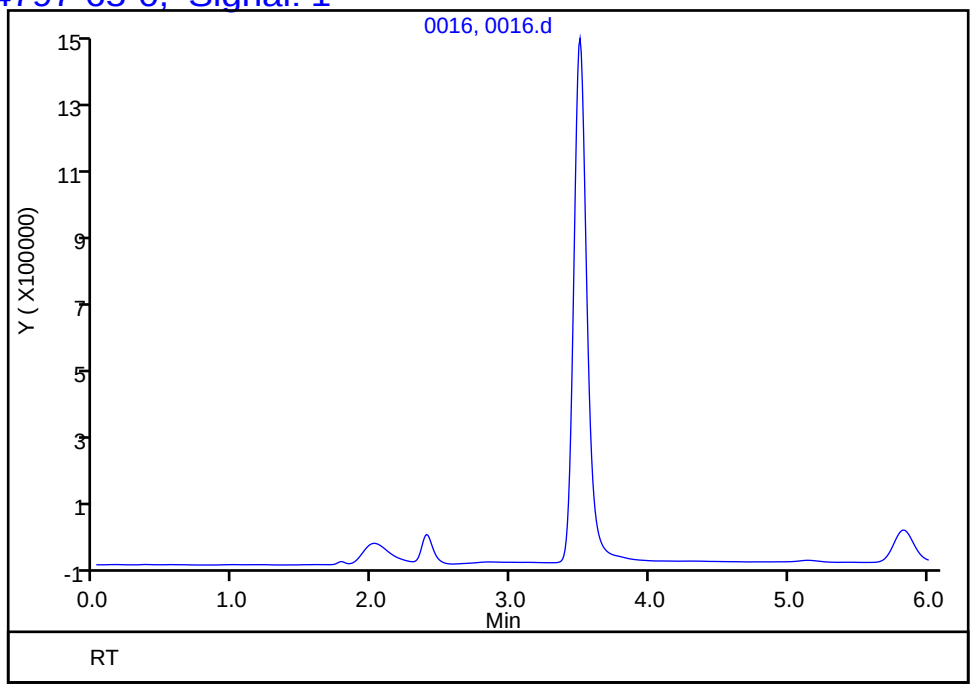
Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0016.d

Injection Date:	19-May-2019 00:24:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-H-6	Lab Sample ID:	280-123981-6		
Client ID:	LF7MW-28_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.02
Response: 697882
Amount: 0.091689



Reviewer: pedrickj, 20-May-2019 08:15:12
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0016.d
Lims ID: 280-123981-H-6
Client ID: LF7MW-28_0519
Sample Type: Client
Inject. Date: 19-May-2019 00:24:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-016
Misc. Info.: 29394 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:33:32 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:12

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	423879	-0.0962	
2 Chloride	3.500	3.534	-0.034	9637020	2.05	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	5.834	5.817	0.017	888360	NC	
7 Orthophosphate as P	6.850	7.592	-0.742	4311398	NC	
6 Sulfate	8.492	8.509	-0.017	7172557	2.04	

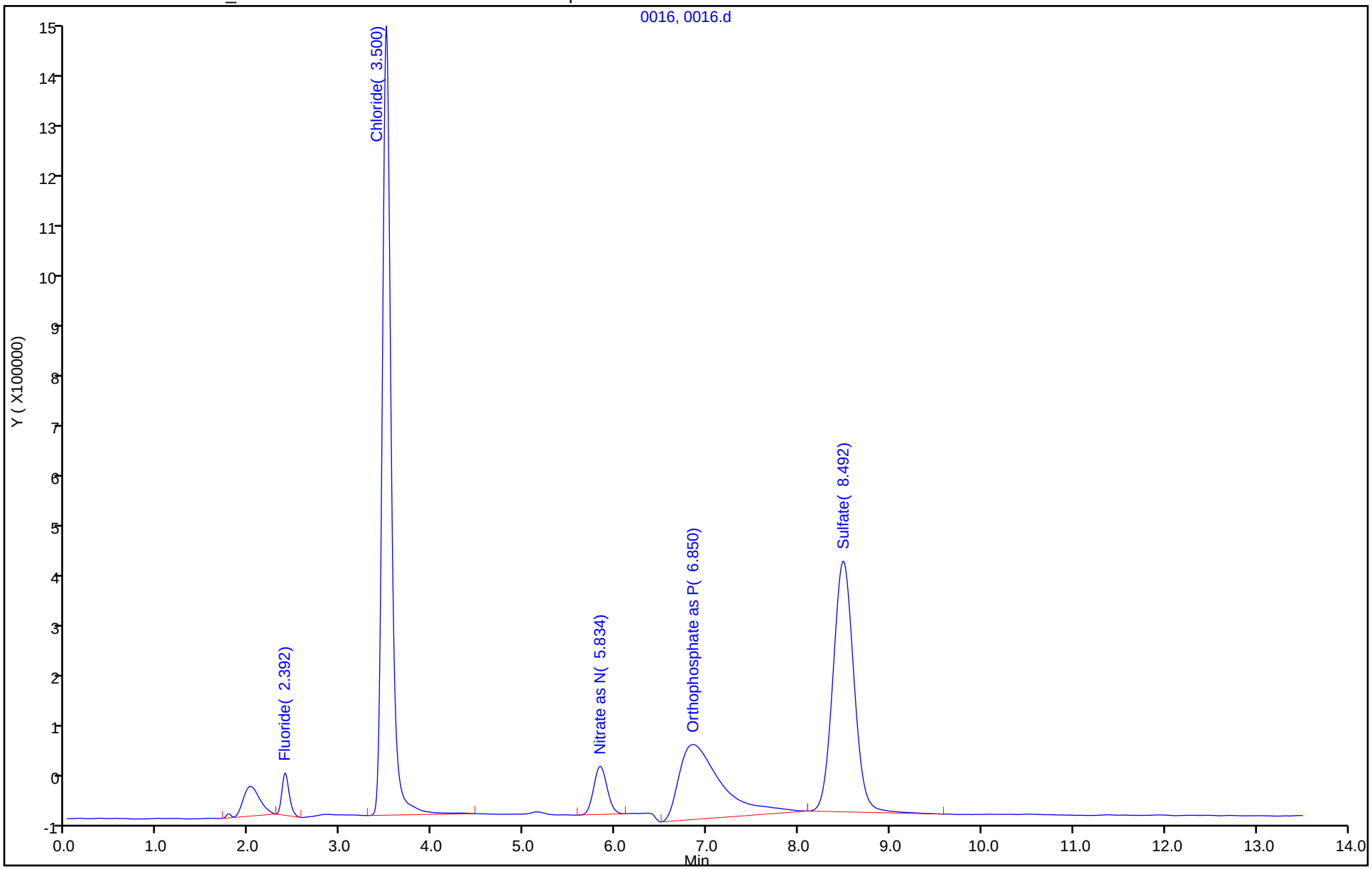
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0016.d				
Injection Date:	19-May-2019 00:24:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6	Lab Sample ID:	280-123981-6	Worklist Smp#:	16
Client ID:	LF7MW-28_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2019 00:40:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-017
Misc. Info.: 10588 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:20

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38279652	NC	NC	
2 Chloride	3.526	3.534	-0.008	674119846	NC	NC	
3 Nitrite as N	4.251	4.267	-0.016	53166603	5.00	5.09	
4 Bromide	5.126	5.151	-0.025	10299126	NC	NC	
5 Nitrate as N	5.792	5.817	-0.025	62017875	5.00	5.38	
7 Orthophosphate as P	7.584	7.592	-0.008	25039340	5.00	6.04	
6 Sulfate	8.509	8.509	0.000	428448330	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

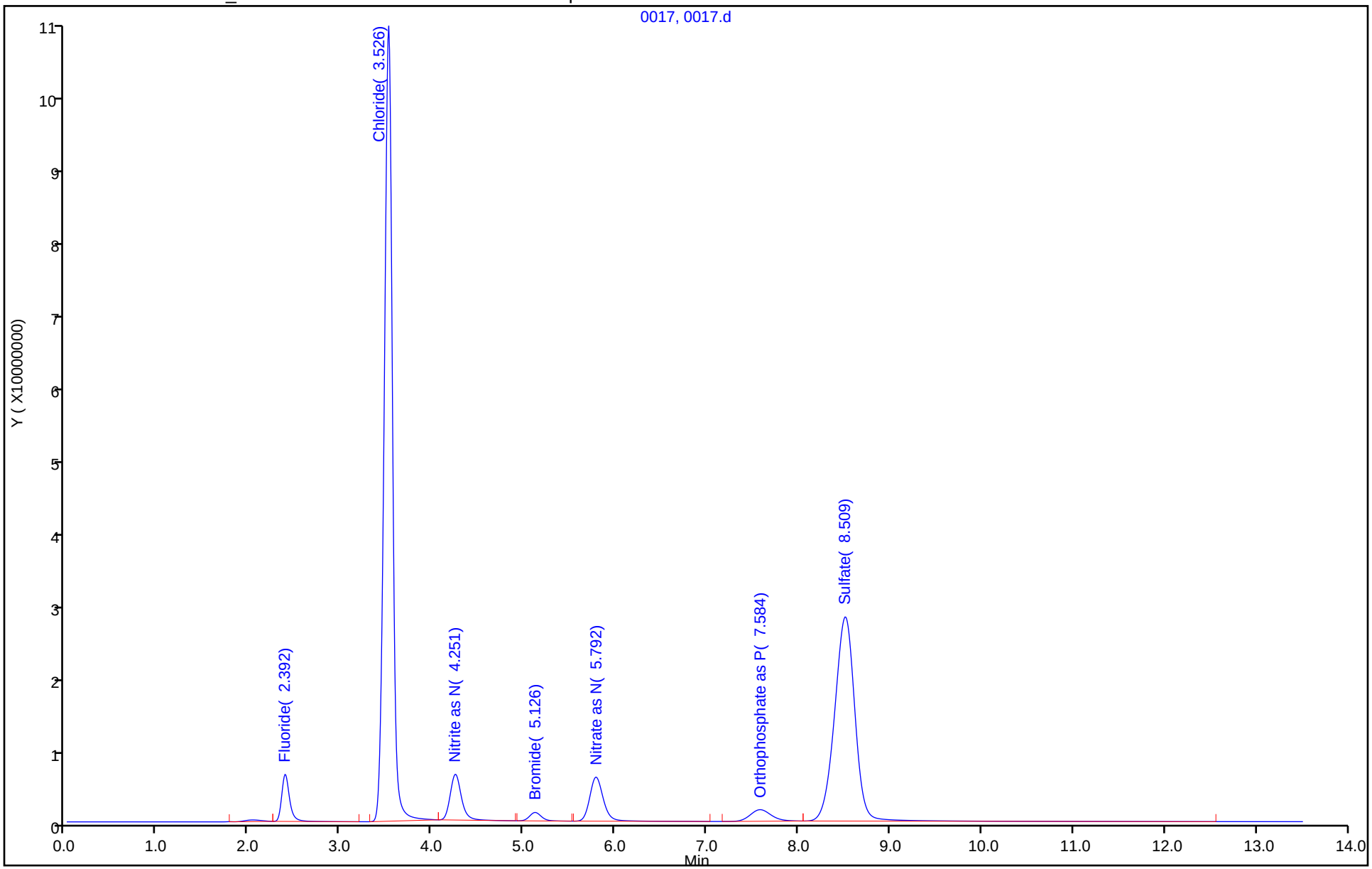
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:34:13 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0017.d

Injection Date:	19-May-2019 00:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2019 00:40:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-017
Misc. Info.: 10588 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:20

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38279652	5.00	5.12	
2 Chloride	3.526	3.534	-0.008	674119846	100.0	100.9	
3 Nitrite as N	4.251	4.267	-0.016	53166603	NC	NC	
4 Bromide	5.126	5.151	-0.025	10299126	5.00	5.32	
5 Nitrate as N	5.792	5.817	-0.025	62017875	NC	NC	
7 Orthophosphate as P	7.584	7.592	-0.008	25039340	NC	NC	
6 Sulfate	8.509	8.509	0.000	428448330	100.0	96.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

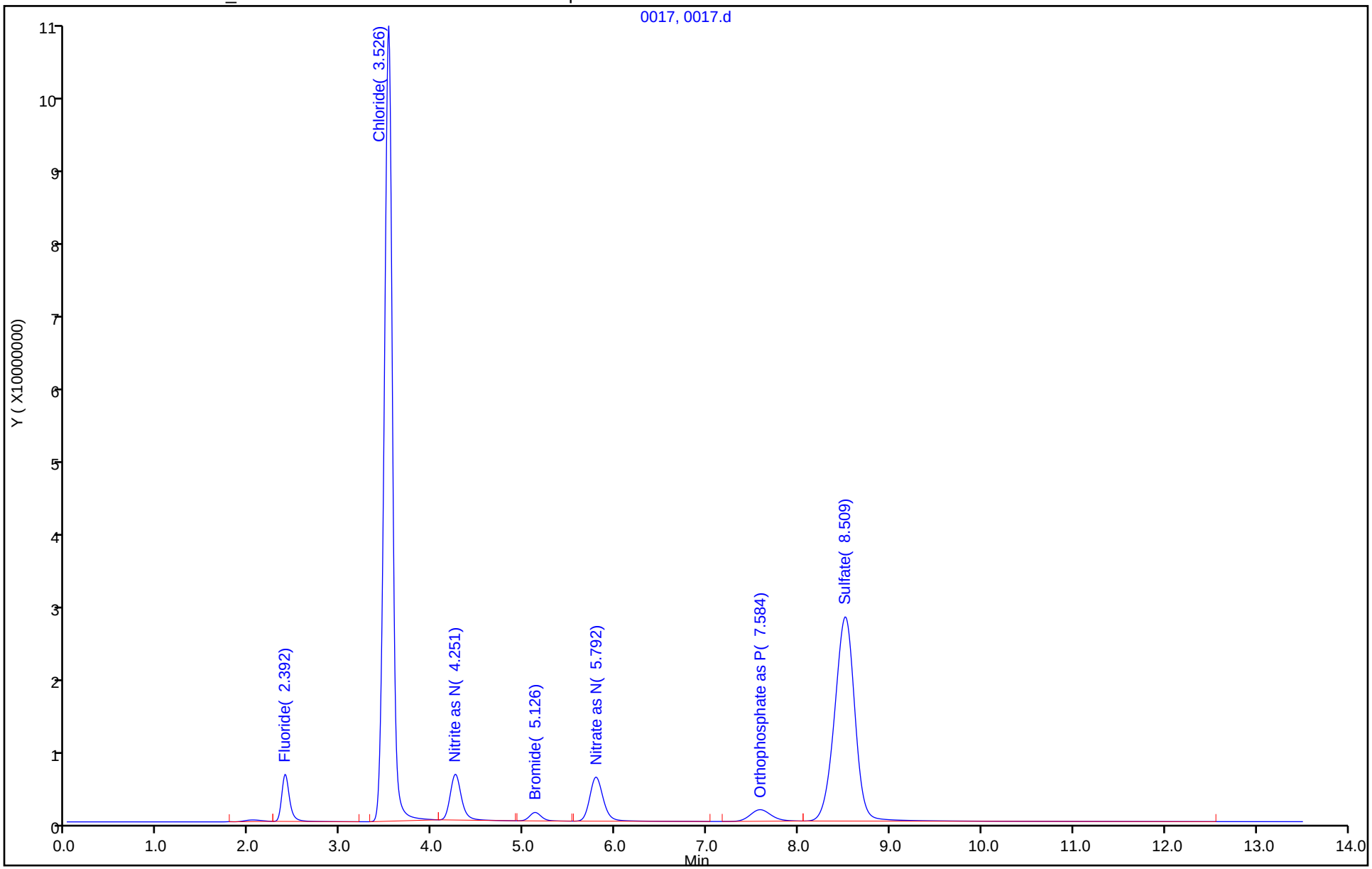
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:34:13 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0017.d

Injection Date:	19-May-2019 00:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0018.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	19-May-2019 00:57:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082040-018				
Misc. Info.:	29202 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	21-May-2019 16:34:11	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0330				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	508292		NC	
2 Chloride		3.534			ND		
3 Nitrite as N		4.267			ND		
4 Bromide		5.151			ND		
5 Nitrate as N		5.817			ND		
7 Orthophosphate as P		7.592			ND		
6 Sulfate	7.075	8.509	-1.434	187891		NC	

QC Flag Legend

Processing Flags

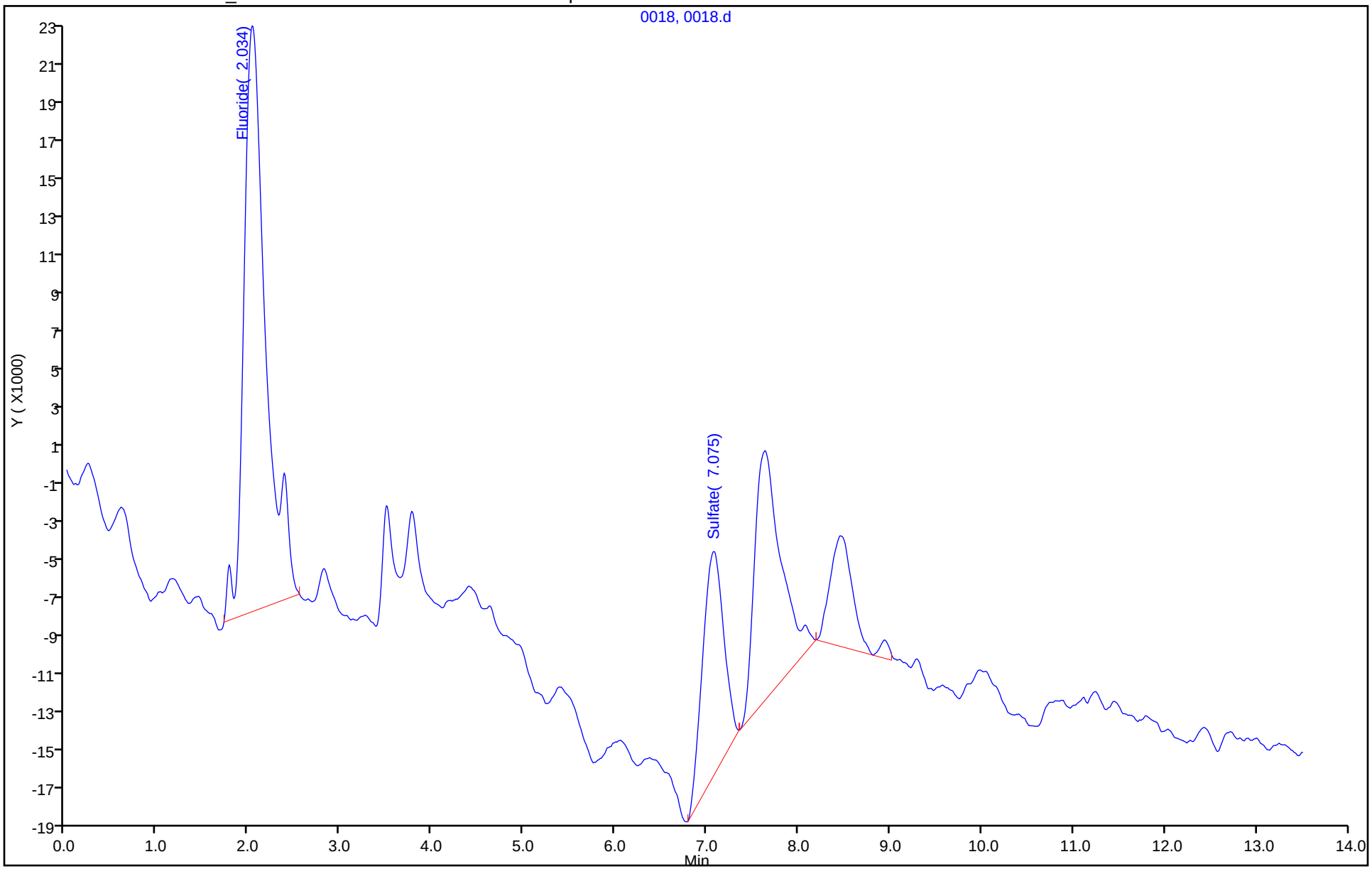
NC - Not Calibrated

Report Date: 21-May-2019 16:34:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0018.d

Injection Date:	19-May-2019 00:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/14/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 19-May-2019 00:57:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-018
Misc. Info.: 29202 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

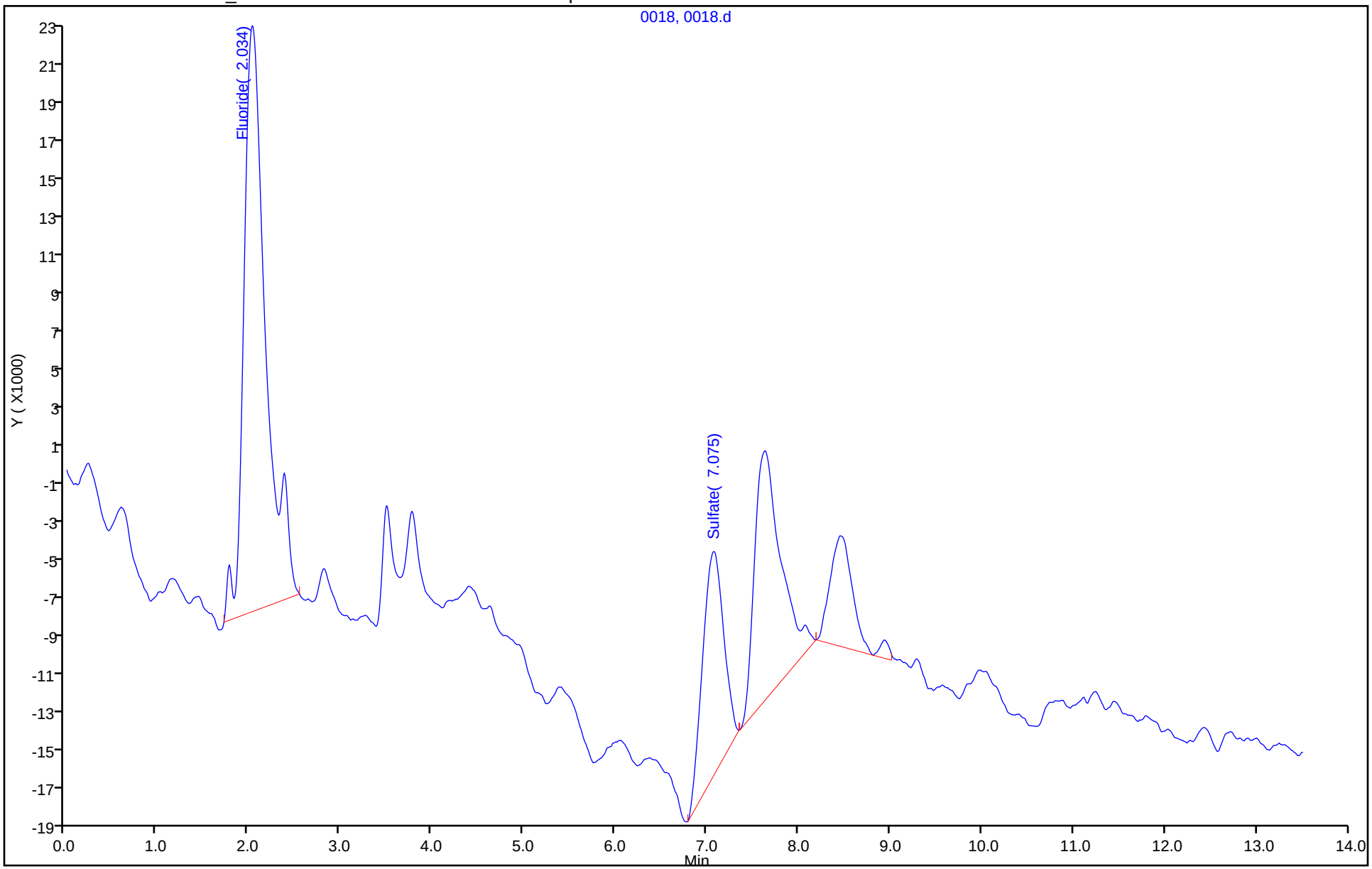
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	508292		-0.0845	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate	7.075	8.509	-1.434	187891		0.4793	

Report Date: 21-May-2019 16:34:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0018.d

Injection Date:	19-May-2019 00:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0019.d
Lims ID: 280-123981-I-7
Client ID: LF7MW-30_0519
Sample Type: Client
Inject. Date: 19-May-2019 01:13:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-019
Misc. Info.: 10975 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:33

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.400	2.392	0.008	339558	NC	
2 Chloride	3.500	3.534	-0.034	33158541	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	5.834	5.817	0.017	14198685	1.26	
7 Orthophosphate as P	6.825	7.592	-0.767	4530350	1.09	
6 Sulfate	8.492	8.509	-0.017	52890200	NC	

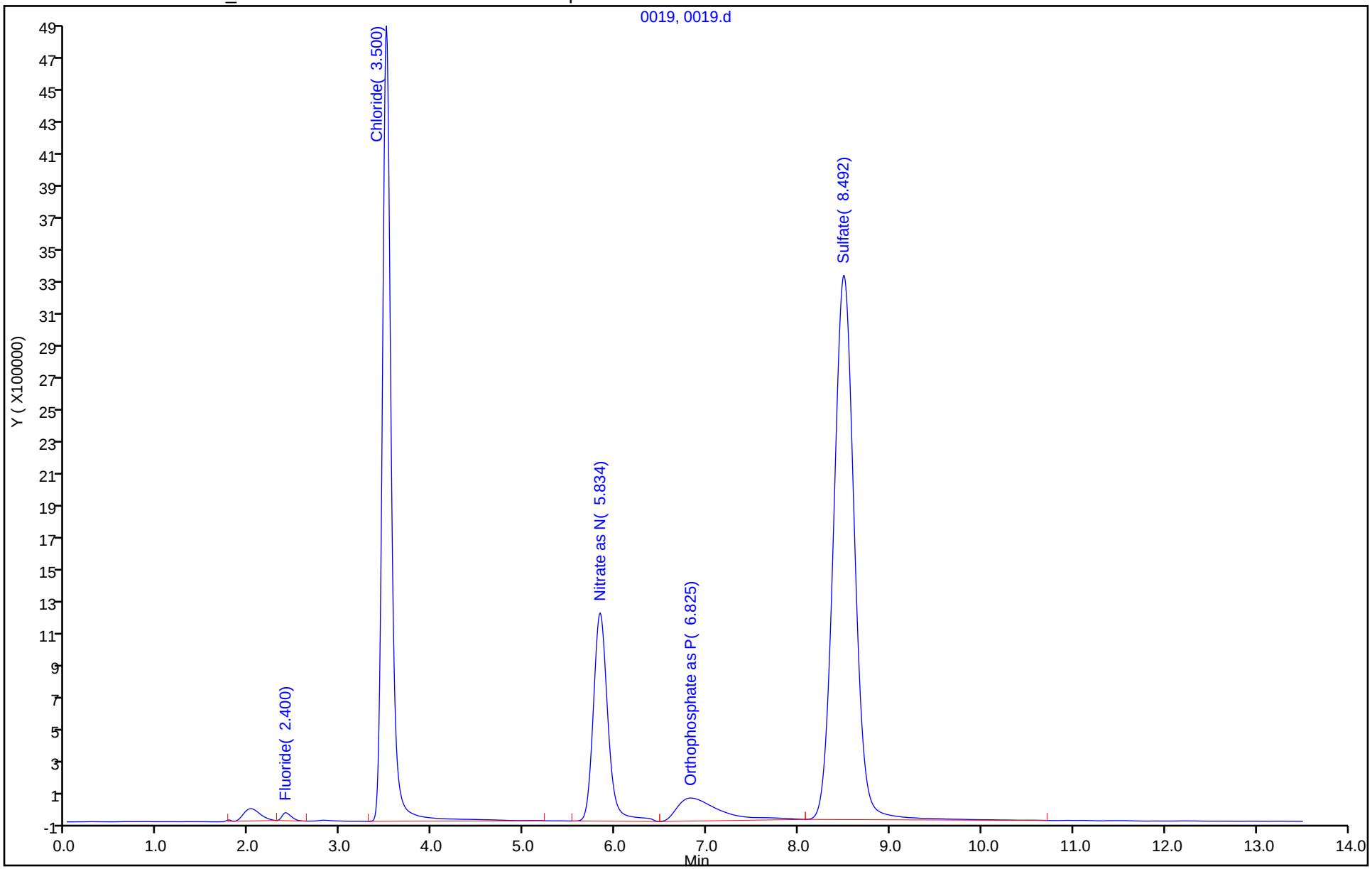
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0019.d				
Injection Date:	19-May-2019 01:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-7	Lab Sample ID:	280-123981-7	Worklist Smp#:	19
Client ID:	LF7MW-30_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/14/2019

User Disabled Compound Report

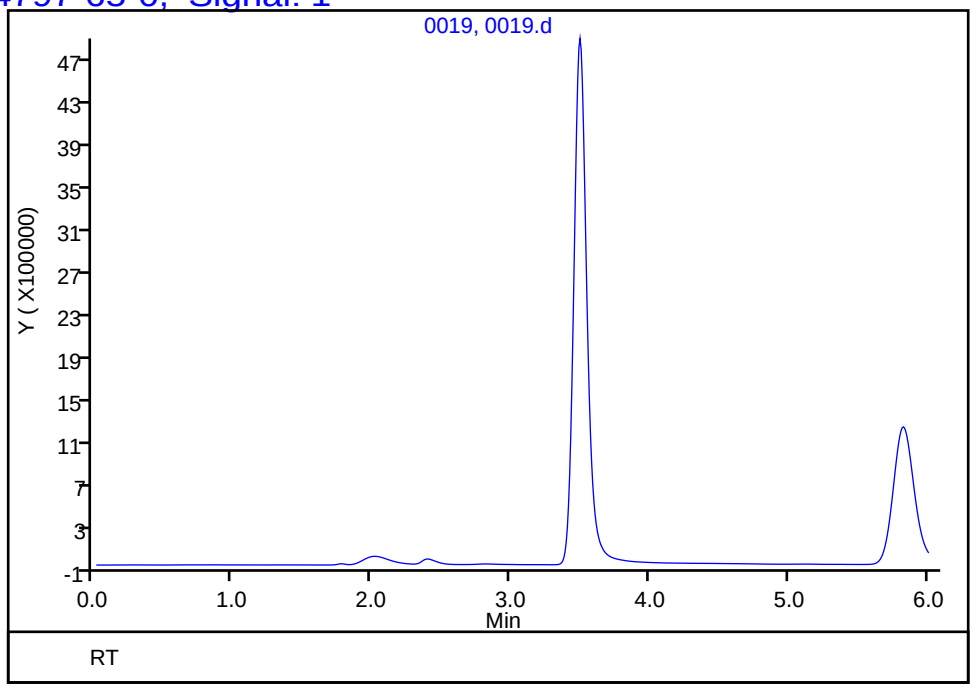
Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0019.d

Injection Date:	19-May-2019 01:13:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-I-7	Lab Sample ID:	280-123981-7		
Client ID:	LF7MW-30_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.02
Response: 960728
Amount: 0.116741



Reviewer: pedrickj, 20-May-2019 08:15:33
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0019.d
Lims ID: 280-123981-I-7
Client ID: LF7MW-30_0519
Sample Type: Client
Inject. Date: 19-May-2019 01:13:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-019
Misc. Info.: 10975 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:33

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.400	2.392	0.008	339558	-0.1078	
2 Chloride	3.500	3.534	-0.034	33158541	5.55	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	5.834	5.817	0.017	14198685	NC	
7 Orthophosphate as P	6.825	7.592	-0.767	4530350	NC	
6 Sulfate	8.492	8.509	-0.017	52890200	12.3	

QC Flag Legend

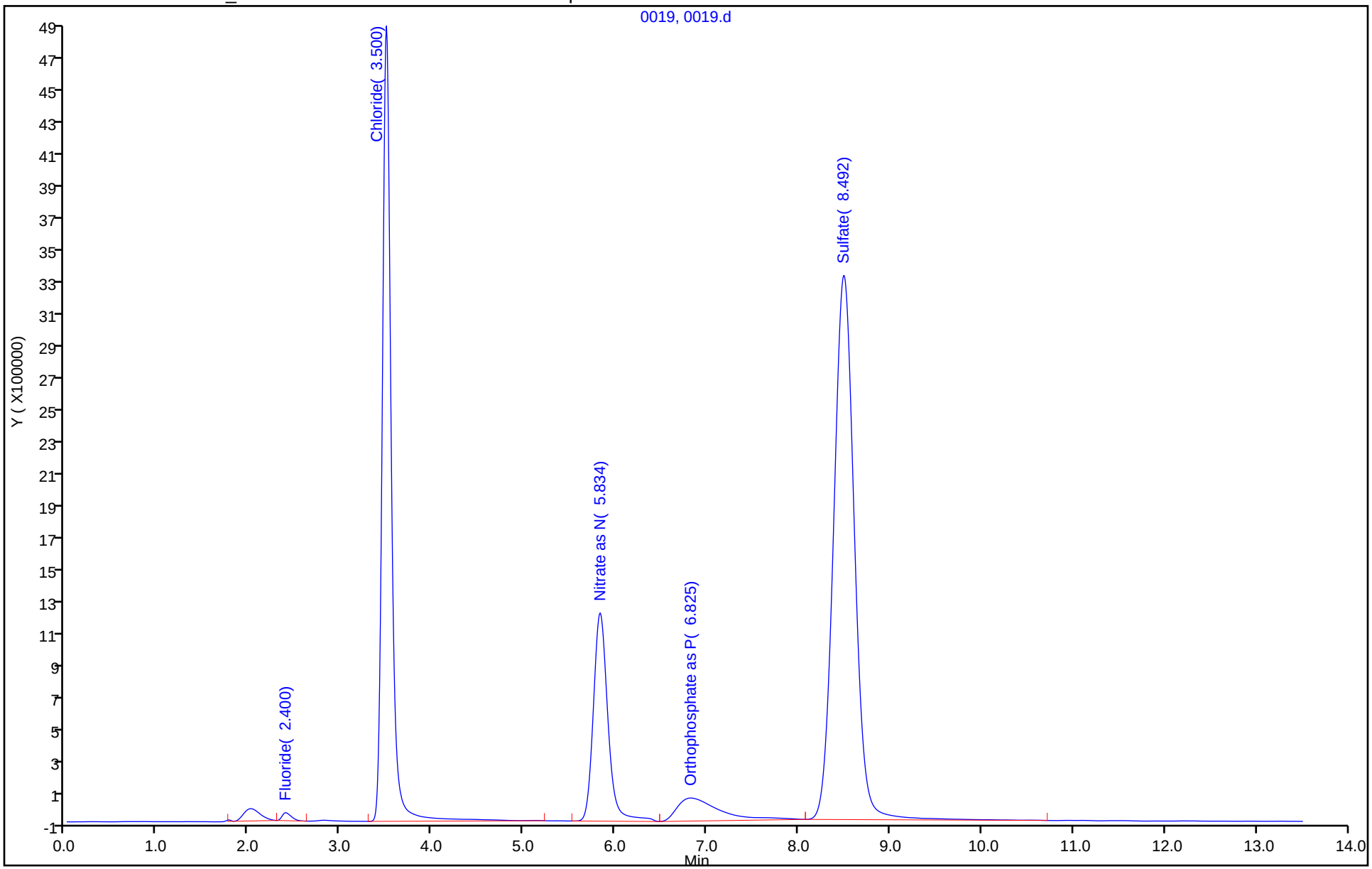
Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0019.d

Injection Date:	19-May-2019 01:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-7	Lab Sample ID:	280-123981-7	Worklist Smp#:	19
Client ID:	LF7MW-30_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



06/14/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0020.d
Lims ID: 280-123981-J-8
Client ID: LF7WL-3_0519
Sample Type: Client
Inject. Date: 19-May-2019 01:30:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-020
Misc. Info.: 32728 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 17:41:25 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:42

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	267448	NC	
2 Chloride	3.500	3.534	-0.034	7980732	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide	5.842	5.151	0.691	101792	NC	a
5 Nitrate as N	6.375	5.817	0.558	147900	0.0510	a
7 Orthophosphate as P	6.867	7.592	-0.725	3750590	0.8976	
6 Sulfate	8.484	8.509	-0.025	6730470	NC	

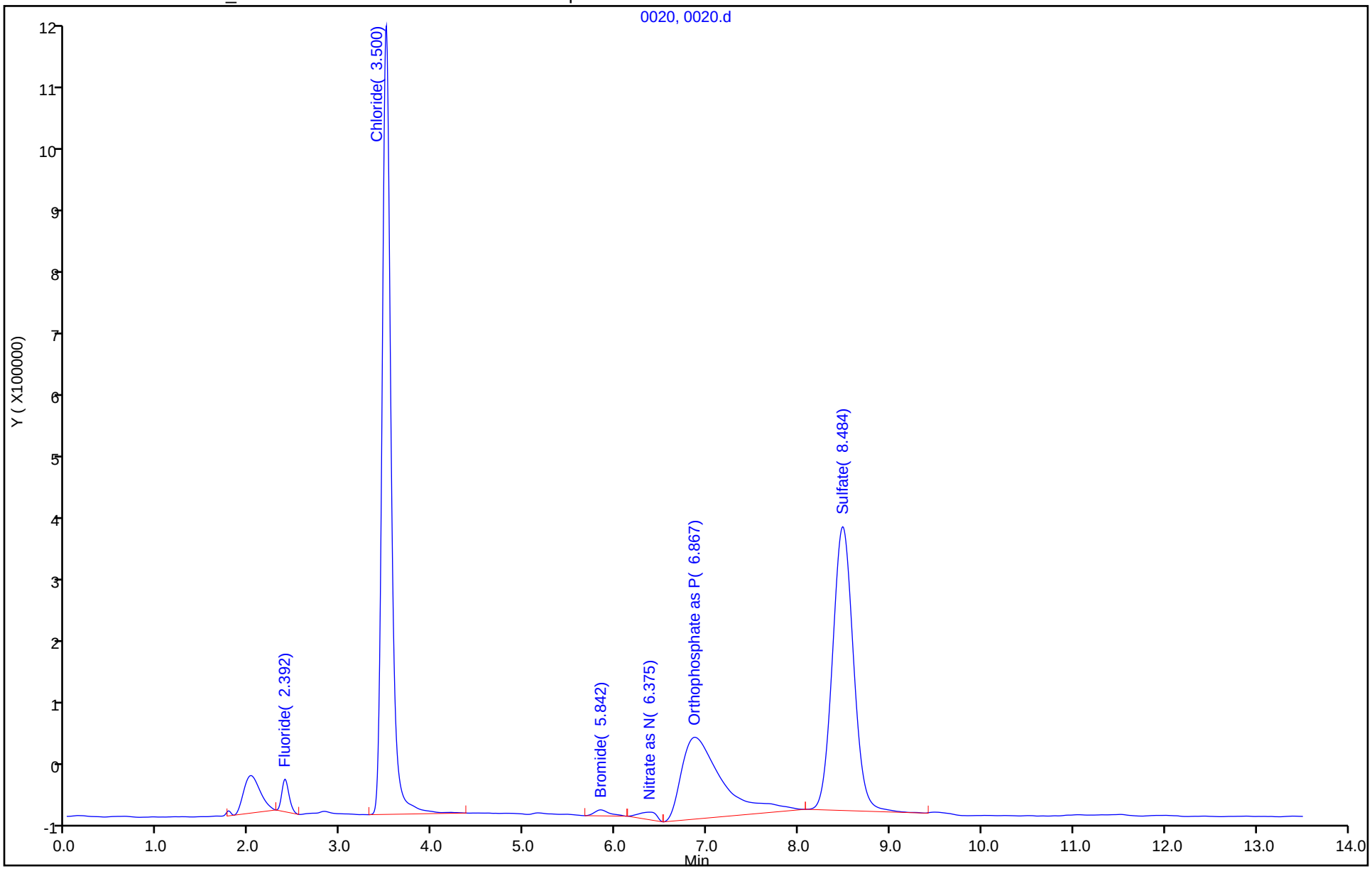
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 21-May-2019 17:41:26 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0020.d				
Injection Date:	19-May-2019 01:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-8	Lab Sample ID:	280-123981-8	Worklist Smp#:	20
Client ID:	LF7WL-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

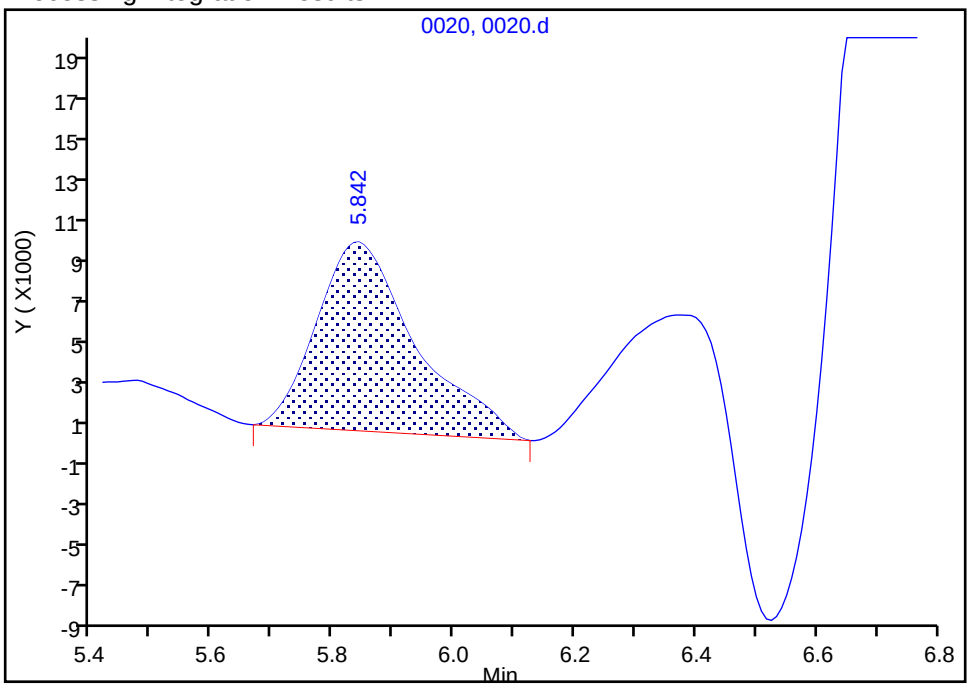
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0020.d				
Injection Date:	19-May-2019 01:30:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-J-8	Lab Sample ID:	280-123981-8		
Client ID:	LF7WL-3_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	20
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

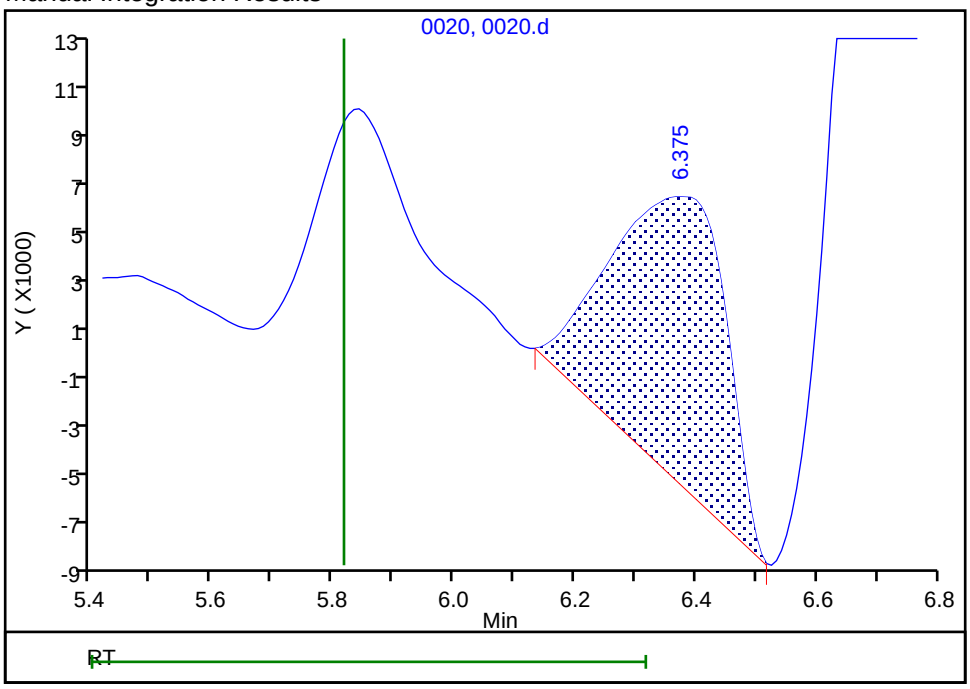
Processing Integration Results

RT: 5.84
Area: 101792
Amount: 0.046989
Amount Units: ug/ml



Manual Integration Results

RT: 6.38
Area: 147900
Amount: 0.050959
Amount Units: ug/ml



Reviewer: phantl, 21-May-2019 17:41:10
Audit Action: Assigned Compound ID Audit Reason:

User Disabled Compound Report

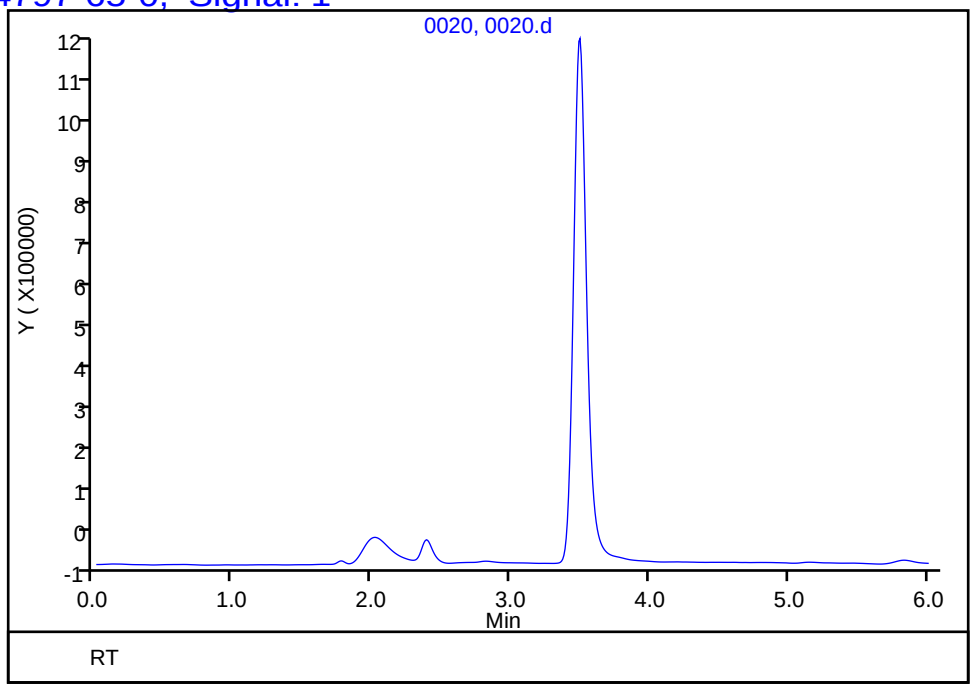
Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0020.d

Injection Date:	19-May-2019 01:30:00	Instrument ID:	WC_IonChrom11
Lims ID:	280-123981-J-8	Lab Sample ID:	280-123981-8
Client ID:	LF7WL-3_0519		
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 20
Injection Vol:	10.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC11	Limit Group:	Wet - Anions
Column:		Detector	0005

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.02
Response: 724051
Amount: 0.094183



Reviewer: pedrickj, 20-May-2019 08:15:42
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0020.d
Lims ID: 280-123981-J-8
Client ID: LF7WL-3_0519
Sample Type: Client
Inject. Date: 19-May-2019 01:30:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-020
Misc. Info.: 32728 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 17:41:25 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:42

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	267448	-0.1177	
2 Chloride	3.500	3.534	-0.034	7980732	1.80	
3 Nitrite as N		4.267			ND	U
4 Bromide	5.842	5.151	0.691	101792	0.0601	a
5 Nitrate as N	6.375	5.817	0.558	147900	NC	a
7 Orthophosphate as P	6.867	7.592	-0.725	3750590	NC	
6 Sulfate	8.484	8.509	-0.025	6730470	1.94	

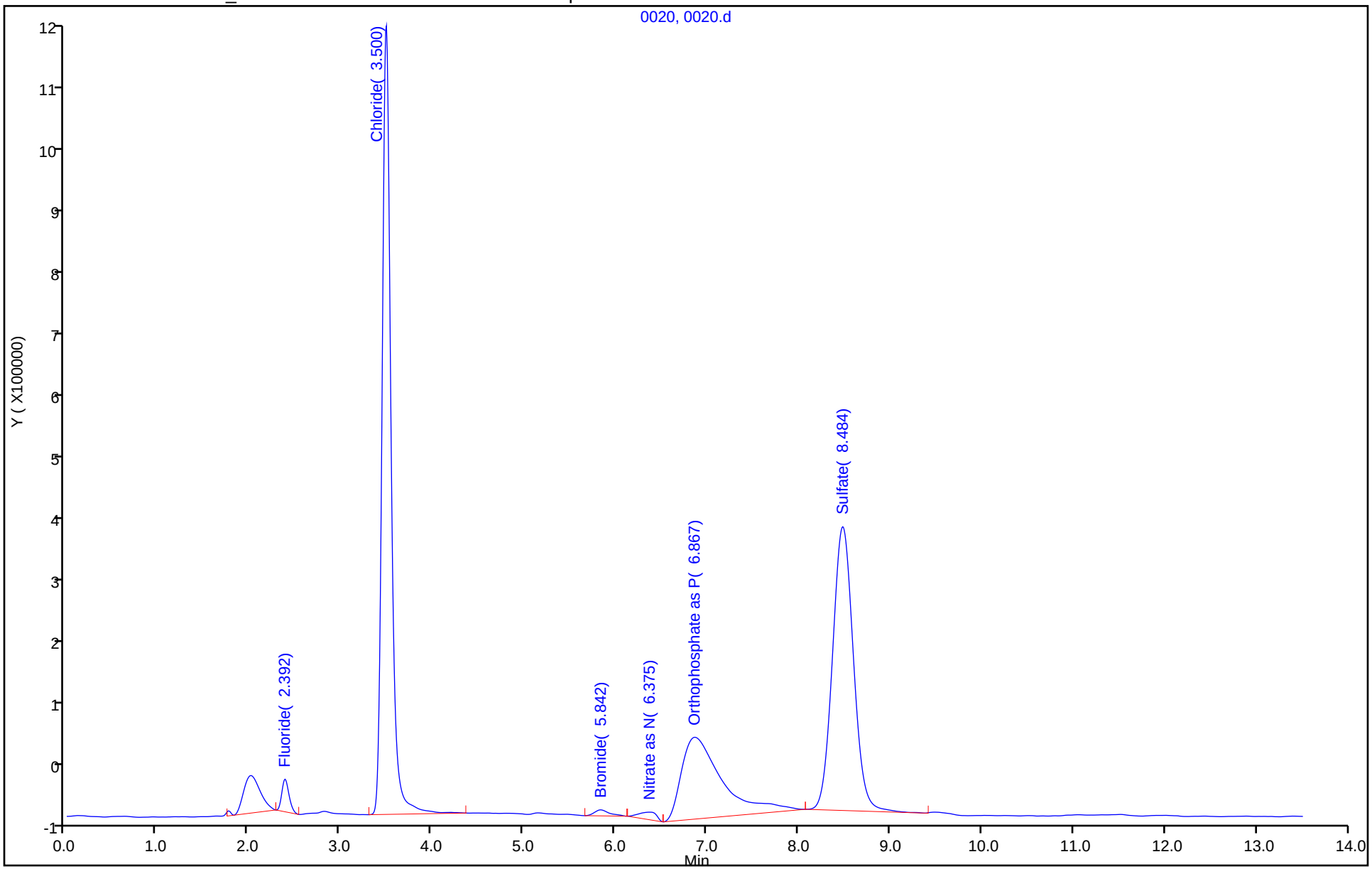
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 21-May-2019 17:46:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0020.d				
Injection Date:	19-May-2019 01:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-8	Lab Sample ID:	280-123981-8	Worklist Smp#:	20
Client ID:	LF7WL-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

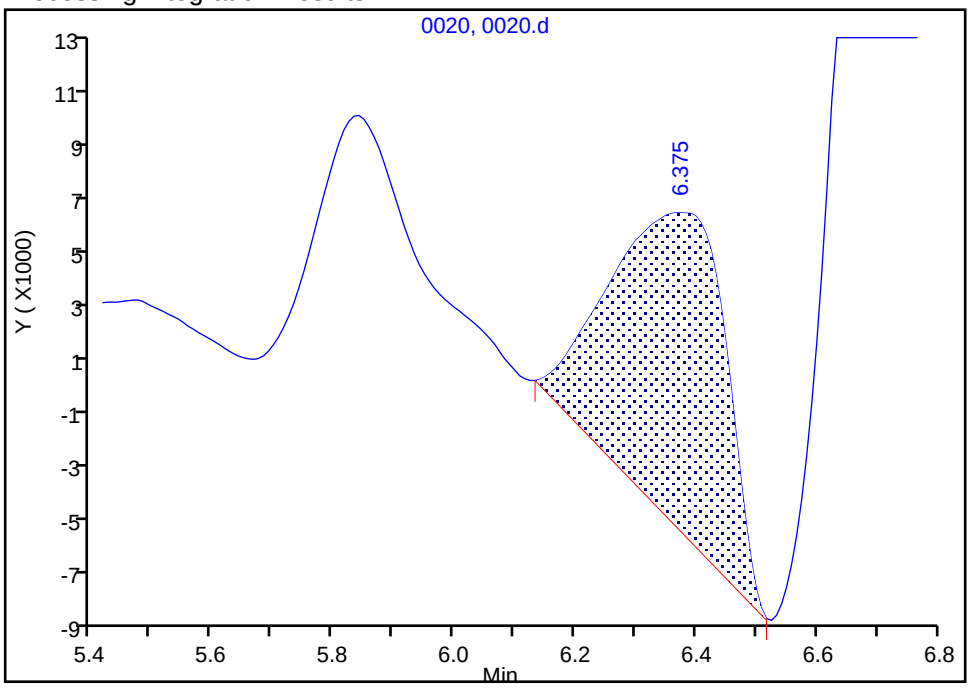
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0020.d				
Injection Date:	19-May-2019 01:30:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-J-8	Lab Sample ID:	280-123981-8		
Client ID:	LF7WL-3_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	20
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

4 Bromide, CAS: 24959-67-9

Signal: 1

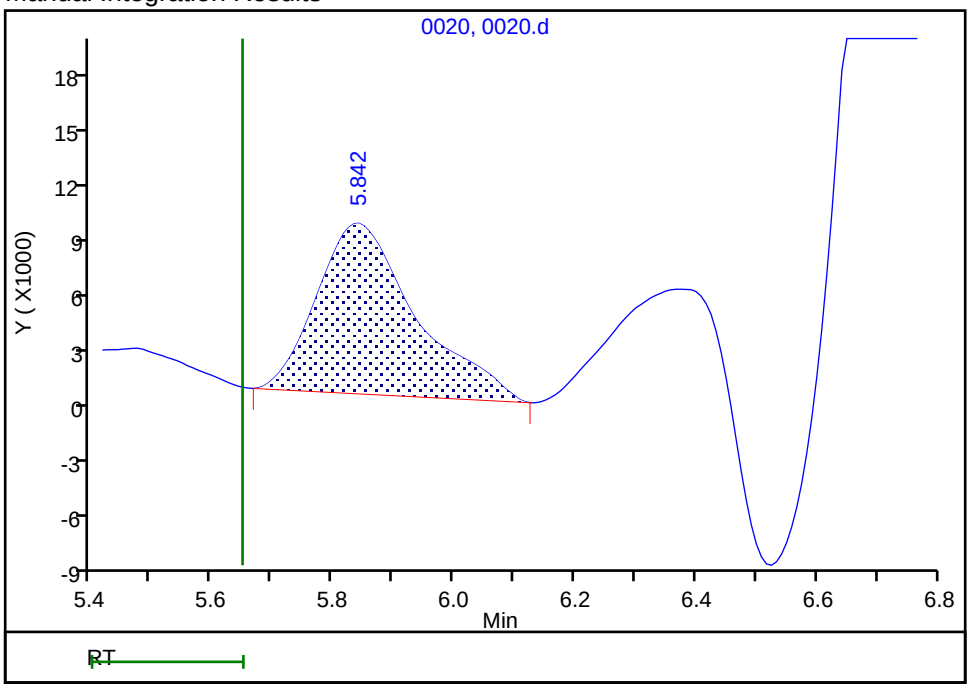
Processing Integration Results

RT: 6.38
Area: 147900
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.84
Area: 101792
Amount: 0.060143
Amount Units: ug/ml



Reviewer: phantl, 21-May-2019 17:41:20
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0021.d
Lims ID: 280-123981-H-9
Client ID: LF7WL-4_0519
Sample Type: Client
Inject. Date: 19-May-2019 01:46:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-021
Misc. Info.: 6720 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	219218	NC	
2 Chloride	3.492	3.534	-0.042	2237851	NC	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	6.400	5.817	0.583	138921	0.0502	
7 Orthophosphate as P	6.875	7.592	-0.717	3621858	0.8665	
6 Sulfate	8.484	8.509	-0.025	9718691	NC	

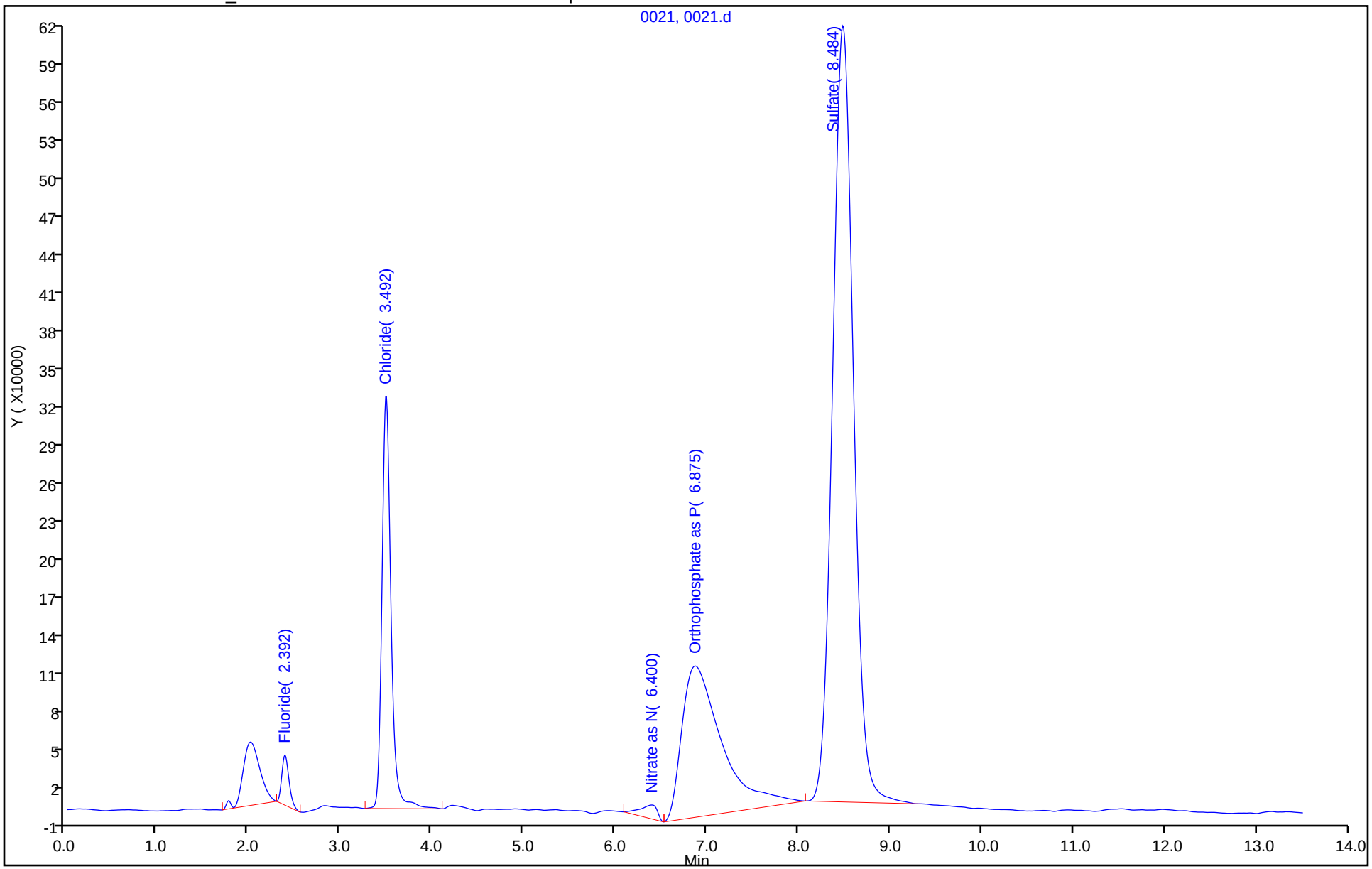
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:23 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0021.d				
Injection Date:	19-May-2019 01:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-9	Lab Sample ID:	280-123981-9	Worklist Smp#:	21
Client ID:	LF7WL-4_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



User Disabled Compound Report

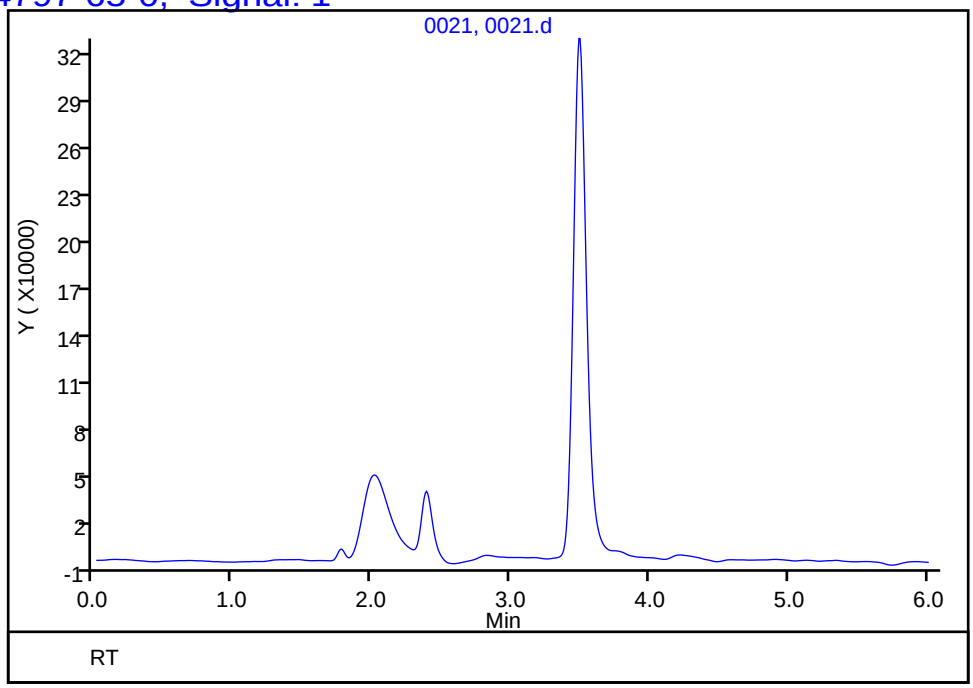
Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0021.d

Injection Date:	19-May-2019 01:46:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123981-H-9	Lab Sample ID:	280-123981-9		
Client ID:	LF7WL-4_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	21
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 2.02
Response: 650907
Amount: 0.087211



Reviewer: pedrickj, 20-May-2019 08:15:51
Audit Action: Manually Integrated Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0021.d
Lims ID: 280-123981-H-9
Client ID: LF7WL-4_0519
Sample Type: Client
Inject. Date: 19-May-2019 01:46:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-021
Misc. Info.: 6720 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:15:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	219218	-0.1244	
2 Chloride	3.492	3.534	-0.042	2237851	0.9500	
3 Nitrite as N		4.267			ND	U
4 Bromide		5.151			ND	
5 Nitrate as N	6.400	5.817	0.583	138921	NC	
7 Orthophosphate as P	6.875	7.592	-0.717	3621858	NC	
6 Sulfate	8.484	8.509	-0.025	9718691	2.61	

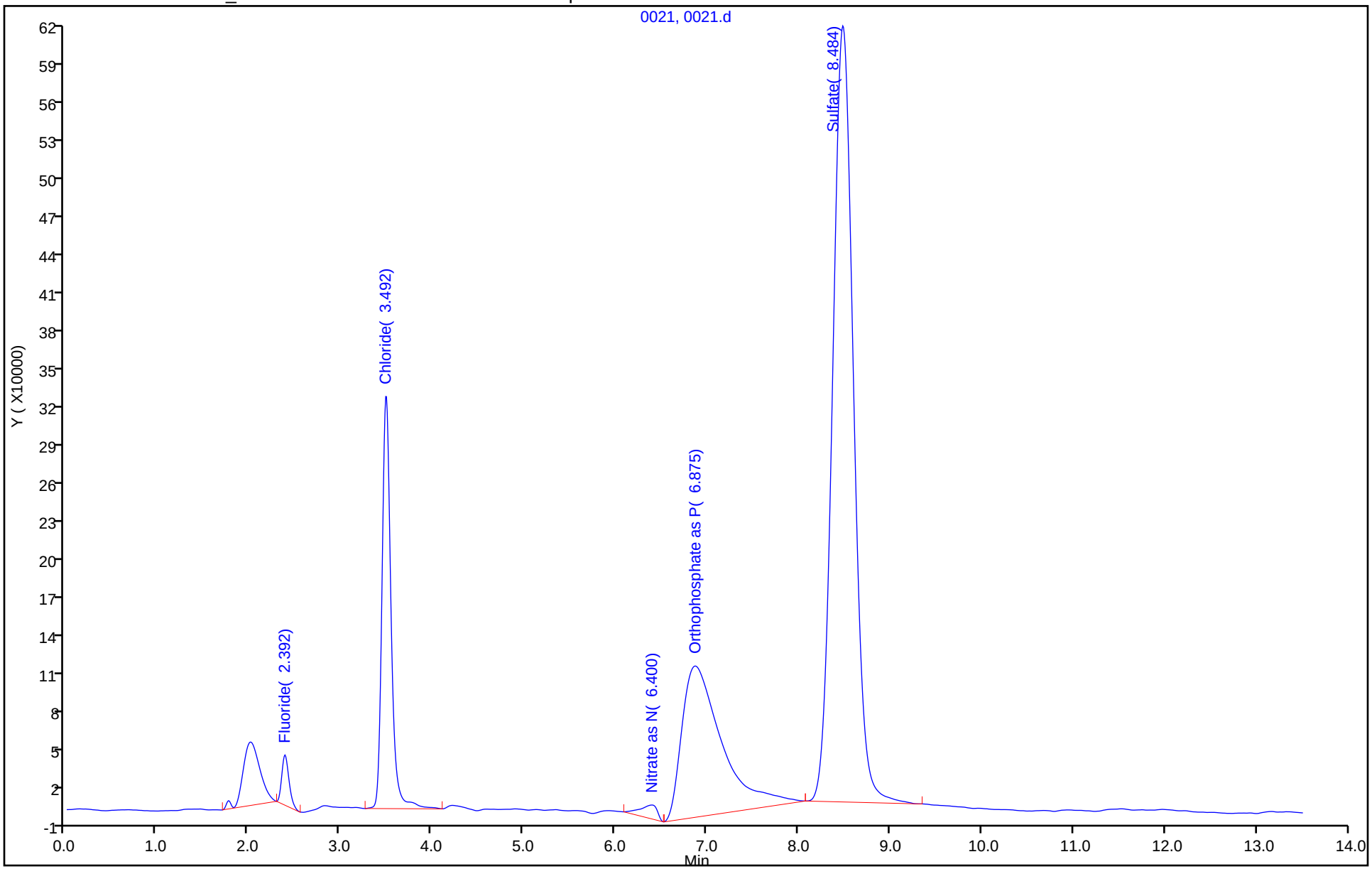
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 21-May-2019 16:34:23 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0021.d				
Injection Date:	19-May-2019 01:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-9	Lab Sample ID:	280-123981-9	Worklist Smp#:	21
Client ID:	LF7WL-4_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0028.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2019 03:41:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-028
Misc. Info.: 5461 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 21-May-2019 16:34:35 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38401453	NC	NC	
2 Chloride	3.526	3.534	-0.008	675341584	NC	NC	
3 Nitrite as N	4.259	4.267	-0.008	53398815	5.00	5.11	
4 Bromide	5.126	5.151	-0.025	10304764	NC	NC	
5 Nitrate as N	5.792	5.817	-0.025	61867058	5.00	5.37	
7 Orthophosphate as P	7.584	7.592	-0.008	25681531	5.00	6.19	
6 Sulfate	8.517	8.509	0.008	428440541	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

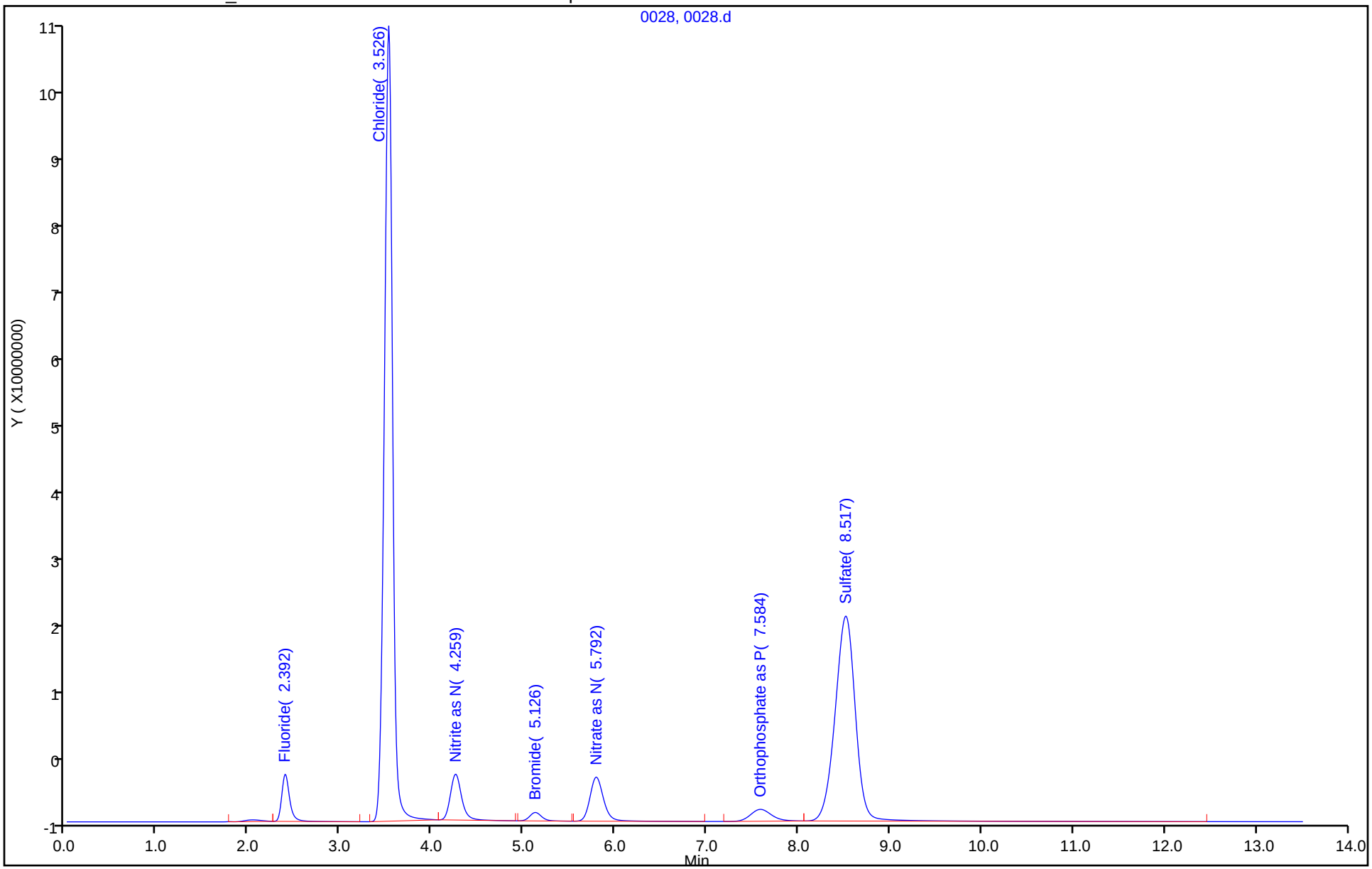
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:34:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0028.d

Injection Date:	19-May-2019 03:41:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0028.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2019 03:41:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-028
Misc. Info.: 5461 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:35 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

First Level Reviewer: pedrickj Date: 20-May-2019 08:16:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.392	0.000	38401453	5.00	5.14	
2 Chloride	3.526	3.534	-0.008	675341584	100.0	101.1	
3 Nitrite as N	4.259	4.267	-0.008	53398815	NC	NC	
4 Bromide	5.126	5.151	-0.025	10304764	5.00	5.32	
5 Nitrate as N	5.792	5.817	-0.025	61867058	NC	NC	
7 Orthophosphate as P	7.584	7.592	-0.008	25681531	NC	NC	
6 Sulfate	8.517	8.509	0.008	428440541	100.0	96.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

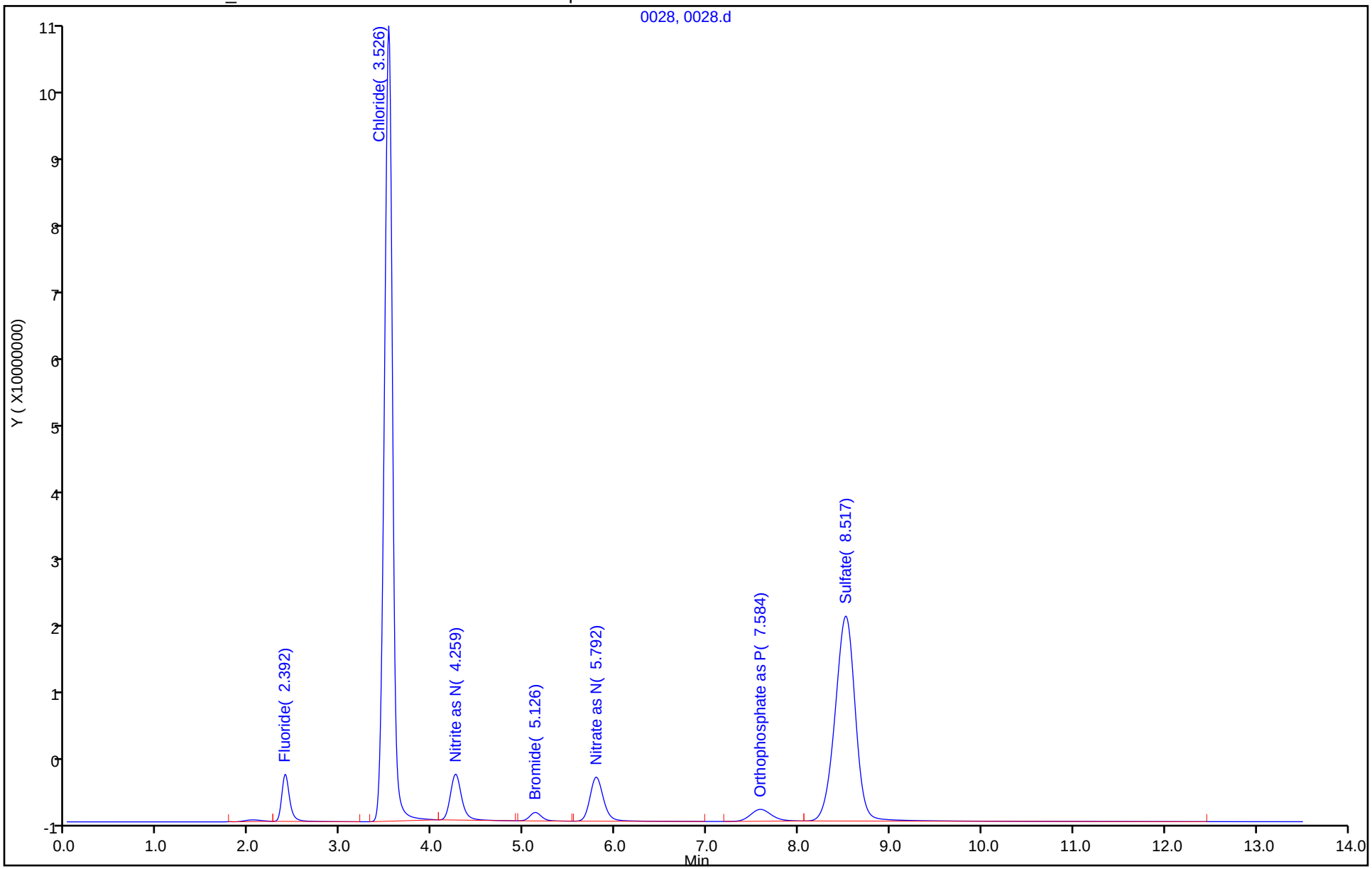
Reagents:

IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 21-May-2019 16:34:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0028.d				
Injection Date:	19-May-2019 03:41:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0029.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	19-May-2019 03:57:00	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082040-029				
Misc. Info.:	13153 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	21-May-2019 16:34:35	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0330				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.392				ND	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate	7.059	8.509	-1.450	302265			NC

QC Flag Legend

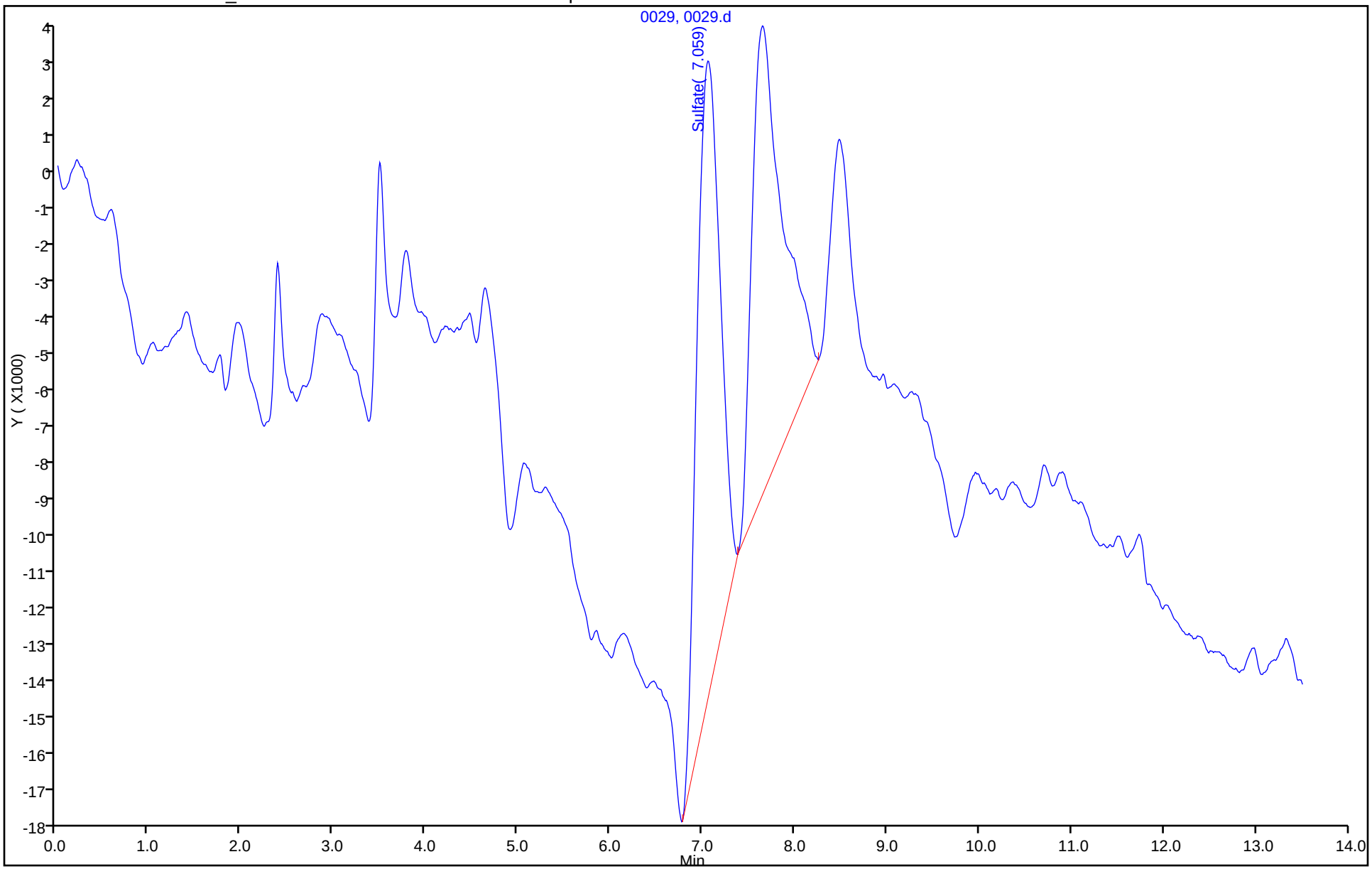
Processing Flags
NC - Not Calibrated

Report Date: 21-May-2019 16:34:37 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0029.d

Injection Date:	19-May-2019 03:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0029.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 19-May-2019 03:57:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082040-029
Misc. Info.: 13153 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-May-2019 16:34:35 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0330

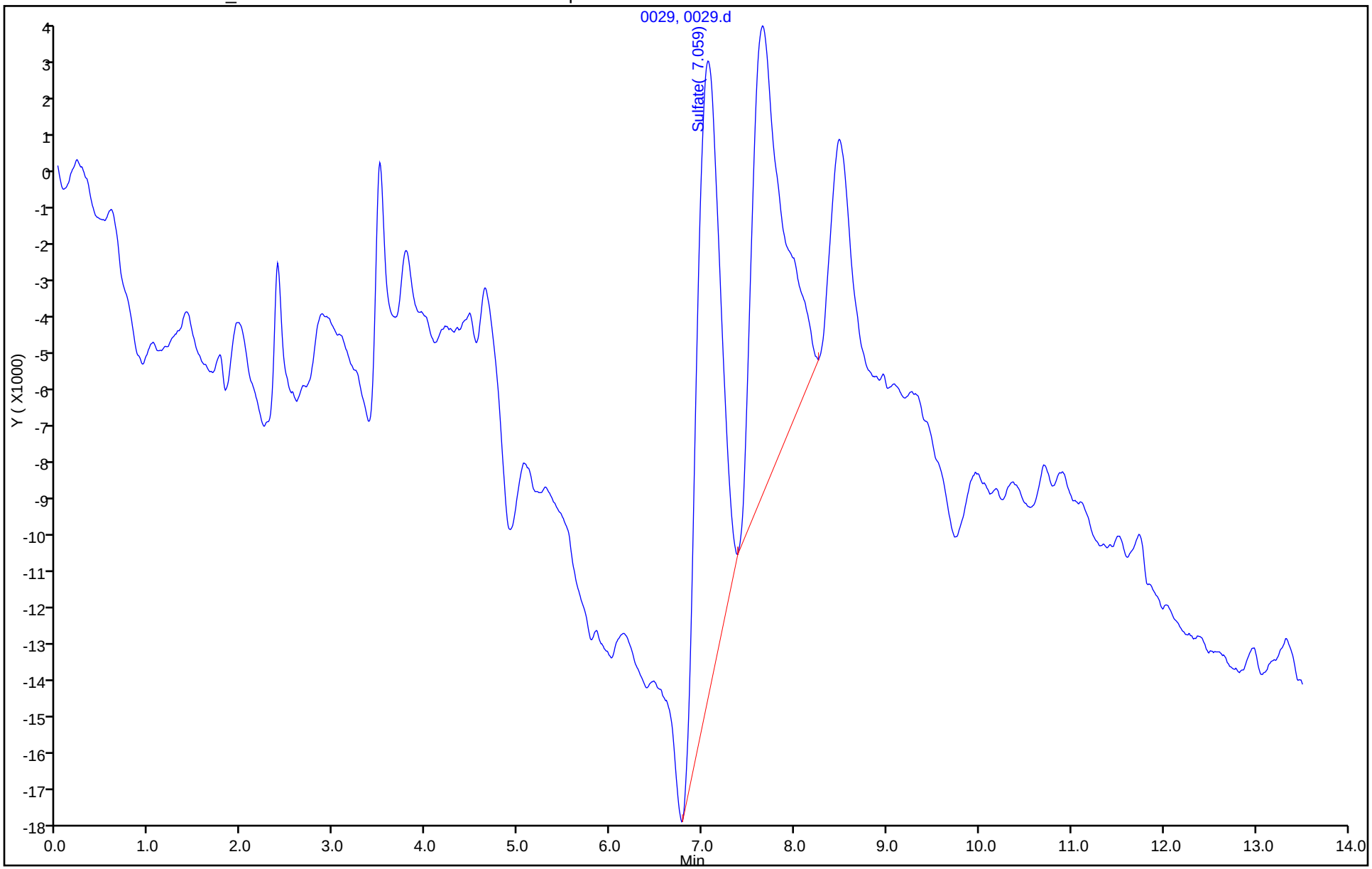
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.392				ND	
2 Chloride		3.534				ND	
3 Nitrite as N		4.267				ND	
4 Bromide		5.151				ND	
5 Nitrate as N		5.817				ND	
7 Orthophosphate as P		7.592				ND	
6 Sulfate	7.059	8.509	-1.450	302265		0.5049	

Report Date: 21-May-2019 16:34:37 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\0029.d

Injection Date:	19-May-2019 03:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



06/14/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-May-2019 15:30:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:56 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	1366393	NC	NC	
2 Chloride	3.209	3.225	-0.016	4569363	NC	NC	
3 Nitrite as N	3.842	3.850	-0.008	1909782	0.2000	0.2135	
4 Bromide	4.576	4.575	0.001	400482	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	2221862	0.2000	0.2220	
7 Orthophosphate as P	5.642	5.634	0.008	1282877	0.2000	0.2159	
6 Sulfate	6.359	6.409	-0.050	3422980	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

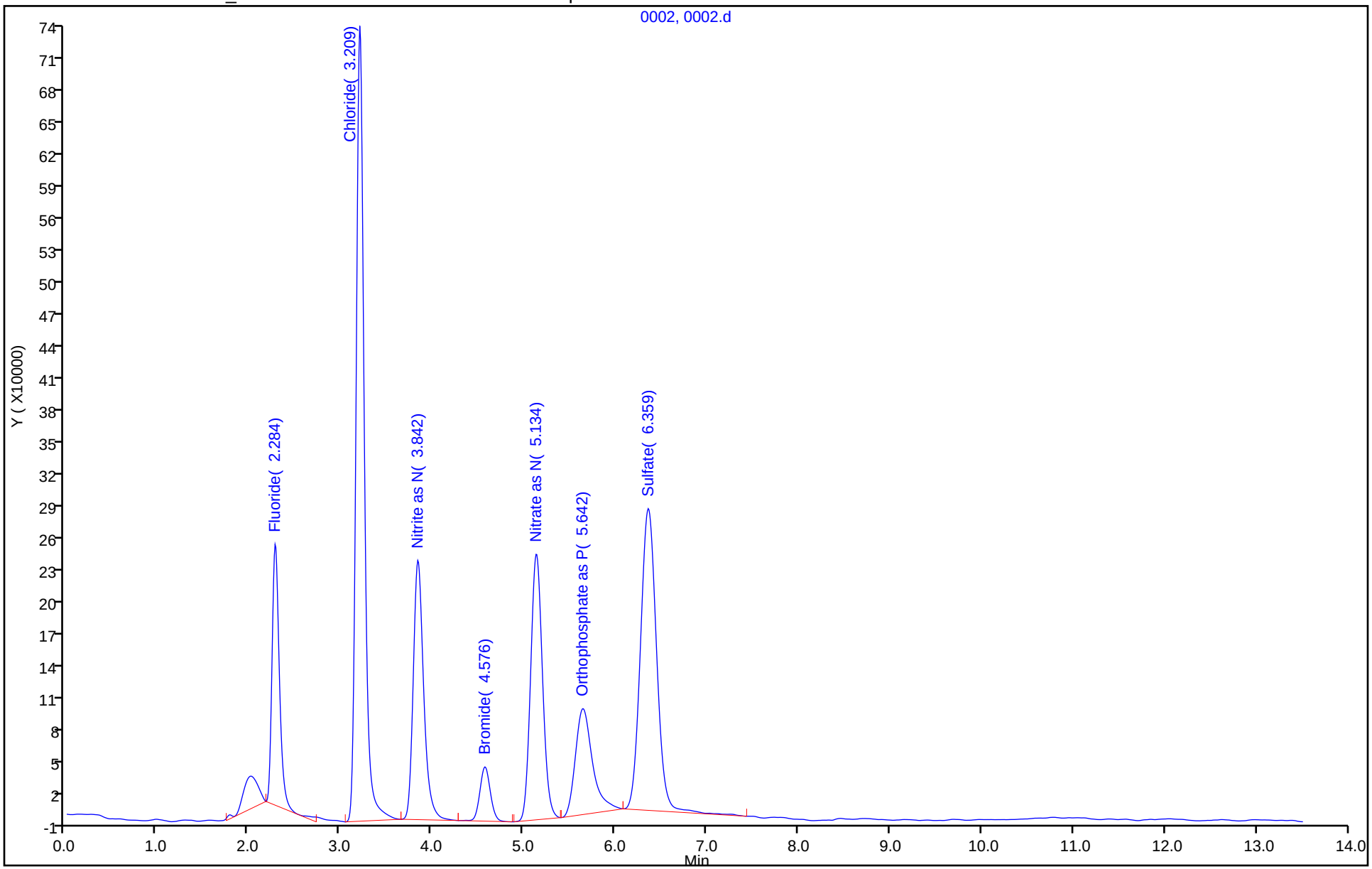
IC CAL cl/so4_00257 Amount Added: 0.02 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d

Injection Date:	20-May-2019 15:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-May-2019 15:30:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:56 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	1366393	0.2000	0.2154	
2 Chloride	3.209	3.225	-0.016	4569363	1.00	1.32	
3 Nitrite as N	3.842	3.850	-0.008	1909782	NC	NC	
4 Bromide	4.576	4.575	0.001	400482	0.2000	0.2052	
5 Nitrate as N	5.134	5.134	0.000	2221862	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	1282877	NC	NC	
6 Sulfate	6.359	6.409	-0.050	3422980	1.00	1.24	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

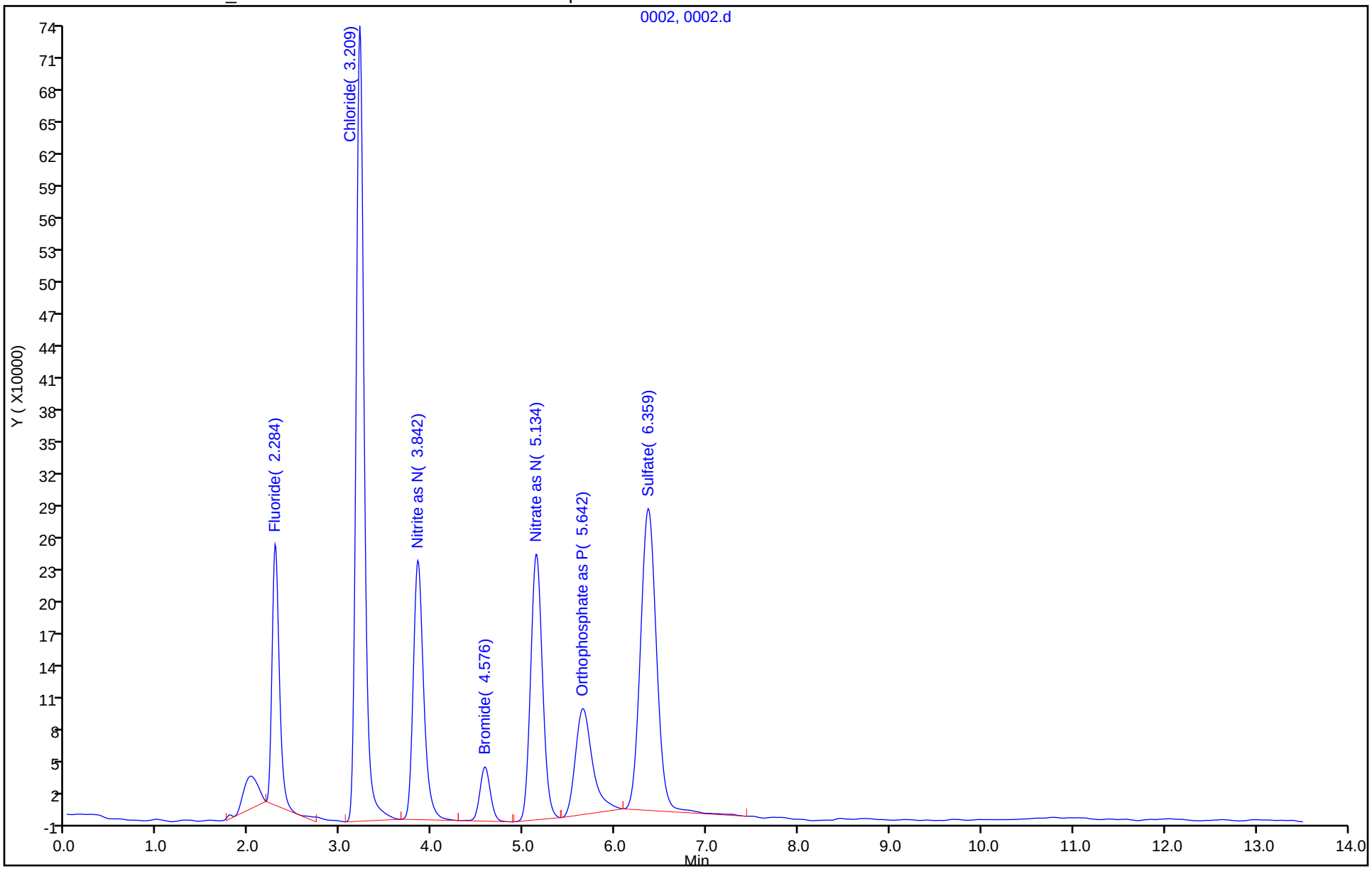
IC CAL cl/so4_00257 Amount Added: 0.02 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d

Injection Date:	20-May-2019 15:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-May-2019 15:47:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:57 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3430647	NC	NC	
2 Chloride	3.217	3.225	-0.008	11169540	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	4883590	0.5000	0.4916	
4 Bromide	4.575	4.575	0.000	1010337	NC	NC	
5 Nitrate as N	5.142	5.134	0.008	5516108	0.5000	0.4876	
7 Orthophosphate as P	5.642	5.634	0.008	2559825	0.5000	0.4883	
6 Sulfate	6.367	6.409	-0.042	8373202	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

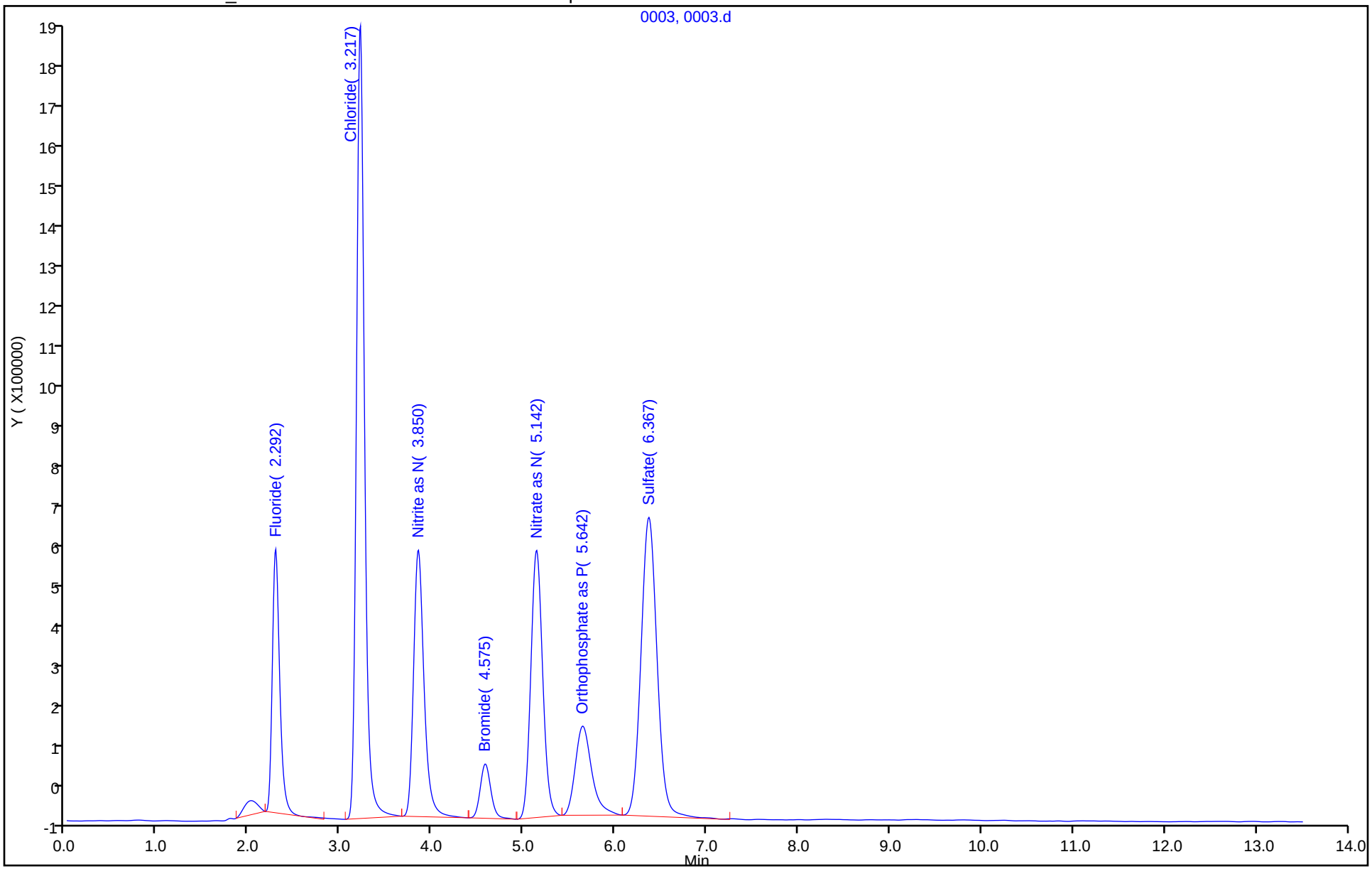
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d

Injection Date:	20-May-2019 15:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-May-2019 15:47:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:57 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3430647	0.5000	0.4876	
2 Chloride	3.217	3.225	-0.008	11169540	2.50	2.33	
3 Nitrite as N	3.850	3.850	0.000	4883590	NC	NC	
4 Bromide	4.575	4.575	0.000	1010337	0.5000	0.4998	
5 Nitrate as N	5.142	5.134	0.008	5516108	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	2559825	NC	NC	
6 Sulfate	6.367	6.409	-0.042	8373202	2.50	2.40	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

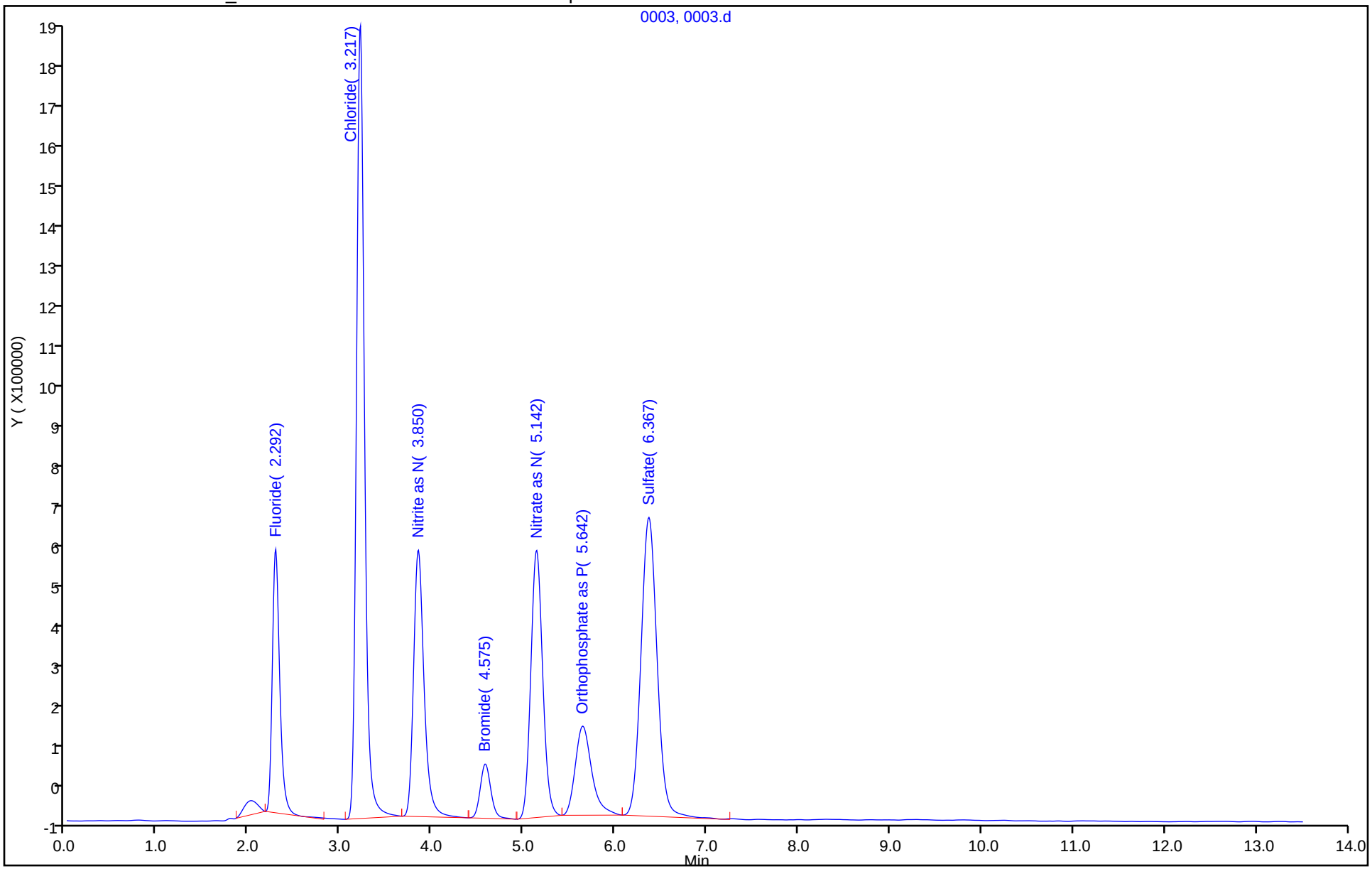
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d

Injection Date:	20-May-2019 15:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-May-2019 16:03:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	7044898	NC	NC	
2 Chloride	3.209	3.225	-0.016	22624207	NC	NC	
3 Nitrite as N	3.842	3.850	-0.008	9975765	1.00	0.9678	
4 Bromide	4.575	4.575	0.000	2013985	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	11156305	1.00	0.9423	
7 Orthophosphate as P	5.642	5.634	0.008	4766974	1.00	0.9591	
6 Sulfate	6.359	6.409	-0.050	16706402	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

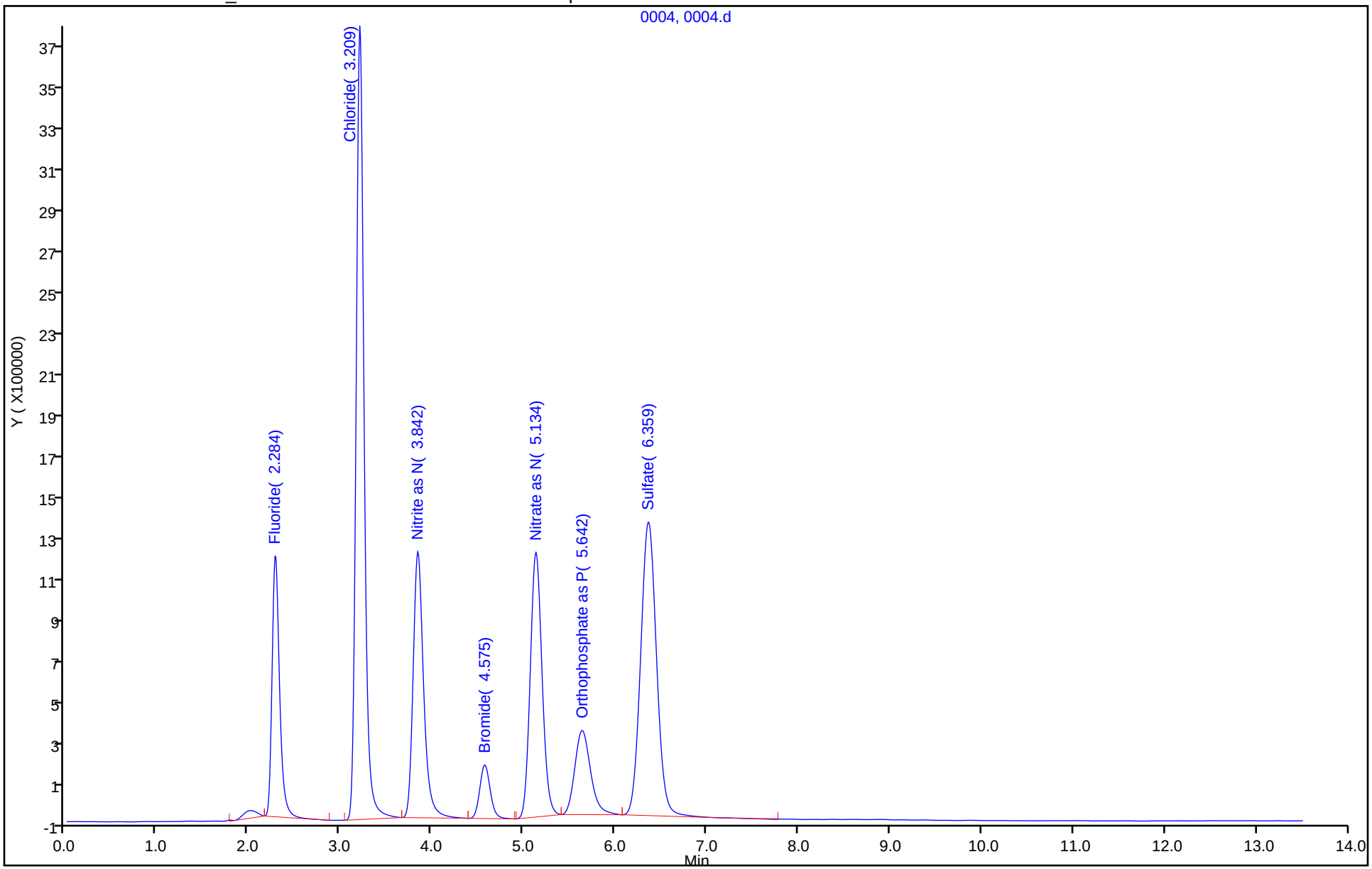
Reagents:

IC CAL cl/so4_00257	Amount Added:	0.10	Units: mL
IC Cal low_00459	Amount Added:	0.10	Units: mL

Report Date: 22-May-2019 07:58:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d				
Injection Date:	20-May-2019 16:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-May-2019 16:03:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	7044898	1.00	0.9642	
2 Chloride	3.209	3.225	-0.016	22624207	5.00	4.08	
3 Nitrite as N	3.842	3.850	-0.008	9975765	NC	NC	
4 Bromide	4.575	4.575	0.000	2013985	1.00	0.9847	
5 Nitrate as N	5.134	5.134	0.000	11156305	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	4766974	NC	NC	
6 Sulfate	6.359	6.409	-0.050	16706402	5.00	4.34	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

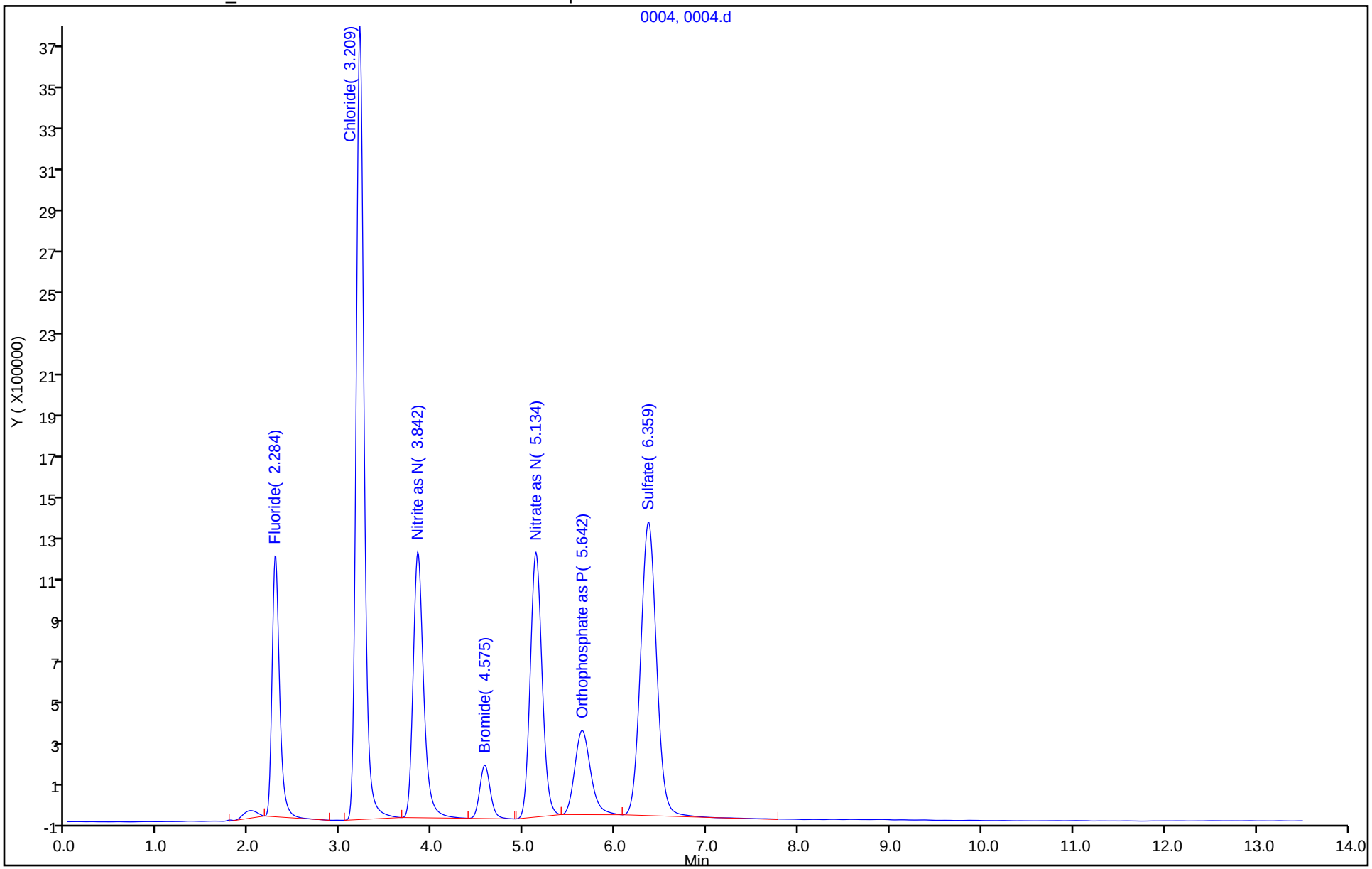
IC CAL cl/so4_00257	Amount Added:	0.10	Units: mL
IC Cal low_00459	Amount Added:	0.10	Units: mL

Report Date: 22-May-2019 07:58:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d

Injection Date:	20-May-2019 16:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-May-2019 16:20:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:58 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29030461	NC	NC	
2 Chloride	3.225	3.225	0.000	351737681	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	40862664	4.00	3.86	
4 Bromide	4.575	4.575	0.000	8108630	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	46444411	4.00	3.79	
7 Orthophosphate as P	5.634	5.634	0.000	18453992	4.00	3.88	
6 Sulfate	6.392	6.392	0.000	231352897	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

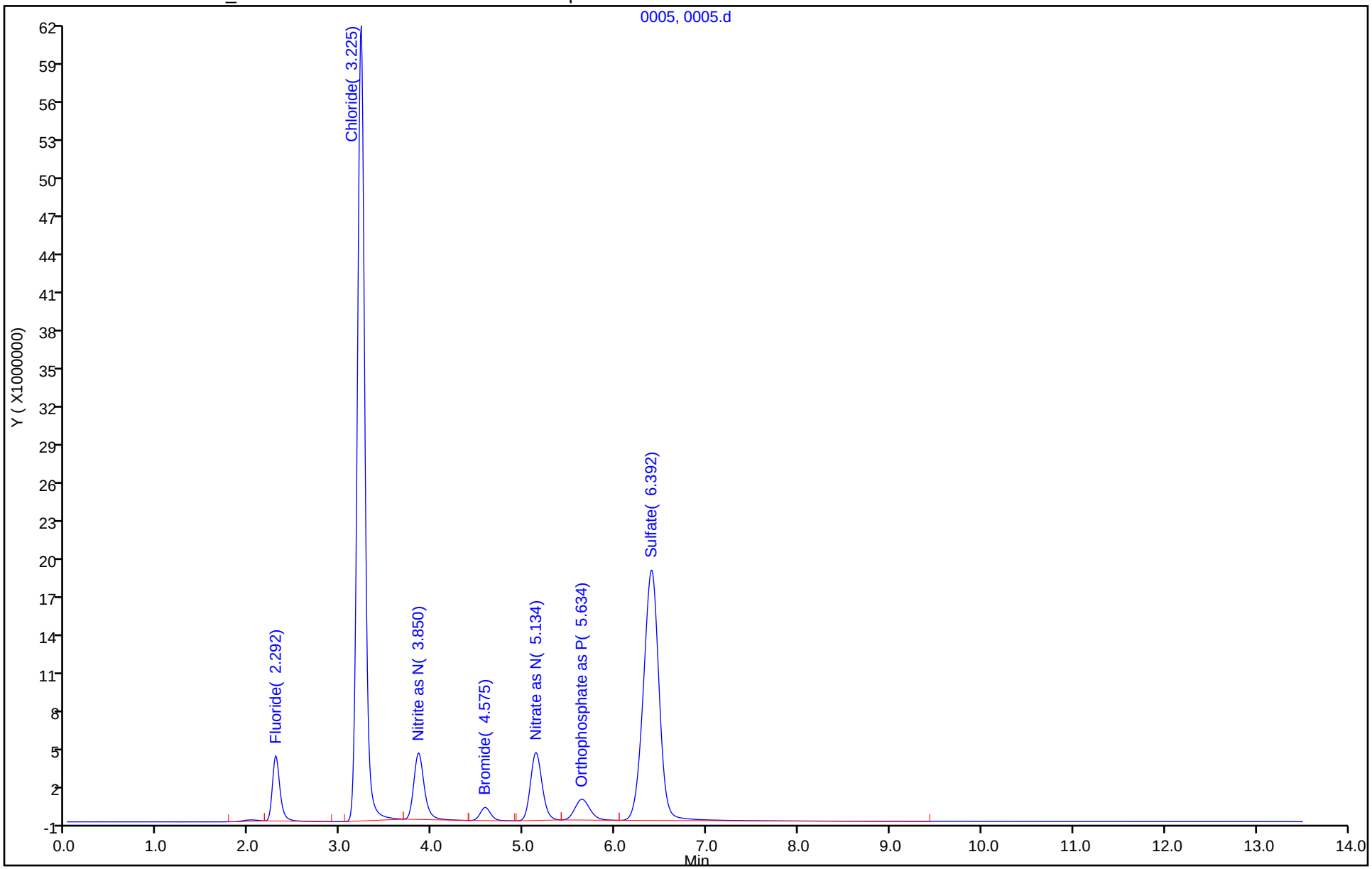
IC CAL cl/so4_00257 Amount Added: 1.20 Units: mL
IC Cal low_00459 Amount Added: 0.40 Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d

Injection Date:	20-May-2019 16:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d				
Lims ID:	std L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	20-May-2019 16:20:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-005				
Misc. Info.:	5 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29030461	4.00	3.86	
2 Chloride	3.225	3.225	0.000	351737681	60.0	54.5	
3 Nitrite as N	3.850	3.850	0.000	40862664	NC	NC	
4 Bromide	4.575	4.575	0.000	8108630	4.00	3.93	
5 Nitrate as N	5.134	5.134	0.000	46444411	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	18453992	NC	NC	
6 Sulfate	6.392	6.392	0.000	231352897	60.0	54.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

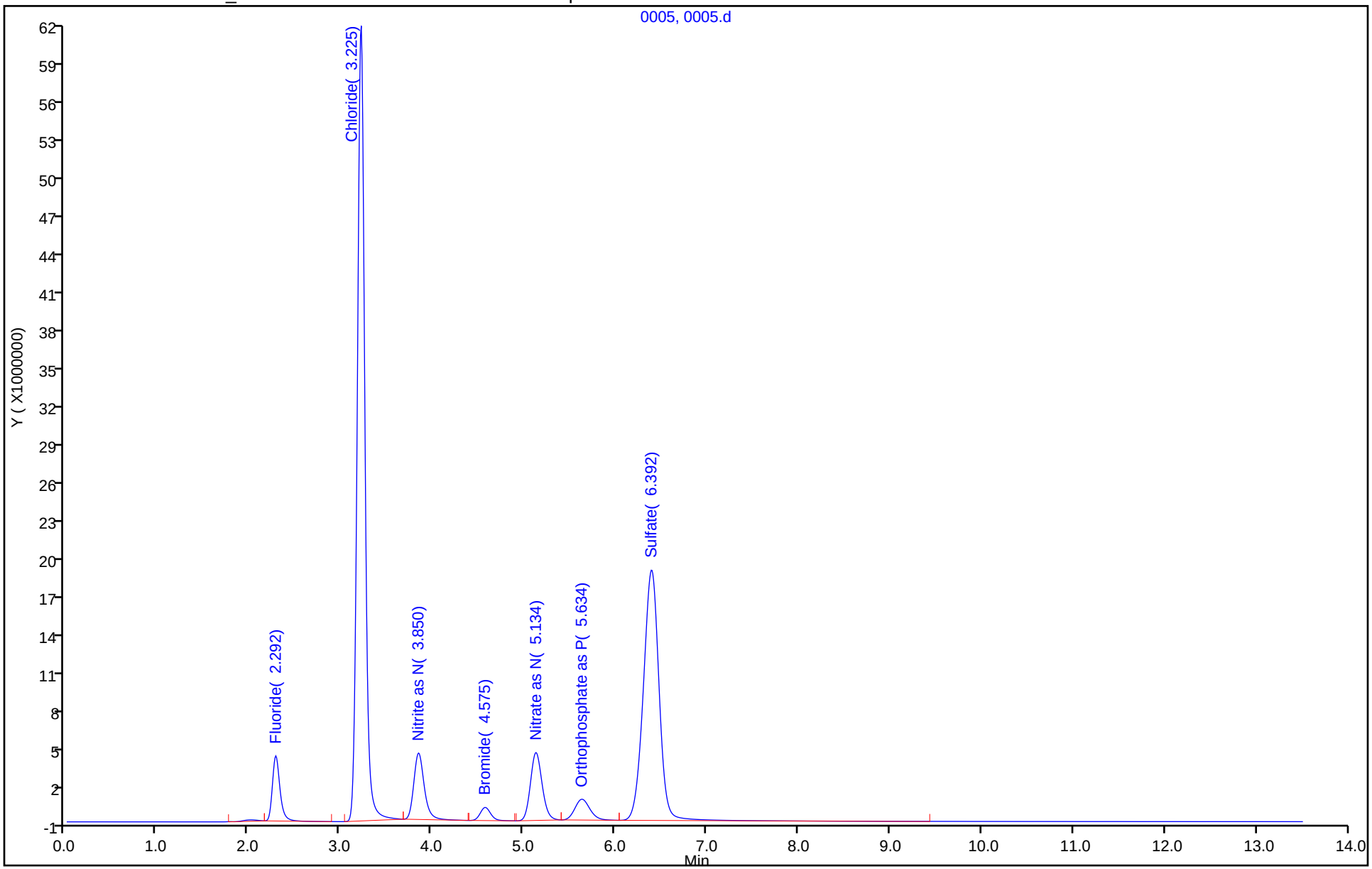
IC CAL cl/so4_00257	Amount Added:	1.20	Units: mL
IC Cal low_00459	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d

Injection Date:	20-May-2019 16:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d				
Lims ID:	std L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	20-May-2019 16:36:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:58:59	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	60687106	NC	NC	
2 Chloride	3.225	3.225	0.000	767710112	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	85254927	8.00	8.01	
4 Bromide	4.575	4.575	0.000	16491045	NC	NC	
5 Nitrate as N	5.117	5.134	-0.017	98595023	8.00	7.99	
7 Orthophosphate as P	5.625	5.634	-0.009	37609857	8.00	7.96	
6 Sulfate	6.417	6.392	0.025	499759358	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

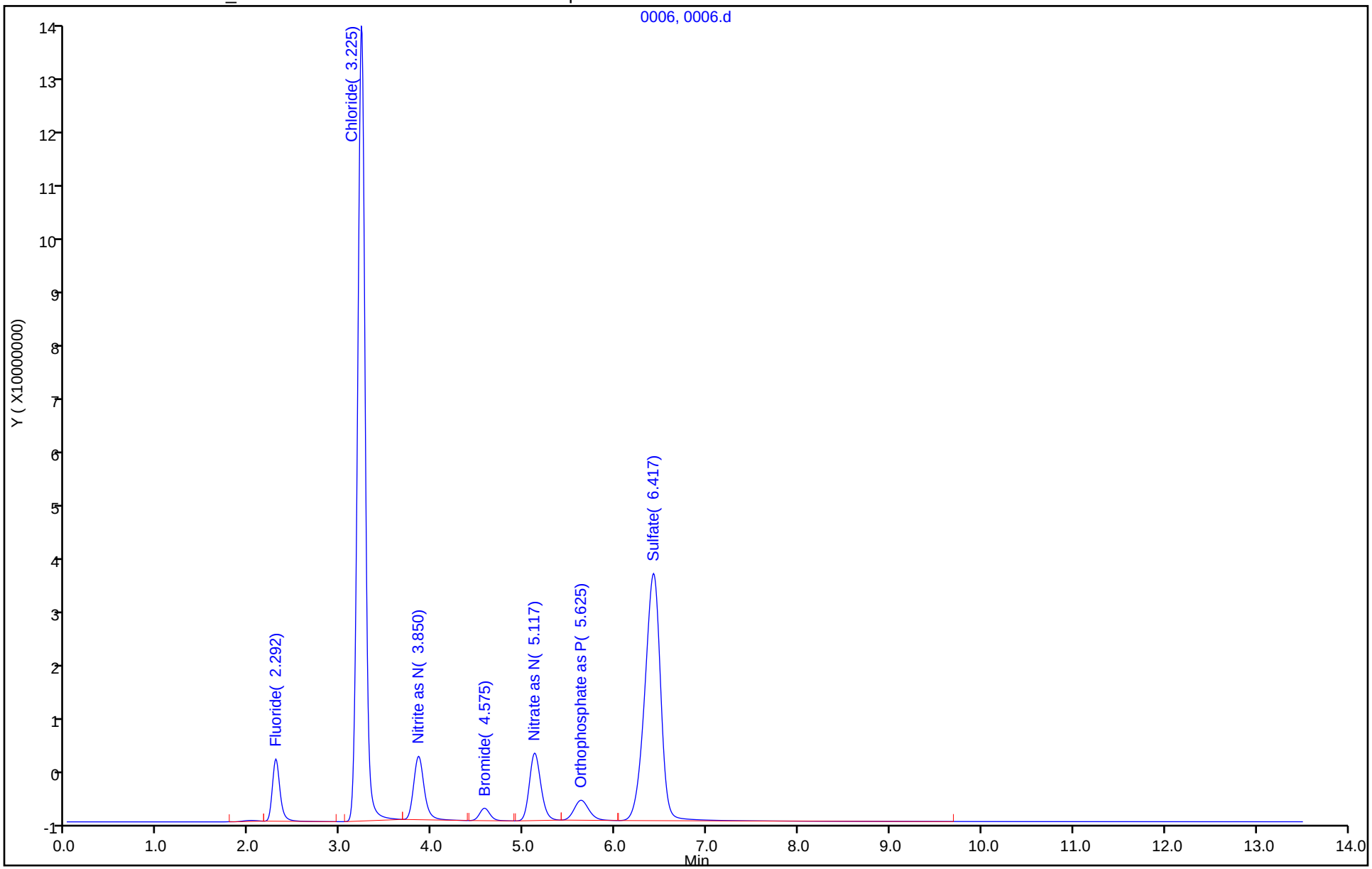
IC CAL cl/so4_00257	Amount Added:	2.40	Units: mL
IC Cal low_00459	Amount Added:	0.80	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d

Injection Date:	20-May-2019 16:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d				
Lims ID:	std L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	20-May-2019 16:36:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:59	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	60687106	8.00	8.04	
2 Chloride	3.225	3.225	0.000	767710112	120.0	118.2	
3 Nitrite as N	3.850	3.850	0.000	85254927	NC	NC	
4 Bromide	4.575	4.575	0.000	16491045	8.00	7.98	
5 Nitrate as N	5.117	5.134	-0.017	98595023	NC	NC	
7 Orthophosphate as P	5.625	5.634	-0.009	37609857	NC	NC	
6 Sulfate	6.417	6.392	0.025	499759358	120.0	117.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

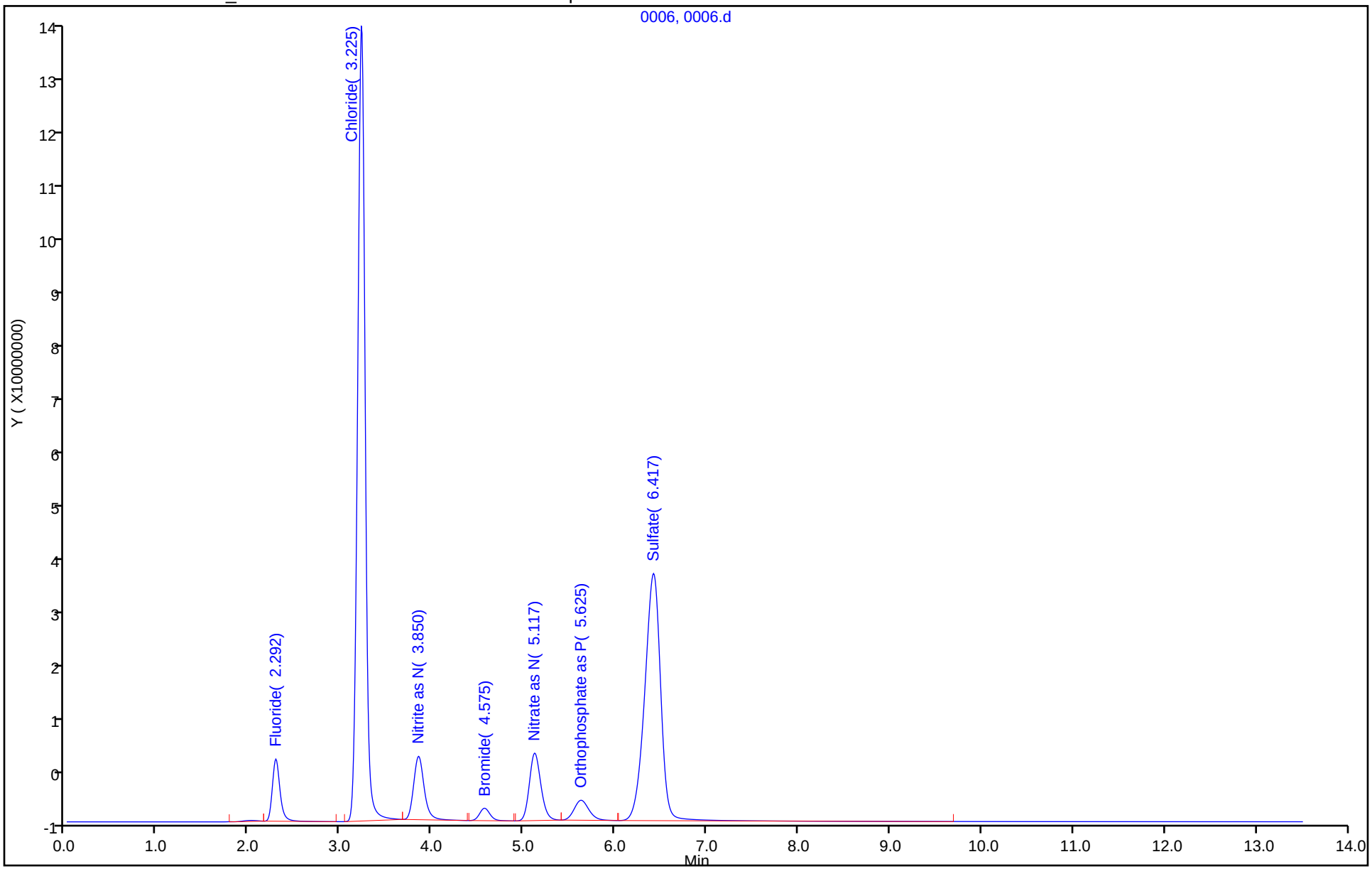
IC CAL cl/so4_00257	Amount Added:	2.40	Units: mL
IC Cal low_00459	Amount Added:	0.80	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d

Injection Date:	20-May-2019 16:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	20-May-2019 16:52:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-007				
Misc. Info.:	7 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:00	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	76568117	NC	NC	
2 Chloride	3.242	3.225	0.017	1354016260	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	108323395	10.0	10.2	
4 Bromide	4.567	4.575	-0.008	20888090	NC	NC	
5 Nitrate as N	5.117	5.134	-0.017	126834114	10.0	10.3	
7 Orthophosphate as P	5.626	5.634	-0.008	48062818	10.0	10.2	
6 Sulfate	6.442	6.392	0.050	892937706	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

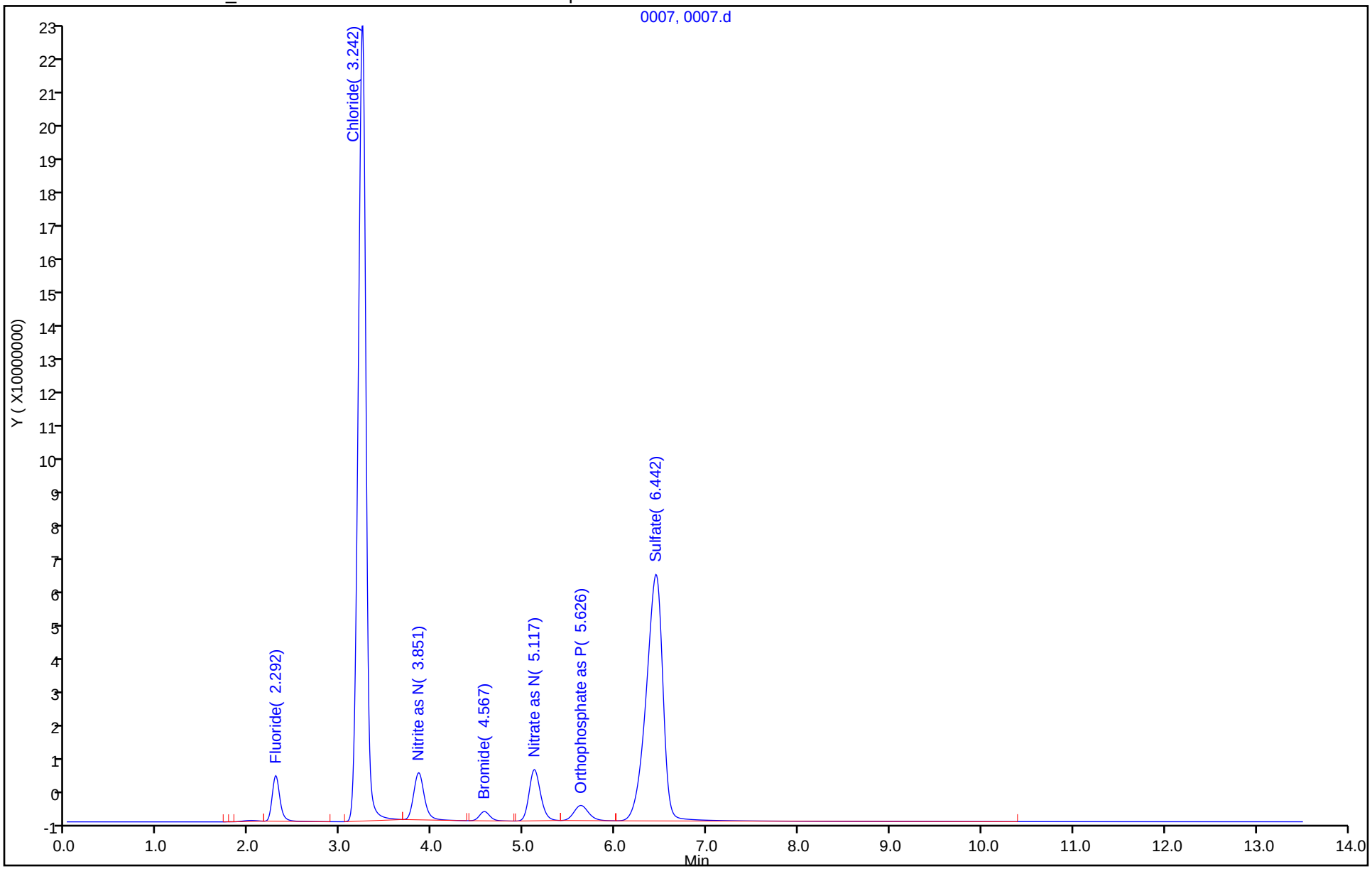
IC CAL cl/so4_00257	Amount Added:	4.00	Units: mL
IC Cal low_00459	Amount Added:	1.00	Units: mL

Report Date: 22-May-2019 07:59:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Injection Date:	20-May-2019 16:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-May-2019 16:52:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-007
Misc. Info.: 7 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:00 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	76568117	10.0	10.1	
2 Chloride	3.242	3.225	0.017	1354016260	200.0	208.0	
3 Nitrite as N	3.851	3.850	0.001	108323395	NC	NC	
4 Bromide	4.567	4.575	-0.008	20888090	10.0	10.1	
5 Nitrate as N	5.117	5.134	-0.017	126834114	NC	NC	
7 Orthophosphate as P	5.626	5.634	-0.008	48062818	NC	NC	
6 Sulfate	6.442	6.392	0.050	892937706	200.0	208.9	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

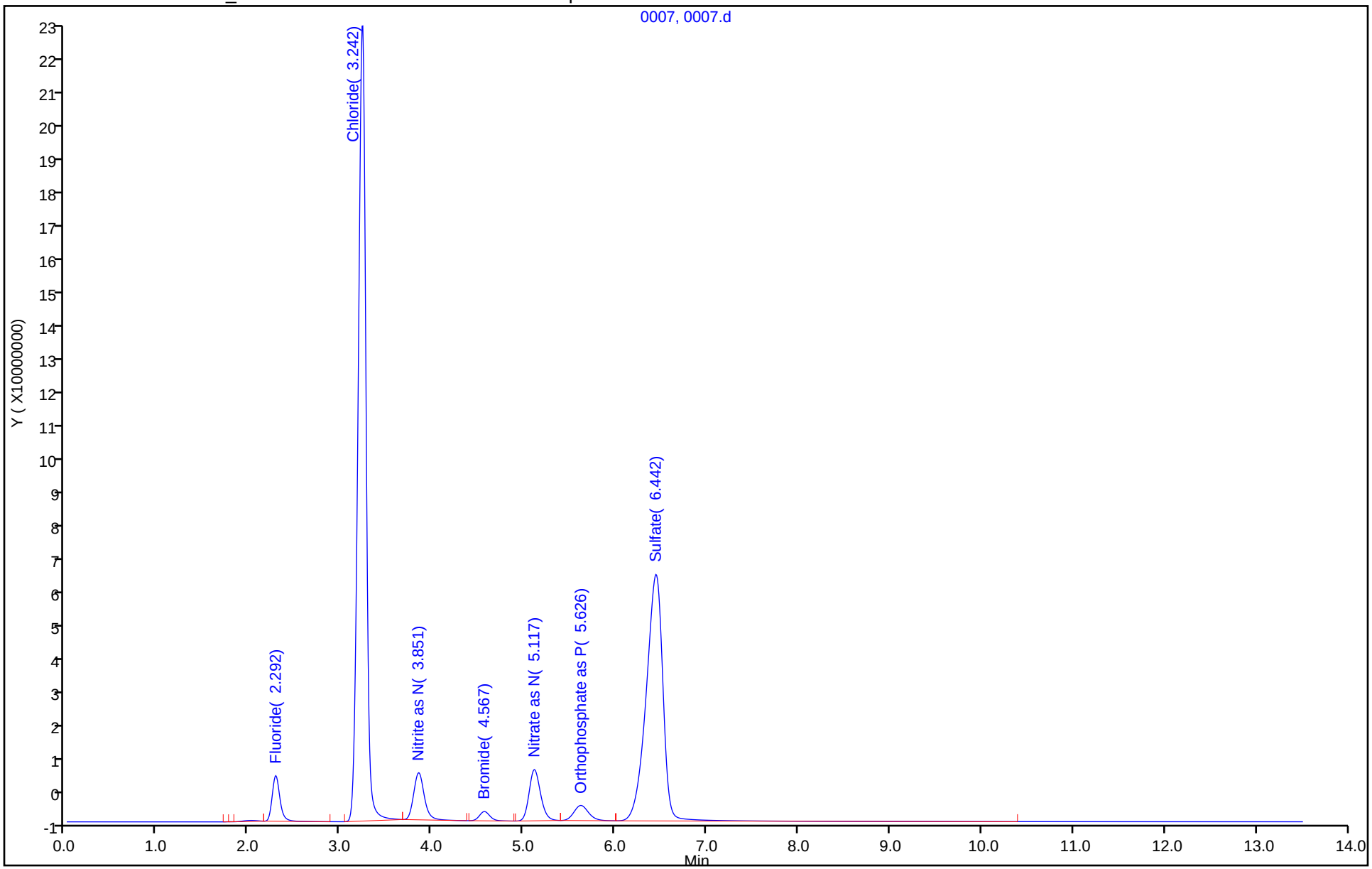
IC CAL cl/so4_00257 Amount Added: 4.00 Units: mL
IC Cal low_00459 Amount Added: 1.00 Units: mL

Report Date: 22-May-2019 07:59:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Injection Date:	20-May-2019 16:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Q598776/4598777

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82062 Inst ID: 11 Analysis Date: 05/20/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123961	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	u
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3,4,5,6,7,8,9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3,4,5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phurdyna 5/23/19

IC Instrument Information

WL: 82062 **Inst ID:** II **Analysis Date:** 05/20/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123960	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	1 & 6 II
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3, 4, 5, 6, 7, 8, 9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053 -	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	124043 -	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total →	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3, 4, 5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 22-May-2019 00:40:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Phuong
8/13/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	22-May-2019 00:40:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	20-May-2019 17:09:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-008				
Misc. Info.:	8 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	30124346	NC	NC	
2 Chloride	3.225	3.225	0.000	514674081	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	40475725	4.00	3.82	
4 Bromide	4.575	4.575	0.000	8642735	NC	NC	
5 Nitrate as N	5.125	5.125	0.000	50555562	4.00	4.12	
7 Orthophosphate as P	5.634	5.634	0.000	19556051	4.00	4.11	
6 Sulfate	6.400	6.400	0.000	336664856	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

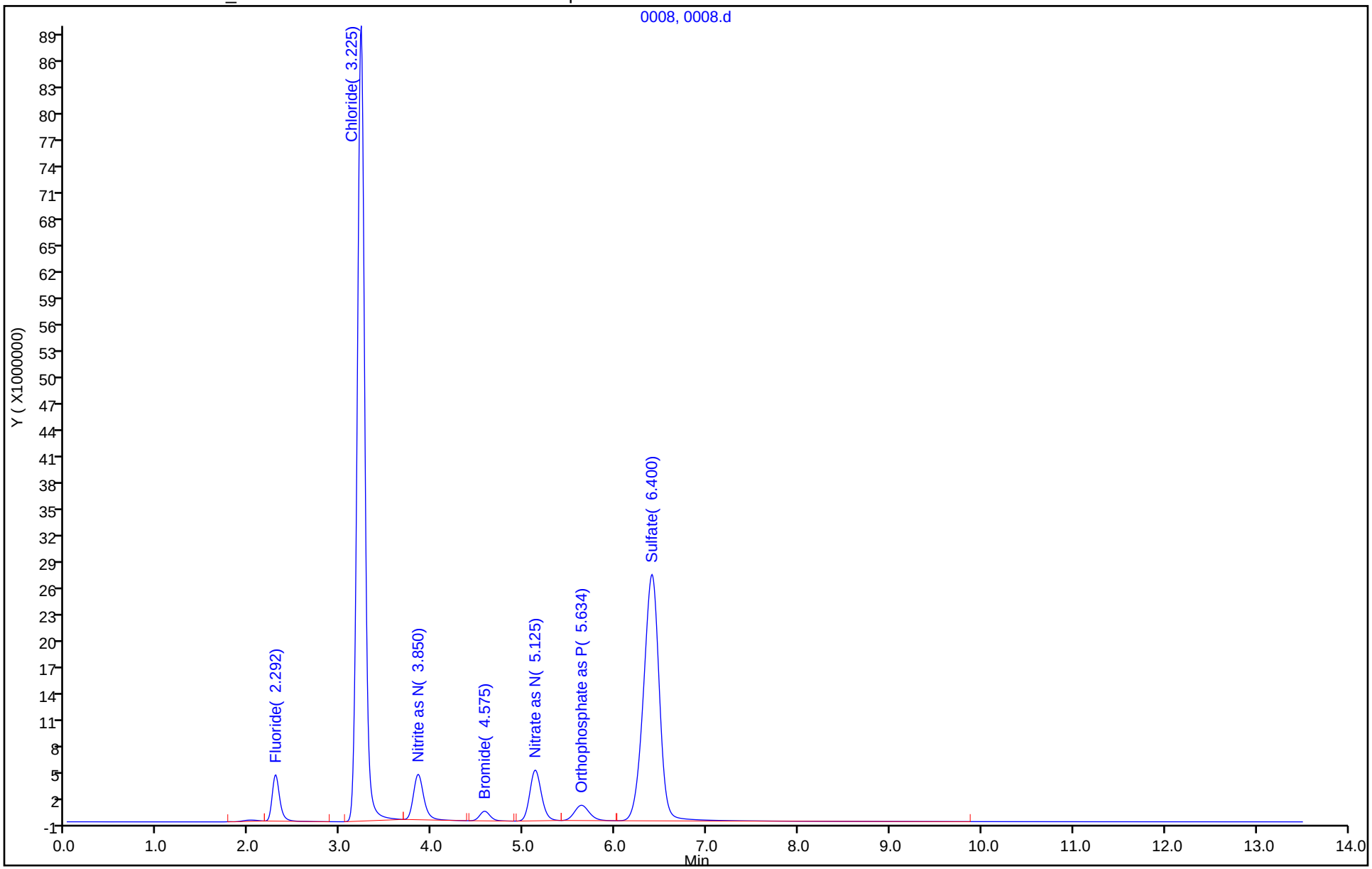
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00234	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:59:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d

Injection Date:	20-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



459776/459777

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82062 Inst ID: 11 Analysis Date: 05/20/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123961	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	u
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3,4,5,6,7,8,9 rerun to confirm PO4
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	124053	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3,4,5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phurlya 5/23/19

IC Instrument Information

WL: 82062 **Inst ID:** 11 **Analysis Date:** 05/20/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123960	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	11
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3, 4, 5, 6, 7, 8, 9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053 -	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	124043 -	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total →	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
- 123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
- 123959	3, 4, 5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 22-May-2019 00:40:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Phuong
8/13/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	22-May-2019 00:40:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-May-2019 17:09:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-008
Misc. Info.: 8 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	30124346	4.00	4.01	
2 Chloride	3.225	3.225	0.000	514674081	80.0	79.5	
3 Nitrite as N	3.850	3.850	0.000	40475725	NC	NC	
4 Bromide	4.575	4.575	0.000	8642735	4.00	4.19	
5 Nitrate as N	5.125	5.125	0.000	50555562	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	19556051	NC	NC	
6 Sulfate	6.400	6.400	0.000	336664856	80.0	79.0	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

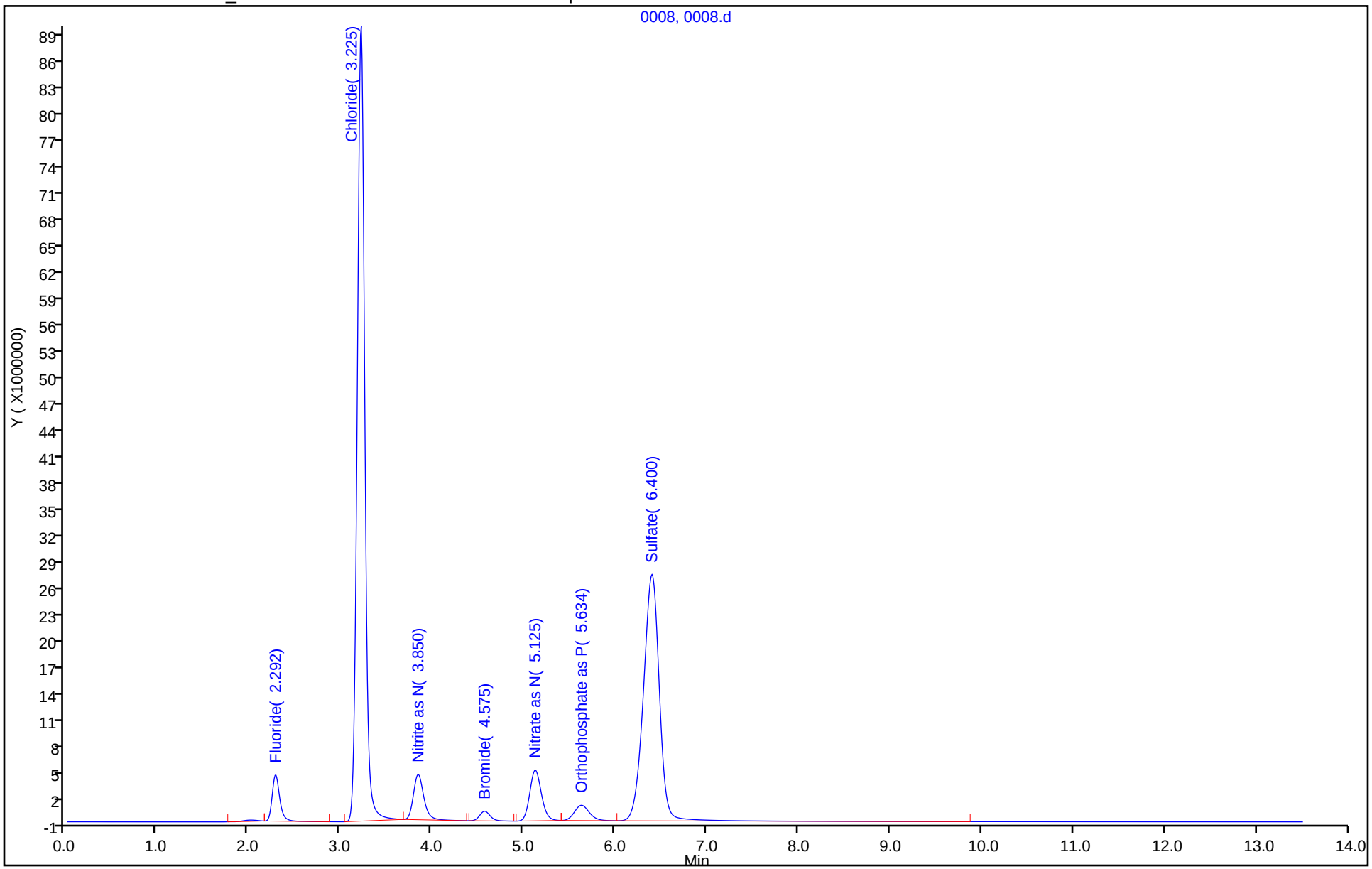
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00234	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:59:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d

Injection Date:	20-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	20-May-2019 17:25:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-009				
Misc. Info.:	9 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1286779		NC	
2 Chloride	3.225	3.225	0.000	112223		NC	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.709	5.634	0.075	318026		0.0102	
6 Sulfate		6.392				ND	

QC Flag Legend

Processing Flags

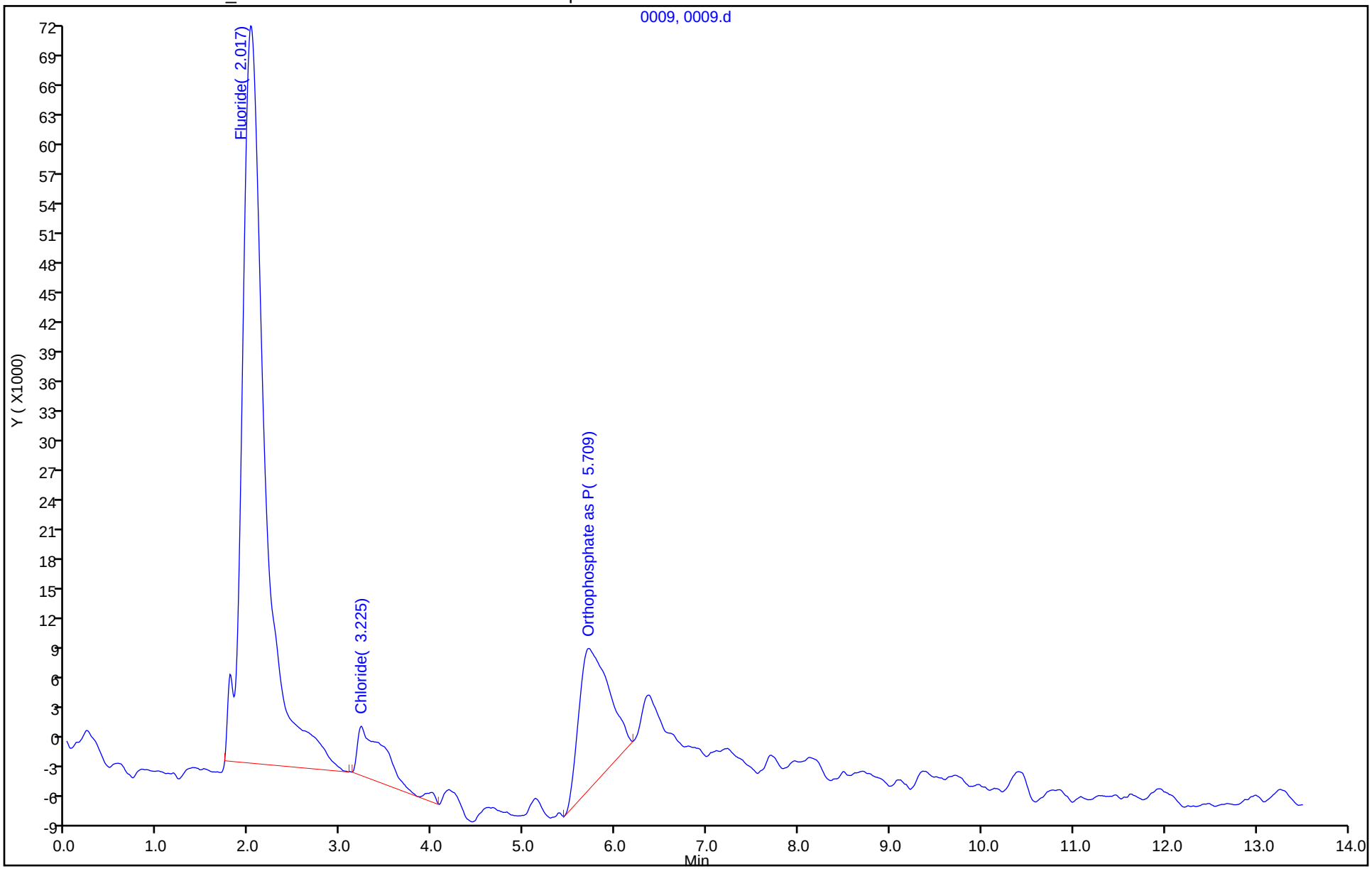
NC - Not Calibrated

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d

Injection Date:	20-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 20-May-2019 17:25:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-009
Misc. Info.: 9 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1286779		0.2049	
2 Chloride	3.225	3.225	0.000	112223		0.6351	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.709	5.634	0.075	318026		NC	
6 Sulfate		6.392				ND	

QC Flag Legend

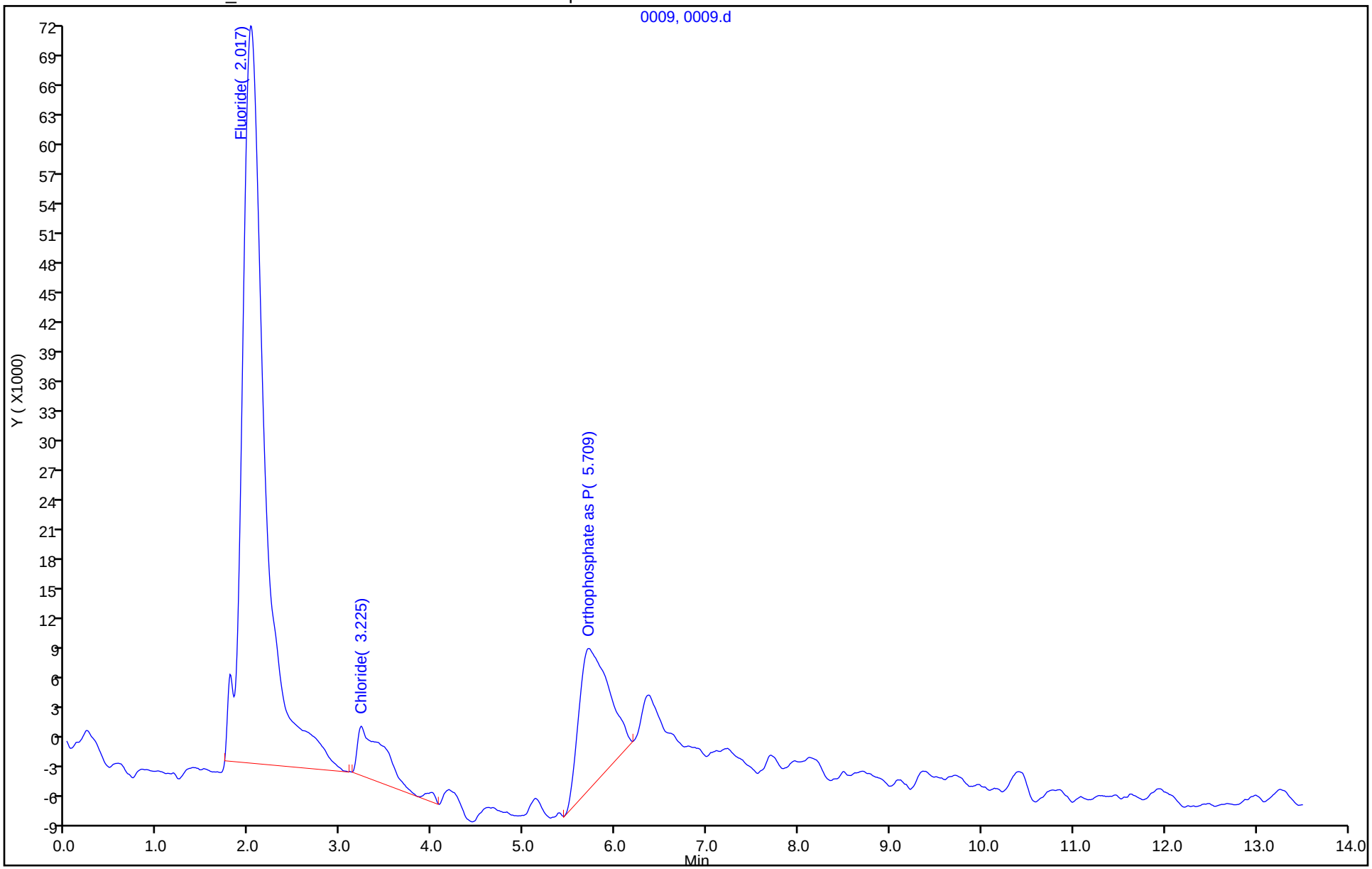
Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d

Injection Date:	20-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0010.d				
Lims ID:	MRL				
Client ID:					
Sample Type:	MRL				
Inject. Date:	20-May-2019 17:42:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-010				
Misc. Info.:	10 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	1364923	NC	NC	
2 Chloride	3.217	3.225	-0.008	11091807	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	1958076	0.2000	0.2181	
4 Bromide	4.584	4.575	0.009	402285	NC	NC	
5 Nitrate as N	5.142	5.134	0.008	2253477	0.2000	0.2245	
7 Orthophosphate as P	5.642	5.634	0.008	1055199	0.2000	0.1674	
6 Sulfate	6.359	6.392	-0.033	8338671	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

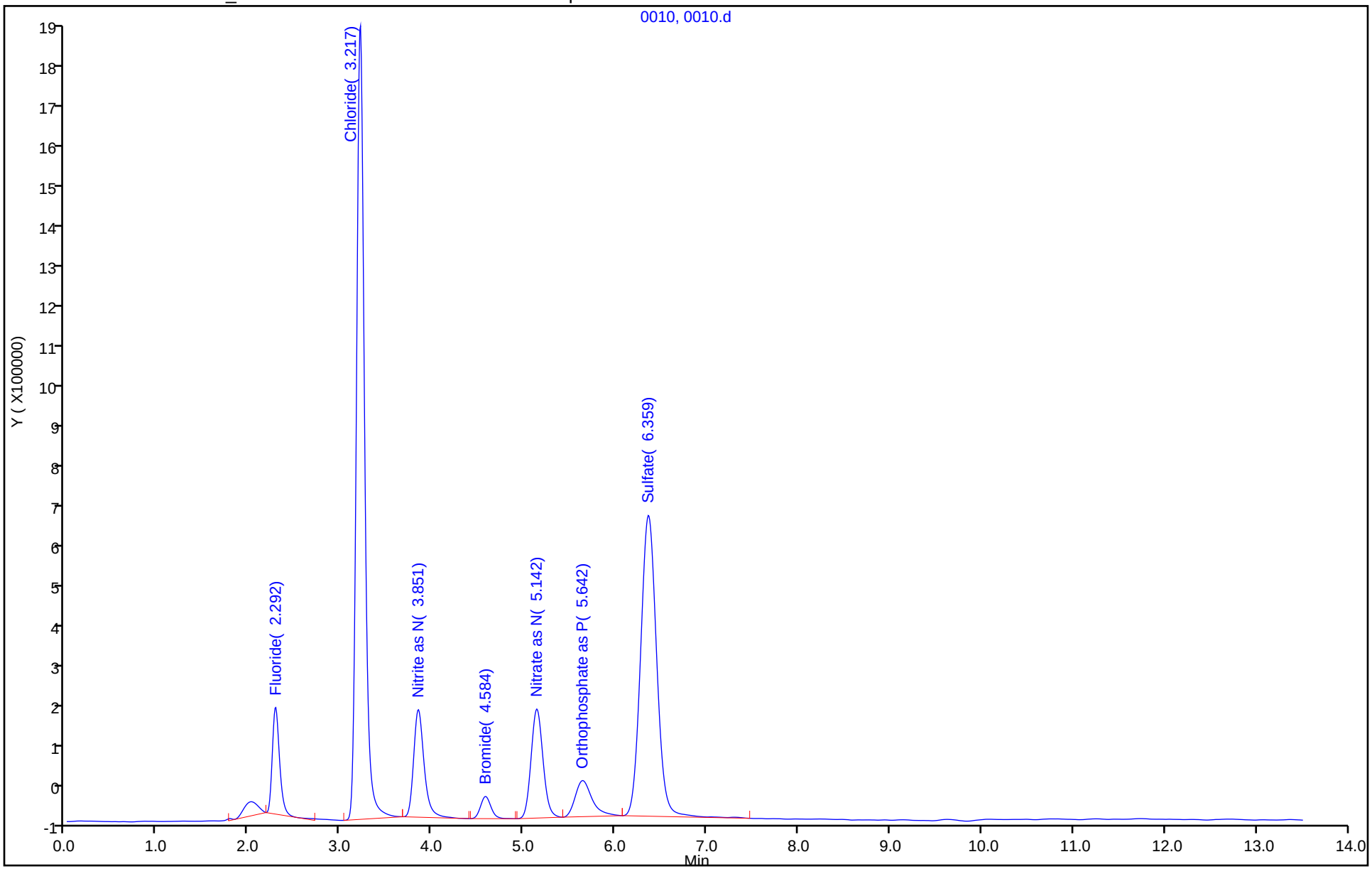
IC CAL cl/so4_00257	Amount Added:	0.05	Units: mL
IC Cal low_00459	Amount Added:	0.02	Units: mL

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0010.d

Injection Date:	20-May-2019 17:42:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0010.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 20-May-2019 17:42:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-010
Misc. Info.: 10 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	1364923	0.2000	0.2152	
2 Chloride	3.217	3.225	-0.008	11091807	2.50	2.32	
3 Nitrite as N	3.851	3.850	0.001	1958076	NC	NC	
4 Bromide	4.584	4.575	0.009	402285	0.2000	0.2060	
5 Nitrate as N	5.142	5.134	0.008	2253477	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	1055199	NC	NC	
6 Sulfate	6.359	6.392	-0.033	8338671	2.50	2.39	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

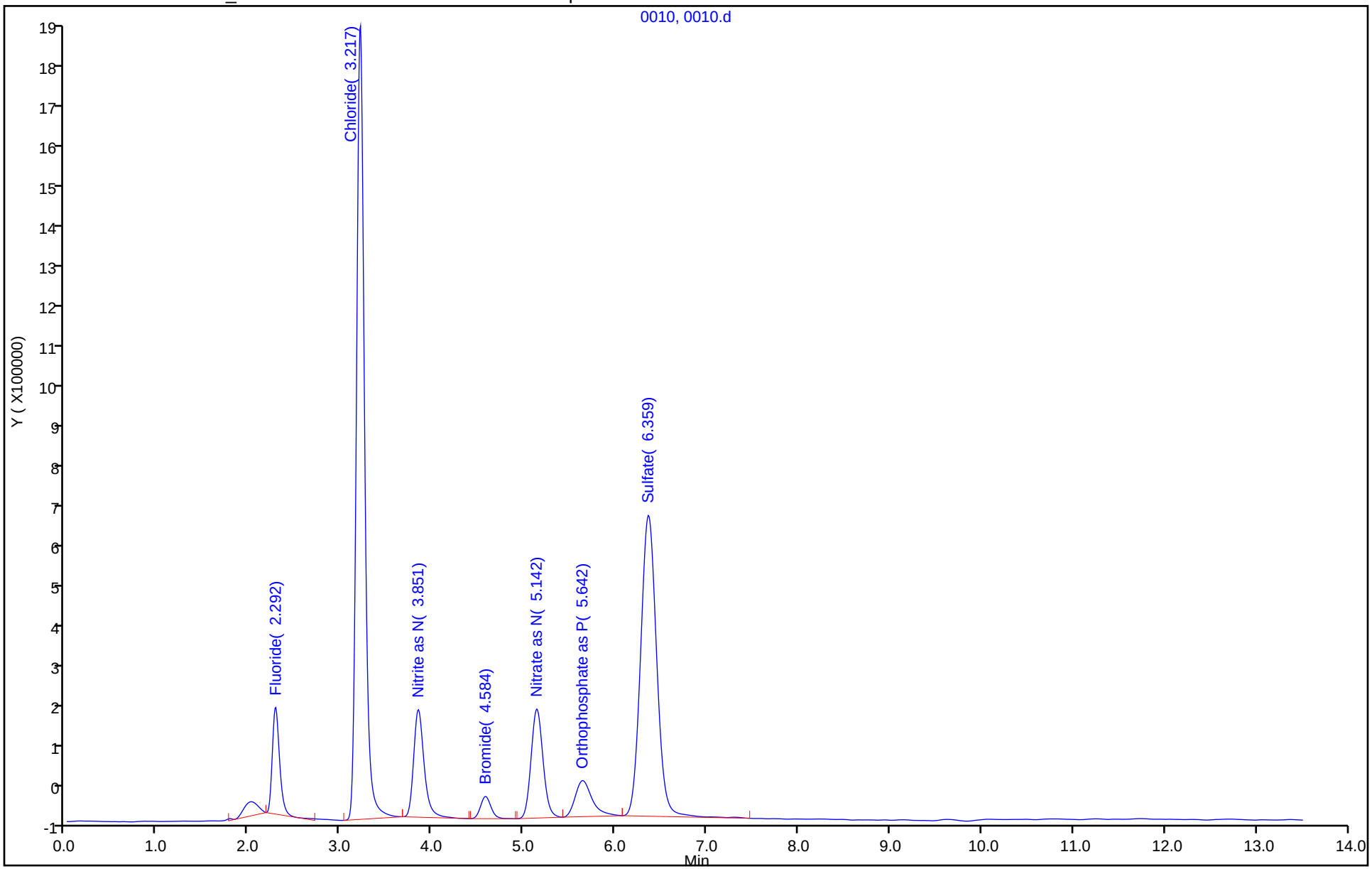
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0010.d

Injection Date:	20-May-2019 17:42:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0011.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-May-2019 17:58:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-011
Misc. Info.: 11 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36558497	NC	NC	
2 Chloride	3.234	3.225	0.009	634887407	NC	NC	
3 Nitrite as N	3.859	3.850	0.009	51420718	5.00	4.84	
4 Bromide	4.584	4.575	0.009	10202783	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	58950853	5.00	4.80	
7 Orthophosphate as P	5.634	5.634	0.000	23128993	5.00	4.88	
6 Sulfate	6.409	6.392	0.017	412642196	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

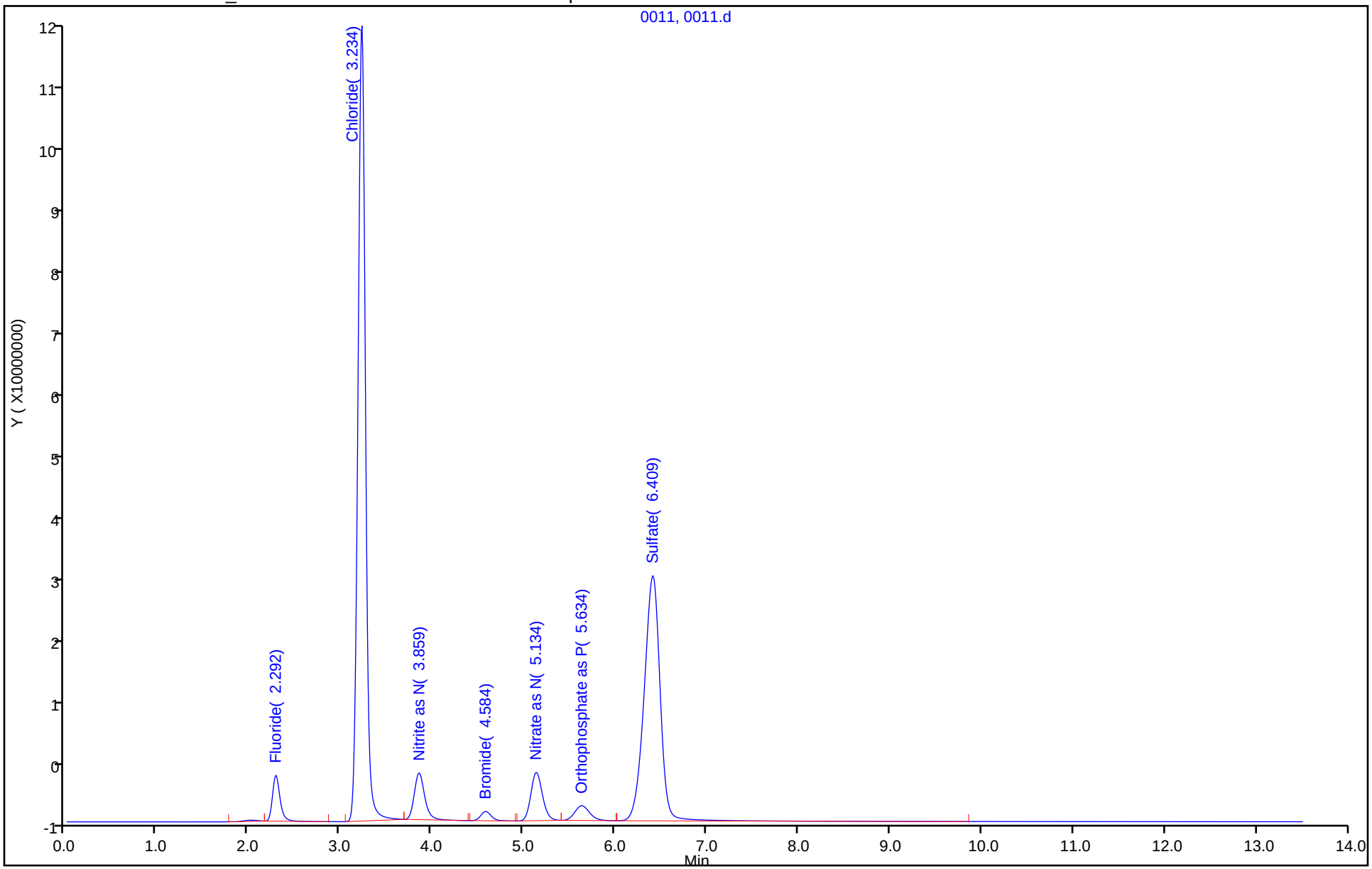
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0011.d

Injection Date:	20-May-2019 17:58:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	11
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0011.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-May-2019 17:58:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-011
Misc. Info.: 11 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36558497	5.00	4.86	
2 Chloride	3.234	3.225	0.009	634887407	100.0	97.9	
3 Nitrite as N	3.859	3.850	0.009	51420718	NC	NC	
4 Bromide	4.584	4.575	0.009	10202783	5.00	4.94	
5 Nitrate as N	5.134	5.134	0.000	58950853	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	23128993	NC	NC	
6 Sulfate	6.409	6.392	0.017	412642196	100.0	96.8	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

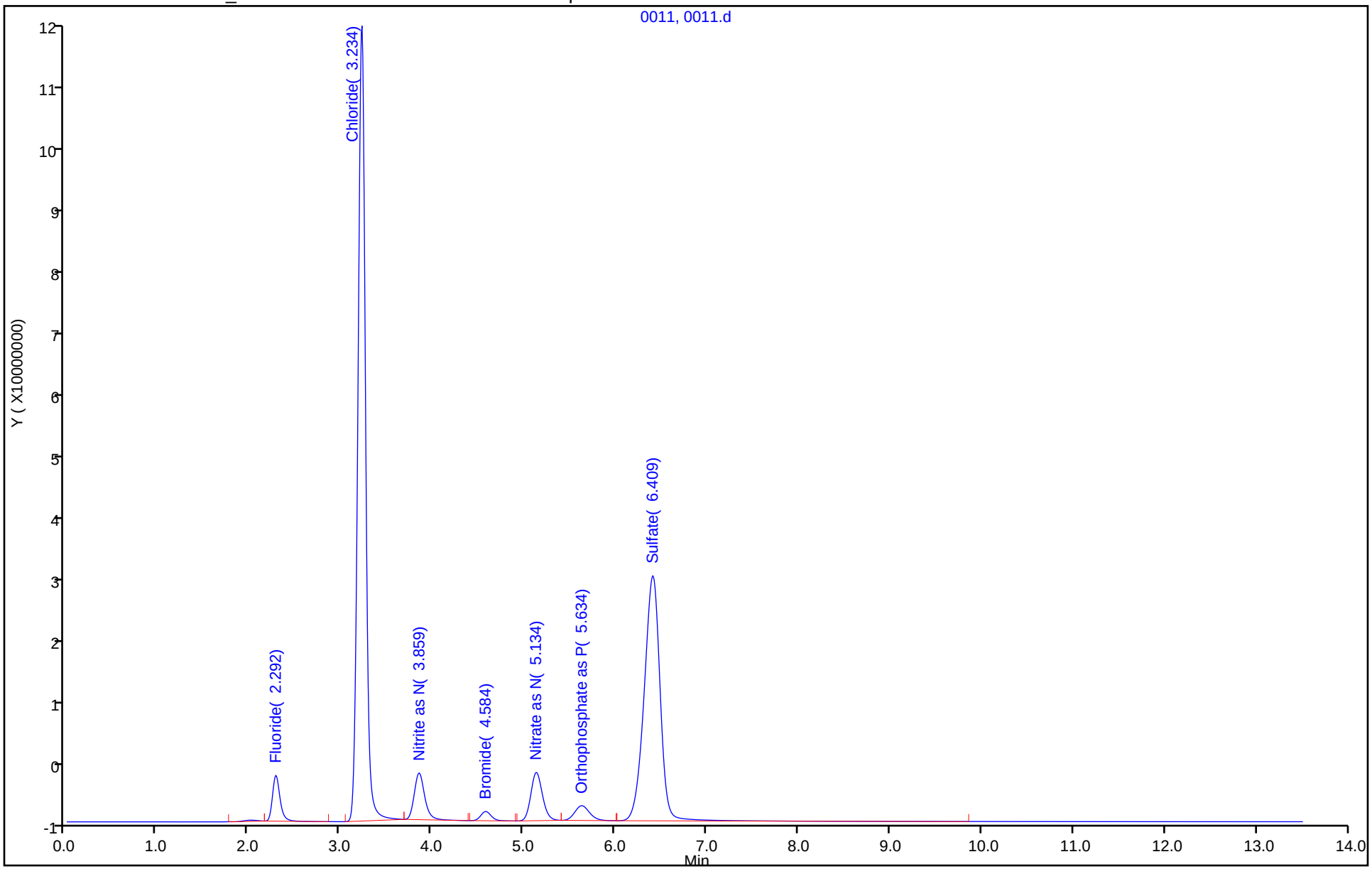
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0011.d

Injection Date:	20-May-2019 17:58:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	11
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0012.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 20-May-2019 18:15:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-012
Misc. Info.: 12 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36167138	NC	NC	
2 Chloride	3.225	3.225	0.000	633037412	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	51296329	5.00	4.83	
4 Bromide	4.584	4.575	0.009	10166383	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	58839118	5.00	4.79	
7 Orthophosphate as P	5.625	5.634	-0.009	23053779	5.00	4.86	
6 Sulfate	6.409	6.392	0.017	412037280	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

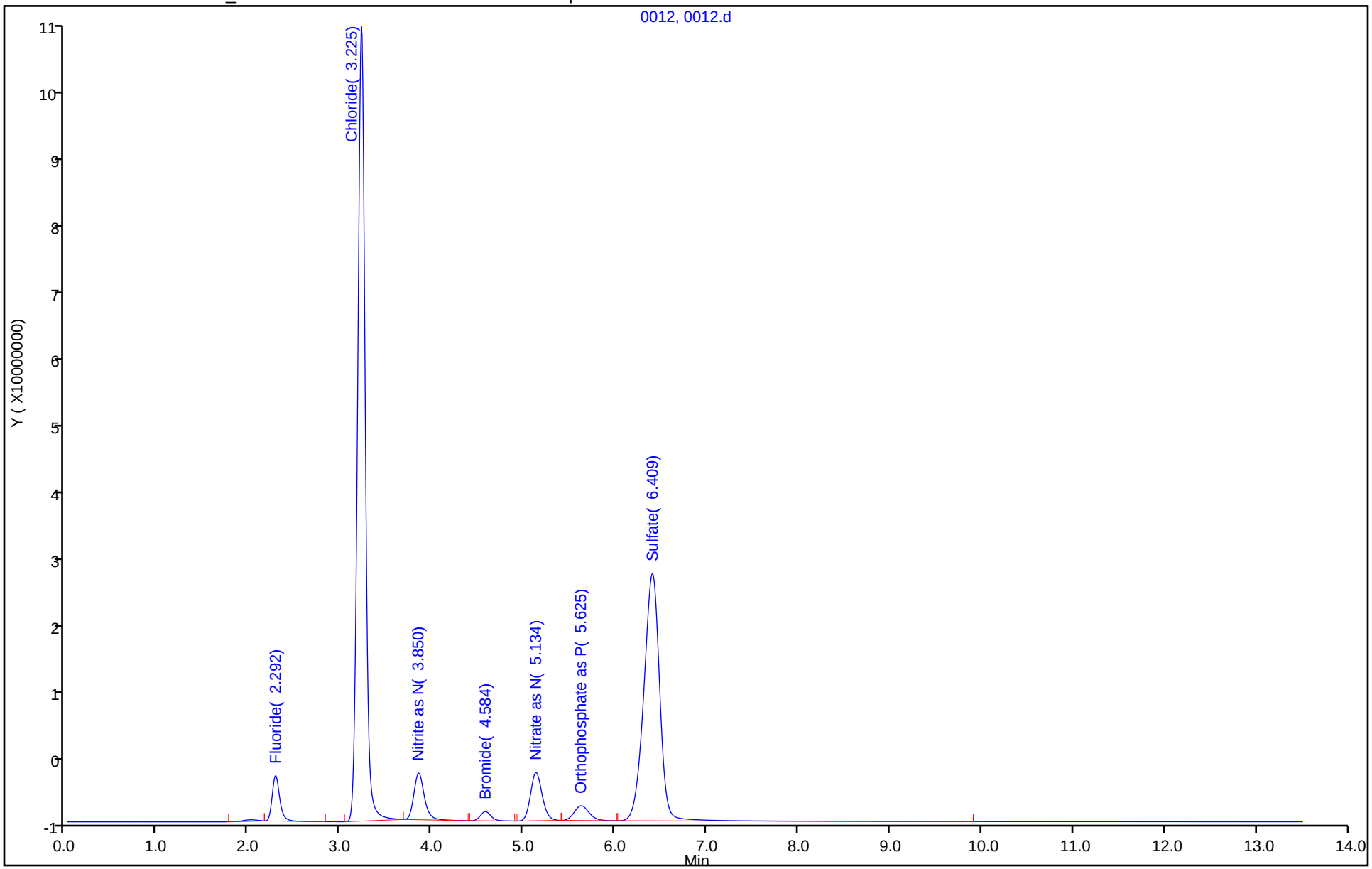
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0012.d

Injection Date:	20-May-2019 18:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	12
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0012.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 20-May-2019 18:15:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-012
Misc. Info.: 12 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36167138	5.00	4.80	
2 Chloride	3.225	3.225	0.000	633037412	100.0	97.6	
3 Nitrite as N	3.850	3.850	0.000	51296329	NC	NC	
4 Bromide	4.584	4.575	0.009	10166383	5.00	4.92	
5 Nitrate as N	5.134	5.134	0.000	58839118	NC	NC	
7 Orthophosphate as P	5.625	5.634	-0.009	23053779	NC	NC	
6 Sulfate	6.409	6.392	0.017	412037280	100.0	96.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

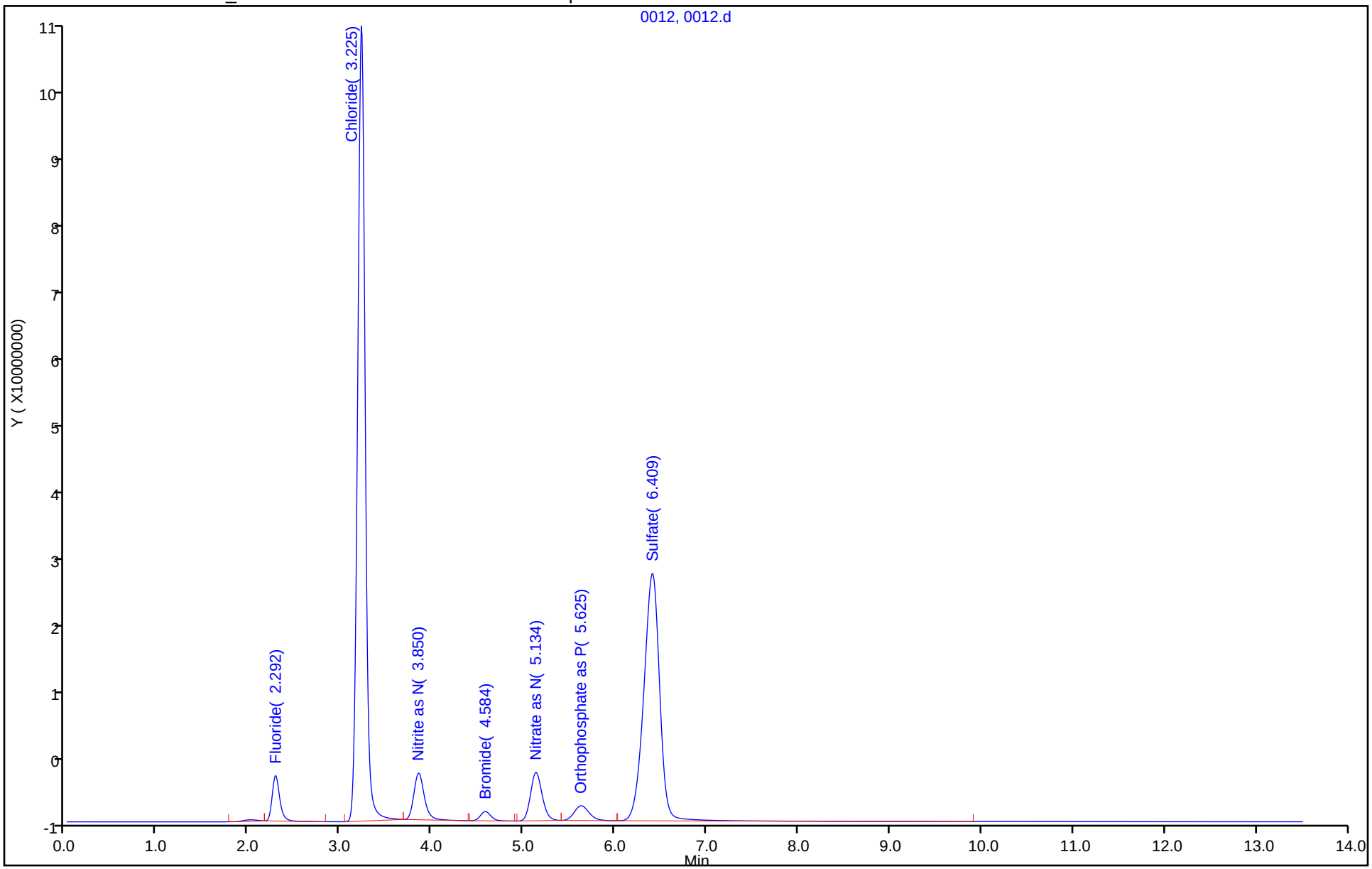
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0012.d

Injection Date:	20-May-2019 18:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	12
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0013.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 20-May-2019 18:31:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-013
Misc. Info.: 13 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	687755		NC	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.692	5.634	0.058	294419		0.005115	
6 Sulfate		6.392				ND	

QC Flag Legend

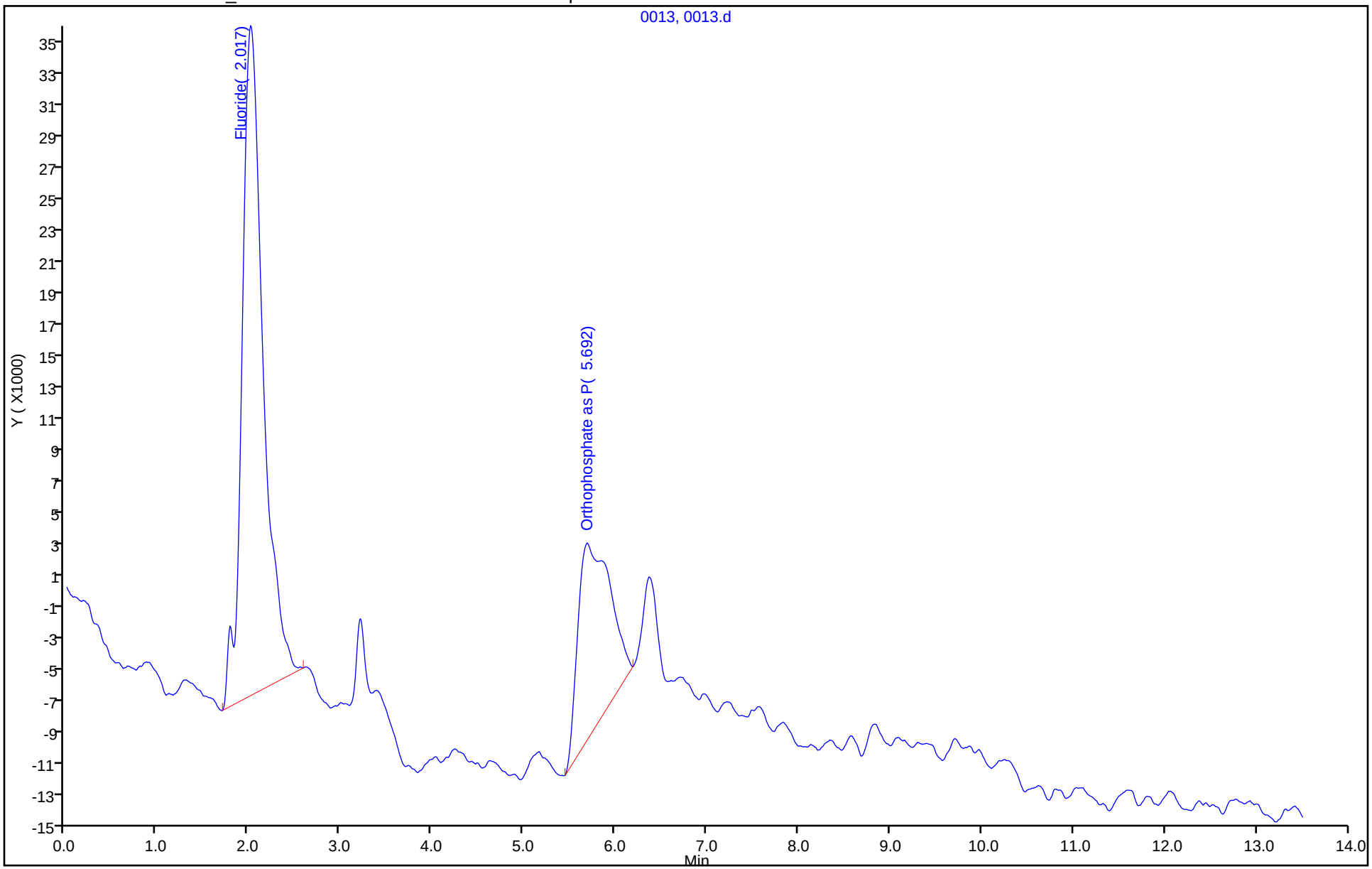
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Report Date: 22-May-2019 07:59:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0013.d

Injection Date:	20-May-2019 18:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	13
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0013.d				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	20-May-2019 18:31:00	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-013				
Misc. Info.:	13 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	687755		0.1259	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.692	5.634	0.058	294419		NC	
6 Sulfate		6.392				ND	

QC Flag Legend

Processing Flags

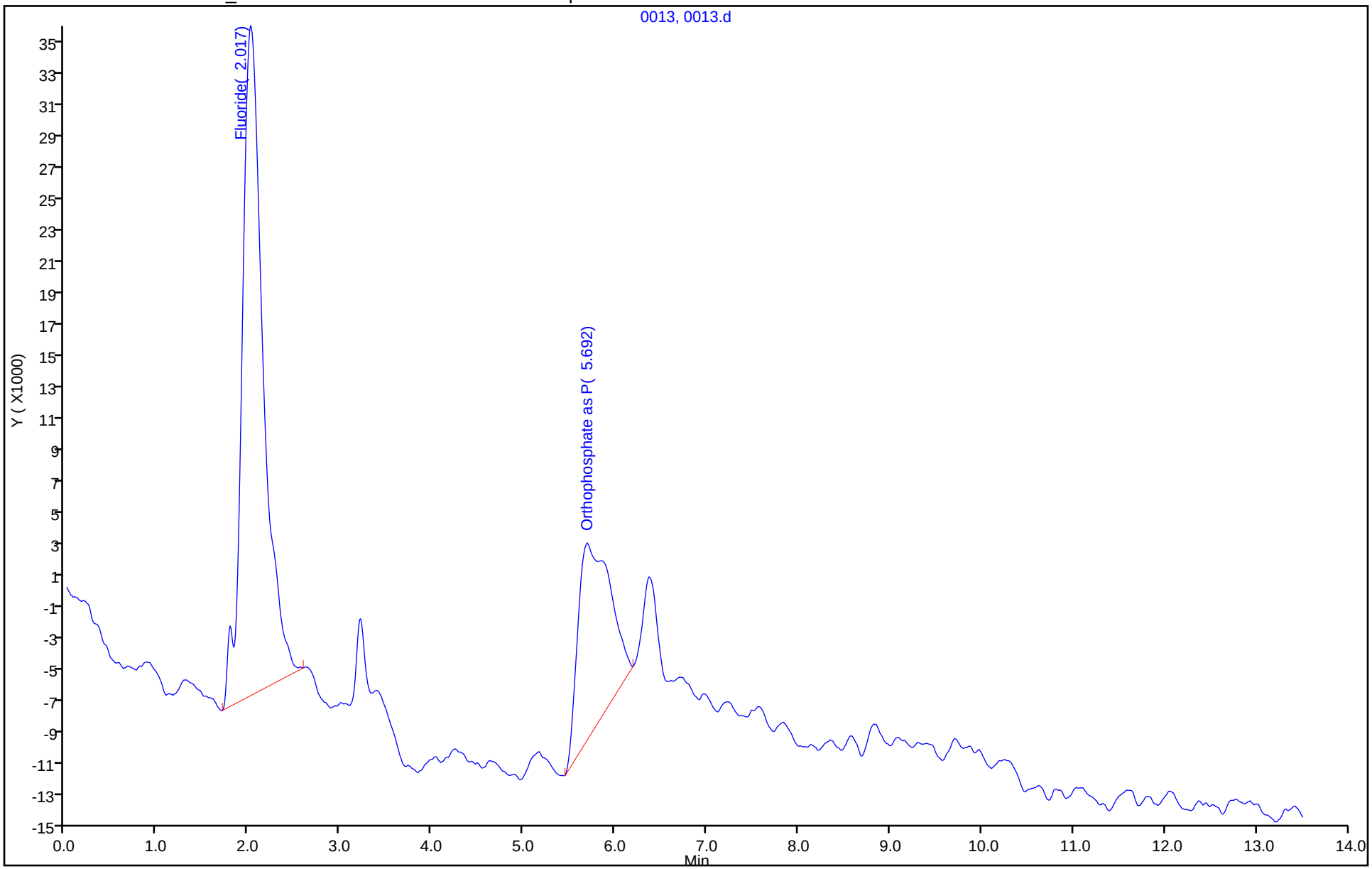
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Report Date: 22-May-2019 07:59:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0013.d

Injection Date:	20-May-2019 18:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	13
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0023.d
Lims ID: 280-123981-I-2
Client ID: LF7MW-23_0519
Sample Type: Client
Inject. Date: 20-May-2019 22:40:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-023
Misc. Info.: 32409 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:01 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	274153	0.0714	
2 Chloride	3.217	3.225	-0.008	24631918	4.39	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.159	5.134	0.025	281010	NC	
7 Orthophosphate as P	5.792	5.634	0.158	1312058	NC	
6 Sulfate	6.384	6.392	-0.008	58895103	14.2	

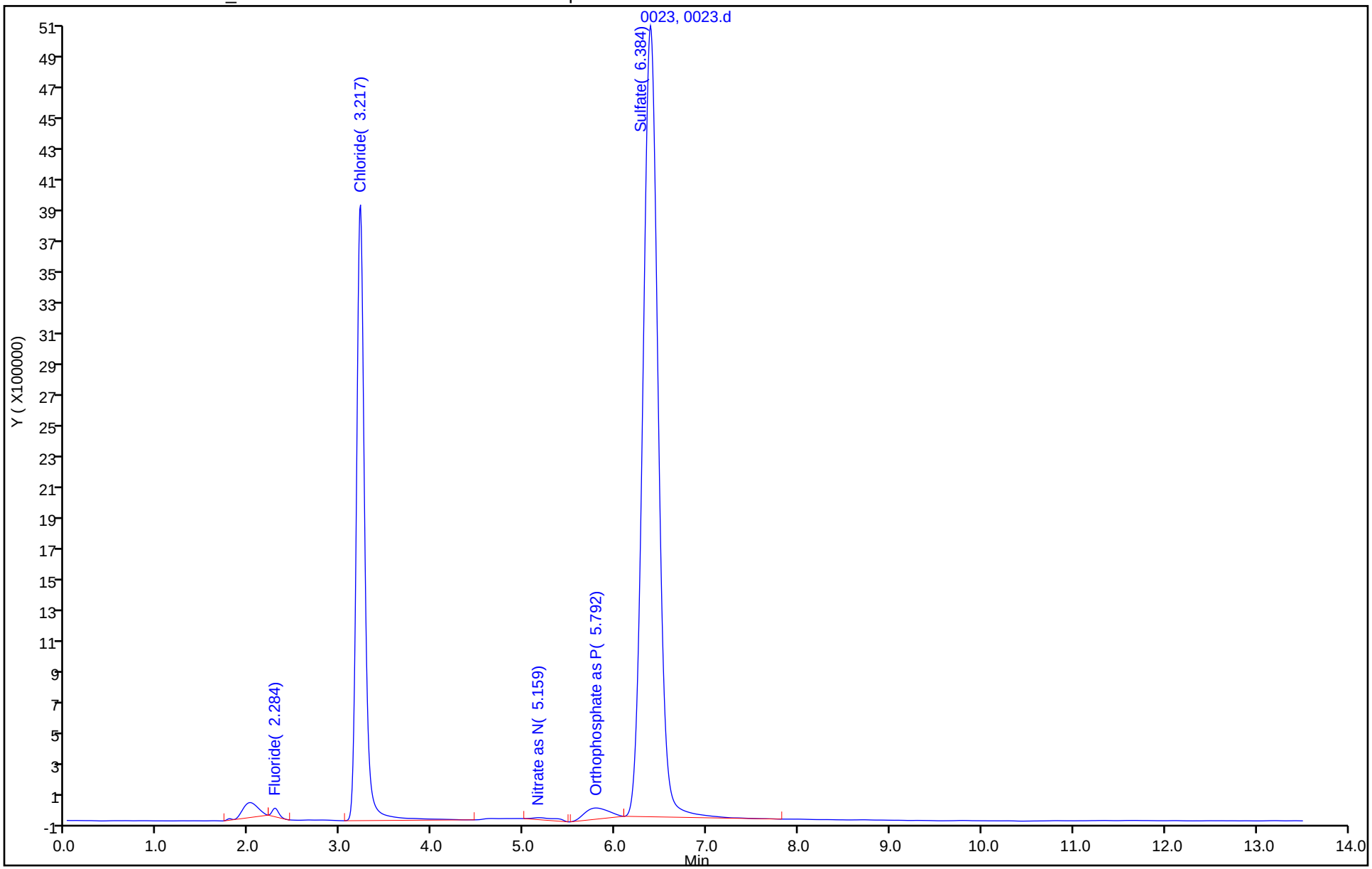
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0023.d				
Injection Date:	20-May-2019 22:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-2	Lab Sample ID:	280-123981-2	Worklist Smp#:	23
Client ID:	LF7MW-23_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0024.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2019 22:56:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-024
Misc. Info.: 23768
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36659765	NC	NC	
2 Chloride	3.226	3.225	0.001	638165093	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	51289648	5.00	4.83	
4 Bromide	4.584	4.575	0.009	10221843	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	59212110	5.00	4.82	
7 Orthophosphate as P	5.626	5.634	-0.008	23817802	5.00	5.02	
6 Sulfate	6.401	6.392	0.009	414425791	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

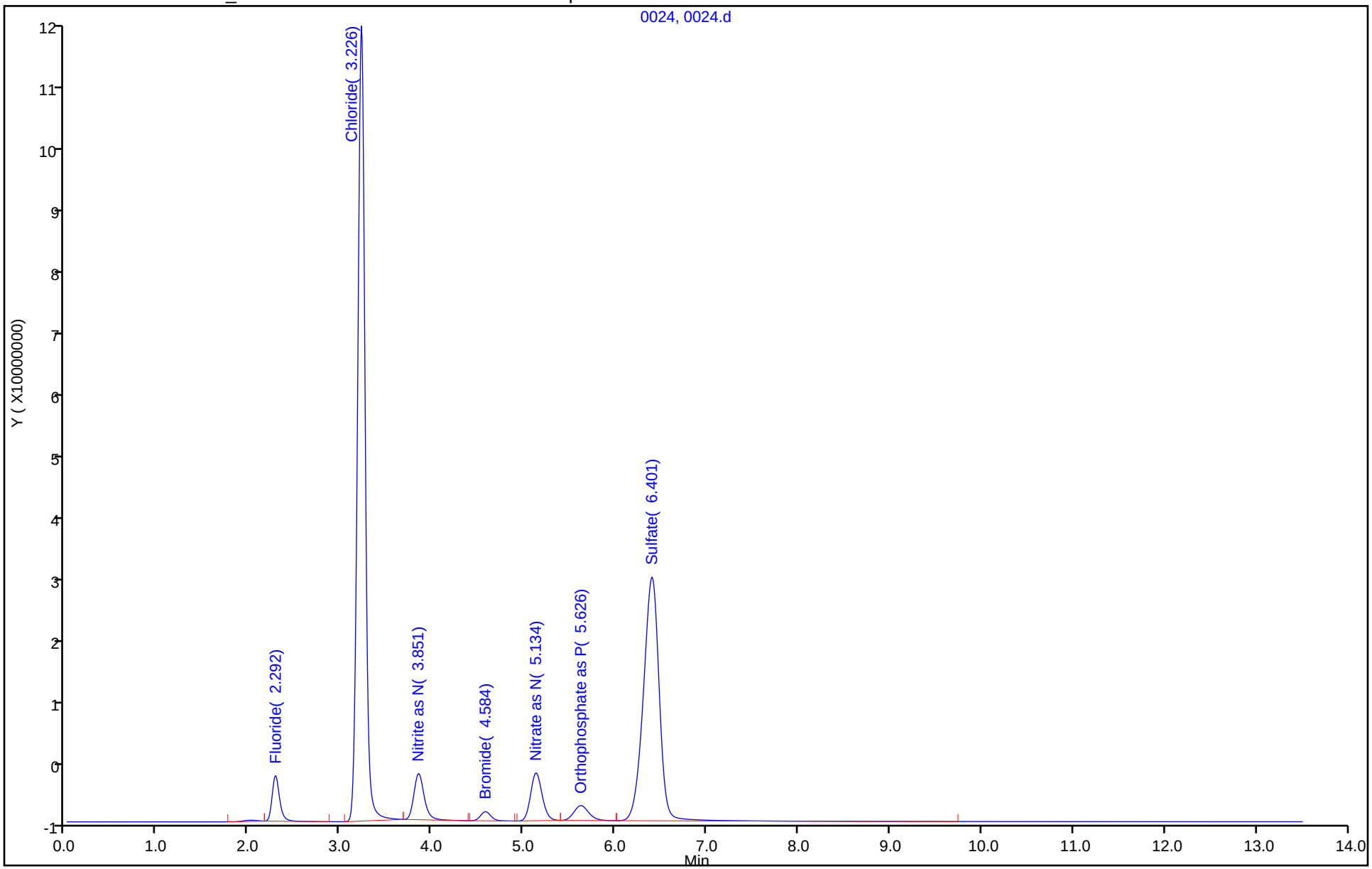
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0024.d

Injection Date:	20-May-2019 22:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	24
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0024.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	20-May-2019 22:56:00	ALS Bottle#:	0	Worklist Smp#:	24
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-024				
Misc. Info.:	23768				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:10	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	36659765	5.00	4.87	
2 Chloride	3.226	3.225	0.001	638165093	100.0	98.4	
3 Nitrite as N	3.851	3.850	0.001	51289648	NC	NC	
4 Bromide	4.584	4.575	0.009	10221843	5.00	4.95	
5 Nitrate as N	5.134	5.134	0.000	59212110	NC	NC	
7 Orthophosphate as P	5.626	5.634	-0.008	23817802	NC	NC	
6 Sulfate	6.401	6.392	0.009	414425791	100.0	97.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

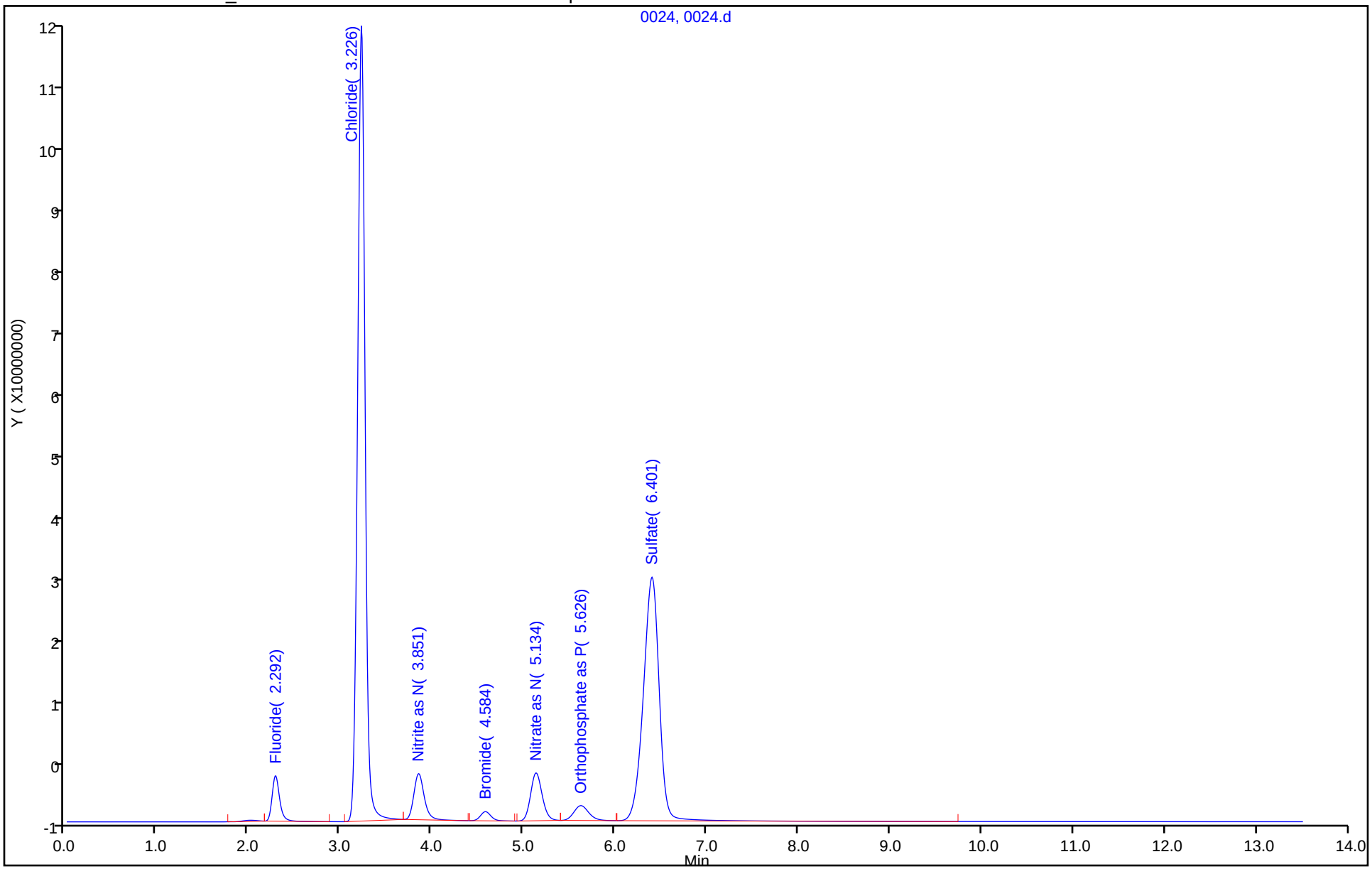
Reagents:

IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0024.d				
Injection Date:	20-May-2019 22:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	24
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0025.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 20-May-2019 23:12:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-025
Misc. Info.: 25688
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1884807		NC	
2 Chloride	3.234	3.225	0.009	173600		NC	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.775	5.634	0.141	355321		0.0181	
6 Sulfate	6.367	6.392	-0.025	198565		NC	

QC Flag Legend

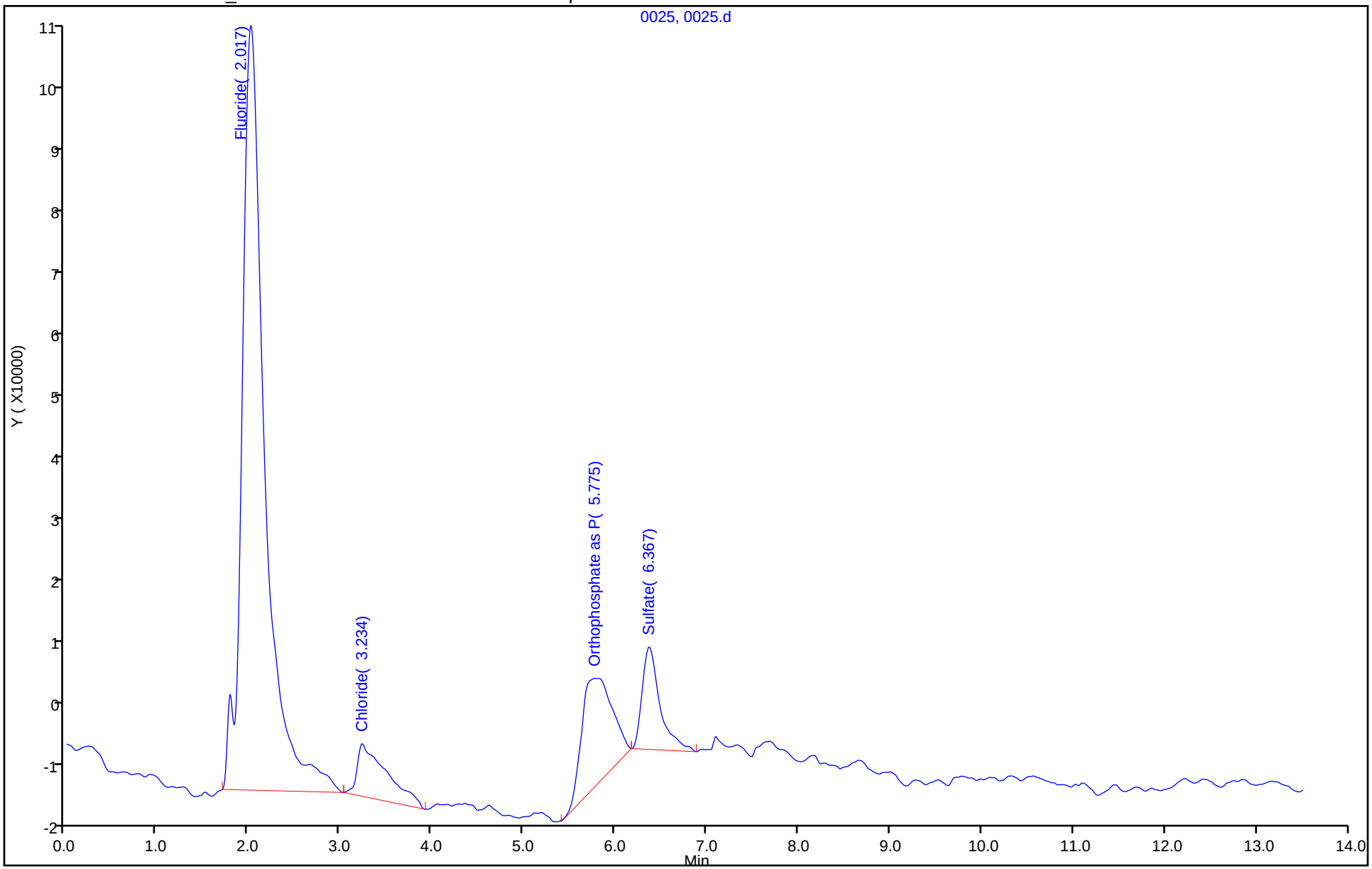
Processing Flags
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Report Date: 22-May-2019 07:59:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0025.d

Injection Date:	20-May-2019 23:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	25
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0025.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	20-May-2019 23:12:00	ALS Bottle#:	0	Worklist Smp#:	25
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-025				
Misc. Info.:	25688				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:10	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1884807		0.2837	
2 Chloride	3.234	3.225	0.009	173600		0.6445	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.775	5.634	0.141	355321		NC	
6 Sulfate	6.367	6.392	-0.025	198565		0.4903	

QC Flag Legend

Processing Flags

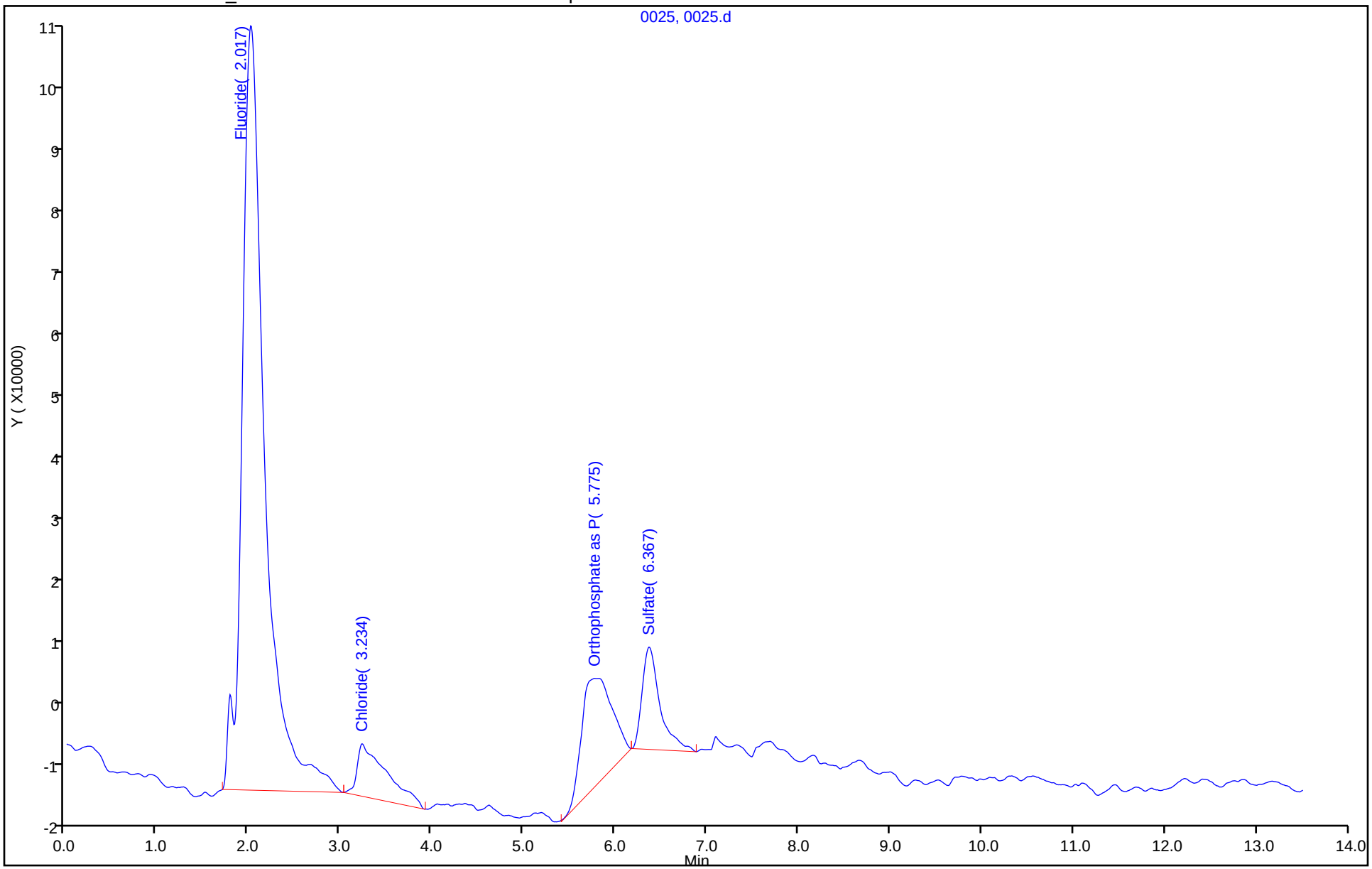
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Report Date: 22-May-2019 07:59:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0025.d

Injection Date:	20-May-2019 23:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	25
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0026.d
Lims ID: 280-123981-I-3
Client ID: LF7MW-26_0519
Sample Type: Client
Inject. Date: 20-May-2019 23:29:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-026
Misc. Info.: 14934 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	382061	NC	
2 Chloride	3.217	3.225	-0.008	5465185	NC	
3 Nitrite as N		3.850			ND	
4 Bromide	4.809	4.575	0.234	183118	NC	
5 Nitrate as N	5.175	5.134	0.041	1512273	0.1648	
7 Orthophosphate as P	5.750	5.634	0.116	2281013	0.4288	
6 Sulfate	6.384	6.392	-0.008	6526931	NC	

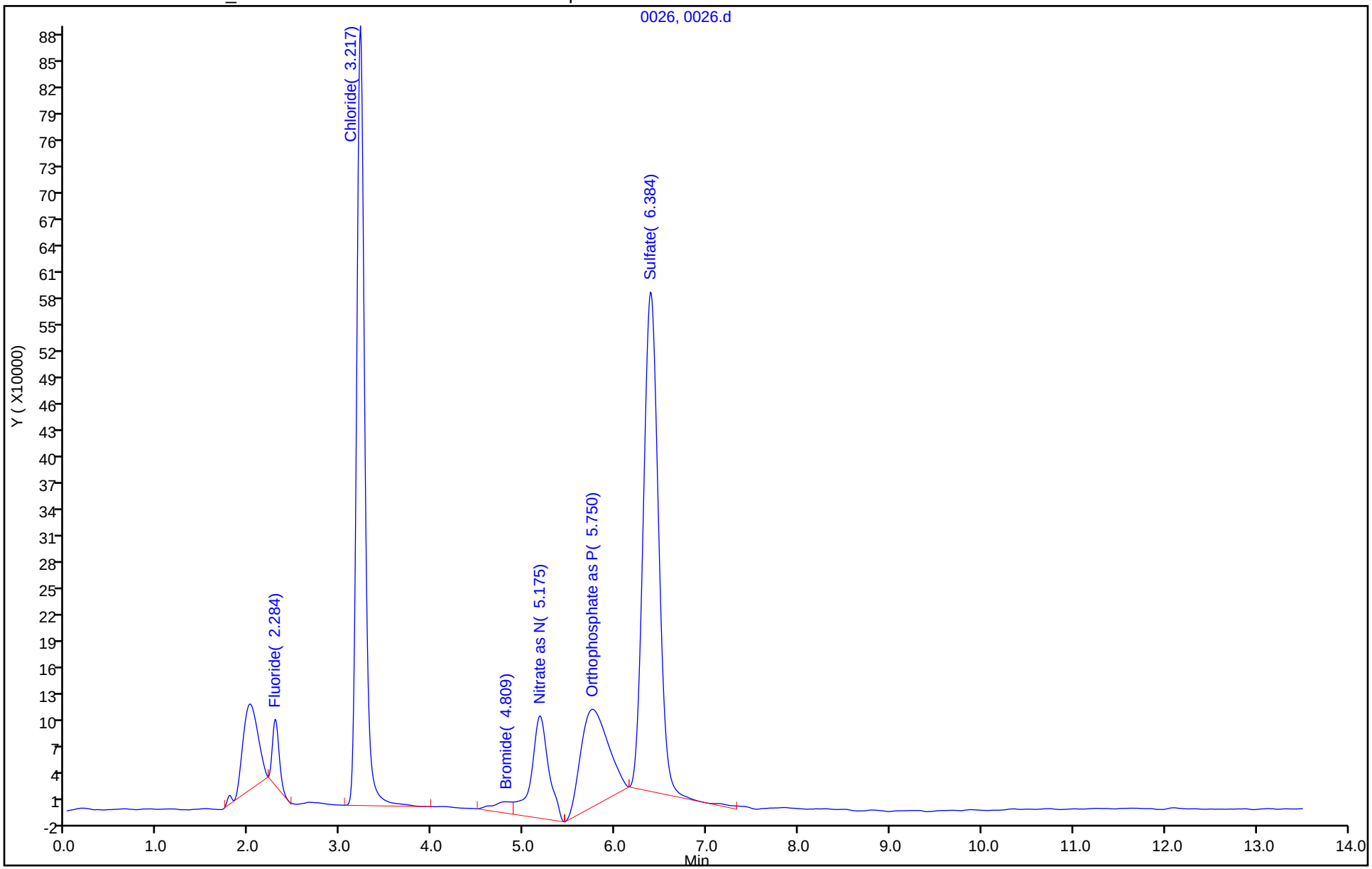
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Processing Flags
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Report Date: 22-May-2019 07:59:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0026.d				
Injection Date:	20-May-2019 23:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3	Lab Sample ID:	280-123981-3	Worklist Smp#:	26
Client ID:	LF7MW-26_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0026.d
Lims ID: 280-123981-I-3
Client ID: LF7MW-26_0519
Sample Type: Client
Inject. Date: 20-May-2019 23:29:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-026
Misc. Info.: 14934 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	382061	0.0856	
2 Chloride	3.217	3.225	-0.008	5465185	1.46	
3 Nitrite as N		3.850			ND	
4 Bromide	4.809	4.575	0.234	183118	0.1002	
5 Nitrate as N	5.175	5.134	0.041	1512273	NC	
7 Orthophosphate as P	5.750	5.634	0.116	2281013	NC	
6 Sulfate	6.384	6.392	-0.008	6526931	1.97	

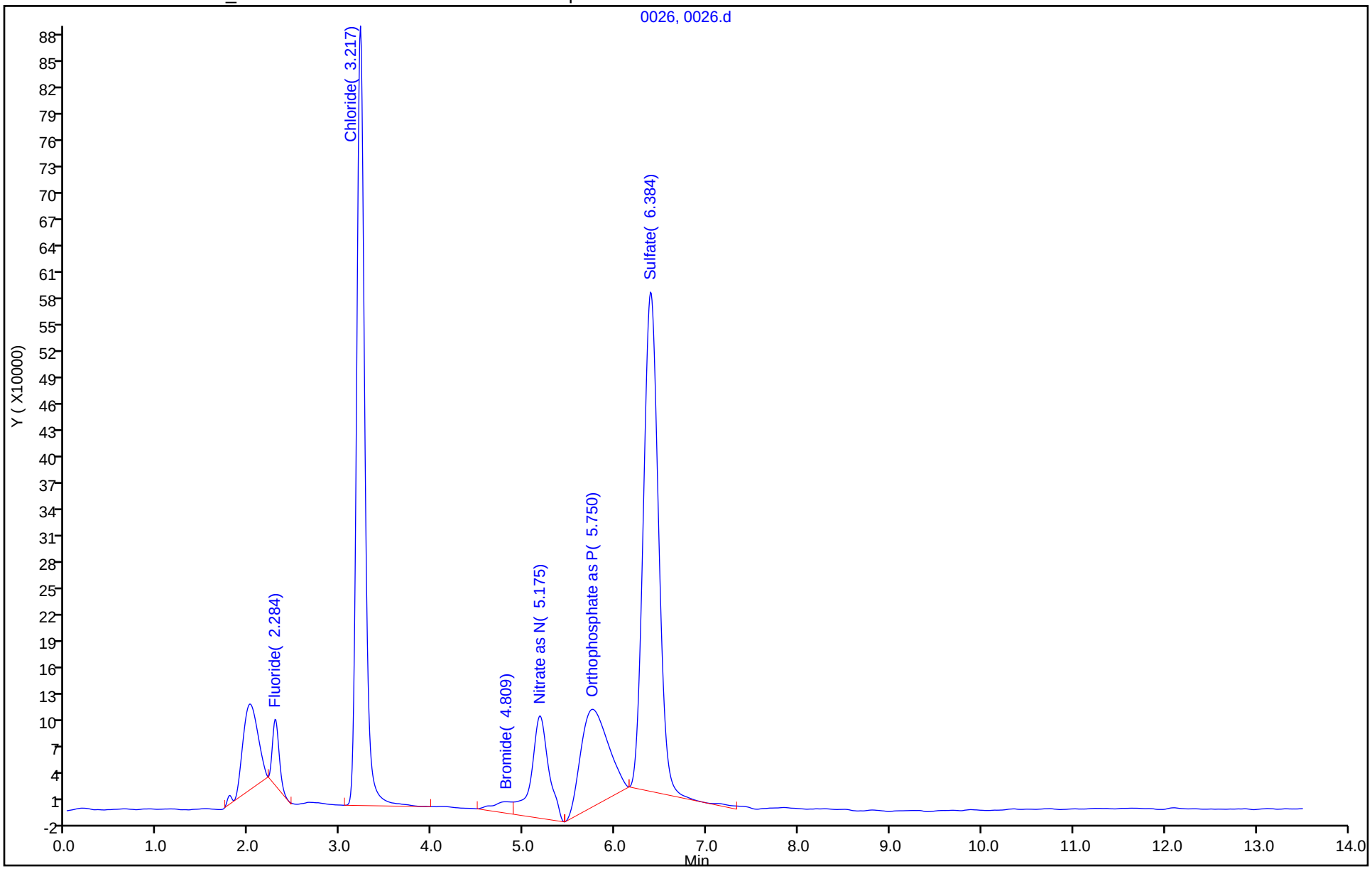
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0026.d				
Injection Date:	20-May-2019 23:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3	Lab Sample ID:	280-123981-3	Worklist Smp#:	26
Client ID:	LF7MW-26_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0027.d
Lims ID: 280-123981-I-3 DU
Client ID:
Sample Type: DU
Inject. Date: 20-May-2019 23:45:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-027
Misc. Info.: 14669 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	436101		NC	
2 Chloride	3.217	3.225	-0.008	5364314		NC	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N	5.175	5.134	0.041	1726557		0.1820	
7 Orthophosphate as P	5.750	5.634	0.116	2280059		0.4286	
6 Sulfate	6.384	6.392	-0.008	6549755		NC	

QC Flag Legend

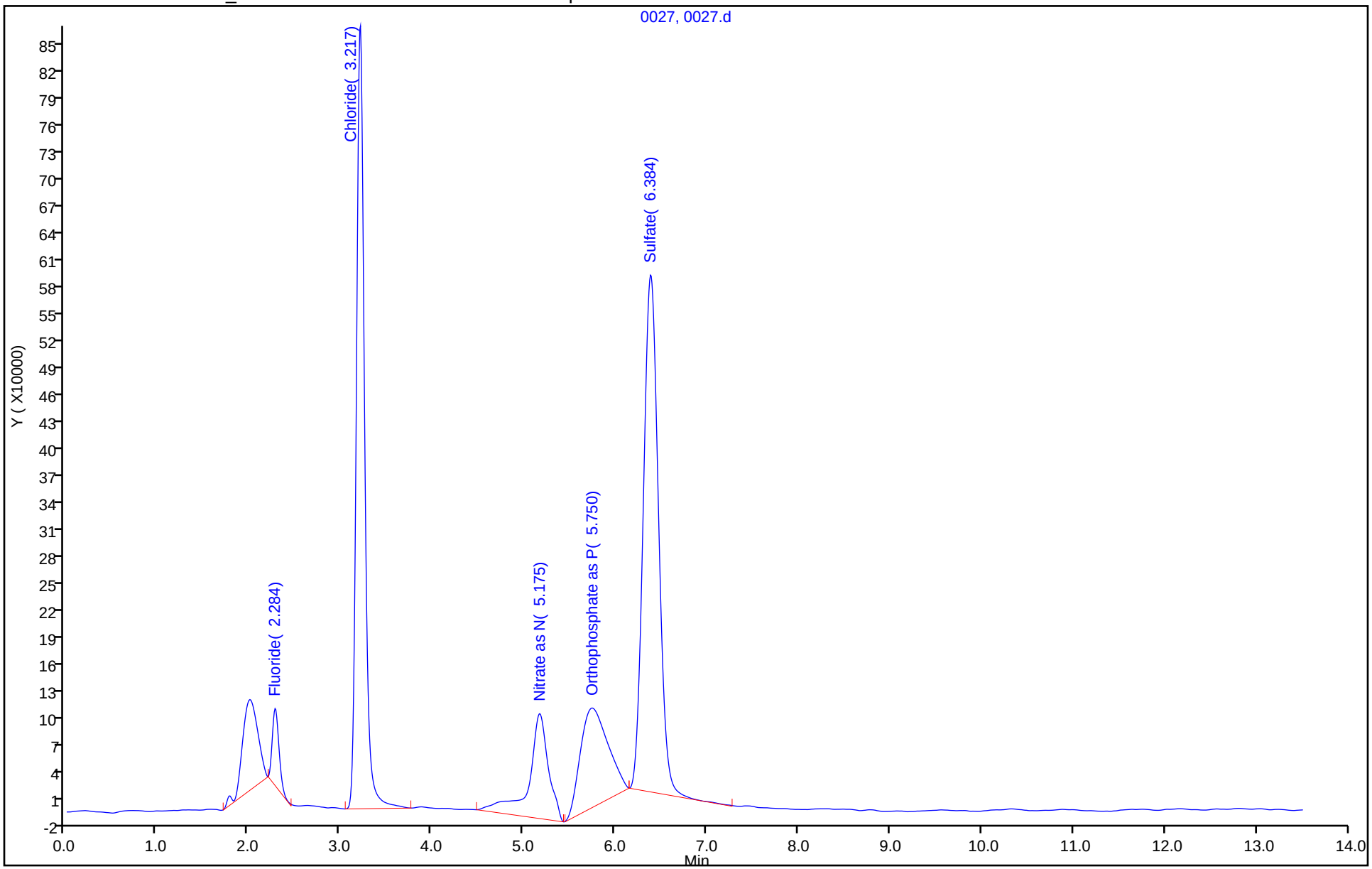
Processing Flags
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Report Date: 22-May-2019 07:59:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0027.d

Injection Date:	20-May-2019 23:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3 DU			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0027.d
Lims ID: 280-123981-I-3 DU
Client ID:
Sample Type: DU
Inject. Date: 20-May-2019 23:45:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-027
Misc. Info.: 14669 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	436101		0.0927	
2 Chloride	3.217	3.225	-0.008	5364314		1.44	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N	5.175	5.134	0.041	1726557		NC	
7 Orthophosphate as P	5.750	5.634	0.116	2280059		NC	
6 Sulfate	6.384	6.392	-0.008	6549755		1.97	

QC Flag Legend

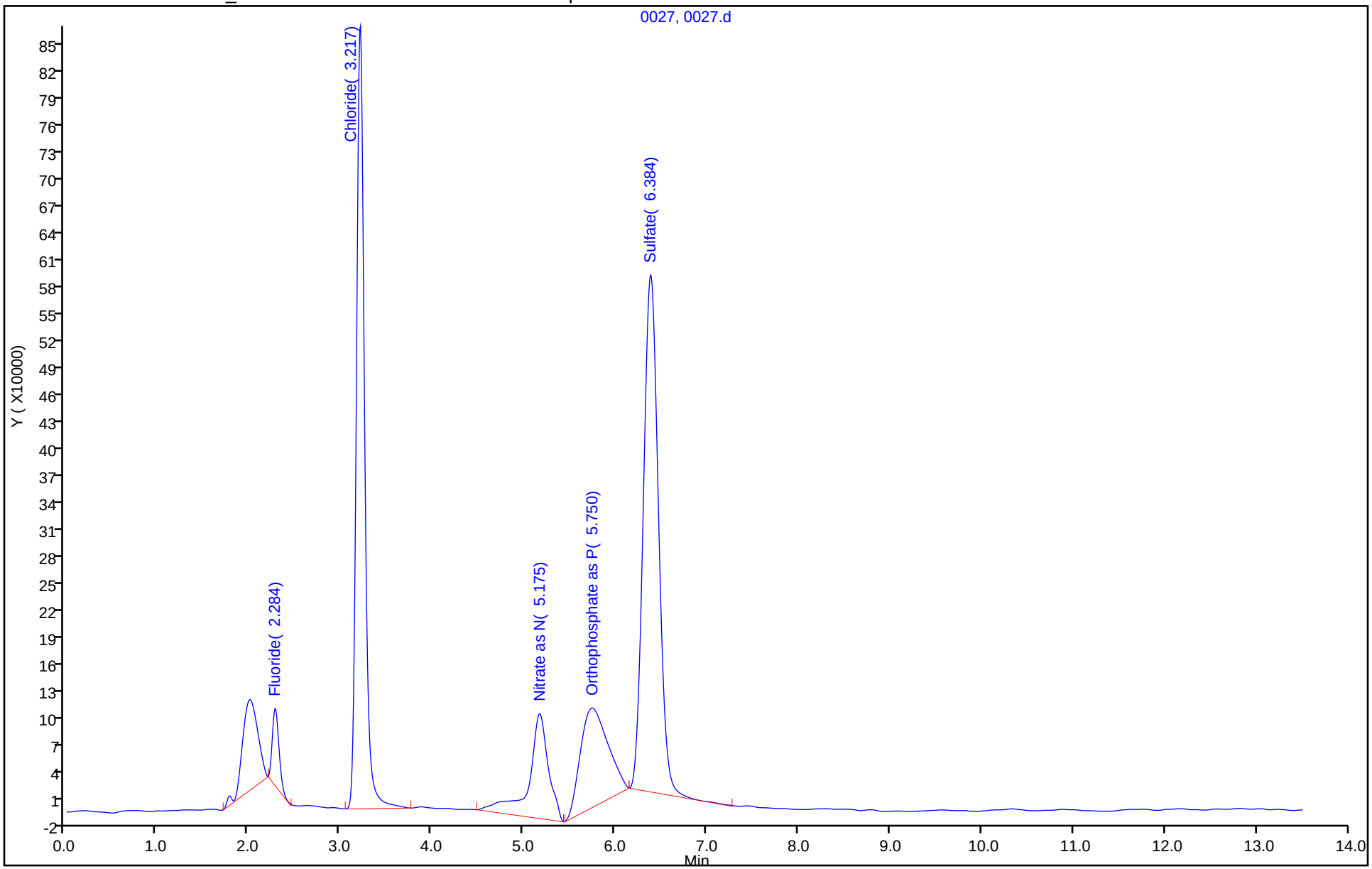
Processing Flags
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Report Date: 22-May-2019 07:59:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0027.d

Injection Date:	20-May-2019 23:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3 DU			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0028.d
Lims ID: 280-123981-I-3 MS
Client ID:
Sample Type: MS
Inject. Date: 21-May-2019 14:24:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-028
Misc. Info.: 9791 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39357626	NC	NC	
2 Chloride	3.217	3.225	-0.008	164043564	NC	NC	
3 Nitrite as N	3.859	3.850	0.009	57190410	5.00	5.38	
4 Bromide	4.592	4.575	0.017	11427927	NC	NC	
5 Nitrate as N	5.159	5.134	0.025	67267129	5.00	5.47	
7 Orthophosphate as P	5.684	5.634	0.050	46981380	5.00	9.96	
6 Sulfate	6.384	6.392	-0.008	111250779	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

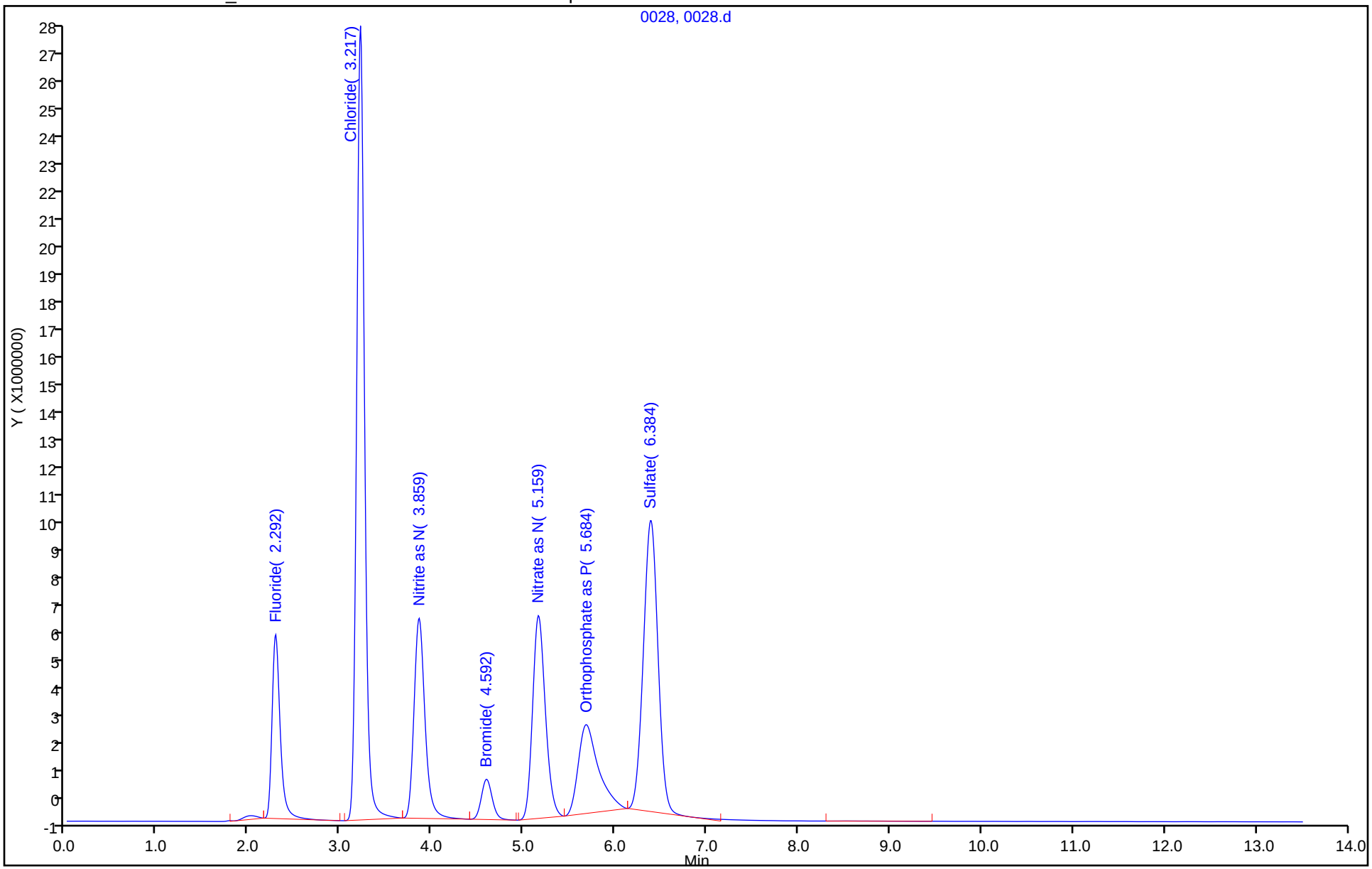
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:59:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0028.d

Injection Date:	21-May-2019 14:24:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3 MS			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0028.d
Lims ID: 280-123981-I-3 MS
Client ID:
Sample Type: MS
Inject. Date: 21-May-2019 14:24:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-028
Misc. Info.: 9791 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39357626	5.00	5.23	
2 Chloride	3.217	3.225	-0.008	164043564	25.0	25.7	
3 Nitrite as N	3.859	3.850	0.009	57190410	NC	NC	
4 Bromide	4.592	4.575	0.017	11427927	5.00	5.53	
5 Nitrate as N	5.159	5.134	0.025	67267129	NC	NC	
7 Orthophosphate as P	5.684	5.634	0.050	46981380	NC	NC	
6 Sulfate	6.384	6.392	-0.008	111250779	25.0	26.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

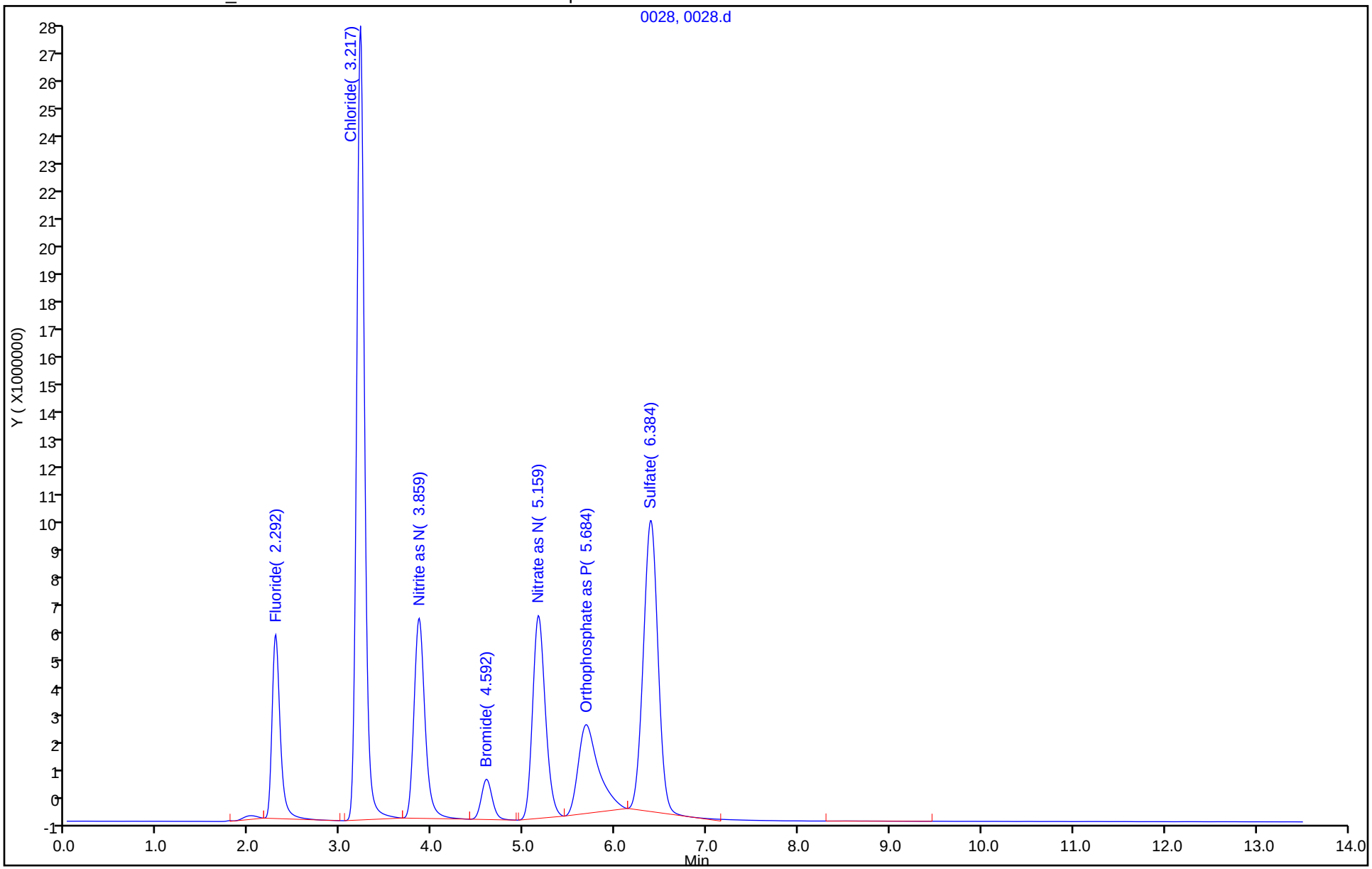
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:59:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0028.d

Injection Date:	21-May-2019 14:24:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3 MS			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0029.d
Lims ID: 280-123981-I-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 21-May-2019 14:40:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-029
Misc. Info.: 7128 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39824414	NC	NC	
2 Chloride	3.217	3.225	-0.008	167557160	NC	NC	
3 Nitrite as N	3.859	3.850	0.009	58357118	5.00	5.49	
4 Bromide	4.592	4.575	0.017	11681926	NC	NC	
5 Nitrate as N	5.159	5.134	0.025	68546916	5.00	5.57	
7 Orthophosphate as P	5.675	5.634	0.041	41986150	5.00	8.90	
6 Sulfate	6.392	6.392	0.000	114788411	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

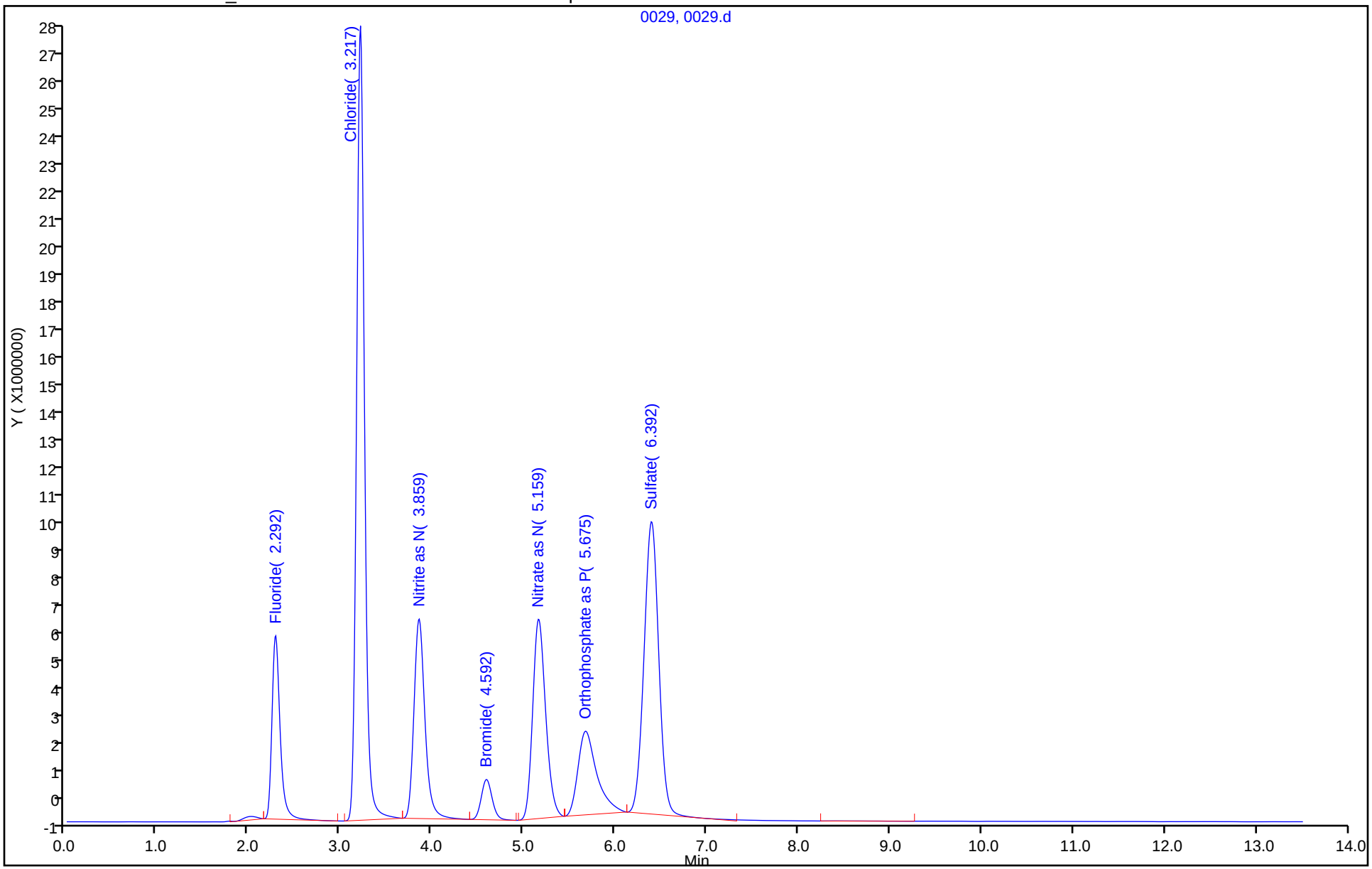
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:59:13 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0029.d

Injection Date:	21-May-2019 14:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3 MSD			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0029.d
Lims ID: 280-123981-I-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 21-May-2019 14:40:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-029
Misc. Info.: 7128 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39824414	5.00	5.29	
2 Chloride	3.217	3.225	-0.008	167557160	25.0	26.3	
3 Nitrite as N	3.859	3.850	0.009	58357118	NC	NC	
4 Bromide	4.592	4.575	0.017	11681926	5.00	5.66	
5 Nitrate as N	5.159	5.134	0.025	68546916	NC	NC	
7 Orthophosphate as P	5.675	5.634	0.041	41986150	NC	NC	
6 Sulfate	6.392	6.392	0.000	114788411	25.0	27.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

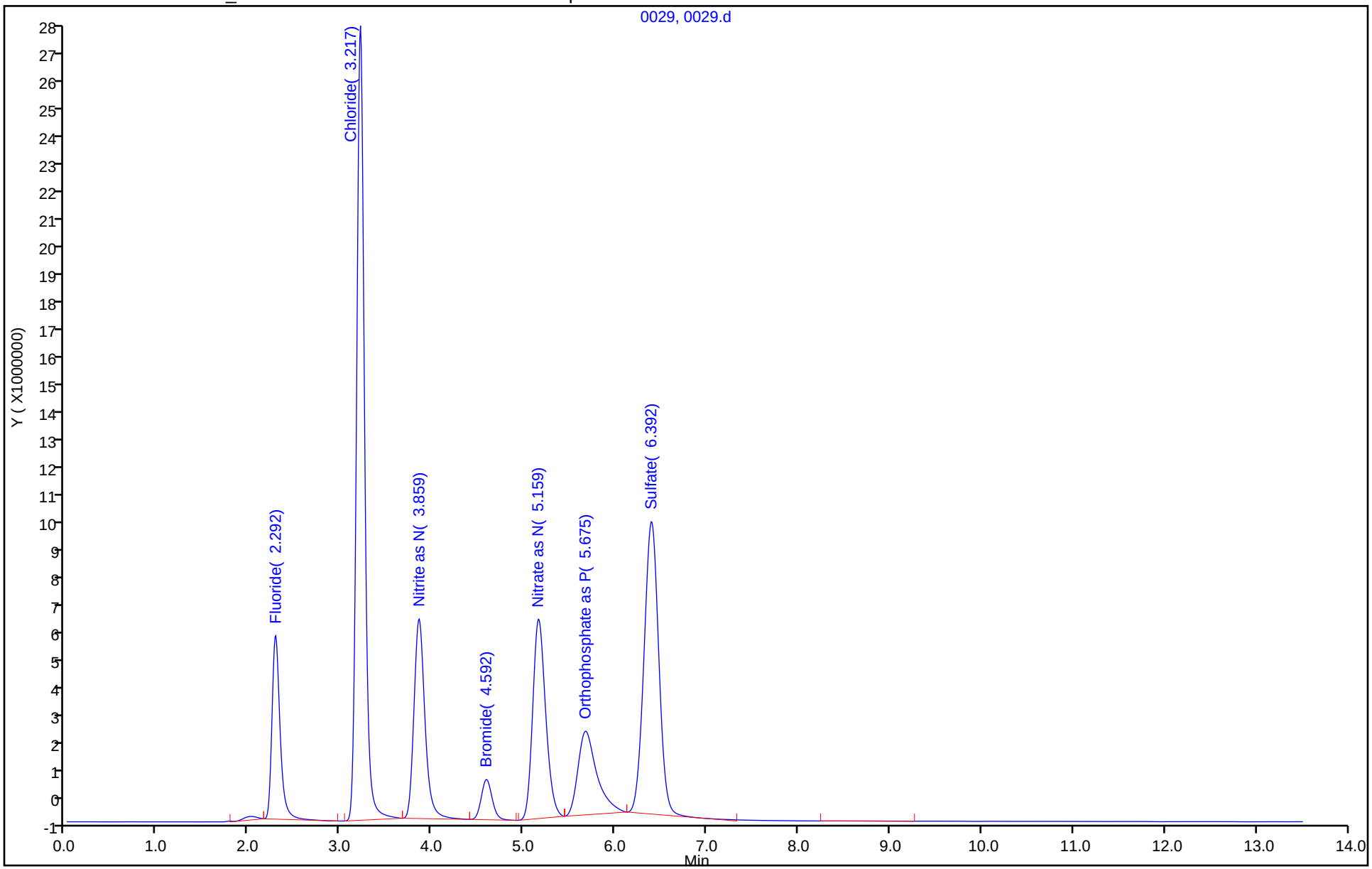
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:59:13 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0029.d

Injection Date:	21-May-2019 14:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-3 MSD			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0030.d
Lims ID: 280-123981-J-4
Client ID: LF7MW-26_0519-a
Sample Type: Client
Inject. Date: 21-May-2019 14:56:00 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-030
Misc. Info.: 22512 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	270474	NC	
2 Chloride	3.217	3.225	-0.008	1651342	NC	
3 Nitrite as N		3.850			ND	
4 Bromide	4.859	4.575	0.284	268890	NC	
5 Nitrate as N	5.225	5.134	0.091	638347	0.0943	
7 Orthophosphate as P	5.700	5.634	0.066	4269408	0.8530	
6 Sulfate	6.392	6.392	0.000	8709667	NC	

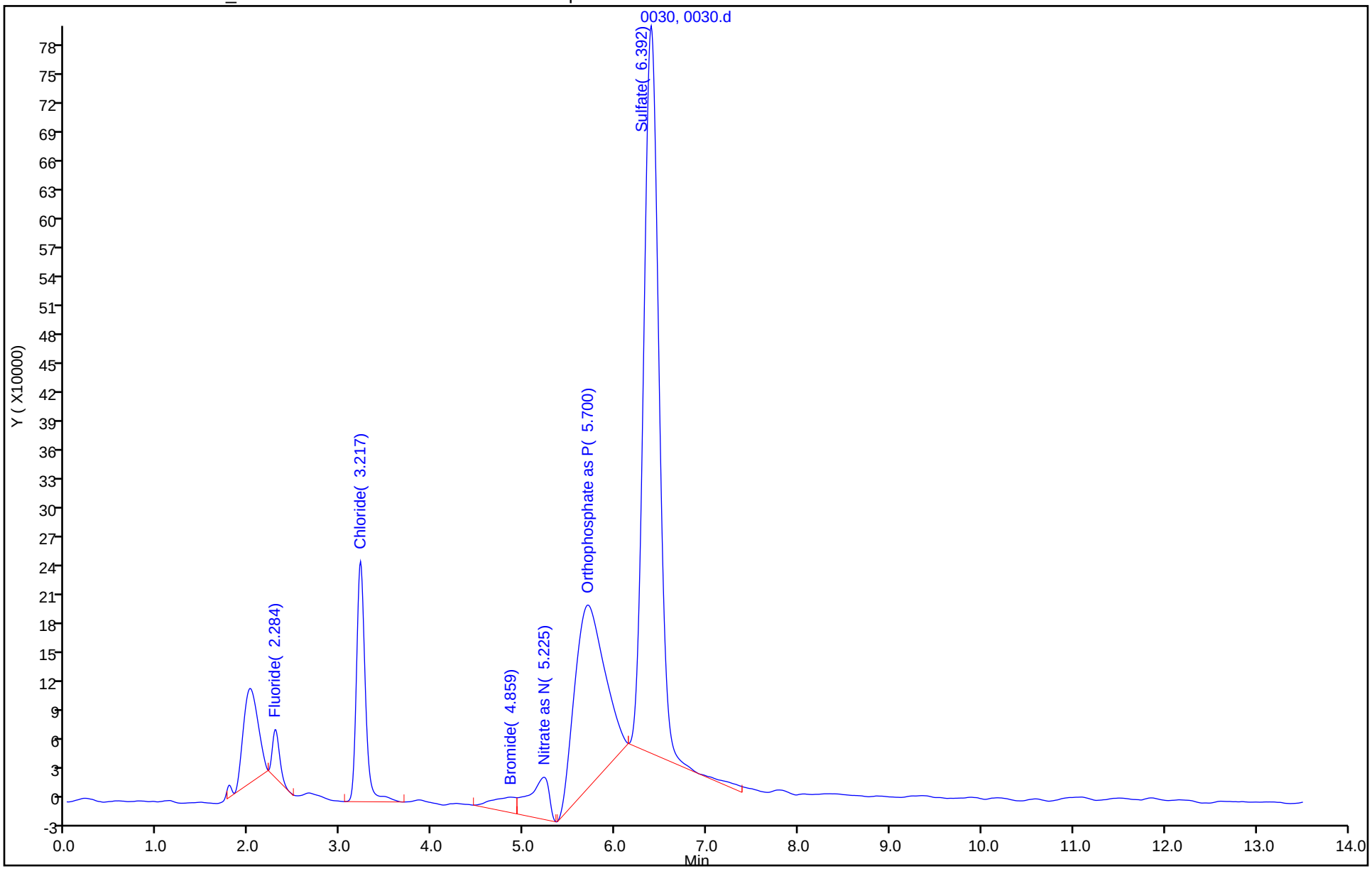
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Report Date: 22-May-2019 07:59:13 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0030.d				
Injection Date:	21-May-2019 14:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-4	Lab Sample ID:	280-123981-4	Worklist Smp#:	30
Client ID:	LF7MW-26_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/14/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0030.d
Lims ID: 280-123981-J-4
Client ID: LF7MW-26_0519-a
Sample Type: Client
Inject. Date: 21-May-2019 14:56:00 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-030
Misc. Info.: 22512 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	270474	0.0709	
2 Chloride	3.217	3.225	-0.008	1651342	0.8709	
3 Nitrite as N		3.850			ND	
4 Bromide	4.859	4.575	0.284	268890	0.1416	
5 Nitrate as N	5.225	5.134	0.091	638347	NC	
7 Orthophosphate as P	5.700	5.634	0.066	4269408	NC	
6 Sulfate	6.392	6.392	0.000	8709667	2.48	

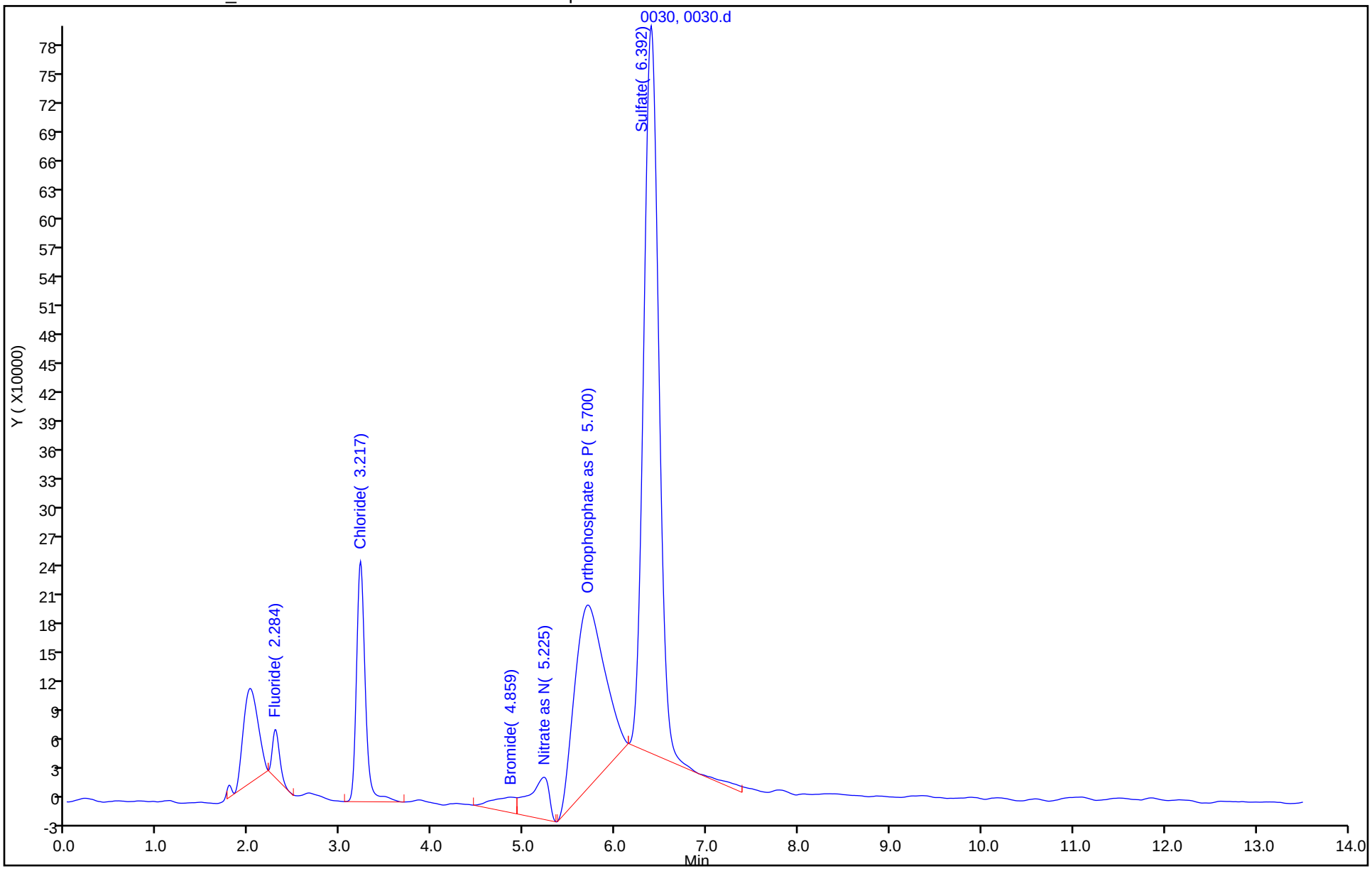
QC Flag Legend

Processing Flags
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Report Date: 22-May-2019 07:59:13 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0030.d				
Injection Date:	21-May-2019 14:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-4	Lab Sample ID:	280-123981-4	Worklist Smp#:	30
Client ID:	LF7MW-26_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



06/14/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0031.d
Lims ID: 280-123981-J-5
Client ID: LF7MW-27_0519
Sample Type: Client
Inject. Date: 21-May-2019 15:12:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-031
Misc. Info.: 5742 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	406480	NC	
2 Chloride	3.209	3.225	-0.016	1240525	NC	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.159	5.134	0.025	2840903	0.2719	
7 Orthophosphate as P	5.742	5.634	0.108	2033123	0.3760	
6 Sulfate	6.376	6.392	-0.016	7767935	NC	

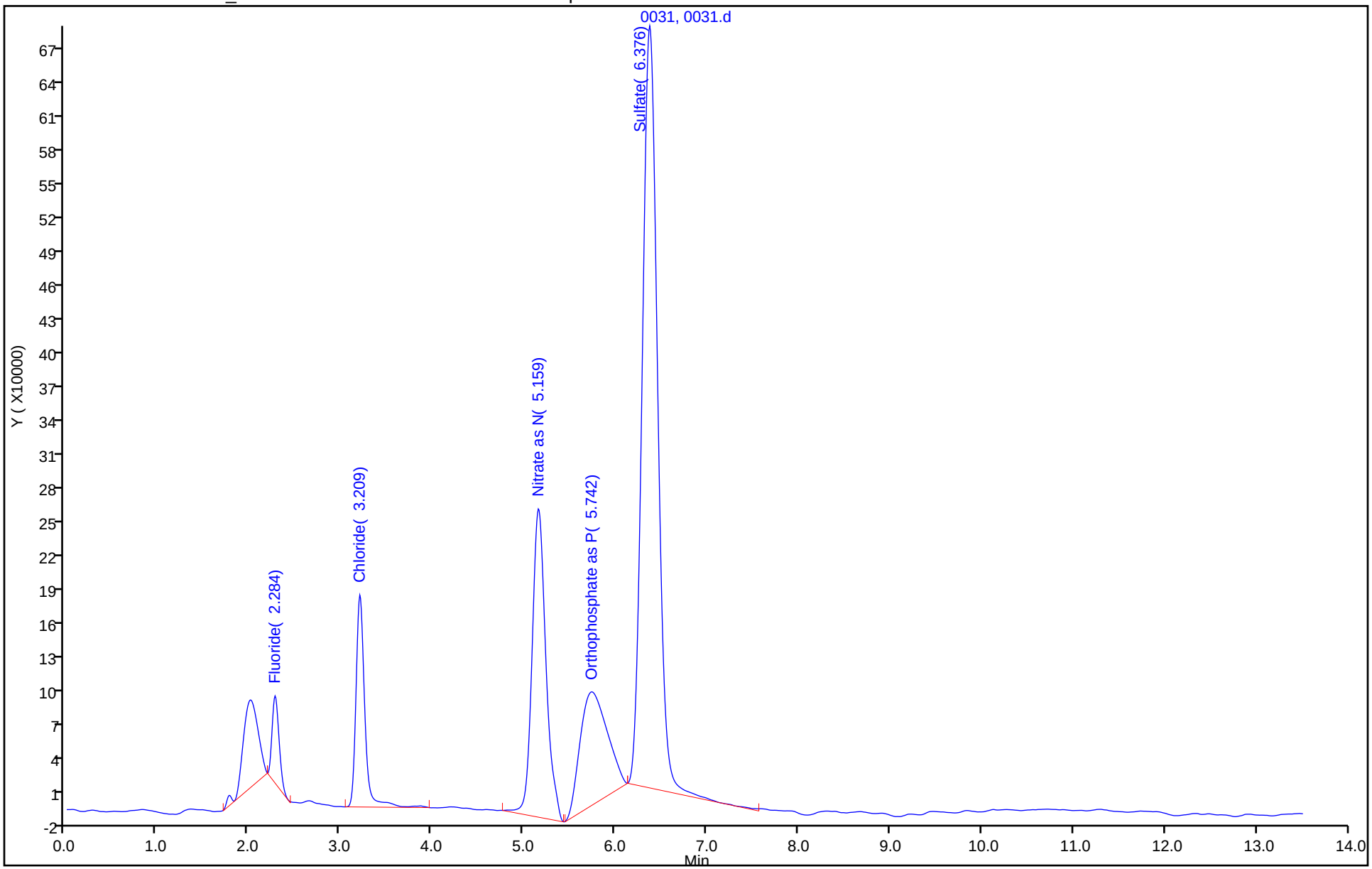
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0031.d				
Injection Date:	21-May-2019 15:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-5	Lab Sample ID:	280-123981-5	Worklist Smp#:	31
Client ID:	LF7MW-27_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0031.d
Lims ID: 280-123981-J-5
Client ID: LF7MW-27_0519
Sample Type: Client
Inject. Date: 21-May-2019 15:12:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-031
Misc. Info.: 5742 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	406480	0.0888	
2 Chloride	3.209	3.225	-0.016	1240525	0.8079	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.159	5.134	0.025	2840903	NC	
7 Orthophosphate as P	5.742	5.634	0.108	2033123	NC	
6 Sulfate	6.376	6.392	-0.016	7767935	2.26	

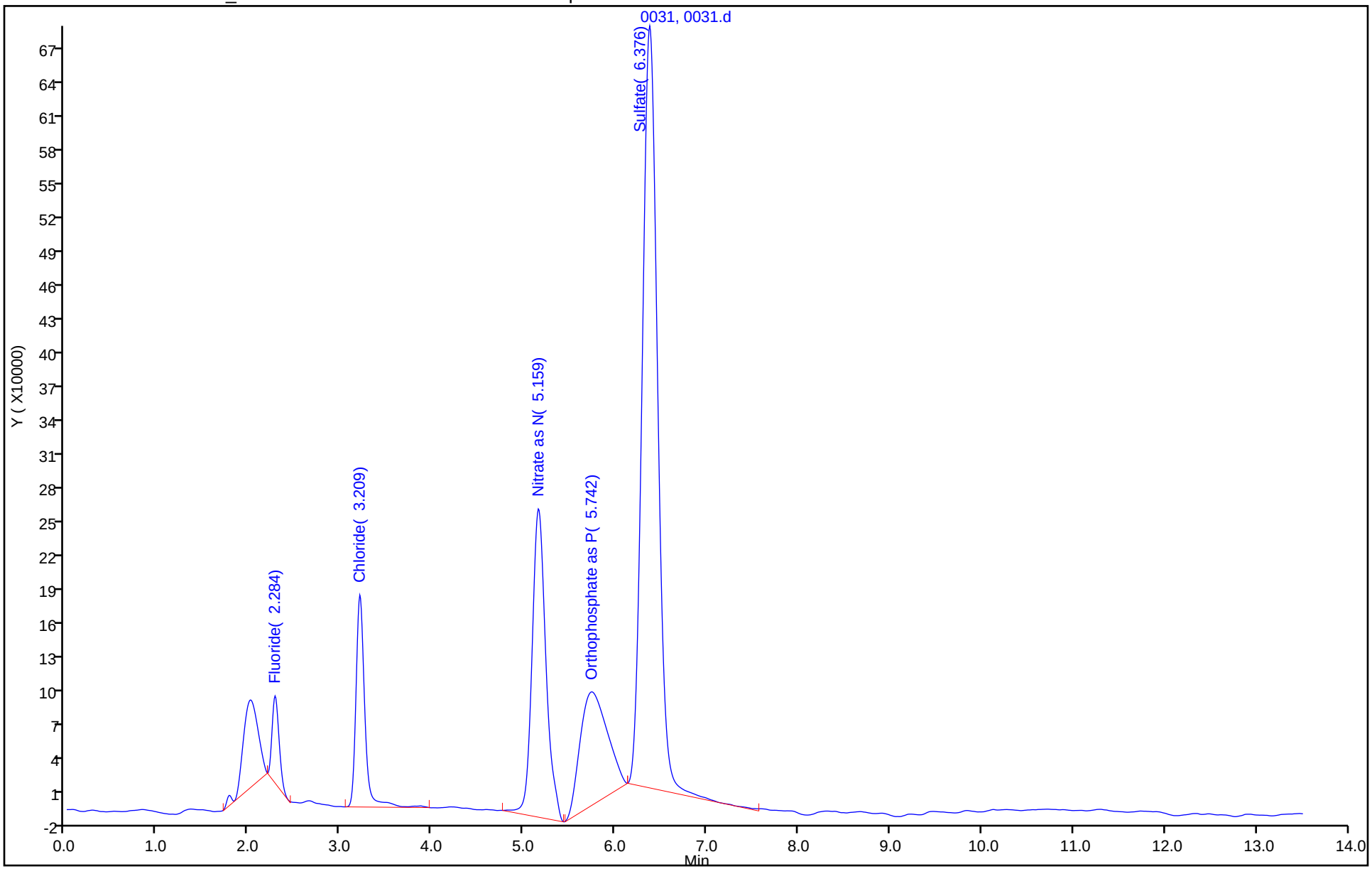
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0031.d				
Injection Date:	21-May-2019 15:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-5	Lab Sample ID:	280-123981-5	Worklist Smp#:	31
Client ID:	LF7MW-27_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0032.d
Lims ID: 280-123981-H-6
Client ID: LF7MW-28_0519
Sample Type: Client
Inject. Date: 21-May-2019 15:29:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-032
Misc. Info.: 26196 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	373587	NC	
2 Chloride	3.217	3.225	-0.008	10416647	NC	
3 Nitrite as N		3.850			ND	
4 Bromide	4.884	4.575	0.309	317997	NC	
5 Nitrate as N	5.192	5.134	0.058	1412025	0.1567	
7 Orthophosphate as P	5.709	5.634	0.075	2971056	0.5760	
6 Sulfate	6.384	6.392	-0.008	7873634	NC	

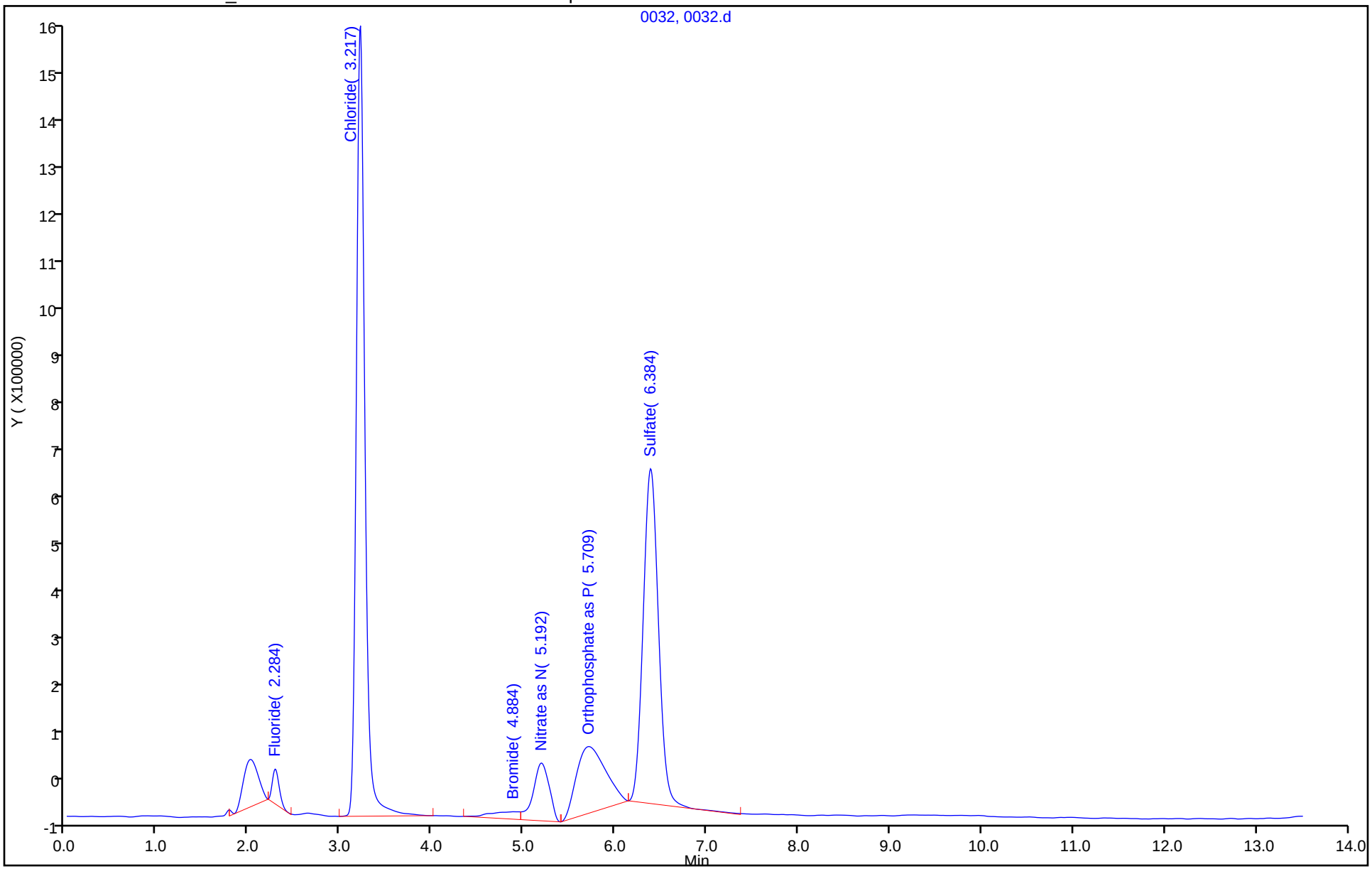
QC Flag Legend

Processing Flags
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Report Date: 22-May-2019 07:59:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0032.d				
Injection Date:	21-May-2019 15:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6	Lab Sample ID:	280-123981-6	Worklist Smp#:	32
Client ID:	LF7MW-28_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0032.d
Lims ID: 280-123981-H-6
Client ID: LF7MW-28_0519
Sample Type: Client
Inject. Date: 21-May-2019 15:29:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-032
Misc. Info.: 26196 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	373587	0.0845	
2 Chloride	3.217	3.225	-0.008	10416647	2.21	
3 Nitrite as N		3.850			ND	
4 Bromide	4.884	4.575	0.309	317997	0.1653	
5 Nitrate as N	5.192	5.134	0.058	1412025	NC	
7 Orthophosphate as P	5.709	5.634	0.075	2971056	NC	
6 Sulfate	6.384	6.392	-0.008	7873634	2.28	

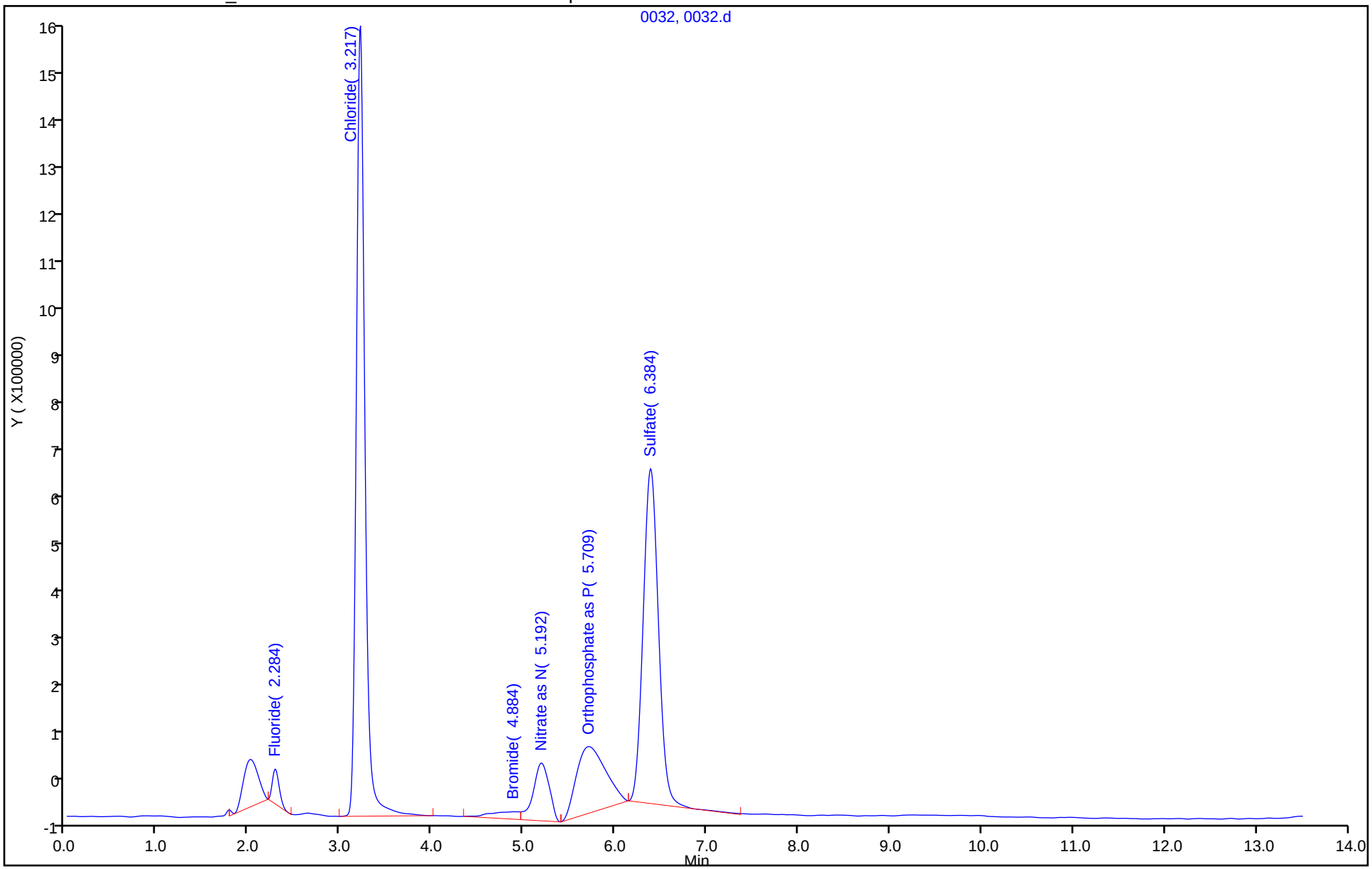
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0032.d				
Injection Date:	21-May-2019 15:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6	Lab Sample ID:	280-123981-6	Worklist Smp#:	32
Client ID:	LF7MW-28_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0033.d
Lims ID: 280-123981-H-6 DU
Client ID:
Sample Type: DU
Inject. Date: 21-May-2019 15:45:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-033
Misc. Info.: 26992 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	378690		NC	
2 Chloride	3.217	3.225	-0.008	10534538		NC	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N	5.192	5.134	0.058	1373542		0.1536	
7 Orthophosphate as P	5.709	5.634	0.075	2938005		0.5690	
6 Sulfate	6.384	6.392	-0.008	7720614		NC	

QC Flag Legend

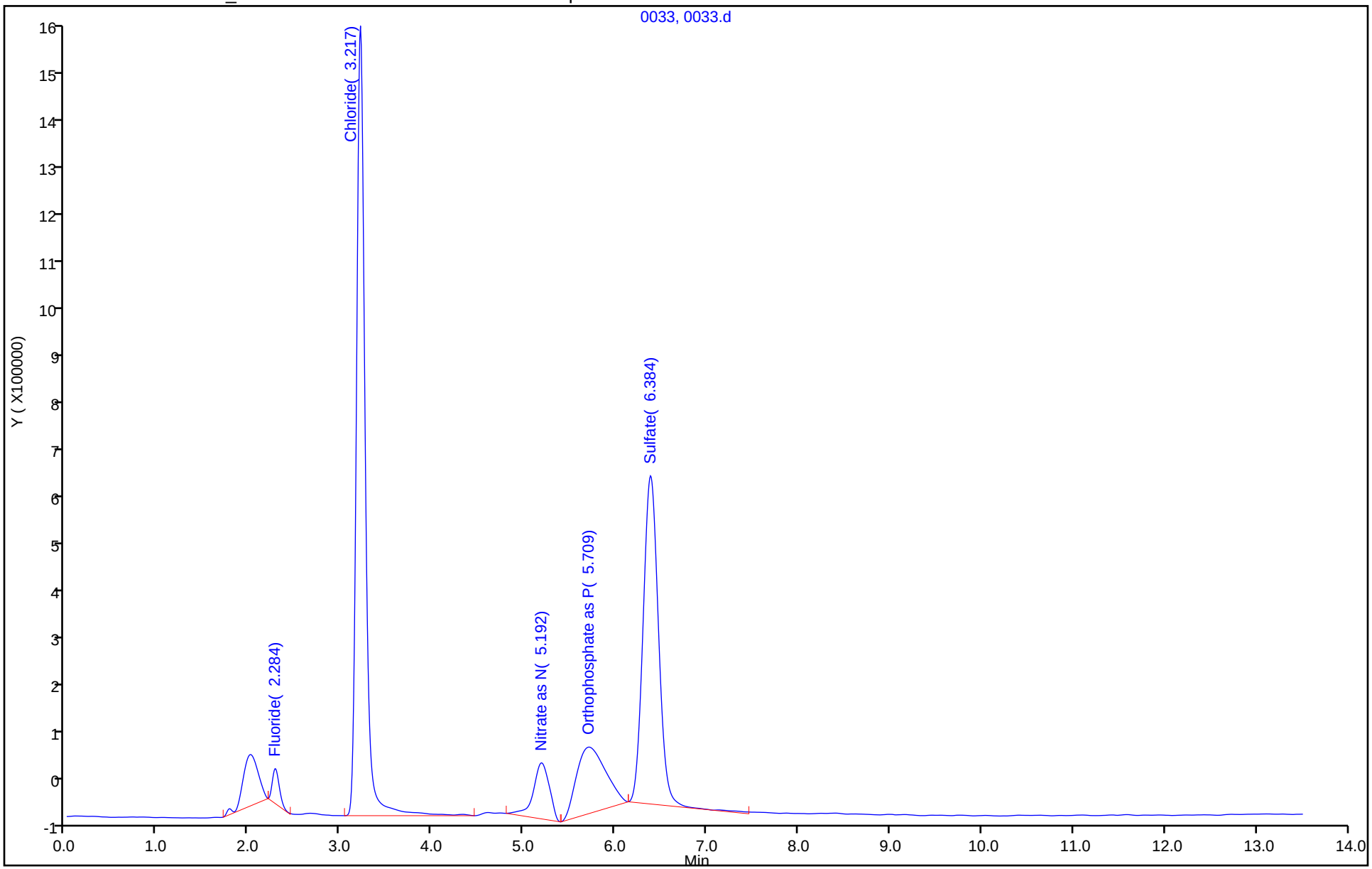
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Report Date: 22-May-2019 07:59:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0033.d

Injection Date:	21-May-2019 15:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6 DU			Worklist Smp#:	33
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0033.d
Lims ID: 280-123981-H-6 DU
Client ID:
Sample Type: DU
Inject. Date: 21-May-2019 15:45:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-033
Misc. Info.: 26992 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	378690		0.0851	
2 Chloride	3.217	3.225	-0.008	10534538		2.23	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N	5.192	5.134	0.058	1373542		NC	
7 Orthophosphate as P	5.709	5.634	0.075	2938005		NC	
6 Sulfate	6.384	6.392	-0.008	7720614		2.25	

QC Flag Legend

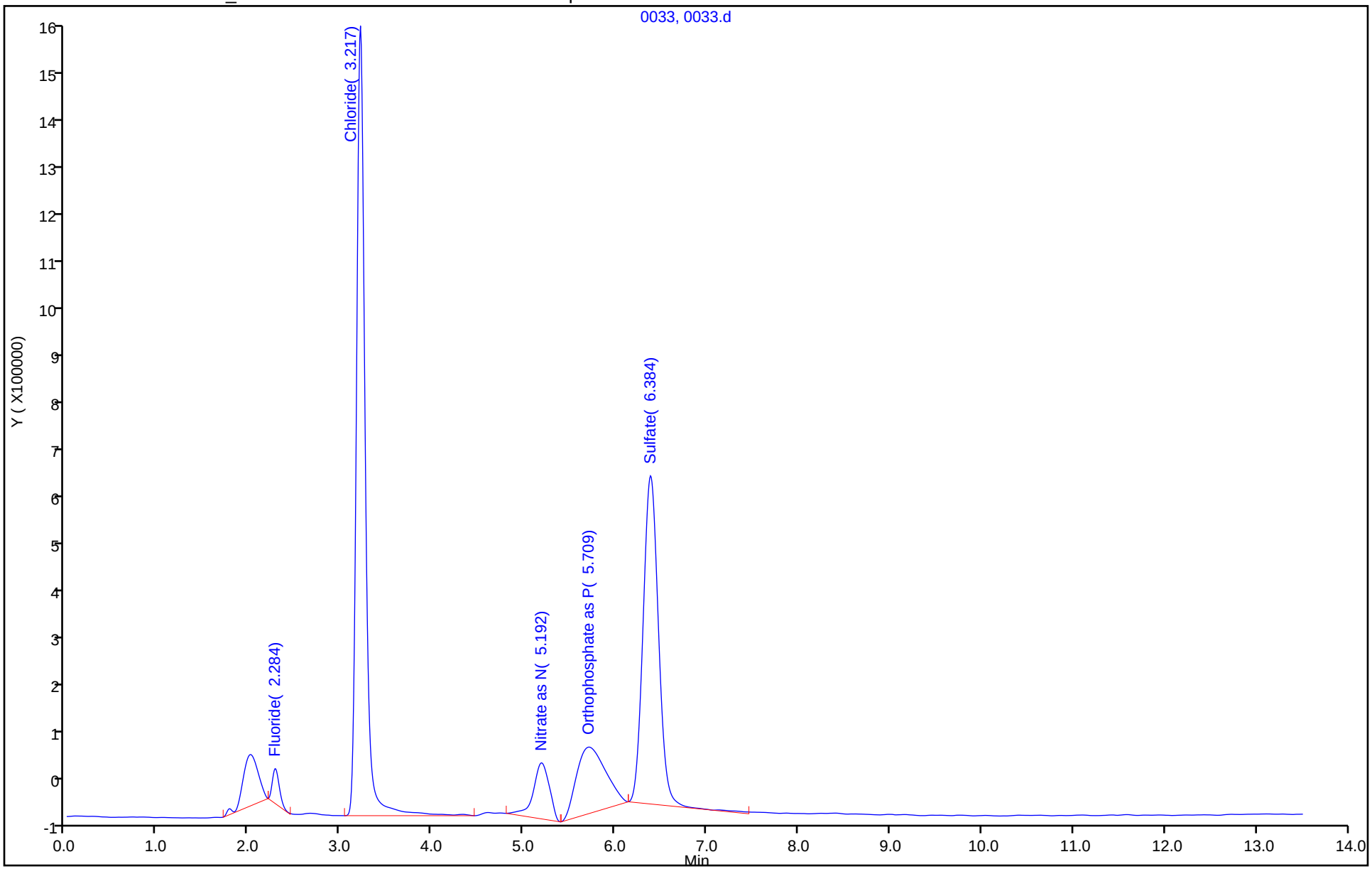
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Report Date: 22-May-2019 07:59:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0033.d

Injection Date:	21-May-2019 15:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6 DU			Worklist Smp#:	33
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0034.d
Lims ID: 280-123981-H-6 MS
Client ID:
Sample Type: MS
Inject. Date: 21-May-2019 16:02:00 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-034
Misc. Info.: 2274 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37623485	NC	NC	
2 Chloride	3.217	3.225	-0.008	167980932	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	56642455	5.00	5.33	
4 Bromide	4.592	4.575	0.017	11322225	NC	NC	
5 Nitrate as N	5.159	5.134	0.025	66582094	5.00	5.41	
7 Orthophosphate as P	5.667	5.634	0.033	22737726	5.00	4.79	
6 Sulfate	6.400	6.392	0.008	113873699	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

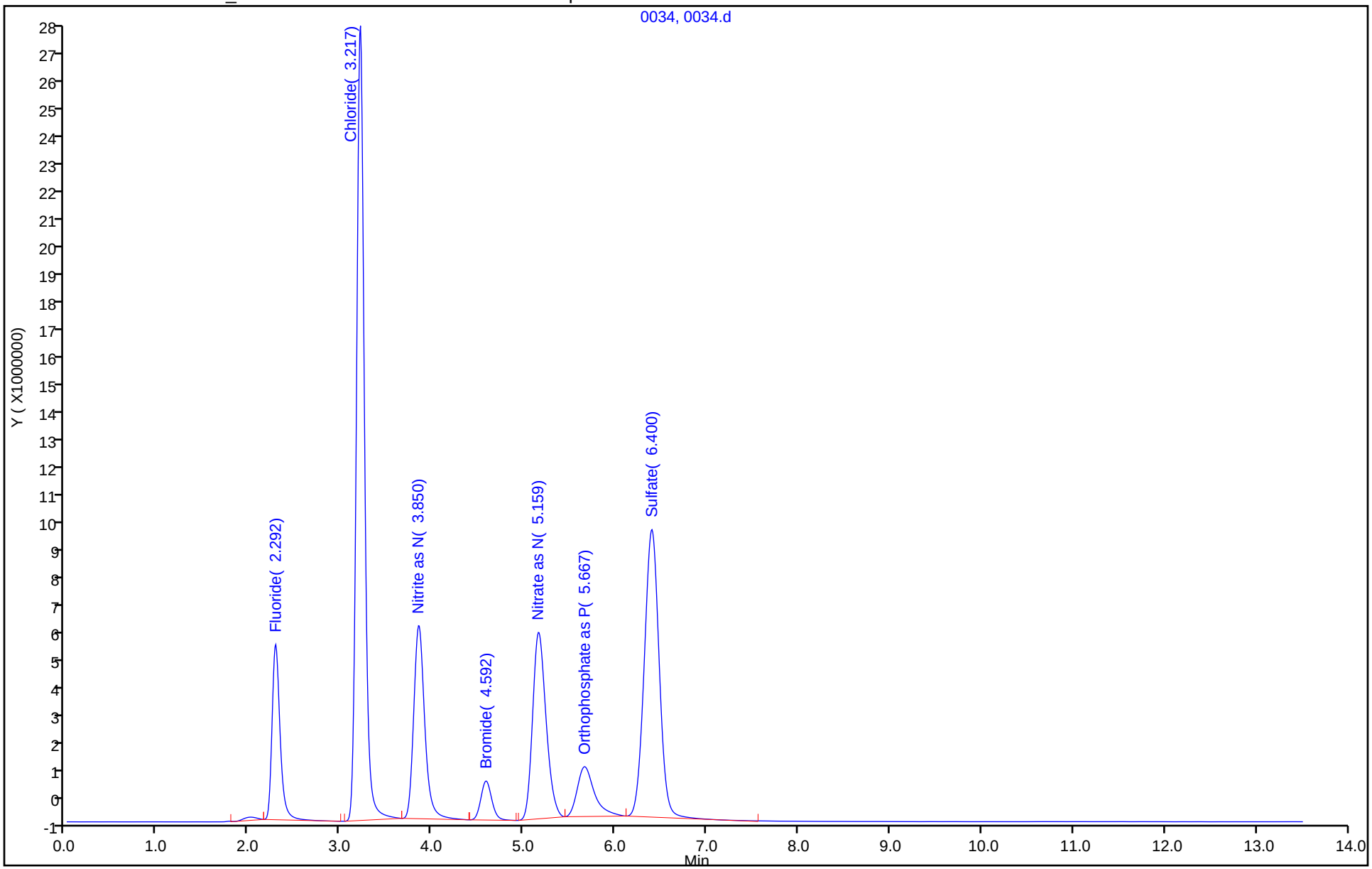
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:59:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0034.d

Injection Date:	21-May-2019 16:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6 MS			Worklist Smp#:	34
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0034.d
Lims ID: 280-123981-H-6 MS
Client ID:
Sample Type: MS
Inject. Date: 21-May-2019 16:02:00 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-034
Misc. Info.: 2274 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37623485	5.00	5.00	
2 Chloride	3.217	3.225	-0.008	167980932	25.0	26.4	
3 Nitrite as N	3.850	3.850	0.000	56642455	NC	NC	
4 Bromide	4.592	4.575	0.017	11322225	5.00	5.48	
5 Nitrate as N	5.159	5.134	0.025	66582094	NC	NC	
7 Orthophosphate as P	5.667	5.634	0.033	22737726	NC	NC	
6 Sulfate	6.400	6.392	0.008	113873699	25.0	27.0	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

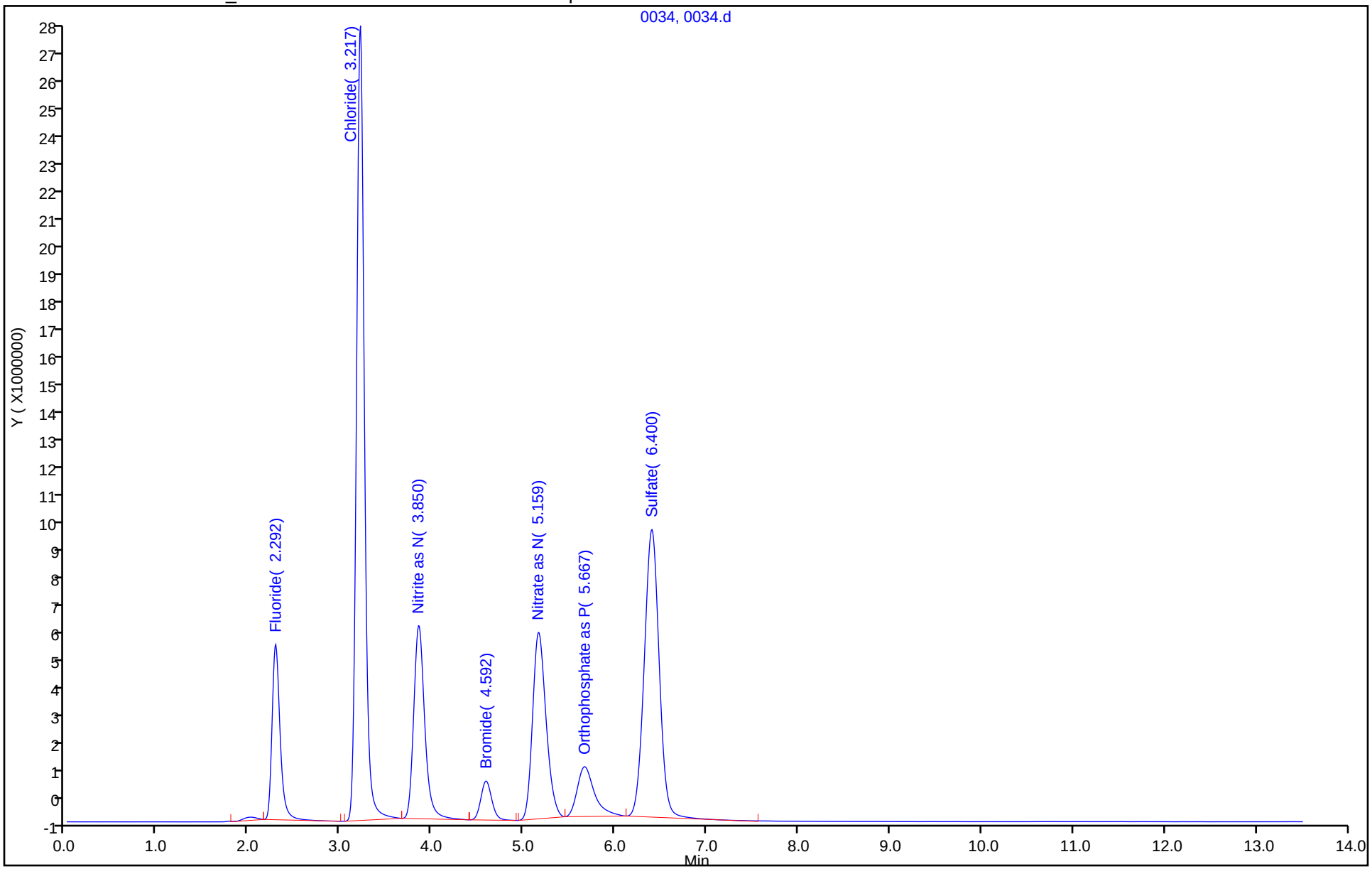
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:59:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0034.d

Injection Date:	21-May-2019 16:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6 MS			Worklist Smp#:	34
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0035.d
Lims ID: 280-123981-H-6 MSD
Client ID:
Sample Type: MSD
Inject. Date: 21-May-2019 16:18:00 ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-035
Misc. Info.: 27822 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	38216270	NC	NC	
2 Chloride	3.217	3.225	-0.008	171004098	NC	NC	
3 Nitrite as N	3.859	3.850	0.009	57797869	5.00	5.44	
4 Bromide	4.592	4.575	0.017	11576795	NC	NC	
5 Nitrate as N	5.167	5.134	0.033	67667848	5.00	5.50	
7 Orthophosphate as P	5.667	5.634	0.033	21550535	5.00	4.54	
6 Sulfate	6.400	6.392	0.008	115678964	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

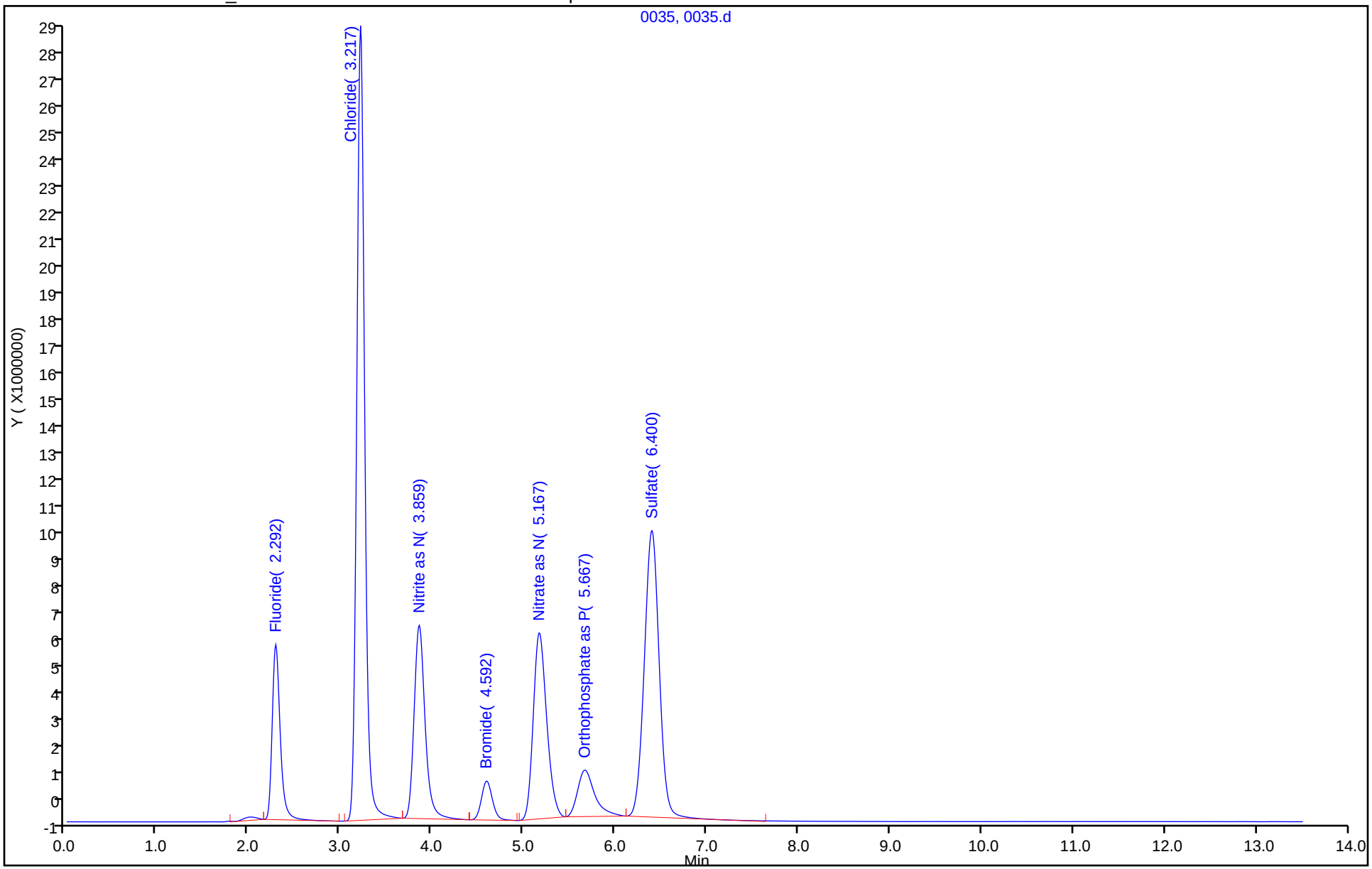
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:59:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0035.d

Injection Date:	21-May-2019 16:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6 MSD			Worklist Smp#:	35
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0035.d
Lims ID: 280-123981-H-6 MSD
Client ID:
Sample Type: MSD
Inject. Date: 21-May-2019 16:18:00 ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-035
Misc. Info.: 27822 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:10 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	38216270	5.00	5.07	
2 Chloride	3.217	3.225	-0.008	171004098	25.0	26.8	
3 Nitrite as N	3.859	3.850	0.009	57797869	NC	NC	
4 Bromide	4.592	4.575	0.017	11576795	5.00	5.60	
5 Nitrate as N	5.167	5.134	0.033	67667848	NC	NC	
7 Orthophosphate as P	5.667	5.634	0.033	21550535	NC	NC	
6 Sulfate	6.400	6.392	0.008	115678964	25.0	27.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

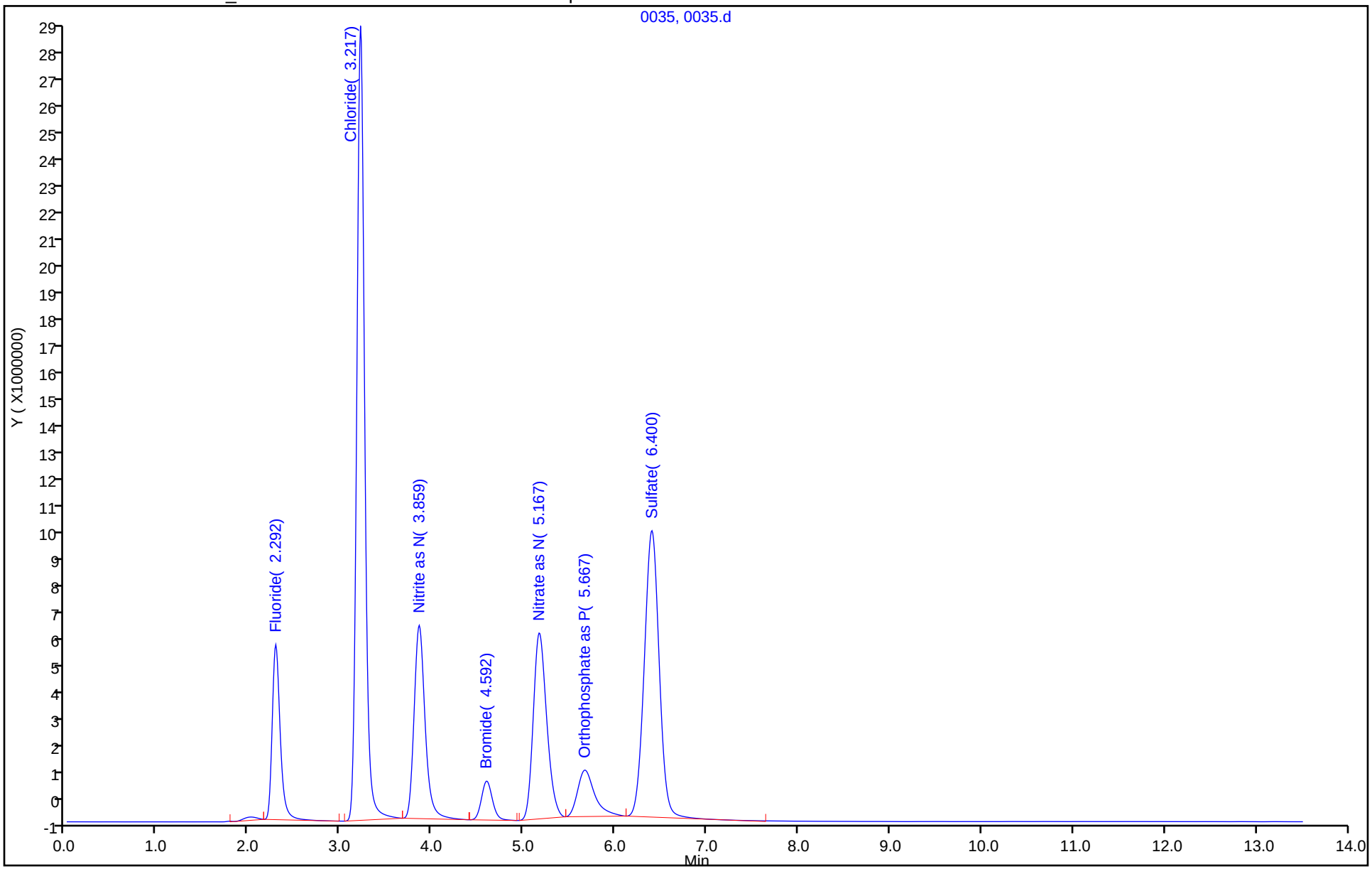
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:59:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0035.d

Injection Date:	21-May-2019 16:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-6 MSD			Worklist Smp#:	35
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0036.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-May-2019 16:35:00	ALS Bottle#:	0	Worklist Smp#:	36
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-036				
Misc. Info.:	1426				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:17	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39486453	NC	NC	
2 Chloride	3.226	3.225	0.001	695013684	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	54994480	5.00	5.18	
4 Bromide	4.584	4.575	0.009	10938518	NC	NC	
5 Nitrate as N	5.142	5.134	0.008	63686262	5.00	5.18	
7 Orthophosphate as P	5.617	5.634	-0.017	25169291	5.00	5.31	
6 Sulfate	6.401	6.392	0.009	455669222	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

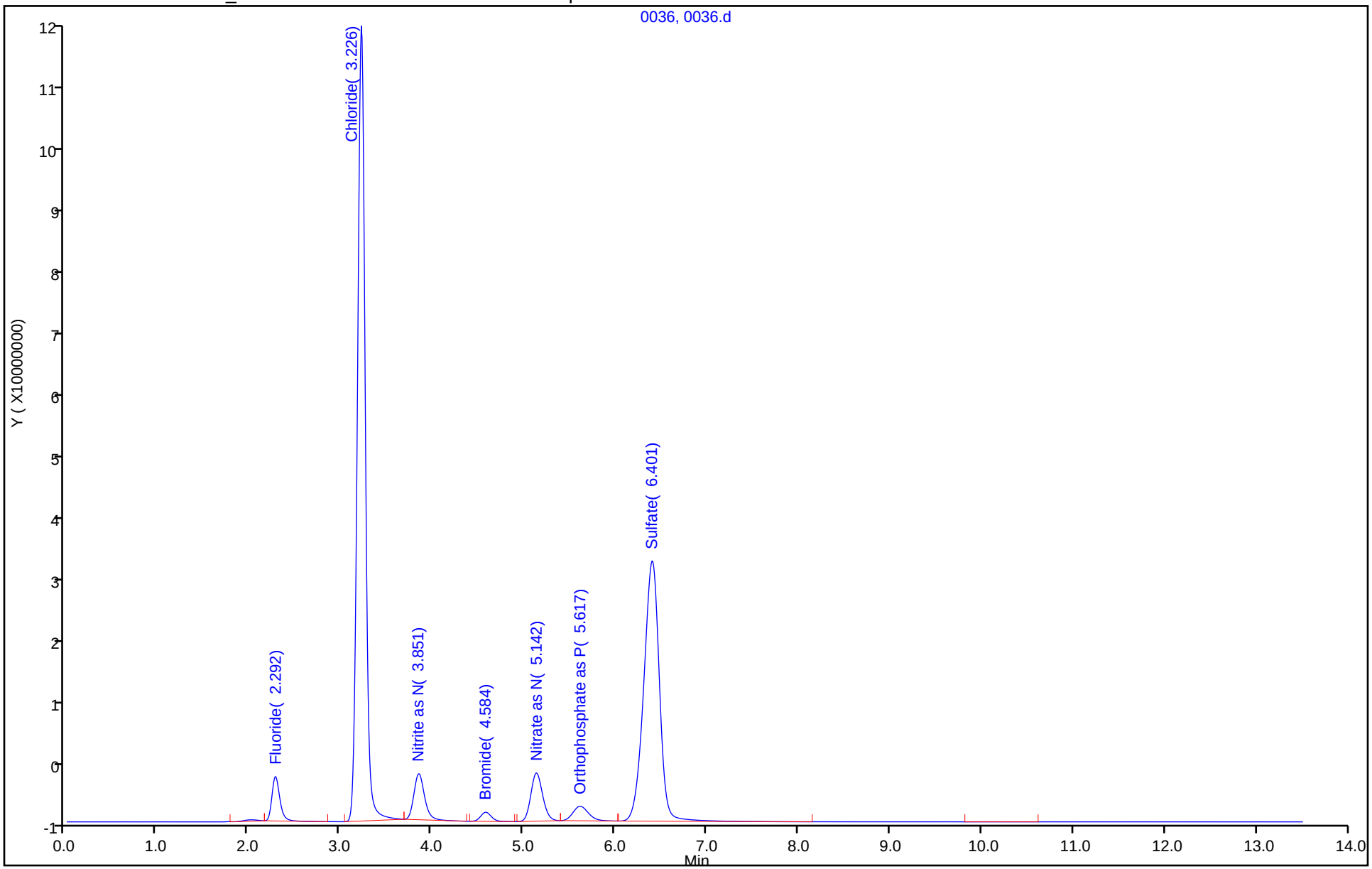
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0036.d

Injection Date:	21-May-2019 16:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	36
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0036.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-May-2019 16:35:00	ALS Bottle#:	0	Worklist Smp#:	36
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-036				
Misc. Info.:	1426				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:17	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39486453	5.00	5.24	
2 Chloride	3.226	3.225	0.001	695013684	100.0	107.1	
3 Nitrite as N	3.851	3.850	0.001	54994480	NC	NC	
4 Bromide	4.584	4.575	0.009	10938518	5.00	5.30	
5 Nitrate as N	5.142	5.134	0.008	63686262	NC	NC	
7 Orthophosphate as P	5.617	5.634	-0.017	25169291	NC	NC	
6 Sulfate	6.401	6.392	0.009	455669222	100.0	106.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

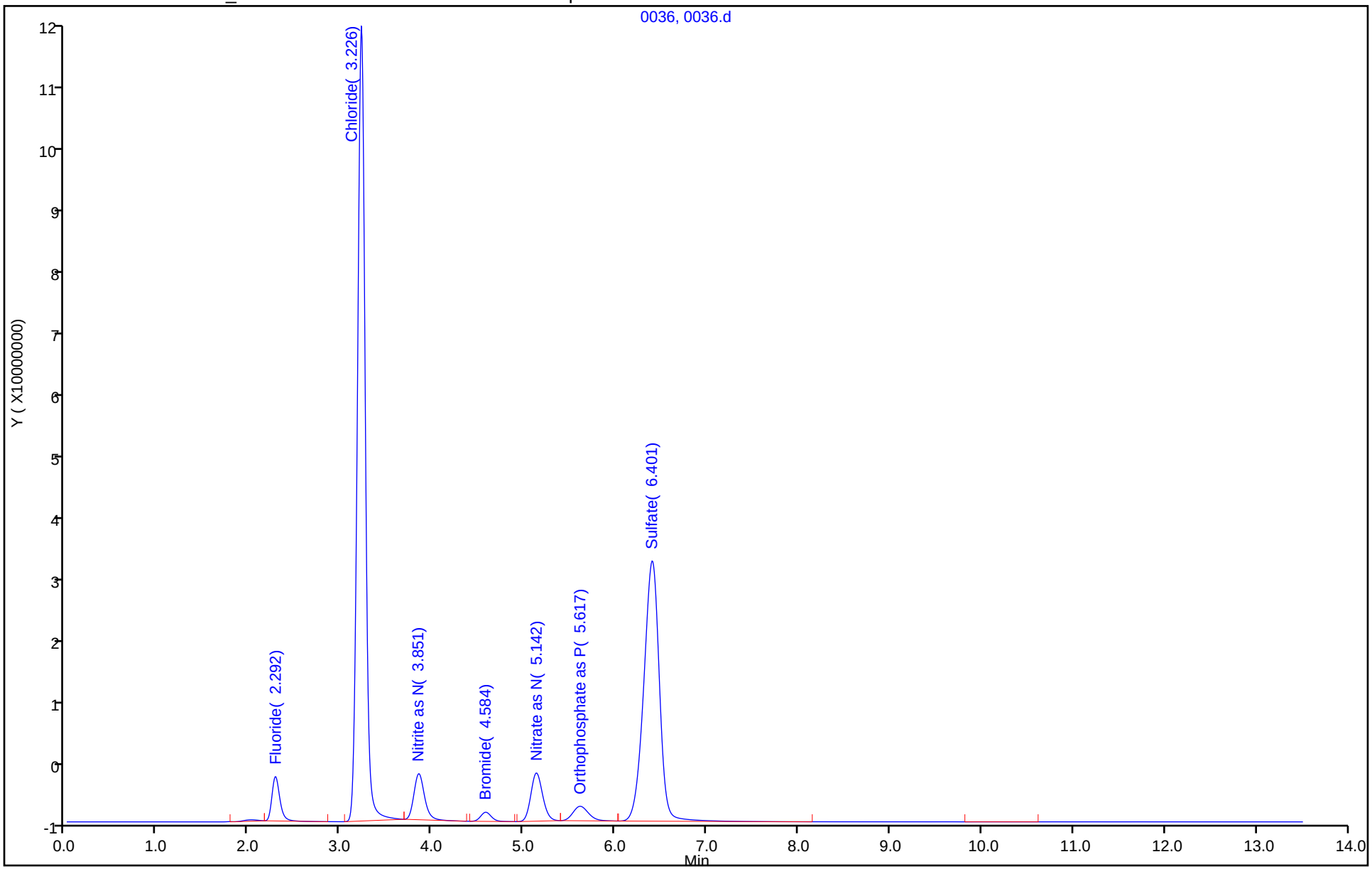
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0036.d

Injection Date:	21-May-2019 16:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	36
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0037.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	21-May-2019 16:51:00	ALS Bottle#:	0	Worklist Smp#:	37
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-037				
Misc. Info.:	3583				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:17	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	1189064		NC	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.859	5.634	0.225	738297		0.0998	
6 Sulfate	6.375	6.392	-0.017	200987		NC	

QC Flag Legend

Processing Flags

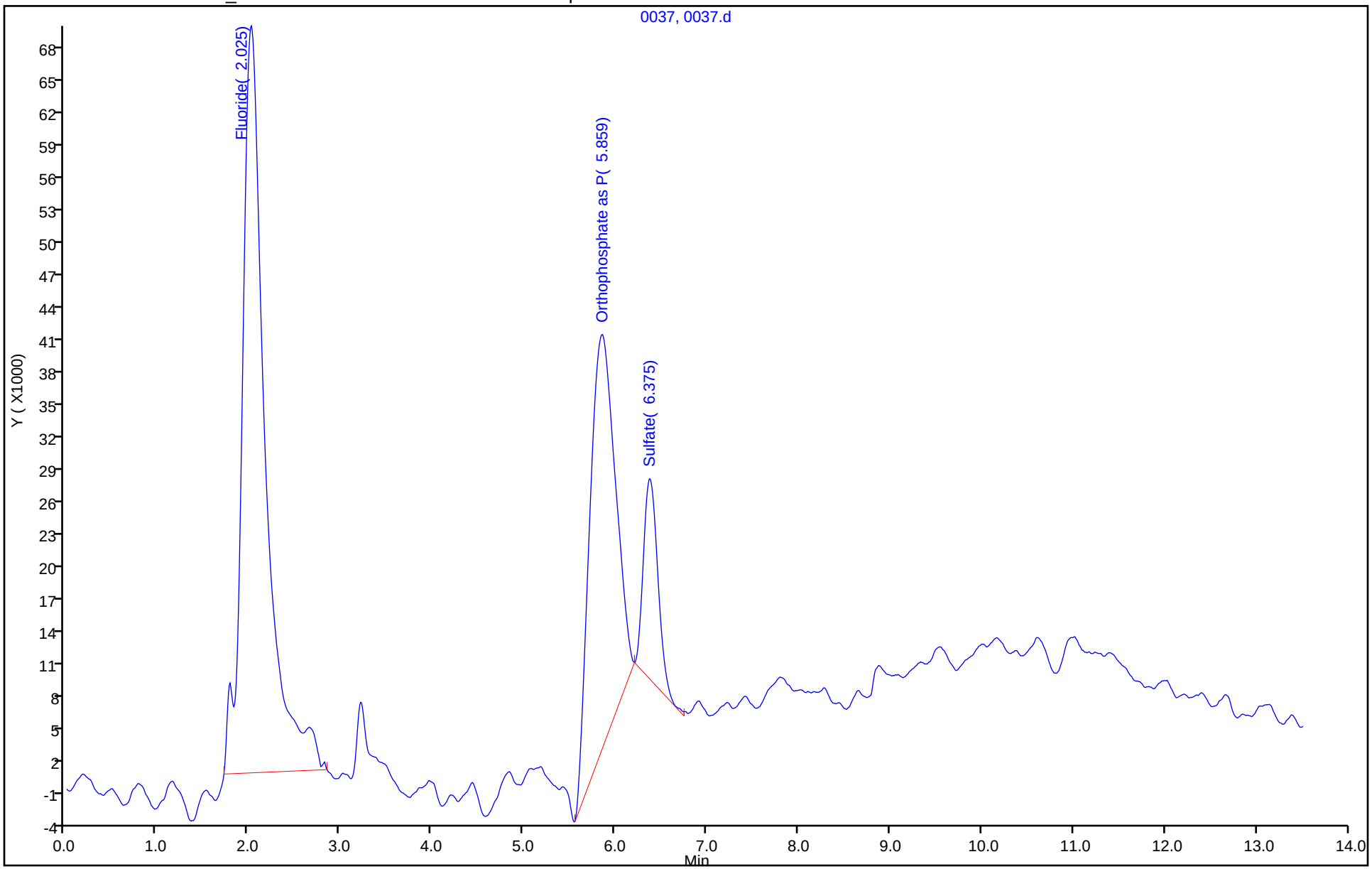
NC - Not Calibrated

Report Date: 22-May-2019 07:59:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0037.d

Injection Date:	21-May-2019 16:51:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	37
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0037.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	21-May-2019 16:51:00	ALS Bottle#:	0	Worklist Smp#:	37
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-037				
Misc. Info.:	3583				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:17	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	1189064		0.1920	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.859	5.634	0.225	738297		NC	
6 Sulfate	6.375	6.392	-0.017	200987		0.4909	

QC Flag Legend

Processing Flags

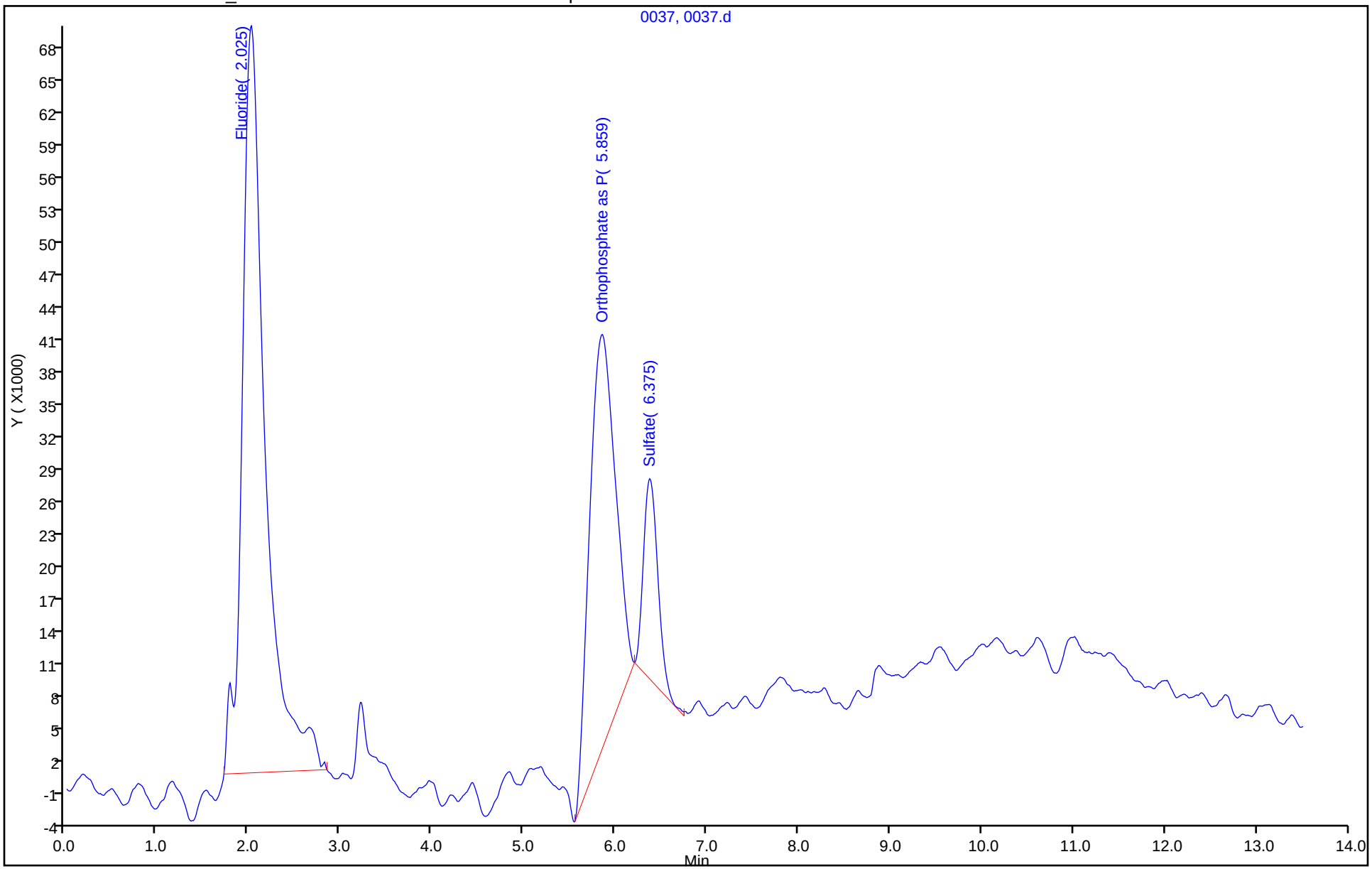
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Report Date: 22-May-2019 07:59:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0037.d

Injection Date:	21-May-2019 16:51:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	37
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0038.d
Lims ID: 280-123981-I-7
Client ID: LF7MW-30_0519
Sample Type: Client
Inject. Date: 21-May-2019 17:07:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-038
Misc. Info.: 23450 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:17 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	387269	NC	
2 Chloride	3.217	3.225	-0.008	35653809	NC	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.184	5.134	0.050	14311372	1.20	
7 Orthophosphate as P	5.700	5.634	0.066	2326712	0.4386	
6 Sulfate	6.392	6.392	0.000	57019599	NC	

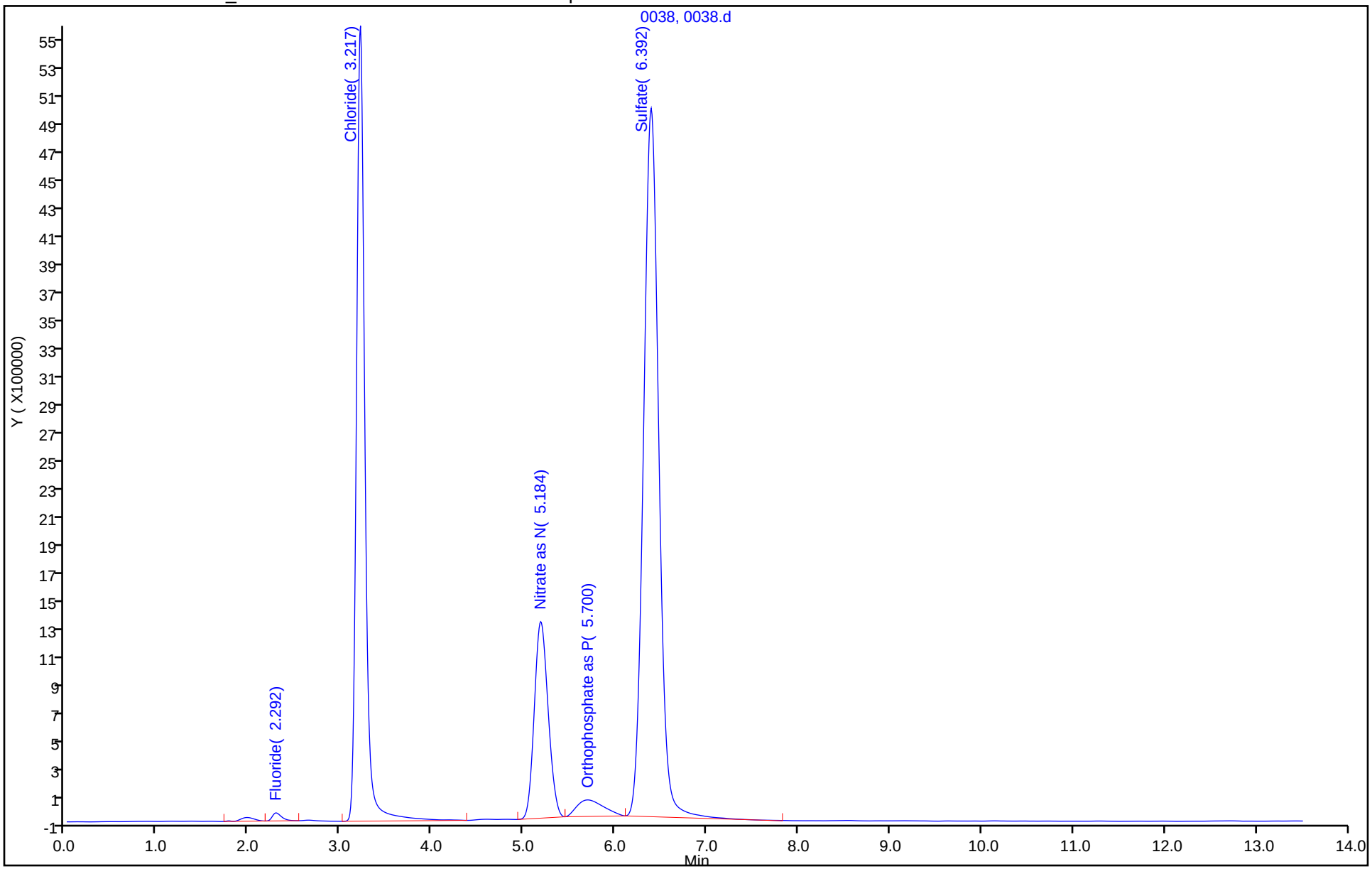
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Processing Flags
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Report Date: 22-May-2019 07:59:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0038.d				
Injection Date:	21-May-2019 17:07:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-7	Lab Sample ID:	280-123981-7	Worklist Smp#:	38
Client ID:	LF7MW-30_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0038.d
Lims ID: 280-123981-I-7
Client ID: LF7MW-30_0519
Sample Type: Client
Inject. Date: 21-May-2019 17:07:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-038
Misc. Info.: 23450 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:17 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	387269	0.0863	
2 Chloride	3.217	3.225	-0.008	35653809	6.08	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.184	5.134	0.050	14311372	NC	
7 Orthophosphate as P	5.700	5.634	0.066	2326712	NC	
6 Sulfate	6.392	6.392	0.000	57019599	13.8	

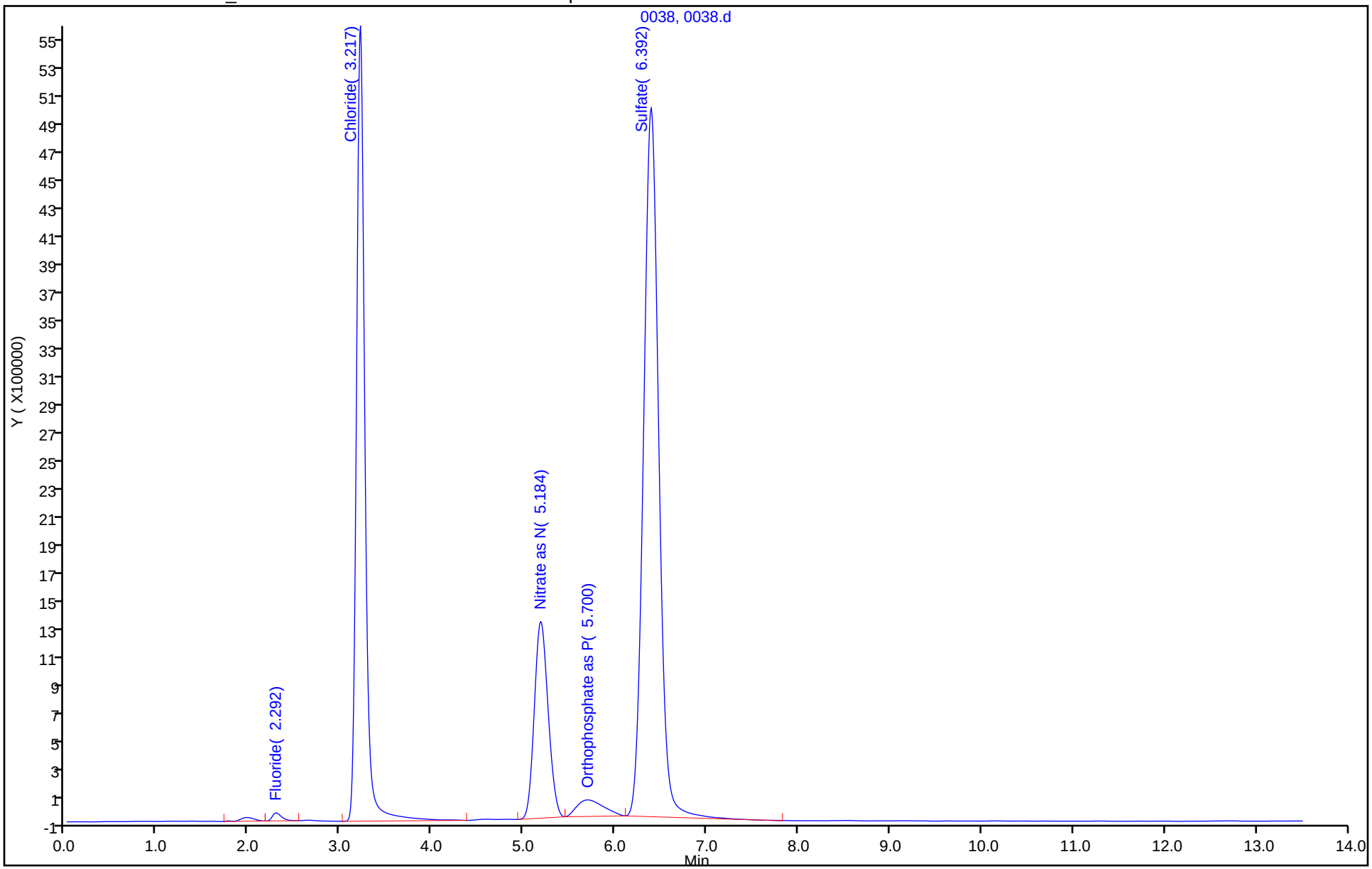
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Processing Flags
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Report Date: 22-May-2019 07:59:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0038.d				
Injection Date:	21-May-2019 17:07:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-I-7	Lab Sample ID:	280-123981-7	Worklist Smp#:	38
Client ID:	LF7MW-30_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0039.d
Lims ID: 280-123981-J-8
Client ID: LF7WL-3_0519
Sample Type: Client
Inject. Date: 21-May-2019 17:24:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-039
Misc. Info.: 23957 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:17 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	257447	NC	
2 Chloride	3.209	3.225	-0.016	8424189	NC	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.184	5.134	0.050	698501	0.0991	
7 Orthophosphate as P	5.725	5.634	0.091	2603406	0.4976	
6 Sulfate	6.384	6.392	-0.008	6987744	NC	

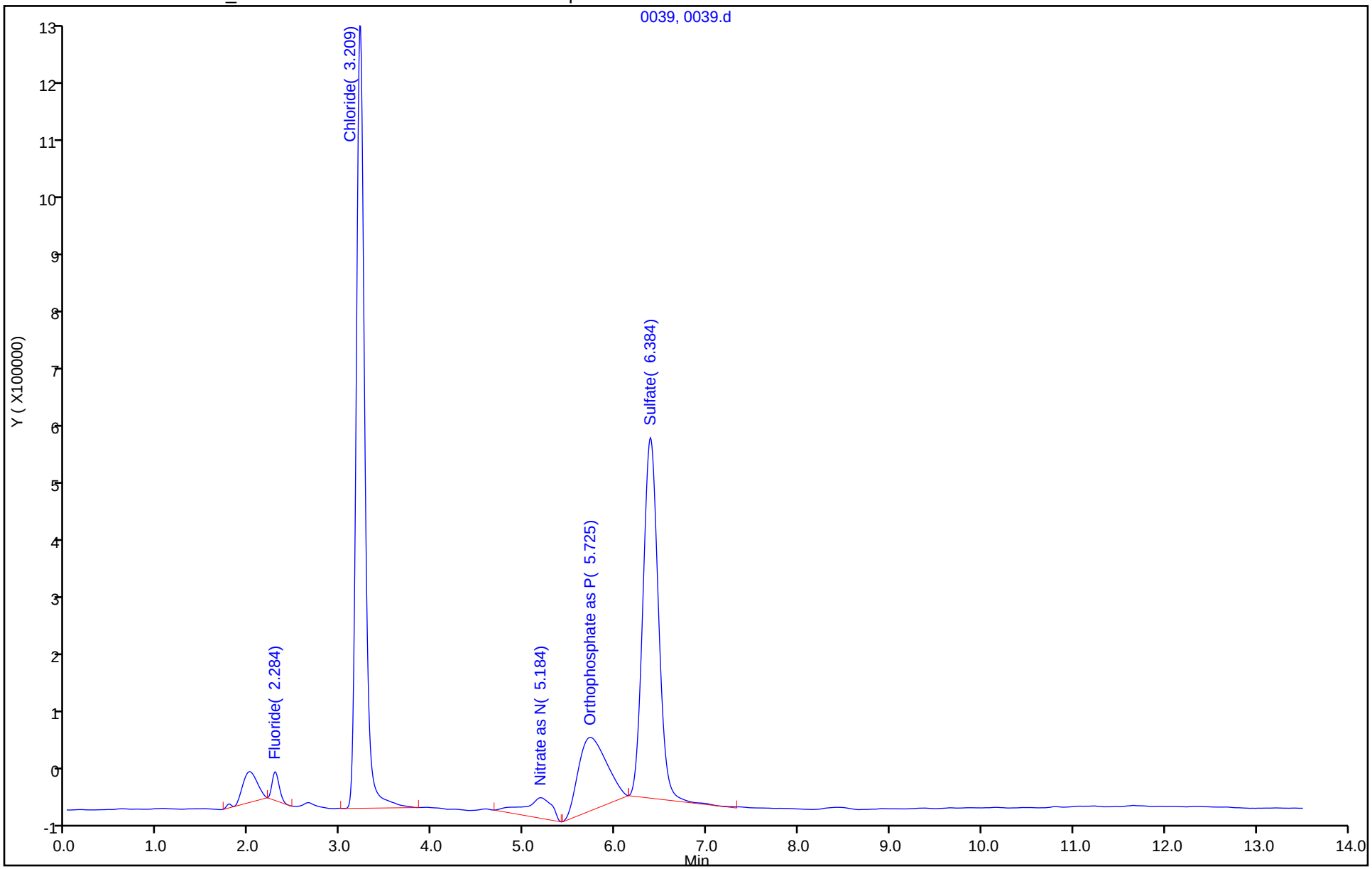
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Processing Flags
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Report Date: 22-May-2019 07:59:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0039.d				
Injection Date:	21-May-2019 17:24:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-8	Lab Sample ID:	280-123981-8	Worklist Smp#:	39
Client ID:	LF7WL-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0039.d
Lims ID: 280-123981-J-8
Client ID: LF7WL-3_0519
Sample Type: Client
Inject. Date: 21-May-2019 17:24:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-039
Misc. Info.: 23957 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:17 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	257447	0.0692	
2 Chloride	3.209	3.225	-0.016	8424189	1.91	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.184	5.134	0.050	698501	NC	
7 Orthophosphate as P	5.725	5.634	0.091	2603406	NC	
6 Sulfate	6.384	6.392	-0.008	6987744	2.08	

QC Flag Legend

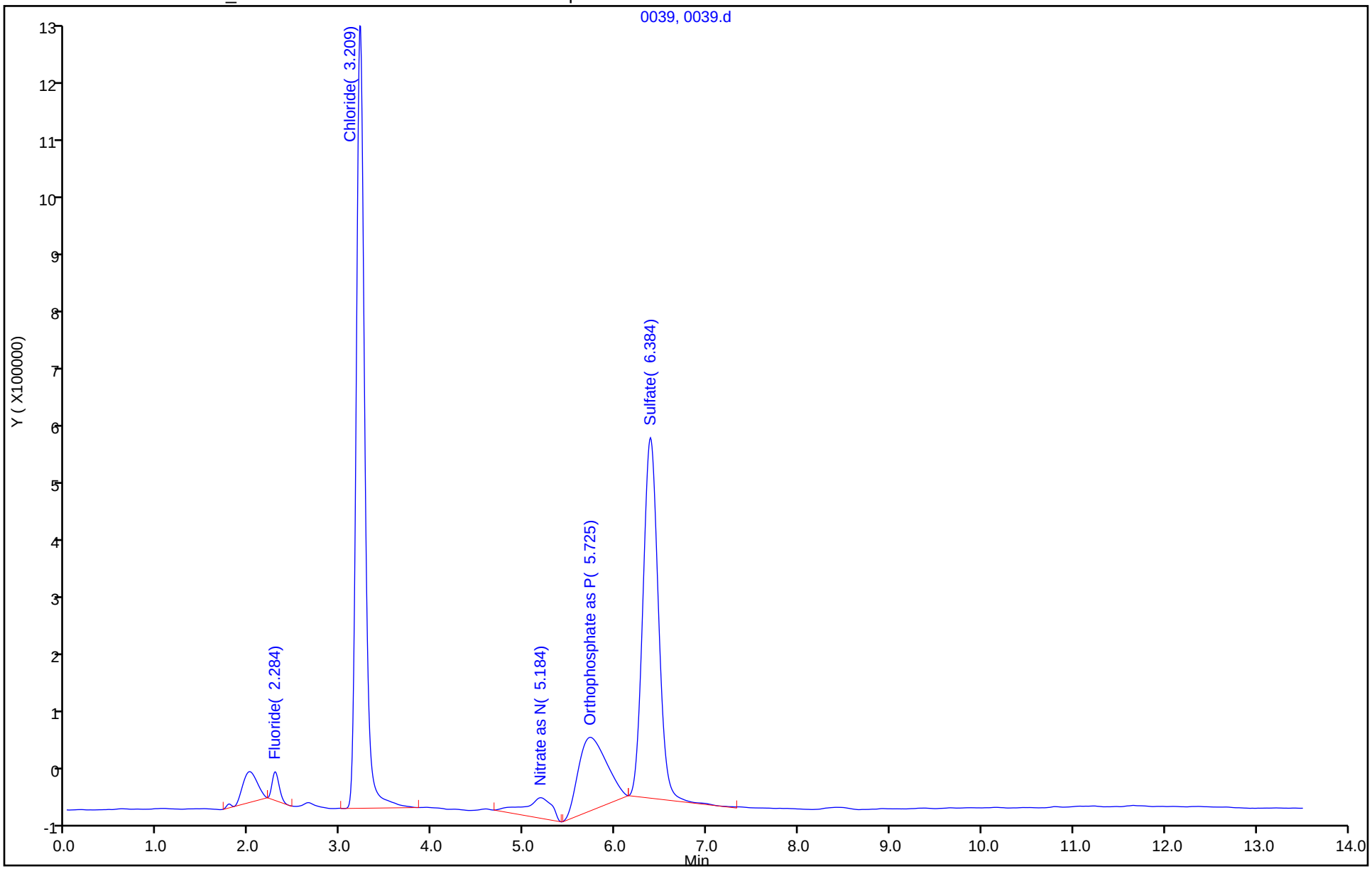
Processing Flags
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Report Date: 22-May-2019 07:59:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0039.d

Injection Date:	21-May-2019 17:24:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-J-8	Lab Sample ID:	280-123981-8	Worklist Smp#:	39
Client ID:	LF7WL-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0040.d
Lims ID: 280-123981-H-9
Client ID: LF7WL-4_0519
Sample Type: Client
Inject. Date: 21-May-2019 17:40:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-040
Misc. Info.: 30957 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:59:17 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	181386	NC	
2 Chloride	3.217	3.225	-0.008	2472195	NC	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.200	5.134	0.066	674061	0.0972	
7 Orthophosphate as P	5.734	5.634	0.100	2509152	0.4775	
6 Sulfate	6.384	6.392	-0.008	10550347	NC	

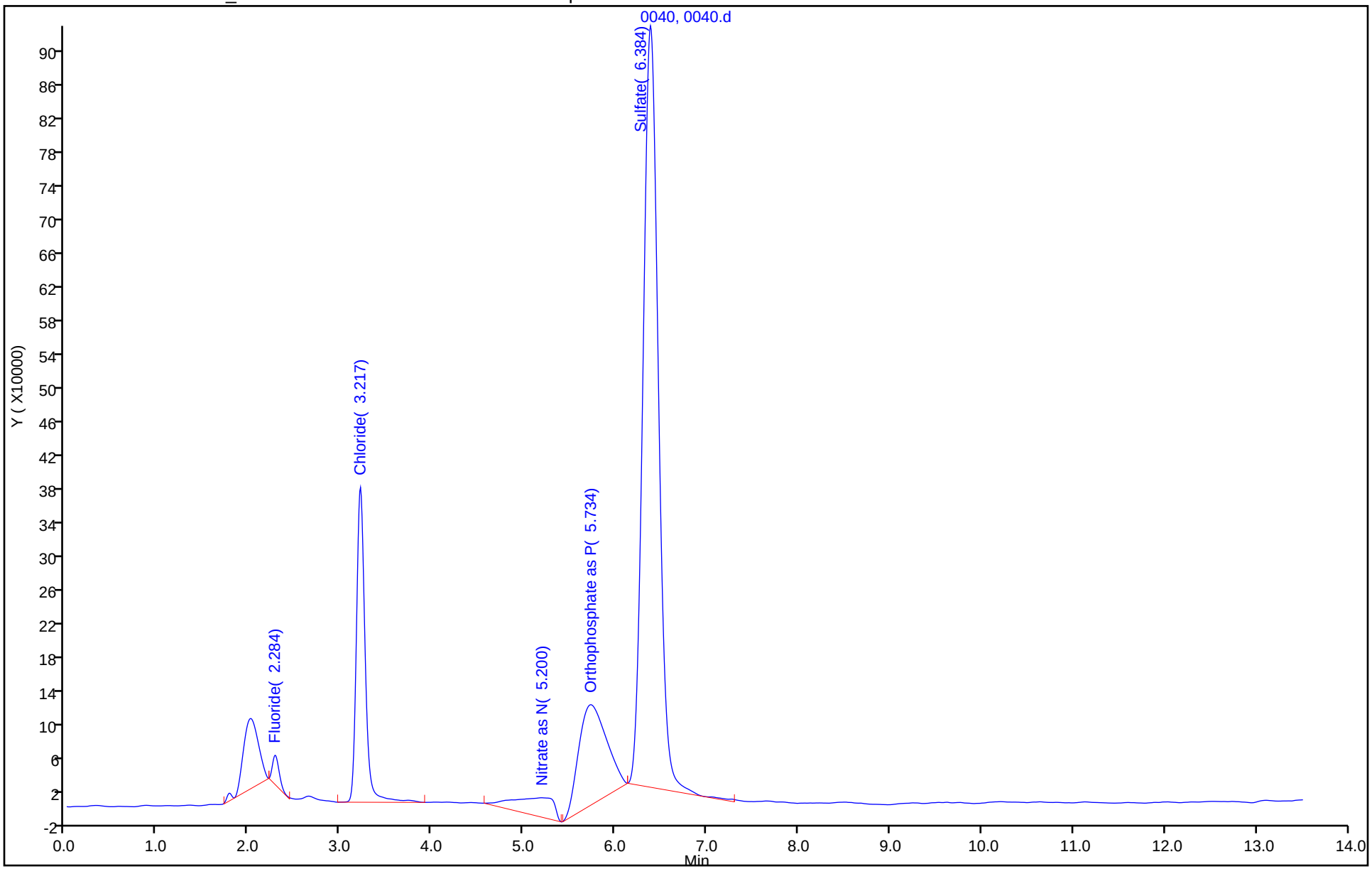
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0040.d				
Injection Date:	21-May-2019 17:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-9	Lab Sample ID:	280-123981-9	Worklist Smp#:	40
Client ID:	LF7WL-4_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0040.d
Lims ID: 280-123981-H-9
Client ID: LF7WL-4_0519
Sample Type: Client
Inject. Date: 21-May-2019 17:40:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-040
Misc. Info.: 30957 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:17 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	181386	0.0591	
2 Chloride	3.217	3.225	-0.008	2472195	1.00	
3 Nitrite as N		3.850			ND	
4 Bromide		4.575			ND	
5 Nitrate as N	5.200	5.134	0.066	674061	NC	
7 Orthophosphate as P	5.734	5.634	0.100	2509152	NC	
6 Sulfate	6.384	6.392	-0.008	10550347	2.91	

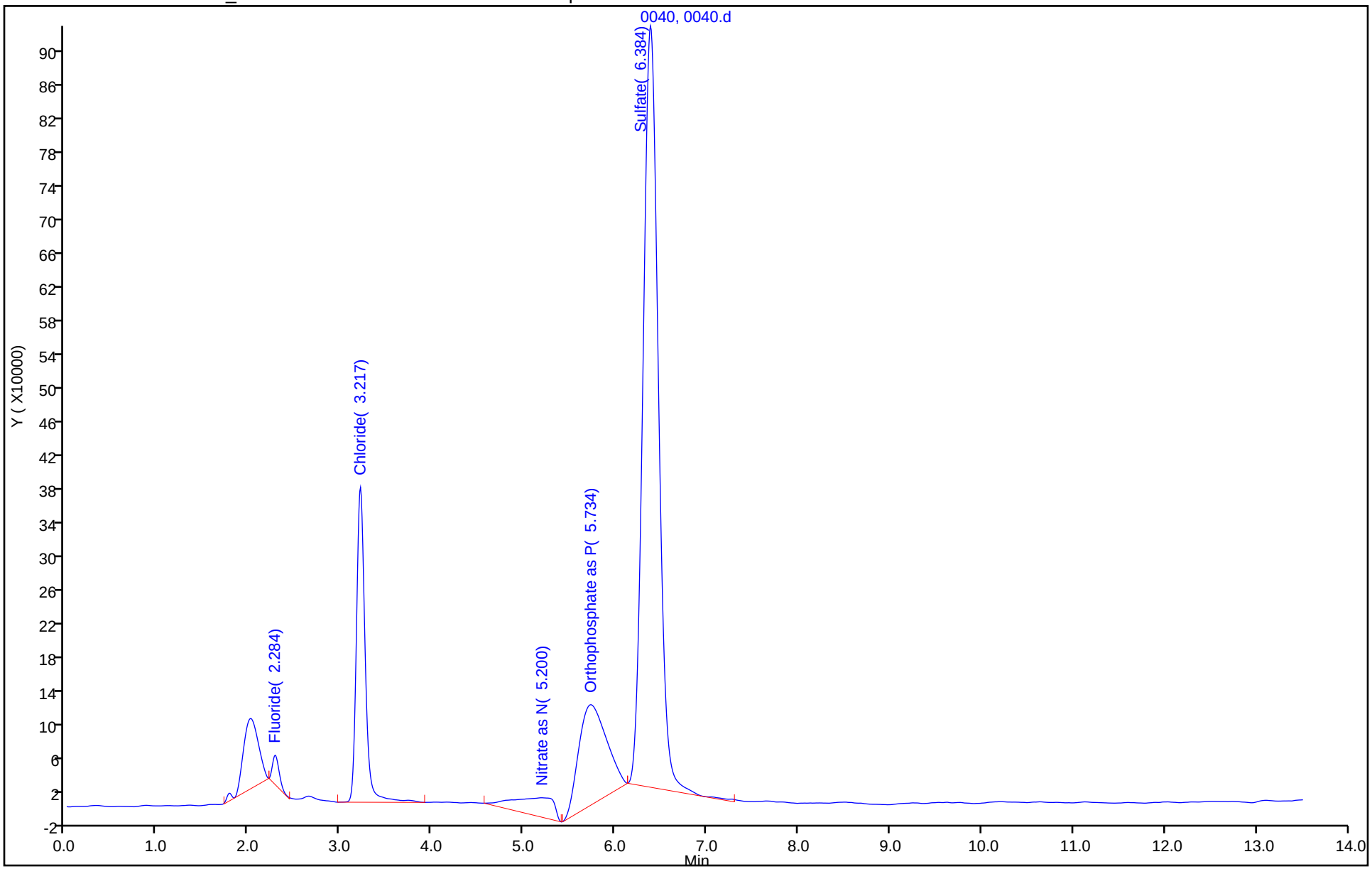
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 22-May-2019 07:59:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0040.d				
Injection Date:	21-May-2019 17:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123981-H-9	Lab Sample ID:	280-123981-9	Worklist Smp#:	40
Client ID:	LF7WL-4_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0044.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-May-2019 18:46:00	ALS Bottle#:	0	Worklist Smp#:	44
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-044				
Misc. Info.:	7176				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:21	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	39601701	NC	NC	
2 Chloride	3.226	3.225	0.001	696511621	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	55084280	5.00	5.19	
4 Bromide	4.576	4.575	0.001	10948340	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	63876560	5.00	5.19	
7 Orthophosphate as P	5.617	5.634	-0.017	24900416	5.00	5.25	
6 Sulfate	6.409	6.392	0.017	457818739	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

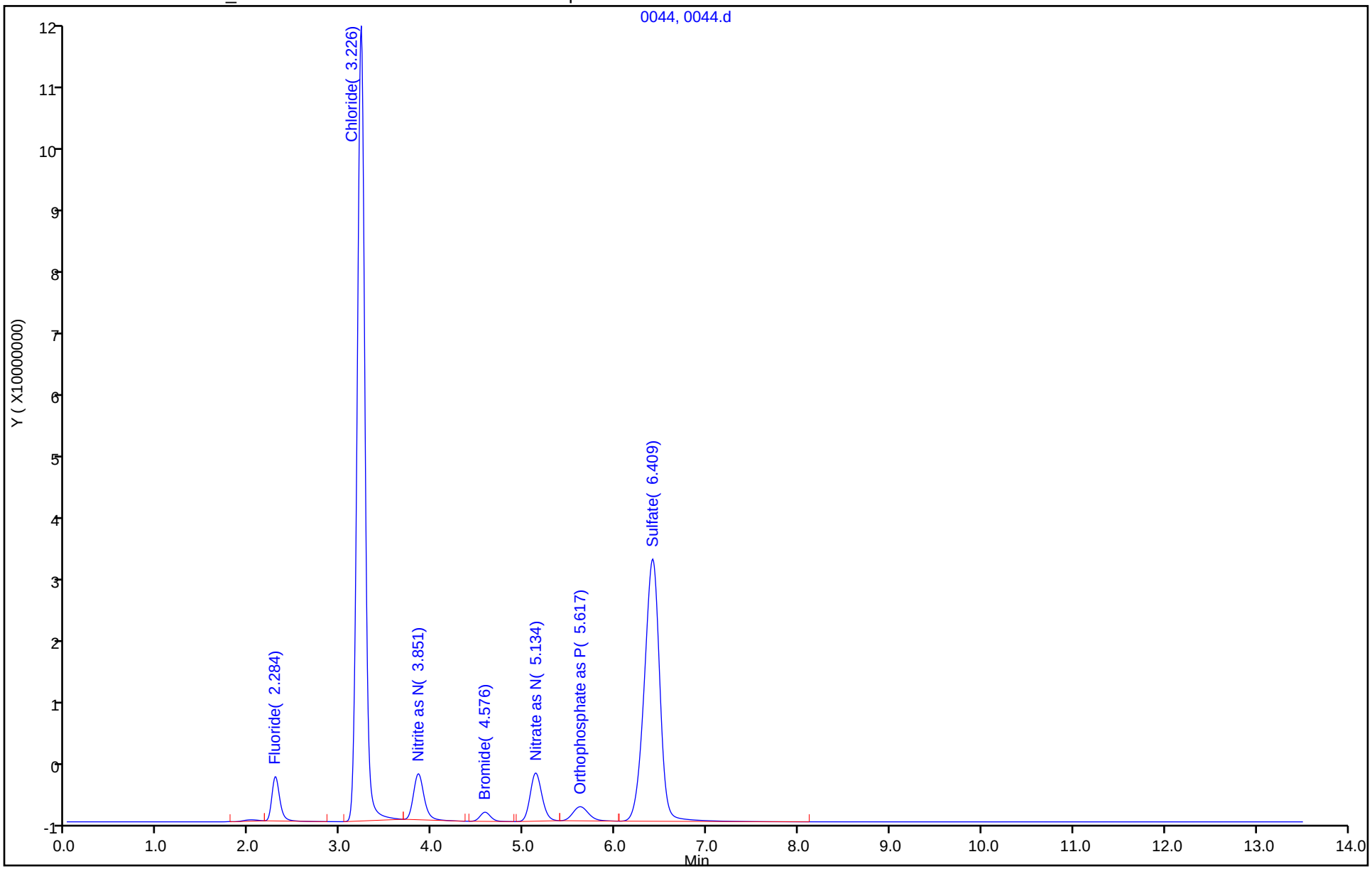
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:22 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0044.d

Injection Date:	21-May-2019 18:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	44
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0044.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 21-May-2019 18:46:00 ALS Bottle#: 0 Worklist Smp#: 44
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-044
Misc. Info.: 7176
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:59:21 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	39601701	5.00	5.26	
2 Chloride	3.226	3.225	0.001	696511621	100.0	107.3	
3 Nitrite as N	3.851	3.850	0.001	55084280	NC	NC	
4 Bromide	4.576	4.575	0.001	10948340	5.00	5.30	
5 Nitrate as N	5.134	5.134	0.000	63876560	NC	NC	
7 Orthophosphate as P	5.617	5.634	-0.017	24900416	NC	NC	
6 Sulfate	6.409	6.392	0.017	457818739	100.0	107.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

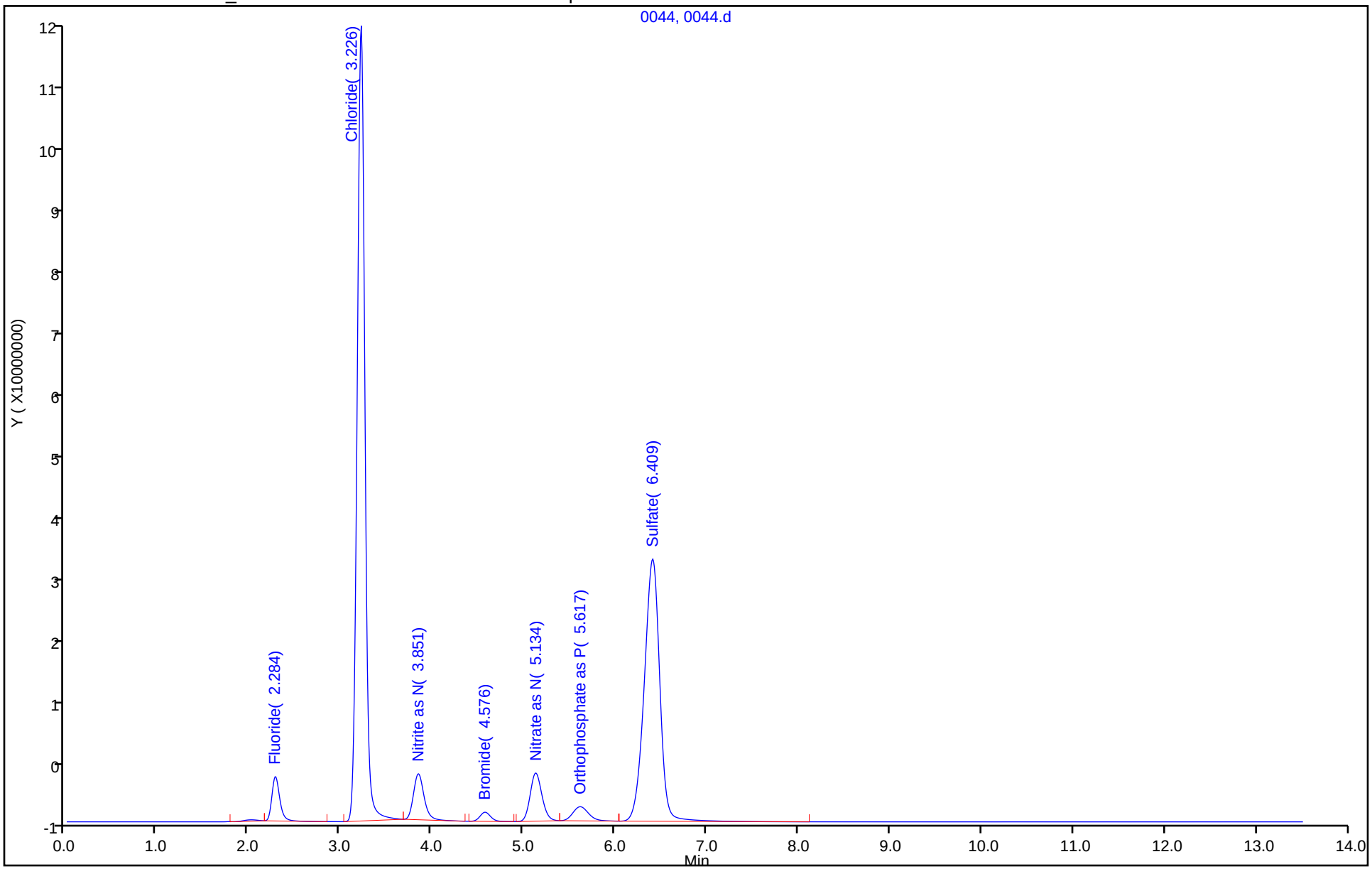
IC LCS_01580 Amount Added: 5.00 Units: mL

Report Date: 22-May-2019 07:59:22 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0044.d

Injection Date:	21-May-2019 18:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	44
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0045.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	21-May-2019 19:02:00	ALS Bottle#:	0	Worklist Smp#:	45
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-045				
Misc. Info.:	707				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:21	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.026	2.292	-0.266	2158466		NC	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.842	5.634	0.208	669362		0.0851	
6 Sulfate	6.376	6.392	-0.016	209247		NC	

QC Flag Legend

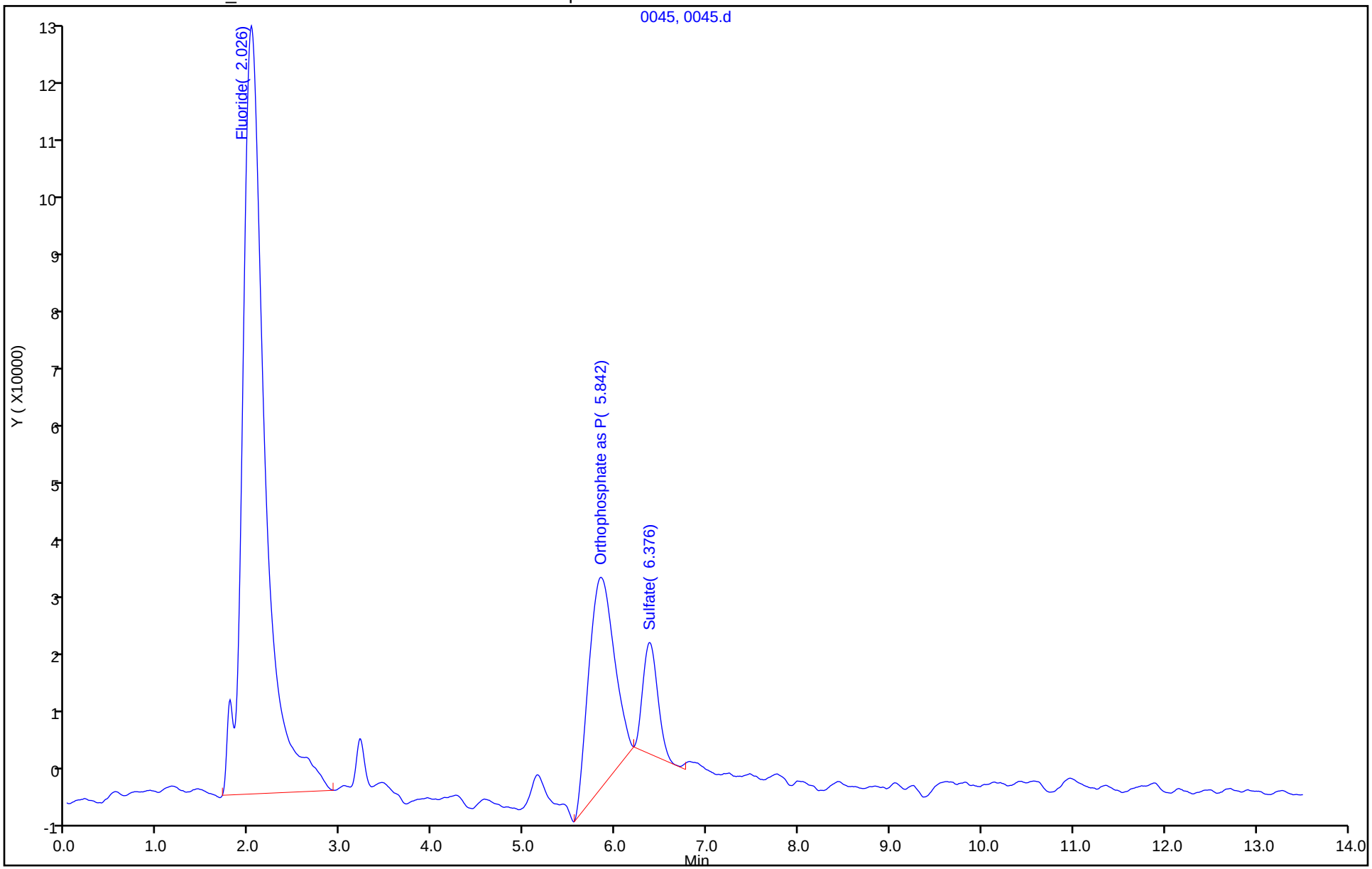
Processing Flags

NC - Not Calibrated

Report Date: 22-May-2019 07:59:22 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0045.d				
Injection Date:	21-May-2019 19:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	45
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0045.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	21-May-2019 19:02:00	ALS Bottle#:	0	Worklist Smp#:	45
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-045				
Misc. Info.:	707				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:21	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.026	2.292	-0.266	2158466		0.3198	
2 Chloride		3.225				ND	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.842	5.634	0.208	669362		NC	
6 Sulfate	6.376	6.392	-0.016	209247		0.4928	

QC Flag Legend

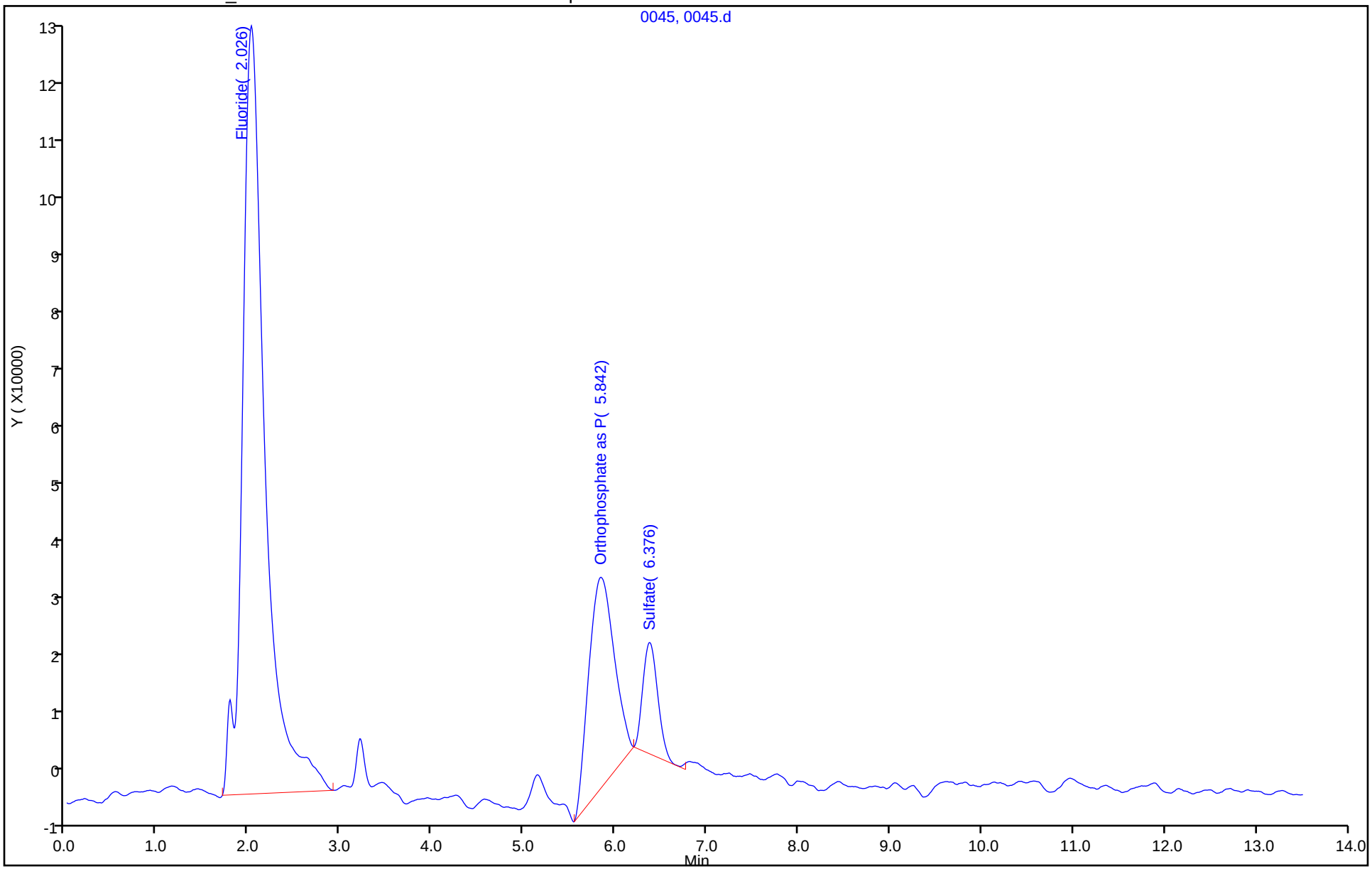
Processing Flags

NC - Not Calibrated

Report Date: 22-May-2019 07:59:22 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0045.d				
Injection Date:	21-May-2019 19:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	45
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



pH CC 6/11/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	cc			1
2*	NPOC	ICB	1.000	cc			2
3*	NPOC	LCS	1.000	cc			3
4*	NPOC	MB	1.000	cc			4
5*	NPOC	TIC	1.000	cc			5
6*	NPOC	280-123867-b-1	1.000	cc			6
7*	NPOC	MS 280-123867-b-1	1.000	cc			7
8*	NPOC	MSD 280-123867-b-1	1.000	cc			8
9*	NPOC	280-123867-b-2	1.000	cc			9
10*	NPOC	280-124036-e-1	1.000	cc			10
11*	NPOC	280-124036-f-2	1.000	cc			11
12*	NPOC	280-123941-j-9	1.000	cc			12
13*	NPOC	280-124034-e-1	5x ~~1.000~~	cc	cloudy/stinky		13
14*	NPOC	280-124036-e-3	5x ~~1.000~~	cc	cloudy/stinky		14
15*	NPOC	CCV	1.000	cc			15
16*	NPOC	CCB	1.000	cc			16
17*	NPOC	280-124036-e-4	5x ~~1.000~~	cc	cloudy		17
18*	NPOC	280-124036-e-6	1.000	cc			18
19*	NPOC	280-123947-b-2	1.000	cc			19
20*	NPOC	280-123963-c-1	1.000	cc			20
21*	NPOC	MS 280-123963-c-1	1.000	cc			21
22*	NPOC	MSD 280-123963-c-1	1.000	cc			22
23*	NPOC	280-123963-c-2	1.000	cc			23
24*	NPOC	280-123941-k-10	1.000	cc			24
25*	NPOC	280-123941-j-11	1.000	cc			25
26*	NPOC	280-124055-b-1	1.000	cc			26
27*	NPOC	CCV	1.000	cc			27
28*	NPOC	CCB	1.000	cc			28
29*	NPOC	280-124055-b-2	1.000	cc			29
30*	NPOC	280-124055-b-3	1.000	cc			30
31*	NPOC	280-124055-b-4	1.000	cc			31
32*	NPOC	280-124055-b-5	1.000	cc			32
33*	NPOC	280-124055-b-6	1.000	cc			33
34*	NPOC	LCS	1.000	cc			34
35*	NPOC	MB	1.000	cc			35
36*	NPOC	TIC	1.000	cc			36
37*	NPOC	280-123924-g-6	1.000	cc			37
38*	NPOC	280-123924-e-7	1.000	cc			38
39*	NPOC	CCV	1.000	cc			39
40*	NPOC	CCB	1.000	cc			40
41*	NPOC	280-123924-e-8	1.000	cc			41
42*	NPOC	MS 280-123924-e-8	1.000	cc			42
43*	NPOC	MSD 280-123924-e-8	1.000	cc			43
44*	NPOC	280-123924-d-9	1.000	cc			44
45*	NPOC	280-123924-d-10	1.000	cc			45
46*	NPOC	280-123924-c-11	1.000	cc			46
47*	NPOC	280-123924-d-12	1.000	cc			47
48*	NPOC	280-123930-g-1	1.000	cc			48
49*	NPOC	280-123930-g-2	1.000	cc			49
50*	NPOC	280-123930-g-3	1.000	cc			50
51*	NPOC	CCV	1.000	cc			51

310
1060

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	"			52
53*	NPOC	280-123930-g-4	1.000	"			53
54*	NPOC	280-123930-c-5	1.000	"			54
55*	NPOC	320-50447-g-1	1.000	"			55
56*	NPOC	MS 320-50447-g-1	1.000	"			56
57*	NPOC	MSD 320-50447-g-1	1.000	"			57
58*	NPOC	280-123981-g-1	1.000	"			58
59*	NPOC	280-123981-e-2	1.000	"			59
60*	NPOC	280-123981-e-3	1.000	"			60
61*	NPOC	280-123981-c-4	1.000	"			61
62*	NPOC	280-123981-e-5	1.000	"			62
63*	NPOC	CCV	1.000	"			63
64*	NPOC	CCB	1.000	"			64
65*	NPOC	280-123981-g-6	1.000	"			65
66*	NPOC	280-123981-g-7	1.000	"			66
67*	NPOC	CCV	1.000	"			67
68*	NPOC	CCB	1.000	"			68

Instr.Information

System TOC-V cpn 3
Instrument Options TOC/ASI/
Catalyst Regular Sensitivity

Sample

Sample Name: ICV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

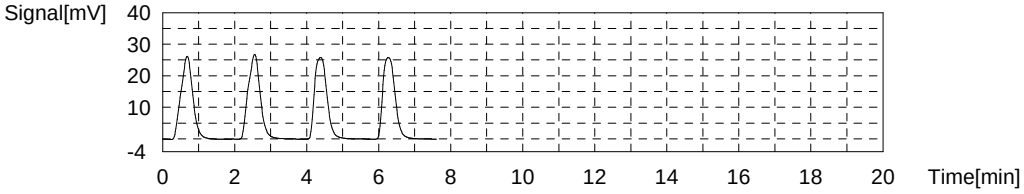
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.90mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.20	20.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:26:19 PM
2	62.89	21.22mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:28:22 PM
3	62.22	21.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:30:26 PM
4	61.43	20.73mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:32:30 PM

Mean Area 61.94
Mean Conc. 20.90mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

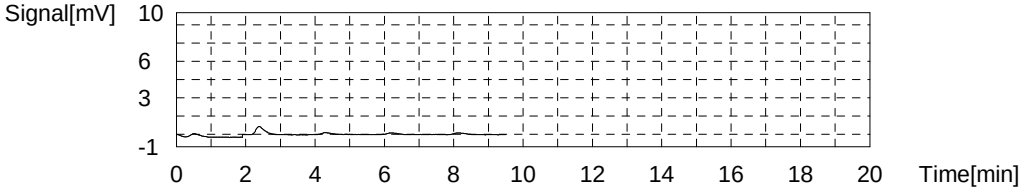
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01686mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4218	0.06099mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:41:02 PM
2	1.162	0.3118mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:43:06 PM
3	0.2553	0.00459mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:45:09 PM
4	0.2134	-0.00961mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:47:13 PM
5	0.2756	0.01146mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:49:17 PM

Mean Area 0.2915
Mean Conc. 0.01686mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

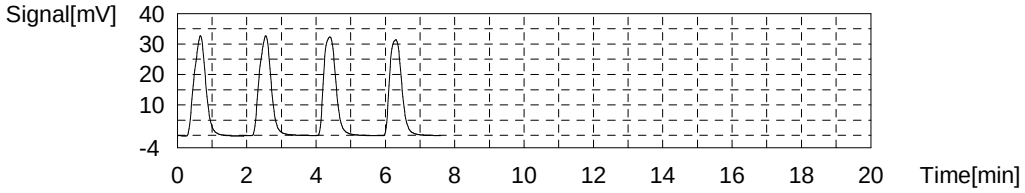
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.25	26.09mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:57:48 PM
2	77.70	26.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:59:52 PM
3	78.96	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:01:56 PM
4	76.34	25.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:03:59 PM

Mean Area 77.56
Mean Conc. 26.19mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

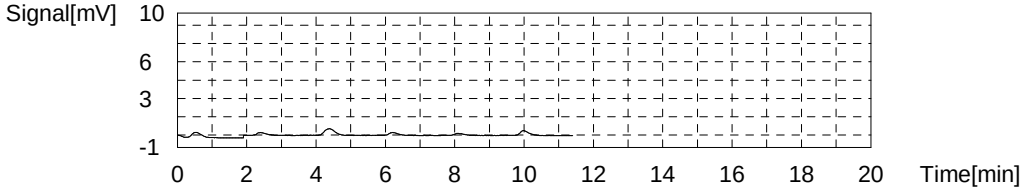
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06376mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7427	0.1697mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:12:32 PM
2	0.3859	0.04883mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:14:35 PM
3	1.128	0.3002mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:16:39 PM
4	0.3803	0.04693mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:18:43 PM
5	0.2769	0.01190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:20:47 PM
6	0.6768	0.1474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:22:51 PM

Mean Area 0.4300
Mean Conc. 0.06376mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

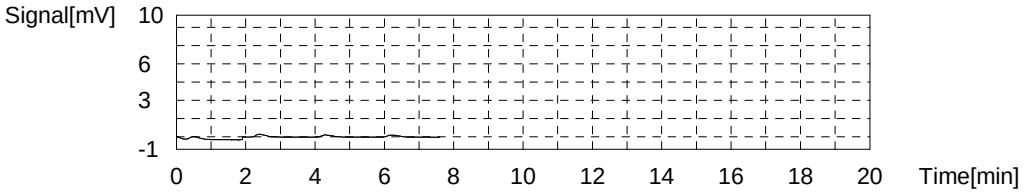
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04760mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3879	0.04951mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:31:17 PM
2	0.4132	0.05808mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:33:21 PM
3	0.3595	0.03989mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:35:24 PM
4	0.3685	0.04294mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:37:28 PM

Mean Area 0.3823
Mean Conc. 0.04760mg/L



Sample

Sample Name: 280-123867-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

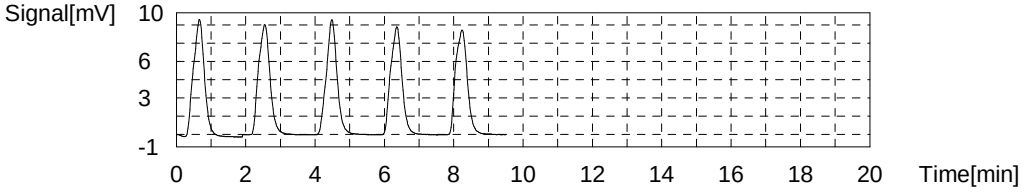
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.854mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.45	7.185mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:46:00 PM
2	20.86	6.985mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:48:03 PM
3	20.42	6.836mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:50:07 PM
4	20.30	6.795mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:52:11 PM
5	20.31	6.799mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:54:15 PM

Mean Area 20.47
Mean Conc. 6.854mg/L



Sample

Sample Name: MS 280-123867-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

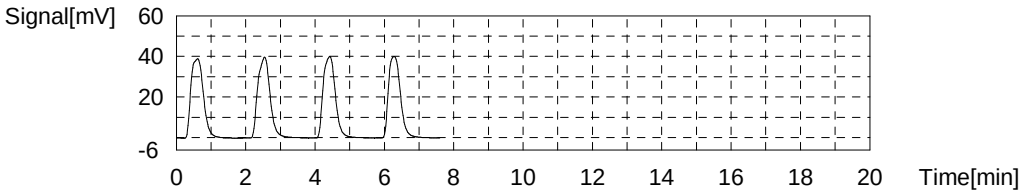
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.99	33.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:02:46 PM
2	98.37	33.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:04:50 PM
3	98.18	33.18mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:06:54 PM
4	96.42	32.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:08:58 PM

Mean Area 97.99
Mean Conc. 33.12mg/L



Sample

Sample Name: MSD 280-123867-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

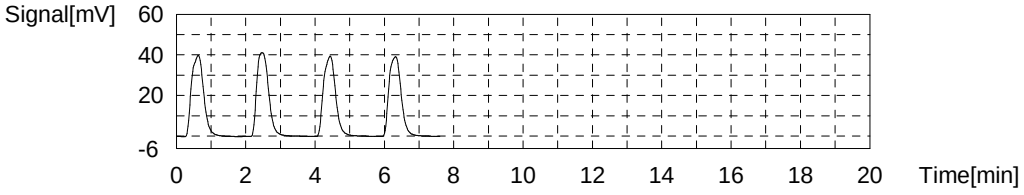
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.93mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.53	33.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:17:30 PM
2	98.53	33.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:19:33 PM
3	96.33	32.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:21:37 PM
4	96.37	32.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:23:41 PM

Mean Area 97.44
Mean Conc. 32.93mg/L



Sample

Sample Name: 280-123867-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

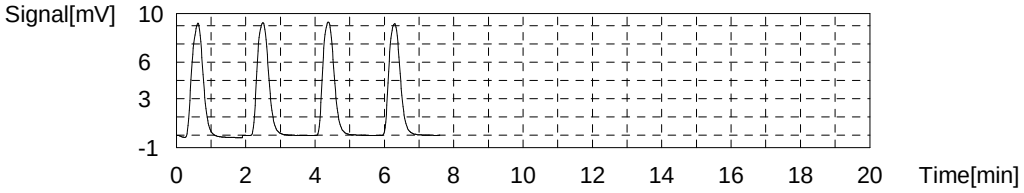
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.051mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.12	7.073mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:32:14 PM
2	21.26	7.121mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:34:17 PM
3	20.98	7.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:36:21 PM
4	20.86	6.985mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:38:25 PM

Mean Area 21.06
Mean Conc. 7.051mg/L



Sample

Sample Name: 280-124036-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

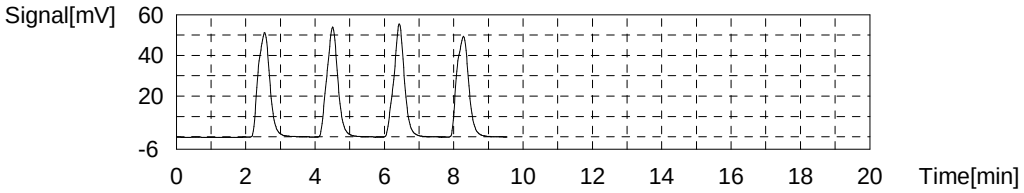
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:40.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3180	0.02583mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:46:57 PM
2	120.9	40.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:49:03 PM
3	120.8	40.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:51:06 PM
4	119.8	40.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:53:10 PM
5	119.2	40.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:55:14 PM

Mean Area 120.2
Mean Conc. 40.63mg/L



Sample

Sample Name: 280-124036-f-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

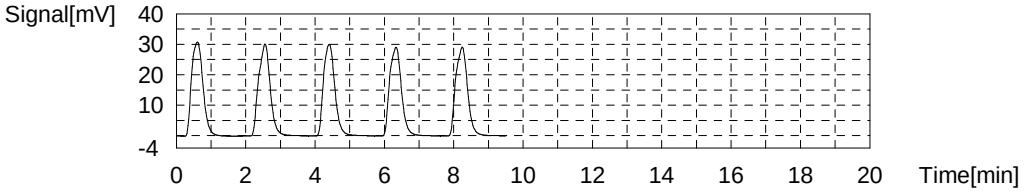
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.47mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	71.96	24.30mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:03:45 PM
2	70.67	23.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:05:48 PM
3	68.57	23.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:07:52 PM
4	69.40	23.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:09:56 PM
5	69.45	23.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:12:00 PM

Mean Area 69.52
Mean Conc. 23.47mg/L



Sample

Sample Name: 280-123941-j-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

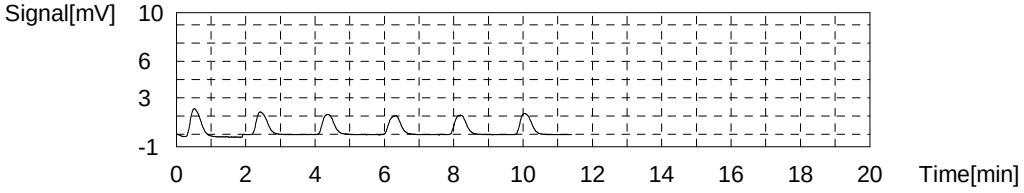
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.180mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.763	1.532mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:20:31 PM
2	3.995	1.272mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:22:35 PM
3	3.769	1.195mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:24:38 PM
4	3.636	1.150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:26:42 PM
5	3.685	1.166mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:28:46 PM
6	3.807	1.208mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:30:50 PM

Mean Area 3.724
Mean Conc. 1.180mg/L



Sample

Sample Name: 280-124034-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

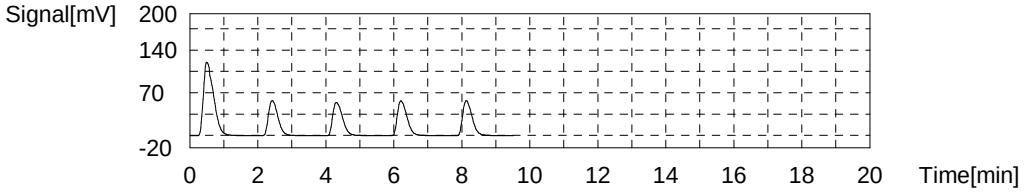
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:410.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	253.0	428.1mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:39:16 PM
2	112.1	412.4mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:41:19 PM
3	109.9	404.3mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:43:23 PM
4	112.7	414.6mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:45:28 PM
5	111.1	408.7mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:47:32 PM

Mean Area 111.5
Mean Conc. 410.0mg/L



Sample

Sample Name: 280-124036-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

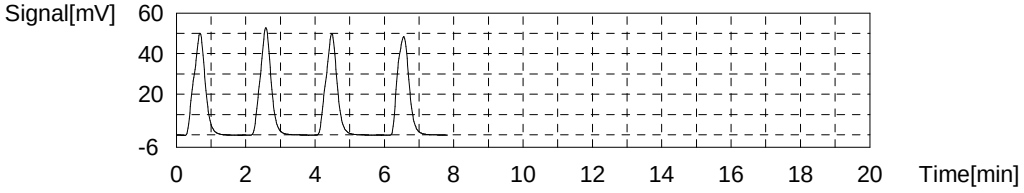
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:193.8mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	116.1	196.3mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:56:03 PM
2	115.6	195.4mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:58:07 PM
3	112.9	190.8mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:00:23 PM
4	114.0	192.7mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:02:27 PM

Mean Area 114.7
Mean Conc. 193.8mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

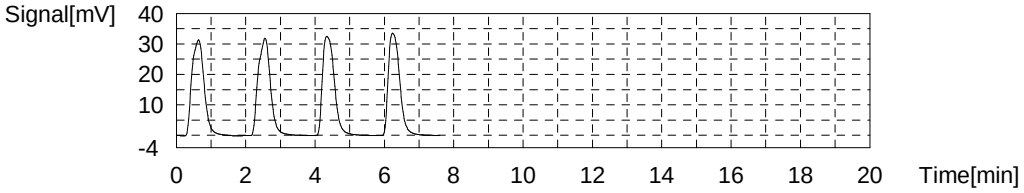
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.43mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.65	26.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:11:00 PM
2	79.22	26.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:13:04 PM
3	77.84	26.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:15:07 PM
4	77.29	26.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:17:11 PM

Mean Area 78.25
Mean Conc. 26.43mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

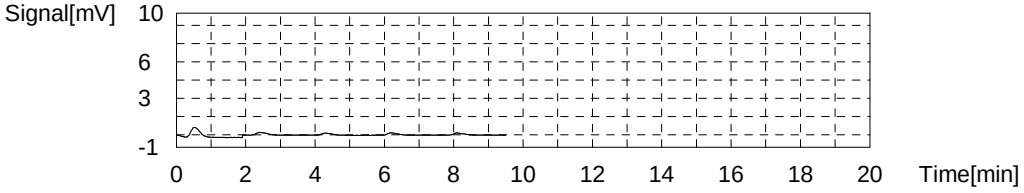
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03580mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.410	0.3958mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:25:43 PM
2	0.4172	0.05943mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:27:47 PM
3	0.3004	0.01986mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:29:50 PM
4	0.3568	0.03897mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:31:54 PM
5	0.3154	0.02495mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:33:58 PM

Mean Area 0.3475
Mean Conc. 0.03580mg/L



Sample

Sample Name: 280-124036-e-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

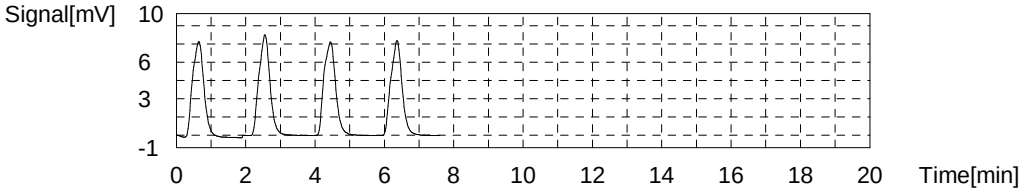
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:30.23mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.08	30.22mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:42:29 PM
2	18.34	30.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:44:33 PM
3	18.25	30.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:46:36 PM
4	17.68	29.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:48:40 PM

Mean Area 18.09
Mean Conc. 30.23mg/L



Sample

Sample Name: 280-124036-e-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

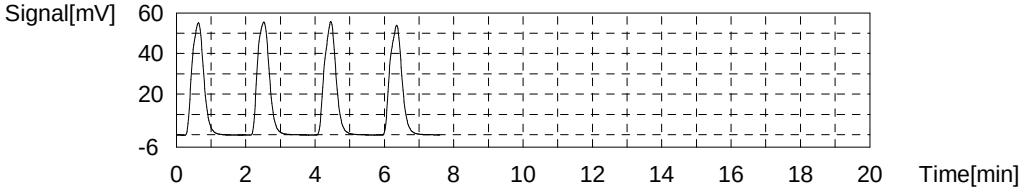
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:44.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	131.1	44.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:57:13 PM
2	132.9	44.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:59:16 PM
3	130.1	43.99mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:01:20 PM
4	130.6	44.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:03:24 PM

Mean Area 131.2
Mean Conc. 44.36mg/L



Sample

Sample Name: 280-123947-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

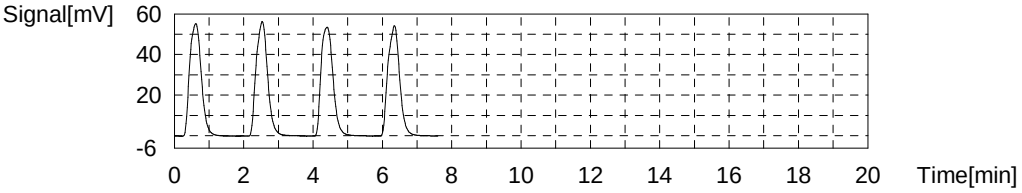
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:43.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	130.8	44.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:11:57 PM
2	130.7	44.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:14:00 PM
3	128.8	43.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:16:04 PM
4	128.7	43.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:18:08 PM

Mean Area 129.8
Mean Conc. 43.87mg/L



Sample

Sample Name: 280-123963-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

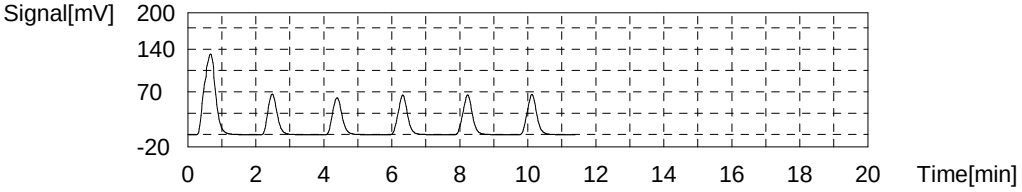
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:112.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	307.4	104.1mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:26:40 PM
2	126.4	112.6mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:28:43 PM
3	118.5	105.6mg/L	19uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:30:47 PM
4	124.8	111.2mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:32:51 PM
5	126.5	112.7mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:34:55 PM
6	129.1	115.0mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:36:59 PM

Mean Area 126.7
Mean Conc. 112.9mg/L



Sample

Sample Name: MS 280-123963-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

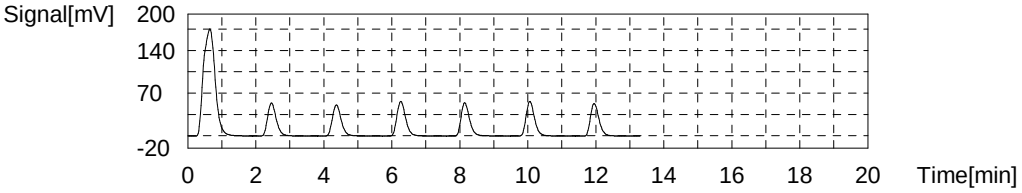
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:123.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	423.4	143.4mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:45:53 PM
2	96.70	125.9mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:47:56 PM
3	92.33	120.2mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:50:00 PM
4	102.2	133.1mg/L	13uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:52:04 PM
5	94.77	123.4mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:54:08 PM
6	98.62	128.4mg/L	13uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:56:12 PM
7	94.52	123.1mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:00:35 PM

Mean Area 94.58
Mean Conc. 123.2mg/L



Sample

Sample Name: MSD 280-123963-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

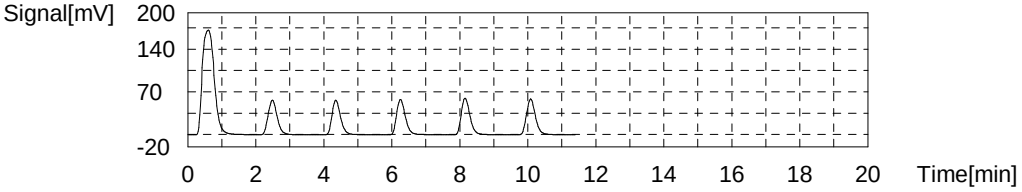
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:128.3mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	420.7	142.4mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:09:01 PM
2	105.4	127.4mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:11:04 PM
3	98.95	119.6mg/L	14uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:13:08 PM
4	103.9	125.6mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:15:12 PM
5	107.3	129.7mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:17:16 PM
6	107.7	130.2mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:19:20 PM

Mean Area 106.1
Mean Conc. 128.3mg/L



Sample

Sample Name: 280-123963-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

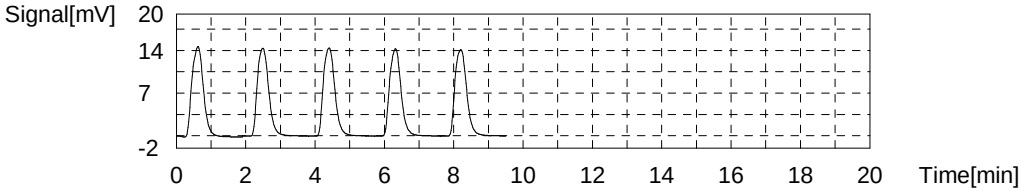
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.40	11.57mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:27:45 PM
2	32.74	11.01mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:29:48 PM
3	33.32	11.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:31:52 PM
4	32.85	11.05mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:33:56 PM
5	33.23	11.18mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:36:00 PM

Mean Area 33.03
Mean Conc. 11.11mg/L



Sample

Sample Name: 280-123941-k-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

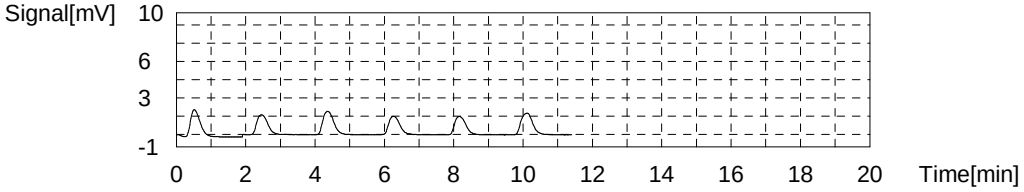
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.278mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.219	1.347mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:44:31 PM
2	3.554	1.122mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:46:34 PM
3	4.198	1.340mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:48:38 PM
4	3.331	1.047mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:50:42 PM
5	3.325	1.045mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:52:46 PM
6	4.090	1.304mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:54:50 PM

Mean Area 4.015
Mean Conc. 1.278mg/L



Sample

Sample Name: 280-123941-j-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

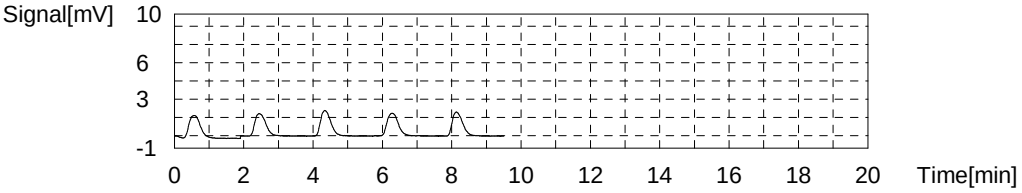
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.300mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.072	1.298mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:03:16 AM
2	4.011	1.277mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:05:20 AM
3	4.287	1.370mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:07:23 AM
4	4.129	1.317mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:09:27 AM
5	4.103	1.308mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:11:31 AM

Mean Area 4.079
Mean Conc. 1.300mg/L



Sample

Sample Name: 280-124055-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

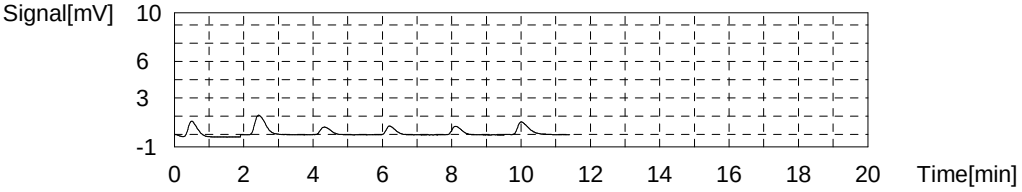
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4374mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.284	0.6919mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:20:02 AM
2	3.411	1.074mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:22:05 AM
3	1.269	0.3480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:24:09 AM
4	1.297	0.3575mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:26:13 AM
5	1.315	0.3636mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:28:17 AM
6	2.250	0.6803mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:30:21 AM

Mean Area 1.533
Mean Conc. 0.4374mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

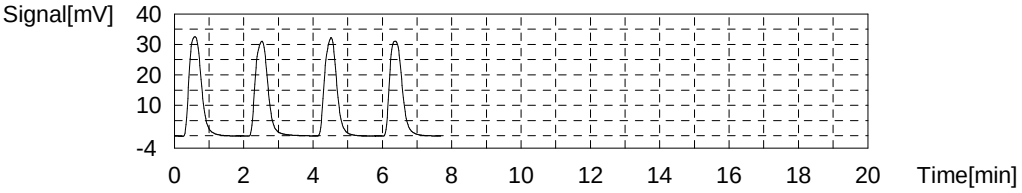
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.69mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.82	27.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:38:47 AM
2	78.38	26.47mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:40:55 AM
3	78.42	26.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:42:59 AM
4	78.43	26.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:45:03 AM

Mean Area 79.01
Mean Conc. 26.69mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

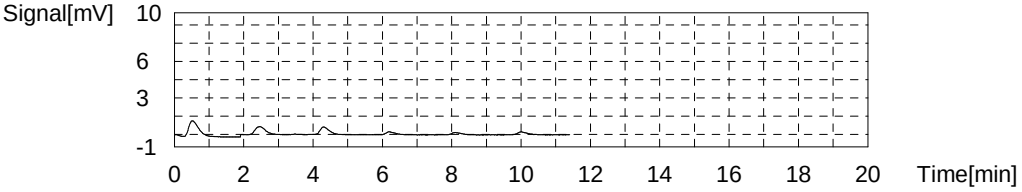
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1086mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.559	0.7850mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:53:35 AM
2	1.379	0.3853mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:55:39 AM
3	1.088	0.2867mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:57:43 AM
4	0.4048	0.05523mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:59:47 AM
5	0.3285	0.02938mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:01:51 AM
6	0.4282	0.06316mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:03:55 AM

Mean Area 0.5624
Mean Conc. 0.1086mg/L



Sample

Sample Name: 280-124055-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

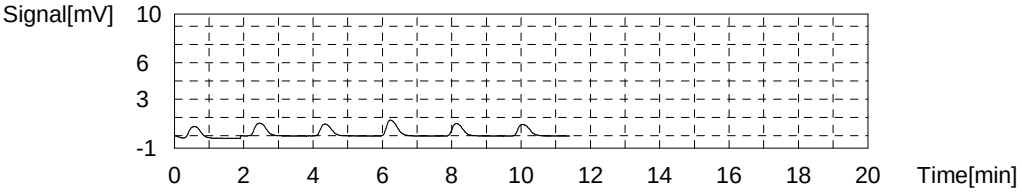
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6398mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.128	0.6390mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:12:21 AM
2	2.359	0.7173mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:14:24 AM
3	2.064	0.6173mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:16:28 AM
4	2.747	0.8487mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:18:32 AM
5	2.143	0.6441mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:20:36 AM
6	2.186	0.6587mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:22:40 AM

Mean Area 2.130
Mean Conc. 0.6398mg/L



Sample

Sample Name: 280-124055-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

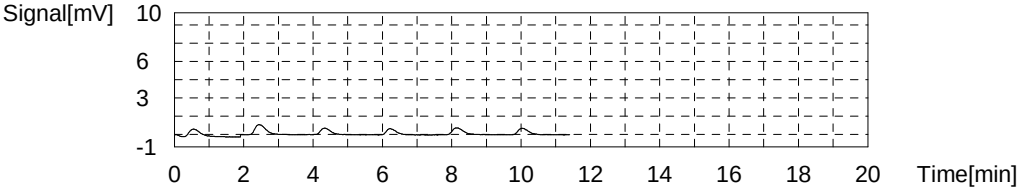
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2774mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.370	0.3822mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:31:06 AM
2	1.753	0.5120mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:33:09 AM
3	1.014	0.2616mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:35:13 AM
4	0.9642	0.2447mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:37:17 AM
5	1.193	0.3223mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:39:21 AM
6	1.071	0.2809mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:41:25 AM

Mean Area 1.061
Mean Conc. 0.2774mg/L



Sample

Sample Name: 280-124055-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

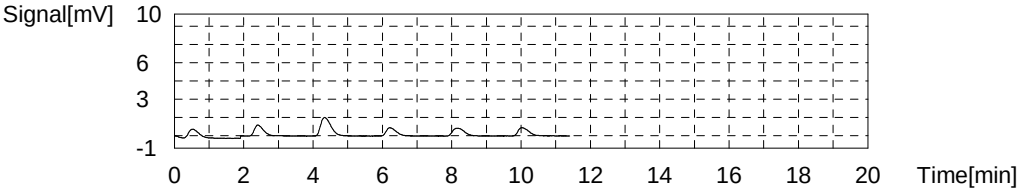
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3997mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.428	0.4019mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:49:51 AM
2	1.636	0.4723mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:51:54 AM
3	3.135	0.9802mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:53:58 AM
4	1.348	0.3748mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:56:02 AM
5	1.510	0.4297mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:58:06 AM
6	1.400	0.3924mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:00:10 AM

Mean Area 1.422
Mean Conc. 0.3997mg/L



Sample

Sample Name: 280-124055-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

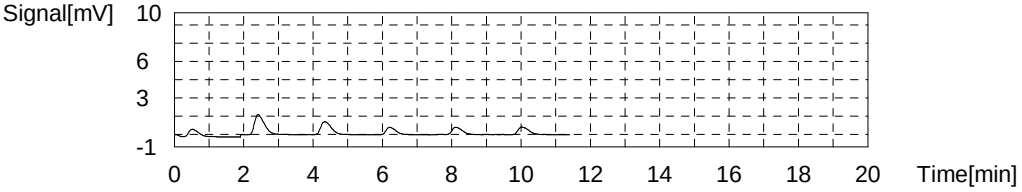
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3273mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.145	0.3060mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:08:36 AM
2	3.240	1.016mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:10:40 AM
3	2.179	0.6563mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:12:44 AM
4	1.177	0.3168mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:14:48 AM
5	1.192	0.3219mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:16:52 AM
6	1.318	0.3646mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:18:56 AM

Mean Area 1.208
Mean Conc. 0.3273mg/L



Sample

Sample Name: 280-124055-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

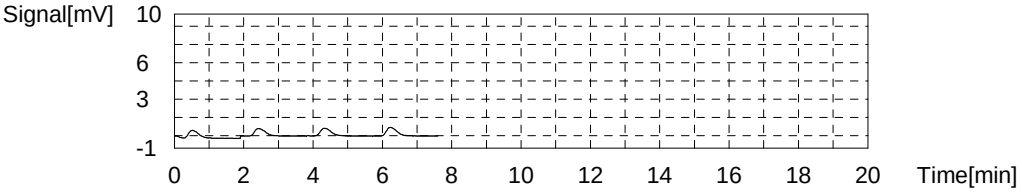
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3646mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.241	0.3385mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:27:22 AM
2	1.302	0.3592mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:29:25 AM
3	1.303	0.3595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:31:29 AM
4	1.426	0.4012mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:33:33 AM

Mean Area 1.318
Mean Conc. 0.3646mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

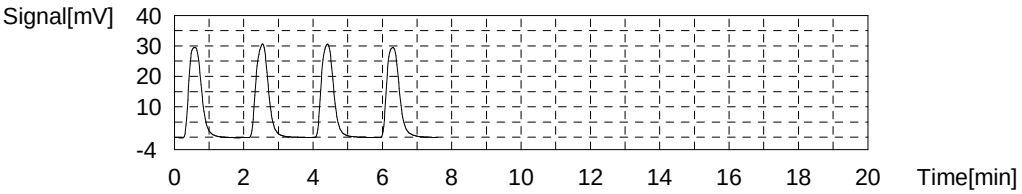
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.38	25.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:42:06 AM
2	76.03	25.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:44:09 AM
3	74.75	25.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:46:13 AM
4	74.93	25.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:48:17 AM

Mean Area 75.27
Mean Conc. 25.42mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

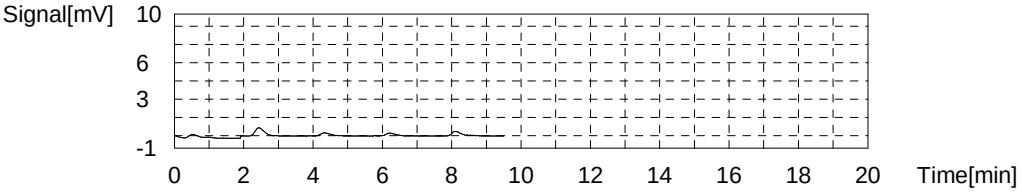
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09629mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5867	0.1169mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:56:49 AM
2	1.220	0.3314mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:58:53 AM
3	0.4959	0.08610mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:00:57 AM
4	0.4095	0.05683mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:03:01 AM
5	0.6119	0.1254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:05:05 AM

Mean Area 0.5260
Mean Conc. 0.09629mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

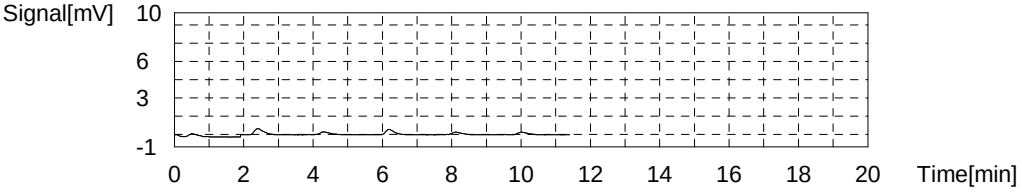
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05280mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4313	0.06421mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:13:37 AM
2	0.9287	0.2327mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:15:40 AM
3	0.4194	0.06018mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:17:44 AM
4	0.7335	0.1666mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:19:48 AM
5	0.3402	0.03335mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:21:52 AM
6	0.3996	0.05347mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:23:56 AM

Mean Area 0.3976
Mean Conc. 0.05280mg/L



Sample

Sample Name: 280-123924-g-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

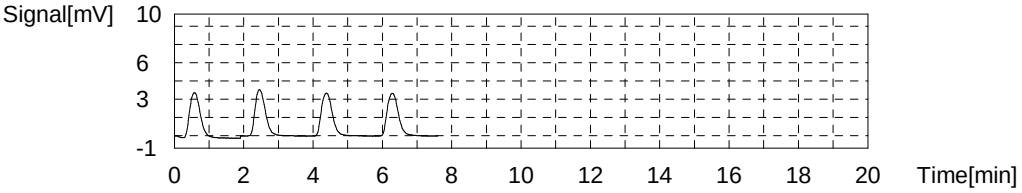
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.550mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.887	2.590mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:32:23 AM
2	7.770	2.550mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:34:26 AM
3	7.619	2.499mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:36:30 AM
4	7.797	2.560mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:38:34 AM

Mean Area 7.768
Mean Conc. 2.550mg/L



Sample

Sample Name: 280-123924-e-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

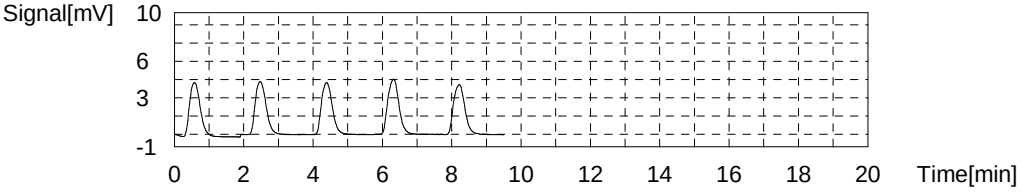
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.107mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.513	3.141mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:47:07 AM
2	9.498	3.136mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:49:10 AM
3	9.303	3.070mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:51:14 AM
4	10.18	3.367mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:53:18 AM
5	9.339	3.082mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:55:22 AM

Mean Area 9.413
Mean Conc. 3.107mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

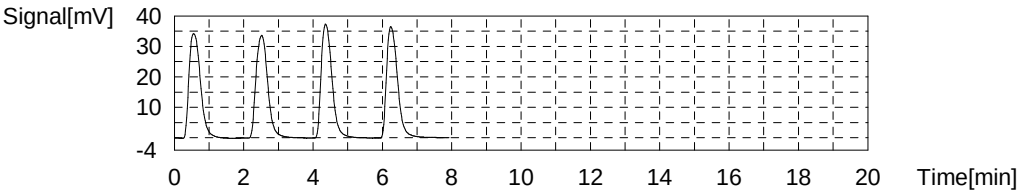
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.24mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.87	26.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:03:54 AM
2	79.86	26.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:05:57 AM
3	81.50	27.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:08:01 AM
4	81.31	27.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:10:24 AM

Mean Area 80.64
Mean Conc. 27.24mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

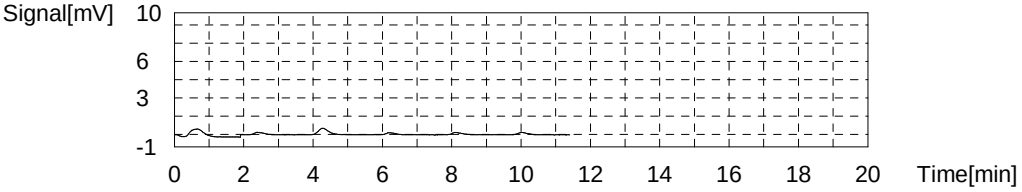
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02569mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.629	0.4700mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:18:56 AM
2	0.3505	0.03684mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:21:00 AM
3	1.056	0.2758mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:23:04 AM
4	0.2732	0.01065mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:25:08 AM
5	0.3070	0.02210mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:27:12 AM
6	0.3397	0.03318mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:29:16 AM

Mean Area 0.3176
Mean Conc. 0.02569mg/L



Sample

Sample Name: 280-123924-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

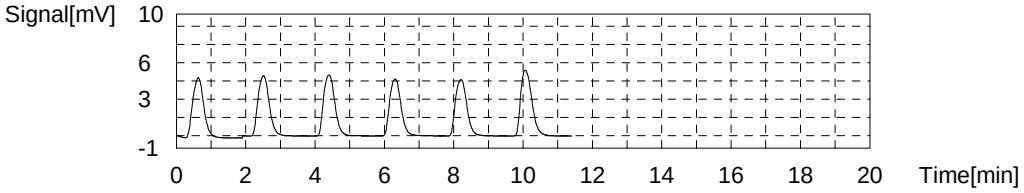
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.584mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.93	3.621mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:37:41 AM
2	11.16	3.699mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:39:45 AM
3	11.33	3.756mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:41:49 AM
4	10.58	3.502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:43:53 AM
5	10.61	3.513mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:45:57 AM
6	12.20	4.051mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:48:01 AM

Mean Area 10.82
Mean Conc. 3.584mg/L



Sample

Sample Name: MS 280-123924-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

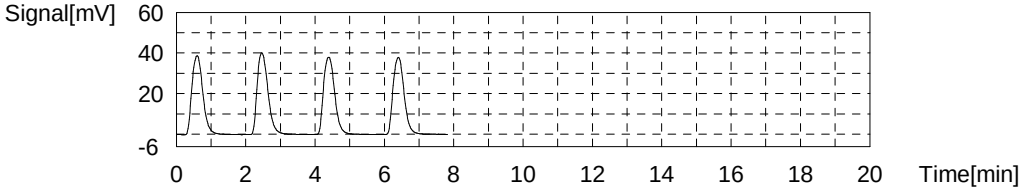
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:29.06mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.07	29.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:56:28 AM
2	87.49	29.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:58:31 AM
3	85.64	28.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:00:41 AM
4	84.89	28.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:02:52 AM

Mean Area 86.02
Mean Conc. 29.06mg/L



Sample

Sample Name: MSD 280-123924-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

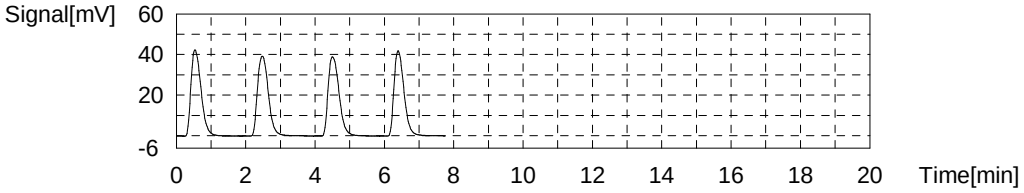
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:29.15mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.40	29.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:11:24 AM
2	86.56	29.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:13:37 AM
3	86.48	29.22mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:15:41 AM
4	84.67	28.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:17:45 AM

Mean Area 86.28
Mean Conc. 29.15mg/L



Sample

Sample Name: 280-123924-d-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

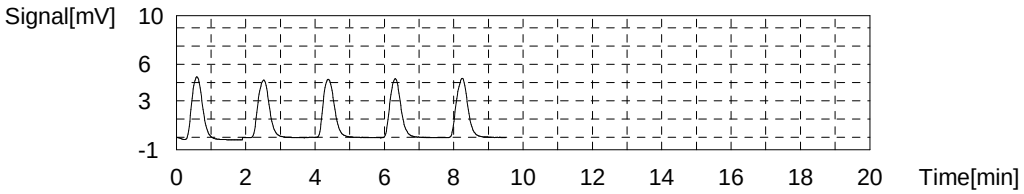
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.568mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.15	3.695mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:26:17 AM
2	10.70	3.543mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:28:21 AM
3	10.67	3.533mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:30:25 AM
4	10.64	3.523mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:32:29 AM
5	11.08	3.672mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:34:33 AM

Mean Area 10.77
Mean Conc. 3.568mg/L



Sample

Sample Name: 280-123924-d-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

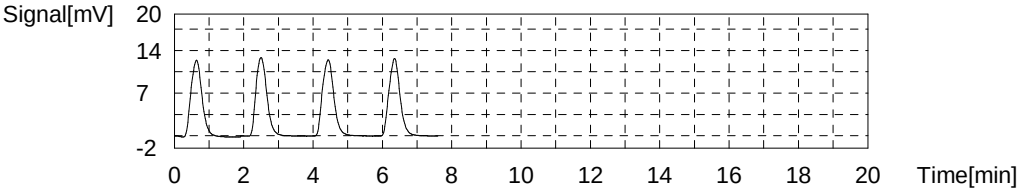
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.542mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.19	9.468mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:43:04 AM
2	28.33	9.516mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:45:08 AM
3	28.67	9.631mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:47:12 AM
4	28.44	9.553mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:49:16 AM

Mean Area 28.41
Mean Conc. 9.542mg/L



Sample

Sample Name: 280-123924-c-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

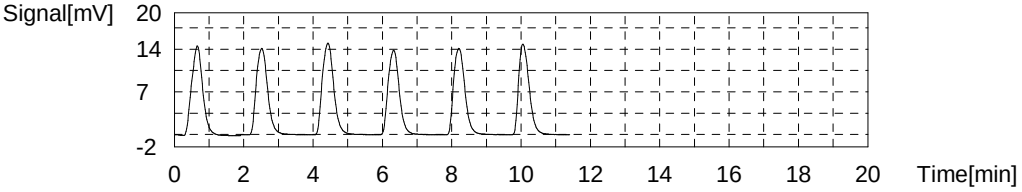
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.69mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.95	11.08mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:57:49 AM
2	32.32	10.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:59:52 AM
3	34.66	11.66mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:01:56 AM
4	31.23	10.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:04:00 AM
5	32.15	10.81mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:06:04 AM
6	31.47	10.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:08:08 AM

Mean Area 31.79
Mean Conc. 10.69mg/L



Sample

Sample Name: 280-123924-d-12
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

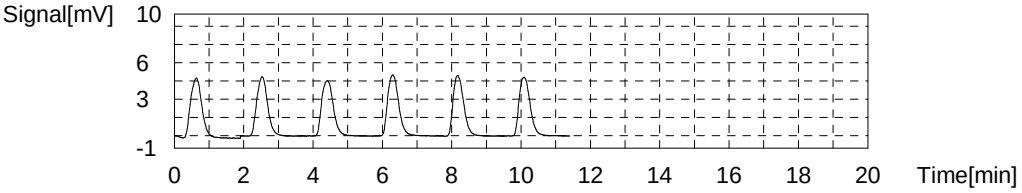
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.513mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.14	3.692mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:16:35 AM
2	10.62	3.516mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:18:38 AM
3	10.58	3.502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:20:42 AM
4	11.08	3.672mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:22:46 AM
5	10.59	3.506mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:24:50 AM
6	10.65	3.526mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:26:54 AM

Mean Area 10.61
Mean Conc. 3.513mg/L



Sample

Sample Name: 280-123930-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

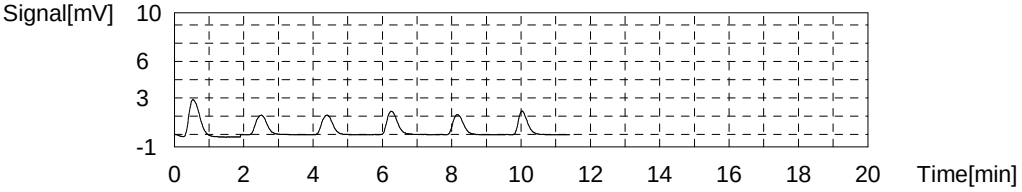
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.112mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.565	2.142mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:35:21 AM
2	3.536	1.116mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:37:24 AM
3	3.517	1.110mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:39:28 AM
4	4.013	1.278mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:41:32 AM
5	3.483	1.098mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:43:36 AM
6	3.559	1.124mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:45:40 AM

Mean Area 3.524
Mean Conc. 1.112mg/L



Sample

Sample Name: 280-123930-g-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

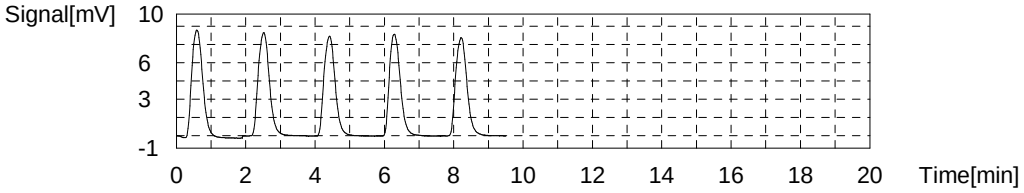
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.200mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.50	6.524mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:54:06 AM
2	19.02	6.362mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:56:10 AM
3	18.37	6.141mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:58:14 AM
4	18.42	6.158mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:00:18 AM
5	18.36	6.138mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:02:22 AM

Mean Area 18.54
Mean Conc. 6.200mg/L



Sample

Sample Name: 280-123930-g-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

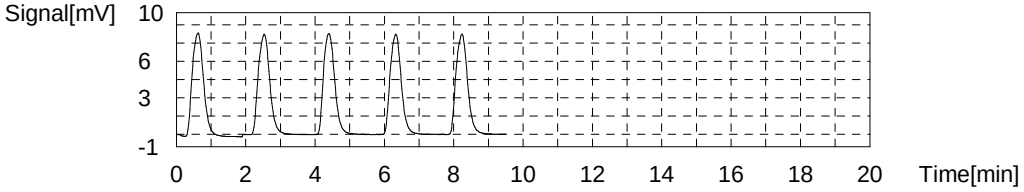
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.291mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.45	6.507mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:10:53 AM
2	19.00	6.355mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:12:57 AM
3	18.65	6.236mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:15:01 AM
4	18.47	6.175mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:17:05 AM
5	19.13	6.399mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:19:09 AM

Mean Area 18.81
Mean Conc. 6.291mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

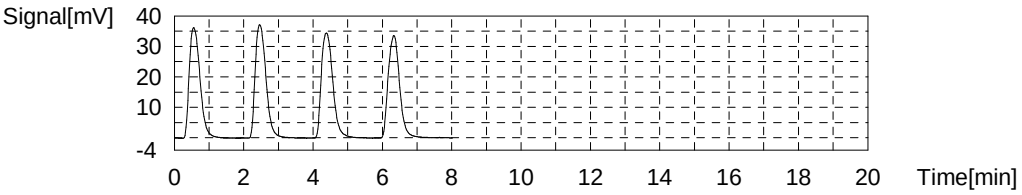
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.47	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:27:41 AM
2	80.63	27.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:29:44 AM
3	80.06	27.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:31:48 AM
4	78.11	26.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:34:17 AM

Mean Area 79.57
Mean Conc. 26.87mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

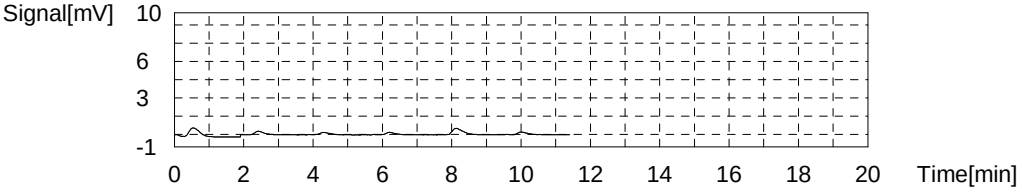
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04448mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.468	0.4154mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:42:49 AM
2	0.4979	0.08677mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:44:53 AM
3	0.3135	0.02430mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:46:57 AM
4	0.3113	0.02356mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:49:01 AM
5	1.062	0.2779mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:51:05 AM
6	0.3695	0.04327mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:53:09 AM

Mean Area 0.3730
Mean Conc. 0.04448mg/L



Sample

Sample Name: 280-123930-g-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

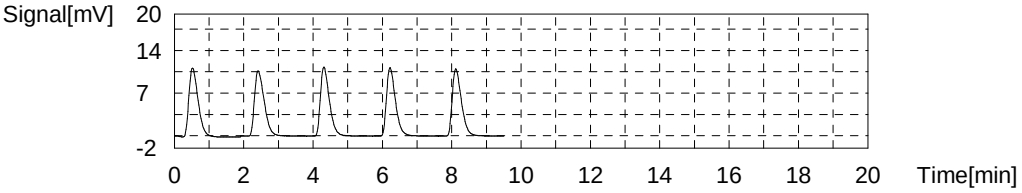
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.867mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.22	7.107mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:01:35 AM
2	20.94	7.012mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:03:39 AM
3	20.41	6.833mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:05:43 AM
4	20.30	6.795mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:07:47 AM
5	20.40	6.829mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:09:51 AM

Mean Area 20.51
Mean Conc. 6.867mg/L



Sample

Sample Name: 280-123930-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

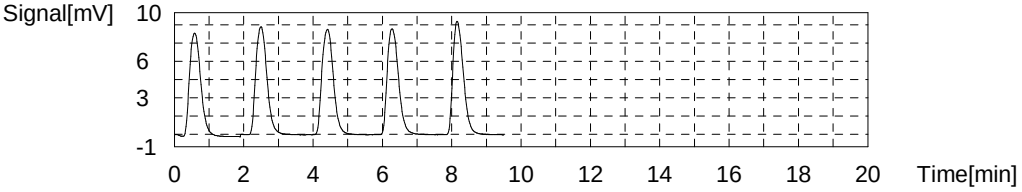
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.615mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.97	6.345mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:18:22 AM
2	19.83	6.636mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:20:26 AM
3	19.87	6.650mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:22:30 AM
4	19.71	6.595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:24:34 AM
5	19.66	6.578mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:26:38 AM

Mean Area 19.77
Mean Conc. 6.615mg/L



Sample

Sample Name: 320-50447-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

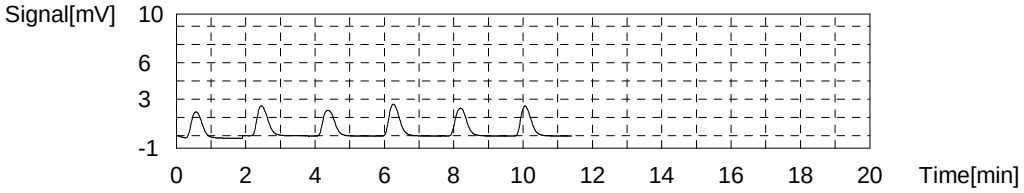
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.649mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.519	1.449mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:35:10 AM
2	5.270	1.703mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:37:13 AM
3	4.908	1.581mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:39:17 AM
4	5.559	1.801mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:41:21 AM
5	5.179	1.673mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:43:25 AM
6	5.081	1.639mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:45:29 AM

Mean Area 5.110
Mean Conc. 1.649mg/L



Sample

Sample Name: MS 320-50447-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

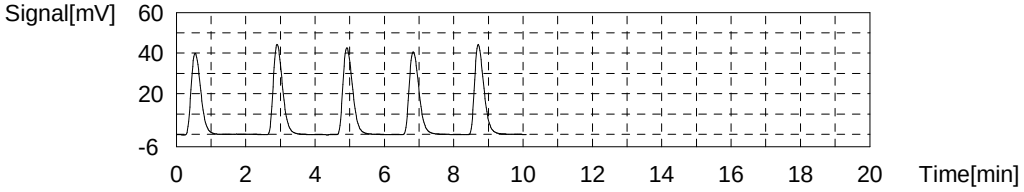
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.17mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.39	26.81mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:54:23 AM
2	84.58	28.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:56:34 AM
3	83.77	28.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:58:38 AM
4	81.65	27.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:00:42 AM
5	83.63	28.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:02:46 AM

Mean Area 83.41
Mean Conc. 28.17mg/L



Sample

Sample Name: MSD 320-50447-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

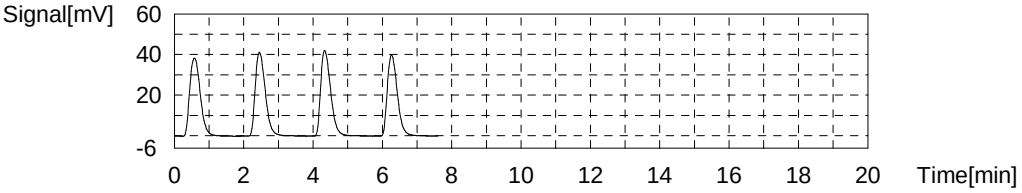
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.98mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.63	27.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:11:18 AM
2	83.63	28.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:13:22 AM
3	84.25	28.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:15:26 AM
4	80.78	27.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:17:30 AM

Mean Area 82.82
Mean Conc. 27.98mg/L



Sample

Sample Name: 280-123981-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

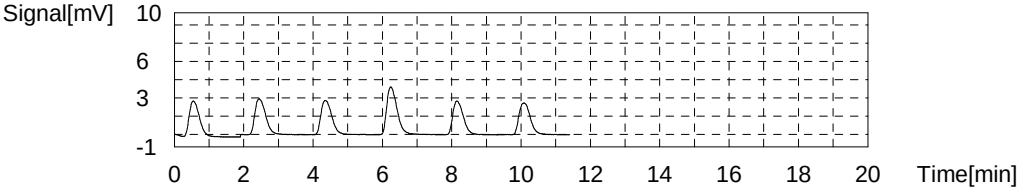
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.923mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.875	1.908mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:26:03 AM
2	6.333	2.064mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:28:07 AM
3	6.075	1.976mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:30:11 AM
4	8.184	2.691mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:32:15 AM
5	5.830	1.893mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:34:19 AM
6	5.898	1.916mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:36:23 AM

Mean Area 5.920
Mean Conc. 1.923mg/L



Sample

Sample Name: 280-123981-e-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

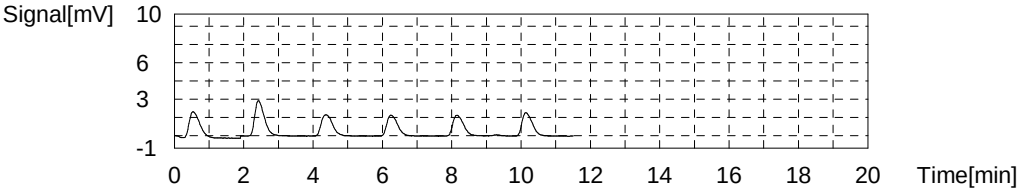
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.222mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.519	1.449mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:44:49 AM
2	5.556	1.800mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:46:53 AM
3	3.929	1.249mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:48:57 AM
4	3.696	1.170mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:51:01 AM
5	3.778	1.198mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:53:11 AM
6	3.991	1.270mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:55:15 AM

Mean Area 3.849
Mean Conc. 1.222mg/L



Sample

Sample Name: 280-123981-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

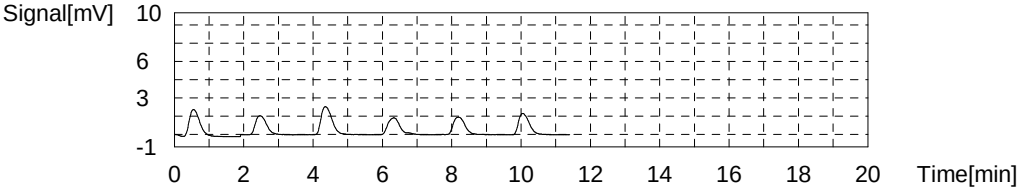
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.099mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.598	1.476mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:03:41 AM
2	3.485	1.099mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:05:45 AM
3	5.015	1.617mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:07:49 AM
4	3.428	1.079mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:09:53 AM
5	3.294	1.034mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:11:57 AM
6	3.738	1.184mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:14:01 AM

Mean Area 3.486
Mean Conc. 1.099mg/L



Sample

Sample Name: 280-123981-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

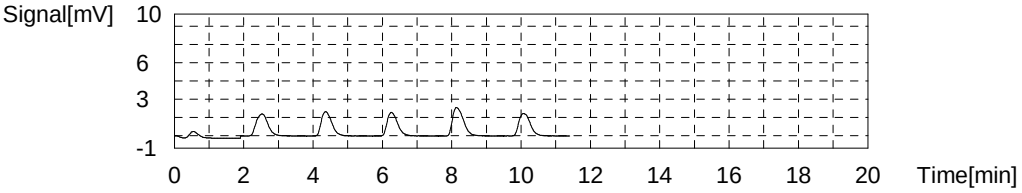
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.331mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8932	0.2207mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:22:27 AM
2	4.191	1.338mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:24:31 AM
3	4.213	1.345mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:26:35 AM
4	4.070	1.297mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:28:39 AM
5	5.130	1.656mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:30:43 AM
6	4.206	1.343mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:32:47 AM

Mean Area 4.170
Mean Conc. 1.331mg/L



Sample

Sample Name: 280-123981-e-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

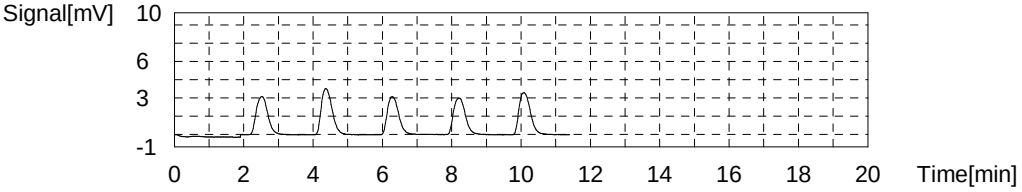
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.407mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:41:13 AM
2	7.286	2.386mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:43:17 AM
3	8.284	2.725mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:45:21 AM
4	7.075	2.315mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:47:25 AM
5	7.122	2.331mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:49:29 AM
6	7.903	2.595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:51:33 AM

Mean Area 7.347
Mean Conc. 2.407mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

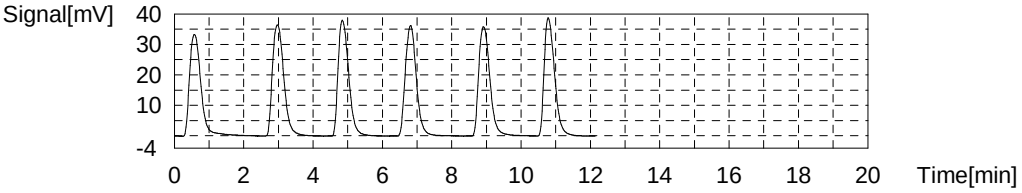
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.44mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.67	26.23mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:00:28 AM
2	84.43	28.52mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:02:32 AM
3	81.43	27.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:04:36 AM
4	80.80	27.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:06:55 AM
5	80.96	27.35mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:08:59 AM
6	81.77	27.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:11:03 AM

Mean Area 81.24
Mean Conc. 27.44mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

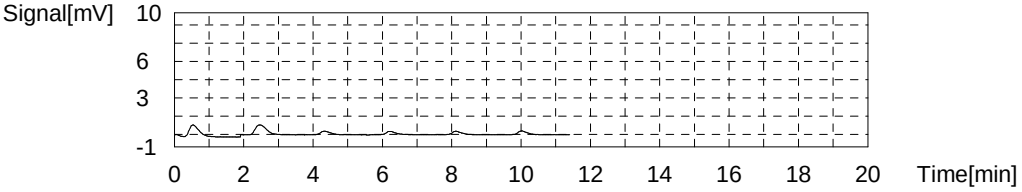
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09190mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.866	0.5503mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:19:29 AM
2	1.795	0.5262mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:21:33 AM
3	0.5541	0.1058mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:23:37 AM
4	0.4931	0.08515mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:25:41 AM
5	0.4854	0.08254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:27:45 AM
6	0.5195	0.09409mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:29:49 AM

Mean Area 0.5130
Mean Conc. 0.09190mg/L



Sample

Sample Name: 280-123981-g-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

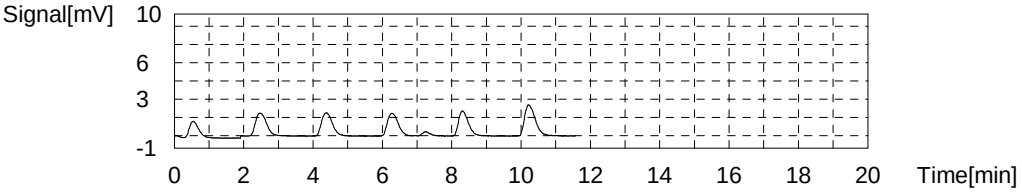
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.361mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.473	0.7559mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:38:15 AM
2	4.127	1.316mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:40:19 AM
3	4.177	1.333mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:42:23 AM
4	4.686	1.506mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:44:37 AM
5	4.047	1.289mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:46:41 AM
6	5.462	1.769mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:48:45 AM

Mean Area 4.259
Mean Conc. 1.361mg/L



Sample

Sample Name: 280-123981-g-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

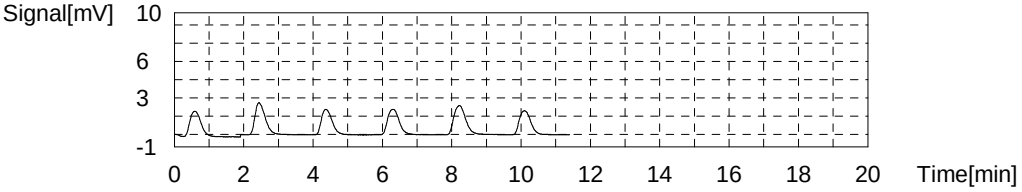
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.470mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.512	1.447mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:57:11 AM
2	5.378	1.740mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:59:15 AM
3	4.500	1.443mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:01:19 PM
4	4.827	1.553mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:03:23 PM
5	5.654	1.834mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:05:27 PM
6	4.482	1.437mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:07:31 PM

Mean Area 4.580
Mean Conc. 1.470mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

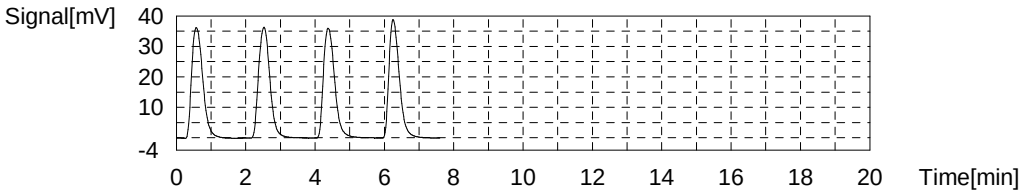
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.68mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.20	27.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:15:57 PM
2	82.74	27.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:18:01 PM
3	81.29	27.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:20:05 PM
4	81.56	27.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:22:09 PM

Mean Area 81.95
Mean Conc. 27.68mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

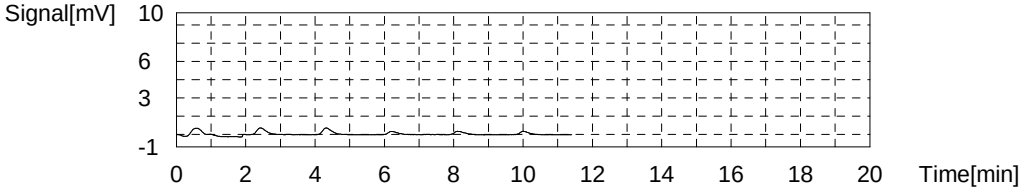
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1287mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.691	0.4910mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:30:42 PM
2	1.013	0.2613mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:32:46 PM
3	0.9979	0.2562mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:34:50 PM
4	0.4732	0.07841mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:36:54 PM
5	0.5450	0.1027mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:38:58 PM
6	0.4702	0.07739mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:41:02 PM

Mean Area 0.6216
Mean Conc. 0.1287mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

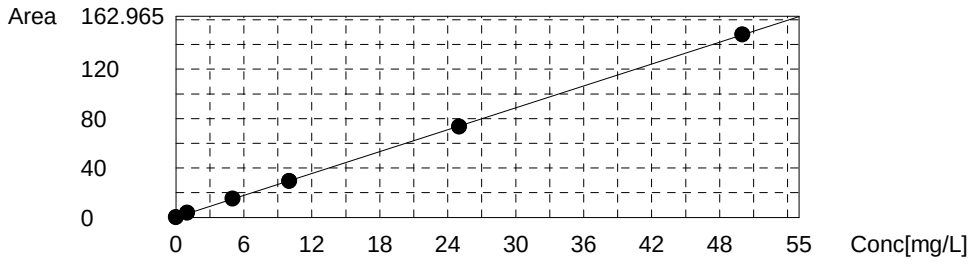
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



6/12/19 pH

	Analysis	Sample Name	Manual Diluti	Result	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	CL			1
2*	NPOC	ICB	1.000	CL			2
3*	NPOC	LCS	1.000	CL			3
4*	NPOC	MB	1.000	CL			4
5*	NPOC	TIC	1.000	CL			5
6*	NPOC	280-124036-f-7	5x ~~1.000~~	CL	cloudy		6
7*	NPOC	280-124036-e-8	2x 5x ~~1.000~~	CL	cloudy		7
8*	NPOC	280-124036-e-9	1.000	CL			8
9*	NPOC	280-124036-e-10	5x ~~1.000~~	CL	cloudy		9
10*	NPOC	280-124095-c-1	1.000	CL			10
11*	NPOC	MS 280-124095-c-1	1.000	CL			11
12*	NPOC	MSD 280-124095-c-1	1.000	CL			12
13*	NPOC	280-124095-d-2	1.000	CL			13
14*	NPOC	280-124095-c-3	1.000	CL			14
15*	NPOC	CCV	1.000	CL			15
16*	NPOC	CCB	1.000	CL			16
17*	NPOC	280-124095-d-4	1.000	CL			17
18*	NPOC	280-124095-d-5	1.000	CL			18
19*	NPOC	280-124095-d-6	1.000	CL			19
20*	NPOC	280-124095-d-7	1.000	CL			20
21*	NPOC	280-124110-c-1	1.000	CL			21
22*	NPOC	MS 280-124110-c-1	1.000	CL			22
23*	NPOC	MSD 280-124110-c-1	1.000	CL			23
24*	NPOC	280-124110-c-2	1.000	CL			24
25*	NPOC	280-124110-d-4	1.000	CL			25
26*	NPOC	280-124110-d-5	1.000	CL			26
27*	NPOC	CCV	1.000	CL			27
28*	NPOC	CCB	1.000	CL			28
29*	NPOC	280-124110-c-6	1.000	CL			29
30*	NPOC	280-124110-c-7	1.000	CL			30
31*	NPOC	280-124061-d-1	1.000	CL			31
32*	NPOC	280-124109-g-1	10x ~~1.000~~	~~2~~ 8	historic		32
33*	NPOC	280-124088-c-1	1.000	CL			33
34*	NPOC	LCS	1.000	CL			34
35*	NPOC	MB	1.000	CL			35
36*	NPOC	TIC	1.000	CL			36
37*	NPOC	280-123981-g-6	1.000	CL			37
38*	NPOC	280-123981-d-7	1.000	CL			38
39*	NPOC	CCV	1.000	CL			39
40*	NPOC	CCB	1.000	CL			40
41*	NPOC	280-123981-g-8	1.000	CL			41
42*	NPOC	MS 280-123981-g-8	1.000	CL			42
43*	NPOC	MSD 280-123981-g-8	1.000	CL			43
44*	NPOC	280-123981-g-9	1.000	CL			44
45*	NPOC	280-123983-d-2	1.000	CL			45
46*	NPOC	280-123983-d-3	1.000	CL			46
47*	NPOC	280-123983-~~c-3~~ d-1	1.000	CL			47
48*	NPOC	280-124044-b-1	1.000	CL			48
49*	NPOC	280-124044-b-2	1.000	CL			49
50*	NPOC	280-124044-b-3	1.000	CL			50
51*	NPOC	CCV	1.000	CL			51

pH ed 6/12/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	"			52
53*	NPOC	280-124044-b-4	1.000	"			53
54*	NPOC	280-124044-b-5	1.000	"			54
55*	NPOC	MS 280-124044-b-5	1.000	"			55
56*	NPOC	MSD 280-124044-b-5	1.000	"			56
57*	NPOC	280-124044-b-6	1.000	"			57
58*	NPOC	280-124053-a-2	1.000	"			58
59*	NPOC	280-124053-a-3	1.000	"			59
60*	NPOC	280-124106-e-1	1.000	"			60
61*	NPOC	280-124106-d-2	1.000	"			61
62*	NPOC	280-124106-d-3	1.000	"			62
63*	NPOC	CCV	1.000	"			63
64*	NPOC	CCB	1.000	"			64
65*	NPOC	280-124106-e-4	1.000	"			65
66*	NPOC	280-124139-a-1	1.000	"			66
67*	NPOC	CCV	1.000	"			67
68*	NPOC	CCB	1.000	"			68

Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	ICV
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

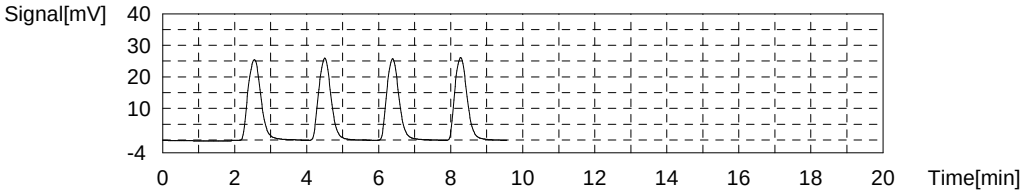
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:19:12 PM
2	64.46	21.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:21:19 PM
3	62.61	21.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:23:23 PM
4	61.43	20.73mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:25:27 PM
5	62.62	21.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:27:31 PM

Mean Area 62.78
Mean Conc. 21.19mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

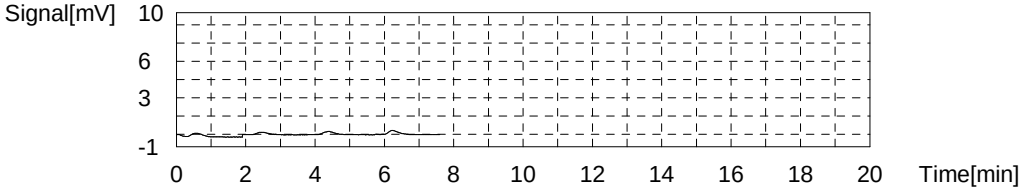
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09634mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5524	0.1052mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:36:01 PM
2	0.4079	0.05628mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:38:05 PM
3	0.5252	0.09602mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:40:09 PM
4	0.6190	0.1278mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:42:13 PM

Mean Area 0.5261
Mean Conc. 0.09634mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

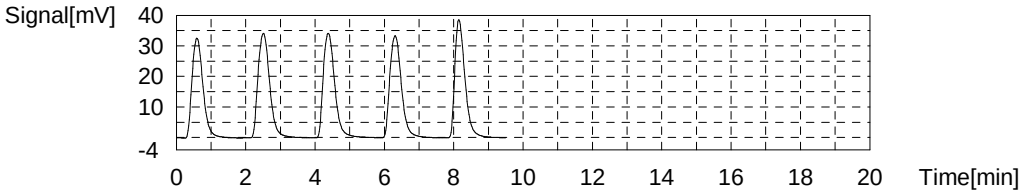
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.72mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	72.78	24.57mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:50:44 PM
2	80.41	27.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:52:48 PM
3	78.91	26.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:54:52 PM
4	78.30	26.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:56:56 PM
5	78.82	26.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:59:00 PM

Mean Area 79.11
Mean Conc. 26.72mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

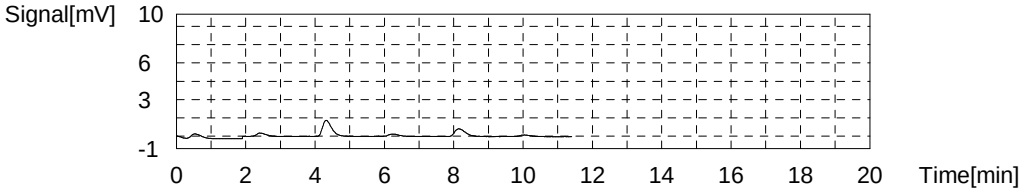
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06134mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6748	0.1467mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:07:30 PM
2	0.4737	0.07857mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:09:34 PM
3	2.406	0.7332mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:11:38 PM
4	0.3443	0.03474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:13:42 PM
5	1.321	0.3656mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:15:46 PM
6	0.1985	-0.01466mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:17:50 PM

Mean Area 0.4228
Mean Conc. 0.06134mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

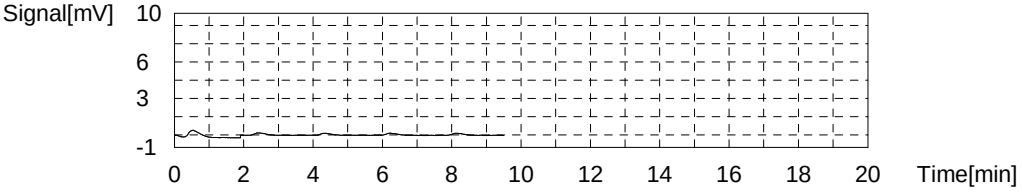
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03977mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.175	0.3162mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:26:15 PM
2	0.4001	0.05364mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:28:19 PM
3	0.3279	0.02918mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:30:23 PM
4	0.3445	0.03480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:32:27 PM
5	0.3641	0.04144mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:34:31 PM

Mean Area 0.3592
Mean Conc. 0.03977mg/L



Sample

Sample Name: 280-124036-f-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

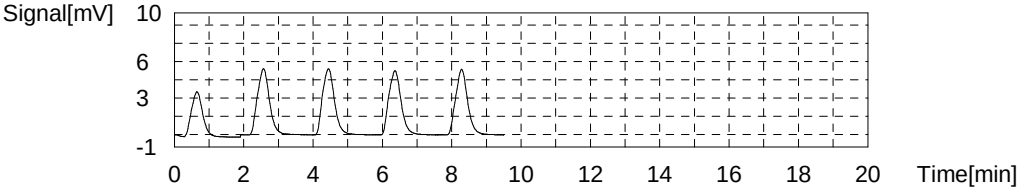
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:21.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.286	13.63mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:43:01 PM
2	13.06	21.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:45:05 PM
3	13.03	21.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:47:09 PM
4	13.03	21.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:49:13 PM
5	12.93	21.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:51:17 PM

Mean Area 13.01
Mean Conc. 21.63mg/L



Sample

Sample Name: 280-124036-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

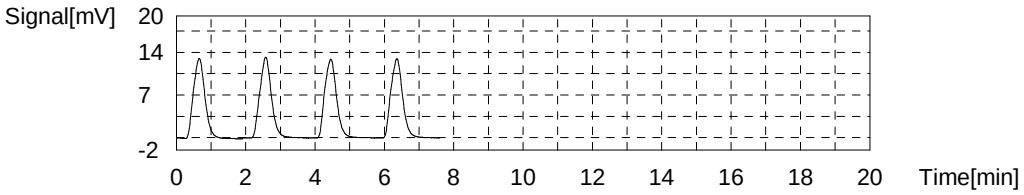
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:20.67mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.68	20.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:59:47 PM
2	30.91	20.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:01:51 PM
3	30.57	20.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:03:55 PM
4	30.82	20.72mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:05:59 PM

Mean Area 30.74
Mean Conc. 20.67mg/L



Sample

Sample Name: 280-124036-e-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

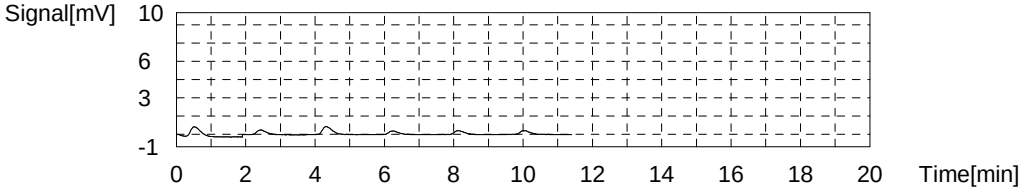
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1290mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.515	0.4313mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:14:30 PM
2	0.7368	0.1677mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:16:34 PM
3	1.281	0.3521mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:18:38 PM
4	0.5375	0.1002mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:20:42 PM
5	0.6251	0.1299mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:22:46 PM
6	0.5910	0.1183mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:24:50 PM

Mean Area 0.6226
Mean Conc. 0.1290mg/L



Sample

Sample Name: 280-124036-e-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

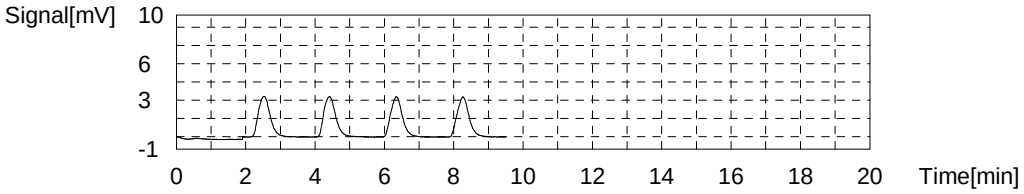
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:12.85mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.4095mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:33:15 PM
2	7.864	12.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:35:19 PM
3	7.828	12.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:37:23 PM
4	7.797	12.80mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:39:27 PM
5	7.815	12.83mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:41:31 PM

Mean Area 7.826
Mean Conc. 12.85mg/L



Sample

Sample Name: 280-124095-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

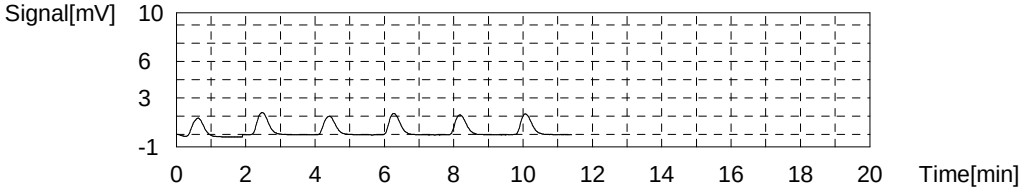
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.127mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.412	1.074mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:50:01 PM
2	4.054	1.292mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:52:05 PM
3	3.532	1.115mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:54:09 PM
4	3.854	1.224mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:56:13 PM
5	3.623	1.145mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:58:17 PM
6	3.702	1.172mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:00:21 PM

Mean Area 3.567
Mean Conc. 1.127mg/L



Sample

Sample Name: MS 280-124095-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

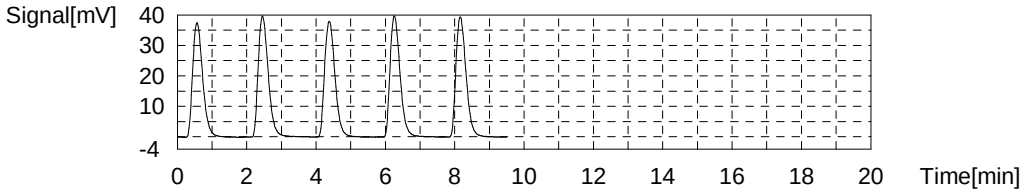
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.62	25.88mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:08:46 PM
2	80.57	27.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:10:50 PM
3	79.73	26.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:12:54 PM
4	80.42	27.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:14:58 PM
5	80.70	27.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:17:02 PM

Mean Area 80.36
Mean Conc. 27.14mg/L



Sample

Sample Name: MSD 280-124095-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

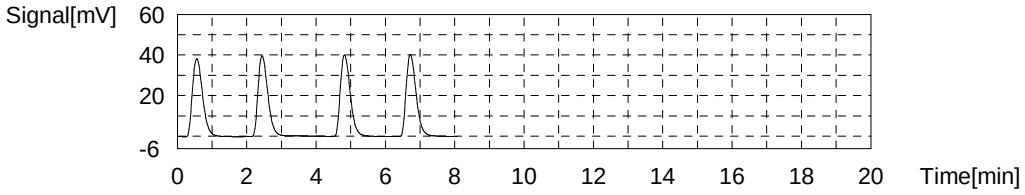
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.09mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.57	26.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:25:32 PM
2	79.47	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:28:04 PM
3	80.42	27.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:30:08 PM
4	81.32	27.47mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:32:12 PM

Mean Area 80.20
Mean Conc. 27.09mg/L



Sample

Sample Name: 280-124095-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

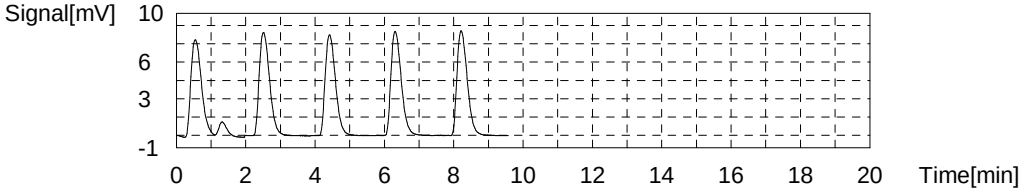
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.873mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.59	6.555mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:40:47 PM
2	17.69	5.911mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:42:51 PM
3	17.19	5.742mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:44:55 PM
4	17.73	5.925mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:46:59 PM
5	17.70	5.914mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:49:03 PM

Mean Area 17.58
Mean Conc. 5.873mg/L



Sample

Sample Name: 280-124095-c-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

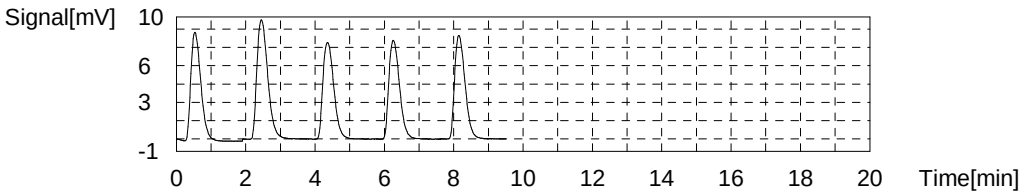
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.916mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.03	6.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:57:33 PM
2	21.47	7.192mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:59:37 PM
3	17.41	5.816mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:01:41 PM
4	17.49	5.843mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:03:45 PM
5	17.89	5.979mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:05:49 PM

Mean Area 17.70
Mean Conc. 5.916mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

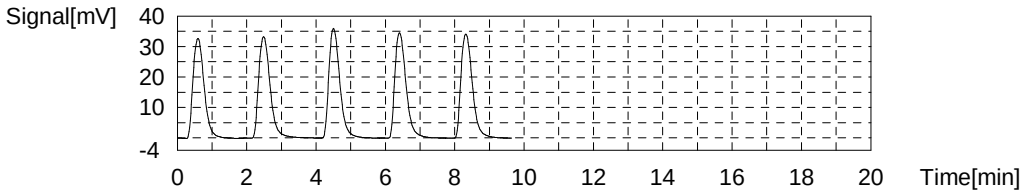
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	73.82	24.93mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:14:19 PM
2	77.12	26.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:16:31 PM
3	79.90	26.99mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:18:35 PM
4	78.13	26.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:20:39 PM
5	78.87	26.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:22:43 PM

Mean Area 78.51
Mean Conc. 26.51mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

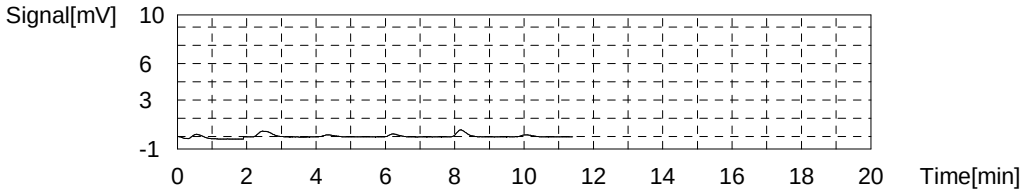
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06690mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6753	0.1469mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:31:13 PM
2	1.301	0.3588mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:33:17 PM
3	0.3034	0.02088mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:35:21 PM
4	0.4381	0.06651mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:37:25 PM
5	1.096	0.2894mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:39:29 PM
6	0.3402	0.03335mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:41:33 PM

Mean Area 0.4393
Mean Conc. 0.06690mg/L



Sample

Sample Name: 280-124095-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

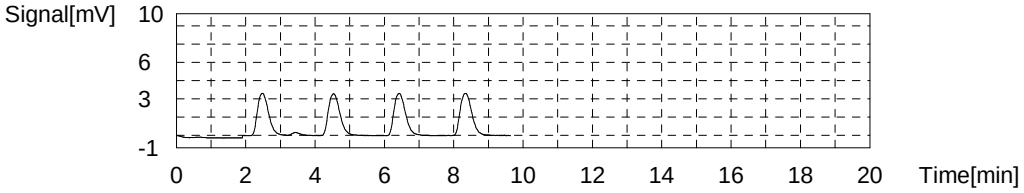
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.645mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:49:58 PM
2	8.185	2.691mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:52:10 PM
3	7.974	2.620mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:54:14 PM
4	7.974	2.620mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:56:18 PM
5	8.066	2.651mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:58:22 PM

Mean Area 8.050
Mean Conc. 2.645mg/L



Sample

Sample Name: 280-124095-d-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

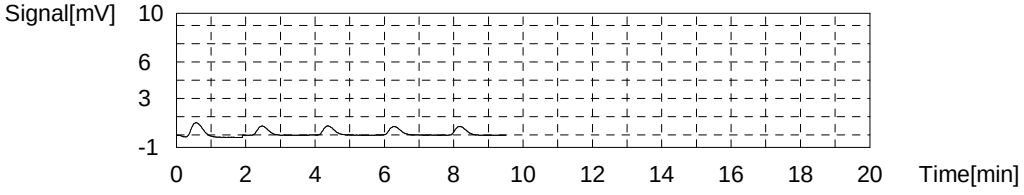
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4606mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.687	0.8284mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:06:52 PM
2	1.608	0.4629mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:08:56 PM
3	1.631	0.4706mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:11:00 PM
4	1.559	0.4463mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:13:04 PM
5	1.608	0.4629mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:15:08 PM

Mean Area 1.602
Mean Conc. 0.4606mg/L



Sample

Sample Name: 280-124095-d-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

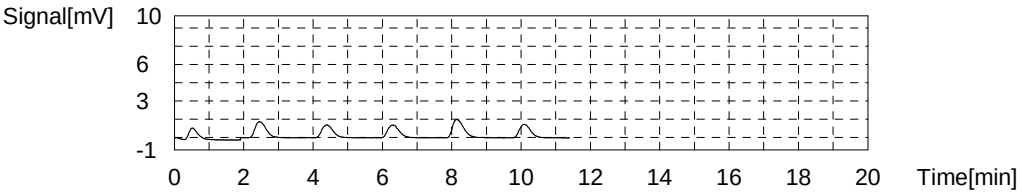
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7707mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.661	0.4808mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:23:38 PM
2	2.894	0.8985mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:25:42 PM
3	2.342	0.7115mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:27:46 PM
4	2.397	0.7301mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:29:50 PM
5	3.356	1.055mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:31:54 PM
6	2.434	0.7427mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:33:58 PM

Mean Area 2.517
Mean Conc. 0.7707mg/L



Sample

Sample Name: 280-124095-d-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

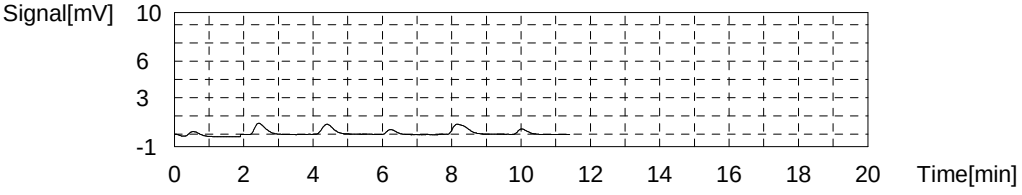
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2809mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7671	0.1780mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:42:23 PM
2	2.007	0.5980mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:44:27 PM
3	1.860	0.5482mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:46:31 PM
4	0.7744	0.1804mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:48:35 PM
5	2.426	0.7400mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:50:39 PM
6	0.8824	0.2170mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:52:43 PM

Mean Area 1.071
Mean Conc. 0.2809mg/L



Sample

Sample Name: 280-124110-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

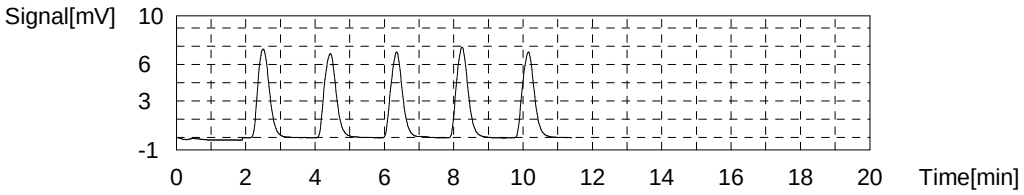
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.584mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1784	-0.02147mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:01:08 PM
2	16.88	5.637mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:03:12 PM
3	16.59	5.538mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:05:16 PM
4	16.68	5.569mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:07:20 PM
5	17.50	5.847mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:09:24 PM
6	16.75	5.593mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:11:28 PM

Mean Area 16.73
Mean Conc. 5.584mg/L



Sample

Sample Name: MS 280-124110-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

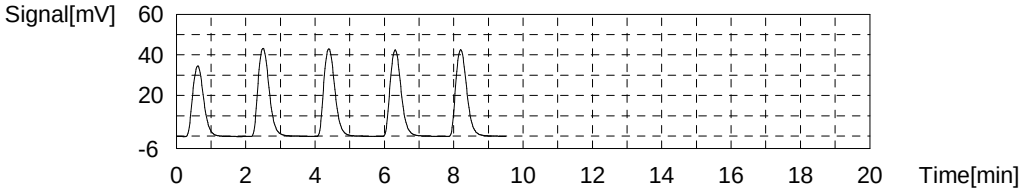
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.56mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.47	26.16mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:19:53 PM
2	97.45	32.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:21:57 PM
3	96.78	32.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:24:01 PM
4	95.45	32.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:26:05 PM
5	95.67	32.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:28:09 PM

Mean Area 96.34
Mean Conc. 32.56mg/L



Sample

Sample Name: MSD 280-124110-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

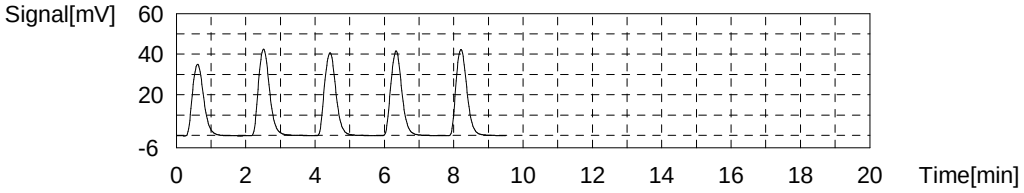
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.90mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.14	27.07mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:36:39 PM
2	95.64	32.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:38:43 PM
3	94.04	31.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:40:47 PM
4	94.00	31.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:42:51 PM
5	93.93	31.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:44:55 PM

Mean Area 94.40
Mean Conc. 31.90mg/L



Sample

Sample Name: 280-124110-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

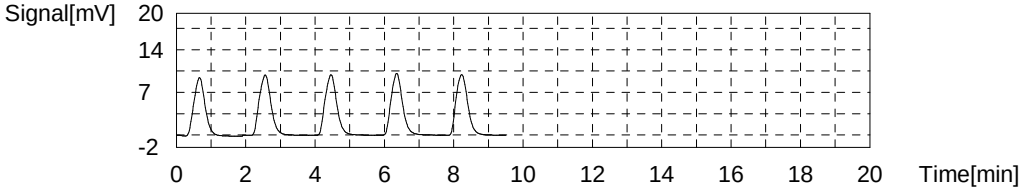
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.805mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.54	7.215mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:53:25 PM
2	23.27	7.801mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:55:29 PM
3	23.30	7.812mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:57:33 PM
4	23.35	7.829mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:59:37 PM
5	23.20	7.778mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:01:41 PM

Mean Area 23.28
Mean Conc. 7.805mg/L



Sample

Sample Name: 280-124110-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

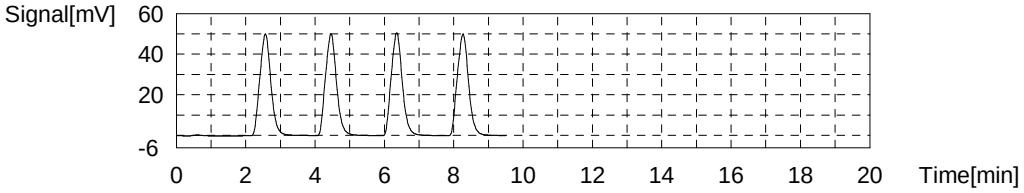
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:38.06mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8124	0.1933mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:10:11 PM
2	111.2	37.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:12:15 PM
3	112.0	37.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:14:19 PM
4	113.7	38.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:16:23 PM
5	113.5	38.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:18:27 PM

Mean Area 112.6
Mean Conc. 38.06mg/L



Sample

Sample Name: 280-124110-d-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

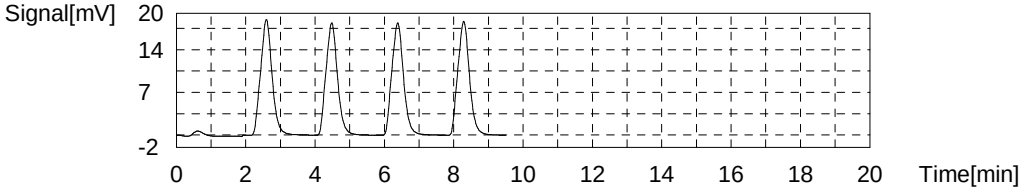
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.70mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.662	0.4811mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:26:57 PM
2	43.97	14.81mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:29:01 PM
3	43.01	14.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:31:05 PM
4	43.43	14.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:33:09 PM
5	44.07	14.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:35:13 PM

Mean Area 43.62
Mean Conc. 14.70mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

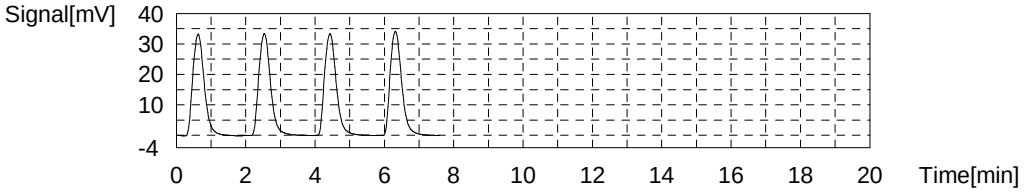
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.56mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.15	26.05mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:43:43 PM
2	78.92	26.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:45:47 PM
3	78.92	26.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:47:51 PM
4	79.54	26.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:49:55 PM

Mean Area 78.63
Mean Conc. 26.56mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

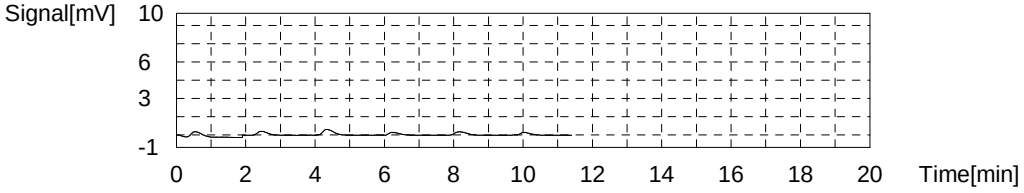
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1038mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8423	0.2034mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:58:26 PM
2	0.6465	0.1371mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:00:30 PM
3	0.9669	0.2457mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:02:34 PM
4	0.4653	0.07573mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:04:38 PM
5	0.6746	0.1466mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:06:42 PM
6	0.4066	0.05584mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:08:46 PM

Mean Area 0.5483
Mean Conc. 0.1038mg/L



Sample

Sample Name: 280-124110-c-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

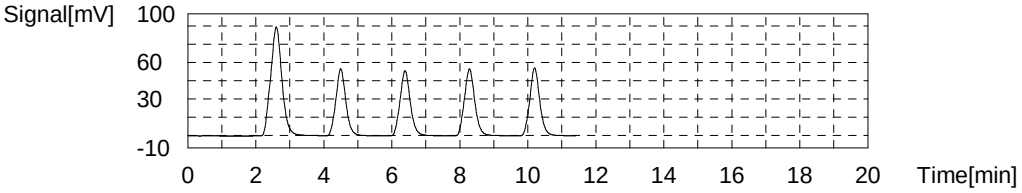
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:69.10mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2137	-0.00951mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:17:11 PM
2	208.0	70.38mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:19:16 PM
3	112.9	68.22mg/L	28uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:21:20 PM
4	112.9	68.22mg/L	28uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:23:24 PM
5	117.0	70.70mg/L	28uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:25:27 PM
6	114.6	69.25mg/L	28uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:27:31 PM

Mean Area 114.4
Mean Conc. 69.10mg/L



Sample

Sample Name: 280-124110-c-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

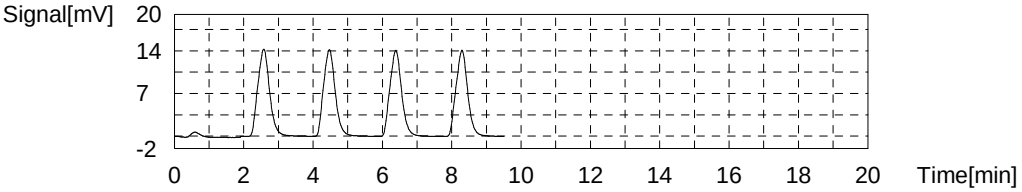
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.474	0.4175mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:35:56 PM
2	34.02	11.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:38:00 PM
3	33.44	11.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:40:04 PM
4	33.45	11.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:42:08 PM
5	33.39	11.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:44:12 PM

Mean Area 33.58
Mean Conc. 11.29mg/L



Sample

Sample Name: 280-124061-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

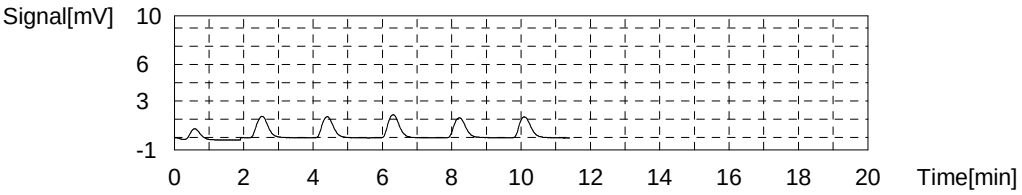
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.247mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.733	0.5052mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:52:42 PM
2	4.039	1.286mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:54:46 PM
3	3.893	1.237mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:56:50 PM
4	4.267	1.364mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:58:54 PM
5	3.828	1.215mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:00:58 AM
6	3.934	1.251mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:03:02 AM

Mean Area 3.924
Mean Conc. 1.247mg/L



Sample

Sample Name: 280-124109-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

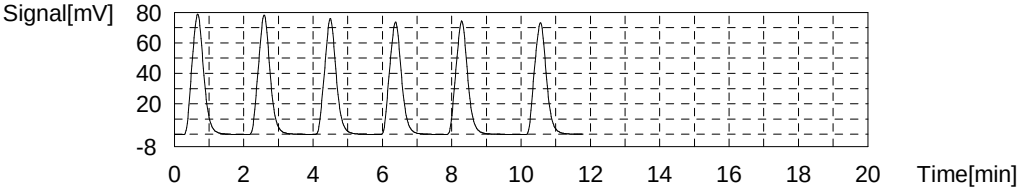
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:599.6mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	187.0	632.7mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:11:27 AM
2	184.7	624.9mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:13:31 AM
3	178.1	602.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:15:35 AM
4	177.3	599.8mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:17:39 AM
5	177.0	598.8mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:20:06 AM
6	176.5	597.1mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:22:10 AM

Mean Area 177.2
Mean Conc. 599.6mg/L



Sample

Sample Name: 280-124088-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

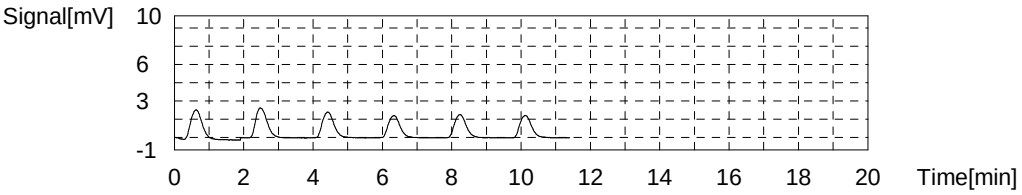
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.429mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.483	1.776mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:30:36 AM
2	5.586	1.811mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:32:40 AM
3	4.897	1.577mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:34:44 AM
4	4.226	1.350mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:36:48 AM
5	4.426	1.418mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:38:52 AM
6	4.292	1.372mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:40:56 AM

Mean Area 4.460
Mean Conc. 1.429mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

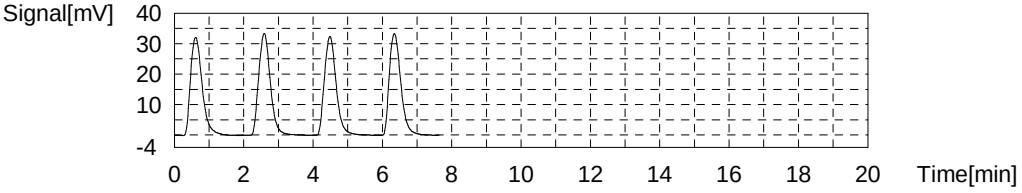
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.21	25.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:49:24 AM
2	78.36	26.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:51:28 AM
3	76.91	25.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:53:32 AM
4	77.76	26.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 12:55:36 AM

Mean Area 77.31
Mean Conc. 26.11mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

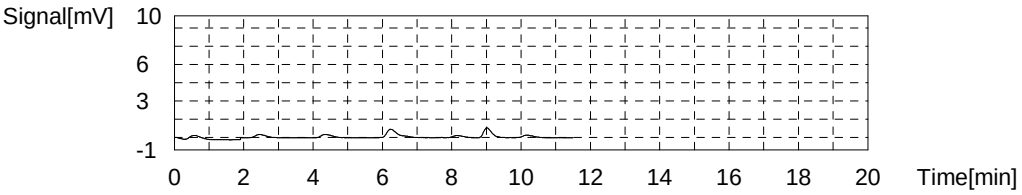
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1014mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6834	0.1496mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:04:08 AM
2	0.5326	0.09853mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:06:12 AM
3	0.5658	0.1098mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:08:16 AM
4	1.472	0.4168mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:10:20 AM
5	1.663	0.4815mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:12:30 AM
6	0.3825	0.04768mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:14:34 AM

Mean Area 0.5411
Mean Conc. 0.1014mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

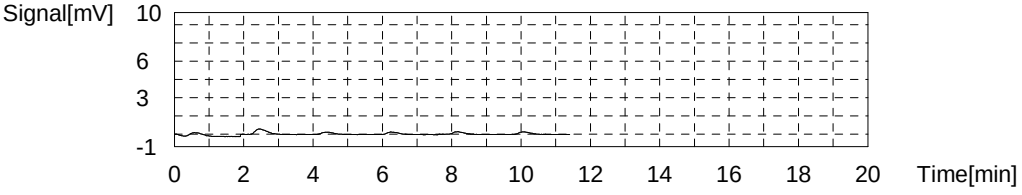
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06079mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6660	0.1437mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:23:00 AM
2	1.033	0.2681mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:25:04 AM
3	0.3933	0.05134mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:27:08 AM
4	0.4093	0.05676mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:29:12 AM
5	0.4511	0.07092mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:31:16 AM
6	0.4311	0.06414mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:33:20 AM

Mean Area 0.4212
Mean Conc. 0.06079mg/L



Sample

Sample Name: 280-123981-g-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

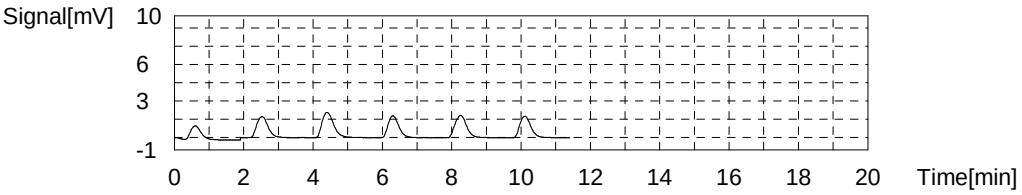
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.271mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.333	0.7085mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:41:46 AM
2	3.944	1.254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:43:50 AM
3	4.825	1.553mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:45:54 AM
4	3.872	1.230mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:47:58 AM
5	4.257	1.360mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:50:02 AM
6	3.895	1.238mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 1:52:06 AM

Mean Area 3.992
Mean Conc. 1.271mg/L



Sample

Sample Name: 280-123981-d-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

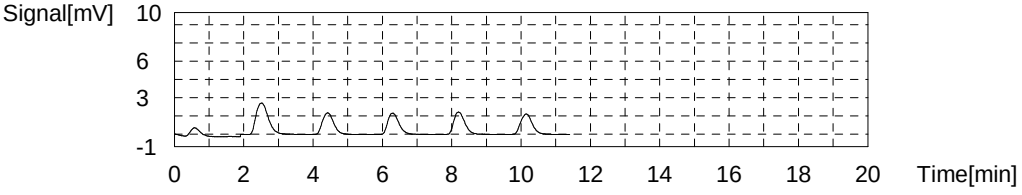
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.260mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.258	0.3443mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:00:31 AM
2	6.368	2.075mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:02:35 AM
3	4.038	1.286mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:04:39 AM
4	3.892	1.237mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:06:43 AM
5	4.019	1.280mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:08:47 AM
6	3.890	1.236mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:10:51 AM

Mean Area 3.960
Mean Conc. 1.260mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

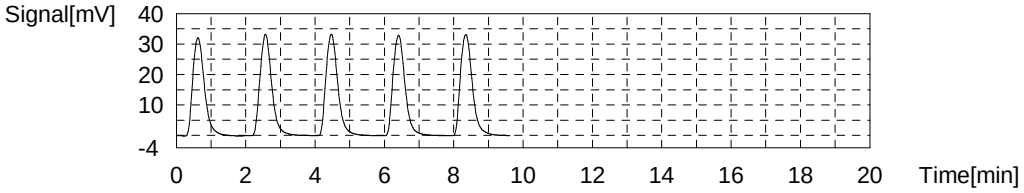
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.80mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.02	25.67mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:19:17 AM
2	78.42	26.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:21:22 AM
3	79.61	26.89mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:23:28 AM
4	79.46	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:25:35 AM
5	79.92	26.99mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:27:39 AM

Mean Area 79.35
Mean Conc. 26.80mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

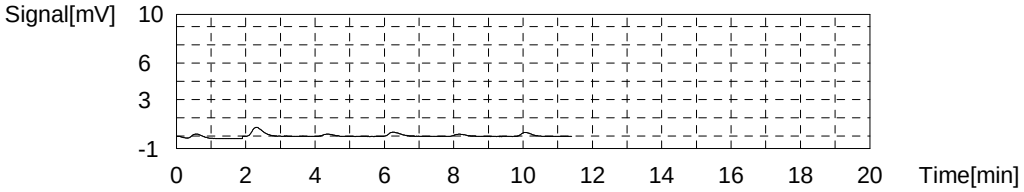
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09465mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6784	0.1479mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:36:10 AM
2	1.614	0.4649mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:38:14 AM
3	0.3936	0.05144mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:40:18 AM
4	0.7799	0.1823mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:42:22 AM
5	0.3843	0.04829mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:44:26 AM
6	0.6283	0.1310mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:46:30 AM

Mean Area 0.5212
Mean Conc. 0.09465mg/L



Sample

Sample Name: 280-123981-g-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

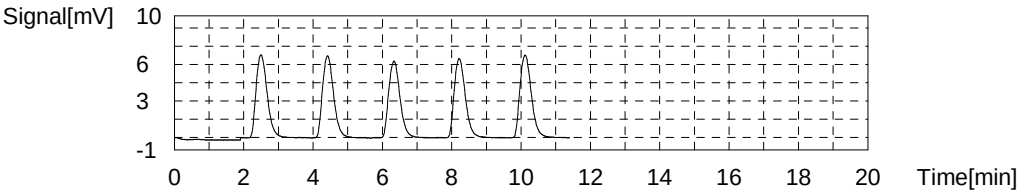
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.933mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:54:55 AM
2	15.19	5.064mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:56:59 AM
3	15.06	5.020mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 2:59:03 AM
4	14.43	4.807mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:01:07 AM
5	14.53	4.841mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:03:11 AM
6	15.63	5.213mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:05:15 AM

Mean Area 14.80
Mean Conc. 4.933mg/L



Sample

Sample Name: MS 280-123981-g-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

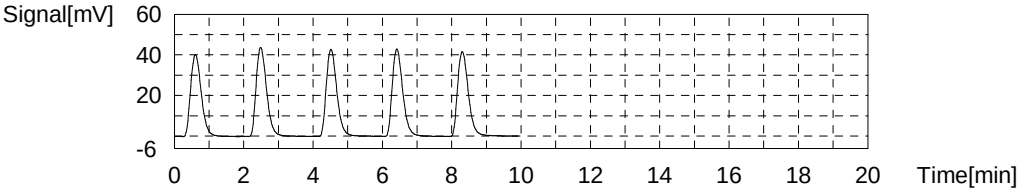
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:30.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.06	29.41mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:13:41 AM
2	92.47	31.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:15:52 AM
3	91.57	30.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:17:56 AM
4	91.35	30.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:20:00 AM
5	90.99	30.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:22:22 AM

Mean Area 91.60
Mean Conc. 30.95mg/L



Sample

Sample Name: MSD 280-123981-g-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

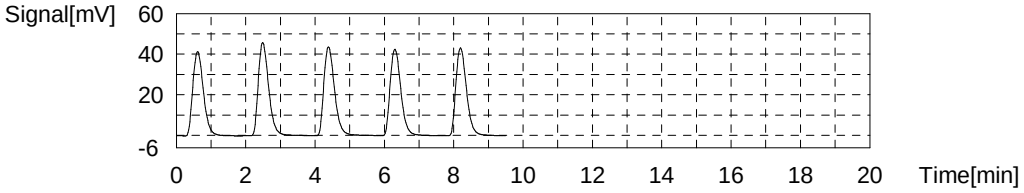
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.71mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.34	30.18mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:30:53 AM
2	95.82	32.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:32:57 AM
3	94.27	31.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:35:01 AM
4	92.82	31.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:37:05 AM
5	92.47	31.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:39:09 AM

Mean Area 93.84
Mean Conc. 31.71mg/L



Sample

Sample Name: 280-123981-g-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

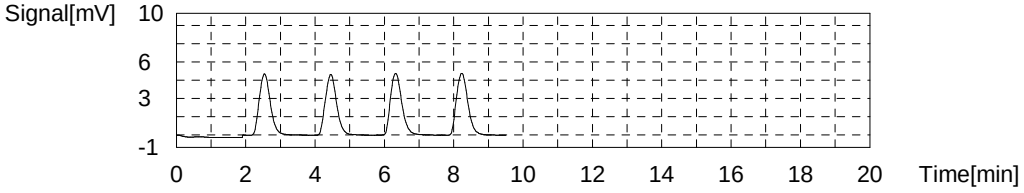
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.802mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:47:40 AM
2	11.25	3.729mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:49:44 AM
3	11.33	3.756mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:51:48 AM
4	11.58	3.841mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:53:52 AM
5	11.70	3.882mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 3:55:56 AM

Mean Area 11.47
Mean Conc. 3.802mg/L



Sample

Sample Name: 280-123983-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

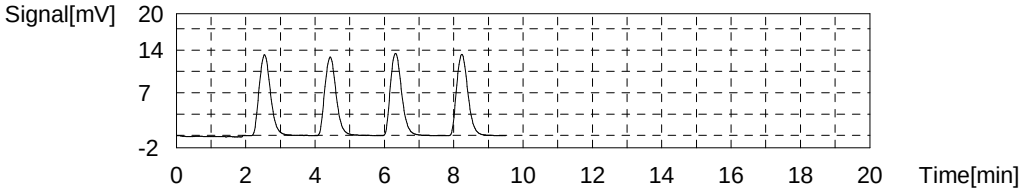
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:04:27 AM
2	30.33	10.19mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:06:31 AM
3	29.55	9.929mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:08:35 AM
4	30.90	10.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:10:39 AM
5	30.46	10.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:12:43 AM

Mean Area 30.31
Mean Conc. 10.19mg/L



Sample

Sample Name: 280-123983-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

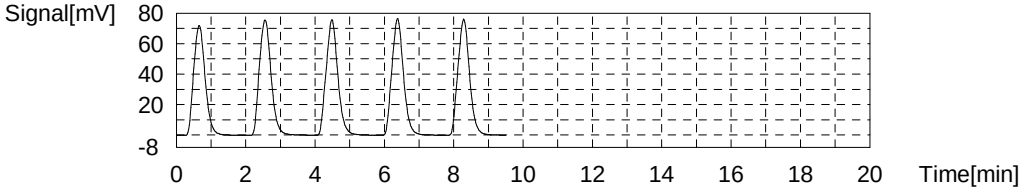
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:60.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	166.8	56.43mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:21:14 AM
2	179.0	60.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:23:18 AM
3	179.6	60.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:25:22 AM
4	179.2	60.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:27:26 AM
5	178.7	60.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:29:30 AM

Mean Area 179.1
Mean Conc. 60.60mg/L



Sample

Sample Name: 280-123983-D-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

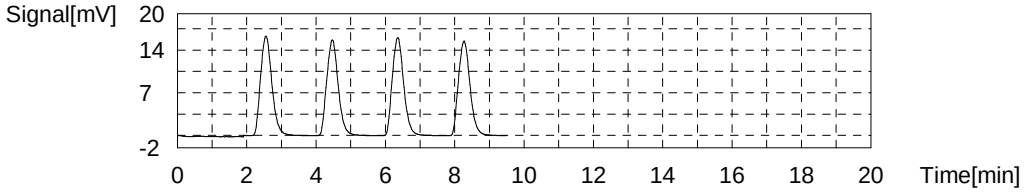
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:38:01 AM
2	37.49	12.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:40:05 AM
3	36.45	12.27mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:42:09 AM
4	37.18	12.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:44:13 AM
5	36.28	12.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:46:17 AM

Mean Area 36.85
Mean Conc. 12.40mg/L



Sample

Sample Name: 280-124044-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

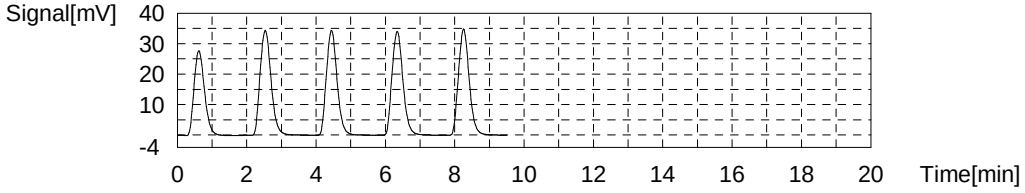
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.58	19.76mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:54:48 AM
2	76.23	25.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:56:52 AM
3	74.43	25.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 4:58:56 AM
4	75.62	25.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:01:00 AM
5	75.69	25.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:03:04 AM

Mean Area 75.49
Mean Conc. 25.49mg/L



Sample

Sample Name: 280-124044-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

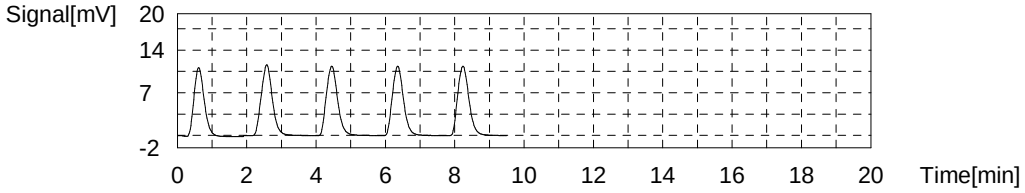
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:8.645mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.13	7.754mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:11:35 AM
2	25.89	8.689mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:13:39 AM
3	25.85	8.676mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:15:43 AM
4	25.51	8.560mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:17:47 AM
5	25.79	8.655mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:19:51 AM

Mean Area 25.76
Mean Conc. 8.645mg/L



Sample

Sample Name: 280-124044-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

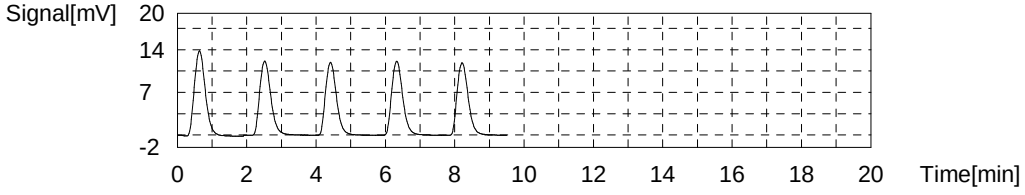
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.034mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.85	10.37mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:28:22 AM
2	27.39	9.197mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:30:26 AM
3	26.41	8.865mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:32:30 AM
4	27.28	9.160mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:34:34 AM
5	26.55	8.913mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:36:38 AM

Mean Area 26.91
Mean Conc. 9.034mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

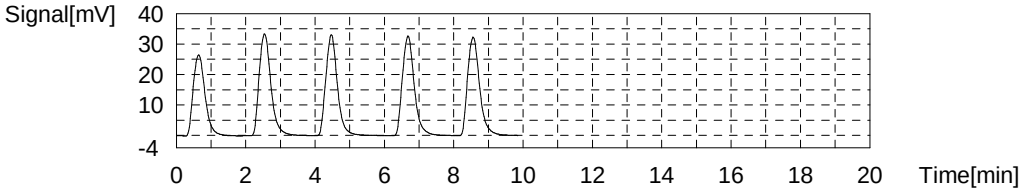
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.52mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.37	21.39mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:45:09 AM
2	79.33	26.79mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:47:13 AM
3	77.49	26.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:49:36 AM
4	78.45	26.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:51:40 AM
5	78.85	26.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 5:53:46 AM

Mean Area 78.53
Mean Conc. 26.52mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

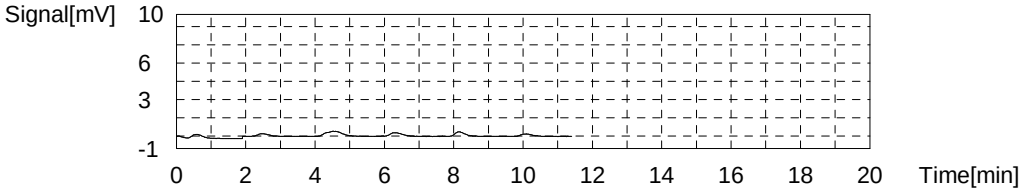
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09516mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5812	0.1150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:02:17 AM
2	0.4104	0.05713mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:04:21 AM
3	1.314	0.3633mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:06:25 AM
4	0.6789	0.1481mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:08:29 AM
5	0.7154	0.1605mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:10:33 AM
6	0.4201	0.06042mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:12:37 AM

Mean Area 0.5227
Mean Conc. 0.09516mg/L



Sample

Sample Name: 280-124044-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

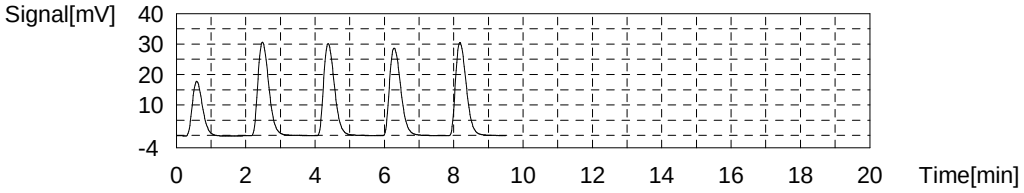
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.95	12.44mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:21:03 AM
2	67.28	22.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:23:07 AM
3	65.96	22.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:25:11 AM
4	65.77	22.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:27:15 AM
5	66.46	22.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:29:19 AM

Mean Area 66.37
Mean Conc. 22.40mg/L



Sample

Sample Name: 280-124044-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

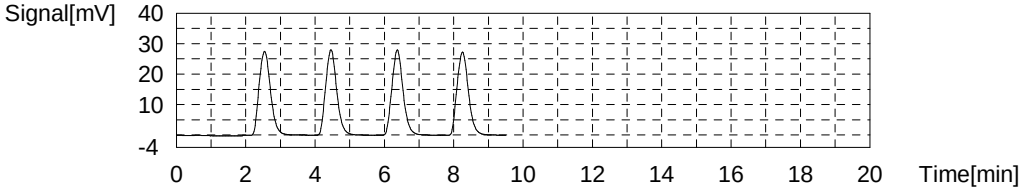
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.27mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2641	0.00757mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:37:50 AM
2	63.35	21.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:39:54 AM
3	62.91	21.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:41:58 AM
4	63.06	21.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:44:02 AM
5	62.82	21.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:46:06 AM

Mean Area 63.03
Mean Conc. 21.27mg/L



Sample

Sample Name: MS 280-124044-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

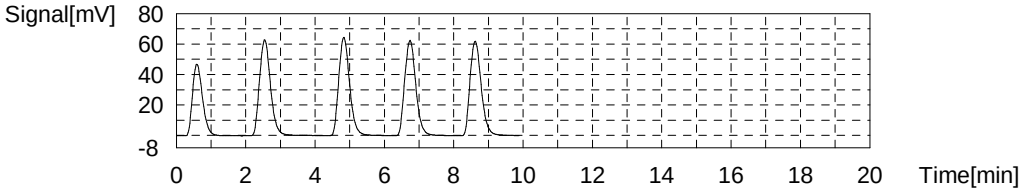
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:47.57mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	95.58	32.30mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:54:38 AM
2	139.9	47.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:57:05 AM
3	141.6	47.89mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 6:59:09 AM
4	140.7	47.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:01:13 AM
5	140.4	47.48mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:03:17 AM

Mean Area 140.7
Mean Conc. 47.57mg/L



Sample

Sample Name: MSD 280-124044-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

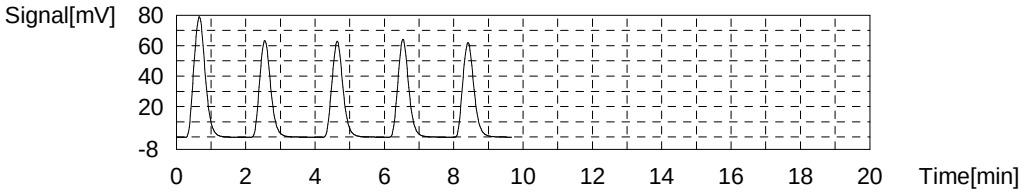
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:47.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.7	61.81mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:11:49 AM
2	142.1	48.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:14:03 AM
3	140.5	47.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:16:07 AM
4	140.1	47.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:18:11 AM
5	140.3	47.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:20:15 AM

Mean Area 140.8
Mean Conc. 47.60mg/L



Sample

Sample Name: 280-124044-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

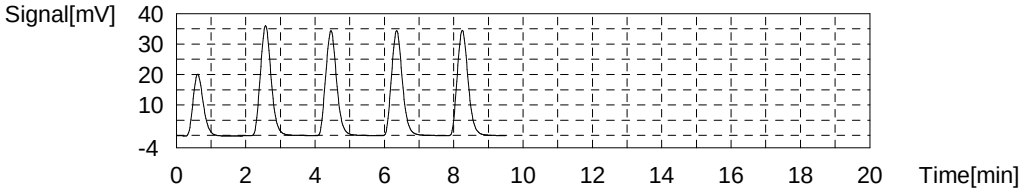
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.84mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.69	14.04mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:28:47 AM
2	78.37	26.47mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:30:51 AM
3	75.94	25.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:32:55 AM
4	75.74	25.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:34:59 AM
5	75.98	25.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:37:03 AM

Mean Area 76.51
Mean Conc. 25.84mg/L



Sample

Sample Name: 280-124053-a-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

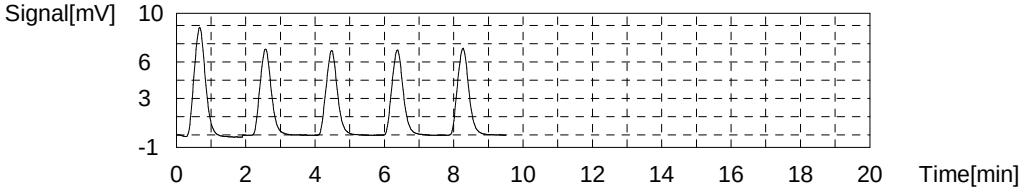
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.343mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.31	6.799mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:45:35 AM
2	16.00	5.339mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:47:39 AM
3	15.78	5.264mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:49:43 AM
4	16.02	5.345mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:51:47 AM
5	16.25	5.423mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 7:53:51 AM

Mean Area 16.01
Mean Conc. 5.343mg/L



Sample

Sample Name: 280-124053-a-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

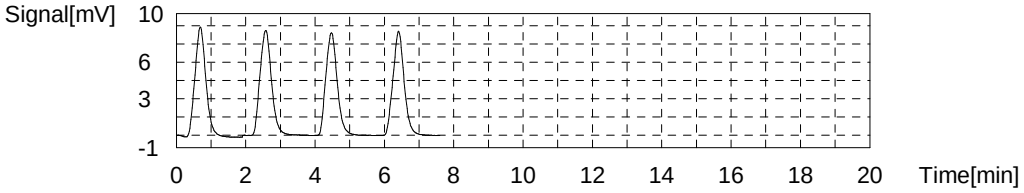
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.578mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.96	6.680mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:02:23 AM
2	19.95	6.677mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:04:27 AM
3	19.39	6.487mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:06:31 AM
4	19.34	6.470mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:08:35 AM

Mean Area 19.66
Mean Conc. 6.578mg/L



Sample

Sample Name: 280-124106-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

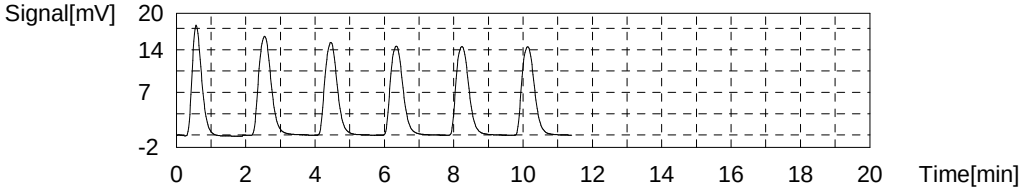
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.58mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.93	11.75mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:17:08 AM
2	40.82	13.75mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:19:12 AM
3	37.97	12.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:21:16 AM
4	37.15	12.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:23:20 AM
5	37.39	12.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:25:24 AM
6	36.94	12.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:27:28 AM

Mean Area 37.36
Mean Conc. 12.58mg/L



Sample

Sample Name: 280-124106-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

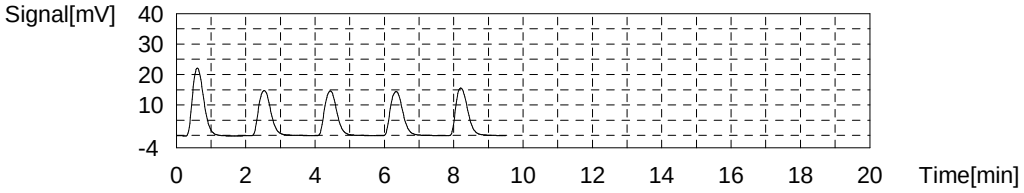
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.42	17.00mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:35:54 AM
2	36.60	12.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:37:58 AM
3	36.02	12.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:40:02 AM
4	36.61	12.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:42:06 AM
5	37.52	12.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:44:10 AM

Mean Area 36.69
Mean Conc. 12.35mg/L



Sample

Sample Name: 280-124106-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

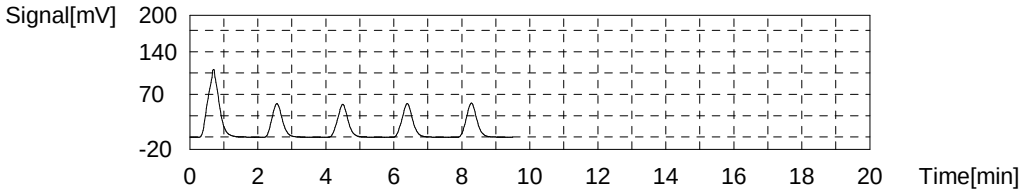
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:87.71mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	251.3	85.05mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:52:42 AM
2	118.5	87.19mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:54:46 AM
3	116.4	85.64mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:56:50 AM
4	120.7	88.81mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 8:58:54 AM
5	121.2	89.18mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:00:57 AM

Mean Area 119.2
Mean Conc. 87.71mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

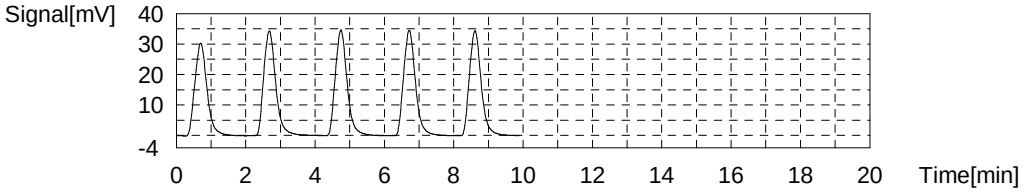
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.80	25.26mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:09:37 AM
2	82.75	27.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:11:50 AM
3	82.75	27.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:13:58 AM
4	82.66	27.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:16:02 AM
5	81.88	27.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:18:09 AM

Mean Area 82.51
Mean Conc. 27.87mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

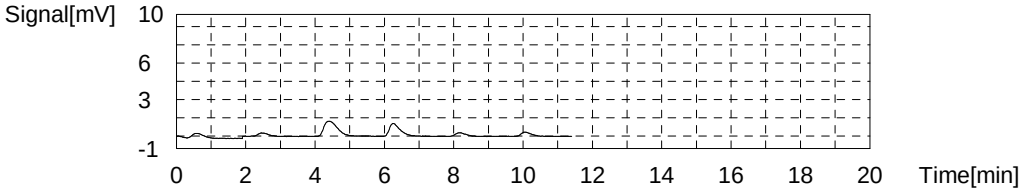
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1395mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8110	0.1928mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:26:41 AM
2	0.5207	0.09450mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:28:45 AM
3	3.368	1.059mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:30:49 AM
4	2.312	0.7014mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:32:53 AM
5	0.6078	0.1240mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:34:57 AM
6	0.6750	0.1468mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:37:01 AM

Mean Area 0.6536
Mean Conc. 0.1395mg/L



Sample

Sample Name: 280-124106-e-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

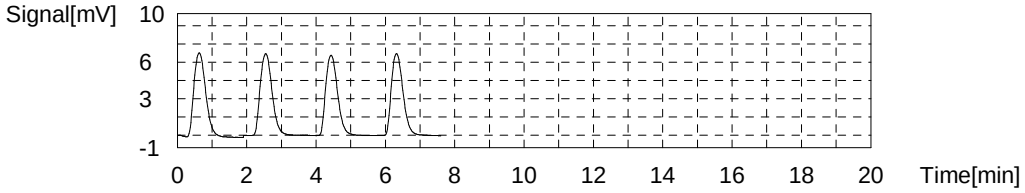
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.331mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.37	5.464mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:45:27 AM
2	16.04	5.352mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:47:31 AM
3	15.74	5.250mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:49:35 AM
4	15.76	5.257mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 9:51:39 AM

Mean Area 15.98
Mean Conc. 5.331mg/L



Sample

Sample Name: 280-124139-a-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

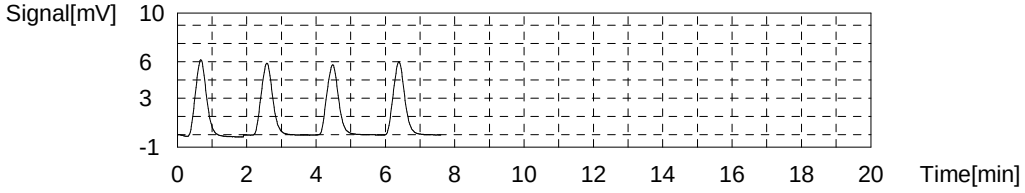
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.575mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.01	4.664mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:00:12 AM
2	13.61	4.529mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:02:16 AM
3	13.53	4.502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:04:20 AM
4	13.83	4.603mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:06:24 AM

Mean Area 13.75
Mean Conc. 4.575mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

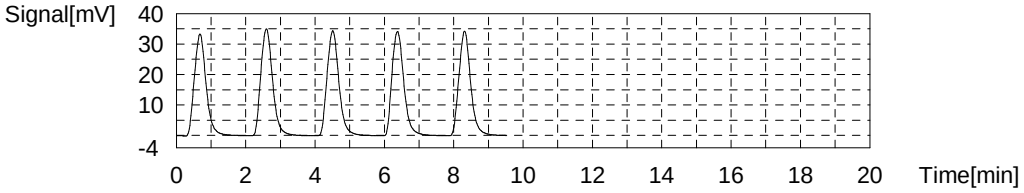
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.79mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.80	26.61mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:14:58 AM
2	83.56	28.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:17:02 AM
3	82.52	27.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:19:06 AM
4	82.04	27.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:21:10 AM
5	81.02	27.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:23:14 AM

Mean Area 82.28
Mean Conc. 27.79mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

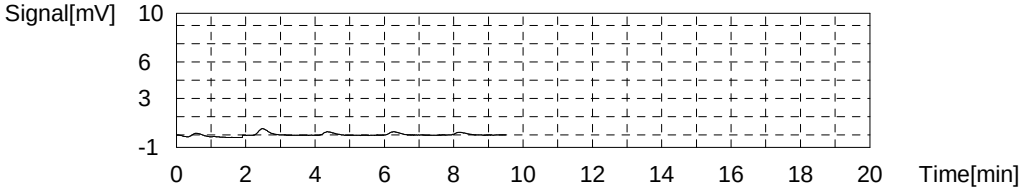
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09758mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5208	0.09453mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:31:46 AM
2	1.062	0.2779mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:33:50 AM
3	0.5917	0.1186mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:35:54 AM
4	0.5508	0.1047mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:37:58 AM
5	0.4559	0.07254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/13/2019 10:40:02 AM

Mean Area 0.5298
Mean Conc. 0.09758mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

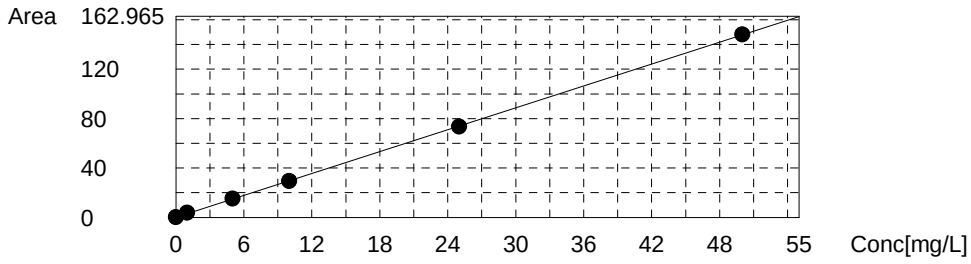
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

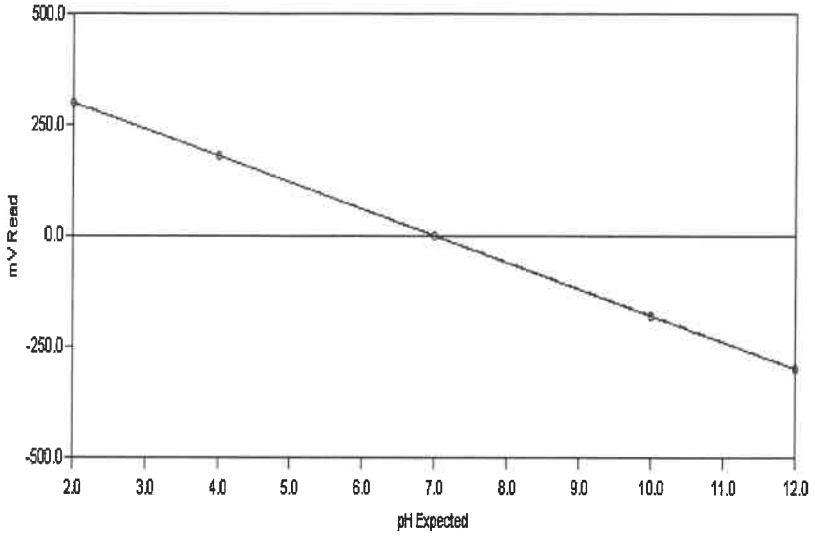
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



MANTECH INC.
Calibration Report

Calibration Record # 461



Calibration Settings

Calibration ID	PH	Date	5/24/2019
Channel	1	Time	5:27 PM
Probe Type	pH	Temperature	295.78 K 22.63 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.670	CorrCoeff	1.0000
Intercept	0.124	Equation: Y = (-59.670) X + (0.124)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.670	-65.00	-54.00
Intercept	0.124	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	297.85
	4.00	179.93
	7.00	0.61
	10.00	-180.17
	12.00	-297.60

Report Date: 5/25/2019 : 9:14 AM

Test America
Water Analysis Report

Analyst: SGB

Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
rinse	5/24/2019	5:32 PM	22.20	-1.00	9.22	-1.00	-1.00	-1.00	2.72	8.38	2.94	5.45	.00	.03	.11	.14	.02
check	5/24/2019	5:40 PM	22.08	-1.00	10.51	-1.00	-1.00	-1.00	92.81	198.94	13.33	185.61	.00	.93	1.99	-1.00	.02
b7	5/24/2019	5:42 PM	21.92	-1.00	7.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
lcs	5/24/2019	5:48 PM	21.76	-1.00	10.51	-1.00	-1.00	-1.00	93.68	195.97	8.62	187.35	.00	.94	1.96	-1.00	.02
mb	5/24/2019	6:12 PM	22.39	-1.00	7.30	-1.00	-1.00	-1.00	.00	2.43	2.43	.00	.00	.00	.05	.07	.02
280-123986-A-11	5/24/2019	6:18 PM	21.73	-1.00	7.41	-1.00	-1.00	-1.00	.00	187.14	187.14	.00	.00	.00	1.87	-1.00	.02
280-123986-A-11	5/24/2019	6:23 PM	21.48	-1.00	7.43	-1.00	-1.00	-1.00	.00	189.84	189.84	.00	.00	.00	1.90	-1.00	.02
280-123986-A-12	5/24/2019	6:29 PM	21.45	-1.00	7.52	-1.00	-1.00	-1.00	.00	192.48	192.48	.00	.00	.00	1.92	-1.00	.02
280-123986-A-1	5/24/2019	6:34 PM	21.51	-1.00	7.69	-1.00	-1.00	-1.00	.00	122.93	122.93	.00	.00	.00	1.23	-1.00	.02
280-123986-A-6	5/24/2019	6:39 PM	21.67	-1.00	7.80	-1.00	-1.00	-1.00	.00	149.83	149.83	.00	.00	.00	1.50	-1.00	.02
280-123986-A-7	5/24/2019	6:45 PM	21.61	-1.00	7.94	-1.00	-1.00	-1.00	.00	124.83	124.83	.00	.00	.00	1.25	-1.00	.02
280-123986-A-8	5/24/2019	6:52 PM	21.38	-1.00	7.60	-1.00	-1.00	-1.00	.00	532.96	532.96	.00	.00	.00	5.33	-1.00	.02
280-123842-A-1	5/24/2019	7:01 PM	21.44	-1.00	7.21	-1.00	-1.00	-1.00	.00	646.84	646.84	.00	.00	.00	6.47	-1.00	.02
280-123815-G-1	5/24/2019	7:07 PM	21.48	-1.00	8.11	-1.00	-1.00	-1.00	.00	180.90	180.90	.00	.00	.00	1.81	-1.00	.02
280-123291-B-1	5/24/2019	7:16 PM	21.31	-1.00	7.32	-1.00	-1.00	-1.00	.00	796.65	796.65	.00	.00	.00	7.97	-1.00	.02
ccv	5/24/2019	7:22 PM	21.31	-1.00	10.46	-1.00	-1.00	-1.00	95.91	199.19	7.37	191.82	.00	.96	1.99	-1.00	.02
ccb	5/24/2019	7:27 PM	21.35	-1.00	6.56	-1.00	-1.00	-1.00	.00	1.15	1.15	.00	.00	.00	.03	.05	.02
280-123843-A-2	5/24/2019	7:35 PM	21.31	-1.00	7.47	-1.00	-1.00	-1.00	.00	567.21	567.21	.00	.00	.00	5.67	-1.00	.02
280-123855-H-5	5/24/2019	7:40 PM	21.53	-1.00	7.98	-1.00	-1.00	-1.00	.00	218.11	218.11	.00	.00	.00	2.18	-1.00	.02
280-123855-J-4	5/24/2019	7:46 PM	21.69	-1.00	7.98	-1.00	-1.00	-1.00	.00	219.58	219.58	.00	.00	.00	2.20	-1.00	.02
280-123855-J-6	5/24/2019	7:52 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	216.63	216.63	.00	.00	.00	2.17	-1.00	.02
280-123855-I-1	5/24/2019	7:59 PM	21.56	-1.00	7.26	-1.00	-1.00	-1.00	.00	235.07	235.07	.00	.00	.00	2.35	-1.00	.02
280-123855-J-2	5/24/2019	8:04 PM	21.28	-1.00	10.56	-1.00	-1.00	-1.00	80.82	111.02	.00	60.41	50.61	.81	1.11	-1.00	.02
280-123855-J-3	5/24/2019	8:10 PM	21.31	-1.00	7.80	-1.00	-1.00	-1.00	.00	367.77	367.77	.00	.00	.00	3.68	-1.00	.02
280-123868-B-2	5/24/2019	8:16 PM	21.37	-1.00	7.96	-1.00	-1.00	-1.00	.00	138.62	138.62	.00	.00	.00	1.39	-1.00	.02
280-123868-B-1	5/24/2019	8:22 PM	21.32	-1.00	7.96	-1.00	-1.00	-1.00	.00	141.52	141.52	.00	.00	.00	1.42	-1.00	.02
280-123868-B-3	5/24/2019	8:25 PM	21.37	-1.00	4.09	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02

PC-TitratION PLUS by Man-Tech Associates, Inc.
GENERAL RESULTS REPORT.SRW
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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
ccv	5/24/2019	8:31 PM	21.31	-1.00	10.41	-1.00	-1.00	-1.00	91.66	196.42	13.11	183.32	.00	.92	1.96	-1.00	.02
ccb	5/24/2019	8:36 PM	21.64	-1.00	7.13	-1.00	-1.00	-1.00	.00	1.71	1.71	.00	.00	.00	.04	.05	.02
lcs	5/24/2019	8:42 PM	21.73	-1.00	10.42	-1.00	-1.00	-1.00	94.43	198.96	10.10	188.87	.00	.94	1.99	-1.00	.02
mb	5/24/2019	8:47 PM	21.87	-1.00	7.25	-1.00	-1.00	-1.00	.00	1.70	1.70	.00	.00	.00	.04	.05	.02
280-123882-B-1	5/24/2019	8:52 PM	21.63	-1.00	7.92	-1.00	-1.00	-1.00	.00	168.53	168.53	.00	.00	.00	1.69	-1.00	.02
du	5/24/2019	8:58 PM	21.50	-1.00	7.96	-1.00	-1.00	-1.00	.00	168.56	168.56	.00	.00	.00	1.69	-1.00	.02
280-123919-C-2	5/24/2019	9:03 PM	21.44	-1.00	6.66	-1.00	-1.00	-1.00	.00	1.60	1.60	.00	.00	.00	.03	.05	.02
280-123919-C-6	5/24/2019	9:08 PM	21.40	-1.00	7.65	-1.00	-1.00	-1.00	.00	185.45	185.45	.00	.00	.00	1.85	-1.00	.02
280-123919-C-5	5/24/2019	9:17 PM	21.38	-1.00	7.35	-1.00	-1.00	-1.00	.00	546.93	546.93	.00	.00	.00	5.47	-1.00	.02
280-123919-C-4	5/24/2019	9:22 PM	21.54	-1.00	7.63	-1.00	-1.00	-1.00	.00	185.98	185.98	.00	.00	.00	1.86	-1.00	.02
280-123922-J-1	5/24/2019	9:29 PM	21.51	-1.00	7.31	-1.00	-1.00	-1.00	.00	423.12	423.12	.00	.00	.00	4.23	-1.00	.02
280-123922-I-3	5/24/2019	9:36 PM	21.64	-1.00	7.35	-1.00	-1.00	-1.00	.00	377.60	377.60	.00	.00	.00	3.78	-1.00	.02
280-123922-H-2	5/24/2019	9:43 PM	21.86	-1.00	7.38	-1.00	-1.00	-1.00	.00	420.73	420.73	.00	.00	.00	4.21	-1.00	.02
280-123924-A-5	5/24/2019	9:48 PM	22.11	-1.00	8.11	-1.00	-1.00	-1.00	.00	163.70	163.70	.00	.00	.00	1.64	-1.00	.02
ccv	5/24/2019	9:55 PM	21.90	-1.00	10.39	-1.00	-1.00	-1.00	91.87	199.99	16.25	183.74	.00	.92	2.00	-1.00	.02
ccb	5/24/2019	9:59 PM	21.80	-1.00	6.37	-1.00	-1.00	-1.00	.00	.84	.84	.00	.00	.00	.03	.05	.02
280-123924-B-6	5/24/2019	10:06 PM	21.58	-1.00	7.89	-1.00	-1.00	-1.00	.00	410.82	410.82	.00	.00	.00	4.11	-1.00	.02
280-123924-B-7	5/24/2019	10:13 PM	21.66	-1.00	8.11	-1.00	-1.00	-1.00	.00	217.84	217.84	.00	.00	.00	2.18	-1.00	.02
280-123924-B-8	5/24/2019	10:18 PM	21.57	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.48	212.48	.00	.00	.00	2.12	-1.00	.02
280-123924-B-9	5/24/2019	10:24 PM	21.53	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.16	212.16	.00	.00	.00	2.12	-1.00	.02
280-123924-A-10	5/24/2019	10:30 PM	21.51	-1.00	7.30	-1.00	-1.00	-1.00	.00	86.68	86.68	.00	.00	.00	.87	-1.00	.02
280-123924-A-11	5/24/2019	10:35 PM	21.51	-1.00	7.77	-1.00	-1.00	-1.00	.00	89.64	89.64	.00	.00	.00	.90	-1.00	.02
280-123924-B-12	5/24/2019	10:41 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	209.92	209.92	.00	.00	.00	2.10	-1.00	.02
280-123930-I-1	5/24/2019	10:47 PM	21.89	-1.00	7.26	-1.00	-1.00	-1.00	.00	248.54	248.54	.00	.00	.00	2.49	-1.00	.02
280-123930-H-2	5/24/2019	10:54 PM	22.16	-1.00	7.38	-1.00	-1.00	-1.00	.00	492.40	492.40	.00	.00	.00	4.92	-1.00	.02
280-123930-I-3	5/24/2019	11:01 PM	22.07	-1.00	7.35	-1.00	-1.00	-1.00	.00	491.92	491.92	.00	.00	.00	4.92	-1.00	.02
ccv	5/24/2019	11:07 PM	21.95	-1.00	10.41	-1.00	-1.00	-1.00	86.66	197.59	24.28	173.31	.00	.87	1.98	-1.00	.02
ccb	5/24/2019	11:12 PM	21.85	-1.00	6.31	-1.00	-1.00	-1.00	.00	.99	.99	.00	.00	.00	.03	.05	.02
lcs	5/24/2019	11:18 PM	21.64	-1.00	10.38	-1.00	-1.00	-1.00	90.31	202.44	21.82	180.62	.00	.90	2.02	-1.00	.02
mb	5/24/2019	11:23 PM	21.70	-1.00	6.27	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.05	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123930-H-4	5/24/2019	11:30 PM	21.63	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.17	484.17	.00	.00	.00	4.84	-1.00	.02
du	5/24/2019	11:38 PM	21.73	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.73	484.73	.00	.00	.00	4.85	-1.00	.02
280-123930-J-5	5/24/2019	11:43 PM	21.79	-1.00	7.69	-1.00	-1.00	-1.00	.00	155.17	155.17	.00	.00	.00	1.55	-1.00	.02
280-123941-I-2	5/24/2019	11:50 PM	21.79	-1.00	8.28	-1.00	-1.00	-1.00	.00	362.95	362.95	.00	.00	.00	3.63	-1.00	.02
280-123941-I-4	5/24/2019	11:57 PM	21.95	-1.00	8.58	-1.00	-1.00	-1.00	25.24	424.38	373.91	50.48	.00	.25	4.24	-1.00	.02
280-123941-I-5	5/25/2019	12:05 AM	22.39	-1.00	7.94	-1.00	-1.00	-1.00	.00	576.32	576.32	.00	.00	.00	5.76	-1.00	.02
280-123941-I-6	5/25/2019	12:13 AM	22.32	-1.00	7.90	-1.00	-1.00	-1.00	.00	551.79	551.79	.00	.00	.00	5.52	-1.00	.02
280-123941-I-7	5/25/2019	12:21 AM	22.11	-1.00	7.60	-1.00	-1.00	-1.00	.00	582.27	582.27	.00	.00	.00	5.82	-1.00	.02
280-123941-I-9	5/25/2019	12:27 AM	22.02	-1.00	8.10	-1.00	-1.00	-1.00	.00	171.96	171.96	.00	.00	.00	1.72	-1.00	.02
280-123941-I-10	5/25/2019	12:34 AM	21.86	-1.00	7.94	-1.00	-1.00	-1.00	.00	410.36	410.36	.00	.00	.00	4.10	-1.00	.02
ccv	5/25/2019	12:40 AM	21.71	-1.00	10.37	-1.00	-1.00	-1.00	89.84	200.21	20.54	179.67	.00	.90	2.00	-1.00	.02
ccb	5/25/2019	12:44 AM	21.71	-1.00	6.54	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-123941-I-11	5/25/2019	12:53 AM	21.69	-1.00	8.03	-1.00	-1.00	-1.00	.00	488.04	488.04	.00	.00	.00	4.88	-1.00	.02
280-123942-C-1	5/25/2019	12:58 AM	21.71	-1.00	7.75	-1.00	-1.00	-1.00	.00	146.69	146.69	.00	.00	.00	1.47	-1.00	.02
280-123947-A-2	5/25/2019	1:08 AM	21.69	-1.00	7.64	-1.00	-1.00	-1.00	.00	845.54	845.54	.00	.00	.00	8.46	-1.00	.02
280-123955-A-1	5/25/2019	1:15 AM	21.79	-1.00	7.81	-1.00	-1.00	-1.00	.00	432.94	432.94	.00	.00	.00	4.33	-1.00	.02
280-123969-A-2	5/25/2019	1:21 AM	21.73	-1.00	9.91	-1.00	-1.00	-1.00	59.22	157.92	39.48	118.44	.00	.59	1.58	-1.00	.02
280-123969-C-4	5/25/2019	1:32 AM	21.96	-1.00	7.68	-1.00	-1.00	-1.00	.00	931.00	931.00	.00	.00	.00	9.31	-1.00	.02
280-123969-A-3	5/25/2019	1:40 AM	21.87	-1.00	8.14	-1.00	-1.00	-1.00	.00	561.64	561.64	.00	.00	.00	5.62	-1.00	.02
280-123969-C-5	5/25/2019	1:47 AM	21.64	-1.00	7.80	-1.00	-1.00	-1.00	.00	521.66	521.66	.00	.00	.00	5.22	-1.00	.02
280-123981-J-8	5/25/2019	1:53 AM	21.51	-1.00	8.02	-1.00	-1.00	-1.00	.00	202.09	202.09	.00	.00	.00	2.02	-1.00	.02
280-123981-J-3	5/25/2019	1:59 AM	21.37	-1.00	7.99	-1.00	-1.00	-1.00	.00	217.95	217.95	.00	.00	.00	2.18	-1.00	.02
ccv	5/25/2019	2:04 AM	21.25	-1.00	10.34	-1.00	-1.00	-1.00	89.34	200.92	22.25	178.67	.00	.89	2.01	-1.00	.02
ccb	5/25/2019	2:09 AM	21.32	-1.00	6.39	-1.00	-1.00	-1.00	.00	1.24	1.24	.00	.00	.00	.03	.05	.02
lcs	5/25/2019	2:15 AM	21.25	-1.00	10.32	-1.00	-1.00	-1.00	87.49	199.56	24.58	174.98	.00	.87	2.00	-1.00	.02
mb	5/25/2019	2:19 AM	21.30	-1.00	6.43	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.04	.02
280-123981-H-4	5/25/2019	2:26 AM	21.31	-1.00	7.90	-1.00	-1.00	-1.00	.00	333.37	333.37	.00	.00	.00	3.33	-1.00	.02
du	5/25/2019	2:33 AM	21.41	-1.00	7.92	-1.00	-1.00	-1.00	.00	336.92	336.92	.00	.00	.00	3.37	-1.00	.02
280-123981-J-9	5/25/2019	2:39 AM	21.92	-1.00	8.14	-1.00	-1.00	-1.00	.00	211.07	211.07	.00	.00	.00	2.11	-1.00	.02
280-123981-I-6	5/25/2019	2:45 AM	21.82	-1.00	7.98	-1.00	-1.00	-1.00	.00	238.01	238.01	.00	.00	.00	2.38	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123981-I-2	5/25/2019	2:50 AM	21.71	-1.00	8.16	-1.00	-1.00	-1.00	.00	151.85	151.85	.00	.00	.00	1.52	-1.00	.02
280-123981-J-7	5/25/2019	2:57 AM	21.64	-1.00	7.88	-1.00	-1.00	-1.00	.00	318.00	318.00	.00	.00	.00	3.18	-1.00	.02
280-123981-I-1	5/25/2019	3:04 AM	21.57	-1.00	7.83	-1.00	-1.00	-1.00	.00	480.47	480.47	.00	.00	.00	4.80	-1.00	.02
280-123981-J-5	5/25/2019	3:10 AM	21.57	-1.00	8.18	-1.00	-1.00	-1.00	.00	168.22	168.22	.00	.00	.00	1.68	-1.00	.02
280-123983-H-1	5/25/2019	3:15 AM	21.56	-1.00	7.68	-1.00	-1.00	-1.00	.00	80.51	80.51	.00	.00	.00	.81	-1.00	.02
280-123983-I-2	5/25/2019	3:21 AM	21.51	-1.00	7.97	-1.00	-1.00	-1.00	.00	157.17	157.17	.00	.00	.00	1.57	-1.00	.02
ccv	5/25/2019	3:27 AM	21.50	-1.00	10.31	-1.00	-1.00	-1.00	88.23	200.79	24.34	176.45	.00	.88	2.01	-1.00	.02
ccb	5/25/2019	3:31 AM	21.63	-1.00	6.41	-1.00	-1.00	-1.00	.00	1.07	1.07	.00	.00	.00	.03	.05	.02
280-123983-H-3	5/25/2019	3:37 AM	21.66	-1.00	7.48	-1.00	-1.00	-1.00	.00	133.40	133.40	.00	.00	.00	1.33	-1.00	.02
280-124012-C-2	5/25/2019	3:43 AM	21.79	-1.00	8.21	-1.00	-1.00	-1.00	.00	154.14	154.14	.00	.00	.00	1.54	-1.00	.02
280-124006-B-1	5/25/2019	3:49 AM	22.10	-1.00	8.17	-1.00	-1.00	-1.00	.00	187.63	187.63	.00	.00	.00	1.88	-1.00	.02
280-124014-A-1	5/25/2019	3:55 AM	22.02	-1.00	8.04	-1.00	-1.00	-1.00	.00	260.05	260.05	.00	.00	.00	2.60	-1.00	.02
280-124014-A-2	5/25/2019	4:02 AM	21.93	-1.00	7.99	-1.00	-1.00	-1.00	.00	471.35	471.35	.00	.00	.00	4.71	-1.00	.02
280-124036-D-1	5/25/2019	4:16 AM	21.90	-1.00	7.31	-1.00	-1.00	-1.00	.00	1,354.27	1,354.27	.00	.00	.00	13.54	-1.00	.02
280-124036-C-2	5/25/2019	4:34 AM	21.98	-1.00	7.80	-1.00	-1.00	-1.00	.00	1,920.50	1,920.50	.00	.00	.00	19.20	-1.00	.02
280-124036-C-3	5/25/2019	4:56 AM	22.07	-1.00	8.01	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124036-D-4	5/25/2019	5:12 AM	22.14	-1.00	8.09	-1.00	-1.00	-1.00	.00	1,605.88	1,605.88	.00	.00	.00	16.06	-1.00	.02
280-124036-C-6	5/25/2019	5:23 AM	22.16	-1.00	7.92	-1.00	-1.00	-1.00	.00	1,030.71	1,030.71	.00	.00	.00	10.31	-1.00	.02
ccv	5/25/2019	5:28 AM	22.08	-1.00	10.23	-1.00	-1.00	-1.00	84.01	201.28	33.25	168.03	.00	.84	2.01	-1.00	.02
ccb	5/25/2019	5:33 AM	22.03	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.11	1.11	.00	.00	.00	.03	.04	.02
lcs	5/25/2019	5:40 AM	21.98	-1.00	10.24	-1.00	-1.00	-1.00	85.95	205.96	34.06	171.90	.00	.86	2.06	-1.00	.02
mb	5/25/2019	5:45 AM	22.49	-1.00	6.46	-1.00	-1.00	-1.00	.00	1.41	1.41	.00	.00	.00	.03	.05	.02
280-124036-D-7	5/25/2019	5:55 AM	22.39	-1.00	7.87	-1.00	-1.00	-1.00	.00	994.91	994.91	.00	.00	.00	9.95	-1.00	.02
du	5/25/2019	6:06 AM	22.40	-1.00	7.88	-1.00	-1.00	-1.00	.00	1,000.38	1,000.38	.00	.00	.00	10.00	-1.00	.02
280-124036-D-8	5/25/2019	6:18 AM	22.39	-1.00	7.83	-1.00	-1.00	-1.00	.00	1,001.71	1,001.71	.00	.00	.00	10.02	-1.00	.02
280-124036-C-9	5/25/2019	6:23 AM	22.40	-1.00	6.30	-1.00	-1.00	-1.00	.00	1.28	1.28	.00	.00	.00	.03	.05	.02
280-124036-C-10	5/25/2019	6:44 AM	22.23	-1.00	8.74	-1.00	-1.00	-1.00	121.48	.00	-242.97	242.97	.00	1.21	.00	.00	.02
280-124053-F-3	5/25/2019	6:51 AM	22.42	-1.00	7.96	-1.00	-1.00	-1.00	.00	397.73	397.73	.00	.00	.00	3.98	-1.00	.02
280-124053-E-2	5/25/2019	6:57 AM	22.31	-1.00	7.92	-1.00	-1.00	-1.00	.00	284.93	284.93	.00	.00	.00	2.85	-1.00	.02
280-124070-F-5	5/25/2019	7:04 AM	22.28	-1.00	7.90	-1.00	-1.00	-1.00	.00	301.09	301.09	.00	.00	.00	3.01	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-124070-F-6	5/25/2019	7:10 AM	22.26	-1.00	7.96	-1.00	-1.00	-1.00	.00	213.13	213.13	.00	.00	.00	2.13	-1.00	.02
280-124070-F-3	5/25/2019	7:16 AM	22.32	-1.00	8.01	-1.00	-1.00	-1.00	.00	336.89	336.89	.00	.00	.00	3.37	-1.00	.02
ccv	5/25/2019	7:23 AM	22.40	-1.00	10.23	-1.00	-1.00	-1.00	82.94	206.67	40.79	165.88	.00	.83	2.07	-1.00	.02
ccb	5/25/2019	7:27 AM	22.70	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.18	1.18	.00	.00	.00	.03	.05	.02
280-124070-F-4	5/25/2019	7:33 AM	22.55	-1.00	7.95	-1.00	-1.00	-1.00	.00	266.39	266.39	.00	.00	.00	2.66	-1.00	.02
280-124070-F-1	5/25/2019	7:40 AM	22.49	-1.00	7.91	-1.00	-1.00	-1.00	.00	355.63	355.63	.00	.00	.00	3.56	-1.00	.02
280-124070-F-2	5/25/2019	7:46 AM	22.46	-1.00	7.98	-1.00	-1.00	-1.00	.00	246.93	246.93	.00	.00	.00	2.47	-1.00	.02
280-124156-E-1	5/25/2019	7:57 AM	22.43	-1.00	8.62	-1.00	-1.00	-1.00	36.56	1,039.07	965.95	73.12	.00	.37	10.39	-1.00	.02
280-123939-A-3	5/25/2019	8:02 AM	22.52	-1.00	8.14	-1.00	-1.00	-1.00	.00	82.75	82.75	.00	.00	.00	.83	-1.00	.02
280-123939-A-3 du	5/25/2019	8:07 AM	22.39	-1.00	8.21	-1.00	-1.00	-1.00	.00	83.01	83.01	.00	.00	.00	.83	-1.00	.02
280-123939-A-4	5/25/2019	8:12 AM	22.42	-1.00	6.28	-1.00	-1.00	-1.00	.00	.92	.92	.00	.00	.00	.03	.04	.02
280-124055-A-1	5/25/2019	8:17 AM	22.42	-1.00	7.08	-1.00	-1.00	-1.00	.00	71.71	71.71	.00	.00	.00	.72	-1.00	.02
280-124055-A-2	5/25/2019	8:23 AM	22.46	-1.00	8.05	-1.00	-1.00	-1.00	.00	197.82	197.82	.00	.00	.00	1.98	-1.00	.02
280-124055-A-3	5/25/2019	8:26 AM	22.54	-1.00	4.07	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
ccv	5/25/2019	8:32 AM	22.89	-1.00	10.11	-1.00	-1.00	-1.00	78.99	202.48	44.50	157.98	.00	.79	2.02	-1.00	.02
ccb	5/25/2019	8:37 AM	22.96	-1.00	6.88	-1.00	-1.00	-1.00	.00	1.91	1.91	.00	.00	.00	.04	.06	.02
lcs	5/25/2019	8:43 AM	22.98	-1.00	10.13	-1.00	-1.00	-1.00	77.19	200.11	45.73	154.37	.00	.77	2.00	-1.00	.02
mb	5/25/2019	8:48 AM	22.92	-1.00	6.71	-1.00	-1.00	-1.00	.00	1.63	1.63	.00	.00	.00	.03	.05	.02
280-124055-A-4	5/25/2019	8:53 AM	22.83	-1.00	7.37	-1.00	-1.00	-1.00	.00	40.22	40.22	.00	.00	.00	.40	-1.00	.02
280-124055-A-5	5/25/2019	8:56 AM	22.81	-1.00	3.81	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124055-A-6	5/25/2019	9:01 AM	22.80	-1.00	7.22	-1.00	-1.00	-1.00	.00	37.84	37.84	.00	.00	.00	.38	-1.00	.02
ccv	5/25/2019	9:07 AM	22.78	-1.00	10.18	-1.00	-1.00	-1.00	79.97	201.90	41.96	159.94	.00	.80	2.02	-1.00	.02
ccb	5/25/2019	9:12 AM	22.77	-1.00	6.57	-1.00	-1.00	-1.00	.00	1.75	1.75	.00	.00	.00	.03	.05	.02

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2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

06/14/2019

Batch Number: 280-459268

Analyst: Cherry, Scott V

Batch Open: 5/23/2019 4:24:00PM

Batch End:

Conductivity Solids, Total Dissolved (TDS)

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
1	MB~280-459268/1 N/A	N/A			100	N/A	N/A	N/A		
2	LCS~280-459268/2 N/A	N/A			100	N/A	N/A	N/A		
3	280-123943-A-1 (2540C_Calcd)	N/A (280-123943-1)	Water	Hist	50	6/5/19	12_Day_Rush	4		
4	280-123943-A-1 (2540C_Calcd)	N/A (280-123943-1)	Water	2	50	6/5/19	12_Day_Rush	4		
5	280-123930-J-1 (2540C_Calcd)	N/A (280-123930-1)	Water	492	100	6/5/19	12_Days	4		
6	280-123930-I-2 (2540C_Calcd)	N/A (280-123930-1)	Water	842	100	6/5/19	12_Days	4		
7	280-123930-J-3 (2540C_Calcd)	N/A (280-123930-1)	Water	828	100	6/5/19	12_Days	4		
8	280-123983-A-1 (2540C_Calcd)	N/A (280-123983-1)	Water	155.5	100	6/5/19	12_Days	4		
9	280-123983-B-2 (2540C_Calcd)	N/A (280-123983-1)	Water	289.2	100	6/5/19	12_Days	4		
10	280-123983-B-3 (2540C_Calcd)	N/A (280-123983-1)	Water	295.7	100	6/5/19	12_Days	4		
11	280-124034-C-1 (2540C_Calcd)	N/A (280-124034-1)	Water	5570	25	5/30/19	8_Days	2		
12	280-123981-I-1 (2540C_Calcd)	N/A (280-123981-1)	Water	913	100	6/5/19	12_Days	4		
13	280-123981-H-2 (2540C_Calcd)	N/A (280-123981-1)	Water	311	100	6/5/19	12_Days	4		
14	280-123981-H-3 (2540C_Calcd)	N/A (280-123981-1)	Water	374	100	6/5/19	12_Days	4		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-459268

Analyst: Cherry, Scott V

Batch Open: 5/23/2019 4:24:00PM

Batch End:

15	280-123981-I-4 (2540C_Calcd)	N/A (280-123981-1)	Water	555	100	6/5/19	12_Days	4	
16	280-123981-H-5 (2540C_Calcd)	N/A (280-123981-1)	Water	277.9	100	6/5/19	12_Days	4	
17	280-123981-J-6 (2540C_Calcd)	N/A (280-123981-1)	Water	414	100	6/5/19	12_Days	4	
18	280-123981-B-7 (2540C_Calcd)	N/A (280-123981-1)	Water	607	100	6/5/19	12_Days	4	
19	280-123981-I-8 (2540C_Calcd)	N/A (280-123981-1)	Water	353	100	6/5/19	12_Days	4	
20	280-123981-I-9 (2540C_Calcd)	N/A (280-123981-1)	Water	376	100	6/5/19	12_Days	4	
21	280-123922-A-1 (2540C_Calcd)	N/A (280-123922-1)	Water	735	100	6/5/19	12_Days	4	
22	280-123922-A-2 (2540C_Calcd)	N/A (280-123922-1)	Water	763	100	6/5/19	12_Days	4	
23	280-123922-B-3 (2540C_Calcd)	N/A (280-123922-1)	Water	670	100	6/5/19	12_Days	4	
24	280-123922-B-3 (2540C_Calcd)	N/A (280-123922-1)	Water	11	100	6/5/19	12_Days	4	

06/14/2019

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COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.353	149.1	25.9736	15.58416

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.070	149.1	124.684	74.8104

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.410	149.1	6.092	3.6552

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
50	-348.8	0.414	149.1	4.6968	140.904

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.457	149.1	-10.3016	-6.18096

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.440	149.1	-4.372	-2.6232

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.446	149.1	-6.4648	-3.87888

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.461	149.1	-11.6968	-7.01808

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.442	149.1	-5.0696	-3.04176

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.456	149.1	-9.9528	-5.97168

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.464	149.1	-12.7432	-7.64592

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.316	149.1	38.8792	23.32752

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.424	149.1	1.2088	0.72528

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.351	149.1	26.6712	16.00272

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.389	149.1	13.4168	8.05008

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.262	149.1	57.7144	34.62864

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.142	149.1	99.5704	59.74224

Job Number: 280-123959-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	444444443	mg/L	0.644 J r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	000000003	mg/L	0.59 U r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	666666666	mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	0.59 U r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	30 U r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	30 U r

RS# 7 Lab ID: **280-123959-A-4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		4.0096 mg/L	r
Carbonaceous Bioch		mg/L	r

RS# 8 Lab ID: **280-123959-A-5** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		2.1664 mg/L	r
Carbonaceous Bioch		mg/L	r

Job Number: 280-123960-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		444444443 mg/L	0.644 J r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		000000003 mg/L	0.59 U r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		666666666 mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	0.59 U r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	30 U r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	30 U r

RS# 9 Lab ID: **280-123960-A-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

Job Number: 280-123966-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		144444443 mg/L	r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		000000003 mg/L	r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		666666666 mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	r

Job Number: 280-123981-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	144444443	mg/L	0.644 J r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	000000003	mg/L	0.59 U r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	666666666	mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	0.59 U r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	30 U r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	30 U r

RS# 13 Lab ID: **280-123981-A-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 14 Lab ID: **280-123981-A-2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 15 Lab ID: **280-123981-B-3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 16 Lab ID: **280-123981-A-4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 17 Lab ID: **280-123981-B-5** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 18 Lab ID: **280-123981-A-6** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 19 Lab ID: **280-123981-B-7** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 20 Lab ID: **280-123981-A-8** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		ND mg/L	0.59 U r
Carbonaceous Bioch		mg/L	r

RS# 21 Lab ID: **280-123981-B-9** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		1.5564 mg/L	1.9 J r
Carbonaceous Bioch		mg/L	r

Job Number: 280-123983-1
LIMS Batch: 458674
Equipment: NOEQUIP

RS# 1 Lab ID: **SCB 280-458674/1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	144444443	mg/L	0.644 J r

RS# 2 Lab ID: **USB 280-458674/2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	000000003	mg/L	0.59 U r

RS# 3 Lab ID: **LCS 280-458674/3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen	366666666	mg/L	r

RS# 4 Lab ID: **MB 280-458674/4** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		ND mg/L	0.59 U r

RS# 5 Lab ID: **280-123966-D-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<37.9 mg/L	30 U r

RS# 6 Lab ID: **280-123966-D-1 DU** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Carbonaceous Bioch		mg/L	r
Biochemical Oxygen		<24.15 mg/L	30 U r

RS# 10 Lab ID: **280-123983-B-1** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		2.3764 mg/L	r
Carbonaceous Bioch		mg/L	r

RS# 11 Lab ID: **280-123983-A-2** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		1.5864 mg/L	2.0 J r
Carbonaceous Bioch		mg/L	r

RS# 12 Lab ID: **280-123983-A-3** Inj Date: 5/18

Analyte	Rspnse	Raw Res/Units	Final Res/Qua
Biochemical Oxygen		5.0564 mg/L	r
Carbonaceous Bioch		mg/L	r

Shipping and Receiving Documents

Chain of Custody Record 317888

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

06/14/2019

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Marcia Oliva	Site Contact:	Date: 5/17/19	COC No:
Company Name: Bhate Environmental	Tel/Fax: 303-725-7631	Lab Contact:	Carrier:	___ of ___ COCs
Address: 445 Union Blvd. #129	Analysis Turnaround Time			Sampler: G. Carmichael, H. Cavanaugh
City/State/Zip: Lakewood, CO 80228	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 303-725-7631	TAT if different from Below			Walk-in Client:
Fax: EMAIL: moliva@bhate.com	☐ 2 weeks			Lab Sampling:
Project Name: GRIFFIS	☐ 1 week			
Site: LF003 Landfill 7	☐ 2 days			Job / SDG No.:
PO # 3342	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Alkalinity [2320B]	Color [2120B]	Anions [9056A - 28D - POMS]	Anions [9056A - 48H - POMS]	Hardness [2340C]	Total Metal - Boron [6010C - PODS]	Ammonia [350.1]	TKN [351.2]	COD [410.4]	TOC [9060A]	Phenolics [9066]	BOD [SM5210B - Borden]	TDS [2540C Calc]	Sample Specific Notes:
LF7MW-22-0519	5/17/19	12:25		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF7MW-23_0519		9:50			10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF7MW-25_0519		10:55			10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF7MW-26_0519-9		10:55			10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF7MW-27-0519		9:45			10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF7MW-28-0519		11:05			10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF7MW-30-0519		12:15			10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF7WL-3-0519		13:00		SW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF7WL-4-0519		10:15			16	N		X	X	X	X	X	X	X	X	X	X	X	X	X	

280-123981 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

5-5, 5.6 0.3, 5.8, 1.8, to 3fq, 4fq RDP 5-18-19

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
H. Cavanaugh	ECC	5/17/19 16:00		TA-DEN	5-18-19 0900
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Page 1031 of 1032

Login Sample Receipt Checklist

Client: Bhate Environmental

Job Number: 280-123981-1

Login Number: 123981
List Number: 1
Creator: Paul, Ryan D

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 280-123855-1

Job Description: Griffiss AFB, LF007 Landfill 5

For:
Bhate Environmental
445 Union Blvd Ste.129
Lakewood, CO 80226

Attention: Marcia Olive



Approved for release.
Kayse 1 Zalmai
Project Manager I
6/12/2019 11:54 AM

Kayse 1 Zalmai, Project Manager I
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
kayse.zalmai@testamericainc.com
06/12/2019

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Definitions/Glossary

Client: Bhate Environmental
Job ID: 280-123855-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Qualifiers

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE
Client: Bhate Environmental
Project: Griffiss AFB, LF007 Landfill 5
Report Number: 280-123855-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interfererences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/16/2019; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.4º C, 4.6º C and 4.8º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for total metals (ICP) in accordance with 6010C. The samples were prepared and analyzed on 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/29/2019.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 280-459818 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Sample LF5MW-100R_0519 (280-123855-2)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL KJELDAHL NITROGEN

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 06/04/2019 and analyzed on 06/05/2019.

Nitrogen, Kjeldahl failed the recovery criteria low for the MS and MSD of sample MW49D07_0519MS/MSD (280-123855-3) in batch 280-460603.

Sample LF5MW-100R_0519 (280-123855-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The samples were analyzed on 06/05/2019 and 06/06/2019.

Samples LF5MW-100R_0519 (280-123855-2)[5X], LF5SW-1_0519 (280-123855-4)[2X], LF5SW-2_0519 (280-123855-5)[2X] and LF5SW-3_0519 (280-123855-6)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AND ORTHOPHOSPHATE AS P

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for nitrate-nitrite and orthophosphate as P in accordance with 9056A_48H_DOD5. The samples were analyzed on 05/16/2019.

Orthophosphate as P failed the recovery criteria high for the MS/MSD of sample 280-123862-1 in batch 280-458413.

Nitrate and Nitrate Nitrite as N exceeded the RPD limit for the duplicate of sample 280-123862-1.Sample non-homogeneity is suspected.

Sample LF5MW-100R_0519 (280-123855-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFATE

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for sulfate in accordance with 9056A. The samples were analyzed on 05/16/2019 and 05/17/2019.

Fluoride was detected in method blank MB 280-458414/6 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

Samples LF5MW-1A_0519 (280-123855-1)[5X], LF5MW-100R_0519 (280-123855-2)[5X], LF5MW-100R_0519 (280-123855-2)[50X], LF5SW-1_0519 (280-123855-4)[5X], LF5SW-2_0519 (280-123855-5)[5X] and LF5SW-3_0519 (280-123855-6)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 06/07/2019 and 06/11/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PHENOLICS, TOTAL RECOVERABLE

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for phenolics, total recoverable in accordance with EPA SW-846 Method 9066. The samples were prepared and analyzed on 06/04/2019 and 06/06/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

COLOR

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for color in accordance with SM20 2120B - Colorimetric. The samples were analyzed on 05/16/2019.

Sample MW49D07_0519 (280-123855-3)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for alkalinity in accordance with SM20 2320B. The samples were analyzed on 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HARDNESS

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for hardness in accordance with SM20 2340C. The samples were analyzed on 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 05/22/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND

Samples LF5MW-1A_0519 (280-123855-1), LF5MW-100R_0519 (280-123855-2), MW49D07_0519 (280-123855-3), LF5SW-1_0519 (280-123855-4), LF5SW-2_0519 (280-123855-5) and LF5SW-3_0519 (280-123855-6) were analyzed for Biochemical Oxygen Demand in accordance with SM20 5210B. The samples were analyzed on 05/16/2019.

Biochemical Oxygen Demand was detected in method blank SCB 280-458482/1 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Bhate Environmental
Job ID: 280-123855-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Client Sample ID: LF5MW-1A_0519 — Lab Sample ID: 280-123855-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	6.6	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.059	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	170	D	15	5.1	mg/L	5		9056A	Total/NA
Orthophosphate as P	1.2		0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.059	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	9.3		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	2.8		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.010	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	5.0		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	240		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	170		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	550		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF5MW-100R_0519 — Lab Sample ID: 280-123855-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	160		100	4.4	ug/L	1		6010C	Total/NA
Ammonia	18		5.0	1.1	mg/L	50		350.1	Total/NA
Nitrogen, Kjeldahl	20		5.0	3.4	mg/L	5		351.2	Total/NA
Bromide	26	D	2.5	0.57	mg/L	5		9056A	Total/NA
Chloride	2200	D	150	51	mg/L	50		9056A	Total/NA
Sulfate	5.9	J D	25	5.2	mg/L	5		9056A	Total/NA
Total Organic Carbon - Quad	0.39	J	1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0071	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	5.0		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	110		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	560		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	4700		100	47	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW49D07_0519 — Lab Sample ID: 280-123855-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	30	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.033	J	0.10	0.022	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand (COD)	10	J	20	8.7	mg/L	1		410.4	Total/NA
Bromide	0.74		0.50	0.11	mg/L	1		9056A	Total/NA
Chloride	31		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.98		0.50	0.19	mg/L	1		9056A	Total/NA
Sulfate	9.1		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	3.1		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.015	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	50	D	10	10	PCU	2		SM 2120B	Total/NA
Alkalinity	370		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	380		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	500		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF5SW-1_0519 — Lab Sample ID: 280-123855-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	15	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.89		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	300	D	15	5.1	mg/L	5		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF5SW-1_0519 (Continued)
Lab Sample ID: 280-123855-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Orthophosphate as P	0.40	J	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.89		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	25		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	1.2		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0068	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	5.0		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	220		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	280		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	790		20	9.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF5SW-2_0519
Lab Sample ID: 280-123855-5

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	16	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.84		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	310	D	15	5.1	mg/L	5		9056A	Total/NA
Orthophosphate as P	0.39	J	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.84		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	27		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	2.9		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0092	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	25		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	220		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	270		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	810		20	9.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF5SW-3_0519
Lab Sample ID: 280-123855-6

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	15	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.86		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	310	D	15	5.1	mg/L	5		9056A	Total/NA
Orthophosphate as P	0.39	J	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.86		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	25		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	2.0		1.0	0.16	mg/L	1		9060A	Total/NA
Color	20		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	220		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	280		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	800		20	9.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF5MW-1A_0519
Lab Sample ID: 280-123855-1
Date Collected: 05/15/19 09:50
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.6**	**J**	100	4.4	ug/L		05/24/19 06:00	05/24/19 22:30	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 12:08	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:09	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/06/19 09:12	1
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 17:09	1
Nitrate Nitrite as N	**0.059**	**J**	0.50	0.042	mg/L			05/16/19 17:09	1
Chloride	**170**	**D**	15	5.1	mg/L			05/17/19 02:27	5
Orthophosphate as P	**1.2**		0.50	0.19	mg/L			05/16/19 17:09	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/16/19 17:09	1
Nitrate	**0.059**	**J**	0.50	0.042	mg/L			05/16/19 17:09	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 17:09	1
Sulfate	**9.3**		5.0	1.0	mg/L			05/16/19 17:09	1
Total Organic Carbon - Quad	**2.8**		1.0	0.16	mg/L			06/07/19 20:10	1
Phenols, Total	**0.010**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 19:29	1
Color	**5.0**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**240**		10	3.1	mg/L			05/24/19 19:59	1
Hardness	**170**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**550**		10	4.7	mg/L			05/22/19 12:01	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: LF5MW-100R_0519
Lab Sample ID: 280-123855-2
Date Collected: 05/15/19 10:15
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**160**		100	4.4	ug/L		05/24/19 06:00	05/24/19 23:02	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**18**		5.0	1.1	mg/L			05/29/19 14:20	50
Nitrogen, Kjeldahl	**20**		5.0	3.4	mg/L		06/04/19 19:37	06/05/19 19:04	5
Chemical Oxygen Demand (COD)	100	U	100	43	mg/L			06/06/19 09:12	5
Bromide	**26**	**D**	2.5	0.57	mg/L			05/16/19 17:25	5
Nitrate Nitrite as N	0.50	U	2.5	0.21	mg/L			05/16/19 17:25	5
Chloride	**2200**	**D**	150	51	mg/L			05/16/19 17:42	50
Orthophosphate as P	1.0	U	2.5	0.94	mg/L			05/16/19 17:25	5
Fluoride	0.50	U	5.0	0.30	mg/L			05/16/19 17:25	5
Nitrate	0.50	U	2.5	0.21	mg/L			05/16/19 17:25	5
Nitrite	0.50	U	2.5	0.25	mg/L			05/16/19 17:25	5
Sulfate	**5.9**	**J D**	25	5.2	mg/L			05/16/19 17:25	5
Total Organic Carbon - Quad	**0.39**	**J**	1.0	0.16	mg/L			06/07/19 20:28	1
Phenols, Total	**0.0071**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 19:56	1
Color	**5.0**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**110**		10	3.1	mg/L			05/24/19 20:04	1
Hardness	**560**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**4700**		100	47	mg/L			05/22/19 12:01	1

Client Sample ID: LF5MW-100R_0519
Lab Sample ID: 280-123855-2
Date Collected: 05/15/19 10:15
Matrix: Water
Date Received: 05/16/19 08:55

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: MW49D07_0519
Lab Sample ID: 280-123855-3
Date Collected: 05/15/19 11:35
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**30**	**J**	100	4.4	ug/L		05/24/19 06:00	05/24/19 23:06	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.033**	**J**	0.10	0.022	mg/L			05/29/19 12:12	1
Nitrogen, Kjeldahl	0.50	U J1	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:14	1
Chemical Oxygen Demand (COD)	**10**	**J**	20	8.7	mg/L			06/06/19 09:12	1
Bromide	**0.74**		0.50	0.11	mg/L			05/16/19 17:58	1
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/16/19 17:58	1
Chloride	**31**		3.0	1.0	mg/L			05/16/19 17:58	1
Orthophosphate as P	**0.98**		0.50	0.19	mg/L			05/16/19 17:58	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/16/19 17:58	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/16/19 17:58	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 17:58	1
Sulfate	**9.1**		5.0	1.0	mg/L			05/16/19 17:58	1
Total Organic Carbon - Quad	**3.1**		1.0	0.16	mg/L			06/11/19 04:34	1
Phenols, Total	**0.015**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 19:59	1
Color	**50**	**D**	10	10	PCU			05/16/19 18:11	2
Alkalinity	**370**		10	3.1	mg/L			05/24/19 20:10	1
Hardness	**380**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**500**		10	4.7	mg/L			05/22/19 12:01	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: LF5SW-1_0519
Lab Sample ID: 280-123855-4
Date Collected: 05/15/19 11:30
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**15**	**J**	100	4.4	ug/L		05/24/19 06:00	05/24/19 23:09	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 12:14	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:19	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/06/19 09:12	2
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 18:15	1
Nitrate Nitrite as N	**0.89**		0.50	0.042	mg/L			05/16/19 18:15	1
Chloride	**300**	**D**	15	5.1	mg/L			05/17/19 02:43	5
Orthophosphate as P	**0.40**	**J**	0.50	0.19	mg/L			05/16/19 18:15	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/16/19 18:15	1
Nitrate	**0.89**		0.50	0.042	mg/L			05/16/19 18:15	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 18:15	1

Client Sample ID: LF5SW-1_0519
Lab Sample ID: 280-123855-4
Date Collected: 05/15/19 11:30
Matrix: Water
Date Received: 05/16/19 08:55

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**25**		5.0	1.0	mg/L			05/16/19 18:15	1
Total Organic Carbon - Quad	**1.2**		1.0	0.16	mg/L			06/11/19 05:19	1
Phenols, Total	**0.0068**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 20:02	1
Color	**5.0**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**220**		10	3.1	mg/L			05/24/19 19:46	1
Hardness	**280**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**790**		20	9.4	mg/L			05/22/19 12:01	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: LF5SW-2_0519
Lab Sample ID: 280-123855-5
Date Collected: 05/15/19 11:45
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**16**	**J**	100	4.4	ug/L		05/24/19 06:00	05/24/19 23:13	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 12:28	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:20	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/05/19 10:06	2
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 19:04	1
Nitrate Nitrite as N	**0.84**		0.50	0.042	mg/L			05/16/19 19:04	1
Chloride	**310**	**D**	15	5.1	mg/L			05/17/19 03:00	5
Orthophosphate as P	**0.39**	**J**	0.50	0.19	mg/L			05/16/19 19:04	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/16/19 19:04	1
Nitrate	**0.84**		0.50	0.042	mg/L			05/16/19 19:04	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 19:04	1
Sulfate	**27**		5.0	1.0	mg/L			05/16/19 19:04	1
Total Organic Carbon - Quad	**2.9**		1.0	0.16	mg/L			06/11/19 05:42	1
Phenols, Total	**0.0092**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 20:05	1
Color	**25**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**220**		10	3.1	mg/L			05/24/19 19:40	1
Hardness	**270**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**810**		20	9.4	mg/L			05/22/19 12:01	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: LF5SW-3_0519
Lab Sample ID: 280-123855-6
Date Collected: 05/15/19 12:00
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**15**	**J**	100	4.4	ug/L		05/24/19 06:00	05/24/19 23:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 12:30	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:22	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/05/19 10:06	2

Client Sample ID: LF5SW-3_0519
Lab Sample ID: 280-123855-6

Date Collected: 05/15/19 12:00
Matrix: Water

Date Received: 05/16/19 08:55

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 19:20	1
Nitrate Nitrite as N	**0.86**		0.50	0.042	mg/L			05/16/19 19:20	1
Chloride	**310**	**D**	15	5.1	mg/L			05/17/19 03:16	5
Orthophosphate as P	**0.39**	**J**	0.50	0.19	mg/L			05/16/19 19:20	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/16/19 19:20	1
Nitrate	**0.86**		0.50	0.042	mg/L			05/16/19 19:20	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 19:20	1
Sulfate	**25**		5.0	1.0	mg/L			05/16/19 19:20	1
Total Organic Carbon - Quad	**2.0**		1.0	0.16	mg/L			06/11/19 05:57	1
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 22:46	1
Color	**20**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**220**		10	3.1	mg/L			05/24/19 19:52	1
Hardness	**280**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**800**		20	9.4	mg/L			05/22/19 12:01	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:32	1

Default Detection Limits

Client: Bhate Environmental
Job ID: 280-123855-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Method: 6010C - Metals (ICP)

Prep: 3010A

Analyte	LOQ	DL	Units
Boron	100	4.4	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Chemical Oxygen Demand (COD)	20	8.7	mg/L
Bromide	0.50	0.11	mg/L
Chloride	3.0	1.0	mg/L
Fluoride	1.0	0.060	mg/L
Nitrate	0.50	0.042	mg/L
Nitrate Nitrite as N	0.50	0.042	mg/L
Nitrite	0.50	0.049	mg/L
Orthophosphate as P	0.50	0.19	mg/L
Sulfate	5.0	1.0	mg/L
Total Organic Carbon - Quad	1.0	0.16	mg/L
Color	5.0	5.0	PCU
Alkalinity	10	3.1	mg/L
Hardness	3.0	0.30	mg/L
Total Dissolved Solids (TDS)	10	4.7	mg/L
Biochemical Oxygen Demand	2.0	0.24	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: Distill/Phenol

Analyte	LOQ	DL	Units
Phenols, Total	0.020	0.0068	mg/L

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-459136/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459136

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15	U	100	4.4	ug/L		05/24/19 06:00	05/24/19 22:20	1

Lab Sample ID: LCS 280-459136/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459136

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	950		ug/L		95	85 - 113

Lab Sample ID: LCSD 280-459136/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459136

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	956		ug/L		96	85 - 113	1	20

Lab Sample ID: 280-123855-1 MS
Client Sample ID: LF5MW-1A_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459136

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	6.6	J	1000	978		ug/L		97	85 - 113

Lab Sample ID: 280-123855-1 MSD
Client Sample ID: LF5MW-1A_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459136

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	6.6	J	1000	978		ug/L		97	85 - 113	0	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-459818/19
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459818

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 11:22	1

Lab Sample ID: MB 280-459818/63
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459818

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 12:50	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 280-459818/18
Matrix: Water
Analysis Batch: 459818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			2.50	2.57		mg/L		103	90 - 110		

Lab Sample ID: LCS 280-459818/62
Matrix: Water
Analysis Batch: 459818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			2.50	2.58		mg/L		103	90 - 110		

Lab Sample ID: 280-123853-D-5 MS
Matrix: Water
Analysis Batch: 459818

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	0.050	U J1	1.00	1.11	J1	mg/L		111	90 - 110		

Lab Sample ID: 280-123853-D-5 MSD
Matrix: Water
Analysis Batch: 459818

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.050	U J1	1.00	1.13	J1	mg/L		113	90 - 110	2	10

Lab Sample ID: 280-124070-B-5 MS
Matrix: Water
Analysis Batch: 459818

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	0.041	J1	1.00	1.06		mg/L		102	90 - 110		

Lab Sample ID: 280-124070-B-5 MSD
Matrix: Water
Analysis Batch: 459818

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.041	J1	1.00	1.17	J1	mg/L		113	90 - 110	10	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-460465/28-A
Matrix: Water
Analysis Batch: 460603

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460465

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:39	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: MB 280-460465/2-A
Matrix: Water
Analysis Batch: 460603

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460465

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 17:48	1

Lab Sample ID: LCS 280-460465/1-A
Matrix: Water
Analysis Batch: 460603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	6.00	6.25		mg/L		104	90 - 110

Lab Sample ID: LCS 280-460465/27-A
Matrix: Water
Analysis Batch: 460603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	6.00	6.11		mg/L		102	90 - 110

Lab Sample ID: 280-123855-3 MS
Matrix: Water
Analysis Batch: 460603

Client Sample ID: MW49D07_0519
Prep Type: Total/NA
Prep Batch: 460465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	0.50	U J1	3.00	2.53	J1	mg/L		84	90 - 110

Lab Sample ID: 280-123855-3 MSD
Matrix: Water
Analysis Batch: 460603

Client Sample ID: MW49D07_0519
Prep Type: Total/NA
Prep Batch: 460465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	0.50	U J1	3.00	2.33	J1	mg/L		78	90 - 110	8	25

Method: 410.4 - COD

Lab Sample ID: MB 280-460546/5
Matrix: Water
Analysis Batch: 460546

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/05/19 10:06	1

Lab Sample ID: LCS 280-460546/3
Matrix: Water
Analysis Batch: 460546

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	96.3		mg/L		96	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: LCSD 280-460546/4
Matrix: Water
Analysis Batch: 460546

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)			100	95.3		mg/L		95	90 - 110	1	11

Lab Sample ID: 280-123855-5 MS
Matrix: Water
Analysis Batch: 460546

Client Sample ID: LF5SW-2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand (COD)	40	U	100	104	D	mg/L		104	90 - 110		

Lab Sample ID: 280-123855-5 MSD
Matrix: Water
Analysis Batch: 460546

Client Sample ID: LF5SW-2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	40	U	100	95.4	D	mg/L		95	90 - 110	9	11

Lab Sample ID: MB 280-460644/5
Matrix: Water
Analysis Batch: 460644

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/06/19 09:12	1

Lab Sample ID: LCS 280-460644/3
Matrix: Water
Analysis Batch: 460644

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand (COD)			100	95.6		mg/L		96	90 - 110		

Lab Sample ID: LCSD 280-460644/4
Matrix: Water
Analysis Batch: 460644

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)			100	94.3		mg/L		94	90 - 110	1	11

Lab Sample ID: 280-123822-H-1 MS
Matrix: Water
Analysis Batch: 460644

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand (COD)	1600	J D	5000	6710	D	mg/L		101	90 - 110		

Lab Sample ID: 280-123822-H-1 MSD
Matrix: Water
Analysis Batch: 460644

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	1600	J D	5000	6950	D	mg/L		106	90 - 110	3	11

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-458413/6
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458413

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/16/19 15:06	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			05/16/19 15:06	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/16/19 15:06	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 15:06	1

Lab Sample ID: LCS 280-458413/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458413

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	10.0	9.86		mg/L		99	80 - 120
Orthophosphate as P	5.00	5.02		mg/L		100	80 - 116
Nitrate	5.00	4.95		mg/L		99	88 - 111
Nitrite	5.00	4.91		mg/L		98	87 - 111

Lab Sample ID: LCSD 280-458413/5
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458413

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	9.89		mg/L		99	80 - 120	0	10
Orthophosphate as P	5.00	5.04		mg/L		101	80 - 116	0	10
Nitrate	5.00	4.96		mg/L		99	88 - 111	0	10
Nitrite	5.00	4.93		mg/L		99	87 - 111	0	10

Lab Sample ID: MRL 280-458413/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458413

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.442	J	mg/L		111	50 - 150
Orthophosphate as P	0.200	0.205	J	mg/L		102	50 - 150
Nitrate	0.200	0.228	J	mg/L		114	50 - 150
Nitrite	0.200	0.214	J	mg/L		107	50 - 150

Lab Sample ID: 280-123862-B-1 MS
Client Sample ID: Matrix Spike
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458413

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.050	J	10.0	10.1		mg/L		101	80 - 120
Orthophosphate as P	0.20	U J1	5.00	6.67	J1	mg/L		133	80 - 116
Nitrate	0.050	J	5.00	5.12		mg/L		101	88 - 111
Nitrite	0.10	U	5.00	4.98		mg/L		100	87 - 111

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123862-B-1 MSD
Matrix: Water
Analysis Batch: 458413

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.050	J	10.0	10.2		mg/L		102	80 - 120	1	10
Orthophosphate as P	0.20	U J1	5.00	6.75	J1	mg/L		135	80 - 116	1	10
Nitrate	0.050	J	5.00	5.18		mg/L		103	88 - 111	1	10
Nitrite	0.10	U	5.00	5.04		mg/L		101	87 - 111	1	10

Lab Sample ID: 280-123853-A-3 DU
Matrix: Water
Analysis Batch: 458413

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.86		0.857		mg/L		0.3	10
Orthophosphate as P	0.34	J	0.336	J	mg/L		1	10
Nitrate	0.86		0.857		mg/L		0.09	10
Nitrite	0.10	U	0.10	U	mg/L		NC	10

Lab Sample ID: 280-123862-B-1 DU
Matrix: Water
Analysis Batch: 458413

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.050	J	0.107	J	mg/L		73	10
Orthophosphate as P	0.20	U J1	0.20	U	mg/L		NC	10
Nitrate	0.050	J	0.107	J	mg/L		73	10
Nitrite	0.10	U	0.10	U	mg/L		NC	10

Lab Sample ID: MB 280-458414/6
Matrix: Water
Analysis Batch: 458414

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 15:06	1
Chloride	3.0	U	3.0	1.0	mg/L			05/16/19 15:06	1
Fluoride	0.389	J	1.0	0.060	mg/L			05/16/19 15:06	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/16/19 15:06	1

Lab Sample ID: LCS 280-458414/4
Matrix: Water
Analysis Batch: 458414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.21		mg/L		104	91 - 110
Chloride	100	95.4		mg/L		95	87 - 111
Fluoride	5.00	4.98		mg/L		100	88 - 112
Sulfate	100	93.6		mg/L		94	87 - 112

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-458414/5
Matrix: Water
Analysis Batch: 458414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.21		mg/L		104	91 - 110	0	10
Chloride	100	95.7		mg/L		96	87 - 111	0	10
Fluoride	5.00	4.99		mg/L		100	88 - 112	0	10
Sulfate	100	93.6		mg/L		94	87 - 112	0	10

Lab Sample ID: MRL 280-458414/3
Matrix: Water
Analysis Batch: 458414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.212	J	mg/L		106	50 - 150
Chloride	2.50	2.33	J M	mg/L		93	50 - 150
Fluoride	0.200	0.152	J M	mg/L		76	50 - 150
Sulfate	2.50	2.37	J	mg/L		95	50 - 150

Lab Sample ID: 280-123853-A-3 DU
Matrix: Water
Analysis Batch: 458414

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.25	J	0.254	J	mg/L		0.3	10
Chloride	45		45.1		mg/L		0.07	10
Fluoride	0.10	U	0.10	U	mg/L		NC	10
Sulfate	24		24.4		mg/L		0.3	10

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-460997/4
Matrix: Water
Analysis Batch: 460997

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/07/19 16:34	1

Lab Sample ID: LCS 280-460997/3
Matrix: Water
Analysis Batch: 460997

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	24.4		mg/L		98	88 - 112

Lab Sample ID: 280-123843-B-1 MS
Matrix: Water
Analysis Batch: 460997

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	0.57	J	25.0	25.6		mg/L		100	88 - 112

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 280-123843-B-1 MSD
Matrix: Water
Analysis Batch: 460997

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	0.57	J	25.0	25.6		mg/L		100	88 - 112	0	15

Lab Sample ID: MB 280-461179/42
Matrix: Water
Analysis Batch: 461179

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/11/19 04:03	1

Lab Sample ID: LCS 280-461179/41
Matrix: Water
Analysis Batch: 461179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	25.4		mg/L		102	88 - 112

Lab Sample ID: 280-123855-3 MS
Matrix: Water
Analysis Batch: 461179

Client Sample ID: MW49D07_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	3.1		25.0	28.4		mg/L		101	88 - 112

Lab Sample ID: 280-123855-3 MSD
Matrix: Water
Analysis Batch: 461179

Client Sample ID: MW49D07_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	3.1		25.0	28.1		mg/L		100	88 - 112	1	15

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 280-460448/2-A
Matrix: Water
Analysis Batch: 460486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460448

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 21:46	1

Lab Sample ID: LCS 280-460448/1-A
Matrix: Water
Analysis Batch: 460486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.181		mg/L		90	90 - 110

Method: 9066 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: 280-123855-6 MS
Client Sample ID: LF5SW-3_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460486
Prep Batch: 460448

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.020	U	0.201	0.189		mg/L		94	72 - 118

Lab Sample ID: 280-123855-6 MSD
Client Sample ID: LF5SW-3_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460486
Prep Batch: 460448

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenols, Total	0.020	U	0.201	0.187		mg/L		93	72 - 118	1	16

Lab Sample ID: MB 280-460735/2-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460772
Prep Batch: 460735

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 19:05	1

Lab Sample ID: LCS 280-460735/1-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460772
Prep Batch: 460735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.201		mg/L		100	90 - 110

Lab Sample ID: 280-123855-1 MS
Client Sample ID: LF5MW-1A_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460772
Prep Batch: 460735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.010	J	0.201	0.207		mg/L		98	72 - 118

Lab Sample ID: 280-123855-1 MSD
Client Sample ID: LF5MW-1A_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460772
Prep Batch: 460735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenols, Total	0.010	J	0.201	0.214		mg/L		101	72 - 118	3	16

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-458496/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458496

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0	U	5.0	5.0	PCU			05/16/19 18:11	1

Method: SM 2120B - Color, Colorimetric (Continued)

Lab Sample ID: 280-123855-5 DU
Matrix: Water
Analysis Batch: 458496

Client Sample ID: LF5SW-2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Color	25			25.0		PCU				0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-459576/5
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/24/19 18:12	1

Lab Sample ID: LCS 280-459576/4
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			200	196		mg/L		98	89 - 109		

Lab Sample ID: 280-123986-A-11 DU
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	190			190		mg/L				1	10

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 280-459401/2
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness	0.81	U	3.0	0.30	mg/L			05/24/19 15:23	1

Lab Sample ID: LCS 280-459401/1
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness			398	398		mg/L		100	90 - 110		

Lab Sample ID: 280-123853-F-1 MS
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness	360		398	764		mg/L		102	90 - 110		

Method: SM 2340C - Hardness, Total (mg/l as CaC03) (Continued)

Lab Sample ID: 280-123853-F-1 MSD
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hardness	360		398	766		mg/L		102	90 - 110	0	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-459056/1
Matrix: Water
Analysis Batch: 459056

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			05/22/19 12:01	1

Lab Sample ID: LCS 280-459056/2
Matrix: Water
Analysis Batch: 459056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	500	551		mg/L		110	93 - 110

Lab Sample ID: 280-123910-D-1 DU
Matrix: Water
Analysis Batch: 459056

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	12000		12400		mg/L		1	10

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-458482/9
Matrix: Water
Analysis Batch: 458482

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Lab Sample ID: SCB 280-458482/1
Matrix: Water
Analysis Batch: 458482

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.719	J	2.0	0.24	mg/L			05/16/19 16:27	1

Lab Sample ID: USB 280-458482/2
Matrix: Water
Analysis Batch: 458482

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: LCS 280-458482/8
Matrix: Water
Analysis Batch: 458482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	202		mg/L		102	85 - 115		

Lab Sample ID: 280-123853-B-1 DU
Matrix: Water
Analysis Batch: 458482

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	0.59	U		0.59	U	mg/L				NC	20

Metals

Prep Batch: 459136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	3010A	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	3010A	
280-123855-3	MW49D07_0519	Total/NA	Water	3010A	
280-123855-4	LF5SW-1_0519	Total/NA	Water	3010A	
280-123855-5	LF5SW-2_0519	Total/NA	Water	3010A	
280-123855-6	LF5SW-3_0519	Total/NA	Water	3010A	
MB 280-459136/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-459136/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-459136/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-123855-1 MS	LF5MW-1A_0519	Total/NA	Water	3010A	
280-123855-1 MSD	LF5MW-1A_0519	Total/NA	Water	3010A	

Analysis Batch: 459449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	6010C	459136
280-123855-2	LF5MW-100R_0519	Total/NA	Water	6010C	459136
280-123855-3	MW49D07_0519	Total/NA	Water	6010C	459136
280-123855-4	LF5SW-1_0519	Total/NA	Water	6010C	459136
280-123855-5	LF5SW-2_0519	Total/NA	Water	6010C	459136
280-123855-6	LF5SW-3_0519	Total/NA	Water	6010C	459136
MB 280-459136/1-A	Method Blank	Total/NA	Water	6010C	459136
LCS 280-459136/2-A	Lab Control Sample	Total/NA	Water	6010C	459136
LCSD 280-459136/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	459136
280-123855-1 MS	LF5MW-1A_0519	Total/NA	Water	6010C	459136
280-123855-1 MSD	LF5MW-1A_0519	Total/NA	Water	6010C	459136

General Chemistry

Analysis Batch: 458413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	9056A	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	9056A	
280-123855-3	MW49D07_0519	Total/NA	Water	9056A	
280-123855-4	LF5SW-1_0519	Total/NA	Water	9056A	
280-123855-5	LF5SW-2_0519	Total/NA	Water	9056A	
280-123855-6	LF5SW-3_0519	Total/NA	Water	9056A	
MB 280-458413/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458413/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458413/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458413/3	Lab Control Sample	Total/NA	Water	9056A	
280-123853-A-3 MS	Matrix Spike	Total/NA	Water	9056A	
280-123853-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	
280-123862-B-1 MS	Matrix Spike	Total/NA	Water	9056A	
280-123862-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	
280-123853-A-3 DU	Duplicate	Total/NA	Water	9056A	
280-123862-B-1 DU	Duplicate	Total/NA	Water	9056A	

Analysis Batch: 458414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	9056A	
280-123855-1	LF5MW-1A_0519	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 458414 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-2	LF5MW-100R_0519	Total/NA	Water	9056A	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	9056A	
280-123855-3	MW49D07_0519	Total/NA	Water	9056A	
280-123855-4	LF5SW-1_0519	Total/NA	Water	9056A	
280-123855-4	LF5SW-1_0519	Total/NA	Water	9056A	
280-123855-5	LF5SW-2_0519	Total/NA	Water	9056A	
280-123855-5	LF5SW-2_0519	Total/NA	Water	9056A	
280-123855-6	LF5SW-3_0519	Total/NA	Water	9056A	
280-123855-6	LF5SW-3_0519	Total/NA	Water	9056A	
MB 280-458414/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458414/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458414/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458414/3	Lab Control Sample	Total/NA	Water	9056A	
280-123853-A-3 MS	Matrix Spike	Total/NA	Water	9056A	
280-123853-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	
280-123853-A-3 DU	Duplicate	Total/NA	Water	9056A	

Analysis Batch: 458482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	SM5210B	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	SM5210B	
280-123855-3	MW49D07_0519	Total/NA	Water	SM5210B	
280-123855-4	LF5SW-1_0519	Total/NA	Water	SM5210B	
280-123855-5	LF5SW-2_0519	Total/NA	Water	SM5210B	
280-123855-6	LF5SW-3_0519	Total/NA	Water	SM5210B	
MB 280-458482/9	Method Blank	Total/NA	Water	SM5210B	
SCB 280-458482/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-458482/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-458482/8	Lab Control Sample	Total/NA	Water	SM5210B	
280-123853-B-1 DU	Duplicate	Total/NA	Water	SM5210B	

Analysis Batch: 458496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	SM 2120B	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	SM 2120B	
280-123855-3	MW49D07_0519	Total/NA	Water	SM 2120B	
280-123855-4	LF5SW-1_0519	Total/NA	Water	SM 2120B	
280-123855-5	LF5SW-2_0519	Total/NA	Water	SM 2120B	
280-123855-6	LF5SW-3_0519	Total/NA	Water	SM 2120B	
MB 280-458496/1	Method Blank	Total/NA	Water	SM 2120B	
280-123855-5 DU	LF5SW-2_0519	Total/NA	Water	SM 2120B	

Analysis Batch: 459056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	SM 2540C	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	SM 2540C	
280-123855-3	MW49D07_0519	Total/NA	Water	SM 2540C	
280-123855-4	LF5SW-1_0519	Total/NA	Water	SM 2540C	
280-123855-5	LF5SW-2_0519	Total/NA	Water	SM 2540C	
280-123855-6	LF5SW-3_0519	Total/NA	Water	SM 2540C	
MB 280-459056/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 459056 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-459056/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-123910-D-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 459401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	SM 2340C	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	SM 2340C	
280-123855-3	MW49D07_0519	Total/NA	Water	SM 2340C	
280-123855-4	LF5SW-1_0519	Total/NA	Water	SM 2340C	
280-123855-5	LF5SW-2_0519	Total/NA	Water	SM 2340C	
280-123855-6	LF5SW-3_0519	Total/NA	Water	SM 2340C	
MB 280-459401/2	Method Blank	Total/NA	Water	SM 2340C	
LCS 280-459401/1	Lab Control Sample	Total/NA	Water	SM 2340C	
280-123853-F-1 MS	Matrix Spike	Total/NA	Water	SM 2340C	
280-123853-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2340C	

Analysis Batch: 459576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	SM 2320B	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	SM 2320B	
280-123855-3	MW49D07_0519	Total/NA	Water	SM 2320B	
280-123855-4	LF5SW-1_0519	Total/NA	Water	SM 2320B	
280-123855-5	LF5SW-2_0519	Total/NA	Water	SM 2320B	
280-123855-6	LF5SW-3_0519	Total/NA	Water	SM 2320B	
MB 280-459576/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-459576/4	Lab Control Sample	Total/NA	Water	SM 2320B	
280-123986-A-11 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 459818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	350.1	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	350.1	
280-123855-3	MW49D07_0519	Total/NA	Water	350.1	
280-123855-4	LF5SW-1_0519	Total/NA	Water	350.1	
280-123855-5	LF5SW-2_0519	Total/NA	Water	350.1	
280-123855-6	LF5SW-3_0519	Total/NA	Water	350.1	
MB 280-459818/19	Method Blank	Total/NA	Water	350.1	
MB 280-459818/63	Method Blank	Total/NA	Water	350.1	
LCS 280-459818/18	Lab Control Sample	Total/NA	Water	350.1	
LCS 280-459818/62	Lab Control Sample	Total/NA	Water	350.1	
280-123853-D-5 MS	Matrix Spike	Total/NA	Water	350.1	
280-123853-D-5 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
280-124070-B-5 MS	Matrix Spike	Total/NA	Water	350.1	
280-124070-B-5 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Prep Batch: 460448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-6	LF5SW-3_0519	Total/NA	Water	Distill/Phenol	
MB 280-460448/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460448/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
280-123855-6 MS	LF5SW-3_0519	Total/NA	Water	Distill/Phenol	

General Chemistry (Continued)

Prep Batch: 460448 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-6 MSD	LF5SW-3_0519	Total/NA	Water	Distill/Phenol	

Prep Batch: 460465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	351.2	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	351.2	
280-123855-3	MW49D07_0519	Total/NA	Water	351.2	
280-123855-4	LF5SW-1_0519	Total/NA	Water	351.2	
280-123855-5	LF5SW-2_0519	Total/NA	Water	351.2	
280-123855-6	LF5SW-3_0519	Total/NA	Water	351.2	
MB 280-460465/28-A	Method Blank	Total/NA	Water	351.2	
MB 280-460465/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-460465/1-A	Lab Control Sample	Total/NA	Water	351.2	
LCS 280-460465/27-A	Lab Control Sample	Total/NA	Water	351.2	
280-123855-3 MS	MW49D07_0519	Total/NA	Water	351.2	
280-123855-3 MSD	MW49D07_0519	Total/NA	Water	351.2	

Analysis Batch: 460486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-6	LF5SW-3_0519	Total/NA	Water	9066	460448
MB 280-460448/2-A	Method Blank	Total/NA	Water	9066	460448
LCS 280-460448/1-A	Lab Control Sample	Total/NA	Water	9066	460448
280-123855-6 MS	LF5SW-3_0519	Total/NA	Water	9066	460448
280-123855-6 MSD	LF5SW-3_0519	Total/NA	Water	9066	460448

Analysis Batch: 460546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-5	LF5SW-2_0519	Total/NA	Water	410.4	
280-123855-6	LF5SW-3_0519	Total/NA	Water	410.4	
MB 280-460546/5	Method Blank	Total/NA	Water	410.4	
LCS 280-460546/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-460546/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-123855-5 MS	LF5SW-2_0519	Total/NA	Water	410.4	
280-123855-5 MSD	LF5SW-2_0519	Total/NA	Water	410.4	

Analysis Batch: 460603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	351.2	460465
280-123855-2	LF5MW-100R_0519	Total/NA	Water	351.2	460465
280-123855-3	MW49D07_0519	Total/NA	Water	351.2	460465
280-123855-4	LF5SW-1_0519	Total/NA	Water	351.2	460465
280-123855-5	LF5SW-2_0519	Total/NA	Water	351.2	460465
280-123855-6	LF5SW-3_0519	Total/NA	Water	351.2	460465
MB 280-460465/28-A	Method Blank	Total/NA	Water	351.2	460465
MB 280-460465/2-A	Method Blank	Total/NA	Water	351.2	460465
LCS 280-460465/1-A	Lab Control Sample	Total/NA	Water	351.2	460465
LCS 280-460465/27-A	Lab Control Sample	Total/NA	Water	351.2	460465
280-123855-3 MS	MW49D07_0519	Total/NA	Water	351.2	460465
280-123855-3 MSD	MW49D07_0519	Total/NA	Water	351.2	460465

General Chemistry

Analysis Batch: 460644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	410.4	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	410.4	
280-123855-3	MW49D07_0519	Total/NA	Water	410.4	
280-123855-4	LF5SW-1_0519	Total/NA	Water	410.4	
MB 280-460644/5	Method Blank	Total/NA	Water	410.4	
LCS 280-460644/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-460644/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-123822-H-1 MS	Matrix Spike	Total/NA	Water	410.4	
280-123822-H-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Prep Batch: 460735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	Distill/Phenol	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	Distill/Phenol	
280-123855-3	MW49D07_0519	Total/NA	Water	Distill/Phenol	
280-123855-4	LF5SW-1_0519	Total/NA	Water	Distill/Phenol	
280-123855-5	LF5SW-2_0519	Total/NA	Water	Distill/Phenol	
MB 280-460735/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460735/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
280-123855-1 MS	LF5MW-1A_0519	Total/NA	Water	Distill/Phenol	
280-123855-1 MSD	LF5MW-1A_0519	Total/NA	Water	Distill/Phenol	

Analysis Batch: 460772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	9066	460735
280-123855-2	LF5MW-100R_0519	Total/NA	Water	9066	460735
280-123855-3	MW49D07_0519	Total/NA	Water	9066	460735
280-123855-4	LF5SW-1_0519	Total/NA	Water	9066	460735
280-123855-5	LF5SW-2_0519	Total/NA	Water	9066	460735
MB 280-460735/2-A	Method Blank	Total/NA	Water	9066	460735
LCS 280-460735/1-A	Lab Control Sample	Total/NA	Water	9066	460735
280-123855-1 MS	LF5MW-1A_0519	Total/NA	Water	9066	460735
280-123855-1 MSD	LF5MW-1A_0519	Total/NA	Water	9066	460735

Analysis Batch: 460997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-1	LF5MW-1A_0519	Total/NA	Water	9060A	
280-123855-2	LF5MW-100R_0519	Total/NA	Water	9060A	
MB 280-460997/4	Method Blank	Total/NA	Water	9060A	
LCS 280-460997/3	Lab Control Sample	Total/NA	Water	9060A	
280-123843-B-1 MS	Matrix Spike	Total/NA	Water	9060A	
280-123843-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	9060A	

Analysis Batch: 461179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-3	MW49D07_0519	Total/NA	Water	9060A	
280-123855-4	LF5SW-1_0519	Total/NA	Water	9060A	
280-123855-5	LF5SW-2_0519	Total/NA	Water	9060A	
280-123855-6	LF5SW-3_0519	Total/NA	Water	9060A	
MB 280-461179/42	Method Blank	Total/NA	Water	9060A	
LCS 280-461179/41	Lab Control Sample	Total/NA	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 461179 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123855-3 MS	MW49D07_0519	Total/NA	Water	9060A	
280-123855-3 MSD	MW49D07_0519	Total/NA	Water	9060A	

Client Sample ID: LF5MW-1A_0519
Lab Sample ID: 280-123855-1

Date Collected: 05/15/19 09:50
Matrix: Water
Date Received: 05/16/19 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459136	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 22:30	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 12:08	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:09	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460644	06/06/19 09:12	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 17:09	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 17:09	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458414	05/17/19 02:27	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460997	06/07/19 20:10	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 19:29	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 19:59	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459056	05/22/19 12:01	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: LF5MW-100R_0519
Lab Sample ID: 280-123855-2

Date Collected: 05/15/19 10:15
Matrix: Water
Date Received: 05/16/19 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459136	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 23:02	SJS	TAL DEN
Total/NA	Analysis	350.1		50	10 mL	10 mL	459818	05/29/19 14:20	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		5			460603	06/05/19 19:04	SVC	TAL DEN
Total/NA	Analysis	410.4		5	2 mL	2 mL	460644	06/06/19 09:12	CCJ	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458413	05/16/19 17:25	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458414	05/16/19 17:25	JAP	TAL DEN
Total/NA	Analysis	9056A		50	5 mL	5 mL	458414	05/16/19 17:42	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460997	06/07/19 20:28	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 19:56	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 20:04	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	459056	05/22/19 12:01	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: MW49D07_0519
Date Collected: 05/15/19 11:35
Date Received: 05/16/19 08:55

Lab Sample ID: 280-123855-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459136	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 23:06	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 12:12	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:14	SVC	TAL DEN
Total/NA	Analysis	410.4		1			460644	06/06/19 09:12	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 17:58	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 17:58	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 04:34	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 19:59	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		2	25 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 20:10	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459056	05/22/19 12:01	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: LF5SW-1_0519
Date Collected: 05/15/19 11:30
Date Received: 05/16/19 08:55

Lab Sample ID: 280-123855-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459136	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 23:09	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 12:14	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:19	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460644	06/06/19 09:12	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 18:15	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 18:15	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458414	05/17/19 02:43	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 05:19	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 20:02	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 19:46	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	459056	05/22/19 12:01	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: LF5SW-2_0519
Date Collected: 05/15/19 11:45
Date Received: 05/16/19 08:55

Lab Sample ID: 280-123855-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459136	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 23:13	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 12:28	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:20	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460546	06/05/19 10:06	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 19:04	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 19:04	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458414	05/17/19 03:00	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 05:42	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 20:05	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 19:40	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	459056	05/22/19 12:01	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: LF5SW-3_0519
Date Collected: 05/15/19 12:00
Date Received: 05/16/19 08:55

Lab Sample ID: 280-123855-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459136	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 23:16	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 12:30	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:22	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460546	06/05/19 10:06	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 19:20	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 19:20	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458414	05/17/19 03:16	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 05:57	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460448	06/04/19 16:52	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460486	06/04/19 22:46	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 19:52	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	459056	05/22/19 12:01	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:32	EC	TAL DEN

Lab Chronicle

Client: Bhate Environmental
Job ID: 280-123855-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Bhate Environmental
Job ID: 280-123855-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Laboratory: Eurofins TestAmerica, Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD		2907.01	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2120B		Water	Color
SM 2340C		Water	Hardness

New York	NELAP	2	11964	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3010A	Water	Boron
9056A		Water	Bromide
9056A		Water	Chloride
9056A		Water	Fluoride
9056A		Water	Nitrate
9056A		Water	Nitrate Nitrite as N
9056A		Water	Nitrite
9056A		Water	Orthophosphate as P
9056A		Water	Sulfate
9060A		Water	Total Organic Carbon - Quad

Method Summary

Client: Bhate Environmental
Job ID: 280-123855-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
9066	Phenolics, Total Recoverable	SW846	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
Distill/Phenol	Distillation, Phenolics	None	TAL DEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Bhate Environmental
Job ID: 280-123855-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-123855-1	LF5MW-1A_0519	Water	05/15/19 09:50	05/16/19 08:55	
280-123855-2	LF5MW-100R_0519	Water	05/15/19 10:15	05/16/19 08:55	
280-123855-3	MW49D07_0519	Water	05/15/19 11:35	05/16/19 08:55	
280-123855-4	LF5SW-1_0519	Water	05/15/19 11:30	05/16/19 08:55	
280-123855-5	LF5SW-2_0519	Water	05/15/19 11:45	05/16/19 08:55	
280-123855-6	LF5SW-3_0519	Water	05/15/19 12:00	05/16/19 08:55	

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:04
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:04
Orthophosphate as P	5.68	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458327/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:05
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:06
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:07
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:07
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:08
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:08
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/15/19 19:10
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458328/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458328/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:07
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:07

Lab Sample ID: STD 280-458328/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	pedrickj	05/16/19 08:31
Sulfate	6.43	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:08
Sulfate	6.46	Peak assignment corrected	phantl	05/15/19 19:08

Lab Sample ID: ICB 280-458328/9 Client Sample ID:

Date Analyzed: 05/15/19 19:27 Lab File ID: 0009.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.72	Incomplete Integration	pedrickj	05/16/19 07:51
Chloride	3.23	Incomplete Integration	pedrickj	05/16/19 07:51

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458414

Lab Sample ID: MRL 280-458414/3 Client Sample ID:

Date Analyzed: 05/16/19 14:17 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/16/19 15:17
Chloride	3.23	Incomplete Integration	phantl	05/16/19 15:18

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00367	06/04/19	05/28/19	Di Water, Lot na	100 mL	NH3 CAL STD_00030	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00030	02/28/20		Ricca, Lot 1808L28		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00350	06/04/19	05/28/19	na, Lot na	100 mL	NH3 ICV STD_00026	10 mL	Ammonia	99.6 mg/L
.NH3 ICV STD_00026	04/01/20		Inorganic Ventures, Lot M2-NH662533		(Purchased Reagent)		Ammonia	996 mg/L
Alk daily lcs_00821	05/27/19	05/20/19	Di Water, Lot na	1000 mL	Alk stk std_00016	4 mL	Alkalinity	200 mg/L
.Alk stk std_00016	06/30/20		Fischer, Lot 182564		(Purchased Reagent)		Alkalinity	50 g/L
BOD Std_00001_00046	02/15/24		HACH, Lot A9046		(Purchased Reagent)		Biochemical Oxygen Demand	198 mg/L
COD cal std_00048	09/01/20		Ricca, Lot 1904987		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1000 mg/L
COD icv std_00034	02/01/20		HACH, Lot A9057		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1005 mg/L
cod ms/msd_00022	09/30/19		Chemetrics, Lot 90427		(Purchased Reagent)		Chemical Oxygen Demand (COD)	10000 mg/L
Hard lcs std_00050	06/13/20		Lab Chem, Lot H159-16		(Purchased Reagent)		Hardness	0.996 mg/mL
IC CAL cl/so4_00256	05/17/19	05/10/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00458	05/18/19	05/11/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC CL ICV_00016	10/31/19		ERA, Lot 091017		(Purchased Reagent)		Chloride	1000 mg/L
IC ICV 5_00233	05/16/19	05/09/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00016	0.5 mL	Nitrite	50 mg/L
					IC NO3 ICV_00014	0.5 mL	Nitrate	50 mg/L
					IC PO4 ICV_00015	0.5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC NO2 ICV_00016	05/31/20		ERA, Lot 020518		(Purchased Reagent)		Nitrite	1000 mg/L
.IC NO3 ICV_00014	12/31/19		ERA, Lot 031217		(Purchased Reagent)		Nitrate	1000 mg/L
.IC PO4 ICV_00015	06/30/19		ERA, Lot 060617		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC LCS_01577	05/17/19	05/16/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Fluoride	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00017	06/30/19		ERA, Lot 210617		(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00592	05/21/19	05/14/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Nitrate	500.003 mg/L
							Orthophosphate as P	500.058 mg/L
					IC SPK N02SOL_00013	5 mL	Nitrite	499.973 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD N03_00005	6.068 g	Nitrate	1000.01 mg/L
					IC MS/MSD P04_00002	4.3936 g	Orthophosphate as P	1000.12 mg/L
..IC MS/MSD N03_00005	09/27/28		FISHER, Lot 176192		(Purchased Reagent)		Nitrate	0.1648 g/g
..IC MS/MSD P04_00002	09/06/22		FISHER, Lot 112841		(Purchased Reagent)		Orthophosphate as P	0.22763 g/g
.IC SPK N02SOL_00013	06/05/19	06/05/18	Di Water, Lot na	500 mL	IC MS/MSD N02_00002	2.4628 g	Nitrite	999.946 mg/L
..IC MS/MSD N02_00002	01/12/27		fisher, Lot 164254		(Purchased Reagent)		Nitrite	0.20301 g/g
ICP CCV_00382	06/25/20	05/21/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00843	250 mL	Boron	0.5 mg/L
.ICP ICAL1A_00843	06/25/20	05/23/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	1000 mL	ICP CAL STD 4_00003	10 mL	Boron	1 mg/L
..ICP CAL STD 4_00003	09/22/20		CPI, Lot 10094465-3		(Purchased Reagent)		Boron	100 mg/L
ICP ICSA_00186	03/18/20	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.Icp stk ICSA_00029	03/18/20		CPI, Lot 982821-1		(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ICP ICSAB_00213	06/03/19	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Li_00040	0.25 mL	Li	1 mg/L
					ICP ICSAB 1_00001	2.5 mL	Mo	1 mg/L
							Sb	1 mg/L
							Si	10 mg/L
							Sn	1 mg/L
							Ti	1 mg/L
					ICP ICSAB 2_00001	2.5 mL	Ag	1 mg/L
							As	1 mg/L
							Ba	1 mg/L
							Be	0.5 mg/L
							Boron	10 mg/L
							Cd	1 mg/L
							Co	1 mg/L
							Cr	1 mg/L
							Cu	1 mg/L
							K	10 mg/L
							Mn	1 mg/L
							Na	10 mg/L
							Ni	1 mg/L
							P	10 mg/L
							Pb	1 mg/L
							Se	1 mg/L
							Sr	1 mg/L
							Tl	1 mg/L
							V	1 mg/L
							Zn	1 mg/L
					Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.1000 Li_00040	05/16/20		CPI, Lot 751942-43		(Purchased Reagent)		Li	1000 mg/L
.ICP ICSAB 1_00001	06/03/19		CPI, Lot 990624-2		(Purchased Reagent)		Mo	100 mg/L
							Sb	100 mg/L
							Si	1000 mg/L
							Sn	100 mg/L
							Ti	100 mg/L
.ICP ICSAB 2_00001	06/03/19		CPI, Lot 990626-2		(Purchased Reagent)		Ag	100 mg/L
							As	100 mg/L
							Ba	100 mg/L
							Be	50 mg/L
							Boron	1000 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							K	1000 mg/L
							Mn	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Na	1000 mg/L
							Ni	100 mg/L
							P	1000 mg/L
							Pb	100 mg/L
							Se	100 mg/L
							Sr	100 mg/L
							Tl	100 mg/L
							V	100 mg/L
							Zn	100 mg/L
.Icp stk ICSA_00029	03/18/20	CPI, Lot 982821-1			(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICV_00822	10/16/19	05/24/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP CAL STD 4_00002	0.25 mL	Boron	0.25 ppm
.ICP CAL STD 4_00002	09/22/20	CPI, Lot 10094465-2			(Purchased Reagent)		Boron	100 mg/L
ICP LLCCV_02550	05/25/19	05/24/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV-2a_00010	1 mL	Boron	100 ppb
.ICP LLCCV-2a_00010	06/18/19	CPI, Lot 10090185-1			(Purchased Reagent)		Boron	10 mg/L
ICP PDS 2_00021	05/13/20	Inorganic Ventures, Lot M2-MEB659765			(Purchased Reagent)		Boron	10 mg/L
Phenol CAL 10_00730	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol CAL_00012	1 mL	Phenolics, Total Recoverable	10.07 mg/L
							Phenols, Total	10.07 mg/L
.Phenol CAL_00012	12/07/19	Lab Chem, Lot G341-02			(Purchased Reagent)		Phenolics, Total Recoverable	1007 mg/L
							Phenols, Total	1007 mg/L
Phenol ICV 10_00605	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol ICV_00013	1 mL	Phenols, Total	10 mg/L
.Phenol ICV_00013	02/29/20	ERA, Lot 090817			(Purchased Reagent)		Phenols, Total	1000 mg/L
PREP SPK 1_00008	05/13/20	CPI, Lot 993218-1			(Purchased Reagent)		As	200 mg/L
							Ba	200 mg/L
							Be	100 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							Li	100 mg/L
							Mn	100 mg/L
							Mo	100 mg/L
							Ni	100 mg/L
							Pb	100 mg/L
							Se	200 mg/L
							Si	200 mg/L
							SiO2	428 mg/L
							Sn	200 mg/L
							Sr	100 mg/L
							Ti	100 mg/L
							Tl	200 mg/L
							V	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
PREP SPK 2_00004	05/13/20		CPI, Lot 992745-2		(Purchased Reagent)		Al	1000 mg/L
							Ca	5000 mg/L
							Fe	1000 mg/L
							K	5000 mg/L
							Mg	5000 mg/L
							Na	5000 mg/L
PREP SPK 3_00004	05/13/20		CPI, Lot 992746-1		(Purchased Reagent)		P	2000 mg/L
							Sulfur	1000 mg/L
							U	200 mg/L
							W	100 mg/L
PREP SPK 4_00004	05/08/20		CPI, Lot 10094085-3		(Purchased Reagent)		Bi	200 mg/L
							Boron	100 mg/L
							Th	100 mg/L
							Zn	50 mg/L
							Zr	50 mg/L
TDS LCS_00537_00055	08/22/19	05/22/19	Di Water, Lot na	1000 mL	NaCl f_00004	0.5 g	Total Dissolved Solids (TDS)	500 mg/L
.NaCl f_00004	04/14/21		JT Baker, Lot J48622		(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g
TKN 25ppm_00794	07/01/19	05/31/19	Di Water, Lot 1	100 mL	TKN 100PPM_00108	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN 100PPM_00108	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21		nsi lab solutions, Lot 010617		(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TKN ICV 25_00078	07/01/19	05/31/19	DI water, Lot 1	100 mL	TKN ICV 100_00070	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN ICV 100_00070	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20		ERA, Lot 281018		(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TOC ICV Std_00037	01/31/20		Ricca, Lot 1807G06		(Purchased Reagent)		TOC Result 1	1000 ppm
							TOC Result 2	1000 ppm
							TOC Result 3	1000 ppm
							TOC Result 4	1000 ppm
							Total Organic Carbon - Quad	1000 ppm
TOC LCS Std_00046	03/31/21		Ultra Scientific, Lot CT-0920		(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm

Reagent

1000 Li_00040

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000291

SE Std Lithium (Li) – 1000 µg/mL

Lot #: 751942-43

Matrix: 5% HNO_3

5658289
ID: 1000 Li_00040
Exp:05/16/20 Prpd:CRR Opn:03/26/19
1000 Li CPI

Element	Certified Concentration & Uncertainty
Li	1002 ± 3 µg/mL (w/v)
	993 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	35	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<100	V	<1
Al	9	Cs	7	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	30	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	2	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Zn	<2
Ba	2	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	MAJOR	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

November 16, 2018
Certification Date

Chuck Goudreau, Certifying Officer

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

Alk stk std_00016

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Quality Test / Release Date	06/05/2018
Lot Number	182564	Expiration Date	Jun/2020
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
COLOR	APHA	<= 5	<5
NORMALITY		Inclusive Between 0.995 - 1.000	1.000
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

BOD Std_00001_00046

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY: **ez GGA for BOD Test**
COMMODITY NUMBER: **2514420**
LOT NUMBER: **A9046**

MANUFACTURE DATE: **2/25/2019**

DATE OF ANALYSIS: **2/28/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
Confirmation test to ensure glutamic acid has been added.	To Pass	Passed
COD Concentration used to confirm the total concentration of Glucose-Glutamic Acid is correct.	884 to 956 mg/l	911.0 mg/l

The expiration date is Feb 2024

After preparation following the instruction sheet the BOD concentration is 198 mg/L.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

COD cal std_00048

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Potassium Acid Phthalate Standard, 1000 ppm Chemical Oxygen Demand (COD)

Lot Number: 1904987 **Product Number:** 5868

Manufacture Date: APR 05, 2019
Expiration Date: SEP 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is estimated based upon the volumetric method of preparation. It is certified that a COD of 500 mg/L should be obtained on a 25.0 mL aliquot of this standard solution diluted to 50 mL. The manufacturing specification for this product is Chemical Oxygen Demand (COD) = 1.000 ± 0.005 mg per mL at 20°C. This is the equivalent quantity of Oxygen that this standard solution will consume, based on the reduction of a Potassium Dichromate Standard Solution under the specified conditions in the ASTM D 1252-95 test methods.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Chemical Oxygen Demand (COD)	995-1005 ppm	1000 ppm

Specification	Reference
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg COD)	ASTM (D 1252 A)
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg/L)	ASTM (D 1252 B)
Stock Potassium Acid Phthalate	EPA (410.4)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5868-16	500 mL natural poly	18 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (04/05/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

COD icv std_00034

Certificate of Analysis List

For request number 1116752

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
2253929	9057	N/A	N/A	Chemical Oxygen Demand Standard Solution 1000 mg/l COD

Total Enclosures: 1

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY:**Chemical Oxygen Demand Standard Solution 1000 mg/l COD**

COMMODITY NUMBER: **2253929**	MANUFACTURE DATE:	DATE OF ANALYSIS:
LOT NUMBER: **A9057**	**3/2/2019**	**3/3/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
COD Concentration	950 to 1050 ppm	986.0 ppm

The expiration date is Feb 2020

The item 2253929 is traceable to NIST standards SRM 84L Potassium Hydrogen Phthalate LOT N/A.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

cod ms/msd_00022

CHEMetrics Simplicity in Water Analysis

January 2, 2019

CERTIFICATE OF ANALYSIS

CHEMetrics Inc., certifies that the following COD Standard Solution has been manufactured from Primary Standard Grade (99.99+% purity) Potassium Hydrogen Phthalate (CAS No. 877-24-7). The reported standard solution concentration is calculated from wt/vol measurements obtained using analytical balances (readable to 0.0001 gram and calibrated with NIST traceable weights) and ASTM Class A volumetric glassware.

To maintain the stated accuracy for the duration of the established shelf-life, store this solution under refrigeration 2°C - 8°C (36°F - 46°F).

Cat. No.	Lot No.	Accuracy	Date of Manufacture	Product Description
A-7310	90427	10,000 ± 500	Sept. 2018	10,000 ppm COD Standard

Sincerely,

Teresa A. Neale
Vice President of Operations & Product Support

certif_cod_a7310.wpd

Reagent

Hard lcs std_00050

LabChem
performance through
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CALCIUM CARBONATE STANDARD 1mL = 1mg CaCO3 (0.01M)

Catalog Number: LC12700
Lot Number: H159-16

Mfg Date: 06/13/2018
Expiration Date: 06/13/2020

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Molarity	0.0100M +/- 0.0001M	0.0100M
Concentration mg CaCO3/mL	1.000 +/- 0.010mg CaCO3/mL	1.000 mg CaCO3/mL
Traceable to NIST	Calcium Carbonate	915b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted By: Greg Albright, Chemist Supervisor



An ISO9001:2008 certified company. Registration # 0306-01

07/05/2018 9:24:43 AM

Reagent

IC BR ICV_00012

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 1804F11 **Product Number:** 1180

Manufacture Date: APR 06, 2018
Expiration Date: SEP 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Israel Alamudun (04/06/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC BR ICV_00014

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Bromide
CATALOG NUMBER:	046 -125 mL; 987 - 500 mL
LOT NUMBER:	450817
ISSUE DATE:	September 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Bromide (KBr)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	1.2%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3184 Bromide
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 8/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC CL cal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-101CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018 Certifying Officer: Kathleen Cullin

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Reagent

IC CL cal_00058

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-154CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 997 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 996 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: APR - - 2019

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials -- Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

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Reagent

IC CL ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Chloride
CATALOG NUMBER:	047 -125 mL; 988 - 500 mL
LOT NUMBER:	091017
ISSUE DATE:	October 17, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Chloride (NaCl)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9984 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3182 Chloride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC F ICV_00012

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Fluoride
CATALOG NUMBER:	050 -125 mL; 989 - 500 mL
LOT NUMBER:	230918
ISSUE DATE:	October 11, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Fluoride (KF)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9995 ± 0.0008 g/mL at 20.6°C and 752 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	3183 Fluoride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 9/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

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CERTIFICATE NO. 1539.02

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Reagent

IC FL cal_00013

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Certificate of Analysis

Fluoride Standard, 1000 ppm F-

Lot Number: 4805C89 **Product Number:** 3173

Manufacture Date: MAY 07, 2018
Expiration Date: OCT 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1000 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC MS/MSD N02_00002

Fisher Scientific

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201.796.1329 fax

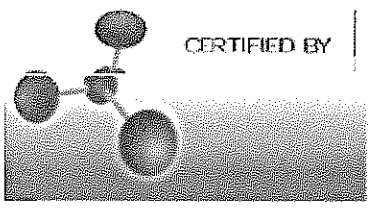
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S347**	**Quality Test / Release Date**	**9/9/2016**
Lot Number	**164254**		
Description	**SODIUM NITRITE, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Sep-2021**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	yELLOW-WHITE CRYSTALS
ASSAY	%	>= 97	98.6
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.001	<0.0010
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	%	<= 0.001	<0.0010
POTASSIUM (K)	%	<= 0.005	<0.0010
SULFATE (SO4)	%	<= 0.01	<0.010



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC MS/MSD N03_00005

Scientific

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ıir Lawn, NJ 07410
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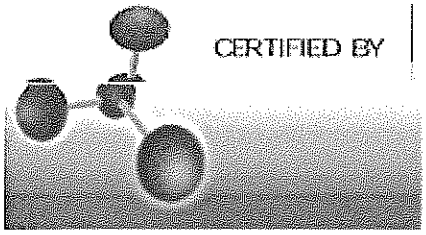
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s is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been plied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability l fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. ıer does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

ıtalog Number	**S343**	**Quality Test / Release Date**	**8/23/2017**
)t Number	**176192**		
escription	**SODIUM NITRATE, A.C.S.**		
)untry of Origin	**Mexico**	*** Suggested Retest Date**	**Aug-2022**
ıemical Origin	**Inorganic-non animal**		
SE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

sult name	Units	Specifications	Test Value
PEARANCE		REPORT	Clear to white crystals.
SAY	%	>= 99	99.7
LCIUM	%	<= 0.005	0.001
LORIDE	%	<= 0.001	<0.0010
AVY METALS (as Pb)	ppm	<= 5	<5.0
ENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
SOLUBLE MATTER	%	<= 0.005	<0.005
)ATE	ppm	<= 5	<5.0
)N (Fe)	ppm	<= 3	<3.0
.GNESIUM	%	<= 0.002	0.0002
TRITE (NO2)	%	<= 0.001	<0.0010
5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.3	6.7
OSPHATE (PO4)	ppm	<= 5	<5.0
LFATE (SO4)	%	<= 0.003	<0.0030



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Reagent

IC MS/MSD P04_00002

Fisher Scientific

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Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P386**	**Mfg. Date**	**9/19/2011**
Lot Number	**112841**		
Description	**POTASSIUM PHOSPHATE MONOBASIC NF/FCC/EP/BP**		
Country of Origin	**United States**		
Chemical Origin	**Inorganic**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

FCC Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	MG/KG	<= 3	<3
ASSAY	%	>= 98.0	99.7
FLUORIDES	MG/KG	<= 10	<5
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD (Pb)	MG/KG	<= 2	<2.0
LOSS ON DRYING PER FCC	%	<= 1	<1.0

NF Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	ppm	<= 3	<3
ASSAY	%	Inclusive Between 98.0 100.5	99.7
ENDOTOXINS	EU/Mg	<= 1	<0.02000
FLUORIDES	%	<= 0.001	<0.0005
HEAVY METALS (as PB)	%	<= 0.002	<0.002
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD	ppm	<= 5	<5
LOSS ON DRYING	%	<= 1.0	<1.0
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS

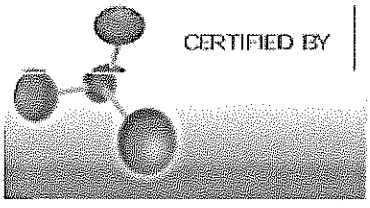
EP Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS

ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
BACTERIAL ENDOTOXINS	EU/Mg	<= 1	<0.02000
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER EP	%	<= 2.0	<1.0
PH (5 % SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

British Pharmacopela Grade Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS
ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER BP	%	<= 2.0	<1.0
PH (5% SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

Residual Solvents	No Class 1, Class 2, or Class 3 solvents, or any other solvents, are used in the manufacturing, handling, or storage of this storage, or in any cleaning process.



Elgan E. Hans

Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC N02 CAL_00045

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Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2)

Lot Number: 1902672 **Product Number:** R5444900

Manufacture Date: FEB 04, 2019
Expiration Date: JUL 2019

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	995 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (02/04/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC N03 cal_00019

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Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2807E96 **Product Number:** 5459

Manufacture Date: JUL 24, 2018
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Andy Baumgartner (07/24/2018)
Quality Control Supervisor
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Reagent

IC NO2 ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO_2-N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	020518
ISSUE DATE:	May 16, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite ($NaNO_2$)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	4.7%
MATRIX:	18 megohm deionized water
DENSITY:	1.0004 ± 0.0008 g/mL at 19.2°C and 752 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	-
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 5/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

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CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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Reagent

IC P04 cal_00019

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Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H_2O

Lot Number: 4902D52 **Product Number:** AP1KW

Manufacture Date: FEB 08, 2019
Expiration Date: JAN 2021

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs (02/08/2019)
Quality Control Supervisor
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Reagent

IC PO4 ICV_00015

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Phosphate as P (PO_4-P)
CATALOG NUMBER:	061 -125 mL; 993 - 500 mL
LOT NUMBER:	060617
ISSUE DATE:	June 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Dihydrogen Phosphate (KH_2PO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9996 ± 0.0008 g/mL at 23.5°C and 622 mm Hg
TRACEABILITY[3]:	103%
NIST/SRM:	3186 Phosphate
VERIFICATION METHOD:	Ion Chromatography
STORAGE: THIS	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC SO4 ICV_00017

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	210617
ISSUE DATE:	June 27, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9987 ± 0.0008 g/mL at 22.5°C and 757 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC sulfatecal_00053

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: AUG - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

© 2018 SPEX CertiPrep, LLC

Reagent

IC sulfatecal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

ICP CAL STD 4_00002

CPI INTERNATIONAL

5617886
ID: ICP CAL STD 4_00002
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 SECONDARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-SS

Custom ISO G34 Second Source Standard

Lot #: 10094465-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 µg/mL	Ca	999.9 ± 5.0 µg/mL	Na	5000 ± 25 µg/mL
Al	99.98 ± 0.50 µg/mL	Fe	500.1 ± 2.5 µg/mL	Zn	100.0 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	10,000 ± 50 µg/mL	Zr	100.0 ± 0.5 µg/mL
Bi	200.0 ± 1.0 µg/mL	Mg	4000 ± 20 µg/mL		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

Europe
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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP CAL STD 4_00003

CPI INTERNATIONAL

5617860
ID: ICP CAL STD 4_00001
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 PRIMARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-500

Custom ISO G34 Standard

Lot #: 10094465-3

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.1 ± 0.5 µg/mL	Ca	1000 ± 5 µg/mL	Na	5000 ± 25 µg/mL
Al	100.1 ± 0.5 µg/mL	Fe	500.3 ± 2.5 µg/mL	Zn	100.1 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	9999 ± 50 µg/mL	Zr	99.98 ± 0.50 µg/mL
Bi	200.2 ± 1.0 µg/mL	Mg	4001 ± 20 µg/mL		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP ICSAB 1_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

5471540
ID: ICP ICSAB 1_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 1 CPI

Lot #: 990624-2

Matrix: 5% HNO_3/0.5% HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.0 ± 0.5 mg/L
Sb	100.0 ± 0.5 mg/L	Sn	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-1		
Vendor	CPI		
Lot number	990624-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICPICSAB1_00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CR	Instrument ID	MT-025
Verification Date	1/30/19	Method Reference	U010B
ID of Standard Used for Verification	5528932/5528182	Batch # / Chrom Work List #	445975

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	N/A

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

TestAmerica
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Reagent ID: ICP ICSAB 1_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 1 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990624-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-1
Open Date:	01/29/2019		
Container(s):	5471540		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Mo					100.00000	mg/L
Sb					100.00000	mg/L
Si					1000.00000	mg/L
Sn					100.00000	mg/L
Ti					100.00000	mg/L

Sample Name: xICSAB sol 1 100x Acquired: 1/30/2019 11:16:24 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: reagent bottle check

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.02433**	**.01266**	**.01718**	**.01887**	**.00044**	**.02174**	**.47181**	**.00071**
Stddev	.00004	.00024	.00489	.00084	.00010	.00012	.00685	.00076	.00006
%RSD	7.0663	.98064	38.631	4.8888	.52301	27.840	31.508	.16192	8.4479
#1	.00053	.02450	.01612	.01658	.01880	.00035	.02659	.47235	.00067
#2	.00058	.02416	.00920	.01777	.01894	.00052	.01690	.47127	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00242**	**.00153**	**.02006**	**.56757**	**.01037**	**.47512**	**.00496**	**1.0133**
Stddev	.00010	.00025	.00005	.00110	.03642	.00435	.00725	.00001	.0039
%RSD	2.5510	10.211	3.1263	5.4797	6.4175	42.012	1.5261	.23393	.38063
#1	.00417	.00225	.00150	.02084	.54181	.00729	.47000	.00497	1.0160
#2	.00403	.00260	.00157	.01928	.59333	.01345	.48025	.00496	1.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49431**	**.00430**	**.08410**	**.01084**	**.03507**	**.99570**	**.01580**	**9.9173**	**21.223**
Stddev	.00501	.00053	.00063	.00088	.00283	.00482	.00254	.0370	.079
%RSD	1.0130	12.416	.75155	8.1609	8.0821	.48413	16.067	.37264	.37264
#1	.49077	.00468	.08455	.01146	.03707	.99230	.01760	9.8912	21.167
#2	.49785	.00392	.08365	.01021	.03306	.99911	.01401	9.9434	21.279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0648**	**.00964**	**.01036**	**1.0237**	**.01971**	**.02237**	**.00551**	**.00635**	**.00546**
Stddev	.0013	.00014	.00233	.0003	.00077	.01226	.00033	.00030	.00002
%RSD	.12116	1.4717	22.449	.02853	3.9220	54.809	6.0687	4.7932	.32279
#1	1.0658	.00954	.00871	1.0239	.02026	.03104	.00575	.00656	.00548
#2	1.0639	.00974	.01200	1.0235	.01916	.01370	.00527	.00613	.00545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4001.5**	**55629.**	**4846.2**
Stddev	8.9	65.	20.9
%RSD	.22316	.11631	.43220
#1	3995.2	55583.	4861.0
#2	4007.8	55674.	4831.4

Reagent

ICP ICSAB 2_00001

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-2		
Vendor	CPI		
Lot number	990626-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICP ICSAB 2-00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CL/CR	Instrument ID	MT_052 MT_025
Verification Date	1/21/19 1/29/19	Method Reference	L0103
ID of Standard Used for Verification	Calibration STDS	Batch # / Chrom Work List #	444958/445894

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

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ICP ICSAB 2 _ 00001

Reagent ID: ICP ICSAB 2_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 2 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990626-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-2
Open Date:	01/29/2019		
Container(s):	5471537		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
As					100.00000	mg/L
B					1000.00000	mg/L
Ba					100.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					100.00000	mg/L
Cr					100.00000	mg/L
Cu					100.00000	mg/L
K					1000.00000	mg/L
Mn					100.00000	mg/L
Na					1000.00000	mg/L
Ni					100.00000	mg/L
P					1000.00000	mg/L
Pb					100.00000	mg/L
Se					100.00000	mg/L
Sr					100.00000	mg/L
Tl					100.00000	mg/L
V					100.00000	mg/L
Zn					100.00000	mg/L

52A012119.esws

Tuesday, January 22, 2019 7:50 AM

User: denmet

Workstation: DENPC507

Sample Name: ICSAB 2 100X

Date: 1/21/2019 2:07:16 PM

Rack:Tube: 1:90

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.966867	ppm	0.002732	0.28	27113.200000	Y 377.433
Al (394.401 nm)	-0.018589 u	ppm	0.000377	2.03	120.753000	Y 377.433
Al H (396.152 nm)	-0.080631 u	ppm	0.000855	1.06	12.478800	Y_R 377.433
As (188.980 nm)	0.937518	ppm	0.002548	0.27	1229.410000	Y 242.219
B (249.678 nm)	9.446880	ppm	0.011734	0.12	33938.900000	Y 242.219
Ba (493.408 nm)	0.969569	ppm	0.001606	0.17	87740.300000	Y_R 488.368
Be (234.861 nm)	0.466384	ppm	0.000072	0.02	26151.800000	Y_R 488.368
Bi (223.061 nm)	0.001837	ppm	0.002483	> 100.00	44.091400	Y 377.433
Ca (315.887 nm)	-0.003106 u	ppm	0.007441	> 100.00	18.818785	Y_R 377.433
Cd (214.439 nm)	0.974802	ppm	0.002985	0.31	25402.900000	Y 377.433
Co (228.615 nm)	0.978758	ppm	0.004920	0.50	20392.400000	Y 242.219
Cr (205.560 nm)	0.948655	ppm	0.001917	0.20	3826.770000	Y 377.433
Cu (324.754 nm)	0.971137	ppm	0.002614	0.27	45503.100000	Y 377.433
Fe (238.204 nm)	-0.000041 u	ppm	0.005163	> 100.00	10.116548	Y_R 377.433
Fe H (259.940 nm)	-0.222218 u	ppm	0.000618	0.28	1.482800	Y_R 377.433
K (766.491 nm)	9.955440	ppm	0.046489	0.47	11734.600000	Y_R2 488.368
Li (670.783 nm)	0.002338	ppm	0.002398	> 100.00	-636.367000	Y_R2 488.368
Mg (279.078 nm)	-0.004893 u	ppm	0.001386	28.33	1.042300	Y 377.433
Mn (257.610 nm)	0.984512	ppm	0.002227	0.23	189159.000000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000717	> 100.00	21.118500	Y 377.433
Na (589.592 nm)	9.389940	ppm	0.127054	1.35	4480.750000	Y_R2 488.368
Na H (589.593 nm)	7.370639 u	ppm	0.011086	0.15	3061.539033	Y_R4
Ni (231.604 nm)	0.972725	ppm	0.002305	0.24	3493.420000	Y 377.433
P (213.618 nm)	9.363070	ppm	0.023289	0.25	9381.970000	Y 242.219
Pb (220.353 nm)	0.994713	ppm	0.002048	0.21	2187.470000	Y 242.219
S (181.972 nm)	-0.017508 u	ppm	0.000015	0.09	2.280092	Y 377.433
Sb (206.834 nm)	0.001746 u	ppm	0.003005	> 100.00	29.044800	Y 377.433
Se (196.026 nm)	0.894485	ppm	0.006733	0.75	1281.770000	Y 242.219
Si (288.158 nm)	-0.001748 u	ppm	0.000507	29.01	377.617000	Y 377.433
Sn (189.925 nm)	-0.004588 u	ppm	0.000168	3.65	-1.654320	Y 377.433
Sr (421.552 nm)	0.967161	ppm	0.001611	0.17	106421.982008	Y_R 488.368
Th (288.505 nm)	-0.048933 u	ppm	0.005261	10.75	-112.903000	Y 377.433
Ti (336.122 nm)	0.000456	ppm	0.000097	21.34	-304.249000	Y 377.433
Tl (190.794 nm)	0.993837	ppm	0.000436	0.04	568.452000	Y 377.433
U (409.013 nm)	0.002082 u	ppm	0.006736	> 100.00	238.011000	Y 377.433
V (292.401 nm)	0.964201	ppm	0.002968	0.31	41257.400000	Y 377.433
Zn (206.200 nm)	0.992230	ppm	0.004980	0.50	3092.660000	Y 377.433
Zr (343.823 nm)	0.000098 u	ppm	0.000260	> 100.00	-51.254600	Y 377.433

Sample Name: ICSAB Sol 2 Acquired: 1/29/2019 15:38:12 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 100x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.96906**	**-.00340**	**1.0112**	**9.4842**	**1.0100**	**.49999**	**.00175**	**-.06604**	**.95028**
Stddev	.00070	.00005	.0084	.0140	.0002	.00072	.00805	.00493	.00089
%RSD	.07261	1.5359	.83124	.14767	.02300	.14445	460.44	7.4694	.09328
#1	.96857	-.00336	1.0053	9.4941	1.0102	.50051	.00744	-.06255	.95091
#2	.96956	-.00344	1.0172	9.4743	1.0099	.49948	-.00394	-.06953	.94966
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.02000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97510**	**.98255**	**1.0095**	**-.00152**	**10.088**	**.00379**	**-.00580**	**.91712**	**.00092**
Stddev	.00391	.00157	.0019	.00267	.030	.00092	.00435	.00154	.00057
%RSD	.40132	.16023	.18807	175.43	.29831	24.241	75.007	.16823	61.615
#1	.97787	.98367	1.0108	-.00342	10.109	.00443	-.00887	.91821	.00052
#2	.97233	.98144	1.0081	.00037	10.067	.00314	-.00272	.91603	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.062**	W **10.363**	**.97101**	**9.3122**	**.99342**	**.01022**	**-.00250**	**1.0041**	**-.01800**
Stddev	.003	.128	.00214	.0214	.00289	.00320	.00030	.0007	.00696
%RSD	.02670	1.2361	.22005	.22968	.29093	31.312	12.156	.06617	38.635
#1	10.060	10.273	.97252	9.3273	.99546	.01248	-.00271	1.0037	-.02292
#2	10.064	10.454	.96950	9.2970	.99137	.00795	-.00228	1.0046	-.01309
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.03853**	**-.00056**	**1.0257**	**.00369**	**.00020**	**1.0532**	**.01005**	**.92759**	**.89480**
Stddev	.01489	.00053	.0020	.00219	.00018	.0029	.01643	.00224	.00413
%RSD	38.635	93.658	.19274	59.457	90.526	.27479	163.59	.24111	.46200
#1	-.04905	-.00019	1.0271	.00524	.00032	1.0552	-.00157	.92917	.89772
#2	-.02800	-.00094	1.0243	.00214	.00007	1.0511	.02166	.92601	.89188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.00366**
Stddev	.00163
%RSD	44.615
#1	.00251
#2	.00482
Check ?	Chk Pass
High Limit	
Low Limit	

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

5471537
ID: ICP ICSAB 2_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 2 CPI

Lot #: 990626-2

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	99.98 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L
As	100.0 ± 0.5 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	100.1 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.1 ± 0.5 mg/L	Zn	100.1 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

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Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP LLCCV-2a_00010

Standard Verification Form TA-CM-OCT18-DENSR-500

Standard Information			
Vendor Standard Name	ICP LLCCV-2A		
Vendor	CPI International		
Lot number	# 10090185-1		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID ICP LLCCV-4-00010	
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	SS/CR	Instrument ID	MT-25/MT51
Verification Date	1/30/19	Method Reference	6010C
ID of Standard Used for Verification	ICP LLCCV4-00010	Batch # / Chrom Work List #	446036 446039

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:

Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	5/19/19

1st Level Review SS Date: 1/30/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00255**	**.00036**	**1.0047**	**.00032**
Stddev	.00007	.00061	.00058	.0085	.00017
%RSD	22.249	24.069	160.98	.84480	52.650
#1	.00038	.00212	-.00005	1.0107	.00020
#2	.00028	.00298	.00077	.99868	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00000**	**-.00048**	**-.00028**	**-.00042**
Stddev	.00001	.00553	.00256	.00005	.00010
%RSD	17.443	748150.	537.38	16.632	24.554
#1	.00003	-.00391	-.00229	-.00024	-.00035
#2	.00004	.00391	.00134	-.00031	-.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00130**	**.00088**	**.04958**	**.00161**
Stddev	.00008	.00040	.00450	.00732	.00228
%RSD	36.641	30.925	510.71	14.755	141.15
#1	.00028	-.00102	.00406	.05476	.00322
#2	.00017	-.00159	-.00230	.04441	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00017**	**.20636**	**.06243**	**-.00068**
Stddev	.00621	.00002	.00144	.00668	.00007
%RSD	704.64	12.859	.69592	10.708	10.347
#1	.00527	.00016	.20737	.06715	-.00073
#2	-.00351	.00019	.20534	.05770	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W **28.602**	**.00941**	**.93219**	**.20441**	**-.00477**
Stddev	.231	.00080	.00830	.00111	.00057
%RSD	.80679	8.5162	.89068	.54438	11.917
#1	28.765	.00998	.93806	.20519	-.00518
#2	28.439	.00885	.92632	.20362	-.00437
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000				
Low Limit	-6.0000				

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837
Line	288.158 {117}	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**6.9653**	**14.906**	**1.0635**	**.00005**	**.00074**
Stddev	.5657	1.211	.0080	.00010	.00128
%RSD	8.1224	8.1224	.75098	204.33	172.19
#1	6.5652	14.050	1.0691	.00012	-.00016
#2	7.3653	15.762	1.0578	-.00002	.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.10301**	**-.00165**	**-.01130**	**.00045**	**.00148**
Stddev	.00039	.00056	.00796	.00022	.00019
%RSD	.37486	34.177	70.407	49.618	12.553
#1	.10274	-.00125	-.00568	.00060	.00161
#2	.10328	-.00205	-.01693	.00029	.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.10737**
Stddev	.00304
%RSD	2.8315
#1	.10952
#2	.10522
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3890.6**	**54764.**	**4797.3**
Stddev	19.3	21.	3.8
%RSD	.49699	.03853	.07876
#1	3904.3	54779.	4794.6
#2	3876.9	54749.	4799.9

Sample Name: IIccv 2a

Date: 1/30/2019 2:27:53 PM

Rack:Tube: 3:12

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000048	3.81	-339.440000	Y 377.433
Al (167.019 nm)	0.001696	ppm	0.000845	49.83	1.871810	Y_R 377.433
Al H (396.152 nm)	-0.020587 u	ppm	0.002888	14.03	32.631734	Y_R 377.433
As (188.980 nm)	0.000723 u	ppm	0.002356	> 100.00	-0.970725	Y 242.219
B (249.678 nm)	0.813216	ppm	0.047006	5.78	21874.000000	Y 242.219
Ba (493.408 nm)	-0.000896 u	ppm	0.000024	2.69	598.598000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000016	> 100.00	-47.571600	Y_R 488.368
Bi (223.061 nm)	-0.004182 u	ppm	0.000579	13.85	11.245000	Y 377.433
Ca (315.887 nm)	0.022497	ppm	0.007400	32.89	-56.854280	Y_R 377.433
Cd (214.439 nm)	-0.000023 u	ppm	0.000024	> 100.00	5.258060	Y 377.433
Co (228.615 nm)	0.000071	ppm	0.000056	78.59	-38.009000	Y 242.219
Cr (205.560 nm)	0.000045	ppm	0.000039	86.68	-3.139690	Y 377.433
Cu (324.754 nm)	0.001245	ppm	0.000109	8.79	622.379000	Y 377.433
Fe (238.204 nm)	0.000681	ppm	0.000210	30.84	21.007438	Y_R 377.433
Fe H (259.940 nm)	-0.161781 u	ppm	0.002169	1.34	15.721500	Y_R 377.433
K (766.491 nm)	0.111372	ppm	0.057292	51.44	-830.133000	Y_R2 488.368
Li (670.783 nm)	0.009646	ppm	0.000473	4.90	-1348.180000	Y_R2 488.368
Mg (279.078 nm)	0.000264	ppm	0.000066	24.84	60.535800	Y 377.433
Mn (257.610 nm)	-0.000023 u	ppm	0.000008	35.49	70.205200	Y 377.433
Mo (202.032 nm)	0.169223	ppm	0.010445	6.17	1702.140000	Y 377.433
Na (589.592 nm)	-0.029006 u	ppm	0.010864	37.45	385.781000	Y_R2 488.368
Na H (589.593 nm)	-0.896086 u	ppm	0.020122	2.25	2225.768499	Y_R 488.368
Ni (231.604 nm)	0.000372 u	ppm	0.000677	> 100.00	0.134162	Y 377.433
P (213.618 nm)	23.045500 o	ppm	1.330770	5.77	58100.800000	Y 242.219
Pb (220.353 nm)	-0.001310 u	ppm	0.000331	25.30	-1.855490	Y 242.219
S (181.972 nm)	0.728365	ppm	0.040987	5.63	417.926408	Y 377.433
Sb (206.834 nm)	0.165059	ppm	0.009553	5.79	476.065000	Y 377.433
Se (196.026 nm)	-0.002999 u	ppm	0.001270	42.36	11.827200	Y 242.219
Si (288.158 nm)	5.208390	ppm	0.502562	9.65	48419.800000	Y 377.433
Sn (189.925 nm)	0.837532	ppm	0.048034	5.74	2234.630000	Y 377.433
Sr (421.552 nm)	0.000133	ppm	0.000061	46.11	158.521803	Y_R 488.368
Th (288.505 nm)	0.003026	ppm	0.000486	16.08	69.191200	Y 377.433
Ti (336.122 nm)	0.083021	ppm	0.004935	5.94	12374.600000	Y 377.433
Tl (190.794 nm)	0.000337	ppm	0.000105	31.25	-9.290920	Y 377.433
U (409.013 nm)	0.001927	ppm	0.000273	14.16	-152.923000	Y 377.433
V (292.401 nm)	-0.000419 u	ppm	0.000023	5.46	15.573700	Y 377.433
Zn (206.200 nm)	0.000466	ppm	0.000052	11.15	2.238410	Y 377.433
Zr (343.823 nm)	0.085063	ppm	0.005356	6.30	12032.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.937661	19025.790936	0.001064	0.11
Y 377.433	0.960036	985122.681103	0.000581	0.06
Y_R 377.433	1.006470	69104.000000	0.004101	0.41
Y_R 488.368	1.019670	40383.200000	0.014164	1.39
Y_R2 488.368	1.053637	81193.558986	0.004178	0.40

5500073
ID: ICP LLCCV-2a_00010
Exp: 05/18/18 Prpd: SJS
ICP LLCCV-2A CPI

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN5R-500

Custom ISO Guide 34 ICP LLCCV-2A

Lot #: 10090185-1

Matrix: 2% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
B	10.01 ± 0.05 µg/mL	S	10.01 ± 0.05 µg/mL	Sn	10.01 ± 0.05 µg/mL
Mo	2.01 ± 0.01 µg/mL	Sb	2.02 ± 0.01 µg/mL	Ti	1.00 ± 0.01 µg/mL
P	300.0 ± 1.5 µg/mL	Si	49.19 ± 0.25 µg/mL	Zr	1.01 ± 0.01 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

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Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 18, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

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- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP PDS 2_00021

INORGANIC VENTURES
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Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	STLDEN-PDS-2A
Lot Number:	M2-MEB659765
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	500 µg/mL ea: Silicon, 10 µg/mL ea: Tin, Boron, Antimony, 5 µg/mL ea: Molybdenum, Titanium, Zirconium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.07 µg/mL	Boron, B	10.00 ± 0.07 µg/mL
Molybdenum, Mo	5.002 ± 0.030 µg/mL	Silicon, Si	500.0 ± 3.2 µg/mL
Tin, Sn	10.00 ± 0.08 µg/mL	Titanium, Ti	5.002 ± 0.030 µg/mL
Zirconium, Zr	5.001 ± 0.030 µg/mL		

Density: 1.016 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
B	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	130920
Zr	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods **Characterization of CRM by one method**

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 07, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 07, 2020**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Reagent

Icp stk ICSA_00029

CPI INTERNATIONAL

5514208
ID: lcp stk ICSA_00027
Exp: 07/08/19 Prpd: SJS
ICP stock ICSA solution

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 982821-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 8, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
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Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

NaCl f_00004

Sodium Chloride, Crystal

`BAKER ANALYZED´® A.C.S. Reagent

Product No. 3624
Lot No. J48622
Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO_3)	0.003 % max.	0.002 %
Phosphate (PO_4)	5 ppm max.	< 3 ppm
Sulfate (SO_4)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %
For Laboratory, Research or Manufacturing Use		
Country of Origin: USA		

ISO
Phillipsburg, NJ 9001.2008, 14001.2004
Paris, KY 9001.2008
Mexico City, Mexico 9001.2008
Deventer, The Netherlands 9001.2008, 14001.2004, 13485.2003
Selangor, Malaysia 9001.2008
Panoli, India 9001.2008
Gliwice, Poland 9001.2008, 17025.2005

Marcy M. Matlosz
Director of QA & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151
Avantor ™ Performance Materials. Inc. (formerly Mallinckrodt Baker, Inc.)
222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Reagent

NH3 CAL STD_00030

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 1808L28 **Product Number:** 5455

Manufacture Date: AUG 29, 2018
Expiration Date: FEB 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (08/29/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00026

1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	M2-NH662533
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium Chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 996 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **993 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **997 ± 2 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\ (u_{char\ a})^2 + (w_b)^2\ (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

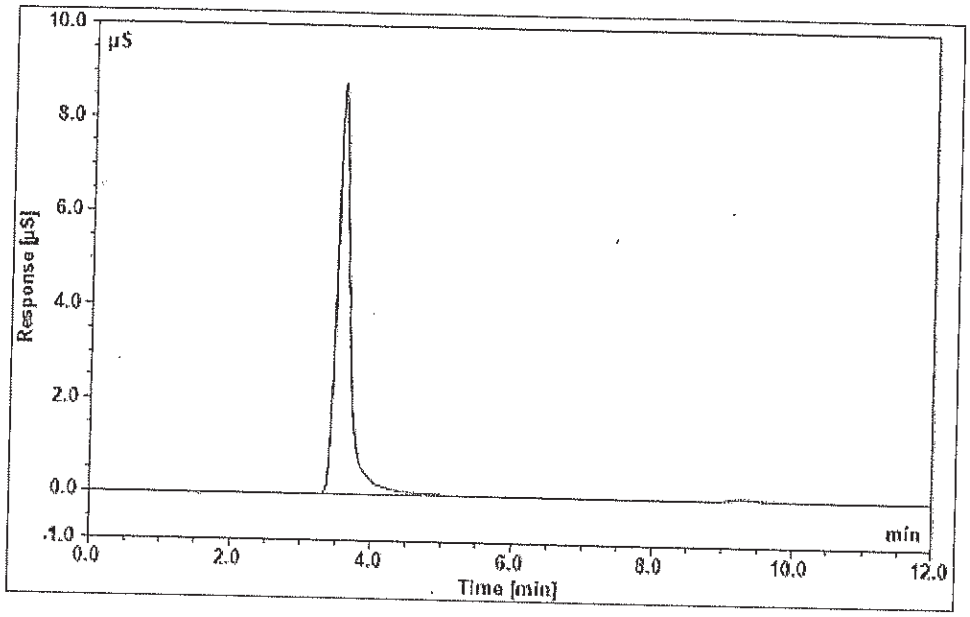
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS12A-5µm 3x150mm	**Eluent:**	20 mM MSA
Guard Column:	IonPac CG12A-5µm 3x30mm	**Eluent Flow Rate:**	0.50 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35° C
		Cell Temp:	35° C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	10 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	30 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

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- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 03, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- November 03, 2021

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

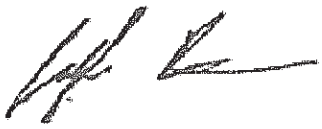
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

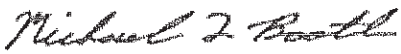
Certificate Prepared By:

Joseph Burns
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

Phenol CAL_00012

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: PHENOL STANDARD, 1000ppm (1mL = 1mg)

Mfg. Date: 12/07/2017

Catalog Number: LC18330

Exp. Date: 12/07/2019

Lot Number: G341-02

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm Phenol	1000ppm +/- 10ppm	1007 ppm
Concentration mg Phenol / L	1.000 + / - 0.010 mg/mL	1.007 mg/mL
Traceable to NIST	Potassium Dichromate	136f

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor

Greg Albright

An ISO9001:2008 certified company. Registration # 0306-01

03/23/2018 5:05 PM

Form #17.13 07/28/2016

Reagent

Phenol ICV_00013

ERA

A Waters Company

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SPEX CertiPrep
1-800-LAB-SPEX
www.spexcsp.com

Certificate of Analysis

PRODUCT:	1000 mg/L Phenol
CATALOG NUMBER:	982
LOT NUMBER:	090817
ISSUE DATE:	August 18, 2017
REVISION DATE:	August 2, 2018
STARTING MATERIAL:	Phenol (C_6H_5OH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.8%
MATRIX:	18 megohm deionized water and 1% (v/v) H_2SO_4
DENSITY:	1.0085 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	NA
VERIFICATION METHOD:	Spectrophotometry
STORAGE:	Store at 4 ± 2°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

PREP SPK 1_00008

CPI INTERNATIONAL

5643174
ID: PREP SPK 1_00008
Exp: 05/21/20 Prpd: MRJ
Metals Prep Spike Mix 1 C

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 993218-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.1 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.1 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 21, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

TKN CAL STD_00017

nsi lab solutions
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7212 ACC Blvd. | Raleigh, NC 27617 | 800.234.7837

Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Catalog Number: IS-009, IS-009-500
Lot Number: 010617

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00011

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00037

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 4901G09 **Product Number:** 1847

Manufacture Date: JAN 22, 2019
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-32	1 L amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jim Gibbs (01/22/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00046

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1000 ± 5 µg/mL	NAA00089; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG No.:

Project: Griffiss AFB, LF007 Landfill 5

Client Sample ID	Lab Sample ID
LF5MW-1A_0519	280-123855-1
LF5MW-100R_0519	280-123855-2
MW49D07_0519	280-123855-3
LF5SW-1_0519	280-123855-4
LF5SW-2_0519	280-123855-5
LF5SW-3_0519	280-123855-6

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF5MW-1A_0519 Lab Sample ID: 280-123855-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 09:50

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	6.6	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF5MW-100R_0519 Lab Sample ID: 280-123855-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 10:15

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	160	100	15	4.4	ug/L			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW49D07_0519 Lab Sample ID: 280-123855-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 11:35

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	30	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF5SW-1_0519 Lab Sample ID: 280-123855-4

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 11:30

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	15	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF5SW-2_0519 Lab Sample ID: 280-123855-5

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 11:45

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	16	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF5SW-3_0519 Lab Sample ID: 280-123855-6

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 12:00

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	15	100	15	4.4	ug/L	J		1	6010C

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

ICV Source: ICP ICV_00822 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	ICV 280-459449/10 05/24/2019 14:26				ICV 280-459449/11 05/24/2019 14:31				CCV 280-459449/133 05/24/2019 21:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	238		250	95	239		250	95	470		500	94

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

ICV Source: ICP ICV_00822 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	CCV 280-459449/147 05/24/2019 22:48				CCV 280-459449/160 05/24/2019 23:35							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	469		500	94	466		500	93				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

ICV Source: ICP LLCCV_02550 Concentration Units: ug/L

CCV Source: ICP LLCCV_02550

Analyte	ICVL 280-459449/12 05/24/2019 14:47				CCVL 280-459449/135 05/24/2019 22:05				CCVL 280-459449/149 05/24/2019 22:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	92.7	J	100	93	88.2	J	100	88	88.5	J	100	88

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

ICV Source: ICP LLCCV_02550 Concentration Units: ug/L

CCV Source: ICP LLCCV_02550

Analyte	CCVL 280-459449/162 05/24/2019 23:42											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	87.9	J	100	88								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Method: 6010C Instrument ID: MT_052

Lab Sample ID: CRI 280-459449/16 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_02550

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Boron	100	93.5	J	93	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-459449/15 05/24/2019 14:58		CCB 280-459449/134 05/24/2019 22:02		CCB 280-459449/148 05/24/2019 22:52		CCB 280-459449/161 05/24/2019 23:38	
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-459136/1-A

Instrument Code: MT_052 Batch No.: 459449

CAS No.	Analyte	Concentration	C	Q	Method
7440-42-8	Boron	15	U		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Lab Sample ID: ICSA 280-459449/17 Instrument ID: MT_052

Lab File ID: 52A052419aa.csv ICS Source: ICP ICSA_00186

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		**13.5**	
Aluminum	*500000*	*523128*	*105*
Antimony		*-6.61*	
Arsenic		*3.03*	
Barium		*1.87*	
Cadmium		*0.530*	
Calcium	*500000*	*495011*	*99*
Cobalt		*-0.585*	
Copper		*-2.03*	
Iron	*200000*	*197337*	*99*
Lead		*7.45*	
Lithium		*-11.5*	
Magnesium	*500000*	*521121*	*104*
Manganese		*0.584*	
Molybdenum		*0.750*	
Nickel		*-4.40*	
Phosphorus		*13.8*	
Potassium		*275*	
Selenium		*11.5*	
Silicon		*43.4*	
Silver		*2.40*	
Thallium		*11.0*	
Tin		*-3.23*	
Titanium		*-2.01*	
Vanadium		*1.14*	
Zinc		*-3.41*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Lab Sample ID: ICSAB 280-459449/18 Instrument ID: MT_052

Lab File ID: 52A052419aa.csv ICS Source: ICP ICSAB_00213

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Boron	**10000**	**10886**	**109**
Aluminum	*500000*	*535785*	*107*
Antimony	*1000*	*1080*	*108*
Arsenic	*1000*	*1106*	*111*
Barium	*1000*	*1075*	*108*
Beryllium	*500*	*529*	*106*
Cadmium	*1000*	*1051*	*105*
Calcium	*500000*	*506038*	*101*
Chromium	*1000*	*1084*	*108*
Cobalt	*1000*	*998*	*100*
Copper	*1000*	*1103*	*110*
Iron	*200000*	*202386*	*101*
Lead	*1000*	*1038*	*104*
Lithium	*1000*	*1108*	*111*
Magnesium	*500000*	*536563*	*107*
Manganese	*1000*	*1043*	*104*
Molybdenum	*1000*	*1040*	*104*
Nickel	*1000*	*1010*	*101*
Phosphorus	*10000*	*10925*	*109*
Potassium	*10000*	*11643*	*116*
Selenium	*1000*	*1082*	*108*
Silicon	*10000*	*10679*	*107*
Silver	*1000*	*1172*	*117*
Sodium	*10000*	*11466*	*115*
Strontium	*1000*	*1050*	*105*
Thallium	*1000*	*1036*	*104*
Tin	*1000*	*1041*	*104*
Titanium	*1000*	*1044*	*104*
Vanadium	*1000*	*1051*	*105*
Zinc	*1000*	*1032*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: LF5MW-1A_0519 MS
Lab ID: 280-123855-1 MS
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123855-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	978		6.6	J	1000	97	85-113		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: LF5MW-1A_0519 MSD
Lab ID: 280-123855-1 MSD
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123855-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	978		1000	97	85-113	0	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: LF5MW-1A_0519 PDS
Lab ID: 280-123855-1 PDS
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123855-1
SDG No.:
Matrix: Water
Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	102		6.6	J	100	96	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-459136/2-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Boron	1000	950		95	85	113		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-459136/3-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	956		1000	96	85-113	1	20		6010C

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-123855-1

SDG No:

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123855-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Boron	6.6	J	75	U	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C DL Date: 02/03/2019 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Boron	208.9	100	4.37

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Boron		100	4.37

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	394.401														
Aluminum	396.152								-0.000104					-0.000023	
Antimony	206.834											0.004372		0.00005	
Arsenic	188.980													-0.000018	
Barium	493.408													0.000008	
Beryllium	234.861													-0.000043	
Bismuth	223.061													0.000079	0.000001
Boron	249.678													-0.000081	
Cadmium	214.439													0.000011	
Calcium	315.887		0.000314												
Chromium	205.560		-0.000004				-0.00014								
Cobalt	228.615													0	
Copper	324.754		0.000005						-0.000012						
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.000052									-0.00051			
Lithium	670.783														
Magnesium	279.078													-0.000401	
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604								0					0	
Phosphorus	213.618												-0.16455		
Potassium	766.491														
Selenium	196.026													-0.000171	
Silicon	288.158													0	
Silver	328.068														
Sodium	589.592					-0.030677	-								
Sodium	589.593					-0.275847									
Strontium	421.552													0.000001	
Sulfur	181.972								0.000105					-	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.794		0.00001118						-0.000017		0.00204			-0.000053	
Thorium	288.505						-0.00596		-0.000014					-0.000047	
Tin	189.925														
Titanium	336.122								0.000026					-	
Uranium	409.013								-0.000041					0.000232	
Vanadium	292.401											-0.00709			
Zinc	206.200													0.000031	
Zirconium	343.823													0	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Aluminum	396.152				0.040824										0.190657
Aluminum	394.401														0.02099
Antimony	206.834				-0.00389									-0.00029	
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560				-0.0007		-0.00029								
Cobalt	228.615						0.0001								
Copper	324.754				0.000286										
Iron	238.204														
Iron	259.940														
Lead	220.353				-0.000822										
Lithium	670.783														
Magnesium	279.078														
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618				-0.023999										
Potassium	766.491														
Selenium	196.026			0.000916	0.000109										
Silicon	288.158														
Silver	328.068														
Sodium	589.593														
Sodium	589.592														
Strontium	421.552														
Sulfur	181.972			0.006869											

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Thallium	190.794				-0.00234										
Thorium	288.505			0.011354											
Tin	189.925														
Titanium	336.122						0.000067								
Uranium	409.013														
Vanadium	292.401				-0.0014										
Zinc	206.200														
Zirconium	343.823														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	394.401	-0.021133			0.011488										
Aluminum	396.152														
Antimony	206.834		0.00261					-0.00114							
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560														
Cobalt	228.615		0.001881												
Copper	324.754	0.004174	-0.000232		-0.00125										
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.00043		0.000755										
Lithium	670.783														
Magnesium	279.078				-0.00486										
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604			0.000222											
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026														
Silicon	288.158														
Silver	328.068				-0.000389	-0.011329		0.0060693							
Sodium	589.592														
Sodium	589.593														
Strontium	421.552														
Sulfur	181.972														

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.794		-0.00212												
Thorium	288.505		-		0.002914	-0.06422									
Tin	189.925														
Titanium	336.122														
Uranium	409.013							-0.039324							
Vanadium	292.401	0.002016	0.000703		-0.0001										
Zinc	206.200														
Zirconium	343.823														

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123855-1

SDG No.:

Instrument ID: MT_052 Date: 04/09/2019 07:05

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Boron		50	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-459136/1-A	05/24/2019 06:00	459136		50	50
LCS 280-459136/2-A	05/24/2019 06:00	459136		50	50
LCSD 280-459136/3-A	05/24/2019 06:00	459136		50	50
280-123855-1	05/24/2019 06:00	459136		50	50
280-123855-1 MS	05/24/2019 06:00	459136		50	50
280-123855-1 MSD	05/24/2019 06:00	459136		50	50
280-123855-2	05/24/2019 06:00	459136		50	50
280-123855-3	05/24/2019 06:00	459136		50	50
280-123855-4	05/24/2019 06:00	459136		50	50
280-123855-5	05/24/2019 06:00	459136		50	50
280-123855-6	05/24/2019 06:00	459136		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				B																								
ICIS 280-459449/1	1		13:50	X																								
IC 280-459449/2			13:53	X																								
IC 280-459449/3			13:57	X																								
IC 280-459449/4			14:01	X																								
ZZZZZZ			14:05																									
ZZZZZZ			14:09																									
ZZZZZZ			14:12																									
ICVH 280-459449/8	1		14:17	X																								
ICVH 280-459449/9	1		14:21	X																								
ICV 280-459449/10	1		14:26	X																								
ICV 280-459449/11	1		14:31	X																								
ICVL 280-459449/12	1		14:47	X																								
CCVH 280-459449/13			14:51																									
CCV 280-459449/14			14:55																									
ICB 280-459449/15	1		14:58	X																								
CRI 280-459449/16	1		15:01	X																								
ICSA 280-459449/17	1		15:05	X																								
ICSAB 280-459449/18	1		15:09	X																								
LRA 280-459449/19			15:12																									
CCVH 280-459449/20			15:16																									
CCV 280-459449/21			15:20																									
CCB 280-459449/22			15:24																									
CCVL 280-459449/23			15:27																									
ZZZZZZ			15:31																									
ZZZZZZ			15:35																									
ZZZZZZ			15:38																									
ZZZZZZ			15:42																									
ZZZZZZ			15:45																									
ZZZZZZ			15:49																									
ZZZZZZ			15:52																									
ZZZZZZ			15:56																									
ZZZZZZ			16:00																									
ZZZZZZ			16:03																									
CCVH 280-459449/34			16:07																									
CCV 280-459449/35			16:11																									
CCB 280-459449/36			16:14																									
CCVL 280-459449/37			16:18																									
ZZZZZZ			16:21																									
ZZZZZZ			16:25																									
ZZZZZZ			16:28																									
ZZZZZZ			16:32																									
ZZZZZZ			16:36																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			16:39	
ZZZZZZ			16:43	
ZZZZZZ			16:46	
ZZZZZZ			16:50	
ZZZZZZ			16:54	
CCVH 280-459449/48			16:57	
CCV 280-459449/49			17:01	
CCB 280-459449/50			17:05	
CCVL 280-459449/51			17:08	
ZZZZZZ			17:12	
ZZZZZZ			17:15	
ZZZZZZ			17:19	
ZZZZZZ			17:22	
ZZZZZZ			17:26	
ZZZZZZ			17:29	
ZZZZZZ			17:33	
ZZZZZZ			17:36	
ZZZZZZ			17:40	
ZZZZZZ			17:44	
CCVH 280-459449/62			17:47	
CCV 280-459449/63			17:51	
CCB 280-459449/64			17:54	
CCVL 280-459449/65			17:58	
ZZZZZZ			18:01	
ZZZZZZ			18:04	
ZZZZZZ			18:08	
ZZZZZZ			18:11	
ZZZZZZ			18:15	
ZZZZZZ			18:19	
ZZZZZZ			18:23	
ZZZZZZ			18:27	
ZZZZZZ			18:30	
ZZZZZZ			18:34	
CCVH 280-459449/76			18:37	
CCV 280-459449/77			18:41	
CCB 280-459449/78			18:45	
CCVL 280-459449/79			18:48	
ZZZZZZ			18:51	
ZZZZZZ			18:55	
ZZZZZZ			18:58	
ZZZZZZ			19:02	
ZZZZZZ			19:06	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			19:09	
ZZZZZZ			19:13	
ZZZZZZ			19:16	
ZZZZZZ			19:20	
ZZZZZZ			19:23	
CCVH 280-459449/90			19:27	
CCV 280-459449/91			19:31	
CCB 280-459449/92			19:34	
CCVL 280-459449/93			19:38	
ZZZZZZ			19:41	
ZZZZZZ			19:45	
ZZZZZZ			19:48	
ZZZZZZ			19:51	
ZZZZZZ			19:55	
ZZZZZZ			19:59	
ZZZZZZ			20:02	
ZZZZZZ			20:06	
ZZZZZZ			20:10	
ZZZZZZ			20:13	
CCVH 280-459449/104			20:16	
CCV 280-459449/105			20:20	
CCB 280-459449/106			20:24	
CCVL 280-459449/107			20:27	
ZZZZZZ			20:30	
ZZZZZZ			20:34	
ZZZZZZ			20:37	
ZZZZZZ			20:41	
ZZZZZZ			20:44	
ZZZZZZ			20:48	
ZZZZZZ			20:51	
ZZZZZZ			20:55	
ZZZZZZ			20:58	
ZZZZZZ			21:02	
CCVH 280-459449/118			21:05	
CCV 280-459449/119			21:09	
CCB 280-459449/120			21:13	
CCVL 280-459449/121			21:16	
ZZZZZZ			21:19	
ZZZZZZ			21:23	
ZZZZZZ			21:27	
ZZZZZZ			21:30	
ZZZZZZ			21:34	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			21:37	
ZZZZZZ			21:41	
ZZZZZZ			21:44	
ZZZZZZ			21:48	
ZZZZZZ			21:51	
CCVH 280-459449/132	1		21:55	X
CCV 280-459449/133	1		21:58	X
CCB 280-459449/134	1		22:02	X
CCVL 280-459449/135	1		22:05	X
ZZZZZZ			22:09	
ZZZZZZ			22:12	
ZZZZZZ			22:16	
MB 280-459136/1-A	1	T	22:20	X
LCS 280-459136/2-A	1	T	22:23	X
LCSD 280-459136/3-A	1	T	22:26	X
280-123855-1	1	T	22:30	X
280-123855-1 SD	5	T	22:34	X
280-123855-1 MS	1	T	22:37	X
280-123855-1 MSD	1	T	22:41	X
CCVH 280-459449/146	1		22:45	X
CCV 280-459449/147	1		22:48	X
CCB 280-459449/148	1		22:52	X
CCVL 280-459449/149	1		22:55	X
280-123855-1 PDS	1	T	22:58	X
280-123855-2	1	T	23:02	X
280-123855-3	1	T	23:06	X
280-123855-4	1	T	23:09	X
280-123855-5	1	T	23:13	X
280-123855-6	1	T	23:16	X
ZZZZZZ			23:20	
ZZZZZZ			23:24	
ZZZZZZ			23:27	
CCVH 280-459449/159	1		23:31	X
CCV 280-459449/160	1		23:35	X
CCB 280-459449/161	1		23:38	X
CCVL 280-459449/162	1		23:42	X
ZZZZZZ			23:45	
ZZZZZZ			23:48	
ZZZZZZ			23:52	
ZZZZZZ			23:56	
ZZZZZZ			23:59	
ZZZZZZ			00:03	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			00:06	
ZZZZZZ			00:10	
ZZZZZZ			00:14	
ZZZZZZ			00:17	
CCVH 280-459449/173			00:21	
CCV 280-459449/174			00:24	
CCB 280-459449/175			00:28	
CCVL 280-459449/176			00:31	
ZZZZZZ			00:35	
ZZZZZZ			00:38	
ZZZZZZ			00:42	
ZZZZZZ			00:45	
ZZZZZZ			00:49	
ZZZZZZ			00:52	
ZZZZZZ			00:56	
ZZZZZZ			01:00	
ZZZZZZ			01:03	
CCVH 280-459449/186			01:07	
CCV 280-459449/187			01:10	
CCB 280-459449/188			01:14	
CCVL 280-459449/189			01:17	
ZZZZZZ			01:21	
ZZZZZZ			01:24	
ZZZZZZ			01:28	
ZZZZZZ			01:31	
ZZZZZZ			01:35	
ZZZZZZ			01:39	
ZZZZZZ			01:43	
CCVH 280-459449/197			01:47	
CCV 280-459449/198			01:50	
CCB 280-459449/199			01:54	
CCVL 280-459449/200			01:57	
ZZZZZZ			09:04	

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

ICP Instrument ID: MT_052 Start Date: 05/24/2019 End Date: 05/24/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 242.219	Q	Element Y 377.433	Q	Element Y 488.368	Q	Element	Q	Element	Q
ICIS 280-459449/1	13:50										
ICVH 280-459449/8	14:17	95		95		96					
ICVH 280-459449/9	14:21	94		94		96					
ICV 280-459449/10	14:26	95		94		94					
ICV 280-459449/11	14:31	95		95		97					
ICVL 280-459449/12	14:47	97		96		96					
ICB 280-459449/15	14:58	97		96		96					
CRI 280-459449/16	15:01	99		98		99					
ICSA 280-459449/17	15:05	84		83		89					
ICSAB 280-459449/18	15:09	86		85		91					
CCVH 280-459449/132	21:55	112		110		118					
CCV 280-459449/133	21:58	115		113		121					
CCB 280-459449/134	22:02	117		115		120					
CCVL 280-459449/135	22:05	119		116		122					
MB 280-459136/1-A	22:20	113		111		114					
LCS 280-459136/2-A	22:23	105		104		110					
LCSD 280-459136/3-A	22:26	107		105		112					
280-123855-1	22:30	108		106		113					
280-123855-1 SD	22:34	111		109		114					
280-123855-1 MS	22:37	106		105		114					
280-123855-1 MSD	22:41	106		104		111					
CCVH 280-459449/146	22:45	109		106		114					
CCV 280-459449/147	22:48	111		109		116					
CCB 280-459449/148	22:52	114		111		117					
CCVL 280-459449/149	22:55	117		115		120					
280-123855-1 PDS	22:58	111		109		117					
280-123855-2	23:02	103		102		113					
280-123855-3	23:06	113		112		120					
280-123855-4	23:09	113		111		120					
280-123855-5	23:13	113		111		119					
280-123855-6	23:16	113		111		119					
CCVH 280-459449/159	23:31	113		110		119					
CCV 280-459449/160	23:35	117		115		121					
CCB 280-459449/161	23:38	118		116		123					
CCVL 280-459449/162	23:42	120		117		124					

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459136 Batch Start Date: 05/24/19 06:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/24/19 12:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	PREP SPK 1 00008	PREP SPK 2 00004	PREP SPK 3 00004
MB 280-459136/1		3010A, 6010C			50 mL	50 mL			
LCS 280-459136/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
LCSD 280-459136/3		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123855-F-1	LF5MW-1A_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123855-F-1 MS	LF5MW-1A_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123855-F-1 MSD	LF5MW-1A_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123855-F-2	LF5MW-100R_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123855-F-3	MW49D07_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123855-F-4	LF5SW-1_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123855-F-5	LF5SW-2_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123855-F-6	LF5SW-3_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PREP SPK 4 00004					
MB 280-459136/1		3010A, 6010C							
LCS 280-459136/2		3010A, 6010C		0.5 mL					
LCSD 280-459136/3		3010A, 6010C		0.5 mL					
280-123855-F-1	LF5MW-1A_0519	3010A, 6010C	T						
280-123855-F-1 MS	LF5MW-1A_0519	3010A, 6010C	T	0.5 mL					
280-123855-F-1 MSD	LF5MW-1A_0519	3010A, 6010C	T	0.5 mL					
280-123855-F-2	LF5MW-100R_0519	3010A, 6010C	T						
280-123855-F-3	MW49D07_0519	3010A, 6010C	T						
280-123855-F-4	LF5SW-1_0519	3010A, 6010C	T						
280-123855-F-5	LF5SW-2_0519	3010A, 6010C	T						
280-123855-F-6	LF5SW-3_0519	3010A, 6010C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459136 Batch Start Date: 05/24/19 06:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/24/19 12:00

Batch Notes	
Temperature - Corrected - End	93 Degrees C
Temperature - Corrected - Start	91 Degrees C
Digestion End Time	05/24/2019 12:00
Digestion Start Time	05/24/2019 06:00
Digestion Unit ID	02
Hydrochloric Acid ID	0000217157-05/03
Nitric Acid ID	0000216908-05/03
Pipette/Syringe/Dispenser ID	MET-116
Thermometer ID	QA-22
Digestion Tube/Cup ID	1812114
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	91 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Path: D:\My Results\52A052419.esws

Date created: 5/24/2019 12:17:42 PM

Instrument used: MY18171010

Software Version : 7.4.2.10790

Firmware Version : 3784

Notes:

Sample Name: icis

Date: 5/24/2019 1:50:34 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000000 !	ppm	N/A	N/A	-267.045000 !	Y 377.433
Al (394.401 nm)	0.000000 !	ppm	N/A	N/A	90.444400 !	Y 377.433
Al H (396.152 nm)	0.000000 !	ppm	N/A	N/A	51.855400 !	Y_R 377.433
As (188.980 nm)	0.000000 !	ppm	N/A	N/A	-1.575970 !	Y 242.219
B (249.678 nm)	0.000000 !	ppm	N/A	N/A	46.671100 !	Y 242.219
Ba (493.408 nm)	0.000000 !	ppm	N/A	N/A	1399.460000 !	Y_R 488.368
Be (234.861 nm)	0.000000 !	ppm	N/A	N/A	-1.978600 !	Y_R 488.368
Bi (223.061 nm)	0.000000 !	ppm	N/A	N/A	-10.611700 !	Y 377.433
Ca (315.887 nm)	0.000000 !	ppm	N/A	N/A	-69.038458 !	Y_R 377.433
Cd (214.439 nm)	0.000000 !	ppm	N/A	N/A	-5.179760 !	Y 377.433
Co (228.615 nm)	0.000000 !	ppm	N/A	N/A	-15.131600 !	Y 242.219
Cr (205.560 nm)	0.000000 !	ppm	N/A	N/A	-6.753520 !	Y 377.433
Cu (324.754 nm)	0.000000 !	ppm	N/A	N/A	317.963000 !	Y 377.433
Fe (238.204 nm)	0.000000 !	ppm	N/A	N/A	7.139494 !	Y_R 377.433
Fe H (259.940 nm)	0.000000 !	ppm	N/A	N/A	13.492100 !	Y_R 377.433
K (766.491 nm)	0.000000 !	ppm	N/A	N/A	1937.380000 !	Y_R2 488.368
Li (670.783 nm)	0.000000 !	ppm	N/A	N/A	-2545.770000 !	Y_R2 488.368
Mg (279.078 nm)	0.000000 !	ppm	N/A	N/A	8.407430 !	Y 377.433
Mn (257.610 nm)	0.000000 !	ppm	N/A	N/A	-11.057100 !	Y 377.433
Mo (202.032 nm)	0.000000 !	ppm	N/A	N/A	11.132500 !	Y 377.433
Na (589.592 nm)	0.000000 !	ppm	N/A	N/A	150.393000 !	Y_R2 488.368
Na H (589.593 nm)	0.000000 !	ppm	N/A	N/A	52.579926 !	Y_R4
Ni (231.604 nm)	0.000000 !	ppm	N/A	N/A	-8.621800 !	Y 377.433
P (213.618 nm)	0.000000 !	ppm	N/A	N/A	-4.070530 !	Y 242.219
Pb (220.353 nm)	0.000000 !	ppm	N/A	N/A	8.254170 !	Y 242.219
S (181.972 nm)	0.000000 !	ppm	N/A	N/A	12.698613 !	Y 377.433
Sb (206.834 nm)	0.000000 !	ppm	N/A	N/A	1.776990 !	Y 377.433
Se (196.026 nm)	0.000000 !	ppm	N/A	N/A	8.857090 !	Y 242.219
Si (288.158 nm)	0.000000 !	ppm	N/A	N/A	488.546000 !	Y 377.433
Sn (189.925 nm)	0.000000 !	ppm	N/A	N/A	2.090400 !	Y 377.433
Sr (421.552 nm)	0.000000 !	ppm	N/A	N/A	23.169446 !	Y_R 488.368
Th (288.505 nm)	0.000000 !	ppm	N/A	N/A	12.700100 !	Y 377.433
Ti (336.122 nm)	0.000000 !	ppm	N/A	N/A	-433.882000 !	Y 377.433
Tl (190.794 nm)	0.000000 !	ppm	N/A	N/A	1.816620 !	Y 377.433
U (409.013 nm)	0.000000 !	ppm	N/A	N/A	-24.762300 !	Y 377.433
V (292.401 nm)	0.000000 !	ppm	N/A	N/A	-145.643000 !	Y 377.433
Zn (206.200 nm)	0.000000 !	ppm	N/A	N/A	4.064370 !	Y 377.433
Zr (343.823 nm)	0.000000 !	ppm	N/A	N/A	-161.615000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.000000 !	23115.465534 !	0.000000	0.00
Y 377.433	1.000000 !	699431.216509 !	0.000000	0.00
Y_R 377.433	1.000000 !	60628.700000 !	0.000000	0.00
Y_R 488.368	1.000000 !	52827.700000 !	0.000000	0.00
Y_R2 488.368	1.000000 !	106005.291079 !	0.000000	0.00
Y_R4	1.000000 !	45000.000000 !	0.000000	0.00

Sample Name: ic1

Date: 5/24/2019 1:53:46 PM Rack:Tube: 3:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.000000 !	ppm	N/A	N/A	34420.100000 !	Y 377.433
Al (394.401 nm)	1.000000 !	ppm	N/A	N/A	12295.500000 !	Y 377.433
Al H (396.152 nm)	1.000000 !	ppm	N/A	N/A	1927.770000 !	Y_R 377.433
As (188.980 nm)	1.000000 !	ppm	N/A	N/A	1505.320000 !	Y 242.219
B (249.678 nm)	1.000000 !	ppm	N/A	N/A	7188.330000 !	Y 242.219
Ba (493.408 nm)	1.000000 !	ppm	N/A	N/A	101093.000000 !	Y_R 488.368
Be (234.861 nm)	1.000000 !	ppm	N/A	N/A	98480.800000 !	Y_R 488.368
Bi (223.061 nm)	2.000000 !	ppm	N/A	N/A	4369.640000 !	Y 377.433
Ca (315.887 nm)	10.000000 !	ppm	N/A	N/A	7873.018724 !	Y_R 377.433
Cd (214.439 nm)	1.000000 !	ppm	N/A	N/A	36974.900000 !	Y 377.433
Co (228.615 nm)	1.000000 !	ppm	N/A	N/A	23484.900000 !	Y 242.219
Cr (205.560 nm)	1.000000 !	ppm	N/A	N/A	6662.940000 !	Y 377.433
Cu (324.754 nm)	1.000000 !	ppm	N/A	N/A	46959.100000 !	Y 377.433
Fe (238.204 nm)	5.000000 !	ppm	N/A	N/A	12043.012362 !	Y_R 377.433
Fe H (259.940 nm)	5.000000 !	ppm	N/A	N/A	6926.340000 !	Y_R 377.433
K (766.491 nm)	100.000000 !	ppm	N/A	N/A	98496.100000 !	Y_R2 488.368
Li (670.783 nm)	1.000000 !	ppm	N/A	N/A	14624.500000 !	Y_R2 488.368
Mg (279.078 nm)	40.000000 !	ppm	N/A	N/A	130903.000000 !	Y 377.433
Mn (257.610 nm)	1.000000 !	ppm	N/A	N/A	272649.000000 !	Y 377.433
Mo (202.032 nm)	1.000000 !	ppm	N/A	N/A	12615.400000 !	Y 377.433
Na (589.592 nm)		ppm	N/A	N/A	40893.200000 !	Y_R2 488.368
Na H (589.593 nm)		ppm	N/A	N/A	26976.026888 !	Y_R4
Ni (231.604 nm)	1.000000 !	ppm	N/A	N/A	5165.430000 !	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	-153.150000 !	Y 242.219
Pb (220.353 nm)	1.000000 !	ppm	N/A	N/A	3186.400000 !	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	24.996043 !	Y 377.433
Sb (206.834 nm)	1.000000 !	ppm	N/A	N/A	1690.430000 !	Y 377.433
Se (196.026 nm)	1.000000 !	ppm	N/A	N/A	1517.040000 !	Y 242.219
Si (288.158 nm)	10.000000 !	ppm	N/A	N/A	64864.200000 !	Y 377.433
Sn (189.925 nm)	1.000000 !	ppm	N/A	N/A	1611.150000 !	Y 377.433
Sr (421.552 nm)	1.000000 !	ppm	N/A	N/A	150624.251629 !	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	-39.509800 !	Y 377.433
Ti (336.122 nm)	1.000000 !	ppm	N/A	N/A	127522.000000 !	Y 377.433
Tl (190.794 nm)	1.000000 !	ppm	N/A	N/A	2288.810000 !	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	-45.760300 !	Y 377.433
V (292.401 nm)	1.000000 !	ppm	N/A	N/A	51838.700000 !	Y 377.433
Zn (206.200 nm)	1.000000 !	ppm	N/A	N/A	4500.800000 !	Y 377.433
Zr (343.823 nm)	1.000000 !	ppm	N/A	N/A	56450.100000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.976917 !	22581.901479 !	0.002168	0.22
Y 377.433	0.977143 !	683444.354027 !	0.001557	0.16
Y_R 377.433	0.974987 !	59112.300000 !	0.004848	0.50
Y_R 488.368	0.972359 !	51367.500000 !	0.005236	0.54
Y_R2 488.368	0.961482 !	101922.155595 !	0.005878	0.61
Y_R4	0.983579 !	44261.000000 !	0.000675	0.07

Sample Name: ic3

Date: 5/24/2019 1:57:54 PM Rack:Tube: 3:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-258.673000 !	Y 377.433
Al (394.401 nm)		ppm	N/A	N/A	573.984000 !	Y 377.433
Al H (396.152 nm)		ppm	N/A	N/A	113.364000 !	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	0.234095 !	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	49.041000 !	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1451.400000 !	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	3.201450 !	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	-11.419900 !	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-66.058745 !	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	-2.059940 !	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	-20.835400 !	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-6.914490 !	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	343.102000 !	Y 377.433
Fe (238.204 nm)		ppm	N/A	N/A	92.333631 !	Y_R 377.433
Fe H (259.940 nm)		ppm	N/A	N/A	66.619500 !	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	1949.230000 !	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2528.360000 !	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	17.829500 !	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	8.470240 !	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	18.620000 !	Y 377.433
Na (589.592 nm)	50.000000 !	ppm	N/A	N/A	41195.600000 !	Y_R2 488.368
Na H (589.593 nm)	50.000000 !	ppm	N/A	N/A	27010.309459 !	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	-6.559380 !	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	1.110720 !	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	8.317920 !	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	14.043954 !	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	3.096320 !	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	7.752380 !	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	535.204000 !	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	2.711680 !	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	72.045476 !	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	20.292100 !	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-428.640000 !	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	-0.538019 !	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	14.639600 !	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	-156.729000 !	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	10.011300 !	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-154.110000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993758 !	22971.185603 !	0.001288	0.13
Y 377.433	0.989537 !	692113.294317 !	0.001254	0.13
Y_R 377.433	0.988362 !	59923.200000 !	0.004887	0.49
Y_R 488.368	0.990897 !	52346.800000 !	0.007672	0.77
Y_R2 488.368	0.989459 !	104887.911584 !	0.000969	0.10
Y_R4	0.993930 !	44726.800000 !	0.003535	0.36

Sample Name: ic2

Date: 5/24/2019 2:01:32 PM Rack:Tube: 3:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-114.811000 !	Y 377.433
Al (394.401 nm)	100.000000 !	ppm	N/A	N/A	1249990.000000 !	Y 377.433
Al H (396.152 nm)	100.000000 !	ppm	N/A	N/A	218339.000000 !	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	2.086190 !	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	-17.642200 !	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1807.270000 !	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	-489.683000 !	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	-17.310500 !	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-87.155681 !	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	28.610700 !	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	70.366700 !	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-3.113460 !	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	2389.680000 !	Y 377.433
Fe (238.204 nm)	100.000000 !	ppm	N/A	N/A	241018.534258 !	Y_R 377.433
Fe H (259.940 nm)	100.000000 !	ppm	N/A	N/A	138310.000000 !	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	2231.750000 !	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2630.170000 !	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	-290.722000 !	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	-289.546000 !	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	11.190000 !	Y 377.433
Na (589.592 nm)	500.000000 !	ppm	N/A	N/A	390776.000000 !	Y_R2 488.368
Na H (589.593 nm)	500.000000 !	ppm	N/A	N/A	271160.576082 !	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	7.070090 !	Y 377.433
P (213.618 nm)	10.000000 !	ppm	N/A	N/A	14296.000000 !	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	36.346300 !	Y 242.219
S (181.972 nm)	10.000000 !	ppm	N/A	N/A	4592.241667 !	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	15.038600 !	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	1.904680 !	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	736.662000 !	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	-0.047550 !	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	128.820066 !	Y_R 488.368
Th (288.505 nm)	10.000000 !	ppm	N/A	N/A	17262.000000 !	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-357.628000 !	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	-18.749500 !	Y 377.433
U (409.013 nm)	1.000000 !	ppm	N/A	N/A	3147.670000 !	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	770.401000 !	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	22.659000 !	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-183.342000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.960821 !	22209.833629 !	0.005664	0.59
Y 377.433	0.955642 !	668405.696055 !	0.005373	0.56
Y_R 377.433	0.981604 !	59513.400000 !	0.003023	0.31
Y_R 488.368	0.970727 !	51281.300000 !	0.012094	1.25
Y_R2 488.368	0.959598 !	101722.455148 !	0.003536	0.37
Y_R4	0.984535 !	44304.000000 !	0.000369	0.04

Sample Name: S1-5717466

Date: 5/24/2019 2:05:41 PM Rack:Tube: 3:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.006330 !	ppm	0.001529	0.15	34454.700000 !	Y 377.433
Al (394.401 nm)	1.015630 !	ppm	0.001570	0.15	12744.900000 !	Y 377.433
Al H (396.152 nm)	0.982419 !	ppm	0.001177	0.12	2395.060000 !	Y_R 377.433
As (188.980 nm)	1.008150 !	ppm	0.001295	0.13	1517.470000 !	Y 242.219
B (249.678 nm)	1.005060 !	ppm	0.001491	0.15	7221.550000 !	Y 242.219
Ba (493.408 nm)	1.003580 !	ppm	0.000649	0.06	101454.000000 !	Y_R 488.368
Be (234.861 nm)	1.001190 !	ppm	0.000902	0.09	98576.300000 !	Y_R 488.368
Bi (223.061 nm)	2.009760 !	ppm	0.002910	0.14	4392.120000 !	Y 377.433
Ca (315.887 nm)	10.060009 !	ppm	0.009638	0.10	7920.946505 !	Y_R 377.433
Cd (214.439 nm)	1.013990 !	ppm	0.001505	0.15	37494.200000 !	Y 377.433
Co (228.615 nm)	1.006690 !	ppm	0.001476	0.15	23689.000000 !	Y 242.219
Cr (205.560 nm)	1.007340 !	ppm	0.002850	0.28	6704.330000 !	Y 377.433
Cu (324.754 nm)	1.004500 !	ppm	0.002594	0.26	47165.200000 !	Y 377.433
Fe (238.204 nm)	5.027064 !	ppm	0.000017	0.00	12108.160491 !	Y_R 377.433
Fe H (259.940 nm)	5.030520 !	ppm	0.007204	0.14	6968.550000 !	Y_R 377.433
K (766.491 nm)	100.264000 !	ppm	0.799322	0.80	98750.700000 !	Y_R2 488.368
Li (670.783 nm)	0.994589 !	ppm	0.002971	0.30	14531.600000 !	Y_R2 488.368
Mg (279.078 nm)	40.536600 !	ppm	0.002576	0.01	132652.000000 !	Y 377.433
Mn (257.610 nm)	1.008870 !	ppm	0.000117	0.01	275068.000000 !	Y 377.433
Mo (202.032 nm)	1.009120 !	ppm	0.002080	0.21	12730.300000 !	Y 377.433
Na (589.592 nm)	49.495500 !	ppm	0.010914	0.02	41008.900000 !	Y_R2 488.368
Na H (589.593 nm)	50.602736 !	ppm	0.509916	1.01	27337.327468 !	Y_R4
Ni (231.604 nm)	1.010350 !	ppm	0.000788	0.08	5220.150000 !	Y 377.433
P (213.618 nm)	0.084764 !	ppm	0.000757	0.89	-153.862000 !	Y 242.219
Pb (220.353 nm)	1.007180 !	ppm	0.002005	0.20	3203.410000 !	Y 242.219
S (181.972 nm)	0.015704 !	ppm	0.007487	47.67	23.546002 !	Y 377.433
Sb (206.834 nm)	1.007980 !	ppm	0.004563	0.45	1698.290000 !	Y 377.433
Se (196.026 nm)	1.004290 !	ppm	0.001681	0.17	1523.780000 !	Y 242.219
Si (288.158 nm)	10.094100 !	ppm	0.016284	0.16	65470.300000 !	Y 377.433
Sn (189.925 nm)	1.013890 !	ppm	0.000971	0.10	1633.500000 !	Y 377.433
Sr (421.552 nm)	1.003361 !	ppm	0.000589	0.06	151131.247626 !	Y_R 488.368
Th (288.505 nm)	0.024475 !	ppm	0.002982	12.18	-47.951600 !	Y 377.433
Ti (336.122 nm)	1.005790 !	ppm	0.000157	0.02	128305.000000 !	Y 377.433
Tl (190.794 nm)	1.008240 !	ppm	0.001073	0.11	2301.120000 !	Y 377.433
U (409.013 nm)	0.023997 !	ppm	0.007716	32.15	-71.591600 !	Y 377.433
V (292.401 nm)	1.008220 !	ppm	0.000613	0.06	51857.200000 !	Y 377.433
Zn (206.200 nm)	1.014810 !	ppm	0.002292	0.23	4568.090000 !	Y 377.433
Zr (343.823 nm)	1.005170 !	ppm	0.000816	0.08	56742.600000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.955568 !	22088.393115 !	0.001030	0.11
Y 377.433	0.951611 !	665586.277647 !	0.000440	0.05
Y_R 377.433	0.956907 !	58016.100000 !	0.000712	0.07
Y_R 488.368	0.954524 !	50425.300000 !	0.000419	0.04
Y_R2 488.368	0.955664 !	101305.409979 !	0.000693	0.07
Y_R4	0.980210 !	44109.400000 !	0.000601	0.06

Sample Name: S3-5617381

Date: 5/24/2019 2:09:18 PM Rack:Tube: 3:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000278 !u	ppm	0.000708	> 100.00	-257.922000 !	Y 377.433
Al (394.401 nm)	0.039080 !	ppm	0.000652	1.67	571.243000 !	Y 377.433
Al H (396.152 nm)	0.172662 !u	ppm	0.004232	2.45	119.348000 !	Y_R 377.433
As (188.980 nm)	-0.002553 !u	ppm	0.003077	> 100.00	-5.424310 !	Y 242.219
B (249.678 nm)	0.000776 !	ppm	0.000056	7.15	52.192000 !	Y 242.219
Ba (493.408 nm)	0.000686 !	ppm	0.000136	19.85	1467.840000 !	Y_R 488.368
Be (234.861 nm)	0.000126 !	ppm	0.000002	1.83	10.216900 !	Y_R 488.368
Bi (223.061 nm)	0.001861 !	ppm	0.001935	> 100.00	-6.528150 !	Y 377.433
Ca (315.887 nm)	0.005635 !	ppm	0.006192	> 100.00	-64.552485 !	Y_R 377.433
Cd (214.439 nm)	-0.000006 !u	ppm	0.000113	> 100.00	-5.402420 !	Y 377.433
Co (228.615 nm)	0.000019 !u	ppm	0.000383	> 100.00	-14.670700 !	Y 242.219
Cr (205.560 nm)	0.000598 !	ppm	0.000164	27.45	-2.773590 !	Y 377.433
Cu (324.754 nm)	0.000326 !	ppm	0.000133	40.93	331.893000 !	Y 377.433
Fe (238.204 nm)	0.041957 !	ppm	0.000403	0.96	108.138190 !	Y_R 377.433
Fe H (259.940 nm)	0.044842 !u	ppm	0.001039	2.32	73.428700 !	Y_R 377.433
K (766.491 nm)	-0.040785 !u	ppm	0.497043	> 100.00	1898.000000 !	Y_R2 488.368
Li (670.783 nm)	-0.002744 !u	ppm	0.003571	> 100.00	-2592.880000 !	Y_R2 488.368
Mg (279.078 nm)	0.006749 !	ppm	0.001799	26.66	29.910200 !	Y 377.433
Mn (257.610 nm)	0.000244 !	ppm	0.000049	20.25	55.420800 !	Y 377.433
Mo (202.032 nm)	0.000787 !	ppm	0.000069	8.73	21.045800 !	Y 377.433
Na (589.592 nm)	49.792800 !	ppm	0.154071	0.31	41025.600000 !	Y_R2 488.368
Na H (589.593 nm)	49.760807 !u	ppm	0.065688	0.13	26880.533702 !	Y_R4
Ni (231.604 nm)	0.000472 !	ppm	0.000570	> 100.00	-6.174600 !	Y 377.433
P (213.618 nm)	-0.000178 !u	ppm	0.003501	> 100.00	-4.510970 !	Y 242.219
Pb (220.353 nm)	0.001673 !	ppm	0.000404	24.13	13.641400 !	Y 242.219
S (181.972 nm)	0.009398 !	ppm	0.001080	11.50	17.003992 !	Y 377.433
Sb (206.834 nm)	-0.001231 !u	ppm	0.004657	> 100.00	-0.298904 !	Y 377.433
Se (196.026 nm)	0.003170 !	ppm	0.002378	75.01	13.627200 !	Y 242.219
Si (288.158 nm)	0.008169 !	ppm	0.000280	3.43	541.133000 !	Y 377.433
Sn (189.925 nm)	0.001503 !	ppm	0.000476	31.70	4.508840 !	Y 377.433
Sr (421.552 nm)	0.000400 !	ppm	0.000078	19.55	83.473270 !	Y_R 488.368
Th (288.505 nm)	0.005909 !	ppm	0.001353	22.90	23.026700 !	Y 377.433
Ti (336.122 nm)	0.000108 !	ppm	0.000077	71.18	-420.018000 !	Y 377.433
Tl (190.794 nm)	0.001299 !	ppm	0.000424	32.67	4.777590 !	Y 377.433
U (409.013 nm)	0.014769 !	ppm	0.000396	2.68	22.096100 !	Y 377.433
V (292.401 nm)	-0.000330 !u	ppm	0.000102	30.84	-164.442000 !	Y 377.433
Zn (206.200 nm)	0.001423 !	ppm	0.000291	20.47	10.466800 !	Y 377.433
Zr (343.823 nm)	0.000356 !	ppm	0.000099	27.73	-141.450000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.980701 !	22669.364029 !	0.006892	0.70
Y 377.433	0.975682 !	682422.659191 !	0.005691	0.58
Y_R 377.433	0.967716 !	58671.400000 !	0.001656	0.17
Y_R 488.368	0.968599 !	51168.900000 !	0.002594	0.27
Y_R2 488.368	0.976851 !	103551.368582 !	0.000651	0.07
Y_R4	0.976217 !	43929.700000 !	0.005080	0.52

Sample Name: S2-5713035

Date: 5/24/2019 2:12:53 PM Rack:Tube: 3:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005115 !	ppm	0.000074	1.45	-109.669000 !	Y 377.433
Al (394.401 nm)	102.814000 !o	ppm	0.021713	0.02	1252500.000000 !	Y 377.433
Al H (396.152 nm)	100.205000 !	ppm	0.237277	0.24	218783.000000 !	Y_R 377.433
As (188.980 nm)	0.003244 !	ppm	0.000544	16.78	0.593429 !	Y 242.219
B (249.678 nm)	-0.002530 !u	ppm	0.000488	19.28	-29.385700 !	Y 242.219
Ba (493.408 nm)	0.004213 !	ppm	0.000172	4.08	1899.440000 !	Y_R 488.368
Be (234.861 nm)	-0.000472 !u	ppm	0.000017	3.64	-472.971000 !	Y_R 488.368
Bi (223.061 nm)	0.011488 !	ppm	0.001124	9.78	31.892400 !	Y 377.433
Ca (315.887 nm)	-0.013233 !u	ppm	0.006583	49.75	-54.552316 !	Y_R 377.433
Cd (214.439 nm)	-0.000257 !u	ppm	0.000176	68.21	26.081300 !	Y 377.433
Co (228.615 nm)	0.003462 !	ppm	0.000074	2.13	66.227700 !	Y 242.219
Cr (205.560 nm)	0.001393 !	ppm	0.000455	32.67	-0.138616 !	Y 377.433
Cu (324.754 nm)	0.003206 !	ppm	0.000326	10.17	2385.040000 !	Y 377.433
Fe (238.204 nm)	100.365903 !o	ppm	0.111531	0.11	241605.389750 !	Y_R 377.433
Fe H (259.940 nm)	100.031000 !	ppm	0.237179	0.24	138352.000000 !	Y_R 377.433
K (766.491 nm)	0.205238 !u	ppm	0.380136	> 100.00	2135.560000 !	Y_R2 488.368
Li (670.783 nm)	-0.003821 !u	ppm	0.000584	15.29	-2611.370000 !	Y_R2 488.368
Mg (279.078 nm)	-0.041589 !u	ppm	0.002542	6.11	-275.084000 !	Y 377.433
Mn (257.610 nm)	-0.000285 !u	ppm	0.000007	2.42	-88.638400 !	Y 377.433
Mo (202.032 nm)	-0.000081 !u	ppm	0.000237	> 100.00	10.117400 !	Y 377.433
Na (589.592 nm)	474.701000 !o	ppm	0.268687	0.06	389835.000000 !	Y_R2 488.368
Na H (589.593 nm)	502.219994 !	ppm	1.683124	0.34	272365.047247 !	Y_R4
Ni (231.604 nm)	0.003026 !	ppm	0.000071	2.33	7.036050 !	Y 377.433
P (213.618 nm)	10.014000 !	ppm	0.025174	0.25	14307.900000 !	Y 242.219
Pb (220.353 nm)	0.011619 !	ppm	0.000737	6.34	31.010100 !	Y 242.219
S (181.972 nm)	9.912057 !	ppm	0.029707	0.30	4551.975914 !	Y 377.433
Sb (206.834 nm)	-0.000096 !u	ppm	0.001428	> 100.00	10.085800 !	Y 377.433
Se (196.026 nm)	0.013324 !	ppm	0.001662	12.47	3.101390 !	Y 242.219
Si (288.158 nm)	0.039082 !	ppm	0.000541	1.39	740.140000 !	Y 377.433
Sn (189.925 nm)	0.001646 !	ppm	0.000505	30.72	4.738160 !	Y 377.433
Sr (421.552 nm)	0.000711 !	ppm	0.000089	12.45	145.341162 !	Y_R 488.368
Th (288.505 nm)	10.000700 !	ppm	0.007182	0.07	17258.200000 !	Y 377.433
Ti (336.122 nm)	0.000714 !	ppm	0.000080	11.26	-342.389000 !	Y 377.433
Tl (190.794 nm)	-0.003364 !u	ppm	0.001137	33.80	-15.443400 !	Y 377.433
U (409.013 nm)	0.997626 !	ppm	0.004228	0.42	3213.990000 !	Y 377.433
V (292.401 nm)	-0.001643 !u	ppm	0.000009	0.54	767.910000 !	Y 377.433
Zn (206.200 nm)	0.009003 !	ppm	0.000456	5.07	58.522200 !	Y 377.433
Zr (343.823 nm)	-0.000685 !u	ppm	0.000116	16.97	-200.412000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.929477 !	21485.292234 !	0.000904	0.10
Y 377.433	0.920676 !	643949.784134 !	0.000017	0.00
Y_R 377.433	0.948199 !	57488.100000 !	0.012700	1.34
Y_R 488.368	0.948617 !	50113.200000 !	0.013792	1.45
Y_R2 488.368	0.962677 !	102048.905126 !	0.011259	1.17
Y_R4	0.971773 !	43729.800000 !	0.001066	0.11

Sample Name: ICVH-5719883

Date: 5/24/2019 2:17:00 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001529 !	ppm	0.000208	13.63	-221.293000 !	Y 377.433
Al (394.401 nm)	40.577900 !o	ppm	0.032523	0.08	494648.000000 !	Y 377.433
Al H (396.152 nm)	40.079700 !	ppm	0.091676	0.23	87351.000000 !	Y_R 377.433
As (188.980 nm)	0.001356 !	ppm	0.001471	> 100.00	-1.724240 !	Y 242.219
B (249.678 nm)	0.000710 !	ppm	0.000071	9.98	4.989470 !	Y 242.219
Ba (493.408 nm)	0.001279 !	ppm	0.000296	23.13	1591.420000 !	Y_R 488.368
Be (234.861 nm)	-0.000550 !u	ppm	0.000025	4.59	-398.430000 !	Y_R 488.368
Bi (223.061 nm)	0.006126 !	ppm	0.003733	60.95	16.788300 !	Y 377.433
Ca (315.887 nm)	-0.014615 !u	ppm	0.003678	25.17	-70.658832 !	Y_R 377.433
Cd (214.439 nm)	-0.000142 !u	ppm	0.000045	31.49	22.452300 !	Y 377.433
Co (228.615 nm)	-0.000416 !u	ppm	0.000073	17.50	-24.901500 !	Y 242.219
Cr (205.560 nm)	-0.000010 !u	ppm	0.000081	> 100.00	-7.892410 !	Y 377.433
Cu (324.754 nm)	0.001116 !	ppm	0.000120	10.75	928.091000 !	Y 377.433
Fe (238.204 nm)	80.920191 !o	ppm	0.277968	0.34	194796.165850 !	Y_R 377.433
Fe H (259.940 nm)	80.618200 !	ppm	0.235159	0.29	111505.000000 !	Y_R 377.433
K (766.491 nm)	0.054981 !u	ppm	0.359235	> 100.00	1990.470000 !	Y_R2 488.368
Li (670.783 nm)	-0.003245 !u	ppm	0.005001	> 100.00	-2601.490000 !	Y_R2 488.368
Mg (279.078 nm)	-0.012820 !u	ppm	0.001058	8.25	-146.476000 !	Y 377.433
Mn (257.610 nm)	0.000052 !	ppm	0.000015	28.35	3.097440 !	Y 377.433
Mo (202.032 nm)	-0.000101 !u	ppm	0.000417	> 100.00	9.864300 !	Y 377.433
Na (589.592 nm)	78.821300 !o	ppm	0.082171	0.10	64855.400000 !	Y_R2 488.368
Na H (589.593 nm)	78.687742 !	ppm	0.007608	0.01	42575.020281 !	Y_R4
Ni (231.604 nm)	0.000320 !	ppm	0.000047	14.53	-6.963240 !	Y 377.433
P (213.618 nm)	3.874420 !	ppm	0.007516	0.19	5534.670000 !	Y 242.219
Pb (220.353 nm)	0.002217 !	ppm	0.001064	47.97	9.721160 !	Y 242.219
S (181.972 nm)	3.959902 !	ppm	0.005933	0.15	1826.156310 !	Y 377.433
Sb (206.834 nm)	0.000246 !u	ppm	0.001206	> 100.00	9.015370 !	Y 377.433
Se (196.026 nm)	0.005652 !	ppm	0.003752	66.38	-3.460740 !	Y 242.219
Si (288.158 nm)	0.005184 !	ppm	0.002698	52.04	521.920000 !	Y 377.433
Sn (189.925 nm)	0.001486 !	ppm	0.000010	0.71	4.481500 !	Y 377.433
Sr (421.552 nm)	0.000255 !	ppm	0.000058	22.54	73.794311 !	Y_R 488.368
Th (288.505 nm)	2.960560 !	ppm	0.010325	0.35	5114.700000 !	Y 377.433
Ti (336.122 nm)	0.000133 !	ppm	0.000072	53.76	-416.780000 !	Y 377.433
Tl (190.794 nm)	0.001720 !	ppm	0.000454	26.37	-3.022820 !	Y 377.433
U (409.013 nm)	0.402842 !	ppm	0.009299	2.31	1312.720000 !	Y 377.433
V (292.401 nm)	-0.000740 !u	ppm	0.000287	38.81	102.360000 !	Y 377.433
Zn (206.200 nm)	-0.002751 !u	ppm	0.000670	24.35	2.961050 !	Y 377.433
Zr (343.823 nm)	0.001102 !	ppm	0.000128	11.63	-99.245100 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.954168 !	22056.047679 !	0.001215	0.13
Y 377.433	0.952119 !	665942.077663 !	0.000686	0.07
Y_R 377.433	0.959975 !	58202.100000 !	0.003946	0.41
Y_R 488.368	0.964265 !	50939.900000 !	0.006732	0.70
Y_R2 488.368	0.963229 !	102107.390097 !	0.004483	0.47
Y_R4	0.986416 !	44388.700000 !	0.000443	0.04

Sample Name: ICVH-5719883

Date: 5/24/2019 2:21:29 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002171 !	ppm	0.000368	16.93	-199.147000 !	Y 377.433
Al (394.401 nm)	40.743100 !o	ppm	0.109011	0.27	496660.000000 !	Y 377.433
Al H (396.152 nm)	40.111200 !	ppm	0.275315	0.69	87419.700000 !	Y_R 377.433
As (188.980 nm)	0.002864 !	ppm	0.002621	91.50	0.546592 !	Y 242.219
B (249.678 nm)	0.000516 !u	ppm	0.000916	> 100.00	3.570770 !	Y 242.219
Ba (493.408 nm)	0.001174 !	ppm	0.000378	32.24	1581.000000 !	Y_R 488.368
Be (234.861 nm)	-0.000517 !u	ppm	0.000010	1.97	-395.417000 !	Y_R 488.368
Bi (223.061 nm)	0.004595 !	ppm	0.005964	> 100.00	13.445200 !	Y 377.433
Ca (315.887 nm)	-0.014476 !u	ppm	0.006250	43.18	-70.530048 !	Y_R 377.433
Cd (214.439 nm)	-0.000053 !u	ppm	0.000168	> 100.00	25.775800 !	Y 377.433
Co (228.615 nm)	-0.000416 !u	ppm	0.000304	72.98	-24.929300 !	Y 242.219
Cr (205.560 nm)	0.000231 !	ppm	0.000199	86.17	-6.284520 !	Y 377.433
Cu (324.754 nm)	0.001066 !	ppm	0.000188	17.65	929.325000 !	Y 377.433
Fe (238.204 nm)	80.970748 !o	ppm	0.450146	0.56	194917.865604 !	Y_R 377.433
Fe H (259.940 nm)	80.750900 !	ppm	0.508941	0.63	111689.000000 !	Y_R 377.433
K (766.491 nm)	0.144096 !	ppm	0.004589	3.18	2076.520000 !	Y_R2 488.368
Li (670.783 nm)	-0.002873 !u	ppm	0.000832	28.96	-2595.100000 !	Y_R2 488.368
Mg (279.078 nm)	-0.013153 !u	ppm	0.000996	7.57	-147.653000 !	Y 377.433
Mn (257.610 nm)	0.000094 !	ppm	0.000018	19.33	14.696800 !	Y 377.433
Mo (202.032 nm)	-0.000376 !u	ppm	0.000132	34.98	6.389310 !	Y 377.433
Na (589.592 nm)	77.970800 !o	ppm	0.167281	0.21	64157.200000 !	Y_R2 488.368
Na H (589.593 nm)	77.573510 !	ppm	0.048620	0.06	41970.487019 !	Y_R4
Ni (231.604 nm)	-0.000630 !u	ppm	0.000402	63.88	-11.878000 !	Y 377.433
P (213.618 nm)	3.875140 !	ppm	0.033256	0.86	5535.650000 !	Y 242.219
Pb (220.353 nm)	0.001403 !u	ppm	0.002614	> 100.00	7.127140 !	Y 242.219
S (181.972 nm)	3.944610 !	ppm	0.005476	0.14	1819.153227 !	Y 377.433
Sb (206.834 nm)	0.002169 !u	ppm	0.003570	> 100.00	12.269200 !	Y 377.433
Se (196.026 nm)	0.012352 !	ppm	0.003610	29.22	6.631010 !	Y 242.219
Si (288.158 nm)	0.005719 !	ppm	0.002577	45.06	525.360000 !	Y 377.433
Sn (189.925 nm)	0.002084 !	ppm	0.002694	> 100.00	5.443930 !	Y 377.433
Sr (421.552 nm)	0.000252 !	ppm	0.000019	7.51	73.319492 !	Y_R 488.368
Th (288.505 nm)	2.965710 !	ppm	0.006628	0.22	5123.570000 !	Y 377.433
Ti (336.122 nm)	-0.000048 !u	ppm	0.000030	62.81	-440.043000 !	Y 377.433
Tl (190.794 nm)	0.000396 !u	ppm	0.001175	> 100.00	-6.050450 !	Y 377.433
U (409.013 nm)	0.398019 !	ppm	0.009214	2.31	1297.500000 !	Y 377.433
V (292.401 nm)	-0.000978 !u	ppm	0.000321	32.83	91.992300 !	Y 377.433
Zn (206.200 nm)	-0.001999 !u	ppm	0.000716	35.83	6.350020 !	Y 377.433
Zr (343.823 nm)	0.000831 !	ppm	0.000030	3.67	-114.546000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.941205 !	21756.388753 !	0.002499	0.27
Y 377.433	0.935965 !	654643.417507 !	0.003399	0.36
Y_R 377.433	0.960620 !	58241.200000 !	0.002841	0.30
Y_R 488.368	0.958957 !	50659.500000 !	0.000711	0.07
Y_R2 488.368	0.960057 !	101771.073557 !	0.002904	0.30
Y_R4	0.975579 !	43901.000000 !	0.002480	0.25

Sample Name: ICV-5717304

Date: 5/24/2019 2:26:48 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.248461 !	ppm	0.000172	0.07	8307.440000 !	Y 377.433
Al (394.401 nm)	0.248861 !	ppm	0.000498	0.20	3192.700000 !	Y 377.433
Al H (396.152 nm)	0.342179 !u	ppm	0.001313	0.38	611.792000 !	Y_R 377.433
As (188.980 nm)	0.240953 !	ppm	0.000069	0.03	361.481000 !	Y 242.219
B (249.678 nm)	0.238247 !	ppm	0.000190	0.08	1747.430000 !	Y 242.219
Ba (493.408 nm)	0.246116 !	ppm	0.000584	0.24	25936.700000 !	Y_R 488.368
Be (234.861 nm)	0.249187 !	ppm	0.001095	0.44	24533.400000 !	Y_R 488.368
Bi (223.061 nm)	0.468769 !	ppm	0.000163	0.03	1016.320000 !	Y 377.433
Ca (315.887 nm)	2.503014 !	ppm	0.016243	0.65	1918.933159 !	Y_R 377.433
Cd (214.439 nm)	0.250960 !	ppm	0.000288	0.11	9275.870000 !	Y 377.433
Co (228.615 nm)	0.246181 !	ppm	0.001790	0.73	5781.340000 !	Y 242.219
Cr (205.560 nm)	0.250310 !	ppm	0.000234	0.09	1660.880000 !	Y 377.433
Cu (324.754 nm)	0.245798 !	ppm	0.000042	0.02	11780.100000 !	Y 377.433
Fe (238.204 nm)	1.244175 !	ppm	0.005315	0.43	3002.085515 !	Y_R 377.433
Fe H (259.940 nm)	1.249890 !u	ppm	0.004409	0.35	1739.990000 !	Y_R 377.433
K (766.491 nm)	24.943700 !	ppm	0.513866	2.06	26022.700000 !	Y_R2 488.368
Li (670.783 nm)	0.235718 Q!	ppm	0.001342	0.57	1501.560000 Q!	Y_R2 488.368
Mg (279.078 nm)	10.010600 !	ppm	0.002562	0.03	32764.700000 !	Y 377.433
Mn (257.610 nm)	0.250853 !	ppm	0.000007	0.00	68386.400000 !	Y 377.433
Mo (202.032 nm)	0.246758 !	ppm	0.000021	0.01	3121.330000 !	Y 377.433
Na (589.592 nm)	12.031200 !	ppm	0.041851	0.35	10082.300000 !	Y_R2 488.368
Na H (589.593 nm)	12.456415 !u	ppm	0.125856	1.01	6640.806435 !	Y_R4
Ni (231.604 nm)	0.251713 !	ppm	0.000326	0.13	1294.040000 !	Y 377.433
P (213.618 nm)	0.022253 Q!	ppm	0.002819	12.67	-38.918000 Q!	Y 242.219
Pb (220.353 nm)	0.249108 !	ppm	0.002054	0.82	798.580000 !	Y 242.219
S (181.972 nm)	0.006209 !	ppm	0.004763	76.72	16.453242 !	Y 377.433
Sb (206.834 nm)	0.251701 !	ppm	0.001385	0.55	425.466000 !	Y 377.433
Se (196.026 nm)	0.237821 !	ppm	0.001605	0.68	367.603000 !	Y 242.219
Si (288.158 nm)	2.403650 !	ppm	0.006927	0.29	15962.200000 !	Y 377.433
Sn (189.925 nm)	0.246705 !	ppm	0.001057	0.43	399.052000 !	Y 377.433
Sr (421.552 nm)	0.240584 !	ppm	0.000161	0.07	36255.598354 !	Y_R 488.368
Th (288.505 nm)	0.008137 !	ppm	0.000660	8.11	1.964030 !	Y 377.433
Ti (336.122 nm)	0.240935 !	ppm	0.000116	0.05	30405.600000 !	Y 377.433
Tl (190.794 nm)	0.251549 !	ppm	0.001523	0.61	575.529000 !	Y 377.433
U (409.013 nm)	0.009895 !	ppm	0.005249	53.05	-23.792000 !	Y 377.433
V (292.401 nm)	0.243905 !	ppm	0.000055	0.02	12431.900000 !	Y 377.433
Zn (206.200 nm)	0.251278 !	ppm	0.000938	0.37	1134.170000 !	Y 377.433
Zr (343.823 nm)	0.247060 !	ppm	0.000232	0.09	13824.900000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.952332 !	22013.599443 !	0.002548	0.27
Y 377.433	0.944378 !	660527.446021 !	0.002474	0.26
Y_R 377.433	0.934665 !	56667.600000 !	0.005564	0.60
Y_R 488.368	0.938454 !	49576.400000 !	0.006044	0.64
Y_R2 488.368	0.926673 !	98232.191454 !	0.001675	0.18
Y_R4	0.959479 !	43176.500000 !	0.003479	0.36

Sample Name: ICV-5717304

Date: 5/24/2019 2:31:33 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.248613 !	ppm	0.000206	0.08	8312.810000 !	Y 377.433
Al (394.401 nm)	0.250158 !	ppm	0.000168	0.07	3207.620000 !	Y 377.433
Al H (396.152 nm)	0.347435 !u	ppm	0.003672	1.06	623.168000 !	Y_R 377.433
As (188.980 nm)	0.239693 !	ppm	0.002180	0.91	359.583000 !	Y 242.219
B (249.678 nm)	0.238626 !	ppm	0.001087	0.46	1750.140000 !	Y 242.219
Ba (493.408 nm)	0.244968 !	ppm	0.000522	0.21	25822.200000 !	Y_R 488.368
Be (234.861 nm)	0.243127 !	ppm	0.001330	0.55	23936.600000 !	Y_R 488.368
Bi (223.061 nm)	0.469837 !	ppm	0.004788	1.02	1018.660000 !	Y 377.433
Ca (315.887 nm)	2.499004 !	ppm	0.008195	0.33	1915.750994 !	Y_R 377.433
Cd (214.439 nm)	0.251998 !	ppm	0.000659	0.26	9314.240000 !	Y 377.433
Co (228.615 nm)	0.246485 !	ppm	0.000695	0.28	5788.470000 !	Y 242.219
Cr (205.560 nm)	0.251346 !	ppm	0.000454	0.18	1667.780000 !	Y 377.433
Cu (324.754 nm)	0.245488 !	ppm	0.000997	0.41	11766.100000 !	Y 377.433
Fe (238.204 nm)	1.239956 !	ppm	0.003512	0.28	2991.928981 !	Y_R 377.433
Fe H (259.940 nm)	1.246210 !u	ppm	0.001464	0.12	1734.900000 !	Y_R 377.433
K (766.491 nm)	24.766700 !	ppm	0.511859	2.07	25851.800000 !	Y_R2 488.368
Li (670.783 nm)	0.239702 !	ppm	0.000034	0.01	1569.960000 !	Y_R2 488.368
Mg (279.078 nm)	10.017600 !	ppm	0.022179	0.22	32787.800000 !	Y 377.433
Mn (257.610 nm)	0.250825 !	ppm	0.000619	0.25	68378.800000 !	Y 377.433
Mo (202.032 nm)	0.247668 !	ppm	0.001353	0.55	3132.800000 !	Y 377.433
Na (589.592 nm)	11.922100 !	ppm	0.073551	0.62	9992.570000 !	Y_R2 488.368
Na H (589.593 nm)	12.306073 !u	ppm	0.121817	0.99	6559.237656 !	Y_R4
Ni (231.604 nm)	0.251595 !	ppm	0.000751	0.30	1293.430000 !	Y 377.433
P (213.618 nm)	0.019175 Q!	ppm	0.000598	3.12	-43.264700 Q!	Y 242.219
Pb (220.353 nm)	0.249754 !	ppm	0.000595	0.24	800.617000 !	Y 242.219
S (181.972 nm)	0.001637 !	ppm	0.000116	7.06	14.358697 !	Y 377.433
Sb (206.834 nm)	0.252993 !	ppm	0.000176	0.07	427.649000 !	Y 377.433
Se (196.026 nm)	0.238134 !	ppm	0.000773	0.32	368.076000 !	Y 242.219
Si (288.158 nm)	2.407320 !	ppm	0.012456	0.52	15985.800000 !	Y 377.433
Sn (189.925 nm)	0.248904 !	ppm	0.001269	0.51	402.592000 !	Y 377.433
Sr (421.552 nm)	0.240224 !	ppm	0.000896	0.37	36201.385706 !	Y_R 488.368
Th (288.505 nm)	0.007108 !	ppm	0.003575	50.29	0.247399 !	Y 377.433
Ti (336.122 nm)	0.241234 !	ppm	0.000770	0.32	30443.700000 !	Y 377.433
Tl (190.794 nm)	0.253761 !	ppm	0.001698	0.67	580.591000 !	Y 377.433
U (409.013 nm)	0.004849 !	ppm	0.001559	32.16	-39.793000 !	Y 377.433
V (292.401 nm)	0.243593 !	ppm	0.000437	0.18	12415.500000 !	Y 377.433
Zn (206.200 nm)	0.252300 !	ppm	0.001139	0.45	1138.770000 !	Y 377.433
Zr (343.823 nm)	0.247184 !	ppm	0.001238	0.50	13831.900000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.954003 !	22052.219564 !	0.000470	0.05
Y 377.433	0.946009 !	661667.969683 !	0.000208	0.02
Y_R 377.433	0.959912 !	58198.300000 !	0.002195	0.23
Y_R 488.368	0.965164 !	50987.400000 !	0.001631	0.17
Y_R2 488.368	0.957958 !	101548.586339 !	0.001325	0.14
Y_R4	0.962764 !	43324.300000 !	0.008609	0.89

Sample Name: ICVL-5719884

Date: 5/24/2019 2:47:51 PM Rack:Tube: 3:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008209 !	ppm	0.000402	4.90	15.082500 !	Y 377.433
Al (394.401 nm)	0.103965 !	ppm	0.000340	0.33	1369.620000 !	Y 377.433
Al H (396.152 nm)	0.229930 !u	ppm	0.007617	3.31	250.009000 !	Y_R 377.433
As (188.980 nm)	0.015056 !	ppm	0.001861	12.36	21.109000 !	Y 242.219
B (249.678 nm)	0.092671 !	ppm	0.000216	0.23	708.433000 !	Y 242.219
Ba (493.408 nm)	0.011029 !	ppm	0.000418	3.79	2499.030000 !	Y_R 488.368
Be (234.861 nm)	0.001033 !	ppm	0.000037	3.54	99.270700 !	Y_R 488.368
Bi (223.061 nm)	0.095280 !	ppm	0.004189	4.40	198.090000 !	Y 377.433
Ca (315.887 nm)	0.218595 !	ppm	0.005046	2.31	104.594724 !	Y_R 377.433
Cd (214.439 nm)	0.005259 !	ppm	0.000073	1.38	189.325000 !	Y 377.433
Co (228.615 nm)	0.010837 !	ppm	0.000020	0.19	240.009000 !	Y 242.219
Cr (205.560 nm)	0.011039 !	ppm	0.000379	3.43	66.686900 !	Y 377.433
Cu (324.754 nm)	0.016678 !	ppm	0.000299	1.79	1093.720000 !	Y 377.433
Fe (238.204 nm)	0.110723 !	ppm	0.005242	4.73	273.668052 !	Y_R 377.433
Fe H (259.940 nm)	0.117423 !u	ppm	0.001420	1.21	173.807000 !	Y_R 377.433
K (766.491 nm)	3.134540 !	ppm	0.368741	11.76	4964.060000 !	Y_R2 488.368
Li (670.783 nm)	0.017620 !	ppm	0.001928	10.94	-2243.220000 !	Y_R2 488.368
Mg (279.078 nm)	0.208158 !	ppm	0.002456	1.18	688.184000 !	Y 377.433
Mn (257.610 nm)	0.011135 !	ppm	0.000027	0.24	3024.950000 !	Y 377.433
Mo (202.032 nm)	0.020214 !	ppm	0.000512	2.53	265.920000 !	Y 377.433
Na (589.592 nm)	1.056380 !	ppm	0.029214	2.77	1020.000000 !	Y_R2 488.368
Na H (589.593 nm)	1.399465 !u	ppm	0.005166	0.37	641.790452 !	Y_R4
Ni (231.604 nm)	0.044314 !	ppm	0.001601	3.61	220.681000 !	Y 377.433
P (213.618 nm)	2.863300 !	ppm	0.008097	0.28	4085.680000 !	Y 242.219
Pb (220.353 nm)	0.011269 !	ppm	0.001151	10.21	44.160200 !	Y 242.219
S (181.972 nm)	0.098653 !	ppm	0.002497	2.53	57.919057 !	Y 377.433
Sb (206.834 nm)	0.018476 !	ppm	0.001432	7.75	32.822100 !	Y 377.433
Se (196.026 nm)	0.019121 !	ppm	0.002071	10.83	37.684900 !	Y 242.219
Si (288.158 nm)	0.486914 !	ppm	0.000835	0.17	3623.090000 !	Y 377.433
Sn (189.925 nm)	0.103946 !	ppm	0.000433	0.42	169.346000 !	Y 377.433
Sr (421.552 nm)	0.009427 !	ppm	0.000186	1.97	1442.897340 !	Y_R 488.368
Th (288.505 nm)	0.016079 !	ppm	0.003006	18.70	39.971800 !	Y 377.433
Ti (336.122 nm)	0.009721 !	ppm	0.000030	0.31	810.799000 !	Y 377.433
Tl (190.794 nm)	0.015053 !	ppm	0.002424	16.10	36.126600 !	Y 377.433
U (409.013 nm)	0.051932 !	ppm	0.006925	13.33	138.760000 !	Y 377.433
V (292.401 nm)	0.009602 !	ppm	0.000090	0.94	345.644000 !	Y 377.433
Zn (206.200 nm)	0.023201 !	ppm	0.000072	0.31	108.406000 !	Y 377.433
Zr (343.823 nm)	0.009765 Q!	ppm	0.000002	0.02	391.179000 Q!	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.973911 !	22512.400571 !	0.002197	0.23
Y 377.433	0.961378 !	672418.098260 !	0.003485	0.36
Y_R 377.433	0.957323 !	58041.300000 !	0.002451	0.26
Y_R 488.368	0.959690 !	50698.200000 !	0.001322	0.14
Y_R2 488.368	0.964289 !	102219.744886 !	0.000195	0.02
Y_R4	0.960691 !	43231.100000 !	0.002082	0.22

Sample Name: CCVH-5713036

Date: 5/24/2019 2:51:20 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004595 !	ppm	0.000403	8.78	-118.444000 !	Y 377.433
Al (394.401 nm)	51.400000 !o	ppm	0.016402	0.03	626212.000000 !	Y 377.433
Al H (396.152 nm)	50.019300 !	ppm	0.221750	0.44	109081.000000 !	Y_R 377.433
As (188.980 nm)	0.000459 !u	ppm	0.001697	> 100.00	-2.245120 !	Y 242.219
B (249.678 nm)	-0.001937 !u	ppm	0.000299	15.46	3.798430 !	Y 242.219
Ba (493.408 nm)	0.003457 !	ppm	0.000654	18.90	1784.160000 !	Y_R 488.368
Be (234.861 nm)	0.001103 !	ppm	0.000039	3.54	-105.953000 !	Y_R 488.368
Bi (223.061 nm)	0.011556 !	ppm	0.002514	21.76	23.382700 !	Y 377.433
Ca (315.887 nm)	-0.018856 !u	ppm	0.003165	16.79	-71.502892 !	Y_R 377.433
Cd (214.439 nm)	0.001294 !	ppm	0.000254	19.63	63.088300 !	Y 377.433
Co (228.615 nm)	0.002977 !	ppm	0.000096	3.21	54.872700 !	Y 242.219
Cr (205.560 nm)	0.001178 !	ppm	0.000056	4.71	-0.245591 !	Y 377.433
Cu (324.754 nm)	0.003181 !	ppm	0.000313	9.84	1426.030000 !	Y 377.433
Fe (238.204 nm)	50.257577 !o	ppm	0.226217	0.45	120985.900875 !	Y_R 377.433
Fe H (259.940 nm)	50.167900 !	ppm	0.213242	0.43	69392.900000 !	Y_R 377.433
K (766.491 nm)	0.302430 !	ppm	0.296265	97.96	2229.410000 !	Y_R2 488.368
Li (670.783 nm)	-0.004930 !u	ppm	0.000356	7.21	-2630.410000 !	Y_R2 488.368
Mg (279.078 nm)	0.035158 !	ppm	0.000780	2.22	48.796200 !	Y 377.433
Mn (257.610 nm)	0.000969 !	ppm	0.000005	0.50	253.215000 !	Y 377.433
Mo (202.032 nm)	0.001283 !	ppm	0.000268	20.90	27.309500 !	Y 377.433
Na (589.592 nm)	235.940000 !o	ppm	0.858847	0.36	193835.000000 !	Y_R2 488.368
Na H (589.593 nm)	241.502573 !	ppm	0.991290	0.41	130911.207827 !	Y_R4
Ni (231.604 nm)	0.002866 !	ppm	0.000161	5.61	6.209260 !	Y 377.433
P (213.618 nm)	5.015700 !	ppm	0.008116	0.16	7163.730000 !	Y 242.219
Pb (220.353 nm)	0.005069 !	ppm	0.000442	8.73	17.395200 !	Y 242.219
S (181.972 nm)	4.959723 !	ppm	0.011034	0.22	2284.032382 !	Y 377.433
Sb (206.834 nm)	-0.000441 !u	ppm	0.003971	> 100.00	5.262430 !	Y 377.433
Se (196.026 nm)	0.008729 !	ppm	0.000644	7.37	9.079020 !	Y 242.219
Si (288.158 nm)	0.018016 !	ppm	0.001862	10.34	604.524000 !	Y 377.433
Sn (189.925 nm)	0.004084 !	ppm	0.001576	38.60	8.661320 !	Y 377.433
Sr (421.552 nm)	0.001513 !	ppm	0.000005	0.30	258.601796 !	Y_R 488.368
Th (288.505 nm)	4.968620 !	ppm	0.000463	0.01	8580.980000 !	Y 377.433
Ti (336.122 nm)	0.001459 !	ppm	0.000076	5.21	-247.106000 !	Y 377.433
Tl (190.794 nm)	-0.000134 !u	ppm	0.000486	> 100.00	-3.287730 !	Y 377.433
U (409.013 nm)	0.542030 Q!	ppm	0.001460	0.27	1731.620000 Q!	Y 377.433
V (292.401 nm)	0.000192 !	ppm	0.000174	90.34	362.854000 !	Y 377.433
Zn (206.200 nm)	0.002566 !	ppm	0.000668	26.04	22.600300 !	Y 377.433
Zr (343.823 nm)	0.001084 !	ppm	0.000043	3.94	-100.245000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.918470 !	21230.855930 !	0.003257	0.35
Y 377.433	0.907907 !	635018.671536 !	0.002912	0.32
Y_R 377.433	0.931007 !	56445.800000 !	0.004635	0.50
Y_R 488.368	0.938400 !	49573.500000 !	0.010778	1.15
Y_R2 488.368	0.941066 !	99757.982210 !	0.006279	0.67
Y_R4	0.954830 !	42967.300000 !	0.004048	0.42

Sample Name: CCV-5717467

Date: 5/24/2019 2:55:03 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.503275 !	ppm	0.001134	0.23	17096.500000 !	Y 377.433
Al (394.401 nm)	0.521895 !	ppm	0.002993	0.57	6589.530000 !	Y 377.433
Al H (396.152 nm)	0.564758 !u	ppm	0.016655	2.95	1226.820000 !	Y_R 377.433
As (188.980 nm)	0.503249 !	ppm	0.001146	0.23	756.697000 !	Y 242.219
B (249.678 nm)	0.491318 !	ppm	0.001054	0.21	3554.030000 !	Y 242.219
Ba (493.408 nm)	0.503285 !	ppm	0.001330	0.26	51575.800000 !	Y_R 488.368
Be (234.861 nm)	0.499322 !	ppm	0.006971	1.40	49161.900000 !	Y_R 488.368
Bi (223.061 nm)	1.000640 !	ppm	0.007160	0.72	2181.470000 !	Y 377.433
Ca (315.887 nm)	5.044375 !	ppm	0.009716	0.19	3937.367110 !	Y_R 377.433
Cd (214.439 nm)	0.523488 !	ppm	0.001150	0.22	19354.500000 !	Y 377.433
Co (228.615 nm)	0.509358 !	ppm	0.000257	0.05	11978.100000 !	Y 242.219
Cr (205.560 nm)	0.522296 !	ppm	0.001929	0.37	3472.960000 !	Y 377.433
Cu (324.754 nm)	0.508497 !	ppm	0.003521	0.69	24032.700000 !	Y 377.433
Fe (238.204 nm)	2.541967 !	ppm	0.000081	0.00	6126.098126 !	Y_R 377.433
Fe H (259.940 nm)	2.547770 !u	ppm	0.005375	0.21	3534.940000 !	Y_R 377.433
K (766.491 nm)	49.963800 !	ppm	0.451443	0.90	50181.800000 !	Y_R2 488.368
Li (670.783 nm)	0.492253 !	ppm	0.001111	0.23	5906.330000 !	Y_R2 488.368
Mg (279.078 nm)	20.288700 !	ppm	0.036087	0.18	66396.700000 !	Y 377.433
Mn (257.610 nm)	0.506005 !	ppm	0.000612	0.12	137956.000000 !	Y 377.433
Mo (202.032 nm)	0.510223 !	ppm	0.002174	0.43	6442.100000 !	Y 377.433
Na (589.592 nm)	24.237000 !	ppm	0.004779	0.02	20160.500000 !	Y_R2 488.368
Na H (589.593 nm)	24.862230 !u	ppm	0.235152	0.95	13371.657665 !	Y_R4
Ni (231.604 nm)	0.518400 !	ppm	0.001266	0.24	2674.210000 !	Y 377.433
P (213.618 nm)	0.050943 !	ppm	0.000759	1.49	-69.161900 !	Y 242.219
Pb (220.353 nm)	0.515561 !	ppm	0.002291	0.44	1643.890000 !	Y 242.219
S (181.972 nm)	0.009977 !	ppm	0.004833	48.44	19.115066 !	Y 377.433
Sb (206.834 nm)	0.513058 !	ppm	0.004688	0.91	865.399000 !	Y 377.433
Se (196.026 nm)	0.502116 !	ppm	0.000731	0.15	766.274000 !	Y 242.219
Si (288.158 nm)	4.997900 !	ppm	0.016291	0.33	32662.800000 !	Y 377.433
Sn (189.925 nm)	0.522132 !	ppm	0.001487	0.28	842.231000 !	Y 377.433
Sr (421.552 nm)	0.491740 !	ppm	0.000683	0.14	74080.070681 !	Y_R 488.368
Th (288.505 nm)	0.020627 !	ppm	0.003862	18.72	-3.256010 !	Y 377.433
Ti (336.122 nm)	0.498424 !	ppm	0.001494	0.30	63363.700000 !	Y 377.433
Tl (190.794 nm)	0.522963 !	ppm	0.001410	0.27	1194.570000 !	Y 377.433
U (409.013 nm)	0.014865 !	ppm	0.002048	13.78	-39.196300 !	Y 377.433
V (292.401 nm)	0.505207 !	ppm	0.000926	0.18	25906.800000 !	Y 377.433
Zn (206.200 nm)	0.523405 !	ppm	0.001521	0.29	2358.030000 !	Y 377.433
Zr (343.823 nm)	0.501256 !	ppm	0.001308	0.26	28215.400000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.948206 !	21918.220930 !	0.005173	0.55
Y 377.433	0.936007 !	654672.194997 !	0.004405	0.47
Y_R 377.433	0.939042 !	56933.000000 !	0.006696	0.71
Y_R 488.368	0.949540 !	50162.000000 !	0.007416	0.78
Y_R2 488.368	0.932042 !	98801.344815 !	0.001728	0.19
Y_R4	0.943754 !	42468.900000 !	0.005449	0.58

Sample Name: ICB

Date: 5/24/2019 2:58:37 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000143	ppm	0.000099	69.37	-262.259000	Y 377.433
Al (394.401 nm)	-0.000540 u	ppm	0.001010	> 100.00	85.520200	Y 377.433
Al H (396.152 nm)	0.140396 Zu	ppm	0.000543	0.39	48.814200 Z	Y_R 377.433
As (188.980 nm)	-0.000399 u	ppm	0.004266	> 100.00	-2.177390	Y 242.219
B (249.678 nm)	-0.000951 u	ppm	0.001206	> 100.00	39.882400	Y 242.219
Ba (493.408 nm)	0.000116 u	ppm	0.000373	> 100.00	1410.990000	Y_R 488.368
Be (234.861 nm)	-0.000085 u	ppm	0.000004	4.62	-10.322400	Y_R 488.368
Bi (223.061 nm)	0.000167	ppm	0.000004	2.35	-10.246500	Y 377.433
Ca (315.887 nm)	0.005839	ppm	0.001125	19.27	-64.399362	Y_R 377.433
Cd (214.439 nm)	-0.000056 u	ppm	0.000059	> 100.00	-7.247190	Y 377.433
Co (228.615 nm)	-0.000333 u	ppm	0.000202	60.49	-22.967100	Y 242.219
Cr (205.560 nm)	0.000733	ppm	0.000376	51.23	-1.863220	Y 377.433
Cu (324.754 nm)	0.000506	ppm	0.000213	42.11	340.992000	Y 377.433
Fe (238.204 nm)	-0.000100 u	ppm	0.000054	54.34	6.898996	Y_R 377.433
Fe H (259.940 nm)	0.005575 u	ppm	0.004814	86.35	19.122800	Y_R 377.433
K (766.491 nm)	0.131894 u	ppm	0.409036	> 100.00	2064.740000	Y_R2 488.368
Li (670.783 nm)	-0.001431 u	ppm	0.000864	60.37	-2570.330000	Y_R2 488.368
Mg (279.078 nm)	-0.001410 u	ppm	0.002988	> 100.00	3.570750	Y 377.433
Mn (257.610 nm)	0.000033	ppm	0.000038	> 100.00	-1.949720	Y 377.433
Mo (202.032 nm)	0.000619	ppm	0.000115	18.51	18.934000	Y 377.433
Na (589.592 nm)	-0.024890 u	ppm	0.002768	11.12	129.987000	Y_R2 488.368
Na H (589.593 nm)	0.478903 u	ppm	0.010554	2.20	142.333969	Y_R4
Ni (231.604 nm)	-0.000008 u	ppm	0.000006	75.77	-8.661750	Y 377.433
P (213.618 nm)	-0.001306 u	ppm	0.000659	50.46	-6.086420	Y 242.219
Pb (220.353 nm)	0.000904	ppm	0.000798	88.34	11.155900	Y 242.219
S (181.972 nm)	0.007648	ppm	0.003876	50.68	16.201916	Y 377.433
Sb (206.834 nm)	0.001052 u	ppm	0.002600	> 100.00	3.556330	Y 377.433
Se (196.026 nm)	-0.000574 u	ppm	0.002612	> 100.00	7.991750	Y 242.219
Si (288.158 nm)	-0.000197 u	ppm	0.001977	> 100.00	487.280000	Y 377.433
Sn (189.925 nm)	0.000354 u	ppm	0.002437	> 100.00	2.659630	Y 377.433
Sr (421.552 nm)	0.000445	ppm	0.000062	13.93	90.247294	Y_R 488.368
Th (288.505 nm)	0.004397	ppm	0.000798	18.16	20.365700	Y 377.433
Ti (336.122 nm)	-0.000074 u	ppm	0.000040	53.98	-443.336000	Y 377.433
Tl (190.794 nm)	0.001330	ppm	0.001599	> 100.00	4.856420	Y 377.433
U (409.013 nm)	-0.004628 u	ppm	0.014092	> 100.00	-39.425700	Y 377.433
V (292.401 nm)	-0.000351 u	ppm	0.000129	36.75	-164.814000	Y 377.433
Zn (206.200 nm)	-0.000870 u	ppm	0.000041	4.69	0.151118	Y 377.433
Zr (343.823 nm)	-0.000254 u	ppm	0.000025	9.73	-176.004000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.970833	22441.262855	0.001433	0.15
Y 377.433	0.956801	669216.679562	0.002960	0.31
Y_R 377.433	0.957934	58078.400000	0.001499	0.16
Y_R 488.368	0.962470	50845.100000	0.008563	0.89
Y_R2 488.368	0.969935	102818.254566	0.001625	0.17
Y_R4	0.970257	43661.500000	0.003936	0.41

Sample Name: CRI-5719884

Date: 5/24/2019 3:01:48 PM Rack:Tube: 3:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008683	ppm	0.000075	0.86	31.521200	Y 377.433
Al (394.401 nm)	0.103789	ppm	0.000875	0.84	1367.140000	Y 377.433
Al H (396.152 nm)	0.233905 u	ppm	0.011558	4.94	258.742000	Y_R 377.433
As (188.980 nm)	0.014609	ppm	0.005339	36.54	20.435000	Y 242.219
B (249.678 nm)	0.093460	ppm	0.000836	0.89	714.066000	Y 242.219
Ba (493.408 nm)	0.010387	ppm	0.000363	3.50	2435.050000	Y_R 488.368
Be (234.861 nm)	0.000906	ppm	0.000090	9.93	86.719200	Y_R 488.368
Bi (223.061 nm)	0.095407	ppm	0.003926	4.11	198.367000	Y 377.433
Ca (315.887 nm)	0.204297	ppm	0.010112	4.95	93.237046	Y_R 377.433
Cd (214.439 nm)	0.005374	ppm	0.000085	1.58	193.607000	Y 377.433
Co (228.615 nm)	0.010581	ppm	0.000152	1.44	233.989000	Y 242.219
Cr (205.560 nm)	0.010827	ppm	0.000706	6.52	65.275400	Y 377.433
Cu (324.754 nm)	0.016755	ppm	0.000115	0.69	1097.460000	Y 377.433
Fe (238.204 nm)	0.115134	ppm	0.000988	0.86	284.288167	Y_R 377.433
Fe H (259.940 nm)	0.118722 u	ppm	0.005241	4.41	175.604000	Y_R 377.433
K (766.491 nm)	3.048910	ppm	0.410021	13.45	4881.370000	Y_R2 488.368
Li (670.783 nm)	0.023102	ppm	0.000914	3.96	-2149.100000	Y_R2 488.368
Mg (279.078 nm)	0.209297	ppm	0.001932	0.92	691.951000	Y 377.433
Mn (257.610 nm)	0.011130	ppm	0.000014	0.12	3023.550000	Y 377.433
Mo (202.032 nm)	0.020071	ppm	0.000156	0.78	264.112000	Y 377.433
Na (589.592 nm)	1.043100	ppm	0.020018	1.92	1008.990000	Y_R2 488.368
Na H (589.593 nm)	1.442298 u	ppm	0.020801	1.44	665.029667	Y_R4
Ni (231.604 nm)	0.044760	ppm	0.000318	0.71	222.984000	Y 377.433
P (213.618 nm)	2.883980	ppm	0.018128	0.63	4115.350000	Y 242.219
Pb (220.353 nm)	0.012956 Q	ppm	0.000243	1.87	49.516300 Q	Y 242.219
S (181.972 nm)	0.095554	ppm	0.002927	3.06	56.499386	Y 377.433
Sb (206.834 nm)	0.022226	ppm	0.001905	8.57	39.154200	Y 377.433
Se (196.026 nm)	0.020653	ppm	0.003068	14.85	39.995200	Y 242.219
Si (288.158 nm)	0.494912	ppm	0.002290	0.46	3674.570000	Y 377.433
Sn (189.925 nm)	0.104179	ppm	0.000847	0.81	169.721000	Y 377.433
Sr (421.552 nm)	0.009565	ppm	0.000041	0.43	1463.695933	Y_R 488.368
Th (288.505 nm)	0.018399 Q	ppm	0.008262	44.90	43.936700 Q	Y 377.433
Ti (336.122 nm)	0.009794	ppm	0.000103	1.05	820.139000	Y 377.433
Tl (190.794 nm)	0.015874	ppm	0.002284	14.39	38.003200	Y 377.433
U (409.013 nm)	0.053822	ppm	0.009812	18.23	144.740000	Y 377.433
V (292.401 nm)	0.009758	ppm	0.000298	3.05	354.015000	Y 377.433
Zn (206.200 nm)	0.023233	ppm	0.000306	1.32	108.552000	Y 377.433
Zr (343.823 nm)	0.009975 Q	ppm	0.000090	0.90	403.112000 Q	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.992963	22952.804175	0.002725	0.27
Y 377.433	0.976638	683090.976786	0.003426	0.35
Y_R 377.433	0.983955	59656.000000	0.004513	0.46
Y_R 488.368	0.993117	52464.100000	0.010296	1.04
Y_R2 488.368	0.992961	105259.115724	0.004718	0.48
Y_R4	0.976524	43943.500000	0.004717	0.48

Sample Name: ICSA-5714842

Date: 5/24/2019 3:05:17 PM Rack:Tube: 3:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002401	ppm	0.000057	2.37	-186.190000	Y 377.433
Al (394.401 nm)	530.358000 o	ppm	2.136820	0.40	6473180.000000	Y 377.433
Al H (396.152 nm)	523.128000	ppm	3.398080	0.65	1143160.000000	Y_R 377.433
As (188.980 nm)	0.003031	ppm	0.002611	86.12	-2.335990	Y 242.219
B (249.678 nm)	0.013502	ppm	0.000149	1.10	29.465300	Y 242.219
Ba (493.408 nm)	0.001873	ppm	0.000934	49.89	1742.840000	Y_R 488.368
Be (234.861 nm)	-0.000879 Ku	ppm	0.000012	1.35	-920.376000 K	Y_R 488.368
Bi (223.061 nm)	0.000118 u	ppm	0.000305	> 100.00	23.635100	Y 377.433
Ca (315.887 nm)	495.010652	ppm	2.848799	0.58	393202.673998	Y_R 377.433
Cd (214.439 nm)	0.000530	ppm	0.000393	74.08	94.335200	Y 377.433
Co (228.615 nm)	-0.000585 u	ppm	0.001492	> 100.00	-28.840600	Y 242.219
Cr (205.560 nm)	0.006145 K	ppm	0.000138	2.25	20.168500 K	Y 377.433
Cu (324.754 nm)	-0.002034 u	ppm	0.000238	11.71	56.156100	Y 377.433
Fe (238.204 nm)	196.673079 o	ppm	1.091917	0.56	473433.574737	Y_R 377.433
Fe H (259.940 nm)	197.337000	ppm	1.121020	0.57	272925.000000	Y_R 377.433
K (766.491 nm)	0.274999 u	ppm	0.478662	> 100.00	2202.920000	Y_R2 488.368
Li (670.783 nm)	-0.011531 Ku	ppm	0.003501	30.36	-2743.760000 K	Y_R2 488.368
Mg (279.078 nm)	521.121000	ppm	1.329980	0.26	1705040.000000	Y 377.433
Mn (257.610 nm)	0.000584	ppm	0.000004	0.76	148.041000	Y 377.433
Mo (202.032 nm)	0.000750	ppm	0.000687	91.51	20.591600	Y 377.433
Na (589.592 nm)	0.297495	ppm	0.019241	6.47	395.197000	Y_R2 488.368
Na H (589.593 nm)	2.628357 u	ppm	0.079337	3.02	1308.533292	Y_R4
Ni (231.604 nm)	-0.004400 u	ppm	0.000992	22.55	-31.384300	Y 377.433
P (213.618 nm)	0.013829 u	ppm	0.025036	> 100.00	17.613500	Y 242.219
Pb (220.353 nm)	0.007454 K	ppm	0.001213	16.27	-54.789800 K	Y 242.219
S (181.972 nm)	0.003884 u	ppm	0.007754	> 100.00	38.916978	Y 377.433
Sb (206.834 nm)	-0.006606 u	ppm	0.004873	73.77	7.235880	Y 377.433
Se (196.026 nm)	0.011462 K	ppm	0.002727	23.79	-24.513500 K	Y 242.219
Si (288.158 nm)	0.043417	ppm	0.001880	4.33	768.045000	Y 377.433
Sn (189.925 nm)	-0.003233 u	ppm	0.001173	36.29	-3.110950	Y 377.433
Sr (421.552 nm)	0.007827 K	ppm	0.000118	1.51	1231.492690 K	Y_R 488.368
Th (288.505 nm)	0.020434 K	ppm	0.000564	2.76	20.077300 K	Y 377.433
Ti (336.122 nm)	-0.002014 u	ppm	0.000074	3.68	999.062000	Y 377.433
Tl (190.794 nm)	0.010950 K	ppm	0.003170	28.95	-3.227670 K	Y 377.433
U (409.013 nm)	0.048784	ppm	0.008897	18.24	208.254000	Y 377.433
V (292.401 nm)	0.001139	ppm	0.000049	4.28	-94.135900	Y 377.433
Zn (206.200 nm)	-0.003406 u	ppm	0.000743	21.81	16.130300	Y 377.433
Zr (343.823 nm)	0.003332	ppm	0.000005	0.14	27.012000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.838918	19391.979314	0.000134	0.02
Y 377.433	0.832757	582456.166581	0.001681	0.20
Y_R 377.433	0.879545	53325.700000	0.005955	0.68
Y_R 488.368	0.890491	47042.600000	0.013426	1.51
Y_R2 488.368	0.887361	94064.988440	0.003841	0.43
Y_R4	0.923672	41565.200000	0.000613	0.07

Sample Name: ICSAB-5707812

Date: 5/24/2019 3:09:05 PM
Rack:Tube: 3:12

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.171700	ppm	0.001121	0.10	40166.500000	Y 377.433
Al (394.401 nm)	542.970000 o	ppm	0.362419	0.07	6626860.000000	Y 377.433
Al H (396.152 nm)	535.785000	ppm	1.258190	0.23	1171360.000000	Y_R 377.433
As (188.980 nm)	1.105710	ppm	0.004172	0.38	1659.150000	Y 242.219
B (249.678 nm)	10.885900	ppm	0.007900	0.07	77673.400000	Y 242.219
Ba (493.408 nm)	1.075000	ppm	0.004373	0.41	108731.000000	Y_R 488.368
Be (234.861 nm)	0.529318	ppm	0.003058	0.58	51273.900000	Y_R 488.368
Bi (223.061 nm)	1.038170	ppm	0.004132	0.40	2297.980000	Y 377.433
Ca (315.887 nm)	506.037671	ppm	1.830165	0.36	401963.667512	Y_R 377.433
Cd (214.439 nm)	1.050610	ppm	0.003940	0.38	38928.300000	Y 377.433
Co (228.615 nm)	0.998172	ppm	0.000003	0.00	23490.300000	Y 242.219
Cr (205.560 nm)	1.083940	ppm	0.000181	0.02	7201.140000	Y 377.433
Cu (324.754 nm)	1.103290	ppm	0.000326	0.03	52000.900000	Y 377.433
Fe (238.204 nm)	201.642088 o	ppm	0.817463	0.41	485394.845987	Y_R 377.433
Fe H (259.940 nm)	202.386000	ppm	0.809003	0.40	279909.000000	Y_R 377.433
K (766.491 nm)	11.642800	ppm	0.236544	2.03	13179.500000	Y_R2 488.368
Li (670.783 nm)	1.108230	ppm	0.011314	1.02	16482.800000	Y_R2 488.368
Mg (279.078 nm)	536.563000	ppm	0.461994	0.09	1755570.000000	Y 377.433
Mn (257.610 nm)	1.042510	ppm	0.000616	0.06	284240.000000	Y 377.433
Mo (202.032 nm)	1.040440	ppm	0.000263	0.03	13125.100000	Y 377.433
Na (589.592 nm)	11.466300	ppm	0.137846	1.20	9806.930000	Y_R2 488.368
Na H (589.593 nm)	13.811659 Gu	ppm	0.132650	0.96	7376.102832 G	Y_R4
Ni (231.604 nm)	1.010250	ppm	0.000048	0.00	5219.640000	Y 377.433
P (213.618 nm)	10.925400	ppm	0.022488	0.21	15322.500000	Y 242.219
Pb (220.353 nm)	1.038090	ppm	0.000764	0.07	3212.680000	Y 242.219
S (181.972 nm)	10.930733 G	ppm	0.031165	0.29	5046.772991 G	Y 377.433
Sb (206.834 nm)	1.079930	ppm	0.000706	0.07	1836.410000	Y 377.433
Se (196.026 nm)	1.082090	ppm	0.009188	0.85	1590.530000	Y 242.219
Si (288.158 nm)	10.678800	ppm	0.023733	0.22	69234.300000	Y 377.433
Sn (189.925 nm)	1.040500	ppm	0.000045	0.00	1676.320000	Y 377.433
Sr (421.552 nm)	1.050373	ppm	0.004667	0.44	158240.845861	Y_R 488.368
Th (288.505 nm)	2.116180	ppm	0.005320	0.25	3532.300000	Y 377.433
Ti (336.122 nm)	1.043780	ppm	0.000930	0.09	134862.000000	Y 377.433
Tl (190.794 nm)	1.035800	ppm	0.005268	0.51	2333.960000	Y 377.433
U (409.013 nm)	0.068024	ppm	0.002808	4.13	146.651000	Y 377.433
V (292.401 nm)	1.051340	ppm	0.000331	0.03	54280.800000	Y 377.433
Zn (206.200 nm)	1.032090	ppm	0.001401	0.14	4673.190000	Y 377.433
Zr (343.823 nm)	0.995599	ppm	0.001610	0.16	56201.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.855676	19779.346600	0.001576	0.18
Y 377.433	0.848450	593432.556518	0.001919	0.23
Y_R 377.433	0.904775	54855.400000	0.005231	0.58
Y_R 488.368	0.909961	48071.100000	0.004760	0.52
Y_R2 488.368	0.900612	95469.609644	0.004888	0.54
Y_R4	0.931292	41908.100000	0.009804	1.05

Sample Name: LRA-5681702

Date: 5/24/2019 3:12:53 PM Rack:Tube: 3:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.011689 u	ppm	0.000080	0.69	-4676.050000	Y 377.433
Al (394.401 nm)	-0.165366 u	ppm	0.004853	2.93	692.950000	Y 377.433
Al H (396.152 nm)	-1.792040 u	ppm	0.005802	0.32	536.371000	Y_R 377.433
As (188.980 nm)	10.311000	ppm	0.023248	0.23	15522.500000	Y 242.219
B (249.678 nm)	10.303700	ppm	0.010155	0.10	73344.000000	Y 242.219
Ba (493.408 nm)	12.615100	ppm	0.073209	0.58	1259450.000000	Y_R 488.368
Be (234.861 nm)	-0.002265 u	ppm	0.000082	3.63	-2335.100000	Y_R 488.368
Bi (223.061 nm)	-0.028173 u	ppm	0.001400	4.97	13.896700	Y 377.433
Ca (315.887 nm)	0.039231	ppm	0.011739	29.92	-37.821785	Y_R 377.433
Cd (214.439 nm)	2.128930	ppm	0.003373	0.16	78925.700000	Y 377.433
Co (228.615 nm)	5.351610	ppm	0.002039	0.04	126215.000000	Y 242.219
Cr (205.560 nm)	10.665600	ppm	0.009518	0.09	71085.100000	Y 377.433
Cu (324.754 nm)	10.890000	ppm	0.013370	0.12	508213.000000	Y 377.433
Fe (238.204 nm)	498.877644 o	ppm	0.522367	0.10	1200892.720181	Y_R 377.433
Fe H (259.940 nm)	499.137000	ppm	0.153969	0.03	690310.000000	Y_R 377.433
K (766.491 nm)	-0.087254 u	ppm	0.236544	> 100.00	1853.130000	Y_R2 488.368
Li (670.783 nm)	0.004208	ppm	0.004783	> 100.00	-2473.510000	Y_R2 488.368
Mg (279.078 nm)	0.011832	ppm	0.003494	29.53	-608.431000	Y 377.433
Mn (257.610 nm)	10.136700	ppm	0.006293	0.06	2763870.000000	Y 377.433
Mo (202.032 nm)	5.150110	ppm	0.002018	0.04	64924.300000	Y 377.433
Na (589.592 nm)	6.331210	ppm	0.034799	0.55	8215.020000	Y_R2 488.368
Na H (589.593 nm)	8.746202 u	ppm	0.120546	1.38	4627.807970	Y_R4
Ni (231.604 nm)	10.750000	ppm	0.013085	0.12	55618.800000	Y 377.433
P (213.618 nm)	0.964899	ppm	0.001991	0.21	-1361.680000	Y 242.219
Pb (220.353 nm)	10.800700	ppm	0.009637	0.09	34290.400000	Y 242.219
S (181.972 nm)	-0.018863 u	ppm	0.010789	57.20	36.300005	Y 377.433
Sb (206.834 nm)	0.029616	ppm	0.001407	4.75	93.597400	Y 377.433
Se (196.026 nm)	5.076870	ppm	0.008562	0.17	7552.200000	Y 242.219
Si (288.158 nm)	50.394400	ppm	0.054424	0.11	324906.000000	Y 377.433
Sn (189.925 nm)	0.000631	ppm	0.000015	2.34	3.106010	Y 377.433
Sr (421.552 nm)	10.172829	ppm	0.038028	0.37	1532137.194356	Y_R 488.368
Th (288.505 nm)	0.287625	ppm	0.003240	1.13	-459.371000	Y 377.433
Ti (336.122 nm)	9.950910	ppm	0.010939	0.11	1272940.000000	Y 377.433
Tl (190.794 nm)	5.412360	ppm	0.002153	0.04	12268.700000	Y 377.433
U (409.013 nm)	-0.035204 u	ppm	0.002951	8.38	228.311000	Y 377.433
V (292.401 nm)	10.080300	ppm	0.015666	0.16	519978.000000	Y 377.433
Zn (206.200 nm)	10.218300	ppm	0.019249	0.19	46022.400000	Y 377.433
Zr (343.823 nm)	0.015403	ppm	0.000677	4.40	710.361000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.939604	21719.390480	0.002960	0.32
Y 377.433	0.948043	663090.840783	0.002026	0.21
Y_R 377.433	0.953912	57834.500000	0.003547	0.37
Y_R 488.368	0.961347	50785.800000	0.002258	0.23
Y_R2 488.368	0.957094	101457.056447	0.023123	2.42
Y_R4	0.965933	43466.900000	0.001092	0.11

Sample Name: CCVH-5713036

Date: 5/24/2019 3:16:45 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005344	ppm	0.000032	0.61	-92.870600	Y 377.433
Al (394.401 nm)	51.579900 o	ppm	0.041891	0.08	628397.000000	Y 377.433
Al H (396.152 nm)	50.138200	ppm	0.024517	0.05	109341.000000	Y_R 377.433
As (188.980 nm)	0.005676	ppm	0.000836	14.72	5.602080	Y 242.219
B (249.678 nm)	0.010482	ppm	0.000230	2.20	92.206400	Y 242.219
Ba (493.408 nm)	0.003617	ppm	0.000160	4.42	1800.500000	Y_R 488.368
Be (234.861 nm)	0.001202	ppm	0.000003	0.28	-98.233100	Y_R 488.368
Bi (223.061 nm)	0.009097	ppm	0.000212	2.33	18.083000	Y 377.433
Ca (315.887 nm)	-0.002064 u	ppm	0.000604	29.27	-58.104762	Y_R 377.433
Cd (214.439 nm)	0.001434	ppm	0.000130	9.04	68.461200	Y 377.433
Co (228.615 nm)	0.003321	ppm	0.000225	6.77	62.991600	Y 242.219
Cr (205.560 nm)	0.001585	ppm	0.000062	3.90	2.453430	Y 377.433
Cu (324.754 nm)	0.004148	ppm	0.000114	2.74	1479.210000	Y 377.433
Fe (238.204 nm)	50.753654 o	ppm	0.024749	0.05	122180.044879	Y_R 377.433
Fe H (259.940 nm)	50.519500	ppm	0.007892	0.02	69879.100000	Y_R 377.433
K (766.491 nm)	0.338683	ppm	0.272947	80.59	2264.410000	Y_R2 488.368
Li (670.783 nm)	-0.004055 u	ppm	0.003749	92.47	-2615.390000	Y_R2 488.368
Mg (279.078 nm)	0.042672	ppm	0.001307	3.06	72.652800	Y 377.433
Mn (257.610 nm)	0.001427	ppm	0.000042	2.97	378.135000	Y 377.433
Mo (202.032 nm)	0.002100	ppm	0.000531	25.27	37.601400	Y 377.433
Na (589.592 nm)	236.030000 o	ppm	0.344324	0.15	193909.000000	Y_R2 488.368
Na H (589.593 nm)	244.257877	ppm	1.847899	0.76	132406.114795	Y_R4
Ni (231.604 nm)	0.003912	ppm	0.000026	0.67	11.623300	Y 377.433
P (213.618 nm)	4.985860	ppm	0.014555	0.29	7120.850000	Y 242.219
Pb (220.353 nm)	0.008677	ppm	0.000380	4.37	28.826900	Y 242.219
S (181.972 nm)	5.009718	ppm	0.005789	0.12	2306.928856	Y 377.433
Sb (206.834 nm)	-0.002363 u	ppm	0.001788	75.65	2.057140	Y 377.433
Se (196.026 nm)	0.008029	ppm	0.004210	52.43	7.896590	Y 242.219
Si (288.158 nm)	0.032659	ppm	0.001646	5.04	698.790000	Y 377.433
Sn (189.925 nm)	0.003279	ppm	0.000268	8.18	7.365980	Y 377.433
Sr (421.552 nm)	0.001888	ppm	0.000085	4.52	315.109092	Y_R 488.368
Th (288.505 nm)	4.977960	ppm	0.000103	0.00	8597.020000	Y 377.433
Ti (336.122 nm)	0.002051	ppm	0.000125	6.12	-171.399000	Y 377.433
Tl (190.794 nm)	0.001663	ppm	0.000769	46.25	0.764010	Y 377.433
U (409.013 nm)	0.549697 Q	ppm	0.005933	1.08	1756.350000 Q	Y 377.433
V (292.401 nm)	0.000766	ppm	0.000265	34.56	396.658000	Y 377.433
Zn (206.200 nm)	0.003483	ppm	0.000074	2.13	26.791300	Y 377.433
Zr (343.823 nm)	0.001026	ppm	0.000153	14.95	-103.534000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.929503	21485.886983	0.002162	0.23
Y 377.433	0.915674	640450.858375	0.001917	0.21
Y_R 377.433	0.939295	56948.300000	0.005381	0.57
Y_R 488.368	0.954261	50411.400000	0.002707	0.28
Y_R2 488.368	0.937494	99379.347172	0.001711	0.18
Y_R4	0.945189	42533.500000	0.004097	0.43

Sample Name: CCV-5717467

Date: 5/24/2019 3:20:53 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.506164	ppm	0.000352	0.07	17196.200000	Y 377.433
Al (394.401 nm)	0.521312	ppm	0.002233	0.43	6582.030000	Y 377.433
Al H (396.152 nm)	0.575292 u	ppm	0.006235	1.08	1251.010000	Y_R 377.433
As (188.980 nm)	0.506619	ppm	0.001995	0.39	761.775000	Y 242.219
B (249.678 nm)	0.501500	ppm	0.000685	0.14	3626.730000	Y 242.219
Ba (493.408 nm)	0.505904	ppm	0.002075	0.41	51836.900000	Y_R 488.368
Be (234.861 nm)	0.497987	ppm	0.000416	0.08	49030.300000	Y_R 488.368
Bi (223.061 nm)	1.007800	ppm	0.006895	0.68	2197.150000	Y 377.433
Ca (315.887 nm)	5.065932	ppm	0.011109	0.22	3954.493594	Y_R 377.433
Cd (214.439 nm)	0.527390	ppm	0.000218	0.04	19498.800000	Y 377.433
Co (228.615 nm)	0.511227	ppm	0.000181	0.04	12022.100000	Y 242.219
Cr (205.560 nm)	0.532125	ppm	0.001212	0.23	3538.490000	Y 377.433
Cu (324.754 nm)	0.505538	ppm	0.000941	0.19	23894.900000	Y 377.433
Fe (238.204 nm)	2.562431	ppm	0.004510	0.18	6175.359103	Y_R 377.433
Fe H (259.940 nm)	2.559290 u	ppm	0.003632	0.14	3550.870000	Y_R 377.433
K (766.491 nm)	50.121600	ppm	0.505015	1.01	50334.200000	Y_R2 488.368
Li (670.783 nm)	0.496385	ppm	0.008098	1.63	5977.290000	Y_R2 488.368
Mg (279.078 nm)	20.432800	ppm	0.000479	0.00	66868.500000	Y 377.433
Mn (257.610 nm)	0.508749	ppm	0.000414	0.08	138704.000000	Y 377.433
Mo (202.032 nm)	0.512924	ppm	0.001158	0.23	6476.150000	Y 377.433
Na (589.592 nm)	24.147500	ppm	0.060593	0.25	20087.800000	Y_R2 488.368
Na H (589.593 nm)	26.345114 u	ppm	0.163892	0.62	14176.205450	Y_R4
Ni (231.604 nm)	0.521758	ppm	0.000643	0.12	2691.590000	Y 377.433
P (213.618 nm)	0.050261	ppm	0.002134	4.25	-69.731000	Y 242.219
Pb (220.353 nm)	0.518176	ppm	0.000077	0.01	1652.150000	Y 242.219
S (181.972 nm)	0.008323	ppm	0.010082	> 100.00	18.375439	Y 377.433
Sb (206.834 nm)	0.515627	ppm	0.003775	0.73	869.749000	Y 377.433
Se (196.026 nm)	0.505944	ppm	0.002741	0.54	772.049000	Y 242.219
Si (288.158 nm)	5.049320	ppm	0.018703	0.37	32993.900000	Y 377.433
Sn (189.925 nm)	0.525151	ppm	0.001871	0.36	847.089000	Y 377.433
Sr (421.552 nm)	0.492557	ppm	0.000768	0.16	74203.140652	Y_R 488.368
Th (288.505 nm)	0.021525	ppm	0.003347	15.55	-2.026960	Y 377.433
Ti (336.122 nm)	0.500329	ppm	0.000502	0.10	63607.700000	Y 377.433
Tl (190.794 nm)	0.525439	ppm	0.000107	0.02	1200.220000	Y 377.433
U (409.013 nm)	0.010698	ppm	0.001573	14.70	-52.829400	Y 377.433
V (292.401 nm)	0.507389	ppm	0.000221	0.04	26017.600000	Y 377.433
Zn (206.200 nm)	0.528291	ppm	0.002316	0.44	2380.010000	Y 377.433
Zr (343.823 nm)	0.502939	ppm	0.000173	0.03	28310.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.953220	22034.134161	0.002396	0.25
Y 377.433	0.940016	657476.628682	0.002094	0.22
Y_R 377.433	0.952678	57759.700000	0.002774	0.29
Y_R 488.368	0.963976	50924.600000	0.003273	0.34
Y_R2 488.368	0.951438	100857.449627	0.001773	0.19
Y_R4	0.962609	43317.400000	0.002820	0.29

Sample Name: CCB

Date: 5/24/2019 3:24:27 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000342	ppm	0.000165	48.21	-255.293000	Y 377.433
Al (394.401 nm)	-0.000319 u	ppm	0.000390	> 100.00	86.787300	Y 377.433
Al H (396.152 nm)	0.137586 Zu	ppm	0.000958	0.70	42.580400 Z	Y_R 377.433
As (188.980 nm)	-0.000387 u	ppm	0.001767	> 100.00	-2.159090	Y 242.219
B (249.678 nm)	0.001850	ppm	0.000004	0.24	59.887100	Y 242.219
Ba (493.408 nm)	-0.000691 u	ppm	0.000124	17.98	1330.550000	Y_R 488.368
Be (234.861 nm)	0.000006 u	ppm	0.000034	> 100.00	-1.409390	Y_R 488.368
Bi (223.061 nm)	0.000214 u	ppm	0.002880	> 100.00	-10.143400	Y 377.433
Ca (315.887 nm)	0.011762	ppm	0.001199	10.19	-59.693449	Y_R 377.433
Cd (214.439 nm)	0.000130	ppm	0.000018	13.58	-0.370161	Y 377.433
Co (228.615 nm)	-0.000186 u	ppm	0.000170	91.35	-19.495200	Y 242.219
Cr (205.560 nm)	0.000423 u	ppm	0.000902	> 100.00	-3.934740	Y 377.433
Cu (324.754 nm)	0.000917	ppm	0.000067	7.25	360.333000	Y 377.433
Fe (238.204 nm)	-0.001115 u	ppm	0.000591	53.02	4.455782	Y_R 377.433
Fe H (259.940 nm)	0.000766 u	ppm	0.000728	95.11	12.472200	Y_R 377.433
K (766.491 nm)	0.115709	ppm	0.102489	88.57	2049.110000	Y_R2 488.368
Li (670.783 nm)	0.001169	ppm	0.000551	47.15	-2525.690000	Y_R2 488.368
Mg (279.078 nm)	0.003272	ppm	0.001389	42.45	19.194300	Y 377.433
Mn (257.610 nm)	0.000062	ppm	0.000013	21.85	5.759690	Y 377.433
Mo (202.032 nm)	0.000281	ppm	0.000183	65.09	14.669900	Y 377.433
Na (589.592 nm)	0.031342	ppm	0.011251	35.90	175.900000	Y_R2 488.368
Na H (589.593 nm)	1.415258 u	ppm	0.035770	2.53	650.359065	Y_R4
Ni (231.604 nm)	0.001550	ppm	0.000636	41.03	-0.600591	Y 377.433
P (213.618 nm)	0.001331 u	ppm	0.004091	> 100.00	-2.478760	Y 242.219
Pb (220.353 nm)	0.000846	ppm	0.000073	8.58	10.928400	Y 242.219
S (181.972 nm)	0.001695 u	ppm	0.003865	> 100.00	13.475988	Y 377.433
Sb (206.834 nm)	-0.000706 u	ppm	0.005111	> 100.00	0.587549	Y 377.433
Se (196.026 nm)	-0.002296 u	ppm	0.001151	50.16	5.395170	Y 242.219
Si (288.158 nm)	0.001040	ppm	0.000126	12.09	495.241000	Y 377.433
Sn (189.925 nm)	0.000224 u	ppm	0.000924	> 100.00	2.450130	Y 377.433
Sr (421.552 nm)	0.000342	ppm	0.000041	12.03	74.738723	Y_R 488.368
Th (288.505 nm)	0.002869 u	ppm	0.004333	> 100.00	17.588500	Y 377.433
Ti (336.122 nm)	0.000119	ppm	0.000059	49.99	-418.608000	Y 377.433
Tl (190.794 nm)	-0.000106 u	ppm	0.000816	> 100.00	1.573150	Y 377.433
U (409.013 nm)	-0.010643 u	ppm	0.003286	30.87	-58.497500	Y 377.433
V (292.401 nm)	-0.000306 u	ppm	0.000051	16.69	-161.906000	Y 377.433
Zn (206.200 nm)	-0.000236 u	ppm	0.000027	11.29	3.004500	Y 377.433
Zr (343.823 nm)	-0.000161 u	ppm	0.000036	22.49	-170.706000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984152	22749.142139	0.001225	0.12
Y 377.433	0.968698	677537.444328	0.001033	0.11
Y_R 377.433	0.977896	59288.600000	0.000849	0.09
Y_R 488.368	0.986997	52140.800000	0.001464	0.15
Y_R2 488.368	0.980877	103978.105431	0.006778	0.69
Y_R4	0.988038	44461.700000	0.003594	0.36

Sample Name: CCVL-5719884

Date: 5/24/2019 3:27:39 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008377	ppm	0.000086	1.03	20.988100	Y 377.433
Al (394.401 nm)	0.101957	ppm	0.000900	0.88	1343.160000	Y 377.433
Al H (396.152 nm)	0.240419 u	ppm	0.002452	1.02	272.920000	Y_R 377.433
As (188.980 nm)	0.016495	ppm	0.001179	7.14	23.278000	Y 242.219
B (249.678 nm)	0.096736	ppm	0.000914	0.94	737.463000	Y 242.219
Ba (493.408 nm)	0.009598	ppm	0.000014	0.14	2356.430000	Y_R 488.368
Be (234.861 nm)	0.000934	ppm	0.000068	7.23	89.570900	Y_R 488.368
Bi (223.061 nm)	0.092707	ppm	0.001522	1.64	192.454000	Y 377.433
Ca (315.887 nm)	0.208966	ppm	0.014070	6.73	96.948909	Y_R 377.433
Cd (214.439 nm)	0.005204	ppm	0.000114	2.18	187.320000	Y 377.433
Co (228.615 nm)	0.010951	ppm	0.000298	2.72	242.681000	Y 242.219
Cr (205.560 nm)	0.010739	ppm	0.000235	2.19	64.692400	Y 377.433
Cu (324.754 nm)	0.016741	ppm	0.000102	0.61	1097.920000	Y 377.433
Fe (238.204 nm)	0.105225	ppm	0.005053	4.80	260.435201	Y_R 377.433
Fe H (259.940 nm)	0.107427 u	ppm	0.001545	1.44	159.983000	Y_R 377.433
K (766.491 nm)	3.193990	ppm	0.185003	5.79	5021.460000	Y_R2 488.368
Li (670.783 nm)	0.021678	ppm	0.000038	0.17	-2173.550000	Y_R2 488.368
Mg (279.078 nm)	0.209333	ppm	0.001315	0.63	692.110000	Y 377.433
Mn (257.610 nm)	0.010832	ppm	0.000010	0.09	2942.490000	Y 377.433
Mo (202.032 nm)	0.020210	ppm	0.000452	2.24	265.868000	Y 377.433
Na (589.592 nm)	1.104950	ppm	0.014966	1.35	1059.560000	Y_R2 488.368
Na H (589.593 nm)	2.257384 u	ppm	0.012562	0.56	1107.259756	Y_R4
Ni (231.604 nm)	0.043996	ppm	0.000138	0.31	219.038000	Y 377.433
P (213.618 nm)	2.896190	ppm	0.027106	0.94	4132.800000	Y 242.219
Pb (220.353 nm)	0.009403	ppm	0.001689	17.97	38.216300	Y 242.219
S (181.972 nm)	0.092998	ppm	0.004671	5.02	55.327609	Y 377.433
Sb (206.834 nm)	0.015673	ppm	0.002638	16.83	28.085700	Y 377.433
Se (196.026 nm)	0.020538	ppm	0.004926	23.98	39.823400	Y 242.219
Si (288.158 nm)	0.500526	ppm	0.002573	0.51	3710.720000	Y 377.433
Sn (189.925 nm)	0.106627	ppm	0.000588	0.55	173.659000	Y 377.433
Sr (421.552 nm)	0.009362	ppm	0.000265	2.83	1433.123790	Y_R 488.368
Th (288.505 nm)	0.017549	ppm	0.000152	0.87	42.474800	Y 377.433
Ti (336.122 nm)	0.009884	ppm	0.000094	0.95	831.574000	Y 377.433
Tl (190.794 nm)	0.017371	ppm	0.001697	9.77	41.429800	Y 377.433
U (409.013 nm)	0.062153	ppm	0.000065	0.10	171.152000	Y 377.433
V (292.401 nm)	0.009577	ppm	0.000115	1.20	345.214000	Y 377.433
Zn (206.200 nm)	0.021534	ppm	0.000750	3.48	100.914000	Y 377.433
Zr (343.823 nm)	0.010001	ppm	0.000063	0.63	404.536000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.997314	23053.374763	0.001667	0.17
Y 377.433	0.980236	685607.789700	0.000741	0.08
Y_R 377.433	0.978924	59350.900000	0.002241	0.23
Y_R 488.368	0.991307	52368.500000	0.004419	0.45
Y_R2 488.368	0.992487	105208.912881	0.007791	0.79
Y_R4	0.982377	44206.900000	0.006283	0.64

Sample Name: 280-123501-a-8-a@5

Date: 5/24/2019 3:31:07 PM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002394	ppm	0.000319	13.31	-185.822000	Y 377.433
Al (394.401 nm)	0.076429	ppm	0.003061	4.00	1401.210000	Y 377.433
Al H (396.152 nm)	-0.054093 u	ppm	0.003386	6.26	211.545000	Y_R 377.433
As (188.980 nm)	-0.000302 u	ppm	0.001046	> 100.00	-2.034960	Y 242.219
B (249.678 nm)	0.424479	ppm	0.001260	0.30	3078.080000	Y 242.219
Ba (493.408 nm)	0.001966	ppm	0.000479	24.34	1595.590000	Y_R 488.368
Be (234.861 nm)	-0.000006 u	ppm	0.000070	> 100.00	-3.053170	Y_R 488.368
Bi (223.061 nm)	0.000062 u	ppm	0.000203	> 100.00	-10.453200	Y 377.433
Ca (315.887 nm)	83.847789	ppm	0.220500	0.26	66523.380077	Y_R 377.433
Cd (214.439 nm)	0.000243	ppm	0.000115	47.24	3.867860	Y 377.433
Co (228.615 nm)	0.000600	ppm	0.000348	58.04	-0.928181	Y 242.219
Cr (205.560 nm)	0.000182 u	ppm	0.000665	> 100.00	-5.672920	Y 377.433
Cu (324.754 nm)	0.002367	ppm	0.000050	2.13	379.563000	Y 377.433
Fe (238.204 nm)	0.122894	ppm	0.002000	1.63	302.966018	Y_R 377.433
Fe H (259.940 nm)	0.111953 u	ppm	0.000170	0.15	166.242000	Y_R 377.433
K (766.491 nm)	0.951001	ppm	0.287290	30.21	2855.660000	Y_R2 488.368
Li (670.783 nm)	0.190682	ppm	0.006342	3.33	728.286000	Y_R2 488.368
Mg (279.078 nm)	180.974000	ppm	0.400292	0.22	592221.000000	Y 377.433
Mn (257.610 nm)	0.099467	ppm	0.000002	0.00	27109.500000	Y 377.433
Mo (202.032 nm)	0.025843	ppm	0.000311	1.20	336.862000	Y 377.433
Na (589.592 nm)	607.048000 o	ppm	0.314889	0.05	498479.000000	Y_R2 488.368
Na H (589.593 nm)	656.052601	ppm	3.868969	0.59	355827.873916	Y_R4
Ni (231.604 nm)	0.002373	ppm	0.001374	57.90	3.655180	Y 377.433
P (213.618 nm)	0.010385	ppm	0.002521	24.27	8.640070	Y 242.219
Pb (220.353 nm)	-0.000932 u	ppm	0.002813	> 100.00	5.377330	Y 242.219
S (181.972 nm)	635.564447 bo	ppm	0.851744	0.13	291076.625952	Y 377.433
Sb (206.834 nm)	-0.005785 u	ppm	0.003292	56.90	-8.155580	Y 377.433
Se (196.026 nm)	1.277790	ppm	0.000251	0.02	1936.110000	Y 242.219
Si (288.158 nm)	1.879280	ppm	0.008752	0.47	12586.600000	Y 377.433
Sn (189.925 nm)	0.000126 u	ppm	0.001713	> 100.00	2.292980	Y 377.433
Sr (421.552 nm)	1.441337	ppm	0.011947	0.83	217090.040525	Y_R 488.368
Th (288.505 nm)	0.013493	ppm	0.001755	13.00	35.885000	Y 377.433
Ti (336.122 nm)	0.001956	ppm	0.000235	12.00	102.547000	Y 377.433
Tl (190.794 nm)	0.000382 u	ppm	0.002731	> 100.00	-0.815898	Y 377.433
U (409.013 nm)	0.053341	ppm	0.006280	11.77	133.250000	Y 377.433
V (292.401 nm)	0.001485	ppm	0.000311	20.92	-72.673100	Y 377.433
Zn (206.200 nm)	0.006133	ppm	0.000065	1.06	31.661000	Y 377.433
Zr (343.823 nm)	0.000683	ppm	0.000214	31.30	-122.971000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.910194	21039.561355	0.000843	0.09
Y 377.433	0.901889	630809.588243	0.001459	0.16
Y_R 377.433	0.940672	57031.800000	0.004138	0.44
Y_R 488.368	0.957648	50590.400000	0.010325	1.08
Y_R2 488.368	0.929911	98575.455902	0.004263	0.46
Y_R4	0.960699	43231.400000	0.010482	1.09

Sample Name: mb 280-459145/1-a

Date: 5/24/2019 3:35:14 PM Rack:Tube: 1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000490	ppm	0.000319	65.19	-250.369000	Y 377.433
Al (394.401 nm)	0.000648	ppm	0.000245	37.77	100.475000	Y 377.433
Al H (396.152 nm)	0.142484 u	ppm	0.012678	8.90	53.218200	Y_R 377.433
As (188.980 nm)	-0.002766 u	ppm	0.000201	7.27	-5.744160	Y 242.219
B (249.678 nm)	-0.000289 u	ppm	0.000041	14.04	44.600600	Y 242.219
Ba (493.408 nm)	0.000028 u	ppm	0.000332	> 100.00	1402.300000	Y_R 488.368
Be (234.861 nm)	-0.000091 u	ppm	0.000034	37.06	-10.942100	Y_R 488.368
Bi (223.061 nm)	0.000465	ppm	0.000390	83.89	-9.592430	Y 377.433
Ca (315.887 nm)	0.006399	ppm	0.001425	22.27	-63.952754	Y_R 377.433
Cd (214.439 nm)	-0.000139 u	ppm	0.000061	44.02	-10.314900	Y 377.433
Co (228.615 nm)	-0.000536 u	ppm	0.000320	59.63	-27.723200	Y 242.219
Cr (205.560 nm)	0.000138 u	ppm	0.000598	> 100.00	-5.833130	Y 377.433
Cu (324.754 nm)	0.001100	ppm	0.000359	32.64	368.499000	Y 377.433
Fe (238.204 nm)	0.009988	ppm	0.000525	5.26	31.182414	Y_R 377.433
Fe H (259.940 nm)	0.015261 u	ppm	0.003402	22.29	32.519500	Y_R 377.433
K (766.491 nm)	0.059202 u	ppm	0.242848	> 100.00	1994.550000	Y_R2 488.368
Li (670.783 nm)	0.002257	ppm	0.001337	59.24	-2507.020000	Y_R2 488.368
Mg (279.078 nm)	0.010992	ppm	0.001507	13.71	44.078600	Y 377.433
Mn (257.610 nm)	0.000324	ppm	0.000022	6.70	77.249700	Y 377.433
Mo (202.032 nm)	-0.000048 u	ppm	0.000054	> 100.00	10.526900	Y 377.433
Na (589.592 nm)	0.086851	ppm	0.019082	21.97	221.760000	Y_R2 488.368
Na H (589.593 nm)	2.217233 u	ppm	0.074072	3.34	1085.475185	Y_R4
Ni (231.604 nm)	0.000585	ppm	0.000567	96.79	-5.591600	Y 377.433
P (213.618 nm)	0.000982	ppm	0.000102	10.35	-3.020320	Y 242.219
Pb (220.353 nm)	0.000379	ppm	0.000131	34.60	9.499140	Y 242.219
S (181.972 nm)	0.028735	ppm	0.011328	39.42	25.859681	Y 377.433
Sb (206.834 nm)	-0.001601 u	ppm	0.000657	41.04	-0.924960	Y 377.433
Se (196.026 nm)	-0.001414 u	ppm	0.000878	62.04	6.721860	Y 242.219
Si (288.158 nm)	0.000441 u	ppm	0.000934	> 100.00	491.384000	Y 377.433
Sn (189.925 nm)	0.001164	ppm	0.000731	62.74	3.964040	Y 377.433
Sr (421.552 nm)	0.000246	ppm	0.000079	32.17	60.227009	Y_R 488.368
Th (288.505 nm)	0.002897 u	ppm	0.006002	> 100.00	17.761100	Y 377.433
Ti (336.122 nm)	0.000010 u	ppm	0.000092	> 100.00	-432.583000	Y 377.433
Tl (190.794 nm)	-0.001418 u	ppm	0.000894	63.07	-1.428930	Y 377.433
U (409.013 nm)	0.010219	ppm	0.001018	9.97	7.635640	Y 377.433
V (292.401 nm)	-0.000598 u	ppm	0.000108	18.07	-177.519000	Y 377.433
Zn (206.200 nm)	0.002121	ppm	0.000740	34.89	13.604700	Y 377.433
Zr (343.823 nm)	-0.000166 u	ppm	0.000248	> 100.00	-171.011000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.986587	22805.417838	0.000039	0.00
Y 377.433	0.971921	679791.585839	0.000439	0.05
Y_R 377.433	0.965741	58551.700000	0.000849	0.09
Y_R 488.368	0.968106	51142.800000	0.000634	0.07
Y_R2 488.368	0.958925	101651.121330	0.000933	0.10
Y_R4	0.975881	43914.600000	0.001197	0.12

Sample Name: lcs 280-459145/2-a

Date: 5/24/2019 3:38:25 PM Rack:Tube: 1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000857	ppm	0.001015	> 100.00	-560.221000	Y 377.433
Al (394.401 nm)	10.328300 o	ppm	0.017138	0.17	126418.000000	Y 377.433
Al H (396.152 nm)	10.230000	ppm	0.047547	0.46	22603.800000	Y_R 377.433
As (188.980 nm)	2.056700	ppm	0.016838	0.82	3097.370000	Y 242.219
B (249.678 nm)	1.005060	ppm	0.003267	0.33	7218.450000	Y 242.219
Ba (493.408 nm)	2.047640	ppm	0.006026	0.29	205545.000000	Y_R 488.368
Be (234.861 nm)	1.026030	ppm	0.000260	0.03	101001.000000	Y_R 488.368
Bi (223.061 nm)	2.012660	ppm	0.003901	0.19	4399.270000	Y 377.433
Ca (315.887 nm)	50.414466	ppm	0.130603	0.26	39973.018346	Y_R 377.433
Cd (214.439 nm)	1.046710	ppm	0.003744	0.36	38706.300000	Y 377.433
Co (228.615 nm)	1.006520	ppm	0.002159	0.21	23685.600000	Y 242.219
Cr (205.560 nm)	1.058730	ppm	0.007486	0.71	7046.570000	Y 377.433
Cu (324.754 nm)	1.001980	ppm	0.002368	0.24	47112.200000	Y 377.433
Fe (238.204 nm)	10.352190 o	ppm	0.040890	0.39	24926.668158	Y_R 377.433
Fe H (259.940 nm)	10.334200	ppm	0.038679	0.37	14303.500000	Y_R 377.433
K (766.491 nm)	50.603000	ppm	0.662384	1.31	50799.000000	Y_R2 488.368
Li (670.783 nm)	1.014900	ppm	0.002317	0.23	14880.400000	Y_R2 488.368
Mg (279.078 nm)	50.965400	ppm	0.122852	0.24	166741.000000	Y 377.433
Mn (257.610 nm)	1.025210	ppm	0.001546	0.15	279524.000000	Y 377.433
Mo (202.032 nm)	1.046380	ppm	0.002200	0.21	13199.900000	Y 377.433
Na (589.592 nm)	49.434100	ppm	0.213244	0.43	41196.100000	Y_R2 488.368
Na H (589.593 nm)	52.679595	ppm	0.079819	0.15	28464.140426	Y_R4
Ni (231.604 nm)	1.022000	ppm	0.004682	0.46	5281.650000	Y 377.433
P (213.618 nm)	20.710800	ppm	0.089705	0.43	29338.500000	Y 242.219
Pb (220.353 nm)	1.021620	ppm	0.004620	0.45	3252.300000	Y 242.219
S (181.972 nm)	10.022080	ppm	0.035510	0.35	4608.102367	Y 377.433
Sb (206.834 nm)	-0.002131 u	ppm	0.006262	> 100.00	-6.671160	Y 377.433
Se (196.026 nm)	2.008880	ppm	0.007495	0.37	3037.550000	Y 242.219
Si (288.158 nm)	2.082350	ppm	0.001737	0.08	13893.800000	Y 377.433
Sn (189.925 nm)	2.096040	ppm	0.007272	0.35	3374.740000	Y 377.433
Sr (421.552 nm)	0.993695	ppm	0.002805	0.28	149676.286759	Y_R 488.368
Th (288.505 nm)	1.042000	ppm	0.000165	0.02	1713.890000	Y 377.433
Ti (336.122 nm)	1.020300	ppm	0.001918	0.19	130300.000000	Y 377.433
Tl (190.794 nm)	2.058000	ppm	0.000220	0.01	4699.630000	Y 377.433
U (409.013 nm)	2.033760	ppm	0.002265	0.11	6364.320000	Y 377.433
V (292.401 nm)	1.019430	ppm	0.001222	0.12	52429.800000	Y 377.433
Zn (206.200 nm)	0.521344	ppm	0.001789	0.34	2349.850000	Y 377.433
Zr (343.823 nm)	0.508077	ppm	0.001381	0.27	28601.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.938695	21698.380905	0.002369	0.25
Y 377.433	0.932578	652274.209223	0.002900	0.31
Y_R 377.433	0.945087	57299.500000	0.001269	0.13
Y_R 488.368	0.956279	50518.000000	0.000031	0.00
Y_R2 488.368	0.944795	100153.313934	0.002455	0.26
Y_R4	0.967175	43522.800000	0.000157	0.02

Sample Name: 280-123846-a-1-a

Date: 5/24/2019 3:42:04 PM Rack:Tube: 1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001095	ppm	0.000150	13.73	-229.879000	Y 377.433
Al (394.401 nm)	0.008695	ppm	0.000004	0.05	267.035000	Y 377.433
Al H (396.152 nm)	0.089404 u	ppm	0.001278	1.43	28.195300	Y_R 377.433
As (188.980 nm)	0.000617 u	ppm	0.001146	> 100.00	-0.724318	Y 242.219
B (249.678 nm)	0.005053	ppm	0.000420	8.31	81.090500	Y 242.219
Ba (493.408 nm)	0.183942	ppm	0.000528	0.29	19739.600000	Y_R 488.368
Be (234.861 nm)	0.000014 u	ppm	0.000066	> 100.00	-12.820200	Y_R 488.368
Bi (223.061 nm)	-0.001164 u	ppm	0.001219	> 100.00	-12.660500	Y 377.433
Ca (315.887 nm)	45.802337	ppm	0.204583	0.45	36307.440806	Y_R 377.433
Cd (214.439 nm)	0.000198	ppm	0.000099	50.23	3.300870	Y 377.433
Co (228.615 nm)	0.001226	ppm	0.000170	13.87	13.678500	Y 242.219
Cr (205.560 nm)	0.000341	ppm	0.000332	97.34	-4.484570	Y 377.433
Cu (324.754 nm)	0.000569	ppm	0.000492	86.50	314.235000	Y 377.433
Fe (238.204 nm)	2.885306	ppm	0.013580	0.47	6952.575702	Y_R 377.433
Fe H (259.940 nm)	2.870510 u	ppm	0.009721	0.34	3981.280000	Y_R 377.433
K (766.491 nm)	1.294990	ppm	0.170113	13.14	3187.810000	Y_R2 488.368
Li (670.783 nm)	0.005834	ppm	0.000089	1.53	-2445.600000	Y_R2 488.368
Mg (279.078 nm)	16.248000	ppm	0.005191	0.03	53173.300000	Y 377.433
Mn (257.610 nm)	0.824175	ppm	0.000934	0.11	224708.000000	Y 377.433
Mo (202.032 nm)	0.000954	ppm	0.000125	13.11	23.157300	Y 377.433
Na (589.592 nm)	13.885400	ppm	0.155299	1.12	11590.500000	Y_R2 488.368
Na H (589.593 nm)	15.805033 u	ppm	0.164111	1.04	8457.619765	Y_R4
Ni (231.604 nm)	-0.000593 u	ppm	0.000721	> 100.00	-11.684900	Y 377.433
P (213.618 nm)	0.025936	ppm	0.003503	13.51	32.608900	Y 242.219
Pb (220.353 nm)	0.000294 u	ppm	0.000929	> 100.00	9.283890	Y 242.219
S (181.972 nm)	5.450476	ppm	0.016840	0.31	2513.648616	Y 377.433
Sb (206.834 nm)	-0.003283 u	ppm	0.000390	11.87	-3.528400	Y 377.433
Se (196.026 nm)	0.000856	ppm	0.000963	> 100.00	10.557800	Y 242.219
Si (288.158 nm)	7.565790	ppm	0.022273	0.29	49193.800000	Y 377.433
Sn (189.925 nm)	0.002686	ppm	0.000528	19.64	6.412630	Y 377.433
Sr (421.552 nm)	0.242262	ppm	0.001460	0.60	36508.505339	Y_R 488.368
Th (288.505 nm)	-0.004877 u	ppm	0.003863	79.20	19.375700	Y 377.433
Ti (336.122 nm)	-0.000237 u	ppm	0.000153	64.63	-308.111000	Y 377.433
Tl (190.794 nm)	0.002876	ppm	0.003722	> 100.00	6.218460	Y 377.433
U (409.013 nm)	0.025366	ppm	0.001853	7.31	51.736000	Y 377.433
V (292.401 nm)	0.000132	ppm	0.000181	> 100.00	-142.020000	Y 377.433
Zn (206.200 nm)	0.006173	ppm	0.000184	2.98	32.222300	Y 377.433
Zr (343.823 nm)	-0.000055 u	ppm	0.000021	38.61	-164.721000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.968268	22381.957287	0.004260	0.44
Y 377.433	0.956282	668853.558796	0.004812	0.50
Y_R 377.433	0.959876	58196.100000	0.003459	0.36
Y_R 488.368	0.971070	51299.400000	0.004929	0.51
Y_R2 488.368	0.969705	102793.835235	0.007447	0.77
Y_R4	0.972466	43760.900000	0.001353	0.14

Sample Name: 280-123846-a-1-aSD@5

Date: 5/24/2019 3:45:40 PM Rack:Tube: 1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000572	ppm	0.000147	25.65	-247.495000	Y 377.433
Al (394.401 nm)	0.002833	ppm	0.001334	47.08	141.210000	Y 377.433
Al H (396.152 nm)	0.126714 u	ppm	0.002389	1.89	37.258000	Y_R 377.433
As (188.980 nm)	0.001477 u	ppm	0.002409	> 100.00	0.631730	Y 242.219
B (249.678 nm)	-0.000395 u	ppm	0.001132	> 100.00	43.482000	Y 242.219
Ba (493.408 nm)	0.037072	ppm	0.000157	0.42	5095.810000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000046	79.41	-10.428900	Y_R 488.368
Bi (223.061 nm)	-0.001425 u	ppm	0.001446	> 100.00	-13.621500	Y 377.433
Ca (315.887 nm)	9.532084	ppm	0.044412	0.47	7501.396998	Y_R 377.433
Cd (214.439 nm)	0.000036	ppm	0.000022	60.92	-3.581990	Y 377.433
Co (228.615 nm)	0.000180 u	ppm	0.000267	> 100.00	-10.904400	Y 242.219
Cr (205.560 nm)	-0.000164 u	ppm	0.000089	54.34	-7.846640	Y 377.433
Cu (324.754 nm)	0.000672	ppm	0.000202	30.03	341.937000	Y 377.433
Fe (238.204 nm)	0.636008	ppm	0.000235	0.04	1538.122402	Y_R 377.433
Fe H (259.940 nm)	0.641073 u	ppm	0.002819	0.44	898.007000	Y_R 377.433
K (766.491 nm)	0.331335	ppm	0.255157	77.01	2257.320000	Y_R2 488.368
Li (670.783 nm)	0.001384 u	ppm	0.007891	> 100.00	-2522.010000	Y_R2 488.368
Mg (279.078 nm)	3.386870	ppm	0.001327	0.04	11090.400000	Y 377.433
Mn (257.610 nm)	0.171708	ppm	0.000119	0.07	46806.700000	Y 377.433
Mo (202.032 nm)	0.000417	ppm	0.000347	83.16	16.392900	Y 377.433
Na (589.592 nm)	2.978070	ppm	0.068490	2.30	2603.370000	Y_R2 488.368
Na H (589.593 nm)	4.424638 u	ppm	0.073310	1.66	2283.116759	Y_R4
Ni (231.604 nm)	0.000449 u	ppm	0.000909	> 100.00	-6.298800	Y 377.433
P (213.618 nm)	0.004351	ppm	0.004407	> 100.00	1.883910	Y 242.219
Pb (220.353 nm)	0.000010 u	ppm	0.000626	> 100.00	8.320130	Y 242.219
S (181.972 nm)	1.114416	ppm	0.006641	0.60	524.061388	Y 377.433
Sb (206.834 nm)	-0.003132 u	ppm	0.003664	> 100.00	-3.463110	Y 377.433
Se (196.026 nm)	0.001578	ppm	0.000791	50.13	11.312800	Y 242.219
Si (288.158 nm)	1.538170	ppm	0.002807	0.18	10390.600000	Y 377.433
Sn (189.925 nm)	0.002184	ppm	0.000315	14.43	5.604350	Y 377.433
Sr (421.552 nm)	0.049530	ppm	0.000304	0.61	7482.482904	Y_R 488.368
Th (288.505 nm)	-0.001628 u	ppm	0.001109	68.15	13.046300	Y 377.433
Ti (336.122 nm)	0.000002 u	ppm	0.000141	> 100.00	-401.543000	Y 377.433
Tl (190.794 nm)	-0.001179 u	ppm	0.000425	36.05	-1.333410	Y 377.433
U (409.013 nm)	0.014062	ppm	0.001814	12.90	19.044800	Y 377.433
V (292.401 nm)	-0.000228 u	ppm	0.000011	4.80	-158.812000	Y 377.433
Zn (206.200 nm)	0.005683	ppm	0.000739	13.01	29.705900	Y 377.433
Zr (343.823 nm)	-0.000375 u	ppm	0.000103	27.39	-182.847000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984038	22746.504940	0.001179	0.12
Y 377.433	0.970023	678464.034459	0.001001	0.10
Y_R 377.433	0.968628	58726.700000	0.005230	0.54
Y_R 488.368	0.981027	51825.400000	0.005238	0.53
Y_R2 488.368	0.959691	101732.278263	0.001678	0.17
Y_R4	0.973915	43826.100000	0.009160	0.94

Sample Name: 280-123846-a-1-b ms

Date: 5/24/2019 3:49:12 PM Rack:Tube: 1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001328	ppm	0.000000	0.01	-548.974000	Y 377.433
Al (394.401 nm)	10.444900 o	ppm	0.007880	0.08	127911.000000	Y 377.433
Al H (396.152 nm)	10.292300	ppm	0.014418	0.14	22838.400000	Y_R 377.433
As (188.980 nm)	2.096590	ppm	0.004107	0.20	3157.390000	Y 242.219
B (249.678 nm)	1.027210	ppm	0.000409	0.04	7374.940000	Y 242.219
Ba (493.408 nm)	2.254660	ppm	0.006796	0.30	226186.000000	Y_R 488.368
Be (234.861 nm)	1.031180	ppm	0.000550	0.05	101495.000000	Y_R 488.368
Bi (223.061 nm)	2.027750	ppm	0.004045	0.20	4432.840000	Y 377.433
Ca (315.887 nm)	97.129444	ppm	0.208017	0.21	77074.347146	Y_R 377.433
Cd (214.439 nm)	1.049910	ppm	0.000454	0.04	38826.100000	Y 377.433
Co (228.615 nm)	1.009150	ppm	0.001502	0.15	23748.100000	Y 242.219
Cr (205.560 nm)	1.070840	ppm	0.011968	1.12	7127.300000	Y 377.433
Cu (324.754 nm)	1.014750	ppm	0.003074	0.30	47680.100000	Y 377.433
Fe (238.204 nm)	13.392716 o	ppm	0.009419	0.07	32245.746075	Y_R 377.433
Fe H (259.940 nm)	13.348500	ppm	0.028354	0.21	18472.200000	Y_R 377.433
K (766.491 nm)	52.623900	ppm	0.936229	1.78	52750.400000	Y_R2 488.368
Li (670.783 nm)	1.029690	ppm	0.003914	0.38	15134.300000	Y_R2 488.368
Mg (279.078 nm)	67.932900	ppm	0.132270	0.19	222260.000000	Y 377.433
Mn (257.610 nm)	1.856720	ppm	0.001332	0.07	506241.000000	Y 377.433
Mo (202.032 nm)	1.059940	ppm	0.000430	0.04	13370.800000	Y 377.433
Na (589.592 nm)	64.169500 o	ppm	0.182904	0.29	53339.200000	Y_R2 488.368
Na H (589.593 nm)	68.006111	ppm	0.398484	0.59	36779.635705	Y_R4
Ni (231.604 nm)	1.023390	ppm	0.002250	0.22	5288.830000	Y 377.433
P (213.618 nm)	21.170100	ppm	0.051091	0.24	29991.300000	Y 242.219
Pb (220.353 nm)	1.031140	ppm	0.003196	0.31	3282.550000	Y 242.219
S (181.972 nm)	15.850614	ppm	0.073340	0.46	7282.260533	Y 377.433
Sb (206.834 nm)	-0.000260 u	ppm	0.001106	> 100.00	-3.327390	Y 377.433
Se (196.026 nm)	2.041940	ppm	0.015781	0.77	3087.800000	Y 242.219
Si (288.158 nm)	9.905850	ppm	0.005876	0.06	64258.100000	Y 377.433
Sn (189.925 nm)	2.115120	ppm	0.009276	0.44	3405.440000	Y 377.433
Sr (421.552 nm)	1.252131	ppm	0.003095	0.25	188597.433821	Y_R 488.368
Th (288.505 nm)	1.044860	ppm	0.005656	0.54	1732.610000	Y 377.433
Ti (336.122 nm)	1.031570	ppm	0.001097	0.11	131902.000000	Y 377.433
Tl (190.794 nm)	2.061150	ppm	0.003113	0.15	4704.490000	Y 377.433
U (409.013 nm)	2.072120	ppm	0.000566	0.03	6481.690000	Y 377.433
V (292.401 nm)	1.031720	ppm	0.000895	0.09	53062.700000	Y 377.433
Zn (206.200 nm)	0.523448	ppm	0.000664	0.13	2359.740000	Y 377.433
Zr (343.823 nm)	0.510939	ppm	0.000493	0.10	28763.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.928952	21473.153574	0.002208	0.24
Y 377.433	0.923533	645947.483022	0.001412	0.15
Y_R 377.433	0.949320	57556.100000	0.001163	0.12
Y_R 488.368	0.960306	50730.800000	0.000396	0.04
Y_R2 488.368	0.949404	100641.819980	0.001710	0.18
Y_R4	0.968838	43597.700000	0.006423	0.66

Sample Name: 280-123846-a-1-c msd

Date: 5/24/2019 3:52:52 PM Rack:Tube: 1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001215	ppm	0.000190	15.68	-551.094000	Y 377.433
Al (394.401 nm)	10.372300 o	ppm	0.020397	0.20	127019.000000	Y 377.433
Al H (396.152 nm)	10.200900	ppm	0.031237	0.31	22630.500000	Y_R 377.433
As (188.980 nm)	2.084720	ppm	0.002000	0.10	3139.510000	Y 242.219
B (249.678 nm)	1.023120	ppm	0.000522	0.05	7345.840000	Y 242.219
Ba (493.408 nm)	2.228020	ppm	0.003131	0.14	223529.000000	Y_R 488.368
Be (234.861 nm)	1.030240	ppm	0.003341	0.32	101403.000000	Y_R 488.368
Bi (223.061 nm)	2.016850	ppm	0.001547	0.08	4408.940000	Y 377.433
Ca (315.887 nm)	94.484731	ppm	0.165673	0.18	74973.881020	Y_R 377.433
Cd (214.439 nm)	1.047130	ppm	0.000424	0.04	38723.200000	Y 377.433
Co (228.615 nm)	1.003410	ppm	0.000414	0.04	23612.800000	Y 242.219
Cr (205.560 nm)	1.056240	ppm	0.005471	0.52	7029.940000	Y 377.433
Cu (324.754 nm)	1.011060	ppm	0.002410	0.24	47510.000000	Y 377.433
Fe (238.204 nm)	13.134807 o	ppm	0.020255	0.15	31624.913682	Y_R 377.433
Fe H (259.940 nm)	13.085500	ppm	0.017269	0.13	18108.400000	Y_R 377.433
K (766.491 nm)	52.075900	ppm	0.534000	1.03	52221.200000	Y_R2 488.368
Li (670.783 nm)	1.022820	ppm	0.001118	0.11	15016.400000	Y_R2 488.368
Mg (279.078 nm)	66.808500	ppm	0.057171	0.09	218581.000000	Y 377.433
Mn (257.610 nm)	1.813710	ppm	0.001696	0.09	494515.000000	Y 377.433
Mo (202.032 nm)	1.053830	ppm	0.000665	0.06	13293.900000	Y 377.433
Na (589.592 nm)	62.925000 o	ppm	0.302372	0.48	52311.900000	Y_R2 488.368
Na H (589.593 nm)	67.157651	ppm	0.434965	0.65	36319.298423	Y_R4
Ni (231.604 nm)	1.015520	ppm	0.000721	0.07	5248.120000	Y 377.433
P (213.618 nm)	21.003700	ppm	0.027241	0.13	29754.600000	Y 242.219
Pb (220.353 nm)	1.023920	ppm	0.000165	0.02	3259.650000	Y 242.219
S (181.972 nm)	15.553886	ppm	0.045062	0.29	7146.106596	Y 377.433
Sb (206.834 nm)	-0.002611 u	ppm	0.002728	> 100.00	-7.330430	Y 377.433
Se (196.026 nm)	2.029700	ppm	0.001740	0.09	3069.340000	Y 242.219
Si (288.158 nm)	9.544080	ppm	0.031980	0.34	61929.200000	Y 377.433
Sn (189.925 nm)	2.105280	ppm	0.002825	0.13	3389.610000	Y 377.433
Sr (421.552 nm)	1.232915	ppm	0.002453	0.20	185703.461638	Y_R 488.368
Th (288.505 nm)	1.041490	ppm	0.002533	0.24	1726.650000	Y 377.433
Ti (336.122 nm)	1.025800	ppm	0.001674	0.16	131155.000000	Y 377.433
Tl (190.794 nm)	2.054940	ppm	0.001142	0.06	4690.460000	Y 377.433
U (409.013 nm)	2.061440	ppm	0.002096	0.10	6448.390000	Y 377.433
V (292.401 nm)	1.025830	ppm	0.002193	0.21	52761.900000	Y 377.433
Zn (206.200 nm)	0.521034	ppm	0.000809	0.16	2348.850000	Y 377.433
Zr (343.823 nm)	0.507023	ppm	0.000372	0.07	28541.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.936261	21642.112133	0.000571	0.06
Y 377.433	0.930321	650695.572494	0.000031	0.00
Y_R 377.433	0.952185	57729.800000	0.003172	0.33
Y_R 488.368	0.963913	50921.300000	0.003448	0.36
Y_R2 488.368	0.952039	100921.183310	0.000019	0.00
Y_R4	0.976178	43928.000000	0.007289	0.75

Sample Name: 280-123846-a-2-a

Date: 5/24/2019 3:56:32 PM Rack:Tube: 1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004485	ppm	0.000132	2.94	-116.876000	Y 377.433
Al (394.401 nm)	17.907500 o	ppm	0.019290	0.11	219080.000000	Y 377.433
Al H (396.152 nm)	17.518500	ppm	0.016527	0.09	38710.300000	Y_R 377.433
As (188.980 nm)	0.005365	ppm	0.000187	3.48	2.073830	Y 242.219
B (249.678 nm)	0.011919	ppm	0.000111	0.93	37.202800	Y 242.219
Ba (493.408 nm)	0.014728	ppm	0.000158	1.07	2998.140000	Y_R 488.368
Be (234.861 nm)	0.009116	ppm	0.000238	2.61	203.336000	Y_R 488.368
Bi (223.061 nm)	0.001448	ppm	0.000936	64.66	20.857700	Y 377.433
Ca (315.887 nm)	223.052912	ppm	0.089096	0.04	177085.320514	Y_R 377.433
Cd (214.439 nm)	0.139870	ppm	0.000082	0.06	5233.740000	Y 377.433
Co (228.615 nm)	0.341503	ppm	0.002611	0.76	8010.800000	Y 242.219
Cr (205.560 nm)	0.004018	ppm	0.001311	32.64	19.084800	Y 377.433
Cu (324.754 nm)	11.435400	ppm	0.063949	0.56	533591.000000	Y 377.433
Fe (238.204 nm)	163.714794 o	ppm	0.016676	0.01	394097.228533	Y_R 377.433
Fe H (259.940 nm)	163.418000	ppm	0.039495	0.02	226015.000000	Y_R 377.433
K (766.491 nm)	3.200880	ppm	0.443206	13.85	5028.120000	Y_R2 488.368
Li (670.783 nm)	0.024600	ppm	0.000762	3.10	-2123.380000	Y_R2 488.368
Mg (279.078 nm)	90.710100	ppm	0.021277	0.02	296624.000000	Y 377.433
Mn (257.610 nm)	25.940700 bo	ppm	0.052842	0.20	7072970.000000	Y 377.433
Mo (202.032 nm)	0.000496	ppm	0.000300	60.49	17.389800	Y 377.433
Na (589.592 nm)	10.201300	ppm	0.034721	0.34	8528.120000	Y_R2 488.368
Na H (589.593 nm)	12.063099 u	ppm	0.141568	1.17	6427.410440	Y_R4
Ni (231.604 nm)	0.248013	ppm	0.001896	0.76	1274.660000	Y 377.433
P (213.618 nm)	1.074440	ppm	0.004268	0.40	-1167.240000	Y 242.219
Pb (220.353 nm)	0.073015	ppm	0.004262	5.84	238.246000	Y 242.219
S (181.972 nm)	463.693021 bo	ppm	0.283462	0.06	212456.587813	Y 377.433
Sb (206.834 nm)	-0.008734 u	ppm	0.001575	18.04	0.854668	Y 377.433
Se (196.026 nm)	0.006280 b	ppm	0.002348	37.39	12.463100	Y 242.219
Si (288.158 nm)	14.866500	ppm	0.120503	0.81	96192.400000	Y 377.433
Sn (189.925 nm)	0.002202	ppm	0.002150	97.63	5.633950	Y 377.433
Sr (421.552 nm)	1.750509	ppm	0.011566	0.66	263676.367751	Y_R 488.368
Th (288.505 nm)	0.035597 b	ppm	0.003953	11.11	571.558000	Y 377.433
Ti (336.122 nm)	-0.000919 u	ppm	0.000030	3.25	212.110000	Y 377.433
Tl (190.794 nm)	0.013543	ppm	0.001174	8.67	6.140970	Y 377.433
U (409.013 nm)	0.366556	ppm	0.007245	1.98	1228.460000	Y 377.433
V (292.401 nm)	-0.000770 u	ppm	0.000405	52.67	-175.416000	Y 377.433
Zn (206.200 nm)	22.971600	ppm	0.276630	1.20	103324.000000	Y 377.433
Zr (343.823 nm)	0.002626	ppm	0.000166	6.33	-12.932800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.964718	22299.907868	0.000787	0.08
Y 377.433	0.963776	674094.960119	0.000030	0.00
Y_R 377.433	1.001220	60702.500000	0.000743	0.07
Y_R 488.368	1.010310	53372.300000	0.005332	0.53
Y_R2 488.368	1.007330	106782.347458	0.001987	0.20
Y_R4	1.032130	46445.900000	0.006838	0.66

Sample Name: 280-123846-a-3-a

Date: 5/24/2019 4:00:20 PM Rack:Tube: 1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001468	ppm	0.000185	12.60	-216.936000	Y 377.433
Al (394.401 nm)	0.000733 u	ppm	0.001679	> 100.00	466.669000	Y 377.433
Al H (396.152 nm)	-0.125502 u	ppm	0.005664	4.51	30.873200	Y_R 377.433
As (188.980 nm)	0.000630	ppm	0.000824	> 100.00	-0.630299	Y 242.219
B (249.678 nm)	0.013656	ppm	0.000464	3.40	144.129000	Y 242.219
Ba (493.408 nm)	0.037742	ppm	0.000198	0.53	5162.170000	Y_R 488.368
Be (234.861 nm)	-0.000018 u	ppm	0.000003	18.75	-4.227550	Y_R 488.368
Bi (223.061 nm)	-0.000172 u	ppm	0.000527	> 100.00	-10.964300	Y 377.433
Ca (315.887 nm)	97.876948	ppm	0.162088	0.17	77665.397742	Y_R 377.433
Cd (214.439 nm)	0.000234	ppm	0.000047	19.97	3.516410	Y 377.433
Co (228.615 nm)	-0.000708 u	ppm	0.000144	20.35	-31.758500	Y 242.219
Cr (205.560 nm)	0.000310 u	ppm	0.000482	> 100.00	-4.689120	Y 377.433
Cu (324.754 nm)	0.001259	ppm	0.000303	24.03	317.380000	Y 377.433
Fe (238.204 nm)	0.113773	ppm	0.000192	0.17	281.010841	Y_R 377.433
Fe H (259.940 nm)	0.110472 u	ppm	0.001806	1.64	164.194000	Y_R 377.433
K (766.491 nm)	1.938410	ppm	0.246901	12.74	3809.090000	Y_R2 488.368
Li (670.783 nm)	0.011415	ppm	0.003079	26.97	-2349.770000	Y_R2 488.368
Mg (279.078 nm)	29.593400	ppm	0.085578	0.29	96848.000000	Y 377.433
Mn (257.610 nm)	0.667304	ppm	0.001602	0.24	181936.000000	Y 377.433
Mo (202.032 nm)	0.000225	ppm	0.000253	> 100.00	13.971700	Y 377.433
Na (589.592 nm)	24.487300	ppm	0.081551	0.33	20260.500000	Y_R2 488.368
Na H (589.593 nm)	26.398701 u	ppm	0.127941	0.48	14205.279631	Y_R4
Ni (231.604 nm)	-0.002809 u	ppm	0.000554	19.70	-23.155500	Y 377.433
P (213.618 nm)	0.072570	ppm	0.003969	5.47	98.995100	Y 242.219
Pb (220.353 nm)	0.000656 u	ppm	0.002082	> 100.00	10.436600	Y 242.219
S (181.972 nm)	88.229608	ppm	0.330350	0.37	40424.772208	Y 377.433
Sb (206.834 nm)	-0.007155 u	ppm	0.002018	28.20	-10.298100	Y 377.433
Se (196.026 nm)	0.000604 u	ppm	0.002462	> 100.00	10.671100	Y 242.219
Si (288.158 nm)	7.733400	ppm	0.039313	0.51	50272.900000	Y 377.433
Sn (189.925 nm)	0.001792	ppm	0.000365	20.36	4.974170	Y 377.433
Sr (421.552 nm)	1.396385	ppm	0.004412	0.32	210320.276467	Y_R 488.368
Th (288.505 nm)	-0.003598 u	ppm	0.000733	20.36	17.390800	Y 377.433
Ti (336.122 nm)	-0.000133 u	ppm	0.000076	57.29	-117.323000	Y 377.433
Tl (190.794 nm)	0.002341	ppm	0.002394	> 100.00	3.253530	Y 377.433
U (409.013 nm)	0.031265	ppm	0.012010	38.41	61.486800	Y 377.433
V (292.401 nm)	0.000509	ppm	0.000121	23.69	-121.887000	Y 377.433
Zn (206.200 nm)	0.006237	ppm	0.000356	5.70	32.127200	Y 377.433
Zr (343.823 nm)	-0.000134 u	ppm	0.000133	98.73	-169.221000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993183	22957.878655	0.001222	0.12
Y 377.433	0.985883	689557.565948	0.000566	0.06
Y_R 377.433	0.987442	59867.400000	0.000949	0.10
Y_R 488.368	0.998594	52753.400000	0.002385	0.24
Y_R2 488.368	0.979203	103800.655113	0.005526	0.56
Y_R4	0.985400	44342.900000	0.005455	0.55

Sample Name: 280-123846-a-4-a

Date: 5/24/2019 4:03:49 PM
Rack:Tube: 1:10

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000672	ppm	0.000089	13.20	-259.043000	Y 377.433
Al (394.401 nm)	37.615300 o	ppm	0.141623	0.38	459199.000000	Y 377.433
Al H (396.152 nm)	37.560600	ppm	0.171429	0.46	81877.600000	Y_R 377.433
As (188.980 nm)	0.015547	ppm	0.000116	0.74	20.840800	Y 242.219
B (249.678 nm)	0.013125	ppm	0.000217	1.65	118.832000	Y 242.219
Ba (493.408 nm)	0.169718	ppm	0.000258	0.15	18349.000000	Y_R 488.368
Be (234.861 nm)	0.001774	ppm	0.000102	5.74	14.810700	Y_R 488.368
Bi (223.061 nm)	0.004028	ppm	0.001481	36.76	4.675110	Y 377.433
Ca (315.887 nm)	24.170629	ppm	0.048237	0.20	19136.824774	Y_R 377.433
Cd (214.439 nm)	0.000538	ppm	0.000017	3.12	29.874900	Y 377.433
Co (228.615 nm)	0.012849	ppm	0.000251	1.96	308.528000	Y 242.219
Cr (205.560 nm)	0.066124	ppm	0.000120	0.18	433.223000	Y 377.433
Cu (324.754 nm)	0.095051	ppm	0.000196	0.21	4750.990000	Y 377.433
Fe (238.204 nm)	37.339520 o	ppm	0.080489	0.22	89889.883643	Y_R 377.433
Fe H (259.940 nm)	37.215200	ppm	0.103511	0.28	51479.500000	Y_R 377.433
K (766.491 nm)	5.563330	ppm	0.210957	3.79	7309.260000	Y_R2 488.368
Li (670.783 nm)	0.030651	ppm	0.002750	8.97	-2019.480000	Y_R2 488.368
Mg (279.078 nm)	11.354700	ppm	0.006808	0.06	37115.900000	Y 377.433
Mn (257.610 nm)	1.150080	ppm	0.000506	0.04	313569.000000	Y 377.433
Mo (202.032 nm)	0.001829	ppm	0.000014	0.76	34.184700	Y 377.433
Na (589.592 nm)	3.330910	ppm	0.000682	0.02	2923.100000	Y_R2 488.368
Na H (589.593 nm)	4.562117 u	ppm	0.055011	1.21	2357.706706	Y_R4
Ni (231.604 nm)	0.019656	ppm	0.001757	8.94	93.081400	Y 377.433
P (213.618 nm)	0.833976	ppm	0.000816	0.10	1166.760000	Y 242.219
Pb (220.353 nm)	0.045203	ppm	0.003493	7.73	144.935000	Y 242.219
S (181.972 nm)	9.140641	ppm	0.016455	0.18	4203.538159	Y 377.433
Sb (206.834 nm)	0.001042 u	ppm	0.004909	> 100.00	4.954000	Y 377.433
Se (196.026 nm)	0.003735	ppm	0.002321	62.13	6.478990	Y 242.219
Si (288.158 nm)	53.393800	ppm	0.425537	0.80	344215.000000	Y 377.433
Sn (189.925 nm)	0.000207 u	ppm	0.001093	> 100.00	2.424190	Y 377.433
Sr (421.552 nm)	0.087838	ppm	0.000205	0.23	13257.241817	Y_R 488.368
Th (288.505 nm)	0.051944	ppm	0.001920	3.70	116.007000	Y 377.433
Ti (336.122 nm)	0.489149	ppm	0.005235	1.07	62237.800000	Y 377.433
Tl (190.794 nm)	0.000933	ppm	0.000429	45.99	-2.887450	Y 377.433
U (409.013 nm)	-0.027716 u	ppm	0.002337	8.43	-91.032600	Y 377.433
V (292.401 nm)	0.048532	ppm	0.000132	0.27	2376.310000	Y 377.433
Zn (206.200 nm)	0.204107	ppm	0.000153	0.08	927.080000	Y 377.433
Zr (343.823 nm)	0.020238	ppm	0.000203	1.00	984.072000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.023063	23648.588075	0.000155	0.02
Y 377.433	1.011199	707263.910667	0.001478	0.15
Y_R 377.433	1.029820	62436.700000	0.002558	0.25
Y_R 488.368	1.041360	55012.600000	0.000150	0.01
Y_R2 488.368	1.031307	109323.951371	0.000923	0.09
Y_R4	1.052540	47364.200000	0.005511	0.52

Sample Name: CCVH-5713036

Date: 5/24/2019 4:07:34 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004824	ppm	0.000016	0.34	-110.803000	Y 377.433
Al (394.401 nm)	51.176500 o	ppm	0.078142	0.15	623481.000000	Y 377.433
Al H (396.152 nm)	49.896000	ppm	0.045982	0.09	108811.000000	Y_R 377.433
As (188.980 nm)	0.002231	ppm	0.001279	57.32	0.419548	Y 242.219
B (249.678 nm)	-0.002181 u	ppm	0.000548	25.11	1.941520	Y 242.219
Ba (493.408 nm)	0.002154	ppm	0.001067	49.52	1654.390000	Y_R 488.368
Be (234.861 nm)	0.001205	ppm	0.000098	8.11	-96.736000	Y_R 488.368
Bi (223.061 nm)	0.011474	ppm	0.003806	33.17	23.239100	Y 377.433
Ca (315.887 nm)	-0.009192 u	ppm	0.003550	38.62	-63.832507	Y_R 377.433
Cd (214.439 nm)	0.001351	ppm	0.000099	7.36	65.276800	Y 377.433
Co (228.615 nm)	0.003228	ppm	0.000151	4.68	60.770600	Y 242.219
Cr (205.560 nm)	0.001577	ppm	0.000237	15.01	2.410950	Y 377.433
Cu (324.754 nm)	0.004247	ppm	0.000211	4.96	1478.090000	Y 377.433
Fe (238.204 nm)	50.459657 o	ppm	0.056053	0.11	121472.343176	Y_R 377.433
Fe H (259.940 nm)	50.158800	ppm	0.027893	0.06	69380.300000	Y_R 377.433
K (766.491 nm)	0.257416	ppm	0.337163	> 100.00	2185.940000	Y_R2 488.368
Li (670.783 nm)	0.005467	ppm	0.002806	51.33	-2451.910000	Y_R2 488.368
Mg (279.078 nm)	0.040567	ppm	0.000473	1.17	66.049800	Y 377.433
Mn (257.610 nm)	0.001123	ppm	0.000026	2.33	295.110000	Y 377.433
Mo (202.032 nm)	0.001222	ppm	0.000507	41.45	26.536800	Y 377.433
Na (589.592 nm)	234.306000 o	ppm	0.212351	0.09	192494.000000	Y_R2 488.368
Na H (589.593 nm)	246.925321	ppm	0.817850	0.33	133853.353159	Y_R4
Ni (231.604 nm)	0.003780	ppm	0.000861	22.78	10.936200	Y 377.433
P (213.618 nm)	5.055800	ppm	0.007871	0.16	7220.870000	Y 242.219
Pb (220.353 nm)	0.006672	ppm	0.000098	1.47	22.518400	Y 242.219
S (181.972 nm)	5.024649	ppm	0.023323	0.46	2313.766550	Y 377.433
Sb (206.834 nm)	-0.001699 u	ppm	0.004236	> 100.00	3.161460	Y 377.433
Se (196.026 nm)	0.008919	ppm	0.001604	17.98	9.314140	Y 242.219
Si (288.158 nm)	0.108577	ppm	0.002787	2.57	1187.520000	Y 377.433
Sn (189.925 nm)	0.002386	ppm	0.000927	38.88	5.928880	Y 377.433
Sr (421.552 nm)	0.001454	ppm	0.000115	7.94	249.707734	Y_R 488.368
Th (288.505 nm)	4.950770	ppm	0.008996	0.18	8550.210000	Y 377.433
Ti (336.122 nm)	0.001768	ppm	0.000210	11.88	-207.524000	Y 377.433
Tl (190.794 nm)	-0.001416 u	ppm	0.001746	> 100.00	-6.242800	Y 377.433
U (409.013 nm)	0.550074 Q	ppm	0.002107	0.38	1757.300000 Q	Y 377.433
V (292.401 nm)	0.000367	ppm	0.000149	40.66	372.747000	Y 377.433
Zn (206.200 nm)	0.003110	ppm	0.001074	34.54	25.075400	Y 377.433
Zr (343.823 nm)	0.001305	ppm	0.000300	23.00	-87.743800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.966092	22331.662435	0.006248	0.65
Y 377.433	0.953693	667042.625242	0.006797	0.71
Y_R 377.433	0.975277	59129.800000	0.002445	0.25
Y_R 488.368	0.990066	52302.900000	0.008002	0.81
Y_R2 488.368	0.964768	102270.547482	0.000702	0.07
Y_R4	0.989556	44530.000000	0.002392	0.24

Sample Name: CCV-5717467

Date: 5/24/2019 4:11:16 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.502924	ppm	0.000434	0.09	17085.000000	Y 377.433
Al (394.401 nm)	0.517701	ppm	0.000674	0.13	6536.400000	Y 377.433
Al H (396.152 nm)	0.562858 u	ppm	0.000840	0.15	1221.510000	Y_R 377.433
As (188.980 nm)	0.506861	ppm	0.000660	0.13	762.141000	Y 242.219
B (249.678 nm)	0.490446	ppm	0.000807	0.16	3547.800000	Y 242.219
Ba (493.408 nm)	0.501906	ppm	0.001859	0.37	51438.400000	Y_R 488.368
Be (234.861 nm)	0.495760	ppm	0.001372	0.28	48811.100000	Y_R 488.368
Bi (223.061 nm)	1.009170	ppm	0.006504	0.64	2200.150000	Y 377.433
Ca (315.887 nm)	5.027003	ppm	0.016379	0.33	3923.571557	Y_R 377.433
Cd (214.439 nm)	0.523988	ppm	0.000248	0.05	19373.000000	Y 377.433
Co (228.615 nm)	0.508084	ppm	0.001529	0.30	11948.100000	Y 242.219
Cr (205.560 nm)	0.521061	ppm	0.002712	0.52	3464.720000	Y 377.433
Cu (324.754 nm)	0.506339	ppm	0.001379	0.27	23932.600000	Y 377.433
Fe (238.204 nm)	2.538741	ppm	0.000038	0.00	6118.333156	Y_R 377.433
Fe H (259.940 nm)	2.549270 u	ppm	0.003418	0.13	3537.010000	Y_R 377.433
K (766.491 nm)	49.722700	ppm	0.406285	0.82	49949.000000	Y_R2 488.368
Li (670.783 nm)	0.501873	ppm	0.001238	0.25	6071.520000	Y_R2 488.368
Mg (279.078 nm)	20.205800	ppm	0.019458	0.10	66125.600000	Y 377.433
Mn (257.610 nm)	0.504242	ppm	0.000278	0.06	137475.000000	Y 377.433
Mo (202.032 nm)	0.509973	ppm	0.000221	0.04	6438.950000	Y 377.433
Na (589.592 nm)	24.119100	ppm	0.109109	0.45	20063.500000	Y_R2 488.368
Na H (589.593 nm)	26.668760 u	ppm	0.187250	0.70	14351.801756	Y_R4
Ni (231.604 nm)	0.520500	ppm	0.000465	0.09	2685.080000	Y 377.433
P (213.618 nm)	0.049732	ppm	0.000044	0.09	-70.613800	Y 242.219
Pb (220.353 nm)	0.515384	ppm	0.000705	0.14	1643.320000	Y 242.219
S (181.972 nm)	0.013025	ppm	0.006965	53.48	20.509658	Y 377.433
Sb (206.834 nm)	0.516401	ppm	0.003525	0.68	871.026000	Y 377.433
Se (196.026 nm)	0.503847	ppm	0.002582	0.51	768.886000	Y 242.219
Si (288.158 nm)	5.017660	ppm	0.003831	0.08	32790.100000	Y 377.433
Sn (189.925 nm)	0.520208	ppm	0.001686	0.32	839.135000	Y 377.433
Sr (421.552 nm)	0.488223	ppm	0.001780	0.36	73550.451063	Y_R 488.368
Th (288.505 nm)	0.023422	ppm	0.000473	2.02	1.751330	Y 377.433
Ti (336.122 nm)	0.497258	ppm	0.000412	0.08	63214.500000	Y 377.433
Tl (190.794 nm)	0.521339	ppm	0.002789	0.53	1190.860000	Y 377.433
U (409.013 nm)	0.008528	ppm	0.000946	11.09	-59.273900	Y 377.433
V (292.401 nm)	0.502834	ppm	0.000127	0.03	25784.600000	Y 377.433
Zn (206.200 nm)	0.524911	ppm	0.002204	0.42	2364.800000	Y 377.433
Zr (343.823 nm)	0.499662	ppm	0.000592	0.12	28125.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.986973	22814.342911	0.001061	0.11
Y 377.433	0.973698	681034.719848	0.000217	0.02
Y_R 377.433	0.987610	59877.600000	0.002127	0.22
Y_R 488.368	0.999335	52792.600000	0.001155	0.12
Y_R2 488.368	0.981167	104008.858325	0.004898	0.50
Y_R4	0.997717	44897.200000	0.002273	0.23

Sample Name: CCB

Date: 5/24/2019 4:14:52 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000212	ppm	0.000205	96.87	-259.611000	Y 377.433
Al (394.401 nm)	0.000135 u	ppm	0.002654	> 100.00	91.036600	Y 377.433
Al H (396.152 nm)	0.131432 Zu	ppm	0.006925	5.27	29.077400 Z	Y_R 377.433
As (188.980 nm)	-0.000298 u	ppm	0.000590	> 100.00	-2.024880	Y 242.219
B (249.678 nm)	-0.002781 u	ppm	0.001059	38.08	26.809300	Y 242.219
Ba (493.408 nm)	-0.000505 u	ppm	0.000353	69.83	1349.090000	Y_R 488.368
Be (234.861 nm)	0.000006 u	ppm	0.000024	> 100.00	-1.373880	Y_R 488.368
Bi (223.061 nm)	0.001771	ppm	0.000562	31.71	-6.733210	Y 377.433
Ca (315.887 nm)	0.005535 u	ppm	0.013637	> 100.00	-64.642696	Y_R 377.433
Cd (214.439 nm)	0.000061	ppm	0.000022	35.83	-2.918730	Y 377.433
Co (228.615 nm)	0.000098	ppm	0.000097	99.06	-12.836100	Y 242.219
Cr (205.560 nm)	0.000139 u	ppm	0.000274	> 100.00	-5.826180	Y 377.433
Cu (324.754 nm)	0.000863	ppm	0.000196	22.69	358.524000	Y 377.433
Fe (238.204 nm)	-0.000690 u	ppm	0.000630	91.32	5.478470	Y_R 377.433
Fe H (259.940 nm)	0.004617 u	ppm	0.000964	20.88	17.798000	Y_R 377.433
K (766.491 nm)	-0.147946 u	ppm	0.085423	57.74	1794.530000	Y_R2 488.368
Li (670.783 nm)	0.009187	ppm	0.007553	82.21	-2388.020000	Y_R2 488.368
Mg (279.078 nm)	-0.000083 u	ppm	0.000211	> 100.00	8.287930	Y 377.433
Mn (257.610 nm)	0.000075	ppm	0.000021	28.48	9.385630	Y 377.433
Mo (202.032 nm)	0.000376	ppm	0.000201	53.38	15.869500	Y 377.433
Na (589.592 nm)	0.042131	ppm	0.038610	91.64	184.847000	Y_R2 488.368
Na H (589.593 nm)	1.372533 u	ppm	0.048128	3.51	627.178272	Y_R4
Ni (231.604 nm)	-0.000060 u	ppm	0.000169	> 100.00	-8.931800	Y 377.433
P (213.618 nm)	-0.000004 u	ppm	0.001054	> 100.00	-4.333780	Y 242.219
Pb (220.353 nm)	0.001063	ppm	0.000947	89.08	11.609300	Y 242.219
S (181.972 nm)	0.002604 u	ppm	0.006629	> 100.00	13.891481	Y 377.433
Sb (206.834 nm)	-0.002251 u	ppm	0.001586	70.45	-2.026490	Y 377.433
Se (196.026 nm)	-0.002948 u	ppm	0.001546	52.45	4.411790	Y 242.219
Si (288.158 nm)	0.010868	ppm	0.001158	10.66	558.512000	Y 377.433
Sn (189.925 nm)	0.000151	ppm	0.000180	> 100.00	2.332690	Y 377.433
Sr (421.552 nm)	0.000210	ppm	0.000058	27.61	54.781271	Y_R 488.368
Th (288.505 nm)	0.001966	ppm	0.001722	87.59	16.041900	Y 377.433
Ti (336.122 nm)	0.000102	ppm	0.000008	7.79	-420.789000	Y 377.433
Tl (190.794 nm)	-0.000292 u	ppm	0.000531	> 100.00	1.147810	Y 377.433
U (409.013 nm)	-0.007273 u	ppm	0.002940	40.43	-47.821500	Y 377.433
V (292.401 nm)	-0.000500 u	ppm	0.000022	4.39	-171.240000	Y 377.433
Zn (206.200 nm)	-0.000688 u	ppm	0.000249	36.25	0.970138	Y 377.433
Zr (343.823 nm)	-0.000155 u	ppm	0.000139	89.62	-170.391000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.004080	23209.775309	0.001572	0.16
Y 377.433	0.989852	692333.166173	0.001901	0.19
Y_R 377.433	0.996619	60423.700000	0.000312	0.03
Y_R 488.368	0.999884	52821.500000	0.007003	0.70
Y_R2 488.368	1.007943	106847.342153	0.004678	0.46
Y_R4	1.006670	45299.900000	0.007132	0.71

Sample Name: CCVL-5719884

Date: 5/24/2019 4:18:05 PM
Rack:Tube: S1:3
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008791	ppm	0.000191	2.18	35.221400	Y 377.433
Al (394.401 nm)	0.103111	ppm	0.000105	0.10	1360.730000	Y 377.433
Al H (396.152 nm)	0.237222 u	ppm	0.010267	4.33	265.984000	Y_R 377.433
As (188.980 nm)	0.016429	ppm	0.002342	14.25	23.178300	Y 242.219
B (249.678 nm)	0.093113	ppm	0.000349	0.38	711.594000	Y 242.219
Ba (493.408 nm)	0.009295	ppm	0.000440	4.74	2326.160000	Y_R 488.368
Be (234.861 nm)	0.000958	ppm	0.000051	5.28	91.887900	Y_R 488.368
Bi (223.061 nm)	0.095211	ppm	0.005464	5.74	197.936000	Y 377.433
Ca (315.887 nm)	0.207236	ppm	0.012195	5.88	95.573994	Y_R 377.433
Cd (214.439 nm)	0.005452	ppm	0.000031	0.56	196.462000	Y 377.433
Co (228.615 nm)	0.010624	ppm	0.000009	0.08	235.000000	Y 242.219
Cr (205.560 nm)	0.011073	ppm	0.000063	0.57	66.916300	Y 377.433
Cu (324.754 nm)	0.016722	ppm	0.000159	0.95	1095.120000	Y 377.433
Fe (238.204 nm)	0.103788	ppm	0.000714	0.69	256.976420	Y_R 377.433
Fe H (259.940 nm)	0.107316 u	ppm	0.006623	6.17	159.830000	Y_R 377.433
K (766.491 nm)	3.069070	ppm	0.061745	2.01	4900.840000	Y_R2 488.368
Li (670.783 nm)	0.030488 Q	ppm	0.005350	17.55	-2022.280000 Q	Y_R2 488.368
Mg (279.078 nm)	0.208988	ppm	0.001280	0.61	690.754000	Y 377.433
Mn (257.610 nm)	0.010808	ppm	0.000033	0.31	2935.920000	Y 377.433
Mo (202.032 nm)	0.020404	ppm	0.000382	1.87	268.309000	Y 377.433
Na (589.592 nm)	1.036070	ppm	0.026569	2.56	1002.950000	Y_R2 488.368
Na H (589.593 nm)	2.093390 u	ppm	0.060738	2.90	1018.283852	Y_R4
Ni (231.604 nm)	0.044263	ppm	0.000037	0.08	220.419000	Y 377.433
P (213.618 nm)	2.885800	ppm	0.013175	0.46	4117.960000	Y 242.219
Pb (220.353 nm)	0.009857	ppm	0.000935	9.48	39.693600	Y 242.219
S (181.972 nm)	0.090288	ppm	0.006414	7.10	54.086541	Y 377.433
Sb (206.834 nm)	0.021591	ppm	0.000059	0.27	38.082000	Y 377.433
Se (196.026 nm)	0.020456	ppm	0.000351	1.71	39.700700	Y 242.219
Si (288.158 nm)	0.504747	ppm	0.003842	0.76	3737.890000	Y 377.433
Sn (189.925 nm)	0.105021	ppm	0.001872	1.78	171.075000	Y 377.433
Sr (421.552 nm)	0.009460	ppm	0.000278	2.94	1447.895797	Y_R 488.368
Th (288.505 nm)	0.014187	ppm	0.000728	5.13	36.780600	Y 377.433
Ti (336.122 nm)	0.009924	ppm	0.000115	1.16	836.678000	Y 377.433
Tl (190.794 nm)	0.018145	ppm	0.002450	13.50	43.197700	Y 377.433
U (409.013 nm)	0.061255	ppm	0.010754	17.56	168.342000	Y 377.433
V (292.401 nm)	0.009542	ppm	0.000044	0.46	341.835000	Y 377.433
Zn (206.200 nm)	0.022380	ppm	0.000020	0.09	104.718000	Y 377.433
Zr (343.823 nm)	0.009774	ppm	0.000106	1.08	391.719000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.020465	23588.523572	0.000237	0.02
Y 377.433	1.003994	702224.587947	0.000471	0.05
Y_R 377.433	1.015860	61590.400000	0.004153	0.41
Y_R 488.368	1.028680	54342.700000	0.008270	0.80
Y_R2 488.368	1.017443	107854.372340	0.001631	0.16
Y_R4	1.018610	45837.300000	0.001763	0.17

Sample Name: 280-123846-a-5-a

Date: 5/24/2019 4:21:34 PM
Rack:Tube: 1:11

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001592	ppm	0.000487	30.62	-213.144000	Y 377.433
Al (394.401 nm)	0.644100	ppm	0.000392	0.06	8080.990000	Y 377.433
Al H (396.152 nm)	0.670733 u	ppm	0.003904	0.58	1382.690000	Y_R 377.433
As (188.980 nm)	0.000419	ppm	0.000480	> 100.00	-1.089120	Y 242.219
B (249.678 nm)	0.006090	ppm	0.001422	23.35	87.090600	Y 242.219
Ba (493.408 nm)	0.030112	ppm	0.000298	0.99	4405.680000	Y_R 488.368
Be (234.861 nm)	0.000826	ppm	0.000012	1.51	56.903000	Y_R 488.368
Bi (223.061 nm)	0.000653	ppm	0.000707	> 100.00	-8.257790	Y 377.433
Ca (315.887 nm)	126.584757	ppm	0.372927	0.29	100465.461750	Y_R 377.433
Cd (214.439 nm)	0.020932	ppm	0.000055	0.26	771.052000	Y 377.433
Co (228.615 nm)	0.051311	ppm	0.000559	1.09	1190.760000	Y 242.219
Cr (205.560 nm)	0.000461	ppm	0.000088	19.18	-3.763440	Y 377.433
Cu (324.754 nm)	0.942333	ppm	0.000048	0.01	44197.900000	Y 377.433
Fe (238.204 nm)	5.317608	ppm	0.005004	0.09	12807.549953	Y_R 377.433
Fe H (259.940 nm)	5.293550	ppm	0.005204	0.10	7332.310000	Y_R 377.433
K (766.491 nm)	1.894150	ppm	0.454348	23.99	3766.350000	Y_R2 488.368
Li (670.783 nm)	0.010437	ppm	0.000818	7.84	-2366.560000	Y_R2 488.368
Mg (279.078 nm)	41.808700	ppm	0.019733	0.05	136814.000000	Y 377.433
Mn (257.610 nm)	4.610750	ppm	0.008387	0.18	1257160.000000	Y 377.433
Mo (202.032 nm)	0.000483	ppm	0.000317	65.65	17.223200	Y 377.433
Na (589.592 nm)	8.044790	ppm	0.091916	1.14	6761.120000	Y_R2 488.368
Na H (589.593 nm)	9.183115 u	ppm	0.072024	0.78	4864.857462	Y_R4
Ni (231.604 nm)	0.034248	ppm	0.000135	0.39	168.589000	Y 377.433
P (213.618 nm)	0.084653	ppm	0.005542	6.55	-106.115000	Y 242.219
Pb (220.353 nm)	0.000651	ppm	0.000727	> 100.00	10.385500	Y 242.219
S (181.972 nm)	153.715193 bo	ppm	0.332982	0.22	70428.108621	Y 377.433
Sb (206.834 nm)	-0.005261 u	ppm	0.000035	0.66	-6.657160	Y 377.433
Se (196.026 nm)	0.000283 u	ppm	0.001780	> 100.00	14.349300	Y 242.219
Si (288.158 nm)	6.902190	ppm	0.006316	0.09	44921.900000	Y 377.433
Sn (189.925 nm)	0.002746	ppm	0.000347	12.62	6.508220	Y 377.433
Sr (421.552 nm)	0.487549	ppm	0.000232	0.05	73449.408899	Y_R 488.368
Th (288.505 nm)	-0.014110 u	ppm	0.002064	14.63	76.228700	Y 377.433
Ti (336.122 nm)	-0.000778 u	ppm	0.000046	5.93	-102.753000	Y 377.433
Tl (190.794 nm)	0.002005	ppm	0.000848	42.30	0.986158	Y 377.433
U (409.013 nm)	0.050886	ppm	0.013840	27.20	123.742000	Y 377.433
V (292.401 nm)	0.000406	ppm	0.000169	41.71	-125.936000	Y 377.433
Zn (206.200 nm)	3.584740	ppm	0.000179	0.00	16124.400000	Y 377.433
Zr (343.823 nm)	-0.000030 u	ppm	0.000253	> 100.00	-163.321000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.983865	22742.497327	0.000993	0.10
Y 377.433	0.975777	682489.124320	0.000259	0.03
Y_R 377.433	0.992999	60204.300000	0.001665	0.17
Y_R 488.368	1.005000	53091.900000	0.002189	0.22
Y_R2 488.368	0.978564	103732.922088	0.008981	0.92
Y_R4	0.987971	44458.700000	0.006299	0.64

Sample Name: 280-123846-a-6-a

Date: 5/24/2019 4:25:12 PM Rack:Tube: 1:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003287	ppm	0.000073	2.21	-155.553000	Y 377.433
Al (394.401 nm)	3.512690 o	ppm	0.000729	0.02	43182.100000	Y 377.433
Al H (396.152 nm)	3.451910	ppm	0.006881	0.20	7618.650000	Y_R 377.433
As (188.980 nm)	0.030833	ppm	0.000624	2.02	42.039700	Y 242.219
B (249.678 nm)	0.009782	ppm	0.001638	16.75	55.826700	Y 242.219
Ba (493.408 nm)	0.023830	ppm	0.000131	0.55	3858.800000	Y_R 488.368
Be (234.861 nm)	0.001493	ppm	0.000000	0.02	-299.324000	Y_R 488.368
Bi (223.061 nm)	0.001666	ppm	0.001496	89.78	11.200000	Y 377.433
Ca (315.887 nm)	165.043619	ppm	0.225947	0.14	131010.425641	Y_R 377.433
Cd (214.439 nm)	0.029926	ppm	0.000268	0.89	1144.170000	Y 377.433
Co (228.615 nm)	0.103972	ppm	0.000282	0.27	2429.240000	Y 242.219
Cr (205.560 nm)	0.005604	ppm	0.000274	4.89	30.363500	Y 377.433
Cu (324.754 nm)	1.694620	ppm	0.003630	0.21	79276.100000	Y 377.433
Fe (238.204 nm)	105.065283 o	ppm	0.180401	0.17	252917.617265	Y_R 377.433
Fe H (259.940 nm)	104.924000	ppm	0.108029	0.10	145120.000000	Y_R 377.433
K (766.491 nm)	2.608630	ppm	0.417087	15.99	4456.250000	Y_R2 488.368
Li (670.783 nm)	0.011083	ppm	0.000891	8.04	-2355.480000	Y_R2 488.368
Mg (279.078 nm)	53.800900	ppm	0.085349	0.16	175925.000000	Y 377.433
Mn (257.610 nm)	12.031900	ppm	0.008817	0.07	3280600.000000	Y 377.433
Mo (202.032 nm)	0.008205	ppm	0.000368	4.48	114.545000	Y 377.433
Na (589.592 nm)	8.275290	ppm	0.056797	0.69	6948.970000	Y_R2 488.368
Na H (589.593 nm)	9.326577 u	ppm	0.106595	1.14	4942.693840	Y_R4
Ni (231.604 nm)	0.066574	ppm	0.000685	1.03	335.857000	Y 377.433
P (213.618 nm)	0.301778	ppm	0.006761	2.24	28.577300	Y 242.219
Pb (220.353 nm)	0.121064	ppm	0.000259	0.21	392.610000	Y 242.219
S (181.972 nm)	252.523897 bo	ppm	1.161482	0.46	115703.470971	Y 377.433
Sb (206.834 nm)	-0.002700 u	ppm	0.001627	60.25	5.977450	Y 377.433
Se (196.026 nm)	0.000923 u	ppm	0.002290	> 100.00	-0.014301	Y 242.219
Si (288.158 nm)	11.396600	ppm	0.014585	0.13	73854.900000	Y 377.433
Sn (189.925 nm)	0.001476	ppm	0.000672	45.57	4.464640	Y 377.433
Sr (421.552 nm)	0.892266	ppm	0.001711	0.19	134415.150250	Y_R 488.368
Th (288.505 nm)	-0.013504 u	ppm	0.004397	32.56	215.027000	Y 377.433
Ti (336.122 nm)	0.021771	ppm	0.000206	0.95	2914.040000	Y 377.433
Tl (190.794 nm)	0.008094	ppm	0.002448	30.25	1.482440	Y 377.433
U (409.013 nm)	0.084285	ppm	0.000529	0.63	297.856000	Y 377.433
V (292.401 nm)	0.002812	ppm	0.000218	7.77	3.498700	Y 377.433
Zn (206.200 nm)	5.692840	ppm	0.004102	0.07	25617.900000	Y 377.433
Zr (343.823 nm)	0.002225	ppm	0.000254	11.39	-35.641100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.970895	22442.694327	0.000918	0.09
Y 377.433	0.969656	678207.503162	0.000628	0.06
Y_R 377.433	0.980227	59429.900000	0.000652	0.07
Y_R 488.368	0.994041	52512.900000	0.002203	0.22
Y_R2 488.368	0.979825	103866.657743	0.004295	0.44
Y_R4	0.981990	44189.500000	0.004429	0.45

Sample Name: 280-123846-a-7-a

Date: 5/24/2019 4:28:57 PM Rack:Tube: 1:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000107	ppm	0.000149	> 100.00	-263.430000	Y 377.433
Al (394.401 nm)	0.002480	ppm	0.001275	51.40	121.694000	Y 377.433
Al H (396.152 nm)	0.130443 u	ppm	0.000784	0.60	26.951700	Y_R 377.433
As (188.980 nm)	0.001879	ppm	0.001427	75.93	1.253260	Y 242.219
B (249.678 nm)	0.000239	ppm	0.000276	> 100.00	48.321300	Y 242.219
Ba (493.408 nm)	-0.000790 u	ppm	0.000502	63.48	1320.750000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000034	60.35	-7.959800	Y_R 488.368
Bi (223.061 nm)	-0.001664 u	ppm	0.001322	79.48	-14.238700	Y 377.433
Ca (315.887 nm)	0.048630	ppm	0.005051	10.39	-30.415909	Y_R 377.433
Cd (214.439 nm)	-0.000096 u	ppm	0.000149	> 100.00	-8.691150	Y 377.433
Co (228.615 nm)	-0.000264 u	ppm	0.000134	50.59	-21.334800	Y 242.219
Cr (205.560 nm)	0.000448	ppm	0.000328	73.10	-3.763510	Y 377.433
Cu (324.754 nm)	0.001449	ppm	0.000200	13.77	384.776000	Y 377.433
Fe (238.204 nm)	0.099273	ppm	0.000019	0.02	246.107994	Y_R 377.433
Fe H (259.940 nm)	0.105474 u	ppm	0.001731	1.64	157.282000	Y_R 377.433
K (766.491 nm)	-0.155821 u	ppm	0.396901	> 100.00	1786.930000	Y_R2 488.368
Li (670.783 nm)	0.011383	ppm	0.002735	24.03	-2350.320000	Y_R2 488.368
Mg (279.078 nm)	0.009683	ppm	0.000624	6.44	39.970000	Y 377.433
Mn (257.610 nm)	0.001656	ppm	0.000039	2.33	440.567000	Y 377.433
Mo (202.032 nm)	-0.000135 u	ppm	0.000346	> 100.00	9.432410	Y 377.433
Na (589.592 nm)	-0.006961 u	ppm	0.004815	69.17	144.507000	Y_R2 488.368
Na H (589.593 nm)	1.051729 u	ppm	0.055451	5.27	453.124019	Y_R4
Ni (231.604 nm)	0.001050	ppm	0.000674	64.17	-3.189250	Y 377.433
P (213.618 nm)	-0.003141 u	ppm	0.000876	27.89	-8.820160	Y 242.219
Pb (220.353 nm)	0.000006 u	ppm	0.000294	> 100.00	8.272240	Y 242.219
S (181.972 nm)	0.022835	ppm	0.003120	13.67	23.162623	Y 377.433
Sb (206.834 nm)	-0.005367 u	ppm	0.001099	20.48	-7.278590	Y 377.433
Se (196.026 nm)	-0.002372 u	ppm	0.001251	52.71	5.256070	Y 242.219
Si (288.158 nm)	0.008150	ppm	0.001996	24.49	541.012000	Y 377.433
Sn (189.925 nm)	0.001683	ppm	0.000223	13.23	4.798320	Y 377.433
Sr (421.552 nm)	0.000392	ppm	0.000060	15.38	82.182649	Y_R 488.368
Th (288.505 nm)	0.002430	ppm	0.000719	29.60	16.890000	Y 377.433
Ti (336.122 nm)	0.000176	ppm	0.000142	80.33	-411.213000	Y 377.433
Tl (190.794 nm)	-0.001144 u	ppm	0.000412	36.00	-0.813746	Y 377.433
U (409.013 nm)	0.001907 u	ppm	0.003115	> 100.00	-18.644900	Y 377.433
V (292.401 nm)	-0.000229 u	ppm	0.000160	69.86	-158.071000	Y 377.433
Zn (206.200 nm)	0.006748	ppm	0.000761	11.27	34.421200	Y 377.433
Zr (343.823 nm)	0.000046	ppm	0.000011	24.61	-159.023000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.007897	23297.998793	0.000400	0.04
Y 377.433	0.993103	694606.985693	0.000920	0.09
Y_R 377.433	1.004870	60924.200000	0.003054	0.30
Y_R 488.368	1.014530	53595.400000	0.000618	0.06
Y_R2 488.368	1.020983	108229.598710	0.001512	0.15
Y_R4	1.013370	45601.600000	0.002062	0.20

Sample Name: 280-123846-a-8-a

Date: 5/24/2019 4:32:28 PM Rack:Tube: 1:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001016	ppm	0.000054	5.27	-232.499000	Y 377.433
Al (394.401 nm)	0.007700	ppm	0.001678	21.79	254.187000	Y 377.433
Al H (396.152 nm)	0.096857 u	ppm	0.009637	9.95	43.795500	Y_R 377.433
As (188.980 nm)	0.001728	ppm	0.001638	94.81	0.950545	Y 242.219
B (249.678 nm)	0.002189	ppm	0.000565	25.82	60.659700	Y 242.219
Ba (493.408 nm)	0.182303	ppm	0.000746	0.41	19576.200000	Y_R 488.368
Be (234.861 nm)	-0.000050 u	ppm	0.000002	3.66	-18.985300	Y_R 488.368
Bi (223.061 nm)	0.000834 u	ppm	0.002993	> 100.00	-8.290450	Y 377.433
Ca (315.887 nm)	45.611523	ppm	0.143703	0.32	36155.898695	Y_R 377.433
Cd (214.439 nm)	0.000036	ppm	0.000010	28.93	-2.683720	Y 377.433
Co (228.615 nm)	0.000952	ppm	0.000053	5.53	7.257220	Y 242.219
Cr (205.560 nm)	0.000183 u	ppm	0.000832	> 100.00	-5.540510	Y 377.433
Cu (324.754 nm)	0.000200	ppm	0.000113	56.73	297.192000	Y 377.433
Fe (238.204 nm)	2.850758	ppm	0.007169	0.25	6869.412081	Y_R 377.433
Fe H (259.940 nm)	2.849080 u	ppm	0.009042	0.32	3951.640000	Y_R 377.433
K (766.491 nm)	1.028120	ppm	0.060382	5.87	2930.120000	Y_R2 488.368
Li (670.783 nm)	0.008206	ppm	0.003927	47.85	-2404.870000	Y_R2 488.368
Mg (279.078 nm)	16.064500	ppm	0.020118	0.13	52573.100000	Y 377.433
Mn (257.610 nm)	0.819413	ppm	0.000351	0.04	223410.000000	Y 377.433
Mo (202.032 nm)	0.000791	ppm	0.000331	41.85	21.100200	Y 377.433
Na (589.592 nm)	13.878200	ppm	0.061941	0.45	11584.100000	Y_R2 488.368
Na H (589.593 nm)	14.905658 u	ppm	0.120764	0.81	7969.658301	Y_R4
Ni (231.604 nm)	-0.000532 u	ppm	0.000391	73.53	-11.374500	Y 377.433
P (213.618 nm)	0.024204	ppm	0.003319	13.71	30.294800	Y 242.219
Pb (220.353 nm)	0.000593 u	ppm	0.001738	> 100.00	10.221400	Y 242.219
S (181.972 nm)	5.486028	ppm	0.000647	0.01	2529.888407	Y 377.433
Sb (206.834 nm)	-0.004438 u	ppm	0.002925	65.91	-5.484490	Y 377.433
Se (196.026 nm)	-0.000290 u	ppm	0.002542	> 100.00	8.829580	Y 242.219
Si (288.158 nm)	7.494590	ppm	0.010002	0.13	48735.500000	Y 377.433
Sn (189.925 nm)	0.002893	ppm	0.000961	33.21	6.744920	Y 377.433
Sr (421.552 nm)	0.241304	ppm	0.000925	0.38	36364.201544	Y_R 488.368
Th (288.505 nm)	-0.008224 u	ppm	0.003575	43.47	13.472900	Y 377.433
Ti (336.122 nm)	-0.000009 u	ppm	0.000174	> 100.00	-280.412000	Y 377.433
Tl (190.794 nm)	-0.001063 u	ppm	0.000112	10.57	-2.768880	Y 377.433
U (409.013 nm)	0.027625	ppm	0.007279	26.35	58.902200	Y 377.433
V (292.401 nm)	-0.000040 u	ppm	0.000225	> 100.00	-150.718000	Y 377.433
Zn (206.200 nm)	0.003176	ppm	0.000112	3.53	18.742400	Y 377.433
Zr (343.823 nm)	0.000174	ppm	0.000050	28.83	-151.744000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.999868	23112.405310	0.000071	0.01
Y 377.433	0.990018	692449.677252	0.001576	0.16
Y_R 377.433	1.009820	61224.200000	0.000843	0.08
Y_R 488.368	1.022240	54002.500000	0.000304	0.03
Y_R2 488.368	1.015908	107691.587008	0.002207	0.22
Y_R4	1.013210	45594.600000	0.007582	0.75

Sample Name: 280-123846-a-9-a

Date: 5/24/2019 4:36:04 PM Rack:Tube: 1:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004521	ppm	0.000348	7.69	-111.896000	Y 377.433
Al (394.401 nm)	1.677230	ppm	0.004897	0.29	20618.300000	Y 377.433
Al H (396.152 nm)	1.789520	ppm	0.006951	0.39	3731.240000	Y_R 377.433
As (188.980 nm)	0.028839	ppm	0.001136	3.94	41.113000	Y 242.219
B (249.678 nm)	0.003337	ppm	0.000986	29.56	54.121900	Y 242.219
Ba (493.408 nm)	0.034608	ppm	0.000377	1.09	4872.290000	Y_R 488.368
Be (234.861 nm)	0.000215	ppm	0.000003	1.29	-100.689000	Y_R 488.368
Bi (223.061 nm)	0.004815	ppm	0.001667	34.62	4.839300	Y 377.433
Ca (315.887 nm)	43.107749	ppm	0.036875	0.09	34167.805300	Y_R 377.433
Cd (214.439 nm)	0.011972	ppm	0.000042	0.35	449.048000	Y 377.433
Co (228.615 nm)	0.022578	ppm	0.000120	0.53	515.937000	Y 242.219
Cr (205.560 nm)	0.000690	ppm	0.000839	> 100.00	-2.316160	Y 377.433
Cu (324.754 nm)	0.714707	ppm	0.001725	0.24	33629.000000	Y 377.433
Fe (238.204 nm)	28.355511 o	ppm	0.016699	0.06	68263.805562	Y_R 377.433
Fe H (259.940 nm)	28.270700	ppm	0.005491	0.02	39109.300000	Y_R 377.433
K (766.491 nm)	2.805700	ppm	0.231715	8.26	4646.530000	Y_R2 488.368
Li (670.783 nm)	0.013402	ppm	0.000963	7.18	-2315.660000	Y_R2 488.368
Mg (279.078 nm)	11.888900	ppm	0.037524	0.32	38875.100000	Y 377.433
Mn (257.610 nm)	2.914690	ppm	0.004676	0.16	794708.000000	Y 377.433
Mo (202.032 nm)	0.020671	ppm	0.000322	1.56	271.673000	Y 377.433
Na (589.592 nm)	7.222310	ppm	0.007638	0.11	6086.870000	Y_R2 488.368
Na H (589.593 nm)	7.986082 u	ppm	0.066570	0.83	4215.399894	Y_R4
Ni (231.604 nm)	0.012589	ppm	0.000989	7.85	56.516100	Y 377.433
P (213.618 nm)	0.165996	ppm	0.011141	6.71	64.752800	Y 242.219
Pb (220.353 nm)	0.657191	ppm	0.000935	0.14	2096.700000	Y 242.219
S (181.972 nm)	58.778740	ppm	0.278099	0.47	26942.050801	Y 377.433
Sb (206.834 nm)	0.000423 u	ppm	0.001285	> 100.00	4.703920	Y 377.433
Se (196.026 nm)	0.000806	ppm	0.000790	98.03	6.839680	Y 242.219
Si (288.158 nm)	11.192200	ppm	0.017184	0.15	72538.800000	Y 377.433
Sn (189.925 nm)	0.001839	ppm	0.000612	33.25	5.049700	Y 377.433
Sr (421.552 nm)	0.208590	ppm	0.000029	0.01	31441.279029	Y_R 488.368
Th (288.505 nm)	-0.001044 u	ppm	0.000364	34.91	65.251200	Y 377.433
Ti (336.122 nm)	0.012015	ppm	0.000163	1.36	1249.800000	Y 377.433
Tl (190.794 nm)	0.000026 u	ppm	0.000911	> 100.00	-3.280720	Y 377.433
U (409.013 nm)	0.043930	ppm	0.003099	7.05	129.704000	Y 377.433
V (292.401 nm)	0.001699	ppm	0.000368	21.69	-59.767900	Y 377.433
Zn (206.200 nm)	2.405600	ppm	0.014077	0.59	10825.400000	Y 377.433
Zr (343.823 nm)	0.000799	ppm	0.000025	3.09	-116.388000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.014082	23440.987937	0.003884	0.38
Y 377.433	1.005959	703599.379407	0.005360	0.53
Y_R 377.433	1.027690	62307.500000	0.000818	0.08
Y_R 488.368	1.039640	54921.700000	0.000547	0.05
Y_R2 488.368	1.024416	108593.489515	0.002417	0.24
Y_R4	1.027980	46259.200000	0.000547	0.05

Sample Name: 280-123846-a-2-o@5

Date: 5/24/2019 4:39:45 PM Rack:Tube: 1:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001197	ppm	0.000155	12.97	-227.529000	Y 377.433
Al (394.401 nm)	3.606350 o	ppm	0.002867	0.08	44202.200000	Y 377.433
Al H (396.152 nm)	3.656930	ppm	0.000450	0.01	7870.060000	Y_R 377.433
As (188.980 nm)	-0.000899 u	ppm	0.001057	> 100.00	-3.842720	Y 242.219
B (249.678 nm)	0.000422 u	ppm	0.001078	> 100.00	30.224700	Y 242.219
Ba (493.408 nm)	0.001965	ppm	0.000037	1.89	1622.190000	Y_R 488.368
Be (234.861 nm)	0.001785	ppm	0.000064	3.57	31.337300	Y_R 488.368
Bi (223.061 nm)	-0.003747 u	ppm	0.001352	36.08	-12.998000	Y 377.433
Ca (315.887 nm)	45.639089	ppm	0.000487	0.00	36178.686980	Y_R 377.433
Cd (214.439 nm)	0.029171	ppm	0.000032	0.11	1087.230000	Y 377.433
Co (228.615 nm)	0.070580	ppm	0.001040	1.47	1643.600000	Y 242.219
Cr (205.560 nm)	0.000246 u	ppm	0.000589	> 100.00	-5.305120	Y 377.433
Cu (324.754 nm)	2.307480	ppm	0.009646	0.42	107917.000000	Y 377.433
Fe (238.204 nm)	33.676922 o	ppm	0.032308	0.10	81073.368841	Y_R 377.433
Fe H (259.940 nm)	33.518800	ppm	0.011406	0.03	46367.500000	Y_R 377.433
K (766.491 nm)	0.486682	ppm	0.215737	44.33	2407.320000	Y_R2 488.368
Li (670.783 nm)	0.012167	ppm	0.001244	10.23	-2336.870000	Y_R2 488.368
Mg (279.078 nm)	18.384700	ppm	0.004968	0.03	60123.900000	Y 377.433
Mn (257.610 nm)	5.692560	ppm	0.001880	0.03	1552120.000000	Y 377.433
Mo (202.032 nm)	0.000260	ppm	0.000042	16.03	14.412200	Y 377.433
Na (589.592 nm)	2.078230	ppm	0.089156	4.29	1856.820000	Y_R2 488.368
Na H (589.593 nm)	2.890224 u	ppm	0.030363	1.05	1450.611023	Y_R4
Ni (231.604 nm)	0.050368	ppm	0.000019	0.04	251.991000	Y 377.433
P (213.618 nm)	0.212294	ppm	0.003175	1.50	-244.341000	Y 242.219
Pb (220.353 nm)	0.014809	ppm	0.001705	11.51	54.995700	Y 242.219
S (181.972 nm)	95.698044	ppm	0.151863	0.16	43858.351694	Y 377.433
Sb (206.834 nm)	-0.004410 u	ppm	0.000179	4.06	-2.829470	Y 377.433
Se (196.026 nm)	-0.000498 u	ppm	0.000813	> 100.00	7.373760	Y 242.219
Si (288.158 nm)	2.995550	ppm	0.002771	0.09	19772.600000	Y 377.433
Sn (189.925 nm)	0.000800 u	ppm	0.001228	> 100.00	3.378360	Y 377.433
Sr (421.552 nm)	0.350067	ppm	0.004988	1.42	52748.745151	Y_R 488.368
Th (288.505 nm)	-0.002295 u	ppm	0.000019	0.81	117.898000	Y 377.433
Ti (336.122 nm)	-0.000127 u	ppm	0.000025	19.95	-294.993000	Y 377.433
Tl (190.794 nm)	0.001042	ppm	0.001442	> 100.00	-1.260140	Y 377.433
U (409.013 nm)	0.095493	ppm	0.010408	10.90	296.874000	Y 377.433
V (292.401 nm)	-0.000026 u	ppm	0.000008	31.50	-148.912000	Y 377.433
Zn (206.200 nm)	4.917800	ppm	0.000810	0.02	22122.800000	Y 377.433
Zr (343.823 nm)	0.000774	ppm	0.000303	39.07	-117.778000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.011396	23378.882002	0.003661	0.36
Y 377.433	1.001979	700815.621683	0.004001	0.40
Y_R 377.433	1.027490	62295.200000	0.000173	0.02
Y_R 488.368	1.037860	54827.900000	0.014165	1.36
Y_R2 488.368	1.018618	107978.857770	0.002105	0.21
Y_R4	1.026830	46207.400000	0.004966	0.48

Sample Name: MB 280-459144/1-A

Date: 5/24/2019 4:43:28 PM Rack:Tube: 1:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000190	ppm	0.000024	12.35	-260.734000	Y 377.433
Al (394.401 nm)	0.001969	ppm	0.000972	49.34	116.429000	Y 377.433
Al H (396.152 nm)	0.138108 u	ppm	0.006644	4.81	43.663800	Y_R 377.433
As (188.980 nm)	0.000772 u	ppm	0.001166	> 100.00	-0.413993	Y 242.219
B (249.678 nm)	-0.003151 u	ppm	0.000657	20.86	24.129100	Y 242.219
Ba (493.408 nm)	-0.001099 u	ppm	0.000010	0.91	1289.960000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000031	> 100.00	-5.085130	Y_R 488.368
Bi (223.061 nm)	-0.000822 u	ppm	0.000897	> 100.00	-12.401900	Y 377.433
Ca (315.887 nm)	0.018740	ppm	0.000572	3.05	-54.154915	Y_R 377.433
Cd (214.439 nm)	-0.000007 u	ppm	0.000011	> 100.00	-5.419850	Y 377.433
Co (228.615 nm)	-0.000133 u	ppm	0.000134	> 100.00	-18.263100	Y 242.219
Cr (205.560 nm)	0.000255	ppm	0.000175	68.71	-5.052840	Y 377.433
Cu (324.754 nm)	0.001429	ppm	0.000234	16.34	383.762000	Y 377.433
Fe (238.204 nm)	0.065594	ppm	0.002111	3.22	165.035201	Y_R 377.433
Fe H (259.940 nm)	0.069582 u	ppm	0.002689	3.86	107.644000	Y_R 377.433
K (766.491 nm)	-0.129907 u	ppm	0.259043	> 100.00	1811.950000	Y_R2 488.368
Li (670.783 nm)	0.009346	ppm	0.000114	1.22	-2385.300000	Y_R2 488.368
Mg (279.078 nm)	0.003704	ppm	0.000158	4.27	20.237600	Y 377.433
Mn (257.610 nm)	0.001438	ppm	0.000145	10.05	381.149000	Y 377.433
Mo (202.032 nm)	-0.000395 u	ppm	0.000207	52.42	6.150900	Y 377.433
Na (589.592 nm)	-0.017591 u	ppm	0.021591	> 100.00	135.559000	Y_R2 488.368
Na H (589.593 nm)	0.834138 u	ppm	0.009275	1.11	335.068984	Y_R4
Ni (231.604 nm)	0.000076 u	ppm	0.000946	> 100.00	-8.227030	Y 377.433
P (213.618 nm)	-0.000165 u	ppm	0.003507	> 100.00	-4.573150	Y 242.219
Pb (220.353 nm)	-0.000064 u	ppm	0.001421	> 100.00	8.081000	Y 242.219
S (181.972 nm)	0.009454	ppm	0.007571	80.08	17.033400	Y 377.433
Sb (206.834 nm)	-0.002710 u	ppm	0.003773	> 100.00	-2.790800	Y 377.433
Se (196.026 nm)	0.000048	ppm	0.000003	6.34	8.915140	Y 242.219
Si (288.158 nm)	0.000462 u	ppm	0.001591	> 100.00	491.521000	Y 377.433
Sn (189.925 nm)	0.000566 u	ppm	0.000951	> 100.00	3.001340	Y 377.433
Sr (421.552 nm)	0.000381	ppm	0.000075	19.65	80.538035	Y_R 488.368
Th (288.505 nm)	0.001943	ppm	0.001763	90.76	16.111400	Y 377.433
Ti (336.122 nm)	0.000110	ppm	0.000042	37.96	-419.735000	Y 377.433
Tl (190.794 nm)	-0.001445 u	ppm	0.001296	89.69	-1.494950	Y 377.433
U (409.013 nm)	-0.001618 u	ppm	0.009124	> 100.00	-29.838900	Y 377.433
V (292.401 nm)	-0.000293 u	ppm	0.000246	84.16	-161.598000	Y 377.433
Zn (206.200 nm)	0.001748	ppm	0.000079	4.52	11.934400	Y 377.433
Zr (343.823 nm)	-0.000159 u	ppm	0.000188	> 100.00	-170.598000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.009081	23325.372530	0.004077	0.40
Y 377.433	0.994302	695445.789948	0.005240	0.53
Y_R 377.433	1.014250	61492.900000	0.000193	0.02
Y_R 488.368	1.027670	54289.200000	0.008855	0.86
Y_R2 488.368	1.023657	108513.020729	0.003148	0.31
Y_R4	1.021790	45980.500000	0.001723	0.17

Sample Name: LCS 280-459144/2-A

Date: 5/24/2019 4:46:56 PM Rack:Tube: 1:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000550	ppm	0.000135	24.63	-567.027000	Y 377.433
Al (394.401 nm)	10.239900 o	ppm	0.019816	0.19	125335.000000	Y 377.433
Al H (396.152 nm)	10.101600	ppm	0.046325	0.46	22318.100000	Y_R 377.433
As (188.980 nm)	2.053770	ppm	0.008232	0.40	3092.960000	Y 242.219
B (249.678 nm)	0.996340	ppm	0.003380	0.34	7156.270000	Y 242.219
Ba (493.408 nm)	2.033980	ppm	0.009371	0.46	204183.000000	Y_R 488.368
Be (234.861 nm)	1.010280	ppm	0.001350	0.13	99449.900000	Y_R 488.368
Bi (223.061 nm)	2.009910	ppm	0.002404	0.12	4393.230000	Y 377.433
Ca (315.887 nm)	49.866651	ppm	0.204743	0.41	39537.902970	Y_R 377.433
Cd (214.439 nm)	1.035680	ppm	0.002784	0.27	38298.600000	Y 377.433
Co (228.615 nm)	0.999799	ppm	0.003052	0.31	23527.200000	Y 242.219
Cr (205.560 nm)	1.046380	ppm	0.003016	0.29	6964.310000	Y 377.433
Cu (324.754 nm)	0.994122	ppm	0.007418	0.75	46746.100000	Y 377.433
Fe (238.204 nm)	10.252079 o	ppm	0.039869	0.39	24685.682920	Y_R 377.433
Fe H (259.940 nm)	10.226000	ppm	0.054842	0.54	14153.900000	Y_R 377.433
K (766.491 nm)	49.778100	ppm	0.769889	1.55	50002.400000	Y_R2 488.368
Li (670.783 nm)	1.019450	ppm	0.003627	0.36	14958.500000	Y_R2 488.368
Mg (279.078 nm)	50.327600	ppm	0.110725	0.22	164654.000000	Y 377.433
Mn (257.610 nm)	1.015970	ppm	0.001605	0.16	277004.000000	Y 377.433
Mo (202.032 nm)	1.037870	ppm	0.001875	0.18	13092.800000	Y 377.433
Na (589.592 nm)	48.933500	ppm	0.059771	0.12	40781.700000	Y_R2 488.368
Na H (589.593 nm)	51.369625	ppm	0.411104	0.80	27753.408054	Y_R4
Ni (231.604 nm)	1.016460	ppm	0.002957	0.29	5252.960000	Y 377.433
P (213.618 nm)	20.633700	ppm	0.076498	0.37	29230.600000	Y 242.219
Pb (220.353 nm)	1.014990	ppm	0.001894	0.19	3231.250000	Y 242.219
S (181.972 nm)	10.109532	ppm	0.041762	0.41	4648.073738	Y 377.433
Sb (206.834 nm)	-0.003355 u	ppm	0.002796	83.35	-8.688350	Y 377.433
Se (196.026 nm)	2.008970	ppm	0.004631	0.23	3037.700000	Y 242.219
Si (288.158 nm)	2.028590	ppm	0.002232	0.11	13547.700000	Y 377.433
Sn (189.925 nm)	2.081400	ppm	0.011133	0.53	3351.180000	Y 377.433
Sr (421.552 nm)	0.987051	ppm	0.004645	0.47	148675.695596	Y_R 488.368
Th (288.505 nm)	1.035610	ppm	0.002197	0.21	1704.110000	Y 377.433
Ti (336.122 nm)	1.010770	ppm	0.001651	0.16	129079.000000	Y 377.433
Tl (190.794 nm)	2.037730	ppm	0.003055	0.15	4653.380000	Y 377.433
U (409.013 nm)	2.023310	ppm	0.003817	0.19	6331.900000	Y 377.433
V (292.401 nm)	1.007950	ppm	0.000722	0.07	51837.300000	Y 377.433
Zn (206.200 nm)	0.514867	ppm	0.000618	0.12	2320.710000	Y 377.433
Zr (343.823 nm)	0.503914	ppm	0.000215	0.04	28365.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984535	22757.987328	0.000648	0.07
Y 377.433	0.979537	685118.629452	0.000712	0.07
Y_R 377.433	1.005880	60985.400000	0.002569	0.26
Y_R 488.368	1.016590	53704.100000	0.003166	0.31
Y_R2 488.368	1.014512	107543.677907	0.001765	0.17
Y_R4	1.028740	46293.400000	0.004703	0.46

Sample Name: 280-123846-A-10-A

Date: 5/24/2019 4:50:35 PM Rack:Tube: 1:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001880	ppm	0.000220	11.70	-202.964000	Y 377.433
Al (394.401 nm)	0.511417	ppm	0.002601	0.51	6393.650000	Y 377.433
Al H (396.152 nm)	0.593338 u	ppm	0.006627	1.12	1115.340000	Y_R 377.433
As (188.980 nm)	0.015556	ppm	0.002817	18.11	21.255700	Y 242.219
B (249.678 nm)	0.003949	ppm	0.000545	13.80	61.869000	Y 242.219
Ba (493.408 nm)	0.017731	ppm	0.000253	1.43	3185.080000	Y_R 488.368
Be (234.861 nm)	0.000246	ppm	0.000162	65.79	-72.904800	Y_R 488.368
Bi (223.061 nm)	0.000668 u	ppm	0.002348	> 100.00	-5.254040	Y 377.433
Ca (315.887 nm)	46.721456	ppm	0.030883	0.07	37037.533523	Y_R 377.433
Cd (214.439 nm)	0.014076	ppm	0.000014	0.10	524.485000	Y 377.433
Co (228.615 nm)	0.027523	ppm	0.000294	1.07	631.700000	Y 242.219
Cr (205.560 nm)	-0.000012 u	ppm	0.000007	60.10	-6.922320	Y 377.433
Cu (324.754 nm)	0.391221	ppm	0.000378	0.10	18535.500000	Y 377.433
Fe (238.204 nm)	22.506674 o	ppm	0.039999	0.18	54184.633508	Y_R 377.433
Fe H (259.940 nm)	22.585400	ppm	0.047523	0.21	31246.700000	Y_R 377.433
K (766.491 nm)	1.968500	ppm	0.170043	8.64	3838.150000	Y_R2 488.368
Li (670.783 nm)	0.016434	ppm	0.002317	14.10	-2263.590000	Y_R2 488.368
Mg (279.078 nm)	12.507500	ppm	0.008601	0.07	40907.100000	Y 377.433
Mn (257.610 nm)	3.223730	ppm	0.004991	0.15	878972.000000	Y 377.433
Mo (202.032 nm)	0.010479	ppm	0.000234	2.23	143.206000	Y 377.433
Na (589.592 nm)	7.389810	ppm	0.060454	0.82	6220.690000	Y_R2 488.368
Na H (589.593 nm)	8.228926 u	ppm	0.006366	0.08	4347.156639	Y_R4
Ni (231.604 nm)	0.014999	ppm	0.000454	3.03	68.988200	Y 377.433
P (213.618 nm)	0.064808	ppm	0.007341	11.33	-3.666280	Y 242.219
Pb (220.353 nm)	0.119904	ppm	0.000450	0.38	389.342000	Y 242.219
S (181.972 nm)	64.776600	ppm	0.206048	0.32	29689.944048	Y 377.433
Sb (206.834 nm)	0.000207 u	ppm	0.001326	> 100.00	3.952790	Y 377.433
Se (196.026 nm)	0.001534	ppm	0.000935	60.93	9.870230	Y 242.219
Si (288.158 nm)	10.001200	ppm	0.009317	0.09	64871.600000	Y 377.433
Sn (189.925 nm)	0.002084	ppm	0.001814	87.04	5.443960	Y 377.433
Sr (421.552 nm)	0.209365	ppm	0.000177	0.08	31557.204444	Y_R 488.368
Th (288.505 nm)	-0.014512 u	ppm	0.000302	2.08	48.538700	Y 377.433
Ti (336.122 nm)	0.000330	ppm	0.000027	8.31	-233.320000	Y 377.433
Tl (190.794 nm)	0.003980	ppm	0.000749	18.83	6.424630	Y 377.433
U (409.013 nm)	0.029945	ppm	0.001460	4.88	80.573400	Y 377.433
V (292.401 nm)	0.000473	ppm	0.000419	88.73	-124.620000	Y 377.433
Zn (206.200 nm)	2.780200	ppm	0.007126	0.26	12509.000000	Y 377.433
Zr (343.823 nm)	0.000698	ppm	0.000007	0.96	-122.082000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.022615	23638.223794	0.001614	0.16
Y 377.433	1.015952	710588.264151	0.002849	0.28
Y_R 377.433	1.033050	62632.600000	0.004706	0.46
Y_R 488.368	1.041200	55004.400000	0.006973	0.67
Y_R2 488.368	1.029669	109150.406867	0.000394	0.04
Y_R4	1.029500	46327.300000	0.009079	0.88

Sample Name: 280-123846-A-11-A

Date: 5/24/2019 4:54:17 PM Rack:Tube: 1:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004380	ppm	0.000233	5.33	-116.974000	Y 377.433
Al (394.401 nm)	2.144210	ppm	0.006882	0.32	26320.700000	Y 377.433
Al H (396.152 nm)	2.343770	ppm	0.009288	0.40	4945.010000	Y_R 377.433
As (188.980 nm)	0.031819	ppm	0.000361	1.14	45.606300	Y 242.219
B (249.678 nm)	0.003380	ppm	0.001081	31.98	54.489000	Y 242.219
Ba (493.408 nm)	0.034351	ppm	0.000480	1.40	4846.570000	Y_R 488.368
Be (234.861 nm)	0.000249	ppm	0.000014	5.64	-96.953000	Y_R 488.368
Bi (223.061 nm)	0.007486	ppm	0.001444	19.29	10.672600	Y 377.433
Ca (315.887 nm)	42.983868	ppm	0.140887	0.33	34069.557595	Y_R 377.433
Cd (214.439 nm)	0.011934	ppm	0.000027	0.23	447.608000	Y 377.433
Co (228.615 nm)	0.022135	ppm	0.000025	0.11	505.742000	Y 242.219
Cr (205.560 nm)	0.000312 u	ppm	0.000944	> 100.00	-4.851790	Y 377.433
Cu (324.754 nm)	0.713749	ppm	0.002299	0.32	33583.700000	Y 377.433
Fe (238.204 nm)	28.250286 o	ppm	0.082107	0.29	68010.509128	Y_R 377.433
Fe H (259.940 nm)	28.139100	ppm	0.084213	0.30	38927.400000	Y_R 377.433
K (766.491 nm)	3.009870	ppm	0.222695	7.40	4843.680000	Y_R2 488.368
Li (670.783 nm)	0.020615	ppm	0.001413	6.85	-2191.810000	Y_R2 488.368
Mg (279.078 nm)	11.849000	ppm	0.005254	0.04	38744.700000	Y 377.433
Mn (257.610 nm)	2.896550	ppm	0.002838	0.10	789762.000000	Y 377.433
Mo (202.032 nm)	0.020468	ppm	0.000307	1.50	269.121000	Y 377.433
Na (589.592 nm)	7.203800	ppm	0.016655	0.23	6071.600000	Y_R2 488.368
Na H (589.593 nm)	7.823139 u	ppm	0.015565	0.20	4126.994003	Y_R4
Ni (231.604 nm)	0.013272	ppm	0.001411	10.63	60.055800	Y 377.433
P (213.618 nm)	0.184716	ppm	0.021997	11.91	91.336800	Y 242.219
Pb (220.353 nm)	0.663543	ppm	0.001388	0.21	2116.810000	Y 242.219
S (181.972 nm)	58.612732	ppm	0.049445	0.08	26865.946809	Y 377.433
Sb (206.834 nm)	0.005342	ppm	0.000462	8.65	12.978300	Y 377.433
Se (196.026 nm)	0.002045	ppm	0.000735	35.94	8.704990	Y 242.219
Si (288.158 nm)	11.747700	ppm	0.048214	0.41	76115.400000	Y 377.433
Sn (189.925 nm)	0.000045 u	ppm	0.001553	> 100.00	2.162940	Y 377.433
Sr (421.552 nm)	0.213563	ppm	0.002408	1.13	32190.274136	Y_R 488.368
Th (288.505 nm)	-0.004414 u	ppm	0.004958	> 100.00	58.993300	Y 377.433
Ti (336.122 nm)	0.016953	ppm	0.001216	7.17	1880.900000	Y 377.433
Tl (190.794 nm)	0.003232	ppm	0.000708	21.90	4.065860	Y 377.433
U (409.013 nm)	0.050739	ppm	0.000883	1.74	151.171000	Y 377.433
V (292.401 nm)	0.002106	ppm	0.000139	6.60	-38.869000	Y 377.433
Zn (206.200 nm)	2.406180	ppm	0.006268	0.26	10828.000000	Y 377.433
Zr (343.823 nm)	0.001241	ppm	0.000980	78.92	-91.344000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.024471	23681.116286	0.002327	0.23
Y 377.433	1.015481	710258.955955	0.003189	0.31
Y_R 377.433	1.040820	63103.900000	0.000868	0.08
Y_R 488.368	1.052310	55591.100000	0.003168	0.30
Y_R2 488.368	1.049647	111268.133565	0.001216	0.12
Y_R4	1.042370	46906.800000	0.000915	0.09

Sample Name: CCVH-5713036

Date: 5/24/2019 4:57:59 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004929	ppm	0.000129	2.61	-106.912000	Y 377.433
Al (394.401 nm)	50.923200 o	ppm	0.000475	0.00	620395.000000	Y 377.433
Al H (396.152 nm)	49.586100	ppm	0.214082	0.43	108134.000000	Y_R 377.433
As (188.980 nm)	0.004622	ppm	0.001091	23.59	4.033140	Y 242.219
B (249.678 nm)	-0.001823 u	ppm	0.000682	37.39	4.725660	Y 242.219
Ba (493.408 nm)	0.001975	ppm	0.000124	6.26	1636.230000	Y_R 488.368
Be (234.861 nm)	0.001177	ppm	0.000033	2.82	-97.862800	Y_R 488.368
Bi (223.061 nm)	0.011766	ppm	0.003243	27.56	23.808800	Y 377.433
Ca (315.887 nm)	0.002632	ppm	0.000377	14.33	-54.527421	Y_R 377.433
Cd (214.439 nm)	0.001372	ppm	0.000193	14.09	65.888100	Y 377.433
Co (228.615 nm)	0.003019	ppm	0.000363	12.03	55.873100	Y 242.219
Cr (205.560 nm)	0.001641	ppm	0.000337	20.57	2.849760	Y 377.433
Cu (324.754 nm)	0.004359	ppm	0.000414	9.50	1478.100000	Y 377.433
Fe (238.204 nm)	50.064179 o	ppm	0.258239	0.52	120520.358383	Y_R 377.433
Fe H (259.940 nm)	49.891100	ppm	0.236378	0.47	69010.000000	Y_R 377.433
K (766.491 nm)	0.196712	ppm	0.165861	84.32	2127.330000	Y_R2 488.368
Li (670.783 nm)	0.012261	ppm	0.002282	18.61	-2335.240000	Y_R2 488.368
Mg (279.078 nm)	0.038669	ppm	0.000372	0.96	60.579000	Y 377.433
Mn (257.610 nm)	0.001191	ppm	0.000074	6.21	313.588000	Y 377.433
Mo (202.032 nm)	0.001296	ppm	0.000320	24.66	27.464500	Y 377.433
Na (589.592 nm)	232.296000 o	ppm	2.880500	1.24	190843.000000	Y_R2 488.368
Na H (589.593 nm)	244.564769	ppm	1.820283	0.74	132572.621330	Y_R4
Ni (231.604 nm)	0.003635	ppm	0.000205	5.65	10.193100	Y 377.433
P (213.618 nm)	5.034590	ppm	0.007987	0.16	7190.590000	Y 242.219
Pb (220.353 nm)	0.007065	ppm	0.000225	3.19	23.790900	Y 242.219
S (181.972 nm)	5.059961	ppm	0.021228	0.42	2329.937477	Y 377.433
Sb (206.834 nm)	-0.001616 u	ppm	0.000630	38.95	3.262700	Y 377.433
Se (196.026 nm)	0.007466	ppm	0.000661	8.85	7.224860	Y 242.219
Si (288.158 nm)	0.026951	ppm	0.000220	0.82	662.042000	Y 377.433
Sn (189.925 nm)	0.002563	ppm	0.000230	8.96	6.213880	Y 377.433
Sr (421.552 nm)	0.001494	ppm	0.000131	8.74	255.636002	Y_R 488.368
Th (288.505 nm)	4.935260	ppm	0.010616	0.22	8523.440000	Y 377.433
Ti (336.122 nm)	0.001963	ppm	0.000006	0.28	-182.591000	Y 377.433
Tl (190.794 nm)	0.000005 u	ppm	0.001038	> 100.00	-2.956780	Y 377.433
U (409.013 nm)	0.542092 Q	ppm	0.002409	0.44	1731.720000 Q	Y 377.433
V (292.401 nm)	0.000511	ppm	0.000126	24.68	378.002000	Y 377.433
Zn (206.200 nm)	0.002544	ppm	0.000550	21.61	22.473800	Y 377.433
Zr (343.823 nm)	0.001175	ppm	0.000002	0.19	-95.082300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.981687	22692.163485	0.002613	0.27
Y 377.433	0.968488	677390.990954	0.003644	0.38
Y_R 377.433	0.999011	60568.800000	0.001715	0.17
Y_R 488.368	1.015600	53651.600000	0.002469	0.24
Y_R2 488.368	1.010572	107125.971647	0.009093	0.90
Y_R4	1.025000	46124.800000	0.002333	0.23

Sample Name: CCV-5717467

Date: 5/24/2019 5:01:45 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.500413	ppm	0.000422	0.08	16998.800000	Y 377.433
Al (394.401 nm)	0.512396	ppm	0.003777	0.74	6471.920000	Y 377.433
Al H (396.152 nm)	0.566249 u	ppm	0.001718	0.30	1226.840000	Y_R 377.433
As (188.980 nm)	0.503705	ppm	0.001288	0.26	757.385000	Y 242.219
B (249.678 nm)	0.488756	ppm	0.002145	0.44	3535.740000	Y 242.219
Ba (493.408 nm)	0.498254	ppm	0.000546	0.11	51074.200000	Y_R 488.368
Be (234.861 nm)	0.485030	ppm	0.000975	0.20	47754.500000	Y_R 488.368
Bi (223.061 nm)	1.006380	ppm	0.000143	0.01	2194.020000	Y 377.433
Ca (315.887 nm)	4.974457	ppm	0.012873	0.26	3881.837221	Y_R 377.433
Cd (214.439 nm)	0.520006	ppm	0.000653	0.13	19225.700000	Y 377.433
Co (228.615 nm)	0.505157	ppm	0.000912	0.18	11879.100000	Y 242.219
Cr (205.560 nm)	0.520997	ppm	0.003939	0.76	3464.330000	Y 377.433
Cu (324.754 nm)	0.506304	ppm	0.000641	0.13	23929.900000	Y 377.433
Fe (238.204 nm)	2.517522	ppm	0.008669	0.34	6067.254617	Y_R 377.433
Fe H (259.940 nm)	2.521360 u	ppm	0.001474	0.06	3498.410000	Y_R 377.433
K (766.491 nm)	49.030200	ppm	0.704856	1.44	49280.300000	Y_R2 488.368
Li (670.783 nm)	0.509932	ppm	0.000926	0.18	6209.880000	Y_R2 488.368
Mg (279.078 nm)	19.968400	ppm	0.001800	0.01	65348.900000	Y 377.433
Mn (257.610 nm)	0.499777	ppm	0.000139	0.03	136258.000000	Y 377.433
Mo (202.032 nm)	0.505454	ppm	0.000297	0.06	6382.000000	Y 377.433
Na (589.592 nm)	23.884100	ppm	0.212307	0.89	19870.300000	Y_R2 488.368
Na H (589.593 nm)	25.921073 u	ppm	0.091803	0.35	13946.139589	Y_R4
Ni (231.604 nm)	0.516198	ppm	0.000994	0.19	2662.810000	Y 377.433
P (213.618 nm)	0.051109	ppm	0.001096	2.14	-67.924400	Y 242.219
Pb (220.353 nm)	0.508526	ppm	0.000051	0.01	1621.540000	Y 242.219
S (181.972 nm)	-0.005127 u	ppm	0.001408	27.47	12.176703	Y 377.433
Sb (206.834 nm)	0.512949	ppm	0.001054	0.21	865.249000	Y 377.433
Se (196.026 nm)	0.502273	ppm	0.003699	0.74	766.509000	Y 242.219
Si (288.158 nm)	4.962260	ppm	0.008614	0.17	32433.500000	Y 377.433
Sn (189.925 nm)	0.517488	ppm	0.000590	0.11	834.757000	Y 377.433
Sr (421.552 nm)	0.485473	ppm	0.001010	0.21	73136.262414	Y_R 488.368
Th (288.505 nm)	0.021431	ppm	0.000377	1.76	-1.181740	Y 377.433
Ti (336.122 nm)	0.493539	ppm	0.000623	0.13	62738.400000	Y 377.433
Tl (190.794 nm)	0.518463	ppm	0.002522	0.49	1184.320000	Y 377.433
U (409.013 nm)	0.007002	ppm	0.001066	15.23	-63.563900	Y 377.433
V (292.401 nm)	0.499047	ppm	0.000248	0.05	25587.800000	Y 377.433
Zn (206.200 nm)	0.519393	ppm	0.002151	0.41	2339.990000	Y 377.433
Zr (343.823 nm)	0.496027	ppm	0.000354	0.07	27919.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.013957	23438.082814	0.000108	0.01
Y 377.433	1.001271	700320.477595	0.002121	0.21
Y_R 377.433	1.032670	62609.500000	0.003730	0.36
Y_R 488.368	1.043750	55138.700000	0.003898	0.37
Y_R2 488.368	1.037676	109999.132923	0.003202	0.31
Y_R4	1.045160	47032.100000	0.005027	0.48

Sample Name: CCB

Date: 5/24/2019 5:05:20 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000497	ppm	0.000105	21.06	-250.171000	Y 377.433
Al (394.401 nm)	-0.000738 u	ppm	0.000397	53.89	84.669100	Y 377.433
Al H (396.152 nm)	0.128365 Zu	ppm	0.012743	9.93	22.332100 Z	Y_R 377.433
As (188.980 nm)	0.000610 u	ppm	0.001391	> 100.00	-0.656747	Y 242.219
B (249.678 nm)	-0.001537 u	ppm	0.000342	22.24	35.692500	Y 242.219
Ba (493.408 nm)	-0.001244 u	ppm	0.000316	25.36	1275.420000	Y_R 488.368
Be (234.861 nm)	0.000089	ppm	0.000004	4.10	6.787080	Y_R 488.368
Bi (223.061 nm)	0.000689	ppm	0.000206	29.85	-9.101980	Y 377.433
Ca (315.887 nm)	0.012222	ppm	0.002157	17.65	-59.331025	Y_R 377.433
Cd (214.439 nm)	-0.000031 u	ppm	0.000171	> 100.00	-6.307740	Y 377.433
Co (228.615 nm)	-0.000294 u	ppm	0.000030	10.27	-22.038800	Y 242.219
Cr (205.560 nm)	0.000288	ppm	0.000110	38.24	-4.833320	Y 377.433
Cu (324.754 nm)	0.001206	ppm	0.000044	3.61	372.725000	Y 377.433
Fe (238.204 nm)	-0.000102 u	ppm	0.002418	> 100.00	6.893660	Y_R 377.433
Fe H (259.940 nm)	0.000781 u	ppm	0.001665	> 100.00	12.493900	Y_R 377.433
K (766.491 nm)	-0.082468 u	ppm	0.164183	> 100.00	1857.750000	Y_R2 488.368
Li (670.783 nm)	0.013012 Z	ppm	0.001963	15.08	-2322.350000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003420	ppm	0.001102	32.22	19.283000	Y 377.433
Mn (257.610 nm)	0.000056	ppm	0.000028	50.71	4.165610	Y 377.433
Mo (202.032 nm)	-0.000206 u	ppm	0.000480	> 100.00	8.533340	Y 377.433
Na (589.592 nm)	0.008131 u	ppm	0.016352	> 100.00	156.764000	Y_R2 488.368
Na H (589.593 nm)	1.080032 u	ppm	0.047549	4.40	468.480118	Y_R4
Ni (231.604 nm)	0.000294 u	ppm	0.000460	> 100.00	-7.098820	Y 377.433
P (213.618 nm)	-0.000560 u	ppm	0.000544	97.20	-5.033850	Y 242.219
Pb (220.353 nm)	0.001008	ppm	0.000046	4.55	11.506500	Y 242.219
S (181.972 nm)	0.000353 u	ppm	0.002018	> 100.00	12.860880	Y 377.433
Sb (206.834 nm)	-0.003301 u	ppm	0.001915	58.01	-3.792370	Y 377.433
Se (196.026 nm)	0.000526 u	ppm	0.000954	> 100.00	9.650420	Y 242.219
Si (288.158 nm)	-0.002427 u	ppm	0.000370	15.24	472.924000	Y 377.433
Sn (189.925 nm)	0.001666	ppm	0.001671	> 100.00	4.770670	Y 377.433
Sr (421.552 nm)	0.000264	ppm	0.000068	25.86	62.879410	Y_R 488.368
Th (288.505 nm)	0.003861	ppm	0.000139	3.61	19.429500	Y 377.433
Ti (336.122 nm)	0.000251	ppm	0.000009	3.60	-401.710000	Y 377.433
Tl (190.794 nm)	-0.000902 u	ppm	0.000528	58.57	-0.244486	Y 377.433
U (409.013 nm)	0.002477 u	ppm	0.003926	> 100.00	-16.907200	Y 377.433
V (292.401 nm)	-0.000076 u	ppm	0.000416	> 100.00	-150.898000	Y 377.433
Zn (206.200 nm)	-0.000224 u	ppm	0.000205	91.48	3.057850	Y 377.433
Zr (343.823 nm)	-0.000123 u	ppm	0.000042	34.45	-168.593000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.032546	23867.777763	0.003026	0.29
Y 377.433	1.018226	712178.900969	0.002652	0.26
Y_R 377.433	1.031620	62545.900000	0.003132	0.30
Y_R 488.368	1.042370	55065.900000	0.001503	0.14
Y_R2 488.368	1.048355	111131.208851	0.005126	0.49
Y_R4	1.043480	46956.600000	0.006393	0.61

Sample Name: CCVL-5719884

Date: 5/24/2019 5:08:32 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008223	ppm	0.000009	0.11	15.586500	Y 377.433
Al (394.401 nm)	0.101340	ppm	0.000811	0.80	1338.810000	Y 377.433
Al H (396.152 nm)	0.237886 u	ppm	0.011403	4.79	267.387000	Y_R 377.433
As (188.980 nm)	0.013148	ppm	0.000822	6.25	18.233700	Y 242.219
B (249.678 nm)	0.092051	ppm	0.000878	0.95	704.010000	Y 242.219
Ba (493.408 nm)	0.008404	ppm	0.000607	7.23	2237.390000	Y_R 488.368
Be (234.861 nm)	0.000926	ppm	0.000003	0.29	88.767000	Y_R 488.368
Bi (223.061 nm)	0.091509	ppm	0.001428	1.56	189.828000	Y 377.433
Ca (315.887 nm)	0.208768	ppm	0.001515	0.73	96.791098	Y_R 377.433
Cd (214.439 nm)	0.005306	ppm	0.000049	0.92	191.089000	Y 377.433
Co (228.615 nm)	0.010657	ppm	0.000245	2.30	235.777000	Y 242.219
Cr (205.560 nm)	0.010312	ppm	0.000299	2.90	61.847000	Y 377.433
Cu (324.754 nm)	0.016874	ppm	0.000085	0.50	1102.180000	Y 377.433
Fe (238.204 nm)	0.102003	ppm	0.003932	3.85	252.678213	Y_R 377.433
Fe H (259.940 nm)	0.104928 u	ppm	0.001516	1.44	156.527000	Y_R 377.433
K (766.491 nm)	2.951630	ppm	0.310650	10.52	4787.440000	Y_R2 488.368
Li (670.783 nm)	0.033225 Q	ppm	0.004295	12.93	-1975.290000 Q	Y_R2 488.368
Mg (279.078 nm)	0.205198	ppm	0.002110	1.03	678.436000	Y 377.433
Mn (257.610 nm)	0.010726	ppm	0.000009	0.08	2913.490000	Y 377.433
Mo (202.032 nm)	0.020065	ppm	0.000003	0.01	264.041000	Y 377.433
Na (589.592 nm)	1.039350	ppm	0.024046	2.31	1005.400000	Y_R2 488.368
Na H (589.593 nm)	1.852938 u	ppm	0.010858	0.59	887.825021	Y_R4
Ni (231.604 nm)	0.044608	ppm	0.000236	0.53	222.202000	Y 377.433
P (213.618 nm)	2.880230	ppm	0.009157	0.32	4110.120000	Y 242.219
Pb (220.353 nm)	0.009081	ppm	0.000781	8.61	37.218200	Y 242.219
S (181.972 nm)	0.088388	ppm	0.003527	3.99	53.216266	Y 377.433
Sb (206.834 nm)	0.019030	ppm	0.001502	7.89	33.757900	Y 377.433
Se (196.026 nm)	0.017585	ppm	0.001334	7.59	35.370500	Y 242.219
Si (288.158 nm)	0.489691	ppm	0.000215	0.04	3640.970000	Y 377.433
Sn (189.925 nm)	0.105084	ppm	0.001358	1.29	171.177000	Y 377.433
Sr (421.552 nm)	0.009469	ppm	0.000019	0.20	1449.161950	Y_R 488.368
Th (288.505 nm)	0.015187	ppm	0.000059	0.39	38.454100	Y 377.433
Ti (336.122 nm)	0.009960	ppm	0.000005	0.05	841.274000	Y 377.433
Tl (190.794 nm)	0.016092	ppm	0.004471	27.79	38.505700	Y 377.433
U (409.013 nm)	0.058930	ppm	0.008012	13.59	160.917000	Y 377.433
V (292.401 nm)	0.009668	ppm	0.000179	1.85	348.656000	Y 377.433
Zn (206.200 nm)	0.021645	ppm	0.000535	2.47	101.410000	Y 377.433
Zr (343.823 nm)	0.009927	ppm	0.000186	1.88	400.385000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047081	24203.767399	0.004757	0.45
Y 377.433	1.030889	721035.999841	0.005047	0.49
Y_R 377.433	1.040770	63100.800000	0.002030	0.20
Y_R 488.368	1.052530	55602.600000	0.005984	0.57
Y_R2 488.368	1.059536	112316.375987	0.013312	1.26
Y_R4	1.049180	47213.200000	0.014797	1.41

Sample Name: 280-123928-A-1-A

Date: 5/24/2019 5:12:00 PM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001748	ppm	0.000157	8.98	-208.543000	Y 377.433
Al (394.401 nm)	0.523125	ppm	0.002201	0.42	6750.650000	Y 377.433
Al H (396.152 nm)	0.474834 u	ppm	0.003488	0.73	1186.750000	Y_R 377.433
As (188.980 nm)	0.003140	ppm	0.001418	45.16	3.144560	Y 242.219
B (249.678 nm)	0.113556	ppm	0.000217	0.19	857.413000	Y 242.219
Ba (493.408 nm)	0.118599	ppm	0.000092	0.08	13223.400000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000020	43.09	-8.327910	Y_R 488.368
Bi (223.061 nm)	-0.000391 u	ppm	0.000305	78.13	-11.381500	Y 377.433
Ca (315.887 nm)	98.510190	ppm	0.241790	0.25	78168.451739	Y_R 377.433
Cd (214.439 nm)	0.000147	ppm	0.000035	23.82	0.432701	Y 377.433
Co (228.615 nm)	0.000188	ppm	0.000237	> 100.00	-10.096500	Y 242.219
Cr (205.560 nm)	0.000398 u	ppm	0.000808	> 100.00	-4.127490	Y 377.433
Cu (324.754 nm)	0.002447	ppm	0.000341	13.92	369.979000	Y 377.433
Fe (238.204 nm)	0.405062	ppm	0.002016	0.50	982.195104	Y_R 377.433
Fe H (259.940 nm)	0.403499 u	ppm	0.001968	0.49	569.446000	Y_R 377.433
K (766.491 nm)	7.499310	ppm	0.305519	4.07	9178.630000	Y_R2 488.368
Li (670.783 nm)	0.045226	ppm	0.003399	7.52	-1769.230000	Y_R2 488.368
Mg (279.078 nm)	19.415700	ppm	0.041828	0.22	63542.100000	Y 377.433
Mn (257.610 nm)	0.116710	ppm	0.000412	0.35	31811.000000	Y 377.433
Mo (202.032 nm)	0.002411	ppm	0.000241	10.01	41.524200	Y 377.433
Na (589.592 nm)	118.792000 o	ppm	1.479990	1.25	97693.600000	Y_R2 488.368
Na H (589.593 nm)	126.772046	ppm	0.771912	0.61	68663.455076	Y_R4
Ni (231.604 nm)	0.001019	ppm	0.000162	15.94	-3.350730	Y 377.433
P (213.618 nm)	0.110026	ppm	0.000042	0.04	152.267000	Y 242.219
Pb (220.353 nm)	0.000292 u	ppm	0.000562	> 100.00	9.205640	Y 242.219
S (181.972 nm)	56.125712	ppm	0.214144	0.38	25720.921760	Y 377.433
Sb (206.834 nm)	-0.004337 u	ppm	0.001649	38.02	-5.585970	Y 377.433
Se (196.026 nm)	0.001383	ppm	0.000494	35.71	11.001900	Y 242.219
Si (288.158 nm)	9.945740	ppm	0.018644	0.19	64514.900000	Y 377.433
Sn (189.925 nm)	0.000708	ppm	0.000494	69.68	3.230190	Y 377.433
Sr (421.552 nm)	1.025845	ppm	0.001417	0.14	154516.662200	Y_R 488.368
Th (288.505 nm)	-0.010629 u	ppm	0.002316	21.79	-5.984890	Y 377.433
Ti (336.122 nm)	0.015445	ppm	0.000293	1.90	1877.260000	Y 377.433
Tl (190.794 nm)	0.002658	ppm	0.000076	2.86	3.867190	Y 377.433
U (409.013 nm)	0.047634	ppm	0.002307	4.84	113.447000	Y 377.433
V (292.401 nm)	0.003867	ppm	0.000130	3.36	51.172700	Y 377.433
Zn (206.200 nm)	0.005153	ppm	0.000252	4.89	27.290500	Y 377.433
Zr (343.823 nm)	0.000829	ppm	0.000094	11.39	-114.663000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.981008	22676.465484	0.005686	0.58
Y 377.433	0.970897	679075.448067	0.005933	0.61
Y_R 377.433	0.998292	60525.200000	0.003366	0.34
Y_R 488.368	1.009690	53339.900000	0.000134	0.01
Y_R2 488.368	1.005666	106605.948458	0.005520	0.55
Y_R4	1.010190	45458.300000	0.005974	0.59

Sample Name: 280-123928-A-1-Asd@5

Date: 5/24/2019 5:15:33 PM Rack:Tube: 1:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000550	ppm	0.000359	65.32	-248.446000	Y 377.433
Al (394.401 nm)	0.111945	ppm	0.001622	1.45	1512.990000	Y 377.433
Al H (396.152 nm)	0.208267 u	ppm	0.002621	1.26	277.697000	Y_R 377.433
As (188.980 nm)	0.002955	ppm	0.001888	63.90	2.874370	Y 242.219
B (249.678 nm)	0.020772	ppm	0.000377	1.81	194.951000	Y 242.219
Ba (493.408 nm)	0.023112	ppm	0.000636	2.75	3703.710000	Y_R 488.368
Be (234.861 nm)	-0.000008 u	ppm	0.000034	> 100.00	-3.324900	Y_R 488.368
Bi (223.061 nm)	0.000795	ppm	0.000931	> 100.00	-8.846460	Y 377.433
Ca (315.887 nm)	19.870042	ppm	0.028225	0.14	15711.889717	Y_R 377.433
Cd (214.439 nm)	0.000103	ppm	0.000001	0.89	-1.334360	Y 377.433
Co (228.615 nm)	-0.000267 u	ppm	0.000236	88.56	-21.275600	Y 242.219
Cr (205.560 nm)	-0.000296 u	ppm	0.000375	> 100.00	-8.735110	Y 377.433
Cu (324.754 nm)	0.001463	ppm	0.000120	8.22	372.742000	Y 377.433
Fe (238.204 nm)	0.120505	ppm	0.001552	1.29	297.215610	Y_R 377.433
Fe H (259.940 nm)	0.129784 u	ppm	0.003080	2.37	190.902000	Y_R 377.433
K (766.491 nm)	1.373630	ppm	0.042213	3.07	3263.740000	Y_R2 488.368
Li (670.783 nm)	0.022840	ppm	0.003611	15.81	-2153.600000	Y_R2 488.368
Mg (279.078 nm)	3.943400	ppm	0.001958	0.05	12912.200000	Y 377.433
Mn (257.610 nm)	0.023905	ppm	0.000017	0.07	6506.940000	Y 377.433
Mo (202.032 nm)	0.000720	ppm	0.000557	77.40	20.208000	Y 377.433
Na (589.592 nm)	24.567800	ppm	0.120787	0.49	20323.200000	Y_R2 488.368
Na H (589.593 nm)	25.692543 u	ppm	0.093975	0.37	13822.149178	Y_R4
Ni (231.604 nm)	0.000511	ppm	0.000522	> 100.00	-5.973620	Y 377.433
P (213.618 nm)	0.020602	ppm	0.000053	0.26	25.042100	Y 242.219
Pb (220.353 nm)	-0.000068 u	ppm	0.001240	> 100.00	8.052460	Y 242.219
S (181.972 nm)	11.031796	ppm	0.035003	0.32	5065.801720	Y 377.433
Sb (206.834 nm)	-0.003704 u	ppm	0.001302	35.15	-4.483190	Y 377.433
Se (196.026 nm)	-0.000941 u	ppm	0.000130	13.79	7.439900	Y 242.219
Si (288.158 nm)	1.973380	ppm	0.001827	0.09	13192.300000	Y 377.433
Sn (189.925 nm)	-0.000002 u	ppm	0.000642	> 100.00	2.086610	Y 377.433
Sr (421.552 nm)	0.203739	ppm	0.000381	0.19	30706.571086	Y_R 488.368
Th (288.505 nm)	-0.005112 u	ppm	0.006324	> 100.00	3.844580	Y 377.433
Ti (336.122 nm)	0.003471	ppm	0.000132	3.79	77.274000	Y 377.433
Tl (190.794 nm)	0.001280	ppm	0.001455	> 100.00	3.932160	Y 377.433
U (409.013 nm)	0.006460	ppm	0.005998	92.85	-6.818340	Y 377.433
V (292.401 nm)	0.000662	ppm	0.000040	6.12	-112.672000	Y 377.433
Zn (206.200 nm)	0.004219	ppm	0.000919	21.77	23.053300	Y 377.433
Zr (343.823 nm)	0.000269	ppm	0.000064	23.71	-146.392000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.026261	23722.502561	0.000062	0.01
Y 377.433	1.013051	708559.454117	0.000699	0.07
Y_R 377.433	1.039530	63025.600000	0.001652	0.16
Y_R 488.368	1.052330	55592.000000	0.000402	0.04
Y_R2 488.368	1.044686	110742.200517	0.002046	0.20
Y_R4	1.053430	47404.100000	0.013814	1.31

Sample Name: 280-123928-A-1-B MS

Date: 5/24/2019 5:19:02 PM Rack:Tube: 1:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001039	ppm	0.000034	3.30	-559.867000	Y 377.433
Al (394.401 nm)	11.057000 o	ppm	0.009798	0.09	135572.000000	Y 377.433
Al H (396.152 nm)	10.628000	ppm	0.033582	0.32	23875.400000	Y_R 377.433
As (188.980 nm)	2.114480	ppm	0.005921	0.28	3184.430000	Y 242.219
B (249.678 nm)	1.143980	ppm	0.003331	0.29	8210.430000	Y 242.219
Ba (493.408 nm)	2.155240	ppm	0.002362	0.11	216272.000000	Y_R 488.368
Be (234.861 nm)	1.008440	ppm	0.004530	0.45	99266.500000	Y_R 488.368
Bi (223.061 nm)	2.025530	ppm	0.004737	0.23	4427.540000	Y 377.433
Ca (315.887 nm)	145.717017	ppm	0.143451	0.10	115662.996907	Y_R 377.433
Cd (214.439 nm)	1.028500	ppm	0.001555	0.15	38033.200000	Y 377.433
Co (228.615 nm)	1.003670	ppm	0.000152	0.02	23619.300000	Y 242.219
Cr (205.560 nm)	1.052180	ppm	0.000675	0.06	7002.940000	Y 377.433
Cu (324.754 nm)	1.024680	ppm	0.001046	0.10	48116.500000	Y 377.433
Fe (238.204 nm)	10.672771 o	ppm	0.021845	0.20	25698.363676	Y_R 377.433
Fe H (259.940 nm)	10.663400	ppm	0.021181	0.20	14758.700000	Y_R 377.433
K (766.491 nm)	58.148500	ppm	0.370677	0.64	58084.800000	Y_R2 488.368
Li (670.783 nm)	1.066470	ppm	0.001871	0.18	15765.700000	Y_R2 488.368
Mg (279.078 nm)	69.213700	ppm	0.107729	0.16	226455.000000	Y 377.433
Mn (257.610 nm)	1.126020	ppm	0.000570	0.05	307008.000000	Y 377.433
Mo (202.032 nm)	1.049120	ppm	0.001038	0.10	13234.500000	Y 377.433
Na (589.592 nm)	165.102000 o	ppm	0.407584	0.25	136172.000000	Y_R2 488.368
Na H (589.593 nm)	175.513047	ppm	0.313297	0.18	95108.184975	Y_R4
Ni (231.604 nm)	1.016250	ppm	0.001019	0.10	5251.850000	Y 377.433
P (213.618 nm)	21.154500	ppm	0.008367	0.04	29967.600000	Y 242.219
Pb (220.353 nm)	1.006990	ppm	0.002476	0.25	3205.660000	Y 242.219
S (181.972 nm)	66.013842	ppm	0.162272	0.25	30254.742699	Y 377.433
Sb (206.834 nm)	0.000388 u	ppm	0.001475	> 100.00	-2.420530	Y 377.433
Se (196.026 nm)	2.043510	ppm	0.005798	0.28	3089.840000	Y 242.219
Si (288.158 nm)	12.151800	ppm	0.026054	0.21	78716.500000	Y 377.433
Sn (189.925 nm)	2.097940	ppm	0.003758	0.18	3377.790000	Y 377.433
Sr (421.552 nm)	2.010656	ppm	0.003781	0.19	302831.706403	Y_R 488.368
Th (288.505 nm)	1.036730	ppm	0.001179	0.11	1704.480000	Y 377.433
Ti (336.122 nm)	1.035960	ppm	0.000153	0.01	132626.000000	Y 377.433
Tl (190.794 nm)	2.001690	ppm	0.001714	0.09	4566.970000	Y 377.433
U (409.013 nm)	2.068350	ppm	0.001347	0.07	6465.320000	Y 377.433
V (292.401 nm)	1.020220	ppm	0.000827	0.08	52472.100000	Y 377.433
Zn (206.200 nm)	0.515515	ppm	0.000500	0.10	2323.690000	Y 377.433
Zr (343.823 nm)	0.480610	ppm	0.000448	0.09	27046.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.974343	22522.384729	0.003399	0.35
Y 377.433	0.972119	679930.536622	0.004295	0.44
Y_R 377.433	1.022660	62002.700000	0.000068	0.01
Y_R 488.368	1.031240	54478.100000	0.000339	0.03
Y_R2 488.368	1.026494	108813.783145	0.006647	0.65
Y_R4	1.046400	47088.100000	0.002155	0.21

Sample Name: 280-123928-A-1-C MSD

Date: 5/24/2019 5:22:42 PM Rack:Tube: 1:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000710	ppm	0.000334	47.00	-576.927000	Y 377.433
Al (394.401 nm)	11.021900 o	ppm	0.016637	0.15	135140.000000	Y 377.433
Al H (396.152 nm)	10.603000	ppm	0.001710	0.02	23816.000000	Y_R 377.433
As (188.980 nm)	2.132010	ppm	0.008231	0.39	3210.830000	Y 242.219
B (249.678 nm)	1.143030	ppm	0.001061	0.09	8203.430000	Y 242.219
Ba (493.408 nm)	2.142440	ppm	0.003925	0.18	214996.000000	Y_R 488.368
Be (234.861 nm)	1.018870	ppm	0.005353	0.53	100292.000000	Y_R 488.368
Bi (223.061 nm)	2.035730	ppm	0.005337	0.26	4449.930000	Y 377.433
Ca (315.887 nm)	149.906199	ppm	0.186507	0.12	118990.065297	Y_R 377.433
Cd (214.439 nm)	1.055180	ppm	0.001669	0.16	39019.900000	Y 377.433
Co (228.615 nm)	1.014160	ppm	0.002199	0.22	23866.100000	Y 242.219
Cr (205.560 nm)	1.069690	ppm	0.022057	2.06	7119.600000	Y 377.433
Cu (324.754 nm)	1.023490	ppm	0.002734	0.27	48059.100000	Y 377.433
Fe (238.204 nm)	11.018092 o	ppm	0.012558	0.11	26529.609618	Y_R 377.433
Fe H (259.940 nm)	10.960900	ppm	0.009380	0.09	15170.100000	Y_R 377.433
K (766.491 nm)	58.685900	ppm	0.610045	1.04	58603.700000	Y_R2 488.368
Li (670.783 nm)	1.067160	ppm	0.005994	0.56	15777.600000	Y_R2 488.368
Mg (279.078 nm)	70.814400	ppm	0.159915	0.23	231693.000000	Y 377.433
Mn (257.610 nm)	1.140350	ppm	0.002377	0.21	310918.000000	Y 377.433
Mo (202.032 nm)	1.065320	ppm	0.002075	0.19	13438.700000	Y 377.433
Na (589.592 nm)	165.092000 o	ppm	0.528397	0.32	136162.000000	Y_R2 488.368
Na H (589.593 nm)	173.689331	ppm	1.211300	0.70	94118.716455	Y_R4
Ni (231.604 nm)	1.035270	ppm	0.001455	0.14	5350.300000	Y 377.433
P (213.618 nm)	21.389200	ppm	0.037525	0.18	30302.700000	Y 242.219
Pb (220.353 nm)	1.023260	ppm	0.003042	0.30	3257.310000	Y 242.219
S (181.972 nm)	66.582272	ppm	0.082213	0.12	30515.315850	Y 377.433
Sb (206.834 nm)	0.000989 u	ppm	0.002553	> 100.00	-1.420370	Y 377.433
Se (196.026 nm)	2.064380	ppm	0.010524	0.51	3121.250000	Y 242.219
Si (288.158 nm)	12.285000	ppm	0.037734	0.31	79574.000000	Y 377.433
Sn (189.925 nm)	2.139690	ppm	0.003306	0.15	3444.980000	Y 377.433
Sr (421.552 nm)	1.996167	ppm	0.003176	0.16	300649.680347	Y_R 488.368
Th (288.505 nm)	1.040250	ppm	0.001132	0.11	1709.090000	Y 377.433
Ti (336.122 nm)	1.043640	ppm	0.002442	0.23	133624.000000	Y 377.433
Tl (190.794 nm)	2.045620	ppm	0.002157	0.11	4667.150000	Y 377.433
U (409.013 nm)	2.071060	ppm	0.001737	0.08	6473.720000	Y 377.433
V (292.401 nm)	1.033430	ppm	0.002374	0.23	53152.200000	Y 377.433
Zn (206.200 nm)	0.527229	ppm	0.000223	0.04	2376.410000	Y 377.433
Zr (343.823 nm)	0.479768	ppm	0.001419	0.30	26998.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.992810	22949.254643	0.003150	0.32
Y 377.433	0.982695	687327.362477	0.002142	0.22
Y_R 377.433	1.031420	62533.600000	0.004354	0.42
Y_R 488.368	1.043960	55149.800000	0.005594	0.54
Y_R2 488.368	1.023040	108447.675472	0.009366	0.92
Y_R4	1.048900	47200.400000	0.010116	0.96

Sample Name: MB 280-458933/1-A

Date: 5/24/2019 5:26:20 PM Rack:Tube: 1:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000006 u	ppm	0.000365	> 100.00	-267.097000	Y 377.433
Al (394.401 nm)	0.003588	ppm	0.000136	3.78	136.725000	Y 377.433
Al H (396.152 nm)	0.130321 u	ppm	0.010750	8.25	26.716200	Y_R 377.433
As (188.980 nm)	-0.000138 u	ppm	0.004512	> 100.00	-1.785770	Y 242.219
B (249.678 nm)	-0.001092 u	ppm	0.000196	17.99	38.847700	Y 242.219
Ba (493.408 nm)	-0.001540 u	ppm	0.000219	14.21	1245.980000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000005	25.35	-4.128780	Y_R 488.368
Bi (223.061 nm)	-0.001303 u	ppm	0.002923	> 100.00	-13.458600	Y 377.433
Ca (315.887 nm)	0.035478	ppm	0.001094	3.08	-40.863339	Y_R 377.433
Cd (214.439 nm)	0.000063	ppm	0.000054	85.55	-2.825810	Y 377.433
Co (228.615 nm)	0.000020 u	ppm	0.000086	> 100.00	-14.655500	Y 242.219
Cr (205.560 nm)	0.000274	ppm	0.000107	39.00	-4.928870	Y 377.433
Cu (324.754 nm)	0.001329	ppm	0.000430	32.33	378.675000	Y 377.433
Fe (238.204 nm)	0.043105	ppm	0.000045	0.10	110.900971	Y_R 377.433
Fe H (259.940 nm)	0.046922 u	ppm	0.000040	0.08	76.305700	Y_R 377.433
K (766.491 nm)	-0.078049 u	ppm	0.271259	> 100.00	1862.020000	Y_R2 488.368
Li (670.783 nm)	0.014902	ppm	0.004723	31.70	-2289.890000	Y_R2 488.368
Mg (279.078 nm)	0.008382	ppm	0.001143	13.64	35.578900	Y 377.433
Mn (257.610 nm)	0.000429	ppm	0.000008	1.77	105.826000	Y 377.433
Mo (202.032 nm)	0.000439	ppm	0.000278	63.27	16.670300	Y 377.433
Na (589.592 nm)	0.007598	ppm	0.001229	16.17	156.111000	Y_R2 488.368
Na H (589.593 nm)	1.357685 u	ppm	0.049215	3.62	619.122550	Y_R4
Ni (231.604 nm)	0.000635	ppm	0.000116	18.35	-5.334000	Y 377.433
P (213.618 nm)	0.001134 u	ppm	0.003133	> 100.00	-2.753260	Y 242.219
Pb (220.353 nm)	0.000626	ppm	0.000148	23.74	10.272500	Y 242.219
S (181.972 nm)	0.005542	ppm	0.007331	> 100.00	15.238551	Y 377.433
Sb (206.834 nm)	0.000093 u	ppm	0.002227	> 100.00	1.933090	Y 377.433
Se (196.026 nm)	0.003966	ppm	0.001641	41.37	14.828500	Y 242.219
Si (288.158 nm)	0.007614	ppm	0.000963	12.65	537.560000	Y 377.433
Sn (189.925 nm)	0.001476	ppm	0.001436	97.27	4.465090	Y 377.433
Sr (421.552 nm)	0.000336	ppm	0.000001	0.42	73.750925	Y_R 488.368
Th (288.505 nm)	0.001252 u	ppm	0.002312	> 100.00	14.897700	Y 377.433
Ti (336.122 nm)	0.000309	ppm	0.000004	1.41	-394.314000	Y 377.433
Tl (190.794 nm)	0.002082	ppm	0.001233	59.21	6.569580	Y 377.433
U (409.013 nm)	0.007206	ppm	0.003145	43.65	-1.882820	Y 377.433
V (292.401 nm)	0.000055	ppm	0.000014	25.00	-143.735000	Y 377.433
Zn (206.200 nm)	0.002469	ppm	0.000461	18.66	15.172700	Y 377.433
Zr (343.823 nm)	0.000120	ppm	0.000124	> 100.00	-154.809000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043582	24122.876482	0.001821	0.17
Y 377.433	1.031294	721319.013235	0.000773	0.07
Y_R 377.433	1.045290	63374.500000	0.002723	0.26
Y_R 488.368	1.061810	56092.800000	0.001576	0.15
Y_R2 488.368	1.060502	112418.783410	0.002723	0.26
Y_R4	1.037450	46685.100000	0.009067	0.87

Sample Name: LCS 280-458933/2-A

Date: 5/24/2019 5:29:35 PM Rack:Tube: 1:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052850	ppm	0.000586	1.11	1246.450000	Y 377.433
Al (394.401 nm)	10.253300 o	ppm	0.014367	0.14	125498.000000	Y 377.433
Al H (396.152 nm)	10.156300	ppm	0.026674	0.26	22437.300000	Y_R 377.433
As (188.980 nm)	2.056730	ppm	0.004609	0.22	3097.410000	Y 242.219
B (249.678 nm)	0.999192	ppm	0.000956	0.10	7176.580000	Y 242.219
Ba (493.408 nm)	2.034540	ppm	0.006589	0.32	204238.000000	Y_R 488.368
Be (234.861 nm)	1.010540	ppm	0.000017	0.00	99474.900000	Y_R 488.368
Bi (223.061 nm)	2.004590	ppm	0.002535	0.13	4381.580000	Y 377.433
Ca (315.887 nm)	50.008726	ppm	0.079076	0.16	39650.755399	Y_R 377.433
Cd (214.439 nm)	1.037520	ppm	0.002605	0.25	38366.600000	Y 377.433
Co (228.615 nm)	1.000210	ppm	0.001198	0.12	23536.900000	Y 242.219
Cr (205.560 nm)	1.049660	ppm	0.001299	0.12	6986.130000	Y 377.433
Cu (324.754 nm)	0.998347	ppm	0.003459	0.35	46943.200000	Y 377.433
Fe (238.204 nm)	10.342966 o	ppm	0.005836	0.06	24904.464802	Y_R 377.433
Fe H (259.940 nm)	10.302500	ppm	0.037862	0.37	14259.600000	Y_R 377.433
K (766.491 nm)	50.108100	ppm	0.368672	0.74	50321.200000	Y_R2 488.368
Li (670.783 nm)	1.019660	ppm	0.001783	0.17	14962.100000	Y_R2 488.368
Mg (279.078 nm)	50.387100	ppm	0.054911	0.11	164849.000000	Y 377.433
Mn (257.610 nm)	1.016110	ppm	0.001809	0.18	277041.000000	Y 377.433
Mo (202.032 nm)	1.041350	ppm	0.003161	0.30	13136.600000	Y 377.433
Na (589.592 nm)	49.058000	ppm	0.397055	0.81	40884.300000	Y_R2 488.368
Na H (589.593 nm)	51.639846	ppm	0.023391	0.05	27900.017860	Y_R4
Ni (231.604 nm)	1.016400	ppm	0.003037	0.30	5252.670000	Y 377.433
P (213.618 nm)	20.572300	ppm	0.013511	0.07	29141.500000	Y 242.219
Pb (220.353 nm)	1.015410	ppm	0.002137	0.21	3232.550000	Y 242.219
S (181.972 nm)	10.084515	ppm	0.020054	0.20	4636.624096	Y 377.433
Sb (206.834 nm)	1.097090	ppm	0.006217	0.57	1849.580000	Y 377.433
Se (196.026 nm)	2.007210	ppm	0.003173	0.16	3035.020000	Y 242.219
Si (288.158 nm)	2.100920	ppm	0.006270	0.30	14013.400000	Y 377.433
Sn (189.925 nm)	2.081520	ppm	0.005237	0.25	3351.370000	Y 377.433
Sr (421.552 nm)	0.985923	ppm	0.002477	0.25	148505.856687	Y_R 488.368
Th (288.505 nm)	1.037790	ppm	0.000472	0.05	1707.600000	Y 377.433
Ti (336.122 nm)	1.012250	ppm	0.000692	0.07	129267.000000	Y 377.433
Tl (190.794 nm)	2.048920	ppm	0.001996	0.10	4678.920000	Y 377.433
U (409.013 nm)	2.014020	ppm	0.000201	0.01	6302.470000	Y 377.433
V (292.401 nm)	1.010450	ppm	0.001897	0.19	51966.100000	Y 377.433
Zn (206.200 nm)	0.515697	ppm	0.000235	0.05	2324.460000	Y 377.433
Zr (343.823 nm)	0.503438	ppm	0.000965	0.19	28338.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.985571	22781.938337	0.000986	0.10
Y 377.433	0.979938	685399.117473	0.001865	0.19
Y_R 377.433	1.004600	60907.500000	0.000749	0.07
Y_R 488.368	1.017640	53759.700000	0.000017	0.00
Y_R2 488.368	1.002629	106284.009593	0.006915	0.69
Y_R4	1.041200	46854.100000	0.000677	0.07

Sample Name: 280-123564-M-1-B

Date: 5/24/2019 5:33:14 PM Rack:Tube: 1:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001184	ppm	0.000405	34.17	-226.753000	Y 377.433
Al (394.401 nm)	0.005803	ppm	0.001208	20.81	405.493000	Y 377.433
Al H (396.152 nm)	-0.043952 u	ppm	0.005190	11.81	139.021000	Y_R 377.433
As (188.980 nm)	0.004248	ppm	0.000010	0.24	4.811960	Y 242.219
B (249.678 nm)	0.260905	ppm	0.001395	0.53	1909.700000	Y 242.219
Ba (493.408 nm)	0.064682	ppm	0.000010	0.01	7848.200000	Y_R 488.368
Be (234.861 nm)	0.000122	ppm	0.000033	26.94	8.050310	Y_R 488.368
Bi (223.061 nm)	-0.000214 u	ppm	0.000540	> 100.00	-10.961400	Y 377.433
Ca (315.887 nm)	120.808531	ppm	0.249863	0.21	95877.798281	Y_R 377.433
Cd (214.439 nm)	0.000373	ppm	0.000027	7.35	8.816260	Y 377.433
Co (228.615 nm)	0.000134	ppm	0.000111	82.63	-11.971500	Y 242.219
Cr (205.560 nm)	0.000859	ppm	0.000179	20.90	-7.972840	Y 377.433
Cu (324.754 nm)	0.001044	ppm	0.000304	29.13	314.810000	Y 377.433
Fe (238.204 nm)	0.465407	ppm	0.001059	0.23	1127.454757	Y_R 377.433
Fe H (259.940 nm)	0.456792 u	ppm	0.005077	1.11	643.149000	Y_R 377.433
K (766.491 nm)	17.843900	ppm	0.011223	0.06	19167.200000	Y_R2 488.368
Li (670.783 nm)	0.033165	ppm	0.001150	3.47	-1976.320000	Y_R2 488.368
Mg (279.078 nm)	39.479600	ppm	0.016218	0.04	129199.000000	Y 377.433
Mn (257.610 nm)	0.151850	ppm	0.000077	0.05	41392.200000	Y 377.433
Mo (202.032 nm)	1.486560	ppm	0.001772	0.12	18748.100000	Y 377.433
Na (589.592 nm)	268.309000 o	ppm	0.035286	0.01	220420.000000	Y_R2 488.368
Na H (589.593 nm)	284.738870	ppm	1.146877	0.40	154369.326491	Y_R4
Ni (231.604 nm)	0.001795	ppm	0.000153	8.54	0.665567	Y 377.433
P (213.618 nm)	0.035889	ppm	0.000722	2.01	-4.890670	Y 242.219
Pb (220.353 nm)	0.000144 u	ppm	0.000614	> 100.00	4.878630	Y 242.219
S (181.972 nm)	120.810218 bo	ppm	0.091335	0.08	55344.677977	Y 377.433
Sb (206.834 nm)	-0.006700 u	ppm	0.001812	27.05	-19.310800	Y 377.433
Se (196.026 nm)	0.001487 u	ppm	0.002503	> 100.00	11.437600	Y 242.219
Si (288.158 nm)	8.706400	ppm	0.026840	0.31	56536.600000	Y 377.433
Sn (189.925 nm)	0.000574	ppm	0.000170	29.67	3.014320	Y 377.433
Sr (421.552 nm)	0.926463	ppm	0.001138	0.12	139549.622670	Y_R 488.368
Th (288.505 nm)	-0.001815 u	ppm	0.000327	17.99	9.562480	Y 377.433
Ti (336.122 nm)	-0.000315 u	ppm	0.000013	4.25	-63.447200	Y 377.433
Tl (190.794 nm)	0.005082	ppm	0.000551	10.85	0.589403	Y 377.433
U (409.013 nm)	0.020024	ppm	0.005058	25.26	23.026800	Y 377.433
V (292.401 nm)	0.002060	ppm	0.000243	11.80	-149.637000	Y 377.433
Zn (206.200 nm)	0.009387	ppm	0.000541	5.76	46.339500	Y 377.433
Zr (343.823 nm)	0.000041 u	ppm	0.000134	> 100.00	-159.308000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.972993	22491.186046	0.007022	0.72
Y 377.433	0.963619	673984.932071	0.008078	0.84
Y_R 377.433	1.021360	61923.900000	0.004866	0.48
Y_R 488.368	1.033910	54619.200000	0.000984	0.10
Y_R2 488.368	1.018102	107924.157576	0.004380	0.43
Y_R4	1.047910	47155.900000	0.006797	0.65

Sample Name: 280-123564-M-1-Bsd@5

Date: 5/24/2019 5:36:48 PM Rack:Tube: 1:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000844	ppm	0.000237	28.11	-238.133000	Y 377.433
Al (394.401 nm)	0.001567	ppm	0.000612	39.09	159.441000	Y 377.433
Al H (396.152 nm)	0.104511 u	ppm	0.005382	5.15	66.188400	Y_R 377.433
As (188.980 nm)	0.000014 u	ppm	0.001339	> 100.00	-1.593700	Y 242.219
B (249.678 nm)	0.050399	ppm	0.000579	1.15	405.764000	Y 242.219
Ba (493.408 nm)	0.011558	ppm	0.000250	2.16	2552.870000	Y_R 488.368
Be (234.861 nm)	0.000045	ppm	0.000026	58.14	-3.724890	Y_R 488.368
Bi (223.061 nm)	0.001361	ppm	0.000920	67.60	-7.371860	Y 377.433
Ca (315.887 nm)	24.962926	ppm	0.045764	0.18	19756.664696	Y_R 377.433
Cd (214.439 nm)	0.000062	ppm	0.000027	43.45	-2.276540	Y 377.433
Co (228.615 nm)	0.000221	ppm	0.000095	42.95	-9.946510	Y 242.219
Cr (205.560 nm)	0.001152	ppm	0.000141	12.21	-0.447237	Y 377.433
Cu (324.754 nm)	0.001406	ppm	0.000035	2.48	370.964000	Y 377.433
Fe (238.204 nm)	1.458723	ppm	0.020675	1.42	3518.541485	Y_R 377.433
Fe H (259.940 nm)	1.456240 u	ppm	0.033171	2.28	2025.370000	Y_R 377.433
K (766.491 nm)	3.252950	ppm	0.180362	5.54	5078.400000	Y_R2 488.368
Li (670.783 nm)	0.022264	ppm	0.004039	18.14	-2163.500000	Y_R2 488.368
Mg (279.078 nm)	7.965060	ppm	0.042395	0.53	26071.000000	Y 377.433
Mn (257.610 nm)	0.044321	ppm	0.000084	0.19	12073.500000	Y 377.433
Mo (202.032 nm)	0.294281	ppm	0.001090	0.37	3720.320000	Y 377.433
Na (589.592 nm)	54.635800	ppm	0.192064	0.35	45003.500000	Y_R2 488.368
Na H (589.593 nm)	56.273700	ppm	0.394523	0.70	30414.144092	Y_R4
Ni (231.604 nm)	0.000781	ppm	0.000353	45.15	-4.576650	Y 377.433
P (213.618 nm)	0.004193	ppm	0.004208	> 100.00	-8.563770	Y 242.219
Pb (220.353 nm)	0.001265	ppm	0.000461	36.46	11.514700	Y 242.219
S (181.972 nm)	23.826157	ppm	0.066569	0.28	10925.348734	Y 377.433
Sb (206.834 nm)	-0.004720 u	ppm	0.001698	35.97	-8.009410	Y 377.433
Se (196.026 nm)	-0.000081 u	ppm	0.001119	> 100.00	8.469200	Y 242.219
Si (288.158 nm)	1.718500	ppm	0.002773	0.16	11551.500000	Y 377.433
Sn (189.925 nm)	0.001508	ppm	0.001672	> 100.00	4.516830	Y 377.433
Sr (421.552 nm)	0.180206	ppm	0.001473	0.82	27162.573253	Y_R 488.368
Th (288.505 nm)	-0.006339 u	ppm	0.001165	18.38	1.870400	Y 377.433
Ti (336.122 nm)	0.000209	ppm	0.000040	18.93	-322.853000	Y 377.433
Tl (190.794 nm)	0.003508	ppm	0.001039	29.62	7.096060	Y 377.433
U (409.013 nm)	0.009581	ppm	0.001155	12.05	3.423220	Y 377.433
V (292.401 nm)	0.000713	ppm	0.000280	39.27	-131.673000	Y 377.433
Zn (206.200 nm)	0.005760	ppm	0.000352	6.11	30.167900	Y 377.433
Zr (343.823 nm)	0.000006 u	ppm	0.000158	> 100.00	-161.292000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.058416	24465.770187	0.012363	1.17
Y 377.433	1.044664	730670.953421	0.009361	0.90
Y_R 377.433	1.116890	67715.600000	0.002853	0.26
Y_R 488.368	1.137020	60066.200000	0.006081	0.53
Y_R2 488.368	1.125452	119303.902198	0.015418	1.37
Y_R4	1.115520	50198.200000	0.008591	0.77

Sample Name: 280-123564-M-1-C MS

Date: 5/24/2019 5:40:23 PM Rack:Tube: 1:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.053719	ppm	0.000029	0.05	1278.130000	Y 377.433
Al (394.401 nm)	10.087500 o	ppm	0.012119	0.12	123708.000000	Y 377.433
Al H (396.152 nm)	9.707660	ppm	0.019997	0.21	21945.100000	Y_R 377.433
As (188.980 nm)	2.109960	ppm	0.002950	0.14	3177.610000	Y 242.219
B (249.678 nm)	1.273800	ppm	0.002604	0.20	9137.470000	Y 242.219
Ba (493.408 nm)	2.044420	ppm	0.007102	0.35	205224.000000	Y_R 488.368
Be (234.861 nm)	0.993468	ppm	0.018659	1.88	97791.700000	Y_R 488.368
Bi (223.061 nm)	2.007090	ppm	0.000206	0.01	4387.190000	Y 377.433
Ca (315.887 nm)	174.385000	ppm	0.155441	0.09	138431.051559	Y_R 377.433
Cd (214.439 nm)	1.028760	ppm	0.001588	0.15	38042.900000	Y 377.433
Co (228.615 nm)	0.994127	ppm	0.002153	0.22	23393.700000	Y 242.219
Cr (205.560 nm)	1.032760	ppm	0.002257	0.22	6866.470000	Y 377.433
Cu (324.754 nm)	1.006370	ppm	0.003426	0.34	47266.000000	Y 377.433
Fe (238.204 nm)	10.812025 o	ppm	0.011820	0.11	26033.572032	Y_R 377.433
Fe H (259.940 nm)	10.757200	ppm	0.007428	0.07	14888.500000	Y_R 377.433
K (766.491 nm)	68.202800	ppm	0.929536	1.36	67793.100000	Y_R2 488.368
Li (670.783 nm)	1.034640	ppm	0.002188	0.21	15219.300000	Y_R2 488.368
Mg (279.078 nm)	90.981700	ppm	0.149860	0.16	297689.000000	Y 377.433
Mn (257.610 nm)	1.149400	ppm	0.002076	0.18	313385.000000	Y 377.433
Mo (202.032 nm)	2.537450	ppm	0.005736	0.23	31993.700000	Y 377.433
Na (589.592 nm)	313.292000 o	ppm	2.695290	0.86	257798.000000	Y_R2 488.368
Na H (589.593 nm)	336.329956	ppm	2.564974	0.76	182360.387230	Y_R4
Ni (231.604 nm)	1.017230	ppm	0.000164	0.02	5256.830000	Y 377.433
P (213.618 nm)	21.149000	ppm	0.049273	0.23	29912.000000	Y 242.219
Pb (220.353 nm)	0.994928	ppm	0.000082	0.01	3163.480000	Y 242.219
S (181.972 nm)	135.148406 bo	ppm	0.071623	0.05	61916.714692	Y 377.433
Sb (206.834 nm)	1.106420	ppm	0.001904	0.17	1855.420000	Y 377.433
Se (196.026 nm)	2.037190	ppm	0.003132	0.15	3080.540000	Y 242.219
Si (288.158 nm)	10.946700	ppm	0.013782	0.13	70958.500000	Y 377.433
Sn (189.925 nm)	2.089380	ppm	0.004997	0.24	3364.010000	Y 377.433
Sr (421.552 nm)	1.900161	ppm	0.005741	0.30	286191.152073	Y_R 488.368
Th (288.505 nm)	1.018500	ppm	0.000992	0.10	1674.360000	Y 377.433
Ti (336.122 nm)	1.007400	ppm	0.001739	0.17	129070.000000	Y 377.433
Tl (190.794 nm)	1.958350	ppm	0.001989	0.10	4458.750000	Y 377.433
U (409.013 nm)	2.012310	ppm	0.000776	0.04	6281.610000	Y 377.433
V (292.401 nm)	1.006980	ppm	0.002030	0.20	51681.700000	Y 377.433
Zn (206.200 nm)	0.517613	ppm	0.000024	0.00	2333.140000	Y 377.433
Zr (343.823 nm)	0.498573	ppm	0.000709	0.14	28063.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.026569	23729.612553	0.004146	0.40
Y 377.433	1.018587	712431.437561	0.003657	0.36
Y_R 377.433	1.074990	65175.200000	0.016982	1.58
Y_R 488.368	1.089940	57578.900000	0.014852	1.36
Y_R2 488.368	1.060362	112403.991178	0.003730	0.35
Y_R4	1.081820	48681.800000	0.007775	0.72

Sample Name: 280-123564-M-1-D MSD

Date: 5/24/2019 5:44:02 PM Rack:Tube: 1:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054278	ppm	0.000296	0.54	1296.080000	Y 377.433
Al (394.401 nm)	10.141400 o	ppm	0.001532	0.02	124364.000000	Y 377.433
Al H (396.152 nm)	9.839090	ppm	0.050330	0.51	22228.000000	Y_R 377.433
As (188.980 nm)	2.115180	ppm	0.006564	0.31	3185.470000	Y 242.219
B (249.678 nm)	1.275730	ppm	0.001119	0.09	9151.180000	Y 242.219
Ba (493.408 nm)	2.058540	ppm	0.009419	0.46	206632.000000	Y_R 488.368
Be (234.861 nm)	0.996210	ppm	0.004149	0.42	98061.500000	Y_R 488.368
Bi (223.061 nm)	2.006710	ppm	0.001277	0.06	4386.360000	Y 377.433
Ca (315.887 nm)	173.300864	ppm	0.606130	0.35	137570.059428	Y_R 377.433
Cd (214.439 nm)	1.034450	ppm	0.002177	0.21	38253.200000	Y 377.433
Co (228.615 nm)	0.998926	ppm	0.000402	0.04	23506.700000	Y 242.219
Cr (205.560 nm)	1.042350	ppm	0.009663	0.93	6930.520000	Y 377.433
Cu (324.754 nm)	1.006260	ppm	0.007349	0.73	47261.300000	Y 377.433
Fe (238.204 nm)	10.897581 o	ppm	0.023398	0.21	26239.520376	Y_R 377.433
Fe H (259.940 nm)	10.842300	ppm	0.031898	0.29	15006.100000	Y_R 377.433
K (766.491 nm)	68.361300	ppm	0.258589	0.38	67946.200000	Y_R2 488.368
Li (670.783 nm)	1.042490	ppm	0.007335	0.70	15354.000000	Y_R2 488.368
Mg (279.078 nm)	90.766300	ppm	0.098594	0.11	296984.000000	Y 377.433
Mn (257.610 nm)	1.154200	ppm	0.001155	0.10	314692.000000	Y 377.433
Mo (202.032 nm)	2.522230	ppm	0.000291	0.01	31802.000000	Y 377.433
Na (589.592 nm)	311.162000 o	ppm	1.021910	0.33	256055.000000	Y_R2 488.368
Na H (589.593 nm)	331.041411	ppm	0.347510	0.10	179491.054659	Y_R4
Ni (231.604 nm)	1.022000	ppm	0.000318	0.03	5281.520000	Y 377.433
P (213.618 nm)	21.187700	ppm	0.025023	0.12	29968.200000	Y 242.219
Pb (220.353 nm)	0.998633	ppm	0.003219	0.32	3175.270000	Y 242.219
S (181.972 nm)	132.175133 bo	ppm	0.441651	0.33	60555.056019	Y 377.433
Sb (206.834 nm)	1.111800	ppm	0.003689	0.33	1864.650000	Y 377.433
Se (196.026 nm)	2.049820	ppm	0.003739	0.18	3099.570000	Y 242.219
Si (288.158 nm)	10.778900	ppm	0.041664	0.39	69878.400000	Y 377.433
Sn (189.925 nm)	2.098820	ppm	0.000360	0.02	3379.210000	Y 377.433
Sr (421.552 nm)	1.891406	ppm	0.007927	0.42	284872.527105	Y_R 488.368
Th (288.505 nm)	1.027860	ppm	0.006934	0.67	1690.120000	Y 377.433
Ti (336.122 nm)	1.010990	ppm	0.000558	0.06	129527.000000	Y 377.433
Tl (190.794 nm)	1.975710	ppm	0.002890	0.15	4498.560000	Y 377.433
U (409.013 nm)	2.013370	ppm	0.004692	0.23	6284.880000	Y 377.433
V (292.401 nm)	1.011200	ppm	0.000730	0.07	51899.600000	Y 377.433
Zn (206.200 nm)	0.521480	ppm	0.000539	0.10	2350.540000	Y 377.433
Zr (343.823 nm)	0.500266	ppm	0.000419	0.08	28159.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.007121	23280.077629	0.002460	0.24
Y 377.433	0.998752	698558.323330	0.003319	0.33
Y_R 377.433	1.053730	63886.000000	0.001862	0.18
Y_R 488.368	1.068660	56455.000000	0.001969	0.18
Y_R2 488.368	1.052210	111539.802115	0.001617	0.15
Y_R4	1.092790	49175.700000	0.005595	0.51

Sample Name: CCVH-5713036

Date: 5/24/2019 5:47:41 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004366	ppm	0.000845	19.35	-126.449000	Y 377.433
Al (394.401 nm)	50.141800 o	ppm	0.119899	0.24	610866.000000	Y 377.433
Al H (396.152 nm)	48.773400	ppm	0.108019	0.22	106357.000000	Y_R 377.433
As (188.980 nm)	0.001570	ppm	0.000344	21.89	-0.587395	Y 242.219
B (249.678 nm)	-0.000717 u	ppm	0.000274	38.23	12.177200	Y 242.219
Ba (493.408 nm)	0.001558	ppm	0.000375	24.08	1595.260000	Y_R 488.368
Be (234.861 nm)	0.001250	ppm	0.000018	1.46	-93.914000	Y_R 488.368
Bi (223.061 nm)	0.010623	ppm	0.000253	2.38	21.441900	Y 377.433
Ca (315.887 nm)	0.007731	ppm	0.002842	36.76	-50.678077	Y_R 377.433
Cd (214.439 nm)	0.001496	ppm	0.000134	8.96	70.810400	Y 377.433
Co (228.615 nm)	0.003277	ppm	0.000188	5.74	61.924900	Y 242.219
Cr (205.560 nm)	0.001874	ppm	0.000083	4.42	4.423500	Y 377.433
Cu (324.754 nm)	0.003781	ppm	0.000293	7.75	1445.290000	Y 377.433
Fe (238.204 nm)	50.844207 o	ppm	0.099263	0.20	122398.021328	Y_R 377.433
Fe H (259.940 nm)	50.274200	ppm	0.063437	0.13	69539.900000	Y_R 377.433
K (766.491 nm)	0.295665	ppm	0.067948	22.98	2222.870000	Y_R2 488.368
Li (670.783 nm)	0.011271	ppm	0.003492	30.98	-2352.240000	Y_R2 488.368
Mg (279.078 nm)	0.040814	ppm	0.000848	2.08	66.699800	Y 377.433
Mn (257.610 nm)	0.001089	ppm	0.000031	2.80	285.808000	Y 377.433
Mo (202.032 nm)	0.002056	ppm	0.000329	16.00	37.044800	Y 377.433
Na (589.592 nm)	229.488000 o	ppm	0.619172	0.27	188538.000000	Y_R2 488.368
Na H (589.593 nm)	238.900235	ppm	1.797332	0.75	129499.293113	Y_R4
Ni (231.604 nm)	0.003435	ppm	0.000513	14.93	9.152150	Y 377.433
P (213.618 nm)	4.979870	ppm	0.001591	0.03	7112.550000	Y 242.219
Pb (220.353 nm)	0.006442	ppm	0.000351	5.45	21.922300	Y 242.219
S (181.972 nm)	5.066101	ppm	0.031114	0.61	2332.749215	Y 377.433
Sb (206.834 nm)	-0.000709 u	ppm	0.001150	> 100.00	4.858220	Y 377.433
Se (196.026 nm)	0.007607	ppm	0.004366	57.39	7.236830	Y 242.219
Si (288.158 nm)	0.019482	ppm	0.000234	1.20	613.960000	Y 377.433
Sn (189.925 nm)	0.001717	ppm	0.000272	15.85	4.853370	Y 377.433
Sr (421.552 nm)	0.001522	ppm	0.000160	10.48	260.027460	Y_R 488.368
Th (288.505 nm)	4.900080	ppm	0.011160	0.23	8462.630000	Y 377.433
Ti (336.122 nm)	0.001930	ppm	0.000032	1.63	-186.830000	Y 377.433
Tl (190.794 nm)	-0.000508 u	ppm	0.000063	12.49	-4.247580	Y 377.433
U (409.013 nm)	0.537553 Q	ppm	0.000592	0.11	1717.890000 Q	Y 377.433
V (292.401 nm)	0.000561	ppm	0.000122	21.80	377.502000	Y 377.433
Zn (206.200 nm)	0.002944	ppm	0.000053	1.81	24.383200	Y 377.433
Zr (343.823 nm)	0.001147	ppm	0.000283	24.65	-96.708200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.053651	24355.639580	0.005899	0.56
Y 377.433	1.031070	721162.865379	0.007052	0.68
Y_R 377.433	1.066690	64672.300000	0.001419	0.13
Y_R 488.368	1.075460	56814.200000	0.002333	0.22
Y_R2 488.368	1.062692	112650.960671	0.004949	0.47
Y_R4	1.084190	48788.300000	0.003314	0.31

Sample Name: CCV-5717467

Date: 5/24/2019 5:51:22 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.498537	ppm	0.001352	0.27	16934.100000	Y 377.433
Al (394.401 nm)	0.510726	ppm	0.002719	0.53	6450.660000	Y 377.433
Al H (396.152 nm)	0.557486 u	ppm	0.000185	0.03	1206.260000	Y_R 377.433
As (188.980 nm)	0.500984	ppm	0.000358	0.07	753.285000	Y 242.219
B (249.678 nm)	0.485722	ppm	0.003008	0.62	3514.080000	Y 242.219
Ba (493.408 nm)	0.495398	ppm	0.000921	0.19	50789.500000	Y_R 488.368
Be (234.861 nm)	0.484547	ppm	0.001096	0.23	47707.000000	Y_R 488.368
Bi (223.061 nm)	1.002780	ppm	0.002550	0.25	2186.150000	Y 377.433
Ca (315.887 nm)	4.947085	ppm	0.002302	0.05	3860.097518	Y_R 377.433
Cd (214.439 nm)	0.518235	ppm	0.001415	0.27	19160.200000	Y 377.433
Co (228.615 nm)	0.501719	ppm	0.001080	0.22	11798.200000	Y 242.219
Cr (205.560 nm)	0.517817	ppm	0.001773	0.34	3443.140000	Y 377.433
Cu (324.754 nm)	0.501981	ppm	0.000928	0.18	23728.600000	Y 377.433
Fe (238.204 nm)	2.510262	ppm	0.007638	0.30	6049.777157	Y_R 377.433
Fe H (259.940 nm)	2.505310 u	ppm	0.001456	0.06	3476.220000	Y_R 377.433
K (766.491 nm)	48.854700	ppm	0.516083	1.06	49110.900000	Y_R2 488.368
Li (670.783 nm)	0.509833	ppm	0.000025	0.01	6208.190000	Y_R2 488.368
Mg (279.078 nm)	19.897100	ppm	0.027386	0.14	65115.300000	Y 377.433
Mn (257.610 nm)	0.496588	ppm	0.000419	0.08	135389.000000	Y 377.433
Mo (202.032 nm)	0.503022	ppm	0.000452	0.09	6351.340000	Y 377.433
Na (589.592 nm)	23.852500	ppm	0.096063	0.40	19843.200000	Y_R2 488.368
Na H (589.593 nm)	26.159094 u	ppm	0.126407	0.48	14075.279110	Y_R4
Ni (231.604 nm)	0.513312	ppm	0.000358	0.07	2647.880000	Y 377.433
P (213.618 nm)	0.047669	ppm	0.000011	0.02	-71.716400	Y 242.219
Pb (220.353 nm)	0.505103	ppm	0.002012	0.40	1610.680000	Y 242.219
S (181.972 nm)	0.003302 u	ppm	0.008156	> 100.00	16.027331	Y 377.433
Sb (206.834 nm)	0.511856	ppm	0.002350	0.46	863.420000	Y 377.433
Se (196.026 nm)	0.500540	ppm	0.001325	0.26	763.893000	Y 242.219
Si (288.158 nm)	4.941940	ppm	0.028213	0.57	32302.600000	Y 377.433
Sn (189.925 nm)	0.518294	ppm	0.000294	0.06	836.055000	Y 377.433
Sr (421.552 nm)	0.482106	ppm	0.000953	0.20	72629.238064	Y_R 488.368
Th (288.505 nm)	0.019873	ppm	0.001259	6.34	-3.596690	Y 377.433
Ti (336.122 nm)	0.491157	ppm	0.000480	0.10	62433.400000	Y 377.433
Tl (190.794 nm)	0.514206	ppm	0.000727	0.14	1174.590000	Y 377.433
U (409.013 nm)	0.014731	ppm	0.011811	80.18	-38.719300	Y 377.433
V (292.401 nm)	0.495969	ppm	0.000254	0.05	25428.500000	Y 377.433
Zn (206.200 nm)	0.516473	ppm	0.000240	0.05	2326.850000	Y 377.433
Zr (343.823 nm)	0.493430	ppm	0.000544	0.11	27772.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.034499	23912.915212	0.004448	0.43
Y 377.433	1.022329	715048.723172	0.003357	0.33
Y_R 377.433	1.048450	63566.200000	0.000018	0.00
Y_R 488.368	1.061790	56091.900000	0.000036	0.00
Y_R2 488.368	1.048727	111170.611381	0.003991	0.38
Y_R4	1.055140	47481.400000	0.010265	0.97

Sample Name: CCB

Date: 5/24/2019 5:54:59 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000537	ppm	0.000608	> 100.00	-248.592000	Y 377.433
Al (394.401 nm)	-0.002014 u	ppm	0.000894	44.40	68.683400	Y 377.433
Al H (396.152 nm)	0.128355 Zu	ppm	0.000493	0.38	22.349900 Z	Y_R 377.433
As (188.980 nm)	-0.001664 u	ppm	0.002793	> 100.00	-4.083050	Y 242.219
B (249.678 nm)	-0.002671 u	ppm	0.000264	9.90	27.596600	Y 242.219
Ba (493.408 nm)	-0.001843 u	ppm	0.000328	17.82	1215.740000	Y_R 488.368
Be (234.861 nm)	0.000026 u	ppm	0.000048	> 100.00	0.573056	Y_R 488.368
Bi (223.061 nm)	0.000586 u	ppm	0.002093	> 100.00	-9.328010	Y 377.433
Ca (315.887 nm)	0.001100 u	ppm	0.007840	> 100.00	-68.164540	Y_R 377.433
Cd (214.439 nm)	-0.000021 u	ppm	0.000081	> 100.00	-5.961640	Y 377.433
Co (228.615 nm)	-0.000170 u	ppm	0.000126	74.39	-19.123100	Y 242.219
Cr (205.560 nm)	0.000578	ppm	0.000029	4.99	-2.894770	Y 377.433
Cu (324.754 nm)	0.001206	ppm	0.000010	0.81	372.778000	Y 377.433
Fe (238.204 nm)	-0.000938 u	ppm	0.001106	> 100.00	4.881296	Y_R 377.433
Fe H (259.940 nm)	0.001887 u	ppm	0.002010	> 100.00	14.022300	Y_R 377.433
K (766.491 nm)	-0.201771 u	ppm	0.336001	> 100.00	1742.560000	Y_R2 488.368
Li (670.783 nm)	0.020857 Z	ppm	0.002227	10.68	-2187.650000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003398	ppm	0.001196	35.20	19.296400	Y 377.433
Mn (257.610 nm)	0.000051	ppm	0.000023	44.61	2.839860	Y 377.433
Mo (202.032 nm)	0.000133	ppm	0.000084	62.99	12.806900	Y 377.433
Na (589.592 nm)	0.049142	ppm	0.017917	36.46	190.188000	Y_R2 488.368
Na H (589.593 nm)	1.207642 u	ppm	0.019870	1.65	537.715591	Y_R4
Ni (231.604 nm)	-0.000340 u	ppm	0.000917	> 100.00	-10.377400	Y 377.433
P (213.618 nm)	-0.000915 u	ppm	0.000138	15.04	-5.536340	Y 242.219
Pb (220.353 nm)	0.000056 u	ppm	0.001877	> 100.00	8.466190	Y 242.219
S (181.972 nm)	0.002200 u	ppm	0.004657	> 100.00	13.706227	Y 377.433
Sb (206.834 nm)	0.000077 u	ppm	0.000366	> 100.00	1.911940	Y 377.433
Se (196.026 nm)	-0.001512 u	ppm	0.000730	48.29	6.577670	Y 242.219
Si (288.158 nm)	-0.005031 u	ppm	0.000259	5.16	456.159000	Y 377.433
Sn (189.925 nm)	-0.000801 u	ppm	0.000101	12.63	0.801786	Y 377.433
Sr (421.552 nm)	0.000256	ppm	0.000073	28.49	61.658990	Y_R 488.368
Th (288.505 nm)	-0.000247 u	ppm	0.004537	> 100.00	12.353000	Y 377.433
Ti (336.122 nm)	0.000255	ppm	0.000016	6.33	-401.305000	Y 377.433
Tl (190.794 nm)	0.001139	ppm	0.000174	15.25	4.421730	Y 377.433
U (409.013 nm)	0.003208	ppm	0.001420	44.27	-14.583500	Y 377.433
V (292.401 nm)	0.000079 u	ppm	0.000182	> 100.00	-142.816000	Y 377.433
Zn (206.200 nm)	-0.000239 u	ppm	0.000077	32.10	2.991020	Y 377.433
Zr (343.823 nm)	0.000046	ppm	0.000003	7.14	-159.001000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.055339	24394.642901	0.000665	0.06
Y 377.433	1.041542	728486.721068	0.000027	0.00
Y_R 377.433	1.062710	64430.700000	0.008839	0.83
Y_R 488.368	1.075770	56830.500000	0.010577	0.98
Y_R2 488.368	1.075658	114025.490785	0.002797	0.26
Y_R4	1.055620	47502.800000	0.002187	0.21

Sample Name: CCVL-5719884

Date: 5/24/2019 5:58:10 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007837	ppm	0.000124	1.59	2.170630	Y 377.433
Al (394.401 nm)	0.100020	ppm	0.000985	0.99	1320.070000	Y 377.433
Al H (396.152 nm)	0.229356 u	ppm	0.002890	1.26	248.649000	Y_R 377.433
As (188.980 nm)	0.013486	ppm	0.000214	1.59	18.742600	Y 242.219
B (249.678 nm)	0.092162	ppm	0.000703	0.76	704.801000	Y 242.219
Ba (493.408 nm)	0.008061	ppm	0.000119	1.48	2203.140000	Y_R 488.368
Be (234.861 nm)	0.000963	ppm	0.000043	4.46	92.411300	Y_R 488.368
Bi (223.061 nm)	0.094802	ppm	0.002758	2.91	197.041000	Y 377.433
Ca (315.887 nm)	0.218801	ppm	0.001572	0.72	104.757637	Y_R 377.433
Cd (214.439 nm)	0.005451	ppm	0.000036	0.66	196.430000	Y 377.433
Co (228.615 nm)	0.010538	ppm	0.000223	2.11	232.976000	Y 242.219
Cr (205.560 nm)	0.010888	ppm	0.000486	4.46	65.686800	Y 377.433
Cu (324.754 nm)	0.016987	ppm	0.000162	0.96	1109.030000	Y 377.433
Fe (238.204 nm)	0.101019	ppm	0.002042	2.02	250.309035	Y_R 377.433
Fe H (259.940 nm)	0.106631 u	ppm	0.000902	0.85	158.883000	Y_R 377.433
K (766.491 nm)	2.838530	ppm	0.117323	4.13	4678.230000	Y_R2 488.368
Li (670.783 nm)	0.038429 Q	ppm	0.000818	2.13	-1885.930000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204726	ppm	0.000381	0.19	677.009000	Y 377.433
Mn (257.610 nm)	0.010632	ppm	0.000018	0.17	2887.750000	Y 377.433
Mo (202.032 nm)	0.019965	ppm	0.000160	0.80	262.782000	Y 377.433
Na (589.592 nm)	1.005820	ppm	0.009101	0.90	977.794000	Y_R2 488.368
Na H (589.593 nm)	1.894986 u	ppm	0.018592	0.98	910.638591	Y_R4
Ni (231.604 nm)	0.045042	ppm	0.001201	2.67	224.445000	Y 377.433
P (213.618 nm)	2.871720	ppm	0.037252	1.30	4097.920000	Y 242.219
Pb (220.353 nm)	0.009621	ppm	0.001675	17.41	38.917600	Y 242.219
S (181.972 nm)	0.094910	ppm	0.002234	2.35	56.203196	Y 377.433
Sb (206.834 nm)	0.018676	ppm	0.000604	3.24	33.158900	Y 377.433
Se (196.026 nm)	0.017964	ppm	0.000115	0.64	35.941900	Y 242.219
Si (288.158 nm)	0.488480	ppm	0.001712	0.35	3633.170000	Y 377.433
Sn (189.925 nm)	0.103354	ppm	0.000640	0.62	168.393000	Y 377.433
Sr (421.552 nm)	0.009258	ppm	0.000062	0.67	1417.449453	Y_R 488.368
Th (288.505 nm)	0.019897 Q	ppm	0.002091	10.51	46.518200 Q	Y 377.433
Ti (336.122 nm)	0.010065	ppm	0.000087	0.87	854.795000	Y 377.433
Tl (190.794 nm)	0.015299	ppm	0.003088	20.18	36.691700	Y 377.433
U (409.013 nm)	0.052867	ppm	0.007375	13.95	141.702000	Y 377.433
V (292.401 nm)	0.009837	ppm	0.000084	0.85	358.490000	Y 377.433
Zn (206.200 nm)	0.021578	ppm	0.000345	1.60	101.111000	Y 377.433
Zr (343.823 nm)	0.009936	ppm	0.000121	1.22	400.901000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.062822	24567.619459	0.002670	0.25
Y 377.433	1.047575	732706.500198	0.003527	0.34
Y_R 377.433	1.069300	64830.600000	0.000253	0.02
Y_R 488.368	1.084290	57280.500000	0.002856	0.26
Y_R2 488.368	1.078201	114294.977787	0.002834	0.26
Y_R4	1.077560	48490.400000	0.005422	0.50

Sample Name: 280-123564-M-2-B

Date: 5/24/2019 6:01:39 PM Rack:Tube: 1:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000234	ppm	0.000044	18.74	-258.886000	Y 377.433
Al (394.401 nm)	0.005243	ppm	0.000120	2.29	154.251000	Y 377.433
Al H (396.152 nm)	0.144376 u	ppm	0.007096	4.92	57.404100	Y_R 377.433
As (188.980 nm)	-0.000029 u	ppm	0.002175	> 100.00	-1.620590	Y 242.219
B (249.678 nm)	-0.000772 u	ppm	0.000540	69.94	41.152500	Y 242.219
Ba (493.408 nm)	-0.001270 u	ppm	0.000592	46.65	1272.870000	Y_R 488.368
Be (234.861 nm)	-0.000040 u	ppm	0.000009	21.56	-5.976310	Y_R 488.368
Bi (223.061 nm)	0.001325	ppm	0.001053	79.47	-7.708010	Y 377.433
Ca (315.887 nm)	0.086997	ppm	0.002928	3.37	0.056376	Y_R 377.433
Cd (214.439 nm)	0.000014 u	ppm	0.000041	> 100.00	-4.656110	Y 377.433
Co (228.615 nm)	-0.000197 u	ppm	0.000066	33.37	-19.752700	Y 242.219
Cr (205.560 nm)	0.000445 u	ppm	0.000771	> 100.00	-3.787450	Y 377.433
Cu (324.754 nm)	0.001218	ppm	0.000256	21.00	374.667000	Y 377.433
Fe (238.204 nm)	0.013968	ppm	0.000884	6.33	40.762153	Y_R 377.433
Fe H (259.940 nm)	0.014567 u	ppm	0.000557	3.82	31.559100	Y_R 377.433
K (766.491 nm)	-0.170224 u	ppm	0.246808	> 100.00	1773.020000	Y_R2 488.368
Li (670.783 nm)	0.014388	ppm	0.000204	1.42	-2298.730000	Y_R2 488.368
Mg (279.078 nm)	0.010698	ppm	0.000430	4.02	43.472700	Y 377.433
Mn (257.610 nm)	0.000421	ppm	0.000002	0.55	103.679000	Y 377.433
Mo (202.032 nm)	0.000364	ppm	0.000034	9.29	15.714800	Y 377.433
Na (589.592 nm)	0.024758 u	ppm	0.059411	> 100.00	170.276000	Y_R2 488.368
Na H (589.593 nm)	0.962563 u	ppm	0.029697	3.09	404.746706	Y_R4
Ni (231.604 nm)	0.001066	ppm	0.000035	3.29	-3.103800	Y 377.433
P (213.618 nm)	-0.004016 u	ppm	0.000724	18.02	-10.026900	Y 242.219
Pb (220.353 nm)	0.000990	ppm	0.000150	15.20	11.385500	Y 242.219
S (181.972 nm)	0.013736	ppm	0.002751	20.02	18.991544	Y 377.433
Sb (206.834 nm)	-0.002513 u	ppm	0.000619	24.63	-2.467280	Y 377.433
Se (196.026 nm)	-0.001609 u	ppm	0.000667	41.48	6.428000	Y 242.219
Si (288.158 nm)	0.042816	ppm	0.000724	1.69	764.177000	Y 377.433
Sn (189.925 nm)	0.001281 u	ppm	0.002255	> 100.00	4.151800	Y 377.433
Sr (421.552 nm)	0.000298	ppm	0.000020	6.58	67.979432	Y_R 488.368
Th (288.505 nm)	0.000627	ppm	0.000181	28.92	13.757000	Y 377.433
Ti (336.122 nm)	0.000397	ppm	0.000015	3.90	-382.974000	Y 377.433
Tl (190.794 nm)	-0.001257 u	ppm	0.000332	26.37	-1.065350	Y 377.433
U (409.013 nm)	-0.006419 u	ppm	0.008399	> 100.00	-45.120200	Y 377.433
V (292.401 nm)	-0.000303 u	ppm	0.000009	3.01	-161.405000	Y 377.433
Zn (206.200 nm)	0.006872	ppm	0.000762	11.09	34.969400	Y 377.433
Zr (343.823 nm)	0.000041	ppm	0.000056	> 100.00	-159.313000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047390	24210.898934	0.002682	0.26
Y 377.433	1.033988	723203.240937	0.003402	0.33
Y_R 377.433	1.050540	63692.900000	0.001460	0.14
Y_R 488.368	1.058490	55917.400000	0.002350	0.22
Y_R2 488.368	1.069548	113377.716365	0.007166	0.67
Y_R4	1.041410	46863.400000	0.002986	0.29

Sample Name: 280-123786-B-1-A

Date: 5/24/2019 6:04:49 PM Rack:Tube: 1:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000268	ppm	0.000104	38.79	-258.634000	Y 377.433
Al (394.401 nm)	0.014931	ppm	0.000078	0.52	295.271000	Y 377.433
Al H (396.152 nm)	0.134942 u	ppm	0.002870	2.13	57.906600	Y_R 377.433
As (188.980 nm)	-0.000197 u	ppm	0.002333	> 100.00	-1.872960	Y 242.219
B (249.678 nm)	0.002583	ppm	0.000256	9.91	65.105100	Y 242.219
Ba (493.408 nm)	0.012648	ppm	0.000618	4.89	2660.440000	Y_R 488.368
Be (234.861 nm)	-0.000116 u	ppm	0.000004	3.15	-13.492600	Y_R 488.368
Bi (223.061 nm)	0.000430 u	ppm	0.001023	> 100.00	-9.664710	Y 377.433
Ca (315.887 nm)	9.760426	ppm	0.054448	0.56	7682.749969	Y_R 377.433
Cd (214.439 nm)	-0.000032 u	ppm	0.000003	9.86	-6.340000	Y 377.433
Co (228.615 nm)	-0.000246 u	ppm	0.000105	42.85	-20.904700	Y 242.219
Cr (205.560 nm)	0.000579	ppm	0.000039	6.69	-2.892790	Y 377.433
Cu (324.754 nm)	0.005599	ppm	0.000084	1.50	569.689000	Y 377.433
Fe (238.204 nm)	0.022545	ppm	0.002336	10.36	61.409284	Y_R 377.433
Fe H (259.940 nm)	0.026034 u	ppm	0.003843	14.76	47.418300	Y_R 377.433
K (766.491 nm)	0.645544	ppm	0.195150	30.23	2560.710000	Y_R2 488.368
Li (670.783 nm)	0.013959	ppm	0.001101	7.89	-2306.090000	Y_R2 488.368
Mg (279.078 nm)	1.776030	ppm	0.006383	0.36	5819.440000	Y 377.433
Mn (257.610 nm)	0.000360	ppm	0.000020	5.63	87.178400	Y 377.433
Mo (202.032 nm)	0.000396	ppm	0.000452	> 100.00	16.126100	Y 377.433
Na (589.592 nm)	4.940490	ppm	0.006671	0.14	4208.850000	Y_R2 488.368
Na H (589.593 nm)	5.715142 u	ppm	0.011594	0.20	2983.287367	Y_R4
Ni (231.604 nm)	-0.000341 u	ppm	0.000131	38.59	-10.385000	Y 377.433
P (213.618 nm)	0.003347	ppm	0.004218	> 100.00	-0.554686	Y 242.219
Pb (220.353 nm)	-0.000418 u	ppm	0.000142	33.87	7.036040	Y 242.219
S (181.972 nm)	1.820334	ppm	0.004620	0.25	846.801731	Y 377.433
Sb (206.834 nm)	-0.003865 u	ppm	0.001767	45.72	-4.746710	Y 377.433
Se (196.026 nm)	0.000770	ppm	0.000980	> 100.00	10.013600	Y 242.219
Si (288.158 nm)	2.796860	ppm	0.009400	0.34	18493.500000	Y 377.433
Sn (189.925 nm)	0.001273	ppm	0.000034	2.67	4.138600	Y 377.433
Sr (421.552 nm)	0.056162	ppm	0.000865	1.54	8481.264922	Y_R 488.368
Th (288.505 nm)	-0.004246 u	ppm	0.001879	44.25	5.325630	Y 377.433
Ti (336.122 nm)	0.000230	ppm	0.000053	23.03	-371.774000	Y 377.433
Tl (190.794 nm)	-0.001793 u	ppm	0.001172	65.35	-2.672710	Y 377.433
U (409.013 nm)	0.008560	ppm	0.002595	30.32	1.151080	Y 377.433
V (292.401 nm)	0.000165	ppm	0.000034	20.78	-140.441000	Y 377.433
Zn (206.200 nm)	0.005548	ppm	0.001017	18.34	29.014400	Y 377.433
Zr (343.823 nm)	-0.000051 u	ppm	0.000332	> 100.00	-164.478000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045324	24163.144605	0.006363	0.61
Y 377.433	1.032117	721895.014458	0.006291	0.61
Y_R 377.433	1.056220	64037.600000	0.001699	0.16
Y_R 488.368	1.074200	56747.400000	0.012444	1.16
Y_R2 488.368	1.053000	111623.556680	0.005172	0.49
Y_R4	1.064070	47883.100000	0.002409	0.23

Sample Name: 280-123787-A-1-A

Date: 5/24/2019 6:08:00 PM Rack:Tube: 1:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002318	ppm	0.000272	11.74	-187.527000	Y 377.433
Al (394.401 nm)	-0.021207 u	ppm	0.002230	10.51	492.491000	Y 377.433
Al H (396.152 nm)	-0.341605 u	ppm	0.004102	1.20	42.313700	Y_R 377.433
As (188.980 nm)	0.002181	ppm	0.000360	16.50	1.709520	Y 242.219
B (249.678 nm)	0.152687	ppm	0.000338	0.22	1137.080000	Y 242.219
Ba (493.408 nm)	0.017502	ppm	0.000138	0.79	3144.380000	Y_R 488.368
Be (234.861 nm)	-0.000080 u	ppm	0.000046	57.99	-10.108200	Y_R 488.368
Bi (223.061 nm)	-0.000151 u	ppm	0.000447	> 100.00	-10.888500	Y 377.433
Ca (315.887 nm)	109.199532	ppm	0.583084	0.53	86657.858097	Y_R 377.433
Cd (214.439 nm)	0.000337	ppm	0.000090	26.77	7.303560	Y 377.433
Co (228.615 nm)	-0.000005 u	ppm	0.000284	> 100.00	-15.234400	Y 242.219
Cr (205.560 nm)	0.000963	ppm	0.000496	51.49	-0.347669	Y 377.433
Cu (324.754 nm)	0.000780	ppm	0.000160	20.52	291.819000	Y 377.433
Fe (238.204 nm)	0.057277	ppm	0.002205	3.85	145.015871	Y_R 377.433
Fe H (259.940 nm)	0.046974 u	ppm	0.002752	5.86	76.377300	Y_R 377.433
K (766.491 nm)	20.601900	ppm	0.399153	1.94	21830.300000	Y_R2 488.368
Li (670.783 nm)	0.289740	ppm	0.002540	0.88	2429.140000	Y_R2 488.368
Mg (279.078 nm)	117.066000	ppm	0.141880	0.12	383091.000000	Y 377.433
Mn (257.610 nm)	0.035557	ppm	0.000004	0.01	9683.930000	Y 377.433
Mo (202.032 nm)	0.001003	ppm	0.000250	24.93	23.780600	Y 377.433
Na (589.592 nm)	803.012000 o	ppm	3.128600	0.39	659350.000000	Y_R2 488.368
Na H (589.593 nm)	906.961152	ppm	3.235260	0.36	491959.851061	Y_R4
Ni (231.604 nm)	0.004631	ppm	0.001256	27.12	15.338900	Y 377.433
P (213.618 nm)	0.002417	ppm	0.002539	> 100.00	-1.467790	Y 242.219
Pb (220.353 nm)	-0.000955 u	ppm	0.000646	67.72	5.268650	Y 242.219
S (181.972 nm)	514.765494 bo	ppm	1.008184	0.20	235757.250091	Y 377.433
Sb (206.834 nm)	-0.007196 u	ppm	0.003385	47.04	-10.369700	Y 377.433
Se (196.026 nm)	-0.001338 u	ppm	0.001346	> 100.00	6.874250	Y 242.219
Si (288.158 nm)	4.029460	ppm	0.001593	0.04	26428.500000	Y 377.433
Sn (189.925 nm)	0.000897 u	ppm	0.001685	> 100.00	3.533900	Y 377.433
Sr (421.552 nm)	2.561542	ppm	0.003000	0.12	385794.147969	Y_R 488.368
Th (288.505 nm)	0.003544	ppm	0.002225	62.78	16.688300	Y 377.433
Ti (336.122 nm)	-0.000215 u	ppm	0.000222	> 100.00	-90.287200	Y 377.433
Tl (190.794 nm)	0.000817 u	ppm	0.001936	> 100.00	-0.666097	Y 377.433
U (409.013 nm)	-0.003373 u	ppm	0.006669	> 100.00	-50.000300	Y 377.433
V (292.401 nm)	0.001062	ppm	0.000042	3.96	-91.434700	Y 377.433
Zn (206.200 nm)	0.015459	ppm	0.001101	7.12	73.589200	Y 377.433
Zr (343.823 nm)	0.000500	ppm	0.000182	36.33	-133.289000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.931918	21541.710313	0.005706	0.61
Y 377.433	0.925557	647363.680787	0.005591	0.60
Y_R 377.433	0.977574	59269.100000	0.006882	0.70
Y_R 488.368	0.985820	52078.600000	0.000763	0.08
Y_R2 488.368	0.997398	105729.417968	0.002448	0.25
Y_R4	1.008130	45366.000000	0.009432	0.94

Sample Name: 280-123787-A-2-A

Date: 5/24/2019 6:11:49 PM Rack:Tube: 1:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002091	ppm	0.000152	7.28	-195.546000	Y 377.433
Al (394.401 nm)	-0.027920 u	ppm	0.000549	1.97	414.615000	Y 377.433
Al H (396.152 nm)	-0.358980 u	ppm	0.010838	3.02	11.545700	Y_R 377.433
As (188.980 nm)	0.003904	ppm	0.002555	65.46	4.306010	Y 242.219
B (249.678 nm)	0.176826	ppm	0.000322	0.18	1309.490000	Y 242.219
Ba (493.408 nm)	0.016938	ppm	0.000191	1.13	3088.060000	Y_R 488.368
Be (234.861 nm)	-0.000069 u	ppm	0.000033	48.75	-8.806600	Y_R 488.368
Bi (223.061 nm)	-0.000243 u	ppm	0.000094	38.50	-11.095300	Y 377.433
Ca (315.887 nm)	104.070044	ppm	0.400940	0.39	82583.988080	Y_R 377.433
Cd (214.439 nm)	0.000242	ppm	0.000017	7.18	3.760120	Y 377.433
Co (228.615 nm)	-0.000297 u	ppm	0.000077	25.73	-22.104300	Y 242.219
Cr (205.560 nm)	0.000479 u	ppm	0.001065	> 100.00	-3.571760	Y 377.433
Cu (324.754 nm)	0.000656	ppm	0.000199	30.25	288.891000	Y 377.433
Fe (238.204 nm)	0.018334	ppm	0.004934	26.91	51.272516	Y_R 377.433
Fe H (259.940 nm)	0.003489 u	ppm	0.001382	39.61	16.237900	Y_R 377.433
K (766.491 nm)	20.930700	ppm	0.364348	1.74	22147.800000	Y_R2 488.368
Li (670.783 nm)	0.299170	ppm	0.005230	1.75	2591.060000	Y_R2 488.368
Mg (279.078 nm)	124.499000	ppm	0.116694	0.09	407414.000000	Y 377.433
Mn (257.610 nm)	0.000698	ppm	0.000036	5.16	179.149000	Y 377.433
Mo (202.032 nm)	0.001176	ppm	0.000035	2.94	25.952100	Y 377.433
Na (589.592 nm)	740.878000 o	ppm	1.576900	0.21	608344.000000	Y_R2 488.368
Na H (589.593 nm)	821.420510	ppm	3.711667	0.45	445549.249885	Y_R4
Ni (231.604 nm)	0.004223	ppm	0.000508	12.03	13.228100	Y 377.433
P (213.618 nm)	0.007275	ppm	0.003130	43.03	5.571830	Y 242.219
Pb (220.353 nm)	0.002473	ppm	0.002382	96.33	16.168500	Y 242.219
S (181.972 nm)	539.144561 bo	ppm	0.719836	0.13	246921.377398	Y 377.433
Sb (206.834 nm)	-0.005005 u	ppm	0.002888	57.70	-6.673860	Y 377.433
Se (196.026 nm)	0.002585	ppm	0.002920	> 100.00	12.751900	Y 242.219
Si (288.158 nm)	4.357140	ppm	0.000644	0.01	28537.900000	Y 377.433
Sn (189.925 nm)	0.001217	ppm	0.000981	80.55	4.049000	Y 377.433
Sr (421.552 nm)	2.576198	ppm	0.000699	0.03	388001.428647	Y_R 488.368
Th (288.505 nm)	0.005542	ppm	0.003277	59.13	19.570800	Y 377.433
Ti (336.122 nm)	-0.000689 u	ppm	0.000005	0.72	-168.920000	Y 377.433
Tl (190.794 nm)	0.001219 u	ppm	0.002245	> 100.00	0.467403	Y 377.433
U (409.013 nm)	0.000241 u	ppm	0.000597	> 100.00	-37.825600	Y 377.433
V (292.401 nm)	0.001194	ppm	0.000360	30.15	-84.728500	Y 377.433
Zn (206.200 nm)	0.010590	ppm	0.000925	8.74	51.685000	Y 377.433
Zr (343.823 nm)	0.000205 u	ppm	0.000409	> 100.00	-149.992000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.962597	22250.868574	0.003619	0.38
Y 377.433	0.947916	663001.700652	0.002718	0.29
Y_R 377.433	1.018190	61731.800000	0.003347	0.33
Y_R 488.368	1.024830	54139.600000	0.002041	0.20
Y_R2 488.368	1.017070	107814.751003	0.000523	0.05
Y_R4	1.058490	47631.800000	0.000863	0.08

Sample Name: 280-123787-A-3-A

Date: 5/24/2019 6:15:36 PM Rack:Tube: 1:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001711	ppm	0.000236	13.79	-208.295000	Y 377.433
Al (394.401 nm)	-0.029607 u	ppm	0.000204	0.69	384.628000	Y 377.433
Al H (396.152 nm)	-0.350827 u	ppm	0.004378	1.25	17.297100	Y_R 377.433
As (188.980 nm)	0.001845	ppm	0.000395	21.39	1.203220	Y 242.219
B (249.678 nm)	0.153205	ppm	0.000111	0.07	1140.800000	Y 242.219
Ba (493.408 nm)	0.013958	ppm	0.000070	0.50	2790.960000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000039	67.32	-7.794740	Y_R 488.368
Bi (223.061 nm)	-0.000451 u	ppm	0.001669	> 100.00	-11.552900	Y 377.433
Ca (315.887 nm)	104.252603	ppm	0.149400	0.14	82728.978439	Y_R 377.433
Cd (214.439 nm)	0.000172	ppm	0.000091	53.30	1.170270	Y 377.433
Co (228.615 nm)	-0.000438 u	ppm	0.000131	29.85	-25.403600	Y 242.219
Cr (205.560 nm)	0.000619	ppm	0.000079	12.70	-2.635580	Y 377.433
Cu (324.754 nm)	0.000525	ppm	0.000016	2.97	284.058000	Y 377.433
Fe (238.204 nm)	0.015179	ppm	0.003611	23.79	43.678114	Y_R 377.433
Fe H (259.940 nm)	0.010701 u	ppm	0.003745	35.00	26.212500	Y_R 377.433
K (766.491 nm)	20.628700	ppm	0.368987	1.79	21856.200000	Y_R2 488.368
Li (670.783 nm)	0.295633	ppm	0.002400	0.81	2530.320000	Y_R2 488.368
Mg (279.078 nm)	121.990000	ppm	0.124451	0.10	399202.000000	Y 377.433
Mn (257.610 nm)	0.003149	ppm	0.000006	0.20	847.539000	Y 377.433
Mo (202.032 nm)	0.000495	ppm	0.000374	75.58	17.373200	Y 377.433
Na (589.592 nm)	775.469000 o	ppm	2.690650	0.35	636739.000000	Y_R2 488.368
Na H (589.593 nm)	866.258357	ppm	1.704528	0.20	469876.299647	Y_R4
Ni (231.604 nm)	0.004342	ppm	0.000927	21.35	13.844100	Y 377.433
P (213.618 nm)	0.004411	ppm	0.003070	69.61	1.523210	Y 242.219
Pb (220.353 nm)	-0.000539 u	ppm	0.000970	> 100.00	6.590880	Y 242.219
S (181.972 nm)	534.144610 bo	ppm	0.006074	0.00	244631.649237	Y 377.433
Sb (206.834 nm)	-0.004814 u	ppm	0.001478	30.70	-6.345060	Y 377.433
Se (196.026 nm)	-0.003019 u	ppm	0.001404	46.50	4.303960	Y 242.219
Si (288.158 nm)	4.347810	ppm	0.009411	0.22	28477.900000	Y 377.433
Sn (189.925 nm)	0.000495 u	ppm	0.001725	> 100.00	2.886690	Y 377.433
Sr (421.552 nm)	2.547177	ppm	0.025150	0.99	383630.751830	Y_R 488.368
Th (288.505 nm)	0.008088	ppm	0.002520	31.16	24.077700	Y 377.433
Ti (336.122 nm)	-0.000564 u	ppm	0.000031	5.41	-152.001000	Y 377.433
Tl (190.794 nm)	0.001577	ppm	0.000554	35.13	1.280320	Y 377.433
U (409.013 nm)	0.004973	ppm	0.005120	> 100.00	-22.911000	Y 377.433
V (292.401 nm)	0.000760	ppm	0.000243	31.97	-106.502000	Y 377.433
Zn (206.200 nm)	0.011208	ppm	0.001053	9.39	54.464700	Y 377.433
Zr (343.823 nm)	0.000504	ppm	0.000180	35.66	-133.066000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.996414	23032.570544	0.007316	0.73
Y 377.433	0.983906	688174.786696	0.005028	0.51
Y_R 377.433	1.048720	63582.500000	0.007621	0.73
Y_R 488.368	1.055050	55735.700000	0.000450	0.04
Y_R2 488.368	1.019854	108109.907880	0.004270	0.42
Y_R4	1.028860	46298.700000	0.000520	0.05

Sample Name: 280-123787-A-4-A

Date: 5/24/2019 6:19:25 PM Rack:Tube: 1:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001403	ppm	0.000447	31.89	-219.168000	Y 377.433
Al (394.401 nm)	-0.027599 u	ppm	0.001510	5.47	412.165000	Y 377.433
Al H (396.152 nm)	-0.347176 u	ppm	0.002943	0.85	26.793600	Y_R 377.433
As (188.980 nm)	0.003680	ppm	0.000695	18.89	3.969170	Y 242.219
B (249.678 nm)	0.154121	ppm	0.000394	0.26	1147.340000	Y 242.219
Ba (493.408 nm)	0.016254	ppm	0.000151	0.93	3019.850000	Y_R 488.368
Be (234.861 nm)	-0.000038 u	ppm	0.000040	> 100.00	-5.737030	Y_R 488.368
Bi (223.061 nm)	0.001808	ppm	0.001118	61.85	-6.605110	Y 377.433
Ca (315.887 nm)	105.220119	ppm	0.162195	0.15	83497.386466	Y_R 377.433
Cd (214.439 nm)	0.000261	ppm	0.000155	59.31	4.481980	Y 377.433
Co (228.615 nm)	0.000089 u	ppm	0.000271	> 100.00	-13.010600	Y 242.219
Cr (205.560 nm)	0.000819	ppm	0.000093	11.36	-1.309480	Y 377.433
Cu (324.754 nm)	0.001210	ppm	0.000609	50.37	313.936000	Y 377.433
Fe (238.204 nm)	0.014166	ppm	0.003238	22.86	41.239159	Y_R 377.433
Fe H (259.940 nm)	0.000514 u	ppm	0.001541	> 100.00	12.123800	Y_R 377.433
K (766.491 nm)	20.832200	ppm	0.058193	0.28	22052.700000	Y_R2 488.368
Li (670.783 nm)	0.301519	ppm	0.005053	1.68	2631.380000	Y_R2 488.368
Mg (279.078 nm)	122.288000	ppm	0.221016	0.18	400180.000000	Y 377.433
Mn (257.610 nm)	0.003775	ppm	0.000012	0.31	1018.280000	Y 377.433
Mo (202.032 nm)	0.000931	ppm	0.000394	42.36	22.864200	Y 377.433
Na (589.592 nm)	805.524000 o	ppm	0.193828	0.02	661411.000000	Y_R2 488.368
Na H (589.593 nm)	891.050932	ppm	4.354756	0.49	483327.663385	Y_R4
Ni (231.604 nm)	0.005334	ppm	0.000005	0.10	18.979100	Y 377.433
P (213.618 nm)	0.006425	ppm	0.003491	54.33	4.291560	Y 242.219
Pb (220.353 nm)	-0.000917 u	ppm	0.002268	> 100.00	5.384610	Y 242.219
S (181.972 nm)	534.448172 bo	ppm	1.993846	0.37	244770.710612	Y 377.433
Sb (206.834 nm)	-0.007465 u	ppm	0.001379	18.47	-10.828900	Y 377.433
Se (196.026 nm)	-0.000164 u	ppm	0.000965	> 100.00	8.611600	Y 242.219
Si (288.158 nm)	4.369020	ppm	0.008152	0.19	28614.400000	Y 377.433
Sn (189.925 nm)	0.002443	ppm	0.000419	17.16	6.022060	Y 377.433
Sr (421.552 nm)	2.552477	ppm	0.014142	0.55	384428.941170	Y_R 488.368
Th (288.505 nm)	0.006520	ppm	0.006209	95.23	21.317400	Y 377.433
Ti (336.122 nm)	-0.000477 u	ppm	0.000093	19.47	-137.919000	Y 377.433
Tl (190.794 nm)	0.001867	ppm	0.000822	44.01	1.910260	Y 377.433
U (409.013 nm)	0.000235 u	ppm	0.003892	> 100.00	-38.027500	Y 377.433
V (292.401 nm)	0.000914	ppm	0.000148	16.22	-99.174100	Y 377.433
Zn (206.200 nm)	0.012590	ppm	0.000834	6.62	60.680400	Y 377.433
Zr (343.823 nm)	0.000471	ppm	0.000037	7.86	-134.962000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.986327	22799.396690	0.003588	0.36
Y 377.433	0.973662	681009.771360	0.004369	0.45
Y_R 377.433	1.058490	64175.200000	0.009246	0.87
Y_R 488.368	1.072150	56639.000000	0.015181	1.42
Y_R2 488.368	1.050683	111378.003983	0.001665	0.16
Y_R4	1.089620	49032.700000	0.002291	0.21

Sample Name: 280-123787-A-5-A

Date: 5/24/2019 6:23:18 PM Rack:Tube: 1:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001472	ppm	0.000118	8.04	-216.664000	Y 377.433
Al (394.401 nm)	-0.025967 u	ppm	0.000181	0.70	416.530000	Y 377.433
Al H (396.152 nm)	-0.339238 u	ppm	0.006334	1.87	20.228800	Y_R 377.433
As (188.980 nm)	0.000736 u	ppm	0.003034	> 100.00	-0.467141	Y 242.219
B (249.678 nm)	0.150876	ppm	0.000797	0.53	1124.160000	Y 242.219
Ba (493.408 nm)	0.015023	ppm	0.000003	0.02	2897.190000	Y_R 488.368
Be (234.861 nm)	-0.000048 u	ppm	0.000067	> 100.00	-6.758850	Y_R 488.368
Bi (223.061 nm)	-0.000793 u	ppm	0.001508	> 100.00	-12.301100	Y 377.433
Ca (315.887 nm)	102.376819	ppm	0.086210	0.08	81239.216391	Y_R 377.433
Cd (214.439 nm)	0.000299	ppm	0.000198	66.38	5.874240	Y 377.433
Co (228.615 nm)	-0.000415 u	ppm	0.000208	50.18	-24.878900	Y 242.219
Cr (205.560 nm)	0.000345	ppm	0.000319	92.33	-4.464550	Y 377.433
Cu (324.754 nm)	0.000499	ppm	0.000276	55.25	283.025000	Y 377.433
Fe (238.204 nm)	0.017021	ppm	0.000363	2.13	48.112363	Y_R 377.433
Fe H (259.940 nm)	0.005482 u	ppm	0.004352	79.39	18.995300	Y_R 377.433
K (766.491 nm)	20.207100	ppm	0.388449	1.92	21449.100000	Y_R2 488.368
Li (670.783 nm)	0.296875	ppm	0.008671	2.92	2551.650000	Y_R2 488.368
Mg (279.078 nm)	118.781000	ppm	0.178392	0.15	388703.000000	Y 377.433
Mn (257.610 nm)	0.004767	ppm	0.000031	0.64	1288.690000	Y 377.433
Mo (202.032 nm)	0.000663	ppm	0.000131	19.68	19.491900	Y 377.433
Na (589.592 nm)	776.131000 o	ppm	4.189250	0.54	637283.000000	Y_R2 488.368
Na H (589.593 nm)	868.410935	ppm	0.490324	0.06	471044.194004	Y_R4
Ni (231.604 nm)	0.005580	ppm	0.001410	25.27	20.247700	Y 377.433
P (213.618 nm)	0.002059	ppm	0.000947	45.98	-1.664820	Y 242.219
Pb (220.353 nm)	-0.000279 u	ppm	0.003890	> 100.00	7.430090	Y 242.219
S (181.972 nm)	525.305195 bo	ppm	1.174594	0.22	240583.507340	Y 377.433
Sb (206.834 nm)	-0.009396 u	ppm	0.004918	52.34	-14.090500	Y 377.433
Se (196.026 nm)	0.000478 u	ppm	0.000781	> 100.00	9.580020	Y 242.219
Si (288.158 nm)	4.276010	ppm	0.010354	0.24	28015.700000	Y 377.433
Sn (189.925 nm)	0.000090 u	ppm	0.000210	> 100.00	2.235020	Y 377.433
Sr (421.552 nm)	2.494274	ppm	0.020509	0.82	375663.569548	Y_R 488.368
Th (288.505 nm)	0.010283	ppm	0.002257	21.95	27.974800	Y 377.433
Ti (336.122 nm)	-0.000494 u	ppm	0.000025	5.10	-149.912000	Y 377.433
Tl (190.794 nm)	0.001790	ppm	0.000145	8.10	1.847600	Y 377.433
U (409.013 nm)	0.007014 u	ppm	0.012808	> 100.00	-16.140500	Y 377.433
V (292.401 nm)	0.000952	ppm	0.000249	26.18	-96.791900	Y 377.433
Zn (206.200 nm)	0.011997	ppm	0.000381	3.18	58.014000	Y 377.433
Zr (343.823 nm)	0.000697	ppm	0.000090	12.87	-122.167000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.023019	23647.557881	0.000866	0.08
Y 377.433	1.012726	708332.038075	0.001831	0.18
Y_R 377.433	1.094030	66329.900000	0.002529	0.23
Y_R 488.368	1.102840	58260.400000	0.005577	0.51
Y_R2 488.368	1.082693	114771.180442	0.002195	0.20
Y_R4	1.094140	49236.100000	0.005874	0.54

Sample Name: 280-123787-A-6-A

Date: 5/24/2019 6:27:07 PM Rack:Tube: 1:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002197	ppm	0.000331	15.06	-191.686000	Y 377.433
Al (394.401 nm)	-0.025164 u	ppm	0.000729	2.90	448.180000	Y 377.433
Al H (396.152 nm)	-0.347195 u	ppm	0.003018	0.87	33.958700	Y_R 377.433
As (188.980 nm)	0.001536	ppm	0.000636	41.44	0.736646	Y 242.219
B (249.678 nm)	0.157820	ppm	0.000853	0.54	1173.740000	Y 242.219
Ba (493.408 nm)	0.019535	ppm	0.000671	3.44	3347.000000	Y_R 488.368
Be (234.861 nm)	-0.000068 u	ppm	0.000067	98.78	-8.890310	Y_R 488.368
Bi (223.061 nm)	0.002056	ppm	0.000467	22.72	-6.053470	Y 377.433
Ca (315.887 nm)	108.130956	ppm	0.166178	0.15	85809.187692	Y_R 377.433
Cd (214.439 nm)	0.000233	ppm	0.000009	3.83	3.468790	Y 377.433
Co (228.615 nm)	-0.000178 u	ppm	0.000487	> 100.00	-19.291600	Y 242.219
Cr (205.560 nm)	0.001047	ppm	0.000730	69.75	0.212371	Y 377.433
Cu (324.754 nm)	0.000253	ppm	0.000209	82.71	266.998000	Y 377.433
Fe (238.204 nm)	0.055191	ppm	0.001289	2.33	139.992913	Y_R 377.433
Fe H (259.940 nm)	0.039011 u	ppm	0.002094	5.37	65.365100	Y_R 377.433
K (766.491 nm)	20.947000	ppm	0.128438	0.61	22163.500000	Y_R2 488.368
Li (670.783 nm)	0.307477	ppm	0.000349	0.11	2733.680000	Y_R2 488.368
Mg (279.078 nm)	122.082000	ppm	0.193797	0.16	399506.000000	Y 377.433
Mn (257.610 nm)	0.018122	ppm	0.000068	0.38	4930.180000	Y 377.433
Mo (202.032 nm)	0.000620	ppm	0.000013	2.15	18.951000	Y 377.433
Na (589.592 nm)	834.656000 o	ppm	1.339950	0.16	685327.000000	Y_R2 488.368
Na H (589.593 nm)	933.415134	ppm	1.998732	0.21	506312.621844	Y_R4
Ni (231.604 nm)	0.005887	ppm	0.000187	3.18	21.836100	Y 377.433
P (213.618 nm)	0.002897	ppm	0.001019	35.16	-0.482344	Y 242.219
Pb (220.353 nm)	-0.002944 u	ppm	0.002523	85.71	-1.030550	Y 242.219
S (181.972 nm)	540.559317 bo	ppm	1.820474	0.34	247569.526707	Y 377.433
Sb (206.834 nm)	-0.009166 u	ppm	0.000363	3.96	-13.691500	Y 377.433
Se (196.026 nm)	0.002083	ppm	0.001211	58.13	12.010200	Y 242.219
Si (288.158 nm)	4.354320	ppm	0.020072	0.46	28519.800000	Y 377.433
Sn (189.925 nm)	0.001020 u	ppm	0.002111	> 100.00	3.731010	Y 377.433
Sr (421.552 nm)	2.571650	ppm	0.018223	0.71	387316.496731	Y_R 488.368
Th (288.505 nm)	0.004038	ppm	0.005636	> 100.00	17.303800	Y 377.433
Ti (336.122 nm)	-0.000338 u	ppm	0.000045	13.19	-110.110000	Y 377.433
Tl (190.794 nm)	0.000189 u	ppm	0.002416	> 100.00	-2.051350	Y 377.433
U (409.013 nm)	0.011394	ppm	0.004807	42.19	-2.996790	Y 377.433
V (292.401 nm)	0.001036	ppm	0.000122	11.73	-93.546900	Y 377.433
Zn (206.200 nm)	0.015406	ppm	0.001012	6.57	73.349700	Y 377.433
Zr (343.823 nm)	0.000692	ppm	0.000226	32.59	-122.439000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.025329	23700.951966	0.005795	0.57
Y 377.433	1.015526	710290.462165	0.006295	0.62
Y_R 377.433	1.087980	65962.900000	0.002790	0.26
Y_R 488.368	1.100750	58150.200000	0.006621	0.60
Y_R2 488.368	1.072716	113713.574117	0.004558	0.42
Y_R4	1.082260	48701.600000	0.004649	0.43

Sample Name: MB 280-459219/1-A

Date: 5/24/2019 6:30:56 PM Rack:Tube: 1:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000224	ppm	0.000272	> 100.00	-259.313000	Y 377.433
Al (394.401 nm)	-0.000704 u	ppm	0.000377	53.65	83.708400	Y 377.433
Al H (396.152 nm)	0.144648 u	ppm	0.006605	4.57	57.988900	Y_R 377.433
As (188.980 nm)	0.000096 u	ppm	0.000250	> 100.00	-1.432030	Y 242.219
B (249.678 nm)	-0.004738 u	ppm	0.000065	1.37	12.829700	Y 242.219
Ba (493.408 nm)	-0.002212 u	ppm	0.000181	8.19	1178.990000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000004	8.21	-6.629080	Y_R 488.368
Bi (223.061 nm)	0.000503 u	ppm	0.001341	> 100.00	-9.510520	Y 377.433
Ca (315.887 nm)	0.020005	ppm	0.001030	5.15	-53.149577	Y_R 377.433
Cd (214.439 nm)	-0.000137 u	ppm	0.000050	36.75	-10.251900	Y 377.433
Co (228.615 nm)	-0.000365 u	ppm	0.000178	48.83	-23.701600	Y 242.219
Cr (205.560 nm)	0.000612	ppm	0.000159	25.99	-2.675250	Y 377.433
Cu (324.754 nm)	0.001067	ppm	0.000191	17.87	366.403000	Y 377.433
Fe (238.204 nm)	0.004046	ppm	0.000414	10.23	16.879589	Y_R 377.433
Fe H (259.940 nm)	0.007633 u	ppm	0.000368	4.82	21.969200	Y_R 377.433
K (766.491 nm)	-0.237477 u	ppm	0.044034	18.54	1708.080000	Y_R2 488.368
Li (670.783 nm)	0.017502	ppm	0.002766	15.81	-2245.260000	Y_R2 488.368
Mg (279.078 nm)	0.009399	ppm	0.000224	2.38	39.128000	Y 377.433
Mn (257.610 nm)	0.000107	ppm	0.000016	14.54	18.164300	Y 377.433
Mo (202.032 nm)	0.000396	ppm	0.000238	60.08	16.128600	Y 377.433
Na (589.592 nm)	0.162939	ppm	0.009459	5.81	283.567000	Y_R2 488.368
Na H (589.593 nm)	2.648948 u	ppm	0.028185	1.06	1319.705273	Y_R4
Ni (231.604 nm)	0.000641	ppm	0.000073	11.36	-5.305780	Y 377.433
P (213.618 nm)	-0.003315 u	ppm	0.001905	57.47	-8.792930	Y 242.219
Pb (220.353 nm)	-0.000726 u	ppm	0.000496	68.41	5.951000	Y 242.219
S (181.972 nm)	0.047685	ppm	0.005941	12.46	34.536865	Y 377.433
Sb (206.834 nm)	-0.002468 u	ppm	0.000563	22.81	-2.390220	Y 377.433
Se (196.026 nm)	-0.001122 u	ppm	0.000432	38.46	7.163840	Y 242.219
Si (288.158 nm)	-0.004563 u	ppm	0.000341	7.47	459.170000	Y 377.433
Sn (189.925 nm)	0.000069 u	ppm	0.000505	> 100.00	2.201720	Y 377.433
Sr (421.552 nm)	0.000249	ppm	0.000060	24.28	60.690855	Y_R 488.368
Th (288.505 nm)	-0.000237 u	ppm	0.005135	> 100.00	12.305600	Y 377.433
Ti (336.122 nm)	0.000318	ppm	0.000152	47.73	-393.127000	Y 377.433
Tl (190.794 nm)	-0.000175 u	ppm	0.001959	> 100.00	1.413860	Y 377.433
U (409.013 nm)	0.003506	ppm	0.003814	> 100.00	-13.634400	Y 377.433
V (292.401 nm)	-0.000169 u	ppm	0.000087	51.40	-155.335000	Y 377.433
Zn (206.200 nm)	0.001440	ppm	0.000279	19.40	10.541600	Y 377.433
Zr (343.823 nm)	0.000053 u	ppm	0.000086	> 100.00	-158.599000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122435	25945.607231	0.002058	0.18
Y 377.433	1.103360	771724.609454	0.002593	0.24
Y_R 377.433	1.134640	68792.100000	0.000461	0.04
Y_R 488.368	1.152740	60896.500000	0.001330	0.12
Y_R2 488.368	1.127614	119533.067245	0.005037	0.45
Y_R4	1.110050	49952.100000	0.003966	0.36

Sample Name: LCS 280-459219/2-A

Date: 5/24/2019 6:34:07 PM Rack:Tube: 1:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051573	ppm	0.000357	0.69	1203.070000	Y 377.433
Al (394.401 nm)	9.977600 o	ppm	0.023683	0.24	122129.000000	Y 377.433
Al H (396.152 nm)	9.804980	ppm	0.031361	0.32	21663.600000	Y_R 377.433
As (188.980 nm)	2.053860	ppm	0.000377	0.02	3093.090000	Y 242.219
B (249.678 nm)	0.968869	ppm	0.001295	0.13	6960.080000	Y 242.219
Ba (493.408 nm)	1.996070	ppm	0.007725	0.39	200403.000000	Y_R 488.368
Be (234.861 nm)	0.987691	ppm	0.000690	0.07	97225.200000	Y_R 488.368
Bi (223.061 nm)	1.972640	ppm	0.006968	0.35	4311.590000	Y 377.433
Ca (315.887 nm)	50.099053	ppm	0.160945	0.32	39722.402631	Y_R 377.433
Cd (214.439 nm)	1.043020	ppm	0.001784	0.17	38569.900000	Y 377.433
Co (228.615 nm)	0.993781	ppm	0.001278	0.13	23385.600000	Y 242.219
Cr (205.560 nm)	1.045450	ppm	0.007070	0.68	6958.100000	Y 377.433
Cu (324.754 nm)	0.993831	ppm	0.005659	0.57	46731.400000	Y 377.433
Fe (238.204 nm)	10.242775 o	ppm	0.031886	0.31	24663.285919	Y_R 377.433
Fe H (259.940 nm)	10.173100	ppm	0.033262	0.33	14080.700000	Y_R 377.433
K (766.491 nm)	48.952900	ppm	0.073868	0.15	49205.700000	Y_R2 488.368
Li (670.783 nm)	1.023110	ppm	0.002753	0.27	15021.300000	Y_R2 488.368
Mg (279.078 nm)	50.010500	ppm	0.099069	0.20	163617.000000	Y 377.433
Mn (257.610 nm)	1.010850	ppm	0.002818	0.28	275607.000000	Y 377.433
Mo (202.032 nm)	1.039990	ppm	0.000527	0.05	13119.400000	Y 377.433
Na (589.592 nm)	48.055100	ppm	0.042101	0.09	40054.400000	Y_R2 488.368
Na H (589.593 nm)	50.853891	ppm	0.280829	0.55	27473.593178	Y_R4
Ni (231.604 nm)	1.020550	ppm	0.002759	0.27	5274.100000	Y 377.433
P (213.618 nm)	20.392500	ppm	0.009835	0.05	28885.700000	Y 242.219
Pb (220.353 nm)	1.011700	ppm	0.000570	0.06	3220.750000	Y 242.219
S (181.972 nm)	10.212127	ppm	0.001258	0.01	4695.045023	Y 377.433
Sb (206.834 nm)	-0.001778 u	ppm	0.001572	88.43	-5.979030	Y 377.433
Se (196.026 nm)	2.014700	ppm	0.004841	0.24	3046.340000	Y 242.219
Si (288.158 nm)	2.058360	ppm	0.007380	0.36	13739.400000	Y 377.433
Sn (189.925 nm)	2.078120	ppm	0.002704	0.13	3345.900000	Y 377.433
Sr (421.552 nm)	0.973090	ppm	0.004029	0.41	146573.131458	Y_R 488.368
Th (288.505 nm)	1.011290	ppm	0.007067	0.70	1662.590000	Y 377.433
Ti (336.122 nm)	1.005170	ppm	0.002290	0.23	128362.000000	Y 377.433
Tl (190.794 nm)	2.042470	ppm	0.005619	0.28	4664.200000	Y 377.433
U (409.013 nm)	1.985270	ppm	0.002138	0.11	6212.600000	Y 377.433
V (292.401 nm)	1.003690	ppm	0.002638	0.26	51615.500000	Y 377.433
Zn (206.200 nm)	0.514043	ppm	0.002334	0.45	2317.000000	Y 377.433
Zr (343.823 nm)	0.492814	ppm	0.000858	0.17	27737.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080778	24982.686906	0.002580	0.24
Y 377.433	1.067559	746684.026833	0.003677	0.34
Y_R 377.433	1.112150	67428.000000	0.002795	0.25
Y_R 488.368	1.126950	59534.200000	0.002801	0.25
Y_R2 488.368	1.097790	116371.541804	0.000811	0.07
Y_R4	1.110780	49985.200000	0.003315	0.30

Sample Name: CCVH-5713036

Date: 5/24/2019 6:37:48 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003911	ppm	0.000142	3.62	-142.185000	Y 377.433
Al (394.401 nm)	50.022700 o	ppm	0.066890	0.13	609421.000000	Y 377.433
Al H (396.152 nm)	48.489000	ppm	0.148435	0.31	105736.000000	Y_R 377.433
As (188.980 nm)	0.005786	ppm	0.003856	66.64	5.774820	Y 242.219
B (249.678 nm)	-0.000968 u	ppm	0.000535	55.27	10.593700	Y 242.219
Ba (493.408 nm)	0.001498	ppm	0.000087	5.80	1588.970000	Y_R 488.368
Be (234.861 nm)	0.001088	ppm	0.000055	5.08	-108.386000	Y_R 488.368
Bi (223.061 nm)	0.011599	ppm	0.002283	19.69	23.515100	Y 377.433
Ca (315.887 nm)	0.001603 u	ppm	0.007076	> 100.00	-55.624710	Y_R 377.433
Cd (214.439 nm)	0.001425	ppm	0.000080	5.59	68.026100	Y 377.433
Co (228.615 nm)	0.003001	ppm	0.000109	3.62	55.456000	Y 242.219
Cr (205.560 nm)	0.002199	ppm	0.000835	37.99	6.602950	Y 377.433
Cu (324.754 nm)	0.004084	ppm	0.000128	3.14	1452.930000	Y 377.433
Fe (238.204 nm)	50.481674 o	ppm	0.070945	0.14	121525.342504	Y_R 377.433
Fe H (259.940 nm)	49.980200	ppm	0.109235	0.22	69133.200000	Y_R 377.433
K (766.491 nm)	0.243697	ppm	0.130678	53.62	2172.700000	Y_R2 488.368
Li (670.783 nm)	0.015121	ppm	0.001862	12.31	-2286.130000	Y_R2 488.368
Mg (279.078 nm)	0.040521	ppm	0.000891	2.20	66.192200	Y 377.433
Mn (257.610 nm)	0.001056	ppm	0.000015	1.41	277.005000	Y 377.433
Mo (202.032 nm)	0.001517	ppm	0.000409	26.98	30.247600	Y 377.433
Na (589.592 nm)	232.187000 o	ppm	0.020310	0.01	190754.000000	Y_R2 488.368
Na H (589.593 nm)	239.467705	ppm	0.802672	0.34	129807.177866	Y_R4
Ni (231.604 nm)	0.003647	ppm	0.001164	31.92	10.251600	Y 377.433
P (213.618 nm)	4.974370	ppm	0.003670	0.07	7104.700000	Y 242.219
Pb (220.353 nm)	0.006155	ppm	0.000163	2.66	21.067900	Y 242.219
S (181.972 nm)	5.092026	ppm	0.020069	0.39	2344.621254	Y 377.433
Sb (206.834 nm)	-0.000619 u	ppm	0.000068	10.98	4.986110	Y 377.433
Se (196.026 nm)	0.010165	ppm	0.000668	6.57	11.187500	Y 242.219
Si (288.158 nm)	0.013219	ppm	0.001150	8.70	573.648000	Y 377.433
Sn (189.925 nm)	0.001633	ppm	0.000419	25.65	4.718460	Y 377.433
Sr (421.552 nm)	0.001440	ppm	0.000062	4.32	247.640876	Y_R 488.368
Th (288.505 nm)	4.882710	ppm	0.004085	0.08	8432.730000	Y 377.433
Ti (336.122 nm)	0.002159	ppm	0.000080	3.70	-157.516000	Y 377.433
Tl (190.794 nm)	0.000710	ppm	0.000703	99.13	-1.426110	Y 377.433
U (409.013 nm)	0.539360 Q	ppm	0.004625	0.86	1723.370000 Q	Y 377.433
V (292.401 nm)	0.000731	ppm	0.000046	6.32	382.676000	Y 377.433
Zn (206.200 nm)	0.003206	ppm	0.000383	11.94	25.508600	Y 377.433
Zr (343.823 nm)	0.001224	ppm	0.000007	0.60	-92.338100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.069447	24720.755944	0.001954	0.18
Y 377.433	1.048066	733049.802056	0.001366	0.13
Y_R 377.433	1.091180	66157.000000	0.009827	0.90
Y_R 488.368	1.098390	58025.300000	0.013640	1.24
Y_R2 488.368	1.074035	113853.424170	0.005744	0.53
Y_R4	1.090640	49078.600000	0.002562	0.23

Sample Name: CCV-5717467

Date: 5/24/2019 6:41:29 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.493700	ppm	0.001465	0.30	16767.900000	Y 377.433
Al (394.401 nm)	0.503621	ppm	0.001426	0.28	6362.630000	Y 377.433
Al H (396.152 nm)	0.551221 u	ppm	0.010558	1.92	1189.330000	Y_R 377.433
As (188.980 nm)	0.496755	ppm	0.000135	0.03	746.912000	Y 242.219
B (249.678 nm)	0.480291	ppm	0.000097	0.02	3475.270000	Y 242.219
Ba (493.408 nm)	0.485591	ppm	0.001230	0.25	49811.900000	Y_R 488.368
Be (234.861 nm)	0.483193	ppm	0.002926	0.61	47573.500000	Y_R 488.368
Bi (223.061 nm)	0.997449	ppm	0.000583	0.06	2174.470000	Y 377.433
Ca (315.887 nm)	5.027210	ppm	0.028239	0.56	3923.731051	Y_R 377.433
Cd (214.439 nm)	0.521041	ppm	0.001099	0.21	19264.000000	Y 377.433
Co (228.615 nm)	0.499743	ppm	0.000509	0.10	11751.600000	Y 242.219
Cr (205.560 nm)	0.517890	ppm	0.004242	0.82	3443.630000	Y 377.433
Cu (324.754 nm)	0.496170	ppm	0.001747	0.35	23457.100000	Y 377.433
Fe (238.204 nm)	2.542465	ppm	0.007320	0.29	6127.295675	Y_R 377.433
Fe H (259.940 nm)	2.529260 u	ppm	0.005691	0.23	3509.340000	Y_R 377.433
K (766.491 nm)	48.628100	ppm	0.150522	0.31	48892.100000	Y_R2 488.368
Li (670.783 nm)	0.509857	ppm	0.006731	1.32	6208.590000	Y_R2 488.368
Mg (279.078 nm)	20.019200	ppm	0.038060	0.19	65515.000000	Y 377.433
Mn (257.610 nm)	0.494907	ppm	0.001007	0.20	134930.000000	Y 377.433
Mo (202.032 nm)	0.502535	ppm	0.002626	0.52	6345.200000	Y 377.433
Na (589.592 nm)	23.660400	ppm	0.144382	0.61	19683.300000	Y_R2 488.368
Na H (589.593 nm)	25.889794 u	ppm	0.225125	0.87	13929.169059	Y_R4
Ni (231.604 nm)	0.514145	ppm	0.001652	0.32	2652.170000	Y 377.433
P (213.618 nm)	0.047522	ppm	0.000547	1.15	-70.614700	Y 242.219
Pb (220.353 nm)	0.500622	ppm	0.000106	0.02	1596.450000	Y 242.219
S (181.972 nm)	0.026393	ppm	0.010078	38.18	26.597090	Y 377.433
Sb (206.834 nm)	0.509507	ppm	0.001975	0.39	859.479000	Y 377.433
Se (196.026 nm)	0.505145	ppm	0.001385	0.27	770.826000	Y 242.219
Si (288.158 nm)	4.877220	ppm	0.002577	0.05	31886.000000	Y 377.433
Sn (189.925 nm)	0.519215	ppm	0.002431	0.47	837.537000	Y 377.433
Sr (421.552 nm)	0.475017	ppm	0.001620	0.34	71561.598604	Y_R 488.368
Th (288.505 nm)	0.019693	ppm	0.002586	13.13	-3.242940	Y 377.433
Ti (336.122 nm)	0.487405	ppm	0.000717	0.15	61953.600000	Y 377.433
Tl (190.794 nm)	0.514378	ppm	0.001944	0.38	1174.990000	Y 377.433
U (409.013 nm)	0.016727	ppm	0.012498	74.72	-31.790100	Y 377.433
V (292.401 nm)	0.490176	ppm	0.000945	0.19	25127.600000	Y 377.433
Zn (206.200 nm)	0.521056	ppm	0.000672	0.13	2347.470000	Y 377.433
Zr (343.823 nm)	0.489753	ppm	0.001306	0.27	27564.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093769	25282.971283	0.002071	0.19
Y 377.433	1.075018	751900.871386	0.003817	0.36
Y_R 377.433	1.098880	66623.700000	0.003325	0.30
Y_R 488.368	1.113920	58845.700000	0.005464	0.49
Y_R2 488.368	1.119608	118684.377848	0.008332	0.74
Y_R4	1.121670	50474.900000	0.010423	0.93

Sample Name: CCB

Date: 5/24/2019 6:45:05 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000436	ppm	0.000145	33.21	-251.763000	Y 377.433
Al (394.401 nm)	-0.000667 u	ppm	0.000813	> 100.00	81.896600	Y 377.433
Al H (396.152 nm)	0.130367 Zu	ppm	0.003154	2.42	26.753100 Z	Y_R 377.433
As (188.980 nm)	-0.001067 u	ppm	0.000315	29.51	-3.183440	Y 242.219
B (249.678 nm)	-0.003023 u	ppm	0.000700	23.14	25.079900	Y 242.219
Ba (493.408 nm)	-0.001851 u	ppm	0.000292	15.77	1214.940000	Y_R 488.368
Be (234.861 nm)	0.000034	ppm	0.000002	6.04	1.326360	Y_R 488.368
Bi (223.061 nm)	0.000181 u	ppm	0.001643	> 100.00	-10.216300	Y 377.433
Ca (315.887 nm)	0.009254 u	ppm	0.014114	> 100.00	-61.690586	Y_R 377.433
Cd (214.439 nm)	0.000002 u	ppm	0.000006	> 100.00	-5.111430	Y 377.433
Co (228.615 nm)	-0.000210 u	ppm	0.000148	70.55	-20.084600	Y 242.219
Cr (205.560 nm)	0.000329	ppm	0.000398	> 100.00	-4.559090	Y 377.433
Cu (324.754 nm)	0.000933	ppm	0.000189	20.27	361.609000	Y 377.433
Fe (238.204 nm)	0.000327 u	ppm	0.000541	> 100.00	7.927369	Y_R 377.433
Fe H (259.940 nm)	0.001868 u	ppm	0.000434	23.24	13.996200	Y_R 377.433
K (766.491 nm)	-0.248267 u	ppm	0.096271	38.78	1697.660000	Y_R2 488.368
Li (670.783 nm)	0.022162 Z	ppm	0.000027	0.12	-2165.250000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002718	ppm	0.000552	20.32	17.359200	Y 377.433
Mn (257.610 nm)	0.000086	ppm	0.000004	4.52	12.406000	Y 377.433
Mo (202.032 nm)	0.000215 u	ppm	0.000402	> 100.00	13.836400	Y 377.433
Na (589.592 nm)	0.005313	ppm	0.000009	0.17	154.185000	Y_R2 488.368
Na H (589.593 nm)	1.436787 u	ppm	0.025047	1.74	662.039840	Y_R4
Ni (231.604 nm)	0.000362	ppm	0.000146	40.18	-6.746050	Y 377.433
P (213.618 nm)	-0.000738 u	ppm	0.002635	> 100.00	-5.179980	Y 242.219
Pb (220.353 nm)	-0.000653 u	ppm	0.000382	58.55	6.172590	Y 242.219
S (181.972 nm)	0.011045	ppm	0.002101	19.03	17.757006	Y 377.433
Sb (206.834 nm)	-0.001674 u	ppm	0.001470	87.81	-1.049420	Y 377.433
Se (196.026 nm)	-0.002956 u	ppm	0.000669	22.64	4.398240	Y 242.219
Si (288.158 nm)	-0.006105 u	ppm	0.001660	27.19	449.248000	Y 377.433
Sn (189.925 nm)	0.002137	ppm	0.001549	72.49	5.528170	Y 377.433
Sr (421.552 nm)	0.000285	ppm	0.000073	25.80	66.025268	Y_R 488.368
Th (288.505 nm)	0.002574 u	ppm	0.003708	> 100.00	17.154900	Y 377.433
Ti (336.122 nm)	0.000321	ppm	0.000132	41.31	-392.851000	Y 377.433
Tl (190.794 nm)	-0.000107 u	ppm	0.001145	> 100.00	1.569990	Y 377.433
U (409.013 nm)	-0.000296 u	ppm	0.008484	> 100.00	-25.701100	Y 377.433
V (292.401 nm)	-0.000246 u	ppm	0.000044	18.09	-158.267000	Y 377.433
Zn (206.200 nm)	-0.000442 u	ppm	0.000667	> 100.00	2.077620	Y 377.433
Zr (343.823 nm)	0.000221	ppm	0.000167	75.66	-149.119000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.118709	25859.488479	0.002671	0.24
Y 377.433	1.097166	767391.921951	0.003085	0.28
Y_R 377.433	1.128890	68443.300000	0.000868	0.08
Y_R 488.368	1.144900	60482.300000	0.012685	1.11
Y_R2 488.368	1.129987	119784.635956	0.001362	0.12
Y_R4	1.113530	50108.800000	0.002216	0.20

Sample Name: CCVL-5719884

Date: 5/24/2019 6:48:17 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007835	ppm	0.000465	5.94	2.038040	Y 377.433
Al (394.401 nm)	0.099871	ppm	0.000082	0.08	1320.340000	Y 377.433
Al H (396.152 nm)	0.226848 u	ppm	0.004607	2.03	243.073000	Y_R 377.433
As (188.980 nm)	0.013749	ppm	0.002575	18.73	19.139700	Y 242.219
B (249.678 nm)	0.091453	ppm	0.001092	1.19	699.736000	Y 242.219
Ba (493.408 nm)	0.007969	ppm	0.000048	0.60	2193.980000	Y_R 488.368
Be (234.861 nm)	0.000941	ppm	0.000033	3.51	90.299500	Y_R 488.368
Bi (223.061 nm)	0.098763	ppm	0.003273	3.31	205.716000	Y 377.433
Ca (315.887 nm)	0.215922	ppm	0.013137	6.08	102.469725	Y_R 377.433
Cd (214.439 nm)	0.005235	ppm	0.000130	2.48	188.456000	Y 377.433
Co (228.615 nm)	0.010516	ppm	0.000111	1.05	232.464000	Y 242.219
Cr (205.560 nm)	0.009925	ppm	0.000087	0.88	59.262200	Y 377.433
Cu (324.754 nm)	0.016812	ppm	0.000067	0.40	1099.440000	Y 377.433
Fe (238.204 nm)	0.101148	ppm	0.000390	0.39	250.621042	Y_R 377.433
Fe H (259.940 nm)	0.106594 u	ppm	0.003044	2.86	158.830000	Y_R 377.433
K (766.491 nm)	2.878080	ppm	0.267654	9.30	4716.420000	Y_R2 488.368
Li (670.783 nm)	0.042451 Q	ppm	0.002867	6.75	-1816.880000 Q	Y_R2 488.368
Mg (279.078 nm)	0.210770	ppm	0.000908	0.43	696.724000	Y 377.433
Mn (257.610 nm)	0.010623	ppm	0.000005	0.04	2885.450000	Y 377.433
Mo (202.032 nm)	0.019854	ppm	0.000527	2.65	261.375000	Y 377.433
Na (589.592 nm)	1.033580	ppm	0.040265	3.90	1000.540000	Y_R2 488.368
Na H (589.593 nm)	2.129970 u	ppm	0.032310	1.52	1038.130172	Y_R4
Ni (231.604 nm)	0.044625	ppm	0.000868	1.94	222.289000	Y 377.433
P (213.618 nm)	2.872730	ppm	0.001663	0.06	4099.510000	Y 242.219
Pb (220.353 nm)	0.010053	ppm	0.000262	2.61	40.302500	Y 242.219
S (181.972 nm)	0.103099	ppm	0.000430	0.42	59.952902	Y 377.433
Sb (206.834 nm)	0.020283	ppm	0.003729	18.39	35.869100	Y 377.433
Se (196.026 nm)	0.019051	ppm	0.000166	0.87	37.581000	Y 242.219
Si (288.158 nm)	0.481138	ppm	0.002429	0.50	3585.900000	Y 377.433
Sn (189.925 nm)	0.105102	ppm	0.000199	0.19	171.205000	Y 377.433
Sr (421.552 nm)	0.009127	ppm	0.000019	0.21	1397.770776	Y_R 488.368
Th (288.505 nm)	0.017342	ppm	0.002799	16.14	42.137500	Y 377.433
Ti (336.122 nm)	0.010108	ppm	0.000039	0.39	860.266000	Y 377.433
Tl (190.794 nm)	0.016076	ppm	0.000143	0.89	38.469200	Y 377.433
U (409.013 nm)	0.065922	ppm	0.007617	11.56	183.134000	Y 377.433
V (292.401 nm)	0.009863	ppm	0.000058	0.59	359.330000	Y 377.433
Zn (206.200 nm)	0.021852	ppm	0.000049	0.22	102.341000	Y 377.433
Zr (343.823 nm)	0.009991	ppm	0.000203	2.03	403.996000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131695	26159.654987	0.000545	0.05
Y 377.433	1.107736	774785.398294	0.001124	0.10
Y_R 377.433	1.138550	69028.900000	0.004587	0.40
Y_R 488.368	1.156490	61094.800000	0.002817	0.24
Y_R2 488.368	1.134723	120286.664669	0.002671	0.24
Y_R4	1.135650	51104.100000	0.006686	0.59

Sample Name: 280-123508-D-2-B

Date: 5/24/2019 6:51:47 PM Rack:Tube: 1:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001052	ppm	0.000446	42.39	-237.014000	Y 377.433
Al (394.401 nm)	-0.005768 u	ppm	0.000416	7.21	289.647000	Y 377.433
Al H (396.152 nm)	-0.070401 u	ppm	0.001364	1.94	6.588490	Y_R 377.433
As (188.980 nm)	0.004909	ppm	0.001113	22.67	5.819390	Y 242.219
B (249.678 nm)	0.520973	ppm	0.000704	0.14	3767.250000	Y 242.219
Ba (493.408 nm)	0.032336	ppm	0.000253	0.78	4623.230000	Y_R 488.368
Be (234.861 nm)	-0.000088 u	ppm	0.000027	30.60	-10.800300	Y_R 488.368
Bi (223.061 nm)	-0.000437 u	ppm	0.001977	> 100.00	-11.549700	Y 377.433
Ca (315.887 nm)	63.888233	ppm	0.095123	0.15	50671.361389	Y_R 377.433
Cd (214.439 nm)	0.000096	ppm	0.000079	82.74	-1.624330	Y 377.433
Co (228.615 nm)	-0.000442 u	ppm	0.000043	9.76	-25.503600	Y 242.219
Cr (205.560 nm)	0.006499	ppm	0.000224	3.45	36.583900	Y 377.433
Cu (324.754 nm)	0.000604	ppm	0.000100	16.61	307.778000	Y 377.433
Fe (238.204 nm)	0.048151	ppm	0.001297	2.69	123.048448	Y_R 377.433
Fe H (259.940 nm)	0.043497 u	ppm	0.001509	3.47	71.568600	Y_R 377.433
K (766.491 nm)	4.791830	ppm	0.013650	0.28	6564.320000	Y_R2 488.368
Li (670.783 nm)	0.123121	ppm	0.003500	2.84	-431.747000	Y_R2 488.368
Mg (279.078 nm)	20.442400	ppm	0.031331	0.15	66903.200000	Y 377.433
Mn (257.610 nm)	0.000765	ppm	0.000022	2.91	197.398000	Y 377.433
Mo (202.032 nm)	0.002234	ppm	0.000067	2.98	39.285900	Y 377.433
Na (589.592 nm)	173.080000 o	ppm	0.076785	0.04	142239.000000	Y_R2 488.368
Na H (589.593 nm)	179.767943	ppm	0.013004	0.01	97416.705021	Y_R4
Ni (231.604 nm)	-0.000196 u	ppm	0.000249	> 100.00	-9.637270	Y 377.433
P (213.618 nm)	0.004703	ppm	0.002696	57.31	2.214140	Y 242.219
Pb (220.353 nm)	-0.000101 u	ppm	0.000555	> 100.00	7.942410	Y 242.219
S (181.972 nm)	70.956847	ppm	0.039172	0.06	32510.822241	Y 377.433
Sb (206.834 nm)	-0.003614 u	ppm	0.000173	4.78	-4.287450	Y 377.433
Se (196.026 nm)	0.002484	ppm	0.000030	1.22	12.593100	Y 242.219
Si (288.158 nm)	13.235200	ppm	0.037012	0.28	85691.300000	Y 377.433
Sn (189.925 nm)	0.001373 u	ppm	0.002227	> 100.00	4.300420	Y 377.433
Sr (421.552 nm)	1.035434	ppm	0.000069	0.01	155960.642514	Y_R 488.368
Th (288.505 nm)	-0.003747 u	ppm	0.004439	> 100.00	2.899920	Y 377.433
Ti (336.122 nm)	0.000014 u	ppm	0.000255	> 100.00	-215.652000	Y 377.433
Tl (190.794 nm)	-0.000265 u	ppm	0.000898	> 100.00	-1.337360	Y 377.433
U (409.013 nm)	0.021078	ppm	0.001495	7.09	33.642300	Y 377.433
V (292.401 nm)	0.016179	ppm	0.000140	0.86	691.445000	Y 377.433
Zn (206.200 nm)	0.004629	ppm	0.000220	4.75	24.887800	Y 377.433
Zr (343.823 nm)	0.000214	ppm	0.000207	96.72	-149.494000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075439	24859.284026	0.005999	0.56
Y 377.433	1.057170	739417.610169	0.007598	0.72
Y_R 377.433	1.111310	67377.100000	0.003150	0.28
Y_R 488.368	1.126610	59516.100000	0.001197	0.11
Y_R2 488.368	1.098352	116431.080206	0.006697	0.61
Y_R4	1.105630	49753.100000	0.002390	0.22

Sample Name: 280-123508-D-3-B

Date: 5/24/2019 6:55:22 PM Rack:Tube: 1:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000745	ppm	0.000429	57.65	-247.638000	Y 377.433
Al (394.401 nm)	0.015397	ppm	0.001739	11.29	475.976000	Y 377.433
Al H (396.152 nm)	0.009018 u	ppm	0.007906	87.67	54.890800	Y_R 377.433
As (188.980 nm)	0.003815	ppm	0.002847	74.62	4.170790	Y 242.219
B (249.678 nm)	0.537417	ppm	0.000419	0.08	3884.670000	Y 242.219
Ba (493.408 nm)	0.039788	ppm	0.000302	0.76	5366.140000	Y_R 488.368
Be (234.861 nm)	-0.000028 u	ppm	0.000012	44.44	-5.066980	Y_R 488.368
Bi (223.061 nm)	0.000963	ppm	0.000143	14.83	-8.476550	Y 377.433
Ca (315.887 nm)	68.302942	ppm	0.015409	0.02	54177.553788	Y_R 377.433
Cd (214.439 nm)	0.000211	ppm	0.000052	24.50	2.666200	Y 377.433
Co (228.615 nm)	-0.000286 u	ppm	0.000059	20.48	-21.854500	Y 242.219
Cr (205.560 nm)	0.007870	ppm	0.000294	3.74	45.730700	Y 377.433
Cu (324.754 nm)	0.001446	ppm	0.000471	32.58	342.593000	Y 377.433
Fe (238.204 nm)	0.089835	ppm	0.001550	1.73	223.387370	Y_R 377.433
Fe H (259.940 nm)	0.088372 u	ppm	0.003704	4.19	133.631000	Y_R 377.433
K (766.491 nm)	4.973020	ppm	0.003027	0.06	6739.270000	Y_R2 488.368
Li (670.783 nm)	0.131424	ppm	0.000249	0.19	-289.196000	Y_R2 488.368
Mg (279.078 nm)	19.313400	ppm	0.013457	0.07	63208.100000	Y 377.433
Mn (257.610 nm)	0.005073	ppm	0.000000	0.00	1372.170000	Y 377.433
Mo (202.032 nm)	0.001508	ppm	0.000322	21.33	30.139300	Y 377.433
Na (589.592 nm)	175.517000 o	ppm	1.813990	1.03	144242.000000	Y_R2 488.368
Na H (589.593 nm)	181.021440	ppm	1.255135	0.69	98096.797008	Y_R4
Ni (231.604 nm)	0.000349 u	ppm	0.001402	> 100.00	-6.814970	Y 377.433
P (213.618 nm)	0.001653	ppm	0.001630	98.59	-2.249650	Y 242.219
Pb (220.353 nm)	-0.000863 u	ppm	0.001302	> 100.00	5.585750	Y 242.219
S (181.972 nm)	72.757618	ppm	0.283461	0.39	33335.722611	Y 377.433
Sb (206.834 nm)	-0.004097 u	ppm	0.000132	3.22	-5.088030	Y 377.433
Se (196.026 nm)	0.001244 u	ppm	0.006936	> 100.00	10.717700	Y 242.219
Si (288.158 nm)	13.163000	ppm	0.035464	0.27	85226.100000	Y 377.433
Sn (189.925 nm)	0.000812	ppm	0.000284	34.99	3.397530	Y 377.433
Sr (421.552 nm)	0.738897	ppm	0.001959	0.27	111301.926329	Y_R 488.368
Th (288.505 nm)	-0.004533 u	ppm	0.004150	91.56	1.765920	Y 377.433
Ti (336.122 nm)	-0.000056 u	ppm	0.000063	> 100.00	-209.793000	Y 377.433
Tl (190.794 nm)	0.000711	ppm	0.000354	49.78	0.718845	Y 377.433
U (409.013 nm)	0.025758	ppm	0.001921	7.46	47.925100	Y 377.433
V (292.401 nm)	0.015223	ppm	0.000200	1.32	639.792000	Y 377.433
Zn (206.200 nm)	0.007608	ppm	0.000796	10.46	38.290100	Y 377.433
Zr (343.823 nm)	0.000168	ppm	0.000046	27.59	-152.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.067116	24666.882263	0.009079	0.85
Y 377.433	1.048284	733202.409738	0.009195	0.88
Y_R 377.433	1.086010	65843.400000	0.009435	0.87
Y_R 488.368	1.098330	58022.300000	0.010314	0.94
Y_R2 488.368	1.091547	115709.741430	0.012640	1.16
Y_R4	1.117650	50294.000000	0.004105	0.37

Sample Name: 280-123508-D-4-B

Date: 5/24/2019 6:58:56 PM Rack:Tube: 1:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000806	ppm	0.000513	63.65	-245.915000	Y 377.433
Al (394.401 nm)	-0.006699 u	ppm	0.000010	0.15	283.290000	Y 377.433
Al H (396.152 nm)	-0.067452 u	ppm	0.001878	2.78	15.875300	Y_R 377.433
As (188.980 nm)	0.003465	ppm	0.000589	17.00	3.644390	Y 242.219
B (249.678 nm)	0.524773	ppm	0.000572	0.11	3794.420000	Y 242.219
Ba (493.408 nm)	0.032138	ppm	0.000160	0.50	4603.470000	Y_R 488.368
Be (234.861 nm)	-0.000046 u	ppm	0.000083	> 100.00	-6.595370	Y_R 488.368
Bi (223.061 nm)	0.000843 u	ppm	0.001748	> 100.00	-8.752690	Y 377.433
Ca (315.887 nm)	64.229099	ppm	0.068845	0.11	50942.077491	Y_R 377.433
Cd (214.439 nm)	0.000232	ppm	0.000047	20.40	3.390860	Y 377.433
Co (228.615 nm)	-0.000723 u	ppm	0.000002	0.26	-32.129600	Y 242.219
Cr (205.560 nm)	0.007088	ppm	0.000239	3.38	40.519100	Y 377.433
Cu (324.754 nm)	0.000505	ppm	0.000218	43.03	301.819000	Y 377.433
Fe (238.204 nm)	0.010431	ppm	0.001492	14.30	32.248236	Y_R 377.433
Fe H (259.940 nm)	0.004839 u	ppm	0.002982	61.62	18.105600	Y_R 377.433
K (766.491 nm)	4.735190	ppm	0.100825	2.13	6509.620000	Y_R2 488.368
Li (670.783 nm)	0.127487	ppm	0.000004	0.00	-356.780000	Y_R2 488.368
Mg (279.078 nm)	20.514100	ppm	0.023830	0.12	67137.500000	Y 377.433
Mn (257.610 nm)	0.000484	ppm	0.000034	6.97	121.040000	Y 377.433
Mo (202.032 nm)	0.001815	ppm	0.000057	3.15	34.003300	Y 377.433
Na (589.592 nm)	174.549000 o	ppm	0.571855	0.33	143445.000000	Y_R2 488.368
Na H (589.593 nm)	180.439584	ppm	0.760178	0.42	97781.107911	Y_R4
Ni (231.604 nm)	-0.001900 u	ppm	0.000477	25.10	-18.454900	Y 377.433
P (213.618 nm)	0.002491	ppm	0.000065	2.60	-0.774279	Y 242.219
Pb (220.353 nm)	-0.001904 u	ppm	0.000117	6.14	2.274790	Y 242.219
S (181.972 nm)	71.709981	ppm	0.277662	0.39	32855.739027	Y 377.433
Sb (206.834 nm)	-0.005492 u	ppm	0.000334	6.09	-7.456930	Y 377.433
Se (196.026 nm)	-0.002096 u	ppm	0.000315	15.03	5.694070	Y 242.219
Si (288.158 nm)	13.346200	ppm	0.054028	0.40	86405.800000	Y 377.433
Sn (189.925 nm)	0.001070 u	ppm	0.001625	> 100.00	3.811680	Y 377.433
Sr (421.552 nm)	1.042496	ppm	0.000028	0.00	157024.123665	Y_R 488.368
Th (288.505 nm)	-0.003409 u	ppm	0.005619	> 100.00	3.599170	Y 377.433
Ti (336.122 nm)	-0.000027 u	ppm	0.000070	> 100.00	-219.834000	Y 377.433
Tl (190.794 nm)	-0.000803 u	ppm	0.000478	59.49	-2.575260	Y 377.433
U (409.013 nm)	0.023765	ppm	0.002193	9.23	42.108600	Y 377.433
V (292.401 nm)	0.016412	ppm	0.000082	0.50	702.343000	Y 377.433
Zn (206.200 nm)	0.004178	ppm	0.000362	8.65	22.855300	Y 377.433
Zr (343.823 nm)	0.000212	ppm	0.000048	22.75	-149.606000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092753	25259.497737	0.000380	0.03
Y 377.433	1.075875	752500.798709	0.000522	0.05
Y_R 377.433	1.129850	68501.500000	0.001327	0.12
Y_R 488.368	1.144130	60441.600000	0.000972	0.08
Y_R2 488.368	1.117963	118510.020944	0.003250	0.29
Y_R4	1.135340	51090.100000	0.003248	0.29

Sample Name: 280-123508-D-5-D

Date: 5/24/2019 7:02:29 PM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000723	ppm	0.000196	27.12	-248.270000	Y 377.433
Al (394.401 nm)	0.001533	ppm	0.000314	20.46	305.275000	Y 377.433
Al H (396.152 nm)	-0.005263 u	ppm	0.005161	98.05	22.021500	Y_R 377.433
As (188.980 nm)	0.005055	ppm	0.000663	13.12	6.029310	Y 242.219
B (249.678 nm)	0.389394	ppm	0.000295	0.08	2827.340000	Y 242.219
Ba (493.408 nm)	0.060756	ppm	0.000053	0.09	7456.810000	Y_R 488.368
Be (234.861 nm)	-0.000012 u	ppm	0.000012	> 100.00	-4.952850	Y_R 488.368
Bi (223.061 nm)	0.001623	ppm	0.001109	68.29	-6.972910	Y 377.433
Ca (315.887 nm)	67.644011	ppm	0.041647	0.06	53654.219415	Y_R 377.433
Cd (214.439 nm)	0.000217	ppm	0.000001	0.52	3.001180	Y 377.433
Co (228.615 nm)	-0.000389 u	ppm	0.000130	33.28	-24.280500	Y 242.219
Cr (205.560 nm)	0.006446	ppm	0.000191	2.96	36.231800	Y 377.433
Cu (324.754 nm)	0.000784	ppm	0.000344	43.87	312.384000	Y 377.433
Fe (238.204 nm)	0.426178	ppm	0.003881	0.91	1033.025152	Y_R 377.433
Fe H (259.940 nm)	0.425204 u	ppm	0.007756	1.82	599.464000	Y_R 377.433
K (766.491 nm)	4.553690	ppm	0.059109	1.30	6334.370000	Y_R2 488.368
Li (670.783 nm)	0.100383	ppm	0.002679	2.67	-822.174000	Y_R2 488.368
Mg (279.078 nm)	19.101800	ppm	0.000177	0.00	62515.400000	Y 377.433
Mn (257.610 nm)	0.002577	ppm	0.000037	1.42	691.474000	Y 377.433
Mo (202.032 nm)	0.002161	ppm	0.000205	9.50	38.367700	Y 377.433
Na (589.592 nm)	156.057000 o	ppm	0.133192	0.09	128272.000000	Y_R2 488.368
Na H (589.593 nm)	161.357582	ppm	0.740389	0.46	87428.050368	Y_R4
Ni (231.604 nm)	-0.000916 u	ppm	0.000916	> 100.00	-13.357300	Y 377.433
P (213.618 nm)	-0.003899 u	ppm	0.003785	97.08	-10.023500	Y 242.219
Pb (220.353 nm)	-0.002810 u	ppm	0.000100	3.56	-0.593987	Y 242.219
S (181.972 nm)	67.672368	ppm	0.129061	0.19	31006.870135	Y 377.433
Sb (206.834 nm)	-0.006880 u	ppm	0.002108	30.63	-9.775150	Y 377.433
Se (196.026 nm)	0.002067	ppm	0.002048	99.09	11.868100	Y 242.219
Si (288.158 nm)	14.090600	ppm	0.009612	0.07	91197.700000	Y 377.433
Sn (189.925 nm)	0.000291	ppm	0.000267	91.57	2.558790	Y 377.433
Sr (421.552 nm)	0.734304	ppm	0.000861	0.12	110610.186424	Y_R 488.368
Th (288.505 nm)	-0.004597 u	ppm	0.004044	87.98	1.640130	Y 377.433
Ti (336.122 nm)	-0.000009 u	ppm	0.000024	> 100.00	-205.971000	Y 377.433
Tl (190.794 nm)	0.001834	ppm	0.001604	87.45	3.269750	Y 377.433
U (409.013 nm)	0.021995	ppm	0.013009	59.14	36.325400	Y 377.433
V (292.401 nm)	0.014862	ppm	0.000155	1.05	621.831000	Y 377.433
Zn (206.200 nm)	0.001072	ppm	0.000628	58.58	8.944670	Y 377.433
Zr (343.823 nm)	0.000475	ppm	0.000073	15.28	-134.714000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.088949	25171.566251	0.000142	0.01
Y 377.433	1.071855	749688.863850	0.000188	0.02
Y_R 377.433	1.130300	68528.800000	0.002320	0.21
Y_R 488.368	1.145410	60509.200000	0.001216	0.11
Y_R2 488.368	1.124596	119213.114122	0.003666	0.33
Y_R4	1.145990	51569.600000	0.015148	1.32

Sample Name: 280-123508-D-5-Dsd@5

Date: 5/24/2019 7:06:03 PM Rack:Tube: 1:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000693	ppm	0.000314	45.33	-244.101000	Y 377.433
Al (394.401 nm)	0.000319 u	ppm	0.001263	> 100.00	135.354000	Y 377.433
Al H (396.152 nm)	0.100888 u	ppm	0.002616	2.59	21.435200	Y_R 377.433
As (188.980 nm)	0.001777	ppm	0.000083	4.68	1.099650	Y 242.219
B (249.678 nm)	0.074148	ppm	0.000471	0.64	576.171000	Y 242.219
Ba (493.408 nm)	0.011303	ppm	0.000394	3.49	2526.340000	Y_R 488.368
Be (234.861 nm)	-0.000071 u	ppm	0.000004	5.10	-9.276660	Y_R 488.368
Bi (223.061 nm)	-0.000036 u	ppm	0.000381	> 100.00	-10.677500	Y 377.433
Ca (315.887 nm)	13.873007	ppm	0.075946	0.55	10948.980640	Y_R 377.433
Cd (214.439 nm)	0.000134	ppm	0.000097	72.66	-0.193171	Y 377.433
Co (228.615 nm)	-0.000166 u	ppm	0.000052	31.27	-19.040700	Y 242.219
Cr (205.560 nm)	0.001286	ppm	0.000149	11.56	1.818770	Y 377.433
Cu (324.754 nm)	0.001378	ppm	0.000277	20.12	372.492000	Y 377.433
Fe (238.204 nm)	0.071012	ppm	0.001668	2.35	178.077645	Y_R 377.433
Fe H (259.940 nm)	0.072089 u	ppm	0.001251	1.74	111.110000	Y_R 377.433
K (766.491 nm)	0.807964	ppm	0.044711	5.53	2717.540000	Y_R2 488.368
Li (670.783 nm)	0.031515	ppm	0.000390	1.24	-2004.660000	Y_R2 488.368
Mg (279.078 nm)	3.924320	ppm	0.000970	0.02	12850.100000	Y 377.433
Mn (257.610 nm)	0.000872	ppm	0.000044	5.00	226.745000	Y 377.433
Mo (202.032 nm)	0.000495	ppm	0.000346	69.88	17.376400	Y 377.433
Na (589.592 nm)	32.553200	ppm	0.244993	0.75	26875.900000	Y_R2 488.368
Na H (589.593 nm)	33.836637 u	ppm	0.216820	0.64	18240.777475	Y_R4
Ni (231.604 nm)	-0.000156 u	ppm	0.000695	> 100.00	-9.424930	Y 377.433
P (213.618 nm)	-0.001037 u	ppm	0.002522	> 100.00	-5.737190	Y 242.219
Pb (220.353 nm)	-0.000692 u	ppm	0.000323	46.70	6.063060	Y 242.219
S (181.972 nm)	13.435450	ppm	0.020825	0.15	6166.197158	Y 377.433
Sb (206.834 nm)	-0.000187 u	ppm	0.004108	> 100.00	1.473070	Y 377.433
Se (196.026 nm)	0.000020 u	ppm	0.001510	> 100.00	8.869720	Y 242.219
Si (288.158 nm)	2.800980	ppm	0.000903	0.03	18520.000000	Y 377.433
Sn (189.925 nm)	0.001015	ppm	0.001133	> 100.00	3.722950	Y 377.433
Sr (421.552 nm)	0.149132	ppm	0.001201	0.81	22482.681335	Y_R 488.368
Th (288.505 nm)	-0.002844 u	ppm	0.000616	21.67	7.191790	Y 377.433
Ti (336.122 nm)	0.000477	ppm	0.000067	14.03	-326.259000	Y 377.433
Tl (190.794 nm)	0.000210 u	ppm	0.001698	> 100.00	1.740050	Y 377.433
U (409.013 nm)	0.008607 u	ppm	0.013077	> 100.00	0.784331	Y 377.433
V (292.401 nm)	0.002951	ppm	0.000008	0.26	6.149450	Y 377.433
Zn (206.200 nm)	0.007634	ppm	0.000591	7.74	38.400700	Y 377.433
Zr (343.823 nm)	0.000088	ppm	0.000082	92.27	-156.612000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110312	25665.389863	0.004191	0.38
Y 377.433	1.090365	762635.119948	0.003582	0.33
Y_R 377.433	1.103070	66877.900000	0.018821	1.71
Y_R 488.368	1.114490	58875.900000	0.007646	0.69
Y_R2 488.368	1.092537	115814.688237	0.006242	0.57
Y_R4	1.102850	49628.100000	0.000846	0.08

Sample Name: 280-123508-D-5-E MS

Date: 5/24/2019 7:09:31 PM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051912	ppm	0.000076	0.15	1216.570000	Y 377.433
Al (394.401 nm)	9.909300 o	ppm	0.009207	0.09	121485.000000	Y 377.433
Al H (396.152 nm)	9.642340	ppm	0.018817	0.20	21595.900000	Y_R 377.433
As (188.980 nm)	2.046160	ppm	0.006700	0.33	3081.510000	Y 242.219
B (249.678 nm)	1.379690	ppm	0.001035	0.08	9894.230000	Y 242.219
Ba (493.408 nm)	2.035610	ppm	0.000653	0.03	204345.000000	Y_R 488.368
Be (234.861 nm)	0.976862	ppm	0.006084	0.62	96160.200000	Y_R 488.368
Bi (223.061 nm)	1.940790	ppm	0.006666	0.34	4241.800000	Y 377.433
Ca (315.887 nm)	113.653925	ppm	0.259472	0.23	90198.041979	Y_R 377.433
Cd (214.439 nm)	0.999093	ppm	0.000501	0.05	36945.400000	Y 377.433
Co (228.615 nm)	0.974678	ppm	0.001921	0.20	22935.600000	Y 242.219
Cr (205.560 nm)	1.018890	ppm	0.001474	0.14	6781.170000	Y 377.433
Cu (324.754 nm)	0.980273	ppm	0.006176	0.63	46059.100000	Y 377.433
Fe (238.204 nm)	9.924962 o	ppm	0.029689	0.30	23898.256127	Y_R 377.433
Fe H (259.940 nm)	9.895870	ppm	0.007643	0.08	13697.300000	Y_R 377.433
K (766.491 nm)	53.793900	ppm	0.347336	0.65	53880.100000	Y_R2 488.368
Li (670.783 nm)	1.083160	ppm	0.003193	0.29	16052.400000	Y_R2 488.368
Mg (279.078 nm)	67.295400	ppm	0.030370	0.05	220180.000000	Y 377.433
Mn (257.610 nm)	0.980027	ppm	0.000619	0.06	267203.000000	Y 377.433
Mo (202.032 nm)	1.012420	ppm	0.000027	0.00	12772.000000	Y 377.433
Na (589.592 nm)	203.811000 o	ppm	0.169247	0.08	167922.000000	Y_R2 488.368
Na H (589.593 nm)	214.130708	ppm	0.450697	0.21	116060.434156	Y_R4
Ni (231.604 nm)	0.989804	ppm	0.001004	0.10	5114.920000	Y 377.433
P (213.618 nm)	20.323100	ppm	0.036422	0.18	28790.100000	Y 242.219
Pb (220.353 nm)	0.973931	ppm	0.003970	0.41	3100.770000	Y 242.219
S (181.972 nm)	76.352316	ppm	0.182683	0.24	34987.257330	Y 377.433
Sb (206.834 nm)	-0.003155 u	ppm	0.001470	46.59	-8.221400	Y 377.433
Se (196.026 nm)	1.975390	ppm	0.002252	0.11	2987.080000	Y 242.219
Si (288.158 nm)	16.165800	ppm	0.079444	0.49	104557.000000	Y 377.433
Sn (189.925 nm)	2.035410	ppm	0.000618	0.03	3277.190000	Y 377.433
Sr (421.552 nm)	1.701506	ppm	0.000874	0.05	256273.304246	Y_R 488.368
Th (288.505 nm)	0.993490	ppm	0.010594	1.07	1630.480000	Y 377.433
Ti (336.122 nm)	0.985097	ppm	0.000539	0.05	126009.000000	Y 377.433
Tl (190.794 nm)	1.935630	ppm	0.000213	0.01	4417.520000	Y 377.433
U (409.013 nm)	1.986820	ppm	0.004805	0.24	6209.880000	Y 377.433
V (292.401 nm)	0.995563	ppm	0.001030	0.10	51203.200000	Y 377.433
Zn (206.200 nm)	0.496285	ppm	0.001275	0.26	2237.110000	Y 377.433
Zr (343.823 nm)	0.484603	ppm	0.000272	0.06	27272.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993905	22974.579807	0.001734	0.17
Y 377.433	0.990613	692865.311983	0.003487	0.35
Y_R 377.433	1.033650	62669.100000	0.004287	0.41
Y_R 488.368	1.044250	55165.200000	0.002488	0.24
Y_R2 488.368	1.035173	109733.762406	0.000922	0.09
Y_R4	1.056600	47547.000000	0.001951	0.18

Sample Name: 280-123508-D-5-F MSD

Date: 5/24/2019 7:13:12 PM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052536	ppm	0.000443	0.84	1233.510000	Y 377.433
Al (394.401 nm)	9.921930 o	ppm	0.002687	0.03	121632.000000	Y 377.433
Al H (396.152 nm)	9.602020	ppm	0.024590	0.26	21505.700000	Y_R 377.433
As (188.980 nm)	2.063210	ppm	0.008173	0.40	3107.180000	Y 242.219
B (249.678 nm)	1.382700	ppm	0.001486	0.11	9915.570000	Y 242.219
Ba (493.408 nm)	2.022710	ppm	0.000964	0.05	203060.000000	Y_R 488.368
Be (234.861 nm)	0.976291	ppm	0.000355	0.04	96102.900000	Y_R 488.368
Bi (223.061 nm)	1.965210	ppm	0.002505	0.13	4295.320000	Y 377.433
Ca (315.887 nm)	116.687987	ppm	0.026790	0.02	92607.699844	Y_R 377.433
Cd (214.439 nm)	1.026820	ppm	0.000898	0.09	37970.700000	Y 377.433
Co (228.615 nm)	0.987001	ppm	0.001020	0.10	23225.800000	Y 242.219
Cr (205.560 nm)	1.037570	ppm	0.003382	0.33	6905.650000	Y 377.433
Cu (324.754 nm)	0.991279	ppm	0.003902	0.39	46574.100000	Y 377.433
Fe (238.204 nm)	10.165534 o	ppm	0.010871	0.11	24477.354008	Y_R 377.433
Fe H (259.940 nm)	10.120900	ppm	0.019975	0.20	14008.500000	Y_R 377.433
K (766.491 nm)	53.910200	ppm	0.520297	0.97	53992.400000	Y_R2 488.368
Li (670.783 nm)	1.078520	ppm	0.005362	0.50	15972.700000	Y_R2 488.368
Mg (279.078 nm)	68.991600	ppm	0.077423	0.11	225731.000000	Y 377.433
Mn (257.610 nm)	0.996820	ppm	0.000647	0.06	271782.000000	Y 377.433
Mo (202.032 nm)	1.028720	ppm	0.000215	0.02	12977.300000	Y 377.433
Na (589.592 nm)	202.710000 o	ppm	0.134292	0.07	167015.000000	Y_R2 488.368
Na H (589.593 nm)	212.152905	ppm	1.340064	0.63	114987.365050	Y_R4
Ni (231.604 nm)	1.008120	ppm	0.000113	0.01	5209.730000	Y 377.433
P (213.618 nm)	20.493500	ppm	0.001740	0.01	29031.100000	Y 242.219
Pb (220.353 nm)	0.990514	ppm	0.000038	0.00	3153.350000	Y 242.219
S (181.972 nm)	77.414010	ppm	0.319180	0.41	35473.666672	Y 377.433
Sb (206.834 nm)	0.001608 u	ppm	0.002537	> 100.00	-0.214172	Y 377.433
Se (196.026 nm)	2.012850	ppm	0.000004	0.00	3043.540000	Y 242.219
Si (288.158 nm)	16.367900	ppm	0.036571	0.22	105858.000000	Y 377.433
Sn (189.925 nm)	2.093230	ppm	0.002460	0.12	3370.210000	Y 377.433
Sr (421.552 nm)	1.694541	ppm	0.000421	0.02	255224.383699	Y_R 488.368
Th (288.505 nm)	1.004600	ppm	0.001600	0.16	1648.080000	Y 377.433
Ti (336.122 nm)	0.996132	ppm	0.000397	0.04	127432.000000	Y 377.433
Tl (190.794 nm)	1.975940	ppm	0.005471	0.28	4509.480000	Y 377.433
U (409.013 nm)	1.966610	ppm	0.002909	0.15	6144.850000	Y 377.433
V (292.401 nm)	1.011190	ppm	0.000345	0.03	52009.700000	Y 377.433
Zn (206.200 nm)	0.510785	ppm	0.000637	0.12	2302.350000	Y 377.433
Zr (343.823 nm)	0.490398	ppm	0.000622	0.13	27600.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.017602	23522.342450	0.000610	0.06
Y 377.433	1.005577	703332.008836	0.001096	0.11
Y_R 377.433	1.064160	64518.700000	0.001011	0.10
Y_R 488.368	1.076770	56883.300000	0.000252	0.02
Y_R2 488.368	1.055283	111865.614269	0.006904	0.65
Y_R4	1.079010	48555.300000	0.007000	0.65

Sample Name: 280-123508-D-5-Dpds

Date: 5/24/2019 7:16:51 PM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049665	ppm	0.000011	0.02	1433.360000	Y 377.433
Al (394.401 nm)	1.020930	ppm	0.003566	0.35	12770.800000	Y 377.433
Al H (396.152 nm)	0.988335	ppm	0.004740	0.48	2209.860000	Y_R 377.433
As (188.980 nm)	0.217371	ppm	0.000249	0.11	325.948000	Y 242.219
B (249.678 nm)	0.485275	ppm	0.000338	0.07	3511.700000	Y 242.219
Ba (493.408 nm)	0.162836	ppm	0.000513	0.31	17634.100000	Y_R 488.368
Be (234.861 nm)	0.050892	ppm	0.000218	0.43	5005.310000	Y_R 488.368
Bi (223.061 nm)	0.000781 u	ppm	0.001422	> 100.00	-8.655480	Y 377.433
Ca (315.887 nm)	86.939521	ppm	0.141920	0.16	68979.079049	Y_R 377.433
Cd (214.439 nm)	0.053734	ppm	0.000117	0.22	1982.370000	Y 377.433
Co (228.615 nm)	0.049552	ppm	0.001112	2.24	1151.560000	Y 242.219
Cr (205.560 nm)	0.059190	ppm	0.000051	0.09	387.607000	Y 377.433
Cu (324.754 nm)	0.053329	ppm	0.000064	0.12	2764.740000	Y 377.433
Fe (238.204 nm)	1.107875	ppm	0.000107	0.01	2673.988846	Y_R 377.433
Fe H (259.940 nm)	1.103060 u	ppm	0.005093	0.46	1536.930000	Y_R 377.433
K (766.491 nm)	25.047000	ppm	0.419529	1.67	26122.400000	Y_R2 488.368
Li (670.783 nm)	0.189207	ppm	0.000603	0.32	702.952000	Y_R2 488.368
Mg (279.078 nm)	39.351000	ppm	0.053855	0.14	128770.000000	Y 377.433
Mn (257.610 nm)	0.052100	ppm	0.000017	0.03	14194.600000	Y 377.433
Mo (202.032 nm)	0.054182	ppm	0.000142	0.26	694.055000	Y 377.433
Na (589.592 nm)	173.186000 o	ppm	0.334192	0.19	142356.000000	Y_R2 488.368
Na H (589.593 nm)	179.088138	ppm	0.522131	0.29	97047.872373	Y_R4
Ni (231.604 nm)	0.051016	ppm	0.000335	0.66	255.579000	Y 377.433
P (213.618 nm)	2.114720	ppm	0.004592	0.22	3004.880000	Y 242.219
Pb (220.353 nm)	0.102301	ppm	0.001119	1.09	334.155000	Y 242.219
S (181.972 nm)	66.436334	ppm	0.309898	0.47	30441.930535	Y 377.433
Sb (206.834 nm)	0.107860	ppm	0.000624	0.58	183.723000	Y 377.433
Se (196.026 nm)	0.207722	ppm	0.000828	0.40	321.936000	Y 242.219
Si (288.158 nm)	18.781500	ppm	0.032380	0.17	121396.000000	Y 377.433
Sn (189.925 nm)	0.104895	ppm	0.000962	0.92	170.872000	Y 377.433
Sr (421.552 nm)	0.771659	ppm	0.000038	0.00	116236.008525	Y_R 488.368
Th (288.505 nm)	0.207195	ppm	0.008745	4.22	363.556000	Y 377.433
Ti (336.122 nm)	0.049667	ppm	0.000122	0.25	6216.570000	Y 377.433
Tl (190.794 nm)	0.207573	ppm	0.000235	0.11	472.692000	Y 377.433
U (409.013 nm)	0.528074	ppm	0.001613	0.31	1633.380000	Y 377.433
V (292.401 nm)	0.066111	ppm	0.000481	0.73	3261.300000	Y 377.433
Zn (206.200 nm)	0.224707	ppm	0.002472	1.10	1014.660000	Y 377.433
Zr (343.823 nm)	0.050642	ppm	0.000167	0.33	2705.290000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045980	24178.305537	0.000117	0.01
Y 377.433	1.027397	718593.210620	0.000528	0.05
Y_R 377.433	1.066070	64634.600000	0.006998	0.66
Y_R 488.368	1.080670	57089.400000	0.007271	0.67
Y_R2 488.368	1.054621	111795.420409	0.006358	0.60
Y_R4	1.088720	48992.500000	0.004755	0.44

Sample Name: 280-123638-D-1-C

Date: 5/24/2019 7:20:23 PM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001565	ppm	0.000021	1.37	-216.327000	Y 377.433
Al (394.401 nm)	-0.014867 u	ppm	0.000918	6.17	384.025000	Y 377.433
Al H (396.152 nm)	-0.224334 u	ppm	0.012236	5.45	-34.337900	Y_R 377.433
As (188.980 nm)	0.002767	ppm	0.001606	58.02	2.592430	Y 242.219
B (249.678 nm)	0.177773	ppm	0.001055	0.59	1316.240000	Y 242.219
Ba (493.408 nm)	0.125391	ppm	0.000392	0.31	13900.200000	Y_R 488.368
Be (234.861 nm)	0.000005 u	ppm	0.000022	> 100.00	-1.699910	Y_R 488.368
Bi (223.061 nm)	0.001344	ppm	0.001492	> 100.00	-7.640840	Y 377.433
Ca (315.887 nm)	207.248715	ppm	0.092372	0.04	164529.078633	Y_R 377.433
Cd (214.439 nm)	0.000228	ppm	0.000063	27.50	3.281990	Y 377.433
Co (228.615 nm)	-0.000561 u	ppm	0.000133	23.77	-28.331600	Y 242.219
Cr (205.560 nm)	0.001325	ppm	0.000162	12.24	2.079800	Y 377.433
Cu (324.754 nm)	0.000284	ppm	0.000176	61.91	210.204000	Y 377.433
Fe (238.204 nm)	0.046819	ppm	0.001333	2.85	119.841985	Y_R 377.433
Fe H (259.940 nm)	0.033860 u	ppm	0.001255	3.71	58.241300	Y_R 377.433
K (766.491 nm)	8.902580	ppm	0.275950	3.10	10533.600000	Y_R2 488.368
Li (670.783 nm)	0.183019	ppm	0.001148	0.63	596.714000	Y_R2 488.368
Mg (279.078 nm)	45.875400	ppm	0.034759	0.08	150129.000000	Y 377.433
Mn (257.610 nm)	0.000418	ppm	0.000024	5.73	103.050000	Y 377.433
Mo (202.032 nm)	0.001256	ppm	0.000441	35.08	26.962200	Y 377.433
Na (589.592 nm)	188.730000 o	ppm	0.969952	0.51	155108.000000	Y_R2 488.368
Na H (589.593 nm)	196.132474	ppm	0.956667	0.49	106295.381910	Y_R4
Ni (231.604 nm)	-0.002243 u	ppm	0.000290	12.91	-20.223700	Y 377.433
P (213.618 nm)	0.002084	ppm	0.000651	31.24	-1.760010	Y 242.219
Pb (220.353 nm)	0.000058 u	ppm	0.000688	> 100.00	8.547360	Y 242.219
S (181.972 nm)	70.361236	ppm	0.034449	0.05	32245.104718	Y 377.433
Sb (206.834 nm)	-0.007481 u	ppm	0.002658	35.53	-10.848300	Y 377.433
Se (196.026 nm)	0.000594 u	ppm	0.001635	> 100.00	9.741930	Y 242.219
Si (288.158 nm)	16.327700	ppm	0.068068	0.42	105599.000000	Y 377.433
Sn (189.925 nm)	0.000463	ppm	0.000040	8.60	2.835180	Y 377.433
Sr (421.552 nm)	1.820517	ppm	0.001638	0.09	274195.071676	Y_R 488.368
Th (288.505 nm)	0.005489	ppm	0.007215	> 100.00	16.352300	Y 377.433
Ti (336.122 nm)	-0.001400 u	ppm	0.000075	5.34	90.884600	Y 377.433
Tl (190.794 nm)	0.005259	ppm	0.000523	9.94	5.606540	Y 377.433
U (409.013 nm)	0.032748	ppm	0.000283	0.87	51.602600	Y 377.433
V (292.401 nm)	0.007345	ppm	0.000170	2.32	233.125000	Y 377.433
Zn (206.200 nm)	0.003762	ppm	0.000941	25.00	20.986700	Y 377.433
Zr (343.823 nm)	0.000327	ppm	0.000105	32.18	-143.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.032603	23869.090275	0.005455	0.53
Y 377.433	1.020515	713780.024329	0.005492	0.54
Y_R 377.433	1.096760	66494.900000	0.000883	0.08
Y_R 488.368	1.109250	58599.100000	0.000075	0.01
Y_R2 488.368	1.090866	115637.573315	0.002063	0.19
Y_R4	1.092240	49150.700000	0.000599	0.05

Sample Name: 280-123638-D-2-E

Date: 5/24/2019 7:23:55 PM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001632	ppm	0.000154	9.42	-213.865000	Y 377.433
Al (394.401 nm)	-0.011106 u	ppm	0.000786	7.08	410.367000	Y 377.433
Al H (396.152 nm)	-0.205265 u	ppm	0.003311	1.61	-26.679600	Y_R 377.433
As (188.980 nm)	0.000740	ppm	0.000109	14.77	-0.460832	Y 242.219
B (249.678 nm)	0.169044	ppm	0.000143	0.08	1253.920000	Y 242.219
Ba (493.408 nm)	0.118771	ppm	0.000456	0.38	13240.200000	Y_R 488.368
Be (234.861 nm)	-0.000045 u	ppm	0.000019	42.61	-6.460090	Y_R 488.368
Bi (223.061 nm)	0.000037 u	ppm	0.001179	> 100.00	-10.511700	Y 377.433
Ca (315.887 nm)	197.493132	ppm	0.193206	0.10	156781.137937	Y_R 377.433
Cd (214.439 nm)	0.000234	ppm	0.000068	29.07	3.486240	Y 377.433
Co (228.615 nm)	-0.000535 u	ppm	0.000097	18.16	-27.723600	Y 242.219
Cr (205.560 nm)	0.001741	ppm	0.000907	52.11	4.857040	Y 377.433
Cu (324.754 nm)	0.000055 u	ppm	0.000351	> 100.00	203.398000	Y 377.433
Fe (238.204 nm)	0.011491	ppm	0.002380	20.71	34.799934	Y_R 377.433
Fe H (259.940 nm)	0.009757 u	ppm	0.000941	9.64	24.907600	Y_R 377.433
K (766.491 nm)	8.288540	ppm	0.262937	3.17	9940.700000	Y_R2 488.368
Li (670.783 nm)	0.179252	ppm	0.003602	2.01	532.028000	Y_R2 488.368
Mg (279.078 nm)	43.718200	ppm	0.042534	0.10	143069.000000	Y 377.433
Mn (257.610 nm)	0.000219	ppm	0.000024	10.92	48.579500	Y 377.433
Mo (202.032 nm)	0.001078	ppm	0.000010	0.90	24.719100	Y 377.433
Na (589.592 nm)	179.298000 o	ppm	0.153029	0.09	147363.000000	Y_R2 488.368
Na H (589.593 nm)	185.909697	ppm	0.618969	0.33	100748.951323	Y_R4
Ni (231.604 nm)	-0.002044 u	ppm	0.000829	40.57	-19.196100	Y 377.433
P (213.618 nm)	0.000718	ppm	0.000852	> 100.00	-3.547400	Y 242.219
Pb (220.353 nm)	-0.001604 u	ppm	0.000118	7.34	3.284680	Y 242.219
S (181.972 nm)	67.622258	ppm	0.195956	0.29	30990.301061	Y 377.433
Sb (206.834 nm)	-0.005549 u	ppm	0.001812	32.66	-7.585940	Y 377.433
Se (196.026 nm)	-0.000936 u	ppm	0.001520	> 100.00	7.442200	Y 242.219
Si (288.158 nm)	15.558300	ppm	0.018892	0.12	100646.000000	Y 377.433
Sn (189.925 nm)	0.000613	ppm	0.000758	> 100.00	3.076370	Y 377.433
Sr (421.552 nm)	1.733415	ppm	0.003609	0.21	261077.322445	Y_R 488.368
Th (288.505 nm)	-0.003530 u	ppm	0.002524	71.50	1.154800	Y 377.433
Ti (336.122 nm)	-0.001233 u	ppm	0.000021	1.71	79.271500	Y 377.433
Tl (190.794 nm)	0.002299	ppm	0.000010	0.46	-0.773000	Y 377.433
U (409.013 nm)	0.035954	ppm	0.003217	8.95	63.051400	Y 377.433
V (292.401 nm)	0.007169	ppm	0.000220	3.07	222.923000	Y 377.433
Zn (206.200 nm)	0.002587	ppm	0.000197	7.63	15.700600	Y 377.433
Zr (343.823 nm)	0.000167	ppm	0.000044	26.29	-152.173000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070190	24737.936195	0.004822	0.45
Y 377.433	1.057852	739894.364248	0.004751	0.45
Y_R 377.433	1.104560	66968.300000	0.004393	0.40
Y_R 488.368	1.117090	59013.400000	0.007118	0.64
Y_R2 488.368	1.107506	117401.477796	0.007719	0.70
Y_R4	1.105630	49753.500000	0.004410	0.40

Sample Name: CCVH-5713036

Date: 5/24/2019 7:27:31 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004357	ppm	0.000216	4.97	-126.648000	Y 377.433
Al (394.401 nm)	49.910200 o	ppm	0.107435	0.22	608047.000000	Y 377.433
Al H (396.152 nm)	48.384600	ppm	0.102592	0.21	105507.000000	Y_R 377.433
As (188.980 nm)	0.002668	ppm	0.002437	91.34	1.077050	Y 242.219
B (249.678 nm)	-0.001943 u	ppm	0.000505	26.01	3.635760	Y 242.219
Ba (493.408 nm)	0.000410	ppm	0.000180	43.97	1480.550000	Y_R 488.368
Be (234.861 nm)	0.001153	ppm	0.000012	1.02	-101.880000	Y_R 488.368
Bi (223.061 nm)	-0.005282 u	ppm	0.000274	5.20	-13.459500	Y 377.433
Ca (315.887 nm)	0.016998	ppm	0.003601	21.19	-43.420977	Y_R 377.433
Cd (214.439 nm)	0.001442	ppm	0.000018	1.22	68.633700	Y 377.433
Co (228.615 nm)	0.003341	ppm	0.000175	5.24	63.444400	Y 242.219
Cr (205.560 nm)	0.001756	ppm	0.000047	2.65	3.646900	Y 377.433
Cu (324.754 nm)	0.004156	ppm	0.000314	7.55	1456.610000	Y 377.433
Fe (238.204 nm)	50.464533 o	ppm	0.125877	0.25	121484.079688	Y_R 377.433
Fe H (259.940 nm)	49.984900	ppm	0.119794	0.24	69139.800000	Y_R 377.433
K (766.491 nm)	0.006591 u	ppm	0.173748	> 100.00	1943.750000	Y_R2 488.368
Li (670.783 nm)	0.023950	ppm	0.007303	30.49	-2134.540000	Y_R2 488.368
Mg (279.078 nm)	0.040361	ppm	0.000026	0.06	65.748600	Y 377.433
Mn (257.610 nm)	0.001013	ppm	0.000012	1.21	265.098000	Y 377.433
Mo (202.032 nm)	0.001326	ppm	0.000249	18.73	27.851800	Y 377.433
Na (589.592 nm)	230.833000 o	ppm	2.214290	0.96	189642.000000	Y_R2 488.368
Na H (589.593 nm)	237.199695	ppm	1.093087	0.46	128576.654820	Y_R4
Ni (231.604 nm)	0.004099	ppm	0.000060	1.47	12.590700	Y 377.433
P (213.618 nm)	5.001870	ppm	0.027667	0.55	7144.080000	Y 242.219
Pb (220.353 nm)	0.006810	ppm	0.001596	23.43	23.157800	Y 242.219
S (181.972 nm)	5.078522	ppm	0.004174	0.08	2338.437318	Y 377.433
Sb (206.834 nm)	0.000704	ppm	0.000301	42.71	7.216410	Y 377.433
Se (196.026 nm)	0.007493	ppm	0.000508	6.79	7.162700	Y 242.219
Si (288.158 nm)	0.016584	ppm	0.001063	6.41	595.309000	Y 377.433
Sn (189.925 nm)	0.003725	ppm	0.001943	52.15	8.084130	Y 377.433
Sr (421.552 nm)	0.001503	ppm	0.000169	11.24	257.067433	Y_R 488.368
Th (288.505 nm)	4.871320	ppm	0.006004	0.12	8413.060000	Y 377.433
Ti (336.122 nm)	0.002214	ppm	0.000252	11.39	-150.454000	Y 377.433
Tl (190.794 nm)	-0.000707 u	ppm	0.002633	> 100.00	-4.664460	Y 377.433
U (409.013 nm)	0.535784 Q	ppm	0.003075	0.57	1712.000000 Q	Y 377.433
V (292.401 nm)	0.000830	ppm	0.000009	1.05	388.291000	Y 377.433
Zn (206.200 nm)	0.002887	ppm	0.000329	11.41	24.074800	Y 377.433
Zr (343.823 nm)	0.001251	ppm	0.000190	15.18	-90.767300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.088053	25150.854156	0.004860	0.45
Y 377.433	1.068374	747254.134079	0.003990	0.37
Y_R 377.433	1.129050	68453.100000	0.005716	0.51
Y_R 488.368	1.146140	60548.000000	0.013548	1.18
Y_R2 488.368	1.134795	120294.287374	0.004435	0.39
Y_R4	1.152130	51845.700000	0.010134	0.88

Sample Name: CCV-5717467

Date: 5/24/2019 7:31:15 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.495988	ppm	0.000132	0.03	16846.900000	Y 377.433
Al (394.401 nm)	0.503588	ppm	0.001026	0.20	6360.550000	Y 377.433
Al H (396.152 nm)	0.546297 u	ppm	0.003446	0.63	1179.040000	Y_R 377.433
As (188.980 nm)	0.502798	ppm	0.004409	0.88	756.018000	Y 242.219
B (249.678 nm)	0.482717	ppm	0.000631	0.13	3492.600000	Y 242.219
Ba (493.408 nm)	0.485237	ppm	0.002427	0.50	49776.500000	Y_R 488.368
Be (234.861 nm)	0.475426	ppm	0.003708	0.78	46808.600000	Y_R 488.368
Bi (223.061 nm)	1.000660	ppm	0.000196	0.02	2181.510000	Y 377.433
Ca (315.887 nm)	5.046753	ppm	0.007091	0.14	3939.251238	Y_R 377.433
Cd (214.439 nm)	0.521708	ppm	0.000110	0.02	19288.700000	Y 377.433
Co (228.615 nm)	0.501076	ppm	0.000584	0.12	11783.000000	Y 242.219
Cr (205.560 nm)	0.517305	ppm	0.004643	0.90	3439.730000	Y 377.433
Cu (324.754 nm)	0.500496	ppm	0.002120	0.42	23659.700000	Y 377.433
Fe (238.204 nm)	2.543244	ppm	0.013627	0.54	6129.172681	Y_R 377.433
Fe H (259.940 nm)	2.530920 u	ppm	0.006168	0.24	3511.640000	Y_R 377.433
K (766.491 nm)	48.731900	ppm	0.125998	0.26	48992.300000	Y_R2 488.368
Li (670.783 nm)	0.520769	ppm	0.001922	0.37	6395.950000	Y_R2 488.368
Mg (279.078 nm)	20.056800	ppm	0.009453	0.05	65638.100000	Y 377.433
Mn (257.610 nm)	0.496413	ppm	0.000543	0.11	135341.000000	Y 377.433
Mo (202.032 nm)	0.502474	ppm	0.000042	0.01	6344.440000	Y 377.433
Na (589.592 nm)	23.659400	ppm	0.126142	0.53	19682.400000	Y_R2 488.368
Na H (589.593 nm)	25.375233 u	ppm	0.218646	0.86	13649.990651	Y_R4
Ni (231.604 nm)	0.515033	ppm	0.000346	0.07	2656.780000	Y 377.433
P (213.618 nm)	0.046933	ppm	0.007359	15.68	-72.659100	Y 242.219
Pb (220.353 nm)	0.503556	ppm	0.002415	0.48	1605.740000	Y 242.219
S (181.972 nm)	0.009563	ppm	0.004888	51.12	18.899101	Y 377.433
Sb (206.834 nm)	0.510971	ppm	0.002474	0.48	861.941000	Y 377.433
Se (196.026 nm)	0.507082	ppm	0.001426	0.28	773.751000	Y 242.219
Si (288.158 nm)	4.932320	ppm	0.004879	0.10	32240.700000	Y 377.433
Sn (189.925 nm)	0.518824	ppm	0.000764	0.15	836.907000	Y 377.433
Sr (421.552 nm)	0.475220	ppm	0.002653	0.56	71592.133603	Y_R 488.368
Th (288.505 nm)	0.019600	ppm	0.000558	2.85	-3.581390	Y 377.433
Ti (336.122 nm)	0.489143	ppm	0.000797	0.16	62176.100000	Y 377.433
Tl (190.794 nm)	0.517013	ppm	0.002936	0.57	1181.020000	Y 377.433
U (409.013 nm)	0.014079	ppm	0.005935	42.16	-40.427600	Y 377.433
V (292.401 nm)	0.491974	ppm	0.000080	0.02	25221.500000	Y 377.433
Zn (206.200 nm)	0.520552	ppm	0.003762	0.72	2345.200000	Y 377.433
Zr (343.823 nm)	0.490468	ppm	0.000776	0.16	27604.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119763	25883.834934	0.002367	0.21
Y 377.433	1.100093	769439.170745	0.002677	0.24
Y_R 377.433	1.148310	69620.700000	0.005549	0.48
Y_R 488.368	1.165280	61559.300000	0.005859	0.50
Y_R2 488.368	1.164104	123401.164712	0.001444	0.12
Y_R4	1.168000	52560.100000	0.003671	0.31

Sample Name: CCB

Date: 5/24/2019 7:34:50 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000612	ppm	0.000121	19.69	-245.768000	Y 377.433
Al (394.401 nm)	-0.001856 u	ppm	0.000826	44.50	70.121200	Y 377.433
Al H (396.152 nm)	0.133385 Zu	ppm	0.004039	3.03	33.297900 Z	Y_R 377.433
As (188.980 nm)	-0.000076 u	ppm	0.001366	> 100.00	-1.690650	Y 242.219
B (249.678 nm)	-0.002738 u	ppm	0.000400	14.59	27.119900	Y 242.219
Ba (493.408 nm)	-0.002156 Zu	ppm	0.000446	20.70	1184.470000 Z	Y_R 488.368
Be (234.861 nm)	-0.000024 u	ppm	0.000029	> 100.00	-4.319380	Y_R 488.368
Bi (223.061 nm)	0.000795	ppm	0.000623	78.36	-8.871530	Y 377.433
Ca (315.887 nm)	0.013340	ppm	0.000573	4.30	-58.445010	Y_R 377.433
Cd (214.439 nm)	0.000037 u	ppm	0.000133	> 100.00	-3.821420	Y 377.433
Co (228.615 nm)	-0.000236 u	ppm	0.000294	> 100.00	-20.687700	Y 242.219
Cr (205.560 nm)	0.000068	ppm	0.000011	15.42	-6.296990	Y 377.433
Cu (324.754 nm)	0.001044	ppm	0.000109	10.46	364.774000	Y 377.433
Fe (238.204 nm)	-0.001236 u	ppm	0.000883	71.46	4.165332	Y_R 377.433
Fe H (259.940 nm)	0.002669 u	ppm	0.001241	46.52	15.104000	Y_R 377.433
K (766.491 nm)	-0.144016 u	ppm	0.154360	> 100.00	1798.320000	Y_R2 488.368
Li (670.783 nm)	0.025323 Z	ppm	0.004383	17.31	-2110.970000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001907	ppm	0.000475	24.93	14.681500	Y 377.433
Mn (257.610 nm)	0.000077	ppm	0.000002	2.33	9.965160	Y 377.433
Mo (202.032 nm)	0.000051 u	ppm	0.000330	> 100.00	11.776300	Y 377.433
Na (589.592 nm)	0.015271	ppm	0.006561	42.96	162.228000	Y_R2 488.368
Na H (589.593 nm)	1.161752 u	ppm	0.010555	0.91	512.817784	Y_R4
Ni (231.604 nm)	0.000466	ppm	0.000173	37.19	-6.210220	Y 377.433
P (213.618 nm)	0.000361 u	ppm	0.001090	> 100.00	-3.531630	Y 242.219
Pb (220.353 nm)	-0.000544 u	ppm	0.000199	36.53	6.520630	Y 242.219
S (181.972 nm)	-0.000590 u	ppm	0.002316	> 100.00	12.428531	Y 377.433
Sb (206.834 nm)	0.000255	ppm	0.000283	> 100.00	2.210040	Y 377.433
Se (196.026 nm)	0.001188 u	ppm	0.002385	> 100.00	10.649900	Y 242.219
Si (288.158 nm)	-0.008861 u	ppm	0.000209	2.36	431.505000	Y 377.433
Sn (189.925 nm)	0.001086	ppm	0.000767	70.56	3.838630	Y 377.433
Sr (421.552 nm)	0.000215	ppm	0.000032	14.74	55.533387	Y_R 488.368
Th (288.505 nm)	-0.003943 u	ppm	0.002906	73.71	5.897010	Y 377.433
Ti (336.122 nm)	0.000509	ppm	0.000055	10.74	-368.688000	Y 377.433
Tl (190.794 nm)	0.000119 u	ppm	0.000480	> 100.00	2.089300	Y 377.433
U (409.013 nm)	0.002085	ppm	0.002825	> 100.00	-18.136000	Y 377.433
V (292.401 nm)	0.000173	ppm	0.000213	> 100.00	-137.684000	Y 377.433
Zn (206.200 nm)	-0.000711 u	ppm	0.000314	44.12	0.867723	Y 377.433
Zr (343.823 nm)	0.000138	ppm	0.000066	47.63	-153.799000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155936	26719.992636	0.004100	0.35
Y 377.433	1.134793	793709.995440	0.003703	0.33
Y_R 377.433	1.171830	71046.800000	0.007728	0.66
Y_R 488.368	1.189320	62829.000000	0.011232	0.94
Y_R2 488.368	1.170241	124051.704230	0.001097	0.09
Y_R4	1.173680	52815.700000	0.002444	0.21

Sample Name: CCVL-5719884

Date: 5/24/2019 7:38:01 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008519	ppm	0.000768	9.01	25.872200	Y 377.433
Al (394.401 nm)	0.096139	ppm	0.000673	0.70	1274.130000	Y 377.433
Al H (396.152 nm)	0.230965 u	ppm	0.007461	3.23	252.125000	Y_R 377.433
As (188.980 nm)	0.014414	ppm	0.000053	0.37	20.141100	Y 242.219
B (249.678 nm)	0.091228	ppm	0.000717	0.79	698.133000	Y 242.219
Ba (493.408 nm)	0.007420	ppm	0.000079	1.07	2139.230000	Y_R 488.368
Be (234.861 nm)	0.000968	ppm	0.000006	0.62	92.948400	Y_R 488.368
Bi (223.061 nm)	0.089687	ppm	0.001552	1.73	185.837000	Y 377.433
Ca (315.887 nm)	0.222647	ppm	0.003610	1.62	107.810415	Y_R 377.433
Cd (214.439 nm)	0.005386	ppm	0.000045	0.84	194.019000	Y 377.433
Co (228.615 nm)	0.010519	ppm	0.000162	1.54	232.514000	Y 242.219
Cr (205.560 nm)	0.010560	ppm	0.000924	8.75	63.500300	Y 377.433
Cu (324.754 nm)	0.016641	ppm	0.000169	1.01	1091.810000	Y 377.433
Fe (238.204 nm)	0.103796	ppm	0.003534	3.40	256.995142	Y_R 377.433
Fe H (259.940 nm)	0.105675 u	ppm	0.000783	0.74	157.560000	Y_R 377.433
K (766.491 nm)	2.739340	ppm	0.395562	14.44	4582.460000	Y_R2 488.368
Li (670.783 nm)	0.047933 Q	ppm	0.001334	2.78	-1722.760000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204601	ppm	0.001527	0.75	676.592000	Y 377.433
Mn (257.610 nm)	0.010610	ppm	0.000003	0.03	2881.720000	Y 377.433
Mo (202.032 nm)	0.019766	ppm	0.000130	0.66	260.267000	Y 377.433
Na (589.592 nm)	1.035520	ppm	0.005495	0.53	1001.960000	Y_R2 488.368
Na H (589.593 nm)	1.926472 u	ppm	0.013932	0.72	927.721125	Y_R4
Ni (231.604 nm)	0.043673	ppm	0.000733	1.68	217.365000	Y 377.433
P (213.618 nm)	2.893890	ppm	0.011448	0.40	4129.960000	Y 242.219
Pb (220.353 nm)	0.009474	ppm	0.000567	5.98	38.452600	Y 242.219
S (181.972 nm)	0.101626	ppm	0.000364	0.36	59.278897	Y 377.433
Sb (206.834 nm)	0.019252	ppm	0.002113	10.97	34.136800	Y 377.433
Se (196.026 nm)	0.018699	ppm	0.002720	14.55	37.050400	Y 242.219
Si (288.158 nm)	0.480111	ppm	0.001691	0.35	3579.300000	Y 377.433
Sn (189.925 nm)	0.102444	ppm	0.000602	0.59	166.928000	Y 377.433
Sr (421.552 nm)	0.009238	ppm	0.000039	0.43	1414.407518	Y_R 488.368
Th (288.505 nm)	0.018597	ppm	0.001412	7.59	44.301100	Y 377.433
Ti (336.122 nm)	0.010092	ppm	0.000061	0.60	858.263000	Y 377.433
Tl (190.794 nm)	0.016817	ppm	0.000135	0.80	40.162900	Y 377.433
U (409.013 nm)	0.063514	ppm	0.003793	5.97	175.507000	Y 377.433
V (292.401 nm)	0.010099	ppm	0.000104	1.03	371.482000	Y 377.433
Zn (206.200 nm)	0.021990	ppm	0.000293	1.33	102.963000	Y 377.433
Zr (343.823 nm)	0.010006	ppm	0.000079	0.79	404.838000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.183238	27351.108019	0.000684	0.06
Y 377.433	1.161331	812270.878333	0.001609	0.14
Y_R 377.433	1.201600	72851.400000	0.002103	0.17
Y_R 488.368	1.218750	64383.800000	0.005858	0.48
Y_R2 488.368	1.181082	125200.983379	0.000010	0.00
Y_R4	1.185170	53332.700000	0.001399	0.12

Sample Name: 280-123638-D-3-C

Date: 5/24/2019 7:41:32 PM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001497	ppm	0.000027	1.82	-218.426000	Y 377.433
Al (394.401 nm)	-0.006982 u	ppm	0.000579	8.29	379.637000	Y 377.433
Al H (396.152 nm)	-0.143854 u	ppm	0.000395	0.27	-10.450600	Y_R 377.433
As (188.980 nm)	0.003344	ppm	0.001201	35.92	3.462130	Y 242.219
B (249.678 nm)	0.142980	ppm	0.000796	0.56	1067.770000	Y 242.219
Ba (493.408 nm)	0.086148	ppm	0.000073	0.09	9987.930000	Y_R 488.368
Be (234.861 nm)	-0.000081 u	ppm	0.000042	51.66	-10.095400	Y_R 488.368
Bi (223.061 nm)	0.000806	ppm	0.000078	9.73	-8.827200	Y 377.433
Ca (315.887 nm)	160.955923	ppm	0.170298	0.11	127763.077330	Y_R 377.433
Cd (214.439 nm)	0.000160	ppm	0.000024	15.19	0.738094	Y 377.433
Co (228.615 nm)	-0.000779 u	ppm	0.000224	28.78	-33.455900	Y 242.219
Cr (205.560 nm)	0.001201	ppm	0.000273	22.73	1.256550	Y 377.433
Cu (324.754 nm)	0.002766	ppm	0.000248	8.97	352.221000	Y 377.433
Fe (238.204 nm)	0.026728	ppm	0.001308	4.89	71.477858	Y_R 377.433
Fe H (259.940 nm)	0.020903 u	ppm	0.000961	4.60	40.321800	Y_R 377.433
K (766.491 nm)	7.315860	ppm	0.219970	3.01	9001.480000	Y_R2 488.368
Li (670.783 nm)	0.155508	ppm	0.000620	0.40	124.341000	Y_R2 488.368
Mg (279.078 nm)	36.128900	ppm	0.022272	0.06	118235.000000	Y 377.433
Mn (257.610 nm)	0.000329	ppm	0.000004	1.08	78.767800	Y 377.433
Mo (202.032 nm)	0.001188	ppm	0.000252	21.22	26.105700	Y 377.433
Na (589.592 nm)	149.890000 o	ppm	0.484974	0.32	123215.000000	Y_R2 488.368
Na H (589.593 nm)	154.383662	ppm	1.377991	0.89	83644.307204	Y_R4
Ni (231.604 nm)	-0.001487 u	ppm	0.001001	67.34	-16.316000	Y 377.433
P (213.618 nm)	-0.001080 u	ppm	0.003134	> 100.00	-6.642920	Y 242.219
Pb (220.353 nm)	-0.000352 u	ppm	0.000915	> 100.00	7.218840	Y 242.219
S (181.972 nm)	57.650307	ppm	0.108098	0.19	26421.820265	Y 377.433
Sb (206.834 nm)	-0.006752 u	ppm	0.001422	21.06	-9.617460	Y 377.433
Se (196.026 nm)	0.001490	ppm	0.000195	13.08	11.098700	Y 242.219
Si (288.158 nm)	14.963700	ppm	0.004890	0.03	96818.500000	Y 377.433
Sn (189.925 nm)	0.000235	ppm	0.000188	80.09	2.468540	Y 377.433
Sr (421.552 nm)	1.430374	ppm	0.001226	0.09	215439.016476	Y_R 488.368
Th (288.505 nm)	-0.000610 u	ppm	0.002305	> 100.00	6.975610	Y 377.433
Ti (336.122 nm)	-0.000848 u	ppm	0.000011	1.26	5.186930	Y 377.433
Tl (190.794 nm)	0.002166	ppm	0.000533	24.59	0.362402	Y 377.433
U (409.013 nm)	0.027779	ppm	0.009250	33.30	41.950000	Y 377.433
V (292.401 nm)	0.007360	ppm	0.000188	2.56	234.158000	Y 377.433
Zn (206.200 nm)	0.002505	ppm	0.000460	18.35	15.332300	Y 377.433
Zr (343.823 nm)	0.000130 u	ppm	0.000188	> 100.00	-154.251000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.079864	24961.562879	0.003632	0.34
Y 377.433	1.067146	746394.921723	0.001471	0.14
Y_R 377.433	1.138190	69007.300000	0.004225	0.37
Y_R 488.368	1.152170	60866.600000	0.002888	0.25
Y_R2 488.368	1.127246	119494.011580	0.003091	0.27
Y_R4	1.140560	51325.200000	0.011214	0.98

Sample Name: 280-123638-D-4-C

Date: 5/24/2019 7:45:05 PM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001641	ppm	0.000031	1.88	-213.277000	Y 377.433
Al (394.401 nm)	-0.017333 u	ppm	0.002480	14.31	406.671000	Y 377.433
Al H (396.152 nm)	-0.257472 u	ppm	0.004396	1.71	-22.975100	Y_R 377.433
As (188.980 nm)	0.000513 u	ppm	0.001070	> 100.00	-0.803397	Y 242.219
B (249.678 nm)	0.239790	ppm	0.001211	0.50	1759.160000	Y 242.219
Ba (493.408 nm)	0.118444	ppm	0.000348	0.29	13207.600000	Y_R 488.368
Be (234.861 nm)	-0.000065 u	ppm	0.000067	> 100.00	-8.419650	Y_R 488.368
Bi (223.061 nm)	0.000426 u	ppm	0.001563	> 100.00	-9.658470	Y 377.433
Ca (315.887 nm)	220.371064	ppm	1.084718	0.49	174950.924648	Y_R 377.433
Cd (214.439 nm)	0.000231	ppm	0.000074	31.88	3.367190	Y 377.433
Co (228.615 nm)	-0.000439 u	ppm	0.000118	26.77	-25.457300	Y 242.219
Cr (205.560 nm)	0.001267	ppm	0.000472	37.29	1.693720	Y 377.433
Cu (324.754 nm)	-0.000169 u	ppm	0.000212	> 100.00	181.655000	Y 377.433
Fe (238.204 nm)	0.012427	ppm	0.000755	6.08	37.052265	Y_R 377.433
Fe H (259.940 nm)	0.004135 u	ppm	0.000583	14.09	17.131900	Y_R 377.433
K (766.491 nm)	8.171640	ppm	0.210356	2.57	9827.820000	Y_R2 488.368
Li (670.783 nm)	0.169225	ppm	0.000676	0.40	359.862000	Y_R2 488.368
Mg (279.078 nm)	49.361300	ppm	0.079719	0.16	161536.000000	Y 377.433
Mn (257.610 nm)	0.000178	ppm	0.000015	8.57	37.504300	Y 377.433
Mo (202.032 nm)	0.000500	ppm	0.000376	75.12	17.433900	Y 377.433
Na (589.592 nm)	156.981000 o	ppm	0.054210	0.03	129043.000000	Y_R2 488.368
Na H (589.593 nm)	162.487660	ppm	0.610586	0.38	88041.180845	Y_R4
Ni (231.604 nm)	-0.001483 u	ppm	0.000749	50.47	-16.294700	Y 377.433
P (213.618 nm)	0.003745	ppm	0.002888	77.10	0.927955	Y 242.219
Pb (220.353 nm)	0.000332 u	ppm	0.002451	> 100.00	9.403750	Y 242.219
S (181.972 nm)	92.777864	ppm	0.298601	0.32	42511.554160	Y 377.433
Sb (206.834 nm)	-0.007593 u	ppm	0.000221	2.91	-11.036400	Y 377.433
Se (196.026 nm)	0.001342	ppm	0.001773	> 100.00	10.878600	Y 242.219
Si (288.158 nm)	15.423600	ppm	0.031742	0.21	99778.700000	Y 377.433
Sn (189.925 nm)	0.000550	ppm	0.000189	34.42	2.974610	Y 377.433
Sr (421.552 nm)	2.026707	ppm	0.009390	0.46	305247.463060	Y_R 488.368
Th (288.505 nm)	0.002540 u	ppm	0.005799	> 100.00	11.005800	Y 377.433
Ti (336.122 nm)	-0.001190 u	ppm	0.000151	12.68	163.249000	Y 377.433
Tl (190.794 nm)	0.003560	ppm	0.000885	24.86	1.196090	Y 377.433
U (409.013 nm)	0.034148	ppm	0.004902	14.35	54.254500	Y 377.433
V (292.401 nm)	0.006928	ppm	0.000032	0.46	211.879000	Y 377.433
Zn (206.200 nm)	0.002269	ppm	0.000464	20.46	14.267800	Y 377.433
Zr (343.823 nm)	0.000253	ppm	0.000045	17.77	-147.317000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.083517	25046.002364	0.003313	0.31
Y 377.433	1.074091	751252.631944	0.004766	0.44
Y_R 377.433	1.125480	68236.400000	0.012463	1.11
Y_R 488.368	1.139320	60187.400000	0.011615	1.02
Y_R2 488.368	1.141191	120972.278380	0.002137	0.19
Y_R4	1.142260	51401.700000	0.000505	0.04

Sample Name: MB 280-459218/1-A

Date: 5/24/2019 7:48:37 PM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000112 u	ppm	0.000365	> 100.00	-263.172000	Y 377.433
Al (394.401 nm)	0.000185 u	ppm	0.000283	> 100.00	91.923000	Y 377.433
Al H (396.152 nm)	0.131240 u	ppm	0.009875	7.52	28.638700	Y_R 377.433
As (188.980 nm)	0.001211 u	ppm	0.002623	> 100.00	0.247723	Y 242.219
B (249.678 nm)	-0.003771 u	ppm	0.001344	35.64	19.729600	Y 242.219
Ba (493.408 nm)	-0.002244 u	ppm	0.000124	5.53	1175.790000	Y_R 488.368
Be (234.861 nm)	-0.000022 u	ppm	0.000017	77.12	-4.194680	Y_R 488.368
Bi (223.061 nm)	0.000366 u	ppm	0.000725	> 100.00	-9.808620	Y 377.433
Ca (315.887 nm)	0.032943	ppm	0.000744	2.26	-42.875704	Y_R 377.433
Cd (214.439 nm)	0.000039 u	ppm	0.000110	> 100.00	-3.722340	Y 377.433
Co (228.615 nm)	0.000002 u	ppm	0.000212	> 100.00	-15.080000	Y 242.219
Cr (205.560 nm)	0.000140 u	ppm	0.000374	> 100.00	-5.816130	Y 377.433
Cu (324.754 nm)	0.001299	ppm	0.000221	17.02	378.805000	Y 377.433
Fe (238.204 nm)	0.015859	ppm	0.003308	20.86	45.314630	Y_R 377.433
Fe H (259.940 nm)	0.017458 u	ppm	0.001248	7.15	35.558000	Y_R 377.433
K (766.491 nm)	-0.206693 u	ppm	0.237980	> 100.00	1737.800000	Y_R2 488.368
Li (670.783 nm)	0.021648	ppm	0.002398	11.08	-2174.070000	Y_R2 488.368
Mg (279.078 nm)	0.005537	ppm	0.000312	5.64	26.603300	Y 377.433
Mn (257.610 nm)	0.000242	ppm	0.000008	3.15	54.813500	Y 377.433
Mo (202.032 nm)	-0.000097 u	ppm	0.000402	> 100.00	9.908480	Y 377.433
Na (589.592 nm)	0.019624	ppm	0.019197	97.83	165.826000	Y_R2 488.368
Na H (589.593 nm)	1.263860 u	ppm	0.044447	3.52	568.216898	Y_R4
Ni (231.604 nm)	0.000396	ppm	0.000181	45.58	-6.570320	Y 377.433
P (213.618 nm)	-0.003137 u	ppm	0.002731	87.06	-8.608900	Y 242.219
Pb (220.353 nm)	-0.000426 u	ppm	0.000789	> 100.00	6.887520	Y 242.219
S (181.972 nm)	0.003858	ppm	0.002406	62.35	14.466947	Y 377.433
Sb (206.834 nm)	-0.000799 u	ppm	0.000214	26.73	0.428985	Y 377.433
Se (196.026 nm)	-0.001027 u	ppm	0.000406	39.50	7.303800	Y 242.219
Si (288.158 nm)	-0.003361 u	ppm	0.000292	8.69	466.913000	Y 377.433
Sn (189.925 nm)	0.000855	ppm	0.001125	> 100.00	3.466320	Y 377.433
Sr (421.552 nm)	0.000239	ppm	0.000056	23.28	59.167770	Y_R 488.368
Th (288.505 nm)	0.001974	ppm	0.000879	44.52	16.058700	Y 377.433
Ti (336.122 nm)	0.000335	ppm	0.000005	1.41	-390.966000	Y 377.433
Tl (190.794 nm)	-0.000005 u	ppm	0.000395	> 100.00	1.801110	Y 377.433
U (409.013 nm)	0.000016 u	ppm	0.009267	> 100.00	-24.688400	Y 377.433
V (292.401 nm)	0.000126	ppm	0.000071	56.28	-138.827000	Y 377.433
Zn (206.200 nm)	0.001660	ppm	0.000257	15.46	11.532600	Y 377.433
Zr (343.823 nm)	0.000118	ppm	0.000111	93.80	-154.930000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148191	26540.971477	0.002785	0.24
Y 377.433	1.127718	788761.180593	0.001888	0.17
Y_R 377.433	1.155240	70040.700000	0.004225	0.37
Y_R 488.368	1.169070	61759.400000	0.007738	0.66
Y_R2 488.368	1.156012	122543.431112	0.003831	0.33
Y_R4	1.147350	51630.700000	0.004904	0.43

Sample Name: LCS 280-459218/2-A

Date: 5/24/2019 7:51:48 PM Rack:Tube: 1:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050999	ppm	0.000058	0.11	1189.010000	Y 377.433
Al (394.401 nm)	9.856720 o	ppm	0.002341	0.02	120652.000000	Y 377.433
Al H (396.152 nm)	9.645930	ppm	0.022171	0.23	21308.700000	Y_R 377.433
As (188.980 nm)	2.027890	ppm	0.003051	0.15	3053.970000	Y 242.219
B (249.678 nm)	0.966227	ppm	0.000254	0.03	6941.250000	Y 242.219
Ba (493.408 nm)	1.966980	ppm	0.008408	0.43	197503.000000	Y_R 488.368
Be (234.861 nm)	0.964119	ppm	0.006604	0.68	94904.000000	Y_R 488.368
Bi (223.061 nm)	1.968160	ppm	0.002534	0.13	4301.780000	Y 377.433
Ca (315.887 nm)	49.638898	ppm	0.160295	0.32	39356.904820	Y_R 377.433
Cd (214.439 nm)	1.025470	ppm	0.000004	0.00	37921.000000	Y 377.433
Co (228.615 nm)	0.979617	ppm	0.000285	0.03	23052.000000	Y 242.219
Cr (205.560 nm)	1.023080	ppm	0.004275	0.42	6809.060000	Y 377.433
Cu (324.754 nm)	0.988708	ppm	0.003320	0.34	46490.700000	Y 377.433
Fe (238.204 nm)	10.185058 o	ppm	0.022977	0.23	24524.351484	Y_R 377.433
Fe H (259.940 nm)	10.103700	ppm	0.029508	0.29	13984.700000	Y_R 377.433
K (766.491 nm)	48.707500	ppm	0.348553	0.72	48968.700000	Y_R2 488.368
Li (670.783 nm)	1.017250	ppm	0.002835	0.28	14920.600000	Y_R2 488.368
Mg (279.078 nm)	49.609500	ppm	0.024227	0.05	162305.000000	Y 377.433
Mn (257.610 nm)	0.993507	ppm	0.000244	0.02	270878.000000	Y 377.433
Mo (202.032 nm)	1.021020	ppm	0.001292	0.13	12880.300000	Y 377.433
Na (589.592 nm)	47.630500	ppm	0.145219	0.30	39696.600000	Y_R2 488.368
Na H (589.593 nm)	49.413144 u	ppm	0.328199	0.66	26691.906913	Y_R4
Ni (231.604 nm)	1.003620	ppm	0.000985	0.10	5186.460000	Y 377.433
P (213.618 nm)	20.413100	ppm	0.020572	0.10	28917.000000	Y 242.219
Pb (220.353 nm)	0.996631	ppm	0.002025	0.20	3172.980000	Y 242.219
S (181.972 nm)	10.176016	ppm	0.020750	0.20	4678.442888	Y 377.433
Sb (206.834 nm)	-0.000368 u	ppm	0.003724	> 100.00	-3.558620	Y 377.433
Se (196.026 nm)	1.997150	ppm	0.004648	0.23	3019.860000	Y 242.219
Si (288.158 nm)	2.030340	ppm	0.002581	0.13	13559.000000	Y 377.433
Sn (189.925 nm)	2.045060	ppm	0.003510	0.17	3292.710000	Y 377.433
Sr (421.552 nm)	0.957725	ppm	0.003828	0.40	144259.109158	Y_R 488.368
Th (288.505 nm)	1.002940	ppm	0.004268	0.43	1649.930000	Y 377.433
Ti (336.122 nm)	0.988947	ppm	0.000304	0.03	126285.000000	Y 377.433
Tl (190.794 nm)	2.005930	ppm	0.002974	0.15	4580.770000	Y 377.433
U (409.013 nm)	1.973920	ppm	0.000278	0.01	6177.030000	Y 377.433
V (292.401 nm)	0.986872	ppm	0.000169	0.02	50749.400000	Y 377.433
Zn (206.200 nm)	0.509378	ppm	0.002150	0.42	2296.020000	Y 377.433
Zr (343.823 nm)	0.488666	ppm	0.000118	0.02	27502.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108961	25634.149759	0.000092	0.01
Y 377.433	1.098554	768362.756334	0.000416	0.04
Y_R 377.433	1.157780	70195.000000	0.005317	0.46
Y_R 488.368	1.171240	61873.700000	0.007604	0.65
Y_R2 488.368	1.160764	123047.133724	0.005822	0.50
Y_R4	1.156590	52046.300000	0.005557	0.48

Sample Name: 280-123691-E-2-C

Date: 5/24/2019 7:55:26 PM Rack:Tube: 1:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002127	ppm	0.000014	0.67	-195.684000	Y 377.433
Al (394.401 nm)	-0.019906 u	ppm	0.000772	3.88	708.704000	Y 377.433
Al H (396.152 nm)	-0.497739 u	ppm	0.000521	0.10	1.243060	Y_R 377.433
As (188.980 nm)	0.004314	ppm	0.001984	45.98	4.848080	Y 242.219
B (249.678 nm)	12.700500	ppm	0.022291	0.18	90747.700000	Y 242.219
Ba (493.408 nm)	0.424821	ppm	0.001938	0.46	43753.800000	Y_R 488.368
Be (234.861 nm)	-0.000064 u	ppm	0.000007	11.41	-20.317500	Y_R 488.368
Bi (223.061 nm)	-0.002354 u	ppm	0.001008	42.82	-15.009600	Y 377.433
Ca (315.887 nm)	230.322134	ppm	0.136361	0.06	182854.122027	Y_R 377.433
Cd (214.439 nm)	0.000774	ppm	0.000019	2.41	24.591500	Y 377.433
Co (228.615 nm)	0.010448	ppm	0.000161	1.54	230.885000	Y 242.219
Cr (205.560 nm)	0.014096	ppm	0.000146	1.04	87.177500	Y 377.433
Cu (324.754 nm)	0.010652	ppm	0.000142	1.33	683.677000	Y 377.433
Fe (238.204 nm)	2.844974	ppm	0.003044	0.11	6855.488442	Y_R 377.433
Fe H (259.940 nm)	2.806550 u	ppm	0.007371	0.26	3892.830000	Y_R 377.433
K (766.491 nm)	123.312000	ppm	0.578268	0.47	121006.000000	Y_R2 488.368
Li (670.783 nm)	0.047986	ppm	0.008146	16.98	-1721.840000	Y_R2 488.368
Mg (279.078 nm)	120.162000	ppm	0.468423	0.39	393219.000000	Y 377.433
Mn (257.610 nm)	1.301310	ppm	0.004305	0.33	354803.000000	Y 377.433
Mo (202.032 nm)	0.005148	ppm	0.000211	4.10	76.018800	Y 377.433
Na (589.592 nm)	821.616000 o	ppm	3.685720	0.45	674714.000000	Y_R2 488.368
Na H (589.593 nm)	949.966280	ppm	4.276483	0.45	515292.547888	Y_R4
Ni (231.604 nm)	0.032864	ppm	0.001632	4.97	161.418000	Y 377.433
P (213.618 nm)	0.776813	ppm	0.006731	0.87	1103.460000	Y 242.219
Pb (220.353 nm)	-0.000931 u	ppm	0.000755	81.04	5.302610	Y 242.219
S (181.972 nm)	56.772718	ppm	0.010504	0.02	26027.506702	Y 377.433
Sb (206.834 nm)	-0.004699 u	ppm	0.002774	59.05	-5.923760	Y 377.433
Se (196.026 nm)	-0.001795 u	ppm	0.000838	46.67	7.237990	Y 242.219
Si (288.158 nm)	21.439300	ppm	0.041166	0.19	138505.000000	Y 377.433
Sn (189.925 nm)	0.000835 u	ppm	0.002104	> 100.00	3.433320	Y 377.433
Sr (421.552 nm)	3.339287	ppm	0.005940	0.18	502923.878096	Y_R 488.368
Th (288.505 nm)	0.003478	ppm	0.000840	24.16	36.894400	Y 377.433
Ti (336.122 nm)	0.010999	ppm	0.000041	0.37	1759.310000	Y 377.433
Tl (190.794 nm)	0.004006	ppm	0.000134	3.36	1.427530	Y 377.433
U (409.013 nm)	0.012348	ppm	0.000412	3.34	-16.513300	Y 377.433
V (292.401 nm)	0.014633	ppm	0.000100	0.68	609.856000	Y 377.433
Zn (206.200 nm)	0.008492	ppm	0.000579	6.81	42.646000	Y 377.433
Zr (343.823 nm)	0.018203	ppm	0.000042	0.23	868.910000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.035324	23931.991894	0.004248	0.41
Y 377.433	1.033082	722569.718455	0.004935	0.48
Y_R 377.433	1.142250	69253.200000	0.002294	0.20
Y_R 488.368	1.155550	61044.900000	0.005187	0.45
Y_R2 488.368	1.151847	122101.889352	0.011073	0.96
Y_R4	1.158240	52120.700000	0.006944	0.60

Sample Name: 280-123691-E-2-Csd@5

Date: 5/24/2019 7:59:05 PM Rack:Tube: 1:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001158	ppm	0.000027	2.33	-227.831000	Y 377.433
Al (394.401 nm)	-0.000695 u	ppm	0.002680	> 100.00	258.044000	Y 377.433
Al H (396.152 nm)	0.011069 u	ppm	0.000719	6.50	32.468100	Y_R 377.433
As (188.980 nm)	-0.000357 u	ppm	0.000431	> 100.00	-2.132710	Y 242.219
B (249.678 nm)	2.456560	ppm	0.006760	0.28	17590.200000	Y 242.219
Ba (493.408 nm)	0.081164	ppm	0.000086	0.11	9491.540000	Y_R 488.368
Be (234.861 nm)	-0.000041 u	ppm	0.000050	> 100.00	-8.832190	Y_R 488.368
Bi (223.061 nm)	0.001577	ppm	0.000458	29.06	-6.990940	Y 377.433
Ca (315.887 nm)	46.507811	ppm	0.049596	0.11	36867.732528	Y_R 377.433
Cd (214.439 nm)	0.000229	ppm	0.000085	36.92	3.580400	Y 377.433
Co (228.615 nm)	0.001879	ppm	0.000118	6.29	29.122300	Y 242.219
Cr (205.560 nm)	0.002569	ppm	0.001102	42.89	10.364600	Y 377.433
Cu (324.754 nm)	0.002737	ppm	0.000151	5.51	416.380000	Y 377.433
Fe (238.204 nm)	0.675109	ppm	0.002972	0.44	1632.245213	Y_R 377.433
Fe H (259.940 nm)	0.673252 u	ppm	0.000791	0.12	942.510000	Y_R 377.433
K (766.491 nm)	23.387400	ppm	0.189320	0.81	24519.900000	Y_R2 488.368
Li (670.783 nm)	0.032436	ppm	0.002978	9.18	-1988.830000	Y_R2 488.368
Mg (279.078 nm)	24.042400	ppm	0.001359	0.01	78682.500000	Y 377.433
Mn (257.610 nm)	0.263687	ppm	0.000233	0.09	71885.900000	Y 377.433
Mo (202.032 nm)	0.001055	ppm	0.000610	57.84	24.426600	Y 377.433
Na (589.592 nm)	178.757000 o	ppm	0.102216	0.06	146911.000000	Y_R2 488.368
Na H (589.593 nm)	185.181443	ppm	1.388151	0.75	100353.832324	Y_R4
Ni (231.604 nm)	0.005694	ppm	0.000341	6.00	20.840400	Y 377.433
P (213.618 nm)	0.150686	ppm	0.002955	1.96	210.743000	Y 242.219
Pb (220.353 nm)	-0.000639 u	ppm	0.000598	93.44	6.293530	Y 242.219
S (181.972 nm)	10.938474	ppm	0.041135	0.38	5025.141902	Y 377.433
Sb (206.834 nm)	-0.002401 u	ppm	0.001887	78.63	-2.221370	Y 377.433
Se (196.026 nm)	-0.002310 u	ppm	0.000356	15.43	5.568410	Y 242.219
Si (288.158 nm)	4.161320	ppm	0.014370	0.35	27277.300000	Y 377.433
Sn (189.925 nm)	0.000150	ppm	0.000173	> 100.00	2.331720	Y 377.433
Sr (421.552 nm)	0.661035	ppm	0.000455	0.07	99575.911760	Y_R 488.368
Th (288.505 nm)	-0.003112 u	ppm	0.000233	7.49	11.168200	Y 377.433
Ti (336.122 nm)	0.002507	ppm	0.000036	1.45	44.833200	Y 377.433
Tl (190.794 nm)	0.002142	ppm	0.000966	45.08	4.783190	Y 377.433
U (409.013 nm)	0.019685	ppm	0.007529	38.25	31.592800	Y 377.433
V (292.401 nm)	0.003205	ppm	0.000180	5.62	17.847800	Y 377.433
Zn (206.200 nm)	0.005350	ppm	0.000365	6.83	28.217100	Y 377.433
Zr (343.823 nm)	0.003644	ppm	0.000054	1.47	44.688100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.128441	26084.447949	0.006829	0.61
Y 377.433	1.111111	777145.515890	0.006441	0.58
Y_R 377.433	1.195740	72496.100000	0.001683	0.14
Y_R 488.368	1.211020	63975.400000	0.000420	0.03
Y_R2 488.368	1.195729	126753.645586	0.003616	0.30
Y_R4	1.180780	53135.200000	0.008215	0.70

Sample Name: 280-123691-E-2-D MS

Date: 5/24/2019 8:02:38 PM Rack:Tube: 1:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.056310	ppm	0.000373	0.66	1362.720000	Y 377.433
Al (394.401 nm)	9.801490 o	ppm	0.019510	0.20	120842.000000	Y 377.433
Al H (396.152 nm)	9.127540	ppm	0.013519	0.15	21531.300000	Y_R 377.433
As (188.980 nm)	2.132590	ppm	0.000882	0.04	3211.660000	Y 242.219
B (249.678 nm)	13.872200	ppm	0.005420	0.04	99109.700000	Y 242.219
Ba (493.408 nm)	2.404460	ppm	0.000246	0.01	241119.000000	Y_R 488.368
Be (234.861 nm)	0.954544	ppm	0.003248	0.34	93950.200000	Y_R 488.368
Bi (223.061 nm)	1.988360	ppm	0.007472	0.38	4346.740000	Y 377.433
Ca (315.887 nm)	277.387785	ppm	0.499180	0.18	220236.411844	Y_R 377.433
Cd (214.439 nm)	0.990146	ppm	0.001713	0.17	36615.700000	Y 377.433
Co (228.615 nm)	0.987212	ppm	0.000142	0.01	23231.400000	Y 242.219
Cr (205.560 nm)	1.037570	ppm	0.001376	0.13	6905.680000	Y 377.433
Cu (324.754 nm)	1.044750	ppm	0.002390	0.23	48974.700000	Y 377.433
Fe (238.204 nm)	12.755881 o	ppm	0.029822	0.23	30712.771325	Y_R 377.433
Fe H (259.940 nm)	12.797600	ppm	0.043621	0.34	17710.400000	Y_R 377.433
K (766.491 nm)	175.241000	ppm	0.268936	0.15	171148.000000	Y_R2 488.368
Li (670.783 nm)	1.060750	ppm	0.002201	0.21	15667.600000	Y_R2 488.368
Mg (279.078 nm)	168.138000	ppm	0.289712	0.17	550170.000000	Y 377.433
Mn (257.610 nm)	2.250390	ppm	0.002458	0.11	613579.000000	Y 377.433
Mo (202.032 nm)	1.013340	ppm	0.001401	0.14	12783.600000	Y 377.433
Na (589.592 nm)	852.465000 o	ppm	1.373230	0.16	700488.000000	Y_R2 488.368
Na H (589.593 nm)	1002.975454	ppm	7.108298	0.71	544053.001080	Y_R4
Ni (231.604 nm)	1.023280	ppm	0.001082	0.11	5288.010000	Y 377.433
P (213.618 nm)	22.083600	ppm	0.016591	0.08	31291.700000	Y 242.219
Pb (220.353 nm)	0.962910	ppm	0.001682	0.17	3065.720000	Y 242.219
S (181.972 nm)	67.550804	ppm	0.218888	0.32	30968.730223	Y 377.433
Sb (206.834 nm)	-0.001628 u	ppm	0.001994	> 100.00	-5.333220	Y 377.433
Se (196.026 nm)	2.063290	ppm	0.006827	0.33	3120.710000	Y 242.219
Si (288.158 nm)	23.074500	ppm	0.020201	0.09	149032.000000	Y 377.433
Sn (189.925 nm)	1.976940	ppm	0.002638	0.13	3183.100000	Y 377.433
Sr (421.552 nm)	4.318157	ppm	0.000875	0.02	650344.218961	Y_R 488.368
Th (288.505 nm)	1.007980	ppm	0.000043	0.00	1676.280000	Y 377.433
Ti (336.122 nm)	1.011370	ppm	0.002202	0.22	129933.000000	Y 377.433
Tl (190.794 nm)	1.846540	ppm	0.000413	0.02	4206.830000	Y 377.433
U (409.013 nm)	1.999460	ppm	0.005915	0.30	6232.910000	Y 377.433
V (292.401 nm)	0.996871	ppm	0.000784	0.08	51266.900000	Y 377.433
Zn (206.200 nm)	0.497759	ppm	0.002567	0.52	2244.130000	Y 377.433
Zr (343.823 nm)	0.462460	ppm	0.000798	0.17	26019.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.040928	24061.534189	0.000656	0.06
Y 377.433	1.047005	732307.890933	0.000657	0.06
Y_R 377.433	1.174450	71205.200000	0.001676	0.14
Y_R 488.368	1.184050	62550.500000	0.005609	0.47
Y_R2 488.368	1.151784	122095.188226	0.002978	0.26
Y_R4	1.133120	50990.300000	0.014335	1.27

Sample Name: 280-123691-E-2-E MSD

Date: 5/24/2019 8:06:22 PM Rack:Tube: 1:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.055242	ppm	0.000555	1.00	1327.450000	Y 377.433
Al (394.401 nm)	9.742360 o	ppm	0.001212	0.01	120114.000000	Y 377.433
Al H (396.152 nm)	9.078200	ppm	0.002784	0.03	21414.200000	Y_R 377.433
As (188.980 nm)	2.120320	ppm	0.002552	0.12	3193.180000	Y 242.219
B (249.678 nm)	13.773200	ppm	0.010194	0.07	98402.800000	Y 242.219
Ba (493.408 nm)	2.391080	ppm	0.001286	0.05	239786.000000	Y_R 488.368
Be (234.861 nm)	0.947105	ppm	0.000641	0.07	93217.700000	Y_R 488.368
Bi (223.061 nm)	1.987280	ppm	0.002035	0.10	4344.370000	Y 377.433
Ca (315.887 nm)	275.869957	ppm	0.134220	0.05	219030.933947	Y_R 377.433
Cd (214.439 nm)	0.986134	ppm	0.001189	0.12	36467.300000	Y 377.433
Co (228.615 nm)	0.983813	ppm	0.000407	0.04	23151.200000	Y 242.219
Cr (205.560 nm)	1.026010	ppm	0.000871	0.08	6828.610000	Y 377.433
Cu (324.754 nm)	1.040280	ppm	0.001187	0.11	48766.600000	Y 377.433
Fe (238.204 nm)	12.743663 o	ppm	0.022600	0.18	30683.360072	Y_R 377.433
Fe H (259.940 nm)	12.776300	ppm	0.030375	0.24	17680.900000	Y_R 377.433
K (766.491 nm)	173.952000	ppm	1.085510	0.62	169903.000000	Y_R2 488.368
Li (670.783 nm)	1.054830	ppm	0.001180	0.11	15565.900000	Y_R2 488.368
Mg (279.078 nm)	167.186000	ppm	0.107213	0.06	547056.000000	Y 377.433
Mn (257.610 nm)	2.240060	ppm	0.000038	0.00	610765.000000	Y 377.433
Mo (202.032 nm)	1.009180	ppm	0.000772	0.08	12731.100000	Y 377.433
Na (589.592 nm)	849.309000 o	ppm	4.342150	0.51	697894.000000	Y_R2 488.368
Na H (589.593 nm)	990.825607	ppm	7.437821	0.75	537461.027018	Y_R4
Ni (231.604 nm)	1.016630	ppm	0.001484	0.15	5253.630000	Y 377.433
P (213.618 nm)	21.928700	ppm	0.039965	0.18	31071.600000	Y 242.219
Pb (220.353 nm)	0.959947	ppm	0.000451	0.05	3056.300000	Y 242.219
S (181.972 nm)	66.873493	ppm	0.138695	0.21	30658.441914	Y 377.433
Sb (206.834 nm)	-0.005750 u	ppm	0.000923	16.05	-12.303300	Y 377.433
Se (196.026 nm)	2.053160	ppm	0.007660	0.37	3105.410000	Y 242.219
Si (288.158 nm)	22.950800	ppm	0.026458	0.12	148236.000000	Y 377.433
Sn (189.925 nm)	1.973750	ppm	0.002353	0.12	3177.960000	Y 377.433
Sr (421.552 nm)	4.296208	ppm	0.005974	0.14	647038.590543	Y_R 488.368
Th (288.505 nm)	1.000180	ppm	0.001874	0.19	1663.150000	Y 377.433
Ti (336.122 nm)	1.005220	ppm	0.000965	0.10	129140.000000	Y 377.433
Tl (190.794 nm)	1.839750	ppm	0.001513	0.08	4191.400000	Y 377.433
U (409.013 nm)	1.979740	ppm	0.002514	0.13	6170.710000	Y 377.433
V (292.401 nm)	0.992838	ppm	0.000799	0.08	51060.700000	Y 377.433
Zn (206.200 nm)	0.505083	ppm	0.000383	0.08	2277.060000	Y 377.433
Zr (343.823 nm)	0.461563	ppm	0.000019	0.00	25968.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.032478	23866.200246	0.001096	0.11
Y 377.433	1.039051	726744.495441	0.001632	0.16
Y_R 377.433	1.168020	70815.700000	0.000592	0.05
Y_R 488.368	1.176390	62146.000000	0.000723	0.06
Y_R2 488.368	1.156089	122551.564423	0.000748	0.06
Y_R4	1.133590	51011.600000	0.004767	0.42

Sample Name: 280-123691-E-2-Cpds

Date: 5/24/2019 8:10:06 PM Rack:Tube: 1:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001373	ppm	0.000258	18.80	-221.602000	Y 377.433
Al (394.401 nm)	0.057207	ppm	0.001370	2.39	1077.540000	Y 377.433
Al H (396.152 nm)	-0.023300 u	ppm	0.005929	25.45	127.491000	Y_R 377.433
As (188.980 nm)	0.004539	ppm	0.002776	61.17	5.259290	Y 242.219
B (249.678 nm)	3.626100	ppm	0.001889	0.05	25942.900000	Y 242.219
Ba (493.408 nm)	0.073176	ppm	0.000664	0.91	8694.810000	Y_R 488.368
Be (234.861 nm)	0.000017 u	ppm	0.000047	> 100.00	-0.943627	Y_R 488.368
Bi (223.061 nm)	0.000675	ppm	0.000941	> 100.00	-8.945960	Y 377.433
Ca (315.887 nm)	115.281528	ppm	0.091093	0.08	91488.222451	Y_R 377.433
Cd (214.439 nm)	0.000442	ppm	0.000182	41.17	11.223600	Y 377.433
Co (228.615 nm)	0.007428	ppm	0.000285	3.84	159.618000	Y 242.219
Cr (205.560 nm)	0.005046	ppm	0.000077	1.53	26.758400	Y 377.433
Cu (324.754 nm)	0.012184	ppm	0.000090	0.74	818.614000	Y 377.433
Fe (238.204 nm)	0.157439	ppm	0.001130	0.72	386.123757	Y_R 377.433
Fe H (259.940 nm)	0.149385 u	ppm	0.001225	0.82	218.010000	Y_R 377.433
K (766.491 nm)	73.989600	ppm	0.966633	1.31	73380.800000	Y_R2 488.368
Li (670.783 nm)	0.035185	ppm	0.001472	4.18	-1941.640000	Y_R2 488.368
Mg (279.078 nm)	62.317200	ppm	0.036168	0.06	203932.000000	Y 377.433
Mn (257.610 nm)	0.646998	ppm	0.000435	0.07	176399.000000	Y 377.433
Mo (202.032 nm)	0.002843	ppm	0.000112	3.93	46.969000	Y 377.433
Na (589.592 nm)	446.935000 o	ppm	2.320710	0.52	367057.000000	Y_R2 488.368
Na H (589.593 nm)	481.388063	ppm	3.824457	0.79	261062.555304	Y_R4
Ni (231.604 nm)	0.068033	ppm	0.001362	2.00	343.390000	Y 377.433
P (213.618 nm)	0.261479	ppm	0.000072	0.03	366.600000	Y 242.219
Pb (220.353 nm)	-0.000519 u	ppm	0.000246	47.28	6.656510	Y 242.219
S (181.972 nm)	92.410590	ppm	0.183251	0.20	42340.264006	Y 377.433
Sb (206.834 nm)	-0.000541 u	ppm	0.000676	> 100.00	0.883580	Y 377.433
Se (196.026 nm)	0.000707 u	ppm	0.002174	> 100.00	10.789300	Y 242.219
Si (288.158 nm)	10.961800	ppm	0.016756	0.15	71056.000000	Y 377.433
Sn (189.925 nm)	0.001033	ppm	0.000279	27.05	3.751830	Y 377.433
Sr (421.552 nm)	1.104576	ppm	0.001962	0.18	166373.490869	Y_R 488.368
Th (288.505 nm)	0.000246 u	ppm	0.001534	> 100.00	22.617800	Y 377.433
Ti (336.122 nm)	0.001062	ppm	0.000099	9.34	95.344800	Y 377.433
Tl (190.794 nm)	0.003984	ppm	0.002797	70.20	6.331610	Y 377.433
U (409.013 nm)	0.014339	ppm	0.002062	14.38	5.301530	Y 377.433
V (292.401 nm)	0.005193	ppm	0.000236	4.54	120.928000	Y 377.433
Zn (206.200 nm)	0.025382	ppm	0.000696	2.74	118.223000	Y 377.433
Zr (343.823 nm)	0.001654	ppm	0.000201	12.18	-67.960800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.097221	25362.773983	0.000357	0.03
Y 377.433	1.088500	761330.703813	0.001142	0.10
Y_R 377.433	1.190410	72173.100000	0.006868	0.58
Y_R 488.368	1.202960	63549.400000	0.008711	0.72
Y_R2 488.368	1.184466	125559.642207	0.004420	0.37
Y_R4	1.168060	52562.700000	0.010411	0.89

Sample Name: 280-123706-E-1-A

Date: 5/24/2019 8:13:44 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000177 u	ppm	0.000388	> 100.00	-260.984000	Y 377.433
Al (394.401 nm)	0.000122 u	ppm	0.001323	> 100.00	92.132200	Y 377.433
Al H (396.152 nm)	0.141826 u	ppm	0.004120	2.90	51.722300	Y_R 377.433
As (188.980 nm)	-0.001300 u	ppm	0.002453	> 100.00	-3.535430	Y 242.219
B (249.678 nm)	0.007559	ppm	0.000298	3.94	100.645000	Y 242.219
Ba (493.408 nm)	-0.003041 u	ppm	0.000029	0.95	1096.280000	Y_R 488.368
Be (234.861 nm)	-0.000081 u	ppm	0.000002	2.10	-10.063600	Y_R 488.368
Bi (223.061 nm)	0.002300 u	ppm	0.004181	> 100.00	-5.571930	Y 377.433
Ca (315.887 nm)	0.048464	ppm	0.000600	1.24	-30.550375	Y_R 377.433
Cd (214.439 nm)	-0.000022 u	ppm	0.000048	> 100.00	-5.998120	Y 377.433
Co (228.615 nm)	-0.000260 u	ppm	0.000041	15.65	-21.254500	Y 242.219
Cr (205.560 nm)	0.000331 u	ppm	0.000750	> 100.00	-4.544650	Y 377.433
Cu (324.754 nm)	0.000994	ppm	0.000054	5.43	364.059000	Y 377.433
Fe (238.204 nm)	0.015768	ppm	0.002039	12.93	45.095753	Y_R 377.433
Fe H (259.940 nm)	0.019397 u	ppm	0.001309	6.75	38.238500	Y_R 377.433
K (766.491 nm)	-0.350999 u	ppm	0.359048	> 100.00	1598.460000	Y_R2 488.368
Li (670.783 nm)	0.032289	ppm	0.002028	6.28	-1991.370000	Y_R2 488.368
Mg (279.078 nm)	0.008492	ppm	0.000444	5.23	36.203900	Y 377.433
Mn (257.610 nm)	0.000384	ppm	0.000013	3.37	93.765800	Y 377.433
Mo (202.032 nm)	0.000059	ppm	0.000021	34.98	11.875700	Y 377.433
Na (589.592 nm)	0.104613	ppm	0.012336	11.79	235.380000	Y_R2 488.368
Na H (589.593 nm)	1.905357 u	ppm	0.050052	2.63	916.265376	Y_R4
Ni (231.604 nm)	0.000274	ppm	0.000061	22.27	-7.204260	Y 377.433
P (213.618 nm)	0.000757 u	ppm	0.007360	> 100.00	-2.929910	Y 242.219
Pb (220.353 nm)	0.000304	ppm	0.000266	87.57	9.217950	Y 242.219
S (181.972 nm)	0.002825 u	ppm	0.004388	> 100.00	13.994131	Y 377.433
Sb (206.834 nm)	-0.001360 u	ppm	0.001020	74.95	-0.518297	Y 377.433
Se (196.026 nm)	-0.000273 u	ppm	0.001968	> 100.00	8.441310	Y 242.219
Si (288.158 nm)	0.026250	ppm	0.003668	13.97	657.533000	Y 377.433
Sn (189.925 nm)	0.001288	ppm	0.000621	48.25	4.162240	Y 377.433
Sr (421.552 nm)	0.000203	ppm	0.000037	18.22	53.743983	Y_R 488.368
Th (288.505 nm)	0.003428	ppm	0.000660	19.24	18.596500	Y 377.433
Ti (336.122 nm)	0.000483	ppm	0.000011	2.34	-372.078000	Y 377.433
Tl (190.794 nm)	0.000236 u	ppm	0.002395	> 100.00	2.353860	Y 377.433
U (409.013 nm)	0.005287 u	ppm	0.009885	> 100.00	-7.954590	Y 377.433
V (292.401 nm)	0.000248	ppm	0.000157	63.47	-132.807000	Y 377.433
Zn (206.200 nm)	0.001662	ppm	0.000189	11.37	11.538900	Y 377.433
Zr (343.823 nm)	0.000013 u	ppm	0.000065	> 100.00	-160.885000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.186480	27426.039872	0.002051	0.17
Y 377.433	1.167445	816547.353870	0.001190	0.10
Y_R 377.433	1.214660	73643.100000	0.002806	0.23
Y_R 488.368	1.231520	65058.100000	0.003218	0.26
Y_R2 488.368	1.223059	129650.711250	0.002275	0.19
Y_R4	1.198830	53947.400000	0.000962	0.08

Sample Name: CCVH-5713036

Date: 5/24/2019 8:16:57 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004288	ppm	0.000368	8.57	-128.838000	Y 377.433
Al (394.401 nm)	49.577100 o	ppm	0.037885	0.08	603983.000000	Y 377.433
Al H (396.152 nm)	48.034700	ppm	0.063528	0.13	104743.000000	Y_R 377.433
As (188.980 nm)	0.005075	ppm	0.003719	73.28	4.712260	Y 242.219
B (249.678 nm)	0.002952	ppm	0.000621	21.05	38.770200	Y 242.219
Ba (493.408 nm)	0.000497	ppm	0.000029	5.74	1488.970000	Y_R 488.368
Be (234.861 nm)	0.001146	ppm	0.000021	1.81	-101.273000	Y_R 488.368
Bi (223.061 nm)	0.011485	ppm	0.001164	10.14	23.209900	Y 377.433
Ca (315.887 nm)	0.005251	ppm	0.004610	87.80	-52.826293	Y_R 377.433
Cd (214.439 nm)	0.001419	ppm	0.000004	0.30	67.683100	Y 377.433
Co (228.615 nm)	0.003008	ppm	0.000240	7.97	55.599800	Y 242.219
Cr (205.560 nm)	0.001935	ppm	0.000411	21.26	4.853140	Y 377.433
Cu (324.754 nm)	0.003977	ppm	0.000147	3.69	1446.990000	Y 377.433
Fe (238.204 nm)	50.158861 o	ppm	0.083204	0.17	120748.274192	Y_R 377.433
Fe H (259.940 nm)	49.686900	ppm	0.089321	0.18	68727.700000	Y_R 377.433
K (766.491 nm)	0.088308	ppm	0.074875	84.79	2022.650000	Y_R2 488.368
Li (670.783 nm)	0.027020	ppm	0.001830	6.77	-2081.830000	Y_R2 488.368
Mg (279.078 nm)	0.035848	ppm	0.002108	5.88	51.574700	Y 377.433
Mn (257.610 nm)	0.001027	ppm	0.000003	0.25	268.981000	Y 377.433
Mo (202.032 nm)	0.001352	ppm	0.000074	5.45	28.174500	Y 377.433
Na (589.592 nm)	228.763000 o	ppm	0.994585	0.43	187942.000000	Y_R2 488.368
Na H (589.593 nm)	235.423555	ppm	1.146530	0.49	127612.999289	Y_R4
Ni (231.604 nm)	0.003462	ppm	0.000197	5.70	9.294170	Y 377.433
P (213.618 nm)	4.938900	ppm	0.005941	0.12	7054.180000	Y 242.219
Pb (220.353 nm)	0.006273	ppm	0.002059	32.81	21.472800	Y 242.219
S (181.972 nm)	5.061702	ppm	0.005953	0.12	2330.734212	Y 377.433
Sb (206.834 nm)	-0.001084 u	ppm	0.000872	80.41	4.172030	Y 377.433
Se (196.026 nm)	0.003846	ppm	0.002614	67.96	1.740930	Y 242.219
Si (288.158 nm)	0.026378	ppm	0.000255	0.97	658.358000	Y 377.433
Sn (189.925 nm)	0.002031	ppm	0.002046	> 100.00	5.358880	Y 377.433
Sr (421.552 nm)	0.001568	ppm	0.000137	8.71	266.845282	Y_R 488.368
Th (288.505 nm)	4.843260	ppm	0.000504	0.01	8364.620000	Y 377.433
Ti (336.122 nm)	0.002130	ppm	0.000133	6.23	-161.217000	Y 377.433
Tl (190.794 nm)	0.000183 u	ppm	0.001461	> 100.00	-2.599290	Y 377.433
U (409.013 nm)	0.528184 Q	ppm	0.001220	0.23	1687.670000 Q	Y 377.433
V (292.401 nm)	0.000867	ppm	0.000237	27.32	389.791000	Y 377.433
Zn (206.200 nm)	0.002915	ppm	0.000371	12.73	24.156800	Y 377.433
Zr (343.823 nm)	0.001375	ppm	0.000064	4.62	-83.780200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131333	26151.289659	0.001296	0.11
Y 377.433	1.112143	777867.407170	0.001936	0.17
Y_R 377.433	1.170270	70952.300000	0.008341	0.71
Y_R 488.368	1.178130	62238.100000	0.004942	0.42
Y_R2 488.368	1.171793	124216.275690	0.007213	0.62
Y_R4	1.177950	53007.800000	0.005703	0.48

Sample Name: CCV-5717467

Date: 5/24/2019 8:20:40 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.494413	ppm	0.001152	0.23	16792.900000	Y 377.433
Al (394.401 nm)	0.498926	ppm	0.001565	0.31	6303.470000	Y 377.433
Al H (396.152 nm)	0.542231 u	ppm	0.002723	0.50	1170.580000	Y_R 377.433
As (188.980 nm)	0.498001	ppm	0.003601	0.72	748.790000	Y 242.219
B (249.678 nm)	0.484188	ppm	0.002556	0.53	3503.110000	Y 242.219
Ba (493.408 nm)	0.485519	ppm	0.000574	0.12	49804.700000	Y_R 488.368
Be (234.861 nm)	0.471643	ppm	0.000435	0.09	46436.000000	Y_R 488.368
Bi (223.061 nm)	1.001420	ppm	0.007549	0.75	2183.160000	Y 377.433
Ca (315.887 nm)	5.014680	ppm	0.015155	0.30	3913.776472	Y_R 377.433
Cd (214.439 nm)	0.518029	ppm	0.000665	0.13	19152.600000	Y 377.433
Co (228.615 nm)	0.497141	ppm	0.002209	0.44	11690.400000	Y 242.219
Cr (205.560 nm)	0.513749	ppm	0.002834	0.55	3416.040000	Y 377.433
Cu (324.754 nm)	0.499878	ppm	0.003004	0.60	23631.500000	Y 377.433
Fe (238.204 nm)	2.537593	ppm	0.003624	0.14	6115.568865	Y_R 377.433
Fe H (259.940 nm)	2.521460 u	ppm	0.009007	0.36	3498.550000	Y_R 377.433
K (766.491 nm)	48.727300	ppm	0.401176	0.82	48987.900000	Y_R2 488.368
Li (670.783 nm)	0.519826	ppm	0.007866	1.51	6379.770000	Y_R2 488.368
Mg (279.078 nm)	19.880300	ppm	0.039817	0.20	65060.500000	Y 377.433
Mn (257.610 nm)	0.492824	ppm	0.001224	0.25	134362.000000	Y 377.433
Mo (202.032 nm)	0.499531	ppm	0.000805	0.16	6307.340000	Y 377.433
Na (589.592 nm)	23.696400	ppm	0.129185	0.55	19712.800000	Y_R2 488.368
Na H (589.593 nm)	25.165963 u	ppm	0.012915	0.05	13536.450049	Y_R4
Ni (231.604 nm)	0.512248	ppm	0.000192	0.04	2642.360000	Y 377.433
P (213.618 nm)	0.050637	ppm	0.003012	5.95	-66.831200	Y 242.219
Pb (220.353 nm)	0.499593	ppm	0.004251	0.85	1593.180000	Y 242.219
S (181.972 nm)	0.008648	ppm	0.000243	2.81	18.469729	Y 377.433
Sb (206.834 nm)	0.507242	ppm	0.003640	0.72	855.644000	Y 377.433
Se (196.026 nm)	0.505035	ppm	0.003797	0.75	770.660000	Y 242.219
Si (288.158 nm)	4.924150	ppm	0.046047	0.94	32188.100000	Y 377.433
Sn (189.925 nm)	0.515712	ppm	0.000390	0.08	831.901000	Y 377.433
Sr (421.552 nm)	0.476512	ppm	0.000154	0.03	71786.710579	Y_R 488.368
Th (288.505 nm)	0.024480	ppm	0.004524	18.48	5.181750	Y 377.433
Ti (336.122 nm)	0.486596	ppm	0.000672	0.14	61850.100000	Y 377.433
Tl (190.794 nm)	0.507975	ppm	0.000304	0.06	1160.360000	Y 377.433
U (409.013 nm)	0.012711	ppm	0.008939	70.33	-44.463700	Y 377.433
V (292.401 nm)	0.488596	ppm	0.000883	0.18	25048.000000	Y 377.433
Zn (206.200 nm)	0.518069	ppm	0.000832	0.16	2334.040000	Y 377.433
Zr (343.823 nm)	0.487696	ppm	0.000252	0.05	27447.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.151520	26617.916736	0.002486	0.22
Y 377.433	1.133475	792787.974556	0.000494	0.04
Y_R 377.433	1.188690	72068.600000	0.002437	0.20
Y_R 488.368	1.201790	63487.500000	0.001104	0.09
Y_R2 488.368	1.163824	123371.552911	0.000537	0.05
Y_R4	1.171510	52717.900000	0.005367	0.46

Sample Name: CCB

Date: 5/24/2019 8:24:15 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000397 u	ppm	0.000764	> 100.00	-253.188000	Y 377.433
Al (394.401 nm)	-0.002573 u	ppm	0.000370	14.36	59.665600	Y 377.433
Al H (396.152 nm)	0.123141 Zu	ppm	0.004283	3.48	10.955700 Z	Y_R 377.433
As (188.980 nm)	0.000050 u	ppm	0.000715	> 100.00	-1.501170	Y 242.219
B (249.678 nm)	0.000293 u	ppm	0.001314	> 100.00	48.764400	Y 242.219
Ba (493.408 nm)	-0.002440 Zu	ppm	0.000329	13.49	1156.190000 Z	Y_R 488.368
Be (234.861 nm)	0.000033	ppm	0.000012	37.91	1.233010	Y_R 488.368
Bi (223.061 nm)	-0.000169 u	ppm	0.000722	> 100.00	-10.981400	Y 377.433
Ca (315.887 nm)	0.016302	ppm	0.002322	14.25	-56.094244	Y_R 377.433
Cd (214.439 nm)	0.000078	ppm	0.000092	> 100.00	-2.292450	Y 377.433
Co (228.615 nm)	0.000070 u	ppm	0.000161	> 100.00	-13.498000	Y 242.219
Cr (205.560 nm)	-0.000057 u	ppm	0.000302	> 100.00	-7.135470	Y 377.433
Cu (324.754 nm)	0.001243	ppm	0.000145	11.63	375.241000	Y 377.433
Fe (238.204 nm)	-0.000799 u	ppm	0.001054	> 100.00	5.217343	Y_R 377.433
Fe H (259.940 nm)	0.001771 u	ppm	0.001460	82.42	13.862700	Y_R 377.433
K (766.491 nm)	-0.257566 u	ppm	0.332970	> 100.00	1688.680000	Y_R2 488.368
Li (670.783 nm)	0.025915 Z	ppm	0.000174	0.67	-2100.800000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002730	ppm	0.003217	> 100.00	17.406300	Y 377.433
Mn (257.610 nm)	0.000086	ppm	0.000052	60.56	12.384700	Y 377.433
Mo (202.032 nm)	0.000219	ppm	0.000037	16.85	13.898500	Y 377.433
Na (589.592 nm)	0.018884 u	ppm	0.047583	> 100.00	165.136000	Y_R2 488.368
Na H (589.593 nm)	1.097921 u	ppm	0.026202	2.39	478.185686	Y_R4
Ni (231.604 nm)	0.000148 u	ppm	0.000538	> 100.00	-7.853000	Y 377.433
P (213.618 nm)	0.000114 u	ppm	0.003516	> 100.00	-3.897820	Y 242.219
Pb (220.353 nm)	0.000982	ppm	0.000813	82.83	11.367000	Y 242.219
S (181.972 nm)	-0.003597 u	ppm	0.002845	79.09	11.052153	Y 377.433
Sb (206.834 nm)	-0.003324 u	ppm	0.000349	10.48	-3.839990	Y 377.433
Se (196.026 nm)	-0.002453 u	ppm	0.001160	47.27	5.158180	Y 242.219
Si (288.158 nm)	-0.001680 u	ppm	0.000380	22.61	477.729000	Y 377.433
Sn (189.925 nm)	0.000046 u	ppm	0.001189	> 100.00	2.163640	Y 377.433
Sr (421.552 nm)	0.000227	ppm	0.000071	31.45	57.355131	Y_R 488.368
Th (288.505 nm)	0.000507	ppm	0.000610	> 100.00	13.561900	Y 377.433
Ti (336.122 nm)	0.000596	ppm	0.000071	11.99	-357.590000	Y 377.433
Tl (190.794 nm)	0.000906 u	ppm	0.001594	> 100.00	3.886030	Y 377.433
U (409.013 nm)	0.000983 u	ppm	0.003072	> 100.00	-21.648300	Y 377.433
V (292.401 nm)	0.000021 u	ppm	0.000126	> 100.00	-144.800000	Y 377.433
Zn (206.200 nm)	-0.000202 u	ppm	0.000453	> 100.00	3.153970	Y 377.433
Zr (343.823 nm)	0.000293	ppm	0.000037	12.66	-145.019000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.143189	26425.345158	0.001680	0.15
Y 377.433	1.121065	784108.003363	0.001419	0.13
Y_R 377.433	1.167150	70763.100000	0.003219	0.28
Y_R 488.368	1.179940	62333.700000	0.004204	0.36
Y_R2 488.368	1.168077	123822.347571	0.005394	0.46
Y_R4	1.149060	51707.400000	0.007333	0.64

Sample Name: CCVL-5719884

Date: 5/24/2019 8:27:26 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008368	ppm	0.000256	3.06	20.768600	Y 377.433
Al (394.401 nm)	0.096986	ppm	0.000941	0.97	1282.580000	Y 377.433
Al H (396.152 nm)	0.233166 u	ppm	0.003251	1.39	256.861000	Y_R 377.433
As (188.980 nm)	0.013653	ppm	0.001223	8.96	18.994100	Y 242.219
B (249.678 nm)	0.092914	ppm	0.000762	0.82	710.169000	Y 242.219
Ba (493.408 nm)	0.007341	ppm	0.000225	3.07	2131.380000	Y_R 488.368
Be (234.861 nm)	0.000918	ppm	0.000020	2.17	87.969200	Y_R 488.368
Bi (223.061 nm)	0.091768	ppm	0.001533	1.67	190.395000	Y 377.433
Ca (315.887 nm)	0.221802	ppm	0.001882	0.85	107.140544	Y_R 377.433
Cd (214.439 nm)	0.005444	ppm	0.000041	0.75	196.185000	Y 377.433
Co (228.615 nm)	0.010421	ppm	0.000055	0.53	230.222000	Y 242.219
Cr (205.560 nm)	0.010718	ppm	0.000559	5.21	64.553100	Y 377.433
Cu (324.754 nm)	0.016637	ppm	0.000216	1.30	1092.270000	Y 377.433
Fe (238.204 nm)	0.102631	ppm	0.000129	0.13	254.189095	Y_R 377.433
Fe H (259.940 nm)	0.106874 u	ppm	0.000376	0.35	159.219000	Y_R 377.433
K (766.491 nm)	2.842510	ppm	0.210521	7.41	4682.080000	Y_R2 488.368
Li (670.783 nm)	0.044432 Q	ppm	0.005966	13.43	-1782.860000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204511	ppm	0.001757	0.86	676.546000	Y 377.433
Mn (257.610 nm)	0.010539	ppm	0.000043	0.41	2862.360000	Y 377.433
Mo (202.032 nm)	0.019611	ppm	0.000520	2.65	258.317000	Y 377.433
Na (589.592 nm)	1.008350	ppm	0.008370	0.83	979.635000	Y_R2 488.368
Na H (589.593 nm)	1.901404 u	ppm	0.006683	0.35	914.120325	Y_R4
Ni (231.604 nm)	0.043824	ppm	0.000776	1.77	218.145000	Y 377.433
P (213.618 nm)	2.858810	ppm	0.021954	0.77	4079.580000	Y 242.219
Pb (220.353 nm)	0.010599	ppm	0.000455	4.30	41.990900	Y 242.219
S (181.972 nm)	0.096288	ppm	0.002967	3.08	56.834147	Y 377.433
Sb (206.834 nm)	0.019853	ppm	0.001922	9.68	35.149400	Y 377.433
Se (196.026 nm)	0.017389	ppm	0.002782	16.00	35.073600	Y 242.219
Si (288.158 nm)	0.484393	ppm	0.000976	0.20	3606.860000	Y 377.433
Sn (189.925 nm)	0.102679	ppm	0.000781	0.76	167.307000	Y 377.433
Sr (421.552 nm)	0.009043	ppm	0.000139	1.53	1385.086457	Y_R 488.368
Th (288.505 nm)	0.016266	ppm	0.005260	32.34	40.200000	Y 377.433
Ti (336.122 nm)	0.010028	ppm	0.000083	0.83	850.027000	Y 377.433
Tl (190.794 nm)	0.016509	ppm	0.001137	6.89	39.459200	Y 377.433
U (409.013 nm)	0.054215	ppm	0.007129	13.15	146.037000	Y 377.433
V (292.401 nm)	0.010005	ppm	0.000188	1.88	367.392000	Y 377.433
Zn (206.200 nm)	0.021705	ppm	0.000473	2.18	101.681000	Y 377.433
Zr (343.823 nm)	0.009772	ppm	0.000122	1.25	391.577000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155530	26710.622556	0.001314	0.11
Y 377.433	1.132393	792031.187628	0.000862	0.08
Y_R 377.433	1.161700	70432.400000	0.002153	0.19
Y_R 488.368	1.178510	62257.900000	0.003125	0.27
Y_R2 488.368	1.157154	122664.419050	0.009785	0.85
Y_R4	1.157080	52068.500000	0.005068	0.44

Sample Name: 280-123676-E-10-D

Date: 5/24/2019 8:30:54 PM Rack:Tube: 1:61

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054076	ppm	0.000022	0.04	1590.140000	Y 377.433
Al (394.401 nm)	0.994792	ppm	0.000035	0.00	13116.900000	Y 377.433
Al H (396.152 nm)	0.518150 u	ppm	0.013110	2.53	2233.400000	Y_R 377.433
As (188.980 nm)	0.219763	ppm	0.001224	0.56	329.477000	Y 242.219
B (249.678 nm)	12.741100	ppm	0.004276	0.03	91036.800000	Y 242.219
Ba (493.408 nm)	0.523006	ppm	0.001705	0.33	53543.000000	Y_R 488.368
Be (234.861 nm)	0.049478	ppm	0.000163	0.33	4854.200000	Y_R 488.368
Bi (223.061 nm)	0.001810	ppm	0.000128	7.10	-5.660290	Y 377.433
Ca (315.887 nm)	248.206948	ppm	1.203343	0.48	197058.601768	Y_R 377.433
Cd (214.439 nm)	0.052374	ppm	0.000023	0.04	1933.220000	Y 377.433
Co (228.615 nm)	0.060308	ppm	0.000084	0.14	1404.840000	Y 242.219
Cr (205.560 nm)	0.066715	ppm	0.000454	0.68	437.723000	Y 377.433
Cu (324.754 nm)	0.065177	ppm	0.000089	0.14	3227.240000	Y 377.433
Fe (238.204 nm)	3.914990	ppm	0.008222	0.21	9431.204618	Y_R 377.433
Fe H (259.940 nm)	3.884620 u	ppm	0.026183	0.67	5383.790000	Y_R 377.433
K (766.491 nm)	143.157000	ppm	0.456744	0.32	140168.000000	Y_R2 488.368
Li (670.783 nm)	0.141199	ppm	0.001761	1.25	-121.350000	Y_R2 488.368
Mg (279.078 nm)	139.761000	ppm	0.092328	0.07	457344.000000	Y 377.433
Mn (257.610 nm)	1.341120	ppm	0.001114	0.08	365657.000000	Y 377.433
Mo (202.032 nm)	0.056036	ppm	0.000053	0.09	717.420000	Y 377.433
Na (589.592 nm)	839.787000 o	ppm	2.255570	0.27	689653.000000	Y_R2 488.368
Na H (589.593 nm)	968.705474	ppm	6.983637	0.72	525459.612839	Y_R4
Ni (231.604 nm)	0.084721	ppm	0.000942	1.11	429.951000	Y 377.433
P (213.618 nm)	2.926940	ppm	0.004126	0.14	4163.250000	Y 242.219
Pb (220.353 nm)	0.098154	ppm	0.003451	3.52	320.911000	Y 242.219
S (181.972 nm)	56.047393	ppm	0.065148	0.12	25696.344567	Y 377.433
Sb (206.834 nm)	0.104842	ppm	0.002426	2.31	178.826000	Y 377.433
Se (196.026 nm)	0.211827	ppm	0.000889	0.42	329.209000	Y 242.219
Si (288.158 nm)	28.198700	ppm	0.014246	0.05	182019.000000	Y 377.433
Sn (189.925 nm)	0.096878	ppm	0.000875	0.90	157.972000	Y 377.433
Sr (421.552 nm)	3.366879	ppm	0.013037	0.39	507079.446959	Y_R 488.368
Th (288.505 nm)	0.209448	ppm	0.000590	0.28	388.679000	Y 377.433
Ti (336.122 nm)	0.060632	ppm	0.000256	0.42	8170.900000	Y 377.433
Tl (190.794 nm)	0.196383	ppm	0.004456	2.27	440.314000	Y 377.433
U (409.013 nm)	0.519357	ppm	0.000738	0.14	1584.090000	Y 377.433
V (292.401 nm)	0.065468	ppm	0.000029	0.04	3227.370000	Y 377.433
Zn (206.200 nm)	0.217758	ppm	0.002025	0.93	983.808000	Y 377.433
Zr (343.823 nm)	0.068208	ppm	0.000148	0.22	3699.770000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.019331	23562.316230	0.000200	0.02
Y 377.433	1.016821	711196.267275	0.000913	0.09
Y_R 377.433	1.113880	67533.200000	0.000262	0.02
Y_R 488.368	1.125540	59459.600000	0.002382	0.21
Y_R2 488.368	1.096344	116218.284022	0.007670	0.70
Y_R4	1.103780	49670.300000	0.003883	0.35

Sample Name: MB 280-459139/1-A

Date: 5/24/2019 8:34:34 PM Rack:Tube: 1:62

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000461	ppm	0.000251	54.50	-250.911000	Y 377.433
Al (394.401 nm)	0.001070	ppm	0.001247	> 100.00	102.354000	Y 377.433
Al H (396.152 nm)	0.133178 u	ppm	0.004109	3.09	32.869400	Y_R 377.433
As (188.980 nm)	0.000769 u	ppm	0.003019	> 100.00	-0.417209	Y 242.219
B (249.678 nm)	0.008359	ppm	0.000699	8.36	106.350000	Y 242.219
Ba (493.408 nm)	-0.002306 u	ppm	0.000419	18.19	1169.610000	Y_R 488.368
Be (234.861 nm)	-0.000036 u	ppm	0.000066	> 100.00	-5.636430	Y_R 488.368
Bi (223.061 nm)	0.000078 u	ppm	0.000352	> 100.00	-10.435700	Y 377.433
Ca (315.887 nm)	0.035277	ppm	0.007101	20.13	-41.022641	Y_R 377.433
Cd (214.439 nm)	-0.000022 u	ppm	0.000022	99.65	-5.976630	Y 377.433
Co (228.615 nm)	-0.000258 u	ppm	0.000198	76.80	-21.198000	Y 242.219
Cr (205.560 nm)	0.000265	ppm	0.000087	32.89	-4.987230	Y 377.433
Cu (324.754 nm)	0.001112	ppm	0.000236	21.22	370.333000	Y 377.433
Fe (238.204 nm)	0.028042	ppm	0.000915	3.26	74.641364	Y_R 377.433
Fe H (259.940 nm)	0.029082 u	ppm	0.000110	0.38	51.633700	Y_R 377.433
K (766.491 nm)	-0.174505 u	ppm	0.045806	26.25	1768.880000	Y_R2 488.368
Li (670.783 nm)	0.026922	ppm	0.000351	1.30	-2083.510000	Y_R2 488.368
Mg (279.078 nm)	0.008686	ppm	0.002792	32.15	36.901500	Y 377.433
Mn (257.610 nm)	0.000562	ppm	0.000032	5.71	142.241000	Y 377.433
Mo (202.032 nm)	-0.000090 u	ppm	0.000203	> 100.00	10.000900	Y 377.433
Na (589.592 nm)	0.064304	ppm	0.055795	86.77	202.492000	Y_R2 488.368
Na H (589.593 nm)	1.763628 u	ppm	0.003605	0.20	839.369365	Y_R4
Ni (231.604 nm)	-0.000222 u	ppm	0.000435	> 100.00	-9.771290	Y 377.433
P (213.618 nm)	-0.001959 u	ppm	0.002060	> 100.00	-6.870260	Y 242.219
Pb (220.353 nm)	0.000466 u	ppm	0.000765	> 100.00	9.720710	Y 242.219
S (181.972 nm)	0.009541	ppm	0.002433	25.51	17.070163	Y 377.433
Sb (206.834 nm)	0.001830	ppm	0.000582	31.82	4.871450	Y 377.433
Se (196.026 nm)	-0.001167 u	ppm	0.001413	> 100.00	7.090920	Y 242.219
Si (288.158 nm)	0.019039	ppm	0.004418	23.21	611.111000	Y 377.433
Sn (189.925 nm)	0.001387 u	ppm	0.001972	> 100.00	4.321980	Y 377.433
Sr (421.552 nm)	0.000283	ppm	0.000162	57.17	65.811118	Y_R 488.368
Th (288.505 nm)	0.003996	ppm	0.002664	66.66	19.580200	Y 377.433
Ti (336.122 nm)	0.000498	ppm	0.000017	3.42	-370.089000	Y 377.433
Tl (190.794 nm)	-0.001151 u	ppm	0.000774	67.23	-0.818647	Y 377.433
U (409.013 nm)	0.001549 u	ppm	0.005689	> 100.00	-19.828100	Y 377.433
V (292.401 nm)	-0.000001 u	ppm	0.000077	> 100.00	-145.316000	Y 377.433
Zn (206.200 nm)	0.004224	ppm	0.000525	12.43	23.063600	Y 377.433
Zr (343.823 nm)	0.000225	ppm	0.000004	1.58	-148.885000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.152038	26629.887442	0.003207	0.28
Y 377.433	1.132153	791863.307620	0.002787	0.25
Y_R 377.433	1.169350	70896.400000	0.008986	0.77
Y_R 488.368	1.187300	62722.100000	0.008867	0.75
Y_R2 488.368	1.173077	124352.417316	0.006090	0.52
Y_R4	1.156840	52057.600000	0.006040	0.52

Sample Name: LCS 280-459139/2-A

Date: 5/24/2019 8:37:46 PM Rack:Tube: 1:63

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052404	ppm	0.000138	0.26	1233.240000	Y 377.433
Al (394.401 nm)	9.884080 o	ppm	0.022603	0.23	120997.000000	Y 377.433
Al H (396.152 nm)	9.714050	ppm	0.078559	0.81	21461.700000	Y_R 377.433
As (188.980 nm)	2.046290	ppm	0.000713	0.03	3081.680000	Y 242.219
B (249.678 nm)	0.976585	ppm	0.001253	0.13	7015.210000	Y 242.219
Ba (493.408 nm)	1.982860	ppm	0.008283	0.42	199086.000000	Y_R 488.368
Be (234.861 nm)	0.974801	ppm	0.000293	0.03	95955.900000	Y_R 488.368
Bi (223.061 nm)	1.977650	ppm	0.005077	0.26	4322.560000	Y 377.433
Ca (315.887 nm)	49.735520	ppm	0.105811	0.21	39433.661989	Y_R 377.433
Cd (214.439 nm)	1.036940	ppm	0.000033	0.00	38344.900000	Y 377.433
Co (228.615 nm)	0.989360	ppm	0.002640	0.27	23281.400000	Y 242.219
Cr (205.560 nm)	1.036070	ppm	0.007023	0.68	6895.640000	Y 377.433
Cu (324.754 nm)	0.986018	ppm	0.002533	0.26	46361.900000	Y 377.433
Fe (238.204 nm)	10.212622 o	ppm	0.043857	0.43	24590.703592	Y_R 377.433
Fe H (259.940 nm)	10.135300	ppm	0.030699	0.30	14028.400000	Y_R 377.433
K (766.491 nm)	48.968900	ppm	0.744482	1.52	49221.100000	Y_R2 488.368
Li (670.783 nm)	1.023030	ppm	0.000891	0.09	15019.800000	Y_R2 488.368
Mg (279.078 nm)	49.813300	ppm	0.092063	0.18	162971.000000	Y 377.433
Mn (257.610 nm)	1.003930	ppm	0.001812	0.18	273720.000000	Y 377.433
Mo (202.032 nm)	1.029910	ppm	0.002310	0.22	12992.400000	Y 377.433
Na (589.592 nm)	47.925800	ppm	0.158300	0.33	39942.900000	Y_R2 488.368
Na H (589.593 nm)	49.511855 u	ppm	0.110396	0.22	26745.463455	Y_R4
Ni (231.604 nm)	1.015790	ppm	0.002038	0.20	5249.470000	Y 377.433
P (213.618 nm)	21.197600	ppm	0.036099	0.17	30038.800000	Y 242.219
Pb (220.353 nm)	1.006120	ppm	0.002256	0.22	3203.250000	Y 242.219
S (181.972 nm)	10.516019	ppm	0.006994	0.07	4834.193835	Y 377.433
Sb (206.834 nm)	1.084670	ppm	0.006343	0.58	1828.640000	Y 377.433
Se (196.026 nm)	2.010010	ppm	0.005333	0.27	3039.260000	Y 242.219
Si (288.158 nm)	2.077980	ppm	0.005599	0.27	13865.700000	Y 377.433
Sn (189.925 nm)	2.073860	ppm	0.002782	0.13	3339.040000	Y 377.433
Sr (421.552 nm)	0.966729	ppm	0.003981	0.41	145615.152174	Y_R 488.368
Th (288.505 nm)	1.007840	ppm	0.002678	0.27	1657.700000	Y 377.433
Ti (336.122 nm)	0.998777	ppm	0.001418	0.14	127543.000000	Y 377.433
Tl (190.794 nm)	2.020480	ppm	0.001166	0.06	4613.980000	Y 377.433
U (409.013 nm)	2.052000	ppm	0.015575	0.76	6424.220000	Y 377.433
V (292.401 nm)	0.996886	ppm	0.001464	0.15	51262.200000	Y 377.433
Zn (206.200 nm)	0.513917	ppm	0.000770	0.15	2316.430000	Y 377.433
Zr (343.823 nm)	0.492146	ppm	0.001028	0.21	27699.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.098888	25401.301804	0.001492	0.14
Y 377.433	1.086634	760025.440777	0.001467	0.13
Y_R 377.433	1.143240	69313.000000	0.000667	0.06
Y_R 488.368	1.158330	61192.100000	0.000418	0.04
Y_R2 488.368	1.130549	119844.172180	0.009834	0.87
Y_R4	1.130640	50878.600000	0.002155	0.19

Sample Name: 280-123483-A-3-A

Date: 5/24/2019 8:41:25 PM Rack:Tube: 1:64

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000631	ppm	0.000003	0.49	-252.560000	Y 377.433
Al (394.401 nm)	0.005320	ppm	0.000783	14.71	216.174000	Y 377.433
Al H (396.152 nm)	0.094770 u	ppm	0.003591	3.79	28.337400	Y_R 377.433
As (188.980 nm)	0.005259	ppm	0.002386	45.37	6.346510	Y 242.219
B (249.678 nm)	0.041333	ppm	0.000602	1.46	341.793000	Y 242.219
Ba (493.408 nm)	0.043847	ppm	0.000102	0.23	5770.840000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000036	> 100.00	-2.740430	Y_R 488.368
Bi (223.061 nm)	0.000525	ppm	0.000627	> 100.00	-9.430420	Y 377.433
Ca (315.887 nm)	43.134064	ppm	0.007552	0.02	34188.279851	Y_R 377.433
Cd (214.439 nm)	0.000172	ppm	0.000008	4.51	1.239470	Y 377.433
Co (228.615 nm)	0.000042 u	ppm	0.000080	> 100.00	-14.147600	Y 242.219
Cr (205.560 nm)	0.004911	ppm	0.000661	13.47	25.968500	Y 377.433
Cu (324.754 nm)	0.001318	ppm	0.000111	8.43	351.356000	Y 377.433
Fe (238.204 nm)	0.107587	ppm	0.000932	0.87	266.120052	Y_R 377.433
Fe H (259.940 nm)	0.108446 u	ppm	0.001781	1.64	161.392000	Y_R 377.433
K (766.491 nm)	6.282050	ppm	0.310570	4.94	8003.250000	Y_R2 488.368
Li (670.783 nm)	0.030639	ppm	0.003336	10.89	-2019.700000	Y_R2 488.368
Mg (279.078 nm)	13.127600	ppm	0.022841	0.17	42966.200000	Y 377.433
Mn (257.610 nm)	0.001218	ppm	0.000020	1.66	321.112000	Y 377.433
Mo (202.032 nm)	0.006994	ppm	0.000130	1.86	99.283700	Y 377.433
Na (589.592 nm)	22.587200	ppm	0.007874	0.03	18702.000000	Y_R2 488.368
Na H (589.593 nm)	23.516674 u	ppm	0.243064	1.03	12641.618361	Y_R4
Ni (231.604 nm)	0.000650	ppm	0.000354	54.49	-5.257470	Y 377.433
P (213.618 nm)	0.021874	ppm	0.003284	15.01	26.661100	Y 242.219
Pb (220.353 nm)	-0.000911 u	ppm	0.001605	> 100.00	5.393380	Y 242.219
S (181.972 nm)	17.248110	ppm	0.012431	0.07	7913.667199	Y 377.433
Sb (206.834 nm)	-0.003624 u	ppm	0.000294	8.11	-4.347570	Y 377.433
Se (196.026 nm)	0.004357	ppm	0.003077	70.61	15.403400	Y 242.219
Si (288.158 nm)	17.783000	ppm	0.036999	0.21	114968.000000	Y 377.433
Sn (189.925 nm)	0.002065	ppm	0.000447	21.62	5.413120	Y 377.433
Sr (421.552 nm)	0.211800	ppm	0.000083	0.04	31920.471244	Y_R 488.368
Th (288.505 nm)	-0.007823 u	ppm	0.000596	7.63	-3.743470	Y 377.433
Ti (336.122 nm)	0.000142	ppm	0.000022	15.70	-269.158000	Y 377.433
Tl (190.794 nm)	0.002657	ppm	0.000569	21.41	6.128200	Y 377.433
U (409.013 nm)	0.027521	ppm	0.005842	21.23	56.872100	Y 377.433
V (292.401 nm)	0.018280	ppm	0.000228	1.25	800.006000	Y 377.433
Zn (206.200 nm)	0.002959	ppm	0.000374	12.65	17.387300	Y 377.433
Zr (343.823 nm)	0.000333	ppm	0.000063	18.95	-142.781000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114007	25750.794657	0.004322	0.39
Y 377.433	1.094963	765851.585905	0.004732	0.43
Y_R 377.433	1.144610	69396.200000	0.006789	0.59
Y_R 488.368	1.159500	61253.500000	0.007689	0.66
Y_R2 488.368	1.149784	121883.189711	0.007778	0.68
Y_R4	1.141640	51373.800000	0.009283	0.81

Sample Name: 280-123483-A-4-A

Date: 5/24/2019 8:44:55 PM Rack:Tube: 1:65

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000874	ppm	0.000037	4.23	-244.305000	Y 377.433
Al (394.401 nm)	0.010567	ppm	0.001288	12.19	280.404000	Y 377.433
Al H (396.152 nm)	0.100393 u	ppm	0.006104	6.08	42.921500	Y_R 377.433
As (188.980 nm)	0.006955	ppm	0.001016	14.62	8.902950	Y 242.219
B (249.678 nm)	0.039997	ppm	0.000542	1.35	332.290000	Y 242.219
Ba (493.408 nm)	0.045037	ppm	0.000686	1.52	5889.360000	Y_R 488.368
Be (234.861 nm)	-0.000054 u	ppm	0.000026	47.87	-7.447930	Y_R 488.368
Bi (223.061 nm)	-0.000155 u	ppm	0.001983	> 100.00	-10.929500	Y 377.433
Ca (315.887 nm)	44.400175	ppm	0.040318	0.09	35193.836337	Y_R 377.433
Cd (214.439 nm)	0.000189	ppm	0.000079	41.86	1.823340	Y 377.433
Co (228.615 nm)	-0.000404 u	ppm	0.000053	13.04	-24.632700	Y 242.219
Cr (205.560 nm)	0.007595	ppm	0.000385	5.07	43.870000	Y 377.433
Cu (324.754 nm)	0.001675	ppm	0.000002	0.10	368.228000	Y 377.433
Fe (238.204 nm)	0.046987	ppm	0.000777	1.65	120.246410	Y_R 377.433
Fe H (259.940 nm)	0.044859 u	ppm	0.000758	1.69	73.452100	Y_R 377.433
K (766.491 nm)	6.621740	ppm	0.158384	2.39	8331.260000	Y_R2 488.368
Li (670.783 nm)	0.026392	ppm	0.001519	5.76	-2092.620000	Y_R2 488.368
Mg (279.078 nm)	13.461000	ppm	0.022195	0.16	44057.400000	Y 377.433
Mn (257.610 nm)	0.001208	ppm	0.000016	1.33	318.192000	Y 377.433
Mo (202.032 nm)	0.006720	ppm	0.000157	2.33	95.832100	Y 377.433
Na (589.592 nm)	23.242300	ppm	0.002925	0.01	19240.000000	Y_R2 488.368
Na H (589.593 nm)	24.006413 u	ppm	0.013073	0.05	12907.328987	Y_R4
Ni (231.604 nm)	0.001304	ppm	0.000247	18.97	-1.876940	Y 377.433
P (213.618 nm)	0.020263	ppm	0.000372	1.84	24.214400	Y 242.219
Pb (220.353 nm)	-0.001085 u	ppm	0.000449	41.43	4.830740	Y 242.219
S (181.972 nm)	17.747322	ppm	0.002481	0.01	8142.346870	Y 377.433
Sb (206.834 nm)	-0.005606 u	ppm	0.002153	38.41	-7.675780	Y 377.433
Se (196.026 nm)	0.003396	ppm	0.002410	70.96	13.969400	Y 242.219
Si (288.158 nm)	18.264400	ppm	0.068496	0.38	118067.000000	Y 377.433
Sn (189.925 nm)	0.001400	ppm	0.000092	6.58	4.342670	Y 377.433
Sr (421.552 nm)	0.218043	ppm	0.000137	0.06	32860.755602	Y_R 488.368
Th (288.505 nm)	-0.001372 u	ppm	0.004102	> 100.00	7.314930	Y 377.433
Ti (336.122 nm)	0.000151	ppm	0.000043	28.54	-263.561000	Y 377.433
Tl (190.794 nm)	-0.001107 u	ppm	0.000137	12.41	-2.521240	Y 377.433
U (409.013 nm)	0.027882	ppm	0.009189	32.96	57.856000	Y 377.433
V (292.401 nm)	0.018561	ppm	0.000035	0.19	814.263000	Y 377.433
Zn (206.200 nm)	0.005215	ppm	0.000415	7.96	27.522800	Y 377.433
Zr (343.823 nm)	-0.000034 u	ppm	0.000114	> 100.00	-163.559000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120932	25910.854172	0.005076	0.45
Y 377.433	1.102824	771349.616060	0.003938	0.36
Y_R 377.433	1.148280	69619.000000	0.005003	0.44
Y_R 488.368	1.162120	61392.200000	0.003576	0.31
Y_R2 488.368	1.138335	120669.579878	0.004794	0.42
Y_R4	1.127330	50729.700000	0.001432	0.13

Sample Name: 280-123483-A-5-A

Date: 5/24/2019 8:48:24 PM Rack:Tube: 1:66

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001223	ppm	0.000013	1.10	-232.628000	Y 377.433
Al (394.401 nm)	0.004714	ppm	0.002114	44.84	214.835000	Y 377.433
Al H (396.152 nm)	0.091665 u	ppm	0.002212	2.41	25.578500	Y_R 377.433
As (188.980 nm)	0.007444	ppm	0.000842	11.31	9.641510	Y 242.219
B (249.678 nm)	0.040980	ppm	0.000156	0.38	339.334000	Y 242.219
Ba (493.408 nm)	0.042958	ppm	0.000325	0.76	5682.110000	Y_R 488.368
Be (234.861 nm)	-0.000051 u	ppm	0.000000	0.05	-7.051400	Y_R 488.368
Bi (223.061 nm)	-0.000482 u	ppm	0.001492	> 100.00	-11.651800	Y 377.433
Ca (315.887 nm)	45.722579	ppm	0.197099	0.43	36244.095924	Y_R 377.433
Cd (214.439 nm)	0.000067 u	ppm	0.000106	> 100.00	-2.681120	Y 377.433
Co (228.615 nm)	-0.000363 u	ppm	0.000151	41.71	-23.668700	Y 242.219
Cr (205.560 nm)	0.003812	ppm	0.000030	0.79	18.638700	Y 377.433
Cu (324.754 nm)	0.004322	ppm	0.000017	0.38	488.944000	Y 377.433
Fe (238.204 nm)	0.008487	ppm	0.000915	10.78	27.568262	Y_R 377.433
Fe H (259.940 nm)	0.010154 u	ppm	0.000350	3.45	25.456000	Y_R 377.433
K (766.491 nm)	6.555810	ppm	0.032447	0.49	8267.590000	Y_R2 488.368
Li (670.783 nm)	0.030301	ppm	0.002553	8.42	-2025.490000	Y_R2 488.368
Mg (279.078 nm)	13.743500	ppm	0.002635	0.02	44981.200000	Y 377.433
Mn (257.610 nm)	0.000375	ppm	0.000033	8.69	91.275600	Y 377.433
Mo (202.032 nm)	0.006741	ppm	0.000526	7.80	96.099000	Y 377.433
Na (589.592 nm)	23.858600	ppm	0.113362	0.48	19745.400000	Y_R2 488.368
Na H (589.593 nm)	24.671183 u	ppm	0.039400	0.16	13268.003975	Y_R4
Ni (231.604 nm)	-0.001232 u	ppm	0.000554	44.95	-14.991900	Y 377.433
P (213.618 nm)	0.025056	ppm	0.004839	19.31	30.513000	Y 242.219
Pb (220.353 nm)	-0.000969 u	ppm	0.001223	> 100.00	5.280760	Y 242.219
S (181.972 nm)	18.706955	ppm	0.037746	0.20	8581.879979	Y 377.433
Sb (206.834 nm)	-0.005950 u	ppm	0.003837	64.48	-8.288340	Y 377.433
Se (196.026 nm)	0.004102	ppm	0.002981	72.67	15.043000	Y 242.219
Si (288.158 nm)	18.390300	ppm	0.133565	0.73	118878.000000	Y 377.433
Sn (189.925 nm)	0.000766	ppm	0.000728	95.11	3.322490	Y 377.433
Sr (421.552 nm)	0.222917	ppm	0.001419	0.64	33594.657374	Y_R 488.368
Th (288.505 nm)	-0.002490 u	ppm	0.001261	50.63	5.477210	Y 377.433
Ti (336.122 nm)	0.000033 u	ppm	0.000086	> 100.00	-273.996000	Y 377.433
Tl (190.794 nm)	0.002950	ppm	0.000217	7.34	6.708920	Y 377.433
U (409.013 nm)	0.033865	ppm	0.007653	22.60	76.593600	Y 377.433
V (292.401 nm)	0.018871	ppm	0.000159	0.84	830.016000	Y 377.433
Zn (206.200 nm)	0.002940	ppm	0.000822	27.96	17.286900	Y 377.433
Zr (343.823 nm)	0.000204	ppm	0.000092	44.81	-150.040000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115746	25790.997860	0.003828	0.34
Y 377.433	1.096871	767185.893256	0.002449	0.22
Y_R 377.433	1.139420	69081.600000	0.002978	0.26
Y_R 488.368	1.157740	61160.900000	0.004737	0.41
Y_R2 488.368	1.134501	120263.128141	0.004662	0.41
Y_R4	1.133810	51021.500000	0.005894	0.52

Sample Name: 280-123483-A-6-A

Date: 5/24/2019 8:51:54 PM Rack:Tube: 1:67

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001171	ppm	0.000197	16.82	-234.314000	Y 377.433
Al (394.401 nm)	0.005490	ppm	0.002149	39.14	223.348000	Y 377.433
Al H (396.152 nm)	0.098242 u	ppm	0.005466	5.56	37.447800	Y_R 377.433
As (188.980 nm)	0.010008	ppm	0.000763	7.62	13.504500	Y 242.219
B (249.678 nm)	0.037930	ppm	0.000673	1.77	317.545000	Y 242.219
Ba (493.408 nm)	0.041971	ppm	0.000003	0.01	5583.710000	Y_R 488.368
Be (234.861 nm)	-0.000073 u	ppm	0.000023	31.05	-9.268310	Y_R 488.368
Bi (223.061 nm)	-0.000264 u	ppm	0.000006	2.40	-11.172600	Y 377.433
Ca (315.887 nm)	44.267603	ppm	0.070905	0.16	35088.545793	Y_R 377.433
Cd (214.439 nm)	0.000159	ppm	0.000108	67.99	0.701305	Y 377.433
Co (228.615 nm)	-0.000324 u	ppm	0.000218	67.32	-22.743700	Y 242.219
Cr (205.560 nm)	0.003680	ppm	0.000455	12.37	17.762000	Y 377.433
Cu (324.754 nm)	0.002113	ppm	0.000484	22.90	386.182000	Y 377.433
Fe (238.204 nm)	0.015340	ppm	0.001394	9.09	44.065946	Y_R 377.433
Fe H (259.940 nm)	0.014439 u	ppm	0.001143	7.91	31.382200	Y_R 377.433
K (766.491 nm)	6.403270	ppm	0.167695	2.62	8120.300000	Y_R2 488.368
Li (670.783 nm)	0.027008	ppm	0.005159	19.10	-2082.040000	Y_R2 488.368
Mg (279.078 nm)	13.346600	ppm	0.006347	0.05	43682.600000	Y 377.433
Mn (257.610 nm)	0.000312	ppm	0.000033	10.44	73.959000	Y 377.433
Mo (202.032 nm)	0.006413	ppm	0.000049	0.77	91.960400	Y 377.433
Na (589.592 nm)	23.190300	ppm	0.119559	0.52	19196.600000	Y_R2 488.368
Na H (589.593 nm)	23.902644 u	ppm	0.263189	1.10	12851.028719	Y_R4
Ni (231.604 nm)	-0.000721 u	ppm	0.000287	39.84	-12.352100	Y 377.433
P (213.618 nm)	0.022350	ppm	0.002939	13.15	27.090800	Y 242.219
Pb (220.353 nm)	-0.000069 u	ppm	0.000498	> 100.00	8.143030	Y 242.219
S (181.972 nm)	18.097823	ppm	0.052121	0.29	8302.853387	Y 377.433
Sb (206.834 nm)	-0.001121 u	ppm	0.003060	> 100.00	-0.132587	Y 377.433
Se (196.026 nm)	0.003564	ppm	0.001011	28.35	14.230000	Y 242.219
Si (288.158 nm)	17.824700	ppm	0.031503	0.18	115236.000000	Y 377.433
Sn (189.925 nm)	0.001493	ppm	0.001305	87.43	4.492600	Y 377.433
Sr (421.552 nm)	0.215954	ppm	0.000123	0.06	32546.017126	Y_R 488.368
Th (288.505 nm)	-0.004230 u	ppm	0.000770	18.20	2.550200	Y 377.433
Ti (336.122 nm)	-0.000077 u	ppm	0.000083	> 100.00	-293.079000	Y 377.433
Tl (190.794 nm)	-0.000333 u	ppm	0.001154	> 100.00	-0.741876	Y 377.433
U (409.013 nm)	0.030915	ppm	0.009045	29.26	67.426600	Y 377.433
V (292.401 nm)	0.017874	ppm	0.000056	0.31	777.993000	Y 377.433
Zn (206.200 nm)	0.003661	ppm	0.000091	2.50	20.529700	Y 377.433
Zr (343.823 nm)	0.000119	ppm	0.000022	18.78	-154.901000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.101292	25456.877385	0.002564	0.23
Y 377.433	1.081587	756495.578520	0.001137	0.11
Y_R 377.433	1.127010	68329.000000	0.003059	0.27
Y_R 488.368	1.142280	60344.100000	0.004681	0.41
Y_R2 488.368	1.126356	119399.656538	0.007442	0.66
Y_R4	1.125050	50627.300000	0.012051	1.07

Sample Name: 280-123483-A-11-A

Date: 5/24/2019 8:55:23 PM Rack:Tube: 1:68

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001120	ppm	0.000178	15.90	-235.803000	Y 377.433
Al (394.401 nm)	0.006441	ppm	0.001889	29.32	230.434000	Y 377.433
Al H (396.152 nm)	0.097668 u	ppm	0.003807	3.90	32.209600	Y_R 377.433
As (188.980 nm)	0.006087	ppm	0.004229	69.48	7.591220	Y 242.219
B (249.678 nm)	0.035598	ppm	0.000209	0.59	300.784000	Y 242.219
Ba (493.408 nm)	0.038882	ppm	0.000061	0.16	5275.860000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000055	> 100.00	-5.657680	Y_R 488.368
Bi (223.061 nm)	-0.000878 u	ppm	0.001873	> 100.00	-12.486700	Y 377.433
Ca (315.887 nm)	42.668965	ppm	0.029048	0.07	33818.899934	Y_R 377.433
Cd (214.439 nm)	0.000064 u	ppm	0.000123	> 100.00	-2.729160	Y 377.433
Co (228.615 nm)	-0.000408 u	ppm	0.000113	27.71	-24.711700	Y 242.219
Cr (205.560 nm)	0.011501	ppm	0.000538	4.68	69.914500	Y 377.433
Cu (324.754 nm)	0.001365	ppm	0.000316	23.14	352.568000	Y 377.433
Fe (238.204 nm)	0.201496	ppm	0.002472	1.23	492.174920	Y_R 377.433
Fe H (259.940 nm)	0.201338 u	ppm	0.000135	0.07	289.861000	Y_R 377.433
K (766.491 nm)	6.408480	ppm	0.189596	2.96	8125.330000	Y_R2 488.368
Li (670.783 nm)	0.024772	ppm	0.006228	25.14	-2120.440000	Y_R2 488.368
Mg (279.078 nm)	12.628300	ppm	0.030386	0.24	41332.100000	Y 377.433
Mn (257.610 nm)	0.002312	ppm	0.000001	0.05	619.440000	Y 377.433
Mo (202.032 nm)	0.006399	ppm	0.000085	1.32	91.792100	Y 377.433
Na (589.592 nm)	22.378400	ppm	0.146845	0.66	18529.500000	Y_R2 488.368
Na H (589.593 nm)	22.796880 u	ppm	0.136327	0.60	12251.089543	Y_R4
Ni (231.604 nm)	0.004041	ppm	0.000284	7.03	12.288300	Y 377.433
P (213.618 nm)	0.022278	ppm	0.003182	14.28	27.231600	Y 242.219
Pb (220.353 nm)	-0.000051 u	ppm	0.002195	> 100.00	8.130560	Y 242.219
S (181.972 nm)	16.478277	ppm	0.075749	0.46	7561.099979	Y 377.433
Sb (206.834 nm)	-0.003287 u	ppm	0.000148	4.49	-3.717500	Y 377.433
Se (196.026 nm)	0.003255	ppm	0.001768	54.30	13.718900	Y 242.219
Si (288.158 nm)	17.652700	ppm	0.040279	0.23	114129.000000	Y 377.433
Sn (189.925 nm)	0.002524	ppm	0.001394	55.22	6.152060	Y 377.433
Sr (421.552 nm)	0.205843	ppm	0.000284	0.14	31023.351737	Y_R 488.368
Th (288.505 nm)	-0.007710 u	ppm	0.000241	3.12	-3.522910	Y 377.433
Ti (336.122 nm)	0.000164	ppm	0.000020	12.08	-267.806000	Y 377.433
Tl (190.794 nm)	0.001318 u	ppm	0.001919	> 100.00	3.076520	Y 377.433
U (409.013 nm)	0.032567	ppm	0.005622	17.26	73.003600	Y 377.433
V (292.401 nm)	0.018754	ppm	0.000048	0.26	821.388000	Y 377.433
Zn (206.200 nm)	0.002750	ppm	0.000384	13.98	16.459500	Y 377.433
Zr (343.823 nm)	0.000225	ppm	0.000306	> 100.00	-148.882000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107665	25604.200611	0.002884	0.26
Y 377.433	1.087505	760634.903174	0.002441	0.22
Y_R 377.433	1.124090	68152.200000	0.001419	0.13
Y_R 488.368	1.139000	60170.700000	0.002740	0.24
Y_R2 488.368	1.108379	117493.994823	0.000127	0.01
Y_R4	1.130410	50868.600000	0.000033	0.00

Sample Name: 280-123483-A-12-A

Date: 5/24/2019 8:58:54 PM Rack:Tube: 1:69

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001092	ppm	0.000286	26.24	-236.845000	Y 377.433
Al (394.401 nm)	0.006502	ppm	0.000173	2.66	229.639000	Y 377.433
Al H (396.152 nm)	0.099336 u	ppm	0.005323	5.36	36.791500	Y_R 377.433
As (188.980 nm)	0.005984	ppm	0.001027	17.16	7.439950	Y 242.219
B (249.678 nm)	0.034891	ppm	0.000817	2.34	295.837000	Y 242.219
Ba (493.408 nm)	0.039224	ppm	0.000010	0.03	5309.860000	Y_R 488.368
Be (234.861 nm)	-0.000086 u	ppm	0.000015	18.09	-10.513200	Y_R 488.368
Bi (223.061 nm)	0.000236	ppm	0.000247	> 100.00	-10.076000	Y 377.433
Ca (315.887 nm)	43.081405	ppm	0.123768	0.29	34146.462327	Y_R 377.433
Cd (214.439 nm)	0.000184	ppm	0.000037	20.09	1.651520	Y 377.433
Co (228.615 nm)	-0.000012 u	ppm	0.000214	> 100.00	-15.413700	Y 242.219
Cr (205.560 nm)	0.004994	ppm	0.000343	6.87	26.525500	Y 377.433
Cu (324.754 nm)	0.000599	ppm	0.000217	36.25	318.038000	Y 377.433
Fe (238.204 nm)	0.024385	ppm	0.000326	1.34	65.839339	Y_R 377.433
Fe H (259.940 nm)	0.024380 u	ppm	0.000100	0.41	45.130700	Y_R 377.433
K (766.491 nm)	6.386370	ppm	0.009997	0.16	8103.980000	Y_R2 488.368
Li (670.783 nm)	0.024700	ppm	0.004525	18.32	-2121.660000	Y_R2 488.368
Mg (279.078 nm)	12.736900	ppm	0.040761	0.32	41687.700000	Y 377.433
Mn (257.610 nm)	0.001323	ppm	0.000034	2.60	349.569000	Y 377.433
Mo (202.032 nm)	0.006507	ppm	0.000056	0.86	93.151800	Y 377.433
Na (589.592 nm)	22.416900	ppm	0.004838	0.02	18561.100000	Y_R2 488.368
Na H (589.593 nm)	22.983268 u	ppm	0.158833	0.69	12352.215517	Y_R4
Ni (231.604 nm)	0.001464	ppm	0.000473	32.28	-1.045050	Y 377.433
P (213.618 nm)	0.021818	ppm	0.004042	18.53	26.727400	Y 242.219
Pb (220.353 nm)	-0.000416 u	ppm	0.000036	8.78	6.977980	Y 242.219
S (181.972 nm)	16.614689	ppm	0.089447	0.54	7623.592708	Y 377.433
Sb (206.834 nm)	-0.004331 u	ppm	0.003518	81.23	-5.543500	Y 377.433
Se (196.026 nm)	0.003725	ppm	0.000223	6.00	14.472100	Y 242.219
Si (288.158 nm)	17.707300	ppm	0.057474	0.32	114480.000000	Y 377.433
Sn (189.925 nm)	0.000832	ppm	0.000546	65.60	3.429850	Y 377.433
Sr (421.552 nm)	0.208011	ppm	0.000691	0.33	31349.895448	Y_R 488.368
Th (288.505 nm)	-0.006288 u	ppm	0.000379	6.03	-1.101910	Y 377.433
Ti (336.122 nm)	0.000068 u	ppm	0.000118	> 100.00	-278.319000	Y 377.433
Tl (190.794 nm)	-0.000862 u	ppm	0.000629	73.00	-1.908340	Y 377.433
U (409.013 nm)	0.024593	ppm	0.000821	3.34	47.550000	Y 377.433
V (292.401 nm)	0.018660	ppm	0.000076	0.41	819.841000	Y 377.433
Zn (206.200 nm)	0.002165	ppm	0.000184	8.51	13.801500	Y 377.433
Zr (343.823 nm)	0.000074	ppm	0.000089	> 100.00	-157.398000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110195	25662.674293	0.002203	0.20
Y 377.433	1.088982	761668.076481	0.002594	0.24
Y_R 377.433	1.122550	68058.800000	0.004236	0.38
Y_R 488.368	1.138530	60146.200000	0.004467	0.39
Y_R2 488.368	1.120033	118729.462157	0.001593	0.14
Y_R4	1.129240	50815.900000	0.012758	1.13

Sample Name: 280-123483-A-13-A

Date: 5/24/2019 9:02:24 PM Rack:Tube: 1:70

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000937	ppm	0.000286	30.50	-246.840000	Y 377.433
Al (394.401 nm)	0.008302	ppm	0.001231	14.83	226.243000	Y 377.433
Al H (396.152 nm)	0.117081 u	ppm	0.004055	3.46	38.888800	Y_R 377.433
As (188.980 nm)	0.003653	ppm	0.001316	36.04	3.927620	Y 242.219
B (249.678 nm)	0.016225	ppm	0.000081	0.50	162.538000	Y 242.219
Ba (493.408 nm)	0.025123	ppm	0.000439	1.75	3904.070000	Y_R 488.368
Be (234.861 nm)	-0.000067 u	ppm	0.000055	81.22	-8.655360	Y_R 488.368
Bi (223.061 nm)	0.000076 u	ppm	0.002519	> 100.00	-10.436100	Y 377.433
Ca (315.887 nm)	30.541040	ppm	0.030300	0.10	24186.830389	Y_R 377.433
Cd (214.439 nm)	0.000017 u	ppm	0.000141	> 100.00	-4.540010	Y 377.433
Co (228.615 nm)	-0.000566 u	ppm	0.000020	3.58	-28.422400	Y 242.219
Cr (205.560 nm)	0.020115	ppm	0.000044	0.22	127.374000	Y 377.433
Cu (324.754 nm)	0.000979	ppm	0.000081	8.24	343.372000	Y 377.433
Fe (238.204 nm)	0.015574	ppm	0.001290	8.28	44.628409	Y_R 377.433
Fe H (259.940 nm)	0.015220 u	ppm	0.002063	13.56	32.461600	Y_R 377.433
K (766.491 nm)	3.095310	ppm	0.088951	2.87	4926.180000	Y_R2 488.368
Li (670.783 nm)	0.027404	ppm	0.004398	16.05	-2075.230000	Y_R2 488.368
Mg (279.078 nm)	10.182600	ppm	0.004171	0.04	33329.200000	Y 377.433
Mn (257.610 nm)	0.000339	ppm	0.000012	3.55	81.442300	Y 377.433
Mo (202.032 nm)	0.007483	ppm	0.000516	6.89	105.448000	Y 377.433
Na (589.592 nm)	14.796100	ppm	0.065325	0.44	12302.000000	Y_R2 488.368
Na H (589.593 nm)	15.320102 u	ppm	0.065526	0.43	8194.517745	Y_R4
Ni (231.604 nm)	-0.000908 u	ppm	0.000481	53.00	-13.317400	Y 377.433
P (213.618 nm)	0.037343	ppm	0.001034	2.77	48.840300	Y 242.219
Pb (220.353 nm)	-0.001535 u	ppm	0.000614	40.00	3.378260	Y 242.219
S (181.972 nm)	7.342768	ppm	0.036557	0.50	3376.853087	Y 377.433
Sb (206.834 nm)	-0.004709 u	ppm	0.003253	69.09	-6.080080	Y 377.433
Se (196.026 nm)	0.001340	ppm	0.000530	39.53	10.875200	Y 242.219
Si (288.158 nm)	20.840700	ppm	0.077092	0.37	134652.000000	Y 377.433
Sn (189.925 nm)	-0.000342 u	ppm	0.001155	> 100.00	1.540430	Y 377.433
Sr (421.552 nm)	0.113605	ppm	0.000453	0.40	17132.142336	Y_R 488.368
Th (288.505 nm)	-0.000689 u	ppm	0.001953	> 100.00	7.478550	Y 377.433
Ti (336.122 nm)	0.000302	ppm	0.000012	3.99	-291.393000	Y 377.433
Tl (190.794 nm)	0.000105 u	ppm	0.002619	> 100.00	0.798303	Y 377.433
U (409.013 nm)	0.011799	ppm	0.002409	20.41	8.623290	Y 377.433
V (292.401 nm)	0.030633	ppm	0.000264	0.86	1437.070000	Y 377.433
Zn (206.200 nm)	0.002578	ppm	0.000121	4.71	15.659300	Y 377.433
Zr (343.823 nm)	0.000012 u	ppm	0.000036	> 100.00	-160.924000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122475	25946.529722	0.000106	0.01
Y 377.433	1.101071	770123.197653	0.001951	0.18
Y_R 377.433	1.139500	69086.500000	0.002506	0.22
Y_R 488.368	1.154810	61005.900000	0.001555	0.13
Y_R2 488.368	1.134987	120314.665364	0.004034	0.36
Y_R4	1.129460	50825.700000	0.019830	1.76

Sample Name: CCVH-5713036

Date: 5/24/2019 9:05:54 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005055	ppm	0.000070	1.38	-102.389000	Y 377.433
Al (394.401 nm)	49.329000 o	ppm	0.089106	0.18	600960.000000	Y 377.433
Al H (396.152 nm)	47.731400	ppm	0.095916	0.20	104080.000000	Y_R 377.433
As (188.980 nm)	0.002041	ppm	0.002283	> 100.00	0.148390	Y 242.219
B (249.678 nm)	-0.002291 u	ppm	0.001050	45.81	1.500020	Y 242.219
Ba (493.408 nm)	0.000544	ppm	0.000099	18.12	1493.440000	Y_R 488.368
Be (234.861 nm)	0.001168	ppm	0.000008	0.69	-97.881700	Y_R 488.368
Bi (223.061 nm)	0.011137	ppm	0.002665	23.93	22.395600	Y 377.433
Ca (315.887 nm)	0.001323 u	ppm	0.006501	> 100.00	-56.008649	Y_R 377.433
Cd (214.439 nm)	0.001420	ppm	0.000014	1.02	67.589400	Y 377.433
Co (228.615 nm)	0.002966	ppm	0.000250	8.43	54.600000	Y 242.219
Cr (205.560 nm)	0.001713	ppm	0.000131	7.66	3.377630	Y 377.433
Cu (324.754 nm)	0.004260	ppm	0.000302	7.08	1455.640000	Y 377.433
Fe (238.204 nm)	49.862035 o	ppm	0.085028	0.17	120033.762347	Y_R 377.433
Fe H (259.940 nm)	49.355600	ppm	0.066564	0.13	68269.400000	Y_R 377.433
K (766.491 nm)	0.162614 u	ppm	0.248933	> 100.00	2094.400000	Y_R2 488.368
Li (670.783 nm)	0.022755	ppm	0.002568	11.28	-2155.060000	Y_R2 488.368
Mg (279.078 nm)	0.038199	ppm	0.000642	1.68	59.510200	Y 377.433
Mn (257.610 nm)	0.000983	ppm	0.000015	1.49	257.020000	Y 377.433
Mo (202.032 nm)	0.001205	ppm	0.000012	0.96	26.320700	Y 377.433
Na (589.592 nm)	225.130000 o	ppm	0.181859	0.08	184960.000000	Y_R2 488.368
Na H (589.593 nm)	232.921647	ppm	1.308568	0.56	126255.573388	Y_R4
Ni (231.604 nm)	0.002423	ppm	0.000791	32.66	3.915070	Y 377.433
P (213.618 nm)	4.898030	ppm	0.041801	0.85	6995.600000	Y 242.219
Pb (220.353 nm)	0.005391	ppm	0.002568	47.63	18.734100	Y 242.219
S (181.972 nm)	4.939296	ppm	0.005699	0.12	2274.677285	Y 377.433
Sb (206.834 nm)	0.003407	ppm	0.002828	83.01	11.734300	Y 377.433
Se (196.026 nm)	0.008445	ppm	0.002521	29.85	8.753720	Y 242.219
Si (288.158 nm)	0.014444	ppm	0.000008	0.05	581.529000	Y 377.433
Sn (189.925 nm)	0.001768	ppm	0.000340	19.24	4.934530	Y 377.433
Sr (421.552 nm)	0.001546	ppm	0.000260	16.83	263.536661	Y_R 488.368
Th (288.505 nm)	4.806540	ppm	0.000106	0.00	8301.350000	Y 377.433
Ti (336.122 nm)	0.001876	ppm	0.000036	1.92	-193.820000	Y 377.433
Tl (190.794 nm)	-0.000134 u	ppm	0.000242	> 100.00	-3.292040	Y 377.433
U (409.013 nm)	0.530260 Q	ppm	0.002188	0.41	1694.050000 Q	Y 377.433
V (292.401 nm)	0.000757	ppm	0.000015	2.00	381.487000	Y 377.433
Zn (206.200 nm)	0.002478	ppm	0.000313	12.62	22.148400	Y 377.433
Zr (343.823 nm)	0.001154	ppm	0.000013	1.14	-96.310500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080520	24976.716330	0.005726	0.53
Y 377.433	1.058670	740466.734455	0.004186	0.40
Y_R 377.433	1.100820	66741.500000	0.000832	0.08
Y_R 488.368	1.105210	58385.800000	0.002760	0.25
Y_R2 488.368	1.116106	118313.108717	0.001804	0.16
Y_R4	1.114310	50144.000000	0.016075	1.44

Sample Name: CCV-5717467

Date: 5/24/2019 9:09:39 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.490118	ppm	0.000386	0.08	16644.100000	Y 377.433
Al (394.401 nm)	0.495793	ppm	0.001286	0.26	6264.520000	Y 377.433
Al H (396.152 nm)	0.549962 u	ppm	0.001900	0.35	1184.460000	Y_R 377.433
As (188.980 nm)	0.491797	ppm	0.001573	0.32	739.441000	Y 242.219
B (249.678 nm)	0.474074	ppm	0.000983	0.21	3430.890000	Y 242.219
Ba (493.408 nm)	0.479987	ppm	0.000787	0.16	49253.100000	Y_R 488.368
Be (234.861 nm)	0.473658	ppm	0.000992	0.21	46634.600000	Y_R 488.368
Bi (223.061 nm)	0.982909	ppm	0.003819	0.39	2142.620000	Y 377.433
Ca (315.887 nm)	4.960898	ppm	0.015938	0.32	3871.064278	Y_R 377.433
Cd (214.439 nm)	0.516156	ppm	0.000584	0.11	19083.300000	Y 377.433
Co (228.615 nm)	0.492633	ppm	0.000821	0.17	11584.300000	Y 242.219
Cr (205.560 nm)	0.510710	ppm	0.005031	0.99	3395.780000	Y 377.433
Cu (324.754 nm)	0.494147	ppm	0.002255	0.46	23363.700000	Y 377.433
Fe (238.204 nm)	2.513507	ppm	0.012011	0.48	6057.589822	Y_R 377.433
Fe H (259.940 nm)	2.495930 u	ppm	0.005701	0.23	3463.250000	Y_R 377.433
K (766.491 nm)	48.059800	ppm	0.087825	0.18	48343.300000	Y_R2 488.368
Li (670.783 nm)	0.505386	ppm	0.006182	1.22	6131.830000	Y_R2 488.368
Mg (279.078 nm)	19.820500	ppm	0.026096	0.13	64864.800000	Y 377.433
Mn (257.610 nm)	0.489654	ppm	0.000474	0.10	133498.000000	Y 377.433
Mo (202.032 nm)	0.497339	ppm	0.001159	0.23	6279.710000	Y 377.433
Na (589.592 nm)	23.196300	ppm	0.106099	0.46	19300.900000	Y_R2 488.368
Na H (589.593 nm)	24.783791 u	ppm	0.287072	1.16	13329.100235	Y_R4
Ni (231.604 nm)	0.507989	ppm	0.002203	0.43	2620.330000	Y 377.433
P (213.618 nm)	0.046912	ppm	0.001174	2.50	-71.110300	Y 242.219
Pb (220.353 nm)	0.496467	ppm	0.000117	0.02	1583.260000	Y 242.219
S (181.972 nm)	-0.002846 u	ppm	0.003691	> 100.00	13.198295	Y 377.433
Sb (206.834 nm)	0.506142	ppm	0.002257	0.45	853.792000	Y 377.433
Se (196.026 nm)	0.497621	ppm	0.002029	0.41	759.481000	Y 242.219
Si (288.158 nm)	4.856450	ppm	0.011946	0.25	31752.300000	Y 377.433
Sn (189.925 nm)	0.511155	ppm	0.001627	0.32	824.568000	Y 377.433
Sr (421.552 nm)	0.468414	ppm	0.000982	0.21	70567.174760	Y_R 488.368
Th (288.505 nm)	0.019790	ppm	0.000792	4.00	-2.737970	Y 377.433
Ti (336.122 nm)	0.482876	ppm	0.000198	0.04	61374.000000	Y 377.433
Tl (190.794 nm)	0.507827	ppm	0.003253	0.64	1160.040000	Y 377.433
U (409.013 nm)	0.010696	ppm	0.004697	43.91	-50.579300	Y 377.433
V (292.401 nm)	0.485981	ppm	0.000031	0.01	24912.800000	Y 377.433
Zn (206.200 nm)	0.516549	ppm	0.000748	0.14	2327.200000	Y 377.433
Zr (343.823 nm)	0.484382	ppm	0.000246	0.05	27260.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110226	25663.399673	0.003311	0.30
Y 377.433	1.087431	760583.179321	0.003446	0.32
Y_R 377.433	1.124420	68172.200000	0.003554	0.32
Y_R 488.368	1.141010	60277.100000	0.004298	0.38
Y_R2 488.368	1.113495	118036.401449	0.005241	0.47
Y_R4	1.114010	50130.400000	0.012190	1.09

Sample Name: CCB

Date: 5/24/2019 9:13:14 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000531	ppm	0.000353	66.54	-248.958000	Y 377.433
Al (394.401 nm)	-0.001888 u	ppm	0.000400	21.17	70.891100	Y 377.433
Al H (396.152 nm)	0.131908 Zu	ppm	0.002572	1.95	30.119200 Z	Y_R 377.433
As (188.980 nm)	0.001907	ppm	0.001237	64.89	1.297350	Y 242.219
B (249.678 nm)	-0.002138 u	ppm	0.000175	8.19	31.405500	Y 242.219
Ba (493.408 nm)	-0.002785 Zu	ppm	0.000424	15.22	1121.830000 Z	Y_R 488.368
Be (234.861 nm)	0.000015	ppm	0.000005	33.06	-0.513454	Y_R 488.368
Bi (223.061 nm)	0.001659	ppm	0.000386	23.27	-6.978990	Y 377.433
Ca (315.887 nm)	0.014086	ppm	0.012065	85.65	-57.852566	Y_R 377.433
Cd (214.439 nm)	0.000048	ppm	0.000029	61.60	-3.420210	Y 377.433
Co (228.615 nm)	-0.000233 u	ppm	0.000227	97.48	-20.611000	Y 242.219
Cr (205.560 nm)	0.000675	ppm	0.000433	64.16	-2.252990	Y 377.433
Cu (324.754 nm)	0.001191	ppm	0.000457	38.36	371.821000	Y 377.433
Fe (238.204 nm)	-0.000071 u	ppm	0.001400	> 100.00	6.969104	Y_R 377.433
Fe H (259.940 nm)	-0.001275 u	ppm	0.002708	> 100.00	9.650000	Y_R 377.433
K (766.491 nm)	-0.181411 u	ppm	0.386781	> 100.00	1762.220000	Y_R2 488.368
Li (670.783 nm)	0.022116 Z	ppm	0.001473	6.66	-2166.030000 Z	Y_R2 488.368
Mg (279.078 nm)	0.005094	ppm	0.001329	26.09	24.755100	Y 377.433
Mn (257.610 nm)	0.000089	ppm	0.000031	34.54	13.301200	Y 377.433
Mo (202.032 nm)	0.000000 u	ppm	0.000352	> 100.00	11.137800	Y 377.433
Na (589.592 nm)	-0.014882 u	ppm	0.030183	> 100.00	137.331000	Y_R2 488.368
Na H (589.593 nm)	0.730207 u	ppm	0.021935	3.00	278.680480	Y_R4
Ni (231.604 nm)	0.000808	ppm	0.000476	58.88	-4.437520	Y 377.433
P (213.618 nm)	-0.004995 u	ppm	0.002601	52.07	-11.225300	Y 242.219
Pb (220.353 nm)	0.001810	ppm	0.001724	95.28	14.054900	Y 242.219
S (181.972 nm)	-0.005704 u	ppm	0.004751	83.30	10.086873	Y 377.433
Sb (206.834 nm)	-0.002076 u	ppm	0.000089	4.28	-1.727990	Y 377.433
Se (196.026 nm)	0.000716	ppm	0.000531	74.20	9.937480	Y 242.219
Si (288.158 nm)	-0.006607 u	ppm	0.000869	13.15	446.013000	Y 377.433
Sn (189.925 nm)	0.000929	ppm	0.000167	18.01	3.585090	Y 377.433
Sr (421.552 nm)	0.000304	ppm	0.000042	13.80	68.946791	Y_R 488.368
Th (288.505 nm)	-0.000155 u	ppm	0.002664	> 100.00	12.531600	Y 377.433
Ti (336.122 nm)	0.000496	ppm	0.000044	8.78	-370.470000	Y 377.433
Tl (190.794 nm)	0.001369	ppm	0.000539	39.41	4.946980	Y 377.433
U (409.013 nm)	0.011430	ppm	0.003464	30.30	11.512700	Y 377.433
V (292.401 nm)	0.000014 u	ppm	0.000199	> 100.00	-146.283000	Y 377.433
Zn (206.200 nm)	-0.000734 u	ppm	0.000082	11.18	0.765441	Y 377.433
Zr (343.823 nm)	0.000009 u	ppm	0.000060	> 100.00	-161.108000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.089212	25177.641891	0.000080	0.01
Y 377.433	1.075763	752421.996441	0.001228	0.11
Y_R 377.433	1.118100	67789.000000	0.003922	0.35
Y_R 488.368	1.131480	59773.600000	0.002117	0.19
Y_R2 488.368	1.117164	118425.267071	0.001023	0.09
Y_R4	1.094050	49232.300000	0.007805	0.71

Sample Name: CCVL-5719884

Date: 5/24/2019 9:16:26 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008137	ppm	0.000200	2.45	12.775600	Y 377.433
Al (394.401 nm)	0.096674	ppm	0.001521	1.57	1280.320000	Y 377.433
Al H (396.152 nm)	0.226800 u	ppm	0.004301	1.90	243.008000	Y_R 377.433
As (188.980 nm)	0.015877	ppm	0.002649	16.69	22.346300	Y 242.219
B (249.678 nm)	0.089796	ppm	0.000370	0.41	687.904000	Y 242.219
Ba (493.408 nm)	0.007648	ppm	0.000456	5.96	2161.970000	Y_R 488.368
Be (234.861 nm)	0.000885	ppm	0.000081	9.12	84.717900	Y_R 488.368
Bi (223.061 nm)	0.091412	ppm	0.002302	2.52	189.616000	Y 377.433
Ca (315.887 nm)	0.216775	ppm	0.008654	3.99	103.147452	Y_R 377.433
Cd (214.439 nm)	0.005234	ppm	0.000029	0.55	188.417000	Y 377.433
Co (228.615 nm)	0.010458	ppm	0.000140	1.34	231.090000	Y 242.219
Cr (205.560 nm)	0.010531	ppm	0.000255	2.42	63.304200	Y 377.433
Cu (324.754 nm)	0.016326	ppm	0.000010	0.06	1077.360000	Y 377.433
Fe (238.204 nm)	0.102549	ppm	0.000384	0.37	253.992095	Y_R 377.433
Fe H (259.940 nm)	0.109025 u	ppm	0.001442	1.32	162.193000	Y_R 377.433
K (766.491 nm)	2.839050	ppm	0.411144	14.48	4678.740000	Y_R2 488.368
Li (670.783 nm)	0.039958 Q	ppm	0.000205	0.51	-1859.690000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204607	ppm	0.001332	0.65	676.623000	Y 377.433
Mn (257.610 nm)	0.010477	ppm	0.000007	0.07	2845.600000	Y 377.433
Mo (202.032 nm)	0.019752	ppm	0.000043	0.22	260.087000	Y 377.433
Na (589.592 nm)	1.028670	ppm	0.015997	1.56	996.392000	Y_R2 488.368
Na H (589.593 nm)	1.663543 u	ppm	0.022769	1.37	785.067654	Y_R4
Ni (231.604 nm)	0.043471	ppm	0.000052	0.12	216.321000	Y 377.433
P (213.618 nm)	2.843860	ppm	0.008300	0.29	4058.320000	Y 242.219
Pb (220.353 nm)	0.010552	ppm	0.000290	2.75	41.878400	Y 242.219
S (181.972 nm)	0.089368	ppm	0.004964	5.55	53.664618	Y 377.433
Sb (206.834 nm)	0.018641	ppm	0.000213	1.14	33.101400	Y 377.433
Se (196.026 nm)	0.019590	ppm	0.001322	6.75	38.394500	Y 242.219
Si (288.158 nm)	0.476274	ppm	0.002560	0.54	3554.590000	Y 377.433
Sn (189.925 nm)	0.103994	ppm	0.001121	1.08	169.423000	Y 377.433
Sr (421.552 nm)	0.009167	ppm	0.000212	2.31	1403.808414	Y_R 488.368
Th (288.505 nm)	0.014508	ppm	0.000056	0.39	37.285700	Y 377.433
Ti (336.122 nm)	0.009900	ppm	0.000056	0.57	833.684000	Y 377.433
Tl (190.794 nm)	0.015919	ppm	0.001173	7.37	38.111200	Y 377.433
U (409.013 nm)	0.055076	ppm	0.013804	25.06	148.748000	Y 377.433
V (292.401 nm)	0.009501	ppm	0.000053	0.56	340.720000	Y 377.433
Zn (206.200 nm)	0.021497	ppm	0.000259	1.20	100.746000	Y 377.433
Zr (343.823 nm)	0.009841	ppm	0.000027	0.27	395.488000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126356	26036.233010	0.005623	0.50
Y 377.433	1.102923	771418.663594	0.003259	0.30
Y_R 377.433	1.137480	68964.000000	0.001567	0.14
Y_R 488.368	1.150620	60784.700000	0.003972	0.35
Y_R2 488.368	1.132342	120034.284257	0.002476	0.22
Y_R4	1.128140	50766.200000	0.005804	0.51

Sample Name: 280-123483-A-13-Asd@5

Date: 5/24/2019 9:19:54 PM Rack:Tube: 1:71

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000598	ppm	0.000337	56.27	-248.565000	Y 377.433
Al (394.401 nm)	0.000794	ppm	0.000501	63.11	107.345000	Y 377.433
Al H (396.152 nm)	0.128515 u	ppm	0.006820	5.31	30.692100	Y_R 377.433
As (188.980 nm)	0.001308 u	ppm	0.002423	> 100.00	0.391218	Y 242.219
B (249.678 nm)	0.000228 u	ppm	0.000466	> 100.00	48.220500	Y 242.219
Ba (493.408 nm)	0.003445	ppm	0.000202	5.87	1743.040000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000005	8.36	-8.046650	Y_R 488.368
Bi (223.061 nm)	-0.000053 u	ppm	0.002110	> 100.00	-10.703200	Y 377.433
Ca (315.887 nm)	6.133371	ppm	0.031240	0.51	4802.118527	Y_R 377.433
Cd (214.439 nm)	0.000066 u	ppm	0.000113	> 100.00	-2.678270	Y 377.433
Co (228.615 nm)	-0.000243 u	ppm	0.000014	5.79	-20.857000	Y 242.219
Cr (205.560 nm)	0.004196	ppm	0.000119	2.84	21.226600	Y 377.433
Cu (324.754 nm)	0.001139	ppm	0.000176	15.46	366.420000	Y 377.433
Fe (238.204 nm)	0.139187	ppm	0.001999	1.44	342.185778	Y_R 377.433
Fe H (259.940 nm)	0.143584 u	ppm	0.000447	0.31	209.987000	Y_R 377.433
K (766.491 nm)	0.586946	ppm	0.010583	1.80	2504.130000	Y_R2 488.368
Li (670.783 nm)	0.020114	ppm	0.000402	2.00	-2200.400000	Y_R2 488.368
Mg (279.078 nm)	2.072910	ppm	0.007397	0.36	6791.570000	Y 377.433
Mn (257.610 nm)	0.001096	ppm	0.000008	0.71	287.714000	Y 377.433
Mo (202.032 nm)	0.001663	ppm	0.000135	8.10	32.094200	Y 377.433
Na (589.592 nm)	2.996380	ppm	0.053929	1.80	2610.750000	Y_R2 488.368
Na H (589.593 nm)	3.586135 u	ppm	0.002318	0.06	1828.181450	Y_R4
Ni (231.604 nm)	0.000483	ppm	0.000021	4.27	-6.119590	Y 377.433
P (213.618 nm)	0.009018	ppm	0.001388	15.39	8.614400	Y 242.219
Pb (220.353 nm)	0.000382 u	ppm	0.001598	> 100.00	9.455740	Y 242.219
S (181.972 nm)	1.466500	ppm	0.010385	0.71	684.590071	Y 377.433
Sb (206.834 nm)	-0.002830 u	ppm	0.001147	40.53	-2.971270	Y 377.433
Se (196.026 nm)	0.001248	ppm	0.000185	14.81	10.704600	Y 242.219
Si (288.158 nm)	4.147800	ppm	0.040136	0.97	27190.300000	Y 377.433
Sn (189.925 nm)	0.001016 u	ppm	0.002574	> 100.00	3.724870	Y 377.433
Sr (421.552 nm)	0.022328	ppm	0.000021	0.09	3385.851705	Y_R 488.368
Th (288.505 nm)	0.000007 u	ppm	0.001549	> 100.00	11.918900	Y 377.433
Ti (336.122 nm)	0.000340	ppm	0.000110	32.44	-369.769000	Y 377.433
Tl (190.794 nm)	-0.000156 u	ppm	0.001396	> 100.00	1.192660	Y 377.433
U (409.013 nm)	0.007319	ppm	0.006476	88.48	-2.244980	Y 377.433
V (292.401 nm)	0.005993	ppm	0.000114	1.89	163.669000	Y 377.433
Zn (206.200 nm)	0.005027	ppm	0.000191	3.80	26.687500	Y 377.433
Zr (343.823 nm)	0.000068 u	ppm	0.000273	> 100.00	-157.760000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124386	25990.704418	0.005429	0.48
Y 377.433	1.100541	769752.817229	0.005284	0.48
Y_R 377.433	1.136660	68914.400000	0.008962	0.79
Y_R 488.368	1.146860	60586.200000	0.002039	0.18
Y_R2 488.368	1.125672	119327.226116	0.004297	0.38
Y_R4	1.135470	51095.900000	0.006347	0.56

Sample Name: 280-123483-A-13-B MS

Date: 5/24/2019 9:23:22 PM Rack:Tube: 1:72

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051919	ppm	0.000488	0.94	1208.840000	Y 377.433
Al (394.401 nm)	9.794190 o	ppm	0.014477	0.15	119918.000000	Y 377.433
Al H (396.152 nm)	9.594690	ppm	0.001284	0.01	21234.900000	Y_R 377.433
As (188.980 nm)	2.011880	ppm	0.005944	0.30	3029.840000	Y 242.219
B (249.678 nm)	0.993957	ppm	0.002401	0.24	7139.360000	Y 242.219
Ba (493.408 nm)	1.973480	ppm	0.000324	0.02	198151.000000	Y_R 488.368
Be (234.861 nm)	0.966925	ppm	0.002347	0.24	95180.900000	Y_R 488.368
Bi (223.061 nm)	1.954250	ppm	0.005016	0.26	4271.290000	Y 377.433
Ca (315.887 nm)	78.764560	ppm	0.003478	0.00	62488.672712	Y_R 377.433
Cd (214.439 nm)	1.017370	ppm	0.000954	0.09	37621.400000	Y 377.433
Co (228.615 nm)	0.965648	ppm	0.000096	0.01	22723.500000	Y 242.219
Cr (205.560 nm)	1.054020	ppm	0.000407	0.04	7015.460000	Y 377.433
Cu (324.754 nm)	0.969074	ppm	0.004586	0.47	45557.400000	Y 377.433
Fe (238.204 nm)	10.064009 o	ppm	0.018797	0.19	24232.967044	Y_R 377.433
Fe H (259.940 nm)	9.982660	ppm	0.015211	0.15	13817.300000	Y_R 377.433
K (766.491 nm)	51.868000	ppm	0.722361	1.39	52020.400000	Y_R2 488.368
Li (670.783 nm)	1.008540	ppm	0.005997	0.59	14771.100000	Y_R2 488.368
Mg (279.078 nm)	59.425900	ppm	0.089890	0.15	194428.000000	Y 377.433
Mn (257.610 nm)	0.983906	ppm	0.002118	0.22	268260.000000	Y 377.433
Mo (202.032 nm)	1.017920	ppm	0.001257	0.12	12841.300000	Y 377.433
Na (589.592 nm)	62.029800 o	ppm	0.219502	0.35	51519.000000	Y_R2 488.368
Na H (589.593 nm)	63.497476	ppm	0.156990	0.25	34333.447894	Y_R4
Ni (231.604 nm)	0.988996	ppm	0.001420	0.14	5110.800000	Y 377.433
P (213.618 nm)	20.317000	ppm	0.008216	0.04	28783.900000	Y 242.219
Pb (220.353 nm)	0.985413	ppm	0.001325	0.13	3137.300000	Y 242.219
S (181.972 nm)	17.428131	ppm	0.057327	0.33	8001.030245	Y 377.433
Sb (206.834 nm)	1.077650	ppm	0.001695	0.16	1817.010000	Y 377.433
Se (196.026 nm)	1.969270	ppm	0.001525	0.08	2977.840000	Y 242.219
Si (288.158 nm)	23.240800	ppm	0.042715	0.18	150103.000000	Y 377.433
Sn (189.925 nm)	2.063040	ppm	0.007706	0.37	3321.640000	Y 377.433
Sr (421.552 nm)	1.060653	ppm	0.000040	0.00	159760.215980	Y_R 488.368
Th (288.505 nm)	0.999305	ppm	0.002764	0.28	1639.470000	Y 377.433
Ti (336.122 nm)	0.982977	ppm	0.001093	0.11	125622.000000	Y 377.433
Tl (190.794 nm)	1.981150	ppm	0.005684	0.29	4522.900000	Y 377.433
U (409.013 nm)	1.970260	ppm	0.002725	0.14	6161.430000	Y 377.433
V (292.401 nm)	1.013480	ppm	0.001981	0.20	52122.500000	Y 377.433
Zn (206.200 nm)	0.509789	ppm	0.001298	0.25	2297.850000	Y 377.433
Zr (343.823 nm)	0.486865	ppm	0.000736	0.15	27400.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071380	24765.451830	0.001533	0.14
Y 377.433	1.057559	739690.036103	0.000664	0.06
Y_R 377.433	1.111180	67369.600000	0.000100	0.01
Y_R 488.368	1.125100	59436.500000	0.000005	0.00
Y_R2 488.368	1.093208	115885.837132	0.003910	0.36
Y_R4	1.116960	50263.000000	0.000126	0.01

Sample Name: 280-123483-A-13-C MSD

Date: 5/24/2019 9:27:01 PM Rack:Tube: 1:73

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051566	ppm	0.000232	0.45	1198.770000	Y 377.433
Al (394.401 nm)	9.730200 o	ppm	0.018209	0.19	119134.000000	Y 377.433
Al H (396.152 nm)	9.543630	ppm	0.007082	0.07	21119.700000	Y_R 377.433
As (188.980 nm)	1.991650	ppm	0.005265	0.26	2999.350000	Y 242.219
B (249.678 nm)	0.989844	ppm	0.001199	0.12	7110.020000	Y 242.219
Ba (493.408 nm)	1.957530	ppm	0.001591	0.08	196561.000000	Y_R 488.368
Be (234.861 nm)	0.969503	ppm	0.001503	0.16	95435.100000	Y_R 488.368
Bi (223.061 nm)	1.942190	ppm	0.004458	0.23	4244.880000	Y 377.433
Ca (315.887 nm)	78.808529	ppm	0.025442	0.03	62523.579505	Y_R 377.433
Cd (214.439 nm)	1.010620	ppm	0.003657	0.36	37371.600000	Y 377.433
Co (228.615 nm)	0.958851	ppm	0.002501	0.26	22563.500000	Y 242.219
Cr (205.560 nm)	1.045350	ppm	0.003681	0.35	6957.630000	Y 377.433
Cu (324.754 nm)	0.966505	ppm	0.002801	0.29	45437.600000	Y 377.433
Fe (238.204 nm)	10.005832 o	ppm	0.003587	0.04	24092.924135	Y_R 377.433
Fe H (259.940 nm)	9.917040	ppm	0.032618	0.33	13726.500000	Y_R 377.433
K (766.491 nm)	51.424900	ppm	0.600793	1.17	51592.700000	Y_R2 488.368
Li (670.783 nm)	1.001950	ppm	0.002234	0.22	14658.000000	Y_R2 488.368
Mg (279.078 nm)	59.380500	ppm	0.177062	0.30	194280.000000	Y 377.433
Mn (257.610 nm)	0.978717	ppm	0.003044	0.31	266846.000000	Y 377.433
Mo (202.032 nm)	1.012500	ppm	0.001313	0.13	12772.900000	Y 377.433
Na (589.592 nm)	61.765900 o	ppm	0.006081	0.01	51298.500000	Y_R2 488.368
Na H (589.593 nm)	63.438071	ppm	0.039552	0.06	34301.217695	Y_R4
Ni (231.604 nm)	0.982030	ppm	0.005021	0.51	5074.740000	Y 377.433
P (213.618 nm)	20.171300	ppm	0.066674	0.33	28575.900000	Y 242.219
Pb (220.353 nm)	0.980890	ppm	0.000729	0.07	3122.940000	Y 242.219
S (181.972 nm)	17.430579	ppm	0.065954	0.38	8002.140372	Y 377.433
Sb (206.834 nm)	1.062050	ppm	0.002007	0.19	1790.670000	Y 377.433
Se (196.026 nm)	1.951380	ppm	0.005582	0.29	2950.850000	Y 242.219
Si (288.158 nm)	23.696500	ppm	0.005118	0.02	153037.000000	Y 377.433
Sn (189.925 nm)	2.043400	ppm	0.002394	0.12	3290.030000	Y 377.433
Sr (421.552 nm)	1.053046	ppm	0.001386	0.13	158614.479535	Y_R 488.368
Th (288.505 nm)	0.989349	ppm	0.001620	0.16	1622.800000	Y 377.433
Ti (336.122 nm)	0.977634	ppm	0.002051	0.21	124939.000000	Y 377.433
Tl (190.794 nm)	1.964500	ppm	0.009854	0.50	4484.860000	Y 377.433
U (409.013 nm)	1.965980	ppm	0.001890	0.10	6148.090000	Y 377.433
V (292.401 nm)	1.007160	ppm	0.003485	0.35	51797.900000	Y 377.433
Zn (206.200 nm)	0.505347	ppm	0.001504	0.30	2277.870000	Y 377.433
Zr (343.823 nm)	0.483918	ppm	0.001049	0.22	27233.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.065796	24636.369196	0.001549	0.15
Y 377.433	1.052791	736354.870475	0.002461	0.23
Y_R 377.433	1.095180	66399.200000	0.001551	0.14
Y_R 488.368	1.110020	58639.900000	0.000327	0.03
Y_R2 488.368	1.097886	116381.737318	0.000294	0.03
Y_R4	1.104890	49720.000000	0.000365	0.03

Sample Name: 280-123483-A-13-Apds

Date: 5/24/2019 9:30:41 PM Rack:Tube: 1:74

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.048035	ppm	0.000238	0.50	1371.230000	Y 377.433
Al (394.401 nm)	0.999728	ppm	0.002627	0.26	12354.800000	Y 377.433
Al H (396.152 nm)	1.095380	ppm	0.001281	0.12	2195.980000	Y_R 377.433
As (188.980 nm)	0.205601	ppm	0.001599	0.78	308.214000	Y 242.219
B (249.678 nm)	0.115367	ppm	0.000753	0.65	869.970000	Y 242.219
Ba (493.408 nm)	0.123583	ppm	0.000023	0.02	13720.800000	Y_R 488.368
Be (234.861 nm)	0.048870	ppm	0.000159	0.33	4806.430000	Y_R 488.368
Bi (223.061 nm)	0.003191	ppm	0.001460	45.77	-3.391760	Y 377.433
Ca (315.887 nm)	49.197629	ppm	0.123399	0.25	39004.247392	Y_R 377.433
Cd (214.439 nm)	0.052693	ppm	0.000058	0.11	1943.830000	Y 377.433
Co (228.615 nm)	0.048680	ppm	0.000701	1.44	1131.040000	Y 242.219
Cr (205.560 nm)	0.071250	ppm	0.000665	0.93	468.027000	Y 377.433
Cu (324.754 nm)	0.051219	ppm	0.000038	0.07	2686.990000	Y 377.433
Fe (238.204 nm)	1.058662	ppm	0.001124	0.11	2555.524171	Y_R 377.433
Fe H (259.940 nm)	1.055520 u	ppm	0.001651	0.16	1471.180000	Y_R 377.433
K (766.491 nm)	22.760000	ppm	0.110883	0.49	23914.100000	Y_R2 488.368
Li (670.783 nm)	0.123192	ppm	0.003593	2.92	-430.538000	Y_R2 488.368
Mg (279.078 nm)	29.864500	ppm	0.109305	0.37	97726.300000	Y 377.433
Mn (257.610 nm)	0.050508	ppm	0.000190	0.38	13760.300000	Y 377.433
Mo (202.032 nm)	0.058436	ppm	0.000518	0.89	747.676000	Y 377.433
Na (589.592 nm)	33.276400	ppm	0.150629	0.45	27494.900000	Y_R2 488.368
Na H (589.593 nm)	34.150209 u	ppm	0.062626	0.18	18410.908046	Y_R4
Ni (231.604 nm)	0.049922	ppm	0.000249	0.50	249.915000	Y 377.433
P (213.618 nm)	2.033210	ppm	0.009146	0.45	2888.850000	Y 242.219
Pb (220.353 nm)	0.100597	ppm	0.000754	0.75	328.704000	Y 242.219
S (181.972 nm)	7.185344	ppm	0.034236	0.48	3305.849998	Y 377.433
Sb (206.834 nm)	0.101562	ppm	0.003467	3.41	173.140000	Y 377.433
Se (196.026 nm)	0.200227	ppm	0.005164	2.58	310.643000	Y 242.219
Si (288.158 nm)	25.471500	ppm	0.237451	0.93	164463.000000	Y 377.433
Sn (189.925 nm)	0.104739	ppm	0.000230	0.22	170.621000	Y 377.433
Sr (421.552 nm)	0.157191	ppm	0.000280	0.18	23696.458830	Y_R 488.368
Th (288.505 nm)	0.202799	ppm	0.006429	3.17	355.360000	Y 377.433
Ti (336.122 nm)	0.049207	ppm	0.000172	0.35	6031.030000	Y 377.433
Tl (190.794 nm)	0.205361	ppm	0.000137	0.07	469.096000	Y 377.433
U (409.013 nm)	0.513994	ppm	0.002095	0.41	1593.730000	Y 377.433
V (292.401 nm)	0.079731	ppm	0.000212	0.27	3964.550000	Y 377.433
Zn (206.200 nm)	0.212588	ppm	0.000087	0.04	960.162000	Y 377.433
Zr (343.823 nm)	0.049472	ppm	0.000218	0.44	2639.080000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092613	25256.251269	0.003212	0.29
Y 377.433	1.074669	751657.091478	0.004263	0.40
Y_R 377.433	1.120150	67913.500000	0.007586	0.68
Y_R 488.368	1.134580	59937.000000	0.005106	0.45
Y_R2 488.368	1.111883	117865.496370	0.002666	0.24
Y_R4	1.105690	49756.200000	0.003117	0.28

Sample Name: 280-123483-A-14-A

Date: 5/24/2019 9:34:14 PM Rack:Tube: 1:75

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001066	ppm	0.000324	30.42	-242.112000	Y 377.433
Al (394.401 nm)	0.003155	ppm	0.000854	27.06	164.582000	Y 377.433
Al H (396.152 nm)	0.110453 u	ppm	0.004851	4.39	23.996200	Y_R 377.433
As (188.980 nm)	0.004090	ppm	0.000470	11.50	4.586340	Y 242.219
B (249.678 nm)	0.015605	ppm	0.000580	3.72	158.116000	Y 242.219
Ba (493.408 nm)	0.024854	ppm	0.000248	1.00	3877.300000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000020	34.42	-7.690220	Y_R 488.368
Bi (223.061 nm)	0.000287 u	ppm	0.001079	> 100.00	-9.975680	Y 377.433
Ca (315.887 nm)	29.091394	ppm	0.155710	0.54	23035.512801	Y_R 377.433
Cd (214.439 nm)	0.000116	ppm	0.000064	54.93	-0.873252	Y 377.433
Co (228.615 nm)	-0.000193 u	ppm	0.000213	> 100.00	-19.658800	Y 242.219
Cr (205.560 nm)	0.019752	ppm	0.000631	3.20	124.952000	Y 377.433
Cu (324.754 nm)	0.001289	ppm	0.000166	12.84	357.713000	Y 377.433
Fe (238.204 nm)	0.005518	ppm	0.003879	70.29	20.422230	Y_R 377.433
Fe H (259.940 nm)	0.005092 u	ppm	0.000398	7.81	18.455400	Y_R 377.433
K (766.491 nm)	2.976040	ppm	0.517300	17.38	4811.010000	Y_R2 488.368
Li (670.783 nm)	0.024768	ppm	0.000125	0.50	-2120.490000	Y_R2 488.368
Mg (279.078 nm)	9.761620	ppm	0.005334	0.05	31951.500000	Y 377.433
Mn (257.610 nm)	0.000492	ppm	0.000011	2.16	123.221000	Y 377.433
Mo (202.032 nm)	0.007653	ppm	0.000044	0.57	107.590000	Y 377.433
Na (589.592 nm)	14.559300	ppm	0.021092	0.14	12107.600000	Y_R2 488.368
Na H (589.593 nm)	15.013806 u	ppm	0.007004	0.05	8028.334734	Y_R4
Ni (231.604 nm)	-0.000564 u	ppm	0.000568	> 100.00	-11.540000	Y 377.433
P (213.618 nm)	0.034990	ppm	0.003542	10.12	45.405700	Y 242.219
Pb (220.353 nm)	0.000735	ppm	0.000471	64.07	10.608400	Y 242.219
S (181.972 nm)	6.991214	ppm	0.023318	0.33	3215.790121	Y 377.433
Sb (206.834 nm)	-0.005158 u	ppm	0.000468	9.08	-6.843380	Y 377.433
Se (196.026 nm)	0.001715	ppm	0.000620	36.15	11.444100	Y 242.219
Si (288.158 nm)	20.396900	ppm	0.048877	0.24	131795.000000	Y 377.433
Sn (189.925 nm)	0.001648	ppm	0.000058	3.50	4.742070	Y 377.433
Sr (421.552 nm)	0.111681	ppm	0.000057	0.05	16842.503551	Y_R 488.368
Th (288.505 nm)	-0.005736 u	ppm	0.000325	5.67	-1.061150	Y 377.433
Ti (336.122 nm)	0.000107	ppm	0.000058	54.43	-321.075000	Y 377.433
Tl (190.794 nm)	-0.000057 u	ppm	0.001152	> 100.00	0.484323	Y 377.433
U (409.013 nm)	0.019056	ppm	0.001381	7.25	31.832100	Y 377.433
V (292.401 nm)	0.029636	ppm	0.000127	0.43	1384.760000	Y 377.433
Zn (206.200 nm)	0.002651	ppm	0.000264	9.96	15.984400	Y 377.433
Zr (343.823 nm)	0.000125 u	ppm	0.000262	> 100.00	-154.519000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075272	24855.404190	0.001970	0.18
Y 377.433	1.065376	745157.259861	0.001688	0.16
Y_R 377.433	1.085770	65828.900000	0.005384	0.50
Y_R 488.368	1.098370	58024.300000	0.002101	0.19
Y_R2 488.368	1.091324	115686.159433	0.008999	0.82
Y_R4	1.080380	48616.900000	0.003823	0.35

Sample Name: 280-123483-A-20-A

Date: 5/24/2019 9:37:43 PM Rack:Tube: 1:76

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001058	ppm	0.000012	1.11	-242.427000	Y 377.433
Al (394.401 nm)	0.005497	ppm	0.000207	3.77	189.901000	Y 377.433
Al H (396.152 nm)	0.116975 u	ppm	0.009608	8.21	38.718700	Y_R 377.433
As (188.980 nm)	0.005195	ppm	0.000332	6.39	6.229460	Y 242.219
B (249.678 nm)	0.015676	ppm	0.000848	5.41	158.131000	Y 242.219
Ba (493.408 nm)	0.025330	ppm	0.000167	0.66	3925.400000	Y_R 488.368
Be (234.861 nm)	-0.000052 u	ppm	0.000040	76.38	-10.668300	Y_R 488.368
Bi (223.061 nm)	0.001420	ppm	0.000812	57.22	-7.349740	Y 377.433
Ca (315.887 nm)	29.285458	ppm	0.092707	0.32	23189.641111	Y_R 377.433
Cd (214.439 nm)	0.000189	ppm	0.000104	54.85	2.145740	Y 377.433
Co (228.615 nm)	-0.000233 u	ppm	0.000516	> 100.00	-20.612900	Y 242.219
Cr (205.560 nm)	0.021092	ppm	0.000610	2.89	133.885000	Y 377.433
Cu (324.754 nm)	0.000859	ppm	0.000249	28.96	339.770000	Y 377.433
Fe (238.204 nm)	0.845953	ppm	0.002710	0.32	2043.497214	Y_R 377.433
Fe H (259.940 nm)	0.847412 u	ppm	0.000882	0.10	1183.370000	Y_R 377.433
K (766.491 nm)	2.841060	ppm	0.432996	15.24	4680.680000	Y_R2 488.368
Li (670.783 nm)	0.025169	ppm	0.001954	7.76	-2113.610000	Y_R2 488.368
Mg (279.078 nm)	9.839010	ppm	0.033199	0.34	32203.800000	Y 377.433
Mn (257.610 nm)	0.004507	ppm	0.000014	0.31	1217.720000	Y 377.433
Mo (202.032 nm)	0.008206	ppm	0.000379	4.62	114.562000	Y 377.433
Na (589.592 nm)	14.563500	ppm	0.092809	0.64	12111.200000	Y_R2 488.368
Na H (589.593 nm)	15.177992 u	ppm	0.073629	0.49	8117.414840	Y_R4
Ni (231.604 nm)	0.000145	ppm	0.000041	27.94	-7.869320	Y 377.433
P (213.618 nm)	0.036525	ppm	0.000241	0.66	47.687800	Y 242.219
Pb (220.353 nm)	0.000603 u	ppm	0.001697	> 100.00	10.161900	Y 242.219
S (181.972 nm)	7.070215	ppm	0.023033	0.33	3251.991871	Y 377.433
Sb (206.834 nm)	-0.003522 u	ppm	0.002164	61.44	-4.004840	Y 377.433
Se (196.026 nm)	0.003227	ppm	0.001511	46.83	13.513900	Y 242.219
Si (288.158 nm)	20.582000	ppm	0.011061	0.05	132986.000000	Y 377.433
Sn (189.925 nm)	0.001583	ppm	0.000634	40.04	4.636760	Y 377.433
Sr (421.552 nm)	0.113068	ppm	0.000024	0.02	17051.486611	Y_R 488.368
Th (288.505 nm)	0.003933	ppm	0.003522	89.56	15.536600	Y 377.433
Ti (336.122 nm)	0.000364	ppm	0.000000	0.03	-287.498000	Y 377.433
Tl (190.794 nm)	-0.000018 u	ppm	0.000311	> 100.00	0.459937	Y 377.433
U (409.013 nm)	0.010899	ppm	0.011456	> 100.00	6.539540	Y 377.433
V (292.401 nm)	0.029968	ppm	0.000171	0.57	1402.930000	Y 377.433
Zn (206.200 nm)	0.019951	ppm	0.000017	0.09	93.896400	Y 377.433
Zr (343.823 nm)	0.000215	ppm	0.000104	48.30	-149.427000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.078424	24928.283564	0.004593	0.43
Y 377.433	1.069988	748382.759548	0.005376	0.50
Y_R 377.433	1.085430	65808.500000	0.006645	0.61
Y_R 488.368	1.095030	57847.900000	0.005467	0.50
Y_R2 488.368	1.098020	116395.904328	0.003670	0.33
Y_R4	1.088630	48988.400000	0.010096	0.93

Sample Name: 280-123483-A-22-A

Date: 5/24/2019 9:41:16 PM Rack:Tube: 1:77

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000800	ppm	0.000083	10.32	-251.739000	Y 377.433
Al (394.401 nm)	0.004513	ppm	0.000226	5.00	182.710000	Y 377.433
Al H (396.152 nm)	0.111266 u	ppm	0.000320	0.29	27.164300	Y_R 377.433
As (188.980 nm)	0.003709	ppm	0.001127	30.39	4.013420	Y 242.219
B (249.678 nm)	0.016146	ppm	0.001174	7.27	161.971000	Y 242.219
Ba (493.408 nm)	0.025640	ppm	0.000103	0.40	3955.570000	Y_R 488.368
Be (234.861 nm)	-0.000044 u	ppm	0.000030	67.82	-6.380110	Y_R 488.368
Bi (223.061 nm)	0.000379 u	ppm	0.000766	> 100.00	-9.774260	Y 377.433
Ca (315.887 nm)	29.952044	ppm	0.137012	0.46	23719.045446	Y_R 377.433
Cd (214.439 nm)	0.000117	ppm	0.000104	88.78	-0.842939	Y 377.433
Co (228.615 nm)	-0.000401 u	ppm	0.000053	13.14	-24.549600	Y 242.219
Cr (205.560 nm)	0.019366	ppm	0.000541	2.79	122.374000	Y 377.433
Cu (324.754 nm)	0.000453	ppm	0.000347	76.62	318.123000	Y 377.433
Fe (238.204 nm)	0.010551	ppm	0.000716	6.79	32.538038	Y_R 377.433
Fe H (259.940 nm)	0.012903 u	ppm	0.000075	0.58	29.258000	Y_R 377.433
K (766.491 nm)	3.076620	ppm	0.259455	8.43	4908.130000	Y_R2 488.368
Li (670.783 nm)	0.022907	ppm	0.000516	2.25	-2152.450000	Y_R2 488.368
Mg (279.078 nm)	10.071200	ppm	0.019589	0.19	32964.400000	Y 377.433
Mn (257.610 nm)	0.000262	ppm	0.000012	4.62	60.439900	Y 377.433
Mo (202.032 nm)	0.008104	ppm	0.000205	2.53	113.275000	Y 377.433
Na (589.592 nm)	14.970800	ppm	0.096424	0.64	12445.500000	Y_R2 488.368
Na H (589.593 nm)	15.371156 u	ppm	0.091239	0.59	8222.217228	Y_R4
Ni (231.604 nm)	-0.000683 u	ppm	0.000263	38.43	-12.154000	Y 377.433
P (213.618 nm)	0.038704	ppm	0.002552	6.59	50.853700	Y 242.219
Pb (220.353 nm)	-0.000869 u	ppm	0.001459	> 100.00	5.527260	Y 242.219
S (181.972 nm)	7.245108	ppm	0.017057	0.24	3332.106163	Y 377.433
Sb (206.834 nm)	-0.001851 u	ppm	0.000032	1.71	-1.260520	Y 377.433
Se (196.026 nm)	0.002288	ppm	0.000287	12.53	12.306900	Y 242.219
Si (288.158 nm)	21.037200	ppm	0.030426	0.14	135917.000000	Y 377.433
Sn (189.925 nm)	0.000347 u	ppm	0.001319	> 100.00	2.648610	Y 377.433
Sr (421.552 nm)	0.115583	ppm	0.000495	0.43	17430.118958	Y_R 488.368
Th (288.505 nm)	-0.002493 u	ppm	0.001556	62.43	4.456590	Y 377.433
Ti (336.122 nm)	0.000158	ppm	0.000073	46.15	-311.363000	Y 377.433
Tl (190.794 nm)	0.001115	ppm	0.000950	85.18	3.126030	Y 377.433
U (409.013 nm)	0.014256	ppm	0.001002	7.03	16.471000	Y 377.433
V (292.401 nm)	0.030554	ppm	0.000275	0.90	1432.240000	Y 377.433
Zn (206.200 nm)	0.002117	ppm	0.000445	21.00	13.586200	Y 377.433
Zr (343.823 nm)	0.000130	ppm	0.000160	> 100.00	-154.263000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076908	24893.237839	0.001910	0.18
Y 377.433	1.067042	746322.824252	0.001906	0.18
Y_R 377.433	1.103680	66914.500000	0.004742	0.43
Y_R 488.368	1.115400	58924.100000	0.002895	0.26
Y_R2 488.368	1.108589	117516.257977	0.003333	0.30
Y_R4	1.098060	49412.600000	0.003807	0.35

Sample Name: 280-123533-A-2-A

Date: 5/24/2019 9:44:45 PM Rack:Tube: 1:78

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001109	ppm	0.000409	36.87	-235.988000	Y 377.433
Al (394.401 nm)	0.012423	ppm	0.000561	4.52	345.282000	Y 377.433
Al H (396.152 nm)	0.076408 u	ppm	0.003796	4.97	45.506100	Y_R 377.433
As (188.980 nm)	0.007808	ppm	0.002814	36.04	10.187900	Y 242.219
B (249.678 nm)	0.012451	ppm	0.000408	3.27	135.537000	Y 242.219
Ba (493.408 nm)	0.058082	ppm	0.000247	0.42	7189.980000	Y_R 488.368
Be (234.861 nm)	-0.000125 u	ppm	0.000012	9.63	-14.659000	Y_R 488.368
Bi (223.061 nm)	-0.001256 u	ppm	0.001592	> 100.00	-13.329000	Y 377.433
Ca (315.887 nm)	74.912828	ppm	0.046094	0.06	59427.156410	Y_R 377.433
Cd (214.439 nm)	0.000163	ppm	0.000023	13.98	0.897507	Y 377.433
Co (228.615 nm)	-0.000335 u	ppm	0.000183	54.53	-22.993400	Y 242.219
Cr (205.560 nm)	0.018839	ppm	0.000097	0.52	118.862000	Y 377.433
Cu (324.754 nm)	0.000983	ppm	0.000084	8.52	316.189000	Y 377.433
Fe (238.204 nm)	0.090849	ppm	0.001634	1.80	225.828064	Y_R 377.433
Fe H (259.940 nm)	0.091067 u	ppm	0.000537	0.59	137.358000	Y_R 377.433
K (766.491 nm)	8.524570	ppm	0.115973	1.36	10168.600000	Y_R2 488.368
Li (670.783 nm)	0.024953	ppm	0.002224	8.91	-2117.320000	Y_R2 488.368
Mg (279.078 nm)	19.681100	ppm	0.037020	0.19	64411.300000	Y 377.433
Mn (257.610 nm)	0.001979	ppm	0.000013	0.67	528.590000	Y 377.433
Mo (202.032 nm)	0.006520	ppm	0.000369	5.66	93.307200	Y 377.433
Na (589.592 nm)	26.208300	ppm	0.028347	0.11	21677.800000	Y_R2 488.368
Na H (589.593 nm)	26.675732 u	ppm	0.125367	0.47	14355.584662	Y_R4
Ni (231.604 nm)	0.001807	ppm	0.000068	3.76	0.730471	Y 377.433
P (213.618 nm)	0.018146	ppm	0.001443	7.95	21.286700	Y 242.219
Pb (220.353 nm)	-0.002084 u	ppm	0.001193	57.24	1.685850	Y 242.219
S (181.972 nm)	40.100010	ppm	0.131006	0.33	18380.382127	Y 377.433
Sb (206.834 nm)	-0.003880 u	ppm	0.000011	0.28	-4.678600	Y 377.433
Se (196.026 nm)	0.006926	ppm	0.001909	27.56	19.283000	Y 242.219
Si (288.158 nm)	18.133000	ppm	0.013923	0.08	117221.000000	Y 377.433
Sn (189.925 nm)	0.001141	ppm	0.001586	> 100.00	3.927050	Y 377.433
Sr (421.552 nm)	0.364934	ppm	0.000514	0.14	54982.689558	Y_R 488.368
Th (288.505 nm)	-0.006158 u	ppm	0.002920	47.42	-1.497750	Y 377.433
Ti (336.122 nm)	0.000152	ppm	0.000165	> 100.00	-158.127000	Y 377.433
Tl (190.794 nm)	0.000619	ppm	0.000683	> 100.00	0.187166	Y 377.433
U (409.013 nm)	0.033956	ppm	0.002529	7.45	73.004300	Y 377.433
V (292.401 nm)	0.017353	ppm	0.000191	1.10	745.863000	Y 377.433
Zn (206.200 nm)	0.001972	ppm	0.000081	4.09	12.946400	Y 377.433
Zr (343.823 nm)	0.000167	ppm	0.000011	6.51	-152.189000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087731	25143.407691	0.006435	0.59
Y 377.433	1.070186	748521.173788	0.005634	0.53
Y_R 377.433	1.109160	67247.300000	0.002912	0.26
Y_R 488.368	1.121690	59256.400000	0.000407	0.04
Y_R2 488.368	1.100490	116657.812816	0.001761	0.16
Y_R4	1.101800	49580.800000	0.010123	0.92

Sample Name: 280-123533-A-3-A

Date: 5/24/2019 9:48:13 PM Rack:Tube: 1:79

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001525	ppm	0.000190	12.43	-221.540000	Y 377.433
Al (394.401 nm)	0.010677	ppm	0.001101	10.31	322.798000	Y 377.433
Al H (396.152 nm)	0.064675 u	ppm	0.000212	0.33	19.379200	Y_R 377.433
As (188.980 nm)	0.007804	ppm	0.001884	24.14	10.183300	Y 242.219
B (249.678 nm)	0.012322	ppm	0.000500	4.06	134.653000	Y 242.219
Ba (493.408 nm)	0.056905	ppm	0.000116	0.20	7072.580000	Y_R 488.368
Be (234.861 nm)	-0.000031 u	ppm	0.000013	42.87	-5.114200	Y_R 488.368
Bi (223.061 nm)	0.000374 u	ppm	0.001104	> 100.00	-9.769060	Y 377.433
Ca (315.887 nm)	71.663335	ppm	0.127712	0.18	56846.390577	Y_R 377.433
Cd (214.439 nm)	0.000149	ppm	0.000045	30.19	0.333525	Y 377.433
Co (228.615 nm)	-0.000107 u	ppm	0.000219	> 100.00	-17.646700	Y 242.219
Cr (205.560 nm)	0.014182	ppm	0.000041	0.29	87.801000	Y 377.433
Cu (324.754 nm)	0.000352	ppm	0.000035	9.83	289.029000	Y 377.433
Fe (238.204 nm)	0.027686	ppm	0.000313	1.13	73.785537	Y_R 377.433
Fe H (259.940 nm)	0.024980 u	ppm	0.001963	7.86	45.959900	Y_R 377.433
K (766.491 nm)	8.359360	ppm	0.414704	4.96	10009.100000	Y_R2 488.368
Li (670.783 nm)	0.029311	ppm	0.003321	11.33	-2042.490000	Y_R2 488.368
Mg (279.078 nm)	19.017600	ppm	0.021288	0.11	62240.000000	Y 377.433
Mn (257.610 nm)	0.001362	ppm	0.000007	0.51	360.424000	Y 377.433
Mo (202.032 nm)	0.006600	ppm	0.000134	2.02	94.315400	Y 377.433
Na (589.592 nm)	25.826800	ppm	0.102948	0.40	21364.300000	Y_R2 488.368
Na H (589.593 nm)	26.722078 u	ppm	0.222266	0.83	14380.729723	Y_R4
Ni (231.604 nm)	0.001090	ppm	0.001169	> 100.00	-2.982380	Y 377.433
P (213.618 nm)	0.017354	ppm	0.002341	13.49	20.286800	Y 242.219
Pb (220.353 nm)	-0.001864 u	ppm	0.000546	29.28	2.398910	Y 242.219
S (181.972 nm)	39.155356	ppm	0.000676	0.00	17947.615207	Y 377.433
Sb (206.834 nm)	-0.004817 u	ppm	0.002379	49.39	-6.292210	Y 377.433
Se (196.026 nm)	0.008682	ppm	0.004295	49.47	21.947300	Y 242.219
Si (288.158 nm)	17.672800	ppm	0.045623	0.26	114258.000000	Y 377.433
Sn (189.925 nm)	0.001878	ppm	0.000487	25.96	5.111560	Y 377.433
Sr (421.552 nm)	0.361966	ppm	0.000085	0.02	54535.592290	Y_R 488.368
Th (288.505 nm)	-0.004453 u	ppm	0.004405	98.90	1.541450	Y 377.433
Ti (336.122 nm)	-0.000230 u	ppm	0.000018	7.95	-217.760000	Y 377.433
Tl (190.794 nm)	-0.000606 u	ppm	0.000377	62.14	-2.477920	Y 377.433
U (409.013 nm)	0.031013	ppm	0.001600	5.16	64.059800	Y 377.433
V (292.401 nm)	0.017279	ppm	0.000010	0.06	743.643000	Y 377.433
Zn (206.200 nm)	0.002559	ppm	0.000483	18.87	15.576000	Y 377.433
Zr (343.823 nm)	0.000135	ppm	0.000171	> 100.00	-154.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.067507	24675.911474	0.007843	0.73
Y 377.433	1.060674	741868.357756	0.007922	0.75
Y_R 377.433	1.107870	67168.600000	0.005620	0.51
Y_R 488.368	1.118510	59088.600000	0.004435	0.40
Y_R2 488.368	1.111826	117859.462439	0.003371	0.30
Y_R4	1.093990	49229.300000	0.007601	0.69

Sample Name: 280-123533-A-9-A

Date: 5/24/2019 9:51:43 PM Rack:Tube: 1:80

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001694	ppm	0.000370	21.83	-214.702000	Y 377.433
Al (394.401 nm)	0.019959	ppm	0.000729	3.65	543.437000	Y 377.433
Al H (396.152 nm)	-0.009725 u	ppm	0.006340	65.19	10.898000	Y_R 377.433
As (188.980 nm)	0.007130	ppm	0.005406	75.82	9.162620	Y 242.219
B (249.678 nm)	0.015302	ppm	0.000030	0.19	155.841000	Y 242.219
Ba (493.408 nm)	0.126536	ppm	0.000178	0.14	14014.500000	Y_R 488.368
Be (234.861 nm)	-0.000046 u	ppm	0.000038	81.06	-7.393620	Y_R 488.368
Bi (223.061 nm)	-0.000442 u	ppm	0.001175	> 100.00	-11.518600	Y 377.433
Ca (315.887 nm)	162.071188	ppm	0.676089	0.42	128648.827829	Y_R 377.433
Cd (214.439 nm)	0.000220	ppm	0.000100	45.59	3.043620	Y 377.433
Co (228.615 nm)	-0.000120 u	ppm	0.000351	> 100.00	-17.909000	Y 242.219
Cr (205.560 nm)	0.009132	ppm	0.000077	0.85	54.122800	Y 377.433
Cu (324.754 nm)	0.000614	ppm	0.000144	23.46	249.719000	Y 377.433
Fe (238.204 nm)	0.198000	ppm	0.001679	0.85	483.759956	Y_R 377.433
Fe H (259.940 nm)	0.189080 u	ppm	0.003341	1.77	272.909000	Y_R 377.433
K (766.491 nm)	12.888700	ppm	0.066817	0.52	14382.500000	Y_R2 488.368
Li (670.783 nm)	0.033644	ppm	0.001759	5.23	-1968.090000	Y_R2 488.368
Mg (279.078 nm)	44.613900	ppm	0.054303	0.12	146000.000000	Y 377.433
Mn (257.610 nm)	0.001550	ppm	0.000018	1.19	411.529000	Y 377.433
Mo (202.032 nm)	0.005906	ppm	0.000414	7.01	85.566900	Y 377.433
Na (589.592 nm)	47.235900	ppm	0.249732	0.53	38955.000000	Y_R2 488.368
Na H (589.593 nm)	47.893878 u	ppm	0.131039	0.27	25867.620039	Y_R4
Ni (231.604 nm)	0.000077 u	ppm	0.000643	> 100.00	-8.219070	Y 377.433
P (213.618 nm)	0.017688	ppm	0.005241	29.63	20.554100	Y 242.219
Pb (220.353 nm)	0.000431	ppm	0.000555	> 100.00	9.720210	Y 242.219
S (181.972 nm)	119.935293 bo	ppm	0.327223	0.27	54945.626821	Y 377.433
Sb (206.834 nm)	-0.007689 u	ppm	0.002334	30.35	-11.172400	Y 377.433
Se (196.026 nm)	0.023510	ppm	0.000397	1.69	44.266200	Y 242.219
Si (288.158 nm)	19.792600	ppm	0.010022	0.05	127904.000000	Y 377.433
Sn (189.925 nm)	0.002530	ppm	0.000686	27.10	6.161110	Y 377.433
Sr (421.552 nm)	0.778247	ppm	0.002136	0.27	117228.112580	Y_R 488.368
Th (288.505 nm)	0.003091 u	ppm	0.004577	> 100.00	12.578900	Y 377.433
Ti (336.122 nm)	0.000721	ppm	0.000143	19.85	214.603000	Y 377.433
Tl (190.794 nm)	0.003147	ppm	0.000976	31.01	2.453120	Y 377.433
U (409.013 nm)	0.028857	ppm	0.003350	11.61	45.163500	Y 377.433
V (292.401 nm)	0.014237	ppm	0.000094	0.66	587.988000	Y 377.433
Zn (206.200 nm)	0.004776	ppm	0.000269	5.63	25.570500	Y 377.433
Zr (343.823 nm)	0.000160	ppm	0.000092	57.37	-152.561000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093335	25272.954241	0.016029	1.47
Y 377.433	1.078406	754271.086101	0.015610	1.45
Y_R 377.433	1.131950	68628.800000	0.013836	1.22
Y_R 488.368	1.145150	60495.700000	0.014940	1.30
Y_R2 488.368	1.131556	119950.960556	0.013498	1.19
Y_R4	1.146600	51596.800000	0.005029	0.44

Sample Name: CCVH-5713036

Date: 5/24/2019 9:55:14 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005212	ppm	0.000054	1.04	-96.884900	Y 377.433
Al (394.401 nm)	48.964400 o	ppm	0.039318	0.08	596516.000000	Y 377.433
Al H (396.152 nm)	47.289700	ppm	0.071989	0.15	103114.000000	Y_R 377.433
As (188.980 nm)	0.003535	ppm	0.001685	47.66	2.415060	Y 242.219
B (249.678 nm)	-0.003358 u	ppm	0.000521	15.53	-5.810390	Y 242.219
Ba (493.408 nm)	-0.000156 u	ppm	0.000208	> 100.00	1423.200000	Y_R 488.368
Be (234.861 nm)	0.001129	ppm	0.000016	1.42	-99.397600	Y_R 488.368
Bi (223.061 nm)	0.008761	ppm	0.000873	9.96	17.100600	Y 377.433
Ca (315.887 nm)	0.014770	ppm	0.007808	52.86	-45.419520	Y_R 377.433
Cd (214.439 nm)	0.001336	ppm	0.000020	1.52	64.277100	Y 377.433
Co (228.615 nm)	0.003384	ppm	0.000166	4.91	64.433200	Y 242.219
Cr (205.560 nm)	0.001611	ppm	0.000495	30.70	2.711700	Y 377.433
Cu (324.754 nm)	0.003882	ppm	0.000474	12.22	1433.480000	Y 377.433
Fe (238.204 nm)	49.327702 o	ppm	0.007475	0.02	118747.528522	Y_R 377.433
Fe H (259.940 nm)	48.871600	ppm	0.049236	0.10	67600.100000	Y_R 377.433
K (766.491 nm)	0.055436 u	ppm	0.144934	> 100.00	1990.910000	Y_R2 488.368
Li (670.783 nm)	0.028833	ppm	0.003003	10.41	-2050.710000	Y_R2 488.368
Mg (279.078 nm)	0.039277	ppm	0.001480	3.77	63.713400	Y 377.433
Mn (257.610 nm)	0.000958	ppm	0.000017	1.76	250.155000	Y 377.433
Mo (202.032 nm)	0.000737	ppm	0.000273	37.07	20.418400	Y 377.433
Na (589.592 nm)	224.624000 o	ppm	1.053580	0.47	184545.000000	Y_R2 488.368
Na H (589.593 nm)	231.403491	ppm	1.303796	0.56	125431.889030	Y_R4
Ni (231.604 nm)	0.004185	ppm	0.000427	10.21	13.036600	Y 377.433
P (213.618 nm)	4.922960	ppm	0.016080	0.33	7031.460000	Y 242.219
Pb (220.353 nm)	0.005369	ppm	0.000485	9.04	18.726700	Y 242.219
S (181.972 nm)	4.909358	ppm	0.024841	0.51	2260.967293	Y 377.433
Sb (206.834 nm)	-0.001407 u	ppm	0.003331	> 100.00	3.561320	Y 377.433
Se (196.026 nm)	0.005890	ppm	0.000330	5.60	5.036650	Y 242.219
Si (288.158 nm)	0.013797	ppm	0.001162	8.42	577.367000	Y 377.433
Sn (189.925 nm)	0.000968 u	ppm	0.001996	> 100.00	3.647540	Y 377.433
Sr (421.552 nm)	0.001505	ppm	0.000002	0.13	257.231874	Y_R 488.368
Th (288.505 nm)	4.757380	ppm	0.010828	0.23	8216.640000	Y 377.433
Ti (336.122 nm)	0.002109	ppm	0.000086	4.08	-164.005000	Y 377.433
Tl (190.794 nm)	-0.000008 u	ppm	0.000293	> 100.00	-2.944900	Y 377.433
U (409.013 nm)	0.532220 Q	ppm	0.005807	1.09	1699.880000 Q	Y 377.433
V (292.401 nm)	0.001025	ppm	0.000013	1.30	393.076000	Y 377.433
Zn (206.200 nm)	0.002556	ppm	0.000569	22.26	22.427000	Y 377.433
Zr (343.823 nm)	0.001249	ppm	0.000114	9.11	-90.929000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120163	25893.081787	0.000684	0.06
Y 377.433	1.100355	769622.674633	0.001849	0.17
Y_R 377.433	1.173700	71159.700000	0.001940	0.17
Y_R 488.368	1.182170	62451.200000	0.001404	0.12
Y_R2 488.368	1.172232	124262.792528	0.010109	0.86
Y_R4	1.173740	52818.100000	0.009180	0.78

Sample Name: CCV-5717467

Date: 5/24/2019 9:58:56 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.487512	ppm	0.001497	0.31	16554.700000	Y 377.433
Al (394.401 nm)	0.491738	ppm	0.000468	0.10	6214.540000	Y 377.433
Al H (396.152 nm)	0.540927 u	ppm	0.003678	0.68	1163.110000	Y_R 377.433
As (188.980 nm)	0.488788	ppm	0.004750	0.97	734.908000	Y 242.219
B (249.678 nm)	0.469881	ppm	0.001648	0.35	3400.960000	Y 242.219
Ba (493.408 nm)	0.474213	ppm	0.000967	0.20	48677.500000	Y_R 488.368
Be (234.861 nm)	0.460665	ppm	0.003745	0.81	45355.100000	Y_R 488.368
Bi (223.061 nm)	0.979059	ppm	0.003265	0.33	2134.180000	Y 377.433
Ca (315.887 nm)	4.901523	ppm	0.007807	0.16	3823.906479	Y_R 377.433
Cd (214.439 nm)	0.510207	ppm	0.001012	0.20	18863.300000	Y 377.433
Co (228.615 nm)	0.488262	ppm	0.001057	0.22	11481.500000	Y 242.219
Cr (205.560 nm)	0.508373	ppm	0.003519	0.69	3380.240000	Y 377.433
Cu (324.754 nm)	0.491292	ppm	0.001615	0.33	23230.200000	Y 377.433
Fe (238.204 nm)	2.482742	ppm	0.004850	0.20	5983.533322	Y_R 377.433
Fe H (259.940 nm)	2.467690 u	ppm	0.000388	0.02	3424.190000	Y_R 377.433
K (766.491 nm)	47.962500	ppm	0.025165	0.05	48249.300000	Y_R2 488.368
Li (670.783 nm)	0.512111	ppm	0.003580	0.70	6247.310000	Y_R2 488.368
Mg (279.078 nm)	19.612400	ppm	0.044246	0.23	64183.800000	Y 377.433
Mn (257.610 nm)	0.485216	ppm	0.001191	0.25	132288.000000	Y 377.433
Mo (202.032 nm)	0.489708	ppm	0.001019	0.21	6183.530000	Y 377.433
Na (589.592 nm)	23.164500	ppm	0.091468	0.39	19274.100000	Y_R2 488.368
Na H (589.593 nm)	24.269828 u	ppm	0.150222	0.62	13050.246199	Y_R4
Ni (231.604 nm)	0.503312	ppm	0.002240	0.45	2596.120000	Y 377.433
P (213.618 nm)	0.047353	ppm	0.003176	6.71	-69.500700	Y 242.219
Pb (220.353 nm)	0.493215	ppm	0.000332	0.07	1572.950000	Y 242.219
S (181.972 nm)	0.002796	ppm	0.002341	83.73	15.768771	Y 377.433
Sb (206.834 nm)	0.499237	ppm	0.005169	1.04	842.155000	Y 377.433
Se (196.026 nm)	0.489670	ppm	0.002955	0.60	747.492000	Y 242.219
Si (288.158 nm)	4.825620	ppm	0.021555	0.45	31553.800000	Y 377.433
Sn (189.925 nm)	0.507943	ppm	0.006697	1.32	819.399000	Y 377.433
Sr (421.552 nm)	0.464872	ppm	0.001620	0.35	70033.829739	Y_R 488.368
Th (288.505 nm)	0.020427	ppm	0.003445	16.86	-1.134770	Y 377.433
Ti (336.122 nm)	0.479641	ppm	0.000892	0.19	60959.800000	Y 377.433
Tl (190.794 nm)	0.501148	ppm	0.000452	0.09	1144.810000	Y 377.433
U (409.013 nm)	0.010860	ppm	0.003721	34.27	-49.678200	Y 377.433
V (292.401 nm)	0.481452	ppm	0.001241	0.26	24679.700000	Y 377.433
Zn (206.200 nm)	0.511425	ppm	0.002371	0.46	2304.150000	Y 377.433
Zr (343.823 nm)	0.480650	ppm	0.000512	0.11	27048.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148036	26537.391993	0.001734	0.15
Y 377.433	1.129174	789779.602682	0.002068	0.18
Y_R 377.433	1.191700	72251.200000	0.005179	0.43
Y_R 488.368	1.206830	63753.900000	0.008205	0.68
Y_R2 488.368	1.184088	125519.581389	0.008789	0.74
Y_R4	1.182430	53209.400000	0.004934	0.42

Sample Name: CCB

Date: 5/24/2019 10:02:33 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000958	ppm	0.000044	4.64	-233.802000	Y 377.433
Al (394.401 nm)	-0.002989 u	ppm	0.000383	12.83	55.420500	Y 377.433
Al H (396.152 nm)	0.133419 Zu	ppm	0.004364	3.27	33.424100 Z	Y_R 377.433
As (188.980 nm)	-0.002008 u	ppm	0.000827	41.16	-4.602120	Y 242.219
B (249.678 nm)	-0.003627 u	ppm	0.000345	9.51	20.770100	Y 242.219
Ba (493.408 nm)	-0.002506 Zu	ppm	0.000117	4.65	1149.620000 Z	Y_R 488.368
Be (234.861 nm)	-0.000045 u	ppm	0.000048	> 100.00	-6.404320	Y_R 488.368
Bi (223.061 nm)	0.000886 u	ppm	0.002560	> 100.00	-8.672310	Y 377.433
Ca (315.887 nm)	0.013939	ppm	0.012721	91.26	-57.969644	Y_R 377.433
Cd (214.439 nm)	0.000066	ppm	0.000020	30.94	-2.748020	Y 377.433
Co (228.615 nm)	-0.000127 u	ppm	0.000091	71.20	-18.138300	Y 242.219
Cr (205.560 nm)	0.000699	ppm	0.000273	39.10	-2.092520	Y 377.433
Cu (324.754 nm)	0.001088	ppm	0.000431	39.59	367.630000	Y 377.433
Fe (238.204 nm)	-0.000917 u	ppm	0.002061	> 100.00	4.931284	Y_R 377.433
Fe H (259.940 nm)	-0.000154 u	ppm	0.000204	> 100.00	11.200600	Y_R 377.433
K (766.491 nm)	-0.260652 u	ppm	0.052183	20.02	1685.700000	Y_R2 488.368
Li (670.783 nm)	0.028603 Z	ppm	0.002417	8.45	-2054.650000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001473	ppm	0.000919	62.43	13.210800	Y 377.433
Mn (257.610 nm)	0.000088	ppm	0.000013	15.17	12.866600	Y 377.433
Mo (202.032 nm)	0.000281 u	ppm	0.000489	> 100.00	14.668600	Y 377.433
Na (589.592 nm)	-0.029902 u	ppm	0.019100	63.87	125.120000	Y_R2 488.368
Na H (589.593 nm)	0.741295 u	ppm	0.041195	5.56	284.696452	Y_R4
Ni (231.604 nm)	0.000835	ppm	0.000563	67.39	-4.300780	Y 377.433
P (213.618 nm)	-0.000203 u	ppm	0.002431	> 100.00	-4.354400	Y 242.219
Pb (220.353 nm)	0.000042 u	ppm	0.000587	> 100.00	8.389980	Y 242.219
S (181.972 nm)	-0.005595 u	ppm	0.010309	> 100.00	10.136412	Y 377.433
Sb (206.834 nm)	-0.001812 u	ppm	0.001769	97.64	-1.280670	Y 377.433
Se (196.026 nm)	-0.000473 u	ppm	0.000579	> 100.00	8.144700	Y 242.219
Si (288.158 nm)	-0.008116 u	ppm	0.000323	3.98	436.301000	Y 377.433
Sn (189.925 nm)	0.000869 u	ppm	0.001341	> 100.00	3.488420	Y 377.433
Sr (421.552 nm)	0.000254	ppm	0.000012	4.57	61.356198	Y_R 488.368
Th (288.505 nm)	0.002381	ppm	0.001175	49.35	16.818300	Y 377.433
Ti (336.122 nm)	0.000493	ppm	0.000096	19.52	-370.818000	Y 377.433
Tl (190.794 nm)	-0.000084 u	ppm	0.000772	> 100.00	1.622640	Y 377.433
U (409.013 nm)	0.007074	ppm	0.001702	24.06	-2.321070	Y 377.433
V (292.401 nm)	0.000134	ppm	0.000061	45.57	-139.403000	Y 377.433
Zn (206.200 nm)	0.000197 u	ppm	0.000947	> 100.00	4.949170	Y 377.433
Zr (343.823 nm)	0.000115	ppm	0.000066	57.20	-155.095000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.168345	27006.836879	0.000017	0.00
Y 377.433	1.147009	802253.637588	0.000138	0.01
Y_R 377.433	1.194380	72413.900000	0.004199	0.35
Y_R 488.368	1.201500	63472.500000	0.000132	0.01
Y_R2 488.368	1.185314	125649.583811	0.003280	0.28
Y_R4	1.173270	52797.100000	0.011441	0.98

Sample Name: CCVL-5719884

Date: 5/24/2019 10:05:47 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008504	ppm	0.000195	2.29	25.406000	Y 377.433
Al (394.401 nm)	0.095334	ppm	0.001428	1.50	1264.430000	Y 377.433
Al H (396.152 nm)	0.226197 u	ppm	0.000332	0.15	241.626000	Y_R 377.433
As (188.980 nm)	0.014580	ppm	0.000880	6.04	20.392000	Y 242.219
B (249.678 nm)	0.088182	ppm	0.000698	0.79	676.376000	Y 242.219
Ba (493.408 nm)	0.006820 Q	ppm	0.000032	0.47	2079.470000 Q	Y_R 488.368
Be (234.861 nm)	0.000927	ppm	0.000017	1.82	88.845900	Y_R 488.368
Bi (223.061 nm)	0.087065	ppm	0.003918	4.50	180.096000	Y 377.433
Ca (315.887 nm)	0.217174	ppm	0.001618	0.74	103.463893	Y_R 377.433
Cd (214.439 nm)	0.005236	ppm	0.000043	0.82	188.495000	Y 377.433
Co (228.615 nm)	0.010432	ppm	0.000084	0.81	230.476000	Y 242.219
Cr (205.560 nm)	0.010697	ppm	0.000749	7.00	64.415800	Y 377.433
Cu (324.754 nm)	0.016356	ppm	0.000009	0.06	1078.210000	Y 377.433
Fe (238.204 nm)	0.101960	ppm	0.001111	1.09	252.575203	Y_R 377.433
Fe H (259.940 nm)	0.106652 u	ppm	0.003298	3.09	158.911000	Y_R 377.433
K (766.491 nm)	2.658630	ppm	0.282830	10.64	4504.530000	Y_R2 488.368
Li (670.783 nm)	0.050032 Q	ppm	0.004407	8.81	-1686.710000 Q	Y_R2 488.368
Mg (279.078 nm)	0.203100	ppm	0.000628	0.31	671.740000	Y 377.433
Mn (257.610 nm)	0.010412	ppm	0.000027	0.26	2827.790000	Y 377.433
Mo (202.032 nm)	0.019343	ppm	0.000049	0.26	254.933000	Y 377.433
Na (589.592 nm)	0.986493	ppm	0.022405	2.27	961.597000	Y_R2 488.368
Na H (589.593 nm)	1.588049 u	ppm	0.036433	2.29	744.107583	Y_R4
Ni (231.604 nm)	0.043597	ppm	0.000072	0.17	216.971000	Y 377.433
P (213.618 nm)	2.837500	ppm	0.010767	0.38	4049.330000	Y 242.219
Pb (220.353 nm)	0.009484	ppm	0.000081	0.85	38.476200	Y 242.219
S (181.972 nm)	0.086059	ppm	0.003213	3.73	52.148987	Y 377.433
Sb (206.834 nm)	0.019061	ppm	0.001126	5.91	33.814800	Y 377.433
Se (196.026 nm)	0.016833	ppm	0.000333	1.98	34.236200	Y 242.219
Si (288.158 nm)	0.471976	ppm	0.002162	0.46	3526.930000	Y 377.433
Sn (189.925 nm)	0.102053	ppm	0.000565	0.55	166.300000	Y 377.433
Sr (421.552 nm)	0.009034	ppm	0.000043	0.47	1383.767723	Y_R 488.368
Th (288.505 nm)	0.015805	ppm	0.001733	10.96	39.482700	Y 377.433
Ti (336.122 nm)	0.009988	ppm	0.000101	1.01	844.885000	Y 377.433
Tl (190.794 nm)	0.016197	ppm	0.000235	1.45	38.748200	Y 377.433
U (409.013 nm)	0.055540	ppm	0.004707	8.47	150.248000	Y 377.433
V (292.401 nm)	0.009753	ppm	0.000015	0.15	353.600000	Y 377.433
Zn (206.200 nm)	0.021332	ppm	0.000147	0.69	100.005000	Y 377.433
Zr (343.823 nm)	0.009678	ppm	0.000252	2.61	386.245000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.187442	27448.268211	0.003334	0.28
Y 377.433	1.164466	814464.089041	0.004559	0.39
Y_R 377.433	1.205840	73108.400000	0.001773	0.15
Y_R 488.368	1.221650	64537.000000	0.003809	0.31
Y_R2 488.368	1.192292	126389.296492	0.002636	0.22
Y_R4	1.185650	53354.200000	0.013270	1.12

Sample Name: 280-123533-A-9-B MS

Date: 5/24/2019 10:09:14 PM Rack:Tube: 1:81

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052475	ppm	0.000531	1.01	1238.100000	Y 377.433
Al (394.401 nm)	9.760190 o	ppm	0.015723	0.16	119673.000000	Y 377.433
Al H (396.152 nm)	9.306140	ppm	0.013046	0.14	20843.800000	Y_R 377.433
As (188.980 nm)	2.030700	ppm	0.000393	0.02	3058.190000	Y 242.219
B (249.678 nm)	1.002030	ppm	0.001873	0.19	7197.050000	Y 242.219
Ba (493.408 nm)	2.042730	ppm	0.005851	0.29	205055.000000	Y_R 488.368
Be (234.861 nm)	0.949280	ppm	0.004937	0.52	93443.400000	Y_R 488.368
Bi (223.061 nm)	1.942530	ppm	0.004839	0.25	4245.630000	Y 377.433
Ca (315.887 nm)	204.900824	ppm	0.565957	0.28	162666.777098	Y_R 377.433
Cd (214.439 nm)	0.989639	ppm	0.000002	0.00	36595.800000	Y 377.433
Co (228.615 nm)	0.941818	ppm	0.001324	0.14	22162.900000	Y 242.219
Cr (205.560 nm)	1.015520	ppm	0.004105	0.40	6758.820000	Y 377.433
Cu (324.754 nm)	0.970790	ppm	0.006215	0.64	45561.200000	Y 377.433
Fe (238.204 nm)	10.015362 o	ppm	0.033685	0.34	24115.863756	Y_R 377.433
Fe H (259.940 nm)	9.961930	ppm	0.031545	0.32	13788.600000	Y_R 377.433
K (766.491 nm)	61.431700	ppm	0.724125	1.18	61255.100000	Y_R2 488.368
Li (670.783 nm)	1.022980	ppm	0.000611	0.06	15019.100000	Y_R2 488.368
Mg (279.078 nm)	92.110700	ppm	0.073186	0.08	301385.000000	Y 377.433
Mn (257.610 nm)	0.964391	ppm	0.000446	0.05	262940.000000	Y 377.433
Mo (202.032 nm)	1.000010	ppm	0.000880	0.09	12615.500000	Y 377.433
Na (589.592 nm)	92.056600 o	ppm	0.235431	0.26	76183.400000	Y_R2 488.368
Na H (589.593 nm)	95.017109	ppm	0.692021	0.73	51434.618542	Y_R4
Ni (231.604 nm)	0.960686	ppm	0.000154	0.02	4964.260000	Y 377.433
P (213.618 nm)	20.444900	ppm	0.040520	0.20	28966.500000	Y 242.219
Pb (220.353 nm)	0.965862	ppm	0.002176	0.23	3075.300000	Y 242.219
S (181.972 nm)	129.147728 bo	ppm	0.097631	0.08	59169.745648	Y 377.433
Sb (206.834 nm)	1.069830	ppm	0.000791	0.07	1803.720000	Y 377.433
Se (196.026 nm)	1.993700	ppm	0.000818	0.04	3014.670000	Y 242.219
Si (288.158 nm)	21.491600	ppm	0.152456	0.71	138842.000000	Y 377.433
Sn (189.925 nm)	2.014830	ppm	0.001637	0.08	3244.060000	Y 377.433
Sr (421.552 nm)	1.700430	ppm	0.004217	0.25	256111.304971	Y_R 488.368
Th (288.505 nm)	0.981898	ppm	0.002476	0.25	1609.180000	Y 377.433
Ti (336.122 nm)	0.972208	ppm	0.000823	0.08	124680.000000	Y 377.433
Tl (190.794 nm)	1.916430	ppm	0.001514	0.08	4369.850000	Y 377.433
U (409.013 nm)	1.967250	ppm	0.009423	0.48	6135.610000	Y 377.433
V (292.401 nm)	0.983711	ppm	0.000609	0.06	50588.800000	Y 377.433
Zn (206.200 nm)	0.493939	ppm	0.000486	0.10	2226.570000	Y 377.433
Zr (343.823 nm)	0.479773	ppm	0.000914	0.19	26999.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.091221	25224.069988	0.004445	0.41
Y 377.433	1.086925	760229.317433	0.005883	0.54
Y_R 377.433	1.154740	70010.300000	0.001793	0.16
Y_R 488.368	1.167860	61695.400000	0.000548	0.05
Y_R2 488.368	1.163478	123334.876707	0.004424	0.38
Y_R4	1.162390	52307.600000	0.004116	0.35

Sample Name: 280-123533-A-9-C MSD

Date: 5/24/2019 10:12:55 PM Rack:Tube: 1:82

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052459	ppm	0.000054	0.10	1238.660000	Y 377.433
Al (394.401 nm)	9.778680 o	ppm	0.020763	0.21	119896.000000	Y 377.433
Al H (396.152 nm)	9.340550	ppm	0.050626	0.54	20914.500000	Y_R 377.433
As (188.980 nm)	2.027200	ppm	0.003897	0.19	3052.930000	Y 242.219
B (249.678 nm)	0.999071	ppm	0.000673	0.07	7175.860000	Y 242.219
Ba (493.408 nm)	2.047710	ppm	0.008241	0.40	205551.000000	Y_R 488.368
Be (234.861 nm)	0.927069	ppm	0.003020	0.33	91255.600000	Y_R 488.368
Bi (223.061 nm)	1.947740	ppm	0.005095	0.26	4257.060000	Y 377.433
Ca (315.887 nm)	201.678278	ppm	0.867265	0.43	160107.422234	Y_R 377.433
Cd (214.439 nm)	0.986689	ppm	0.001339	0.14	36486.800000	Y 377.433
Co (228.615 nm)	0.938162	ppm	0.000094	0.01	22076.900000	Y 242.219
Cr (205.560 nm)	1.015930	ppm	0.010214	1.01	6761.570000	Y 377.433
Cu (324.754 nm)	0.968897	ppm	0.001694	0.17	45474.200000	Y 377.433
Fe (238.204 nm)	10.101079 o	ppm	0.069354	0.69	24322.199713	Y_R 377.433
Fe H (259.940 nm)	10.017600	ppm	0.049200	0.49	13865.600000	Y_R 377.433
K (766.491 nm)	61.269600	ppm	0.172537	0.28	61098.500000	Y_R2 488.368
Li (670.783 nm)	1.026940	ppm	0.004784	0.47	15087.100000	Y_R2 488.368
Mg (279.078 nm)	91.022400	ppm	0.241505	0.27	297823.000000	Y 377.433
Mn (257.610 nm)	0.962326	ppm	0.001914	0.20	262377.000000	Y 377.433
Mo (202.032 nm)	0.997211	ppm	0.001806	0.18	12580.200000	Y 377.433
Na (589.592 nm)	90.724000 o	ppm	0.226721	0.25	75090.700000	Y_R2 488.368
Na H (589.593 nm)	94.045414	ppm	0.887510	0.94	50907.419381	Y_R4
Ni (231.604 nm)	0.960231	ppm	0.000293	0.03	4961.890000	Y 377.433
P (213.618 nm)	20.375600	ppm	0.017372	0.09	28868.100000	Y 242.219
Pb (220.353 nm)	0.964887	ppm	0.002427	0.25	3072.200000	Y 242.219
S (181.972 nm)	126.228154 bo	ppm	0.100244	0.08	57832.514393	Y 377.433
Sb (206.834 nm)	1.066240	ppm	0.001517	0.14	1797.690000	Y 377.433
Se (196.026 nm)	1.993320	ppm	0.006650	0.33	3014.060000	Y 242.219
Si (288.158 nm)	20.987500	ppm	0.062095	0.30	135597.000000	Y 377.433
Sn (189.925 nm)	2.007590	ppm	0.003978	0.20	3232.420000	Y 377.433
Sr (421.552 nm)	1.687653	ppm	0.003862	0.23	254187.130394	Y_R 488.368
Th (288.505 nm)	0.983444	ppm	0.005990	0.61	1612.440000	Y 377.433
Ti (336.122 nm)	0.971099	ppm	0.001977	0.20	124525.000000	Y 377.433
Tl (190.794 nm)	1.907610	ppm	0.003181	0.17	4349.840000	Y 377.433
U (409.013 nm)	1.970700	ppm	0.004284	0.22	6147.150000	Y 377.433
V (292.401 nm)	0.981165	ppm	0.002202	0.22	50457.100000	Y 377.433
Zn (206.200 nm)	0.490837	ppm	0.002009	0.41	2212.630000	Y 377.433
Zr (343.823 nm)	0.479694	ppm	0.000498	0.10	26994.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.112848	25724.007259	0.005060	0.45
Y 377.433	1.108400	775249.656374	0.003672	0.33
Y_R 377.433	1.202090	72881.000000	0.003798	0.32
Y_R 488.368	1.215260	64199.200000	0.001918	0.16
Y_R2 488.368	1.198374	127033.996823	0.009828	0.82
Y_R4	1.165310	52438.700000	0.004168	0.36

Sample Name: 280-123533-A-11-A

Date: 5/24/2019 10:16:34 PM Rack:Tube: 1:83

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001949	ppm	0.000330	16.92	-205.422000	Y 377.433
Al (394.401 nm)	0.004448	ppm	0.000146	3.28	347.844000	Y 377.433
Al H (396.152 nm)	-0.015692 u	ppm	0.000938	5.97	-9.970190	Y_R 377.433
As (188.980 nm)	0.004935	ppm	0.000046	0.94	5.857250	Y 242.219
B (249.678 nm)	0.015847	ppm	0.000589	3.71	159.783000	Y 242.219
Ba (493.408 nm)	0.121832	ppm	0.000400	0.33	13545.400000	Y_R 488.368
Be (234.861 nm)	-0.000006 u	ppm	0.000002	29.19	-3.013020	Y_R 488.368
Bi (223.061 nm)	0.001156	ppm	0.000986	85.25	-8.034320	Y 377.433
Ca (315.887 nm)	156.623113	ppm	0.226178	0.14	124321.933441	Y_R 377.433
Cd (214.439 nm)	0.000276	ppm	0.000080	29.19	5.058030	Y 377.433
Co (228.615 nm)	-0.000156 u	ppm	0.000395	> 100.00	-18.800800	Y 242.219
Cr (205.560 nm)	0.006126	ppm	0.000067	1.09	34.072400	Y 377.433
Cu (324.754 nm)	-0.000136 u	ppm	0.000328	> 100.00	217.610000	Y 377.433
Fe (238.204 nm)	0.108826	ppm	0.001177	1.08	269.103064	Y_R 377.433
Fe H (259.940 nm)	0.098399 u	ppm	0.000421	0.43	147.498000	Y_R 377.433
K (766.491 nm)	12.474500	ppm	0.037296	0.30	13982.600000	Y_R2 488.368
Li (670.783 nm)	0.046256	ppm	0.002495	5.39	-1751.540000	Y_R2 488.368
Mg (279.078 nm)	43.257800	ppm	0.047495	0.11	141563.000000	Y 377.433
Mn (257.610 nm)	0.000614	ppm	0.000001	0.24	156.416000	Y 377.433
Mo (202.032 nm)	0.006342	ppm	0.000181	2.86	91.065200	Y 377.433
Na (589.592 nm)	45.717900	ppm	0.244055	0.53	37707.700000	Y_R2 488.368
Na H (589.593 nm)	46.419944 u	ppm	0.101478	0.22	25067.928232	Y_R4
Ni (231.604 nm)	-0.000161 u	ppm	0.000265	> 100.00	-9.450730	Y 377.433
P (213.618 nm)	0.018266	ppm	0.000303	1.66	21.533300	Y 242.219
Pb (220.353 nm)	-0.000875 u	ppm	0.001190	> 100.00	5.551330	Y 242.219
S (181.972 nm)	117.105181 bo	ppm	0.082429	0.07	53649.321115	Y 377.433
Sb (206.834 nm)	-0.006167 u	ppm	0.001820	29.51	-8.625170	Y 377.433
Se (196.026 nm)	0.023745	ppm	0.000371	1.56	44.643300	Y 242.219
Si (288.158 nm)	19.191100	ppm	0.021930	0.11	124033.000000	Y 377.433
Sn (189.925 nm)	0.002113	ppm	0.000351	16.60	5.490920	Y 377.433
Sr (421.552 nm)	0.755356	ppm	0.001337	0.18	113780.592123	Y_R 488.368
Th (288.505 nm)	-0.002060 u	ppm	0.003858	> 100.00	3.834530	Y 377.433
Ti (336.122 nm)	-0.000658 u	ppm	0.000053	8.02	21.489200	Y 377.433
Tl (190.794 nm)	0.005002	ppm	0.000597	11.93	6.904120	Y 377.433
U (409.013 nm)	0.030922	ppm	0.004296	13.89	52.313400	Y 377.433
V (292.401 nm)	0.014159	ppm	0.000060	0.42	585.112000	Y 377.433
Zn (206.200 nm)	0.002132	ppm	0.000253	11.87	13.667700	Y 377.433
Zr (343.823 nm)	0.000306	ppm	0.000097	31.69	-144.285000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.141450	26385.148029	0.008377	0.73
Y 377.433	1.130206	790501.328387	0.007733	0.68
Y_R 377.433	1.201460	72842.900000	0.004951	0.41
Y_R 488.368	1.214420	64155.000000	0.004080	0.34
Y_R2 488.368	1.199893	127194.999616	0.002953	0.25
Y_R4	1.167130	52520.700000	0.002111	0.18

Sample Name: MB 280-459136/1-A

Date: 5/24/2019 10:20:04 PM Rack:Tube: 1:84

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000612 u	ppm	0.000890	> 100.00	-245.705000	Y 377.433
Al (394.401 nm)	-0.000176 u	ppm	0.000866	> 100.00	88.092700	Y 377.433
Al H (396.152 nm)	0.130946 u	ppm	0.000939	0.72	27.999400	Y_R 377.433
As (188.980 nm)	0.000255 u	ppm	0.004164	> 100.00	-1.192420	Y 242.219
B (249.678 nm)	-0.002895 u	ppm	0.000613	21.18	25.988700	Y 242.219
Ba (493.408 nm)	-0.002066 u	ppm	0.000287	13.91	1193.460000	Y_R 488.368
Be (234.861 nm)	-0.000019 u	ppm	0.000027	> 100.00	-3.905390	Y_R 488.368
Bi (223.061 nm)	0.000457 u	ppm	0.000886	> 100.00	-9.609920	Y 377.433
Ca (315.887 nm)	0.025505	ppm	0.008492	33.30	-48.783492	Y_R 377.433
Cd (214.439 nm)	-0.000111 u	ppm	0.000074	66.39	-9.294880	Y 377.433
Co (228.615 nm)	-0.000299 u	ppm	0.000005	1.62	-22.166900	Y 242.219
Cr (205.560 nm)	0.000499	ppm	0.000406	81.26	-3.423090	Y 377.433
Cu (324.754 nm)	0.000839	ppm	0.000201	24.01	356.789000	Y 377.433
Fe (238.204 nm)	0.010015	ppm	0.000275	2.74	31.246718	Y_R 377.433
Fe H (259.940 nm)	0.014013 u	ppm	0.002886	20.59	30.792900	Y_R 377.433
K (766.491 nm)	-0.253445 u	ppm	0.095453	37.66	1692.660000	Y_R2 488.368
Li (670.783 nm)	0.018099	ppm	0.000961	5.31	-2235.000000	Y_R2 488.368
Mg (279.078 nm)	0.005597	ppm	0.000057	1.01	26.848200	Y 377.433
Mn (257.610 nm)	0.000368	ppm	0.000005	1.47	89.229300	Y 377.433
Mo (202.032 nm)	-0.000011 u	ppm	0.000018	> 100.00	10.995300	Y 377.433
Na (589.592 nm)	0.060771	ppm	0.044265	72.84	199.735000	Y_R2 488.368
Na H (589.593 nm)	0.704579 u	ppm	0.021112	3.00	264.775841	Y_R4
Ni (231.604 nm)	-0.000178 u	ppm	0.000168	94.10	-9.542370	Y 377.433
P (213.618 nm)	-0.002246 u	ppm	0.001706	75.97	-7.307480	Y 242.219
Pb (220.353 nm)	0.000367 u	ppm	0.001370	> 100.00	9.400330	Y 242.219
S (181.972 nm)	0.008157	ppm	0.002021	24.78	16.435343	Y 377.433
Sb (206.834 nm)	-0.002097 u	ppm	0.002997	> 100.00	-1.762000	Y 377.433
Se (196.026 nm)	-0.003695 u	ppm	0.000849	22.97	3.282770	Y 242.219
Si (288.158 nm)	-0.002678 u	ppm	0.000236	8.83	471.304000	Y 377.433
Sn (189.925 nm)	-0.000393 u	ppm	0.000363	92.34	1.457920	Y 377.433
Sr (421.552 nm)	0.000256	ppm	0.000009	3.63	61.661305	Y_R 488.368
Th (288.505 nm)	0.000762 u	ppm	0.006342	> 100.00	13.991700	Y 377.433
Ti (336.122 nm)	0.000354	ppm	0.000107	30.11	-388.504000	Y 377.433
Tl (190.794 nm)	0.000496 u	ppm	0.001026	> 100.00	2.947880	Y 377.433
U (409.013 nm)	-0.002833 u	ppm	0.008578	> 100.00	-33.701700	Y 377.433
V (292.401 nm)	-0.000029 u	ppm	0.000167	> 100.00	-147.120000	Y 377.433
Zn (206.200 nm)	0.002854	ppm	0.000793	27.81	16.897500	Y 377.433
Zr (343.823 nm)	-0.000064 u	ppm	0.000115	> 100.00	-165.247000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130767	26138.194535	0.000954	0.08
Y 377.433	1.110353	776615.337064	0.000751	0.07
Y_R 377.433	1.122620	68063.000000	0.000028	0.00
Y_R 488.368	1.143520	60409.600000	0.004756	0.42
Y_R2 488.368	1.123674	119115.367827	0.004212	0.37
Y_R4	1.126090	50674.000000	0.005559	0.49

Sample Name: LCS 280-459136/2-A

Date: 5/24/2019 10:23:14 PM Rack:Tube: 1:85

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001321	ppm	0.000260	19.69	-528.948000	Y 377.433
Al (394.401 nm)	9.812770 o	ppm	0.010696	0.11	120114.000000	Y 377.433
Al H (396.152 nm)	9.630360	ppm	0.051249	0.53	21270.200000	Y_R 377.433
As (188.980 nm)	1.968840	ppm	0.002451	0.12	2964.990000	Y 242.219
B (249.678 nm)	0.949804	ppm	0.001225	0.13	6824.180000	Y 242.219
Ba (493.408 nm)	1.945990	ppm	0.004232	0.22	195410.000000	Y_R 488.368
Be (234.861 nm)	0.956982	ppm	0.004525	0.47	94202.800000	Y_R 488.368
Bi (223.061 nm)	1.924840	ppm	0.002118	0.11	4206.840000	Y 377.433
Ca (315.887 nm)	47.306107	ppm	0.179614	0.38	37504.195547	Y_R 377.433
Cd (214.439 nm)	0.992643	ppm	0.001295	0.13	36706.800000	Y 377.433
Co (228.615 nm)	0.955805	ppm	0.000592	0.06	22491.600000	Y 242.219
Cr (205.560 nm)	1.002540	ppm	0.000093	0.01	6672.250000	Y 377.433
Cu (324.754 nm)	0.958902	ppm	0.000055	0.01	45100.800000	Y 377.433
Fe (238.204 nm)	9.803149 o	ppm	0.044618	0.46	23605.029360	Y_R 377.433
Fe H (259.940 nm)	9.760870	ppm	0.032429	0.33	13510.500000	Y_R 377.433
K (766.491 nm)	48.526900	ppm	0.021433	0.04	48794.400000	Y_R2 488.368
Li (670.783 nm)	1.004200	ppm	0.003029	0.30	14696.500000	Y_R2 488.368
Mg (279.078 nm)	48.242100	ppm	0.066483	0.14	157831.000000	Y 377.433
Mn (257.610 nm)	0.971186	ppm	0.001048	0.11	264792.000000	Y 377.433
Mo (202.032 nm)	0.990299	ppm	0.000640	0.06	12493.100000	Y 377.433
Na (589.592 nm)	47.468300	ppm	0.224628	0.47	39559.000000	Y_R2 488.368
Na H (589.593 nm)	48.912168 u	ppm	0.039874	0.08	26420.099261	Y_R4
Ni (231.604 nm)	0.969319	ppm	0.002610	0.27	5008.960000	Y 377.433
P (213.618 nm)	19.897400	ppm	0.029110	0.15	28187.000000	Y 242.219
Pb (220.353 nm)	0.970147	ppm	0.000948	0.10	3088.910000	Y 242.219
S (181.972 nm)	9.581999	ppm	0.009259	0.10	4406.281862	Y 377.433
Sb (206.834 nm)	-0.000965 u	ppm	0.001239	> 100.00	-4.531750	Y 377.433
Se (196.026 nm)	1.928290	ppm	0.000718	0.04	2916.080000	Y 242.219
Si (288.158 nm)	1.993860	ppm	0.006053	0.30	13324.200000	Y 377.433
Sn (189.925 nm)	1.981850	ppm	0.006554	0.33	3190.990000	Y 377.433
Sr (421.552 nm)	0.944535	ppm	0.001486	0.16	142272.591809	Y_R 488.368
Th (288.505 nm)	0.983751	ppm	0.001891	0.19	1618.330000	Y 377.433
Ti (336.122 nm)	0.970421	ppm	0.001579	0.16	123908.000000	Y 377.433
Tl (190.794 nm)	1.945360	ppm	0.000764	0.04	4442.500000	Y 377.433
U (409.013 nm)	1.950000	ppm	0.003413	0.18	6101.640000	Y 377.433
V (292.401 nm)	0.967465	ppm	0.001394	0.14	49752.200000	Y 377.433
Zn (206.200 nm)	0.494770	ppm	0.000978	0.20	2230.280000	Y 377.433
Zr (343.823 nm)	0.481234	ppm	0.001345	0.28	27081.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047295	24208.707890	0.000348	0.03
Y 377.433	1.043272	729696.882560	0.001240	0.12
Y_R 377.433	1.083990	65721.100000	0.005850	0.54
Y_R 488.368	1.095680	57882.500000	0.004285	0.39
Y_R2 488.368	1.080810	114571.604877	0.006324	0.59
Y_R4	1.089040	49006.800000	0.004169	0.38

Sample Name: LCSD 280-459136/3-A

Date: 5/24/2019 10:26:55 PM Rack:Tube: 1:86

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000990	ppm	0.000071	7.13	-547.800000	Y 377.433
Al (394.401 nm)	9.836230 o	ppm	0.015749	0.16	120402.000000	Y 377.433
Al H (396.152 nm)	9.623610	ppm	0.062696	0.65	21259.600000	Y_R 377.433
As (188.980 nm)	1.998520	ppm	0.001452	0.07	3009.700000	Y 242.219
B (249.678 nm)	0.955554	ppm	0.002881	0.30	6865.090000	Y 242.219
Ba (493.408 nm)	1.951430	ppm	0.015666	0.80	195953.000000	Y_R 488.368
Be (234.861 nm)	0.968333	ppm	0.008382	0.87	95319.500000	Y_R 488.368
Bi (223.061 nm)	1.948250	ppm	0.000292	0.01	4258.160000	Y 377.433
Ca (315.887 nm)	48.948628	ppm	0.267590	0.55	38808.692548	Y_R 377.433
Cd (214.439 nm)	1.025970	ppm	0.003583	0.35	37939.400000	Y 377.433
Co (228.615 nm)	0.971913	ppm	0.002448	0.25	22871.000000	Y 242.219
Cr (205.560 nm)	1.031740	ppm	0.002585	0.25	6866.820000	Y 377.433
Cu (324.754 nm)	0.977630	ppm	0.000838	0.09	45974.500000	Y 377.433
Fe (238.204 nm)	10.084564 o	ppm	0.054209	0.54	24282.445743	Y_R 377.433
Fe H (259.940 nm)	9.996650	ppm	0.073196	0.73	13836.600000	Y_R 377.433
K (766.491 nm)	48.769500	ppm	0.385150	0.79	49028.600000	Y_R2 488.368
Li (670.783 nm)	1.007890	ppm	0.008123	0.81	14759.900000	Y_R2 488.368
Mg (279.078 nm)	49.532400	ppm	0.109370	0.22	162053.000000	Y 377.433
Mn (257.610 nm)	0.994248	ppm	0.001447	0.15	271081.000000	Y 377.433
Mo (202.032 nm)	1.014320	ppm	0.001558	0.15	12795.800000	Y 377.433
Na (589.592 nm)	47.466100	ppm	0.170666	0.36	39558.400000	Y_R2 488.368
Na H (589.593 nm)	48.645855 u	ppm	0.308027	0.63	26275.609700	Y_R4
Ni (231.604 nm)	0.997943	ppm	0.001917	0.19	5157.130000	Y 377.433
P (213.618 nm)	20.231500	ppm	0.065446	0.32	28659.400000	Y 242.219
Pb (220.353 nm)	0.995362	ppm	0.002000	0.20	3168.970000	Y 242.219
S (181.972 nm)	9.845299	ppm	0.046310	0.47	4527.016365	Y 377.433
Sb (206.834 nm)	-0.001386 u	ppm	0.002098	> 100.00	-5.294160	Y 377.433
Se (196.026 nm)	1.968820	ppm	0.003644	0.19	2977.160000	Y 242.219
Si (288.158 nm)	2.038120	ppm	0.001956	0.10	13609.100000	Y 377.433
Sn (189.925 nm)	2.046450	ppm	0.008500	0.42	3294.940000	Y 377.433
Sr (421.552 nm)	0.950019	ppm	0.007185	0.76	143098.602771	Y_R 488.368
Th (288.505 nm)	0.997942	ppm	0.002703	0.27	1640.800000	Y 377.433
Ti (336.122 nm)	0.987683	ppm	0.001883	0.19	126123.000000	Y 377.433
Tl (190.794 nm)	2.004230	ppm	0.003647	0.18	4576.900000	Y 377.433
U (409.013 nm)	1.974730	ppm	0.005901	0.30	6179.240000	Y 377.433
V (292.401 nm)	0.988773	ppm	0.002282	0.23	50848.600000	Y 377.433
Zn (206.200 nm)	0.510942	ppm	0.003199	0.63	2303.040000	Y 377.433
Zr (343.823 nm)	0.488075	ppm	0.000687	0.14	27469.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.067395	24673.332532	0.001831	0.17
Y 377.433	1.052094	735867.440269	0.001877	0.18
Y_R 377.433	1.101830	66802.700000	0.006289	0.57
Y_R 488.368	1.115910	58951.100000	0.009143	0.82
Y_R2 488.368	1.083231	114828.256830	0.006138	0.57
Y_R4	1.105320	49739.400000	0.003459	0.31

Sample Name: 280-123855-F-1-A

Date: 5/24/2019 10:30:34 PM Rack:Tube: 1:87

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001389	ppm	0.000091	6.58	-219.324000	Y 377.433
Al (394.401 nm)	0.010171	ppm	0.000098	0.97	244.703000	Y 377.433
Al H (396.152 nm)	0.102079 u	ppm	0.005127	5.02	-5.052240	Y_R 377.433
As (188.980 nm)	0.000203 u	ppm	0.001840	> 100.00	-1.287980	Y 242.219
B (249.678 nm)	0.006620	ppm	0.000000	0.00	93.574600	Y 242.219
Ba (493.408 nm)	0.027185	ppm	0.000293	1.08	4110.160000	Y_R 488.368
Be (234.861 nm)	-0.000012 u	ppm	0.000040	> 100.00	-5.870930	Y_R 488.368
Bi (223.061 nm)	-0.000280 u	ppm	0.002153	> 100.00	-11.112300	Y 377.433
Ca (315.887 nm)	62.595827	ppm	0.010866	0.02	49644.919966	Y_R 377.433
Cd (214.439 nm)	0.000184	ppm	0.000022	11.87	1.884850	Y 377.433
Co (228.615 nm)	0.000537	ppm	0.000018	3.26	-2.497040	Y 242.219
Cr (205.560 nm)	0.000700	ppm	0.000891	> 100.00	-2.101760	Y 377.433
Cu (324.754 nm)	0.000972	ppm	0.000021	2.16	325.274000	Y 377.433
Fe (238.204 nm)	0.642581	ppm	0.000333	0.05	1553.943306	Y_R 377.433
Fe H (259.940 nm)	0.640423 u	ppm	0.004482	0.70	897.108000	Y_R 377.433
K (766.491 nm)	0.843837	ppm	0.210854	24.99	2752.180000	Y_R2 488.368
Li (670.783 nm)	0.019723	ppm	0.000960	4.87	-2207.130000	Y_R2 488.368
Mg (279.078 nm)	2.940220	ppm	0.002863	0.10	9628.970000	Y 377.433
Mn (257.610 nm)	0.706083	ppm	0.000364	0.05	192509.000000	Y 377.433
Mo (202.032 nm)	0.000583	ppm	0.000277	47.48	18.481400	Y 377.433
Na (589.592 nm)	142.375000 o	ppm	0.039354	0.03	117033.000000	Y_R2 488.368
Na H (589.593 nm)	146.785958	ppm	0.716322	0.49	79522.126019	Y_R4
Ni (231.604 nm)	0.009001	ppm	0.000236	2.63	37.953800	Y 377.433
P (213.618 nm)	0.020928	ppm	0.000207	0.99	25.541300	Y 242.219
Pb (220.353 nm)	-0.001807 u	ppm	0.000004	0.20	2.523000	Y 242.219
S (181.972 nm)	3.604568	ppm	0.003011	0.08	1668.804079	Y 377.433
Sb (206.834 nm)	-0.003704 u	ppm	0.000869	23.46	-4.422230	Y 377.433
Se (196.026 nm)	0.001997	ppm	0.002518	> 100.00	12.698300	Y 242.219
Si (288.158 nm)	2.253200	ppm	0.000046	0.00	14993.700000	Y 377.433
Sn (189.925 nm)	0.002181	ppm	0.001691	77.51	5.599930	Y 377.433
Sr (421.552 nm)	0.106199	ppm	0.000279	0.26	16016.995379	Y_R 488.368
Th (288.505 nm)	-0.008811 u	ppm	0.001808	20.52	9.872960	Y 377.433
Ti (336.122 nm)	-0.000211 u	ppm	0.000037	17.60	-245.468000	Y 377.433
Tl (190.794 nm)	0.003636	ppm	0.000098	2.69	7.536640	Y 377.433
U (409.013 nm)	0.019398	ppm	0.002559	13.19	28.845000	Y 377.433
V (292.401 nm)	0.000786	ppm	0.000568	72.22	-106.102000	Y 377.433
Zn (206.200 nm)	0.003515	ppm	0.000334	9.49	19.961200	Y 377.433
Zr (343.823 nm)	-0.000114 u	ppm	0.000195	> 100.00	-168.055000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076793	24890.570258	0.001235	0.11
Y 377.433	1.055975	738582.092902	0.001448	0.14
Y_R 377.433	1.113690	67521.700000	0.001897	0.17
Y_R 488.368	1.129610	59674.700000	0.004476	0.40
Y_R2 488.368	1.107966	117450.284227	0.001488	0.13
Y_R4	1.122590	50516.700000	0.002173	0.19

Sample Name: 280-123855-F-1-Asd@5

Date: 5/24/2019 10:34:08 PM Rack:Tube: 1:88

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000841	ppm	0.000067	8.00	-238.001000	Y 377.433
Al (394.401 nm)	0.000567	ppm	0.000428	75.60	103.950000	Y 377.433
Al H (396.152 nm)	0.125088 u	ppm	0.000910	0.73	20.961700	Y_R 377.433
As (188.980 nm)	0.001552	ppm	0.000146	9.44	0.758224	Y 242.219
B (249.678 nm)	-0.001215 u	ppm	0.000355	29.20	37.896100	Y 242.219
Ba (493.408 nm)	0.004145	ppm	0.000244	5.88	1812.790000	Y_R 488.368
Be (234.861 nm)	-0.000048 u	ppm	0.000047	97.72	-7.378370	Y_R 488.368
Bi (223.061 nm)	0.000554	ppm	0.000780	> 100.00	-9.370270	Y 377.433
Ca (315.887 nm)	12.659210	ppm	0.025755	0.20	9984.979715	Y_R 377.433
Cd (214.439 nm)	0.000062	ppm	0.000006	9.07	-2.831460	Y 377.433
Co (228.615 nm)	0.000341	ppm	0.000325	95.22	-7.112380	Y 242.219
Cr (205.560 nm)	0.000543	ppm	0.000149	27.47	-3.135150	Y 377.433
Cu (324.754 nm)	0.001090	ppm	0.000332	30.48	360.693000	Y 377.433
Fe (238.204 nm)	0.167647	ppm	0.000124	0.07	410.695731	Y_R 377.433
Fe H (259.940 nm)	0.170657 u	ppm	0.003115	1.83	247.429000	Y_R 377.433
K (766.491 nm)	-0.014175 u	ppm	0.162922	> 100.00	1923.700000	Y_R2 488.368
Li (670.783 nm)	0.023606	ppm	0.001561	6.61	-2140.440000	Y_R2 488.368
Mg (279.078 nm)	0.600004	ppm	0.002382	0.40	1971.590000	Y 377.433
Mn (257.610 nm)	0.143555	ppm	0.000142	0.10	39130.700000	Y 377.433
Mo (202.032 nm)	0.000273	ppm	0.000154	56.17	14.577500	Y 377.433
Na (589.592 nm)	29.096000	ppm	0.088082	0.30	24036.200000	Y_R2 488.368
Na H (589.593 nm)	29.905057 u	ppm	0.181567	0.61	16107.674394	Y_R4
Ni (231.604 nm)	0.001458	ppm	0.000109	7.45	-1.077720	Y 377.433
P (213.618 nm)	0.000565	ppm	0.000330	58.37	-3.405960	Y 242.219
Pb (220.353 nm)	-0.000279 u	ppm	0.001792	> 100.00	7.370590	Y 242.219
S (181.972 nm)	0.708331	ppm	0.006056	0.85	338.166396	Y 377.433
Sb (206.834 nm)	-0.001879 u	ppm	0.003459	> 100.00	-1.379700	Y 377.433
Se (196.026 nm)	-0.001314 u	ppm	0.000631	48.02	7.035010	Y 242.219
Si (288.158 nm)	0.442422	ppm	0.000827	0.19	3336.670000	Y 377.433
Sn (189.925 nm)	0.001106	ppm	0.001025	92.73	3.869730	Y 377.433
Sr (421.552 nm)	0.021003	ppm	0.000055	0.26	3186.238945	Y_R 488.368
Th (288.505 nm)	-0.003493 u	ppm	0.001652	47.28	9.206530	Y 377.433
Ti (336.122 nm)	0.000164	ppm	0.000012	7.03	-369.747000	Y 377.433
Tl (190.794 nm)	0.000438 u	ppm	0.001661	> 100.00	2.292760	Y 377.433
U (409.013 nm)	0.010493	ppm	0.011207	> 100.00	6.990480	Y 377.433
V (292.401 nm)	-0.000087 u	ppm	0.000093	> 100.00	-150.867000	Y 377.433
Zn (206.200 nm)	0.004805	ppm	0.000110	2.29	25.696600	Y 377.433
Zr (343.823 nm)	-0.000121 u	ppm	0.000247	> 100.00	-168.466000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114589	25764.251337	0.002075	0.19
Y 377.433	1.090803	762941.446187	0.003019	0.28
Y_R 377.433	1.124220	68160.000000	0.004153	0.37
Y_R 488.368	1.135240	59971.900000	0.001111	0.10
Y_R2 488.368	1.126497	119414.653358	0.006604	0.59
Y_R4	1.130380	50866.900000	0.007677	0.68

Sample Name: 280-123855-F-1-B MS

Date: 5/24/2019 10:37:39 PM Rack:Tube: 1:89

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001593	ppm	0.000268	16.80	-532.538000	Y 377.433
Al (394.401 nm)	9.989500 o	ppm	0.014802	0.15	122297.000000	Y 377.433
Al H (396.152 nm)	9.670150	ppm	0.032145	0.33	21395.400000	Y_R 377.433
As (188.980 nm)	2.054450	ppm	0.002680	0.13	3093.970000	Y 242.219
B (249.678 nm)	0.978071	ppm	0.000525	0.05	7025.480000	Y 242.219
Ba (493.408 nm)	1.985970	ppm	0.012114	0.61	199397.000000	Y_R 488.368
Be (234.861 nm)	0.975428	ppm	0.002041	0.21	96015.200000	Y_R 488.368
Bi (223.061 nm)	1.983360	ppm	0.000227	0.01	4335.160000	Y 377.433
Ca (315.887 nm)	111.073901	ppm	0.626359	0.56	88148.961896	Y_R 377.433
Cd (214.439 nm)	1.033070	ppm	0.001191	0.12	38202.400000	Y 377.433
Co (228.615 nm)	0.990401	ppm	0.000269	0.03	23306.200000	Y 242.219
Cr (205.560 nm)	1.045540	ppm	0.002117	0.20	6958.750000	Y 377.433
Cu (324.754 nm)	1.005620	ppm	0.002539	0.25	47246.800000	Y 377.433
Fe (238.204 nm)	10.795818 o	ppm	0.048824	0.45	25994.557234	Y_R 377.433
Fe H (259.940 nm)	10.712000	ppm	0.047922	0.45	14826.000000	Y_R 377.433
K (766.491 nm)	50.376300	ppm	0.913036	1.81	50580.100000	Y_R2 488.368
Li (670.783 nm)	1.015700	ppm	0.011767	1.16	14894.000000	Y_R2 488.368
Mg (279.078 nm)	52.585700	ppm	0.046755	0.09	172043.000000	Y 377.433
Mn (257.610 nm)	1.703770	ppm	0.002978	0.17	464539.000000	Y 377.433
Mo (202.032 nm)	1.028640	ppm	0.000649	0.06	12976.300000	Y 377.433
Na (589.592 nm)	187.915000 o	ppm	1.887840	1.00	154863.000000	Y_R2 488.368
Na H (589.593 nm)	195.392569	ppm	2.404396	1.23	105893.941773	Y_R4
Ni (231.604 nm)	1.023490	ppm	0.002162	0.21	5289.310000	Y 377.433
P (213.618 nm)	20.845800	ppm	0.018181	0.09	29530.100000	Y 242.219
Pb (220.353 nm)	0.997208	ppm	0.000284	0.03	3174.720000	Y 242.219
S (181.972 nm)	13.792910	ppm	0.004948	0.04	6340.230421	Y 377.433
Sb (206.834 nm)	-0.000881 u	ppm	0.001470	> 100.00	-4.461120	Y 377.433
Se (196.026 nm)	2.011750	ppm	0.002611	0.13	3042.730000	Y 242.219
Si (288.158 nm)	4.327220	ppm	0.000982	0.02	28345.300000	Y 377.433
Sn (189.925 nm)	2.075370	ppm	0.000756	0.04	3341.480000	Y 377.433
Sr (421.552 nm)	1.061583	ppm	0.006729	0.63	159900.308225	Y_R 488.368
Th (288.505 nm)	1.003330	ppm	0.000909	0.09	1660.600000	Y 377.433
Ti (336.122 nm)	1.003270	ppm	0.002056	0.20	128332.000000	Y 377.433
Tl (190.794 nm)	1.981130	ppm	0.006530	0.33	4521.420000	Y 377.433
U (409.013 nm)	2.003980	ppm	0.002735	0.14	6263.510000	Y 377.433
V (292.401 nm)	1.004620	ppm	0.001323	0.13	51668.000000	Y 377.433
Zn (206.200 nm)	0.514005	ppm	0.000763	0.15	2316.910000	Y 377.433
Zr (343.823 nm)	0.493076	ppm	0.000869	0.18	27752.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.062493	24560.012140	0.001563	0.15
Y 377.433	1.049543	734082.898404	0.000607	0.06
Y_R 377.433	1.121840	68015.800000	0.003323	0.30
Y_R 488.368	1.136650	60046.800000	0.004933	0.43
Y_R2 488.368	1.108747	117533.078626	0.009259	0.84
Y_R4	1.116170	50227.500000	0.013044	1.17

Sample Name: 280-123855-F-1-C MSD

Date: 5/24/2019 10:41:19 PM Rack:Tube: 1:90

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001179	ppm	0.000111	9.38	-543.169000	Y 377.433
Al (394.401 nm)	9.897070 o	ppm	0.013472	0.14	121167.000000	Y 377.433
Al H (396.152 nm)	9.659840	ppm	0.006490	0.07	21372.600000	Y_R 377.433
As (188.980 nm)	2.033620	ppm	0.006201	0.30	3062.580000	Y 242.219
B (249.678 nm)	0.977790	ppm	0.002180	0.22	7023.490000	Y 242.219
Ba (493.408 nm)	1.977820	ppm	0.001501	0.08	198584.000000	Y_R 488.368
Be (234.861 nm)	0.984255	ppm	0.001542	0.16	96884.700000	Y_R 488.368
Bi (223.061 nm)	1.972660	ppm	0.005330	0.27	4311.730000	Y 377.433
Ca (315.887 nm)	112.666293	ppm	0.061928	0.05	89413.645699	Y_R 377.433
Cd (214.439 nm)	1.022230	ppm	0.002614	0.26	37801.300000	Y 377.433
Co (228.615 nm)	0.980584	ppm	0.001321	0.13	23075.000000	Y 242.219
Cr (205.560 nm)	1.029000	ppm	0.003554	0.35	6848.490000	Y 377.433
Cu (324.754 nm)	0.992137	ppm	0.005077	0.51	46617.900000	Y 377.433
Fe (238.204 nm)	10.771025 o	ppm	0.006627	0.06	25934.876874	Y_R 377.433
Fe H (259.940 nm)	10.681100	ppm	0.000993	0.01	14783.200000	Y_R 377.433
K (766.491 nm)	50.477700	ppm	0.543272	1.08	50678.000000	Y_R2 488.368
Li (670.783 nm)	1.011120	ppm	0.000089	0.01	14815.500000	Y_R2 488.368
Mg (279.078 nm)	52.252300	ppm	0.103563	0.20	170953.000000	Y 377.433
Mn (257.610 nm)	1.710860	ppm	0.002278	0.13	466471.000000	Y 377.433
Mo (202.032 nm)	1.018870	ppm	0.000984	0.10	12853.200000	Y 377.433
Na (589.592 nm)	191.895000 o	ppm	0.331536	0.17	158127.000000	Y_R2 488.368
Na H (589.593 nm)	197.347868	ppm	0.130687	0.07	106954.801338	Y_R4
Ni (231.604 nm)	1.012130	ppm	0.000198	0.02	5230.510000	Y 377.433
P (213.618 nm)	20.681300	ppm	0.065529	0.32	29298.600000	Y 242.219
Pb (220.353 nm)	0.989845	ppm	0.003793	0.38	3151.350000	Y 242.219
S (181.972 nm)	13.781892	ppm	0.065607	0.48	6335.293019	Y 377.433
Sb (206.834 nm)	0.000309 u	ppm	0.001085	> 100.00	-2.446570	Y 377.433
Se (196.026 nm)	1.994040	ppm	0.001243	0.06	3016.040000	Y 242.219
Si (288.158 nm)	4.396560	ppm	0.019478	0.44	28791.700000	Y 377.433
Sn (189.925 nm)	2.049400	ppm	0.004376	0.21	3299.690000	Y 377.433
Sr (421.552 nm)	1.061305	ppm	0.000042	0.00	159858.509162	Y_R 488.368
Th (288.505 nm)	1.000750	ppm	0.004014	0.40	1657.240000	Y 377.433
Ti (336.122 nm)	0.992942	ppm	0.001025	0.10	127017.000000	Y 377.433
Tl (190.794 nm)	1.961210	ppm	0.002849	0.15	4475.860000	Y 377.433
U (409.013 nm)	1.986730	ppm	0.009608	0.48	6208.830000	Y 377.433
V (292.401 nm)	0.994462	ppm	0.001476	0.15	51147.200000	Y 377.433
Zn (206.200 nm)	0.512682	ppm	0.002284	0.45	2310.960000	Y 377.433
Zr (343.823 nm)	0.490283	ppm	0.000832	0.17	27594.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.056012	24410.206975	0.002927	0.28
Y 377.433	1.043919	730149.564309	0.003343	0.32
Y_R 377.433	1.096460	66476.800000	0.000619	0.06
Y_R 488.368	1.108980	58584.900000	0.000520	0.05
Y_R2 488.368	1.084958	115011.286243	0.001023	0.09
Y_R4	1.108450	49880.400000	0.001451	0.13

Sample Name: CCVH-5713036

Date: 5/24/2019 10:45:00 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005474	ppm	0.000040	0.73	-87.815900	Y 377.433
Al (394.401 nm)	48.848500 o	ppm	0.143134	0.29	595101.000000	Y 377.433
Al H (396.152 nm)	47.275200	ppm	0.113396	0.24	103082.000000	Y_R 377.433
As (188.980 nm)	0.004349	ppm	0.001013	23.29	3.638470	Y 242.219
B (249.678 nm)	-0.000904 u	ppm	0.001217	> 100.00	11.671100	Y 242.219
Ba (493.408 nm)	0.000714	ppm	0.000272	38.14	1509.960000	Y_R 488.368
Be (234.861 nm)	0.001273	ppm	0.000011	0.89	-85.545500	Y_R 488.368
Bi (223.061 nm)	0.009099	ppm	0.003138	34.49	17.853700	Y 377.433
Ca (315.887 nm)	0.004280 u	ppm	0.013272	> 100.00	-53.739080	Y_R 377.433
Cd (214.439 nm)	0.001443	ppm	0.000098	6.82	68.247700	Y 377.433
Co (228.615 nm)	0.003006	ppm	0.000052	1.73	55.535000	Y 242.219
Cr (205.560 nm)	0.001927	ppm	0.000783	40.65	4.816180	Y 377.433
Cu (324.754 nm)	0.004297	ppm	0.000026	0.60	1453.140000	Y 377.433
Fe (238.204 nm)	49.402415 o	ppm	0.117838	0.24	118927.376412	Y_R 377.433
Fe H (259.940 nm)	48.971500	ppm	0.085408	0.17	67738.300000	Y_R 377.433
K (766.491 nm)	0.238193	ppm	0.273989	> 100.00	2167.380000	Y_R2 488.368
Li (670.783 nm)	0.021191	ppm	0.000113	0.53	-2181.920000	Y_R2 488.368
Mg (279.078 nm)	0.042489	ppm	0.002414	5.68	74.256400	Y 377.433
Mn (257.610 nm)	0.001055	ppm	0.000000	0.01	276.474000	Y 377.433
Mo (202.032 nm)	0.001361	ppm	0.000227	16.65	28.291400	Y 377.433
Na (589.592 nm)	223.972000 o	ppm	0.744428	0.33	184010.000000	Y_R2 488.368
Na H (589.593 nm)	229.031288	ppm	2.114989	0.92	124144.835668	Y_R4
Ni (231.604 nm)	0.003410	ppm	0.000610	17.88	9.023910	Y 377.433
P (213.618 nm)	4.877180	ppm	0.000006	0.00	6965.780000	Y 242.219
Pb (220.353 nm)	0.006263	ppm	0.001890	30.18	21.543200	Y 242.219
S (181.972 nm)	4.836787	ppm	0.014825	0.31	2227.733577	Y 377.433
Sb (206.834 nm)	-0.000418 u	ppm	0.002845	> 100.00	5.230520	Y 377.433
Se (196.026 nm)	0.006054	ppm	0.001258	20.77	5.265590	Y 242.219
Si (288.158 nm)	0.013243	ppm	0.000871	6.58	573.802000	Y 377.433
Sn (189.925 nm)	0.002244	ppm	0.000025	1.10	5.701530	Y 377.433
Sr (421.552 nm)	0.001554	ppm	0.000055	3.56	264.568872	Y_R 488.368
Th (288.505 nm)	4.737450	ppm	0.017129	0.36	8182.180000	Y 377.433
Ti (336.122 nm)	0.001932	ppm	0.000089	4.58	-186.602000	Y 377.433
Tl (190.794 nm)	0.001869	ppm	0.002011	> 100.00	1.335130	Y 377.433
U (409.013 nm)	0.525351 Q	ppm	0.003269	0.62	1678.120000 Q	Y 377.433
V (292.401 nm)	0.001070	ppm	0.000041	3.82	395.788000	Y 377.433
Zn (206.200 nm)	0.002866	ppm	0.000242	8.43	23.830900	Y 377.433
Zr (343.823 nm)	0.001288	ppm	0.000354	27.46	-88.697200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087581	25139.934201	0.000724	0.07
Y 377.433	1.063951	744160.368155	0.001553	0.15
Y_R 377.433	1.124690	68188.700000	0.001506	0.13
Y_R 488.368	1.139800	60213.100000	0.001939	0.17
Y_R2 488.368	1.093766	115944.967548	0.001918	0.18
Y_R4	1.123890	50575.100000	0.012337	1.10

Sample Name: CCV-5717467

Date: 5/24/2019 10:48:43 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.485844	ppm	0.001066	0.22	16496.000000	Y 377.433
Al (394.401 nm)	0.492356	ppm	0.001959	0.40	6223.430000	Y 377.433
Al H (396.152 nm)	0.536039 u	ppm	0.006037	1.13	1153.210000	Y_R 377.433
As (188.980 nm)	0.485029	ppm	0.001998	0.41	729.243000	Y 242.219
B (249.678 nm)	0.469166	ppm	0.001101	0.23	3395.850000	Y 242.219
Ba (493.408 nm)	0.476472	ppm	0.001459	0.31	48902.800000	Y_R 488.368
Be (234.861 nm)	0.463826	ppm	0.002222	0.48	45666.300000	Y_R 488.368
Bi (223.061 nm)	0.976670	ppm	0.003060	0.31	2128.960000	Y 377.433
Ca (315.887 nm)	4.906256	ppm	0.001752	0.04	3827.665279	Y_R 377.433
Cd (214.439 nm)	0.511535	ppm	0.001361	0.27	18912.500000	Y 377.433
Co (228.615 nm)	0.487508	ppm	0.000473	0.10	11463.700000	Y 242.219
Cr (205.560 nm)	0.511666	ppm	0.000476	0.09	3402.200000	Y 377.433
Cu (324.754 nm)	0.488672	ppm	0.001573	0.32	23107.700000	Y 377.433
Fe (238.204 nm)	2.503589	ppm	0.005601	0.22	6033.715477	Y_R 377.433
Fe H (259.940 nm)	2.481020 u	ppm	0.002567	0.10	3442.620000	Y_R 377.433
K (766.491 nm)	48.036200	ppm	0.050998	0.11	48320.600000	Y_R2 488.368
Li (670.783 nm)	0.506402	ppm	0.002803	0.55	6149.280000	Y_R2 488.368
Mg (279.078 nm)	19.707800	ppm	0.041638	0.21	64495.800000	Y 377.433
Mn (257.610 nm)	0.485802	ppm	0.000806	0.17	132448.000000	Y 377.433
Mo (202.032 nm)	0.489574	ppm	0.000382	0.08	6181.840000	Y 377.433
Na (589.592 nm)	22.998100	ppm	0.036863	0.16	19137.400000	Y_R2 488.368
Na H (589.593 nm)	24.356149 u	ppm	0.004103	0.02	13097.080408	Y_R4
Ni (231.604 nm)	0.501498	ppm	0.002630	0.52	2586.740000	Y 377.433
P (213.618 nm)	0.050387	ppm	0.003750	7.44	-65.092400	Y 242.219
Pb (220.353 nm)	0.493079	ppm	0.003292	0.67	1572.530000	Y 242.219
S (181.972 nm)	-0.007428 u	ppm	0.001076	14.49	11.095072	Y 377.433
Sb (206.834 nm)	0.496017	ppm	0.001392	0.28	836.739000	Y 377.433
Se (196.026 nm)	0.489987	ppm	0.002803	0.57	747.969000	Y 242.219
Si (288.158 nm)	4.814600	ppm	0.012845	0.27	31482.800000	Y 377.433
Sn (189.925 nm)	0.507486	ppm	0.001502	0.30	818.665000	Y 377.433
Sr (421.552 nm)	0.465086	ppm	0.001478	0.32	70066.026230	Y_R 488.368
Th (288.505 nm)	0.022848	ppm	0.001564	6.84	2.842160	Y 377.433
Ti (336.122 nm)	0.478755	ppm	0.000061	0.01	60846.500000	Y 377.433
Tl (190.794 nm)	0.502625	ppm	0.001630	0.32	1148.180000	Y 377.433
U (409.013 nm)	0.016284	ppm	0.001516	9.31	-32.492900	Y 377.433
V (292.401 nm)	0.482691	ppm	0.001059	0.22	24742.500000	Y 377.433
Zn (206.200 nm)	0.512900	ppm	0.000886	0.17	2310.790000	Y 377.433
Zr (343.823 nm)	0.479454	ppm	0.000256	0.05	26981.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110837	25677.516510	0.005782	0.52
Y 377.433	1.090614	762809.221734	0.005910	0.54
Y_R 377.433	1.141890	69231.200000	0.004445	0.39
Y_R 488.368	1.157360	61140.500000	0.002830	0.24
Y_R2 488.368	1.137014	120529.460291	0.003244	0.29
Y_R4	1.128070	50763.200000	0.003571	0.32

Sample Name: CCB

Date: 5/24/2019 10:52:18 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001087	ppm	0.000277	25.49	-229.364000	Y 377.433
Al (394.401 nm)	-0.002865 u	ppm	0.002470	86.20	56.061900	Y 377.433
Al H (396.152 nm)	0.129444 Zu	ppm	0.004939	3.82	24.701000 Z	Y_R 377.433
As (188.980 nm)	0.002595	ppm	0.001818	70.08	2.333930	Y 242.219
B (249.678 nm)	-0.003267 u	ppm	0.000816	24.98	23.337200	Y 242.219
Ba (493.408 nm)	-0.002172 Zu	ppm	0.000063	2.89	1182.900000 Z	Y_R 488.368
Be (234.861 nm)	0.000000 u	ppm	0.000064	> 100.00	-1.946900	Y_R 488.368
Bi (223.061 nm)	0.000217 u	ppm	0.000465	> 100.00	-10.135900	Y 377.433
Ca (315.887 nm)	0.019000	ppm	0.002964	15.60	-53.950497	Y_R 377.433
Cd (214.439 nm)	-0.000001 u	ppm	0.000049	> 100.00	-5.209800	Y 377.433
Co (228.615 nm)	-0.000186 u	ppm	0.000082	43.89	-19.516800	Y 242.219
Cr (205.560 nm)	0.000313	ppm	0.000142	45.40	-4.665670	Y 377.433
Cu (324.754 nm)	0.001212	ppm	0.000188	15.51	373.782000	Y 377.433
Fe (238.204 nm)	0.000320	ppm	0.000206	64.24	7.910795	Y_R 377.433
Fe H (259.940 nm)	0.002007 u	ppm	0.001793	89.36	14.188200	Y_R 377.433
K (766.491 nm)	-0.162920 u	ppm	0.223873	> 100.00	1780.070000	Y_R2 488.368
Li (670.783 nm)	0.023327 Z	ppm	0.004054	17.38	-2145.240000 Z	Y_R2 488.368
Mg (279.078 nm)	0.005084	ppm	0.001513	29.77	25.127500	Y 377.433
Mn (257.610 nm)	0.000089	ppm	0.000020	22.27	13.264000	Y 377.433
Mo (202.032 nm)	-0.000027 u	ppm	0.000165	> 100.00	10.787200	Y 377.433
Na (589.592 nm)	-0.021245 u	ppm	0.040179	> 100.00	132.359000	Y_R2 488.368
Na H (589.593 nm)	0.775501 u	ppm	0.025514	3.29	303.255069	Y_R4
Ni (231.604 nm)	0.000289 u	ppm	0.000825	> 100.00	-7.125610	Y 377.433
P (213.618 nm)	-0.000782 u	ppm	0.005638	> 100.00	-5.296550	Y 242.219
Pb (220.353 nm)	-0.000043 u	ppm	0.001631	> 100.00	8.105760	Y 242.219
S (181.972 nm)	-0.014650 u	ppm	0.008204	56.00	5.989689	Y 377.433
Sb (206.834 nm)	-0.001358 u	ppm	0.001010	74.36	-0.513777	Y 377.433
Se (196.026 nm)	-0.001035 u	ppm	0.000142	13.71	7.296640	Y 242.219
Si (288.158 nm)	-0.006703 u	ppm	0.002393	35.70	445.396000	Y 377.433
Sn (189.925 nm)	0.000695	ppm	0.000260	37.48	3.208150	Y 377.433
Sr (421.552 nm)	0.000191	ppm	0.000030	15.82	51.913012	Y_R 488.368
Th (288.505 nm)	0.001360	ppm	0.001207	88.72	14.993800	Y 377.433
Ti (336.122 nm)	0.000364	ppm	0.000029	7.95	-387.318000	Y 377.433
Tl (190.794 nm)	0.000500 u	ppm	0.000884	> 100.00	2.959970	Y 377.433
U (409.013 nm)	-0.003465 u	ppm	0.001439	41.54	-35.748200	Y 377.433
V (292.401 nm)	0.000288	ppm	0.000231	80.18	-131.011000	Y 377.433
Zn (206.200 nm)	-0.000632 u	ppm	0.000031	4.87	1.222180	Y 377.433
Zr (343.823 nm)	-0.000003 u	ppm	0.000172	> 100.00	-161.786000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136128	26262.117419	0.006999	0.62
Y 377.433	1.113631	778908.068802	0.007367	0.66
Y_R 377.433	1.157610	70184.200000	0.005216	0.45
Y_R 488.368	1.173940	62016.300000	0.005788	0.49
Y_R2 488.368	1.156436	122588.310744	0.012317	1.07
Y_R4	1.161670	52275.100000	0.001831	0.16

Sample Name: CCVL-5719884

Date: 5/24/2019 10:55:31 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008543	ppm	0.000014	0.17	26.616200	Y 377.433
Al (394.401 nm)	0.092870	ppm	0.000699	0.75	1233.920000	Y 377.433
Al H (396.152 nm)	0.223118 u	ppm	0.005623	2.52	234.859000	Y_R 377.433
As (188.980 nm)	0.016657	ppm	0.000382	2.29	23.521600	Y 242.219
B (249.678 nm)	0.088483	ppm	0.000393	0.44	678.530000	Y 242.219
Ba (493.408 nm)	0.006869 Q	ppm	0.000547	7.96	2084.300000 Q	Y_R 488.368
Be (234.861 nm)	0.000912	ppm	0.000021	2.28	87.442700	Y_R 488.368
Bi (223.061 nm)	0.085847	ppm	0.004034	4.70	177.427000	Y 377.433
Ca (315.887 nm)	0.222244	ppm	0.011757	5.29	107.490242	Y_R 377.433
Cd (214.439 nm)	0.005287	ppm	0.000065	1.24	190.383000	Y 377.433
Co (228.615 nm)	0.010290	ppm	0.000026	0.25	227.136000	Y 242.219
Cr (205.560 nm)	0.010714	ppm	0.000230	2.15	64.527200	Y 377.433
Cu (324.754 nm)	0.016527	ppm	0.000025	0.15	1086.740000	Y 377.433
Fe (238.204 nm)	0.099824	ppm	0.000997	1.00	247.434073	Y_R 377.433
Fe H (259.940 nm)	0.103122 u	ppm	0.002534	2.46	154.029000	Y_R 377.433
K (766.491 nm)	2.783540	ppm	0.064341	2.31	4625.140000	Y_R2 488.368
Li (670.783 nm)	0.053147 Q	ppm	0.000016	0.03	-1633.220000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200388	ppm	0.002917	1.46	662.785000	Y 377.433
Mn (257.610 nm)	0.010435	ppm	0.000036	0.35	2834.180000	Y 377.433
Mo (202.032 nm)	0.019293	ppm	0.000285	1.48	254.302000	Y 377.433
Na (589.592 nm)	0.993088	ppm	0.021442	2.16	966.992000	Y_R2 488.368
Na H (589.593 nm)	1.560915 u	ppm	0.040782	2.61	729.385874	Y_R4
Ni (231.604 nm)	0.043449	ppm	0.000379	0.87	216.206000	Y 377.433
P (213.618 nm)	2.807470	ppm	0.009786	0.35	4006.260000	Y 242.219
Pb (220.353 nm)	0.009275	ppm	0.000139	1.50	37.823600	Y 242.219
S (181.972 nm)	0.082758	ppm	0.006970	8.42	50.638379	Y 377.433
Sb (206.834 nm)	0.016170	ppm	0.002379	14.71	28.935400	Y 377.433
Se (196.026 nm)	0.018035	ppm	0.001896	10.51	36.048600	Y 242.219
Si (288.158 nm)	0.469926	ppm	0.002388	0.51	3513.720000	Y 377.433
Sn (189.925 nm)	0.103304	ppm	0.000208	0.20	168.312000	Y 377.433
Sr (421.552 nm)	0.008960	ppm	0.000096	1.07	1372.622834	Y_R 488.368
Th (288.505 nm)	0.019142	ppm	0.001318	6.88	45.253700	Y 377.433
Ti (336.122 nm)	0.009902	ppm	0.000037	0.37	833.936000	Y 377.433
Tl (190.794 nm)	0.016934	ppm	0.001599	9.44	40.432600	Y 377.433
U (409.013 nm)	0.062071	ppm	0.011920	19.20	170.972000	Y 377.433
V (292.401 nm)	0.009835	ppm	0.000134	1.36	357.918000	Y 377.433
Zn (206.200 nm)	0.021350	ppm	0.000451	2.11	100.084000	Y 377.433
Zr (343.823 nm)	0.009549	ppm	0.000244	2.56	378.992000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.170926	27066.496323	0.003371	0.29
Y 377.433	1.146290	801751.041260	0.001785	0.16
Y_R 377.433	1.187740	72011.300000	0.000932	0.08
Y_R 488.368	1.200210	63404.600000	0.009227	0.77
Y_R2 488.368	1.178107	124885.574394	0.005257	0.45
Y_R4	1.170170	52657.400000	0.011566	0.99

Sample Name: 280-123855-F-1-Apds

Date: 5/24/2019 10:58:59 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.045268	ppm	0.000274	0.60	1287.040000	Y 377.433
Al (394.401 nm)	1.002310	ppm	0.000968	0.10	12382.600000	Y 377.433
Al H (396.152 nm)	1.073660	ppm	0.006530	0.61	2137.730000	Y_R 377.433
As (188.980 nm)	0.204098	ppm	0.000140	0.07	305.930000	Y 242.219
B (249.678 nm)	0.102163	ppm	0.000888	0.87	775.276000	Y 242.219
Ba (493.408 nm)	0.122289	ppm	0.000670	0.55	13592.300000	Y_R 488.368
Be (234.861 nm)	0.048602	ppm	0.000343	0.71	4777.050000	Y_R 488.368
Bi (223.061 nm)	0.002410 u	ppm	0.004042	> 100.00	-4.986890	Y 377.433
Ca (315.887 nm)	80.130328	ppm	0.175207	0.22	63571.170684	Y_R 377.433
Cd (214.439 nm)	0.052326	ppm	0.000113	0.22	1930.570000	Y 377.433
Co (228.615 nm)	0.050863	ppm	0.000797	1.57	1182.360000	Y 242.219
Cr (205.560 nm)	0.053036	ppm	0.001051	1.98	346.563000	Y 377.433
Cu (324.754 nm)	0.052299	ppm	0.000342	0.65	2719.870000	Y 377.433
Fe (238.204 nm)	1.751334	ppm	0.005143	0.29	4222.906541	Y_R 377.433
Fe H (259.940 nm)	1.740390 u	ppm	0.007148	0.41	2418.350000	Y_R 377.433
K (766.491 nm)	20.582400	ppm	0.107914	0.52	21811.500000	Y_R2 488.368
Li (670.783 nm)	0.121298	ppm	0.003137	2.59	-463.051000	Y_R2 488.368
Mg (279.078 nm)	22.474000	ppm	0.005380	0.02	73541.200000	Y 377.433
Mn (257.610 nm)	0.738707	ppm	0.000168	0.02	201405.000000	Y 377.433
Mo (202.032 nm)	0.050570	ppm	0.000481	0.95	648.530000	Y 377.433
Na (589.592 nm)	156.324000 o	ppm	0.331777	0.21	128505.000000	Y_R2 488.368
Na H (589.593 nm)	161.491097	ppm	2.225431	1.38	87500.489391	Y_R4
Ni (231.604 nm)	0.059245	ppm	0.000429	0.72	298.145000	Y 377.433
P (213.618 nm)	2.082240	ppm	0.021854	1.05	2959.040000	Y 242.219
Pb (220.353 nm)	0.099144	ppm	0.000161	0.16	324.108000	Y 242.219
S (181.972 nm)	3.570736	ppm	0.001620	0.05	1654.302650	Y 377.433
Sb (206.834 nm)	0.099701	ppm	0.002509	2.52	169.972000	Y 377.433
Se (196.026 nm)	0.199387	ppm	0.003340	1.68	310.168000	Y 242.219
Si (288.158 nm)	7.124050	ppm	0.015088	0.21	46350.100000	Y 377.433
Sn (189.925 nm)	0.101808	ppm	0.000832	0.82	165.906000	Y 377.433
Sr (421.552 nm)	0.150330	ppm	0.000082	0.05	22663.367249	Y_R 488.368
Th (288.505 nm)	0.197463	ppm	0.005432	2.75	362.267000	Y 377.433
Ti (336.122 nm)	0.048967	ppm	0.000365	0.75	6108.790000	Y 377.433
Tl (190.794 nm)	0.200838	ppm	0.000727	0.36	457.453000	Y 377.433
U (409.013 nm)	0.511950	ppm	0.001100	0.21	1583.520000	Y 377.433
V (292.401 nm)	0.050677	ppm	0.000101	0.20	2462.310000	Y 377.433
Zn (206.200 nm)	0.214899	ppm	0.000328	0.15	970.654000	Y 377.433
Zr (343.823 nm)	0.049622	ppm	0.000056	0.11	2647.550000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.111493	25692.669633	0.000422	0.04
Y 377.433	1.093950	765142.454918	0.000276	0.03
Y_R 377.433	1.153380	69927.900000	0.008167	0.71
Y_R 488.368	1.169580	61786.000000	0.006906	0.59
Y_R2 488.368	1.139953	120841.052138	0.012381	1.09
Y_R4	1.134730	51062.700000	0.014125	1.24

Sample Name: 280-123855-F-2-A

Date: 5/24/2019 11:02:33 PM Rack:Tube: 2:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002516	ppm	0.000105	4.18	-180.969000	Y 377.433
Al (394.401 nm)	-0.023378 bu	ppm	0.000087	0.37	3410.120000	Y 377.433
Al H (396.152 nm)	-2.319660 bu	ppm	0.007284	0.31	481.390000	Y_R 377.433
As (188.980 nm)	0.001202	ppm	0.001212	> 100.00	0.231311	Y 242.219
B (249.678 nm)	0.160773	ppm	0.000679	0.42	1194.760000	Y 242.219
Ba (493.408 nm)	2.642530	ppm	0.000646	0.02	264843.000000	Y_R 488.368
Be (234.861 nm)	-0.000043 u	ppm	0.000027	62.31	-6.953060	Y_R 488.368
Bi (223.061 nm)	0.001727	ppm	0.002000	> 100.00	-6.745170	Y 377.433
Ca (315.887 nm)	203.970721	ppm	0.333825	0.16	161925.736592	Y_R 377.433
Cd (214.439 nm)	0.000372	ppm	0.000042	11.16	8.646020	Y 377.433
Co (228.615 nm)	0.000793	ppm	0.000226	28.53	3.518510	Y 242.219
Cr (205.560 nm)	0.031618	ppm	0.000232	0.73	204.076000	Y 377.433
Cu (324.754 nm)	0.016423	ppm	0.000400	2.44	962.894000	Y 377.433
Fe (238.204 nm)	0.169867	ppm	0.000360	0.21	416.040086	Y_R 377.433
Fe H (259.940 nm)	0.169816 u	ppm	0.004671	2.75	246.267000	Y_R 377.433
K (766.491 nm)	25.910300	ppm	0.269451	1.04	26956.000000	Y_R2 488.368
Li (670.783 nm)	4.407960	ppm	0.008915	0.20	73140.000000	Y_R2 488.368
Mg (279.078 nm)	5.557840	ppm	0.005107	0.09	18195.200000	Y 377.433
Mn (257.610 nm)	0.015627	ppm	0.000079	0.51	4249.810000	Y 377.433
Mo (202.032 nm)	0.005719	ppm	0.000079	1.37	83.220700	Y 377.433
Na (589.592 nm)	1023.090000 o	ppm	4.325190	0.42	840611.000000	Y_R2 488.368
Na H (589.593 nm)	1209.535490	ppm	9.374698	0.78	656123.418565	Y_R4
Ni (231.604 nm)	0.009209	ppm	0.000756	8.21	39.025800	Y 377.433
P (213.618 nm)	0.003176	ppm	0.002216	69.78	-3.979490	Y 242.219
Pb (220.353 nm)	-0.000726 u	ppm	0.000685	94.41	5.876100	Y 242.219
S (181.972 nm)	1.150749	ppm	0.008375	0.73	549.941596	Y 377.433
Sb (206.834 nm)	-0.004500 u	ppm	0.000771	17.14	-5.620970	Y 377.433
Se (196.026 nm)	-0.002388 u	ppm	0.001199	50.21	5.234890	Y 242.219
Si (288.158 nm)	5.076570	ppm	0.025767	0.51	33169.300000	Y 377.433
Sn (189.925 nm)	0.001120	ppm	0.001042	93.07	3.891750	Y 377.433
Sr (421.552 nm)	13.841945 bo	ppm	0.004819	0.03	2084635.111392	Y_R 488.368
Th (288.505 nm)	-0.008655 u	ppm	0.003172	36.66	-7.365410	Y 377.433
Ti (336.122 nm)	-0.000113 u	ppm	0.000183	> 100.00	257.552000	Y 377.433
Tl (190.794 nm)	0.002645	ppm	0.001815	68.61	-0.426633	Y 377.433
U (409.013 nm)	-0.010910 u	ppm	0.002229	20.43	-86.813800	Y 377.433
V (292.401 nm)	0.002433	ppm	0.000016	0.66	-32.424900	Y 377.433
Zn (206.200 nm)	0.002765	ppm	0.000314	11.36	16.523100	Y 377.433
Zr (343.823 nm)	-0.000256 u	ppm	0.000162	63.08	-176.120000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.030643	23823.782127	0.010625	1.03
Y 377.433	1.021096	714186.148597	0.010885	1.07
Y_R 377.433	1.115230	67615.200000	0.000665	0.06
Y_R 488.368	1.129710	59680.200000	0.002494	0.22
Y_R2 488.368	1.078185	114293.345524	0.010388	0.96
Y_R4	1.105350	49740.800000	0.011859	1.07

Sample Name: 280-123855-F-3-A

Date: 5/24/2019 11:06:15 PM Rack:Tube: 2:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001417	ppm	0.000388	27.40	-218.989000	Y 377.433
Al (394.401 nm)	0.008246	ppm	0.000226	2.74	279.317000	Y 377.433
Al H (396.152 nm)	0.071110 u	ppm	0.001249	1.76	-4.278220	Y_R 377.433
As (188.980 nm)	0.001554 u	ppm	0.004063	> 100.00	0.648083	Y 242.219
B (249.678 nm)	0.029515	ppm	0.001577	5.34	254.949000	Y 242.219
Ba (493.408 nm)	0.290916	ppm	0.000248	0.09	30405.400000	Y_R 488.368
Be (234.861 nm)	-0.000028 u	ppm	0.000024	85.05	-23.082800	Y_R 488.368
Bi (223.061 nm)	-0.000805 u	ppm	0.000488	60.63	-11.622500	Y 377.433
Ca (315.887 nm)	110.894475	ppm	0.151574	0.14	88003.983785	Y_R 377.433
Cd (214.439 nm)	0.000241	ppm	0.000079	32.79	5.497120	Y 377.433
Co (228.615 nm)	-0.000141 u	ppm	0.000040	28.42	-18.462900	Y 242.219
Cr (205.560 nm)	0.000515	ppm	0.000048	9.39	-3.315240	Y 377.433
Cu (324.754 nm)	-0.000214 u	ppm	0.000044	20.65	237.725000	Y 377.433
Fe (238.204 nm)	4.338148	ppm	0.005651	0.13	10449.818431	Y_R 377.433
Fe H (259.940 nm)	4.303820 u	ppm	0.007312	0.17	5963.520000	Y_R 377.433
K (766.491 nm)	1.289600	ppm	0.245590	19.04	3182.600000	Y_R2 488.368
Li (670.783 nm)	0.042211	ppm	0.002035	4.82	-1820.990000	Y_R2 488.368
Mg (279.078 nm)	25.300800	ppm	0.026701	0.11	82795.100000	Y 377.433
Mn (257.610 nm)	0.456008	ppm	0.000389	0.09	124324.000000	Y 377.433
Mo (202.032 nm)	0.000208	ppm	0.000081	38.96	13.751400	Y 377.433
Na (589.592 nm)	14.197600	ppm	0.011086	0.08	11870.900000	Y_R2 488.368
Na H (589.593 nm)	15.965671 u	ppm	0.195368	1.22	8544.774753	Y_R4
Ni (231.604 nm)	-0.001077 u	ppm	0.000071	6.59	-14.194900	Y 377.433
P (213.618 nm)	0.010003	ppm	0.001801	18.00	10.240500	Y 242.219
Pb (220.353 nm)	-0.000019 u	ppm	0.000090	> 100.00	8.343030	Y 242.219
S (181.972 nm)	3.636981	ppm	0.000722	0.02	1685.278403	Y 377.433
Sb (206.834 nm)	-0.001929 u	ppm	0.004224	> 100.00	-1.111090	Y 377.433
Se (196.026 nm)	-0.002141 u	ppm	0.002912	> 100.00	5.154740	Y 242.219
Si (288.158 nm)	6.404440	ppm	0.025585	0.40	41717.500000	Y 377.433
Sn (189.925 nm)	-0.000269 u	ppm	0.001387	> 100.00	1.657150	Y 377.433
Sr (421.552 nm)	0.295460	ppm	0.000431	0.15	44520.432994	Y_R 488.368
Th (288.505 nm)	-0.004793 u	ppm	0.002258	47.11	10.565800	Y 377.433
Ti (336.122 nm)	-0.000502 u	ppm	0.000038	7.67	-114.570000	Y 377.433
Tl (190.794 nm)	0.001408	ppm	0.001567	> 100.00	0.027513	Y 377.433
U (409.013 nm)	0.033372	ppm	0.001855	5.56	69.234700	Y 377.433
V (292.401 nm)	0.001250	ppm	0.000287	22.93	-85.203100	Y 377.433
Zn (206.200 nm)	0.002349	ppm	0.000127	5.42	15.231000	Y 377.433
Zr (343.823 nm)	0.000708	ppm	0.000188	26.51	-121.526000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.133753	26207.223620	0.004048	0.36
Y 377.433	1.121572	784462.441862	0.005006	0.45
Y_R 377.433	1.185850	71896.400000	0.005930	0.50
Y_R 488.368	1.201790	63487.600000	0.008115	0.68
Y_R2 488.368	1.181145	125207.666230	0.001130	0.10
Y_R4	1.173060	52787.500000	0.008726	0.74

Sample Name: 280-123855-F-4-A

Date: 5/24/2019 11:09:51 PM Rack:Tube: 2:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001547	ppm	0.000454	29.36	-214.287000	Y 377.433
Al (394.401 nm)	0.016654	ppm	0.001067	6.41	358.037000	Y 377.433
Al H (396.152 nm)	0.096992 u	ppm	0.001888	1.95	25.789200	Y_R 377.433
As (188.980 nm)	0.000187	ppm	0.000081	43.24	-1.299070	Y 242.219
B (249.678 nm)	0.014738	ppm	0.000256	1.74	151.832000	Y 242.219
Ba (493.408 nm)	0.042267	ppm	0.000300	0.71	5613.310000	Y_R 488.368
Be (234.861 nm)	-0.000021 u	ppm	0.000017	80.84	-4.789060	Y_R 488.368
Bi (223.061 nm)	-0.000294 u	ppm	0.003062	> 100.00	-11.222700	Y 377.433
Ca (315.887 nm)	94.049693	ppm	0.221866	0.24	74625.763819	Y_R 377.433
Cd (214.439 nm)	0.000160	ppm	0.000128	79.94	0.817816	Y 377.433
Co (228.615 nm)	-0.000144 u	ppm	0.000533	> 100.00	-18.532000	Y 242.219
Cr (205.560 nm)	0.000431	ppm	0.000191	44.31	-3.882750	Y 377.433
Cu (324.754 nm)	0.001066	ppm	0.000207	19.40	309.526000	Y 377.433
Fe (238.204 nm)	0.166423	ppm	0.001626	0.98	407.749809	Y_R 377.433
Fe H (259.940 nm)	0.160287 u	ppm	0.000106	0.07	233.088000	Y_R 377.433
K (766.491 nm)	1.955250	ppm	0.046120	2.36	3825.350000	Y_R2 488.368
Li (670.783 nm)	0.035814	ppm	0.001625	4.54	-1930.840000	Y_R2 488.368
Mg (279.078 nm)	12.363600	ppm	0.024753	0.20	40465.800000	Y 377.433
Mn (257.610 nm)	0.069652	ppm	0.000079	0.11	18980.200000	Y 377.433
Mo (202.032 nm)	0.000447	ppm	0.000021	4.62	16.767700	Y 377.433
Na (589.592 nm)	168.147000 o	ppm	1.113480	0.66	138192.000000	Y_R2 488.368
Na H (589.593 nm)	174.645898	ppm	1.731982	0.99	94637.707606	Y_R4
Ni (231.604 nm)	-0.000603 u	ppm	0.000721	> 100.00	-11.741700	Y 377.433
P (213.618 nm)	0.003200 u	ppm	0.006356	> 100.00	0.149483	Y 242.219
Pb (220.353 nm)	-0.001360 u	ppm	0.002406	> 100.00	4.002330	Y 242.219
S (181.972 nm)	10.091979	ppm	0.004559	0.05	4639.286587	Y 377.433
Sb (206.834 nm)	-0.003922 u	ppm	0.000261	6.64	-4.831470	Y 377.433
Se (196.026 nm)	-0.000279 u	ppm	0.002490	> 100.00	8.492600	Y 242.219
Si (288.158 nm)	3.410140	ppm	0.000539	0.02	22441.600000	Y 377.433
Sn (189.925 nm)	0.000485	ppm	0.000351	72.41	2.871180	Y 377.433
Sr (421.552 nm)	0.222799	ppm	0.000114	0.05	33576.905725	Y_R 488.368
Th (288.505 nm)	-0.006729 u	ppm	0.003079	45.77	0.083196	Y 377.433
Ti (336.122 nm)	-0.000189 u	ppm	0.000190	> 100.00	-133.017000	Y 377.433
Tl (190.794 nm)	0.001639	ppm	0.000880	53.70	1.744150	Y 377.433
U (409.013 nm)	0.018880	ppm	0.004670	24.74	22.565500	Y 377.433
V (292.401 nm)	0.001077	ppm	0.000086	8.02	-92.259900	Y 377.433
Zn (206.200 nm)	0.007001	ppm	0.000257	3.68	35.567700	Y 377.433
Zr (343.823 nm)	0.000029 u	ppm	0.000125	> 100.00	-159.978000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125294	26011.691317	0.000523	0.05
Y 377.433	1.110794	776924.020377	0.000616	0.06
Y_R 377.433	1.179880	71534.700000	0.007433	0.63
Y_R 488.368	1.197570	63264.600000	0.005445	0.45
Y_R2 488.368	1.160024	122968.705188	0.002573	0.22
Y_R4	1.154250	51941.200000	0.005887	0.51

Sample Name: 280-123855-F-5-A

Date: 5/24/2019 11:13:25 PM Rack:Tube: 2:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001338	ppm	0.000486	36.36	-221.515000	Y 377.433
Al (394.401 nm)	0.022576	ppm	0.000344	1.52	428.901000	Y 377.433
Al H (396.152 nm)	0.094375 u	ppm	0.001920	2.03	16.818000	Y_R 377.433
As (188.980 nm)	0.000253 u	ppm	0.002038	> 100.00	-1.198250	Y 242.219
B (249.678 nm)	0.015816	ppm	0.001654	10.46	159.541000	Y 242.219
Ba (493.408 nm)	0.041856	ppm	0.000333	0.80	5572.320000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000007	90.15	-3.309130	Y_R 488.368
Bi (223.061 nm)	0.001211	ppm	0.001220	> 100.00	-7.930320	Y 377.433
Ca (315.887 nm)	89.165555	ppm	0.317284	0.36	70746.755673	Y_R 377.433
Cd (214.439 nm)	0.000182	ppm	0.000212	> 100.00	1.619650	Y 377.433
Co (228.615 nm)	-0.000326 u	ppm	0.000057	17.55	-22.793700	Y 242.219
Cr (205.560 nm)	0.000630	ppm	0.000031	4.85	-2.551020	Y 377.433
Cu (324.754 nm)	0.001762	ppm	0.000065	3.67	344.086000	Y 377.433
Fe (238.204 nm)	0.143981	ppm	0.001286	0.89	353.727126	Y_R 377.433
Fe H (259.940 nm)	0.146063 u	ppm	0.000451	0.31	213.416000	Y_R 377.433
K (766.491 nm)	1.776040	ppm	0.030548	1.72	3652.310000	Y_R2 488.368
Li (670.783 nm)	0.036902	ppm	0.001054	2.86	-1912.160000	Y_R2 488.368
Mg (279.078 nm)	11.626600	ppm	0.002752	0.02	38054.200000	Y 377.433
Mn (257.610 nm)	0.053273	ppm	0.000008	0.01	14514.200000	Y 377.433
Mo (202.032 nm)	-0.000025 u	ppm	0.000132	> 100.00	10.820100	Y 377.433
Na (589.592 nm)	152.808000 o	ppm	0.499032	0.33	125600.000000	Y_R2 488.368
Na H (589.593 nm)	156.632614	ppm	0.410036	0.26	84864.489505	Y_R4
Ni (231.604 nm)	-0.000950 u	ppm	0.000346	36.46	-13.537300	Y 377.433
P (213.618 nm)	0.007691	ppm	0.001045	13.58	6.463460	Y 242.219
Pb (220.353 nm)	-0.000989 u	ppm	0.000607	61.40	5.193020	Y 242.219
S (181.972 nm)	10.113903	ppm	0.018137	0.18	4649.032368	Y 377.433
Sb (206.834 nm)	-0.002965 u	ppm	0.001804	60.86	-3.212800	Y 377.433
Se (196.026 nm)	0.000361 u	ppm	0.000720	> 100.00	9.440270	Y 242.219
Si (288.158 nm)	3.189730	ppm	0.001075	0.03	21022.600000	Y 377.433
Sn (189.925 nm)	0.001453	ppm	0.001078	74.17	4.428970	Y 377.433
Sr (421.552 nm)	0.212363	ppm	0.000063	0.03	32005.358528	Y_R 488.368
Th (288.505 nm)	-0.007348 u	ppm	0.002065	28.10	-1.161630	Y 377.433
Ti (336.122 nm)	-0.000009 u	ppm	0.000081	> 100.00	-126.698000	Y 377.433
Tl (190.794 nm)	0.001508	ppm	0.001776	> 100.00	1.643300	Y 377.433
U (409.013 nm)	0.021836	ppm	0.000526	2.41	32.530700	Y 377.433
V (292.401 nm)	0.001273	ppm	0.000095	7.44	-82.627300	Y 377.433
Zn (206.200 nm)	0.006151	ppm	0.000478	7.77	31.745200	Y 377.433
Zr (343.823 nm)	0.000262	ppm	0.000100	38.09	-146.804000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126904	26048.911589	0.000678	0.06
Y 377.433	1.110593	776783.599694	0.000736	0.07
Y_R 377.433	1.177540	71392.800000	0.000142	0.01
Y_R 488.368	1.194680	63112.300000	0.000035	0.00
Y_R2 488.368	1.172002	124238.381948	0.004590	0.39
Y_R4	1.179190	53063.700000	0.003479	0.30

Sample Name: 280-123855-F-6-A

Date: 5/24/2019 11:16:57 PM Rack:Tube: 2:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001487	ppm	0.000032	2.17	-216.315000	Y 377.433
Al (394.401 nm)	0.026793	ppm	0.000908	3.39	482.331000	Y 377.433
Al H (396.152 nm)	0.104782 u	ppm	0.000491	0.47	42.366600	Y_R 377.433
As (188.980 nm)	0.003158	ppm	0.000388	12.30	3.178890	Y 242.219
B (249.678 nm)	0.015140	ppm	0.000680	4.49	154.711000	Y 242.219
Ba (493.408 nm)	0.042680	ppm	0.000184	0.43	5654.460000	Y_R 488.368
Be (234.861 nm)	-0.000087 u	ppm	0.000032	36.87	-11.150600	Y_R 488.368
Bi (223.061 nm)	0.000380 u	ppm	0.001687	> 100.00	-9.750400	Y 377.433
Ca (315.887 nm)	89.755023	ppm	0.294693	0.33	71214.912191	Y_R 377.433
Cd (214.439 nm)	0.000193	ppm	0.000037	19.00	2.016580	Y 377.433
Co (228.615 nm)	-0.000326 u	ppm	0.000021	6.52	-22.789700	Y 242.219
Cr (205.560 nm)	0.000345	ppm	0.000478	> 100.00	-4.450970	Y 377.433
Cu (324.754 nm)	0.001351	ppm	0.000029	2.17	324.496000	Y 377.433
Fe (238.204 nm)	0.150932	ppm	0.001391	0.92	370.459664	Y_R 377.433
Fe H (259.940 nm)	0.149402 u	ppm	0.001097	0.73	218.034000	Y_R 377.433
K (766.491 nm)	1.882430	ppm	0.023417	1.24	3755.040000	Y_R2 488.368
Li (670.783 nm)	0.033964	ppm	0.003266	9.62	-1962.590000	Y_R2 488.368
Mg (279.078 nm)	12.017900	ppm	0.001451	0.01	39334.500000	Y 377.433
Mn (257.610 nm)	0.050045	ppm	0.000044	0.09	13634.200000	Y 377.433
Mo (202.032 nm)	0.000469	ppm	0.000144	30.72	17.041100	Y 377.433
Na (589.592 nm)	158.259000 o	ppm	0.267203	0.17	130075.000000	Y_R2 488.368
Na H (589.593 nm)	163.486963	ppm	0.787056	0.48	88583.358876	Y_R4
Ni (231.604 nm)	-0.000740 u	ppm	0.000654	88.44	-12.449200	Y 377.433
P (213.618 nm)	0.004707	ppm	0.002783	59.14	2.263910	Y 242.219
Pb (220.353 nm)	-0.000455 u	ppm	0.000082	18.09	6.893760	Y 242.219
S (181.972 nm)	9.874962	ppm	0.002930	0.03	4539.624255	Y 377.433
Sb (206.834 nm)	-0.002950 u	ppm	0.005731	> 100.00	-3.191880	Y 377.433
Se (196.026 nm)	0.000276 u	ppm	0.002397	> 100.00	9.305550	Y 242.219
Si (288.158 nm)	3.267030	ppm	0.001916	0.06	21520.200000	Y 377.433
Sn (189.925 nm)	0.000099 u	ppm	0.000298	> 100.00	2.250020	Y 377.433
Sr (421.552 nm)	0.219722	ppm	0.001126	0.51	33113.525268	Y_R 488.368
Th (288.505 nm)	-0.010606 u	ppm	0.001412	13.31	-6.834540	Y 377.433
Ti (336.122 nm)	0.000146	ppm	0.000009	5.95	-105.020000	Y 377.433
Tl (190.794 nm)	0.001290 u	ppm	0.003131	> 100.00	1.121180	Y 377.433
U (409.013 nm)	0.022821	ppm	0.005094	22.32	35.607000	Y 377.433
V (292.401 nm)	0.001288	ppm	0.000317	24.63	-81.888100	Y 377.433
Zn (206.200 nm)	0.006954	ppm	0.000055	0.79	35.356600	Y 377.433
Zr (343.823 nm)	0.000083	ppm	0.000056	67.45	-156.941000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125019	26005.342609	0.000990	0.09
Y 377.433	1.108711	775467.140294	0.000070	0.01
Y_R 377.433	1.175580	71274.200000	0.003794	0.32
Y_R 488.368	1.190480	62890.400000	0.006953	0.58
Y_R2 488.368	1.170208	124048.247271	0.002757	0.24
Y_R4	1.170310	52664.000000	0.005090	0.43

Sample Name: 280-123922-F-1-A

Date: 5/24/2019 11:20:31 PM Rack:Tube: 2:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002115	ppm	0.000012	0.56	-194.509000	Y 377.433
Al (394.401 nm)	0.004879	ppm	0.000586	12.02	282.978000	Y 377.433
Al H (396.152 nm)	0.036443 u	ppm	0.001013	2.78	-4.547340	Y_R 377.433
As (188.980 nm)	0.006666	ppm	0.001650	24.76	8.126330	Y 242.219
B (249.678 nm)	0.058048	ppm	0.000030	0.05	453.935000	Y 242.219
Ba (493.408 nm)	0.052673	ppm	0.000211	0.40	6660.650000	Y_R 488.368
Be (234.861 nm)	-0.000067 u	ppm	0.000037	54.57	-61.989600	Y_R 488.368
Bi (223.061 nm)	-0.001099 u	ppm	0.000943	85.88	-10.828300	Y 377.433
Ca (315.887 nm)	132.912804	ppm	0.376727	0.28	105491.071631	Y_R 377.433
Cd (214.439 nm)	0.000262	ppm	0.000016	6.07	9.630680	Y 377.433
Co (228.615 nm)	0.003321	ppm	0.000122	3.69	62.894000	Y 242.219
Cr (205.560 nm)	0.000538	ppm	0.000403	74.84	-3.165680	Y 377.433
Cu (324.754 nm)	0.000002 u	ppm	0.000255	> 100.00	237.589000	Y 377.433
Fe (238.204 nm)	12.626130 o	ppm	0.024459	0.19	30400.438550	Y_R 377.433
Fe H (259.940 nm)	12.575100	ppm	0.032333	0.26	17402.600000	Y_R 377.433
K (766.491 nm)	3.489260	ppm	0.229193	6.57	5306.570000	Y_R2 488.368
Li (670.783 nm)	0.068250	ppm	0.000068	0.10	-1373.900000	Y_R2 488.368
Mg (279.078 nm)	11.278200	ppm	0.014458	0.13	36897.700000	Y 377.433
Mn (257.610 nm)	4.163860	ppm	0.000885	0.02	1135310.000000	Y 377.433
Mo (202.032 nm)	0.000347	ppm	0.000162	46.74	15.510100	Y 377.433
Na (589.592 nm)	11.133100	ppm	0.011432	0.10	9301.190000	Y_R2 488.368
Na H (589.593 nm)	11.988430 u	ppm	0.025969	0.22	6386.898258	Y_R4
Ni (231.604 nm)	-0.000005 u	ppm	0.000087	> 100.00	-8.641530	Y 377.433
P (213.618 nm)	0.000388 u	ppm	0.002154	> 100.00	-3.240380	Y 242.219
Pb (220.353 nm)	-0.000796 u	ppm	0.002645	> 100.00	5.810550	Y 242.219
S (181.972 nm)	0.008137	ppm	0.006377	78.37	36.470312	Y 377.433
Sb (206.834 nm)	-0.005027 u	ppm	0.002029	40.36	-5.647020	Y 377.433
Se (196.026 nm)	0.002610	ppm	0.000354	13.57	15.421200	Y 242.219
Si (288.158 nm)	8.037910	ppm	0.011070	0.14	52233.200000	Y 377.433
Sn (189.925 nm)	0.000462	ppm	0.000057	12.39	2.833550	Y 377.433
Sr (421.552 nm)	0.486873	ppm	0.001731	0.36	73348.706996	Y_R 488.368
Th (288.505 nm)	-0.010551 u	ppm	0.000146	1.39	73.512800	Y 377.433
Ti (336.122 nm)	-0.000470 u	ppm	0.000126	26.80	-33.654600	Y 377.433
Tl (190.794 nm)	0.002199	ppm	0.000915	41.64	-0.048263	Y 377.433
U (409.013 nm)	0.026876	ppm	0.000504	1.87	51.760800	Y 377.433
V (292.401 nm)	0.001036	ppm	0.000111	10.76	-94.157900	Y 377.433
Zn (206.200 nm)	0.003409	ppm	0.000755	22.16	21.149700	Y 377.433
Zr (343.823 nm)	0.000599	ppm	0.000141	23.50	-127.708000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.160184	26818.183747	0.005577	0.48
Y 377.433	1.148527	803315.888326	0.005474	0.48
Y_R 377.433	1.209720	73344.100000	0.002242	0.19
Y_R 488.368	1.226120	64772.900000	0.001322	0.11
Y_R2 488.368	1.201997	127418.093708	0.003545	0.29
Y_R4	1.192360	53656.100000	0.009852	0.83

Sample Name: 280-123922-F-2-A

Date: 5/24/2019 11:24:10 PM Rack:Tube: 2:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002172	ppm	0.000084	3.85	-192.556000	Y 377.433
Al (394.401 nm)	0.005798	ppm	0.000242	4.18	285.118000	Y 377.433
Al H (396.152 nm)	0.031316 u	ppm	0.002367	7.56	-24.665800	Y_R 377.433
As (188.980 nm)	0.008830	ppm	0.000278	3.15	11.406300	Y 242.219
B (249.678 nm)	0.055760	ppm	0.000587	1.05	437.973000	Y 242.219
Ba (493.408 nm)	0.049821	ppm	0.000149	0.30	6375.860000	Y_R 488.368
Be (234.861 nm)	-0.000010 u	ppm	0.000006	56.65	-53.621100	Y_R 488.368
Bi (223.061 nm)	-0.001070 u	ppm	0.001717	> 100.00	-10.880700	Y 377.433
Ca (315.887 nm)	126.251653	ppm	0.438515	0.35	100200.744922	Y_R 377.433
Cd (214.439 nm)	0.000279	ppm	0.000099	35.45	10.009100	Y 377.433
Co (228.615 nm)	0.003196	ppm	0.000018	0.57	59.963400	Y 242.219
Cr (205.560 nm)	0.000785 u	ppm	0.001159	> 100.00	-1.517980	Y 377.433
Cu (324.754 nm)	0.000083 u	ppm	0.000329	> 100.00	247.315000	Y 377.433
Fe (238.204 nm)	11.968125 o	ppm	0.025040	0.21	28816.504700	Y_R 377.433
Fe H (259.940 nm)	11.910700	ppm	0.020596	0.17	16483.700000	Y_R 377.433
K (766.491 nm)	3.379420	ppm	0.010437	0.31	5200.510000	Y_R2 488.368
Li (670.783 nm)	0.064766	ppm	0.003232	4.99	-1433.720000	Y_R2 488.368
Mg (279.078 nm)	10.743800	ppm	0.030267	0.28	35149.700000	Y 377.433
Mn (257.610 nm)	3.966730	ppm	0.010311	0.26	1081560.000000	Y 377.433
Mo (202.032 nm)	0.000244 u	ppm	0.000377	> 100.00	14.212000	Y 377.433
Na (589.592 nm)	10.529800	ppm	0.044769	0.43	8805.320000	Y_R2 488.368
Na H (589.593 nm)	11.166132 u	ppm	0.083553	0.75	5940.755663	Y_R4
Ni (231.604 nm)	-0.000025 u	ppm	0.000705	> 100.00	-8.746440	Y 377.433
P (213.618 nm)	0.002201 u	ppm	0.006271	> 100.00	-0.706124	Y 242.219
Pb (220.353 nm)	0.000565	ppm	0.000058	10.35	10.138900	Y 242.219
S (181.972 nm)	0.005261	ppm	0.004472	85.00	34.177458	Y 377.433
Sb (206.834 nm)	-0.004688 u	ppm	0.001333	28.43	-5.128250	Y 377.433
Se (196.026 nm)	-0.001168 u	ppm	0.001266	> 100.00	9.614340	Y 242.219
Si (288.158 nm)	7.652980	ppm	0.015710	0.21	49755.100000	Y 377.433
Sn (189.925 nm)	0.000813	ppm	0.000984	> 100.00	3.398040	Y 377.433
Sr (421.552 nm)	0.462018	ppm	0.000880	0.19	69605.354370	Y_R 488.368
Th (288.505 nm)	-0.008646 u	ppm	0.004743	54.85	73.071900	Y 377.433
Ti (336.122 nm)	-0.000416 u	ppm	0.000078	18.80	-50.206100	Y 377.433
Tl (190.794 nm)	0.002672	ppm	0.002199	82.29	1.386720	Y 377.433
U (409.013 nm)	0.029696	ppm	0.001699	5.72	61.153900	Y 377.433
V (292.401 nm)	0.000873	ppm	0.000406	46.55	-101.722000	Y 377.433
Zn (206.200 nm)	0.003060	ppm	0.000600	19.61	19.491300	Y 377.433
Zr (343.823 nm)	0.000357	ppm	0.000042	11.73	-141.428000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.154710	26691.647833	0.000911	0.08
Y 377.433	1.141432	798353.506062	0.001820	0.16
Y_R 377.433	1.206520	73149.900000	0.002382	0.20
Y_R 488.368	1.222850	64600.500000	0.002684	0.22
Y_R2 488.368	1.189822	126127.473966	0.002731	0.23
Y_R4	1.187520	53438.500000	0.005882	0.50

Sample Name: 280-123922-F-3-A

Date: 5/24/2019 11:27:50 PM Rack:Tube: 2:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001874	ppm	0.000047	2.50	-203.258000	Y 377.433
Al (394.401 nm)	0.011894	ppm	0.000982	8.26	324.120000	Y 377.433
Al H (396.152 nm)	0.078472 u	ppm	0.011187	14.26	15.199700	Y_R 377.433
As (188.980 nm)	0.002519	ppm	0.002813	> 100.00	1.663560	Y 242.219
B (249.678 nm)	0.024425	ppm	0.001234	5.05	209.257000	Y 242.219
Ba (493.408 nm)	0.049268	ppm	0.000483	0.98	6327.490000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000013	28.63	-93.328900	Y_R 488.368
Bi (223.061 nm)	-0.001517 u	ppm	0.000674	44.44	-10.386800	Y 377.433
Ca (315.887 nm)	112.822586	ppm	0.400155	0.35	89535.305419	Y_R 377.433
Cd (214.439 nm)	0.000333	ppm	0.000076	22.84	15.451000	Y 377.433
Co (228.615 nm)	-0.000350 u	ppm	0.000133	38.06	-23.378200	Y 242.219
Cr (205.560 nm)	0.000080	ppm	0.000054	67.52	-6.217600	Y 377.433
Cu (324.754 nm)	0.000631	ppm	0.000188	29.85	277.728000	Y 377.433
Fe (238.204 nm)	20.508558 o	ppm	0.077951	0.38	49374.818247	Y_R 377.433
Fe H (259.940 nm)	20.496300	ppm	0.054354	0.27	28357.400000	Y_R 377.433
K (766.491 nm)	1.357600	ppm	0.174056	12.82	3248.260000	Y_R2 488.368
Li (670.783 nm)	0.050076	ppm	0.000300	0.60	-1685.950000	Y_R2 488.368
Mg (279.078 nm)	15.178300	ppm	0.020423	0.13	49649.400000	Y 377.433
Mn (257.610 nm)	1.121290	ppm	0.001585	0.14	305719.000000	Y 377.433
Mo (202.032 nm)	0.000175 u	ppm	0.000289	> 100.00	13.340700	Y 377.433
Na (589.592 nm)	8.464180	ppm	0.019101	0.23	7109.470000	Y_R2 488.368
Na H (589.593 nm)	9.002393 u	ppm	0.024745	0.27	4766.805624	Y_R4
Ni (231.604 nm)	-0.001419 u	ppm	0.000096	6.73	-15.965400	Y 377.433
P (213.618 nm)	0.011387	ppm	0.003098	27.20	12.599000	Y 242.219
Pb (220.353 nm)	-0.000445 u	ppm	0.000528	> 100.00	6.975610	Y 242.219
S (181.972 nm)	0.033330	ppm	0.002296	6.89	37.212092	Y 377.433
Sb (206.834 nm)	-0.003079 u	ppm	0.003867	> 100.00	-1.694290	Y 377.433
Se (196.026 nm)	0.001811 u	ppm	0.002708	> 100.00	7.888600	Y 242.219
Si (288.158 nm)	6.585000	ppm	0.038022	0.58	42879.900000	Y 377.433
Sn (189.925 nm)	0.000948	ppm	0.000978	> 100.00	3.615330	Y 377.433
Sr (421.552 nm)	0.306223	ppm	0.001325	0.43	46143.807384	Y_R 488.368
Th (288.505 nm)	-0.007390 u	ppm	0.001693	22.91	17.997400	Y 377.433
Ti (336.122 nm)	-0.000307 u	ppm	0.000032	10.49	-82.602500	Y 377.433
Tl (190.794 nm)	0.002076	ppm	0.000993	47.84	-0.482735	Y 377.433
U (409.013 nm)	0.036917	ppm	0.002167	5.87	92.151500	Y 377.433
V (292.401 nm)	0.001137	ppm	0.000124	10.90	-89.799100	Y 377.433
Zn (206.200 nm)	0.002984	ppm	0.000541	18.14	20.338700	Y 377.433
Zr (343.823 nm)	0.000751	ppm	0.000286	38.04	-119.113000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.156418	26731.148907	0.000083	0.01
Y 377.433	1.143635	799894.288192	0.001365	0.12
Y_R 377.433	1.205710	73100.500000	0.004115	0.34
Y_R 488.368	1.219960	64447.800000	0.004866	0.40
Y_R2 488.368	1.184862	125601.692413	0.013498	1.14
Y_R4	1.183340	53250.200000	0.008898	0.75

Sample Name: CCVH-5713036

Date: 5/24/2019 11:31:29 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005562	ppm	0.000028	0.50	-84.822900	Y 377.433
Al (394.401 nm)	48.752200 o	ppm	0.119635	0.25	593927.000000	Y 377.433
Al H (396.152 nm)	47.062600	ppm	0.004247	0.01	102618.000000	Y_R 377.433
As (188.980 nm)	0.005098	ppm	0.000138	2.70	4.770800	Y 242.219
B (249.678 nm)	-0.002992 u	ppm	0.000590	19.70	-3.168160	Y 242.219
Ba (493.408 nm)	0.000036 u	ppm	0.000556	> 100.00	1442.330000	Y_R 488.368
Be (234.861 nm)	0.001144	ppm	0.000024	2.07	-97.763000	Y_R 488.368
Bi (223.061 nm)	0.010838	ppm	0.001263	11.65	21.640500	Y 377.433
Ca (315.887 nm)	0.013225	ppm	0.003498	26.45	-46.681416	Y_R 377.433
Cd (214.439 nm)	0.001414	ppm	0.000078	5.50	67.117900	Y 377.433
Co (228.615 nm)	0.003098	ppm	0.000010	0.33	57.711800	Y 242.219
Cr (205.560 nm)	0.001919	ppm	0.000289	15.07	4.768030	Y 377.433
Cu (324.754 nm)	0.004336	ppm	0.000339	7.81	1454.680000	Y 377.433
Fe (238.204 nm)	49.277426 o	ppm	0.014566	0.03	118626.505831	Y_R 377.433
Fe H (259.940 nm)	48.863800	ppm	0.037409	0.08	67589.300000	Y_R 377.433
K (766.491 nm)	-0.010603 u	ppm	0.386729	> 100.00	1927.150000	Y_R2 488.368
Li (670.783 nm)	0.034108	ppm	0.002806	8.23	-1960.130000	Y_R2 488.368
Mg (279.078 nm)	0.042544	ppm	0.001594	3.75	74.539900	Y 377.433
Mn (257.610 nm)	0.001128	ppm	0.000034	3.01	296.626000	Y 377.433
Mo (202.032 nm)	0.000893	ppm	0.000159	17.82	22.386700	Y 377.433
Na (589.592 nm)	223.292000 o	ppm	1.309210	0.59	183452.000000	Y_R2 488.368
Na H (589.593 nm)	226.909164	ppm	1.978780	0.87	122993.463995	Y_R4
Ni (231.604 nm)	0.003774	ppm	0.000387	10.25	10.908900	Y 377.433
P (213.618 nm)	4.885200	ppm	0.025889	0.53	6977.370000	Y 242.219
Pb (220.353 nm)	0.006168	ppm	0.000027	0.44	21.279200	Y 242.219
S (181.972 nm)	4.861365	ppm	0.008192	0.17	2238.989126	Y 377.433
Sb (206.834 nm)	0.002238	ppm	0.002195	98.08	9.709910	Y 377.433
Se (196.026 nm)	0.005895	ppm	0.000327	5.55	5.057560	Y 242.219
Si (288.158 nm)	0.011642	ppm	0.000348	2.99	563.493000	Y 377.433
Sn (189.925 nm)	0.002193	ppm	0.001473	67.15	5.619560	Y 377.433
Sr (421.552 nm)	0.001395	ppm	0.000213	15.29	240.725792	Y_R 488.368
Th (288.505 nm)	4.710170	ppm	0.011575	0.25	8135.140000	Y 377.433
Ti (336.122 nm)	0.002134	ppm	0.000060	2.80	-160.810000	Y 377.433
Tl (190.794 nm)	0.001279	ppm	0.001693	> 100.00	-0.001284	Y 377.433
U (409.013 nm)	0.522615 Q	ppm	0.010748	2.06	1669.340000 Q	Y 377.433
V (292.401 nm)	0.001176	ppm	0.000277	23.58	401.121000	Y 377.433
Zn (206.200 nm)	0.003124	ppm	0.000010	0.31	24.975000	Y 377.433
Zr (343.823 nm)	0.001369	ppm	0.000286	20.86	-84.140500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126045	26029.050117	0.005993	0.53
Y 377.433	1.104526	772539.975056	0.005709	0.52
Y_R 377.433	1.178780	71468.100000	0.001835	0.16
Y_R 488.368	1.187270	62720.700000	0.009869	0.83
Y_R2 488.368	1.172086	124247.290536	0.006851	0.58
Y_R4	1.188490	53482.100000	0.001725	0.15

Sample Name: CCV-5717467

Date: 5/24/2019 11:35:14 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.486191	ppm	0.001823	0.37	16508.600000	Y 377.433
Al (394.401 nm)	0.489801	ppm	0.002901	0.59	6189.200000	Y 377.433
Al H (396.152 nm)	0.537113 u	ppm	0.001825	0.34	1154.150000	Y_R 377.433
As (188.980 nm)	0.488633	ppm	0.002596	0.53	734.675000	Y 242.219
B (249.678 nm)	0.465737	ppm	0.001898	0.41	3371.370000	Y 242.219
Ba (493.408 nm)	0.471743	ppm	0.001298	0.28	48431.300000	Y_R 488.368
Be (234.861 nm)	0.465282	ppm	0.002833	0.61	45809.700000	Y_R 488.368
Bi (223.061 nm)	0.977760	ppm	0.001033	0.11	2131.340000	Y 377.433
Ca (315.887 nm)	4.856845	ppm	0.008833	0.18	3788.421606	Y_R 377.433
Cd (214.439 nm)	0.507620	ppm	0.001364	0.27	18767.700000	Y 377.433
Co (228.615 nm)	0.485295	ppm	0.001340	0.28	11411.600000	Y 242.219
Cr (205.560 nm)	0.509990	ppm	0.000130	0.03	3391.040000	Y 377.433
Cu (324.754 nm)	0.486690	ppm	0.000456	0.09	23016.500000	Y 377.433
Fe (238.204 nm)	2.483905	ppm	0.011659	0.47	5986.332259	Y_R 377.433
Fe H (259.940 nm)	2.461160 u	ppm	0.000888	0.04	3415.160000	Y_R 377.433
K (766.491 nm)	47.964900	ppm	0.129621	0.27	48251.700000	Y_R2 488.368
Li (670.783 nm)	0.511826	ppm	0.006190	1.21	6242.410000	Y_R2 488.368
Mg (279.078 nm)	19.542500	ppm	0.066006	0.34	63955.200000	Y 377.433
Mn (257.610 nm)	0.483337	ppm	0.001607	0.33	131776.000000	Y 377.433
Mo (202.032 nm)	0.487257	ppm	0.001525	0.31	6152.640000	Y 377.433
Na (589.592 nm)	22.951100	ppm	0.026190	0.11	19097.900000	Y_R2 488.368
Na H (589.593 nm)	23.876559 u	ppm	0.178357	0.75	12836.875966	Y_R4
Ni (231.604 nm)	0.499921	ppm	0.001462	0.29	2578.570000	Y 377.433
P (213.618 nm)	0.048416	ppm	0.000079	0.16	-67.033100	Y 242.219
Pb (220.353 nm)	0.490711	ppm	0.004179	0.85	1564.990000	Y 242.219
S (181.972 nm)	-0.004256 u	ppm	0.003521	82.74	12.540465	Y 377.433
Sb (206.834 nm)	0.495492	ppm	0.003244	0.65	835.858000	Y 377.433
Se (196.026 nm)	0.489739	ppm	0.006346	1.30	747.596000	Y 242.219
Si (288.158 nm)	4.799720	ppm	0.017259	0.36	31387.100000	Y 377.433
Sn (189.925 nm)	0.507508	ppm	0.001319	0.26	818.700000	Y 377.433
Sr (421.552 nm)	0.461723	ppm	0.000660	0.14	69559.594830	Y_R 488.368
Th (288.505 nm)	0.023887	ppm	0.003463	14.50	4.802450	Y 377.433
Ti (336.122 nm)	0.476763	ppm	0.001282	0.27	60591.500000	Y 377.433
Tl (190.794 nm)	0.496940	ppm	0.002086	0.42	1135.200000	Y 377.433
U (409.013 nm)	0.007387	ppm	0.002461	33.31	-60.459000	Y 377.433
V (292.401 nm)	0.480068	ppm	0.001743	0.36	24608.100000	Y 377.433
Zn (206.200 nm)	0.508084	ppm	0.001997	0.39	2289.130000	Y 377.433
Zr (343.823 nm)	0.477151	ppm	0.001415	0.30	26850.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.169887	27042.491200	0.003063	0.26
Y 377.433	1.149968	804323.851455	0.002393	0.21
Y_R 377.433	1.193060	72333.600000	0.008484	0.71
Y_R 488.368	1.210900	63969.200000	0.009225	0.76
Y_R2 488.368	1.189709	126115.435246	0.007855	0.66
Y_R4	1.191190	53603.700000	0.015481	1.30

Sample Name: CCB

Date: 5/24/2019 11:38:50 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000523	ppm	0.000311	59.58	-249.066000	Y 377.433
Al (394.401 nm)	-0.002954 u	ppm	0.000339	11.49	55.570400	Y 377.433
Al H (396.152 nm)	0.125149 Zu	ppm	0.000171	0.14	15.355200 Z	Y_R 377.433
As (188.980 nm)	0.001220 u	ppm	0.002338	> 100.00	0.261903	Y 242.219
B (249.678 nm)	-0.003867 u	ppm	0.000098	2.54	19.055200	Y 242.219
Ba (493.408 nm)	-0.003045 Zu	ppm	0.000316	10.39	1095.950000 Z	Y_R 488.368
Be (234.861 nm)	0.000079	ppm	0.000015	18.67	5.808700	Y_R 488.368
Bi (223.061 nm)	0.000743 u	ppm	0.001083	> 100.00	-8.984730	Y 377.433
Ca (315.887 nm)	0.018616	ppm	0.000362	1.94	-54.255848	Y_R 377.433
Cd (214.439 nm)	0.000141	ppm	0.000197	> 100.00	0.023417	Y 377.433
Co (228.615 nm)	-0.000028 u	ppm	0.000442	> 100.00	-15.792000	Y 242.219
Cr (205.560 nm)	0.000154 u	ppm	0.000384	> 100.00	-5.727090	Y 377.433
Cu (324.754 nm)	0.000991	ppm	0.000083	8.35	363.172000	Y 377.433
Fe (238.204 nm)	0.000338 u	ppm	0.001181	> 100.00	7.952352	Y_R 377.433
Fe H (259.940 nm)	-0.000638 u	ppm	0.000946	> 100.00	10.531300	Y_R 377.433
K (766.491 nm)	-0.366554 u	ppm	0.182715	49.85	1583.440000	Y_R2 488.368
Li (670.783 nm)	0.030878 Z	ppm	0.001055	3.42	-2015.580000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003566	ppm	0.001667	46.74	20.115900	Y 377.433
Mn (257.610 nm)	0.000068	ppm	0.000034	50.76	7.430830	Y 377.433
Mo (202.032 nm)	0.000072	ppm	0.000090	> 100.00	12.040800	Y 377.433
Na (589.592 nm)	-0.024339 u	ppm	0.013801	56.70	129.515000	Y_R2 488.368
Na H (589.593 nm)	0.766139 u	ppm	0.013947	1.82	298.175222	Y_R4
Ni (231.604 nm)	0.000456	ppm	0.000071	15.57	-6.259110	Y 377.433
P (213.618 nm)	-0.000730 u	ppm	0.002433	> 100.00	-5.025940	Y 242.219
Pb (220.353 nm)	-0.000115 u	ppm	0.000580	> 100.00	7.884230	Y 242.219
S (181.972 nm)	-0.003804 u	ppm	0.001911	50.24	10.956809	Y 377.433
Sb (206.834 nm)	0.001033	ppm	0.001328	> 100.00	3.521670	Y 377.433
Se (196.026 nm)	-0.001976 u	ppm	0.000188	9.52	5.876290	Y 242.219
Si (288.158 nm)	-0.007989 u	ppm	0.001324	16.58	437.117000	Y 377.433
Sn (189.925 nm)	0.000170 u	ppm	0.000723	> 100.00	2.364140	Y 377.433
Sr (421.552 nm)	0.000299	ppm	0.000081	27.04	68.136448	Y_R 488.368
Th (288.505 nm)	0.000702 u	ppm	0.002488	> 100.00	13.866500	Y 377.433
Ti (336.122 nm)	0.000574	ppm	0.000020	3.55	-360.438000	Y 377.433
Tl (190.794 nm)	0.000331 u	ppm	0.000523	> 100.00	2.573460	Y 377.433
U (409.013 nm)	0.004514	ppm	0.005411	> 100.00	-10.407300	Y 377.433
V (292.401 nm)	0.000297	ppm	0.000042	14.06	-130.759000	Y 377.433
Zn (206.200 nm)	-0.000511 u	ppm	0.000174	34.09	1.765540	Y 377.433
Zr (343.823 nm)	0.000085 u	ppm	0.000255	> 100.00	-156.808000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.182700	27338.657606	0.001183	0.10
Y 377.433	1.159646	811092.630521	0.000186	0.02
Y_R 377.433	1.210350	73382.100000	0.002437	0.20
Y_R 488.368	1.232300	65099.700000	0.009776	0.79
Y_R2 488.368	1.194628	126636.873496	0.005653	0.47
Y_R4	1.180160	53107.000000	0.002198	0.19

Sample Name: CCVL-5719884

Date: 5/24/2019 11:42:02 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008755	ppm	0.000095	1.08	34.113700	Y 377.433
Al (394.401 nm)	0.094047	ppm	0.000510	0.54	1247.860000	Y 377.433
Al H (396.152 nm)	0.222913 u	ppm	0.003729	1.67	234.432000	Y_R 377.433
As (188.980 nm)	0.014413	ppm	0.000871	6.04	20.140600	Y 242.219
B (249.678 nm)	0.087938	ppm	0.000282	0.32	674.634000	Y 242.219
Ba (493.408 nm)	0.006628 Q	ppm	0.000265	4.00	2060.330000 Q	Y_R 488.368
Be (234.861 nm)	0.000844	ppm	0.000052	6.16	80.681000	Y_R 488.368
Bi (223.061 nm)	0.087943	ppm	0.001010	1.15	182.018000	Y 377.433
Ca (315.887 nm)	0.220930	ppm	0.007291	3.30	106.445063	Y_R 377.433
Cd (214.439 nm)	0.005161	ppm	0.000051	0.98	185.728000	Y 377.433
Co (228.615 nm)	0.010284	ppm	0.000077	0.75	226.992000	Y 242.219
Cr (205.560 nm)	0.010967	ppm	0.000144	1.31	66.221100	Y 377.433
Cu (324.754 nm)	0.016297	ppm	0.000069	0.42	1076.270000	Y 377.433
Fe (238.204 nm)	0.100375	ppm	0.000981	0.98	248.760003	Y_R 377.433
Fe H (259.940 nm)	0.106919 u	ppm	0.005444	5.09	159.280000	Y_R 377.433
K (766.491 nm)	2.694880	ppm	0.043403	1.61	4539.520000	Y_R2 488.368
Li (670.783 nm)	0.053988 Q	ppm	0.003248	6.02	-1618.780000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200246	ppm	0.000400	0.20	662.354000	Y 377.433
Mn (257.610 nm)	0.010415	ppm	0.000030	0.29	2828.570000	Y 377.433
Mo (202.032 nm)	0.019248	ppm	0.000010	0.05	253.742000	Y 377.433
Na (589.592 nm)	1.029610	ppm	0.070729	6.87	996.803000	Y_R2 488.368
Na H (589.593 nm)	1.527916 u	ppm	0.018512	1.21	711.482430	Y_R4
Ni (231.604 nm)	0.043035	ppm	0.001107	2.57	214.063000	Y 377.433
P (213.618 nm)	2.805360	ppm	0.004957	0.18	4003.450000	Y 242.219
Pb (220.353 nm)	0.009045	ppm	0.000258	2.86	37.091300	Y 242.219
S (181.972 nm)	0.081749	ppm	0.002228	2.73	50.175483	Y 377.433
Sb (206.834 nm)	0.017000	ppm	0.000580	3.41	30.338300	Y 377.433
Se (196.026 nm)	0.017763	ppm	0.000716	4.03	35.639600	Y 242.219
Si (288.158 nm)	0.467053	ppm	0.001365	0.29	3495.230000	Y 377.433
Sn (189.925 nm)	0.100295	ppm	0.000494	0.49	163.471000	Y 377.433
Sr (421.552 nm)	0.008971	ppm	0.000069	0.77	1374.199342	Y_R 488.368
Th (288.505 nm)	0.017725	ppm	0.000788	4.44	42.815300	Y 377.433
Ti (336.122 nm)	0.009937	ppm	0.000023	0.23	838.345000	Y 377.433
Tl (190.794 nm)	0.016109	ppm	0.001798	11.16	38.546900	Y 377.433
U (409.013 nm)	0.065617	ppm	0.000457	0.70	182.197000	Y 377.433
V (292.401 nm)	0.009733	ppm	0.000112	1.15	352.702000	Y 377.433
Zn (206.200 nm)	0.021187	ppm	0.000279	1.32	99.350500	Y 377.433
Zr (343.823 nm)	0.009790	ppm	0.000075	0.76	392.629000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.197654	27684.339001	0.001341	0.11
Y 377.433	1.174431	821433.375890	0.001770	0.15
Y_R 377.433	1.219150	73915.500000	0.002161	0.18
Y_R 488.368	1.242230	65624.400000	0.000254	0.02
Y_R2 488.368	1.217394	129050.247600	0.007015	0.58
Y_R4	1.193510	53707.800000	0.004449	0.37

Sample Name: MB 280-459135/1-A

Date: 5/24/2019 11:45:31 PM Rack:Tube: 2:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000634	ppm	0.000510	80.36	-245.040000	Y 377.433
Al (394.401 nm)	-0.000113 u	ppm	0.001697	> 100.00	89.206400	Y 377.433
Al H (396.152 nm)	0.134997 u	ppm	0.005700	4.22	36.787700	Y_R 377.433
As (188.980 nm)	0.000550 u	ppm	0.002478	> 100.00	-0.747642	Y 242.219
B (249.678 nm)	-0.003193 u	ppm	0.001081	33.85	23.866500	Y 242.219
Ba (493.408 nm)	-0.003001 u	ppm	0.000187	6.22	1100.250000	Y_R 488.368
Be (234.861 nm)	-0.000019 u	ppm	0.000032	> 100.00	-3.891480	Y_R 488.368
Bi (223.061 nm)	0.003922	ppm	0.002234	56.95	-2.021520	Y 377.433
Ca (315.887 nm)	0.036664	ppm	0.002359	6.43	-39.920980	Y_R 377.433
Cd (214.439 nm)	-0.000025 u	ppm	0.000107	> 100.00	-6.118880	Y 377.433
Co (228.615 nm)	-0.000070 u	ppm	0.000028	40.36	-16.788700	Y 242.219
Cr (205.560 nm)	0.000377	ppm	0.000165	43.73	-4.240390	Y 377.433
Cu (324.754 nm)	0.001178	ppm	0.000335	28.48	372.625000	Y 377.433
Fe (238.204 nm)	0.007209	ppm	0.001037	14.38	24.491996	Y_R 377.433
Fe H (259.940 nm)	0.012903 u	ppm	0.002301	17.84	29.257800	Y_R 377.433
K (766.491 nm)	-0.303714 u	ppm	0.054371	17.90	1644.120000	Y_R2 488.368
Li (670.783 nm)	0.028263	ppm	0.002703	9.56	-2060.480000	Y_R2 488.368
Mg (279.078 nm)	0.004657	ppm	0.000195	4.19	23.674200	Y 377.433
Mn (257.610 nm)	0.000234	ppm	0.000052	22.16	52.644900	Y 377.433
Mo (202.032 nm)	-0.000059 u	ppm	0.000227	> 100.00	10.389300	Y 377.433
Na (589.592 nm)	-0.001246 u	ppm	0.012547	> 100.00	148.486000	Y_R2 488.368
Na H (589.593 nm)	0.566363 u	ppm	0.000287	0.05	189.785672	Y_R4
Ni (231.604 nm)	0.000210 u	ppm	0.000973	> 100.00	-7.533770	Y 377.433
P (213.618 nm)	0.002013	ppm	0.001274	63.28	-1.100290	Y 242.219
Pb (220.353 nm)	-0.000355 u	ppm	0.001240	> 100.00	7.122690	Y 242.219
S (181.972 nm)	-0.015545 u	ppm	0.000915	5.88	5.580570	Y 377.433
Sb (206.834 nm)	-0.000891 u	ppm	0.004314	> 100.00	0.272505	Y 377.433
Se (196.026 nm)	0.001143 u	ppm	0.002022	> 100.00	10.579800	Y 242.219
Si (288.158 nm)	-0.007429 u	ppm	0.001190	16.02	440.722000	Y 377.433
Sn (189.925 nm)	0.000540	ppm	0.000511	94.78	2.958550	Y 377.433
Sr (421.552 nm)	0.000149	ppm	0.000085	56.80	45.667238	Y_R 488.368
Th (288.505 nm)	0.004332	ppm	0.002448	56.50	20.169600	Y 377.433
Ti (336.122 nm)	0.000557	ppm	0.000031	5.48	-362.594000	Y 377.433
Tl (190.794 nm)	0.000971 u	ppm	0.001597	> 100.00	4.035080	Y 377.433
U (409.013 nm)	-0.001871 u	ppm	0.003864	> 100.00	-30.666300	Y 377.433
V (292.401 nm)	0.000123	ppm	0.000172	> 100.00	-139.292000	Y 377.433
Zn (206.200 nm)	0.003091	ppm	0.000159	5.13	17.965000	Y 377.433
Zr (343.823 nm)	-0.000054 u	ppm	0.000144	> 100.00	-164.649000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.191260	27536.518228	0.004356	0.37
Y 377.433	1.168864	817540.167183	0.004637	0.40
Y_R 377.433	1.219860	73958.400000	0.002078	0.17
Y_R 488.368	1.237290	65363.200000	0.011604	0.94
Y_R2 488.368	1.200722	127282.904693	0.007071	0.59
Y_R4	1.193200	53693.700000	0.001859	0.16

Sample Name: LCS 280-459135/2-A

Date: 5/24/2019 11:48:44 PM Rack:Tube: 2:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000954	ppm	0.000286	29.98	-541.296000	Y 377.433
Al (394.401 nm)	9.620220 o	ppm	0.003629	0.04	117758.000000	Y 377.433
Al H (396.152 nm)	9.345540	ppm	0.024014	0.26	20640.400000	Y_R 377.433
As (188.980 nm)	1.960080	ppm	0.004365	0.22	2951.780000	Y 242.219
B (249.678 nm)	0.934772	ppm	0.001406	0.15	6716.800000	Y 242.219
Ba (493.408 nm)	1.905450	ppm	0.005394	0.28	191369.000000	Y_R 488.368
Be (234.861 nm)	0.934211	ppm	0.001134	0.12	91960.000000	Y_R 488.368
Bi (223.061 nm)	1.922080	ppm	0.004051	0.21	4200.800000	Y 377.433
Ca (315.887 nm)	47.686330	ppm	0.156853	0.33	37806.099940	Y_R 377.433
Cd (214.439 nm)	0.998929	ppm	0.000009	0.00	36939.300000	Y 377.433
Co (228.615 nm)	0.950014	ppm	0.000165	0.02	22355.300000	Y 242.219
Cr (205.560 nm)	1.009600	ppm	0.000820	0.08	6719.350000	Y 377.433
Cu (324.754 nm)	0.957610	ppm	0.000833	0.09	45040.300000	Y 377.433
Fe (238.204 nm)	9.856572 o	ppm	0.034338	0.35	23733.628017	Y_R 377.433
Fe H (259.940 nm)	9.781840	ppm	0.048138	0.49	13539.500000	Y_R 377.433
K (766.491 nm)	47.817700	ppm	0.351667	0.74	48109.500000	Y_R2 488.368
Li (670.783 nm)	1.002880	ppm	0.002346	0.23	14673.900000	Y_R2 488.368
Mg (279.078 nm)	48.294200	ppm	0.002993	0.01	158002.000000	Y 377.433
Mn (257.610 nm)	0.968199	ppm	0.000282	0.03	263978.000000	Y 377.433
Mo (202.032 nm)	0.988347	ppm	0.000427	0.04	12468.500000	Y 377.433
Na (589.592 nm)	46.546900	ppm	0.170394	0.37	38795.100000	Y_R2 488.368
Na H (589.593 nm)	47.617505 u	ppm	0.317540	0.67	25717.672099	Y_R4
Ni (231.604 nm)	0.972378	ppm	0.000330	0.03	5024.790000	Y 377.433
P (213.618 nm)	19.807500	ppm	0.026841	0.14	28058.500000	Y 242.219
Pb (220.353 nm)	0.968864	ppm	0.000985	0.10	3084.830000	Y 242.219
S (181.972 nm)	9.679340	ppm	0.003377	0.03	4450.889380	Y 377.433
Sb (206.834 nm)	-0.002115 u	ppm	0.002527	> 100.00	-6.418550	Y 377.433
Se (196.026 nm)	1.927740	ppm	0.000593	0.03	2915.240000	Y 242.219
Si (288.158 nm)	1.982430	ppm	0.003566	0.18	13250.600000	Y 377.433
Sn (189.925 nm)	1.998160	ppm	0.000614	0.03	3217.250000	Y 377.433
Sr (421.552 nm)	0.925725	ppm	0.002209	0.24	139439.836380	Y_R 488.368
Th (288.505 nm)	0.979358	ppm	0.005755	0.59	1611.060000	Y 377.433
Ti (336.122 nm)	0.965514	ppm	0.000074	0.01	123283.000000	Y 377.433
Tl (190.794 nm)	1.942680	ppm	0.000495	0.03	4436.350000	Y 377.433
U (409.013 nm)	1.929680	ppm	0.005457	0.28	6037.490000	Y 377.433
V (292.401 nm)	0.964008	ppm	0.000663	0.07	49571.000000	Y 377.433
Zn (206.200 nm)	0.497916	ppm	0.000754	0.15	2244.430000	Y 377.433
Zr (343.823 nm)	0.477616	ppm	0.000174	0.04	26877.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.137895	26302.967932	0.001749	0.15
Y 377.433	1.125114	786939.566486	0.002851	0.25
Y_R 377.433	1.189730	72132.100000	0.003514	0.30
Y_R 488.368	1.207040	63765.400000	0.002203	0.18
Y_R2 488.368	1.168537	123871.065104	0.010530	0.90
Y_R4	1.175460	52895.600000	0.008398	0.71

Sample Name: LCSD 280-459135/3-A

Date: 5/24/2019 11:52:21 PM Rack:Tube: 2:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000967	ppm	0.000659	68.08	-542.287000	Y 377.433
Al (394.401 nm)	9.672440 o	ppm	0.000058	0.00	118397.000000	Y 377.433
Al H (396.152 nm)	9.415380	ppm	0.009196	0.10	20795.500000	Y_R 377.433
As (188.980 nm)	1.972330	ppm	0.001359	0.07	2970.250000	Y 242.219
B (249.678 nm)	0.941104	ppm	0.000293	0.03	6761.960000	Y 242.219
Ba (493.408 nm)	1.915570	ppm	0.004365	0.23	192378.000000	Y_R 488.368
Be (234.861 nm)	0.945408	ppm	0.002292	0.24	93062.300000	Y_R 488.368
Bi (223.061 nm)	1.935380	ppm	0.003845	0.20	4229.950000	Y 377.433
Ca (315.887 nm)	48.025731	ppm	0.132237	0.28	38075.671243	Y_R 377.433
Cd (214.439 nm)	1.003220	ppm	0.000089	0.01	37098.200000	Y 377.433
Co (228.615 nm)	0.954860	ppm	0.001251	0.13	22469.400000	Y 242.219
Cr (205.560 nm)	1.017190	ppm	0.007816	0.77	6769.950000	Y 377.433
Cu (324.754 nm)	0.958897	ppm	0.006587	0.69	45100.400000	Y 377.433
Fe (238.204 nm)	9.949736 o	ppm	0.033640	0.34	23957.891654	Y_R 377.433
Fe H (259.940 nm)	9.848960	ppm	0.010073	0.10	13632.400000	Y_R 377.433
K (766.491 nm)	48.199700	ppm	0.436365	0.91	48478.400000	Y_R2 488.368
Li (670.783 nm)	1.006250	ppm	0.003981	0.40	14731.700000	Y_R2 488.368
Mg (279.078 nm)	48.645000	ppm	0.008925	0.02	159150.000000	Y 377.433
Mn (257.610 nm)	0.973011	ppm	0.000096	0.01	265290.000000	Y 377.433
Mo (202.032 nm)	0.992715	ppm	0.001437	0.14	12523.600000	Y 377.433
Na (589.592 nm)	46.842300	ppm	0.233788	0.50	39040.000000	Y_R2 488.368
Na H (589.593 nm)	47.968589 u	ppm	0.293710	0.61	25908.155056	Y_R4
Ni (231.604 nm)	0.979684	ppm	0.000696	0.07	5062.610000	Y 377.433
P (213.618 nm)	19.979400	ppm	0.052224	0.26	28303.900000	Y 242.219
Pb (220.353 nm)	0.977445	ppm	0.001837	0.19	3112.090000	Y 242.219
S (181.972 nm)	9.744528	ppm	0.045716	0.47	4480.775984	Y 377.433
Sb (206.834 nm)	0.003126	ppm	0.002280	72.93	2.426670	Y 377.433
Se (196.026 nm)	1.940920	ppm	0.008086	0.42	2935.090000	Y 242.219
Si (288.158 nm)	1.987070	ppm	0.001432	0.07	13280.500000	Y 377.433
Sn (189.925 nm)	2.010680	ppm	0.005203	0.26	3237.400000	Y 377.433
Sr (421.552 nm)	0.930520	ppm	0.002536	0.27	140162.042693	Y_R 488.368
Th (288.505 nm)	0.977997	ppm	0.002310	0.24	1608.210000	Y 377.433
Ti (336.122 nm)	0.969305	ppm	0.000009	0.00	123769.000000	Y 377.433
Tl (190.794 nm)	1.959900	ppm	0.000477	0.02	4475.690000	Y 377.433
U (409.013 nm)	1.945640	ppm	0.009442	0.49	6087.870000	Y 377.433
V (292.401 nm)	0.968483	ppm	0.000295	0.03	49801.400000	Y 377.433
Zn (206.200 nm)	0.500153	ppm	0.001383	0.28	2254.510000	Y 377.433
Zr (343.823 nm)	0.479776	ppm	0.000135	0.03	26999.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130519	26132.472073	0.000473	0.04
Y 377.433	1.118982	782651.070220	0.001678	0.15
Y_R 377.433	1.175680	71279.800000	0.000869	0.07
Y_R 488.368	1.192720	63008.800000	0.001137	0.10
Y_R2 488.368	1.163738	123362.340565	0.005099	0.44
Y_R4	1.158460	52130.500000	0.003131	0.27

Sample Name: 280-123924-F-1-A

Date: 5/24/2019 11:56:01 PM Rack:Tube: 2:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000961	ppm	0.000561	58.43	-235.239000	Y 377.433
Al (394.401 nm)	1.508800	ppm	0.002079	0.14	18535.600000	Y 377.433
Al H (396.152 nm)	1.676070	ppm	0.001513	0.09	3435.780000	Y_R 377.433
As (188.980 nm)	0.001943	ppm	0.001305	67.17	1.289550	Y 242.219
B (249.678 nm)	0.008294	ppm	0.000701	8.45	104.585000	Y 242.219
Ba (493.408 nm)	0.005690	ppm	0.000148	2.60	1968.580000	Y_R 488.368
Be (234.861 nm)	0.000098	ppm	0.000022	22.20	-2.032520	Y_R 488.368
Bi (223.061 nm)	0.001233	ppm	0.001013	82.18	-7.514400	Y 377.433
Ca (315.887 nm)	40.465020	ppm	0.023768	0.06	32068.903657	Y_R 377.433
Cd (214.439 nm)	0.000185	ppm	0.000037	19.82	2.592120	Y 377.433
Co (228.615 nm)	0.000900	ppm	0.000052	5.74	7.521390	Y 242.219
Cr (205.560 nm)	0.055633	ppm	0.000544	0.98	364.244000	Y 377.433
Cu (324.754 nm)	0.013127	ppm	0.000185	1.41	904.114000	Y 377.433
Fe (238.204 nm)	2.283137	ppm	0.006993	0.31	5503.049310	Y_R 377.433
Fe H (259.940 nm)	2.263490 u	ppm	0.005003	0.22	3141.790000	Y_R 377.433
K (766.491 nm)	0.913943	ppm	0.033003	3.61	2819.880000	Y_R2 488.368
Li (670.783 nm)	0.034876	ppm	0.000134	0.38	-1946.940000	Y_R2 488.368
Mg (279.078 nm)	14.249600	ppm	0.011630	0.08	46634.700000	Y 377.433
Mn (257.610 nm)	0.097884	ppm	0.000639	0.65	26678.000000	Y 377.433
Mo (202.032 nm)	0.000470	ppm	0.000116	24.67	17.052000	Y 377.433
Na (589.592 nm)	4.635230	ppm	0.057118	1.23	3956.540000	Y_R2 488.368
Na H (589.593 nm)	5.128281 u	ppm	0.037110	0.72	2664.882633	Y_R4
Ni (231.604 nm)	0.009055	ppm	0.001014	11.20	38.232000	Y 377.433
P (213.618 nm)	0.031971	ppm	0.001197	3.74	38.568200	Y 242.219
Pb (220.353 nm)	-0.000135 u	ppm	0.001208	> 100.00	7.512960	Y 242.219
S (181.972 nm)	3.069439	ppm	0.002283	0.07	1420.691591	Y 377.433
Sb (206.834 nm)	-0.004303 u	ppm	0.001622	37.68	-5.054390	Y 377.433
Se (196.026 nm)	-0.002503 u	ppm	0.000703	28.08	4.631610	Y 242.219
Si (288.158 nm)	7.018480	ppm	0.052864	0.75	45670.500000	Y 377.433
Sn (189.925 nm)	0.001163	ppm	0.001223	> 100.00	3.961950	Y 377.433
Sr (421.552 nm)	0.094300	ppm	0.000226	0.24	14225.264570	Y_R 488.368
Th (288.505 nm)	-0.000143 u	ppm	0.002820	> 100.00	12.989500	Y 377.433
Ti (336.122 nm)	0.035511	ppm	0.002430	6.84	4249.520000	Y 377.433
Tl (190.794 nm)	0.002346	ppm	0.000229	9.75	5.153520	Y 377.433
U (409.013 nm)	0.018911	ppm	0.005373	28.41	31.289000	Y 377.433
V (292.401 nm)	0.003868	ppm	0.000127	3.29	34.616200	Y 377.433
Zn (206.200 nm)	0.021532	ppm	0.000614	2.85	101.204000	Y 377.433
Zr (343.823 nm)	0.001442	ppm	0.000199	13.81	-79.961400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.159290	26797.534525	0.001412	0.12
Y 377.433	1.140480	797687.440680	0.001182	0.10
Y_R 377.433	1.199940	72750.800000	0.000838	0.07
Y_R 488.368	1.221080	64506.900000	0.002472	0.20
Y_R2 488.368	1.188983	126038.454240	0.009928	0.84
Y_R4	1.183720	53267.400000	0.009004	0.76

Sample Name: 280-123924-F-1-Asd@5

Date: 5/24/2019 11:59:37 PM Rack:Tube: 2:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001136	ppm	0.000224	19.68	-227.926000	Y 377.433
Al (394.401 nm)	0.314765	ppm	0.000104	0.03	3939.650000	Y 377.433
Al H (396.152 nm)	0.451804 u	ppm	0.004564	1.01	735.161000	Y_R 377.433
As (188.980 nm)	0.001071	ppm	0.000565	52.80	0.023222	Y 242.219
B (249.678 nm)	-0.001111 u	ppm	0.000164	14.72	38.434800	Y 242.219
Ba (493.408 nm)	-0.000890 u	ppm	0.000068	7.68	1311.170000	Y_R 488.368
Be (234.861 nm)	-0.000045 u	ppm	0.000056	> 100.00	-8.632170	Y_R 488.368
Bi (223.061 nm)	0.000476 u	ppm	0.003022	> 100.00	-9.479000	Y 377.433
Ca (315.887 nm)	8.214216	ppm	0.010532	0.13	6454.817684	Y_R 377.433
Cd (214.439 nm)	0.000049 u	ppm	0.000075	> 100.00	-3.140320	Y 377.433
Co (228.615 nm)	0.000285	ppm	0.000116	40.56	-8.148240	Y 242.219
Cr (205.560 nm)	0.011556	ppm	0.000350	3.03	70.307500	Y 377.433
Cu (324.754 nm)	0.003371	ppm	0.000459	13.61	468.999000	Y 377.433
Fe (238.204 nm)	0.522336	ppm	0.002929	0.56	1264.493975	Y_R 377.433
Fe H (259.940 nm)	0.517174 u	ppm	0.003575	0.69	726.657000	Y_R 377.433
K (766.491 nm)	-0.010100 u	ppm	0.040550	> 100.00	1927.630000	Y_R2 488.368
Li (670.783 nm)	0.029714	ppm	0.002487	8.37	-2035.580000	Y_R2 488.368
Mg (279.078 nm)	2.899080	ppm	0.000301	0.01	9494.370000	Y 377.433
Mn (257.610 nm)	0.020252	ppm	0.000029	0.14	5510.790000	Y 377.433
Mo (202.032 nm)	0.000223	ppm	0.000231	> 100.00	13.945500	Y 377.433
Na (589.592 nm)	0.933490	ppm	0.018806	2.01	916.308000	Y_R2 488.368
Na H (589.593 nm)	1.441362 u	ppm	0.005860	0.41	664.521729	Y_R4
Ni (231.604 nm)	0.001931	ppm	0.000461	23.87	1.366700	Y 377.433
P (213.618 nm)	0.005992	ppm	0.000318	5.31	3.937700	Y 242.219
Pb (220.353 nm)	-0.000586 u	ppm	0.000446	76.15	6.342010	Y 242.219
S (181.972 nm)	0.597585	ppm	0.004206	0.70	286.835208	Y 377.433
Sb (206.834 nm)	-0.001663 u	ppm	0.002137	> 100.00	-0.938342	Y 377.433
Se (196.026 nm)	0.000415 u	ppm	0.001183	> 100.00	9.377440	Y 242.219
Si (288.158 nm)	1.422770	ppm	0.001068	0.08	9647.720000	Y 377.433
Sn (189.925 nm)	-0.000157 u	ppm	0.001158	> 100.00	1.838480	Y 377.433
Sr (421.552 nm)	0.018497	ppm	0.000034	0.18	2808.867545	Y_R 488.368
Th (288.505 nm)	0.000866	ppm	0.000662	76.50	14.383300	Y 377.433
Ti (336.122 nm)	0.008112	ppm	0.000567	6.99	632.130000	Y 377.433
Tl (190.794 nm)	-0.001098 u	ppm	0.000404	36.80	-1.107150	Y 377.433
U (409.013 nm)	0.003805 u	ppm	0.008352	> 100.00	-13.380900	Y 377.433
V (292.401 nm)	0.000806	ppm	0.000045	5.57	-108.390000	Y 377.433
Zn (206.200 nm)	0.009487	ppm	0.000094	0.99	46.799400	Y 377.433
Zr (343.823 nm)	0.000357	ppm	0.000016	4.47	-141.391000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.172019	27091.768121	0.000328	0.03
Y 377.433	1.148455	803265.002692	0.000370	0.03
Y_R 377.433	1.191280	72225.600000	0.000447	0.04
Y_R 488.368	1.205210	63668.400000	0.003365	0.28
Y_R2 488.368	1.189352	126077.609341	0.005941	0.50
Y_R4	1.183520	53258.500000	0.011177	0.94

Sample Name: 280-123924-F-1-B MS

Date: 5/25/2019 12:03:07 AM
Rack:Tube: 2:15

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001458	ppm	0.000062	4.24	-532.818000	Y 377.433
Al (394.401 nm)	11.772800 o	ppm	0.021402	0.18	144069.000000	Y 377.433
Al H (396.152 nm)	11.475100	ppm	0.003670	0.03	25338.200000	Y_R 377.433
As (188.980 nm)	2.015820	ppm	0.008809	0.44	3035.710000	Y 242.219
B (249.678 nm)	0.974205	ppm	0.001861	0.19	6996.960000	Y 242.219
Ba (493.408 nm)	1.958600	ppm	0.000311	0.02	196669.000000	Y_R 488.368
Be (234.861 nm)	0.955837	ppm	0.002005	0.21	94079.100000	Y_R 488.368
Bi (223.061 nm)	1.956120	ppm	0.002499	0.13	4275.780000	Y 377.433
Ca (315.887 nm)	90.200494	ppm	0.195182	0.22	71571.639078	Y_R 377.433
Cd (214.439 nm)	1.014570	ppm	0.002444	0.24	37518.800000	Y 377.433
Co (228.615 nm)	0.961259	ppm	0.003518	0.37	22622.300000	Y 242.219
Cr (205.560 nm)	1.078360	ppm	0.001162	0.11	7177.780000	Y 377.433
Cu (324.754 nm)	0.990251	ppm	0.001995	0.20	46536.000000	Y 377.433
Fe (238.204 nm)	12.386853 o	ppm	0.036572	0.30	29824.456277	Y_R 377.433
Fe H (259.940 nm)	12.379000	ppm	0.040857	0.33	17131.400000	Y_R 377.433
K (766.491 nm)	50.291200	ppm	0.425488	0.85	50498.000000	Y_R2 488.368
Li (670.783 nm)	1.026510	ppm	0.002344	0.23	15079.600000	Y_R2 488.368
Mg (279.078 nm)	64.102500	ppm	0.167380	0.26	209728.000000	Y 377.433
Mn (257.610 nm)	1.083510	ppm	0.002704	0.25	295418.000000	Y 377.433
Mo (202.032 nm)	1.008410	ppm	0.002787	0.28	12721.400000	Y 377.433
Na (589.592 nm)	52.205600	ppm	0.011811	0.02	43450.800000	Y_R2 488.368
Na H (589.593 nm)	53.440247	ppm	0.587138	1.10	28876.836749	Y_R4
Ni (231.604 nm)	0.993529	ppm	0.003533	0.36	5134.270000	Y 377.433
P (213.618 nm)	20.377800	ppm	0.034404	0.17	28865.300000	Y 242.219
Pb (220.353 nm)	0.990255	ppm	0.000862	0.09	3152.360000	Y 242.219
S (181.972 nm)	13.209829	ppm	0.014415	0.11	6070.197378	Y 377.433
Sb (206.834 nm)	0.003526	ppm	0.001578	44.76	3.373600	Y 377.433
Se (196.026 nm)	1.975120	ppm	0.002098	0.11	2986.210000	Y 242.219
Si (288.158 nm)	9.960880	ppm	0.038270	0.38	64612.400000	Y 377.433
Sn (189.925 nm)	2.045700	ppm	0.006649	0.33	3293.730000	Y 377.433
Sr (421.552 nm)	1.045833	ppm	0.000047	0.00	157528.617253	Y_R 488.368
Th (288.505 nm)	0.991862	ppm	0.001647	0.17	1630.980000	Y 377.433
Ti (336.122 nm)	1.025120	ppm	0.001547	0.15	131057.000000	Y 377.433
Tl (190.794 nm)	1.974600	ppm	0.007221	0.37	4507.030000	Y 377.433
U (409.013 nm)	1.987350	ppm	0.016244	0.82	6215.590000	Y 377.433
V (292.401 nm)	0.988552	ppm	0.002201	0.22	50821.000000	Y 377.433
Zn (206.200 nm)	0.521732	ppm	0.000836	0.16	2351.880000	Y 377.433
Zr (343.823 nm)	0.485108	ppm	0.001918	0.40	27301.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110049	25659.298647	0.000566	0.05
Y 377.433	1.098881	768591.464509	0.000078	0.01
Y_R 377.433	1.168690	70856.300000	0.000276	0.02
Y_R 488.368	1.184420	62570.300000	0.000366	0.03
Y_R2 488.368	1.144982	121374.134732	0.006181	0.54
Y_R4	1.154840	51967.800000	0.012097	1.05

Sample Name: 280-123924-F-1-C MSD

Date: 5/25/2019 12:06:48 AM Rack:Tube: 2:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001276	ppm	0.000165	12.90	-534.887000	Y 377.433
Al (394.401 nm)	11.571800 o	ppm	0.010661	0.09	141602.000000	Y 377.433
Al H (396.152 nm)	11.247500	ppm	0.002782	0.02	24833.300000	Y_R 377.433
As (188.980 nm)	1.992830	ppm	0.013991	0.70	3001.070000	Y 242.219
B (249.678 nm)	0.965283	ppm	0.003683	0.38	6933.320000	Y 242.219
Ba (493.408 nm)	1.929150	ppm	0.001401	0.07	193734.000000	Y_R 488.368
Be (234.861 nm)	0.950053	ppm	0.001796	0.19	93510.100000	Y_R 488.368
Bi (223.061 nm)	1.943720	ppm	0.008415	0.43	4248.610000	Y 377.433
Ca (315.887 nm)	88.728331	ppm	0.036971	0.04	70402.381447	Y_R 377.433
Cd (214.439 nm)	1.006210	ppm	0.000714	0.07	37209.700000	Y 377.433
Co (228.615 nm)	0.950640	ppm	0.001712	0.18	22372.300000	Y 242.219
Cr (205.560 nm)	1.068070	ppm	0.004723	0.44	7109.200000	Y 377.433
Cu (324.754 nm)	0.981278	ppm	0.003932	0.40	46122.000000	Y 377.433
Fe (238.204 nm)	12.248386 o	ppm	0.016342	0.13	29491.143151	Y_R 377.433
Fe H (259.940 nm)	12.237000	ppm	0.016457	0.13	16935.000000	Y_R 377.433
K (766.491 nm)	50.204300	ppm	0.759039	1.51	50414.000000	Y_R2 488.368
Li (670.783 nm)	1.019600	ppm	0.005074	0.50	14960.900000	Y_R2 488.368
Mg (279.078 nm)	63.461500	ppm	0.097170	0.15	207632.000000	Y 377.433
Mn (257.610 nm)	1.071680	ppm	0.001096	0.10	292194.000000	Y 377.433
Mo (202.032 nm)	0.997378	ppm	0.000646	0.06	12582.300000	Y 377.433
Na (589.592 nm)	52.051400	ppm	0.212289	0.41	43317.500000	Y_R2 488.368
Na H (589.593 nm)	53.023078	ppm	0.210344	0.40	28650.499258	Y_R4
Ni (231.604 nm)	0.985362	ppm	0.001165	0.12	5091.990000	Y 377.433
P (213.618 nm)	19.572200	ppm	0.053052	0.27	27715.900000	Y 242.219
Pb (220.353 nm)	0.977734	ppm	0.002087	0.21	3112.460000	Y 242.219
S (181.972 nm)	12.737214	ppm	0.036244	0.28	5853.651223	Y 377.433
Sb (206.834 nm)	-0.001854 u	ppm	0.004578	> 100.00	-5.646130	Y 377.433
Se (196.026 nm)	1.961070	ppm	0.008737	0.45	2965.030000	Y 242.219
Si (288.158 nm)	9.788730	ppm	0.062809	0.64	63504.100000	Y 377.433
Sn (189.925 nm)	2.023570	ppm	0.000390	0.02	3258.140000	Y 377.433
Sr (421.552 nm)	1.029550	ppm	0.001090	0.11	155076.359707	Y_R 488.368
Th (288.505 nm)	0.980427	ppm	0.002214	0.23	1611.920000	Y 377.433
Ti (336.122 nm)	1.014350	ppm	0.002861	0.28	129674.000000	Y 377.433
Tl (190.794 nm)	1.961030	ppm	0.000605	0.03	4476.130000	Y 377.433
U (409.013 nm)	1.907180	ppm	0.011460	0.60	5962.070000	Y 377.433
V (292.401 nm)	0.977929	ppm	0.000482	0.05	50276.300000	Y 377.433
Zn (206.200 nm)	0.519429	ppm	0.002358	0.45	2341.500000	Y 377.433
Zr (343.823 nm)	0.479422	ppm	0.000297	0.06	26979.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107639	25603.596539	0.003013	0.27
Y 377.433	1.094305	765391.329867	0.001713	0.16
Y_R 377.433	1.158090	70213.600000	0.003604	0.31
Y_R 488.368	1.175330	62090.100000	0.002630	0.22
Y_R2 488.368	1.141109	120963.581886	0.003894	0.34
Y_R4	1.149890	51745.000000	0.003039	0.26

Sample Name: 280-123924-F-1-Apds

Date: 5/25/2019 12:10:25 AM Rack:Tube: 2:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.046764	ppm	0.000014	0.03	1337.840000	Y 377.433
Al (394.401 nm)	2.526280	ppm	0.000830	0.03	30983.400000	Y 377.433
Al H (396.152 nm)	2.626570	ppm	0.004708	0.18	5533.240000	Y_R 377.433
As (188.980 nm)	0.201850	ppm	0.000408	0.20	302.501000	Y 242.219
B (249.678 nm)	0.104262	ppm	0.001643	1.58	789.387000	Y 242.219
Ba (493.408 nm)	0.103011	ppm	0.000413	0.40	11671.600000	Y_R 488.368
Be (234.861 nm)	0.048439	ppm	0.000323	0.67	4754.630000	Y_R 488.368
Bi (223.061 nm)	0.005348	ppm	0.003952	73.91	1.710280	Y 377.433
Ca (315.887 nm)	59.109373	ppm	0.163340	0.28	46876.599355	Y_R 377.433
Cd (214.439 nm)	0.051986	ppm	0.000100	0.19	1918.610000	Y 377.433
Co (228.615 nm)	0.048375	ppm	0.000260	0.54	1125.670000	Y 242.219
Cr (205.560 nm)	0.106545	ppm	0.000254	0.24	703.408000	Y 377.433
Cu (324.754 nm)	0.062718	ppm	0.000060	0.10	3216.370000	Y 377.433
Fe (238.204 nm)	3.267897	ppm	0.010447	0.32	7873.538563	Y_R 377.433
Fe H (259.940 nm)	3.243220 u	ppm	0.013436	0.41	4496.740000	Y_R 377.433
K (766.491 nm)	21.002500	ppm	0.096107	0.46	22217.100000	Y_R2 488.368
Li (670.783 nm)	0.135699	ppm	0.005127	3.78	-215.793000	Y_R2 488.368
Mg (279.078 nm)	33.755800	ppm	0.045621	0.14	110457.000000	Y 377.433
Mn (257.610 nm)	0.144003	ppm	0.000112	0.08	39252.900000	Y 377.433
Mo (202.032 nm)	0.050886	ppm	0.000236	0.46	652.514000	Y 377.433
Na (589.592 nm)	23.211900	ppm	0.090902	0.39	19228.100000	Y_R2 488.368
Na H (589.593 nm)	23.678800 u	ppm	0.148639	0.63	12729.580589	Y_R4
Ni (231.604 nm)	0.058429	ppm	0.000404	0.69	293.934000	Y 377.433
P (213.618 nm)	2.033670	ppm	0.006457	0.32	2887.250000	Y 242.219
Pb (220.353 nm)	0.100484	ppm	0.002033	2.02	328.005000	Y 242.219
S (181.972 nm)	3.051816	ppm	0.002397	0.08	1413.711036	Y 377.433
Sb (206.834 nm)	0.102088	ppm	0.001620	1.59	174.338000	Y 377.433
Se (196.026 nm)	0.200116	ppm	0.000887	0.44	310.039000	Y 242.219
Si (288.158 nm)	12.006800	ppm	0.069359	0.58	77783.300000	Y 377.433
Sn (189.925 nm)	0.099392	ppm	0.001615	1.62	162.017000	Y 377.433
Sr (421.552 nm)	0.140620	ppm	0.000153	0.11	21201.218267	Y_R 488.368
Th (288.505 nm)	0.196957	ppm	0.001480	0.75	349.683000	Y 377.433
Ti (336.122 nm)	0.088530	ppm	0.002911	3.29	11099.100000	Y 377.433
Tl (190.794 nm)	0.206269	ppm	0.000151	0.07	470.368000	Y 377.433
U (409.013 nm)	0.514044	ppm	0.001119	0.22	1593.940000	Y 377.433
V (292.401 nm)	0.053784	ppm	0.000054	0.10	2604.850000	Y 377.433
Zn (206.200 nm)	0.228800	ppm	0.000404	0.18	1033.370000	Y 377.433
Zr (343.823 nm)	0.050779	ppm	0.000461	0.91	2713.060000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.132375	26175.378659	0.002293	0.20
Y 377.433	1.113946	779128.328990	0.001929	0.17
Y_R 377.433	1.167490	70783.600000	0.002283	0.20
Y_R 488.368	1.184270	62562.000000	0.002260	0.19
Y_R2 488.368	1.161308	123104.791299	0.012553	1.08
Y_R4	1.162990	52334.600000	0.009956	0.86

Sample Name: 280-123924-F-2-A

Date: 5/25/2019 12:14:00 AM Rack:Tube: 2:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001126	ppm	0.000040	3.55	-229.063000	Y 377.433
Al (394.401 nm)	0.588491	ppm	0.003440	0.58	7294.530000	Y 377.433
Al H (396.152 nm)	0.715714 u	ppm	0.001288	0.18	1321.610000	Y_R 377.433
As (188.980 nm)	0.000665 u	ppm	0.000964	> 100.00	-0.601684	Y 242.219
B (249.678 nm)	0.006132	ppm	0.000312	5.08	89.886000	Y 242.219
Ba (493.408 nm)	0.003041	ppm	0.000231	7.58	1703.410000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000005	> 100.00	-6.541690	Y_R 488.368
Bi (223.061 nm)	0.000243 u	ppm	0.002973	> 100.00	-9.905040	Y 377.433
Ca (315.887 nm)	31.983167	ppm	0.017931	0.06	25332.321193	Y_R 377.433
Cd (214.439 nm)	0.000214	ppm	0.000064	29.90	3.132230	Y 377.433
Co (228.615 nm)	0.000137	ppm	0.000046	33.56	-11.302900	Y 242.219
Cr (205.560 nm)	0.002059	ppm	0.000269	13.05	6.965000	Y 377.433
Cu (324.754 nm)	0.004741	ppm	0.000175	3.68	516.861000	Y 377.433
Fe (238.204 nm)	1.004135	ppm	0.001894	0.19	2424.266872	Y_R 377.433
Fe H (259.940 nm)	0.995260 u	ppm	0.003597	0.36	1387.840000	Y_R 377.433
K (766.491 nm)	0.659084	ppm	0.037778	5.73	2573.790000	Y_R2 488.368
Li (670.783 nm)	0.031861	ppm	0.002918	9.16	-1998.710000	Y_R2 488.368
Mg (279.078 nm)	10.313100	ppm	0.045938	0.45	33754.600000	Y 377.433
Mn (257.610 nm)	0.072732	ppm	0.000205	0.28	19820.100000	Y 377.433
Mo (202.032 nm)	0.000358	ppm	0.000301	83.96	15.644100	Y 377.433
Na (589.592 nm)	2.560300	ppm	0.005371	0.21	2252.610000	Y_R2 488.368
Na H (589.593 nm)	3.049932 u	ppm	0.012437	0.41	1537.261532	Y_R4
Ni (231.604 nm)	0.000316	ppm	0.000003	0.85	-6.985660	Y 377.433
P (213.618 nm)	0.027351	ppm	0.000102	0.37	34.034700	Y 242.219
Pb (220.353 nm)	-0.000702 u	ppm	0.000206	29.40	6.006050	Y 242.219
S (181.972 nm)	3.767360	ppm	0.023511	0.62	1739.809013	Y 377.433
Sb (206.834 nm)	-0.002589 u	ppm	0.003249	> 100.00	-2.560690	Y 377.433
Se (196.026 nm)	0.001057	ppm	0.000038	3.57	10.296100	Y 242.219
Si (288.158 nm)	5.435260	ppm	0.055976	1.03	35478.400000	Y 377.433
Sn (189.925 nm)	0.001876	ppm	0.000028	1.50	5.108670	Y 377.433
Sr (421.552 nm)	0.054252	ppm	0.000424	0.78	8193.721905	Y_R 488.368
Th (288.505 nm)	-0.004077 u	ppm	0.000231	5.68	6.286910	Y 377.433
Ti (336.122 nm)	0.015475	ppm	0.000258	1.67	1656.700000	Y 377.433
Tl (190.794 nm)	0.000000 u	ppm	0.001322	> 100.00	0.349370	Y 377.433
U (409.013 nm)	0.010331	ppm	0.006989	67.65	4.405450	Y 377.433
V (292.401 nm)	0.001782	ppm	0.000452	25.34	-55.990000	Y 377.433
Zn (206.200 nm)	0.010436	ppm	0.000353	3.38	51.132700	Y 377.433
Zr (343.823 nm)	0.000507	ppm	0.000334	65.86	-132.902000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.144970	26466.523005	0.003993	0.35
Y 377.433	1.124439	786467.696089	0.005011	0.45
Y_R 377.433	1.171600	71032.800000	0.001260	0.11
Y_R 488.368	1.183500	62521.600000	0.005113	0.43
Y_R2 488.368	1.155472	122486.151217	0.000057	0.00
Y_R4	1.144340	51495.400000	0.007867	0.69

Sample Name: 280-123924-F-3-A

Date: 5/25/2019 12:17:34 AM Rack:Tube: 2:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001818	ppm	0.000180	9.89	-204.979000	Y 377.433
Al (394.401 nm)	0.735941	ppm	0.001575	0.21	9175.880000	Y 377.433
Al H (396.152 nm)	0.790780 u	ppm	0.006325	0.80	1614.840000	Y_R 377.433
As (188.980 nm)	-0.001347 u	ppm	0.001458	> 100.00	-3.662740	Y 242.219
B (249.678 nm)	0.052632	ppm	0.000178	0.34	421.329000	Y 242.219
Ba (493.408 nm)	0.189787	ppm	0.000170	0.09	20321.700000	Y_R 488.368
Be (234.861 nm)	-0.000005 u	ppm	0.000014	> 100.00	-11.427500	Y_R 488.368
Bi (223.061 nm)	0.000699 u	ppm	0.002800	> 100.00	-8.712250	Y 377.433
Ca (315.887 nm)	61.855854	ppm	0.091574	0.15	49057.417312	Y_R 377.433
Cd (214.439 nm)	0.000453	ppm	0.000136	30.10	12.437800	Y 377.433
Co (228.615 nm)	0.000466	ppm	0.000247	52.97	-3.761100	Y 242.219
Cr (205.560 nm)	0.021094	ppm	0.000410	1.95	133.898000	Y 377.433
Cu (324.754 nm)	0.008096	ppm	0.000039	0.48	657.181000	Y 377.433
Fe (238.204 nm)	2.110079	ppm	0.000206	0.01	5086.468908	Y_R 377.433
Fe H (259.940 nm)	2.087540 u	ppm	0.007360	0.35	2898.450000	Y_R 377.433
K (766.491 nm)	1.743600	ppm	0.043384	2.49	3620.990000	Y_R2 488.368
Li (670.783 nm)	0.057006	ppm	0.000907	1.59	-1566.970000	Y_R2 488.368
Mg (279.078 nm)	31.390900	ppm	0.060489	0.19	102728.000000	Y 377.433
Mn (257.610 nm)	0.245697	ppm	0.000323	0.13	66980.500000	Y 377.433
Mo (202.032 nm)	0.000152 u	ppm	0.000853	> 100.00	13.048200	Y 377.433
Na (589.592 nm)	70.923300 o	ppm	0.056177	0.08	58414.300000	Y_R2 488.368
Na H (589.593 nm)	71.801816	ppm	0.281032	0.39	38839.018737	Y_R4
Ni (231.604 nm)	0.008480	ppm	0.000014	0.17	35.257700	Y 377.433
P (213.618 nm)	0.096143	ppm	0.003282	3.41	131.344000	Y 242.219
Pb (220.353 nm)	0.002035 u	ppm	0.003070	> 100.00	14.638800	Y 242.219
S (181.972 nm)	8.978001	ppm	0.022465	0.25	4128.105012	Y 377.433
Sb (206.834 nm)	-0.002506 u	ppm	0.000967	38.58	-2.173420	Y 377.433
Se (196.026 nm)	0.001204	ppm	0.001281	> 100.00	10.477100	Y 242.219
Si (288.158 nm)	4.683630	ppm	0.005792	0.12	30639.700000	Y 377.433
Sn (189.925 nm)	0.000522 u	ppm	0.000967	> 100.00	2.930010	Y 377.433
Sr (421.552 nm)	0.375214	ppm	0.000475	0.13	56531.135611	Y_R 488.368
Th (288.505 nm)	-0.002389 u	ppm	0.002394	> 100.00	11.733800	Y 377.433
Ti (336.122 nm)	0.011137	ppm	0.000006	0.06	1205.730000	Y 377.433
Tl (190.794 nm)	0.001584	ppm	0.001152	72.76	2.648440	Y 377.433
U (409.013 nm)	0.025764	ppm	0.009776	37.94	50.036900	Y 377.433
V (292.401 nm)	0.002112	ppm	0.000086	4.09	-44.924000	Y 377.433
Zn (206.200 nm)	0.009002	ppm	0.000381	4.23	44.837800	Y 377.433
Zr (343.823 nm)	0.000826	ppm	0.000219	26.54	-114.826000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119998	25889.274858	0.001065	0.10
Y 377.433	1.102761	771305.207157	0.002034	0.18
Y_R 377.433	1.169190	70886.500000	0.003868	0.33
Y_R 488.368	1.186300	62669.600000	0.002526	0.21
Y_R2 488.368	1.144352	121307.376533	0.003907	0.34
Y_R4	1.142290	51403.000000	0.000131	0.01

Sample Name: CCVH-5713036

Date: 5/25/2019 12:21:12 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005574	ppm	0.000410	7.36	-84.352200	Y 377.433
Al (394.401 nm)	48.706800 o	ppm	0.029812	0.06	593367.000000	Y 377.433
Al H (396.152 nm)	46.882300	ppm	0.090933	0.19	102223.000000	Y_R 377.433
As (188.980 nm)	0.003107	ppm	0.000141	4.54	1.778920	Y 242.219
B (249.678 nm)	-0.002039 u	ppm	0.000025	1.23	3.796290	Y 242.219
Ba (493.408 nm)	0.000117 u	ppm	0.000299	> 100.00	1450.220000	Y_R 488.368
Be (234.861 nm)	0.001234	ppm	0.000039	3.15	-87.781500	Y_R 488.368
Bi (223.061 nm)	0.008974	ppm	0.005029	56.03	17.513000	Y 377.433
Ca (315.887 nm)	0.009597	ppm	0.002469	25.73	-49.591276	Y_R 377.433
Cd (214.439 nm)	0.001362	ppm	0.000004	0.27	65.105400	Y 377.433
Co (228.615 nm)	0.003059	ppm	0.000215	7.02	56.799000	Y 242.219
Cr (205.560 nm)	0.002309	ppm	0.000145	6.30	7.366990	Y 377.433
Cu (324.754 nm)	0.004192	ppm	0.000079	1.89	1451.550000	Y 377.433
Fe (238.204 nm)	49.010095 o	ppm	0.114973	0.23	117982.993641	Y_R 377.433
Fe H (259.940 nm)	48.633700	ppm	0.050504	0.10	67271.100000	Y_R 377.433
K (766.491 nm)	0.019007 u	ppm	0.120828	> 100.00	1955.740000	Y_R2 488.368
Li (670.783 nm)	0.026572	ppm	0.006531	24.58	-2089.530000	Y_R2 488.368
Mg (279.078 nm)	0.041124	ppm	0.000127	0.31	70.265400	Y 377.433
Mn (257.610 nm)	0.000989	ppm	0.000036	3.62	258.586000	Y 377.433
Mo (202.032 nm)	0.001149	ppm	0.000281	24.42	25.615800	Y 377.433
Na (589.592 nm)	222.164000 o	ppm	0.088297	0.04	182525.000000	Y_R2 488.368
Na H (589.593 nm)	226.713469	ppm	1.774783	0.78	122887.288644	Y_R4
Ni (231.604 nm)	0.003117	ppm	0.000901	28.91	7.508830	Y 377.433
P (213.618 nm)	4.873570	ppm	0.003463	0.07	6960.720000	Y 242.219
Pb (220.353 nm)	0.003869	ppm	0.001125	29.08	13.988100	Y 242.219
S (181.972 nm)	4.823168	ppm	0.033331	0.69	2221.496171	Y 377.433
Sb (206.834 nm)	0.001018 u	ppm	0.001656	> 100.00	7.629450	Y 377.433
Se (196.026 nm)	0.006738	ppm	0.001495	22.19	6.397590	Y 242.219
Si (288.158 nm)	0.013848	ppm	0.000435	3.14	577.693000	Y 377.433
Sn (189.925 nm)	0.001182	ppm	0.001562	> 100.00	3.992470	Y 377.433
Sr (421.552 nm)	0.001384	ppm	0.000152	10.98	238.932480	Y_R 488.368
Th (288.505 nm)	4.702840	ppm	0.000929	0.02	8122.510000	Y 377.433
Ti (336.122 nm)	0.002014	ppm	0.000041	2.02	-176.137000	Y 377.433
Tl (190.794 nm)	-0.000266 u	ppm	0.000566	> 100.00	-3.508030	Y 377.433
U (409.013 nm)	0.531174 Q	ppm	0.004132	0.78	1696.310000 Q	Y 377.433
V (292.401 nm)	0.001155	ppm	0.000017	1.50	401.801000	Y 377.433
Zn (206.200 nm)	0.001971	ppm	0.000220	11.14	19.749700	Y 377.433
Zr (343.823 nm)	0.001337	ppm	0.000067	5.04	-85.901100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.116824	25815.914143	0.005444	0.49
Y 377.433	1.092820	764352.599398	0.004419	0.40
Y_R 377.433	1.174410	71203.200000	0.003585	0.31
Y_R 488.368	1.188980	62811.100000	0.002297	0.19
Y_R2 488.368	1.145669	121446.931002	0.007197	0.63
Y_R4	1.168960	52603.100000	0.001491	0.13

Sample Name: CCV-5717467

Date: 5/25/2019 12:24:56 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.485015	ppm	0.000320	0.07	16467.800000	Y 377.433
Al (394.401 nm)	0.490468	ppm	0.000503	0.10	6198.520000	Y 377.433
Al H (396.152 nm)	0.536260 u	ppm	0.015143	2.82	1151.830000	Y_R 377.433
As (188.980 nm)	0.486694	ppm	0.000535	0.11	731.753000	Y 242.219
B (249.678 nm)	0.464587	ppm	0.001354	0.29	3363.160000	Y 242.219
Ba (493.408 nm)	0.470100	ppm	0.000885	0.19	48267.500000	Y_R 488.368
Be (234.861 nm)	0.458542	ppm	0.003016	0.66	45146.100000	Y_R 488.368
Bi (223.061 nm)	0.973086	ppm	0.001261	0.13	2121.100000	Y 377.433
Ca (315.887 nm)	4.857128	ppm	0.014722	0.30	3788.647160	Y_R 377.433
Cd (214.439 nm)	0.507151	ppm	0.000973	0.19	18750.300000	Y 377.433
Co (228.615 nm)	0.483985	ppm	0.000416	0.09	11380.800000	Y 242.219
Cr (205.560 nm)	0.509836	ppm	0.004764	0.93	3390.030000	Y 377.433
Cu (324.754 nm)	0.486668	ppm	0.001195	0.25	23014.600000	Y 377.433
Fe (238.204 nm)	2.476463	ppm	0.017652	0.71	5968.417441	Y_R 377.433
Fe H (259.940 nm)	2.451550 u	ppm	0.012204	0.50	3401.870000	Y_R 377.433
K (766.491 nm)	48.178100	ppm	0.114127	0.24	48457.500000	Y_R2 488.368
Li (670.783 nm)	0.512697	ppm	0.000315	0.06	6257.370000	Y_R2 488.368
Mg (279.078 nm)	19.536900	ppm	0.021522	0.11	63936.800000	Y 377.433
Mn (257.610 nm)	0.481892	ppm	0.000163	0.03	131382.000000	Y 377.433
Mo (202.032 nm)	0.484360	ppm	0.000342	0.07	6116.130000	Y 377.433
Na (589.592 nm)	22.872700	ppm	0.009329	0.04	19033.500000	Y_R2 488.368
Na H (589.593 nm)	23.793868 u	ppm	0.087982	0.37	12792.011456	Y_R4
Ni (231.604 nm)	0.498054	ppm	0.000325	0.07	2568.920000	Y 377.433
P (213.618 nm)	0.052569	ppm	0.004243	8.07	-61.264000	Y 242.219
Pb (220.353 nm)	0.489342	ppm	0.002920	0.60	1560.660000	Y 242.219
S (181.972 nm)	-0.004742 u	ppm	0.004718	99.51	12.318962	Y 377.433
Sb (206.834 nm)	0.493952	ppm	0.001467	0.30	833.264000	Y 377.433
Se (196.026 nm)	0.486541	ppm	0.001043	0.21	742.775000	Y 242.219
Si (288.158 nm)	4.788120	ppm	0.013078	0.27	31312.400000	Y 377.433
Sn (189.925 nm)	0.501597	ppm	0.000881	0.18	809.188000	Y 377.433
Sr (421.552 nm)	0.459688	ppm	0.000816	0.18	69253.103046	Y_R 488.368
Th (288.505 nm)	0.021469	ppm	0.001826	8.50	0.711225	Y 377.433
Ti (336.122 nm)	0.476129	ppm	0.000190	0.04	60510.400000	Y 377.433
Tl (190.794 nm)	0.495712	ppm	0.001690	0.34	1132.410000	Y 377.433
U (409.013 nm)	0.014122	ppm	0.000222	1.57	-39.142100	Y 377.433
V (292.401 nm)	0.479254	ppm	0.000190	0.04	24565.700000	Y 377.433
Zn (206.200 nm)	0.508572	ppm	0.001540	0.30	2291.330000	Y 377.433
Zr (343.823 nm)	0.476364	ppm	0.000099	0.02	26806.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.138884	26325.840322	0.004074	0.36
Y 377.433	1.118040	781991.879402	0.004868	0.44
Y_R 377.433	1.173440	71144.200000	0.004666	0.40
Y_R 488.368	1.191410	62939.700000	0.003400	0.29
Y_R2 488.368	1.144112	121281.936781	0.002607	0.23
Y_R4	1.165810	52461.300000	0.002225	0.19

Sample Name: CCB

Date: 5/25/2019 12:28:31 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001217	ppm	0.000234	19.22	-225.065000	Y 377.433
Al (394.401 nm)	-0.002915 u	ppm	0.000165	5.67	57.885900	Y 377.433
Al H (396.152 nm)	0.136008 Zu	ppm	0.001624	1.19	39.135200 Z	Y_R 377.433
As (188.980 nm)	0.001288	ppm	0.001327	> 100.00	0.364647	Y 242.219
B (249.678 nm)	-0.003177 u	ppm	0.000326	10.27	23.979300	Y 242.219
Ba (493.408 nm)	-0.002523 Zu	ppm	0.000328	13.00	1147.940000 Z	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000049	> 100.00	-2.259800	Y_R 488.368
Bi (223.061 nm)	0.001276	ppm	0.000962	75.40	-7.818650	Y 377.433
Ca (315.887 nm)	0.016778	ppm	0.002696	16.07	-55.714105	Y_R 377.433
Cd (214.439 nm)	0.000033	ppm	0.000004	13.34	-3.950670	Y 377.433
Co (228.615 nm)	0.000116	ppm	0.000125	> 100.00	-12.408900	Y 242.219
Cr (205.560 nm)	0.000049 u	ppm	0.000229	> 100.00	-6.427720	Y 377.433
Cu (324.754 nm)	0.001544	ppm	0.000130	8.45	388.449000	Y 377.433
Fe (238.204 nm)	-0.001064 u	ppm	0.000885	83.20	4.578415	Y_R 377.433
Fe H (259.940 nm)	0.003377 u	ppm	0.001336	39.56	16.083000	Y_R 377.433
K (766.491 nm)	-0.247162 u	ppm	0.012793	5.18	1698.730000	Y_R2 488.368
Li (670.783 nm)	0.025681 Z	ppm	0.003555	13.84	-2104.820000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003264	ppm	0.002245	68.78	18.839700	Y 377.433
Mn (257.610 nm)	0.000076	ppm	0.000007	9.67	9.756590	Y 377.433
Mo (202.032 nm)	0.000551	ppm	0.000078	14.11	18.079200	Y 377.433
Na (589.592 nm)	-0.003595 u	ppm	0.008711	> 100.00	146.702000	Y_R2 488.368
Na H (589.593 nm)	0.663320 u	ppm	0.000468	0.07	242.390261	Y_R4
Ni (231.604 nm)	0.000676	ppm	0.000291	43.02	-5.120060	Y 377.433
P (213.618 nm)	-0.000207 u	ppm	0.003046	> 100.00	-4.492120	Y 242.219
Pb (220.353 nm)	0.000088 u	ppm	0.000913	> 100.00	8.570690	Y 242.219
S (181.972 nm)	-0.010619 u	ppm	0.000619	5.83	7.835786	Y 377.433
Sb (206.834 nm)	-0.002835 u	ppm	0.001841	64.95	-3.013170	Y 377.433
Se (196.026 nm)	-0.002744 u	ppm	0.000886	32.28	4.718440	Y 242.219
Si (288.158 nm)	-0.007602 u	ppm	0.000091	1.19	439.608000	Y 377.433
Sn (189.925 nm)	0.000937	ppm	0.000275	29.30	3.598740	Y 377.433
Sr (421.552 nm)	0.000297	ppm	0.000046	15.61	67.954595	Y_R 488.368
Th (288.505 nm)	0.001236	ppm	0.000516	41.73	14.914900	Y 377.433
Ti (336.122 nm)	0.000457	ppm	0.000085	18.51	-375.466000	Y 377.433
Tl (190.794 nm)	0.001193	ppm	0.000567	47.52	4.542570	Y 377.433
U (409.013 nm)	0.010220	ppm	0.010471	> 100.00	7.676410	Y 377.433
V (292.401 nm)	0.000172	ppm	0.000195	> 100.00	-137.824000	Y 377.433
Zn (206.200 nm)	0.000046	ppm	0.000003	5.59	4.269980	Y 377.433
Zr (343.823 nm)	0.000150 u	ppm	0.000334	> 100.00	-153.099000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.163796	26901.688589	0.001227	0.11
Y 377.433	1.142541	799128.932866	0.002814	0.25
Y_R 377.433	1.186050	71908.600000	0.002211	0.19
Y_R 488.368	1.196460	63206.100000	0.005508	0.46
Y_R2 488.368	1.160801	123051.099926	0.005762	0.50
Y_R4	1.159740	52188.300000	0.006032	0.52

Sample Name: CCVL-5719884

Date: 5/25/2019 12:31:43 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008720	ppm	0.000045	0.52	32.912500	Y 377.433
Al (394.401 nm)	0.094608	ppm	0.000342	0.36	1253.600000	Y 377.433
Al H (396.152 nm)	0.228501 u	ppm	0.000786	0.34	246.724000	Y_R 377.433
As (188.980 nm)	0.015581	ppm	0.001307	8.39	21.900100	Y 242.219
B (249.678 nm)	0.087158	ppm	0.000578	0.66	669.067000	Y 242.219
Ba (493.408 nm)	0.007051	ppm	0.000507	7.18	2102.530000	Y_R 488.368
Be (234.861 nm)	0.000879	ppm	0.000041	4.62	84.180700	Y_R 488.368
Bi (223.061 nm)	0.085398	ppm	0.000666	0.78	176.443000	Y 377.433
Ca (315.887 nm)	0.217964	ppm	0.002064	0.95	104.092218	Y_R 377.433
Cd (214.439 nm)	0.005277	ppm	0.000005	0.09	190.001000	Y 377.433
Co (228.615 nm)	0.010188	ppm	0.000026	0.26	224.727000	Y 242.219
Cr (205.560 nm)	0.010361	ppm	0.000294	2.84	62.173800	Y 377.433
Cu (324.754 nm)	0.016476	ppm	0.000017	0.10	1085.060000	Y 377.433
Fe (238.204 nm)	0.100721	ppm	0.001371	1.36	249.593574	Y_R 377.433
Fe H (259.940 nm)	0.104244 u	ppm	0.000866	0.83	155.581000	Y_R 377.433
K (766.491 nm)	2.717740	ppm	0.096735	3.56	4561.600000	Y_R2 488.368
Li (670.783 nm)	0.050383 Q	ppm	0.003002	5.96	-1680.680000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202380	ppm	0.001247	0.62	669.470000	Y 377.433
Mn (257.610 nm)	0.010343	ppm	0.000025	0.25	2808.920000	Y 377.433
Mo (202.032 nm)	0.019598	ppm	0.000014	0.07	258.152000	Y 377.433
Na (589.592 nm)	0.955155	ppm	0.009383	0.98	935.896000	Y_R2 488.368
Na H (589.593 nm)	1.456252 u	ppm	0.001350	0.09	672.600420	Y_R4
Ni (231.604 nm)	0.043447	ppm	0.000477	1.10	216.193000	Y 377.433
P (213.618 nm)	2.803350	ppm	0.007861	0.28	4000.470000	Y 242.219
Pb (220.353 nm)	0.007918	ppm	0.000838	10.59	33.485500	Y 242.219
S (181.972 nm)	0.084682	ppm	0.002263	2.67	51.518065	Y 377.433
Sb (206.834 nm)	0.017540	ppm	0.000807	4.60	31.238700	Y 377.433
Se (196.026 nm)	0.018792	ppm	0.001471	7.83	37.190100	Y 242.219
Si (288.158 nm)	0.471036	ppm	0.000297	0.06	3520.880000	Y 377.433
Sn (189.925 nm)	0.101380	ppm	0.001301	1.28	165.216000	Y 377.433
Sr (421.552 nm)	0.009045	ppm	0.000001	0.01	1385.312122	Y_R 488.368
Th (288.505 nm)	0.020126 Q	ppm	0.003280	16.30	46.897000 Q	Y 377.433
Ti (336.122 nm)	0.009804	ppm	0.000020	0.21	821.322000	Y 377.433
Tl (190.794 nm)	0.014595	ppm	0.000281	1.93	35.081600	Y 377.433
U (409.013 nm)	0.055920	ppm	0.003255	5.82	151.448000	Y 377.433
V (292.401 nm)	0.010095	ppm	0.000171	1.70	372.302000	Y 377.433
Zn (206.200 nm)	0.021421	ppm	0.000020	0.09	100.401000	Y 377.433
Zr (343.823 nm)	0.009629	ppm	0.000080	0.83	383.512000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.186071	27416.585166	0.005148	0.43
Y 377.433	1.162299	812948.431283	0.005085	0.44
Y_R 377.433	1.206100	73124.300000	0.003122	0.26
Y_R 488.368	1.218350	64362.700000	0.009285	0.76
Y_R2 488.368	1.185091	125625.951992	0.000917	0.08
Y_R4	1.177170	52972.600000	0.007808	0.66

Sample Name: 280-123924-F-4-A

Date: 5/25/2019 12:35:13 AM Rack:Tube: 2:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002448	ppm	0.000548	22.41	-183.868000	Y 377.433
Al (394.401 nm)	0.273093	ppm	0.001821	0.67	3575.180000	Y 377.433
Al H (396.152 nm)	0.278132 u	ppm	0.003136	1.13	565.988000	Y_R 377.433
As (188.980 nm)	0.004406	ppm	0.000316	7.17	4.879200	Y 242.219
B (249.678 nm)	0.036886	ppm	0.000781	2.12	306.163000	Y 242.219
Ba (493.408 nm)	0.024589	ppm	0.000048	0.20	3856.250000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000053	> 100.00	-33.650200	Y_R 488.368
Bi (223.061 nm)	-0.000593 u	ppm	0.000713	> 100.00	-10.726000	Y 377.433
Ca (315.887 nm)	136.716423	ppm	0.689477	0.50	108511.992304	Y_R 377.433
Cd (214.439 nm)	0.001725	ppm	0.000054	3.11	61.362600	Y 377.433
Co (228.615 nm)	0.000491	ppm	0.000144	29.35	-3.479540	Y 242.219
Cr (205.560 nm)	0.003259	ppm	0.000385	11.82	14.955200	Y 377.433
Cu (324.754 nm)	0.566816	ppm	0.001399	0.25	26677.200000	Y 377.433
Fe (238.204 nm)	6.807313 o	ppm	0.035724	0.52	16393.529973	Y_R 377.433
Fe H (259.940 nm)	6.740210	ppm	0.032925	0.49	9333.020000	Y_R 377.433
K (766.491 nm)	3.337330	ppm	0.247306	7.41	5159.870000	Y_R2 488.368
Li (670.783 nm)	0.056527	ppm	0.002953	5.22	-1575.190000	Y_R2 488.368
Mg (279.078 nm)	24.875600	ppm	0.045869	0.18	81401.200000	Y 377.433
Mn (257.610 nm)	3.970490	ppm	0.012193	0.31	1082580.000000	Y 377.433
Mo (202.032 nm)	0.003389	ppm	0.000163	4.82	53.854200	Y 377.433
Na (589.592 nm)	49.060500	ppm	0.222448	0.45	40429.600000	Y_R2 488.368
Na H (589.593 nm)	49.488306 u	ppm	0.645505	1.30	26732.686834	Y_R4
Ni (231.604 nm)	0.004372	ppm	0.000604	13.82	14.009200	Y 377.433
P (213.618 nm)	0.213195	ppm	0.004438	2.08	166.041000	Y 242.219
Pb (220.353 nm)	0.017025	ppm	0.000579	3.40	62.364600	Y 242.219
S (181.972 nm)	6.701000	ppm	0.004885	0.07	3101.140657	Y 377.433
Sb (206.834 nm)	-0.004929 u	ppm	0.001276	25.89	-5.981360	Y 377.433
Se (196.026 nm)	-0.001365 u	ppm	0.003804	> 100.00	10.670600	Y 242.219
Si (288.158 nm)	8.785740	ppm	0.036287	0.41	57047.300000	Y 377.433
Sn (189.925 nm)	0.000174 u	ppm	0.001224	> 100.00	2.370490	Y 377.433
Sr (421.552 nm)	0.585717	ppm	0.003482	0.59	88233.745784	Y_R 488.368
Th (288.505 nm)	-0.002613 u	ppm	0.003231	> 100.00	83.593100	Y 377.433
Ti (336.122 nm)	0.002475	ppm	0.000407	16.44	358.918000	Y 377.433
Tl (190.794 nm)	0.003595	ppm	0.001909	53.10	3.631100	Y 377.433
U (409.013 nm)	0.039087	ppm	0.002051	5.25	85.584500	Y 377.433
V (292.401 nm)	0.003889	ppm	0.000006	0.16	55.831900	Y 377.433
Zn (206.200 nm)	1.670290	ppm	0.001723	0.10	7515.880000	Y 377.433
Zr (343.823 nm)	0.000703	ppm	0.000066	9.45	-121.828000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130434	26130.508283	0.005194	0.46
Y 377.433	1.117736	781779.216956	0.005699	0.51
Y_R 377.433	1.176740	71344.200000	0.002784	0.24
Y_R 488.368	1.195480	63154.200000	0.004552	0.38
Y_R2 488.368	1.156353	122579.534682	0.009352	0.81
Y_R4	1.163760	52368.900000	0.018654	1.60

Sample Name: 280-123924-F-5-A

Date: 5/25/2019 12:38:50 AM Rack:Tube: 2:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001636	ppm	0.000015	0.93	-211.052000	Y 377.433
Al (394.401 nm)	0.017561	ppm	0.001118	6.37	556.988000	Y 377.433
Al H (396.152 nm)	-0.022977 u	ppm	0.001885	8.21	82.401800	Y_R 377.433
As (188.980 nm)	0.002331	ppm	0.000897	38.49	1.880600	Y 242.219
B (249.678 nm)	0.015095	ppm	0.000265	1.75	153.267000	Y 242.219
Ba (493.408 nm)	0.250088	ppm	0.000331	0.13	26333.300000	Y_R 488.368
Be (234.861 nm)	-0.000010 u	ppm	0.000001	12.52	-11.777700	Y_R 488.368
Bi (223.061 nm)	-0.001072 u	ppm	0.000351	32.72	-12.595700	Y 377.433
Ca (315.887 nm)	47.830134	ppm	0.065621	0.14	37917.933224	Y_R 377.433
Cd (214.439 nm)	0.000233	ppm	0.000181	77.59	4.297000	Y 377.433
Co (228.615 nm)	0.001543	ppm	0.000127	8.25	21.500300	Y 242.219
Cr (205.560 nm)	0.339532	ppm	0.003334	0.98	2257.530000	Y 377.433
Cu (324.754 nm)	0.006424	ppm	0.000333	5.19	587.355000	Y 377.433
Fe (238.204 nm)	2.084162	ppm	0.001725	0.08	5024.080311	Y_R 377.433
Fe H (259.940 nm)	2.059050 u	ppm	0.002447	0.12	2859.050000	Y_R 377.433
K (766.491 nm)	1.487280	ppm	0.373707	25.13	3373.480000	Y_R2 488.368
Li (670.783 nm)	0.099805	ppm	0.000457	0.46	-832.090000	Y_R2 488.368
Mg (279.078 nm)	27.109900	ppm	0.036836	0.14	88718.800000	Y 377.433
Mn (257.610 nm)	0.226201	ppm	0.000384	0.17	61664.900000	Y 377.433
Mo (202.032 nm)	0.001200	ppm	0.000044	3.67	26.253600	Y 377.433
Na (589.592 nm)	151.899000 o	ppm	0.246010	0.16	124901.000000	Y_R2 488.368
Na H (589.593 nm)	155.050989	ppm	0.621867	0.40	84006.369245	Y_R4
Ni (231.604 nm)	0.152418	ppm	0.000408	0.27	779.993000	Y 377.433
P (213.618 nm)	0.005374	ppm	0.006367	> 100.00	2.023210	Y 242.219
Pb (220.353 nm)	0.000473	ppm	0.000636	> 100.00	9.283730	Y 242.219
S (181.972 nm)	7.372866	ppm	0.034735	0.47	3392.262186	Y 377.433
Sb (206.834 nm)	-0.003056 u	ppm	0.001732	56.67	-0.759902	Y 377.433
Se (196.026 nm)	-0.001629 u	ppm	0.000356	21.85	6.184290	Y 242.219
Si (288.158 nm)	3.718190	ppm	0.007337	0.20	24424.700000	Y 377.433
Sn (189.925 nm)	0.001514	ppm	0.000394	26.04	4.527210	Y 377.433
Sr (421.552 nm)	0.946656	ppm	0.000486	0.05	142590.837584	Y_R 488.368
Th (288.505 nm)	0.001071	ppm	0.000055	5.10	17.757700	Y 377.433
Ti (336.122 nm)	0.000488	ppm	0.000022	4.46	-204.320000	Y 377.433
Tl (190.794 nm)	-0.000546 u	ppm	0.000151	27.64	-1.624270	Y 377.433
U (409.013 nm)	0.020631	ppm	0.001681	8.15	35.748500	Y 377.433
V (292.401 nm)	0.001636	ppm	0.000061	3.75	-185.201000	Y 377.433
Zn (206.200 nm)	0.006553	ppm	0.000378	5.76	33.822500	Y 377.433
Zr (343.823 nm)	0.000184 u	ppm	0.000407	> 100.00	-151.188000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126972	26050.485853	0.005107	0.45
Y 377.433	1.109793	776224.140446	0.006425	0.58
Y_R 377.433	1.189170	72098.000000	0.000566	0.05
Y_R 488.368	1.201360	63465.200000	0.000377	0.03
Y_R2 488.368	1.154772	122411.977258	0.000992	0.09
Y_R4	1.166700	52501.600000	0.003746	0.32

Sample Name: 280-123924-F-6-A

Date: 5/25/2019 12:42:23 AM Rack:Tube: 2:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001933	ppm	0.000218	11.28	-200.699000	Y 377.433
Al (394.401 nm)	0.023076	ppm	0.001411	6.12	547.001000	Y 377.433
Al H (396.152 nm)	0.018211 u	ppm	0.007139	39.20	31.216000	Y_R 377.433
As (188.980 nm)	0.001629	ppm	0.000059	3.60	0.872478	Y 242.219
B (249.678 nm)	0.114548	ppm	0.000840	0.73	864.615000	Y 242.219
Ba (493.408 nm)	0.013097	ppm	0.000828	6.32	2705.280000	Y_R 488.368
Be (234.861 nm)	-0.000062 u	ppm	0.000004	5.72	-8.956690	Y_R 488.368
Bi (223.061 nm)	0.000367 u	ppm	0.001563	> 100.00	-9.758070	Y 377.433
Ca (315.887 nm)	126.341069	ppm	0.459785	0.36	100271.764509	Y_R 377.433
Cd (214.439 nm)	0.000265	ppm	0.000076	28.59	4.701230	Y 377.433
Co (228.615 nm)	0.000178	ppm	0.000120	67.38	-10.938000	Y 242.219
Cr (205.560 nm)	0.001218	ppm	0.000364	29.88	1.365980	Y 377.433
Cu (324.754 nm)	0.000906	ppm	0.000462	50.94	285.149000	Y 377.433
Fe (238.204 nm)	0.205456	ppm	0.000543	0.26	501.707212	Y_R 377.433
Fe H (259.940 nm)	0.203597 u	ppm	0.000129	0.06	292.985000	Y_R 377.433
K (766.491 nm)	6.930740	ppm	0.172922	2.50	8629.620000	Y_R2 488.368
Li (670.783 nm)	0.048039	ppm	0.001482	3.08	-1720.920000	Y_R2 488.368
Mg (279.078 nm)	23.543700	ppm	0.105421	0.45	77051.400000	Y 377.433
Mn (257.610 nm)	1.345290	ppm	0.005050	0.38	366796.000000	Y 377.433
Mo (202.032 nm)	0.000047 u	ppm	0.000350	> 100.00	11.719500	Y 377.433
Na (589.592 nm)	32.752600	ppm	0.004126	0.01	27039.900000	Y_R2 488.368
Na H (589.593 nm)	33.131297 u	ppm	0.172914	0.52	17858.090669	Y_R4
Ni (231.604 nm)	0.000810	ppm	0.000673	83.09	-4.426260	Y 377.433
P (213.618 nm)	0.001928 u	ppm	0.006613	> 100.00	-1.760070	Y 242.219
Pb (220.353 nm)	-0.000527 u	ppm	0.001274	> 100.00	6.632460	Y 242.219
S (181.972 nm)	16.189639	ppm	0.118809	0.73	7437.509341	Y 377.433
Sb (206.834 nm)	-0.007534 u	ppm	0.003299	43.79	-10.916000	Y 377.433
Se (196.026 nm)	0.002001	ppm	0.000507	25.35	13.728000	Y 242.219
Si (288.158 nm)	6.979820	ppm	0.017553	0.25	45421.600000	Y 377.433
Sn (189.925 nm)	0.000534	ppm	0.000291	54.40	2.950250	Y 377.433
Sr (421.552 nm)	0.658368	ppm	0.001111	0.17	99174.168631	Y_R 488.368
Th (288.505 nm)	-0.002138 u	ppm	0.000548	25.62	32.795700	Y 377.433
Ti (336.122 nm)	0.000262	ppm	0.000129	49.27	39.364700	Y 377.433
Tl (190.794 nm)	0.004025	ppm	0.002428	60.33	5.856550	Y 377.433
U (409.013 nm)	0.029471	ppm	0.008287	28.12	51.744500	Y 377.433
V (292.401 nm)	0.001136	ppm	0.000132	11.61	-88.322500	Y 377.433
Zn (206.200 nm)	0.007127	ppm	0.000375	5.26	36.139600	Y 377.433
Zr (343.823 nm)	-0.000136 u	ppm	0.000015	10.66	-169.331000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130281	26126.961460	0.005378	0.48
Y 377.433	1.116296	780772.419238	0.004965	0.44
Y_R 377.433	1.178740	71465.800000	0.000866	0.07
Y_R 488.368	1.199050	63343.200000	0.007701	0.64
Y_R2 488.368	1.165437	123542.525524	0.008807	0.76
Y_R4	1.171120	52700.300000	0.005139	0.44

Sample Name: 280-123924-F-7-A

Date: 5/25/2019 12:45:54 AM Rack:Tube: 2:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001629	ppm	0.000278	17.06	-211.269000	Y 377.433
Al (394.401 nm)	0.030921	ppm	0.001013	3.28	558.720000	Y 377.433
Al H (396.152 nm)	0.086917 u	ppm	0.003265	3.76	52.118900	Y_R 377.433
As (188.980 nm)	0.000752 u	ppm	0.002067	> 100.00	-0.449145	Y 242.219
B (249.678 nm)	0.015189	ppm	0.000658	4.33	155.026000	Y 242.219
Ba (493.408 nm)	0.093616	ppm	0.000735	0.79	10732.600000	Y_R 488.368
Be (234.861 nm)	-0.000046 u	ppm	0.000007	15.93	-7.399320	Y_R 488.368
Bi (223.061 nm)	0.001770	ppm	0.001062	60.01	-6.695290	Y 377.433
Ca (315.887 nm)	85.372000	ppm	0.199985	0.23	67733.897231	Y_R 377.433
Cd (214.439 nm)	0.000099	ppm	0.000136	> 100.00	-1.429000	Y 377.433
Co (228.615 nm)	-0.000351 u	ppm	0.000119	33.90	-23.367900	Y 242.219
Cr (205.560 nm)	0.000635	ppm	0.000226	35.64	-2.520600	Y 377.433
Cu (324.754 nm)	0.001528	ppm	0.000001	0.06	336.540000	Y 377.433
Fe (238.204 nm)	0.212285	ppm	0.004146	1.95	518.146859	Y_R 377.433
Fe H (259.940 nm)	0.220050 u	ppm	0.001283	0.58	315.739000	Y_R 377.433
K (766.491 nm)	1.760700	ppm	0.315906	17.94	3637.500000	Y_R2 488.368
Li (670.783 nm)	0.040773	ppm	0.002040	5.00	-1845.690000	Y_R2 488.368
Mg (279.078 nm)	13.509800	ppm	0.016397	0.12	44216.900000	Y 377.433
Mn (257.610 nm)	0.078373	ppm	0.000053	0.07	21358.200000	Y 377.433
Mo (202.032 nm)	0.000061 u	ppm	0.000259	> 100.00	11.898500	Y 377.433
Na (589.592 nm)	143.988000 o	ppm	0.263245	0.18	118371.000000	Y_R2 488.368
Na H (589.593 nm)	147.589034	ppm	1.430744	0.97	79957.839587	Y_R4
Ni (231.604 nm)	-0.000315 u	ppm	0.000929	> 100.00	-10.249400	Y 377.433
P (213.618 nm)	0.010370	ppm	0.002497	24.08	10.364100	Y 242.219
Pb (220.353 nm)	-0.001063 u	ppm	0.000228	21.43	4.902180	Y 242.219
S (181.972 nm)	9.047139	ppm	0.047749	0.53	4160.418818	Y 377.433
Sb (206.834 nm)	-0.004968 u	ppm	0.000516	10.39	-6.592670	Y 377.433
Se (196.026 nm)	0.000326 u	ppm	0.002785	> 100.00	9.404930	Y 242.219
Si (288.158 nm)	3.183230	ppm	0.001152	0.04	20980.800000	Y 377.433
Sn (189.925 nm)	-0.000030 u	ppm	0.000541	> 100.00	2.042750	Y 377.433
Sr (421.552 nm)	0.331351	ppm	0.000853	0.26	49925.060316	Y_R 488.368
Th (288.505 nm)	-0.008153 u	ppm	0.004059	49.79	-2.086890	Y 377.433
Ti (336.122 nm)	0.000156	ppm	0.000117	74.95	-117.110000	Y 377.433
Tl (190.794 nm)	0.000376	ppm	0.000304	80.85	-0.819734	Y 377.433
U (409.013 nm)	0.025766	ppm	0.002662	10.33	45.559900	Y 377.433
V (292.401 nm)	0.001403	ppm	0.000095	6.80	-74.587500	Y 377.433
Zn (206.200 nm)	0.006498	ppm	0.000768	11.82	33.314200	Y 377.433
Zr (343.823 nm)	0.000022 u	ppm	0.000297	> 100.00	-160.370000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126512	26039.860314	0.002960	0.26
Y 377.433	1.111904	777700.300573	0.003106	0.28
Y_R 377.433	1.183690	71765.500000	0.007299	0.62
Y_R 488.368	1.195640	63163.000000	0.006260	0.52
Y_R2 488.368	1.154474	122380.403638	0.002767	0.24
Y_R4	1.156040	52021.900000	0.003969	0.34

Sample Name: 280-123924-F-8-A

Date: 5/25/2019 12:49:26 AM Rack:Tube: 2:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001770	ppm	0.000368	20.78	-206.636000	Y 377.433
Al (394.401 nm)	0.036275	ppm	0.001524	4.20	627.072000	Y 377.433
Al H (396.152 nm)	0.100369 u	ppm	0.004589	4.57	82.270300	Y_R 377.433
As (188.980 nm)	0.001992	ppm	0.002806	> 100.00	1.419410	Y 242.219
B (249.678 nm)	0.015234	ppm	0.000481	3.16	155.327000	Y 242.219
Ba (493.408 nm)	0.096144	ppm	0.000633	0.66	10984.600000	Y_R 488.368
Be (234.861 nm)	-0.000057 u	ppm	0.000019	32.94	-8.609570	Y_R 488.368
Bi (223.061 nm)	0.000604 u	ppm	0.001055	> 100.00	-9.243110	Y 377.433
Ca (315.887 nm)	83.540230	ppm	0.461750	0.55	66279.097862	Y_R 377.433
Cd (214.439 nm)	0.000238	ppm	0.000008	3.23	3.728240	Y 377.433
Co (228.615 nm)	-0.000249 u	ppm	0.000083	33.33	-20.975800	Y 242.219
Cr (205.560 nm)	0.000539	ppm	0.000035	6.43	-3.158670	Y 377.433
Cu (324.754 nm)	0.001652	ppm	0.000069	4.19	342.364000	Y 377.433
Fe (238.204 nm)	0.241572	ppm	0.001052	0.44	588.645205	Y_R 377.433
Fe H (259.940 nm)	0.241987 u	ppm	0.001497	0.62	346.077000	Y_R 377.433
K (766.491 nm)	1.695760	ppm	0.189499	11.17	3574.780000	Y_R2 488.368
Li (670.783 nm)	0.041113	ppm	0.003730	9.07	-1839.850000	Y_R2 488.368
Mg (279.078 nm)	13.321600	ppm	0.023013	0.17	43600.700000	Y 377.433
Mn (257.610 nm)	0.078488	ppm	0.000092	0.12	21389.600000	Y 377.433
Mo (202.032 nm)	0.000488	ppm	0.000096	19.68	17.283200	Y 377.433
Na (589.592 nm)	138.534000 o	ppm	0.052226	0.04	113895.000000	Y_R2 488.368
Na H (589.593 nm)	143.199107	ppm	0.556966	0.39	77576.058062	Y_R4
Ni (231.604 nm)	-0.000932 u	ppm	0.000342	36.65	-13.445700	Y 377.433
P (213.618 nm)	0.009986	ppm	0.001001	10.03	9.748600	Y 242.219
Pb (220.353 nm)	0.000115	ppm	0.000050	43.31	8.697730	Y 242.219
S (181.972 nm)	8.885204	ppm	0.027381	0.31	4086.165303	Y 377.433
Sb (206.834 nm)	-0.004473 u	ppm	0.004209	94.11	-5.752640	Y 377.433
Se (196.026 nm)	-0.000394 u	ppm	0.004847	> 100.00	8.311580	Y 242.219
Si (288.158 nm)	3.156410	ppm	0.003540	0.11	20808.200000	Y 377.433
Sn (189.925 nm)	0.002400	ppm	0.002192	91.32	5.952370	Y 377.433
Sr (421.552 nm)	0.331894	ppm	0.001130	0.34	50006.864844	Y_R 488.368
Th (288.505 nm)	-0.005452 u	ppm	0.003877	71.12	2.753750	Y 377.433
Ti (336.122 nm)	0.000285	ppm	0.000046	16.03	-107.106000	Y 377.433
Tl (190.794 nm)	0.001698 u	ppm	0.003012	> 100.00	2.275210	Y 377.433
U (409.013 nm)	0.026858	ppm	0.000660	2.46	49.304000	Y 377.433
V (292.401 nm)	0.001329	ppm	0.000007	0.51	-79.665300	Y 377.433
Zn (206.200 nm)	0.007225	ppm	0.000330	4.57	36.588100	Y 377.433
Zr (343.823 nm)	0.000029	ppm	0.000036	> 100.00	-159.995000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124082	25983.673048	0.001644	0.15
Y 377.433	1.109022	775684.659982	0.003006	0.27
Y_R 377.433	1.181290	71620.100000	0.009978	0.84
Y_R 488.368	1.195950	63179.200000	0.009558	0.80
Y_R2 488.368	1.158190	122774.218305	0.003284	0.28
Y_R4	1.169190	52613.400000	0.002445	0.21

Sample Name: 280-123924-F-9-A

Date: 5/25/2019 12:52:58 AM Rack:Tube: 2:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001632	ppm	0.000786	48.15	-211.291000	Y 377.433
Al (394.401 nm)	0.041435	ppm	0.000065	0.16	688.671000	Y 377.433
Al H (396.152 nm)	0.105167 u	ppm	0.001265	1.20	93.556700	Y_R 377.433
As (188.980 nm)	-0.001542 u	ppm	0.000516	33.45	-3.905760	Y 242.219
B (249.678 nm)	0.014873	ppm	0.000187	1.26	152.742000	Y 242.219
Ba (493.408 nm)	0.097591	ppm	0.000102	0.10	11128.900000	Y_R 488.368
Be (234.861 nm)	-0.000053 u	ppm	0.000034	64.51	-8.221910	Y_R 488.368
Bi (223.061 nm)	0.000867 u	ppm	0.001245	> 100.00	-8.666350	Y 377.433
Ca (315.887 nm)	83.585050	ppm	0.110408	0.13	66314.693309	Y_R 377.433
Cd (214.439 nm)	0.000275	ppm	0.000009	3.19	5.072990	Y 377.433
Co (228.615 nm)	-0.000136 u	ppm	0.000250	> 100.00	-18.326500	Y 242.219
Cr (205.560 nm)	0.000670	ppm	0.000259	38.62	-2.285900	Y 377.433
Cu (324.754 nm)	0.001636	ppm	0.000388	23.69	342.592000	Y 377.433
Fe (238.204 nm)	0.248573	ppm	0.001431	0.58	605.498559	Y_R 377.433
Fe H (259.940 nm)	0.244741 u	ppm	0.004371	1.79	349.886000	Y_R 377.433
K (766.491 nm)	1.711630	ppm	0.388364	22.69	3590.110000	Y_R2 488.368
Li (670.783 nm)	0.043956	ppm	0.001229	2.80	-1791.040000	Y_R2 488.368
Mg (279.078 nm)	13.424200	ppm	0.000133	0.00	43936.700000	Y 377.433
Mn (257.610 nm)	0.079857	ppm	0.000136	0.17	21762.600000	Y 377.433
Mo (202.032 nm)	0.000176	ppm	0.000034	19.55	13.349800	Y 377.433
Na (589.592 nm)	138.044000 o	ppm	0.419432	0.30	113493.000000	Y_R2 488.368
Na H (589.593 nm)	142.963190	ppm	1.735994	1.21	77448.059779	Y_R4
Ni (231.604 nm)	-0.001017 u	ppm	0.000301	29.63	-13.882600	Y 377.433
P (213.618 nm)	0.005590	ppm	0.005516	98.69	3.455530	Y 242.219
Pb (220.353 nm)	-0.000269 u	ppm	0.000803	> 100.00	7.457440	Y 242.219
S (181.972 nm)	8.944271	ppm	0.025668	0.29	4113.226914	Y 377.433
Sb (206.834 nm)	-0.002303 u	ppm	0.001211	52.60	-2.087600	Y 377.433
Se (196.026 nm)	0.002517	ppm	0.000661	26.28	12.703000	Y 242.219
Si (288.158 nm)	3.197120	ppm	0.003836	0.12	21070.300000	Y 377.433
Sn (189.925 nm)	0.000572 u	ppm	0.002925	> 100.00	3.010250	Y 377.433
Sr (421.552 nm)	0.333928	ppm	0.000815	0.24	50313.165454	Y_R 488.368
Th (288.505 nm)	-0.006973 u	ppm	0.000923	13.23	0.098033	Y 377.433
Ti (336.122 nm)	0.000451	ppm	0.000021	4.73	-85.336200	Y 377.433
Tl (190.794 nm)	0.001762	ppm	0.000313	17.75	2.414820	Y 377.433
U (409.013 nm)	0.020401	ppm	0.004633	22.71	28.767100	Y 377.433
V (292.401 nm)	0.001499	ppm	0.000209	13.96	-69.940800	Y 377.433
Zn (206.200 nm)	0.007957	ppm	0.000365	4.59	39.878200	Y 377.433
Zr (343.823 nm)	0.000158	ppm	0.000084	53.05	-152.697000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.135720	26252.701519	0.000707	0.06
Y 377.433	1.120886	783982.493169	0.001259	0.11
Y_R 377.433	1.192330	72289.400000	0.001694	0.14
Y_R 488.368	1.208310	63832.200000	0.002634	0.22
Y_R2 488.368	1.173536	124400.977233	0.000582	0.05
Y_R4	1.178710	53041.800000	0.005636	0.48

Sample Name: 280-123924-F-10-A

Date: 5/25/2019 12:56:30 AM Rack:Tube: 2:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000602	48.17	-224.246000	Y 377.433
Al (394.401 nm)	0.254858	ppm	0.000420	0.16	3225.770000	Y 377.433
Al H (396.152 nm)	0.368969 u	ppm	0.009085	2.46	574.540000	Y_R 377.433
As (188.980 nm)	-0.000320 u	ppm	0.000134	41.69	-2.064840	Y 242.219
B (249.678 nm)	0.004689	ppm	0.000644	13.73	80.023100	Y 242.219
Ba (493.408 nm)	0.017808	ppm	0.000158	0.89	3175.020000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000006	32.67	-4.878440	Y_R 488.368
Bi (223.061 nm)	0.000017 u	ppm	0.001949	> 100.00	-10.534000	Y 377.433
Ca (315.887 nm)	25.726179	ppm	0.015537	0.06	20362.899546	Y_R 377.433
Cd (214.439 nm)	0.000112	ppm	0.000150	> 100.00	-0.938249	Y 377.433
Co (228.615 nm)	0.000191	ppm	0.000023	12.06	-10.473800	Y 242.219
Cr (205.560 nm)	0.000805	ppm	0.000310	38.50	-1.396890	Y 377.433
Cu (324.754 nm)	0.003822	ppm	0.000308	8.06	478.117000	Y 377.433
Fe (238.204 nm)	0.227852	ppm	0.000403	0.18	555.619950	Y_R 377.433
Fe H (259.940 nm)	0.231290 u	ppm	0.003164	1.37	331.283000	Y_R 377.433
K (766.491 nm)	0.619063	ppm	0.065386	10.56	2535.140000	Y_R2 488.368
Li (670.783 nm)	0.030750	ppm	0.007462	24.27	-2017.790000	Y_R2 488.368
Mg (279.078 nm)	2.940840	ppm	0.009741	0.33	9631.400000	Y 377.433
Mn (257.610 nm)	0.306341	ppm	0.000755	0.25	83515.800000	Y 377.433
Mo (202.032 nm)	0.001458	ppm	0.000006	0.40	29.503700	Y 377.433
Na (589.592 nm)	0.851335	ppm	0.061249	7.19	853.005000	Y_R2 488.368
Na H (589.593 nm)	1.619651 u	ppm	0.014119	0.87	761.253718	Y_R4
Ni (231.604 nm)	0.001366	ppm	0.000257	18.78	-1.552120	Y 377.433
P (213.618 nm)	0.142311	ppm	0.001824	1.28	198.696000	Y 242.219
Pb (220.353 nm)	-0.000949 u	ppm	0.000780	82.20	5.217730	Y 242.219
S (181.972 nm)	0.384170	ppm	0.009444	2.46	190.903196	Y 377.433
Sb (206.834 nm)	-0.004816 u	ppm	0.001270	26.38	-6.362330	Y 377.433
Se (196.026 nm)	-0.001457 u	ppm	0.004680	> 100.00	7.035460	Y 242.219
Si (288.158 nm)	2.543400	ppm	0.012201	0.48	16861.800000	Y 377.433
Sn (189.925 nm)	0.000964	ppm	0.000006	0.58	3.641510	Y 377.433
Sr (421.552 nm)	0.076078	ppm	0.000324	0.43	11480.602067	Y_R 488.368
Th (288.505 nm)	-0.004944 u	ppm	0.002058	41.63	9.575360	Y 377.433
Ti (336.122 nm)	0.005271	ppm	0.000259	4.91	329.444000	Y 377.433
Tl (190.794 nm)	0.000977	ppm	0.000967	98.98	2.963660	Y 377.433
U (409.013 nm)	0.017439	ppm	0.003214	18.43	27.227600	Y 377.433
V (292.401 nm)	0.001668	ppm	0.000001	0.07	-60.927000	Y 377.433
Zn (206.200 nm)	0.008281	ppm	0.000074	0.90	41.335600	Y 377.433
Zr (343.823 nm)	0.000338	ppm	0.000111	32.86	-142.467000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.180234	27281.647885	0.004149	0.35
Y 377.433	1.162312	812957.222490	0.004539	0.39
Y_R 377.433	1.222140	74097.100000	0.004200	0.34
Y_R 488.368	1.238960	65451.500000	0.003903	0.32
Y_R2 488.368	1.187455	125876.535185	0.008083	0.68
Y_R4	1.197350	53880.600000	0.002638	0.22

Sample Name: 280-123924-F-11-A

Date: 5/25/2019 1:00:01 AM Rack:Tube: 2:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001431	ppm	0.000034	2.34	-219.861000	Y 377.433
Al (394.401 nm)	1.334860	ppm	0.000332	0.02	16410.400000	Y 377.433
Al H (396.152 nm)	1.455920	ppm	0.006122	0.42	2953.960000	Y_R 377.433
As (188.980 nm)	0.011347	ppm	0.001027	9.05	15.230300	Y 242.219
B (249.678 nm)	0.008354	ppm	0.000230	2.75	100.102000	Y 242.219
Ba (493.408 nm)	0.060981	ppm	0.000161	0.26	7487.460000	Y_R 488.368
Be (234.861 nm)	0.000093	ppm	0.000000	0.10	-38.402800	Y_R 488.368
Bi (223.061 nm)	-0.000290 u	ppm	0.000968	> 100.00	-9.381790	Y 377.433
Ca (315.887 nm)	28.399721	ppm	0.116803	0.41	22486.518606	Y_R 377.433
Cd (214.439 nm)	0.003463	ppm	0.000005	0.15	127.262000	Y 377.433
Co (228.615 nm)	0.001825	ppm	0.000456	24.98	29.072900	Y 242.219
Cr (205.560 nm)	0.003880	ppm	0.000162	4.19	19.080200	Y 377.433
Cu (324.754 nm)	0.011655	ppm	0.000059	0.51	842.433000	Y 377.433
Fe (238.204 nm)	10.788020 o	ppm	0.021820	0.20	25975.787539	Y_R 377.433
Fe H (259.940 nm)	10.669400	ppm	0.031097	0.29	14767.000000	Y_R 377.433
K (766.491 nm)	0.559254	ppm	0.206094	36.85	2477.390000	Y_R2 488.368
Li (670.783 nm)	0.034027	ppm	0.000169	0.50	-1961.520000	Y_R2 488.368
Mg (279.078 nm)	7.193090	ppm	0.014491	0.20	23532.200000	Y 377.433
Mn (257.610 nm)	0.678384	ppm	0.001110	0.16	184957.000000	Y 377.433
Mo (202.032 nm)	0.000359	ppm	0.000055	15.38	15.661700	Y 377.433
Na (589.592 nm)	1.716570	ppm	0.000482	0.03	1572.990000	Y_R2 488.368
Na H (589.593 nm)	2.329912 u	ppm	0.012199	0.52	1146.609925	Y_R4
Ni (231.604 nm)	0.003151	ppm	0.000232	7.37	7.682320	Y 377.433
P (213.618 nm)	0.258189	ppm	0.000861	0.33	362.747000	Y 242.219
Pb (220.353 nm)	0.006286	ppm	0.000520	8.27	28.030200	Y 242.219
S (181.972 nm)	2.804974	ppm	0.007938	0.28	1300.856644	Y 377.433
Sb (206.834 nm)	-0.005253 u	ppm	0.000555	10.57	-6.291710	Y 377.433
Se (196.026 nm)	0.000314 u	ppm	0.001758	> 100.00	7.512750	Y 242.219
Si (288.158 nm)	5.005630	ppm	0.017255	0.34	32712.600000	Y 377.433
Sn (189.925 nm)	0.001508	ppm	0.001170	77.60	4.517040	Y 377.433
Sr (421.552 nm)	0.087041	ppm	0.000117	0.13	13133.237807	Y_R 488.368
Th (288.505 nm)	-0.002941 u	ppm	0.000482	16.40	19.170900	Y 377.433
Ti (336.122 nm)	0.031279	ppm	0.000963	3.08	3666.840000	Y 377.433
Tl (190.794 nm)	0.001025	ppm	0.001264	> 100.00	1.600780	Y 377.433
U (409.013 nm)	0.018402	ppm	0.006171	33.54	37.638100	Y 377.433
V (292.401 nm)	0.005814	ppm	0.000091	1.56	154.359000	Y 377.433
Zn (206.200 nm)	0.058243	ppm	0.000284	0.49	267.472000	Y 377.433
Zr (343.823 nm)	0.000986	ppm	0.000005	0.46	-105.771000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.169654	27037.088102	0.001549	0.13
Y 377.433	1.151231	805207.155493	0.002177	0.19
Y_R 377.433	1.191640	72247.800000	0.005118	0.43
Y_R 488.368	1.208400	63837.200000	0.005911	0.49
Y_R2 488.368	1.190591	126208.951401	0.005721	0.48
Y_R4	1.196540	53844.300000	0.016526	1.38

Sample Name: 280-123924-F-12-A

Date: 5/25/2019 1:03:42 AM Rack:Tube: 2:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001408	ppm	0.000192	13.66	-219.088000	Y 377.433
Al (394.401 nm)	0.052717	ppm	0.000840	1.59	827.232000	Y 377.433
Al H (396.152 nm)	0.110112 u	ppm	0.005967	5.42	103.558000	Y_R 377.433
As (188.980 nm)	0.001452 u	ppm	0.003421	> 100.00	0.602821	Y 242.219
B (249.678 nm)	0.013888	ppm	0.000520	3.74	145.664000	Y 242.219
Ba (493.408 nm)	0.097344	ppm	0.000516	0.53	11104.300000	Y_R 488.368
Be (234.861 nm)	-0.000042 u	ppm	0.000017	41.18	-7.550420	Y_R 488.368
Bi (223.061 nm)	0.001138 u	ppm	0.001635	> 100.00	-8.057140	Y 377.433
Ca (315.887 nm)	80.336549	ppm	0.341835	0.43	63734.714061	Y_R 377.433
Cd (214.439 nm)	0.000211	ppm	0.000077	36.71	2.756860	Y 377.433
Co (228.615 nm)	-0.000385 u	ppm	0.000083	21.49	-24.172400	Y 242.219
Cr (205.560 nm)	0.000640 u	ppm	0.001168	> 100.00	-2.485460	Y 377.433
Cu (324.754 nm)	0.001538	ppm	0.000175	11.39	338.726000	Y 377.433
Fe (238.204 nm)	0.332465	ppm	0.001001	0.30	807.440587	Y_R 377.433
Fe H (259.940 nm)	0.330446 u	ppm	0.001642	0.50	468.415000	Y_R 377.433
K (766.491 nm)	1.724330	ppm	0.195766	11.35	3602.380000	Y_R2 488.368
Li (670.783 nm)	0.040224	ppm	0.003319	8.25	-1855.110000	Y_R2 488.368
Mg (279.078 nm)	13.113800	ppm	0.030686	0.23	42920.700000	Y 377.433
Mn (257.610 nm)	0.078146	ppm	0.000176	0.22	21296.100000	Y 377.433
Mo (202.032 nm)	0.000369	ppm	0.000359	97.11	15.788400	Y 377.433
Na (589.592 nm)	132.518000 o	ppm	0.469290	0.35	108957.000000	Y_R2 488.368
Na H (589.593 nm)	136.512291	ppm	1.030354	0.75	73948.085040	Y_R4
Ni (231.604 nm)	-0.001488 u	ppm	0.000681	45.76	-16.323000	Y 377.433
P (213.618 nm)	0.011313	ppm	0.000958	8.46	11.626700	Y 242.219
Pb (220.353 nm)	0.000667	ppm	0.000026	3.83	10.440600	Y 242.219
S (181.972 nm)	8.727401	ppm	0.064511	0.74	4013.736844	Y 377.433
Sb (206.834 nm)	-0.002118 u	ppm	0.000472	22.27	-1.770190	Y 377.433
Se (196.026 nm)	0.001180	ppm	0.000711	60.22	10.661900	Y 242.219
Si (288.158 nm)	3.092560	ppm	0.011459	0.37	20397.100000	Y 377.433
Sn (189.925 nm)	-0.000457 u	ppm	0.000565	> 100.00	1.354820	Y 377.433
Sr (421.552 nm)	0.330161	ppm	0.000542	0.16	49745.811962	Y_R 488.368
Th (288.505 nm)	-0.007179 u	ppm	0.001547	21.54	-0.183406	Y 377.433
Ti (336.122 nm)	0.000605	ppm	0.000011	1.79	-77.357900	Y 377.433
Tl (190.794 nm)	0.000105 u	ppm	0.000247	> 100.00	-1.250060	Y 377.433
U (409.013 nm)	0.022658	ppm	0.004986	22.01	36.447900	Y 377.433
V (292.401 nm)	0.001476	ppm	0.000070	4.78	-72.001400	Y 377.433
Zn (206.200 nm)	0.007936	ppm	0.000282	3.55	39.798300	Y 377.433
Zr (343.823 nm)	0.000088 u	ppm	0.000219	> 100.00	-156.647000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.127288	26057.776022	0.000907	0.08
Y 377.433	1.111362	777321.222336	0.000700	0.06
Y_R 377.433	1.167610	70790.700000	0.003667	0.31
Y_R 488.368	1.178710	62268.500000	0.001030	0.09
Y_R2 488.368	1.133349	120140.998367	0.003870	0.34
Y_R4	1.144610	51507.200000	0.006302	0.55

Sample Name: CCVH-5713036

Date: 5/25/2019 1:07:14 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005750	ppm	0.000584	10.16	-78.164300	Y 377.433
Al (394.401 nm)	48.591400 o	ppm	0.215221	0.44	591965.000000	Y 377.433
Al H (396.152 nm)	46.763400	ppm	0.064321	0.14	101963.000000	Y_R 377.433
As (188.980 nm)	0.002380	ppm	0.001805	75.84	0.685071	Y 242.219
B (249.678 nm)	-0.002282 u	ppm	0.000193	8.47	2.104150	Y 242.219
Ba (493.408 nm)	-0.000291 u	ppm	0.000393	> 100.00	1409.420000	Y_R 488.368
Be (234.861 nm)	0.001210	ppm	0.000117	9.69	-89.751800	Y_R 488.368
Bi (223.061 nm)	0.009391	ppm	0.001295	13.79	18.411600	Y 377.433
Ca (315.887 nm)	0.023838	ppm	0.002125	8.92	-38.308171	Y_R 377.433
Cd (214.439 nm)	0.001482	ppm	0.000032	2.19	69.506600	Y 377.433
Co (228.615 nm)	0.003163	ppm	0.000096	3.05	59.216700	Y 242.219
Cr (205.560 nm)	0.001688	ppm	0.000369	21.84	3.232380	Y 377.433
Cu (324.754 nm)	0.004258	ppm	0.000272	6.40	1450.640000	Y 377.433
Fe (238.204 nm)	48.932573 o	ppm	0.050159	0.10	117796.385101	Y_R 377.433
Fe H (259.940 nm)	48.486500	ppm	0.046691	0.10	67067.500000	Y_R 377.433
K (766.491 nm)	-0.100532 u	ppm	0.126685	> 100.00	1840.310000	Y_R2 488.368
Li (670.783 nm)	0.030793	ppm	0.000311	1.01	-2017.060000	Y_R2 488.368
Mg (279.078 nm)	0.040265	ppm	0.003132	7.78	67.476100	Y 377.433
Mn (257.610 nm)	0.000983	ppm	0.000008	0.79	257.069000	Y 377.433
Mo (202.032 nm)	0.000983	ppm	0.000144	14.64	23.524800	Y 377.433
Na (589.592 nm)	221.146000 o	ppm	0.156613	0.07	181690.000000	Y_R2 488.368
Na H (589.593 nm)	225.469294	ppm	0.991663	0.44	122212.253952	Y_R4
Ni (231.604 nm)	0.003371	ppm	0.000356	10.56	8.821090	Y 377.433
P (213.618 nm)	4.862720	ppm	0.017520	0.36	6945.160000	Y 242.219
Pb (220.353 nm)	0.005399	ppm	0.001696	31.40	18.882200	Y 242.219
S (181.972 nm)	4.782783	ppm	0.012963	0.27	2203.001909	Y 377.433
Sb (206.834 nm)	0.001107	ppm	0.001258	> 100.00	7.774120	Y 377.433
Se (196.026 nm)	0.004972	ppm	0.001827	36.74	3.754960	Y 242.219
Si (288.158 nm)	0.011428	ppm	0.000331	2.90	562.118000	Y 377.433
Sn (189.925 nm)	0.000871	ppm	0.001225	> 100.00	3.491810	Y 377.433
Sr (421.552 nm)	0.001411	ppm	0.000217	15.37	243.026533	Y_R 488.368
Th (288.505 nm)	4.674290	ppm	0.011200	0.24	8073.340000	Y 377.433
Ti (336.122 nm)	0.002067	ppm	0.000019	0.92	-169.255000	Y 377.433
Tl (190.794 nm)	0.001730	ppm	0.002203	> 100.00	1.066710	Y 377.433
U (409.013 nm)	0.529586 Q	ppm	0.006154	1.16	1691.220000 Q	Y 377.433
V (292.401 nm)	0.001128	ppm	0.000005	0.43	398.213000	Y 377.433
Zn (206.200 nm)	0.003434	ppm	0.000203	5.90	26.318300	Y 377.433
Zr (343.823 nm)	0.001344	ppm	0.000034	2.50	-85.550400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136931	26280.695340	0.001960	0.17
Y 377.433	1.117124	781351.448484	0.002083	0.19
Y_R 377.433	1.193650	72369.500000	0.002873	0.24
Y_R 488.368	1.215760	64226.000000	0.006674	0.55
Y_R2 488.368	1.188541	125991.624351	0.000601	0.05
Y_R4	1.193160	53692.000000	0.010164	0.85

Sample Name: CCV-5717467

Date: 5/25/2019 1:10:59 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.483343	ppm	0.000551	0.11	16410.100000	Y 377.433
Al (394.401 nm)	0.488555	ppm	0.003582	0.73	6175.180000	Y 377.433
Al H (396.152 nm)	0.533505 u	ppm	0.000172	0.03	1146.060000	Y_R 377.433
As (188.980 nm)	0.484302	ppm	0.002327	0.48	728.148000	Y 242.219
B (249.678 nm)	0.462246	ppm	0.001552	0.34	3346.440000	Y 242.219
Ba (493.408 nm)	0.469857	ppm	0.000593	0.13	48243.200000	Y_R 488.368
Be (234.861 nm)	0.460935	ppm	0.002321	0.50	45381.700000	Y_R 488.368
Bi (223.061 nm)	0.965010	ppm	0.000298	0.03	2103.420000	Y 377.433
Ca (315.887 nm)	4.847930	ppm	0.013247	0.27	3781.339747	Y_R 377.433
Cd (214.439 nm)	0.503491	ppm	0.000907	0.18	18615.000000	Y 377.433
Co (228.615 nm)	0.481472	ppm	0.001059	0.22	11321.700000	Y 242.219
Cr (205.560 nm)	0.505730	ppm	0.002032	0.40	3362.660000	Y 377.433
Cu (324.754 nm)	0.486352	ppm	0.001185	0.24	23000.000000	Y 377.433
Fe (238.204 nm)	2.476119	ppm	0.003861	0.16	5967.589472	Y_R 377.433
Fe H (259.940 nm)	2.456620 u	ppm	0.001703	0.07	3408.880000	Y_R 377.433
K (766.491 nm)	48.076300	ppm	0.433549	0.90	48359.300000	Y_R2 488.368
Li (670.783 nm)	0.509461	ppm	0.005866	1.15	6201.800000	Y_R2 488.368
Mg (279.078 nm)	19.452200	ppm	0.018008	0.09	63659.700000	Y 377.433
Mn (257.610 nm)	0.480125	ppm	0.000211	0.04	130900.000000	Y 377.433
Mo (202.032 nm)	0.481575	ppm	0.000626	0.13	6081.020000	Y 377.433
Na (589.592 nm)	22.859800	ppm	0.046570	0.20	19022.400000	Y_R2 488.368
Na H (589.593 nm)	23.783505 u	ppm	0.038716	0.16	12786.388785	Y_R4
Ni (231.604 nm)	0.495762	ppm	0.000741	0.15	2557.050000	Y 377.433
P (213.618 nm)	0.053548	ppm	0.000142	0.26	-59.597400	Y 242.219
Pb (220.353 nm)	0.487583	ppm	0.001539	0.32	1555.080000	Y 242.219
S (181.972 nm)	0.007010	ppm	0.001584	22.59	17.695924	Y 377.433
Sb (206.834 nm)	0.488149	ppm	0.003838	0.79	823.464000	Y 377.433
Se (196.026 nm)	0.484416	ppm	0.001404	0.29	739.567000	Y 242.219
Si (288.158 nm)	4.774490	ppm	0.022182	0.46	31224.600000	Y 377.433
Sn (189.925 nm)	0.499821	ppm	0.000197	0.04	806.331000	Y 377.433
Sr (421.552 nm)	0.460367	ppm	0.000801	0.17	69355.326684	Y_R 488.368
Th (288.505 nm)	0.020423	ppm	0.001601	7.84	-0.979441	Y 377.433
Ti (336.122 nm)	0.474263	ppm	0.000164	0.03	60271.700000	Y 377.433
Tl (190.794 nm)	0.493066	ppm	0.002807	0.57	1126.370000	Y 377.433
U (409.013 nm)	0.016336	ppm	0.000045	0.27	-31.890200	Y 377.433
V (292.401 nm)	0.477612	ppm	0.000019	0.00	24482.300000	Y 377.433
Zn (206.200 nm)	0.505068	ppm	0.000037	0.01	2275.570000	Y 377.433
Zr (343.823 nm)	0.473977	ppm	0.000270	0.06	26671.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155331	26706.009907	0.003584	0.31
Y 377.433	1.136946	795215.774100	0.001563	0.14
Y_R 377.433	1.182140	71671.400000	0.006318	0.53
Y_R 488.368	1.196580	63212.700000	0.004735	0.40
Y_R2 488.368	1.174336	124485.805737	0.012711	1.08
Y_R4	1.178930	53052.000000	0.002072	0.18

Sample Name: CCB

Date: 5/25/2019 1:14:34 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001038	ppm	0.000622	59.95	-231.280000	Y 377.433
Al (394.401 nm)	-0.001596 u	ppm	0.000052	3.26	73.177700	Y 377.433
Al H (396.152 nm)	0.132756 Zu	ppm	0.001154	0.87	31.920900 Z	Y_R 377.433
As (188.980 nm)	0.000769 u	ppm	0.002807	> 100.00	-0.417625	Y 242.219
B (249.678 nm)	-0.004508 u	ppm	0.000319	7.07	14.478700	Y 242.219
Ba (493.408 nm)	-0.002891 Zu	ppm	0.000376	13.01	1111.200000 Z	Y_R 488.368
Be (234.861 nm)	0.000013 u	ppm	0.000024	> 100.00	-0.683374	Y_R 488.368
Bi (223.061 nm)	0.000908	ppm	0.000954	> 100.00	-8.624150	Y 377.433
Ca (315.887 nm)	0.024603	ppm	0.000614	2.50	-49.499247	Y_R 377.433
Cd (214.439 nm)	0.000104	ppm	0.000049	47.11	-1.334500	Y 377.433
Co (228.615 nm)	-0.000274 u	ppm	0.000188	68.59	-21.587800	Y 242.219
Cr (205.560 nm)	0.000303	ppm	0.000002	0.66	-4.734200	Y 377.433
Cu (324.754 nm)	0.001450	ppm	0.000098	6.77	384.583000	Y 377.433
Fe (238.204 nm)	-0.001593 u	ppm	0.001286	80.70	3.303888	Y_R 377.433
Fe H (259.940 nm)	0.001933 u	ppm	0.000064	3.29	14.087100	Y_R 377.433
K (766.491 nm)	-0.244138 u	ppm	0.059751	24.47	1701.650000	Y_R2 488.368
Li (670.783 nm)	0.031418 Z	ppm	0.002057	6.55	-2006.320000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001742 u	ppm	0.002975	> 100.00	13.879400	Y 377.433
Mn (257.610 nm)	0.000093	ppm	0.000016	17.05	14.390500	Y 377.433
Mo (202.032 nm)	0.000189	ppm	0.000095	50.24	13.518700	Y 377.433
Na (589.592 nm)	-0.016391 u	ppm	0.004359	26.59	136.170000	Y_R2 488.368
Na H (589.593 nm)	0.659476 u	ppm	0.005464	0.83	240.304959	Y_R4
Ni (231.604 nm)	0.001301	ppm	0.000868	66.73	-1.887880	Y 377.433
P (213.618 nm)	-0.001071 u	ppm	0.001011	94.41	-5.607370	Y 242.219
Pb (220.353 nm)	0.000629	ppm	0.000026	4.12	10.286800	Y 242.219
S (181.972 nm)	-0.013068 u	ppm	0.003958	30.29	6.714241	Y 377.433
Sb (206.834 nm)	-0.000553 u	ppm	0.000315	56.96	0.842603	Y 377.433
Se (196.026 nm)	-0.002592 u	ppm	0.001921	74.12	4.948780	Y 242.219
Si (288.158 nm)	-0.008136 u	ppm	0.000490	6.02	436.169000	Y 377.433
Sn (189.925 nm)	0.001420	ppm	0.000574	40.39	4.375660	Y 377.433
Sr (421.552 nm)	0.000142	ppm	0.000046	32.54	44.503914	Y_R 488.368
Th (288.505 nm)	0.000724	ppm	0.000153	21.19	14.010500	Y 377.433
Ti (336.122 nm)	0.000466	ppm	0.000026	5.55	-374.311000	Y 377.433
Tl (190.794 nm)	0.001294 u	ppm	0.001837	> 100.00	4.776820	Y 377.433
U (409.013 nm)	0.008572	ppm	0.003259	38.02	2.433190	Y 377.433
V (292.401 nm)	0.000326	ppm	0.000225	69.03	-129.586000	Y 377.433
Zn (206.200 nm)	0.000043 u	ppm	0.000371	> 100.00	4.259670	Y 377.433
Zr (343.823 nm)	0.000093 u	ppm	0.000237	> 100.00	-156.336000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.174567	27150.654621	0.003480	0.30
Y 377.433	1.154650	807598.056843	0.003485	0.30
Y_R 377.433	1.195830	72501.400000	0.010468	0.88
Y_R 488.368	1.217260	64304.900000	0.005600	0.46
Y_R2 488.368	1.177338	124804.106598	0.004808	0.41
Y_R4	1.174680	52860.500000	0.007775	0.66

Sample Name: CCVL-5719884

Date: 5/25/2019 1:17:46 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008810	ppm	0.000423	4.80	35.952900	Y 377.433
Al (394.401 nm)	0.093355	ppm	0.001263	1.35	1239.630000	Y 377.433
Al H (396.152 nm)	0.233783 u	ppm	0.006882	2.94	258.068000	Y_R 377.433
As (188.980 nm)	0.013124	ppm	0.000307	2.34	18.198000	Y 242.219
B (249.678 nm)	0.087437	ppm	0.000375	0.43	671.057000	Y 242.219
Ba (493.408 nm)	0.007011	ppm	0.000138	1.97	2098.500000	Y_R 488.368
Be (234.861 nm)	0.000885	ppm	0.000004	0.42	84.740900	Y_R 488.368
Bi (223.061 nm)	0.085930	ppm	0.006166	7.18	177.610000	Y 377.433
Ca (315.887 nm)	0.214658	ppm	0.000509	0.24	101.466814	Y_R 377.433
Cd (214.439 nm)	0.005157	ppm	0.000073	1.41	185.564000	Y 377.433
Co (228.615 nm)	0.010225	ppm	0.000066	0.65	225.609000	Y 242.219
Cr (205.560 nm)	0.010609	ppm	0.000401	3.78	63.832800	Y 377.433
Cu (324.754 nm)	0.016134	ppm	0.000305	1.89	1068.660000	Y 377.433
Fe (238.204 nm)	0.100441	ppm	0.002055	2.05	248.917464	Y_R 377.433
Fe H (259.940 nm)	0.103730 u	ppm	0.000802	0.77	154.870000	Y_R 377.433
K (766.491 nm)	2.737630	ppm	0.057123	2.09	4580.810000	Y_R2 488.368
Li (670.783 nm)	0.048131 Q	ppm	0.003162	6.57	-1719.350000 Q	Y_R2 488.368
Mg (279.078 nm)	0.199271	ppm	0.001849	0.93	659.090000	Y 377.433
Mn (257.610 nm)	0.010307	ppm	0.000073	0.71	2799.260000	Y 377.433
Mo (202.032 nm)	0.018960	ppm	0.000234	1.23	250.102000	Y 377.433
Na (589.592 nm)	0.976863	ppm	0.037269	3.82	953.664000	Y_R2 488.368
Na H (589.593 nm)	1.504194 u	ppm	0.004979	0.33	698.611843	Y_R4
Ni (231.604 nm)	0.042313	ppm	0.000730	1.73	210.326000	Y 377.433
P (213.618 nm)	2.798110	ppm	0.011873	0.42	3993.130000	Y 242.219
Pb (220.353 nm)	0.010190	ppm	0.000304	2.98	40.740800	Y 242.219
S (181.972 nm)	0.078309	ppm	0.001953	2.49	48.599601	Y 377.433
Sb (206.834 nm)	0.020154	ppm	0.000930	4.61	35.660500	Y 377.433
Se (196.026 nm)	0.017008	ppm	0.000800	4.71	34.500000	Y 242.219
Si (288.158 nm)	0.465019	ppm	0.004394	0.94	3482.140000	Y 377.433
Sn (189.925 nm)	0.100933	ppm	0.000941	0.93	164.497000	Y 377.433
Sr (421.552 nm)	0.008703	ppm	0.000118	1.36	1333.912466	Y_R 488.368
Th (288.505 nm)	0.017359	ppm	0.002655	15.30	42.213800	Y 377.433
Ti (336.122 nm)	0.009814	ppm	0.000067	0.68	822.626000	Y 377.433
Tl (190.794 nm)	0.014675	ppm	0.000896	6.11	35.268000	Y 377.433
U (409.013 nm)	0.060940	ppm	0.002976	4.88	167.381000	Y 377.433
V (292.401 nm)	0.009620	ppm	0.000138	1.44	347.062000	Y 377.433
Zn (206.200 nm)	0.020706	ppm	0.000303	1.47	97.185300	Y 377.433
Zr (343.823 nm)	0.009531	ppm	0.000150	1.57	377.973000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.187066	27439.588467	0.003904	0.33
Y 377.433	1.167243	816406.283788	0.003806	0.33
Y_R 377.433	1.203140	72945.000000	0.000458	0.04
Y_R 488.368	1.226760	64807.200000	0.008226	0.67
Y_R2 488.368	1.185333	125651.561835	0.001020	0.09
Y_R4	1.180890	53139.900000	0.002506	0.21

Sample Name: MB 280-459258/1-A

Date: 5/25/2019 1:21:16 AM Rack:Tube: 2:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001408	ppm	0.000107	7.60	-218.363000	Y 377.433
Al (394.401 nm)	0.001066	ppm	0.000778	73.01	104.475000	Y 377.433
Al H (396.152 nm)	0.132563 u	ppm	0.011198	8.45	31.629400	Y_R 377.433
As (188.980 nm)	-0.001134 u	ppm	0.001809	> 100.00	-3.286000	Y 242.219
B (249.678 nm)	-0.004047 u	ppm	0.000374	9.24	17.749700	Y 242.219
Ba (493.408 nm)	-0.002058 u	ppm	0.000016	0.79	1194.290000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000029	> 100.00	-2.371600	Y_R 488.368
Bi (223.061 nm)	-0.000480 u	ppm	0.000052	10.86	-11.658600	Y 377.433
Ca (315.887 nm)	0.107957	ppm	0.005280	4.89	16.700285	Y_R 377.433
Cd (214.439 nm)	0.000019 u	ppm	0.000105	> 100.00	-4.469780	Y 377.433
Co (228.615 nm)	-0.000085 u	ppm	0.000038	44.98	-17.137000	Y 242.219
Cr (205.560 nm)	0.001458	ppm	0.000197	13.49	2.973070	Y 377.433
Cu (324.754 nm)	0.002541	ppm	0.000117	4.59	435.894000	Y 377.433
Fe (238.204 nm)	0.027114	ppm	0.002990	11.03	72.407728	Y_R 377.433
Fe H (259.940 nm)	0.029600 u	ppm	0.000447	1.51	52.349500	Y_R 377.433
K (766.491 nm)	-0.279273 u	ppm	0.239850	85.88	1667.720000	Y_R2 488.368
Li (670.783 nm)	0.029212	ppm	0.003347	11.46	-2044.190000	Y_R2 488.368
Mg (279.078 nm)	0.020135	ppm	0.001504	7.47	74.210800	Y 377.433
Mn (257.610 nm)	0.000440	ppm	0.000007	1.59	108.840000	Y 377.433
Mo (202.032 nm)	0.000154	ppm	0.000132	85.52	13.075000	Y 377.433
Na (589.592 nm)	0.027995	ppm	0.014455	51.63	172.710000	Y_R2 488.368
Na H (589.593 nm)	0.590692 u	ppm	0.021575	3.65	202.985593	Y_R4
Ni (231.604 nm)	0.001397	ppm	0.000631	45.17	-1.394420	Y 377.433
P (213.618 nm)	0.008844	ppm	0.000917	10.36	8.267120	Y 242.219
Pb (220.353 nm)	-0.000187 u	ppm	0.001469	> 100.00	7.665400	Y 242.219
S (181.972 nm)	-0.000922 u	ppm	0.000025	2.67	12.279008	Y 377.433
Sb (206.834 nm)	-0.001336 u	ppm	0.000871	65.21	-0.470727	Y 377.433
Se (196.026 nm)	-0.001358 u	ppm	0.000078	5.71	6.803220	Y 242.219
Si (288.158 nm)	0.003918	ppm	0.000552	14.09	513.769000	Y 377.433
Sn (189.925 nm)	0.010632	ppm	0.001355	12.74	19.197600	Y 377.433
Sr (421.552 nm)	0.000410	ppm	0.000120	29.33	84.959475	Y_R 488.368
Th (288.505 nm)	0.003345	ppm	0.000376	11.24	18.478900	Y 377.433
Ti (336.122 nm)	0.000611	ppm	0.000072	11.75	-355.606000	Y 377.433
Tl (190.794 nm)	-0.000446 u	ppm	0.000156	35.06	0.792211	Y 377.433
U (409.013 nm)	0.002955	ppm	0.003537	> 100.00	-15.342800	Y 377.433
V (292.401 nm)	0.000379	ppm	0.000090	23.64	-126.908000	Y 377.433
Zn (206.200 nm)	0.006511	ppm	0.000004	0.06	33.348300	Y 377.433
Zr (343.823 nm)	0.000016 u	ppm	0.000058	> 100.00	-160.731000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.184043	27369.714815	0.002638	0.22
Y 377.433	1.166087	815597.945832	0.002831	0.24
Y_R 377.433	1.208790	73287.400000	0.001186	0.10
Y_R 488.368	1.231930	65079.800000	0.002176	0.18
Y_R2 488.368	1.189271	126069.029129	0.016042	1.35
Y_R4	1.169440	52624.700000	0.012843	1.10

Sample Name: LCS 280-459258/2-A

Date: 5/25/2019 1:24:28 AM Rack:Tube: 2:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049356	ppm	0.000272	0.55	1147.060000	Y 377.433
Al (394.401 nm)	9.343770 o	ppm	0.002505	0.03	114377.000000	Y 377.433
Al H (396.152 nm)	9.216240	ppm	0.010891	0.12	20344.900000	Y_R 377.433
As (188.980 nm)	1.876620	ppm	0.002913	0.16	2826.020000	Y 242.219
B (249.678 nm)	0.898569	ppm	0.001930	0.21	6458.360000	Y 242.219
Ba (493.408 nm)	1.846040	ppm	0.001719	0.09	185446.000000	Y_R 488.368
Be (234.861 nm)	0.910233	ppm	0.003307	0.36	89599.400000	Y_R 488.368
Bi (223.061 nm)	1.855130	ppm	0.008016	0.43	4054.140000	Y 377.433
Ca (315.887 nm)	46.846665	ppm	0.111809	0.24	37139.201069	Y_R 377.433
Cd (214.439 nm)	0.962085	ppm	0.001217	0.13	35576.700000	Y 377.433
Co (228.615 nm)	0.918515	ppm	0.002006	0.22	21613.700000	Y 242.219
Cr (205.560 nm)	0.971561	ppm	0.000956	0.10	6465.900000	Y 377.433
Cu (324.754 nm)	0.924445	ppm	0.001734	0.19	43492.200000	Y 377.433
Fe (238.204 nm)	9.676138 o	ppm	0.014089	0.15	23299.292236	Y_R 377.433
Fe H (259.940 nm)	9.601080	ppm	0.015649	0.16	13289.600000	Y_R 377.433
K (766.491 nm)	47.144600	ppm	0.472877	1.00	47459.600000	Y_R2 488.368
Li (670.783 nm)	0.967333	ppm	0.009125	0.94	14063.600000	Y_R2 488.368
Mg (279.078 nm)	47.171900	ppm	0.048997	0.10	154330.000000	Y 377.433
Mn (257.610 nm)	0.938782	ppm	0.000612	0.07	255957.000000	Y 377.433
Mo (202.032 nm)	0.949274	ppm	0.000329	0.03	11976.000000	Y 377.433
Na (589.592 nm)	45.556700	ppm	0.010254	0.02	37967.000000	Y_R2 488.368
Na H (589.593 nm)	46.572934 u	ppm	0.401710	0.86	25150.933548	Y_R4
Ni (231.604 nm)	0.938159	ppm	0.000102	0.01	4847.670000	Y 377.433
P (213.618 nm)	18.964200	ppm	0.030410	0.16	26861.500000	Y 242.219
Pb (220.353 nm)	0.938463	ppm	0.002138	0.23	2988.310000	Y 242.219
S (181.972 nm)	9.106931	ppm	0.009106	0.10	4188.639437	Y 377.433
Sb (206.834 nm)	0.991151	ppm	0.000694	0.07	1670.990000	Y 377.433
Se (196.026 nm)	1.842710	ppm	0.003603	0.20	2787.000000	Y 242.219
Si (288.158 nm)	1.038040	ppm	0.003187	0.31	7170.970000	Y 377.433
Sn (189.925 nm)	1.926470	ppm	0.001971	0.10	3101.890000	Y 377.433
Sr (421.552 nm)	0.899035	ppm	0.000854	0.10	135420.322864	Y_R 488.368
Th (288.505 nm)	0.949042	ppm	0.005345	0.56	1561.350000	Y 377.433
Ti (336.122 nm)	0.934947	ppm	0.000513	0.05	119369.000000	Y 377.433
Tl (190.794 nm)	1.870460	ppm	0.002167	0.12	4271.440000	Y 377.433
U (409.013 nm)	1.870550	ppm	0.006681	0.36	5851.170000	Y 377.433
V (292.401 nm)	0.934596	ppm	0.000290	0.03	48058.400000	Y 377.433
Zn (206.200 nm)	0.484433	ppm	0.000011	0.00	2183.780000	Y 377.433
Zr (343.823 nm)	0.465392	ppm	0.000149	0.03	26185.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.118392	25852.153817	0.001057	0.09
Y 377.433	1.107592	774684.179592	0.000428	0.04
Y_R 377.433	1.151120	69790.800000	0.001646	0.14
Y_R 488.368	1.168660	61737.500000	0.003215	0.28
Y_R2 488.368	1.128919	119671.379734	0.000388	0.03
Y_R4	1.148170	51667.400000	0.009456	0.82

Sample Name: 280-123406-A-5-M

Date: 5/25/2019 1:28:08 AM Rack:Tube: 2:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003442	ppm	0.000205	5.96	-276.228000	Y 377.433
Al (394.401 nm)	94.925700 o	ppm	0.161247	0.17	1158740.000000	Y 377.433
Al H (396.152 nm)	91.935200	ppm	0.134650	0.15	200814.000000	Y_R 377.433
As (188.980 nm)	0.047860	ppm	0.002866	5.99	65.722300	Y 242.219
B (249.678 nm)	0.077265	ppm	0.000758	0.98	495.640000	Y 242.219
Ba (493.408 nm)	0.836634	ppm	0.001403	0.17	84948.400000	Y_R 488.368
Be (234.861 nm)	0.002598	ppm	0.000059	2.26	-498.919000	Y_R 488.368
Bi (223.061 nm)	-0.001272 u	ppm	0.000445	35.01	17.387100	Y 377.433
Ca (315.887 nm)	67.304063	ppm	0.099015	0.15	53407.482436	Y_R 377.433
Cd (214.439 nm)	0.004597	ppm	0.000044	0.96	237.127000	Y 377.433
Co (228.615 nm)	0.105040	ppm	0.000506	0.48	2669.320000	Y 242.219
Cr (205.560 nm)	0.999840	ppm	0.000139	0.01	6657.380000	Y 377.433
Cu (324.754 nm)	1.089080	ppm	0.001462	0.13	51050.100000	Y 377.433
Fe (238.204 nm)	177.983715 o	ppm	0.086091	0.05	428445.012797	Y_R 377.433
Fe H (259.940 nm)	176.946000	ppm	0.129663	0.07	244725.000000	Y_R 377.433
K (766.491 nm)	12.859700	ppm	0.120014	0.93	14354.500000	Y_R2 488.368
Li (670.783 nm)	0.132372	ppm	0.002258	1.71	-272.912000	Y_R2 488.368
Mg (279.078 nm)	74.673900	ppm	0.098140	0.13	244134.000000	Y 377.433
Mn (257.610 nm)	2.635830	ppm	0.002998	0.11	718675.000000	Y 377.433
Mo (202.032 nm)	0.004658	ppm	0.000496	10.64	69.841700	Y 377.433
Na (589.592 nm)	7.823210	ppm	0.011966	0.15	6762.370000	Y_R2 488.368
Na H (589.593 nm)	8.221549 u	ppm	0.091781	1.12	4343.153858	Y_R4
Ni (231.604 nm)	1.026720	ppm	0.000218	0.02	5303.690000	Y 377.433
P (213.618 nm)	2.694840	ppm	0.023835	0.88	3594.450000	Y 242.219
Pb (220.353 nm)	1.118380	ppm	0.001217	0.11	3539.250000	Y 242.219
S (181.972 nm)	14.147462	ppm	0.009153	0.06	6503.484149	Y 377.433
Sb (206.834 nm)	0.004975	ppm	0.000844	16.97	10.952500	Y 377.433
Se (196.026 nm)	0.008829	ppm	0.000878	9.95	-19.935000	Y 242.219
Si (288.158 nm)	4.197800	ppm	0.024459	0.58	27512.200000	Y 377.433
Sn (189.925 nm)	0.032229	ppm	0.000785	2.44	53.949000	Y 377.433
Sr (421.552 nm)	0.304011	ppm	0.000364	0.12	45834.360715	Y_R 488.368
Th (288.505 nm)	0.053763	ppm	0.001032	1.92	103.178000	Y 377.433
Ti (336.122 nm)	4.784840	ppm	0.001166	0.02	612058.000000	Y 377.433
Tl (190.794 nm)	0.009972	ppm	0.000280	2.81	-20.189200	Y 377.433
U (409.013 nm)	0.011163	ppm	0.002944	26.38	124.950000	Y 377.433
V (292.401 nm)	0.343619	ppm	0.000426	0.12	17535.300000	Y 377.433
Zn (206.200 nm)	1.340620	ppm	0.001680	0.13	6057.260000	Y 377.433
Zr (343.823 nm)	0.058794	ppm	0.000197	0.34	3166.830000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122488	25946.837931	0.001146	0.10
Y 377.433	1.108385	775238.761179	0.001099	0.10
Y_R 377.433	1.172550	71090.200000	0.000593	0.05
Y_R 488.368	1.186910	62701.900000	0.000606	0.05
Y_R2 488.368	1.152350	122155.204462	0.023334	2.02
Y_R4	1.187750	53448.500000	0.014121	1.19

Sample Name: 280-123406-A-5-Msd@5

Date: 5/25/2019 1:31:56 AM Rack:Tube: 2:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001609	ppm	0.000351	21.79	-237.222000	Y 377.433
Al (394.401 nm)	19.180700 o	ppm	0.027821	0.15	234215.000000	Y 377.433
Al H (396.152 nm)	18.885900	ppm	0.037404	0.20	41047.000000	Y_R 377.433
As (188.980 nm)	0.010734	ppm	0.001899	17.69	13.600400	Y 242.219
B (249.678 nm)	0.012780	ppm	0.000717	5.61	116.642000	Y 242.219
Ba (493.408 nm)	0.167925	ppm	0.000365	0.22	18169.900000	Y_R 488.368
Be (234.861 nm)	0.000421	ppm	0.000004	0.89	-116.435000	Y_R 488.368
Bi (223.061 nm)	0.005199	ppm	0.001696	32.62	7.150000	Y 377.433
Ca (315.887 nm)	13.937554	ppm	0.030643	0.22	11004.993376	Y_R 377.433
Cd (214.439 nm)	0.000893	ppm	0.000007	0.76	42.834400	Y 377.433
Co (228.615 nm)	0.021674	ppm	0.000145	0.67	538.174000	Y 242.219
Cr (205.560 nm)	0.206972	ppm	0.000498	0.24	1372.760000	Y 377.433
Cu (324.754 nm)	0.220516	ppm	0.000141	0.06	10585.400000	Y 377.433
Fe (238.204 nm)	36.862313 o	ppm	0.069594	0.19	88741.161884	Y_R 377.433
Fe H (259.940 nm)	36.514400	ppm	0.014240	0.04	50510.200000	Y_R 377.433
K (766.491 nm)	2.534950	ppm	0.321757	12.69	4385.100000	Y_R2 488.368
Li (670.783 nm)	0.047349	ppm	0.004590	9.69	-1732.780000	Y_R2 488.368
Mg (279.078 nm)	15.207900	ppm	0.002840	0.02	49725.500000	Y 377.433
Mn (257.610 nm)	0.550386	ppm	0.000493	0.09	150057.000000	Y 377.433
Mo (202.032 nm)	0.000909	ppm	0.000186	20.50	22.589000	Y 377.433
Na (589.592 nm)	1.591570	ppm	0.011110	0.70	1494.650000	Y_R2 488.368
Na H (589.593 nm)	2.017420 u	ppm	0.002719	0.13	977.065528	Y_R4
Ni (231.604 nm)	0.214236	ppm	0.000280	0.13	1099.840000	Y 377.433
P (213.618 nm)	0.552542	ppm	0.004879	0.88	734.733000	Y 242.219
Pb (220.353 nm)	0.235470	ppm	0.001161	0.49	751.864000	Y 242.219
S (181.972 nm)	2.854380	ppm	0.005611	0.20	1322.343859	Y 377.433
Sb (206.834 nm)	-0.000647 u	ppm	0.000996	> 100.00	0.915317	Y 377.433
Se (196.026 nm)	0.001540	ppm	0.000649	42.15	2.464800	Y 242.219
Si (288.158 nm)	0.873227	ppm	0.008786	1.01	6110.010000	Y 377.433
Sn (189.925 nm)	0.007057	ppm	0.000459	6.50	13.445700	Y 377.433
Sr (421.552 nm)	0.061823	ppm	0.000054	0.09	9339.376261	Y_R 488.368
Th (288.505 nm)	0.009555	ppm	0.002133	22.32	29.090200	Y 377.433
Ti (336.122 nm)	0.975622	ppm	0.000669	0.07	124453.000000	Y 377.433
Tl (190.794 nm)	0.002108	ppm	0.000606	28.74	-2.562330	Y 377.433
U (409.013 nm)	0.008049	ppm	0.002763	34.32	24.496900	Y 377.433
V (292.401 nm)	0.069852	ppm	0.000220	0.31	3444.920000	Y 377.433
Zn (206.200 nm)	0.281497	ppm	0.000268	0.10	1275.020000	Y 377.433
Zr (343.823 nm)	0.011857	ppm	0.000090	0.76	509.616000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.144189	26448.465877	0.003093	0.27
Y 377.433	1.126060	787601.694317	0.001220	0.11
Y_R 377.433	1.168660	70854.500000	0.007768	0.66
Y_R 488.368	1.184790	62590.000000	0.009276	0.78
Y_R2 488.368	1.155349	122473.067115	0.004133	0.36
Y_R4	1.166750	52503.800000	0.008898	0.76

Sample Name: 280-123406-A-5-N MS

Date: 5/25/2019 1:35:38 AM Rack:Tube: 2:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051955	ppm	0.000468	0.90	1052.380000	Y 377.433
Al (394.401 nm)	168.749000 o	ppm	0.019412	0.01	2060050.000000	Y 377.433
Al H (396.152 nm)	163.569000	ppm	0.259505	0.16	357918.000000	Y_R 377.433
As (188.980 nm)	1.917810	ppm	0.002993	0.16	2882.040000	Y 242.219
B (249.678 nm)	1.028010	ppm	0.001450	0.14	7253.630000	Y 242.219
Ba (493.408 nm)	3.042740	ppm	0.000200	0.01	304927.000000	Y_R 488.368
Be (234.861 nm)	0.896020	ppm	0.006942	0.77	87254.400000	Y_R 488.368
Bi (223.061 nm)	1.816630	ppm	0.012548	0.69	4008.470000	Y 377.433
Ca (315.887 nm)	146.695599	ppm	0.186093	0.13	116478.878117	Y_R 377.433
Cd (214.439 nm)	0.934372	ppm	0.002882	0.31	34642.700000	Y 377.433
Co (228.615 nm)	1.025650	ppm	0.000634	0.06	24467.900000	Y 242.219
Cr (205.560 nm)	2.101270	ppm	0.007562	0.36	13994.600000	Y 377.433
Cu (324.754 nm)	2.191430	ppm	0.001710	0.08	102483.000000	Y 377.433
Fe (238.204 nm)	233.167158 o	ppm	0.001483	0.00	561281.194771	Y_R 377.433
Fe H (259.940 nm)	234.452000	ppm	0.165993	0.07	324255.000000	Y_R 377.433
K (766.491 nm)	65.998600	ppm	0.334319	0.51	65664.800000	Y_R2 488.368
Li (670.783 nm)	1.122820	ppm	0.005707	0.51	16733.300000	Y_R2 488.368
Mg (279.078 nm)	142.790000	ppm	0.457336	0.32	466933.000000	Y 377.433
Mn (257.610 nm)	4.551950	ppm	0.006017	0.13	1241120.000000	Y 377.433
Mo (202.032 nm)	0.906761	ppm	0.001927	0.21	11440.200000	Y 377.433
Na (589.592 nm)	56.091600 o	ppm	0.095877	0.17	46887.100000	Y_R2 488.368
Na H (589.593 nm)	56.995409	ppm	0.249344	0.44	30805.711680	Y_R4
Ni (231.604 nm)	2.062710	ppm	0.003987	0.19	10666.000000	Y 377.433
P (213.618 nm)	21.922200	ppm	0.006163	0.03	30796.300000	Y 242.219
Pb (220.353 nm)	2.124120	ppm	0.005647	0.27	6718.680000	Y 242.219
S (181.972 nm)	24.031750	ppm	0.030779	0.13	11040.223128	Y 377.433
Sb (206.834 nm)	0.518864	ppm	0.002681	0.52	867.433000	Y 377.433
Se (196.026 nm)	1.831290	ppm	0.003383	0.18	2717.320000	Y 242.219
Si (288.158 nm)	8.916240	ppm	0.016455	0.18	57887.400000	Y 377.433
Sn (189.925 nm)	1.823190	ppm	0.007674	0.42	2935.710000	Y 377.433
Sr (421.552 nm)	1.372229	ppm	0.000854	0.06	206717.451947	Y_R 488.368
Th (288.505 nm)	0.978156	ppm	0.001387	0.14	1609.320000	Y 377.433
Ti (336.122 nm)	8.413350	ppm	0.007859	0.09	1076630.000000	Y 377.433
Tl (190.794 nm)	1.800570	ppm	0.004229	0.23	4048.670000	Y 377.433
U (409.013 nm)	1.833500	ppm	0.001742	0.10	5878.590000	Y 377.433
V (292.401 nm)	1.412540	ppm	0.001876	0.13	72778.400000	Y 377.433
Zn (206.200 nm)	2.003010	ppm	0.005787	0.29	9043.540000	Y 377.433
Zr (343.823 nm)	0.509921	ppm	0.000891	0.17	28705.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.097653	25372.756066	0.004151	0.38
Y 377.433	1.090341	762618.534092	0.005517	0.51
Y_R 377.433	1.164880	70625.200000	0.004315	0.37
Y_R 488.368	1.176590	62156.700000	0.003959	0.34
Y_R2 488.368	1.121193	118852.414707	0.005130	0.46
Y_R4	1.176080	52923.500000	0.006628	0.56

Sample Name: 280-123406-A-5-O MSD

Date: 5/25/2019 1:39:33 AM Rack:Tube: 2:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051111	ppm	0.000187	0.36	1049.240000	Y 377.433
Al (394.401 nm)	154.209000 o	ppm	0.151635	0.10	1882560.000000	Y 377.433
Al H (396.152 nm)	149.870000	ppm	1.077370	0.72	327929.000000	Y_R 377.433
As (188.980 nm)	1.886360	ppm	0.001216	0.06	2835.370000	Y 242.219
B (249.678 nm)	0.998362	ppm	0.000022	0.00	7057.160000	Y 242.219
Ba (493.408 nm)	3.021260	ppm	0.020573	0.68	302765.000000	Y_R 488.368
Be (234.861 nm)	0.889049	ppm	0.005596	0.63	86679.500000	Y_R 488.368
Bi (223.061 nm)	1.796670	ppm	0.006391	0.36	3960.190000	Y 377.433
Ca (315.887 nm)	128.735032	ppm	0.879818	0.68	102211.020724	Y_R 377.433
Cd (214.439 nm)	0.926315	ppm	0.000590	0.06	34334.100000	Y 377.433
Co (228.615 nm)	1.002300	ppm	0.000566	0.06	23866.500000	Y 242.219
Cr (205.560 nm)	1.886710	ppm	0.000258	0.01	12564.400000	Y 377.433
Cu (324.754 nm)	2.054020	ppm	0.006313	0.31	96096.300000	Y 377.433
Fe (238.204 nm)	206.772882 o	ppm	1.058216	0.51	497745.563371	Y_R 377.433
Fe H (259.940 nm)	207.118000	ppm	1.416420	0.68	286453.000000	Y_R 377.433
K (766.491 nm)	64.708500	ppm	0.299751	0.46	64419.100000	Y_R2 488.368
Li (670.783 nm)	1.104820	ppm	0.001076	0.10	16424.200000	Y_R2 488.368
Mg (279.078 nm)	128.881000	ppm	0.062095	0.05	421455.000000	Y 377.433
Mn (257.610 nm)	4.370650	ppm	0.007942	0.18	1191690.000000	Y 377.433
Mo (202.032 nm)	0.897812	ppm	0.000343	0.04	11327.400000	Y 377.433
Na (589.592 nm)	54.315300	ppm	0.100577	0.19	45424.200000	Y_R2 488.368
Na H (589.593 nm)	55.175658	ppm	0.354940	0.64	29818.394703	Y_R4
Ni (231.604 nm)	1.879410	ppm	0.002082	0.11	9717.630000	Y 377.433
P (213.618 nm)	21.524800	ppm	0.017250	0.08	30260.600000	Y 242.219
Pb (220.353 nm)	2.267310	ppm	0.003435	0.15	7177.990000	Y 242.219
S (181.972 nm)	20.946542	ppm	0.034616	0.17	9625.852127	Y 377.433
Sb (206.834 nm)	0.524058	ppm	0.000792	0.15	877.726000	Y 377.433
Se (196.026 nm)	1.808680	ppm	0.001883	0.10	2689.760000	Y 242.219
Si (288.158 nm)	8.954540	ppm	0.045949	0.51	58134.000000	Y 377.433
Sn (189.925 nm)	1.814970	ppm	0.000542	0.03	2922.470000	Y 377.433
Sr (421.552 nm)	1.256179	ppm	0.009105	0.72	189236.212974	Y_R 488.368
Th (288.505 nm)	0.987345	ppm	0.000966	0.10	1632.140000	Y 377.433
Ti (336.122 nm)	7.242320	ppm	0.012439	0.17	926730.000000	Y 377.433
Tl (190.794 nm)	1.791290	ppm	0.001661	0.09	4036.670000	Y 377.433
U (409.013 nm)	1.817960	ppm	0.005531	0.30	5813.990000	Y 377.433
V (292.401 nm)	1.342150	ppm	0.001451	0.11	69155.100000	Y 377.433
Zn (206.200 nm)	1.820590	ppm	0.000007	0.00	8219.560000	Y 377.433
Zr (343.823 nm)	0.496770	ppm	0.000103	0.02	27961.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.098178	25384.891525	0.001592	0.14
Y 377.433	1.088527	761349.464317	0.002322	0.21
Y_R 377.433	1.156960	70144.800000	0.004981	0.43
Y_R 488.368	1.169330	61772.800000	0.004983	0.43
Y_R2 488.368	1.131935	119991.063742	0.003562	0.31
Y_R4	1.170700	52681.500000	0.003636	0.31

Sample Name: 280-123406-A-5-Mpds

Date: 5/25/2019 1:43:20 AM Rack:Tube: 2:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.046957	ppm	0.000128	0.27	1221.350000	Y 377.433
Al (394.401 nm)	93.682200 o	ppm	0.214454	0.23	1143590.000000	Y 377.433
Al H (396.152 nm)	90.661100	ppm	0.164676	0.18	198046.000000	Y_R 377.433
As (188.980 nm)	0.239753	ppm	0.000294	0.12	354.961000	Y 242.219
B (249.678 nm)	0.170153	ppm	0.000770	0.45	1160.640000	Y 242.219
Ba (493.408 nm)	0.909117	ppm	0.002436	0.27	92172.300000	Y_R 488.368
Be (234.861 nm)	0.048495	ppm	0.000500	1.03	4033.030000	Y_R 488.368
Bi (223.061 nm)	-0.008513 u	ppm	0.002061	24.21	1.083540	Y 377.433
Ca (315.887 nm)	84.291946	ppm	0.172672	0.20	66899.037358	Y_R 377.433
Cd (214.439 nm)	0.053046	ppm	0.000003	0.01	2027.650000	Y 377.433
Co (228.615 nm)	0.148829	ppm	0.000784	0.53	3696.040000	Y 242.219
Cr (205.560 nm)	1.021320	ppm	0.002141	0.21	6800.380000	Y 377.433
Cu (324.754 nm)	1.110260	ppm	0.001083	0.10	52038.200000	Y 377.433
Fe (238.204 nm)	175.168773 o	ppm	0.171002	0.10	421668.956386	Y_R 377.433
Fe H (259.940 nm)	173.900000	ppm	0.194159	0.11	240512.000000	Y_R 377.433
K (766.491 nm)	31.799100	ppm	0.032857	0.10	32642.200000	Y_R2 488.368
Li (670.783 nm)	0.229809	ppm	0.002534	1.10	1400.110000	Y_R2 488.368
Mg (279.078 nm)	92.356300	ppm	0.048425	0.05	301994.000000	Y 377.433
Mn (257.610 nm)	2.620760	ppm	0.003330	0.13	714564.000000	Y 377.433
Mo (202.032 nm)	0.052535	ppm	0.000009	0.02	673.298000	Y 377.433
Na (589.592 nm)	25.971500	ppm	0.049279	0.19	21676.700000	Y_R2 488.368
Na H (589.593 nm)	26.260671 u	ppm	0.024413	0.09	14130.390458	Y_R4
Ni (231.604 nm)	1.047010	ppm	0.002654	0.25	5408.860000	Y 377.433
P (213.618 nm)	4.576570	ppm	0.012057	0.26	6278.100000	Y 242.219
Pb (220.353 nm)	1.181560	ppm	0.003678	0.31	3741.260000	Y 242.219
S (181.972 nm)	13.964904	ppm	0.008385	0.06	6420.687730	Y 377.433
Sb (206.834 nm)	0.107941	ppm	0.001900	1.76	184.518000	Y 377.433
Se (196.026 nm)	0.199714	ppm	0.000765	0.38	268.665000	Y 242.219
Si (288.158 nm)	9.048660	ppm	0.042033	0.46	58739.900000	Y 377.433
Sn (189.925 nm)	0.131430	ppm	0.000201	0.15	213.568000	Y 377.433
Sr (421.552 nm)	0.343158	ppm	0.000947	0.28	51729.417987	Y_R 488.368
Th (288.505 nm)	0.242619	ppm	0.003018	1.24	425.878000	Y 377.433
Ti (336.122 nm)	4.733730	ppm	0.008869	0.19	605577.000000	Y 377.433
Tl (190.794 nm)	0.198981	ppm	0.000989	0.50	411.899000	Y 377.433
U (409.013 nm)	0.480014	ppm	0.004718	0.98	1602.050000	Y 377.433
V (292.401 nm)	0.384008	ppm	0.000049	0.01	19617.900000	Y 377.433
Zn (206.200 nm)	1.505130	ppm	0.002557	0.17	6796.640000	Y 377.433
Zr (343.823 nm)	0.105258	ppm	0.000073	0.07	5797.230000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.117585	25833.505985	0.003563	0.32
Y 377.433	1.105044	772902.006036	0.003335	0.30
Y_R 377.433	1.168470	70843.100000	0.006930	0.59
Y_R 488.368	1.182790	62484.000000	0.009077	0.77
Y_R2 488.368	1.140774	120928.115723	0.002278	0.20
Y_R4	1.174330	52844.900000	0.000775	0.07

Sample Name: CCVH-5713036

Date: 5/25/2019 1:47:10 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005089	ppm	0.000058	1.14	-101.165000	Y 377.433
Al (394.401 nm)	48.225800 o	ppm	0.080371	0.17	587506.000000	Y 377.433
Al H (396.152 nm)	46.521400	ppm	0.028074	0.06	101435.000000	Y_R 377.433
As (188.980 nm)	0.002212	ppm	0.002125	96.09	0.436696	Y 242.219
B (249.678 nm)	-0.003029 u	ppm	0.000464	15.32	-3.116090	Y 242.219
Ba (493.408 nm)	0.000760	ppm	0.000128	16.85	1514.070000	Y_R 488.368
Be (234.861 nm)	0.001183	ppm	0.000114	9.61	-91.607600	Y_R 488.368
Bi (223.061 nm)	0.008907	ppm	0.000076	0.85	17.316600	Y 377.433
Ca (315.887 nm)	0.016876	ppm	0.002401	14.23	-43.895089	Y_R 377.433
Cd (214.439 nm)	0.001330	ppm	0.000055	4.15	63.790100	Y 377.433
Co (228.615 nm)	0.002971	ppm	0.000117	3.95	54.739500	Y 242.219
Cr (205.560 nm)	0.002360	ppm	0.000662	28.03	7.721050	Y 377.433
Cu (324.754 nm)	0.004155	ppm	0.000194	4.66	1442.440000	Y 377.433
Fe (238.204 nm)	48.729940 o	ppm	0.036529	0.07	117308.612440	Y_R 377.433
Fe H (259.940 nm)	48.257200	ppm	0.040680	0.08	66750.400000	Y_R 377.433
K (766.491 nm)	0.019848 u	ppm	0.074852	> 100.00	1956.550000	Y_R2 488.368
Li (670.783 nm)	0.028219	ppm	0.001162	4.12	-2061.250000	Y_R2 488.368
Mg (279.078 nm)	0.045759	ppm	0.001397	3.05	85.887800	Y 377.433
Mn (257.610 nm)	0.001101	ppm	0.000018	1.65	289.085000	Y 377.433
Mo (202.032 nm)	0.000959	ppm	0.000081	8.45	23.221500	Y 377.433
Na (589.592 nm)	220.875000 o	ppm	0.427024	0.19	181468.000000	Y_R2 488.368
Na H (589.593 nm)	226.730027	ppm	0.568137	0.25	122896.272024	Y_R4
Ni (231.604 nm)	0.002887	ppm	0.000470	16.28	6.317440	Y 377.433
P (213.618 nm)	4.802770	ppm	0.002243	0.05	6859.440000	Y 242.219
Pb (220.353 nm)	0.004207	ppm	0.000183	4.36	15.105600	Y 242.219
S (181.972 nm)	4.714924	ppm	0.021051	0.45	2171.925696	Y 377.433
Sb (206.834 nm)	0.001668	ppm	0.002018	> 100.00	8.706690	Y 377.433
Se (196.026 nm)	0.010267	ppm	0.000903	8.79	11.792500	Y 242.219
Si (288.158 nm)	0.018090	ppm	0.000457	2.53	605.003000	Y 377.433
Sn (189.925 nm)	0.000728	ppm	0.000171	23.43	3.261620	Y 377.433
Sr (421.552 nm)	0.001568	ppm	0.000136	8.66	266.578896	Y_R 488.368
Th (288.505 nm)	4.653950	ppm	0.007190	0.15	8038.160000	Y 377.433
Ti (336.122 nm)	0.002316	ppm	0.000017	0.75	-137.411000	Y 377.433
Tl (190.794 nm)	-0.000624 u	ppm	0.002092	> 100.00	-4.299830	Y 377.433
U (409.013 nm)	0.525180 Q	ppm	0.005153	0.98	1677.090000 Q	Y 377.433
V (292.401 nm)	0.001278	ppm	0.000018	1.40	404.295000	Y 377.433
Zn (206.200 nm)	0.002977	ppm	0.000024	0.81	24.235100	Y 377.433
Zr (343.823 nm)	0.001207	ppm	0.000248	20.53	-93.296500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.116648	25811.832718	0.003472	0.31
Y 377.433	1.096232	766738.669559	0.004005	0.37
Y_R 377.433	1.150310	69741.900000	0.000339	0.03
Y_R 488.368	1.158650	61208.600000	0.001931	0.17
Y_R2 488.368	1.125871	119348.243988	0.009313	0.83
Y_R4	1.163630	52363.400000	0.005261	0.45

Sample Name: CCV-5717467

Date: 5/25/2019 1:50:55 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.478173	ppm	0.000329	0.07	16231.100000	Y 377.433
Al (394.401 nm)	0.487150	ppm	0.001910	0.39	6157.580000	Y 377.433
Al H (396.152 nm)	0.531589 u	ppm	0.005877	1.11	1140.110000	Y_R 377.433
As (188.980 nm)	0.475741	ppm	0.002009	0.42	715.248000	Y 242.219
B (249.678 nm)	0.457403	ppm	0.001580	0.35	3311.870000	Y 242.219
Ba (493.408 nm)	0.466589	ppm	0.001913	0.41	47917.400000	Y_R 488.368
Be (234.861 nm)	0.460171	ppm	0.002692	0.58	45306.600000	Y_R 488.368
Bi (223.061 nm)	0.955322	ppm	0.006550	0.69	2082.190000	Y 377.433
Ca (315.887 nm)	4.817276	ppm	0.030872	0.64	3756.996112	Y_R 377.433
Cd (214.439 nm)	0.499326	ppm	0.000056	0.01	18460.900000	Y 377.433
Co (228.615 nm)	0.477833	ppm	0.000059	0.01	11236.000000	Y 242.219
Cr (205.560 nm)	0.498624	ppm	0.003798	0.76	3315.290000	Y 377.433
Cu (324.754 nm)	0.483783	ppm	0.000633	0.13	22880.300000	Y 377.433
Fe (238.204 nm)	2.453357	ppm	0.010172	0.41	5912.797531	Y_R 377.433
Fe H (259.940 nm)	2.447800 u	ppm	0.011413	0.47	3396.690000	Y_R 377.433
K (766.491 nm)	47.626700	ppm	0.102788	0.22	47925.100000	Y_R2 488.368
Li (670.783 nm)	0.504626	ppm	0.002753	0.55	6118.780000	Y_R2 488.368
Mg (279.078 nm)	19.370300	ppm	0.014748	0.08	63391.600000	Y 377.433
Mn (257.610 nm)	0.477857	ppm	0.000260	0.05	130281.000000	Y 377.433
Mo (202.032 nm)	0.477702	ppm	0.000058	0.01	6032.200000	Y 377.433
Na (589.592 nm)	22.823200	ppm	0.027093	0.12	18991.600000	Y_R2 488.368
Na H (589.593 nm)	23.754730 u	ppm	0.112749	0.47	12770.776918	Y_R4
Ni (231.604 nm)	0.489895	ppm	0.001433	0.29	2526.690000	Y 377.433
P (213.618 nm)	0.049491	ppm	0.003918	7.92	-64.407900	Y 242.219
Pb (220.353 nm)	0.483195	ppm	0.000368	0.08	1541.180000	Y 242.219
S (181.972 nm)	-0.005595 u	ppm	0.009177	> 100.00	11.915473	Y 377.433
Sb (206.834 nm)	0.480658	ppm	0.000877	0.18	810.823000	Y 377.433
Se (196.026 nm)	0.476386	ppm	0.002103	0.44	727.459000	Y 242.219
Si (288.158 nm)	4.748460	ppm	0.008677	0.18	31057.100000	Y 377.433
Sn (189.925 nm)	0.494453	ppm	0.001488	0.30	797.693000	Y 377.433
Sr (421.552 nm)	0.456870	ppm	0.002295	0.50	68828.671231	Y_R 488.368
Th (288.505 nm)	0.025085	ppm	0.004189	16.70	7.372560	Y 377.433
Ti (336.122 nm)	0.471235	ppm	0.000112	0.02	59884.100000	Y 377.433
Tl (190.794 nm)	0.489222	ppm	0.000025	0.01	1117.600000	Y 377.433
U (409.013 nm)	0.015295	ppm	0.006522	42.64	-34.851600	Y 377.433
V (292.401 nm)	0.474753	ppm	0.000000	0.00	24335.500000	Y 377.433
Zn (206.200 nm)	0.500943	ppm	0.000523	0.10	2257.010000	Y 377.433
Zr (343.823 nm)	0.471401	ppm	0.000251	0.05	26525.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119589	25879.815609	0.000789	0.07
Y 377.433	1.101536	770448.864875	0.000942	0.09
Y_R 377.433	1.133530	68724.700000	0.008515	0.75
Y_R 488.368	1.150040	60753.800000	0.007927	0.69
Y_R2 488.368	1.120177	118744.687649	0.010323	0.92
Y_R4	1.150090	51754.200000	0.009779	0.85

Sample Name: CCB

Date: 5/25/2019 1:54:32 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001128	ppm	0.000252	22.36	-228.020000	Y 377.433
Al (394.401 nm)	-0.002416 u	ppm	0.001793	74.19	63.121300	Y 377.433
Al H (396.152 nm)	0.132740 Zu	ppm	0.000417	0.31	31.944300 Z	Y_R 377.433
As (188.980 nm)	0.002261	ppm	0.002607	> 100.00	1.831000	Y 242.219
B (249.678 nm)	-0.004088 u	ppm	0.000042	1.02	17.479900	Y 242.219
Ba (493.408 nm)	-0.002377 Zu	ppm	0.000100	4.19	1162.530000 Z	Y_R 488.368
Be (234.861 nm)	0.000022 u	ppm	0.000094	> 100.00	0.186696	Y_R 488.368
Bi (223.061 nm)	0.000405 u	ppm	0.003086	> 100.00	-9.724100	Y 377.433
Ca (315.887 nm)	0.020945	ppm	0.001621	7.74	-52.405571	Y_R 377.433
Cd (214.439 nm)	0.000019 u	ppm	0.000079	> 100.00	-4.484500	Y 377.433
Co (228.615 nm)	-0.000001 u	ppm	0.000156	> 100.00	-15.174300	Y 242.219
Cr (205.560 nm)	0.000164	ppm	0.000195	> 100.00	-5.658290	Y 377.433
Cu (324.754 nm)	0.001290	ppm	0.000139	10.77	377.064000	Y 377.433
Fe (238.204 nm)	-0.001083 u	ppm	0.001151	> 100.00	4.532704	Y_R 377.433
Fe H (259.940 nm)	0.002144 u	ppm	0.001869	87.18	14.378400	Y_R 377.433
K (766.491 nm)	-0.082227 u	ppm	0.252073	> 100.00	1857.990000	Y_R2 488.368
Li (670.783 nm)	0.023844 Z	ppm	0.003049	12.79	-2136.360000 Z	Y_R2 488.368
Mg (279.078 nm)	0.004489	ppm	0.000044	0.99	22.895600	Y 377.433
Mn (257.610 nm)	0.000092	ppm	0.000026	28.15	13.942200	Y 377.433
Mo (202.032 nm)	0.000544	ppm	0.000274	50.31	17.988100	Y 377.433
Na (589.592 nm)	-0.008498 u	ppm	0.012431	> 100.00	142.717000	Y_R2 488.368
Na H (589.593 nm)	0.615576 u	ppm	0.005246	0.85	216.486829	Y_R4
Ni (231.604 nm)	0.000055 u	ppm	0.000402	> 100.00	-8.337350	Y 377.433
P (213.618 nm)	-0.000613 u	ppm	0.001150	> 100.00	-5.039130	Y 242.219
Pb (220.353 nm)	-0.000808 u	ppm	0.001590	> 100.00	5.715700	Y 242.219
S (181.972 nm)	-0.012440 u	ppm	0.001427	11.47	7.002070	Y 377.433
Sb (206.834 nm)	-0.001603 u	ppm	0.005967	> 100.00	-0.930728	Y 377.433
Se (196.026 nm)	0.001754	ppm	0.001392	79.40	11.502400	Y 242.219
Si (288.158 nm)	-0.005186 u	ppm	0.001676	32.32	455.160000	Y 377.433
Sn (189.925 nm)	0.000673	ppm	0.000192	28.46	3.173790	Y 377.433
Sr (421.552 nm)	0.000218	ppm	0.000002	1.06	55.998153	Y_R 488.368
Th (288.505 nm)	0.002045	ppm	0.001255	61.38	16.324000	Y 377.433
Ti (336.122 nm)	0.000313	ppm	0.000068	21.62	-393.777000	Y 377.433
Tl (190.794 nm)	0.001306 u	ppm	0.002436	> 100.00	4.800870	Y 377.433
U (409.013 nm)	0.012042	ppm	0.003548	29.47	13.458800	Y 377.433
V (292.401 nm)	0.000229	ppm	0.000205	89.55	-134.676000	Y 377.433
Zn (206.200 nm)	-0.000505 u	ppm	0.000073	14.44	1.793510	Y 377.433
Zr (343.823 nm)	-0.000087 u	ppm	0.000073	83.35	-166.556000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.139575	26341.800478	0.004592	0.40
Y 377.433	1.119116	782744.642209	0.004667	0.42
Y_R 377.433	1.164290	70589.700000	0.006571	0.56
Y_R 488.368	1.178910	62279.200000	0.003825	0.32
Y_R2 488.368	1.132858	120088.965145	0.000660	0.06
Y_R4	1.141340	51360.200000	0.006056	0.53

Sample Name: CCVL-5719884

Date: 5/25/2019 1:57:45 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008630	ppm	0.000223	2.58	29.818700	Y 377.433
Al (394.401 nm)	0.094487	ppm	0.001240	1.31	1253.890000	Y 377.433
Al H (396.152 nm)	0.225787 u	ppm	0.007618	3.37	240.667000	Y_R 377.433
As (188.980 nm)	0.016219	ppm	0.000602	3.71	22.861500	Y 242.219
B (249.678 nm)	0.087384	ppm	0.000163	0.19	670.681000	Y 242.219
Ba (493.408 nm)	0.007143	ppm	0.000580	8.12	2111.700000	Y_R 488.368
Be (234.861 nm)	0.000904	ppm	0.000087	9.63	86.687100	Y_R 488.368
Bi (223.061 nm)	0.083983	ppm	0.001180	1.41	173.344000	Y 377.433
Ca (315.887 nm)	0.218646	ppm	0.014350	6.56	104.632086	Y_R 377.433
Cd (214.439 nm)	0.005001	ppm	0.000091	1.83	179.781000	Y 377.433
Co (228.615 nm)	0.009951	ppm	0.000112	1.13	219.160000	Y 242.219
Cr (205.560 nm)	0.010200	ppm	0.000062	0.61	61.107800	Y 377.433
Cu (324.754 nm)	0.016340	ppm	0.000161	0.99	1077.850000	Y 377.433
Fe (238.204 nm)	0.097284	ppm	0.001794	1.84	241.318380	Y_R 377.433
Fe H (259.940 nm)	0.103402 u	ppm	0.001702	1.65	154.416000	Y_R 377.433
K (766.491 nm)	2.751270	ppm	0.175139	6.37	4593.980000	Y_R2 488.368
Li (670.783 nm)	0.048289 Q	ppm	0.000292	0.60	-1716.640000 Q	Y_R2 488.368
Mg (279.078 nm)	0.198032	ppm	0.001094	0.55	655.093000	Y 377.433
Mn (257.610 nm)	0.010258	ppm	0.000001	0.01	2785.960000	Y 377.433
Mo (202.032 nm)	0.019046	ppm	0.000182	0.96	251.188000	Y 377.433
Na (589.592 nm)	0.977145	ppm	0.013377	1.37	953.871000	Y_R2 488.368
Na H (589.593 nm)	1.346975 u	ppm	0.006720	0.50	613.311750	Y_R4
Ni (231.604 nm)	0.041411	ppm	0.000182	0.44	205.661000	Y 377.433
P (213.618 nm)	2.786300	ppm	0.018856	0.68	3976.040000	Y 242.219
Pb (220.353 nm)	0.008884	ppm	0.000422	4.75	36.584000	Y 242.219
S (181.972 nm)	0.078448	ppm	0.001291	1.65	48.662793	Y 377.433
Sb (206.834 nm)	0.018703	ppm	0.002844	15.21	33.210900	Y 377.433
Se (196.026 nm)	0.015128	ppm	0.000396	2.62	31.664900	Y 242.219
Si (288.158 nm)	0.465160	ppm	0.001263	0.27	3483.040000	Y 377.433
Sn (189.925 nm)	0.099311	ppm	0.000073	0.07	161.888000	Y 377.433
Sr (421.552 nm)	0.008870	ppm	0.000040	0.45	1358.993591	Y_R 488.368
Th (288.505 nm)	0.017758	ppm	0.000055	0.31	42.897600	Y 377.433
Ti (336.122 nm)	0.009833	ppm	0.000076	0.78	825.105000	Y 377.433
Tl (190.794 nm)	0.015752	ppm	0.000416	2.64	37.731900	Y 377.433
U (409.013 nm)	0.062696	ppm	0.013133	20.95	172.940000	Y 377.433
V (292.401 nm)	0.009636	ppm	0.000315	3.27	347.708000	Y 377.433
Zn (206.200 nm)	0.020630	ppm	0.000263	1.28	96.845700	Y 377.433
Zr (343.823 nm)	0.009638	ppm	0.000107	1.12	384.014000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.133245	26195.487191	0.002364	0.21
Y 377.433	1.122919	785404.599708	0.003219	0.29
Y_R 377.433	1.155260	70042.000000	0.003602	0.31
Y_R 488.368	1.172010	61914.700000	0.014434	1.23
Y_R2 488.368	1.136447	120469.440053	0.003951	0.35
Y_R4	1.127810	50751.400000	0.012899	1.14

Sample Name: bottle 123601-5

Date: 5/25/2019 9:04:35 AM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001680	ppm	0.000227	13.54	-214.441000	Y 377.433
Al (394.401 nm)	0.015009	ppm	0.002216	14.77	374.139000	Y 377.433
Al H (396.152 nm)	0.079748 u	ppm	0.002174	2.73	69.319700	Y_R 377.433
As (188.980 nm)	0.010983	ppm	0.000789	7.19	14.973700	Y 242.219
B (249.678 nm)	0.075634	ppm	0.000191	0.25	586.818000	Y 242.219
Ba (493.408 nm)	0.062801	ppm	0.002375	3.78	7660.350000	Y_R 488.368
Be (234.861 nm)	-0.000028 u	ppm	0.000013	46.54	-4.803230	Y_R 488.368
Bi (223.061 nm)	0.001675	ppm	0.001949	> 100.00	-6.931070	Y 377.433
Ca (315.887 nm)	23.482343	ppm	0.696808	2.97	18580.777929	Y_R 377.433
Cd (214.439 nm)	0.000173	ppm	0.000125	72.46	1.205800	Y 377.433
Co (228.615 nm)	-0.000244 u	ppm	0.000281	> 100.00	-20.858000	Y 242.219
Cr (205.560 nm)	0.000452	ppm	0.000213	47.07	-3.755360	Y 377.433
Cu (324.754 nm)	0.000956	ppm	0.000182	19.05	346.744000	Y 377.433
Fe (238.204 nm)	0.008812	ppm	0.003662	41.56	28.350895	Y_R 377.433
Fe H (259.940 nm)	0.009036 u	ppm	0.001130	12.50	23.909300	Y_R 377.433
K (766.491 nm)	5.110920	ppm	0.002879	0.06	6872.420000	Y_R2 488.368
Li (670.783 nm)	0.041812	ppm	0.001168	2.79	-1827.850000	Y_R2 488.368
Mg (279.078 nm)	4.734890	ppm	0.143531	3.03	15502.600000	Y 377.433
Mn (257.610 nm)	0.000232	ppm	0.000004	1.57	52.288500	Y 377.433
Mo (202.032 nm)	0.003081	ppm	0.000367	11.91	49.969300	Y 377.433
Na (589.592 nm)	40.711800	ppm	0.108666	0.27	33584.800000	Y_R2 488.368
Na H (589.593 nm)	41.739108 u	ppm	0.148223	0.36	22528.311920	Y_R4
Ni (231.604 nm)	-0.000088 u	ppm	0.000261	> 100.00	-9.079130	Y 377.433
P (213.618 nm)	0.009270	ppm	0.001955	21.09	8.956010	Y 242.219
Pb (220.353 nm)	0.000432 u	ppm	0.000651	> 100.00	9.627220	Y 242.219
S (181.972 nm)	7.651799	ppm	0.044413	0.58	3518.058667	Y 377.433
Sb (206.834 nm)	-0.004980 u	ppm	0.001889	37.93	-6.648870	Y 377.433
Se (196.026 nm)	0.000108 u	ppm	0.002678	> 100.00	9.018770	Y 242.219
Si (288.158 nm)	26.699600	ppm	0.036117	0.14	172369.000000	Y 377.433
Sn (189.925 nm)	0.000884	ppm	0.000909	> 100.00	3.512200	Y 377.433
Sr (421.552 nm)	0.371008	ppm	0.010250	2.76	55897.439231	Y_R 488.368
Th (288.505 nm)	-0.002634 u	ppm	0.000643	24.42	6.021660	Y 377.433
Ti (336.122 nm)	0.001534	ppm	0.000206	13.42	-155.603000	Y 377.433
Tl (190.794 nm)	-0.001586 u	ppm	0.001545	97.44	-2.786620	Y 377.433
U (409.013 nm)	0.005513 u	ppm	0.012743	> 100.00	-10.430400	Y 377.433
V (292.401 nm)	0.014550	ppm	0.000508	3.49	609.080000	Y 377.433
Zn (206.200 nm)	0.001137	ppm	0.000940	82.67	9.178270	Y 377.433
Zr (343.823 nm)	0.000020 u	ppm	0.000134	> 100.00	-160.488000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124664	25997.143274	0.002608	0.23
Y 377.433	1.115275	780058.110390	0.001033	0.09
Y_R 377.433	1.140640	69155.400000	0.001349	0.12
Y_R 488.368	1.151440	60827.900000	0.000626	0.05
Y_R2 488.368	1.110323	117700.078365	0.007004	0.63
Y_R4	1.159770	52189.400000	0.005036	0.43

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG No.:

Project: Griffiss AFB, LF007 Landfill 5

Client Sample ID	Lab Sample ID
LF5MW-1A_0519	280-123855-1
LF5MW-100R_0519	280-123855-2
MW49D07_0519	280-123855-3
LF5SW-1_0519	280-123855-4
LF5SW-2_0519	280-123855-5
LF5SW-3_0519	280-123855-6

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF5MW-1A_0519 Lab Sample ID: 280-123855-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 09:50

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.010	0.020	0.020	0.0068	mg/L	J		1	9066
Color	5.0	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	170	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.059	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	170	15	15	5.1	mg/L		D	5	9056A
Orthophosphate as P	1.2	0.50	0.20	0.19	mg/L			1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.059	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	9.3	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	2.8	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	240	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	550	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF5MW-100R_0519 Lab Sample ID: 280-123855-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 10:15

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	18	5.0	2.5	1.1	mg/L			50	350.1
Nitrogen, Kjeldahl	20	5.0	2.5	3.4	mg/L			5	351.2
Chemical Oxygen Demand (COD)	100	100	100	43	mg/L	U		5	410.4
Phenols, Total	0.0071	0.020	0.020	0.0068	mg/L	J		1	9066
Color	5.0	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	560	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	26	2.5	1.0	0.57	mg/L		D	5	9056A
Nitrate Nitrite as N	0.50	2.5	0.50	0.21	mg/L	U		5	9056A
Chloride	2200	150	150	51	mg/L		D	50	9056A
Orthophosphate as P	1.0	2.5	1.0	0.94	mg/L	U		5	9056A
Fluoride	0.50	5.0	0.50	0.30	mg/L	U		5	9056A
Nitrate	0.50	2.5	0.50	0.21	mg/L	U		5	9056A
Nitrite	0.50	2.5	0.50	0.25	mg/L	U		5	9056A
Sulfate	5.9	25	15	5.2	mg/L	J	D	5	9056A
Total Organic Carbon - Quad	0.39	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	110	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	4700	100	100	47	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MW49D07_0519 Lab Sample ID: 280-123855-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 11:35

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.033	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U	J1	1	351.2
Chemical Oxygen Demand (COD)	10	20	20	8.7	mg/L	J		1	410.4
Phenols, Total	0.015	0.020	0.020	0.0068	mg/L	J		1	9066
Color	50	10	10	10	PCU		D	2	SM 2120B
Hardness	380	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.74	0.50	0.20	0.11	mg/L			1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Chloride	31	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.98	0.50	0.20	0.19	mg/L			1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	9.1	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	3.1	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	370	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	500	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF5SW-1_0519 Lab Sample ID: 280-123855-4

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 11:30

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.0068	0.020	0.020	0.0068	mg/L	J		1	9066
Color	5.0	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	280	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.89	0.50	0.10	0.042	mg/L			1	9056A
Chloride	300	15	15	5.1	mg/L		D	5	9056A
Orthophosphate as P	0.40	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.89	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	25	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	1.2	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	220	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	790	20	20	9.4	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF5SW-2_0519 Lab Sample ID: 280-123855-5

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 11:45

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.0092	0.020	0.020	0.0068	mg/L	J		1	9066
Color	25	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	270	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.84	0.50	0.10	0.042	mg/L			1	9056A
Chloride	310	15	15	5.1	mg/L		D	5	9056A
Orthophosphate as P	0.39	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.84	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	27	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	2.9	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	220	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	810	20	20	9.4	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF5SW-3_0519 Lab Sample ID: 280-123855-6

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 12:00

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.020	0.020	0.020	0.0068	mg/L	U		1	9066
Color	20	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	280	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.86	0.50	0.10	0.042	mg/L			1	9056A
Chloride	310	15	15	5.1	mg/L		D	5	9056A
Orthophosphate as P	0.39	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.86	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	25	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	2.0	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	220	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	800	20	20	9.4	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: MJS Batch Start Date: 05/29/2019

Reporting Units: mg/L Analytical Batch No.: 459818

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	11:12	Ammonia	0.480	0.498	96	90-110		350.1 ICV_00350
15	ICV	11:14	Ammonia	2.51	2.49	101	90-110		350.1 ICV_00350
16	ICB	11:16	Ammonia	0.050				U	
32	CCVL	11:48	Ammonia	0.497	0.500	99	90-110		350.1 cal_00367
33	CCV	11:50	Ammonia	2.55	2.50	102	90-110		350.1 cal_00367
34	CCB	11:52	Ammonia	0.050				U	
48	CCVL	12:20	Ammonia	0.492	0.500	98	90-110		350.1 cal_00367
49	CCV	12:22	Ammonia	2.55	2.50	102	90-110		350.1 cal_00367
50	CCB	12:24	Ammonia	0.050				U	
58	CCVL	12:40	Ammonia	0.490	0.500	98	90-110		350.1 cal_00367
59	CCV	12:42	Ammonia	2.64	2.50	106	90-110		350.1 cal_00367
60	CCB	12:44	Ammonia	0.050				U	
76	CCVL	13:16	Ammonia	0.520	0.500	104	90-110		350.1 cal_00367
77	CCV	13:18	Ammonia	2.57	2.50	103	90-110		350.1 cal_00367
78	CCB	13:20	Ammonia	0.050				U	
92	CCVL	13:48	Ammonia	0.514	0.500	103	90-110		350.1 cal_00367
93	CCV	13:50	Ammonia	2.62	2.50	105	90-110		350.1 cal_00367
94	CCB	13:52	Ammonia	0.050				U	
102	CCVL	14:08	Ammonia	0.525	0.500	105	90-110		350.1 cal_00367
103	CCV	14:10	Ammonia	2.65	2.50	106	90-110		350.1 cal_00367
104	CCB	14:12	Ammonia	0.050				U	
112	CCVL	14:32	Ammonia	0.539	0.500	108	90-110		350.1 cal_00367
113	CCV	14:34	Ammonia	2.69	2.50	107	90-110		350.1 cal_00367
114	CCB	14:36	Ammonia	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: SVC Batch Start Date: 06/05/2019

Reporting Units: mg/L Analytical Batch No.: 460603

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:44	Nitrogen, Kjeldahl	5.30	5.00	106	90-110		TKN ICV 25_00078
14	ICB	17:45	Nitrogen, Kjeldahl	0.50				U	
31	CCV	18:07	Nitrogen, Kjeldahl	5.03	5.00	101	90-110		TKN 25ppm_00794
32	CCB	18:08	Nitrogen, Kjeldahl	0.50				U	
49	CCV	18:29	Nitrogen, Kjeldahl	5.10	5.00	102	90-110		TKN 25ppm_00794
50	CCB	18:30	Nitrogen, Kjeldahl	0.50				U	
65	CCV	18:49	Nitrogen, Kjeldahl	5.13	5.00	103	90-110		TKN 25ppm_00794
66	CCB	18:50	Nitrogen, Kjeldahl	0.50				U	
80	CCV	19:08	Nitrogen, Kjeldahl	5.05	5.00	101	90-110		TKN 25ppm_00794
81	CCB	19:09	Nitrogen, Kjeldahl	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/05/2019

Reporting Units: mg/L Analytical Batch No.: 460546

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	10:06	Chemical Oxygen Demand (COD)	70.5	75.4	94	90-110		COD icv std_00034
2	ICB	10:06	Chemical Oxygen Demand (COD)	20				U	
16	CCV	10:06	Chemical Oxygen Demand (COD)	96.0	100	96	90-110		COD cal std_00048
17	CCB	10:06	Chemical Oxygen Demand (COD)	20				U	
28	CCV	10:06	Chemical Oxygen Demand (COD)	96.3	100	96	90-110		COD cal std_00048
29	CCB	10:06	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/06/2019

Reporting Units: mg/L Analytical Batch No.: 460644

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:12	Chemical Oxygen Demand (COD)	73.2	75.4	97	90-110		COD icv std_00034
2	ICB	09:12	Chemical Oxygen Demand (COD)	20				U	
16	CCV	09:12	Chemical Oxygen Demand (COD)	98.0	100	98	90-110		COD cal std_00048
17	CCB	09:12	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: ARM Batch Start Date: 06/04/2019

Reporting Units: mg/L Analytical Batch No.: 460486

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	21:31	Phenols, Total	0.189	0.200	95	90-110		Phenol ICV 10_00605
14	ICVL	21:34	Phenols, Total	0.102	0.100	102	90-110		Phenol ICV 10_00605
15	ICB	21:37	Phenols, Total	0.020				U	
29	CCV	22:19	Phenols, Total	0.206	0.201	103	90-110		Phenol CAL 10_00730
30	CCVL	22:22	Phenols, Total	0.0984	0.101	98	90-110		Phenol CAL 10_00730
31	CCB	22:25	Phenols, Total	0.020				U	
45	CCV	23:07	Phenols, Total	0.206	0.201	102	90-110		Phenol CAL 10_00730
46	CCVL	23:10	Phenols, Total	0.0977	0.101	97	90-110		Phenol CAL 10_00730
47	CCB	23:13	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: ARM Batch Start Date: 06/06/2019

Reporting Units: mg/L Analytical Batch No.: 460772

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:23	Phenols, Total	0.196	0.200	98	90-110		Phenol ICV 10_00605
14	ICVL	18:53	Phenols, Total	0.110	0.100	110	90-110		Phenol ICV 10_00605
15	ICB	18:56	Phenols, Total	0.020				U	
29	CCV	19:38	Phenols, Total	0.204	0.201	101	90-110		Phenol CAL 10_00730
30	CCVL	19:41	Phenols, Total	0.102	0.101	102	90-110		Phenol CAL 10_00730
31	CCB	19:44	Phenols, Total	0.020				U	
45	CCV	20:26	Phenols, Total	0.217	0.201	108	90-110		Phenol CAL 10_00730
46	CCVL	20:29	Phenols, Total	0.109	0.101	108	90-110		Phenol CAL 10_00730
47	CCB	20:32	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458327

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Nitrate Nitrite as N	8.06	8.00	101	90-110		
			Orthophosphate as P	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrate	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrite	3.83	4.00	96	90-110		IC ICV 5_00233
9	ICB	19:27	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458328

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Bromide	4.36	4.00	109	90-110		IC ICV 5_00233
			Chloride	76.8	80.0	96	90-110		IC CL ICV_00016
			Fluoride	4.12	4.00	103	90-110		IC ICV 5_00233
			Sulfate	75.6	80.0	94	90-110		IC SO4 ICV_00017
9	ICB	19:27	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: JAP Batch Start Date: 05/16/2019

Reporting Units: mg/L Analytical Batch No.: 458413

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:45	Nitrate Nitrite as N	9.89	10.0	99	90-110		
			Orthophosphate as P	5.03	5.00	101	90-110		IC LCS_01577
			Nitrate	4.97	5.00	99	90-110		IC LCS_01577
			Nitrite	4.92	5.00	98	90-110		IC LCS_01577
2	CCB	14:00	Nitrate Nitrite as N	0.0775				J	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.0775				J	
17	CCV	18:31	Nitrate Nitrite as N	9.88	10.0	99	90-110		
			Orthophosphate as P	5.20	5.00	104	90-110		IC LCS_01577
			Nitrate	4.98	5.00	100	90-110		IC LCS_01577
			Nitrite	4.90	5.00	98	90-110		IC LCS_01577
18	CCB	18:47	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
29	CCV	21:48	Nitrate Nitrite as N	9.86	10.0	99	90-110		
			Orthophosphate as P	5.45	5.00	109	90-110		IC LCS_01577
			Nitrate	4.96	5.00	99	90-110		IC LCS_01577
			Nitrite	4.90	5.00	98	90-110		IC LCS_01577
30	CCB	22:04	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
41	CCV	01:05	Nitrate Nitrite as N	9.84	10.0	98	90-110		
			Orthophosphate as P	5.12	5.00	102	90-110		IC LCS_01577
			Nitrate	4.95	5.00	99	90-110		IC LCS_01577
			Nitrite	4.89	5.00	98	90-110		IC LCS_01577
42	CCB	01:21	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
50	CCV	03:33	Nitrate Nitrite as N	9.84	10.0	98	90-110		
			Orthophosphate as P	5.11	5.00	102	90-110		IC LCS_01577
			Nitrate	4.94	5.00	99	90-110		IC LCS_01577
			Nitrite	4.90	5.00	98	90-110		IC LCS_01577
51	CCB	03:49	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: JAP Batch Start Date: 05/16/2019

Reporting Units: mg/L Analytical Batch No.: 458414

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:45	Bromide	5.21	5.00	104	90-110		IC LCS_01577
			Chloride	95.3	100	95	90-110		IC LCS_01577
			Fluoride	4.98	5.00	100	90-110		IC LCS_01577
			Sulfate	93.7	100	94	90-110		IC LCS_01577
2	CCB	14:00	Bromide	0.20				U	
			Chloride	1.06				J	
			Fluoride	0.447				J	
			Sulfate	2.5				U	
17	CCV	18:31	Bromide	5.21	5.00	104	90-110		IC LCS_01577
			Chloride	95.5	100	96	90-110		IC LCS_01577
			Fluoride	5.02	5.00	100	90-110		IC LCS_01577
			Sulfate	93.8	100	94	90-110		IC LCS_01577
18	CCB	18:47	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.412				J	
			Sulfate	2.5				U	
29	CCV	21:48	Bromide	5.21	5.00	104	90-110		IC LCS_01577
			Chloride	95.5	100	95	90-110		IC LCS_01577
			Fluoride	5.03	5.00	101	90-110		IC LCS_01577
			Sulfate	93.5	100	94	90-110		IC LCS_01577
30	CCB	22:04	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.312				J	
			Sulfate	2.5				U	
41	CCV	01:05	Bromide	5.23	5.00	105	90-110		IC LCS_01577
			Chloride	95.7	100	96	90-110		IC LCS_01577
			Fluoride	4.99	5.00	100	90-110		IC LCS_01577
			Sulfate	93.9	100	94	90-110		IC LCS_01577
42	CCB	01:21	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.324				J	
			Sulfate	2.5				U	
50	CCV	03:33	Bromide	5.23	5.00	105	90-110		IC LCS_01577
			Chloride	95.6	100	96	90-110		IC LCS_01577
			Fluoride	5.00	5.00	100	90-110		IC LCS_01577
			Sulfate	93.7	100	94	90-110		IC LCS_01577
51	CCB	03:49	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.344				J	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/07/2019

Reporting Units: mg/L Analytical Batch No.: 460997

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	15:47	Total Organic Carbon - Quad	20.6	20.0	103	90-110		TOC ICV Std_00037
2	ICB	16:02	Total Organic Carbon - Quad	0.50				U	
15	CCV	19:36	Total Organic Carbon - Quad	25.4	25.0	102	90-110		TOC ICV Std_00037
16	CCB	19:53	Total Organic Carbon - Quad	0.50				U	
27	CCV	22:51	Total Organic Carbon - Quad	27.0	25.0	108	90-110		TOC ICV Std_00037
28	CCB	23:06	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/10/2019

Reporting Units: mg/L Analytical Batch No.: 461179

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	17:09	Total Organic Carbon - Quad	21.2	20.0	106	90-110		TOC ICV Std_00037
2	ICB	17:24	Total Organic Carbon - Quad	0.50				U	
39	CCV	03:15	Total Organic Carbon - Quad	26.1	25.0	105	90-110		TOC ICV Std_00037
40	CCB	03:31	Total Organic Carbon - Quad	0.50				U	
51	CCV	06:31	Total Organic Carbon - Quad	26.2	25.0	105	90-110		TOC ICV Std_00037
52	CCB	06:46	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Analyst: SGB Batch Start Date: 05/24/2019

Reporting Units: mg/L Analytical Batch No.: 459576

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	CCV	19:22	Alkalinity	199	200	100	90-110		Alk daily lcs 00821
17	CCB	19:27	Alkalinity	10				U	
28	CCV	20:31	Alkalinity	196	200	98	90-110		Alk daily lcs 00821
29	CCB	20:36	Alkalinity	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 459818 Date: 05/29/2019 11:22							
350.1	MB 280-459818/19	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 459818 Date: 05/29/2019 12:50							
350.1	MB 280-459818/63	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 460603 Date: 06/05/2019 17:48 Prep Batch: 460465 Date: 06/04/2019 19:37							
351.2	MB 280-460465/2-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 460603 Date: 06/05/2019 18:39 Prep Batch: 460465 Date: 06/04/2019 19:37							
351.2	MB 280-460465/28-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 460546 Date: 06/05/2019 10:06							
410.4	MB 280-460546/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 460644 Date: 06/06/2019 09:12							
410.4	MB 280-460644/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 458413 Date: 05/16/2019 15:06							
9056A	MB 280-458413/6	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458413/6	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-458413/6	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458413/6	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458414 Date: 05/16/2019 15:06							
9056A	MB 280-458414/6	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458414/6	Chloride	3.0	U	mg/L	3.0	1
9056A	MB 280-458414/6	Fluoride	0.389	J	mg/L	1.0	1
9056A	MB 280-458414/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 460997 Date: 06/07/2019 16:34							
9060A	MB 280-460997/4	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 461179 Date: 06/11/2019 04:03							
9060A	MB 280-461179/42	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 460486 Date: 06/04/2019 21:46 Prep Batch: 460448 Date: 06/04/2019 16:52							
9066	MB 280-460448/2-A	Phenols, Total	0.020	U	mg/L	0.020	1
Batch ID: 460772 Date: 06/06/2019 19:05 Prep Batch: 460735 Date: 06/06/2019 15:30							
9066	MB 280-460735/2-A	Phenols, Total	0.020	U	mg/L	0.020	1
Batch ID: 458496 Date: 05/16/2019 18:11							
SM 2120B	MB 280-458496/1	Color	5.0	U	PCU	5.0	1
Batch ID: 459576 Date: 05/24/2019 18:12							
SM 2320B	MB 280-459576/5	Alkalinity	10	U	mg/L	10	1
Batch ID: 459401 Date: 05/24/2019 15:23							
SM 2340C	MB 280-459401/2	Hardness	0.81	U	mg/L	3.0	1
Batch ID: 459056 Date: 05/22/2019 12:01							
SM 2540C	MB 280-459056/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 458482 Date: 05/16/2019 16:27							
SM5210B	MB 280-458482/9	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
UNSEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458482 Date: 05/16/2019 16:27							
SM5210B	USB 280-458482/2	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

FORM III-IN

3-IN
SEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458482 Date: 05/16/2019 16:27							
SM5210B	SCB 280-458482/1	Biochemical Oxygen Demand	0.719	J	mg/L	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459818 Date: 05/29/2019 12:02											
350.1	280-123853-D-5	Ammonia	0.050	U	mg/L						J1
350.1	280-123853-D-5 MS	Ammonia	1.11		mg/L	1.00	111	90-110			J1
Batch ID: 459818 Date: 05/29/2019 13:30											
350.1	280-124070-B-5	Ammonia	0.041	J	mg/L						J1
350.1	280-124070-B-5 MS	Ammonia	1.06		mg/L	1.00	102	90-110			
Batch ID: 460603 Date: 06/05/2019 18:15 Prep Batch: 460465 Date: 06/04/2019 19:37											
351.2	280-123855-3	Nitrogen, Kjeldahl	0.50	U	mg/L						J1
351.2	280-123855-3 MS	Nitrogen, Kjeldahl	2.53		mg/L	3.00	84	90-110			J1
Batch ID: 460546 Date: 06/05/2019 10:06											
410.4	280-123855-5	Chemical Oxygen Demand (COD)	40	U	mg/L						
410.4	280-123855-5 MS	Chemical Oxygen Demand (COD)	104		mg/L	100	104	90-110			D
Batch ID: 460644 Date: 06/06/2019 09:12											
410.4	280-123822-H-1	Chemical Oxygen Demand (COD)	1600	J	mg/L						D
410.4	280-123822-H-1 MS	Chemical Oxygen Demand (COD)	6710		mg/L	5000	101	90-110			D
Batch ID: 458413 Date: 05/17/2019 00:32											
9056A	280-123862-B-1	Nitrate Nitrite as N	0.050	J	mg/L						
9056A	280-123862-B-1 MS	Nitrate Nitrite as N	10.1		mg/L	10.0	101	80-120			
9056A	280-123862-B-1	Orthophosphate as P	0.20	U	mg/L						J1
9056A	280-123862-B-1 MS	Orthophosphate as P	6.67		mg/L	5.00	133	80-116			J1
9056A	280-123862-B-1	Nitrate	0.050	J	mg/L						
9056A	280-123862-B-1 MS	Nitrate	5.12		mg/L	5.00	101	88-111			
9056A	280-123862-B-1	Nitrite	0.10	U	mg/L						
9056A	280-123862-B-1 MS	Nitrite	4.98		mg/L	5.00	100	87-111			
Batch ID: 460997 Date: 06/07/2019 20:58											
9060A	280-123843-B-1	Total Organic Carbon - Quad	0.57	J	mg/L						
9060A	280-123843-B-1 MS	Total Organic Carbon - Quad	25.6		mg/L	25.0	100	88-112			
Batch ID: 461179 Date: 06/11/2019 04:49											
9060A	280-123855-3	Total Organic Carbon - Quad	3.1		mg/L						
9060A	280-123855-3 MS	Total Organic Carbon - Quad	28.4		mg/L	25.0	101	88-112			
Batch ID: 460486 Date: 06/04/2019 22:49 Prep Batch: 460448 Date: 06/04/2019 16:52											
9066	280-123855-6	Phenols, Total	0.020	U	mg/L						
9066	280-123855-6 MS	Phenols, Total	0.189		mg/L	0.201	94	72-118			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 460772 Date: 06/06/2019 19:50			Prep Batch: 460735		Date: 06/06/2019 15:30						
9066	280-123855-1	Phenols, Total	0.010	J	mg/L						
9066	280-123855-1 MS	Phenols, Total	0.207		mg/L	0.201	98	72-118			
Batch ID: 459401 Date: 05/24/2019 15:23											
SM 2340C	280-123853-F-1	Hardness	360		mg/L						
SM 2340C	280-123853-F-1 MS	Hardness	764		mg/L	398	102	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459818 Date: 05/29/2019 12:04											
350.1	280-123853-D-5 MSD	Ammonia	1.13		mg/L	1.00	113	90-110	2	10	J1
Batch ID: 459818 Date: 05/29/2019 13:32											
350.1	280-124070-B-5 MSD	Ammonia	1.17		mg/L	1.00	113	90-110	10	10	J1
Batch ID: 460603 Date: 06/05/2019 18:17			Prep Batch: 460465			Date: 06/04/2019 19:37					
351.2	280-123855-3 MSD	Nitrogen, Kjeldahl	2.33		mg/L	3.00	78	90-110	8	25	J1
Batch ID: 460546 Date: 06/05/2019 10:06											
410.4	280-123855-5 MSD	Chemical Oxygen Demand (COD)	95.4		mg/L	100	95	90-110	9	11	D
Batch ID: 460644 Date: 06/06/2019 09:12											
410.4	280-123822-H-1 MSD	Chemical Oxygen Demand (COD)	6950		mg/L	5000	106	90-110	3	11	D
Batch ID: 458413 Date: 05/17/2019 00:49											
9056A	280-123862-B-1 MSD	Nitrate Nitrite as N	10.2		mg/L	10.0	102	80-120	1	10	
9056A	280-123862-B-1 MSD	Orthophosphate as P	6.75		mg/L	5.00	135	80-116	1	10	J1
9056A	280-123862-B-1 MSD	Nitrate	5.18		mg/L	5.00	103	88-111	1	10	
9056A	280-123862-B-1 MSD	Nitrite	5.04		mg/L	5.00	101	87-111	1	10	
Batch ID: 460997 Date: 06/07/2019 21:12											
9060A	280-123843-B-1 MSD	Total Organic Carbon - Quad	25.6		mg/L	25.0	100	88-112	0	15	
Batch ID: 461179 Date: 06/11/2019 05:04											
9060A	280-123855-3 MSD	Total Organic Carbon - Quad	28.1		mg/L	25.0	100	88-112	1	15	
Batch ID: 460486 Date: 06/04/2019 22:52			Prep Batch: 460448			Date: 06/04/2019 16:52					
9066	280-123855-6 MSD	Phenols, Total	0.187		mg/L	0.201	93	72-118	1	16	
Batch ID: 460772 Date: 06/06/2019 19:53			Prep Batch: 460735			Date: 06/06/2019 15:30					
9066	280-123855-1 MSD	Phenols, Total	0.214		mg/L	0.201	101	72-118	3	16	
Batch ID: 459401 Date: 05/24/2019 15:23											
SM 2340C	280-123853-F-1 MSD	Hardness	766		mg/L	398	102	90-110	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 458413 Date: 05/16/2019 20:59								
9056A		280-123853-A-3	Nitrate Nitrite as N	0.86	mg/L			
9056A		280-123853-A-3 DU	Nitrate Nitrite as N	0.857	mg/L	0.3	10	
9056A		280-123853-A-3	Orthophosphate as P	0.34	mg/L			J
9056A		280-123853-A-3 DU	Orthophosphate as P	0.336	mg/L	1	10	J
9056A		280-123853-A-3	Nitrate	0.86	mg/L			
9056A		280-123853-A-3 DU	Nitrate	0.857	mg/L	0.09	10	
9056A		280-123853-A-3	Nitrite	0.10	mg/L			U
9056A		280-123853-A-3 DU	Nitrite	0.10	mg/L	NC	10	U
Batch ID: 458414 Date: 05/16/2019 20:59								
9056A		280-123853-A-3	Bromide	0.25	mg/L			J
9056A		280-123853-A-3 DU	Bromide	0.254	mg/L	0.3	10	J
9056A		280-123853-A-3	Chloride	45	mg/L			
9056A		280-123853-A-3 DU	Chloride	45.1	mg/L	0.07	10	
9056A		280-123853-A-3	Fluoride	0.10	mg/L			U
9056A		280-123853-A-3 DU	Fluoride	0.10	mg/L	NC	10	U
9056A		280-123853-A-3	Sulfate	24	mg/L			
9056A		280-123853-A-3 DU	Sulfate	24.4	mg/L	0.3	10	
Batch ID: 458413 Date: 05/17/2019 00:16								
9056A		280-123862-B-1	Nitrate Nitrite as N	0.050	mg/L			J
9056A		280-123862-B-1 DU	Nitrate Nitrite as N	0.107	mg/L	73	10	J
9056A		280-123862-B-1	Orthophosphate as P	0.20	mg/L			U
9056A		280-123862-B-1 DU	Orthophosphate as P	0.20	mg/L	NC	10	U
9056A		280-123862-B-1	Nitrate	0.050	mg/L			J
9056A		280-123862-B-1 DU	Nitrate	0.107	mg/L	73	10	J
9056A		280-123862-B-1	Nitrite	0.10	mg/L			U
9056A		280-123862-B-1 DU	Nitrite	0.10	mg/L	NC	10	U
Batch ID: 458496 Date: 05/16/2019 18:11								
SM 2120B	LF5SW-2_0519	280-123855-5	Color	25	PCU			
SM 2120B	LF5SW-2_0519	280-123855-5 DU	Color	25.0	PCU	0	20	
Batch ID: 459576 Date: 05/24/2019 18:23								
SM 2320B		280-123986-A-11	Alkalinity	190	mg/L			
SM 2320B		280-123986-A-11 DU	Alkalinity	190	mg/L	1	10	
Batch ID: 459056 Date: 05/22/2019 12:01								
SM 2540C		280-123910-D-1	Total Dissolved Solids (TDS)	12000	mg/L			
SM 2540C		280-123910-D-1 DU	Total Dissolved Solids (TDS)	12400	mg/L	1	10	
Batch ID: 458482 Date: 05/16/2019 16:27								

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
SM5210B		280-123853-B-1	Biochemical Oxygen Demand	0.59	mg/L			U
SM5210B		280-123853-B-1 DU	Biochemical Oxygen Demand	0.59	mg/L	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459818	Date: 05/29/2019 11:20										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-459818/18	Ammonia	2.57		mg/L	2.50	103	90-110			
Batch ID: 459818	Date: 05/29/2019 12:48										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-459818/62	Ammonia	2.58		mg/L	2.50	103	90-110			
Batch ID: 460603	Date: 06/05/2019 18:38	Prep Batch: 460465	Date: 06/04/2019 19:37								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460465/27-A	Nitrogen, Kjeldahl	6.11		mg/L	6.00	102	90-110			
Batch ID: 460603	Date: 06/05/2019 18:47	Prep Batch: 460465	Date: 06/04/2019 19:37								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460465/1-A	Nitrogen, Kjeldahl	6.25		mg/L	6.00	104	90-110			
Batch ID: 460546	Date: 06/05/2019 10:06										
						LCS Source: COD cal std_00048					
410.4	LCS 280-460546/3	Chemical Oxygen Demand (COD)	96.3		mg/L	100	96	90-110	1	11	
Batch ID: 460644	Date: 06/06/2019 09:12										
						LCS Source: COD cal std_00048					
410.4	LCS 280-460644/3	Chemical Oxygen Demand (COD)	95.6		mg/L	100	96	90-110	1	11	
Batch ID: 458413	Date: 05/16/2019 14:33										
						LCS Source:					
9056A	LCS 280-458413/4	Nitrate Nitrite as N	9.86		mg/L	10.0	99	80-120	0	10	
						LCS Source: IC LCS_01577					
9056A	LCS 280-458413/4	Orthophosphate as P	5.02		mg/L	5.00	100	80-116	0	10	
9056A	LCS 280-458413/4	Nitrate	4.95		mg/L	5.00	99	88-111	0	10	
9056A	LCS 280-458413/4	Nitrite	4.91		mg/L	5.00	98	87-111	0	10	
Batch ID: 458414	Date: 05/16/2019 14:33										
						LCS Source: IC LCS_01577					
9056A	LCS 280-458414/4	Bromide	5.21		mg/L	5.00	104	91-110	0	10	
9056A	LCS 280-458414/4	Chloride	95.4		mg/L	100	95	87-111	0	10	
9056A	LCS 280-458414/4	Fluoride	4.98		mg/L	5.00	100	88-112	0	10	
9056A	LCS 280-458414/4	Sulfate	93.6		mg/L	100	94	87-112	0	10	
Batch ID: 460997	Date: 06/07/2019 16:19										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-460997/3	Total Organic Carbon - Quad	24.4		mg/L	25.0	98	88-112			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 461179	Date: 06/11/2019 03:46										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-461179/41	Total Organic Carbon - Quad	25.4		mg/L	25.0	102	88-112			
Batch ID: 460486	Date: 06/04/2019 21:43	Prep Batch: 460448	Date: 06/04/2019 16:52								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460448/1-A	Phenols, Total	0.181		mg/L	0.201	90	90-110			
Batch ID: 460772	Date: 06/06/2019 19:02	Prep Batch: 460735	Date: 06/06/2019 15:30								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460735/1-A	Phenols, Total	0.201		mg/L	0.201	100	90-110			
Batch ID: 459576	Date: 05/24/2019 17:48										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459576/4	Alkalinity	196		mg/L	200	98	89-109			
Batch ID: 459401	Date: 05/24/2019 15:23										
						LCS Source: Hard lcs std_00050					
SM 2340C	LCS 280-459401/1	Hardness	398		mg/L	398	100	90-110			
Batch ID: 459056	Date: 05/22/2019 12:01										
						LCS Source: TDS LCS_00537_00055					
SM 2540C	LCS 280-459056/2	Total Dissolved Solids (TDS)	551		mg/L	500	110	93-110			
Batch ID: 458482	Date: 05/16/2019 16:27										
						LCS Source: BOD Std_00001_00046					
SM5210B	LCS 280-458482/8	Biochemical Oxygen Demand	202		mg/L	198	102	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 460546	Date: 06/05/2019 10:06										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-460546/4	Chemical Oxygen Demand (COD)	95.3		mg/L	100	95	90-110	1	11	
Batch ID: 460644	Date: 06/06/2019 09:12										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-460644/4	Chemical Oxygen Demand (COD)	94.3		mg/L	100	94	90-110	1	11	
Batch ID: 458413	Date: 05/16/2019 14:50										
						LCSD Source:					
9056A	LCSD 280-458413/5	Nitrate Nitrite as N	9.89		mg/L	10.0	99	80-120	0	10	
						LCSD Source: IC LCS_01577					
9056A	LCSD 280-458413/5	Orthophosphate as P	5.04		mg/L	5.00	101	80-116	0	10	
9056A	LCSD 280-458413/5	Nitrate	4.96		mg/L	5.00	99	88-111	0	10	
9056A	LCSD 280-458413/5	Nitrite	4.93		mg/L	5.00	99	87-111	0	10	
Batch ID: 458414	Date: 05/16/2019 14:50										
						LCSD Source: IC LCS_01577					
9056A	LCSD 280-458414/5	Bromide	5.21		mg/L	5.00	104	91-110	0	10	
9056A	LCSD 280-458414/5	Chloride	95.7		mg/L	100	96	87-111	0	10	
9056A	LCSD 280-458414/5	Fluoride	4.99		mg/L	5.00	100	88-112	0	10	
9056A	LCSD 280-458414/5	Sulfate	93.6		mg/L	100	94	87-112	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458413	Date: 05/16/2019 14:17										
						LCS Source:					
9056A	MRL 280-458413/3	Nitrate Nitrite as N	0.442	J	mg/L	0.400	111	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458413/3	Orthophosphate as P	0.205	J	mg/L	0.200	102	50-150			
9056A	MRL 280-458413/3	Nitrate	0.228	J	mg/L	0.200	114	50-150			
9056A	MRL 280-458413/3	Nitrite	0.214	J	mg/L	0.200	107	50-150			
Batch ID: 458414	Date: 05/16/2019 14:17										
						LCS Source: IC CAL cl/so4_00256					
9056A	MRL 280-458414/3	Chloride	2.33	J	mg/L	2.50	93	50-150			M
9056A	MRL 280-458414/3	Sulfate	2.37	J	mg/L	2.50	95	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458414/3	Bromide	0.212	J	mg/L	0.200	106	50-150			
9056A	MRL 280-458414/3	Fluoride	0.152	J	mg/L	0.200	76	50-150			M

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 DL Date: 02/03/2019 00:00

Prep Method: Distill/Phenol

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (PCU)	
Color		5	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B XRL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (PCU)	
Color		5	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Hardness		3	0.3

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness		3	0.3

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.06
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.0597
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A DL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A XMDL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		10	3.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B DL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Biochemical Oxygen Demand		2	0.236

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123855-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B XMDL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Biochemical Oxygen Demand		2	0.236

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460448/1-A	06/04/2019 16:52	460448		50	50
MB 280-460448/2-A	06/04/2019 16:52	460448		50	50
280-123855-6	06/04/2019 16:52	460448		50	50
280-123855-6 MS	06/04/2019 16:52	460448		50	50
280-123855-6 MSD	06/04/2019 16:52	460448		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460465/1-A	06/04/2019 19:37	460465		25	25
MB 280-460465/2-A	06/04/2019 19:37	460465		25	25
280-123855-1	06/04/2019 19:37	460465		25	25
280-123855-2	06/04/2019 19:37	460465		25	25
280-123855-3	06/04/2019 19:37	460465		25	25
280-123855-3 MS	06/04/2019 19:37	460465		25	25
280-123855-3 MSD	06/04/2019 19:37	460465		25	25
280-123855-4	06/04/2019 19:37	460465		25	25
280-123855-5	06/04/2019 19:37	460465		25	25
280-123855-6	06/04/2019 19:37	460465		25	25
LCS 280-460465/27-A	06/04/2019 19:37	460465		25	25
MB 280-460465/28-A	06/04/2019 19:37	460465		25	25

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460735/1-A	06/06/2019 15:30	460735		50	50
MB 280-460735/2-A	06/06/2019 15:30	460735		50	50
280-123855-1	06/06/2019 15:30	460735		50	50
280-123855-1 MS	06/06/2019 15:30	460735		50	50
280-123855-1 MSD	06/06/2019 15:30	460735		50	50
280-123855-2	06/06/2019 15:30	460735		50	50
280-123855-3	06/06/2019 15:30	460735		50	50
280-123855-4	06/06/2019 15:30	460735		50	50
280-123855-5	06/06/2019 15:30	460735		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/29/2019 10:46 End Date: 05/29/2019 14:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			10:46																									
ZZZZZZ			10:48																									
ZZZZZZ			10:50																									
IC 280-459818/4			10:52	X																								
IC 280-459818/5			10:54	X																								
IC 280-459818/6			10:56	X																								
IC 280-459818/7			10:58	X																								
IC 280-459818/8			11:00	X																								
IC 280-459818/9			11:02	X																								
IC 280-459818/10			11:04	X																								
IC 280-459818/11			11:06	X																								
ZZZZZZ			11:08																									
ZZZZZZ			11:10																									
ICVL 280-459818/14	1		11:12	X																								
ICV 280-459818/15	1		11:14	X																								
ICB 280-459818/16	1		11:16	X																								
ZZZZZZ			11:18																									
LCS 280-459818/18	1	T	11:20	X																								
MB 280-459818/19	1	T	11:22	X																								
ZZZZZZ			11:24																									
ZZZZZZ			11:26																									
ZZZZZZ			11:28																									
ZZZZZZ			11:30																									
ZZZZZZ			11:32																									
ZZZZZZ			11:34																									
ZZZZZZ			11:36																									
ZZZZZZ			11:38																									
ZZZZZZ			11:40																									
ZZZZZZ			11:42																									
RINSE 280-459818/30			11:44																									
ZZZZZZ			11:46																									
CCVL 280-459818/32	1		11:48	X																								
CCV 280-459818/33	1		11:50	X																								
CCB 280-459818/34	1		11:52	X																								
ZZZZZZ			11:54																									
ZZZZZZ			11:56																									
ZZZZZZ			11:58																									
ZZZZZZ			12:00																									
280-123853-D-5 MS	1	T	12:02	X																								
280-123853-D-5 MSD	1	T	12:04	X																								
ZZZZZZ			12:06																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/29/2019 10:46 End Date: 05/29/2019 14:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
280-123855-1	1	T	12:08	X																								
ZZZZZZ			12:10																									
280-123855-3	1	T	12:12	X																								
280-123855-4	1	T	12:14	X																								
RINSE 280-459818/46			12:16																									
ZZZZZZ			12:18																									
CCVL 280-459818/48	1		12:20	X																								
CCV 280-459818/49	1		12:22	X																								
CCB 280-459818/50	1		12:24	X																								
ZZZZZZ			12:26																									
280-123855-5	1	T	12:28	X																								
280-123855-6	1	T	12:30	X																								
ZZZZZZ			12:32																									
ZZZZZZ			12:34																									
RINSE 280-459818/56			12:36																									
ZZZZZZ			12:38																									
CCVL 280-459818/58	1		12:40	X																								
CCV 280-459818/59	1		12:42	X																								
CCB 280-459818/60	1		12:44	X																								
ZZZZZZ			12:46																									
LCS 280-459818/62	1	T	12:48	X																								
MB 280-459818/63	1	T	12:50	X																								
ZZZZZZ			12:52																									
ZZZZZZ			12:54																									
ZZZZZZ			12:56																									
ZZZZZZ			12:58																									
ZZZZZZ			13:00																									
ZZZZZZ			13:02																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									
ZZZZZZ			13:08																									
ZZZZZZ			13:10																									
RINSE 280-459818/74			13:12																									
ZZZZZZ			13:14																									
CCVL 280-459818/76	1		13:16	X																								
CCV 280-459818/77	1		13:18	X																								
CCB 280-459818/78	1		13:20	X																								
ZZZZZZ			13:22																									
ZZZZZZ			13:24																									
ZZZZZZ			13:26																									
ZZZZZZ			13:28																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/29/2019 10:46 End Date: 05/29/2019 14:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
280-124070-B-5 MS	1	T	13:30	X																								
280-124070-B-5 MSD	1	T	13:32	X																								
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
RINSE 280-459818/90			13:44																									
ZZZZZZ			13:46																									
CCVL 280-459818/92	1		13:48	X																								
CCV 280-459818/93	1		13:50	X																								
CCB 280-459818/94	1		13:52	X																								
ZZZZZZ			13:54																									
ZZZZZZ			13:56																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
RINSE 280-459818/100			14:04																									
ZZZZZZ			14:06																									
CCVL 280-459818/102	1		14:08	X																								
CCV 280-459818/103	1		14:10	X																								
CCB 280-459818/104	1		14:12	X																								
ZZZZZZ			14:14																									
280-123855-2	50	T	14:20	X																								
ZZZZZZ			14:22																									
ZZZZZZ			14:24																									
ZZZZZZ			14:26																									
RINSE 280-459818/110			14:28																									
ZZZZZZ			14:30																									
CCVL 280-459818/112	1		14:32	X																								
CCV 280-459818/113	1		14:34	X																								
CCB 280-459818/114	1		14:36	X																								
ZZZZZZ			14:38																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/05/2019 17:30 End Date: 06/05/2019 19:13

Lab Sample Id	D/F	Type	Time	Analytes
				TKN
ZZZZZZ			17:30	
ZZZZZZ			17:30	
ZZZZZZ			17:32	
ZZZZZZ			17:33	
IC 280-460066/36-A			17:34	X
IC 280-460066/37-A			17:35	X
IC 280-460066/38-A			17:37	X
IC 280-460066/39-A			17:38	X
IC 280-460066/40-A			17:39	X
IC 280-460066/41-A			17:40	X
ZZZZZZ			17:42	
ZZZZZZ			17:43	
ICV 280-460066/42-A	1		17:44	X
ICB 280-460066/43-A	1		17:45	X
ZZZZZZ			17:47	
MB 280-460465/2-A	1	T	17:48	X
ZZZZZZ			17:49	
ZZZZZZ			17:50	
ZZZZZZ			17:52	
ZZZZZZ			17:53	
ZZZZZZ			17:54	
ZZZZZZ			17:55	
ZZZZZZ			17:57	
ZZZZZZ			17:58	
ZZZZZZ			17:59	
ZZZZZZ			18:00	
ZZZZZZ			18:02	
ZZZZZZ			18:03	
ZZZZZZ			18:04	
ZZZZZZ			18:05	
CCV 280-460066/44-A	1		18:07	X
CCB 280-460066/45-A	1		18:08	X
280-123855-1	1	T	18:09	X
ZZZZZZ			18:10	
ZZZZZZ			18:12	
ZZZZZZ			18:13	
280-123855-3	1	T	18:14	X
280-123855-3 MS	1	T	18:15	X
280-123855-3 MSD	1	T	18:17	X
ZZZZZZ			18:18	
280-123855-4	1	T	18:19	X

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/05/2019 17:30 End Date: 06/05/2019 19:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
280-123855-5	1	T	18:20	X																								
280-123855-6	1	T	18:22	X																								
ZZZZZZ			18:23																									
ZZZZZZ			18:24																									
ZZZZZZ			18:25																									
ZZZZZZ			18:27																									
ZZZZZZ			18:28																									
CCV 280-460066/44-A	1		18:29	X																								
CCB 280-460066/45-A	1		18:30	X																								
ZZZZZZ			18:32																									
ZZZZZZ			18:33																									
ZZZZZZ			18:34																									
ZZZZZZ			18:35																									
ZZZZZZ			18:37																									
LCS 280-460465/27-A	1	T	18:38	X																								
MB 280-460465/28-A	1	T	18:39	X																								
ZZZZZZ			18:40																									
ZZZZZZ			18:42																									
ZZZZZZ			18:43																									
ZZZZZZ			18:44																									
ZZZZZZ			18:45																									
LCS 280-460465/1-A	1	T	18:47	X																								
ZZZZZZ			18:48																									
CCV 280-460066/44-A	1		18:49	X																								
CCB 280-460066/45-A	1		18:50	X																								
ZZZZZZ			18:52																									
ZZZZZZ			18:53																									
ZZZZZZ			18:54																									
ZZZZZZ			18:55																									
ZZZZZZ			18:57																									
ZZZZZZ			18:58																									
ZZZZZZ			18:59																									
ZZZZZZ			19:00																									
ZZZZZZ			19:02																									
ZZZZZZ			19:03																									
280-123855-2	5	T	19:04	X																								
ZZZZZZ			19:05																									
ZZZZZZ			19:07																									
CCV 280-460066/44-A	1		19:08	X																								
CCB 280-460066/45-A	1		19:09	X																								
ZZZZZZ			19:10																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/05/2019 17:30 End Date: 06/05/2019 19:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			19:12																									
ZZZZZZ			19:13																									

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/05/2019 10:06 End Date: 06/05/2019 10:06

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-460546/1	1		10:06	X																								
ICB 280-460546/2	1		10:06	X																								
LCS 280-460546/3	1	T	10:06	X																								
LCSD 280-460546/4	1	T	10:06	X																								
MB 280-460546/5	1	T	10:06	X																								
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
CCV 280-460546/16	1		10:06	X																								
CCB 280-460546/17	1		10:06	X																								
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
280-123855-5	2	T	10:06	X																								
280-123855-5 MS	2	T	10:06	X																								
280-123855-5 MSD	2	T	10:06	X																								
280-123855-6	2	T	10:06	X																								
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
CCV 280-460546/28	1		10:06	X																								
CCB 280-460546/29	1		10:06	X																								
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
CCV 280-460546/34			10:06																									
CCB 280-460546/35			10:06																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/06/2019 09:12 End Date: 06/06/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-460644/1	1		09:12	X																								
ICB 280-460644/2	1		09:12	X																								
LCS 280-460644/3	1	T	09:12	X																								
LCSD 280-460644/4	1	T	09:12	X																								
MB 280-460644/5	1	T	09:12	X																								
ZZZZZZ			09:12																									
280-123822-H-1 MS	100	T	09:12	X																								
280-123822-H-1 MSD	100	T	09:12	X																								
280-123855-1	1	T	09:12	X																								
280-123855-2	5	T	09:12	X																								
280-123855-3	1	T	09:12	X																								
280-123855-4	2	T	09:12	X																								
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
CCV 280-460644/16	1		09:12	X																								
CCB 280-460644/17	1		09:12	X																								
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
CCV 280-460644/28			09:12																									
CCB 280-460644/29			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
ZZZZZZ			09:12																									
CCV 280-460644/34			09:12																									
CCB 280-460644/35			09:12																									

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/04/2019 20:55 End Date: 06/05/2019 01:52

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			20:55	
ZZZZZZ			20:58	
ZZZZZZ			21:01	
ZZZZZZ			21:04	
IC 280-460486/5			21:07	X
IC 280-460486/6			21:10	X
IC 280-460486/7			21:13	X
IC 280-460486/8			21:16	X
IC 280-460486/9			21:19	X
IC 280-460486/10			21:22	X
ZZZZZZ			21:25	
ZZZZZZ			21:28	
ICV 280-460486/13	1		21:31	X
ICVL 280-460486/14	1		21:34	X
ICB 280-460486/15	1		21:37	X
ZZZZZZ			21:40	
LCS 280-460448/1-A	1	T	21:43	X
MB 280-460448/2-A	1	T	21:46	X
ZZZZZZ			21:49	
ZZZZZZ			21:52	
ZZZZZZ			21:55	
ZZZZZZ			21:58	
ZZZZZZ			22:01	
ZZZZZZ			22:04	
ZZZZZZ			22:07	
ZZZZZZ			22:10	
ZZZZZZ			22:13	
ZZZZZZ			22:16	
CCV 280-460486/29	1		22:19	X
CCVL 280-460486/30	1		22:22	X
CCB 280-460486/31	1		22:25	X
ZZZZZZ			22:28	
ZZZZZZ			22:31	
ZZZZZZ			22:34	
ZZZZZZ			22:37	
ZZZZZZ			22:40	
ZZZZZZ			22:43	
280-123855-6	1	T	22:46	X
280-123855-6 MS	1	T	22:49	X

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/04/2019 20:55 End Date: 06/05/2019 01:52

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
280-123855-6 MSD	1	T	22:52	X																								
ZZZZZZ			22:55																									
ZZZZZZ			22:58																									
ZZZZZZ			23:01																									
ZZZZZZ			23:04																									
CCV 280-460486/45	1		23:07	X																								
CCVL 280-460486/46	1		23:10	X																								
CCB 280-460486/47	1		23:13	X																								
ZZZZZZ			23:16																									
ZZZZZZ			23:19																									
ZZZZZZ			23:22																									
ZZZZZZ			23:41																									
ZZZZZZ			23:44																									
ZZZZZZ			23:47																									
ZZZZZZ			23:50																									
ZZZZZZ			23:53																									
ZZZZZZ			23:56																									
ZZZZZZ			23:59																									
ZZZZZZ			00:02																									
ZZZZZZ			00:05																									
ZZZZZZ			00:08																									
CCV 280-460486/61			00:11																									
CCVL 280-460486/62			00:14																									
CCB 280-460486/63			00:17																									
ZZZZZZ			00:20																									
ZZZZZZ			00:23																									
ZZZZZZ			00:26																									
ZZZZZZ			00:29																									
ZZZZZZ			00:32																									
ZZZZZZ			00:35																									
ZZZZZZ			00:38																									
ZZZZZZ			00:41																									
ZZZZZZ			00:44																									
ZZZZZZ			00:47																									
ZZZZZZ			00:50																									
ZZZZZZ			00:53																									
ZZZZZZ			00:56																									
CCV 280-460486/77			00:59																									
CCVL 280-460486/78			01:02																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/04/2019 20:55 End Date: 06/05/2019 01:52

Lab Sample Id	D/F	Type	Time	Analytes																									
				PhenT																									
CCB 280-460486/79			01:05																										
ZZZZZZ			01:08																										
ZZZZZZ			01:11																										
ZZZZZZ			01:14																										
ZZZZZZ			01:17																										
ZZZZZZ			01:20																										
ZZZZZZ			01:23																										
ZZZZZZ			01:26																										
ZZZZZZ			01:31																										
ZZZZZZ			01:34																										
ZZZZZZ			01:37																										
ZZZZZZ			01:40																										
CCV 280-460486/91			01:43																										
CCVL 280-460486/92			01:46																										
CCB 280-460486/93			01:49																										
ZZZZZZ			01:52																										

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			16:47	
ZZZZZZ			16:50	
ZZZZZZ			16:53	
ZZZZZZ			16:56	
IC 280-460772/5			16:59	X
IC 280-460772/6			17:02	X
IC 280-460772/7			17:05	X
IC 280-460772/8			17:08	X
IC 280-460772/9			17:11	X
IC 280-460772/10			17:14	X
ZZZZZZ			17:17	
ZZZZZZ			17:20	
ICV 280-460772/13	1		17:23	X
ICVL 280-460772/14	1		18:53	X
ICB 280-460772/15	1		18:56	X
ZZZZZZ			18:59	
LCS 280-460735/1-A	1	T	19:02	X
MB 280-460735/2-A	1	T	19:05	X
ZZZZZZ			19:08	
ZZZZZZ			19:11	
ZZZZZZ			19:14	
ZZZZZZ			19:17	
ZZZZZZ			19:20	
ZZZZZZ			19:23	
ZZZZZZ			19:26	
280-123855-1	1	T	19:29	X
ZZZZZZ			19:32	
ZZZZZZ			19:35	
CCV 280-460772/29	1		19:38	X
CCVL 280-460772/30	1		19:41	X
CCB 280-460772/31	1		19:44	X
ZZZZZZ			19:47	
280-123855-1 MS	1	T	19:50	X
280-123855-1 MSD	1	T	19:53	X
280-123855-2	1	T	19:56	X
280-123855-3	1	T	19:59	X
280-123855-4	1	T	20:02	X
280-123855-5	1	T	20:05	X
ZZZZZZ			20:08	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			20:11																									
ZZZZZZ			20:14																									
ZZZZZZ			20:17																									
ZZZZZZ			20:20																									
ZZZZZZ			20:23																									
CCV 280-460772/45	1		20:26	X																								
CCVL 280-460772/46	1		20:29	X																								
CCB 280-460772/47	1		20:32	X																								
ZZZZZZ			20:35																									
ZZZZZZ			20:38																									
ZZZZZZ			20:41																									
ZZZZZZ			20:44																									
ZZZZZZ			20:47																									
ZZZZZZ			20:50																									
ZZZZZZ			20:53																									
ZZZZZZ			20:57																									
ZZZZZZ			21:00																									
ZZZZZZ			21:03																									
ZZZZZZ			21:06																									
ZZZZZZ			21:09																									
ZZZZZZ			21:12																									
CCV 280-460772/61			21:15																									
CCVL 280-460772/62			21:18																									
CCB 280-460772/63			21:21																									
ZZZZZZ			21:24																									
ZZZZZZ			21:27																									
ZZZZZZ			21:30																									
ZZZZZZ			21:33																									
ZZZZZZ			21:36																									
ZZZZZZ			21:39																									
ZZZZZZ			21:42																									
ZZZZZZ			21:45																									
ZZZZZZ			21:48																									
ZZZZZZ			22:53																									
ZZZZZZ			22:56																									
ZZZZZZ			22:59																									
ZZZZZZ			23:02																									
CCV 280-460772/77			23:05																									
CCVL 280-460772/78			23:08																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																									
				PhenT																									
CCB 280-460772/79			23:11																										
ZZZZZZ			23:14																										
ZZZZZZ			23:17																										
ZZZZZZ			23:20																										
ZZZZZZ			23:23																										
ZZZZZZ			23:26																										
ZZZZZZ			23:29																										
ZZZZZZ			23:32																										
ZZZZZZ			23:35																										
ZZZZZZ			23:38																										
ZZZZZZ			23:41																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ZZZZZZ			23:51																										
CCV 280-460772/93			23:54																										
CCVL 280-460772/94			23:57																										
CCB 280-460772/95			00:00																										
ZZZZZZ			00:03																										
ZZZZZZ			00:06																										
ZZZZZZ			00:09																										
ZZZZZZ			00:13																										
ZZZZZZ			00:16																										
ZZZZZZ			00:19																										
ZZZZZZ			00:22																										
ZZZZZZ			00:25																										
CCV 280-460772/104			00:28																										
CCVL 280-460772/105			00:31																										
CCB 280-460772/106			00:34																										
ZZZZZZ			00:37																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2120B

Start Date: 05/16/2019 18:11 End Date: 05/16/2019 18:11

Lab Sample Id	D/F	Type	Time	Analytes																									
				Color																									
MB 280-458496/1	1	T	18:11	X																									
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
280-123855-1	1	T	18:11	X																									
280-123855-2	1	T	18:11	X																									
280-123855-3	2	T	18:11	X																									
280-123855-4	1	T	18:11	X																									
280-123855-5	1	T	18:11	X																									
280-123855-5 DU	1	T	18:11	X																									
280-123855-6	1	T	18:11	X																									
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340C

Start Date: 05/24/2019 15:23 End Date: 05/24/2019 15:23

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
LCS 280-459401/1	1	T	15:23	X																								
MB 280-459401/2	1	T	15:23	X																								
ZZZZZZ			15:23																									
280-123853-F-1 MS	1	T	15:23	X																								
280-123853-F-1 MSD	1	T	15:23	X																								
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
280-123855-1	1	T	15:23	X																								
280-123855-2	1	T	15:23	X																								
280-123855-3	1	T	15:23	X																								
280-123855-4	1	T	15:23	X																								
280-123855-5	1	T	15:23	X																								
280-123855-6	1	T	15:23	X																								
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
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ZZZZZZ			15:23																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
RTC 280-458327/1			17:16																											
STD 280-458327/2 IC	1		17:32	X	X	X	X																							
STD 280-458327/3 IC	1		17:49	X	X	X	X																							
STD 280-458327/4 IC	1		18:05	X	X	X	X																							
STD 280-458327/5 IC	1		18:21	X	X	X	X																							
STD 280-458327/6 IC	1		18:38	X	X	X	X																							
STD 280-458327/7 IC	1		18:54	X	X	X	X																							
ICV 280-458327/8	1		19:11	X	X	X	X																							
ICB 280-458327/9	1		19:27	X	X	X	X																							
ZZZZZZ			19:43																											
ZZZZZZ			20:00																											
ZZZZZZ			20:16																											
ZZZZZZ			20:33																											
ZZZZZZ			20:49																											
ZZZZZZ			21:06																											
ZZZZZZ			21:22																											
ZZZZZZ			21:38																											
ZZZZZZ			21:55																											
ZZZZZZ			22:11																											
ZZZZZZ			22:28																											
CCV 280-458327/21			22:44																											
CCB 280-458327/22			23:01																											
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:50																											
ZZZZZZ			00:06																											
ZZZZZZ			00:23																											
ZZZZZZ			00:39																											
ZZZZZZ			00:55																											
ZZZZZZ			01:12																											
ZZZZZZ			01:28																											
ZZZZZZ			01:45																											
CCV 280-458327/33			02:01																											

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCB 280-458327/34			02:17																											
ZZZZZZ			02:34																											
ZZZZZZ			02:50																											
ZZZZZZ			03:07																											
ZZZZZZ			03:23																											
ZZZZZZ			03:40																											
ZZZZZZ			03:56																											
ZZZZZZ			04:12																											
ZZZZZZ			04:29																											
ZZZZZZ			04:45																											
ZZZZZZ			05:02																											
CCV 280-458327/45			05:18																											
CCB 280-458327/46			05:34																											
ZZZZZZ			05:51																											
ZZZZZZ			06:07																											
ZZZZZZ			06:24																											
ZZZZZZ			08:25																											
ZZZZZZ			08:41																											
ZZZZZZ			08:57																											
ZZZZZZ			09:14																											
ZZZZZZ			09:30																											
ZZZZZZ			09:47																											
ZZZZZZ			10:03																											
CCV 280-458327/57			10:19																											
CCB 280-458327/58			10:36																											
ZZZZZZ			10:52																											
ZZZZZZ			11:09																											
ZZZZZZ			11:25																											
ZZZZZZ			11:42																											
ZZZZZZ			11:58																											
ZZZZZZ			12:14																											
ZZZZZZ			12:31																											
ZZZZZZ			12:47																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCV 280-458327/67			13:04																											
CCB 280-458327/68			13:20																											

Prep Types:
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-458328/1			17:16																										
STD 280-458328/2 IC	1		17:32	X	X	X	X																						
STD 280-458328/3 IC	1		17:49	X	X	X	X																						
STD 280-458328/4 IC	1		18:05	X	X	X	X																						
STD 280-458328/5 IC	1		18:21	X	X	X	X																						
STD 280-458328/6 IC	1		18:38	X	X	X	X																						
STD 280-458328/7 IC	1		18:54	X	X	X	X																						
ICV 280-458328/8	1		19:11	X	X	X	X																						
ICB 280-458328/9	1		19:27	X	X	X	X																						
ZZZZZZ			19:43																										
ZZZZZZ			20:00																										
ZZZZZZ			20:16																										
ZZZZZZ			20:33																										
ZZZZZZ			20:49																										
ZZZZZZ			21:06																										
ZZZZZZ			21:22																										
ZZZZZZ			21:38																										
ZZZZZZ			21:55																										
ZZZZZZ			22:11																										
ZZZZZZ			22:28																										
CCV 280-458328/21			22:44																										
CCB 280-458328/22			23:01																										
ZZZZZZ			23:17																										
ZZZZZZ			23:33																										
ZZZZZZ			23:50																										
ZZZZZZ			00:06																										
ZZZZZZ			00:23																										
ZZZZZZ			00:39																										
ZZZZZZ			00:55																										
ZZZZZZ			01:12																										
ZZZZZZ			01:28																										
ZZZZZZ			01:45																										
CCV 280-458328/33			02:01																										
CCB 280-458328/34			02:17																										
ZZZZZZ			02:34																										
ZZZZZZ			02:50																										
ZZZZZZ			03:56																										
ZZZZZZ			04:12																										
ZZZZZZ			04:29																										
ZZZZZZ			04:45																										
ZZZZZZ			05:02																										

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																							
CCV 280-458328/45			05:18																										
CCB 280-458328/46			05:34																										
ZZZZZZ			05:51																										
ZZZZZZ			06:07																										
ZZZZZZ			06:24																										
ZZZZZZ			08:25																										
ZZZZZZ			08:41																										
ZZZZZZ			08:57																										
ZZZZZZ			09:14																										
ZZZZZZ			09:30																										
ZZZZZZ			09:47																										
ZZZZZZ			10:03																										
CCV 280-458328/57			10:19																										
CCB 280-458328/58			10:36																										
ZZZZZZ			10:52																										
ZZZZZZ			11:09																										
ZZZZZZ			11:25																										
ZZZZZZ			11:42																										
ZZZZZZ			11:58																										
ZZZZZZ			12:14																										
ZZZZZZ			12:31																										
ZZZZZZ			12:47																										
CCV 280-458328/67			13:04																										
CCB 280-458328/68			13:20																										

Prep Types:
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/16/2019 13:45 End Date: 05/17/2019 03:49

Lab Sample Id	D/F	Type	Time	Analytes																											
				NNO32	NO2-N	NO3	Orthophosasp																									
CCV 280-458413/1	1		13:45	X	X	X	X																									
CCB 280-458413/2	1		14:00	X	X	X	X																									
MRL 280-458413/3	1	T	14:17	X	X	X	X																									
LCS 280-458413/4	1	T	14:33	X	X	X	X																									
LCSD 280-458413/5	1	T	14:50	X	X	X	X																									
MB 280-458413/6	1	T	15:06	X	X	X	X																									
ZZZZZZ			15:47																													
ZZZZZZ			16:03																													
ZZZZZZ			16:20																													
ZZZZZZ			16:36																													
ZZZZZZ			16:52																													
280-123855-1	1	T	17:09	X	X	X	X																									
280-123855-2	5	T	17:25	X	X	X	X																									
ZZZZZZ			17:42																													
280-123855-3	1	T	17:58	X	X	X	X																									
280-123855-4	1	T	18:15	X	X	X	X																									
CCV 280-458413/17	1		18:31	X	X	X	X																									
CCB 280-458413/18	1		18:47	X	X	X	X																									
280-123855-5	1	T	19:04	X	X	X	X																									
280-123855-6	1	T	19:20	X	X	X	X																									
ZZZZZZ			19:37																													
ZZZZZZ			19:53																													
ZZZZZZ			20:09																													
ZZZZZZ			20:26																													
ZZZZZZ			20:42																													
280-123853-A-3 DU	1	T	20:59	X	X	X	X																									
280-123853-A-3 MS	1	T	21:15	X	X	X	X																									
280-123853-A-3 MSD	1	T	21:32	X	X	X	X																									
CCV 280-458413/29	1		21:48	X	X	X	X																									
CCB 280-458413/30	1		22:04	X	X	X	X																									
ZZZZZZ			22:21																													
ZZZZZZ			22:37																													
ZZZZZZ			22:54																													

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/16/2019 13:45 End Date: 05/17/2019 03:49

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
ZZZZZZ			23:10																											
ZZZZZZ			23:26																											
ZZZZZZ			23:43																											
ZZZZZZ			23:59																											
280-123862-B-1 DU	1	T	00:16	X	X	X	X																							
280-123862-B-1 MS	1	T	00:32	X	X	X	X																							
280-123862-B-1 MSD	1	T	00:49	X	X	X	X																							
CCV 280-458413/41	1		01:05	X	X	X	X																							
CCB 280-458413/42	1		01:21	X	X	X	X																							
ZZZZZZ			01:38																											
ZZZZZZ			01:54																											
ZZZZZZ			02:11																											
ZZZZZZ			02:27																											
ZZZZZZ			02:43																											
ZZZZZZ			03:00																											
ZZZZZZ			03:16																											
CCV 280-458413/50	1		03:33	X	X	X	X																							
CCB 280-458413/51	1		03:49	X	X	X	X																							

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/16/2019 13:45 End Date: 05/17/2019 03:49

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	F	SO4																							
CCV 280-458414/1	1		13:45	X	X	X	X																							
CCB 280-458414/2	1		14:00	X	X	X	X																							
MRL 280-458414/3	1	T	14:17	X	X	X	X																							
LCS 280-458414/4	1	T	14:33	X	X	X	X																							
LCSD 280-458414/5	1	T	14:50	X	X	X	X																							
MB 280-458414/6	1	T	15:06	X	X	X	X																							
ZZZZZZ			15:47																											
ZZZZZZ			16:03																											
ZZZZZZ			16:20																											
ZZZZZZ			16:36																											
ZZZZZZ			16:52																											
280-123855-1	1	T	17:09	X		X	X																							
280-123855-2	5	T	17:25	X		X	X																							
280-123855-2	50	T	17:42		X																									
280-123855-3	1	T	17:58	X	X	X	X																							
280-123855-4	1	T	18:15	X		X	X																							
CCV 280-458414/17	1		18:31	X	X	X	X																							
CCB 280-458414/18	1		18:47	X	X	X	X																							
280-123855-5	1	T	19:04	X		X	X																							
280-123855-6	1	T	19:20	X		X	X																							
ZZZZZZ			19:37																											
ZZZZZZ			19:53																											
ZZZZZZ			20:09																											
ZZZZZZ			20:26																											
ZZZZZZ			20:42																											
280-123853-A-3 DU	1	T	20:59	X	X	X	X																							
280-123853-A-3 MS	1	T	21:15	X	X	X	X																							
280-123853-A-3 MSD	1	T	21:32	X	X	X	X																							
CCV 280-458414/29	1		21:48	X	X	X	X																							
CCB 280-458414/30	1		22:04	X	X	X	X																							
ZZZZZZ			22:21																											
ZZZZZZ			22:37																											
ZZZZZZ			22:54																											
ZZZZZZ			23:10																											
ZZZZZZ			23:26																											
ZZZZZZ			23:43																											
ZZZZZZ			23:59																											
ZZZZZZ			00:16																											
ZZZZZZ			00:32																											
ZZZZZZ			00:49																											
CCV 280-458414/41	1		01:05	X	X	X	X																							

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/16/2019 13:45 End Date: 05/17/2019 03:49

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
CCB 280-458414/42	1		01:21	X	X	X	X																						
280-123855-1	5	T	02:27		X																								
280-123855-4	5	T	02:43		X																								
280-123855-5	5	T	03:00		X																								
280-123855-6	5	T	03:16		X																								
CCV 280-458414/50	1		03:33	X	X	X	X																						
CCB 280-458414/51	1		03:49	X	X	X	X																						

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/07/2019 15:47 End Date: 06/08/2019 10:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ICV 280-460997/1	1		15:47	X																									
ICB 280-460997/2	1		16:02	X																									
LCS 280-460997/3	1	T	16:19	X																									
MB 280-460997/4	1	T	16:34	X																									
ZZZZZZ			16:53																										
ZZZZZZ			17:07																										
ZZZZZZ			17:22																										
ZZZZZZ			17:41																										
ZZZZZZ			17:57																										
ZZZZZZ			18:14																										
ZZZZZZ			18:31																										
ZZZZZZ			18:48																										
ZZZZZZ			19:05																										
ZZZZZZ			19:21																										
CCV 280-460997/15	1		19:36	X																									
CCB 280-460997/16	1		19:53	X																									
280-123855-1	1	T	20:10	X																									
280-123855-2	1	T	20:28	X																									
ZZZZZZ			20:43																										
280-123843-B-1 MS	1	T	20:58	X																									
280-123843-B-1 MSD	1	T	21:12	X																									
ZZZZZZ			21:27																										
ZZZZZZ			21:46																										
ZZZZZZ			22:03																										
ZZZZZZ			22:20																										
ZZZZZZ			22:36																										
CCV 280-460997/27	1		22:51	X																									
CCB 280-460997/28	1		23:06	X																									
ZZZZZZ			23:21																										
ZZZZZZ			23:35																										
ZZZZZZ			23:54																										
ZZZZZZ			00:09																										
ZZZZZZ			00:26																										
ZZZZZZ			00:40																										
ZZZZZZ			00:55																										
ZZZZZZ			01:10																										
ZZZZZZ			01:29																										
ZZZZZZ			01:45																										
CCV 280-460997/39			02:02																										
CCB 280-460997/40			02:19																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/07/2019 15:47 End Date: 06/08/2019 10:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ZZZZZZ			02:38																										
ZZZZZZ			02:55																										
ZZZZZZ			03:12																										
ZZZZZZ			03:30																										
ZZZZZZ			03:47																										
ZZZZZZ			04:04																										
ZZZZZZ			04:21																										
ZZZZZZ			04:39																										
ZZZZZZ			04:58																										
ZZZZZZ			05:19																										
CCV 280-460997/51			05:34																										
CCB 280-460997/52			05:51																										
ZZZZZZ			06:08																										
ZZZZZZ			06:25																										
ZZZZZZ			06:40																										
ZZZZZZ			06:57																										
ZZZZZZ			07:14																										
ZZZZZZ			07:31																										
ZZZZZZ			07:48																										
ZZZZZZ			08:07																										
ZZZZZZ			08:23																										
ZZZZZZ			08:40																										
CCV 280-460997/63			08:59																										
CCB 280-460997/64			09:16																										
ZZZZZZ			09:37																										
ZZZZZZ			09:54																										
CCV 280-460997/67			10:08																										
CCB 280-460997/68			10:23																										

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/10/2019 17:09 End Date: 06/11/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ICV 280-461179/1	1		17:09	X																									
ICB 280-461179/2	1		17:24	X																									
ZZZZZZ			17:43																										
ZZZZZZ			18:00																										
ZZZZZZ			18:17																										
ZZZZZZ			18:32																										
ZZZZZZ			18:46																										
ZZZZZZ			19:01																										
ZZZZZZ			19:18																										
ZZZZZZ			19:33																										
ZZZZZZ			19:48																										
ZZZZZZ			20:06																										
ZZZZZZ			20:21																										
ZZZZZZ			20:36																										
CCV 280-461179/15			20:51																										
CCB 280-461179/16			21:07																										
ZZZZZZ			21:24																										
ZZZZZZ			21:39																										
ZZZZZZ			21:54																										
ZZZZZZ			22:08																										
ZZZZZZ			22:23																										
ZZZZZZ			22:40																										
ZZZZZZ			22:55																										
ZZZZZZ			23:09																										
ZZZZZZ			23:26																										
ZZZZZZ			23:43																										
CCV 280-461179/27			23:58																										
CCB 280-461179/28			00:12																										
ZZZZZZ			00:31																										
ZZZZZZ			00:50																										
ZZZZZZ			01:05																										
ZZZZZZ			01:19																										
ZZZZZZ			01:38																										
ZZZZZZ			01:53																										
ZZZZZZ			02:12																										
ZZZZZZ			02:30																										
ZZZZZZ			02:45																										
ZZZZZZ			03:00																										
CCV 280-461179/39	1		03:15	X																									
CCB 280-461179/40	1		03:31	X																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/10/2019 17:09 End Date: 06/11/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes
				TOCQ
LCS 280-461179/41	1	T	03:46	X
MB 280-461179/42	1	T	04:03	X
ZZZZZZ			04:20	
280-123855-3	1	T	04:34	X
280-123855-3 MS	1	T	04:49	X
280-123855-3 MSD	1	T	05:04	X
280-123855-4	1	T	05:19	X
280-123855-5	1	T	05:42	X
280-123855-6	1	T	05:57	X
ZZZZZZ			06:13	
CCV 280-461179/51	1		06:31	X
CCB 280-461179/52	1		06:46	X
ZZZZZZ			07:06	
ZZZZZZ			07:23	
ZZZZZZ			07:38	
ZZZZZZ			07:55	
ZZZZZZ			08:13	
ZZZZZZ			08:30	
ZZZZZZ			08:47	
ZZZZZZ			09:06	
ZZZZZZ			09:21	
ZZZZZZ			09:37	
CCV 280-461179/63			09:52	
CCB 280-461179/64			10:07	
ZZZZZZ			10:24	
ZZZZZZ			10:38	
ZZZZZZ			10:53	
ZZZZZZ			11:10	
ZZZZZZ			11:27	
ZZZZZZ			11:46	
ZZZZZZ			12:00	
CCV 280-461179/72			12:17	
CCB 280-461179/73			12:34	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-459576/1			17:32																									
ZZZZZZ			17:40																									
ZZZZZZ			17:42																									
LCS 280-459576/4	1	T	17:48	X																								
MB 280-459576/5	1	T	18:12	X																								
ZZZZZZ			18:18																									
280-123986-A-11 DU	1	T	18:23	X																								
ZZZZZZ			18:29																									
ZZZZZZ			18:34																									
ZZZZZZ			18:39																									
ZZZZZZ			18:45																									
ZZZZZZ			18:52																									
ZZZZZZ			19:01																									
ZZZZZZ			19:07																									
ZZZZZZ			19:16																									
CCV 280-459576/16	1		19:22	X																								
CCB 280-459576/17	1		19:27	X																								
ZZZZZZ			19:35																									
280-123855-5	1	T	19:40	X																								
280-123855-4	1	T	19:46	X																								
280-123855-6	1	T	19:52	X																								
280-123855-1	1	T	19:59	X																								
280-123855-2	1	T	20:04	X																								
280-123855-3	1	T	20:10	X																								
ZZZZZZ			20:16																									
ZZZZZZ			20:22																									
ZZZZZZ			20:25																									
CCV 280-459576/28	1		20:31	X																								
CCB 280-459576/29	1		20:36	X																								
ZZZZZZ			20:42																									
ZZZZZZ			20:47																									
ZZZZZZ			20:52																									
ZZZZZZ			20:58																									
ZZZZZZ			21:03																									
ZZZZZZ			21:08																									
ZZZZZZ			21:17																									
ZZZZZZ			21:22																									
ZZZZZZ			21:29																									
ZZZZZZ			21:36																									
ZZZZZZ			21:43																									
ZZZZZZ			21:48																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
CCV 280-459576/42			21:55	
CCB 280-459576/43			21:59	
ZZZZZZ			22:06	
ZZZZZZ			22:13	
ZZZZZZ			22:18	
ZZZZZZ			22:24	
ZZZZZZ			22:30	
ZZZZZZ			22:35	
ZZZZZZ			22:41	
ZZZZZZ			22:47	
ZZZZZZ			22:54	
ZZZZZZ			23:01	
CCV 280-459576/54			23:07	
CCB 280-459576/55			23:12	
ZZZZZZ			23:18	
ZZZZZZ			23:23	
ZZZZZZ			23:30	
ZZZZZZ			23:38	
ZZZZZZ			23:43	
ZZZZZZ			23:50	
ZZZZZZ			23:57	
ZZZZZZ			00:05	
ZZZZZZ			00:13	
ZZZZZZ			00:21	
ZZZZZZ			00:27	
ZZZZZZ			00:34	
CCV 280-459576/68			00:40	
CCB 280-459576/69			00:44	
ZZZZZZ			00:53	
ZZZZZZ			00:58	
ZZZZZZ			01:08	
ZZZZZZ			01:15	
ZZZZZZ			01:21	
ZZZZZZ			01:32	
ZZZZZZ			01:40	
ZZZZZZ			01:47	
ZZZZZZ			01:53	
ZZZZZZ			01:59	
CCV 280-459576/80			02:04	
CCB 280-459576/81			02:09	
ZZZZZZ			02:15	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																									
				Alk																									
ZZZZZZ			02:19																										
ZZZZZZ			02:26																										
ZZZZZZ			02:33																										
ZZZZZZ			02:39																										
ZZZZZZ			02:45																										
ZZZZZZ			02:50																										
ZZZZZZ			02:57																										
ZZZZZZ			03:04																										
ZZZZZZ			03:10																										
ZZZZZZ			03:15																										
ZZZZZZ			03:21																										
CCV 280-459576/94			03:27																										
CCB 280-459576/95			03:31																										
ZZZZZZ			03:37																										
ZZZZZZ			03:43																										
ZZZZZZ			03:49																										
ZZZZZZ			03:55																										
ZZZZZZ			04:02																										
ZZZZZZ			04:16																										
ZZZZZZ			04:34																										
ZZZZZZ			04:56																										
ZZZZZZ			05:12																										
ZZZZZZ			05:23																										
CCV 280-459576/106			05:28																										
CCB 280-459576/107			05:33																										
ZZZZZZ			05:40																										
ZZZZZZ			05:45																										
ZZZZZZ			05:55																										
ZZZZZZ			06:06																										
ZZZZZZ			06:18																										
ZZZZZZ			06:23																										
ZZZZZZ			06:44																										
ZZZZZZ			06:51																										
ZZZZZZ			06:57																										
ZZZZZZ			07:04																										
ZZZZZZ			07:10																										
ZZZZZZ			07:16																										
CCV 280-459576/120			07:23																										
CCB 280-459576/121			07:27																										
ZZZZZZ			07:33																										
ZZZZZZ			07:40																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			07:46																									
ZZZZZZ			07:57																									
ZZZZZZ			08:02																									
ZZZZZZ			08:07																									
ZZZZZZ			08:12																									
ZZZZZZ			08:17																									
ZZZZZZ			08:23																									
ZZZZZZ			08:26																									
CCV 280-459576/132			08:32																									
CCB 280-459576/133			08:37																									
ZZZZZZ			08:43																									
ZZZZZZ			08:48																									
ZZZZZZ			08:53																									
ZZZZZZ			08:56																									
ZZZZZZ			09:01																									
CCV 280-459576/139			09:07																									
CCB 280-459576/140			09:12																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/22/2019 12:01 End Date: 05/22/2019 12:01

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-459056/1	1	T	12:01	X																								
LCS 280-459056/2	1	T	12:01	X																								
ZZZZZZ			12:01																									
280-123910-D-1 DU	1	T	12:01	X																								
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
280-123855-1	1	T	12:01	X																								
280-123855-2	1	T	12:01	X																								
280-123855-3	1	T	12:01	X																								
280-123855-4	1	T	12:01	X																								
280-123855-5	1	T	12:01	X																								
280-123855-6	1	T	12:01	X																								
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									
ZZZZZZ			12:01																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM5210B

Start Date: 05/16/2019 16:27 End Date: 05/16/2019 16:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				BOD																								
SCB 280-458482/1	1	T	16:27	X																								
USB 280-458482/2	1	T	16:27	X																								
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
LCS 280-458482/8	1	T	16:27	X																								
MB 280-458482/9	1	T	16:27	X																								
ZZZZZZ			16:27																									
280-123853-B-1 DU	1	T	16:27	X																								
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
280-123855-1	1	T	16:27	X																								
280-123855-2	1	T	16:27	X																								
280-123855-3	1	T	16:27	X																								
280-123855-4	1	T	16:27	X																								
280-123855-5	1	T	16:27	X																								
280-123855-6	1	T	16:32	X																								
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459818 Batch Start Date: 05/29/19 10:46 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
ICVL 280-459818/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-459818/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-459818/16		350.1			10 mL	10 mL			
LCS 280-459818/18		350.1			100 mL	100 mL		2.5 mL	
MB 280-459818/19		350.1			10 mL	10 mL			
CCVL 280-459818/32		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459818/33		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459818/34		350.1			10 mL	10 mL			
280-123853-D-5 MS		350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123853-D-5 MSD		350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123855-D-1	LF5MW-1A_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123855-E-3	MW49D07_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123855-C-4	LF5SW-1_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459818/48		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459818/49		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459818/50		350.1			10 mL	10 mL			
280-123855-D-5	LF5SW-2_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123855-C-6	LF5SW-3_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459818/58		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459818/59		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459818/60		350.1			10 mL	10 mL			
LCS 280-459818/62		350.1			100 mL	100 mL		2.5 mL	
MB 280-459818/63		350.1			10 mL	10 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459818 Batch Start Date: 05/29/19 10:46 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
CCVL 280-459818/76		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459818/77		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459818/78		350.1			10 mL	10 mL			
280-124070-B-5 MS		350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-124070-B-5 MSD		350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
CCVL 280-459818/92		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459818/93		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459818/94		350.1			10 mL	10 mL			
CCVL 280-459818/102		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459818/103		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459818/104		350.1			10 mL	10 mL			
280-123855-C-2	LF5MW-100R_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459818/112		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459818/113		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459818/114		350.1			10 mL	10 mL			

Batch Notes	
Carrier Identification	350.1 complex_00424
Hypochlorite ID	350.1 bleach_01067
Sodium Nitroprusside ID	350.1 color_00152
Pipette/Syringe/Dispenser ID	JPX100, JPX1000, JPX5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460066 Batch Start Date: 05/31/19 16:12 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00794	TKN ICV 25 00078		
ICV 280-460066/42		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-460066/43		351.2, 351.2		25 mL	25 mL				
CCV 280-460066/44		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-460066/45		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	06/01/19 0400
Block Digestion Start time	05/31/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00126
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460465 Batch Start Date: 06/04/19 19:37 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00794		
LCS 280-460465/1		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460465/2		351.2, 351.2		<2	25 mL	25 mL			
280-123855-D-1	LF5MW-1A_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123855-C-2	LF5MW-100R_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123855-E-3	MW49D07_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123855-E-3 MS	MW49D07_0519	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123855-E-3 MSD	MW49D07_0519	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123855-E-4	LF5SW-1_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123855-C-5	LF5SW-2_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123855-E-6	LF5SW-3_0519	351.2, 351.2	T	<2	25 mL	25 mL			
LCS 280-460465/27		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460465/28		351.2, 351.2		<2	25 mL	25 mL			

Batch Notes	
Block Digestion End time	06/05/19 0400
Block Digestion Start time	06/04/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00127
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460603 Batch Start Date: 06/05/19 17:30 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-460066/42-A		351.2		4 mL					
ICB 280-460066/43-A		351.2		4 mL					
MB 280-460465/2-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123855-D-1-A	LF5MW-1A_0519	351.2	T	4 mL					
280-123855-E-3-A	MW49D07_0519	351.2	T	4 mL					
280-123855-E-3-B MS	MW49D07_0519	351.2	T	4 mL					
280-123855-E-3-C MSD	MW49D07_0519	351.2	T	4 mL					
280-123855-E-4-A	LF5SW-1_0519	351.2	T	4 mL					
280-123855-C-5-A	LF5SW-2_0519	351.2	T	4 mL					
280-123855-E-6-A	LF5SW-3_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
LCS 280-460465/27-A		351.2		4 mL					
MB 280-460465/28-A		351.2		4 mL					
LCS 280-460465/1-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123855-C-2-A	LF5MW-100R_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460603 Batch Start Date: 06/05/19 17:30 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
CCB 280-460066/45-A		351.2		4 mL					

Batch Notes	
Buffer Reagent ID	TKN Buffer_00095
Hypochlorite ID	TKN hypo_00663
Sodium Nitroprusside ID	Sodium nitro_00118
Pipette/Syringe/Dispenser ID	5000NXN, 1000NXN

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 457887 Batch Start Date: 05/13/19 07:39 Batch Analyst: Loux, Lauren P

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	COD cal std 00048			
IC 280-457887/1		410.4		50 mL	50 mL	0.25 mL			
IC 280-457887/2		410.4		50 mL	50 mL	0.5 mL			
IC 280-457887/3		410.4		50 mL	50 mL	1 mL			
IC 280-457887/4		410.4		50 mL	50 mL	2.5 mL			
IC 280-457887/5		410.4		50 mL	50 mL	5 mL			
IC 280-457887/6		410.4		50 mL	50 mL	7.5 mL			

Batch Notes	
Block Digestor ID	Hach4AA, Hach4BB, Hach6AA
Chlorine ID	HC850274
Temperature - Corrected - End	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Temperature - Corrected - Start	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Digestion End Time	05/13/2019 11:27
Digestion Start Time	05/13/2019 09:27
Pipette/Syringe/Dispenser ID	5000LL, 1000LL
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Temperature - Uncorrected - Start	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460546 Batch Start Date: 06/05/19 10:06 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-460546/1		410.4		100 mL	100 mL				
ICB 280-460546/2		410.4		2 mL	2 mL				
LCS 280-460546/3		410.4		100 mL	100 mL				10 mL
LCSD 280-460546/4		410.4		100 mL	100 mL				10 mL
MB 280-460546/5		410.4		2 mL	2 mL				
CCV 280-460546/16		410.4		100 mL	100 mL				10 mL
CCB 280-460546/17		410.4		2 mL	2 mL				
280-123855-D-5	LF5SW-2_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
280-123855-D-5 MS	LF5SW-2_0519	410.4	T	100 mL	100 mL	>1000	<2 SU	<2 SU	
280-123855-D-5 MSD	LF5SW-2_0519	410.4	T	100 mL	100 mL	>1000	<2 SU	<2 SU	
280-123855-D-6	LF5SW-3_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
CCV 280-460546/28		410.4		100 mL	100 mL				10 mL
CCB 280-460546/29		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
ICV 280-460546/1		410.4		7.5 mL					
ICB 280-460546/2		410.4							
LCS 280-460546/3		410.4							
LCSD 280-460546/4		410.4							
MB 280-460546/5		410.4							
CCV 280-460546/16		410.4							
CCB 280-460546/17		410.4							
280-123855-D-5	LF5SW-2_0519	410.4	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460546 Batch Start Date: 06/05/19 10:06 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
280-123855-D-5 MS	LF5SW-2_0519	410.4	T		0.5 mL				
280-123855-D-5 MSD	LF5SW-2_0519	410.4	T		0.5 mL				
280-123855-D-6	LF5SW-3_0519	410.4	T						
CCV 280-460546/28		410.4							
CCB 280-460546/29		410.4							

Batch Notes	
Block Digestor ID	hach4, hach6
Chlorine ID	hc850274
Temperature - Corrected - End	Hach 4 AA 149, Hach 4 BB 150, Hach 6 BB 150 Degrees C
Temperature - Corrected - Start	Hach 4 AA 149, Hach 4 BB 150, Hach 6 BB 150 Degrees C
Digestion End Time	06/05/2019 13:40
Digestion Start Time	06/05/2019 11:40
Pipette/Syringe/Dispenser ID	wc5000ccj, wc1000cj
Sufficient Volume for Batch QC	yes
Temperature - Uncorrected - End	Hach 4 AA 150, Hach 4 BB 150, Hach 6 BB 150 Degrees C
Temperature - Uncorrected - Start	Hach 4 AA 150, Hach 4 BB 150, Hach 6 BB 150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460644 Batch Start Date: 06/06/19 09:12 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-460644/1		410.4		100 mL	100 mL				
ICB 280-460644/2		410.4		2 mL	2 mL				
LCS 280-460644/3		410.4		100 mL	100 mL				10 mL
LCSD 280-460644/4		410.4		100 mL	100 mL				10 mL
MB 280-460644/5		410.4		2 mL	2 mL				
280-123822-H-1 MS		410.4	T	100 mL	100 mL	>1000	<2 SU	<2 SU	
280-123822-H-1 MSD		410.4	T	100 mL	100 mL	>1000	<2 SU	<2 SU	
280-123855-D-1	LF5MW-1A_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123855-C-2	LF5MW-100R_0519	410.4	T	2 mL	2 mL	>3000	<2 SU	<2 SU	
280-123855-E-3	MW49D07_0519	410.4	T	2 mL		<1000	<2 SU	<2 SU	
280-123855-E-4	LF5SW-1_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
CCV 280-460644/16		410.4		100 mL	100 mL				10 mL
CCB 280-460644/17		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
ICV 280-460644/1		410.4		7.5 mL					
ICB 280-460644/2		410.4							
LCS 280-460644/3		410.4							
LCSD 280-460644/4		410.4							
MB 280-460644/5		410.4							
280-123822-H-1 MS		410.4	T		0.5 mL				
280-123822-H-1 MSD		410.4	T		0.5 mL				
280-123855-D-1	LF5MW-1A_0519	410.4	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460644 Batch Start Date: 06/06/19 09:12 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
280-123855-C-2	LF5MW-100R_0519	410.4	T						
280-123855-E-3	MW49D07_0519	410.4	T						
280-123855-E-4	LF5SW-1_0519	410.4	T						
CCV 280-460644/16		410.4							
CCB 280-460644/17		410.4							

Batch Notes	
Batch Comment	CJ training KS
Block Digestor ID	hach2, hach4
Chlorine ID	hc850274
Temperature - Corrected - End	Hach 2 AA 150, Hach 2 BB 151, Hach 4 AA 149 Degrees C
Temperature - Corrected - Start	Hach 2 AA 150, Hach 2 BB 151, Hach 4 AA 149 Degrees C
Digestion End Time	06/06/2019 13:26
Digestion Start Time	06/06/2019 11:26
Pipette/Syringe/Dispenser ID	wc5000ccj, wc1000cj
Sufficient Volume for Batch QC	yes
Temperature - Uncorrected - End	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150 Degrees C
Temperature - Uncorrected - Start	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460448 Batch Start Date: 06/04/19 17:30 Batch Analyst: Moser, Angela R

Batch Method: Distill/Phenol Batch End Date: 06/04/19 21:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
LCS 280-460448/1		Distill/Phenol, 9066		50 mL	50 mL				1 mL
MB 280-460448/2		Distill/Phenol, 9066		50 mL	50 mL				
280-123855-C-6	LF5SW-3_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123855-C-6 MS	LF5SW-3_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123855-C-6 MSD	LF5SW-3_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460486 Batch Start Date: 06/04/19 20:55 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460486/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460486/14		9066		100 mL	100 mL		1 mL		
ICB 280-460486/15		9066		100 mL	100 mL				
LCS 280-460448/1-A		9066		100 mL	100 mL				
MB 280-460448/2-A		9066		100 mL	100 mL				
CCV 280-460486/29		9066		100 mL	100 mL	2 mL			
CCVL 280-460486/30		9066		100 mL	100 mL	1 mL			
CCB 280-460486/31		9066		100 mL	100 mL				
280-123855-C-6-A	LF5SW-3_0519	9066	T	100 mL	100 mL				
280-123855-C-6-B MS	LF5SW-3_0519	9066	T	100 mL	100 mL				
280-123855-C-6-C MSD	LF5SW-3_0519	9066	T	100 mL	100 mL				
CCV 280-460486/45		9066		100 mL	100 mL	2 mL			
CCVL 280-460486/46		9066		100 mL	100 mL	1 mL			
CCB 280-460486/47		9066		100 mL	100 mL				

Batch Notes	
Batch Comment	RK training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00408
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460735 Batch Start Date: 06/06/19 15:30 Batch Analyst: Moser, Angela R

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
LCS 280-460735/1		Distill/Phenol, 9066		50 mL	50 mL				1 mL
MB 280-460735/2		Distill/Phenol, 9066		50 mL	50 mL				
280-123855-D-1	LF5MW-1A_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123855-D-1 MS	LF5MW-1A_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123855-D-1 MSD	LF5MW-1A_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123855-C-2	LF5MW-100R_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123855-E-3	MW49D07_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123855-E-4	LF5SW-1_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123855-C-5	LF5SW-2_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460772/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460772/14		9066		100 mL	100 mL		1 mL		
ICB 280-460772/15		9066		100 mL	100 mL				
LCS 280-460735/1-A		9066		100 mL	100 mL				
MB 280-460735/2-A		9066		100 mL	100 mL				
280-123855-D-1-B	LF5MW-1A_0519	9066	T	100 mL	100 mL				
CCV 280-460772/29		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/30		9066		100 mL	100 mL	1 mL			
CCB 280-460772/31		9066		100 mL	100 mL				
280-123855-D-1-C MS	LF5MW-1A_0519	9066	T	100 mL	100 mL				
280-123855-D-1-D MSD	LF5MW-1A_0519	9066	T	100 mL	100 mL				
280-123855-C-2-B	LF5MW-100R_0519	9066	T	100 mL	100 mL				
280-123855-E-3-D	MW49D07_0519	9066	T	100 mL	100 mL				
280-123855-E-4-B	LF5SW-1_0519	9066	T	100 mL	100 mL				
280-123855-C-5-B	LF5SW-2_0519	9066	T	100 mL	100 mL				
CCV 280-460772/45		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/46		9066		100 mL	100 mL	1 mL			
CCB 280-460772/47		9066		100 mL	100 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Batch Notes	
Batch Comment	RK Training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00409
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458496 Batch Start Date: 05/16/19 18:11 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2120B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	AdjustedpH	InitialAmount	FinalAmount		
MB 280-458496/1		SM 2120B		7 SU	7 SU	50 mL	50 mL		
280-123855-J-1	LF5MW-1A_0519	SM 2120B	T	7 SU	7 SU	50 mL	50 mL		
280-123855-H-2	LF5MW-100R_0519	SM 2120B	T	9 SU	9 SU	50 mL	50 mL		
280-123855-H-3	MW49D07_0519	SM 2120B	T	8 SU	8 SU	25 mL	50 mL		
280-123855-I-4	LF5SW-1_0519	SM 2120B	T	7 SU	7 SU	50 mL	50 mL		
280-123855-J-5	LF5SW-2_0519	SM 2120B	T	7 SU	7 SU	50 mL	50 mL		
280-123855-J-5 DU	LF5SW-2_0519	SM 2120B	T	7 SU	7 SU	50 mL	50 mL		
280-123855-I-6	LF5SW-3_0519	SM 2120B	T	7 SU	7 SU	50 mL	50 mL		

Batch Notes	
Batch Comment	KS trained by CKB
pH Meter ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459401 Batch Start Date: 05/24/19 15:23 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
LCS 280-459401/1		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	10.13 mL
MB 280-459401/2		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	0.00 mL
280-123853-F-1 MS		SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	19.44 mL
280-123853-F-1 MSD		SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	19.47 mL
280-123855-F-1	LF5MW-1A_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	4.23 mL
280-123855-F-2	LF5MW-100R_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	14.26 mL
280-123855-F-3	MW49D07_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	9.76 mL
280-123855-F-4	LF5SW-1_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	7.11 mL
280-123855-F-5	LF5SW-2_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	6.96 mL
280-123855-F-6	LF5SW-3_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	7.10 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00050				
LCS 280-459401/1		SM 2340C		10.13 mL	10 mL				
MB 280-459401/2		SM 2340C		0 mL					
280-123853-F-1 MS		SM 2340C	T	19.44 mL	10 mL				
280-123853-F-1 MSD		SM 2340C	T	19.47 mL	10 mL				
280-123855-F-1	LF5MW-1A_0519	SM 2340C	T	4.23 mL					
280-123855-F-2	LF5MW-100R_0519	SM 2340C	T	14.26 mL					
280-123855-F-3	MW49D07_0519	SM 2340C	T	9.76 mL					
280-123855-F-4	LF5SW-1_0519	SM 2340C	T	7.11 mL					
280-123855-F-5	LF5SW-2_0519	SM 2340C	T	6.96 mL					
280-123855-F-6	LF5SW-3_0519	SM 2340C	T	7.1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459401 Batch Start Date: 05/24/19 15:23 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Batch Notes	
Batch Comment	KS trained by DA
Buffer Reagent ID	Mg EDTA 00009
Indicator Reagent ID	Hardness ind 00008
Nominal Amount Used	25 mL
pH Strip ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000
Normality of First Titrant	0.01966 N
Titrant ID	EDTA Titrant 00090
Titrant Standardization Date	05/24/2019

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458327/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458327/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458327/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458327/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458327/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458327/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458327/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458327/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458327/2 IC		9056A							
STD 280-458327/3 IC		9056A							
STD 280-458327/4 IC		9056A							
STD 280-458327/5 IC		9056A							
STD 280-458327/6 IC		9056A							
STD 280-458327/7 IC		9056A							
ICV 280-458327/8		9056A		0.4 mL					
ICB 280-458327/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458328/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458328/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458328/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458328/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458328/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458328/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458328/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458328/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458328/2 IC		9056A							
STD 280-458328/3 IC		9056A							
STD 280-458328/4 IC		9056A							
STD 280-458328/5 IC		9056A							
STD 280-458328/6 IC		9056A							
STD 280-458328/7 IC		9056A							
ICV 280-458328/8		9056A		0.4 mL					
ICB 280-458328/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458413 Batch Start Date: 05/16/19 13:45 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00459	IC LCS 01577	ICMS/MSD WEEK 00592
CCV 280-458413/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458413/2		9056A		5 mL	5 mL				
MRL 280-458413/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458413/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458413/5		9056A		5 mL	5 mL			5 mL	
MB 280-458413/6		9056A		5 mL	5 mL				
280-123855-I-1	LF5MW-1A_0519	9056A	T	5 mL	5 mL				
280-123855-J-2	LF5MW-100R_0519	9056A	T	5 mL	5 mL				
280-123855-J-2	LF5MW-100R_0519	9056A	T	5 mL	5 mL				
280-123855-J-3	MW49D07_0519	9056A	T	5 mL	5 mL				
280-123855-J-4	LF5SW-1_0519	9056A	T	5 mL	5 mL				
CCV 280-458413/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458413/18		9056A		5 mL	5 mL				
280-123855-H-5	LF5SW-2_0519	9056A	T	5 mL	5 mL				
280-123855-J-6	LF5SW-3_0519	9056A	T	5 mL	5 mL				
280-123853-A-3 DU		9056A	T	5 mL	5 mL				
280-123853-A-3 MS		9056A	T	5 mL	5 mL				
280-123853-A-3 MSD		9056A	T	5 mL	5 mL				
CCV 280-458413/29		9056A		5 mL	5 mL			5 mL	
CCB 280-458413/30		9056A		5 mL	5 mL				
280-123862-B-1 DU		9056A	T	5 mL	5 mL				
280-123862-B-1 MS	SW-G-DN	9056A	T	5 mL	5 mL				0.05 mL
280-123862-B-1 MSD	SW-G-DN	9056A	T	5 mL	5 mL				0.05 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458413 Batch Start Date: 05/16/19 13:45 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00459	IC LCS 01577	ICMS/MSD WEEK 00592
CCV 280-458413/41		9056A		5 mL	5 mL			5 mL	
CCB 280-458413/42		9056A		5 mL	5 mL				
280-123855-I-1	LF5MW-1A_0519	9056A	T	5 mL	5 mL				
280-123855-J-4	LF5SW-1_0519	9056A	T	5 mL	5 mL				
280-123855-H-5	LF5SW-2_0519	9056A	T	5 mL	5 mL				
280-123855-J-6	LF5SW-3_0519	9056A	T	5 mL	5 mL				
CCV 280-458413/50		9056A		5 mL	5 mL			5 mL	
CCB 280-458413/51		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458414 Batch Start Date: 05/16/19 13:45 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00459	IC LCS 01577	
CCV 280-458414/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458414/2		9056A		5 mL	5 mL				
MRL 280-458414/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458414/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458414/5		9056A		5 mL	5 mL			5 mL	
MB 280-458414/6		9056A		5 mL	5 mL				
280-123855-I-1	LF5MW-1A_0519	9056A	T	5 mL	5 mL				
280-123855-J-2	LF5MW-100R_0519	9056A	T	5 mL	5 mL				
280-123855-J-2	LF5MW-100R_0519	9056A	T	5 mL	5 mL				
280-123855-J-3	MW49D07_0519	9056A	T	5 mL	5 mL				
280-123855-J-4	LF5SW-1_0519	9056A	T	5 mL	5 mL				
CCV 280-458414/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458414/18		9056A		5 mL	5 mL				
280-123855-H-5	LF5SW-2_0519	9056A	T	5 mL	5 mL				
280-123855-J-6	LF5SW-3_0519	9056A	T	5 mL	5 mL				
280-123853-A-3 DU		9056A	T	5 mL	5 mL				
280-123853-A-3 MS		9056A	T	5 mL	5 mL				
280-123853-A-3 MSD		9056A	T	5 mL	5 mL				
CCV 280-458414/29		9056A		5 mL	5 mL			5 mL	
CCB 280-458414/30		9056A		5 mL	5 mL				
CCV 280-458414/41		9056A		5 mL	5 mL			5 mL	
CCB 280-458414/42		9056A		5 mL	5 mL				
280-123855-I-1	LF5MW-1A_0519	9056A	T	5 mL	5 mL				
280-123855-J-4	LF5SW-1_0519	9056A	T	5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458414 Batch Start Date: 05/16/19 13:45 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00459	IC LCS 01577	
280-123855-H-5	LF5SW-2_0519	9056A	T	5 mL	5 mL				
280-123855-J-6	LF5SW-3_0519	9056A	T	5 mL	5 mL				
CCV 280-458414/50		9056A		5 mL	5 mL			5 mL	
CCB 280-458414/51		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 460997 Batch Start Date: 06/07/19 15:47 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-460997/1		9060A		50 mL	50 mL	1 mL			
ICB 280-460997/2		9060A		20 mL	20 mL				
LCS 280-460997/3		9060A		200 mL	200 mL		5 mL		
MB 280-460997/4		9060A		20 mL	20 mL				
CCV 280-460997/15		9060A		200 mL	200 mL	5 mL			
CCB 280-460997/16		9060A		20 mL	20 mL				
280-123855-D-1	LF5MW-1A_0519	9060A	T	20 mL	20 mL				
280-123855-C-2	LF5MW-100R_0519	9060A	T	20 mL	20 mL				
280-123843-B-1 MS		9060A	T	50 mL	50 mL		1.25 mL		
280-123843-B-1 MSD		9060A	T	50 mL	50 mL		1.25 mL		
CCV 280-460997/27		9060A		200 mL	200 mL	5 mL			
CCB 280-460997/28		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000AZ, WC1000LL, WC100LL

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 461029 Batch Start Date: 06/07/19 15:47 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC LCS Std 00046			
LCS 280-461029/3		9060A		200 mL	200 mL	5 mL			
MB 280-461029/4		9060A		20 mL	20 mL				
280-123855-D-1	LF5MW-1A_0519	9060A	T	20 mL	20 mL				
280-123855-C-2	LF5MW-100R_0519	9060A	T	20 mL	20 mL				
280-123843-B-1 MS		9060A	T	50 mL	50 mL	1.25 mL			
280-123843-B-1 MSD		9060A	T	50 mL	50 mL	1.25 mL			

Batch Notes	
Acid ID	0.2%h2so4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000AZ, WC1000LL, WC100LL

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 461179 Batch Start Date: 06/10/19 17:09 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-461179/1		9060A		50 mL	50 mL	1 mL			
ICB 280-461179/2		9060A		20 mL	20 mL				
CCV 280-461179/39		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/40		9060A		20 mL	20 mL				
LCS 280-461179/41		9060A		200 mL	200 mL		5 mL		
MB 280-461179/42		9060A		20 mL	20 mL				
280-123855-E-3	MW49D07_0519	9060A	T	20 mL	20 mL				
280-123855-E-3 MS	MW49D07_0519	9060A	T	50 mL	50 mL		1.25 mL		
280-123855-E-3 MSD	MW49D07_0519	9060A	T	50 mL	50 mL		1.25 mL		
280-123855-E-4	LF5SW-1_0519	9060A	T	20 mL	20 mL				
280-123855-C-5	LF5SW-2_0519	9060A	T	20 mL	20 mL				
280-123855-C-6	LF5SW-3_0519	9060A	T	20 mL	20 mL				
CCV 280-461179/51		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/52		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 461180 Batch Start Date: 06/10/19 17:09 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC LCS Std 00046			
LCS 280-461180/41		9060A		200 mL	200 mL	5 mL			
MB 280-461180/42		9060A		20 mL	20 mL				
280-123855-E-3	MW49D07_0519	9060A	T	20 mL	20 mL				
280-123855-E-3 MS	MW49D07_0519	9060A	T	50 mL	50 mL	1.25 mL			
280-123855-E-3 MSD	MW49D07_0519	9060A	T	50 mL	50 mL	1.25 mL			
280-123855-E-4	LF5SW-1_0519	9060A	T	20 mL	20 mL				
280-123855-C-5	LF5SW-2_0519	9060A	T	20 mL	20 mL				
280-123855-C-6	LF5SW-3_0519	9060A	T	20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
LCS 280-459576/4		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459576/5		SM 2320B		InitialAmount is blank					
280-123986-A-11 DU		SM 2320B	T	InitialAmount is blank					
CCV 280-459576/16		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/17		SM 2320B		InitialAmount is blank					
280-123855-H-5	LF5SW-2_0519	SM 2320B	T	InitialAmount is blank					
280-123855-J-4	LF5SW-1_0519	SM 2320B	T	InitialAmount is blank					
280-123855-J-6	LF5SW-3_0519	SM 2320B	T	InitialAmount is blank					
280-123855-I-1	LF5MW-1A_0519	SM 2320B	T	InitialAmount is blank					
280-123855-J-2	LF5MW-100R_0519	SM 2320B	T	InitialAmount is blank					
280-123855-J-3	MW49D07_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/29		SM 2320B		InitialAmount is blank					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Acid ID	0.02 H2SO4_00260
pH Buffer 1 ID	pH 2.0 buffer_00079
pH Buffer 2 ID	pH 4. 0 buffer_00178
pH Buffer 3 ID	pH 7.0 buffer_00258
pH Buffer 4 ID	pH 10 buffer_00142
pH Buffer 5 ID	pH 12 buffer_00148
pH Buffer 6 ID	pH 7.0 buffer_00257
Sodium Carbonate ID	Alk Stk Std_00016
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000 ADI
Probe ID	PCE 86 pH 1105 sep14
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459056 Batch Start Date: 05/22/19 12:01 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-459056/1		SM 2540C		0.41 umhos/cm	3.8087A0384000	3.8087 g	100 mL	3.8081 g	3.8080 g
LCS 280-459056/2		SM 2540C			3.6868A0384001	3.6868 g	100 mL	3.7421 g	3.7419 g
280-123910-D-1 DU		SM 2540C	T	8770 umhos/cm	3.7764A0384003	3.7764 g	10 mL	3.9009 g	3.9006 g
280-123855-B-1	LF5MW-1A_0519	SM 2540C	T	948 umhos/cm	3.8619A0384015	3.8619 g	100 mL	3.9170 g	3.9167 g
280-123855-A-2	LF5MW-100R_0519	SM 2540C	T	7820 umhos/cm	3.7602A0384016	3.7602 g	10 mL	3.8078 g	3.8073 g
280-123855-A-3	MW49D07_0519	SM 2540C	T	735 umhos/cm	3.8333A0384017	3.8333 g	100 mL	3.8836 g	3.8835 g
280-123855-A-4	LF5SW-1_0519	SM 2540C	T	1442 umhos/cm	3.8475A0384018	3.8475 g	50 mL	3.8871 g	3.8871 g
280-123855-B-5	LF5SW-2_0519	SM 2540C	T	1335 umhos/cm	3.7257A0384019	3.7257 g	50 mL	3.7661 g	3.7663 g
280-123855-B-6	LF5SW-3_0519	SM 2540C	T	1345 umhos/cm	3.8195A0384020	3.8195 g	50 mL	3.8594 g	3.8597 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 280-459056/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	-0.0006 g	-0.0007 g	N/A g
LCS 280-459056/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0553 g	0.0551 g	N/A g
280-123910-D-1 DU		SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.1245 g	0.1242 g	N/A g
280-123855-B-1	LF5MW-1A_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0551 g	0.0548 g	N/A g
280-123855-A-2	LF5MW-100R_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0476 g	0.0471 g	N/A g
280-123855-A-3	MW49D07_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0503 g	0.0502 g	N/A g
280-123855-A-4	LF5SW-1_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0396 g	0.0396 g	N/A g
280-123855-B-5	LF5SW-2_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0404 g	0.0406 g	N/A g
280-123855-B-6	LF5SW-3_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0399 g	0.0402 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00055		
MB 280-459056/1		SM 2540C		N/A g	100 mL	OK			
LCS 280-459056/2		SM 2540C		N/A g	100 mL	OK	100 mL		
280-123910-D-1 DU		SM 2540C	T	N/A g	100 mL	OK			
280-123855-B-1	LF5MW-1A_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123855-A-2	LF5MW-100R_0519	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459056 Batch Start Date: 05/22/19 12:01 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00055		
280-123855-A-3	MW49D07_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123855-A-4	LF5SW-1_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123855-B-5	LF5SW-2_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123855-B-6	LF5SW-3_0519	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459056 Batch Start Date: 05/22/19 12:01 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/29/2019 19:14
Date/Time - Out - CW (WT2)	05/29/2019 21:14
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/22/2019 14:34
Date/Time - Out	05/23/2019 16:17
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/23/2019 16:17 No Unit
Weight(WT1) Date/Time Out	05/29/2019 19:08
Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 459056 Batch Start Date: 05/22/19 12:01 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	Initial_DO	InitialTemp	Final pH	Bot1Num
SCB 280-458482/1		SM5210B				7.17	21.30 Celsius		1
USB 280-458482/2		SM5210B				7.18	21.29 Celsius		5
LCS 280-458482/8		SM5210B				7.17	21.10 Celsius		21
MB 280-458482/9		SM5210B				7.14	21.20 Celsius		24
280-123853-B-1 DU		SM5210B	T	7.22 SU	no	7.19	21.02 Celsius	7.22 SU	28
280-123855-A-1	LF5MW-1A_0519	SM5210B	T	6.57 SU	no	7.14	20.85 Celsius	6.57 SU	46
280-123855-B-2	LF5MW-100R_0519	SM5210B	T	11.03 SU	no	7.16	20.80 Celsius	7.34 SU	49
280-123855-B-3	MW49D07_0519	SM5210B	T	7.31 SU	no	7.15	20.79 Celsius	7.31 SU	52
280-123855-B-4	LF5SW-1_0519	SM5210B	T	7.71 SU	no	7.14	20.76 Celsius	7.71 SU	55
280-123855-A-5	LF5SW-2_0519	SM5210B	T	7.69 SU	no	7.15	20.74 Celsius	7.69 SU	58
280-123855-A-6	LF5SW-3_0519	SM5210B	T	7.75 SU	no	7.16	20.69 Celsius	7.75 SU	61

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
SCB 280-458482/1		SM5210B		21.59 Celsius	15 mL	7.12 mg/L	4.32 mg/L	2.8 mg/L	0.747 mg/L
USB 280-458482/2		SM5210B		21.53 Celsius	300 mL	7.14 mg/L	7.09 mg/L	0.05 mg/L	0.05 mg/L
LCS 280-458482/8		SM5210B		21.50 Celsius	6 mL	7.12 mg/L	2.47 mg/L	4.65 mg/L	196.55 mg/L
MB 280-458482/9		SM5210B		21.47 Celsius	60 mL	7.12 mg/L	6.57 mg/L	0.55 mg/L	-0.845 mg/L
280-123853-B-1 DU		SM5210B	T	21.22 Celsius	60 mL	7.32 mg/L	6.65 mg/L	0.67 mg/L	-0.245 mg/L
280-123855-A-1	LF5MW-1A_0519	SM5210B	T	21.23 Celsius	60 mL	6.94 mg/L	6.24 mg/L	0.7 mg/L	-0.095 mg/L
280-123855-B-2	LF5MW-100R_0519	SM5210B	T	21.33 Celsius	60 mL	7.15 mg/L	6.51 mg/L	0.64 mg/L	-0.395 mg/L
280-123855-B-3	MW49D07_0519	SM5210B	T	21.18 Celsius	60 mL	7.14 mg/L	6.50 mg/L	0.64 mg/L	-0.395 mg/L
280-123855-B-4	LF5SW-1_0519	SM5210B	T	21.21 Celsius	60 mL	7.37 mg/L	6.62 mg/L	0.75 mg/L	0.155 mg/L
280-123855-A-5	LF5SW-2_0519	SM5210B	T	21.14 Celsius	60 mL	7.40 mg/L	6.58 mg/L	0.82 mg/L	0.505 mg/L
280-123855-A-6	LF5SW-3_0519	SM5210B	T	21.06 Celsius	60 mL	7.42 mg/L	6.62 mg/L	0.8 mg/L	0.405 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
SCB 280-458482/1		SM5210B		No. % DO < 50%	39 %	2	21.59 Celsius	20 mL	7.12 mg/L
USB 280-458482/2		SM5210B		Yes. USB		6	21.53 Celsius	300 mL	7.13 mg/L
LCS 280-458482/8		SM5210B		YES. Pass		22	21.48 Celsius	6 mL	7.15 mg/L
MB 280-458482/9		SM5210B		No. DO Deplete Fail					
280-123853-B-1 DU		SM5210B	T	No. DO Deplete Fail		29	20.66 Celsius	120 mL	7.60 mg/L
280-123855-A-1	LF5MW-1A_0519	SM5210B	T	No. DO Deplete Fail		47	20.89 Celsius	120 mL	6.64 mg/L
280-123855-B-2	LF5MW-100R_0519	SM5210B	T	No. DO Deplete Fail		50	20.94 Celsius	120 mL	7.21 mg/L
280-123855-B-3	MW49D07_0519	SM5210B	T	No. DO Deplete Fail		53	20.85 Celsius	120 mL	7.13 mg/L
280-123855-B-4	LF5SW-1_0519	SM5210B	T	No. DO Deplete Fail		56	20.89 Celsius	120 mL	7.78 mg/L
280-123855-A-5	LF5SW-2_0519	SM5210B	T	No. DO Deplete Fail		59	20.79 Celsius	120 mL	7.90 mg/L
280-123855-A-6	LF5SW-3_0519	SM5210B	T	No. DO Deplete Fail		62	20.71 Celsius	120 mL	7.97 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
SCB 280-458482/1		SM5210B		3.53 mg/L	50 %	3.59 mg/L	0.718 mg/L	YES. Pass	3
USB 280-458482/2		SM5210B		7.06 mg/L		0.07 mg/L	0.07 mg/L	Yes. Pass	7
LCS 280-458482/8		SM5210B		2.19 mg/L		4.96 mg/L	212.05 mg/L	YES. Pass	23
MB 280-458482/9		SM5210B							
280-123853-B-1 DU		SM5210B	T	6.68 mg/L		0.92 mg/L	0.503 mg/L	No. DO Deplete Fail	30
280-123855-A-1	LF5MW-1A_0519	SM5210B	T	5.87 mg/L		0.77 mg/L	0.128 mg/L	No. DO Deplete Fail	48
280-123855-B-2	LF5MW-100R_0519	SM5210B	T	6.50 mg/L		0.71 mg/L	-0.023 mg/L	No. DO Deplete Fail	51
280-123855-B-3	MW49D07_0519	SM5210B	T	6.23 mg/L		0.9 mg/L	0.452 mg/L	No. DO Deplete Fail	54
280-123855-B-4	LF5SW-1_0519	SM5210B	T	6.88 mg/L		0.9 mg/L	0.453 mg/L	No. DO Deplete Fail	57

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
280-123855-A-5	LF5SW-2_0519	SM5210B	T	7.09 mg/L		0.81 mg/L	0.228 mg/L	No. DO Deplete Fail	60
280-123855-A-6	LF5SW-3_0519	SM5210B	T	6.83 mg/L		1.14 mg/L	1.053 mg/L	No. DO Deplete Fail	63

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
SCB 280-458482/1		SM5210B		21.61 Celsius	25 mL	7.11 mg/L	2.61 mg/L	4.5 mg/L	0.72 mg/L
USB 280-458482/2		SM5210B		21.44 Celsius	300 mL	7.12 mg/L	7.05 mg/L	0.07 mg/L	0.07 mg/L
LCS 280-458482/8		SM5210B		21.44 Celsius	6 mL	7.17 mg/L	2.50 mg/L	4.67 mg/L	197.55 mg/L
MB 280-458482/9		SM5210B			240 mL				
280-123853-B-1 DU		SM5210B	T	20.07 Celsius	240 mL	7.82 mg/L	6.91 mg/L	0.91 mg/L	0.239 mg/L
280-123855-A-1	LF5MW-1A_0519	SM5210B	T	20.54 Celsius	240 mL	7.44 mg/L	6.50 mg/L	0.94 mg/L	0.276 mg/L
280-123855-B-2	LF5MW-100R_0519	SM5210B	T	20.54 Celsius	240 mL	7.36 mg/L	6.34 mg/L	1.02 mg/L	0.376 mg/L
280-123855-B-3	MW49D07_0519	SM5210B	T	20.48 Celsius	240 mL	7.13 mg/L	6.36 mg/L	0.77 mg/L	0.064 mg/L
280-123855-B-4	LF5SW-1_0519	SM5210B	T	20.58 Celsius	240 mL	7.83 mg/L	6.90 mg/L	0.93 mg/L	0.264 mg/L
280-123855-A-5	LF5SW-2_0519	SM5210B	T	20.41 Celsius	240 mL	7.89 mg/L	6.84 mg/L	1.05 mg/L	0.414 mg/L
280-123855-A-6	LF5SW-3_0519	SM5210B	T	20.21 Celsius	240 mL	8.04 mg/L	6.93 mg/L	1.11 mg/L	0.489 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
SCB 280-458482/1		SM5210B		63 %	YES. Pass	4	21.57 Celsius	30 mL	7.11 mg/L
USB 280-458482/2		SM5210B			Yes. Pass				
LCS 280-458482/8		SM5210B			YES. Pass				
MB 280-458482/9		SM5210B							
280-123853-B-1 DU		SM5210B	T		NO. Deplete Fail				
280-123855-A-1	LF5MW-1A_0519	SM5210B	T		NO. Deplete Fail				
280-123855-B-2	LF5MW-100R_0519	SM5210B	T		NO. Deplete Fail				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
280-123855-B-3	MW49D07_0519	SM5210B	T		NO. Deplete Fail				
280-123855-B-4	LF5SW-1_0519	SM5210B	T		NO. Deplete Fail				
280-123855-A-5	LF5SW-2_0519	SM5210B	T		NO. Deplete Fail				
280-123855-A-6	LF5SW-3_0519	SM5210B	T		NO. Deplete Fail				

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
SCB 280-458482/1		SM5210B		1.61 mg/L	5.5 mg/L	0.733 mg/L	77 %	No	300 mL
USB 280-458482/2		SM5210B							300 mL
LCS 280-458482/8		SM5210B							300 mL
MB 280-458482/9		SM5210B							300 mL
280-123853-B-1 DU		SM5210B	T						300 mL
280-123855-A-1	LF5MW-1A_0519	SM5210B	T						300 mL
280-123855-B-2	LF5MW-100R_0519	SM5210B	T						300 mL
280-123855-B-3	MW49D07_0519	SM5210B	T						300 mL
280-123855-B-4	LF5SW-1_0519	SM5210B	T						300 mL
280-123855-A-5	LF5SW-2_0519	SM5210B	T						300 mL
280-123855-A-6	LF5SW-3_0519	SM5210B	T						300 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
SCB 280-458482/1		SM5210B		7.06	21.80 Celsius				
USB 280-458482/2		SM5210B		7.07	21.75 Celsius				
LCS 280-458482/8		SM5210B		7.12	21.33 Celsius	6 mL			
MB 280-458482/9		SM5210B		7.10	21.28 Celsius				
280-123853-B-1 DU		SM5210B	T	7.13	21.19 Celsius		pH temp= 14.8, color= clear		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
280-123855-A-1	LF5MW-1A_0519	SM5210B	T	7.09	20.94 Celsius		pH temp= 16.2, color= clear		
280-123855-B-2	LF5MW-100R_0519	SM5210B	T	7.10	20.86 Celsius		pH temp= 15.2, color= clear		
280-123855-B-3	MW49D07_0519	SM5210B	T	7.09	20.87 Celsius		pH temp= 15.0, color= pale orange/turbid		
280-123855-B-4	LF5SW-1_0519	SM5210B	T	7.10	20.80 Celsius		pH temp= 15.3, color= clear		
280-123855-A-5	LF5SW-2_0519	SM5210B	T	7.08	20.84 Celsius		pH temp= 15.7, color= clear		
280-123855-A-6	LF5SW-3_0519	SM5210B	T	7.10	20.77 Celsius		pH temp= 16.3, color= clear		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123855-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Batch Notes	
Barometer ID	YSI 5100 BOD Probe: 16H100313
Batch Comment	Room Temp= 21.54 EC trained by ckb
Calibration - Initial Date/Time	05/15/2019 17:30
Dilution Water ID	Elga water 18.2 micro ohms
Sulfuric Acid ID	1N H2SO4_00033
Incubator ID	BOD3
Sodium Hydroxide ID	1N NaOH_00047
Nitrification Inhibitor ID	Nitrogen inhibitor_00012
Nominal Amount Used	300 mL
Nutrient Buffer Pillow ID	BOD buffer_00038
pH Meter ID	SV-15261, QX1-15909
Pipette/Syringe/Dispenser ID	5000 BOD 1000BOD
Probe ID	YSI 5010 BOD Probe 15A100003
Residual Chlorine Pillow Lot #	free chlorine micro check lot: 111418
Amount of Seed added to each Sample	4 mL
Seed Correction	0.719 mg/L
Seed ID	Polyseed_00020 Seeded @ 17:55 EC Readback 16:40 EC
Thermometer ID	BOD log tag 3
Uncorrected Incubator Temp - Final	20.40 Celsius
Uncorrected Incubator Temp - Initial	20.10 Celsius
Barometric Pressure - Uncorrected	initial:624 final:616

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Table - 052919.tbl

File name: C:\FLOW_4\052919.TBL
Date: 29-May-19

Cup	Name	Type	R	Dil	Wt	Comment		
5	Sync	SYNC	1	1	1			
0	blk	CO	1	1	1			
0	Read Baseline	RB	1	1	1			
1	Cal 0.0 PPB	C	1	1	1			
3	Cal 25.0 ppb	C	1	1	1			
4	Cal 50.0 ppb	C	1	1	1			
5	Cal 100.0 ppb	C	1	1	1			
6	Cal 500.0 ppb	C	1	1	1			
7	Cal 1000.0 ppb	C	1	1	1			
8	Cal 2500.0 ppb	C	1	1	1			
9	Cal 5000.0 ppb	C	1	1	1			
0	blank	BLNK	1	1	1			
0	read baseline	RB	1	1	1	negative y intercept		
10	ICVL 500.0 ppb	U	1	1	1	Pantex cancelled		
11	ICV 2500.0 ppb	U	1	1	1			
1	ICB	U	1	1	1			
0	read baseline	RB	1	1	1		pH	Cl-
8	LCS	U	1	1	1			
12	MB	U	1	1	1			
13	280-124014-b-1	U	1	1	1		<2	N
14	MS 280-124014-b-1	U	1	1	1			
15	MSD 280-124014-b-1	U	1	1	1			
16	280-124014-b-2	U	1	1	1		<2	N
17	280-123676-d-2	U	1	100	1		<2	N
18	280-123590-a-1	U	1	500	1		Pantex	
19	280-123853-d-5	U	1	1	1		<2	N
20	280-123712-a-2	U	1	100	1		Pantex	
21	280-123853-d-1	U	1	1	1		<2	N
22	280-123853-d-2	U	1	1	1		<2	N
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			
23	280-123853-d-3	U	1	1	1		<2	N
24	280-123853-d-4	U	1	1	1		<2	N
25	~~280-123712-a-1~~	U	1	~~100~~ 1	1	MS 123853-5 5/29/19	<2	N
26	~~MS 280-123712-a-1~~	U	1	~~100~~ 1	1	MS 123853-5		
27	~~MSD 280-123712-a-1~~	U	1	~~100~~ 1	1	MSD 123853-5		
28	280-123853-d-6	U	1	1	1		<2	N
29	280-123855-d-1	U	1	1	1		<2	N
30	280-123855-c-2	U	1	1	1		<2	N
31	280-123855-e-3	U	1	1	1		<2	N
32	280-123855-c-4	U	1	1	1		<2	N
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			
33	280-123855-d-5	U	1	1	1		<2	N
34	280-123855-c-6	U	1	1	1		<2	N
35	280-124041-e-1	U	1	1	1		<2	N
36	280-124042-f-1	U	1	1	1		<2	N
0	Rinse	U	1	1	1			

Cup	Name	Type	R	Dil	Wt	Comment		
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1	pH	Cl⁻	
0	Read Baseline	RB	1	1	1			
8	LCS	U	1	1	1			
12	MB	U	1	1	1			
37	280-124043-f-1	U	1	1	1	C2	N	
38	MS 280-124043-f-1	U	1	1	1			
39	MSD 280-124043-f-1	U	1	1	1			
40	280-123923-e-1	U	1	1	1	C2	N	
41	280-124175-b-1	U	1	1	1	C2	N	
42	280-124175-b-2	U	1	1	1	C2	N	
43	280-124088-c-1	U	1	1	1	C2	N	
44	280-124107-h-1	U	1	1	1	C2	N	
45	280-124070-c-1	U	1	1	1	C2	N	
46	280-124070-c-2	U	1	1	1	C2	N	
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			
47	280-124070-c-3	U	1	1	1	C2	N	
48	280-124070-b-4	U	1	1	1	C2	N	
49	280-124070-b-5	U	1	1	1	C2	N	
50	MS 280-124070-b-5	U	1	1	1			
51	MSD 280-124070-b-5	U	1	1	1			
52	280-124070-b-6	U	1	1	1	C2	N	
53	280-124106-d-1	U	1	1	1	C2	N	
54	280-124106-d-2	U	1	1	1	C2	N	
55	280-124106-d-3	U	1	1	1	C2	N	
56	280-124106-d-4	U	1	1	1	C2	N	
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			
57	280-124245-a-1	U	1	1	1	C2	N	
58	280-124225-j-1	U	1	1000	1	C2	N	
59	D 123955-8 MS 5/29/19		1	1	1	C2	N	
60	D 123832-10	U	1	1	1	C2	N	
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			

61 123855-2 50

62 123903-1 2

63 124106-3 50

Run Results Report

Facility Name
Facility Location
Department
Operator Name MJS
Operator ID MJS
Platform FS 3000
Software Rev Code 222
Data system ID 57

Result path C:\FLOW_4\052919.RST
Sample table path C:\FLOW_4\052919.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 29-May-19
Time acquired 14:44

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
29-May-19	10:46	5	Sync	11547	88.498	
29-May-19	10:48	0	blk	-443	-6.708	LO
29-May-19	10:50	0	Read Baseline	0	-3.191	BL
29-May-19	10:52	1	Cal 0.0 PPB	-356	-6.021	LO
29-May-19	10:54	3	Cal 25.0 ppb	2672	18.032	
29-May-19	10:56	4	Cal 50.0 ppb	5868	43.411	
29-May-19	10:58	5	Cal 100.0 ppb	12597	96.839	
29-May-19	11:00	6	Cal 500.0 ppb	65869	518.964	
29-May-19	11:02	7	Cal 1000.0 ppb	130049	1025.635	
29-May-19	11:04	8	Cal 2500.0 ppb	315367	2477.063	
29-May-19	11:06	9	Cal 5000.0 ppb	643426	5004.257	
29-May-19	11:08	0	blank	246	-1.240	LO
29-May-19	11:10	0	read baseline	0	-3.191	BL
29-May-19	11:12	10	ICVL 500.0 ppb	60913	479.754	
29-May-19	11:14	11	ICV 2500.0 ppb	319871	2512.121	
29-May-19	11:16	1	ICB	-336	-5.863	LO
29-May-19	11:18	0	read baseline	0	-3.191	BL
29-May-19	11:20	8	LCS	326852	2566.450	
29-May-19	11:22	12	MB	-55	-3.630	LO
29-May-19	11:24	13	280-124014-b-1	120650	951.567	
29-May-19	11:26	14	MS 280-124014-b-1	211420	1665.057	
29-May-19	11:28	15	MSD 280-124014-b-1	258307	2031.999	
29-May-19	11:30	16	280-124014-b-2	34806	272.996	
29-May-19	11:32	17	280-123676-d-2	171664	135306.422	
29-May-19	11:34	18	280-123590-a-1	44338	174262.688	
29-May-19	11:36	19	280-123853-d-5	-763	-9.251	LO
29-May-19	11:38	20	280-123712-a-2	79960	63038.387	
29-May-19	11:40	21	280-123853-d-1	-626	-8.161	LO
29-May-19	11:42	22	280-123853-d-2	-918	-10.487	LO
29-May-19	11:44	0	Rinse	-283	-5.436	LO
29-May-19	11:46	0	Read Baseline	0	-3.191	BL
29-May-19	11:48	6	CCVL 500 ppb	63113	497.156	
29-May-19	11:50	8	CCV 2500 ppb	325139	2553.118	
29-May-19	11:52	12	CCB	111	-2.307	LO
29-May-19	11:54	0	Read Baseline	0	-3.191	BL
29-May-19	11:56	23	280-123853-d-3	6818	50.958	
29-May-19	11:58	24	280-123853-d-4	386	-0.122	LO
29-May-19	12:00	25	280-123853-d-5	-669	-8.502	LO
29-May-19	12:02	26	MS 280-123853-d-5	140676	1109.336	
29-May-19	12:04	27	MSD 280-123853-d-5	143533	1131.822	
29-May-19	12:06	28	280-123853-d-6	4613	33.449	
29-May-19	12:08	29	280-123855-d-1	-512	-7.258	LO
29-May-19	12:10	30	280-123855-c-2	2145220	15884.976	HI
29-May-19	12:12	31	280-123855-e-3	4614	33.452	FL
29-May-19	12:14	32	280-123855-c-4	362	-0.312	LO
29-May-19	12:16	0	Rinse	-90	-3.904	LO

Result path C:\FLOW_4\052919.RST
Sample table path C:\FLOW_4\052919.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 29-May-19
Time acquired 14:44

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
29-May-19	12:18	0	Read Baseline	0	-3.191	BL
29-May-19	12:20	6	CCVL 500 ppb	62426	491.720	
29-May-19	12:22	8	CCV 2500 ppb	325006	2552.085	
29-May-19	12:24	12	CCB	-290	-5.492	LO
29-May-19	12:26	0	Read Baseline	0	-3.191	BL
29-May-19	12:28	33	280-123855-d-5	528	1.000	LO
29-May-19	12:30	34	280-123855-c-6	288	-0.900	LO
29-May-19	12:32	35	280-124041-e-1	-585	-7.840	LO
29-May-19	12:34	36	280-124042-f-1	-398	-6.355	LO
29-May-19	12:36	0	Rinse	-236	-5.064	LO
29-May-19	12:38	0	Read Baseline	0	-3.191	BL
29-May-19	12:40	6	CCVL 500 ppb	62191	489.860	
29-May-19	12:42	8	CCV 2500 ppb	336202	2639.169	
29-May-19	12:44	12	CCB	-218	-4.920	LO
29-May-19	12:46	0	Read Baseline	0	-3.191	BL
29-May-19	12:48	8	LCS	328990	2583.082	
29-May-19	12:50	12	MB	149	-2.006	LO
29-May-19	12:52	37	280-124043-f-1	-504	-7.191	LO
29-May-19	12:54	38	MS 280-124043-f-1	143765	1133.649	
29-May-19	12:56	39	MSD 280-124043-f-1	134828	1063.279	
29-May-19	12:58	40	280-123923-e-1	856739	6618.587	
29-May-19	13:00	41	280-124175-b-1	7565	56.885	
29-May-19	13:02	42	280-124175-b-2	11478	87.952	
29-May-19	13:04	43	280-124088-c-1	586	1.461	
29-May-19	13:06	44	280-124107-h-1	1553	9.146	
29-May-19	13:08	45	280-124070-c-1	164	-1.888	LO
29-May-19	13:10	46	280-124070-c-2	1416	8.053	
29-May-19	13:12	0	Rinse	25	-2.996	LO
29-May-19	13:14	0	Read Baseline	0	-3.191	BL
29-May-19	13:16	6	CCVL 500 ppb	65985	519.880	
29-May-19	13:18	8	CCV 2500 ppb	326817	2566.171	
29-May-19	13:20	12	CCB	99	-2.402	LO
29-May-19	13:22	0	Read Baseline	0	-3.191	BL
29-May-19	13:24	47	280-124070-c-3	2952	20.259	
29-May-19	13:26	48	280-124070-b-4	4044	28.933	
29-May-19	13:28	49	280-124070-b-5	5616	41.415	
29-May-19	13:30	50	MS 280-124070-b-5	135013	1064.736	
29-May-19	13:32	51	MSD 280-124070-b-5	148947	1174.433	
29-May-19	13:34	52	280-124070-b-6	7076	53.010	
29-May-19	13:36	53	280-124106-d-1	328494	2579.225	
29-May-19	13:38	54	280-124106-d-2	336983	2645.242	
29-May-19	13:40	55	280-124106-d-3	2439714	17886.117	HI
29-May-19	13:42	56	280-124106-d-4	42094	330.746	FL
29-May-19	13:44	0	Rinse	-191	-4.711	LO
29-May-19	13:46	0	Read Baseline	0	-3.191	BL
29-May-19	13:48	6	CCVL 500 ppb	65298	514.447	
29-May-19	13:50	8	CCV 2500 ppb	334093	2622.767	
29-May-19	13:52	12	CCB	-215	-4.903	LO
29-May-19	13:54	0	Read Baseline	0	-3.191	BL
29-May-19	13:56	57	280-124245-a-1	350847	2752.986	
29-May-19	13:58	58	280-124225-j-1	145738	1149178.125	
29-May-19	14:00	59	280-123955-b-8	318440	2500.988	
29-May-19	14:02	60	280-123832-c-10	4670	33.902	
29-May-19	14:04	0	Rinse	-26	-3.397	LO
29-May-19	14:06	0	Read Baseline	0	-3.191	BL
29-May-19	14:08	6	CCVL 500 ppb	66632	524.995	
29-May-19	14:10	8	CCV 2500 ppb	337030	2645.609	

Result path C:\FLOW_4\052919.RST
Sample table path C:\FLOW_4\052919.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 29-May-19
Time acquired 14:44

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
29-May-19	14:12	12	CCB	-143	-4.328	LO
29-May-19	14:14	0	Read Baseline	0	-3.191	BL
29-May-19	14:20	61	280-123855-c-2	45999	18083.967	
29-May-19	14:22	62	280-123923-e-1	436618	6834.799	
29-May-19	14:24	63	280-124106-d-3	63743	25107.316	
29-May-19	14:26	56	280-124106-d-4	40428	317.543	
29-May-19	14:28	0	Rinse	59	-2.722	LO
29-May-19	14:30	0	Read Baseline	0	-3.191	BL
29-May-19	14:32	6	CCVL 500 ppb	68419	539.136	
29-May-19	14:34	8	CCV 2500 ppb	342325	2686.766	
29-May-19	14:36	12	CCB	13	-3.086	LO
29-May-19	14:38	0	Read Baseline	0	-3.191	BL

Peak Table:Ammonia

File name: C:\FLOW_4\052919.RST
Date: 29-May-19
Operator: MJS

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	11547	88.498329	
2	0	blk	1	CO	1	1	-443	-6.708152	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
4	1	Cal 0.0 PPB	1	C	1	1	-356	-6.020555	LO
5	3	Cal 25.0 ppb	1	C	1	1	2672	18.031824	
6	4	Cal 50.0 ppb	1	C	1	1	5868	43.411438	
7	5	Cal 100.0 ppb	1	C	1	1	12597	96.838631	
8	6	Cal 500.0 ppb	1	C	1	1	65869	518.963745	
9	7	Cal 1000.0 ppb	1	C	1	1	130049	1025.634888	
10	8	Cal 2500.0 ppb	1	C	1	1	315367	2477.062744	
11	9	Cal 5000.0 ppb	1	C	1	1	643426	5004.257324	
12	0	blank	1	BLNK	1	1	246	-1.239502	LO
B	0	read baseline	1	RB	1	1	0	-3.190870	BL
14	10	ICVL 500.0 ppb	1	U	1	1	60913	479.754395	
15	11	ICV 2500.0 ppb	1	U	1	1	319871	2512.121094	
16	1	ICB	1	U	1	1	-336	-5.863373	LO
B	0	read baseline	1	RB	1	1	0	-3.190870	BL
18	8	LCS	1	U	1	1	326852	2566.450439	
19	12	MB	1	U	1	1	-55	-3.629551	LO
20	13	280-124014-b-1	1	U	1	1	120650	951.566833	
21	14	MS 280-124014-b-1	1	U	1	1	211420	1665.056519	
22	15	MSD 280-124014-b-1	1	U	1	1	258307	2031.998657	
23	16	280-124014-b-2	1	U	1	1	34806	272.996002	
24	17	280-123676-d-2	1	U	100	1	171664	135306.421875	
25	18	280-123590-a-1	1	U	500	1	44338	174262.687500	
26	19	280-123853-d-5	1	U	1	1	-763	-9.251243	LO
27	20	280-123712-a-2	1	U	100	1	79960	63038.386719	
28	21	280-123853-d-1	1	U	1	1	-626	-8.161288	LO
29	22	280-123853-d-2	1	U	1	1	-918	-10.486878	LO
30	0	Rinse	1	U	1	1	-283	-5.436073	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
32	6	CCVL 500 ppb	1	U	1	1	63113	497.155701	
33	8	CCV 2500 ppb	1	U	1	1	325139	2553.117920	
34	12	CCB	1	U	1	1	111	-2.307113	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
36	23	280-123853-d-3	1	U	1	1	6818	50.958202	
37	24	280-123853-d-4	1	U	1	1	386	-0.121589	LO
38	25	280-123853-d-5	1	U	1	1	-669	-8.501881	LO
39	26	MS 280-123853-d-5	1	U	1	1	140676	1109.335938	
40	27	MSD 280-123853-d-5	1	U	1	1	143533	1131.821655	
41	28	280-123853-d-6	1	U	1	1	4613	33.449284	
42	29	280-123855-d-1	1	U	1	1	-512	-7.257688	LO
43	30	280-123855-c-2	1	U	1	1	2145220	15884.975586	HI
44	31	280-123855-e-3	1	U	1	1	4614	33.452351	FL
45	32	280-123855-c-4	1	U	1	1	362	-0.312037	LO
46	0	Rinse	1	U	1	1	-90	-3.904106	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
48	6	CCVL 500 ppb	1	U	1	1	62426	491.720337	
49	8	CCV 2500 ppb	1	U	1	1	325006	2552.084717	
50	12	CCB	1	U	1	1	-290	-5.491902	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
52	33	280-123855-d-5	1	U	1	1	528	0.999604	LO
53	34	280-123855-c-6	1	U	1	1	288	-0.899728	LO
54	35	280-124041-e-1	1	U	1	1	-585	-7.839583	LO
55	36	280-124042-f-1	1	U	1	1	-398	-6.355006	LO
56	0	Rinse	1	U	1	1	-236	-5.064034	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
58	6	CCVL 500 ppb	1	U	1	1	62191	489.860077	
59	8	CCV 2500 ppb	1	U	1	1	336202	2639.168701	
60	12	CCB	1	U	1	1	-218	-4.919694	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
62	8	LCS	1	U	1	1	328990	2583.082275	
63	12	MB	1	U	1	1	149	-2.006460	LO
64	37	280-124043-f-1	1	U	1	1	-504	-7.190752	LO
65	38	MS 280-124043-f-1	1	U	1	1	143765	1133.649048	
66	39	MSD 280-124043-f-1	1	U	1	1	134828	1063.279419	
67	40	280-123923-e-1	1	U	1	1	856739	6618.586914	
68	41	280-124175-b-1	1	U	1	1	7565	56.884640	
69	42	280-124175-b-2	1	U	1	1	11478	87.952477	
70	43	280-124088-c-1	1	U	1	1	586	1.460512	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	44	280-124107-h-1	1	U	1	1	1553	9.145669	
72	45	280-124070-c-1	1	U	1	1	164	-1.888089	LO
73	46	280-124070-c-2	1	U	1	1	1416	8.053090	
74	0	Rinse	1	U	1	1	25	-2.996036	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
76	6	CCVL 500 ppb	1	U	1	1	65985	519.880371	
77	8	CCV 2500 ppb	1	U	1	1	326817	2566.171387	
78	12	CCB	1	U	1	1	99	-2.402388	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
80	47	280-124070-c-3	1	U	1	1	2952	20.258722	
81	48	280-124070-b-4	1	U	1	1	4044	28.932644	
82	49	280-124070-b-5	1	U	1	1	5616	41.414948	
83	50	MS 280-124070-b-5	1	U	1	1	135013	1064.736084	
84	51	MSD 280-124070-b-5	1	U	1	1	148947	1174.433105	
85	52	280-124070-b-6	1	U	1	1	7076	53.009624	
86	53	280-124106-d-1	1	U	1	1	328494	2579.224854	
87	54	280-124106-d-2	1	U	1	1	336983	2645.241699	
88	55	280-124106-d-3	1	U	1	1	2439714	17886.117188	HI
89	56	280-124106-d-4	1	U	1	1	42094	330.745636	FL
90	0	Rinse	1	U	1	1	-191	-4.711273	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
92	6	CCVL 500 ppb	1	U	1	1	65298	514.446960	
93	8	CCV 2500 ppb	1	U	1	1	334093	2622.767334	
94	12	CCB	1	U	1	1	-215	-4.902517	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
96	57	280-124245-a-1	1	U	1	1	350847	2752.985596	
97	58	280-124225-j-1	1	U	1000	1	145738	1149178.125000	
98	59	280-123955-b-8	1	U	1	1	318440	2500.988037	
99	60	280-123832-c-10	1	U	1	1	4670	33.901588	
100	0	Rinse	1	U	1	1	-26	-3.397300	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
102	6	CCVL 500 ppb	1	U	1	1	66632	524.995178	
103	8	CCV 2500 ppb	1	U	1	1	337030	2645.608887	
104	12	CCB	1	U	1	1	-143	-4.327542	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
106	61	280-123855-c-2	1	U	50	1	45999	18083.966797	
107	62	280-123923-e-1	1	U	2	1	436618	6834.799316	
108	63	280-124106-d-3	1	U	50	1	63743	25107.316406	
109	56	280-124106-d-4	1	U	1	1	40428	317.543091	
110	0	Rinse	1	U	1	1	59	-2.721701	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
112	6	CCVL 500 ppb	1	U	1	1	68419	539.136353	
113	8	CCV 2500 ppb	1	U	1	1	342325	2686.766113	
114	12	CCB	1	U	1	1	13	-3.086404	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL

Ammonia:Calibration 1: Peak 4-115

File name: C:\FLOW_4\052919.RST
Date: 29-May-19
Operator: MJS

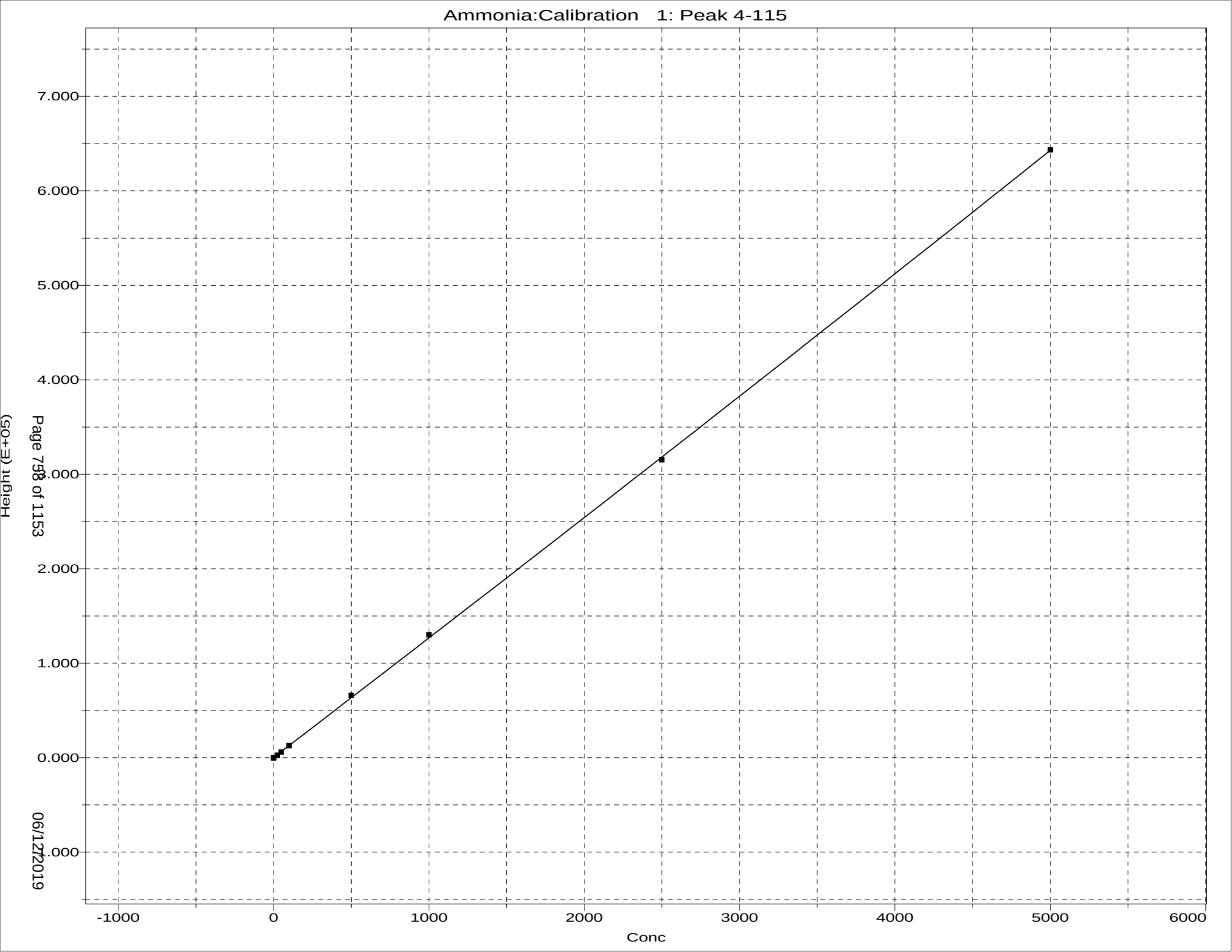
*	Name	Conc	Height
*	Cal 0.0 PPB	0.000000	-356.215759
*	Cal 25.0 ppb	25.000000	2671.880859
*	Cal 50.0 ppb	50.000000	5867.697754
*	Cal 100.0 ppb	100.000000	12597.390625
*	Cal 500.0 ppb	500.000000	65869.148438
*	Cal 1000.0 ppb	1000.000000	130048.804688
*	Cal 2500.0 ppb	2500.000000	315367.093750
*	Cal 5000.0 ppb	5000.000000	643425.562500

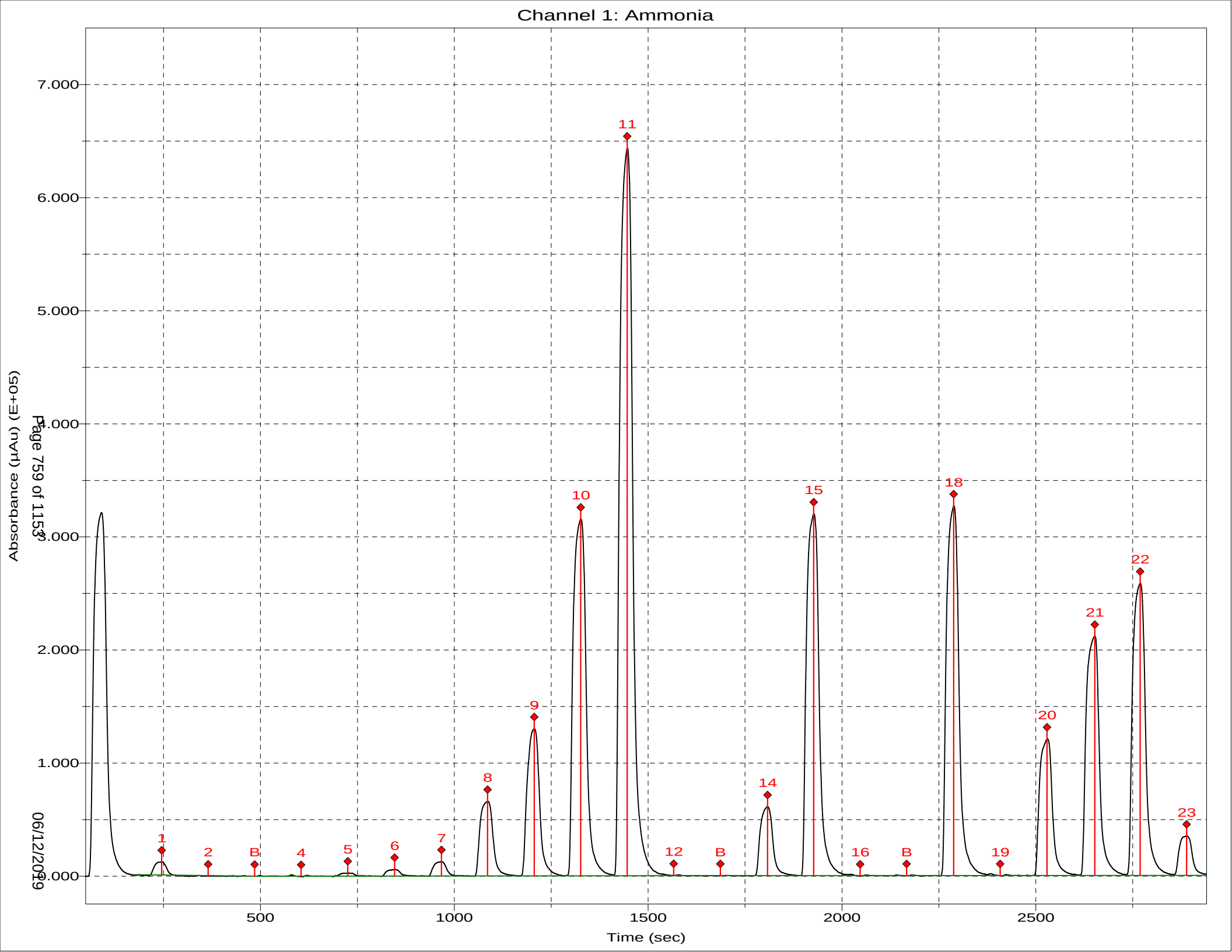
Calib Coef:
x=cyy+by+a
a: (intercept) -3.1909e+00
b: 7.9436e-03
c: -2.5048e-10

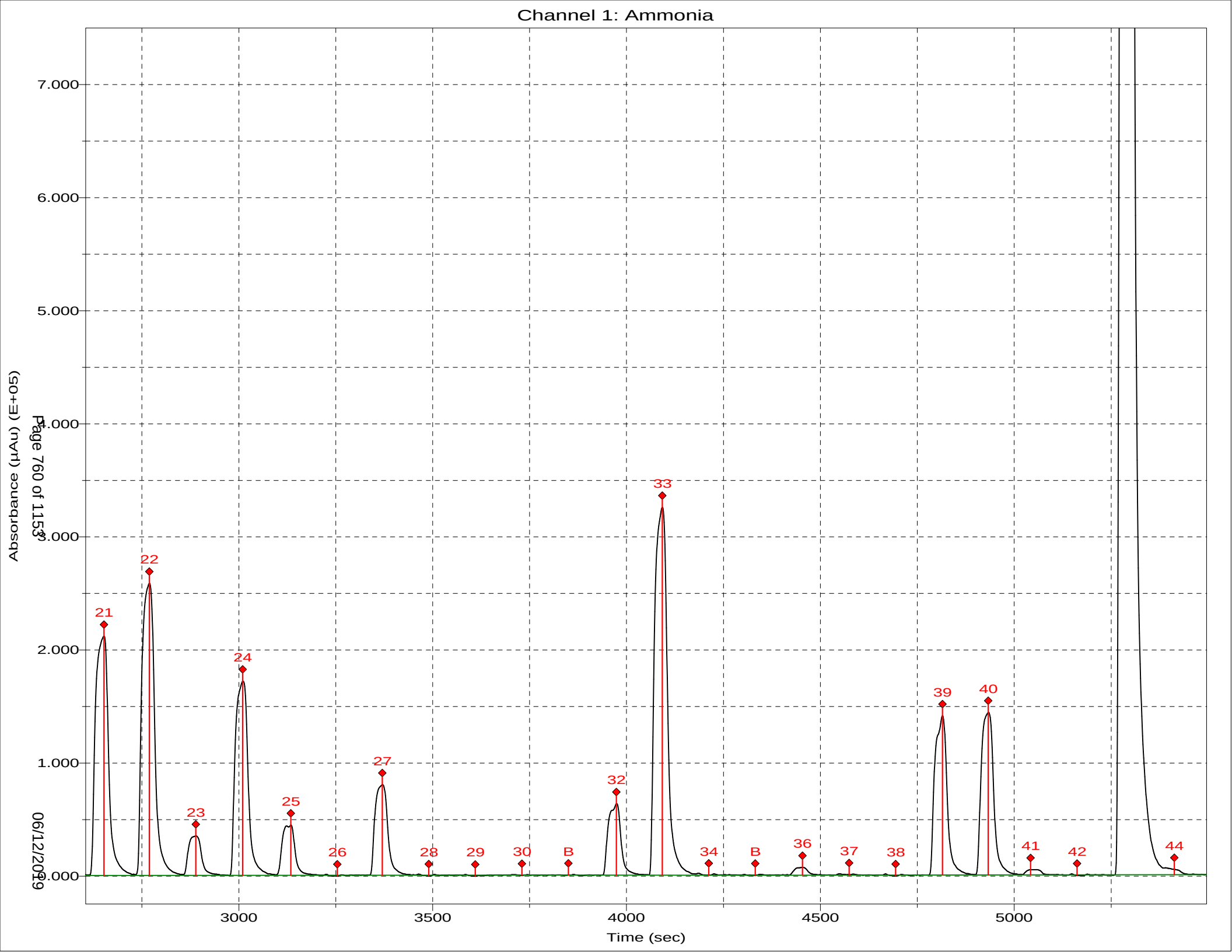
Corr Coef: 0.999963

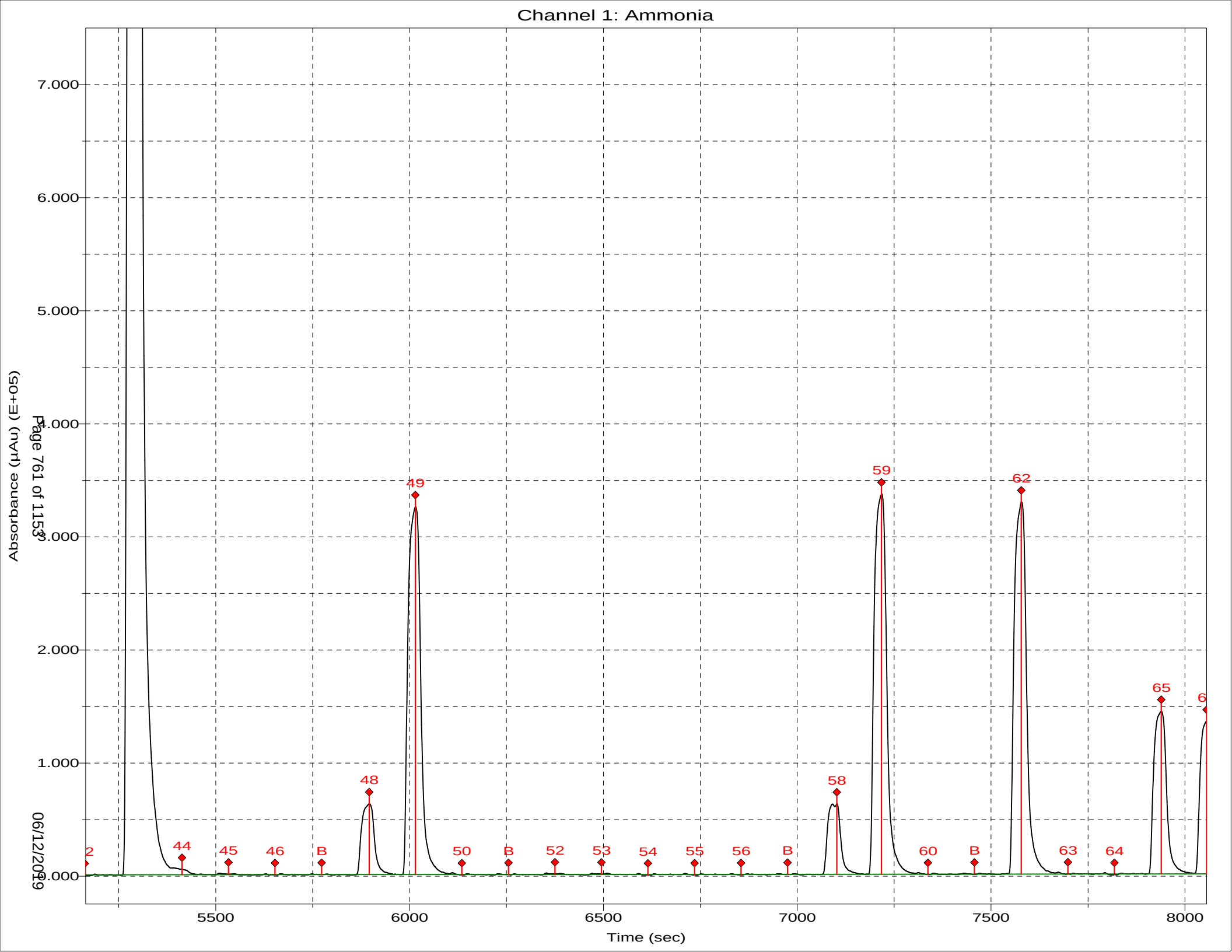
Carryover: 0%

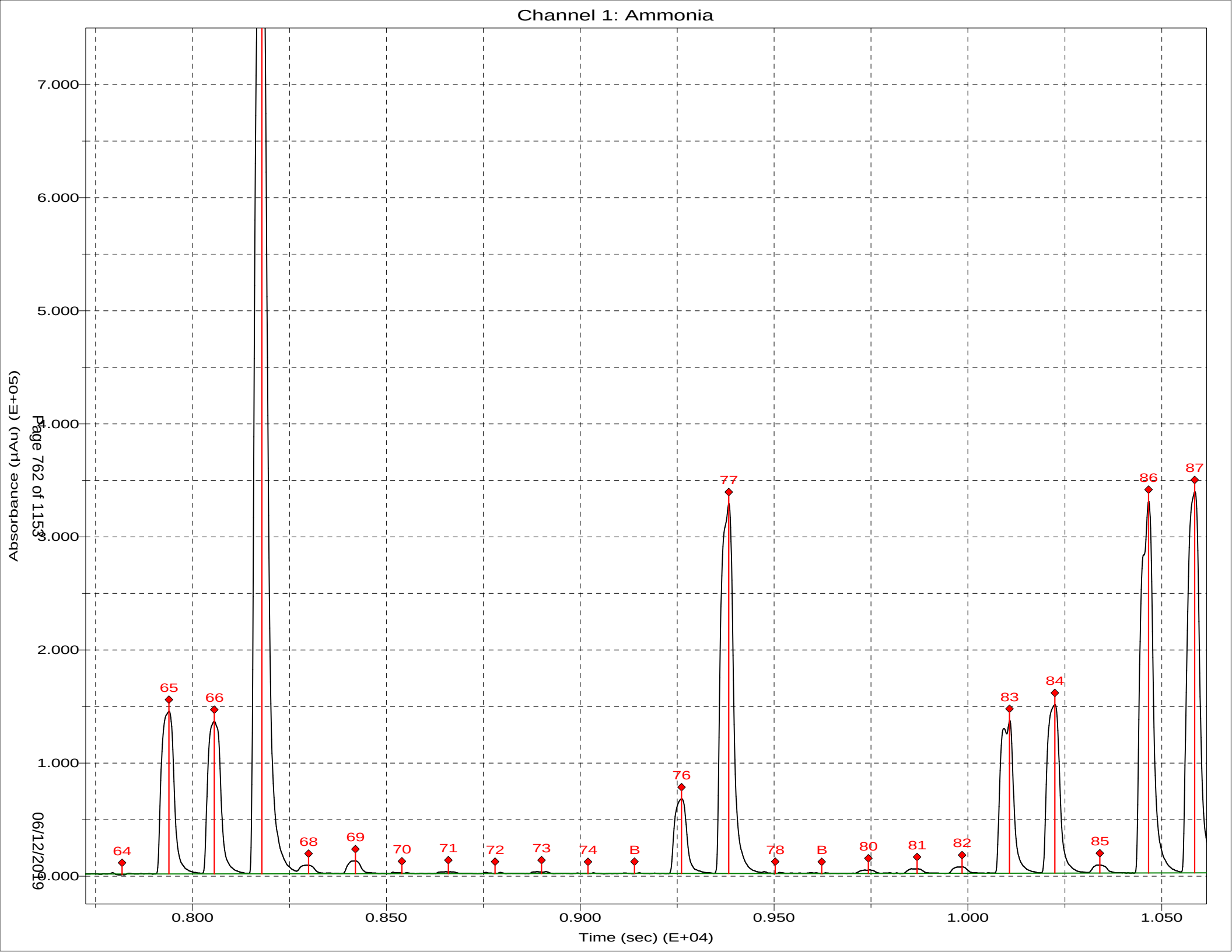
No Drift Peaks

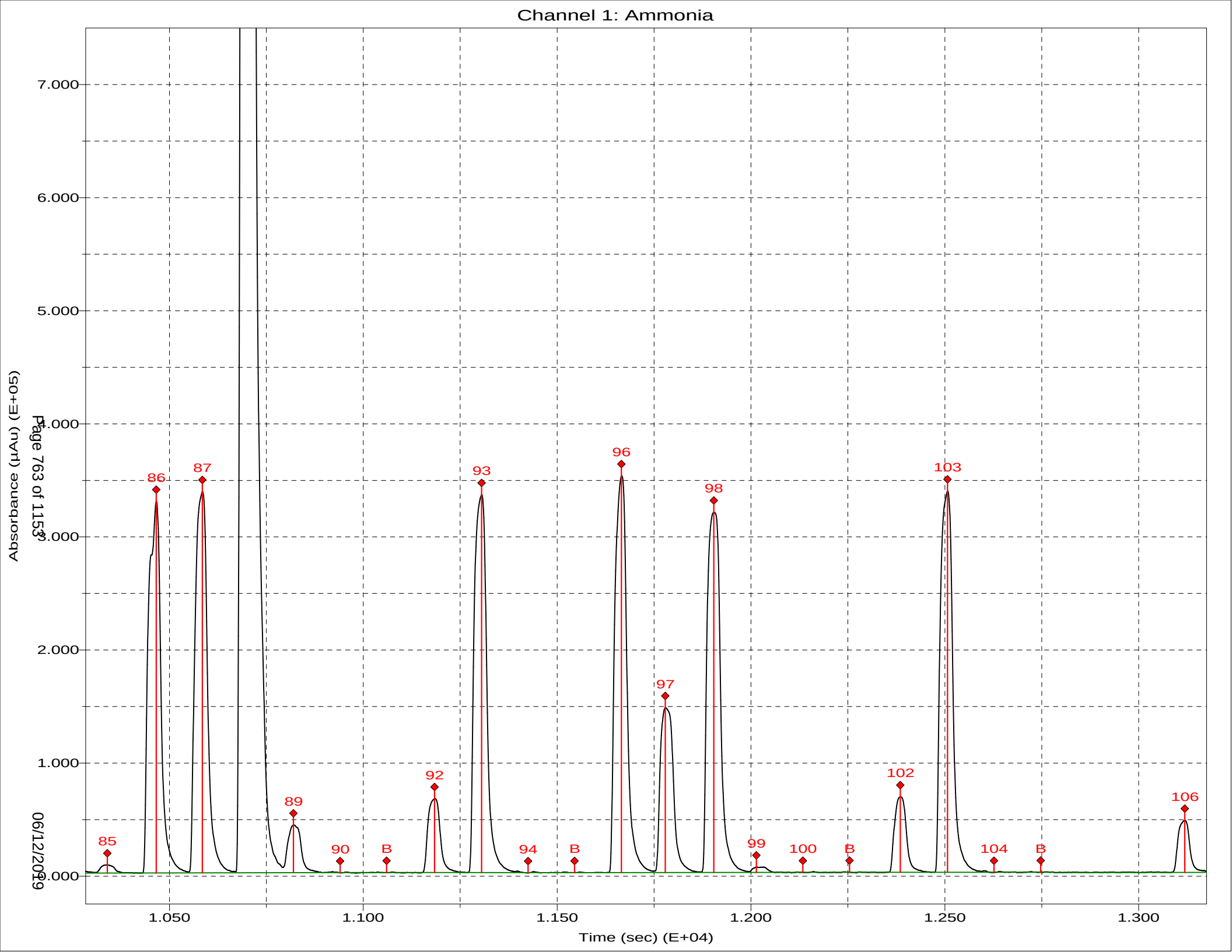

Ammonia:Calibration 1: Peak 4-115
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Height (E+05)
-1000
0
1000
2000
3000
4000
5000
6000
Conc

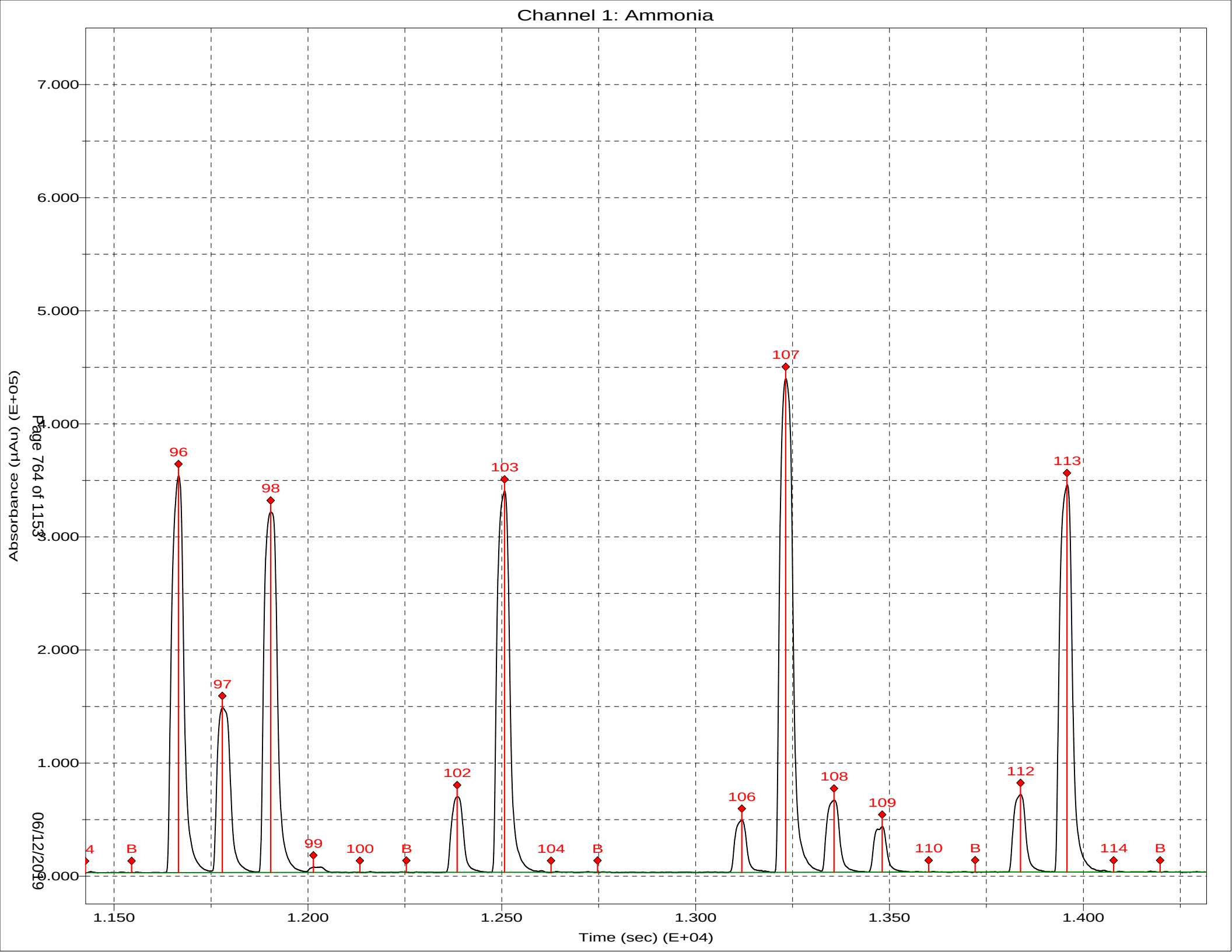

Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
500
1000
1500
2000
2500
Time (sec)
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
21
22
23


Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
3000
3500
4000
4500
5000
Time (sec)
21
22
23
24
25
26
27
28
29
30
B
32
33
34
B
36
37
38
39
40
41
42
44


Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
5500
6000
6500
7000
7500
8000
Time (sec)
2
44
45
46
B
48
49
50
B
52
53
54
55
56
B
58
59
60
B
62
63
64
65
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Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
0.800
0.850
0.900
0.950
1.000
1.050
Time (sec) (E+04)
64
65
66
68
69
70
71
72
73
74
B
76
77
78
B
80
81
82
83
84
85
86
87
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Channel 1: Ammonia
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Absorbance (µAu) (E+05)
1.050
1.100
1.150
1.200
1.250
1.300
Time (sec) (E+04)
85
86
87
89
90
B
92
93
94
B
96
97
98
99
100
B
102
103
104
B
106
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06/12/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
1.150
1.200
1.250
1.300
1.350
1.400
Time (sec) (E+04)
4
B
96
97
98
99
100
B
102
103
104
B
106
107
108
109
110
B
112
113
114
B
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06/12/2019

Sample Table for 060519

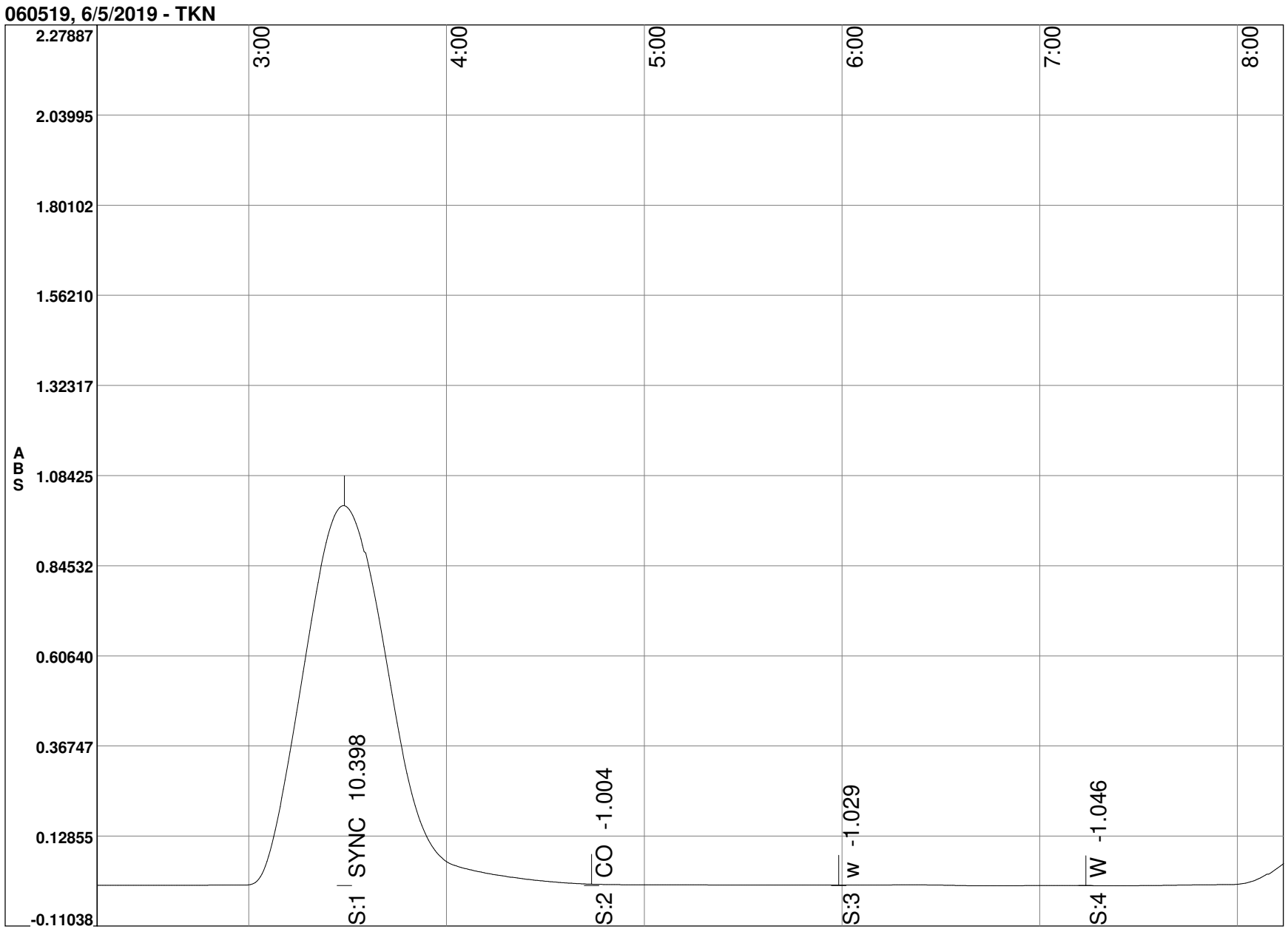
	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-460066/42-A	Unknown	4 ml
14	1:16	ICB 280-460066/43-A	Unknown	4 ml
15	1:17	xLCS 280-460465/1-A	Unknown	4 ml
16	1:18	MB 280-460465/2-A	Unknown	4 ml
17	1:19	280-123941-K-2-A	Unknown	4 ml
18	1:20	280-123941-K-2-B MS	Unknown	4 ml
19	1:21	280-123941-K-2-C MS	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	280-123941-K-4-A	Unknown	4 ml
22	1:24	280-123941-J-5-A	Unknown	4 ml
23	1:25	280-123941-K-6-A	Unknown	4 ml
24	1:26	280-123941-J-7-A	Unknown	4 ml
25	1:27	280-123941-J-9-A	Unknown	4 ml
26	1:28	280-123941-K-10-A	Unknown	4 ml
27	1:29	280-123941-J-11-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-460066/44-A	Unknown	4 ml
30	1:32	CCB 280-460066/45-A	Unknown	4 ml
31	1:33	280-123855-D-1-A	Unknown	4 ml
32	1:34	280-123855-C-2-A	Unknown	4 ml
33	1:35	280-123855-E-3-A	Unknown	4 ml
34	1:36	280-123855-E-3-B MS	Unknown	4 ml
35	1:37	280-123855-E-3-C MS	Unknown	4 ml
36	1:38	w	Blank	4 ml
37	1:39	280-123855-E-4-A	Unknown	4 ml
38	1:40	280-123855-C-5-A	Unknown	4 ml
39	1:41	280-123855-E-6-A	Unknown	4 ml
40	1:42	280-124106-D-1-A	Unknown	4 ml
41	1:43	280-124106-E-2-A	Unknown	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-460066/44-A	Unknown	4 ml
44	1:46	CCB 280-460066/45-A	Unknown	4 ml

	Position	Identifier	Type	Cup Type
45	1:47	280-124106-D-3-A	Unknown	4 ml
46	1:48	280-124106-E-4-A	Unknown	4 ml
47	1:49	280-123930-E-1-A	Unknown	4 ml
48	1:50	280-123930-C-2-A	Unknown	4 ml
49	1:51	w	Blank	4 ml
50	1:52	LCS 280-460465/27-A	Unknown	4 ml
51	1:53	MB 280-460465/28-A	Unknown	4 ml
52	1:54	280-123930-E-3-A	Unknown	4 ml
53	1:55	280-123930-E-3-B MS	Unknown	4 ml
54	1:56	280-123930-E-3-C MS	Unknown	4 ml
55	1:57	LCS 280-460465/1-A	Unknown	4 ml
56	1:58	w	Blank	4 ml
57	1:59	CCV 280-460066/44-A	Unknown	4 ml
58	1:60	CCB 280-460066/45-A	Unknown	4 ml
59	2:1	280-123930-C-4-A	Unknown	4 ml
60	2:2	280-123930-C-5-A	Unknown	4 ml
61	2:3	280-123853-C-1-A	Unknown	4 ml
62	2:4	280-123853-C-2-A	Unknown	4 ml
63	2:5	280-123853-C-3-A	Unknown	4 ml
64	2:6	280-123853-C-4-A	Unknown	4 ml
65	2:7	280-123853-C-5-A	Unknown	4 ml
66	2:8	280-123853-C-6-A	Unknown	4 ml
67	2:9	280-123855-C-2-A	Unknown	4 ml
68	2:10	280-124106-D-3-A	Unknown	4 ml
69	2:11	w	Blank	4 ml
70	2:12	CCV 280-460066/44-A	Unknown	4 ml
71	2:13	CCB 280-460066/45-A	Unknown	4 ml
72	2:14	w	Blank	4 ml

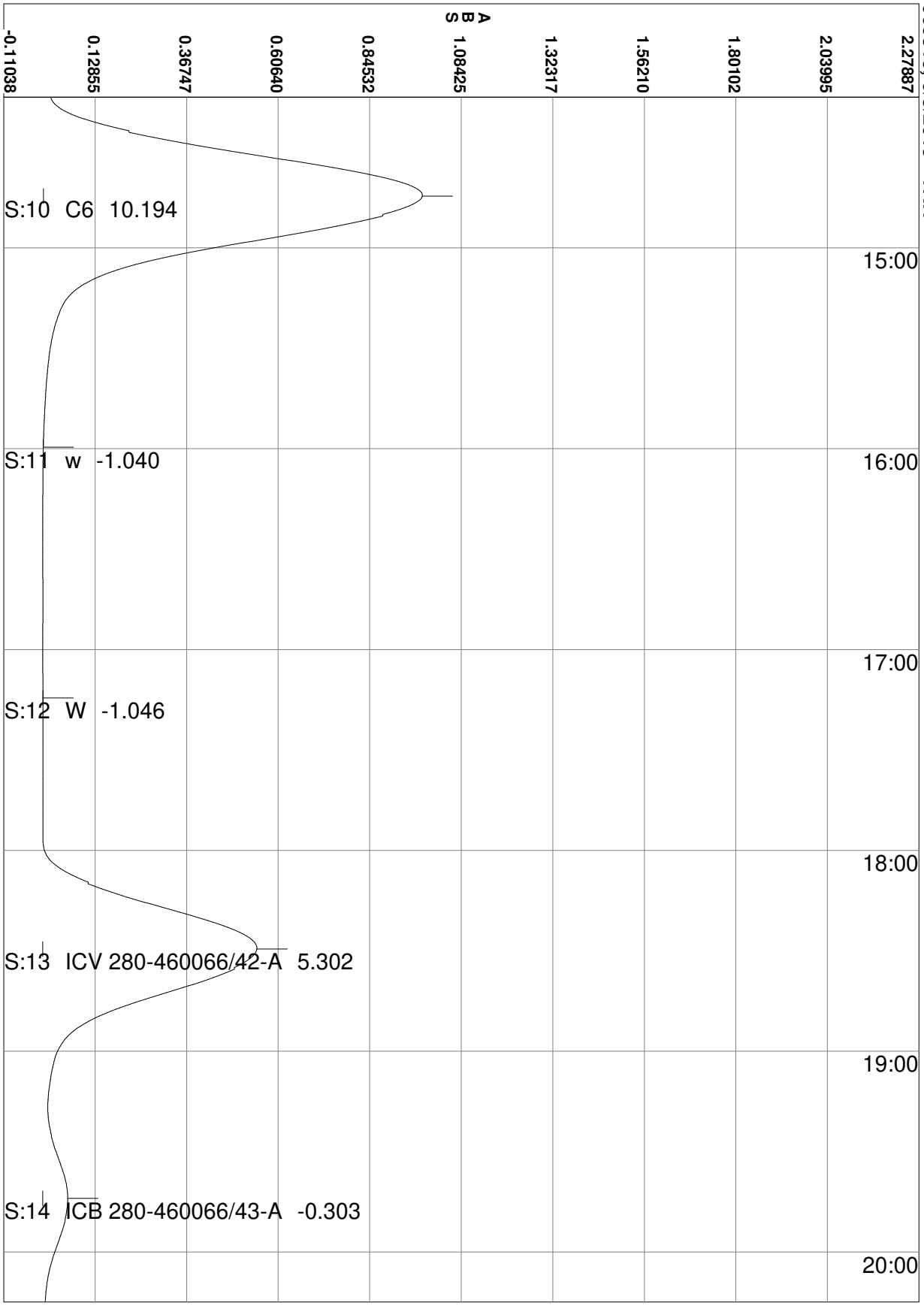
Run Name: 060519
Configuration: TKN
Run date: 6/5/2019

	Position	Identifier	Type	Comme	Date	Time	otal	TKN Cor Ht	mg/l
1	1:1	SYNC	SYNC	50;351.2	6/5/2019	5:30:29 PM	1	1.00520	10.398
2	1:2	CO	Carry over		6/5/2019	5:30:59 PM	1	0.00368	-1.004
3	1:3	w	Blank		6/5/2019	5:32:14 PM	1	0.00146	-1.029
4	1:4	W	Wash		6/5/2019	5:33:29 PM	1	0.00000	-1.046
5	1:5	C1	Calibrant		6/5/2019	5:34:44 PM	1	0.13805	0.526
6	1:6	C2	Calibrant		6/5/2019	5:35:59 PM	1	0.17838	0.985
7	1:7	C3	Calibrant		6/5/2019	5:37:14 PM	1	0.26048	1.920
8	1:8	C4	Calibrant		6/5/2019	5:38:30 PM	1	0.56067	5.337
9	1:9	C5	Calibrant		6/5/2019	5:39:45 PM	1	0.71009	7.038
10	1:10	C6	Calibrant		6/5/2019	5:40:59 PM	1	0.98734	10.194
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99749
		Intercept:							0.091847
		Linear coef:							0.087843
11	1:13	w	Blank		6/5/2019	5:42:14 PM	1	0.00049	-1.040
12	1:14	W	Wash		6/5/2019	5:43:29 PM	1	0.00000	-1.046
13	1:15	ICV 280-460066/42-A	Unknown		6/5/2019	5:44:44 PM	1	0.55757	5.302
14	1:16	ICB 280-460066/43-A	Unknown		6/5/2019	5:45:59 PM	1	0.06522	-0.303
15	1:17	xLCS 280-460465/1-A	Unknown		6/5/2019	5:47:14 PM	1	0.54253	5.130
16	1:18	MB 280-460465/2-A	Unknown		6/5/2019	5:48:29 PM	1	0.04191	-0.569
17	1:19	280-123941-K-2-A	Unknown		6/5/2019	5:49:44 PM	1	0.12201	0.343
18	1:20	280-123941-K-2-B MS	Unknown		6/5/2019	5:50:59 PM	1	0.37049	3.172
19	1:21	280-123941-K-2-C MSD	Unknown		6/5/2019	5:52:14 PM	1	0.42144	3.752
20	1:22	w	Blank		6/5/2019	5:53:29 PM	1	-0.00106	-1.058
21	1:23	280-123941-K-4-A	Unknown		6/5/2019	5:54:44 PM	1	0.12033	0.324
22	1:24	280-123941-J-5-A	Unknown		6/5/2019	5:55:59 PM	1	0.14577	0.614
23	0	AutoWash	AutoWash		6/5/2019	5:57:14 PM	1	-0.00018	-1.048
24	0	AutoWash	AutoWash		6/5/2019	5:58:29 PM	1	0.00000	-1.046
25	1:25	280-123941-K-6-A	Unknown		6/5/2019	5:59:44 PM	1	0.10928	0.198
26	1:26	280-123941-J-7-A	Unknown		6/5/2019	6:00:59 PM	1	0.06149	-0.346
27	1:27	280-123941-J-9-A	Unknown		6/5/2019	6:02:14 PM	1	0.05736	-0.393
28	1:28	280-123941-K-10-A	Unknown		6/5/2019	6:03:29 PM	1	0.03230	-0.678
29	1:29	280-123941-J-11-A	Unknown		6/5/2019	6:04:44 PM	1	0.04101	-0.579
30	1:30	w	Blank		6/5/2019	6:05:59 PM	1	0.53160	5.006
31	1:31	CCV 280-460066/44-A	Unknown		6/5/2019	6:07:14 PM	1	0.53351	5.028
32	1:32	CCB 280-460066/45-A	Unknown		6/5/2019	6:08:29 PM	1	0.05324	-0.439
33	1:33	280-123855-D-1-A	Unknown		6/5/2019	6:09:44 PM	1	0.05685	-0.398
34	1:34	280-123855-C-2-A	Unknown		6/5/2019	6:10:59 PM	1	1.80542	19.507
35	0	AutoWash	AutoWash		6/5/2019	6:12:15 PM	1	0.00416	-0.998
36	0	AutoWash	AutoWash		6/5/2019	6:13:30 PM	1	0.00000	-1.046
37	1:35	280-123855-E-3-A	Unknown		6/5/2019	6:14:45 PM	1	0.05408	-0.430
38	1:36	280-123855-E-3-B MS	Unknown		6/5/2019	6:15:59 PM	1	0.31382	2.527

	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
39	1:37	280-123855-E-3-C MSD	Unknown		6/5/2019	6:17:14 PM	1	0.29663	2.331
40	1:38	w	Blank		6/5/2019	6:18:29 PM	1	-0.00008	-1.046
41	1:39	280-123855-E-4-A	Unknown		6/5/2019	6:19:44 PM	1	0.05821	-0.383
42	1:40	280-123855-C-5-A	Unknown		6/5/2019	6:20:59 PM	1	0.07059	-0.242
43	1:41	280-123855-E-6-A	Unknown		6/5/2019	6:22:14 PM	1	0.05737	-0.392
44	1:42	280-124106-D-1-A	Unknown		6/5/2019	6:23:29 PM	1	0.29587	2.323
45	1:43	280-124106-E-2-A	Unknown		6/5/2019	6:24:44 PM	1	0.30181	2.390
46	1:44	w	Blank		6/5/2019	6:25:59 PM	1	0.00100	-1.034
47	0	AutoWash	AutoWash		6/5/2019	6:27:14 PM	1	0.00038	-1.041
48	0	AutoWash	AutoWash		6/5/2019	6:28:29 PM	1	0.00000	-1.046
49	1:45	CCV 280-460066/44-A	Unknown		6/5/2019	6:29:44 PM	1	0.53983	5.100
50	1:46	CCB 280-460066/45-A	Unknown		6/5/2019	6:30:59 PM	1	0.06710	-0.282
51	1:47	280-124106-D-3-A	Unknown		6/5/2019	6:32:14 PM	1	2.16763	23.631
52	1:48	280-124106-E-4-A	Unknown		6/5/2019	6:33:29 PM	1	0.10234	0.119
53	1:49	280-123930-E-1-A	Unknown		6/5/2019	6:34:44 PM	1	0.09826	0.073
54	1:50	280-123930-C-2-A	Unknown		6/5/2019	6:35:59 PM	1	0.07860	-0.151
55	1:51	w	Blank		6/5/2019	6:37:14 PM	1	-0.00136	-1.061
56	1:52	LCS 280-460465/27-A	Unknown		6/5/2019	6:38:29 PM	1	0.62892	6.114
57	1:53	MB 280-460465/28-A	Unknown		6/5/2019	6:39:44 PM	1	0.03475	-0.650
58	1:54	280-123930-E-3-A	Unknown		6/5/2019	6:40:59 PM	1	0.07280	-0.217
59	0	AutoWash	AutoWash		6/5/2019	6:42:14 PM	1	-0.00070	-1.054
60	0	AutoWash	AutoWash		6/5/2019	6:43:29 PM	1	0.00000	-1.046
61	1:55	280-123930-E-3-B MS	Unknown		6/5/2019	6:44:44 PM	1	0.30987	2.482
62	1:56	280-123930-E-3-C MSD	Unknown		6/5/2019	6:45:59 PM	1	0.31837	2.579
63	1:57	LCS 280-460465/1-A	Unknown		6/5/2019	6:47:14 PM	1	0.64100	6.251
64	1:58	w	Blank		6/5/2019	6:48:30 PM	1	0.00134	-1.030
65	1:59	CCV 280-460066/44-A	Unknown		6/5/2019	6:49:45 PM	1	0.54230	5.128
66	1:60	CCB 280-460066/45-A	Unknown		6/5/2019	6:50:59 PM	1	0.05353	-0.436
67	2:1	280-123930-C-4-A	Unknown		6/5/2019	6:52:14 PM	1	0.10624	0.164
68	2:2	280-123930-C-5-A	Unknown		6/5/2019	6:53:29 PM	1	0.56471	5.383
69	2:3	280-123853-C-1-A	Unknown		6/5/2019	6:54:44 PM	1	0.04731	-0.507
70	2:4	280-123853-C-2-A	Unknown		6/5/2019	6:55:59 PM	1	0.02639	-0.745
71	0	AutoWash	AutoWash		6/5/2019	6:57:14 PM	1	0.00006	-1.045
72	0	AutoWash	AutoWash		6/5/2019	6:58:29 PM	1	0.00000	-1.046
73	2:5	280-123853-C-3-A	Unknown		6/5/2019	6:59:44 PM	1	0.05868	-0.378
74	2:6	280-123853-C-4-A	Unknown		6/5/2019	7:00:59 PM	1	0.05340	-0.438
75	2:7	280-123853-C-5-A	Unknown		6/5/2019	7:02:14 PM	1	0.06098	-0.351
76	2:8	280-123853-C-6-A	Unknown		6/5/2019	7:03:29 PM	1	0.09323	0.016
77	2:9	280-123855-C-2-A	Unknown		6/5/2019	7:04:44 PM	5	0.43584	19.580
78	2:10	280-124106-D-3-A	Unknown		6/5/2019	7:05:59 PM	5	0.61600	29.835
79	2:11	w	Blank		6/5/2019	7:07:14 PM	1	-0.00250	-1.074
80	2:12	CCV 280-460066/44-A	Unknown		6/5/2019	7:08:29 PM	1	0.53521	5.047
81	2:13	CCB 280-460066/45-A	Unknown		6/5/2019	7:09:44 PM	1	0.04924	-0.485
82	2:14	w	Blank		6/5/2019	7:10:59 PM	1	-0.00230	-1.072
83	0	AutoWash	AutoWash		6/5/2019	7:12:14 PM	1	-0.00112	-1.058
84	0	AutoWash	AutoWash		6/5/2019	7:13:29 PM	1	0.00000	-1.046


060519, 6/5/2019 - TKN
2.27887
2.03995
1.80102
1.56210
1.32317
1.08425
0.84532
0.60640
0.36747
0.12855
-0.11038
ABS
3:00
4:00
5:00
6:00
7:00
8:00
S:1 SYNC 10.398
S:2 CO -1.004
S:3 w -1.029
S:4 W -1.046

060519, 6/5/2019 - TKN
2.27887
2.03995
1.80102
1.56210
1.32317
ABS
1.08425
0.84532
0.60640
0.36747
0.12855
-0.11038
9:00
10:00
11:00
12:00
13:00
14:00
S:5 C1 0.526
S:6 C2 0.985
S:7 C3 1.920
S:8 C4 5.337
S:9 C5 7.038


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:10 C6 10.194
15:00
S:11 w -1.040
16:00
17:00
S:12 W -1.046
18:00
S:13 ICV 280-460066/42-A 5.302
19:00
S:14 ICB 280-460066/43-A -0.303
20:00

060519, 6/5/2019 - TKN

ABS

-0.11038 | 0.12855 | 0.36747 | 0.60640 | 0.84532 | 1.08425 | 1.32317 | 1.56210 | 1.80102 | 2.03995 | 2.27887

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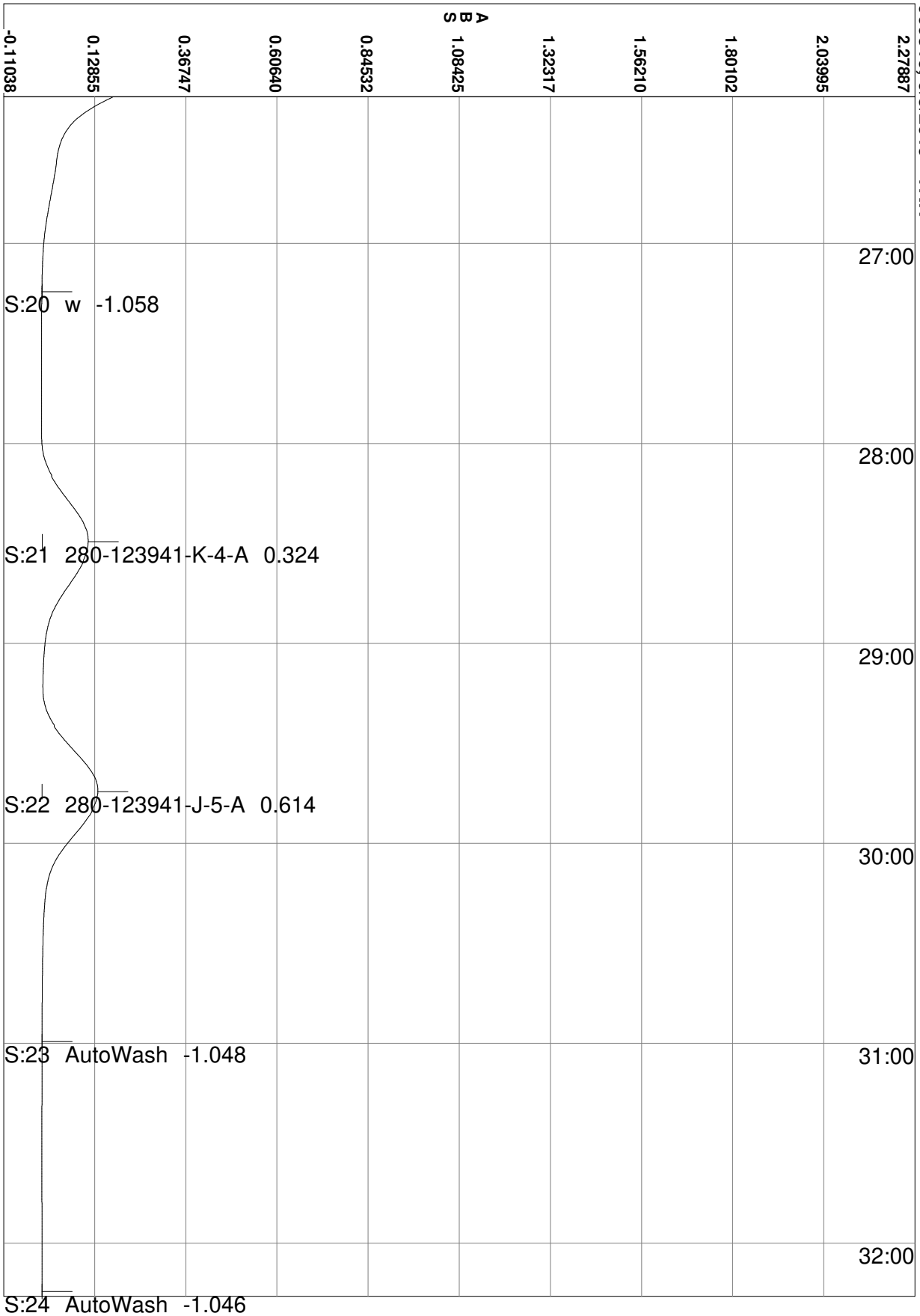
S:16 MB 280-460465/2-A -0.569 — 22:00

S:17 280-123941-K-2-A 0.343 — 23:00

S:18 280-123941-K-2-B MS 3.172 — 24:00

S:19 280-123941-K-2-C MSD 3.752 — 25:00

26:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
27:00
28:00
29:00
30:00
31:00
32:00
S:20 w -1.058
S:21 280-123941-K-4-A 0.324
S:22 280-123941-J-5-A 0.614
S:23 AutoWash -1.048
S:24 AutoWash -1.046

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

33:00

S:25 280-123941-K-6-A 0.198

34:00

S:26 280-123941-J-7-A -0.346

35:00

S:27 280-123941-J-9-A -0.393

36:00

37:00

S:28 280-123941-K-10-A -0.678

38:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:29 280-123941-J-11-A -0.579

39:00

S:30 w 5.006

40:00

S:31 CCV 280-460066/44-A 5.028

41:00

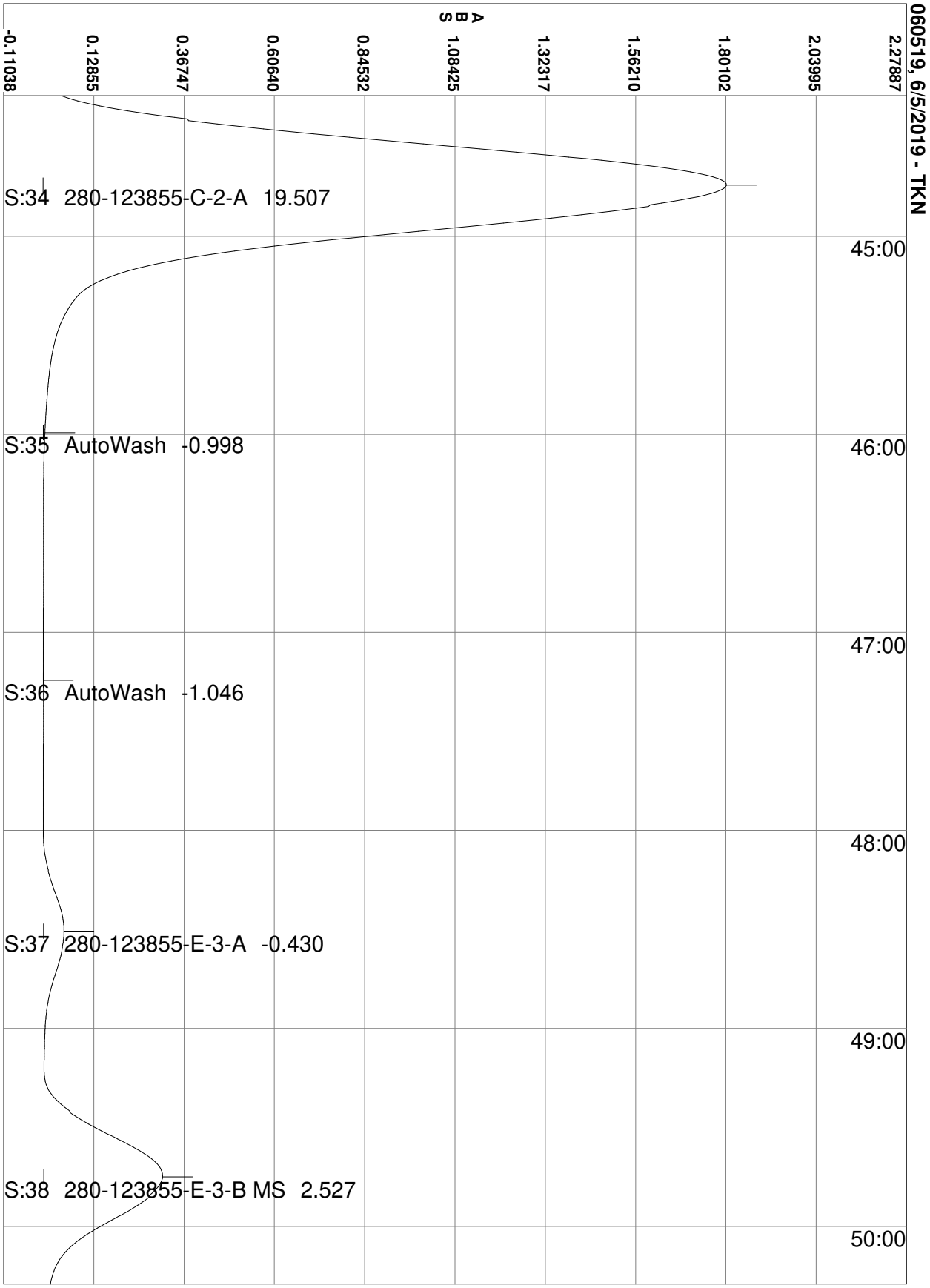
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S:32 CCB 280-460066/45-A -0.439

43:00

S:33 280-123855-D-1-A -0.398

44:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:34 280-123855-C-2-A 19.507
45:00
S:35 AutoWash -0.998
46:00
S:36 AutoWash -1.046
47:00
S:37 280-123855-E-3-A -0.430
48:00
S:38 280-123855-E-3-B MS 2.527
49:00
50:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:39 280-123855-E-3-C MSD 2.331 51:00

S:40 w -1.046 52:00

S:41 280-123855-E-4-A -0.383 53:00

S:42 280-123855-C-5-A -0.242 54:00

55:00

S:43 280-123855-E-6-A -0.392 56:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

57:00

S:44 280-124106-D-1-A 2.323

58:00

S:45 280-124106-E-2-A 2.390

59:00

S:46 w -1.034

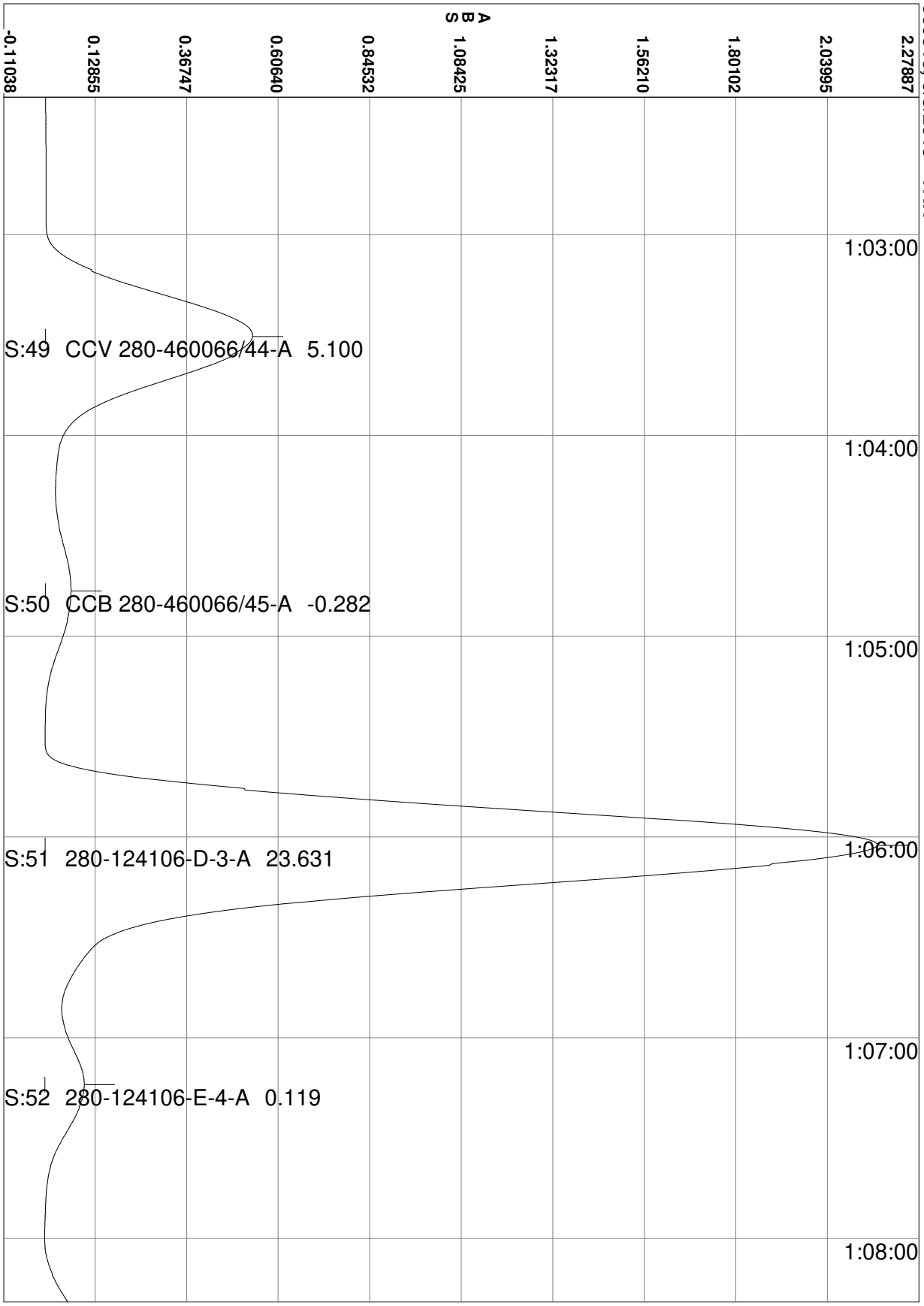
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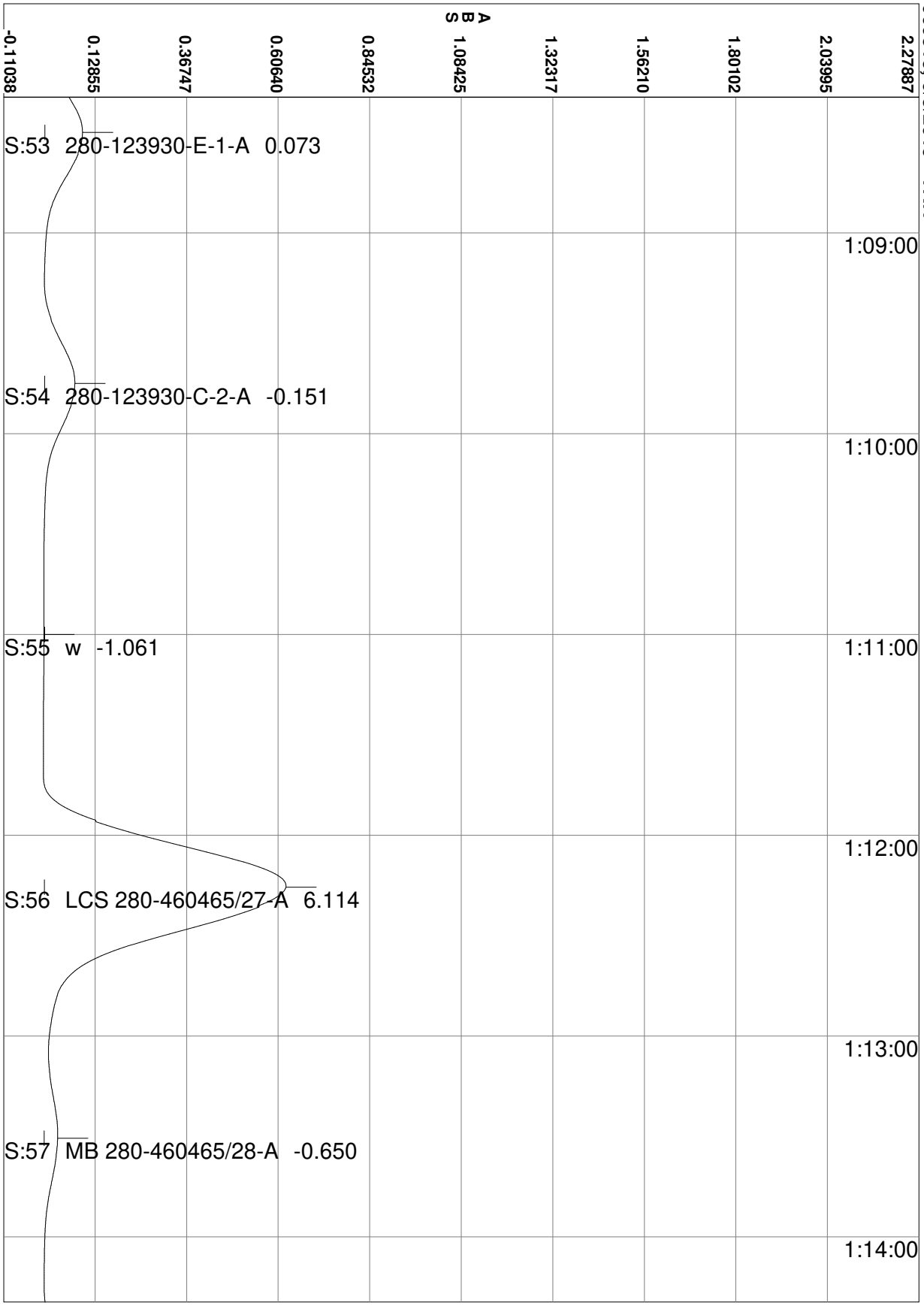
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1:01:00

1:02:00

S:48 AutoWash -1.046


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
1:03:00
1:04:00
1:05:00
1:06:00
1:07:00
1:08:00
S:49 CCV 280-460066/44-A 5.100
S:50 CCB 280-460066/45-A -0.282
S:51 280-124106-D-3-A 23.631
S:52 280-124106-E-4-A 0.119


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:53 280-123930-E-1-A 0.073
S:54 280-123930-C-2-A -0.151
S:55 w -1.061
S:56 LCS 280-460465/27-A 6.114
S:57 MB 280-460465/28-A -0.650
1:09:00
1:10:00
1:11:00
1:12:00
1:13:00
1:14:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:58 280-123930-E-3-A -0.217

1:15:00

S:59 AutoWash -1.054

1:16:00

S:60 AutoWash -1.046

1:17:00

S:61 280-123930-E-3-B MS 2.482

1:18:00

S:62 280-123930-E-3-C MSD 2.579

1:19:00

1:20:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:63 LCS 280-460465/1-A 6.251 1:21:00

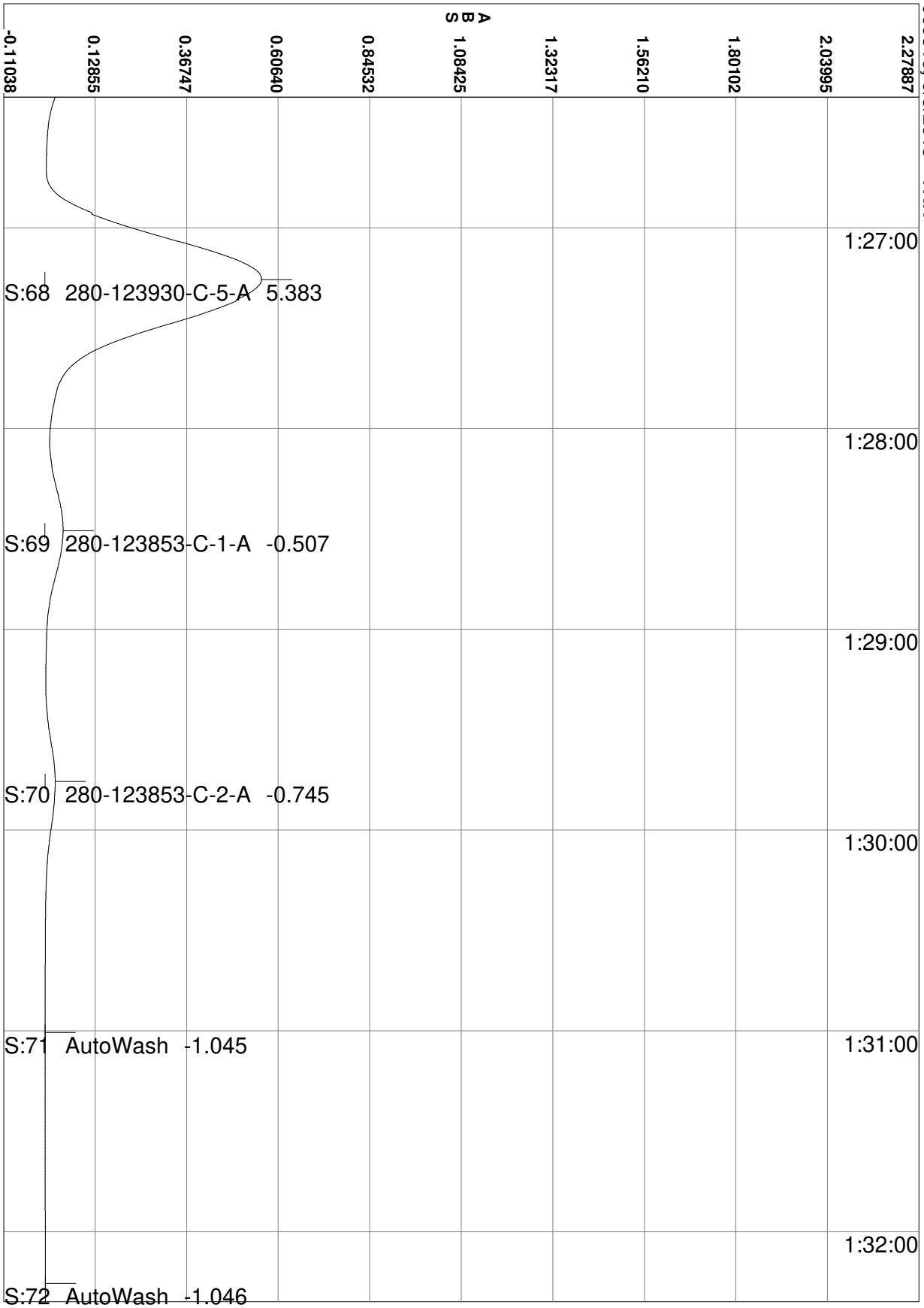
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S:65 CCV 280-460066/44-A 5.128 1:23:00

S:66 CCB 280-460066/45-A -0.436 1:24:00

S:67 280-123930-C-4-A 0.164 1:25:00

1:26:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
1:27:00
S:68 280-123930-C-5-A 5.383
1:28:00
S:69 280-123853-C-1-A -0.507
1:29:00
S:70 280-123853-C-2-A -0.745
1:30:00
S:71 AutoWash -1.045
1:31:00
1:32:00
S:72 AutoWash -1.046

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

1:33:00

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1:34:00

S:74 280-123853-C-4-A -0.438

1:35:00

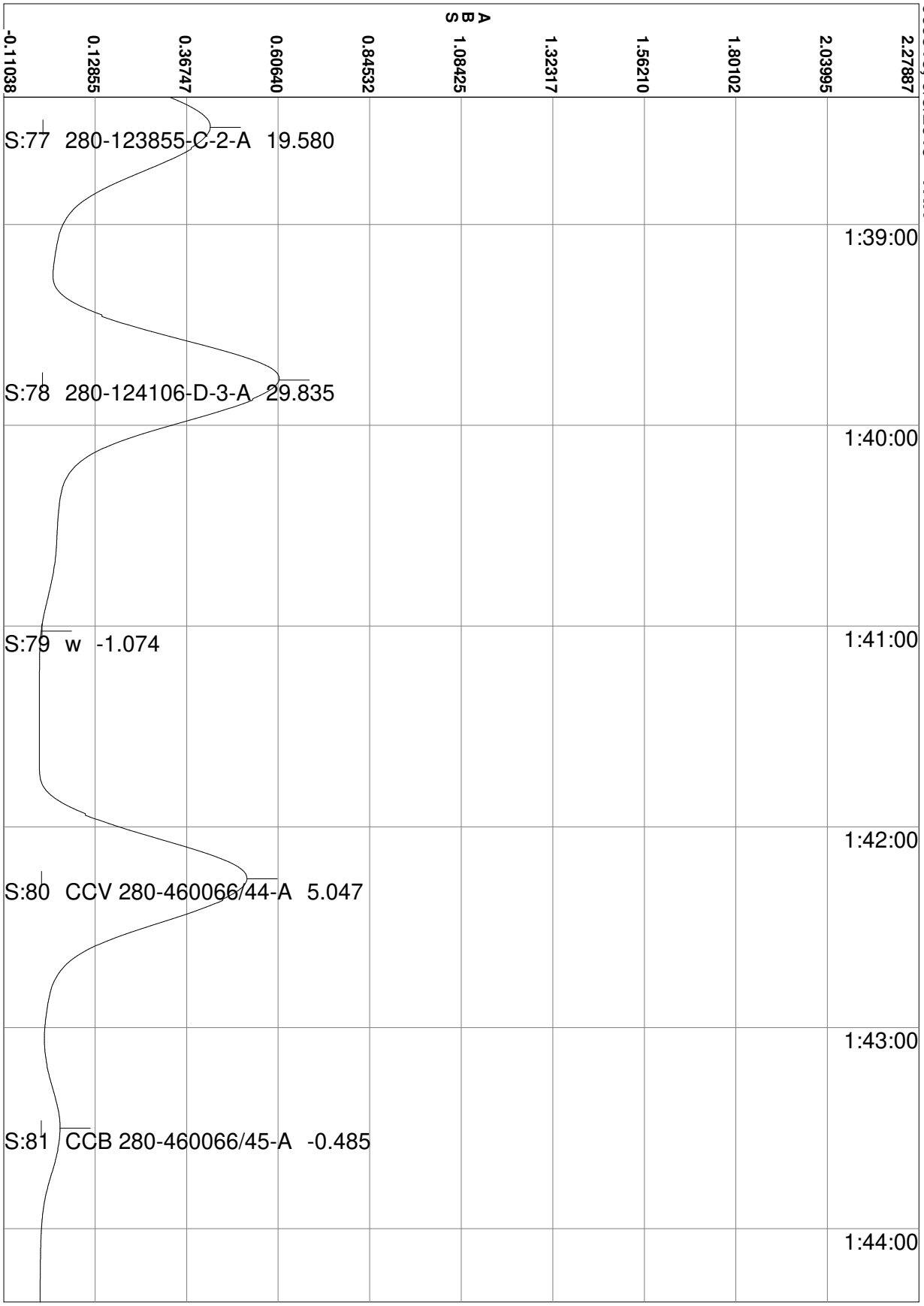
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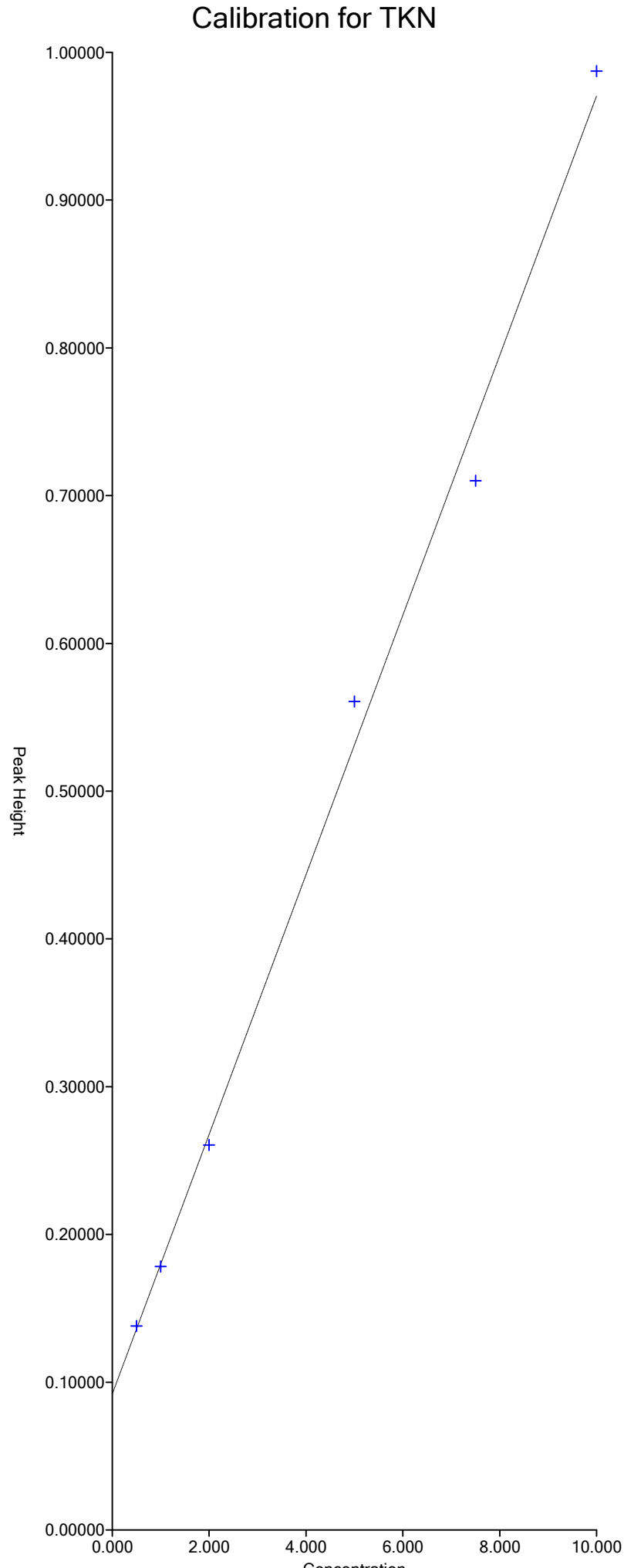
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1:38:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:77 280-123855-C-2-A 19.580
1:39:00
S:78 280-124106-D-3-A 29.835
1:40:00
S:79 w -1.074
1:41:00
1:42:00
S:80 CCV 280-460066/44-A 5.047
1:43:00
S:81 CCB 280-460066/45-A -0.485
1:44:00

060519, 6/5/2019 - TKN



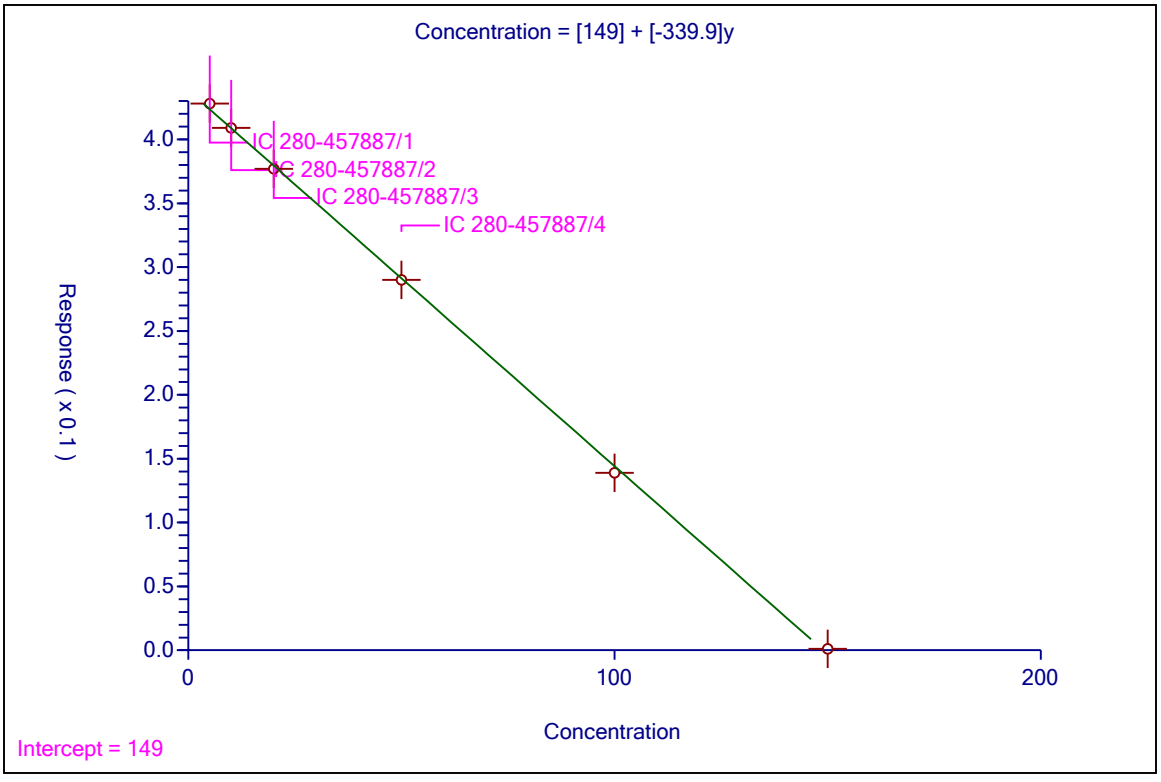
Segment 1: Equation: y = 0.08784x + 0.09185
Correlation: 0.9975
X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-457887/1	5.0	0.428			0.0856	Y
2	IC 280-457887/2	10.0	0.409			0.0409	Y
3	IC 280-457887/3	20.0	0.377			0.01885	Y
4	IC 280-457887/4	50.0	0.29			0.0058	Y
5	IC 280-457887/5	100.0	0.139			0.00139	Y
6	IC 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123027-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 16 Lab ID: **280-123027-K-1** Inj Date: 5/13/2019 7:39:00AM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.374	21.87740 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123112-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123113-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 17 Lab ID: **280-123113-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	11 J mg/L				

RS# 18 Lab ID: **280-123113-A-2** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.227	71.84270 mg/L	mg/L				

RS# 19 Lab ID: **280-123113-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 20 Lab ID: **280-123113-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.394	15.07940 mg/L	15 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.150	98.01500	mg/L	mg/L	98	90	110	

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123114-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 21 Lab ID: **280-123114-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.404	11.68040 mg/L	12 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123115-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

RS# 24 Lab ID: **280-123115-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 25 Lab ID: **280-123115-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.359	26.97590 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.148	98.69480	mg/L	mg/L	99	90	110

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	20 U mg/L				

Job Number: 280-123267-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 29 Lab ID: **280-123267-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 30 Lab ID: **280-123267-E-2** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.381	19.49810 mg/L	39 J mg/L				

RS# 31 Lab ID: **280-123267-E-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.340	33.43400 mg/L	mg/L				

RS# 32 Lab ID: **280-123267-E-4** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.061	128.2661 mg/L	mg/L				

RS# 33 Lab ID: **280-123267-B-5** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.428	3.522800 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	mg/L				

RS# 36 Lab ID: **280-123267-B-6** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	mg/L				

RS# 37 Lab ID: **280-123267-C-7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.464	-8.713600 mg/L	mg/L				

RS# 38 Lab ID: **280-123267-B-8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 39 Lab ID: **280-123267-D-9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.292	49.74920 mg/L	mg/L				

RS# 40 Lab ID: **CCV 280-457887/40** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 41 Lab ID: **CCB 280-457887/41** Inj Date: 5/13/2019 7:39:49AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123444-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 15 Lab ID: **280-123444-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

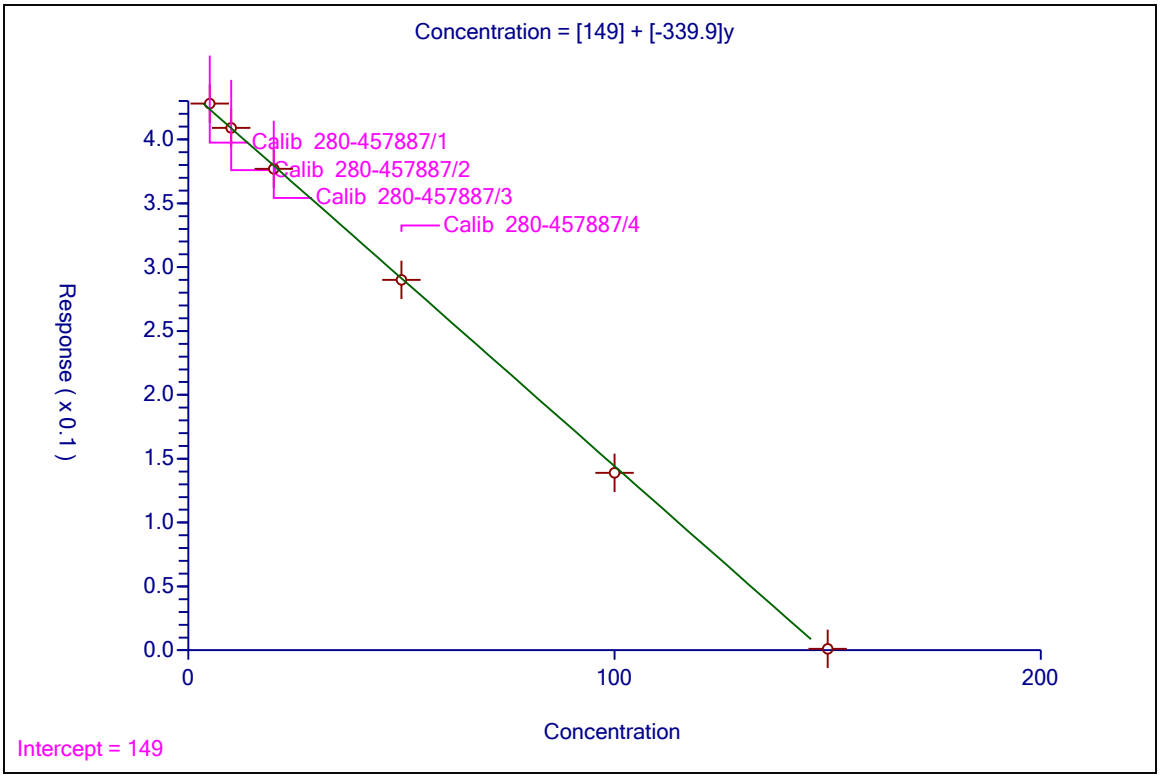
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 6 Lab ID: **280-123955-B-2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	mg/L				

RS# 7 Lab ID: **280-123955-B-2 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.293	49.40930 mg/L	mg/L	99	90 110		

RS# 8 Lab ID: **280-123955-B-2 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.306	44.99060 mg/L	mg/L	90	90 110	9	11

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	mg/L				

RS# 20 Lab ID: **280-123822-H-1** Inj Date: 6/5/2019 10:06:00AM Dil: 10 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	<-0.100	mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123853-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 21 Lab ID: **280-123855-D-5** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	40 U mg/L				

RS# 22 Lab ID: **280-123855-D-5 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90 110		

RS# 23 Lab ID: **280-123855-D-5 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.298	47.70980 mg/L	mg/L	95	90 110	9	11

RS# 25 Lab ID: **280-123853-C-1** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	40 U mg/L				

RS# 26 Lab ID: **280-123853-C-2** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	40 U mg/L				

RS# 27 Lab ID: **280-123853-C-3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.471	-11.09290	mg/L	20 U	mg/L		

RS# 28 Lab ID: **CCV 280-460546/28** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460546/29** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 30 Lab ID: **280-123853-C-4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	20 U mg/L				

RS# 31 Lab ID: **280-123853-C-5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	20 U mg/L				

RS# 32 Lab ID: **280-123853-C-6** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	40 U mg/L				

RS# 34 Lab ID: **CCV 280-460546/34** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110		

RS# 35 Lab ID: **CCB 280-460546/35** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.458	-6.674200 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123855-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123955-B-2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 7 Lab ID: **280-123955-B-2 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.293	49.40930 mg/L	mg/L	99	90 110		

RS# 8 Lab ID: **280-123955-B-2 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.306	44.99060 mg/L	mg/L	90	90 110	9	11

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 21 Lab ID: **280-123855-D-5** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	40 U mg/L				

RS# 22 Lab ID: **280-123855-D-5 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90 110		

RS# 23 Lab ID: **280-123855-D-5 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.298	47.70980 mg/L	mg/L	95	90 110	9	11

RS# 24 Lab ID: **280-123855-D-6** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	40 U mg/L				

RS# 28 Lab ID: **CCV 280-460546/28** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460546/29** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123955-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 6 Lab ID: **280-123955-B-2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	mg/L				

RS# 7 Lab ID: **280-123955-B-2 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.293	49.40930 mg/L	mg/L	99	90 110		

RS# 8 Lab ID: **280-123955-B-2 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.306	44.99060 mg/L	mg/L	90	90 110	9	11

RS# 9 Lab ID: **280-123955-B-3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.373	22.21730 mg/L	mg/L				

RS# 10 Lab ID: **280-123955-B-4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.383	18.81830 mg/L	mg/L				

RS# 11 Lab ID: **280-123955-B-5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.406	11.00060 mg/L	mg/L				

RS# 12 Lab ID: **280-123955-B-6** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.417	7.261700 mg/L	mg/L				

RS# 13 Lab ID: **280-123955-B-7** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

RS# 14 Lab ID: **280-123955-B-8** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 15 Lab ID: **280-123955-B-9** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.395	14.73950 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	mg/L				

RS# 18 Lab ID: **280-123955-B-10** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.412	8.961200 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-460546/28** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460546/29** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123959-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	ug/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	ug/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	20000 U ug/L				

RS# 6 Lab ID: **280-123955-B-2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20000 U ug/L				

RS# 7 Lab ID: **280-123955-B-2 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.293	49.40930 mg/L	ug/L	99	90 110		

RS# 8 Lab ID: **280-123955-B-2 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.306	44.99060 mg/L	ug/L	90	90 110	9	11

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 19 Lab ID: **280-123959-A-3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.318	40.91180 mg/L	ug/L				

RS# 21 Lab ID: **280-123855-D-5** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	40000 U ug/L				

RS# 22 Lab ID: **280-123855-D-5 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	ug/L	104	90 110		

RS# 23 Lab ID: **280-123855-D-5 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.298	47.70980 mg/L	ug/L	95	90 110	9	11

RS# 28 Lab ID: **CCV 280-460546/28** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460546/29** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 33 Lab ID: **280-123959-D-4** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.396	14.39960 mg/L	29000 J ug/L				

RS# 34 Lab ID: **CCV 280-460546/34** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110		

RS# 35 Lab ID: **CCB 280-460546/35** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

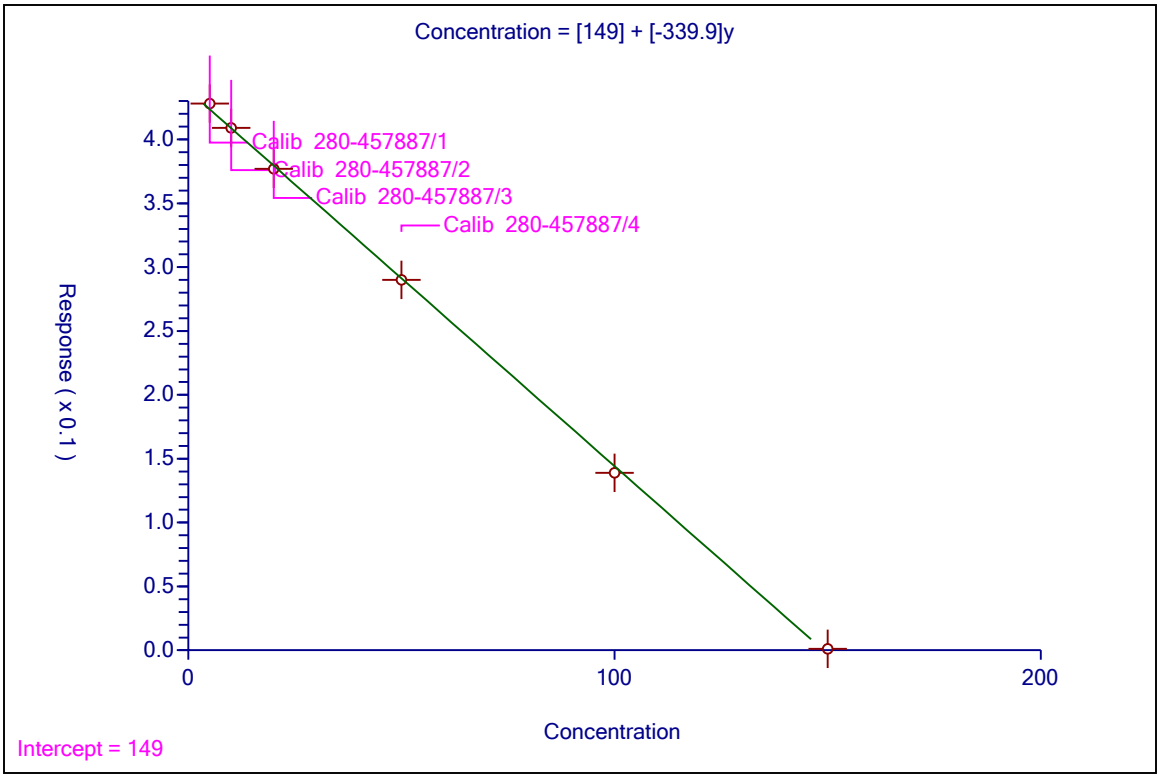
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.458	-6.674200 mg/L	20 U mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 460644
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460644/1** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.223	73.20230 mg/L	mg/L	97	90 110		

RS# 2 Lab ID: **ICB 280-460644/2** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460644/3** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460644/4** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.161	94.27610 mg/L	mg/L	94	90 110	1	11

RS# 5 Lab ID: **MB 280-460644/5** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 6 Lab ID: **280-123822-H-1** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.390	16.43900 mg/L	mg/L				

RS# 7 Lab ID: **280-123822-H-1 MS** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.241	67.08410 mg/L	mg/L	101	90 110		

RS# 8 Lab ID: **280-123822-H-1 MSD** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	106	90 110	3	11

RS# 16 Lab ID: **CCV 280-460644/16** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 17 Lab ID: **CCB 280-460644/17** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123855-1
LIMS Batch: 460644
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460644/1** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.223	73.20230 mg/L	mg/L	97	90 110		

RS# 2 Lab ID: **ICB 280-460644/2** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460644/3** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460644/4** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.161	94.27610 mg/L	mg/L	94	90 110	1	11

RS# 5 Lab ID: **MB 280-460644/5** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123822-H-1** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.390	16.43900 mg/L	1600 J mg/L				

RS# 7 Lab ID: **280-123822-H-1 MS** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.241	67.08410 mg/L	mg/L	101	90 110		

RS# 8 Lab ID: **280-123822-H-1 MSD** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	106	90 110	3	11

RS# 9 Lab ID: **280-123855-D-1** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.419	6.581900 mg/L	20 U mg/L				

RS# 10 Lab ID: **280-123855-C-2** Inj Date: 6/6/2019 9:12:00AM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	100 U mg/L				

RS# 11 Lab ID: **280-123855-E-3** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.409	9.980900 mg/L	10 J mg/L				

RS# 12 Lab ID: **280-123855-E-4** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	40 U mg/L				

RS# 16 Lab ID: **CCV 280-460644/16** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 17 Lab ID: **CCB 280-460644/17** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	20 U mg/L				

Job Number: 280-123904-1
LIMS Batch: 460644
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460644/1** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.223	73.20230 mg/L	mg/L	97	90 110		

RS# 2 Lab ID: **ICB 280-460644/2** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460644/3** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460644/4** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.161	94.27610 mg/L	mg/L	94	90 110	1	11

RS# 5 Lab ID: **MB 280-460644/5** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 6 Lab ID: **280-123822-H-1** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.390	16.43900 mg/L	mg/L				

RS# 7 Lab ID: **280-123822-H-1 MS** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.241	67.08410 mg/L	mg/L	101	90 110		

RS# 8 Lab ID: **280-123822-H-1 MSD** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	106	90 110	3	11

RS# 13 Lab ID: **280-123904-B-1** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 14 Lab ID: **280-123904-D-2** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.392	15.75920 mg/L	mg/L				

RS# 15 Lab ID: **280-123904-B-3** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.416	7.601600 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460644/16** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 17 Lab ID: **CCB 280-460644/17** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	mg/L				

RS# 18 Lab ID: **280-123904-B-4** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.413	8.621300 mg/L	mg/L				

RS# 19 Lab ID: **280-123904-D-5** Inj Date: 6/6/2019 9:12:00AM Dil: 20 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.342	32.75420 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-460644/28** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.174	89.85740 mg/L	mg/L	90	90 110		

RS# 29 Lab ID: **CCB 280-460644/29** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123941-1
LIMS Batch: 460644
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460644/1** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.223	73.20230 mg/L	mg/L	97	90 110		

RS# 2 Lab ID: **ICB 280-460644/2** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460644/3** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460644/4** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.161	94.27610 mg/L	mg/L	94	90 110	1	11

RS# 5 Lab ID: **MB 280-460644/5** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 6 Lab ID: **280-123822-H-1** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.390	16.43900 mg/L	mg/L				

RS# 7 Lab ID: **280-123822-H-1 MS** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.241	67.08410 mg/L	mg/L	101	90 110		

RS# 8 Lab ID: **280-123822-H-1 MSD** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.234	69.46340 mg/L	mg/L	106	90 110	3	11

RS# 16 Lab ID: **CCV 280-460644/16** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 17 Lab ID: **CCB 280-460644/17** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	mg/L				

RS# 20 Lab ID: **280-123941-K-2** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.408	10.32080 mg/L	mg/L				

RS# 21 Lab ID: **280-123941-K-2 MS** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	91	90 110		

RS# 22 Lab ID: **280-123941-K-2 MSD** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.281	53.48810 mg/L	mg/L	86	90	110	4	11

RS# 23 Lab ID: **280-123941-K-4** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	mg/L					

RS# 28 Lab ID: **CCV 280-460644/28** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.174	89.85740 mg/L	mg/L	90	90	110		

RS# 29 Lab ID: **CCB 280-460644/29** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L					

TALS Raw Data Report

Job Number: 280-123959-1
LIMS Batch: 460644
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460644/1** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.223	73.20230 mg/L	mg/L	97	90 110		

RS# 2 Lab ID: **ICB 280-460644/2** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460644/3** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	ug/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460644/4** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.161	94.27610 mg/L	ug/L	94	90 110	1	11

RS# 5 Lab ID: **MB 280-460644/5** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	0000 U ug/L				

RS# 16 Lab ID: **CCV 280-460644/16** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 17 Lab ID: **CCB 280-460644/17** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123941-K-2** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.408	10.32080 mg/L	21000 J ug/L				

RS# 21 Lab ID: **280-123941-K-2 MS** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	ug/L	91	90 110		

RS# 22 Lab ID: **280-123941-K-2 MSD** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.281	53.48810 mg/L	ug/L	86	90 110	4	11

RS# 24 Lab ID: **280-123959-B-5** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.251	63.68510 mg/L	ug/L				

RS# 28 Lab ID: **CCV 280-460644/28** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.174	89.85740 mg/L	mg/L	90	90 110		

TALS Raw Data Report

RS# 29 Lab ID: **CCB 280-460644/29** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123960-1
LIMS Batch: 460644
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460644/1** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.223	73.20230 mg/L	mg/L	97	90 110		

RS# 2 Lab ID: **ICB 280-460644/2** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460644/3** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	ug/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460644/4** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.161	94.27610 mg/L	ug/L	94	90 110	1	11

RS# 5 Lab ID: **MB 280-460644/5** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	0000 U ug/L				

RS# 16 Lab ID: **CCV 280-460644/16** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 17 Lab ID: **CCB 280-460644/17** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123941-K-2** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.408	10.32080 mg/L	21000 J ug/L				

RS# 21 Lab ID: **280-123941-K-2 MS** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	ug/L	91	90 110		

RS# 22 Lab ID: **280-123941-K-2 MSD** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.281	53.48810 mg/L	ug/L	86	90 110	4	11

RS# 25 Lab ID: **280-123960-C-1** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	25000 J ug/L				

RS# 28 Lab ID: **CCV 280-460644/28** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.174	89.85740 mg/L	mg/L	90	90 110		

TALS Raw Data Report

RS# 29 Lab ID: **CCB 280-460644/29** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123993-1
LIMS Batch: 460644
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460644/1** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.223	73.20230 mg/L	mg/L	97	90 110		

RS# 2 Lab ID: **ICB 280-460644/2** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460644/3** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460644/4** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.161	94.27610 mg/L	mg/L	94	90 110	1	11

RS# 5 Lab ID: **MB 280-460644/5** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460644/16** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 17 Lab ID: **CCB 280-460644/17** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	mg/L				

RS# 20 Lab ID: **280-123941-K-2** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.408	10.32080 mg/L	mg/L				

RS# 21 Lab ID: **280-123941-K-2 MS** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	91	90 110		

RS# 22 Lab ID: **280-123941-K-2 MSD** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.281	53.48810 mg/L	mg/L	86	90 110	4	11

RS# 26 Lab ID: **280-123993-A-1** Inj Date: 6/6/2019 9:12:00AM Dil: 50 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.328	37.51280 mg/L	mg/L				

RS# 27 Lab ID: **280-123993-A-2** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.255	62.32550 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-460644/28** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.174	89.85740 mg/L	mg/L	90	90 110		

RS# 29 Lab ID: **CCB 280-460644/29** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 30 Lab ID: **280-123993-A-3** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.378	20.51780 mg/L	mg/L				

RS# 31 Lab ID: **280-123993-A-4** Inj Date: 6/6/2019 9:12:00AM Dil: 100 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-460644/34** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-460644/35** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

Job Number: 280-124014-1
LIMS Batch: 460644
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460644/1** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.223	73.20230 mg/L	mg/L	97	90 110		

RS# 2 Lab ID: **ICB 280-460644/2** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460644/3** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.157	95.63570 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460644/4** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.161	94.27610 mg/L	mg/L	94	90 110	1	11

RS# 5 Lab ID: **MB 280-460644/5** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460644/16** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 17 Lab ID: **CCB 280-460644/17** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	mg/L				

RS# 20 Lab ID: **280-123941-K-2** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.408	10.32080 mg/L	mg/L				

RS# 21 Lab ID: **280-123941-K-2 MS** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.274	55.86740 mg/L	mg/L	91	90 110		

RS# 22 Lab ID: **280-123941-K-2 MSD** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.281	53.48810 mg/L	mg/L	86	90 110	4	11

RS# 28 Lab ID: **CCV 280-460644/28** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.174	89.85740 mg/L	mg/L	90	90 110		

RS# 29 Lab ID: **CCB 280-460644/29** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 32 Lab ID: **280-124014-B-1** Inj Date: 6/6/2019 9:12:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.415	7.941500 mg/L	mg/L				

RS# 33 Lab ID: **280-124014-B-2** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-460644/34** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-460644/35** Inj Date: 6/6/2019 9:12:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060419.RST
Sample table path	C:\FLOW_4\p060419.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	05-Jun-19
Time acquired	01:56

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
04-Jun-19	20:55	106	Sync	1245806	513.563	HI
04-Jun-19	20:58	0	Carryover	11709	3.931	
04-Jun-19	21:01	0	Carryover	2187	0.401	
04-Jun-19	21:04	0	Read Baseline	-184	-0.477	BL
04-Jun-19	21:07	101	Cal 10.0 ppb	37447	13.503	
04-Jun-19	21:10	102	Cal 20.0 ppb	55485	20.238	
04-Jun-19	21:13	103	Cal 50.0 ppb	130348	48.427	
04-Jun-19	21:16	104	Cal 100 ppb	252879	95.388	
04-Jun-19	21:19	105	Cal 200 ppb	524789	203.242	
04-Jun-19	21:22	106	Cal 500 ppb	1215058	499.608	
04-Jun-19	21:25	0	Blank	12730	4.310	
04-Jun-19	21:28	0	Read Baseline	6640	2.051	BL UM
04-Jun-19	21:31	107	ICV 200 ppb	489929	189.134	
04-Jun-19	21:34	109	ICVL 100 ppb	268865	101.590	
04-Jun-19	21:37	0	ICB	6656	2.057	
04-Jun-19	21:40	0	Read Baseline	9338	3.051	BL UM
04-Jun-19	21:43	113	LCS 280-460448/1-A	470469	181.294	
04-Jun-19	21:46	114	MB 280-460448/2-A	16382	5.665	
04-Jun-19	21:49	115	280-123814-G-1-A	16630	5.758	
04-Jun-19	21:52	116	280-123814-G-1-B MS	485758	187.452	
04-Jun-19	21:55	117	280-123814-G-1-C MSD	488626	188.608	
04-Jun-19	21:58	118	280-123814-G-2-A	22080	7.783	
04-Jun-19	22:01	119	280-123814-G-3-A	25790	9.162	
04-Jun-19	22:04	120	280-123817-C-1-A	91729	33.838	
04-Jun-19	22:07	121	280-123817-C-2-A	714730	281.564	
04-Jun-19	22:10	122	280-123817-C-3-A	58576	21.394	
04-Jun-19	22:13	0	Blank	2941	0.680	
04-Jun-19	22:16	0	Read Baseline	23	-0.400	BL
04-Jun-19	22:19	108	CCV 200 ppb	532789	206.492	
04-Jun-19	22:22	104	CCVL 100 ppb	260712	98.425	
04-Jun-19	22:25	0	CCB	5019	1.450	
04-Jun-19	22:28	0	Read Baseline	2939	0.680	BL
04-Jun-19	22:31	123	280-123817-D-5-A	178861	66.898	
04-Jun-19	22:34	124	280-123834-I-1-A	34322	12.339	
04-Jun-19	22:37	125	280-123853-G-1-A	16399	5.672	
04-Jun-19	22:40	126	280-123853-G-2-A	20366	7.145	
04-Jun-19	22:43	127	280-123853-G-3-A	16693	5.781	
04-Jun-19	22:46	128	280-123855-C-6-A	14872	5.105	
04-Jun-19	22:49	129	280-123855-C-6-B MS	489651	189.022	
04-Jun-19	22:52	130	280-123855-C-6-C MSD	484875	187.096	
04-Jun-19	22:55	131	280-123887-A-2-A	20680	7.262	
04-Jun-19	22:58	132	280-123887-A-4-A	26252	9.334	

Result path C:\FLOW_4\P060419.RST
Sample table path C:\FLOW_4\p060419.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 05-Jun-19
Time acquired 01:56

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
04-Jun-19	23:01	0	Blank	3308	0.816	
04-Jun-19	23:04	0	Read Baseline	1677	0.212	BL
04-Jun-19	23:07	108	CCV 200 ppb	532123	206.221	
04-Jun-19	23:10	104	CCVL 100 ppb	258967	97.748	
04-Jun-19	23:13	0	CCB	7182	2.252	
04-Jun-19	23:16	0	Read Baseline	711	-0.145	BL
04-Jun-19	23:19	133	280-123887-A-5-A	35885	12.921	
04-Jun-19	23:22	134	280-123904-C-1-A	119219	44.213	
04-Jun-19	23:41	135	280-123904-B-2-A	1184694	485.891	
04-Jun-19	23:44	136	280-123904-C-3-A	64392	23.572	
04-Jun-19	23:47	137	x280-123904-C-4-A	1243092	512.329	HI
04-Jun-19	23:50	138	280-123904-D-5-A	731207	288.474	FL
04-Jun-19	23:53	139	LCS 280-460449/1-A	498815	192.723	FL
04-Jun-19	23:56	140	MB 280-460449/2-A	65170	23.864	
04-Jun-19	23:59	141	280-123993-A-1-A	36602	13.188	
05-Jun-19	00:02	142	280-123993-A-1-B MS	519057	200.917	
05-Jun-19	00:05	0	Blank	-6309	-2.743	LO
05-Jun-19	00:08	0	Read Baseline	-11354	-4.608	BL UM
05-Jun-19	00:11	108	CCV 200 ppb	530455	205.544	
05-Jun-19	00:14	104	CCVL 100 ppb	259057	97.783	
05-Jun-19	00:17	0	CCB	-13235	-5.303	LO
05-Jun-19	00:20	0	Read Baseline	-11215	-4.557	BL
05-Jun-19	00:23	143	280-123993-A-1-C MSD	536866	208.150	
05-Jun-19	00:26	144	280-123993-B-2-A	145271	54.092	
05-Jun-19	00:29	145	280-123993-A-3-A	41721	15.097	
05-Jun-19	00:32	146	x280-123993-B-4-A	9823	3.231	
05-Jun-19	00:35	147	440-241295-O-19-A	17809	6.195	
05-Jun-19	00:38	148	440-241295-O-20-A	19458	6.808	
05-Jun-19	00:41	149	440-241295-O-21-A	13576	4.624	
05-Jun-19	00:44	150	440-241433-O-17-A	6274	1.915	
05-Jun-19	00:47	151	440-241657-S-1-A	25285	8.974	
05-Jun-19	00:50	152	280-123889-A-2-A	72957	26.783	
05-Jun-19	00:53	0	Blank	-2395	-1.295	LO
05-Jun-19	00:56	0	Read Baseline	-5522	-2.452	BL
05-Jun-19	00:59	108	CCV 200 ppb	514178	198.939	
05-Jun-19	01:02	104	CCVL 100 ppb	260487	98.337	
05-Jun-19	01:05	0	CCB	5890	1.773	
05-Jun-19	01:08	0	Read Baseline	7751	2.463	BL
05-Jun-19	01:11	153	LCS 280-459050/1-A	455746	175.380	
05-Jun-19	01:14	154	MB 280-459050/2-A	30330	10.852	
05-Jun-19	01:17	155	280-123273-G-19-A	10086	3.329	
05-Jun-19	01:20	156	280-123273-G-1-A	15535	5.351	
05-Jun-19	01:23	157	280-123273-G-1-B MS	12750	4.317	
05-Jun-19	01:26	158	280-123273-G-1-C MSD	404918	155.076	
05-Jun-19	01:31	140	MB 280-460449/2-A	54167	19.745	
05-Jun-19	01:34	159	280-123904-C-4-A	587397	457.576	
05-Jun-19	01:37	0	Blank	-8892	-3.698	LO
05-Jun-19	01:40	0	Read Baseline	-14767	-5.868	BL UM
05-Jun-19	01:43	108	CCV 200 ppb	526713	204.024	
05-Jun-19	01:46	104	CCVL 100 ppb	250154	94.332	
05-Jun-19	01:49	0	CCB	5684	1.697	
05-Jun-19	01:52	0	Read Baseline	3047	0.720	BL UM

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060419.RST
Date: 05-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1245806	513.563293	HI
2	0	Carryover	1	CO	1	1	11709	3.930784	
3	0	Carryover	2	CO	1	1	2187	0.401123	
B	0	Read Baseline	1	RB	1	1	-184	-0.476786	BL
5	101	Cal 10.0 ppb	1	C	1	1	37447	13.503100	
6	102	Cal 20.0 ppb	1	C	1	1	55485	20.238047	
7	103	Cal 50.0 ppb	1	C	1	1	130348	48.427494	
8	104	Cal 100 ppb	1	C	1	1	252879	95.388077	
9	105	Cal 200 ppb	1	C	1	1	524789	203.242371	
10	106	Cal 500 ppb	1	C	1	1	1215058	499.608337	
11	0	Blank	1	BLNK	1	1	12730	4.309968	
B	0	Read Baseline	1	RB	1	1	6640	2.051156	BL UM
13	107	ICV 200 ppb	1	U	1	1	489929	189.134323	
14	109	ICVL 100 ppb	1	U	1	1	268865	101.589760	
15	0	ICB	1	U	1	1	6656	2.057112	
B	0	Read Baseline	1	RB	1	1	9338	3.051449	BL UM
17	113	LCS 280-460448/1-A 1	U		1	1	470469	181.294434	
18	114	MB 280-460448/2-A 1	U		1	1	16382	5.665353	
19	115	280-123814-G-1-A 1	U		1	1	16630	5.757562	
20	116	280-123814-G-1-B MS 1	U		1	1	485758	187.452057	
21	117	280-123814-G-1-C MSD 1	U		1	1	488626	188.608490	
22	118	280-123814-G-2-A 1	U		1	1	22080	7.782601	
23	119	280-123814-G-3-A 1	U		1	1	25790	9.162048	
24	120	280-123817-C-1-A 1	U		1	1	91729	33.838299	
25	121	280-123817-C-2-A 1	U		1	1	714730	281.564362	
26	122	280-123817-C-3-A 1	U		1	1	58576	21.394379	
27	0	Blank	1	BLNK	1	1	2941	0.680357	
B	0	Read Baseline	1	RB	1	1	23	-0.400348	BL
29	108	CCV 200 ppb	1	CCV	1	1	532789	206.491699	
30	104	CCVL 100 ppb	1	U	1	1	260712	98.424728	
31	0	CCB	1	U	1	1	5019	1.450441	
B	0	Read Baseline	1	RB	1	1	2939	0.679620	BL
33	123	280-123817-D-5-A 1	U		1	1	178861	66.898262	
34	124	280-123834-I-1-A 1	U		1	1	34322	12.338527	
35	125	280-123853-G-1-A 1	U		1	1	16399	5.671928	
36	126	280-123853-G-2-A 1	U		1	1	20366	7.145356	
37	127	280-123853-G-3-A 1	U		1	1	16693	5.781096	
38	128	280-123855-C-6-A 1	U		1	1	14872	5.104850	
39	129	280-123855-C-6-B MS 1	U		1	1	489651	189.021988	
40	130	280-123855-C-6-C MSD 1	U		1	1	484875	187.095642	
41	131	280-123887-A-2-A 1	U		1	1	20680	7.262039	
42	132	280-123887-A-4-A 1	U		1	1	26252	9.333813	
43	0	Blank	1	BLNK	1	1	3308	0.816421	
B	0	Read Baseline	1	RB	1	1	1677	0.212232	BL
45	108	CCV 200 ppb	1	CCV	1	1	532123	206.221161	
46	104	CCVL 100 ppb	1	U	1	1	258967	97.747696	
47	0	CCB	1	U	1	1	7182	2.251869	
B	0	Read Baseline	1	RB	1	1	711	-0.145337	BL
49	133	280-123887-A-5-A 1	U		1	1	35885	12.920652	
50	134	280-123904-C-1-A 1	U		1	1	119219	44.212780	
51	135	280-123904-B-2-A 1	U		1	1	1184694	485.890900	
52	136	280-123904-C-3-A 1	U		1	1	64392	23.571949	
53	137	x280-123904-C-4-A 1	U		1	1	1243092	512.328674	HI
54	138	280-123904-D-5-A 1	U		1	1	731207	288.474121	FL
55	139	LCS 280-460449/1-A 1	U		1	1	498815	192.722839	FL
56	140	MB 280-460449/2-A 1	U		1	1	65170	23.863546	
57	141	280-123993-A-1-A 1	U		1	1	36602	13.187839	
58	142	280-123993-A-1-B MS 1	U		1	1	519057	200.917053	
59	0	Blank	1	BLNK	1	1	-6309	-2.743356	LO
B	0	Read Baseline	1	RB	1	1	-11354	-4.607881	BL UM
61	108	CCV 200 ppb	1	CCV	1	1	530455	205.543549	
62	104	CCVL 100 ppb	1	U	1	1	259057	97.782692	
63	0	CCB	1	U	1	1	-13235	-5.302634	LO
B	0	Read Baseline	1	RB	1	1	-11215	-4.556714	BL
65	143	280-123993-A-1-C MSD 1	U		1	1	536866	208.149582	
66	144	280-123993-B-2-A 1	U		1	1	145271	54.092243	
67	145	280-123993-A-3-A 1	U		1	1	41721	15.096875	
68	146	x280-123993-B-4-A 1	U		1	1	9823	3.231411	
69	147	440-241295-O-19-A 1	U		1	1	17809	6.195350	
70	148	440-241295-O-20-A 1	U		1	1	19458	6.808082	

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
71	149	440-241295-O-21-A 1 U			1	1	13576	4.623711	
72	150	440-241433-O-17-A 1 U			1	1	6274	1.915482	
73	151	440-241657-S-1-A 1 U			1	1	25285	8.974460	
74	152	280-123889-A-2-A 1 U			1	1	72957	26.783182	
75	0	Blank	1	BLNK	1	1	-2395	-1.295310	LO
B	0	Read Baseline	1	RB	1	1	-5522	-2.452140	BL
77	108	CCV 200 ppb	1	CCV	1	1	514178	198.939468	
78	104	CCVL 100 ppb	1	U	1	1	260487	98.337265	
79	0	CCB	1	U	1	1	5890	1.773003	
B	0	Read Baseline	1	RB	1	1	7751	2.463106	BL
81	153	LCS 280-459050/1-A 1 U			1	1	455746	175.380310	
82	154	MB 280-459050/2-A 1 U			1	1	30330	10.851812	
83	155	280-123273-G-19-A 1 U			1	1	10086	3.328903	
84	156	280-123273-G-1-A 1 U			1	1	15535	5.350996	
85	157	280-123273-G-1-B MS 1 U			1	1	12750	4.317285	
86	158	280-123273-G-1-C MSD 1 U			1	1	404918	155.075897	
87	140	MB 280-460449/2-A 1 U			1	1	54167	19.745157	
88	159	280-123904-C-4-A 1 U			2	1	587397	457.576080	
89	0	Blank	1	BLNK	1	1	-8892	-3.698333	LO
B	0	Read Baseline	1	RB	1	1	-14767	-5.868441	BL UM
91	108	CCV 200 ppb	1	CCV	1	1	526713	204.023712	
92	104	CCVL 100 ppb	1	U	1	1	250154	94.332497	
93	0	CCB	1	U	1	1	5684	1.696897	
B	0	Read Baseline	1	RB	1	1	3047	0.719803	BL UM

Phenols, Total:Calibration 1: Peak 5-94

File name: C:\FLOW_4\P060419.RST
Date: 05-Jun-19
Operator: AM

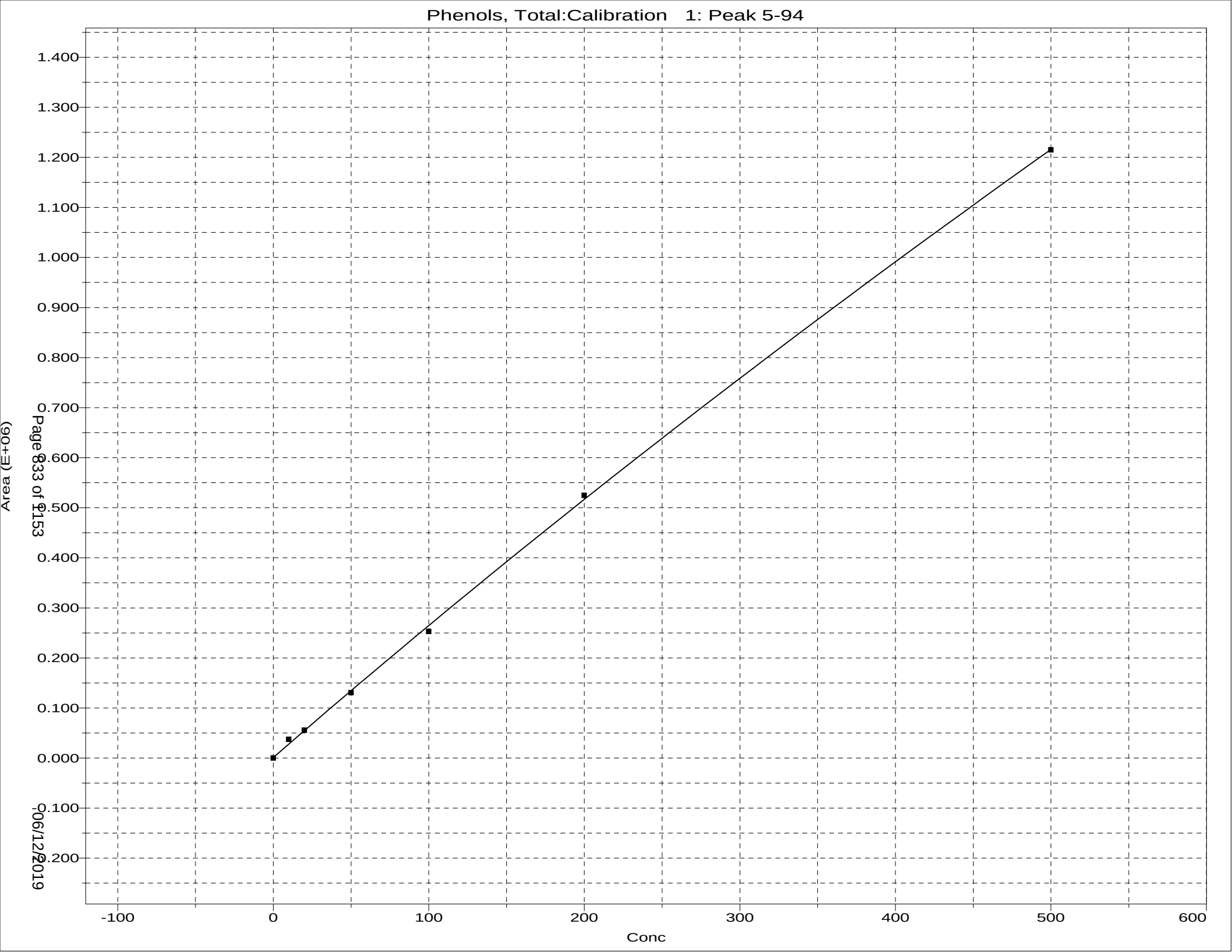
*	Name	Conc	Area
*	Cal 10.0 ppb	10.000000	37447.335938
*	Cal 20.0 ppb	20.000000	55484.652344
*	Cal 50.0 ppb	50.000000	130347.851562
*	Cal 100 ppb	100.000000	252879.328125
*	Cal 200 ppb	200.000000	524788.562500
*	Cal 500 ppb	500.000000	1215058.125000

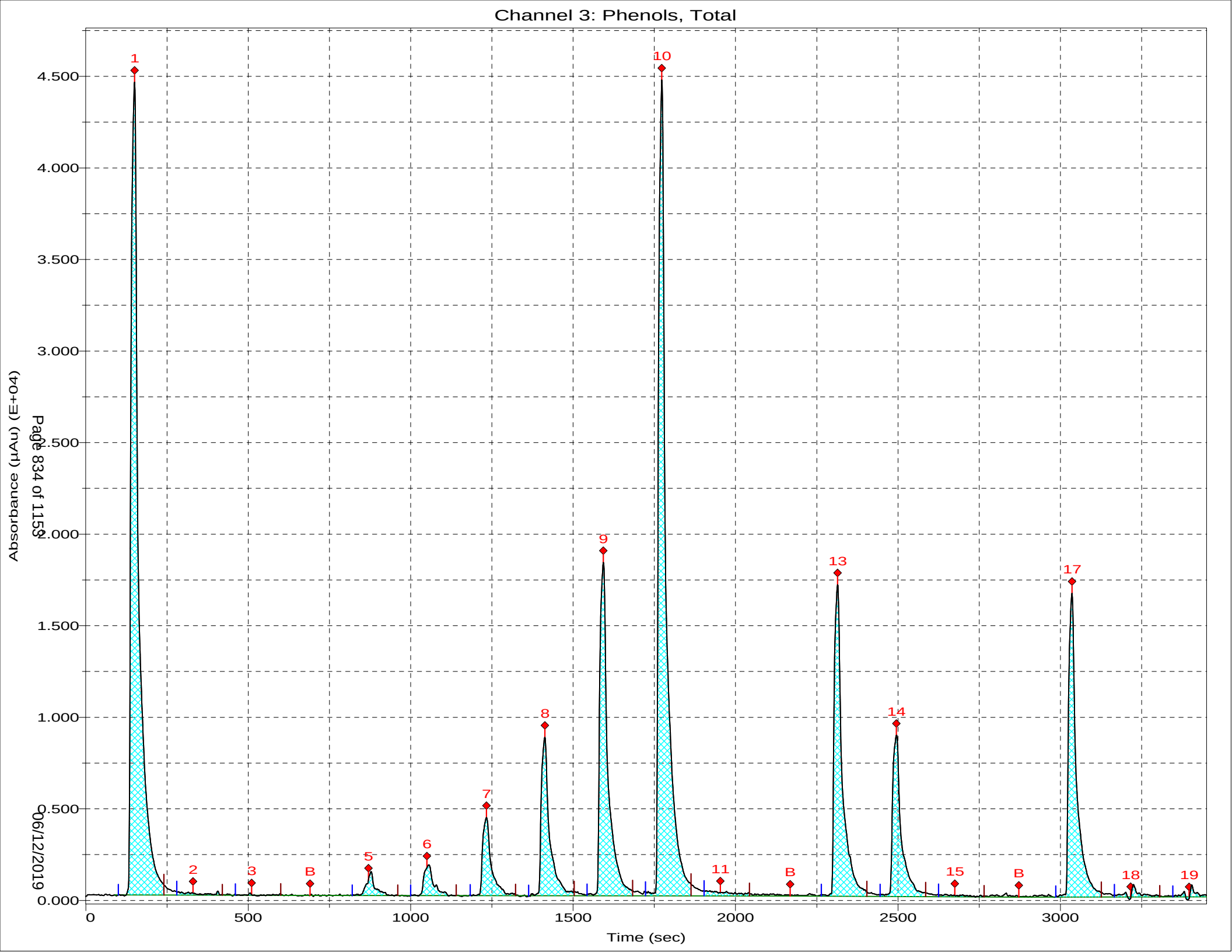
Calib Coef:
x=cyy+by+a
a: (intercept) -4.0875e-01
b: 3.7023e-04
c: 3.3978e-11

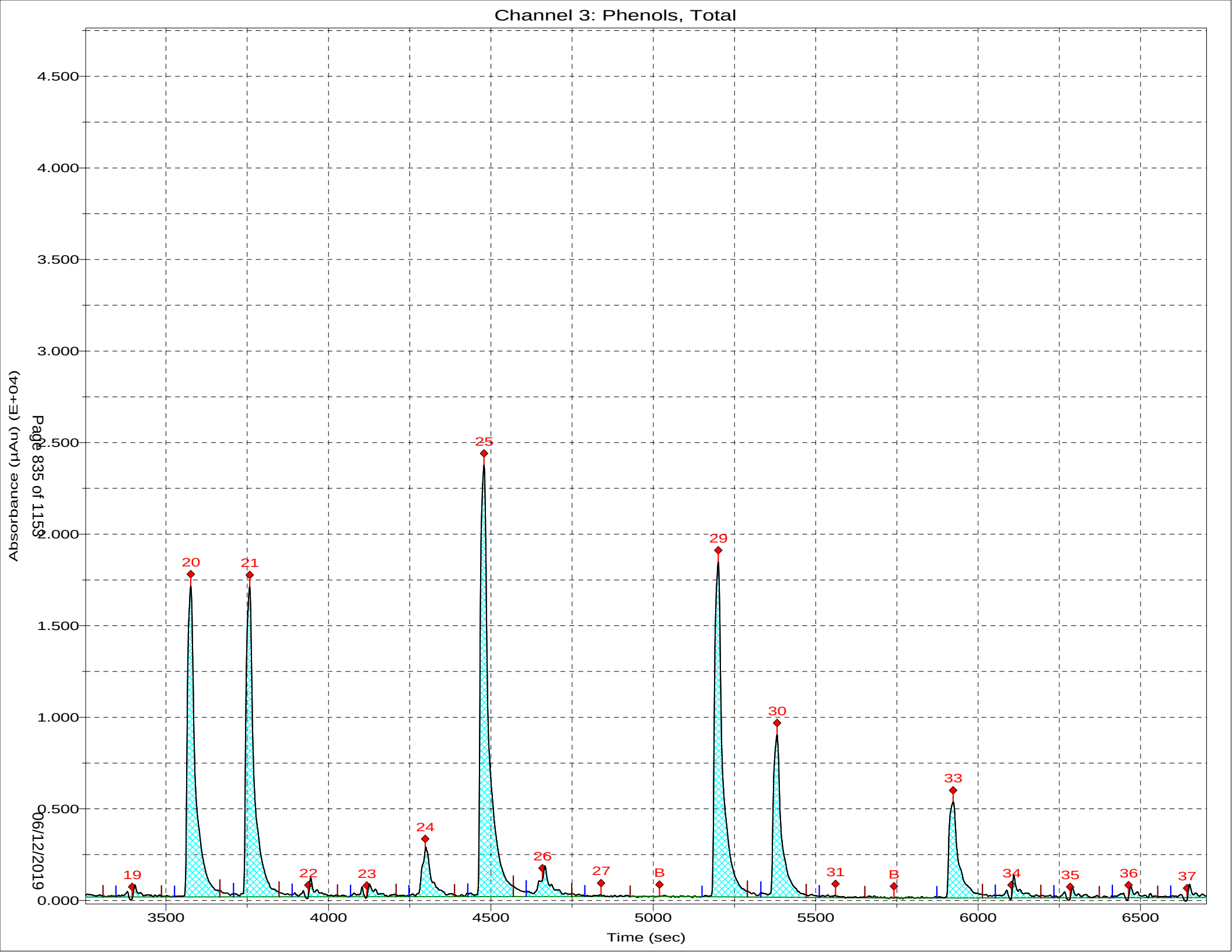
Corr Coef: 0.999878

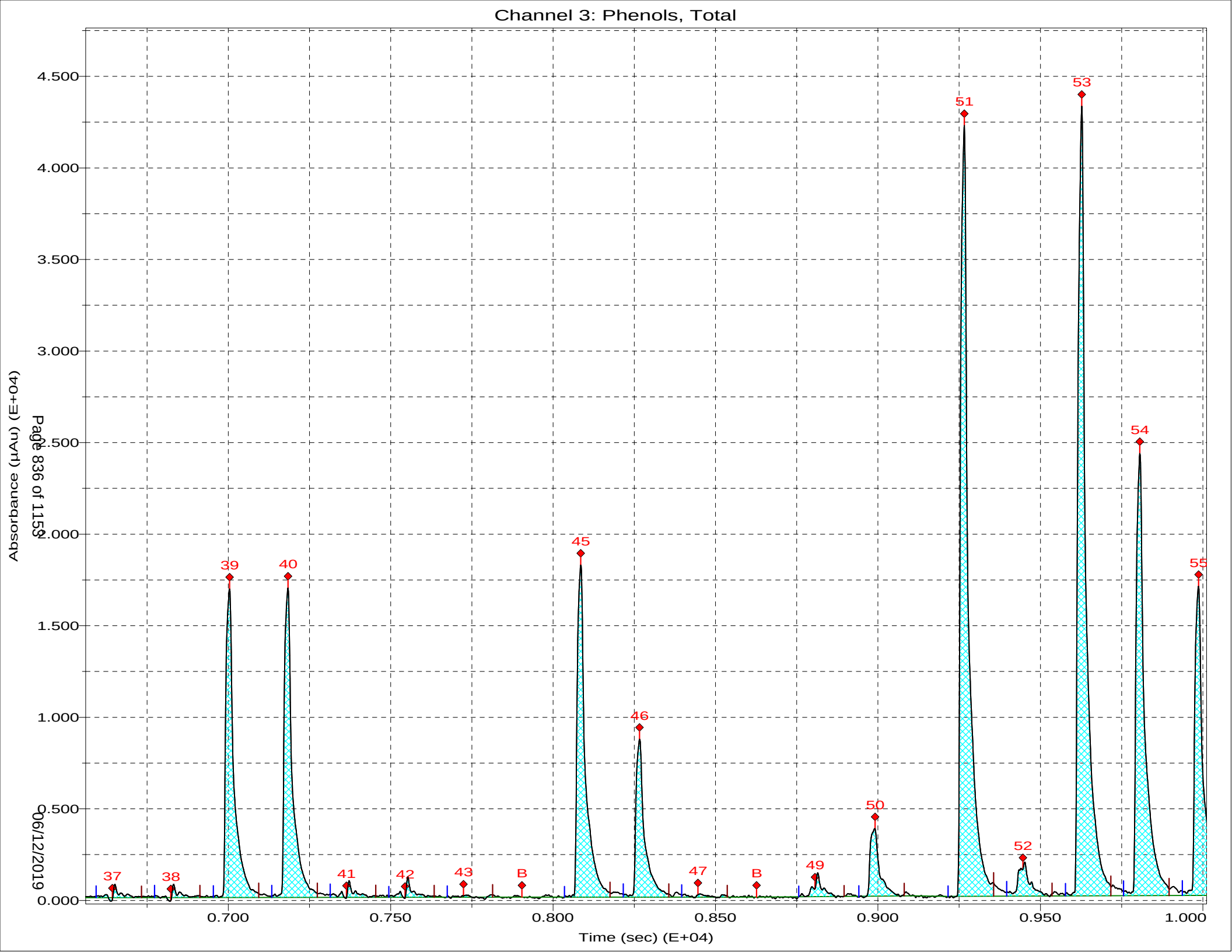
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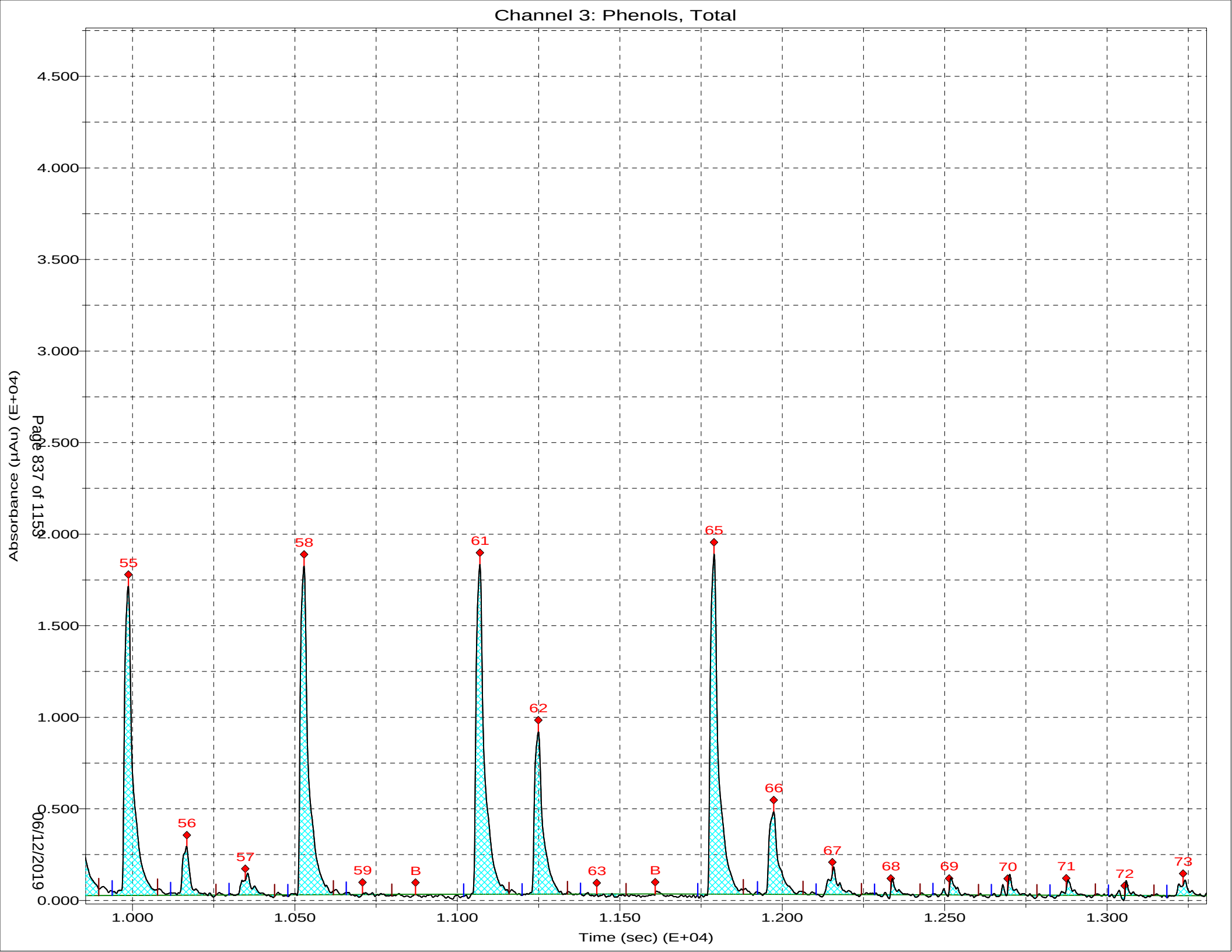
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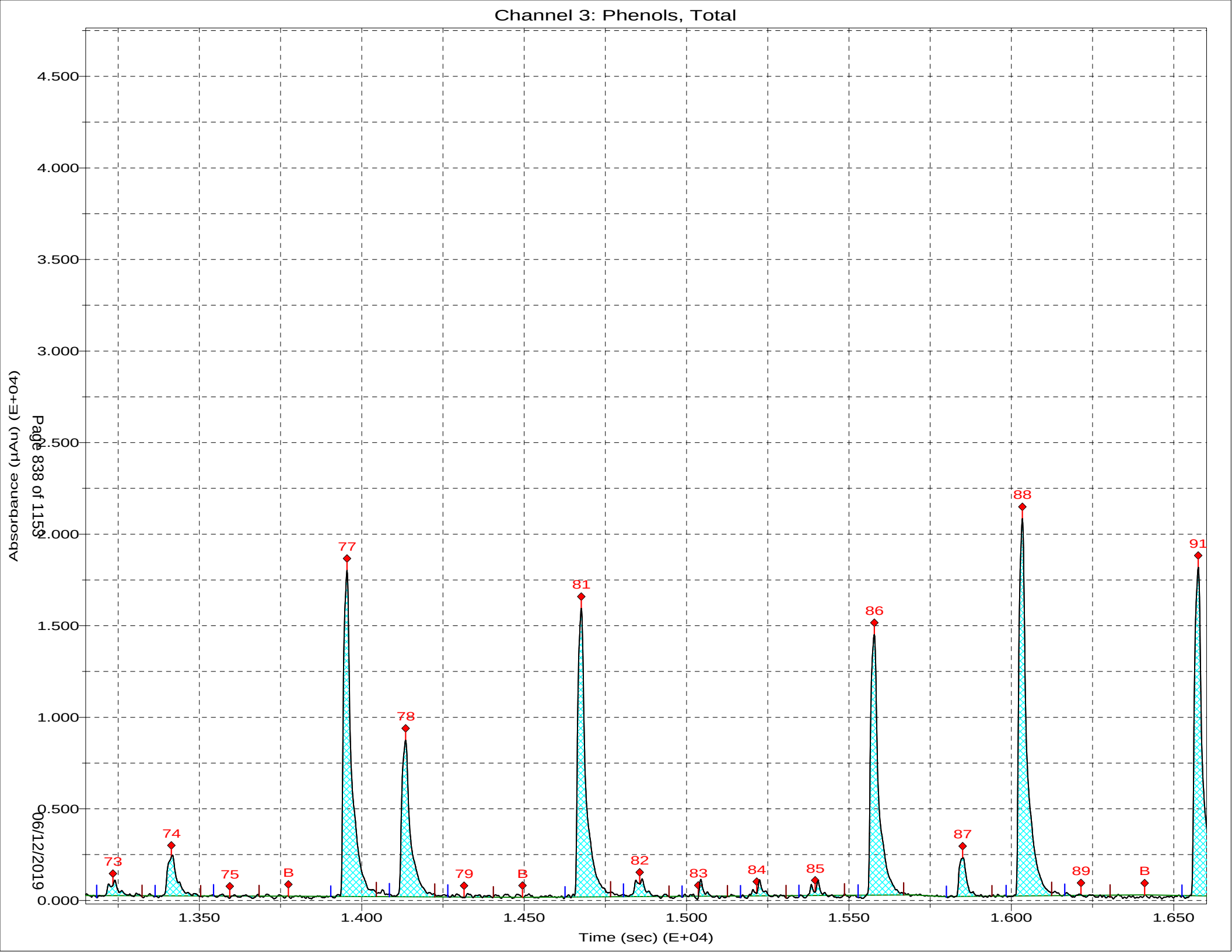

Phenols, Total:Calibration 1: Peak 5-94
Area (E+06)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-100
0
100
200
300
400
500
600
Conc

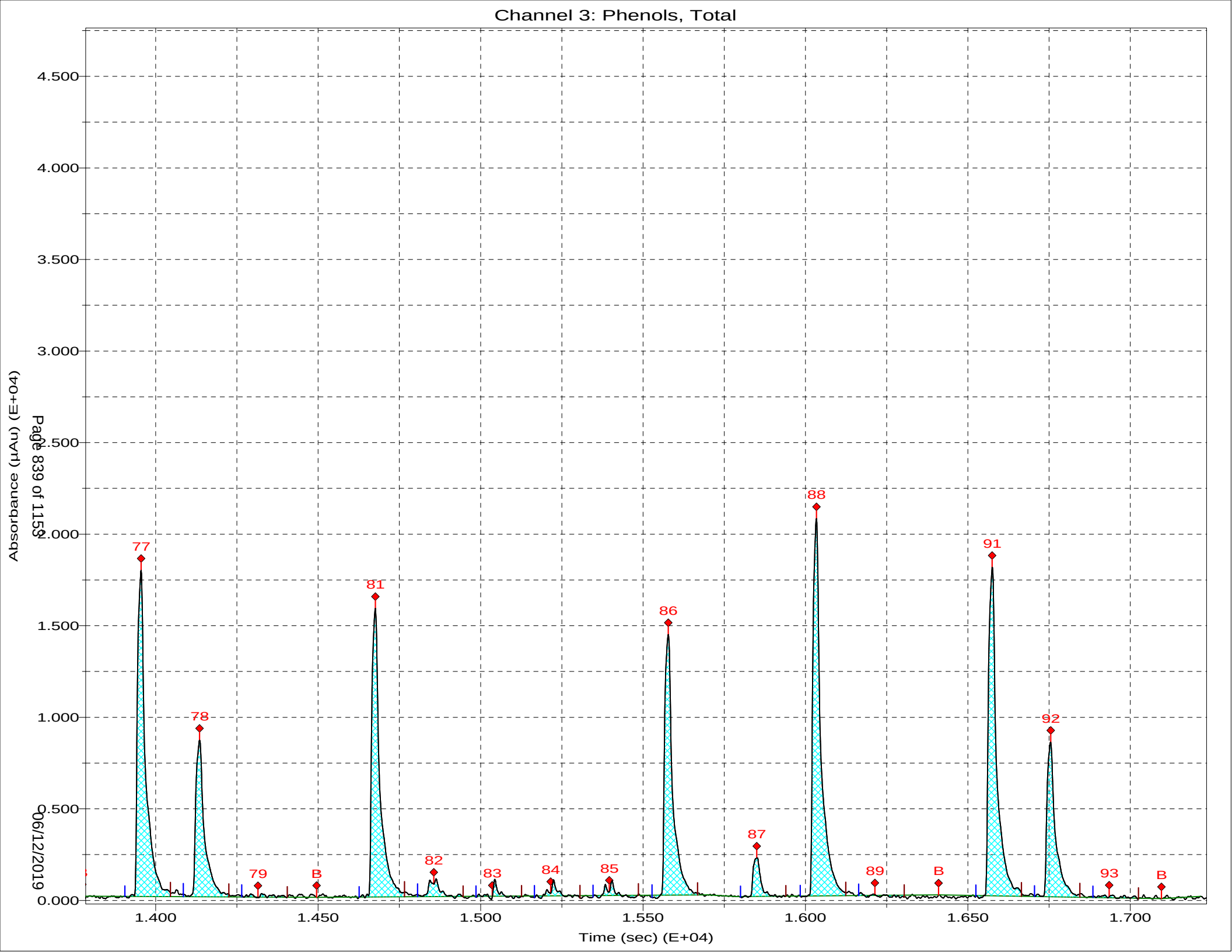

Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec)
Page 834 of 1153
06/12/2019
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0
500
1000
1500
2000
2500
3000
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
3500
4000
4500
5000
5500
6000
6500
Time (sec)
19
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.700
0.750
0.800
0.850
0.900
0.950
1.000
37
38
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.000
1.050
1.100
1.150
1.200
1.250
1.300
55
56
57
58
59
B
61
62
63
B
65
66
67
68
69
70
71
72
73
Page 837 of 1153
06/12/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.350
1.400
1.450
1.500
1.550
1.600
1.650
Time (sec) (E+04)
73
74
75
B
77
78
79
B
81
82
83
84
85
86
87
88
89
B
91


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.400
1.450
1.500
1.550
1.600
1.650
1.700
77
78
79
B
81
82
83
84
85
86
87
88
89
B
91
92
93
B

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060619.RST
Sample table path	C:\FLOW_4\p060619.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	07-Jun-19
Time acquired	00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	16:47	106	Sync	1284746	532.010	HI
06-Jun-19	16:50	0	Carryover	11761	2.861	
06-Jun-19	16:53	0	Carryover	1222	-1.624	LO
06-Jun-19	16:56	0	Read Baseline	-538	-2.373	BL
06-Jun-19	16:59	101	Cal 10.0 ppb	33132	11.950	
06-Jun-19	17:02	102	Cal 20.0 ppb	57468	22.291	
06-Jun-19	17:05	103	Cal 50.0 ppb	116843	47.484	
06-Jun-19	17:08	104	Cal 100 ppb	242088	100.447	
06-Jun-19	17:11	105	Cal 200 ppb	478988	199.968	
06-Jun-19	17:14	106	Cal 500 ppb	1206011	500.004	
06-Jun-19	17:17	0	Blank	-4565	-4.087	LO
06-Jun-19	17:20	0	Read Baseline	876	-1.771	BL
06-Jun-19	17:23	107	ICV 200 ppb	470022	196.217	
06-Jun-19	18:53	109	ICVL 100 ppb	264459	109.882	
06-Jun-19	18:56	0	ICB	-2784	-3.329	LO
06-Jun-19	18:59	0	Read Baseline	-7211	-5.213	BL UM
06-Jun-19	19:02	113	LCS 280-460735/1-A	481696	201.101	
06-Jun-19	19:05	114	MB 280-460735/2-A	7136	0.893	
06-Jun-19	19:08	115	280-123273-G-19-B	7689	1.129	
06-Jun-19	19:11	116	280-123889-A-2-B	35443	12.932	
06-Jun-19	19:14	117	280-123993-B-2-B	48783	18.601	
06-Jun-19	19:17	118	280-123993-B-4-B	130790	53.394	
06-Jun-19	19:20	119	280-123853-G-4-A	26462	9.114	
06-Jun-19	19:23	120	280-123853-G-5-A	22970	7.629	
06-Jun-19	19:26	121	280-123853-G-6-A	20406	6.538	
06-Jun-19	19:29	122	280-123855-D-1-B	28502	9.981	
06-Jun-19	19:32	0	blank	-10935	-6.799	LO
06-Jun-19	19:35	0	read baseline	-15155	-8.596	BL
06-Jun-19	19:38	108	CCV 200 ppb	487488	203.523	
06-Jun-19	19:41	104	CCVL 100 ppb	246780	102.427	
06-Jun-19	19:44	0	CCB	6	-2.142	LO
06-Jun-19	19:47	0	read baseline	3191	-0.786	BL
06-Jun-19	19:50	123	280-123855-D-1-C MS	496482	207.283	
06-Jun-19	19:53	124	280-123855-D-1-D MSD	511992	213.764	
06-Jun-19	19:56	125	280-123855-C-2-B	21738	7.105	
06-Jun-19	19:59	126	280-123855-E-3-D	39628	14.711	
06-Jun-19	20:02	127	280-123855-E-4-B	20998	6.790	
06-Jun-19	20:05	128	280-123855-C-5-B	26770	9.245	
06-Jun-19	20:08	129	280-123972-B-1-A	737659	307.650	
06-Jun-19	20:11	130	280-123972-A-2-A	54507	21.033	
06-Jun-19	20:14	131	280-123981-G-1-A	472837	197.395	
06-Jun-19	20:17	132	280-123981-G-2-A	36575	13.413	

Result path C:\FLOW_4\P060619.RST
Sample table path C:\FLOW_4\p060619.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 07-Jun-19
Time acquired 00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	20:20	0	blank	7303	0.964	
06-Jun-19	20:23	0	read baseline	3039	-0.851	BL
06-Jun-19	20:26	108	CCV 200 ppb	518804	216.610	
06-Jun-19	20:29	104	CCVL 100 ppb	261180	108.500	
06-Jun-19	20:32	0	CCB	9128	1.741	
06-Jun-19	20:35	0	read baseline	3064	-0.840	BL
06-Jun-19	20:38	133	280-123981-G-3-A	31116	11.093	
06-Jun-19	20:41	134	280-123981-G-4-A	32959	11.876	
06-Jun-19	20:44	135	280-123981-G-5-A	28330	9.908	
06-Jun-19	20:47	136	280-123981-G-6-A	28401	9.938	
06-Jun-19	20:50	137	280-123981-G-6-B MS	493108	205.873	
06-Jun-19	20:53	138	280-123981-G-6-C MSD	496776	207.406	
06-Jun-19	20:57	139	LCS 280-460749/1-A	498298	208.042	
06-Jun-19	21:00	140	MB 280-460749/2-A	24545	8.299	
06-Jun-19	21:03	141	280-123981-G-7-A	31197	11.127	
06-Jun-19	21:06	142	280-123981-G-8-B	29210	10.282	
06-Jun-19	21:09	0	blank	4725	-0.133	LO
06-Jun-19	21:12	0	read baseline	3560	-0.629	BL
06-Jun-19	21:15	108	CCV 200 ppb	507874	212.044	
06-Jun-19	21:18	104	CCVL 100 ppb	245911	102.060	
06-Jun-19	21:21	0	CCB	-4681	-4.136	LO
06-Jun-19	21:24	0	read baseline	-5973	-4.686	BL
06-Jun-19	21:27	143	280-123981-G-9-B	23801	7.982	
06-Jun-19	21:30	144	280-123983-G-1-B	69644	27.462	
06-Jun-19	21:33	145	280-123983-G-2-B	34350	12.468	
06-Jun-19	21:36	146	280-123983-G-3-B	35107	12.789	
06-Jun-19	21:39	147	280-124270-D-1-B	41354	15.444	
06-Jun-19	21:42	148	280-124270-D-2-B	40819	15.217	
06-Jun-19	21:45	149	280-124270-D-3-B	29994	10.615	
06-Jun-19	21:48	150	x280-124270-D-3-C MS	26693	9.212	
06-Jun-19	22:53	151	x280-124270-D-3-D MS	436947	182.370	
06-Jun-19	22:56	152	x280-124038-I-4-A	23051	7.663	
06-Jun-19	22:59	0	blank	-14444	-8.293	LO
06-Jun-19	23:02	0	read baseline	18979	5.932	BL UM
06-Jun-19	23:05	108	CCV 200 ppb	517632	216.121	
06-Jun-19	23:08	104	CCVL 100 ppb	260517	108.220	
06-Jun-19	23:11	0	CCB	7489	1.043	
06-Jun-19	23:14	0	read baseline	6427	0.591	BL
06-Jun-19	23:17	153	280-123924-G-1-A	22649	7.492	
06-Jun-19	23:20	154	280-123924-G-2-A	27403	9.514	
06-Jun-19	23:23	155	280-123924-G-3-A	65091	25.529	
06-Jun-19	23:26	156	280-123924-G-4-A	54052	20.840	
06-Jun-19	23:29	157	280-123924-G-5-A	39673	14.730	
06-Jun-19	23:32	158	280-123924-G-6-A	39776	14.774	
06-Jun-19	23:35	159	280-123924-G-7-A	32623	11.733	
06-Jun-19	23:38	160	280-123924-G-8-A	39618	14.707	
06-Jun-19	23:41	201	280-123924-G-9-A	28542	9.998	
06-Jun-19	23:44	202	280-123924-G-10-A	32243	11.572	
06-Jun-19	23:48	0	blank	3165	-0.797	LO
06-Jun-19	23:51	0	read baseline	-768	-2.471	BL
06-Jun-19	23:54	108	CCV 200 ppb	512574	214.008	
06-Jun-19	23:57	104	CCVL 100 ppb	263342	109.411	
07-Jun-19	00:00	0	CCB	-5430	-4.456	LO
07-Jun-19	00:03	0	read baseline	-6178	-4.774	BL
07-Jun-19	00:06	203	280-123924-G-10-B MS	517054	215.879	
07-Jun-19	00:09	204	280-123924-G-10-C MS	507160	211.746	
07-Jun-19	00:13	150	280-124270-D-3-C MS	447375	186.738	

Result path	C:\FLOW_4\P060619.RST
Sample table path	C:\FLOW_4\p060619.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	07-Jun-19
Time acquired	00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
07-Jun-19	00:16	151	280-124270-D-3-D MSD	450311	187.967	
07-Jun-19	00:19	152	280-124038-I-4-A	67100	26.382	
07-Jun-19	00:22	0	blank	-433	-2.328	LO
07-Jun-19	00:25	0	read baseline	-8549	-5.783	BL
07-Jun-19	00:28	108	CCV 200 ppb	504486	210.628	
07-Jun-19	00:31	104	CCVL 100 ppb	261085	108.460	
07-Jun-19	00:34	0	CCB	5987	0.404	
07-Jun-19	00:37	0	read baseline	6920	0.801	BL

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060619.RST
Date: 07-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1284746	532.009644	HI
2	0	Carryover	1	CO	1	1	11761	2.860792	
3	0	Carryover	2	CO	1	1	1222	-1.623995	LO
B	0	Read Baseline	1	RB	1	1	-538	-2.372981	BL
5	101	Cal 10.0 ppb	1	C	1	1	33132	11.949753	
6	102	Cal 20.0 ppb	1	C	1	1	57468	22.291309	
7	103	Cal 50.0 ppb	1	C	1	1	116843	47.483776	
8	104	Cal 100 ppb	1	C	1	1	242088	100.447174	
9	105	Cal 200 ppb	1	C	1	1	478988	199.968140	
10	106	Cal 500 ppb	1	C	1	1	1206011	500.004059	
11	0	Blank	1	BLNK	1	1	-4565	-4.087067	LO
B	0	Read Baseline	1	RB	1	1	876	-1.771070	BL
13	107	ICV 200 ppb	1	U	1	1	470022	196.217255	
14	109	ICVL 100 ppb	1	U	1	1	264459	109.881981	
15	0	ICB	1	U	1	1	-2784	-3.328888	LO
B	0	Read Baseline	1	RB	1	1	-7211	-5.213415	BL UM
17	113	LCS 280-460735/1-A 1	U		1	1	481696	201.100876	
18	114	MB 280-460735/2-A 1	U		1	1	7136	0.892920	
19	115	280-123273-G-19-B 1	U		1	1	7689	1.128525	
20	116	280-123889-A-2-B 1	U		1	1	35443	12.932266	
21	117	280-123993-B-2-B 1	U		1	1	48783	18.601410	
22	118	280-123993-B-4-B 1	U		1	1	130790	53.393574	
23	119	280-123853-G-4-A 1	U		1	1	26462	9.113688	
24	120	280-123853-G-5-A 1	U		1	1	22970	7.628785	
25	121	280-123853-G-6-A 1	U		1	1	20406	6.538361	
26	122	280-123855-D-1-B 1	U		1	1	28502	9.981392	
27	0	blank	1	BLNK	1	1	-10935	-6.799056	LO
B	0	read baseline	1	RB	1	1	-15155	-8.596418	BL
29	108	CCV 200 ppb	1	CCV	1	1	487488	203.522873	
30	104	CCVL 100 ppb	1	U	1	1	246780	102.426888	
31	0	CCB	1	U	1	1	6	-2.141597	LO
B	0	read baseline	1	RB	1	1	3191	-0.785660	BL
33	123	280-123855-D-1-C MS 1	U		1	1	496482	207.283142	
34	124	280-123855-D-1-D MSD 1	U		1	1	511992	213.764450	
35	125	280-123855-C-2-B 1	U		1	1	21738	7.105095	
36	126	280-123855-E-3-D 1	U		1	1	39628	14.711295	
37	127	280-123855-E-4-B 1	U		1	1	20998	6.790325	
38	128	280-123855-C-5-B 1	U		1	1	26770	9.244663	
39	129	280-123972-B-1-A 1	U		1	1	737659	307.650177	
40	130	280-123972-A-2-A 1	U		1	1	54507	21.033207	
41	131	280-123981-G-1-A 1	U		1	1	472837	197.394958	
42	132	280-123981-G-2-A 1	U		1	1	36575	13.413217	
43	0	blank	1	BLNK	1	1	7303	0.964045	
B	0	read baseline	1	RB	1	1	3039	-0.850566	BL
45	108	CCV 200 ppb	1	CCV	1	1	518804	216.610123	
46	104	CCVL 100 ppb	1	U	1	1	261180	108.499573	
47	0	CCB	1	U	1	1	9128	1.740731	
B	0	read baseline	1	RB	1	1	3064	-0.840003	BL
49	133	280-123981-G-3-A 1	U		1	1	31116	11.092682	
50	134	280-123981-G-4-A 1	U		1	1	32959	11.876139	
51	135	280-123981-G-5-A 1	U		1	1	28330	9.908121	
52	136	280-123981-G-6-A 1	U		1	1	28401	9.938361	
53	137	280-123981-G-6-B MS 1	U		1	1	493108	205.872604	
54	138	280-123981-G-6-C MSD 1	U		1	1	496776	207.406219	
55	139	LCS 280-460749/1-A 1	U		1	1	498298	208.042267	
56	140	MB 280-460749/2-A 1	U		1	1	24545	8.298662	
57	141	280-123981-G-7-A 1	U		1	1	31197	11.127326	
58	142	280-123981-G-8-B 1	U		1	1	29210	10.282269	
59	0	blank	1	BLNK	1	1	4725	-0.132839	LO
B	0	read baseline	1	RB	1	1	3560	-0.628626	BL
61	108	CCV 200 ppb	1	CCV	1	1	507874	212.044113	
62	104	CCVL 100 ppb	1	U	1	1	245911	102.059959	
63	0	CCB	1	U	1	1	-4681	-4.136443	LO
B	0	read baseline	1	RB	1	1	-5973	-4.686414	BL
65	143	280-123981-G-9-B 1	U		1	1	23801	7.982085	
66	144	280-123983-G-1-B 1	U		1	1	69644	27.461996	
67	145	280-123983-G-2-B 1	U		1	1	34350	12.467785	
68	146	280-123983-G-3-B 1	U		1	1	35107	12.789383	
69	147	280-124270-D-1-B 1	U		1	1	41354	15.444472	
70	148	280-124270-D-2-B 1	U		1	1	40819	15.217384	

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
71	149	280-124270-D-3-B 1 U			1	1	29994	10.615470	
72	150	x280-124270-D-3-C MS 1 U			1	1	26693	9.211935	
73	151	x280-124270-D-3-D MS 1 U			1	1	436947	182.369995	
74	152	x280-124038-I-4-A 1 U			1	1	23051	7.663148	
75	0	blank	1	BLNK	1	1	-14444	-8.293395	LO
B	0	read baseline	1	RB	1	1	18979	5.931530	BL UM
77	108	CCV 200 ppb	1	CCV	1	1	517632	216.120605	
78	104	CCVL 100 ppb	1	U	1	1	260517	108.220367	
79	0	CCB	1	U	1	1	7489	1.043040	
B	0	read baseline	1	RB	1	1	6427	0.591272	BL
81	153	280-123924-G-1-A 1 U			1	1	22649	7.492246	
82	154	280-123924-G-2-A 1 U			1	1	27403	9.513841	
83	155	280-123924-G-3-A 1 U			1	1	65091	25.528692	
84	156	280-123924-G-4-A 1 U			1	1	54052	20.840273	
85	157	280-123924-G-5-A 1 U			1	1	39673	14.730239	
86	158	280-123924-G-6-A 1 U			1	1	39776	14.774037	
87	159	280-123924-G-7-A 1 U			1	1	32623	11.733281	
88	160	280-123924-G-8-A 1 U			1	1	39618	14.706872	
89	201	280-123924-G-9-A 1 U			1	1	28542	9.998407	
90	202	280-123924-G-10-A 1 U			1	1	32243	11.571870	
91	0	blank	1	BLNK	1	1	3165	-0.796679	LO
B	0	read baseline	1	RB	1	1	-768	-2.470809	BL
93	108	CCV 200 ppb	1	CCV	1	1	512574	214.007736	
94	104	CCVL 100 ppb	1	U	1	1	263342	109.411003	
95	0	CCB	1	U	1	1	-5430	-4.455504	LO
B	0	read baseline	1	RB	1	1	-6178	-4.773701	BL
97	203	280-123924-G-10-B MS 1 U			1	1	517054	215.879105	
98	204	280-123924-G-10-C MS 1 U			1	1	507160	211.745743	
99	150	280-124270-D-3-C MS 1 U			1	1	447375	186.737579	
100	151	280-124270-D-3-D MSD 1 U			1	1	450311	187.966812	
101	152	280-124038-I-4-A 1 U			1	1	67100	26.381832	
102	0	blank	1	BLNK	1	1	-433	-2.328184	LO
B	0	read baseline	1	RB	1	1	-8549	-5.783080	BL
104	108	CCV 200 ppb	1	CCV	1	1	504486	210.628342	
105	104	CCVL 100 ppb	1	U	1	1	261085	108.459816	
106	0	CCB	1	U	1	1	5987	0.404209	
B	0	read baseline	1	RB	1	1	6920	0.801121	BL

Phenols, Total:Calibration 1: Peak 5-107

File name: C:\FLOW_4\P060619.RST
Date: 07-Jun-19
Operator: AM

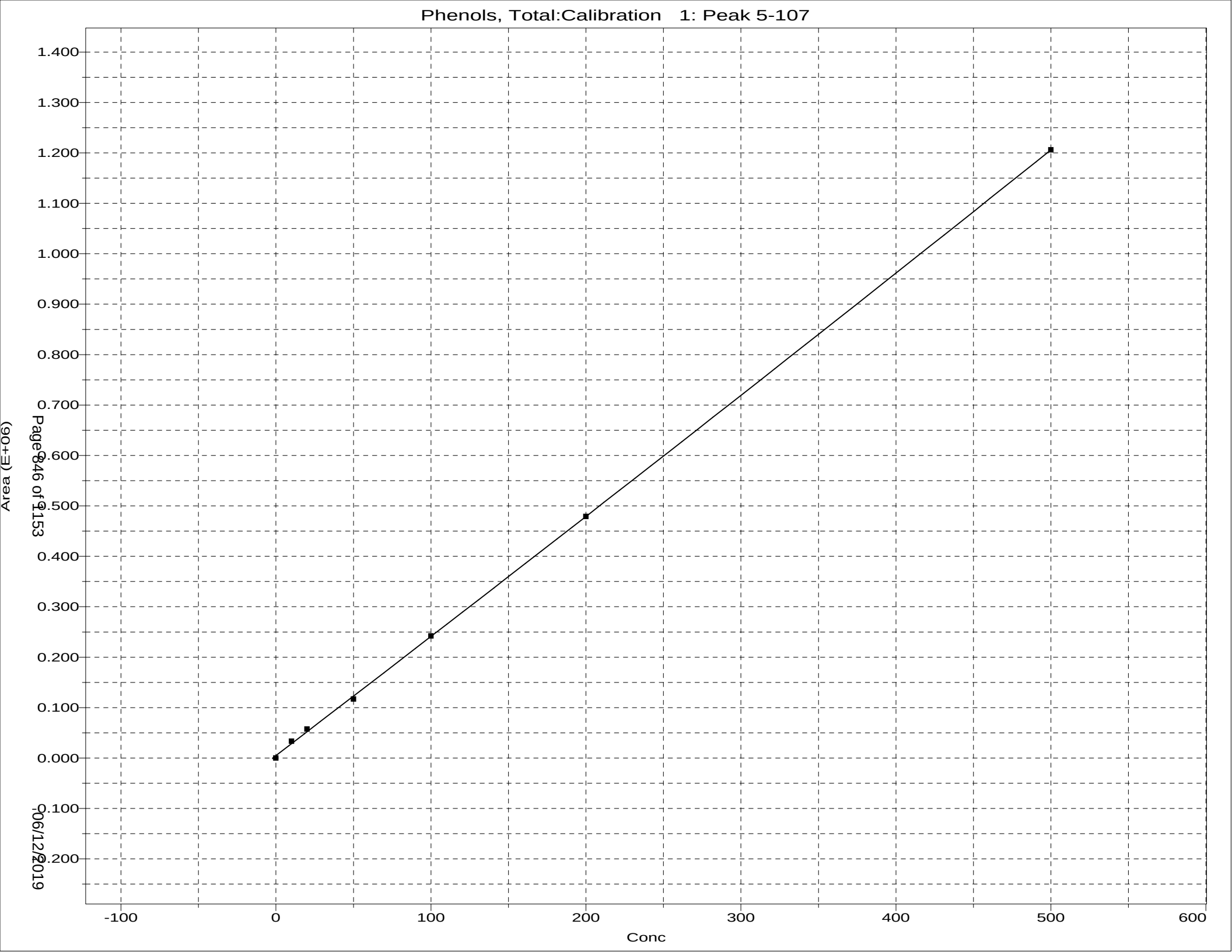
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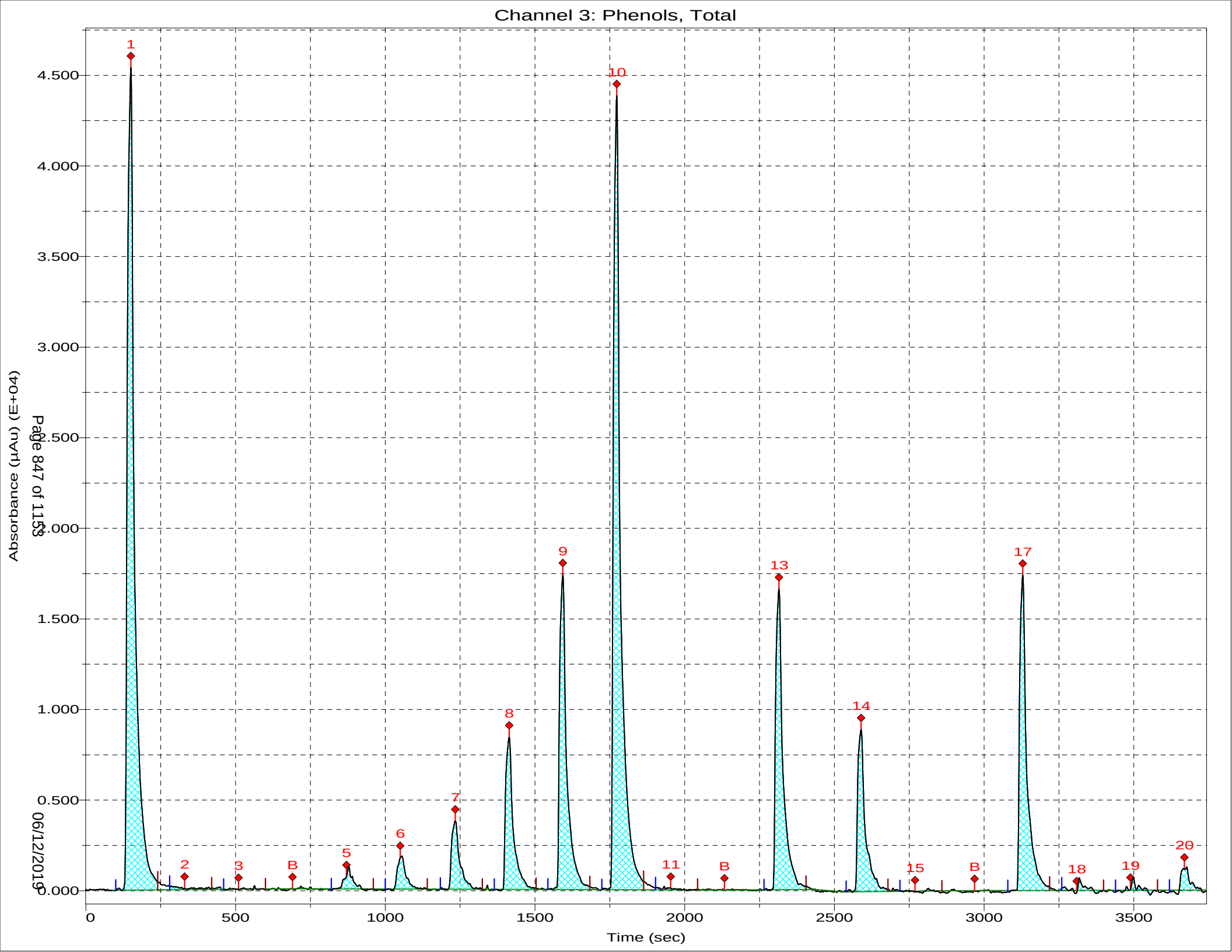
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a: (intercept) -2.1439e+00
b: 4.2564e-04
c: -7.6828e-12

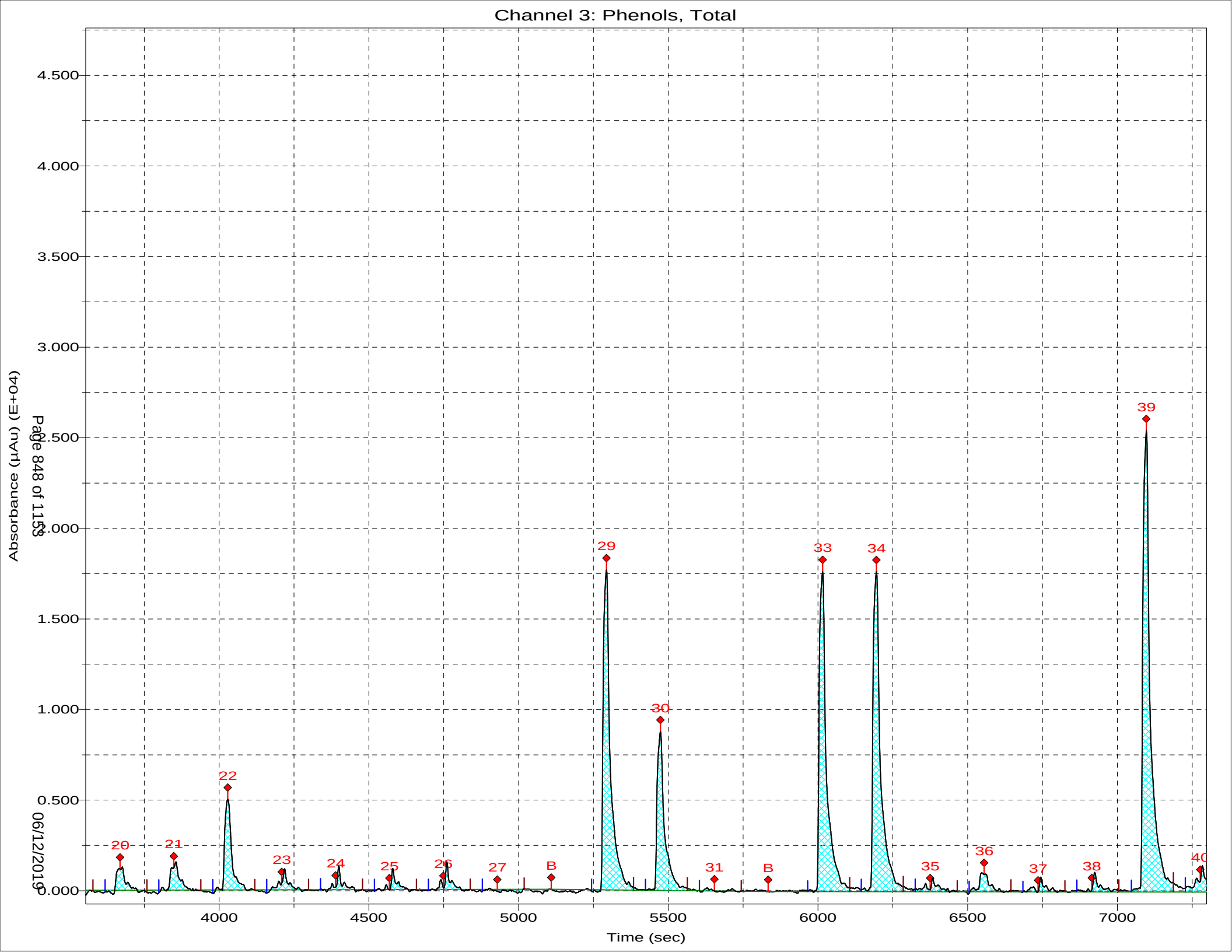
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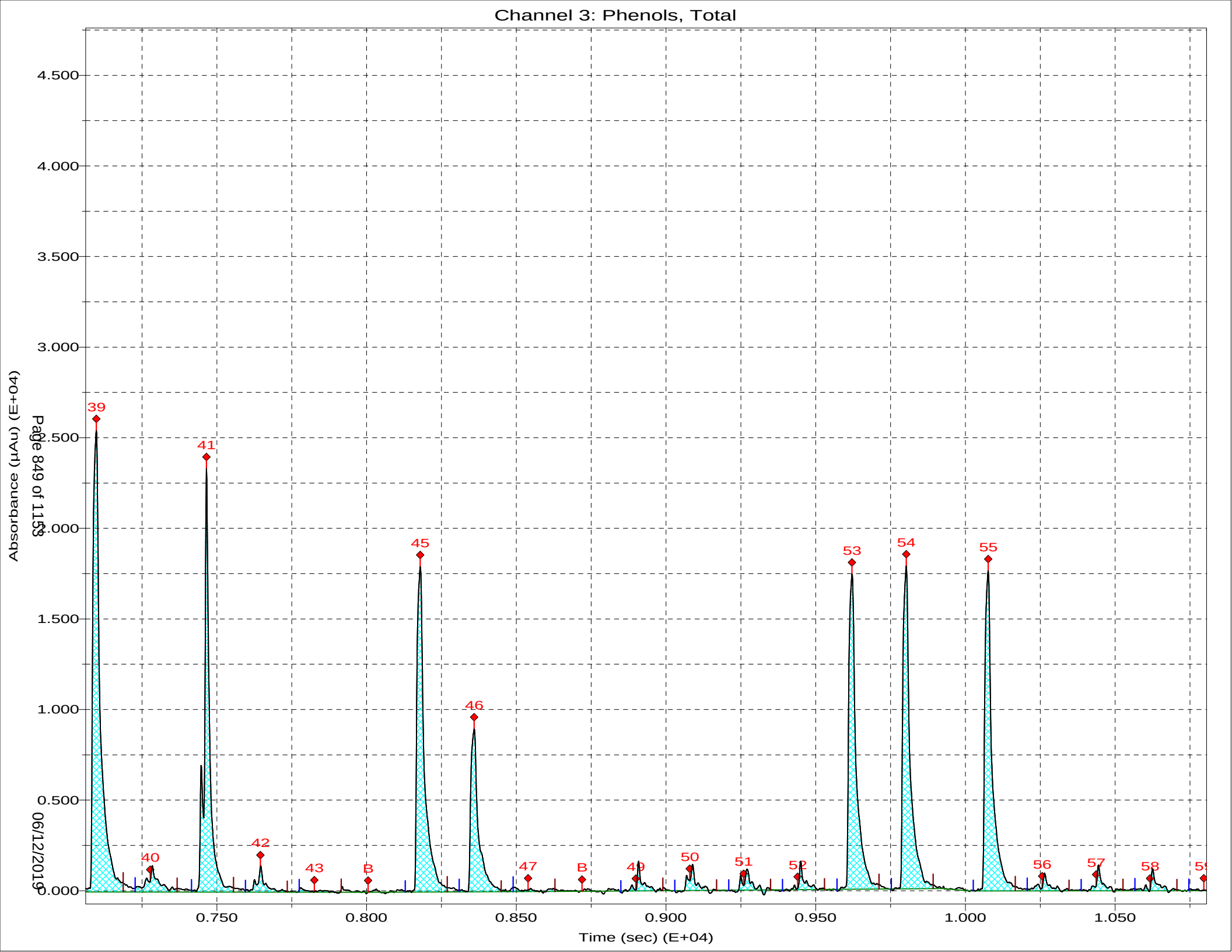
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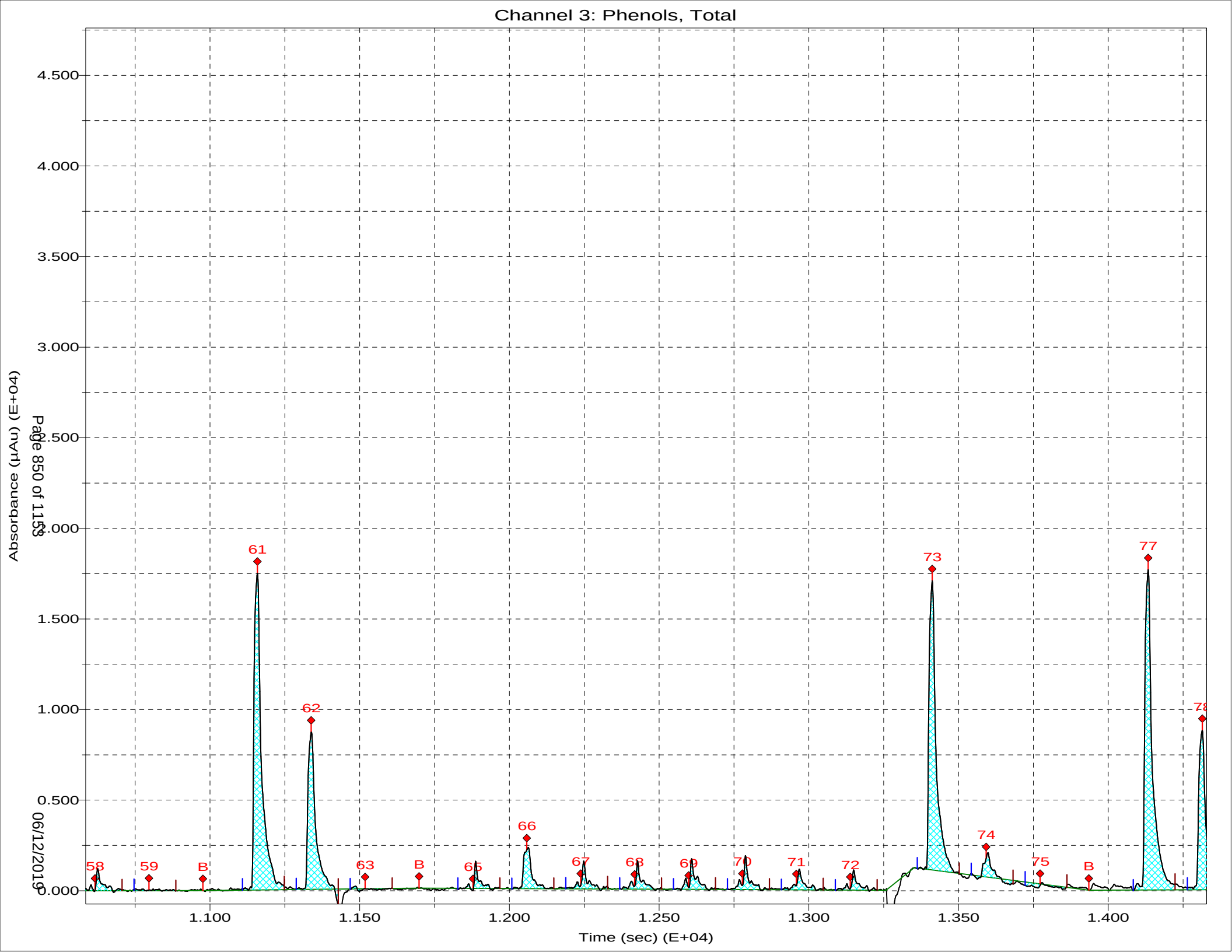
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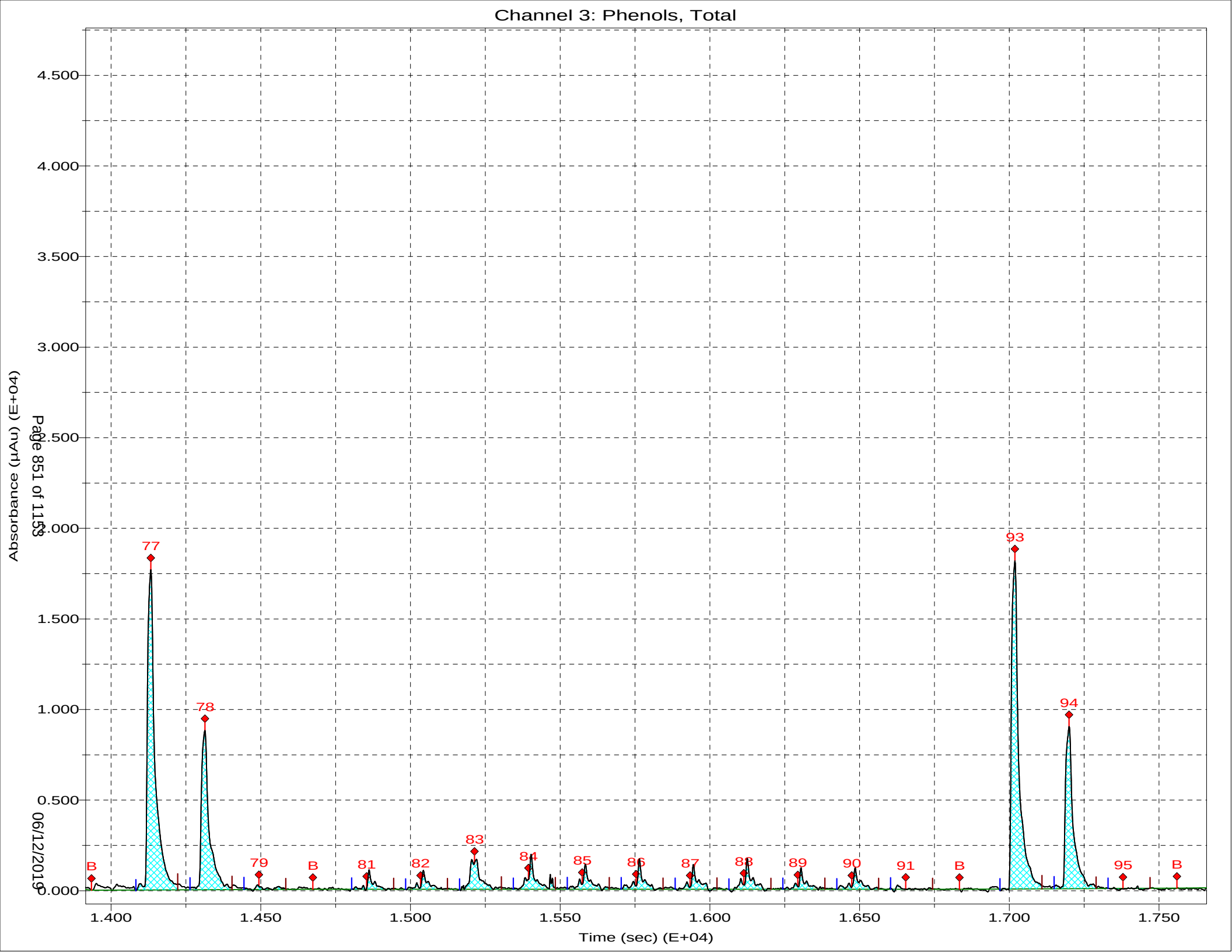

Phenols, Total:Calibration 1: Peak 5-107
Area (E+06)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-100
0
100
200
300
400
500
600
Conc

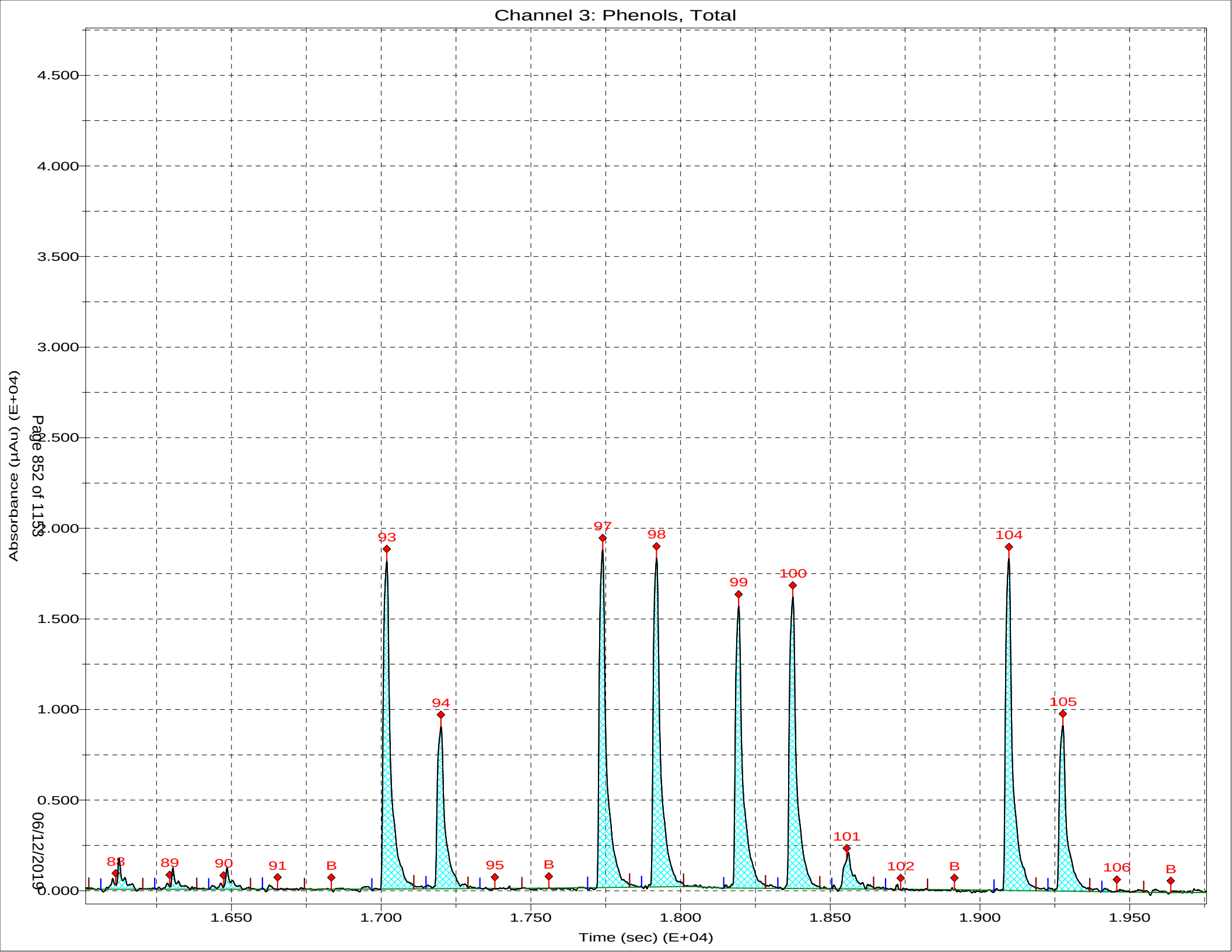

Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0
500
1000
1500
2000
2500
3000
3500
Time (sec)
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
20
Page 847 of 1153
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Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
4000
4500
5000
5500
6000
6500
7000
Time (sec)
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37
38
39
40


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.750
0.800
0.850
0.900
0.950
1.000
1.050
Time (sec) (E+04)
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55
56
57
58
Page 849 of 1153
06/12/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Time (sec) (E+04)
1.100
1.150
1.200
1.250
1.300
1.350
1.400
58
59
B
61
62
63
B
65
66
67
68
69
70
71
72
73
74
75
B
77
78


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.400
1.450
1.500
1.550
1.600
1.650
1.700
1.750
77
78
79
81
82
83
84
85
86
87
88
89
90
91
93
94
95
B
Page 851 of 1153
06/12/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Page 852 of 1153
06/12/2019
88
89
90
91
B
93
94
95
B
97
98
99
100
101
102
B
104
105
106
B
1.650
1.700
1.750
1.800
1.850
1.900
1.950
Time (sec) (E+04)

Color Bench Sheet

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Analyst: Kelly Sonnier	Batch #: 458496	SOP: DV-WC-0058 SM 2120B
Date: 5-16-19		

Calibration Standard TALS ID: COLOR STD_00018 1.0 N HCl TALS ID: N/A

1.0 N NaOH TALS ID: N/A

Sample ID	pH	Observed Color	Dilution Factor	Sample Centrifuged?	Final Color
Method Blank	7	0	1X	Yes (No)	0
280-123853-H-1	6	15	1X	Yes (No)	15
" " DU	6	15	1X	Yes (No)	15
280-123853-J-2	7	20	1X	Yes (No)	20
280-123853-H-3	7	5	2X	Yes (No)	10
280-123853-H-4	7	20	1X	Yes (No)	20
280-123853-J-5	7	30	1X	Yes (No)	30
280-123853-J-6	7	40	1X	Yes (No)	40
280-123853-J-1	7	5	1X	Yes (No)	5
280-123855-H-2	9	5	1X	Yes (No)	5
280-123855-H-3	8	25	2X	Yes (No)	50
280-123855-I-4	7	5	1X	Yes (No)	5
280-123855-J-5	7	25	1X	Yes (No)	25
" " DU	7	25	1X	Yes (No)	25
280-123855-I-6	7	20	1X	Yes (No)	20
				Yes No	
				Yes No	
				Yes No	
KES				Yes No	
5/16/19				Yes No	
				Yes No	
				Yes No	

Comments: N/A

HARDNESS BY TITRATION -- Method 2340C

Analyst:	KS	**Titration Solutions**		**SOP Information:**	**Rep. / Detection Limits**
Date:	5/24/2019	Solution 1:	EDTA	Number: DV-WC-0060	MDL (mg/L) 1.3
Time:	15:29	ID #	_00090	Revision: 4	RL (mg/L) 5
Batch No.:	459401	Source:	RICCA	**Calibration Information**	Spike Concentrations:
		Normality:	0.01966	Std# Hard 00051	LCS Spike Vol (mL) 10
Pipette Verification				Made By: LabChem	MS Spike Vol (mL) 10
at 5 mL:	4.93 g			Concentration (mg/L): 1000	LCS conc. (mg/L) 1000.0
Brinkmann bottletop				Exp: 6/13/20	MS conc (mg/L) 1000.0
Buret 50					

Sample ID	Sample pH	Sample Volume	Buret Start	Buret Stop	Flags	Final mL	Sample Conc mg/L	Prep D.F.	Analyt. D.F.	Final Conc mg/L	Titrant TV
titrant stdz	7	10	0.00	10.27		10.27	1009.425	1	1	1009.42	0.01947
titrant stdz	7	10	0.00	10.08		10.08	990.750	1	1	990.75	0.01984

Buffer:	Hardness Buffer 00009	Exp:	7 15 2019
Calmagite Indicator:	0289-11_00008	Exp:	12 31 2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	NC	NC	M
2 Chloride	3.234	3.242	-0.008	4716909	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	1976056	0.2000	0.2135	a
4 Bromide	4.642	4.642	0.000	382484	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	2120855	0.2000	0.2208	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	0.2000	0.2189	a
6 Sulfate	6.409	6.434	-0.025	3612640	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

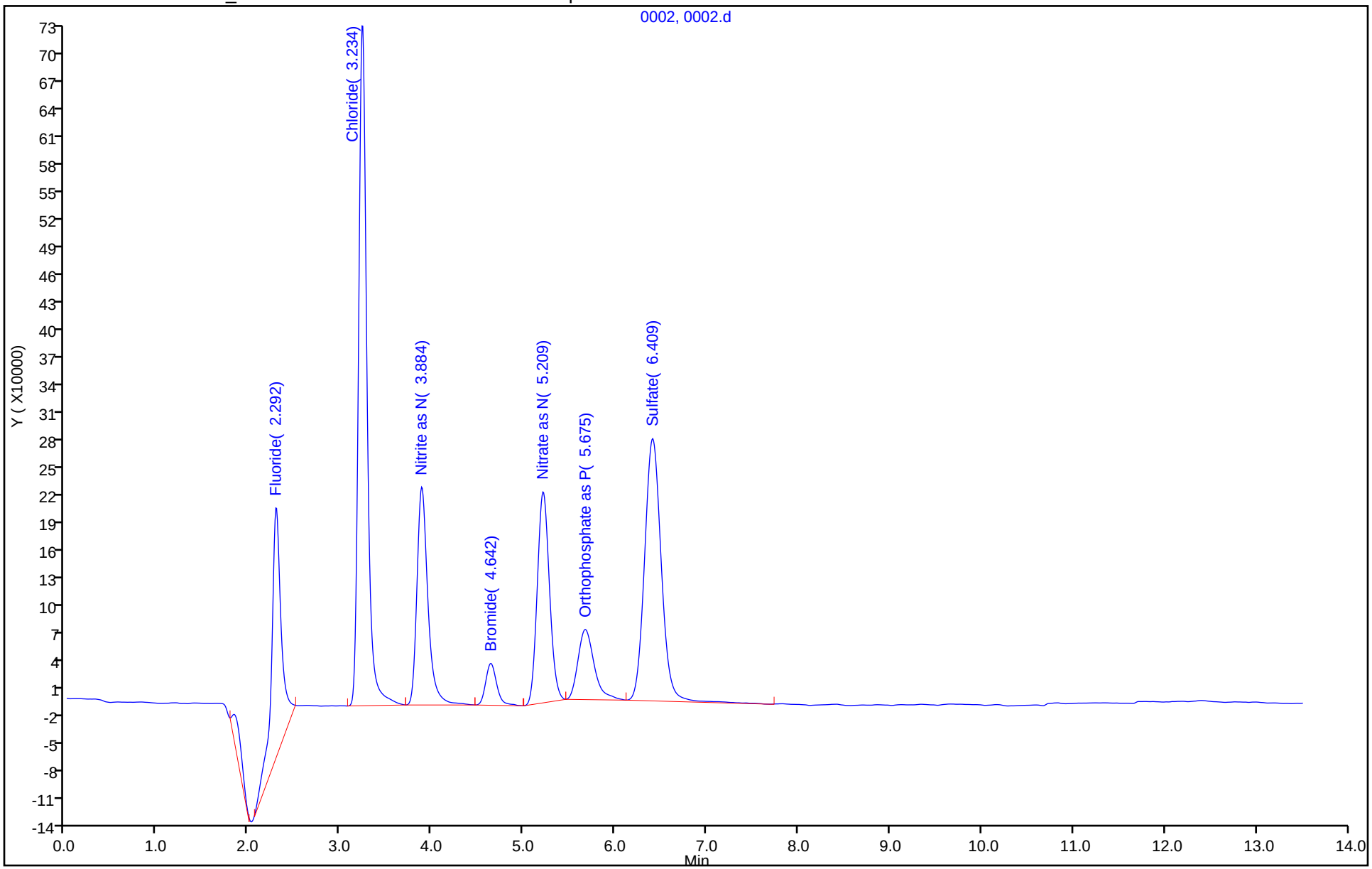
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

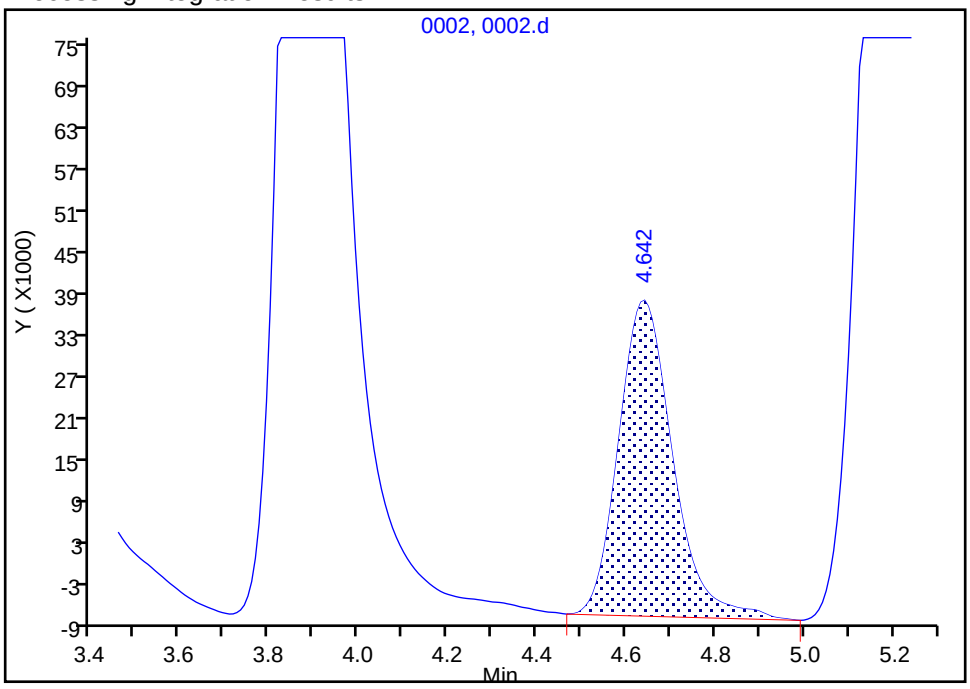
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

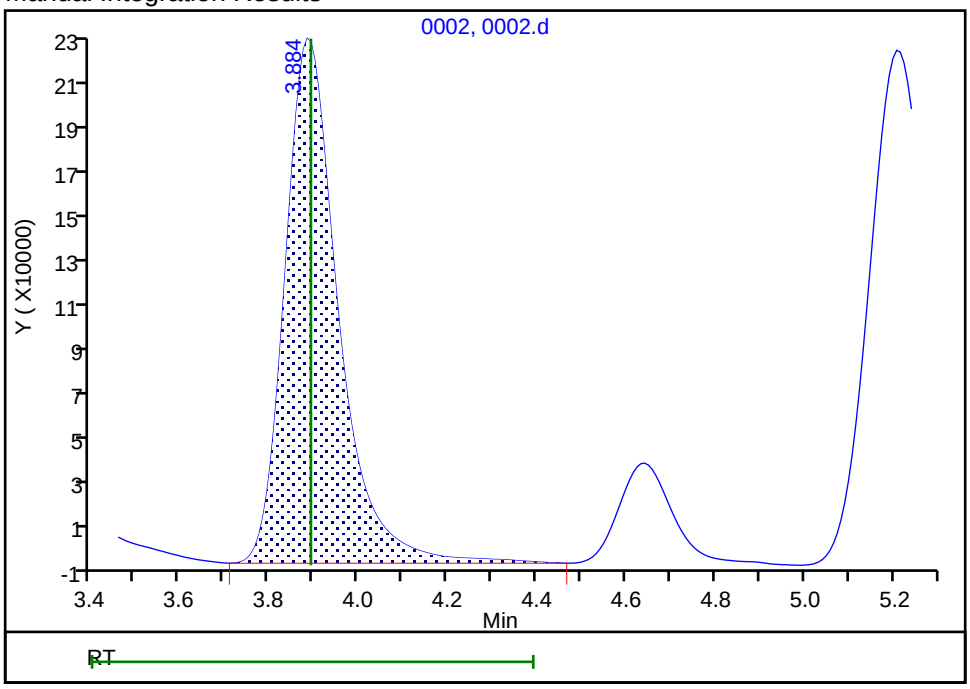
Processing Integration Results

RT: 4.64
Area: 382484
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 1976056
Amount: 0.213513
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:40
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

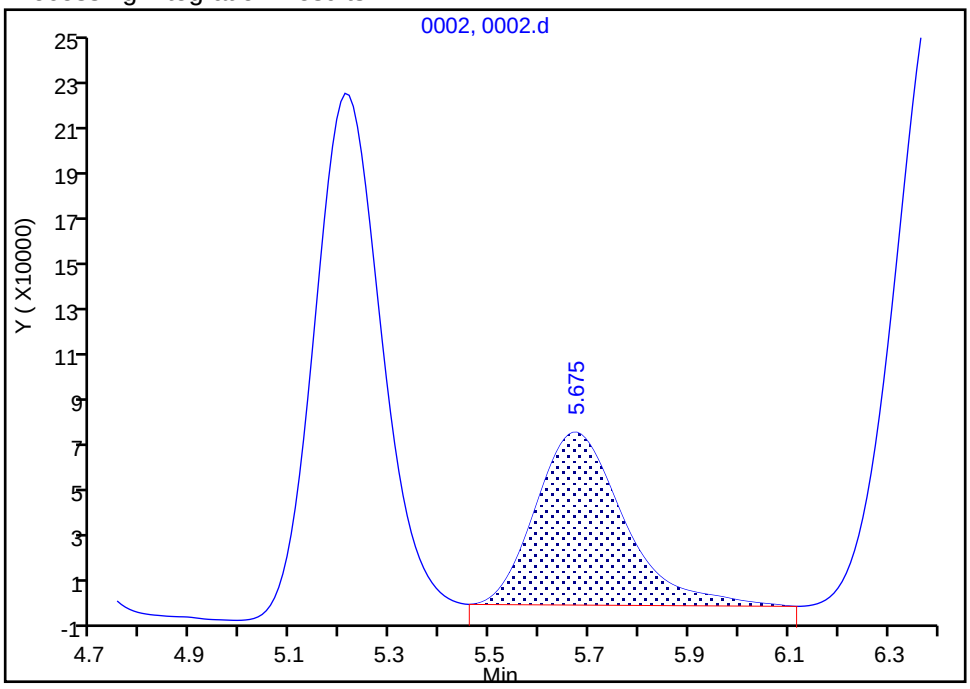
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

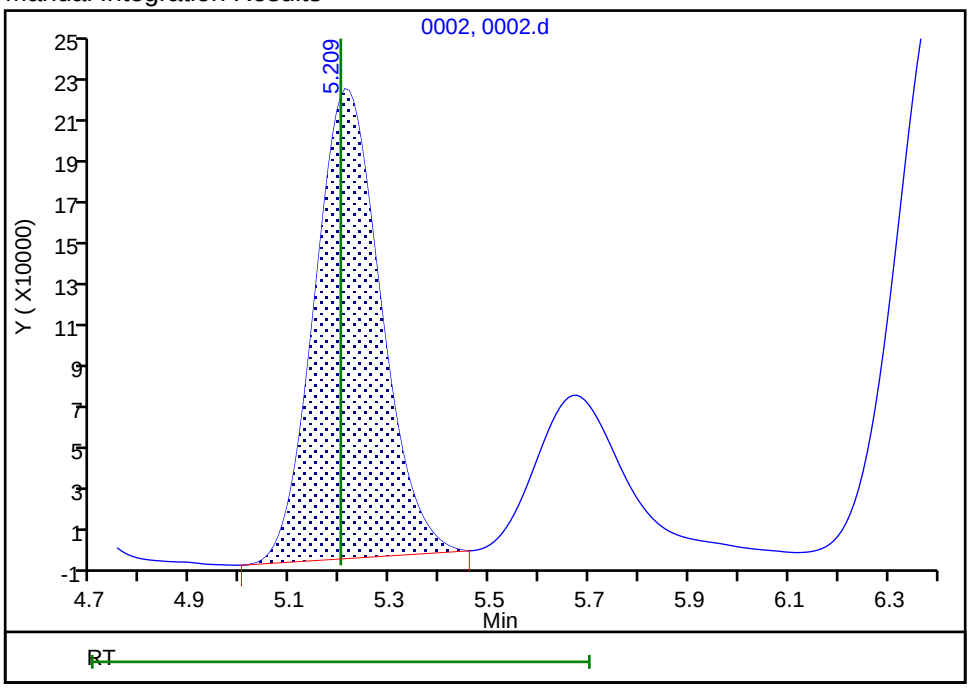
Processing Integration Results

RT: 5.68
Area: 939373
Amount: 0.215245
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 2120855
Amount: 0.220835
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

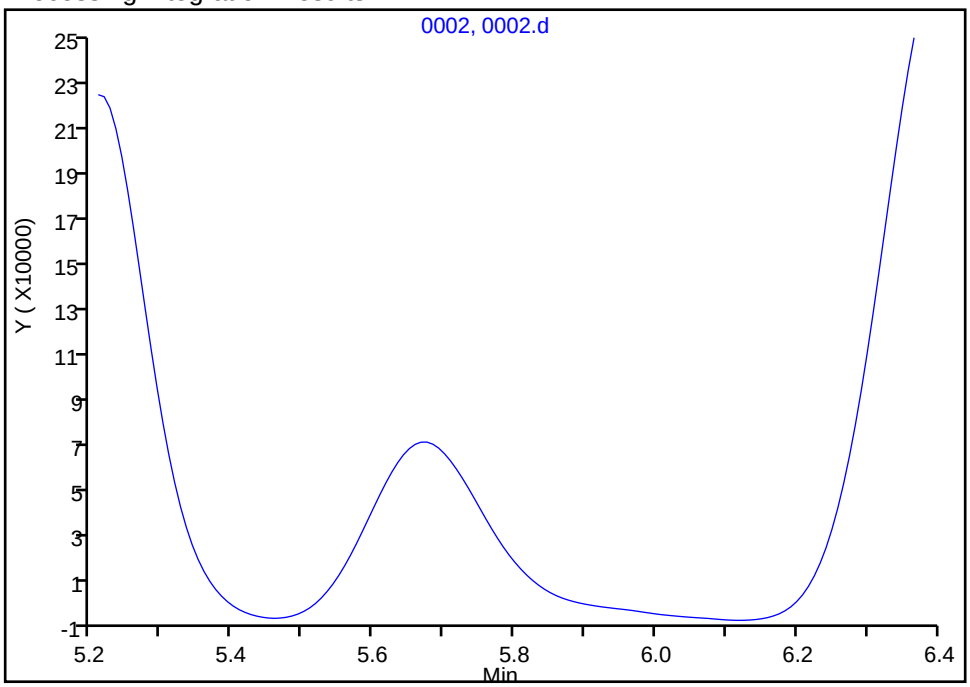
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

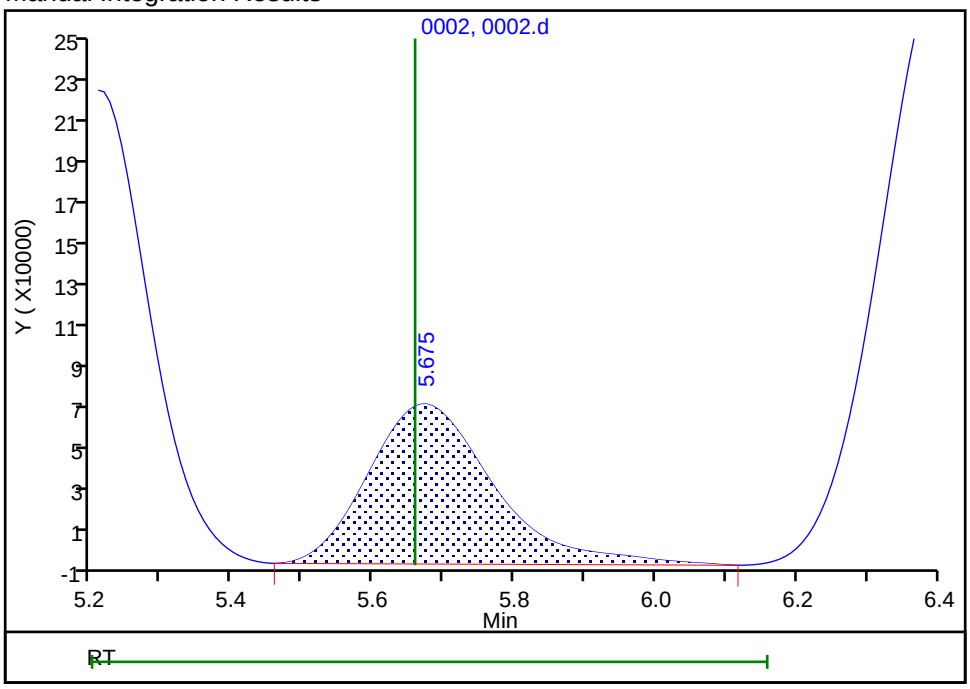
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.68
Area: 939373
Amount: 0.218915
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	0.2000	0.1247	M
2 Chloride	3.234	3.242	-0.008	4716909	1.00	1.32	
3 Nitrite as N	3.884	3.892	-0.008	1976056	NC	NC	a
4 Bromide	4.642	4.642	0.000	382484	0.2000	0.2043	a
5 Nitrate as N	5.209	5.200	0.009	2120855	NC	NC	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	3612640	1.00	1.25	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

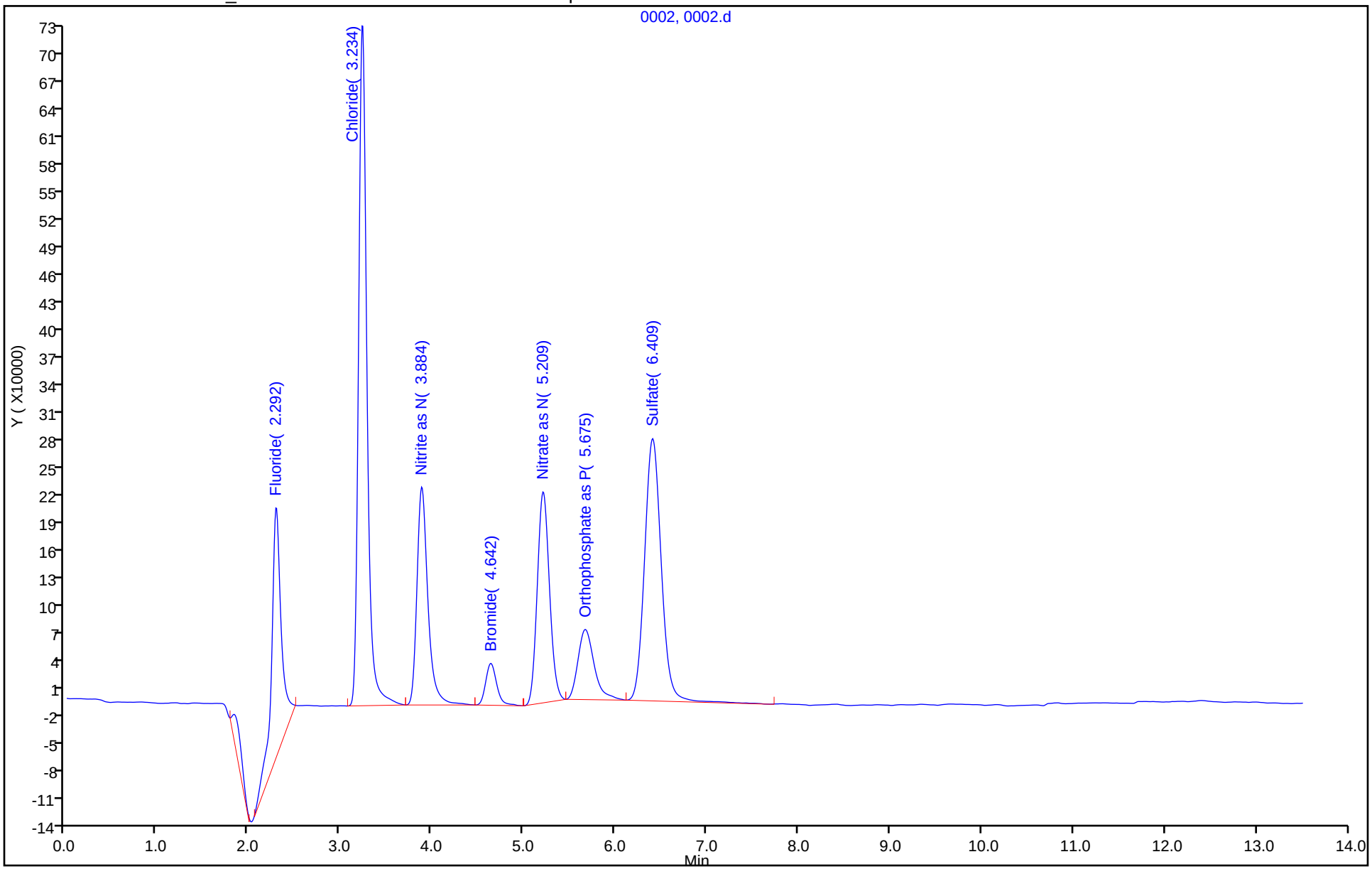
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

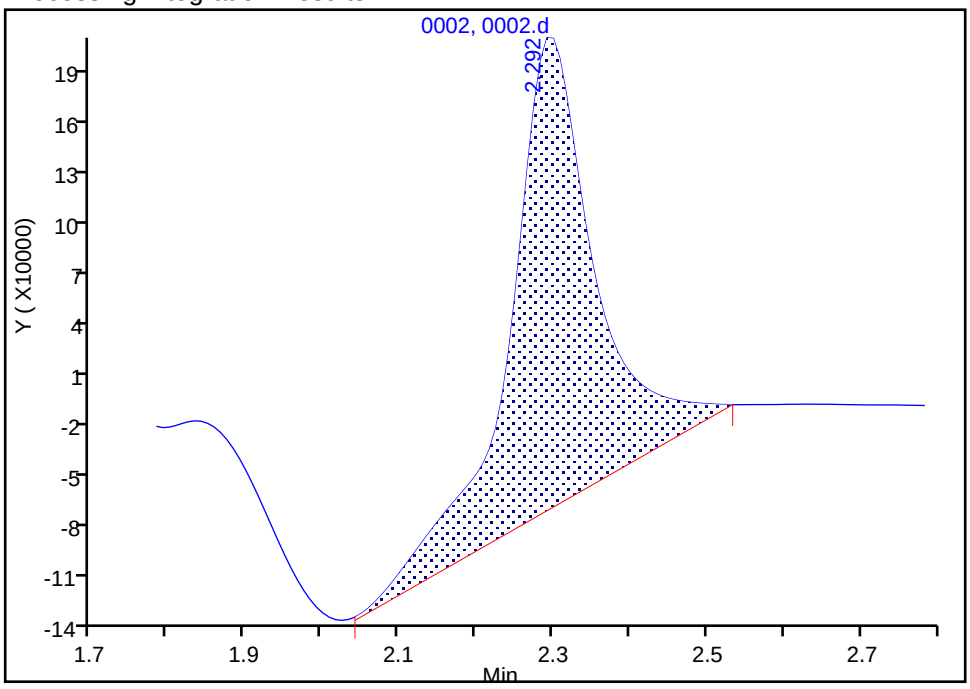
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

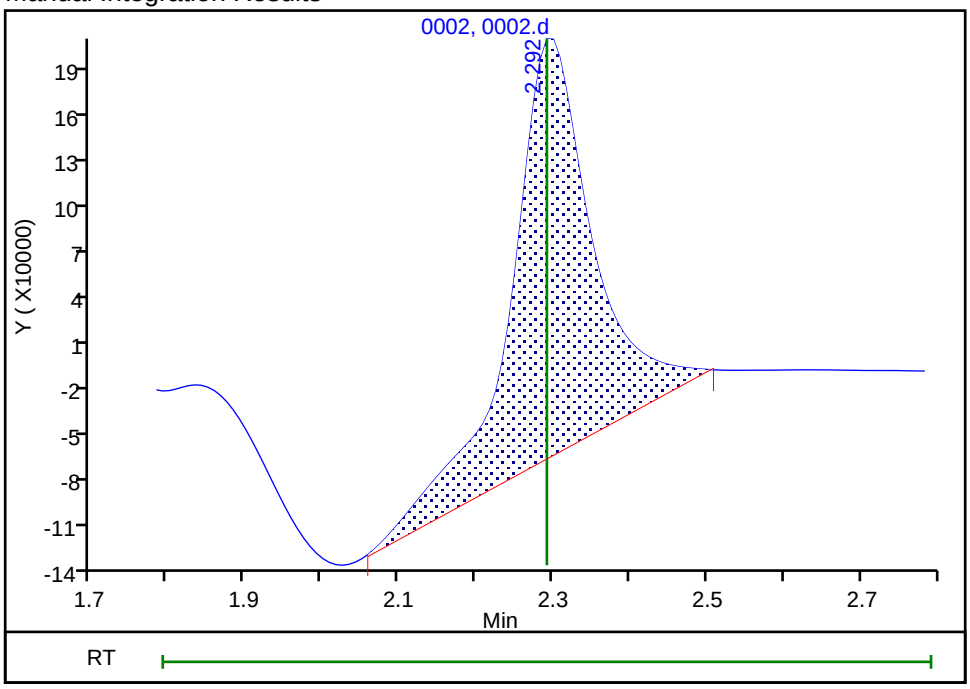
Processing Integration Results

RT: 2.29
Area: 2156044
Amount: 0.130825
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2026299
Amount: 0.124737
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:10:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

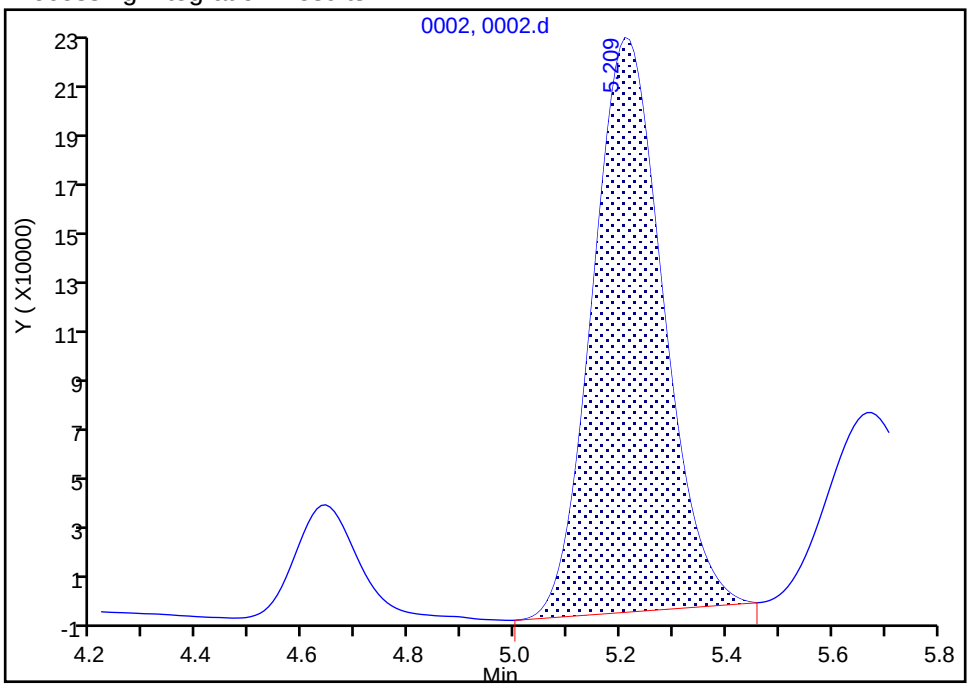
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

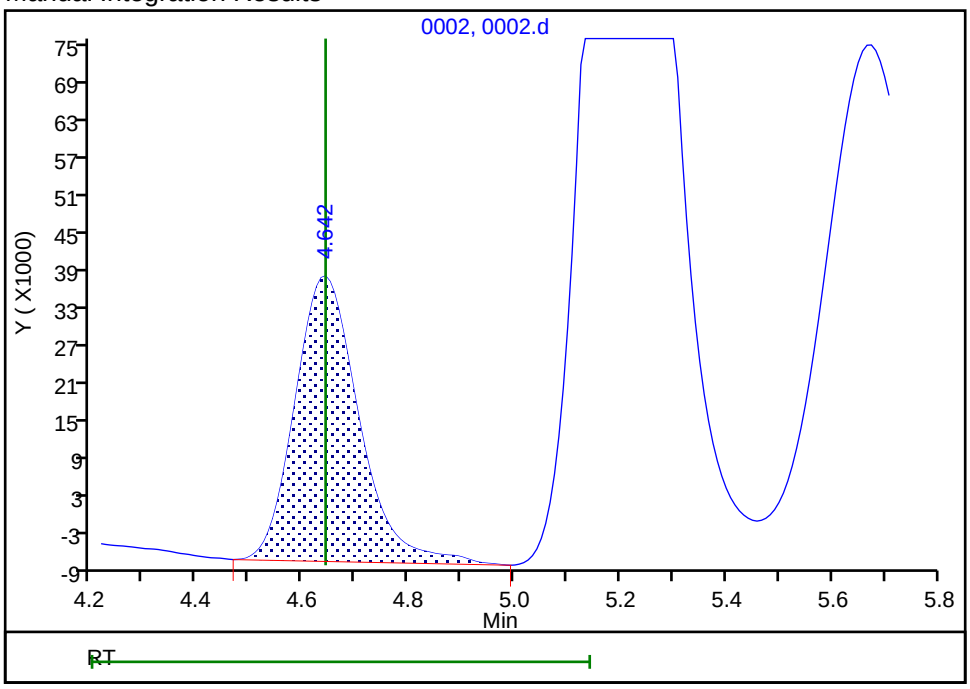
Processing Integration Results

RT: 5.21
Area: 2120855
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 382484
Amount: 0.204318
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

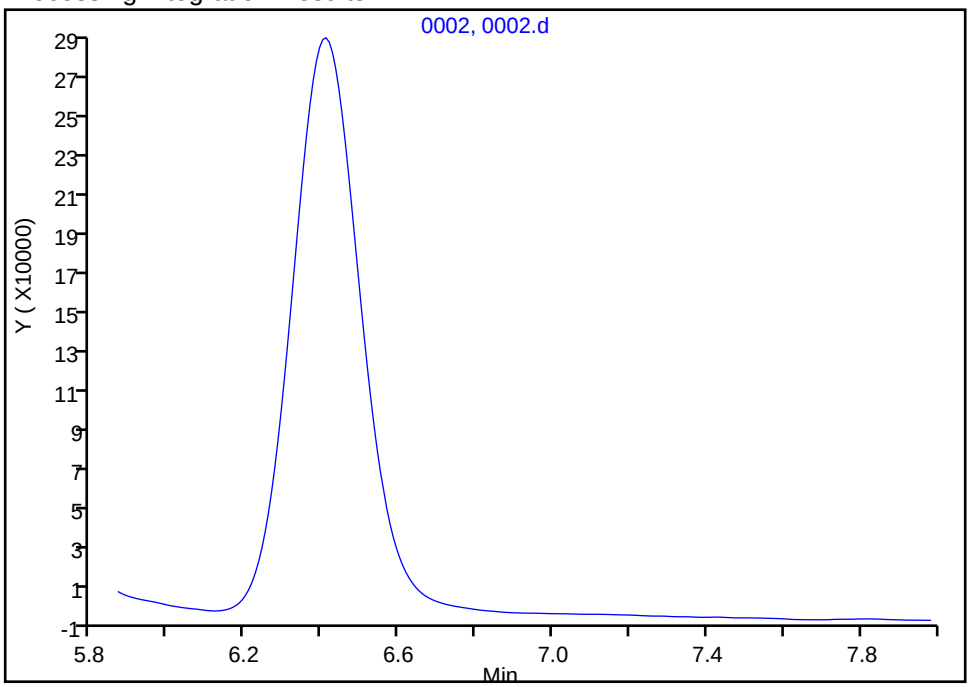
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

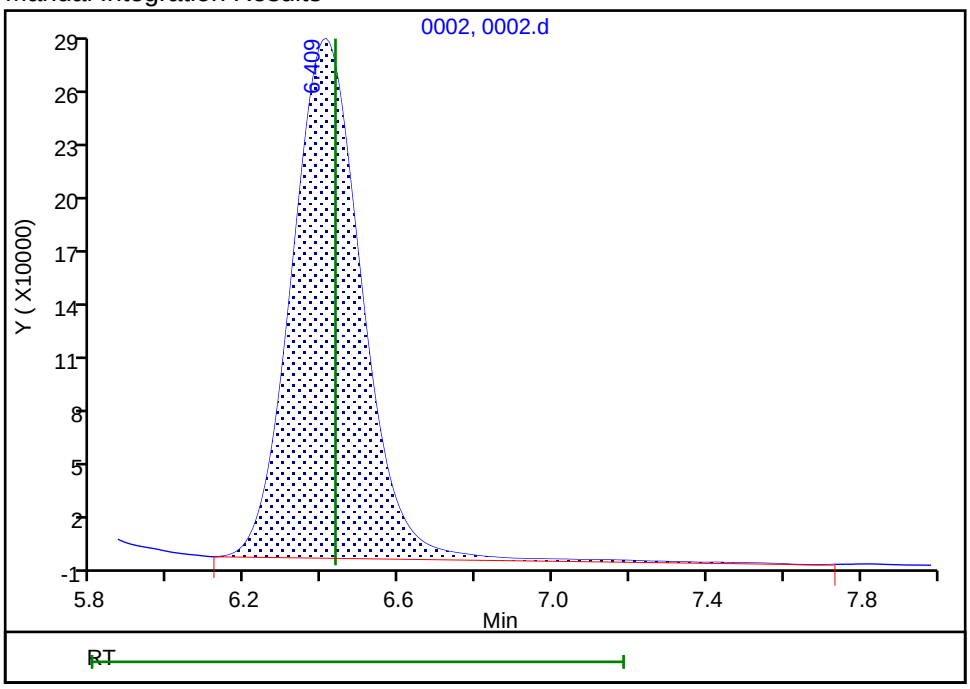
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 3612640
Amount: 1.245045
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:12
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	NC	NC	
2 Chloride	3.234	3.242	-0.008	11441790	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	4889442	0.5000	0.4912	a
4 Bromide	4.634	4.642	-0.008	953603	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	5219434	0.5000	0.4876	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	0.5000	0.4793	a
6 Sulfate	6.409	6.434	-0.025	8699908	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

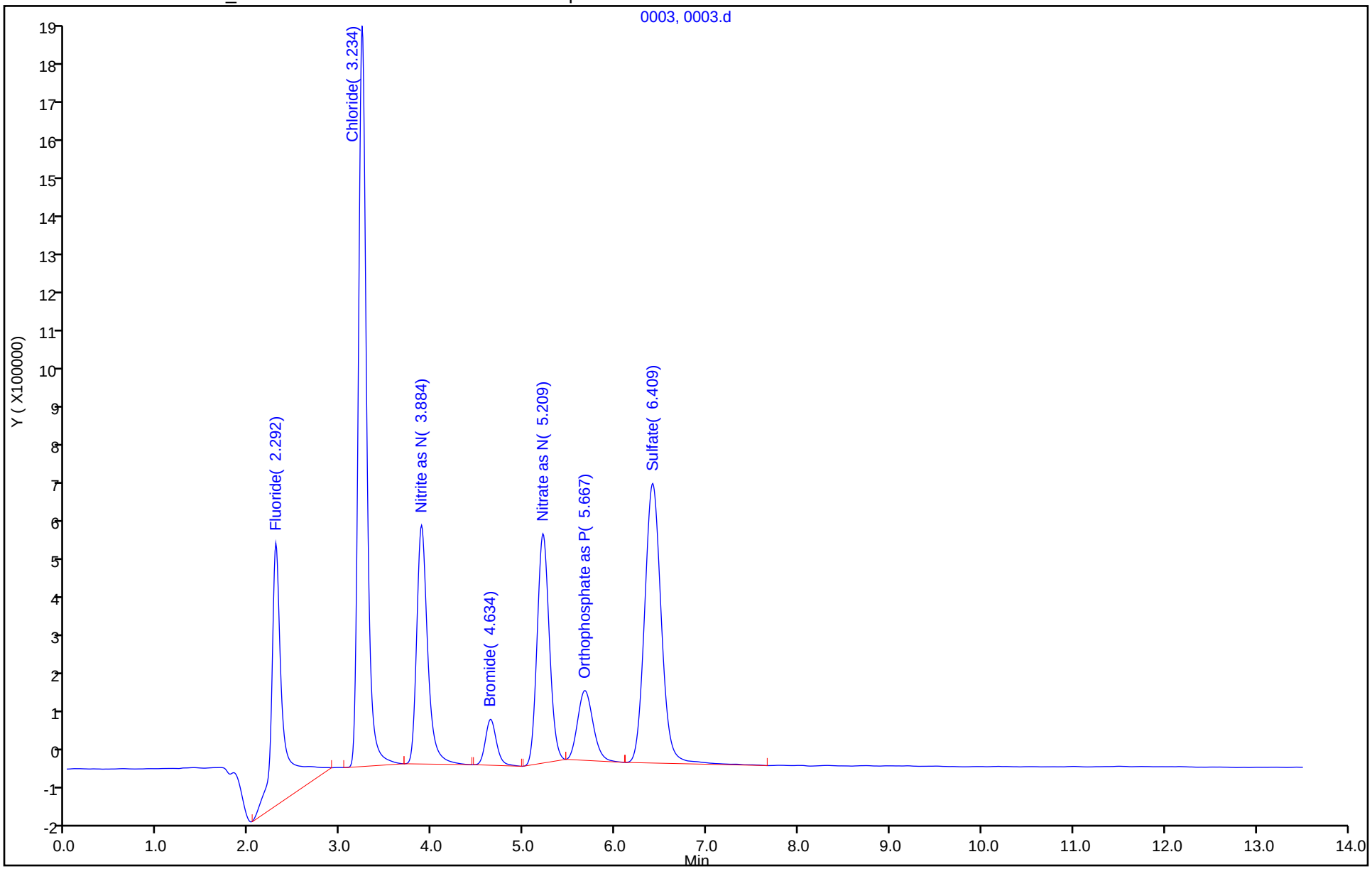
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

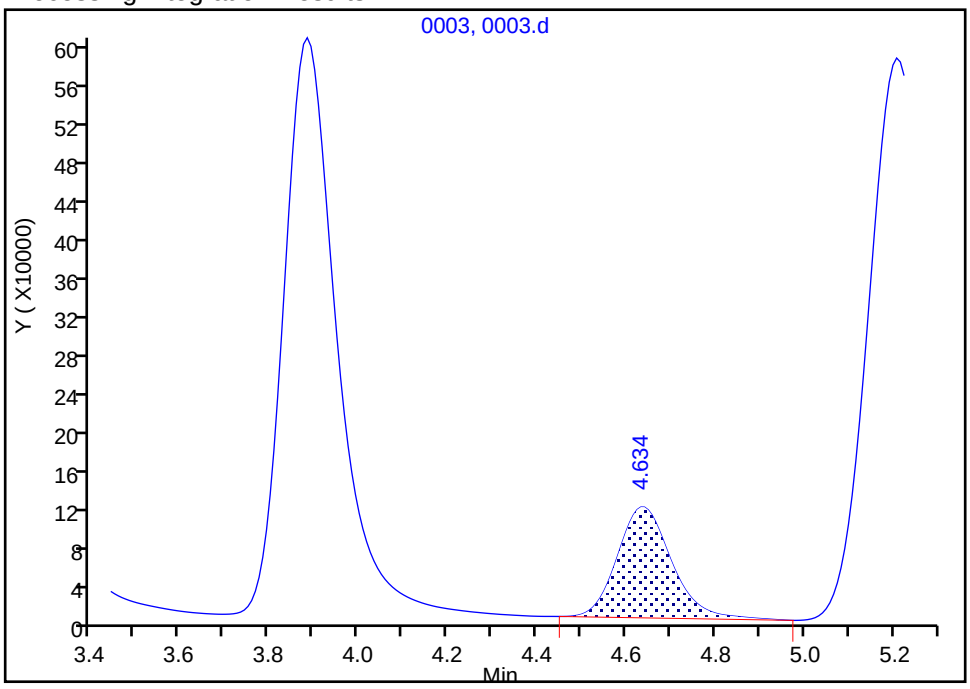
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

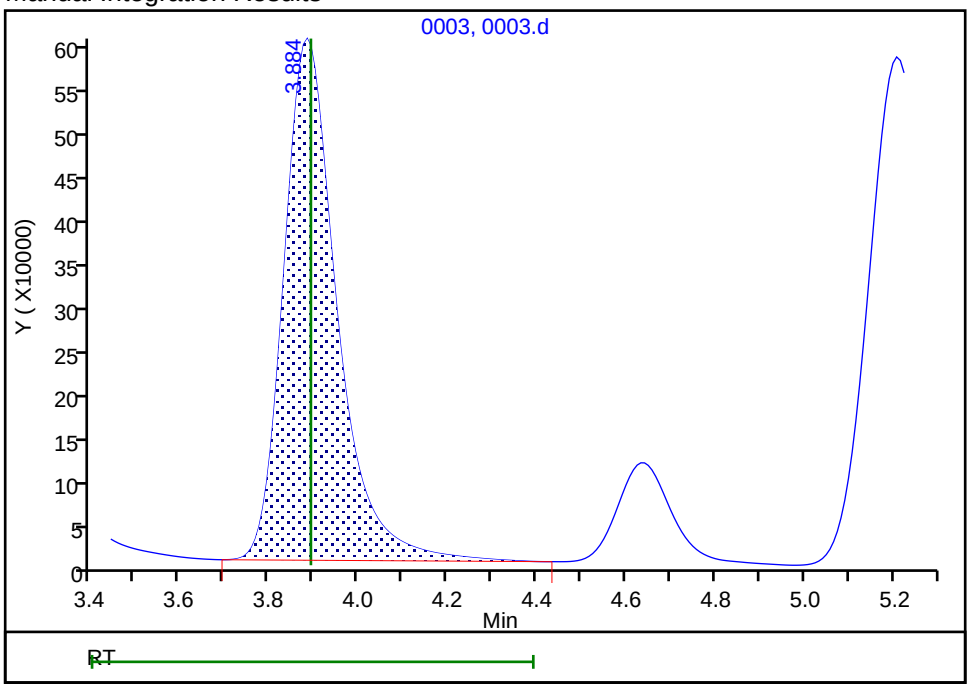
Processing Integration Results

RT: 4.63
Area: 953603
Amount: -0.100903
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 4889442
Amount: 0.491191
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

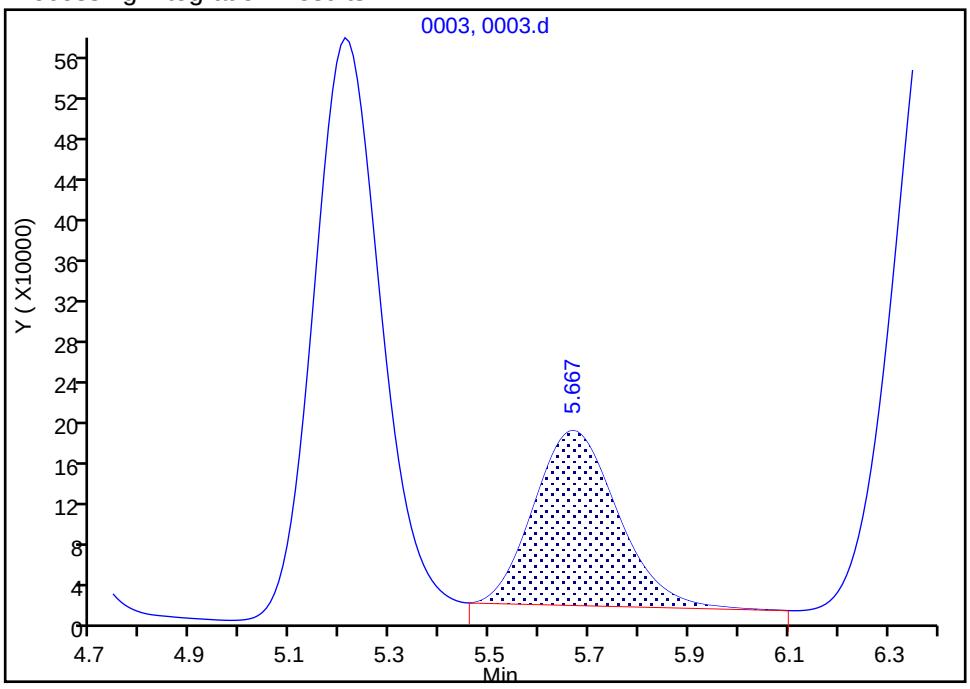
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

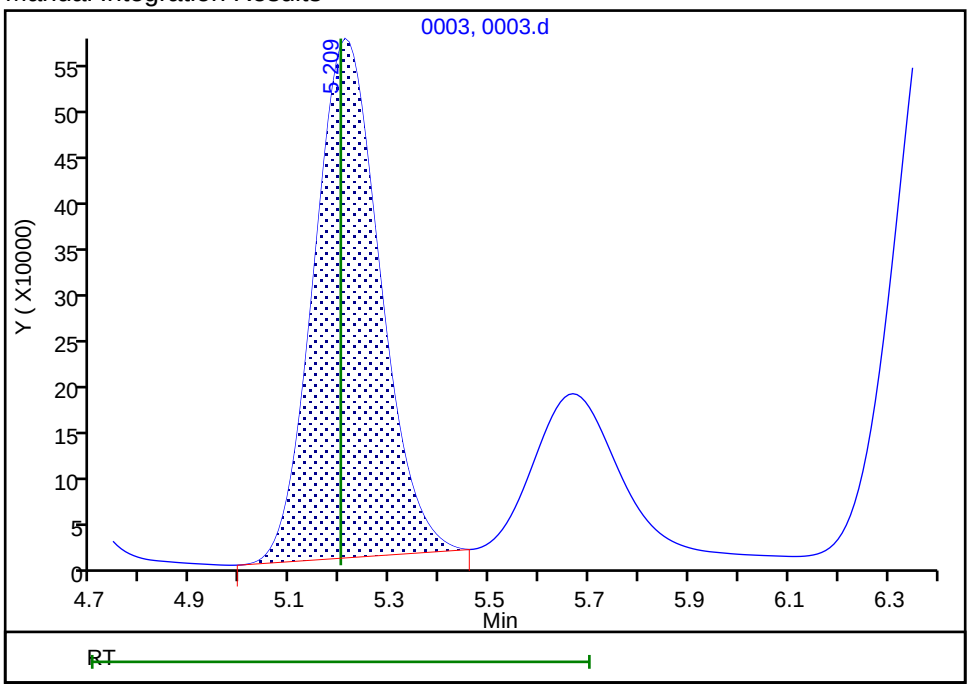
Processing Integration Results

RT: 5.67
Area: 2017876
Amount: 0.290238
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 5219434
Amount: 0.487631
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

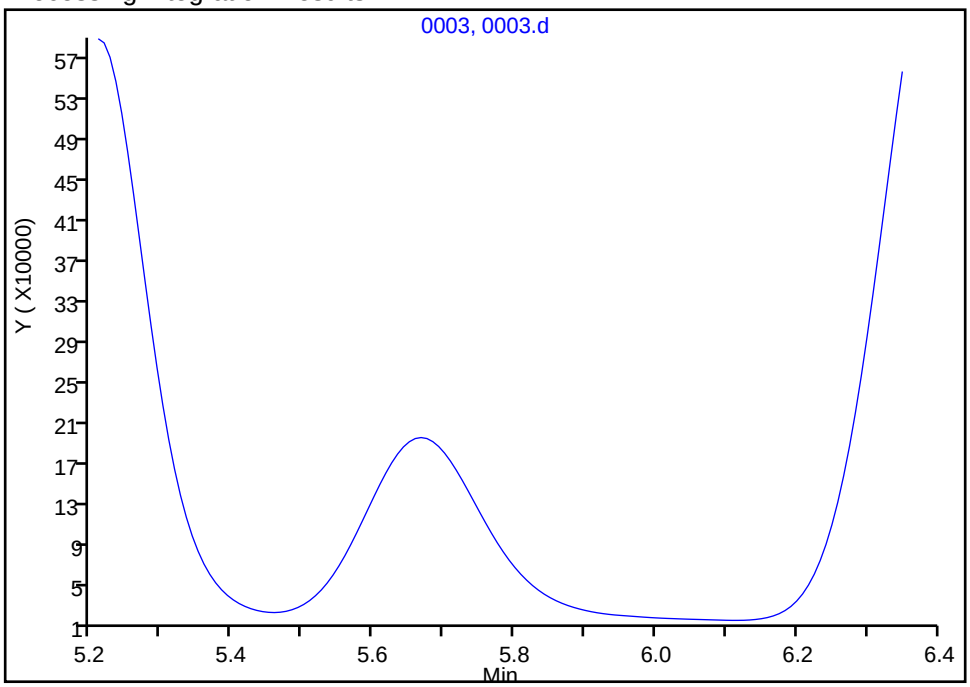
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

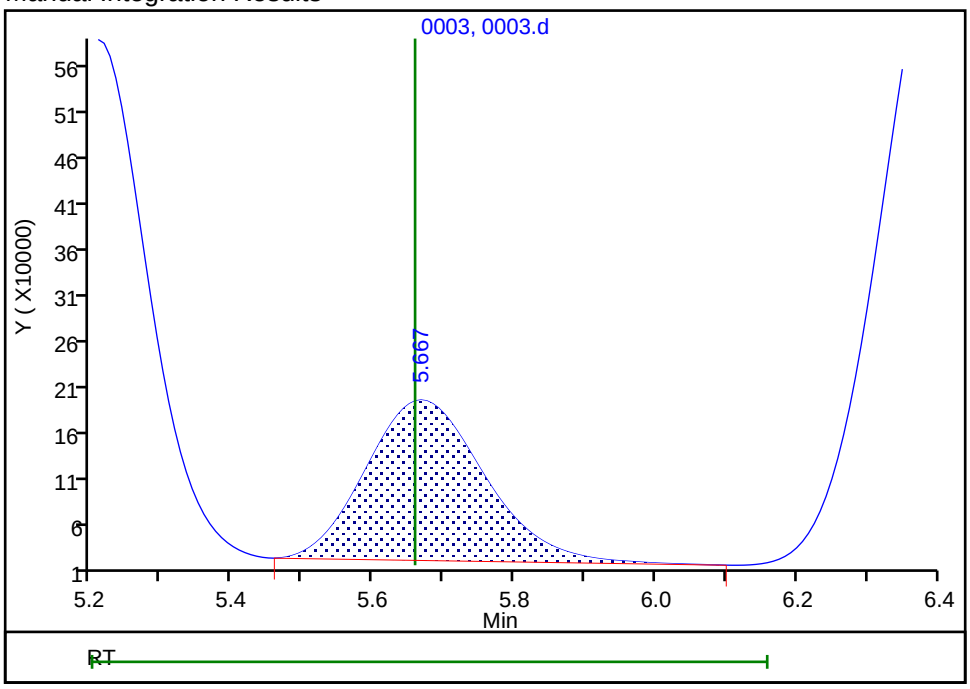
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 2017876
Amount: 0.479288
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	0.5000	0.6311	
2 Chloride	3.234	3.242	-0.008	11441790	2.50	2.32	
3 Nitrite as N	3.884	3.892	-0.008	4889442	NC	NC	a
4 Bromide	4.634	4.642	-0.008	953603	0.5000	0.4980	a
5 Nitrate as N	5.209	5.200	0.009	5219434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	8699908	2.50	2.38	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

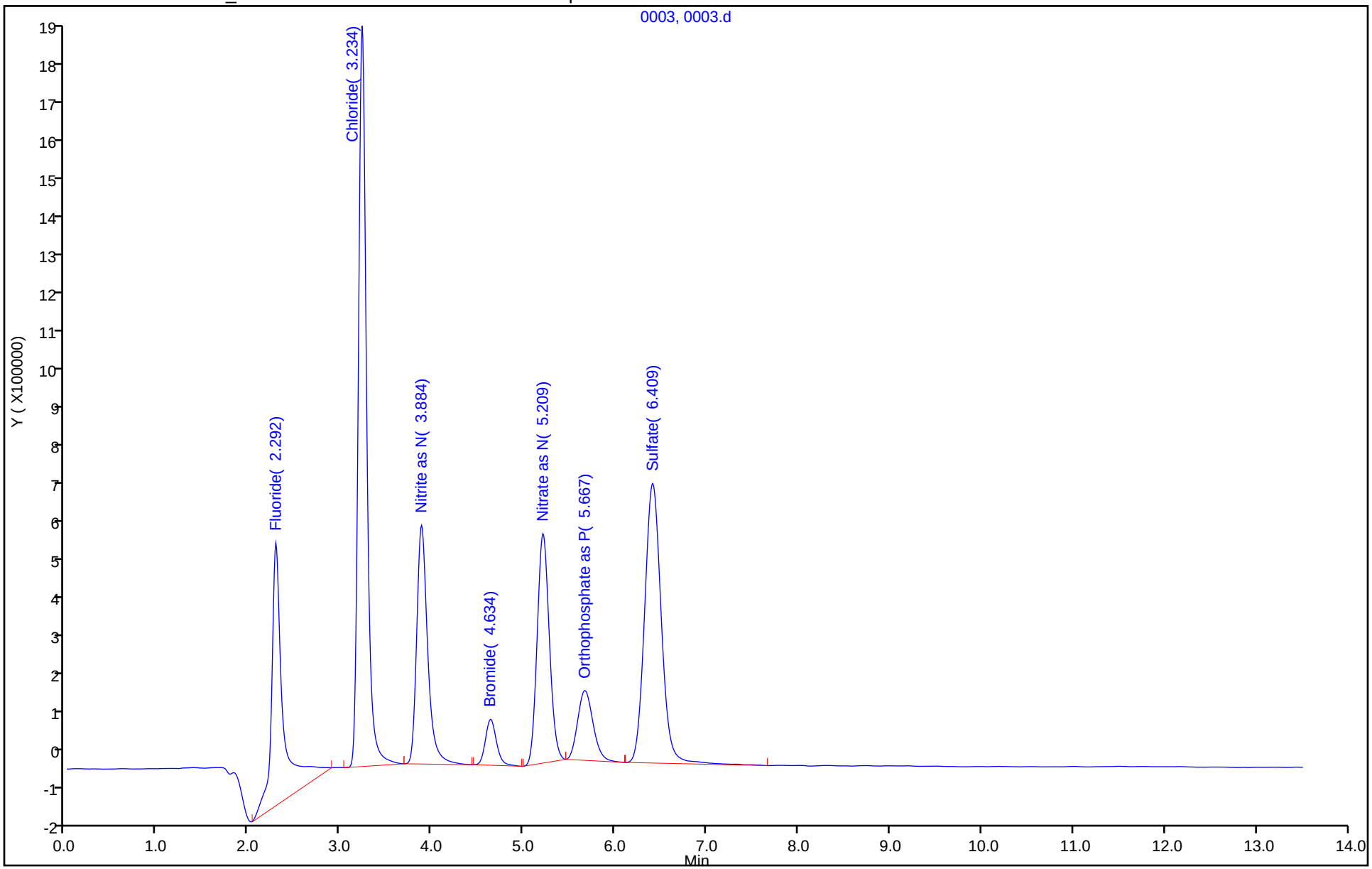
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

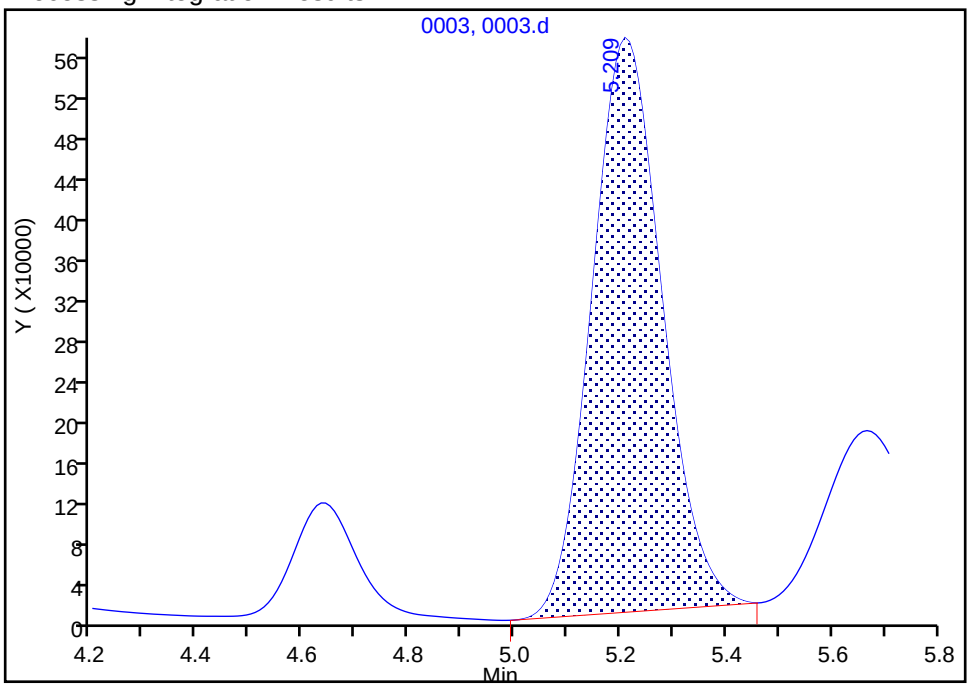
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

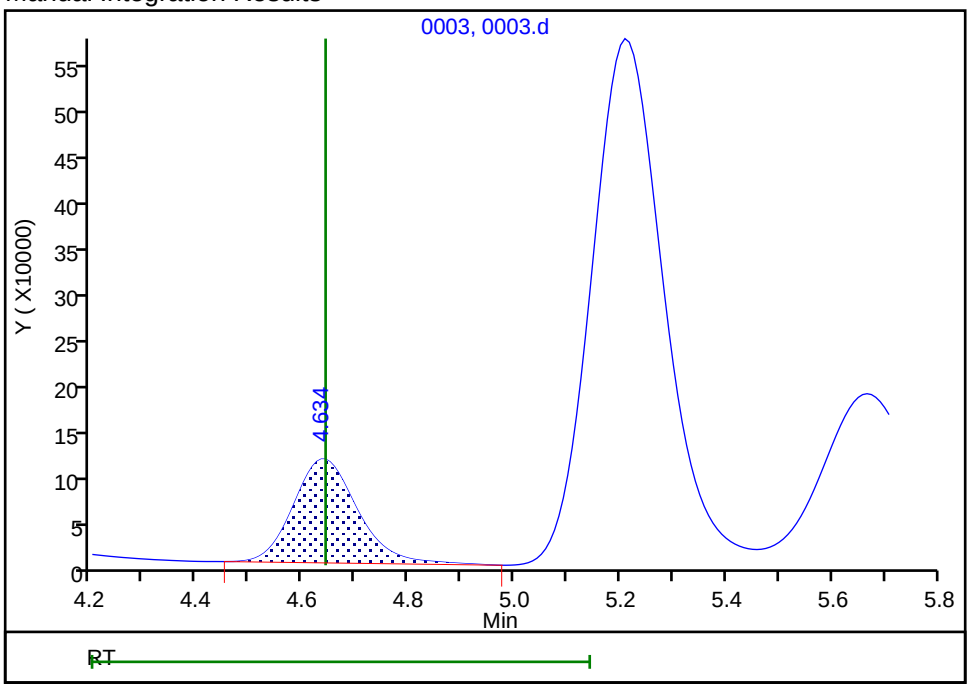
Processing Integration Results

RT: 5.21
Area: 5219434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 953603
Amount: 0.497971
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

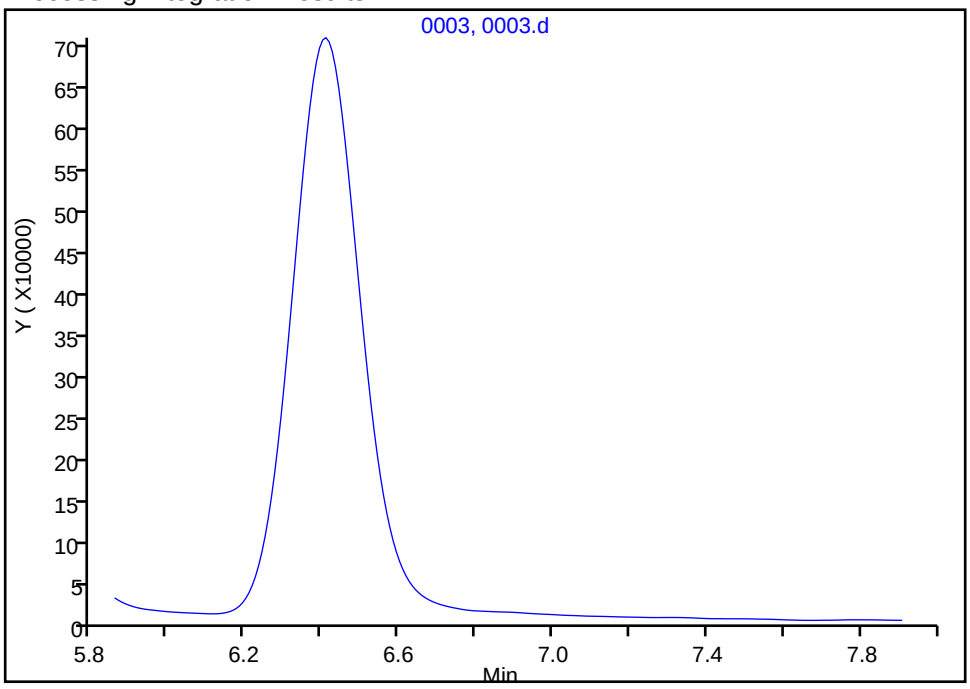
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

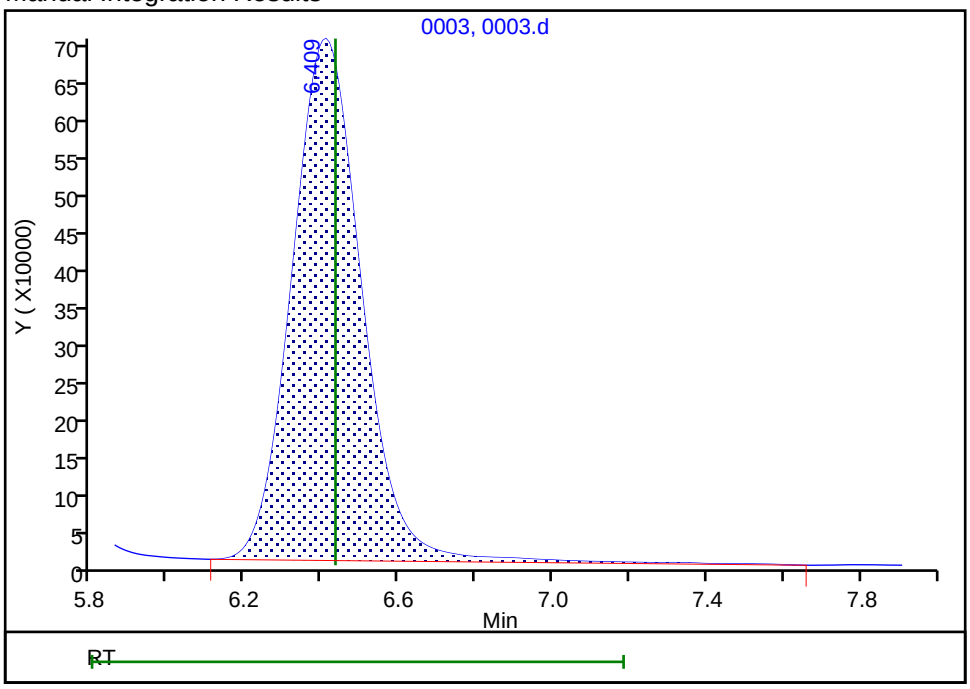
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 8699908
Amount: 2.382508
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:24
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	NC	NC	
2 Chloride	3.234	3.242	-0.008	23461594	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	9866046	1.00	0.9655	a
4 Bromide	4.642	4.642	0.000	1893846	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	10516434	1.00	0.9437	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	1.00	0.9615	a
6 Sulfate	6.409	6.434	-0.025	17587626	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

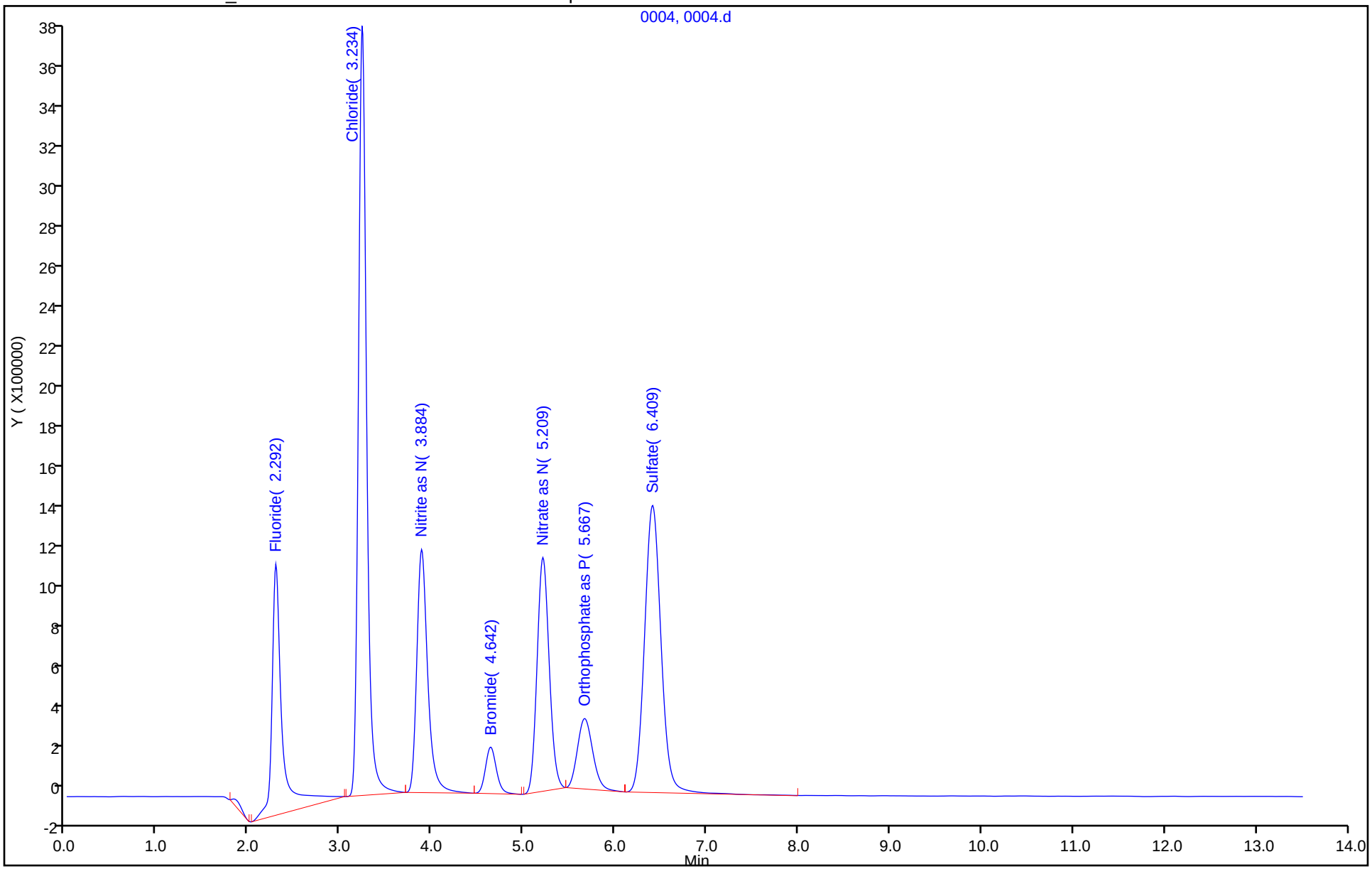
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

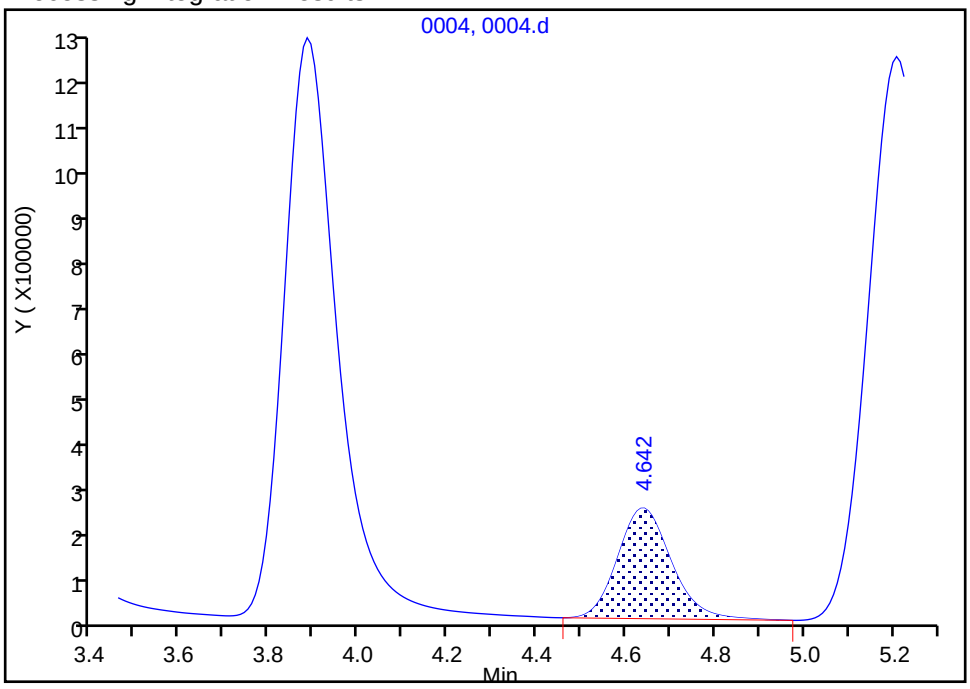
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

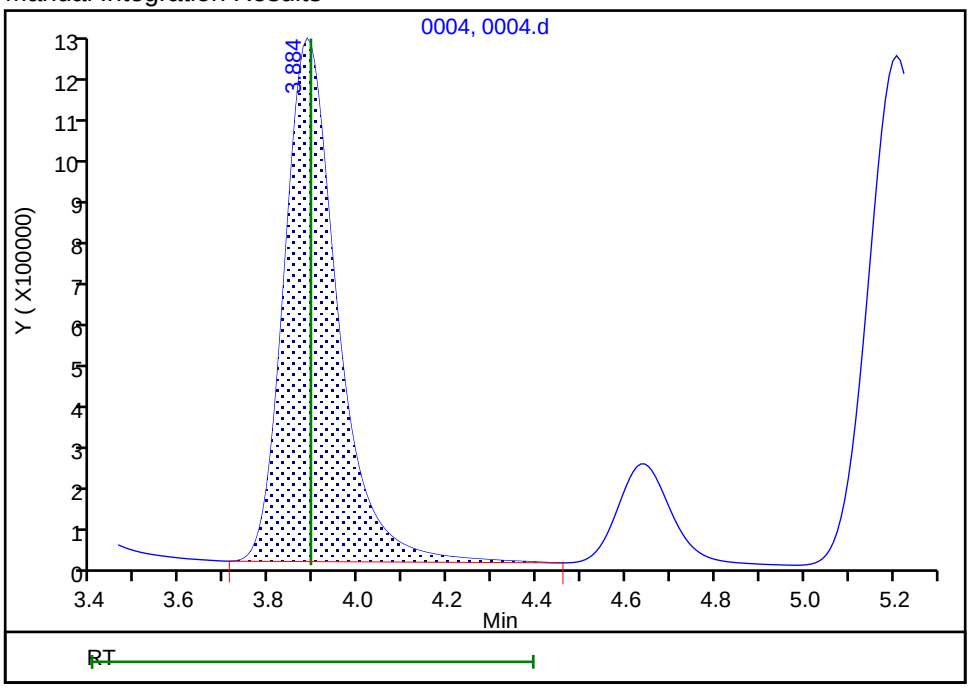
Processing Integration Results

RT: 4.64
Area: 1893846
Amount: -0.132556
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 9866046
Amount: 0.965516
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:43
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

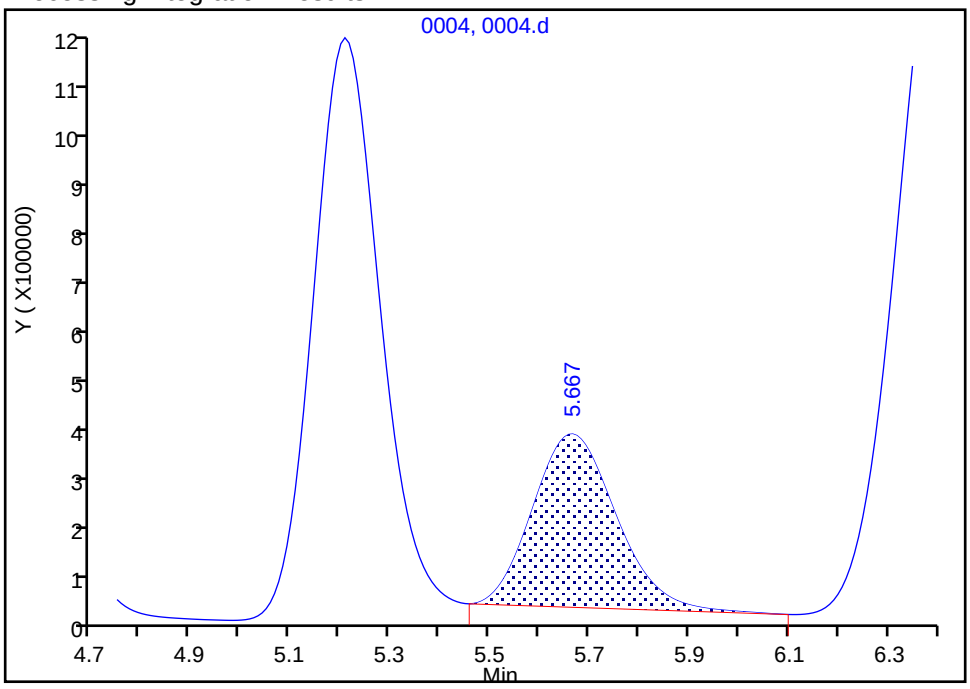
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

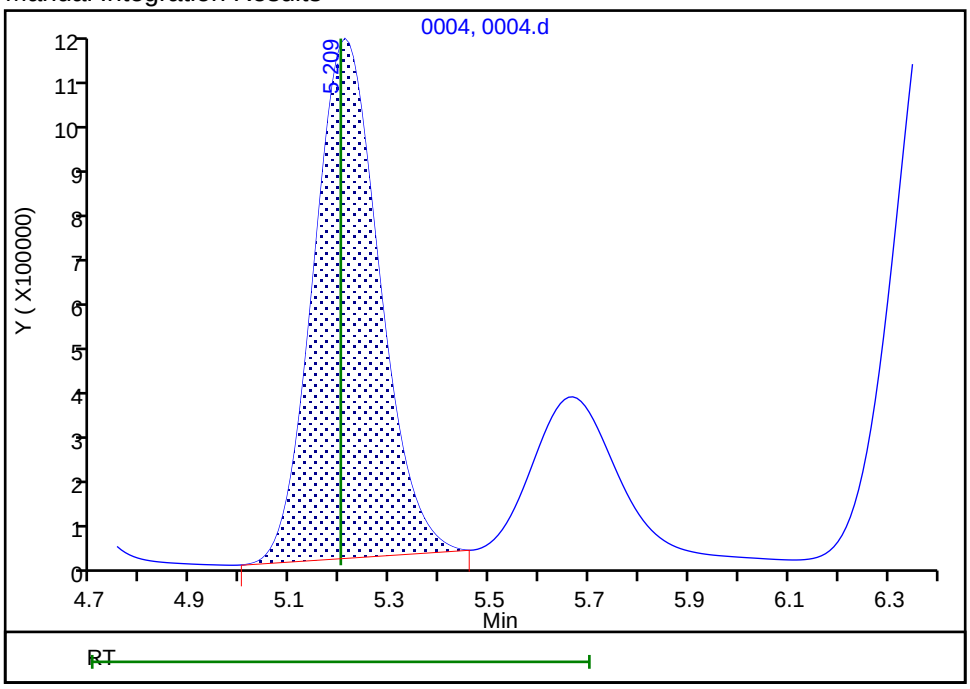
Processing Integration Results

RT: 5.67
Area: 4015320
Amount: 0.609716
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 10516434
Amount: 0.943717
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:47
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

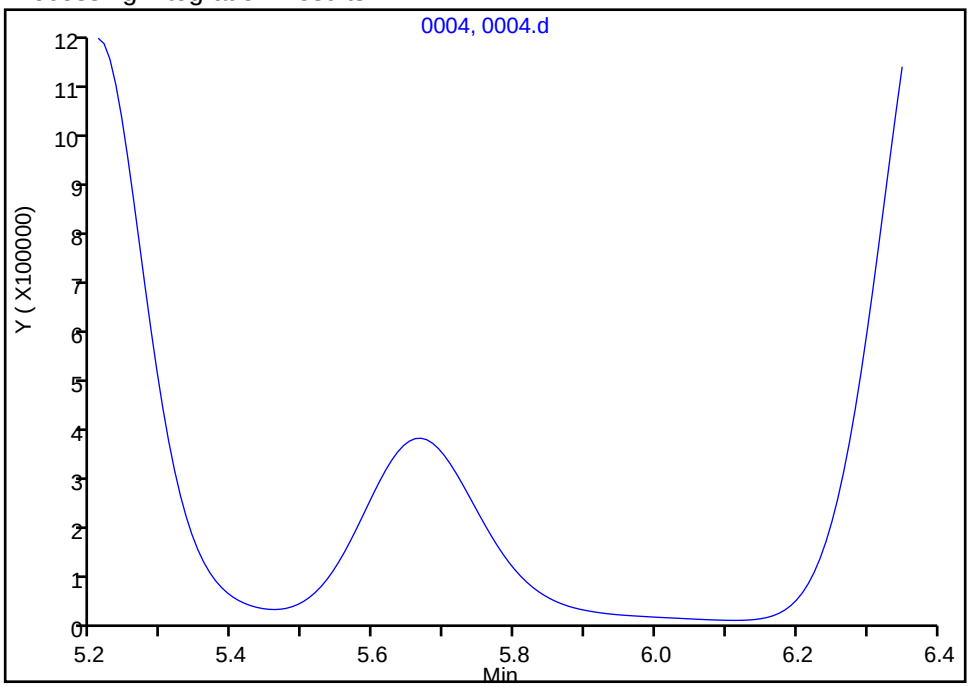
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d				
Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

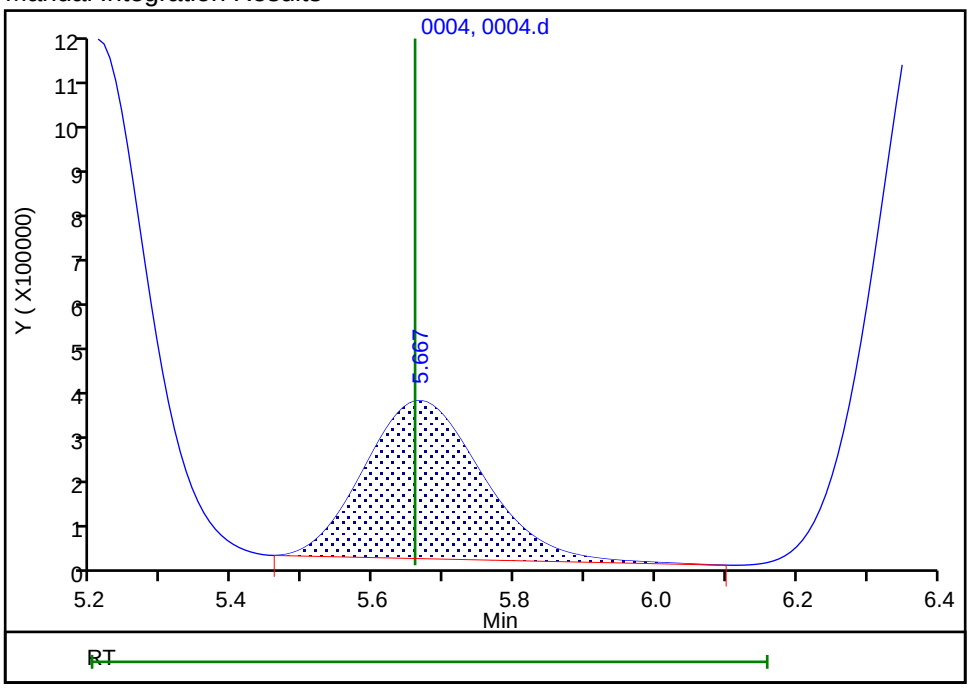
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 4015320
Amount: 0.961514
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	1.00	1.16	
2 Chloride	3.234	3.242	-0.008	23461594	5.00	4.11	
3 Nitrite as N	3.884	3.892	-0.008	9866046	NC	NC	a
4 Bromide	4.642	4.642	0.000	1893846	1.00	0.9814	a
5 Nitrate as N	5.209	5.200	0.009	10516434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	17587626	5.00	4.37	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

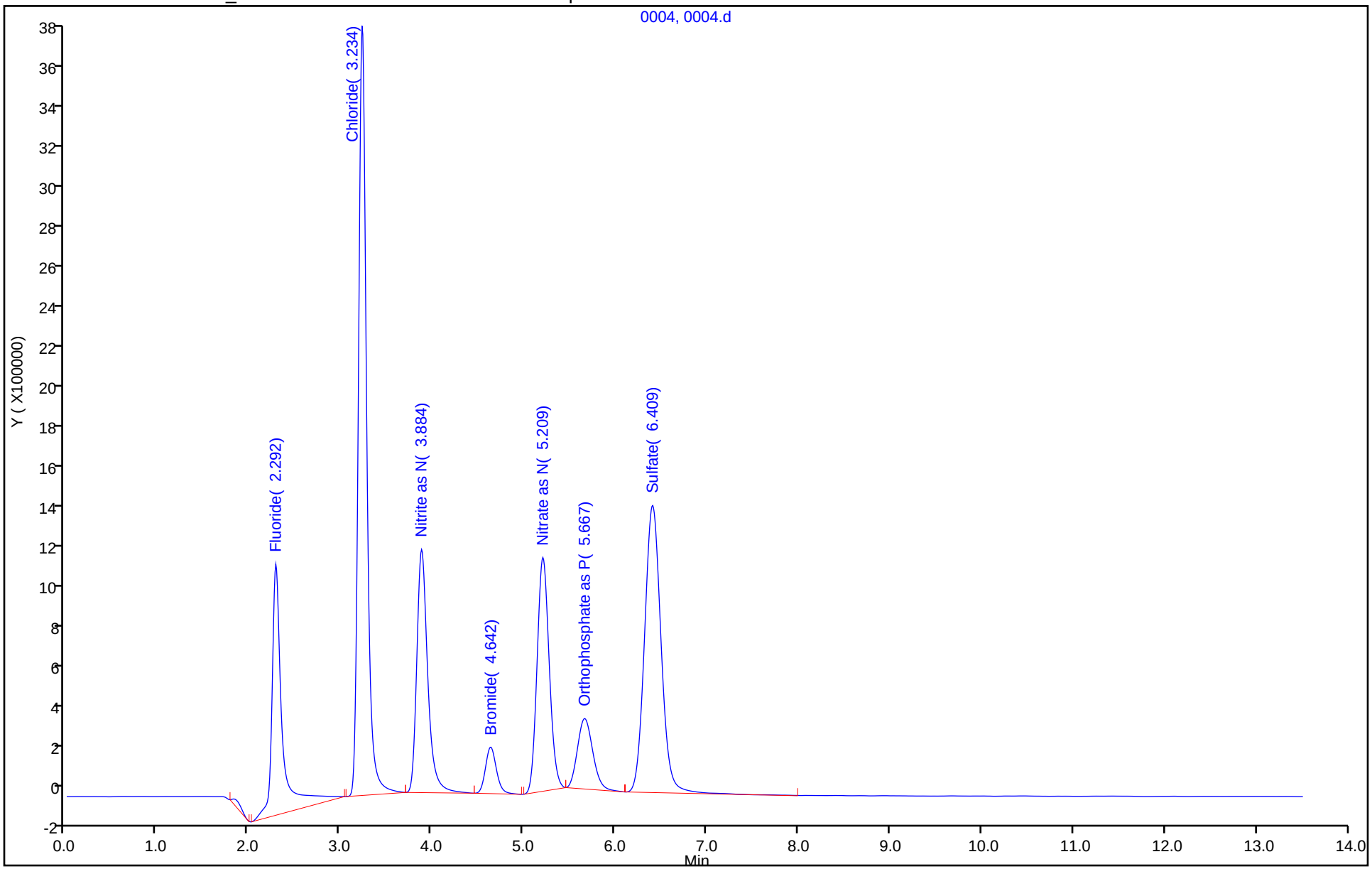
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

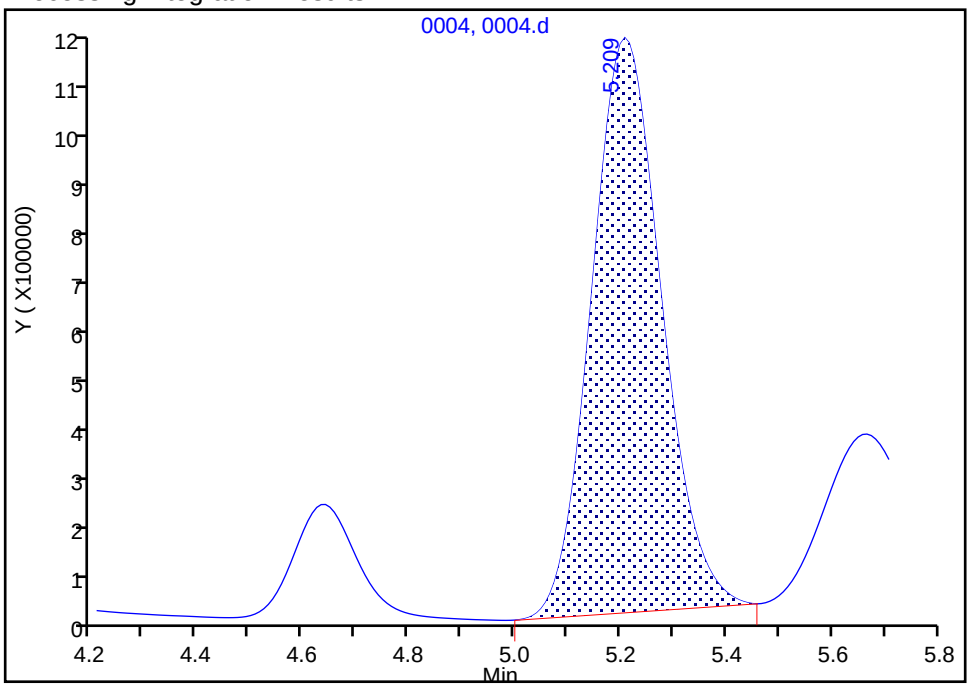
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

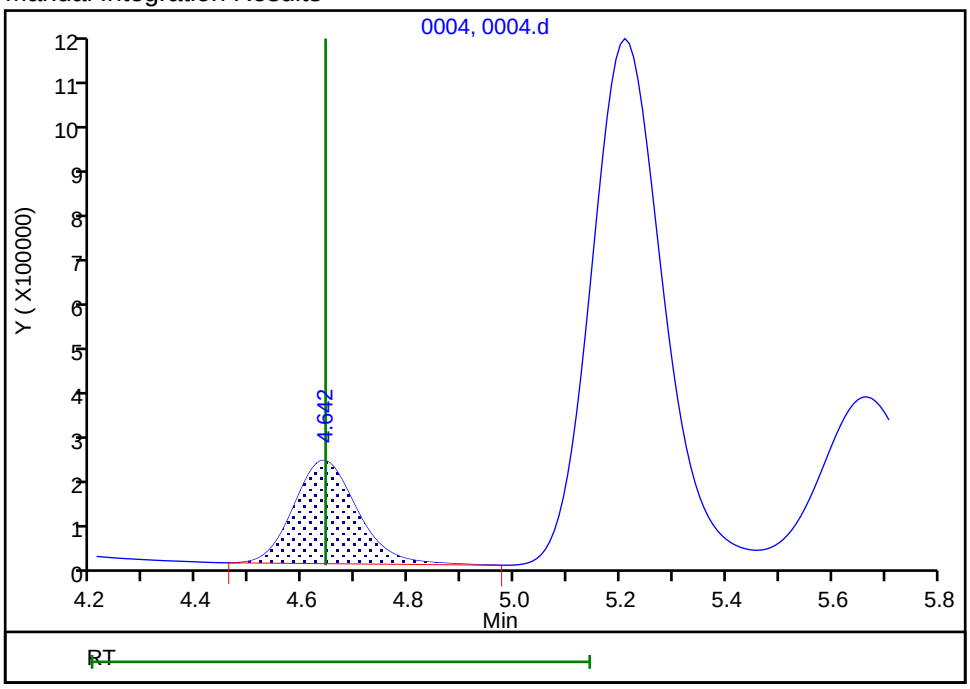
Processing Integration Results

RT: 5.21
Area: 10516434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 1893846
Amount: 0.981416
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:15
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

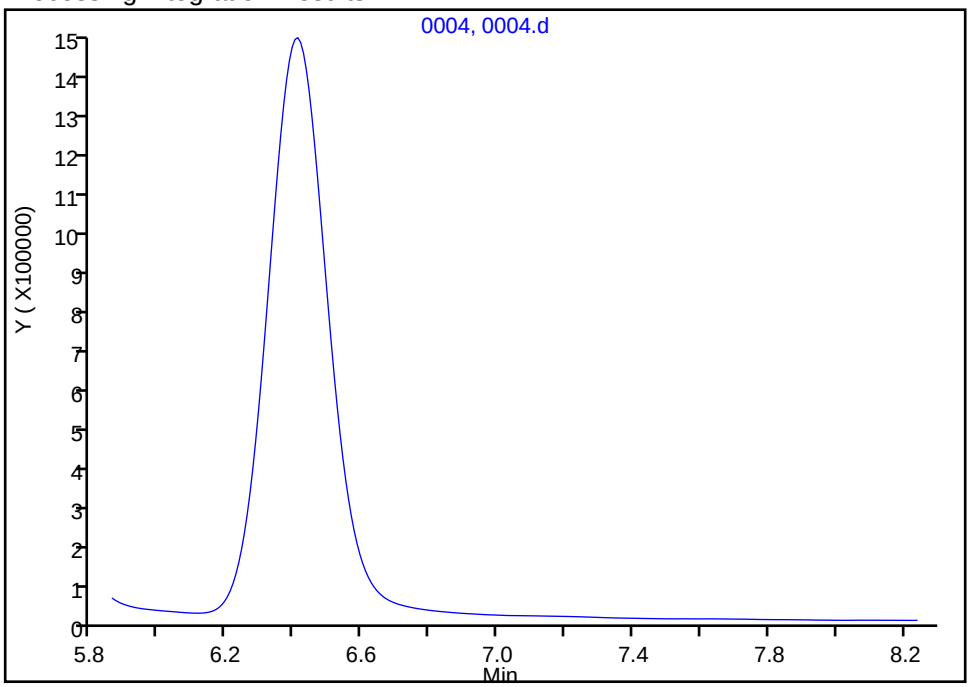
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

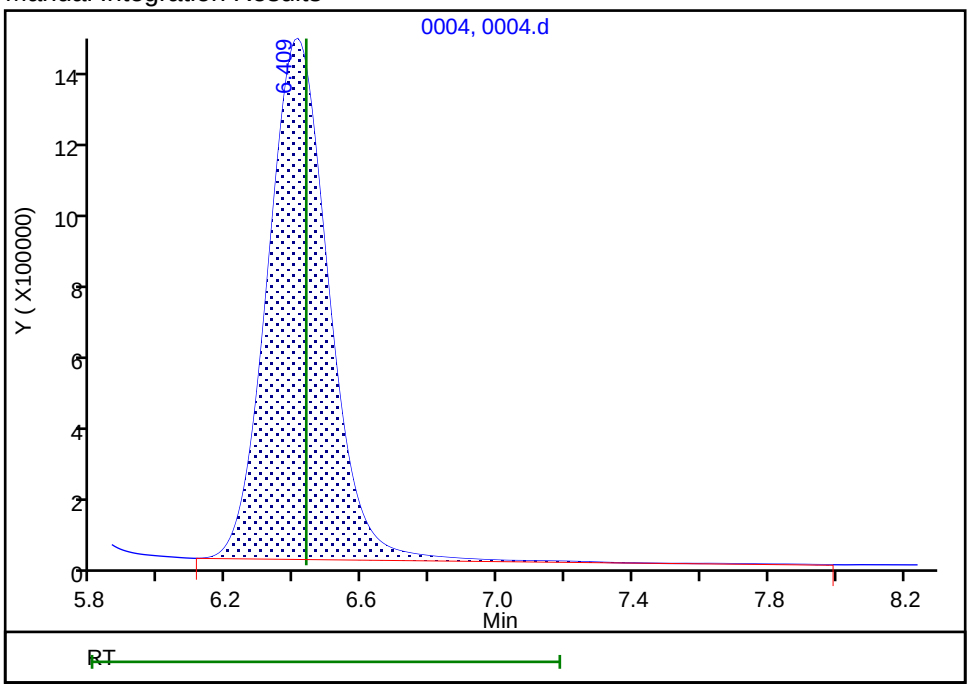
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 17587626
Amount: 4.369714
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:10
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	NC	NC	
2 Chloride	3.242	3.242	0.000	361228288	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	40367514	4.00	3.87	a
4 Bromide	4.634	4.634	0.000	7626440	NC	NC	a
5 Nitrate as N	5.200	5.200	0.000	43835884	4.00	3.81	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	4.00	3.88	a
6 Sulfate	6.434	6.434	0.000	241149184	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

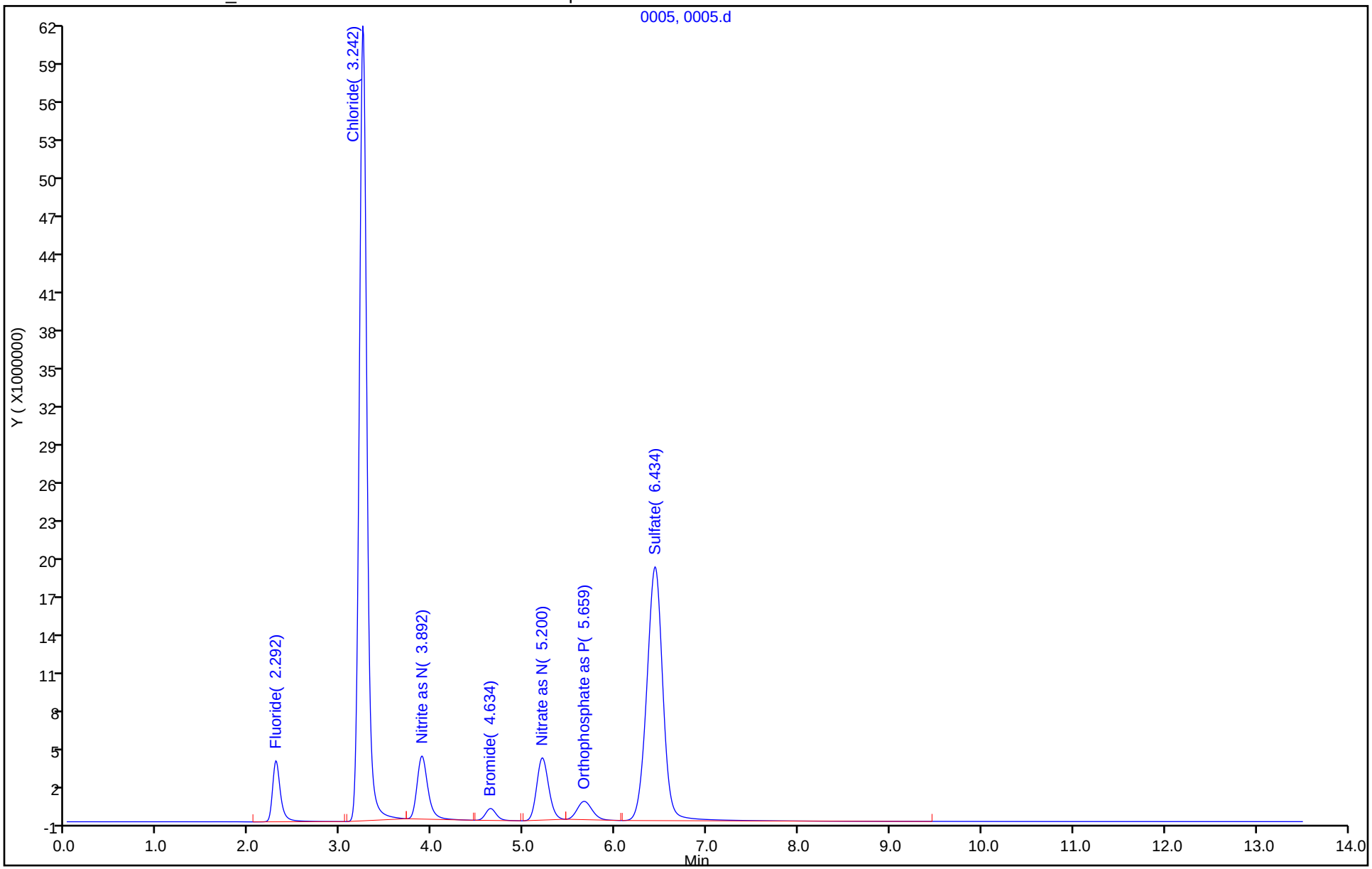
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

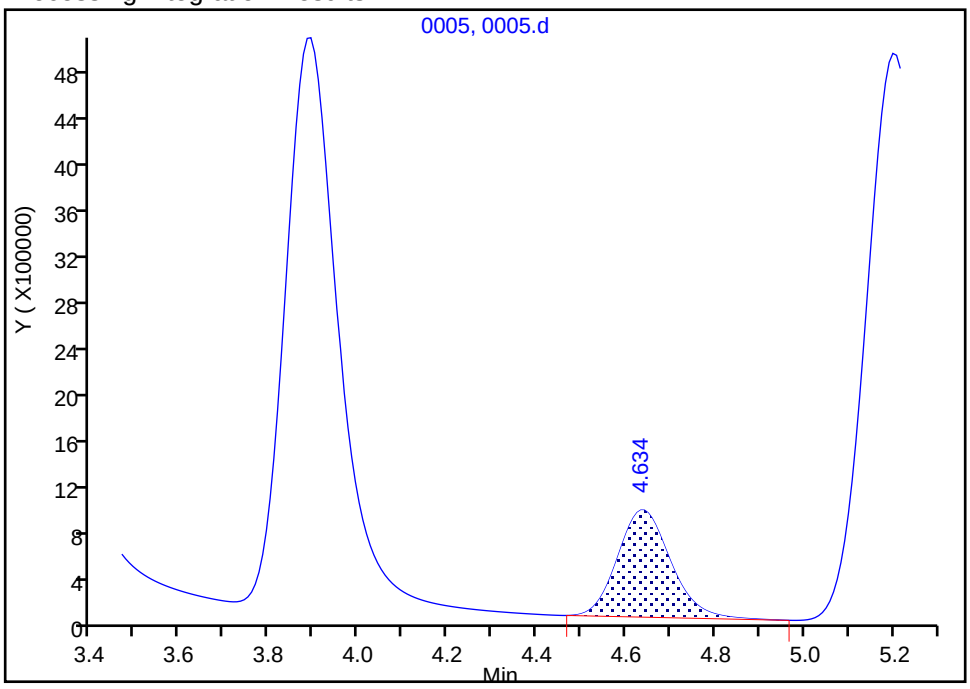
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

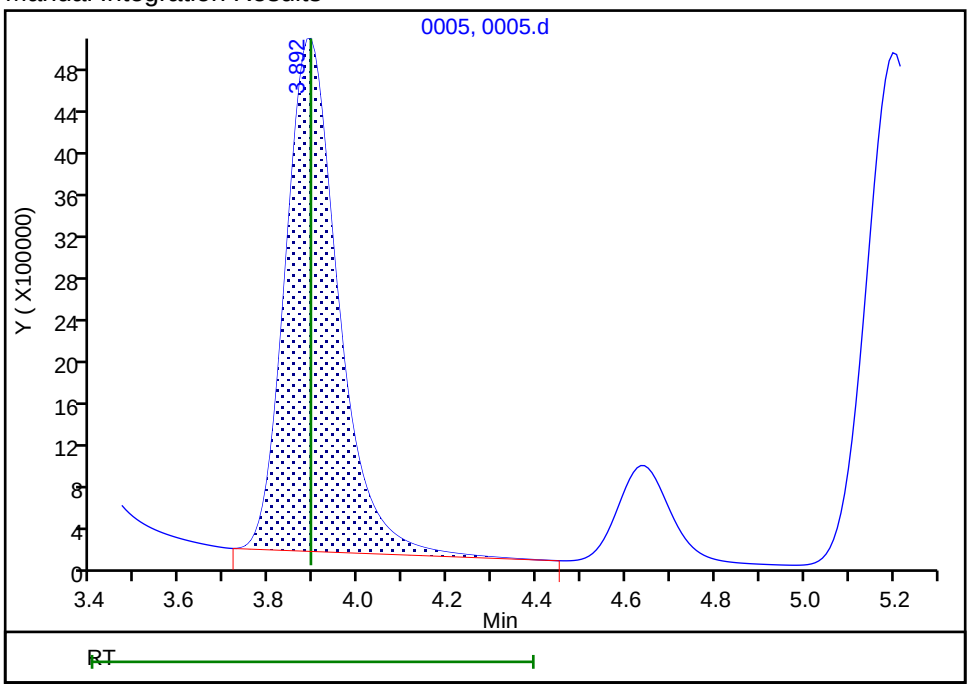
Processing Integration Results

RT: 4.63
Area: 7626440
Amount: 2.554556
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 40367514
Amount: 3.872644
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:32
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

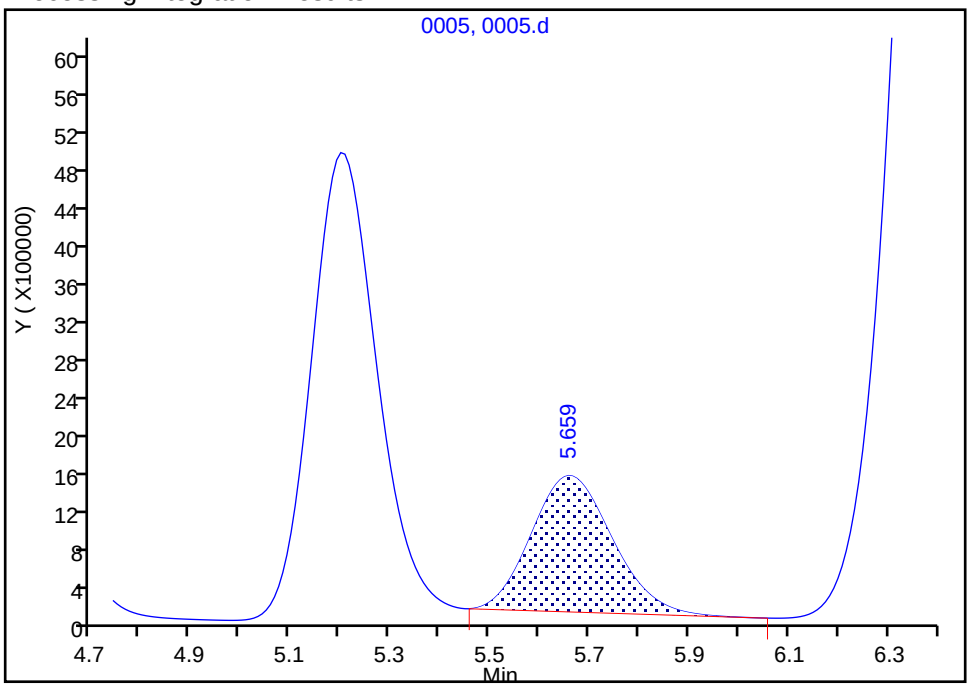
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

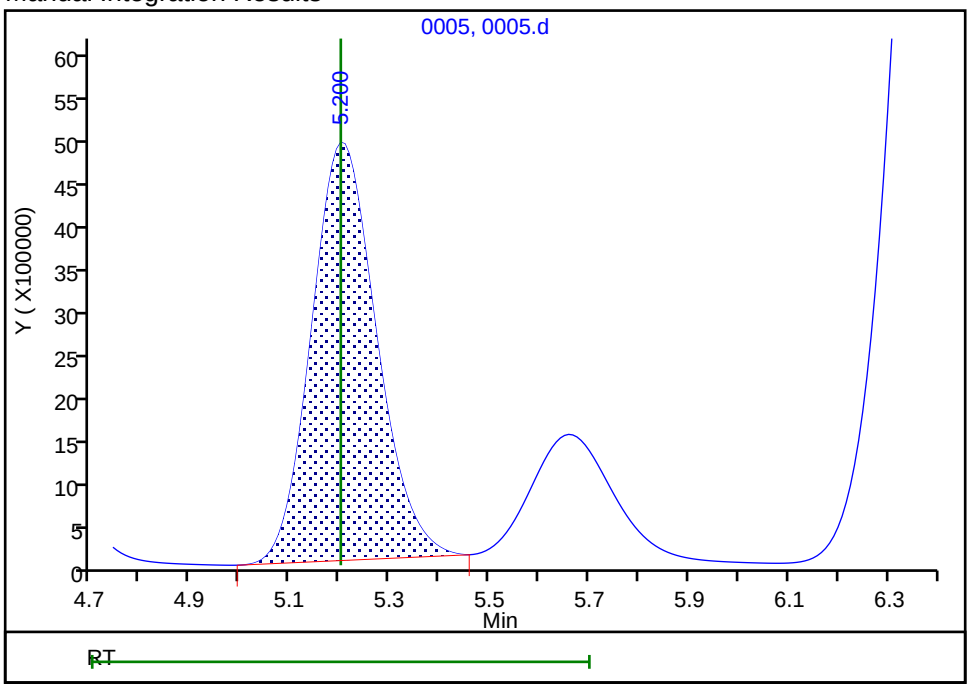
Processing Integration Results

RT: 5.66
Area: 16089342
Amount: 3.399959
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 43835884
Amount: 3.812608
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:36
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

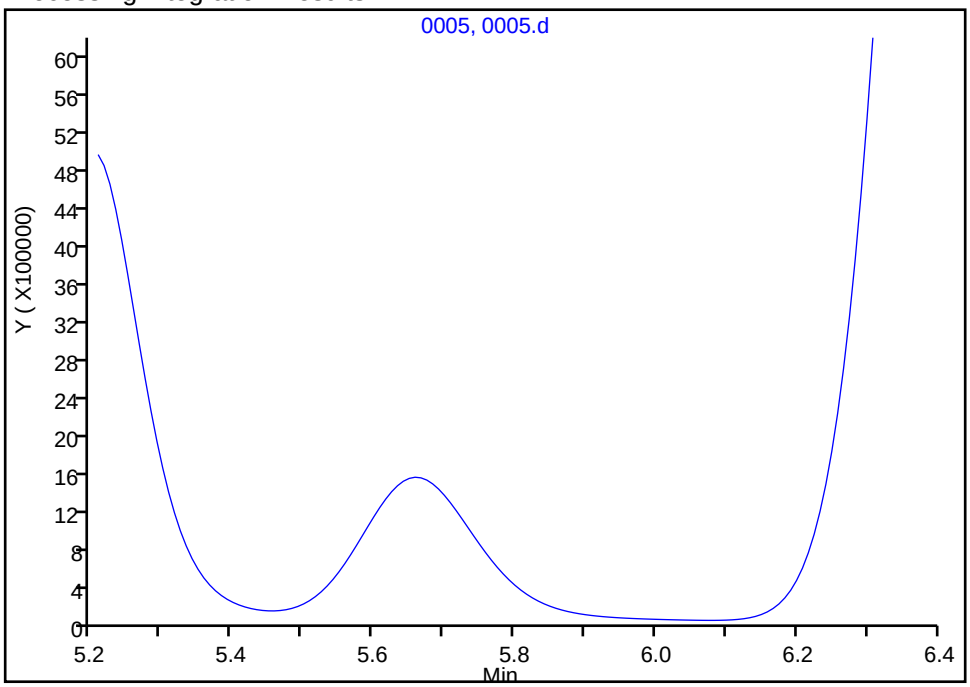
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

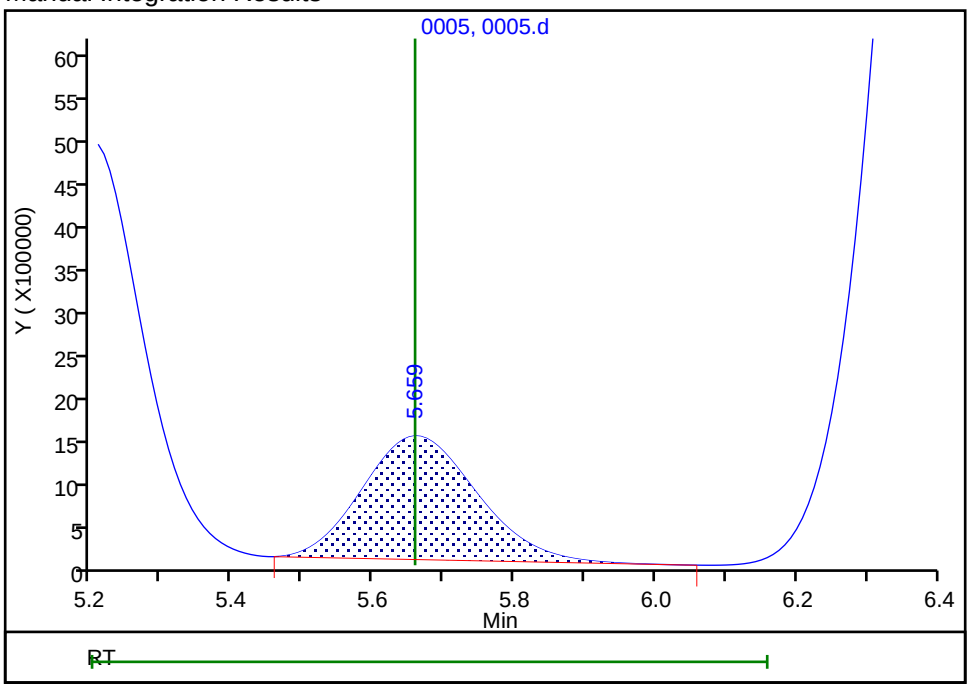
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 16089342
Amount: 3.876438
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	4.00	3.86	
2 Chloride	3.242	3.242	0.000	361228288	60.0	54.3	
3 Nitrite as N	3.892	3.892	0.000	40367514	NC	NC	a
4 Bromide	4.634	4.634	0.000	7626440	4.00	3.94	a
5 Nitrate as N	5.200	5.200	0.000	43835884	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	NC	NC	a
6 Sulfate	6.434	6.434	0.000	241149184	60.0	54.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

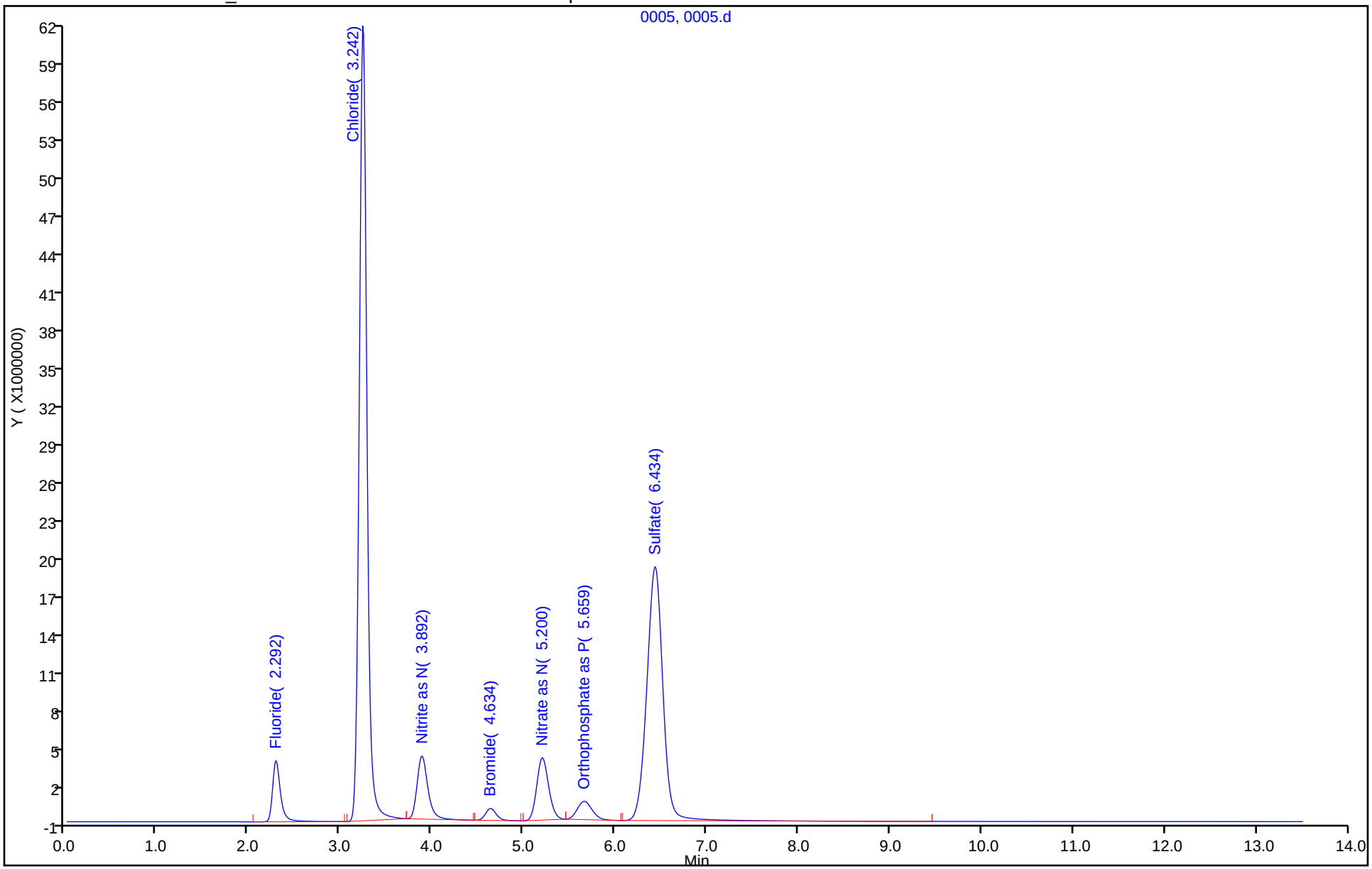
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

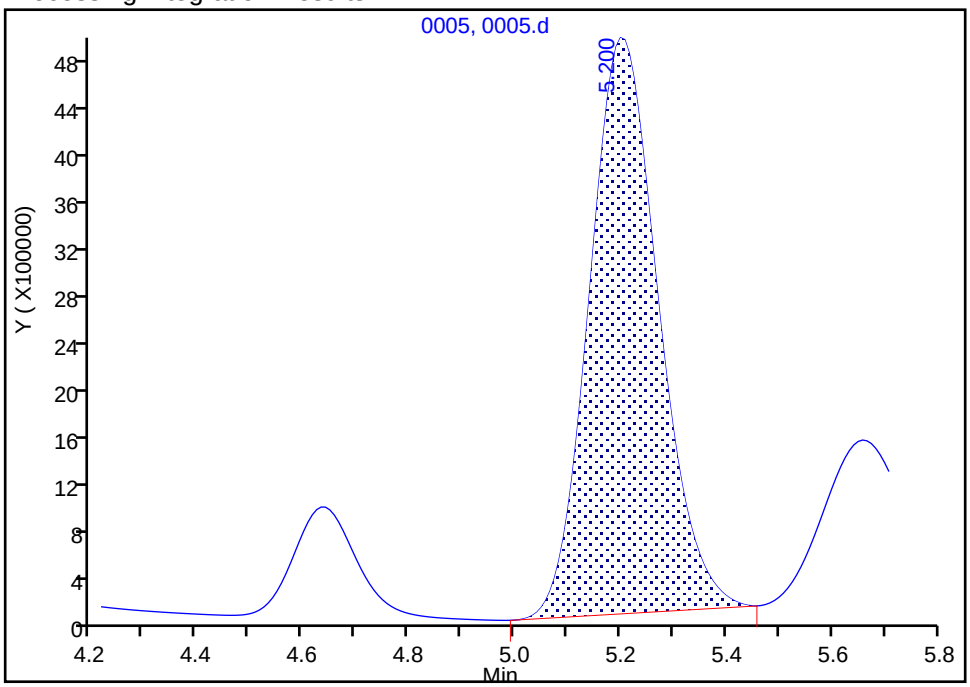
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

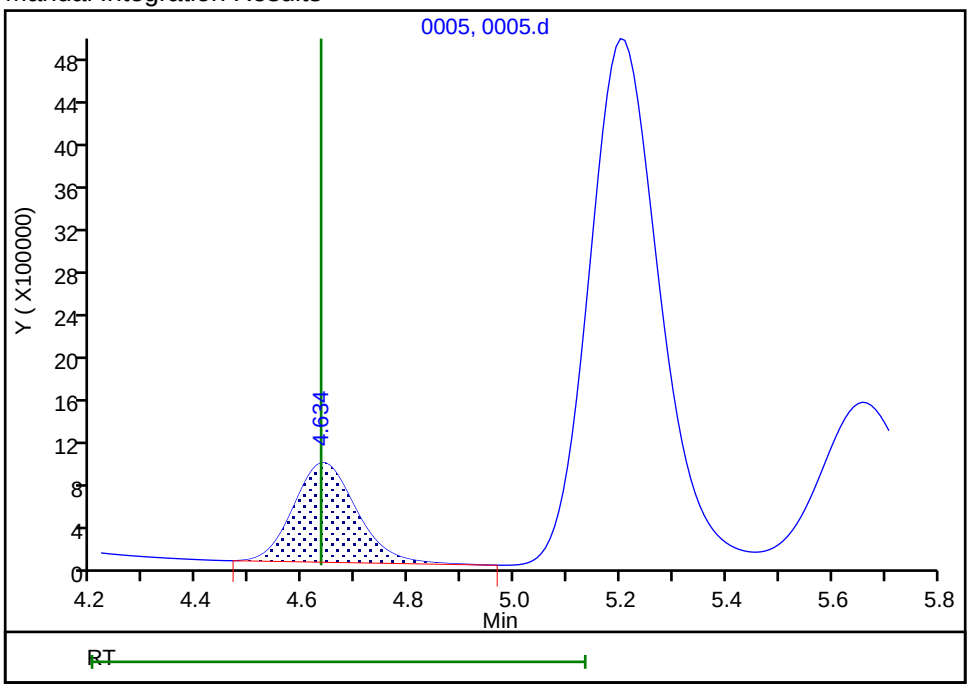
Processing Integration Results

RT: 5.20
Area: 43835884
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 7626440
Amount: 3.940762
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 08:31:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

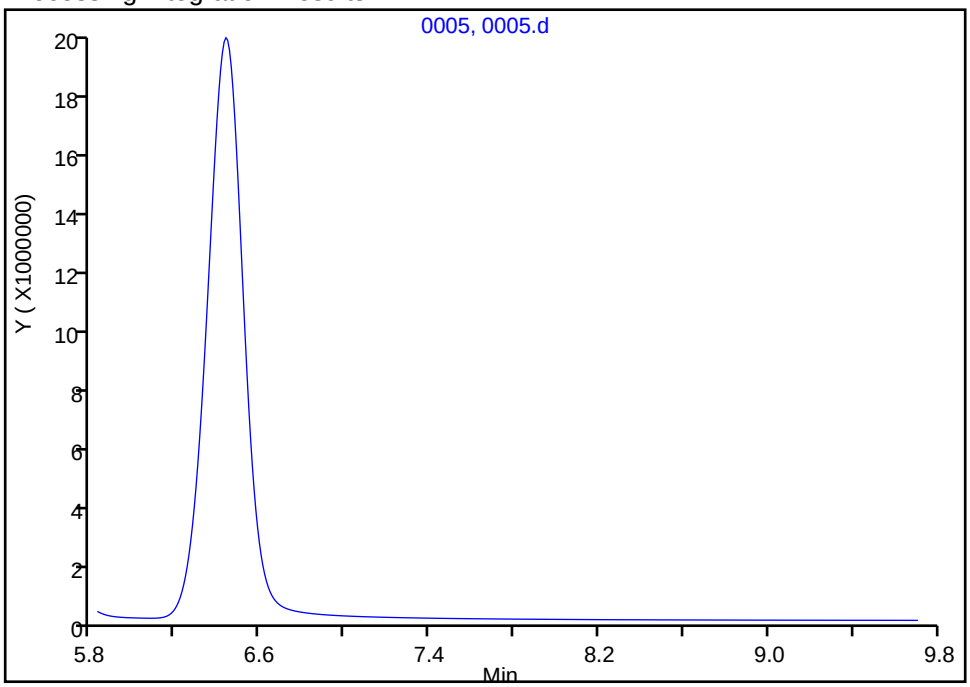
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

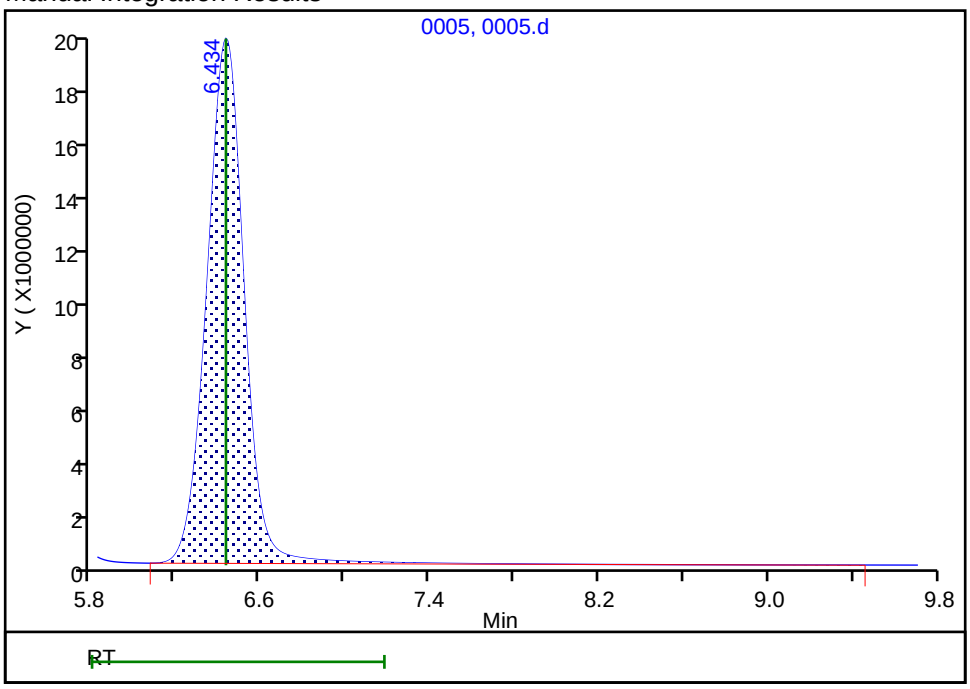
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.43
Area: 241149184
Amount: 54.355882
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:52
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	NC	NC	
2 Chloride	3.251	3.250	0.001	792237933	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	83950148	8.00	8.03	a
4 Bromide	4.634	4.642	-0.008	15499336	NC	NC	a
5 Nitrate as N	5.201	5.200	0.001	92548386	8.00	8.01	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	8.00	7.99	a
6 Sulfate	6.459	6.442	0.017	523125792	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

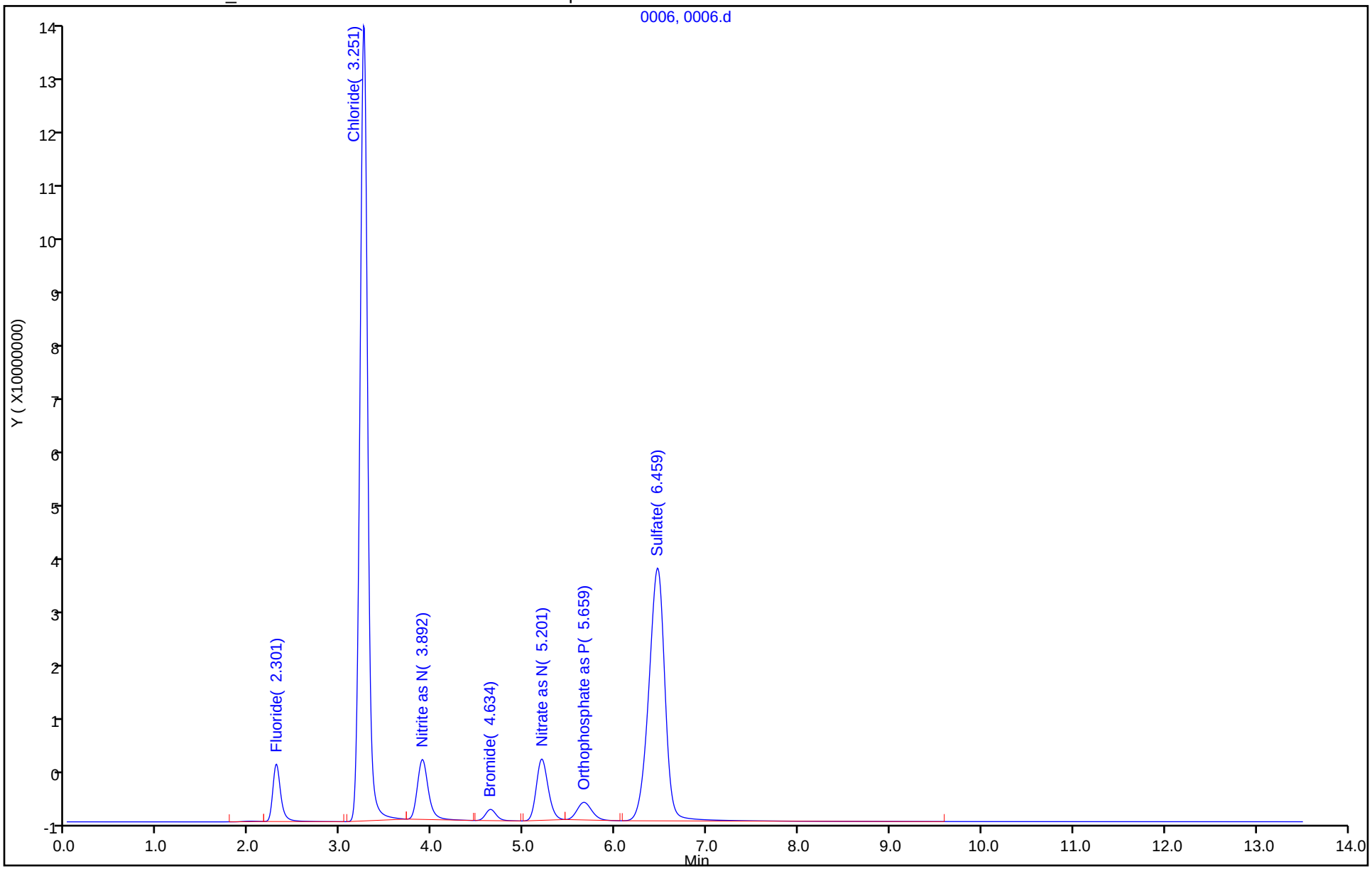
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

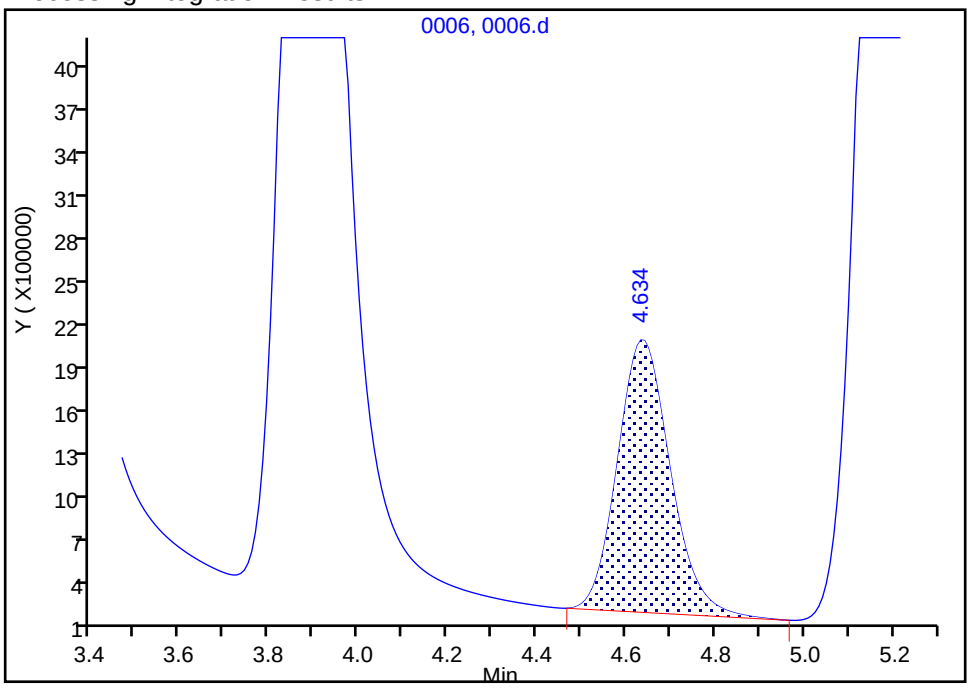
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

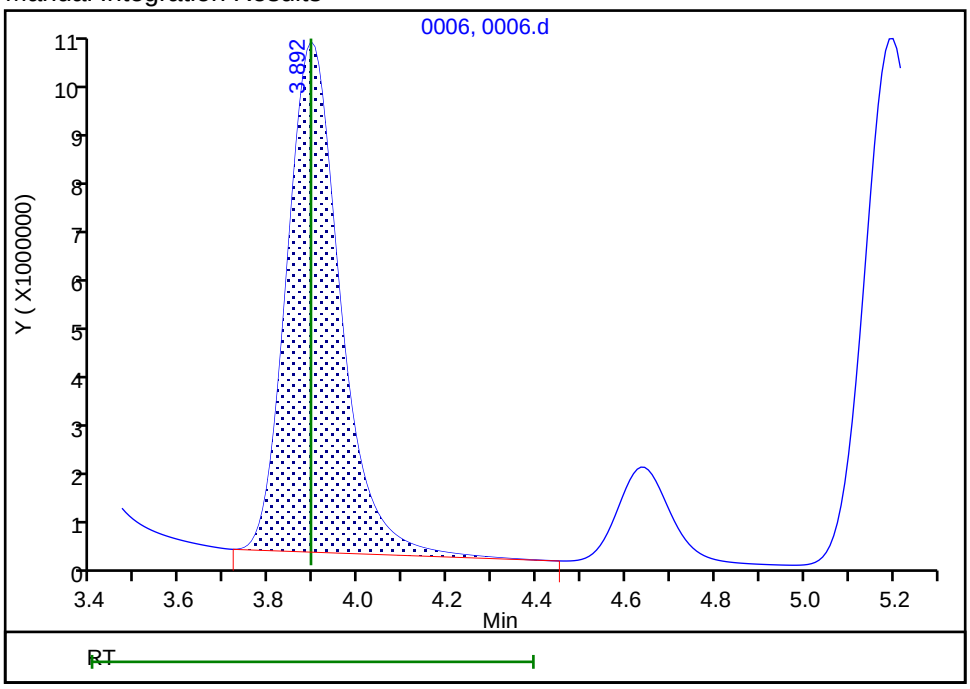
Processing Integration Results

RT: 4.63
Area: 15499336
Amount: 2.959649
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 83950148
Amount: 8.026551
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:18
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

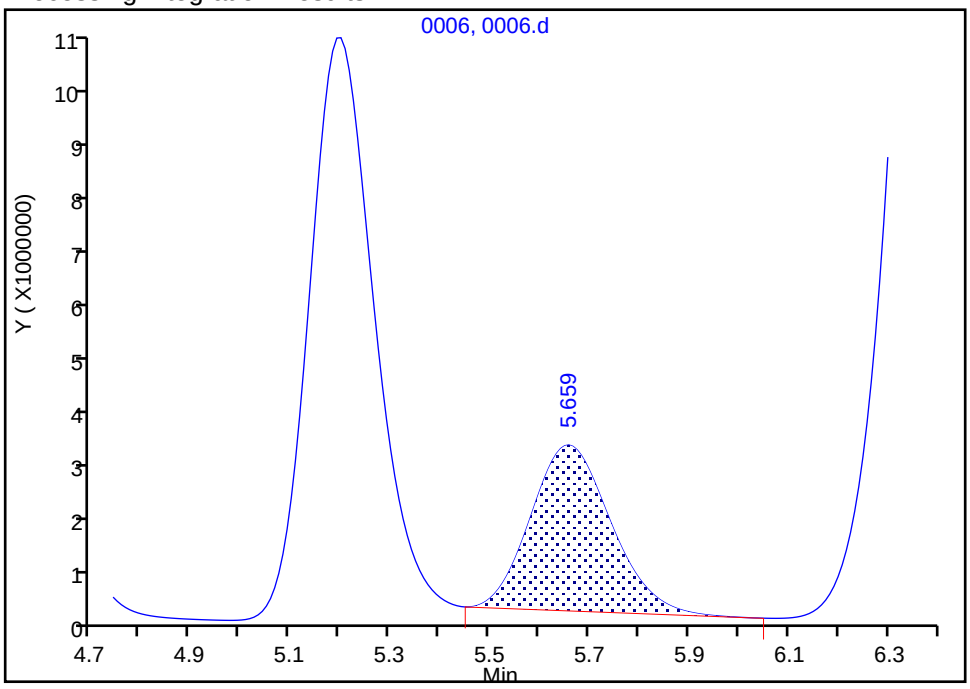
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

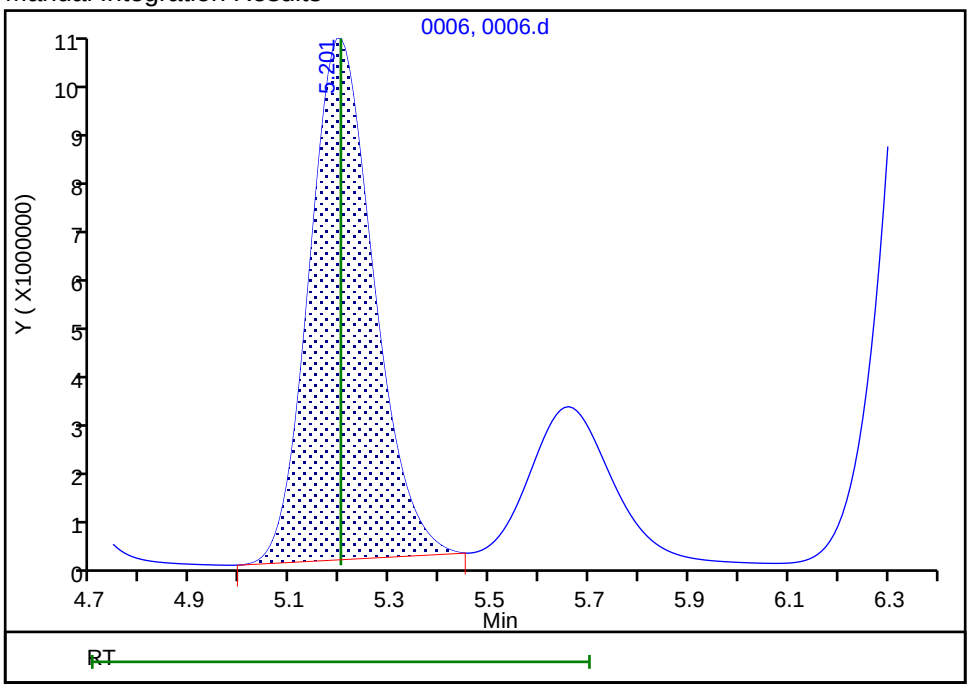
Processing Integration Results

RT: 5.66
Area: 33143352
Amount: 5.007844
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 92548386
Amount: 8.006881
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:22
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

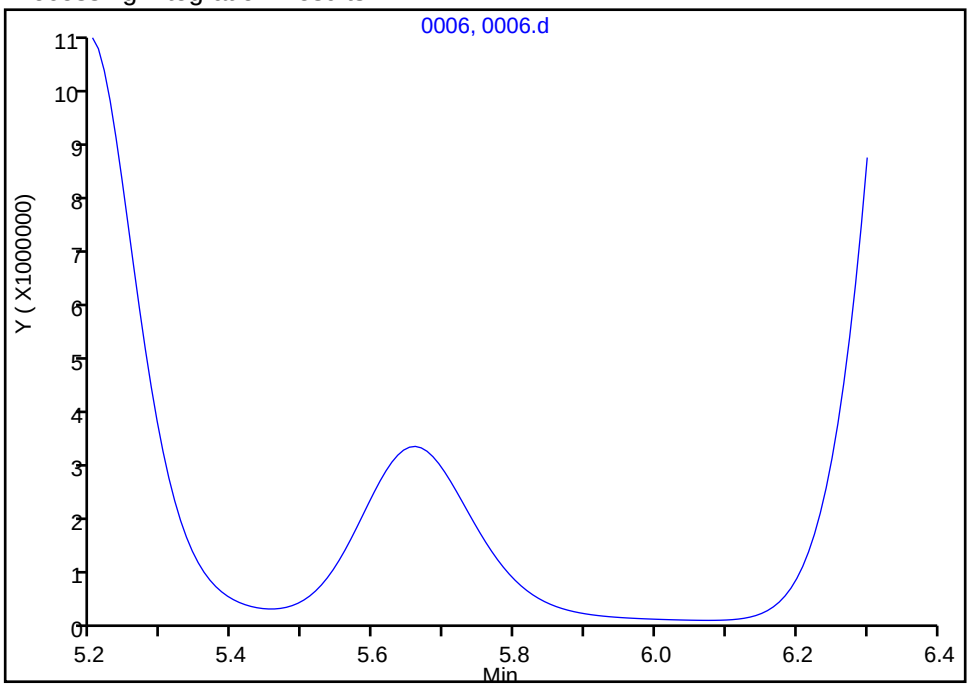
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

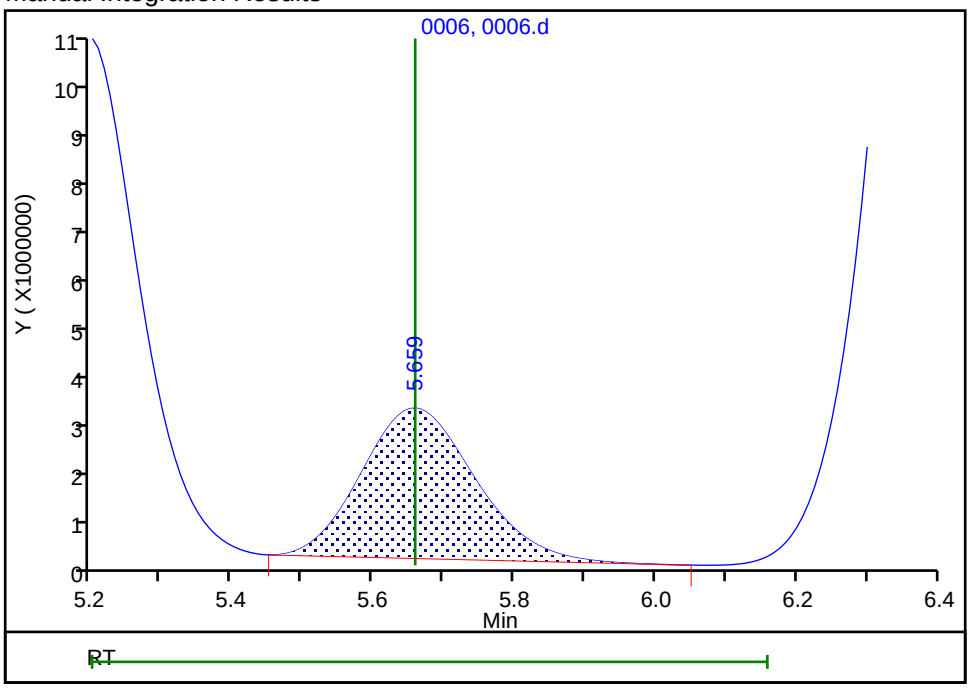
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 33143352
Amount: 7.993638
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:27
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	8.00	7.94	
2 Chloride	3.251	3.250	0.001	792237933	120.0	118.4	
3 Nitrite as N	3.892	3.892	0.000	83950148	NC	NC	a
4 Bromide	4.634	4.642	-0.008	15499336	8.00	7.98	a
5 Nitrate as N	5.201	5.200	0.001	92548386	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	NC	NC	a
6 Sulfate	6.459	6.442	0.017	523125792	120.0	117.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

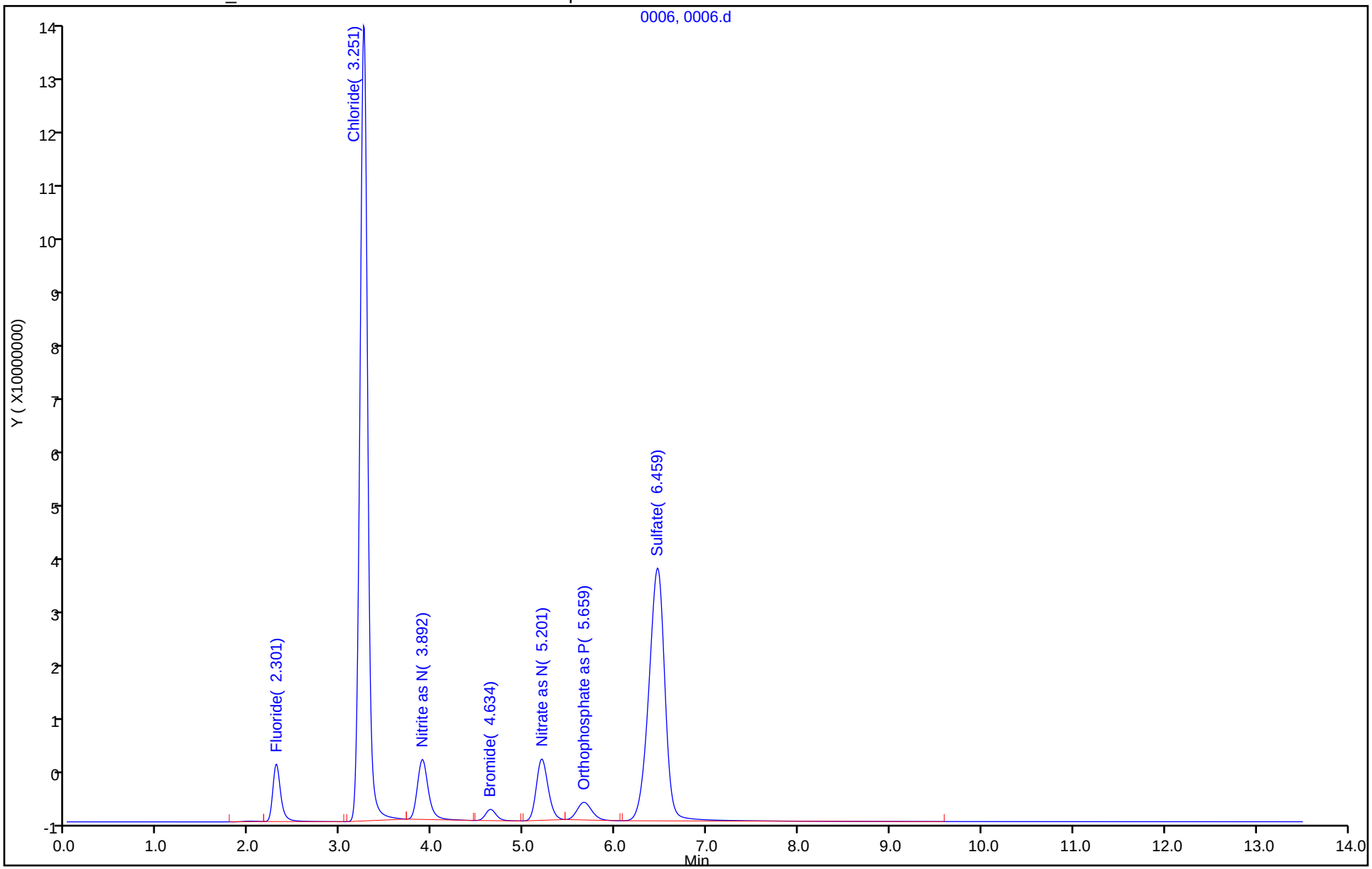
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

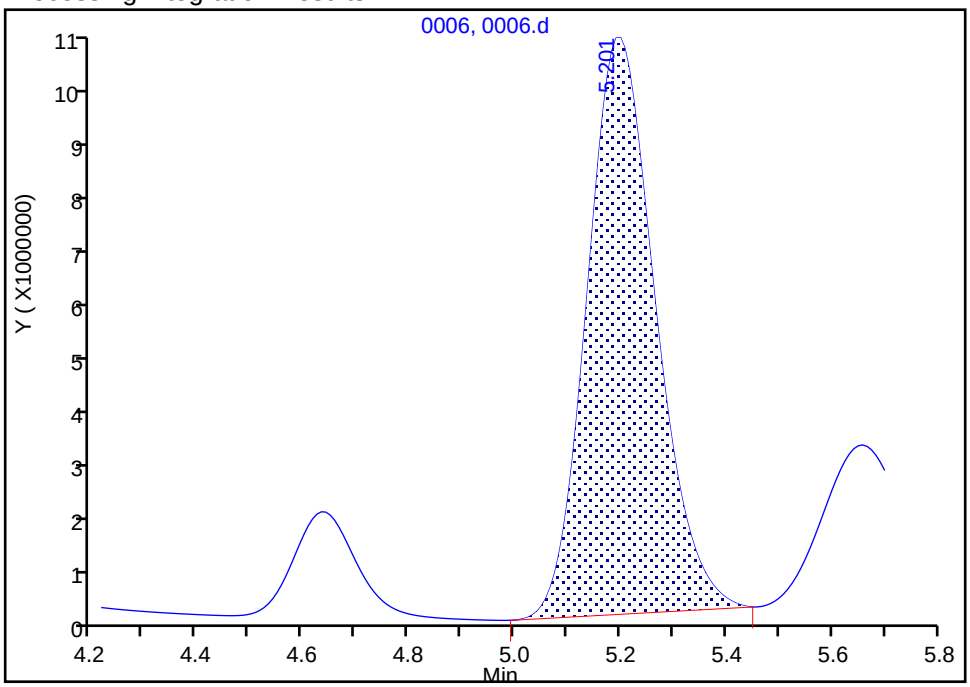
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

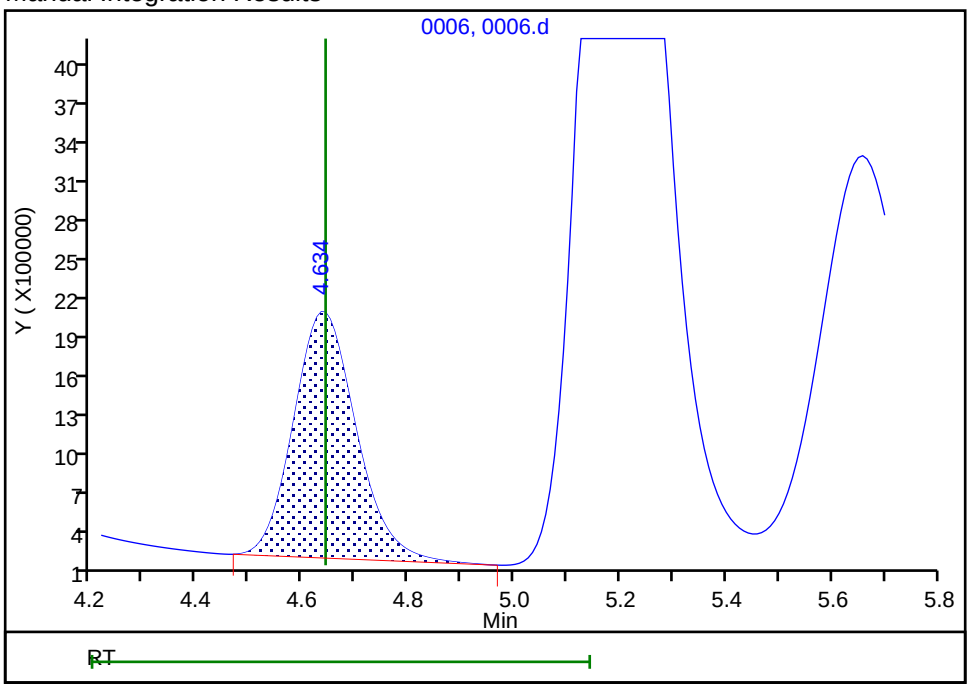
Processing Integration Results

RT: 5.20
Area: 92548386
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 15499336
Amount: 7.976961
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:37
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

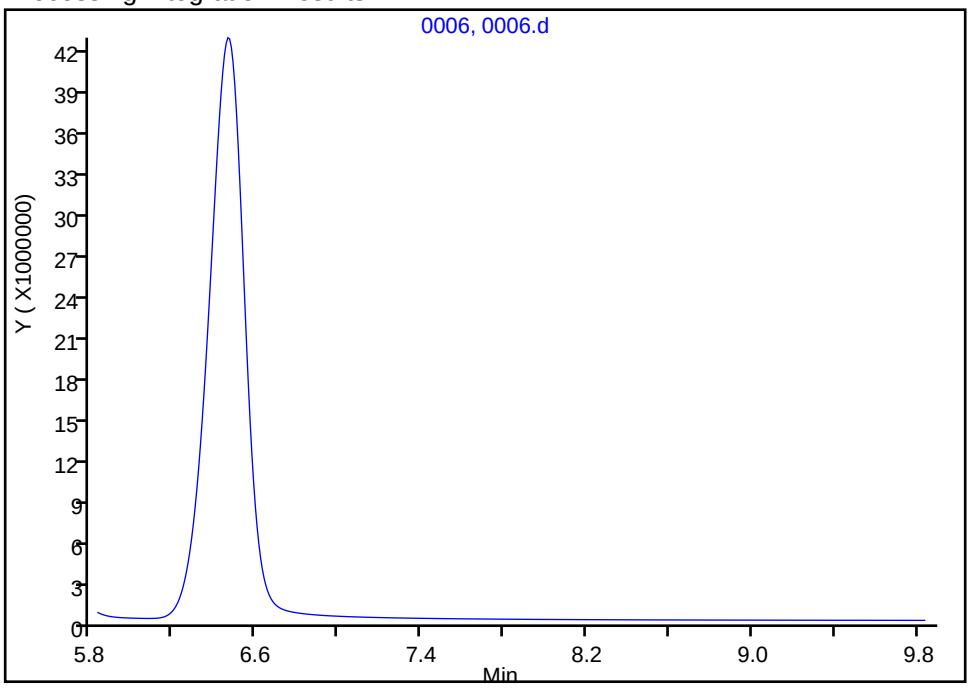
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

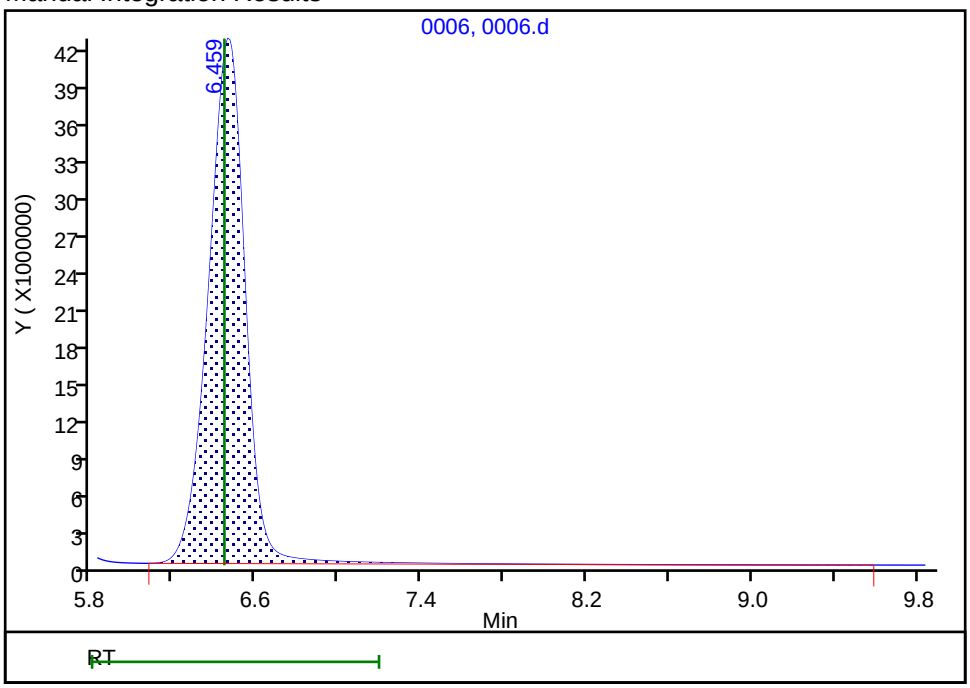
Not Detected
Expected RT: 6.44

Processing Integration Results



Manual Integration Results

RT: 6.46
Area: 523125792
Amount: 117.4031
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	NC	NC	
2 Chloride	3.267	3.250	0.017	1394323073	NC	NC	
3 Nitrite as N	3.901	3.892	0.009	106025591	10.0	10.1	
4 Bromide	4.642	4.642	0.000	19510403	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	118348380	10.0	10.2	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	10.0	10.2	
6 Sulfate	6.484	6.442	0.042	931644146	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

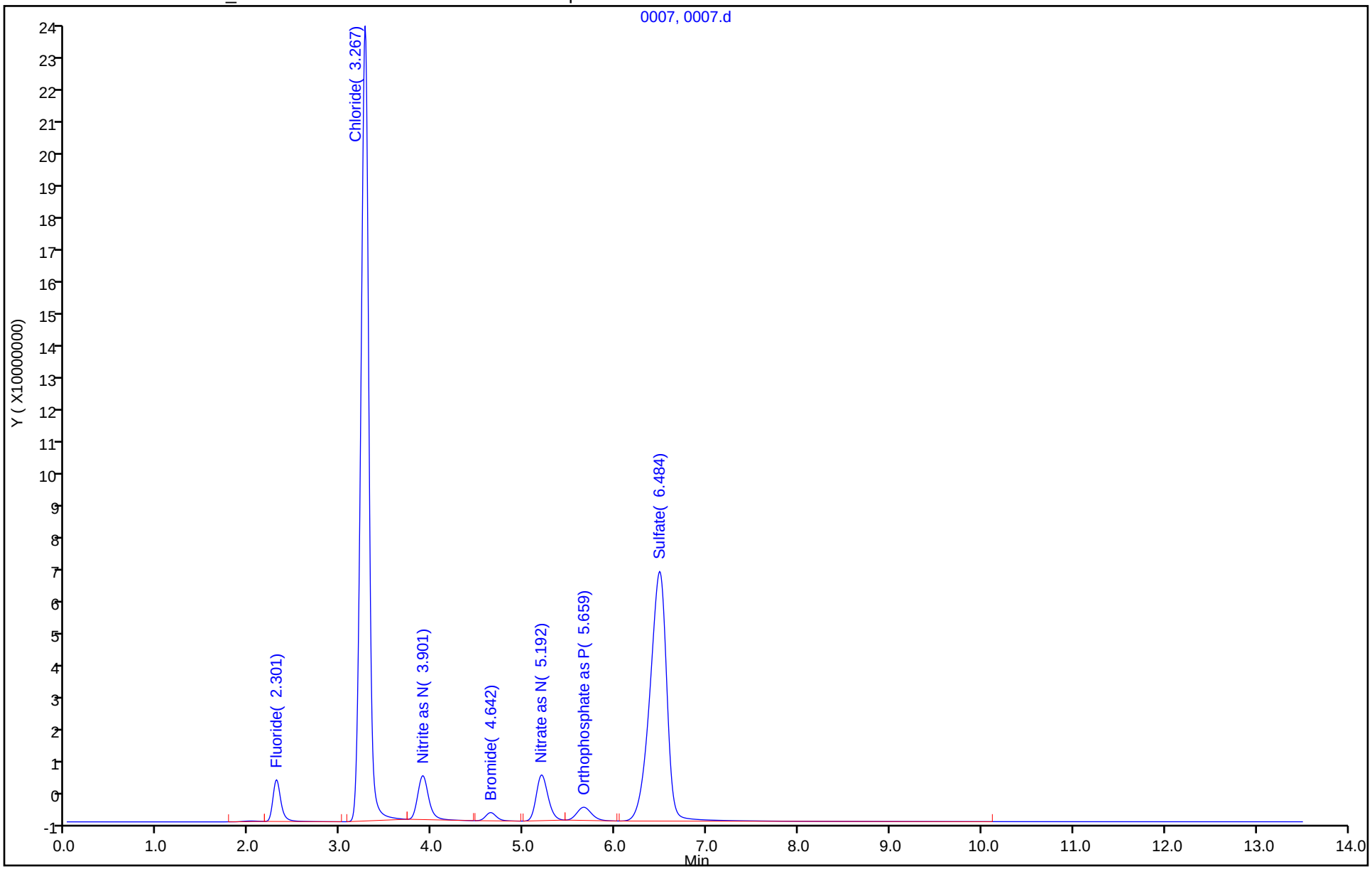
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-May-2019 18:54:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-007
Misc. Info.: 21691
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:07 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	10.0	9.99	
2 Chloride	3.267	3.250	0.017	1394323073	200.0	208.0	
3 Nitrite as N	3.901	3.892	0.009	106025591	NC	NC	
4 Bromide	4.642	4.642	0.000	19510403	10.0	10.0	
5 Nitrate as N	5.192	5.200	-0.008	118348380	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	NC	NC	
6 Sulfate	6.484	6.442	0.042	931644146	200.0	208.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

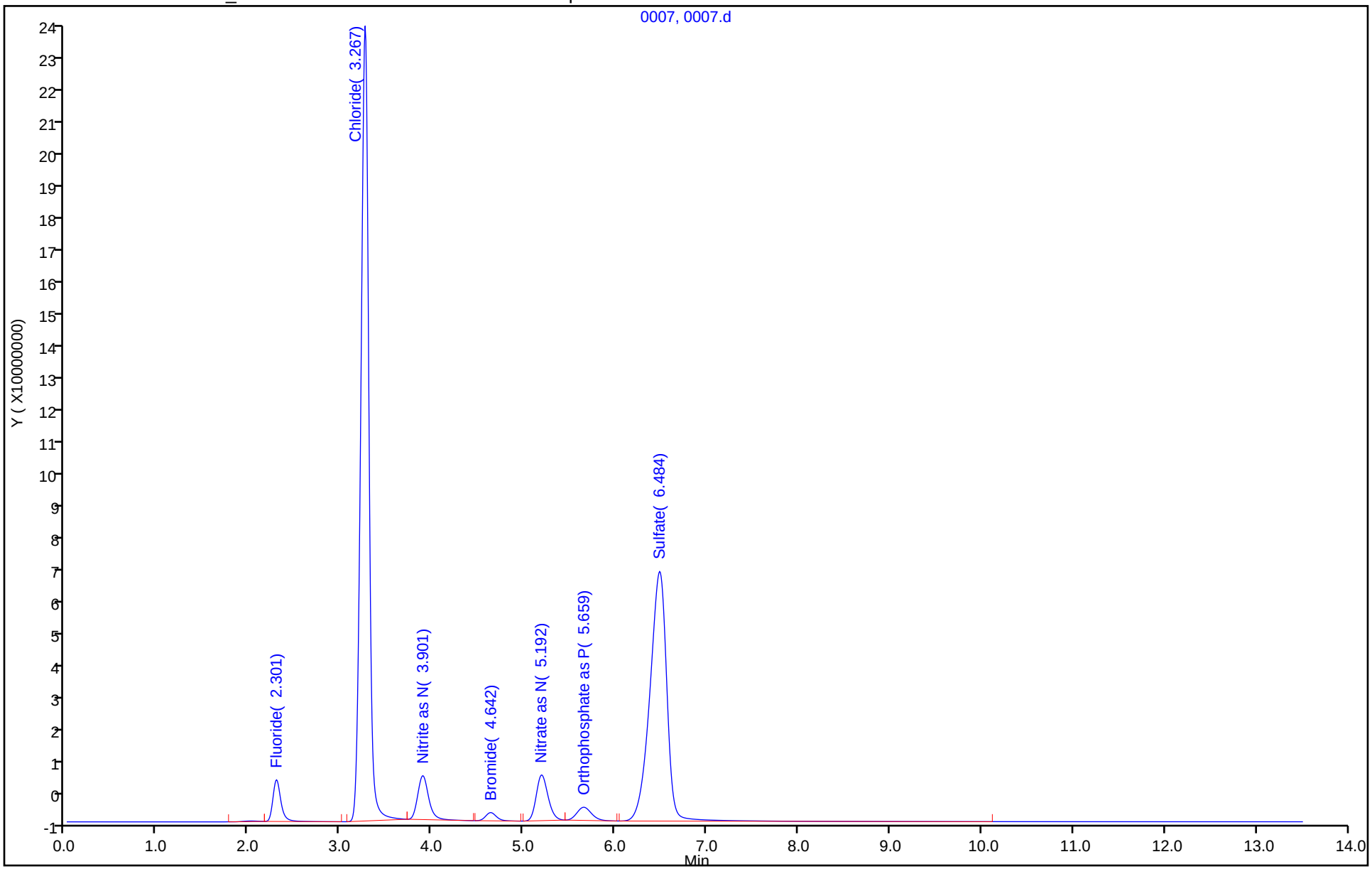
IC CAL cl/so4_00256 Amount Added: 4.00 Units: mL
IC Cal low_00458 Amount Added: 1.00 Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

	Rush	Job No.	Samples	Anions	QC Req	HT Exp
	☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
	☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
	☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 15-May-2019 19:11:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-008
Misc. Info.: 24520
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:06 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	NC	NC	
2 Chloride	3.250	3.250	0.000	511999139	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	39889751	4.00	3.83	
4 Bromide	4.642	4.642	0.000	8464974	NC	NC	
5 Nitrate as N	5.200	5.200	0.000	48666748	4.00	4.23	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	4.00	4.23	
6 Sulfate	6.442	6.442	0.000	336075353	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

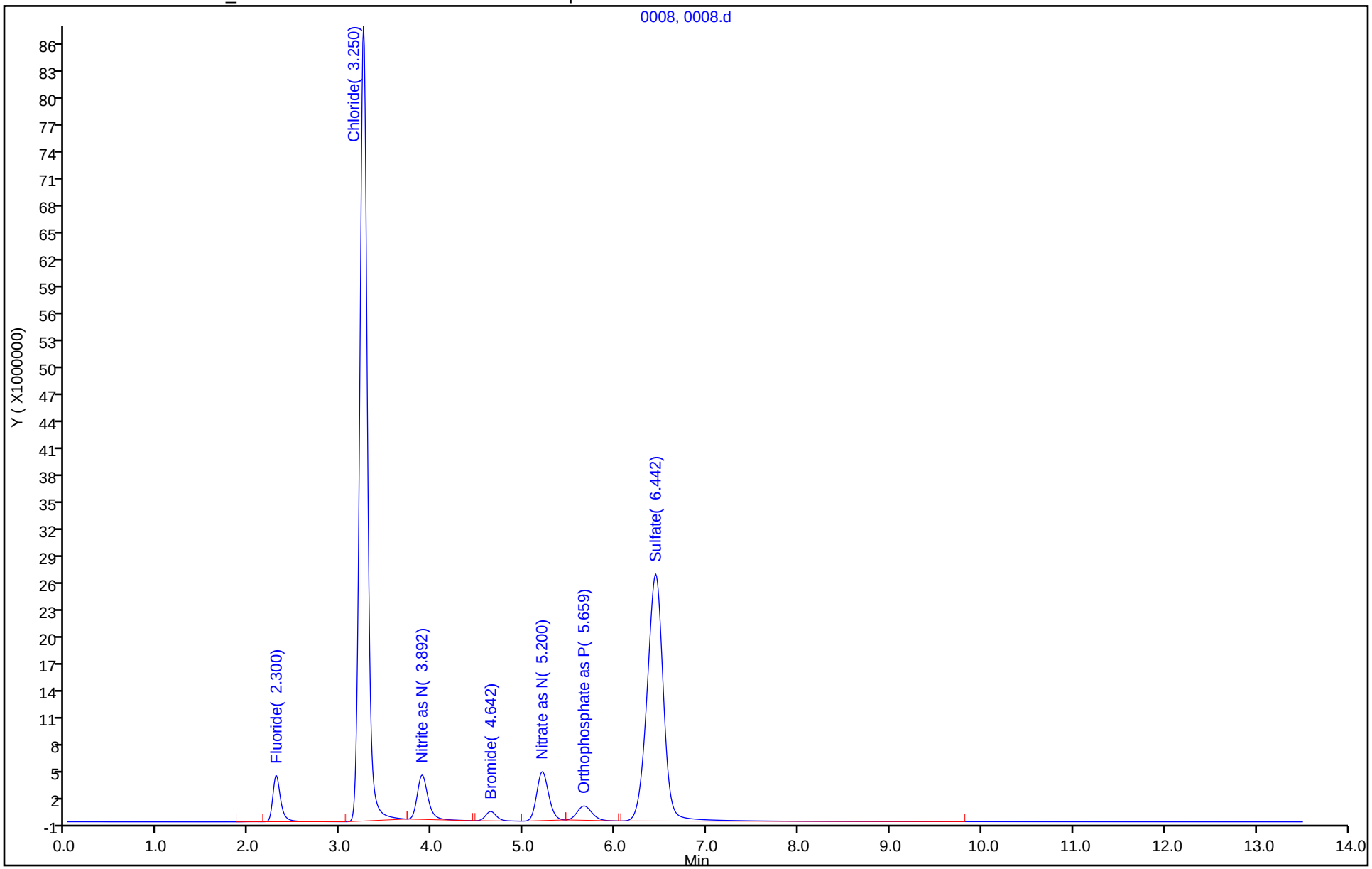
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d

Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 Inst ID: 11 Analysis Date: 05/15/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 15-May-2019 19:11:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-008
Misc. Info.: 24520
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:06 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	4.00	4.12	
2 Chloride	3.250	3.250	0.000	511999139	80.0	76.8	
3 Nitrite as N	3.892	3.892	0.000	39889751	NC	NC	
4 Bromide	4.642	4.642	0.000	8464974	4.00	4.36	
5 Nitrate as N	5.200	5.200	0.000	48666748	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	NC	NC	
6 Sulfate	6.442	6.442	0.000	336075353	80.0	75.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

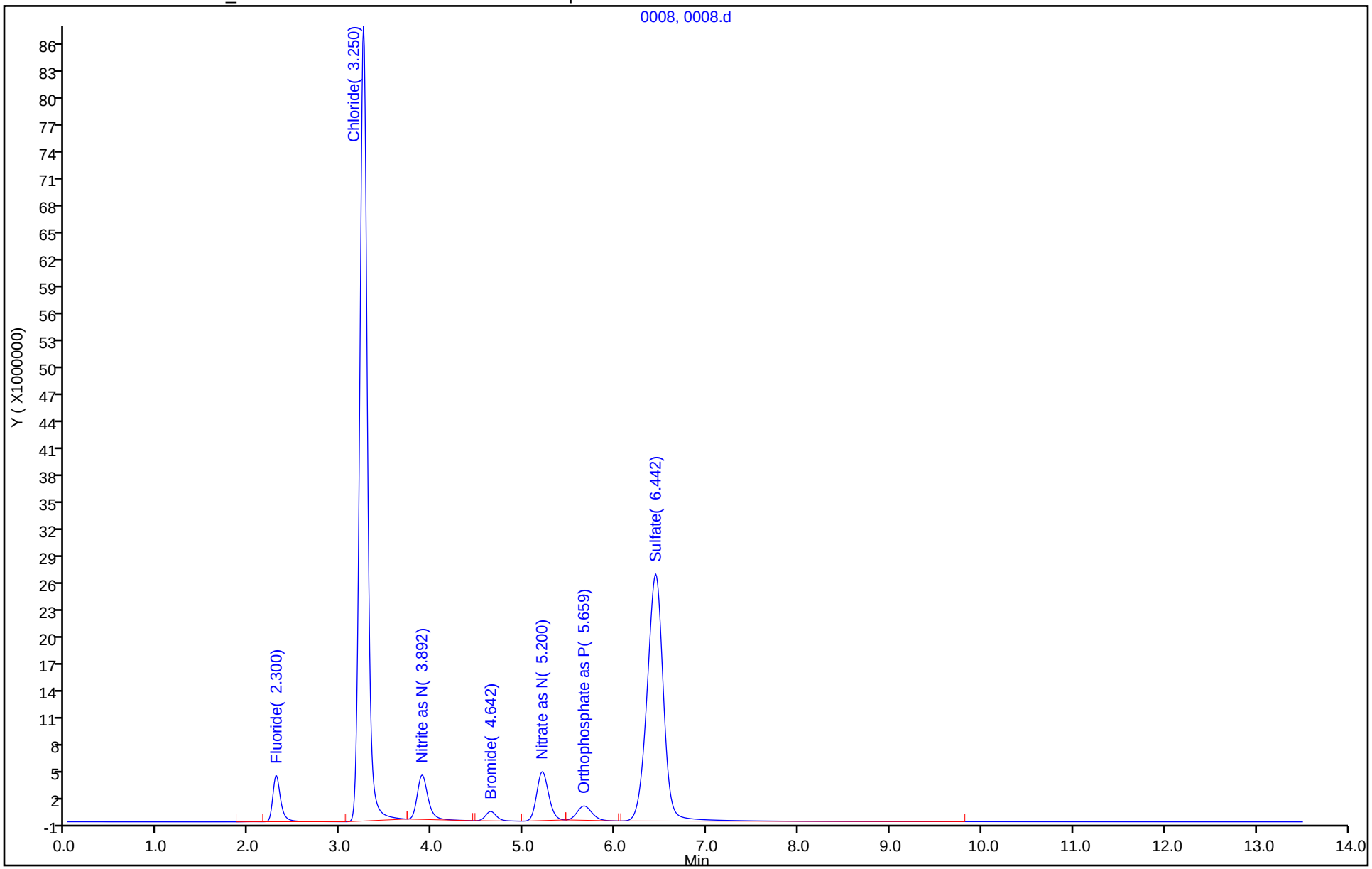
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d

Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		NC	M
2 Chloride	3.234	3.250	-0.016	71906		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		0.0412	
6 Sulfate	6.409	6.442	-0.033	254965		NC	

QC Flag Legend

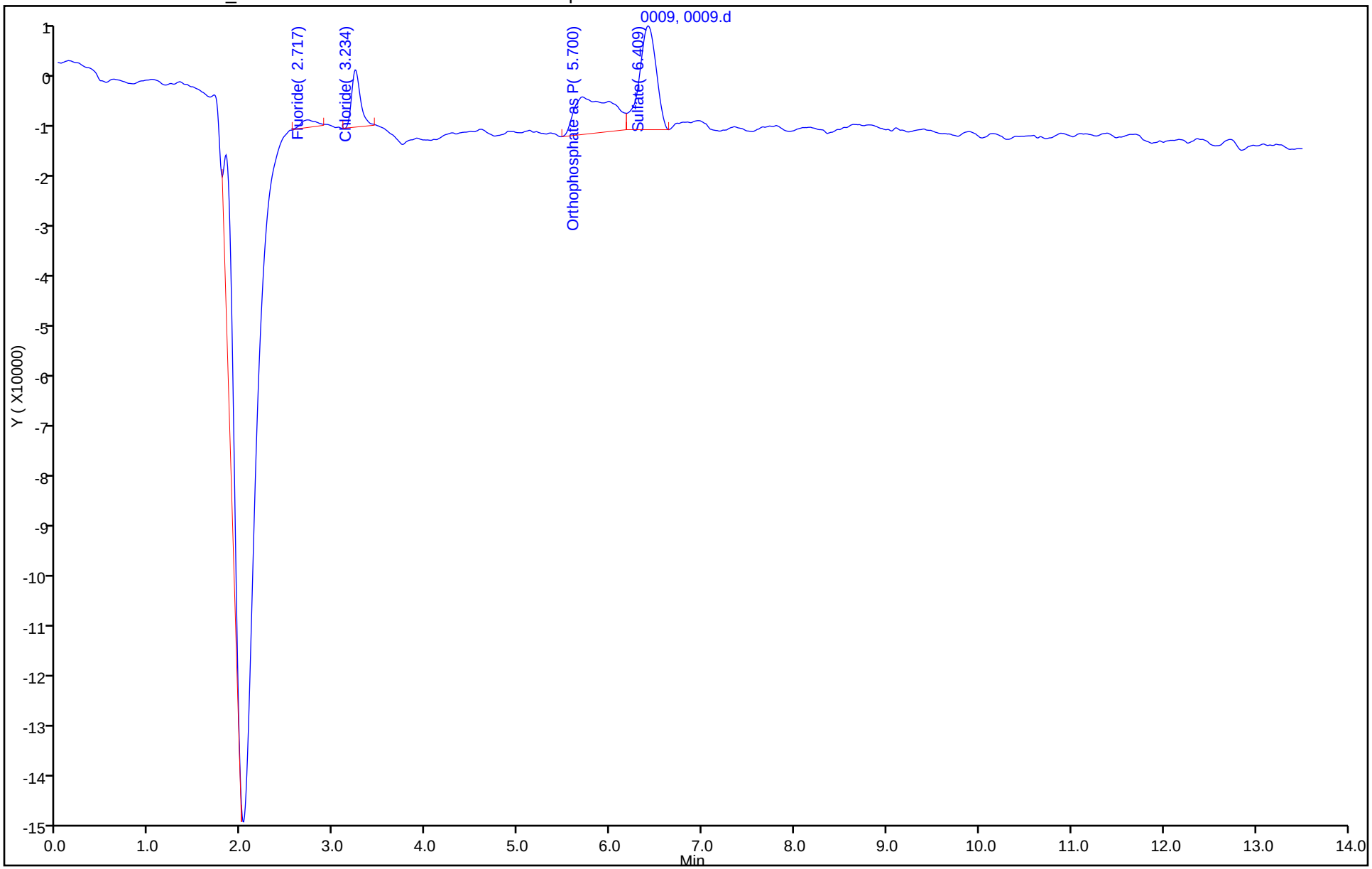
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		-0.1524	M
2 Chloride	3.234	3.250	-0.016	71906		0.6279	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		NC	
6 Sulfate	6.409	6.442	-0.033	254965		0.4943	

QC Flag Legend

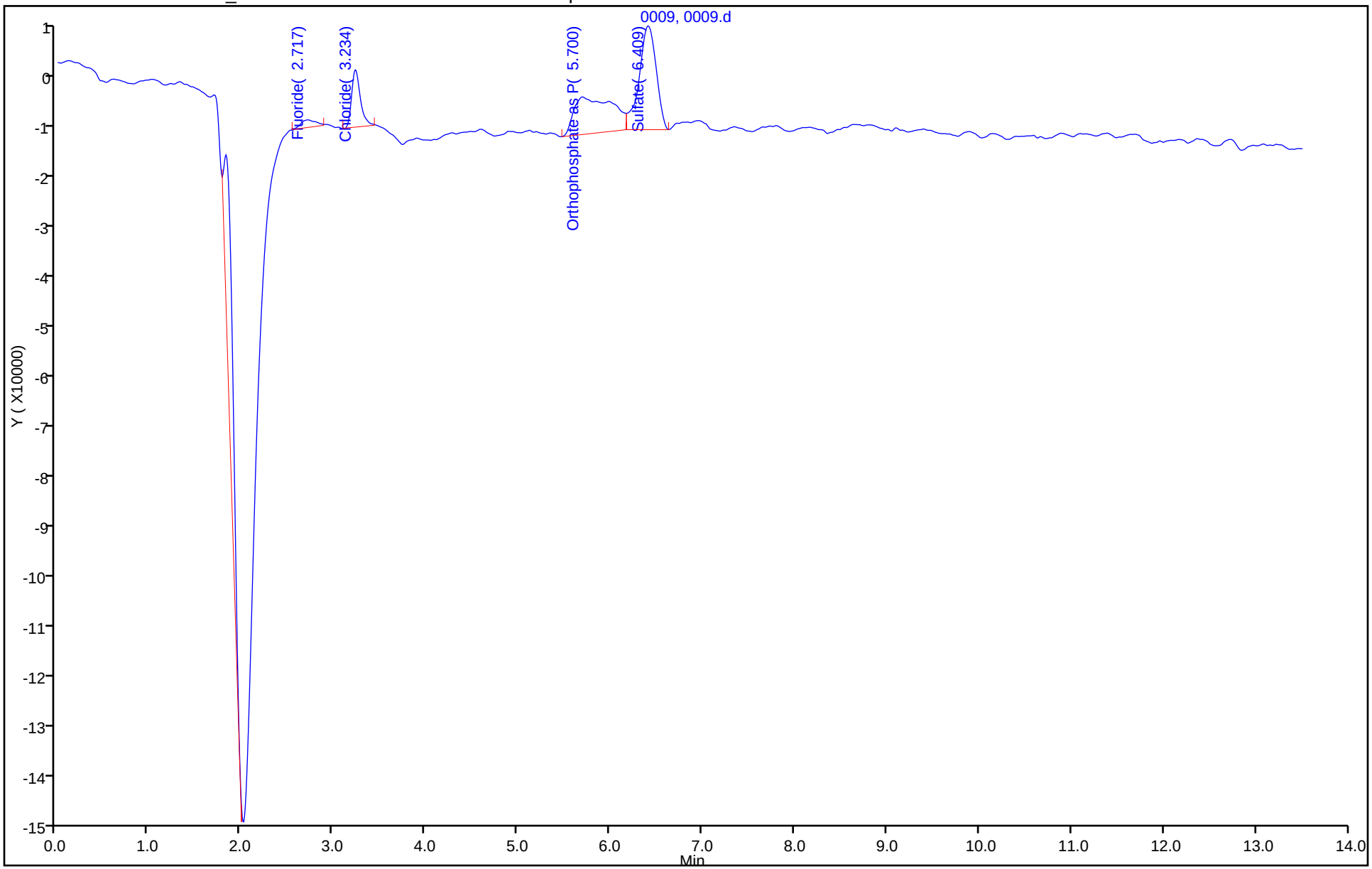
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

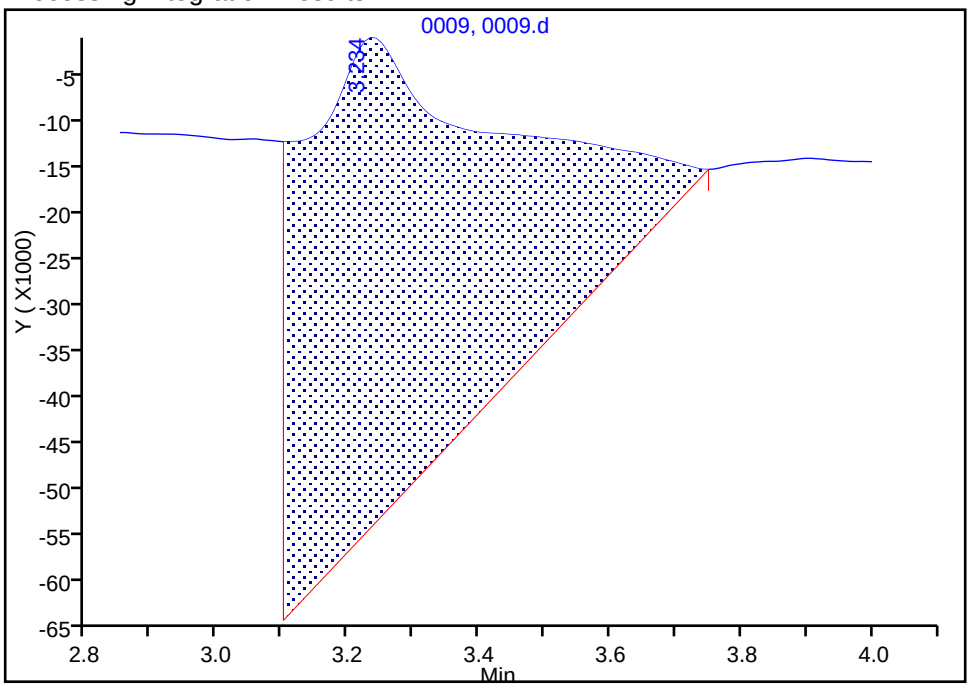
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d				
Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ICB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

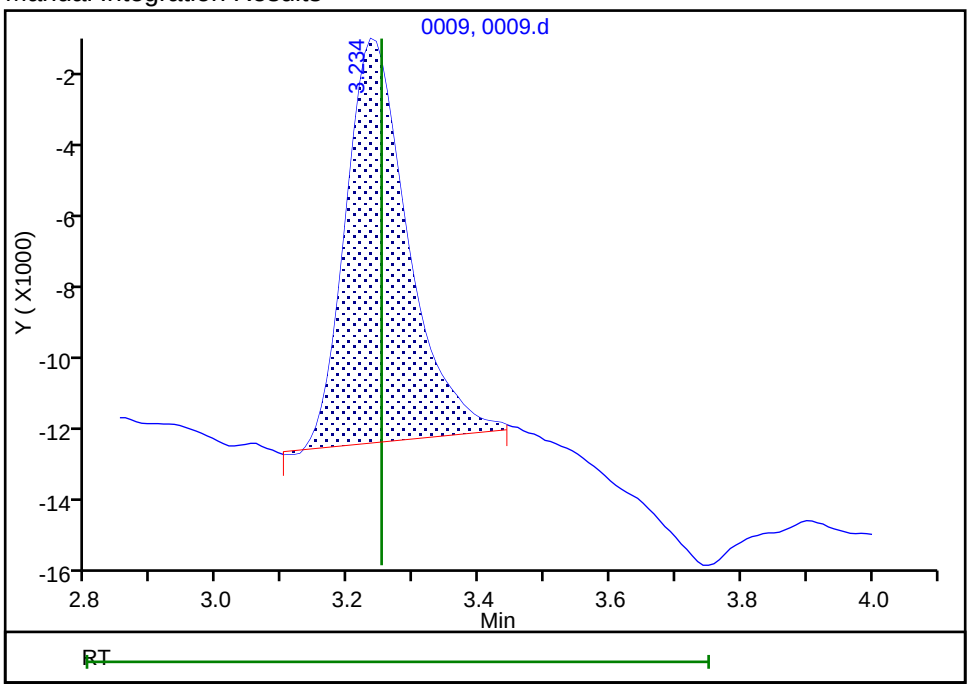
Processing Integration Results

RT: 3.23
Area: 1127161
Amount: 0.784817
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 71906
Amount: 0.627881
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

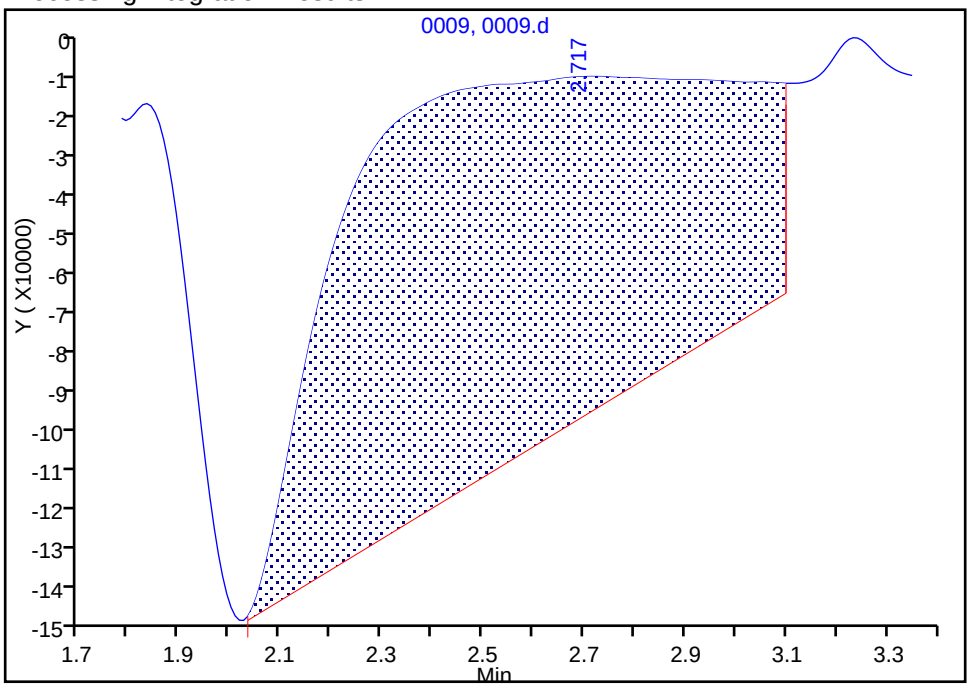
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d				
Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ICB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

1 Fluoride, CAS: 16984-48-8

Signal: 1

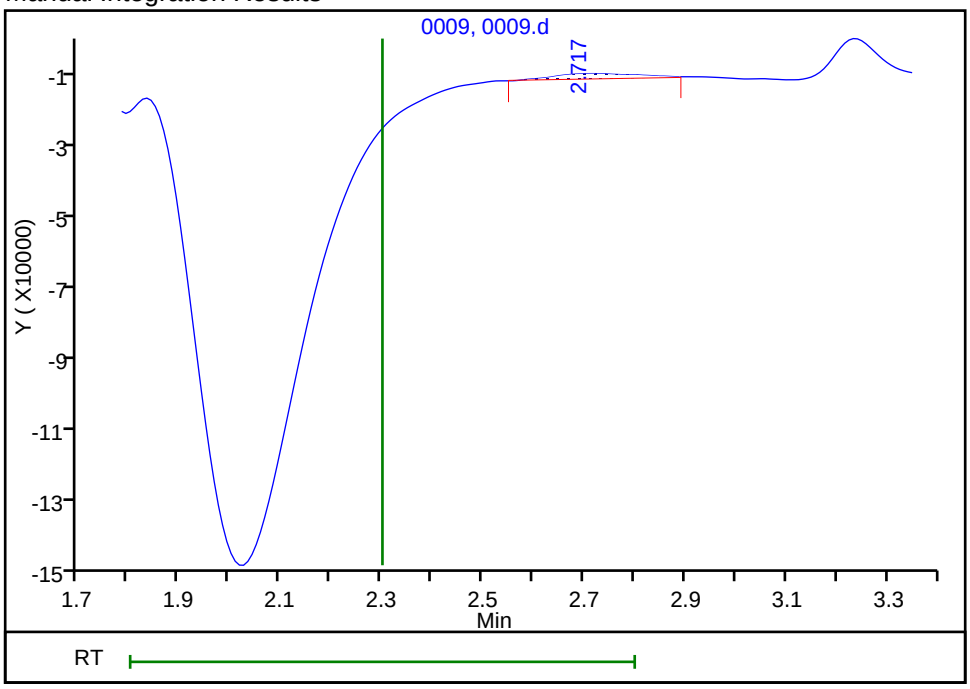
Processing Integration Results

RT: 2.72
Area: 4799643
Amount: 0.507035
Amount Units: ug/ml



Manual Integration Results

RT: 2.72
Area: 15994
Amount: -0.152378
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

458413/458414

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81959 Inst ID: 11 Analysis Date: 05/16/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req		HT Exp
☐	123656	1	F Cl NO2 Br NO3 PO4 SO4	MS/D		confirm per Thu
☐	121440	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	4	confirm per Connie
☐	123855	6	F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐	123853	6	F Cl NO2 Br NO3 PO4 SO4	MS/D	3	
☐	123862	4	F Cl NO2 Br NO3 PO4 SO4	MS/D	1	client
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123855	2	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123855	1,4	F Cl NO2 Br NO3 PO4 SO4	5x	Higher
123855	5,6	F Cl NO2 Br NO3 PO4 SO4	5x	Higher
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

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IC Instrument Information

WL: 81959 **Inst ID:** 11 **Analysis Date:** 05/16/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123656	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	confirm per Thu
☐	121440	1	F Cl NO2 Br NO3 PO4 SO4	MS/D 4	confirm per Connie
☐	123855	6	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123853	6	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123862	4	F Cl NO2 Br NO3 PO4 SO4	MS/D 1	client
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123855	2	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123855	1,4	F Cl NO2 Br NO3 PO4 SO4	5x	high
123855	5,4	F Cl NO2 Br NO3 PO4 SO4	5x	high
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

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TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2019 13:45:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37281238	NC	NC	
2 Chloride	3.242	3.242	0.000	636604564	NC	NC	
3 Nitrite as N	3.875	3.892	-0.017	51312081	5.00	4.92	
4 Bromide	4.617	4.634	-0.017	10081759	NC	NC	
5 Nitrate as N	5.175	5.200	-0.025	57284731	5.00	4.97	
7 Orthophosphate as P	5.634	5.659	-0.025	20851269	5.00	5.03	
6 Sulfate	6.434	6.434	0.000	417305468	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

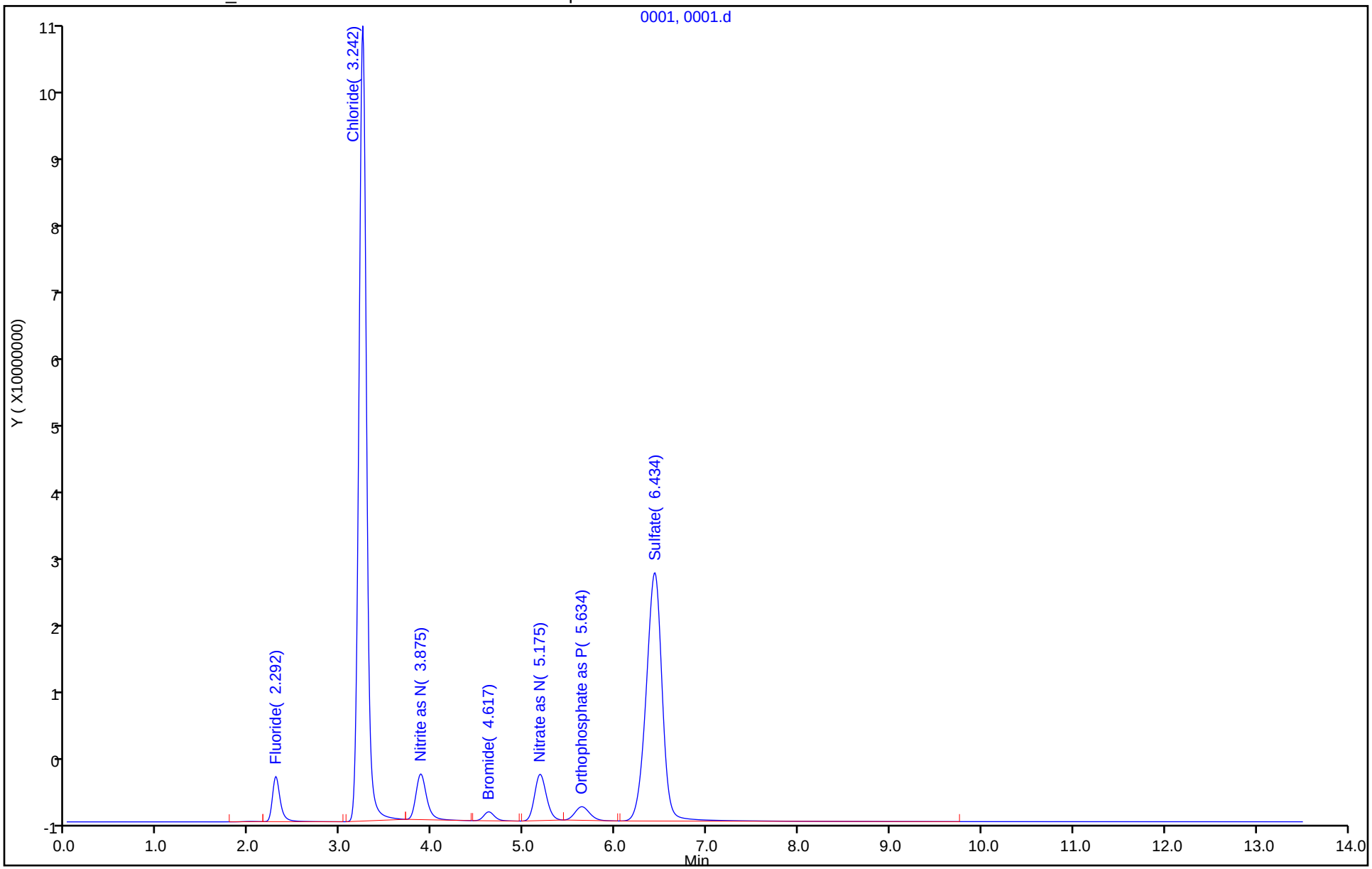
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0001.d

Injection Date:	16-May-2019 13:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



D58413/458414

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81959 Inst ID: 11 Analysis Date: 05/16/19 Analyst: TF

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123656	1	F Cl NO2 Br (NO3) PO4 SO4	MS/D	confirm per Thu
☐	121440	1	F Cl NO2 Br (NO3) PO4 SO4	(MS/D) 4	confirm per Connie
☐	123855	6	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123853	6	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 3	
☐	123862	4	F Cl (NO2) Br (NO3) PO4 SO4	(MS/D) 1	client
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123855	2	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123855	1,4	F Cl NO2 Br NO3 PO4 SO4	5x	Higher
123855	5,6	F Cl NO2 Br NO3 PO4 SO4	5x	Higher
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

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IC Instrument Information

WL: 81959 Inst ID: 11 Analysis Date: 05/16/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123656	1	F Cl NO2 Br (NO3) PO4 SO4	MS/D	confirm per Thu
☐	121440	1	F Cl NO2 Br (NO3) PO4 SO4	(MS/D) 4	confirm per Commie
☐	123855	6	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123853	6	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 3	
☐	123862	4	F Cl (NO2) Br (NO3) PO4 SO4	(MS/D) 1	client
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123855	2	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123855	1,4	F Cl NO2 Br NO3 PO4 SO4	5x	high
123855	5,4	F Cl NO2 Br NO3 PO4 SO4	5x	high
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

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TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuringa
5/21/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	16-May-2019 15:58:09

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2019 13:45:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37281238	5.00	4.98	
2 Chloride	3.242	3.242	0.000	636604564	100.0	95.3	
3 Nitrite as N	3.875	3.892	-0.017	51312081	NC	NC	
4 Bromide	4.617	4.634	-0.017	10081759	5.00	5.21	
5 Nitrate as N	5.175	5.200	-0.025	57284731	NC	NC	
7 Orthophosphate as P	5.634	5.659	-0.025	20851269	NC	NC	
6 Sulfate	6.434	6.434	0.000	417305468	100.0	93.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

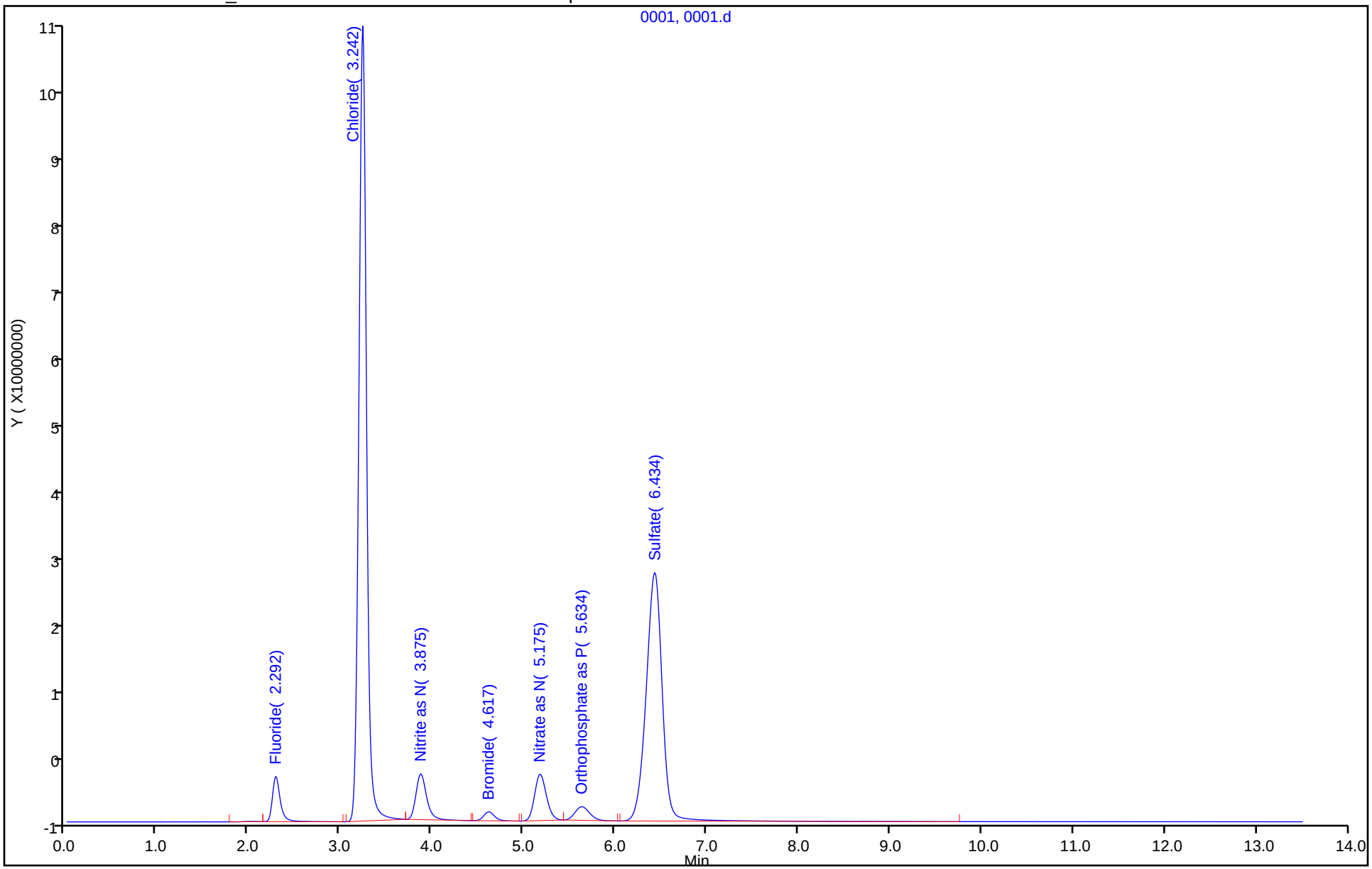
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0001.d

Injection Date:	16-May-2019 13:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 16-May-2019 14:00:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.676	2.292	0.384	4362496		NC	
2 Chloride	3.234	3.242	-0.008	2959174		NC	
3 Nitrite as N	4.009	3.892	0.117	548671		0.0775	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P		5.659				ND	
6 Sulfate		6.434				ND	

QC Flag Legend

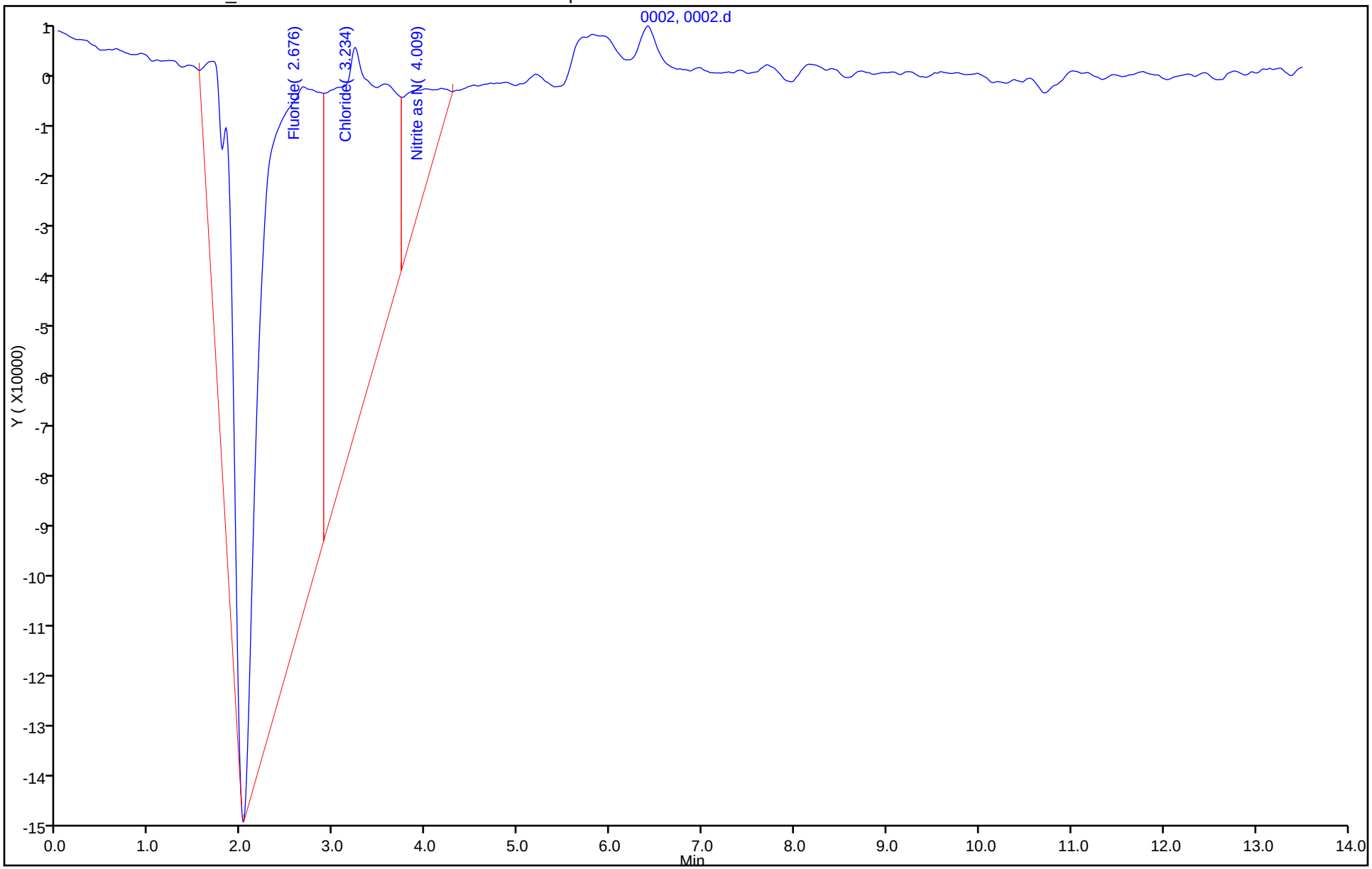
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0002.d

Injection Date:	16-May-2019 14:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/12/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 16-May-2019 14:00:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.676	2.292	0.384	4362496		0.4468	
2 Chloride	3.234	3.242	-0.008	2959174		1.06	
3 Nitrite as N	4.009	3.892	0.117	548671		NC	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P		5.659				ND	
6 Sulfate		6.434				ND	

QC Flag Legend

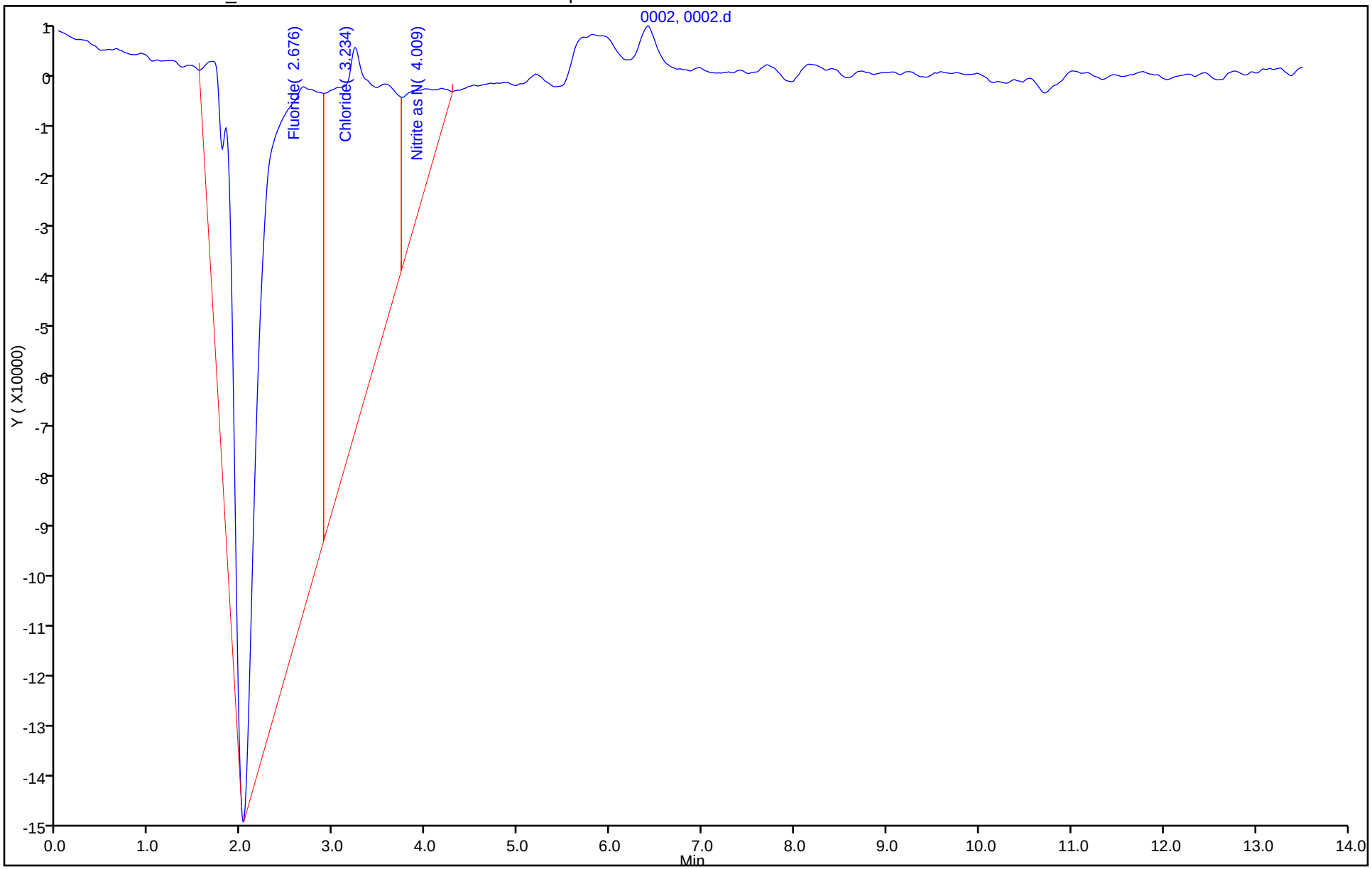
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:47 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0002.d

Injection Date:	16-May-2019 14:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 16-May-2019 14:17:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 15:19:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2222979	NC	NC	M
2 Chloride	3.234	3.242	-0.008	11496232	NC	NC	M
3 Nitrite as N	3.875	3.892	-0.017	1976935	0.2000	0.2136	
4 Bromide	4.625	4.634	-0.009	395349	NC	NC	
5 Nitrate as N	5.200	5.200	0.000	2206937	0.2000	0.2282	
7 Orthophosphate as P	5.650	5.659	-0.009	880301	0.2000	0.2047	
6 Sulfate	6.392	6.434	-0.042	8641162	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

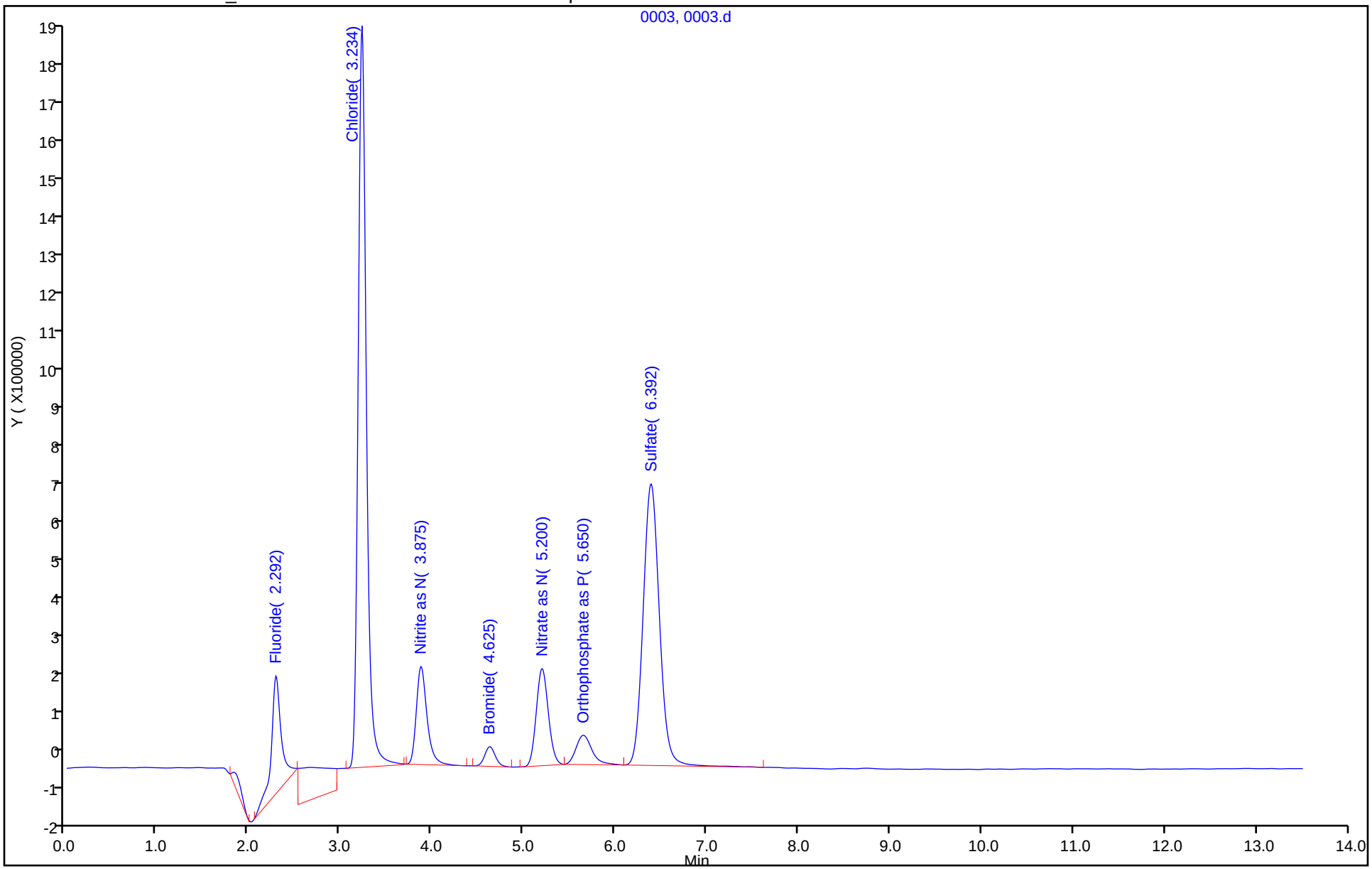
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 23:40:47 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d

Injection Date:	16-May-2019 14:17:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 16-May-2019 14:17:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 15:19:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2222979	0.2000	0.1518	M
2 Chloride	3.234	3.242	-0.008	11496232	2.50	2.33	M
3 Nitrite as N	3.875	3.892	-0.017	1976935	NC	NC	
4 Bromide	4.625	4.634	-0.009	395349	0.2000	0.2115	
5 Nitrate as N	5.200	5.200	0.000	2206937	NC	NC	
7 Orthophosphate as P	5.650	5.659	-0.009	880301	NC	NC	
6 Sulfate	6.392	6.434	-0.042	8641162	2.50	2.37	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

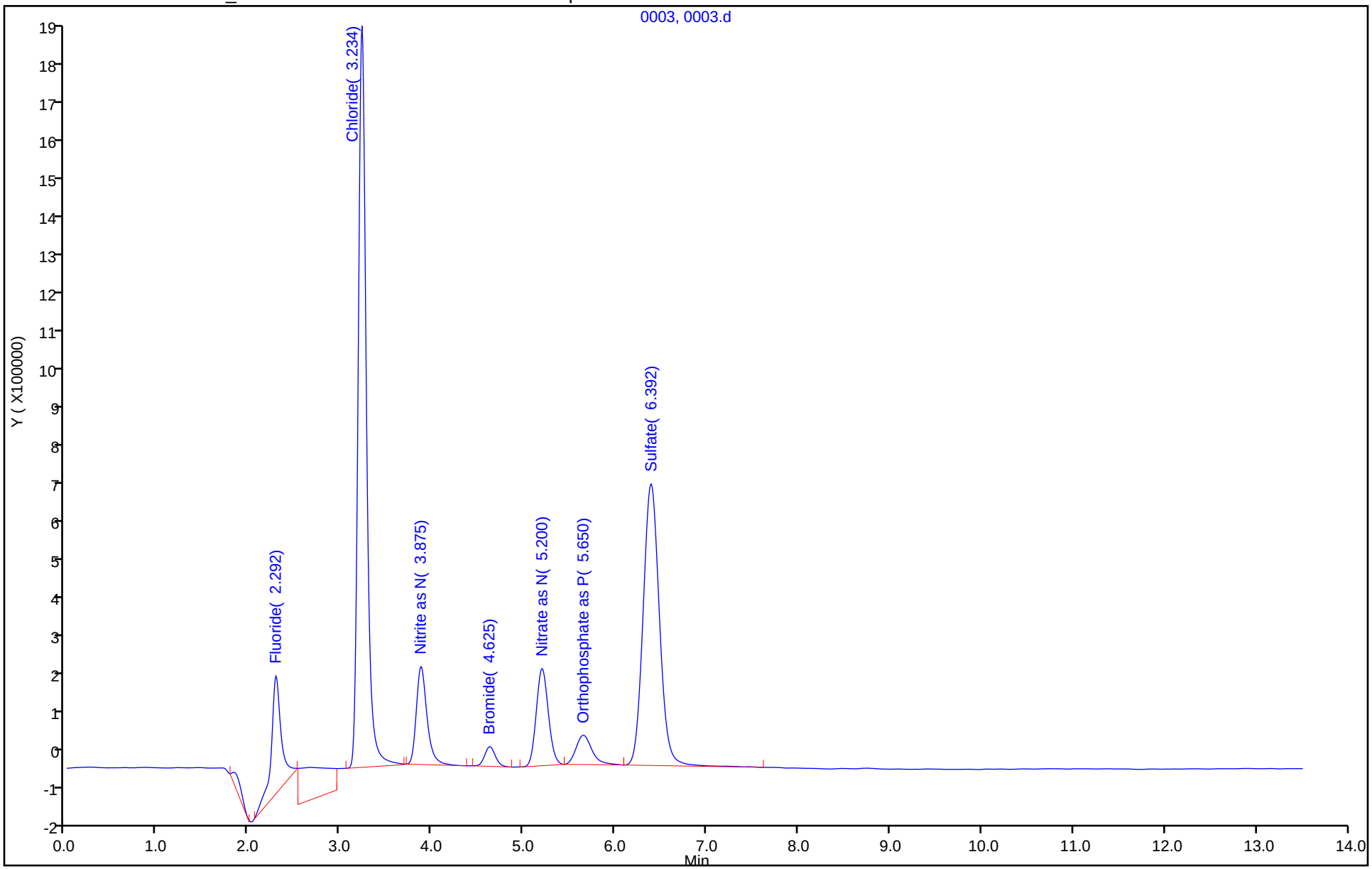
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 23:40:47 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d

Injection Date:	16-May-2019 14:17:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

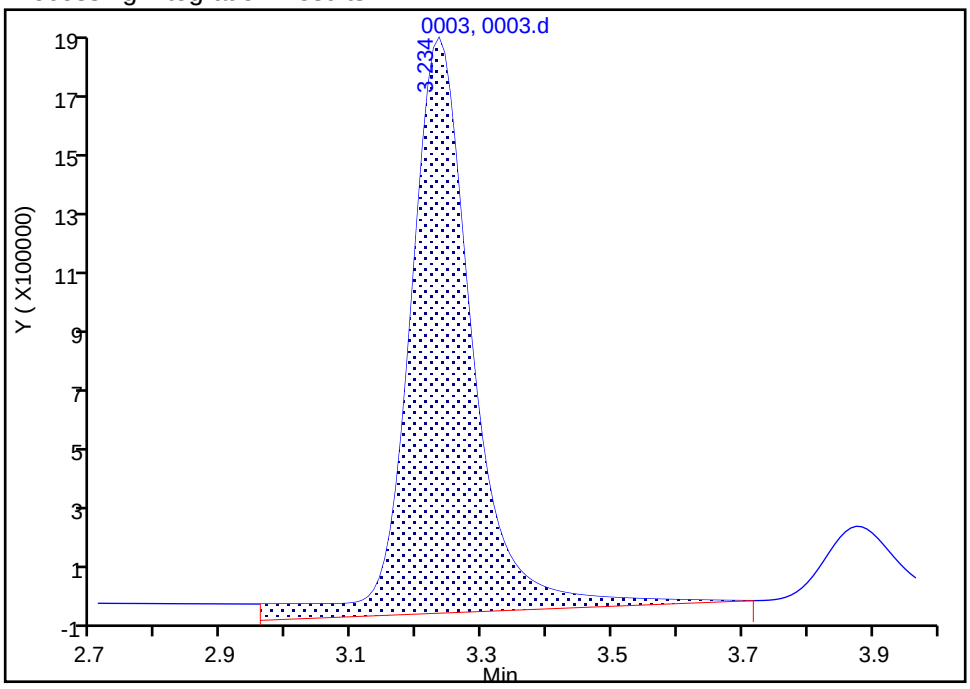
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d
Injection Date: 16-May-2019 14:17:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

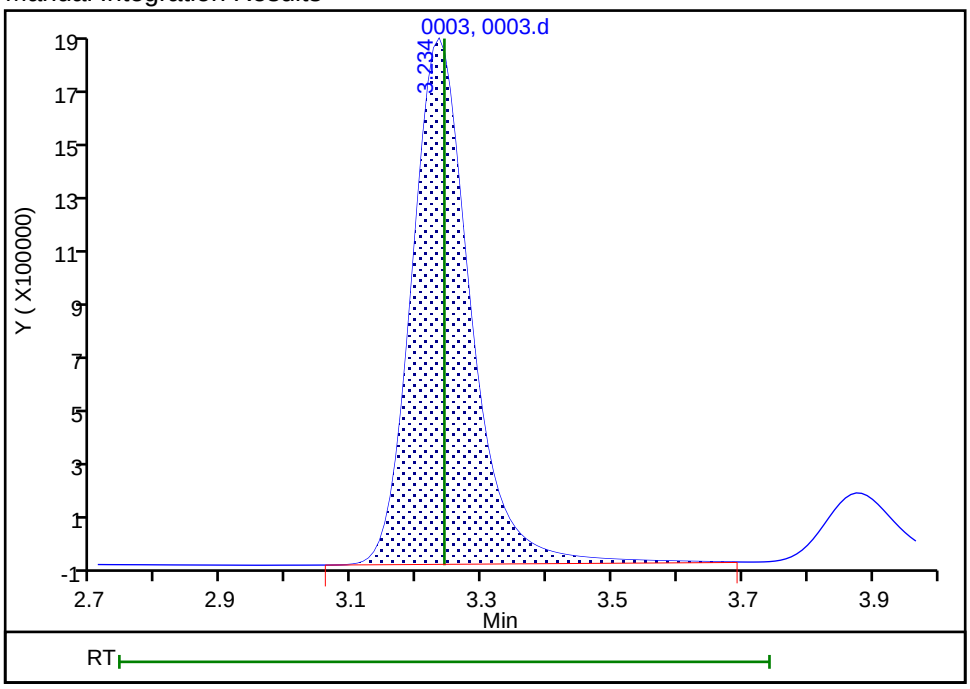
Processing Integration Results

RT: 3.23
Area: 12662610
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 11496232
Amount: 2.326895
Amount Units: ug/ml



Reviewer: phantl, 16-May-2019 15:18:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

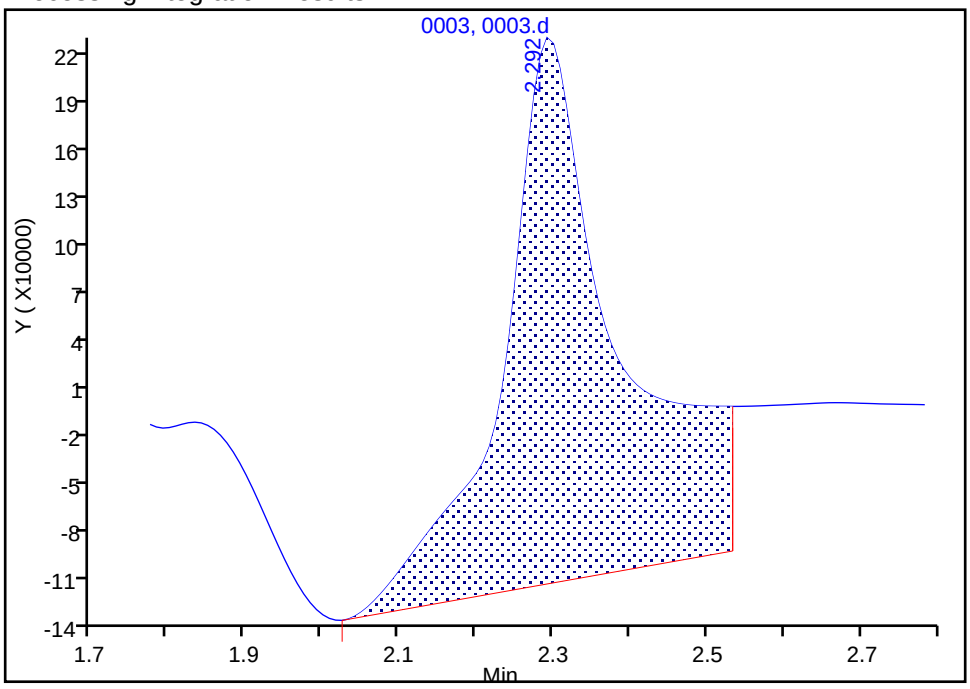
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d
Injection Date: 16-May-2019 14:17:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

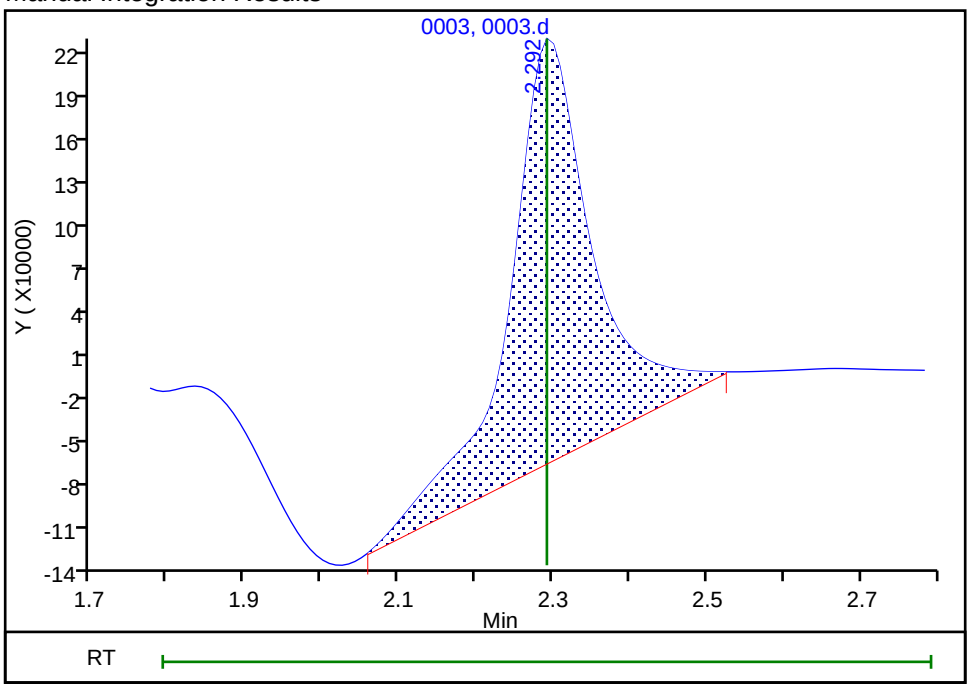
Processing Integration Results

RT: 2.29
Area: 3582076
Amount: 0.339196
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2222979
Amount: 0.151849
Amount Units: ug/ml



Reviewer: phantl, 16-May-2019 15:17:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 16-May-2019 14:33:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-004
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37280012	NC	NC	
2 Chloride	3.242	3.242	0.000	637369500	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	51283920	5.00	4.91	
4 Bromide	4.626	4.634	-0.008	10087842	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	57084913	5.00	4.95	
7 Orthophosphate as P	5.634	5.659	-0.025	20846450	5.00	5.02	
6 Sulfate	6.434	6.434	0.000	416771912	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

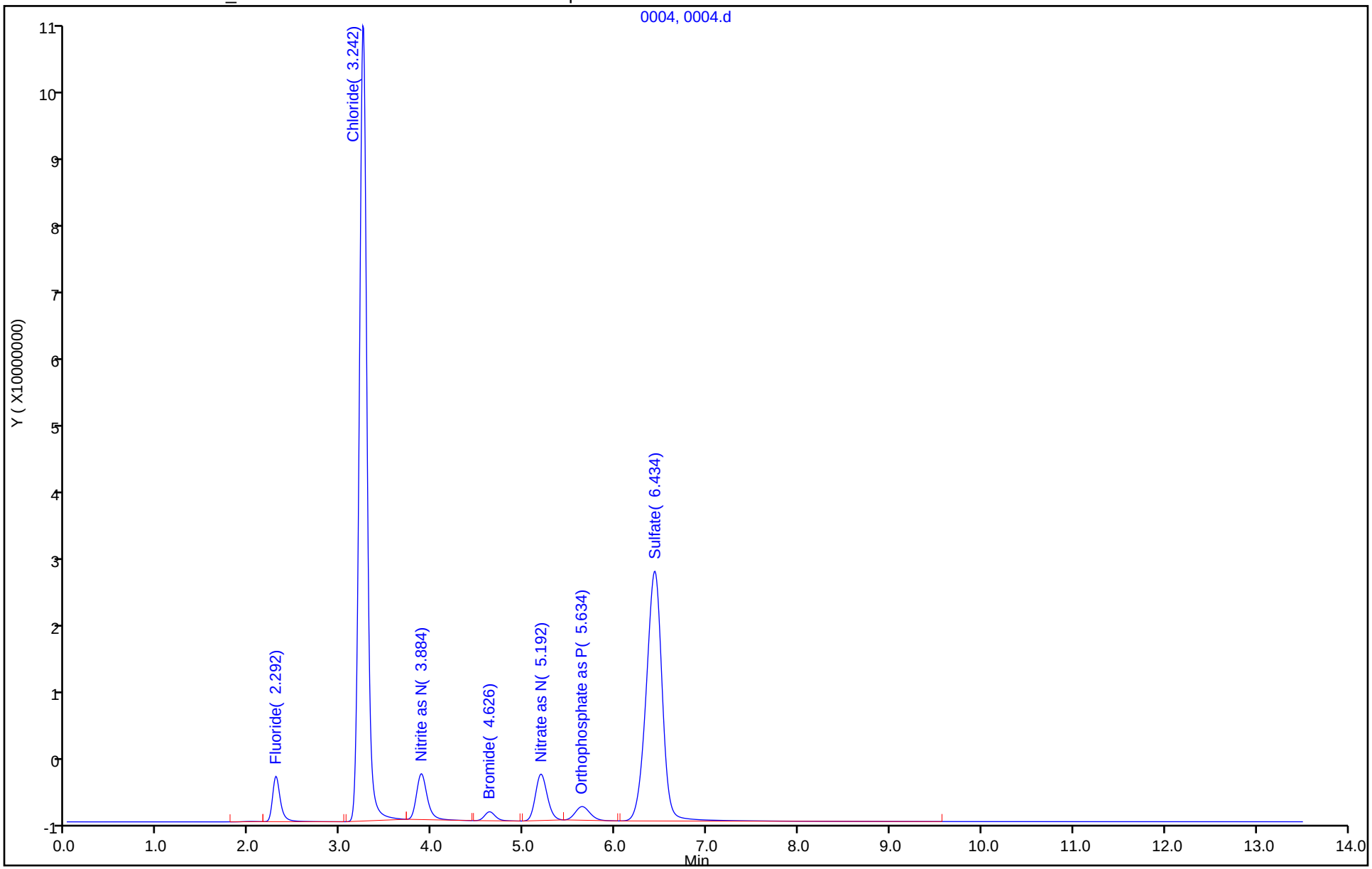
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0004.d

Injection Date:	16-May-2019 14:33:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 16-May-2019 14:33:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-004
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37280012	5.00	4.98	
2 Chloride	3.242	3.242	0.000	637369500	100.0	95.4	
3 Nitrite as N	3.884	3.892	-0.008	51283920	NC	NC	
4 Bromide	4.626	4.634	-0.008	10087842	5.00	5.21	
5 Nitrate as N	5.192	5.200	-0.008	57084913	NC	NC	
7 Orthophosphate as P	5.634	5.659	-0.025	20846450	NC	NC	
6 Sulfate	6.434	6.434	0.000	416771912	100.0	93.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

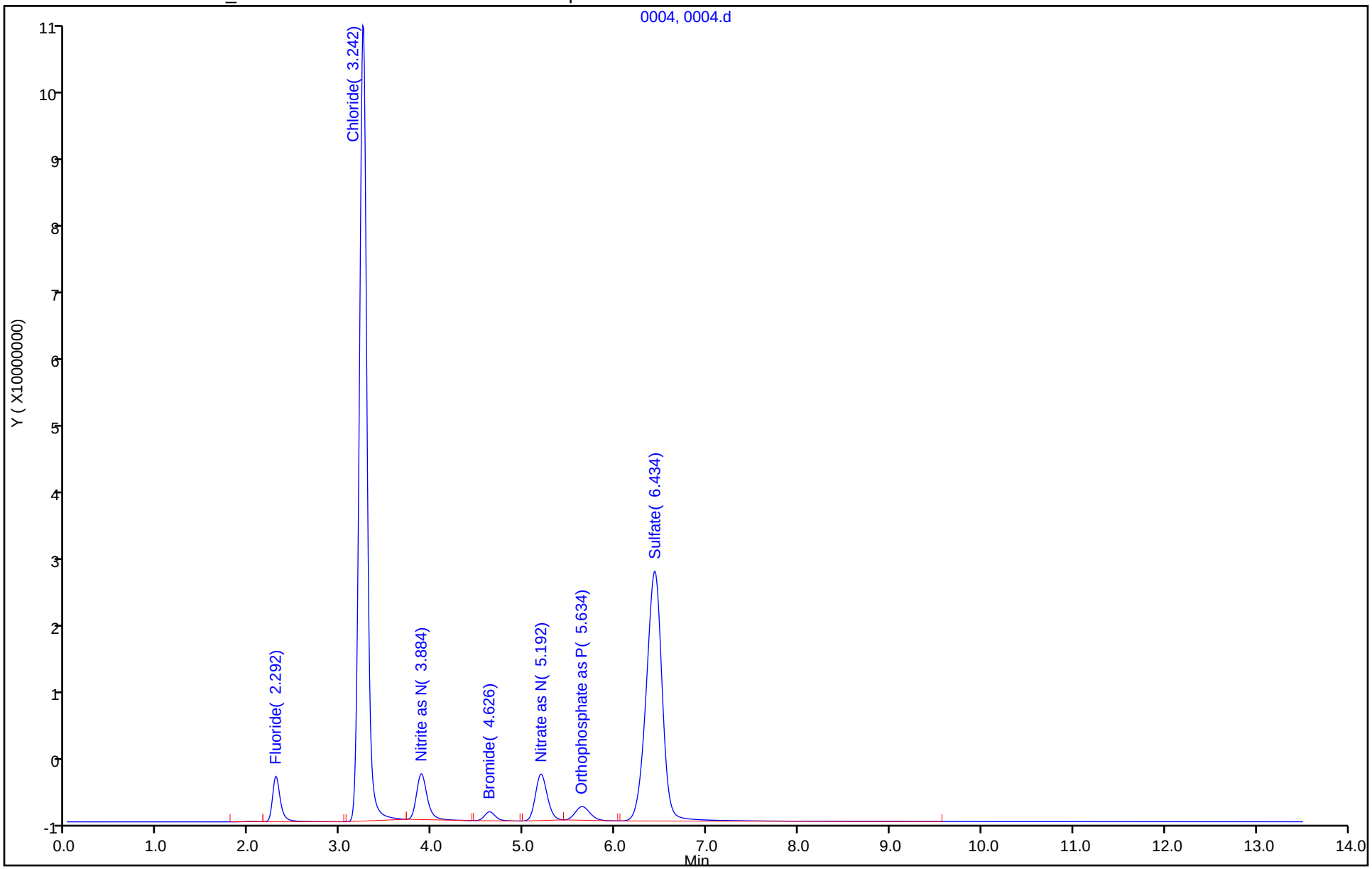
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0004.d

Injection Date:	16-May-2019 14:33:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 16-May-2019 14:50:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-005
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37337520	NC	NC	
2 Chloride	3.251	3.242	0.009	639250751	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	51437540	5.00	4.93	
4 Bromide	4.626	4.634	-0.008	10082489	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	57146865	5.00	4.96	
7 Orthophosphate as P	5.642	5.659	-0.017	20898063	5.00	5.04	
6 Sulfate	6.434	6.434	0.000	416474091	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

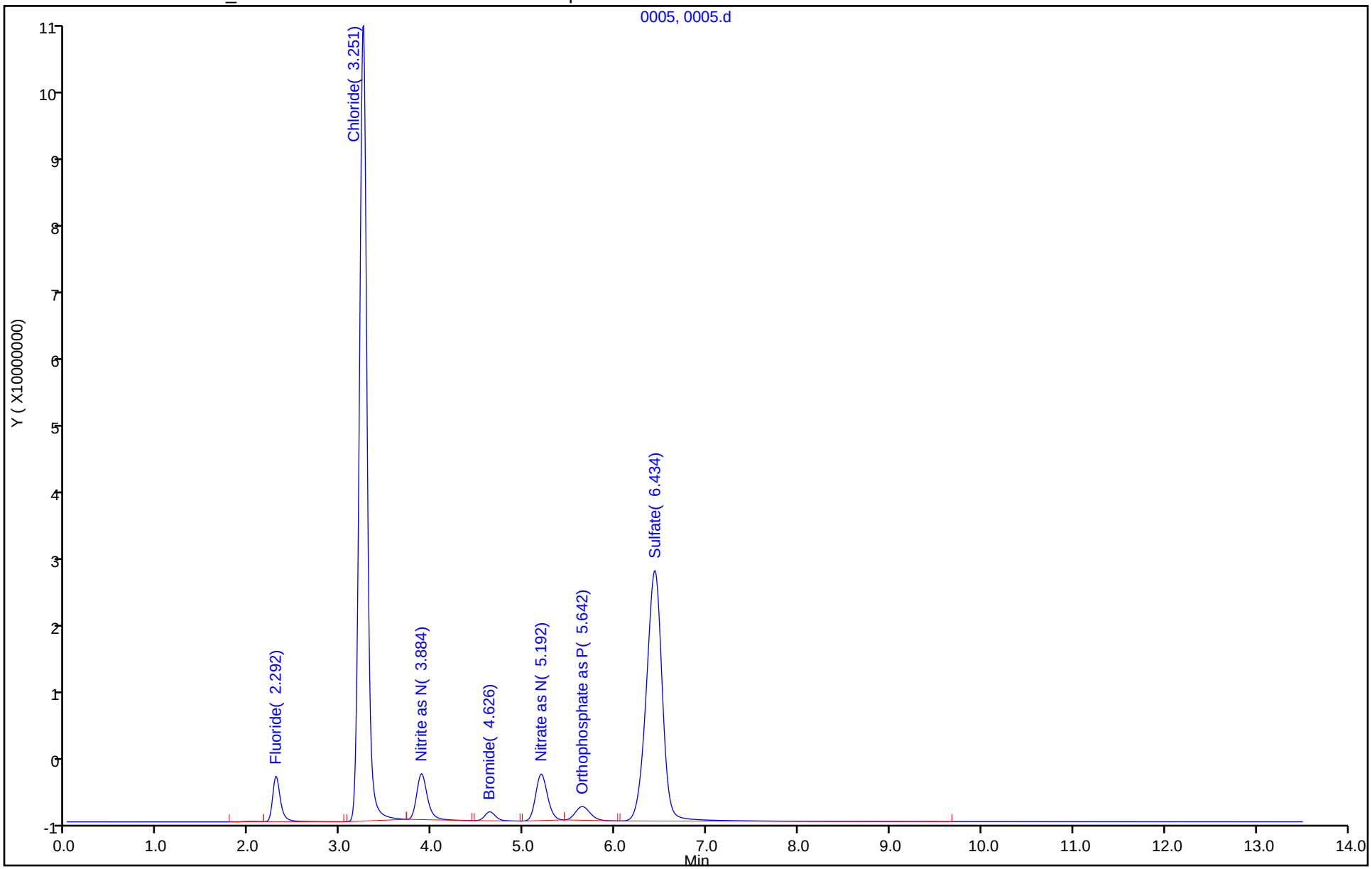
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0005.d

Injection Date:	16-May-2019 14:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 16-May-2019 14:50:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-005
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37337520	5.00	4.99	
2 Chloride	3.251	3.242	0.009	639250751	100.0	95.7	
3 Nitrite as N	3.884	3.892	-0.008	51437540	NC	NC	
4 Bromide	4.626	4.634	-0.008	10082489	5.00	5.21	
5 Nitrate as N	5.192	5.200	-0.008	57146865	NC	NC	
7 Orthophosphate as P	5.642	5.659	-0.017	20898063	NC	NC	
6 Sulfate	6.434	6.434	0.000	416474091	100.0	93.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

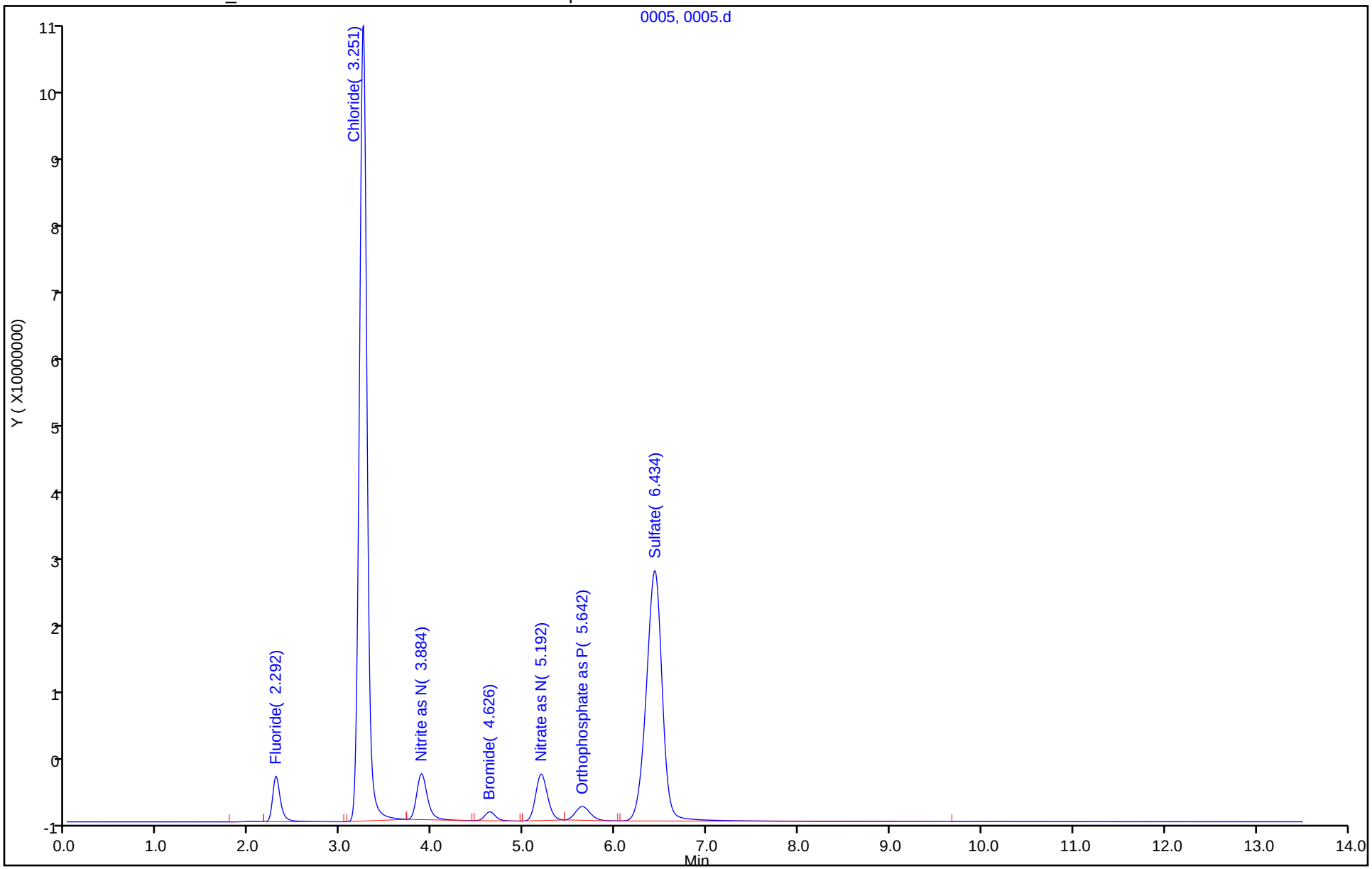
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0005.d

Injection Date:	16-May-2019 14:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 16-May-2019 15:06:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-006
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.659	2.292	0.367	3940147		NC	
2 Chloride	3.234	3.242	-0.008	726180		NC	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.934	5.659	0.275	331992		0.0723	
6 Sulfate	6.409	6.434	-0.025	190834		NC	

QC Flag Legend

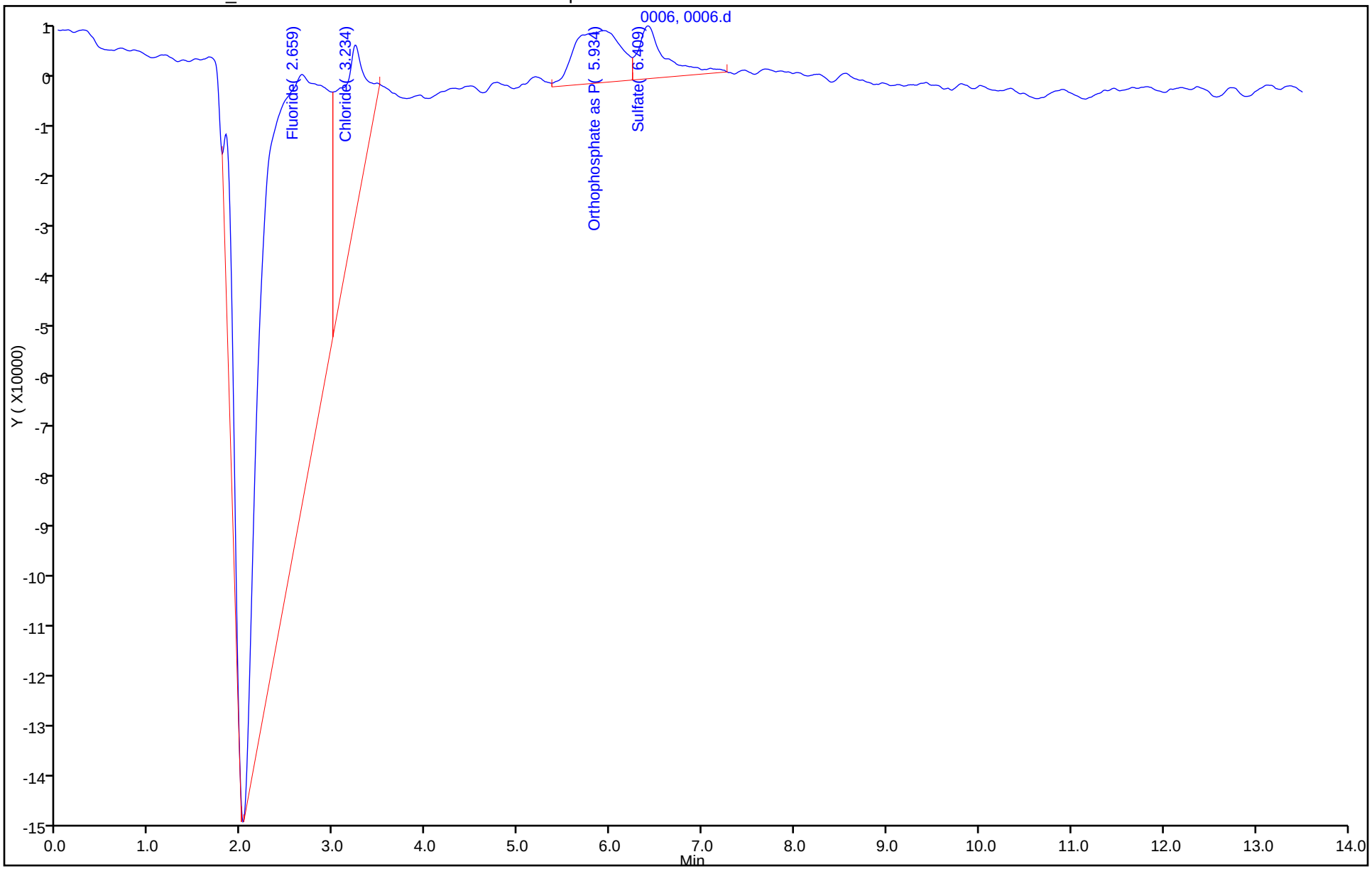
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0006.d

Injection Date:	16-May-2019 15:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 16-May-2019 15:06:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-006
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.659	2.292	0.367	3940147		0.3886	
2 Chloride	3.234	3.242	-0.008	726180		0.7252	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.934	5.659	0.275	331992		NC	
6 Sulfate	6.409	6.434	-0.025	190834		0.4800	

QC Flag Legend

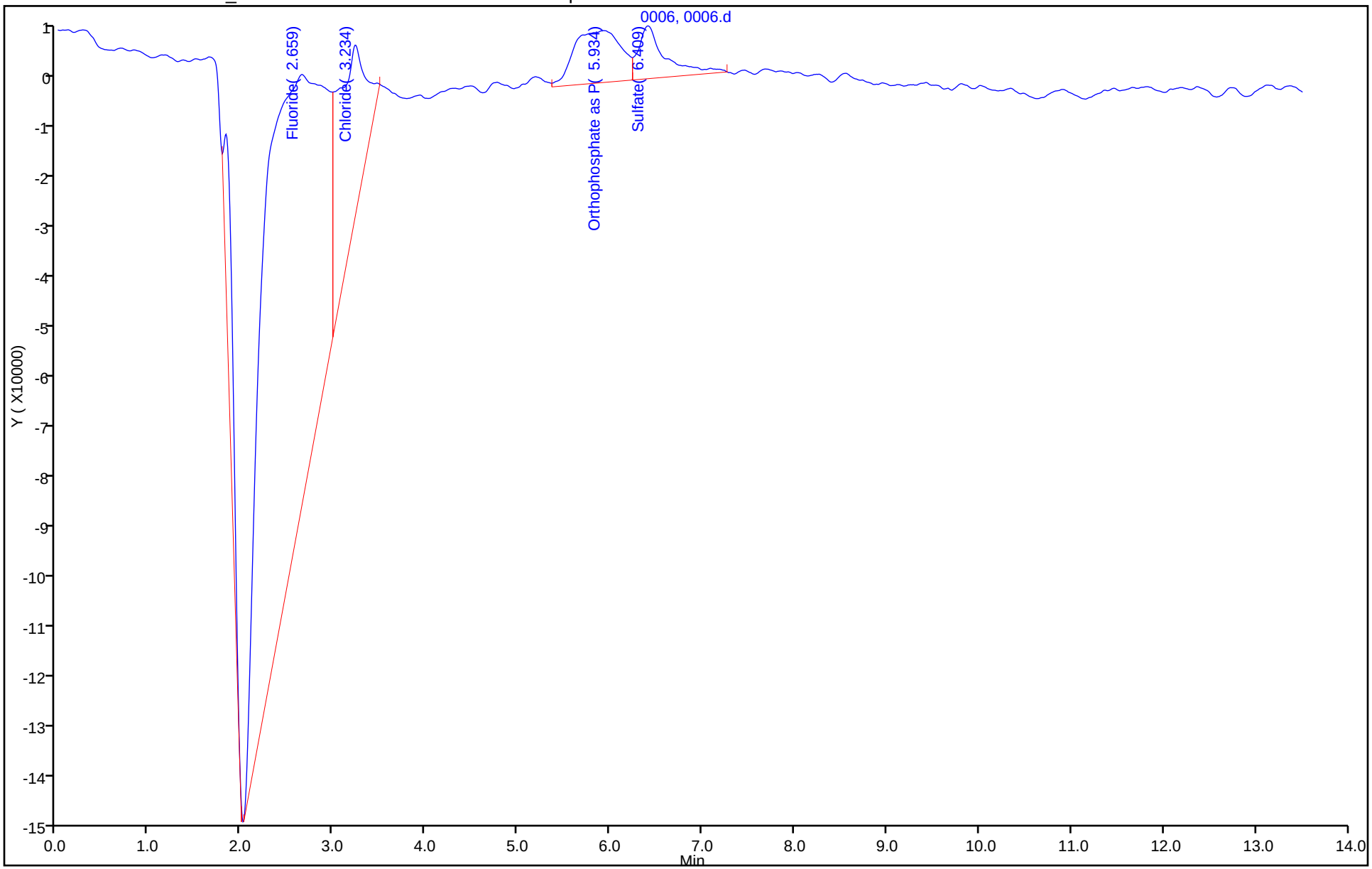
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0006.d

Injection Date:	16-May-2019 15:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0012.d
Lims ID: 280-123855-I-1
Client ID: LF5MW-1A_0519
Sample Type: Client
Inject. Date: 16-May-2019 17:09:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-012
Misc. Info.: 16490 960
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 20:09:18

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	512023	NC	
2 Chloride	3.259	3.242	0.017	1365118294	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.284	5.200	0.084	235573	0.0585	
7 Orthophosphate as P	5.709	5.659	0.050	4813234	1.15	
6 Sulfate	6.425	6.434	-0.009	39599824	NC	

QC Flag Legend

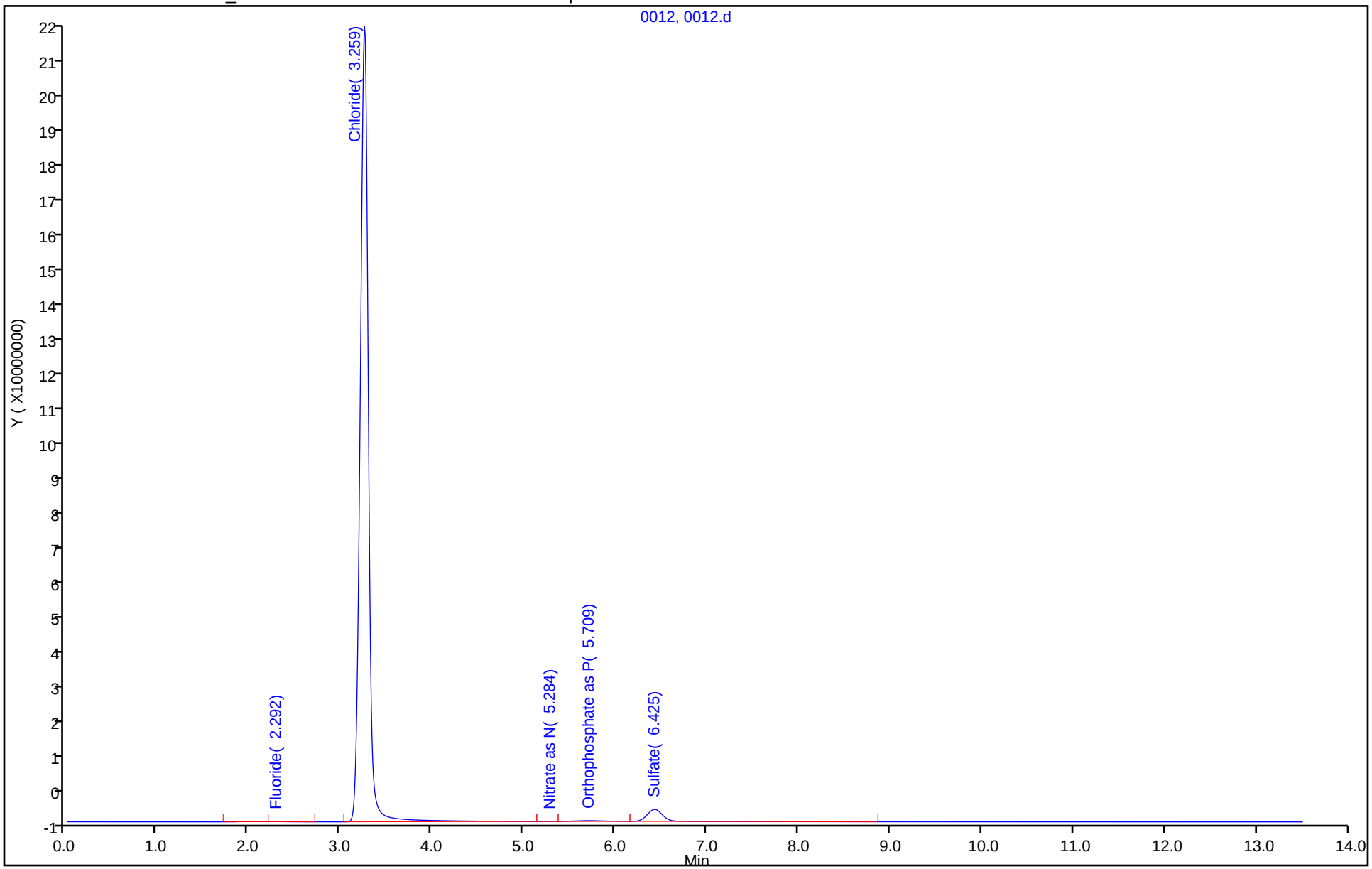
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:54 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0012.d

Injection Date:	16-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-I-1	Lab Sample ID:	280-123855-1	Worklist Smp#:	12
Client ID:	LF5MW-1A_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0012.d
Lims ID: 280-123855-I-1
Client ID: LF5MW-1A_0519
Sample Type: Client
Inject. Date: 16-May-2019 17:09:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-012
Misc. Info.: 16490 960
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 20:09:18

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	512023	-0.0840	
2 Chloride	3.259	3.242	0.017	1365118294	203.6	E
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.284	5.200	0.084	235573	NC	
7 Orthophosphate as P	5.709	5.659	0.050	4813234	NC	
6 Sulfate	6.425	6.434	-0.009	39599824	9.29	

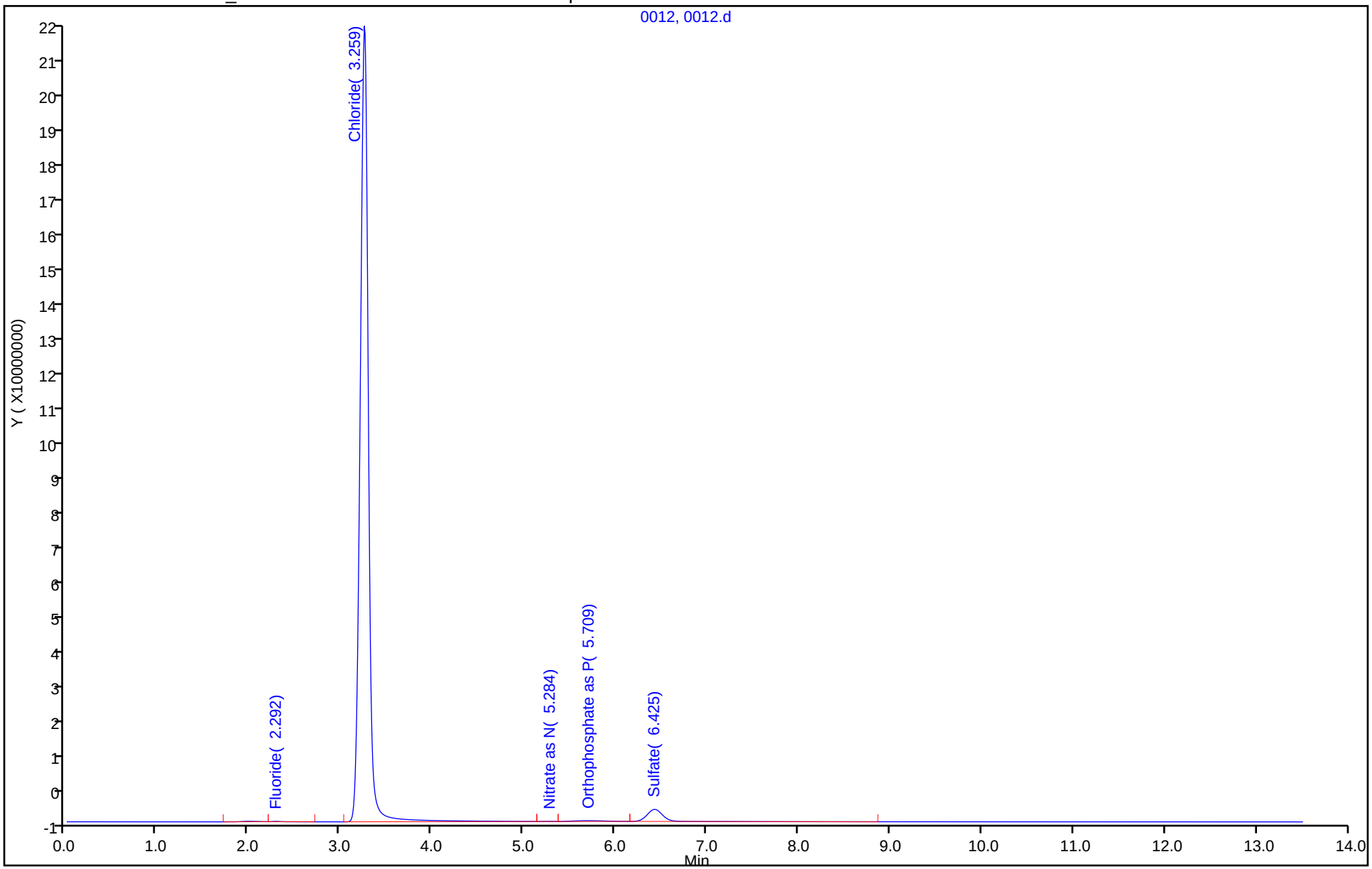
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 16-May-2019 23:40:54 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0012.d				
Injection Date:	16-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-I-1	Lab Sample ID:	280-123855-1	Worklist Smp#:	12
Client ID:	LF5MW-1A_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0013.d
Lims ID: 280-123855-J-2
Client ID: LF5MW-100R_0519
Sample Type: Client
Inject. Date: 16-May-2019 17:25:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0081959-013
Misc. Info.: 5411 7130
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 20:09:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	811353	NC	
2 Chloride	3.300	3.242	0.058	3737432034	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.617	4.634	-0.017	10082481	NC	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.692	5.659	0.033	507134	0.1146	
6 Sulfate	6.392	6.434	-0.042	3324936	NC	

QC Flag Legend

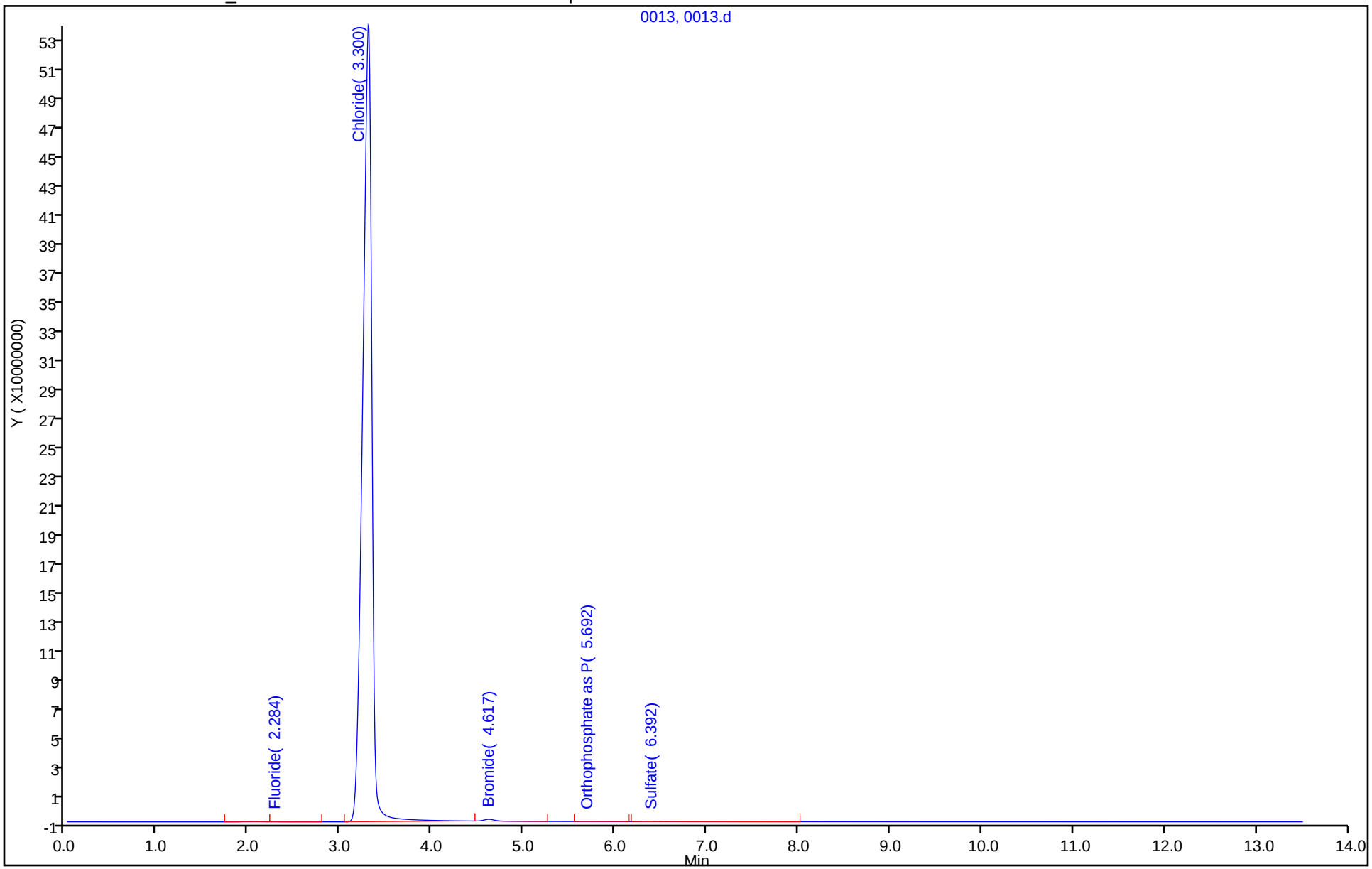
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0013.d

Injection Date:	16-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-2	Lab Sample ID:	280-123855-2	Worklist Smp#:	13
Client ID:	LF5MW-100R_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0013.d
Lims ID: 280-123855-J-2
Client ID: LF5MW-100R_0519
Sample Type: Client
Inject. Date: 16-May-2019 17:25:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0081959-013
Misc. Info.: 5411 7130
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 20:09:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	811353	-0.0427	
2 Chloride	3.300	3.242	0.058	3737432034	556.4	E
3 Nitrite as N		3.892			ND	
4 Bromide	4.617	4.634	-0.017	10082481	5.21	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.692	5.659	0.033	507134	NC	
6 Sulfate	6.392	6.434	-0.042	3324936	1.18	

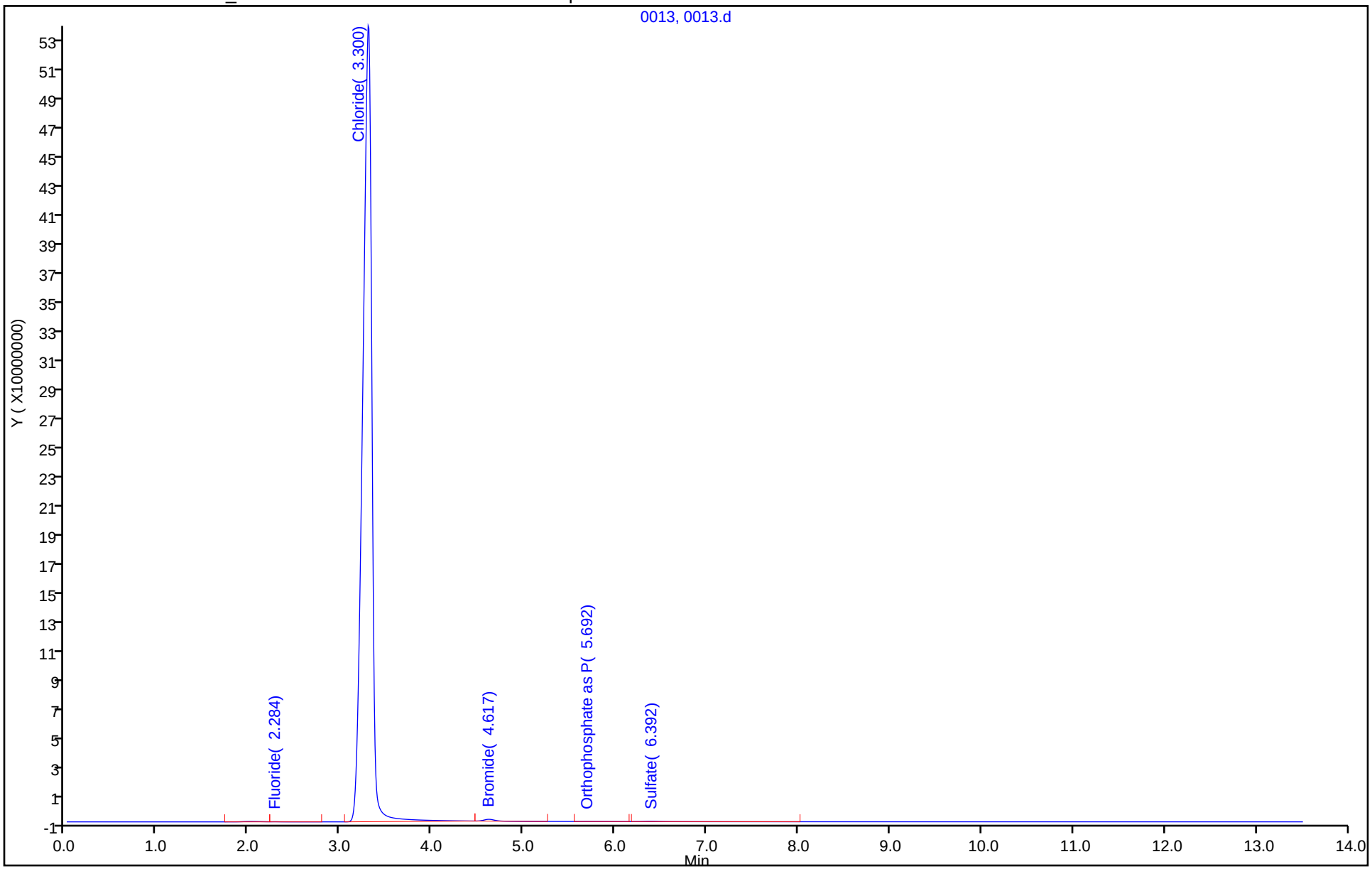
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 16-May-2019 23:40:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0013.d				
Injection Date:	16-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-2	Lab Sample ID:	280-123855-2	Worklist Smp#:	13
Client ID:	LF5MW-100R_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0014.d
Lims ID: 280-123855-J-2
Client ID: LF5MW-100R_0519
Sample Type: Client
Inject. Date: 16-May-2019 17:42:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 50.0000
Sample Info: 280-0081959-014
Misc. Info.: 18250
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.309	2.292	0.017	680056	-0.0608	
2 Chloride	3.234	3.242	-0.008	293818725	44.3	
3 Nitrite as N		3.892			ND	
4 Bromide	4.617	4.634	-0.017	973429	0.5097	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.659	5.659	0.000	107773	NC	
6 Sulfate	6.384	6.434	-0.050	282267	0.5004	

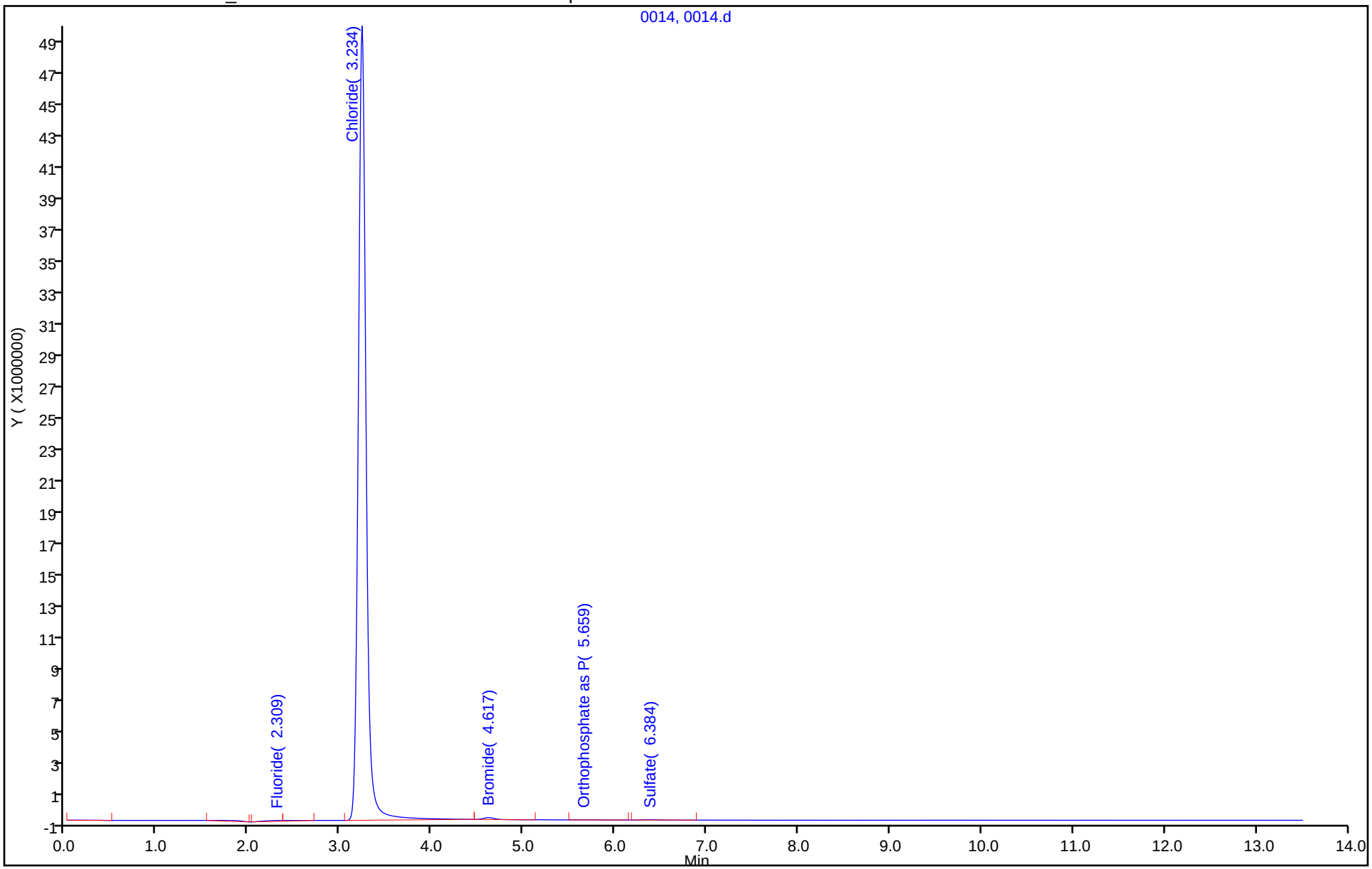
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0014.d				
Injection Date:	16-May-2019 17:42:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-2	Lab Sample ID:	280-123855-2	Worklist Smp#:	14
Client ID:	LF5MW-100R_0519				
Injection Vol:	10.0 ul	Dil. Factor:	50.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0015.d
Lims ID: 280-123855-J-3
Client ID: MW49D07_0519
Sample Type: Client
Inject. Date: 16-May-2019 17:58:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-015
Misc. Info.: 7886 700
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	233332	NC	
2 Chloride	3.234	3.242	-0.008	204345010	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.634	4.634	0.000	1422528	NC	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.634	5.659	-0.025	4110175	0.9844	
6 Sulfate	6.425	6.434	-0.009	38860212	NC	

QC Flag Legend

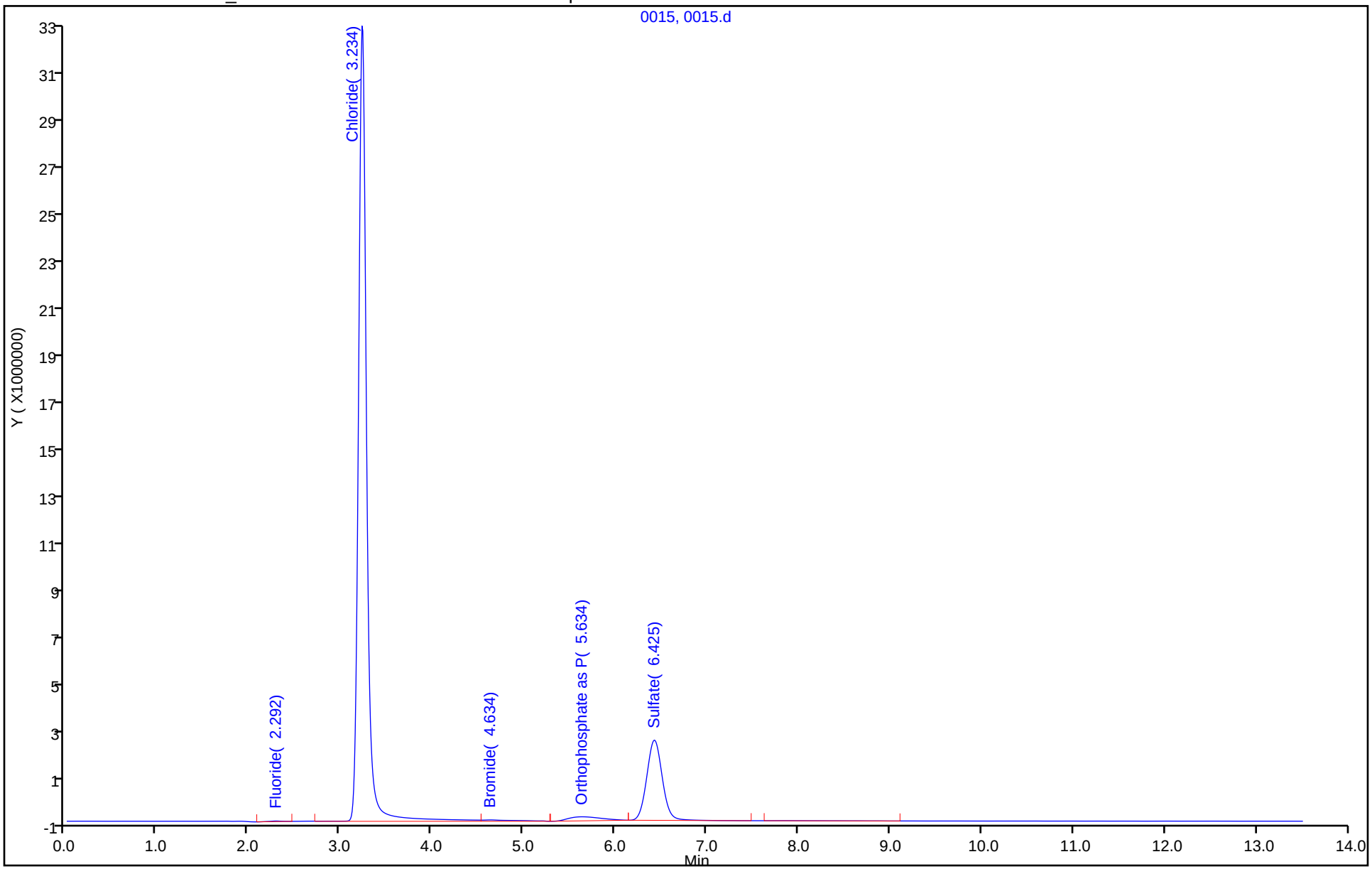
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0015.d

Injection Date:	16-May-2019 17:58:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-3	Lab Sample ID:	280-123855-3	Worklist Smp#:	15
Client ID:	MW49D07_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0015.d
Lims ID: 280-123855-J-3
Client ID: MW49D07_0519
Sample Type: Client
Inject. Date: 16-May-2019 17:58:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-015
Misc. Info.: 7886 700
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	233332	-0.1224	
2 Chloride	3.234	3.242	-0.008	204345010	31.0	
3 Nitrite as N		3.892			ND	
4 Bromide	4.634	4.634	0.000	1422528	0.7413	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.634	5.659	-0.025	4110175	NC	
6 Sulfate	6.425	6.434	-0.009	38860212	9.13	

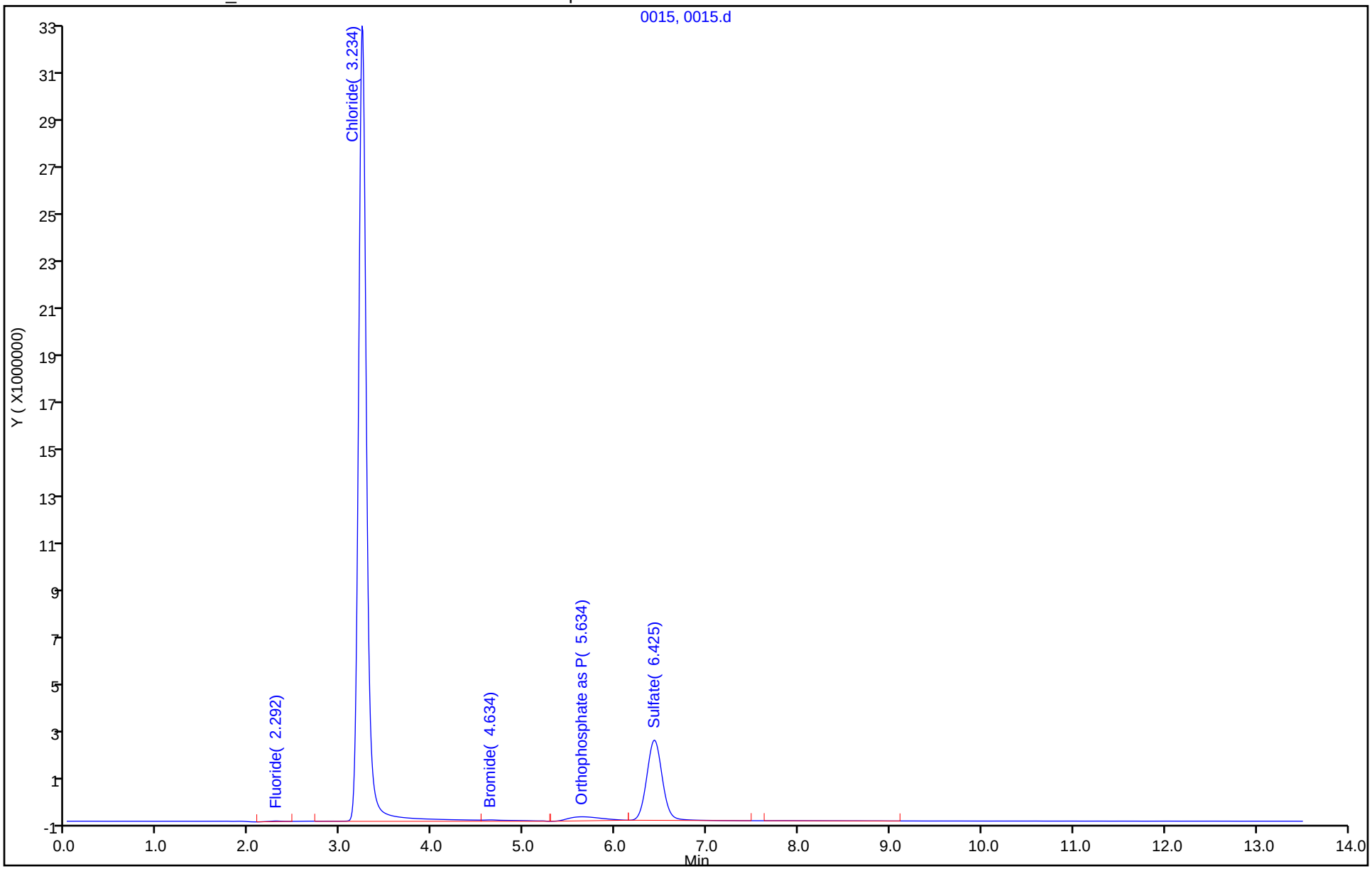
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0015.d				
Injection Date:	16-May-2019 17:58:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-3	Lab Sample ID:	280-123855-3	Worklist Smp#:	15
Client ID:	MW49D07_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0016.d
Lims ID: 280-123855-J-4
Client ID: LF5SW-1_0519
Sample Type: Client
Inject. Date: 16-May-2019 18:15:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-016
Misc. Info.: 4491 1395
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 20:10:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	272455	NC	
2 Chloride	3.275	3.242	0.033	2356961930	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.225	5.200	0.025	9936250	0.8938	
7 Orthophosphate as P	5.700	5.659	0.041	1702515	0.4032	
6 Sulfate	6.425	6.434	-0.009	110205541	NC	

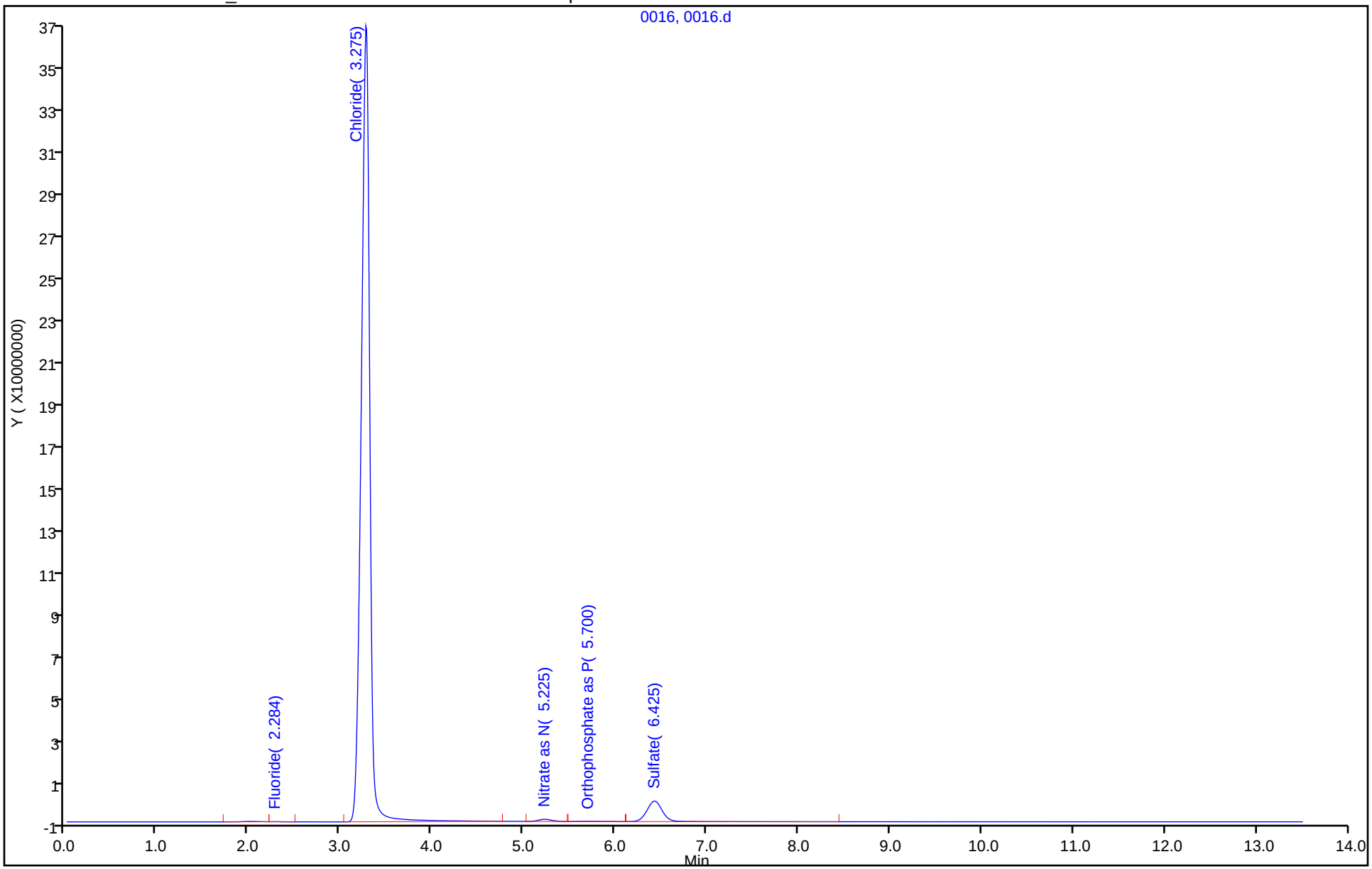
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0016.d				
Injection Date:	16-May-2019 18:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-4	Lab Sample ID:	280-123855-4	Worklist Smp#:	16
Client ID:	LF5SW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0016.d
Lims ID: 280-123855-J-4
Client ID: LF5SW-1_0519
Sample Type: Client
Inject. Date: 16-May-2019 18:15:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-016
Misc. Info.: 4491 1395
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 20:10:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	272455	-0.1170	
2 Chloride	3.275	3.242	0.033	2356961930	351.1	E
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.225	5.200	0.025	9936250	NC	
7 Orthophosphate as P	5.700	5.659	0.041	1702515	NC	
6 Sulfate	6.425	6.434	-0.009	110205541	25.1	

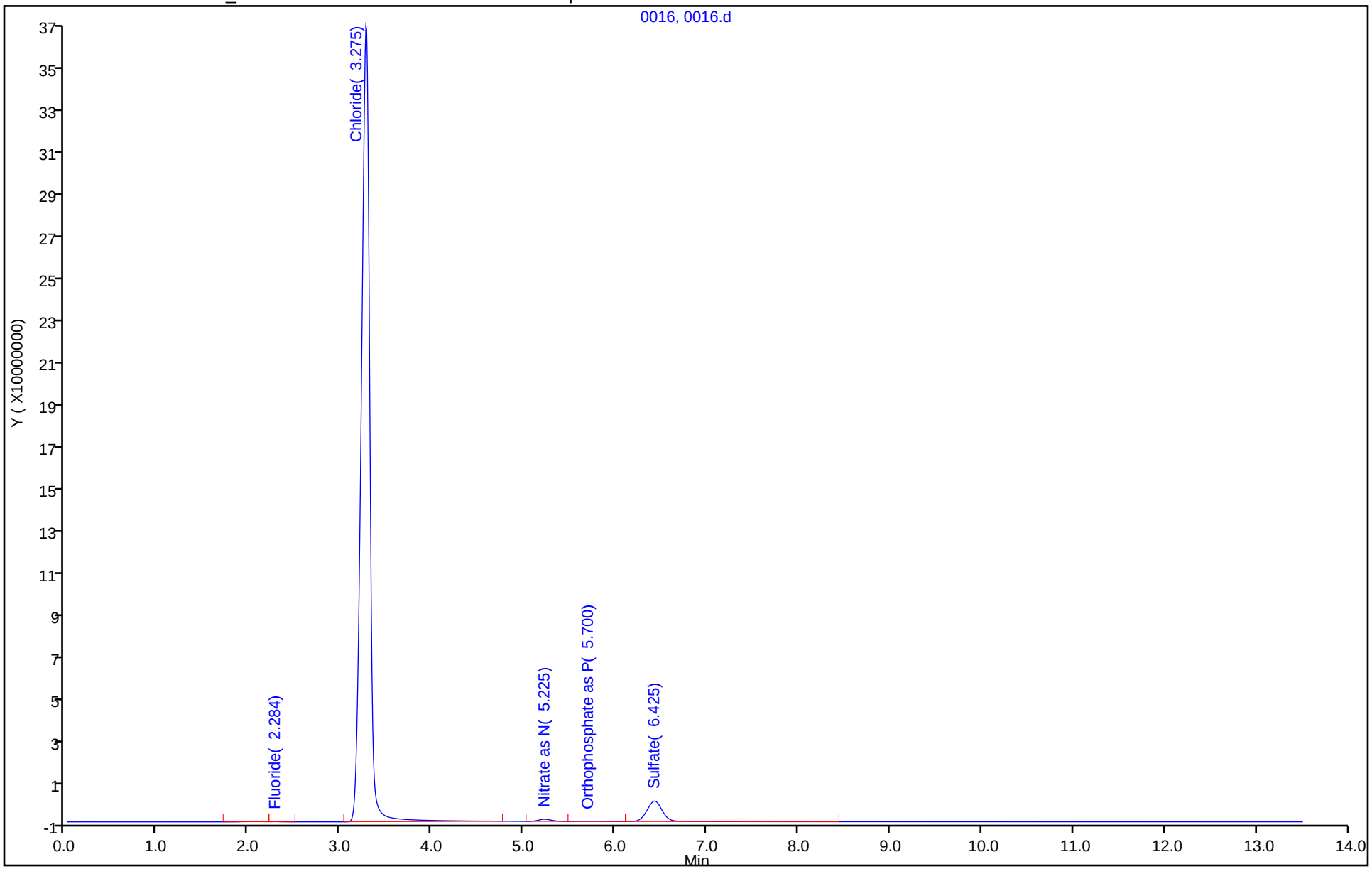
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 16-May-2019 23:40:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0016.d				
Injection Date:	16-May-2019 18:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-4	Lab Sample ID:	280-123855-4	Worklist Smp#:	16
Client ID:	LF5SW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0017.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	16-May-2019 18:31:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-017				
Misc. Info.:	17380				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 23:40:57	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0301				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37506151	NC	NC	
2 Chloride	3.242	3.242	0.000	638254625	NC	NC	
3 Nitrite as N	3.875	3.892	-0.017	51123044	5.00	4.90	
4 Bromide	4.617	4.634	-0.017	10081789	NC	NC	
5 Nitrate as N	5.175	5.200	-0.025	57371357	5.00	4.98	
7 Orthophosphate as P	5.634	5.659	-0.025	21571536	5.00	5.20	
6 Sulfate	6.425	6.434	-0.009	417672288	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

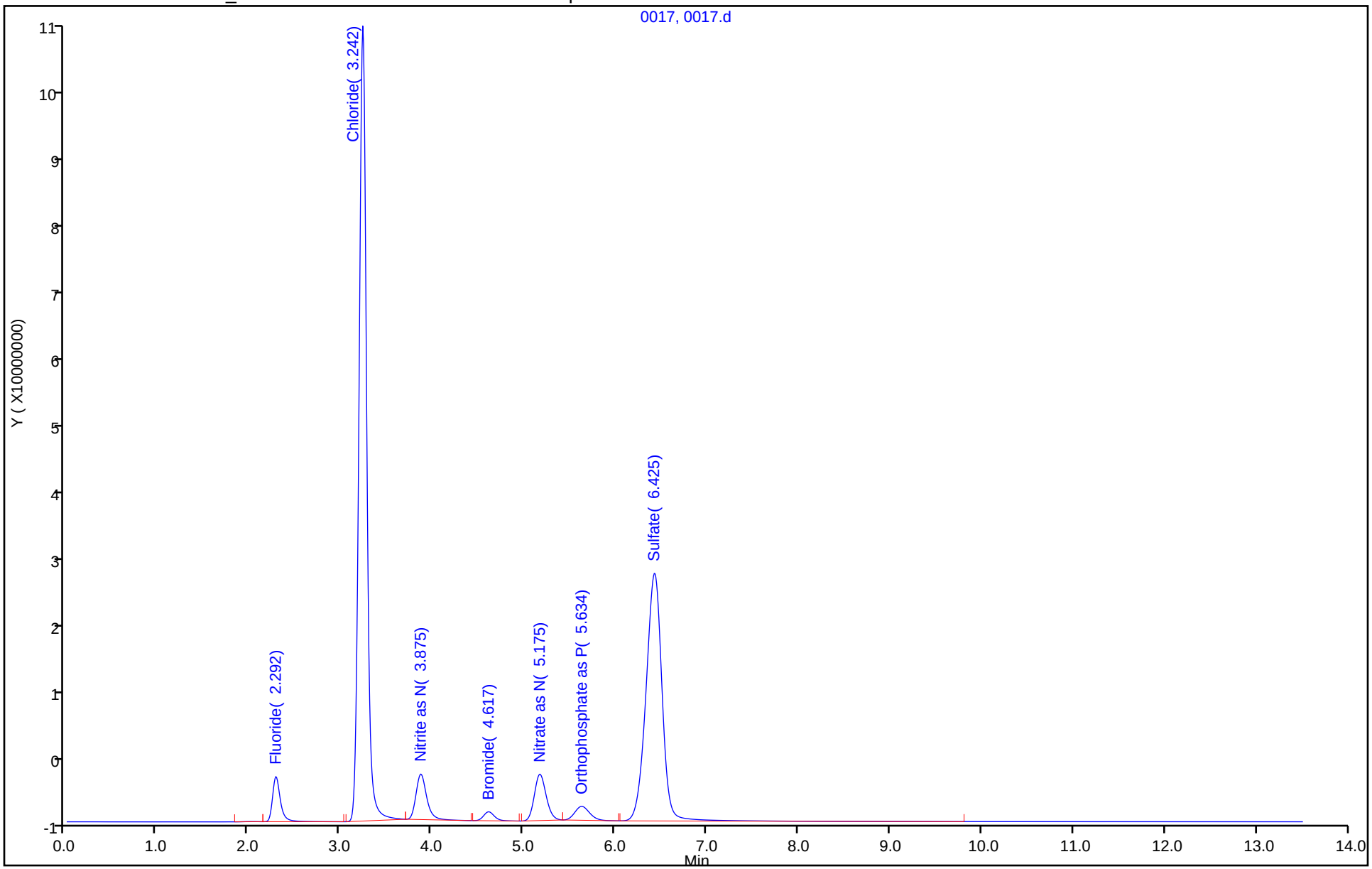
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0017.d

Injection Date:	16-May-2019 18:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2019 18:31:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-017
Misc. Info.: 17380
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37506151	5.00	5.02	
2 Chloride	3.242	3.242	0.000	638254625	100.0	95.5	
3 Nitrite as N	3.875	3.892	-0.017	51123044	NC	NC	
4 Bromide	4.617	4.634	-0.017	10081789	5.00	5.21	
5 Nitrate as N	5.175	5.200	-0.025	57371357	NC	NC	
7 Orthophosphate as P	5.634	5.659	-0.025	21571536	NC	NC	
6 Sulfate	6.425	6.434	-0.009	417672288	100.0	93.8	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

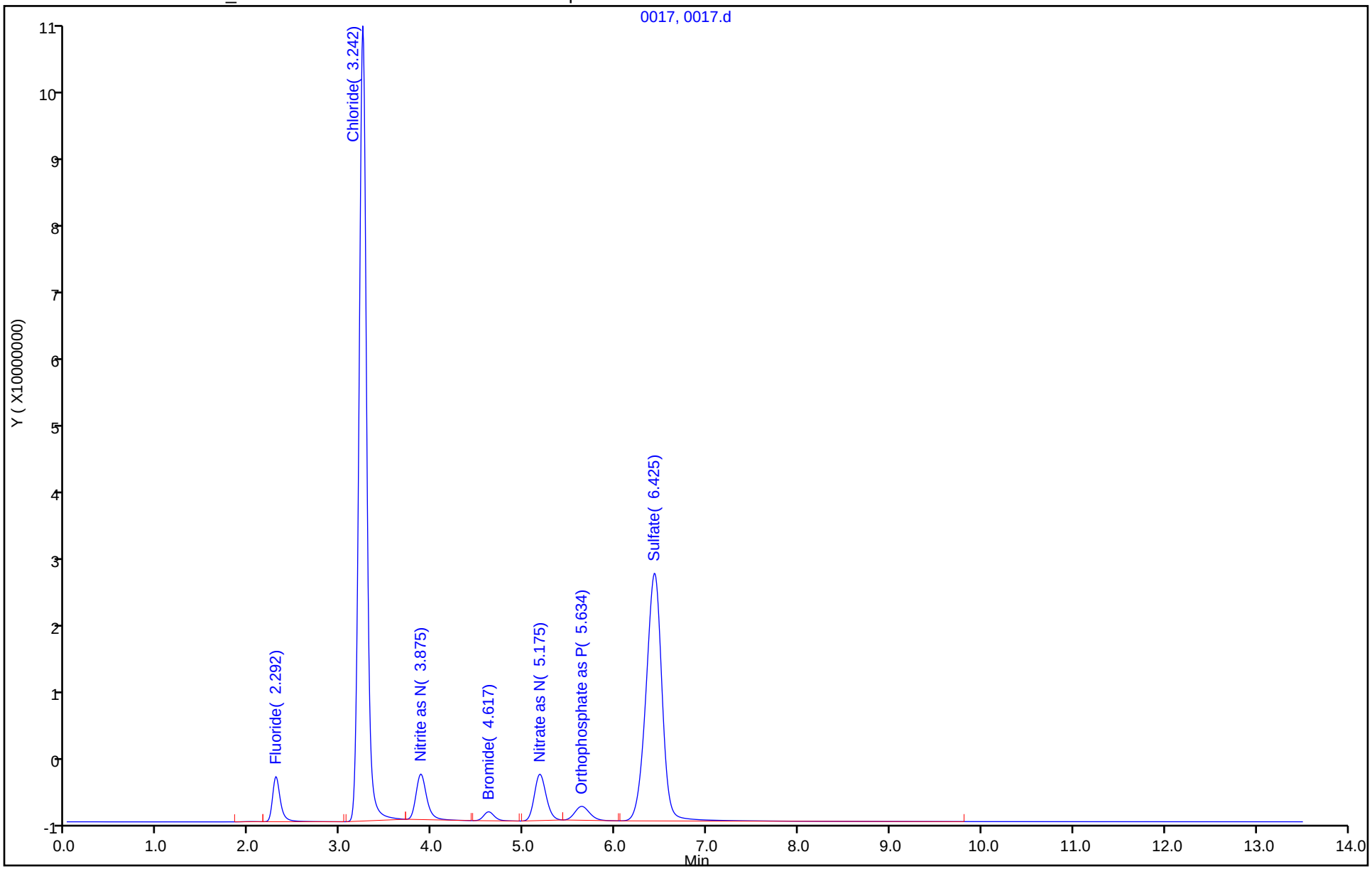
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0017.d

Injection Date:	16-May-2019 18:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 16-May-2019 18:47:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-018
Misc. Info.: 27098
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	4111585		NC	
2 Chloride	3.225	3.242	-0.017	103727		NC	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.750	5.659	0.091	454688		0.1019	
6 Sulfate	6.392	6.434	-0.042	125469		NC	

QC Flag Legend

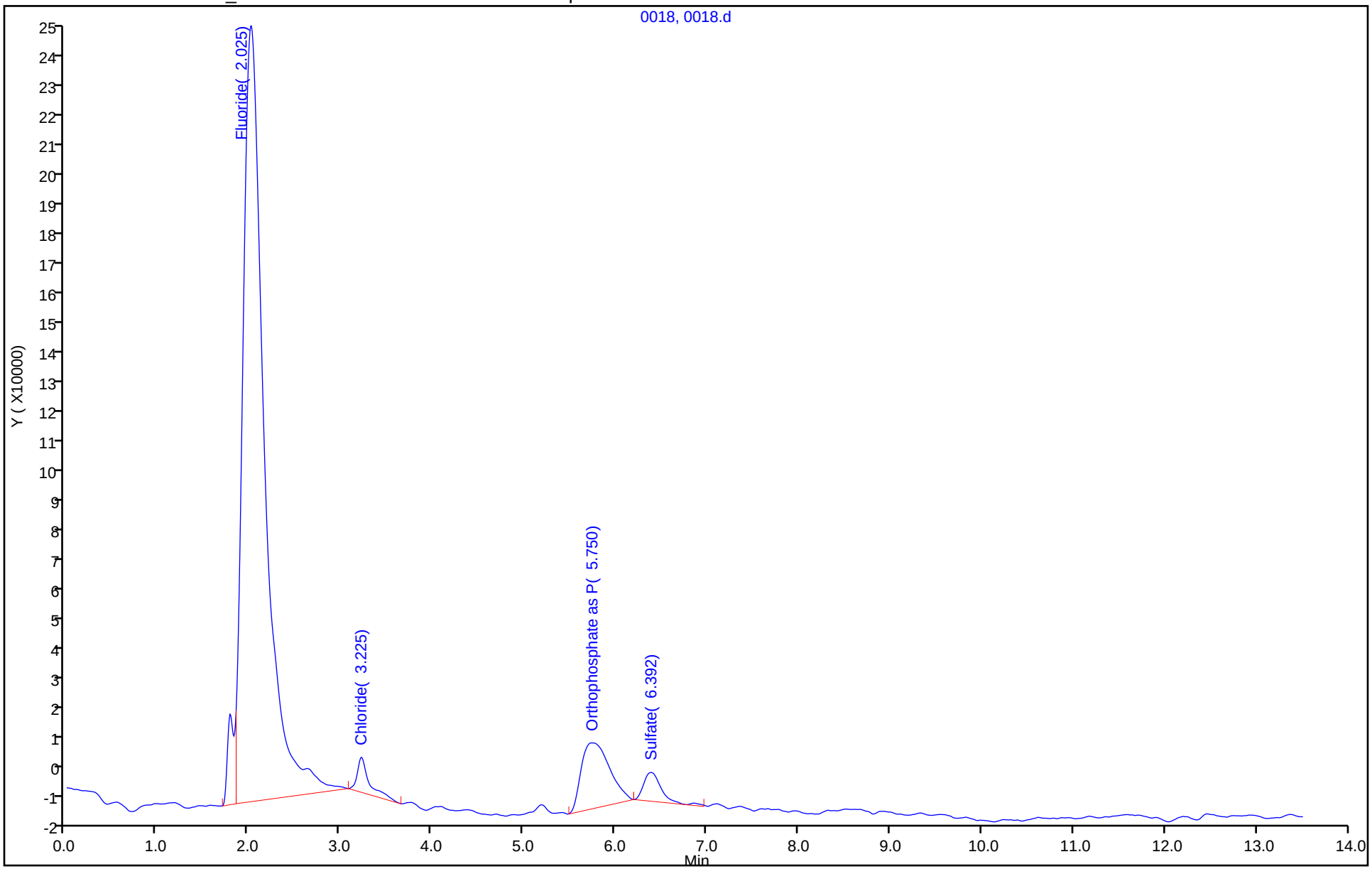
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0018.d

Injection Date:	16-May-2019 18:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 16-May-2019 18:47:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-018
Misc. Info.: 27098
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	4111585		0.4122	
2 Chloride	3.225	3.242	-0.017	103727		0.6326	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.750	5.659	0.091	454688		NC	
6 Sulfate	6.392	6.434	-0.042	125469		0.4653	

QC Flag Legend

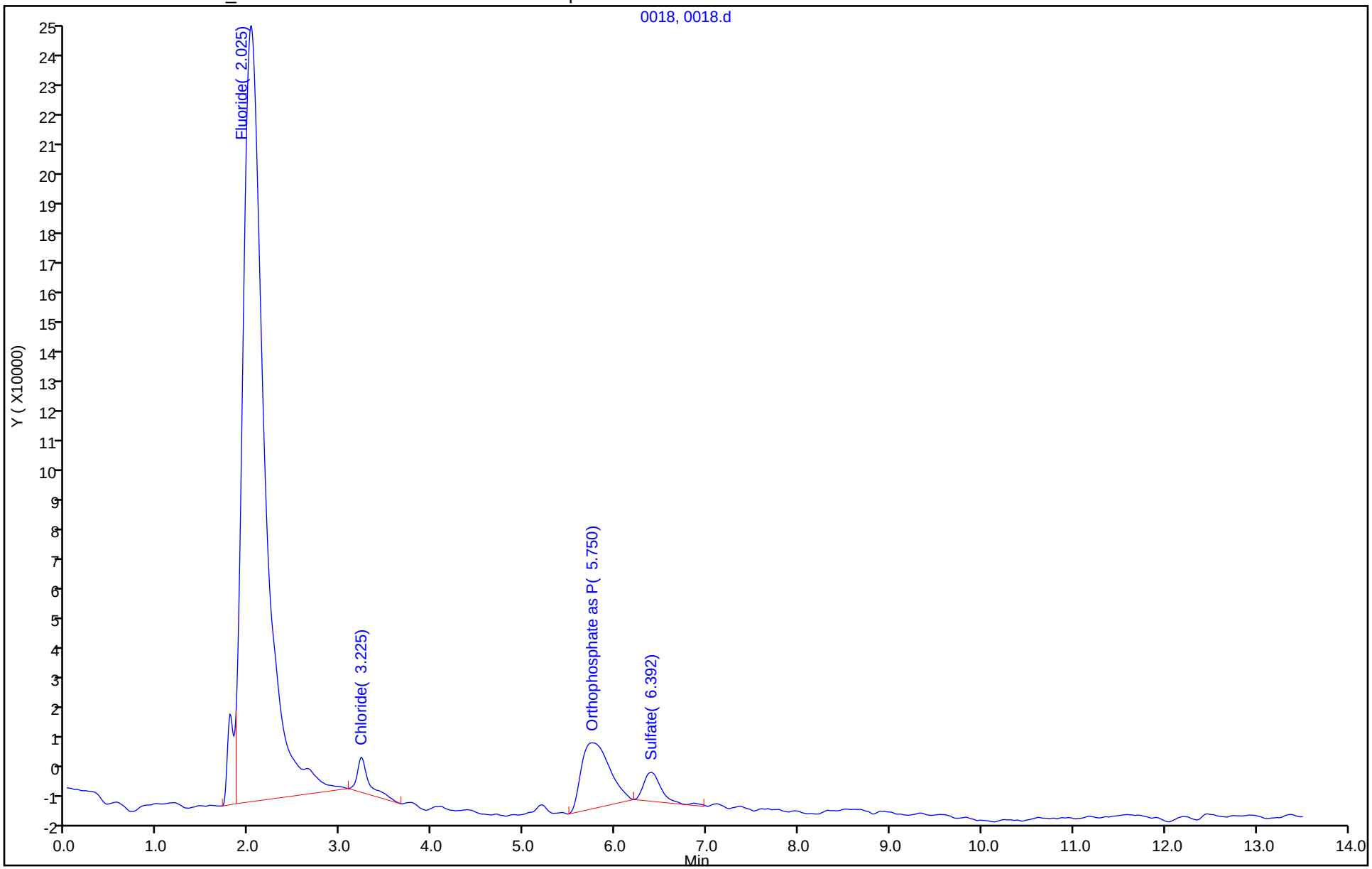
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0018.d

Injection Date:	16-May-2019 18:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0019.d
Lims ID: 280-123855-H-5
Client ID: LF5SW-2_0519
Sample Type: Client
Inject. Date: 16-May-2019 19:04:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-019
Misc. Info.: 27365 1347
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 23:38:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	300542	NC	
2 Chloride	3.276	3.242	0.034	2229209099	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.226	5.200	0.026	9302289	0.8392	
7 Orthophosphate as P	5.701	5.659	0.042	1649633	0.3904	
6 Sulfate	6.426	6.434	-0.008	117632208	NC	

QC Flag Legend

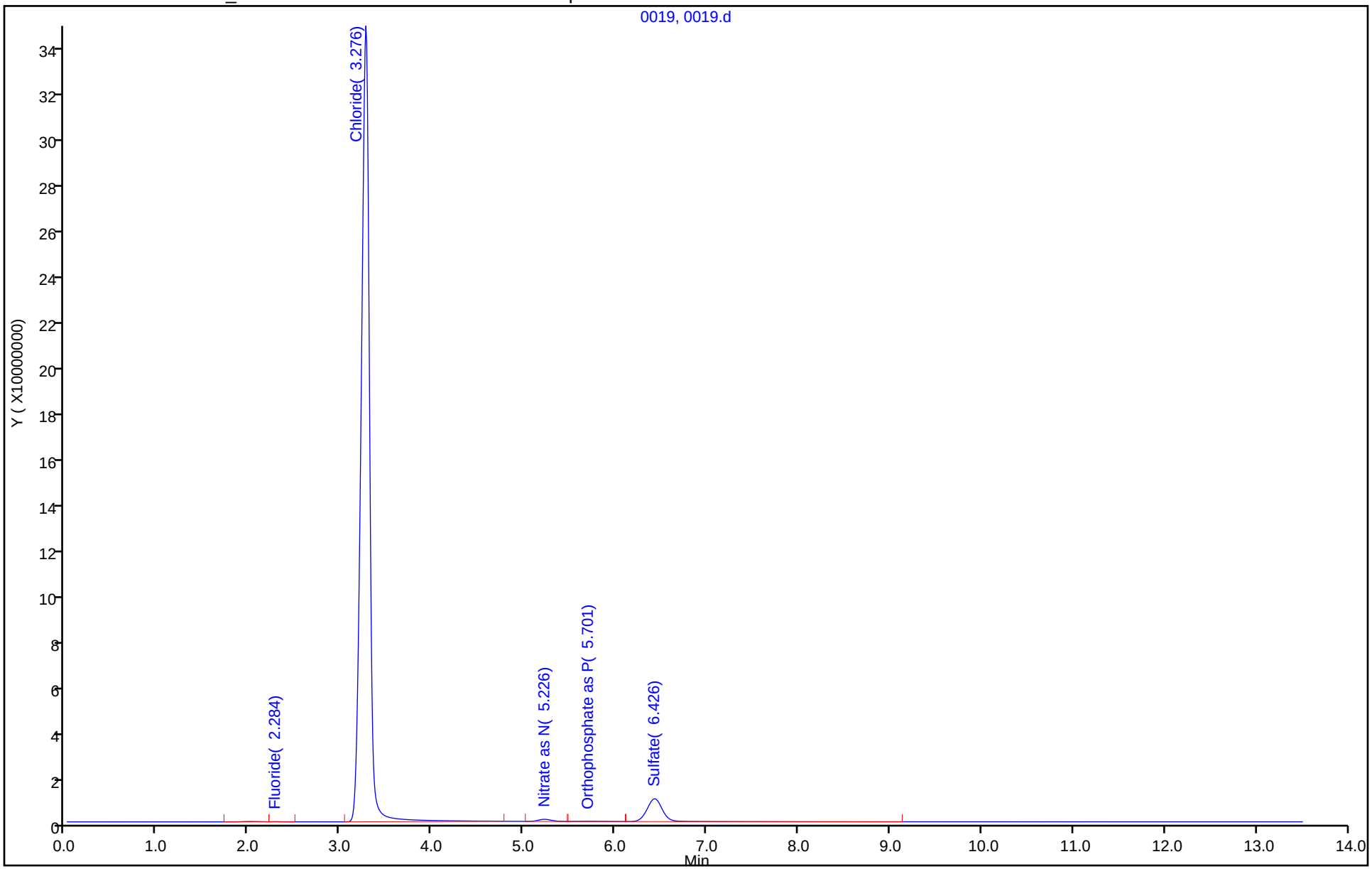
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0019.d

Injection Date:	16-May-2019 19:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-H-5	Lab Sample ID:	280-123855-5	Worklist Smp#:	19
Client ID:	LF5SW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0019.d
Lims ID: 280-123855-H-5
Client ID: LF5SW-2_0519
Sample Type: Client
Inject. Date: 16-May-2019 19:04:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-019
Misc. Info.: 27365 1347
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 23:38:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	300542	-0.1132	
2 Chloride	3.276	3.242	0.034	2229209099	332.1	E
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.226	5.200	0.026	9302289	NC	
7 Orthophosphate as P	5.701	5.659	0.042	1649633	NC	
6 Sulfate	6.426	6.434	-0.008	117632208	26.7	

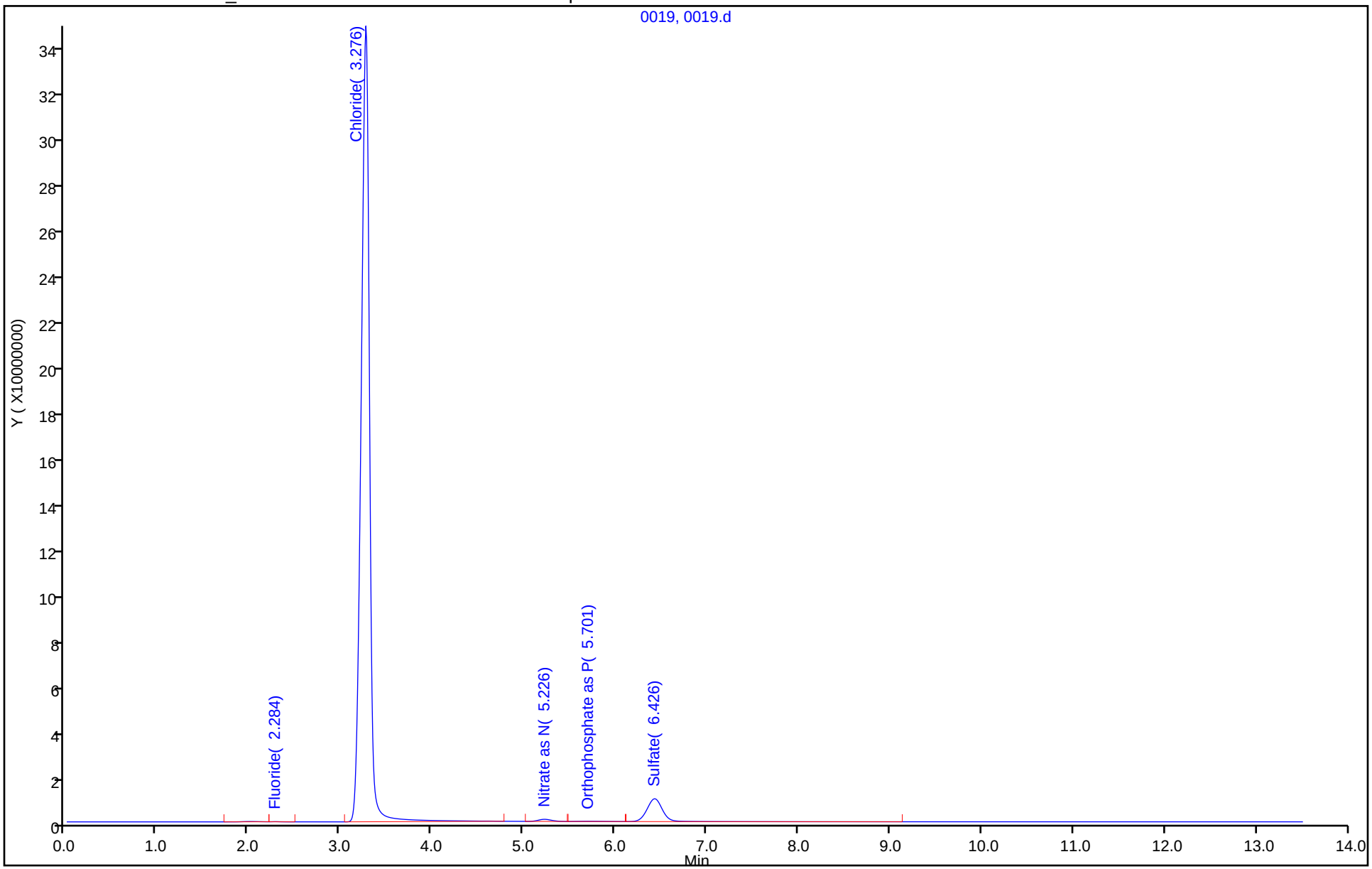
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 16-May-2019 23:40:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0019.d				
Injection Date:	16-May-2019 19:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-H-5	Lab Sample ID:	280-123855-5	Worklist Smp#:	19
Client ID:	LF5SW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0020.d
Lims ID: 280-123855-J-6
Client ID: LF5SW-3_0519
Sample Type: Client
Inject. Date: 16-May-2019 19:20:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-020
Misc. Info.: 20787 1391
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 23:38:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	287642	NC	
2 Chloride	3.275	3.242	0.033	2278235060	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.225	5.200	0.025	9599276	0.8647	
7 Orthophosphate as P	5.700	5.659	0.041	1644410	0.3891	
6 Sulfate	6.425	6.434	-0.009	111859817	NC	

QC Flag Legend

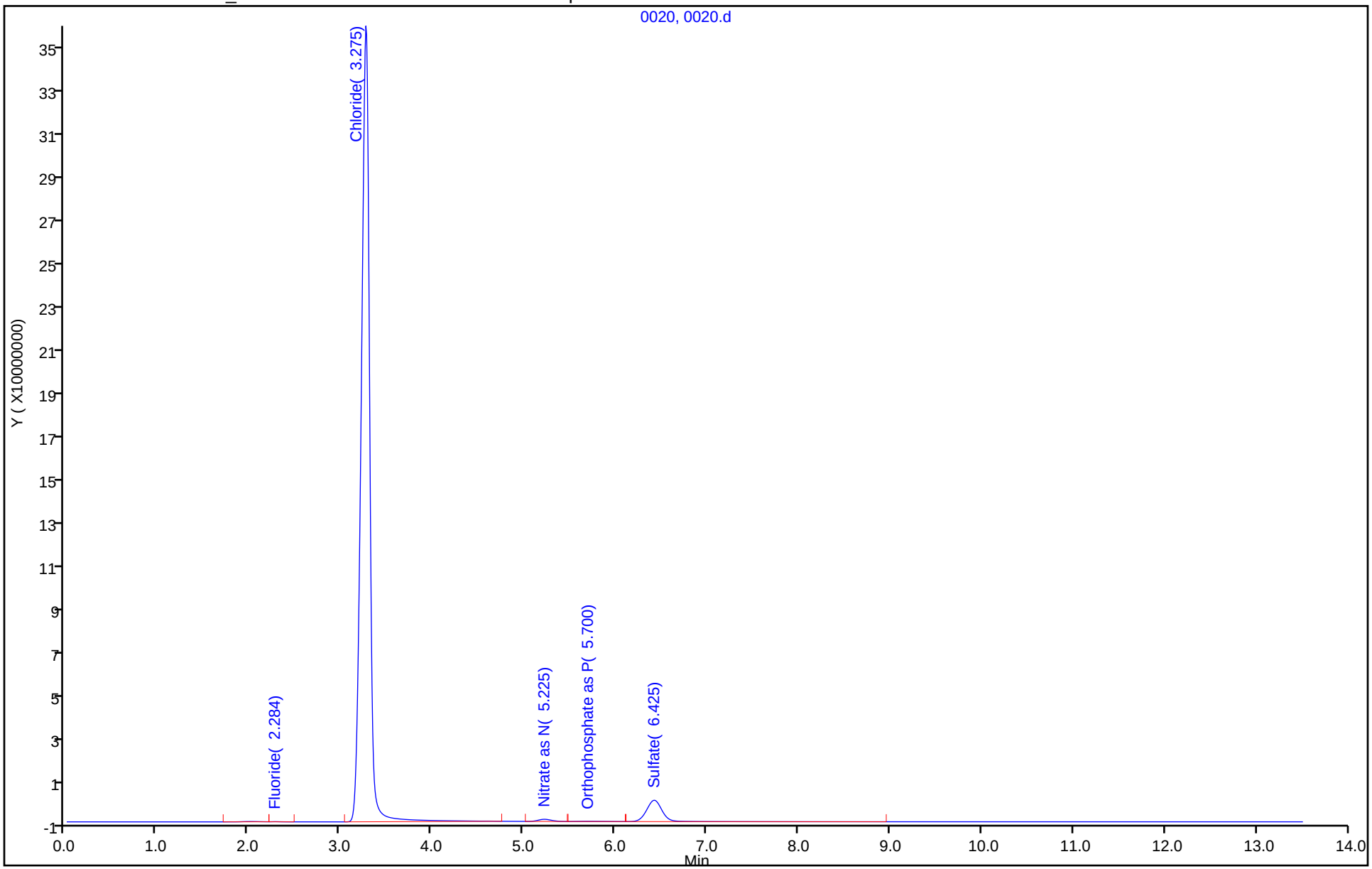
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0020.d

Injection Date:	16-May-2019 19:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-6	Lab Sample ID:	280-123855-6	Worklist Smp#:	20
Client ID:	LF5SW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0020.d
Lims ID: 280-123855-J-6
Client ID: LF5SW-3_0519
Sample Type: Client
Inject. Date: 16-May-2019 19:20:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-020
Misc. Info.: 20787 1391
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 23:38:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	287642	-0.1149	
2 Chloride	3.275	3.242	0.033	2278235060	339.4	E
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.225	5.200	0.025	9599276	NC	
7 Orthophosphate as P	5.700	5.659	0.041	1644410	NC	
6 Sulfate	6.425	6.434	-0.009	111859817	25.4	

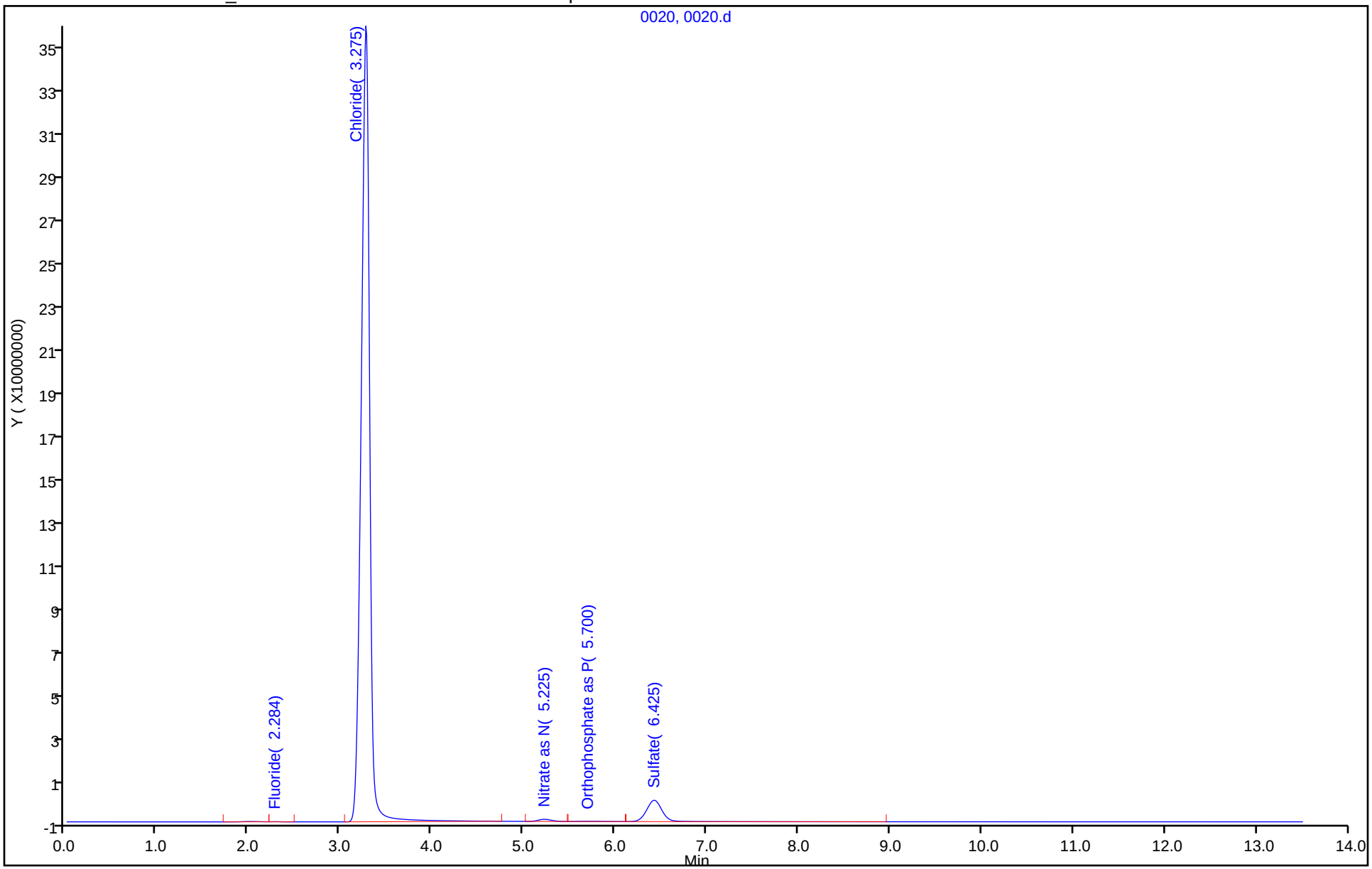
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 16-May-2019 23:40:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0020.d				
Injection Date:	16-May-2019 19:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-6	Lab Sample ID:	280-123855-6	Worklist Smp#:	20
Client ID:	LF5SW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0026.d
Lims ID: 280-123853-A-3 DU
Client ID:
Sample Type: DU
Inject. Date: 16-May-2019 20:59:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-026
Misc. Info.: 16538 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	451087		NC	
2 Chloride	3.234	3.242	-0.008	298884418		NC	
3 Nitrite as N		3.892				ND	
4 Bromide	4.617	4.634	-0.017	477657		NC	
5 Nitrate as N	5.200	5.200	0.000	9504022		0.8565	
7 Orthophosphate as P	5.742	5.659	0.083	1422701		0.3356	
6 Sulfate	6.409	6.434	-0.025	107027326		NC	

QC Flag Legend

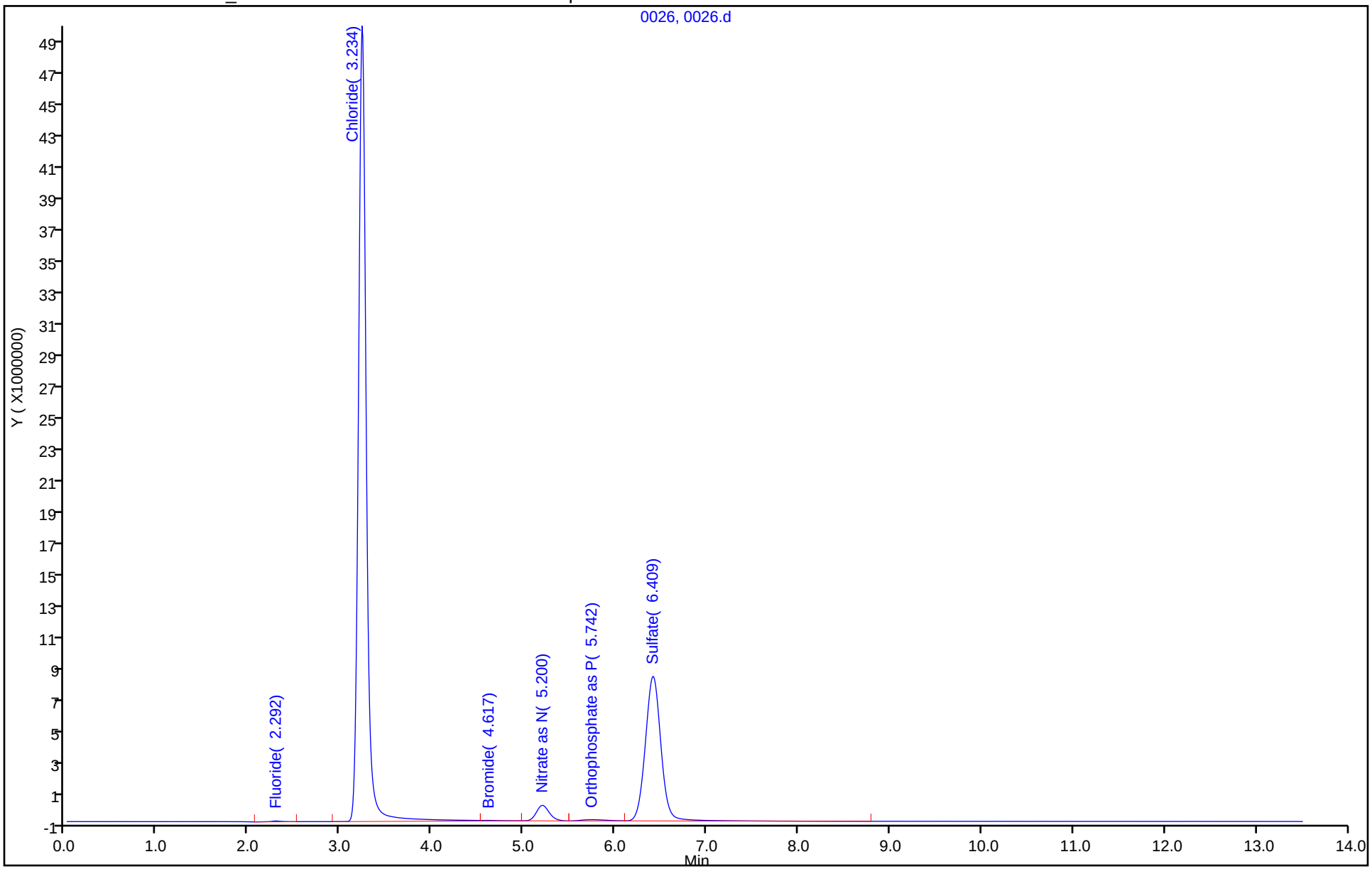
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Report Date: 16-May-2019 23:41:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0026.d

Injection Date:	16-May-2019 20:59:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 DU			Worklist Smp#:	26
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0026.d
Lims ID: 280-123853-A-3 DU
Client ID:
Sample Type: DU
Inject. Date: 16-May-2019 20:59:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-026
Misc. Info.: 16538 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	451087		-0.0924	
2 Chloride	3.234	3.242	-0.008	298884418		45.1	
3 Nitrite as N		3.892				ND	
4 Bromide	4.617	4.634	-0.017	477657		0.2540	
5 Nitrate as N	5.200	5.200	0.000	9504022		NC	
7 Orthophosphate as P	5.742	5.659	0.083	1422701		NC	
6 Sulfate	6.409	6.434	-0.025	107027326		24.4	

QC Flag Legend

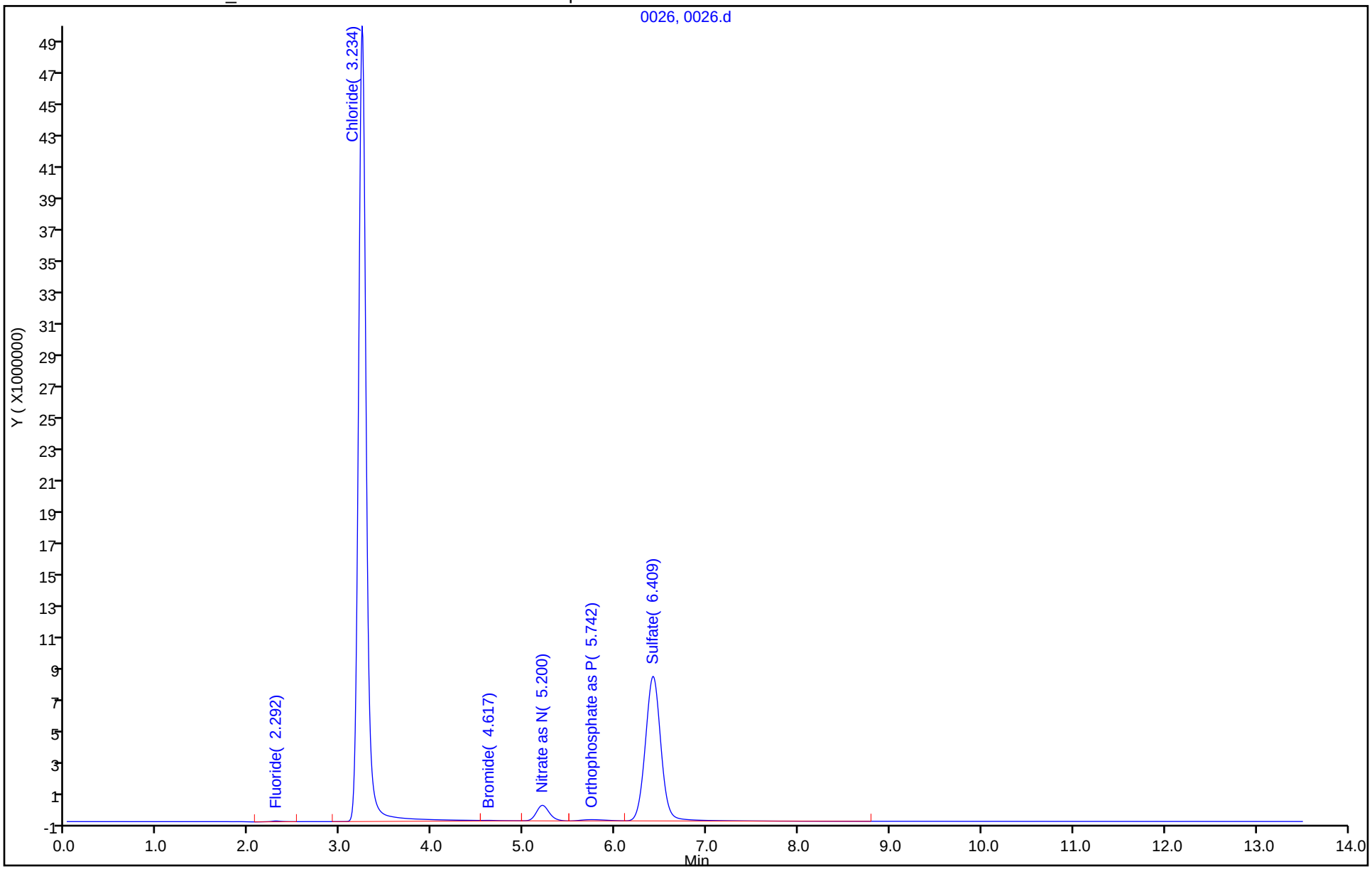
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Report Date: 16-May-2019 23:41:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0026.d

Injection Date:	16-May-2019 20:59:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 DU			Worklist Smp#:	26
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0027.d
Lims ID: 280-123853-A-3 MS
Client ID:
Sample Type: MS
Inject. Date: 16-May-2019 21:15:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-027
Misc. Info.: 21988 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39308882		NC	
2 Chloride	3.242	3.242	0.000	472822844		NC	
3 Nitrite as N	3.884	3.892	-0.008	51428326		4.93	
4 Bromide	4.626	4.634	-0.008	10454688		NC	
5 Nitrate as N	5.201	5.200	0.001	70363838		6.10	
7 Orthophosphate as P	5.859	5.659	0.200	26024994		6.28	
6 Sulfate	6.426	6.434	-0.008	216646715		NC	

QC Flag Legend

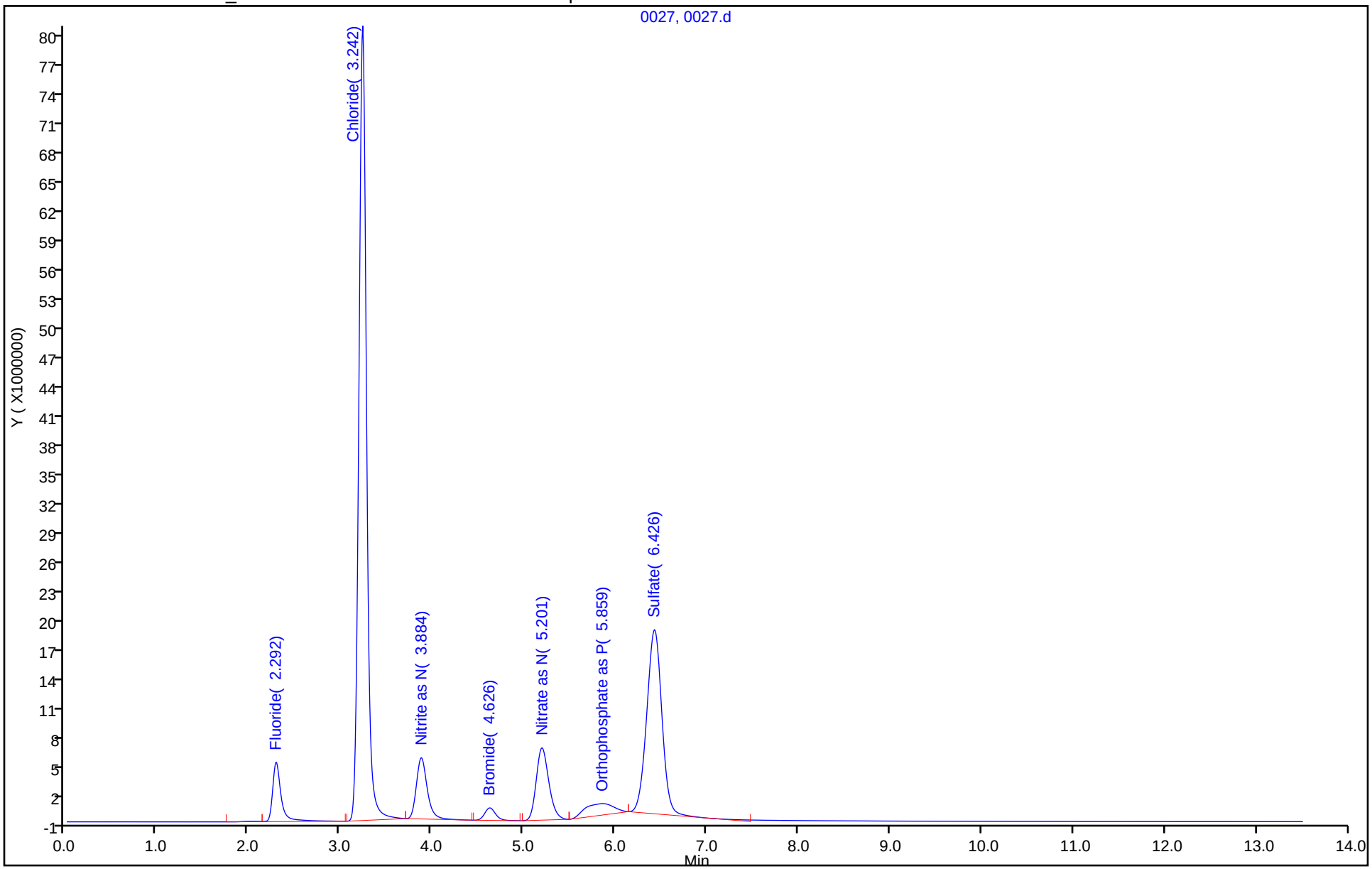
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0027.d

Injection Date:	16-May-2019 21:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 MS			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0027.d
Lims ID: 280-123853-A-3 MS
Client ID:
Sample Type: MS
Inject. Date: 16-May-2019 21:15:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-027
Misc. Info.: 21988 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39308882		5.26	
2 Chloride	3.242	3.242	0.000	472822844		70.9	
3 Nitrite as N	3.884	3.892	-0.008	51428326		NC	
4 Bromide	4.626	4.634	-0.008	10454688		5.40	
5 Nitrate as N	5.201	5.200	0.001	70363838		NC	
7 Orthophosphate as P	5.859	5.659	0.200	26024994		NC	
6 Sulfate	6.426	6.434	-0.008	216646715		48.9	

QC Flag Legend

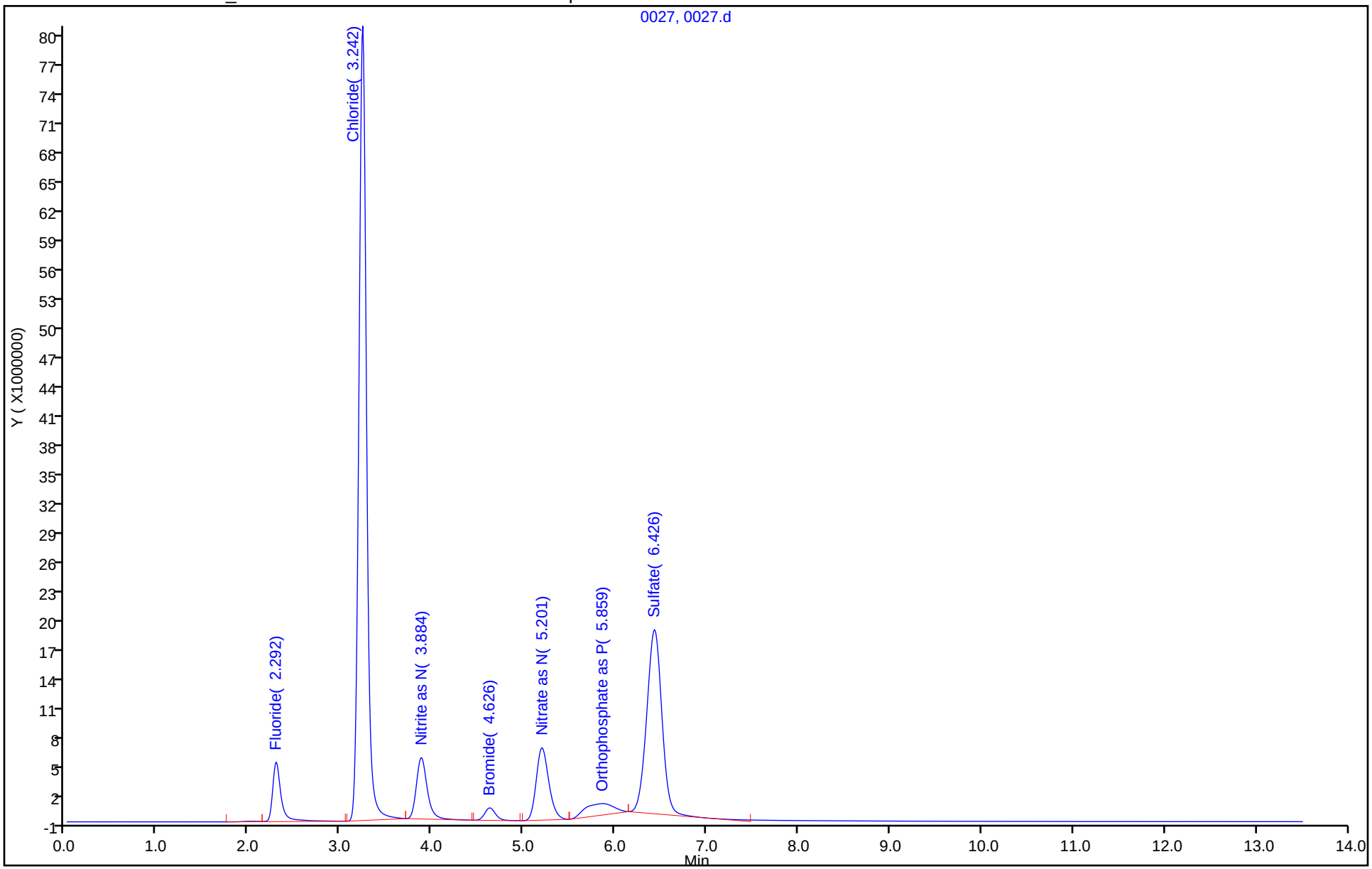
Processing Flags
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Report Date: 16-May-2019 23:41:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0027.d

Injection Date:	16-May-2019 21:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 MS			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0028.d
Lims ID: 280-123853-A-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 16-May-2019 21:32:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-028
Misc. Info.: 19701 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39186495		NC	
2 Chloride	3.242	3.242	0.000	476352614		NC	
3 Nitrite as N	3.884	3.892	-0.008	52427688		5.02	
4 Bromide	4.625	4.634	-0.009	10630247		NC	
5 Nitrate as N	5.200	5.200	0.000	71598195		6.20	
7 Orthophosphate as P	5.850	5.659	0.191	24736837		5.96	
6 Sulfate	6.425	6.434	-0.009	217945882		NC	

QC Flag Legend

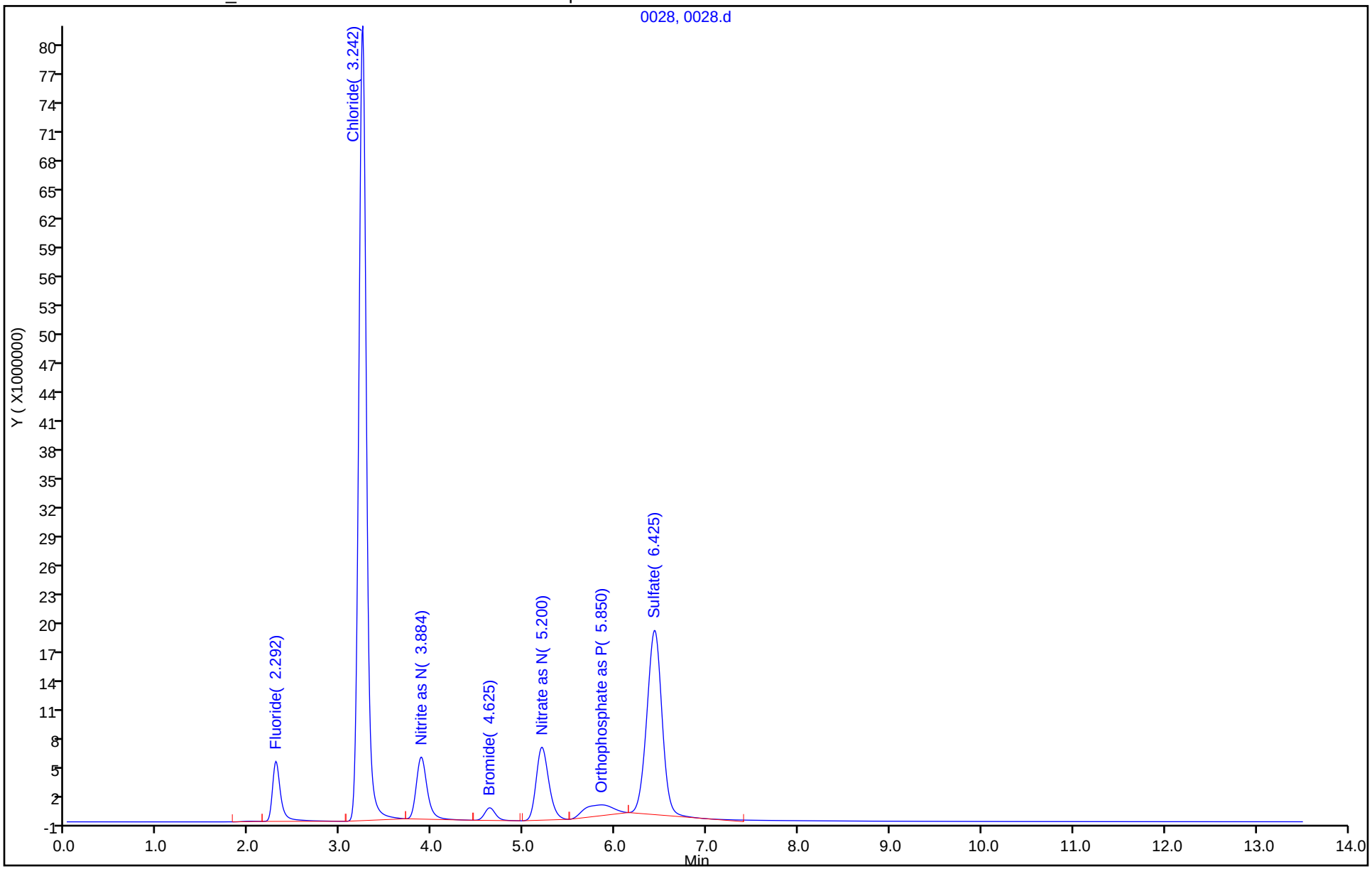
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0028.d

Injection Date:	16-May-2019 21:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 MSD			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0028.d
Lims ID: 280-123853-A-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 16-May-2019 21:32:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-028
Misc. Info.: 19701 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39186495		5.25	
2 Chloride	3.242	3.242	0.000	476352614		71.5	
3 Nitrite as N	3.884	3.892	-0.008	52427688		NC	
4 Bromide	4.625	4.634	-0.009	10630247		5.49	
5 Nitrate as N	5.200	5.200	0.000	71598195		NC	
7 Orthophosphate as P	5.850	5.659	0.191	24736837		NC	
6 Sulfate	6.425	6.434	-0.009	217945882		49.2	

QC Flag Legend

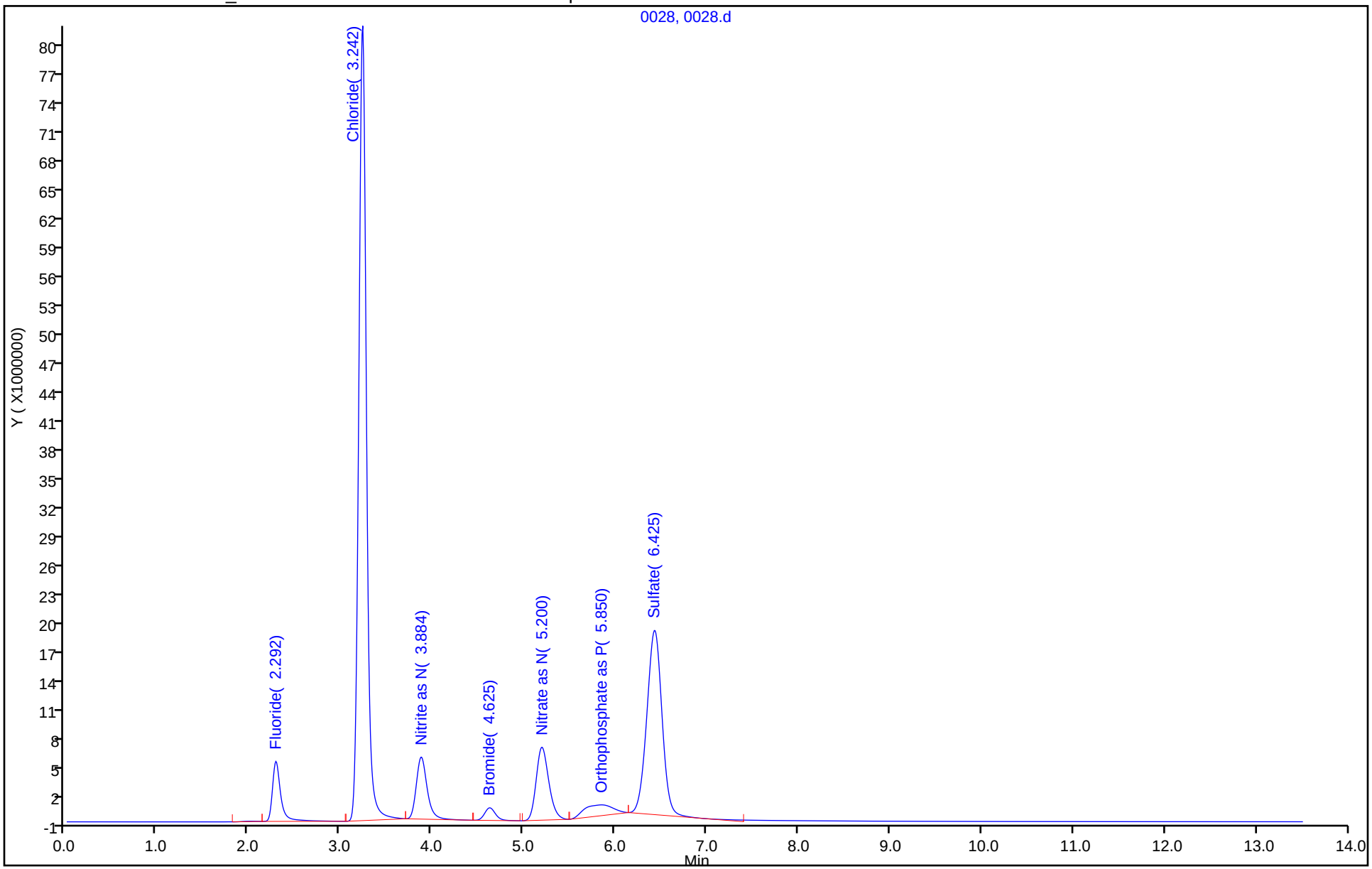
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0028.d

Injection Date:	16-May-2019 21:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 MSD			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0029.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2019 21:48:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-029
Misc. Info.: 4714
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:41:07 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37586763	NC	NC	
2 Chloride	3.242	3.242	0.000	637998689	NC	NC	
3 Nitrite as N	3.876	3.892	-0.016	51124221	5.00	4.90	
4 Bromide	4.626	4.634	-0.008	10083957	NC	NC	
5 Nitrate as N	5.184	5.200	-0.016	57141904	5.00	4.96	
7 Orthophosphate as P	5.634	5.659	-0.025	22612940	5.00	5.45	
6 Sulfate	6.434	6.434	0.000	416272263	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

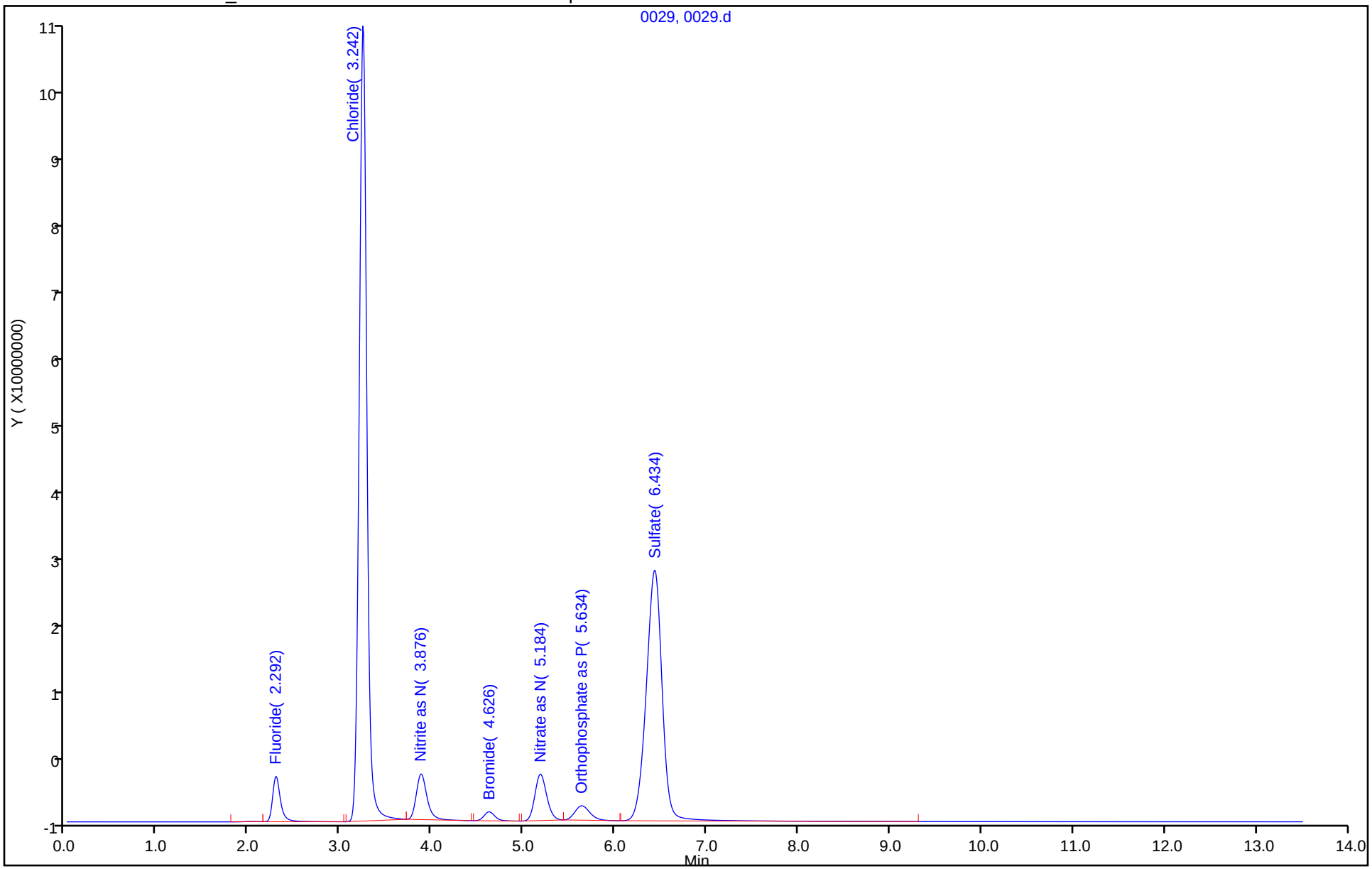
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:41:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0029.d

Injection Date:	16-May-2019 21:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0029.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2019 21:48:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-029
Misc. Info.: 4714
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:41:07 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37586763	5.00	5.03	
2 Chloride	3.242	3.242	0.000	637998689	100.0	95.5	
3 Nitrite as N	3.876	3.892	-0.016	51124221	NC	NC	
4 Bromide	4.626	4.634	-0.008	10083957	5.00	5.21	
5 Nitrate as N	5.184	5.200	-0.016	57141904	NC	NC	
7 Orthophosphate as P	5.634	5.659	-0.025	22612940	NC	NC	
6 Sulfate	6.434	6.434	0.000	416272263	100.0	93.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

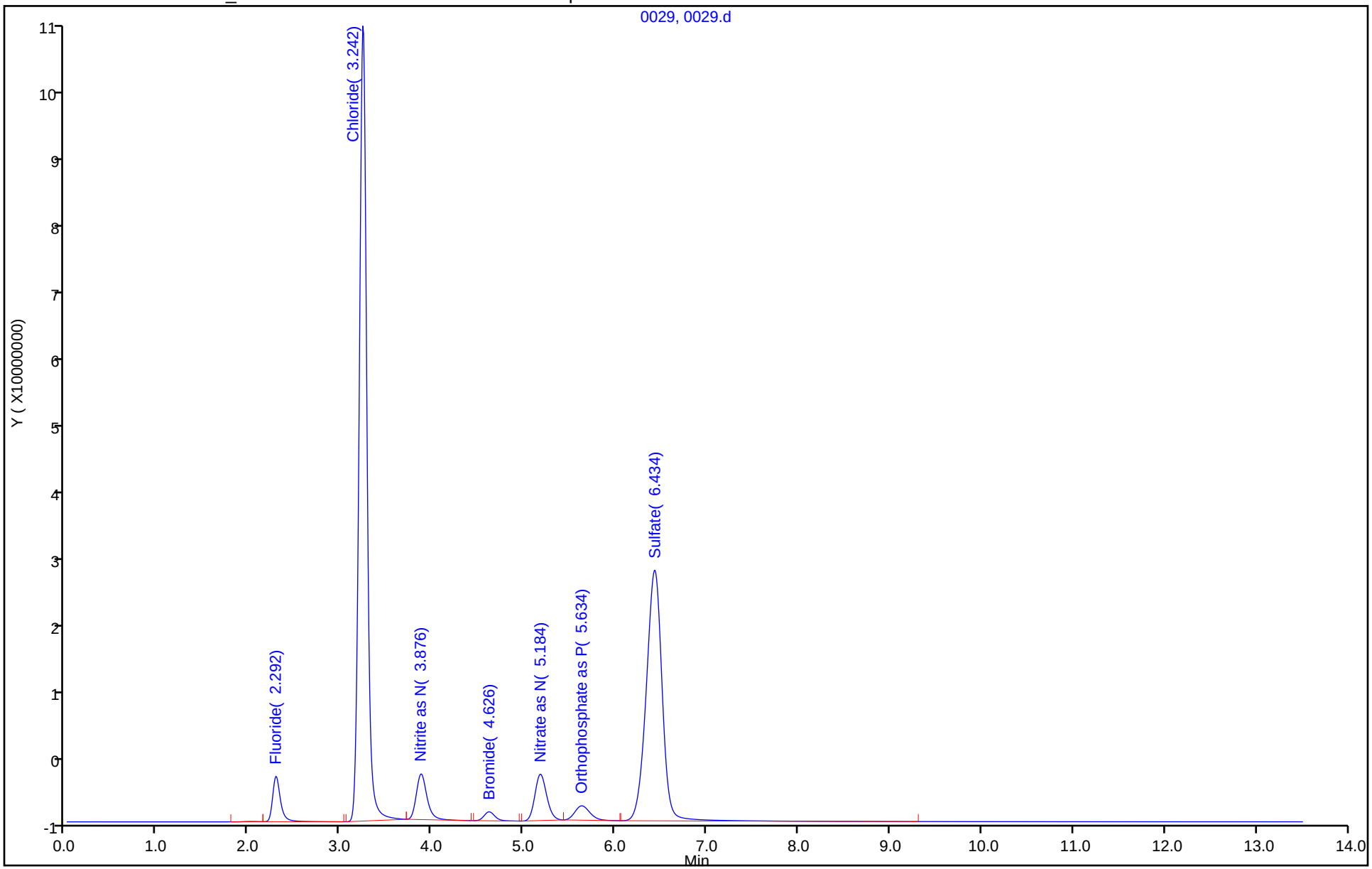
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:41:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0029.d

Injection Date:	16-May-2019 21:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0030.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-May-2019 22:04:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-030				
Misc. Info.:	5058				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 23:41:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0301				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	3387175		NC	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.825	5.659	0.166	456347		0.1023	
6 Sulfate		6.434				ND	

QC Flag Legend

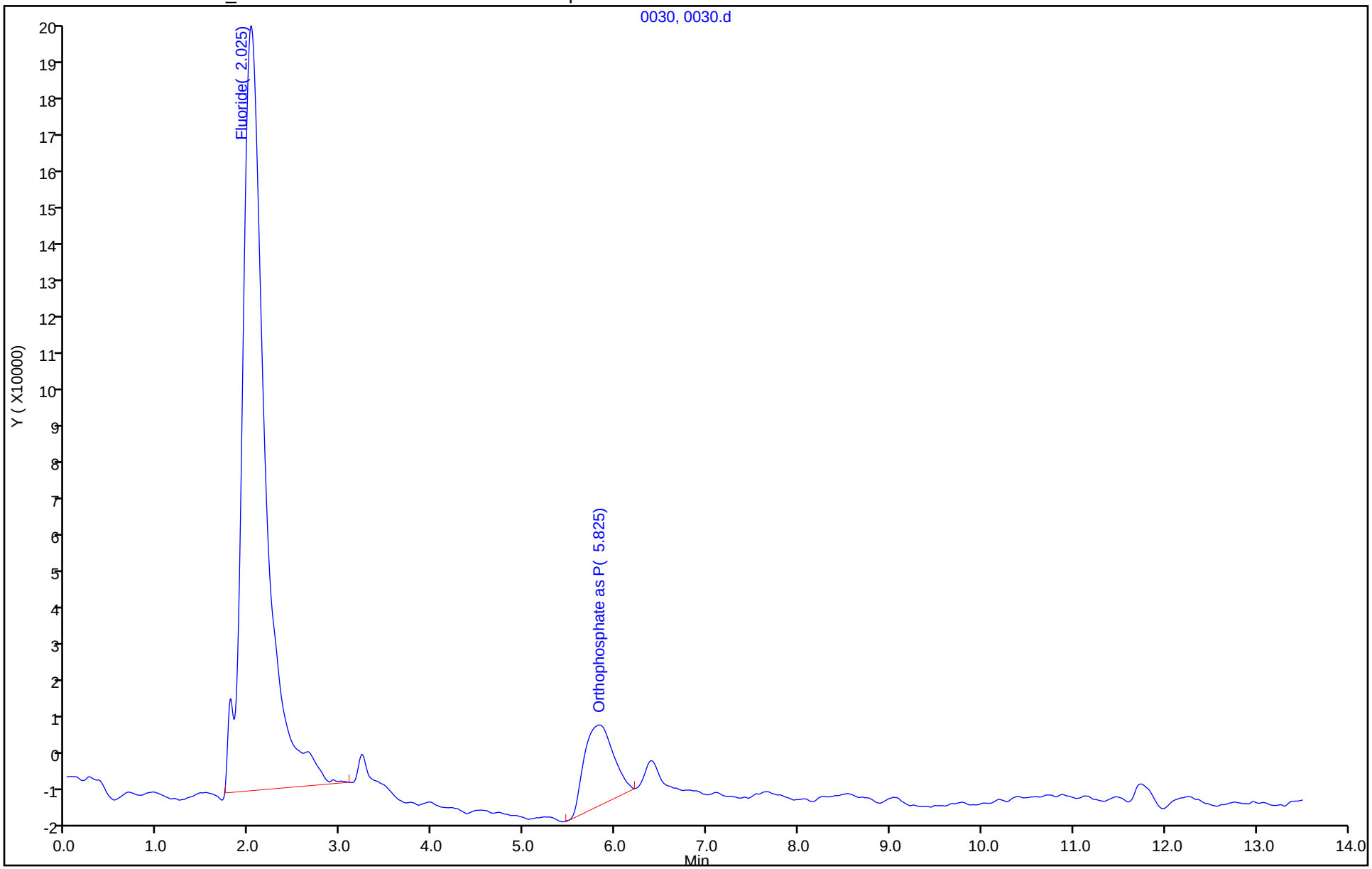
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0030.d

Injection Date:	16-May-2019 22:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	30
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0030.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-May-2019 22:04:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-030				
Misc. Info.:	5058				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 23:41:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0301				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	3387175		0.3123	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.825	5.659	0.166	456347		NC	
6 Sulfate		6.434				ND	

QC Flag Legend

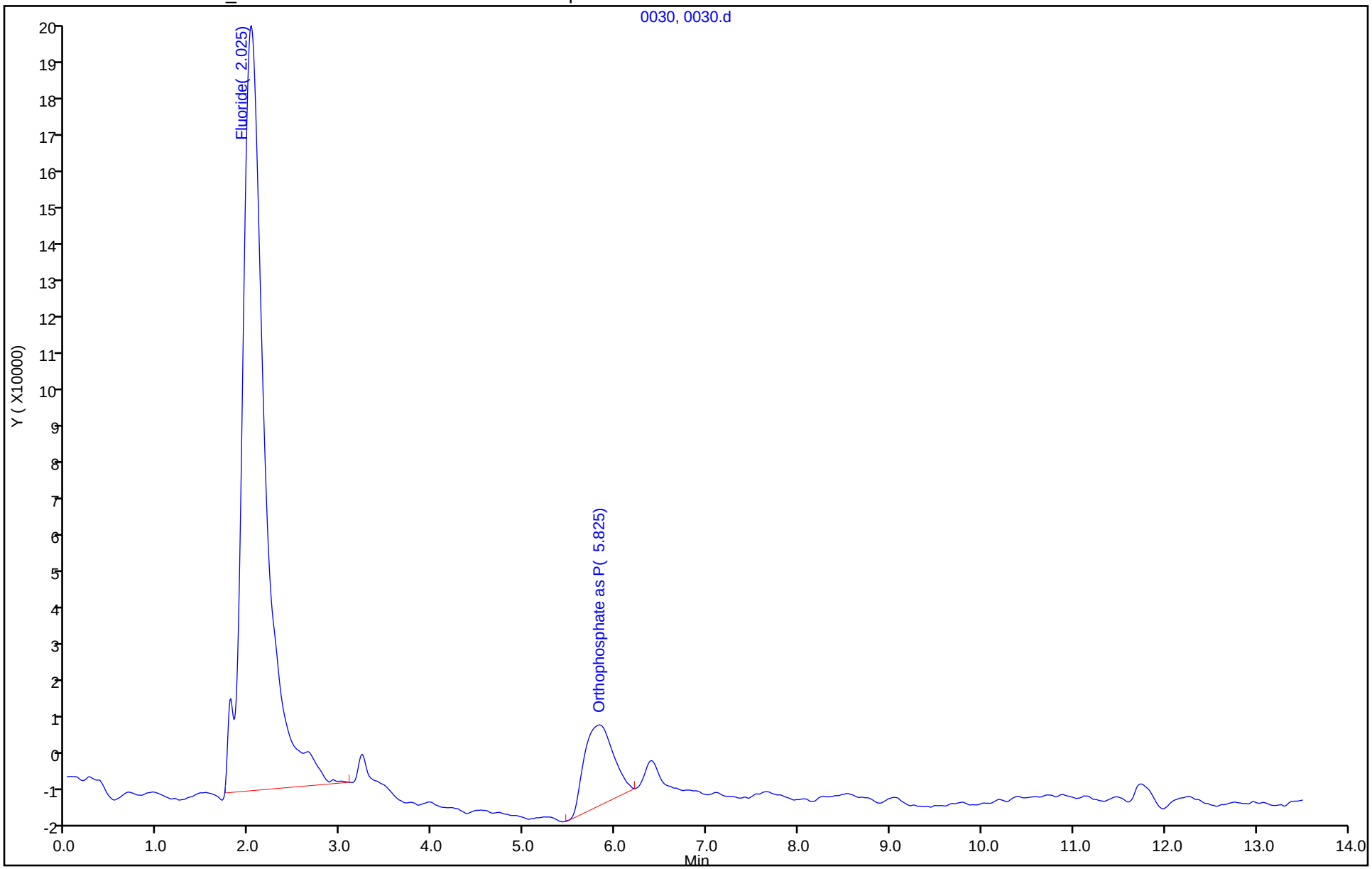
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0030.d

Injection Date:	16-May-2019 22:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	30
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0038.d
Lims ID: 280-123862-B-1 DU
Client ID:
Sample Type: DU
Inject. Date: 17-May-2019 00:16:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-038
Misc. Info.: 5749 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

First Level Reviewer: pedrickj Date: 17-May-2019 08:38:46

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	541692		NC	M
2 Chloride	3.234	3.242	-0.008	4663018		NC	
3 Nitrite as N		3.892				ND	
4 Bromide	4.651	4.634	0.017	79275		NC	Ma
5 Nitrate as N	5.201	5.200	0.001	800592		0.1072	
7 Orthophosphate as P	5.842	5.659	0.183	303774		0.0655	
6 Sulfate	6.392	6.434	-0.042	14586104		NC	

QC Flag Legend

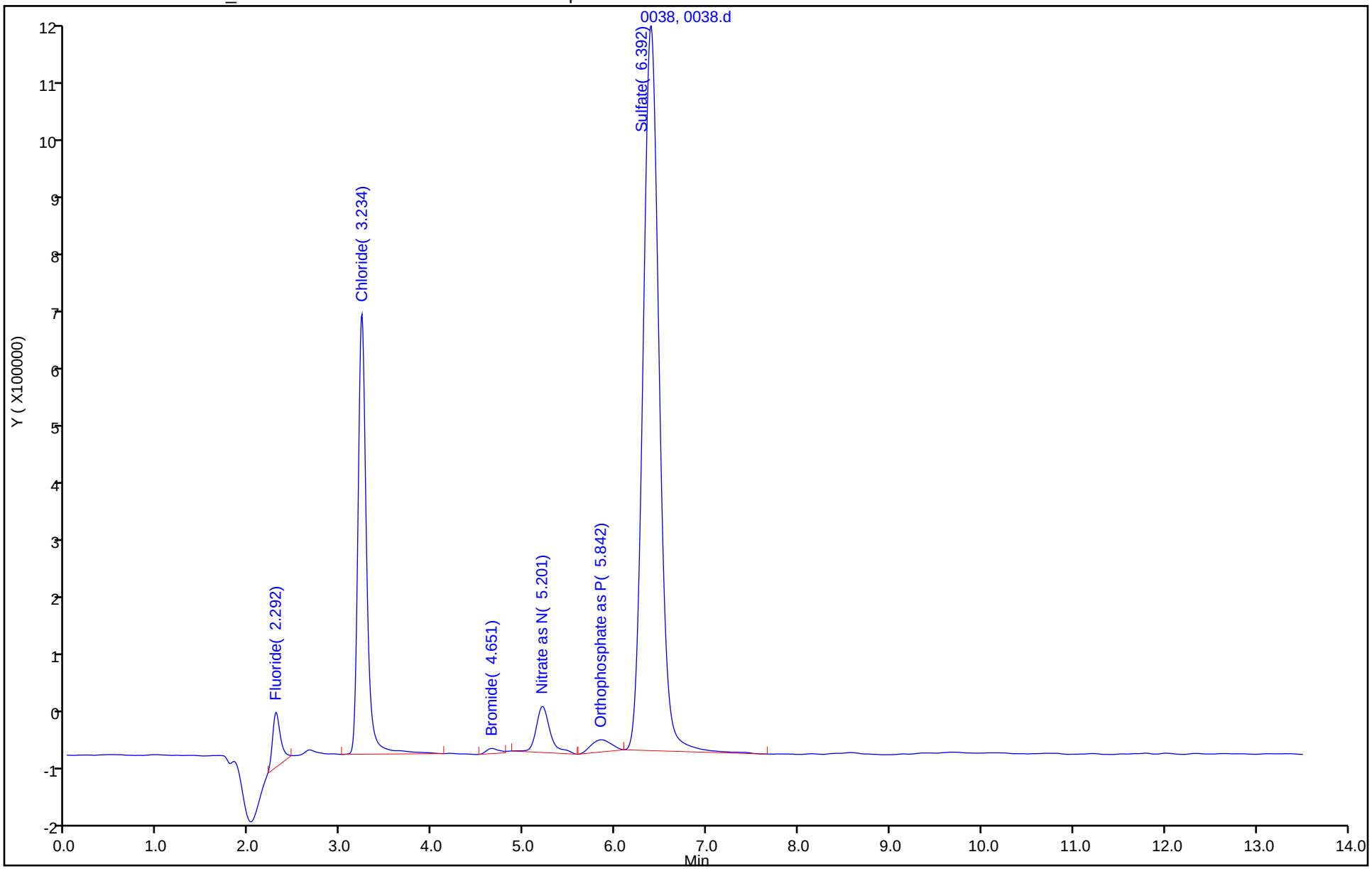
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 17-May-2019 08:41:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0038.d

Injection Date:	17-May-2019 00:16:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123862-B-1 DU			Worklist Smp#:	38
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0039.d
Lims ID: 280-123862-B-1 MS
Client ID: SW-G-DN
Sample Type: MS
Inject. Date: 17-May-2019 00:32:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-039
Misc. Info.: 24613 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.292	0.008	38239090	NC	NC	
2 Chloride	3.234	3.242	-0.008	146032694	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	51969356	5.00	4.98	
4 Bromide	4.634	4.634	0.000	10427921	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	59015260	5.00	5.12	
7 Orthophosphate as P	5.650	5.659	-0.009	27674992	5.00	6.67	
6 Sulfate	6.409	6.434	-0.025	111324139	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

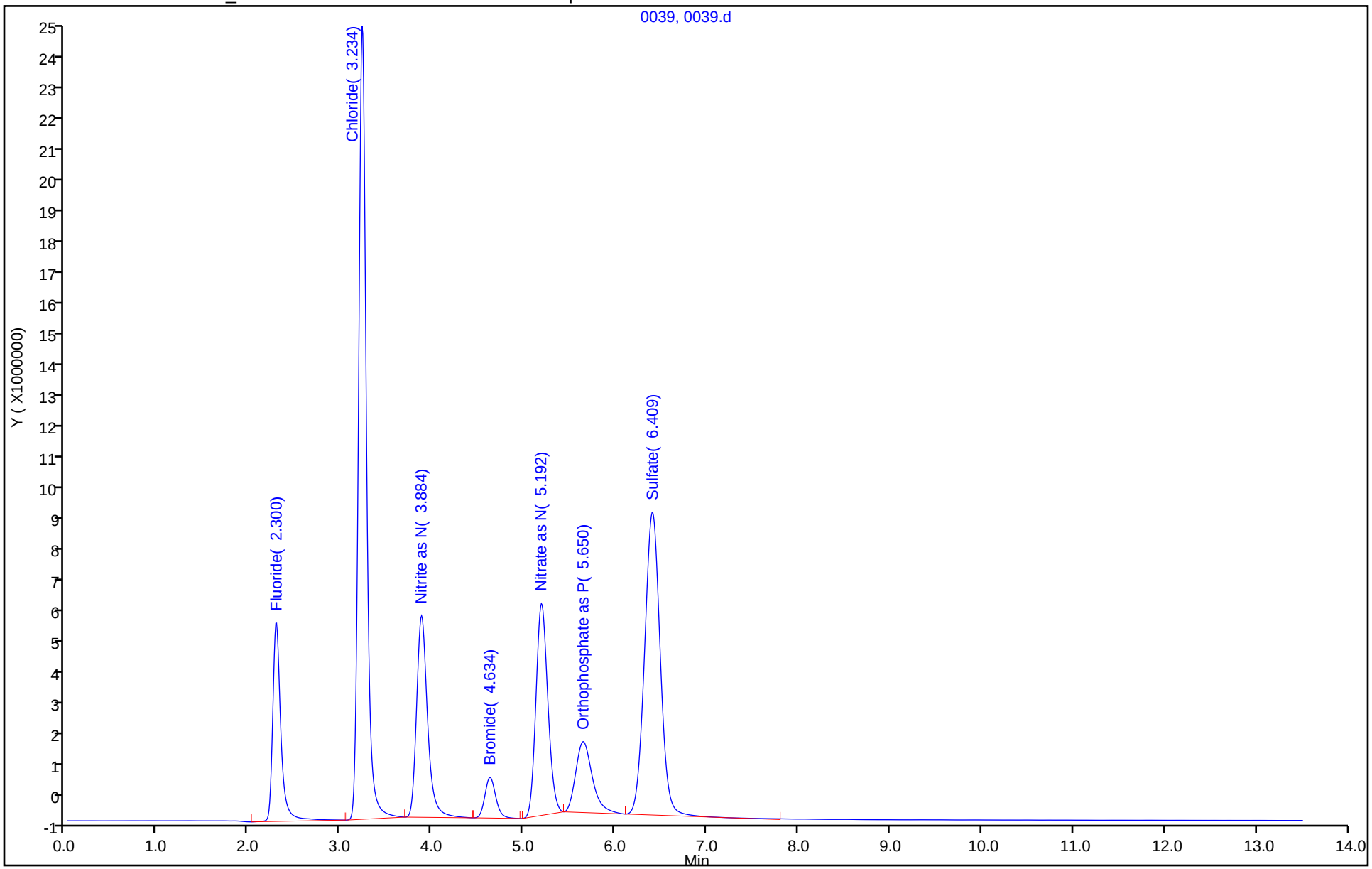
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 17-May-2019 08:41:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0039.d

Injection Date:	17-May-2019 00:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123862-B-1 MS			Worklist Smp#:	39
Client ID:	SW-G-DN				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0040.d
Lims ID: 280-123862-B-1 MSD
Client ID: SW-G-DN
Sample Type: MSD
Inject. Date: 17-May-2019 00:49:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-040
Misc. Info.: 14463 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	38679729	NC	NC	
2 Chloride	3.234	3.242	-0.008	148082799	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	52644747	5.00	5.04	
4 Bromide	4.634	4.634	0.000	10549456	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	59666710	5.00	5.18	
7 Orthophosphate as P	5.650	5.659	-0.009	27978064	5.00	6.75	
6 Sulfate	6.409	6.434	-0.025	112394801	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

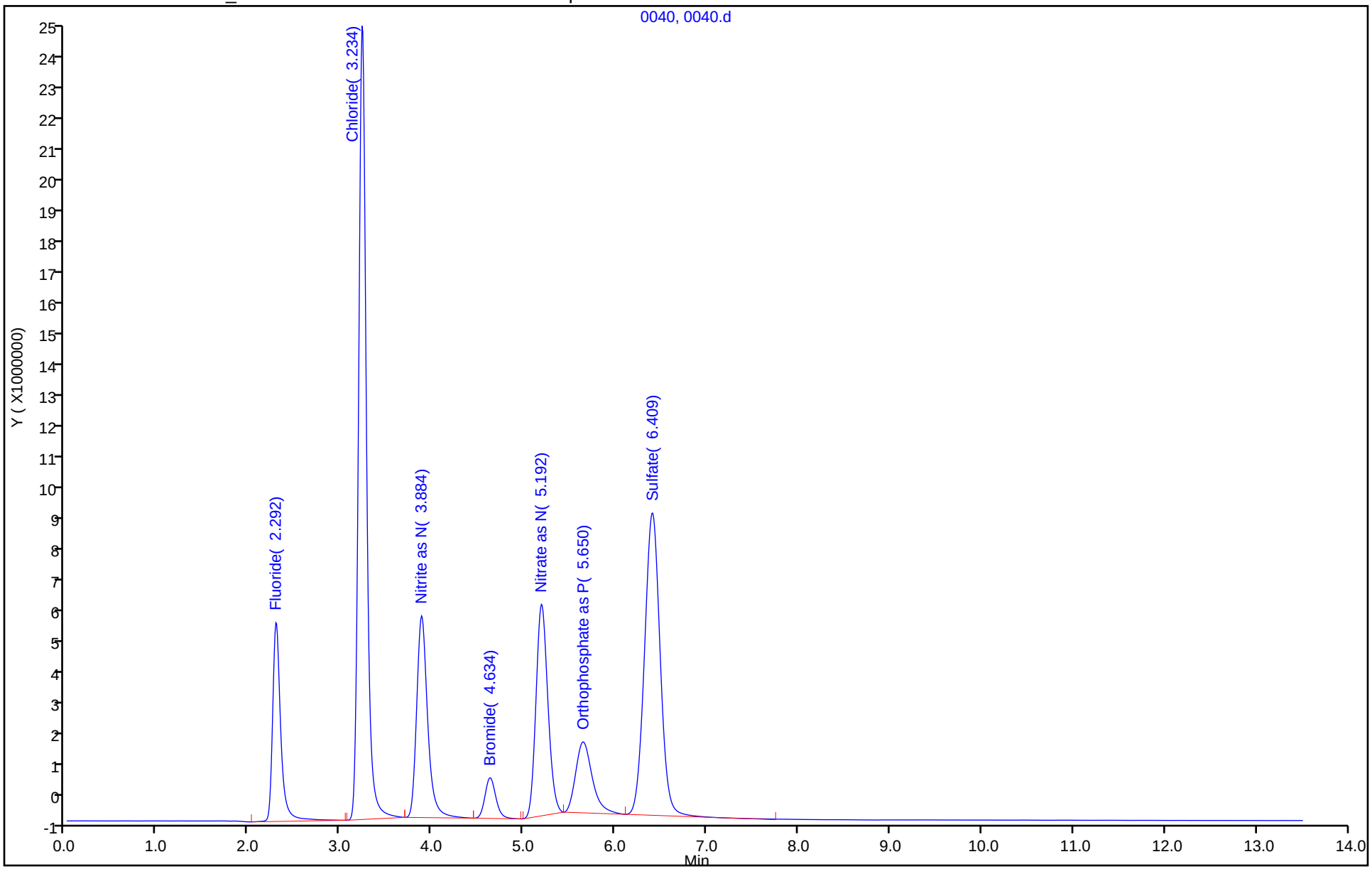
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 17-May-2019 08:41:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0040.d

Injection Date:	17-May-2019 00:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123862-B-1 MSD			Worklist Smp#:	40
Client ID:	SW-G-DN				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0041.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 01:05:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-041
Misc. Info.: 10142
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 17-May-2019 08:41:16 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37309775	NC	NC	
2 Chloride	3.242	3.242	0.000	639608817	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	51033853	5.00	4.89	
4 Bromide	4.626	4.634	-0.008	10122569	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	57097158	5.00	4.95	
7 Orthophosphate as P	5.626	5.659	-0.033	21225303	5.00	5.12	
6 Sulfate	6.426	6.434	-0.008	418013762	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

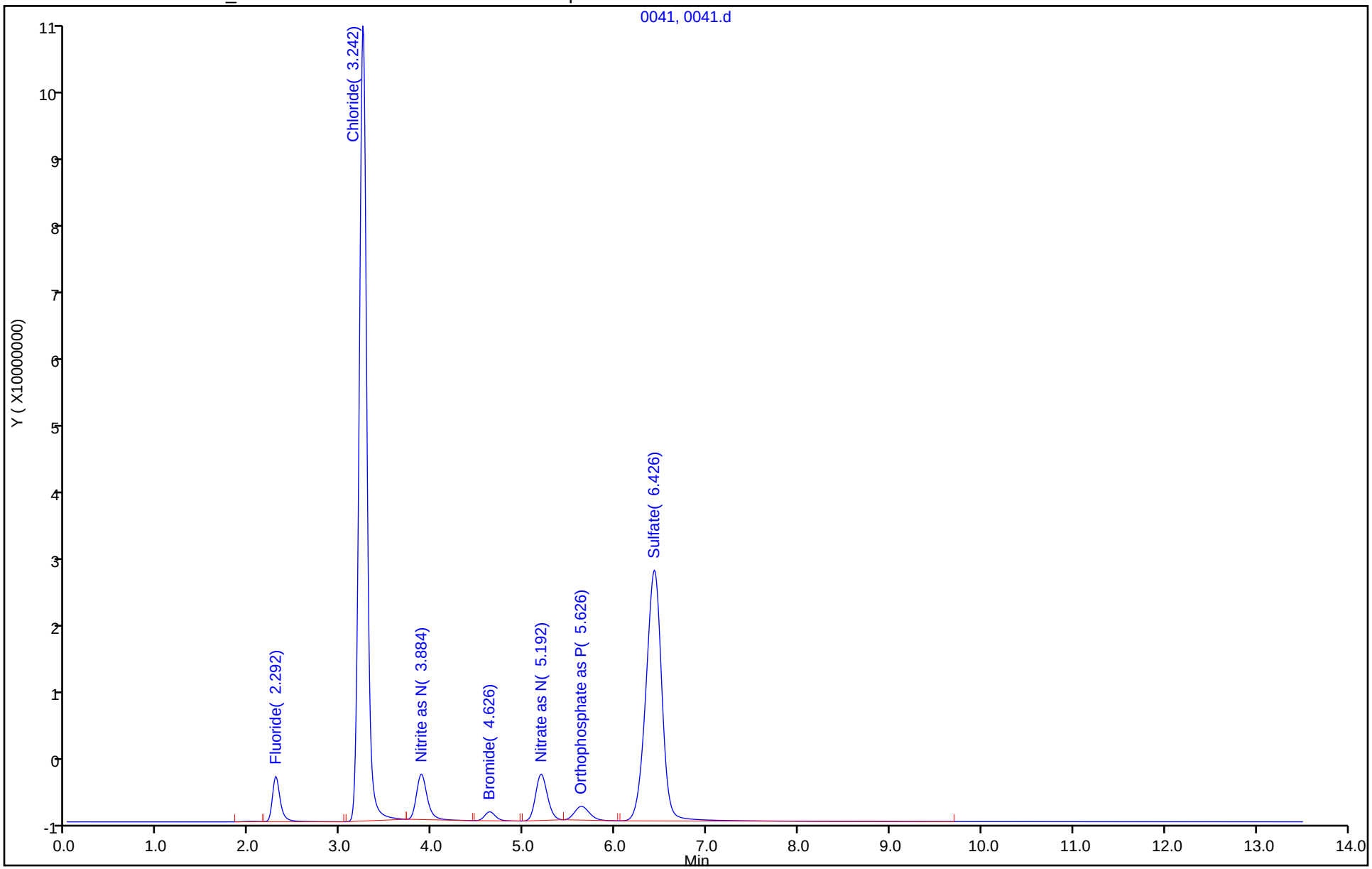
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 17-May-2019 08:41:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0041.d

Injection Date:	17-May-2019 01:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0041.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 01:05:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-041
Misc. Info.: 10142
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:41:16 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37309775	5.00	4.99	
2 Chloride	3.242	3.242	0.000	639608817	100.0	95.7	
3 Nitrite as N	3.884	3.892	-0.008	51033853	NC	NC	
4 Bromide	4.626	4.634	-0.008	10122569	5.00	5.23	
5 Nitrate as N	5.192	5.200	-0.008	57097158	NC	NC	
7 Orthophosphate as P	5.626	5.659	-0.033	21225303	NC	NC	
6 Sulfate	6.426	6.434	-0.008	418013762	100.0	93.9	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

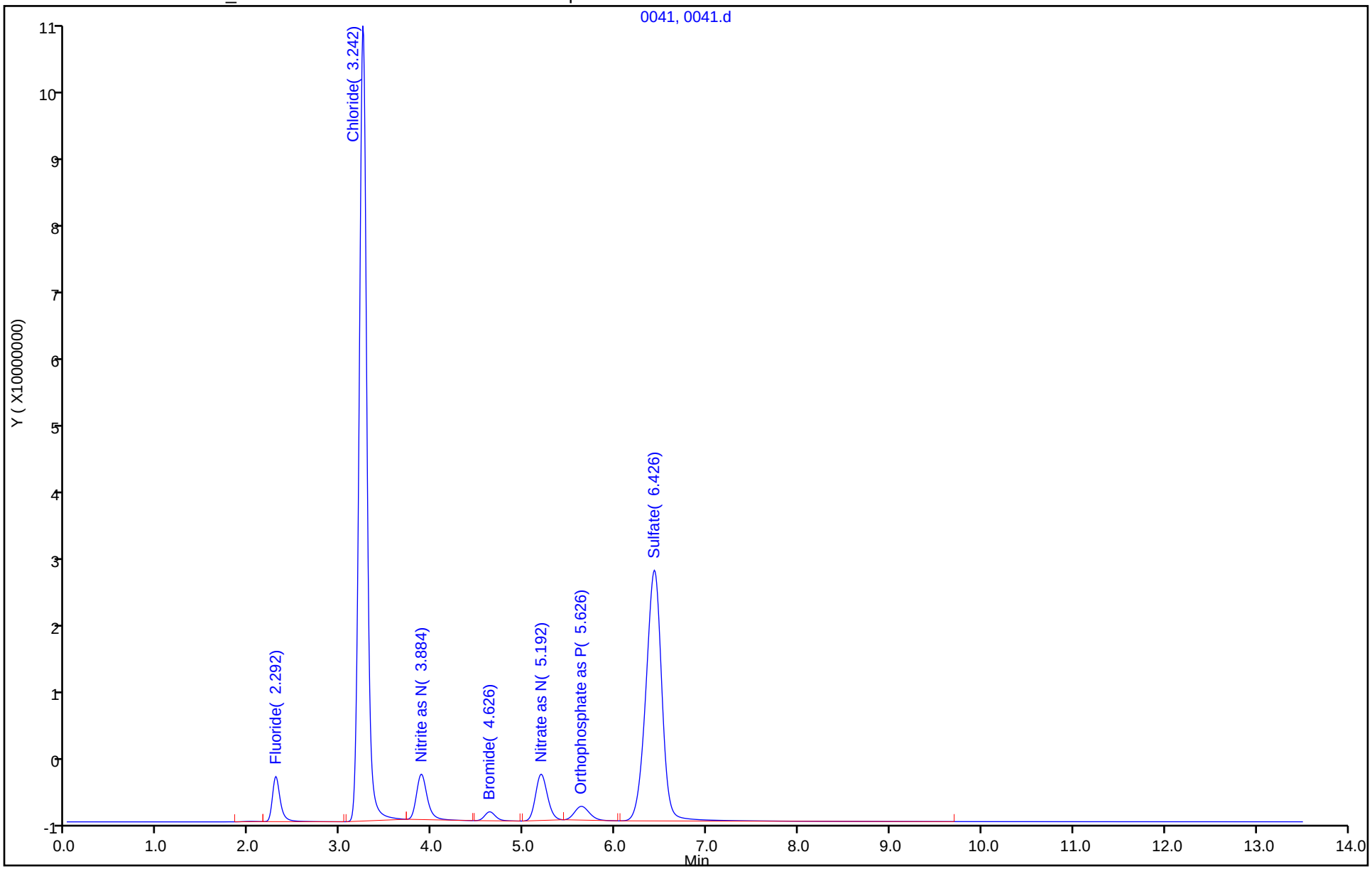
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 17-May-2019 08:41:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0041.d

Injection Date:	17-May-2019 01:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0042.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-May-2019 01:21:00	ALS Bottle#:	0	Worklist Smp#:	42
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-042				
Misc. Info.:	26729				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	17-May-2019 08:41:16	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0334				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	3468520		NC	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.809	5.659	0.150	411624		0.0915	
6 Sulfate		6.434				ND	

QC Flag Legend

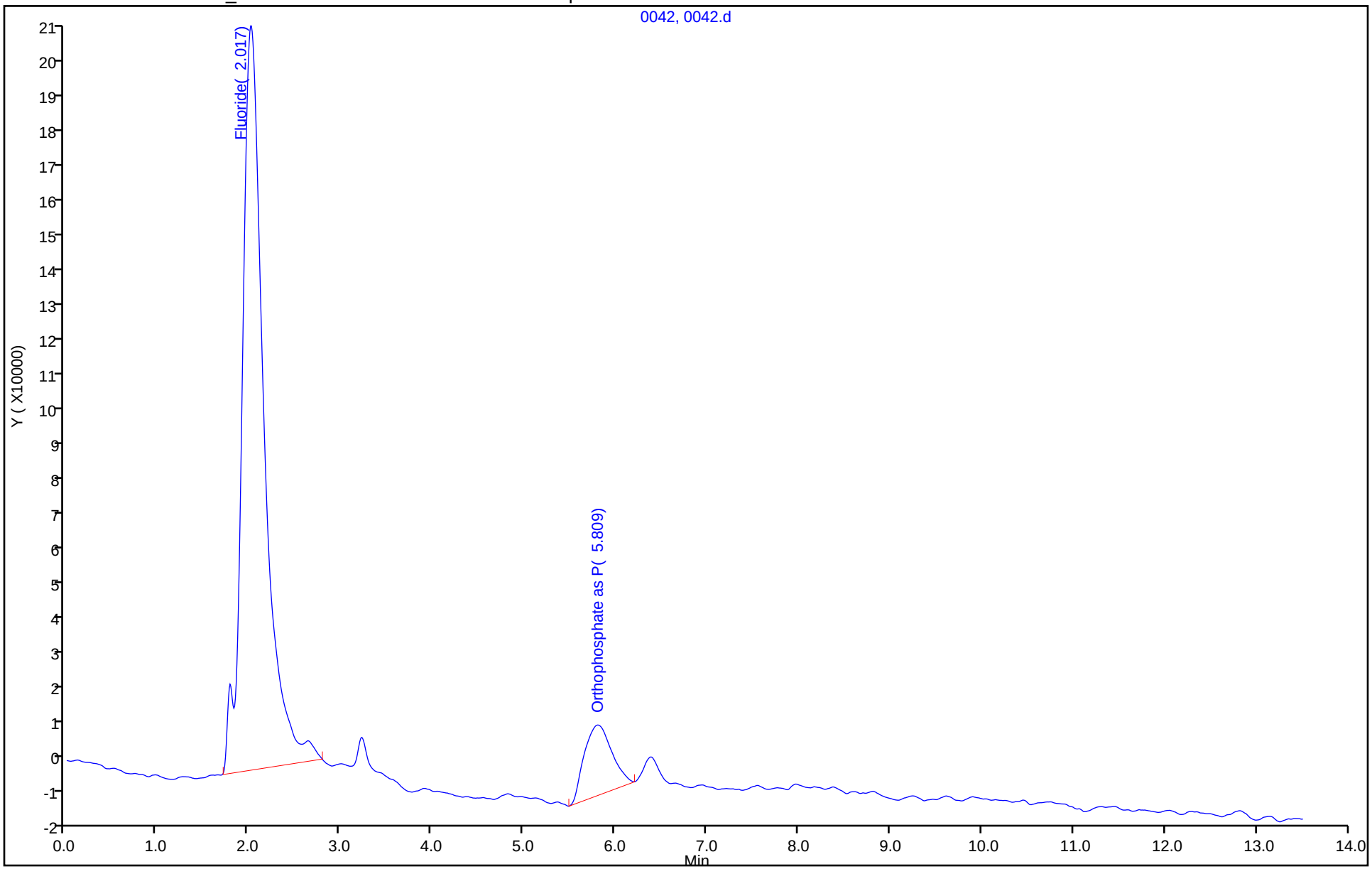
Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0042.d

Injection Date:	17-May-2019 01:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	42
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0042.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-May-2019 01:21:00	ALS Bottle#:	0	Worklist Smp#:	42
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-042				
Misc. Info.:	26729				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	17-May-2019 08:41:16	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0334				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	3468520		0.3235	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.809	5.659	0.150	411624		NC	
6 Sulfate		6.434				ND	

QC Flag Legend

Processing Flags

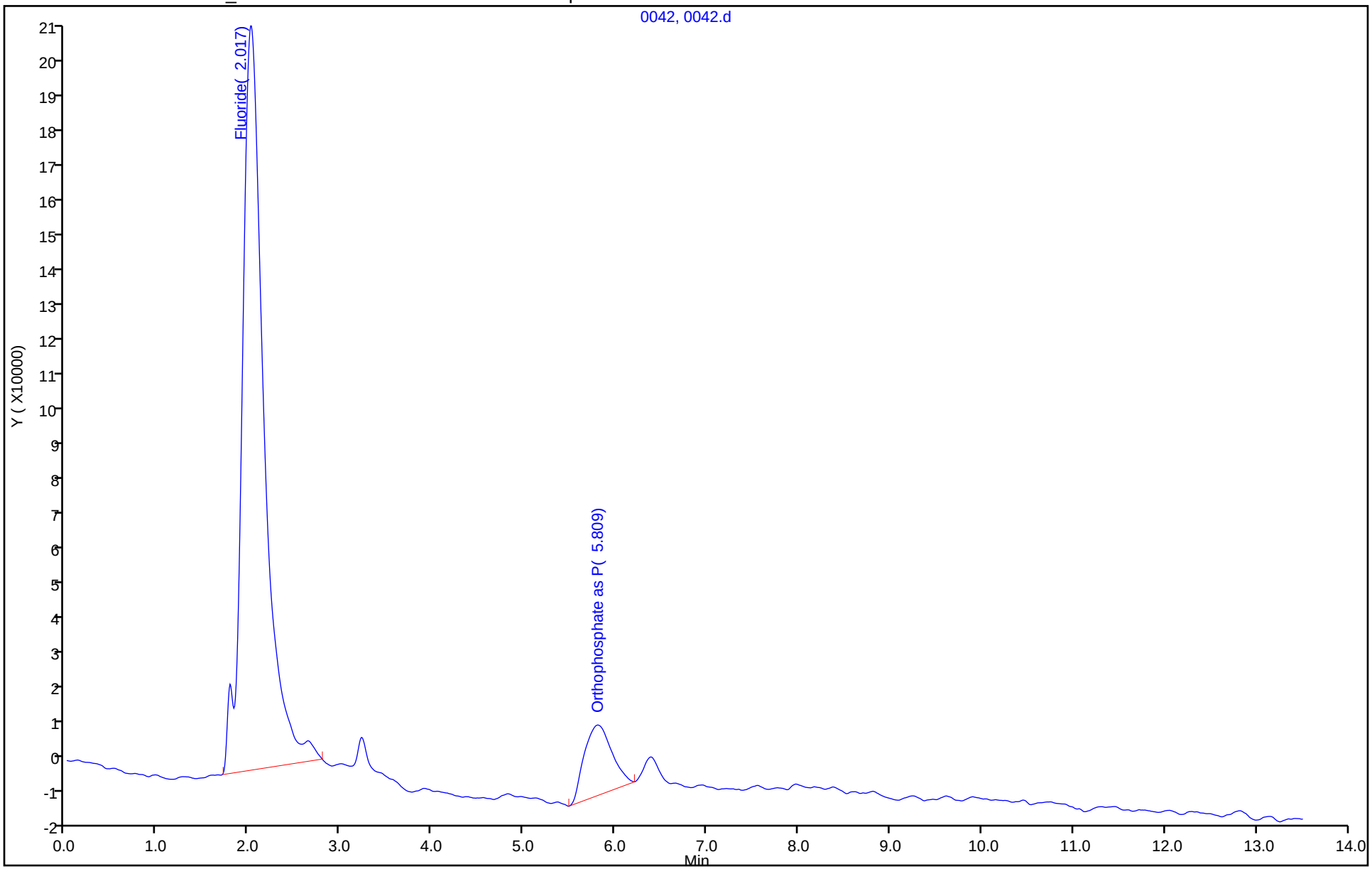
NC - Not Calibrated

Report Date: 17-May-2019 08:41:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0042.d

Injection Date:	17-May-2019 01:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	42
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0046.d
Lims ID: 280-123855-I-1
Client ID: LF5MW-1A_0519
Sample Type: Client
Inject. Date: 17-May-2019 02:27:00 ALS Bottle#: 0 Worklist Smp#: 46
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0081959-046
Misc. Info.: 10360
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:41:16 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.292	0.008	338658	-0.1079	
2 Chloride	3.242	3.242	0.000	222398800	33.7	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.209	5.200	0.009	236171	NC	
7 Orthophosphate as P	5.792	5.659	0.133	859496	NC	
6 Sulfate	6.392	6.434	-0.042	7487274	2.11	

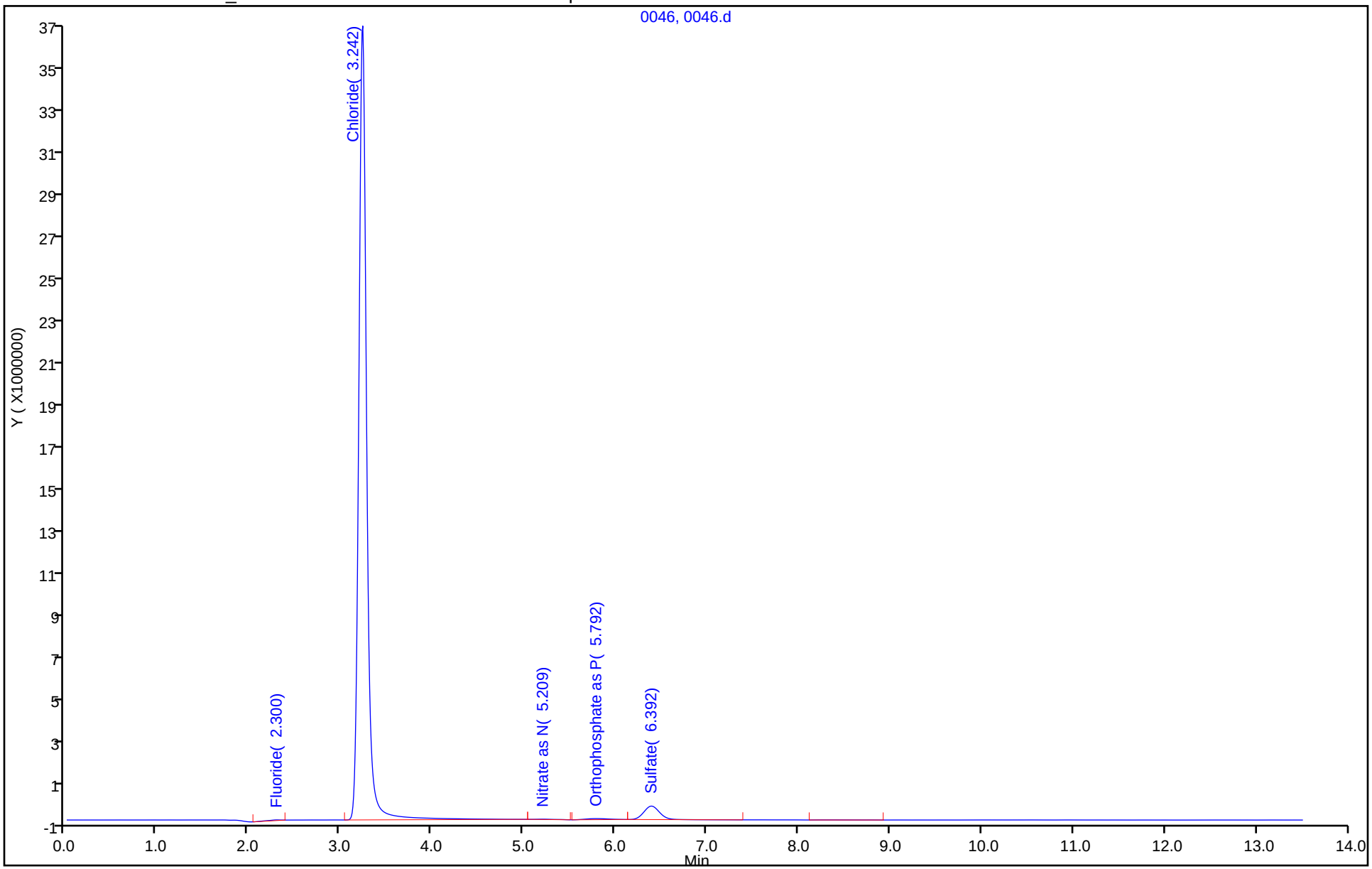
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0046.d				
Injection Date:	17-May-2019 02:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-I-1	Lab Sample ID:	280-123855-1	Worklist Smp#:	46
Client ID:	LF5MW-1A_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0047.d
Lims ID: 280-123855-J-4
Client ID: LF5SW-1_0519
Sample Type: Client
Inject. Date: 17-May-2019 02:43:00 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0081959-047
Misc. Info.: 22678
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:41:16 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.292	0.008	355671	-0.1056	
2 Chloride	3.242	3.242	0.000	395604419	59.5	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.209	5.200	0.009	2137769	NC	
7 Orthophosphate as P	5.817	5.659	0.158	487887	NC	
6 Sulfate	6.392	6.434	-0.042	20736436	5.07	

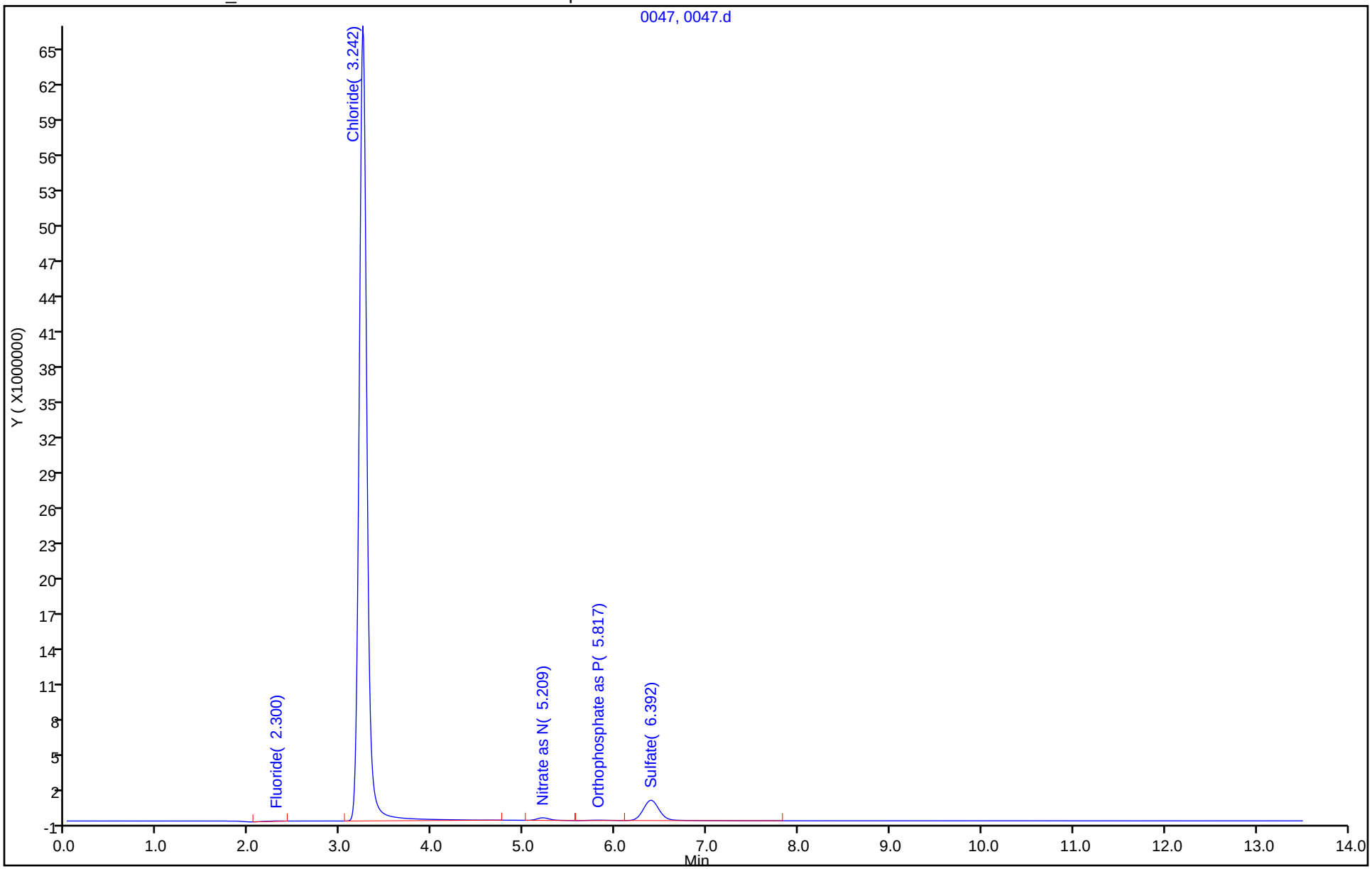
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0047.d				
Injection Date:	17-May-2019 02:43:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-4	Lab Sample ID:	280-123855-4	Worklist Smp#:	47
Client ID:	LF5SW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0048.d
Lims ID: 280-123855-H-5
Client ID: LF5SW-2_0519
Sample Type: Client
Inject. Date: 17-May-2019 03:00:00 ALS Bottle#: 0 Worklist Smp#: 48
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0081959-048
Misc. Info.: 13884
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:41:16 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	1.834	2.292	-0.458	863819	-0.0355	
2 Chloride	3.251	3.242	0.009	408013895	61.3	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.217	5.200	0.017	2079742	NC	
7 Orthophosphate as P	5.817	5.659	0.158	897423	NC	
6 Sulfate	6.409	6.434	-0.025	22974867	5.57	

QC Flag Legend

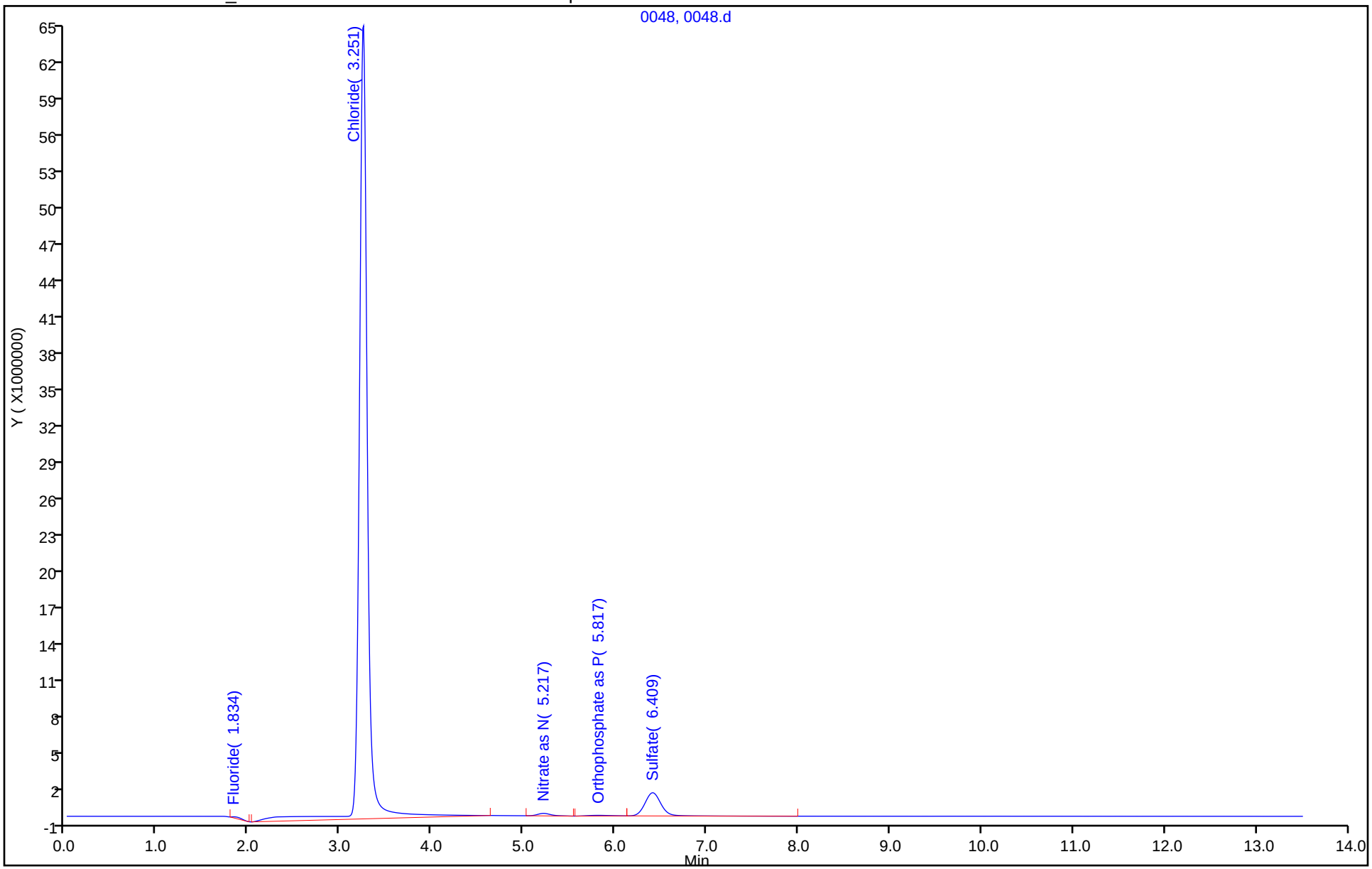
Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0048.d

Injection Date:	17-May-2019 03:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-H-5	Lab Sample ID:	280-123855-5	Worklist Smp#:	48
Client ID:	LF5SW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0049.d
Lims ID: 280-123855-J-6
Client ID: LF5SW-3_0519
Sample Type: Client
Inject. Date: 17-May-2019 03:16:00 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0081959-049
Misc. Info.: 8633
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:41:16 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	1.834	2.292	-0.458	883101	-0.0328	
2 Chloride	3.250	3.242	0.008	418271691	62.8	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.217	5.200	0.017	2082408	NC	
7 Orthophosphate as P	5.817	5.659	0.158	823124	NC	
6 Sulfate	6.409	6.434	-0.025	21770615	5.30	

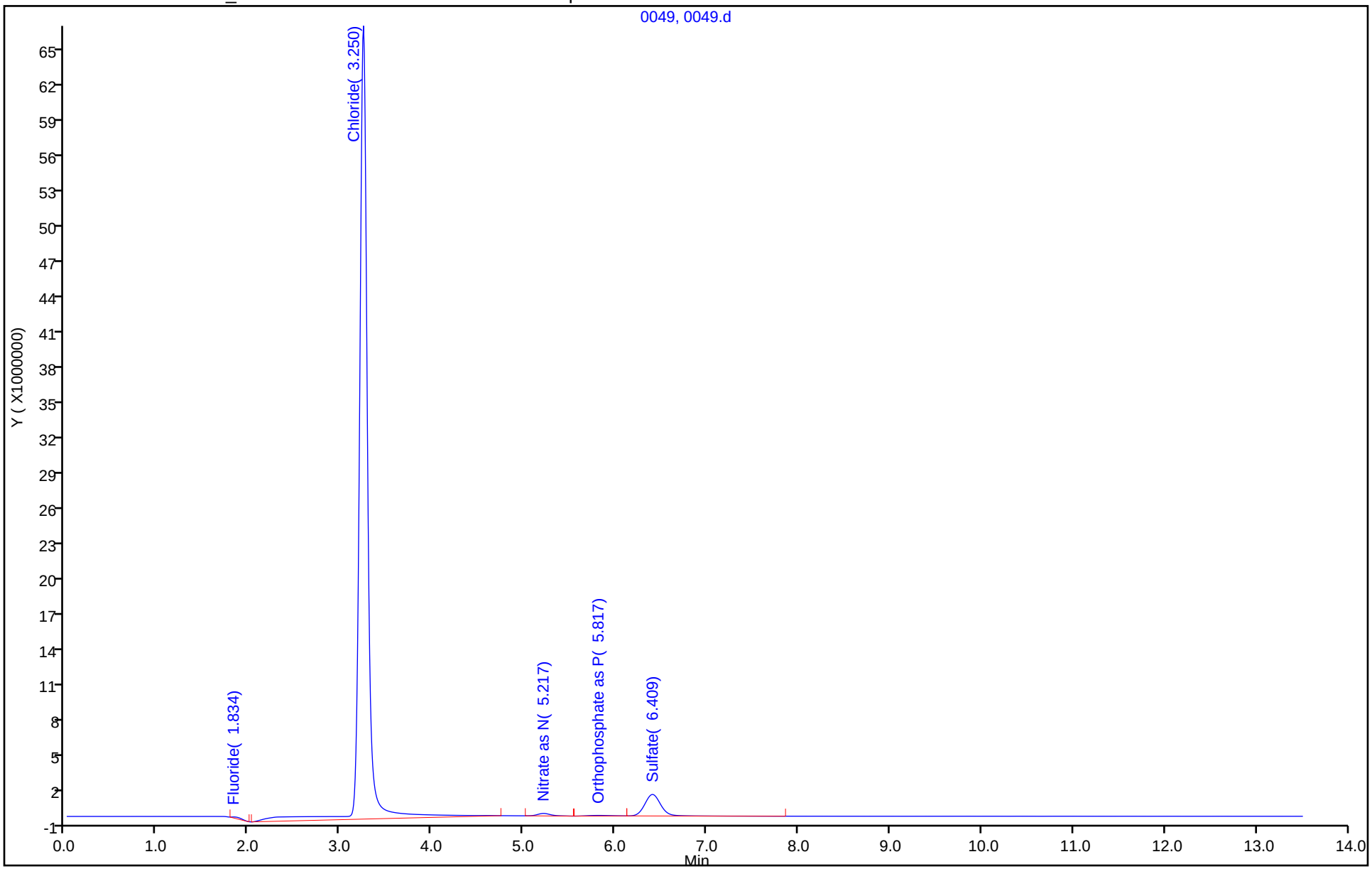
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0049.d				
Injection Date:	17-May-2019 03:16:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123855-J-6	Lab Sample ID:	280-123855-6	Worklist Smp#:	49
Client ID:	LF5SW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0050.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 03:33:00 ALS Bottle#: 0 Worklist Smp#: 50
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-050
Misc. Info.: 17055
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 17-May-2019 08:41:20 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37409937	NC	NC	
2 Chloride	3.242	3.242	0.000	638776554	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	51104744	5.00	4.90	
4 Bromide	4.634	4.634	0.000	10132293	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	56913683	5.00	4.94	
7 Orthophosphate as P	5.626	5.659	-0.033	21189633	5.00	5.11	
6 Sulfate	6.426	6.434	-0.008	417149074	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

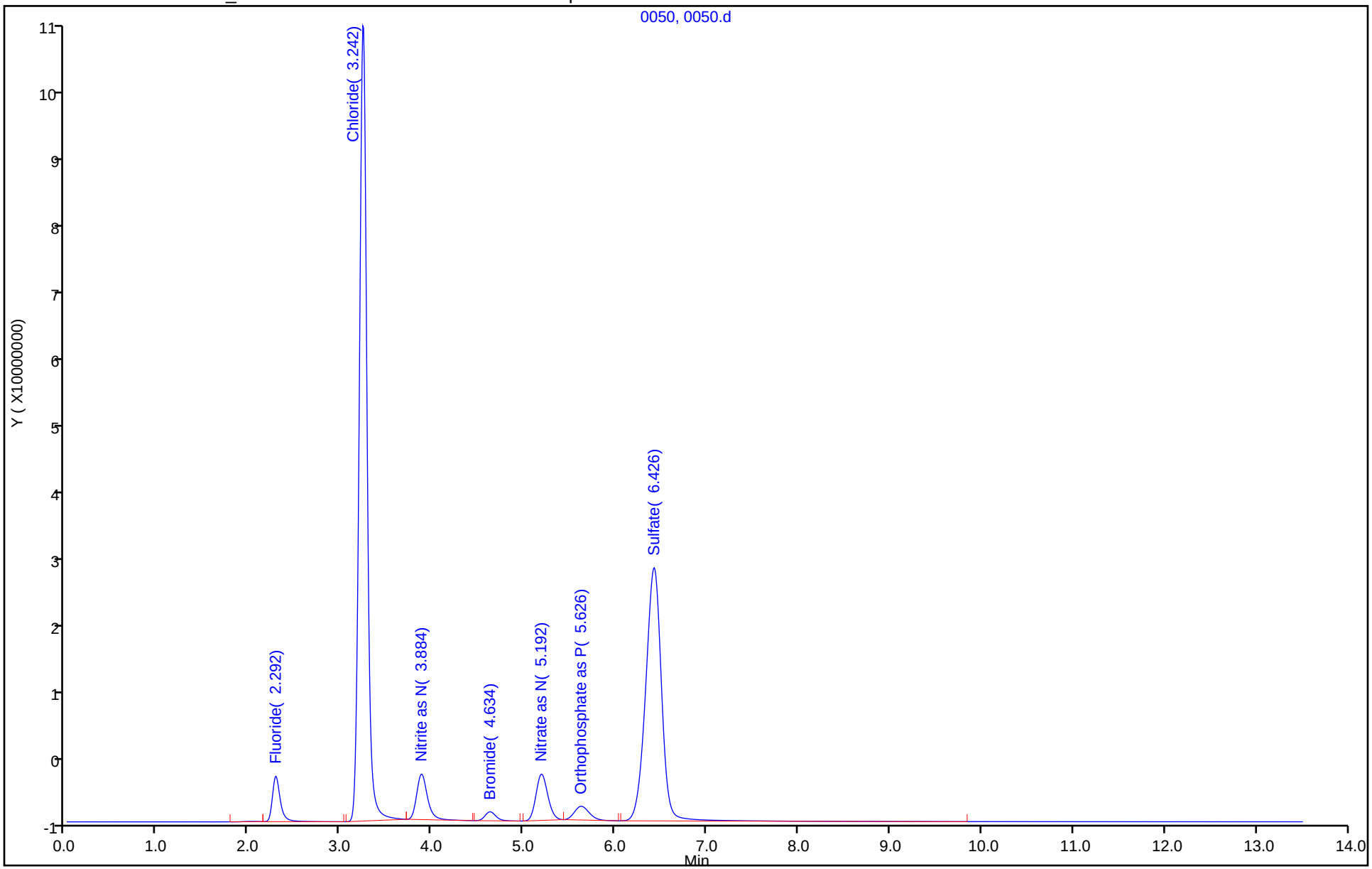
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 17-May-2019 08:41:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0050.d

Injection Date:	17-May-2019 03:33:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	50
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0050.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 03:33:00 ALS Bottle#: 0 Worklist Smp#: 50
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-050
Misc. Info.: 17055
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:41:20 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37409937	5.00	5.00	
2 Chloride	3.242	3.242	0.000	638776554	100.0	95.6	
3 Nitrite as N	3.884	3.892	-0.008	51104744	NC	NC	
4 Bromide	4.634	4.634	0.000	10132293	5.00	5.23	
5 Nitrate as N	5.192	5.200	-0.008	56913683	NC	NC	
7 Orthophosphate as P	5.626	5.659	-0.033	21189633	NC	NC	
6 Sulfate	6.426	6.434	-0.008	417149074	100.0	93.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

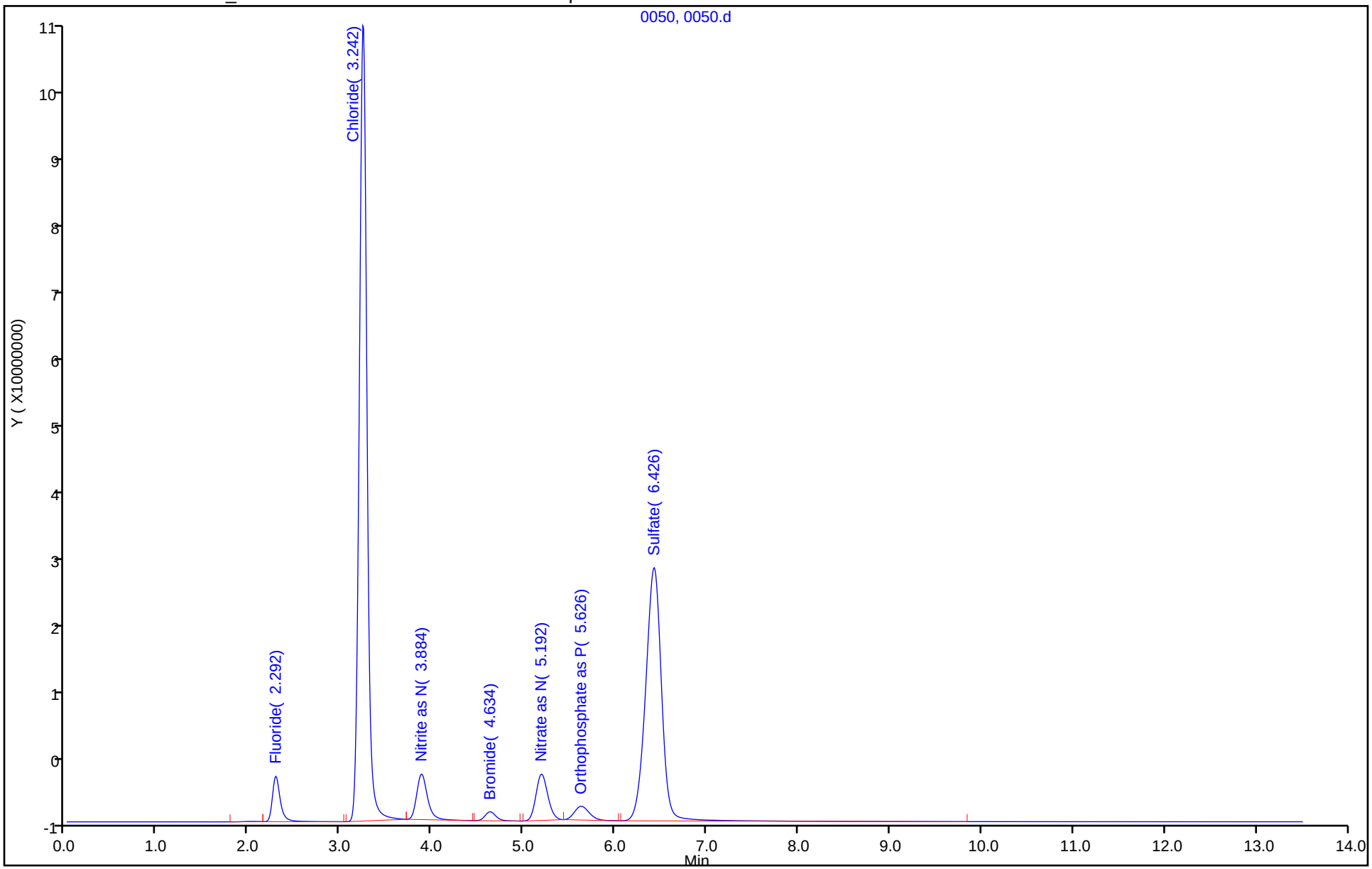
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 17-May-2019 08:41:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0050.d

Injection Date:	17-May-2019 03:33:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	50
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0051.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-May-2019 03:49:00	ALS Bottle#:	0	Worklist Smp#:	51
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-051				
Misc. Info.:	11042				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	17-May-2019 08:41:20	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0334				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	3615836		NC	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.809	5.659	0.150	488962		0.1102	
6 Sulfate	6.392	6.434	-0.042	101395		NC	

QC Flag Legend

Processing Flags

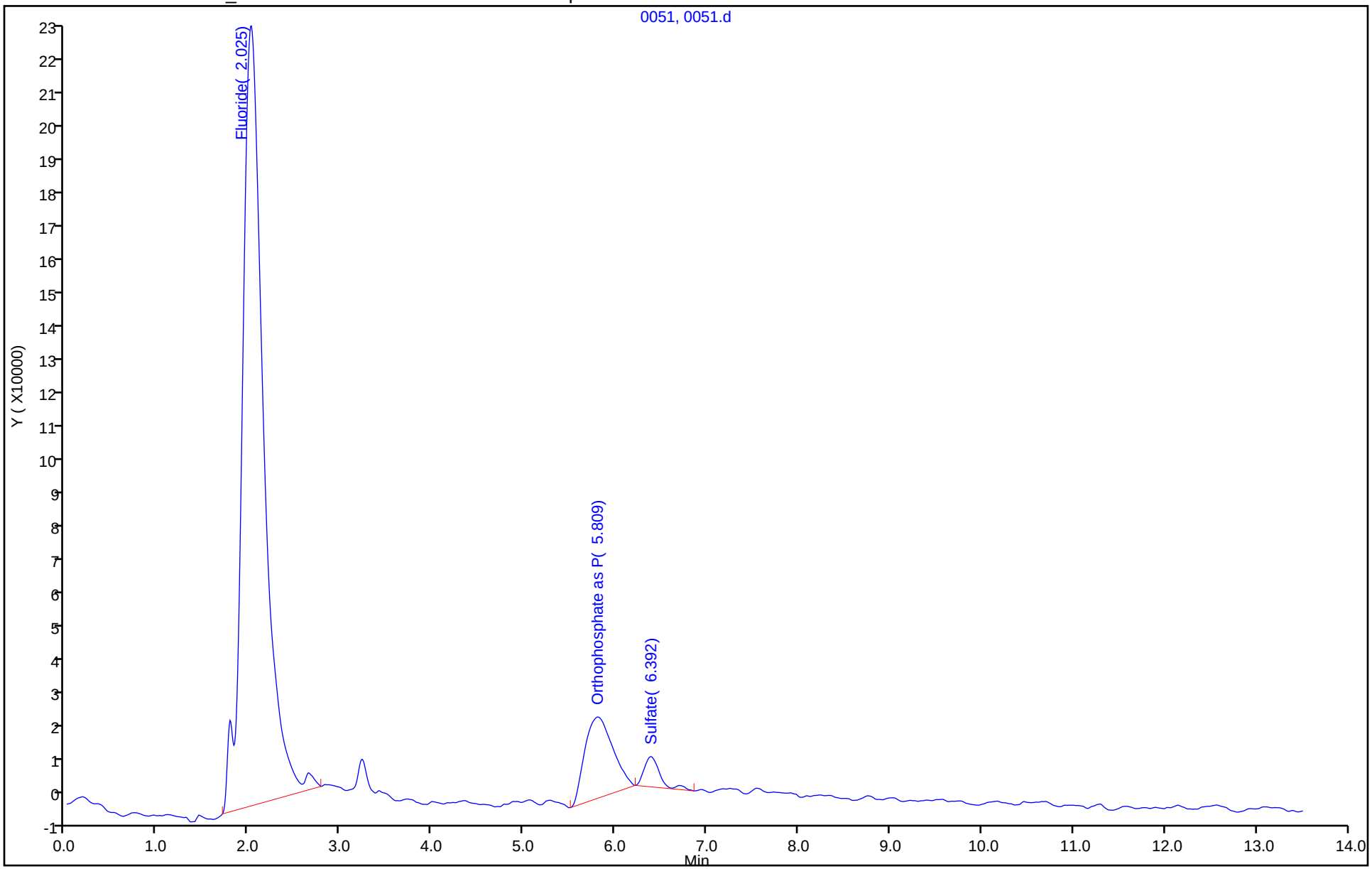
NC - Not Calibrated

Report Date: 17-May-2019 08:41:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0051.d

Injection Date:	17-May-2019 03:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	51
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0051.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 03:49:00 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-051
Misc. Info.: 11042
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:41:20 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	3615836		0.3439	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.809	5.659	0.150	488962		NC	
6 Sulfate	6.392	6.434	-0.042	101395		0.4600	

QC Flag Legend

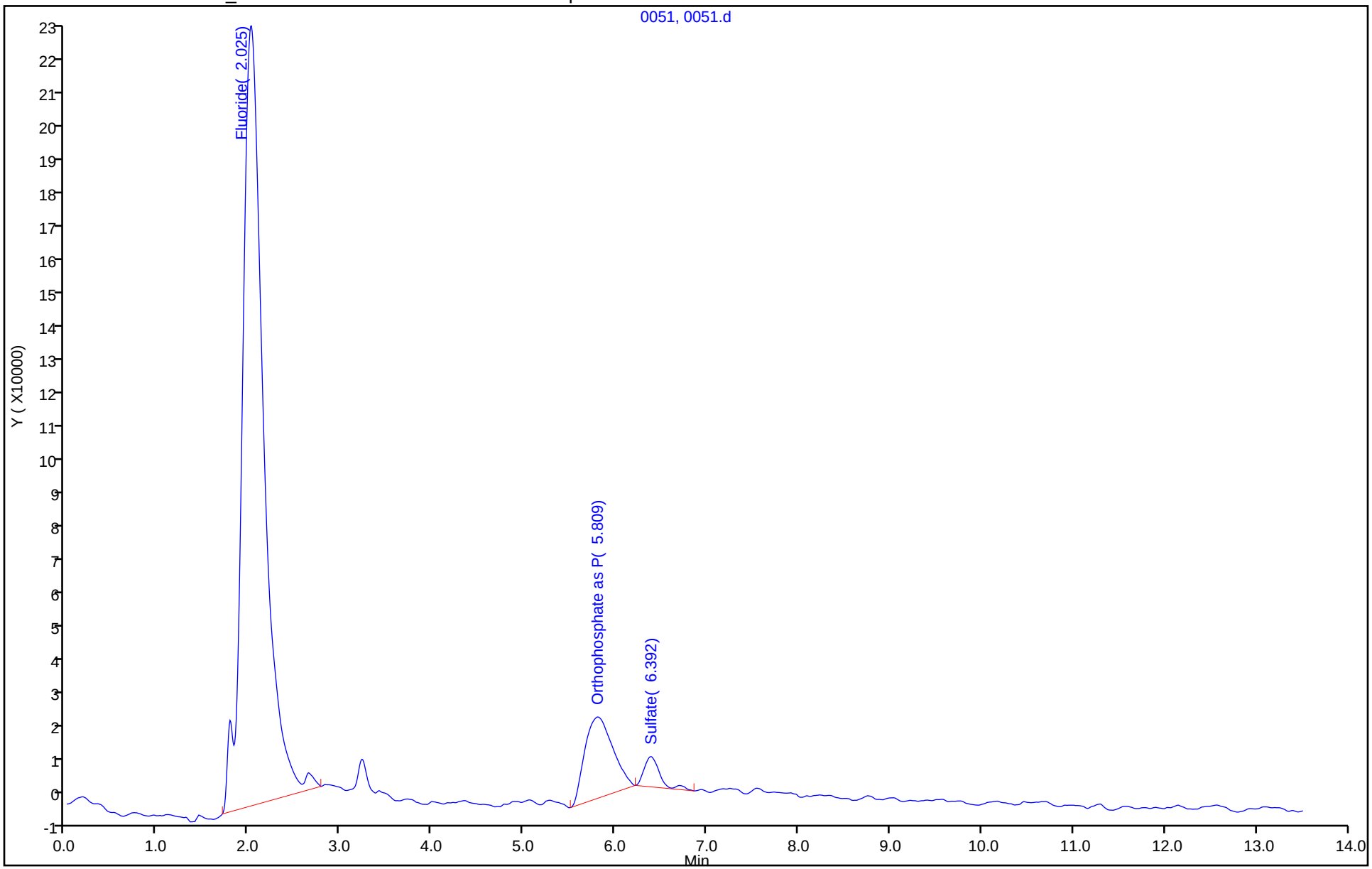
Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0051.d

Injection Date:	17-May-2019 03:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	51
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



pH 6/7/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	cl			1
2*	NPOC	ICB	1.000	cl			2
3*	NPOC	LCS	1.000	cl			3
4*	NPOC	MB	1.000	cl			4
5*	NPOC	TIC	1.000	cl			5
6*	NPOC	280-123691-c-1	2.000	cl	RERUN		6
7*	NPOC	280-123829-b-5	1.000	cl			7
8*	NPOC	280-123838-a-8	1.000	cl			8
9*	NPOC	MS 280-123838-a-8	1.000	cl			9
10*	NPOC	MSD 280-123838-a-8	1.000	cl			10
11*	NPOC	280-123838-a-10	1.000	cl			11
12*	NPOC	280-123842-d-1	1.000	cl			12
13*	NPOC	280-123844-d-1	1.000	cl			13
14*	NPOC	280-123845-a-2	1.000	cl			14
15*	NPOC	CCV	1.000	cl			15
16*	NPOC	CCB	1.000	cl			16
17*	NPOC	280-123855-d-1	1.000	cl			17
18*	NPOC	280-123855-c-2	1.000	cl			18
19*	NPOC	280-123843-b-1	1.000	cl			19
20*	NPOC	MS 280-123843-b-1	1.000	cl			20
21*	NPOC	MSD 280-123843-b-1	1.000	cl			21
22*	NPOC	280-123843-b-2	1.000	cl			22
23*	NPOC	280-123843-b-3	1.000	cl			23
24*	NPOC	280-123843-c-4	1.000	cl			24
25*	NPOC	280-123843-b-5	1.000	cl			25
26*	NPOC	280-123853-c-1	1.000	cl			26
27*	NPOC	CCV	1.000	cl			27
28*	NPOC	CCB	1.000	cl			28
29*	NPOC	280-123853-c-2	1.000	cl			29
30*	NPOC	280-123853-c-3	1.000	cl			30
31*	NPOC	280-123853-c-4	1.000	cl			31
32*	NPOC	280-123853-c-5	1.000	cl			32
33*	NPOC	280-123853-c-6	1.000	cl			33
34*	NPOC	LCS	1.000	cl			34
35*	NPOC	MB	1.000	cl			35
36*	NPOC	TIC	1.000	cl			36
37*	NPOC	280-123919-b-2	1.000	cl			37
38*	NPOC	280-123919-b-4	1.000	cl			38
39*	NPOC	CCV	1.000	cl			39
40*	NPOC	CCB	1.000	cl			40
41*	NPOC	280-123919-b-6	1.000	cl			41
42*	NPOC	MS 280-123919-b-6	1.000	cl			42
43*	NPOC	MSD 280-123919-b-6	1.000	cl			43
44*	NPOC	280-123919-b-5	1.000	cl			44
45*	NPOC	280-123706-d-1	2x ~~1.000~~	cl	RERUN		45
46*	NPOC	280-123820-k-4	1.000	cl			46
47*	NPOC	280-123820-k-5	1.000	cl			47
48*	NPOC	280-123822-h-1	Dx ~~1.000~~	cl			48
49*	NPOC	280-123832-d-7	1.000	cl			49
50*	NPOC	280-123832-d-8	2x ~~1.000~~	cl	milky		50
51*	NPOC	CCV	1.000	cl			51

pH 6/7/19

	Analysis	Sample Name	Manual Diluti	Result	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	"			52
53*	NPOC	280-123832-c-10	1.000	"			53
54*	NPOC	MS 280-123832-c-10	1.000	"			54
55*	NPOC	MSD 280-123832-c-10	1.000	"			55
56*	NPOC	280-123832-c-11	1.000	"			56
57*	NPOC	280-123863-d-2	1.000	"			57
58*	NPOC	280-123863-d-3	200 x ~~1.000~~	10			58
59*	NPOC	280-123863-d-4	1.000	"			59
60*	NPOC	280-123941-k-2	1.000	"			60
61*	NPOC	280-123941-k-4	1.000	"			61
62*	NPOC	280-123941-k-5	1.000	"			62
63*	NPOC	CCV	1.000	"			63
64*	NPOC	CCB	1.000	"			64
65*	NPOC	280-123941-j-6	1.000	"			65
66*	NPOC	280-123941-k-7	1.000	"			66
67*	NPOC	CCV	1.000	"			67
68*	NPOC	CCB	1.000	"			68

Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	ICV
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

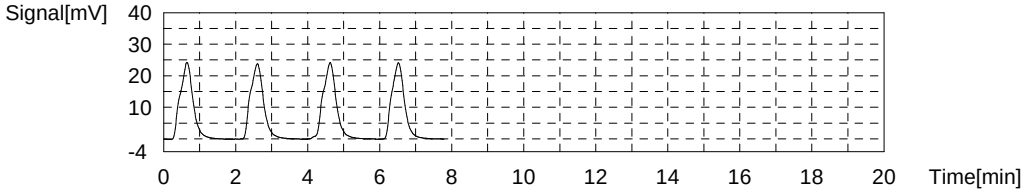
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.70	20.82mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 3:47:40 PM
2	61.04	20.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 3:49:51 PM
3	61.97	20.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 3:51:55 PM
4	59.46	20.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 3:53:59 PM

Mean Area 61.04
Mean Conc. 20.60mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

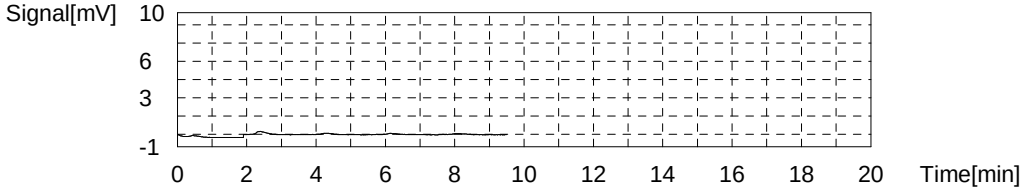
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.04377mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1450	-0.03278mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:02:30 PM
2	0.4671	0.07634mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:04:34 PM
3	0.1753	-0.02252mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:06:38 PM
4	0.1300	-0.03786mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:08:42 PM
5	0.000	-0.08190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:10:46 PM

Mean Area 0.1126
Mean Conc. -0.04377mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

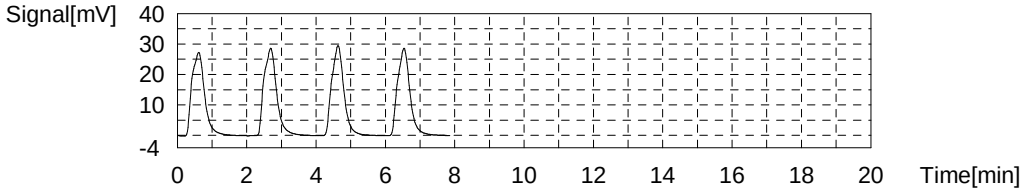
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	71.19	24.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:19:26 PM
2	73.72	24.89mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:21:32 PM
3	72.71	24.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:23:36 PM
4	71.59	24.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:25:43 PM

Mean Area 72.30
Mean Conc. 24.41mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

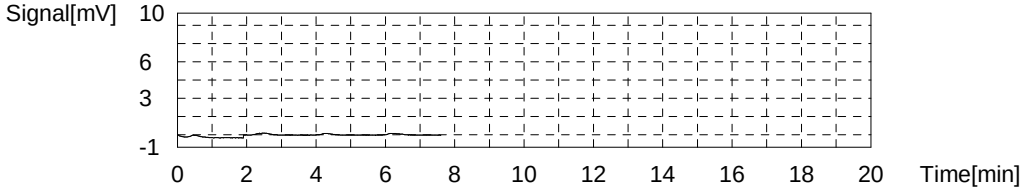
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01190mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2493	0.00255mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:34:14 PM
2	0.3871	0.04924mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:36:18 PM
3	0.1993	-0.01439mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:38:22 PM
4	0.2719	0.01021mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:40:26 PM

Mean Area 0.2769
Mean Conc. 0.01190mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

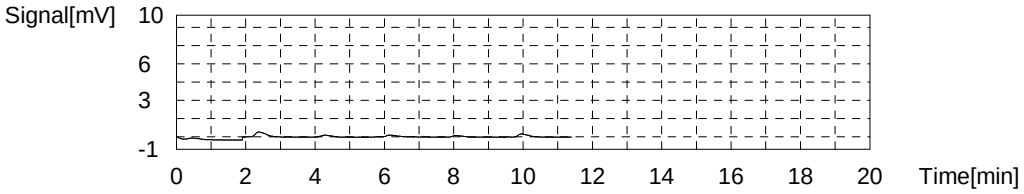
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02782mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:48:58 PM
2	0.8319	0.1999mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:51:02 PM
3	0.2999	0.01970mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:53:05 PM
4	0.2668	0.00848mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:55:09 PM
5	0.2593	0.00594mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:57:13 PM
6	0.4695	0.07715mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:59:17 PM

Mean Area 0.3239
Mean Conc. 0.02782mg/L



Sample

Sample Name: 280-123691-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

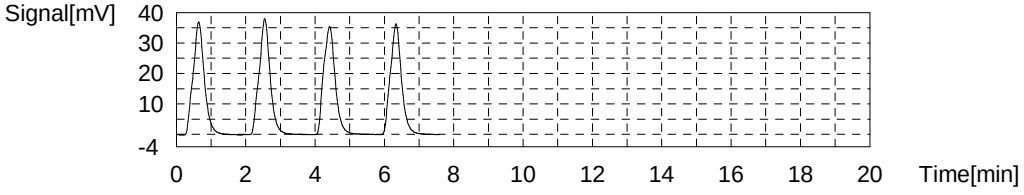
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:56.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.66	57.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:07:42 PM
2	84.57	57.14mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:09:46 PM
3	82.86	55.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:11:50 PM
4	81.98	55.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:13:54 PM

Mean Area 83.52
Mean Conc. 56.42mg/L



Sample

Sample Name: 280-123829-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

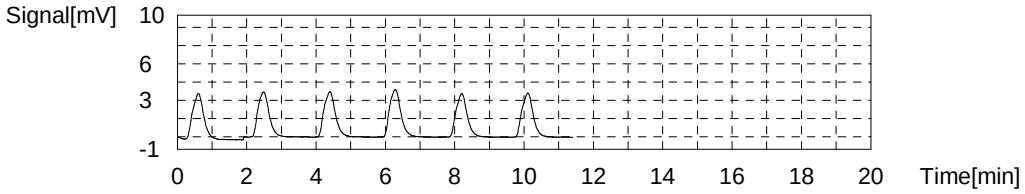
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.734mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.348	2.746mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:22:26 PM
2	8.263	2.717mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:24:30 PM
3	8.503	2.799mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:26:34 PM
4	8.855	2.918mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:28:38 PM
5	7.887	2.590mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:30:42 PM
6	8.130	2.672mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:32:46 PM

Mean Area 8.311
Mean Conc. 2.734mg/L



Sample

Sample Name: 280-123838-a-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

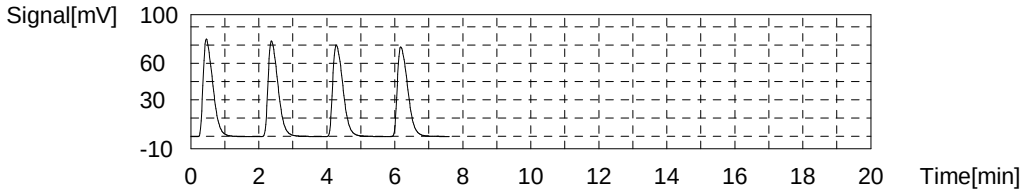
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:53.94mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	160.6	54.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:41:11 PM
2	161.1	54.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:43:15 PM
3	158.6	53.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:45:19 PM
4	157.5	53.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:47:23 PM

Mean Area 159.4
Mean Conc. 53.94mg/L



Sample

Sample Name: MS 280-123838-a-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

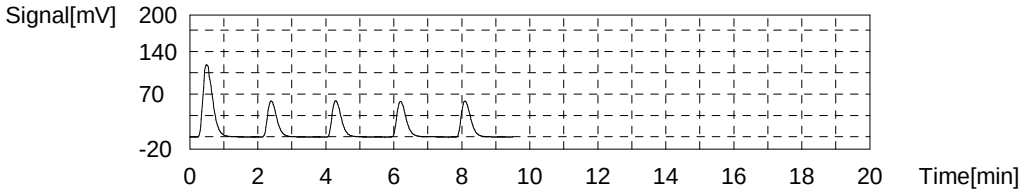
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:77.01mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	236.3	79.97mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:55:54 PM
2	113.3	76.69mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:57:58 PM
3	113.5	76.82mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:00:02 PM
4	113.5	76.82mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:02:05 PM
5	114.8	77.70mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:04:09 PM

Mean Area 113.8
Mean Conc. 77.01mg/L



Sample

Sample Name: MSD 280-123838-a-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

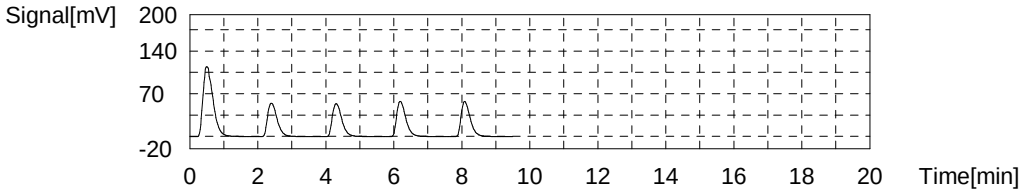
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:76.30mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	237.1	80.24mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:12:40 PM
2	108.5	76.50mg/L	24uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:14:44 PM
3	106.0	74.73mg/L	24uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:16:48 PM
4	109.9	77.48mg/L	24uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:18:51 PM
5	108.5	76.50mg/L	24uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:20:55 PM

Mean Area 108.2
Mean Conc. 76.30mg/L



Sample

Sample Name: 280-123838-a-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

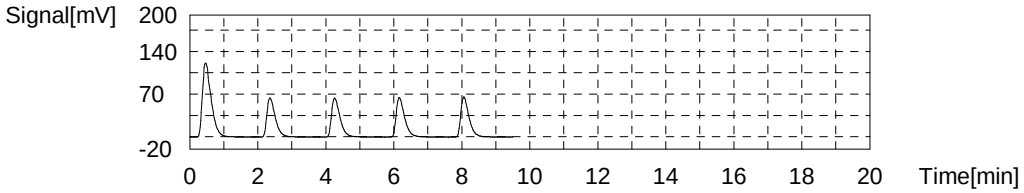
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:72.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	220.7	74.69mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:29:26 PM
2	111.0	72.23mg/L	26uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:31:30 PM
3	110.8	72.10mg/L	26uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:33:34 PM
4	112.2	73.02mg/L	26uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:35:38 PM
5	110.8	72.10mg/L	26uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:37:41 PM

Mean Area 111.2
Mean Conc. 72.36mg/L



Sample

Sample Name: 280-123842-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

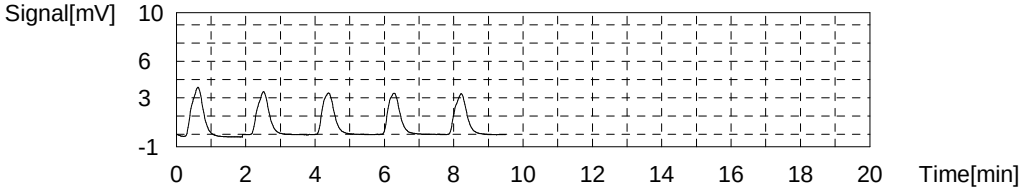
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.665mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.548	3.153mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:46:12 PM
2	8.247	2.712mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:48:16 PM
3	8.077	2.654mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:50:20 PM
4	8.043	2.643mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:52:24 PM
5	8.061	2.649mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:54:28 PM

Mean Area 8.107
Mean Conc. 2.665mg/L



Sample

Sample Name: 280-123844-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

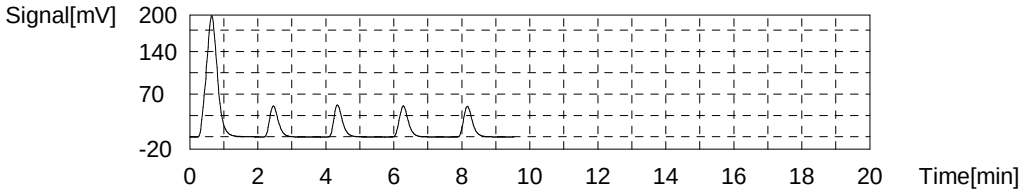
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:131.1mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	455.0	154.1mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:03:00 PM
2	92.28	130.2mg/L	12uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:05:04 PM
3	92.53	130.5mg/L	12uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:07:08 PM
4	94.81	133.7mg/L	12uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:09:12 PM
5	91.97	129.7mg/L	12uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:11:15 PM

Mean Area 92.90
Mean Conc. 131.1mg/L



Sample

Sample Name: 280-123845-a-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

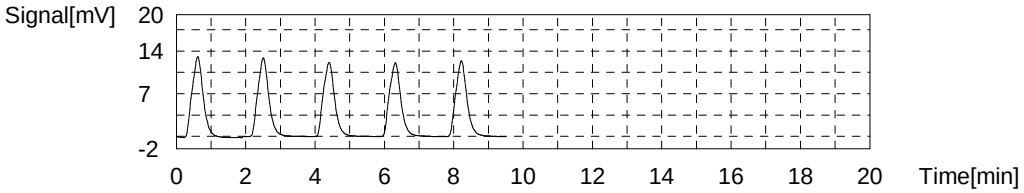
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.409mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.82	10.02mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:19:46 PM
2	28.56	9.594mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:21:50 PM
3	27.64	9.282mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:23:54 PM
4	27.91	9.373mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:25:58 PM
5	27.95	9.387mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:28:02 PM

Mean Area 28.02
Mean Conc. 9.409mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

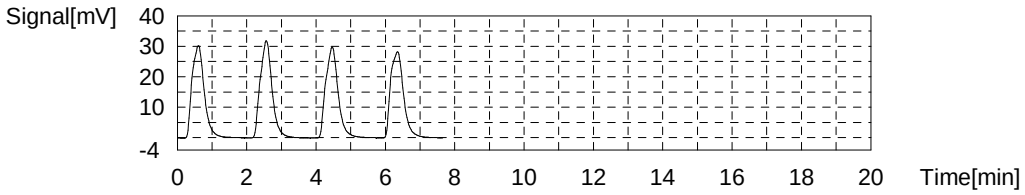
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.46	25.48mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:36:34 PM
2	76.71	25.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:38:38 PM
3	74.60	25.19mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:40:42 PM
4	73.95	24.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:42:47 PM

Mean Area 75.18
Mean Conc. 25.39mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

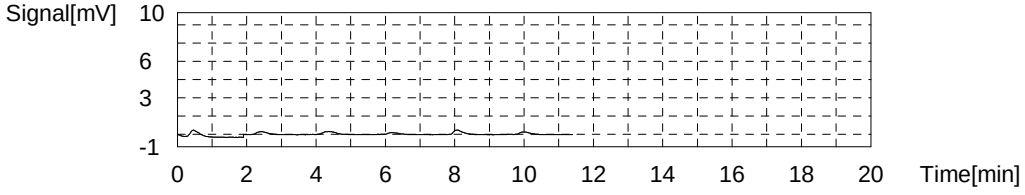
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06704mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9324	0.2340mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:51:18 PM
2	0.4757	0.07925mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:53:22 PM
3	0.5871	0.1170mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:55:26 PM
4	0.3115	0.02363mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:57:30 PM
5	0.6732	0.1462mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:59:34 PM
6	0.3843	0.04829mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:01:38 PM

Mean Area 0.4397
Mean Conc. 0.06704mg/L



Sample

Sample Name: 280-123855-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

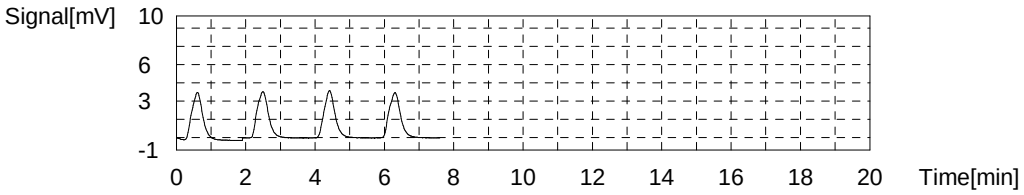
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.799mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.529	2.808mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:10:03 PM
2	8.647	2.848mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:12:07 PM
3	8.369	2.753mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:14:11 PM
4	8.466	2.786mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:16:15 PM

Mean Area 8.503
Mean Conc. 2.799mg/L



Sample

Sample Name: 280-123855-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

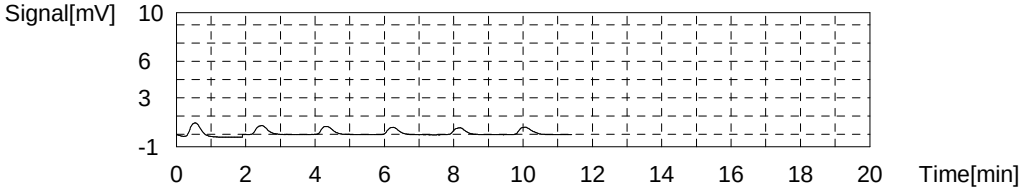
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3862mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.368	0.7203mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:24:46 PM
2	1.681	0.4876mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:26:50 PM
3	1.462	0.4134mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:28:54 PM
4	1.312	0.3626mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:30:58 PM
5	1.250	0.3416mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:33:02 PM
6	1.503	0.4273mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:35:05 PM

Mean Area 1.382
Mean Conc. 0.3862mg/L



Sample

Sample Name: 280-123843-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

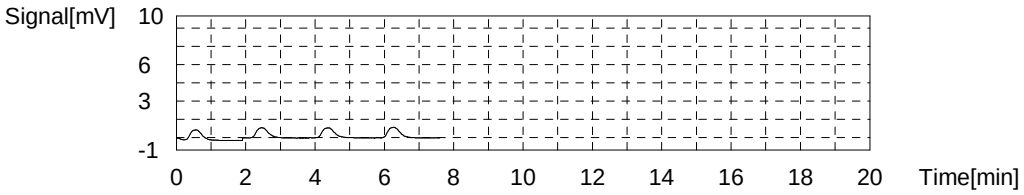
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5687mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.838	0.5408mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:43:31 PM
2	1.931	0.5723mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:45:35 PM
3	1.927	0.5709mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:47:39 PM
4	1.986	0.5909mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:49:43 PM

Mean Area 1.920
Mean Conc. 0.5687mg/L



Sample

Sample Name: MS 280-123843-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

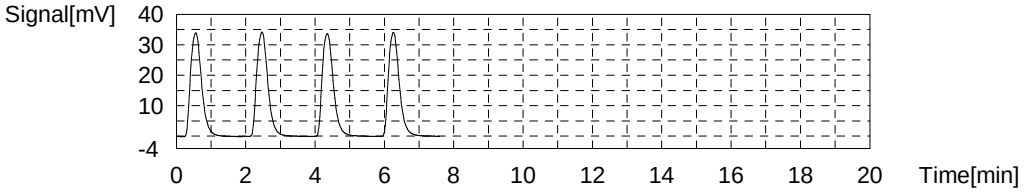
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.62mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.47	25.82mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:58:14 PM
2	76.56	25.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:00:18 PM
3	75.52	25.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:02:22 PM
4	74.97	25.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:04:26 PM

Mean Area 75.88
Mean Conc. 25.62mg/L



Sample

Sample Name: MSD 280-123843-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

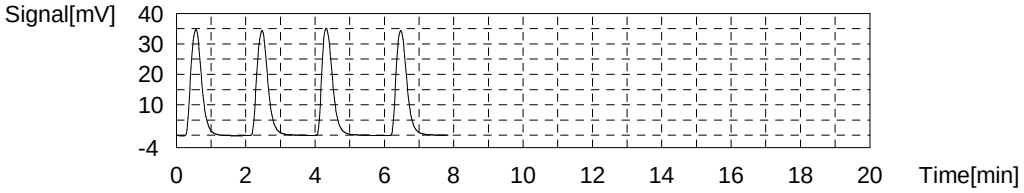
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.62	25.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:12:57 PM
2	76.31	25.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:15:01 PM
3	75.90	25.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:17:19 PM
4	74.38	25.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:19:23 PM

Mean Area 75.80
Mean Conc. 25.60mg/L



Sample

Sample Name: 280-123843-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

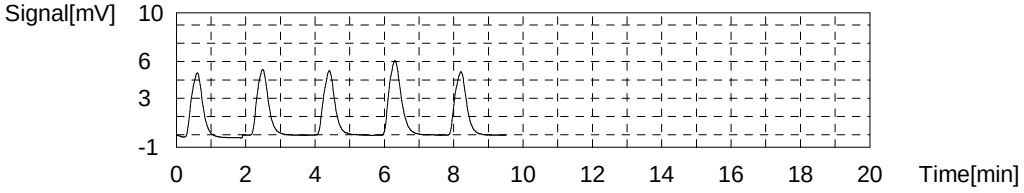
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.983mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.93	3.960mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:27:55 PM
2	12.16	4.038mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:29:59 PM
3	11.87	3.939mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:32:03 PM
4	14.96	4.986mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:34:07 PM
5	12.04	3.997mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:36:11 PM

Mean Area 12.00
Mean Conc. 3.983mg/L



Sample

Sample Name: 280-123843-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

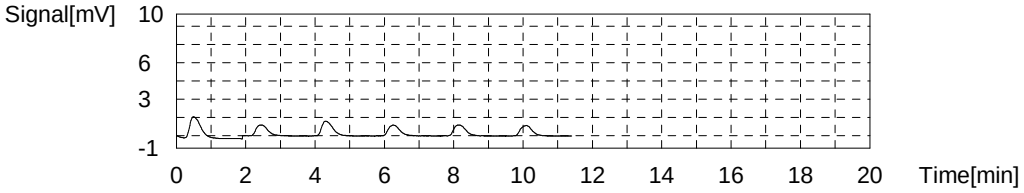
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6110mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.782	1.199mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:44:41 PM
2	2.038	0.6085mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:46:45 PM
3	2.636	0.8111mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:48:49 PM
4	2.049	0.6123mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:50:53 PM
5	2.113	0.6339mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:52:57 PM
6	1.981	0.5892mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:55:01 PM

Mean Area 2.045
Mean Conc. 0.6110mg/L



Sample

Sample Name: 280-123843-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

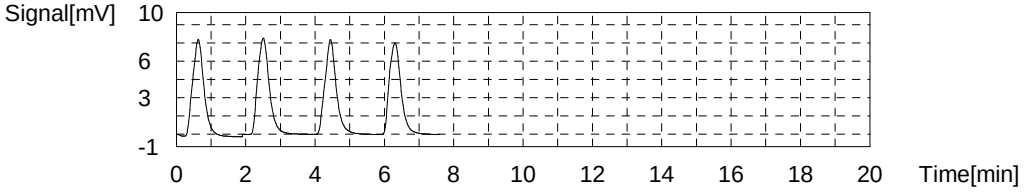
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.008mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.10	6.050mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:03:26 PM
2	18.35	6.135mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:05:30 PM
3	17.73	5.925mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:07:34 PM
4	17.73	5.925mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:09:38 PM

Mean Area 17.98
Mean Conc. 6.008mg/L



Sample

Sample Name: 280-123843-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

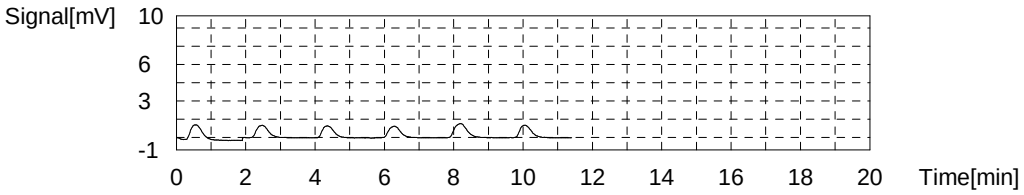
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6877mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.787	0.8623mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:18:09 PM
2	2.364	0.7190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:20:13 PM
3	2.254	0.6817mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:22:17 PM
4	2.164	0.6512mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:24:21 PM
5	2.909	0.9036mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:26:25 PM
6	2.305	0.6990mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:28:28 PM

Mean Area 2.272
Mean Conc. 0.6877mg/L



Sample

Sample Name: 280-123853-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

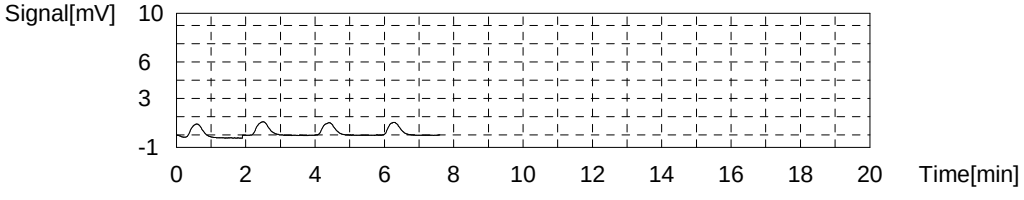
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7709mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.511	0.7688mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:36:54 PM
2	2.656	0.8179mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:38:58 PM
3	2.464	0.7528mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:41:02 PM
4	2.438	0.7440mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:43:06 PM

Mean Area 2.517
Mean Conc. 0.7709mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

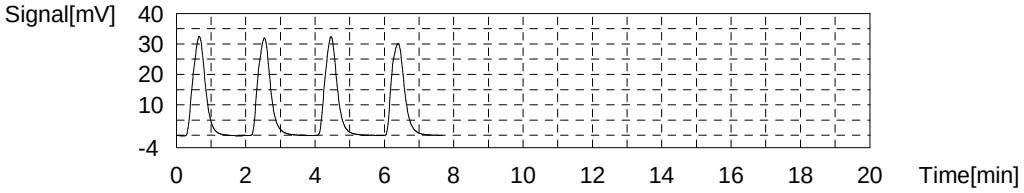
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.00mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.86	27.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:51:37 PM
2	80.57	27.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:53:42 PM
3	78.73	26.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:55:49 PM
4	78.64	26.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:57:53 PM

Mean Area 79.95
Mean Conc. 27.00mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

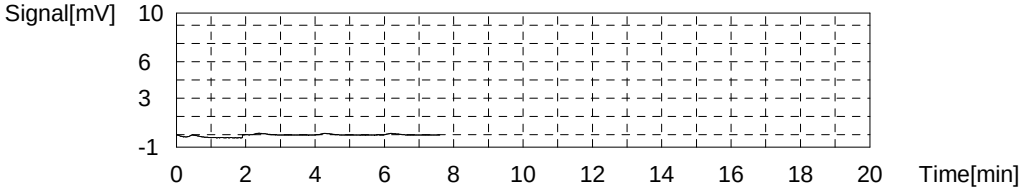
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00184mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2764	0.01173mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:06:24 PM
2	0.2501	0.00282mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:08:28 PM
3	0.2187	-0.00781mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:10:32 PM
4	0.2436	0.00062mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:12:36 PM

Mean Area 0.2472
Mean Conc. 0.00184mg/L



Sample

Sample Name: 280-123853-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

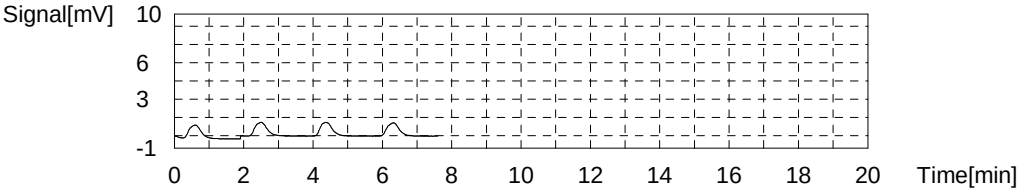
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7986mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.514	0.7698mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:21:07 PM
2	2.658	0.8186mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:23:11 PM
3	2.631	0.8094mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:25:15 PM
4	2.593	0.7965mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:27:19 PM

Mean Area 2.599
Mean Conc. 0.7986mg/L



Sample

Sample Name: 280-123853-c-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

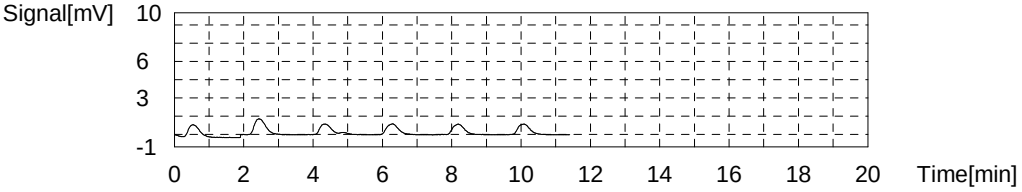
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6143mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.157	0.6488mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:35:50 PM
2	2.951	0.9178mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:37:54 PM
3	2.236	0.6756mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:39:58 PM
4	2.097	0.6285mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:42:02 PM
5	1.947	0.5777mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:44:06 PM
6	2.019	0.6021mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:46:09 PM

Mean Area 2.055
Mean Conc. 0.6143mg/L



Sample

Sample Name: 280-123853-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

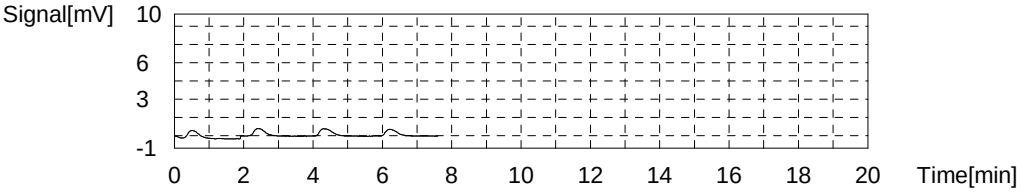
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3666mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.291	0.3555mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:54:35 PM
2	1.317	0.3643mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:56:39 PM
3	1.443	0.4070mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:58:43 PM
4	1.245	0.3399mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:00:47 AM

Mean Area 1.324
Mean Conc. 0.3666mg/L



Sample

Sample Name: 280-123853-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

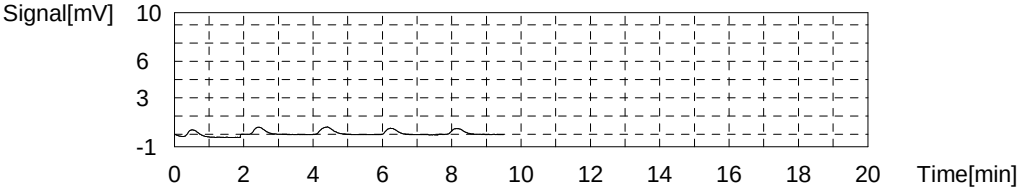
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3152mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.169	0.3141mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:09:19 AM
2	1.250	0.3416mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:11:23 AM
3	1.547	0.4422mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:13:27 AM
4	1.155	0.3094mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:15:31 AM
5	1.115	0.2958mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:17:35 AM

Mean Area 1.172
Mean Conc. 0.3152mg/L



Sample

Sample Name: 280-123853-c-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

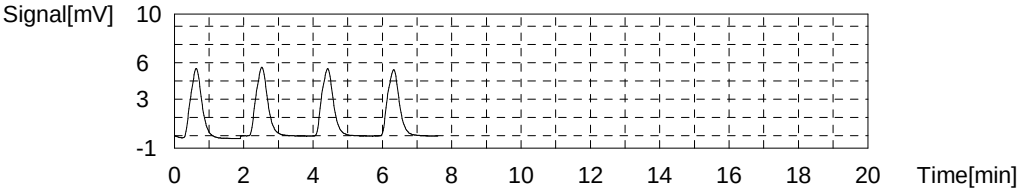
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.289mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.96	4.309mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:26:06 AM
2	13.13	4.366mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:28:10 AM
3	12.81	4.258mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:30:14 AM
4	12.71	4.224mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:32:18 AM

Mean Area 12.90
Mean Conc. 4.289mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

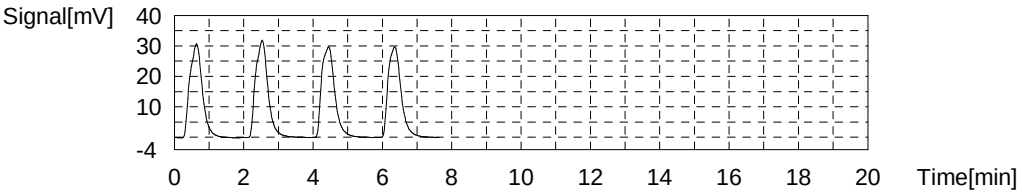
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.97	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:40:50 AM
2	79.81	26.96mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:42:56 AM
3	78.58	26.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:45:00 AM
4	78.08	26.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:47:04 AM

Mean Area 78.86
Mean Conc. 26.63mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

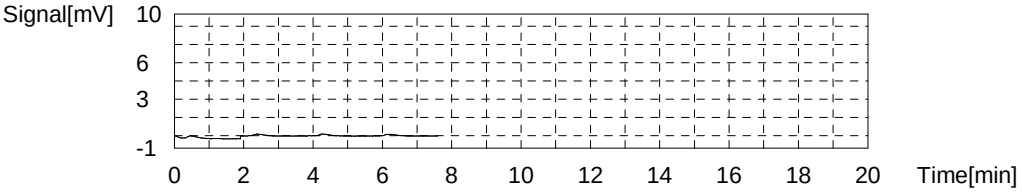
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00853mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3251	0.02823mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:55:36 AM
2	0.2741	0.01095mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:57:40 AM
3	0.2257	-0.00544mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:59:44 AM
4	0.2429	0.00038mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:01:48 AM

Mean Area 0.2670
Mean Conc. 0.00853mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

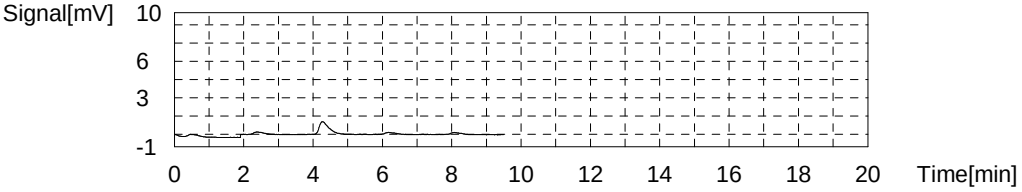
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03169mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3438	0.03457mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:10:20 AM
2	0.3467	0.03555mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:12:24 AM
3	2.052	0.6133mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:14:28 AM
4	0.3443	0.03474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:16:32 AM
5	0.3064	0.02190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:18:36 AM

Mean Area 0.3353
Mean Conc. 0.03169mg/L



Sample

Sample Name: 280-123919-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

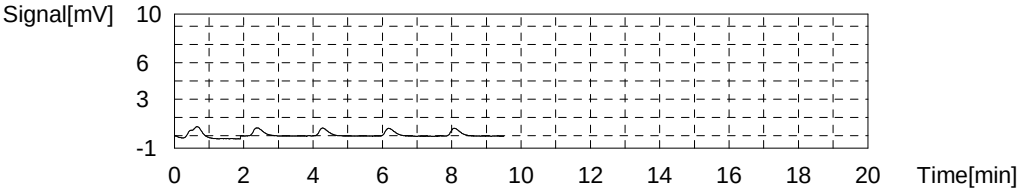
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3295mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.245	0.6787mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:27:07 AM
2	1.304	0.3599mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:29:11 AM
3	1.163	0.3121mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:31:15 AM
4	1.214	0.3294mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:33:19 AM
5	1.177	0.3168mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:35:23 AM

Mean Area 1.215
Mean Conc. 0.3295mg/L



Sample

Sample Name: 280-123919-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

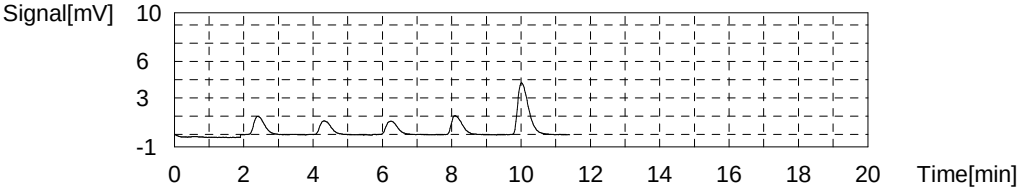
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8905mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:43:54 AM
2	3.172	0.9927mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:45:58 AM
3	2.505	0.7667mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:48:02 AM
4	2.499	0.7647mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:50:06 AM
5	3.305	1.038mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:52:10 AM
6	9.223	3.043mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:54:13 AM

Mean Area 2.870
Mean Conc. 0.8905mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

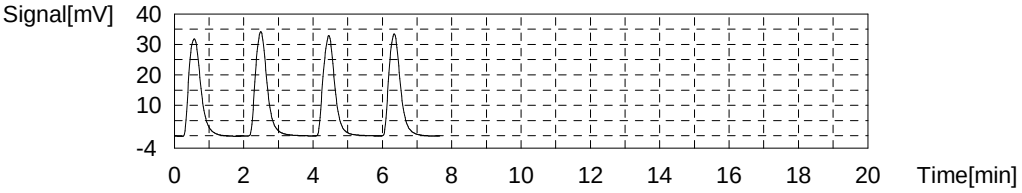
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.58mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.31	26.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:02:39 AM
2	80.70	27.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:04:46 AM
3	77.41	26.14mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:06:50 AM
4	78.36	26.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:08:54 AM

Mean Area 78.70
Mean Conc. 26.58mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

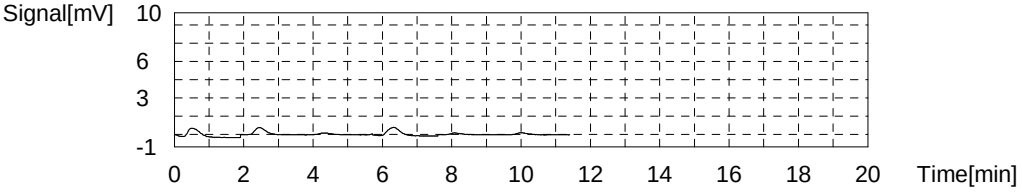
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08776mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.560	0.4466mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:17:26 AM
2	1.230	0.3348mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:19:30 AM
3	0.2441	0.00079mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:21:34 AM
4	1.699	0.4937mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:23:45 AM
5	0.2497	0.00269mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:25:49 AM
6	0.2795	0.01278mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:27:53 AM

Mean Area 0.5008
Mean Conc. 0.08776mg/L



Sample

Sample Name: 280-123919-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

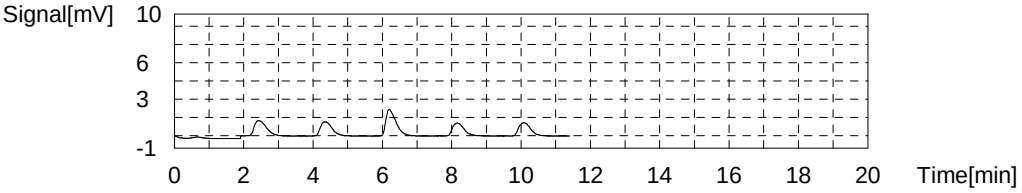
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8353mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1701	-0.02428mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:36:19 AM
2	3.058	0.9541mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:38:23 AM
3	2.693	0.8304mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:40:27 AM
4	4.466	1.431mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:42:31 AM
5	2.475	0.7566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:44:34 AM
6	2.604	0.8003mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:46:38 AM

Mean Area 2.708
Mean Conc. 0.8353mg/L



Sample

Sample Name: MS 280-123919-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

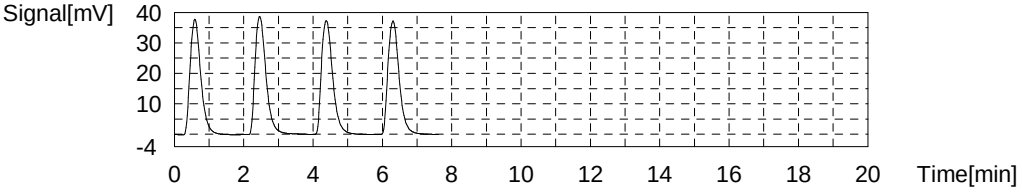
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.48mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.44	27.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:55:04 AM
2	85.68	28.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:57:09 AM
3	84.85	28.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:59:13 AM
4	84.26	28.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:01:17 AM

Mean Area 84.31
Mean Conc. 28.48mg/L



Sample

Sample Name: MSD 280-123919-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

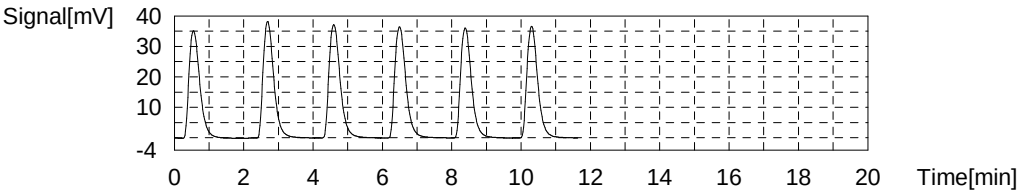
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.23mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.35	26.12mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:10:03 AM
2	82.06	27.72mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:12:07 AM
3	83.84	28.32mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:14:11 AM
4	81.52	27.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:16:15 AM
5	78.69	26.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:18:19 AM
6	80.19	27.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:20:22 AM

Mean Area 80.62
Mean Conc. 27.23mg/L



Sample

Sample Name: 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

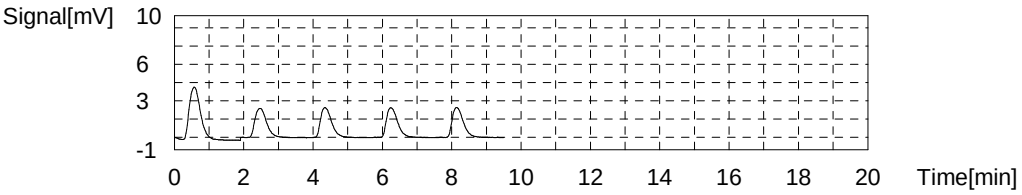
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.769mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.714	3.209mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:28:49 AM
2	5.526	1.790mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:30:53 AM
3	5.407	1.750mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:32:57 AM
4	5.452	1.765mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:35:01 AM
5	5.474	1.773mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:37:05 AM

Mean Area 5.465
Mean Conc. 1.769mg/L



Sample

Sample Name: 280-123706-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

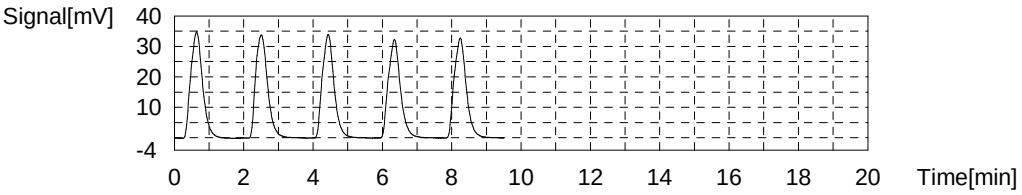
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:54.22mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.04	56.78mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:45:36 AM
2	81.44	55.02mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:47:40 AM
3	80.51	54.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:49:44 AM
4	79.20	53.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:51:48 AM
5	79.89	53.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:53:51 AM

Mean Area 80.26
Mean Conc. 54.22mg/L



Sample

Sample Name: 280-123820-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

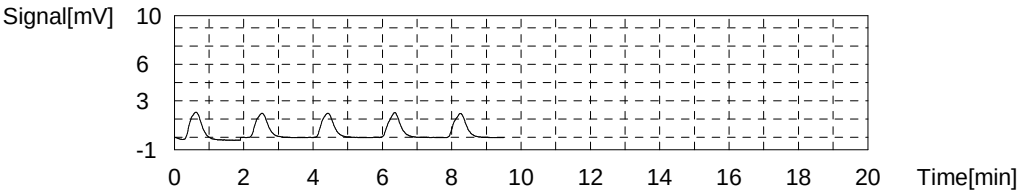
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.559mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.381	1.741mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:02:23 AM
2	4.848	1.560mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:04:27 AM
3	4.819	1.551mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:06:31 AM
4	4.859	1.564mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:08:35 AM
5	4.845	1.559mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:10:39 AM

Mean Area 4.843
Mean Conc. 1.559mg/L



Sample

Sample Name: 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

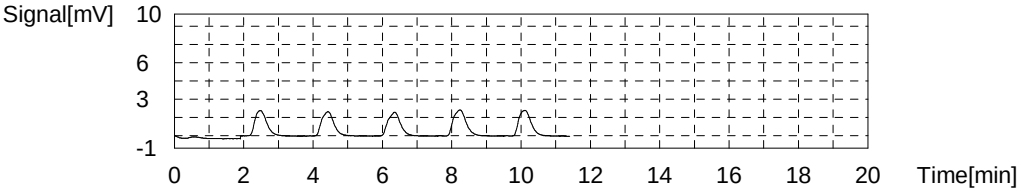
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.600mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2228	-0.00642mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:19:10 AM
2	4.913	1.583mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:21:14 AM
3	4.851	1.562mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:23:18 AM
4	4.908	1.581mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:25:22 AM
5	5.488	1.777mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:27:25 AM
6	5.182	1.674mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:29:29 AM

Mean Area 4.963
Mean Conc. 1.600mg/L



Sample

Sample Name: 280-123822-h-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

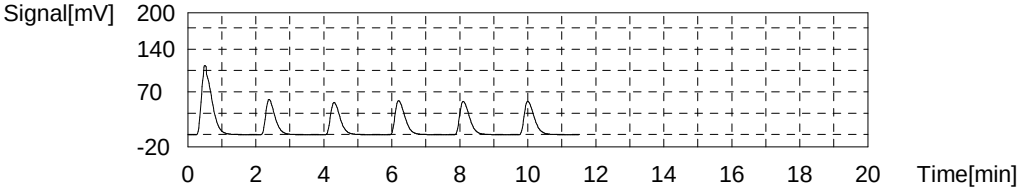
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:759.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	235.8	798.0mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:37:55 AM
2	110.8	749.9mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:39:59 AM
3	105.1	711.3mg/L	25uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:42:03 AM
4	113.6	768.9mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:44:06 AM
5	111.2	752.6mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:46:10 AM
6	113.4	767.5mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:48:20 AM

Mean Area 112.3
Mean Conc. 759.7mg/L



Sample

Sample Name: 280-123832-d-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

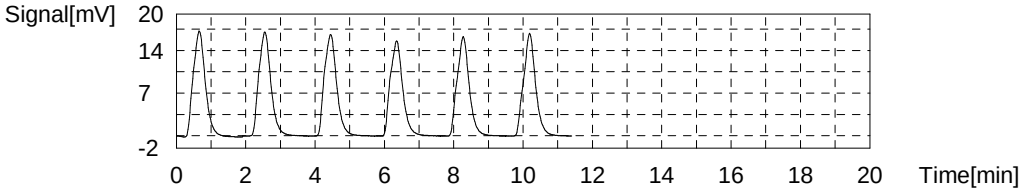
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.79mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	42.83	14.43mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:56:46 AM
2	41.58	14.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:58:50 AM
3	41.43	13.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:00:54 AM
4	39.20	13.20mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:02:58 AM
5	39.83	13.41mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:05:02 AM
6	40.89	13.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:07:05 AM

Mean Area 40.93
Mean Conc. 13.79mg/L



Sample

Sample Name: 280-123832-d-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

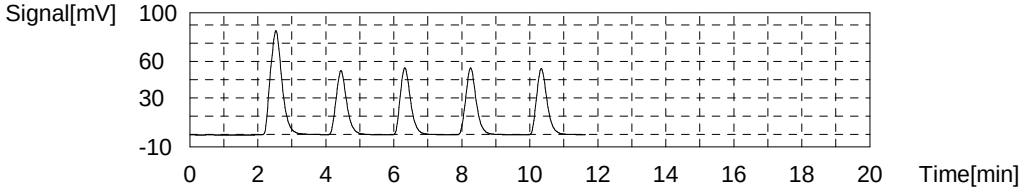
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:136.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1638mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:15:32 AM
2	203.6	137.8mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:17:38 AM
3	114.2	133.2mg/L	29uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:19:42 AM
4	116.6	136.0mg/L	29uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:21:45 AM
5	118.3	138.0mg/L	29uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:24:01 AM
6	117.2	136.7mg/L	29uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:26:05 AM

Mean Area 116.6
Mean Conc. 136.0mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

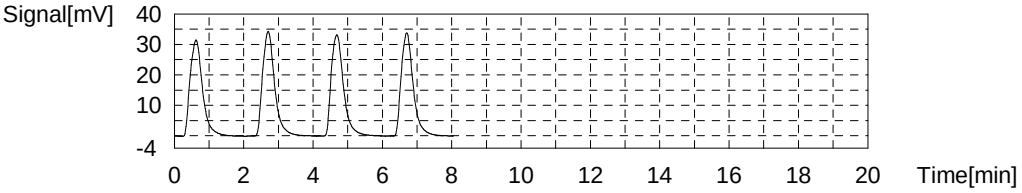
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.70mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.08	27.05mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:34:42 AM
2	83.57	28.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:36:52 AM
3	82.49	27.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:39:02 AM
4	81.90	27.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:41:10 AM

Mean Area 82.01
Mean Conc. 27.70mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

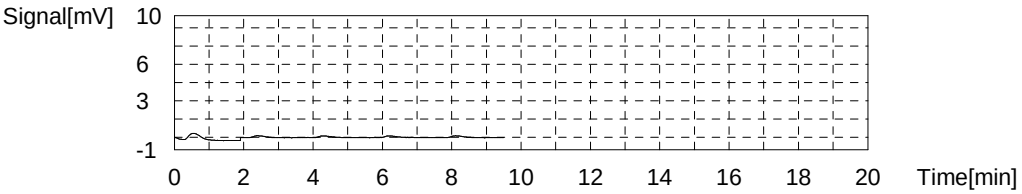
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01286mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.149	0.3074mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:49:42 AM
2	0.2974	0.01885mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:51:46 AM
3	0.2923	0.01712mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:53:50 AM
4	0.2319	-0.00334mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:55:54 AM
5	0.2973	0.01881mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:57:58 AM

Mean Area 0.2797
Mean Conc. 0.01286mg/L



Sample

Sample Name: 280-123832-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

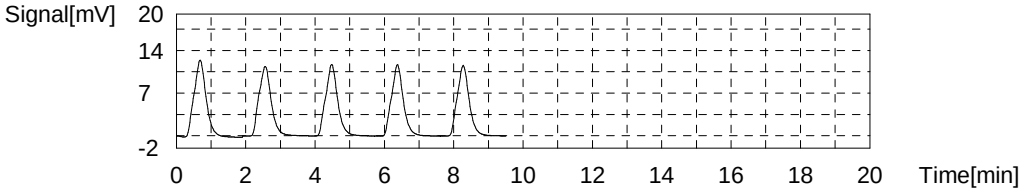
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.418mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.76	10.34mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:06:29 AM
2	28.08	9.431mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:08:33 AM
3	28.41	9.543mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:10:37 AM
4	27.94	9.384mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:12:40 AM
5	27.74	9.316mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:14:44 AM

Mean Area 28.04
Mean Conc. 9.418mg/L



Sample

Sample Name: MS 280-123832-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

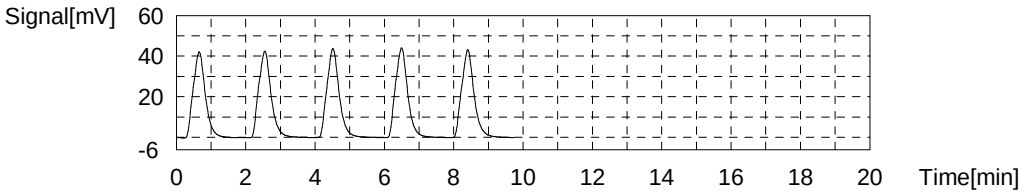
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:36.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	103.9	35.12mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:23:16 AM
2	106.4	35.96mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:25:23 AM
3	108.7	36.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:27:32 AM
4	108.7	36.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:29:36 AM
5	108.6	36.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:31:45 AM

Mean Area 108.1
Mean Conc. 36.54mg/L



Sample

Sample Name: MSD 280-123832-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

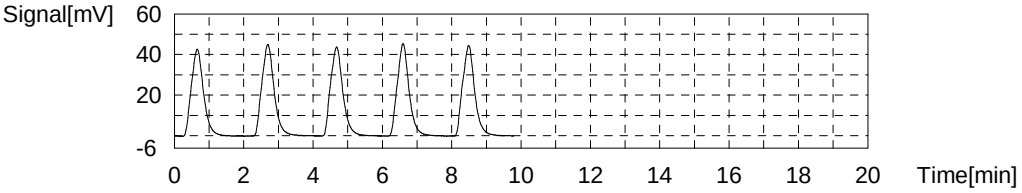
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:36.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	106.1	35.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:40:25 AM
2	111.7	37.76mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:42:35 AM
3	109.3	36.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:44:39 AM
4	108.1	36.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:46:43 AM
5	108.8	36.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:48:50 AM

Mean Area 108.1
Mean Conc. 36.53mg/L



Sample

Sample Name: 280-123832-c-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

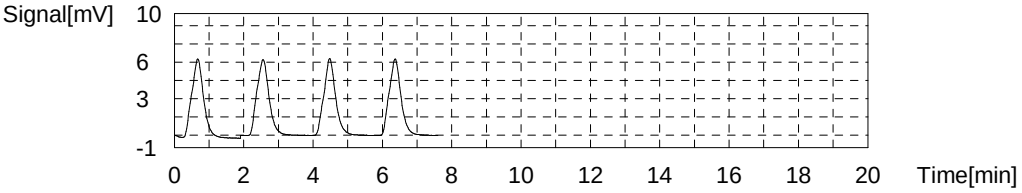
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.036mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.39	5.132mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:57:22 AM
2	15.23	5.078mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:59:26 AM
3	14.88	4.959mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:01:30 AM
4	14.93	4.976mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:03:34 AM

Mean Area 15.11
Mean Conc. 5.036mg/L



Sample

Sample Name: 280-123863-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

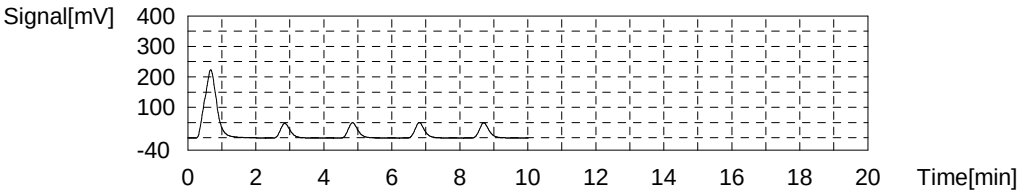
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:167.6mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	555.2	188.0mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:12:30 AM
2	96.55	163.5mg/L	10uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:14:39 AM
3	101.2	171.3mg/L	10uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:16:46 AM
4	99.32	168.2mg/L	10uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:18:49 AM
5	99.01	167.6mg/L	10uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:20:53 AM

Mean Area 99.02
Mean Conc. 167.6mg/L



Sample

Sample Name: 280-123863-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

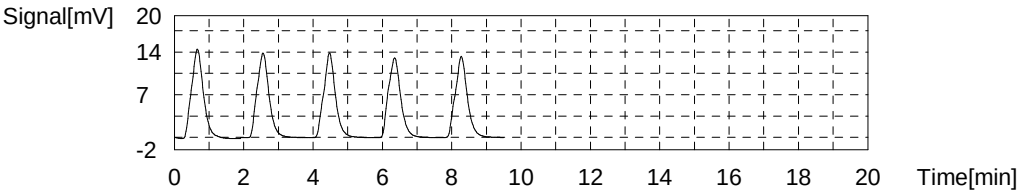
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	200.0	NPOC:2203mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.43	2384mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:29:26 AM
2	33.38	2245mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:31:30 AM
3	32.71	2200mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:33:34 AM
4	32.59	2192mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:35:37 AM
5	32.35	2176mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:37:41 AM

Mean Area 32.76
Mean Conc. 2203mg/L



Sample

Sample Name: 280-123863-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

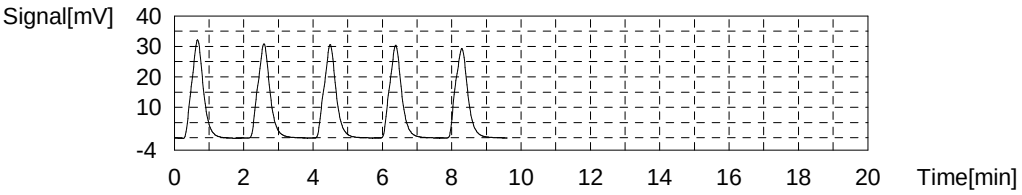
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.96mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.02	26.01mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:46:15 AM
2	75.06	25.35mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:48:19 AM
3	73.86	24.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:50:23 AM
4	73.66	24.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:52:28 AM
5	73.15	24.70mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:54:35 AM

Mean Area 73.93
Mean Conc. 24.96mg/L



Sample

Sample Name: 280-123941-k-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

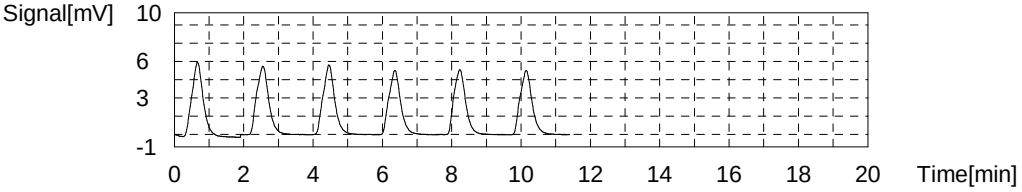
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.230mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.01	4.664mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:03:08 AM
2	13.54	4.505mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:05:12 AM
3	13.35	4.441mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:07:16 AM
4	12.48	4.146mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:09:20 AM
5	12.45	4.136mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:11:24 AM
6	12.63	4.197mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:13:27 AM

Mean Area 12.73
Mean Conc. 4.230mg/L



Sample

Sample Name: 280-123941-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

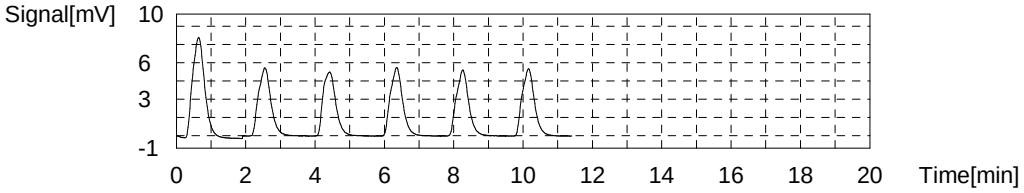
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.577mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.30	6.795mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:21:54 AM
2	13.94	4.641mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:23:58 AM
3	13.42	4.465mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:26:02 AM
4	13.92	4.634mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:28:06 AM
5	13.42	4.465mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:30:10 AM
6	13.73	4.570mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:32:13 AM

Mean Area 13.75
Mean Conc. 4.577mg/L



Sample

Sample Name: 280-123941-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

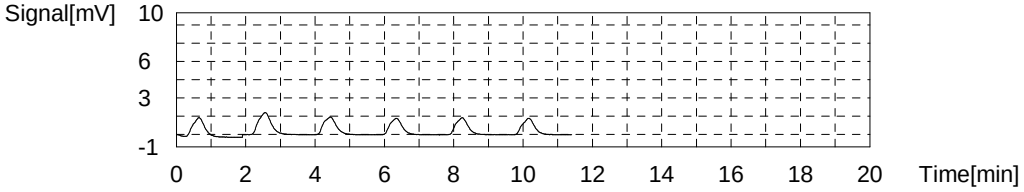
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.064mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.649	1.154mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:40:40 AM
2	4.600	1.476mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:42:44 AM
3	3.701	1.172mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:44:48 AM
4	3.273	1.027mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:46:51 AM
5	3.334	1.048mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:48:55 AM
6	3.271	1.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:50:59 AM

Mean Area 3.382
Mean Conc. 1.064mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

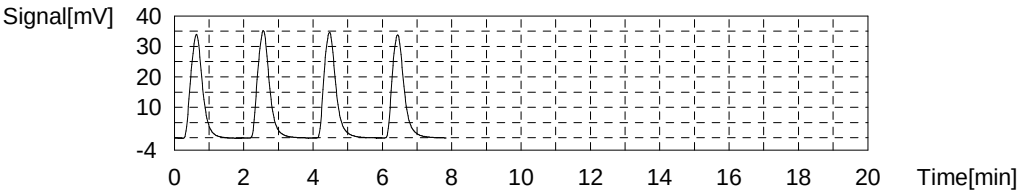
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.86mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.47	27.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:59:28 AM
2	84.29	28.47mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:01:34 AM
3	83.02	28.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:03:42 AM
4	81.19	27.42mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:05:52 AM

Mean Area 82.49
Mean Conc. 27.86mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

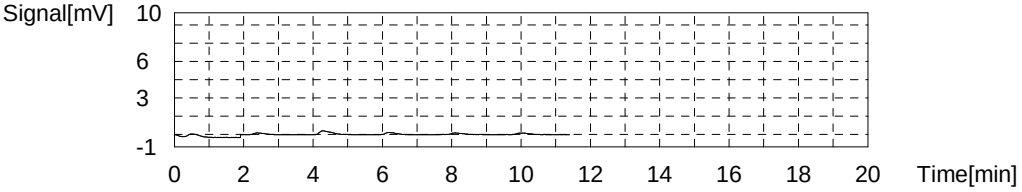
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01151mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4841	0.08210mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:14:25 AM
2	0.2574	0.00530mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:16:29 AM
3	0.7016	0.1558mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:18:33 AM
4	0.3368	0.03220mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:20:37 AM
5	0.2345	-0.00246mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:22:40 AM
6	0.2742	0.01099mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:24:44 AM

Mean Area 0.2757
Mean Conc. 0.01151mg/L



Sample

Sample Name: 280-123941-j-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

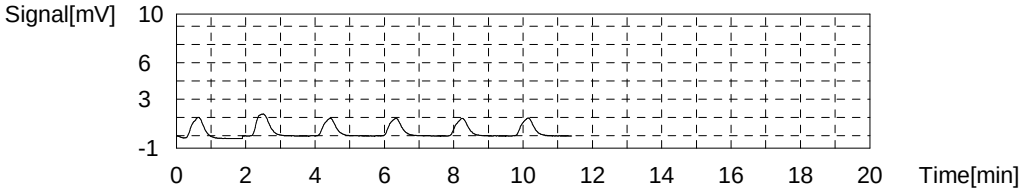
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.105mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.118	1.313mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:33:11 AM
2	4.537	1.455mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:35:15 AM
3	3.429	1.080mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:37:19 AM
4	3.512	1.108mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:39:23 AM
5	3.525	1.112mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:41:26 AM
6	3.545	1.119mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:43:30 AM

Mean Area 3.503
Mean Conc. 1.105mg/L



Sample

Sample Name: 280-123941-k-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

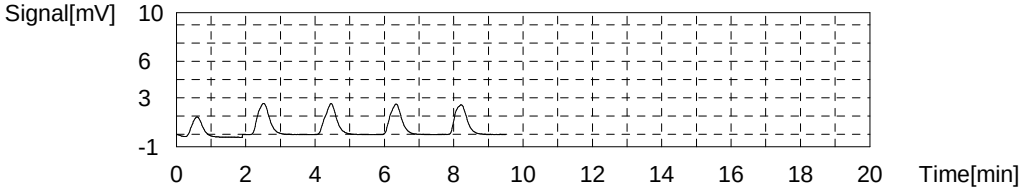
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.930mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.442	1.084mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:51:57 AM
2	6.076	1.977mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:54:01 AM
3	5.901	1.917mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:56:05 AM
4	5.860	1.903mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:58:09 AM
5	5.915	1.922mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:00:12 AM

Mean Area 5.938
Mean Conc. 1.930mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

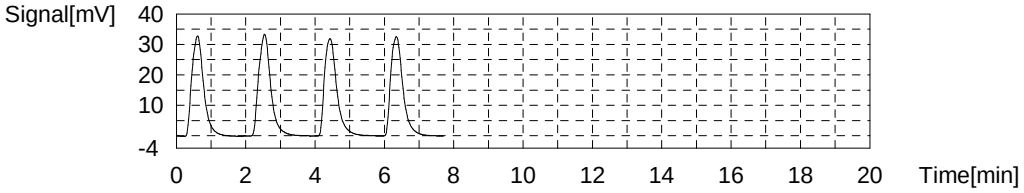
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.03mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.48	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:08:46 AM
2	81.28	27.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:10:52 AM
3	78.97	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:12:56 AM
4	80.33	27.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:15:03 AM

Mean Area 80.02
Mean Conc. 27.03mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

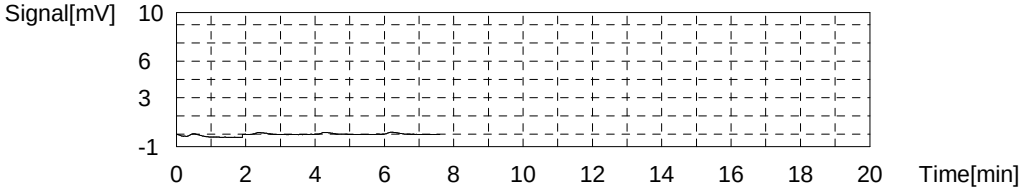
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02905mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3477	0.03589mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:23:36 AM
2	0.3134	0.02427mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:25:40 AM
3	0.2864	0.01512mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:27:44 AM
4	0.3626	0.04094mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:29:48 AM

Mean Area 0.3275
Mean Conc. 0.02905mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

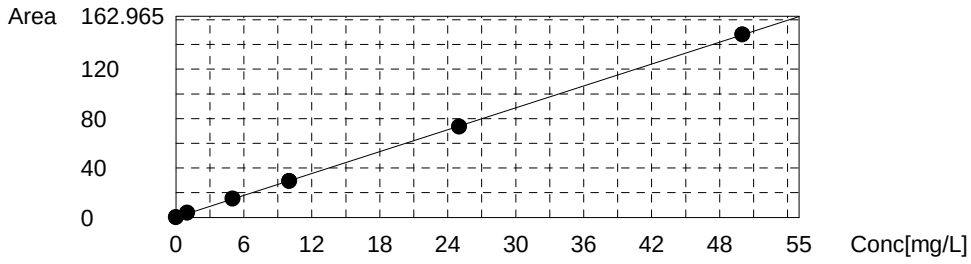
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



pH ok 6/10/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	cl			1
2*	NPOC	ICB	1.000	cl			2
3*	NPOC	lcs 280-461049/1-a	1.000	cl			3
4*	NPOC	mb 280-461049/2-a	1.000	cl			4
5*	NPOC	TIC	1.000	cl			5
6*	NPOC	280-123867-g-1-b	1.000	7			6
7*	NPOC	280-123867-g-1-c ms	1.000	7			7
8*	NPOC	280-123867-g-1-d msd	1.000	7			8
9*	NPOC	280-123867-g-2-b	1.000	7			9
10*	NPOC	LCS	1.000	cl			10
11*	NPOC	MB	1.000	cl			11
12*	NPOC	TIC	1.000	cl			12
13*	NPOC	280-123706-d-1	2x ~~1.000~~	cl	rerun		13
14*	NPOC	280-123820-k-4	1.000	cl			14
15*	NPOC	CCV	1.000	cl			15
16*	NPOC	CCB	1.000	cl			16
17*	NPOC	280-123820-k-5	1.000	cl			17
18*	NPOC	MS 280-123820-k-5	1.000	cl			18
19*	NPOC	MSD 280-123820-k-5	1.000	cl			19
20*	NPOC	280-123822-h-1	10x ~~1.000~~	cl	rerun		20
21*	NPOC	280-123832-d-7	1.000	cl			21
22*	NPOC	280-123832-d-8	3x ~~1.000~~	cl	rerun		22
23*	NPOC	280-123832-c-10	1.000	cl			23
24*	NPOC	280-123832-c-11	1.000	cl			24
25*	NPOC	280-123863-d-2	5x ~~1.000~~	cl	rerun		25
26*	NPOC	280-123863-d-3	20x ~~1.000~~	cl	↓		26
27*	NPOC	CCV	1.000	cl			27
28*	NPOC	CCB	1.000	cl			28
29*	NPOC	280-123863-d-4	1.000	cl			29
30*	NPOC	280-123919-b-5	1.000	cl			30
31*	NPOC	MS 280-123919-b-5	1.000	cl			31
32*	NPOC	MSD 280-123919-b-5	1.000	cl			32
33*	NPOC	280-123919-b-6	1.000	cl			33
34*	NPOC	280-123941-k-2	2x ~~1.000~~	cl	high chloride		34
35*	NPOC	280-123941-k-4	2x ~~1.000~~	cl	high chloride		35
36*	NPOC	280-123941-k-5	1.000	cl			36
37*	NPOC	280-123941-j-6	1.000	cl			37
38*	NPOC	280-123941-k-7	1.000	cl			38
39*	NPOC	CCV	1.000	cl			39
40*	NPOC	CCB	1.000	cl			40
41*	NPOC	LCS	1.000	cl			41
42*	NPOC	MB	1.000	cl			42
43*	NPOC	TIC	1.000	cl			43
44*	NPOC	280-123855-e-3	1.000	cl			44
45*	NPOC	MS 280-123855-e-3	1.000	cl			45
46*	NPOC	MSD 280-123855-e-3	1.000	cl			46
47*	NPOC	280-123855-e-4	1.000	cl			47
48*	NPOC	280-123855-c-5	1.000	cl			48
49*	NPOC	280-123855-c-6	1.000	cl			49
50*	NPOC	280-123959-b-3	5x ~~1.000~~	cl	cloudy/diluted samples		50
51*	NPOC	CCV	1.000	cl			51

pH 6/10/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	cl			52
53*	NPOC	280-123959-c-4	5p 1.000	cl	cloudy/limited sample		53
54*	NPOC	280-123959-b-5	3p 1.000	cl	cloudy/limited sample		54
55*	NPOC	280-123960-c-1	1.000	cl			55
56*	NPOC	320-50340-g-1	1.000	cl			56
57*	NPOC	MS 320-50340-g-1	1.000	cl			57
58*	NPOC	MSD 320-50340-g-1	1.000	cl			58
59*	NPOC	320-50340-f-2	1.000	cl			59
60*	NPOC	320-50340-f-4	1.000	cl			60
61*	NPOC	320-50340-f-5	1.000	cl			61
62*	NPOC	280-123922-g-1	1.000	cl			62
63*	NPOC	CCV	1.000	cl			63
64*	NPOC	CCB	1.000	cl			64
65*	NPOC	280-123922-g-2	1.000	cl			65
66*	NPOC	280-123922-g-3	1.000	cl			66
67*	NPOC	280-123924-g-1	1.000	cl			67
68*	NPOC	280-123924-g-2	1.000	cl			68
69*	NPOC	280-123924-g-3	1.000	cl			69
70*	NPOC	280-123924-g-4	1.000	cl			70
71*	NPOC	280-123924-g-5	1.000	cl			71
72*	NPOC	CCV	1.000	cl			72
73*	NPOC	CCB	1.000	cl			73

Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	ICV
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

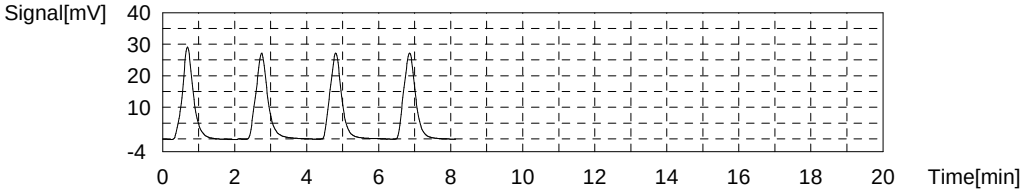
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.76	21.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:09:37 PM
2	63.30	21.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:11:51 PM
3	61.54	20.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:14:04 PM
4	62.58	21.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:16:10 PM

Mean Area 62.80
Mean Conc. 21.19mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

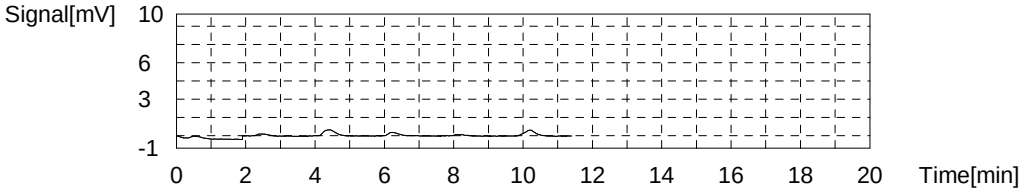
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03304mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3242	0.02793mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:24:41 PM
2	0.3186	0.02603mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:26:45 PM
3	1.115	0.2958mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:28:49 PM
4	0.5177	0.09348mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:30:53 PM
5	0.1967	-0.01527mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:32:57 PM
6	1.094	0.2887mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:35:00 PM

Mean Area 0.3393
Mean Conc. 0.03304mg/L



Sample

Sample Name: lcs 280-461049/1-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

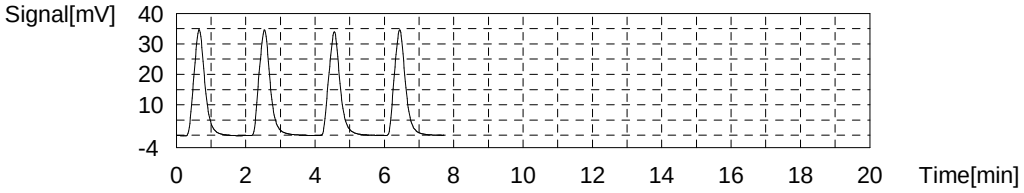
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.50	26.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:43:26 PM
2	77.90	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:45:36 PM
3	77.91	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:47:40 PM
4	77.59	26.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:49:45 PM

Mean Area 77.72
Mean Conc. 26.25mg/L



Sample

Sample Name: mb 280-461049/2-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

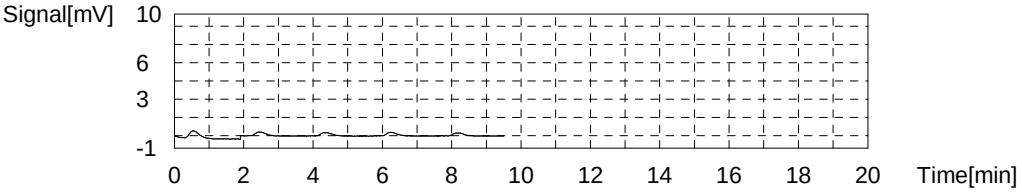
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1090mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.124	0.2989mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:58:16 PM
2	0.6274	0.1306mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:00:20 PM
3	0.5792	0.1143mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:02:24 PM
4	0.5449	0.1027mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:04:28 PM
5	0.5025	0.08833mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:06:32 PM

Mean Area 0.5635
Mean Conc. 0.1090mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

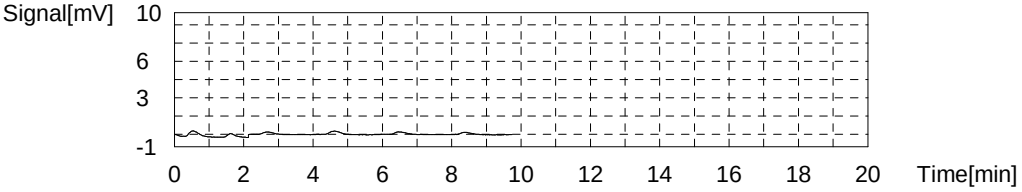
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06685mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.213	0.3290mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:15:16 PM
2	0.3970	0.05259mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:17:20 PM
3	0.5763	0.1133mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:19:24 PM
4	0.4099	0.05696mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:21:28 PM
5	0.3732	0.04453mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:23:32 PM

Mean Area 0.4391
Mean Conc. 0.06685mg/L



Sample

Sample Name: 280-123867-g-1-b
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

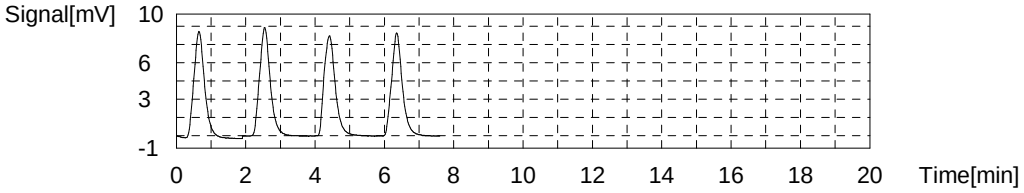
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.247mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.81	6.291mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:32:02 PM
2	19.07	6.379mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:34:06 PM
3	18.51	6.189mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:36:10 PM
4	18.34	6.131mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:38:14 PM

Mean Area 18.68
Mean Conc. 6.247mg/L



Sample

Sample Name: 280-123867-g-1-c ms
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

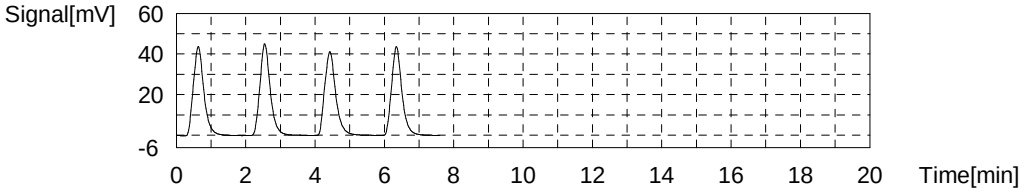
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	93.69	31.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:46:45 PM
2	94.09	31.79mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:48:49 PM
3	92.09	31.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:50:53 PM
4	91.70	30.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:52:57 PM

Mean Area 92.89
Mean Conc. 31.39mg/L



Sample

Sample Name: 280-123867-g-1-d msd
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

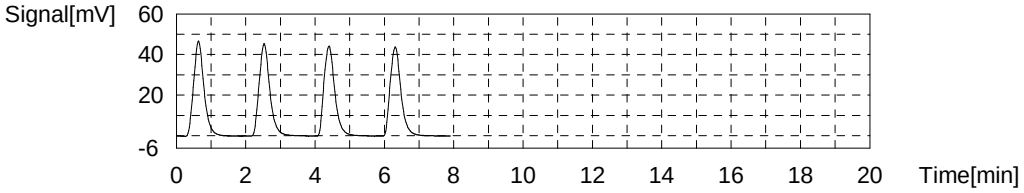
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.82mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.50	33.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:01:28 PM
2	97.64	33.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:03:32 PM
3	96.39	32.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:05:36 PM
4	95.98	32.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:07:58 PM

Mean Area 97.13
Mean Conc. 32.82mg/L



Sample

Sample Name: 280-123867-g-2-b
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

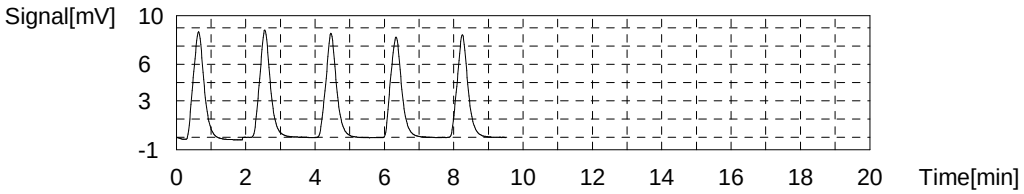
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.170mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.37	6.480mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:16:30 PM
2	18.84	6.301mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:18:34 PM
3	18.47	6.175mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:20:38 PM
4	18.35	6.135mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:22:42 PM
5	18.16	6.070mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:24:46 PM

Mean Area 18.46
Mean Conc. 6.170mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

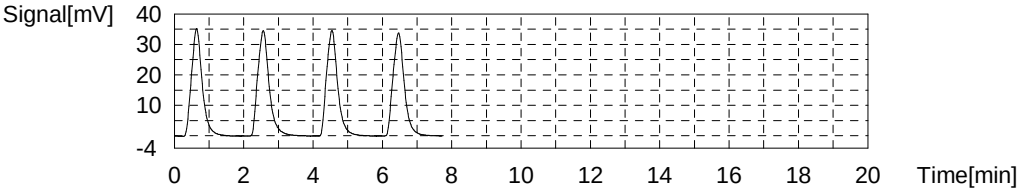
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.50	26.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:33:18 PM
2	79.67	26.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:35:27 PM
3	77.89	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:37:31 PM
4	77.54	26.19mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:39:35 PM

Mean Area 78.15
Mean Conc. 26.39mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

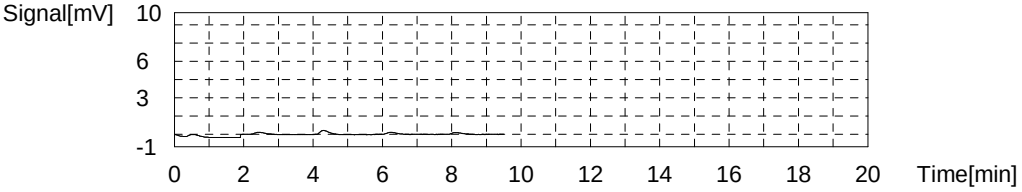
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02124mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3664	0.04222mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:48:07 PM
2	0.3217	0.02708mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:50:11 PM
3	0.6020	0.1220mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:52:15 PM
4	0.2741	0.01095mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:54:19 PM
5	0.2556	0.00469mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:56:23 PM

Mean Area 0.3045
Mean Conc. 0.02124mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

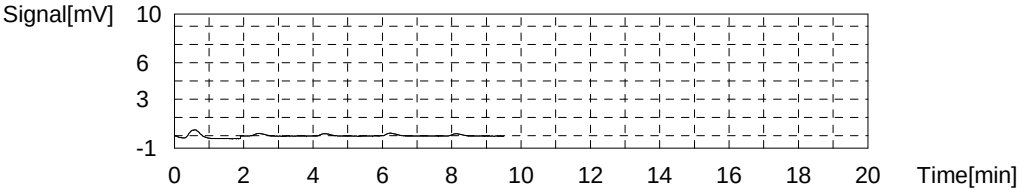
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04273mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.457	0.4117mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:04:53 PM
2	0.3806	0.04703mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:06:57 PM
3	0.3522	0.03741mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:09:01 PM
4	0.4200	0.06038mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:11:05 PM
5	0.3188	0.02610mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:13:09 PM

Mean Area 0.3679
Mean Conc. 0.04273mg/L



Sample

Sample Name: 280-123706-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

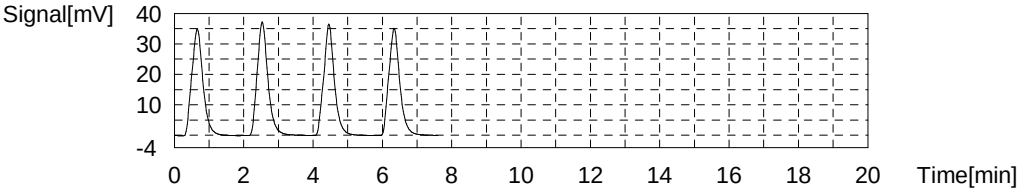
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:53.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.87	53.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:21:39 PM
2	80.79	54.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:23:43 PM
3	78.63	53.11mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:25:47 PM
4	78.14	52.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:27:51 PM

Mean Area 79.36
Mean Conc. 53.61mg/L



Sample

Sample Name: 280-123820-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

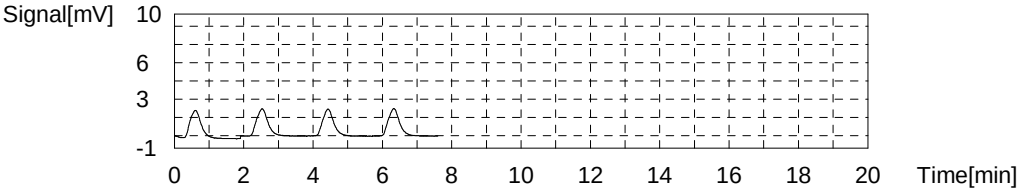
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.601mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.981	1.606mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:36:23 PM
2	5.030	1.622mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:38:27 PM
3	4.824	1.552mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:40:31 PM
4	5.036	1.624mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:42:35 PM

Mean Area 4.968
Mean Conc. 1.601mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

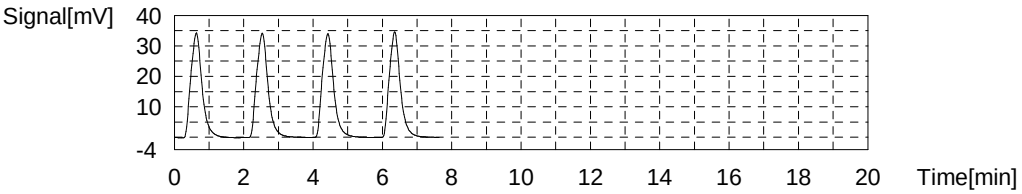
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.56	26.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:51:06 PM
2	78.96	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:53:10 PM
3	77.99	26.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:55:16 PM
4	77.05	26.02mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:57:20 PM

Mean Area 78.14
Mean Conc. 26.39mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

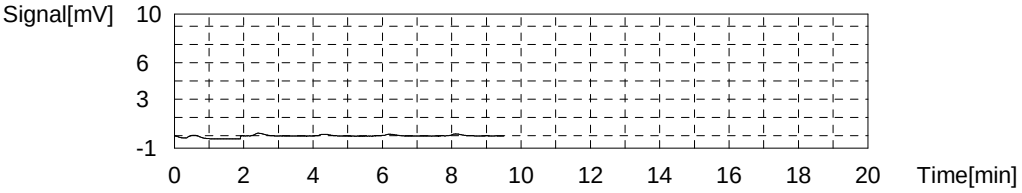
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00972mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4514	0.07102mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:05:51 PM
2	0.3900	0.05022mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:07:55 PM
3	0.2379	-0.00131mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:09:59 PM
4	0.1997	-0.01425mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:12:03 PM
5	0.2542	0.00421mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:14:07 PM

Mean Area 0.2705
Mean Conc. 0.00972mg/L



Sample

Sample Name: 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

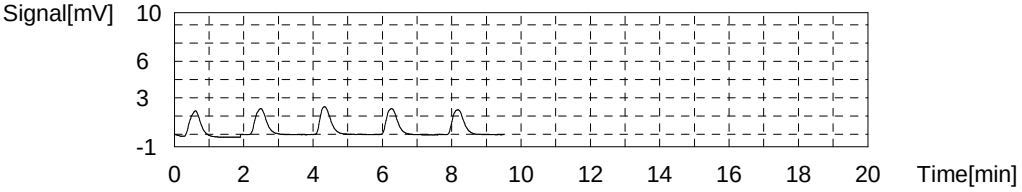
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.519mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.536	1.455mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:22:37 PM
2	4.778	1.537mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:24:41 PM
3	4.787	1.540mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:26:45 PM
4	4.701	1.511mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:28:49 PM
5	4.638	1.489mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:30:53 PM

Mean Area 4.726
Mean Conc. 1.519mg/L



Sample

Sample Name: MS 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

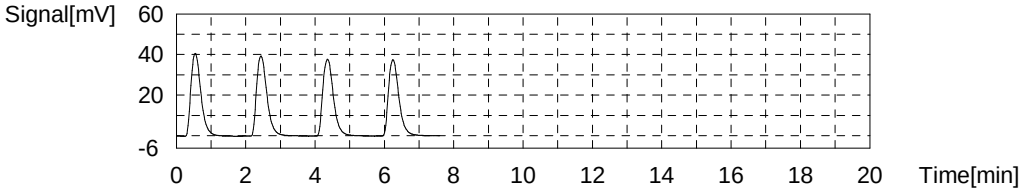
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.06	28.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:39:23 PM
2	82.36	27.82mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:41:27 PM
3	81.23	27.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:43:31 PM
4	79.39	26.81mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:45:35 PM

Mean Area 81.51
Mean Conc. 27.53mg/L



Sample

Sample Name: MSD 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

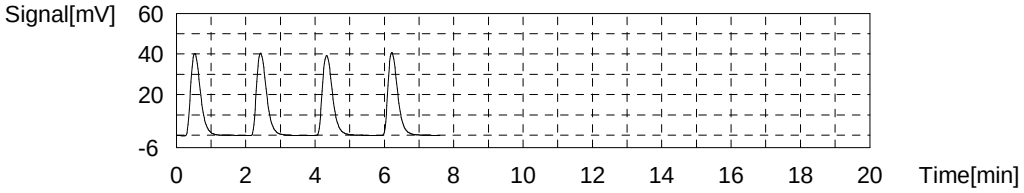
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.38mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.75	27.27mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:54:06 PM
2	82.04	27.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:56:10 PM
3	81.11	27.40mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:58:14 PM
4	80.39	27.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:00:18 PM

Mean Area 81.07
Mean Conc. 27.38mg/L



Sample

Sample Name: 280-123822-h-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

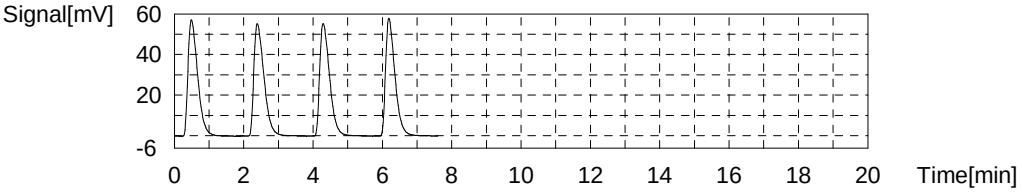
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:753.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	112.7	762.0mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:08:49 PM
2	113.0	764.0mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:10:53 PM
3	110.2	745.0mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:12:57 PM
4	110.0	743.7mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:15:01 PM

Mean Area 111.5
Mean Conc. 753.7mg/L



Sample

Sample Name: 280-123832-d-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

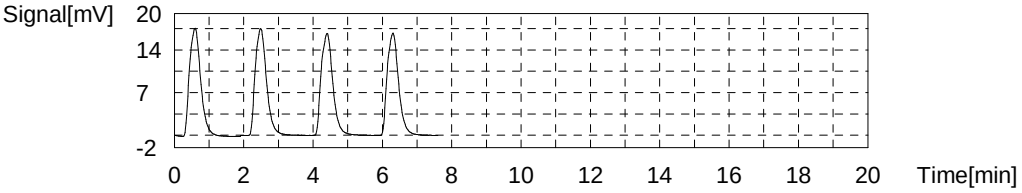
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.50	13.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:23:32 PM
2	39.81	13.40mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:25:36 PM
3	39.23	13.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:27:40 PM
4	38.88	13.09mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:29:44 PM

Mean Area 39.61
Mean Conc. 13.34mg/L



Sample

Sample Name: 280-123832-d-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

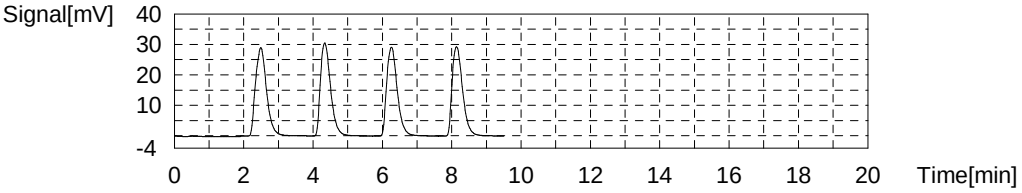
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:105.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2294	-0.02094mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:38:15 PM
2	64.30	108.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:40:19 PM
3	62.58	105.6mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:42:23 PM
4	62.30	105.1mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:44:27 PM
5	61.93	104.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:46:30 PM

Mean Area 62.78
Mean Conc. 105.9mg/L



Sample

Sample Name: 280-123832-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

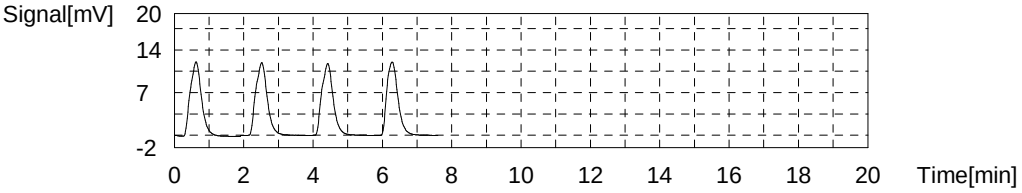
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.206mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.90	9.370mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:55:01 PM
2	27.66	9.289mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:57:05 PM
3	27.07	9.089mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:59:09 PM
4	27.03	9.075mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:01:13 PM

Mean Area 27.41
Mean Conc. 9.206mg/L



Sample

Sample Name: 280-123832-c-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

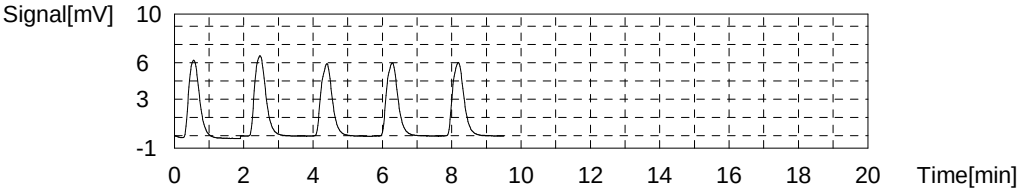
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.548mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.87	4.617mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:09:45 PM
2	14.82	4.939mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:11:49 PM
3	13.38	4.451mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:13:53 PM
4	13.70	4.559mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:15:57 PM
5	13.72	4.566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:18:01 PM

Mean Area 13.67
Mean Conc. 4.548mg/L



Sample

Sample Name: 280-123863-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

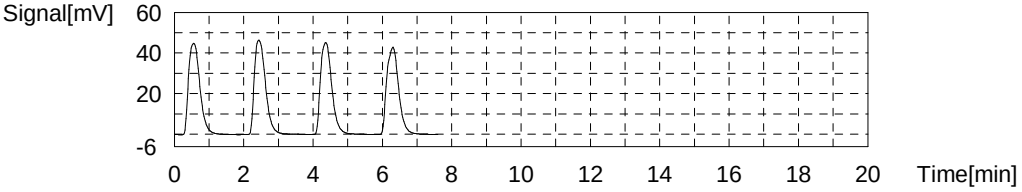
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:175.5mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	104.2	176.1mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:26:31 PM
2	104.5	176.6mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:28:35 PM
3	103.3	174.6mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:30:39 PM
4	103.5	174.9mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:32:43 PM

Mean Area 103.9
Mean Conc. 175.5mg/L



Sample

Sample Name: 280-123863-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

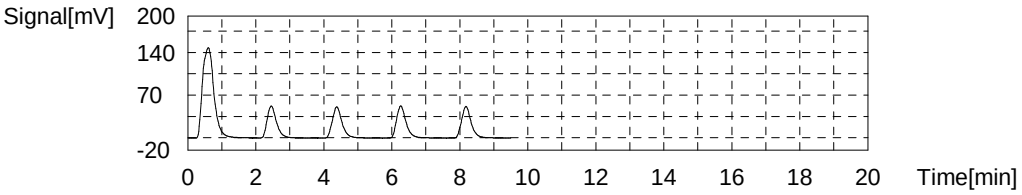
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:2157mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	348.6	2360mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:41:14 PM
2	101.7	2152mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:43:18 PM
3	101.9	2156mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:45:22 PM
4	102.6	2171mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:47:25 PM
5	101.6	2150mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:49:29 PM

Mean Area 102.0
Mean Conc. 2157mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

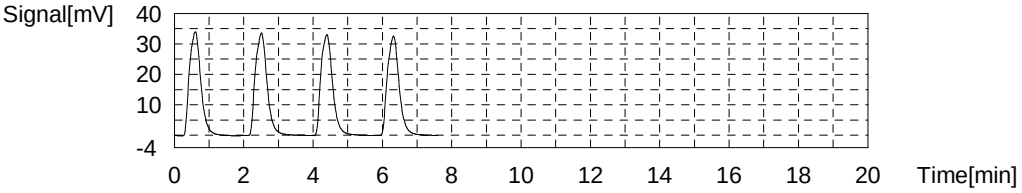
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.50mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.72	26.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:58:00 PM
2	79.27	26.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:00:04 AM
3	77.76	26.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:02:08 AM
4	77.16	26.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:04:12 AM

Mean Area 78.48
Mean Conc. 26.50mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

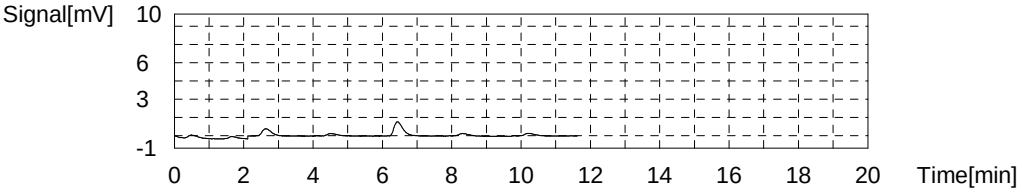
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04701mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4149	0.05865mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:12:56 AM
2	1.060	0.2772mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:15:00 AM
3	0.3445	0.03480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:17:04 AM
4	2.121	0.6366mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:19:08 AM
5	0.3690	0.04310mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:21:12 AM
6	0.3937	0.05147mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:23:15 AM

Mean Area 0.3805
Mean Conc. 0.04701mg/L



Sample

Sample Name: 280-123863-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

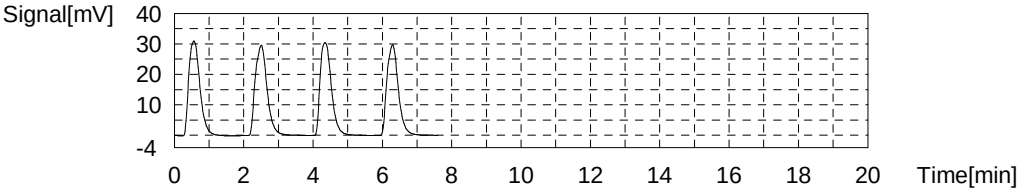
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.58mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	70.60	23.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:31:41 AM
2	70.71	23.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:33:45 AM
3	69.29	23.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:35:49 AM
4	68.75	23.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:37:53 AM

Mean Area 69.84
Mean Conc. 23.58mg/L



Sample

Sample Name: 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

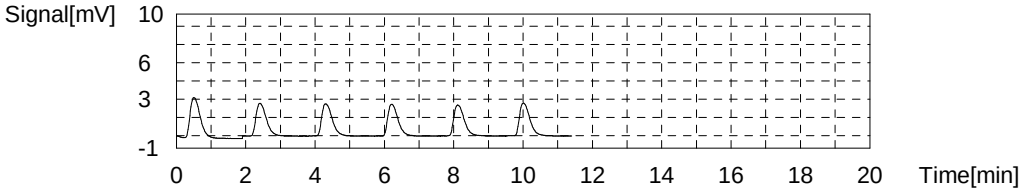
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.753mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.664	2.176mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:46:24 AM
2	5.590	1.812mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:48:28 AM
3	5.500	1.781mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:50:32 AM
4	5.353	1.732mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:52:36 AM
5	5.320	1.720mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:54:39 AM
6	5.494	1.779mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:56:43 AM

Mean Area 5.417
Mean Conc. 1.753mg/L



Sample

Sample Name: MS 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

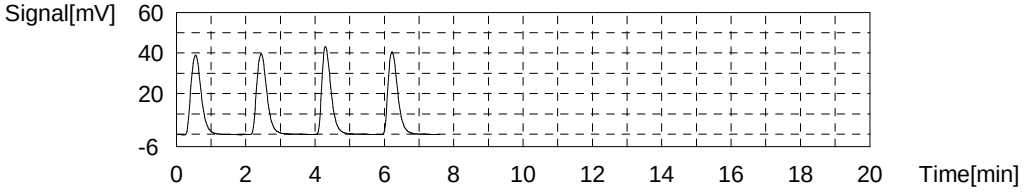
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.31mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.94	27.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:05:09 AM
2	81.71	27.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:07:13 AM
3	79.85	26.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:09:17 AM
4	79.94	27.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:11:21 AM

Mean Area 80.86
Mean Conc. 27.31mg/L



Sample

Sample Name: MSD 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

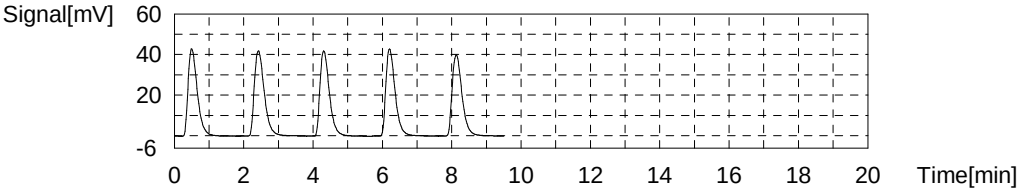
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.09mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.94	27.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:19:53 AM
2	84.38	28.50mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:21:57 AM
3	79.69	26.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:24:01 AM
4	80.28	27.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:26:05 AM
5	79.88	26.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:28:09 AM

Mean Area 80.20
Mean Conc. 27.09mg/L



Sample

Sample Name: 280-123919-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

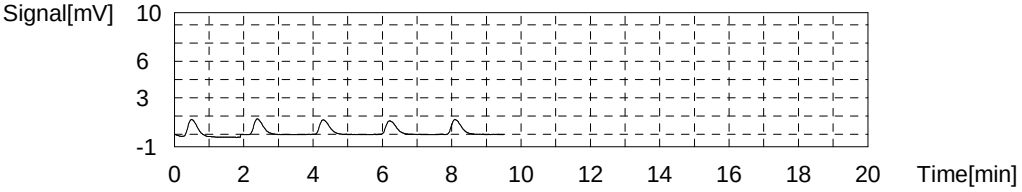
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7242mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.677	0.8250mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:36:40 AM
2	2.431	0.7417mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:38:44 AM
3	2.361	0.7180mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:40:48 AM
4	2.297	0.6963mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:42:51 AM
5	2.429	0.7410mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:44:55 AM

Mean Area 2.380
Mean Conc. 0.7242mg/L



Sample

Sample Name: 280-123941-k-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

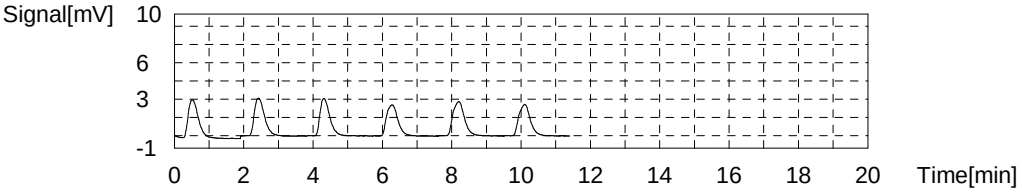
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:4.110mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.416	4.183mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:53:27 AM
2	6.343	4.134mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:55:31 AM
3	6.000	3.902mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:57:35 AM
4	5.826	3.784mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:59:39 AM
5	6.473	4.222mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:01:42 AM
6	5.896	3.831mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:03:46 AM

Mean Area 6.308
Mean Conc. 4.110mg/L



Sample

Sample Name: 280-123941-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

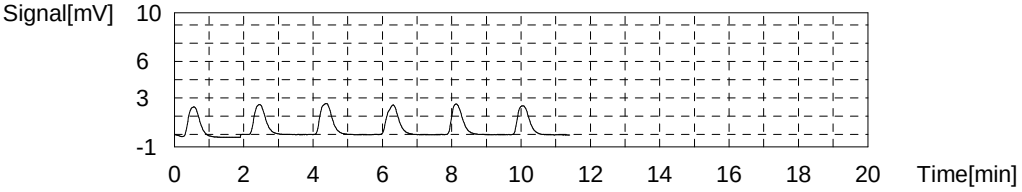
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:3.548mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.530	3.583mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:12:13 AM
2	5.548	3.595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:14:17 AM
3	6.078	3.954mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:16:21 AM
4	5.713	3.707mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:18:25 AM
5	5.378	3.480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:20:29 AM
6	5.458	3.534mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:22:32 AM

Mean Area 5.479
Mean Conc. 3.548mg/L



Sample

Sample Name: 280-123941-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

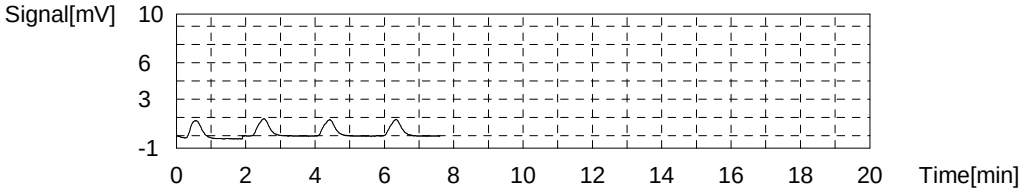
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9505mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.005	0.9361mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:30:59 AM
2	3.145	0.9836mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:33:03 AM
3	3.037	0.9470mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:35:07 AM
4	3.003	0.9354mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:37:11 AM

Mean Area 3.048
Mean Conc. 0.9505mg/L



Sample

Sample Name: 280-123941-j-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

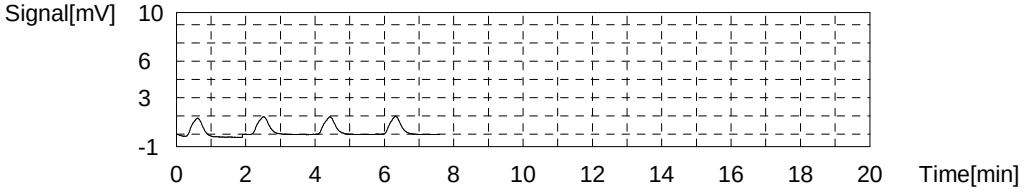
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.031mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.271	1.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:45:43 AM
2	3.354	1.054mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:47:47 AM
3	3.225	1.011mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:49:51 AM
4	3.288	1.032mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:51:55 AM

Mean Area 3.285
Mean Conc. 1.031mg/L



Sample

Sample Name: 280-123941-k-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

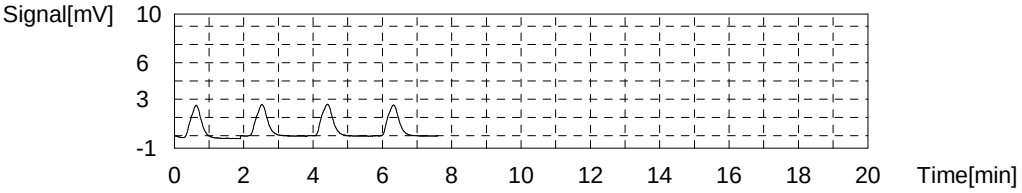
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.875mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.766	1.871mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:00:27 AM
2	5.794	1.881mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:02:31 AM
3	5.865	1.905mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:04:35 AM
4	5.683	1.843mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:06:38 AM

Mean Area 5.777
Mean Conc. 1.875mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

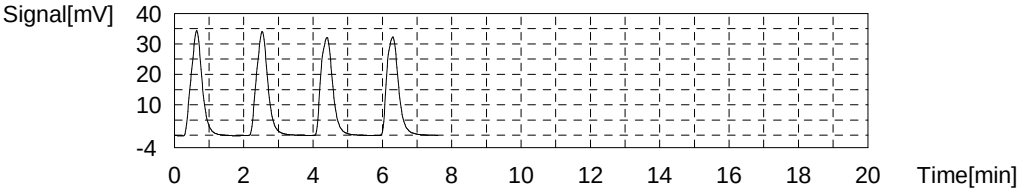
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.13mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.91	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:15:11 AM
2	78.15	26.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:17:15 AM
3	76.76	25.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:19:19 AM
4	76.62	25.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:21:23 AM

Mean Area 77.36
Mean Conc. 26.13mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

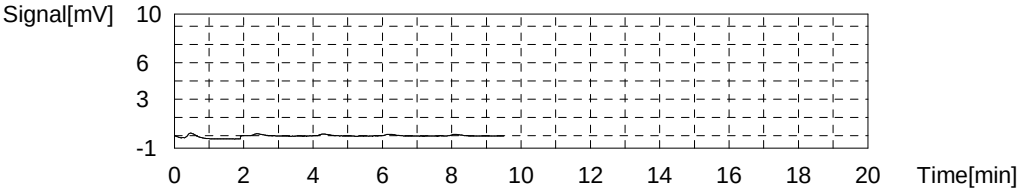
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00427mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6654	0.1435mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:29:55 AM
2	0.3002	0.01980mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:31:59 AM
3	0.2646	0.00774mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:34:03 AM
4	0.2428	0.00035mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:36:07 AM
5	0.2099	-0.01079mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:38:11 AM

Mean Area 0.2544
Mean Conc. 0.00427mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

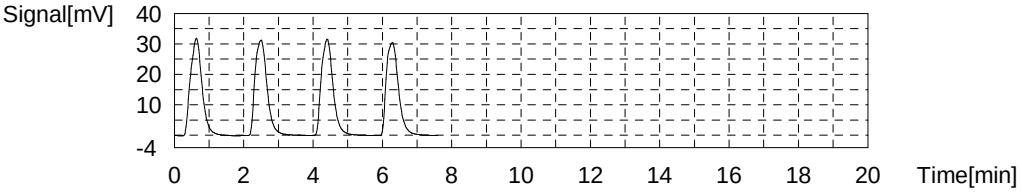
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.53	25.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:46:42 AM
2	75.80	25.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:48:46 AM
3	74.65	25.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:50:50 AM
4	75.01	25.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:52:54 AM

Mean Area 75.25
Mean Conc. 25.41mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

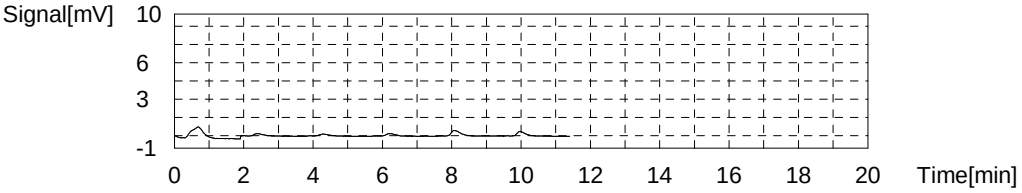
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04991mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.112	0.6336mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:01:26 AM
2	0.3316	0.03043mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:03:30 AM
3	0.2659	0.00818mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:05:34 AM
4	0.3745	0.04497mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:07:38 AM
5	0.8231	0.1969mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:09:41 AM
6	0.5844	0.1161mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:11:45 AM

Mean Area 0.3891
Mean Conc. 0.04991mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

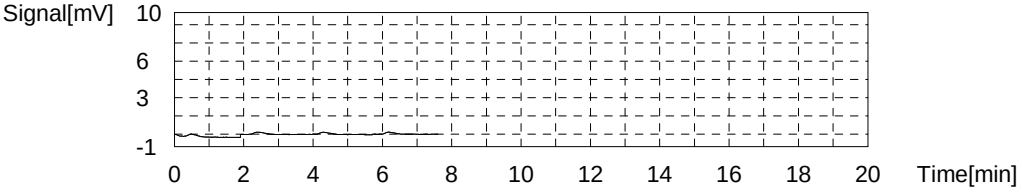
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02668mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3102	0.02318mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:20:12 AM
2	0.3614	0.04053mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:22:16 AM
3	0.3085	0.02261mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:24:20 AM
4	0.3020	0.02041mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:26:24 AM

Mean Area 0.3205
Mean Conc. 0.02668mg/L



Sample

Sample Name: 280-123855-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

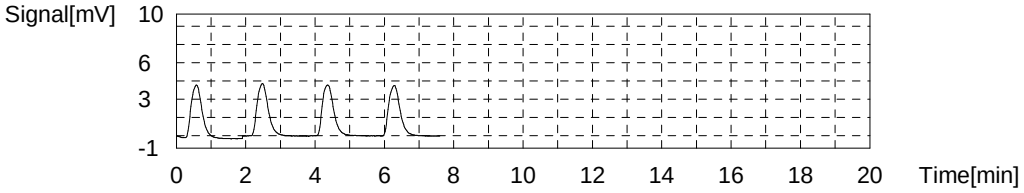
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.117mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.542	3.151mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:34:57 AM
2	9.540	3.150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:37:01 AM
3	9.308	3.071mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:39:05 AM
4	9.378	3.095mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:41:09 AM

Mean Area 9.442
Mean Conc. 3.117mg/L



Sample

Sample Name: MS 280-123855-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

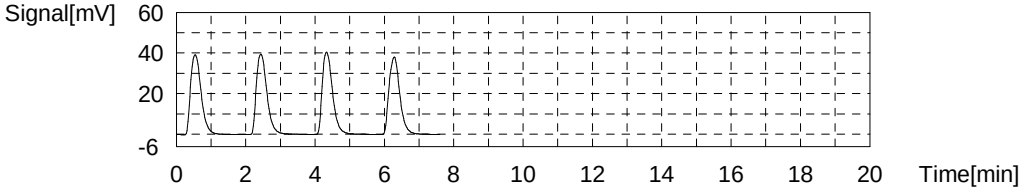
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.63	28.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:49:41 AM
2	84.50	28.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:51:45 AM
3	83.94	28.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:53:49 AM
4	83.50	28.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:55:53 AM

Mean Area 84.14
Mean Conc. 28.42mg/L



Sample

Sample Name: MSD 280-123855-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

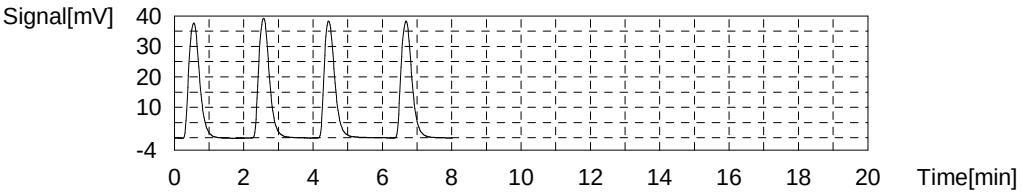
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.35	28.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:04:32 AM
2	84.60	28.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:06:36 AM
3	81.65	27.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:08:58 AM
4	83.40	28.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:11:02 AM

Mean Area 83.25
Mean Conc. 28.12mg/L



Sample

Sample Name: 280-123855-e-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

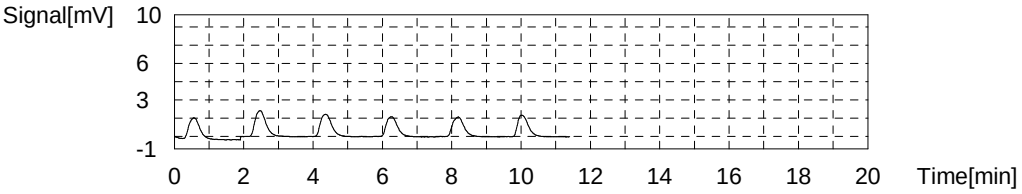
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.163mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.690	1.168mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:19:34 AM
2	4.643	1.491mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:21:38 AM
3	4.075	1.299mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:23:42 AM
4	3.629	1.148mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:25:46 AM
5	3.637	1.150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:27:49 AM
6	3.739	1.185mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:29:53 AM

Mean Area 3.674
Mean Conc. 1.163mg/L



Sample

Sample Name: 280-123855-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

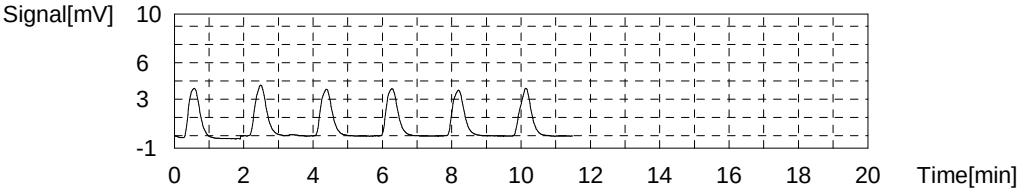
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.904mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.131	3.011mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:38:19 AM
2	9.716	3.210mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:40:23 AM
3	8.757	2.885mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:42:27 AM
4	8.901	2.934mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:44:30 AM
5	8.737	2.878mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:46:34 AM
6	8.865	2.921mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:48:43 AM

Mean Area 8.815
Mean Conc. 2.904mg/L



Sample

Sample Name: 280-123855-c-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

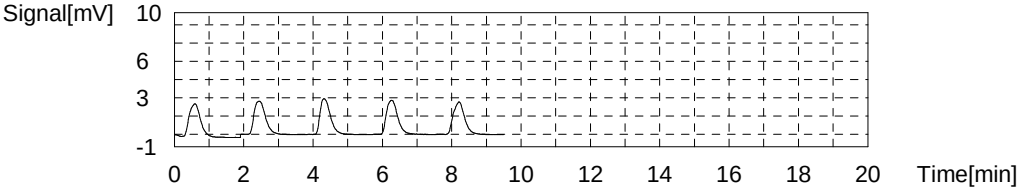
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.986mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.090	1.981mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:57:09 AM
2	6.223	2.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:59:13 AM
3	6.034	1.962mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:01:17 AM
4	6.329	2.062mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:03:20 AM
5	6.065	1.973mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:05:24 AM

Mean Area 6.103
Mean Conc. 1.986mg/L



Sample

Sample Name: 280-123959-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

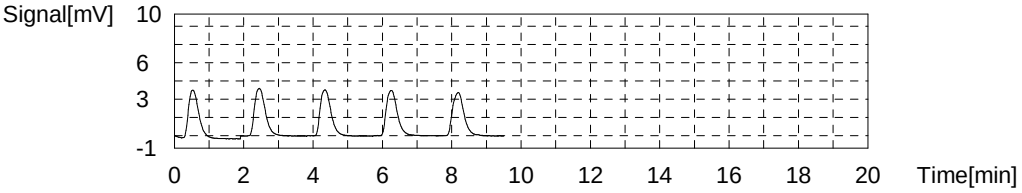
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:13.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.081	13.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:13:56 AM
2	8.452	13.91mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:16:00 AM
3	8.106	13.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:18:04 AM
4	8.060	13.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:20:08 AM
5	8.086	13.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:22:11 AM

Mean Area 8.083
Mean Conc. 13.28mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

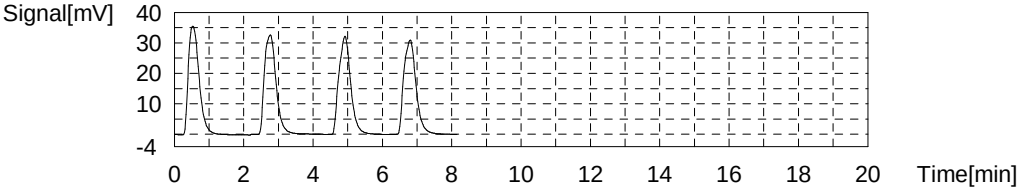
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.16mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.52	26.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:31:00 AM
2	77.29	26.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:33:16 AM
3	77.07	26.03mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:35:20 AM
4	77.00	26.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:37:27 AM

Mean Area 77.47
Mean Conc. 26.16mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

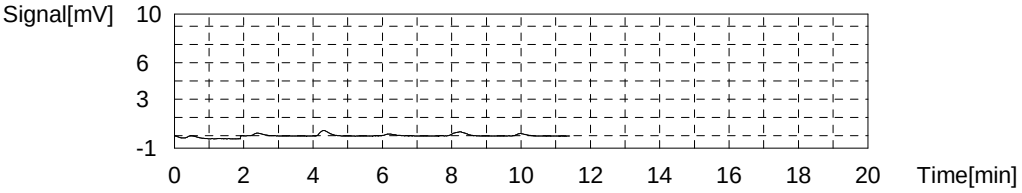
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02421mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3085	0.02261mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:46:00 AM
2	0.3703	0.04355mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:48:04 AM
3	0.8305	0.1995mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:50:08 AM
4	0.2463	0.00154mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:52:12 AM
5	0.8237	0.1971mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:54:15 AM
6	0.3278	0.02915mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:56:19 AM

Mean Area 0.3132
Mean Conc. 0.02421mg/L



Sample

Sample Name: 280-123959-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

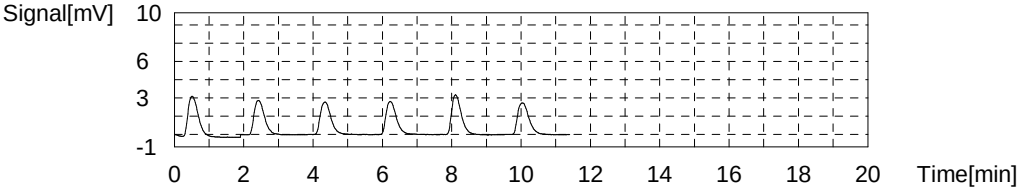
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:9.321mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.793	11.10mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:04:46 AM
2	5.889	9.566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:06:50 AM
3	5.641	9.146mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:08:54 AM
4	5.577	9.037mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:10:57 AM
5	6.367	10.38mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:13:01 AM
6	5.872	9.537mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:15:05 AM

Mean Area 5.745
Mean Conc. 9.321mg/L



Sample

Sample Name: 280-123959-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

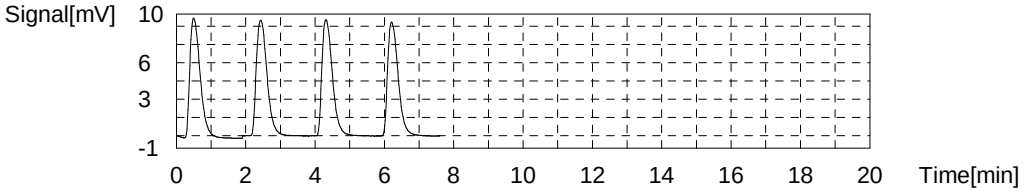
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:33.72mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.36	34.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:23:32 AM
2	20.41	34.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:25:36 AM
3	20.01	33.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:27:40 AM
4	19.82	33.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:29:43 AM

Mean Area 20.15
Mean Conc. 33.72mg/L



Sample

Sample Name: 280-123960-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

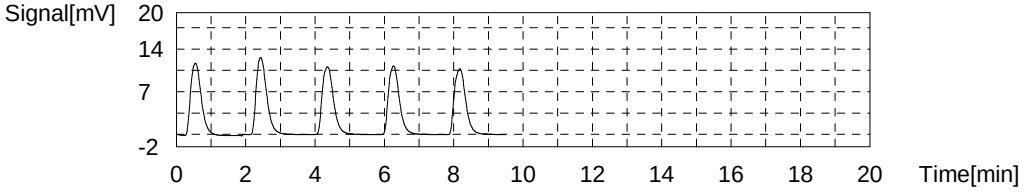
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:8.405mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.50	8.557mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:38:17 AM
2	26.78	8.991mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:40:21 AM
3	25.17	8.445mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:42:25 AM
4	24.76	8.306mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:44:29 AM
5	24.78	8.313mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:46:32 AM

Mean Area 25.05
Mean Conc. 8.405mg/L



Sample

Sample Name: 320-50340-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

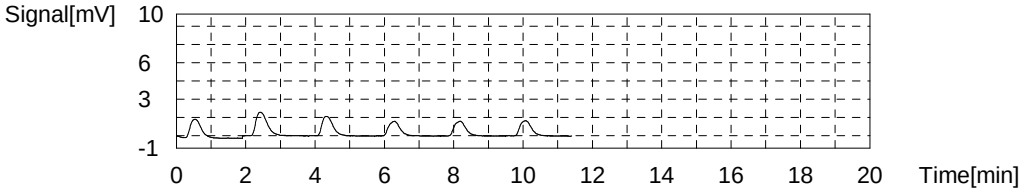
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8943mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.251	1.019mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:55:05 AM
2	4.321	1.382mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:57:09 AM
3	3.431	1.080mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:59:13 AM
4	2.706	0.8348mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:01:16 AM
5	2.765	0.8548mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:03:20 AM
6	2.804	0.8680mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:05:24 AM

Mean Area 2.882
Mean Conc. 0.8943mg/L



Sample

Sample Name: MS 320-50340-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

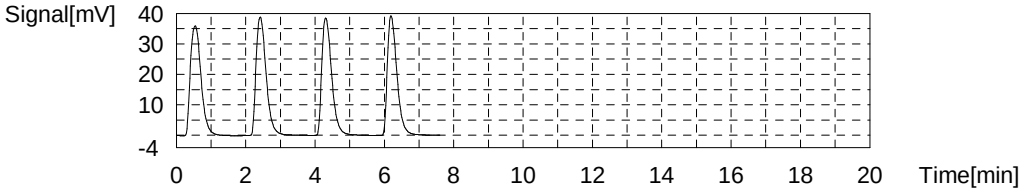
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.50	26.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:13:51 AM
2	78.88	26.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:15:55 AM
3	76.88	25.96mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:17:59 AM
4	75.92	25.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:20:02 AM

Mean Area 77.55
Mean Conc. 26.19mg/L



Sample

Sample Name: MSD 320-50340-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

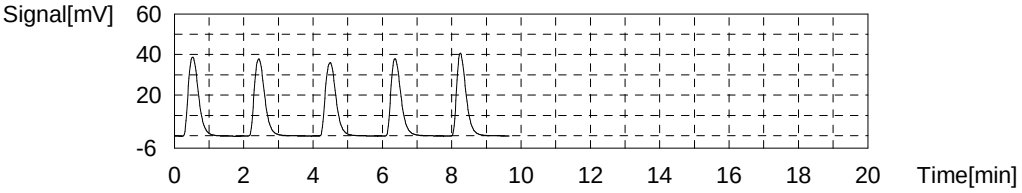
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.40	27.49mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:28:36 AM
2	79.62	26.89mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:30:49 AM
3	77.98	26.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:32:53 AM
4	77.43	26.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:34:56 AM
5	77.00	26.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:37:00 AM

Mean Area 78.01
Mean Conc. 26.35mg/L



Sample

Sample Name: 320-50340-f-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

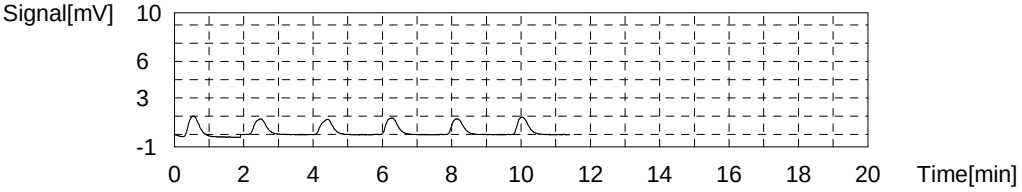
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9328mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.634	1.149mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:45:33 AM
2	2.996	0.9331mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:47:37 AM
3	2.945	0.9158mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:49:41 AM
4	3.188	0.9981mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:51:45 AM
5	2.942	0.9148mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:53:48 AM
6	3.098	0.9676mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:55:52 AM

Mean Area 2.995
Mean Conc. 0.9328mg/L



Sample

Sample Name: 320-50340-f-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

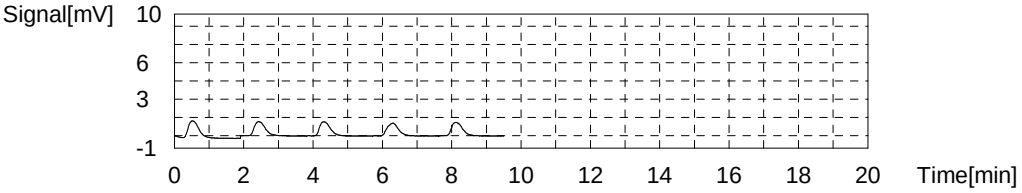
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7462mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.872	0.8911mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:04:19 AM
2	2.501	0.7654mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:06:23 AM
3	2.475	0.7566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:08:26 AM
4	2.395	0.7295mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:10:30 AM
5	2.407	0.7335mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:12:34 AM

Mean Area 2.445
Mean Conc. 0.7462mg/L



Sample

Sample Name: 320-50340-f-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

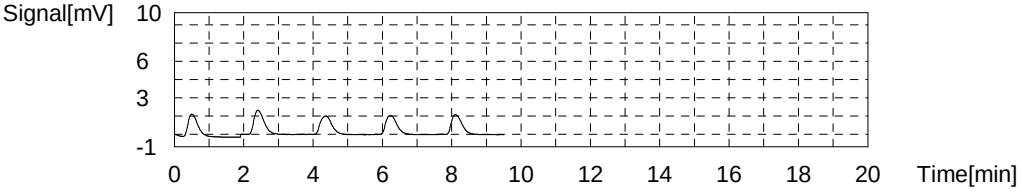
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.099mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.523	1.112mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:21:07 AM
2	4.013	1.278mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:23:11 AM
3	3.502	1.104mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:25:15 AM
4	3.464	1.092mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:27:18 AM
5	3.450	1.087mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:29:22 AM

Mean Area 3.485
Mean Conc. 1.099mg/L



Sample

Sample Name: 280-123922-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

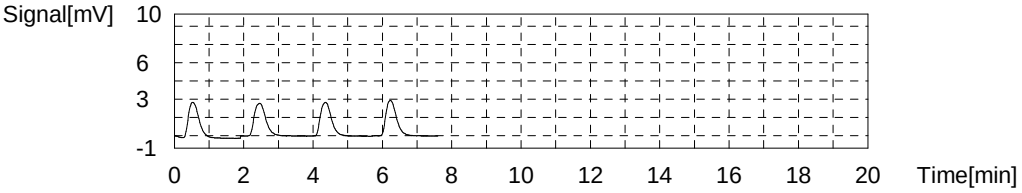
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.983mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.094	1.983mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:37:55 AM
2	6.129	1.994mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:39:59 AM
3	6.039	1.964mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:42:03 AM
4	6.115	1.990mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:44:06 AM

Mean Area 6.094
Mean Conc. 1.983mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

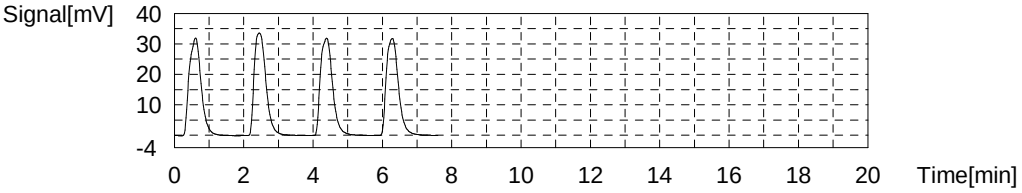
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.83	26.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:52:40 AM
2	79.29	26.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:54:44 AM
3	78.08	26.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:56:48 AM
4	77.60	26.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:58:52 AM

Mean Area 78.20
Mean Conc. 26.41mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

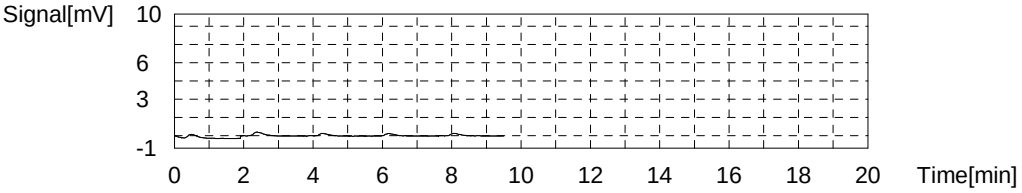
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04570mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4889	0.08372mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:07:25 AM
2	0.5913	0.1184mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:09:29 AM
3	0.3493	0.03643mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:11:33 AM
4	0.3411	0.03365mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:13:36 AM
5	0.3274	0.02901mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:15:40 AM

Mean Area 0.3767
Mean Conc. 0.04570mg/L



Sample

Sample Name: 280-123922-g-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

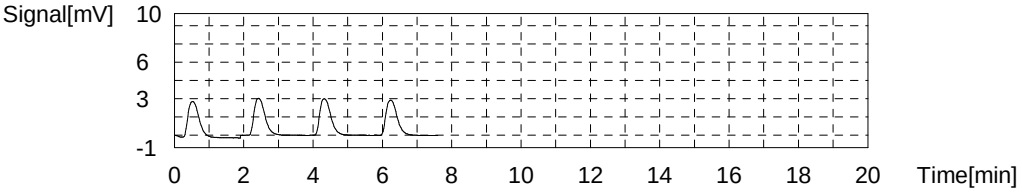
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.130mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.471	2.110mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:24:13 AM
2	6.609	2.157mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:26:17 AM
3	6.532	2.131mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:28:20 AM
4	6.501	2.120mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:30:24 AM

Mean Area 6.528
Mean Conc. 2.130mg/L



Sample

Sample Name: 280-123922-g-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

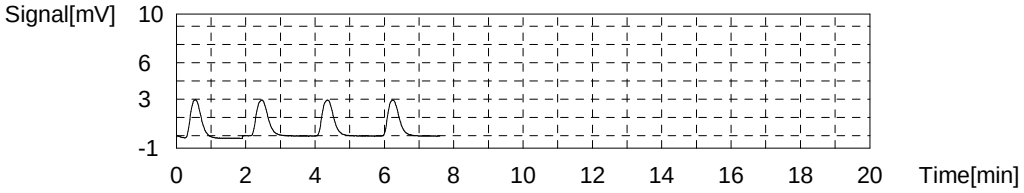
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.174mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.620	2.161mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:38:58 AM
2	6.776	2.214mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:41:02 AM
3	6.664	2.176mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:43:06 AM
4	6.572	2.145mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:45:09 AM

Mean Area 6.658
Mean Conc. 2.174mg/L



Sample

Sample Name: 280-123924-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

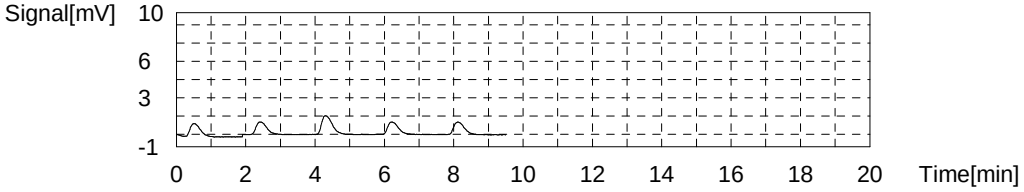
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6557mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.122	0.6370mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:53:43 AM
2	2.210	0.6668mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:55:47 AM
3	3.239	1.015mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:57:50 AM
4	2.192	0.6607mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:59:54 AM
5	2.185	0.6583mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:01:58 AM

Mean Area 2.177
Mean Conc. 0.6557mg/L



Sample

Sample Name: 280-123924-g-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

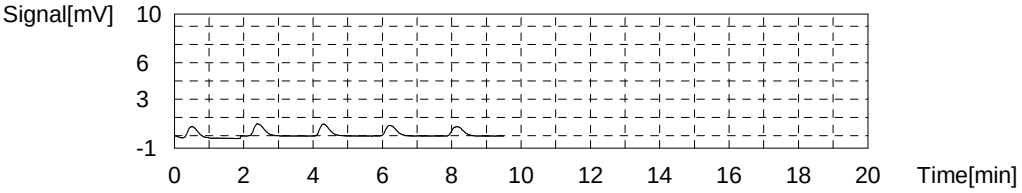
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5330mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.836	0.5401mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:10:31 AM
2	2.067	0.6184mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:12:35 AM
3	1.884	0.5564mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:14:39 AM
4	1.801	0.5282mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:16:42 AM
5	1.739	0.5072mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:18:46 AM

Mean Area 1.815
Mean Conc. 0.5330mg/L



Sample

Sample Name: 280-123924-g-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

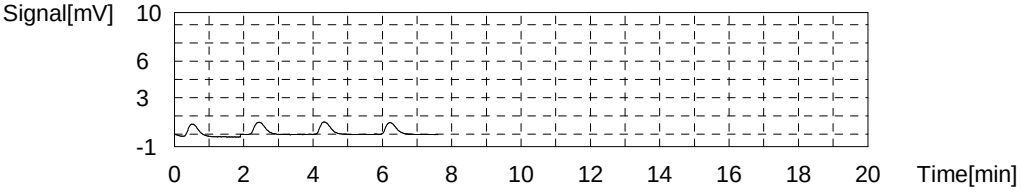
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6311mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.023	0.6034mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:27:19 AM
2	2.206	0.6654mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:29:23 AM
3	2.161	0.6502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:31:27 AM
4	2.029	0.6055mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:33:30 AM

Mean Area 2.105
Mean Conc. 0.6311mg/L



Sample

Sample Name: 280-123924-g-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

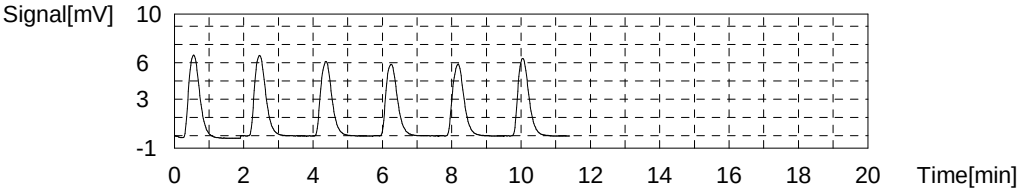
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.552mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.12	5.040mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:42:04 AM
2	14.84	4.946mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:44:08 AM
3	13.82	4.600mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:46:11 AM
4	13.47	4.481mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:48:15 AM
5	13.48	4.485mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:50:19 AM
6	13.94	4.641mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:52:23 AM

Mean Area 13.68
Mean Conc. 4.552mg/L



Sample

Sample Name: 280-123924-g-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

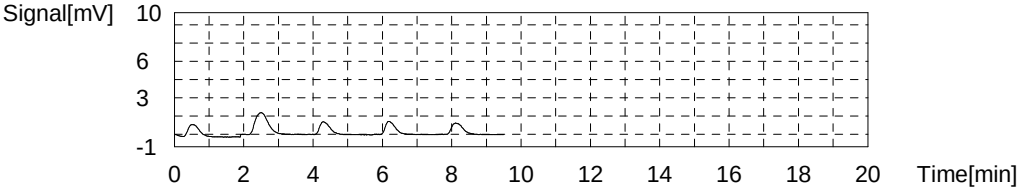
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6367mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.170	0.6532mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:00:50 PM
2	4.610	1.480mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:02:54 PM
3	2.136	0.6417mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:04:58 PM
4	2.086	0.6248mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:07:01 PM
5	2.093	0.6272mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:09:05 PM

Mean Area 2.121
Mean Conc. 0.6367mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

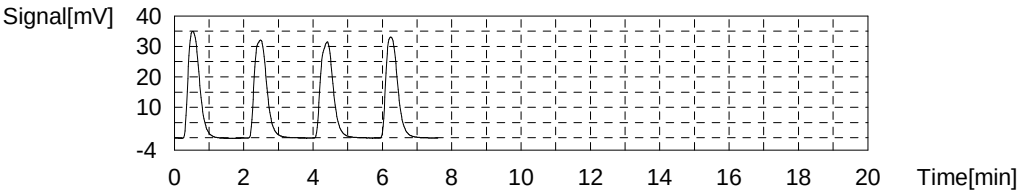
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.00mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.82	27.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:17:38 PM
2	80.38	27.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:19:42 PM
3	80.12	27.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:21:46 PM
4	78.45	26.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:23:49 PM

Mean Area 79.94
Mean Conc. 27.00mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

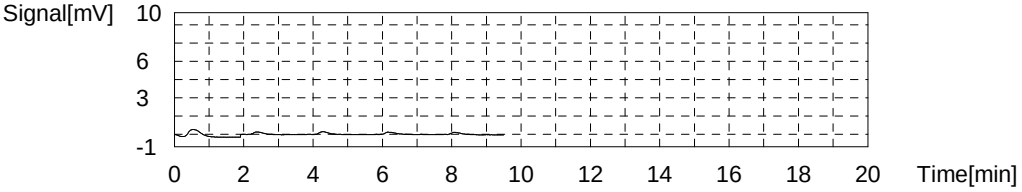
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04400mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.380	0.3856mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:32:24 PM
2	0.3790	0.04649mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:34:28 PM
3	0.4006	0.05381mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:36:32 PM
4	0.3732	0.04453mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:38:35 PM
5	0.3338	0.03118mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:40:39 PM

Mean Area 0.3717
Mean Conc. 0.04400mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

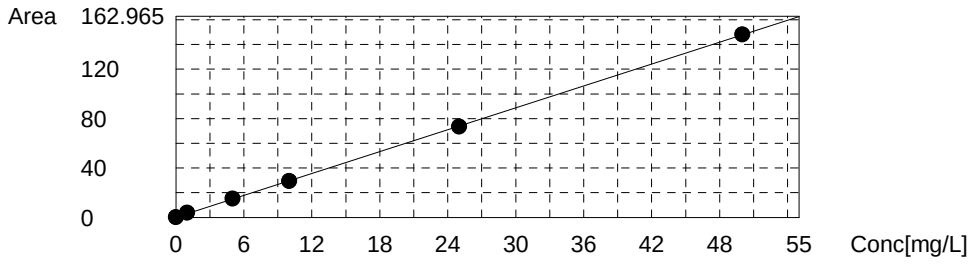
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

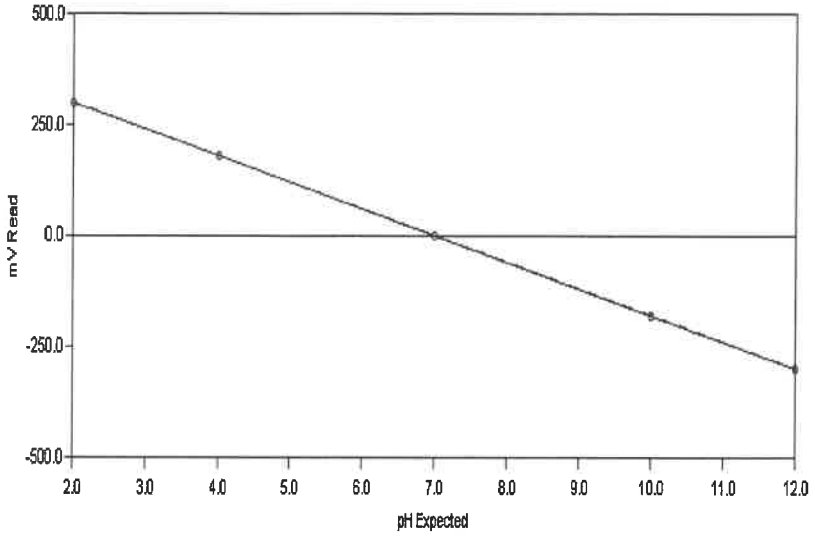
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



MANTECH INC.
Calibration Report

Calibration Record # 461



Calibration Settings

Calibration ID	PH	Date	5/24/2019
Channel	1	Time	5:27 PM
Probe Type	pH	Temperature	295.78 K 22.63 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.670	CorrCoeff	1.0000
Intercept	0.124	Equation: Y = (-59.670) X + (0.124)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.670	-65.00	-54.00
Intercept	0.124	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	297.85
	4.00	179.93
	7.00	0.61
	10.00	-180.17
	12.00	-297.60

Test America
Water Analysis Report

Analyst: SGB

Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
rinse	5/24/2019	5:32 PM	22.20	-1.00	9.22	-1.00	-1.00	-1.00	2.72	8.38	2.94	5.45	.00	.03	.11	.14	.02
check	5/24/2019	5:40 PM	22.08	-1.00	10.51	-1.00	-1.00	-1.00	92.81	198.94	13.33	185.61	.00	.93	1.99	-1.00	.02
b7	5/24/2019	5:42 PM	21.92	-1.00	7.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
lcs	5/24/2019	5:48 PM	21.76	-1.00	10.51	-1.00	-1.00	-1.00	93.68	195.97	8.62	187.35	.00	.94	1.96	-1.00	.02
mb	5/24/2019	6:12 PM	22.39	-1.00	7.30	-1.00	-1.00	-1.00	.00	2.43	2.43	.00	.00	.00	.05	.07	.02
280-123986-A-11	5/24/2019	6:18 PM	21.73	-1.00	7.41	-1.00	-1.00	-1.00	.00	187.14	187.14	.00	.00	.00	1.87	-1.00	.02
280-123986-A-11	5/24/2019	6:23 PM	21.48	-1.00	7.43	-1.00	-1.00	-1.00	.00	189.84	189.84	.00	.00	.00	1.90	-1.00	.02
280-123986-A-12	5/24/2019	6:29 PM	21.45	-1.00	7.52	-1.00	-1.00	-1.00	.00	192.48	192.48	.00	.00	.00	1.92	-1.00	.02
280-123986-A-1	5/24/2019	6:34 PM	21.51	-1.00	7.69	-1.00	-1.00	-1.00	.00	122.93	122.93	.00	.00	.00	1.23	-1.00	.02
280-123986-A-6	5/24/2019	6:39 PM	21.67	-1.00	7.80	-1.00	-1.00	-1.00	.00	149.83	149.83	.00	.00	.00	1.50	-1.00	.02
280-123986-A-7	5/24/2019	6:45 PM	21.61	-1.00	7.94	-1.00	-1.00	-1.00	.00	124.83	124.83	.00	.00	.00	1.25	-1.00	.02
280-123986-A-8	5/24/2019	6:52 PM	21.38	-1.00	7.60	-1.00	-1.00	-1.00	.00	532.96	532.96	.00	.00	.00	5.33	-1.00	.02
280-123842-A-1	5/24/2019	7:01 PM	21.44	-1.00	7.21	-1.00	-1.00	-1.00	.00	646.84	646.84	.00	.00	.00	6.47	-1.00	.02
280-123815-G-1	5/24/2019	7:07 PM	21.48	-1.00	8.11	-1.00	-1.00	-1.00	.00	180.90	180.90	.00	.00	.00	1.81	-1.00	.02
280-123291-B-1	5/24/2019	7:16 PM	21.31	-1.00	7.32	-1.00	-1.00	-1.00	.00	796.65	796.65	.00	.00	.00	7.97	-1.00	.02
ccv	5/24/2019	7:22 PM	21.31	-1.00	10.46	-1.00	-1.00	-1.00	95.91	199.19	7.37	191.82	.00	.96	1.99	-1.00	.02
ccb	5/24/2019	7:27 PM	21.35	-1.00	6.56	-1.00	-1.00	-1.00	.00	1.15	1.15	.00	.00	.00	.03	.05	.02
280-123843-A-2	5/24/2019	7:35 PM	21.31	-1.00	7.47	-1.00	-1.00	-1.00	.00	567.21	567.21	.00	.00	.00	5.67	-1.00	.02
280-123855-H-5	5/24/2019	7:40 PM	21.53	-1.00	7.98	-1.00	-1.00	-1.00	.00	218.11	218.11	.00	.00	.00	2.18	-1.00	.02
280-123855-J-4	5/24/2019	7:46 PM	21.69	-1.00	7.98	-1.00	-1.00	-1.00	.00	219.58	219.58	.00	.00	.00	2.20	-1.00	.02
280-123855-J-6	5/24/2019	7:52 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	216.63	216.63	.00	.00	.00	2.17	-1.00	.02
280-123855-I-1	5/24/2019	7:59 PM	21.56	-1.00	7.26	-1.00	-1.00	-1.00	.00	235.07	235.07	.00	.00	.00	2.35	-1.00	.02
280-123855-J-2	5/24/2019	8:04 PM	21.28	-1.00	10.56	-1.00	-1.00	-1.00	80.82	111.02	.00	60.41	50.61	.81	1.11	-1.00	.02
280-123855-J-3	5/24/2019	8:10 PM	21.31	-1.00	7.80	-1.00	-1.00	-1.00	.00	367.77	367.77	.00	.00	.00	3.68	-1.00	.02
280-123868-B-2	5/24/2019	8:16 PM	21.37	-1.00	7.96	-1.00	-1.00	-1.00	.00	138.62	138.62	.00	.00	.00	1.39	-1.00	.02
280-123868-B-1	5/24/2019	8:22 PM	21.32	-1.00	7.96	-1.00	-1.00	-1.00	.00	141.52	141.52	.00	.00	.00	1.42	-1.00	.02
280-123868-B-3	5/24/2019	8:25 PM	21.37	-1.00	4.09	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02

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GENERAL RESULTS REPORT.SRW

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
ccv	5/24/2019	8:31 PM	21.31	-1.00	10.41	-1.00	-1.00	-1.00	91.66	196.42	13.11	183.32	.00	.92	1.96	-1.00	.02
ccb	5/24/2019	8:36 PM	21.64	-1.00	7.13	-1.00	-1.00	-1.00	.00	1.71	1.71	.00	.00	.00	.04	.05	.02
lcs	5/24/2019	8:42 PM	21.73	-1.00	10.42	-1.00	-1.00	-1.00	94.43	198.96	10.10	188.87	.00	.94	1.99	-1.00	.02
mb	5/24/2019	8:47 PM	21.87	-1.00	7.25	-1.00	-1.00	-1.00	.00	1.70	1.70	.00	.00	.00	.04	.05	.02
280-123882-B-1	5/24/2019	8:52 PM	21.63	-1.00	7.92	-1.00	-1.00	-1.00	.00	168.53	168.53	.00	.00	.00	1.69	-1.00	.02
du	5/24/2019	8:58 PM	21.50	-1.00	7.96	-1.00	-1.00	-1.00	.00	168.56	168.56	.00	.00	.00	1.69	-1.00	.02
280-123919-C-2	5/24/2019	9:03 PM	21.44	-1.00	6.66	-1.00	-1.00	-1.00	.00	1.60	1.60	.00	.00	.00	.03	.05	.02
280-123919-C-6	5/24/2019	9:08 PM	21.40	-1.00	7.65	-1.00	-1.00	-1.00	.00	185.45	185.45	.00	.00	.00	1.85	-1.00	.02
280-123919-C-5	5/24/2019	9:17 PM	21.38	-1.00	7.35	-1.00	-1.00	-1.00	.00	546.93	546.93	.00	.00	.00	5.47	-1.00	.02
280-123919-C-4	5/24/2019	9:22 PM	21.54	-1.00	7.63	-1.00	-1.00	-1.00	.00	185.98	185.98	.00	.00	.00	1.86	-1.00	.02
280-123922-J-1	5/24/2019	9:29 PM	21.51	-1.00	7.31	-1.00	-1.00	-1.00	.00	423.12	423.12	.00	.00	.00	4.23	-1.00	.02
280-123922-I-3	5/24/2019	9:36 PM	21.64	-1.00	7.35	-1.00	-1.00	-1.00	.00	377.60	377.60	.00	.00	.00	3.78	-1.00	.02
280-123922-H-2	5/24/2019	9:43 PM	21.86	-1.00	7.38	-1.00	-1.00	-1.00	.00	420.73	420.73	.00	.00	.00	4.21	-1.00	.02
280-123924-A-5	5/24/2019	9:48 PM	22.11	-1.00	8.11	-1.00	-1.00	-1.00	.00	163.70	163.70	.00	.00	.00	1.64	-1.00	.02
ccv	5/24/2019	9:55 PM	21.90	-1.00	10.39	-1.00	-1.00	-1.00	91.87	199.99	16.25	183.74	.00	.92	2.00	-1.00	.02
ccb	5/24/2019	9:59 PM	21.80	-1.00	6.37	-1.00	-1.00	-1.00	.00	.84	.84	.00	.00	.00	.03	.05	.02
280-123924-B-6	5/24/2019	10:06 PM	21.58	-1.00	7.89	-1.00	-1.00	-1.00	.00	410.82	410.82	.00	.00	.00	4.11	-1.00	.02
280-123924-B-7	5/24/2019	10:13 PM	21.66	-1.00	8.11	-1.00	-1.00	-1.00	.00	217.84	217.84	.00	.00	.00	2.18	-1.00	.02
280-123924-B-8	5/24/2019	10:18 PM	21.57	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.48	212.48	.00	.00	.00	2.12	-1.00	.02
280-123924-B-9	5/24/2019	10:24 PM	21.53	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.16	212.16	.00	.00	.00	2.12	-1.00	.02
280-123924-A-10	5/24/2019	10:30 PM	21.51	-1.00	7.30	-1.00	-1.00	-1.00	.00	86.68	86.68	.00	.00	.00	.87	-1.00	.02
280-123924-A-11	5/24/2019	10:35 PM	21.51	-1.00	7.77	-1.00	-1.00	-1.00	.00	89.64	89.64	.00	.00	.00	.90	-1.00	.02
280-123924-B-12	5/24/2019	10:41 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	209.92	209.92	.00	.00	.00	2.10	-1.00	.02
280-123930-I-1	5/24/2019	10:47 PM	21.89	-1.00	7.26	-1.00	-1.00	-1.00	.00	248.54	248.54	.00	.00	.00	2.49	-1.00	.02
280-123930-H-2	5/24/2019	10:54 PM	22.16	-1.00	7.38	-1.00	-1.00	-1.00	.00	492.40	492.40	.00	.00	.00	4.92	-1.00	.02
280-123930-I-3	5/24/2019	11:01 PM	22.07	-1.00	7.35	-1.00	-1.00	-1.00	.00	491.92	491.92	.00	.00	.00	4.92	-1.00	.02
ccv	5/24/2019	11:07 PM	21.95	-1.00	10.41	-1.00	-1.00	-1.00	86.66	197.59	24.28	173.31	.00	.87	1.98	-1.00	.02
ccb	5/24/2019	11:12 PM	21.85	-1.00	6.31	-1.00	-1.00	-1.00	.00	.99	.99	.00	.00	.00	.03	.05	.02
lcs	5/24/2019	11:18 PM	21.64	-1.00	10.38	-1.00	-1.00	-1.00	90.31	202.44	21.82	180.62	.00	.90	2.02	-1.00	.02
mb	5/24/2019	11:23 PM	21.70	-1.00	6.27	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.05	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123930-H-4	5/24/2019	11:30 PM	21.63	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.17	484.17	.00	.00	.00	4.84	-1.00	.02
du	5/24/2019	11:38 PM	21.73	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.73	484.73	.00	.00	.00	4.85	-1.00	.02
280-123930-J-5	5/24/2019	11:43 PM	21.79	-1.00	7.69	-1.00	-1.00	-1.00	.00	155.17	155.17	.00	.00	.00	1.55	-1.00	.02
280-123941-I-2	5/24/2019	11:50 PM	21.79	-1.00	8.28	-1.00	-1.00	-1.00	.00	362.95	362.95	.00	.00	.00	3.63	-1.00	.02
280-123941-I-4	5/24/2019	11:57 PM	21.95	-1.00	8.58	-1.00	-1.00	-1.00	25.24	424.38	373.91	50.48	.00	.25	4.24	-1.00	.02
280-123941-I-5	5/25/2019	12:05 AM	22.39	-1.00	7.94	-1.00	-1.00	-1.00	.00	576.32	576.32	.00	.00	.00	5.76	-1.00	.02
280-123941-I-6	5/25/2019	12:13 AM	22.32	-1.00	7.90	-1.00	-1.00	-1.00	.00	551.79	551.79	.00	.00	.00	5.52	-1.00	.02
280-123941-I-7	5/25/2019	12:21 AM	22.11	-1.00	7.60	-1.00	-1.00	-1.00	.00	582.27	582.27	.00	.00	.00	5.82	-1.00	.02
280-123941-I-9	5/25/2019	12:27 AM	22.02	-1.00	8.10	-1.00	-1.00	-1.00	.00	171.96	171.96	.00	.00	.00	1.72	-1.00	.02
280-123941-I-10	5/25/2019	12:34 AM	21.86	-1.00	7.94	-1.00	-1.00	-1.00	.00	410.36	410.36	.00	.00	.00	4.10	-1.00	.02
ccv	5/25/2019	12:40 AM	21.71	-1.00	10.37	-1.00	-1.00	-1.00	89.84	200.21	20.54	179.67	.00	.90	2.00	-1.00	.02
ccb	5/25/2019	12:44 AM	21.71	-1.00	6.54	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-123941-I-11	5/25/2019	12:53 AM	21.69	-1.00	8.03	-1.00	-1.00	-1.00	.00	488.04	488.04	.00	.00	.00	4.88	-1.00	.02
280-123942-C-1	5/25/2019	12:58 AM	21.71	-1.00	7.75	-1.00	-1.00	-1.00	.00	146.69	146.69	.00	.00	.00	1.47	-1.00	.02
280-123947-A-2	5/25/2019	1:08 AM	21.69	-1.00	7.64	-1.00	-1.00	-1.00	.00	845.54	845.54	.00	.00	.00	8.46	-1.00	.02
280-123955-A-1	5/25/2019	1:15 AM	21.79	-1.00	7.81	-1.00	-1.00	-1.00	.00	432.94	432.94	.00	.00	.00	4.33	-1.00	.02
280-123969-A-2	5/25/2019	1:21 AM	21.73	-1.00	9.91	-1.00	-1.00	-1.00	59.22	157.92	39.48	118.44	.00	.59	1.58	-1.00	.02
280-123969-C-4	5/25/2019	1:32 AM	21.96	-1.00	7.68	-1.00	-1.00	-1.00	.00	931.00	931.00	.00	.00	.00	9.31	-1.00	.02
280-123969-A-3	5/25/2019	1:40 AM	21.87	-1.00	8.14	-1.00	-1.00	-1.00	.00	561.64	561.64	.00	.00	.00	5.62	-1.00	.02
280-123969-C-5	5/25/2019	1:47 AM	21.64	-1.00	7.80	-1.00	-1.00	-1.00	.00	521.66	521.66	.00	.00	.00	5.22	-1.00	.02
280-123981-J-8	5/25/2019	1:53 AM	21.51	-1.00	8.02	-1.00	-1.00	-1.00	.00	202.09	202.09	.00	.00	.00	2.02	-1.00	.02
280-123981-J-3	5/25/2019	1:59 AM	21.37	-1.00	7.99	-1.00	-1.00	-1.00	.00	217.95	217.95	.00	.00	.00	2.18	-1.00	.02
ccv	5/25/2019	2:04 AM	21.25	-1.00	10.34	-1.00	-1.00	-1.00	89.34	200.92	22.25	178.67	.00	.89	2.01	-1.00	.02
ccb	5/25/2019	2:09 AM	21.32	-1.00	6.39	-1.00	-1.00	-1.00	.00	1.24	1.24	.00	.00	.00	.03	.05	.02
lcs	5/25/2019	2:15 AM	21.25	-1.00	10.32	-1.00	-1.00	-1.00	87.49	199.56	24.58	174.98	.00	.87	2.00	-1.00	.02
mb	5/25/2019	2:19 AM	21.30	-1.00	6.43	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.04	.02
280-123981-H-4	5/25/2019	2:26 AM	21.31	-1.00	7.90	-1.00	-1.00	-1.00	.00	333.37	333.37	.00	.00	.00	3.33	-1.00	.02
du	5/25/2019	2:33 AM	21.41	-1.00	7.92	-1.00	-1.00	-1.00	.00	336.92	336.92	.00	.00	.00	3.37	-1.00	.02
280-123981-J-9	5/25/2019	2:39 AM	21.92	-1.00	8.14	-1.00	-1.00	-1.00	.00	211.07	211.07	.00	.00	.00	2.11	-1.00	.02
280-123981-I-6	5/25/2019	2:45 AM	21.82	-1.00	7.98	-1.00	-1.00	-1.00	.00	238.01	238.01	.00	.00	.00	2.38	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123981-I-2	5/25/2019	2:50 AM	21.71	-1.00	8.16	-1.00	-1.00	-1.00	.00	151.85	151.85	.00	.00	.00	1.52	-1.00	.02
280-123981-J-7	5/25/2019	2:57 AM	21.64	-1.00	7.88	-1.00	-1.00	-1.00	.00	318.00	318.00	.00	.00	.00	3.18	-1.00	.02
280-123981-I-1	5/25/2019	3:04 AM	21.57	-1.00	7.83	-1.00	-1.00	-1.00	.00	480.47	480.47	.00	.00	.00	4.80	-1.00	.02
280-123981-J-5	5/25/2019	3:10 AM	21.57	-1.00	8.18	-1.00	-1.00	-1.00	.00	168.22	168.22	.00	.00	.00	1.68	-1.00	.02
280-123983-H-1	5/25/2019	3:15 AM	21.56	-1.00	7.68	-1.00	-1.00	-1.00	.00	80.51	80.51	.00	.00	.00	.81	-1.00	.02
280-123983-I-2	5/25/2019	3:21 AM	21.51	-1.00	7.97	-1.00	-1.00	-1.00	.00	157.17	157.17	.00	.00	.00	1.57	-1.00	.02
ccv	5/25/2019	3:27 AM	21.50	-1.00	10.31	-1.00	-1.00	-1.00	88.23	200.79	24.34	176.45	.00	.88	2.01	-1.00	.02
ccb	5/25/2019	3:31 AM	21.63	-1.00	6.41	-1.00	-1.00	-1.00	.00	1.07	1.07	.00	.00	.00	.03	.05	.02
280-123983-H-3	5/25/2019	3:37 AM	21.66	-1.00	7.48	-1.00	-1.00	-1.00	.00	133.40	133.40	.00	.00	.00	1.33	-1.00	.02
280-124012-C-2	5/25/2019	3:43 AM	21.79	-1.00	8.21	-1.00	-1.00	-1.00	.00	154.14	154.14	.00	.00	.00	1.54	-1.00	.02
280-124006-B-1	5/25/2019	3:49 AM	22.10	-1.00	8.17	-1.00	-1.00	-1.00	.00	187.63	187.63	.00	.00	.00	1.88	-1.00	.02
280-124014-A-1	5/25/2019	3:55 AM	22.02	-1.00	8.04	-1.00	-1.00	-1.00	.00	260.05	260.05	.00	.00	.00	2.60	-1.00	.02
280-124014-A-2	5/25/2019	4:02 AM	21.93	-1.00	7.99	-1.00	-1.00	-1.00	.00	471.35	471.35	.00	.00	.00	4.71	-1.00	.02
280-124036-D-1	5/25/2019	4:16 AM	21.90	-1.00	7.31	-1.00	-1.00	-1.00	.00	1,354.27	1,354.27	.00	.00	.00	13.54	-1.00	.02
280-124036-C-2	5/25/2019	4:34 AM	21.98	-1.00	7.80	-1.00	-1.00	-1.00	.00	1,920.50	1,920.50	.00	.00	.00	19.20	-1.00	.02
280-124036-C-3	5/25/2019	4:56 AM	22.07	-1.00	8.01	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124036-D-4	5/25/2019	5:12 AM	22.14	-1.00	8.09	-1.00	-1.00	-1.00	.00	1,605.88	1,605.88	.00	.00	.00	16.06	-1.00	.02
280-124036-C-6	5/25/2019	5:23 AM	22.16	-1.00	7.92	-1.00	-1.00	-1.00	.00	1,030.71	1,030.71	.00	.00	.00	10.31	-1.00	.02
ccv	5/25/2019	5:28 AM	22.08	-1.00	10.23	-1.00	-1.00	-1.00	84.01	201.28	33.25	168.03	.00	.84	2.01	-1.00	.02
ccb	5/25/2019	5:33 AM	22.03	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.11	1.11	.00	.00	.00	.03	.04	.02
lcs	5/25/2019	5:40 AM	21.98	-1.00	10.24	-1.00	-1.00	-1.00	85.95	205.96	34.06	171.90	.00	.86	2.06	-1.00	.02
mb	5/25/2019	5:45 AM	22.49	-1.00	6.46	-1.00	-1.00	-1.00	.00	1.41	1.41	.00	.00	.00	.03	.05	.02
280-124036-D-7	5/25/2019	5:55 AM	22.39	-1.00	7.87	-1.00	-1.00	-1.00	.00	994.91	994.91	.00	.00	.00	9.95	-1.00	.02
du	5/25/2019	6:06 AM	22.40	-1.00	7.88	-1.00	-1.00	-1.00	.00	1,000.38	1,000.38	.00	.00	.00	10.00	-1.00	.02
280-124036-D-8	5/25/2019	6:18 AM	22.39	-1.00	7.83	-1.00	-1.00	-1.00	.00	1,001.71	1,001.71	.00	.00	.00	10.02	-1.00	.02
280-124036-C-9	5/25/2019	6:23 AM	22.40	-1.00	6.30	-1.00	-1.00	-1.00	.00	1.28	1.28	.00	.00	.00	.03	.05	.02
280-124036-C-10	5/25/2019	6:44 AM	22.23	-1.00	8.74	-1.00	-1.00	-1.00	121.48	.00	-242.97	242.97	.00	1.21	.00	.00	.02
280-124053-F-3	5/25/2019	6:51 AM	22.42	-1.00	7.96	-1.00	-1.00	-1.00	.00	397.73	397.73	.00	.00	.00	3.98	-1.00	.02
280-124053-E-2	5/25/2019	6:57 AM	22.31	-1.00	7.92	-1.00	-1.00	-1.00	.00	284.93	284.93	.00	.00	.00	2.85	-1.00	.02
280-124070-F-5	5/25/2019	7:04 AM	22.28	-1.00	7.90	-1.00	-1.00	-1.00	.00	301.09	301.09	.00	.00	.00	3.01	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-124070-F-6	5/25/2019	7:10 AM	22.26	-1.00	7.96	-1.00	-1.00	-1.00	.00	213.13	213.13	.00	.00	.00	2.13	-1.00	.02
280-124070-F-3	5/25/2019	7:16 AM	22.32	-1.00	8.01	-1.00	-1.00	-1.00	.00	336.89	336.89	.00	.00	.00	3.37	-1.00	.02
ccv	5/25/2019	7:23 AM	22.40	-1.00	10.23	-1.00	-1.00	-1.00	82.94	206.67	40.79	165.88	.00	.83	2.07	-1.00	.02
ccb	5/25/2019	7:27 AM	22.70	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.18	1.18	.00	.00	.00	.03	.05	.02
280-124070-F-4	5/25/2019	7:33 AM	22.55	-1.00	7.95	-1.00	-1.00	-1.00	.00	266.39	266.39	.00	.00	.00	2.66	-1.00	.02
280-124070-F-1	5/25/2019	7:40 AM	22.49	-1.00	7.91	-1.00	-1.00	-1.00	.00	355.63	355.63	.00	.00	.00	3.56	-1.00	.02
280-124070-F-2	5/25/2019	7:46 AM	22.46	-1.00	7.98	-1.00	-1.00	-1.00	.00	246.93	246.93	.00	.00	.00	2.47	-1.00	.02
280-124156-E-1	5/25/2019	7:57 AM	22.43	-1.00	8.62	-1.00	-1.00	-1.00	36.56	1,039.07	965.95	73.12	.00	.37	10.39	-1.00	.02
280-123939-A-3	5/25/2019	8:02 AM	22.52	-1.00	8.14	-1.00	-1.00	-1.00	.00	82.75	82.75	.00	.00	.00	.83	-1.00	.02
280-123939-A-3 du	5/25/2019	8:07 AM	22.39	-1.00	8.21	-1.00	-1.00	-1.00	.00	83.01	83.01	.00	.00	.00	.83	-1.00	.02
280-123939-A-4	5/25/2019	8:12 AM	22.42	-1.00	6.28	-1.00	-1.00	-1.00	.00	.92	.92	.00	.00	.00	.03	.04	.02
280-124055-A-1	5/25/2019	8:17 AM	22.42	-1.00	7.08	-1.00	-1.00	-1.00	.00	71.71	71.71	.00	.00	.00	.72	-1.00	.02
280-124055-A-2	5/25/2019	8:23 AM	22.46	-1.00	8.05	-1.00	-1.00	-1.00	.00	197.82	197.82	.00	.00	.00	1.98	-1.00	.02
280-124055-A-3	5/25/2019	8:26 AM	22.54	-1.00	4.07	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
ccv	5/25/2019	8:32 AM	22.89	-1.00	10.11	-1.00	-1.00	-1.00	78.99	202.48	44.50	157.98	.00	.79	2.02	-1.00	.02
ccb	5/25/2019	8:37 AM	22.96	-1.00	6.88	-1.00	-1.00	-1.00	.00	1.91	1.91	.00	.00	.00	.04	.06	.02
lcs	5/25/2019	8:43 AM	22.98	-1.00	10.13	-1.00	-1.00	-1.00	77.19	200.11	45.73	154.37	.00	.77	2.00	-1.00	.02
mb	5/25/2019	8:48 AM	22.92	-1.00	6.71	-1.00	-1.00	-1.00	.00	1.63	1.63	.00	.00	.00	.03	.05	.02
280-124055-A-4	5/25/2019	8:53 AM	22.83	-1.00	7.37	-1.00	-1.00	-1.00	.00	40.22	40.22	.00	.00	.00	.40	-1.00	.02
280-124055-A-5	5/25/2019	8:56 AM	22.81	-1.00	3.81	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124055-A-6	5/25/2019	9:01 AM	22.80	-1.00	7.22	-1.00	-1.00	-1.00	.00	37.84	37.84	.00	.00	.00	.38	-1.00	.02
ccv	5/25/2019	9:07 AM	22.78	-1.00	10.18	-1.00	-1.00	-1.00	79.97	201.90	41.96	159.94	.00	.80	2.02	-1.00	.02
ccb	5/25/2019	9:12 AM	22.77	-1.00	6.57	-1.00	-1.00	-1.00	.00	1.75	1.75	.00	.00	.00	.03	.05	.02

PC-TitratION PLUS by Man-Tech Associates, Inc.

GENERAL RESULTS REPORT.SRW

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2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-459056 Analyst: Setjoadi, Mayori J Batch Open: 5/22/2019 12:01:00PM

Batch End:

Solids, Total Dissolved (TDS)

Conductivity MJS 5/22/19

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~280-459056/1 N/A	N/A			0.41	N/A	N/A	N/A		
2	LCS~280-459056/2 N/A	N/A				N/A	N/A	N/A		
3	280-123910-D-1 (2540C_Calcd)	N/A (280-123910-1)	Water	10	8770	6/12/19	17_Days	4		
4	280-123910-D-1 (2540C_Calcd)	N/A (280-123910-1)	Water	10	8770	6/12/19	17_Days	4		
5	280-123499-A-1 (2540C_Calcd)	N/A (280-123499-1)	Water	50	H	6/3/19	17_Days	4	reruns	
6	280-123499-A-2 (2540C_Calcd)	N/A (280-123499-1)	Water	25	H	6/3/19	17_Days	4	↓	
7	280-123499-A-3 (2540C_Calcd)	N/A (280-123499-1)	Water	50	H	6/3/19	17_Days	4		
8	280-123499-A-4 (2540C_Calcd)	N/A (280-123499-1)	Water	50	H	6/3/19	17_Days	4		
9	280-123499-A-5 (2540C_Calcd)	N/A (280-123499-1)	Water	50	H	6/3/19	17_Days	4		
10	280-123499-A-6 (2540C_Calcd)	N/A (280-123499-1)	Water	25	H	6/3/19	17_Days	4		
11	280-123499-B-7 (2540C_Calcd)	N/A (280-123499-1)	Water	100	H	6/3/19	17_Days	4	↓	
12	280-123620-A-5 (2540C_Calcd)	N/A (280-123620-1)	Water	100	H	5/29/19	12_Day_Rush	2	reruns	
13	280-123620-A-6 (2540C_Calcd)	N/A (280-123620-1)	Water	100	H	5/29/19	12_Day_Rush	2	↓	
14	280-123620-A-7 (2540C_Calcd)	N/A (280-123620-1)	Water	100	H	5/29/19	12_Day_Rush	2		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

In oven 1434

(1)

06/12/2019

Batch Number: 280-459056

Analyst: Setjoadi, Mayori J

Batch Open: 5/22/2019 12:01:00PM

Batch End:

15	280-123855-B-1 (2540C_Calcd)	N/A (280-123855-1)	Water	100	948	6/4/19	12_Days	4	
16	280-123855-A-2 (2540C_Calcd)	N/A (280-123855-1)	Water	10	1820	6/4/19	12_Days	4	
17	280-123855-A-3 (2540C_Calcd)	N/A (280-123855-1)	Water	100	735	6/4/19	12_Days	4	
18	280-123855-A-4 (2540C_Calcd)	N/A (280-123855-1)	Water	50	1442	6/4/19	12_Days	4	
19	280-123855-B-5 (2540C_Calcd)	N/A (280-123855-1)	Water	50	1335	6/4/19	12_Days	4	
20	280-123855-B-6 (2540C_Calcd)	N/A (280-123855-1)	Water	50	1345	6/4/19	12_Days	4	
21	280-123941-I-9 (2540C_Calcd)	N/A (280-123941-1)	Water	100	H	6/5/19	12_Day_Rush	2	
22	280-123941-I-10 (2540C_Calcd)	N/A (280-123941-1)	Water	100	H	6/5/19	12_Day_Rush	2	
23	280-123941-I-11 (2540C_Calcd)	N/A (280-123941-1)	Water	100	H	6/5/19	12_Day_Rush	2	
24	280-123941-I-11 (2540C_Calcd)	N/A (280-123941-1)	Water	100	H	6/5/19	12_Day_Rush	2	

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.428	149.1	-0.1864	-0.11184

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.447	149.1	-6.8136	-4.08816

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.488	149.1	-21.1144	-12.66864

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.495	149.1	-23.556	-14.1336

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.476	149.1	-16.9288	-10.15728

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.474	149.1	-16.2312	-9.73872

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.478	149.1	-17.6264	-10.57584

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.385	149.1	14.812	8.8872

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.457	149.1	-10.3016	-6.18096

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.483	149.1	-19.3704	-11.62224

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.474	149.1	-16.2312	-9.73872

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.465	149.1	-13.092	-7.8552

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.420	149.1	2.604	1.5624

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.408	149.1	6.7896	4.07376

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.055	149.1	129.916	77.9496

TALS Raw Data Report

Job Number: 280-123853-1
LIMS Batch: 458482
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458482/1** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		0.719 mg/L	0.719 J mg/L	90	75 125		

RS# 2 Lab ID: **USB 280-458482/2** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		333333333 mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458482/3** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		333333334 mg/L	mg/L	102	58 128		
Biochemical Oxygen		mg/L	mg/L	NaN	85 115		

RS# 4 Lab ID: **MB 280-458482/4** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 5 Lab ID: **280-123867-A-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		1.531 mg/L	mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 6 Lab ID: **280-123867-A-1 DU** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				20
Biochemical Oxygen		mg/L	mg/L				20

RS# 8 Lab ID: **LCS 280-458482/8** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		4.041 mg/L	mg/L	102	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 9 Lab ID: **MB 280-458482/9** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 10 Lab ID: **280-123853-B-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 11 Lab ID: **280-123853-B-1 DU** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

RS# 12 Lab ID: **280-123853-B-2** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 13 Lab ID: **280-123853-B-3** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 14 Lab ID: **280-123853-A-4** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 15 Lab ID: **280-123853-A-5** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 16 Lab ID: **280-123853-A-6** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 23 Lab ID: **280-123867-B-1** Inj Date: 5/16/2019 4:32:45PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123855-1
LIMS Batch: 458482
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458482/1** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		0.719 mg/L	0.719 J mg/L	90	75 125		

RS# 2 Lab ID: **USB 280-458482/2** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		333333333 mg/L	0.59 U mg/L				

RS# 8 Lab ID: **LCS 280-458482/8** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		4.041 mg/L	mg/L	102	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 9 Lab ID: **MB 280-458482/9** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 10 Lab ID: **280-123853-B-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 11 Lab ID: **280-123853-B-1 DU** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

RS# 17 Lab ID: **280-123855-A-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 18 Lab ID: **280-123855-B-2** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 19 Lab ID: **280-123855-B-3** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 20 Lab ID: **280-123855-B-4** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 21 Lab ID: **280-123855-A-5** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 22 Lab ID: **280-123855-A-6** Inj Date: 5/16/2019 4:32:45PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123867-1
LIMS Batch: 458482
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458482/1** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		0.719 mg/L	0.719 J mg/L	90	75 125		

RS# 2 Lab ID: **USB 280-458482/2** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		333333333 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458482/3** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		333333334 mg/L	202 J mg/L	102	58 128		
Biochemical Oxygen		mg/L	mg/L	NaN	85 115		

RS# 4 Lab ID: **MB 280-458482/4** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 5 Lab ID: **280-123867-A-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		1.531 mg/L	1.9 J mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 6 Lab ID: **280-123867-A-1 DU** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				20
Biochemical Oxygen		mg/L	mg/L				20

RS# 7 Lab ID: **280-123867-A-2** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		mg/L	mg/L				
Carbonaceous Bioch		ND mg/L	mg/L				

RS# 8 Lab ID: **LCS 280-458482/8** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		4.041 mg/L	mg/L	102	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 9 Lab ID: **MB 280-458482/9** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 23 Lab ID: **280-123867-B-1** Inj Date: 5/16/2019 4:32:45PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 24 Lab ID: **280-123867-B-2** Inj Date: 5/16/2019 4:32:45PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

Shipping and Receiving Documents

Chain of Custody Record 299608

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Marcia Olive	Site Contact:	Date: 5/15/19	COC No:
Company Name: Bhate Environmental	Tel/Fax: 303-725-7631	Lab Contact:	Carrier:	1 of 1 COCs
Address: 445 Union Blvd. #129	Analysis Turnaround Time			Sampler: G. Carmichael, H. Cavanagh
City/State/Zip: Lakewood, CO 80228	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 303-725-7631	TAT if different from Below			Walk-in Client:
Fax: EMAIL: molive@bhate.com	☐ 2 weeks			Lab Sampling:
Project Name: GRIFFIS	☐ 1 week			
Site: LF007 Landfill 5	☐ 2 days			Job / SDG No.:
PO # 3342	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Alkalinity [2320B]	Color [2120B]	Anions [9056A - 28D. PDFS]	Anions [9056A - 48hL PDFS]	Hardness [2340C]	Total Metal Barium [6010C. PDFS]	Ammonia [350.1]	TKN [351.2]	COD [410.4]	TOC [9060A]	Phenolics [9066]	BOD [SM5210B - Bobcat]	TDS [2540C Calcd]	Sample Specific Notes:
LF5MW-1A_0519	5/15/19	9:50		GW	10	N		x	x	x	x	x	x	x	x	x	x	x	x	x	
LF5MW-100R_0519		10:15		GW	10	N		x	x	x	x	x	x	x	x	x	x	x	x	x	
MW49D07_0519		11:35		GW	10	N		x	x	x	x	x	x	x	x	x	x	x	x	x	
LF5SW-1_0519		11:30		SW	10	N		x	x	x	x	x	x	x	x	x	x	x	x	x	
LF5SW-2_0519		11:45		SW	10	N		x	x	x	x	x	x	x	x	x	x	x	x	x	
LF5SW-3_0519		12:00		SW	10	N		x	x	x	x	x	x	x	x	x	x	x	x	x	

280-123855 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

2.4, 4.6, 4.8 2.4, 4.6, 4.8 SRG

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
H. Cavanagh	ECC	5/15/19 18:16		TA DEN	5-16-19 0855
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

06/12/2019

Page 1152 of 1153

Login Sample Receipt Checklist

Client: Bhate Environmental

Job Number: 280-123855-1

Login Number: 123855
List Number: 1
Creator: Paul, Ryan D

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 280-123814-1

Job Description: Griffiss AFB, LF007 Landfill 5

For:
Bhate Environmental
445 Union Blvd Ste.129
Lakewood, CO 80226

Attention: Marcia Olive



Approved for release.
Kayse 1 Zalmai
Project Manager I
6/11/2019 1:45 PM

Kayse 1 Zalmai, Project Manager I
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
kayse.zalmai@testamericainc.com
06/11/2019

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Definitions/Glossary

Client: Bhate Environmental
Job ID: 280-123814-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Qualifiers

Metals

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE
Client: Bhate Environmental
Project: Griffiss AFB, LF007 Landfill 5
Report Number: 280-123814-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interfererences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/15/2019; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.6º C and 3.3º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for total metals (ICP) in accordance with 6010C. The samples were prepared on 05/23/2019 and analyzed on 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/28/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL KJELDAHL NITROGEN

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 05/31/2019 and analyzed on 06/03/2019.

Nitrogen, Kjeldahl failed the recovery criteria low for the MS and MSD of sample 280-123776-1 in batch 280-460322. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The samples were analyzed on 05/20/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AND ORTHOPHOSPHATE AS P

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for

nitrate-nitrite and orthophosphate as P in accordance with 9056A_48H_DOD5. The samples were analyzed on 05/15/2019.

Orthophosphate as P failed the recovery criteria high for the MS and MSD of sample LF5MW-5_0519-aMS/MSD (280-123814-3) in batch 280-458327. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFATE

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for sulfate in accordance with 9056A. The samples were analyzed on 05/15/2019.

The matrix spike duplicate (MSD) recovery and precision for analytical batch 280-458327 was outside control limits for orthophosphate, method 9056A_48HR. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Sample LF5MW-3_0519 (280-123814-1)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 06/06/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PHENOLICS, TOTAL RECOVERABLE

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for phenolics, total recoverable in accordance with EPA SW-846 Method 9066. The samples were prepared and analyzed on 06/04/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

COLOR

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for color in accordance with SM20 2120B - Colorimetric. The samples were analyzed on 05/15/2019.

Samples LF5MW-3_0519 (280-123814-1)[5X], LF5MW-5_0519 (280-123814-2)[5X] and LF5MW-5_0519-a (280-123814-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for alkalinity in accordance with SM20 2320B. The samples were analyzed on 05/22/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HARDNESS

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for hardness in accordance with SM20 2340C. The samples were analyzed on 05/23/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 05/17/2019 and 05/20/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND

Samples LF5MW-3_0519 (280-123814-1), LF5MW-5_0519 (280-123814-2) and LF5MW-5_0519-a (280-123814-3) were analyzed for Biochemical Oxygen Demand in accordance with SM20 5210B. The samples were analyzed on 05/15/2019.

Biochemical Oxygen Demand was detected in method blank SCB 280-458314/1 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Bhate Environmental
Job ID: 280-123814-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Client Sample ID: LF5MW-3_0519
Lab Sample ID: 280-123814-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	220		100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.15	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	1.3	J	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.53		0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.081	J	0.50	0.042	mg/L	1		9056A	Total/NA
Nitrite	0.068	J	0.50	0.049	mg/L	1		9056A	Total/NA
Sulfate	230	D	25	5.2	mg/L	5		9056A	Total/NA
Total Organic Carbon - Quad	11		1.0	0.16	mg/L	1		9060A	Total/NA
Color	100	D	25	25	PCU	5		SM 2120B	Total/NA
Alkalinity	210		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	450		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	610		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF5MW-5_0519
Lab Sample ID: 280-123814-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	6.3	J	100	4.4	ug/L	1		6010C	Total/NA
Chemical Oxygen Demand (COD)	30	B	20	8.7	mg/L	1		410.4	Total/NA
Nitrate Nitrite as N	1.2		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	1.9	J	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.34	J	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	1.2		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	5.3		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	16		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0078	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	100	D	25	25	PCU	5		SM 2120B	Total/NA
Alkalinity	39		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	46		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	110		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF5MW-5_0519-a
Lab Sample ID: 280-123814-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	5.8	J	100	4.4	ug/L	1		6010C	Total/NA
Chemical Oxygen Demand (COD)	29	B	20	8.7	mg/L	1		410.4	Total/NA
Nitrate Nitrite as N	0.090	J	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	1.8	J J1	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.32	J J1	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.090	J	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	5.4	J1	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	16		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0092	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	130	D	25	25	PCU	5		SM 2120B	Total/NA
Alkalinity	41		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	45		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	94		10	4.7	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF5MW-3_0519
Lab Sample ID: 280-123814-1
Date Collected: 05/14/19 16:10
Matrix: Water
Date Received: 05/15/19 09:15

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**220**		100	4.4	ug/L		05/23/19 08:00	05/24/19 06:45	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/28/19 10:38	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		05/31/19 16:13	06/03/19 20:55	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			05/20/19 12:23	1
Bromide	0.20	U	0.50	0.11	mg/L			05/15/19 20:49	1
Nitrate Nitrite as N	**0.15**	**J**	0.50	0.042	mg/L			05/15/19 20:49	1
Chloride	**1.3**	**J**	3.0	1.0	mg/L			05/15/19 20:49	1
Orthophosphate as P	**0.53**		0.50	0.19	mg/L			05/15/19 20:49	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/15/19 20:49	1
Nitrate	**0.081**	**J**	0.50	0.042	mg/L			05/15/19 20:49	1
Nitrite	**0.068**	**J**	0.50	0.049	mg/L			05/15/19 20:49	1
Sulfate	**230**	**D**	25	5.2	mg/L			05/15/19 21:06	5
Total Organic Carbon - Quad	**11**		1.0	0.16	mg/L			06/06/19 06:10	1
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 21:49	1
Color	**100**	**D**	25	25	PCU			05/15/19 22:55	5
Alkalinity	**210**		10	3.1	mg/L			05/22/19 20:18	1
Hardness	**450**		3.0	0.30	mg/L			05/23/19 18:59	1
Total Dissolved Solids (TDS)	**610**		10	4.7	mg/L			05/20/19 14:08	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/15/19 15:46	1

Client Sample ID: LF5MW-5_0519
Lab Sample ID: 280-123814-2
Date Collected: 05/14/19 16:40
Matrix: Water
Date Received: 05/15/19 09:15

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.3**	**J**	100	4.4	ug/L		05/23/19 08:00	05/24/19 07:17	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/28/19 10:44	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		05/31/19 16:13	06/03/19 20:57	1
Chemical Oxygen Demand (COD)	**30**	**B**	20	8.7	mg/L			05/20/19 12:23	1
Bromide	0.20	U	0.50	0.11	mg/L			05/15/19 21:22	1
Nitrate Nitrite as N	**1.2**		0.50	0.042	mg/L			05/15/19 21:22	1
Chloride	**1.9**	**J**	3.0	1.0	mg/L			05/15/19 21:22	1
Orthophosphate as P	**0.34**	**J**	0.50	0.19	mg/L			05/15/19 21:22	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/15/19 21:22	1
Nitrate	**1.2**		0.50	0.042	mg/L			05/15/19 21:22	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/15/19 21:22	1
Sulfate	**5.3**		5.0	1.0	mg/L			05/15/19 21:22	1
Total Organic Carbon - Quad	**16**		1.0	0.16	mg/L			06/06/19 06:25	1
Phenols, Total	**0.0078**	**J**	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 21:58	1
Color	**100**	**D**	25	25	PCU			05/15/19 22:55	5
Alkalinity	**39**		10	3.1	mg/L			05/22/19 20:22	1
Hardness	**46**		3.0	0.30	mg/L			05/23/19 18:59	1
Total Dissolved Solids (TDS)	**110**		10	4.7	mg/L			05/20/19 14:08	1

Client Sample ID: LF5MW-5_0519
Lab Sample ID: 280-123814-2
Date Collected: 05/14/19 16:40
Matrix: Water
Date Received: 05/15/19 09:15

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/15/19 15:46	1

Client Sample ID: LF5MW-5_0519-a
Lab Sample ID: 280-123814-3
Date Collected: 05/14/19 16:40
Matrix: Water
Date Received: 05/15/19 09:15

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**5.8**	**J**	100	4.4	ug/L		05/23/19 08:00	05/24/19 07:20	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/28/19 10:46	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		05/31/19 16:13	06/03/19 20:58	1
Chemical Oxygen Demand (COD)	**29**	**B**	20	8.7	mg/L			05/20/19 12:23	1
Bromide	0.20	U	0.50	0.11	mg/L			05/15/19 21:38	1
Nitrate Nitrite as N	**0.090**	**J**	0.50	0.042	mg/L			05/15/19 21:38	1
Chloride	**1.8**	**J J1**	3.0	1.0	mg/L			05/15/19 21:38	1
Orthophosphate as P	**0.32**	**J J1**	0.50	0.19	mg/L			05/15/19 21:38	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/15/19 21:38	1
Nitrate	**0.090**	**J**	0.50	0.042	mg/L			05/15/19 21:38	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/15/19 21:38	1
Sulfate	**5.4**	**J1**	5.0	1.0	mg/L			05/15/19 21:38	1
Total Organic Carbon - Quad	**16**		1.0	0.16	mg/L			06/06/19 06:40	1
Phenols, Total	**0.0092**	**J**	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 22:01	1
Color	**130**	**D**	25	25	PCU			05/15/19 22:57	5
Alkalinity	**41**		10	3.1	mg/L			05/22/19 20:12	1
Hardness	**45**		3.0	0.30	mg/L			05/23/19 18:59	1
Total Dissolved Solids (TDS)	**94**		10	4.7	mg/L			05/17/19 11:38	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/15/19 15:46	1

Default Detection Limits

Client: Bhate Environmental
Job ID: 280-123814-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Method: 6010C - Metals (ICP)

Prep: 3010A

Analyte	LOQ	DL	Units
Boron	100	4.4	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Chemical Oxygen Demand (COD)	20	8.7	mg/L
Bromide	0.50	0.11	mg/L
Chloride	3.0	1.0	mg/L
Fluoride	1.0	0.060	mg/L
Nitrate	0.50	0.042	mg/L
Nitrate Nitrite as N	0.50	0.042	mg/L
Nitrite	0.50	0.049	mg/L
Orthophosphate as P	0.50	0.19	mg/L
Sulfate	5.0	1.0	mg/L
Total Organic Carbon - Quad	1.0	0.16	mg/L
Color	5.0	5.0	PCU
Alkalinity	10	3.1	mg/L
Hardness	3.0	0.30	mg/L
Total Dissolved Solids (TDS)	10	4.7	mg/L
Biochemical Oxygen Demand	2.0	0.24	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: Distill/Phenol

Analyte	LOQ	DL	Units
Phenols, Total	0.020	0.0068	mg/L

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-459137/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15	U	100	4.4	ug/L		05/23/19 08:00	05/24/19 06:34	1

Lab Sample ID: LCS 280-459137/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	965		ug/L		97	85 - 113

Lab Sample ID: LCSD 280-459137/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	986		ug/L		99	85 - 113	2	20

Lab Sample ID: 280-123814-1 MS
Client Sample ID: LF5MW-3_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	220		1000	1260		ug/L		103	85 - 113

Lab Sample ID: 280-123814-1 MSD
Client Sample ID: LF5MW-3_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	220		1000	1240		ug/L		102	85 - 113	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-459641/19
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459641

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/28/19 10:36	1

Lab Sample ID: LCS 280-459641/18
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.57		mg/L		103	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 280-123814-1 MS
Client Sample ID: LF5MW-3_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459641

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.050	U	1.00	1.07		mg/L		107	90 - 110

Lab Sample ID: 280-123814-1 MSD
Client Sample ID: LF5MW-3_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459641

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.050	U	1.00	1.08		mg/L		108	90 - 110	1	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-460066/2-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460322
Prep Batch: 460066

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		05/31/19 16:13	06/03/19 20:39	1

Lab Sample ID: LCS 280-460066/27-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460322
Prep Batch: 460066

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	288	276		mg/L		96	90 - 110

Lab Sample ID: 280-123776-B-1-B MS
Client Sample ID: Matrix Spike
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460322
Prep Batch: 460066

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	0.50	U J1	3.00	1.99	J1	mg/L		66	90 - 110

Lab Sample ID: 280-123776-B-1-C MSD
Client Sample ID: Matrix Spike Duplicate
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460322
Prep Batch: 460066

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	0.50	U J1	3.00	2.25	J1	mg/L		75	90 - 110	12	25

Method: 410.4 - COD

Lab Sample ID: MB 280-458808/5
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458808

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			05/20/19 12:23	1

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 280-458808/3
Matrix: Water
Analysis Batch: 458808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand (COD)			100	99.0		mg/L		99	90 - 110		

Lab Sample ID: LCSD 280-458808/4
Matrix: Water
Analysis Batch: 458808

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)			100	109		mg/L		109	90 - 110	10	11

Lab Sample ID: 280-123476-D-3 MS
Matrix: Water
Analysis Batch: 458808

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand (COD)	11	J1	50.0	62.0		mg/L		101	90 - 110		

Lab Sample ID: 280-123476-D-3 MSD
Matrix: Water
Analysis Batch: 458808

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	11	J1	50.0	62.0		mg/L		101	90 - 110	0	11

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-458327/13
Matrix: Water
Analysis Batch: 458327

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/15/19 20:33	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			05/15/19 20:33	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/15/19 20:33	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/15/19 20:33	1

Lab Sample ID: LCS 280-458327/11
Matrix: Water
Analysis Batch: 458327

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N			10.0	9.65		mg/L		97	80 - 120		
Orthophosphate as P			5.00	4.88		mg/L		98	80 - 116		
Nitrate			5.00	4.81		mg/L		96	88 - 111		
Nitrite			5.00	4.84		mg/L		97	87 - 111		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-458327/12
Matrix: Water
Analysis Batch: 458327

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	9.65		mg/L		97	80 - 120	0	10
Orthophosphate as P	5.00	4.89		mg/L		98	80 - 116	0	10
Nitrate	5.00	4.81		mg/L		96	88 - 111	0	10
Nitrite	5.00	4.84		mg/L		97	87 - 111	0	10

Lab Sample ID: MRL 280-458327/10
Matrix: Water
Analysis Batch: 458327

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.432	J	mg/L		108	50 - 150
Orthophosphate as P	0.200	0.192	J	mg/L		96	50 - 150
Nitrate	0.200	0.221	J	mg/L		111	50 - 150
Nitrite	0.200	0.211	J	mg/L		106	50 - 150

Lab Sample ID: 280-123814-3 MS
Matrix: Water
Analysis Batch: 458327

Client Sample ID: LF5MW-5_0519-a
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.090	J	10.0	9.91		mg/L		98	80 - 120
Orthophosphate as P	0.32	J1	5.00	7.80	J1	mg/L		150	80 - 116
Nitrate	0.090	J	5.00	5.04		mg/L		99	88 - 111
Nitrite	0.10	U	5.00	4.87		mg/L		97	87 - 111

Lab Sample ID: 280-123814-3 MSD
Matrix: Water
Analysis Batch: 458327

Client Sample ID: LF5MW-5_0519-a
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.090	J	10.0	10.0		mg/L		100	80 - 120	1	10
Orthophosphate as P	0.32	J1	5.00	7.89	J1	mg/L		151	80 - 116	1	10
Nitrate	0.090	J	5.00	5.10		mg/L		100	88 - 111	1	10
Nitrite	0.10	U	5.00	4.94		mg/L		99	87 - 111	1	10

Lab Sample ID: 280-123814-3 DU
Matrix: Water
Analysis Batch: 458327

Client Sample ID: LF5MW-5_0519-a
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.090	J	0.0839	J	mg/L		7	10
Orthophosphate as P	0.32	J1	0.316	J	mg/L		0.6	10
Nitrate	0.090	J	0.0839	J	mg/L		7	10
Nitrite	0.10	U	0.10	U	mg/L		NC	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 280-458328/13
Matrix: Water
Analysis Batch: 458328

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/15/19 20:33	1
Chloride	3.0	U M	3.0	1.0	mg/L			05/15/19 20:33	1
Fluoride	0.10	U M	1.0	0.060	mg/L			05/15/19 20:33	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/15/19 20:33	1

Lab Sample ID: LCS 280-458328/11
Matrix: Water
Analysis Batch: 458328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.90		mg/L		98	91 - 110
Chloride	100	95.0		mg/L		95	87 - 111
Fluoride	5.00	4.74		mg/L		95	88 - 112
Sulfate	100	93.4		mg/L		93	87 - 112

Lab Sample ID: LCSD 280-458328/12
Matrix: Water
Analysis Batch: 458328

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.90		mg/L		98	91 - 110	0	10
Chloride	100	95.1		mg/L		95	87 - 111	0	10
Fluoride	5.00	4.76		mg/L		95	88 - 112	1	10
Sulfate	100	93.4		mg/L		93	87 - 112	0	10

Lab Sample ID: MRL 280-458328/10
Matrix: Water
Analysis Batch: 458328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.206	J	mg/L		103	50 - 150
Chloride	2.50	2.30	J M	mg/L		92	50 - 150
Fluoride	0.200	0.180	J M	mg/L		90	50 - 150
Sulfate	2.50	2.35	J	mg/L		94	50 - 150

Lab Sample ID: 280-123814-3 MS
Matrix: Water
Analysis Batch: 458328

Client Sample ID: LF5MW-5_0519-a
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.20	U	5.00	5.20		mg/L		104	91 - 110
Chloride	1.8	J1	25.0	22.5	J1	mg/L		83	87 - 111
Fluoride	0.10	U	5.00	5.07		mg/L		101	88 - 112
Sulfate	5.4	J1	25.0	26.7	J1	mg/L		85	87 - 112

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123814-3 MSD
Client Sample ID: LF5MW-5_0519-a
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458328

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.20	U	5.00	5.28		mg/L		106	91 - 110	1	10
Chloride	1.8	J1	25.0	22.8	J1	mg/L		84	87 - 111	1	10
Fluoride	0.10	U	5.00	5.14		mg/L		103	88 - 112	1	10
Sulfate	5.4	J1	25.0	27.1		mg/L		87	87 - 112	2	10

Lab Sample ID: 280-123814-3 DU
Client Sample ID: LF5MW-5_0519-a
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458328

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.20	U	0.208	J	mg/L		NC	10
Chloride	1.8	J1	1.82	J M	mg/L		0.5	10
Fluoride	0.10	U	0.10	U	mg/L		NC	10
Sulfate	5.4	J1	5.41		mg/L		0.2	10

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-460796/36
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460796

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/06/19 01:22	1

Lab Sample ID: MB 280-460796/5
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460796

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/05/19 16:38	1

Lab Sample ID: LCS 280-460796/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460796

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	24.7		mg/L		99	88 - 112

Lab Sample ID: LCS 280-460796/34
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460796

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	24.5		mg/L		98	88 - 112

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCSD 280-460796/35
Matrix: Water
Analysis Batch: 460796

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad			25.0	24.6		mg/L		98	88 - 112	0	15

Lab Sample ID: LCSD 280-460796/4
Matrix: Water
Analysis Batch: 460796

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad			25.0	24.8		mg/L		99	88 - 112	1	15

Lab Sample ID: 280-123712-B-1 MS
Matrix: Water
Analysis Batch: 460796

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Quad	2100		2500	4510		mg/L		97	88 - 112		

Lab Sample ID: 280-123712-B-1 MSD
Matrix: Water
Analysis Batch: 460796

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	2100		2500	4560		mg/L		99	88 - 112	1	15

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 280-460448/2-A
Matrix: Water
Analysis Batch: 460486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460448

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 21:46	1

Lab Sample ID: LCS 280-460448/1-A
Matrix: Water
Analysis Batch: 460486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460448

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenols, Total			0.201	0.181		mg/L		90	90 - 110		

Lab Sample ID: 280-123814-1 MS
Matrix: Water
Analysis Batch: 460486

Client Sample ID: LF5MW-3_0519
Prep Type: Total/NA
Prep Batch: 460448

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenols, Total	0.020	U	0.201	0.187		mg/L		93	72 - 118		

Method: 9066 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: 280-123814-1 MSD — **Client Sample ID: LF5MW-3_0519**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 460486 — **Prep Batch: 460448**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenols, Total	0.020	U	0.201	0.189		mg/L		94	72 - 118	1	16

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-458350/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 458350

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0	U	5.0	5.0	PCU			05/15/19 22:55	1

Lab Sample ID: 280-123814-1 DU — **Client Sample ID: LF5MW-3_0519**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 458350

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	100	D	100	D	PCU		0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-459192/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 459192

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/22/19 18:31	1

Lab Sample ID: LCS 280-459192/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 459192

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	196		mg/L		98	89 - 109

Lab Sample ID: 280-123715-B-4 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 459192

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	96		97.5		mg/L		2	10

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 280-459282/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 459282

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness	0.81	U	3.0	0.30	mg/L			05/23/19 18:59	1

Method: SM 2340C - Hardness, Total (mg/l as CaC03) (Continued)

Lab Sample ID: LCS 280-459282/1
Matrix: Water
Analysis Batch: 459282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness			398	395		mg/L		99	90 - 110		

Lab Sample ID: 280-123639-E-1 MS
Matrix: Water
Analysis Batch: 459282

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness	230		398	642		mg/L		103	90 - 110		

Lab Sample ID: 280-123639-E-1 MSD
Matrix: Water
Analysis Batch: 459282

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hardness	230		398	627		mg/L		99	90 - 110	2	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-458569/1
Matrix: Water
Analysis Batch: 458569

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			05/17/19 11:38	1

Lab Sample ID: LCS 280-458569/2
Matrix: Water
Analysis Batch: 458569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids (TDS)			500	514		mg/L		103	93 - 110		

Lab Sample ID: LCSD 280-458569/3
Matrix: Water
Analysis Batch: 458569

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids (TDS)			500	491		mg/L		98	93 - 110	5	20

Lab Sample ID: 280-123912-C-1 DU
Matrix: Water
Analysis Batch: 458569

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids (TDS)	1200			1170		mg/L				1	10

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 280-458814/1
Matrix: Water
Analysis Batch: 458814

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			05/20/19 14:08	1

Lab Sample ID: LCS 280-458814/2
Matrix: Water
Analysis Batch: 458814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	500	492		mg/L		98	93 - 110

Lab Sample ID: 280-123814-1 DU
Matrix: Water
Analysis Batch: 458814

Client Sample ID: LF5MW-3_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	610		597		mg/L		2	10

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-458314/4
Matrix: Water
Analysis Batch: 458314

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/15/19 15:45	1

Lab Sample ID: SCB 280-458314/1
Matrix: Water
Analysis Batch: 458314

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.630	J	2.0	0.24	mg/L			05/15/19 15:45	1

Lab Sample ID: USB 280-458314/2
Matrix: Water
Analysis Batch: 458314

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/15/19 15:45	1

Lab Sample ID: LCS 280-458314/3
Matrix: Water
Analysis Batch: 458314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	196		mg/L		99	85 - 115

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: 280-123815-A-1 DU
Matrix: Water
Analysis Batch: 458314

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	0.59	U		0.59	U	mg/L				NC	20

Metals

Prep Batch: 459137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	3010A	
280-123814-2	LF5MW-5_0519	Total/NA	Water	3010A	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	3010A	
MB 280-459137/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-459137/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-459137/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-123814-1 MS	LF5MW-3_0519	Total/NA	Water	3010A	
280-123814-1 MSD	LF5MW-3_0519	Total/NA	Water	3010A	

Analysis Batch: 459331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	6010C	459137
280-123814-2	LF5MW-5_0519	Total/NA	Water	6010C	459137
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	6010C	459137
MB 280-459137/1-A	Method Blank	Total/NA	Water	6010C	459137
LCS 280-459137/2-A	Lab Control Sample	Total/NA	Water	6010C	459137
LCSD 280-459137/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	459137
280-123814-1 MS	LF5MW-3_0519	Total/NA	Water	6010C	459137
280-123814-1 MSD	LF5MW-3_0519	Total/NA	Water	6010C	459137

General Chemistry

Analysis Batch: 458314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	SM5210B	
280-123814-2	LF5MW-5_0519	Total/NA	Water	SM5210B	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	SM5210B	
MB 280-458314/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-458314/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-458314/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-458314/3	Lab Control Sample	Total/NA	Water	SM5210B	
280-123815-A-1 DU	Duplicate	Total/NA	Water	SM5210B	

Analysis Batch: 458327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	9056A	
280-123814-2	LF5MW-5_0519	Total/NA	Water	9056A	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	9056A	
MB 280-458327/13	Method Blank	Total/NA	Water	9056A	
LCS 280-458327/11	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458327/12	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458327/10	Lab Control Sample	Total/NA	Water	9056A	
280-123814-3 MS	LF5MW-5_0519-a	Total/NA	Water	9056A	
280-123814-3 MSD	LF5MW-5_0519-a	Total/NA	Water	9056A	
280-123814-3 DU	LF5MW-5_0519-a	Total/NA	Water	9056A	

Analysis Batch: 458328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	9056A	
280-123814-1	LF5MW-3_0519	Total/NA	Water	9056A	
280-123814-2	LF5MW-5_0519	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 458328 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	9056A	
MB 280-458328/13	Method Blank	Total/NA	Water	9056A	
LCS 280-458328/11	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458328/12	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458328/10	Lab Control Sample	Total/NA	Water	9056A	
280-123814-3 MS	LF5MW-5_0519-a	Total/NA	Water	9056A	
280-123814-3 MSD	LF5MW-5_0519-a	Total/NA	Water	9056A	
280-123814-3 DU	LF5MW-5_0519-a	Total/NA	Water	9056A	

Analysis Batch: 458350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	SM 2120B	
280-123814-2	LF5MW-5_0519	Total/NA	Water	SM 2120B	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	SM 2120B	
MB 280-458350/1	Method Blank	Total/NA	Water	SM 2120B	
280-123814-1 DU	LF5MW-3_0519	Total/NA	Water	SM 2120B	

Analysis Batch: 458569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	SM 2540C	
MB 280-458569/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-458569/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-458569/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
280-123912-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 458808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	410.4	
280-123814-2	LF5MW-5_0519	Total/NA	Water	410.4	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	410.4	
MB 280-458808/5	Method Blank	Total/NA	Water	410.4	
LCS 280-458808/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-458808/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-123476-D-3 MS	Matrix Spike	Total/NA	Water	410.4	
280-123476-D-3 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 458814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	SM 2540C	
280-123814-2	LF5MW-5_0519	Total/NA	Water	SM 2540C	
MB 280-458814/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-458814/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-123814-1 DU	LF5MW-3_0519	Total/NA	Water	SM 2540C	

Analysis Batch: 459192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	SM 2320B	
280-123814-2	LF5MW-5_0519	Total/NA	Water	SM 2320B	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	SM 2320B	
MB 280-459192/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-459192/4	Lab Control Sample	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 459192 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123715-B-4 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 459282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	SM 2340C	
280-123814-2	LF5MW-5_0519	Total/NA	Water	SM 2340C	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	SM 2340C	
MB 280-459282/2	Method Blank	Total/NA	Water	SM 2340C	
LCS 280-459282/1	Lab Control Sample	Total/NA	Water	SM 2340C	
280-123639-E-1 MS	Matrix Spike	Total/NA	Water	SM 2340C	
280-123639-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2340C	

Analysis Batch: 459641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	350.1	
280-123814-2	LF5MW-5_0519	Total/NA	Water	350.1	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	350.1	
MB 280-459641/19	Method Blank	Total/NA	Water	350.1	
LCS 280-459641/18	Lab Control Sample	Total/NA	Water	350.1	
280-123814-1 MS	LF5MW-3_0519	Total/NA	Water	350.1	
280-123814-1 MSD	LF5MW-3_0519	Total/NA	Water	350.1	

Prep Batch: 460066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	351.2	
280-123814-2	LF5MW-5_0519	Total/NA	Water	351.2	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	351.2	
MB 280-460066/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-460066/27-A	Lab Control Sample	Total/NA	Water	351.2	
280-123776-B-1-B MS	Matrix Spike	Total/NA	Water	351.2	
280-123776-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	351.2	

Analysis Batch: 460322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	351.2	460066
280-123814-2	LF5MW-5_0519	Total/NA	Water	351.2	460066
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	351.2	460066
MB 280-460066/2-A	Method Blank	Total/NA	Water	351.2	460066
LCS 280-460066/27-A	Lab Control Sample	Total/NA	Water	351.2	460066
280-123776-B-1-B MS	Matrix Spike	Total/NA	Water	351.2	460066
280-123776-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	351.2	460066

Prep Batch: 460448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	Distill/Phenol	
280-123814-2	LF5MW-5_0519	Total/NA	Water	Distill/Phenol	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	Distill/Phenol	
MB 280-460448/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460448/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
280-123814-1 MS	LF5MW-3_0519	Total/NA	Water	Distill/Phenol	
280-123814-1 MSD	LF5MW-3_0519	Total/NA	Water	Distill/Phenol	

QC Association Summary

Client: Bhate Environmental
Job ID: 280-123814-1
Project/Site: Griffiss AFB, LF007 Landfill 5

General Chemistry

Analysis Batch: 460486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	9066	460448
280-123814-2	LF5MW-5_0519	Total/NA	Water	9066	460448
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	9066	460448
MB 280-460448/2-A	Method Blank	Total/NA	Water	9066	460448
LCS 280-460448/1-A	Lab Control Sample	Total/NA	Water	9066	460448
280-123814-1 MS	LF5MW-3_0519	Total/NA	Water	9066	460448
280-123814-1 MSD	LF5MW-3_0519	Total/NA	Water	9066	460448

Analysis Batch: 460796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123814-1	LF5MW-3_0519	Total/NA	Water	9060A	
280-123814-2	LF5MW-5_0519	Total/NA	Water	9060A	
280-123814-3	LF5MW-5_0519-a	Total/NA	Water	9060A	
MB 280-460796/36	Method Blank	Total/NA	Water	9060A	
MB 280-460796/5	Method Blank	Total/NA	Water	9060A	
LCS 280-460796/3	Lab Control Sample	Total/NA	Water	9060A	
LCS 280-460796/34	Lab Control Sample	Total/NA	Water	9060A	
LCSD 280-460796/35	Lab Control Sample Dup	Total/NA	Water	9060A	
LCSD 280-460796/4	Lab Control Sample Dup	Total/NA	Water	9060A	
280-123712-B-1 MS	Matrix Spike	Total/NA	Water	9060A	
280-123712-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	9060A	

Client Sample ID: LF5MW-3_0519
Date Collected: 05/14/19 16:10
Date Received: 05/15/19 09:15

Lab Sample ID: 280-123814-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459137	05/23/19 08:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459331	05/24/19 06:45	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459641	05/28/19 10:38	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460066	05/31/19 16:13	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460322	06/03/19 20:55	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	458808	05/20/19 12:23	SGB	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458327	05/15/19 20:49	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458328	05/15/19 20:49	TLP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458328	05/15/19 21:06	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460796	06/06/19 06:10	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460448	06/04/19 16:52	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460486	06/04/19 21:49	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		5	10 mL	50 mL	458350	05/15/19 22:55	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/22/19 20:18	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459282	05/23/19 18:59	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	458814	05/20/19 14:08	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458314	05/15/19 15:46	EC	TAL DEN

Client Sample ID: LF5MW-5_0519
Date Collected: 05/14/19 16:40
Date Received: 05/15/19 09:15

Lab Sample ID: 280-123814-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459137	05/23/19 08:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459331	05/24/19 07:17	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459641	05/28/19 10:44	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460066	05/31/19 16:13	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460322	06/03/19 20:57	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	458808	05/20/19 12:23	SGB	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458327	05/15/19 21:22	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458328	05/15/19 21:22	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460796	06/06/19 06:25	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460448	06/04/19 16:52	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460486	06/04/19 21:58	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		5	10 mL	50 mL	458350	05/15/19 22:55	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/22/19 20:22	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459282	05/23/19 18:59	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	458814	05/20/19 14:08	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458314	05/15/19 15:46	EC	TAL DEN

Lab Chronicle

Client: Bhate Environmental
Job ID: 280-123814-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Client Sample ID: LF5MW-5_0519-a
Date Collected: 05/14/19 16:40
Date Received: 05/15/19 09:15

Lab Sample ID: 280-123814-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459137	05/23/19 08:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459331	05/24/19 07:20	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459641	05/28/19 10:46	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460066	05/31/19 16:13	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460322	06/03/19 20:58	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	458808	05/20/19 12:23	SGB	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458327	05/15/19 21:38	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458328	05/15/19 21:38	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460796	06/06/19 06:40	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460448	06/04/19 16:52	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460486	06/04/19 22:01	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		5	10 mL	50 mL	458350	05/15/19 22:57	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/22/19 20:12	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459282	05/23/19 18:59	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	458569	05/17/19 11:38	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458314	05/15/19 15:46	EC	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Bhate Environmental
Job ID: 280-123814-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Laboratory: Eurofins TestAmerica, Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD		2907.01	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2120B		Water	Color
SM 2340C		Water	Hardness

New York	NELAP	2	11964	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3010A	Water	Boron
9056A		Water	Bromide
9056A		Water	Chloride
9056A		Water	Fluoride
9056A		Water	Nitrate
9056A		Water	Nitrate Nitrite as N
9056A		Water	Nitrite
9056A		Water	Orthophosphate as P
9056A		Water	Sulfate
9060A		Water	Total Organic Carbon - Quad

Method Summary

Client: Bhate Environmental
Job ID: 280-123814-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
9066	Phenolics, Total Recoverable	SW846	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
Distill/Phenol	Distillation, Phenolics	None	TAL DEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Bhate Environmental
Job ID: 280-123814-1
Project/Site: Griffiss AFB, LF007 Landfill 5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-123814-1	LF5MW-3_0519	Water	05/14/19 16:10	05/15/19 09:15	
280-123814-2	LF5MW-5_0519	Water	05/14/19 16:40	05/15/19 09:15	
280-123814-3	LF5MW-5_0519-a	Water	05/14/19 16:40	05/15/19 09:15	

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:04
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:04
Orthophosphate as P	5.68	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458327/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:05
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:06
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:07
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:07
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:07

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:08
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:08
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/15/19 19:10
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458328/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458328/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:07
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:07

Lab Sample ID: STD 280-458328/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	pedrickj	05/16/19 08:31
Sulfate	6.43	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:08
Sulfate	6.46	Peak assignment corrected	phantl	05/15/19 19:08

Lab Sample ID: ICB 280-458328/9 Client Sample ID:

Date Analyzed: 05/15/19 19:27 Lab File ID: 0009.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.72	Incomplete Integration	pedrickj	05/16/19 07:51
Chloride	3.23	Incomplete Integration	pedrickj	05/16/19 07:51

Lab Sample ID: MRL 280-458328/10 Client Sample ID:

Date Analyzed: 05/15/19 19:43 Lab File ID: 0010.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/16/19 22:50
Chloride	3.23	Incomplete Integration	phantl	05/16/19 22:51

Lab Sample ID: MB 280-458328/13 Client Sample ID:

Date Analyzed: 05/15/19 20:33 Lab File ID: 0013.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.48	Incomplete Integration	pedrickj	05/16/19 07:52
Chloride	2.79	Incomplete Integration	pedrickj	05/16/19 07:52

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: 280-123814-3 DU Client Sample ID: LF5MW-5_0519-a DU

Date Analyzed: 05/15/19 21:55 Lab File ID: 0018.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Incomplete Integration	pedrickj	05/16/19 07:54

Lab Sample ID: CCB 280-458328/22 Client Sample ID:

Date Analyzed: 05/15/19 23:01 Lab File ID: 0022.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.67	Peak not integrated	pedrickj	05/16/19 07:53

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00367	06/04/19	05/28/19	Di Water, Lot na	100 mL	NH3 CAL STD_00030	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00030	02/28/20		Ricca, Lot 1808L28		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00350	06/04/19	05/28/19	na, Lot na	100 mL	NH3 ICV STD_00026	10 mL	Ammonia	99.6 mg/L
.NH3 ICV STD_00026	04/01/20		Inorganic Ventures, Lot M2-NH662533		(Purchased Reagent)		Ammonia	996 mg/L
Alk daily lcs_00821	05/27/19	05/20/19	Di Water, Lot na	1000 mL	Alk stk std_00016	4 mL	Alkalinity	200 mg/L
.Alk stk std_00016	06/30/20		Fischer, Lot 182564		(Purchased Reagent)		Alkalinity	50 g/L
BOD Std_00001_00046	02/15/24		HACH, Lot A9046		(Purchased Reagent)		Biochemical Oxygen Demand	198 mg/L
COD cal std_00048	09/01/20		Ricca, Lot 1904987		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1000 mg/L
COD icv std_00034	02/01/20		HACH, Lot A9057		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1005 mg/L
cod ms/msd_00022	09/30/19		Chemetrics, Lot 90427		(Purchased Reagent)		Chemical Oxygen Demand (COD)	10000 mg/L
Hard lcs std_00050	06/13/20		Lab Chem, Lot H159-16		(Purchased Reagent)		Hardness	0.996 mg/mL
IC CAL cl/so4_00256	05/17/19	05/10/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00458	05/18/19	05/11/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC CL ICV_00016	10/31/19		ERA, Lot 091017		(Purchased Reagent)		Chloride	1000 mg/L
IC ICV 5_00233	05/16/19	05/09/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00016	0.5 mL	Nitrite	50 mg/L
					IC NO3 ICV_00014	0.5 mL	Nitrate	50 mg/L
					IC PO4 ICV_00015	0.5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L
.IC NO2 ICV_00016	05/31/20		ERA, Lot 020518		(Purchased Reagent)		Nitrite	1000 mg/L
.IC NO3 ICV_00014	12/31/19		ERA, Lot 031217		(Purchased Reagent)		Nitrate	1000 mg/L
.IC PO4 ICV_00015	06/30/19		ERA, Lot 060617		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC LCS_01576	05/16/19	05/15/19	Di Water, Lot 27	200 mL	IC Cal low_00458	20 mL	Bromide	5 mg/L
							Fluoride	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC Cal low_00458	05/18/19	05/11/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00017	06/30/19		ERA, Lot 210617		(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00592	05/21/19	05/14/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Bromide	499.924 mg/L
							Chloride	2499.92 mg/L
							Fluoride	499.957 mg/L
							Nitrate	500.003 mg/L
							Orthophosphate as P	500.058 mg/L
							Sulfate	2500.26 mg/L
					IC SPK N02SOL_00013	5 mL	Nitrite	499.973 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD Br_00003	1.2876 g	Bromide	999.847 mg/L
					IC MS/MSD CL_00002	8.2424 g	Chloride	4999.84 mg/L
					IC MS/MSD F_00002	2.21 g	Fluoride	999.914 mg/L
					IC MS/MSD N03_00005	6.068 g	Nitrate	1000.01 mg/L
					IC MS/MSD P04_00002	4.3936 g	Orthophosphate as P	1000.12 mg/L
					IC MS/MSD S04_00005	9.0704 g	Sulfate	5000.51 mg/L
..IC MS/MSD Br_00003	09/29/21		FISHER, Lot 110569		(Purchased Reagent)		Bromide	0.77652 g/g
..IC MS/MSD CL_00002	01/13/21		FISHER, Lot 091363		(Purchased Reagent)		Chloride	0.6066 g/g
..IC MS/MSD F_00002	09/29/21		FISHER, Lot 110901		(Purchased Reagent)		Fluoride	0.45245 g/g
..IC MS/MSD N03_00005	09/27/28		FISHER, Lot 176192		(Purchased Reagent)		Nitrate	0.1648 g/g
..IC MS/MSD P04_00002	09/06/22		FISHER, Lot 112841		(Purchased Reagent)		Orthophosphate as P	0.22763 g/g
..IC MS/MSD S04_00005	09/29/20		FISHER, Lot 147276		(Purchased Reagent)		Sulfate	0.5513 g/g
.IC SPK N02SOL_00013	06/05/19	06/05/18	Di Water, Lot na	500 mL	IC MS/MSD N02_00002	2.4628 g	Nitrite	999.946 mg/L
..IC MS/MSD N02_00002	01/12/27		fisher, Lot 164254		(Purchased Reagent)		Nitrite	0.20301 g/g
ICP CCV_00382	06/25/20	05/21/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00843	250 mL	Boron	0.5 mg/L
.ICP ICAL1A_00843	06/25/20	05/23/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	1000 mL	ICP CAL STD 4_00003	10 mL	Boron	1 mg/L
..ICP CAL STD 4_00003	09/22/20		CPI, Lot 10094465-3		(Purchased Reagent)		Boron	100 mg/L
ICP ICSA_00186	03/18/20	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.Icp stk ICSA_00029	03/18/20		CPI, Lot 982821-1		(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Mg	5000 mg/L
ICP ICSAB_00213	06/03/19	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Li_00040	0.25 mL	Li	1 mg/L
					ICP ICSAB 1_00001	2.5 mL	Mo	1 mg/L
							Sb	1 mg/L
							Si	10 mg/L
							Sn	1 mg/L
							Ti	1 mg/L
					ICP ICSAB 2_00001	2.5 mL	Ag	1 mg/L
							As	1 mg/L
							Ba	1 mg/L
							Be	0.5 mg/L
							Boron	10 mg/L
							Cd	1 mg/L
							Co	1 mg/L
							Cr	1 mg/L
							Cu	1 mg/L
							K	10 mg/L
							Mn	1 mg/L
							Na	10 mg/L
							Ni	1 mg/L
							P	10 mg/L
							Pb	1 mg/L
							Se	1 mg/L
							Sr	1 mg/L
							Tl	1 mg/L
							V	1 mg/L
							Zn	1 mg/L
					Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.1000 Li_00040	05/16/20		CPI, Lot 751942-43		(Purchased Reagent)		Li	1000 mg/L
.ICP ICSAB 1_00001	06/03/19		CPI, Lot 990624-2		(Purchased Reagent)		Mo	100 mg/L
							Sb	100 mg/L
							Si	1000 mg/L
							Sn	100 mg/L
							Ti	100 mg/L
.ICP ICSAB 2_00001	06/03/19		CPI, Lot 990626-2		(Purchased Reagent)		Ag	100 mg/L
							As	100 mg/L
							Ba	100 mg/L
							Be	50 mg/L
							Boron	1000 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							K	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Mn	100 mg/L
							Na	1000 mg/L
							Ni	100 mg/L
							P	1000 mg/L
							Pb	100 mg/L
							Se	100 mg/L
							Sr	100 mg/L
							Tl	100 mg/L
							V	100 mg/L
							Zn	100 mg/L
.Icp stk ICSA_00029	03/18/20	CPI, Lot 982821-1			(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICV_00821	10/16/19	05/23/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP CAL STD 4_00002	0.25 mL	Boron	0.25 ppm
.ICP CAL STD 4_00002	09/22/20	CPI, Lot 10094465-2			(Purchased Reagent)		Boron	100 mg/L
ICP LLCCV_02549	05/24/19	05/23/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV-2a_00010	1 mL	Boron	100 ppb
.ICP LLCCV-2a_00010	06/18/19	CPI, Lot 10090185-1			(Purchased Reagent)		Boron	10 mg/L
ICP PDS 2_00021	05/13/20	Inorganic Ventures, Lot M2-MEB659765			(Purchased Reagent)		Boron	10 mg/L
Phenol CAL 10_00730	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol CAL_00012	1 mL	Phenolics, Total Recoverable	10.07 mg/L
							Phenols, Total	10.07 mg/L
.Phenol CAL_00012	12/07/19	Lab Chem, Lot G341-02			(Purchased Reagent)		Phenolics, Total Recoverable	1007 mg/L
							Phenols, Total	1007 mg/L
Phenol ICV 10_00605	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol ICV_00013	1 mL	Phenols, Total	10 mg/L
.Phenol ICV_00013	02/29/20	ERA, Lot 090817			(Purchased Reagent)		Phenols, Total	1000 mg/L
PREP SPK 1_00008	05/13/20	CPI, Lot 993218-1			(Purchased Reagent)		As	200 mg/L
							Ba	200 mg/L
							Be	100 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							Li	100 mg/L
							Mn	100 mg/L
							Mo	100 mg/L
							Ni	100 mg/L
							Pb	100 mg/L
							Se	200 mg/L
							Si	200 mg/L
							SiO2	428 mg/L
							Sn	200 mg/L
							Sr	100 mg/L
							Ti	100 mg/L
							Tl	200 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							V	100 mg/L
PREP SPK 2_00004	05/13/20	CPI, Lot 992745-2			(Purchased Reagent)		Al	1000 mg/L
							Ca	5000 mg/L
							Fe	1000 mg/L
							K	5000 mg/L
							Mg	5000 mg/L
							Na	5000 mg/L
PREP SPK 3_00004	05/13/20	CPI, Lot 992746-1			(Purchased Reagent)		P	2000 mg/L
							Sulfur	1000 mg/L
							U	200 mg/L
							W	100 mg/L
PREP SPK 4_00004	05/08/20	CPI, Lot 10094085-3			(Purchased Reagent)		Bi	200 mg/L
							Boron	100 mg/L
							Th	100 mg/L
							Zn	50 mg/L
							Zr	50 mg/L
TDS LCS_00537_00054	08/16/19	05/16/19	Di Water, Lot na	1000 mL	NaCl f_00004	0.5 g	Total Dissolved Solids (TDS)	500 mg/L
.NaCl f_00004	04/14/21	JT Baker, Lot J48622			(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g
TKN 25ppm_00794	07/01/19	05/31/19	Di Water, Lot 1	100 mL	TKN 100PPM_00108	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN 100PPM_00108	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21	nsi lab solutions, Lot 010617			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TKN ICV 25_00078	07/01/19	05/31/19	DI water, Lot 1	100 mL	TKN ICV 100_00070	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN ICV 100_00070	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20	ERA, Lot 281018			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TOC ICV Std_00037	01/31/20	Ricca, Lot 1807G06			(Purchased Reagent)		TOC Result 1	1000 ppm
							TOC Result 2	1000 ppm
							TOC Result 3	1000 ppm
							TOC Result 4	1000 ppm
							Total Organic Carbon - Quad	1000 ppm
TOC LCS Std_00046	03/31/21	Ultra Scientific, Lot CT-0920			(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm

Reagent

1000 Li_00040

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000291

SE Std Lithium (Li) – 1000 µg/mL

Lot #: 751942-43

Matrix: 5% HNO_3

5658289
ID: 1000 Li_00040
Exp:05/16/20 Prpd:CRR Opn:03/26/19
1000 Li CPI

Element	Certified Concentration & Uncertainty
Li	1002 ± 3 µg/mL (w/v)
	993 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	35	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<100	V	<1
Al	9	Cs	7	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	30	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	2	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Zn	<2
Ba	2	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	MAJOR	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

November 16, 2018
Certification Date

Chuck Goudreau, Certifying Officer

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

Alk stk std_00016

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Quality Test / Release Date	06/05/2018
Lot Number	182564	Expiration Date	Jun/2020
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
COLOR	APHA	<= 5	<5
NORMALITY		Inclusive Between 0.995 - 1.000	1.000
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

BOD Std_00001_00046

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY: **ez GGA for BOD Test**
COMMODITY NUMBER: **2514420**
LOT NUMBER: **A9046**

MANUFACTURE DATE: **2/25/2019**

DATE OF ANALYSIS: **2/28/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
Confirmation test to ensure glutamic acid has been added.	To Pass	Passed
COD Concentration used to confirm the total concentration of Glucose-Glutamic Acid is correct.	884 to 956 mg/l	911.0 mg/l

The expiration date is Feb 2024

After preparation following the instruction sheet the BOD concentration is 198 mg/L.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

COD cal std_00048

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Potassium Acid Phthalate Standard, 1000 ppm Chemical Oxygen Demand (COD)

Lot Number: 1904987 **Product Number:** 5868

Manufacture Date: APR 05, 2019
Expiration Date: SEP 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is estimated based upon the volumetric method of preparation. It is certified that a COD of 500 mg/L should be obtained on a 25.0 mL aliquot of this standard solution diluted to 50 mL. The manufacturing specification for this product is Chemical Oxygen Demand (COD) = 1.000 ± 0.005 mg per mL at 20°C. This is the equivalent quantity of Oxygen that this standard solution will consume, based on the reduction of a Potassium Dichromate Standard Solution under the specified conditions in the ASTM D 1252-95 test methods.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Chemical Oxygen Demand (COD)	995-1005 ppm	1000 ppm

Specification	Reference
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg COD)	ASTM (D 1252 A)
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg/L)	ASTM (D 1252 B)
Stock Potassium Acid Phthalate	EPA (410.4)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5868-16	500 mL natural poly	18 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (04/05/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

COD icv std_00034

Certificate of Analysis List

For request number 1116752

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
2253929	9057	N/A	N/A	Chemical Oxygen Demand Standard Solution 1000 mg/l COD

Total Enclosures: 1

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY:**Chemical Oxygen Demand Standard Solution 1000 mg/l COD**

COMMODITY NUMBER: **2253929**	MANUFACTURE DATE:	DATE OF ANALYSIS:
LOT NUMBER: **A9057**	**3/2/2019**	**3/3/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
COD Concentration	950 to 1050 ppm	986.0 ppm

The expiration date is Feb 2020

The item 2253929 is traceable to NIST standards SRM 84L Potassium Hydrogen Phthalate LOT N/A.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

cod ms/msd_00022

CHEMetrics Simplicity in Water Analysis

January 2, 2019

CERTIFICATE OF ANALYSIS

CHEMetrics Inc., certifies that the following COD Standard Solution has been manufactured from Primary Standard Grade (99.99+% purity) Potassium Hydrogen Phthalate (CAS No. 877-24-7). The reported standard solution concentration is calculated from wt/vol measurements obtained using analytical balances (readable to 0.0001 gram and calibrated with NIST traceable weights) and ASTM Class A volumetric glassware.

To maintain the stated accuracy for the duration of the established shelf-life, store this solution under refrigeration 2°C - 8°C (36°F - 46°F).

Cat. No.	Lot No.	Accuracy	Date of Manufacture	Product Description
A-7310	90427	10,000 ± 500	Sept. 2018	10,000 ppm COD Standard

Sincerely,

Teresa A. Neale
Vice President of Operations & Product Support

4295 Catlett Road, Midland, VA 22728 ■ P: [illegible] ■ F: 540.788.4856 ■ www.chemetrics.com

Reagent

Hard lcs std_00050

LabChem
performance through
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CALCIUM CARBONATE STANDARD 1mL = 1mg CaCO3 (0.01M)

Catalog Number: LC12700
Lot Number: H159-16

Mfg Date: 06/13/2018
Expiration Date: 06/13/2020

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Molarity	0.0100M +/- 0.0001M	0.0100M
Concentration mg CaCO3/mL	1.000 +/- 0.010mg CaCO3/mL	1.000 mg CaCO3/mL
Traceable to NIST	Calcium Carbonate	915b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted By: Greg Albright, Chemist Supervisor



An ISO9001:2008 certified company. Registration # 0306-01

07/05/2018 9:24:43 AM

Reagent

IC BR ICV_00012

RICCA CHEMICAL COMPANY®

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Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 1804F11 **Product Number:** 1180

Manufacture Date: APR 06, 2018
Expiration Date: SEP 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Israel Alamudun (04/06/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC BR ICV_00014

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Bromide
CATALOG NUMBER:	046 -125 mL; 987 - 500 mL
LOT NUMBER:	450817
ISSUE DATE:	September 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Bromide (KBr)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	1.2%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3184 Bromide
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 8/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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Reagent

IC CL cal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-101CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018 Certifying Officer: Kathleen Cullen

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Reagent

IC CL cal_00058

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-154CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 997 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 996 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: APR - - 2019

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials -- Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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Phone: 1-800-LAB-SPEX • Fax: 732-603-9647

Reagent

IC CL ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Chloride
CATALOG NUMBER:	047 -125 mL; 988 - 500 mL
LOT NUMBER:	091017
ISSUE DATE:	October 17, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Chloride (NaCl)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9984 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3182 Chloride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
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CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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Reagent

IC F ICV_00012

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Fluoride
CATALOG NUMBER:	050 -125 mL; 989 - 500 mL
LOT NUMBER:	230918
ISSUE DATE:	October 11, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Fluoride (KF)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9995 ± 0.0008 g/mL at 20.6°C and 752 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	3183 Fluoride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 9/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

Reagent

IC FL cal_00013

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Batesville, IN 47006
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customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F-

Lot Number: 4805C89 **Product Number:** 3173

Manufacture Date: MAY 07, 2018
Expiration Date: OCT 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1000 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC MS/MSD Br_00003

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S255	Mfg. Date	3/3/2011
Lot Number	110569		
Description	SODIUM BROMIDE, A.C.S.		
Country of Origin	China	Recommended Retest Date	Mar-2016
Chemical Origin	Inorganic-non animal		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE GRANULATING POWDER
ASSAY	%	>= 99	99.5
BARIUM (Ba)	%	<= 0.002	<0.0020
BROMATE	%	<= 0.001	<0.0010
CALCIUM	%	<= 0.002	<0.0020
CHLORIDE	%	<= 0.2	0.09
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.001	<0.0010
PH 5% SOLN @ 25 DEG C		Inclusive Between 5.0 8.8	7.1
POTASSIUM (K)	%	<= 0.1	<0.10
SULFATE (SO4)	%	<= 0.002	<0.0020



Edgar E. Hans

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD F_00002

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB.

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S299**	**Mfg. Date**	**3/18/2011**
Lot Number	**110901**		
Description	**SODIUM FLUORIDE, A.C.S.**		
Country of Origin	**India**	**Recommended Retest Date**	**Mar-2016**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE POWDER
ASSAY	%	>= 99	99.2
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.003	<0.0030
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.02	0.010
IRON (Fe)	%	<= 0.003	<0.0030
LOSS ON DRYING @ 105 C	%	<= 0.3	0.30
POTASSIUM (K)	%	<= 0.02	0.003
SODIUM FLUOSILICATE	%	<= 0.1	0.01
SULFATE (SO4)	%	<= 0.03	<0.030
SULFITE	%	<= 0.005	0.003
TITRATABLE ACID	mEq/g	<= 0.03	0.020
TITRATABLE BASE	mEq/g	<= 0.01	0.001



Edgar E. Hau

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD N02_00002

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

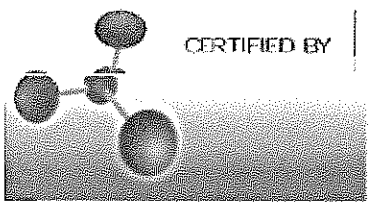
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

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Catalog Number	**S347**	**Quality Test / Release Date**	**9/9/2016**
Lot Number	**164254**		
Description	**SODIUM NITRITE, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Sep-2021**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	yELLOW-WHITE CRYSTALS
ASSAY	%	>= 97	98.6
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.001	<0.0010
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	%	<= 0.001	<0.0010
POTASSIUM (K)	%	<= 0.005	<0.0010
SULFATE (SO4)	%	<= 0.01	<0.010



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC MS/MSD N03_00005

Scientific

Reagent Lane
ıir Lawn, NJ 07410
)1.796.7100 tel
)1.796.1329 fax

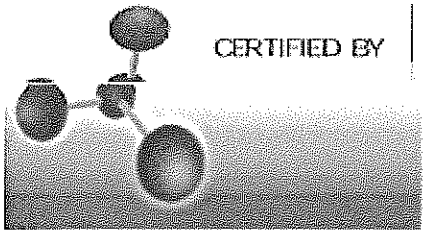
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

s is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been plied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability l fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. ıer does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

ıtalog Number	**S343**	**Quality Test / Release Date**	**8/23/2017**
)t Number	**176192**		
ɜscription	**SODIUM NITRATE, A.C.S.**		
)untry of Origin	**Mexico**	*** Suggested Retest Date**	**Aug-2022**
ıemical Origin	**Inorganic-non animal**		
ɜE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

sult name	Units	Specifications	Test Value
PEARANCE		REPORT	Clear to white crystals.
SAY	%	>= 99	99.7
LCIUM	%	<= 0.005	0.001
LORIDE	%	<= 0.001	<0.0010
AVY METALS (as Pb)	ppm	<= 5	<5.0
ENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
SOLUBLE MATTER	%	<= 0.005	<0.005
)ATE	ppm	<= 5	<5.0
)N (Fe)	ppm	<= 3	<3.0
,GNESIUM	%	<= 0.002	0.0002
TRITE (NO2)	%	<= 0.001	<0.0010
5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.3	6.7
OSPHATE (PO4)	ppm	<= 5	<5.0
LFATE (SO4)	%	<= 0.003	<0.0030



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Reagent

IC MS/MSD P04_00002

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P386**	**Mfg. Date**	**9/19/2011**
Lot Number	**112841**		
Description	**POTASSIUM PHOSPHATE MONOBASIC NF/FCC/EP/BP**		
Country of Origin	**United States**		
Chemical Origin	**Inorganic**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

FCC Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	MG/KG	<= 3	<3
ASSAY	%	>= 98.0	99.7
FLUORIDES	MG/KG	<= 10	<5
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD (Pb)	MG/KG	<= 2	<2.0
LOSS ON DRYING PER FCC	%	<= 1	<1.0

NF Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	ppm	<= 3	<3
ASSAY	%	Inclusive Between 98.0 100.5	99.7
ENDOTOXINS	EU/Mg	<= 1	<0.02000
FLUORIDES	%	<= 0.001	<0.0005
HEAVY METALS (as PB)	%	<= 0.002	<0.002
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD	ppm	<= 5	<5
LOSS ON DRYING	%	<= 1.0	<1.0
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS

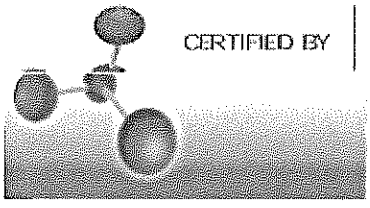
EP Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS

ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
BACTERIAL ENDOTOXINS	EU/Mg	<= 1	<0.02000
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER EP	%	<= 2.0	<1.0
PH (5 % SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

British Pharmacopela Grade Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS
ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER BP	%	<= 2.0	<1.0
PH (5% SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

Residual Solvents	No Class 1, Class 2, or Class 3 solvents, or any other solvents, are used in the manufacturing, handling, or storage of this storage, or in any cleaning process.



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD S04_00005

Fisher Scientific

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201.796.1329 fax

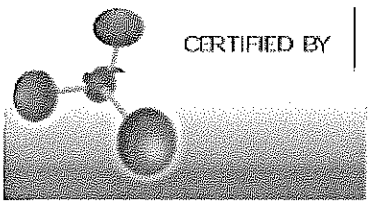
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P304**	**Quality Test / Release Date**	**3/2/2015**
Lot Number	**147276**		
Description	**POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Feb-2020**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99	99.4
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.005	<0.0050
NITROGEN COMPOUNDS	ppm	<= 5	<5
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.5	5.5
SODIUM (Na)	%	<= 0.02	<0.020



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC N02 CAL_00045

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Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2)

Lot Number: 1902672 **Product Number:** R5444900

Manufacture Date: FEB 04, 2019
Expiration Date: JUL 2019

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	995 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (02/04/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC N03 cal_00019

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Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2807E96 **Product Number:** 5459

Manufacture Date: JUL 24, 2018
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Andy Baumgartner (07/24/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC NO2 ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO_2-N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	020518
ISSUE DATE:	May 16, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite ($NaNO_2$)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	4.7%
MATRIX:	18 megohm deionized water
DENSITY:	1.0004 ± 0.0008 g/mL at 19.2°C and 752 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	-
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 5/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC P04 cal_00019

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Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H_2O

Lot Number: 4902D52 **Product Number:** AP1KW

Manufacture Date: FEB 08, 2019
Expiration Date: JAN 2021

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs (02/08/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC PO4 ICV_00015

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Phosphate as P (PO_4-P)
CATALOG NUMBER:	061 -125 mL; 993 - 500 mL
LOT NUMBER:	060617
ISSUE DATE:	June 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Dihydrogen Phosphate (KH_2PO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9996 ± 0.0008 g/mL at 23.5°C and 622 mm Hg
TRACEABILITY[3]:	103%
NIST/SRM:	3186 Phosphate
VERIFICATION METHOD:	Ion Chromatography
STORAGE: THIS	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
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CERTIFICATE NO. 1539.02

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Reagent

IC SO4 ICV_00017

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	210617
ISSUE DATE:	June 27, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9987 ± 0.0008 g/mL at 22.5°C and 757 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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Reagent

IC sulfatecal_00053

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: AUG - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC sulfatecal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

ICP CAL STD 4_00002

CPI INTERNATIONAL

5617886
ID: ICP CAL STD 4_00002
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 SECONDARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-SS

Custom ISO G34 Second Source Standard

Lot #: 10094465-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 µg/mL	Ca	999.9 ± 5.0 µg/mL	Na	5000 ± 25 µg/mL
Al	99.98 ± 0.50 µg/mL	Fe	500.1 ± 2.5 µg/mL	Zn	100.0 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	10,000 ± 50 µg/mL	Zr	100.0 ± 0.5 µg/mL
Bi	200.0 ± 1.0 µg/mL	Mg	4000 ± 20 µg/mL		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP CAL STD 4_00003

CPI INTERNATIONAL

5617860
ID: ICP CAL STD 4_00001
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 PRIMARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-500

Custom ISO G34 Standard

Lot #: 10094465-3

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.1 ± 0.5 µg/mL	Ca	1000 ± 5 µg/mL	Na	5000 ± 25 µg/mL
Al	100.1 ± 0.5 µg/mL	Fe	500.3 ± 2.5 µg/mL	Zn	100.1 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	9999 ± 50 µg/mL	Zr	99.98 ± 0.50 µg/mL
Bi	200.2 ± 1.0 µg/mL	Mg	4001 ± 20 µg/mL		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP ICSAB 1_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

5471540
ID: ICP ICSAB 1_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 1 CPI

Lot #: 990624-2

Matrix: 5% HNO_3/0.5% HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.0 ± 0.5 mg/L
Sb	100.0 ± 0.5 mg/L	Sn	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

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Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-1		
Vendor	CPI		
Lot number	990624-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICPICSAB1_00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CR	Instrument ID	MT-025
Verification Date	1/30/19	Method Reference	6010B
ID of Standard Used for Verification	5528932/5528182	Batch # / Chrom Work List #	445975

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:

Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	N/A

1st Level Review CL Date: 1/31/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



Reagent ID: ICP ICSAB 1_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 1 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990624-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-1
Open Date:	01/29/2019		
Container(s):	5471540		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Mo					100.00000	mg/L
Sb					100.00000	mg/L
Si					1000.00000	mg/L
Sn					100.00000	mg/L
Ti					100.00000	mg/L

Sample Name: xICSAB sol 1 100x Acquired: 1/30/2019 11:16:24 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: reagent bottle check

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.02433**	**.01266**	**.01718**	**.01887**	**.00044**	**.02174**	**.47181**	**.00071**
Stddev	.00004	.00024	.00489	.00084	.00010	.00012	.00685	.00076	.00006
%RSD	7.0663	.98064	38.631	4.8888	.52301	27.840	31.508	.16192	8.4479
#1	.00053	.02450	.01612	.01658	.01880	.00035	.02659	.47235	.00067
#2	.00058	.02416	.00920	.01777	.01894	.00052	.01690	.47127	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00242**	**.00153**	**.02006**	**.56757**	**.01037**	**.47512**	**.00496**	**1.0133**
Stddev	.00010	.00025	.00005	.00110	.03642	.00435	.00725	.00001	.0039
%RSD	2.5510	10.211	3.1263	5.4797	6.4175	42.012	1.5261	.23393	.38063
#1	.00417	.00225	.00150	.02084	.54181	.00729	.47000	.00497	1.0160
#2	.00403	.00260	.00157	.01928	.59333	.01345	.48025	.00496	1.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49431**	**.00430**	**.08410**	**.01084**	**.03507**	**.99570**	**.01580**	**9.9173**	**21.223**
Stddev	.00501	.00053	.00063	.00088	.00283	.00482	.00254	.0370	.079
%RSD	1.0130	12.416	.75155	8.1609	8.0821	.48413	16.067	.37264	.37264
#1	.49077	.00468	.08455	.01146	.03707	.99230	.01760	9.8912	21.167
#2	.49785	.00392	.08365	.01021	.03306	.99911	.01401	9.9434	21.279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0648**	**.00964**	**.01036**	**1.0237**	**.01971**	**.02237**	**.00551**	**.00635**	**.00546**
Stddev	.0013	.00014	.00233	.0003	.00077	.01226	.00033	.00030	.00002
%RSD	.12116	1.4717	22.449	.02853	3.9220	54.809	6.0687	4.7932	.32279
#1	1.0658	.00954	.00871	1.0239	.02026	.03104	.00575	.00656	.00548
#2	1.0639	.00974	.01200	1.0235	.01916	.01370	.00527	.00613	.00545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4001.5**	**55629.**	**4846.2**
Stddev	8.9	65.	20.9
%RSD	.22316	.11631	.43220
#1	3995.2	55583.	4861.0
#2	4007.8	55674.	4831.4

Reagent

ICP ICSAB 2_00001

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-2		
Vendor	CPI		
Lot number	990626-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICP ICSAB 2-00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CL/CR	Instrument ID	MT_052 MT_025
Verification Date	1/21/19 1/29/19	Method Reference	L0103
ID of Standard Used for Verification	Calibration STDS	Batch # / Chrom Work List #	4449758/4455894

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICP ICSAB 2 - 00001

Reagent ID: ICP ICSAB 2_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 2 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990626-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-2
Open Date:	01/29/2019		
Container(s):	5471537		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
As					100.00000	mg/L
B					1000.00000	mg/L
Ba					100.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					100.00000	mg/L
Cr					100.00000	mg/L
Cu					100.00000	mg/L
K					1000.00000	mg/L
Mn					100.00000	mg/L
Na					1000.00000	mg/L
Ni					100.00000	mg/L
P					1000.00000	mg/L
Pb					100.00000	mg/L
Se					100.00000	mg/L
Sr					100.00000	mg/L
Tl					100.00000	mg/L
V					100.00000	mg/L
Zn					100.00000	mg/L

52A012119.esws

Tuesday, January 22, 2019 7:50 AM

User: denmet

Workstation: DENPC507

Sample Name: ICSAB 2 100X

Date: 1/21/2019 2:07:16 PM

Rack:Tube: 1:90

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.966867	ppm	0.002732	0.28	27113.200000	Y 377.433
Al (394.401 nm)	-0.018589 u	ppm	0.000377	2.03	120.753000	Y 377.433
Al H (396.152 nm)	-0.080631 u	ppm	0.000855	1.06	12.478800	Y_R 377.433
As (188.980 nm)	0.937518	ppm	0.002548	0.27	1229.410000	Y 242.219
B (249.678 nm)	9.446880	ppm	0.011734	0.12	33938.900000	Y 242.219
Ba (493.408 nm)	0.969569	ppm	0.001606	0.17	87740.300000	Y_R 488.368
Be (234.861 nm)	0.466384	ppm	0.000072	0.02	26151.800000	Y_R 488.368
Bi (223.061 nm)	0.001837	ppm	0.002483	> 100.00	44.091400	Y 377.433
Ca (315.887 nm)	-0.003106 u	ppm	0.007441	> 100.00	18.818785	Y_R 377.433
Cd (214.439 nm)	0.974802	ppm	0.002985	0.31	25402.900000	Y 377.433
Co (228.615 nm)	0.978758	ppm	0.004920	0.50	20392.400000	Y 242.219
Cr (205.560 nm)	0.948655	ppm	0.001917	0.20	3826.770000	Y 377.433
Cu (324.754 nm)	0.971137	ppm	0.002614	0.27	45503.100000	Y 377.433
Fe (238.204 nm)	-0.000041 u	ppm	0.005163	> 100.00	10.116548	Y_R 377.433
Fe H (259.940 nm)	-0.222218 u	ppm	0.000618	0.28	1.482800	Y_R 377.433
K (766.491 nm)	9.955440	ppm	0.046489	0.47	11734.600000	Y_R2 488.368
Li (670.783 nm)	0.002338	ppm	0.002398	> 100.00	-636.367000	Y_R2 488.368
Mg (279.078 nm)	-0.004893 u	ppm	0.001386	28.33	1.042300	Y 377.433
Mn (257.610 nm)	0.984512	ppm	0.002227	0.23	189159.000000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000717	> 100.00	21.118500	Y 377.433
Na (589.592 nm)	9.389940	ppm	0.127054	1.35	4480.750000	Y_R2 488.368
Na H (589.593 nm)	7.370639 u	ppm	0.011086	0.15	3061.539033	Y_R4
Ni (231.604 nm)	0.972725	ppm	0.002305	0.24	3493.420000	Y 377.433
P (213.618 nm)	9.363070	ppm	0.023289	0.25	9381.970000	Y 242.219
Pb (220.353 nm)	0.994713	ppm	0.002048	0.21	2187.470000	Y 242.219
S (181.972 nm)	-0.017508 u	ppm	0.000015	0.09	2.280092	Y 377.433
Sb (206.834 nm)	0.001746 u	ppm	0.003005	> 100.00	29.044800	Y 377.433
Se (196.026 nm)	0.894485	ppm	0.006733	0.75	1281.770000	Y 242.219
Si (288.158 nm)	-0.001748 u	ppm	0.000507	29.01	377.617000	Y 377.433
Sn (189.925 nm)	-0.004588 u	ppm	0.000168	3.65	-1.654320	Y 377.433
Sr (421.552 nm)	0.967161	ppm	0.001611	0.17	106421.982008	Y_R 488.368
Th (288.505 nm)	-0.048933 u	ppm	0.005261	10.75	-112.903000	Y 377.433
Ti (336.122 nm)	0.000456	ppm	0.000097	21.34	-304.249000	Y 377.433
Tl (190.794 nm)	0.993837	ppm	0.000436	0.04	568.452000	Y 377.433
U (409.013 nm)	0.002082 u	ppm	0.006736	> 100.00	238.011000	Y 377.433
V (292.401 nm)	0.964201	ppm	0.002968	0.31	41257.400000	Y 377.433
Zn (206.200 nm)	0.992230	ppm	0.004980	0.50	3092.660000	Y 377.433
Zr (343.823 nm)	0.000098 u	ppm	0.000260	> 100.00	-51.254600	Y 377.433

Sample Name: ICSAB Sol 2 Acquired: 1/29/2019 15:38:12 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 100x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .96906	-.00340	1.0112	9.4842	1.0100	.49999	.00175	-.06604	.95028
Stddev	.00070	.00005	.0084	.0140	.0002	.00072	.00805	.00493	.00089
%RSD	.07261	1.5359	.83124	.14767	.02300	.14445	460.44	7.4694	.09328
#1	.96857	-.00336	1.0053	9.4941	1.0102	.50051	.00744	-.06255	.95091
#2	.96956	-.00344	1.0172	9.4743	1.0099	.49948	-.00394	-.06953	.94966
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.02000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97510	.98255	1.0095	-.00152	10.088	.00379	-.00580	.91712	.00092
Stddev	.00391	.00157	.0019	.00267	.030	.00092	.00435	.00154	.00057
%RSD	.40132	.16023	.18807	175.43	.29831	24.241	75.007	.16823	61.615
#1	.97787	.98367	1.0108	-.00342	10.109	.00443	-.00887	.91821	.00052
#2	.97233	.98144	1.0081	.00037	10.067	.00314	-.00272	.91603	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.062	W 10.363	.97101	9.3122	.99342	.01022	-.00250	1.0041	-.01800
Stddev	.003	.128	.00214	.0214	.00289	.00320	.00030	.0007	.00696
%RSD	.02670	1.2361	.22005	.22968	.29093	31.312	12.156	.06617	38.635
#1	10.060	10.273	.97252	9.3273	.99546	.01248	-.00271	1.0037	-.02292
#2	10.064	10.454	.96950	9.2970	.99137	.00795	-.00228	1.0046	-.01309
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03853	-.00056	1.0257	.00369	.00020	1.0532	.01005	.92759	.89480
Stddev	.01489	.00053	.0020	.00219	.00018	.0029	.01643	.00224	.00413
%RSD	38.635	93.658	.19274	59.457	90.526	.27479	163.59	.24111	.46200
#1	-.04905	-.00019	1.0271	.00524	.00032	1.0552	-.00157	.92917	.89772
#2	-.02800	-.00094	1.0243	.00214	.00007	1.0511	.02166	.92601	.89188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.00366
Stddev	.00163
%RSD	44.615
#1	.00251
#2	.00482
Check ?	Chk Pass
High Limit	
Low Limit	

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

5471537
ID: ICP ICSAB 2_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 2 CPI

Lot #: 990626-2

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	99.98 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L
As	100.0 ± 0.5 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	100.1 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.1 ± 0.5 mg/L	Zn	100.1 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP LLCCV-2a_00010

Standard Verification Form TA-CM-OCT18-DENSR-500

Standard Information			
Vendor Standard Name	ICP LLCCV-2A		
Vendor	CPI International		
Lot number	# 10090185-1		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID ICP LLCCV-4-00010	
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	SS/CR	Instrument ID	MT-25/MT51
Verification Date	1/30/19	Method Reference	6010C
ID of Standard Used for Verification	ICP LLCCV4-00010	Batch # / Chrom Work List #	446036 446039
Attach to this form: formulary report , COA and data used for verification Attach to standard in TALS: this form and all supporting documentation including the original CoA			
See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐
New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.			
New Expiration Date:	5/19/19		

1st Level Review SS Date: 1/30/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00255**	**.00036**	**1.0047**	**.00032**
Stddev	.00007	.00061	.00058	.0085	.00017
%RSD	22.249	24.069	160.98	.84480	52.650
#1	.00038	.00212	-.00005	1.0107	.00020
#2	.00028	.00298	.00077	.99868	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00000**	**-.00048**	**-.00028**	**-.00042**
Stddev	.00001	.00553	.00256	.00005	.00010
%RSD	17.443	748150.	537.38	16.632	24.554
#1	.00003	-.00391	-.00229	-.00024	-.00035
#2	.00004	.00391	.00134	-.00031	-.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00130**	**.00088**	**.04958**	**.00161**
Stddev	.00008	.00040	.00450	.00732	.00228
%RSD	36.641	30.925	510.71	14.755	141.15
#1	.00028	-.00102	.00406	.05476	.00322
#2	.00017	-.00159	-.00230	.04441	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00017**	**.20636**	**.06243**	**-.00068**
Stddev	.00621	.00002	.00144	.00668	.00007
%RSD	704.64	12.859	.69592	10.708	10.347
#1	.00527	.00016	.20737	.06715	-.00073
#2	-.00351	.00019	.20534	.05770	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W **28.602**	**.00941**	**.93219**	**.20441**	**-.00477**
Stddev	.231	.00080	.00830	.00111	.00057
%RSD	.80679	8.5162	.89068	.54438	11.917
#1	28.765	.00998	.93806	.20519	-.00518
#2	28.439	.00885	.92632	.20362	-.00437
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000				
Low Limit	-6.0000				

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837
Line	288.158 {117}	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**6.9653**	**14.906**	**1.0635**	**.00005**	**.00074**
Stddev	.5657	1.211	.0080	.00010	.00128
%RSD	8.1224	8.1224	.75098	204.33	172.19
#1	6.5652	14.050	1.0691	.00012	-.00016
#2	7.3653	15.762	1.0578	-.00002	.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.10301**	**-.00165**	**-.01130**	**.00045**	**.00148**
Stddev	.00039	.00056	.00796	.00022	.00019
%RSD	.37486	34.177	70.407	49.618	12.553
#1	.10274	-.00125	-.00568	.00060	.00161
#2	.10328	-.00205	-.01693	.00029	.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.10737**
Stddev	.00304
%RSD	2.8315
#1	.10952
#2	.10522
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3890.6**	**54764.**	**4797.3**
Stddev	19.3	21.	3.8
%RSD	.49699	.03853	.07876
#1	3904.3	54779.	4794.6
#2	3876.9	54749.	4799.9

Sample Name: IIccv 2a

Date: 1/30/2019 2:27:53 PM

Rack:Tube: 3:12

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000048	3.81	-339.440000	Y 377.433
Al (167.019 nm)	0.001696	ppm	0.000845	49.83	1.871810	Y_R 377.433
Al H (396.152 nm)	-0.020587 u	ppm	0.002888	14.03	32.631734	Y_R 377.433
As (188.980 nm)	0.000723 u	ppm	0.002356	> 100.00	-0.970725	Y 242.219
B (249.678 nm)	0.813216	ppm	0.047006	5.78	21874.000000	Y 242.219
Ba (493.408 nm)	-0.000896 u	ppm	0.000024	2.69	598.598000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000016	> 100.00	-47.571600	Y_R 488.368
Bi (223.061 nm)	-0.004182 u	ppm	0.000579	13.85	11.245000	Y 377.433
Ca (315.887 nm)	0.022497	ppm	0.007400	32.89	-56.854280	Y_R 377.433
Cd (214.439 nm)	-0.000023 u	ppm	0.000024	> 100.00	5.258060	Y 377.433
Co (228.615 nm)	0.000071	ppm	0.000056	78.59	-38.009000	Y 242.219
Cr (205.560 nm)	0.000045	ppm	0.000039	86.68	-3.139690	Y 377.433
Cu (324.754 nm)	0.001245	ppm	0.000109	8.79	622.379000	Y 377.433
Fe (238.204 nm)	0.000681	ppm	0.000210	30.84	21.007438	Y_R 377.433
Fe H (259.940 nm)	-0.161781 u	ppm	0.002169	1.34	15.721500	Y_R 377.433
K (766.491 nm)	0.111372	ppm	0.057292	51.44	-830.133000	Y_R2 488.368
Li (670.783 nm)	0.009646	ppm	0.000473	4.90	-1348.180000	Y_R2 488.368
Mg (279.078 nm)	0.000264	ppm	0.000066	24.84	60.535800	Y 377.433
Mn (257.610 nm)	-0.000023 u	ppm	0.000008	35.49	70.205200	Y 377.433
Mo (202.032 nm)	0.169223	ppm	0.010445	6.17	1702.140000	Y 377.433
Na (589.592 nm)	-0.029006 u	ppm	0.010864	37.45	385.781000	Y_R2 488.368
Na H (589.593 nm)	-0.896086 u	ppm	0.020122	2.25	2225.768499	Y_R 488.368
Ni (231.604 nm)	0.000372 u	ppm	0.000677	> 100.00	0.134162	Y 377.433
P (213.618 nm)	23.045500 o	ppm	1.330770	5.77	58100.800000	Y 242.219
Pb (220.353 nm)	-0.001310 u	ppm	0.000331	25.30	-1.855490	Y 242.219
S (181.972 nm)	0.728365	ppm	0.040987	5.63	417.926408	Y 377.433
Sb (206.834 nm)	0.165059	ppm	0.009553	5.79	476.065000	Y 377.433
Se (196.026 nm)	-0.002999 u	ppm	0.001270	42.36	11.827200	Y 242.219
Si (288.158 nm)	5.208390	ppm	0.502562	9.65	48419.800000	Y 377.433
Sn (189.925 nm)	0.837532	ppm	0.048034	5.74	2234.630000	Y 377.433
Sr (421.552 nm)	0.000133	ppm	0.000061	46.11	158.521803	Y_R 488.368
Th (288.505 nm)	0.003026	ppm	0.000486	16.08	69.191200	Y 377.433
Ti (336.122 nm)	0.083021	ppm	0.004935	5.94	12374.600000	Y 377.433
Tl (190.794 nm)	0.000337	ppm	0.000105	31.25	-9.290920	Y 377.433
U (409.013 nm)	0.001927	ppm	0.000273	14.16	-152.923000	Y 377.433
V (292.401 nm)	-0.000419 u	ppm	0.000023	5.46	15.573700	Y 377.433
Zn (206.200 nm)	0.000466	ppm	0.000052	11.15	2.238410	Y 377.433
Zr (343.823 nm)	0.085063	ppm	0.005356	6.30	12032.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.937661	19025.790936	0.001064	0.11
Y 377.433	0.960036	985122.681103	0.000581	0.06
Y_R 377.433	1.006470	69104.000000	0.004101	0.41
Y_R 488.368	1.019670	40383.200000	0.014164	1.39
Y_R2 488.368	1.053637	81193.558986	0.004178	0.40

5500073
ID: ICP LLCCV-2a_00010
Exp: 05/18/18 Prpd: SJS
ICP LLCCV-2A CPI

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN5R-500

Custom ISO Guide 34 ICP LLCCV-2A

Lot #: 10090185-1

Matrix: 2% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
B	10.01 ± 0.05 µg/mL	S	10.01 ± 0.05 µg/mL	Sn	10.01 ± 0.05 µg/mL
Mo	2.01 ± 0.01 µg/mL	Sb	2.02 ± 0.01 µg/mL	Ti	1.00 ± 0.01 µg/mL
P	300.0 ± 1.5 µg/mL	Si	49.19 ± 0.25 µg/mL	Zr	1.01 ± 0.01 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 18, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
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Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP PDS 2_00021

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

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CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	STLDEN-PDS-2A
Lot Number:	M2-MEB659765
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	500 µg/mL ea: Silicon, 10 µg/mL ea: Tin, Boron, Antimony, 5 µg/mL ea: Molybdenum, Titanium, Zirconium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.07 µg/mL	Boron, B	10.00 ± 0.07 µg/mL
Molybdenum, Mo	5.002 ± 0.030 µg/mL	Silicon, Si	500.0 ± 3.2 µg/mL
Tin, Sn	10.00 ± 0.08 µg/mL	Titanium, Ti	5.002 ± 0.030 µg/mL
Zirconium, Zr	5.001 ± 0.030 µg/mL		

Density: 1.016 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
B	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	130920
Zr	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods **Characterization of CRM by one method**

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 07, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 07, 2020**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Reagent

Icp stk ICSA_00029

CPI INTERNATIONAL

5514208
ID: lcp stk ICSA_00027
Exp: 07/08/19 Prpd: SJS
ICP stock ICSA solution

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 982821-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 8, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

NaCl f_00004

Sodium Chloride, Crystal

`BAKER ANALYZED´® A.C.S. Reagent

Product No. 3624
Lot No. J48622
Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO_3)	0.003 % max.	0.002 %
Phosphate (PO_4)	5 ppm max.	< 3 ppm
Sulfate (SO_4)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %

For Laboratory, Research or Manufacturing Use

Country of Origin: USA

ISO
Phillipsburg, NJ 9001.2008, 14001.2004
Paris, KY 9001.2008
Mexico City, Mexico 9001.2008
Deventer, The Netherlands 9001.2008, 14001.2004, 13485.2003
Selangor, Malaysia 9001.2008
Panoli, India 9001.2008
Gliwice, Poland 9001.2008, 17025.2005

Marcy M. Matlosz
Director of QA & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151
Avantor ™ Performance Materials. Inc. (formerly Mallinckrodt Baker, Inc.)
222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Reagent

NH3 CAL STD_00030

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 1808L28 **Product Number:** 5455

Manufacture Date: AUG 29, 2018
Expiration Date: FEB 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (08/29/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00026

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	M2-NH662533
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium Chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 996 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **993 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **997 ± 2 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\ (u_{char\ a})^2 + (w_b)^2\ (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

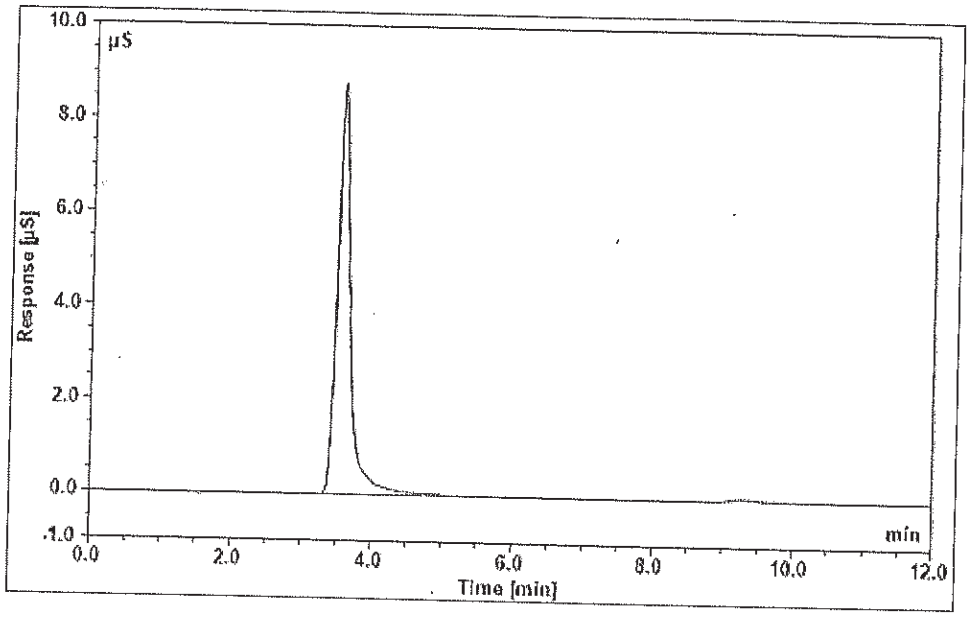
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS12A-5µm 3x150mm	**Eluent:**	20 mM MSA
Guard Column:	IonPac CG12A-5µm 3x30mm	**Eluent Flow Rate:**	0.50 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35° C
		Cell Temp:	35° C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	10 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	30 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 03, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- November 03, 2021

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

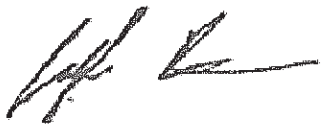
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

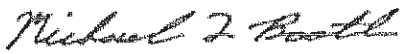
Certificate Prepared By:

Joseph Burns
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

Phenol CAL_00012

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: PHENOL STANDARD, 1000ppm (1mL = 1mg)

Mfg. Date: 12/07/2017

Catalog Number: LC18330

Exp. Date: 12/07/2019

Lot Number: G341-02

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm Phenol	1000ppm +/- 10ppm	1007 ppm
Concentration mg Phenol / L	1.000 + / - 0.010 mg/mL	1.007 mg/mL
Traceable to NIST	Potassium Dichromate	136f

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor

Greg Albright

An ISO9001:2008 certified company. Registration # 0306-01

03/23/2018 5:05 PM

Form #17.13 07/28/2016

Reagent

Phenol ICV_00013

ERA

A Waters Company

Distributed by
SPEX CertiPrep
1-800-LAB-SPEX
www.spexcsp.com

Certificate of Analysis

PRODUCT:	1000 mg/L Phenol
CATALOG NUMBER:	982
LOT NUMBER:	090817
ISSUE DATE:	August 18, 2017
REVISION DATE:	August 2, 2018
STARTING MATERIAL:	Phenol (C_6H_5OH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.8%
MATRIX:	18 megohm deionized water and 1% (v/v) H_2SO_4
DENSITY:	1.0085 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	NA
VERIFICATION METHOD:	Spectrophotometry
STORAGE:	Store at 4 ± 2°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

PREP SPK 1_00008

CPI INTERNATIONAL

5643174
ID: PREP SPK 1_00008
Exp: 05/21/20 Prpd: MRJ
Metals Prep Spike Mix 1 C

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 993218-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.1 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.1 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 21, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
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Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

TKN CAL STD_00017

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Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Catalog Number: IS-009, IS-009-500
Lot Number: 010617

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00011

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00037

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Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 4901G09 **Product Number:** 1847

Manufacture Date: JAN 22, 2019
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-32	1 L amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jim Gibbs (01/22/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00046

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1000 ± 5 µg/mL	NAA00089; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG No.:

Project: Griffiss AFB, LF007 Landfill 5

Client Sample ID	Lab Sample ID
LF5MW-3_0519	280-123814-1
LF5MW-5_0519	280-123814-2
LF5MW-5_0519-a	280-123814-3

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF5MW-3_0519 Lab Sample ID: 280-123814-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2019 16:10

Reporting Basis: WET Date Received: 05/15/2019 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	220	100	15	4.4	ug/L			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF5MW-5_0519 Lab Sample ID: 280-123814-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2019 16:40

Reporting Basis: WET Date Received: 05/15/2019 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	6.3	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF5MW-5_0519-a
Lab Sample ID: 280-123814-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123814-1
SDG ID.:
Matrix: Water
Date Sampled: 05/14/2019 16:40
Reporting Basis: WET
Date Received: 05/15/2019 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	5.8	100	15	4.4	ug/L	J		1	6010C

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

ICV Source: ICP ICV_00821 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	ICV 280-459331/10 05/23/2019 15:01				ICV 280-459331/11 05/23/2019 15:05				CCV 280-459331/151 05/24/2019 06:06			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	237		250	95	238		250	95	473		500	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

ICV Source: ICP ICV_00821 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	CCV 280-459331/165 05/24/2019 06:56				CCV 280-459331/179 05/24/2019 07:46							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	474		500	95	473		500	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

ICV Source: ICP LLCCV_02549 Concentration Units: ug/L

CCV Source: ICP LLCCV_02549

Analyte	ICVL 280-459331/12 05/23/2019 15:15				CCVL 280-459331/153 05/24/2019 06:13				CCVL 280-459331/167 05/24/2019 07:02			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	92.7	J	100	93	89.0	J	100	89	88.5	J	100	88

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

ICV Source: ICP LLCCV_02549 Concentration Units: ug/L

CCV Source: ICP LLCCV_02549

Analyte	CCVL 280-459331/181 05/24/2019 07:53											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	88.3	J	100	88								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Method: 6010C Instrument ID: MT_052

Lab Sample ID: CRI 280-459331/16 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_02549

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Boron	100	94.1	J	94	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-459331/15 05/23/2019 15:25		CCB 280-459331/152 05/24/2019 06:10		CCB 280-459331/166 05/24/2019 06:59		CCB 280-459331/180 05/24/2019 07:49	
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-459137/1-A

Instrument Code: MT_052 Batch No.: 459331

CAS No.	Analyte	Concentration	C	Q	Method
7440-42-8	Boron	15	U		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Lab Sample ID: ICSA 280-459331/17 Instrument ID: MT_052

Lab File ID: 52A052319CC.csv ICS Source: ICP ICSA_00186

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		**12.5**	
Aluminum	*500000*	*511430*	*102*
Antimony		*-2.20*	
Arsenic		*-2.55*	
Barium		*0.533*	
Cadmium		*0.849*	
Calcium	*500000*	*480792*	*96*
Cobalt		*-0.340*	
Copper		*-1.79*	
Iron	*200000*	*192568*	*96*
Lead		*5.05*	
Lithium		*0.172*	
Magnesium	*500000*	*502792*	*101*
Manganese		*0.627*	
Molybdenum		*0.125*	
Nickel		*-7.87*	
Phosphorus		*13.9*	
Potassium		*88.2*	
Selenium		*6.21*	
Silicon		*34.1*	
Silver		*1.88*	
Thallium		*13.2*	
Tin		*1.34*	
Titanium		*-1.15*	
Vanadium		*1.51*	
Zinc		*-2.27*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Lab Sample ID: ICSAB 280-459331/18 Instrument ID: MT_052

Lab File ID: 52A052319CC.csv ICS Source: ICP ICSAB_00213

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Boron	**10000**	**10790**	**108**
Aluminum	*500000*	*525790*	*105*
Antimony	*1000*	*1034*	*103*
Arsenic	*1000*	*1066*	*107*
Barium	*1000*	*1050*	*105*
Beryllium	*500*	*516*	*103*
Cadmium	*1000*	*991*	*99*
Calcium	*500000*	*492742*	*99*
Chromium	*1000*	*1018*	*102*
Cobalt	*1000*	*969*	*97*
Copper	*1000*	*1075*	*107*
Iron	*200000*	*197655*	*99*
Lead	*1000*	*998*	*100*
Lithium	*1000*	*1088*	*109*
Magnesium	*500000*	*517215*	*103*
Manganese	*1000*	*1018*	*102*
Molybdenum	*1000*	*1003*	*100*
Nickel	*1000*	*958*	*96*
Phosphorus	*10000*	*10503*	*105*
Potassium	*10000*	*11194*	*112*
Selenium	*1000*	*1041*	*104*
Silicon	*10000*	*10394*	*104*
Silver	*1000*	*1136*	*114*
Sodium	*10000*	*10427*	*104*
Strontium	*1000*	*1053*	*105*
Thallium	*1000*	*998*	*100*
Tin	*1000*	*978*	*98*
Titanium	*1000*	*1023*	*102*
Vanadium	*1000*	*1026*	*103*
Zinc	*1000*	*967*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: LF5MW-3_0519 MS
Lab ID: 280-123814-1 MS
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	1260		220		1000	103	85-113		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: LF5MW-3_0519 MSD
Lab ID: 280-123814-1 MSD
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	1240		1000	102	85-113	1	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: LF5MW-3_0519 PDS
Lab ID: 280-123814-1 PDS
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123814-1
SDG No.:
Matrix: Water
Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	325		220		100	104	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-459137/2-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Boron	1000	965		97	85	113		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-459137/3-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	986		1000	99	85-113	2	20		6010C

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-123814-1

SDG No:

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123814-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Boron	220		210	J	NC	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C DL Date: 02/03/2019 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Boron	208.9	100	4.37

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Boron		100	4.37

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	394.401														
Aluminum	396.152								-0.000104					-0.000023	
Antimony	206.834											0.004372		0.00005	
Arsenic	188.980													-0.000018	
Barium	493.408													0.000008	
Beryllium	234.861													-0.000043	
Bismuth	223.061													0.000079	0.000001
Boron	249.678													-0.000081	
Cadmium	214.439													0.000011	
Calcium	315.887		0.000314												
Chromium	205.560		-0.000004				-0.00014								
Cobalt	228.615													0	
Copper	324.754		0.000005						-0.000012						
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.000052									-0.00051			
Lithium	670.783														
Magnesium	279.078													-0.000401	
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604								0					0	
Phosphorus	213.618												-0.16455		
Potassium	766.491														
Selenium	196.026													-0.000171	
Silicon	288.158													0	
Silver	328.068														
Sodium	589.592					-0.030677	-								
Sodium	589.593					-0.275847									
Strontium	421.552													0.000001	
Sulfur	181.972								0.000105					-	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.794		0.00001118						-0.000017		0.00204			-0.000053	
Thorium	288.505						-0.00596		-0.000014					-0.000047	
Tin	189.925														
Titanium	336.122								0.000026					-	
Uranium	409.013								-0.000041					0.000232	
Vanadium	292.401											-0.00709			
Zinc	206.200													0.000031	
Zirconium	343.823													0	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Aluminum	396.152				0.040824										0.190657
Aluminum	394.401														0.02099
Antimony	206.834				-0.00389									-0.00029	
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560				-0.0007		-0.00029								
Cobalt	228.615						0.0001								
Copper	324.754				0.000286										
Iron	238.204														
Iron	259.940														
Lead	220.353				-0.000822										
Lithium	670.783														
Magnesium	279.078														
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618				-0.023999										
Potassium	766.491														
Selenium	196.026			0.000916	0.000109										
Silicon	288.158														
Silver	328.068														
Sodium	589.593														
Sodium	589.592														
Strontium	421.552														
Sulfur	181.972			0.006869											

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Thallium	190.794				-0.00234										
Thorium	288.505			0.011354											
Tin	189.925														
Titanium	336.122						0.000067								
Uranium	409.013														
Vanadium	292.401				-0.0014										
Zinc	206.200														
Zirconium	343.823														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	394.401	-0.021133			0.011488										
Aluminum	396.152														
Antimony	206.834		0.00261					-0.00114							
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560														
Cobalt	228.615		0.001881												
Copper	324.754	0.004174	-0.000232		-0.00125										
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.00043		0.000755										
Lithium	670.783														
Magnesium	279.078				-0.00486										
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604			0.000222											
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026														
Silicon	288.158														
Silver	328.068				-0.000389	-0.011329		0.0060693							
Sodium	589.592														
Sodium	589.593														
Strontium	421.552														
Sulfur	181.972														

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.794		-0.00212												
Thorium	288.505		-		0.002914	-0.06422									
Tin	189.925														
Titanium	336.122														
Uranium	409.013							-0.039324							
Vanadium	292.401	0.002016	0.000703		-0.0001										
Zinc	206.200														
Zirconium	343.823														

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123814-1

SDG No.:

Instrument ID: MT_052 Date: 04/09/2019 07:05

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Boron		50	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-459137/1-A	05/23/2019 08:00	459137		50	50
LCS 280-459137/2-A	05/23/2019 08:00	459137		50	50
LCSD 280-459137/3-A	05/23/2019 08:00	459137		50	50
280-123814-1	05/23/2019 08:00	459137		50	50
280-123814-1 MS	05/23/2019 08:00	459137		50	50
280-123814-1 MSD	05/23/2019 08:00	459137		50	50
280-123814-2	05/23/2019 08:00	459137		50	50
280-123814-3	05/23/2019 08:00	459137		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes
				B
ICIS 280-459331/1	1		14:20	X
IC 280-459331/2			14:23	X
IC 280-459331/3			14:27	X
IC 280-459331/4			14:31	X
ZZZZZZ			14:35	
ZZZZZZ			14:38	
ZZZZZZ			14:42	
ICVH 280-459331/8	1		14:49	X
ICVH 280-459331/9	1		14:52	X
ICV 280-459331/10	1		15:01	X
ICV 280-459331/11	1		15:05	X
ICVL 280-459331/12	1		15:15	X
CCVH 280-459331/13			15:18	
CCV 280-459331/14			15:22	
ICB 280-459331/15	1		15:25	X
CRI 280-459331/16	1		15:28	X
ICSA 280-459331/17	1		15:32	X
ICSAB 280-459331/18	1		15:36	X
LRA 280-459331/19			15:40	
CCVH 280-459331/20			15:44	
CCV 280-459331/21			15:48	
CCB 280-459331/22			15:51	
CCVL 280-459331/23			15:54	
CCVH 280-459331/24			22:31	
CCV 280-459331/25			22:34	
CCB 280-459331/26			22:38	
CCVL 280-459331/27			22:41	
ZZZZZZ			22:45	
ZZZZZZ			22:48	
ZZZZZZ			22:52	
ZZZZZZ			22:55	
ZZZZZZ			22:59	
ZZZZZZ			23:02	
ZZZZZZ			23:06	
ZZZZZZ			23:10	
ZZZZZZ			23:13	
ZZZZZZ			23:17	
CCVH 280-459331/38			23:21	
CCV 280-459331/39			23:24	
CCB 280-459331/40			23:28	
CCVL 280-459331/41			23:31	
ZZZZZZ			23:35	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			23:38	
ZZZZZZ			23:42	
ZZZZZZ			23:45	
ZZZZZZ			23:48	
ZZZZZZ			23:52	
ZZZZZZ			23:56	
ZZZZZZ			23:59	
ZZZZZZ			00:03	
ZZZZZZ			00:06	
CCVH 280-459331/52			00:10	
CCV 280-459331/53			00:14	
CCB 280-459331/54			00:17	
CCVL 280-459331/55			00:21	
ZZZZZZ			00:24	
ZZZZZZ			00:28	
ZZZZZZ			00:31	
ZZZZZZ			00:35	
ZZZZZZ			00:39	
ZZZZZZ			00:42	
ZZZZZZ			00:46	
ZZZZZZ			00:50	
ZZZZZZ			00:53	
ZZZZZZ			00:57	
CCVH 280-459331/66			01:00	
CCV 280-459331/67			01:04	
CCB 280-459331/68			01:07	
CCVL 280-459331/69			01:11	
ZZZZZZ			01:14	
ZZZZZZ			01:18	
ZZZZZZ			01:21	
ZZZZZZ			01:25	
ZZZZZZ			01:28	
ZZZZZZ			01:32	
ZZZZZZ			01:36	
ZZZZZZ			01:39	
ZZZZZZ			01:43	
ZZZZZZ			01:47	
CCVH 280-459331/80			01:50	
CCV 280-459331/81			01:54	
CCB 280-459331/82			01:57	
CCVL 280-459331/83			02:01	
ZZZZZZ			02:04	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			02:08	
ZZZZZZ			02:11	
ZZZZZZ			02:15	
ZZZZZZ			02:19	
ZZZZZZ			02:23	
ZZZZZZ			02:26	
ZZZZZZ			02:30	
ZZZZZZ			02:34	
ZZZZZZ			02:38	
CCVH 280-459331/94			02:42	
CCV 280-459331/95			02:45	
CCB 280-459331/96			02:49	
CCVL 280-459331/97			02:52	
ZZZZZZ			02:56	
ZZZZZZ			02:59	
ZZZZZZ			03:03	
ZZZZZZ			03:07	
ZZZZZZ			03:11	
ZZZZZZ			03:15	
ZZZZZZ			03:19	
ZZZZZZ			03:22	
ZZZZZZ			03:26	
ZZZZZZ			03:30	
CCVH 280-459331/108			03:34	
CCV 280-459331/109			03:37	
CCB 280-459331/110			03:41	
CCVL 280-459331/111			03:44	
ZZZZZZ			03:48	
ZZZZZZ			03:51	
ZZZZZZ			03:55	
ZZZZZZ			03:59	
ZZZZZZ			04:02	
ZZZZZZ			04:06	
ZZZZZZ			04:09	
ZZZZZZ			04:13	
ZZZZZZ			04:17	
ZZZZZZ			04:20	
CCVH 280-459331/122			04:24	
CCV 280-459331/123			04:27	
CCB 280-459331/124			04:31	
CCVL 280-459331/125			04:34	
ZZZZZZ			04:38	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			04:41	
ZZZZZZ			04:44	
ZZZZZZ			04:48	
ZZZZZZ			04:51	
ZZZZZZ			04:55	
ZZZZZZ			04:59	
ZZZZZZ			05:02	
ZZZZZZ			05:06	
ZZZZZZ			05:10	
CCVH 280-459331/136			05:13	
CCV 280-459331/137			05:17	
CCB 280-459331/138			05:21	
CCVL 280-459331/139			05:24	
ZZZZZZ			05:27	
ZZZZZZ			05:31	
ZZZZZZ			05:35	
ZZZZZZ			05:38	
ZZZZZZ			05:41	
ZZZZZZ			05:45	
ZZZZZZ			05:48	
ZZZZZZ			05:52	
ZZZZZZ			05:55	
ZZZZZZ			05:59	
CCVH 280-459331/150	1		06:03	X
CCV 280-459331/151	1		06:06	X
CCB 280-459331/152	1		06:10	X
CCVL 280-459331/153	1		06:13	X
ZZZZZZ			06:16	
ZZZZZZ			06:20	
ZZZZZZ			06:24	
ZZZZZZ			06:27	
ZZZZZZ			06:31	
MB 280-459137/1-A	1	T	06:34	X
LCS 280-459137/2-A	1	T	06:38	X
LCSD 280-459137/3-A	1	T	06:41	X
280-123814-1	1	T	06:45	X
280-123814-1 SD	5	T	06:48	X
CCVH 280-459331/164	1		06:52	X
CCV 280-459331/165	1		06:56	X
CCB 280-459331/166	1		06:59	X
CCVL 280-459331/167	1		07:02	X
280-123814-1 MS	1	T	07:06	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes																								
				B																								
280-123814-1 MSD	1	T	07:10	X																								
280-123814-1 PDS	1	T	07:13	X																								
280-123814-2	1	T	07:17	X																								
280-123814-3	1	T	07:20	X																								
ZZZZZZ			07:24																									
ZZZZZZ			07:28																									
ZZZZZZ			07:31																									
ZZZZZZ			07:35																									
ZZZZZZ			07:39																									
CCVH 280-459331/178	1		07:42	X																								
CCV 280-459331/179	1		07:46	X																								
CCB 280-459331/180	1		07:49	X																								
CCVL 280-459331/181	1		07:53	X																								
ZZZZZZ			07:56																									
CCVH 280-459331/183			08:00																									
CCV 280-459331/184			08:03																									
CCB 280-459331/185			08:07																									
CCVL 280-459331/186			08:10																									

Prep Types:
T = Total/NA

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

ICP Instrument ID: MT_052 Start Date: 05/23/2019 End Date: 05/24/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 242.219	Q	Element Y 377.433	Q	Element Y 488.368	Q	Element	Q	Element	Q
ICIS 280-459331/1	14:20										
ICVH 280-459331/8	14:49	101		100		102					
ICVH 280-459331/9	14:52	101		101		102					
ICV 280-459331/10	15:01	103		103		104					
ICV 280-459331/11	15:05	104		104		104					
ICVL 280-459331/12	15:15	106		105		106					
ICB 280-459331/15	15:25	106		106		107					
CRI 280-459331/16	15:28	108		108		108					
ICSA 280-459331/17	15:32	95		96		102					
ICSAB 280-459331/18	15:36	95		96		101					
CCVH 280-459331/150	06:03	108		108		111					
CCV 280-459331/151	06:06	110		110		111					
CCB 280-459331/152	06:10	112		111		112					
CCVL 280-459331/153	06:13	113		113		113					
MB 280-459137/1-A	06:34	113		113		113					
LCS 280-459137/2-A	06:38	109		109		111					
LCSD 280-459137/3-A	06:41	109		109		111					
280-123814-1	06:45	112		112		113					
280-123814-1 SD	06:48	113		112		114					
CCVH 280-459331/164	06:52	108		108		111					
CCV 280-459331/165	06:56	111		111		112					
CCB 280-459331/166	06:59	112		111		113					
CCVL 280-459331/167	07:02	113		112		112					
280-123814-1 MS	07:06	106		107		110					
280-123814-1 MSD	07:10	106		107		110					
280-123814-1 PDS	07:13	108		108		110					
280-123814-2	07:17	113		113		113					
280-123814-3	07:20	113		113		114					
CCVH 280-459331/178	07:42	108		108		111					
CCV 280-459331/179	07:46	111		111		113					
CCB 280-459331/180	07:49	111		111		112					
CCVL 280-459331/181	07:53	113		112		113					

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 459137 Batch Start Date: 05/23/19 08:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/23/19 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	PREP SPK 1 00008	PREP SPK 2 00004	PREP SPK 3 00004
MB 280-459137/1		3010A, 6010C			50 mL	50 mL			
LCS 280-459137/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
LCSD 280-459137/3		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123814-F-1	LF5MW-3_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123814-F-1 MS	LF5MW-3_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123814-F-1 MSD	LF5MW-3_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123814-F-2	LF5MW-5_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123814-F-3	LF5MW-5_0519-a	3010A, 6010C	T	<2 SU	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PREP SPK 4 00004					
MB 280-459137/1		3010A, 6010C							
LCS 280-459137/2		3010A, 6010C		0.5 mL					
LCSD 280-459137/3		3010A, 6010C		0.5 mL					
280-123814-F-1	LF5MW-3_0519	3010A, 6010C	T						
280-123814-F-1 MS	LF5MW-3_0519	3010A, 6010C	T	0.5 mL					
280-123814-F-1 MSD	LF5MW-3_0519	3010A, 6010C	T	0.5 mL					
280-123814-F-2	LF5MW-5_0519	3010A, 6010C	T						
280-123814-F-3	LF5MW-5_0519-a	3010A, 6010C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 459137 Batch Start Date: 05/23/19 08:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/23/19 14:00

Batch Notes	
Temperature - Corrected - End	95 Degrees C
Temperature - Corrected - Start	90 Degrees C
Digestion End Time	05/23/2019 14:00
Digestion Start Time	05/23/2019 08:00
Digestion Unit ID	03
Hydrochloric Acid ID	0000217157-05/03
Nitric Acid ID	0000216908-05/03
Pipette/Syringe/Dispenser ID	MET-116
Thermometer ID	QA-51
Digestion Tube/Cup ID	1812114
Temperature - Uncorrected - End	96 Degrees C
Temperature - Uncorrected - Start	91 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Path: D:\My Results\52A052319B.esws

Date created: 5/23/2019 2:14:37 PM

Instrument used: MY18171010

Software Version : 7.4.2.10790

Firmware Version : 3784

Notes:

Sample Name: icis

Date: 5/23/2019 2:20:12 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000000	ppm	N/A	N/A	-245.843000	Y 377.433
Al (394.401 nm)	0.000000	ppm	N/A	N/A	129.121000	Y 377.433
Al H (396.152 nm)	0.000000	ppm	N/A	N/A	35.769000	Y_R 377.433
As (188.980 nm)	0.000000	ppm	N/A	N/A	-1.305310	Y 242.219
B (249.678 nm)	0.000000	ppm	N/A	N/A	37.086100	Y 242.219
Ba (493.408 nm)	0.000000	ppm	N/A	N/A	1432.610000	Y_R 488.368
Be (234.861 nm)	0.000000	ppm	N/A	N/A	-5.717390	Y_R 488.368
Bi (223.061 nm)	0.000000	ppm	N/A	N/A	-15.515600	Y 377.433
Ca (315.887 nm)	0.000000	ppm	N/A	N/A	-61.974858	Y_R 377.433
Cd (214.439 nm)	0.000000	ppm	N/A	N/A	-7.791640	Y 377.433
Co (228.615 nm)	0.000000	ppm	N/A	N/A	-22.162300	Y 242.219
Cr (205.560 nm)	0.000000	ppm	N/A	N/A	-5.972750	Y 377.433
Cu (324.754 nm)	0.000000	ppm	N/A	N/A	412.073000	Y 377.433
Fe (238.204 nm)	0.000000	ppm	N/A	N/A	2.934082	Y_R 377.433
Fe H (259.940 nm)	0.000000	ppm	N/A	N/A	10.377600	Y_R 377.433
K (766.491 nm)	0.000000	ppm	N/A	N/A	1981.590000	Y_R2 488.368
Li (670.783 nm)	0.000000	ppm	N/A	N/A	-2631.470000	Y_R2 488.368
Mg (279.078 nm)	0.000000	ppm	N/A	N/A	11.926500	Y 377.433
Mn (257.610 nm)	0.000000	ppm	N/A	N/A	-22.027400	Y 377.433
Mo (202.032 nm)	0.000000	ppm	N/A	N/A	23.388100	Y 377.433
Na (589.592 nm)	0.000000	ppm	N/A	N/A	110.458000	Y_R2 488.368
Na H (589.593 nm)	0.000000	ppm	N/A	N/A	74.255605	Y_R4
Ni (231.604 nm)	0.000000	ppm	N/A	N/A	-11.368600	Y 377.433
P (213.618 nm)	0.000000	ppm	N/A	N/A	-4.801010	Y 242.219
Pb (220.353 nm)	0.000000	ppm	N/A	N/A	12.896700	Y 242.219
S (181.972 nm)	0.000000	ppm	N/A	N/A	7.755626	Y 377.433
Sb (206.834 nm)	0.000000	ppm	N/A	N/A	-7.546230	Y 377.433
Se (196.026 nm)	0.000000	ppm	N/A	N/A	10.576300	Y 242.219
Si (288.158 nm)	0.000000	ppm	N/A	N/A	508.043000	Y 377.433
Sn (189.925 nm)	0.000000	ppm	N/A	N/A	2.236410	Y 377.433
Sr (421.552 nm)	0.000000	ppm	N/A	N/A	47.918003	Y_R 488.368
Th (288.505 nm)	0.000000	ppm	N/A	N/A	14.500400	Y 377.433
Ti (336.122 nm)	0.000000	ppm	N/A	N/A	-505.640000	Y 377.433
Tl (190.794 nm)	0.000000	ppm	N/A	N/A	0.114689	Y 377.433
U (409.013 nm)	0.000000	ppm	N/A	N/A	-41.789400	Y 377.433
V (292.401 nm)	0.000000	ppm	N/A	N/A	-180.049000	Y 377.433
Zn (206.200 nm)	0.000000	ppm	N/A	N/A	3.816730	Y 377.433
Zr (343.823 nm)	0.000000	ppm	N/A	N/A	-174.520000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.000000	22392.468229	0.000000	0.00
Y 377.433	1.000000	646126.278119	0.000000	0.00
Y_R 377.433	1.000000	55050.400000	0.000000	0.00
Y_R 488.368	1.000000	48327.000000	0.000000	0.00
Y_R2 488.368	1.000000	92684.454488	0.000000	0.00
Y_R4	1.000000	42819.500000	0.000000	0.00

Sample Name: ic1

Date: 5/23/2019 2:23:25 PM Rack:Tube: 3:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.000000	ppm	N/A	N/A	34998.700000	Y 377.433
Al (394.401 nm)	1.000000	ppm	N/A	N/A	12076.500000	Y 377.433
Al H (396.152 nm)	1.000000	ppm	N/A	N/A	1835.310000	Y_R 377.433
As (188.980 nm)	1.000000	ppm	N/A	N/A	1592.080000	Y 242.219
B (249.678 nm)	1.000000	ppm	N/A	N/A	7204.230000	Y 242.219
Ba (493.408 nm)	1.000000	ppm	N/A	N/A	98295.400000	Y_R 488.368
Be (234.861 nm)	1.000000	ppm	N/A	N/A	100822.000000	Y_R 488.368
Bi (223.061 nm)	2.000000	ppm	N/A	N/A	4546.260000	Y 377.433
Ca (315.887 nm)	10.000000	ppm	N/A	N/A	8011.414023	Y_R 377.433
Cd (214.439 nm)	1.000000	ppm	N/A	N/A	40003.400000	Y 377.433
Co (228.615 nm)	1.000000	ppm	N/A	N/A	24699.400000	Y 242.219
Cr (205.560 nm)	1.000000	ppm	N/A	N/A	7080.800000	Y 377.433
Cu (324.754 nm)	1.000000	ppm	N/A	N/A	46846.200000	Y 377.433
Fe (238.204 nm)	5.000000	ppm	N/A	N/A	12326.721853	Y_R 377.433
Fe H (259.940 nm)	5.000000	ppm	N/A	N/A	7081.990000	Y_R 377.433
K (766.491 nm)	100.000000	ppm	N/A	N/A	101235.000000	Y_R2 488.368
Li (670.783 nm)	1.000000	ppm	N/A	N/A	14782.200000	Y_R2 488.368
Mg (279.078 nm)	40.000000	ppm	N/A	N/A	141739.000000	Y 377.433
Mn (257.610 nm)	1.000000	ppm	N/A	N/A	276578.000000	Y 377.433
Mo (202.032 nm)	1.000000	ppm	N/A	N/A	12748.000000	Y 377.433
Na (589.592 nm)		ppm	N/A	N/A	36401.200000	Y_R2 488.368
Na H (589.593 nm)		ppm	N/A	N/A	25505.392891	Y_R4
Ni (231.604 nm)	1.000000	ppm	N/A	N/A	5577.100000	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	-134.168000	Y 242.219
Pb (220.353 nm)	1.000000	ppm	N/A	N/A	3449.580000	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	17.159542	Y 377.433
Sb (206.834 nm)	1.000000	ppm	N/A	N/A	1757.980000	Y 377.433
Se (196.026 nm)	1.000000	ppm	N/A	N/A	1635.770000	Y 242.219
Si (288.158 nm)	10.000000	ppm	N/A	N/A	66471.200000	Y 377.433
Sn (189.925 nm)	1.000000	ppm	N/A	N/A	1746.450000	Y 377.433
Sr (421.552 nm)	1.000000	ppm	N/A	N/A	146297.574754	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	-45.074300	Y 377.433
Ti (336.122 nm)	1.000000	ppm	N/A	N/A	129511.000000	Y 377.433
Tl (190.794 nm)	1.000000	ppm	N/A	N/A	2422.570000	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	-81.151200	Y 377.433
V (292.401 nm)	1.000000	ppm	N/A	N/A	52973.100000	Y 377.433
Zn (206.200 nm)	1.000000	ppm	N/A	N/A	4966.970000	Y 377.433
Zr (343.823 nm)	1.000000	ppm	N/A	N/A	57486.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.995189	22284.741302	0.000669	0.07
Y 377.433	0.996689	643986.691041	0.001335	0.13
Y_R 377.433	1.003140	55223.400000	0.007629	0.76
Y_R 488.368	1.003270	48485.100000	0.002955	0.29
Y_R2 488.368	1.007931	93419.553462	0.003842	0.38
Y_R4	1.008090	43166.100000	0.004406	0.44

Sample Name: ic3

Date: 5/23/2019 2:27:32 PM Rack:Tube: 3:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-219.768000	Y 377.433
Al (394.401 nm)		ppm	N/A	N/A	564.147000	Y 377.433
Al H (396.152 nm)		ppm	N/A	N/A	113.398000	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	-2.928760	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	42.274500	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1416.490000	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	1.460300	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	-12.327800	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-61.353721	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	-7.234030	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	-24.465600	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-5.557170	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	445.191000	Y 377.433
Fe (238.204 nm)		ppm	N/A	N/A	84.992882	Y_R 377.433
Fe H (259.940 nm)		ppm	N/A	N/A	57.791800	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	2116.130000	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2678.600000	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	18.102200	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	5.649240	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	23.146800	Y 377.433
Na (589.592 nm)	50.000000	ppm	N/A	N/A	37148.300000	Y_R2 488.368
Na H (589.593 nm)	50.000000	ppm	N/A	N/A	25194.623959	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	-12.677400	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	-4.046980	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	10.397900	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	10.293509	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	0.934331	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	9.293060	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	541.093000	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	3.094850	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	44.555536	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	14.734400	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-499.666000	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	7.420470	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	-4.057650	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	-163.839000	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	5.634910	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-166.735000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.011046	22639.826395	0.000305	0.03
Y 377.433	1.007526	650988.786067	0.000899	0.09
Y_R 377.433	1.014120	55827.900000	0.001810	0.18
Y_R 488.368	1.012210	48917.200000	0.002947	0.29
Y_R2 488.368	1.002093	92878.485933	0.002299	0.23
Y_R4	1.012710	43363.500000	0.003701	0.37

Sample Name: ic2

Date: 5/23/2019 2:31:09 PM Rack:Tube: 3:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-69.683900	Y 377.433
Al (394.401 nm)	100.000000	ppm	N/A	N/A	1215120.000000	Y 377.433
Al H (396.152 nm)	100.000000	ppm	N/A	N/A	205853.000000	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	0.118264	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	-31.134100	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1780.360000	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	-493.710000	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	8.855730	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-78.279203	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	36.656300	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	77.330300	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-3.323440	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	2561.990000	Y 377.433
Fe (238.204 nm)	100.000000	ppm	N/A	N/A	244947.184798	Y_R 377.433
Fe H (259.940 nm)	100.000000	ppm	N/A	N/A	139916.000000	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	2090.400000	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2639.610000	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	-285.486000	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	-308.469000	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	7.955120	Y 377.433
Na (589.592 nm)	500.000000	ppm	N/A	N/A	349451.000000	Y_R2 488.368
Na H (589.593 nm)	500.000000	ppm	N/A	N/A	248998.308046	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	4.015940	Y 377.433
P (213.618 nm)	10.000000	ppm	N/A	N/A	15128.400000	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	19.783600	Y 242.219
S (181.972 nm)	10.000000	ppm	N/A	N/A	4499.889661	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	15.907000	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	5.921940	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	740.633000	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	1.214230	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	103.415971	Y_R 488.368
Th (288.505 nm)	10.000000	ppm	N/A	N/A	17463.000000	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-407.955000	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	-19.384200	Y 377.433
U (409.013 nm)	1.000000	ppm	N/A	N/A	3091.200000	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	790.064000	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	27.382900	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-184.095000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.975957	21854.090086	0.000393	0.04
Y 377.433	0.971549	627743.636162	0.000707	0.07
Y_R 377.433	1.003170	55224.900000	0.000839	0.08
Y_R 488.368	0.998273	48243.500000	0.000566	0.06
Y_R2 488.368	0.994100	92137.611669	0.004418	0.44
Y_R4	1.013080	43379.700000	0.010207	1.01

Sample Name: S1-5717466

Date: 5/23/2019 2:35:16 PM Rack:Tube: 3:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.001840	ppm	0.001579	0.16	34877.300000	Y 377.433
Al (394.401 nm)	1.006220	ppm	0.001341	0.13	12401.300000	Y 377.433
Al H (396.152 nm)	0.972867	ppm	0.004334	0.45	2255.890000	Y_R 377.433
As (188.980 nm)	1.003290	ppm	0.002299	0.23	1597.170000	Y 242.219
B (249.678 nm)	1.003840	ppm	0.001510	0.15	7228.820000	Y 242.219
Ba (493.408 nm)	0.997428	ppm	0.000251	0.03	98050.200000	Y_R 488.368
Be (234.861 nm)	0.990337	ppm	0.002898	0.29	99826.300000	Y_R 488.368
Bi (223.061 nm)	1.996620	ppm	0.003230	0.16	4539.680000	Y 377.433
Ca (315.887 nm)	9.962633	ppm	0.024703	0.25	7981.518153	Y_R 377.433
Cd (214.439 nm)	1.007090	ppm	0.002076	0.21	40289.200000	Y 377.433
Co (228.615 nm)	1.001990	ppm	0.002354	0.23	24797.600000	Y 242.219
Cr (205.560 nm)	1.006320	ppm	0.000775	0.08	7117.590000	Y 377.433
Cu (324.754 nm)	1.000440	ppm	0.000606	0.06	46865.400000	Y 377.433
Fe (238.204 nm)	4.998029	ppm	0.004165	0.08	12321.864522	Y_R 377.433
Fe H (259.940 nm)	4.985540	ppm	0.008452	0.17	7061.780000	Y_R 377.433
K (766.491 nm)	98.007500	ppm	0.352239	0.36	99256.900000	Y_R2 488.368
Li (670.783 nm)	0.998391	ppm	0.008272	0.83	14754.100000	Y_R2 488.368
Mg (279.078 nm)	40.303800	ppm	0.090653	0.22	142808.000000	Y 377.433
Mn (257.610 nm)	1.003020	ppm	0.001457	0.15	277414.000000	Y 377.433
Mo (202.032 nm)	1.002950	ppm	0.002291	0.23	12785.500000	Y 377.433
Na (589.592 nm)	48.659100	ppm	0.195700	0.40	36359.100000	Y_R2 488.368
Na H (589.593 nm)	50.723935	ppm	0.172691	0.34	25554.667038	Y_R4
Ni (231.604 nm)	1.004140	ppm	0.003240	0.32	5601.470000	Y 377.433
P (213.618 nm)	0.102581	ppm	0.002312	2.25	-135.077000	Y 242.219
Pb (220.353 nm)	1.001350	ppm	0.004275	0.43	3447.980000	Y 242.219
S (181.972 nm)	0.019850	ppm	0.006788	34.19	20.236663	Y 377.433
Sb (206.834 nm)	1.006540	ppm	0.002988	0.30	1763.720000	Y 377.433
Se (196.026 nm)	1.006920	ppm	0.001830	0.18	1647.290000	Y 242.219
Si (288.158 nm)	10.017800	ppm	0.035842	0.36	66588.700000	Y 377.433
Sn (189.925 nm)	1.000620	ppm	0.004505	0.45	1747.530000	Y 377.433
Sr (421.552 nm)	1.002868	ppm	0.001632	0.16	146717.684692	Y_R 488.368
Th (288.505 nm)	0.027489	ppm	0.004421	16.08	-40.877300	Y 377.433
Ti (336.122 nm)	1.001960	ppm	0.001329	0.13	129808.000000	Y 377.433
Tl (190.794 nm)	1.008610	ppm	0.003167	0.31	2436.530000	Y 377.433
U (409.013 nm)	0.032665	ppm	0.004675	14.31	-60.465800	Y 377.433
V (292.401 nm)	1.002660	ppm	0.000717	0.07	52698.900000	Y 377.433
Zn (206.200 nm)	1.005470	ppm	0.001623	0.16	4994.870000	Y 377.433
Zr (343.823 nm)	1.002390	ppm	0.000461	0.05	57623.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.999574	22382.926023	0.007386	0.74
Y 377.433	0.998021	644847.340769	0.007092	0.71
Y_R 377.433	1.023200	56327.400000	0.003814	0.37
Y_R 488.368	1.020020	49294.500000	0.003677	0.36
Y_R2 488.368	1.016834	94244.706604	0.002047	0.20
Y_R4	1.002460	42924.700000	0.004061	0.41

Sample Name: S3-5617381

Date: 5/23/2019 2:38:52 PM
Rack:Tube: 3:5

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001294	ppm	0.000176	13.56	-200.690000	Y 377.433
Al (394.401 nm)	0.042119	ppm	0.001287	3.06	633.840000	Y 377.433
Al H (396.152 nm)	0.177601 u	ppm	0.012545	7.06	140.879000	Y_R 377.433
As (188.980 nm)	0.002078	ppm	0.002799	> 100.00	2.003450	Y 242.219
B (249.678 nm)	0.001201	ppm	0.000210	17.47	45.661200	Y 242.219
Ba (493.408 nm)	0.000734	ppm	0.000629	85.70	1503.730000	Y_R 488.368
Be (234.861 nm)	0.001111	ppm	0.000022	2.02	106.054000	Y_R 488.368
Bi (223.061 nm)	0.003476	ppm	0.000977	28.09	-7.577630	Y 377.433
Ca (315.887 nm)	0.045618	ppm	0.000344	0.75	-25.134315	Y_R 377.433
Cd (214.439 nm)	0.001169	ppm	0.000038	3.25	39.005200	Y 377.433
Co (228.615 nm)	0.001199	ppm	0.000096	8.01	7.515620	Y 242.219
Cr (205.560 nm)	0.000694	ppm	0.000045	6.54	-1.064590	Y 377.433
Cu (324.754 nm)	0.001747	ppm	0.000295	16.86	493.151000	Y 377.433
Fe (238.204 nm)	0.051800	ppm	0.001926	3.72	130.608627	Y_R 377.433
Fe H (259.940 nm)	0.001432 u	ppm	0.003008	> 100.00	92.751800	Y_R 377.433
K (766.491 nm)	0.199385	ppm	0.225322	> 100.00	2179.490000	Y_R2 488.368
Li (670.783 nm)	-0.001177 u	ppm	0.001457	> 100.00	-2651.960000	Y_R2 488.368
Mg (279.078 nm)	0.048481	ppm	0.000881	1.82	183.279000	Y 377.433
Mn (257.610 nm)	0.001507	ppm	0.000017	1.12	394.844000	Y 377.433
Mo (202.032 nm)	0.001240	ppm	0.000117	9.44	39.168300	Y 377.433
Na (589.592 nm)	49.821500	ppm	0.107143	0.22	37016.300000	Y_R2 488.368
Na H (589.593 nm)	49.858346 u	ppm	0.117549	0.24	25124.173311	Y_R4
Ni (231.604 nm)	0.000435	ppm	0.000430	98.65	-8.934930	Y 377.433
P (213.618 nm)	0.001470 u	ppm	0.003374	> 100.00	-2.945170	Y 242.219
Pb (220.353 nm)	-0.001810 u	ppm	0.000899	49.69	6.716000	Y 242.219
S (181.972 nm)	0.014109	ppm	0.006135	43.49	14.098884	Y 377.433
Sb (206.834 nm)	0.003549	ppm	0.001051	29.61	-1.289030	Y 377.433
Se (196.026 nm)	0.000127 u	ppm	0.000296	> 100.00	10.771100	Y 242.219
Si (288.158 nm)	0.015212	ppm	0.001779	11.69	608.386000	Y 377.433
Sn (189.925 nm)	0.001962	ppm	0.000156	7.97	5.659040	Y 377.433
Sr (421.552 nm)	0.000754	ppm	0.000105	13.93	158.196345	Y_R 488.368
Th (288.505 nm)	0.001097 u	ppm	0.001554	> 100.00	16.400300	Y 377.433
Ti (336.122 nm)	0.001472	ppm	0.000013	0.91	-314.204000	Y 377.433
Tl (190.794 nm)	-0.000281 u	ppm	0.000131	46.63	-0.580218	Y 377.433
U (409.013 nm)	0.017151	ppm	0.007844	45.73	11.823100	Y 377.433
V (292.401 nm)	0.001423	ppm	0.000102	7.14	-105.104000	Y 377.433
Zn (206.200 nm)	0.007527	ppm	0.000223	2.97	41.182800	Y 377.433
Zr (343.823 nm)	0.001423	ppm	0.000340	23.90	-92.440600	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.030173	23068.119884	0.002286	0.22
Y 377.433	1.025320	662485.990846	0.002754	0.27
Y_R 377.433	1.035700	57015.800000	0.001203	0.12
Y_R 488.368	1.033220	49932.300000	0.000311	0.03
Y_R2 488.368	1.017991	94351.932538	0.002524	0.25
Y_R4	1.012700	43363.200000	0.008292	0.82

Sample Name: S2-5713035

Date: 5/23/2019 2:42:26 PM
Rack:Tube: 3:6

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.006007	ppm	0.000015	0.26	-54.489200	Y 377.433
Al (394.401 nm)	101.477000 o	ppm	0.097313	0.10	1210140.000000	Y 377.433
Al H (396.152 nm)	100.053000	ppm	0.107828	0.11	205957.000000	Y_R 377.433
As (188.980 nm)	0.002441 u	ppm	0.004456	> 100.00	-0.289229	Y 242.219
B (249.678 nm)	-0.001950 u	ppm	0.000222	11.39	-35.053600	Y 242.219
Ba (493.408 nm)	0.002517	ppm	0.000164	6.51	1754.050000	Y_R 488.368
Be (234.861 nm)	-0.000507 u	ppm	0.000026	5.08	-491.221000	Y_R 488.368
Bi (223.061 nm)	-0.009433 u	ppm	0.003255	34.50	-18.977600	Y 377.433
Ca (315.887 nm)	-0.050443 u	ppm	0.003506	6.95	-77.332391	Y_R 377.433
Cd (214.439 nm)	0.000126	ppm	0.000089	70.82	41.343300	Y 377.433
Co (228.615 nm)	0.003463	ppm	0.000050	1.43	63.438300	Y 242.219
Cr (205.560 nm)	0.001390	ppm	0.000674	48.52	1.036920	Y 377.433
Cu (324.754 nm)	0.005271	ppm	0.000664	12.60	2553.550000	Y 377.433
Fe (238.204 nm)	99.326264 o	ppm	0.198048	0.20	244818.093963	Y_R 377.433
Fe H (259.940 nm)	100.106000	ppm	0.159282	0.16	140063.000000	Y_R 377.433
K (766.491 nm)	0.374829	ppm	0.024297	6.48	2353.620000	Y_R2 488.368
Li (670.783 nm)	-0.006120 u	ppm	0.002720	44.44	-2738.040000	Y_R2 488.368
Mg (279.078 nm)	-0.036099 u	ppm	0.000807	2.24	-275.550000	Y 377.433
Mn (257.610 nm)	-0.001054 u	ppm	0.000001	0.05	-313.493000	Y 377.433
Mo (202.032 nm)	-0.000759 u	ppm	0.000278	36.69	13.730100	Y 377.433
Na (589.592 nm)	469.518000 o	ppm	0.716624	0.15	347910.000000	Y_R2 488.368
Na H (589.593 nm)	498.305486	ppm	2.129881	0.43	248155.555825	Y_R4
Ni (231.604 nm)	0.002538	ppm	0.000057	2.25	2.815720	Y 377.433
P (213.618 nm)	9.958500	ppm	0.023470	0.24	15056.800000	Y 242.219
Pb (220.353 nm)	0.008442	ppm	0.001037	12.28	26.623700	Y 242.219
S (181.972 nm)	10.016058	ppm	0.019714	0.20	4507.107138	Y 377.433
Sb (206.834 nm)	0.004555	ppm	0.002020	44.34	9.356580	Y 377.433
Se (196.026 nm)	0.013764	ppm	0.001247	9.06	5.104320	Y 242.219
Si (288.158 nm)	0.033249	ppm	0.000881	2.65	727.365000	Y 377.433
Sn (189.925 nm)	-0.001367 u	ppm	0.000395	28.91	-0.147708	Y 377.433
Sr (421.552 nm)	0.000344	ppm	0.000083	24.22	112.895083	Y_R 488.368
Th (288.505 nm)	9.980770	ppm	0.003000	0.03	17424.500000	Y 377.433
Ti (336.122 nm)	0.000681	ppm	0.000098	14.38	-417.059000	Y 377.433
Tl (190.794 nm)	-0.004047 u	ppm	0.000676	16.71	-19.809300	Y 377.433
U (409.013 nm)	0.998546	ppm	0.002458	0.25	3159.550000	Y 377.433
V (292.401 nm)	-0.001022 u	ppm	0.000000	0.03	780.042000	Y 377.433
Zn (206.200 nm)	0.001138	ppm	0.000629	55.24	24.879800	Y 377.433
Zr (343.823 nm)	-0.000379 u	ppm	0.000206	54.32	-196.381000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.987159	22104.936506	0.006893	0.70
Y 377.433	0.981846	634396.620178	0.008157	0.83
Y_R 377.433	1.012090	55716.100000	0.002335	0.23
Y_R 488.368	1.008670	48746.100000	0.001622	0.16
Y_R2 488.368	0.994684	92191.701584	0.000780	0.08
Y_R4	1.023510	43826.000000	0.008088	0.79

Sample Name: ICVH-5717305

Date: 5/23/2019 2:49:08 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001947	ppm	0.000129	6.61	-184.333000	Y 377.433
Al (394.401 nm)	39.816500 o	ppm	0.013951	0.04	475158.000000	Y 377.433
Al H (396.152 nm)	39.493700	ppm	0.009416	0.02	81158.800000	Y_R 377.433
As (188.980 nm)	-0.001030 u	ppm	0.001909	> 100.00	-5.226910	Y 242.219
B (249.678 nm)	-0.000044 u	ppm	0.001455	> 100.00	-9.385800	Y 242.219
Ba (493.408 nm)	0.000041 u	ppm	0.000119	> 100.00	1498.140000	Y_R 488.368
Be (234.861 nm)	-0.000481 u	ppm	0.000094	19.45	-398.915000	Y_R 488.368
Bi (223.061 nm)	0.003212	ppm	0.000523	16.29	6.135760	Y 377.433
Ca (315.887 nm)	-0.002663 u	ppm	0.008708	> 100.00	-54.128038	Y_R 377.433
Cd (214.439 nm)	0.000045	ppm	0.000034	75.34	29.017100	Y 377.433
Co (228.615 nm)	-0.000993 u	ppm	0.000067	6.74	-46.724500	Y 242.219
Cr (205.560 nm)	0.000376	ppm	0.000045	11.98	-4.419950	Y 377.433
Cu (324.754 nm)	0.001930	ppm	0.000109	5.66	1049.380000	Y 377.433
Fe (238.204 nm)	78.973342 o	ppm	0.073294	0.09	194653.074341	Y_R 377.433
Fe H (259.940 nm)	79.578400	ppm	0.051639	0.06	111361.000000	Y_R 377.433
K (766.491 nm)	0.035456	ppm	0.044804	> 100.00	2016.780000	Y_R2 488.368
Li (670.783 nm)	-0.004572 u	ppm	0.001997	43.67	-2711.080000	Y_R2 488.368
Mg (279.078 nm)	-0.010878 u	ppm	0.002808	25.82	-147.127000	Y 377.433
Mn (257.610 nm)	0.000171	ppm	0.000004	2.54	25.399800	Y 377.433
Mo (202.032 nm)	-0.001266 u	ppm	0.000028	2.24	7.275650	Y 377.433
Na (589.592 nm)	78.037700 o	ppm	0.027100	0.03	57917.500000	Y_R2 488.368
Na H (589.593 nm)	78.069165	ppm	0.127626	0.16	39154.585146	Y_R4
Ni (231.604 nm)	-0.001061 u	ppm	0.000247	23.28	-17.298600	Y 377.433
P (213.618 nm)	3.851190	ppm	0.000772	0.02	5821.570000	Y 242.219
Pb (220.353 nm)	-0.002127 u	ppm	0.003085	> 100.00	-0.318210	Y 242.219
S (181.972 nm)	3.980637	ppm	0.011804	0.30	1795.914329	Y 377.433
Sb (206.834 nm)	0.006593	ppm	0.000895	13.57	11.117600	Y 377.433
Se (196.026 nm)	0.004630	ppm	0.000738	15.94	-3.991890	Y 242.219
Si (288.158 nm)	0.001369	ppm	0.000867	63.36	517.074000	Y 377.433
Sn (189.925 nm)	0.000318	ppm	0.000398	> 100.00	2.791460	Y 377.433
Sr (421.552 nm)	0.000130	ppm	0.000061	46.72	78.489976	Y_R 488.368
Th (288.505 nm)	2.919120	ppm	0.003077	0.11	5103.280000	Y 377.433
Ti (336.122 nm)	0.000336	ppm	0.000106	31.66	-461.887000	Y 377.433
Tl (190.794 nm)	0.001947	ppm	0.000778	39.94	-4.300970	Y 377.433
U (409.013 nm)	0.398775	ppm	0.003830	0.96	1265.220000	Y 377.433
V (292.401 nm)	-0.000217 u	ppm	0.000054	25.03	97.023000	Y 377.433
Zn (206.200 nm)	-0.001048 u	ppm	0.000031	2.95	10.847700	Y 377.433
Zr (343.823 nm)	0.001159	ppm	0.000044	3.81	-107.681000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.006354	22534.751952	0.006211	0.62
Y 377.433	1.002567	647784.638112	0.006702	0.67
Y_R 377.433	1.025860	56473.900000	0.003243	0.32
Y_R 488.368	1.022490	49413.800000	0.000931	0.09
Y_R2 488.368	1.013534	93938.865392	0.001672	0.16
Y_R4	1.016970	43546.100000	0.003544	0.35

Sample Name: ICVH-5717305

Date: 5/23/2019 2:52:52 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001614	ppm	0.000437	27.09	-196.213000	Y 377.433
Al (394.401 nm)	39.687000 o	ppm	0.085737	0.22	473614.000000	Y 377.433
Al H (396.152 nm)	39.429600	ppm	0.084890	0.22	81026.600000	Y_R 377.433
As (188.980 nm)	-0.001991 u	ppm	0.000619	31.07	-6.756680	Y 242.219
B (249.678 nm)	0.000038	ppm	0.000045	> 100.00	-8.768180	Y 242.219
Ba (493.408 nm)	-0.000001 u	ppm	0.000366	> 100.00	1494.110000	Y_R 488.368
Be (234.861 nm)	-0.000519 u	ppm	0.000077	14.79	-402.489000	Y_R 488.368
Bi (223.061 nm)	0.004246	ppm	0.000449	10.58	8.484890	Y 377.433
Ca (315.887 nm)	-0.001825 u	ppm	0.000674	36.92	-53.471432	Y_R 377.433
Cd (214.439 nm)	0.000091	ppm	0.000010	10.57	30.798700	Y 377.433
Co (228.615 nm)	0.000398	ppm	0.000354	88.91	-12.329000	Y 242.219
Cr (205.560 nm)	0.000346	ppm	0.000017	5.02	-4.634230	Y 377.433
Cu (324.754 nm)	0.001903	ppm	0.000599	31.47	1046.190000	Y 377.433
Fe (238.204 nm)	78.773136 o	ppm	0.340775	0.43	194159.617128	Y_R 377.433
Fe H (259.940 nm)	79.442100	ppm	0.274689	0.35	111171.000000	Y_R 377.433
K (766.491 nm)	0.114432	ppm	0.004186	3.66	2095.170000	Y_R2 488.368
Li (670.783 nm)	-0.004645 u	ppm	0.003700	79.66	-2712.360000	Y_R2 488.368
Mg (279.078 nm)	-0.012068 u	ppm	0.001844	15.28	-151.287000	Y 377.433
Mn (257.610 nm)	0.000139	ppm	0.000067	48.07	16.391300	Y 377.433
Mo (202.032 nm)	-0.001081 u	ppm	0.000123	11.37	9.626690	Y 377.433
Na (589.592 nm)	78.073900 o	ppm	0.978992	1.25	57944.300000	Y_R2 488.368
Na H (589.593 nm)	77.186229	ppm	0.243632	0.32	38715.464300	Y_R4
Ni (231.604 nm)	-0.000459 u	ppm	0.000251	54.75	-13.929600	Y 377.433
P (213.618 nm)	3.847970	ppm	0.000248	0.01	5816.690000	Y 242.219
Pb (220.353 nm)	-0.001331 u	ppm	0.000127	9.54	2.433940	Y 242.219
S (181.972 nm)	3.970519	ppm	0.000482	0.01	1791.369502	Y 377.433
Sb (206.834 nm)	0.005294	ppm	0.000998	18.85	8.820680	Y 377.433
Se (196.026 nm)	0.007216	ppm	0.000406	5.63	0.225444	Y 242.219
Si (288.158 nm)	-0.000389 u	ppm	0.000674	> 100.00	505.479000	Y 377.433
Sn (189.925 nm)	0.001836	ppm	0.001554	84.64	5.438090	Y 377.433
Sr (421.552 nm)	0.000107	ppm	0.000007	6.95	75.162578	Y_R 488.368
Th (288.505 nm)	2.906990	ppm	0.007722	0.27	5082.110000	Y 377.433
Ti (336.122 nm)	0.000306	ppm	0.000051	16.70	-465.795000	Y 377.433
Tl (190.794 nm)	0.001588	ppm	0.000913	57.51	-5.164140	Y 377.433
U (409.013 nm)	0.401901	ppm	0.000684	0.17	1275.030000	Y 377.433
V (292.401 nm)	-0.000142 u	ppm	0.000338	> 100.00	99.851900	Y 377.433
Zn (206.200 nm)	-0.000966 u	ppm	0.000152	15.78	11.245500	Y 377.433
Zr (343.823 nm)	0.001330	ppm	0.000188	14.12	-97.856100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.008800	22589.517665	0.000290	0.03
Y 377.433	1.005135	649444.178895	0.000221	0.02
Y_R 377.433	1.018960	56094.100000	0.001174	0.12
Y_R 488.368	1.017810	49187.900000	0.001956	0.19
Y_R2 488.368	0.996118	92324.640841	0.013257	1.33
Y_R4	1.010380	43264.100000	0.001109	0.11

Sample Name: ICV-5717304

Date: 5/23/2019 3:01:52 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.245092	ppm	0.000052	0.02	8347.000000	Y 377.433
Al (394.401 nm)	0.241997	ppm	0.003088	1.28	3081.260000	Y 377.433
Al H (396.152 nm)	0.327836 u	ppm	0.001789	0.55	567.074000	Y_R 377.433
As (188.980 nm)	0.241695	ppm	0.001667	0.69	383.773000	Y 242.219
B (249.678 nm)	0.236770 Q	ppm	0.001029	0.43	1733.340000 Q	Y 242.219
Ba (493.408 nm)	0.246342	ppm	0.000146	0.06	25295.000000	Y_R 488.368
Be (234.861 nm)	0.248023	ppm	0.000578	0.23	24996.600000	Y_R 488.368
Bi (223.061 nm)	0.456750	ppm	0.000156	0.03	1026.550000	Y 377.433
Ca (315.887 nm)	2.460483	ppm	0.002632	0.11	1924.532354	Y_R 377.433
Cd (214.439 nm)	0.249102	ppm	0.000420	0.17	9959.620000	Y 377.433
Co (228.615 nm)	0.246557	ppm	0.000298	0.12	6085.040000	Y 242.219
Cr (205.560 nm)	0.249738	ppm	0.000012	0.00	1761.890000	Y 377.433
Cu (324.754 nm)	0.246045	ppm	0.000478	0.19	11837.300000	Y 377.433
Fe (238.204 nm)	1.212823	ppm	0.002720	0.22	2992.248810	Y_R 377.433
Fe H (259.940 nm)	1.174220 u	ppm	0.009169	0.78	1732.610000	Y_R 377.433
K (766.491 nm)	23.839000	ppm	0.080056	0.34	25642.500000	Y_R2 488.368
Li (670.783 nm)	0.243942	ppm	0.000947	0.39	1616.440000	Y_R2 488.368
Mg (279.078 nm)	9.820450	ppm	0.005963	0.06	34805.600000	Y 377.433
Mn (257.610 nm)	0.249769	ppm	0.000266	0.11	69064.100000	Y 377.433
Mo (202.032 nm)	0.246816	ppm	0.000473	0.19	3164.030000	Y 377.433
Na (589.592 nm)	11.950300	ppm	0.032362	0.27	9012.950000	Y_R2 488.368
Na H (589.593 nm)	11.818236 u	ppm	0.008732	0.07	6205.247564	Y_R4
Ni (231.604 nm)	0.252319	ppm	0.000892	0.35	1399.020000	Y 377.433
P (213.618 nm)	0.027044 Q	ppm	0.001882	6.96	-34.044600 Q	Y 242.219
Pb (220.353 nm)	0.249535	ppm	0.000701	0.28	868.955000	Y 242.219
S (181.972 nm)	0.002476 u	ppm	0.007109	> 100.00	9.751526	Y 377.433
Sb (206.834 nm)	0.259353	ppm	0.004428	1.71	448.940000	Y 377.433
Se (196.026 nm)	0.239934	ppm	0.001298	0.54	400.592000	Y 242.219
Si (288.158 nm)	2.420980	ppm	0.002162	0.09	16477.600000	Y 377.433
Sn (189.925 nm)	0.244771	ppm	0.000266	0.11	429.170000	Y 377.433
Sr (421.552 nm)	0.245798	ppm	0.000933	0.38	35995.983133	Y_R 488.368
Th (288.505 nm)	0.011476	ppm	0.000062	0.54	9.320650	Y 377.433
Ti (336.122 nm)	0.244155	ppm	0.000281	0.12	31248.800000	Y 377.433
Tl (190.794 nm)	0.253802	ppm	0.001037	0.41	613.262000	Y 377.433
U (409.013 nm)	0.006120	ppm	0.007503	> 100.00	-52.340100	Y 377.433
V (292.401 nm)	0.245533	ppm	0.000478	0.19	12768.300000	Y 377.433
Zn (206.200 nm)	0.244469	ppm	0.000986	0.40	1217.340000	Y 377.433
Zr (343.823 nm)	0.245615	ppm	0.000027	0.01	13987.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.029994	23064.113214	0.002962	0.29
Y 377.433	1.026457	663220.768427	0.003045	0.30
Y_R 377.433	1.039440	57221.500000	0.004107	0.40
Y_R 488.368	1.036150	50074.100000	0.002427	0.23
Y_R2 488.368	1.036877	96102.345126	0.007511	0.72
Y_R4	1.017450	43566.500000	0.000814	0.08

Sample Name: ICV-5717304

Date: 5/23/2019 3:05:25 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.244748	ppm	0.000199	0.08	8335.240000	Y 377.433
Al (394.401 nm)	0.241069	ppm	0.002454	1.02	3070.080000	Y 377.433
Al H (396.152 nm)	0.328724 u	ppm	0.008631	2.63	568.788000	Y_R 377.433
As (188.980 nm)	0.238549	ppm	0.000685	0.29	378.761000	Y 242.219
B (249.678 nm)	0.237921	ppm	0.000409	0.17	1741.590000	Y 242.219
Ba (493.408 nm)	0.246465	ppm	0.000134	0.05	25306.900000	Y_R 488.368
Be (234.861 nm)	0.248721	ppm	0.001480	0.59	25067.100000	Y_R 488.368
Bi (223.061 nm)	0.457508	ppm	0.002949	0.64	1028.290000	Y 377.433
Ca (315.887 nm)	2.449743	ppm	0.010398	0.42	1915.861191	Y_R 377.433
Cd (214.439 nm)	0.249339	ppm	0.000015	0.01	9969.110000	Y 377.433
Co (228.615 nm)	0.246573	ppm	0.000168	0.07	6085.400000	Y 242.219
Cr (205.560 nm)	0.249133	ppm	0.000292	0.12	1757.600000	Y 377.433
Cu (324.754 nm)	0.246017	ppm	0.000145	0.06	11835.600000	Y 377.433
Fe (238.204 nm)	1.219765	ppm	0.008038	0.66	3009.359422	Y_R 377.433
Fe H (259.940 nm)	1.176260 u	ppm	0.001935	0.16	1735.450000	Y_R 377.433
K (766.491 nm)	24.233500	ppm	0.076351	0.32	26034.000000	Y_R2 488.368
Li (670.783 nm)	0.249996	ppm	0.001301	0.52	1721.870000	Y_R2 488.368
Mg (279.078 nm)	9.820850	ppm	0.016970	0.17	34807.100000	Y 377.433
Mn (257.610 nm)	0.249626	ppm	0.000329	0.13	69024.700000	Y 377.433
Mo (202.032 nm)	0.247546	ppm	0.000207	0.08	3173.320000	Y 377.433
Na (589.592 nm)	11.996700	ppm	0.017270	0.14	9047.160000	Y_R2 488.368
Na H (589.593 nm)	11.685231 u	ppm	0.047274	0.40	6139.098417	Y_R4
Ni (231.604 nm)	0.250224	ppm	0.000241	0.10	1387.310000	Y 377.433
P (213.618 nm)	0.027870 Q	ppm	0.000967	3.47	-32.695800 Q	Y 242.219
Pb (220.353 nm)	0.249558	ppm	0.001523	0.61	869.011000	Y 242.219
S (181.972 nm)	0.002242	ppm	0.001989	88.74	9.644992	Y 377.433
Sb (206.834 nm)	0.255216	ppm	0.000761	0.30	441.640000	Y 377.433
Se (196.026 nm)	0.237739	ppm	0.000965	0.41	397.023000	Y 242.219
Si (288.158 nm)	2.418260	ppm	0.004164	0.17	16459.600000	Y 377.433
Sn (189.925 nm)	0.243481	ppm	0.002693	1.11	426.920000	Y 377.433
Sr (421.552 nm)	0.245663	ppm	0.000260	0.11	35976.182173	Y_R 488.368
Th (288.505 nm)	0.008874	ppm	0.002030	22.87	4.828190	Y 377.433
Ti (336.122 nm)	0.243735	ppm	0.000564	0.23	31194.100000	Y 377.433
Tl (190.794 nm)	0.250120	ppm	0.000686	0.27	604.336000	Y 377.433
U (409.013 nm)	0.011816	ppm	0.001438	12.17	-34.429600	Y 377.433
V (292.401 nm)	0.245182	ppm	0.000106	0.04	12749.600000	Y 377.433
Zn (206.200 nm)	0.244467	ppm	0.000695	0.28	1217.330000	Y 377.433
Zr (343.823 nm)	0.245036	ppm	0.000513	0.21	13954.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.042273	23339.057742	0.002118	0.20
Y 377.433	1.037267	670205.748028	0.001005	0.10
Y_R 377.433	1.045400	57549.400000	0.003169	0.30
Y_R 488.368	1.043680	50437.900000	0.003245	0.31
Y_R2 488.368	1.038321	96236.244664	0.002462	0.24
Y_R4	1.030770	44137.000000	0.000554	0.05

Sample Name: ICVL-5717307

Date: 5/23/2019 3:15:05 PM Rack:Tube: 3:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008076	ppm	0.000188	2.33	36.237400	Y 377.433
Al (394.401 nm)	0.098789	ppm	0.000841	0.85	1318.700000	Y 377.433
Al H (396.152 nm)	0.224669 u	ppm	0.008549	3.81	242.599000	Y_R 377.433
As (188.980 nm)	0.014383	ppm	0.000071	0.49	21.608600	Y 242.219
B (249.678 nm)	0.092685	ppm	0.000267	0.29	701.310000	Y 242.219
Ba (493.408 nm)	0.009175	ppm	0.000315	3.44	2321.400000	Y_R 488.368
Be (234.861 nm)	0.000941	ppm	0.000012	1.33	88.663800	Y_R 488.368
Bi (223.061 nm)	0.090943	ppm	0.005859	6.44	191.940000	Y 377.433
Ca (315.887 nm)	0.207835	ppm	0.002930	1.41	105.843030	Y_R 377.433
Cd (214.439 nm)	0.005136	ppm	0.000020	0.39	197.769000	Y 377.433
Co (228.615 nm)	0.010691	ppm	0.000198	1.86	242.618000	Y 242.219
Cr (205.560 nm)	0.010139	ppm	0.000599	5.91	65.698400	Y 377.433
Cu (324.754 nm)	0.015552	ppm	0.000541	3.48	1132.550000	Y 377.433
Fe (238.204 nm)	0.103283	ppm	0.002727	2.64	257.501195	Y_R 377.433
Fe H (259.940 nm)	0.054265 u	ppm	0.001406	2.59	166.625000	Y_R 377.433
K (766.491 nm)	2.906260	ppm	0.048716	1.68	4866.140000	Y_R2 488.368
Li (670.783 nm)	0.025825	ppm	0.003794	14.69	-2181.760000	Y_R2 488.368
Mg (279.078 nm)	0.202770	ppm	0.000937	0.46	728.920000	Y 377.433
Mn (257.610 nm)	0.010709	ppm	0.000012	0.11	2940.190000	Y 377.433
Mo (202.032 nm)	0.018916	ppm	0.000020	0.11	264.091000	Y 377.433
Na (589.592 nm)	1.149660	ppm	0.001857	0.16	963.911000	Y_R2 488.368
Na H (589.593 nm)	0.561227 u	ppm	0.003705	0.66	606.669485	Y_R4
Ni (231.604 nm)	0.042864	ppm	0.000404	0.94	228.195000	Y 377.433
P (213.618 nm)	2.787270	ppm	0.000421	0.02	4208.690000	Y 242.219
Pb (220.353 nm)	0.008564	ppm	0.000440	5.13	42.426000	Y 242.219
S (181.972 nm)	0.090728	ppm	0.001140	1.26	48.550152	Y 377.433
Sb (206.834 nm)	0.025685	ppm	0.000717	2.79	37.651600	Y 377.433
Se (196.026 nm)	0.018034	ppm	0.004712	26.13	39.874900	Y 242.219
Si (288.158 nm)	0.477628	ppm	0.001390	0.29	3658.630000	Y 377.433
Sn (189.925 nm)	0.099953	ppm	0.000981	0.98	176.576000	Y 377.433
Sr (421.552 nm)	0.009101	ppm	0.000055	0.61	1378.924738	Y_R 488.368
Th (288.505 nm)	0.014041	ppm	0.000026	0.18	38.541100	Y 377.433
Ti (336.122 nm)	0.009967	ppm	0.000067	0.67	790.943000	Y 377.433
Tl (190.794 nm)	0.014835	ppm	0.001968	13.27	35.935500	Y 377.433
U (409.013 nm)	0.061573	ppm	0.009034	14.67	149.932000	Y 377.433
V (292.401 nm)	0.010096	ppm	0.000071	0.70	349.021000	Y 377.433
Zn (206.200 nm)	0.021405	ppm	0.000108	0.51	110.070000	Y 377.433
Zr (343.823 nm)	0.010118 Q	ppm	0.000285	2.82	408.870000 Q	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.055363	23632.189759	0.005103	0.48
Y 377.433	1.049595	678170.788701	0.004860	0.46
Y_R 377.433	1.059900	58348.100000	0.003382	0.32
Y_R 488.368	1.058020	51131.000000	0.003916	0.37
Y_R2 488.368	1.045193	96873.158354	0.002012	0.19
Y_R4	1.026850	43969.200000	0.003871	0.38

Sample Name: CCVH-5713036

Date: 5/23/2019 3:18:32 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004550	ppm	0.000223	4.89	-96.405800	Y 377.433
Al (394.401 nm)	50.497500 o	ppm	0.085506	0.17	602264.000000	Y 377.433
Al H (396.152 nm)	49.736400	ppm	0.026673	0.05	102269.000000	Y_R 377.433
As (188.980 nm)	0.003002	ppm	0.000444	14.79	2.055250	Y 242.219
B (249.678 nm)	-0.000230 u	ppm	0.000217	94.19	6.644290	Y 242.219
Ba (493.408 nm)	0.001921	ppm	0.000087	4.54	1657.090000	Y_R 488.368
Be (234.861 nm)	0.001140	ppm	0.000025	2.18	-105.835000	Y_R 488.368
Bi (223.061 nm)	0.010899	ppm	0.000081	0.74	18.281200	Y 377.433
Ca (315.887 nm)	-0.012138 u	ppm	0.004476	36.88	-59.181222	Y_R 377.433
Cd (214.439 nm)	0.001466	ppm	0.000039	2.64	72.705300	Y 377.433
Co (228.615 nm)	0.003455	ppm	0.000278	8.04	63.296700	Y 242.219
Cr (205.560 nm)	0.001740	ppm	0.000129	7.41	4.943810	Y 377.433
Cu (324.754 nm)	0.003725	ppm	0.000165	4.43	1528.010000	Y 377.433
Fe (238.204 nm)	49.305844 o	ppm	0.146950	0.30	121529.886719	Y_R 377.433
Fe H (259.940 nm)	49.666100	ppm	0.072071	0.15	69536.400000	Y_R 377.433
K (766.491 nm)	0.207216	ppm	0.019910	9.61	2187.260000	Y_R2 488.368
Li (670.783 nm)	0.003275 u	ppm	0.005231	> 100.00	-2574.440000	Y_R2 488.368
Mg (279.078 nm)	0.038058	ppm	0.000365	0.96	66.717100	Y 377.433
Mn (257.610 nm)	0.000999	ppm	0.000002	0.23	254.273000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000296	> 100.00	24.683900	Y 377.433
Na (589.592 nm)	241.335000 o	ppm	0.462528	0.19	178881.000000	Y_R2 488.368
Na H (589.593 nm)	247.472697	ppm	2.304556	0.93	123405.995519	Y_R4
Ni (231.604 nm)	0.001876	ppm	0.000594	31.69	-0.882112	Y 377.433
P (213.618 nm)	4.889020	ppm	0.031818	0.65	7389.100000	Y 242.219
Pb (220.353 nm)	0.004088	ppm	0.001139	27.86	19.508900	Y 242.219
S (181.972 nm)	4.947969	ppm	0.012941	0.26	2230.456381	Y 377.433
Sb (206.834 nm)	0.008307	ppm	0.000633	7.62	11.502500	Y 377.433
Se (196.026 nm)	0.007416	ppm	0.000265	3.57	8.847890	Y 242.219
Si (288.158 nm)	0.015959	ppm	0.000589	3.69	613.315000	Y 377.433
Sn (189.925 nm)	0.000894	ppm	0.000542	60.65	3.795770	Y 377.433
Sr (421.552 nm)	0.001000	ppm	0.000126	12.61	201.456488	Y_R 488.368
Th (288.505 nm)	4.984370	ppm	0.006746	0.14	8709.330000	Y 377.433
Ti (336.122 nm)	0.001897	ppm	0.000057	3.00	-258.895000	Y 377.433
Tl (190.794 nm)	0.001196	ppm	0.000578	48.30	-2.000230	Y 377.433
U (409.013 nm)	0.550485 Q	ppm	0.006802	1.24	1718.840000 Q	Y 377.433
V (292.401 nm)	0.000775	ppm	0.000143	18.41	363.847000	Y 377.433
Zn (206.200 nm)	0.002887	ppm	0.000375	13.00	25.777500	Y 377.433
Zr (343.823 nm)	0.001382	ppm	0.000006	0.44	-94.805800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.016337	22758.282857	0.002707	0.27
Y 377.433	1.010067	652630.639344	0.004476	0.44
Y_R 377.433	1.028470	56617.500000	0.002264	0.22
Y_R 488.368	1.025690	49568.300000	0.001213	0.12
Y_R2 488.368	1.022303	94751.587277	0.006525	0.64
Y_R4	1.023030	43805.500000	0.010610	1.04

Sample Name: CCV-5717467

Date: 5/23/2019 3:22:13 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.494152	ppm	0.000946	0.19	17079.300000	Y 377.433
Al (394.401 nm)	0.516476	ppm	0.000339	0.07	6425.030000	Y 377.433
Al H (396.152 nm)	0.557906 u	ppm	0.002192	0.39	1159.160000	Y_R 377.433
As (188.980 nm)	0.492527	ppm	0.001278	0.26	783.407000	Y 242.219
B (249.678 nm)	0.489751	ppm	0.002237	0.46	3545.740000	Y 242.219
Ba (493.408 nm)	0.494591	ppm	0.001040	0.21	49342.000000	Y_R 488.368
Be (234.861 nm)	0.488784	ppm	0.001715	0.35	49266.500000	Y_R 488.368
Bi (223.061 nm)	0.965228	ppm	0.000779	0.08	2186.620000	Y 377.433
Ca (315.887 nm)	4.940278	ppm	0.030940	0.63	3926.641364	Y_R 377.433
Cd (214.439 nm)	0.499543	ppm	0.001684	0.34	19980.600000	Y 377.433
Co (228.615 nm)	0.496129	ppm	0.002346	0.47	12267.000000	Y 242.219
Cr (205.560 nm)	0.498428	ppm	0.001205	0.24	3522.340000	Y 377.433
Cu (324.754 nm)	0.496654	ppm	0.000143	0.03	23471.800000	Y 377.433
Fe (238.204 nm)	2.492428	ppm	0.014204	0.57	6146.164070	Y_R 377.433
Fe H (259.940 nm)	2.458310 u	ppm	0.002771	0.11	3528.080000	Y_R 377.433
K (766.491 nm)	48.293800	ppm	0.139381	0.29	49914.600000	Y_R2 488.368
Li (670.783 nm)	0.500379	ppm	0.002535	0.51	6081.940000	Y_R2 488.368
Mg (279.078 nm)	19.869700	ppm	0.030920	0.16	70409.900000	Y 377.433
Mn (257.610 nm)	0.497522	ppm	0.001119	0.22	137592.000000	Y 377.433
Mo (202.032 nm)	0.494104	ppm	0.000746	0.15	6310.680000	Y 377.433
Na (589.592 nm)	24.063100	ppm	0.048373	0.20	18036.200000	Y_R2 488.368
Na H (589.593 nm)	24.599326 u	ppm	0.120136	0.49	12561.813911	Y_R4
Ni (231.604 nm)	0.497646	ppm	0.001833	0.37	2770.340000	Y 377.433
P (213.618 nm)	0.057576	ppm	0.003018	5.24	-59.082500	Y 242.219
Pb (220.353 nm)	0.497211	ppm	0.001892	0.38	1718.590000	Y 242.219
S (181.972 nm)	0.009045	ppm	0.007584	83.85	13.584998	Y 377.433
Sb (206.834 nm)	0.504523	ppm	0.001167	0.23	880.364000	Y 377.433
Se (196.026 nm)	0.492781	ppm	0.003230	0.66	811.572000	Y 242.219
Si (288.158 nm)	4.884880	ppm	0.002656	0.05	32730.300000	Y 377.433
Sn (189.925 nm)	0.496760	ppm	0.000530	0.11	868.691000	Y 377.433
Sr (421.552 nm)	0.494245	ppm	0.000725	0.15	72331.400483	Y_R 488.368
Th (288.505 nm)	0.017788	ppm	0.000067	0.38	-5.193960	Y 377.433
Ti (336.122 nm)	0.492190	ppm	0.000623	0.13	63508.000000	Y 377.433
Tl (190.794 nm)	0.503739	ppm	0.003130	0.62	1217.010000	Y 377.433
U (409.013 nm)	0.017856	ppm	0.004564	25.56	-45.602300	Y 377.433
V (292.401 nm)	0.493922	ppm	0.000237	0.05	25867.100000	Y 377.433
Zn (206.200 nm)	0.500513	ppm	0.002445	0.49	2488.320000	Y 377.433
Zr (343.823 nm)	0.494972	ppm	0.000784	0.16	28365.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045894	23420.154857	0.004701	0.45
Y 377.433	1.042744	673743.978430	0.004372	0.42
Y_R 377.433	1.062440	58487.600000	0.002037	0.19
Y_R 488.368	1.058120	51136.000000	0.001376	0.13
Y_R2 488.368	1.061805	98412.804267	0.011890	1.12
Y_R4	1.050670	44989.000000	0.009905	0.94

Sample Name: ICB

Date: 5/23/2019 3:25:46 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000182	ppm	0.000092	50.39	-239.587000	Y 377.433
Al (394.401 nm)	-0.001835 u	ppm	0.001633	89.01	107.258000	Y 377.433
Al H (396.152 nm)	0.133804 Zu	ppm	0.004929	3.68	50.214100 Z	Y_R 377.433
As (188.980 nm)	-0.000896 u	ppm	0.000282	31.44	-2.733720	Y 242.219
B (249.678 nm)	-0.000300 u	ppm	0.000098	32.70	34.935300	Y 242.219
Ba (493.408 nm)	-0.001239 u	ppm	0.000574	46.30	1312.610000	Y_R 488.368
Be (234.861 nm)	0.000043	ppm	0.000037	87.00	-1.397820	Y_R 488.368
Bi (223.061 nm)	0.000848	ppm	0.000398	46.96	-13.582000	Y 377.433
Ca (315.887 nm)	0.002653 u	ppm	0.004347	> 100.00	-59.832688	Y_R 377.433
Cd (214.439 nm)	0.000058	ppm	0.000003	5.16	-5.474740	Y 377.433
Co (228.615 nm)	0.000326 u	ppm	0.000625	> 100.00	-14.114900	Y 242.219
Cr (205.560 nm)	-0.000143 u	ppm	0.000338	> 100.00	-6.984280	Y 377.433
Cu (324.754 nm)	0.000289 u	ppm	0.000566	> 100.00	425.737000	Y 377.433
Fe (238.204 nm)	0.001271	ppm	0.000838	65.88	6.067284	Y_R 377.433
Fe H (259.940 nm)	-0.055559 u	ppm	0.003794	6.83	13.064400	Y_R 377.433
K (766.491 nm)	-0.039449 u	ppm	0.086577	> 100.00	1942.440000	Y_R2 488.368
Li (670.783 nm)	0.008355	ppm	0.001897	22.71	-2485.980000	Y_R2 488.368
Mg (279.078 nm)	0.000453 u	ppm	0.001428	> 100.00	13.427100	Y 377.433
Mn (257.610 nm)	0.000069	ppm	0.000020	29.38	-3.007860	Y 377.433
Mo (202.032 nm)	-0.000297 u	ppm	0.000530	> 100.00	19.604500	Y 377.433
Na (589.592 nm)	0.082242	ppm	0.001370	1.67	171.127000	Y_R2 488.368
Na H (589.593 nm)	-0.459644 u	ppm	0.023191	5.05	98.947903	Y_R4
Ni (231.604 nm)	-0.000425 u	ppm	0.000183	42.97	-13.745500	Y 377.433
P (213.618 nm)	-0.002300 u	ppm	0.002779	> 100.00	-8.204280	Y 242.219
Pb (220.353 nm)	-0.001425 u	ppm	0.002435	> 100.00	8.017820	Y 242.219
S (181.972 nm)	-0.010313 u	ppm	0.003156	30.61	3.122888	Y 377.433
Sb (206.834 nm)	0.004024	ppm	0.000336	8.34	-0.434829	Y 377.433
Se (196.026 nm)	-0.001304 u	ppm	0.000012	0.91	8.456610	Y 242.219
Si (288.158 nm)	-0.003124 u	ppm	0.001013	32.42	487.435000	Y 377.433
Sn (189.925 nm)	0.001020	ppm	0.000013	1.24	4.015300	Y 377.433
Sr (421.552 nm)	0.000148	ppm	0.000024	15.88	69.606916	Y_R 488.368
Th (288.505 nm)	0.001424 u	ppm	0.002393	> 100.00	16.999700	Y 377.433
Ti (336.122 nm)	0.000189	ppm	0.000005	2.74	-481.040000	Y 377.433
Tl (190.794 nm)	-0.000831 u	ppm	0.000348	41.84	-1.893760	Y 377.433
U (409.013 nm)	0.005164	ppm	0.005863	> 100.00	-25.587100	Y 377.433
V (292.401 nm)	0.000329	ppm	0.000126	38.29	-162.593000	Y 377.433
Zn (206.200 nm)	-0.000178 u	ppm	0.000189	> 100.00	2.931550	Y 377.433
Zr (343.823 nm)	0.000221	ppm	0.000172	77.93	-161.805000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.060710	23751.922744	0.000785	0.07
Y 377.433	1.056203	682440.541383	0.001568	0.15
Y_R 377.433	1.068360	58813.600000	0.001725	0.16
Y_R 488.368	1.068350	51630.300000	0.000884	0.08
Y_R2 488.368	1.062731	98498.600137	0.001148	0.11
Y_R4	1.041700	44604.900000	0.004060	0.39

Sample Name: CRI-5717307

Date: 5/23/2019 3:28:57 PM
Rack:Tube: 3:10

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008116	ppm	0.000027	0.34	37.671400	Y 377.433
Al (394.401 nm)	0.102218	ppm	0.000032	0.03	1359.630000	Y 377.433
Al H (396.152 nm)	0.234519 u	ppm	0.011428	4.87	262.855000	Y_R 377.433
As (188.980 nm)	0.014698	ppm	0.000186	1.26	22.110100	Y 242.219
B (249.678 nm)	0.094146	ppm	0.001399	1.49	711.779000	Y 242.219
Ba (493.408 nm)	0.008882	ppm	0.000109	1.23	2293.050000	Y_R 488.368
Be (234.861 nm)	0.001005	ppm	0.000018	1.77	95.102200	Y_R 488.368
Bi (223.061 nm)	0.089405	ppm	0.001876	2.10	188.434000	Y 377.433
Ca (315.887 nm)	0.218126	ppm	0.008905	4.08	114.151765	Y_R 377.433
Cd (214.439 nm)	0.005174	ppm	0.000039	0.75	199.271000	Y 377.433
Co (228.615 nm)	0.010609	ppm	0.000304	2.87	240.592000	Y 242.219
Cr (205.560 nm)	0.010318	ppm	0.000206	2.00	66.965700	Y 377.433
Cu (324.754 nm)	0.016165	ppm	0.000513	3.17	1160.810000	Y 377.433
Fe (238.204 nm)	0.112306	ppm	0.000376	0.34	279.740573	Y_R 377.433
Fe H (259.940 nm)	0.060973 u	ppm	0.001221	2.00	176.005000	Y_R 377.433
K (766.491 nm)	2.856280	ppm	0.147646	5.17	4816.540000	Y_R2 488.368
Li (670.783 nm)	0.026437 Q	ppm	0.000673	2.55	-2171.100000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202460	ppm	0.001020	0.50	727.878000	Y 377.433
Mn (257.610 nm)	0.010870	ppm	0.000037	0.34	2984.480000	Y 377.433
Mo (202.032 nm)	0.019039	ppm	0.000125	0.65	265.655000	Y 377.433
Na (589.592 nm)	1.079800	ppm	0.009298	0.86	912.073000	Y_R2 488.368
Na H (589.593 nm)	0.595675 u	ppm	0.024031	4.03	623.801816	Y_R4
Ni (231.604 nm)	0.042980	ppm	0.000571	1.33	228.846000	Y 377.433
P (213.618 nm)	2.798430	ppm	0.008025	0.29	4225.530000	Y 242.219
Pb (220.353 nm)	0.008141	ppm	0.000576	7.08	40.958700	Y 242.219
S (181.972 nm)	0.092816	ppm	0.000086	0.09	49.488768	Y 377.433
Sb (206.834 nm)	0.021408	ppm	0.000479	2.24	30.097100	Y 377.433
Se (196.026 nm)	0.017627	ppm	0.001271	7.21	39.212300	Y 242.219
Si (288.158 nm)	0.480552	ppm	0.001840	0.38	3677.920000	Y 377.433
Sn (189.925 nm)	0.099316	ppm	0.001782	1.79	175.465000	Y 377.433
Sr (421.552 nm)	0.008975	ppm	0.000062	0.69	1360.519840	Y_R 488.368
Th (288.505 nm)	0.011169 Q	ppm	0.004663	41.75	33.493900 Q	Y 377.433
Ti (336.122 nm)	0.010167	ppm	0.000158	1.55	816.929000	Y 377.433
Tl (190.794 nm)	0.017036	ppm	0.000969	5.69	41.265200	Y 377.433
U (409.013 nm)	0.060580	ppm	0.004165	6.88	146.797000	Y 377.433
V (292.401 nm)	0.010205	ppm	0.000062	0.61	354.890000	Y 377.433
Zn (206.200 nm)	0.025518 Q	ppm	0.000768	3.01	130.483000 Q	Y 377.433
Zr (343.823 nm)	0.010215 Q	ppm	0.000058	0.57	414.456000 Q	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081904	24226.505331	0.000728	0.07
Y 377.433	1.077389	696129.636233	0.001094	0.10
Y_R 377.433	1.086360	59804.500000	0.004495	0.41
Y_R 488.368	1.084280	52400.200000	0.003461	0.32
Y_R2 488.368	1.081894	100274.747799	0.001694	0.16
Y_R4	1.057550	45283.500000	0.000992	0.09

Sample Name: ICSA-5714842

Date: 5/23/2019 3:32:25 PM
Rack:Tube: 3:11

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001877	ppm	0.000587	31.25	-182.317000	Y 377.433
Al (394.401 nm)	508.791000 o	ppm	0.091856	0.02	6078870.000000	Y 377.433
Al H (396.152 nm)	511.430000	ppm	1.786630	0.35	1053610.000000	Y_R 377.433
As (188.980 nm)	-0.002549 u	ppm	0.001659	65.09	-10.839700	Y 242.219
B (249.678 nm)	0.012515	ppm	0.001342	10.72	16.020300	Y 242.219
Ba (493.408 nm)	0.000533	ppm	0.000063	11.82	1632.120000	Y_R 488.368
Be (234.861 nm)	-0.000801 Ku	ppm	0.000156	19.44	-913.682000 K	Y_R 488.368
Bi (223.061 nm)	0.007670	ppm	0.002367	30.86	36.357700	Y 377.433
Ca (315.887 nm)	480.792165	ppm	0.740179	0.15	388230.056919	Y_R 377.433
Cd (214.439 nm)	0.000849	ppm	0.000052	6.16	110.147000	Y 377.433
Co (228.615 nm)	-0.000340 u	ppm	0.000337	99.23	-30.541800	Y 242.219
Cr (205.560 nm)	0.005285 K	ppm	0.001608	30.43	16.965700 K	Y 377.433
Cu (324.754 nm)	-0.001792 u	ppm	0.000126	7.03	168.997000	Y 377.433
Fe (238.204 nm)	189.594112 o	ppm	0.157334	0.08	467306.454845	Y_R 377.433
Fe H (259.940 nm)	192.568000	ppm	0.253925	0.13	269348.000000	Y_R 377.433
K (766.491 nm)	0.088232	ppm	0.012526	14.20	2069.160000	Y_R2 488.368
Li (670.783 nm)	0.000172 u	ppm	0.001018	> 100.00	-2628.470000	Y_R2 488.368
Mg (279.078 nm)	502.792000	ppm	0.235411	0.05	1781220.000000	Y 377.433
Mn (257.610 nm)	0.000627	ppm	0.000019	2.96	151.429000	Y 377.433
Mo (202.032 nm)	0.000125 u	ppm	0.000374	> 100.00	24.978000	Y 377.433
Na (589.592 nm)	0.295399	ppm	0.031971	10.82	329.508000	Y_R2 488.368
Na H (589.593 nm)	0.479125 u	ppm	0.023836	4.97	565.836683	Y_R4
Ni (231.604 nm)	-0.007865 Ku	ppm	0.000450	5.73	-55.317200 K	Y 377.433
P (213.618 nm)	0.013913	ppm	0.004227	30.38	18.513300	Y 242.219
Pb (220.353 nm)	0.005054 K	ppm	0.003497	69.20	-60.877100 K	Y 242.219
S (181.972 nm)	-0.004440 u	ppm	0.012057	> 100.00	28.855081	Y 377.433
Sb (206.834 nm)	-0.002200 u	ppm	0.002056	93.47	5.452860	Y 377.433
Se (196.026 nm)	0.006207	ppm	0.005537	89.22	-32.358400	Y 242.219
Si (288.158 nm)	0.034103	ppm	0.001865	5.47	732.998000	Y 377.433
Sn (189.925 nm)	0.001340	ppm	0.000619	46.18	4.573290	Y 377.433
Sr (421.552 nm)	0.007316 K	ppm	0.000213	2.92	1145.794955 K	Y_R 488.368
Th (288.505 nm)	0.013386 K	ppm	0.001349	10.08	10.519400 K	Y 377.433
Ti (336.122 nm)	-0.001147 u	ppm	0.000256	22.29	1000.050000	Y 377.433
Tl (190.794 nm)	0.013177 K	ppm	0.000243	1.84	1.245450 K	Y 377.433
U (409.013 nm)	0.049998	ppm	0.008527	17.05	190.440000	Y 377.433
V (292.401 nm)	0.001509	ppm	0.000347	23.02	-108.671000	Y 377.433
Zn (206.200 nm)	-0.002265 u	ppm	0.000611	26.99	21.932500	Y 377.433
Zr (343.823 nm)	0.003460	ppm	0.000176	5.10	24.961400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.951323	21302.478076	0.000262	0.03
Y 377.433	0.955193	617175.528393	0.001069	0.11
Y_R 377.433	1.018780	56084.400000	0.003669	0.36
Y_R 488.368	1.016380	49118.700000	0.007487	0.74
Y_R2 488.368	1.004310	93083.909608	0.000784	0.08
Y_R4	1.000360	42834.800000	0.001015	0.10

Sample Name: ICSAB-5707812

Date: 5/23/2019 3:36:14 PM Rack:Tube: 3:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.136130	ppm	0.001355	0.12	39594.200000	Y 377.433
Al (394.401 nm)	521.091000 o	ppm	0.096041	0.02	6225590.000000	Y 377.433
Al H (396.152 nm)	525.790000	ppm	0.278814	0.05	1083700.000000	Y_R 377.433
As (188.980 nm)	1.065690	ppm	0.002933	0.28	1691.130000	Y 242.219
B (249.678 nm)	10.790400	ppm	0.004023	0.04	77259.900000	Y 242.219
Ba (493.408 nm)	1.050390	ppm	0.000578	0.06	103328.000000	Y_R 488.368
Be (234.861 nm)	0.515539	ppm	0.004170	0.81	51125.800000	Y_R 488.368
Bi (223.061 nm)	0.992504	ppm	0.008099	0.82	2283.600000	Y 377.433
Ca (315.887 nm)	492.742413	ppm	0.157979	0.03	397881.642924	Y_R 377.433
Cd (214.439 nm)	0.991460	ppm	0.001545	0.16	39747.900000	Y 377.433
Co (228.615 nm)	0.969066	ppm	0.000874	0.09	23984.400000	Y 242.219
Cr (205.560 nm)	1.017810	ppm	0.001935	0.19	7184.760000	Y 377.433
Cu (324.754 nm)	1.074710	ppm	0.001722	0.16	50536.400000	Y 377.433
Fe (238.204 nm)	194.713716 o	ppm	0.225526	0.12	479925.037706	Y_R 377.433
Fe H (259.940 nm)	197.655000	ppm	0.173821	0.09	276462.000000	Y_R 377.433
K (766.491 nm)	11.194100	ppm	0.082632	0.74	13092.000000	Y_R2 488.368
Li (670.783 nm)	1.088400	ppm	0.005993	0.55	16321.500000	Y_R2 488.368
Mg (279.078 nm)	517.215000	ppm	0.711421	0.14	1832310.000000	Y 377.433
Mn (257.610 nm)	1.017570	ppm	0.001171	0.12	281438.000000	Y 377.433
Mo (202.032 nm)	1.002510	ppm	0.001723	0.17	12780.000000	Y 377.433
Na (589.592 nm)	10.426900	ppm	0.017182	0.16	8048.690000	Y_R2 488.368
Na H (589.593 nm)	12.014677 Gu	ppm	0.092141	0.77	6302.945598 G	Y_R4
Ni (231.604 nm)	0.958384	ppm	0.001972	0.21	5345.760000	Y 377.433
P (213.618 nm)	10.502600	ppm	0.003655	0.03	15585.100000	Y 242.219
Pb (220.353 nm)	0.997898	ppm	0.002092	0.21	3342.500000	Y 242.219
S (181.972 nm)	10.759634 G	ppm	0.021955	0.20	4867.911859 G	Y 377.433
Sb (206.834 nm)	1.034370	ppm	0.005338	0.52	1829.770000	Y 377.433
Se (196.026 nm)	1.041180	ppm	0.000576	0.06	1649.950000	Y 242.219
Si (288.158 nm)	10.394400	ppm	0.013298	0.13	69072.600000	Y 377.433
Sn (189.925 nm)	0.977730	ppm	0.001289	0.13	1707.610000	Y 377.433
Sr (421.552 nm)	1.052791	ppm	0.001210	0.11	154046.954462	Y_R 488.368
Th (288.505 nm)	2.093560	ppm	0.004089	0.20	3539.290000	Y 377.433
Ti (336.122 nm)	1.023310	ppm	0.000021	0.00	134245.000000	Y 377.433
Tl (190.794 nm)	0.998300	ppm	0.000072	0.01	2380.820000	Y 377.433
U (409.013 nm)	0.079719	ppm	0.000746	0.94	164.376000	Y 377.433
V (292.401 nm)	1.025870	ppm	0.001602	0.16	54133.800000	Y 377.433
Zn (206.200 nm)	0.966902	ppm	0.002872	0.30	4832.840000	Y 377.433
Zr (343.823 nm)	0.987060	ppm	0.000069	0.01	56739.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.951775	21312.601371	0.001999	0.21
Y 377.433	0.955348	617275.554771	0.002476	0.26
Y_R 377.433	1.016850	55977.900000	0.005145	0.51
Y_R 488.368	1.009250	48773.800000	0.006943	0.69
Y_R2 488.368	1.007961	93422.326168	0.003214	0.32
Y_R4	1.008170	43169.100000	0.011523	1.14

Sample Name: LRA-5681702

Date: 5/23/2019 3:40:11 PM Rack:Tube: 3:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.015723 u	ppm	0.000106	0.67	-4770.710000	Y 377.433
Al (394.401 nm)	-0.175719 u	ppm	0.000891	0.51	602.270000	Y 377.433
Al H (396.152 nm)	-1.781570 u	ppm	0.001835	0.10	545.437000	Y_R 377.433
As (188.980 nm)	10.056100	ppm	0.001284	0.01	16008.000000	Y 242.219
B (249.678 nm)	10.283800	ppm	0.027259	0.27	73460.000000	Y 242.219
Ba (493.408 nm)	12.434400	ppm	0.050539	0.41	1206240.000000	Y_R 488.368
Be (234.861 nm)	-0.002413 u	ppm	0.000346	14.35	-2361.210000	Y_R 488.368
Bi (223.061 nm)	-0.024622 u	ppm	0.002128	8.64	16.108700	Y 377.433
Ca (315.887 nm)	0.019200	ppm	0.000281	1.46	-46.411165	Y_R 377.433
Cd (214.439 nm)	2.022840	ppm	0.005451	0.27	81142.600000	Y 377.433
Co (228.615 nm)	5.221560	ppm	0.007433	0.14	129547.000000	Y 242.219
Cr (205.560 nm)	10.090100	ppm	0.009668	0.10	71454.500000	Y 377.433
Cu (324.754 nm)	10.502500	ppm	0.055188	0.53	488056.000000	Y 377.433
Fe (238.204 nm)	484.452978 o	ppm	0.877640	0.18	1194062.070164	Y_R 377.433
Fe H (259.940 nm)	490.557000	ppm	0.689998	0.14	686012.000000	Y_R 377.433
K (766.491 nm)	-0.169863 u	ppm	0.050865	29.94	1813.000000	Y_R2 488.368
Li (670.783 nm)	0.005915	ppm	0.000890	15.05	-2528.460000	Y_R2 488.368
Mg (279.078 nm)	0.005335	ppm	0.002288	42.88	-663.074000	Y 377.433
Mn (257.610 nm)	9.972570	ppm	0.011917	0.12	2758390.000000	Y 377.433
Mo (202.032 nm)	4.999250	ppm	0.007120	0.14	63636.900000	Y 377.433
Na (589.592 nm)	-6.140860 u	ppm	0.006993	0.11	-1890.710000	Y_R2 488.368
Na H (589.593 nm)	6.471723 u	ppm	0.099305	1.53	3546.204715	Y_R4
Ni (231.604 nm)	10.310500	ppm	0.025562	0.25	57614.800000	Y 377.433
P (213.618 nm)	1.008160	ppm	0.007815	0.78	-1259.210000	Y 242.219
Pb (220.353 nm)	10.520500	ppm	0.013650	0.13	36122.400000	Y 242.219
S (181.972 nm)	-0.017851 u	ppm	0.004261	23.87	30.453451	Y 377.433
Sb (206.834 nm)	0.043827	ppm	0.001542	3.52	111.175000	Y 377.433
Se (196.026 nm)	4.995440	ppm	0.017539	0.35	8009.450000	Y 242.219
Si (288.158 nm)	49.237500	ppm	0.055497	0.11	325294.000000	Y 377.433
Sn (189.925 nm)	0.000332 u	ppm	0.000874	> 100.00	2.816290	Y 377.433
Sr (421.552 nm)	10.293918	ppm	0.049061	0.48	1505601.106425	Y_R 488.368
Th (288.505 nm)	0.197388	ppm	0.000226	0.11	-598.014000	Y 377.433
Ti (336.122 nm)	9.843660	ppm	0.007813	0.08	1279420.000000	Y 377.433
Tl (190.794 nm)	5.229910	ppm	0.012596	0.24	12553.700000	Y 377.433
U (409.013 nm)	-0.015804 u	ppm	0.007894	49.95	261.229000	Y 377.433
V (292.401 nm)	9.909240	ppm	0.004206	0.04	522719.000000	Y 377.433
Zn (206.200 nm)	9.677210	ppm	0.020196	0.21	48108.200000	Y 377.433
Zr (343.823 nm)	0.011886	ppm	0.000064	0.54	510.836000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043494	23366.406165	0.004433	0.42
Y 377.433	1.064526	687818.281971	0.004958	0.47
Y_R 377.433	1.084470	59700.500000	0.003590	0.33
Y_R 488.368	1.079070	52148.100000	0.005700	0.53
Y_R2 488.368	1.078267	99938.555849	0.000587	0.05
Y_R4	1.052980	45088.200000	0.007559	0.72

Sample Name: CCVH-5713036

Date: 5/23/2019 3:44:02 PM
Rack:Tube: S1:1

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004256	ppm	0.000044	1.02	-107.113000	Y 377.433
Al (394.401 nm)	50.507500 o	ppm	0.008552	0.02	602381.000000	Y 377.433
Al H (396.152 nm)	49.859900	ppm	0.031229	0.06	102523.000000	Y_R 377.433
As (188.980 nm)	0.001009 u	ppm	0.001908	> 100.00	-1.124670	Y 242.219
B (249.678 nm)	0.011181	ppm	0.000954	8.53	88.346300	Y 242.219
Ba (493.408 nm)	0.002139	ppm	0.000069	3.22	1678.350000	Y_R 488.368
Be (234.861 nm)	0.001164	ppm	0.000033	2.80	-104.032000	Y_R 488.368
Bi (223.061 nm)	0.012042	ppm	0.002133	17.71	20.913400	Y 377.433
Ca (315.887 nm)	-0.004242 u	ppm	0.000341	8.03	-52.775352	Y_R 377.433
Cd (214.439 nm)	0.001465	ppm	0.000021	1.42	72.719200	Y 377.433
Co (228.615 nm)	0.003796	ppm	0.000188	4.96	71.749600	Y 242.219
Cr (205.560 nm)	0.002436	ppm	0.000233	9.57	9.866220	Y 377.433
Cu (324.754 nm)	0.003871	ppm	0.000125	3.23	1536.810000	Y 377.433
Fe (238.204 nm)	49.470601 o	ppm	0.064608	0.13	121935.971935	Y_R 377.433
Fe H (259.940 nm)	49.746700	ppm	0.113716	0.23	69649.000000	Y_R 377.433
K (766.491 nm)	0.132086	ppm	0.005105	3.86	2112.690000	Y_R2 488.368
Li (670.783 nm)	0.005920	ppm	0.006484	> 100.00	-2528.380000	Y_R2 488.368
Mg (279.078 nm)	0.038479	ppm	0.000180	0.47	68.012600	Y 377.433
Mn (257.610 nm)	0.001353	ppm	0.000100	7.40	352.127000	Y 377.433
Mo (202.032 nm)	0.001401	ppm	0.000019	1.36	41.210600	Y 377.433
Na (589.592 nm)	240.054000 o	ppm	0.548931	0.23	177933.000000	Y_R2 488.368
Na H (589.593 nm)	251.350066	ppm	1.473054	0.59	125334.371948	Y_R4
Ni (231.604 nm)	0.003275	ppm	0.001578	48.19	6.938740	Y 377.433
P (213.618 nm)	4.908220	ppm	0.009614	0.20	7418.000000	Y 242.219
Pb (220.353 nm)	0.005902	ppm	0.002842	48.16	25.717500	Y 242.219
S (181.972 nm)	4.991616	ppm	0.006559	0.13	2250.064314	Y 377.433
Sb (206.834 nm)	0.008559	ppm	0.001313	15.34	11.953600	Y 377.433
Se (196.026 nm)	0.006284	ppm	0.000467	7.43	6.971250	Y 242.219
Si (288.158 nm)	0.028364	ppm	0.003049	10.75	695.137000	Y 377.433
Sn (189.925 nm)	0.001273	ppm	0.000518	40.67	4.457170	Y 377.433
Sr (421.552 nm)	0.001298	ppm	0.000109	8.38	244.990280	Y_R 488.368
Th (288.505 nm)	5.003170	ppm	0.002064	0.04	8742.020000	Y 377.433
Ti (336.122 nm)	0.002321	ppm	0.000159	6.84	-203.833000	Y 377.433
Tl (190.794 nm)	0.004007	ppm	0.000113	2.82	4.787120	Y 377.433
U (409.013 nm)	0.548451 Q	ppm	0.006529	1.19	1712.570000 Q	Y 377.433
V (292.401 nm)	0.001709	ppm	0.000090	5.24	414.278000	Y 377.433
Zn (206.200 nm)	0.003335	ppm	0.001299	38.95	28.021100	Y 377.433
Zr (343.823 nm)	0.001386	ppm	0.000191	13.76	-94.615500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.029660	23056.631947	0.000352	0.03
Y 377.433	1.025601	662668.028919	0.000457	0.04
Y_R 377.433	1.054230	58035.600000	0.003013	0.29
Y_R 488.368	1.050060	50746.200000	0.001675	0.16
Y_R2 488.368	1.037456	96156.002686	0.000694	0.07
Y_R4	1.036290	44373.500000	0.009800	0.95

Sample Name: CCV-5717467

Date: 5/23/2019 3:48:08 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.492317	ppm	0.000987	0.20	17014.600000	Y 377.433
Al (394.401 nm)	0.511004	ppm	0.000338	0.07	6362.290000	Y 377.433
Al H (396.152 nm)	0.562757 u	ppm	0.006126	1.09	1168.690000	Y_R 377.433
As (188.980 nm)	0.491738	ppm	0.000807	0.16	782.151000	Y 242.219
B (249.678 nm)	0.496692	ppm	0.000203	0.04	3595.500000	Y 242.219
Ba (493.408 nm)	0.493477	ppm	0.000597	0.12	49234.100000	Y_R 488.368
Be (234.861 nm)	0.486649	ppm	0.000685	0.14	49051.400000	Y_R 488.368
Bi (223.061 nm)	0.963350	ppm	0.002411	0.25	2182.340000	Y 377.433
Ca (315.887 nm)	4.967750	ppm	0.000023	0.00	3948.819319	Y_R 377.433
Cd (214.439 nm)	0.499343	ppm	0.001013	0.20	19972.600000	Y 377.433
Co (228.615 nm)	0.494776	ppm	0.000598	0.12	12233.600000	Y 242.219
Cr (205.560 nm)	0.494560	ppm	0.002420	0.49	3494.930000	Y 377.433
Cu (324.754 nm)	0.495397	ppm	0.001401	0.28	23412.000000	Y 377.433
Fe (238.204 nm)	2.488550	ppm	0.002985	0.12	6136.606119	Y_R 377.433
Fe H (259.940 nm)	2.450130 u	ppm	0.000800	0.03	3516.640000	Y_R 377.433
K (766.491 nm)	48.036700	ppm	0.134800	0.28	49659.500000	Y_R2 488.368
Li (670.783 nm)	0.493825	ppm	0.001344	0.27	5967.810000	Y_R2 488.368
Mg (279.078 nm)	19.881500	ppm	0.022126	0.11	70451.400000	Y 377.433
Mn (257.610 nm)	0.497903	ppm	0.000532	0.11	137698.000000	Y 377.433
Mo (202.032 nm)	0.494933	ppm	0.000411	0.08	6321.220000	Y 377.433
Na (589.592 nm)	23.901300	ppm	0.020578	0.09	17916.100000	Y_R2 488.368
Na H (589.593 nm)	25.396814 u	ppm	0.133068	0.52	12958.437918	Y_R4
Ni (231.604 nm)	0.497971	ppm	0.000247	0.05	2772.150000	Y 377.433
P (213.618 nm)	0.055131	ppm	0.001079	1.96	-62.610000	Y 242.219
Pb (220.353 nm)	0.495989	ppm	0.000410	0.08	1714.430000	Y 242.219
S (181.972 nm)	0.014628	ppm	0.005256	35.93	16.088583	Y 377.433
Sb (206.834 nm)	0.500978	ppm	0.003481	0.69	874.109000	Y 377.433
Se (196.026 nm)	0.492241	ppm	0.000893	0.18	810.695000	Y 242.219
Si (288.158 nm)	4.906940	ppm	0.000921	0.02	32875.800000	Y 377.433
Sn (189.925 nm)	0.495258	ppm	0.001675	0.34	866.072000	Y 377.433
Sr (421.552 nm)	0.494531	ppm	0.000116	0.02	72373.322408	Y_R 488.368
Th (288.505 nm)	0.014874	ppm	0.004789	32.19	-10.062600	Y 377.433
Ti (336.122 nm)	0.491910	ppm	0.000083	0.02	63471.600000	Y 377.433
Tl (190.794 nm)	0.504074	ppm	0.002932	0.58	1217.810000	Y 377.433
U (409.013 nm)	0.024595	ppm	0.003389	13.78	-24.325100	Y 377.433
V (292.401 nm)	0.493422	ppm	0.000979	0.20	25839.400000	Y 377.433
Zn (206.200 nm)	0.500231	ppm	0.001726	0.34	2486.920000	Y 377.433
Zr (343.823 nm)	0.494358	ppm	0.000197	0.04	28330.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.051079	23536.251506	0.001209	0.11
Y 377.433	1.046224	675992.588564	0.001028	0.10
Y_R 377.433	1.066890	58732.700000	0.001789	0.17
Y_R 488.368	1.063840	51412.100000	0.002392	0.22
Y_R2 488.368	1.046637	97006.934471	0.005802	0.55
Y_R4	1.044000	44703.500000	0.003342	0.32

Sample Name: CCB

Date: 5/23/2019 3:51:41 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000093 u	ppm	0.000072	77.06	-249.391000	Y 377.433
Al (394.401 nm)	-0.002380 u	ppm	0.000559	23.48	102.938000	Y 377.433
Al H (396.152 nm)	0.124411 Zu	ppm	0.003647	2.93	30.832500 Z	Y_R 377.433
As (188.980 nm)	0.000353 u	ppm	0.004835	> 100.00	-0.742225	Y 242.219
B (249.678 nm)	0.001684	ppm	0.000930	55.22	49.156400	Y 242.219
Ba (493.408 nm)	-0.001351 u	ppm	0.000458	33.89	1301.780000	Y_R 488.368
Be (234.861 nm)	0.000055	ppm	0.000049	89.11	-0.170330	Y_R 488.368
Bi (223.061 nm)	0.000227 u	ppm	0.000921	> 100.00	-14.997600	Y 377.433
Ca (315.887 nm)	0.003110 u	ppm	0.005127	> 100.00	-59.465604	Y_R 377.433
Cd (214.439 nm)	0.000084	ppm	0.000044	51.72	-4.414160	Y 377.433
Co (228.615 nm)	-0.000066 u	ppm	0.000002	2.85	-23.791600	Y 242.219
Cr (205.560 nm)	-0.000197 u	ppm	0.000143	72.26	-7.363640	Y 377.433
Cu (324.754 nm)	0.000399	ppm	0.000043	10.75	429.549000	Y 377.433
Fe (238.204 nm)	0.001218 u	ppm	0.002194	> 100.00	5.937206	Y_R 377.433
Fe H (259.940 nm)	-0.050228 u	ppm	0.001715	3.42	20.518200	Y_R 377.433
K (766.491 nm)	-0.035849 u	ppm	0.028225	78.73	1946.010000	Y_R2 488.368
Li (670.783 nm)	0.004795	ppm	0.000293	6.11	-2547.960000	Y_R2 488.368
Mg (279.078 nm)	0.002046	ppm	0.001446	70.70	18.926800	Y 377.433
Mn (257.610 nm)	0.000084	ppm	0.000008	9.12	1.259850	Y 377.433
Mo (202.032 nm)	-0.000639 u	ppm	0.000404	63.20	15.257900	Y 377.433
Na (589.592 nm)	0.079278	ppm	0.001670	2.11	168.895000	Y_R2 488.368
Na H (589.593 nm)	-0.015917 u	ppm	0.029827	> 100.00	319.631706	Y_R4
Ni (231.604 nm)	-0.001016 u	ppm	0.000209	20.53	-17.042300	Y 377.433
P (213.618 nm)	-0.003318 u	ppm	0.000396	11.94	-9.718300	Y 242.219
Pb (220.353 nm)	-0.001106 u	ppm	0.000851	76.97	9.137730	Y 242.219
S (181.972 nm)	-0.003998 u	ppm	0.007290	> 100.00	5.959736	Y 377.433
Sb (206.834 nm)	0.005709	ppm	0.000355	6.21	2.536110	Y 377.433
Se (196.026 nm)	-0.002198 u	ppm	0.000542	24.64	7.003270	Y 242.219
Si (288.158 nm)	-0.001042 u	ppm	0.000568	54.54	501.168000	Y 377.433
Sn (189.925 nm)	-0.000165 u	ppm	0.000741	> 100.00	1.948030	Y 377.433
Sr (421.552 nm)	0.000024 u	ppm	0.000118	> 100.00	51.483460	Y_R 488.368
Th (288.505 nm)	-0.002170 u	ppm	0.000623	28.70	10.760900	Y 377.433
Ti (336.122 nm)	0.000444	ppm	0.000032	7.32	-447.921000	Y 377.433
Tl (190.794 nm)	0.001566	ppm	0.000669	42.70	3.911890	Y 377.433
U (409.013 nm)	0.011157	ppm	0.010632	95.29	-6.844160	Y 377.433
V (292.401 nm)	0.000151 u	ppm	0.000305	> 100.00	-172.628000	Y 377.433
Zn (206.200 nm)	-0.000731 u	ppm	0.000094	12.81	0.190286	Y 377.433
Zr (343.823 nm)	0.000224	ppm	0.000032	14.27	-161.588000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071719	23998.435164	0.000972	0.09
Y 377.433	1.064925	688076.283049	0.002588	0.24
Y_R 377.433	1.072800	59058.300000	0.002676	0.25
Y_R 488.368	1.071280	51771.700000	0.002050	0.19
Y_R2 488.368	1.063578	98577.147240	0.000389	0.04
Y_R4	1.045040	44748.100000	0.003248	0.31

Sample Name: CCVL-5717307

Date: 5/23/2019 3:54:51 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007985	ppm	0.000302	3.78	33.012900	Y 377.433
Al (394.401 nm)	0.099357	ppm	0.001123	1.13	1323.800000	Y 377.433
Al H (396.152 nm)	0.231142 u	ppm	0.001301	0.56	255.886000	Y_R 377.433
As (188.980 nm)	0.013725	ppm	0.001073	7.82	20.560200	Y 242.219
B (249.678 nm)	0.096267	ppm	0.000679	0.71	726.988000	Y 242.219
Ba (493.408 nm)	0.009020	ppm	0.000256	2.84	2306.410000	Y_R 488.368
Be (234.861 nm)	0.001041	ppm	0.000044	4.25	98.777400	Y_R 488.368
Bi (223.061 nm)	0.089825	ppm	0.000670	0.75	189.389000	Y 377.433
Ca (315.887 nm)	0.218612	ppm	0.008651	3.96	114.543161	Y_R 377.433
Cd (214.439 nm)	0.005250	ppm	0.000065	1.24	202.299000	Y 377.433
Co (228.615 nm)	0.010691	ppm	0.000172	1.61	242.628000	Y 242.219
Cr (205.560 nm)	0.010165	ppm	0.000533	5.24	65.880900	Y 377.433
Cu (324.754 nm)	0.015511	ppm	0.000141	0.91	1131.580000	Y 377.433
Fe (238.204 nm)	0.099760	ppm	0.001256	1.26	248.818645	Y_R 377.433
Fe H (259.940 nm)	0.050858 u	ppm	0.004180	8.22	161.862000	Y_R 377.433
K (766.491 nm)	2.974880	ppm	0.015895	0.53	4934.250000	Y_R2 488.368
Li (670.783 nm)	0.026543 Q	ppm	0.001902	7.17	-2169.260000 Q	Y_R2 488.368
Mg (279.078 nm)	0.203881	ppm	0.000874	0.43	732.974000	Y 377.433
Mn (257.610 nm)	0.010651	ppm	0.000093	0.88	2923.940000	Y 377.433
Mo (202.032 nm)	0.018700	ppm	0.000153	0.82	261.337000	Y 377.433
Na (589.592 nm)	1.161370	ppm	0.060014	5.17	972.573000	Y_R2 488.368
Na H (589.593 nm)	0.910373 u	ppm	0.037651	4.14	780.314352	Y_R4
Ni (231.604 nm)	0.042297	ppm	0.000471	1.11	225.024000	Y 377.433
P (213.618 nm)	2.769580	ppm	0.012090	0.44	4182.130000	Y 242.219
Pb (220.353 nm)	0.008133	ppm	0.000274	3.37	40.927000	Y 242.219
S (181.972 nm)	0.093246	ppm	0.006283	6.74	49.680944	Y 377.433
Sb (206.834 nm)	0.021006	ppm	0.001697	8.08	29.390500	Y 377.433
Se (196.026 nm)	0.018264	ppm	0.000529	2.90	40.249700	Y 242.219
Si (288.158 nm)	0.484555	ppm	0.000465	0.10	3704.320000	Y 377.433
Sn (189.925 nm)	0.099034	ppm	0.000784	0.79	174.973000	Y 377.433
Sr (421.552 nm)	0.009069	ppm	0.000209	2.30	1374.236921	Y_R 488.368
Th (288.505 nm)	0.015322	ppm	0.001194	7.79	40.704400	Y 377.433
Ti (336.122 nm)	0.010082	ppm	0.000029	0.29	805.902000	Y 377.433
Tl (190.794 nm)	0.014763	ppm	0.000763	5.17	35.765300	Y 377.433
U (409.013 nm)	0.059955	ppm	0.007830	13.06	144.844000	Y 377.433
V (292.401 nm)	0.010188	ppm	0.000120	1.18	354.702000	Y 377.433
Zn (206.200 nm)	0.021390	ppm	0.000708	3.31	109.995000	Y 377.433
Zr (343.823 nm)	0.010134	ppm	0.000002	0.02	409.785000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.078330	24146.466631	0.004207	0.39
Y 377.433	1.072854	693199.483682	0.006557	0.61
Y_R 377.433	1.083440	59643.900000	0.003141	0.29
Y_R 488.368	1.082050	52292.000000	0.001250	0.12
Y_R2 488.368	1.067176	98910.661160	0.008507	0.80
Y_R4	1.048770	44907.900000	0.000237	0.02

Sample Name: lb 280-458344/1-d

Date: 5/23/2019 3:58:19 PM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000368	ppm	0.000467	> 100.00	-232.660000	Y 377.433
Al (394.401 nm)	0.003061	ppm	0.000676	22.09	163.571000	Y 377.433
Al H (396.152 nm)	0.131351 u	ppm	0.001172	0.89	45.150900	Y_R 377.433
As (188.980 nm)	0.003073	ppm	0.001307	42.53	3.590750	Y 242.219
B (249.678 nm)	0.016172	ppm	0.000147	0.91	152.986000	Y 242.219
Ba (493.408 nm)	0.000250	ppm	0.000175	69.91	1456.850000	Y_R 488.368
Be (234.861 nm)	-0.000013 u	ppm	0.000068	> 100.00	-7.095550	Y_R 488.368
Bi (223.061 nm)	0.002447	ppm	0.002538	> 100.00	-9.930040	Y 377.433
Ca (315.887 nm)	0.145545	ppm	0.010657	7.32	55.530501	Y_R 377.433
Cd (214.439 nm)	-0.000056 u	ppm	0.000111	> 100.00	-10.020000	Y 377.433
Co (228.615 nm)	-0.000078 u	ppm	0.000010	12.77	-24.081900	Y 242.219
Cr (205.560 nm)	0.000240 u	ppm	0.000439	> 100.00	-4.266370	Y 377.433
Cu (324.754 nm)	0.004940	ppm	0.000131	2.64	642.037000	Y 377.433
Fe (238.204 nm)	0.015838	ppm	0.002328	14.70	41.970300	Y_R 377.433
Fe H (259.940 nm)	-0.037205 u	ppm	0.000299	0.80	38.727600	Y_R 377.433
K (766.491 nm)	0.226289	ppm	0.054665	24.16	2206.190000	Y_R2 488.368
Li (670.783 nm)	0.002101	ppm	0.001320	62.86	-2594.890000	Y_R2 488.368
Mg (279.078 nm)	0.027067	ppm	0.001078	3.98	108.168000	Y 377.433
Mn (257.610 nm)	0.000592	ppm	0.000009	1.48	141.614000	Y 377.433
Mo (202.032 nm)	-0.000928 u	ppm	0.000043	4.60	11.580200	Y 377.433
Na (589.592 nm)	261.074000 o	ppm	0.686276	0.26	193503.000000	Y_R2 488.368
Na H (589.593 nm)	276.980452	ppm	0.132057	0.05	138081.427020	Y_R4
Ni (231.604 nm)	-0.000083 u	ppm	0.000916	> 100.00	-11.833600	Y 377.433
P (213.618 nm)	0.001117	ppm	0.001460	> 100.00	-4.264620	Y 242.219
Pb (220.353 nm)	-0.002884 u	ppm	0.000679	23.55	2.929490	Y 242.219
S (181.972 nm)	0.008532	ppm	0.000354	4.15	11.593396	Y 377.433
Sb (206.834 nm)	0.003555	ppm	0.000565	15.88	-1.263780	Y 377.433
Se (196.026 nm)	-0.003726 u	ppm	0.002141	57.47	4.517190	Y 242.219
Si (288.158 nm)	0.006748	ppm	0.000420	6.22	552.557000	Y 377.433
Sn (189.925 nm)	0.000400 u	ppm	0.000729	> 100.00	2.934720	Y 377.433
Sr (421.552 nm)	0.000037	ppm	0.000018	47.96	53.386938	Y_R 488.368
Th (288.505 nm)	-0.002730 u	ppm	0.005781	> 100.00	9.627000	Y 377.433
Ti (336.122 nm)	0.000312	ppm	0.000096	30.80	-464.895000	Y 377.433
Tl (190.794 nm)	-0.000689 u	ppm	0.000990	> 100.00	-1.557030	Y 377.433
U (409.013 nm)	-0.003925 u	ppm	0.001998	50.91	-54.068000	Y 377.433
V (292.401 nm)	-0.000076 u	ppm	0.000295	> 100.00	-183.301000	Y 377.433
Zn (206.200 nm)	0.003851	ppm	0.000627	16.27	22.930500	Y 377.433
Zr (343.823 nm)	0.000245	ppm	0.000075	30.43	-160.394000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.028952	23040.776350	0.001814	0.18
Y 377.433	1.026687	663369.750325	0.004223	0.41
Y_R 377.433	1.051330	57875.900000	0.004635	0.44
Y_R 488.368	1.046890	50593.000000	0.005746	0.55
Y_R2 488.368	1.037171	96129.589479	0.002632	0.25
Y_R4	1.032330	44203.700000	0.000581	0.06

Sample Name: lcs 280-458344/2-d

Date: 5/23/2019 4:02:14 PM Rack:Tube: 1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.216546	ppm	0.000805	0.37	7321.120000	Y 377.433
Al (394.401 nm)	2.040350	ppm	0.003732	0.18	24556.900000	Y 377.433
Al H (396.152 nm)	2.116810	ppm	0.007255	0.34	4229.410000	Y_R 377.433
As (188.980 nm)	1.013990	ppm	0.001250	0.12	1614.310000	Y 242.219
B (249.678 nm)	0.214174	ppm	0.000850	0.40	1570.920000	Y 242.219
Ba (493.408 nm)	2.439210	ppm	0.000160	0.01	237703.000000	Y_R 488.368
Be (234.861 nm)	0.198761	ppm	0.002113	1.06	20026.100000	Y_R 488.368
Bi (223.061 nm)	0.370285	ppm	0.004721	1.27	829.456000	Y 377.433
Ca (315.887 nm)	10.218217	ppm	0.004279	0.04	8188.103156	Y_R 377.433
Cd (214.439 nm)	0.412043	ppm	0.001229	0.30	16479.400000	Y 377.433
Co (228.615 nm)	0.202065	ppm	0.000330	0.16	4983.050000	Y 242.219
Cr (205.560 nm)	1.223560	ppm	0.000738	0.06	8663.410000	Y 377.433
Cu (324.754 nm)	0.625986	ppm	0.000248	0.04	29491.200000	Y 377.433
Fe (238.204 nm)	2.033881	ppm	0.001964	0.10	5015.956680	Y_R 377.433
Fe H (259.940 nm)	1.996020 u	ppm	0.003270	0.16	2881.680000	Y_R 377.433
K (766.491 nm)	10.314000	ppm	0.053490	0.52	12218.500000	Y_R2 488.368
Li (670.783 nm)	0.204465	ppm	0.000085	0.04	929.010000	Y_R2 488.368
Mg (279.078 nm)	9.970310	ppm	0.016678	0.17	35329.100000	Y 377.433
Mn (257.610 nm)	0.202563	ppm	0.000512	0.25	56007.000000	Y 377.433
Mo (202.032 nm)	0.204154	ppm	0.001341	0.66	2621.180000	Y 377.433
Na (589.592 nm)	291.843000 o	ppm	0.852174	0.29	216795.000000	Y_R2 488.368
Na H (589.593 nm)	313.373277	ppm	0.855990	0.27	156181.089864	Y_R4
Ni (231.604 nm)	0.204703	ppm	0.002121	1.04	1133.100000	Y 377.433
P (213.618 nm)	4.099210	ppm	0.015501	0.38	6035.110000	Y 242.219
Pb (220.353 nm)	1.218930	ppm	0.004115	0.34	4199.560000	Y 242.219
S (181.972 nm)	2.039616	ppm	0.002746	0.13	925.080543	Y 377.433
Sb (206.834 nm)	0.003303	ppm	0.002315	70.07	5.218850	Y 377.433
Se (196.026 nm)	0.603493	ppm	0.006701	1.11	991.139000	Y 242.219
Si (288.158 nm)	0.412314	ppm	0.000798	0.19	3227.790000	Y 377.433
Sn (189.925 nm)	0.400637	ppm	0.000385	0.10	701.033000	Y 377.433
Sr (421.552 nm)	0.198427	ppm	0.000159	0.08	29068.130059	Y_R 488.368
Th (288.505 nm)	0.206229	ppm	0.003637	1.76	355.163000	Y 377.433
Ti (336.122 nm)	0.203051	ppm	0.000166	0.08	25930.400000	Y 377.433
Tl (190.794 nm)	0.396243	ppm	0.001371	0.35	958.180000	Y 377.433
U (409.013 nm)	0.391432	ppm	0.003875	0.99	1172.930000	Y 377.433
V (292.401 nm)	0.202615	ppm	0.000186	0.09	10120.900000	Y 377.433
Zn (206.200 nm)	0.526564	ppm	0.003937	0.75	2617.550000	Y 377.433
Zr (343.823 nm)	0.096138	ppm	0.000031	0.03	5368.820000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.028888	23039.350175	0.001140	0.11
Y 377.433	1.027365	663807.660903	0.002303	0.22
Y_R 377.433	1.061910	58458.700000	0.009161	0.86
Y_R 488.368	1.060200	51236.200000	0.009376	0.88
Y_R2 488.368	1.053167	97612.184184	0.005895	0.56
Y_R4	1.065070	45605.800000	0.009346	0.88

Sample Name: lcsd 280-458344/8-c

Date: 5/23/2019 4:06:19 PM Rack:Tube: 1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.204053	ppm	0.000267	0.13	6885.210000	Y 377.433
Al (394.401 nm)	1.908180	ppm	0.000676	0.04	22975.600000	Y 377.433
Al H (396.152 nm)	1.997640	ppm	0.005976	0.30	3978.280000	Y_R 377.433
As (188.980 nm)	0.947816	ppm	0.005611	0.59	1508.870000	Y 242.219
B (249.678 nm)	0.199216	ppm	0.000791	0.40	1463.750000	Y 242.219
Ba (493.408 nm)	2.293730	ppm	0.003545	0.15	223611.000000	Y_R 488.368
Be (234.861 nm)	0.182180	ppm	0.000449	0.25	18354.600000	Y_R 488.368
Bi (223.061 nm)	0.343617	ppm	0.001575	0.46	768.612000	Y 377.433
Ca (315.887 nm)	9.594918	ppm	0.020972	0.22	7684.857887	Y_R 377.433
Cd (214.439 nm)	0.386498	ppm	0.000881	0.23	15457.300000	Y 377.433
Co (228.615 nm)	0.189903	ppm	0.001527	0.80	4681.790000	Y 242.219
Cr (205.560 nm)	1.145810	ppm	0.000159	0.01	8112.530000	Y 377.433
Cu (324.754 nm)	0.588193	ppm	0.004555	0.77	27735.000000	Y 377.433
Fe (238.204 nm)	1.963375	ppm	0.007201	0.37	4842.176366	Y_R 377.433
Fe H (259.940 nm)	1.921980 u	ppm	0.004117	0.21	2778.150000	Y_R 377.433
K (766.491 nm)	9.520820	ppm	0.104209	1.09	11431.300000	Y_R2 488.368
Li (670.783 nm)	0.198123	ppm	0.000570	0.29	818.577000	Y_R2 488.368
Mg (279.078 nm)	9.345630	ppm	0.005842	0.06	33116.200000	Y 377.433
Mn (257.610 nm)	0.190249	ppm	0.000095	0.05	52600.900000	Y 377.433
Mo (202.032 nm)	0.191903	ppm	0.000161	0.08	2465.280000	Y 377.433
Na (589.592 nm)	273.269000 o	ppm	0.793893	0.29	203006.000000	Y_R2 488.368
Na H (589.593 nm)	296.012397	ppm	2.431896	0.82	147546.803230	Y_R4
Ni (231.604 nm)	0.191405	ppm	0.000329	0.17	1058.750000	Y 377.433
P (213.618 nm)	3.847560	ppm	0.003080	0.08	5664.330000	Y 242.219
Pb (220.353 nm)	1.143490	ppm	0.000964	0.08	3940.450000	Y 242.219
S (181.972 nm)	1.912511	ppm	0.012578	0.66	867.914522	Y 377.433
Sb (206.834 nm)	0.004345	ppm	0.001574	36.22	6.629450	Y 377.433
Se (196.026 nm)	0.564905	ppm	0.005357	0.95	928.425000	Y 242.219
Si (288.158 nm)	0.386527	ppm	0.000401	0.10	3057.700000	Y 377.433
Sn (189.925 nm)	0.378105	ppm	0.003390	0.90	661.733000	Y 377.433
Sr (421.552 nm)	0.186864	ppm	0.000001	0.00	27376.995191	Y_R 488.368
Th (288.505 nm)	0.192816	ppm	0.004154	2.15	333.070000	Y 377.433
Ti (336.122 nm)	0.190857	ppm	0.000135	0.07	24342.700000	Y 377.433
Tl (190.794 nm)	0.374095	ppm	0.000495	0.13	904.631000	Y 377.433
U (409.013 nm)	0.367465	ppm	0.010587	2.88	1098.540000	Y 377.433
V (292.401 nm)	0.189952	ppm	0.000341	0.18	9476.440000	Y 377.433
Zn (206.200 nm)	0.490656	ppm	0.000662	0.13	2439.320000	Y 377.433
Zr (343.823 nm)	0.090764	ppm	0.000385	0.42	5058.950000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.046093	23424.613199	0.004121	0.39
Y 377.433	1.044612	674951.150797	0.005331	0.51
Y_R 377.433	1.103610	60754.100000	0.000660	0.06
Y_R 488.368	1.101300	53222.700000	0.001714	0.16
Y_R2 488.368	1.082728	100352.041197	0.000882	0.08
Y_R4	1.087370	46560.500000	0.010395	0.96

Sample Name: 160-33998-e-3-g

Date: 5/23/2019 4:10:09 PM Rack:Tube: 1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000167 u	ppm	0.000268	> 100.00	-239.958000	Y 377.433
Al (394.401 nm)	0.046441	ppm	0.003227	6.95	687.711000	Y 377.433
Al H (396.152 nm)	0.172318 u	ppm	0.004737	2.75	134.945000	Y_R 377.433
As (188.980 nm)	0.000238 u	ppm	0.001707	> 100.00	-0.928196	Y 242.219
B (249.678 nm)	0.007074	ppm	0.000558	7.88	87.754500	Y 242.219
Ba (493.408 nm)	0.020528	ppm	0.000246	1.20	3421.070000	Y_R 488.368
Be (234.861 nm)	0.000083	ppm	0.000044	53.00	2.452030	Y_R 488.368
Bi (223.061 nm)	0.002588	ppm	0.002949	> 100.00	-9.602560	Y 377.433
Ca (315.887 nm)	3.033016	ppm	0.001724	0.06	2386.706467	Y_R 377.433
Cd (214.439 nm)	0.000103	ppm	0.000084	81.28	-3.640510	Y 377.433
Co (228.615 nm)	0.003346	ppm	0.000223	6.65	60.589300	Y 242.219
Cr (205.560 nm)	0.000114 u	ppm	0.000297	> 100.00	-5.179020	Y 377.433
Cu (324.754 nm)	0.002067	ppm	0.000215	10.40	506.413000	Y 377.433
Fe (238.204 nm)	0.053883	ppm	0.001350	2.50	135.741946	Y_R 377.433
Fe H (259.940 nm)	0.004065 u	ppm	0.003293	81.00	96.434000	Y_R 377.433
K (766.491 nm)	0.410250	ppm	0.045353	11.06	2388.780000	Y_R2 488.368
Li (670.783 nm)	0.014146	ppm	0.003309	23.39	-2385.130000	Y_R2 488.368
Mg (279.078 nm)	1.227290	ppm	0.005890	0.48	4360.390000	Y 377.433
Mn (257.610 nm)	0.039163	ppm	0.000010	0.03	10810.500000	Y 377.433
Mo (202.032 nm)	-0.000340 u	ppm	0.000575	> 100.00	19.060100	Y 377.433
Na (589.592 nm)	272.984000 o	ppm	0.340655	0.12	202330.000000	Y_R2 488.368
Na H (589.593 nm)	292.064150	ppm	0.579546	0.20	145583.176462	Y_R4
Ni (231.604 nm)	0.007699	ppm	0.000859	11.16	31.659000	Y 377.433
P (213.618 nm)	0.000633	ppm	0.000802	> 100.00	-4.121870	Y 242.219
Pb (220.353 nm)	-0.002046 u	ppm	0.001762	86.14	5.856440	Y 242.219
S (181.972 nm)	0.522997	ppm	0.005891	1.13	242.951590	Y 377.433
Sb (206.834 nm)	0.005998	ppm	0.000219	3.65	3.051100	Y 377.433
Se (196.026 nm)	0.001898	ppm	0.002555	> 100.00	13.704400	Y 242.219
Si (288.158 nm)	0.334527	ppm	0.001094	0.33	2714.690000	Y 377.433
Sn (189.925 nm)	0.000200 u	ppm	0.000400	> 100.00	2.585860	Y 377.433
Sr (421.552 nm)	0.015432	ppm	0.000112	0.73	2304.783528	Y_R 488.368
Th (288.505 nm)	-0.002210 u	ppm	0.000284	12.85	11.316800	Y 377.433
Ti (336.122 nm)	0.000504	ppm	0.000000	0.06	-430.123000	Y 377.433
Tl (190.794 nm)	0.000774	ppm	0.000083	10.68	1.875890	Y 377.433
U (409.013 nm)	0.004028 u	ppm	0.007667	> 100.00	-29.522800	Y 377.433
V (292.401 nm)	0.000424	ppm	0.000098	23.21	-157.599000	Y 377.433
Zn (206.200 nm)	0.018387	ppm	0.000424	2.30	95.082500	Y 377.433
Zr (343.823 nm)	0.000351	ppm	0.000007	1.88	-154.308000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070140	23963.080477	0.001496	0.14
Y 377.433	1.069939	691315.547217	0.003220	0.30
Y_R 377.433	1.098630	60479.800000	0.001938	0.18
Y_R 488.368	1.095780	52955.900000	0.002541	0.23
Y_R2 488.368	1.097822	101751.070634	0.004874	0.44
Y_R4	1.101710	47174.600000	0.003880	0.35

Sample Name: 160-34008-d-4-f

Date: 5/23/2019 4:14:04 PM Rack:Tube: 1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000448	ppm	0.000243	54.30	-231.322000	Y 377.433
Al (394.401 nm)	0.017247	ppm	0.000092	0.53	426.552000	Y 377.433
Al H (396.152 nm)	0.060784 u	ppm	0.001606	2.64	-7.359420	Y_R 377.433
As (188.980 nm)	0.001948	ppm	0.001839	94.38	1.797480	Y 242.219
B (249.678 nm)	0.017338	ppm	0.000135	0.78	161.326000	Y 242.219
Ba (493.408 nm)	0.120709	ppm	0.000365	0.30	13124.800000	Y_R 488.368
Be (234.861 nm)	-0.000013 u	ppm	0.000028	> 100.00	-7.267740	Y_R 488.368
Bi (223.061 nm)	0.003882	ppm	0.003396	87.47	-6.651040	Y 377.433
Ca (315.887 nm)	155.839530	ppm	0.060067	0.04	125753.340018	Y_R 377.433
Cd (214.439 nm)	0.000647	ppm	0.000054	8.37	18.121100	Y 377.433
Co (228.615 nm)	-0.000148 u	ppm	0.000233	> 100.00	-25.831800	Y 242.219
Cr (205.560 nm)	0.000818	ppm	0.000385	47.04	-0.185151	Y 377.433
Cu (324.754 nm)	0.010420	ppm	0.000416	3.99	802.599000	Y 377.433
Fe (238.204 nm)	0.045022	ppm	0.002276	5.06	113.903599	Y_R 377.433
Fe H (259.940 nm)	-0.009813 u	ppm	0.001335	13.60	77.028200	Y_R 377.433
K (766.491 nm)	0.723332	ppm	0.031037	4.29	2699.520000	Y_R2 488.368
Li (670.783 nm)	0.013411	ppm	0.002168	16.17	-2397.930000	Y_R2 488.368
Mg (279.078 nm)	2.411260	ppm	0.001203	0.05	8554.550000	Y 377.433
Mn (257.610 nm)	0.423939	ppm	0.000101	0.02	117240.000000	Y 377.433
Mo (202.032 nm)	0.001005	ppm	0.000425	42.25	36.178400	Y 377.433
Na (589.592 nm)	301.286000 o	ppm	0.431708	0.14	223315.000000	Y_R2 488.368
Na H (589.593 nm)	330.053118	ppm	4.029409	1.22	164476.667335	Y_R4
Ni (231.604 nm)	0.000321	ppm	0.000196	60.86	-9.571870	Y 377.433
P (213.618 nm)	0.009178	ppm	0.007631	83.14	6.146080	Y 242.219
Pb (220.353 nm)	-0.003934 u	ppm	0.001665	42.33	-0.501748	Y 242.219
S (181.972 nm)	0.587220	ppm	0.001104	0.19	280.245690	Y 377.433
Sb (206.834 nm)	0.001410	ppm	0.000565	40.10	-5.051230	Y 377.433
Se (196.026 nm)	-0.001463 u	ppm	0.000914	62.51	8.815080	Y 242.219
Si (288.158 nm)	1.236980	ppm	0.000415	0.03	8667.530000	Y 377.433
Sn (189.925 nm)	-0.000982 u	ppm	0.001579	> 100.00	0.523977	Y 377.433
Sr (421.552 nm)	0.322807	ppm	0.000394	0.12	47258.268692	Y_R 488.368
Th (288.505 nm)	-0.018137 u	ppm	0.001259	6.94	-12.631100	Y 377.433
Ti (336.122 nm)	-0.000453 u	ppm	0.000044	9.78	-34.152800	Y 377.433
Tl (190.794 nm)	0.003661	ppm	0.000401	10.96	2.509530	Y 377.433
U (409.013 nm)	0.033073	ppm	0.002582	7.81	41.696900	Y 377.433
V (292.401 nm)	0.001914	ppm	0.000122	6.39	-83.036500	Y 377.433
Zn (206.200 nm)	0.036263	ppm	0.000499	1.38	183.801000	Y 377.433
Zr (343.823 nm)	0.000462	ppm	0.000109	23.71	-147.905000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.053641	23593.627381	0.000795	0.08
Y 377.433	1.059011	684255.007281	0.000119	0.01
Y_R 377.433	1.107930	60992.200000	0.002820	0.25
Y_R 488.368	1.104320	53368.200000	0.001762	0.16
Y_R2 488.368	1.102655	102198.963365	0.007272	0.66
Y_R4	1.090100	46677.500000	0.004969	0.46

Sample Name: 160-34008-d-6-e

Date: 5/23/2019 4:18:09 PM Rack:Tube: 1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000580	ppm	0.000012	2.13	-226.224000	Y 377.433
Al (394.401 nm)	0.017409	ppm	0.000738	4.24	413.991000	Y 377.433
Al H (396.152 nm)	0.064488 u	ppm	0.016878	26.17	-10.673000	Y_R 377.433
As (188.980 nm)	0.000631	ppm	0.000888	> 100.00	-0.304624	Y 242.219
B (249.678 nm)	0.026750	ppm	0.000785	2.94	228.695000	Y 242.219
Ba (493.408 nm)	0.160367	ppm	0.000509	0.32	16966.400000	Y_R 488.368
Be (234.861 nm)	0.000027	ppm	0.000030	> 100.00	-3.802300	Y_R 488.368
Bi (223.061 nm)	0.001940	ppm	0.001231	63.43	-11.053100	Y 377.433
Ca (315.887 nm)	159.258672	ppm	0.137313	0.09	128513.744396	Y_R 377.433
Cd (214.439 nm)	0.000842	ppm	0.000053	6.26	25.988200	Y 377.433
Co (228.615 nm)	0.003277	ppm	0.000386	11.76	58.868100	Y 242.219
Cr (205.560 nm)	0.000087 u	ppm	0.000509	> 100.00	-5.387610	Y 377.433
Cu (324.754 nm)	0.001944	ppm	0.000756	38.90	412.178000	Y 377.433
Fe (238.204 nm)	0.189863	ppm	0.000428	0.23	470.899579	Y_R 377.433
Fe H (259.940 nm)	0.133093 u	ppm	0.001292	0.97	276.846000	Y_R 377.433
K (766.491 nm)	1.035350	ppm	0.071652	6.92	3009.210000	Y_R2 488.368
Li (670.783 nm)	0.015824	ppm	0.008462	53.48	-2355.920000	Y_R2 488.368
Mg (279.078 nm)	2.382410	ppm	0.001330	0.06	8452.450000	Y 377.433
Mn (257.610 nm)	2.328950	ppm	0.002544	0.11	644167.000000	Y 377.433
Mo (202.032 nm)	0.001872	ppm	0.000041	2.21	47.210200	Y 377.433
Na (589.592 nm)	316.824000 o	ppm	0.566055	0.18	234833.000000	Y_R2 488.368
Na H (589.593 nm)	346.771146	ppm	1.599760	0.46	172791.236761	Y_R4
Ni (231.604 nm)	0.009753	ppm	0.001164	11.93	43.138300	Y 377.433
P (213.618 nm)	-0.001397 u	ppm	0.003524	> 100.00	-7.741510	Y 242.219
Pb (220.353 nm)	-0.000585 u	ppm	0.000145	24.84	10.952000	Y 242.219
S (181.972 nm)	1.111996	ppm	0.009385	0.84	522.000599	Y 377.433
Sb (206.834 nm)	-0.001492 u	ppm	0.003251	> 100.00	-10.170600	Y 377.433
Se (196.026 nm)	-0.001011 u	ppm	0.002016	> 100.00	12.331800	Y 242.219
Si (288.158 nm)	1.387200	ppm	0.002257	0.16	9658.420000	Y 377.433
Sn (189.925 nm)	0.000352	ppm	0.000478	> 100.00	2.850580	Y 377.433
Sr (421.552 nm)	0.296648	ppm	0.000402	0.14	43432.643918	Y_R 488.368
Th (288.505 nm)	-0.023622 u	ppm	0.000594	2.51	15.204300	Y 377.433
Ti (336.122 nm)	-0.000566 u	ppm	0.000070	12.37	-36.755900	Y 377.433
Tl (190.794 nm)	0.003109	ppm	0.000587	18.89	1.016280	Y 377.433
U (409.013 nm)	0.048269	ppm	0.010349	21.44	88.951700	Y 377.433
V (292.401 nm)	0.001493	ppm	0.000229	15.33	-102.073000	Y 377.433
Zn (206.200 nm)	0.134351	ppm	0.000292	0.22	670.650000	Y 377.433
Zr (343.823 nm)	0.000395	ppm	0.000199	50.32	-151.727000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.058551	23703.575539	0.000862	0.08
Y 377.433	1.064936	688083.056960	0.002500	0.23
Y_R 377.433	1.116260	61450.400000	0.005064	0.45
Y_R 488.368	1.112970	53786.300000	0.005331	0.48
Y_R2 488.368	1.097113	101685.341505	0.000282	0.03
Y_R4	1.103760	47262.200000	0.005525	0.50

Sample Name: 280-123668-b-1-f

Date: 5/23/2019 4:22:16 PM Rack:Tube: 1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000266	ppm	0.000175	65.78	-236.755000	Y 377.433
Al (394.401 nm)	0.057988	ppm	0.000032	0.05	876.344000	Y 377.433
Al H (396.152 nm)	0.128996 u	ppm	0.010373	8.04	110.727000	Y_R 377.433
As (188.980 nm)	0.002839	ppm	0.002323	81.83	3.214700	Y 242.219
B (249.678 nm)	0.025419	ppm	0.001199	4.72	219.194000	Y 242.219
Ba (493.408 nm)	0.115831	ppm	0.000127	0.11	12652.500000	Y_R 488.368
Be (234.861 nm)	0.000099	ppm	0.000002	1.97	3.718220	Y_R 488.368
Bi (223.061 nm)	0.004009	ppm	0.001233	30.76	-6.346830	Y 377.433
Ca (315.887 nm)	51.472445	ppm	0.032140	0.06	41493.740986	Y_R 377.433
Cd (214.439 nm)	0.000622	ppm	0.000027	4.35	17.133300	Y 377.433
Co (228.615 nm)	0.000911	ppm	0.000240	26.33	0.362498	Y 242.219
Cr (205.560 nm)	0.002962	ppm	0.000232	7.83	15.016700	Y 377.433
Cu (324.754 nm)	0.003654	ppm	0.000512	14.01	551.123000	Y 377.433
Fe (238.204 nm)	0.127251	ppm	0.001542	1.21	316.577429	Y_R 377.433
Fe H (259.940 nm)	0.074761 u	ppm	0.001444	1.93	195.284000	Y_R 377.433
K (766.491 nm)	0.828470	ppm	0.052098	6.29	2803.870000	Y_R2 488.368
Li (670.783 nm)	0.014662	ppm	0.001806	12.32	-2376.140000	Y_R2 488.368
Mg (279.078 nm)	2.466930	ppm	0.001318	0.05	8752.470000	Y 377.433
Mn (257.610 nm)	0.253792	ppm	0.000059	0.02	70176.800000	Y 377.433
Mo (202.032 nm)	-0.000184 u	ppm	0.000065	35.36	21.045100	Y 377.433
Na (589.592 nm)	251.414000 o	ppm	0.144740	0.06	186370.000000	Y_R2 488.368
Na H (589.593 nm)	270.813372	ppm	1.320394	0.49	135014.282141	Y_R4
Ni (231.604 nm)	0.002099	ppm	0.000550	26.18	0.362624	Y 377.433
P (213.618 nm)	0.006093	ppm	0.001987	32.61	3.508850	Y 242.219
Pb (220.353 nm)	-0.000928 u	ppm	0.001385	> 100.00	9.700670	Y 242.219
S (181.972 nm)	0.845119	ppm	0.008270	0.98	390.613044	Y 377.433
Sb (206.834 nm)	0.003380	ppm	0.000408	12.08	-1.548790	Y 377.433
Se (196.026 nm)	-0.003381 u	ppm	0.003073	90.91	5.422430	Y 242.219
Si (288.158 nm)	2.730890	ppm	0.001106	0.04	18521.800000	Y 377.433
Sn (189.925 nm)	0.000853	ppm	0.000646	75.78	3.723870	Y 377.433
Sr (421.552 nm)	0.208230	ppm	0.000486	0.23	30501.567693	Y_R 488.368
Th (288.505 nm)	-0.013930 u	ppm	0.003235	23.22	-6.190130	Y 377.433
Ti (336.122 nm)	0.000162	ppm	0.000024	14.65	-309.650000	Y 377.433
Tl (190.794 nm)	0.002049	ppm	0.000817	39.87	2.935050	Y 377.433
U (409.013 nm)	0.017940	ppm	0.001522	8.49	7.840550	Y 377.433
V (292.401 nm)	0.001483	ppm	0.000031	2.09	-103.118000	Y 377.433
Zn (206.200 nm)	0.019187	ppm	0.001440	7.51	99.062200	Y 377.433
Zr (343.823 nm)	0.000543	ppm	0.000129	23.70	-143.220000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076714	24110.288089	0.002290	0.21
Y 377.433	1.080170	697926.440760	0.002843	0.26
Y_R 377.433	1.126020	61988.100000	0.002819	0.25
Y_R 488.368	1.123090	54275.300000	0.004527	0.40
Y_R2 488.368	1.106220	102529.396655	0.001890	0.17
Y_R4	1.106780	47391.600000	0.009534	0.86

Sample Name: 280-123668-b-1-fSD@5

Date: 5/23/2019 4:26:00 PM Rack:Tube: 1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000340	ppm	0.000158	46.67	-233.956000	Y 377.433
Al (394.401 nm)	0.012702	ppm	0.000205	1.61	292.766000	Y 377.433
Al H (396.152 nm)	0.123955 u	ppm	0.006252	5.04	43.776200	Y_R 377.433
As (188.980 nm)	0.001244 u	ppm	0.003236	> 100.00	0.675611	Y 242.219
B (249.678 nm)	0.003289	ppm	0.000093	2.84	60.621800	Y 242.219
Ba (493.408 nm)	0.021999	ppm	0.000165	0.75	3563.550000	Y_R 488.368
Be (234.861 nm)	0.000035	ppm	0.000033	94.18	-2.467310	Y_R 488.368
Bi (223.061 nm)	-0.000371 u	ppm	0.001557	> 100.00	-16.350500	Y 377.433
Ca (315.887 nm)	10.478196	ppm	0.002631	0.03	8397.482101	Y_R 377.433
Cd (214.439 nm)	0.000185	ppm	0.000018	9.54	-0.358517	Y 377.433
Co (228.615 nm)	0.000344	ppm	0.000286	83.01	-13.657400	Y 242.219
Cr (205.560 nm)	-0.000109 u	ppm	0.000266	> 100.00	-6.741500	Y 377.433
Cu (324.754 nm)	0.001099	ppm	0.000042	3.79	456.337000	Y 377.433
Fe (238.204 nm)	0.067157	ppm	0.003285	4.89	168.460234	Y_R 377.433
Fe H (259.940 nm)	0.011665 u	ppm	0.004221	36.19	107.060000	Y_R 377.433
K (766.491 nm)	0.000781 u	ppm	0.091911	> 100.00	1982.370000	Y_R2 488.368
Li (670.783 nm)	0.018293	ppm	0.002594	14.18	-2312.930000	Y_R2 488.368
Mg (279.078 nm)	0.504162	ppm	0.001367	0.27	1798.070000	Y 377.433
Mn (257.610 nm)	0.052145	ppm	0.000106	0.20	14401.300000	Y 377.433
Mo (202.032 nm)	-0.000692 u	ppm	0.000124	17.86	14.577000	Y 377.433
Na (589.592 nm)	52.674800	ppm	0.249832	0.47	39134.100000	Y_R2 488.368
Na H (589.593 nm)	55.064975	ppm	0.096677	0.18	27713.646116	Y_R4
Ni (231.604 nm)	0.000858	ppm	0.001087	> 100.00	-6.571470	Y 377.433
P (213.618 nm)	0.002684	ppm	0.002769	> 100.00	-0.727308	Y 242.219
Pb (220.353 nm)	-0.003175 u	ppm	0.002189	68.95	2.001560	Y 242.219
S (181.972 nm)	0.164869	ppm	0.000081	0.05	82.466820	Y 377.433
Sb (206.834 nm)	0.001781	ppm	0.000556	31.19	-4.387150	Y 377.433
Se (196.026 nm)	-0.001456 u	ppm	0.004108	> 100.00	8.268500	Y 242.219
Si (288.158 nm)	0.542927	ppm	0.000691	0.13	4089.360000	Y 377.433
Sn (189.925 nm)	0.001213	ppm	0.000190	15.69	4.352770	Y 377.433
Sr (421.552 nm)	0.041455	ppm	0.000111	0.27	6110.765052	Y_R 488.368
Th (288.505 nm)	-0.003501 u	ppm	0.000553	15.80	9.175390	Y 377.433
Ti (336.122 nm)	0.000424	ppm	0.000017	3.90	-415.394000	Y 377.433
Tl (190.794 nm)	0.001115 u	ppm	0.001672	> 100.00	2.386620	Y 377.433
U (409.013 nm)	0.014813	ppm	0.006781	45.78	3.327250	Y 377.433
V (292.401 nm)	0.000560	ppm	0.000153	27.29	-150.908000	Y 377.433
Zn (206.200 nm)	0.006559	ppm	0.000398	6.06	36.381200	Y 377.433
Zr (343.823 nm)	0.000511	ppm	0.000072	14.01	-145.037000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.106037	24766.903288	0.004301	0.39
Y 377.433	1.104976	713954.007070	0.003297	0.30
Y_R 377.433	1.135560	62513.100000	0.000589	0.05
Y_R 488.368	1.131910	54701.700000	0.000071	0.01
Y_R2 488.368	1.124879	104258.794460	0.003872	0.34
Y_R4	1.128890	48338.300000	0.000821	0.07

Sample Name: 280-123668-b-1-g ms

Date: 5/23/2019 4:29:30 PM Rack:Tube: 1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.218149	ppm	0.000236	0.11	7376.910000	Y 377.433
Al (394.401 nm)	2.075760	ppm	0.000410	0.02	25048.500000	Y 377.433
Al H (396.152 nm)	2.121290	ppm	0.008172	0.39	4320.810000	Y_R 377.433
As (188.980 nm)	1.022340	ppm	0.004735	0.46	1627.620000	Y 242.219
B (249.678 nm)	0.227374	ppm	0.001515	0.67	1665.530000	Y 242.219
Ba (493.408 nm)	2.571720	ppm	0.004079	0.16	250538.000000	Y_R 488.368
Be (234.861 nm)	0.200317	ppm	0.000170	0.08	20183.100000	Y_R 488.368
Bi (223.061 nm)	0.376048	ppm	0.001307	0.35	842.597000	Y 377.433
Ca (315.887 nm)	68.272747	ppm	0.162042	0.24	55057.798149	Y_R 377.433
Cd (214.439 nm)	0.406803	ppm	0.001055	0.26	16269.700000	Y 377.433
Co (228.615 nm)	0.201142	ppm	0.000375	0.19	4960.200000	Y 242.219
Cr (205.560 nm)	1.218680	ppm	0.004103	0.34	8628.870000	Y 377.433
Cu (324.754 nm)	0.621859	ppm	0.004611	0.74	29262.300000	Y 377.433
Fe (238.204 nm)	2.020301	ppm	0.006879	0.34	4982.486196	Y_R 377.433
Fe H (259.940 nm)	1.974400 u	ppm	0.012241	0.62	2851.450000	Y_R 377.433
K (766.491 nm)	11.054500	ppm	0.229357	2.07	12953.500000	Y_R2 488.368
Li (670.783 nm)	0.212164	ppm	0.001645	0.78	1063.080000	Y_R2 488.368
Mg (279.078 nm)	12.523800	ppm	0.005641	0.05	44376.100000	Y 377.433
Mn (257.610 nm)	0.487283	ppm	0.000319	0.07	134760.000000	Y 377.433
Mo (202.032 nm)	0.204472	ppm	0.000074	0.04	2625.210000	Y 377.433
Na (589.592 nm)	288.647000 o	ppm	1.158610	0.40	214455.000000	Y_R2 488.368
Na H (589.593 nm)	317.730468	ppm	2.309154	0.73	158348.101825	Y_R4
Ni (231.604 nm)	0.203963	ppm	0.000228	0.11	1128.950000	Y 377.433
P (213.618 nm)	4.165150	ppm	0.001540	0.04	6135.880000	Y 242.219
Pb (220.353 nm)	1.211550	ppm	0.000125	0.01	4174.260000	Y 242.219
S (181.972 nm)	3.040963	ppm	0.015217	0.50	1378.526708	Y 377.433
Sb (206.834 nm)	0.007889	ppm	0.001789	22.67	13.318000	Y 377.433
Se (196.026 nm)	0.609885	ppm	0.002743	0.45	1001.950000	Y 242.219
Si (288.158 nm)	3.601590	ppm	0.001903	0.05	24265.300000	Y 377.433
Sn (189.925 nm)	0.397918	ppm	0.001625	0.41	696.291000	Y 377.433
Sr (421.552 nm)	0.440993	ppm	0.000338	0.08	64543.232275	Y_R 488.368
Th (288.505 nm)	0.196357	ppm	0.001301	0.66	342.250000	Y 377.433
Ti (336.122 nm)	0.202555	ppm	0.000148	0.07	26063.500000	Y 377.433
Tl (190.794 nm)	0.393035	ppm	0.000980	0.25	948.004000	Y 377.433
U (409.013 nm)	0.412660	ppm	0.001606	0.39	1232.160000	Y 377.433
V (292.401 nm)	0.203000	ppm	0.000102	0.05	10138.300000	Y 377.433
Zn (206.200 nm)	0.524160	ppm	0.001301	0.25	2605.610000	Y 377.433
Zr (343.823 nm)	0.093749	ppm	0.000202	0.22	5231.090000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070638	23974.234130	0.001269	0.12
Y 377.433	1.075928	695185.539139	0.000365	0.03
Y_R 377.433	1.113430	61294.500000	0.001211	0.11
Y_R 488.368	1.106490	53473.300000	0.002275	0.21
Y_R2 488.368	1.107302	102629.705937	0.008041	0.73
Y_R4	1.111290	47584.800000	0.006099	0.55

Sample Name: 280-123668-b-1-h msd

Date: 5/23/2019 4:33:17 PM
Rack:Tube: 1:10

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.214968	ppm	0.000971	0.45	7265.810000	Y 377.433
Al (394.401 nm)	2.047460	ppm	0.001581	0.08	24710.100000	Y 377.433
Al H (396.152 nm)	2.096840	ppm	0.009740	0.46	4267.790000	Y_R 377.433
As (188.980 nm)	1.005030	ppm	0.006917	0.69	1600.030000	Y 242.219
B (249.678 nm)	0.223858	ppm	0.001455	0.65	1640.340000	Y 242.219
Ba (493.408 nm)	2.533660	ppm	0.003417	0.13	246852.000000	Y_R 488.368
Be (234.861 nm)	0.195022	ppm	0.000568	0.29	19649.300000	Y_R 488.368
Bi (223.061 nm)	0.372219	ppm	0.002588	0.70	833.861000	Y 377.433
Ca (315.887 nm)	67.243337	ppm	0.171062	0.25	54226.708122	Y_R 377.433
Cd (214.439 nm)	0.401172	ppm	0.001669	0.42	16044.400000	Y 377.433
Co (228.615 nm)	0.199216	ppm	0.000860	0.43	4912.470000	Y 242.219
Cr (205.560 nm)	1.204230	ppm	0.012760	1.06	8526.510000	Y 377.433
Cu (324.754 nm)	0.615529	ppm	0.000336	0.05	28967.700000	Y 377.433
Fe (238.204 nm)	2.006553	ppm	0.000625	0.03	4948.601583	Y_R 377.433
Fe H (259.940 nm)	1.955160 u	ppm	0.008575	0.44	2824.550000	Y_R 377.433
K (766.491 nm)	10.873200	ppm	0.053406	0.49	12773.500000	Y_R2 488.368
Li (670.783 nm)	0.217038	ppm	0.001650	0.76	1147.950000	Y_R2 488.368
Mg (279.078 nm)	12.369200	ppm	0.041720	0.34	43828.300000	Y 377.433
Mn (257.610 nm)	0.480947	ppm	0.001624	0.34	133008.000000	Y 377.433
Mo (202.032 nm)	0.202850	ppm	0.000742	0.37	2604.580000	Y 377.433
Na (589.592 nm)	284.483000 o	ppm	0.072734	0.03	211362.000000	Y_R2 488.368
Na H (589.593 nm)	314.021138	ppm	1.195549	0.38	156503.298062	Y_R4
Ni (231.604 nm)	0.201500	ppm	0.001055	0.52	1115.190000	Y 377.433
P (213.618 nm)	4.101630	ppm	0.020658	0.50	6041.320000	Y 242.219
Pb (220.353 nm)	1.192930	ppm	0.002625	0.22	4110.330000	Y 242.219
S (181.972 nm)	2.994354	ppm	0.021231	0.71	1357.527034	Y 377.433
Sb (206.834 nm)	0.008604	ppm	0.000310	3.60	14.492900	Y 377.433
Se (196.026 nm)	0.597460	ppm	0.001422	0.24	981.754000	Y 242.219
Si (288.158 nm)	3.552930	ppm	0.013812	0.39	23944.300000	Y 377.433
Sn (189.925 nm)	0.393371	ppm	0.001367	0.35	688.359000	Y 377.433
Sr (421.552 nm)	0.433802	ppm	0.000608	0.14	63491.650917	Y_R 488.368
Th (288.505 nm)	0.188565	ppm	0.001527	0.81	328.914000	Y 377.433
Ti (336.122 nm)	0.200117	ppm	0.000589	0.29	25743.300000	Y 377.433
Tl (190.794 nm)	0.388707	ppm	0.000164	0.04	937.572000	Y 377.433
U (409.013 nm)	0.417678	ppm	0.003376	0.81	1248.050000	Y 377.433
V (292.401 nm)	0.200557	ppm	0.000544	0.27	10013.500000	Y 377.433
Zn (206.200 nm)	0.513959	ppm	0.002293	0.45	2554.980000	Y 377.433
Zr (343.823 nm)	0.093361	ppm	0.000442	0.47	5208.730000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071748	23999.083108	0.004432	0.41
Y 377.433	1.076046	695261.395702	0.004748	0.44
Y_R 377.433	1.124590	61908.900000	0.003066	0.27
Y_R 488.368	1.121350	54191.600000	0.002930	0.26
Y_R2 488.368	1.111065	102978.495818	0.006605	0.59
Y_R4	1.117510	47851.400000	0.011493	1.03

Sample Name: CCVH-5713036

Date: 5/23/2019 4:37:09 PM
Rack:Tube: S1:1
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003739	ppm	0.000061	1.62	-125.104000	Y 377.433
Al (394.401 nm)	50.105200 o	ppm	0.024691	0.05	597584.000000	Y 377.433
Al H (396.152 nm)	49.712700	ppm	0.225513	0.45	102220.000000	Y_R 377.433
As (188.980 nm)	0.003473	ppm	0.000543	15.63	2.808560	Y 242.219
B (249.678 nm)	-0.001167 u	ppm	0.000831	71.19	-0.023839	Y 242.219
Ba (493.408 nm)	0.000344	ppm	0.000101	29.34	1504.320000	Y_R 488.368
Be (234.861 nm)	0.001001	ppm	0.000029	2.85	-119.421000	Y_R 488.368
Bi (223.061 nm)	-0.003275 u	ppm	0.001580	48.26	-14.062700	Y 377.433
Ca (315.887 nm)	-0.001545 u	ppm	0.002071	> 100.00	-50.640999	Y_R 377.433
Cd (214.439 nm)	0.001420	ppm	0.000062	4.34	70.808200	Y 377.433
Co (228.615 nm)	0.003395	ppm	0.000130	3.84	61.808200	Y 242.219
Cr (205.560 nm)	0.001579	ppm	0.000442	27.97	3.803880	Y 377.433
Cu (324.754 nm)	0.003065	ppm	0.000272	8.88	1491.600000	Y 377.433
Fe (238.204 nm)	49.437579 o	ppm	0.258338	0.52	121854.580218	Y_R 377.433
Fe H (259.940 nm)	49.617200	ppm	0.253469	0.51	69467.900000	Y_R 377.433
K (766.491 nm)	-0.037859 u	ppm	0.058735	> 100.00	1944.020000	Y_R2 488.368
Li (670.783 nm)	0.018518	ppm	0.001728	9.33	-2308.990000	Y_R2 488.368
Mg (279.078 nm)	0.033912	ppm	0.003556	10.49	52.054000	Y 377.433
Mn (257.610 nm)	0.001046	ppm	0.000001	0.08	267.283000	Y 377.433
Mo (202.032 nm)	0.000517	ppm	0.000087	16.90	29.971700	Y 377.433
Na (589.592 nm)	239.169000 o	ppm	1.764130	0.74	177277.000000	Y_R2 488.368
Na H (589.593 nm)	254.400355	ppm	1.102999	0.43	126851.407296	Y_R4
Ni (231.604 nm)	0.002861	ppm	0.000794	27.75	4.617760	Y 377.433
P (213.618 nm)	4.909720	ppm	0.030567	0.62	7420.770000	Y 242.219
Pb (220.353 nm)	0.004747	ppm	0.002025	42.66	21.796700	Y 242.219
S (181.972 nm)	5.045769	ppm	0.019277	0.38	2274.388857	Y 377.433
Sb (206.834 nm)	0.006982	ppm	0.002229	31.92	9.150870	Y 377.433
Se (196.026 nm)	0.007273	ppm	0.001155	15.88	8.640120	Y 242.219
Si (288.158 nm)	0.016420	ppm	0.000391	2.38	616.356000	Y 377.433
Sn (189.925 nm)	0.000731	ppm	0.000043	5.86	3.510590	Y 377.433
Sr (421.552 nm)	0.001226	ppm	0.000127	10.39	234.461611	Y_R 488.368
Th (288.505 nm)	4.985050	ppm	0.001799	0.04	8710.520000	Y 377.433
Ti (336.122 nm)	0.002192	ppm	0.000039	1.79	-220.670000	Y 377.433
Tl (190.794 nm)	-0.000631 u	ppm	0.000721	> 100.00	-6.419320	Y 377.433
U (409.013 nm)	0.563191 Q	ppm	0.015351	2.73	1758.590000 Q	Y 377.433
V (292.401 nm)	0.001150	ppm	0.000078	6.82	380.582000	Y 377.433
Zn (206.200 nm)	0.002775	ppm	0.000487	17.56	25.209000	Y 377.433
Zr (343.823 nm)	0.001687	ppm	0.000203	12.04	-77.238400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.090172	24411.633854	0.002944	0.27
Y 377.433	1.090875	704842.735073	0.002276	0.21
Y_R 377.433	1.133120	62378.800000	0.009193	0.81
Y_R 488.368	1.129460	54583.300000	0.010805	0.96
Y_R2 488.368	1.141964	105842.280120	0.000841	0.07
Y_R4	1.147550	49137.400000	0.013006	1.13

Sample Name: CCV-5717467

Date: 5/23/2019 4:40:53 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.493493	ppm	0.001060	0.21	17057.000000	Y 377.433
Al (394.401 nm)	0.512745	ppm	0.002499	0.49	6379.720000	Y 377.433
Al H (396.152 nm)	0.575352 u	ppm	0.005125	0.89	1194.350000	Y_R 377.433
As (188.980 nm)	0.495692	ppm	0.003156	0.64	788.451000	Y 242.219
B (249.678 nm)	0.491456	ppm	0.002432	0.49	3557.970000	Y 242.219
Ba (493.408 nm)	0.493342	ppm	0.000503	0.10	49221.000000	Y_R 488.368
Be (234.861 nm)	0.479668	ppm	0.000379	0.08	48347.500000	Y_R 488.368
Bi (223.061 nm)	0.970570	ppm	0.003770	0.39	2198.810000	Y 377.433
Ca (315.887 nm)	4.970934	ppm	0.005240	0.11	3951.390875	Y_R 377.433
Cd (214.439 nm)	0.496454	ppm	0.001798	0.36	19857.000000	Y 377.433
Co (228.615 nm)	0.495145	ppm	0.000716	0.14	12242.600000	Y 242.219
Cr (205.560 nm)	0.495139	ppm	0.002630	0.53	3499.070000	Y 377.433
Cu (324.754 nm)	0.496330	ppm	0.004709	0.95	23457.300000	Y 377.433
Fe (238.204 nm)	2.494034	ppm	0.003047	0.12	6150.122997	Y_R 377.433
Fe H (259.940 nm)	2.444940 u	ppm	0.002703	0.11	3509.390000	Y_R 377.433
K (766.491 nm)	48.073400	ppm	0.129089	0.27	49695.900000	Y_R2 488.368
Li (670.783 nm)	0.510903	ppm	0.000840	0.16	6265.200000	Y_R2 488.368
Mg (279.078 nm)	19.665800	ppm	0.070433	0.36	69687.500000	Y 377.433
Mn (257.610 nm)	0.495411	ppm	0.001304	0.26	137009.000000	Y 377.433
Mo (202.032 nm)	0.492883	ppm	0.000234	0.05	6295.130000	Y 377.433
Na (589.592 nm)	24.131400	ppm	0.067122	0.28	18086.500000	Y_R2 488.368
Na H (589.593 nm)	26.900786 u	ppm	0.307435	1.14	13706.425663	Y_R4
Ni (231.604 nm)	0.493143	ppm	0.000692	0.14	2745.160000	Y 377.433
P (213.618 nm)	0.055546	ppm	0.003352	6.04	-61.689800	Y 242.219
Pb (220.353 nm)	0.496918	ppm	0.001291	0.26	1717.610000	Y 242.219
S (181.972 nm)	0.007145	ppm	0.006198	86.74	12.713979	Y 377.433
Sb (206.834 nm)	0.501422	ppm	0.003056	0.61	874.918000	Y 377.433
Se (196.026 nm)	0.494388	ppm	0.003194	0.65	814.178000	Y 242.219
Si (288.158 nm)	4.871120	ppm	0.016236	0.33	32639.500000	Y 377.433
Sn (189.925 nm)	0.493064	ppm	0.001379	0.28	862.245000	Y 377.433
Sr (421.552 nm)	0.495703	ppm	0.000721	0.15	72544.719993	Y_R 488.368
Th (288.505 nm)	0.016471	ppm	0.004983	30.25	-7.012150	Y 377.433
Ti (336.122 nm)	0.492069	ppm	0.001295	0.26	63492.100000	Y 377.433
Tl (190.794 nm)	0.501541	ppm	0.000430	0.09	1211.700000	Y 377.433
U (409.013 nm)	0.019442	ppm	0.004215	21.68	-40.239600	Y 377.433
V (292.401 nm)	0.491086	ppm	0.001550	0.32	25717.400000	Y 377.433
Zn (206.200 nm)	0.494630	ppm	0.001161	0.23	2459.120000	Y 377.433
Zr (343.823 nm)	0.493640	ppm	0.001072	0.22	28289.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123363	25154.866098	0.002557	0.23
Y 377.433	1.126367	727775.320272	0.004280	0.38
Y_R 377.433	1.160130	63865.400000	0.000684	0.06
Y_R 488.368	1.158110	55968.100000	0.000033	0.00
Y_R2 488.368	1.153216	106885.160139	0.003934	0.34
Y_R4	1.153790	49404.700000	0.013891	1.20

Sample Name: CCB

Date: 5/23/2019 4:44:29 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000389 u	ppm	0.000019	4.99	-259.414000	Y 377.433
Al (394.401 nm)	-0.001057 u	ppm	0.001853	> 100.00	115.900000	Y 377.433
Al H (396.152 nm)	0.120237 Zu	ppm	0.006406	5.33	22.159800 Z	Y_R 377.433
As (188.980 nm)	0.000037 u	ppm	0.000672	> 100.00	-1.245660	Y 242.219
B (249.678 nm)	-0.002468 u	ppm	0.000040	1.62	19.395500	Y 242.219
Ba (493.408 nm)	-0.002314 Zu	ppm	0.000110	4.75	1208.490000 Z	Y_R 488.368
Be (234.861 nm)	0.000004	ppm	0.000002	56.06	-5.276100	Y_R 488.368
Bi (223.061 nm)	0.001452	ppm	0.000236	16.23	-12.203500	Y 377.433
Ca (315.887 nm)	0.012585	ppm	0.000386	3.06	-51.815395	Y_R 377.433
Cd (214.439 nm)	0.000025	ppm	0.000014	57.49	-6.793480	Y 377.433
Co (228.615 nm)	0.000469	ppm	0.000319	67.99	-10.562400	Y 242.219
Cr (205.560 nm)	0.000082	ppm	0.000106	> 100.00	-5.383350	Y 377.433
Cu (324.754 nm)	0.000335	ppm	0.000278	83.01	427.744000	Y 377.433
Fe (238.204 nm)	-0.000001 u	ppm	0.001055	> 100.00	2.932480	Y_R 377.433
Fe H (259.940 nm)	-0.055833 u	ppm	0.000451	0.81	12.681500	Y_R 377.433
K (766.491 nm)	-0.300086 u	ppm	0.012935	4.31	1683.750000	Y_R2 488.368
Li (670.783 nm)	0.017013 Z	ppm	0.000224	1.32	-2335.210000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000013 u	ppm	0.001520	> 100.00	11.997400	Y 377.433
Mn (257.610 nm)	0.000073	ppm	0.000013	18.19	-1.939750	Y 377.433
Mo (202.032 nm)	-0.000816 u	ppm	0.000092	11.32	13.004900	Y 377.433
Na (589.592 nm)	0.149764	ppm	0.019253	12.86	220.876000	Y_R2 488.368
Na H (589.593 nm)	0.919676 u	ppm	0.005339	0.58	784.940992	Y_R4
Ni (231.604 nm)	0.000041 u	ppm	0.000663	> 100.00	-11.135400	Y 377.433
P (213.618 nm)	-0.003347 u	ppm	0.000818	24.43	-9.555280	Y 242.219
Pb (220.353 nm)	-0.000825 u	ppm	0.001211	> 100.00	10.048400	Y 242.219
S (181.972 nm)	-0.003618 u	ppm	0.005646	> 100.00	6.129762	Y 377.433
Sb (206.834 nm)	0.005888	ppm	0.002839	48.21	2.859800	Y 377.433
Se (196.026 nm)	0.001406	ppm	0.000202	14.39	12.860700	Y 242.219
Si (288.158 nm)	-0.005609 u	ppm	0.000449	8.00	471.042000	Y 377.433
Sn (189.925 nm)	0.001046	ppm	0.000337	32.23	4.060650	Y 377.433
Sr (421.552 nm)	0.000076	ppm	0.000070	92.98	58.999028	Y_R 488.368
Th (288.505 nm)	-0.002397 u	ppm	0.001036	43.23	10.285900	Y 377.433
Ti (336.122 nm)	0.000666	ppm	0.000134	20.20	-419.135000	Y 377.433
Tl (190.794 nm)	0.001424 u	ppm	0.002514	> 100.00	3.573170	Y 377.433
U (409.013 nm)	0.007112	ppm	0.006126	86.14	-19.531400	Y 377.433
V (292.401 nm)	0.000620	ppm	0.000038	6.07	-146.841000	Y 377.433
Zn (206.200 nm)	-0.000489 u	ppm	0.000526	> 100.00	1.388030	Y 377.433
Zr (343.823 nm)	0.000322	ppm	0.000099	30.73	-155.941000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.137095	25462.368233	0.006888	0.61
Y 377.433	1.138370	735530.784749	0.008086	0.71
Y_R 377.433	1.159140	63811.200000	0.001396	0.12
Y_R 488.368	1.155910	55861.600000	0.001811	0.16
Y_R2 488.368	1.151911	106764.217428	0.001582	0.14
Y_R4	1.148260	49167.800000	0.003869	0.34

Sample Name: CCVL-5717307

Date: 5/23/2019 4:47:40 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007971	ppm	0.000439	5.51	32.476700	Y 377.433
Al (394.401 nm)	0.097006	ppm	0.000313	0.32	1298.070000	Y 377.433
Al H (396.152 nm)	0.231418 u	ppm	0.007126	3.08	256.504000	Y_R 377.433
As (188.980 nm)	0.012636	ppm	0.000464	3.67	18.825600	Y 242.219
B (249.678 nm)	0.093711	ppm	0.000677	0.72	708.671000	Y 242.219
Ba (493.408 nm)	0.007039	ppm	0.000139	1.97	2114.550000	Y_R 488.368
Be (234.861 nm)	0.000976	ppm	0.000011	1.12	92.222900	Y_R 488.368
Bi (223.061 nm)	0.090559	ppm	0.001154	1.27	191.063000	Y 377.433
Ca (315.887 nm)	0.210540	ppm	0.001080	0.51	108.024717	Y_R 377.433
Cd (214.439 nm)	0.005176	ppm	0.000038	0.74	199.358000	Y 377.433
Co (228.615 nm)	0.010611	ppm	0.000173	1.63	240.632000	Y 242.219
Cr (205.560 nm)	0.010125	ppm	0.000229	2.26	65.601200	Y 377.433
Cu (324.754 nm)	0.015916	ppm	0.000060	0.37	1149.050000	Y 377.433
Fe (238.204 nm)	0.099957	ppm	0.000685	0.69	249.303942	Y_R 377.433
Fe H (259.940 nm)	0.048054 u	ppm	0.000673	1.40	157.941000	Y_R 377.433
K (766.491 nm)	2.641250	ppm	0.007846	0.30	4603.110000	Y_R2 488.368
Li (670.783 nm)	0.042669 Q	ppm	0.001628	3.82	-1888.440000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200651	ppm	0.000791	0.39	721.375000	Y 377.433
Mn (257.610 nm)	0.010553	ppm	0.000010	0.09	2897.050000	Y 377.433
Mo (202.032 nm)	0.018463	ppm	0.000039	0.21	258.319000	Y 377.433
Na (589.592 nm)	1.186490	ppm	0.039301	3.31	990.686000	Y_R2 488.368
Na H (589.593 nm)	1.692427 u	ppm	0.025347	1.50	1169.262232	Y_R4
Ni (231.604 nm)	0.041785	ppm	0.000254	0.61	222.162000	Y 377.433
P (213.618 nm)	2.781640	ppm	0.004733	0.17	4200.500000	Y 242.219
Pb (220.353 nm)	0.009106	ppm	0.000639	7.01	44.296700	Y 242.219
S (181.972 nm)	0.091836	ppm	0.009042	9.85	49.047037	Y 377.433
Sb (206.834 nm)	0.024101	ppm	0.000778	3.23	34.854600	Y 377.433
Se (196.026 nm)	0.016596	ppm	0.000539	3.25	37.539000	Y 242.219
Si (288.158 nm)	0.471492	ppm	0.000042	0.01	3618.150000	Y 377.433
Sn (189.925 nm)	0.096980	ppm	0.000213	0.22	171.390000	Y 377.433
Sr (421.552 nm)	0.009250	ppm	0.000037	0.40	1400.779493	Y_R 488.368
Th (288.505 nm)	0.014019	ppm	0.001701	12.13	38.500900	Y 377.433
Ti (336.122 nm)	0.010371	ppm	0.000002	0.02	843.525000	Y 377.433
Tl (190.794 nm)	0.015958	ppm	0.001193	7.47	38.657400	Y 377.433
U (409.013 nm)	0.067339	ppm	0.000646	0.96	167.984000	Y 377.433
V (292.401 nm)	0.010239	ppm	0.000026	0.25	356.551000	Y 377.433
Zn (206.200 nm)	0.020883	ppm	0.000804	3.85	107.476000	Y 377.433
Zr (343.823 nm)	0.010332	ppm	0.000082	0.80	421.197000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.152657	25810.840624	0.002885	0.25
Y 377.433	1.153055	745018.913111	0.004143	0.36
Y_R 377.433	1.182290	65085.600000	0.001203	0.10
Y_R 488.368	1.178520	56954.500000	0.002077	0.18
Y_R2 488.368	1.175644	108963.887192	0.001626	0.14
Y_R4	1.160760	49703.300000	0.000914	0.08

Sample Name: 280-123668-b-1-fPDS

Date: 5/23/2019 4:51:08 PM
Rack:Tube: 1:11

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052321	ppm	0.000480	0.92	1582.090000	Y 377.433
Al (394.401 nm)	1.065170	ppm	0.005660	0.53	12941.400000	Y 377.433
Al H (396.152 nm)	1.129630	ppm	0.009495	0.84	2192.330000	Y_R 377.433
As (188.980 nm)	0.205185	ppm	0.001039	0.51	325.602000	Y 242.219
B (249.678 nm)	0.124302	ppm	0.000110	0.09	927.353000	Y 242.219
Ba (493.408 nm)	0.214200	ppm	0.000036	0.02	22181.400000	Y_R 488.368
Be (234.861 nm)	0.049842	ppm	0.000415	0.83	5015.110000	Y_R 488.368
Bi (223.061 nm)	0.004482	ppm	0.001811	40.41	-5.051920	Y 377.433
Ca (315.887 nm)	70.159408	ppm	0.357067	0.51	56580.709629	Y_R 377.433
Cd (214.439 nm)	0.051089	ppm	0.000294	0.58	2036.800000	Y 377.433
Co (228.615 nm)	0.051318	ppm	0.001217	2.37	1248.850000	Y 242.219
Cr (205.560 nm)	0.052142	ppm	0.001137	2.18	363.114000	Y 377.433
Cu (324.754 nm)	0.055187	ppm	0.000048	0.09	2942.660000	Y 377.433
Fe (238.204 nm)	1.067086	ppm	0.004922	0.46	2633.043363	Y_R 377.433
Fe H (259.940 nm)	1.020140 u	ppm	0.003780	0.37	1517.170000	Y_R 377.433
K (766.491 nm)	20.904200	ppm	0.039593	0.19	22729.600000	Y_R2 488.368
Li (670.783 nm)	0.114325	ppm	0.000471	0.41	-640.655000	Y_R2 488.368
Mg (279.078 nm)	21.738500	ppm	0.049058	0.23	77024.900000	Y 377.433
Mn (257.610 nm)	0.298179	ppm	0.000726	0.24	82454.300000	Y 377.433
Mo (202.032 nm)	0.050948	ppm	0.000046	0.09	671.676000	Y 377.433
Na (589.592 nm)	265.479000 o	ppm	0.469076	0.18	196810.000000	Y_R2 488.368
Na H (589.593 nm)	289.220461	ppm	1.646421	0.57	144168.891872	Y_R4
Ni (231.604 nm)	0.051613	ppm	0.002178	4.22	277.300000	Y 377.433
P (213.618 nm)	2.056590	ppm	0.021763	1.06	3091.590000	Y 242.219
Pb (220.353 nm)	0.098569	ppm	0.001472	1.49	352.448000	Y 242.219
S (181.972 nm)	0.849865	ppm	0.005582	0.66	393.757131	Y 377.433
Sb (206.834 nm)	0.102293	ppm	0.000830	0.81	172.825000	Y 377.433
Se (196.026 nm)	0.199832	ppm	0.002573	1.29	335.496000	Y 242.219
Si (288.158 nm)	7.647480	ppm	0.052961	0.69	50953.200000	Y 377.433
Sn (189.925 nm)	0.097805	ppm	0.000114	0.12	172.830000	Y 377.433
Sr (421.552 nm)	0.257891	ppm	0.000725	0.28	37764.513007	Y_R 488.368
Th (288.505 nm)	0.199178	ppm	0.001179	0.59	362.383000	Y 377.433
Ti (336.122 nm)	0.050600	ppm	0.000237	0.47	6311.400000	Y 377.433
Tl (190.794 nm)	0.195130	ppm	0.000015	0.01	469.516000	Y 377.433
U (409.013 nm)	0.518699	ppm	0.008323	1.60	1568.660000	Y 377.433
V (292.401 nm)	0.051787	ppm	0.000094	0.18	2544.310000	Y 377.433
Zn (206.200 nm)	0.214544	ppm	0.000873	0.41	1068.790000	Y 377.433
Zr (343.823 nm)	0.051761	ppm	0.000150	0.29	2810.030000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.091195	24434.557757	0.001294	0.12
Y 377.433	1.097863	709358.047484	0.002233	0.20
Y_R 377.433	1.140890	62806.200000	0.004998	0.44
Y_R 488.368	1.134470	54825.300000	0.002859	0.25
Y_R2 488.368	1.112056	103070.264929	0.004536	0.41
Y_R4	1.126680	48243.700000	0.009663	0.86

Sample Name: mb 280-458909/1-a

Date: 5/23/2019 4:54:52 PM Rack:Tube: 1:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000472 u	ppm	0.000009	1.87	-262.413000	Y 377.433
Al (394.401 nm)	0.004189	ppm	0.000052	1.23	179.848000	Y 377.433
Al H (396.152 nm)	0.129142 u	ppm	0.007480	5.79	40.562200	Y_R 377.433
As (188.980 nm)	-0.000910 u	ppm	0.000403	44.33	-2.755710	Y 242.219
B (249.678 nm)	0.007062	ppm	0.000407	5.76	87.679300	Y 242.219
Ba (493.408 nm)	-0.001942 u	ppm	0.000100	5.15	1244.510000	Y_R 488.368
Be (234.861 nm)	0.000003 u	ppm	0.000015	> 100.00	-5.569770	Y_R 488.368
Bi (223.061 nm)	0.003537	ppm	0.000775	21.92	-7.441830	Y 377.433
Ca (315.887 nm)	0.077947	ppm	0.013522	17.35	0.956091	Y_R 377.433
Cd (214.439 nm)	-0.000050 u	ppm	0.000089	> 100.00	-9.765400	Y 377.433
Co (228.615 nm)	0.000138	ppm	0.000112	81.19	-18.738100	Y 242.219
Cr (205.560 nm)	0.000440	ppm	0.000142	32.24	-2.846590	Y 377.433
Cu (324.754 nm)	0.001644	ppm	0.000338	20.55	487.952000	Y 377.433
Fe (238.204 nm)	0.040444	ppm	0.000186	0.46	102.619947	Y_R 377.433
Fe H (259.940 nm)	-0.014867 u	ppm	0.000050	0.34	69.962200	Y_R 377.433
K (766.491 nm)	-0.213226 u	ppm	0.089793	42.11	1769.960000	Y_R2 488.368
Li (670.783 nm)	0.014162	ppm	0.003424	24.18	-2384.860000	Y_R2 488.368
Mg (279.078 nm)	0.018875	ppm	0.002045	10.83	78.722500	Y 377.433
Mn (257.610 nm)	0.000603	ppm	0.000005	0.84	144.781000	Y 377.433
Mo (202.032 nm)	-0.000595 u	ppm	0.000206	34.67	15.812200	Y 377.433
Na (589.592 nm)	0.275306	ppm	0.027285	9.91	313.915000	Y_R2 488.368
Na H (589.593 nm)	1.101075 u	ppm	0.019272	1.75	875.158031	Y_R4
Ni (231.604 nm)	0.000768	ppm	0.000334	43.45	-7.077130	Y 377.433
P (213.618 nm)	0.008258	ppm	0.001411	17.08	7.619320	Y 242.219
Pb (220.353 nm)	-0.001754 u	ppm	0.000176	10.04	6.872300	Y 242.219
S (181.972 nm)	0.005444	ppm	0.006390	> 100.00	10.203697	Y 377.433
Sb (206.834 nm)	0.004977	ppm	0.001283	25.78	1.247120	Y 377.433
Se (196.026 nm)	-0.002083 u	ppm	0.002186	> 100.00	7.181390	Y 242.219
Si (288.158 nm)	0.057194	ppm	0.000073	0.13	885.313000	Y 377.433
Sn (189.925 nm)	0.006450	ppm	0.001022	15.84	13.486600	Y 377.433
Sr (421.552 nm)	0.000138	ppm	0.000003	1.89	68.152799	Y_R 488.368
Th (288.505 nm)	-0.000800 u	ppm	0.000655	81.94	13.133000	Y 377.433
Ti (336.122 nm)	0.000895	ppm	0.000173	19.36	-389.204000	Y 377.433
Tl (190.794 nm)	0.000225 u	ppm	0.000490	> 100.00	0.658058	Y 377.433
U (409.013 nm)	0.009604	ppm	0.002301	23.96	-11.694100	Y 377.433
V (292.401 nm)	0.000276	ppm	0.000175	63.34	-165.658000	Y 377.433
Zn (206.200 nm)	0.006052	ppm	0.000381	6.30	33.859600	Y 377.433
Zr (343.823 nm)	0.000567	ppm	0.000045	7.97	-141.829000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.142893	25592.185621	0.003999	0.35
Y 377.433	1.142792	738387.814704	0.003201	0.28
Y_R 377.433	1.163080	64028.300000	0.003026	0.26
Y_R 488.368	1.160660	56091.300000	0.001396	0.12
Y_R2 488.368	1.142827	105922.299786	0.005434	0.48
Y_R4	1.133530	48537.200000	0.007299	0.64

Sample Name: lcs 280-458909/2-a

Date: 5/23/2019 4:58:03 PM Rack:Tube: 1:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050284	ppm	0.000248	0.49	1214.910000	Y 377.433
Al (394.401 nm)	9.939210 o	ppm	0.018773	0.19	119142.000000	Y 377.433
Al H (396.152 nm)	9.981030	ppm	0.011159	0.11	20803.700000	Y_R 377.433
As (188.980 nm)	1.975860	ppm	0.001054	0.05	3146.720000	Y 242.219
B (249.678 nm)	1.180290	ppm	0.000184	0.02	8490.660000	Y 242.219
Ba (493.408 nm)	1.978360	ppm	0.003935	0.20	193069.000000	Y_R 488.368
Be (234.861 nm)	0.965969	ppm	0.003182	0.33	97348.200000	Y_R 488.368
Bi (223.061 nm)	1.885300	ppm	0.003929	0.21	4286.540000	Y 377.433
Ca (315.887 nm)	48.936682	ppm	0.011476	0.02	39449.067853	Y_R 377.433
Cd (214.439 nm)	0.970634	ppm	0.001058	0.11	38832.800000	Y 377.433
Co (228.615 nm)	0.966554	ppm	0.000168	0.02	23920.900000	Y 242.219
Cr (205.560 nm)	0.972664	ppm	0.005921	0.61	6879.040000	Y 377.433
Cu (324.754 nm)	0.969630	ppm	0.008646	0.89	45490.800000	Y 377.433
Fe (238.204 nm)	9.894914 o	ppm	0.008239	0.08	24391.499325	Y_R 377.433
Fe H (259.940 nm)	9.896030	ppm	0.000600	0.01	13927.900000	Y_R 377.433
K (766.491 nm)	48.343000	ppm	0.170892	0.35	49963.400000	Y_R2 488.368
Li (670.783 nm)	0.998881	ppm	0.000049	0.00	14762.700000	Y_R2 488.368
Mg (279.078 nm)	48.868900	ppm	0.074035	0.15	173116.000000	Y 377.433
Mn (257.610 nm)	0.989991	ppm	0.001794	0.18	273809.000000	Y 377.433
Mo (202.032 nm)	0.994455	ppm	0.000146	0.01	12677.500000	Y 377.433
Na (589.592 nm)	47.307900	ppm	0.017996	0.04	35559.100000	Y_R2 488.368
Na H (589.593 nm)	52.985816	ppm	0.312126	0.59	26679.594193	Y_R4
Ni (231.604 nm)	0.959522	ppm	0.000053	0.01	5353.310000	Y 377.433
P (213.618 nm)	19.666800	ppm	0.009781	0.05	29479.600000	Y 242.219
Pb (220.353 nm)	0.975368	ppm	0.000185	0.02	3362.140000	Y 242.219
S (181.972 nm)	9.897100	ppm	0.030508	0.31	4459.013975	Y 377.433
Sb (206.834 nm)	0.004832	ppm	0.000381	7.89	-3.890000	Y 377.433
Se (196.026 nm)	1.918870	ppm	0.002923	0.15	3128.000000	Y 242.219
Si (288.158 nm)	2.245710	ppm	0.003162	0.14	15321.500000	Y 377.433
Sn (189.925 nm)	1.940030	ppm	0.000271	0.01	3386.060000	Y 377.433
Sr (421.552 nm)	0.992572	ppm	0.001702	0.17	145212.721922	Y_R 488.368
Th (288.505 nm)	1.004380	ppm	0.001853	0.18	1674.670000	Y 377.433
Ti (336.122 nm)	0.990967	ppm	0.000922	0.09	128511.000000	Y 377.433
Tl (190.794 nm)	1.950260	ppm	0.000191	0.01	4715.590000	Y 377.433
U (409.013 nm)	1.970840	ppm	0.005632	0.29	6073.340000	Y 377.433
V (292.401 nm)	0.979913	ppm	0.000801	0.08	51502.600000	Y 377.433
Zn (206.200 nm)	0.481468	ppm	0.000710	0.15	2394.940000	Y 377.433
Zr (343.823 nm)	0.492939	ppm	0.000951	0.19	28248.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081464	24216.642538	0.000841	0.08
Y 377.433	1.090607	704669.628039	0.000047	0.00
Y_R 377.433	1.136360	62557.200000	0.001611	0.14
Y_R 488.368	1.129010	54561.900000	0.001385	0.12
Y_R2 488.368	1.114605	103306.571337	0.000325	0.03
Y_R4	1.112130	47621.000000	0.001191	0.11

Sample Name: lcsd 280-458909/3-a

Date: 5/23/2019 5:01:41 PM
Rack:Tube: 1:14

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050788	ppm	0.000244	0.48	1229.670000	Y 377.433
Al (394.401 nm)	10.310700 o	ppm	0.009880	0.10	123579.000000	Y 377.433
Al H (396.152 nm)	10.300600	ppm	0.008094	0.08	21467.400000	Y_R 377.433
As (188.980 nm)	2.013150	ppm	0.000222	0.01	3206.120000	Y 242.219
B (249.678 nm)	1.154960	ppm	0.003228	0.28	8308.990000	Y 242.219
Ba (493.408 nm)	2.002460	ppm	0.000897	0.04	195404.000000	Y_R 488.368
Be (234.861 nm)	0.987117	ppm	0.000896	0.09	99479.400000	Y_R 488.368
Bi (223.061 nm)	1.920770	ppm	0.009136	0.48	4367.490000	Y 377.433
Ca (315.887 nm)	49.922351	ppm	0.040386	0.08	40244.918972	Y_R 377.433
Cd (214.439 nm)	0.983705	ppm	0.000303	0.03	39355.800000	Y 377.433
Co (228.615 nm)	0.979544	ppm	0.002573	0.26	24242.700000	Y 242.219
Cr (205.560 nm)	0.987185	ppm	0.003743	0.38	6981.840000	Y 377.433
Cu (324.754 nm)	0.981515	ppm	0.003489	0.36	46045.500000	Y 377.433
Fe (238.204 nm)	10.139101 o	ppm	0.006021	0.06	24993.359925	Y_R 377.433
Fe H (259.940 nm)	10.145500	ppm	0.014034	0.14	14276.700000	Y_R 377.433
K (766.491 nm)	48.827800	ppm	0.104415	0.21	50444.600000	Y_R2 488.368
Li (670.783 nm)	1.009660	ppm	0.003915	0.39	14950.400000	Y_R2 488.368
Mg (279.078 nm)	49.523900	ppm	0.033705	0.07	175436.000000	Y 377.433
Mn (257.610 nm)	1.003170	ppm	0.000651	0.06	277455.000000	Y 377.433
Mo (202.032 nm)	1.005510	ppm	0.000207	0.02	12818.100000	Y 377.433
Na (589.592 nm)	47.633500	ppm	0.042574	0.09	35805.300000	Y_R2 488.368
Na H (589.593 nm)	53.304793	ppm	0.110173	0.21	26838.234792	Y_R4
Ni (231.604 nm)	0.972054	ppm	0.000777	0.08	5423.370000	Y 377.433
P (213.618 nm)	19.980200	ppm	0.036303	0.18	29950.600000	Y 242.219
Pb (220.353 nm)	0.990964	ppm	0.000268	0.03	3415.630000	Y 242.219
S (181.972 nm)	10.070983	ppm	0.003576	0.04	4537.209858	Y 377.433
Sb (206.834 nm)	0.002174 u	ppm	0.003856	> 100.00	-8.640910	Y 377.433
Se (196.026 nm)	1.958640	ppm	0.000298	0.02	3192.590000	Y 242.219
Si (288.158 nm)	1.914340	ppm	0.004829	0.25	13135.600000	Y 377.433
Sn (189.925 nm)	1.968560	ppm	0.001332	0.07	3435.820000	Y 377.433
Sr (421.552 nm)	1.004424	ppm	0.000424	0.04	146946.109469	Y_R 488.368
Th (288.505 nm)	1.024060	ppm	0.003081	0.30	1707.900000	Y 377.433
Ti (336.122 nm)	1.005020	ppm	0.001257	0.13	130341.000000	Y 377.433
Tl (190.794 nm)	1.972660	ppm	0.004306	0.22	4769.720000	Y 377.433
U (409.013 nm)	1.991370	ppm	0.000157	0.01	6137.050000	Y 377.433
V (292.401 nm)	0.989934	ppm	0.000113	0.01	52032.500000	Y 377.433
Zn (206.200 nm)	0.488849	ppm	0.000380	0.08	2431.610000	Y 377.433
Zr (343.823 nm)	0.498486	ppm	0.000682	0.14	28568.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086238	24323.543200	0.000914	0.08
Y 377.433	1.096171	708265.011222	0.000815	0.07
Y_R 377.433	1.130890	62255.800000	0.004225	0.37
Y_R 488.368	1.127140	54471.100000	0.003416	0.30
Y_R2 488.368	1.125054	104274.998961	0.003512	0.31
Y_R4	1.133570	48538.900000	0.002988	0.26

Sample Name: 280-123350-j-1-b

Date: 5/23/2019 5:05:20 PM Rack:Tube: 1:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000018	ppm	0.000002	10.42	-304.103000	Y 377.433
Al (394.401 nm)	85.854900 o	ppm	0.180084	0.21	1026060.000000	Y 377.433
Al H (396.152 nm)	87.297400	ppm	0.064879	0.07	179924.000000	Y_R 377.433
As (188.980 nm)	0.047415	ppm	0.000496	1.05	71.845900	Y 242.219
B (249.678 nm)	0.066016	ppm	0.000590	0.89	461.680000	Y 242.219
Ba (493.408 nm)	1.213820	ppm	0.000030	0.00	119072.000000	Y_R 488.368
Be (234.861 nm)	0.003292	ppm	0.000034	1.04	-36.328900	Y_R 488.368
Bi (223.061 nm)	0.005544	ppm	0.002904	52.38	12.227600	Y 377.433
Ca (315.887 nm)	246.117786	ppm	0.085330	0.03	198660.634973	Y_R 377.433
Cd (214.439 nm)	0.001565	ppm	0.000046	2.93	91.633500	Y 377.433
Co (228.615 nm)	0.032642	ppm	0.001501	4.60	855.213000	Y 242.219
Cr (205.560 nm)	0.104490	ppm	0.000347	0.33	731.924000	Y 377.433
Cu (324.754 nm)	0.049748	ppm	0.000226	0.46	2595.720000	Y 377.433
Fe (238.204 nm)	83.560745 o	ppm	0.035707	0.04	205959.910566	Y_R 377.433
Fe H (259.940 nm)	84.031000	ppm	0.024912	0.03	117587.000000	Y_R 377.433
K (766.491 nm)	12.919700	ppm	0.033315	0.26	14804.800000	Y_R2 488.368
Li (670.783 nm)	0.151290	ppm	0.001850	1.22	3.045320	Y_R2 488.368
Mg (279.078 nm)	31.643500	ppm	0.025377	0.08	112011.000000	Y 377.433
Mn (257.610 nm)	1.672530	ppm	0.001352	0.08	462600.000000	Y 377.433
Mo (202.032 nm)	0.002921	ppm	0.000196	6.70	60.555500	Y 377.433
Na (589.592 nm)	12.428900	ppm	0.022072	0.18	9565.870000	Y_R2 488.368
Na H (589.593 nm)	15.454812 u	ppm	0.135615	0.88	8013.867661	Y_R4
Ni (231.604 nm)	0.054545	ppm	0.000268	0.49	293.457000	Y 377.433
P (213.618 nm)	3.645670	ppm	0.002021	0.06	5501.190000	Y 242.219
Pb (220.353 nm)	0.635835	ppm	0.001600	0.25	2180.080000	Y 242.219
S (181.972 nm)	1.238934	ppm	0.002254	0.18	581.100669	Y 377.433
Sb (206.834 nm)	-0.000529 u	ppm	0.000438	82.67	-7.472890	Y 377.433
Se (196.026 nm)	0.000222 u	ppm	0.000469	> 100.00	-9.833250	Y 242.219
Si (288.158 nm)	3.391160	ppm	0.003796	0.11	22877.200000	Y 377.433
Sn (189.925 nm)	0.010371	ppm	0.001125	10.85	20.325800	Y 377.433
Sr (421.552 nm)	0.780972	ppm	0.000691	0.09	114277.040035	Y_R 488.368
Th (288.505 nm)	0.031682	ppm	0.001670	5.27	67.346600	Y 377.433
Ti (336.122 nm)	1.512590	ppm	0.003234	0.21	196993.000000	Y 377.433
Tl (190.794 nm)	0.012041	ppm	0.001269	10.54	3.105030	Y 377.433
U (409.013 nm)	-0.011453 u	ppm	0.004358	38.06	-60.747300	Y 377.433
V (292.401 nm)	0.197326	ppm	0.000567	0.29	10329.200000	Y 377.433
Zn (206.200 nm)	0.220139	ppm	0.000325	0.15	1109.270000	Y 377.433
Zr (343.823 nm)	0.099579	ppm	0.000000	0.00	5567.250000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.112349	24908.229023	0.001470	0.13
Y 377.433	1.120741	724140.256506	0.001134	0.10
Y_R 377.433	1.165060	64137.100000	0.002371	0.20
Y_R 488.368	1.159150	56018.300000	0.001556	0.13
Y_R2 488.368	1.145851	106202.578337	0.001103	0.10
Y_R4	1.172670	50213.100000	0.005830	0.50

Sample Name: 280-123350-j-1-bSD@5

Date: 5/23/2019 5:09:04 PM Rack:Tube: 1:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000195 u	ppm	0.000526	> 100.00	-251.127000	Y 377.433
Al (394.401 nm)	17.777600 o	ppm	0.033441	0.19	212570.000000	Y 377.433
Al H (396.152 nm)	18.148400	ppm	0.067290	0.37	37224.900000	Y_R 377.433
As (188.980 nm)	0.008897	ppm	0.000998	11.22	12.368100	Y 242.219
B (249.678 nm)	0.013221	ppm	0.000548	4.14	121.672000	Y 242.219
Ba (493.408 nm)	0.248092	ppm	0.000550	0.22	25477.000000	Y_R 488.368
Be (234.861 nm)	0.000726	ppm	0.000045	6.27	-8.483830	Y_R 488.368
Bi (223.061 nm)	0.007868	ppm	0.000281	3.57	5.592040	Y 377.433
Ca (315.887 nm)	51.380186	ppm	0.149064	0.29	41423.824770	Y_R 377.433
Cd (214.439 nm)	0.000530	ppm	0.000107	20.12	21.131700	Y 377.433
Co (228.615 nm)	0.006726	ppm	0.000172	2.55	158.489000	Y 242.219
Cr (205.560 nm)	0.021762	ppm	0.000207	0.95	147.711000	Y 377.433
Cu (324.754 nm)	0.010130	ppm	0.000060	0.59	852.650000	Y 377.433
Fe (238.204 nm)	17.506136 o	ppm	0.038510	0.22	43151.314415	Y_R 377.433
Fe H (259.940 nm)	17.629300	ppm	0.061257	0.35	24740.800000	Y_R 377.433
K (766.491 nm)	2.447700	ppm	0.044360	1.81	4411.010000	Y_R2 488.368
Li (670.783 nm)	0.045138	ppm	0.000256	0.57	-1845.450000	Y_R2 488.368
Mg (279.078 nm)	6.704180	ppm	0.002271	0.03	23740.500000	Y 377.433
Mn (257.610 nm)	0.354467	ppm	0.000104	0.03	98023.400000	Y 377.433
Mo (202.032 nm)	0.000283	ppm	0.000023	8.09	26.992100	Y 377.433
Na (589.592 nm)	2.649820	ppm	0.008110	0.31	2123.650000	Y_R2 488.368
Na H (589.593 nm)	3.543898 u	ppm	0.068513	1.93	2090.075636	Y_R4
Ni (231.604 nm)	0.010891	ppm	0.000204	1.87	49.496400	Y 377.433
P (213.618 nm)	0.748057	ppm	0.000393	0.05	1125.250000	Y 242.219
Pb (220.353 nm)	0.135003	ppm	0.000202	0.15	473.233000	Y 242.219
S (181.972 nm)	0.248031	ppm	0.002771	1.12	122.685043	Y 377.433
Sb (206.834 nm)	0.002540	ppm	0.001912	75.25	-2.814380	Y 377.433
Se (196.026 nm)	-0.001799 u	ppm	0.000372	20.67	3.307540	Y 242.219
Si (288.158 nm)	0.692909	ppm	0.007482	1.08	5078.690000	Y 377.433
Sn (189.925 nm)	0.000901	ppm	0.000434	48.14	3.808300	Y 377.433
Sr (421.552 nm)	0.159229	ppm	0.000585	0.37	23337.688869	Y_R 488.368
Th (288.505 nm)	-0.001868 u	ppm	0.004037	> 100.00	11.129300	Y 377.433
Ti (336.122 nm)	0.310888	ppm	0.000651	0.21	40088.900000	Y 377.433
Tl (190.794 nm)	0.004100	ppm	0.001958	47.76	4.610380	Y 377.433
U (409.013 nm)	0.021263	ppm	0.015726	73.96	28.358100	Y 377.433
V (292.401 nm)	0.041197	ppm	0.000240	0.58	2011.130000	Y 377.433
Zn (206.200 nm)	0.051280	ppm	0.000349	0.68	261.022000	Y 377.433
Zr (343.823 nm)	0.021050	ppm	0.000077	0.37	1039.260000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.127486	25247.184600	0.001034	0.09
Y 377.433	1.130735	730597.765393	0.001452	0.13
Y_R 377.433	1.161740	63954.500000	0.004554	0.39
Y_R 488.368	1.155580	55845.900000	0.005711	0.49
Y_R2 488.368	1.148894	106484.612687	0.002032	0.18
Y_R4	1.151790	49319.200000	0.006656	0.58

Sample Name: 280-123350-j-1-c ms

Date: 5/23/2019 5:12:44 PM Rack:Tube: 1:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051769	ppm	0.000775	1.50	1194.850000	Y 377.433
Al (394.401 nm)	81.642800 o	ppm	0.030185	0.04	975971.000000	Y 377.433
Al H (396.152 nm)	82.637000	ppm	0.010834	0.01	170754.000000	Y_R 377.433
As (188.980 nm)	2.041500	ppm	0.003688	0.18	3248.760000	Y 242.219
B (249.678 nm)	1.062180	ppm	0.000026	0.00	7592.700000	Y 242.219
Ba (493.408 nm)	3.208750	ppm	0.002335	0.07	312318.000000	Y_R 488.368
Be (234.861 nm)	0.981773	ppm	0.004406	0.45	98557.400000	Y_R 488.368
Bi (223.061 nm)	1.921000	ppm	0.000179	0.01	4383.970000	Y 377.433
Ca (315.887 nm)	244.465571	ppm	0.159611	0.07	197325.611254	Y_R 377.433
Cd (214.439 nm)	0.956778	ppm	0.000908	0.09	38317.400000	Y 377.433
Co (228.615 nm)	0.996121	ppm	0.000710	0.07	24776.300000	Y 242.219
Cr (205.560 nm)	1.063980	ppm	0.001215	0.11	7524.130000	Y 377.433
Cu (324.754 nm)	1.036100	ppm	0.006365	0.61	48465.400000	Y 377.433
Fe (238.204 nm)	98.382654 o	ppm	0.007634	0.01	242492.324230	Y_R 377.433
Fe H (259.940 nm)	98.987100	ppm	0.063719	0.06	138499.000000	Y_R 377.433
K (766.491 nm)	60.758500	ppm	0.211527	0.35	62286.100000	Y_R2 488.368
Li (670.783 nm)	1.120700	ppm	0.000957	0.09	16883.900000	Y_R2 488.368
Mg (279.078 nm)	71.280200	ppm	0.034984	0.05	252397.000000	Y 377.433
Mn (257.610 nm)	2.720760	ppm	0.000119	0.00	752541.000000	Y 377.433
Mo (202.032 nm)	0.982295	ppm	0.000290	0.03	12522.700000	Y 377.433
Na (589.592 nm)	55.961700 o	ppm	0.067963	0.12	42221.800000	Y_R2 488.368
Na H (589.593 nm)	63.874643	ppm	0.216676	0.34	32095.059844	Y_R4
Ni (231.604 nm)	1.002990	ppm	0.001021	0.10	5596.170000	Y 377.433
P (213.618 nm)	23.427100	ppm	0.020111	0.09	35155.600000	Y 242.219
Pb (220.353 nm)	1.015650	ppm	0.000946	0.09	3483.450000	Y 242.219
S (181.972 nm)	10.697163	ppm	0.014017	0.13	4832.979205	Y 377.433
Sb (206.834 nm)	0.005967	ppm	0.002479	41.54	-5.772180	Y 377.433
Se (196.026 nm)	1.947320	ppm	0.005918	0.30	3152.160000	Y 242.219
Si (288.158 nm)	5.443660	ppm	0.023749	0.44	36416.100000	Y 377.433
Sn (189.925 nm)	1.898800	ppm	0.001302	0.07	3314.150000	Y 377.433
Sr (421.552 nm)	1.683063	ppm	0.000753	0.04	246209.748234	Y_R 488.368
Th (288.505 nm)	1.047300	ppm	0.005713	0.55	1745.490000	Y 377.433
Ti (336.122 nm)	3.663190	ppm	0.001272	0.03	476608.000000	Y 377.433
Tl (190.794 nm)	1.916640	ppm	0.000738	0.04	4603.160000	Y 377.433
U (409.013 nm)	1.962510	ppm	0.003728	0.19	6074.950000	Y 377.433
V (292.401 nm)	1.208310	ppm	0.000453	0.04	63715.800000	Y 377.433
Zn (206.200 nm)	0.669707	ppm	0.001670	0.25	3342.830000	Y 377.433
Zr (343.823 nm)	0.585612	ppm	0.000617	0.11	33592.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081276	24212.435249	0.000029	0.00
Y 377.433	1.094376	707104.770411	0.000791	0.07
Y_R 377.433	1.149530	63282.300000	0.005003	0.44
Y_R 488.368	1.142150	55196.600000	0.004824	0.42
Y_R2 488.368	1.137697	105446.833263	0.003077	0.27
Y_R4	1.150570	49266.700000	0.001715	0.15

Sample Name: 280-123350-j-1-d msd

Date: 5/23/2019 5:16:30 PM
Rack:Tube: 1:18

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051279	ppm	0.000001	0.00	1187.550000	Y 377.433
Al (394.401 nm)	74.267300 o	ppm	0.171900	0.23	887830.000000	Y 377.433
Al H (396.152 nm)	75.003900	ppm	0.077993	0.10	154996.000000	Y_R 377.433
As (188.980 nm)	2.027300	ppm	0.005119	0.25	3226.470000	Y 242.219
B (249.678 nm)	1.055350	ppm	0.001944	0.18	7550.460000	Y 242.219
Ba (493.408 nm)	3.174920	ppm	0.007646	0.24	309032.000000	Y_R 488.368
Be (234.861 nm)	0.990687	ppm	0.003664	0.37	99506.300000	Y_R 488.368
Bi (223.061 nm)	1.925160	ppm	0.000720	0.04	4391.370000	Y 377.433
Ca (315.887 nm)	209.728406	ppm	0.121411	0.06	169279.004102	Y_R 377.433
Cd (214.439 nm)	0.959652	ppm	0.000143	0.01	38427.300000	Y 377.433
Co (228.615 nm)	0.993987	ppm	0.000650	0.07	24708.800000	Y 242.219
Cr (205.560 nm)	1.053180	ppm	0.002965	0.28	7447.760000	Y 377.433
Cu (324.754 nm)	1.024040	ppm	0.004818	0.47	47926.200000	Y 377.433
Fe (238.204 nm)	86.905863 o	ppm	0.094680	0.11	214204.815283	Y_R 377.433
Fe H (259.940 nm)	87.490700	ppm	0.046368	0.05	122425.000000	Y_R 377.433
K (766.491 nm)	59.760800	ppm	0.153304	0.26	61295.900000	Y_R2 488.368
Li (670.783 nm)	1.105140	ppm	0.005112	0.46	16613.000000	Y_R2 488.368
Mg (279.078 nm)	69.055800	ppm	0.012695	0.02	244532.000000	Y 377.433
Mn (257.610 nm)	2.425100	ppm	0.002681	0.11	670761.000000	Y 377.433
Mo (202.032 nm)	0.985325	ppm	0.001015	0.10	12561.300000	Y 377.433
Na (589.592 nm)	54.674500	ppm	0.141485	0.26	41265.100000	Y_R2 488.368
Na H (589.593 nm)	62.201429	ppm	0.095759	0.15	31262.901055	Y_R4
Ni (231.604 nm)	0.998018	ppm	0.001152	0.12	5568.390000	Y 377.433
P (213.618 nm)	23.215400	ppm	0.005674	0.02	34837.800000	Y 242.219
Pb (220.353 nm)	1.014680	ppm	0.002368	0.23	3481.980000	Y 242.219
S (181.972 nm)	10.634179	ppm	0.011268	0.11	4802.142627	Y 377.433
Sb (206.834 nm)	0.001898	ppm	0.000285	15.03	-12.597600	Y 377.433
Se (196.026 nm)	1.943490	ppm	0.001926	0.10	3148.710000	Y 242.219
Si (288.158 nm)	5.357130	ppm	0.042441	0.79	35845.400000	Y 377.433
Sn (189.925 nm)	1.909210	ppm	0.004446	0.23	3332.300000	Y 377.433
Sr (421.552 nm)	1.588028	ppm	0.003724	0.23	232309.233662	Y_R 488.368
Th (288.505 nm)	1.039680	ppm	0.003895	0.37	1731.470000	Y 377.433
Ti (336.122 nm)	3.346600	ppm	0.004791	0.14	435328.000000	Y 377.433
Tl (190.794 nm)	1.923540	ppm	0.002393	0.12	4624.170000	Y 377.433
U (409.013 nm)	1.966190	ppm	0.009632	0.49	6083.760000	Y 377.433
V (292.401 nm)	1.178730	ppm	0.001358	0.12	62134.800000	Y 377.433
Zn (206.200 nm)	0.645938	ppm	0.000007	0.00	3223.090000	Y 377.433
Zr (343.823 nm)	0.575888	ppm	0.000261	0.05	33031.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080003	24183.925280	0.000098	0.01
Y 377.433	1.092826	706103.684714	0.000565	0.05
Y_R 377.433	1.133380	62392.800000	0.000273	0.02
Y_R 488.368	1.128900	54556.500000	0.001622	0.14
Y_R2 488.368	1.130602	104789.204172	0.002906	0.26
Y_R4	1.150600	49268.100000	0.002501	0.22

Sample Name: 280-123350-j-1-bPDS

Date: 5/23/2019 5:20:18 PM
Rack:Tube: 1:19

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050025	ppm	0.000248	0.50	1439.970000	Y 377.433
Al (394.401 nm)	58.240000 o	ppm	0.004108	0.01	696220.000000	Y 377.433
Al H (396.152 nm)	58.898500	ppm	0.025430	0.04	121519.000000	Y_R 377.433
As (188.980 nm)	0.230797	ppm	0.003026	1.31	363.977000	Y 242.219
B (249.678 nm)	0.157943	ppm	0.000205	0.13	1119.170000	Y 242.219
Ba (493.408 nm)	1.262420	ppm	0.004183	0.33	123781.000000	Y_R 488.368
Be (234.861 nm)	0.050093	ppm	0.000020	0.04	4672.280000	Y_R 488.368
Bi (223.061 nm)	0.000876 u	ppm	0.002647	> 100.00	2.040890	Y 377.433
Ca (315.887 nm)	219.293567	ppm	0.003248	0.00	176997.207373	Y_R 377.433
Cd (214.439 nm)	0.048181	ppm	0.000010	0.02	1957.810000	Y 377.433
Co (228.615 nm)	0.076526	ppm	0.000567	0.74	1952.310000	Y 242.219
Cr (205.560 nm)	0.117784	ppm	0.000544	0.46	826.591000	Y 377.433
Cu (324.754 nm)	0.085909	ppm	0.000498	0.58	4288.640000	Y 377.433
Fe (238.204 nm)	85.773971 o	ppm	0.104021	0.12	211414.977010	Y_R 377.433
Fe H (259.940 nm)	86.252400	ppm	0.031034	0.04	120693.000000	Y_R 377.433
K (766.491 nm)	28.507100	ppm	0.034814	0.12	30275.700000	Y_R2 488.368
Li (670.783 nm)	0.211054	ppm	0.001220	0.58	1043.750000	Y_R2 488.368
Mg (279.078 nm)	39.196400	ppm	0.047669	0.12	138761.000000	Y 377.433
Mn (257.610 nm)	2.069590	ppm	0.001258	0.06	572427.000000	Y 377.433
Mo (202.032 nm)	0.050271	ppm	0.000254	0.51	663.071000	Y 377.433
Na (589.592 nm)	29.827300	ppm	0.061788	0.21	22463.600000	Y_R2 488.368
Na H (589.593 nm)	33.197662 u	ppm	0.265616	0.80	16838.123703	Y_R4
Ni (231.604 nm)	0.091504	ppm	0.001837	2.01	500.226000	Y 377.433
P (213.618 nm)	5.481130	ppm	0.009440	0.17	8268.440000	Y 242.219
Pb (220.353 nm)	0.138914	ppm	0.000727	0.52	478.063000	Y 242.219
S (181.972 nm)	0.635056	ppm	0.013822	2.18	309.776420	Y 377.433
Sb (206.834 nm)	0.103127	ppm	0.002846	2.76	174.204000	Y 377.433
Se (196.026 nm)	0.194800	ppm	0.002937	1.51	306.338000	Y 242.219
Si (288.158 nm)	6.590900	ppm	0.028093	0.43	43983.700000	Y 377.433
Sn (189.925 nm)	0.102614	ppm	0.001164	1.13	181.216000	Y 377.433
Sr (421.552 nm)	1.059742	ppm	0.001925	0.18	155047.407562	Y_R 488.368
Th (288.505 nm)	0.225367	ppm	0.000214	0.09	410.357000	Y 377.433
Ti (336.122 nm)	1.773560	ppm	0.000903	0.05	230833.000000	Y 377.433
Tl (190.794 nm)	0.197589	ppm	0.000195	0.10	451.241000	Y 377.433
U (409.013 nm)	0.481708	ppm	0.007241	1.50	1485.670000	Y 377.433
V (292.401 nm)	0.243563	ppm	0.000046	0.02	12782.800000	Y 377.433
Zn (206.200 nm)	0.385872	ppm	0.000691	0.18	1932.190000	Y 377.433
Zr (343.823 nm)	0.130869	ppm	0.000280	0.21	7371.460000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.102458	24686.752543	0.002156	0.20
Y 377.433	1.113666	719569.148210	0.001645	0.15
Y_R 377.433	1.155150	63591.200000	0.000158	0.01
Y_R 488.368	1.147920	55475.400000	0.003308	0.29
Y_R2 488.368	1.145542	106173.966518	0.004695	0.41
Y_R4	1.163500	49820.700000	0.007118	0.61

Sample Name: 280-123350-j-2-b

Date: 5/23/2019 5:24:04 PM Rack:Tube: 1:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000066 u	ppm	0.000566	> 100.00	-309.675000	Y 377.433
Al (394.401 nm)	62.468900 o	ppm	0.044474	0.07	746631.000000	Y 377.433
Al H (396.152 nm)	63.716200	ppm	0.131481	0.21	131298.000000	Y_R 377.433
As (188.980 nm)	0.030572	ppm	0.000620	2.03	45.113700	Y 242.219
B (249.678 nm)	0.054794	ppm	0.000227	0.41	383.377000	Y 242.219
Ba (493.408 nm)	0.976240	ppm	0.001643	0.17	96055.900000	Y_R 488.368
Be (234.861 nm)	0.002418	ppm	0.000008	0.35	-108.621000	Y_R 488.368
Bi (223.061 nm)	0.004363	ppm	0.000461	10.56	8.872520	Y 377.433
Ca (315.887 nm)	192.019870	ppm	0.529844	0.28	154979.298083	Y_R 377.433
Cd (214.439 nm)	0.001208	ppm	0.000168	13.90	75.725100	Y 377.433
Co (228.615 nm)	0.029142	ppm	0.000400	1.37	773.690000	Y 242.219
Cr (205.560 nm)	0.083859	ppm	0.000210	0.25	586.384000	Y 377.433
Cu (324.754 nm)	0.058981	ppm	0.000395	0.67	3047.170000	Y 377.433
Fe (238.204 nm)	79.779335 o	ppm	0.243005	0.30	196639.652944	Y_R 377.433
Fe H (259.940 nm)	80.258200	ppm	0.274869	0.34	112312.000000	Y_R 377.433
K (766.491 nm)	11.848800	ppm	0.161860	1.37	13741.900000	Y_R2 488.368
Li (670.783 nm)	0.124332	ppm	0.001697	1.37	-466.399000	Y_R2 488.368
Mg (279.078 nm)	25.259400	ppm	0.052508	0.21	89396.100000	Y 377.433
Mn (257.610 nm)	1.784090	ppm	0.001356	0.08	493458.000000	Y 377.433
Mo (202.032 nm)	0.001020	ppm	0.000214	20.99	36.368500	Y 377.433
Na (589.592 nm)	5.554540	ppm	0.023930	0.43	4424.730000	Y_R2 488.368
Na H (589.593 nm)	7.088628 u	ppm	0.056423	0.80	3853.016878	Y_R4
Ni (231.604 nm)	0.057833	ppm	0.001120	1.94	311.827000	Y 377.433
P (213.618 nm)	3.407800	ppm	0.023199	0.68	5139.290000	Y 242.219
Pb (220.353 nm)	0.100948	ppm	0.000792	0.78	345.992000	Y 242.219
S (181.972 nm)	0.788760	ppm	0.018674	2.37	376.650709	Y 377.433
Sb (206.834 nm)	0.005546	ppm	0.003917	70.63	2.310470	Y 377.433
Se (196.026 nm)	0.002745	ppm	0.002297	83.67	-4.551800	Y 242.219
Si (288.158 nm)	2.344860	ppm	0.017332	0.74	15975.500000	Y 377.433
Sn (189.925 nm)	0.011843	ppm	0.000041	0.34	22.893100	Y 377.433
Sr (421.552 nm)	0.673460	ppm	0.001102	0.16	98552.893269	Y_R 488.368
Th (288.505 nm)	0.030157	ppm	0.005953	19.74	68.796000	Y 377.433
Ti (336.122 nm)	1.619490	ppm	0.000890	0.05	210708.000000	Y 377.433
Tl (190.794 nm)	0.006728	ppm	0.000821	12.21	-8.249700	Y 377.433
U (409.013 nm)	-0.001531 u	ppm	0.004129	> 100.00	-23.668600	Y 377.433
V (292.401 nm)	0.195999	ppm	0.000306	0.16	10269.900000	Y 377.433
Zn (206.200 nm)	0.205566	ppm	0.000574	0.28	1036.380000	Y 377.433
Zr (343.823 nm)	0.085682	ppm	0.000123	0.14	4765.920000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.117537	25024.415882	0.002598	0.23
Y 377.433	1.127265	728355.661250	0.002769	0.25
Y_R 377.433	1.157480	63719.500000	0.002444	0.21
Y_R 488.368	1.152920	55717.000000	0.003135	0.27
Y_R2 488.368	1.152362	106806.030117	0.011208	0.97
Y_R4	1.173660	50255.600000	0.002501	0.21

Sample Name: CCVH-5713036

Date: 5/23/2019 5:27:52 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004222	ppm	0.000042	1.01	-107.942000	Y 377.433
Al (394.401 nm)	50.158400 o	ppm	0.003739	0.01	598223.000000	Y 377.433
Al H (396.152 nm)	49.554100	ppm	0.170485	0.34	101893.000000	Y_R 377.433
As (188.980 nm)	0.003354	ppm	0.000594	17.72	2.621080	Y 242.219
B (249.678 nm)	-0.001198 u	ppm	0.000336	28.08	-0.187383	Y 242.219
Ba (493.408 nm)	0.001207	ppm	0.000510	42.25	1587.770000	Y_R 488.368
Be (234.861 nm)	0.001045	ppm	0.000037	3.53	-114.544000	Y_R 488.368
Bi (223.061 nm)	-0.004289 u	ppm	0.001568	36.56	-16.394200	Y 377.433
Ca (315.887 nm)	0.013378	ppm	0.003111	23.25	-38.636159	Y_R 377.433
Cd (214.439 nm)	0.001504	ppm	0.000148	9.82	74.147700	Y 377.433
Co (228.615 nm)	0.003279	ppm	0.000015	0.47	58.957600	Y 242.219
Cr (205.560 nm)	0.002074	ppm	0.000254	12.25	7.313780	Y 377.433
Cu (324.754 nm)	0.003306	ppm	0.000228	6.89	1499.750000	Y 377.433
Fe (238.204 nm)	49.300534 o	ppm	0.196248	0.40	121516.798288	Y_R 377.433
Fe H (259.940 nm)	49.488800	ppm	0.172388	0.35	69288.400000	Y_R 377.433
K (766.491 nm)	0.200171	ppm	0.005863	2.93	2180.270000	Y_R2 488.368
Li (670.783 nm)	0.014108	ppm	0.003985	28.25	-2385.790000	Y_R2 488.368
Mg (279.078 nm)	0.033054	ppm	0.001477	4.47	49.345900	Y 377.433
Mn (257.610 nm)	0.001091	ppm	0.000041	3.75	279.658000	Y 377.433
Mo (202.032 nm)	0.000271 u	ppm	0.000395	> 100.00	26.835200	Y 377.433
Na (589.592 nm)	235.272000 o	ppm	0.322316	0.14	174390.000000	Y_R2 488.368
Na H (589.593 nm)	256.007683	ppm	0.970750	0.38	127650.798388	Y_R4
Ni (231.604 nm)	0.002375	ppm	0.000038	1.59	1.904560	Y 377.433
P (213.618 nm)	4.901170	ppm	0.013724	0.28	7407.770000	Y 242.219
Pb (220.353 nm)	0.004355	ppm	0.000934	21.44	20.450300	Y 242.219
S (181.972 nm)	5.065024	ppm	0.009787	0.19	2283.038966	Y 377.433
Sb (206.834 nm)	0.006376	ppm	0.000725	11.36	8.073600	Y 377.433
Se (196.026 nm)	0.006010	ppm	0.000859	14.29	6.615720	Y 242.219
Si (288.158 nm)	0.013868	ppm	0.001252	9.03	599.518000	Y 377.433
Sn (189.925 nm)	0.001016	ppm	0.000564	55.56	4.008330	Y 377.433
Sr (421.552 nm)	0.001022	ppm	0.000097	9.45	204.605587	Y_R 488.368
Th (288.505 nm)	4.977630	ppm	0.004002	0.08	8697.510000	Y 377.433
Ti (336.122 nm)	0.002539	ppm	0.000026	1.02	-175.547000	Y 377.433
Tl (190.794 nm)	-0.000873 u	ppm	0.001149	> 100.00	-6.996570	Y 377.433
U (409.013 nm)	0.553586 Q	ppm	0.002334	0.42	1728.400000 Q	Y 377.433
V (292.401 nm)	0.001360	ppm	0.000231	16.97	390.283000	Y 377.433
Zn (206.200 nm)	0.003208	ppm	0.000153	4.78	27.342200	Y 377.433
Zr (343.823 nm)	0.001669	ppm	0.000038	2.25	-78.292400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.090700	24423.463060	0.000993	0.09
Y 377.433	1.092839	706112.215982	0.000428	0.04
Y_R 377.433	1.132240	62330.000000	0.003354	0.30
Y_R 488.368	1.123880	54313.600000	0.000820	0.07
Y_R2 488.368	1.116593	103490.782538	0.000015	0.00
Y_R4	1.141690	48886.500000	0.014073	1.23

Sample Name: CCV-5717467

Date: 5/23/2019 5:31:38 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.490125	ppm	0.000586	0.12	16938.900000	Y 377.433
Al (394.401 nm)	0.511616	ppm	0.002464	0.48	6367.070000	Y 377.433
Al H (396.152 nm)	0.562973 u	ppm	0.010027	1.78	1167.310000	Y_R 377.433
As (188.980 nm)	0.492940	ppm	0.001779	0.36	784.066000	Y 242.219
B (249.678 nm)	0.488094	ppm	0.000071	0.01	3533.890000	Y 242.219
Ba (493.408 nm)	0.489878	ppm	0.000166	0.03	48885.500000	Y_R 488.368
Be (234.861 nm)	0.478825	ppm	0.001725	0.36	48262.600000	Y_R 488.368
Bi (223.061 nm)	0.963948	ppm	0.004336	0.45	2183.700000	Y 377.433
Ca (315.887 nm)	4.950912	ppm	0.012998	0.26	3935.224936	Y_R 377.433
Cd (214.439 nm)	0.495062	ppm	0.001327	0.27	19801.300000	Y 377.433
Co (228.615 nm)	0.493331	ppm	0.000675	0.14	12197.600000	Y 242.219
Cr (205.560 nm)	0.490888	ppm	0.000557	0.11	3468.960000	Y 377.433
Cu (324.754 nm)	0.491647	ppm	0.001209	0.25	23238.900000	Y 377.433
Fe (238.204 nm)	2.481047	ppm	0.001035	0.04	6118.113563	Y_R 377.433
Fe H (259.940 nm)	2.437830 u	ppm	0.014434	0.59	3499.440000	Y_R 377.433
K (766.491 nm)	47.962300	ppm	0.025144	0.05	49585.600000	Y_R2 488.368
Li (670.783 nm)	0.499580	ppm	0.001847	0.37	6068.030000	Y_R2 488.368
Mg (279.078 nm)	19.586600	ppm	0.038457	0.20	69406.900000	Y 377.433
Mn (257.610 nm)	0.493766	ppm	0.000859	0.17	136554.000000	Y 377.433
Mo (202.032 nm)	0.491886	ppm	0.000145	0.03	6282.460000	Y 377.433
Na (589.592 nm)	23.867300	ppm	0.001088	0.00	17890.300000	Y_R2 488.368
Na H (589.593 nm)	26.261810 u	ppm	0.194891	0.74	13388.636604	Y_R4
Ni (231.604 nm)	0.491773	ppm	0.001779	0.36	2737.510000	Y 377.433
P (213.618 nm)	0.054280	ppm	0.000887	1.63	-62.399800	Y 242.219
Pb (220.353 nm)	0.494856	ppm	0.000704	0.14	1710.560000	Y 242.219
S (181.972 nm)	0.001195 u	ppm	0.009986	> 100.00	10.032229	Y 377.433
Sb (206.834 nm)	0.498960	ppm	0.001050	0.21	870.585000	Y 377.433
Se (196.026 nm)	0.496243	ppm	0.001131	0.23	817.195000	Y 242.219
Si (288.158 nm)	4.822750	ppm	0.010258	0.21	32320.400000	Y 377.433
Sn (189.925 nm)	0.489094	ppm	0.000008	0.00	855.320000	Y 377.433
Sr (421.552 nm)	0.493923	ppm	0.000459	0.09	72284.360059	Y_R 488.368
Th (288.505 nm)	0.012245	ppm	0.000745	6.09	-14.018800	Y 377.433
Ti (336.122 nm)	0.489104	ppm	0.000235	0.05	63106.600000	Y 377.433
Tl (190.794 nm)	0.501246	ppm	0.006201	1.24	1211.000000	Y 377.433
U (409.013 nm)	0.022519	ppm	0.013418	59.58	-30.282400	Y 377.433
V (292.401 nm)	0.488205	ppm	0.000493	0.10	25564.400000	Y 377.433
Zn (206.200 nm)	0.494255	ppm	0.002001	0.40	2457.260000	Y 377.433
Zr (343.823 nm)	0.490992	ppm	0.000500	0.10	28136.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.109772	24850.526928	0.005288	0.48
Y 377.433	1.111087	717902.363772	0.005640	0.51
Y_R 377.433	1.143700	62961.300000	0.001647	0.14
Y_R 488.368	1.140660	55124.600000	0.000018	0.00
Y_R2 488.368	1.121438	103939.859752	0.000350	0.03
Y_R4	1.132820	48506.600000	0.010665	0.94

Sample Name: CCB

Date: 5/23/2019 5:35:10 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000073 u	ppm	0.000148	> 100.00	-248.369000	Y 377.433
Al (394.401 nm)	-0.001254 u	ppm	0.001813	> 100.00	114.757000	Y 377.433
Al H (396.152 nm)	0.126945 Zu	ppm	0.003010	2.37	36.020300 Z	Y_R 377.433
As (188.980 nm)	-0.000859 u	ppm	0.001723	> 100.00	-2.673410	Y 242.219
B (249.678 nm)	-0.002599 u	ppm	0.000052	2.01	18.459600	Y 242.219
Ba (493.408 nm)	-0.002340 Zu	ppm	0.000146	6.24	1205.950000 Z	Y_R 488.368
Be (234.861 nm)	-0.000009 u	ppm	0.000039	> 100.00	-6.616260	Y_R 488.368
Bi (223.061 nm)	0.001696	ppm	0.000079	4.64	-11.648500	Y 377.433
Ca (315.887 nm)	0.011016	ppm	0.006462	58.66	-53.082217	Y_R 377.433
Cd (214.439 nm)	0.000089	ppm	0.000027	30.23	-4.243890	Y 377.433
Co (228.615 nm)	0.000073	ppm	0.000025	33.63	-20.367400	Y 242.219
Cr (205.560 nm)	-0.000451 u	ppm	0.000307	68.13	-9.160690	Y 377.433
Cu (324.754 nm)	0.000005 u	ppm	0.000292	> 100.00	411.910000	Y 377.433
Fe (238.204 nm)	-0.000257 u	ppm	0.000271	> 100.00	2.299435	Y_R 377.433
Fe H (259.940 nm)	-0.052615 u	ppm	0.002887	5.49	17.180700	Y_R 377.433
K (766.491 nm)	-0.189298 u	ppm	0.013702	7.24	1793.710000	Y_R2 488.368
Li (670.783 nm)	0.013395 Z	ppm	0.001446	10.80	-2398.210000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002603	ppm	0.000715	27.47	21.109200	Y 377.433
Mn (257.610 nm)	0.000069	ppm	0.000031	45.19	-2.894780	Y 377.433
Mo (202.032 nm)	-0.000551 u	ppm	0.000110	19.97	16.372300	Y 377.433
Na (589.592 nm)	0.131684	ppm	0.000512	0.39	207.457000	Y_R2 488.368
Na H (589.593 nm)	0.468758 u	ppm	0.035382	7.55	560.680540	Y_R4
Ni (231.604 nm)	-0.000884 u	ppm	0.000402	45.48	-16.307200	Y 377.433
P (213.618 nm)	0.000855	ppm	0.000721	84.30	-3.146060	Y 242.219
Pb (220.353 nm)	-0.001694 u	ppm	0.002179	> 100.00	7.086650	Y 242.219
S (181.972 nm)	-0.004745 u	ppm	0.000452	9.53	5.623682	Y 377.433
Sb (206.834 nm)	0.004403	ppm	0.002121	48.17	0.232967	Y 377.433
Se (196.026 nm)	-0.001116 u	ppm	0.002506	> 100.00	8.762160	Y 242.219
Si (288.158 nm)	-0.005624 u	ppm	0.002025	36.00	470.944000	Y 377.433
Sn (189.925 nm)	-0.000424 u	ppm	0.000133	31.35	1.496260	Y 377.433
Sr (421.552 nm)	0.000070	ppm	0.000008	11.75	58.120984	Y_R 488.368
Th (288.505 nm)	-0.002902 u	ppm	0.005115	> 100.00	9.468370	Y 377.433
Ti (336.122 nm)	0.000458	ppm	0.000042	9.08	-446.127000	Y 377.433
Tl (190.794 nm)	0.001096 u	ppm	0.003861	> 100.00	2.777800	Y 377.433
U (409.013 nm)	0.005007	ppm	0.000156	3.11	-26.097900	Y 377.433
V (292.401 nm)	0.000365	ppm	0.000150	41.05	-160.690000	Y 377.433
Zn (206.200 nm)	-0.000398 u	ppm	0.000466	> 100.00	1.840180	Y 377.433
Zr (343.823 nm)	0.000503	ppm	0.000171	33.88	-145.495000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115822	24986.016175	0.001528	0.14
Y 377.433	1.114374	720026.626444	0.000486	0.04
Y_R 377.433	1.141760	62854.600000	0.000147	0.01
Y_R 488.368	1.139620	55074.400000	0.003146	0.28
Y_R2 488.368	1.128325	104578.229592	0.009643	0.85
Y_R4	1.127340	48272.300000	0.004775	0.42

Sample Name: CCVL-5717307

Date: 5/23/2019 5:38:21 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007790	ppm	0.000058	0.75	26.182800	Y 377.433
Al (394.401 nm)	0.098659	ppm	0.000967	0.98	1316.740000	Y 377.433
Al H (396.152 nm)	0.223542 u	ppm	0.005817	2.60	240.262000	Y_R 377.433
As (188.980 nm)	0.013049	ppm	0.001362	10.44	19.483800	Y 242.219
B (249.678 nm)	0.093383	ppm	0.001081	1.16	706.313000	Y 242.219
Ba (493.408 nm)	0.007635	ppm	0.000215	2.81	2172.240000	Y_R 488.368
Be (234.861 nm)	0.000936	ppm	0.000042	4.49	88.200700	Y_R 488.368
Bi (223.061 nm)	0.087150	ppm	0.004664	5.35	183.289000	Y 377.433
Ca (315.887 nm)	0.215393	ppm	0.002323	1.08	111.943812	Y_R 377.433
Cd (214.439 nm)	0.005166	ppm	0.000028	0.55	198.963000	Y 377.433
Co (228.615 nm)	0.010762	ppm	0.000010	0.09	244.364000	Y 242.219
Cr (205.560 nm)	0.010154	ppm	0.000001	0.01	65.801800	Y 377.433
Cu (324.754 nm)	0.015536	ppm	0.000115	0.74	1132.040000	Y 377.433
Fe (238.204 nm)	0.102833	ppm	0.002864	2.78	256.392371	Y_R 377.433
Fe H (259.940 nm)	0.045577 u	ppm	0.000853	1.87	154.478000	Y_R 377.433
K (766.491 nm)	2.744770	ppm	0.005908	0.22	4705.850000	Y_R2 488.368
Li (670.783 nm)	0.035655 Q	ppm	0.001376	3.86	-2010.580000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200110	ppm	0.002819	1.41	719.513000	Y 377.433
Mn (257.610 nm)	0.010588	ppm	0.000034	0.32	2906.490000	Y 377.433
Mo (202.032 nm)	0.019155	ppm	0.000009	0.04	267.131000	Y 377.433
Na (589.592 nm)	1.174550	ppm	0.022215	1.89	981.932000	Y_R2 488.368
Na H (589.593 nm)	1.370706 u	ppm	0.022698	1.66	1009.256927	Y_R4
Ni (231.604 nm)	0.041704	ppm	0.001119	2.68	221.710000	Y 377.433
P (213.618 nm)	2.788930	ppm	0.024217	0.87	4211.420000	Y 242.219
Pb (220.353 nm)	0.007953	ppm	0.000793	9.97	40.323100	Y 242.219
S (181.972 nm)	0.086959	ppm	0.007225	8.31	46.856391	Y 377.433
Sb (206.834 nm)	0.023274	ppm	0.000353	1.52	33.393100	Y 377.433
Se (196.026 nm)	0.015729	ppm	0.001653	10.51	36.128400	Y 242.219
Si (288.158 nm)	0.470303	ppm	0.000528	0.11	3610.310000	Y 377.433
Sn (189.925 nm)	0.098387	ppm	0.000448	0.46	173.845000	Y 377.433
Sr (421.552 nm)	0.009119	ppm	0.000059	0.65	1381.588465	Y_R 488.368
Th (288.505 nm)	0.014951	ppm	0.001368	9.15	40.109000	Y 377.433
Ti (336.122 nm)	0.010136	ppm	0.000154	1.52	812.971000	Y 377.433
Tl (190.794 nm)	0.015467	ppm	0.002859	18.48	37.466000	Y 377.433
U (409.013 nm)	0.067089	ppm	0.005166	7.70	167.182000	Y 377.433
V (292.401 nm)	0.010054	ppm	0.000124	1.23	346.987000	Y 377.433
Zn (206.200 nm)	0.020526	ppm	0.000477	2.32	105.707000	Y 377.433
Zr (343.823 nm)	0.010546	ppm	0.000292	2.77	433.552000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.127966	25257.951216	0.004148	0.37
Y 377.433	1.127269	728358.088685	0.003176	0.28
Y_R 377.433	1.148080	63202.200000	0.003333	0.29
Y_R 488.368	1.144900	55329.800000	0.001664	0.15
Y_R2 488.368	1.141620	105810.443274	0.006827	0.60
Y_R4	1.138560	48752.600000	0.007016	0.62

Sample Name: 280-123350-j-14-a

Date: 5/23/2019 5:41:50 PM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000122 u	ppm	0.000370	> 100.00	-300.480000	Y 377.433
Al (394.401 nm)	85.847100 o	ppm	0.015123	0.02	1025960.000000	Y 377.433
Al H (396.152 nm)	87.026000	ppm	0.238492	0.27	179364.000000	Y_R 377.433
As (188.980 nm)	0.047853	ppm	0.002832	5.92	72.550000	Y 242.219
B (249.678 nm)	0.065622	ppm	0.000333	0.51	458.973000	Y 242.219
Ba (493.408 nm)	1.209650	ppm	0.004060	0.34	118668.000000	Y_R 488.368
Be (234.861 nm)	0.003278	ppm	0.000104	3.18	-36.981000	Y_R 488.368
Bi (223.061 nm)	0.003261	ppm	0.000118	3.62	6.985680	Y 377.433
Ca (315.887 nm)	245.693925	ppm	0.573373	0.23	198318.363609	Y_R 377.433
Cd (214.439 nm)	0.001584	ppm	0.000134	8.46	92.311500	Y 377.433
Co (228.615 nm)	0.032299	ppm	0.000951	2.94	846.687000	Y 242.219
Cr (205.560 nm)	0.105259	ppm	0.000503	0.48	737.378000	Y 377.433
Cu (324.754 nm)	0.049778	ppm	0.000156	0.31	2597.590000	Y 377.433
Fe (238.204 nm)	83.335297 o	ppm	0.122563	0.15	205404.237344	Y_R 377.433
Fe H (259.940 nm)	83.762600	ppm	0.191124	0.23	117212.000000	Y_R 377.433
K (766.491 nm)	12.913200	ppm	0.020337	0.16	14798.300000	Y_R2 488.368
Li (670.783 nm)	0.150463	ppm	0.000562	0.37	-11.362900	Y_R2 488.368
Mg (279.078 nm)	31.534300	ppm	0.037110	0.12	111624.000000	Y 377.433
Mn (257.610 nm)	1.672970	ppm	0.003507	0.21	462723.000000	Y 377.433
Mo (202.032 nm)	0.002718	ppm	0.000270	9.94	57.968200	Y 377.433
Na (589.592 nm)	12.303100	ppm	0.021273	0.17	9471.860000	Y_R2 488.368
Na H (589.593 nm)	14.128831 u	ppm	0.094510	0.67	7354.402308	Y_R4
Ni (231.604 nm)	0.054095	ppm	0.000282	0.52	290.942000	Y 377.433
P (213.618 nm)	3.637950	ppm	0.022050	0.61	5489.510000	Y 242.219
Pb (220.353 nm)	0.636335	ppm	0.000068	0.01	2181.870000	Y 242.219
S (181.972 nm)	1.242720	ppm	0.007585	0.61	582.728382	Y 377.433
Sb (206.834 nm)	0.004667	ppm	0.003949	84.63	1.695810	Y 377.433
Se (196.026 nm)	0.001243 u	ppm	0.001801	> 100.00	-8.122480	Y 242.219
Si (288.158 nm)	3.440610	ppm	0.015059	0.44	23203.400000	Y 377.433
Sn (189.925 nm)	0.008052	ppm	0.003119	38.73	16.280500	Y 377.433
Sr (421.552 nm)	0.779280	ppm	0.002435	0.31	114029.596722	Y_R 488.368
Th (288.505 nm)	0.034873	ppm	0.002015	5.78	72.984200	Y 377.433
Ti (336.122 nm)	1.512490	ppm	0.000146	0.01	196975.000000	Y 377.433
Tl (190.794 nm)	0.009761	ppm	0.000432	4.42	-2.340020	Y 377.433
U (409.013 nm)	-0.000302 u	ppm	0.005894	> 100.00	-25.791500	Y 377.433
V (292.401 nm)	0.197444	ppm	0.000104	0.05	10334.800000	Y 377.433
Zn (206.200 nm)	0.223683	ppm	0.000087	0.04	1126.820000	Y 377.433
Zr (343.823 nm)	0.099546	ppm	0.000245	0.25	5565.360000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105860	24762.934863	0.000649	0.06
Y 377.433	1.114562	720147.584610	0.000878	0.08
Y_R 377.433	1.167440	64267.900000	0.001583	0.14
Y_R 488.368	1.160510	56084.100000	0.000976	0.08
Y_R2 488.368	1.151228	106700.920128	0.000912	0.08
Y_R4	1.172180	50192.000000	0.001552	0.13

Sample Name: 280-123350-j-16-a

Date: 5/23/2019 5:45:35 PM Rack:Tube: 1:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000419	ppm	0.000551	> 100.00	-322.152000	Y 377.433
Al (394.401 nm)	182.484000 o	ppm	0.058487	0.03	2180640.000000	Y 377.433
Al H (396.152 nm)	182.990000	ppm	0.442145	0.24	377328.000000	Y_R 377.433
As (188.980 nm)	0.058942	ppm	0.002987	5.07	88.043400	Y 242.219
B (249.678 nm)	0.144894	ppm	0.000969	0.67	983.076000	Y 242.219
Ba (493.408 nm)	0.573866	ppm	0.001628	0.28	57142.400000	Y_R 488.368
Be (234.861 nm)	0.006725	ppm	0.000019	0.28	-18.396700	Y_R 488.368
Bi (223.061 nm)	-0.002462 u	ppm	0.001559	63.33	7.640660	Y 377.433
Ca (315.887 nm)	178.192094	ppm	0.497998	0.28	143845.877037	Y_R 377.433
Cd (214.439 nm)	0.001107	ppm	0.000030	2.67	106.638000	Y 377.433
Co (228.615 nm)	0.051845	ppm	0.000001	0.00	1426.820000	Y 242.219
Cr (205.560 nm)	0.125969	ppm	0.000185	0.15	881.376000	Y 377.433
Cu (324.754 nm)	0.164522	ppm	0.000283	0.17	7963.410000	Y 377.433
Fe (238.204 nm)	158.991539 o	ppm	0.469151	0.30	391878.531396	Y_R 377.433
Fe H (259.940 nm)	160.035000	ppm	0.459067	0.29	223859.000000	Y_R 377.433
K (766.491 nm)	28.824400	ppm	0.040269	0.14	30590.600000	Y_R2 488.368
Li (670.783 nm)	0.242756	ppm	0.000123	0.05	1595.800000	Y_R2 488.368
Mg (279.078 nm)	66.882400	ppm	0.103603	0.15	236760.000000	Y 377.433
Mn (257.610 nm)	1.794240	ppm	0.003108	0.17	496265.000000	Y 377.433
Mo (202.032 nm)	0.000445	ppm	0.000375	84.26	29.051000	Y 377.433
Na (589.592 nm)	15.809600	ppm	0.032268	0.20	11938.700000	Y_R2 488.368
Na H (589.593 nm)	17.035957 u	ppm	0.079034	0.46	8800.236636	Y_R4
Ni (231.604 nm)	0.082089	ppm	0.000459	0.56	447.383000	Y 377.433
P (213.618 nm)	4.707030	ppm	0.049428	1.05	7080.320000	Y 242.219
Pb (220.353 nm)	0.115496	ppm	0.000610	0.53	371.732000	Y 242.219
S (181.972 nm)	0.521476	ppm	0.009138	1.75	255.951547	Y 377.433
Sb (206.834 nm)	-0.000736 u	ppm	0.004989	> 100.00	-10.813400	Y 377.433
Se (196.026 nm)	0.004419 u	ppm	0.007056	> 100.00	-23.868900	Y 242.219
Si (288.158 nm)	2.994160	ppm	0.006647	0.22	20258.500000	Y 377.433
Sn (189.925 nm)	0.011114	ppm	0.000197	1.78	21.622100	Y 377.433
Sr (421.552 nm)	1.270916	ppm	0.003431	0.27	185942.316808	Y_R 488.368
Th (288.505 nm)	0.048972	ppm	0.008671	17.71	79.276300	Y 377.433
Ti (336.122 nm)	3.591460	ppm	0.002862	0.08	467050.000000	Y 377.433
Tl (190.794 nm)	0.012279	ppm	0.000036	0.29	-11.190700	Y 377.433
U (409.013 nm)	0.019987	ppm	0.001586	7.94	86.306600	Y 377.433
V (292.401 nm)	0.338355	ppm	0.000426	0.13	17894.800000	Y 377.433
Zn (206.200 nm)	0.407903	ppm	0.003835	0.94	2052.810000	Y 377.433
Zr (343.823 nm)	0.223006	ppm	0.000081	0.04	12684.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.099186	24613.497159	0.001250	0.11
Y 377.433	1.104127	713405.335872	0.002549	0.23
Y_R 377.433	1.158130	63755.500000	0.005291	0.46
Y_R 488.368	1.153400	55740.500000	0.004562	0.40
Y_R2 488.368	1.147946	106396.779789	0.001827	0.16
Y_R4	1.173100	50231.400000	0.004176	0.36

Sample Name: 280-123350-j-17-d

Date: 5/23/2019 5:49:23 PM Rack:Tube: 1:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000102 u	ppm	0.000127	> 100.00	-376.923000	Y 377.433
Al (394.401 nm)	232.661000 o	ppm	0.142293	0.06	2780120.000000	Y 377.433
Al H (396.152 nm)	232.204000	ppm	0.583540	0.25	478725.000000	Y_R 377.433
As (188.980 nm)	0.069550	ppm	0.000386	0.55	104.296000	Y 242.219
B (249.678 nm)	0.146290	ppm	0.001005	0.69	979.936000	Y 242.219
Ba (493.408 nm)	0.716638	ppm	0.002217	0.31	70989.200000	Y_R 488.368
Be (234.861 nm)	0.008675	ppm	0.000089	1.03	80.107200	Y_R 488.368
Bi (223.061 nm)	0.000434 u	ppm	0.003256	> 100.00	18.355400	Y 377.433
Ca (315.887 nm)	202.845186	ppm	0.338454	0.17	163761.756391	Y_R 377.433
Cd (214.439 nm)	0.001991	ppm	0.000044	2.22	151.947000	Y 377.433
Co (228.615 nm)	0.063018	ppm	0.000045	0.07	1581.450000	Y 242.219
Cr (205.560 nm)	0.193631	ppm	0.002078	1.07	1359.310000	Y 377.433
Cu (324.754 nm)	0.179188	ppm	0.000256	0.14	8675.490000	Y 377.433
Fe (238.204 nm)	181.883726 o	ppm	0.086728	0.05	448302.221020	Y_R 377.433
Fe H (259.940 nm)	184.941000	ppm	0.311241	0.17	258685.000000	Y_R 377.433
K (766.491 nm)	40.962400	ppm	0.112080	0.27	42638.000000	Y_R2 488.368
Li (670.783 nm)	0.317881	ppm	0.001221	0.38	2904.000000	Y_R2 488.368
Mg (279.078 nm)	82.230600	ppm	0.034502	0.04	291110.000000	Y 377.433
Mn (257.610 nm)	1.668690	ppm	0.000882	0.05	461537.000000	Y 377.433
Mo (202.032 nm)	0.002625	ppm	0.000038	1.45	56.786400	Y 377.433
Na (589.592 nm)	14.196500	ppm	0.019099	0.13	10773.200000	Y_R2 488.368
Na H (589.593 nm)	15.921603 u	ppm	0.029439	0.18	8246.021996	Y_R4
Ni (231.604 nm)	0.164294	ppm	0.001001	0.61	906.788000	Y 377.433
P (213.618 nm)	4.461470	ppm	0.012719	0.29	6704.820000	Y 242.219
Pb (220.353 nm)	0.131468	ppm	0.001289	0.98	421.475000	Y 242.219
S (181.972 nm)	0.744953	ppm	0.001485	0.20	357.120608	Y 377.433
Sb (206.834 nm)	0.000751 u	ppm	0.002145	> 100.00	6.503310	Y 377.433
Se (196.026 nm)	0.005436	ppm	0.004005	73.68	-28.694100	Y 242.219
Si (288.158 nm)	4.550440	ppm	0.057090	1.25	30524.200000	Y 377.433
Sn (189.925 nm)	0.013914	ppm	0.000068	0.49	26.506000	Y 377.433
Sr (421.552 nm)	1.225611	ppm	0.003017	0.25	179319.785831	Y_R 488.368
Th (288.505 nm)	0.071535	ppm	0.001794	2.51	106.966000	Y 377.433
Ti (336.122 nm)	0.977042	ppm	0.002055	0.21	127217.000000	Y 377.433
Tl (190.794 nm)	0.011496	ppm	0.001104	9.60	-2.207770	Y 377.433
U (409.013 nm)	-0.013582 u	ppm	0.003433	25.28	2.058970	Y 377.433
V (292.401 nm)	0.399309	ppm	0.000057	0.01	21014.400000	Y 377.433
Zn (206.200 nm)	0.582367	ppm	0.000914	0.16	2922.190000	Y 377.433
Zr (343.823 nm)	0.160580	ppm	0.000274	0.17	9084.590000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105765	24760.810843	0.001555	0.14
Y 377.433	1.109487	716868.903930	0.001163	0.10
Y_R 377.433	1.165810	64178.200000	0.000883	0.08
Y_R 488.368	1.158970	56009.600000	0.002053	0.18
Y_R2 488.368	1.149959	106583.309393	0.005170	0.45
Y_R4	1.171040	50143.300000	0.001189	0.10

Sample Name: mb 280-457072/1-a

Date: 5/23/2019 5:53:17 PM Rack:Tube: 1:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000020 u	ppm	0.000359	> 100.00	-246.455000	Y 377.433
Al (394.401 nm)	0.010079	ppm	0.001251	12.41	249.448000	Y 377.433
Al H (396.152 nm)	0.130130 u	ppm	0.007794	5.99	42.578200	Y_R 377.433
As (188.980 nm)	0.000727 u	ppm	0.003018	> 100.00	-0.147525	Y 242.219
B (249.678 nm)	-0.002115 u	ppm	0.000623	29.47	21.911100	Y 242.219
Ba (493.408 nm)	-0.002645 u	ppm	0.000034	1.27	1176.460000	Y_R 488.368
Be (234.861 nm)	-0.000015 u	ppm	0.000024	> 100.00	-7.362030	Y_R 488.368
Bi (223.061 nm)	0.000569	ppm	0.000405	71.28	-14.214400	Y 377.433
Ca (315.887 nm)	0.021734	ppm	0.003776	17.38	-44.428788	Y_R 377.433
Cd (214.439 nm)	-0.000057 u	ppm	0.000043	74.78	-10.065600	Y 377.433
Co (228.615 nm)	0.000099 u	ppm	0.000220	> 100.00	-19.697000	Y 242.219
Cr (205.560 nm)	0.000281 u	ppm	0.000667	> 100.00	-3.975950	Y 377.433
Cu (324.754 nm)	0.000642	ppm	0.000147	22.82	441.560000	Y 377.433
Fe (238.204 nm)	0.025292	ppm	0.000155	0.61	65.272858	Y_R 377.433
Fe H (259.940 nm)	-0.027628 u	ppm	0.001622	5.87	52.119100	Y_R 377.433
K (766.491 nm)	-0.225384 u	ppm	0.042241	18.74	1757.890000	Y_R2 488.368
Li (670.783 nm)	0.015910	ppm	0.000167	1.05	-2354.420000	Y_R2 488.368
Mg (279.078 nm)	0.009329	ppm	0.000797	8.54	45.073900	Y 377.433
Mn (257.610 nm)	0.000627	ppm	0.000017	2.65	151.520000	Y 377.433
Mo (202.032 nm)	-0.000782 u	ppm	0.000414	52.96	13.439700	Y 377.433
Na (589.592 nm)	0.088406	ppm	0.000267	0.30	175.309000	Y_R2 488.368
Na H (589.593 nm)	0.145264 u	ppm	0.036409	25.06	399.793795	Y_R4
Ni (231.604 nm)	-0.000435 u	ppm	0.000184	42.38	-13.800500	Y 377.433
P (213.618 nm)	0.000774 u	ppm	0.001919	> 100.00	-3.458640	Y 242.219
Pb (220.353 nm)	-0.001843 u	ppm	0.001547	83.97	6.545050	Y 242.219
S (181.972 nm)	-0.005594 u	ppm	0.004415	78.92	5.244405	Y 377.433
Sb (206.834 nm)	0.005009	ppm	0.000970	19.36	1.306640	Y 377.433
Se (196.026 nm)	-0.002276 u	ppm	0.002787	> 100.00	6.870620	Y 242.219
Si (288.158 nm)	0.000051 u	ppm	0.000303	> 100.00	508.377000	Y 377.433
Sn (189.925 nm)	0.000143 u	ppm	0.000336	> 100.00	2.486620	Y 377.433
Sr (421.552 nm)	0.000113	ppm	0.000099	87.87	64.481009	Y_R 488.368
Th (288.505 nm)	-0.000311 u	ppm	0.008452	> 100.00	13.928900	Y 377.433
Ti (336.122 nm)	0.000818	ppm	0.000031	3.73	-399.276000	Y 377.433
Tl (190.794 nm)	-0.001031 u	ppm	0.002082	> 100.00	-2.384740	Y 377.433
U (409.013 nm)	0.004163 u	ppm	0.007830	> 100.00	-28.724300	Y 377.433
V (292.401 nm)	0.000529	ppm	0.000148	27.90	-152.028000	Y 377.433
Zn (206.200 nm)	0.003938	ppm	0.000652	16.56	23.364100	Y 377.433
Zr (343.823 nm)	0.000560	ppm	0.000103	18.31	-142.232000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.134015	25393.389258	0.001576	0.14
Y 377.433	1.133323	732269.771476	0.000221	0.02
Y_R 377.433	1.162410	63991.300000	0.000880	0.08
Y_R 488.368	1.158160	55970.500000	0.003825	0.33
Y_R2 488.368	1.148441	106442.591273	0.003910	0.34
Y_R4	1.137750	48717.800000	0.005782	0.51

Sample Name: lcs 280-457072/2-a

Date: 5/23/2019 5:56:29 PM Rack:Tube: 1:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000285 u	ppm	0.000157	55.08	-578.663000	Y 377.433
Al (394.401 nm)	10.203100 o	ppm	0.006515	0.06	122302.000000	Y 377.433
Al H (396.152 nm)	10.149200	ppm	0.034017	0.34	21166.500000	Y_R 377.433
As (188.980 nm)	2.067340	ppm	0.001103	0.05	3292.470000	Y 242.219
B (249.678 nm)	1.015180	ppm	0.000522	0.05	7307.010000	Y 242.219
Ba (493.408 nm)	2.051950	ppm	0.007751	0.38	200198.000000	Y_R 488.368
Be (234.861 nm)	1.008290	ppm	0.005104	0.51	101614.000000	Y_R 488.368
Bi (223.061 nm)	1.959430	ppm	0.008630	0.44	4455.700000	Y 377.433
Ca (315.887 nm)	50.531657	ppm	0.068403	0.14	40736.797756	Y_R 377.433
Cd (214.439 nm)	1.008000	ppm	0.001075	0.11	40327.800000	Y 377.433
Co (228.615 nm)	1.000240	ppm	0.001339	0.13	24755.300000	Y 242.219
Cr (205.560 nm)	1.004180	ppm	0.000391	0.04	7102.090000	Y 377.433
Cu (324.754 nm)	0.998844	ppm	0.002157	0.22	46850.000000	Y 377.433
Fe (238.204 nm)	10.328342 o	ppm	0.021501	0.21	25459.794004	Y_R 377.433
Fe H (259.940 nm)	10.303100	ppm	0.025346	0.25	14497.000000	Y_R 377.433
K (766.491 nm)	49.567400	ppm	0.068154	0.14	51178.700000	Y_R2 488.368
Li (670.783 nm)	1.019910	ppm	0.003753	0.37	15128.900000	Y_R2 488.368
Mg (279.078 nm)	50.279700	ppm	0.047058	0.09	178113.000000	Y 377.433
Mn (257.610 nm)	1.026130	ppm	0.000630	0.06	283806.000000	Y 377.433
Mo (202.032 nm)	1.036610	ppm	0.001178	0.11	13213.900000	Y 377.433
Na (589.592 nm)	47.889100	ppm	0.011444	0.02	36005.200000	Y_R2 488.368
Na H (589.593 nm)	53.282895	ppm	0.199871	0.38	26827.343915	Y_R4
Ni (231.604 nm)	0.993091	ppm	0.002491	0.25	5540.990000	Y 377.433
P (213.618 nm)	20.569100	ppm	0.035537	0.17	30836.600000	Y 242.219
Pb (220.353 nm)	1.013180	ppm	0.003051	0.30	3492.000000	Y 242.219
S (181.972 nm)	10.421000	ppm	0.001832	0.02	4694.526637	Y 377.433
Sb (206.834 nm)	0.002737 u	ppm	0.004300	> 100.00	-7.789880	Y 377.433
Se (196.026 nm)	2.022550	ppm	0.001742	0.09	3296.440000	Y 242.219
Si (288.158 nm)	2.066250	ppm	0.002991	0.14	14137.700000	Y 377.433
Sn (189.925 nm)	2.003390	ppm	0.005273	0.26	3496.570000	Y 377.433
Sr (421.552 nm)	1.028384	ppm	0.004357	0.42	150450.268082	Y_R 488.368
Th (288.505 nm)	1.042810	ppm	0.002175	0.21	1738.450000	Y 377.433
Ti (336.122 nm)	1.025110	ppm	0.000509	0.05	132955.000000	Y 377.433
Tl (190.794 nm)	2.024070	ppm	0.001199	0.06	4894.060000	Y 377.433
U (409.013 nm)	2.036400	ppm	0.003744	0.18	6277.310000	Y 377.433
V (292.401 nm)	1.013520	ppm	0.000169	0.02	53275.600000	Y 377.433
Zn (206.200 nm)	0.498379	ppm	0.002839	0.57	2478.940000	Y 377.433
Zr (343.823 nm)	0.506570	ppm	0.000041	0.01	29034.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093940	24496.006578	0.004140	0.38
Y 377.433	1.103233	712828.005276	0.004110	0.37
Y_R 377.433	1.144970	63031.200000	0.001544	0.13
Y_R 488.368	1.140040	55094.900000	0.002749	0.24
Y_R2 488.368	1.131575	104879.445012	0.000371	0.03
Y_R4	1.145300	49041.100000	0.005952	0.52

Sample Name: 280-122974-a-4-b

Date: 5/23/2019 6:00:08 PM Rack:Tube: 1:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000197 u	ppm	0.000312	> 100.00	-243.020000	Y 377.433
Al (394.401 nm)	0.008265	ppm	0.000676	8.17	298.572000	Y 377.433
Al H (396.152 nm)	0.079532 u	ppm	0.006303	7.93	30.427700	Y_R 377.433
As (188.980 nm)	0.005619	ppm	0.002096	37.31	7.646270	Y 242.219
B (249.678 nm)	0.013978	ppm	0.000727	5.20	137.231000	Y 242.219
Ba (493.408 nm)	0.034189	ppm	0.000848	2.48	4744.320000	Y_R 488.368
Be (234.861 nm)	0.000049	ppm	0.000048	98.36	-1.047250	Y_R 488.368
Bi (223.061 nm)	0.002657	ppm	0.000123	4.64	-9.431440	Y 377.433
Ca (315.887 nm)	51.554260	ppm	0.006550	0.01	41559.779967	Y_R 377.433
Cd (214.439 nm)	0.000239	ppm	0.000048	20.02	1.787440	Y 377.433
Co (228.615 nm)	-0.000174 u	ppm	0.000053	30.45	-26.471800	Y 242.219
Cr (205.560 nm)	0.008237	ppm	0.000738	8.96	52.389300	Y 377.433
Cu (324.754 nm)	0.000534	ppm	0.000248	46.52	405.616000	Y 377.433
Fe (238.204 nm)	0.061561	ppm	0.001032	1.68	154.668232	Y_R 377.433
Fe H (259.940 nm)	0.005105 u	ppm	0.001849	36.21	97.888100	Y_R 377.433
K (766.491 nm)	5.300110	ppm	0.002919	0.06	7242.110000	Y_R2 488.368
Li (670.783 nm)	0.022109	ppm	0.005689	25.73	-2246.460000	Y_R2 488.368
Mg (279.078 nm)	12.125300	ppm	0.028669	0.24	42973.200000	Y 377.433
Mn (257.610 nm)	0.001119	ppm	0.000044	3.98	287.419000	Y 377.433
Mo (202.032 nm)	0.002197	ppm	0.000303	13.80	51.347000	Y 377.433
Na (589.592 nm)	16.403400	ppm	0.039388	0.24	12268.200000	Y_R2 488.368
Na H (589.593 nm)	17.144199 u	ppm	0.069136	0.40	8854.069805	Y_R4
Ni (231.604 nm)	-0.001270 u	ppm	0.000011	0.85	-18.464900	Y 377.433
P (213.618 nm)	0.040442	ppm	0.000286	0.71	56.297400	Y 242.219
Pb (220.353 nm)	-0.001485 u	ppm	0.000370	24.94	7.848720	Y 242.219
S (181.972 nm)	21.112398	ppm	0.094023	0.45	9494.164551	Y 377.433
Sb (206.834 nm)	0.004588	ppm	0.001944	42.37	0.606377	Y 377.433
Se (196.026 nm)	0.001450 u	ppm	0.002071	> 100.00	12.917300	Y 242.219
Si (288.158 nm)	14.841000	ppm	0.046787	0.32	98404.200000	Y 377.433
Sn (189.925 nm)	0.000595	ppm	0.000825	> 100.00	3.274200	Y 377.433
Sr (421.552 nm)	0.263389	ppm	0.000115	0.04	38568.448649	Y_R 488.368
Th (288.505 nm)	-0.003851 u	ppm	0.000927	24.06	5.628540	Y 377.433
Ti (336.122 nm)	0.000378	ppm	0.000216	57.31	-282.168000	Y 377.433
Tl (190.794 nm)	0.002313	ppm	0.002176	94.09	3.570330	Y 377.433
U (409.013 nm)	0.026182	ppm	0.003748	14.31	33.693100	Y 377.433
V (292.401 nm)	0.009973	ppm	0.000089	0.90	344.839000	Y 377.433
Zn (206.200 nm)	0.004787	ppm	0.000864	18.06	27.583700	Y 377.433
Zr (343.823 nm)	0.000525	ppm	0.000300	57.16	-144.274000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119963	25078.725194	0.004698	0.42
Y 377.433	1.121986	724944.846548	0.002682	0.24
Y_R 377.433	1.158200	63759.600000	0.003559	0.31
Y_R 488.368	1.152380	55690.800000	0.005108	0.44
Y_R2 488.368	1.141289	105779.736587	0.007059	0.62
Y_R4	1.148750	49188.700000	0.002872	0.25

Sample Name: 280-122974-a-4-bSD@5

Date: 5/23/2019 6:03:37 PM Rack:Tube: 1:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000182	ppm	0.000147	80.50	-240.197000	Y 377.433
Al (394.401 nm)	0.000810	ppm	0.000151	18.60	154.381000	Y 377.433
Al H (396.152 nm)	0.118468 u	ppm	0.004306	3.63	36.682700	Y_R 377.433
As (188.980 nm)	0.001166	ppm	0.001010	86.57	0.550902	Y 242.219
B (249.678 nm)	0.000017 u	ppm	0.000745	> 100.00	37.159700	Y 242.219
Ba (493.408 nm)	0.005078	ppm	0.000506	9.97	1924.590000	Y_R 488.368
Be (234.861 nm)	-0.000013 u	ppm	0.000033	> 100.00	-7.379500	Y_R 488.368
Bi (223.061 nm)	0.002182	ppm	0.000425	19.49	-10.521000	Y 377.433
Ca (315.887 nm)	10.407788	ppm	0.006780	0.07	8340.635359	Y_R 377.433
Cd (214.439 nm)	0.000048	ppm	0.000058	> 100.00	-5.828330	Y 377.433
Co (228.615 nm)	0.000072	ppm	0.000033	45.66	-20.393400	Y 242.219
Cr (205.560 nm)	0.001540	ppm	0.000528	34.27	4.950330	Y 377.433
Cu (324.754 nm)	0.000157	ppm	0.000081	51.47	412.298000	Y 377.433
Fe (238.204 nm)	0.084301	ppm	0.002132	2.53	210.715439	Y_R 377.433
Fe H (259.940 nm)	0.031007 u	ppm	0.000728	2.35	134.105000	Y_R 377.433
K (766.491 nm)	0.886442	ppm	0.067855	7.65	2861.410000	Y_R2 488.368
Li (670.783 nm)	0.019409	ppm	0.001580	8.14	-2293.480000	Y_R2 488.368
Mg (279.078 nm)	2.469190	ppm	0.001252	0.05	8760.290000	Y 377.433
Mn (257.610 nm)	0.000974	ppm	0.000041	4.20	247.420000	Y 377.433
Mo (202.032 nm)	-0.000108 u	ppm	0.000215	> 100.00	22.018300	Y 377.433
Na (589.592 nm)	3.388800	ppm	0.010416	0.31	2621.690000	Y_R2 488.368
Na H (589.593 nm)	3.477073 u	ppm	0.006079	0.17	2056.840962	Y_R4
Ni (231.604 nm)	-0.000267 u	ppm	0.000056	21.01	-12.858800	Y 377.433
P (213.618 nm)	0.010252	ppm	0.004345	42.38	10.936900	Y 242.219
Pb (220.353 nm)	-0.002322 u	ppm	0.000399	17.20	4.955060	Y 242.219
S (181.972 nm)	4.204181	ppm	0.021712	0.52	1896.818998	Y 377.433
Sb (206.834 nm)	0.004953	ppm	0.000516	10.41	1.219390	Y 377.433
Se (196.026 nm)	-0.000920 u	ppm	0.000806	87.63	9.059180	Y 242.219
Si (288.158 nm)	2.924940	ppm	0.002072	0.07	19801.800000	Y 377.433
Sn (189.925 nm)	-0.000539 u	ppm	0.000172	31.92	1.296070	Y 377.433
Sr (421.552 nm)	0.052132	ppm	0.000079	0.15	7672.263483	Y_R 488.368
Th (288.505 nm)	-0.002700 u	ppm	0.001786	66.15	9.451800	Y 377.433
Ti (336.122 nm)	0.000589	ppm	0.000021	3.54	-394.189000	Y 377.433
Tl (190.794 nm)	0.001416	ppm	0.000211	14.90	3.112400	Y 377.433
U (409.013 nm)	0.016394	ppm	0.001515	9.24	8.288290	Y 377.433
V (292.401 nm)	0.002131	ppm	0.000297	13.93	-68.278900	Y 377.433
Zn (206.200 nm)	0.005109	ppm	0.000699	13.69	29.187200	Y 377.433
Zr (343.823 nm)	0.000476	ppm	0.000015	3.19	-147.071000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.139828	25523.572808	0.000493	0.04
Y 377.433	1.140189	736705.978843	0.000558	0.05
Y_R 377.433	1.159970	63857.000000	0.000237	0.02
Y_R 488.368	1.158040	55964.800000	0.000074	0.01
Y_R2 488.368	1.149621	106552.041007	0.002645	0.23
Y_R4	1.150480	49262.800000	0.001396	0.12

Sample Name: 280-122974-a-4-c ms

Date: 5/23/2019 6:07:07 PM
Rack:Tube: 1:28

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000079	ppm	0.000046	58.48	-576.941000	Y 377.433
Al (394.401 nm)	10.295500 o	ppm	0.008512	0.08	123481.000000	Y 377.433
Al H (396.152 nm)	10.258100	ppm	0.022897	0.22	21493.800000	Y_R 377.433
As (188.980 nm)	2.123310	ppm	0.009776	0.46	3381.640000	Y 242.219
B (249.678 nm)	1.066400	ppm	0.001288	0.12	7674.090000	Y 242.219
Ba (493.408 nm)	2.121040	ppm	0.002599	0.12	206890.000000	Y_R 488.368
Be (234.861 nm)	1.030330	ppm	0.000959	0.09	103836.000000	Y_R 488.368
Bi (223.061 nm)	1.989020	ppm	0.002233	0.11	4523.210000	Y 377.433
Ca (315.887 nm)	103.300138	ppm	0.026322	0.03	83338.888651	Y_R 377.433
Cd (214.439 nm)	1.017270	ppm	0.000990	0.10	40699.100000	Y 377.433
Co (228.615 nm)	1.010100	ppm	0.001547	0.15	24999.800000	Y 242.219
Cr (205.560 nm)	1.037540	ppm	0.006307	0.61	7338.350000	Y 377.433
Cu (324.754 nm)	1.023440	ppm	0.001588	0.16	47962.200000	Y 377.433
Fe (238.204 nm)	10.379852 o	ppm	0.000200	0.00	25586.752718	Y_R 377.433
Fe H (259.940 nm)	10.372000	ppm	0.013919	0.13	14593.500000	Y_R 377.433
K (766.491 nm)	56.490800	ppm	0.040736	0.07	58050.400000	Y_R2 488.368
Li (670.783 nm)	1.044220	ppm	0.001141	0.11	15552.200000	Y_R2 488.368
Mg (279.078 nm)	62.988700	ppm	0.105506	0.17	223142.000000	Y 377.433
Mn (257.610 nm)	1.035510	ppm	0.001340	0.13	286400.000000	Y 377.433
Mo (202.032 nm)	1.054640	ppm	0.000464	0.04	13443.300000	Y 377.433
Na (589.592 nm)	65.285800 o	ppm	0.108861	0.17	48905.800000	Y_R2 488.368
Na H (589.593 nm)	72.283809	ppm	0.101788	0.14	36277.287310	Y_R4
Ni (231.604 nm)	0.998545	ppm	0.000477	0.05	5571.500000	Y 377.433
P (213.618 nm)	20.938500	ppm	0.041057	0.20	31388.700000	Y 242.219
Pb (220.353 nm)	1.024520	ppm	0.003201	0.31	3530.880000	Y 242.219
S (181.972 nm)	32.470314	ppm	0.140010	0.43	14601.911413	Y 377.433
Sb (206.834 nm)	0.001700 u	ppm	0.002807	> 100.00	-9.587130	Y 377.433
Se (196.026 nm)	2.059840	ppm	0.004995	0.24	3357.040000	Y 242.219
Si (288.158 nm)	17.422700	ppm	0.042131	0.24	115434.000000	Y 377.433
Sn (189.925 nm)	2.049040	ppm	0.003713	0.18	3576.190000	Y 377.433
Sr (421.552 nm)	1.315303	ppm	0.000781	0.06	192412.077852	Y_R 488.368
Th (288.505 nm)	1.053440	ppm	0.001168	0.11	1752.530000	Y 377.433
Ti (336.122 nm)	1.041510	ppm	0.000762	0.07	135267.000000	Y 377.433
Tl (190.794 nm)	2.038940	ppm	0.002097	0.10	4927.740000	Y 377.433
U (409.013 nm)	2.069700	ppm	0.004647	0.22	6374.140000	Y 377.433
V (292.401 nm)	1.042910	ppm	0.001361	0.13	54823.000000	Y 377.433
Zn (206.200 nm)	0.498867	ppm	0.001165	0.23	2481.370000	Y 377.433
Zr (343.823 nm)	0.511936	ppm	0.000341	0.07	29344.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.079772	24178.768632	0.003806	0.35
Y 377.433	1.092299	705762.920290	0.003949	0.36
Y_R 377.433	1.131160	62270.900000	0.005797	0.51
Y_R 488.368	1.128130	54519.000000	0.004596	0.41
Y_R2 488.368	1.116899	103519.187908	0.002676	0.24
Y_R4	1.115490	47764.600000	0.007539	0.68

Sample Name: 280-122974-a-4-d msd

Date: 5/23/2019 6:10:46 PM Rack:Tube: 1:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000051 u	ppm	0.000512	> 100.00	-579.283000	Y 377.433
Al (394.401 nm)	10.331800 o	ppm	0.006025	0.06	123913.000000	Y 377.433
Al H (396.152 nm)	10.213800	ppm	0.006306	0.06	21399.500000	Y_R 377.433
As (188.980 nm)	2.112540	ppm	0.002915	0.14	3364.460000	Y 242.219
B (249.678 nm)	1.068570	ppm	0.000546	0.05	7689.120000	Y 242.219
Ba (493.408 nm)	2.105810	ppm	0.000060	0.00	205416.000000	Y_R 488.368
Be (234.861 nm)	1.024010	ppm	0.003223	0.31	103194.000000	Y_R 488.368
Bi (223.061 nm)	1.999010	ppm	0.008461	0.42	4546.160000	Y 377.433
Ca (315.887 nm)	103.027102	ppm	0.073655	0.07	83118.445386	Y_R 377.433
Cd (214.439 nm)	1.015590	ppm	0.001462	0.14	40632.200000	Y 377.433
Co (228.615 nm)	1.004740	ppm	0.000546	0.05	24867.200000	Y 242.219
Cr (205.560 nm)	1.027220	ppm	0.006901	0.67	7265.270000	Y 377.433
Cu (324.754 nm)	1.022060	ppm	0.000833	0.08	47898.500000	Y 377.433
Fe (238.204 nm)	11.271544 o	ppm	0.036287	0.32	27784.557798	Y_R 377.433
Fe H (259.940 nm)	11.276500	ppm	0.035761	0.32	15858.000000	Y_R 377.433
K (766.491 nm)	56.423800	ppm	0.021284	0.04	57983.900000	Y_R2 488.368
Li (670.783 nm)	1.041820	ppm	0.000970	0.09	15510.500000	Y_R2 488.368
Mg (279.078 nm)	63.180900	ppm	0.025775	0.04	223822.000000	Y 377.433
Mn (257.610 nm)	1.062430	ppm	0.001088	0.10	293845.000000	Y 377.433
Mo (202.032 nm)	1.050810	ppm	0.000838	0.08	13394.500000	Y 377.433
Na (589.592 nm)	65.121000 o	ppm	0.047405	0.07	48780.400000	Y_R2 488.368
Na H (589.593 nm)	72.127161	ppm	0.273526	0.38	36199.379976	Y_R4
Ni (231.604 nm)	0.995762	ppm	0.000615	0.06	5555.930000	Y 377.433
P (213.618 nm)	20.910500	ppm	0.041839	0.20	31346.600000	Y 242.219
Pb (220.353 nm)	1.023000	ppm	0.001108	0.11	3525.690000	Y 242.219
S (181.972 nm)	32.695219	ppm	0.132482	0.41	14702.995727	Y 377.433
Sb (206.834 nm)	0.005081	ppm	0.001145	22.53	-3.574710	Y 377.433
Se (196.026 nm)	2.054800	ppm	0.002985	0.15	3348.640000	Y 242.219
Si (288.158 nm)	17.491900	ppm	0.017486	0.10	115890.000000	Y 377.433
Sn (189.925 nm)	2.047970	ppm	0.002400	0.12	3574.330000	Y 377.433
Sr (421.552 nm)	1.310025	ppm	0.000901	0.07	191640.224690	Y_R 488.368
Th (288.505 nm)	1.054800	ppm	0.000523	0.05	1755.960000	Y 377.433
Ti (336.122 nm)	1.037120	ppm	0.000137	0.01	134695.000000	Y 377.433
Tl (190.794 nm)	2.032260	ppm	0.001304	0.06	4911.480000	Y 377.433
U (409.013 nm)	2.066390	ppm	0.002395	0.12	6364.560000	Y 377.433
V (292.401 nm)	1.038230	ppm	0.000063	0.01	54579.200000	Y 377.433
Zn (206.200 nm)	0.500553	ppm	0.001144	0.23	2489.870000	Y 377.433
Zr (343.823 nm)	0.511442	ppm	0.000024	0.00	29315.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.083593	24264.318021	0.000163	0.02
Y 377.433	1.094300	707055.768691	0.000190	0.02
Y_R 377.433	1.140730	62797.500000	0.003210	0.28
Y_R 488.368	1.135890	54894.200000	0.003261	0.29
Y_R2 488.368	1.130234	104755.096672	0.003327	0.29
Y_R4	1.139690	48800.700000	0.010385	0.91

Sample Name: 280-122974-a-4-bPDS

Date: 5/23/2019 6:14:25 PM
Rack:Tube: 1:30

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050379	ppm	0.000447	0.89	1510.830000	Y 377.433
Al (394.401 nm)	0.971459	ppm	0.001465	0.15	11834.300000	Y 377.433
Al H (396.152 nm)	1.037200	ppm	0.005516	0.53	2021.580000	Y_R 377.433
As (188.980 nm)	0.199321	ppm	0.000630	0.32	316.260000	Y 242.219
B (249.678 nm)	0.116484	ppm	0.000566	0.49	871.343000	Y 242.219
Ba (493.408 nm)	0.131580	ppm	0.000266	0.20	14178.600000	Y_R 488.368
Be (234.861 nm)	0.048754	ppm	0.000560	1.15	4905.500000	Y_R 488.368
Bi (223.061 nm)	0.004811	ppm	0.000238	4.95	-4.299480	Y 377.433
Ca (315.887 nm)	69.719271	ppm	0.219414	0.31	56225.353176	Y_R 377.433
Cd (214.439 nm)	0.048689	ppm	0.000045	0.09	1940.760000	Y 377.433
Co (228.615 nm)	0.048641	ppm	0.000500	1.03	1182.660000	Y 242.219
Cr (205.560 nm)	0.055826	ppm	0.000550	0.98	389.229000	Y 377.433
Cu (324.754 nm)	0.048937	ppm	0.000067	0.14	2652.880000	Y 377.433
Fe (238.204 nm)	1.038899	ppm	0.001515	0.15	2563.567605	Y_R 377.433
Fe H (259.940 nm)	0.979366 u	ppm	0.001519	0.16	1460.150000	Y_R 377.433
K (766.491 nm)	24.109200	ppm	0.110963	0.46	25910.600000	Y_R2 488.368
Li (670.783 nm)	0.113678	ppm	0.001086	0.96	-651.917000	Y_R2 488.368
Mg (279.078 nm)	30.858300	ppm	0.001087	0.00	109338.000000	Y 377.433
Mn (257.610 nm)	0.050063	ppm	0.000089	0.18	13825.400000	Y 377.433
Mo (202.032 nm)	0.053573	ppm	0.000105	0.20	705.083000	Y 377.433
Na (589.592 nm)	34.878200	ppm	0.069231	0.20	25973.400000	Y_R2 488.368
Na H (589.593 nm)	37.174909 u	ppm	0.178286	0.48	18816.173844	Y_R4
Ni (231.604 nm)	0.044985	ppm	0.000534	1.19	240.268000	Y 377.433
P (213.618 nm)	1.971890	ppm	0.002160	0.11	2964.800000	Y 242.219
Pb (220.353 nm)	0.095838	ppm	0.002160	2.25	343.075000	Y 242.219
S (181.972 nm)	21.074237	ppm	0.104940	0.50	9478.030940	Y 377.433
Sb (206.834 nm)	0.107069	ppm	0.003001	2.80	181.273000	Y 377.433
Se (196.026 nm)	0.192529	ppm	0.003571	1.85	323.267000	Y 242.219
Si (288.158 nm)	19.501000	ppm	0.003633	0.02	129143.000000	Y 377.433
Sn (189.925 nm)	0.099494	ppm	0.000840	0.84	175.775000	Y 377.433
Sr (421.552 nm)	0.307542	ppm	0.000631	0.21	45025.987782	Y_R 488.368
Th (288.505 nm)	0.195675	ppm	0.002302	1.18	350.688000	Y 377.433
Ti (336.122 nm)	0.050369	ppm	0.000077	0.15	6279.540000	Y 377.433
Tl (190.794 nm)	0.197560	ppm	0.001205	0.61	475.405000	Y 377.433
U (409.013 nm)	0.509459	ppm	0.001977	0.39	1539.800000	Y 377.433
V (292.401 nm)	0.058310	ppm	0.000056	0.10	2889.260000	Y 377.433
Zn (206.200 nm)	0.210115	ppm	0.000293	0.14	1046.810000	Y 377.433
Zr (343.823 nm)	0.051294	ppm	0.000235	0.46	2783.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.101191	24658.392840	0.004133	0.38
Y 377.433	1.105192	714093.876987	0.004926	0.45
Y_R 377.433	1.128070	62100.600000	0.004785	0.42
Y_R 488.368	1.124310	54334.700000	0.005250	0.47
Y_R2 488.368	1.123770	104156.053553	0.000365	0.03
Y_R4	1.135150	48606.400000	0.008225	0.72

Sample Name: CCVH-5713036

Date: 5/23/2019 6:18:01 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003737	ppm	0.000752	20.14	-125.166000	Y 377.433
Al (394.401 nm)	50.051000 o	ppm	0.114664	0.23	596946.000000	Y 377.433
Al H (396.152 nm)	49.480200	ppm	0.054538	0.11	101741.000000	Y_R 377.433
As (188.980 nm)	0.003075	ppm	0.002070	67.31	2.182860	Y 242.219
B (249.678 nm)	-0.001607 u	ppm	0.000416	25.91	-2.991360	Y 242.219
Ba (493.408 nm)	0.000741	ppm	0.000100	13.51	1542.480000	Y_R 488.368
Be (234.861 nm)	0.001045	ppm	0.000047	4.49	-113.671000	Y_R 488.368
Bi (223.061 nm)	0.007669	ppm	0.002522	32.89	10.841600	Y 377.433
Ca (315.887 nm)	-0.001179 u	ppm	0.020282	> 100.00	-50.412389	Y_R 377.433
Cd (214.439 nm)	0.001370	ppm	0.000147	10.70	68.666400	Y 377.433
Co (228.615 nm)	0.003090	ppm	0.000181	5.85	54.289500	Y 242.219
Cr (205.560 nm)	0.001867	ppm	0.000106	5.70	5.852010	Y 377.433
Cu (324.754 nm)	0.003540	ppm	0.000569	16.06	1506.920000	Y 377.433
Fe (238.204 nm)	49.208194 o	ppm	0.005357	0.01	121289.202764	Y_R 377.433
Fe H (259.940 nm)	49.324500	ppm	0.013509	0.03	69058.600000	Y_R 377.433
K (766.491 nm)	0.378676	ppm	0.008936	2.36	2357.440000	Y_R2 488.368
Li (670.783 nm)	0.015864	ppm	0.003521	22.19	-2355.210000	Y_R2 488.368
Mg (279.078 nm)	0.033660	ppm	0.000617	1.83	51.710900	Y 377.433
Mn (257.610 nm)	0.001007	ppm	0.000056	5.57	256.499000	Y 377.433
Mo (202.032 nm)	0.000556	ppm	0.000065	11.72	30.457400	Y 377.433
Na (589.592 nm)	235.844000 o	ppm	0.503302	0.21	174813.000000	Y_R2 488.368
Na H (589.593 nm)	255.008912	ppm	0.450983	0.18	127154.067676	Y_R4
Ni (231.604 nm)	0.002599	ppm	0.000082	3.17	3.158200	Y 377.433
P (213.618 nm)	4.917310	ppm	0.006657	0.14	7432.170000	Y 242.219
Pb (220.353 nm)	0.003211	ppm	0.000054	1.69	16.550200	Y 242.219
S (181.972 nm)	5.086591	ppm	0.023622	0.46	2292.726736	Y 377.433
Sb (206.834 nm)	0.008690	ppm	0.001642	18.90	12.138900	Y 377.433
Se (196.026 nm)	0.008290	ppm	0.001542	18.61	10.381100	Y 242.219
Si (288.158 nm)	0.017241	ppm	0.001985	11.51	621.767000	Y 377.433
Sn (189.925 nm)	0.000554	ppm	0.000393	70.98	3.202300	Y 377.433
Sr (421.552 nm)	0.000981	ppm	0.000053	5.41	198.593579	Y_R 488.368
Th (288.505 nm)	4.968250	ppm	0.003557	0.07	8681.190000	Y 377.433
Ti (336.122 nm)	0.002340	ppm	0.000049	2.08	-201.314000	Y 377.433
Tl (190.794 nm)	-0.000182 u	ppm	0.000219	> 100.00	-5.300020	Y 377.433
U (409.013 nm)	0.550126 Q	ppm	0.002937	0.53	1717.410000 Q	Y 377.433
V (292.401 nm)	0.001260	ppm	0.000009	0.74	382.682000	Y 377.433
Zn (206.200 nm)	0.003068	ppm	0.000265	8.62	26.613700	Y 377.433
Zr (343.823 nm)	0.001649	ppm	0.000043	2.63	-79.451400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084311	24280.397687	0.005060	0.47
Y 377.433	1.085244	701204.938794	0.005571	0.51
Y_R 377.433	1.115720	61420.900000	0.002400	0.22
Y_R 488.368	1.111840	53732.100000	0.002075	0.19
Y_R2 488.368	1.102129	102150.219207	0.003859	0.35
Y_R4	1.117400	47846.600000	0.000609	0.05

Sample Name: CCV-5717467

Date: 5/23/2019 6:21:44 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.489116	ppm	0.000210	0.04	16903.400000	Y 377.433
Al (394.401 nm)	0.511848	ppm	0.001106	0.22	6369.940000	Y 377.433
Al H (396.152 nm)	0.554526 u	ppm	0.003445	0.62	1149.920000	Y_R 377.433
As (188.980 nm)	0.495510	ppm	0.000014	0.00	788.162000	Y 242.219
B (249.678 nm)	0.490095	ppm	0.000392	0.08	3548.230000	Y 242.219
Ba (493.408 nm)	0.491061	ppm	0.000792	0.16	49000.000000	Y_R 488.368
Be (234.861 nm)	0.480210	ppm	0.001733	0.36	48402.200000	Y_R 488.368
Bi (223.061 nm)	0.961172	ppm	0.001217	0.13	2177.370000	Y 377.433
Ca (315.887 nm)	4.945133	ppm	0.000002	0.00	3930.557248	Y_R 377.433
Cd (214.439 nm)	0.496363	ppm	0.000547	0.11	19853.400000	Y 377.433
Co (228.615 nm)	0.493790	ppm	0.000563	0.11	12209.000000	Y 242.219
Cr (205.560 nm)	0.486857	ppm	0.001554	0.32	3440.380000	Y 377.433
Cu (324.754 nm)	0.489088	ppm	0.004149	0.85	23119.900000	Y 377.433
Fe (238.204 nm)	2.479414	ppm	0.002728	0.11	6114.089410	Y_R 377.433
Fe H (259.940 nm)	2.427100 u	ppm	0.007040	0.29	3484.440000	Y_R 377.433
K (766.491 nm)	47.825400	ppm	0.009983	0.02	49449.700000	Y_R2 488.368
Li (670.783 nm)	0.496200	ppm	0.005588	1.13	6009.180000	Y_R2 488.368
Mg (279.078 nm)	19.597800	ppm	0.032966	0.17	69446.600000	Y 377.433
Mn (257.610 nm)	0.493807	ppm	0.000336	0.07	136565.000000	Y 377.433
Mo (202.032 nm)	0.493827	ppm	0.000213	0.04	6307.160000	Y 377.433
Na (589.592 nm)	23.723800	ppm	0.061955	0.26	17784.100000	Y_R2 488.368
Na H (589.593 nm)	26.330386 u	ppm	0.257998	0.98	13422.742242	Y_R4
Ni (231.604 nm)	0.490961	ppm	0.000976	0.20	2732.970000	Y 377.433
P (213.618 nm)	0.053823	ppm	0.004480	8.32	-62.291600	Y 242.219
Pb (220.353 nm)	0.492562	ppm	0.000345	0.07	1702.670000	Y 242.219
S (181.972 nm)	0.009984	ppm	0.000557	5.58	13.974271	Y 377.433
Sb (206.834 nm)	0.498600	ppm	0.000393	0.08	869.925000	Y 377.433
Se (196.026 nm)	0.494830	ppm	0.003818	0.77	814.896000	Y 242.219
Si (288.158 nm)	4.834970	ppm	0.028314	0.59	32401.000000	Y 377.433
Sn (189.925 nm)	0.488034	ppm	0.000527	0.11	853.472000	Y 377.433
Sr (421.552 nm)	0.493537	ppm	0.000096	0.02	72227.826230	Y_R 488.368
Th (288.505 nm)	0.010939	ppm	0.002557	23.38	-16.311200	Y 377.433
Ti (336.122 nm)	0.488814	ppm	0.000015	0.00	63068.800000	Y 377.433
Tl (190.794 nm)	0.501523	ppm	0.004150	0.83	1211.670000	Y 377.433
U (409.013 nm)	0.022899	ppm	0.005905	25.79	-29.001000	Y 377.433
V (292.401 nm)	0.488544	ppm	0.000002	0.00	25583.500000	Y 377.433
Zn (206.200 nm)	0.495108	ppm	0.000583	0.12	2461.490000	Y 377.433
Zr (343.823 nm)	0.491060	ppm	0.000213	0.04	28140.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.095795	24537.548180	0.003451	0.31
Y 377.433	1.095619	707908.507742	0.003765	0.34
Y_R 377.433	1.124790	61920.100000	0.000883	0.08
Y_R 488.368	1.120660	54158.100000	0.000699	0.06
Y_R2 488.368	1.109058	102792.401860	0.002994	0.27
Y_R4	1.104260	47283.800000	0.006916	0.63

Sample Name: CCB

Date: 5/23/2019 6:25:20 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000173 u	ppm	0.000248	> 100.00	-252.008000	Y 377.433
Al (394.401 nm)	-0.002264 u	ppm	0.000073	3.24	102.734000	Y 377.433
Al H (396.152 nm)	0.113970 Zu	ppm	0.003283	2.88	9.253850 Z	Y_R 377.433
As (188.980 nm)	0.000184 u	ppm	0.001429	> 100.00	-1.012380	Y 242.219
B (249.678 nm)	-0.002213 u	ppm	0.000753	34.02	21.225700	Y 242.219
Ba (493.408 nm)	-0.001823 u	ppm	0.000067	3.65	1256.050000	Y_R 488.368
Be (234.861 nm)	0.000037	ppm	0.000008	22.07	-1.995240	Y_R 488.368
Bi (223.061 nm)	0.001846	ppm	0.000176	9.51	-11.304200	Y 377.433
Ca (315.887 nm)	0.010824	ppm	0.000184	1.70	-53.239724	Y_R 377.433
Cd (214.439 nm)	0.000097	ppm	0.000053	54.82	-3.890440	Y 377.433
Co (228.615 nm)	-0.000189 u	ppm	0.000120	63.37	-26.836500	Y 242.219
Cr (205.560 nm)	-0.000189 u	ppm	0.000262	> 100.00	-7.310190	Y 377.433
Cu (324.754 nm)	0.000438	ppm	0.000233	53.34	431.807000	Y 377.433
Fe (238.204 nm)	0.000578	ppm	0.000546	94.60	4.357762	Y_R 377.433
Fe H (259.940 nm)	-0.057122 u	ppm	0.001019	1.78	10.879000	Y_R 377.433
K (766.491 nm)	-0.128302 u	ppm	0.014572	11.36	1854.250000	Y_R2 488.368
Li (670.783 nm)	0.009795	ppm	0.003466	35.38	-2460.900000	Y_R2 488.368
Mg (279.078 nm)	-0.000773 u	ppm	0.000945	> 100.00	9.198390	Y 377.433
Mn (257.610 nm)	0.000052	ppm	0.000006	12.07	-7.640130	Y 377.433
Mo (202.032 nm)	-0.000691 u	ppm	0.000481	69.59	14.593100	Y 377.433
Na (589.592 nm)	0.091119	ppm	0.039895	43.78	177.563000	Y_R2 488.368
Na H (589.593 nm)	0.387060 u	ppm	0.047725	12.33	520.049090	Y_R4
Ni (231.604 nm)	-0.000481 u	ppm	0.000180	37.41	-14.054300	Y 377.433
P (213.618 nm)	-0.000052 u	ppm	0.004474	> 100.00	-4.726850	Y 242.219
Pb (220.353 nm)	-0.001839 u	ppm	0.000528	28.70	6.578660	Y 242.219
S (181.972 nm)	-0.006335 u	ppm	0.001166	18.41	4.909742	Y 377.433
Sb (206.834 nm)	0.005777	ppm	0.003495	60.50	2.660160	Y 377.433
Se (196.026 nm)	0.001443	ppm	0.000364	25.23	12.921300	Y 242.219
Si (288.158 nm)	-0.004801 u	ppm	0.002684	55.91	476.374000	Y 377.433
Sn (189.925 nm)	0.000694	ppm	0.000433	62.37	3.446390	Y 377.433
Sr (421.552 nm)	-0.000043 u	ppm	0.000012	28.35	41.658438	Y_R 488.368
Th (288.505 nm)	-0.003245 u	ppm	0.002925	90.16	8.818220	Y 377.433
Ti (336.122 nm)	0.000473	ppm	0.000191	40.26	-444.127000	Y 377.433
Tl (190.794 nm)	0.000284 u	ppm	0.000925	> 100.00	0.804166	Y 377.433
U (409.013 nm)	0.007284	ppm	0.005491	75.38	-18.964300	Y 377.433
V (292.401 nm)	0.000612	ppm	0.000052	8.52	-147.899000	Y 377.433
Zn (206.200 nm)	0.000071 u	ppm	0.000257	> 100.00	4.169670	Y 377.433
Zr (343.823 nm)	0.000517	ppm	0.000109	21.12	-144.684000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.109748	24849.988612	0.002290	0.21
Y 377.433	1.108865	716466.907082	0.002485	0.22
Y_R 377.433	1.123070	61825.500000	0.004786	0.43
Y_R 488.368	1.120000	54126.200000	0.005819	0.52
Y_R2 488.368	1.110705	102945.093008	0.006844	0.62
Y_R4	1.103520	47252.100000	0.007743	0.70

Sample Name: CCVL-5717307

Date: 5/23/2019 6:28:32 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008384	ppm	0.000183	2.18	47.269600	Y 377.433
Al (394.401 nm)	0.097802	ppm	0.001078	1.10	1306.640000	Y 377.433
Al H (396.152 nm)	0.225535 u	ppm	0.000797	0.35	244.309000	Y_R 377.433
As (188.980 nm)	0.012564	ppm	0.001871	14.89	18.710900	Y 242.219
B (249.678 nm)	0.092995	ppm	0.000397	0.43	703.536000	Y 242.219
Ba (493.408 nm)	0.008129	ppm	0.000394	4.85	2220.080000	Y_R 488.368
Be (234.861 nm)	0.000973	ppm	0.000071	7.30	91.976300	Y_R 488.368
Bi (223.061 nm)	0.090296	ppm	0.002217	2.46	190.464000	Y 377.433
Ca (315.887 nm)	0.209229	ppm	0.004927	2.35	106.966831	Y_R 377.433
Cd (214.439 nm)	0.005167	ppm	0.000094	1.82	198.997000	Y 377.433
Co (228.615 nm)	0.010340	ppm	0.000223	2.16	233.925000	Y 242.219
Cr (205.560 nm)	0.009913	ppm	0.000101	1.02	64.098900	Y 377.433
Cu (324.754 nm)	0.015507	ppm	0.000038	0.25	1130.460000	Y 377.433
Fe (238.204 nm)	0.101650	ppm	0.000723	0.71	253.477888	Y_R 377.433
Fe H (259.940 nm)	0.049086 u	ppm	0.003551	7.23	159.384000	Y_R 377.433
K (766.491 nm)	2.840500	ppm	0.056192	1.98	4800.870000	Y_R2 488.368
Li (670.783 nm)	0.034618 Q	ppm	0.000797	2.30	-2028.640000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202933	ppm	0.002044	1.01	729.558000	Y 377.433
Mn (257.610 nm)	0.010585	ppm	0.000034	0.32	2905.820000	Y 377.433
Mo (202.032 nm)	0.019102	ppm	0.000269	1.41	266.458000	Y 377.433
Na (589.592 nm)	1.116380	ppm	0.021431	1.92	938.986000	Y_R2 488.368
Na H (589.593 nm)	1.251278 u	ppm	0.004918	0.39	949.860298	Y_R4
Ni (231.604 nm)	0.041215	ppm	0.001077	2.61	218.980000	Y 377.433
P (213.618 nm)	2.784630	ppm	0.013042	0.47	4204.860000	Y 242.219
Pb (220.353 nm)	0.007080	ppm	0.001144	16.16	37.318200	Y 242.219
S (181.972 nm)	0.090062	ppm	0.006098	6.77	48.250225	Y 377.433
Sb (206.834 nm)	0.023504	ppm	0.001082	4.60	33.798000	Y 377.433
Se (196.026 nm)	0.014702	ppm	0.001474	10.02	34.460100	Y 242.219
Si (288.158 nm)	0.473952	ppm	0.001005	0.21	3634.380000	Y 377.433
Sn (189.925 nm)	0.098556	ppm	0.000590	0.60	174.140000	Y 377.433
Sr (421.552 nm)	0.009051	ppm	0.000004	0.04	1371.641072	Y_R 488.368
Th (288.505 nm)	0.012120	ppm	0.001121	9.25	35.187400	Y 377.433
Ti (336.122 nm)	0.010062	ppm	0.000076	0.76	803.349000	Y 377.433
Tl (190.794 nm)	0.015454	ppm	0.000437	2.83	37.435900	Y 377.433
U (409.013 nm)	0.063493	ppm	0.007476	11.78	155.909000	Y 377.433
V (292.401 nm)	0.010245	ppm	0.000073	0.71	357.189000	Y 377.433
Zn (206.200 nm)	0.020619	ppm	0.000729	3.53	106.168000	Y 377.433
Zr (343.823 nm)	0.010272	ppm	0.000190	1.85	417.787000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113865	24942.187171	0.000716	0.06
Y 377.433	1.112918	719085.295299	0.001720	0.15
Y_R 377.433	1.134340	62445.600000	0.003134	0.28
Y_R 488.368	1.132050	54708.700000	0.000049	0.00
Y_R2 488.368	1.122693	104056.197199	0.000935	0.08
Y_R4	1.116610	47812.700000	0.001241	0.11

Sample Name: mb 280-458910/1-a

Date: 5/23/2019 6:32:01 PM Rack:Tube: 1:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000010 u	ppm	0.000329	> 100.00	-245.524000	Y 377.433
Al (394.401 nm)	0.011834	ppm	0.000005	0.04	271.376000	Y 377.433
Al H (396.152 nm)	0.135531 u	ppm	0.004365	3.22	53.731100	Y_R 377.433
As (188.980 nm)	-0.000669 u	ppm	0.002898	> 100.00	-2.372260	Y 242.219
B (249.678 nm)	-0.001952 u	ppm	0.000807	41.33	23.071300	Y 242.219
Ba (493.408 nm)	-0.001740 u	ppm	0.000374	21.51	1264.120000	Y_R 488.368
Be (234.861 nm)	0.000019	ppm	0.000023	> 100.00	-3.975860	Y_R 488.368
Bi (223.061 nm)	0.002328	ppm	0.000057	2.44	-10.196400	Y 377.433
Ca (315.887 nm)	0.097001	ppm	0.002020	2.08	16.339848	Y_R 377.433
Cd (214.439 nm)	0.000136	ppm	0.000078	57.61	-2.347120	Y 377.433
Co (228.615 nm)	0.000084 u	ppm	0.000311	> 100.00	-20.060400	Y 242.219
Cr (205.560 nm)	0.000814	ppm	0.000300	36.91	-0.198388	Y 377.433
Cu (324.754 nm)	0.002373	ppm	0.000137	5.76	521.901000	Y 377.433
Fe (238.204 nm)	0.048205	ppm	0.000740	1.53	121.747648	Y_R 377.433
Fe H (259.940 nm)	-0.002974 u	ppm	0.000317	10.65	86.590500	Y_R 377.433
K (766.491 nm)	-0.155870 u	ppm	0.017592	11.29	1826.890000	Y_R2 488.368
Li (670.783 nm)	0.012385	ppm	0.000654	5.28	-2415.810000	Y_R2 488.368
Mg (279.078 nm)	0.024505	ppm	0.001117	4.56	98.549400	Y 377.433
Mn (257.610 nm)	0.000618	ppm	0.000006	0.97	148.973000	Y 377.433
Mo (202.032 nm)	-0.000787 u	ppm	0.000144	18.31	13.376000	Y 377.433
Na (589.592 nm)	0.134541	ppm	0.019329	14.37	209.652000	Y_R2 488.368
Na H (589.593 nm)	0.174873 u	ppm	0.004657	2.66	414.519746	Y_R4
Ni (231.604 nm)	0.000187 u	ppm	0.000764	> 100.00	-10.324400	Y 377.433
P (213.618 nm)	0.015309	ppm	0.000741	4.84	18.162300	Y 242.219
Pb (220.353 nm)	-0.001486 u	ppm	0.001090	73.35	7.810250	Y 242.219
S (181.972 nm)	0.007555	ppm	0.005664	74.96	11.152912	Y 377.433
Sb (206.834 nm)	0.003242	ppm	0.002764	85.25	-1.815700	Y 377.433
Se (196.026 nm)	-0.002724 u	ppm	0.001135	41.65	6.136130	Y 242.219
Si (288.158 nm)	0.022116	ppm	0.001350	6.10	653.930000	Y 377.433
Sn (189.925 nm)	0.011016	ppm	0.000124	1.13	21.451200	Y 377.433
Sr (421.552 nm)	0.000179	ppm	0.000120	67.32	74.078168	Y_R 488.368
Th (288.505 nm)	-0.000570 u	ppm	0.003036	> 100.00	13.573500	Y 377.433
Ti (336.122 nm)	0.001025	ppm	0.000054	5.30	-372.322000	Y 377.433
Tl (190.794 nm)	0.000297 u	ppm	0.000762	> 100.00	0.828984	Y 377.433
U (409.013 nm)	0.007397	ppm	0.003128	42.30	-18.583300	Y 377.433
V (292.401 nm)	0.000382	ppm	0.000111	29.18	-160.201000	Y 377.433
Zn (206.200 nm)	0.004393	ppm	0.000079	1.79	25.629200	Y 377.433
Zr (343.823 nm)	0.000498	ppm	0.000234	46.97	-145.780000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124237	25174.432066	0.000203	0.02
Y 377.433	1.124076	726295.320531	0.000567	0.05
Y_R 377.433	1.140320	62774.800000	0.002197	0.19
Y_R 488.368	1.134760	54839.500000	0.005083	0.45
Y_R2 488.368	1.132078	104926.007126	0.000118	0.01
Y_R4	1.125030	48173.200000	0.003125	0.28

Sample Name: lcs 280-458910/2-a

Date: 5/23/2019 6:35:21 PM Rack:Tube: 1:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050042	ppm	0.000171	0.34	1205.610000	Y 377.433
Al (394.401 nm)	9.859000 o	ppm	0.000117	0.00	118181.000000	Y 377.433
Al H (396.152 nm)	9.922070	ppm	0.014414	0.15	20681.900000	Y_R 377.433
As (188.980 nm)	1.984240	ppm	0.004466	0.23	3160.070000	Y 242.219
B (249.678 nm)	0.968687	ppm	0.003430	0.35	6974.030000	Y 242.219
Ba (493.408 nm)	1.978570	ppm	0.000008	0.00	193090.000000	Y_R 488.368
Be (234.861 nm)	0.971714	ppm	0.001061	0.11	97927.200000	Y_R 488.368
Bi (223.061 nm)	1.888920	ppm	0.004703	0.25	4294.810000	Y 377.433
Ca (315.887 nm)	49.128385	ppm	0.016507	0.03	39603.822924	Y_R 377.433
Cd (214.439 nm)	0.974717	ppm	0.000681	0.07	38996.200000	Y 377.433
Co (228.615 nm)	0.969115	ppm	0.001765	0.18	23984.100000	Y 242.219
Cr (205.560 nm)	0.975723	ppm	0.008272	0.85	6900.690000	Y 377.433
Cu (324.754 nm)	0.971932	ppm	0.002591	0.27	45599.100000	Y 377.433
Fe (238.204 nm)	9.943759 o	ppm	0.007446	0.07	24511.889639	Y_R 377.433
Fe H (259.940 nm)	9.926270	ppm	0.012272	0.12	13970.100000	Y_R 377.433
K (766.491 nm)	48.469600	ppm	0.369501	0.76	50089.100000	Y_R2 488.368
Li (670.783 nm)	0.989748	ppm	0.007226	0.73	14603.600000	Y_R2 488.368
Mg (279.078 nm)	48.863500	ppm	0.034581	0.07	173097.000000	Y 377.433
Mn (257.610 nm)	0.992643	ppm	0.000256	0.03	274543.000000	Y 377.433
Mo (202.032 nm)	0.999507	ppm	0.000951	0.10	12741.700000	Y 377.433
Na (589.592 nm)	47.031200	ppm	0.379732	0.81	35354.400000	Y_R2 488.368
Na H (589.593 nm)	51.872843	ppm	0.091180	0.18	26126.066678	Y_R4
Ni (231.604 nm)	0.962193	ppm	0.002257	0.23	5368.240000	Y 377.433
P (213.618 nm)	19.713100	ppm	0.037838	0.19	29549.400000	Y 242.219
Pb (220.353 nm)	0.981126	ppm	0.000673	0.07	3381.900000	Y 242.219
S (181.972 nm)	9.937598	ppm	0.031683	0.32	4477.208792	Y 377.433
Sb (206.834 nm)	0.000634 u	ppm	0.003135	> 100.00	-11.294500	Y 377.433
Se (196.026 nm)	1.925690	ppm	0.008660	0.45	3139.070000	Y 242.219
Si (288.158 nm)	0.763273	ppm	0.001192	0.16	5542.830000	Y 377.433
Sn (189.925 nm)	1.947380	ppm	0.002555	0.13	3398.890000	Y 377.433
Sr (421.552 nm)	0.992358	ppm	0.000105	0.01	145181.423049	Y_R 488.368
Th (288.505 nm)	1.014240	ppm	0.008655	0.85	1691.670000	Y 377.433
Ti (336.122 nm)	0.990334	ppm	0.000600	0.06	128429.000000	Y 377.433
Tl (190.794 nm)	1.957330	ppm	0.004960	0.25	4732.690000	Y 377.433
U (409.013 nm)	1.962740	ppm	0.001313	0.07	6048.350000	Y 377.433
V (292.401 nm)	0.980999	ppm	0.000691	0.07	51559.700000	Y 377.433
Zn (206.200 nm)	0.482792	ppm	0.001612	0.33	2401.510000	Y 377.433
Zr (343.823 nm)	0.490601	ppm	0.000541	0.11	28113.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071091	23984.370873	0.000199	0.02
Y 377.433	1.078197	696651.707287	0.000676	0.06
Y_R 377.433	1.117410	61513.800000	0.000099	0.01
Y_R 488.368	1.112950	53785.300000	0.000143	0.01
Y_R2 488.368	1.098196	101785.741904	0.009057	0.82
Y_R4	1.110080	47532.900000	0.000932	0.08

Sample Name: 280-123861-a-1-a

Date: 5/23/2019 6:38:58 PM Rack:Tube: 1:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000256 u	ppm	0.000578	> 100.00	-364.741000	Y 377.433
Al (394.401 nm)	156.648000 o	ppm	0.213863	0.14	1871820.000000	Y 377.433
Al H (396.152 nm)	157.854000	ppm	0.090835	0.06	325279.000000	Y_R 377.433
As (188.980 nm)	0.067525	ppm	0.001416	2.10	101.906000	Y 242.219
B (249.678 nm)	0.383808	ppm	0.001546	0.40	2699.200000	Y 242.219
Ba (493.408 nm)	0.802575	ppm	0.001825	0.23	79290.600000	Y_R 488.368
Be (234.861 nm)	0.006182	ppm	0.000212	3.43	-44.800500	Y_R 488.368
Bi (223.061 nm)	-0.003273 u	ppm	0.003048	93.13	4.619350	Y 377.433
Ca (315.887 nm)	321.343820	ppm	0.463437	0.14	259411.438043	Y_R 377.433
Cd (214.439 nm)	0.001799	ppm	0.000018	1.00	131.448000	Y 377.433
Co (228.615 nm)	0.070121	ppm	0.000323	0.46	1985.630000	Y 242.219
Cr (205.560 nm)	0.157207	ppm	0.000444	0.28	1103.320000	Y 377.433
Cu (324.754 nm)	0.170933	ppm	0.000017	0.01	8158.050000	Y 377.433
Fe (238.204 nm)	152.829300 o	ppm	0.254167	0.17	376690.105885	Y_R 377.433
Fe H (259.940 nm)	153.809000	ppm	0.200951	0.13	215154.000000	Y_R 377.433
K (766.491 nm)	30.766600	ppm	0.000474	0.00	32518.300000	Y_R2 488.368
Li (670.783 nm)	0.311876	ppm	0.002008	0.64	2799.430000	Y_R2 488.368
Mg (279.078 nm)	76.297300	ppm	0.043862	0.06	270129.000000	Y 377.433
Mn (257.610 nm)	3.382140	ppm	0.004590	0.14	935479.000000	Y 377.433
Mo (202.032 nm)	0.011299	ppm	0.001333	11.80	167.168000	Y 377.433
Na (589.592 nm)	23.082800	ppm	0.011889	0.05	17373.400000	Y_R2 488.368
Na H (589.593 nm)	25.156717 u	ppm	0.196602	0.78	12839.027731	Y_R4
Ni (231.604 nm)	0.129826	ppm	0.000208	0.16	714.161000	Y 377.433
P (213.618 nm)	5.506460	ppm	0.012682	0.23	8287.810000	Y 242.219
Pb (220.353 nm)	0.079496	ppm	0.001675	2.11	248.950000	Y 242.219
S (181.972 nm)	6.655790	ppm	0.007146	0.11	3023.177240	Y 377.433
Sb (206.834 nm)	-0.000254 u	ppm	0.004115	> 100.00	-20.719800	Y 377.433
Se (196.026 nm)	0.004969	ppm	0.000123	2.48	-18.818600	Y 242.219
Si (288.158 nm)	2.402580	ppm	0.002455	0.10	16356.200000	Y 377.433
Sn (189.925 nm)	0.009749	ppm	0.000424	4.35	19.240500	Y 377.433
Sr (421.552 nm)	0.709348	ppm	0.001448	0.20	103812.109817	Y_R 488.368
Th (288.505 nm)	0.068641	ppm	0.000734	1.07	137.893000	Y 377.433
Ti (336.122 nm)	5.889140	ppm	0.007027	0.12	766271.000000	Y 377.433
Tl (190.794 nm)	0.013125	ppm	0.002154	16.41	-26.641800	Y 377.433
U (409.013 nm)	-0.020386 u	ppm	0.004600	22.56	-49.131600	Y 377.433
V (292.401 nm)	0.368550	ppm	0.000032	0.01	19577.900000	Y 377.433
Zn (206.200 nm)	0.412796	ppm	0.000136	0.03	2076.090000	Y 377.433
Zr (343.823 nm)	0.107467	ppm	0.000186	0.17	6022.050000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105953	24765.025848	0.003618	0.33
Y 377.433	1.112531	718835.629738	0.001652	0.15
Y_R 377.433	1.169350	64373.300000	0.000188	0.02
Y_R 488.368	1.163280	56217.900000	0.001610	0.14
Y_R2 488.368	1.162101	107708.716325	0.001705	0.15
Y_R4	1.174820	50305.100000	0.004747	0.40

Sample Name: 280-123861-a-2-a

Date: 5/23/2019 6:42:47 PM Rack:Tube: 1:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000295	ppm	0.000125	42.42	-366.585000	Y 377.433
Al (394.401 nm)	162.574000 o	ppm	0.239483	0.15	1942690.000000	Y 377.433
Al H (396.152 nm)	165.168000	ppm	0.109094	0.07	340459.000000	Y_R 377.433
As (188.980 nm)	0.067118	ppm	0.001288	1.92	101.009000	Y 242.219
B (249.678 nm)	0.339758	ppm	0.000081	0.02	2378.470000	Y 242.219
Ba (493.408 nm)	1.022440	ppm	0.002214	0.22	100594.000000	Y_R 488.368
Be (234.861 nm)	0.006927	ppm	0.000097	1.40	-7.195680	Y_R 488.368
Bi (223.061 nm)	-0.009470 u	ppm	0.000264	2.79	-7.951300	Y 377.433
Ca (315.887 nm)	392.793029	ppm	0.613909	0.16	317097.033883	Y_R 377.433
Cd (214.439 nm)	0.001825	ppm	0.000094	5.17	136.275000	Y 377.433
Co (228.615 nm)	0.068152	ppm	0.001296	1.90	1939.350000	Y 242.219
Cr (205.560 nm)	0.169589	ppm	0.000828	0.49	1190.880000	Y 377.433
Cu (324.754 nm)	0.172822	ppm	0.000494	0.29	8211.920000	Y 377.433
Fe (238.204 nm)	161.223195 o	ppm	0.213207	0.13	397379.022101	Y_R 377.433
Fe H (259.940 nm)	162.371000	ppm	0.177518	0.11	227126.000000	Y_R 377.433
K (766.491 nm)	33.922200	ppm	0.034222	0.10	35650.400000	Y_R2 488.368
Li (670.783 nm)	0.291318	ppm	0.000080	0.03	2441.440000	Y_R2 488.368
Mg (279.078 nm)	78.097100	ppm	0.063412	0.08	276494.000000	Y 377.433
Mn (257.610 nm)	3.119620	ppm	0.002203	0.07	862865.000000	Y 377.433
Mo (202.032 nm)	0.007093	ppm	0.000114	1.60	113.643000	Y 377.433
Na (589.592 nm)	18.201800	ppm	0.033030	0.18	13802.800000	Y_R2 488.368
Na H (589.593 nm)	20.367238 u	ppm	0.151566	0.74	10457.021265	Y_R4
Ni (231.604 nm)	0.129028	ppm	0.001687	1.31	709.701000	Y 377.433
P (213.618 nm)	6.330140	ppm	0.004621	0.07	9534.460000	Y 242.219
Pb (220.353 nm)	0.082409	ppm	0.004215	5.12	257.528000	Y 242.219
S (181.972 nm)	5.388286	ppm	0.020652	0.38	2456.376481	Y 377.433
Sb (206.834 nm)	0.001721	ppm	0.000143	8.31	-16.572600	Y 377.433
Se (196.026 nm)	0.003936	ppm	0.000362	9.19	-23.285500	Y 242.219
Si (288.158 nm)	2.856380	ppm	0.001544	0.05	19349.600000	Y 377.433
Sn (189.925 nm)	0.011595	ppm	0.000426	3.68	22.460700	Y 377.433
Sr (421.552 nm)	1.023493	ppm	0.001243	0.12	149756.965586	Y_R 488.368
Th (288.505 nm)	0.082730	ppm	0.001655	2.00	154.134000	Y 377.433
Ti (336.122 nm)	5.941140	ppm	0.004538	0.08	773274.000000	Y 377.433
Tl (190.794 nm)	0.016227	ppm	0.001209	7.45	-23.237600	Y 377.433
U (409.013 nm)	-0.031276 u	ppm	0.002778	8.88	-85.620500	Y 377.433
V (292.401 nm)	0.374503	ppm	0.000326	0.09	19894.700000	Y 377.433
Zn (206.200 nm)	0.426354	ppm	0.000348	0.08	2144.710000	Y 377.433
Zr (343.823 nm)	0.103093	ppm	0.000059	0.06	5769.890000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114066	24946.695231	0.000418	0.04
Y 377.433	1.122038	724978.395634	0.001223	0.11
Y_R 377.433	1.172690	64557.100000	0.003522	0.30
Y_R 488.368	1.167430	56418.600000	0.004973	0.43
Y_R2 488.368	1.165747	108046.645639	0.000886	0.08
Y_R4	1.185040	50742.900000	0.008438	0.71

Sample Name: 280-123861-a-3-a

Date: 5/23/2019 6:46:35 PM Rack:Tube: 1:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000243	ppm	0.000000	0.03	-370.924000	Y 377.433
Al (394.401 nm)	178.020000 bo	ppm	0.292534	0.16	2130700.000000	Y 377.433
Al H (396.152 nm)	177.738000 b	ppm	0.744731	0.42	371822.000000	Y_R 377.433
As (188.980 nm)	0.068778	ppm	0.003157	4.59	103.490000	Y 242.219
B (249.678 nm)	0.327089	ppm	0.000174	0.05	2284.330000	Y 242.219
Ba (493.408 nm)	2.559910	ppm	0.008510	0.33	249523.000000	Y_R 488.368
Be (234.861 nm)	0.007224	ppm	0.000212	2.94	-2.171830	Y_R 488.368
Bi (223.061 nm)	-0.007960 u	ppm	0.001577	19.81	-3.458870	Y 377.433
Ca (315.887 nm)	309.959057	ppm	1.011806	0.33	250225.805542	Y_R 377.433
Cd (214.439 nm)	0.001561	ppm	0.000048	3.09	128.230000	Y 377.433
Co (228.615 nm)	0.071000	ppm	0.000923	1.30	1996.280000	Y 242.219
Cr (205.560 nm)	0.178685	ppm	0.001067	0.60	1254.900000	Y 377.433
Cu (324.754 nm)	0.195120	ppm	0.000361	0.18	9300.050000	Y 377.433
Fe (238.204 nm)	166.894947 o	ppm	0.495847	0.30	411358.516509	Y_R 377.433
Fe H (259.940 nm)	168.093000	ppm	0.537134	0.32	235127.000000	Y_R 377.433
K (766.491 nm)	38.929700	ppm	0.038567	0.10	40620.500000	Y_R2 488.368
Li (670.783 nm)	0.301313	ppm	0.003895	1.29	2615.490000	Y_R2 488.368
Mg (279.078 nm)	80.925700	ppm	0.058349	0.07	286508.000000	Y 377.433
Mn (257.610 nm)	3.442360	ppm	0.006440	0.19	952136.000000	Y 377.433
Mo (202.032 nm)	0.006253	ppm	0.000144	2.30	102.955000	Y 377.433
Na (589.592 nm)	17.958200	ppm	0.021501	0.12	13937.600000	Y_R2 488.368
Na H (589.593 nm)	21.767343 u	ppm	0.023170	0.11	11153.351302	Y_R4
Ni (231.604 nm)	0.133978	ppm	0.001144	0.85	737.366000	Y 377.433
P (213.618 nm)	5.087090	ppm	0.016662	0.33	7647.560000	Y 242.219
Pb (220.353 nm)	0.086332	ppm	0.002745	3.18	268.701000	Y 242.219
S (181.972 nm)	10.455865	ppm	0.002770	0.03	4729.892485	Y 377.433
Sb (206.834 nm)	0.000223 u	ppm	0.000580	> 100.00	-17.327900	Y 377.433
Se (196.026 nm)	0.005669	ppm	0.000530	9.35	-21.592000	Y 242.219
Si (288.158 nm)	2.717570	ppm	0.002087	0.08	18434.000000	Y 377.433
Sn (189.925 nm)	0.012152	ppm	0.001093	8.99	23.431600	Y 377.433
Sr (421.552 nm)	14.947486 bo	ppm	0.052998	0.35	2186137.059720	Y_R 488.368
Th (288.505 nm)	0.076805	ppm	0.003716	4.84	150.331000	Y 377.433
Ti (336.122 nm)	5.650580	ppm	0.006295	0.11	735217.000000	Y 377.433
Tl (190.794 nm)	0.016363	ppm	0.001185	7.24	-18.326200	Y 377.433
U (409.013 nm)	-0.043266 u	ppm	0.009905	22.89	-109.774000	Y 377.433
V (292.401 nm)	0.386664	ppm	0.000045	0.01	20527.200000	Y 377.433
Zn (206.200 nm)	0.444510	ppm	0.000583	0.13	2235.710000	Y 377.433
Zr (343.823 nm)	0.114381	ppm	0.000169	0.15	6420.770000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.118316	25041.847297	0.000970	0.09
Y 377.433	1.125825	727425.043067	0.000268	0.02
Y_R 377.433	1.179910	64954.500000	0.003265	0.28
Y_R 488.368	1.174260	56748.500000	0.002767	0.24
Y_R2 488.368	1.171681	108596.574288	0.002949	0.25
Y_R4	1.185600	50766.900000	0.001671	0.14

Sample Name: 280-123861-a-3-aSD@5

Date: 5/23/2019 6:50:23 PM Rack:Tube: 1:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000159 u	ppm	0.000286	> 100.00	-268.747000	Y 377.433
Al (394.401 nm)	37.614400 o	ppm	0.033820	0.09	450316.000000	Y 377.433
Al H (396.152 nm)	37.678200	ppm	0.080694	0.21	78648.400000	Y_R 377.433
As (188.980 nm)	0.016899	ppm	0.001353	8.00	24.582900	Y 242.219
B (249.678 nm)	0.068126	ppm	0.000586	0.86	504.331000	Y 242.219
Ba (493.408 nm)	0.539431	ppm	0.000571	0.11	53711.500000	Y_R 488.368
Be (234.861 nm)	0.001539	ppm	0.000060	3.87	-7.535970	Y_R 488.368
Bi (223.061 nm)	0.003979	ppm	0.001724	43.34	0.104350	Y 377.433
Ca (315.887 nm)	67.073920	ppm	0.164233	0.24	54099.083973	Y_R 377.433
Cd (214.439 nm)	0.000517	ppm	0.000087	16.82	28.850900	Y 377.433
Co (228.615 nm)	0.015897	ppm	0.000425	2.67	426.753000	Y 242.219
Cr (205.560 nm)	0.037946	ppm	0.000283	0.74	261.798000	Y 377.433
Cu (324.754 nm)	0.040622	ppm	0.000493	1.21	2258.100000	Y 377.433
Fe (238.204 nm)	36.223881 o	ppm	0.130202	0.36	89286.018850	Y_R 377.433
Fe H (259.940 nm)	36.335000	ppm	0.077221	0.21	50896.200000	Y_R 377.433
K (766.491 nm)	7.938050	ppm	0.104029	1.31	9860.340000	Y_R2 488.368
Li (670.783 nm)	0.072839	ppm	0.006397	8.78	-1363.080000	Y_R2 488.368
Mg (279.078 nm)	17.409900	ppm	0.036092	0.21	61646.400000	Y 377.433
Mn (257.610 nm)	0.754078	ppm	0.001174	0.16	208556.000000	Y 377.433
Mo (202.032 nm)	0.000748	ppm	0.000058	7.79	32.900000	Y 377.433
Na (589.592 nm)	3.848530	ppm	0.005688	0.15	3071.470000	Y_R2 488.368
Na H (589.593 nm)	4.629114 u	ppm	0.011126	0.24	2629.798525	Y_R4
Ni (231.604 nm)	0.027404	ppm	0.000710	2.59	141.778000	Y 377.433
P (213.618 nm)	1.068170	ppm	0.002581	0.24	1602.640000	Y 242.219
Pb (220.353 nm)	0.018650	ppm	0.000693	3.72	68.399700	Y 242.219
S (181.972 nm)	2.186747	ppm	0.011534	0.53	995.541618	Y 377.433
Sb (206.834 nm)	0.004559	ppm	0.001762	38.65	-1.594950	Y 377.433
Se (196.026 nm)	0.000461 u	ppm	0.001016	> 100.00	2.371350	Y 242.219
Si (288.158 nm)	0.572073	ppm	0.002466	0.43	4281.610000	Y 377.433
Sn (189.925 nm)	0.001488	ppm	0.000568	38.17	4.831760	Y 377.433
Sr (421.552 nm)	3.181925	ppm	0.006327	0.20	465408.715773	Y_R 488.368
Th (288.505 nm)	0.007827	ppm	0.006943	88.71	29.042200	Y 377.433
Ti (336.122 nm)	1.202220	ppm	0.001956	0.16	156029.000000	Y 377.433
Tl (190.794 nm)	0.003053	ppm	0.000718	23.53	-4.957590	Y 377.433
U (409.013 nm)	0.008033 u	ppm	0.013077	> 100.00	-1.936960	Y 377.433
V (292.401 nm)	0.083240	ppm	0.000261	0.31	4275.200000	Y 377.433
Zn (206.200 nm)	0.099833	ppm	0.000152	0.15	504.873000	Y 377.433
Zr (343.823 nm)	0.024778	ppm	0.000005	0.02	1254.180000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.109128	24836.118871	0.001975	0.18
Y 377.433	1.109880	717122.317560	0.002398	0.22
Y_R 377.433	1.134660	62463.500000	0.003810	0.34
Y_R 488.368	1.129760	54597.700000	0.004000	0.35
Y_R2 488.368	1.130301	104761.356123	0.006481	0.57
Y_R4	1.138560	48752.400000	0.007510	0.66

Sample Name: 280-123861-a-3-b ms

Date: 5/23/2019 6:54:05 PM Rack:Tube: 1:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052297	ppm	0.000703	1.35	1173.080000	Y 377.433
Al (394.401 nm)	182.989000 o	ppm	0.010624	0.01	2187360.000000	Y 377.433
Al H (396.152 nm)	186.537000	ppm	0.256935	0.14	385693.000000	Y_R 377.433
As (188.980 nm)	2.053950	ppm	0.003012	0.15	3267.270000	Y 242.219
B (249.678 nm)	1.299100	ppm	0.003173	0.24	9263.870000	Y 242.219
Ba (493.408 nm)	3.238950	ppm	0.000177	0.01	315279.000000	Y_R 488.368
Be (234.861 nm)	0.981872	ppm	0.003082	0.31	98367.000000	Y_R 488.368
Bi (223.061 nm)	1.898870	ppm	0.004200	0.22	4341.880000	Y 377.433
Ca (315.887 nm)	559.494009	ppm	1.268515	0.23	451686.798624	Y_R 377.433
Cd (214.439 nm)	0.932355	ppm	0.001076	0.12	37360.500000	Y 377.433
Co (228.615 nm)	0.995294	ppm	0.002152	0.22	24855.100000	Y 242.219
Cr (205.560 nm)	1.115170	ppm	0.004313	0.39	7884.120000	Y 377.433
Cu (324.754 nm)	1.150370	ppm	0.005537	0.48	53599.300000	Y 377.433
Fe (238.204 nm)	144.633864 o	ppm	0.322763	0.22	356490.342257	Y_R 377.433
Fe H (259.940 nm)	145.987000	ppm	0.261056	0.18	204216.000000	Y_R 377.433
K (766.491 nm)	89.506600	ppm	0.279033	0.31	90819.500000	Y_R2 488.368
Li (670.783 nm)	1.252790	ppm	0.005744	0.46	19184.200000	Y_R2 488.368
Mg (279.078 nm)	119.041000	ppm	0.156945	0.13	421556.000000	Y 377.433
Mn (257.610 nm)	3.957830	ppm	0.003165	0.08	1094710.000000	Y 377.433
Mo (202.032 nm)	0.930259	ppm	0.000776	0.08	11860.600000	Y 377.433
Na (589.592 nm)	63.370800 o	ppm	0.118604	0.19	47716.600000	Y_R2 488.368
Na H (589.593 nm)	71.475063	ppm	0.364115	0.51	35875.064653	Y_R4
Ni (231.604 nm)	1.039720	ppm	0.001079	0.10	5801.310000	Y 377.433
P (213.618 nm)	24.305400	ppm	0.085190	0.35	36457.900000	Y 242.219
Pb (220.353 nm)	1.017490	ppm	0.001281	0.13	3467.920000	Y 242.219
S (181.972 nm)	14.509158	ppm	0.037954	0.26	6564.129750	Y 377.433
Sb (206.834 nm)	0.005785	ppm	0.002835	49.00	-10.988900	Y 377.433
Se (196.026 nm)	1.933360	ppm	0.007173	0.37	3118.430000	Y 242.219
Si (288.158 nm)	5.498600	ppm	0.023195	0.42	36778.500000	Y 377.433
Sn (189.925 nm)	1.783520	ppm	0.000604	0.03	3113.080000	Y 377.433
Sr (421.552 nm)	3.980685	ppm	0.007509	0.19	582242.909825	Y_R 488.368
Th (288.505 nm)	1.060040	ppm	0.005284	0.50	1768.810000	Y 377.433
Ti (336.122 nm)	5.798150	ppm	0.000746	0.01	755261.000000	Y 377.433
Tl (190.794 nm)	1.850680	ppm	0.002992	0.16	4416.570000	Y 377.433
U (409.013 nm)	1.914030	ppm	0.001528	0.08	5916.460000	Y 377.433
V (292.401 nm)	1.305620	ppm	0.001750	0.13	68955.000000	Y 377.433
Zn (206.200 nm)	0.822227	ppm	0.003529	0.43	4106.930000	Y 377.433
Zr (343.823 nm)	0.581289	ppm	0.000421	0.07	33342.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071875	24001.925097	0.003737	0.35
Y 377.433	1.083563	700118.617587	0.003190	0.29
Y_R 377.433	1.143780	62965.400000	0.000656	0.06
Y_R 488.368	1.136210	54909.400000	0.002292	0.20
Y_R2 488.368	1.125511	104317.411829	0.001607	0.14
Y_R4	1.153030	49372.200000	0.004968	0.43

Sample Name: 280-123861-a-3-c msd

Date: 5/23/2019 6:57:51 PM Rack:Tube: 1:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050796	ppm	0.000571	1.12	1135.700000	Y 377.433
Al (394.401 nm)	162.931000 o	ppm	0.248221	0.15	1947460.000000	Y 377.433
Al H (396.152 nm)	163.597000	ppm	0.425110	0.26	338106.000000	Y_R 377.433
As (188.980 nm)	2.002050	ppm	0.002900	0.14	3184.870000	Y 242.219
B (249.678 nm)	1.230990	ppm	0.001939	0.16	8781.620000	Y 242.219
Ba (493.408 nm)	2.760900	ppm	0.010368	0.38	268965.000000	Y_R 488.368
Be (234.861 nm)	0.962964	ppm	0.002545	0.26	96504.600000	Y_R 488.368
Bi (223.061 nm)	1.879570	ppm	0.000745	0.04	4296.020000	Y 377.433
Ca (315.887 nm)	202.587653	ppm	0.273857	0.14	163536.532677	Y_R 377.433
Cd (214.439 nm)	0.939275	ppm	0.000034	0.00	37633.000000	Y 377.433
Co (228.615 nm)	0.997445	ppm	0.001133	0.11	24894.300000	Y 242.219
Cr (205.560 nm)	1.101780	ppm	0.000920	0.08	7789.890000	Y 377.433
Cu (324.754 nm)	1.120510	ppm	0.004748	0.42	52411.400000	Y 377.433
Fe (238.204 nm)	134.325178 o	ppm	0.134586	0.10	331081.930796	Y_R 377.433
Fe H (259.940 nm)	135.259000	ppm	0.171203	0.13	189217.000000	Y_R 377.433
K (766.491 nm)	81.845900	ppm	0.322570	0.39	83216.000000	Y_R2 488.368
Li (670.783 nm)	1.208050	ppm	0.000845	0.07	18405.000000	Y_R2 488.368
Mg (279.078 nm)	109.837000	ppm	0.119430	0.11	388962.000000	Y 377.433
Mn (257.610 nm)	3.700030	ppm	0.004628	0.13	1023410.000000	Y 377.433
Mo (202.032 nm)	0.932889	ppm	0.001100	0.12	11894.100000	Y 377.433
Na (589.592 nm)	59.973800 o	ppm	0.166060	0.28	45102.100000	Y_R2 488.368
Na H (589.593 nm)	66.833159	ppm	0.213353	0.32	33566.453073	Y_R4
Ni (231.604 nm)	1.039090	ppm	0.001570	0.15	5797.840000	Y 377.433
P (213.618 nm)	22.788900	ppm	0.003110	0.01	34170.800000	Y 242.219
Pb (220.353 nm)	1.016600	ppm	0.004189	0.41	3469.390000	Y 242.219
S (181.972 nm)	13.569998	ppm	0.022880	0.17	6124.514856	Y 377.433
Sb (206.834 nm)	0.002778	ppm	0.002349	84.55	-15.929400	Y 377.433
Se (196.026 nm)	1.909460	ppm	0.009819	0.51	3082.050000	Y 242.219
Si (288.158 nm)	4.486940	ppm	0.021185	0.47	30105.300000	Y 377.433
Sn (189.925 nm)	1.813100	ppm	0.000015	0.00	3164.680000	Y 377.433
Sr (421.552 nm)	2.979874	ppm	0.013153	0.44	435873.185476	Y_R 488.368
Th (288.505 nm)	1.046040	ppm	0.005986	0.57	1754.480000	Y 377.433
Ti (336.122 nm)	5.492010	ppm	0.006347	0.12	714244.000000	Y 377.433
Tl (190.794 nm)	1.872030	ppm	0.002508	0.13	4485.280000	Y 377.433
U (409.013 nm)	1.890460	ppm	0.010120	0.54	5883.490000	Y 377.433
V (292.401 nm)	1.258940	ppm	0.001286	0.10	66468.900000	Y 377.433
Zn (206.200 nm)	0.795478	ppm	0.000878	0.11	3972.600000	Y 377.433
Zr (343.823 nm)	0.564091	ppm	0.000528	0.09	32351.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.095354	24527.673355	0.000197	0.02
Y 377.433	1.102584	712408.672263	0.000038	0.00
Y_R 377.433	1.157820	63738.300000	0.000841	0.07
Y_R 488.368	1.151520	55649.400000	0.000675	0.06
Y_R2 488.368	1.134881	105185.795122	0.004688	0.41
Y_R4	1.160330	49684.500000	0.010487	0.90

Sample Name: 280-123861-a-3-aPDS

Date: 5/23/2019 7:01:35 PM Rack:Tube: 1:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.048132	ppm	0.000131	0.27	1304.740000	Y 377.433
Al (394.401 nm)	175.369000 bo	ppm	0.096960	0.06	2098980.000000	Y 377.433
Al H (396.152 nm)	174.828000 b	ppm	0.209156	0.12	365716.000000	Y_R 377.433
As (188.980 nm)	0.256030	ppm	0.003792	1.48	401.942000	Y 242.219
B (249.678 nm)	0.415611	ppm	0.000274	0.07	2920.570000	Y 242.219
Ba (493.408 nm)	2.598590	ppm	0.000499	0.02	253267.000000	Y_R 488.368
Be (234.861 nm)	0.052954	ppm	0.000240	0.45	4622.150000	Y_R 488.368
Bi (223.061 nm)	-0.007028 u	ppm	0.002806	39.93	-1.848830	Y 377.433
Ca (315.887 nm)	320.301137	ppm	0.271778	0.08	258574.617507	Y_R 377.433
Cd (214.439 nm)	0.046860	ppm	0.000039	0.08	1939.340000	Y 377.433
Co (228.615 nm)	0.114657	ppm	0.000273	0.24	3073.100000	Y 242.219
Cr (205.560 nm)	0.219838	ppm	0.001868	0.85	1546.290000	Y 377.433
Cu (324.754 nm)	0.240061	ppm	0.000071	0.03	11389.600000	Y 377.433
Fe (238.204 nm)	163.915521 o	ppm	0.092099	0.06	404014.953666	Y_R 377.433
Fe H (259.940 nm)	165.364000	ppm	0.170022	0.10	231310.000000	Y_R 377.433
K (766.491 nm)	57.071300	ppm	0.196747	0.34	58626.500000	Y_R2 488.368
Li (670.783 nm)	0.390051	ppm	0.000927	0.24	4160.740000	Y_R2 488.368
Mg (279.078 nm)	97.791800	ppm	0.082600	0.08	346265.000000	Y 377.433
Mn (257.610 nm)	3.421580	ppm	0.001034	0.03	946388.000000	Y 377.433
Mo (202.032 nm)	0.050913	ppm	0.000009	0.02	671.243000	Y 377.433
Na (589.592 nm)	36.264100	ppm	0.093565	0.26	27506.100000	Y_R2 488.368
Na H (589.593 nm)	41.111014 u	ppm	0.006016	0.01	20773.762397	Y_R4
Ni (231.604 nm)	0.175328	ppm	0.000304	0.17	968.661000	Y 377.433
P (213.618 nm)	6.895090	ppm	0.005612	0.08	10370.800000	Y 242.219
Pb (220.353 nm)	0.176006	ppm	0.002656	1.51	578.393000	Y 242.219
S (181.972 nm)	10.308377	ppm	0.011126	0.11	4664.112603	Y 377.433
Sb (206.834 nm)	0.097705	ppm	0.001075	1.10	154.641000	Y 377.433
Se (196.026 nm)	0.189343	ppm	0.000106	0.06	277.760000	Y 242.219
Si (288.158 nm)	7.145530	ppm	0.004721	0.07	47642.200000	Y 377.433
Sn (189.925 nm)	0.096987	ppm	0.000419	0.43	171.403000	Y 377.433
Sr (421.552 nm)	14.650289 bo	ppm	0.010295	0.07	2142671.652310	Y_R 488.368
Th (288.505 nm)	0.265259	ppm	0.003267	1.23	476.236000	Y 377.433
Ti (336.122 nm)	5.594790	ppm	0.006215	0.11	728000.000000	Y 377.433
Tl (190.794 nm)	0.196050	ppm	0.002688	1.37	417.061000	Y 377.433
U (409.013 nm)	0.415092	ppm	0.005950	1.43	1317.280000	Y 377.433
V (292.401 nm)	0.425707	ppm	0.000438	0.10	22577.400000	Y 377.433
Zn (206.200 nm)	0.612984	ppm	0.001103	0.18	3071.390000	Y 377.433
Zr (343.823 nm)	0.157365	ppm	0.000162	0.10	8899.210000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123168	25150.510609	0.002460	0.22
Y 377.433	1.129993	730118.440730	0.000668	0.06
Y_R 377.433	1.196130	65847.700000	0.002581	0.22
Y_R 488.368	1.190080	57512.900000	0.001454	0.12
Y_R2 488.368	1.180626	109425.678253	0.000427	0.04
Y_R4	1.197690	51284.500000	0.006473	0.54

Sample Name: 280-123861-a-4-a

Date: 5/23/2019 7:05:23 PM Rack:Tube: 1:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000457	ppm	0.000179	39.18	-352.314000	Y 377.433
Al (394.401 nm)	168.663000 o	ppm	0.138615	0.08	2015490.000000	Y 377.433
Al H (396.152 nm)	170.819000	ppm	0.154570	0.09	352152.000000	Y_R 377.433
As (188.980 nm)	0.068324	ppm	0.002518	3.69	102.825000	Y 242.219
B (249.678 nm)	0.356585	ppm	0.001229	0.34	2496.890000	Y 242.219
Ba (493.408 nm)	0.937444	ppm	0.001228	0.13	92364.100000	Y_R 488.368
Be (234.861 nm)	0.006666	ppm	0.000440	6.60	-49.751400	Y_R 488.368
Bi (223.061 nm)	-0.007965 u	ppm	0.000870	10.92	-3.838250	Y 377.433
Ca (315.887 nm)	392.690116	ppm	0.334973	0.09	317015.392706	Y_R 377.433
Cd (214.439 nm)	0.002108	ppm	0.000212	10.04	149.264000	Y 377.433
Co (228.615 nm)	0.070987	ppm	0.000027	0.04	2004.650000	Y 242.219
Cr (205.560 nm)	0.179574	ppm	0.001262	0.70	1261.430000	Y 377.433
Cu (324.754 nm)	0.181502	ppm	0.000384	0.21	8602.190000	Y 377.433
Fe (238.204 nm)	164.749614 o	ppm	0.161623	0.10	406070.789047	Y_R 377.433
Fe H (259.940 nm)	166.153000	ppm	0.218034	0.13	232413.000000	Y_R 377.433
K (766.491 nm)	36.499500	ppm	0.105566	0.29	38208.400000	Y_R2 488.368
Li (670.783 nm)	0.308114	ppm	0.001441	0.47	2733.910000	Y_R2 488.368
Mg (279.078 nm)	78.927400	ppm	0.001380	0.00	279430.000000	Y 377.433
Mn (257.610 nm)	3.408970	ppm	0.005019	0.15	942899.000000	Y 377.433
Mo (202.032 nm)	0.012071	ppm	0.000282	2.34	176.984000	Y 377.433
Na (589.592 nm)	21.083700	ppm	0.053004	0.25	15919.900000	Y_R2 488.368
Na H (589.593 nm)	23.118205 u	ppm	0.101199	0.44	11825.191049	Y_R4
Ni (231.604 nm)	0.140215	ppm	0.000226	0.16	772.226000	Y 377.433
P (213.618 nm)	5.484270	ppm	0.017401	0.32	8251.980000	Y 242.219
Pb (220.353 nm)	0.085967	ppm	0.001357	1.58	268.850000	Y 242.219
S (181.972 nm)	4.242938	ppm	0.003320	0.08	1942.850603	Y 377.433
Sb (206.834 nm)	0.001257	ppm	0.000774	61.54	-16.557500	Y 377.433
Se (196.026 nm)	0.003426	ppm	0.003037	88.65	-24.716200	Y 242.219
Si (288.158 nm)	2.959350	ppm	0.001121	0.04	20028.800000	Y 377.433
Sn (189.925 nm)	0.010995	ppm	0.002540	23.11	21.413300	Y 377.433
Sr (421.552 nm)	1.145745	ppm	0.001659	0.14	167636.906458	Y_R 488.368
Th (288.505 nm)	0.080788	ppm	0.001612	2.00	157.978000	Y 377.433
Ti (336.122 nm)	5.834730	ppm	0.007559	0.13	759444.000000	Y 377.433
Tl (190.794 nm)	0.018582	ppm	0.002406	12.95	-17.401300	Y 377.433
U (409.013 nm)	-0.034088 u	ppm	0.003863	11.33	-93.176600	Y 377.433
V (292.401 nm)	0.358545	ppm	0.000369	0.10	19030.300000	Y 377.433
Zn (206.200 nm)	0.427190	ppm	0.000786	0.18	2149.440000	Y 377.433
Zr (343.823 nm)	0.113208	ppm	0.000058	0.05	6353.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110413	24864.896254	0.006400	0.58
Y 377.433	1.116919	721670.551372	0.003271	0.29
Y_R 377.433	1.178380	64870.500000	0.003757	0.32
Y_R 488.368	1.169520	56519.600000	0.005257	0.45
Y_R2 488.368	1.157540	107285.963012	0.004696	0.41
Y_R4	1.181170	50576.900000	0.000608	0.05

Sample Name: CCVH-5713036

Date: 5/23/2019 7:09:14 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004313	ppm	0.000135	3.12	-104.631000	Y 377.433
Al (394.401 nm)	49.837100 o	ppm	0.036889	0.07	594387.000000	Y 377.433
Al H (396.152 nm)	49.438500	ppm	0.011996	0.02	101655.000000	Y_R 377.433
As (188.980 nm)	0.000732 u	ppm	0.001863	> 100.00	-1.552850	Y 242.219
B (249.678 nm)	-0.002027 u	ppm	0.000550	27.15	-6.078210	Y 242.219
Ba (493.408 nm)	0.001230	ppm	0.000224	18.19	1589.980000	Y_R 488.368
Be (234.861 nm)	0.001042	ppm	0.000081	7.78	-114.480000	Y_R 488.368
Bi (223.061 nm)	-0.001316 u	ppm	0.000092	6.97	-9.629560	Y 377.433
Ca (315.887 nm)	0.006948	ppm	0.002505	36.05	-43.857965	Y_R 377.433
Cd (214.439 nm)	0.001381	ppm	0.000101	7.29	69.168300	Y 377.433
Co (228.615 nm)	0.003375	ppm	0.000024	0.71	61.356200	Y 242.219
Cr (205.560 nm)	0.001653	ppm	0.000448	27.08	4.334650	Y 377.433
Cu (324.754 nm)	0.003759	ppm	0.000059	1.57	1518.520000	Y 377.433
Fe (238.204 nm)	49.188184 o	ppm	0.019409	0.04	121239.882345	Y_R 377.433
Fe H (259.940 nm)	49.341600	ppm	0.106860	0.22	69082.600000	Y_R 377.433
K (766.491 nm)	0.478323	ppm	0.033528	7.01	2456.340000	Y_R2 488.368
Li (670.783 nm)	0.014736	ppm	0.002360	16.02	-2374.860000	Y_R2 488.368
Mg (279.078 nm)	0.039988	ppm	0.000366	0.92	74.133900	Y 377.433
Mn (257.610 nm)	0.001161	ppm	0.000042	3.63	299.090000	Y 377.433
Mo (202.032 nm)	0.000552	ppm	0.000460	83.36	30.410300	Y 377.433
Na (589.592 nm)	236.081000 o	ppm	0.473786	0.20	174989.000000	Y_R2 488.368
Na H (589.593 nm)	254.036073	ppm	1.143455	0.45	126670.234578	Y_R4
Ni (231.604 nm)	0.002494	ppm	0.000133	5.33	2.570420	Y 377.433
P (213.618 nm)	4.909210	ppm	0.009434	0.19	7419.890000	Y 242.219
Pb (220.353 nm)	0.005670	ppm	0.000402	7.09	24.976900	Y 242.219
S (181.972 nm)	5.035309	ppm	0.009598	0.19	2269.691217	Y 377.433
Sb (206.834 nm)	0.008787	ppm	0.000188	2.13	12.317000	Y 377.433
Se (196.026 nm)	0.005549	ppm	0.002157	38.88	5.889830	Y 242.219
Si (288.158 nm)	0.016792	ppm	0.000992	5.91	618.811000	Y 377.433
Sn (189.925 nm)	-0.000181 u	ppm	0.000169	93.45	1.920050	Y 377.433
Sr (421.552 nm)	0.001104	ppm	0.000075	6.76	216.612561	Y_R 488.368
Th (288.505 nm)	4.957110	ppm	0.003502	0.07	8661.720000	Y 377.433
Ti (336.122 nm)	0.002618	ppm	0.000038	1.44	-165.155000	Y 377.433
Tl (190.794 nm)	0.000989	ppm	0.001390	> 100.00	-2.481990	Y 377.433
U (409.013 nm)	0.541690 Q	ppm	0.002043	0.38	1691.080000 Q	Y 377.433
V (292.401 nm)	0.001044	ppm	0.000059	5.63	372.404000	Y 377.433
Zn (206.200 nm)	0.002766	ppm	0.001088	39.34	25.132500	Y 377.433
Zr (343.823 nm)	0.001694	ppm	0.000109	6.46	-76.818500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.082130	24231.553842	0.002149	0.20
Y 377.433	1.083034	699777.027347	0.001514	0.14
Y_R 377.433	1.118030	61547.700000	0.003456	0.31
Y_R 488.368	1.113290	53801.800000	0.001501	0.13
Y_R2 488.368	1.108227	102715.396570	0.007941	0.72
Y_R4	1.122770	48076.600000	0.008141	0.73

Sample Name: CCV-5717467

Date: 5/23/2019 7:12:59 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.490503	ppm	0.000794	0.16	16952.000000	Y 377.433
Al (394.401 nm)	0.510372	ppm	0.000787	0.15	6351.250000	Y 377.433
Al H (396.152 nm)	0.552425 u	ppm	0.001054	0.19	1145.660000	Y_R 377.433
As (188.980 nm)	0.492563	ppm	0.001329	0.27	783.466000	Y 242.219
B (249.678 nm)	0.489578	ppm	0.001379	0.28	3544.520000	Y 242.219
Ba (493.408 nm)	0.489182	ppm	0.000377	0.08	48818.000000	Y_R 488.368
Be (234.861 nm)	0.480999	ppm	0.003160	0.66	48481.800000	Y_R 488.368
Bi (223.061 nm)	0.964758	ppm	0.000337	0.03	2185.550000	Y 377.433
Ca (315.887 nm)	4.926369	ppm	0.012099	0.25	3915.409544	Y_R 377.433
Cd (214.439 nm)	0.495461	ppm	0.000789	0.16	19817.300000	Y 377.433
Co (228.615 nm)	0.492327	ppm	0.000941	0.19	12172.800000	Y 242.219
Cr (205.560 nm)	0.494261	ppm	0.001668	0.34	3492.850000	Y 377.433
Cu (324.754 nm)	0.493569	ppm	0.001570	0.32	23328.700000	Y 377.433
Fe (238.204 nm)	2.473843	ppm	0.000304	0.01	6100.357334	Y_R 377.433
Fe H (259.940 nm)	2.436700 u	ppm	0.003845	0.16	3497.870000	Y_R 377.433
K (766.491 nm)	48.157300	ppm	0.131363	0.27	49779.100000	Y_R2 488.368
Li (670.783 nm)	0.501345	ppm	0.005264	1.05	6098.770000	Y_R2 488.368
Mg (279.078 nm)	19.629000	ppm	0.045240	0.23	69557.000000	Y 377.433
Mn (257.610 nm)	0.494157	ppm	0.001071	0.22	136662.000000	Y 377.433
Mo (202.032 nm)	0.492623	ppm	0.001568	0.32	6291.840000	Y 377.433
Na (589.592 nm)	23.940300	ppm	0.098428	0.41	17944.300000	Y_R2 488.368
Na H (589.593 nm)	26.193715 u	ppm	0.043910	0.17	13354.770112	Y_R4
Ni (231.604 nm)	0.493332	ppm	0.000373	0.08	2746.220000	Y 377.433
P (213.618 nm)	0.051968	ppm	0.001383	2.66	-66.338300	Y 242.219
Pb (220.353 nm)	0.496525	ppm	0.003254	0.66	1716.280000	Y 242.219
S (181.972 nm)	0.006330	ppm	0.000830	13.12	12.341131	Y 377.433
Sb (206.834 nm)	0.499424	ppm	0.003479	0.70	871.413000	Y 377.433
Se (196.026 nm)	0.496646	ppm	0.001604	0.32	817.853000	Y 242.219
Si (288.158 nm)	4.833420	ppm	0.014647	0.30	32390.800000	Y 377.433
Sn (189.925 nm)	0.491766	ppm	0.003214	0.65	859.981000	Y 377.433
Sr (421.552 nm)	0.492098	ppm	0.000180	0.04	72017.486403	Y_R 488.368
Th (288.505 nm)	0.014238	ppm	0.001198	8.41	-10.618900	Y 377.433
Ti (336.122 nm)	0.489026	ppm	0.000632	0.13	63096.400000	Y 377.433
Tl (190.794 nm)	0.500670	ppm	0.001465	0.29	1209.600000	Y 377.433
U (409.013 nm)	0.022509	ppm	0.005968	26.51	-30.238400	Y 377.433
V (292.401 nm)	0.488618	ppm	0.000826	0.17	25585.800000	Y 377.433
Zn (206.200 nm)	0.494141	ppm	0.001669	0.34	2456.700000	Y 377.433
Zr (343.823 nm)	0.490286	ppm	0.000407	0.08	28095.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103530	24710.770242	0.004194	0.38
Y 377.433	1.103267	712849.966309	0.003258	0.30
Y_R 377.433	1.132890	62366.000000	0.005084	0.45
Y_R 488.368	1.128710	54547.100000	0.005046	0.45
Y_R2 488.368	1.116146	103449.428162	0.007662	0.69
Y_R4	1.121290	48012.900000	0.006028	0.54

Sample Name: CCB

Date: 5/23/2019 7:16:36 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000227 u	ppm	0.000389	> 100.00	-254.036000	Y 377.433
Al (394.401 nm)	-0.001595 u	ppm	0.001942	> 100.00	111.532000	Y 377.433
Al H (396.152 nm)	0.124916 Zu	ppm	0.011998	9.61	31.791700 Z	Y_R 377.433
As (188.980 nm)	0.000256 u	ppm	0.001524	> 100.00	-0.897481	Y 242.219
B (249.678 nm)	-0.002783 u	ppm	0.000643	23.12	17.141700	Y 242.219
Ba (493.408 nm)	-0.001898 u	ppm	0.000346	18.22	1248.770000	Y_R 488.368
Be (234.861 nm)	-0.000006 u	ppm	0.000001	20.49	-6.316760	Y_R 488.368
Bi (223.061 nm)	0.002231	ppm	0.001690	75.77	-10.427300	Y 377.433
Ca (315.887 nm)	-0.007085 u	ppm	0.006763	95.46	-67.695266	Y_R 377.433
Cd (214.439 nm)	-0.000006 u	ppm	0.000111	> 100.00	-8.045840	Y 377.433
Co (228.615 nm)	0.000258	ppm	0.000080	31.12	-15.795900	Y 242.219
Cr (205.560 nm)	0.000547	ppm	0.000004	0.79	-2.092030	Y 377.433
Cu (324.754 nm)	0.000413	ppm	0.000152	36.72	430.778000	Y 377.433
Fe (238.204 nm)	0.001660	ppm	0.000906	54.60	7.024609	Y_R 377.433
Fe H (259.940 nm)	-0.052477 u	ppm	0.000734	1.40	17.374100	Y_R 377.433
K (766.491 nm)	-0.115574 u	ppm	0.046988	40.66	1866.880000	Y_R2 488.368
Li (670.783 nm)	0.016554 Z	ppm	0.002127	12.85	-2343.200000 Z	Y_R2 488.368
Mg (279.078 nm)	0.000135 u	ppm	0.001660	> 100.00	12.147300	Y 377.433
Mn (257.610 nm)	0.000071	ppm	0.000019	27.39	-2.489100	Y 377.433
Mo (202.032 nm)	-0.000655 u	ppm	0.000017	2.53	15.055200	Y 377.433
Na (589.592 nm)	0.095961	ppm	0.005083	5.30	181.117000	Y_R2 488.368
Na H (589.593 nm)	0.393218 u	ppm	0.028640	7.28	523.111404	Y_R4
Ni (231.604 nm)	-0.000261 u	ppm	0.000047	17.90	-12.829400	Y 377.433
P (213.618 nm)	0.000707 u	ppm	0.002448	> 100.00	-3.463840	Y 242.219
Pb (220.353 nm)	-0.001176 u	ppm	0.001594	> 100.00	8.895820	Y 242.219
S (181.972 nm)	-0.005041 u	ppm	0.001440	28.56	5.490704	Y 377.433
Sb (206.834 nm)	0.003426	ppm	0.001203	35.11	-1.484580	Y 377.433
Se (196.026 nm)	0.001107 u	ppm	0.002298	> 100.00	12.375400	Y 242.219
Si (288.158 nm)	-0.004986 u	ppm	0.000829	16.63	475.155000	Y 377.433
Sn (189.925 nm)	0.000015 u	ppm	0.000815	> 100.00	2.262120	Y 377.433
Sr (421.552 nm)	0.000022 u	ppm	0.000161	> 100.00	51.207591	Y_R 488.368
Th (288.505 nm)	0.000586 u	ppm	0.002654	> 100.00	15.596000	Y 377.433
Ti (336.122 nm)	0.000525	ppm	0.000030	5.76	-437.372000	Y 377.433
Tl (190.794 nm)	0.000007 u	ppm	0.001953	> 100.00	0.138761	Y 377.433
U (409.013 nm)	0.011451	ppm	0.002174	18.99	-5.931660	Y 377.433
V (292.401 nm)	0.000466	ppm	0.000238	51.05	-155.997000	Y 377.433
Zn (206.200 nm)	-0.000264 u	ppm	0.000055	20.97	2.506470	Y 377.433
Zr (343.823 nm)	0.000760	ppm	0.000130	17.09	-130.720000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115874	24987.172942	0.007388	0.66
Y 377.433	1.113703	719593.039104	0.004721	0.42
Y_R 377.433	1.133720	62411.800000	0.002090	0.18
Y_R 488.368	1.128450	54534.700000	0.000358	0.03
Y_R2 488.368	1.120713	103872.672294	0.001796	0.16
Y_R4	1.122760	48075.800000	0.006839	0.61

Sample Name: CCVL-5717307

Date: 5/23/2019 7:19:47 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008052	ppm	0.000345	4.29	35.399800	Y 377.433
Al (394.401 nm)	0.096125	ppm	0.000413	0.43	1286.030000	Y 377.433
Al H (396.152 nm)	0.225601 u	ppm	0.003997	1.77	244.483000	Y_R 377.433
As (188.980 nm)	0.013730	ppm	0.000234	1.71	20.569100	Y 242.219
B (249.678 nm)	0.092201	ppm	0.000748	0.81	697.844000	Y 242.219
Ba (493.408 nm)	0.007643	ppm	0.000089	1.17	2173.020000	Y_R 488.368
Be (234.861 nm)	0.001008	ppm	0.000036	3.58	95.478000	Y_R 488.368
Bi (223.061 nm)	0.088678	ppm	0.006103	6.88	186.773000	Y 377.433
Ca (315.887 nm)	0.210910	ppm	0.002250	1.07	108.322970	Y_R 377.433
Cd (214.439 nm)	0.005066	ppm	0.000011	0.21	194.936000	Y 377.433
Co (228.615 nm)	0.010684	ppm	0.000039	0.36	242.432000	Y 242.219
Cr (205.560 nm)	0.009679	ppm	0.000159	1.64	62.445100	Y 377.433
Cu (324.754 nm)	0.015381	ppm	0.000199	1.29	1125.310000	Y 377.433
Fe (238.204 nm)	0.104493	ppm	0.001251	1.20	260.483040	Y_R 377.433
Fe H (259.940 nm)	0.050617 u	ppm	0.000540	1.07	161.524000	Y_R 377.433
K (766.491 nm)	2.835230	ppm	0.061028	2.15	4795.640000	Y_R2 488.368
Li (670.783 nm)	0.033573 Q	ppm	0.001509	4.49	-2046.840000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202533	ppm	0.000150	0.07	728.044000	Y 377.433
Mn (257.610 nm)	0.010558	ppm	0.000003	0.03	2898.220000	Y 377.433
Mo (202.032 nm)	0.018852	ppm	0.000368	1.95	263.266000	Y 377.433
Na (589.592 nm)	1.133730	ppm	0.009772	0.86	951.788000	Y_R2 488.368
Na H (589.593 nm)	1.226566 u	ppm	0.004486	0.37	937.570011	Y_R4
Ni (231.604 nm)	0.041215	ppm	0.001125	2.73	218.984000	Y 377.433
P (213.618 nm)	2.784550	ppm	0.020736	0.74	4204.810000	Y 242.219
Pb (220.353 nm)	0.007248	ppm	0.001195	16.49	37.911100	Y 242.219
S (181.972 nm)	0.087870	ppm	0.008917	10.15	47.265601	Y 377.433
Sb (206.834 nm)	0.024436	ppm	0.001172	4.80	35.443700	Y 377.433
Se (196.026 nm)	0.017385	ppm	0.001117	6.42	38.820400	Y 242.219
Si (288.158 nm)	0.469246	ppm	0.002236	0.48	3603.330000	Y 377.433
Sn (189.925 nm)	0.097005	ppm	0.000664	0.68	171.434000	Y 377.433
Sr (421.552 nm)	0.009134	ppm	0.000031	0.34	1383.794459	Y_R 488.368
Th (288.505 nm)	0.016782	ppm	0.001411	8.41	43.349700	Y 377.433
Ti (336.122 nm)	0.010233	ppm	0.000030	0.29	825.576000	Y 377.433
Tl (190.794 nm)	0.017062	ppm	0.001836	10.76	41.330200	Y 377.433
U (409.013 nm)	0.068253	ppm	0.000724	1.06	170.867000	Y 377.433
V (292.401 nm)	0.010158	ppm	0.000069	0.68	352.867000	Y 377.433
Zn (206.200 nm)	0.020753	ppm	0.000099	0.48	106.833000	Y 377.433
Zr (343.823 nm)	0.009957	ppm	0.000121	1.22	399.610000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131237	25331.183161	0.001211	0.11
Y 377.433	1.128975	729460.692987	0.001100	0.10
Y_R 377.433	1.143900	62972.200000	0.000750	0.07
Y_R 488.368	1.139880	55086.900000	0.000391	0.03
Y_R2 488.368	1.126984	104453.941272	0.002926	0.26
Y_R4	1.128380	48316.800000	0.002378	0.21

Sample Name: 280-123861-a-5-a

Date: 5/23/2019 7:23:15 PM Rack:Tube: 1:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000517	ppm	0.000475	91.99	-371.462000	Y 377.433
Al (394.401 nm)	178.470000 o	ppm	0.064200	0.04	2132610.000000	Y 377.433
Al H (396.152 nm)	180.559000	ppm	0.548136	0.30	372181.000000	Y_R 377.433
As (188.980 nm)	0.079242	ppm	0.002853	3.60	120.169000	Y 242.219
B (249.678 nm)	0.289773	ppm	0.001001	0.35	2017.010000	Y 242.219
Ba (493.408 nm)	2.923490	ppm	0.007998	0.27	284740.000000	Y_R 488.368
Be (234.861 nm)	0.007174	ppm	0.000112	1.57	-6.134320	Y_R 488.368
Bi (223.061 nm)	-0.006055 u	ppm	0.000040	0.66	0.839322	Y 377.433
Ca (315.887 nm)	350.554552	ppm	1.434714	0.41	283000.175279	Y_R 377.433
Cd (214.439 nm)	0.001683	ppm	0.000076	4.49	133.021000	Y 377.433
Co (228.615 nm)	0.076644	ppm	0.000098	0.13	2133.800000	Y 242.219
Cr (205.560 nm)	0.182906	ppm	0.000084	0.05	1284.810000	Y 377.433
Cu (324.754 nm)	0.180847	ppm	0.000050	0.03	8613.320000	Y 377.433
Fe (238.204 nm)	166.528982 o	ppm	0.806462	0.48	410456.500880	Y_R 377.433
Fe H (259.940 nm)	167.928000	ppm	0.804126	0.48	234895.000000	Y_R 377.433
K (766.491 nm)	37.212400	ppm	0.063614	0.17	38916.000000	Y_R2 488.368
Li (670.783 nm)	0.328887	ppm	0.003088	0.94	3095.640000	Y_R2 488.368
Mg (279.078 nm)	86.747100	ppm	0.169897	0.20	307134.000000	Y 377.433
Mn (257.610 nm)	3.411590	ppm	0.003187	0.09	943624.000000	Y 377.433
Mo (202.032 nm)	0.003693	ppm	0.000286	7.75	70.378300	Y 377.433
Na (589.592 nm)	19.421600	ppm	0.008422	0.04	15095.900000	Y_R2 488.368
Na H (589.593 nm)	23.472521 u	ppm	0.029917	0.13	12001.407001	Y_R4
Ni (231.604 nm)	0.142991	ppm	0.001226	0.86	787.736000	Y 377.433
P (213.618 nm)	5.979980	ppm	0.019621	0.33	9002.300000	Y 242.219
Pb (220.353 nm)	0.089778	ppm	0.001099	1.22	280.585000	Y 242.219
S (181.972 nm)	5.884854	ppm	0.017525	0.30	2678.422821	Y 377.433
Sb (206.834 nm)	0.004959	ppm	0.003598	72.56	-8.739730	Y 377.433
Se (196.026 nm)	0.005786	ppm	0.006879	> 100.00	-21.370600	Y 242.219
Si (288.158 nm)	2.636660	ppm	0.004025	0.15	17900.300000	Y 377.433
Sn (189.925 nm)	0.010327	ppm	0.000431	4.17	20.248400	Y 377.433
Sr (421.552 nm)	1.013693	ppm	0.001507	0.15	148324.555473	Y_R 488.368
Th (288.505 nm)	0.079237	ppm	0.001234	1.56	150.172000	Y 377.433
Ti (336.122 nm)	5.604830	ppm	0.005548	0.10	729409.000000	Y 377.433
Tl (190.794 nm)	0.017667	ppm	0.000503	2.85	-16.580200	Y 377.433
U (409.013 nm)	-0.035247 u	ppm	0.010243	29.06	-90.382600	Y 377.433
V (292.401 nm)	0.412766	ppm	0.000640	0.15	21910.900000	Y 377.433
Zn (206.200 nm)	0.453000	ppm	0.001151	0.25	2277.810000	Y 377.433
Zr (343.823 nm)	0.115749	ppm	0.000252	0.22	6499.630000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110604	24869.159329	0.005497	0.49
Y 377.433	1.117839	722265.240078	0.005246	0.47
Y_R 377.433	1.175090	64689.200000	0.006724	0.57
Y_R 488.368	1.166770	56386.300000	0.005022	0.43
Y_R2 488.368	1.153296	106892.617760	0.002415	0.21
Y_R4	1.168190	50021.300000	0.003867	0.33

Sample Name: 280-123861-a-6-a

Date: 5/23/2019 7:27:05 PM Rack:Tube: 1:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000181	ppm	0.000065	35.76	-450.403000	Y 377.433
Al (394.401 nm)	144.994000 o	ppm	0.150646	0.10	1732980.000000	Y 377.433
Al H (396.152 nm)	146.852000	ppm	0.190444	0.13	303221.000000	Y_R 377.433
As (188.980 nm)	0.146512	ppm	0.002011	1.37	227.999000	Y 242.219
B (249.678 nm)	0.187956	ppm	0.001247	0.66	1300.270000	Y 242.219
Ba (493.408 nm)	0.718150	ppm	0.000826	0.11	71106.600000	Y_R 488.368
Be (234.861 nm)	0.005876	ppm	0.000132	2.25	-39.961200	Y_R 488.368
Bi (223.061 nm)	-0.006824 u	ppm	0.003580	52.47	-4.960360	Y 377.433
Ca (315.887 nm)	344.056704	ppm	0.598218	0.17	277745.716978	Y_R 377.433
Cd (214.439 nm)	0.001451	ppm	0.000147	10.17	113.871000	Y 377.433
Co (228.615 nm)	0.060726	ppm	0.001014	1.67	1754.160000	Y 242.219
Cr (205.560 nm)	0.172293	ppm	0.000635	0.37	1210.600000	Y 377.433
Cu (324.754 nm)	0.141532	ppm	0.000083	0.06	6777.410000	Y 377.433
Fe (238.204 nm)	144.541251 o	ppm	0.246971	0.17	356262.075232	Y_R 377.433
Fe H (259.940 nm)	145.440000	ppm	0.224130	0.15	203453.000000	Y_R 377.433
K (766.491 nm)	31.873400	ppm	0.019684	0.06	33616.900000	Y_R2 488.368
Li (670.783 nm)	0.351257	ppm	0.002114	0.60	3485.190000	Y_R2 488.368
Mg (279.078 nm)	77.407000	ppm	0.059211	0.08	274073.000000	Y 377.433
Mn (257.610 nm)	2.403440	ppm	0.001095	0.05	664770.000000	Y 377.433
Mo (202.032 nm)	0.002828	ppm	0.000259	9.17	59.376200	Y 377.433
Na (589.592 nm)	9.852980	ppm	0.006544	0.07	7555.960000	Y_R2 488.368
Na H (589.593 nm)	11.084035 u	ppm	0.046508	0.42	5840.098832	Y_R4
Ni (231.604 nm)	0.118074	ppm	0.000318	0.27	648.486000	Y 377.433
P (213.618 nm)	5.619170	ppm	0.003310	0.06	8466.400000	Y 242.219
Pb (220.353 nm)	0.075613	ppm	0.000441	0.58	237.474000	Y 242.219
S (181.972 nm)	1.536259	ppm	0.013695	0.89	721.515241	Y 377.433
Sb (206.834 nm)	0.001028 u	ppm	0.003136	> 100.00	-19.052100	Y 377.433
Se (196.026 nm)	0.004639	ppm	0.001697	36.58	-18.504900	Y 242.219
Si (288.158 nm)	2.562520	ppm	0.008911	0.35	17411.200000	Y 377.433
Sn (189.925 nm)	0.012842	ppm	0.001678	13.07	24.634700	Y 377.433
Sr (421.552 nm)	2.294382	ppm	0.000453	0.02	335621.676894	Y_R 488.368
Th (288.505 nm)	0.078122	ppm	0.006989	8.95	113.275000	Y 377.433
Ti (336.122 nm)	5.904370	ppm	0.007700	0.13	768328.000000	Y 377.433
Tl (190.794 nm)	0.016174	ppm	0.002342	14.48	-19.521600	Y 377.433
U (409.013 nm)	-0.028619 u	ppm	0.003069	10.73	-81.395500	Y 377.433
V (292.401 nm)	0.564829	ppm	0.000545	0.10	30006.500000	Y 377.433
Zn (206.200 nm)	0.372505	ppm	0.000730	0.20	1874.850000	Y 377.433
Zr (343.823 nm)	0.088080	ppm	0.000158	0.18	4904.230000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.100904	24651.958489	0.000302	0.03
Y 377.433	1.108904	716491.963383	0.000866	0.08
Y_R 377.433	1.163960	64076.500000	0.007540	0.65
Y_R 488.368	1.156440	55887.300000	0.005610	0.49
Y_R2 488.368	1.146346	106248.430751	0.002873	0.25
Y_R4	1.163850	49835.500000	0.000372	0.03

Sample Name: 280-123861-a-7-a

Date: 5/23/2019 7:30:53 PM Rack:Tube: 1:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000473	ppm	0.000632	> 100.00	-338.845000	Y 377.433
Al (394.401 nm)	125.225000 o	ppm	0.011572	0.01	1496510.000000	Y 377.433
Al H (396.152 nm)	126.520000	ppm	0.035590	0.03	260889.000000	Y_R 377.433
As (188.980 nm)	0.056392	ppm	0.003994	7.08	84.901300	Y 242.219
B (249.678 nm)	0.235388	ppm	0.002005	0.85	1650.300000	Y 242.219
Ba (493.408 nm)	0.877768	ppm	0.000235	0.03	86554.200000	Y_R 488.368
Be (234.861 nm)	0.005187	ppm	0.000091	1.75	-34.168100	Y_R 488.368
Bi (223.061 nm)	-0.004052 u	ppm	0.000865	21.35	-1.781410	Y 377.433
Ca (315.887 nm)	235.981059	ppm	0.093174	0.04	190486.822693	Y_R 377.433
Cd (214.439 nm)	0.001367	ppm	0.000071	5.23	102.881000	Y 377.433
Co (228.615 nm)	0.052904	ppm	0.000509	0.96	1501.730000	Y 242.219
Cr (205.560 nm)	0.138797	ppm	0.000404	0.29	973.831000	Y 377.433
Cu (324.754 nm)	0.134685	ppm	0.000320	0.24	6521.060000	Y 377.433
Fe (238.204 nm)	127.057180 o	ppm	0.076716	0.06	313168.079170	Y_R 377.433
Fe H (259.940 nm)	127.636000	ppm	0.034967	0.03	178558.000000	Y_R 377.433
K (766.491 nm)	25.501400	ppm	0.031270	0.12	27292.500000	Y_R2 488.368
Li (670.783 nm)	0.242281	ppm	0.002180	0.90	1587.520000	Y_R2 488.368
Mg (279.078 nm)	59.540800	ppm	0.091772	0.15	210794.000000	Y 377.433
Mn (257.610 nm)	2.430470	ppm	0.003143	0.13	672246.000000	Y 377.433
Mo (202.032 nm)	0.005361	ppm	0.000102	1.90	91.599500	Y 377.433
Na (589.592 nm)	14.055700	ppm	0.027300	0.19	10701.900000	Y_R2 488.368
Na H (589.593 nm)	15.458091 u	ppm	0.039384	0.25	8015.498214	Y_R4
Ni (231.604 nm)	0.099188	ppm	0.000454	0.46	542.945000	Y 377.433
P (213.618 nm)	4.321180	ppm	0.019484	0.45	6503.130000	Y 242.219
Pb (220.353 nm)	0.064494	ppm	0.005158	8.00	204.884000	Y 242.219
S (181.972 nm)	4.802304	ppm	0.038116	0.79	2183.611572	Y 377.433
Sb (206.834 nm)	0.001866	ppm	0.001620	86.83	-13.530200	Y 377.433
Se (196.026 nm)	0.004867	ppm	0.003651	75.00	-13.272700	Y 242.219
Si (288.158 nm)	2.426800	ppm	0.004765	0.20	16516.000000	Y 377.433
Sn (189.925 nm)	0.009829	ppm	0.001631	16.59	19.380300	Y 377.433
Sr (421.552 nm)	1.126710	ppm	0.000222	0.02	164847.524618	Y_R 488.368
Th (288.505 nm)	0.057927	ppm	0.001186	2.05	111.413000	Y 377.433
Ti (336.122 nm)	4.637060	ppm	0.002258	0.05	603189.000000	Y 377.433
Tl (190.794 nm)	0.012096	ppm	0.000080	0.66	-16.793600	Y 377.433
U (409.013 nm)	-0.011824 u	ppm	0.000635	5.37	-26.898900	Y 377.433
V (292.401 nm)	0.311757	ppm	0.000423	0.14	16515.500000	Y 377.433
Zn (206.200 nm)	0.323217	ppm	0.000550	0.17	1627.560000	Y 377.433
Zr (343.823 nm)	0.083821	ppm	0.000003	0.00	4658.660000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107677	24803.625441	0.002164	0.20
Y 377.433	1.114096	719846.832288	0.002738	0.25
Y_R 377.433	1.153230	63485.700000	0.000569	0.05
Y_R 488.368	1.147220	55441.900000	0.000354	0.03
Y_R2 488.368	1.145037	106127.137879	0.001433	0.13
Y_R4	1.167770	50003.200000	0.003329	0.29

Sample Name: 280-123861-a-8-a

Date: 5/23/2019 7:34:41 PM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000200	ppm	0.000069	34.53	-310.511000	Y 377.433
Al (394.401 nm)	74.332800 o	ppm	0.112054	0.15	888637.000000	Y 377.433
Al H (396.152 nm)	74.813100	ppm	0.079872	0.11	154618.000000	Y_R 377.433
As (188.980 nm)	0.033588	ppm	0.001119	3.33	49.379800	Y 242.219
B (249.678 nm)	0.178930	ppm	0.000719	0.40	1262.150000	Y 242.219
Ba (493.408 nm)	0.943618	ppm	0.000386	0.04	92910.600000	Y_R 488.368
Be (234.861 nm)	0.003483	ppm	0.000043	1.23	-82.785400	Y_R 488.368
Bi (223.061 nm)	-0.003158 u	ppm	0.000942	29.82	-4.885640	Y 377.433
Ca (315.887 nm)	95.867824	ppm	0.091330	0.10	77354.874358	Y_R 377.433
Cd (214.439 nm)	0.000812	ppm	0.000143	17.58	68.191900	Y 377.433
Co (228.615 nm)	0.041819	ppm	0.000293	0.70	1178.290000	Y 242.219
Cr (205.560 nm)	0.086867	ppm	0.000358	0.41	607.332000	Y 377.433
Cu (324.754 nm)	0.105168	ppm	0.000128	0.12	5235.500000	Y 377.433
Fe (238.204 nm)	98.627739 o	ppm	0.039163	0.04	243096.398999	Y_R 377.433
Fe H (259.940 nm)	98.959500	ppm	0.009465	0.01	138461.000000	Y_R 377.433
K (766.491 nm)	14.615900	ppm	0.079354	0.54	16488.300000	Y_R2 488.368
Li (670.783 nm)	0.207558	ppm	0.007577	3.65	982.869000	Y_R2 488.368
Mg (279.078 nm)	42.127400	ppm	0.139126	0.33	149136.000000	Y 377.433
Mn (257.610 nm)	1.909500	ppm	0.006204	0.32	528145.000000	Y 377.433
Mo (202.032 nm)	0.004229	ppm	0.000496	11.73	77.203200	Y 377.433
Na (589.592 nm)	7.783400	ppm	0.044429	0.57	6069.030000	Y_R2 488.368
Na H (589.593 nm)	8.968877 u	ppm	0.089913	1.00	4788.142642	Y_R4
Ni (231.604 nm)	0.073508	ppm	0.001259	1.71	399.431000	Y 377.433
P (213.618 nm)	4.285600	ppm	0.004420	0.10	6456.300000	Y 242.219
Pb (220.353 nm)	0.039170	ppm	0.002644	6.75	128.723000	Y 242.219
S (181.972 nm)	2.019093	ppm	0.001920	0.10	925.123420	Y 377.433
Sb (206.834 nm)	0.000148 u	ppm	0.000748	> 100.00	-14.519300	Y 377.433
Se (196.026 nm)	0.001977	ppm	0.001238	62.60	-10.848500	Y 242.219
Si (288.158 nm)	1.689250	ppm	0.006704	0.40	11650.800000	Y 377.433
Sn (189.925 nm)	0.010802	ppm	0.001428	13.22	21.076600	Y 377.433
Sr (421.552 nm)	1.777435	ppm	0.001808	0.10	260011.553262	Y_R 488.368
Th (288.505 nm)	0.063129	ppm	0.001063	1.68	128.435000	Y 377.433
Ti (336.122 nm)	3.576840	ppm	0.005761	0.16	464868.000000	Y 377.433
Tl (190.794 nm)	0.008406	ppm	0.001383	16.45	-12.300800	Y 377.433
U (409.013 nm)	-0.010630 u	ppm	0.007261	68.31	-22.159800	Y 377.433
V (292.401 nm)	0.202772	ppm	0.000310	0.15	10706.600000	Y 377.433
Zn (206.200 nm)	0.254256	ppm	0.000143	0.06	1280.920000	Y 377.433
Zr (343.823 nm)	0.054385	ppm	0.000195	0.36	2961.350000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.135237	25420.769131	0.003526	0.31
Y 377.433	1.139443	736224.252473	0.004346	0.38
Y_R 377.433	1.170170	64418.500000	0.002010	0.17
Y_R 488.368	1.167270	56410.700000	0.002709	0.23
Y_R2 488.368	1.147413	106347.344674	0.006445	0.56
Y_R4	1.183100	50659.500000	0.005620	0.47

Sample Name: 280-123861-a-9-a

Date: 5/23/2019 7:38:28 PM Rack:Tube: 1:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000455	ppm	0.000403	88.55	-339.968000	Y 377.433
Al (394.401 nm)	134.321000 o	ppm	0.076888	0.06	1605250.000000	Y 377.433
Al H (396.152 nm)	135.805000	ppm	0.271315	0.20	280133.000000	Y_R 377.433
As (188.980 nm)	0.057344	ppm	0.002396	4.18	86.031400	Y 242.219
B (249.678 nm)	0.281609	ppm	0.000210	0.07	1973.770000	Y 242.219
Ba (493.408 nm)	1.465510	ppm	0.003860	0.26	143495.000000	Y_R 488.368
Be (234.861 nm)	0.005519	ppm	0.000153	2.78	-58.976300	Y_R 488.368
Bi (223.061 nm)	-0.001378 u	ppm	0.002876	> 100.00	6.747780	Y 377.433
Ca (315.887 nm)	316.450450	ppm	0.799925	0.25	255455.273267	Y_R 377.433
Cd (214.439 nm)	0.001408	ppm	0.000014	0.96	110.434000	Y 377.433
Co (228.615 nm)	0.060313	ppm	0.000872	1.45	1684.740000	Y 242.219
Cr (205.560 nm)	0.148224	ppm	0.001232	0.83	1040.350000	Y 377.433
Cu (324.754 nm)	0.143956	ppm	0.000474	0.33	6916.480000	Y 377.433
Fe (238.204 nm)	140.597421 o	ppm	0.319581	0.23	346541.489049	Y_R 377.433
Fe H (259.940 nm)	141.564000	ppm	0.330292	0.23	198032.000000	Y_R 377.433
K (766.491 nm)	28.183700	ppm	0.066102	0.23	29954.800000	Y_R2 488.368
Li (670.783 nm)	0.243364	ppm	0.003369	1.38	1606.380000	Y_R2 488.368
Mg (279.078 nm)	66.484100	ppm	0.142395	0.21	235376.000000	Y 377.433
Mn (257.610 nm)	2.627780	ppm	0.003788	0.14	726822.000000	Y 377.433
Mo (202.032 nm)	0.005714	ppm	0.000092	1.61	96.094300	Y 377.433
Na (589.592 nm)	15.063500	ppm	0.043601	0.29	11568.900000	Y_R2 488.368
Na H (589.593 nm)	17.223249 u	ppm	0.051464	0.30	8893.384896	Y_R4
Ni (231.604 nm)	0.108497	ppm	0.000126	0.12	594.968000	Y 377.433
P (213.618 nm)	4.910420	ppm	0.017708	0.36	7393.130000	Y 242.219
Pb (220.353 nm)	0.068122	ppm	0.000740	1.09	215.649000	Y 242.219
S (181.972 nm)	4.612470	ppm	0.034838	0.76	2102.773065	Y 377.433
Sb (206.834 nm)	0.002232	ppm	0.003031	> 100.00	-11.615900	Y 377.433
Se (196.026 nm)	0.003914	ppm	0.002749	70.23	-18.271300	Y 242.219
Si (288.158 nm)	2.738520	ppm	0.007621	0.28	18572.100000	Y 377.433
Sn (189.925 nm)	0.011291	ppm	0.002084	18.46	21.930800	Y 377.433
Sr (421.552 nm)	1.452128	ppm	0.003085	0.21	212441.730781	Y_R 488.368
Th (288.505 nm)	0.068051	ppm	0.000969	1.42	129.379000	Y 377.433
Ti (336.122 nm)	4.634170	ppm	0.004439	0.10	603088.000000	Y 377.433
Tl (190.794 nm)	0.013525	ppm	0.002019	14.93	-18.104300	Y 377.433
U (409.013 nm)	-0.016871 u	ppm	0.005176	30.68	-43.889500	Y 377.433
V (292.401 nm)	0.314962	ppm	0.000161	0.05	16686.600000	Y 377.433
Zn (206.200 nm)	0.363022	ppm	0.000605	0.17	1827.190000	Y 377.433
Zr (343.823 nm)	0.087695	ppm	0.000203	0.23	4882.030000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108934	24831.763109	0.001127	0.10
Y 377.433	1.115631	720838.703340	0.003863	0.35
Y_R 377.433	1.168830	64344.800000	0.005851	0.50
Y_R 488.368	1.163820	56243.700000	0.005740	0.49
Y_R2 488.368	1.147749	106378.474267	0.000835	0.07
Y_R4	1.169560	50079.900000	0.001767	0.15

Sample Name: mb 280-458299/1-a

Date: 5/23/2019 7:42:16 PM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000157 u	ppm	0.000204	> 100.00	-251.253000	Y 377.433
Al (394.401 nm)	0.006519	ppm	0.001070	16.41	207.444000	Y 377.433
Al H (396.152 nm)	0.131289 u	ppm	0.001306	0.99	44.975900	Y_R 377.433
As (188.980 nm)	0.000255	ppm	0.000337	> 100.00	-0.904815	Y 242.219
B (249.678 nm)	-0.002806 u	ppm	0.000372	13.27	16.848600	Y 242.219
Ba (493.408 nm)	-0.002065 u	ppm	0.000046	2.21	1232.720000	Y_R 488.368
Be (234.861 nm)	-0.000008 u	ppm	0.000020	> 100.00	-7.498900	Y_R 488.368
Bi (223.061 nm)	0.001945	ppm	0.001611	82.84	-11.039400	Y 377.433
Ca (315.887 nm)	0.038205	ppm	0.001476	3.86	-31.131102	Y_R 377.433
Cd (214.439 nm)	0.000052 u	ppm	0.000088	> 100.00	-5.614430	Y 377.433
Co (228.615 nm)	-0.000042 u	ppm	0.000028	67.77	-23.184000	Y 242.219
Cr (205.560 nm)	0.000032 u	ppm	0.000466	> 100.00	-5.740200	Y 377.433
Cu (324.754 nm)	0.001017	ppm	0.000245	24.12	459.249000	Y 377.433
Fe (238.204 nm)	0.223023	ppm	0.002207	0.99	552.631288	Y_R 377.433
Fe H (259.940 nm)	0.171298 u	ppm	0.002952	1.72	330.266000	Y_R 377.433
K (766.491 nm)	-0.226974 u	ppm	0.000263	0.12	1756.310000	Y_R2 488.368
Li (670.783 nm)	0.013624	ppm	0.000313	2.30	-2394.220000	Y_R2 488.368
Mg (279.078 nm)	0.003645	ppm	0.001022	28.02	24.412700	Y 377.433
Mn (257.610 nm)	0.002028	ppm	0.000037	1.82	538.813000	Y 377.433
Mo (202.032 nm)	-0.000675 u	ppm	0.000219	32.43	14.802800	Y 377.433
Na (589.592 nm)	0.036321	ppm	0.040883	> 100.00	136.872000	Y_R2 488.368
Na H (589.593 nm)	0.017074 u	ppm	0.023326	> 100.00	336.039468	Y_R4
Ni (231.604 nm)	-0.000930 u	ppm	0.000641	68.90	-16.567100	Y 377.433
P (213.618 nm)	-0.001132 u	ppm	0.000115	10.13	-6.435600	Y 242.219
Pb (220.353 nm)	-0.000929 u	ppm	0.000228	24.51	9.721620	Y 242.219
S (181.972 nm)	0.002419 u	ppm	0.006376	> 100.00	8.848531	Y 377.433
Sb (206.834 nm)	0.003913	ppm	0.002187	55.89	-0.615347	Y 377.433
Se (196.026 nm)	-0.003058 u	ppm	0.002642	86.41	5.547900	Y 242.219
Si (288.158 nm)	0.000650 u	ppm	0.001572	> 100.00	512.328000	Y 377.433
Sn (189.925 nm)	0.000140 u	ppm	0.000663	> 100.00	2.481050	Y 377.433
Sr (421.552 nm)	0.000056	ppm	0.000044	78.40	56.144224	Y_R 488.368
Th (288.505 nm)	-0.002358 u	ppm	0.000700	29.68	10.497700	Y 377.433
Ti (336.122 nm)	0.000871	ppm	0.000067	7.75	-392.444000	Y 377.433
Tl (190.794 nm)	0.001468	ppm	0.000700	47.66	3.643290	Y 377.433
U (409.013 nm)	0.012268	ppm	0.007938	64.71	-3.204040	Y 377.433
V (292.401 nm)	0.000103 u	ppm	0.000359	> 100.00	-174.801000	Y 377.433
Zn (206.200 nm)	0.001553	ppm	0.000168	10.79	11.560700	Y 377.433
Zr (343.823 nm)	0.000626	ppm	0.000002	0.39	-138.446000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122990	25146.518444	0.004756	0.42
Y 377.433	1.121313	724509.688648	0.004184	0.37
Y_R 377.433	1.142900	62917.300000	0.000757	0.07
Y_R 488.368	1.140730	55127.800000	0.001273	0.11
Y_R2 488.368	1.122800	104066.078384	0.002281	0.20
Y_R4	1.121780	48034.300000	0.007168	0.64

Sample Name: lcs 280-458299/2-a

Date: 5/23/2019 7:45:45 PM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051434	ppm	0.000163	0.32	1249.360000	Y 377.433
Al (394.401 nm)	10.040200 o	ppm	0.003344	0.03	120350.000000	Y 377.433
Al H (396.152 nm)	10.085800	ppm	0.008986	0.09	21028.000000	Y_R 377.433
As (188.980 nm)	2.021150	ppm	0.009886	0.49	3218.880000	Y 242.219
B (249.678 nm)	1.002740	ppm	0.001089	0.11	7218.020000	Y 242.219
Ba (493.408 nm)	2.017480	ppm	0.001472	0.07	196860.000000	Y_R 488.368
Be (234.861 nm)	1.000180	ppm	0.002486	0.25	100796.000000	Y_R 488.368
Bi (223.061 nm)	1.945930	ppm	0.005825	0.30	4424.860000	Y 377.433
Ca (315.887 nm)	50.004147	ppm	0.069881	0.14	40310.904084	Y_R 377.433
Cd (214.439 nm)	0.993863	ppm	0.001018	0.10	39762.300000	Y 377.433
Co (228.615 nm)	0.982388	ppm	0.000137	0.01	24313.200000	Y 242.219
Cr (205.560 nm)	0.992153	ppm	0.001898	0.19	7016.960000	Y 377.433
Cu (324.754 nm)	0.980255	ppm	0.005368	0.55	45987.500000	Y 377.433
Fe (238.204 nm)	10.113292 o	ppm	0.010384	0.10	24929.746516	Y_R 377.433
Fe H (259.940 nm)	10.082200	ppm	0.002054	0.02	14188.100000	Y_R 377.433
K (766.491 nm)	49.455200	ppm	0.109016	0.22	51067.300000	Y_R2 488.368
Li (670.783 nm)	1.007440	ppm	0.001081	0.11	14911.700000	Y_R2 488.368
Mg (279.078 nm)	49.779200	ppm	0.026839	0.05	176340.000000	Y 377.433
Mn (257.610 nm)	1.010200	ppm	0.001436	0.14	279399.000000	Y 377.433
Mo (202.032 nm)	1.021870	ppm	0.000756	0.07	13026.300000	Y 377.433
Na (589.592 nm)	47.742900	ppm	0.053470	0.11	35889.700000	Y_R2 488.368
Na H (589.593 nm)	52.635546	ppm	0.294204	0.56	26505.390598	Y_R4
Ni (231.604 nm)	0.978128	ppm	0.001549	0.16	5457.340000	Y 377.433
P (213.618 nm)	20.124100	ppm	0.017438	0.09	30168.100000	Y 242.219
Pb (220.353 nm)	0.997142	ppm	0.000191	0.02	3436.890000	Y 242.219
S (181.972 nm)	10.155868	ppm	0.010717	0.11	4575.352340	Y 377.433
Sb (206.834 nm)	1.070770	ppm	0.000847	0.08	1877.930000	Y 377.433
Se (196.026 nm)	1.969700	ppm	0.006703	0.34	3210.580000	Y 242.219
Si (288.158 nm)	2.039600	ppm	0.002565	0.13	13961.900000	Y 377.433
Sn (189.925 nm)	1.973980	ppm	0.002286	0.12	3445.290000	Y 377.433
Sr (421.552 nm)	1.010994	ppm	0.001436	0.14	147906.861335	Y_R 488.368
Th (288.505 nm)	1.035470	ppm	0.001052	0.10	1726.900000	Y 377.433
Ti (336.122 nm)	1.008640	ppm	0.000763	0.08	130812.000000	Y 377.433
Tl (190.794 nm)	1.994790	ppm	0.000294	0.01	4823.230000	Y 377.433
U (409.013 nm)	1.996660	ppm	0.007046	0.35	6153.240000	Y 377.433
V (292.401 nm)	0.999354	ppm	0.000880	0.09	52529.100000	Y 377.433
Zn (206.200 nm)	0.494774	ppm	0.000398	0.08	2461.010000	Y 377.433
Zr (343.823 nm)	0.501710	ppm	0.000430	0.09	28754.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080196	24188.250395	0.003686	0.34
Y 377.433	1.086063	701733.631676	0.002358	0.22
Y_R 377.433	1.115140	61389.100000	0.001531	0.14
Y_R 488.368	1.109170	53602.900000	0.000921	0.08
Y_R2 488.368	1.099860	101939.961740	0.000158	0.01
Y_R4	1.104630	47299.900000	0.002967	0.27

Sample Name: 280-123513-b-3-c@50

Date: 5/23/2019 7:49:23 PM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000044 u	ppm	0.000102	> 100.00	-244.289000	Y 377.433
Al (394.401 nm)	-0.022602 u	ppm	0.001685	7.46	970.863000	Y 377.433
Al H (396.152 nm)	-0.656022 u	ppm	0.006888	1.05	159.497000	Y_R 377.433
As (188.980 nm)	-0.000176 u	ppm	0.003072	> 100.00	-1.598850	Y 242.219
B (249.678 nm)	0.036535	ppm	0.000492	1.35	298.655000	Y 242.219
Ba (493.408 nm)	0.011160	ppm	0.000087	0.78	2513.940000	Y_R 488.368
Be (234.861 nm)	-0.000008 u	ppm	0.000075	> 100.00	-8.566640	Y_R 488.368
Bi (223.061 nm)	0.001657	ppm	0.000934	56.35	-11.645000	Y 377.433
Ca (315.887 nm)	26.500473	ppm	0.083072	0.31	21332.904567	Y_R 377.433
Cd (214.439 nm)	0.000230	ppm	0.000079	34.18	1.620480	Y 377.433
Co (228.615 nm)	0.000284 u	ppm	0.000412	> 100.00	-15.070000	Y 242.219
Cr (205.560 nm)	0.000045 u	ppm	0.000507	> 100.00	-5.649930	Y 377.433
Cu (324.754 nm)	0.000365	ppm	0.000355	97.29	415.017000	Y 377.433
Fe (238.204 nm)	0.478555	ppm	0.000787	0.16	1182.455341	Y_R 377.433
Fe H (259.940 nm)	0.426687 u	ppm	0.001504	0.35	687.364000	Y_R 377.433
K (766.491 nm)	1.661630	ppm	0.004133	0.25	3630.800000	Y_R2 488.368
Li (670.783 nm)	0.059078	ppm	0.003135	5.31	-1602.710000	Y_R2 488.368
Mg (279.078 nm)	21.011000	ppm	0.015759	0.08	74456.800000	Y 377.433
Mn (257.610 nm)	0.032004	ppm	0.000007	0.02	8830.290000	Y 377.433
Mo (202.032 nm)	-0.000543 u	ppm	0.000172	31.75	16.477500	Y 377.433
Na (589.592 nm)	322.325000 o	ppm	1.886470	0.59	238877.000000	Y_R2 488.368
Na H (589.593 nm)	354.955132	ppm	0.793839	0.22	176861.472657	Y_R4
Ni (231.604 nm)	-0.001818 u	ppm	0.000395	21.75	-21.523600	Y 377.433
P (213.618 nm)	0.004114	ppm	0.004757	> 100.00	1.368270	Y 242.219
Pb (220.353 nm)	-0.000163 u	ppm	0.000058	35.53	12.341000	Y 242.219
S (181.972 nm)	1.917838	ppm	0.017840	0.93	870.615086	Y 377.433
Sb (206.834 nm)	0.004842	ppm	0.004116	85.01	1.038370	Y 377.433
Se (196.026 nm)	0.000844 u	ppm	0.002609	> 100.00	11.862000	Y 242.219
Si (288.158 nm)	0.253457	ppm	0.002393	0.94	2179.930000	Y 377.433
Sn (189.925 nm)	-0.000251 u	ppm	0.000491	> 100.00	1.798970	Y 377.433
Sr (421.552 nm)	4.460447	ppm	0.011322	0.25	652386.826704	Y_R 488.368
Th (288.505 nm)	0.003240	ppm	0.004407	> 100.00	20.118700	Y 377.433
Ti (336.122 nm)	0.002663	ppm	0.000038	1.44	-70.278500	Y 377.433
Tl (190.794 nm)	0.003048	ppm	0.000223	7.33	6.345900	Y 377.433
U (409.013 nm)	0.014800	ppm	0.000142	0.96	1.486650	Y 377.433
V (292.401 nm)	0.000791	ppm	0.000002	0.30	-137.680000	Y 377.433
Zn (206.200 nm)	0.003011	ppm	0.000589	19.57	18.837100	Y 377.433
Zr (343.823 nm)	0.000768	ppm	0.000048	6.30	-130.246000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.056972	23668.206398	0.000894	0.08
Y 377.433	1.054909	681604.733573	0.000862	0.08
Y_R 377.433	1.092950	60167.200000	0.009924	0.91
Y_R 488.368	1.092250	52785.200000	0.006593	0.60
Y_R2 488.368	1.077048	99825.605570	0.001908	0.18
Y_R4	1.074730	46019.500000	0.005942	0.55

Sample Name: 280-123513-b-3-cSD250

Date: 5/23/2019 7:53:17 PM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000060 u	ppm	0.000269	> 100.00	-248.004000	Y 377.433
Al (394.401 nm)	-0.002779 u	ppm	0.000412	14.82	319.162000	Y 377.433
Al H (396.152 nm)	-0.033330 u	ppm	0.005914	17.74	55.075200	Y_R 377.433
As (188.980 nm)	-0.000654 u	ppm	0.002853	> 100.00	-2.350630	Y 242.219
B (249.678 nm)	0.005071	ppm	0.000790	15.58	73.361800	Y 242.219
Ba (493.408 nm)	0.000685	ppm	0.000117	17.10	1499.050000	Y_R 488.368
Be (234.861 nm)	0.000011 u	ppm	0.000064	> 100.00	-5.116240	Y_R 488.368
Bi (223.061 nm)	0.001073	ppm	0.001517	> 100.00	-13.046200	Y 377.433
Ca (315.887 nm)	5.308560	ppm	0.002112	0.04	4223.832868	Y_R 377.433
Cd (214.439 nm)	0.000034 u	ppm	0.000115	> 100.00	-6.384770	Y 377.433
Co (228.615 nm)	0.000191	ppm	0.000075	39.38	-17.427600	Y 242.219
Cr (205.560 nm)	-0.000009 u	ppm	0.000246	> 100.00	-6.031180	Y 377.433
Cu (324.754 nm)	0.000653	ppm	0.000147	22.49	439.799000	Y 377.433
Fe (238.204 nm)	0.119500	ppm	0.001479	1.24	297.473387	Y_R 377.433
Fe H (259.940 nm)	0.061934 u	ppm	0.000050	0.08	177.348000	Y_R 377.433
K (766.491 nm)	0.089555	ppm	0.076109	84.99	2070.480000	Y_R2 488.368
Li (670.783 nm)	0.021820	ppm	0.001268	5.81	-2251.490000	Y_R2 488.368
Mg (279.078 nm)	4.258910	ppm	0.011310	0.27	15101.800000	Y 377.433
Mn (257.610 nm)	0.006665	ppm	0.000028	0.42	1821.590000	Y 377.433
Mo (202.032 nm)	-0.000562 u	ppm	0.000388	69.02	16.233400	Y 377.433
Na (589.592 nm)	67.697100 o	ppm	0.197617	0.29	50257.700000	Y_R2 488.368
Na H (589.593 nm)	71.194413	ppm	0.207488	0.29	35735.485307	Y_R4
Ni (231.604 nm)	-0.000923 u	ppm	0.000175	18.93	-16.523400	Y 377.433
P (213.618 nm)	0.000316 u	ppm	0.001022	> 100.00	-4.271520	Y 242.219
Pb (220.353 nm)	0.000059 u	ppm	0.000966	> 100.00	13.098700	Y 242.219
S (181.972 nm)	0.371164	ppm	0.002866	0.77	174.752708	Y 377.433
Sb (206.834 nm)	0.006182	ppm	0.003430	55.48	3.382320	Y 377.433
Se (196.026 nm)	-0.003550 u	ppm	0.002507	70.61	4.782800	Y 242.219
Si (288.158 nm)	0.045779	ppm	0.000692	1.51	810.015000	Y 377.433
Sn (189.925 nm)	-0.000310 u	ppm	0.000894	> 100.00	1.694850	Y 377.433
Sr (421.552 nm)	0.896851	ppm	0.000703	0.08	131212.100487	Y_R 488.368
Th (288.505 nm)	0.001821 u	ppm	0.002669	> 100.00	17.646000	Y 377.433
Ti (336.122 nm)	0.000982	ppm	0.000024	2.43	-360.457000	Y 377.433
Tl (190.794 nm)	0.001070	ppm	0.000308	28.74	2.479210	Y 377.433
U (409.013 nm)	0.011799	ppm	0.004603	39.01	-5.409230	Y 377.433
V (292.401 nm)	0.000419	ppm	0.000075	17.96	-157.612000	Y 377.433
Zn (206.200 nm)	0.002383	ppm	0.000505	21.19	15.663200	Y 377.433
Zr (343.823 nm)	0.000656	ppm	0.000025	3.80	-136.693000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084471	24283.983006	0.005526	0.51
Y 377.433	1.081205	698594.836355	0.004855	0.45
Y_R 377.433	1.108120	61002.200000	0.001742	0.16
Y_R 488.368	1.106850	53490.600000	0.001555	0.14
Y_R2 488.368	1.088996	100933.018614	0.001485	0.14
Y_R4	1.085610	46485.400000	0.001985	0.18

Sample Name: 280-123513-b-3-d ms@50

Date: 5/23/2019 7:56:50 PM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001892	ppm	0.000119	6.29	-185.565000	Y 377.433
Al (394.401 nm)	0.222306	ppm	0.001396	0.63	3906.820000	Y 377.433
Al H (396.152 nm)	-0.423609 u	ppm	0.003160	0.75	657.139000	Y_R 377.433
As (188.980 nm)	0.042563	ppm	0.002932	6.89	66.494100	Y 242.219
B (249.678 nm)	0.056843	ppm	0.000316	0.56	444.087000	Y 242.219
Ba (493.408 nm)	0.051355	ppm	0.000002	0.00	6407.560000	Y_R 488.368
Be (234.861 nm)	0.020109	ppm	0.000098	0.49	2018.810000	Y_R 488.368
Bi (223.061 nm)	0.034116	ppm	0.002198	6.44	62.430200	Y 377.433
Ca (315.887 nm)	27.554846	ppm	0.058589	0.21	22184.198488	Y_R 377.433
Cd (214.439 nm)	0.020803	ppm	0.000085	0.41	824.875000	Y 377.433
Co (228.615 nm)	0.020241	ppm	0.000070	0.34	479.303000	Y 242.219
Cr (205.560 nm)	0.020509	ppm	0.000935	4.56	139.200000	Y 377.433
Cu (324.754 nm)	0.022526	ppm	0.000305	1.35	1445.320000	Y 377.433
Fe (238.204 nm)	0.691628	ppm	0.003958	0.57	1707.630065	Y_R 377.433
Fe H (259.940 nm)	0.636101 u	ppm	0.005071	0.80	980.177000	Y_R 377.433
K (766.491 nm)	2.431470	ppm	0.030416	1.25	4394.900000	Y_R2 488.368
Li (670.783 nm)	0.082725	ppm	0.001389	1.68	-1190.920000	Y_R2 488.368
Mg (279.078 nm)	22.109100	ppm	0.051654	0.23	78346.700000	Y 377.433
Mn (257.610 nm)	0.053872	ppm	0.000111	0.21	14878.900000	Y 377.433
Mo (202.032 nm)	0.020628	ppm	0.000360	1.75	285.877000	Y 377.433
Na (589.592 nm)	322.749000 o	ppm	1.355700	0.42	239200.000000	Y_R2 488.368
Na H (589.593 nm)	356.024389	ppm	0.695089	0.20	177393.258735	Y_R4
Ni (231.604 nm)	0.019431	ppm	0.000245	1.26	97.268300	Y 377.433
P (213.618 nm)	0.421273	ppm	0.000936	0.22	626.298000	Y 242.219
Pb (220.353 nm)	0.019677	ppm	0.001677	8.52	80.413300	Y 242.219
S (181.972 nm)	2.109719	ppm	0.005042	0.24	956.928870	Y 377.433
Sb (206.834 nm)	0.023452	ppm	0.001038	4.43	33.793700	Y 377.433
Se (196.026 nm)	0.039343	ppm	0.002093	5.32	74.407200	Y 242.219
Si (288.158 nm)	0.365224	ppm	0.002331	0.64	2917.170000	Y 377.433
Sn (189.925 nm)	0.038197	ppm	0.001843	4.83	68.860200	Y 377.433
Sr (421.552 nm)	4.502151	ppm	0.002535	0.06	658486.071638	Y_R 488.368
Th (288.505 nm)	0.021047	ppm	0.000466	2.22	49.155000	Y 377.433
Ti (336.122 nm)	0.024016	ppm	0.000029	0.12	2709.790000	Y 377.433
Tl (190.794 nm)	0.040348	ppm	0.000372	0.92	96.509200	Y 377.433
U (409.013 nm)	0.040296	ppm	0.000478	1.19	80.137500	Y 377.433
V (292.401 nm)	0.021142	ppm	0.000159	0.75	936.182000	Y 377.433
Zn (206.200 nm)	0.014133	ppm	0.000399	2.82	74.067000	Y 377.433
Zr (343.823 nm)	0.010321	ppm	0.000205	1.99	420.616000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.044853	23396.828355	0.001881	0.18
Y 377.433	1.043982	674544.356430	0.002215	0.21
Y_R 377.433	1.085560	59760.700000	0.000587	0.05
Y_R 488.368	1.085060	52437.600000	0.001439	0.13
Y_R2 488.368	1.087995	100840.262848	0.002175	0.20
Y_R4	1.096370	46946.200000	0.009552	0.87

Sample Name: CCVH-5713036

Date: 5/23/2019 8:00:57 PM
Rack:Tube: S1:1

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003912	ppm	0.000174	4.44	-118.557000	Y 377.433
Al (394.401 nm)	49.802600 o	ppm	0.045744	0.09	593979.000000	Y 377.433
Al H (396.152 nm)	49.360400	ppm	0.018090	0.04	101494.000000	Y_R 377.433
As (188.980 nm)	0.003860	ppm	0.001748	45.29	3.433880	Y 242.219
B (249.678 nm)	-0.002353 u	ppm	0.000273	11.59	-8.340370	Y 242.219
Ba (493.408 nm)	0.001791	ppm	0.000081	4.50	1644.250000	Y_R 488.368
Be (234.861 nm)	0.001085	ppm	0.000021	1.92	-109.662000	Y_R 488.368
Bi (223.061 nm)	0.011250	ppm	0.005056	44.95	19.009400	Y 377.433
Ca (315.887 nm)	-0.009340 u	ppm	0.001914	20.50	-57.023160	Y_R 377.433
Cd (214.439 nm)	0.001490	ppm	0.000132	8.84	73.461800	Y 377.433
Co (228.615 nm)	0.003424	ppm	0.000078	2.28	62.550600	Y 242.219
Cr (205.560 nm)	0.001588	ppm	0.001119	70.45	3.873780	Y 377.433
Cu (324.754 nm)	0.003311	ppm	0.000302	9.13	1493.840000	Y 377.433
Fe (238.204 nm)	49.162878 o	ppm	0.005724	0.01	121177.509621	Y_R 377.433
Fe H (259.940 nm)	49.236300	ppm	0.054812	0.11	68935.400000	Y_R 377.433
K (766.491 nm)	0.331509	ppm	0.057810	17.44	2310.620000	Y_R2 488.368
Li (670.783 nm)	0.013885	ppm	0.002297	16.55	-2389.680000	Y_R2 488.368
Mg (279.078 nm)	0.036739	ppm	0.000546	1.49	62.836400	Y 377.433
Mn (257.610 nm)	0.001027	ppm	0.000036	3.48	262.074000	Y 377.433
Mo (202.032 nm)	0.000920	ppm	0.000080	8.64	35.097400	Y 377.433
Na (589.592 nm)	235.352000 o	ppm	0.422563	0.18	174450.000000	Y_R2 488.368
Na H (589.593 nm)	252.942663	ppm	0.318190	0.13	126126.436580	Y_R4
Ni (231.604 nm)	0.002756	ppm	0.000806	29.26	4.033090	Y 377.433
P (213.618 nm)	4.875150	ppm	0.008123	0.17	7368.340000	Y 242.219
Pb (220.353 nm)	0.003699	ppm	0.001115	30.15	18.206600	Y 242.219
S (181.972 nm)	5.026779	ppm	0.023973	0.48	2265.858334	Y 377.433
Sb (206.834 nm)	0.007312	ppm	0.000261	3.57	9.702630	Y 377.433
Se (196.026 nm)	0.007952	ppm	0.000832	10.46	9.830510	Y 242.219
Si (288.158 nm)	0.013101	ppm	0.000655	5.00	594.463000	Y 377.433
Sn (189.925 nm)	0.000222 u	ppm	0.001243	> 100.00	2.622860	Y 377.433
Sr (421.552 nm)	0.001135	ppm	0.000092	8.10	221.063659	Y_R 488.368
Th (288.505 nm)	4.947770	ppm	0.005430	0.11	8645.470000	Y 377.433
Ti (336.122 nm)	0.002272	ppm	0.000229	10.06	-210.272000	Y 377.433
Tl (190.794 nm)	0.000388	ppm	0.000375	96.55	-3.922090	Y 377.433
U (409.013 nm)	0.542849 Q	ppm	0.004228	0.78	1694.620000 Q	Y 377.433
V (292.401 nm)	0.000922	ppm	0.000038	4.07	363.744000	Y 377.433
Zn (206.200 nm)	0.002647	ppm	0.000711	26.85	24.522200	Y 377.433
Zr (343.823 nm)	0.001632	ppm	0.000259	15.88	-80.394500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.059643	23728.017381	0.003719	0.35
Y 377.433	1.058837	684142.238602	0.003529	0.33
Y_R 377.433	1.081240	59522.700000	0.001904	0.18
Y_R 488.368	1.078400	52115.700000	0.000674	0.06
Y_R2 488.368	1.068457	99029.361009	0.000888	0.08
Y_R4	1.081120	46293.100000	0.005220	0.48

Sample Name: CCV-5717467

Date: 5/23/2019 8:04:39 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.487863	ppm	0.000723	0.15	16859.200000	Y 377.433
Al (394.401 nm)	0.510726	ppm	0.000837	0.16	6354.100000	Y 377.433
Al H (396.152 nm)	0.558259 u	ppm	0.005236	0.94	1156.540000	Y_R 377.433
As (188.980 nm)	0.489248	ppm	0.001469	0.30	778.184000	Y 242.219
B (249.678 nm)	0.484404	ppm	0.001625	0.34	3507.440000	Y 242.219
Ba (493.408 nm)	0.488442	ppm	0.002193	0.45	48746.400000	Y_R 488.368
Be (234.861 nm)	0.482152	ppm	0.001457	0.30	48598.000000	Y_R 488.368
Bi (223.061 nm)	0.954828	ppm	0.001973	0.21	2162.890000	Y 377.433
Ca (315.887 nm)	4.952115	ppm	0.014368	0.29	3936.192142	Y_R 377.433
Cd (214.439 nm)	0.495942	ppm	0.000983	0.20	19836.500000	Y 377.433
Co (228.615 nm)	0.490787	ppm	0.001322	0.27	12134.700000	Y 242.219
Cr (205.560 nm)	0.491377	ppm	0.002549	0.52	3472.420000	Y 377.433
Cu (324.754 nm)	0.484277	ppm	0.004638	0.96	22897.800000	Y 377.433
Fe (238.204 nm)	2.472732	ppm	0.010453	0.42	6097.620130	Y_R 377.433
Fe H (259.940 nm)	2.442080 u	ppm	0.005843	0.24	3505.390000	Y_R 377.433
K (766.491 nm)	47.985000	ppm	0.245091	0.51	49608.100000	Y_R2 488.368
Li (670.783 nm)	0.488379	ppm	0.000061	0.01	5872.990000	Y_R2 488.368
Mg (279.078 nm)	19.656900	ppm	0.032641	0.17	69656.000000	Y 377.433
Mn (257.610 nm)	0.493269	ppm	0.000394	0.08	136416.000000	Y 377.433
Mo (202.032 nm)	0.492542	ppm	0.000786	0.16	6290.800000	Y 377.433
Na (589.592 nm)	23.769500	ppm	0.057896	0.24	17817.500000	Y_R2 488.368
Na H (589.593 nm)	26.617574 u	ppm	0.036399	0.14	13565.572549	Y_R4
Ni (231.604 nm)	0.490352	ppm	0.000005	0.00	2729.570000	Y 377.433
P (213.618 nm)	0.055532	ppm	0.003886	7.00	-59.021600	Y 242.219
Pb (220.353 nm)	0.493643	ppm	0.003341	0.68	1706.380000	Y 242.219
S (181.972 nm)	0.002532 u	ppm	0.004822	> 100.00	10.629632	Y 377.433
Sb (206.834 nm)	0.498220	ppm	0.001805	0.36	869.300000	Y 377.433
Se (196.026 nm)	0.488363	ppm	0.002693	0.55	804.388000	Y 242.219
Si (288.158 nm)	4.781160	ppm	0.014974	0.31	32046.000000	Y 377.433
Sn (189.925 nm)	0.490144	ppm	0.002677	0.55	857.152000	Y 377.433
Sr (421.552 nm)	0.490237	ppm	0.001841	0.38	71745.233429	Y_R 488.368
Th (288.505 nm)	0.018212	ppm	0.002191	12.03	-3.595900	Y 377.433
Ti (336.122 nm)	0.487249	ppm	0.000513	0.11	62865.300000	Y 377.433
Tl (190.794 nm)	0.501159	ppm	0.002770	0.55	1210.780000	Y 377.433
U (409.013 nm)	0.021340	ppm	0.005444	25.51	-33.786700	Y 377.433
V (292.401 nm)	0.487702	ppm	0.000267	0.05	25537.700000	Y 377.433
Zn (206.200 nm)	0.495795	ppm	0.000295	0.06	2464.900000	Y 377.433
Zr (343.823 nm)	0.489097	ppm	0.000304	0.06	28027.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075701	24087.601914	0.001191	0.11
Y 377.433	1.070405	691616.972208	0.000030	0.00
Y_R 377.433	1.091360	60079.800000	0.005529	0.51
Y_R 488.368	1.089730	52663.200000	0.005956	0.55
Y_R2 488.368	1.064288	98642.984346	0.002888	0.27
Y_R4	1.069650	45802.000000	0.002388	0.22

Sample Name: CCB

Date: 5/23/2019 8:08:14 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000043 u	ppm	0.000648	> 100.00	-247.353000	Y 377.433
Al (394.401 nm)	-0.001299 u	ppm	0.000418	32.17	112.225000	Y 377.433
Al H (396.152 nm)	0.132073 Zu	ppm	0.007126	5.40	46.616600 Z	Y_R 377.433
As (188.980 nm)	0.000400 u	ppm	0.002575	> 100.00	-0.667978	Y 242.219
B (249.678 nm)	-0.002778 u	ppm	0.000898	32.34	17.177900	Y 242.219
Ba (493.408 nm)	-0.001149 u	ppm	0.000246	21.38	1321.290000	Y_R 488.368
Be (234.861 nm)	0.000055	ppm	0.000031	56.46	-0.163667	Y_R 488.368
Bi (223.061 nm)	0.001002	ppm	0.000412	41.16	-13.229900	Y 377.433
Ca (315.887 nm)	0.001096 u	ppm	0.009725	> 100.00	-61.090969	Y_R 377.433
Cd (214.439 nm)	0.000015 u	ppm	0.000094	> 100.00	-7.193940	Y 377.433
Co (228.615 nm)	0.000259	ppm	0.000007	2.58	-15.759700	Y 242.219
Cr (205.560 nm)	0.000024	ppm	0.000007	30.48	-5.797300	Y 377.433
Cu (324.754 nm)	0.000139	ppm	0.000014	10.39	419.516000	Y 377.433
Fe (238.204 nm)	0.002068	ppm	0.000689	33.32	8.030600	Y_R 377.433
Fe H (259.940 nm)	-0.055375 u	ppm	0.002483	4.48	13.320900	Y_R 377.433
K (766.491 nm)	-0.031723 u	ppm	0.014559	45.90	1950.100000	Y_R2 488.368
Li (670.783 nm)	-0.000733 u	ppm	0.000627	85.51	-2644.230000	Y_R2 488.368
Mg (279.078 nm)	0.000206 u	ppm	0.002177	> 100.00	12.669200	Y 377.433
Mn (257.610 nm)	0.000086	ppm	0.000021	24.05	1.823180	Y 377.433
Mo (202.032 nm)	-0.000321 u	ppm	0.000360	> 100.00	19.309300	Y 377.433
Na (589.592 nm)	0.154629	ppm	0.052741	34.11	224.720000	Y_R2 488.368
Na H (589.593 nm)	0.757183 u	ppm	0.029587	3.91	704.126591	Y_R4
Ni (231.604 nm)	-0.000677 u	ppm	0.000907	> 100.00	-15.152300	Y 377.433
P (213.618 nm)	0.004657	ppm	0.001562	33.54	2.407520	Y 242.219
Pb (220.353 nm)	-0.001305 u	ppm	0.000153	11.74	8.409730	Y 242.219
S (181.972 nm)	-0.001588 u	ppm	0.000582	36.65	7.042031	Y 377.433
Sb (206.834 nm)	0.004127	ppm	0.002199	53.27	-0.257702	Y 377.433
Se (196.026 nm)	0.001071 u	ppm	0.002235	> 100.00	12.316700	Y 242.219
Si (288.158 nm)	-0.004662 u	ppm	0.001376	29.51	477.289000	Y 377.433
Sn (189.925 nm)	0.001267	ppm	0.000022	1.76	4.446970	Y 377.433
Sr (421.552 nm)	0.000029	ppm	0.000017	58.95	52.103292	Y_R 488.368
Th (288.505 nm)	0.000954 u	ppm	0.001498	> 100.00	16.162500	Y 377.433
Ti (336.122 nm)	0.000367	ppm	0.000016	4.45	-457.947000	Y 377.433
Tl (190.794 nm)	0.001319	ppm	0.000245	18.55	3.310360	Y 377.433
U (409.013 nm)	0.008755	ppm	0.004951	56.55	-14.345200	Y 377.433
V (292.401 nm)	0.000200	ppm	0.000260	> 100.00	-168.874000	Y 377.433
Zn (206.200 nm)	-0.000017 u	ppm	0.000659	> 100.00	3.734820	Y 377.433
Zr (343.823 nm)	0.000197 u	ppm	0.000296	> 100.00	-163.179000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.072915	24025.215629	0.002842	0.26
Y 377.433	1.065481	688435.383330	0.003733	0.35
Y_R 377.433	1.071030	58960.800000	0.004261	0.40
Y_R 488.368	1.069190	51670.900000	0.002848	0.27
Y_R2 488.368	1.059545	98203.305255	0.001937	0.18
Y_R4	1.070660	45844.900000	0.000496	0.05

Sample Name: CCVL-5717307

Date: 5/23/2019 8:11:26 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007511	ppm	0.000359	4.79	16.171700	Y 377.433
Al (394.401 nm)	0.099033	ppm	0.000270	0.27	1322.790000	Y 377.433
Al H (396.152 nm)	0.228826 u	ppm	0.006804	2.97	251.120000	Y_R 377.433
As (188.980 nm)	0.015899	ppm	0.001371	8.62	24.025300	Y 242.219
B (249.678 nm)	0.091844	ppm	0.000339	0.37	695.287000	Y 242.219
Ba (493.408 nm)	0.008437	ppm	0.000147	1.74	2249.950000	Y_R 488.368
Be (234.861 nm)	0.000973	ppm	0.000012	1.28	91.975600	Y_R 488.368
Bi (223.061 nm)	0.088555	ppm	0.001203	1.36	186.494000	Y 377.433
Ca (315.887 nm)	0.197123	ppm	0.005840	2.96	97.192713	Y_R 377.433
Cd (214.439 nm)	0.005187	ppm	0.000179	3.46	199.790000	Y 377.433
Co (228.615 nm)	0.010544	ppm	0.000496	4.71	238.977000	Y 242.219
Cr (205.560 nm)	0.009504	ppm	0.000579	6.10	61.197100	Y 377.433
Cu (324.754 nm)	0.015379	ppm	0.000455	2.96	1124.140000	Y 377.433
Fe (238.204 nm)	0.101178	ppm	0.000725	0.72	252.313888	Y_R 377.433
Fe H (259.940 nm)	0.050506 u	ppm	0.000416	0.82	161.370000	Y_R 377.433
K (766.491 nm)	2.909550	ppm	0.085440	2.94	4869.400000	Y_R2 488.368
Li (670.783 nm)	0.027710 Q	ppm	0.004127	14.89	-2148.940000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202948	ppm	0.002004	0.99	729.349000	Y 377.433
Mn (257.610 nm)	0.010586	ppm	0.000049	0.47	2906.150000	Y 377.433
Mo (202.032 nm)	0.018493	ppm	0.000334	1.80	258.705000	Y 377.433
Na (589.592 nm)	1.203870	ppm	0.046059	3.83	1003.850000	Y_R2 488.368
Na H (589.593 nm)	1.479949 u	ppm	0.003240	0.22	1063.588123	Y_R4
Ni (231.604 nm)	0.041741	ppm	0.000727	1.74	221.919000	Y 377.433
P (213.618 nm)	2.766230	ppm	0.000767	0.03	4177.060000	Y 242.219
Pb (220.353 nm)	0.007612	ppm	0.001819	23.90	39.187500	Y 242.219
S (181.972 nm)	0.088745	ppm	0.005737	6.47	47.657827	Y 377.433
Sb (206.834 nm)	0.025273	ppm	0.004328	17.13	36.924500	Y 377.433
Se (196.026 nm)	0.017277	ppm	0.000879	5.09	38.645600	Y 242.219
Si (288.158 nm)	0.472342	ppm	0.002709	0.57	3623.760000	Y 377.433
Sn (189.925 nm)	0.098425	ppm	0.000314	0.32	173.911000	Y 377.433
Sr (421.552 nm)	0.009101	ppm	0.000101	1.11	1378.924678	Y_R 488.368
Th (288.505 nm)	0.013918	ppm	0.001321	9.49	38.383200	Y 377.433
Ti (336.122 nm)	0.010067	ppm	0.000019	0.19	803.873000	Y 377.433
Tl (190.794 nm)	0.016215	ppm	0.000458	2.82	39.279500	Y 377.433
U (409.013 nm)	0.073080	ppm	0.006043	8.27	185.969000	Y 377.433
V (292.401 nm)	0.010109	ppm	0.000184	1.82	349.304000	Y 377.433
Zn (206.200 nm)	0.020489	ppm	0.000197	0.96	105.520000	Y 377.433
Zr (343.823 nm)	0.010253	ppm	0.000280	2.73	416.698000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.089443	24395.321720	0.000504	0.05
Y 377.433	1.083833	700293.046127	0.000668	0.06
Y_R 377.433	1.090510	60033.200000	0.002942	0.27
Y_R 488.368	1.088780	52617.500000	0.001983	0.18
Y_R2 488.368	1.079260	100030.599655	0.004750	0.44
Y_R4	1.072140	45908.400000	0.004914	0.46

Sample Name: 280-123513-b-3-e msd@50

Date: 5/23/2019 8:14:54 PM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001510	ppm	0.000694	45.95	-199.376000	Y 377.433
Al (394.401 nm)	0.226413	ppm	0.002277	1.01	3957.460000	Y 377.433
Al H (396.152 nm)	-0.421145 u	ppm	0.004952	1.18	660.999000	Y_R 377.433
As (188.980 nm)	0.041464	ppm	0.002215	5.34	64.742300	Y 242.219
B (249.678 nm)	0.056751	ppm	0.000255	0.45	443.433000	Y 242.219
Ba (493.408 nm)	0.052187	ppm	0.000100	0.19	6488.110000	Y_R 488.368
Be (234.861 nm)	0.020650	ppm	0.000048	0.23	2073.420000	Y_R 488.368
Bi (223.061 nm)	0.035806	ppm	0.000346	0.97	66.282200	Y 377.433
Ca (315.887 nm)	27.543800	ppm	0.049928	0.18	22175.283531	Y_R 377.433
Cd (214.439 nm)	0.021226	ppm	0.000154	0.73	841.777000	Y 377.433
Co (228.615 nm)	0.020858	ppm	0.000161	0.77	494.570000	Y 242.219
Cr (205.560 nm)	0.020623	ppm	0.000292	1.42	140.010000	Y 377.433
Cu (324.754 nm)	0.021568	ppm	0.000300	1.39	1399.720000	Y 377.433
Fe (238.204 nm)	0.683428	ppm	0.000008	0.00	1687.418864	Y_R 377.433
Fe H (259.940 nm)	0.620231 u	ppm	0.000324	0.05	957.986000	Y_R 377.433
K (766.491 nm)	2.624230	ppm	0.034130	1.30	4586.220000	Y_R2 488.368
Li (670.783 nm)	0.076463	ppm	0.001144	1.50	-1299.970000	Y_R2 488.368
Mg (279.078 nm)	22.214900	ppm	0.006912	0.03	78721.200000	Y 377.433
Mn (257.610 nm)	0.052643	ppm	0.000005	0.01	14539.000000	Y 377.433
Mo (202.032 nm)	0.020526	ppm	0.000183	0.89	284.574000	Y 377.433
Na (589.592 nm)	321.711000 o	ppm	0.029589	0.01	238431.000000	Y_R2 488.368
Na H (589.593 nm)	354.564070	ppm	1.672922	0.47	176666.981353	Y_R4
Ni (231.604 nm)	0.019032	ppm	0.000226	1.19	95.043200	Y 377.433
P (213.618 nm)	0.431206	ppm	0.006953	1.61	641.526000	Y 242.219
Pb (220.353 nm)	0.018021	ppm	0.001118	6.21	74.758000	Y 242.219
S (181.972 nm)	2.111988	ppm	0.003066	0.15	957.945200	Y 377.433
Sb (206.834 nm)	0.024339	ppm	0.001827	7.51	35.365000	Y 377.433
Se (196.026 nm)	0.042566	ppm	0.004478	10.52	79.646000	Y 242.219
Si (288.158 nm)	0.361514	ppm	0.001682	0.47	2892.710000	Y 377.433
Sn (189.925 nm)	0.038291	ppm	0.001855	4.84	69.023800	Y 377.433
Sr (421.552 nm)	4.498285	ppm	0.015992	0.36	657920.726929	Y_R 488.368
Th (288.505 nm)	0.019364	ppm	0.002036	10.51	46.233900	Y 377.433
Ti (336.122 nm)	0.024587	ppm	0.000006	0.03	2784.050000	Y 377.433
Tl (190.794 nm)	0.041721	ppm	0.003589	8.60	99.835900	Y 377.433
U (409.013 nm)	0.042724	ppm	0.008340	19.52	87.742400	Y 377.433
V (292.401 nm)	0.021611	ppm	0.000015	0.07	959.876000	Y 377.433
Zn (206.200 nm)	0.014396	ppm	0.000424	2.95	75.369900	Y 377.433
Zr (343.823 nm)	0.010498	ppm	0.000058	0.55	430.776000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.035902	23196.391605	0.003195	0.31
Y 377.433	1.034434	668374.716285	0.003507	0.34
Y_R 377.433	1.070720	58943.500000	0.003455	0.32
Y_R 488.368	1.068190	51622.500000	0.003576	0.33
Y_R2 488.368	1.043932	96756.282557	0.000872	0.08
Y_R4	1.078140	46165.500000	0.010147	0.94

Sample Name: 280-123513-b-4-c@20

Date: 5/23/2019 8:18:44 PM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000179	ppm	0.000143	79.93	-239.542000	Y 377.433
Al (394.401 nm)	-0.041541 u	ppm	0.000501	1.21	206.582000	Y 377.433
Al H (396.152 nm)	-0.312753 u	ppm	0.004479	1.43	25.874700	Y_R 377.433
As (188.980 nm)	-0.001159 u	ppm	0.000646	55.74	-3.153210	Y 242.219
B (249.678 nm)	0.081337	ppm	0.000546	0.67	620.012000	Y 242.219
Ba (493.408 nm)	0.017682	ppm	0.000315	1.78	3145.390000	Y_R 488.368
Be (234.861 nm)	0.000003 u	ppm	0.000073	> 100.00	-5.640090	Y_R 488.368
Bi (223.061 nm)	0.002204	ppm	0.001414	64.13	-10.475700	Y 377.433
Ca (315.887 nm)	12.985338	ppm	0.032215	0.25	10421.593394	Y_R 377.433
Cd (214.439 nm)	0.000039 u	ppm	0.000189	> 100.00	-6.195550	Y 377.433
Co (228.615 nm)	0.000021 u	ppm	0.000070	> 100.00	-21.640600	Y 242.219
Cr (205.560 nm)	0.000048 u	ppm	0.000367	> 100.00	-5.630050	Y 377.433
Cu (324.754 nm)	0.000349	ppm	0.000100	28.66	421.132000	Y 377.433
Fe (238.204 nm)	0.047164	ppm	0.005209	11.04	119.181787	Y_R 377.433
Fe H (259.940 nm)	-0.013618 u	ppm	0.002911	21.38	71.707900	Y_R 377.433
K (766.491 nm)	1.479190	ppm	0.062315	4.21	3449.730000	Y_R2 488.368
Li (670.783 nm)	0.045982	ppm	0.001542	3.35	-1830.760000	Y_R2 488.368
Mg (279.078 nm)	10.350000	ppm	0.010612	0.10	36683.500000	Y 377.433
Mn (257.610 nm)	0.011803	ppm	0.000014	0.12	3242.790000	Y 377.433
Mo (202.032 nm)	-0.000663 u	ppm	0.000089	13.39	14.946800	Y 377.433
Na (589.592 nm)	280.217000 o	ppm	0.624725	0.22	207687.000000	Y_R2 488.368
Na H (589.593 nm)	305.671392	ppm	0.444621	0.15	152350.622714	Y_R4
Ni (231.604 nm)	-0.000552 u	ppm	0.000661	> 100.00	-14.454800	Y 377.433
P (213.618 nm)	-0.000372 u	ppm	0.003424	> 100.00	-5.452760	Y 242.219
Pb (220.353 nm)	-0.002349 u	ppm	0.000776	33.04	4.838360	Y 242.219
S (181.972 nm)	3.247736	ppm	0.006955	0.21	1467.326538	Y 377.433
Sb (206.834 nm)	0.001877 u	ppm	0.005068	> 100.00	-4.225640	Y 377.433
Se (196.026 nm)	-0.002780 u	ppm	0.000832	29.92	6.062600	Y 242.219
Si (288.158 nm)	0.268453	ppm	0.000673	0.25	2278.840000	Y 377.433
Sn (189.925 nm)	-0.000101 u	ppm	0.001050	> 100.00	2.060040	Y 377.433
Sr (421.552 nm)	2.295950	ppm	0.014292	0.62	335829.828044	Y_R 488.368
Th (288.505 nm)	-0.001833 u	ppm	0.005811	> 100.00	11.242900	Y 377.433
Ti (336.122 nm)	0.000163	ppm	0.000119	73.29	-440.916000	Y 377.433
Tl (190.794 nm)	0.000887 u	ppm	0.001790	> 100.00	1.731450	Y 377.433
U (409.013 nm)	0.001512 u	ppm	0.003660	> 100.00	-38.680500	Y 377.433
V (292.401 nm)	0.000449	ppm	0.000005	1.06	-155.976000	Y 377.433
Zn (206.200 nm)	0.003337	ppm	0.000109	3.27	20.386800	Y 377.433
Zr (343.823 nm)	0.000389	ppm	0.000086	22.12	-152.084000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.039238	23271.108679	0.001218	0.12
Y 377.433	1.034924	668691.846710	0.000891	0.09
Y_R 377.433	1.064240	58587.000000	0.002803	0.26
Y_R 488.368	1.060750	51262.900000	0.004088	0.39
Y_R2 488.368	1.036677	96083.879416	0.003078	0.30
Y_R4	1.053970	45130.400000	0.005871	0.56

Sample Name: 280-123578-d-1-e

Date: 5/23/2019 8:22:34 PM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000667	ppm	0.000098	14.70	-222.642000	Y 377.433
Al (394.401 nm)	0.546671	ppm	0.002297	0.42	7568.400000	Y 377.433
Al H (396.152 nm)	0.066784 u	ppm	0.005163	7.73	1315.690000	Y_R 377.433
As (188.980 nm)	0.000995	ppm	0.001196	> 100.00	0.265858	Y 242.219
B (249.678 nm)	0.318217	ppm	0.000538	0.17	2317.510000	Y 242.219
Ba (493.408 nm)	0.054402	ppm	0.000141	0.26	6702.560000	Y_R 488.368
Be (234.861 nm)	0.000041	ppm	0.000006	15.70	-3.730000	Y_R 488.368
Bi (223.061 nm)	0.002048	ppm	0.001456	71.08	-10.743800	Y 377.433
Ca (315.887 nm)	89.565733	ppm	0.244525	0.27	72248.085001	Y_R 377.433
Cd (214.439 nm)	0.000241	ppm	0.000061	25.19	2.053110	Y 377.433
Co (228.615 nm)	0.000009 u	ppm	0.000126	> 100.00	-21.447200	Y 242.219
Cr (205.560 nm)	0.000085 u	ppm	0.000381	> 100.00	-5.394910	Y 377.433
Cu (324.754 nm)	0.000599	ppm	0.000560	93.54	389.945000	Y 377.433
Fe (238.204 nm)	0.490245	ppm	0.001383	0.28	1211.268320	Y_R 377.433
Fe H (259.940 nm)	0.428941 u	ppm	0.003624	0.84	690.515000	Y_R 377.433
K (766.491 nm)	4.887550	ppm	0.089101	1.82	6832.630000	Y_R2 488.368
Li (670.783 nm)	0.051026	ppm	0.004600	9.01	-1742.930000	Y_R2 488.368
Mg (279.078 nm)	33.405200	ppm	0.046043	0.14	118371.000000	Y 377.433
Mn (257.610 nm)	0.025500	ppm	0.000018	0.07	7031.300000	Y 377.433
Mo (202.032 nm)	0.000968	ppm	0.000258	26.66	35.700900	Y 377.433
Na (589.592 nm)	217.484000 o	ppm	0.317965	0.15	161225.000000	Y_R2 488.368
Na H (589.593 nm)	233.501619	ppm	0.109488	0.05	116457.598000	Y_R4
Ni (231.604 nm)	-0.000973 u	ppm	0.002060	> 100.00	-16.801800	Y 377.433
P (213.618 nm)	0.015697	ppm	0.001637	10.43	18.462400	Y 242.219
Pb (220.353 nm)	-0.000961 u	ppm	0.001690	> 100.00	9.466310	Y 242.219
S (181.972 nm)	124.254932 bo	ppm	0.134159	0.11	55829.059765	Y 377.433
Sb (206.834 nm)	0.003818	ppm	0.000858	22.46	-0.811339	Y 377.433
Se (196.026 nm)	-0.001526 u	ppm	0.003383	> 100.00	7.996860	Y 242.219
Si (288.158 nm)	4.412090	ppm	0.023772	0.54	29611.600000	Y 377.433
Sn (189.925 nm)	0.000176 u	ppm	0.000655	> 100.00	2.543230	Y 377.433
Sr (421.552 nm)	3.634521	ppm	0.002824	0.08	531595.404973	Y_R 488.368
Th (288.505 nm)	-0.003033 u	ppm	0.001407	46.39	7.293160	Y 377.433
Ti (336.122 nm)	0.012475	ppm	0.000158	1.27	1420.510000	Y 377.433
Tl (190.794 nm)	0.002114	ppm	0.000388	18.34	1.423170	Y 377.433
U (409.013 nm)	0.021036	ppm	0.005794	27.54	12.795600	Y 377.433
V (292.401 nm)	0.001773	ppm	0.000227	12.82	-85.775900	Y 377.433
Zn (206.200 nm)	0.005247	ppm	0.000615	11.73	29.933300	Y 377.433
Zr (343.823 nm)	0.001188	ppm	0.000132	11.11	-106.037000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045310	23407.079452	0.001194	0.11
Y 377.433	1.046721	676314.065745	0.001479	0.14
Y_R 377.433	1.074100	59129.600000	0.003194	0.30
Y_R 488.368	1.070940	51755.200000	0.003918	0.37
Y_R2 488.368	1.062344	98462.739688	0.002922	0.28
Y_R4	1.073450	45964.600000	0.000195	0.02

Sample Name: 280-123578-d-2-c

Date: 5/23/2019 8:26:13 PM Rack:Tube: 1:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000028 u	ppm	0.000107	> 100.00	-244.909000	Y 377.433
Al (394.401 nm)	0.004883	ppm	0.001351	27.66	189.553000	Y 377.433
Al H (396.152 nm)	0.128227 u	ppm	0.004471	3.49	38.696200	Y_R 377.433
As (188.980 nm)	0.001281	ppm	0.000019	1.48	0.733600	Y 242.219
B (249.678 nm)	0.051771	ppm	0.001079	2.08	408.098000	Y 242.219
Ba (493.408 nm)	-0.000969 u	ppm	0.000445	45.89	1338.790000	Y_R 488.368
Be (234.861 nm)	-0.000018 u	ppm	0.000026	> 100.00	-7.801450	Y_R 488.368
Bi (223.061 nm)	0.002536	ppm	0.000774	30.52	-9.719960	Y 377.433
Ca (315.887 nm)	0.086769	ppm	0.006133	7.07	8.076366	Y_R 377.433
Cd (214.439 nm)	0.000131	ppm	0.000016	11.87	-2.527600	Y 377.433
Co (228.615 nm)	0.000001 u	ppm	0.000056	> 100.00	-22.134700	Y 242.219
Cr (205.560 nm)	-0.000031 u	ppm	0.000026	82.10	-6.186630	Y 377.433
Cu (324.754 nm)	0.000752	ppm	0.000054	7.19	445.994000	Y 377.433
Fe (238.204 nm)	0.066344	ppm	0.000792	1.19	166.457114	Y_R 377.433
Fe H (259.940 nm)	0.014169 u	ppm	0.001521	10.74	110.561000	Y_R 377.433
K (766.491 nm)	-0.063050 u	ppm	0.024208	38.39	1919.010000	Y_R2 488.368
Li (670.783 nm)	0.005672	ppm	0.000319	5.63	-2532.700000	Y_R2 488.368
Mg (279.078 nm)	0.007087	ppm	0.001536	21.68	36.711800	Y 377.433
Mn (257.610 nm)	0.000492	ppm	0.000009	1.91	114.084000	Y 377.433
Mo (202.032 nm)	-0.000603 u	ppm	0.000151	24.99	15.717200	Y 377.433
Na (589.592 nm)	0.729682	ppm	0.031627	4.33	650.680000	Y_R2 488.368
Na H (589.593 nm)	1.776063 u	ppm	0.018157	1.02	1210.858053	Y_R4
Ni (231.604 nm)	-0.000490 u	ppm	0.000722	> 100.00	-14.103900	Y 377.433
P (213.618 nm)	0.000059 u	ppm	0.001718	> 100.00	-4.626790	Y 242.219
Pb (220.353 nm)	-0.001291 u	ppm	0.000035	2.68	8.497310	Y 242.219
S (181.972 nm)	0.001328 u	ppm	0.003136	> 100.00	8.354890	Y 377.433
Sb (206.834 nm)	0.005435	ppm	0.002840	52.24	2.063320	Y 377.433
Se (196.026 nm)	-0.002953 u	ppm	0.000537	18.18	5.759640	Y 242.219
Si (288.158 nm)	0.114155	ppm	0.001267	1.11	1261.040000	Y 377.433
Sn (189.925 nm)	0.000383	ppm	0.000112	29.40	2.903570	Y 377.433
Sr (421.552 nm)	0.000150	ppm	0.000113	75.26	69.920440	Y_R 488.368
Th (288.505 nm)	-0.002064 u	ppm	0.001930	93.48	10.996300	Y 377.433
Ti (336.122 nm)	0.000522	ppm	0.000131	25.08	-437.652000	Y 377.433
Tl (190.794 nm)	0.000784 u	ppm	0.001474	> 100.00	2.007710	Y 377.433
U (409.013 nm)	-0.000350 u	ppm	0.001787	> 100.00	-42.869300	Y 377.433
V (292.401 nm)	0.000192	ppm	0.000189	98.53	-170.734000	Y 377.433
Zn (206.200 nm)	0.002239	ppm	0.000248	11.08	14.939000	Y 377.433
Zr (343.823 nm)	0.000609	ppm	0.000057	9.43	-139.389000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087827	24359.129980	0.003643	0.33
Y 377.433	1.083371	699994.568430	0.004384	0.40
Y_R 377.433	1.086940	59836.500000	0.003551	0.33
Y_R 488.368	1.083930	52383.000000	0.001546	0.14
Y_R2 488.368	1.074060	99548.650046	0.001538	0.14
Y_R4	1.078380	46175.800000	0.004143	0.38

Sample Name: 280-123610-c-1-d@20

Date: 5/23/2019 8:29:40 PM Rack:Tube: 1:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000620	ppm	0.000149	23.98	-223.899000	Y 377.433
Al (394.401 nm)	0.178216	ppm	0.000904	0.51	2274.370000	Y 377.433
Al H (396.152 nm)	0.296304 u	ppm	0.009132	3.08	412.682000	Y_R 377.433
As (188.980 nm)	0.007744	ppm	0.000503	6.49	10.990100	Y 242.219
B (249.678 nm)	2.357390	ppm	0.004093	0.17	16932.000000	Y 242.219
Ba (493.408 nm)	0.041261	ppm	0.000694	1.68	5430.410000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000050	> 100.00	-14.308700	Y_R 488.368
Bi (223.061 nm)	0.002829 u	ppm	0.004176	> 100.00	-8.672150	Y 377.433
Ca (315.887 nm)	7.884423	ppm	0.000433	0.01	6303.469699	Y_R 377.433
Cd (214.439 nm)	0.000042 u	ppm	0.000105	> 100.00	-5.438550	Y 377.433
Co (228.615 nm)	0.002993	ppm	0.000250	8.36	52.619600	Y 242.219
Cr (205.560 nm)	0.023686	ppm	0.000310	1.31	161.849000	Y 377.433
Cu (324.754 nm)	0.001239	ppm	0.000216	17.42	466.790000	Y 377.433
Fe (238.204 nm)	1.513234	ppm	0.007098	0.47	3732.687932	Y_R 377.433
Fe H (259.940 nm)	1.475860 u	ppm	0.008607	0.58	2154.370000	Y_R 377.433
K (766.491 nm)	51.028700	ppm	0.387710	0.76	52629.100000	Y_R2 488.368
Li (670.783 nm)	0.318581	ppm	0.000690	0.22	2916.180000	Y_R2 488.368
Mg (279.078 nm)	23.949200	ppm	0.004220	0.02	84866.200000	Y 377.433
Mn (257.610 nm)	0.082735	ppm	0.000033	0.04	22862.500000	Y 377.433
Mo (202.032 nm)	-0.000234 u	ppm	0.000336	> 100.00	20.414500	Y 377.433
Na (589.592 nm)	249.626000 o	ppm	1.475220	0.59	185031.000000	Y_R2 488.368
Na H (589.593 nm)	272.566232	ppm	0.867979	0.32	135886.052120	Y_R4
Ni (231.604 nm)	0.016984	ppm	0.000398	2.35	83.549600	Y 377.433
P (213.618 nm)	0.543369	ppm	0.000741	0.14	817.176000	Y 242.219
Pb (220.353 nm)	-0.001004 u	ppm	0.000953	94.96	9.332190	Y 242.219
S (181.972 nm)	4.864982	ppm	0.009885	0.20	2193.792440	Y 377.433
Sb (206.834 nm)	0.002665	ppm	0.000562	21.08	-2.634190	Y 377.433
Se (196.026 nm)	-0.001328 u	ppm	0.001764	> 100.00	8.119490	Y 242.219
Si (288.158 nm)	2.846790	ppm	0.004968	0.17	19286.400000	Y 377.433
Sn (189.925 nm)	0.002813	ppm	0.001063	37.78	7.143730	Y 377.433
Sr (421.552 nm)	0.074993	ppm	0.000155	0.21	11015.828332	Y_R 488.368
Th (288.505 nm)	0.004389	ppm	0.000212	4.83	22.334500	Y 377.433
Ti (336.122 nm)	0.017762	ppm	0.000160	0.90	1830.200000	Y 377.433
Tl (190.794 nm)	-0.000337 u	ppm	0.000263	77.96	-1.282580	Y 377.433
U (409.013 nm)	0.001161	ppm	0.000909	78.29	-40.302700	Y 377.433
V (292.401 nm)	0.010513	ppm	0.000145	1.38	371.428000	Y 377.433
Zn (206.200 nm)	0.013463	ppm	0.000163	1.21	70.869900	Y 377.433
Zr (343.823 nm)	0.018199	ppm	0.000017	0.09	874.831000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.058592	23704.476728	0.002275	0.21
Y 377.433	1.057639	683368.034301	0.001245	0.12
Y_R 377.433	1.086540	59814.200000	0.004683	0.43
Y_R 488.368	1.083770	52375.500000	0.004954	0.46
Y_R2 488.368	1.057942	98054.796648	0.004491	0.42
Y_R4	1.075940	46071.000000	0.003147	0.29

Sample Name: mb 280-458719/1-a

Date: 5/23/2019 8:33:25 PM Rack:Tube: 1:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000046 u	ppm	0.000174	> 100.00	-247.531000	Y 377.433
Al (394.401 nm)	0.002564	ppm	0.000861	33.57	160.111000	Y 377.433
Al H (396.152 nm)	0.132479 u	ppm	0.002265	1.71	47.396500	Y_R 377.433
As (188.980 nm)	0.001308	ppm	0.000452	34.56	0.776677	Y 242.219
B (249.678 nm)	-0.001041 u	ppm	0.000256	24.63	29.595800	Y 242.219
Ba (493.408 nm)	-0.001162 u	ppm	0.000224	19.25	1320.070000	Y_R 488.368
Be (234.861 nm)	0.000004 u	ppm	0.000016	> 100.00	-5.551040	Y_R 488.368
Bi (223.061 nm)	0.001263 u	ppm	0.001883	> 100.00	-12.625600	Y 377.433
Ca (315.887 nm)	0.023935	ppm	0.004368	18.25	-42.648802	Y_R 377.433
Cd (214.439 nm)	0.000050	ppm	0.000040	79.39	-5.750700	Y 377.433
Co (228.615 nm)	0.000089	ppm	0.000073	81.69	-19.957500	Y 242.219
Cr (205.560 nm)	0.000001 u	ppm	0.000699	> 100.00	-5.965160	Y 377.433
Cu (324.754 nm)	0.000244	ppm	0.000020	8.38	423.154000	Y 377.433
Fe (238.204 nm)	0.048977	ppm	0.000147	0.30	123.651463	Y_R 377.433
Fe H (259.940 nm)	-0.001849 u	ppm	0.001773	95.87	88.163500	Y_R 377.433
K (766.491 nm)	0.015467	ppm	0.015178	98.13	1996.940000	Y_R2 488.368
Li (670.783 nm)	0.003895	ppm	0.000981	25.19	-2563.630000	Y_R2 488.368
Mg (279.078 nm)	0.002275	ppm	0.000078	3.42	19.893900	Y 377.433
Mn (257.610 nm)	0.000629	ppm	0.000039	6.22	151.905000	Y 377.433
Mo (202.032 nm)	-0.000618 u	ppm	0.000191	30.81	15.519800	Y 377.433
Na (589.592 nm)	0.186926	ppm	0.021093	11.28	248.649000	Y_R2 488.368
Na H (589.593 nm)	1.227376 u	ppm	0.017513	1.43	937.973192	Y_R4
Ni (231.604 nm)	0.000182 u	ppm	0.000636	> 100.00	-10.349500	Y 377.433
P (213.618 nm)	0.000652 u	ppm	0.000993	> 100.00	-3.646980	Y 242.219
Pb (220.353 nm)	-0.001048 u	ppm	0.000932	88.96	9.297720	Y 242.219
S (181.972 nm)	0.000428 u	ppm	0.003395	> 100.00	7.949659	Y 377.433
Sb (206.834 nm)	0.003640	ppm	0.002962	81.38	-1.106550	Y 377.433
Se (196.026 nm)	-0.000136 u	ppm	0.001433	> 100.00	10.342400	Y 242.219
Si (288.158 nm)	0.018471	ppm	0.003030	16.40	629.881000	Y 377.433
Sn (189.925 nm)	0.000147 u	ppm	0.001160	> 100.00	2.492530	Y 377.433
Sr (421.552 nm)	-0.000092 u	ppm	0.000113	> 100.00	34.417348	Y_R 488.368
Th (288.505 nm)	0.002112	ppm	0.000727	34.41	18.184700	Y 377.433
Ti (336.122 nm)	0.000338	ppm	0.000071	20.85	-461.664000	Y 377.433
Tl (190.794 nm)	0.000694 u	ppm	0.001483	> 100.00	1.790990	Y 377.433
U (409.013 nm)	0.004076	ppm	0.000626	15.35	-28.989200	Y 377.433
V (292.401 nm)	0.000249	ppm	0.000145	58.34	-167.251000	Y 377.433
Zn (206.200 nm)	0.002794	ppm	0.000062	2.24	17.692900	Y 377.433
Zr (343.823 nm)	0.000378	ppm	0.000002	0.42	-152.722000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086158	24321.758120	0.001817	0.17
Y 377.433	1.079744	697650.974921	0.002770	0.26
Y_R 377.433	1.085290	59745.800000	0.001988	0.18
Y_R 488.368	1.080080	52197.000000	0.001287	0.12
Y_R2 488.368	1.064972	98706.316226	0.002748	0.26
Y_R4	1.072690	45931.900000	0.004433	0.41

Sample Name: lcs 280-458719/2-a

Date: 5/23/2019 8:36:50 PM Rack:Tube: 1:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051305	ppm	0.000104	0.20	1240.760000	Y 377.433
Al (394.401 nm)	10.115300 o	ppm	0.013731	0.14	121248.000000	Y 377.433
Al H (396.152 nm)	10.177400	ppm	0.033530	0.33	21220.200000	Y_R 377.433
As (188.980 nm)	2.028080	ppm	0.006245	0.31	3229.910000	Y 242.219
B (249.678 nm)	0.993745	ppm	0.001978	0.20	7153.490000	Y 242.219
Ba (493.408 nm)	2.027510	ppm	0.001143	0.06	197831.000000	Y_R 488.368
Be (234.861 nm)	1.012600	ppm	0.006668	0.66	102049.000000	Y_R 488.368
Bi (223.061 nm)	1.930190	ppm	0.000895	0.05	4388.990000	Y 377.433
Ca (315.887 nm)	50.233898	ppm	0.127766	0.25	40496.413715	Y_R 377.433
Cd (214.439 nm)	1.002740	ppm	0.000311	0.03	40117.500000	Y 377.433
Co (228.615 nm)	0.986329	ppm	0.000457	0.05	24411.000000	Y 242.219
Cr (205.560 nm)	1.002690	ppm	0.004939	0.49	7091.590000	Y 377.433
Cu (324.754 nm)	0.985601	ppm	0.002459	0.25	46236.200000	Y 377.433
Fe (238.204 nm)	10.151872 o	ppm	0.004557	0.04	25024.836548	Y_R 377.433
Fe H (259.940 nm)	10.162100	ppm	0.006040	0.06	14299.900000	Y_R 377.433
K (766.491 nm)	49.912400	ppm	0.027322	0.05	51521.100000	Y_R2 488.368
Li (670.783 nm)	1.001890	ppm	0.000705	0.07	14815.000000	Y_R2 488.368
Mg (279.078 nm)	50.287100	ppm	0.034105	0.07	178140.000000	Y 377.433
Mn (257.610 nm)	1.016530	ppm	0.001742	0.17	281149.000000	Y 377.433
Mo (202.032 nm)	1.025490	ppm	0.001077	0.11	13072.300000	Y 377.433
Na (589.592 nm)	48.291100	ppm	0.021362	0.04	36297.200000	Y_R2 488.368
Na H (589.593 nm)	53.510852	ppm	0.128515	0.24	26940.716601	Y_R4
Ni (231.604 nm)	0.984674	ppm	0.002032	0.21	5493.950000	Y 377.433
P (213.618 nm)	20.122300	ppm	0.033939	0.17	30163.400000	Y 242.219
Pb (220.353 nm)	1.005830	ppm	0.003129	0.31	3466.690000	Y 242.219
S (181.972 nm)	10.055382	ppm	0.018576	0.18	4530.277320	Y 377.433
Sb (206.834 nm)	0.004201	ppm	0.001670	39.76	-5.153980	Y 377.433
Se (196.026 nm)	1.982150	ppm	0.004281	0.22	3230.820000	Y 242.219
Si (288.158 nm)	2.123740	ppm	0.000524	0.02	14516.900000	Y 377.433
Sn (189.925 nm)	2.004200	ppm	0.003171	0.16	3498.000000	Y 377.433
Sr (421.552 nm)	1.014646	ppm	0.000068	0.01	148441.007953	Y_R 488.368
Th (288.505 nm)	1.029590	ppm	0.006983	0.68	1715.570000	Y 377.433
Ti (336.122 nm)	1.015180	ppm	0.001456	0.14	131664.000000	Y 377.433
Tl (190.794 nm)	2.011600	ppm	0.000148	0.01	4863.890000	Y 377.433
U (409.013 nm)	1.999310	ppm	0.003767	0.19	6161.500000	Y 377.433
V (292.401 nm)	1.007290	ppm	0.002183	0.22	52947.100000	Y 377.433
Zn (206.200 nm)	0.496915	ppm	0.000690	0.14	2471.650000	Y 377.433
Zr (343.823 nm)	0.500997	ppm	0.000014	0.00	28713.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.039913	23286.224773	0.001852	0.18
Y 377.433	1.043686	674352.837200	0.000403	0.04
Y_R 377.433	1.061010	58409.200000	0.006579	0.62
Y_R 488.368	1.058720	51164.800000	0.006095	0.58
Y_R2 488.368	1.046782	97020.401813	0.004351	0.42
Y_R4	1.073860	45982.300000	0.004349	0.40

Sample Name: 280-123847-g-1-a

Date: 5/23/2019 8:40:30 PM Rack:Tube: 1:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001544	ppm	0.000050	3.21	-192.296000	Y 377.433
Al (394.401 nm)	0.009553	ppm	0.001747	18.29	494.382000	Y 377.433
Al H (396.152 nm)	-0.050093 u	ppm	0.015793	31.53	37.633200	Y_R 377.433
As (188.980 nm)	0.024392	ppm	0.001592	6.53	37.293500	Y 242.219
B (249.678 nm)	0.338368	ppm	0.000427	0.13	2456.810000	Y 242.219
Ba (493.408 nm)	0.492772	ppm	0.000578	0.12	49171.100000	Y_R 488.368
Be (234.861 nm)	0.000018	ppm	0.000002	9.28	-44.263500	Y_R 488.368
Bi (223.061 nm)	-0.001804 u	ppm	0.000099	5.51	-17.951800	Y 377.433
Ca (315.887 nm)	115.436045	ppm	0.291448	0.25	93134.038790	Y_R 377.433
Cd (214.439 nm)	0.000173	ppm	0.000021	12.05	3.225050	Y 377.433
Co (228.615 nm)	0.000348	ppm	0.000404	> 100.00	-13.553100	Y 242.219
Cr (205.560 nm)	0.000277 u	ppm	0.000426	> 100.00	-4.010260	Y 377.433
Cu (324.754 nm)	-0.001317 u	ppm	0.000467	35.46	286.575000	Y 377.433
Fe (238.204 nm)	9.259432 o	ppm	0.019363	0.21	22825.189912	Y_R 377.433
Fe H (259.940 nm)	9.262540	ppm	0.005876	0.06	13042.100000	Y_R 377.433
K (766.491 nm)	0.281994	ppm	0.070187	24.89	2261.480000	Y_R2 488.368
Li (670.783 nm)	0.011838	ppm	0.001994	16.85	-2425.330000	Y_R2 488.368
Mg (279.078 nm)	78.739900	ppm	0.042417	0.05	278987.000000	Y 377.433
Mn (257.610 nm)	0.846857	ppm	0.000097	0.01	234219.000000	Y 377.433
Mo (202.032 nm)	0.000755	ppm	0.000441	58.45	32.996100	Y 377.433
Na (589.592 nm)	78.559300 o	ppm	0.351801	0.45	58404.200000	Y_R2 488.368
Na H (589.593 nm)	83.297039	ppm	0.073103	0.09	41754.623906	Y_R4
Ni (231.604 nm)	-0.004746 u	ppm	0.000184	3.89	-37.887600	Y 377.433
P (213.618 nm)	0.024097	ppm	0.002907	12.06	31.767500	Y 242.219
Pb (220.353 nm)	0.015666	ppm	0.000154	0.98	66.806200	Y 242.219
S (181.972 nm)	2.398685	ppm	0.007051	0.29	1093.370749	Y 377.433
Sb (206.834 nm)	0.001128 u	ppm	0.002828	> 100.00	-4.733350	Y 377.433
Se (196.026 nm)	0.000634 u	ppm	0.001973	> 100.00	10.274500	Y 242.219
Si (288.158 nm)	11.282400	ppm	0.032517	0.29	74930.200000	Y 377.433
Sn (189.925 nm)	-0.000369 u	ppm	0.000644	> 100.00	1.593430	Y 377.433
Sr (421.552 nm)	0.999017	ppm	0.001737	0.17	146155.190541	Y_R 488.368
Th (288.505 nm)	-0.001049 u	ppm	0.002470	> 100.00	25.712000	Y 377.433
Ti (336.122 nm)	-0.000256 u	ppm	0.000009	3.48	-145.448000	Y 377.433
Tl (190.794 nm)	0.003732	ppm	0.002050	54.92	3.161360	Y 377.433
U (409.013 nm)	0.028923	ppm	0.002072	7.17	40.581600	Y 377.433
V (292.401 nm)	0.001427	ppm	0.000029	2.04	-104.777000	Y 377.433
Zn (206.200 nm)	0.004252	ppm	0.000022	0.53	26.351800	Y 377.433
Zr (343.823 nm)	0.000925	ppm	0.000083	8.97	-121.161000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.046025	23423.070911	0.002104	0.20
Y 377.433	1.047277	676673.380098	0.002095	0.20
Y_R 377.433	1.070490	58930.800000	0.004207	0.39
Y_R 488.368	1.064690	51453.300000	0.003063	0.29
Y_R2 488.368	1.051598	97466.755438	0.003080	0.29
Y_R4	1.057210	45269.100000	0.000101	0.01

Sample Name: 280-123847-g-2-a

Date: 5/23/2019 8:44:08 PM Rack:Tube: 1:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001173	ppm	0.000490	41.75	-205.269000	Y 377.433
Al (394.401 nm)	0.004695	ppm	0.001247	26.56	434.250000	Y 377.433
Al H (396.152 nm)	-0.067725 u	ppm	0.001075	1.59	-3.986270	Y_R 377.433
As (188.980 nm)	0.023531	ppm	0.001162	4.94	35.921700	Y 242.219
B (249.678 nm)	0.333494	ppm	0.000590	0.18	2421.890000	Y 242.219
Ba (493.408 nm)	0.485236	ppm	0.000971	0.20	48441.100000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000054	96.64	-51.671700	Y_R 488.368
Bi (223.061 nm)	0.001220 u	ppm	0.001783	> 100.00	-11.058100	Y 377.433
Ca (315.887 nm)	113.940698	ppm	0.007097	0.01	91926.779921	Y_R 377.433
Cd (214.439 nm)	0.000276	ppm	0.000066	23.94	7.330830	Y 377.433
Co (228.615 nm)	0.000219 u	ppm	0.000375	> 100.00	-16.762000	Y 242.219
Cr (205.560 nm)	0.000393	ppm	0.000188	47.95	-3.184710	Y 377.433
Cu (324.754 nm)	-0.000998 u	ppm	0.000124	12.44	301.372000	Y 377.433
Fe (238.204 nm)	9.264959 o	ppm	0.021065	0.23	22838.811304	Y_R 377.433
Fe H (259.940 nm)	9.238660	ppm	0.007984	0.09	13008.700000	Y_R 377.433
K (766.491 nm)	0.285103	ppm	0.044711	15.68	2264.560000	Y_R2 488.368
Li (670.783 nm)	0.009621	ppm	0.005006	52.04	-2463.940000	Y_R2 488.368
Mg (279.078 nm)	77.635500	ppm	0.080788	0.10	275074.000000	Y 377.433
Mn (257.610 nm)	0.836520	ppm	0.000790	0.09	231359.000000	Y 377.433
Mo (202.032 nm)	0.000184	ppm	0.000170	92.69	25.727000	Y 377.433
Na (589.592 nm)	77.761100 o	ppm	0.026630	0.03	57811.400000	Y_R2 488.368
Na H (589.593 nm)	82.329217	ppm	0.178058	0.22	41273.286047	Y_R4
Ni (231.604 nm)	-0.003822 u	ppm	0.001448	37.89	-32.728100	Y 377.433
P (213.618 nm)	0.026278	ppm	0.000266	1.01	35.068500	Y 242.219
Pb (220.353 nm)	0.016955	ppm	0.000485	2.86	71.253800	Y 242.219
S (181.972 nm)	2.346841	ppm	0.018235	0.78	1069.976567	Y 377.433
Sb (206.834 nm)	-0.002548 u	ppm	0.000542	21.25	-11.223000	Y 377.433
Se (196.026 nm)	0.000545 u	ppm	0.002112	> 100.00	10.119000	Y 242.219
Si (288.158 nm)	11.122300	ppm	0.043244	0.39	73874.000000	Y 377.433
Sn (189.925 nm)	0.001058	ppm	0.000192	18.11	4.081770	Y 377.433
Sr (421.552 nm)	0.984956	ppm	0.000793	0.08	144098.754175	Y_R 488.368
Th (288.505 nm)	-0.002951 u	ppm	0.000567	19.20	22.272900	Y 377.433
Ti (336.122 nm)	-0.000447 u	ppm	0.000123	27.51	-175.440000	Y 377.433
Tl (190.794 nm)	0.002100 u	ppm	0.003161	> 100.00	-0.723798	Y 377.433
U (409.013 nm)	0.040580	ppm	0.004532	11.17	77.264900	Y 377.433
V (292.401 nm)	0.001457	ppm	0.000134	9.18	-103.750000	Y 377.433
Zn (206.200 nm)	0.006160	ppm	0.001113	18.08	35.817800	Y 377.433
Zr (343.823 nm)	0.001019	ppm	0.000135	13.21	-115.738000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045019	23400.552043	0.002166	0.21
Y 377.433	1.049277	677965.280546	0.001455	0.14
Y_R 377.433	1.066300	58700.400000	0.003671	0.34
Y_R 488.368	1.062850	51364.400000	0.004102	0.39
Y_R2 488.368	1.036879	96102.520406	0.006773	0.65
Y_R4	1.055000	45174.600000	0.000716	0.07

Sample Name: 280-123847-g-3-a

Date: 5/23/2019 8:47:46 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001784	ppm	0.000013	0.75	-194.370000	Y 377.433
Al (394.401 nm)	0.060269	ppm	0.000173	0.29	1697.190000	Y 377.433
Al H (396.152 nm)	-0.404655 u	ppm	0.006381	1.58	225.513000	Y_R 377.433
As (188.980 nm)	0.002513	ppm	0.000507	20.20	2.697990	Y 242.219
B (249.678 nm)	1.684770	ppm	0.001815	0.11	12112.000000	Y 242.219
Ba (493.408 nm)	0.014935	ppm	0.000025	0.17	2879.260000	Y_R 488.368
Be (234.861 nm)	-0.000044 u	ppm	0.000039	89.57	-10.245600	Y_R 488.368
Bi (223.061 nm)	0.002338	ppm	0.000756	32.35	-10.169200	Y 377.433
Ca (315.887 nm)	157.189015	ppm	0.102303	0.07	126842.852119	Y_R 377.433
Cd (214.439 nm)	0.000400	ppm	0.000071	17.85	8.242030	Y 377.433
Co (228.615 nm)	-0.000196 u	ppm	0.000222	> 100.00	-27.012100	Y 242.219
Cr (205.560 nm)	0.001937	ppm	0.000330	17.04	7.653070	Y 377.433
Cu (324.754 nm)	-0.000702 u	ppm	0.000036	5.15	288.969000	Y 377.433
Fe (238.204 nm)	0.024388	ppm	0.003199	13.12	63.043395	Y_R 377.433
Fe H (259.940 nm)	-0.044758 u	ppm	0.001253	2.80	28.166100	Y_R 377.433
K (766.491 nm)	3.994090	ppm	0.001210	0.03	5945.840000	Y_R2 488.368
Li (670.783 nm)	0.074500	ppm	0.005296	7.11	-1334.150000	Y_R2 488.368
Mg (279.078 nm)	80.415000	ppm	0.130227	0.16	284935.000000	Y 377.433
Mn (257.610 nm)	0.000905	ppm	0.000044	4.91	228.180000	Y 377.433
Mo (202.032 nm)	0.020081	ppm	0.000003	0.02	278.908000	Y 377.433
Na (589.592 nm)	582.050000 o	ppm	1.149080	0.20	431271.000000	Y_R2 488.368
Na H (589.593 nm)	660.400663	ppm	1.365955	0.21	328772.217789	Y_R4
Ni (231.604 nm)	-0.003297 u	ppm	0.000512	15.54	-29.791000	Y 377.433
P (213.618 nm)	0.009620	ppm	0.002870	29.84	8.626730	Y 242.219
Pb (220.353 nm)	-0.001702 u	ppm	0.000990	58.20	7.141910	Y 242.219
S (181.972 nm)	215.516185 bo	ppm	0.638374	0.30	96827.990018	Y 377.433
Sb (206.834 nm)	0.000590 u	ppm	0.002704	> 100.00	-6.623940	Y 377.433
Se (196.026 nm)	0.019930	ppm	0.001213	6.08	42.963700	Y 242.219
Si (288.158 nm)	7.836060	ppm	0.003689	0.05	52197.200000	Y 377.433
Sn (189.925 nm)	0.000808	ppm	0.000267	33.02	3.645790	Y 377.433
Sr (421.552 nm)	3.361163	ppm	0.007264	0.22	491616.906497	Y_R 488.368
Th (288.505 nm)	0.002933	ppm	0.001403	47.84	13.058200	Y 377.433
Ti (336.122 nm)	-0.000655 u	ppm	0.000077	11.75	-55.284900	Y 377.433
Tl (190.794 nm)	0.004302	ppm	0.001228	28.56	3.896450	Y 377.433
U (409.013 nm)	0.050769	ppm	0.009019	17.77	96.915000	Y 377.433
V (292.401 nm)	0.026415	ppm	0.000305	1.16	1218.900000	Y 377.433
Zn (206.200 nm)	0.004181	ppm	0.000309	7.39	24.573700	Y 377.433
Zr (343.823 nm)	0.000262	ppm	0.000181	69.06	-159.435000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993865	22255.091519	0.000216	0.02
Y 377.433	0.998986	645471.262556	0.001683	0.17
Y_R 377.433	1.047300	57654.500000	0.003210	0.31
Y_R 488.368	1.041990	50356.400000	0.001088	0.10
Y_R2 488.368	1.016066	94173.485813	0.002678	0.26
Y_R4	1.028900	44056.800000	0.005922	0.58

Sample Name: CCVH-5713036

Date: 5/23/2019 8:51:52 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004589	ppm	0.000039	0.84	-95.127200	Y 377.433
Al (394.401 nm)	50.041500 o	ppm	0.039865	0.08	596830.000000	Y 377.433
Al H (396.152 nm)	49.489500	ppm	0.074322	0.15	101760.000000	Y_R 377.433
As (188.980 nm)	0.004482	ppm	0.002573	57.40	4.419400	Y 242.219
B (249.678 nm)	-0.000921 u	ppm	0.000197	21.45	1.795070	Y 242.219
Ba (493.408 nm)	0.001658	ppm	0.000156	9.43	1631.470000	Y_R 488.368
Be (234.861 nm)	0.001014	ppm	0.000117	11.49	-117.750000	Y_R 488.368
Bi (223.061 nm)	0.009195	ppm	0.000759	8.26	14.363900	Y 377.433
Ca (315.887 nm)	-0.010901 u	ppm	0.007626	69.96	-58.250176	Y_R 377.433
Cd (214.439 nm)	0.001463	ppm	0.000108	7.36	72.503800	Y 377.433
Co (228.615 nm)	0.003100	ppm	0.000018	0.58	54.519300	Y 242.219
Cr (205.560 nm)	0.001518	ppm	0.000899	59.20	3.377280	Y 377.433
Cu (324.754 nm)	0.003460	ppm	0.000329	9.51	1504.690000	Y 377.433
Fe (238.204 nm)	49.246268 o	ppm	0.111802	0.23	121383.046020	Y_R 377.433
Fe H (259.940 nm)	49.400800	ppm	0.153034	0.31	69165.300000	Y_R 377.433
K (766.491 nm)	0.351373	ppm	0.051560	14.67	2330.340000	Y_R2 488.368
Li (670.783 nm)	0.002872	ppm	0.000585	20.36	-2581.460000	Y_R2 488.368
Mg (279.078 nm)	0.036244	ppm	0.000863	2.38	60.565200	Y 377.433
Mn (257.610 nm)	0.001015	ppm	0.000006	0.55	258.694000	Y 377.433
Mo (202.032 nm)	0.000266 u	ppm	0.000594	> 100.00	26.775900	Y 377.433
Na (589.592 nm)	238.395000 o	ppm	0.607001	0.25	176703.000000	Y_R2 488.368
Na H (589.593 nm)	255.076577	ppm	0.578301	0.23	127187.720414	Y_R4
Ni (231.604 nm)	0.003343	ppm	0.001142	34.16	7.316990	Y 377.433
P (213.618 nm)	4.889830	ppm	0.013531	0.28	7390.470000	Y 242.219
Pb (220.353 nm)	0.006827	ppm	0.001064	15.59	28.964300	Y 242.219
S (181.972 nm)	5.030256	ppm	0.026758	0.53	2267.420719	Y 377.433
Sb (206.834 nm)	0.004280	ppm	0.001499	35.02	4.376050	Y 377.433
Se (196.026 nm)	0.004921	ppm	0.001584	32.18	4.840970	Y 242.219
Si (288.158 nm)	0.017983	ppm	0.001183	6.58	626.667000	Y 377.433
Sn (189.925 nm)	0.000513	ppm	0.000597	> 100.00	3.132060	Y 377.433
Sr (421.552 nm)	0.001035	ppm	0.000085	8.23	206.516513	Y_R 488.368
Th (288.505 nm)	4.953970	ppm	0.002585	0.05	8656.270000	Y 377.433
Ti (336.122 nm)	0.002047	ppm	0.000010	0.48	-239.448000	Y 377.433
Tl (190.794 nm)	0.001236	ppm	0.000445	36.02	-1.890810	Y 377.433
U (409.013 nm)	0.547996 Q	ppm	0.001390	0.25	1710.950000 Q	Y 377.433
V (292.401 nm)	0.001138	ppm	0.000108	9.49	377.227000	Y 377.433
Zn (206.200 nm)	0.003308	ppm	0.000807	24.40	27.841100	Y 377.433
Zr (343.823 nm)	0.001510	ppm	0.000061	4.02	-87.424500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.042116	23335.547615	0.002309	0.22
Y 377.433	1.039545	671677.119061	0.000932	0.09
Y_R 377.433	1.056900	58182.800000	0.006477	0.61
Y_R 488.368	1.053570	50915.800000	0.003616	0.34
Y_R2 488.368	1.045746	96924.413517	0.002032	0.19
Y_R4	1.063660	45545.300000	0.002645	0.25

Sample Name: CCV-5717467

Date: 5/23/2019 8:55:36 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.488197	ppm	0.001503	0.31	16870.600000	Y 377.433
Al (394.401 nm)	0.511405	ppm	0.003530	0.69	6363.210000	Y 377.433
Al H (396.152 nm)	0.571625 u	ppm	0.003214	0.56	1184.770000	Y_R 377.433
As (188.980 nm)	0.491806	ppm	0.001882	0.38	782.259000	Y 242.219
B (249.678 nm)	0.483845	ppm	0.001166	0.24	3503.430000	Y 242.219
Ba (493.408 nm)	0.489516	ppm	0.000768	0.16	48850.400000	Y_R 488.368
Be (234.861 nm)	0.485762	ppm	0.001277	0.26	48962.000000	Y_R 488.368
Bi (223.061 nm)	0.958783	ppm	0.007484	0.78	2171.920000	Y 377.433
Ca (315.887 nm)	4.934038	ppm	0.001478	0.03	3921.604616	Y_R 377.433
Cd (214.439 nm)	0.495850	ppm	0.001984	0.40	19832.800000	Y 377.433
Co (228.615 nm)	0.491450	ppm	0.000460	0.09	12151.100000	Y 242.219
Cr (205.560 nm)	0.490894	ppm	0.002862	0.58	3468.980000	Y 377.433
Cu (324.754 nm)	0.488057	ppm	0.003495	0.72	23072.600000	Y 377.433
Fe (238.204 nm)	2.476260	ppm	0.007525	0.30	6106.315704	Y_R 377.433
Fe H (259.940 nm)	2.432150 u	ppm	0.007197	0.30	3491.490000	Y_R 377.433
K (766.491 nm)	48.312100	ppm	0.167542	0.35	49932.800000	Y_R2 488.368
Li (670.783 nm)	0.490350	ppm	0.000485	0.10	5907.300000	Y_R2 488.368
Mg (279.078 nm)	19.718400	ppm	0.067615	0.34	69874.000000	Y 377.433
Mn (257.610 nm)	0.493159	ppm	0.001081	0.22	136386.000000	Y 377.433
Mo (202.032 nm)	0.491805	ppm	0.001872	0.38	6281.420000	Y 377.433
Na (589.592 nm)	23.994500	ppm	0.062313	0.26	17984.400000	Y_R2 488.368
Na H (589.593 nm)	26.965286 u	ppm	0.206489	0.77	13738.504285	Y_R4
Ni (231.604 nm)	0.493307	ppm	0.002849	0.58	2746.080000	Y 377.433
P (213.618 nm)	0.055265	ppm	0.001103	2.00	-60.869900	Y 242.219
Pb (220.353 nm)	0.493386	ppm	0.002434	0.49	1705.480000	Y 242.219
S (181.972 nm)	0.001150 u	ppm	0.006800	> 100.00	10.014165	Y 377.433
Sb (206.834 nm)	0.496051	ppm	0.004264	0.86	865.433000	Y 377.433
Se (196.026 nm)	0.489055	ppm	0.000983	0.20	805.513000	Y 242.219
Si (288.158 nm)	4.827360	ppm	0.014983	0.31	32350.800000	Y 377.433
Sn (189.925 nm)	0.492877	ppm	0.000483	0.10	861.920000	Y 377.433
Sr (421.552 nm)	0.490412	ppm	0.000761	0.16	71770.934481	Y_R 488.368
Th (288.505 nm)	0.013101	ppm	0.002107	16.08	-12.746200	Y 377.433
Ti (336.122 nm)	0.488181	ppm	0.000714	0.15	62986.500000	Y 377.433
Tl (190.794 nm)	0.502819	ppm	0.000911	0.18	1214.810000	Y 377.433
U (409.013 nm)	0.019842	ppm	0.003026	15.25	-38.656900	Y 377.433
V (292.401 nm)	0.488413	ppm	0.000926	0.19	25576.200000	Y 377.433
Zn (206.200 nm)	0.497011	ppm	0.000784	0.16	2470.940000	Y 377.433
Zr (343.823 nm)	0.490265	ppm	0.000943	0.19	28094.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.052035	23557.654879	0.000745	0.07
Y 377.433	1.048749	677624.248394	0.002399	0.23
Y_R 377.433	1.058890	58292.300000	0.001231	0.12
Y_R 488.368	1.057630	51111.900000	0.002914	0.28
Y_R2 488.368	1.044635	96821.422427	0.003336	0.32
Y_R4	1.120060	47960.200000	0.010394	0.93

Sample Name: CCB

Date: 5/23/2019 8:59:12 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000167	ppm	0.000034	20.55	-239.603000	Y 377.433
Al (394.401 nm)	-0.002210 u	ppm	0.000178	8.07	100.272000	Y 377.433
Al H (396.152 nm)	0.121779 Zu	ppm	0.002568	2.11	25.410500 Z	Y_R 377.433
As (188.980 nm)	-0.000600 u	ppm	0.000191	31.88	-2.261310	Y 242.219
B (249.678 nm)	-0.003171 u	ppm	0.000102	3.21	14.361200	Y 242.219
Ba (493.408 nm)	-0.001949 u	ppm	0.000087	4.48	1243.850000	Y_R 488.368
Be (234.861 nm)	-0.000041 u	ppm	0.000069	> 100.00	-9.831270	Y_R 488.368
Bi (223.061 nm)	0.002015	ppm	0.001810	89.81	-10.919000	Y 377.433
Ca (315.887 nm)	0.004867	ppm	0.002972	61.07	-58.049268	Y_R 377.433
Cd (214.439 nm)	0.000111 u	ppm	0.000189	> 100.00	-3.330350	Y 377.433
Co (228.615 nm)	0.000090	ppm	0.000037	41.08	-19.946000	Y 242.219
Cr (205.560 nm)	-0.000318 u	ppm	0.000428	> 100.00	-8.224060	Y 377.433
Cu (324.754 nm)	-0.000085 u	ppm	0.000156	> 100.00	409.384000	Y 377.433
Fe (238.204 nm)	0.001382	ppm	0.000826	59.79	6.340257	Y_R 377.433
Fe H (259.940 nm)	-0.055453 u	ppm	0.003239	5.84	13.212400	Y_R 377.433
K (766.491 nm)	-0.171144 u	ppm	0.013069	7.64	1811.730000	Y_R2 488.368
Li (670.783 nm)	0.012231 Z	ppm	0.003752	30.68	-2418.480000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002032	ppm	0.000219	10.77	19.336300	Y 377.433
Mn (257.610 nm)	0.000073	ppm	0.000013	17.25	-1.719830	Y 377.433
Mo (202.032 nm)	-0.000169 u	ppm	0.000279	> 100.00	21.233600	Y 377.433
Na (589.592 nm)	0.127022	ppm	0.005385	4.24	204.042000	Y_R2 488.368
Na H (589.593 nm)	0.940085 u	ppm	0.008774	0.93	795.091073	Y_R4
Ni (231.604 nm)	0.000232 u	ppm	0.000762	> 100.00	-10.070900	Y 377.433
P (213.618 nm)	-0.002179 u	ppm	0.001589	72.94	-7.742790	Y 242.219
Pb (220.353 nm)	-0.001628 u	ppm	0.000457	28.07	7.272560	Y 242.219
S (181.972 nm)	-0.003147 u	ppm	0.002417	76.81	6.341513	Y 377.433
Sb (206.834 nm)	0.004111	ppm	0.000513	12.49	-0.288678	Y 377.433
Se (196.026 nm)	0.000101 u	ppm	0.003585	> 100.00	10.740300	Y 242.219
Si (288.158 nm)	-0.004354 u	ppm	0.000121	2.78	479.322000	Y 377.433
Sn (189.925 nm)	0.000622	ppm	0.000797	> 100.00	3.322180	Y 377.433
Sr (421.552 nm)	0.000030	ppm	0.000028	92.95	52.355835	Y_R 488.368
Th (288.505 nm)	0.001698 u	ppm	0.004218	> 100.00	17.442300	Y 377.433
Ti (336.122 nm)	0.000443	ppm	0.000119	26.80	-448.140000	Y 377.433
Tl (190.794 nm)	0.001198	ppm	0.000119	9.96	3.014950	Y 377.433
U (409.013 nm)	0.001778	ppm	0.000235	13.23	-36.240900	Y 377.433
V (292.401 nm)	0.000483	ppm	0.000113	23.50	-153.430000	Y 377.433
Zn (206.200 nm)	-0.000289 u	ppm	0.000049	16.92	2.383520	Y 377.433
Zr (343.823 nm)	0.000425	ppm	0.000097	22.77	-150.014000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.117831	25031.001747	0.002368	0.21
Y 377.433	1.111528	718187.209818	0.002247	0.20
Y_R 377.433	1.133160	62380.800000	0.001302	0.11
Y_R 488.368	1.130200	54619.300000	0.003750	0.33
Y_R2 488.368	1.112347	103097.275647	0.005473	0.49
Y_R4	1.140150	48820.600000	0.002008	0.18

Sample Name: CCVL-5717307

Date: 5/23/2019 9:02:24 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008232	ppm	0.000001	0.01	41.766800	Y 377.433
Al (394.401 nm)	0.097525	ppm	0.002237	2.29	1303.990000	Y 377.433
Al H (396.152 nm)	0.226773 u	ppm	0.004219	1.86	246.878000	Y_R 377.433
As (188.980 nm)	0.012682	ppm	0.001518	11.97	18.898600	Y 242.219
B (249.678 nm)	0.092682	ppm	0.000400	0.43	701.289000	Y 242.219
Ba (493.408 nm)	0.007833	ppm	0.000129	1.65	2191.430000	Y_R 488.368
Be (234.861 nm)	0.001030	ppm	0.000009	0.87	97.673500	Y_R 488.368
Bi (223.061 nm)	0.087318	ppm	0.001781	2.04	183.671000	Y 377.433
Ca (315.887 nm)	0.212790	ppm	0.005369	2.52	109.841709	Y_R 377.433
Cd (214.439 nm)	0.005078	ppm	0.000146	2.87	195.430000	Y 377.433
Co (228.615 nm)	0.010499	ppm	0.000055	0.52	237.857000	Y 242.219
Cr (205.560 nm)	0.009934	ppm	0.000610	6.14	64.250600	Y 377.433
Cu (324.754 nm)	0.015419	ppm	0.000010	0.07	1125.980000	Y 377.433
Fe (238.204 nm)	0.101106	ppm	0.002926	2.89	252.135690	Y_R 377.433
Fe H (259.940 nm)	0.050305 u	ppm	0.000758	1.51	161.088000	Y_R 377.433
K (766.491 nm)	2.817580	ppm	0.006293	0.22	4778.130000	Y_R2 488.368
Li (670.783 nm)	0.034974 Q	ppm	0.002173	6.21	-2022.440000 Q	Y_R2 488.368
Mg (279.078 nm)	0.205408	ppm	0.000207	0.10	738.280000	Y 377.433
Mn (257.610 nm)	0.010590	ppm	0.000028	0.26	2907.110000	Y 377.433
Mo (202.032 nm)	0.018546	ppm	0.000138	0.74	259.376000	Y 377.433
Na (589.592 nm)	1.179210	ppm	0.030633	2.60	985.465000	Y_R2 488.368
Na H (589.593 nm)	1.652429 u	ppm	0.018925	1.15	1149.369262	Y_R4
Ni (231.604 nm)	0.041674	ppm	0.000694	1.67	221.542000	Y 377.433
P (213.618 nm)	2.782560	ppm	0.010024	0.36	4201.820000	Y 242.219
Pb (220.353 nm)	0.008821	ppm	0.002112	23.95	43.307100	Y 242.219
S (181.972 nm)	0.092952	ppm	0.005435	5.85	49.548273	Y 377.433
Sb (206.834 nm)	0.022444	ppm	0.004509	20.09	31.929300	Y 377.433
Se (196.026 nm)	0.018500	ppm	0.001669	9.02	40.632800	Y 242.219
Si (288.158 nm)	0.475826	ppm	0.000027	0.01	3646.740000	Y 377.433
Sn (189.925 nm)	0.100697	ppm	0.000865	0.86	177.874000	Y 377.433
Sr (421.552 nm)	0.009060	ppm	0.000120	1.33	1373.007106	Y_R 488.368
Th (288.505 nm)	0.014233	ppm	0.003528	24.79	38.868800	Y 377.433
Ti (336.122 nm)	0.010117	ppm	0.000132	1.31	810.478000	Y 377.433
Tl (190.794 nm)	0.014777	ppm	0.000023	0.16	35.797300	Y 377.433
U (409.013 nm)	0.060672	ppm	0.004935	8.13	147.089000	Y 377.433
V (292.401 nm)	0.010298	ppm	0.000063	0.61	359.605000	Y 377.433
Zn (206.200 nm)	0.020762	ppm	0.000069	0.33	106.875000	Y 377.433
Zr (343.823 nm)	0.010283	ppm	0.000287	2.79	418.429000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.137650	25474.800831	0.003576	0.31
Y 377.433	1.132618	731814.435461	0.003369	0.30
Y_R 377.433	1.147070	63146.900000	0.001021	0.09
Y_R 488.368	1.143390	55256.600000	0.000134	0.01
Y_R2 488.368	1.142296	105873.084140	0.004374	0.38
Y_R4	1.148020	49157.700000	0.006552	0.57

Sample Name: 280-123847-g-4-a

Date: 5/23/2019 9:05:52 PM Rack:Tube: 1:61

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000832	ppm	0.000260	31.26	-229.712000	Y 377.433
Al (394.401 nm)	0.176892	ppm	0.000192	0.11	2432.000000	Y 377.433
Al H (396.152 nm)	0.166327 u	ppm	0.004735	2.85	393.572000	Y_R 377.433
As (188.980 nm)	0.003576	ppm	0.000610	17.05	4.391330	Y 242.219
B (249.678 nm)	0.454394	ppm	0.001004	0.22	3293.780000	Y 242.219
Ba (493.408 nm)	0.022495	ppm	0.000324	1.44	3611.590000	Y_R 488.368
Be (234.861 nm)	0.000000 u	ppm	0.000073	> 100.00	-5.820080	Y_R 488.368
Bi (223.061 nm)	0.005602	ppm	0.001693	30.23	-2.730580	Y 377.433
Ca (315.887 nm)	61.392299	ppm	0.144853	0.24	49502.459989	Y_R 377.433
Cd (214.439 nm)	0.000625	ppm	0.000158	25.31	17.209200	Y 377.433
Co (228.615 nm)	-0.000124 u	ppm	0.000287	> 100.00	-25.229000	Y 242.219
Cr (205.560 nm)	0.004670	ppm	0.000274	5.87	27.105700	Y 377.433
Cu (324.754 nm)	0.000027 u	ppm	0.000710	> 100.00	376.987000	Y 377.433
Fe (238.204 nm)	0.021188	ppm	0.000523	2.47	55.156591	Y_R 377.433
Fe H (259.940 nm)	-0.039413 u	ppm	0.005395	13.69	35.640400	Y_R 377.433
K (766.491 nm)	1.756190	ppm	0.111357	6.34	3724.660000	Y_R2 488.368
Li (670.783 nm)	0.042881	ppm	0.000725	1.69	-1884.750000	Y_R2 488.368
Mg (279.078 nm)	37.448100	ppm	0.009537	0.03	132696.000000	Y 377.433
Mn (257.610 nm)	0.001376	ppm	0.000030	2.17	358.509000	Y 377.433
Mo (202.032 nm)	0.002416	ppm	0.000355	14.68	54.125800	Y 377.433
Na (589.592 nm)	273.034000 o	ppm	1.143500	0.42	202367.000000	Y_R2 488.368
Na H (589.593 nm)	296.002875	ppm	0.290133	0.10	147542.067768	Y_R4
Ni (231.604 nm)	-0.001387 u	ppm	0.000107	7.69	-19.121600	Y 377.433
P (213.618 nm)	0.001961	ppm	0.002153	> 100.00	-2.153750	Y 242.219
Pb (220.353 nm)	-0.001158 u	ppm	0.000085	7.31	8.969850	Y 242.219
S (181.972 nm)	64.409113	ppm	0.182603	0.28	28944.123491	Y 377.433
Sb (206.834 nm)	0.000941 u	ppm	0.003806	> 100.00	-5.862840	Y 377.433
Se (196.026 nm)	0.013231	ppm	0.002010	15.19	32.075200	Y 242.219
Si (288.158 nm)	14.277200	ppm	0.029080	0.20	94684.600000	Y 377.433
Sn (189.925 nm)	0.000055 u	ppm	0.000210	> 100.00	2.331710	Y 377.433
Sr (421.552 nm)	0.736697	ppm	0.000883	0.12	107789.566738	Y_R 488.368
Th (288.505 nm)	0.002277	ppm	0.002379	> 100.00	13.578600	Y 377.433
Ti (336.122 nm)	0.000052	ppm	0.000025	48.98	-289.162000	Y 377.433
Tl (190.794 nm)	-0.000210 u	ppm	0.002095	> 100.00	-2.961840	Y 377.433
U (409.013 nm)	0.027965	ppm	0.003828	13.69	37.842100	Y 377.433
V (292.401 nm)	0.032544	ppm	0.000048	0.15	1545.840000	Y 377.433
Zn (206.200 nm)	0.007181	ppm	0.000075	1.05	39.461200	Y 377.433
Zr (343.823 nm)	0.000604	ppm	0.000108	17.94	-139.685000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076017	24094.669160	0.001820	0.17
Y 377.433	1.078008	696529.310402	0.001528	0.14
Y_R 377.433	1.109190	61061.200000	0.000665	0.06
Y_R 488.368	1.104450	53374.900000	0.000859	0.08
Y_R2 488.368	1.089388	100969.289295	0.000063	0.01
Y_R4	1.123530	48109.100000	0.001321	0.12

Sample Name: 280-123847-g-5-a

Date: 5/23/2019 9:09:27 PM Rack:Tube: 1:62

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001218	ppm	0.000361	29.60	-203.762000	Y 377.433
Al (394.401 nm)	0.076728	ppm	0.002108	2.75	1259.770000	Y 377.433
Al H (396.152 nm)	0.042639 u	ppm	0.001048	2.46	176.195000	Y_R 377.433
As (188.980 nm)	0.017317	ppm	0.002535	14.64	26.120300	Y 242.219
B (249.678 nm)	0.306990	ppm	0.000460	0.15	2233.950000	Y 242.219
Ba (493.408 nm)	0.520122	ppm	0.000085	0.02	51817.600000	Y_R 488.368
Be (234.861 nm)	-0.000085 u	ppm	0.000043	50.28	-39.594300	Y_R 488.368
Bi (223.061 nm)	0.002954	ppm	0.001238	41.91	-7.727190	Y 377.433
Ca (315.887 nm)	87.667501	ppm	0.077560	0.09	70715.421284	Y_R 377.433
Cd (214.439 nm)	0.000284	ppm	0.000012	4.40	6.121770	Y 377.433
Co (228.615 nm)	0.001031	ppm	0.000236	22.84	3.391170	Y 242.219
Cr (205.560 nm)	0.000367	ppm	0.000107	29.22	-3.429450	Y 377.433
Cu (324.754 nm)	-0.001018 u	ppm	0.000226	22.20	315.439000	Y 377.433
Fe (238.204 nm)	5.793280 o	ppm	0.004550	0.08	14281.965862	Y_R 377.433
Fe H (259.940 nm)	5.762720	ppm	0.020843	0.36	8148.470000	Y_R 377.433
K (766.491 nm)	0.801240	ppm	0.052002	6.49	2776.850000	Y_R2 488.368
Li (670.783 nm)	0.024344	ppm	0.003343	13.73	-2207.540000	Y_R2 488.368
Mg (279.078 nm)	70.206500	ppm	0.053518	0.08	248757.000000	Y 377.433
Mn (257.610 nm)	0.528150	ppm	0.000716	0.14	146064.000000	Y 377.433
Mo (202.032 nm)	0.010501	ppm	0.000155	1.48	157.014000	Y 377.433
Na (589.592 nm)	60.449600 o	ppm	0.058028	0.10	44995.000000	Y_R2 488.368
Na H (589.593 nm)	63.928529	ppm	0.122281	0.19	32121.859843	Y_R4
Ni (231.604 nm)	-0.000786 u	ppm	0.000360	45.75	-15.762300	Y 377.433
P (213.618 nm)	0.055959	ppm	0.000004	0.01	79.687800	Y 242.219
Pb (220.353 nm)	0.004130	ppm	0.000835	20.21	27.127400	Y 242.219
S (181.972 nm)	0.183791	ppm	0.009530	5.19	96.129553	Y 377.433
Sb (206.834 nm)	-0.000838 u	ppm	0.001534	> 100.00	-8.586100	Y 377.433
Se (196.026 nm)	-0.000578 u	ppm	0.002582	> 100.00	8.805020	Y 242.219
Si (288.158 nm)	12.269000	ppm	0.023903	0.19	81437.900000	Y 377.433
Sn (189.925 nm)	0.000058 u	ppm	0.001143	> 100.00	2.337450	Y 377.433
Sr (421.552 nm)	0.845715	ppm	0.000101	0.01	123734.334183	Y_R 488.368
Th (288.505 nm)	0.005060	ppm	0.004232	83.63	31.077000	Y 377.433
Ti (336.122 nm)	0.001550	ppm	0.000194	12.52	-4.119620	Y 377.433
Tl (190.794 nm)	0.001460	ppm	0.000295	20.24	-0.816036	Y 377.433
U (409.013 nm)	0.026353	ppm	0.005446	20.67	33.540700	Y 377.433
V (292.401 nm)	0.001592	ppm	0.000037	2.31	-97.043200	Y 377.433
Zn (206.200 nm)	0.002722	ppm	0.000909	33.40	18.221700	Y 377.433
Zr (343.823 nm)	0.001188	ppm	0.000072	6.08	-106.037000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.106392	24774.855343	0.001424	0.13
Y 377.433	1.110611	717594.687332	0.002405	0.22
Y_R 377.433	1.126810	62031.400000	0.001602	0.14
Y_R 488.368	1.123320	54286.500000	0.002825	0.25
Y_R2 488.368	1.118331	103651.917907	0.001231	0.11
Y_R4	1.132790	48505.500000	0.005545	0.49

Sample Name: 280-123847-g-6-a

Date: 5/23/2019 9:13:06 PM Rack:Tube: 1:63

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001148	ppm	0.000404	35.19	-207.705000	Y 377.433
Al (394.401 nm)	0.161817	ppm	0.003458	2.14	2205.000000	Y 377.433
Al H (396.152 nm)	0.179876 u	ppm	0.007005	3.89	354.394000	Y_R 377.433
As (188.980 nm)	0.004116	ppm	0.000054	1.31	5.242590	Y 242.219
B (249.678 nm)	0.398924	ppm	0.000112	0.03	2896.020000	Y 242.219
Ba (493.408 nm)	0.051248	ppm	0.000468	0.91	6396.920000	Y_R 488.368
Be (234.861 nm)	0.000039 u	ppm	0.000088	> 100.00	-3.403380	Y_R 488.368
Bi (223.061 nm)	0.003465	ppm	0.002901	83.72	-7.542550	Y 377.433
Ca (315.887 nm)	52.427678	ppm	0.132909	0.25	42264.967357	Y_R 377.433
Cd (214.439 nm)	0.000231	ppm	0.000000	0.17	1.595440	Y 377.433
Co (228.615 nm)	0.000313	ppm	0.000201	64.12	-14.294200	Y 242.219
Cr (205.560 nm)	0.000504 u	ppm	0.000833	> 100.00	-2.430970	Y 377.433
Cu (324.754 nm)	-0.000143 u	ppm	0.000172	> 100.00	374.875000	Y 377.433
Fe (238.204 nm)	0.364697	ppm	0.003363	0.92	901.823605	Y_R 377.433
Fe H (259.940 nm)	0.308237 u	ppm	0.001153	0.37	521.742000	Y_R 377.433
K (766.491 nm)	1.858590	ppm	0.058163	3.13	3826.290000	Y_R2 488.368
Li (670.783 nm)	0.040217	ppm	0.005234	13.01	-1931.140000	Y_R2 488.368
Mg (279.078 nm)	31.619300	ppm	0.019866	0.06	112044.000000	Y 377.433
Mn (257.610 nm)	0.082803	ppm	0.000011	0.01	22881.200000	Y 377.433
Mo (202.032 nm)	0.005591	ppm	0.000286	5.12	94.530800	Y 377.433
Na (589.592 nm)	240.705000 o	ppm	0.196676	0.08	178425.000000	Y_R2 488.368
Na H (589.593 nm)	258.195976	ppm	0.954690	0.37	128739.127266	Y_R4
Ni (231.604 nm)	-0.001117 u	ppm	0.001078	96.53	-17.612900	Y 377.433
P (213.618 nm)	0.035143	ppm	0.004920	14.00	48.121500	Y 242.219
Pb (220.353 nm)	0.007676	ppm	0.002261	29.46	39.257100	Y 242.219
S (181.972 nm)	48.773647	ppm	0.091330	0.19	21920.285747	Y 377.433
Sb (206.834 nm)	0.000557 u	ppm	0.001686	> 100.00	-6.576480	Y 377.433
Se (196.026 nm)	0.002103	ppm	0.000355	16.89	14.015600	Y 242.219
Si (288.158 nm)	14.265100	ppm	0.016445	0.12	94604.800000	Y 377.433
Sn (189.925 nm)	0.000084 u	ppm	0.000566	> 100.00	2.383430	Y 377.433
Sr (421.552 nm)	0.560421	ppm	0.001961	0.35	82009.323162	Y_R 488.368
Th (288.505 nm)	-0.002839 u	ppm	0.000015	0.54	9.258630	Y 377.433
Ti (336.122 nm)	0.003413	ppm	0.000035	1.03	117.272000	Y 377.433
Tl (190.794 nm)	0.001612	ppm	0.001023	63.45	1.749870	Y 377.433
U (409.013 nm)	0.030402	ppm	0.010362	34.08	46.872400	Y 377.433
V (292.401 nm)	0.006293	ppm	0.000091	1.45	152.995000	Y 377.433
Zn (206.200 nm)	0.004241	ppm	0.000272	6.40	24.919900	Y 377.433
Zr (343.823 nm)	0.000903	ppm	0.000105	11.58	-122.454000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.079094	24163.579939	0.000472	0.04
Y 377.433	1.081140	698552.814341	0.000875	0.08
Y_R 377.433	1.109870	61098.600000	0.001451	0.13
Y_R 488.368	1.106770	53487.000000	0.004302	0.39
Y_R2 488.368	1.093748	101373.464734	0.005039	0.46
Y_R4	1.116840	47822.600000	0.005782	0.52

Sample Name: 280-123847-g-8-a

Date: 5/23/2019 9:16:40 PM Rack:Tube: 1:64

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001155	ppm	0.000243	21.02	-205.633000	Y 377.433
Al (394.401 nm)	0.752680	ppm	0.000721	0.10	9254.020000	Y 377.433
Al H (396.152 nm)	0.778228 u	ppm	0.002403	0.31	1572.110000	Y_R 377.433
As (188.980 nm)	0.008749	ppm	0.001897	21.68	12.563700	Y 242.219
B (249.678 nm)	0.447264	ppm	0.000890	0.20	3241.230000	Y 242.219
Ba (493.408 nm)	0.316465	ppm	0.000387	0.12	32088.300000	Y_R 488.368
Be (234.861 nm)	-0.000005 u	ppm	0.000006	> 100.00	-17.160800	Y_R 488.368
Bi (223.061 nm)	0.000702 u	ppm	0.002769	> 100.00	-13.460500	Y 377.433
Ca (315.887 nm)	76.234113	ppm	0.020847	0.03	61484.980919	Y_R 377.433
Cd (214.439 nm)	0.000328	ppm	0.000078	23.73	6.430770	Y 377.433
Co (228.615 nm)	0.000384	ppm	0.000374	97.34	-12.049400	Y 242.219
Cr (205.560 nm)	0.000723	ppm	0.000122	16.87	-0.870690	Y 377.433
Cu (324.754 nm)	-0.000777 u	ppm	0.000140	17.95	334.927000	Y 377.433
Fe (238.204 nm)	2.502620	ppm	0.006370	0.25	6171.286479	Y_R 377.433
Fe H (259.940 nm)	2.469230 u	ppm	0.009167	0.37	3543.340000	Y_R 377.433
K (766.491 nm)	0.538012	ppm	0.074944	13.93	2515.580000	Y_R2 488.368
Li (670.783 nm)	0.019079	ppm	0.001642	8.61	-2299.230000	Y_R2 488.368
Mg (279.078 nm)	45.862600	ppm	0.009122	0.02	162507.000000	Y 377.433
Mn (257.610 nm)	0.628237	ppm	0.000268	0.04	173748.000000	Y 377.433
Mo (202.032 nm)	0.000350	ppm	0.000059	16.91	27.842600	Y 377.433
Na (589.592 nm)	106.476000 o	ppm	0.124401	0.12	79047.700000	Y_R2 488.368
Na H (589.593 nm)	114.728870	ppm	0.219396	0.19	57386.978809	Y_R4
Ni (231.604 nm)	-0.002838 u	ppm	0.000051	1.79	-27.225500	Y 377.433
P (213.618 nm)	0.022551	ppm	0.006390	28.34	29.316700	Y 242.219
Pb (220.353 nm)	-0.000214 u	ppm	0.000555	> 100.00	12.025300	Y 242.219
S (181.972 nm)	0.104289	ppm	0.003298	3.16	60.180141	Y 377.433
Sb (206.834 nm)	-0.000163 u	ppm	0.003532	> 100.00	-7.670550	Y 377.433
Se (196.026 nm)	-0.000137 u	ppm	0.002698	> 100.00	10.587000	Y 242.219
Si (288.158 nm)	12.114500	ppm	0.005682	0.05	80419.200000	Y 377.433
Sn (189.925 nm)	0.000968	ppm	0.001004	> 100.00	3.925120	Y 377.433
Sr (421.552 nm)	0.535772	ppm	0.000208	0.04	78404.734641	Y_R 488.368
Th (288.505 nm)	0.000079 u	ppm	0.002662	> 100.00	24.781400	Y 377.433
Ti (336.122 nm)	0.015374	ppm	0.000324	2.11	1754.210000	Y 377.433
Tl (190.794 nm)	0.001859	ppm	0.000290	15.61	1.063210	Y 377.433
U (409.013 nm)	0.025537	ppm	0.004343	17.01	29.949400	Y 377.433
V (292.401 nm)	0.002431	ppm	0.000102	4.18	-49.895800	Y 377.433
Zn (206.200 nm)	0.004248	ppm	0.000530	12.47	25.286000	Y 377.433
Zr (343.823 nm)	0.001863	ppm	0.000143	7.65	-67.075700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.089950	24406.671795	0.003241	0.30
Y 377.433	1.092656	705993.662255	0.001932	0.18
Y_R 377.433	1.122060	61769.700000	0.001068	0.10
Y_R 488.368	1.115500	53908.800000	0.000553	0.05
Y_R2 488.368	1.099600	101915.791142	0.001517	0.14
Y_R4	1.118600	47898.100000	0.004048	0.36

Sample Name: 280-123847-g-9-a

Date: 5/23/2019 9:20:16 PM Rack:Tube: 1:65

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001107	ppm	0.000422	38.12	-216.124000	Y 377.433
Al (394.401 nm)	0.076705	ppm	0.000142	0.19	1247.830000	Y 377.433
Al H (396.152 nm)	0.042078 u	ppm	0.002268	5.39	152.622000	Y_R 377.433
As (188.980 nm)	0.002405	ppm	0.001643	68.33	2.524700	Y 242.219
B (249.678 nm)	0.446296	ppm	0.000879	0.20	3235.700000	Y 242.219
Ba (493.408 nm)	0.030688	ppm	0.000470	1.53	4405.150000	Y_R 488.368
Be (234.861 nm)	-0.000016 u	ppm	0.000031	> 100.00	-7.691970	Y_R 488.368
Bi (223.061 nm)	0.001646	ppm	0.000239	14.55	-11.742500	Y 377.433
Ca (315.887 nm)	73.399271	ppm	0.064616	0.09	59196.128571	Y_R 377.433
Cd (214.439 nm)	0.000438	ppm	0.000019	4.32	9.775860	Y 377.433
Co (228.615 nm)	-0.000260 u	ppm	0.000210	80.81	-28.514200	Y 242.219
Cr (205.560 nm)	0.002255	ppm	0.000302	13.38	9.987080	Y 377.433
Cu (324.754 nm)	-0.000241 u	ppm	0.000448	> 100.00	356.759000	Y 377.433
Fe (238.204 nm)	0.078744	ppm	0.000991	1.26	197.019255	Y_R 377.433
Fe H (259.940 nm)	0.019527 u	ppm	0.001872	9.59	118.053000	Y_R 377.433
K (766.491 nm)	1.946770	ppm	0.058535	3.01	3913.820000	Y_R2 488.368
Li (670.783 nm)	0.042901	ppm	0.007966	18.57	-1884.400000	Y_R2 488.368
Mg (279.078 nm)	42.955400	ppm	0.038658	0.09	152209.000000	Y 377.433
Mn (257.610 nm)	0.008297	ppm	0.000035	0.42	2272.910000	Y 377.433
Mo (202.032 nm)	0.004633	ppm	0.000242	5.23	82.340700	Y 377.433
Na (589.592 nm)	287.528000 o	ppm	0.127145	0.04	213105.000000	Y_R2 488.368
Na H (589.593 nm)	313.324023	ppm	0.919204	0.29	156156.593651	Y_R4
Ni (231.604 nm)	-0.001733 u	ppm	0.000085	4.89	-21.053900	Y 377.433
P (213.618 nm)	0.029215	ppm	0.003479	11.91	39.103400	Y 242.219
Pb (220.353 nm)	-0.002412 u	ppm	0.000058	2.41	4.689720	Y 242.219
S (181.972 nm)	79.712824	ppm	0.116541	0.15	35819.350330	Y 377.433
Sb (206.834 nm)	0.000424 u	ppm	0.001511	> 100.00	-6.814020	Y 377.433
Se (196.026 nm)	0.013106	ppm	0.002800	21.37	31.867300	Y 242.219
Si (288.158 nm)	14.810300	ppm	0.102967	0.70	98201.100000	Y 377.433
Sn (189.925 nm)	0.001835	ppm	0.000546	29.78	5.436390	Y 377.433
Sr (421.552 nm)	0.781218	ppm	0.000485	0.06	114300.850493	Y_R 488.368
Th (288.505 nm)	-0.001131 u	ppm	0.000096	8.53	8.596790	Y 377.433
Ti (336.122 nm)	0.001725	ppm	0.000063	3.67	-30.468000	Y 377.433
Tl (190.794 nm)	0.001551	ppm	0.000417	26.89	0.771559	Y 377.433
U (409.013 nm)	0.033528	ppm	0.001257	3.75	53.721800	Y 377.433
V (292.401 nm)	0.022381	ppm	0.000143	0.64	1005.900000	Y 377.433
Zn (206.200 nm)	0.003778	ppm	0.000154	4.09	22.579400	Y 377.433
Zr (343.823 nm)	0.000652	ppm	0.000228	35.05	-136.953000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071889	24002.247109	0.000781	0.07
Y 377.433	1.075322	694793.897441	0.002449	0.23
Y_R 377.433	1.103250	60734.600000	0.002684	0.24
Y_R 488.368	1.097120	53020.600000	0.003022	0.28
Y_R2 488.368	1.084216	100489.926901	0.001947	0.18
Y_R4	1.106350	47373.400000	0.010518	0.95

Sample Name: 280-123847-g-10-a

Date: 5/23/2019 9:23:51 PM Rack:Tube: 1:66

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001513	ppm	0.000118	7.82	-192.667000	Y 377.433
Al (394.401 nm)	0.011327	ppm	0.001441	12.73	466.765000	Y 377.433
Al H (396.152 nm)	-0.024173 u	ppm	0.000118	0.49	21.935900	Y_R 377.433
As (188.980 nm)	0.008029	ppm	0.001341	16.70	11.354000	Y 242.219
B (249.678 nm)	0.245179	ppm	0.001381	0.56	1791.610000	Y 242.219
Ba (493.408 nm)	0.525733	ppm	0.000389	0.07	52360.200000	Y_R 488.368
Be (234.861 nm)	-0.000049 u	ppm	0.000015	30.29	-30.938400	Y_R 488.368
Bi (223.061 nm)	0.002199	ppm	0.001467	66.72	-9.657290	Y 377.433
Ca (315.887 nm)	89.646563	ppm	0.141943	0.16	72313.181878	Y_R 377.433
Cd (214.439 nm)	0.000234	ppm	0.000116	49.71	3.618190	Y 377.433
Co (228.615 nm)	-0.000173 u	ppm	0.000197	> 100.00	-26.444000	Y 242.219
Cr (205.560 nm)	-0.000242 u	ppm	0.000229	94.58	-7.685970	Y 377.433
Cu (324.754 nm)	-0.001629 u	ppm	0.000049	2.99	286.387000	Y 377.433
Fe (238.204 nm)	4.643779	ppm	0.007574	0.16	11448.724260	Y_R 377.433
Fe H (259.940 nm)	4.616640	ppm	0.004768	0.10	6545.960000	Y_R 377.433
K (766.491 nm)	0.425831	ppm	0.026530	6.23	2404.240000	Y_R2 488.368
Li (670.783 nm)	0.019875	ppm	0.000928	4.67	-2285.380000	Y_R2 488.368
Mg (279.078 nm)	73.786300	ppm	0.050527	0.07	261443.000000	Y 377.433
Mn (257.610 nm)	0.769018	ppm	0.000111	0.01	212688.000000	Y 377.433
Mo (202.032 nm)	0.000021 u	ppm	0.000543	> 100.00	23.654300	Y 377.433
Na (589.592 nm)	78.936000 o	ppm	0.161957	0.21	58690.000000	Y_R2 488.368
Na H (589.593 nm)	84.350767	ppm	0.027737	0.03	42278.686861	Y_R4
Ni (231.604 nm)	-0.003592 u	ppm	0.000526	14.64	-31.439100	Y 377.433
P (213.618 nm)	0.006950	ppm	0.003934	56.59	5.887340	Y 242.219
Pb (220.353 nm)	0.006418	ppm	0.001257	19.58	34.983900	Y 242.219
S (181.972 nm)	0.174309	ppm	0.012667	7.27	92.709948	Y 377.433
Sb (206.834 nm)	0.000595 u	ppm	0.004466	> 100.00	-6.084170	Y 377.433
Se (196.026 nm)	0.000265 u	ppm	0.000990	> 100.00	10.851700	Y 242.219
Si (288.158 nm)	10.577200	ppm	0.044570	0.42	70278.300000	Y 377.433
Sn (189.925 nm)	-0.001628 u	ppm	0.001406	86.39	-0.603037	Y 377.433
Sr (421.552 nm)	0.806859	ppm	0.000566	0.07	118051.448698	Y_R 488.368
Th (288.505 nm)	-0.000831 u	ppm	0.000524	63.09	25.623600	Y 377.433
Ti (336.122 nm)	-0.000300 u	ppm	0.000072	24.11	-237.682000	Y 377.433
Tl (190.794 nm)	0.002405	ppm	0.000301	12.52	1.598940	Y 377.433
U (409.013 nm)	0.028282	ppm	0.001573	5.56	38.425700	Y 377.433
V (292.401 nm)	0.000973	ppm	0.000076	7.80	-128.402000	Y 377.433
Zn (206.200 nm)	0.004144	ppm	0.000489	11.81	25.103400	Y 377.433
Zr (343.823 nm)	0.001421	ppm	0.000008	0.58	-92.567200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076773	24111.597569	0.000097	0.01
Y 377.433	1.081702	698915.807222	0.000166	0.02
Y_R 377.433	1.105670	60867.400000	0.000986	0.09
Y_R 488.368	1.103190	53313.800000	0.000595	0.05
Y_R2 488.368	1.090759	101096.413539	0.001825	0.17
Y_R4	1.106410	47375.800000	0.005563	0.50

Sample Name: 280-123847-g-13-a

Date: 5/23/2019 9:27:29 PM Rack:Tube: 1:67

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000165 u	ppm	0.000360	> 100.00	-240.123000	Y 377.433
Al (394.401 nm)	0.000889	ppm	0.000574	64.59	140.099000	Y 377.433
Al H (396.152 nm)	0.126565 u	ppm	0.000867	0.68	35.278600	Y_R 377.433
As (188.980 nm)	0.000499 u	ppm	0.001169	> 100.00	-0.510822	Y 242.219
B (249.678 nm)	0.069240	ppm	0.000988	1.43	533.324000	Y 242.219
Ba (493.408 nm)	-0.001736 u	ppm	0.000373	21.50	1264.450000	Y_R 488.368
Be (234.861 nm)	0.000011 u	ppm	0.000066	> 100.00	-4.734070	Y_R 488.368
Bi (223.061 nm)	0.001905	ppm	0.000217	11.39	-11.165800	Y 377.433
Ca (315.887 nm)	0.028109	ppm	0.008765	31.18	-39.283910	Y_R 377.433
Cd (214.439 nm)	-0.000065 u	ppm	0.000001	1.11	-10.393000	Y 377.433
Co (228.615 nm)	-0.000109 u	ppm	0.000501	> 100.00	-24.852400	Y 242.219
Cr (205.560 nm)	0.000224	ppm	0.000026	11.66	-4.380980	Y 377.433
Cu (324.754 nm)	0.000122 u	ppm	0.000369	> 100.00	417.624000	Y 377.433
Fe (238.204 nm)	0.028000	ppm	0.000050	0.18	71.948371	Y_R 377.433
Fe H (259.940 nm)	-0.029152 u	ppm	0.004079	13.99	49.987200	Y_R 377.433
K (766.491 nm)	-0.123123 u	ppm	0.062580	50.83	1859.390000	Y_R2 488.368
Li (670.783 nm)	0.015388	ppm	0.001103	7.17	-2363.510000	Y_R2 488.368
Mg (279.078 nm)	0.004605	ppm	0.000601	13.04	28.135800	Y 377.433
Mn (257.610 nm)	0.000417	ppm	0.000007	1.80	93.406100	Y 377.433
Mo (202.032 nm)	-0.000396 u	ppm	0.000105	26.40	18.346700	Y 377.433
Na (589.592 nm)	0.169958	ppm	0.040413	23.78	235.925000	Y_R2 488.368
Na H (589.593 nm)	1.149100 u	ppm	0.025702	2.24	899.043010	Y_R4
Ni (231.604 nm)	-0.000628 u	ppm	0.000095	15.18	-14.878900	Y 377.433
P (213.618 nm)	0.001247 u	ppm	0.004953	> 100.00	-2.647450	Y 242.219
Pb (220.353 nm)	-0.001673 u	ppm	0.000936	55.93	7.158600	Y 242.219
S (181.972 nm)	0.002187 u	ppm	0.009462	> 100.00	8.739452	Y 377.433
Sb (206.834 nm)	0.003082	ppm	0.000827	26.82	-2.095810	Y 377.433
Se (196.026 nm)	-0.000754 u	ppm	0.000793	> 100.00	9.344120	Y 242.219
Si (288.158 nm)	-0.001811 u	ppm	0.000513	28.30	496.097000	Y 377.433
Sn (189.925 nm)	-0.000055 u	ppm	0.000741	> 100.00	2.141260	Y 377.433
Sr (421.552 nm)	0.000071 u	ppm	0.000123	> 100.00	58.255307	Y_R 488.368
Th (288.505 nm)	0.000424 u	ppm	0.002677	> 100.00	15.249700	Y 377.433
Ti (336.122 nm)	0.000533	ppm	0.000104	19.52	-436.361000	Y 377.433
Tl (190.794 nm)	-0.000408 u	ppm	0.000497	> 100.00	-0.875688	Y 377.433
U (409.013 nm)	0.003662	ppm	0.000603	16.46	-30.309400	Y 377.433
V (292.401 nm)	0.000559	ppm	0.000045	7.97	-150.708000	Y 377.433
Zn (206.200 nm)	0.002112	ppm	0.000412	19.49	14.302900	Y 377.433
Zr (343.823 nm)	0.000310	ppm	0.000133	43.00	-156.658000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123454	25156.903667	0.002306	0.21
Y 377.433	1.120211	723797.554174	0.001241	0.11
Y_R 377.433	1.120260	61670.700000	0.001673	0.15
Y_R 488.368	1.116220	53943.300000	0.001733	0.16
Y_R2 488.368	1.112052	103069.904946	0.007160	0.64
Y_R4	1.121890	48038.700000	0.001155	0.10

Sample Name: 280-123847-g-14-a

Date: 5/23/2019 9:30:39 PM Rack:Tube: 1:68

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000496	ppm	0.000109	22.08	-230.961000	Y 377.433
Al (394.401 nm)	0.187450	ppm	0.002004	1.07	2456.540000	Y 377.433
Al H (396.152 nm)	0.251596 u	ppm	0.002656	1.06	406.226000	Y_R 377.433
As (188.980 nm)	0.002381	ppm	0.000727	30.54	2.479240	Y 242.219
B (249.678 nm)	0.109666	ppm	0.000660	0.60	822.889000	Y 242.219
Ba (493.408 nm)	0.186822	ppm	0.000607	0.32	19528.900000	Y_R 488.368
Be (234.861 nm)	-0.000064 u	ppm	0.000013	20.42	-13.550100	Y_R 488.368
Bi (223.061 nm)	0.003859	ppm	0.000138	3.57	-6.643550	Y 377.433
Ca (315.887 nm)	60.025224	ppm	0.060664	0.10	48398.768894	Y_R 377.433
Cd (214.439 nm)	0.000179	ppm	0.000033	18.41	-0.477359	Y 377.433
Co (228.615 nm)	0.000275	ppm	0.000233	84.70	-15.211400	Y 242.219
Cr (205.560 nm)	-0.000019 u	ppm	0.000115	> 100.00	-6.135890	Y 377.433
Cu (324.754 nm)	0.002032	ppm	0.000336	16.56	469.187000	Y 377.433
Fe (238.204 nm)	0.320004	ppm	0.001048	0.33	791.665239	Y_R 377.433
Fe H (259.940 nm)	0.265762 u	ppm	0.001421	0.53	462.350000	Y_R 377.433
K (766.491 nm)	5.599990	ppm	0.027291	0.49	7539.740000	Y_R2 488.368
Li (670.783 nm)	0.015118	ppm	0.001866	12.34	-2368.210000	Y_R2 488.368
Mg (279.078 nm)	19.587900	ppm	0.015877	0.08	69413.900000	Y 377.433
Mn (257.610 nm)	0.170146	ppm	0.000021	0.01	47040.300000	Y 377.433
Mo (202.032 nm)	0.004887	ppm	0.000589	12.05	85.572400	Y 377.433
Na (589.592 nm)	35.737200	ppm	0.013921	0.04	26621.000000	Y_R2 488.368
Na H (589.593 nm)	37.865232 u	ppm	0.203642	0.54	19159.499966	Y_R4
Ni (231.604 nm)	-0.000973 u	ppm	0.000854	87.77	-16.807600	Y 377.433
P (213.618 nm)	0.518723	ppm	0.003984	0.77	779.374000	Y 242.219
Pb (220.353 nm)	-0.001346 u	ppm	0.000702	52.18	8.350380	Y 242.219
S (181.972 nm)	2.122497	ppm	0.010829	0.51	964.600156	Y 377.433
Sb (206.834 nm)	0.003503	ppm	0.001878	53.62	-1.381480	Y 377.433
Se (196.026 nm)	-0.001047 u	ppm	0.001997	> 100.00	9.039420	Y 242.219
Si (288.158 nm)	8.242470	ppm	0.032592	0.40	54878.000000	Y 377.433
Sn (189.925 nm)	0.000806	ppm	0.000333	41.31	3.643100	Y 377.433
Sr (421.552 nm)	0.320296	ppm	0.000166	0.05	46891.130734	Y_R 488.368
Th (288.505 nm)	-0.005579 u	ppm	0.002743	49.16	6.277560	Y 377.433
Ti (336.122 nm)	0.003942	ppm	0.000014	0.35	212.260000	Y 377.433
Tl (190.794 nm)	-0.000648 u	ppm	0.000110	17.03	-4.039280	Y 377.433
U (409.013 nm)	0.025098	ppm	0.015912	63.40	29.210900	Y 377.433
V (292.401 nm)	0.006056	ppm	0.000017	0.28	138.576000	Y 377.433
Zn (206.200 nm)	0.006164	ppm	0.000338	5.49	34.459800	Y 377.433
Zr (343.823 nm)	0.000831	ppm	0.000148	17.78	-126.610000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105637	24757.935131	0.000193	0.02
Y 377.433	1.106090	714673.795374	0.000111	0.01
Y_R 377.433	1.122610	61800.000000	0.002783	0.25
Y_R 488.368	1.118240	54041.100000	0.001237	0.11
Y_R2 488.368	1.105086	102424.282518	0.004012	0.36
Y_R4	1.122990	48086.000000	0.009070	0.81

Sample Name: 280-123847-g-15-a

Date: 5/23/2019 9:34:13 PM Rack:Tube: 1:69

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001121	ppm	0.000024	2.11	-218.944000	Y 377.433
Al (394.401 nm)	0.239795	ppm	0.000071	0.03	3125.570000	Y 377.433
Al H (396.152 nm)	0.262694 u	ppm	0.001456	0.55	509.324000	Y_R 377.433
As (188.980 nm)	0.004396	ppm	0.001028	23.37	5.699140	Y 242.219
B (249.678 nm)	0.427109	ppm	0.000395	0.09	3098.230000	Y 242.219
Ba (493.408 nm)	0.020291	ppm	0.000029	0.14	3398.100000	Y_R 488.368
Be (234.861 nm)	-0.000052 u	ppm	0.000058	> 100.00	-11.032600	Y_R 488.368
Bi (223.061 nm)	0.003733	ppm	0.000244	6.55	-6.994370	Y 377.433
Ca (315.887 nm)	52.852431	ppm	0.059781	0.11	42607.909225	Y_R 377.433
Cd (214.439 nm)	0.000271	ppm	0.000136	50.36	3.057170	Y 377.433
Co (228.615 nm)	0.000045 u	ppm	0.000085	> 100.00	-21.039100	Y 242.219
Cr (205.560 nm)	0.005493	ppm	0.000023	0.42	32.920700	Y 377.433
Cu (324.754 nm)	-0.000407 u	ppm	0.000467	> 100.00	363.146000	Y 377.433
Fe (238.204 nm)	0.022781	ppm	0.002830	12.42	59.083048	Y_R 377.433
Fe H (259.940 nm)	-0.031672 u	ppm	0.003565	11.26	46.464100	Y_R 377.433
K (766.491 nm)	1.414980	ppm	0.088833	6.28	3386.000000	Y_R2 488.368
Li (670.783 nm)	0.035081	ppm	0.000307	0.88	-2020.580000	Y_R2 488.368
Mg (279.078 nm)	30.390600	ppm	0.011674	0.04	107691.000000	Y 377.433
Mn (257.610 nm)	0.000552	ppm	0.000008	1.48	130.657000	Y 377.433
Mo (202.032 nm)	0.003242	ppm	0.000151	4.64	64.644100	Y 377.433
Na (589.592 nm)	257.582000 o	ppm	0.003439	0.00	190920.000000	Y_R2 488.368
Na H (589.593 nm)	276.185943	ppm	2.304354	0.83	137686.284847	Y_R4
Ni (231.604 nm)	0.002989	ppm	0.000669	22.38	5.338820	Y 377.433
P (213.618 nm)	0.005373	ppm	0.002765	51.46	3.135170	Y 242.219
Pb (220.353 nm)	-0.001918 u	ppm	0.001218	63.50	6.261950	Y 242.219
S (181.972 nm)	61.299034	ppm	0.130828	0.21	27546.626625	Y 377.433
Sb (206.834 nm)	-0.000498 u	ppm	0.000917	> 100.00	-8.401440	Y 377.433
Se (196.026 nm)	0.009486	ppm	0.002158	22.75	25.988500	Y 242.219
Si (288.158 nm)	14.239400	ppm	0.048551	0.34	94435.500000	Y 377.433
Sn (189.925 nm)	0.000179	ppm	0.000146	81.44	2.549140	Y 377.433
Sr (421.552 nm)	0.520401	ppm	0.000862	0.17	76156.338365	Y_R 488.368
Th (288.505 nm)	-0.001855 u	ppm	0.002622	> 100.00	6.458640	Y 377.433
Ti (336.122 nm)	0.000024 u	ppm	0.000118	> 100.00	-321.760000	Y 377.433
Tl (190.794 nm)	0.002046	ppm	0.000226	11.05	2.853350	Y 377.433
U (409.013 nm)	0.027633	ppm	0.002334	8.45	37.904400	Y 377.433
V (292.401 nm)	0.032137	ppm	0.000041	0.13	1525.310000	Y 377.433
Zn (206.200 nm)	0.006604	ppm	0.000265	4.02	36.594500	Y 377.433
Zr (343.823 nm)	0.000518	ppm	0.000160	30.79	-144.633000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.061918	23778.960751	0.000465	0.04
Y 377.433	1.062834	686724.678871	0.001639	0.15
Y_R 377.433	1.087710	59878.600000	0.000820	0.08
Y_R 488.368	1.083890	52381.200000	0.000835	0.08
Y_R2 488.368	1.062081	98438.427266	0.004624	0.44
Y_R4	1.075220	46040.300000	0.006715	0.62

Sample Name: 280-123847-g-15-aSD@5

Date: 5/23/2019 9:37:48 PM Rack:Tube: 1:70

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000358 u	ppm	0.000805	> 100.00	-235.597000	Y 377.433
Al (394.401 nm)	0.050976	ppm	0.000608	1.19	764.271000	Y 377.433
Al H (396.152 nm)	0.161030 u	ppm	0.004187	2.60	145.321000	Y_R 377.433
As (188.980 nm)	0.001596	ppm	0.000565	35.40	1.228680	Y 242.219
B (249.678 nm)	0.081509	ppm	0.000755	0.93	621.103000	Y 242.219
Ba (493.408 nm)	0.003808	ppm	0.000006	0.16	1801.650000	Y_R 488.368
Be (234.861 nm)	0.000015 u	ppm	0.000051	> 100.00	-5.448020	Y_R 488.368
Bi (223.061 nm)	0.001793	ppm	0.000598	33.35	-11.372200	Y 377.433
Ca (315.887 nm)	10.810120	ppm	0.008112	0.08	8665.465255	Y_R 377.433
Cd (214.439 nm)	0.000048	ppm	0.000048	> 100.00	-5.758360	Y 377.433
Co (228.615 nm)	0.000208	ppm	0.000139	66.61	-17.018400	Y 242.219
Cr (205.560 nm)	0.000888	ppm	0.000170	19.18	0.320611	Y 377.433
Cu (324.754 nm)	0.000390	ppm	0.000207	53.14	424.293000	Y 377.433
Fe (238.204 nm)	0.289848	ppm	0.003410	1.18	717.338154	Y_R 377.433
Fe H (259.940 nm)	0.238636 u	ppm	0.001070	0.45	424.422000	Y_R 377.433
K (766.491 nm)	0.139645	ppm	0.096483	69.09	2120.190000	Y_R2 488.368
Li (670.783 nm)	0.020526	ppm	0.001554	7.57	-2274.040000	Y_R2 488.368
Mg (279.078 nm)	6.212870	ppm	0.009122	0.15	22024.800000	Y 377.433
Mn (257.610 nm)	0.002907	ppm	0.000034	1.16	782.055000	Y 377.433
Mo (202.032 nm)	0.000321	ppm	0.000172	53.40	27.475200	Y 377.433
Na (589.592 nm)	54.058100	ppm	0.072965	0.13	40155.100000	Y_R2 488.368
Na H (589.593 nm)	56.385275	ppm	0.078809	0.14	28370.286458	Y_R4
Ni (231.604 nm)	0.000133	ppm	0.000035	26.26	-10.627900	Y 377.433
P (213.618 nm)	0.003012 u	ppm	0.005488	> 100.00	-0.225072	Y 242.219
Pb (220.353 nm)	-0.001482 u	ppm	0.000811	54.71	7.791450	Y 242.219
S (181.972 nm)	12.136617	ppm	0.038042	0.31	5460.205660	Y 377.433
Sb (206.834 nm)	0.005030	ppm	0.001144	22.75	1.366800	Y 377.433
Se (196.026 nm)	0.003854	ppm	0.000645	16.73	16.763700	Y 242.219
Si (288.158 nm)	2.838850	ppm	0.007148	0.25	19234.000000	Y 377.433
Sn (189.925 nm)	0.000873	ppm	0.000382	43.76	3.759250	Y 377.433
Sr (421.552 nm)	0.105195	ppm	0.000039	0.04	15432.763509	Y_R 488.368
Th (288.505 nm)	0.001425	ppm	0.001389	97.42	16.077800	Y 377.433
Ti (336.122 nm)	0.000309	ppm	0.000000	0.11	-428.857000	Y 377.433
Tl (190.794 nm)	-0.000857 u	ppm	0.000934	> 100.00	-2.446100	Y 377.433
U (409.013 nm)	0.010306	ppm	0.001948	18.90	-10.666700	Y 377.433
V (292.401 nm)	0.006731	ppm	0.000262	3.89	177.307000	Y 377.433
Zn (206.200 nm)	0.006378	ppm	0.000410	6.44	35.518400	Y 377.433
Zr (343.823 nm)	0.000442	ppm	0.000068	15.42	-149.051000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.098786	24604.526360	0.003504	0.32
Y 377.433	1.095502	707832.332867	0.004553	0.42
Y_R 377.433	1.123220	61833.500000	0.001776	0.16
Y_R 488.368	1.119990	54125.600000	0.002256	0.20
Y_R2 488.368	1.105815	102491.832061	0.001861	0.17
Y_R4	1.125350	48187.000000	0.004453	0.40

Sample Name: CCVH-5713036

Date: 5/23/2019 9:41:17 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004258	ppm	0.000216	5.07	-106.911000	Y 377.433
Al (394.401 nm)	50.024000 o	ppm	0.008987	0.02	596618.000000	Y 377.433
Al H (396.152 nm)	49.621900	ppm	0.109999	0.22	102033.000000	Y_R 377.433
As (188.980 nm)	0.002212	ppm	0.001442	65.16	0.796826	Y 242.219
B (249.678 nm)	-0.002482 u	ppm	0.000090	3.62	-9.508460	Y 242.219
Ba (493.408 nm)	0.001478	ppm	0.000101	6.84	1614.180000	Y_R 488.368
Be (234.861 nm)	0.001109	ppm	0.000042	3.78	-109.054000	Y_R 488.368
Bi (223.061 nm)	-0.003359 u	ppm	0.001699	50.58	-14.236100	Y 377.433
Ca (315.887 nm)	-0.003163 u	ppm	0.003547	> 100.00	-51.959102	Y_R 377.433
Cd (214.439 nm)	0.001460	ppm	0.000025	1.69	72.445400	Y 377.433
Co (228.615 nm)	0.003290	ppm	0.000023	0.71	59.233500	Y 242.219
Cr (205.560 nm)	0.001630	ppm	0.000528	32.40	4.163810	Y 377.433
Cu (324.754 nm)	0.003118	ppm	0.000055	1.76	1491.120000	Y 377.433
Fe (238.204 nm)	49.312103 o	ppm	0.085245	0.17	121545.312903	Y_R 377.433
Fe H (259.940 nm)	49.665800	ppm	0.135684	0.27	69535.900000	Y_R 377.433
K (766.491 nm)	0.143445	ppm	0.062906	43.85	2123.960000	Y_R2 488.368
Li (670.783 nm)	0.011956	ppm	0.003070	25.68	-2423.270000	Y_R2 488.368
Mg (279.078 nm)	0.035384	ppm	0.001103	3.12	57.178000	Y 377.433
Mn (257.610 nm)	0.000984	ppm	0.000012	1.19	250.115000	Y 377.433
Mo (202.032 nm)	0.000492	ppm	0.000243	49.42	29.646400	Y 377.433
Na (589.592 nm)	240.430000 o	ppm	0.643464	0.27	178211.000000	Y_R2 488.368
Na H (589.593 nm)	254.097881	ppm	1.707472	0.67	126700.974350	Y_R4
Ni (231.604 nm)	0.003558	ppm	0.000445	12.49	8.517900	Y 377.433
P (213.618 nm)	4.909680	ppm	0.023258	0.47	7420.610000	Y 242.219
Pb (220.353 nm)	0.005066	ppm	0.000536	10.58	22.889700	Y 242.219
S (181.972 nm)	5.019103	ppm	0.013933	0.28	2262.410969	Y 377.433
Sb (206.834 nm)	0.008099	ppm	0.001266	15.63	11.133800	Y 377.433
Se (196.026 nm)	0.007301	ppm	0.002901	39.74	8.655850	Y 242.219
Si (288.158 nm)	0.015196	ppm	0.000234	1.54	608.280000	Y 377.433
Sn (189.925 nm)	0.002023	ppm	0.000720	35.58	5.765120	Y 377.433
Sr (421.552 nm)	0.001035	ppm	0.000171	16.54	206.538902	Y_R 488.368
Th (288.505 nm)	4.940270	ppm	0.000874	0.02	8632.340000	Y 377.433
Ti (336.122 nm)	0.002194	ppm	0.000243	11.10	-220.382000	Y 377.433
Tl (190.794 nm)	0.000896	ppm	0.000055	6.09	-2.734130	Y 377.433
U (409.013 nm)	0.550224 Q	ppm	0.008241	1.50	1718.070000 Q	Y 377.433
V (292.401 nm)	0.001550	ppm	0.000205	13.19	400.175000	Y 377.433
Zn (206.200 nm)	0.003388	ppm	0.000441	13.01	28.265600	Y 377.433
Zr (343.823 nm)	0.001391	ppm	0.000191	13.74	-94.324200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076020	24094.734253	0.004187	0.39
Y 377.433	1.072327	692858.402177	0.004650	0.43
Y_R 377.433	1.097410	60412.700000	0.000500	0.05
Y_R 488.368	1.092130	52779.400000	0.003229	0.30
Y_R2 488.368	1.089460	100976.048730	0.001508	0.14
Y_R4	1.128390	48317.100000	0.002698	0.24

Sample Name: CCV-5717467

Date: 5/23/2019 9:45:01 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.493233	ppm	0.001694	0.34	17047.200000	Y 377.433
Al (394.401 nm)	0.508592	ppm	0.001251	0.25	6327.510000	Y 377.433
Al H (396.152 nm)	0.564976 u	ppm	0.001908	0.34	1172.860000	Y_R 377.433
As (188.980 nm)	0.496409	ppm	0.001861	0.37	789.593000	Y 242.219
B (249.678 nm)	0.486593	ppm	0.003374	0.69	3523.120000	Y 242.219
Ba (493.408 nm)	0.490362	ppm	0.000285	0.06	48932.400000	Y_R 488.368
Be (234.861 nm)	0.489751	ppm	0.001784	0.36	49364.200000	Y_R 488.368
Bi (223.061 nm)	0.970239	ppm	0.007221	0.74	2198.050000	Y 377.433
Ca (315.887 nm)	4.924582	ppm	0.001542	0.03	3913.968782	Y_R 377.433
Cd (214.439 nm)	0.499085	ppm	0.001380	0.28	19962.300000	Y 377.433
Co (228.615 nm)	0.493795	ppm	0.001110	0.22	12209.200000	Y 242.219
Cr (205.560 nm)	0.496076	ppm	0.001144	0.23	3505.690000	Y 377.433
Cu (324.754 nm)	0.493096	ppm	0.000454	0.09	23308.400000	Y 377.433
Fe (238.204 nm)	2.473032	ppm	0.006378	0.26	6098.358379	Y_R 377.433
Fe H (259.940 nm)	2.450840 u	ppm	0.005095	0.21	3517.640000	Y_R 377.433
K (766.491 nm)	48.784900	ppm	0.166048	0.34	50402.100000	Y_R2 488.368
Li (670.783 nm)	0.498829	ppm	0.003175	0.64	6054.960000	Y_R2 488.368
Mg (279.078 nm)	19.866200	ppm	0.056592	0.28	70397.700000	Y 377.433
Mn (257.610 nm)	0.494742	ppm	0.001143	0.23	136824.000000	Y 377.433
Mo (202.032 nm)	0.491082	ppm	0.002378	0.48	6272.230000	Y 377.433
Na (589.592 nm)	24.117600	ppm	0.049304	0.20	18075.600000	Y_R2 488.368
Na H (589.593 nm)	26.759844 u	ppm	0.089541	0.33	13636.329281	Y_R4
Ni (231.604 nm)	0.495598	ppm	0.003342	0.67	2758.890000	Y 377.433
P (213.618 nm)	0.060106	ppm	0.004081	6.79	-54.072000	Y 242.219
Pb (220.353 nm)	0.498642	ppm	0.000446	0.09	1723.500000	Y 242.219
S (181.972 nm)	0.012042	ppm	0.000572	4.75	14.921390	Y 377.433
Sb (206.834 nm)	0.500328	ppm	0.002055	0.41	872.973000	Y 377.433
Se (196.026 nm)	0.498819	ppm	0.001908	0.38	821.388000	Y 242.219
Si (288.158 nm)	4.851260	ppm	0.007912	0.16	32508.500000	Y 377.433
Sn (189.925 nm)	0.500597	ppm	0.001222	0.24	875.384000	Y 377.433
Sr (421.552 nm)	0.492872	ppm	0.000872	0.18	72130.645169	Y_R 488.368
Th (288.505 nm)	0.014864	ppm	0.001279	8.61	-10.040000	Y 377.433
Ti (336.122 nm)	0.490693	ppm	0.000449	0.09	63313.200000	Y 377.433
Tl (190.794 nm)	0.503531	ppm	0.001615	0.32	1216.530000	Y 377.433
U (409.013 nm)	0.014750	ppm	0.005722	38.80	-54.729000	Y 377.433
V (292.401 nm)	0.490871	ppm	0.001141	0.23	25707.200000	Y 377.433
Zn (206.200 nm)	0.501522	ppm	0.000929	0.19	2493.330000	Y 377.433
Zr (343.823 nm)	0.490495	ppm	0.000201	0.04	28107.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.106876	24785.679329	0.004599	0.42
Y 377.433	1.106236	714768.205904	0.004641	0.42
Y_R 377.433	1.117530	61520.400000	0.003162	0.28
Y_R 488.368	1.113860	53829.600000	0.004239	0.38
Y_R2 488.368	1.094432	101436.805161	0.007384	0.67
Y_R4	1.114880	47738.500000	0.002840	0.25

Sample Name: CCB

Date: 5/23/2019 9:48:37 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000026 u	ppm	0.000211	> 100.00	-246.839000	Y 377.433
Al (394.401 nm)	-0.001465 u	ppm	0.001067	72.84	112.661000	Y 377.433
Al H (396.152 nm)	0.129791 Zu	ppm	0.002501	1.93	41.873800 Z	Y_R 377.433
As (188.980 nm)	-0.001047 u	ppm	0.000780	74.53	-2.973810	Y 242.219
B (249.678 nm)	-0.002968 u	ppm	0.001211	40.79	15.811600	Y 242.219
Ba (493.408 nm)	-0.001400 u	ppm	0.000042	3.00	1296.980000	Y_R 488.368
Be (234.861 nm)	0.000019 u	ppm	0.000045	> 100.00	-3.781780	Y_R 488.368
Bi (223.061 nm)	0.002535	ppm	0.000092	3.61	-9.732920	Y 377.433
Ca (315.887 nm)	0.007785	ppm	0.003029	38.91	-55.687396	Y_R 377.433
Cd (214.439 nm)	0.000041	ppm	0.000035	85.92	-6.153240	Y 377.433
Co (228.615 nm)	0.000334	ppm	0.000098	29.33	-13.918300	Y 242.219
Cr (205.560 nm)	-0.000035 u	ppm	0.000072	> 100.00	-6.211420	Y 377.433
Cu (324.754 nm)	-0.000071 u	ppm	0.000210	> 100.00	408.262000	Y 377.433
Fe (238.204 nm)	0.000863	ppm	0.000549	63.59	5.062267	Y_R 377.433
Fe H (259.940 nm)	-0.053511 u	ppm	0.000293	0.55	15.928100	Y_R 377.433
K (766.491 nm)	-0.063035 u	ppm	0.003435	5.45	1919.030000	Y_R2 488.368
Li (670.783 nm)	0.012075 Z	ppm	0.000022	0.18	-2421.190000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000864 u	ppm	0.000192	22.29	8.740480	Y 377.433
Mn (257.610 nm)	0.000049	ppm	0.000035	71.42	-8.584820	Y 377.433
Mo (202.032 nm)	-0.000525 u	ppm	0.000123	23.44	16.708300	Y 377.433
Na (589.592 nm)	0.108869	ppm	0.011325	10.40	190.777000	Y_R2 488.368
Na H (589.593 nm)	0.803063 u	ppm	0.046282	5.76	726.944659	Y_R4
Ni (231.604 nm)	-0.000207 u	ppm	0.000225	> 100.00	-12.521300	Y 377.433
P (213.618 nm)	0.000165 u	ppm	0.001193	> 100.00	-4.161630	Y 242.219
Pb (220.353 nm)	-0.001984 u	ppm	0.001177	59.32	6.097640	Y 242.219
S (181.972 nm)	-0.006203 u	ppm	0.007824	> 100.00	4.969106	Y 377.433
Sb (206.834 nm)	0.005632	ppm	0.001082	19.21	2.404890	Y 377.433
Se (196.026 nm)	-0.001304 u	ppm	0.002473	> 100.00	8.456470	Y 242.219
Si (288.158 nm)	-0.005909 u	ppm	0.001125	19.05	469.067000	Y 377.433
Sn (189.925 nm)	0.000739	ppm	0.000589	79.74	3.525300	Y 377.433
Sr (421.552 nm)	0.000044	ppm	0.000021	47.52	54.380858	Y_R 488.368
Th (288.505 nm)	-0.001439 u	ppm	0.000343	23.85	12.035800	Y 377.433
Ti (336.122 nm)	0.000421	ppm	0.000029	6.93	-450.889000	Y 377.433
Tl (190.794 nm)	0.000988 u	ppm	0.001722	> 100.00	2.512310	Y 377.433
U (409.013 nm)	0.002797 u	ppm	0.010193	> 100.00	-33.019000	Y 377.433
V (292.401 nm)	0.000324	ppm	0.000077	23.90	-163.300000	Y 377.433
Zn (206.200 nm)	-0.000259 u	ppm	0.000140	53.99	2.532470	Y 377.433
Zr (343.823 nm)	0.000548	ppm	0.000011	2.03	-142.946000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110466	24866.078495	0.002287	0.21
Y 377.433	1.104626	713728.194298	0.002873	0.26
Y_R 377.433	1.110770	61148.500000	0.002141	0.19
Y_R 488.368	1.108570	53573.900000	0.004749	0.43
Y_R2 488.368	1.095931	101575.758508	0.005736	0.52
Y_R4	1.099540	47081.900000	0.008029	0.73

Sample Name: CCVL-5717307

Date: 5/23/2019 9:51:48 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007813	ppm	0.000381	4.88	26.887500	Y 377.433
Al (394.401 nm)	0.096504	ppm	0.000005	0.00	1289.970000	Y 377.433
Al H (396.152 nm)	0.221214 u	ppm	0.001833	0.83	235.368000	Y_R 377.433
As (188.980 nm)	0.013811	ppm	0.001105	8.00	20.697800	Y 242.219
B (249.678 nm)	0.092244	ppm	0.000251	0.27	698.154000	Y 242.219
Ba (493.408 nm)	0.008378	ppm	0.000382	4.56	2244.170000	Y_R 488.368
Be (234.861 nm)	0.000970	ppm	0.000000	0.02	91.624200	Y_R 488.368
Bi (223.061 nm)	0.087791	ppm	0.000162	0.18	184.751000	Y 377.433
Ca (315.887 nm)	0.206105	ppm	0.009540	4.63	104.442662	Y_R 377.433
Cd (214.439 nm)	0.005215	ppm	0.000065	1.24	200.931000	Y 377.433
Co (228.615 nm)	0.010675	ppm	0.000197	1.84	242.204000	Y 242.219
Cr (205.560 nm)	0.009888	ppm	0.000211	2.14	63.923900	Y 377.433
Cu (324.754 nm)	0.015166	ppm	0.000168	1.10	1115.550000	Y 377.433
Fe (238.204 nm)	0.100411	ppm	0.001196	1.19	250.423544	Y_R 377.433
Fe H (259.940 nm)	0.047532 u	ppm	0.002603	5.48	157.211000	Y_R 377.433
K (766.491 nm)	2.796410	ppm	0.015272	0.55	4757.110000	Y_R2 488.368
Li (670.783 nm)	0.031531 Q	ppm	0.000976	3.09	-2082.400000 Q	Y_R2 488.368
Mg (279.078 nm)	0.203455	ppm	0.000253	0.12	731.384000	Y 377.433
Mn (257.610 nm)	0.010547	ppm	0.000016	0.15	2895.380000	Y 377.433
Mo (202.032 nm)	0.017934	ppm	0.000047	0.26	251.586000	Y 377.433
Na (589.592 nm)	1.181920	ppm	0.040647	3.44	987.569000	Y_R2 488.368
Na H (589.593 nm)	1.581682 u	ppm	0.046139	2.92	1114.184212	Y_R4
Ni (231.604 nm)	0.041038	ppm	0.000243	0.59	217.989000	Y 377.433
P (213.618 nm)	2.775970	ppm	0.017142	0.62	4191.930000	Y 242.219
Pb (220.353 nm)	0.007879	ppm	0.000706	8.96	40.072700	Y 242.219
S (181.972 nm)	0.086291	ppm	0.000544	0.63	46.556054	Y 377.433
Sb (206.834 nm)	0.026339 Q	ppm	0.002310	8.77	38.809400 Q	Y 377.433
Se (196.026 nm)	0.018415	ppm	0.001479	8.03	40.495200	Y 242.219
Si (288.158 nm)	0.472519	ppm	0.000626	0.13	3624.930000	Y 377.433
Sn (189.925 nm)	0.098514	ppm	0.001579	1.60	174.066000	Y 377.433
Sr (421.552 nm)	0.009075	ppm	0.000146	1.61	1375.125543	Y_R 488.368
Th (288.505 nm)	0.017863	ppm	0.000067	0.37	45.175300	Y 377.433
Ti (336.122 nm)	0.010049	ppm	0.000040	0.40	801.572000	Y 377.433
Tl (190.794 nm)	0.015653	ppm	0.000115	0.74	37.923200	Y 377.433
U (409.013 nm)	0.066504	ppm	0.002736	4.11	165.383000	Y 377.433
V (292.401 nm)	0.010233	ppm	0.000475	4.64	357.138000	Y 377.433
Zn (206.200 nm)	0.020905	ppm	0.000528	2.53	107.587000	Y 377.433
Zr (343.823 nm)	0.010227	ppm	0.000040	0.39	415.175000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119359	25065.212125	0.001942	0.17
Y 377.433	1.114500	720107.480229	0.002784	0.25
Y_R 377.433	1.127490	62068.900000	0.002246	0.20
Y_R 488.368	1.122440	54244.100000	0.001226	0.11
Y_R2 488.368	1.110924	102965.353376	0.003188	0.29
Y_R4	1.119680	47943.900000	0.006498	0.58

Sample Name: 280-123847-g-15-b ms

Date: 5/23/2019 9:55:17 PM Rack:Tube: 1:71

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054126	ppm	0.000659	1.22	1320.310000	Y 377.433
Al (394.401 nm)	10.542000 o	ppm	0.004928	0.05	126488.000000	Y 377.433
Al H (396.152 nm)	10.420900	ppm	0.035351	0.34	21934.300000	Y_R 377.433
As (188.980 nm)	2.114260	ppm	0.005254	0.25	3367.230000	Y 242.219
B (249.678 nm)	1.482220	ppm	0.002102	0.14	10654.400000	Y 242.219
Ba (493.408 nm)	2.080410	ppm	0.000800	0.04	202955.000000	Y_R 488.368
Be (234.861 nm)	1.030370	ppm	0.003473	0.34	103839.000000	Y_R 488.368
Bi (223.061 nm)	1.998920	ppm	0.003582	0.18	4545.800000	Y 377.433
Ca (315.887 nm)	104.932351	ppm	0.024277	0.02	84656.697333	Y_R 377.433
Cd (214.439 nm)	1.010570	ppm	0.001176	0.12	40430.900000	Y 377.433
Co (228.615 nm)	1.008730	ppm	0.000620	0.06	24965.800000	Y 242.219
Cr (205.560 nm)	1.028880	ppm	0.001916	0.19	7276.960000	Y 377.433
Cu (324.754 nm)	1.022570	ppm	0.002206	0.22	47922.600000	Y 377.433
Fe (238.204 nm)	10.309775 o	ppm	0.010889	0.11	25414.029084	Y_R 377.433
Fe H (259.940 nm)	10.356100	ppm	0.029410	0.28	14571.100000	Y_R 377.433
K (766.491 nm)	55.019100	ppm	0.121375	0.22	56589.700000	Y_R2 488.368
Li (670.783 nm)	1.078710	ppm	0.003632	0.34	16152.900000	Y_R2 488.368
Mg (279.078 nm)	82.704400	ppm	0.084591	0.10	292999.000000	Y 377.433
Mn (257.610 nm)	1.026450	ppm	0.000692	0.07	283893.000000	Y 377.433
Mo (202.032 nm)	1.041250	ppm	0.000471	0.05	13272.900000	Y 377.433
Na (589.592 nm)	310.334000 o	ppm	0.154344	0.05	230418.000000	Y_R2 488.368
Na H (589.593 nm)	339.981094	ppm	2.363832	0.70	169414.262208	Y_R4
Ni (231.604 nm)	1.010580	ppm	0.001533	0.15	5638.700000	Y 377.433
P (213.618 nm)	20.968200	ppm	0.036687	0.17	31432.800000	Y 242.219
Pb (220.353 nm)	1.009840	ppm	0.002274	0.23	3480.330000	Y 242.219
S (181.972 nm)	73.614363	ppm	0.074894	0.10	33084.512096	Y 377.433
Sb (206.834 nm)	0.005618	ppm	0.000388	6.92	-2.770700	Y 377.433
Se (196.026 nm)	2.061840	ppm	0.002877	0.14	3360.300000	Y 242.219
Si (288.158 nm)	17.021900	ppm	0.031281	0.18	112790.000000	Y 377.433
Sn (189.925 nm)	2.055650	ppm	0.004079	0.20	3587.720000	Y 377.433
Sr (421.552 nm)	1.575913	ppm	0.000439	0.03	230526.165863	Y_R 488.368
Th (288.505 nm)	1.053330	ppm	0.000338	0.03	1749.620000	Y 377.433
Ti (336.122 nm)	1.037210	ppm	0.000138	0.01	134718.000000	Y 377.433
Tl (190.794 nm)	1.979950	ppm	0.000290	0.01	4784.820000	Y 377.433
U (409.013 nm)	2.065720	ppm	0.000010	0.00	6361.150000	Y 377.433
V (292.401 nm)	1.059170	ppm	0.000409	0.04	55696.400000	Y 377.433
Zn (206.200 nm)	0.506806	ppm	0.000282	0.06	2520.770000	Y 377.433
Zr (343.823 nm)	0.510596	ppm	0.000388	0.08	29266.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043108	23357.767300	0.000236	0.02
Y 377.433	1.050261	678601.284495	0.000471	0.04
Y_R 377.433	1.086630	59819.500000	0.003622	0.33
Y_R 488.368	1.082830	52329.700000	0.003140	0.29
Y_R2 488.368	1.073702	99515.452303	0.000979	0.09
Y_R4	1.094130	46850.100000	0.004047	0.37

Sample Name: 280-123847-g-15-c msd

Date: 5/23/2019 9:58:57 PM Rack:Tube: 1:72

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.053934	ppm	0.000490	0.91	1315.580000	Y 377.433
Al (394.401 nm)	10.442300 o	ppm	0.006812	0.07	125293.000000	Y 377.433
Al H (396.152 nm)	10.308700	ppm	0.045351	0.44	21697.300000	Y_R 377.433
As (188.980 nm)	2.109840	ppm	0.006298	0.30	3360.180000	Y 242.219
B (249.678 nm)	1.473310	ppm	0.000490	0.03	10590.500000	Y 242.219
Ba (493.408 nm)	2.065520	ppm	0.002463	0.12	201512.000000	Y_R 488.368
Be (234.861 nm)	1.025720	ppm	0.007572	0.74	103371.000000	Y_R 488.368
Bi (223.061 nm)	1.980210	ppm	0.000173	0.01	4503.100000	Y 377.433
Ca (315.887 nm)	104.046730	ppm	0.240103	0.23	83941.671208	Y_R 377.433
Cd (214.439 nm)	1.006740	ppm	0.000133	0.01	40277.600000	Y 377.433
Co (228.615 nm)	1.005020	ppm	0.001229	0.12	24873.700000	Y 242.219
Cr (205.560 nm)	1.024760	ppm	0.002803	0.27	7247.860000	Y 377.433
Cu (324.754 nm)	1.015730	ppm	0.000254	0.02	47605.500000	Y 377.433
Fe (238.204 nm)	10.226488 o	ppm	0.020029	0.20	25208.748586	Y_R 377.433
Fe H (259.940 nm)	10.255800	ppm	0.031787	0.31	14430.900000	Y_R 377.433
K (766.491 nm)	54.603400	ppm	0.097458	0.18	56177.000000	Y_R2 488.368
Li (670.783 nm)	1.065810	ppm	0.006961	0.65	15928.100000	Y_R2 488.368
Mg (279.078 nm)	82.093100	ppm	0.001979	0.00	290834.000000	Y 377.433
Mn (257.610 nm)	1.020900	ppm	0.000029	0.00	282358.000000	Y 377.433
Mo (202.032 nm)	1.036330	ppm	0.000610	0.06	13210.300000	Y 377.433
Na (589.592 nm)	308.368000 o	ppm	0.194180	0.06	228959.000000	Y_R2 488.368
Na H (589.593 nm)	336.295232	ppm	0.034052	0.01	167581.129755	Y_R4
Ni (231.604 nm)	1.005720	ppm	0.001474	0.15	5611.500000	Y 377.433
P (213.618 nm)	20.826900	ppm	0.027582	0.13	31220.600000	Y 242.219
Pb (220.353 nm)	1.003760	ppm	0.004177	0.42	3459.460000	Y 242.219
S (181.972 nm)	73.330716	ppm	0.166879	0.23	32957.023891	Y 377.433
Sb (206.834 nm)	0.005447	ppm	0.000536	9.84	-2.998290	Y 377.433
Se (196.026 nm)	2.060330	ppm	0.006026	0.29	3357.860000	Y 242.219
Si (288.158 nm)	16.942100	ppm	0.006749	0.04	112263.000000	Y 377.433
Sn (189.925 nm)	2.042800	ppm	0.000601	0.03	3565.320000	Y 377.433
Sr (421.552 nm)	1.563712	ppm	0.000760	0.05	228741.713337	Y_R 488.368
Th (288.505 nm)	1.045070	ppm	0.004363	0.42	1735.940000	Y 377.433
Ti (336.122 nm)	1.030440	ppm	0.000614	0.06	133834.000000	Y 377.433
Tl (190.794 nm)	1.970340	ppm	0.002616	0.13	4761.630000	Y 377.433
U (409.013 nm)	2.045000	ppm	0.007428	0.36	6296.890000	Y 377.433
V (292.401 nm)	1.052450	ppm	0.000751	0.07	55340.400000	Y 377.433
Zn (206.200 nm)	0.504316	ppm	0.001003	0.20	2508.390000	Y 377.433
Zr (343.823 nm)	0.506793	ppm	0.000474	0.09	29047.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047669	23459.899330	0.002469	0.24
Y 377.433	1.055660	682089.354271	0.002577	0.24
Y_R 377.433	1.092420	60138.400000	0.006423	0.59
Y_R 488.368	1.087290	52545.400000	0.004558	0.42
Y_R2 488.368	1.071491	99310.532208	0.001224	0.11
Y_R4	1.112060	47617.700000	0.002663	0.24

Sample Name: 280-123847-g-15-aPDS

Date: 5/23/2019 10:02:37 PM Rack:Tube: 1:73

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052532	ppm	0.000150	0.29	1577.150000	Y 377.433
Al (394.401 nm)	1.236860	ppm	0.002105	0.17	15069.400000	Y 377.433
Al H (396.152 nm)	1.257100	ppm	0.015543	1.24	2576.050000	Y_R 377.433
As (188.980 nm)	0.213476	ppm	0.000752	0.35	338.812000	Y 242.219
B (249.678 nm)	0.526370	ppm	0.000785	0.15	3809.000000	Y 242.219
Ba (493.408 nm)	0.120087	ppm	0.000135	0.11	13065.400000	Y_R 488.368
Be (234.861 nm)	0.050615	ppm	0.000073	0.14	5092.810000	Y_R 488.368
Bi (223.061 nm)	0.002822	ppm	0.000624	22.13	-8.825080	Y 377.433
Ca (315.887 nm)	71.461357	ppm	0.104651	0.15	57631.871245	Y_R 377.433
Cd (214.439 nm)	0.050451	ppm	0.000143	0.28	2011.300000	Y 377.433
Co (228.615 nm)	0.050095	ppm	0.000532	1.06	1218.630000	Y 242.219
Cr (205.560 nm)	0.054551	ppm	0.000829	1.52	380.163000	Y 377.433
Cu (324.754 nm)	0.051675	ppm	0.000198	0.38	2779.450000	Y 377.433
Fe (238.204 nm)	1.127920	ppm	0.001409	0.12	2782.983812	Y_R 377.433
Fe H (259.940 nm)	1.088640 u	ppm	0.009177	0.84	1612.930000	Y_R 377.433
K (766.491 nm)	22.180800	ppm	0.014369	0.06	23996.700000	Y_R2 488.368
Li (670.783 nm)	0.139948	ppm	0.000134	0.10	-194.466000	Y_R2 488.368
Mg (279.078 nm)	49.717800	ppm	0.020394	0.04	176160.000000	Y 377.433
Mn (257.610 nm)	0.051512	ppm	0.000052	0.10	14226.300000	Y 377.433
Mo (202.032 nm)	0.054259	ppm	0.000379	0.70	713.812000	Y 377.433
Na (589.592 nm)	269.631000 o	ppm	1.263220	0.47	199866.000000	Y_R2 488.368
Na H (589.593 nm)	291.788074	ppm	1.669876	0.57	145445.872292	Y_R4
Ni (231.604 nm)	0.053340	ppm	0.000721	1.35	286.966000	Y 377.433
P (213.618 nm)	2.065160	ppm	0.012255	0.59	3105.060000	Y 242.219
Pb (220.353 nm)	0.097420	ppm	0.002765	2.84	348.480000	Y 242.219
S (181.972 nm)	60.653615	ppm	0.125787	0.21	27257.747492	Y 377.433
Sb (206.834 nm)	0.107997	ppm	0.000006	0.01	182.898000	Y 377.433
Se (196.026 nm)	0.212737	ppm	0.000467	0.22	356.086000	Y 242.219
Si (288.158 nm)	18.954800	ppm	0.033522	0.18	125540.000000	Y 377.433
Sn (189.925 nm)	0.099142	ppm	0.002089	2.11	175.161000	Y 377.433
Sr (421.552 nm)	0.564599	ppm	0.001298	0.23	82620.491160	Y_R 488.368
Th (288.505 nm)	0.201682	ppm	0.000122	0.06	358.467000	Y 377.433
Ti (336.122 nm)	0.050425	ppm	0.000094	0.19	6295.710000	Y 377.433
Tl (190.794 nm)	0.199055	ppm	0.000100	0.05	478.916000	Y 377.433
U (409.013 nm)	0.525084	ppm	0.005124	0.98	1588.470000	Y 377.433
V (292.401 nm)	0.081769	ppm	0.000667	0.82	4137.080000	Y 377.433
Zn (206.200 nm)	0.210393	ppm	0.000214	0.10	1048.210000	Y 377.433
Zr (343.823 nm)	0.051390	ppm	0.000228	0.44	2788.650000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081657	24220.975949	0.001609	0.15
Y 377.433	1.085088	701103.760417	0.000636	0.06
Y_R 377.433	1.117500	61518.900000	0.002085	0.19
Y_R 488.368	1.112200	53749.300000	0.000581	0.05
Y_R2 488.368	1.102818	102214.128880	0.003661	0.33
Y_R4	1.121110	48005.300000	0.002619	0.23

Sample Name: 280-123847-g-16-a

Date: 5/23/2019 10:06:14 PM Rack:Tube: 1:74

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001746	ppm	0.000275	15.76	-187.708000	Y 377.433
Al (394.401 nm)	0.223505	ppm	0.000477	0.21	4341.110000	Y 377.433
Al H (396.152 nm)	-0.733608 u	ppm	0.003343	0.46	571.674000	Y_R 377.433
As (188.980 nm)	0.003173	ppm	0.000146	4.59	3.749510	Y 242.219
B (249.678 nm)	2.248260	ppm	0.001039	0.05	16150.600000	Y 242.219
Ba (493.408 nm)	0.015307	ppm	0.000333	2.18	2915.270000	Y_R 488.368
Be (234.861 nm)	0.000023	ppm	0.000019	83.78	-3.503380	Y_R 488.368
Bi (223.061 nm)	0.001095	ppm	0.001326	> 100.00	-13.005500	Y 377.433
Ca (315.887 nm)	496.170690	ppm	0.641008	0.13	400516.010748	Y_R 377.433
Cd (214.439 nm)	0.000368	ppm	0.000120	32.62	6.931660	Y 377.433
Co (228.615 nm)	-0.000044 u	ppm	0.000433	> 100.00	-23.257500	Y 242.219
Cr (205.560 nm)	0.000595	ppm	0.000361	60.69	-1.884730	Y 377.433
Cu (324.754 nm)	-0.001911 u	ppm	0.000635	33.24	43.754200	Y 377.433
Fe (238.204 nm)	0.016874	ppm	0.000154	0.91	44.525282	Y_R 377.433
Fe H (259.940 nm)	-0.051938 u	ppm	0.005963	11.48	18.127400	Y_R 377.433
K (766.491 nm)	4.772220	ppm	0.150242	3.15	6718.160000	Y_R2 488.368
Li (670.783 nm)	0.081550	ppm	0.001488	1.83	-1211.390000	Y_R2 488.368
Mg (279.078 nm)	116.806000	ppm	0.165723	0.14	413874.000000	Y 377.433
Mn (257.610 nm)	0.027894	ppm	0.000012	0.04	7693.500000	Y 377.433
Mo (202.032 nm)	0.022556	ppm	0.000368	1.63	310.405000	Y 377.433
Na (589.592 nm)	647.029000 o	ppm	1.710960	0.26	479405.000000	Y_R2 488.368
Na H (589.593 nm)	744.906748	ppm	1.556610	0.21	370800.602648	Y_R4
Ni (231.604 nm)	0.000947	ppm	0.000313	33.03	-6.074420	Y 377.433
P (213.618 nm)	0.008177	ppm	0.003390	41.47	5.990100	Y 242.219
Pb (220.353 nm)	-0.003604 u	ppm	0.000890	24.70	0.448225	Y 242.219
S (181.972 nm)	577.979992 bo	ppm	1.929004	0.33	259667.992791	Y 377.433
Sb (206.834 nm)	-0.003625 u	ppm	0.002089	57.63	-14.092500	Y 377.433
Se (196.026 nm)	0.023564	ppm	0.000963	4.09	48.912800	Y 242.219
Si (288.158 nm)	6.225770	ppm	0.039170	0.63	41575.100000	Y 377.433
Sn (189.925 nm)	-0.001296 u	ppm	0.000942	72.69	-0.024231	Y 377.433
Sr (421.552 nm)	6.142330	ppm	0.018958	0.31	898361.642039	Y_R 488.368
Th (288.505 nm)	0.012502	ppm	0.000092	0.74	23.545200	Y 377.433
Ti (336.122 nm)	-0.002620 u	ppm	0.000089	3.40	858.812000	Y 377.433
Tl (190.794 nm)	0.011080	ppm	0.000396	3.57	6.064920	Y 377.433
U (409.013 nm)	0.014948	ppm	0.005213	34.87	-59.763500	Y 377.433
V (292.401 nm)	0.008142	ppm	0.000095	1.17	250.841000	Y 377.433
Zn (206.200 nm)	0.004406	ppm	0.000808	18.33	25.687900	Y 377.433
Zr (343.823 nm)	0.000314	ppm	0.000303	96.59	-156.440000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.992128	22216.197891	0.000582	0.06
Y 377.433	1.005474	649662.966816	0.001022	0.10
Y_R 377.433	1.059510	58326.500000	0.006190	0.58
Y_R 488.368	1.052560	50866.900000	0.007440	0.71
Y_R2 488.368	1.051812	97486.583874	0.010247	0.97
Y_R4	1.066000	45645.500000	0.000775	0.07

Sample Name: mb 280-459146/1-a

Date: 5/23/2019 10:09:54 PM Rack:Tube: 1:75

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000190	ppm	0.000231	> 100.00	-238.988000	Y 377.433
Al (394.401 nm)	0.000182 u	ppm	0.000300	> 100.00	130.624000	Y 377.433
Al H (396.152 nm)	0.123631 u	ppm	0.005635	4.56	29.211500	Y_R 377.433
As (188.980 nm)	-0.001540 u	ppm	0.001240	80.55	-3.758420	Y 242.219
B (249.678 nm)	-0.000593 u	ppm	0.000209	35.16	32.833000	Y 242.219
Ba (493.408 nm)	-0.001810 u	ppm	0.000231	12.75	1257.260000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000004	7.44	-10.471900	Y_R 488.368
Bi (223.061 nm)	0.002308	ppm	0.000306	13.24	-10.252400	Y 377.433
Ca (315.887 nm)	0.020089	ppm	0.001724	8.58	-45.756734	Y_R 377.433
Cd (214.439 nm)	0.000002 u	ppm	0.000073	> 100.00	-7.726740	Y 377.433
Co (228.615 nm)	0.000134	ppm	0.000162	> 100.00	-18.851900	Y 242.219
Cr (205.560 nm)	-0.000033 u	ppm	0.000382	> 100.00	-6.199720	Y 377.433
Cu (324.754 nm)	0.000232	ppm	0.000030	12.78	423.074000	Y 377.433
Fe (238.204 nm)	0.001008	ppm	0.000496	49.16	5.419190	Y_R 377.433
Fe H (259.940 nm)	-0.049541 u	ppm	0.003727	7.52	21.479400	Y_R 377.433
K (766.491 nm)	-0.126842 u	ppm	0.000928	0.73	1855.700000	Y_R2 488.368
Li (670.783 nm)	0.013703	ppm	0.002964	21.63	-2392.860000	Y_R2 488.368
Mg (279.078 nm)	0.007771	ppm	0.002008	25.84	39.556400	Y 377.433
Mn (257.610 nm)	0.000159	ppm	0.000027	17.22	21.873100	Y 377.433
Mo (202.032 nm)	-0.000627 u	ppm	0.000066	10.47	15.414800	Y 377.433
Na (589.592 nm)	0.330441	ppm	0.004720	1.43	354.790000	Y_R2 488.368
Na H (589.593 nm)	2.086450 u	ppm	0.003249	0.16	1365.226003	Y_R4
Ni (231.604 nm)	-0.000198 u	ppm	0.000065	32.80	-12.474000	Y 377.433
P (213.618 nm)	-0.002076 u	ppm	0.001048	50.48	-7.671390	Y 242.219
Pb (220.353 nm)	-0.001504 u	ppm	0.000645	42.88	7.713280	Y 242.219
S (181.972 nm)	0.022949	ppm	0.006179	26.92	18.065396	Y 377.433
Sb (206.834 nm)	0.005091	ppm	0.002291	45.01	1.445760	Y 377.433
Se (196.026 nm)	0.000083 u	ppm	0.001336	> 100.00	10.711500	Y 242.219
Si (288.158 nm)	-0.004133 u	ppm	0.000275	6.66	480.778000	Y 377.433
Sn (189.925 nm)	-0.000920 u	ppm	0.000088	9.55	0.632194	Y 377.433
Sr (421.552 nm)	0.000089	ppm	0.000039	43.37	60.972348	Y_R 488.368
Th (288.505 nm)	-0.001927 u	ppm	0.003130	> 100.00	11.136700	Y 377.433
Ti (336.122 nm)	0.000582	ppm	0.000032	5.54	-429.961000	Y 377.433
Tl (190.794 nm)	0.000644	ppm	0.000649	> 100.00	1.677370	Y 377.433
U (409.013 nm)	0.003389	ppm	0.002394	70.64	-31.166500	Y 377.433
V (292.401 nm)	0.000572	ppm	0.000176	30.68	-149.442000	Y 377.433
Zn (206.200 nm)	0.001256	ppm	0.000047	3.71	10.052000	Y 377.433
Zr (343.823 nm)	0.000468	ppm	0.000099	21.23	-147.511000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113316	24929.899059	0.004335	0.39
Y 377.433	1.109988	717192.286514	0.004894	0.44
Y_R 377.433	1.133830	62418.000000	0.004401	0.39
Y_R 488.368	1.130470	54632.100000	0.005987	0.53
Y_R2 488.368	1.118680	103684.221630	0.006183	0.55
Y_R4	1.110740	47561.400000	0.001167	0.11

Sample Name: lcs 280-459146/2-a

Date: 5/23/2019 10:13:06 PM Rack:Tube: 1:76

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000021 u	ppm	0.000617	> 100.00	-551.074000	Y 377.433
Al (394.401 nm)	9.638940 o	ppm	0.001588	0.02	115547.000000	Y 377.433
Al H (396.152 nm)	9.724320	ppm	0.030506	0.31	20266.200000	Y_R 377.433
As (188.980 nm)	1.928220	ppm	0.001213	0.06	3070.800000	Y 242.219
B (249.678 nm)	0.957895	ppm	0.000944	0.10	6896.790000	Y 242.219
Ba (493.408 nm)	1.937830	ppm	0.002877	0.15	189144.000000	Y_R 488.368
Be (234.861 nm)	0.960907	ppm	0.002668	0.28	96838.500000	Y_R 488.368
Bi (223.061 nm)	1.861140	ppm	0.005626	0.30	4231.400000	Y 377.433
Ca (315.887 nm)	47.956530	ppm	0.063525	0.13	38657.690256	Y_R 377.433
Cd (214.439 nm)	0.952984	ppm	0.000415	0.04	38126.500000	Y 377.433
Co (228.615 nm)	0.940600	ppm	0.000700	0.07	23278.200000	Y 242.219
Cr (205.560 nm)	0.958818	ppm	0.002069	0.22	6781.050000	Y 377.433
Cu (324.754 nm)	0.939213	ppm	0.002055	0.22	44078.900000	Y 377.433
Fe (238.204 nm)	9.705906 o	ppm	0.008522	0.09	23925.640097	Y_R 377.433
Fe H (259.940 nm)	9.722260	ppm	0.010477	0.11	13684.900000	Y_R 377.433
K (766.491 nm)	48.053800	ppm	0.036405	0.08	49676.400000	Y_R2 488.368
Li (670.783 nm)	0.976357	ppm	0.001072	0.11	14370.400000	Y_R2 488.368
Mg (279.078 nm)	47.945700	ppm	0.013442	0.03	169846.000000	Y 377.433
Mn (257.610 nm)	0.967109	ppm	0.000093	0.01	267480.000000	Y 377.433
Mo (202.032 nm)	0.973133	ppm	0.000111	0.01	12406.100000	Y 377.433
Na (589.592 nm)	46.489100	ppm	0.109042	0.23	34944.300000	Y_R2 488.368
Na H (589.593 nm)	52.417644	ppm	0.071027	0.14	26397.018688	Y_R4
Ni (231.604 nm)	0.939738	ppm	0.001347	0.14	5242.710000	Y 377.433
P (213.618 nm)	19.289200	ppm	0.024657	0.13	28916.200000	Y 242.219
Pb (220.353 nm)	0.957492	ppm	0.001180	0.12	3300.760000	Y 242.219
S (181.972 nm)	9.641150	ppm	0.008032	0.08	4343.952759	Y 377.433
Sb (206.834 nm)	0.004161	ppm	0.000626	15.05	-4.987750	Y 377.433
Se (196.026 nm)	1.888930	ppm	0.000135	0.01	3079.360000	Y 242.219
Si (288.158 nm)	1.956350	ppm	0.000129	0.01	13412.700000	Y 377.433
Sn (189.925 nm)	1.904760	ppm	0.003793	0.20	3324.540000	Y 377.433
Sr (421.552 nm)	0.970411	ppm	0.001686	0.17	141971.647712	Y_R 488.368
Th (288.505 nm)	0.991229	ppm	0.003997	0.40	1653.280000	Y 377.433
Ti (336.122 nm)	0.968184	ppm	0.000554	0.06	125546.000000	Y 377.433
Tl (190.794 nm)	1.916870	ppm	0.004711	0.25	4634.860000	Y 377.433
U (409.013 nm)	1.933220	ppm	0.002342	0.12	5956.770000	Y 377.433
V (292.401 nm)	0.959425	ppm	0.000437	0.05	50422.300000	Y 377.433
Zn (206.200 nm)	0.475515	ppm	0.001271	0.27	2365.370000	Y 377.433
Zr (343.823 nm)	0.481396	ppm	0.000547	0.11	27583.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080683	24199.153480	0.000931	0.09
Y 377.433	1.086450	701983.798134	0.000349	0.03
Y_R 377.433	1.112010	61216.800000	0.003365	0.30
Y_R 488.368	1.107340	53514.200000	0.002582	0.23
Y_R2 488.368	1.097899	101758.156419	0.007345	0.67
Y_R4	1.099620	47085.100000	0.001941	0.18

Sample Name: 280-123951-d-1-a

Date: 5/23/2019 10:16:46 PM Rack:Tube: 1:77

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000731	ppm	0.000054	7.33	-221.764000	Y 377.433
Al (394.401 nm)	0.026731	ppm	0.000196	0.73	494.013000	Y 377.433
Al H (396.152 nm)	0.117874 u	ppm	0.000156	0.13	85.711200	Y_R 377.433
As (188.980 nm)	0.003074	ppm	0.003849	> 100.00	3.590670	Y 242.219
B (249.678 nm)	0.141471	ppm	0.000492	0.35	1051.000000	Y 242.219
Ba (493.408 nm)	0.015121	ppm	0.000273	1.81	2897.320000	Y_R 488.368
Be (234.861 nm)	0.000025 u	ppm	0.000073	> 100.00	-3.364070	Y_R 488.368
Bi (223.061 nm)	0.002447	ppm	0.001135	46.37	-9.924310	Y 377.433
Ca (315.887 nm)	25.789733	ppm	0.007197	0.03	20759.086166	Y_R 377.433
Cd (214.439 nm)	0.000237	ppm	0.000070	29.38	1.710140	Y 377.433
Co (228.615 nm)	0.000339	ppm	0.000193	56.98	-13.715200	Y 242.219
Cr (205.560 nm)	0.000840	ppm	0.000591	70.34	-0.045677	Y 377.433
Cu (324.754 nm)	0.000578	ppm	0.000357	61.73	426.318000	Y 377.433
Fe (238.204 nm)	0.049266	ppm	0.001535	3.11	124.362894	Y_R 377.433
Fe H (259.940 nm)	-0.021153 u	ppm	0.000740	3.50	61.172300	Y_R 377.433
K (766.491 nm)	0.291959	ppm	0.036065	12.35	2271.370000	Y_R2 488.368
Li (670.783 nm)	0.024056	ppm	0.000793	3.30	-2212.560000	Y_R2 488.368
Mg (279.078 nm)	70.009400	ppm	0.114420	0.16	248067.000000	Y 377.433
Mn (257.610 nm)	0.008586	ppm	0.000066	0.77	2352.910000	Y 377.433
Mo (202.032 nm)	0.002823	ppm	0.000187	6.62	59.305500	Y 377.433
Na (589.592 nm)	36.740700	ppm	0.036879	0.10	27329.400000	Y_R2 488.368
Na H (589.593 nm)	38.931269 u	ppm	0.125880	0.32	19689.684614	Y_R4
Ni (231.604 nm)	0.004068	ppm	0.000148	3.63	11.367500	Y 377.433
P (213.618 nm)	0.032825	ppm	0.001238	3.77	44.447800	Y 242.219
Pb (220.353 nm)	-0.001122 u	ppm	0.002290	> 100.00	9.061670	Y 242.219
S (181.972 nm)	75.759875	ppm	0.138873	0.18	34041.355217	Y 377.433
Sb (206.834 nm)	0.002492	ppm	0.001088	43.67	-3.158990	Y 377.433
Se (196.026 nm)	-0.003837 u	ppm	0.001287	33.54	4.339890	Y 242.219
Si (288.158 nm)	0.810444	ppm	0.002468	0.30	5853.980000	Y 377.433
Sn (189.925 nm)	0.000915	ppm	0.000901	98.43	3.832510	Y 377.433
Sr (421.552 nm)	0.187979	ppm	0.000300	0.16	27539.716408	Y_R 488.368
Th (288.505 nm)	0.010600	ppm	0.000516	4.87	32.158600	Y 377.433
Ti (336.122 nm)	0.001024	ppm	0.000023	2.23	-284.862000	Y 377.433
Tl (190.794 nm)	0.000981	ppm	0.000176	17.91	1.396320	Y 377.433
U (409.013 nm)	0.025781	ppm	0.004586	17.79	35.657800	Y 377.433
V (292.401 nm)	0.004154	ppm	0.000229	5.51	40.840400	Y 377.433
Zn (206.200 nm)	0.003499	ppm	0.000662	18.92	21.192800	Y 377.433
Zr (343.823 nm)	0.000576	ppm	0.000065	11.25	-141.331000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.094411	24506.554083	0.001926	0.18
Y 377.433	1.095088	707565.130087	0.001852	0.17
Y_R 377.433	1.115460	61406.400000	0.002301	0.21
Y_R 488.368	1.112740	53775.100000	0.002996	0.27
Y_R2 488.368	1.102474	102182.207312	0.003129	0.28
Y_R4	1.108250	47454.700000	0.004291	0.39

Sample Name: 280-123951-d-1-aSD@5

Date: 5/23/2019 10:20:16 PM Rack:Tube: 1:78

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000287	ppm	0.000227	79.15	-236.037000	Y 377.433
Al (394.401 nm)	0.005267	ppm	0.002464	46.79	201.490000	Y 377.433
Al H (396.152 nm)	0.121900 u	ppm	0.007468	6.13	39.161900	Y_R 377.433
As (188.980 nm)	0.002563	ppm	0.000954	37.24	2.774190	Y 242.219
B (249.678 nm)	0.026608	ppm	0.000331	1.24	227.698000	Y 242.219
Ba (493.408 nm)	0.001384	ppm	0.000228	16.45	1566.830000	Y_R 488.368
Be (234.861 nm)	-0.000026 u	ppm	0.000038	> 100.00	-8.988850	Y_R 488.368
Bi (223.061 nm)	0.000221 u	ppm	0.000914	> 100.00	-14.985300	Y 377.433
Ca (315.887 nm)	5.223399	ppm	0.013495	0.26	4155.078527	Y_R 377.433
Cd (214.439 nm)	0.000184	ppm	0.000032	17.38	-0.351640	Y 377.433
Co (228.615 nm)	-0.000022 u	ppm	0.000038	> 100.00	-22.692300	Y 242.219
Cr (205.560 nm)	0.000055 u	ppm	0.000281	> 100.00	-5.581150	Y 377.433
Cu (324.754 nm)	0.002936	ppm	0.000577	19.66	545.590000	Y 377.433
Fe (238.204 nm)	0.150118	ppm	0.002606	1.74	372.937612	Y_R 377.433
Fe H (259.940 nm)	0.087706 u	ppm	0.002389	2.72	213.384000	Y_R 377.433
K (766.491 nm)	-0.181832 u	ppm	0.035033	19.27	1801.120000	Y_R2 488.368
Li (670.783 nm)	0.015349	ppm	0.001239	8.07	-2364.190000	Y_R2 488.368
Mg (279.078 nm)	14.095700	ppm	0.011926	0.08	49955.100000	Y 377.433
Mn (257.610 nm)	0.002608	ppm	0.000010	0.40	699.335000	Y 377.433
Mo (202.032 nm)	0.000185 u	ppm	0.000487	> 100.00	25.736100	Y 377.433
Na (589.592 nm)	7.610620	ppm	0.062421	0.82	5748.270000	Y_R2 488.368
Na H (589.593 nm)	8.372789 u	ppm	0.086957	1.04	4491.683667	Y_R4
Ni (231.604 nm)	0.000349	ppm	0.000106	30.27	-9.417580	Y 377.433
P (213.618 nm)	0.005516	ppm	0.001480	26.84	2.964210	Y 242.219
Pb (220.353 nm)	-0.001420 u	ppm	0.001342	94.53	8.026330	Y 242.219
S (181.972 nm)	15.240766	ppm	0.011504	0.08	6854.362420	Y 377.433
Sb (206.834 nm)	0.002160	ppm	0.000004	0.19	-3.719230	Y 377.433
Se (196.026 nm)	-0.002484 u	ppm	0.003253	> 100.00	6.500870	Y 242.219
Si (288.158 nm)	0.155994	ppm	0.001055	0.68	1537.030000	Y 377.433
Sn (189.925 nm)	-0.000968 u	ppm	0.000332	34.23	0.547438	Y 377.433
Sr (421.552 nm)	0.037237	ppm	0.000034	0.09	5493.769317	Y_R 488.368
Th (288.505 nm)	0.002443	ppm	0.003210	> 100.00	18.621400	Y 377.433
Ti (336.122 nm)	0.000777	ppm	0.000103	13.25	-387.261000	Y 377.433
Tl (190.794 nm)	0.000433 u	ppm	0.001464	> 100.00	0.929760	Y 377.433
U (409.013 nm)	0.001755	ppm	0.000136	7.78	-36.839300	Y 377.433
V (292.401 nm)	0.001090	ppm	0.000116	10.65	-122.232000	Y 377.433
Zn (206.200 nm)	0.010913	ppm	0.000012	0.11	58.003100	Y 377.433
Zr (343.823 nm)	0.000563	ppm	0.000040	7.08	-142.047000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123113	25149.261294	0.001665	0.15
Y 377.433	1.117690	722169.120341	0.002285	0.20
Y_R 377.433	1.132130	62324.400000	0.000563	0.05
Y_R 488.368	1.130000	54609.400000	0.001132	0.10
Y_R2 488.368	1.121578	103952.834000	0.002477	0.22
Y_R4	1.115440	47762.700000	0.006382	0.57

Sample Name: 280-123951-d-1-b ms

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Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001041	ppm	0.000360	34.55	-533.655000	Y 377.433
Al (394.401 nm)	10.081500 o	ppm	0.000378	0.00	120892.000000	Y 377.433
Al H (396.152 nm)	10.034500	ppm	0.045565	0.45	20990.300000	Y_R 377.433
As (188.980 nm)	2.041790	ppm	0.003851	0.19	3251.770000	Y 242.219
B (249.678 nm)	1.140190	ppm	0.000106	0.01	8203.150000	Y 242.219
Ba (493.408 nm)	2.023010	ppm	0.004536	0.22	197395.000000	Y_R 488.368
Be (234.861 nm)	0.992097	ppm	0.003217	0.32	99981.800000	Y_R 488.368
Bi (223.061 nm)	1.933060	ppm	0.001128	0.06	4395.510000	Y 377.433
Ca (315.887 nm)	74.065561	ppm	0.262359	0.35	59736.617329	Y_R 377.433
Cd (214.439 nm)	0.980359	ppm	0.001934	0.20	39222.000000	Y 377.433
Co (228.615 nm)	0.970860	ppm	0.000149	0.02	24028.200000	Y 242.219
Cr (205.560 nm)	0.988208	ppm	0.005848	0.59	6989.020000	Y 377.433
Cu (324.754 nm)	0.983368	ppm	0.000129	0.01	46116.700000	Y 377.433
Fe (238.204 nm)	10.021189 o	ppm	0.037423	0.37	24702.734965	Y_R 377.433
Fe H (259.940 nm)	10.053700	ppm	0.062460	0.62	14148.300000	Y_R 377.433
K (766.491 nm)	50.955000	ppm	0.100089	0.20	52556.000000	Y_R2 488.368
Li (670.783 nm)	1.034510	ppm	0.001088	0.11	15383.100000	Y_R2 488.368
Mg (279.078 nm)	117.705000	ppm	0.078053	0.07	417014.000000	Y 377.433
Mn (257.610 nm)	1.009420	ppm	0.000664	0.07	279182.000000	Y 377.433
Mo (202.032 nm)	1.014610	ppm	0.000512	0.05	12934.000000	Y 377.433
Na (589.592 nm)	83.841400 o	ppm	0.130506	0.16	62630.700000	Y_R2 488.368
Na H (589.593 nm)	91.024985	ppm	0.367023	0.40	45598.052461	Y_R4
Ni (231.604 nm)	0.969677	ppm	0.001925	0.20	5410.080000	Y 377.433
P (213.618 nm)	20.215200	ppm	0.034210	0.17	30304.600000	Y 242.219
Pb (220.353 nm)	0.988335	ppm	0.000413	0.04	3406.630000	Y 242.219
S (181.972 nm)	84.399054	ppm	0.276751	0.33	37927.586548	Y 377.433
Sb (206.834 nm)	0.003226	ppm	0.001517	47.04	-6.861680	Y 377.433
Se (196.026 nm)	1.984750	ppm	0.003912	0.20	3235.060000	Y 242.219
Si (288.158 nm)	2.834100	ppm	0.008821	0.31	19202.700000	Y 377.433
Sn (189.925 nm)	1.971010	ppm	0.002362	0.12	3440.100000	Y 377.433
Sr (421.552 nm)	1.192181	ppm	0.002451	0.21	174405.432079	Y_R 488.368
Th (288.505 nm)	1.032050	ppm	0.003839	0.37	1720.190000	Y 377.433
Ti (336.122 nm)	1.007440	ppm	0.000576	0.06	130740.000000	Y 377.433
Tl (190.794 nm)	1.958130	ppm	0.001863	0.10	4733.400000	Y 377.433
U (409.013 nm)	2.006770	ppm	0.001274	0.06	6184.990000	Y 377.433
V (292.401 nm)	0.999141	ppm	0.001589	0.16	52520.300000	Y 377.433
Zn (206.200 nm)	0.489242	ppm	0.000941	0.19	2433.550000	Y 377.433
Zr (343.823 nm)	0.473931	ppm	0.000463	0.10	27152.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.053669	23594.246560	0.000819	0.08
Y 377.433	1.064023	687493.275308	0.000762	0.07
Y_R 377.433	1.097360	60410.200000	0.003684	0.34
Y_R 488.368	1.092550	52799.800000	0.001613	0.15
Y_R2 488.368	1.083103	100386.821364	0.000412	0.04
Y_R4	1.088620	46614.300000	0.006121	0.56

Sample Name: 280-123951-d-1-c msd

Date: 5/23/2019 10:27:26 PM Rack:Tube: 1:80

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000614	ppm	0.000405	65.91	-548.764000	Y 377.433
Al (394.401 nm)	10.156600 o	ppm	0.022028	0.22	121789.000000	Y 377.433
Al H (396.152 nm)	10.117300	ppm	0.025237	0.25	21161.400000	Y_R 377.433
As (188.980 nm)	2.039700	ppm	0.004923	0.24	3248.430000	Y 242.219
B (249.678 nm)	1.139740	ppm	0.002185	0.19	8199.840000	Y 242.219
Ba (493.408 nm)	2.029110	ppm	0.003863	0.19	197985.000000	Y_R 488.368
Be (234.861 nm)	0.998870	ppm	0.005057	0.51	100664.000000	Y_R 488.368
Bi (223.061 nm)	1.939850	ppm	0.004250	0.22	4411.030000	Y 377.433
Ca (315.887 nm)	73.968285	ppm	0.177452	0.24	59658.103111	Y_R 377.433
Cd (214.439 nm)	0.981713	ppm	0.003498	0.36	39276.200000	Y 377.433
Co (228.615 nm)	0.972049	ppm	0.002388	0.25	24057.700000	Y 242.219
Cr (205.560 nm)	0.988265	ppm	0.008020	0.81	6989.400000	Y 377.433
Cu (324.754 nm)	0.988877	ppm	0.004765	0.48	46373.600000	Y 377.433
Fe (238.204 nm)	10.141266 o	ppm	0.009602	0.09	24998.695637	Y_R 377.433
Fe H (259.940 nm)	10.175100	ppm	0.024194	0.24	14318.100000	Y_R 377.433
K (766.491 nm)	51.492400	ppm	0.118946	0.23	53089.300000	Y_R2 488.368
Li (670.783 nm)	1.026210	ppm	0.009215	0.90	15238.600000	Y_R2 488.368
Mg (279.078 nm)	116.954000	ppm	0.190906	0.16	414351.000000	Y 377.433
Mn (257.610 nm)	1.012020	ppm	0.002177	0.22	279903.000000	Y 377.433
Mo (202.032 nm)	1.018320	ppm	0.001190	0.12	12981.100000	Y 377.433
Na (589.592 nm)	83.215400 o	ppm	0.244436	0.29	62168.200000	Y_R2 488.368
Na H (589.593 nm)	90.541700	ppm	0.340963	0.38	45357.694523	Y_R4
Ni (231.604 nm)	0.971909	ppm	0.005161	0.53	5422.560000	Y 377.433
P (213.618 nm)	20.249500	ppm	0.049366	0.24	30354.900000	Y 242.219
Pb (220.353 nm)	0.990013	ppm	0.000294	0.03	3412.400000	Y 242.219
S (181.972 nm)	83.015059	ppm	0.283948	0.34	37305.883913	Y 377.433
Sb (206.834 nm)	0.003807	ppm	0.000908	23.85	-5.858070	Y 377.433
Se (196.026 nm)	1.981450	ppm	0.006234	0.31	3229.670000	Y 242.219
Si (288.158 nm)	2.829070	ppm	0.007249	0.26	19169.500000	Y 377.433
Sn (189.925 nm)	1.979130	ppm	0.001878	0.09	3454.250000	Y 377.433
Sr (421.552 nm)	1.192189	ppm	0.000452	0.04	174406.597938	Y_R 488.368
Th (288.505 nm)	1.038610	ppm	0.000916	0.09	1731.350000	Y 377.433
Ti (336.122 nm)	1.009110	ppm	0.000867	0.09	130957.000000	Y 377.433
Tl (190.794 nm)	1.965370	ppm	0.001138	0.06	4750.910000	Y 377.433
U (409.013 nm)	2.018830	ppm	0.007071	0.35	6222.130000	Y 377.433
V (292.401 nm)	1.001570	ppm	0.001088	0.11	52648.800000	Y 377.433
Zn (206.200 nm)	0.490422	ppm	0.001458	0.30	2439.420000	Y 377.433
Zr (343.823 nm)	0.479245	ppm	0.000360	0.08	27459.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.055366	23632.240856	0.004927	0.47
Y 377.433	1.064207	687611.864951	0.005805	0.55
Y_R 377.433	1.093920	60220.900000	0.002142	0.20
Y_R 488.368	1.088260	52592.400000	0.001472	0.14
Y_R2 488.368	1.083932	100463.670205	0.000281	0.03
Y_R4	1.092990	46801.200000	0.009550	0.87

Sample Name: CCVH-5713036

Date: 5/23/2019 10:31:08 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004139	ppm	0.000034	0.83	-110.915000	Y 377.433
Al (394.401 nm)	49.743500 o	ppm	0.045754	0.09	593267.000000	Y 377.433
Al H (396.152 nm)	49.333900	ppm	0.060899	0.12	101439.000000	Y_R 377.433
As (188.980 nm)	0.003262	ppm	0.002092	64.14	2.480870	Y 242.219
B (249.678 nm)	-0.000583 u	ppm	0.000315	54.10	4.346670	Y 242.219
Ba (493.408 nm)	0.001316	ppm	0.000429	32.63	1598.240000	Y_R 488.368
Be (234.861 nm)	0.001092	ppm	0.000019	1.75	-108.951000	Y_R 488.368
Bi (223.061 nm)	0.011074	ppm	0.000313	2.82	18.609400	Y 377.433
Ca (315.887 nm)	0.004100	ppm	0.000274	6.68	-46.172871	Y_R 377.433
Cd (214.439 nm)	0.001511	ppm	0.000012	0.80	74.335400	Y 377.433
Co (228.615 nm)	0.003603	ppm	0.000343	9.53	66.978200	Y 242.219
Cr (205.560 nm)	0.001386	ppm	0.000549	39.59	2.442900	Y 377.433
Cu (324.754 nm)	0.003438	ppm	0.000181	5.27	1505.100000	Y 377.433
Fe (238.204 nm)	48.918005 o	ppm	0.060002	0.12	120573.955416	Y_R 377.433
Fe H (259.940 nm)	49.162500	ppm	0.011178	0.02	68832.100000	Y_R 377.433
K (766.491 nm)	0.290672	ppm	0.015950	5.49	2270.090000	Y_R2 488.368
Li (670.783 nm)	0.008870	ppm	0.000479	5.40	-2477.010000	Y_R2 488.368
Mg (279.078 nm)	0.041128	ppm	0.001731	4.21	78.393200	Y 377.433
Mn (257.610 nm)	0.001054	ppm	0.000016	1.51	269.487000	Y 377.433
Mo (202.032 nm)	0.000302	ppm	0.000074	24.41	27.232700	Y 377.433
Na (589.592 nm)	240.222000 o	ppm	0.312700	0.13	178057.000000	Y_R2 488.368
Na H (589.593 nm)	253.959288	ppm	1.134990	0.45	126632.046383	Y_R4
Ni (231.604 nm)	0.002481	ppm	0.000716	28.88	2.498510	Y 377.433
P (213.618 nm)	4.878970	ppm	0.047855	0.98	7374.100000	Y 242.219
Pb (220.353 nm)	0.003231	ppm	0.000356	11.01	16.599800	Y 242.219
S (181.972 nm)	4.967773	ppm	0.010866	0.22	2239.352730	Y 377.433
Sb (206.834 nm)	0.002525	ppm	0.001910	75.64	1.254380	Y 377.433
Se (196.026 nm)	0.008907	ppm	0.002208	24.79	11.382400	Y 242.219
Si (288.158 nm)	0.015129	ppm	0.000065	0.43	607.838000	Y 377.433
Sn (189.925 nm)	0.001789	ppm	0.000641	35.81	5.356160	Y 377.433
Sr (421.552 nm)	0.001160	ppm	0.000046	3.95	224.729143	Y_R 488.368
Th (288.505 nm)	4.933540	ppm	0.004237	0.09	8620.540000	Y 377.433
Ti (336.122 nm)	0.002345	ppm	0.000125	5.32	-200.660000	Y 377.433
Tl (190.794 nm)	0.001632	ppm	0.000860	52.68	-0.906211	Y 377.433
U (409.013 nm)	0.540519 Q	ppm	0.009153	1.69	1687.340000 Q	Y 377.433
V (292.401 nm)	0.001603	ppm	0.000260	16.23	402.931000	Y 377.433
Zn (206.200 nm)	0.002998	ppm	0.000482	16.07	26.267700	Y 377.433
Zr (343.823 nm)	0.001591	ppm	0.000246	15.47	-82.783200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.072296	24011.354601	0.004167	0.39
Y 377.433	1.071335	692217.521194	0.004943	0.46
Y_R 377.433	1.097810	60434.800000	0.000434	0.04
Y_R 488.368	1.091110	52730.000000	0.001348	0.12
Y_R2 488.368	1.081180	100208.553796	0.003934	0.36
Y_R4	1.102950	47227.700000	0.002338	0.21

Sample Name: CCV-5717467

Date: 5/23/2019 10:34:51 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.489597	ppm	0.000607	0.12	16920.200000	Y 377.433
Al (394.401 nm)	0.505250	ppm	0.000945	0.19	6289.340000	Y 377.433
Al H (396.152 nm)	0.559292 u	ppm	0.002287	0.41	1159.680000	Y_R 377.433
As (188.980 nm)	0.489671	ppm	0.004908	1.00	778.858000	Y 242.219
B (249.678 nm)	0.483214	ppm	0.001540	0.32	3498.910000	Y 242.219
Ba (493.408 nm)	0.488190	ppm	0.000725	0.15	48722.000000	Y_R 488.368
Be (234.861 nm)	0.480979	ppm	0.004513	0.94	48479.700000	Y_R 488.368
Bi (223.061 nm)	0.956329	ppm	0.001093	0.11	2166.320000	Y 377.433
Ca (315.887 nm)	4.915958	ppm	0.004403	0.09	3907.006089	Y_R 377.433
Cd (214.439 nm)	0.493062	ppm	0.000619	0.13	19721.300000	Y 377.433
Co (228.615 nm)	0.489361	ppm	0.000797	0.16	12099.400000	Y 242.219
Cr (205.560 nm)	0.488615	ppm	0.000294	0.06	3452.850000	Y 377.433
Cu (324.754 nm)	0.488114	ppm	0.003062	0.63	23076.000000	Y 377.433
Fe (238.204 nm)	2.464515	ppm	0.001506	0.06	6077.364903	Y_R 377.433
Fe H (259.940 nm)	2.425860 u	ppm	0.009116	0.38	3482.710000	Y_R 377.433
K (766.491 nm)	48.620600	ppm	0.059470	0.12	50239.000000	Y_R2 488.368
Li (670.783 nm)	0.501769	ppm	0.003699	0.74	6106.150000	Y_R2 488.368
Mg (279.078 nm)	19.667100	ppm	0.014472	0.07	69692.000000	Y 377.433
Mn (257.610 nm)	0.491499	ppm	0.000402	0.08	135927.000000	Y 377.433
Mo (202.032 nm)	0.488025	ppm	0.000296	0.06	6233.320000	Y 377.433
Na (589.592 nm)	24.094200	ppm	0.131323	0.55	18057.900000	Y_R2 488.368
Na H (589.593 nm)	26.480897 u	ppm	0.127766	0.48	13497.597433	Y_R4
Ni (231.604 nm)	0.491549	ppm	0.000882	0.18	2736.260000	Y 377.433
P (213.618 nm)	0.053868	ppm	0.003339	6.20	-62.546600	Y 242.219
Pb (220.353 nm)	0.491813	ppm	0.002156	0.44	1700.100000	Y 242.219
S (181.972 nm)	0.005227 u	ppm	0.012590	> 100.00	11.845926	Y 377.433
Sb (206.834 nm)	0.493779	ppm	0.000017	0.00	861.417000	Y 377.433
Se (196.026 nm)	0.492106	ppm	0.002380	0.48	810.472000	Y 242.219
Si (288.158 nm)	4.827770	ppm	0.015095	0.31	32353.500000	Y 377.433
Sn (189.925 nm)	0.491602	ppm	0.000061	0.01	859.694000	Y 377.433
Sr (421.552 nm)	0.490637	ppm	0.000247	0.05	71803.826879	Y_R 488.368
Th (288.505 nm)	0.013609	ppm	0.001677	12.33	-11.645600	Y 377.433
Ti (336.122 nm)	0.487507	ppm	0.000174	0.04	62898.900000	Y 377.433
Tl (190.794 nm)	0.500106	ppm	0.002331	0.47	1208.250000	Y 377.433
U (409.013 nm)	0.016990	ppm	0.001692	9.96	-47.474900	Y 377.433
V (292.401 nm)	0.486805	ppm	0.000176	0.04	25492.500000	Y 377.433
Zn (206.200 nm)	0.493352	ppm	0.000293	0.06	2452.780000	Y 377.433
Zr (343.823 nm)	0.488652	ppm	0.001149	0.24	28001.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.091760	24447.193298	0.004977	0.46
Y 377.433	1.089667	704062.194595	0.006637	0.61
Y_R 377.433	1.110530	61135.200000	0.004251	0.38
Y_R 488.368	1.107440	53519.200000	0.003404	0.31
Y_R2 488.368	1.092620	101268.844739	0.001738	0.16
Y_R4	1.114810	47735.500000	0.002562	0.23

Sample Name: CCB

Date: 5/23/2019 10:38:26 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000388	ppm	0.000251	64.72	-232.241000	Y 377.433
Al (394.401 nm)	-0.002177 u	ppm	0.000508	23.32	104.087000	Y 377.433
Al H (396.152 nm)	0.114796 Zu	ppm	0.004070	3.55	10.938100 Z	Y_R 377.433
As (188.980 nm)	0.001062	ppm	0.000075	7.11	0.386238	Y 242.219
B (249.678 nm)	-0.002388 u	ppm	0.000746	31.26	19.972400	Y 242.219
Ba (493.408 nm)	-0.001303 u	ppm	0.000263	20.19	1306.370000	Y_R 488.368
Be (234.861 nm)	0.000021	ppm	0.000004	21.92	-3.652530	Y_R 488.368
Bi (223.061 nm)	0.002900	ppm	0.001020	35.18	-8.901460	Y 377.433
Ca (315.887 nm)	0.005258 u	ppm	0.012904	> 100.00	-57.733725	Y_R 377.433
Cd (214.439 nm)	0.000104	ppm	0.000001	1.25	-3.643420	Y 377.433
Co (228.615 nm)	0.000312	ppm	0.000202	64.85	-14.450300	Y 242.219
Cr (205.560 nm)	-0.000362 u	ppm	0.000000	0.00	-8.529650	Y 377.433
Cu (324.754 nm)	0.000103 u	ppm	0.000267	> 100.00	416.089000	Y 377.433
Fe (238.204 nm)	0.000531	ppm	0.000321	60.37	4.242802	Y_R 377.433
Fe H (259.940 nm)	-0.054994 u	ppm	0.003677	6.69	13.854000	Y_R 377.433
K (766.491 nm)	-0.004846 u	ppm	0.119394	> 100.00	1976.780000	Y_R2 488.368
Li (670.783 nm)	0.008311	ppm	0.003267	39.31	-2486.740000	Y_R2 488.368
Mg (279.078 nm)	0.002807	ppm	0.000706	25.14	21.868000	Y 377.433
Mn (257.610 nm)	0.000092	ppm	0.000000	0.45	3.497450	Y 377.433
Mo (202.032 nm)	-0.001354 u	ppm	0.000311	22.99	6.155360	Y 377.433
Na (589.592 nm)	0.118812	ppm	0.023862	20.08	198.172000	Y_R2 488.368
Na H (589.593 nm)	0.662681 u	ppm	0.055404	8.36	657.126498	Y_R4
Ni (231.604 nm)	-0.000534 u	ppm	0.000401	75.02	-14.353800	Y 377.433
P (213.618 nm)	-0.001293 u	ppm	0.002021	> 100.00	-6.452390	Y 242.219
Pb (220.353 nm)	-0.000478 u	ppm	0.001810	> 100.00	11.260600	Y 242.219
S (181.972 nm)	-0.001503 u	ppm	0.001261	83.89	7.080221	Y 377.433
Sb (206.834 nm)	0.005189	ppm	0.004369	84.21	1.620530	Y 377.433
Se (196.026 nm)	-0.001292 u	ppm	0.001181	91.42	8.476120	Y 242.219
Si (288.158 nm)	-0.005785 u	ppm	0.001400	24.20	469.885000	Y 377.433
Sn (189.925 nm)	0.001097	ppm	0.001399	> 100.00	4.150220	Y 377.433
Sr (421.552 nm)	0.000137	ppm	0.000009	6.33	67.993189	Y_R 488.368
Th (288.505 nm)	-0.005844 u	ppm	0.001901	32.54	4.281080	Y 377.433
Ti (336.122 nm)	0.000422	ppm	0.000022	5.13	-450.864000	Y 377.433
Tl (190.794 nm)	-0.000044 u	ppm	0.002397	> 100.00	0.014445	Y 377.433
U (409.013 nm)	0.001933 u	ppm	0.005719	> 100.00	-35.730200	Y 377.433
V (292.401 nm)	0.000442	ppm	0.000119	26.82	-156.779000	Y 377.433
Zn (206.200 nm)	-0.000392 u	ppm	0.000031	8.01	1.873740	Y 377.433
Zr (343.823 nm)	0.000452	ppm	0.000119	26.32	-148.463000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105429	24753.280189	0.003864	0.35
Y 377.433	1.102089	712088.427088	0.005215	0.47
Y_R 377.433	1.109810	61095.500000	0.004372	0.39
Y_R 488.368	1.106230	53460.800000	0.004805	0.43
Y_R2 488.368	1.096000	101582.161601	0.002982	0.27
Y_R4	1.112510	47637.000000	0.001140	0.10

Sample Name: CCVL-5717307

Date: 5/23/2019 10:41:38 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007884	ppm	0.000017	0.22	29.514200	Y 377.433
Al (394.401 nm)	0.097167	ppm	0.000230	0.24	1299.770000	Y 377.433
Al H (396.152 nm)	0.232205 u	ppm	0.002970	1.28	258.096000	Y_R 377.433
As (188.980 nm)	0.013115	ppm	0.001613	12.30	19.588400	Y 242.219
B (249.678 nm)	0.092763	ppm	0.001578	1.70	701.872000	Y 242.219
Ba (493.408 nm)	0.007993	ppm	0.000336	4.21	2206.890000	Y_R 488.368
Be (234.861 nm)	0.000923	ppm	0.000014	1.47	86.914700	Y_R 488.368
Bi (223.061 nm)	0.088343	ppm	0.001691	1.91	186.011000	Y 377.433
Ca (315.887 nm)	0.208619	ppm	0.000887	0.43	106.475437	Y_R 377.433
Cd (214.439 nm)	0.005102	ppm	0.000001	0.02	196.401000	Y 377.433
Co (228.615 nm)	0.010569	ppm	0.000091	0.86	239.589000	Y 242.219
Cr (205.560 nm)	0.009802	ppm	0.000264	2.69	63.312800	Y 377.433
Cu (324.754 nm)	0.015272	ppm	0.000246	1.61	1119.310000	Y 377.433
Fe (238.204 nm)	0.103197	ppm	0.004681	4.54	257.288669	Y_R 377.433
Fe H (259.940 nm)	0.053505 u	ppm	0.003823	7.15	165.562000	Y_R 377.433
K (766.491 nm)	2.935120	ppm	0.113585	3.87	4894.790000	Y_R2 488.368
Li (670.783 nm)	0.034013 Q	ppm	0.000424	1.25	-2039.170000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202831	ppm	0.000392	0.19	729.099000	Y 377.433
Mn (257.610 nm)	0.010554	ppm	0.000012	0.11	2897.270000	Y 377.433
Mo (202.032 nm)	0.018441	ppm	0.000026	0.14	258.048000	Y 377.433
Na (589.592 nm)	1.175930	ppm	0.036008	3.06	983.159000	Y_R2 488.368
Na H (589.593 nm)	1.549861 u	ppm	0.050100	3.23	1098.358030	Y_R4
Ni (231.604 nm)	0.041621	ppm	0.000376	0.90	221.250000	Y 377.433
P (213.618 nm)	2.751460	ppm	0.009301	0.34	4154.730000	Y 242.219
Pb (220.353 nm)	0.008543	ppm	0.000206	2.41	42.359900	Y 242.219
S (181.972 nm)	0.087103	ppm	0.004960	5.69	46.920485	Y 377.433
Sb (206.834 nm)	0.021382	ppm	0.002540	11.88	30.051300	Y 377.433
Se (196.026 nm)	0.018132	ppm	0.000732	4.03	40.035200	Y 242.219
Si (288.158 nm)	0.469987	ppm	0.004015	0.85	3608.220000	Y 377.433
Sn (189.925 nm)	0.097276	ppm	0.001495	1.54	171.906000	Y 377.433
Sr (421.552 nm)	0.009117	ppm	0.000179	1.96	1381.347615	Y_R 488.368
Th (288.505 nm)	0.016162	ppm	0.003018	18.67	42.269700	Y 377.433
Ti (336.122 nm)	0.010062	ppm	0.000148	1.47	803.308000	Y 377.433
Tl (190.794 nm)	0.016258	ppm	0.001104	6.79	39.386300	Y 377.433
U (409.013 nm)	0.059342	ppm	0.001190	2.00	142.925000	Y 377.433
V (292.401 nm)	0.010013	ppm	0.000223	2.22	344.731000	Y 377.433
Zn (206.200 nm)	0.020753	ppm	0.000349	1.68	106.834000	Y 377.433
Zr (343.823 nm)	0.010155	ppm	0.000363	3.58	411.015000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115104	24969.936717	0.002751	0.25
Y 377.433	1.111876	718412.353411	0.001683	0.15
Y_R 377.433	1.128570	62128.400000	0.006537	0.58
Y_R 488.368	1.122160	54230.800000	0.006603	0.59
Y_R2 488.368	1.107000	102601.707039	0.002387	0.22
Y_R4	1.117460	47849.200000	0.002578	0.23

Sample Name: 280-123970-d-1-a

Date: 5/23/2019 10:45:08 PM Rack:Tube: 1:81

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002184	ppm	0.000737	33.75	-171.022000	Y 377.433
Al (394.401 nm)	0.005966	ppm	0.001489	24.96	545.359000	Y 377.433
Al H (396.152 nm)	-0.130913 u	ppm	0.000777	0.59	5.091490	Y_R 377.433
As (188.980 nm)	0.008598	ppm	0.001448	16.85	12.378400	Y 242.219
B (249.678 nm)	2.498530	ppm	0.002012	0.08	17944.100000	Y 242.219
Ba (493.408 nm)	0.640187	ppm	0.000097	0.02	63443.400000	Y_R 488.368
Be (234.861 nm)	-0.000052 u	ppm	0.000044	84.66	-13.421300	Y_R 488.368
Bi (223.061 nm)	0.001041	ppm	0.000107	10.28	-12.977800	Y 377.433
Ca (315.887 nm)	162.061812	ppm	0.088989	0.05	130776.825922	Y_R 377.433
Cd (214.439 nm)	0.000287	ppm	0.000043	15.14	3.937540	Y 377.433
Co (228.615 nm)	0.019620	ppm	0.000581	2.96	463.506000	Y 242.219
Cr (205.560 nm)	0.003638	ppm	0.000169	4.64	19.261200	Y 377.433
Cu (324.754 nm)	-0.000240 u	ppm	0.000024	9.94	308.599000	Y 377.433
Fe (238.204 nm)	0.560020	ppm	0.006465	1.15	1383.246845	Y_R 377.433
Fe H (259.940 nm)	0.487241 u	ppm	0.001099	0.23	772.033000	Y_R 377.433
K (766.491 nm)	26.890000	ppm	0.056757	0.21	28670.700000	Y_R2 488.368
Li (670.783 nm)	0.030697	ppm	0.003257	10.61	-2096.920000	Y_R2 488.368
Mg (279.078 nm)	292.929000	ppm	0.027542	0.01	1037910.000000	Y 377.433
Mn (257.610 nm)	2.216700	ppm	0.000712	0.03	613117.000000	Y 377.433
Mo (202.032 nm)	0.012234	ppm	0.000012	0.09	179.061000	Y 377.433
Na (589.592 nm)	341.567000 o	ppm	0.600099	0.18	253259.000000	Y_R2 488.368
Na H (589.593 nm)	377.860558	ppm	1.343398	0.36	188253.292533	Y_R4
Ni (231.604 nm)	0.240439	ppm	0.000149	0.06	1332.320000	Y 377.433
P (213.618 nm)	0.292460	ppm	0.005295	1.81	436.755000	Y 242.219
Pb (220.353 nm)	-0.002735 u	ppm	0.001226	44.84	3.554030	Y 242.219
S (181.972 nm)	53.097101	ppm	0.025160	0.05	23874.239516	Y 377.433
Sb (206.834 nm)	-0.002727 u	ppm	0.003967	> 100.00	-12.369400	Y 377.433
Se (196.026 nm)	-0.001926 u	ppm	0.001985	> 100.00	10.582700	Y 242.219
Si (288.158 nm)	20.618200	ppm	0.000799	0.00	136512.000000	Y 377.433
Sn (189.925 nm)	-0.000458 u	ppm	0.001424	> 100.00	1.437160	Y 377.433
Sr (421.552 nm)	1.362849	ppm	0.000755	0.06	199364.230805	Y_R 488.368
Th (288.505 nm)	-0.000151 u	ppm	0.005715	> 100.00	53.565300	Y 377.433
Ti (336.122 nm)	0.000093	ppm	0.000028	30.09	62.850800	Y 377.433
Tl (190.794 nm)	0.004405	ppm	0.001929	43.79	3.981120	Y 377.433
U (409.013 nm)	0.033210	ppm	0.006148	18.51	41.476000	Y 377.433
V (292.401 nm)	0.004644	ppm	0.000066	1.43	62.959700	Y 377.433
Zn (206.200 nm)	0.011759	ppm	0.000989	8.41	62.265100	Y 377.433
Zr (343.823 nm)	0.001309	ppm	0.000056	4.25	-99.017400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.026861	22993.948009	0.006543	0.64
Y 377.433	1.042431	673541.922124	0.006618	0.63
Y_R 377.433	1.094170	60234.600000	0.003654	0.33
Y_R 488.368	1.087250	52543.300000	0.005113	0.47
Y_R2 488.368	1.069313	99108.648017	0.001160	0.11
Y_R4	1.084990	46458.600000	0.002393	0.22

Sample Name: mb 280-458931/1-a

Date: 5/23/2019 10:48:41 PM Rack:Tube: 1:82

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000079 u	ppm	0.000129	> 100.00	-248.450000	Y 377.433
Al (394.401 nm)	0.013178	ppm	0.000212	1.61	285.178000	Y 377.433
Al H (396.152 nm)	0.140015 u	ppm	0.008889	6.35	62.949700	Y_R 377.433
As (188.980 nm)	0.000384 u	ppm	0.001888	> 100.00	-0.698887	Y 242.219
B (249.678 nm)	-0.000307 u	ppm	0.000064	20.79	34.771500	Y 242.219
Ba (493.408 nm)	-0.002018 u	ppm	0.000215	10.65	1237.330000	Y_R 488.368
Be (234.861 nm)	-0.000051 u	ppm	0.000001	2.74	-11.729700	Y_R 488.368
Bi (223.061 nm)	0.000859	ppm	0.000187	21.77	-13.523300	Y 377.433
Ca (315.887 nm)	0.050060	ppm	0.013947	27.86	-21.558156	Y_R 377.433
Cd (214.439 nm)	0.000055	ppm	0.000037	67.10	-5.520980	Y 377.433
Co (228.615 nm)	0.000189	ppm	0.000029	15.54	-17.494300	Y 242.219
Cr (205.560 nm)	-0.000159 u	ppm	0.000006	3.60	-7.094920	Y 377.433
Cu (324.754 nm)	0.000179 u	ppm	0.000379	> 100.00	420.884000	Y 377.433
Fe (238.204 nm)	0.190086	ppm	0.003453	1.82	471.449396	Y_R 377.433
Fe H (259.940 nm)	0.139771 u	ppm	0.004385	3.14	286.184000	Y_R 377.433
K (766.491 nm)	-0.199498 u	ppm	0.022196	11.13	1783.580000	Y_R2 488.368
Li (670.783 nm)	0.014259	ppm	0.004958	34.77	-2383.170000	Y_R2 488.368
Mg (279.078 nm)	0.019925	ppm	0.005063	25.41	82.445000	Y 377.433
Mn (257.610 nm)	0.001534	ppm	0.000054	3.49	402.166000	Y 377.433
Mo (202.032 nm)	-0.000699 u	ppm	0.000290	41.54	14.492100	Y 377.433
Na (589.592 nm)	0.164244	ppm	0.007161	4.36	231.614000	Y_R2 488.368
Na H (589.593 nm)	1.088979 u	ppm	0.008562	0.79	869.142546	Y_R4
Ni (231.604 nm)	-0.000427 u	ppm	0.000953	> 100.00	-13.754300	Y 377.433
P (213.618 nm)	-0.004898 u	ppm	0.000739	15.08	-11.917800	Y 242.219
Pb (220.353 nm)	-0.001262 u	ppm	0.000538	42.67	8.532860	Y 242.219
S (181.972 nm)	0.012193	ppm	0.004765	39.08	13.238283	Y 377.433
Sb (206.834 nm)	0.002585	ppm	0.000685	26.49	-2.961410	Y 377.433
Se (196.026 nm)	-0.000865 u	ppm	0.002579	> 100.00	9.119920	Y 242.219
Si (288.158 nm)	0.038469	ppm	0.004026	10.46	761.799000	Y 377.433
Sn (189.925 nm)	0.000872	ppm	0.000596	68.40	3.756930	Y 377.433
Sr (421.552 nm)	0.000073	ppm	0.000010	13.84	58.561103	Y_R 488.368
Th (288.505 nm)	-0.002913 u	ppm	0.000618	21.21	9.377190	Y 377.433
Ti (336.122 nm)	0.000596	ppm	0.000034	5.69	-428.124000	Y 377.433
Tl (190.794 nm)	0.001324 u	ppm	0.002134	> 100.00	3.300820	Y 377.433
U (409.013 nm)	-0.000795 u	ppm	0.002336	> 100.00	-44.162100	Y 377.433
V (292.401 nm)	0.000513	ppm	0.000050	9.75	-152.264000	Y 377.433
Zn (206.200 nm)	0.003137	ppm	0.000015	0.47	19.414300	Y 377.433
Zr (343.823 nm)	0.000414	ppm	0.000093	22.47	-150.633000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125862	25210.831853	0.002972	0.26
Y 377.433	1.122229	725101.613911	0.004512	0.40
Y_R 377.433	1.140210	62769.200000	0.000271	0.02
Y_R 488.368	1.135530	54876.900000	0.001459	0.13
Y_R2 488.368	1.126587	104417.100130	0.000598	0.05
Y_R4	1.131790	48462.600000	0.002305	0.20

Sample Name: lcs 280-458931/2-a

Date: 5/23/2019 10:52:10 PM Rack:Tube: 1:83

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051808	ppm	0.000359	0.69	1262.060000	Y 377.433
Al (394.401 nm)	10.089600 o	ppm	0.014124	0.14	120943.000000	Y 377.433
Al H (396.152 nm)	10.132500	ppm	0.038038	0.38	21124.800000	Y_R 377.433
As (188.980 nm)	2.021030	ppm	0.004029	0.20	3218.680000	Y 242.219
B (249.678 nm)	0.999967	ppm	0.003725	0.37	7198.090000	Y 242.219
Ba (493.408 nm)	2.013140	ppm	0.001153	0.06	196439.000000	Y_R 488.368
Be (234.861 nm)	1.001780	ppm	0.001416	0.14	100958.000000	Y_R 488.368
Bi (223.061 nm)	1.940380	ppm	0.001554	0.08	4412.230000	Y 377.433
Ca (315.887 nm)	50.009945	ppm	0.029921	0.06	40315.595874	Y_R 377.433
Cd (214.439 nm)	0.994434	ppm	0.003098	0.31	39785.100000	Y 377.433
Co (228.615 nm)	0.981032	ppm	0.002748	0.28	24279.700000	Y 242.219
Cr (205.560 nm)	0.991306	ppm	0.004614	0.47	7010.950000	Y 377.433
Cu (324.754 nm)	0.973440	ppm	0.007252	0.74	45669.300000	Y 377.433
Fe (238.204 nm)	10.128423 o	ppm	0.024276	0.24	24967.041329	Y_R 377.433
Fe H (259.940 nm)	10.137800	ppm	0.030906	0.30	14265.900000	Y_R 377.433
K (766.491 nm)	50.770800	ppm	0.309233	0.61	52373.100000	Y_R2 488.368
Li (670.783 nm)	1.019690	ppm	0.003503	0.34	15125.000000	Y_R2 488.368
Mg (279.078 nm)	50.364200	ppm	0.131318	0.26	178413.000000	Y 377.433
Mn (257.610 nm)	1.007260	ppm	0.002125	0.21	278586.000000	Y 377.433
Mo (202.032 nm)	1.014360	ppm	0.001842	0.18	12930.800000	Y 377.433
Na (589.592 nm)	48.906400	ppm	0.171384	0.35	36751.500000	Y_R2 488.368
Na H (589.593 nm)	53.893298	ppm	0.347872	0.65	27130.922573	Y_R4
Ni (231.604 nm)	0.979068	ppm	0.001497	0.15	5462.600000	Y 377.433
P (213.618 nm)	20.224800	ppm	0.060039	0.30	30322.000000	Y 242.219
Pb (220.353 nm)	1.000690	ppm	0.003250	0.32	3449.080000	Y 242.219
S (181.972 nm)	10.138971	ppm	0.028707	0.28	4567.796929	Y 377.433
Sb (206.834 nm)	1.066930	ppm	0.004049	0.38	1871.140000	Y 377.433
Se (196.026 nm)	1.987990	ppm	0.002421	0.12	3240.300000	Y 242.219
Si (288.158 nm)	2.106270	ppm	0.002843	0.13	14401.700000	Y 377.433
Sn (189.925 nm)	1.984470	ppm	0.003948	0.20	3463.570000	Y 377.433
Sr (421.552 nm)	1.007906	ppm	0.001279	0.13	147455.320238	Y_R 488.368
Th (288.505 nm)	1.023230	ppm	0.004128	0.40	1705.580000	Y 377.433
Ti (336.122 nm)	1.007300	ppm	0.001958	0.19	130638.000000	Y 377.433
Tl (190.794 nm)	1.991820	ppm	0.002295	0.12	4816.050000	Y 377.433
U (409.013 nm)	2.004620	ppm	0.001490	0.07	6178.300000	Y 377.433
V (292.401 nm)	0.997107	ppm	0.001547	0.16	52410.100000	Y 377.433
Zn (206.200 nm)	0.496152	ppm	0.000599	0.12	2467.860000	Y 377.433
Zr (343.823 nm)	0.499552	ppm	0.000783	0.16	28629.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081102	24208.543404	0.002991	0.28
Y 377.433	1.087252	702501.960989	0.003248	0.30
Y_R 377.433	1.114320	61343.700000	0.001141	0.10
Y_R 488.368	1.109510	53619.500000	0.002549	0.23
Y_R2 488.368	1.094867	101477.106934	0.006123	0.56
Y_R4	1.118590	47897.400000	0.003383	0.30

Sample Name: 280-123966-e-1-e

Date: 5/23/2019 10:55:47 PM Rack:Tube: 1:84

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002589	ppm	0.000653	25.21	-156.966000	Y 377.433
Al (394.401 nm)	-0.113195 u	ppm	0.000936	0.83	852.342000	Y 377.433
Al H (396.152 nm)	-1.435740 u	ppm	0.000931	0.06	-5.857890	Y_R 377.433
As (188.980 nm)	0.032621	ppm	0.000859	2.63	50.639600	Y 242.219
B (249.678 nm)	3.198720	ppm	0.000602	0.02	22962.100000	Y 242.219
Ba (493.408 nm)	1.787390	ppm	0.003004	0.17	174565.000000	Y_R 488.368
Be (234.861 nm)	0.000040	ppm	0.000026	65.39	-6.595500	Y_R 488.368
Bi (223.061 nm)	0.003368	ppm	0.000207	6.16	-7.493060	Y 377.433
Ca (315.887 nm)	354.900254	ppm	0.620139	0.17	286462.805067	Y_R 377.433
Cd (214.439 nm)	0.000569	ppm	0.000144	25.25	15.470600	Y 377.433
Co (228.615 nm)	0.003278	ppm	0.000021	0.63	58.980900	Y 242.219
Cr (205.560 nm)	0.004901	ppm	0.000692	14.12	28.706900	Y 377.433
Cu (324.754 nm)	-0.000157 u	ppm	0.000212	> 100.00	206.650000	Y 377.433
Fe (238.204 nm)	1.131541	ppm	0.002307	0.20	2791.908824	Y_R 377.433
Fe H (259.940 nm)	1.072260 u	ppm	0.006084	0.57	1590.030000	Y_R 377.433
K (766.491 nm)	59.578500	ppm	0.015379	0.03	61115.000000	Y_R2 488.368
Li (670.783 nm)	0.334760	ppm	0.000051	0.02	3197.920000	Y_R2 488.368
Mg (279.078 nm)	144.070000	ppm	0.122622	0.09	510476.000000	Y 377.433
Mn (257.610 nm)	1.130930	ppm	0.000081	0.01	312793.000000	Y 377.433
Mo (202.032 nm)	0.000119 u	ppm	0.000441	> 100.00	24.899000	Y 377.433
Na (589.592 nm)	627.360000 o	ppm	1.854730	0.30	465198.000000	Y_R2 488.368
Na H (589.593 nm)	729.029148	ppm	3.618675	0.50	362904.012672	Y_R4
Ni (231.604 nm)	0.024153	ppm	0.000009	0.04	123.614000	Y 377.433
P (213.618 nm)	0.179791	ppm	0.002713	1.51	266.400000	Y 242.219
Pb (220.353 nm)	-0.001847 u	ppm	0.001901	> 100.00	6.574430	Y 242.219
S (181.972 nm)	26.238497	ppm	0.073386	0.28	11814.906632	Y 377.433
Sb (206.834 nm)	0.002540 u	ppm	0.005143	> 100.00	-2.923310	Y 377.433
Se (196.026 nm)	0.000938	ppm	0.000977	> 100.00	13.467700	Y 242.219
Si (288.158 nm)	17.590600	ppm	0.057987	0.33	116541.000000	Y 377.433
Sn (189.925 nm)	0.000441	ppm	0.000162	36.79	3.005800	Y 377.433
Sr (421.552 nm)	8.287868	ppm	0.018861	0.23	1212145.948927	Y_R 488.368
Th (288.505 nm)	0.004960	ppm	0.000854	17.23	35.917000	Y 377.433
Ti (336.122 nm)	0.000486	ppm	0.000109	22.54	774.517000	Y 377.433
Tl (190.794 nm)	0.007951	ppm	0.001851	23.29	4.412090	Y 377.433
U (409.013 nm)	0.008820	ppm	0.000062	0.71	-59.623700	Y 377.433
V (292.401 nm)	0.005460	ppm	0.000007	0.13	109.036000	Y 377.433
Zn (206.200 nm)	0.032935	ppm	0.000021	0.07	167.455000	Y 377.433
Zr (343.823 nm)	0.000886	ppm	0.000025	2.87	-123.434000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.011063	22640.194567	0.003926	0.39
Y 377.433	1.027262	663740.801115	0.005163	0.50
Y_R 377.433	1.083230	59632.400000	0.006362	0.59
Y_R 488.368	1.076790	52038.100000	0.002293	0.21
Y_R2 488.368	1.059259	98176.876571	0.000987	0.09
Y_R4	1.074020	45988.800000	0.003536	0.33

Sample Name: 280-123966-e-1-eSD@5

Date: 5/23/2019 10:59:24 PM Rack:Tube: 1:85

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001550	ppm	0.000023	1.50	-191.769000	Y 377.433
Al (394.401 nm)	-0.016086 u	ppm	0.001163	7.23	343.953000	Y 377.433
Al H (396.152 nm)	-0.177399 u	ppm	0.002809	1.58	26.318200	Y_R 377.433
As (188.980 nm)	0.006608	ppm	0.000019	0.29	9.207670	Y 242.219
B (249.678 nm)	0.602086	ppm	0.000272	0.05	4351.990000	Y 242.219
Ba (493.408 nm)	0.342289	ppm	0.000410	0.12	34588.100000	Y_R 488.368
Be (234.861 nm)	0.000022	ppm	0.000008	35.76	-5.940870	Y_R 488.368
Bi (223.061 nm)	0.002076	ppm	0.001984	95.53	-10.652900	Y 377.433
Ca (315.887 nm)	70.264677	ppm	0.011987	0.02	56665.429613	Y_R 377.433
Cd (214.439 nm)	0.000074 u	ppm	0.000205	> 100.00	-4.589200	Y 377.433
Co (228.615 nm)	0.000263	ppm	0.000025	9.32	-15.634900	Y 242.219
Cr (205.560 nm)	0.000537	ppm	0.000544	> 100.00	-2.172680	Y 377.433
Cu (324.754 nm)	0.000092	ppm	0.000080	87.65	374.960000	Y 377.433
Fe (238.204 nm)	0.561953	ppm	0.014460	2.57	1388.011080	Y_R 377.433
Fe H (259.940 nm)	0.511786 u	ppm	0.009235	1.80	806.354000	Y_R 377.433
K (766.491 nm)	10.668300	ppm	0.029420	0.28	12570.200000	Y_R2 488.368
Li (670.783 nm)	0.072390	ppm	0.000375	0.52	-1370.890000	Y_R2 488.368
Mg (279.078 nm)	28.212600	ppm	0.004220	0.01	99973.000000	Y 377.433
Mn (257.610 nm)	0.226881	ppm	0.000081	0.04	62733.300000	Y 377.433
Mo (202.032 nm)	-0.000545 u	ppm	0.000217	39.78	16.456500	Y 377.433
Na (589.592 nm)	132.130000 o	ppm	0.186483	0.14	98056.300000	Y_R2 488.368
Na H (589.593 nm)	141.585558	ppm	0.741087	0.52	70743.924814	Y_R4
Ni (231.604 nm)	0.004173	ppm	0.000769	18.42	11.953400	Y 377.433
P (213.618 nm)	0.033830	ppm	0.002155	6.37	46.263400	Y 242.219
Pb (220.353 nm)	-0.003510 u	ppm	0.001067	30.40	0.877186	Y 242.219
S (181.972 nm)	4.942362	ppm	0.006903	0.14	2231.987636	Y 377.433
Sb (206.834 nm)	0.002345	ppm	0.001188	50.67	-3.348450	Y 377.433
Se (196.026 nm)	-0.002789 u	ppm	0.002884	> 100.00	6.223140	Y 242.219
Si (288.158 nm)	3.379410	ppm	0.002206	0.07	22799.700000	Y 377.433
Sn (189.925 nm)	-0.000318 u	ppm	0.000644	> 100.00	1.680910	Y 377.433
Sr (421.552 nm)	1.609167	ppm	0.000360	0.02	235388.095207	Y_R 488.368
Th (288.505 nm)	-0.007149 u	ppm	0.002380	33.29	4.670200	Y 377.433
Ti (336.122 nm)	0.000340	ppm	0.000033	9.66	-220.832000	Y 377.433
Tl (190.794 nm)	0.000522 u	ppm	0.000924	> 100.00	-1.625050	Y 377.433
U (409.013 nm)	0.030873	ppm	0.006963	22.55	46.176400	Y 377.433
V (292.401 nm)	0.001585	ppm	0.000175	11.05	-97.308700	Y 377.433
Zn (206.200 nm)	0.015940	ppm	0.000745	4.67	83.014700	Y 377.433
Zr (343.823 nm)	0.000496	ppm	0.000186	37.61	-145.946000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080053	24185.058634	0.000148	0.01
Y 377.433	1.080876	698382.215014	0.000574	0.05
Y_R 377.433	1.122090	61771.600000	0.002494	0.22
Y_R 488.368	1.118440	54051.000000	0.001518	0.14
Y_R2 488.368	1.103741	102299.658174	0.000249	0.02
Y_R4	1.111990	47614.600000	0.007505	0.67

Sample Name: 280-123966-e-1-f ms

Date: 5/23/2019 11:02:58 PM Rack:Tube: 1:86

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.055105	ppm	0.000307	0.56	1369.520000	Y 377.433
Al (394.401 nm)	9.771580 o	ppm	0.005027	0.05	119221.000000	Y 377.433
Al H (396.152 nm)	8.419490	ppm	0.006762	0.08	20774.800000	Y_R 377.433
As (188.980 nm)	2.050790	ppm	0.005005	0.24	3266.080000	Y 242.219
B (249.678 nm)	4.268500	ppm	0.004721	0.11	30623.800000	Y 242.219
Ba (493.408 nm)	3.748600	ppm	0.010173	0.27	364541.000000	Y_R 488.368
Be (234.861 nm)	0.960364	ppm	0.006889	0.72	96779.100000	Y_R 488.368
Bi (223.061 nm)	1.915110	ppm	0.001367	0.07	4354.850000	Y 377.433
Ca (315.887 nm)	400.869084	ppm	0.925438	0.23	323577.806175	Y_R 377.433
Cd (214.439 nm)	0.922950	ppm	0.000040	0.00	36925.300000	Y 377.433
Co (228.615 nm)	0.950727	ppm	0.000849	0.09	23529.000000	Y 242.219
Cr (205.560 nm)	0.966544	ppm	0.004939	0.51	6835.820000	Y 377.433
Cu (324.754 nm)	1.003100	ppm	0.004788	0.48	46846.500000	Y 377.433
Fe (238.204 nm)	10.733957 o	ppm	0.021067	0.20	26459.534688	Y_R 377.433
Fe H (259.940 nm)	10.802100	ppm	0.028410	0.26	15194.800000	Y_R 377.433
K (766.491 nm)	113.748000	ppm	0.213426	0.19	114880.000000	Y_R2 488.368
Li (670.783 nm)	1.349470	ppm	0.005920	0.44	20867.700000	Y_R2 488.368
Mg (279.078 nm)	191.868000	ppm	0.122631	0.06	679784.000000	Y 377.433
Mn (257.610 nm)	2.064000	ppm	0.002062	0.10	570881.000000	Y 377.433
Mo (202.032 nm)	0.959351	ppm	0.001454	0.15	12230.800000	Y 377.433
Na (589.592 nm)	665.810000 o	ppm	2.388600	0.36	494082.000000	Y_R2 488.368
Na H (589.593 nm)	779.383839	ppm	1.721472	0.22	387947.491230	Y_R4
Ni (231.604 nm)	0.954464	ppm	0.000230	0.02	5324.840000	Y 377.433
P (213.618 nm)	20.568700	ppm	0.023749	0.12	30835.000000	Y 242.219
Pb (220.353 nm)	0.935972	ppm	0.005387	0.58	3226.770000	Y 242.219
S (181.972 nm)	36.407692	ppm	0.054971	0.15	16388.179647	Y 377.433
Sb (206.834 nm)	1.041600	ppm	0.002839	0.27	1827.050000	Y 377.433
Se (196.026 nm)	1.957010	ppm	0.001168	0.06	3191.340000	Y 242.219
Si (288.158 nm)	18.579600	ppm	0.050291	0.27	123065.000000	Y 377.433
Sn (189.925 nm)	1.842750	ppm	0.000143	0.01	3216.380000	Y 377.433
Sr (421.552 nm)	9.300996	ppm	0.019446	0.21	1360317.002563	Y_R 488.368
Th (288.505 nm)	0.999496	ppm	0.004428	0.44	1679.660000	Y 377.433
Ti (336.122 nm)	0.978378	ppm	0.001561	0.16	128086.000000	Y 377.433
Tl (190.794 nm)	1.783830	ppm	0.001585	0.09	4297.750000	Y 377.433
U (409.013 nm)	1.979950	ppm	0.006118	0.31	6067.970000	Y 377.433
V (292.401 nm)	0.964530	ppm	0.000740	0.08	50692.300000	Y 377.433
Zn (206.200 nm)	0.498847	ppm	0.001220	0.24	2481.330000	Y 377.433
Zr (343.823 nm)	0.398897	ppm	0.000740	0.19	22826.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.989950	22167.429896	0.003446	0.35
Y 377.433	1.012811	654403.680869	0.004042	0.40
Y_R 377.433	1.080440	59478.700000	0.001631	0.15
Y_R 488.368	1.073500	51879.200000	0.001761	0.16
Y_R2 488.368	1.056433	97914.878191	0.003537	0.33
Y_R4	1.072230	45912.100000	0.003340	0.31

Sample Name: 280-123966-e-1-g msd

Date: 5/23/2019 11:06:37 PM Rack:Tube: 1:87

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.056966	ppm	0.000352	0.62	1414.090000	Y 377.433
Al (394.401 nm)	10.207300 o	ppm	0.002361	0.02	124516.000000	Y 377.433
Al H (396.152 nm)	8.825030	ppm	0.005829	0.07	21747.000000	Y_R 377.433
As (188.980 nm)	2.163670	ppm	0.001840	0.09	3445.920000	Y 242.219
B (249.678 nm)	4.422060	ppm	0.008669	0.20	31724.000000	Y 242.219
Ba (493.408 nm)	3.929410	ppm	0.003346	0.09	382055.000000	Y_R 488.368
Be (234.861 nm)	1.022660	ppm	0.008177	0.80	103058.000000	Y_R 488.368
Bi (223.061 nm)	2.004330	ppm	0.004766	0.24	4558.450000	Y 377.433
Ca (315.887 nm)	416.115218	ppm	0.129009	0.03	335886.726118	Y_R 377.433
Cd (214.439 nm)	0.974417	ppm	0.001538	0.16	38984.800000	Y 377.433
Co (228.615 nm)	1.004900	ppm	0.002634	0.26	24870.900000	Y 242.219
Cr (205.560 nm)	1.012520	ppm	0.001170	0.12	7161.180000	Y 377.433
Cu (324.754 nm)	1.060560	ppm	0.004688	0.44	49508.500000	Y 377.433
Fe (238.204 nm)	11.285486 o	ppm	0.006648	0.06	27818.921026	Y_R 377.433
Fe H (259.940 nm)	11.372400	ppm	0.024469	0.22	15992.200000	Y_R 377.433
K (766.491 nm)	119.277000	ppm	0.841202	0.71	120367.000000	Y_R2 488.368
Li (670.783 nm)	1.431930	ppm	0.002103	0.15	22303.700000	Y_R2 488.368
Mg (279.078 nm)	199.471000	ppm	0.048630	0.02	706723.000000	Y 377.433
Mn (257.610 nm)	2.161450	ppm	0.000135	0.01	597836.000000	Y 377.433
Mo (202.032 nm)	1.013470	ppm	0.000143	0.01	12919.400000	Y 377.433
Na (589.592 nm)	691.667000 o	ppm	3.527750	0.51	513272.000000	Y_R2 488.368
Na H (589.593 nm)	810.106612	ppm	1.823088	0.23	403227.201971	Y_R4
Ni (231.604 nm)	1.005310	ppm	0.000031	0.00	5609.140000	Y 377.433
P (213.618 nm)	21.503700	ppm	0.048882	0.23	32233.800000	Y 242.219
Pb (220.353 nm)	0.988096	ppm	0.002795	0.28	3405.720000	Y 242.219
S (181.972 nm)	37.824120	ppm	0.027800	0.07	17025.489985	Y 377.433
Sb (206.834 nm)	1.092760	ppm	0.007032	0.64	1917.100000	Y 377.433
Se (196.026 nm)	2.072170	ppm	0.005711	0.28	3378.510000	Y 242.219
Si (288.158 nm)	19.246200	ppm	0.031704	0.16	127462.000000	Y 377.433
Sn (189.925 nm)	1.942410	ppm	0.001360	0.07	3390.210000	Y 377.433
Sr (421.552 nm)	9.643755	ppm	0.000597	0.01	1410445.413598	Y_R 488.368
Th (288.505 nm)	1.044300	ppm	0.004980	0.48	1752.950000	Y 377.433
Ti (336.122 nm)	1.033810	ppm	0.000932	0.09	135345.000000	Y 377.433
Tl (190.794 nm)	1.885780	ppm	0.004607	0.24	4543.700000	Y 377.433
U (409.013 nm)	2.069550	ppm	0.007645	0.37	6345.770000	Y 377.433
V (292.401 nm)	1.019860	ppm	0.000325	0.03	53612.100000	Y 377.433
Zn (206.200 nm)	0.519170	ppm	0.001941	0.37	2582.280000	Y 377.433
Zr (343.823 nm)	0.409584	ppm	0.000778	0.19	23442.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984687	22049.565733	0.005833	0.59
Y 377.433	1.007642	651063.775496	0.004173	0.41
Y_R 377.433	1.068150	58801.900000	0.003652	0.34
Y_R 488.368	1.061040	51277.100000	0.003496	0.33
Y_R2 488.368	1.040562	96443.936515	0.005590	0.54
Y_R4	1.073130	45950.900000	0.002835	0.26

Sample Name: mb 280-458933/1-a

Date: 5/23/2019 11:10:18 PM Rack:Tube: 1:88

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000091 u	ppm	0.000147	> 100.00	-242.707000	Y 377.433
Al (394.401 nm)	0.002043	ppm	0.001372	67.19	151.779000	Y 377.433
Al H (396.152 nm)	0.132912 u	ppm	0.002857	2.15	48.432700	Y_R 377.433
As (188.980 nm)	-0.000971 u	ppm	0.000809	83.33	-2.854760	Y 242.219
B (249.678 nm)	0.002733	ppm	0.000591	21.61	56.615700	Y 242.219
Ba (493.408 nm)	-0.001817 u	ppm	0.000082	4.51	1256.730000	Y_R 488.368
Be (234.861 nm)	0.000017 u	ppm	0.000035	> 100.00	-4.427470	Y_R 488.368
Bi (223.061 nm)	0.001444	ppm	0.001703	> 100.00	-12.203900	Y 377.433
Ca (315.887 nm)	0.038444	ppm	0.008092	21.05	-30.936764	Y_R 377.433
Cd (214.439 nm)	0.000045	ppm	0.000041	90.76	-5.938020	Y 377.433
Co (228.615 nm)	0.000004 u	ppm	0.000562	> 100.00	-22.044500	Y 242.219
Cr (205.560 nm)	0.000454	ppm	0.000020	4.39	-2.754970	Y 377.433
Cu (324.754 nm)	0.000320	ppm	0.000121	37.86	427.761000	Y 377.433
Fe (238.204 nm)	0.102762	ppm	0.001605	1.56	256.217576	Y_R 377.433
Fe H (259.940 nm)	0.052345 u	ppm	0.003588	6.85	163.940000	Y_R 377.433
K (766.491 nm)	-0.110796 u	ppm	0.035204	31.77	1871.620000	Y_R2 488.368
Li (670.783 nm)	0.011992	ppm	0.000845	7.05	-2422.650000	Y_R2 488.368
Mg (279.078 nm)	0.010931	ppm	0.001724	15.77	50.682600	Y 377.433
Mn (257.610 nm)	0.001214	ppm	0.000027	2.25	313.721000	Y 377.433
Mo (202.032 nm)	0.000323	ppm	0.000194	60.04	27.495800	Y 377.433
Na (589.592 nm)	0.371448	ppm	0.019637	5.29	385.064000	Y_R2 488.368
Na H (589.593 nm)	2.194854 u	ppm	0.009298	0.42	1419.139822	Y_R4
Ni (231.604 nm)	-0.000217 u	ppm	0.000409	> 100.00	-12.579700	Y 377.433
P (213.618 nm)	0.002105	ppm	0.001314	62.42	-1.435620	Y 242.219
Pb (220.353 nm)	-0.002095 u	ppm	0.000467	22.31	5.669200	Y 242.219
S (181.972 nm)	0.012487	ppm	0.008416	67.40	13.368760	Y 377.433
Sb (206.834 nm)	0.005788	ppm	0.002133	36.85	2.683240	Y 377.433
Se (196.026 nm)	-0.001574 u	ppm	0.003980	> 100.00	7.992140	Y 242.219
Si (288.158 nm)	0.009645	ppm	0.001500	15.55	571.666000	Y 377.433
Sn (189.925 nm)	0.000635 u	ppm	0.002340	> 100.00	3.344500	Y 377.433
Sr (421.552 nm)	0.000094	ppm	0.000105	> 100.00	61.680990	Y_R 488.368
Th (288.505 nm)	0.000925 u	ppm	0.003240	> 100.00	16.025200	Y 377.433
Ti (336.122 nm)	0.000657	ppm	0.000037	5.64	-420.241000	Y 377.433
Tl (190.794 nm)	0.000754	ppm	0.000203	26.95	1.924400	Y 377.433
U (409.013 nm)	-0.000967 u	ppm	0.007384	> 100.00	-44.734800	Y 377.433
V (292.401 nm)	0.000555	ppm	0.000067	12.08	-150.121000	Y 377.433
Zn (206.200 nm)	0.001551	ppm	0.000643	41.45	11.529600	Y 377.433
Zr (343.823 nm)	0.000392	ppm	0.000010	2.59	-151.942000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126562	25226.494853	0.001323	0.12
Y 377.433	1.123966	726223.761919	0.001238	0.11
Y_R 377.433	1.137270	62607.000000	0.008809	0.77
Y_R 488.368	1.133880	54797.200000	0.008744	0.77
Y_R2 488.368	1.127419	104494.232066	0.000981	0.09
Y_R4	1.138240	48739.100000	0.000384	0.03

Sample Name: lcs 280-458933/2-a

Date: 5/23/2019 11:13:46 PM Rack:Tube: 1:89

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051215	ppm	0.000228	0.44	1239.920000	Y 377.433
Al (394.401 nm)	9.992960 o	ppm	0.016565	0.17	119787.000000	Y 377.433
Al H (396.152 nm)	10.051400	ppm	0.027785	0.28	20958.000000	Y_R 377.433
As (188.980 nm)	2.010190	ppm	0.001006	0.05	3201.410000	Y 242.219
B (249.678 nm)	0.994819	ppm	0.000024	0.00	7161.170000	Y 242.219
Ba (493.408 nm)	2.010550	ppm	0.000941	0.05	196188.000000	Y_R 488.368
Be (234.861 nm)	0.995689	ppm	0.003238	0.33	100343.000000	Y_R 488.368
Bi (223.061 nm)	1.931510	ppm	0.000540	0.03	4391.990000	Y 377.433
Ca (315.887 nm)	49.585235	ppm	0.079039	0.16	39972.694334	Y_R 377.433
Cd (214.439 nm)	0.989483	ppm	0.000645	0.07	39587.100000	Y 377.433
Co (228.615 nm)	0.979034	ppm	0.000044	0.00	24230.300000	Y 242.219
Cr (205.560 nm)	0.996068	ppm	0.005562	0.56	7044.720000	Y 377.433
Cu (324.754 nm)	0.979833	ppm	0.000695	0.07	45967.700000	Y 377.433
Fe (238.204 nm)	10.140129 o	ppm	0.001257	0.01	24995.892429	Y_R 377.433
Fe H (259.940 nm)	10.161400	ppm	0.010303	0.10	14299.000000	Y_R 377.433
K (766.491 nm)	50.736600	ppm	0.203856	0.40	52339.200000	Y_R2 488.368
Li (670.783 nm)	1.020940	ppm	0.003024	0.30	15146.800000	Y_R2 488.368
Mg (279.078 nm)	49.929900	ppm	0.029946	0.06	176874.000000	Y 377.433
Mn (257.610 nm)	1.006830	ppm	0.000886	0.09	278468.000000	Y 377.433
Mo (202.032 nm)	1.010650	ppm	0.001937	0.19	12883.500000	Y 377.433
Na (589.592 nm)	48.748000	ppm	0.226643	0.46	36632.200000	Y_R2 488.368
Na H (589.593 nm)	53.853631	ppm	0.367311	0.68	27111.194584	Y_R4
Ni (231.604 nm)	0.979068	ppm	0.000237	0.02	5462.600000	Y 377.433
P (213.618 nm)	20.024700	ppm	0.004724	0.02	30017.400000	Y 242.219
Pb (220.353 nm)	0.996315	ppm	0.002696	0.27	3434.070000	Y 242.219
S (181.972 nm)	9.981983	ppm	0.018114	0.18	4497.274184	Y 377.433
Sb (206.834 nm)	1.058220	ppm	0.001746	0.17	1855.770000	Y 377.433
Se (196.026 nm)	1.971030	ppm	0.006385	0.32	3212.740000	Y 242.219
Si (288.158 nm)	2.057680	ppm	0.002191	0.11	14081.100000	Y 377.433
Sn (189.925 nm)	1.988920	ppm	0.003123	0.16	3471.340000	Y 377.433
Sr (421.552 nm)	1.006247	ppm	0.000690	0.07	147212.639958	Y_R 488.368
Th (288.505 nm)	1.027660	ppm	0.001495	0.15	1713.060000	Y 377.433
Ti (336.122 nm)	1.007780	ppm	0.000549	0.05	130701.000000	Y 377.433
Tl (190.794 nm)	1.985750	ppm	0.001848	0.09	4801.370000	Y 377.433
U (409.013 nm)	2.006490	ppm	0.006428	0.32	6184.150000	Y 377.433
V (292.401 nm)	0.998740	ppm	0.001011	0.10	52496.900000	Y 377.433
Zn (206.200 nm)	0.496556	ppm	0.000970	0.20	2469.870000	Y 377.433
Zr (343.823 nm)	0.499445	ppm	0.000421	0.08	28623.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084466	24283.864228	0.003021	0.28
Y 377.433	1.091065	704965.909880	0.002471	0.23
Y_R 377.433	1.118090	61551.400000	0.000561	0.05
Y_R 488.368	1.114790	53874.400000	0.000287	0.03
Y_R2 488.368	1.090901	101109.582604	0.004079	0.37
Y_R4	1.127650	48285.300000	0.003260	0.29

Sample Name: 280-123564-m-1-b

Date: 5/23/2019 11:17:26 PM Rack:Tube: 1:90

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001144	ppm	0.000047	4.11	-206.154000	Y 377.433
Al (394.401 nm)	0.003031	ppm	0.000652	21.50	409.460000	Y 377.433
Al H (396.152 nm)	-0.049998 u	ppm	0.005045	10.09	138.611000	Y_R 377.433
As (188.980 nm)	0.000521	ppm	0.000393	75.30	-0.489013	Y 242.219
B (249.678 nm)	0.261201	ppm	0.000104	0.04	1908.860000	Y 242.219
Ba (493.408 nm)	0.063112	ppm	0.000324	0.51	7546.180000	Y_R 488.368
Be (234.861 nm)	0.000049	ppm	0.000019	39.60	-2.974970	Y_R 488.368
Bi (223.061 nm)	0.002340	ppm	0.000489	20.92	-10.046300	Y 377.433
Ca (315.887 nm)	119.672799	ppm	0.161469	0.13	96554.546723	Y_R 377.433
Cd (214.439 nm)	0.000345	ppm	0.000089	25.70	6.246620	Y 377.433
Co (228.615 nm)	0.000319	ppm	0.000211	66.19	-14.274300	Y 242.219
Cr (205.560 nm)	-0.000185 u	ppm	0.000309	> 100.00	-14.390900	Y 377.433
Cu (324.754 nm)	0.000357	ppm	0.000413	> 100.00	377.078000	Y 377.433
Fe (238.204 nm)	0.497986	ppm	0.000145	0.03	1230.348032	Y_R 377.433
Fe H (259.940 nm)	0.446815 u	ppm	0.007626	1.71	715.508000	Y_R 377.433
K (766.491 nm)	18.380200	ppm	0.013317	0.07	20224.500000	Y_R2 488.368
Li (670.783 nm)	0.033163	ppm	0.002647	7.98	-2053.980000	Y_R2 488.368
Mg (279.078 nm)	39.006900	ppm	0.028440	0.07	138218.000000	Y 377.433
Mn (257.610 nm)	0.150228	ppm	0.000029	0.02	41531.200000	Y 377.433
Mo (202.032 nm)	1.439290	ppm	0.003384	0.24	18337.800000	Y 377.433
Na (589.592 nm)	275.793000 o	ppm	0.434867	0.16	204419.000000	Y_R2 488.368
Na H (589.593 nm)	296.288856	ppm	1.171647	0.40	147684.298139	Y_R4
Ni (231.604 nm)	0.000167 u	ppm	0.000256	> 100.00	-10.430500	Y 377.433
P (213.618 nm)	0.036975	ppm	0.001227	3.32	-1.516910	Y 242.219
Pb (220.353 nm)	-0.002791 u	ppm	0.001379	49.39	-0.661598	Y 242.219
S (181.972 nm)	119.036988 bo	ppm	0.154696	0.13	53486.958105	Y 377.433
Sb (206.834 nm)	0.002132	ppm	0.000938	44.00	-13.612500	Y 377.433
Se (196.026 nm)	-0.001883 u	ppm	0.001316	69.90	7.855500	Y 242.219
Si (288.158 nm)	8.485710	ppm	0.008704	0.10	56482.400000	Y 377.433
Sn (189.925 nm)	0.000248 u	ppm	0.000354	> 100.00	2.669020	Y 377.433
Sr (421.552 nm)	0.946372	ppm	0.002631	0.28	138454.501968	Y_R 488.368
Th (288.505 nm)	-0.004355 u	ppm	0.000538	12.35	7.001050	Y 377.433
Ti (336.122 nm)	-0.000002 u	ppm	0.000148	> 100.00	-95.394300	Y 377.433
Tl (190.794 nm)	0.007428	ppm	0.000105	1.42	4.897870	Y 377.433
U (409.013 nm)	0.031494	ppm	0.000300	0.95	41.620600	Y 377.433
V (292.401 nm)	0.002423	ppm	0.000141	5.80	-160.917000	Y 377.433
Zn (206.200 nm)	0.006014	ppm	0.000480	7.99	33.742500	Y 377.433
Zr (343.823 nm)	0.000540	ppm	0.000050	9.24	-143.411000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080323	24191.098518	0.001400	0.13
Y 377.433	1.085729	701517.864846	0.001553	0.14
Y_R 377.433	1.128700	62135.300000	0.006748	0.60
Y_R 488.368	1.123120	54277.200000	0.004402	0.39
Y_R2 488.368	1.116438	103476.448118	0.005439	0.49
Y_R4	1.136970	48684.500000	0.007849	0.69

Sample Name: CCVH-5713036

Date: 5/23/2019 11:21:03 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004557	ppm	0.000380	8.34	-96.286500	Y 377.433
Al (394.401 nm)	49.527000 o	ppm	0.033351	0.07	590684.000000	Y 377.433
Al H (396.152 nm)	49.165100	ppm	0.080290	0.16	101091.000000	Y_R 377.433
As (188.980 nm)	0.004161	ppm	0.002029	48.76	3.916750	Y 242.219
B (249.678 nm)	-0.000932 u	ppm	0.000261	28.06	1.895880	Y 242.219
Ba (493.408 nm)	0.000800	ppm	0.000168	21.01	1548.170000	Y_R 488.368
Be (234.861 nm)	0.001102	ppm	0.000060	5.48	-107.518000	Y_R 488.368
Bi (223.061 nm)	0.013348	ppm	0.001855	13.90	23.780000	Y 377.433
Ca (315.887 nm)	0.004149	ppm	0.001906	45.94	-46.175702	Y_R 377.433
Cd (214.439 nm)	0.001517	ppm	0.000165	10.85	74.529400	Y 377.433
Co (228.615 nm)	0.003480	ppm	0.000200	5.76	63.899400	Y 242.219
Cr (205.560 nm)	0.001653	ppm	0.000233	14.12	4.335640	Y 377.433
Cu (324.754 nm)	0.003426	ppm	0.000146	4.26	1502.500000	Y 377.433
Fe (238.204 nm)	48.811472 o	ppm	0.055642	0.11	120311.377249	Y_R 377.433
Fe H (259.940 nm)	49.130500	ppm	0.001702	0.00	68787.500000	Y_R 377.433
K (766.491 nm)	0.120238	ppm	0.096503	80.26	2100.930000	Y_R2 488.368
Li (670.783 nm)	0.020140	ppm	0.003954	19.63	-2280.760000	Y_R2 488.368
Mg (279.078 nm)	0.037117	ppm	0.003185	8.58	64.098300	Y 377.433
Mn (257.610 nm)	0.001035	ppm	0.000006	0.58	264.230000	Y 377.433
Mo (202.032 nm)	0.001097	ppm	0.000217	19.80	37.341000	Y 377.433
Na (589.592 nm)	238.195000 o	ppm	0.151224	0.06	176555.000000	Y_R2 488.368
Na H (589.593 nm)	251.541978	ppm	1.508212	0.60	125429.817873	Y_R4
Ni (231.604 nm)	0.002621	ppm	0.000515	19.63	3.281600	Y 377.433
P (213.618 nm)	4.853590	ppm	0.006171	0.13	7335.730000	Y 242.219
Pb (220.353 nm)	0.004333	ppm	0.001902	43.90	20.446600	Y 242.219
S (181.972 nm)	5.007306	ppm	0.016828	0.34	2257.111259	Y 377.433
Sb (206.834 nm)	0.010806	ppm	0.000557	5.16	15.866900	Y 377.433
Se (196.026 nm)	0.005686	ppm	0.000109	1.91	6.171590	Y 242.219
Si (288.158 nm)	0.019952	ppm	0.001485	7.44	639.653000	Y 377.433
Sn (189.925 nm)	-0.000257 u	ppm	0.000743	> 100.00	1.788830	Y 377.433
Sr (421.552 nm)	0.001107	ppm	0.000011	1.00	216.971399	Y_R 488.368
Th (288.505 nm)	4.920470	ppm	0.000118	0.00	8597.810000	Y 377.433
Ti (336.122 nm)	0.002248	ppm	0.000151	6.72	-213.397000	Y 377.433
Tl (190.794 nm)	0.000617 u	ppm	0.002137	> 100.00	-3.359340	Y 377.433
U (409.013 nm)	0.552077 Q	ppm	0.002270	0.41	1723.490000 Q	Y 377.433
V (292.401 nm)	0.001499	ppm	0.000073	4.84	395.891000	Y 377.433
Zn (206.200 nm)	0.003106	ppm	0.000027	0.88	26.786800	Y 377.433
Zr (343.823 nm)	0.001441	ppm	0.000028	1.97	-91.434300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113933	24943.707600	0.001076	0.10
Y 377.433	1.113249	719299.170020	0.000544	0.05
Y_R 377.433	1.154230	63540.700000	0.000925	0.08
Y_R 488.368	1.147880	55473.800000	0.002531	0.22
Y_R2 488.368	1.145945	106211.276355	0.005653	0.49
Y_R4	1.175520	50335.100000	0.008158	0.69

Sample Name: CCV-5717467

Date: 5/23/2019 11:24:44 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.490011	ppm	0.000641	0.13	16934.600000	Y 377.433
Al (394.401 nm)	0.505230	ppm	0.003905	0.77	6287.440000	Y 377.433
Al H (396.152 nm)	0.558129 u	ppm	0.003685	0.66	1157.040000	Y_R 377.433
As (188.980 nm)	0.490271	ppm	0.001351	0.28	779.814000	Y 242.219
B (249.678 nm)	0.483806	ppm	0.001923	0.40	3503.160000	Y 242.219
Ba (493.408 nm)	0.487441	ppm	0.000663	0.14	48649.400000	Y_R 488.368
Be (234.861 nm)	0.479335	ppm	0.000977	0.20	48314.000000	Y_R 488.368
Bi (223.061 nm)	0.958839	ppm	0.001013	0.11	2172.050000	Y 377.433
Ca (315.887 nm)	4.893556	ppm	0.013743	0.28	3888.919330	Y_R 377.433
Cd (214.439 nm)	0.492767	ppm	0.000995	0.20	19709.500000	Y 377.433
Co (228.615 nm)	0.490028	ppm	0.000686	0.14	12115.900000	Y 242.219
Cr (205.560 nm)	0.490786	ppm	0.002018	0.41	3468.240000	Y 377.433
Cu (324.754 nm)	0.486923	ppm	0.002566	0.53	23021.500000	Y 377.433
Fe (238.204 nm)	2.456239	ppm	0.009015	0.37	6056.966630	Y_R 377.433
Fe H (259.940 nm)	2.437480 u	ppm	0.002342	0.10	3498.950000	Y_R 377.433
K (766.491 nm)	48.880000	ppm	0.212357	0.43	50496.500000	Y_R2 488.368
Li (670.783 nm)	0.506866	ppm	0.002208	0.44	6194.910000	Y_R2 488.368
Mg (279.078 nm)	19.670500	ppm	0.023333	0.12	69704.100000	Y 377.433
Mn (257.610 nm)	0.490713	ppm	0.000746	0.15	135709.000000	Y 377.433
Mo (202.032 nm)	0.486684	ppm	0.000492	0.10	6216.260000	Y 377.433
Na (589.592 nm)	24.148600	ppm	0.062599	0.26	18097.900000	Y_R2 488.368
Na H (589.593 nm)	26.561631 u	ppm	0.136157	0.51	13537.749740	Y_R4
Ni (231.604 nm)	0.492740	ppm	0.000282	0.06	2742.910000	Y 377.433
P (213.618 nm)	0.056286	ppm	0.002776	4.93	-58.517400	Y 242.219
Pb (220.353 nm)	0.493182	ppm	0.000053	0.01	1704.780000	Y 242.219
S (181.972 nm)	0.006443	ppm	0.000905	14.05	12.393416	Y 377.433
Sb (206.834 nm)	0.493977	ppm	0.003283	0.66	861.792000	Y 377.433
Se (196.026 nm)	0.491423	ppm	0.007534	1.53	809.365000	Y 242.219
Si (288.158 nm)	4.808880	ppm	0.034321	0.71	32228.900000	Y 377.433
Sn (189.925 nm)	0.492095	ppm	0.002298	0.47	860.555000	Y 377.433
Sr (421.552 nm)	0.489286	ppm	0.000588	0.12	71606.216923	Y_R 488.368
Th (288.505 nm)	0.014563	ppm	0.003757	25.80	-10.019300	Y 377.433
Ti (336.122 nm)	0.486681	ppm	0.000050	0.01	62791.400000	Y 377.433
Tl (190.794 nm)	0.497778	ppm	0.001036	0.21	1202.620000	Y 377.433
U (409.013 nm)	0.017235	ppm	0.001935	11.23	-46.574200	Y 377.433
V (292.401 nm)	0.486486	ppm	0.000538	0.11	25475.100000	Y 377.433
Zn (206.200 nm)	0.493587	ppm	0.002292	0.46	2453.940000	Y 377.433
Zr (343.823 nm)	0.487296	ppm	0.000448	0.09	27923.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119477	25067.843921	0.002911	0.26
Y 377.433	1.119150	723112.250051	0.003438	0.31
Y_R 377.433	1.144330	62995.700000	0.005468	0.48
Y_R 488.368	1.140370	55110.900000	0.003603	0.32
Y_R2 488.368	1.127861	104535.149772	0.003738	0.33
Y_R4	1.163700	49829.100000	0.006670	0.57

Sample Name: CCB

Date: 5/23/2019 11:28:20 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000010 u	ppm	0.000345	> 100.00	-246.232000	Y 377.433
Al (394.401 nm)	-0.002233 u	ppm	0.000003	0.11	102.699000	Y 377.433
Al H (396.152 nm)	0.123795 Zu	ppm	0.002770	2.24	29.560800 Z	Y_R 377.433
As (188.980 nm)	-0.000698 u	ppm	0.001913	> 100.00	-2.418240	Y 242.219
B (249.678 nm)	-0.002629 u	ppm	0.000866	32.93	18.245700	Y 242.219
Ba (493.408 nm)	-0.001694 u	ppm	0.000032	1.92	1268.560000	Y_R 488.368
Be (234.861 nm)	0.000034	ppm	0.000003	7.34	-2.249140	Y_R 488.368
Bi (223.061 nm)	0.002975	ppm	0.000651	21.88	-8.729340	Y 377.433
Ca (315.887 nm)	0.002809	ppm	0.003466	> 100.00	-59.708558	Y_R 377.433
Cd (214.439 nm)	0.000130	ppm	0.000030	22.88	-2.589760	Y 377.433
Co (228.615 nm)	0.000083	ppm	0.000031	37.58	-20.110200	Y 242.219
Cr (205.560 nm)	-0.000260 u	ppm	0.000390	> 100.00	-7.807460	Y 377.433
Cu (324.754 nm)	0.000010 u	ppm	0.000116	> 100.00	412.353000	Y 377.433
Fe (238.204 nm)	0.000919	ppm	0.001176	> 100.00	5.200172	Y_R 377.433
Fe H (259.940 nm)	-0.057451 u	ppm	0.001651	2.87	10.418600	Y_R 377.433
K (766.491 nm)	-0.216338 u	ppm	0.071350	32.98	1766.870000	Y_R2 488.368
Li (670.783 nm)	0.013290 Z	ppm	0.002914	21.92	-2400.040000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000552 u	ppm	0.002109	> 100.00	9.949000	Y 377.433
Mn (257.610 nm)	0.000085	ppm	0.000019	22.49	1.581750	Y 377.433
Mo (202.032 nm)	-0.000121 u	ppm	0.000307	> 100.00	21.852900	Y 377.433
Na (589.592 nm)	0.160252	ppm	0.035753	22.31	228.734000	Y_R2 488.368
Na H (589.593 nm)	0.869119 u	ppm	0.004879	0.56	759.796823	Y_R4
Ni (231.604 nm)	-0.000867 u	ppm	0.000585	67.44	-16.211300	Y 377.433
P (213.618 nm)	-0.000944 u	ppm	0.000940	99.62	-5.896720	Y 242.219
Pb (220.353 nm)	-0.001091 u	ppm	0.000875	80.18	9.151230	Y 242.219
S (181.972 nm)	0.005360	ppm	0.000461	8.61	10.163118	Y 377.433
Sb (206.834 nm)	0.001598 u	ppm	0.006115	> 100.00	-4.720670	Y 377.433
Se (196.026 nm)	-0.002181 u	ppm	0.000969	44.43	7.030770	Y 242.219
Si (288.158 nm)	-0.003717 u	ppm	0.000666	17.93	483.526000	Y 377.433
Sn (189.925 nm)	0.000772	ppm	0.000454	58.81	3.583720	Y 377.433
Sr (421.552 nm)	0.000002 u	ppm	0.000005	> 100.00	48.149056	Y_R 488.368
Th (288.505 nm)	-0.000591 u	ppm	0.000563	95.16	13.478000	Y 377.433
Ti (336.122 nm)	0.000504	ppm	0.000035	6.92	-440.209000	Y 377.433
Tl (190.794 nm)	0.002618	ppm	0.000097	3.71	6.459540	Y 377.433
U (409.013 nm)	0.003459	ppm	0.003233	93.47	-30.923700	Y 377.433
V (292.401 nm)	0.000472	ppm	0.000376	79.62	-155.091000	Y 377.433
Zn (206.200 nm)	0.000558	ppm	0.000039	7.04	6.586400	Y 377.433
Zr (343.823 nm)	0.000482	ppm	0.000038	7.88	-146.740000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.135863	25434.783129	0.006124	0.54
Y 377.433	1.133918	732654.101572	0.007304	0.64
Y_R 377.433	1.147310	63160.100000	0.006635	0.58
Y_R 488.368	1.143840	55278.200000	0.006768	0.59
Y_R2 488.368	1.132668	104980.702032	0.000877	0.08
Y_R4	1.150160	49249.400000	0.007853	0.68

Sample Name: CCVL-5717307

Date: 5/23/2019 11:31:32 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008086	ppm	0.000085	1.06	36.672400	Y 377.433
Al (394.401 nm)	0.094099	ppm	0.001524	1.62	1263.250000	Y 377.433
Al H (396.152 nm)	0.221508 u	ppm	0.004753	2.15	236.024000	Y_R 377.433
As (188.980 nm)	0.015268	ppm	0.003682	24.12	23.019600	Y 242.219
B (249.678 nm)	0.091759	ppm	0.001065	1.16	694.679000	Y 242.219
Ba (493.408 nm)	0.007590	ppm	0.000096	1.27	2167.850000	Y_R 488.368
Be (234.861 nm)	0.000994	ppm	0.000032	3.20	94.058800	Y_R 488.368
Bi (223.061 nm)	0.091753	ppm	0.005779	6.30	193.788000	Y 377.433
Ca (315.887 nm)	0.209394	ppm	0.011635	5.56	107.097947	Y_R 377.433
Cd (214.439 nm)	0.005084	ppm	0.000157	3.09	195.667000	Y 377.433
Co (228.615 nm)	0.010449	ppm	0.000033	0.31	236.627000	Y 242.219
Cr (205.560 nm)	0.009313	ppm	0.000196	2.11	59.848700	Y 377.433
Cu (324.754 nm)	0.015175	ppm	0.000157	1.04	1114.520000	Y 377.433
Fe (238.204 nm)	0.100667	ppm	0.000306	0.30	251.054546	Y_R 377.433
Fe H (259.940 nm)	0.046077 u	ppm	0.000743	1.61	155.176000	Y_R 377.433
K (766.491 nm)	2.717010	ppm	0.022179	0.82	4678.300000	Y_R2 488.368
Li (670.783 nm)	0.040179 Q	ppm	0.001169	2.91	-1931.810000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200474	ppm	0.003087	1.54	720.802000	Y 377.433
Mn (257.610 nm)	0.010492	ppm	0.000001	0.01	2880.150000	Y 377.433
Mo (202.032 nm)	0.018527	ppm	0.000498	2.69	259.132000	Y 377.433
Na (589.592 nm)	1.202470	ppm	0.021836	1.82	1002.700000	Y_R2 488.368
Na H (589.593 nm)	1.669062 u	ppm	0.048972	2.93	1157.641546	Y_R4
Ni (231.604 nm)	0.041466	ppm	0.000445	1.07	220.381000	Y 377.433
P (213.618 nm)	2.742140	ppm	0.017587	0.64	4140.700000	Y 242.219
Pb (220.353 nm)	0.007983	ppm	0.000735	9.21	40.430800	Y 242.219
S (181.972 nm)	0.091118	ppm	0.002774	3.04	48.724490	Y 377.433
Sb (206.834 nm)	0.022810	ppm	0.001436	6.30	32.573900	Y 377.433
Se (196.026 nm)	0.015930	ppm	0.002534	15.91	36.455600	Y 242.219
Si (288.158 nm)	0.470950	ppm	0.000485	0.10	3614.570000	Y 377.433
Sn (189.925 nm)	0.096706	ppm	0.000493	0.51	170.912000	Y 377.433
Sr (421.552 nm)	0.009079	ppm	0.000048	0.53	1375.661354	Y_R 488.368
Th (288.505 nm)	0.011241	ppm	0.005308	47.22	33.661900	Y 377.433
Ti (336.122 nm)	0.010096	ppm	0.000066	0.65	807.649000	Y 377.433
Tl (190.794 nm)	0.016028	ppm	0.000916	5.72	38.828400	Y 377.433
U (409.013 nm)	0.067190	ppm	0.010124	15.07	167.515000	Y 377.433
V (292.401 nm)	0.010336	ppm	0.000202	1.95	361.822000	Y 377.433
Zn (206.200 nm)	0.020785	ppm	0.000473	2.28	106.991000	Y 377.433
Zr (343.823 nm)	0.010240	ppm	0.000104	1.02	415.924000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.142333	25579.664015	0.002670	0.23
Y 377.433	1.140077	736633.466772	0.003052	0.27
Y_R 377.433	1.157420	63716.300000	0.003386	0.29
Y_R 488.368	1.154940	55814.600000	0.002056	0.18
Y_R2 488.368	1.148748	106471.066252	0.003059	0.27
Y_R4	1.143200	48951.200000	0.010073	0.88

Sample Name: 280-123564-m-1-bSD@5

Date: 5/23/2019 11:35:00 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000929	ppm	0.000353	38.04	-213.359000	Y 377.433
Al (394.401 nm)	0.001344	ppm	0.000448	33.33	195.250000	Y 377.433
Al H (396.152 nm)	0.088940 u	ppm	0.004407	4.95	51.033700	Y_R 377.433
As (188.980 nm)	0.002172	ppm	0.002247	> 100.00	2.152420	Y 242.219
B (249.678 nm)	0.049178	ppm	0.000424	0.86	389.482000	Y 242.219
Ba (493.408 nm)	0.011091	ppm	0.000001	0.01	2506.960000	Y_R 488.368
Be (234.861 nm)	0.000023	ppm	0.000011	47.44	-3.963560	Y_R 488.368
Bi (223.061 nm)	0.001809	ppm	0.000727	40.19	-11.359200	Y 377.433
Ca (315.887 nm)	24.483507	ppm	0.005507	0.02	19704.515722	Y_R 377.433
Cd (214.439 nm)	0.000162	ppm	0.000024	14.82	-1.263230	Y 377.433
Co (228.615 nm)	0.000009 u	ppm	0.000100	> 100.00	-21.952500	Y 242.219
Cr (205.560 nm)	0.000510	ppm	0.000150	29.42	-3.776750	Y 377.433
Cu (324.754 nm)	-0.000316 u	ppm	0.000350	> 100.00	386.059000	Y 377.433
Fe (238.204 nm)	0.121609	ppm	0.001549	1.27	302.669717	Y_R 377.433
Fe H (259.940 nm)	0.061476 u	ppm	0.002853	4.64	176.708000	Y_R 377.433
K (766.491 nm)	3.352810	ppm	0.045020	1.34	5309.350000	Y_R2 488.368
Li (670.783 nm)	0.023496	ppm	0.000711	3.03	-2222.320000	Y_R2 488.368
Mg (279.078 nm)	7.965670	ppm	0.026680	0.33	28235.200000	Y 377.433
Mn (257.610 nm)	0.031072	ppm	0.000090	0.29	8572.540000	Y 377.433
Mo (202.032 nm)	0.288427	ppm	0.000979	0.34	3693.520000	Y 377.433
Na (589.592 nm)	57.436100 o	ppm	0.112091	0.20	42658.800000	Y_R2 488.368
Na H (589.593 nm)	59.565371	ppm	0.238356	0.40	29951.880047	Y_R4
Ni (231.604 nm)	-0.000124 u	ppm	0.000466	> 100.00	-12.061700	Y 377.433
P (213.618 nm)	0.006996	ppm	0.000375	5.36	-4.472850	Y 242.219
Pb (220.353 nm)	-0.000724 u	ppm	0.001276	> 100.00	9.626790	Y 242.219
S (181.972 nm)	23.626866	ppm	0.101434	0.43	10622.520942	Y 377.433
Sb (206.834 nm)	0.004119	ppm	0.002768	67.20	-2.239670	Y 377.433
Se (196.026 nm)	-0.005895 u	ppm	0.001996	33.86	1.059880	Y 242.219
Si (288.158 nm)	1.681770	ppm	0.005712	0.34	11601.600000	Y 377.433
Sn (189.925 nm)	-0.000179 u	ppm	0.000559	> 100.00	1.924360	Y 377.433
Sr (421.552 nm)	0.188869	ppm	0.000585	0.31	27669.910786	Y_R 488.368
Th (288.505 nm)	-0.004225 u	ppm	0.002927	69.27	7.160440	Y 377.433
Ti (336.122 nm)	0.000407	ppm	0.000068	16.82	-369.257000	Y 377.433
Tl (190.794 nm)	0.001157	ppm	0.001430	> 100.00	0.253540	Y 377.433
U (409.013 nm)	0.023844	ppm	0.008397	35.22	29.817600	Y 377.433
V (292.401 nm)	0.000955	ppm	0.000074	7.78	-151.875000	Y 377.433
Zn (206.200 nm)	0.005100	ppm	0.000074	1.46	29.149900	Y 377.433
Zr (343.823 nm)	0.000469	ppm	0.000058	12.28	-147.466000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124319	25176.283805	0.000475	0.04
Y 377.433	1.123113	725672.533030	0.001298	0.12
Y_R 377.433	1.150930	63359.000000	0.000446	0.04
Y_R 488.368	1.145250	55346.400000	0.002490	0.22
Y_R2 488.368	1.136193	105307.468510	0.000139	0.01
Y_R4	1.162930	49796.200000	0.007985	0.69

Sample Name: 280-123564-m-1-c ms

Date: 5/23/2019 11:38:28 PM
Rack:Tube: 2:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052747	ppm	0.000129	0.24	1297.180000	Y 377.433
Al (394.401 nm)	9.855910 o	ppm	0.015781	0.16	118391.000000	Y 377.433
Al H (396.152 nm)	9.738820	ppm	0.031483	0.32	20787.900000	Y_R 377.433
As (188.980 nm)	2.052020	ppm	0.008732	0.43	3268.050000	Y 242.219
B (249.678 nm)	1.275450	ppm	0.001371	0.11	9172.320000	Y 242.219
Ba (493.408 nm)	2.062040	ppm	0.003611	0.18	201176.000000	Y_R 488.368
Be (234.861 nm)	0.990771	ppm	0.000659	0.07	99846.500000	Y_R 488.368
Bi (223.061 nm)	1.926430	ppm	0.000193	0.01	4380.500000	Y 377.433
Ca (315.887 nm)	169.080525	ppm	0.290680	0.17	136445.871623	Y_R 377.433
Cd (214.439 nm)	0.964662	ppm	0.000777	0.08	38594.100000	Y 377.433
Co (228.615 nm)	0.969920	ppm	0.000629	0.06	24004.600000	Y 242.219
Cr (205.560 nm)	0.982293	ppm	0.004346	0.44	6940.090000	Y 377.433
Cu (324.754 nm)	0.990140	ppm	0.003758	0.38	46396.100000	Y 377.433
Fe (238.204 nm)	10.400333 o	ppm	0.007375	0.07	25637.232959	Y_R 377.433
Fe H (259.940 nm)	10.446400	ppm	0.014812	0.14	14697.400000	Y_R 377.433
K (766.491 nm)	71.188200	ppm	0.202051	0.28	72637.900000	Y_R2 488.368
Li (670.783 nm)	1.057220	ppm	0.000659	0.06	15778.600000	Y_R2 488.368
Mg (279.078 nm)	88.285500	ppm	0.067951	0.08	312775.000000	Y 377.433
Mn (257.610 nm)	1.131410	ppm	0.001369	0.12	312925.000000	Y 377.433
Mo (202.032 nm)	2.437780	ppm	0.011812	0.48	31043.300000	Y 377.433
Na (589.592 nm)	323.430000 o	ppm	0.144305	0.04	240116.000000	Y_R2 488.368
Na H (589.593 nm)	352.308965	ppm	0.356336	0.10	175545.424288	Y_R4
Ni (231.604 nm)	0.964576	ppm	0.000383	0.04	5381.490000	Y 377.433
P (213.618 nm)	20.414800	ppm	0.015478	0.08	30552.700000	Y 242.219
Pb (220.353 nm)	0.970759	ppm	0.001280	0.13	3342.160000	Y 242.219
S (181.972 nm)	130.961329 bo	ppm	0.283641	0.22	58848.942561	Y 377.433
Sb (206.834 nm)	1.054430	ppm	0.000708	0.07	1839.280000	Y 377.433
Se (196.026 nm)	1.979590	ppm	0.003116	0.16	3227.010000	Y 242.219
Si (288.158 nm)	10.700400	ppm	0.032317	0.30	71091.500000	Y 377.433
Sn (189.925 nm)	1.957950	ppm	0.004518	0.23	3417.320000	Y 377.433
Sr (421.552 nm)	1.972197	ppm	0.004921	0.25	288482.566981	Y_R 488.368
Th (288.505 nm)	1.012630	ppm	0.000910	0.09	1687.280000	Y 377.433
Ti (336.122 nm)	1.000210	ppm	0.001309	0.13	130128.000000	Y 377.433
Tl (190.794 nm)	1.888790	ppm	0.002658	0.14	4553.350000	Y 377.433
U (409.013 nm)	2.010560	ppm	0.007902	0.39	6182.250000	Y 377.433
V (292.401 nm)	0.991183	ppm	0.002408	0.24	51993.900000	Y 377.433
Zn (206.200 nm)	0.482107	ppm	0.001618	0.34	2398.200000	Y 377.433
Zr (343.823 nm)	0.493397	ppm	0.000679	0.14	28275.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070609	23973.578716	0.000099	0.01
Y 377.433	1.083616	700152.550119	0.000134	0.01
Y_R 377.433	1.128030	62098.600000	0.000080	0.01
Y_R 488.368	1.119190	54086.900000	0.001103	0.10
Y_R2 488.368	1.111848	103051.046988	0.006794	0.61
Y_R4	1.143050	48944.800000	0.007794	0.68

Sample Name: 280-123564-m-1-d msd

Date: 5/23/2019 11:42:09 PM Rack:Tube: 2:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052372	ppm	0.000264	0.50	1283.900000	Y 377.433
Al (394.401 nm)	9.883110 o	ppm	0.007219	0.07	118712.000000	Y 377.433
Al H (396.152 nm)	9.759380	ppm	0.043313	0.44	20819.400000	Y_R 377.433
As (188.980 nm)	2.059390	ppm	0.000056	0.00	3279.790000	Y 242.219
B (249.678 nm)	1.273690	ppm	0.002312	0.18	9159.710000	Y 242.219
Ba (493.408 nm)	2.060510	ppm	0.005748	0.28	201028.000000	Y_R 488.368
Be (234.861 nm)	0.984201	ppm	0.005610	0.57	99183.800000	Y_R 488.368
Bi (223.061 nm)	1.934360	ppm	0.000288	0.01	4398.610000	Y 377.433
Ca (315.887 nm)	167.002826	ppm	0.488215	0.29	134768.470253	Y_R 377.433
Cd (214.439 nm)	0.966755	ppm	0.000676	0.07	38677.900000	Y 377.433
Co (228.615 nm)	0.973277	ppm	0.001257	0.13	24087.600000	Y 242.219
Cr (205.560 nm)	0.982389	ppm	0.001531	0.16	6940.910000	Y 377.433
Cu (324.754 nm)	0.994594	ppm	0.003114	0.31	46602.600000	Y 377.433
Fe (238.204 nm)	10.461308 o	ppm	0.042909	0.41	25787.522756	Y_R 377.433
Fe H (259.940 nm)	10.511500	ppm	0.043478	0.41	14788.400000	Y_R 377.433
K (766.491 nm)	71.060100	ppm	0.178029	0.25	72510.800000	Y_R2 488.368
Li (670.783 nm)	1.063930	ppm	0.000095	0.01	15895.500000	Y_R2 488.368
Mg (279.078 nm)	87.690000	ppm	0.033982	0.04	310665.000000	Y 377.433
Mn (257.610 nm)	1.132250	ppm	0.000116	0.01	313159.000000	Y 377.433
Mo (202.032 nm)	2.412070	ppm	0.008476	0.35	30716.000000	Y 377.433
Na (589.592 nm)	317.975000 o	ppm	1.274010	0.40	236074.000000	Y_R2 488.368
Na H (589.593 nm)	344.984760	ppm	0.906959	0.26	171902.793010	Y_R4
Ni (231.604 nm)	0.963999	ppm	0.001765	0.18	5378.270000	Y 377.433
P (213.618 nm)	20.495600	ppm	0.029822	0.15	30674.900000	Y 242.219
Pb (220.353 nm)	0.974759	ppm	0.000908	0.09	3355.990000	Y 242.219
S (181.972 nm)	128.972387 bo	ppm	0.295486	0.23	57955.367658	Y 377.433
Sb (206.834 nm)	1.059950	ppm	0.003164	0.30	1849.210000	Y 377.433
Se (196.026 nm)	1.989270	ppm	0.001405	0.07	3242.710000	Y 242.219
Si (288.158 nm)	10.547600	ppm	0.023893	0.23	70083.000000	Y 377.433
Sn (189.925 nm)	1.965540	ppm	0.000327	0.02	3430.570000	Y 377.433
Sr (421.552 nm)	1.951189	ppm	0.005999	0.31	285410.203587	Y_R 488.368
Th (288.505 nm)	1.014380	ppm	0.001282	0.13	1690.440000	Y 377.433
Ti (336.122 nm)	1.000560	ppm	0.000443	0.04	130165.000000	Y 377.433
Tl (190.794 nm)	1.896030	ppm	0.003060	0.16	4571.170000	Y 377.433
U (409.013 nm)	2.013240	ppm	0.002319	0.12	6190.970000	Y 377.433
V (292.401 nm)	0.991461	ppm	0.000079	0.01	52009.600000	Y 377.433
Zn (206.200 nm)	0.485232	ppm	0.000230	0.05	2413.720000	Y 377.433
Zr (343.823 nm)	0.493890	ppm	0.000766	0.16	28303.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071856	24001.493494	0.001242	0.12
Y 377.433	1.087295	702530.133586	0.002439	0.22
Y_R 377.433	1.138500	62674.900000	0.005157	0.45
Y_R 488.368	1.131140	54664.600000	0.004870	0.43
Y_R2 488.368	1.119459	103756.444361	0.005670	0.51
Y_R4	1.153220	49380.400000	0.000854	0.07

Sample Name: 280-123564-m-2-b

Date: 5/23/2019 11:45:47 PM Rack:Tube: 2:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000206	ppm	0.000130	63.03	-238.703000	Y 377.433
Al (394.401 nm)	0.002258	ppm	0.001400	61.99	157.023000	Y 377.433
Al H (396.152 nm)	0.131952 u	ppm	0.002031	1.54	46.415600	Y_R 377.433
As (188.980 nm)	-0.001686 u	ppm	0.000452	26.82	-3.991360	Y 242.219
B (249.678 nm)	0.000211	ppm	0.000087	41.00	38.592600	Y 242.219
Ba (493.408 nm)	-0.001814 u	ppm	0.000087	4.80	1256.890000	Y_R 488.368
Be (234.861 nm)	0.000066	ppm	0.000052	79.34	0.843836	Y_R 488.368
Bi (223.061 nm)	0.001437	ppm	0.001053	73.30	-12.235600	Y 377.433
Ca (315.887 nm)	0.086170	ppm	0.002351	2.73	7.592642	Y_R 377.433
Cd (214.439 nm)	0.000123	ppm	0.000016	12.71	-2.878320	Y 377.433
Co (228.615 nm)	-0.000077 u	ppm	0.000366	> 100.00	-24.055100	Y 242.219
Cr (205.560 nm)	0.000555	ppm	0.000063	11.37	-2.036270	Y 377.433
Cu (324.754 nm)	0.000101	ppm	0.000134	> 100.00	416.326000	Y 377.433
Fe (238.204 nm)	0.011593	ppm	0.002232	19.25	31.508072	Y_R 377.433
Fe H (259.940 nm)	-0.038727 u	ppm	0.000739	1.91	36.599500	Y_R 377.433
K (766.491 nm)	-0.126542 u	ppm	0.221761	> 100.00	1855.990000	Y_R2 488.368
Li (670.783 nm)	0.019449	ppm	0.003155	16.22	-2292.780000	Y_R2 488.368
Mg (279.078 nm)	0.015003	ppm	0.001845	12.30	64.967800	Y 377.433
Mn (257.610 nm)	0.000472	ppm	0.000029	6.25	108.428000	Y 377.433
Mo (202.032 nm)	-0.000036 u	ppm	0.000383	> 100.00	22.929700	Y 377.433
Na (589.592 nm)	0.210886	ppm	0.003511	1.67	266.172000	Y_R2 488.368
Na H (589.593 nm)	1.249232 u	ppm	0.010092	0.81	948.842805	Y_R4
Ni (231.604 nm)	0.000389	ppm	0.000267	68.81	-9.194470	Y 377.433
P (213.618 nm)	0.002557	ppm	0.002099	82.07	-0.642112	Y 242.219
Pb (220.353 nm)	-0.001492 u	ppm	0.001322	88.60	7.784260	Y 242.219
S (181.972 nm)	0.015183	ppm	0.005544	36.52	14.578114	Y 377.433
Sb (206.834 nm)	0.006803	ppm	0.002797	41.12	4.470500	Y 377.433
Se (196.026 nm)	-0.000385 u	ppm	0.003100	> 100.00	9.947830	Y 242.219
Si (288.158 nm)	0.040676	ppm	0.000105	0.26	776.357000	Y 377.433
Sn (189.925 nm)	-0.000578 u	ppm	0.000324	56.14	1.228920	Y 377.433
Sr (421.552 nm)	0.000028 u	ppm	0.000104	> 100.00	51.947046	Y_R 488.368
Th (288.505 nm)	-0.000196 u	ppm	0.003837	> 100.00	14.181600	Y 377.433
Ti (336.122 nm)	0.000757	ppm	0.000024	3.16	-407.171000	Y 377.433
Tl (190.794 nm)	0.002153	ppm	0.000301	13.96	5.328000	Y 377.433
U (409.013 nm)	0.002873	ppm	0.001822	63.44	-32.787700	Y 377.433
V (292.401 nm)	0.000602	ppm	0.000289	47.93	-148.657000	Y 377.433
Zn (206.200 nm)	0.006382	ppm	0.000126	1.98	35.492200	Y 377.433
Zr (343.823 nm)	0.000659	ppm	0.000011	1.70	-136.517000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148942	25727.647191	0.005954	0.52
Y 377.433	1.145523	740152.627346	0.005103	0.45
Y_R 377.433	1.167710	64282.800000	0.004282	0.37
Y_R 488.368	1.164520	56277.700000	0.006221	0.53
Y_R2 488.368	1.156796	107216.965487	0.003886	0.34
Y_R4	1.168020	50014.000000	0.005260	0.45

Sample Name: 280-123786-b-1-a

Date: 5/23/2019 11:48:57 PM Rack:Tube: 2:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000630	ppm	0.000034	5.33	-224.156000	Y 377.433
Al (394.401 nm)	0.010959	ppm	0.002672	24.38	279.758000	Y 377.433
Al H (396.152 nm)	0.124959 u	ppm	0.000147	0.12	52.106100	Y_R 377.433
As (188.980 nm)	-0.001274 u	ppm	0.001247	97.87	-3.340870	Y 242.219
B (249.678 nm)	0.002847	ppm	0.000390	13.70	57.378500	Y 242.219
Ba (493.408 nm)	0.011602	ppm	0.000332	2.86	2556.570000	Y_R 488.368
Be (234.861 nm)	0.000030	ppm	0.000031	> 100.00	-3.529080	Y_R 488.368
Bi (223.061 nm)	0.000622	ppm	0.000179	28.80	-14.060800	Y 377.433
Ca (315.887 nm)	9.631470	ppm	0.020320	0.21	7713.886740	Y_R 377.433
Cd (214.439 nm)	0.000037	ppm	0.000011	30.37	-6.241740	Y 377.433
Co (228.615 nm)	0.000107 u	ppm	0.000350	> 100.00	-19.505900	Y 242.219
Cr (205.560 nm)	0.000306	ppm	0.000413	> 100.00	-3.801940	Y 377.433
Cu (324.754 nm)	0.004541	ppm	0.000286	6.30	615.100000	Y 377.433
Fe (238.204 nm)	0.191016	ppm	0.000307	0.16	473.742985	Y_R 377.433
Fe H (259.940 nm)	0.142247 u	ppm	0.000151	0.11	289.647000	Y_R 377.433
K (766.491 nm)	0.476905	ppm	0.091237	19.13	2454.930000	Y_R2 488.368
Li (670.783 nm)	0.019512	ppm	0.005667	29.05	-2291.690000	Y_R2 488.368
Mg (279.078 nm)	1.761680	ppm	0.002446	0.14	6252.940000	Y 377.433
Mn (257.610 nm)	0.001377	ppm	0.000005	0.40	358.926000	Y 377.433
Mo (202.032 nm)	-0.000267 u	ppm	0.000466	> 100.00	19.995800	Y 377.433
Na (589.592 nm)	5.136940	ppm	0.004823	0.09	3917.930000	Y_R2 488.368
Na H (589.593 nm)	5.853103 u	ppm	0.045315	0.77	3238.538907	Y_R4
Ni (231.604 nm)	-0.000824 u	ppm	0.000714	86.72	-15.969000	Y 377.433
P (213.618 nm)	0.002620	ppm	0.001454	55.50	-1.689150	Y 242.219
Pb (220.353 nm)	-0.001043 u	ppm	0.000540	51.79	9.411320	Y 242.219
S (181.972 nm)	1.824495	ppm	0.008612	0.47	827.801829	Y 377.433
Sb (206.834 nm)	0.003578	ppm	0.000498	13.93	-1.207210	Y 377.433
Se (196.026 nm)	-0.000819 u	ppm	0.004449	> 100.00	9.194140	Y 242.219
Si (288.158 nm)	2.736190	ppm	0.003663	0.13	18556.800000	Y 377.433
Sn (189.925 nm)	0.000160 u	ppm	0.000593	> 100.00	2.514920	Y 377.433
Sr (421.552 nm)	0.056593	ppm	0.000262	0.46	8324.692542	Y_R 488.368
Th (288.505 nm)	-0.003567 u	ppm	0.004672	> 100.00	8.240910	Y 377.433
Ti (336.122 nm)	0.000652	ppm	0.000065	10.03	-388.345000	Y 377.433
Tl (190.794 nm)	0.001429	ppm	0.000058	4.08	3.155410	Y 377.433
U (409.013 nm)	0.021820	ppm	0.003731	17.10	25.473300	Y 377.433
V (292.401 nm)	0.000633	ppm	0.000081	12.85	-148.748000	Y 377.433
Zn (206.200 nm)	0.002311	ppm	0.000223	9.63	15.317200	Y 377.433
Zr (343.823 nm)	0.000479	ppm	0.000149	31.08	-146.918000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.156772	25902.985988	0.001604	0.14
Y 377.433	1.154860	746185.071364	0.001239	0.11
Y_R 377.433	1.173930	64625.600000	0.001512	0.13
Y_R 488.368	1.170740	56578.200000	0.000213	0.02
Y_R2 488.368	1.152735	106840.629308	0.002621	0.23
Y_R4	1.168930	50053.100000	0.004705	0.40

Sample Name: 280-123787-a-1-a

Date: 5/23/2019 11:52:25 PM Rack:Tube: 2:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002433	ppm	0.000125	5.12	-160.523000	Y 377.433
Al (394.401 nm)	-0.026885 u	ppm	0.000902	3.35	464.762000	Y 377.433
Al H (396.152 nm)	-0.368156 u	ppm	0.004416	1.20	21.108800	Y_R 377.433
As (188.980 nm)	-0.000407 u	ppm	0.003167	> 100.00	-1.955110	Y 242.219
B (249.678 nm)	0.151237	ppm	0.000580	0.38	1120.990000	Y 242.219
Ba (493.408 nm)	0.016118	ppm	0.000291	1.81	2993.870000	Y_R 488.368
Be (234.861 nm)	-0.000001 u	ppm	0.000039	> 100.00	-6.070670	Y_R 488.368
Bi (223.061 nm)	0.002842	ppm	0.001033	36.35	-8.974460	Y 377.433
Ca (315.887 nm)	107.602999	ppm	0.296403	0.28	86810.110606	Y_R 377.433
Cd (214.439 nm)	0.000311	ppm	0.000168	54.17	4.657410	Y 377.433
Co (228.615 nm)	0.000493	ppm	0.000145	29.47	-9.972360	Y 242.219
Cr (205.560 nm)	0.000393	ppm	0.000043	10.91	-3.199620	Y 377.433
Cu (324.754 nm)	-0.000897 u	ppm	0.000019	2.16	310.096000	Y 377.433
Fe (238.204 nm)	0.057046	ppm	0.003062	5.37	143.538316	Y_R 377.433
Fe H (259.940 nm)	-0.010420 u	ppm	0.002334	22.40	76.179000	Y_R 377.433
K (766.491 nm)	21.742000	ppm	0.115052	0.53	23561.100000	Y_R2 488.368
Li (670.783 nm)	0.307332	ppm	0.000507	0.17	2720.300000	Y_R2 488.368
Mg (279.078 nm)	115.133000	ppm	0.015150	0.01	407948.000000	Y 377.433
Mn (257.610 nm)	0.035067	ppm	0.000005	0.01	9677.460000	Y 377.433
Mo (202.032 nm)	0.000146 u	ppm	0.000303	> 100.00	25.241800	Y 377.433
Na (589.592 nm)	777.075000 o	ppm	2.249680	0.29	575738.000000	Y_R2 488.368
Na H (589.593 nm)	909.374922	ppm	4.486436	0.49	452597.453839	Y_R4
Ni (231.604 nm)	0.004230	ppm	0.000731	17.29	12.271500	Y 377.433
P (213.618 nm)	0.002218	ppm	0.000866	39.06	-1.690100	Y 242.219
Pb (220.353 nm)	-0.001816 u	ppm	0.000975	53.71	6.700720	Y 242.219
S (181.972 nm)	505.499919 bo	ppm	1.041484	0.21	227090.365569	Y 377.433
Sb (206.834 nm)	-0.002272 u	ppm	0.000201	8.85	-11.551400	Y 377.433
Se (196.026 nm)	0.000011 u	ppm	0.000093	> 100.00	10.630700	Y 242.219
Si (288.158 nm)	3.727390	ppm	0.015609	0.42	25095.100000	Y 377.433
Sn (189.925 nm)	0.000288	ppm	0.000376	> 100.00	2.738710	Y 377.433
Sr (421.552 nm)	2.613989	ppm	0.000134	0.01	382342.850450	Y_R 488.368
Th (288.505 nm)	0.003518	ppm	0.002154	61.24	18.598700	Y 377.433
Ti (336.122 nm)	0.000192	ppm	0.000266	> 100.00	-110.716000	Y 377.433
Tl (190.794 nm)	0.002583	ppm	0.000666	25.80	1.854900	Y 377.433
U (409.013 nm)	0.006052	ppm	0.002063	34.10	-36.941800	Y 377.433
V (292.401 nm)	0.001425	ppm	0.000300	21.07	-104.578000	Y 377.433
Zn (206.200 nm)	0.011881	ppm	0.000200	1.69	62.790500	Y 377.433
Zr (343.823 nm)	0.001168	ppm	0.000277	23.70	-107.195000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.056404	23655.483268	0.003965	0.38
Y 377.433	1.067605	689807.784269	0.004361	0.41
Y_R 377.433	1.146170	63096.900000	0.007920	0.69
Y_R 488.368	1.138790	55034.200000	0.006662	0.59
Y_R2 488.368	1.126719	104429.307263	0.002202	0.20
Y_R4	1.150980	49284.200000	0.006044	0.53

Sample Name: 280-123787-a-2-a

Date: 5/23/2019 11:56:01 PM Rack:Tube: 2:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001724	ppm	0.000170	9.87	-185.675000	Y 377.433
Al (394.401 nm)	-0.033569 u	ppm	0.000727	2.17	391.597000	Y 377.433
Al H (396.152 nm)	-0.381265 u	ppm	0.006328	1.66	5.789690	Y_R 377.433
As (188.980 nm)	0.003889	ppm	0.002169	55.78	4.889790	Y 242.219
B (249.678 nm)	0.176067	ppm	0.000186	0.11	1298.950000	Y 242.219
Ba (493.408 nm)	0.015164	ppm	0.000562	3.71	2901.500000	Y_R 488.368
Be (234.861 nm)	-0.000024 u	ppm	0.000039	> 100.00	-8.310250	Y_R 488.368
Bi (223.061 nm)	0.003478	ppm	0.001690	48.60	-7.522150	Y 377.433
Ca (315.887 nm)	99.987689	ppm	0.061685	0.06	80661.970649	Y_R 377.433
Cd (214.439 nm)	0.000444	ppm	0.000145	32.61	10.013500	Y 377.433
Co (228.615 nm)	-0.000121 u	ppm	0.000172	> 100.00	-25.145400	Y 242.219
Cr (205.560 nm)	0.000131	ppm	0.000082	62.44	-5.053330	Y 377.433
Cu (324.754 nm)	-0.000784 u	ppm	0.000022	2.81	319.591000	Y 377.433
Fe (238.204 nm)	0.047492	ppm	0.002535	5.34	119.990218	Y_R 377.433
Fe H (259.940 nm)	-0.022706 u	ppm	0.001827	8.05	59.001200	Y_R 377.433
K (766.491 nm)	22.564300	ppm	0.033239	0.15	24377.300000	Y_R2 488.368
Li (670.783 nm)	0.325035	ppm	0.002238	0.69	3028.570000	Y_R2 488.368
Mg (279.078 nm)	119.542000	ppm	0.149783	0.13	423570.000000	Y 377.433
Mn (257.610 nm)	0.000899	ppm	0.000027	2.99	226.734000	Y 377.433
Mo (202.032 nm)	0.000265 u	ppm	0.000719	> 100.00	26.763700	Y 377.433
Na (589.592 nm)	723.767000 o	ppm	0.433401	0.06	536249.000000	Y_R2 488.368
Na H (589.593 nm)	840.574641	ppm	6.652288	0.79	418380.217522	Y_R4
Ni (231.604 nm)	0.004319	ppm	0.000241	5.58	12.772700	Y 377.433
P (213.618 nm)	0.002838	ppm	0.001379	48.62	-0.667130	Y 242.219
Pb (220.353 nm)	-0.002621 u	ppm	0.000335	12.79	3.944250	Y 242.219
S (181.972 nm)	522.265706 bo	ppm	1.352297	0.26	234621.309680	Y 377.433
Sb (206.834 nm)	0.000418 u	ppm	0.000611	> 100.00	-6.799430	Y 377.433
Se (196.026 nm)	-0.001529 u	ppm	0.001047	68.50	8.079200	Y 242.219
Si (288.158 nm)	4.255130	ppm	0.009974	0.23	28576.200000	Y 377.433
Sn (189.925 nm)	-0.000060 u	ppm	0.001444	> 100.00	2.131490	Y 377.433
Sr (421.552 nm)	2.638257	ppm	0.003419	0.13	385892.100636	Y_R 488.368
Th (288.505 nm)	0.006504	ppm	0.003618	55.62	23.316500	Y 377.433
Ti (336.122 nm)	0.000168	ppm	0.000015	8.78	-140.066000	Y 377.433
Tl (190.794 nm)	0.003510	ppm	0.000919	26.20	4.418530	Y 377.433
U (409.013 nm)	0.007978	ppm	0.003233	40.52	-29.894800	Y 377.433
V (292.401 nm)	0.001711	ppm	0.000219	12.79	-89.642400	Y 377.433
Zn (206.200 nm)	0.006565	ppm	0.000310	4.73	36.406400	Y 377.433
Zr (343.823 nm)	0.001016	ppm	0.000198	19.49	-115.953000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.077167	24120.426811	0.002667	0.25
Y 377.433	1.088651	703406.032208	0.001894	0.17
Y_R 377.433	1.151510	63391.100000	0.003465	0.30
Y_R 488.368	1.144950	55332.200000	0.002022	0.18
Y_R2 488.368	1.146543	106266.745353	0.001273	0.11
Y_R4	1.149150	49205.900000	0.001009	0.09

Sample Name: 280-123787-a-3-a

Date: 5/23/2019 11:59:40 PM Rack:Tube: 2:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001847	ppm	0.000101	5.47	-181.422000	Y 377.433
Al (394.401 nm)	-0.031431 u	ppm	0.000691	2.20	410.253000	Y 377.433
Al H (396.152 nm)	-0.373597 u	ppm	0.006500	1.74	13.717100	Y_R 377.433
As (188.980 nm)	0.003236	ppm	0.003381	> 100.00	3.850690	Y 242.219
B (249.678 nm)	0.153646	ppm	0.000886	0.58	1138.270000	Y 242.219
Ba (493.408 nm)	0.013005	ppm	0.000169	1.30	2692.300000	Y_R 488.368
Be (234.861 nm)	-0.000036 u	ppm	0.000033	91.08	-9.499200	Y_R 488.368
Bi (223.061 nm)	0.000348 u	ppm	0.000703	> 100.00	-14.665400	Y 377.433
Ca (315.887 nm)	100.863981	ppm	0.083644	0.08	81369.442888	Y_R 377.433
Cd (214.439 nm)	0.000318	ppm	0.000061	19.14	4.961370	Y 377.433
Co (228.615 nm)	0.000361	ppm	0.000200	55.34	-13.226900	Y 242.219
Cr (205.560 nm)	0.000273	ppm	0.000281	> 100.00	-4.048390	Y 377.433
Cu (324.754 nm)	-0.000507 u	ppm	0.000182	35.96	333.480000	Y 377.433
Fe (238.204 nm)	0.032086	ppm	0.000423	1.32	82.017622	Y_R 377.433
Fe H (259.940 nm)	-0.037752 u	ppm	0.003203	8.48	37.963200	Y_R 377.433
K (766.491 nm)	22.278300	ppm	0.145420	0.65	24093.400000	Y_R2 488.368
Li (670.783 nm)	0.311076	ppm	0.001996	0.64	2785.490000	Y_R2 488.368
Mg (279.078 nm)	117.997000	ppm	0.067991	0.06	418093.000000	Y 377.433
Mn (257.610 nm)	0.003218	ppm	0.000017	0.52	868.108000	Y 377.433
Mo (202.032 nm)	0.000244 u	ppm	0.000407	> 100.00	26.496000	Y 377.433
Na (589.592 nm)	758.272000 o	ppm	0.255695	0.03	561808.000000	Y_R2 488.368
Na H (589.593 nm)	887.029258	ppm	4.748306	0.54	441484.027461	Y_R4
Ni (231.604 nm)	0.004031	ppm	0.001398	34.68	11.157900	Y 377.433
P (213.618 nm)	0.004309	ppm	0.003068	71.18	1.488430	Y 242.219
Pb (220.353 nm)	-0.001682 u	ppm	0.001045	62.14	7.167400	Y 242.219
S (181.972 nm)	517.896176 bo	ppm	1.093239	0.21	232658.511420	Y 377.433
Sb (206.834 nm)	-0.001624 u	ppm	0.003722	> 100.00	-10.404400	Y 377.433
Se (196.026 nm)	-0.002136 u	ppm	0.003808	> 100.00	7.101460	Y 242.219
Si (288.158 nm)	4.302020	ppm	0.005193	0.12	28885.500000	Y 377.433
Sn (189.925 nm)	0.000804	ppm	0.000100	12.50	3.638850	Y 377.433
Sr (421.552 nm)	2.617960	ppm	0.001493	0.06	382923.622118	Y_R 488.368
Th (288.505 nm)	0.009270	ppm	0.000954	10.29	28.139000	Y 377.433
Ti (336.122 nm)	0.000237	ppm	0.000000	0.05	-127.762000	Y 377.433
Tl (190.794 nm)	0.001561	ppm	0.001273	81.55	-0.338068	Y 377.433
U (409.013 nm)	0.005382	ppm	0.004289	79.70	-38.171200	Y 377.433
V (292.401 nm)	0.001540	ppm	0.000257	16.68	-97.984400	Y 377.433
Zn (206.200 nm)	0.009293	ppm	0.000148	1.59	49.943200	Y 377.433
Zr (343.823 nm)	0.001345	ppm	0.000181	13.43	-96.986700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.077589	24129.886107	0.001433	0.13
Y 377.433	1.090423	704551.103801	0.001306	0.12
Y_R 377.433	1.148300	63214.400000	0.003609	0.31
Y_R 488.368	1.141840	55181.600000	0.002971	0.26
Y_R2 488.368	1.123588	104139.174016	0.007666	0.68
Y_R4	1.143110	48947.500000	0.004085	0.36

Sample Name: 280-123787-a-4-a

Date: 5/24/2019 12:03:17 AM Rack:Tube: 2:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002083	ppm	0.000329	15.78	-173.189000	Y 377.433
Al (394.401 nm)	-0.029632 u	ppm	0.000931	3.14	432.045000	Y 377.433
Al H (396.152 nm)	-0.370867 u	ppm	0.000837	0.23	17.639500	Y_R 377.433
As (188.980 nm)	0.002439	ppm	0.002187	89.65	2.575930	Y 242.219
B (249.678 nm)	0.154898	ppm	0.001360	0.88	1147.150000	Y 242.219
Ba (493.408 nm)	0.015221	ppm	0.000061	0.40	2907.080000	Y_R 488.368
Be (234.861 nm)	-0.000018 u	ppm	0.000002	13.32	-8.431560	Y_R 488.368
Bi (223.061 nm)	0.000472 u	ppm	0.001754	> 100.00	-14.352700	Y 377.433
Ca (315.887 nm)	100.750618	ppm	0.058609	0.06	81277.910458	Y_R 377.433
Cd (214.439 nm)	0.000224	ppm	0.000047	20.80	1.259640	Y 377.433
Co (228.615 nm)	0.000381	ppm	0.000311	81.71	-12.745200	Y 242.219
Cr (205.560 nm)	0.001046	ppm	0.000082	7.88	1.425830	Y 377.433
Cu (324.754 nm)	-0.000471 u	ppm	0.000173	36.63	334.027000	Y 377.433
Fe (238.204 nm)	0.196153	ppm	0.001879	0.96	486.404741	Y_R 377.433
Fe H (259.940 nm)	0.133379 u	ppm	0.008015	6.01	277.247000	Y_R 377.433
K (766.491 nm)	22.193400	ppm	0.074402	0.34	24009.200000	Y_R2 488.368
Li (670.783 nm)	0.313051	ppm	0.001151	0.37	2819.890000	Y_R2 488.368
Mg (279.078 nm)	117.812000	ppm	0.290947	0.25	417438.000000	Y 377.433
Mn (257.610 nm)	0.005195	ppm	0.000007	0.14	1414.910000	Y 377.433
Mo (202.032 nm)	0.000276	ppm	0.000247	89.41	26.896400	Y 377.433
Na (589.592 nm)	775.226000 o	ppm	7.578500	0.98	574368.000000	Y_R2 488.368
Na H (589.593 nm)	913.054479	ppm	8.852818	0.97	454427.450610	Y_R4
Ni (231.604 nm)	0.004230	ppm	0.000236	5.59	12.274900	Y 377.433
P (213.618 nm)	0.006034	ppm	0.003600	59.65	4.180570	Y 242.219
Pb (220.353 nm)	-0.000703 u	ppm	0.000224	31.93	10.534900	Y 242.219
S (181.972 nm)	518.203632 bo	ppm	2.542008	0.49	232796.627969	Y 377.433
Sb (206.834 nm)	-0.000381 u	ppm	0.004642	> 100.00	-8.194570	Y 377.433
Se (196.026 nm)	0.001620	ppm	0.001852	> 100.00	13.161700	Y 242.219
Si (288.158 nm)	4.295780	ppm	0.003872	0.09	28844.300000	Y 377.433
Sn (189.925 nm)	0.001729	ppm	0.000846	48.95	5.252140	Y 377.433
Sr (421.552 nm)	2.613432	ppm	0.008572	0.33	382261.477239	Y_R 488.368
Th (288.505 nm)	0.008331	ppm	0.005309	63.73	26.485400	Y 377.433
Ti (336.122 nm)	0.000010 u	ppm	0.000034	> 100.00	-157.462000	Y 377.433
Tl (190.794 nm)	0.002829	ppm	0.000057	2.01	2.715800	Y 377.433
U (409.013 nm)	0.009839	ppm	0.005442	55.31	-24.091700	Y 377.433
V (292.401 nm)	0.001925	ppm	0.000084	4.35	-78.190600	Y 377.433
Zn (206.200 nm)	0.011607	ppm	0.001421	12.25	61.454400	Y 377.433
Zr (343.823 nm)	0.001283	ppm	0.000252	19.63	-100.529000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.078915	24159.567786	0.003925	0.36
Y 377.433	1.092337	705787.706505	0.004589	0.42
Y_R 377.433	1.149010	63253.600000	0.004773	0.42
Y_R 488.368	1.142010	55189.900000	0.004311	0.38
Y_R2 488.368	1.128983	104639.132336	0.013239	1.17
Y_R4	1.140020	48815.000000	0.002666	0.23

Sample Name: 280-123787-a-5-a

Date: 5/24/2019 12:06:57 AM Rack:Tube: 2:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001928	ppm	0.000101	5.22	-178.682000	Y 377.433
Al (394.401 nm)	-0.030372 u	ppm	0.000164	0.54	409.022000	Y 377.433
Al H (396.152 nm)	-0.353605 u	ppm	0.000627	0.18	30.251600	Y_R 377.433
As (188.980 nm)	-0.000352 u	ppm	0.001588	> 100.00	-1.867090	Y 242.219
B (249.678 nm)	0.150788	ppm	0.000739	0.49	1117.790000	Y 242.219
Ba (493.408 nm)	0.014018	ppm	0.000045	0.32	2790.400000	Y_R 488.368
Be (234.861 nm)	0.000000 u	ppm	0.000013	> 100.00	-5.798680	Y_R 488.368
Bi (223.061 nm)	0.004287	ppm	0.001638	38.20	-5.684080	Y 377.433
Ca (315.887 nm)	98.670952	ppm	0.129639	0.13	79598.920796	Y_R 377.433
Cd (214.439 nm)	0.000342	ppm	0.000010	2.88	5.896420	Y 377.433
Co (228.615 nm)	0.000335	ppm	0.000307	91.50	-13.859600	Y 242.219
Cr (205.560 nm)	0.000316	ppm	0.000059	18.63	-3.744840	Y 377.433
Cu (324.754 nm)	-0.000359 u	ppm	0.000195	54.34	340.100000	Y 377.433
Fe (238.204 nm)	0.021015	ppm	0.000942	4.48	54.731150	Y_R 377.433
Fe H (259.940 nm)	-0.041438 u	ppm	0.001010	2.44	32.808600	Y_R 377.433
K (766.491 nm)	21.737000	ppm	0.177197	0.82	23556.200000	Y_R2 488.368
Li (670.783 nm)	0.310089	ppm	0.002120	0.68	2768.310000	Y_R2 488.368
Mg (279.078 nm)	114.865000	ppm	0.091662	0.08	406996.000000	Y 377.433
Mn (257.610 nm)	0.004752	ppm	0.000012	0.24	1292.260000	Y 377.433
Mo (202.032 nm)	0.000145 u	ppm	0.000577	> 100.00	25.229700	Y 377.433
Na (589.592 nm)	752.128000 o	ppm	0.060583	0.01	557258.000000	Y_R2 488.368
Na H (589.593 nm)	885.896058	ppm	6.498155	0.73	440920.440379	Y_R4
Ni (231.604 nm)	0.004318	ppm	0.000165	3.83	12.764200	Y 377.433
P (213.618 nm)	0.003765	ppm	0.001403	37.27	0.709922	Y 242.219
Pb (220.353 nm)	-0.000930 u	ppm	0.000501	53.81	9.766410	Y 242.219
S (181.972 nm)	506.607448 bo	ppm	1.773266	0.35	227587.367232	Y 377.433
Sb (206.834 nm)	-0.000765 u	ppm	0.000116	15.12	-8.894780	Y 377.433
Se (196.026 nm)	-0.000821 u	ppm	0.003102	> 100.00	9.243670	Y 242.219
Si (288.158 nm)	4.205760	ppm	0.010614	0.25	28250.500000	Y 377.433
Sn (189.925 nm)	-0.000176 u	ppm	0.001208	> 100.00	1.929650	Y 377.433
Sr (421.552 nm)	2.554605	ppm	0.005201	0.20	373658.054487	Y_R 488.368
Th (288.505 nm)	0.008580	ppm	0.000947	11.04	27.028800	Y 377.433
Ti (336.122 nm)	0.000183	ppm	0.000021	11.39	-141.976000	Y 377.433
Tl (190.794 nm)	0.001270	ppm	0.000579	45.62	-0.952652	Y 377.433
U (409.013 nm)	0.011186	ppm	0.009385	83.90	-19.713800	Y 377.433
V (292.401 nm)	0.001980	ppm	0.000027	1.34	-75.050400	Y 377.433
Zn (206.200 nm)	0.011090	ppm	0.000511	4.61	58.858700	Y 377.433
Zr (343.823 nm)	0.001120	ppm	0.000114	10.17	-109.935000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.079895	24181.503799	0.001470	0.14
Y 377.433	1.093739	706693.493967	0.000326	0.03
Y_R 377.433	1.173210	64585.700000	0.003901	0.33
Y_R 488.368	1.168120	56451.900000	0.003080	0.26
Y_R2 488.368	1.147444	106350.212426	0.004208	0.37
Y_R4	1.166180	49935.300000	0.003355	0.29

Sample Name: CCVH-5713036

Date: 5/24/2019 12:10:37 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004179	ppm	0.000209	5.00	-109.573000	Y 377.433
Al (394.401 nm)	49.325300 o	ppm	0.015855	0.03	588274.000000	Y 377.433
Al H (396.152 nm)	49.136800	ppm	0.062553	0.13	101033.000000	Y_R 377.433
As (188.980 nm)	0.001998	ppm	0.002136	> 100.00	0.471408	Y 242.219
B (249.678 nm)	-0.003455 u	ppm	0.000921	26.66	-16.167800	Y 242.219
Ba (493.408 nm)	-0.000123 u	ppm	0.000597	> 100.00	1458.690000	Y_R 488.368
Be (234.861 nm)	0.001134	ppm	0.000057	5.07	-104.103000	Y_R 488.368
Bi (223.061 nm)	0.014670	ppm	0.002657	18.11	26.786800	Y 377.433
Ca (315.887 nm)	0.010757	ppm	0.003939	36.61	-40.847173	Y_R 377.433
Cd (214.439 nm)	0.001476	ppm	0.000136	9.18	72.882400	Y 377.433
Co (228.615 nm)	0.003384	ppm	0.000075	2.22	61.532700	Y 242.219
Cr (205.560 nm)	0.002067	ppm	0.000055	2.67	7.276320	Y 377.433
Cu (324.754 nm)	0.003274	ppm	0.000402	12.27	1494.310000	Y 377.433
Fe (238.204 nm)	48.728556 o	ppm	0.097775	0.20	120107.009950	Y_R 377.433
Fe H (259.940 nm)	49.203400	ppm	0.136739	0.28	68889.300000	Y_R 377.433
K (766.491 nm)	-0.036087 u	ppm	0.019696	54.58	1945.770000	Y_R2 488.368
Li (670.783 nm)	0.023545	ppm	0.006180	26.25	-2221.470000	Y_R2 488.368
Mg (279.078 nm)	0.039947	ppm	0.000632	1.58	74.265100	Y 377.433
Mn (257.610 nm)	0.001003	ppm	0.000050	5.00	255.309000	Y 377.433
Mo (202.032 nm)	0.000275 u	ppm	0.000840	> 100.00	26.883000	Y 377.433
Na (589.592 nm)	240.446000 o	ppm	0.122002	0.05	178222.000000	Y_R2 488.368
Na H (589.593 nm)	252.553495	ppm	1.320489	0.52	125932.887197	Y_R4
Ni (231.604 nm)	0.002513	ppm	0.000408	16.24	2.675590	Y 377.433
P (213.618 nm)	4.902190	ppm	0.004540	0.09	7409.420000	Y 242.219
Pb (220.353 nm)	0.003683	ppm	0.000238	6.47	18.205600	Y 242.219
S (181.972 nm)	5.100243	ppm	0.001670	0.03	2298.859334	Y 377.433
Sb (206.834 nm)	0.005143	ppm	0.003240	63.00	5.868880	Y 377.433
Se (196.026 nm)	0.006170	ppm	0.003780	61.26	6.968840	Y 242.219
Si (288.158 nm)	0.014561	ppm	0.001305	8.96	604.093000	Y 377.433
Sn (189.925 nm)	0.002112	ppm	0.000597	28.24	5.920230	Y 377.433
Sr (421.552 nm)	0.001215	ppm	0.000105	8.66	232.718690	Y_R 488.368
Th (288.505 nm)	4.903200	ppm	0.001450	0.03	8567.650000	Y 377.433
Ti (336.122 nm)	0.002464	ppm	0.000104	4.24	-185.220000	Y 377.433
Tl (190.794 nm)	-0.000178 u	ppm	0.001154	> 100.00	-5.278600	Y 377.433
U (409.013 nm)	0.552068 Q	ppm	0.007468	1.35	1723.430000 Q	Y 377.433
V (292.401 nm)	0.001619	ppm	0.000150	9.29	401.860000	Y 377.433
Zn (206.200 nm)	0.002892	ppm	0.000182	6.28	25.719200	Y 377.433
Zr (343.823 nm)	0.001667	ppm	0.000144	8.65	-78.427900	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.142133	25575.184653	0.002237	0.20
Y 377.433	1.146383	740708.465837	0.001552	0.14
Y_R 377.433	1.192070	65624.200000	0.002580	0.22
Y_R 488.368	1.185130	57273.700000	0.001210	0.10
Y_R2 488.368	1.179341	109306.607551	0.008078	0.68
Y_R4	1.218340	52168.800000	0.013220	1.09

Sample Name: CCV-5717467

Date: 5/24/2019 12:14:22 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.491972	ppm	0.000094	0.02	17003.600000	Y 377.433
Al (394.401 nm)	0.505032	ppm	0.002380	0.47	6287.190000	Y 377.433
Al H (396.152 nm)	0.547946 u	ppm	0.005802	1.06	1136.290000	Y_R 377.433
As (188.980 nm)	0.491250	ppm	0.000262	0.05	781.374000	Y 242.219
B (249.678 nm)	0.481626	ppm	0.000068	0.01	3487.530000	Y 242.219
Ba (493.408 nm)	0.486459	ppm	0.000523	0.11	48554.300000	Y_R 488.368
Be (234.861 nm)	0.479684	ppm	0.002416	0.50	48349.200000	Y_R 488.368
Bi (223.061 nm)	0.966818	ppm	0.001093	0.11	2190.250000	Y 377.433
Ca (315.887 nm)	4.881173	ppm	0.005211	0.11	3878.918514	Y_R 377.433
Cd (214.439 nm)	0.493615	ppm	0.000625	0.13	19743.400000	Y 377.433
Co (228.615 nm)	0.489114	ppm	0.000008	0.00	12093.300000	Y 242.219
Cr (205.560 nm)	0.488072	ppm	0.000633	0.13	3449.000000	Y 377.433
Cu (324.754 nm)	0.488848	ppm	0.004535	0.93	23109.700000	Y 377.433
Fe (238.204 nm)	2.459009	ppm	0.000197	0.01	6063.796145	Y_R 377.433
Fe H (259.940 nm)	2.427700 u	ppm	0.000622	0.03	3485.270000	Y_R 377.433
K (766.491 nm)	49.104500	ppm	0.224870	0.46	50719.200000	Y_R2 488.368
Li (670.783 nm)	0.513526	ppm	0.005705	1.11	6310.880000	Y_R2 488.368
Mg (279.078 nm)	19.648000	ppm	0.007617	0.04	69624.400000	Y 377.433
Mn (257.610 nm)	0.490223	ppm	0.000385	0.08	135574.000000	Y 377.433
Mo (202.032 nm)	0.486890	ppm	0.000471	0.10	6218.880000	Y 377.433
Na (589.592 nm)	24.314400	ppm	0.080803	0.33	18220.600000	Y_R2 488.368
Na H (589.593 nm)	27.661760 u	ppm	0.114233	0.41	14084.889547	Y_R4
Ni (231.604 nm)	0.492290	ppm	0.001400	0.28	2740.400000	Y 377.433
P (213.618 nm)	0.056185	ppm	0.004136	7.36	-59.180200	Y 242.219
Pb (220.353 nm)	0.492993	ppm	0.001496	0.30	1704.150000	Y 242.219
S (181.972 nm)	0.035380	ppm	0.002764	7.81	25.391918	Y 377.433
Sb (206.834 nm)	0.495213	ppm	0.004378	0.88	863.949000	Y 377.433
Se (196.026 nm)	0.495703	ppm	0.000700	0.14	816.321000	Y 242.219
Si (288.158 nm)	4.824850	ppm	0.017489	0.36	32334.300000	Y 377.433
Sn (189.925 nm)	0.493383	ppm	0.002527	0.51	862.802000	Y 377.433
Sr (421.552 nm)	0.489680	ppm	0.000459	0.09	71663.858654	Y_R 488.368
Th (288.505 nm)	0.016998	ppm	0.002376	13.98	-5.696490	Y 377.433
Ti (336.122 nm)	0.486984	ppm	0.000186	0.04	62830.900000	Y 377.433
Tl (190.794 nm)	0.500086	ppm	0.000128	0.03	1208.210000	Y 377.433
U (409.013 nm)	0.017834	ppm	0.000465	2.61	-44.617500	Y 377.433
V (292.401 nm)	0.486224	ppm	0.000105	0.02	25461.500000	Y 377.433
Zn (206.200 nm)	0.494262	ppm	0.000211	0.04	2457.290000	Y 377.433
Zr (343.823 nm)	0.486448	ppm	0.000280	0.06	27874.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155803	25881.286744	0.002708	0.23
Y 377.433	1.155862	746832.815875	0.001215	0.11
Y_R 377.433	1.183190	65135.100000	0.004831	0.41
Y_R 488.368	1.178180	56937.800000	0.004646	0.39
Y_R2 488.368	1.168160	108270.314113	0.000745	0.06
Y_R4	1.191750	51030.200000	0.005049	0.42

Sample Name: CCB

Date: 5/24/2019 12:17:57 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000740	ppm	0.000310	41.81	-219.750000	Y 377.433
Al (394.401 nm)	-0.002760 u	ppm	0.000157	5.70	97.109500	Y 377.433
Al H (396.152 nm)	0.126366 Zu	ppm	0.001148	0.91	34.765000 Z	Y_R 377.433
As (188.980 nm)	-0.001051 u	ppm	0.000404	38.42	-2.980360	Y 242.219
B (249.678 nm)	-0.003287 u	ppm	0.000690	20.99	13.524100	Y 242.219
Ba (493.408 nm)	-0.002608 Zu	ppm	0.000017	0.65	1180.010000 Z	Y_R 488.368
Be (234.861 nm)	0.000022 u	ppm	0.000087	> 100.00	-3.505110	Y_R 488.368
Bi (223.061 nm)	0.001336 u	ppm	0.003568	> 100.00	-12.467700	Y 377.433
Ca (315.887 nm)	0.009721	ppm	0.001820	18.72	-54.127441	Y_R 377.433
Cd (214.439 nm)	0.000063	ppm	0.000001	1.91	-5.276250	Y 377.433
Co (228.615 nm)	0.000049 u	ppm	0.000141	> 100.00	-20.969600	Y 242.219
Cr (205.560 nm)	-0.000088 u	ppm	0.000260	> 100.00	-6.585360	Y 377.433
Cu (324.754 nm)	-0.000182 u	ppm	0.000260	> 100.00	402.893000	Y 377.433
Fe (238.204 nm)	0.000619	ppm	0.000349	56.33	4.459264	Y_R 377.433
Fe H (259.940 nm)	-0.054805 u	ppm	0.002286	4.17	14.118800	Y_R 377.433
K (766.491 nm)	-0.212738 u	ppm	0.147680	69.42	1770.440000	Y_R2 488.368
Li (670.783 nm)	0.020657 Z	ppm	0.001243	6.02	-2271.750000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003197	ppm	0.000733	22.91	23.224100	Y 377.433
Mn (257.610 nm)	0.000098	ppm	0.000034	34.61	5.102670	Y 377.433
Mo (202.032 nm)	-0.000860 u	ppm	0.000036	4.17	12.443900	Y 377.433
Na (589.592 nm)	0.232593	ppm	0.003203	1.38	282.100000	Y_R2 488.368
Na H (589.593 nm)	1.706363 u	ppm	0.018810	1.10	1176.192943	Y_R4
Ni (231.604 nm)	-0.000800 u	ppm	0.000415	51.85	-15.838500	Y 377.433
P (213.618 nm)	0.001197	ppm	0.001617	> 100.00	-2.546480	Y 242.219
Pb (220.353 nm)	-0.001812 u	ppm	0.000341	18.79	6.678020	Y 242.219
S (181.972 nm)	0.012153	ppm	0.002822	23.22	13.214755	Y 377.433
Sb (206.834 nm)	0.003396	ppm	0.000881	25.94	-1.543060	Y 377.433
Se (196.026 nm)	-0.004000 u	ppm	0.001923	48.07	4.075050	Y 242.219
Si (288.158 nm)	-0.007384 u	ppm	0.000208	2.81	459.339000	Y 377.433
Sn (189.925 nm)	0.000222 u	ppm	0.000363	> 100.00	2.624400	Y 377.433
Sr (421.552 nm)	-0.000246 u	ppm	0.000050	20.26	11.917654	Y_R 488.368
Th (288.505 nm)	-0.001865 u	ppm	0.001048	56.21	11.269400	Y 377.433
Ti (336.122 nm)	0.000733	ppm	0.000142	19.32	-410.433000	Y 377.433
Tl (190.794 nm)	0.000254 u	ppm	0.000866	> 100.00	0.736015	Y 377.433
U (409.013 nm)	0.005814	ppm	0.006895	> 100.00	-23.561000	Y 377.433
V (292.401 nm)	0.000577	ppm	0.000247	42.87	-149.746000	Y 377.433
Zn (206.200 nm)	-0.000191 u	ppm	0.000214	> 100.00	2.866560	Y 377.433
Zr (343.823 nm)	0.000493	ppm	0.000114	23.23	-146.106000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.168068	26155.914690	0.002949	0.25
Y 377.433	1.167173	754141.395938	0.000981	0.08
Y_R 377.433	1.179310	64921.200000	0.002464	0.21
Y_R 488.368	1.174370	56753.800000	0.004935	0.42
Y_R2 488.368	1.164086	107892.671897	0.001501	0.13
Y_R4	1.187440	50845.500000	0.002781	0.23

Sample Name: CCVL-5717307

Date: 5/24/2019 12:21:10 AM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008201	ppm	0.000238	2.90	40.688400	Y 377.433
Al (394.401 nm)	0.094272	ppm	0.000261	0.28	1263.730000	Y 377.433
Al H (396.152 nm)	0.222340 u	ppm	0.001912	0.86	237.751000	Y_R 377.433
As (188.980 nm)	0.013961	ppm	0.000709	5.08	20.936300	Y 242.219
B (249.678 nm)	0.089645	ppm	0.000512	0.57	679.525000	Y 242.219
Ba (493.408 nm)	0.007601	ppm	0.000386	5.08	2168.960000	Y_R 488.368
Be (234.861 nm)	0.000985	ppm	0.000060	6.10	93.109300	Y_R 488.368
Bi (223.061 nm)	0.085241	ppm	0.001452	1.70	178.934000	Y 377.433
Ca (315.887 nm)	0.216121	ppm	0.001377	0.64	112.530663	Y_R 377.433
Cd (214.439 nm)	0.005088	ppm	0.000023	0.46	195.835000	Y 377.433
Co (228.615 nm)	0.010515	ppm	0.000181	1.72	238.258000	Y 242.219
Cr (205.560 nm)	0.009755	ppm	0.000096	0.98	62.982500	Y 377.433
Cu (324.754 nm)	0.015092	ppm	0.000056	0.37	1111.930000	Y 377.433
Fe (238.204 nm)	0.100747	ppm	0.000483	0.48	251.250832	Y_R 377.433
Fe H (259.940 nm)	0.046969 u	ppm	0.003859	8.22	156.423000	Y_R 377.433
K (766.491 nm)	2.736710	ppm	0.017433	0.64	4697.850000	Y_R2 488.368
Li (670.783 nm)	0.042521 Q	ppm	0.004799	11.29	-1891.030000 Q	Y_R2 488.368
Mg (279.078 nm)	0.201812	ppm	0.002315	1.15	725.531000	Y 377.433
Mn (257.610 nm)	0.010431	ppm	0.000036	0.34	2863.210000	Y 377.433
Mo (202.032 nm)	0.018635	ppm	0.000346	1.85	260.510000	Y 377.433
Na (589.592 nm)	1.249230	ppm	0.060392	4.83	1037.360000	Y_R2 488.368
Na H (589.593 nm)	2.340288 u	ppm	0.031792	1.36	1491.470266	Y_R4
Ni (231.604 nm)	0.041361	ppm	0.000637	1.54	219.792000	Y 377.433
P (213.618 nm)	2.759890	ppm	0.001576	0.06	4167.690000	Y 242.219
Pb (220.353 nm)	0.007893	ppm	0.002426	30.74	40.122900	Y 242.219
S (181.972 nm)	0.104441	ppm	0.003996	3.83	54.709232	Y 377.433
Sb (206.834 nm)	0.022681	ppm	0.000902	3.97	32.349600	Y 377.433
Se (196.026 nm)	0.016803	ppm	0.001270	7.56	37.874300	Y 242.219
Si (288.158 nm)	0.465852	ppm	0.001030	0.22	3580.950000	Y 377.433
Sn (189.925 nm)	0.096059	ppm	0.000884	0.92	169.783000	Y 377.433
Sr (421.552 nm)	0.009040	ppm	0.000100	1.11	1370.010434	Y_R 488.368
Th (288.505 nm)	0.016086	ppm	0.003971	24.69	42.115100	Y 377.433
Ti (336.122 nm)	0.010174	ppm	0.000135	1.32	817.844000	Y 377.433
Tl (190.794 nm)	0.015966	ppm	0.000295	1.85	38.676200	Y 377.433
U (409.013 nm)	0.062894	ppm	0.001597	2.54	154.057000	Y 377.433
V (292.401 nm)	0.010478	ppm	0.000070	0.67	369.810000	Y 377.433
Zn (206.200 nm)	0.020545	ppm	0.000546	2.66	105.798000	Y 377.433
Zr (343.823 nm)	0.010261	ppm	0.000131	1.28	417.125000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.174573	26301.584412	0.002789	0.24
Y 377.433	1.173827	758440.459198	0.003698	0.32
Y_R 377.433	1.188980	65453.600000	0.004182	0.35
Y_R 488.368	1.182920	57166.800000	0.004906	0.41
Y_R2 488.368	1.166582	108124.053391	0.002059	0.18
Y_R4	1.187630	50853.600000	0.004637	0.39

Sample Name: 280-123787-a-6-a

Date: 5/24/2019 12:24:37 AM Rack:Tube: 2:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001941	ppm	0.000519	26.76	-177.886000	Y 377.433
Al (394.401 nm)	-0.027326 u	ppm	0.000200	0.73	468.633000	Y 377.433
Al H (396.152 nm)	-0.376263 u	ppm	0.002187	0.58	22.260100	Y_R 377.433
As (188.980 nm)	0.002065	ppm	0.001301	63.02	1.982390	Y 242.219
B (249.678 nm)	0.159123	ppm	0.000092	0.06	1177.500000	Y 242.219
Ba (493.408 nm)	0.018228	ppm	0.000080	0.44	3198.290000	Y_R 488.368
Be (234.861 nm)	-0.000018 u	ppm	0.000056	> 100.00	-7.814770	Y_R 488.368
Bi (223.061 nm)	0.001725	ppm	0.002162	> 100.00	-11.516400	Y 377.433
Ca (315.887 nm)	104.991753	ppm	0.018252	0.02	84701.954095	Y_R 377.433
Cd (214.439 nm)	0.000210	ppm	0.000110	52.23	0.631895	Y 377.433
Co (228.615 nm)	0.000016 u	ppm	0.000264	> 100.00	-21.752500	Y 242.219
Cr (205.560 nm)	0.000590	ppm	0.000669	> 100.00	-1.803880	Y 377.433
Cu (324.754 nm)	-0.000938 u	ppm	0.000582	62.10	311.009000	Y 377.433
Fe (238.204 nm)	0.069969	ppm	0.002264	3.24	175.391844	Y_R 377.433
Fe H (259.940 nm)	-0.003376 u	ppm	0.002377	70.42	86.028800	Y_R 377.433
K (766.491 nm)	22.988200	ppm	0.039962	0.17	24798.100000	Y_R2 488.368
Li (670.783 nm)	0.322697	ppm	0.000616	0.19	2987.860000	Y_R2 488.368
Mg (279.078 nm)	118.895000	ppm	0.024389	0.02	421277.000000	Y 377.433
Mn (257.610 nm)	0.018068	ppm	0.000012	0.06	4975.490000	Y 377.433
Mo (202.032 nm)	0.000206	ppm	0.000198	96.07	26.009100	Y 377.433
Na (589.592 nm)	809.711000 o	ppm	1.769900	0.22	599913.000000	Y_R2 488.368
Na H (589.593 nm)	964.251189	ppm	2.567121	0.27	479889.699917	Y_R4
Ni (231.604 nm)	0.003771	ppm	0.000273	7.23	9.709190	Y 377.433
P (213.618 nm)	0.002461	ppm	0.003127	> 100.00	-1.272560	Y 242.219
Pb (220.353 nm)	-0.002026 u	ppm	0.000424	20.91	5.965990	Y 242.219
S (181.972 nm)	523.792158 bo	ppm	0.383420	0.07	235307.302978	Y 377.433
Sb (206.834 nm)	-0.000224 u	ppm	0.000402	> 100.00	-7.931670	Y 377.433
Se (196.026 nm)	-0.000568 u	ppm	0.000667	> 100.00	9.661050	Y 242.219
Si (288.158 nm)	4.300090	ppm	0.006520	0.15	28872.800000	Y 377.433
Sn (189.925 nm)	0.000347	ppm	0.000173	49.95	2.841430	Y 377.433
Sr (421.552 nm)	2.658915	ppm	0.003475	0.13	388913.336193	Y_R 488.368
Th (288.505 nm)	0.008059	ppm	0.004994	61.97	26.219100	Y 377.433
Ti (336.122 nm)	0.000090	ppm	0.000058	63.68	-133.115000	Y 377.433
Tl (190.794 nm)	0.003049	ppm	0.001976	64.80	3.094820	Y 377.433
U (409.013 nm)	0.003186	ppm	0.001654	51.91	-45.538200	Y 377.433
V (292.401 nm)	0.001625	ppm	0.000093	5.70	-93.251600	Y 377.433
Zn (206.200 nm)	0.014646	ppm	0.000737	5.03	76.517600	Y 377.433
Zr (343.823 nm)	0.001166	ppm	0.000324	27.78	-107.277000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.074471	24060.051266	0.005630	0.52
Y 377.433	1.086875	702258.641350	0.004921	0.45
Y_R 377.433	1.158850	63795.400000	0.007350	0.63
Y_R 488.368	1.153980	55768.500000	0.007430	0.64
Y_R2 488.368	1.134857	105183.645104	0.000395	0.03
Y_R4	1.152770	49360.900000	0.002263	0.20

Sample Name: mb 280-459078/1-a

Date: 5/24/2019 12:28:16 AM Rack:Tube: 2:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000229	ppm	0.000070	30.78	-237.739000	Y 377.433
Al (394.401 nm)	-0.002613 u	ppm	0.000495	18.94	98.430100	Y 377.433
Al H (396.152 nm)	0.125920 u	ppm	0.006582	5.23	33.947400	Y_R 377.433
As (188.980 nm)	-0.000830 u	ppm	0.001918	> 100.00	-2.627380	Y 242.219
B (249.678 nm)	-0.003307 u	ppm	0.000289	8.75	13.378200	Y 242.219
Ba (493.408 nm)	-0.003009 u	ppm	0.000206	6.84	1141.140000	Y_R 488.368
Be (234.861 nm)	-0.000002 u	ppm	0.000009	> 100.00	-5.948270	Y_R 488.368
Bi (223.061 nm)	0.001223	ppm	0.000021	1.70	-12.725800	Y 377.433
Ca (315.887 nm)	0.020081	ppm	0.002548	12.69	-45.763549	Y_R 377.433
Cd (214.439 nm)	0.000064	ppm	0.000025	38.73	-5.217180	Y 377.433
Co (228.615 nm)	0.000164	ppm	0.000006	3.61	-18.103800	Y 242.219
Cr (205.560 nm)	-0.000191 u	ppm	0.000290	> 100.00	-7.320450	Y 377.433
Cu (324.754 nm)	-0.000425 u	ppm	0.000187	44.04	392.016000	Y 377.433
Fe (238.204 nm)	0.006024	ppm	0.000197	3.27	17.782149	Y_R 377.433
Fe H (259.940 nm)	-0.046500 u	ppm	0.000681	1.46	25.731500	Y_R 377.433
K (766.491 nm)	-0.274196 u	ppm	0.018544	6.76	1709.440000	Y_R2 488.368
Li (670.783 nm)	0.025392	ppm	0.002118	8.34	-2189.300000	Y_R2 488.368
Mg (279.078 nm)	0.004761	ppm	0.001398	29.35	28.747600	Y 377.433
Mn (257.610 nm)	0.000127	ppm	0.000028	22.27	13.228100	Y 377.433
Mo (202.032 nm)	-0.000565 u	ppm	0.000060	10.59	16.194200	Y 377.433
Na (589.592 nm)	0.408024	ppm	0.038520	9.44	411.956000	Y_R2 488.368
Na H (589.593 nm)	2.204458 u	ppm	0.040029	1.82	1423.916443	Y_R4
Ni (231.604 nm)	0.000085 u	ppm	0.000282	> 100.00	-10.891600	Y 377.433
P (213.618 nm)	-0.002076 u	ppm	0.003382	> 100.00	-7.472380	Y 242.219
Pb (220.353 nm)	-0.001505 u	ppm	0.000991	65.85	7.731330	Y 242.219
S (181.972 nm)	0.026250	ppm	0.009077	34.58	19.547539	Y 377.433
Sb (206.834 nm)	0.001389	ppm	0.001100	79.19	-5.087350	Y 377.433
Se (196.026 nm)	-0.003266 u	ppm	0.001758	53.82	5.266090	Y 242.219
Si (288.158 nm)	-0.009498 u	ppm	0.000305	3.21	445.388000	Y 377.433
Sn (189.925 nm)	0.000782	ppm	0.000148	18.91	3.600650	Y 377.433
Sr (421.552 nm)	-0.000023 u	ppm	0.000026	> 100.00	44.486281	Y_R 488.368
Th (288.505 nm)	-0.000732 u	ppm	0.001303	> 100.00	13.252000	Y 377.433
Ti (336.122 nm)	0.000692	ppm	0.000114	16.53	-415.713000	Y 377.433
Tl (190.794 nm)	0.000437 u	ppm	0.000893	> 100.00	1.174040	Y 377.433
U (409.013 nm)	0.002350 u	ppm	0.003788	> 100.00	-34.434200	Y 377.433
V (292.401 nm)	0.000584	ppm	0.000167	28.68	-149.350000	Y 377.433
Zn (206.200 nm)	0.000522	ppm	0.000086	16.46	6.407680	Y 377.433
Zr (343.823 nm)	0.000687	ppm	0.000047	6.88	-134.891000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.193024	26714.756366	0.001584	0.13
Y 377.433	1.191738	770013.083460	0.003616	0.30
Y_R 377.433	1.212280	66736.300000	0.001607	0.13
Y_R 488.368	1.208360	58396.500000	0.001257	0.10
Y_R2 488.368	1.203094	111508.132704	0.003034	0.25
Y_R4	1.207680	51712.400000	0.004088	0.34

Sample Name: lcs 280-459078/2-a

Date: 5/24/2019 12:31:28 AM Rack:Tube: 2:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.053190	ppm	0.000089	0.17	1308.190000	Y 377.433
Al (394.401 nm)	10.092500 o	ppm	0.007492	0.07	120979.000000	Y 377.433
Al H (396.152 nm)	10.072400	ppm	0.023281	0.23	21005.600000	Y_R 377.433
As (188.980 nm)	2.041750	ppm	0.004023	0.20	3251.700000	Y 242.219
B (249.678 nm)	1.005610	ppm	0.002081	0.21	7238.530000	Y 242.219
Ba (493.408 nm)	2.029260	ppm	0.001677	0.08	198001.000000	Y_R 488.368
Be (234.861 nm)	1.000710	ppm	0.007242	0.72	100850.000000	Y_R 488.368
Bi (223.061 nm)	1.976110	ppm	0.002280	0.12	4493.730000	Y 377.433
Ca (315.887 nm)	49.978995	ppm	0.121942	0.24	40290.595356	Y_R 377.433
Cd (214.439 nm)	0.999000	ppm	0.000972	0.10	39967.900000	Y 377.433
Co (228.615 nm)	0.987478	ppm	0.001420	0.14	24439.400000	Y 242.219
Cr (205.560 nm)	1.002780	ppm	0.005726	0.57	7092.240000	Y 377.433
Cu (324.754 nm)	0.996933	ppm	0.001689	0.17	46761.600000	Y 377.433
Fe (238.204 nm)	10.149245 o	ppm	0.019489	0.19	25018.363433	Y_R 377.433
Fe H (259.940 nm)	10.201000	ppm	0.026701	0.26	14354.300000	Y_R 377.433
K (766.491 nm)	51.351700	ppm	0.086384	0.17	52949.600000	Y_R2 488.368
Li (670.783 nm)	1.045510	ppm	0.003101	0.30	15574.600000	Y_R2 488.368
Mg (279.078 nm)	50.619500	ppm	0.077428	0.15	179317.000000	Y 377.433
Mn (257.610 nm)	1.011160	ppm	0.000468	0.05	279665.000000	Y 377.433
Mo (202.032 nm)	1.015180	ppm	0.000004	0.00	12941.200000	Y 377.433
Na (589.592 nm)	49.548300	ppm	0.049891	0.10	37229.300000	Y_R2 488.368
Na H (589.593 nm)	54.346147	ppm	0.284267	0.52	27356.143218	Y_R4
Ni (231.604 nm)	0.989509	ppm	0.001696	0.17	5520.970000	Y 377.433
P (213.618 nm)	20.501900	ppm	0.039569	0.19	30735.400000	Y 242.219
Pb (220.353 nm)	1.005020	ppm	0.003573	0.36	3464.010000	Y 242.219
S (181.972 nm)	10.364351	ppm	0.023803	0.23	4669.072191	Y 377.433
Sb (206.834 nm)	1.081770	ppm	0.007994	0.74	1897.320000	Y 377.433
Se (196.026 nm)	2.019130	ppm	0.010789	0.53	3290.900000	Y 242.219
Si (288.158 nm)	2.051960	ppm	0.000656	0.03	14043.400000	Y 377.433
Sn (189.925 nm)	2.002500	ppm	0.006137	0.31	3495.020000	Y 377.433
Sr (421.552 nm)	1.016953	ppm	0.001043	0.10	148778.415948	Y_R 488.368
Th (288.505 nm)	1.032180	ppm	0.002745	0.27	1720.600000	Y 377.433
Ti (336.122 nm)	1.015010	ppm	0.001409	0.14	131642.000000	Y 377.433
Tl (190.794 nm)	2.001390	ppm	0.000788	0.04	4839.210000	Y 377.433
U (409.013 nm)	2.037910	ppm	0.004671	0.23	6282.090000	Y 377.433
V (292.401 nm)	1.003200	ppm	0.000250	0.02	52730.900000	Y 377.433
Zn (206.200 nm)	0.496778	ppm	0.001111	0.22	2470.970000	Y 377.433
Zr (343.823 nm)	0.503008	ppm	0.000468	0.09	28829.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148964	25728.137216	0.006301	0.55
Y 377.433	1.158002	748215.623253	0.006137	0.53
Y_R 377.433	1.197730	65935.700000	0.004136	0.35
Y_R 488.368	1.189820	57500.600000	0.003534	0.30
Y_R2 488.368	1.179691	109339.032541	0.003782	0.32
Y_R4	1.213360	51955.400000	0.003758	0.31

Sample Name: 280-123149-a-2-a

Date: 5/24/2019 12:35:07 AM Rack:Tube: 2:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001500	ppm	0.000020	1.36	-193.447000	Y 377.433
Al (394.401 nm)	-0.123180 u	ppm	0.000152	0.12	547.785000	Y 377.433
Al H (396.152 nm)	-1.320990 u	ppm	0.000165	0.01	-53.362800	Y_R 377.433
As (188.980 nm)	0.003460	ppm	0.001410	40.74	4.208020	Y 242.219
B (249.678 nm)	0.242817	ppm	0.001234	0.51	1777.380000	Y 242.219
Ba (493.408 nm)	0.039745	ppm	0.000381	0.96	5282.460000	Y_R 488.368
Be (234.861 nm)	0.000085	ppm	0.000063	74.37	2.786360	Y_R 488.368
Bi (223.061 nm)	0.001303	ppm	0.000097	7.47	-12.511900	Y 377.433
Ca (315.887 nm)	327.138136	ppm	0.180835	0.06	264049.362000	Y_R 377.433
Cd (214.439 nm)	0.000371	ppm	0.000151	40.66	7.039660	Y 377.433
Co (228.615 nm)	-0.000063 u	ppm	0.000163	> 100.00	-23.755000	Y 242.219
Cr (205.560 nm)	0.000557 u	ppm	0.001169	> 100.00	-2.266600	Y 377.433
Cu (324.754 nm)	-0.001801 u	ppm	0.000331	18.38	143.768000	Y 377.433
Fe (238.204 nm)	0.009033	ppm	0.001716	18.99	25.197341	Y_R 377.433
Fe H (259.940 nm)	-0.054958 u	ppm	0.000074	0.14	13.904600	Y_R 377.433
K (766.491 nm)	12.821400	ppm	0.212354	1.66	14707.200000	Y_R2 488.368
Li (670.783 nm)	0.451480	ppm	0.003252	0.72	5230.440000	Y_R2 488.368
Mg (279.078 nm)	21.791500	ppm	0.008947	0.04	77222.900000	Y 377.433
Mn (257.610 nm)	0.000934	ppm	0.000065	6.93	236.193000	Y 377.433
Mo (202.032 nm)	0.048656	ppm	0.000840	1.73	642.523000	Y 377.433
Na (589.592 nm)	1283.930000 o	ppm	4.226210	0.33	951195.000000	Y_R2 488.368
Na H (589.593 nm)	1879.858881	ppm	4.248903	0.23	935259.421735	Y_R4
Ni (231.604 nm)	-0.001715 u	ppm	0.000062	3.64	-20.952000	Y 377.433
P (213.618 nm)	0.015247	ppm	0.001356	8.90	16.409000	Y 242.219
Pb (220.353 nm)	-0.003758 u	ppm	0.000608	16.19	-0.152738	Y 242.219
S (181.972 nm)	855.090338 bo	ppm	1.385006	0.16	384141.477454	Y 377.433
Sb (206.834 nm)	-0.001019 u	ppm	0.003347	> 100.00	-9.674380	Y 377.433
Se (196.026 nm)	-0.002666 u	ppm	0.002982	> 100.00	6.251280	Y 242.219
Si (288.158 nm)	4.768390	ppm	0.045159	0.95	31961.900000	Y 377.433
Sn (189.925 nm)	0.000431	ppm	0.000079	18.25	2.988290	Y 377.433
Sr (421.552 nm)	7.536673	ppm	0.034036	0.45	1102283.804183	Y_R 488.368
Th (288.505 nm)	0.000491 u	ppm	0.005532	> 100.00	6.901220	Y 377.433
Ti (336.122 nm)	-0.000884 u	ppm	0.000139	15.69	503.022000	Y 377.433
Tl (190.794 nm)	0.006657	ppm	0.002384	35.81	2.277980	Y 377.433
U (409.013 nm)	-0.012545 u	ppm	0.004680	37.31	-123.866000	Y 377.433
V (292.401 nm)	0.002393	ppm	0.000007	0.30	-56.664000	Y 377.433
Zn (206.200 nm)	0.001629	ppm	0.001243	76.34	11.901700	Y 377.433
Zr (343.823 nm)	0.001071	ppm	0.000144	13.48	-112.792000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043670	23370.350930	0.007945	0.76
Y 377.433	1.064782	687983.847476	0.007952	0.75
Y_R 377.433	1.197070	65899.200000	0.000600	0.05
Y_R 488.368	1.186850	57357.100000	0.001712	0.14
Y_R2 488.368	1.186614	109980.657272	0.003434	0.29
Y_R4	1.179430	50502.400000	0.012161	1.03

Sample Name: 280-123149-a-3-a

Date: 5/24/2019 12:39:14 AM
Rack:Tube: 2:15

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000911	ppm	0.000292	32.06	-214.051000	Y 377.433
Al (394.401 nm)	-0.023480 u	ppm	0.001039	4.43	605.231000	Y 377.433
Al H (396.152 nm)	-0.417862 u	ppm	0.004023	0.96	95.812600	Y_R 377.433
As (188.980 nm)	0.001056	ppm	0.000676	64.02	0.376232	Y 242.219
B (249.678 nm)	0.247450	ppm	0.000297	0.12	1810.580000	Y 242.219
Ba (493.408 nm)	0.006743	ppm	0.000130	1.93	2085.780000	Y_R 488.368
Be (234.861 nm)	0.000033	ppm	0.000018	54.96	-2.512820	Y_R 488.368
Bi (223.061 nm)	0.001878	ppm	0.001415	75.34	-11.215500	Y 377.433
Ca (315.887 nm)	69.413409	ppm	0.024167	0.03	55978.178539	Y_R 377.433
Cd (214.439 nm)	0.000245	ppm	0.000169	68.96	2.004670	Y 377.433
Co (228.615 nm)	0.000184	ppm	0.000243	> 100.00	-17.618500	Y 242.219
Cr (205.560 nm)	0.000256	ppm	0.000032	12.48	-5.184670	Y 377.433
Cu (324.754 nm)	-0.000012 u	ppm	0.000451	> 100.00	372.618000	Y 377.433
Fe (238.204 nm)	0.020580	ppm	0.004112	19.98	53.659853	Y_R 377.433
Fe H (259.940 nm)	-0.036831 u	ppm	0.002645	7.18	39.250600	Y_R 377.433
K (766.491 nm)	6.037200	ppm	0.069314	1.15	7973.690000	Y_R2 488.368
Li (670.783 nm)	0.240802	ppm	0.001162	0.48	1561.770000	Y_R2 488.368
Mg (279.078 nm)	4.652220	ppm	0.000479	0.01	16495.400000	Y 377.433
Mn (257.610 nm)	0.304508	ppm	0.000033	0.01	84205.000000	Y 377.433
Mo (202.032 nm)	0.207831	ppm	0.000242	0.12	2667.960000	Y 377.433
Na (589.592 nm)	832.366000 o	ppm	1.406650	0.17	616693.000000	Y_R2 488.368
Na H (589.593 nm)	1020.384018	ppm	9.056063	0.89	507806.886839	Y_R4
Ni (231.604 nm)	-0.000809 u	ppm	0.000202	24.94	-15.889300	Y 377.433
P (213.618 nm)	0.022737	ppm	0.002380	10.47	22.265900	Y 242.219
Pb (220.353 nm)	-0.004238 u	ppm	0.000402	9.49	-2.249420	Y 242.219
S (181.972 nm)	468.685854 bo	ppm	0.248334	0.05	210551.981904	Y 377.433
Sb (206.834 nm)	0.001497	ppm	0.000336	22.47	-6.326330	Y 377.433
Se (196.026 nm)	-0.002116 u	ppm	0.001730	81.75	7.621830	Y 242.219
Si (288.158 nm)	4.361610	ppm	0.007962	0.18	29278.600000	Y 377.433
Sn (189.925 nm)	-0.001136 u	ppm	0.000042	3.73	0.254720	Y 377.433
Sr (421.552 nm)	3.002077	ppm	0.005036	0.17	439100.658455	Y_R 488.368
Th (288.505 nm)	-0.013393 u	ppm	0.002919	21.79	-4.649510	Y 377.433
Ti (336.122 nm)	0.000848	ppm	0.000003	0.31	-157.633000	Y 377.433
Tl (190.794 nm)	0.000888	ppm	0.000696	78.34	-1.808580	Y 377.433
U (409.013 nm)	-0.009487 u	ppm	0.001873	19.75	-80.559200	Y 377.433
V (292.401 nm)	0.001663	ppm	0.000016	0.97	-108.568000	Y 377.433
Zn (206.200 nm)	0.001720	ppm	0.000667	38.80	12.355100	Y 377.433
Zr (343.823 nm)	0.000718	ppm	0.000160	22.29	-133.133000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125746	25208.223143	0.005004	0.44
Y 377.433	1.136164	734105.370733	0.005857	0.52
Y_R 377.433	1.230000	67711.900000	0.000749	0.06
Y_R 488.368	1.223790	59142.100000	0.001056	0.09
Y_R2 488.368	1.209670	112117.586529	0.012611	1.04
Y_R4	1.232100	52757.900000	0.007007	0.57

Sample Name: 280-123149-a-3-aSD@5

Date: 5/24/2019 12:42:54 AM Rack:Tube: 2:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000449	ppm	0.000325	72.47	-230.285000	Y 377.433
Al (394.401 nm)	-0.005914 u	ppm	0.000611	10.33	214.042000	Y 377.433
Al H (396.152 nm)	0.009745 u	ppm	0.000819	8.40	32.703000	Y_R 377.433
As (188.980 nm)	-0.000359 u	ppm	0.001872	> 100.00	-1.879010	Y 242.219
B (249.678 nm)	0.046122	ppm	0.000397	0.86	367.613000	Y 242.219
Ba (493.408 nm)	-0.001039 u	ppm	0.000070	6.71	1332.040000	Y_R 488.368
Be (234.861 nm)	0.000057	ppm	0.000005	9.11	-0.242971	Y_R 488.368
Bi (223.061 nm)	0.002797	ppm	0.000188	6.74	-9.122060	Y 377.433
Ca (315.887 nm)	14.163345	ppm	0.055809	0.39	11372.644431	Y_R 377.433
Cd (214.439 nm)	0.000181	ppm	0.000135	74.64	-0.535279	Y 377.433
Co (228.615 nm)	0.000116	ppm	0.000072	61.86	-19.290800	Y 242.219
Cr (205.560 nm)	0.000452	ppm	0.000002	0.41	-2.971290	Y 377.433
Cu (324.754 nm)	-0.000464 u	ppm	0.000132	28.53	380.995000	Y 377.433
Fe (238.204 nm)	0.063796	ppm	0.001332	2.09	160.175866	Y_R 377.433
Fe H (259.940 nm)	0.010379 u	ppm	0.002892	27.86	105.262000	Y_R 377.433
K (766.491 nm)	0.990805	ppm	0.029973	3.03	2964.990000	Y_R2 488.368
Li (670.783 nm)	0.063872	ppm	0.000131	0.21	-1519.230000	Y_R2 488.368
Mg (279.078 nm)	0.959234	ppm	0.006180	0.64	3410.270000	Y 377.433
Mn (257.610 nm)	0.063022	ppm	0.000215	0.34	17409.700000	Y 377.433
Mo (202.032 nm)	0.041666	ppm	0.000113	0.27	553.572000	Y 377.433
Na (589.592 nm)	203.358000 o	ppm	0.532475	0.26	150749.000000	Y_R2 488.368
Na H (589.593 nm)	214.749659	ppm	1.892176	0.88	107131.469629	Y_R4
Ni (231.604 nm)	-0.000635 u	ppm	0.000085	13.32	-14.915400	Y 377.433
P (213.618 nm)	0.005151	ppm	0.000071	1.38	1.913390	Y 242.219
Pb (220.353 nm)	-0.002146 u	ppm	0.002073	96.60	5.448440	Y 242.219
S (181.972 nm)	94.257016	ppm	0.708558	0.75	42350.134681	Y 377.433
Sb (206.834 nm)	0.004051	ppm	0.003497	86.33	-0.672735	Y 377.433
Se (196.026 nm)	-0.002175 u	ppm	0.002400	> 100.00	7.125380	Y 242.219
Si (288.158 nm)	0.863816	ppm	0.004705	0.54	6206.040000	Y 377.433
Sn (189.925 nm)	0.000155	ppm	0.000206	> 100.00	2.505920	Y 377.433
Sr (421.552 nm)	0.604653	ppm	0.000701	0.12	88478.282085	Y_R 488.368
Th (288.505 nm)	-0.007184 u	ppm	0.000427	5.95	2.934820	Y 377.433
Ti (336.122 nm)	0.000840	ppm	0.000003	0.41	-348.451000	Y 377.433
Tl (190.794 nm)	0.001075	ppm	0.000155	14.43	1.888750	Y 377.433
U (409.013 nm)	0.010195	ppm	0.000854	8.37	-11.616000	Y 377.433
V (292.401 nm)	0.000815	ppm	0.000155	19.04	-141.489000	Y 377.433
Zn (206.200 nm)	0.003766	ppm	0.000205	5.43	22.518400	Y 377.433
Zr (343.823 nm)	0.000608	ppm	0.000056	9.23	-139.486000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.174527	26300.550926	0.000122	0.01
Y 377.433	1.176060	759883.382271	0.000629	0.05
Y_R 377.433	1.213390	66797.300000	0.007636	0.63
Y_R 488.368	1.203870	58179.600000	0.003935	0.33
Y_R2 488.368	1.195782	110830.380183	0.006545	0.55
Y_R4	1.235290	52894.500000	0.013398	1.08

Sample Name: 280-123149-a-3-b ms

Date: 5/24/2019 12:46:26 AM Rack:Tube: 2:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054333	ppm	0.000143	0.26	1377.680000	Y 377.433
Al (394.401 nm)	9.798740 o	ppm	0.032613	0.33	118184.000000	Y 377.433
Al H (396.152 nm)	9.511470	ppm	0.003071	0.03	20974.700000	Y_R 377.433
As (188.980 nm)	1.951180	ppm	0.014553	0.75	3107.380000	Y 242.219
B (249.678 nm)	1.271110	ppm	0.006905	0.54	9141.350000	Y 242.219
Ba (493.408 nm)	1.901330	ppm	0.000411	0.02	185609.000000	Y_R 488.368
Be (234.861 nm)	0.923034	ppm	0.015082	1.63	93017.500000	Y_R 488.368
Bi (223.061 nm)	1.999450	ppm	0.011601	0.58	4547.000000	Y 377.433
Ca (315.887 nm)	116.707312	ppm	0.155951	0.13	94162.960809	Y_R 377.433
Cd (214.439 nm)	0.922162	ppm	0.004726	0.51	36893.500000	Y 377.433
Co (228.615 nm)	0.935542	ppm	0.004601	0.49	23152.200000	Y 242.219
Cr (205.560 nm)	0.920058	ppm	0.015166	1.65	6505.570000	Y 377.433
Cu (324.754 nm)	0.965367	ppm	0.007833	0.81	45263.200000	Y 377.433
Fe (238.204 nm)	10.216669 o	ppm	0.010251	0.10	25184.546976	Y_R 377.433
Fe H (259.940 nm)	10.284100	ppm	0.011075	0.11	14470.500000	Y_R 377.433
K (766.491 nm)	63.038100	ppm	0.303309	0.48	64548.800000	Y_R2 488.368
Li (670.783 nm)	1.259290	ppm	0.007185	0.57	19297.400000	Y_R2 488.368
Mg (279.078 nm)	53.491300	ppm	0.245233	0.46	189493.000000	Y 377.433
Mn (257.610 nm)	1.226980	ppm	0.005379	0.44	339362.000000	Y 377.433
Mo (202.032 nm)	1.141130	ppm	0.004349	0.38	14543.900000	Y 377.433
Na (589.592 nm)	855.645000 o	ppm	0.006261	0.00	634325.000000	Y_R2 488.368
Na H (589.593 nm)	1067.699966	ppm	5.066430	0.47	531339.071962	Y_R4
Ni (231.604 nm)	0.935996	ppm	0.005148	0.55	5221.580000	Y 377.433
P (213.618 nm)	21.245300	ppm	0.137255	0.65	31863.200000	Y 242.219
Pb (220.353 nm)	0.916330	ppm	0.003481	0.38	3158.970000	Y 242.219
S (181.972 nm)	464.971742 bo	ppm	4.057111	0.87	208888.663494	Y 377.433
Sb (206.834 nm)	1.073870	ppm	0.008008	0.75	1882.310000	Y 377.433
Se (196.026 nm)	1.900460	ppm	0.018426	0.97	3098.370000	Y 242.219
Si (288.158 nm)	6.282640	ppm	0.016768	0.27	41950.300000	Y 377.433
Sn (189.925 nm)	1.848030	ppm	0.003001	0.16	3225.590000	Y 377.433
Sr (421.552 nm)	3.892226	ppm	0.001267	0.03	569286.150264	Y_R 488.368
Th (288.505 nm)	1.030070	ppm	0.004694	0.46	1727.970000	Y 377.433
Ti (336.122 nm)	0.950694	ppm	0.004718	0.50	123508.000000	Y 377.433
Tl (190.794 nm)	1.739150	ppm	0.002742	0.16	4200.530000	Y 377.433
U (409.013 nm)	2.022260	ppm	0.007163	0.35	6224.260000	Y 377.433
V (292.401 nm)	0.932335	ppm	0.003360	0.36	48985.200000	Y 377.433
Zn (206.200 nm)	0.509928	ppm	0.001773	0.35	2536.250000	Y 377.433
Zr (343.823 nm)	0.505133	ppm	0.002766	0.55	28951.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.095653	24534.377966	0.004628	0.42
Y 377.433	1.113105	719206.556272	0.005112	0.46
Y_R 377.433	1.181350	65034.000000	0.007804	0.66
Y_R 488.368	1.173720	56722.500000	0.007290	0.62
Y_R2 488.368	1.190725	110361.734926	0.004281	0.36
Y_R4	1.210980	51853.500000	0.006801	0.56

Sample Name: 280-123149-a-3-c msd

Date: 5/24/2019 12:50:05 AM
Rack:Tube: 2:18

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054286	ppm	0.000293	0.54	1360.020000	Y 377.433
Al (394.401 nm)	9.764650 o	ppm	0.044187	0.45	117789.000000	Y 377.433
Al H (396.152 nm)	9.507030	ppm	0.028338	0.30	20988.700000	Y_R 377.433
As (188.980 nm)	2.036780	ppm	0.002505	0.12	3243.780000	Y 242.219
B (249.678 nm)	1.264360	ppm	0.008403	0.66	9093.000000	Y 242.219
Ba (493.408 nm)	1.990410	ppm	0.001864	0.09	194237.000000	Y_R 488.368
Be (234.861 nm)	0.956135	ppm	0.017541	1.83	96355.300000	Y_R 488.368
Bi (223.061 nm)	1.984250	ppm	0.005925	0.30	4512.330000	Y 377.433
Ca (315.887 nm)	116.990048	ppm	0.350505	0.30	94391.224845	Y_R 377.433
Cd (214.439 nm)	0.963592	ppm	0.003620	0.38	38551.200000	Y 377.433
Co (228.615 nm)	0.976131	ppm	0.005726	0.59	24157.600000	Y 242.219
Cr (205.560 nm)	0.957015	ppm	0.000245	0.03	6767.160000	Y 377.433
Cu (324.754 nm)	1.001400	ppm	0.001101	0.11	46935.300000	Y 377.433
Fe (238.204 nm)	10.178275 o	ppm	0.024772	0.24	25089.914027	Y_R 377.433
Fe H (259.940 nm)	10.227100	ppm	0.020448	0.20	14390.700000	Y_R 377.433
K (766.491 nm)	62.708400	ppm	0.172360	0.27	64221.600000	Y_R2 488.368
Li (670.783 nm)	1.287500	ppm	0.005284	0.41	19788.600000	Y_R2 488.368
Mg (279.078 nm)	53.413800	ppm	0.175207	0.33	189219.000000	Y 377.433
Mn (257.610 nm)	1.266870	ppm	0.005766	0.46	350395.000000	Y 377.433
Mo (202.032 nm)	1.181900	ppm	0.005020	0.42	15062.700000	Y 377.433
Na (589.592 nm)	863.928000 o	ppm	1.156240	0.13	640478.000000	Y_R2 488.368
Na H (589.593 nm)	1057.721838	ppm	7.740746	0.73	526376.534846	Y_R4
Ni (231.604 nm)	0.976015	ppm	0.002682	0.27	5445.330000	Y 377.433
P (213.618 nm)	21.114200	ppm	0.109394	0.52	31654.000000	Y 242.219
Pb (220.353 nm)	0.955522	ppm	0.007195	0.75	3293.350000	Y 242.219
S (181.972 nm)	465.761897 bo	ppm	2.138084	0.46	209243.739757	Y 377.433
Sb (206.834 nm)	1.059390	ppm	0.005297	0.50	1856.530000	Y 377.433
Se (196.026 nm)	1.984710	ppm	0.011209	0.56	3235.360000	Y 242.219
Si (288.158 nm)	6.358910	ppm	0.025653	0.40	42453.400000	Y 377.433
Sn (189.925 nm)	1.930000	ppm	0.002951	0.15	3368.560000	Y 377.433
Sr (421.552 nm)	3.944212	ppm	0.000240	0.01	576889.058065	Y_R 488.368
Th (288.505 nm)	1.011860	ppm	0.002184	0.22	1692.130000	Y 377.433
Ti (336.122 nm)	0.990266	ppm	0.005394	0.54	128654.000000	Y 377.433
Tl (190.794 nm)	1.817350	ppm	0.008906	0.49	4389.750000	Y 377.433
U (409.013 nm)	1.990860	ppm	0.011680	0.59	6126.370000	Y 377.433
V (292.401 nm)	0.971202	ppm	0.003797	0.39	51035.600000	Y 377.433
Zn (206.200 nm)	0.504080	ppm	0.000925	0.18	2507.220000	Y 377.433
Zr (343.823 nm)	0.501018	ppm	0.002403	0.48	28714.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.085833	24314.475332	0.007633	0.70
Y 377.433	1.103078	712727.530611	0.009761	0.88
Y_R 377.433	1.180700	64998.000000	0.004241	0.36
Y_R 488.368	1.171040	56592.600000	0.005332	0.46
Y_R2 488.368	1.157529	107284.955142	0.002033	0.18
Y_R4	1.193620	51110.000000	0.006899	0.58

Sample Name: 280-123149-a-3-aPDS

Date: 5/24/2019 12:53:46 AM
Rack:Tube: 2:19

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050306	ppm	0.000637	1.27	1511.740000	Y 377.433
Al (394.401 nm)	0.946102	ppm	0.000021	0.00	12197.900000	Y 377.433
Al H (396.152 nm)	0.575430 u	ppm	0.003788	0.66	2134.290000	Y_R 377.433
As (188.980 nm)	0.208343	ppm	0.001825	0.88	330.636000	Y 242.219
B (249.678 nm)	0.342254	ppm	0.002512	0.73	2489.450000	Y 242.219
Ba (493.408 nm)	0.106574	ppm	0.000277	0.26	11756.400000	Y_R 488.368
Be (234.861 nm)	0.047420	ppm	0.000195	0.41	4770.940000	Y_R 488.368
Bi (223.061 nm)	0.002051	ppm	0.002419	> 100.00	-10.583800	Y 377.433
Ca (315.887 nm)	86.850309	ppm	0.112304	0.13	70055.917448	Y_R 377.433
Cd (214.439 nm)	0.050261	ppm	0.000281	0.56	2003.680000	Y 377.433
Co (228.615 nm)	0.048850	ppm	0.000362	0.74	1187.810000	Y 242.219
Cr (205.560 nm)	0.048189	ppm	0.000212	0.44	334.107000	Y 377.433
Cu (324.754 nm)	0.051267	ppm	0.000129	0.25	2755.390000	Y 377.433
Fe (238.204 nm)	1.049872	ppm	0.001639	0.16	2590.615255	Y_R 377.433
Fe H (259.940 nm)	1.002810 u	ppm	0.003057	0.30	1492.930000	Y_R 377.433
K (766.491 nm)	28.032400	ppm	0.073590	0.26	29804.600000	Y_R2 488.368
Li (670.783 nm)	0.321780	ppm	0.001731	0.54	2971.890000	Y_R2 488.368
Mg (279.078 nm)	23.689800	ppm	0.016594	0.07	83939.300000	Y 377.433
Mn (257.610 nm)	0.347176	ppm	0.000566	0.16	96006.900000	Y 377.433
Mo (202.032 nm)	0.254173	ppm	0.000415	0.16	3257.640000	Y 377.433
Na (589.592 nm)	854.621000 o	ppm	0.832420	0.10	633199.000000	Y_R2 488.368
Na H (589.593 nm)	1021.699534	ppm	3.358689	0.33	508461.147573	Y_R4
Ni (231.604 nm)	0.047956	ppm	0.001261	2.63	256.863000	Y 377.433
P (213.618 nm)	2.085030	ppm	0.008100	0.39	3128.060000	Y 242.219
Pb (220.353 nm)	0.094026	ppm	0.000502	0.53	336.193000	Y 242.219
S (181.972 nm)	453.597683 bo	ppm	1.695198	0.37	203775.132184	Y 377.433
Sb (206.834 nm)	0.106394	ppm	0.002136	2.01	178.649000	Y 377.433
Se (196.026 nm)	0.195218	ppm	0.004036	2.07	328.112000	Y 242.219
Si (288.158 nm)	9.011900	ppm	0.011881	0.13	59953.400000	Y 377.433
Sn (189.925 nm)	0.093697	ppm	0.001843	1.97	165.664000	Y 377.433
Sr (421.552 nm)	2.983285	ppm	0.002023	0.07	436352.526278	Y_R 488.368
Th (288.505 nm)	0.193519	ppm	0.000197	0.10	353.084000	Y 377.433
Ti (336.122 nm)	0.050235	ppm	0.000068	0.14	6323.260000	Y 377.433
Tl (190.794 nm)	0.187450	ppm	0.003583	1.91	449.035000	Y 377.433
U (409.013 nm)	0.484706	ppm	0.007754	1.60	1460.030000	Y 377.433
V (292.401 nm)	0.050848	ppm	0.000131	0.26	2482.500000	Y 377.433
Zn (206.200 nm)	0.207598	ppm	0.001258	0.61	1034.320000	Y 377.433
Zr (343.823 nm)	0.050657	ppm	0.000022	0.04	2746.390000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080566	24196.531964	0.001545	0.14
Y 377.433	1.088080	703036.972370	0.004296	0.39
Y_R 377.433	1.167000	64244.100000	0.000050	0.00
Y_R 488.368	1.159650	56042.200000	0.001064	0.09
Y_R2 488.368	1.124737	104245.621079	0.000507	0.05
Y_R4	1.140030	48815.600000	0.001533	0.13

Sample Name: mb 280-458934/1-a

Date: 5/24/2019 12:57:28 AM Rack:Tube: 2:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000339 u	ppm	0.000575	> 100.00	-233.681000	Y 377.433
Al (394.401 nm)	0.002254	ppm	0.000850	37.71	154.585000	Y 377.433
Al H (396.152 nm)	0.134149 u	ppm	0.008091	6.03	50.817000	Y_R 377.433
As (188.980 nm)	-0.001211 u	ppm	0.002535	> 100.00	-3.235230	Y 242.219
B (249.678 nm)	-0.001410 u	ppm	0.000297	21.09	26.973800	Y 242.219
Ba (493.408 nm)	-0.001742 u	ppm	0.000077	4.43	1263.850000	Y_R 488.368
Be (234.861 nm)	0.000005 u	ppm	0.000025	> 100.00	-5.296300	Y_R 488.368
Bi (223.061 nm)	0.000248 u	ppm	0.000860	> 100.00	-14.947100	Y 377.433
Ca (315.887 nm)	0.030626	ppm	0.000157	0.51	-37.249283	Y_R 377.433
Cd (214.439 nm)	0.000009 u	ppm	0.000062	> 100.00	-7.415400	Y 377.433
Co (228.615 nm)	0.000267	ppm	0.000047	17.45	-15.574000	Y 242.219
Cr (205.560 nm)	0.000117	ppm	0.000091	77.40	-5.135430	Y 377.433
Cu (324.754 nm)	-0.000558 u	ppm	0.000145	26.01	386.750000	Y 377.433
Fe (238.204 nm)	0.011011	ppm	0.002326	21.13	30.072927	Y_R 377.433
Fe H (259.940 nm)	-0.043918 u	ppm	0.001608	3.66	29.341700	Y_R 377.433
K (766.491 nm)	0.090676	ppm	0.000543	0.60	2071.590000	Y_R2 488.368
Li (670.783 nm)	0.009740	ppm	0.005305	54.47	-2461.860000	Y_R2 488.368
Mg (279.078 nm)	0.002650	ppm	0.000053	1.98	21.468100	Y 377.433
Mn (257.610 nm)	0.000819	ppm	0.000016	1.94	204.635000	Y 377.433
Mo (202.032 nm)	-0.001172 u	ppm	0.000258	22.01	8.480410	Y 377.433
Na (589.592 nm)	0.787212	ppm	0.045097	5.73	693.193000	Y_R2 488.368
Na H (589.593 nm)	4.759824 u	ppm	0.006363	0.13	2694.806207	Y_R4
Ni (231.604 nm)	-0.000432 u	ppm	0.000009	2.12	-13.780800	Y 377.433
P (213.618 nm)	0.001526	ppm	0.000458	30.03	-1.978820	Y 242.219
Pb (220.353 nm)	-0.001492 u	ppm	0.000057	3.81	7.745300	Y 242.219
S (181.972 nm)	0.042083	ppm	0.004928	11.71	26.662396	Y 377.433
Sb (206.834 nm)	0.003838	ppm	0.000404	10.53	-0.759888	Y 377.433
Se (196.026 nm)	0.000292 u	ppm	0.002532	> 100.00	11.048700	Y 242.219
Si (288.158 nm)	0.002842	ppm	0.002200	77.39	526.791000	Y 377.433
Sn (189.925 nm)	0.000419	ppm	0.000044	10.54	2.966500	Y 377.433
Sr (421.552 nm)	0.000024	ppm	0.000009	38.45	51.375669	Y_R 488.368
Th (288.505 nm)	-0.002262 u	ppm	0.002144	94.78	10.533700	Y 377.433
Ti (336.122 nm)	0.000623	ppm	0.000060	9.60	-424.658000	Y 377.433
Tl (190.794 nm)	0.000360 u	ppm	0.001568	> 100.00	0.989451	Y 377.433
U (409.013 nm)	0.000798 u	ppm	0.009096	> 100.00	-39.297600	Y 377.433
V (292.401 nm)	0.000517	ppm	0.000036	7.03	-152.112000	Y 377.433
Zn (206.200 nm)	0.001683	ppm	0.000090	5.34	12.173700	Y 377.433
Zr (343.823 nm)	0.000656	ppm	0.000031	4.71	-136.672000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.159900	25973.028123	0.004204	0.36
Y 377.433	1.157203	747699.096507	0.004016	0.35
Y_R 377.433	1.144930	63028.600000	0.004194	0.37
Y_R 488.368	1.141280	55154.500000	0.002230	0.20
Y_R2 488.368	1.106791	102582.281266	0.003317	0.30
Y_R4	1.105570	47339.800000	0.002334	0.21

Sample Name: CCVH-5713036

Date: 5/24/2019 1:00:39 AM
Rack:Tube: S1:1

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004178	ppm	0.000154	3.68	-109.438000	Y 377.433
Al (394.401 nm)	48.863300 o	ppm	0.027049	0.06	582776.000000	Y 377.433
Al H (396.152 nm)	48.519000	ppm	0.130933	0.27	99759.900000	Y_R 377.433
As (188.980 nm)	0.004935	ppm	0.000837	16.97	5.171560	Y 242.219
B (249.678 nm)	-0.001934 u	ppm	0.000715	36.99	-4.835860	Y 242.219
Ba (493.408 nm)	0.001557	ppm	0.000157	10.09	1620.900000	Y_R 488.368
Be (234.861 nm)	0.001040	ppm	0.000021	2.02	-110.437000	Y_R 488.368
Bi (223.061 nm)	0.011747	ppm	0.002139	18.21	19.989700	Y 377.433
Ca (315.887 nm)	0.006282	ppm	0.008742	> 100.00	-44.623641	Y_R 377.433
Cd (214.439 nm)	0.001376	ppm	0.000069	5.01	68.542400	Y 377.433
Co (228.615 nm)	0.002976	ppm	0.000394	13.26	51.446800	Y 242.219
Cr (205.560 nm)	0.001848	ppm	0.000214	11.59	5.739530	Y 377.433
Cu (324.754 nm)	0.002994	ppm	0.000063	2.10	1464.340000	Y 377.433
Fe (238.204 nm)	48.081927 o	ppm	0.112651	0.23	118513.225698	Y_R 377.433
Fe H (259.940 nm)	48.371900	ppm	0.101928	0.21	67726.700000	Y_R 377.433
K (766.491 nm)	0.222443	ppm	0.020148	9.06	2202.370000	Y_R2 488.368
Li (670.783 nm)	0.006826	ppm	0.000009	0.13	-2512.590000	Y_R2 488.368
Mg (279.078 nm)	0.036182	ppm	0.000276	0.76	62.110700	Y 377.433
Mn (257.610 nm)	0.000944	ppm	0.000017	1.83	239.062000	Y 377.433
Mo (202.032 nm)	0.000543	ppm	0.000386	71.13	30.291600	Y 377.433
Na (589.592 nm)	236.917000 o	ppm	0.515759	0.22	175609.000000	Y_R2 488.368
Na H (589.593 nm)	251.145829	ppm	2.576386	1.03	125232.796104	Y_R4
Ni (231.604 nm)	0.002872	ppm	0.000775	26.99	4.686850	Y 377.433
P (213.618 nm)	4.769150	ppm	0.000573	0.01	7208.060000	Y 242.219
Pb (220.353 nm)	0.005143	ppm	0.002079	40.42	23.316100	Y 242.219
S (181.972 nm)	4.889327	ppm	0.024217	0.50	2204.113432	Y 377.433
Sb (206.834 nm)	0.003693	ppm	0.002234	60.50	3.240910	Y 377.433
Se (196.026 nm)	0.004782	ppm	0.000136	2.85	4.916510	Y 242.219
Si (288.158 nm)	0.013326	ppm	0.000163	1.22	595.942000	Y 377.433
Sn (189.925 nm)	0.002002	ppm	0.001556	77.72	5.728580	Y 377.433
Sr (421.552 nm)	0.001064	ppm	0.000085	8.01	210.558555	Y_R 488.368
Th (288.505 nm)	4.834330	ppm	0.005085	0.11	8447.520000	Y 377.433
Ti (336.122 nm)	0.002163	ppm	0.000023	1.05	-224.348000	Y 377.433
Tl (190.794 nm)	-0.000038 u	ppm	0.001260	> 100.00	-4.865710	Y 377.433
U (409.013 nm)	0.534131 Q	ppm	0.003187	0.60	1666.710000 Q	Y 377.433
V (292.401 nm)	0.001395	ppm	0.000320	22.93	380.807000	Y 377.433
Zn (206.200 nm)	0.002758	ppm	0.000014	0.51	24.941600	Y 377.433
Zr (343.823 nm)	0.001518	ppm	0.000067	4.44	-87.009300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.069142	23940.717424	0.002985	0.28
Y 377.433	1.066780	689274.597050	0.001399	0.13
Y_R 377.433	1.085110	59735.500000	0.002360	0.22
Y_R 488.368	1.079090	52149.200000	0.002904	0.27
Y_R2 488.368	1.055270	97807.079484	0.002399	0.23
Y_R4	1.094430	46863.100000	0.012121	1.11

Sample Name: CCV-5717467

Date: 5/24/2019 1:04:24 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.480588	ppm	0.001500	0.31	16603.800000	Y 377.433
Al (394.401 nm)	0.503076	ppm	0.001835	0.36	6263.440000	Y 377.433
Al H (396.152 nm)	0.549737 u	ppm	0.001577	0.29	1136.630000	Y_R 377.433
As (188.980 nm)	0.480821	ppm	0.002086	0.43	764.757000	Y 242.219
B (249.678 nm)	0.471052	ppm	0.001643	0.35	3411.760000	Y 242.219
Ba (493.408 nm)	0.481498	ppm	0.000070	0.01	48073.800000	Y_R 488.368
Be (234.861 nm)	0.474709	ppm	0.003065	0.65	47847.700000	Y_R 488.368
Bi (223.061 nm)	0.936565	ppm	0.000786	0.08	2121.230000	Y 377.433
Ca (315.887 nm)	4.858025	ppm	0.004354	0.09	3860.231022	Y_R 377.433
Cd (214.439 nm)	0.486665	ppm	0.001027	0.21	19465.300000	Y 377.433
Co (228.615 nm)	0.481221	ppm	0.003094	0.64	11897.800000	Y 242.219
Cr (205.560 nm)	0.484379	ppm	0.001687	0.35	3422.880000	Y 377.433
Cu (324.754 nm)	0.478722	ppm	0.002553	0.53	22639.000000	Y 377.433
Fe (238.204 nm)	2.429616	ppm	0.006451	0.27	5991.347952	Y_R 377.433
Fe H (259.940 nm)	2.396230 u	ppm	0.000372	0.02	3441.270000	Y_R 377.433
K (766.491 nm)	48.504300	ppm	0.197801	0.41	50123.600000	Y_R2 488.368
Li (670.783 nm)	0.488083	ppm	0.001636	0.34	5867.830000	Y_R2 488.368
Mg (279.078 nm)	19.389200	ppm	0.032485	0.17	68707.300000	Y 377.433
Mn (257.610 nm)	0.483490	ppm	0.001190	0.25	133711.000000	Y 377.433
Mo (202.032 nm)	0.482160	ppm	0.001406	0.29	6158.690000	Y 377.433
Na (589.592 nm)	24.074400	ppm	0.116762	0.49	18041.900000	Y_R2 488.368
Na H (589.593 nm)	28.290925 u	ppm	0.083258	0.29	14397.799549	Y_R4
Ni (231.604 nm)	0.482852	ppm	0.001916	0.40	2687.640000	Y 377.433
P (213.618 nm)	0.052956	ppm	0.003670	6.93	-61.257800	Y 242.219
Pb (220.353 nm)	0.484733	ppm	0.001210	0.25	1675.830000	Y 242.219
S (181.972 nm)	0.026386	ppm	0.003937	14.92	21.322869	Y 377.433
Sb (206.834 nm)	0.484594	ppm	0.002553	0.53	845.267000	Y 377.433
Se (196.026 nm)	0.482103	ppm	0.003412	0.71	794.213000	Y 242.219
Si (288.158 nm)	4.740060	ppm	0.014308	0.30	31774.900000	Y 377.433
Sn (189.925 nm)	0.486079	ppm	0.001087	0.22	850.062000	Y 377.433
Sr (421.552 nm)	0.483558	ppm	0.001143	0.24	70768.431282	Y_R 488.368
Th (288.505 nm)	0.014960	ppm	0.001650	11.03	-8.461230	Y 377.433
Ti (336.122 nm)	0.478935	ppm	0.001731	0.36	61784.200000	Y 377.433
Tl (190.794 nm)	0.492749	ppm	0.004042	0.82	1190.470000	Y 377.433
U (409.013 nm)	0.028497	ppm	0.006616	23.22	-10.372800	Y 377.433
V (292.401 nm)	0.478909	ppm	0.001408	0.29	25073.400000	Y 377.433
Zn (206.200 nm)	0.487724	ppm	0.000220	0.05	2424.840000	Y 377.433
Zr (343.823 nm)	0.480168	ppm	0.001551	0.32	27512.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.069807	23955.620539	0.000088	0.01
Y 377.433	1.066310	688970.946212	0.002227	0.21
Y_R 377.433	1.081490	59536.200000	0.002284	0.21
Y_R 488.368	1.077710	52082.500000	0.002263	0.21
Y_R2 488.368	1.054383	97724.956286	0.004290	0.41
Y_R4	1.080530	46267.900000	0.003575	0.33

Sample Name: CCB

Date: 5/24/2019 1:07:59 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000380	ppm	0.000219	57.61	-232.372000	Y 377.433
Al (394.401 nm)	-0.001731 u	ppm	0.000204	11.78	106.171000	Y 377.433
Al H (396.152 nm)	0.125676 Zu	ppm	0.004798	3.82	33.446000 Z	Y_R 377.433
As (188.980 nm)	0.000191 u	ppm	0.000934	> 100.00	-1.001580	Y 242.219
B (249.678 nm)	-0.002925 u	ppm	0.000354	12.12	16.120900	Y 242.219
Ba (493.408 nm)	-0.000981 u	ppm	0.000001	0.15	1337.560000	Y_R 488.368
Be (234.861 nm)	0.000074	ppm	0.000009	12.73	1.752310	Y_R 488.368
Bi (223.061 nm)	0.004319	ppm	0.000213	4.92	-5.664840	Y 377.433
Ca (315.887 nm)	0.001650 u	ppm	0.012324	> 100.00	-60.643559	Y_R 377.433
Cd (214.439 nm)	0.000047 u	ppm	0.000191	> 100.00	-5.924180	Y 377.433
Co (228.615 nm)	0.000198	ppm	0.000151	76.51	-17.268300	Y 242.219
Cr (205.560 nm)	-0.000525 u	ppm	0.000901	> 100.00	-9.686730	Y 377.433
Cu (324.754 nm)	-0.000115 u	ppm	0.000109	95.17	408.060000	Y 377.433
Fe (238.204 nm)	0.000941	ppm	0.001258	> 100.00	5.253982	Y_R 377.433
Fe H (259.940 nm)	-0.052463 u	ppm	0.005486	10.46	17.392600	Y_R 377.433
K (766.491 nm)	-0.061047 u	ppm	0.151863	> 100.00	1921.000000	Y_R2 488.368
Li (670.783 nm)	0.006601	ppm	0.001726	26.14	-2516.520000	Y_R2 488.368
Mg (279.078 nm)	0.001781	ppm	0.000449	25.22	18.388200	Y 377.433
Mn (257.610 nm)	0.000045	ppm	0.000020	44.40	-9.657330	Y 377.433
Mo (202.032 nm)	-0.000897 u	ppm	0.000153	17.02	11.970400	Y 377.433
Na (589.592 nm)	0.359404 Z	ppm	0.005055	1.41	376.463000 Z	Y_R2 488.368
Na H (589.593 nm)	2.449793 u	ppm	0.049810	2.03	1545.931847	Y_R4
Ni (231.604 nm)	-0.000375 u	ppm	0.000224	59.77	-13.460400	Y 377.433
P (213.618 nm)	0.001237 u	ppm	0.002384	> 100.00	-2.709980	Y 242.219
Pb (220.353 nm)	-0.000609 u	ppm	0.001445	> 100.00	10.785200	Y 242.219
S (181.972 nm)	0.003850 u	ppm	0.010163	> 100.00	9.484659	Y 377.433
Sb (206.834 nm)	0.002770	ppm	0.000709	25.59	-2.653510	Y 377.433
Se (196.026 nm)	0.000876 u	ppm	0.001383	> 100.00	11.998800	Y 242.219
Si (288.158 nm)	-0.005613 u	ppm	0.001186	21.12	471.018000	Y 377.433
Sn (189.925 nm)	-0.000500 u	ppm	0.000009	1.86	1.364550	Y 377.433
Sr (421.552 nm)	0.000104	ppm	0.000079	75.63	63.158762	Y_R 488.368
Th (288.505 nm)	-0.000030 u	ppm	0.003889	> 100.00	14.392600	Y 377.433
Ti (336.122 nm)	0.000406	ppm	0.000291	71.71	-452.904000	Y 377.433
Tl (190.794 nm)	0.001524	ppm	0.000677	44.46	3.808020	Y 377.433
U (409.013 nm)	0.004012 u	ppm	0.007335	> 100.00	-29.206300	Y 377.433
V (292.401 nm)	0.000326	ppm	0.000227	69.60	-161.677000	Y 377.433
Zn (206.200 nm)	0.000111 u	ppm	0.000457	> 100.00	4.368220	Y 377.433
Zr (343.823 nm)	0.000169	ppm	0.000199	> 100.00	-164.768000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.078636	24153.311924	0.005695	0.53
Y 377.433	1.072041	692674.121520	0.005462	0.51
Y_R 377.433	1.073620	59103.200000	0.001364	0.13
Y_R 488.368	1.072030	51808.000000	0.001150	0.11
Y_R2 488.368	1.061231	98359.582565	0.002327	0.22
Y_R4	1.082100	46335.000000	0.001012	0.09

Sample Name: CCVL-5717307

Date: 5/24/2019 1:11:11 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007670	ppm	0.000291	3.80	21.963100	Y 377.433
Al (394.401 nm)	0.096867	ppm	0.001403	1.45	1295.350000	Y 377.433
Al H (396.152 nm)	0.227802 u	ppm	0.000068	0.03	248.978000	Y_R 377.433
As (188.980 nm)	0.013016	ppm	0.000139	1.07	19.431200	Y 242.219
B (249.678 nm)	0.089152	ppm	0.000093	0.10	675.993000	Y 242.219
Ba (493.408 nm)	0.008565	ppm	0.000085	0.99	2262.310000	Y_R 488.368
Be (234.861 nm)	0.000948	ppm	0.000008	0.81	89.430700	Y_R 488.368
Bi (223.061 nm)	0.088883	ppm	0.001139	1.28	187.242000	Y 377.433
Ca (315.887 nm)	0.214547	ppm	0.011962	5.58	111.262055	Y_R 377.433
Cd (214.439 nm)	0.005047	ppm	0.000083	1.64	194.185000	Y 377.433
Co (228.615 nm)	0.010220	ppm	0.000001	0.01	230.963000	Y 242.219
Cr (205.560 nm)	0.009365	ppm	0.000088	0.94	60.216300	Y 377.433
Cu (324.754 nm)	0.015234	ppm	0.000317	2.08	1117.740000	Y 377.433
Fe (238.204 nm)	0.098306	ppm	0.002578	2.62	245.234485	Y_R 377.433
Fe H (259.940 nm)	0.044332 u	ppm	0.002827	6.38	152.736000	Y_R 377.433
K (766.491 nm)	2.975310	ppm	0.049562	1.67	4934.670000	Y_R2 488.368
Li (670.783 nm)	0.024938	ppm	0.003167	12.70	-2197.210000	Y_R2 488.368
Mg (279.078 nm)	0.200138	ppm	0.002820	1.41	719.707000	Y 377.433
Mn (257.610 nm)	0.010359	ppm	0.000021	0.20	2843.380000	Y 377.433
Mo (202.032 nm)	0.018408	ppm	0.000010	0.05	257.620000	Y 377.433
Na (589.592 nm)	1.339070 Q	ppm	0.027146	2.03	1104.120000 Q	Y_R2 488.368
Na H (589.593 nm)	2.973511 u	ppm	0.030092	1.01	1806.398665	Y_R4
Ni (231.604 nm)	0.040627	ppm	0.000074	0.18	215.692000	Y 377.433
P (213.618 nm)	2.697130	ppm	0.012750	0.47	4072.580000	Y 242.219
Pb (220.353 nm)	0.007602	ppm	0.000214	2.81	39.105500	Y 242.219
S (181.972 nm)	0.095561	ppm	0.001084	1.13	50.719856	Y 377.433
Sb (206.834 nm)	0.023436	ppm	0.000019	0.08	33.682200	Y 377.433
Se (196.026 nm)	0.015645	ppm	0.002703	17.28	35.993600	Y 242.219
Si (288.158 nm)	0.463450	ppm	0.002023	0.44	3565.110000	Y 377.433
Sn (189.925 nm)	0.095006	ppm	0.001476	1.55	167.947000	Y 377.433
Sr (421.552 nm)	0.009022	ppm	0.000053	0.59	1367.379154	Y_R 488.368
Th (288.505 nm)	0.008276 Q	ppm	0.000649	7.85	28.447700 Q	Y 377.433
Ti (336.122 nm)	0.009743	ppm	0.000047	0.49	761.798000	Y 377.433
Tl (190.794 nm)	0.015390	ppm	0.002065	13.42	37.282100	Y 377.433
U (409.013 nm)	0.059196	ppm	0.004080	6.89	142.504000	Y 377.433
V (292.401 nm)	0.009915	ppm	0.000102	1.03	339.798000	Y 377.433
Zn (206.200 nm)	0.019752	ppm	0.000169	0.85	101.863000	Y 377.433
Zr (343.823 nm)	0.009915	ppm	0.000178	1.80	397.183000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.085215	24300.652374	0.002083	0.19
Y 377.433	1.080058	697853.975721	0.001894	0.18
Y_R 377.433	1.078620	59378.400000	0.000587	0.05
Y_R 488.368	1.075210	51961.500000	0.000034	0.00
Y_R2 488.368	1.062723	98497.892822	0.009758	0.92
Y_R4	1.080910	46284.100000	0.011933	1.10

Sample Name: lcs 280-458934/2-a

Date: 5/24/2019 1:14:40 AM
Rack:Tube: 2:21

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051291	ppm	0.000368	0.72	1247.460000	Y 377.433
Al (394.401 nm)	10.000900 o	ppm	0.004651	0.05	119878.000000	Y 377.433
Al H (396.152 nm)	10.036900	ppm	0.005933	0.06	20920.700000	Y_R 377.433
As (188.980 nm)	1.988080	ppm	0.001968	0.10	3166.170000	Y 242.219
B (249.678 nm)	0.981749	ppm	0.001709	0.17	7067.570000	Y 242.219
Ba (493.408 nm)	1.981700	ppm	0.005176	0.26	193394.000000	Y_R 488.368
Be (234.861 nm)	0.992694	ppm	0.002557	0.26	100042.000000	Y_R 488.368
Bi (223.061 nm)	1.915970	ppm	0.001245	0.06	4356.530000	Y 377.433
Ca (315.887 nm)	49.677023	ppm	0.118510	0.24	40046.792430	Y_R 377.433
Cd (214.439 nm)	0.983348	ppm	0.000019	0.00	39341.500000	Y 377.433
Co (228.615 nm)	0.965202	ppm	0.000514	0.05	23887.600000	Y 242.219
Cr (205.560 nm)	0.978307	ppm	0.000390	0.04	6918.920000	Y 377.433
Cu (324.754 nm)	0.960762	ppm	0.002922	0.30	45081.100000	Y 377.433
Fe (238.204 nm)	10.016047 o	ppm	0.004796	0.05	24690.060427	Y_R 377.433
Fe H (259.940 nm)	10.047600	ppm	0.009424	0.09	14139.800000	Y_R 377.433
K (766.491 nm)	50.289500	ppm	0.035782	0.07	51895.400000	Y_R2 488.368
Li (670.783 nm)	1.002630	ppm	0.002456	0.24	14828.000000	Y_R2 488.368
Mg (279.078 nm)	49.909000	ppm	0.014890	0.03	176801.000000	Y 377.433
Mn (257.610 nm)	0.994301	ppm	0.000654	0.07	275002.000000	Y 377.433
Mo (202.032 nm)	1.004300	ppm	0.000416	0.04	12802.800000	Y 377.433
Na (589.592 nm)	48.423700	ppm	0.169873	0.35	36386.400000	Y_R2 488.368
Na H (589.593 nm)	54.123380	ppm	0.345248	0.64	27245.352111	Y_R4
Ni (231.604 nm)	0.967106	ppm	0.000765	0.08	5395.720000	Y 377.433
P (213.618 nm)	19.884900	ppm	0.007508	0.04	29811.200000	Y 242.219
Pb (220.353 nm)	0.983145	ppm	0.000355	0.04	3388.850000	Y 242.219
S (181.972 nm)	9.965775	ppm	0.007507	0.08	4489.936902	Y 377.433
Sb (206.834 nm)	1.054570	ppm	0.001192	0.11	1849.370000	Y 377.433
Se (196.026 nm)	1.937210	ppm	0.002140	0.11	3157.770000	Y 242.219
Si (288.158 nm)	2.029120	ppm	0.004238	0.21	13892.800000	Y 377.433
Sn (189.925 nm)	1.966020	ppm	0.003158	0.16	3431.400000	Y 377.433
Sr (421.552 nm)	0.991908	ppm	0.004216	0.43	145115.580476	Y_R 488.368
Th (288.505 nm)	1.017240	ppm	0.001283	0.13	1696.160000	Y 377.433
Ti (336.122 nm)	0.993779	ppm	0.001293	0.13	128880.000000	Y 377.433
Tl (190.794 nm)	1.968930	ppm	0.002648	0.13	4760.660000	Y 377.433
U (409.013 nm)	1.993580	ppm	0.011246	0.56	6144.270000	Y 377.433
V (292.401 nm)	0.986123	ppm	0.000760	0.08	51831.100000	Y 377.433
Zn (206.200 nm)	0.492179	ppm	0.000605	0.12	2448.130000	Y 377.433
Zr (343.823 nm)	0.494845	ppm	0.000857	0.17	28358.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.056062	23647.828325	0.000605	0.06
Y 377.433	1.059376	684490.963148	0.000408	0.04
Y_R 377.433	1.072020	59015.400000	0.003376	0.31
Y_R 488.368	1.070140	51716.600000	0.000653	0.06
Y_R2 488.368	1.046488	96993.189892	0.003770	0.36
Y_R4	1.080810	46279.700000	0.002741	0.25

Sample Name: lcsd 280-458934/3-a

Date: 5/24/2019 1:18:17 AM Rack:Tube: 2:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050706	ppm	0.000223	0.44	1227.240000	Y 377.433
Al (394.401 nm)	9.861010 o	ppm	0.018199	0.18	118206.000000	Y 377.433
Al H (396.152 nm)	9.892480	ppm	0.030844	0.31	20622.700000	Y_R 377.433
As (188.980 nm)	1.978940	ppm	0.006650	0.34	3151.620000	Y 242.219
B (249.678 nm)	0.981189	ppm	0.000584	0.06	7063.640000	Y 242.219
Ba (493.408 nm)	1.978660	ppm	0.003746	0.19	193099.000000	Y_R 488.368
Be (234.861 nm)	1.002010	ppm	0.001585	0.16	100982.000000	Y_R 488.368
Bi (223.061 nm)	1.911420	ppm	0.001356	0.07	4346.120000	Y 377.433
Ca (315.887 nm)	48.905200	ppm	0.103123	0.21	39423.633155	Y_R 377.433
Cd (214.439 nm)	0.982555	ppm	0.003044	0.31	39309.700000	Y 377.433
Co (228.615 nm)	0.965410	ppm	0.000378	0.04	23892.700000	Y 242.219
Cr (205.560 nm)	0.975602	ppm	0.000286	0.03	6899.760000	Y 377.433
Cu (324.754 nm)	0.961648	ppm	0.003596	0.37	45121.800000	Y 377.433
Fe (238.204 nm)	9.862376 o	ppm	0.021212	0.22	24311.300692	Y_R 377.433
Fe H (259.940 nm)	9.872870	ppm	0.031131	0.32	13895.500000	Y_R 377.433
K (766.491 nm)	49.906200	ppm	0.002255	0.00	51514.900000	Y_R2 488.368
Li (670.783 nm)	0.998318	ppm	0.001801	0.18	14752.900000	Y_R2 488.368
Mg (279.078 nm)	49.234200	ppm	0.155240	0.32	174410.000000	Y 377.433
Mn (257.610 nm)	0.993224	ppm	0.002146	0.22	274704.000000	Y 377.433
Mo (202.032 nm)	1.002460	ppm	0.002182	0.22	12779.400000	Y 377.433
Na (589.592 nm)	47.655700	ppm	0.032295	0.07	35816.800000	Y_R2 488.368
Na H (589.593 nm)	53.403784	ppm	0.174947	0.33	26887.467040	Y_R4
Ni (231.604 nm)	0.963253	ppm	0.003201	0.33	5374.190000	Y 377.433
P (213.618 nm)	19.873900	ppm	0.015109	0.08	29794.200000	Y 242.219
Pb (220.353 nm)	0.985290	ppm	0.004500	0.46	3396.230000	Y 242.219
S (181.972 nm)	9.915221	ppm	0.037297	0.38	4467.188831	Y 377.433
Sb (206.834 nm)	1.044370	ppm	0.002754	0.26	1831.340000	Y 377.433
Se (196.026 nm)	1.937310	ppm	0.000981	0.05	3157.980000	Y 242.219
Si (288.158 nm)	2.033400	ppm	0.002631	0.13	13921.000000	Y 377.433
Sn (189.925 nm)	1.967620	ppm	0.002329	0.12	3434.190000	Y 377.433
Sr (421.552 nm)	0.990216	ppm	0.001313	0.13	144868.066235	Y_R 488.368
Th (288.505 nm)	1.018720	ppm	0.005688	0.56	1698.790000	Y 377.433
Ti (336.122 nm)	0.991803	ppm	0.001981	0.20	128620.000000	Y 377.433
Tl (190.794 nm)	1.972250	ppm	0.009717	0.49	4768.780000	Y 377.433
U (409.013 nm)	1.981740	ppm	0.015237	0.77	6107.450000	Y 377.433
V (292.401 nm)	0.984178	ppm	0.002398	0.24	51728.900000	Y 377.433
Zn (206.200 nm)	0.489856	ppm	0.000739	0.15	2436.580000	Y 377.433
Zr (343.823 nm)	0.492945	ppm	0.001338	0.27	28248.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.054451	23611.750599	0.000017	0.00
Y 377.433	1.058662	684029.019752	0.003658	0.35
Y_R 377.433	1.062120	58470.100000	0.002386	0.22
Y_R 488.368	1.057940	51127.200000	0.002290	0.22
Y_R2 488.368	1.035107	95938.307851	0.001754	0.17
Y_R4	1.060250	45399.600000	0.006998	0.66

Sample Name: 280-123573-a-1-d

Date: 5/24/2019 1:21:56 AM Rack:Tube: 2:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000370	ppm	0.000131	35.53	-233.354000	Y 377.433
Al (394.401 nm)	0.029460	ppm	0.000745	2.53	517.194000	Y 377.433
Al H (396.152 nm)	0.119152 u	ppm	0.000057	0.05	61.194300	Y_R 377.433
As (188.980 nm)	0.001539	ppm	0.000898	58.38	1.117500	Y 242.219
B (249.678 nm)	0.017811	ppm	0.000137	0.77	164.143000	Y 242.219
Ba (493.408 nm)	0.057491	ppm	0.000175	0.30	7002.150000	Y_R 488.368
Be (234.861 nm)	0.000055 u	ppm	0.000085	> 100.00	-4.623680	Y_R 488.368
Bi (223.061 nm)	0.001443	ppm	0.000033	2.32	-12.034600	Y 377.433
Ca (315.887 nm)	40.299679	ppm	0.024015	0.06	32473.521153	Y_R 377.433
Cd (214.439 nm)	0.000330	ppm	0.000013	3.92	5.874430	Y 377.433
Co (228.615 nm)	0.000486	ppm	0.000038	7.86	-10.050800	Y 242.219
Cr (205.560 nm)	0.169237	ppm	0.000022	0.01	1193.300000	Y 377.433
Cu (324.754 nm)	0.003510	ppm	0.000396	11.28	550.198000	Y 377.433
Fe (238.204 nm)	1.020304	ppm	0.000723	0.07	2517.735366	Y_R 377.433
Fe H (259.940 nm)	0.977357 u	ppm	0.004497	0.46	1457.340000	Y_R 377.433
K (766.491 nm)	1.929940	ppm	0.109630	5.68	3897.120000	Y_R2 488.368
Li (670.783 nm)	0.020861	ppm	0.001905	9.13	-2268.210000	Y_R2 488.368
Mg (279.078 nm)	18.872800	ppm	0.027779	0.15	66879.800000	Y 377.433
Mn (257.610 nm)	0.009915	ppm	0.000001	0.01	2720.330000	Y 377.433
Mo (202.032 nm)	0.003393	ppm	0.000231	6.80	66.561400	Y 377.433
Na (589.592 nm)	51.854200	ppm	0.096088	0.19	38533.500000	Y_R2 488.368
Na H (589.593 nm)	54.490981	ppm	0.287952	0.53	27428.175117	Y_R4
Ni (231.604 nm)	0.028789	ppm	0.001332	4.63	149.522000	Y 377.433
P (213.618 nm)	0.007199	ppm	0.000115	1.59	4.960770	Y 242.219
Pb (220.353 nm)	-0.002924 u	ppm	0.000066	2.26	2.603520	Y 242.219
S (181.972 nm)	44.220613	ppm	0.055819	0.13	19874.194099	Y 377.433
Sb (206.834 nm)	0.002372	ppm	0.000769	32.41	-1.985860	Y 377.433
Se (196.026 nm)	0.002432	ppm	0.000968	39.78	14.259700	Y 242.219
Si (288.158 nm)	12.007200	ppm	0.024220	0.20	79711.200000	Y 377.433
Sn (189.925 nm)	0.000818	ppm	0.000703	85.93	3.662610	Y 377.433
Sr (421.552 nm)	0.126551	ppm	0.000328	0.26	18556.180712	Y_R 488.368
Th (288.505 nm)	-0.006243 u	ppm	0.000517	8.27	2.758280	Y 377.433
Ti (336.122 nm)	0.000615	ppm	0.000039	6.27	-288.199000	Y 377.433
Tl (190.794 nm)	0.002717	ppm	0.000565	20.80	4.869140	Y 377.433
U (409.013 nm)	0.024243	ppm	0.003353	13.83	29.669500	Y 377.433
V (292.401 nm)	0.001086	ppm	0.000144	13.21	-188.207000	Y 377.433
Zn (206.200 nm)	0.009994	ppm	0.000439	4.40	53.576500	Y 377.433
Zr (343.823 nm)	0.000366	ppm	0.000072	19.74	-153.410000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.072359	24012.760836	0.005713	0.53
Y 377.433	1.071508	692329.745969	0.005548	0.52
Y_R 377.433	1.078890	59393.100000	0.000008	0.00
Y_R 488.368	1.077240	52059.900000	0.001066	0.10
Y_R2 488.368	1.055072	97788.814679	0.009768	0.93
Y_R4	1.069000	45774.000000	0.006256	0.59

Sample Name: 280-123573-a-1-dSD@5

Date: 5/24/2019 1:25:29 AM Rack:Tube: 2:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000176 u	ppm	0.000282	> 100.00	-239.824000	Y 377.433
Al (394.401 nm)	0.006608	ppm	0.002142	32.41	215.202000	Y 377.433
Al H (396.152 nm)	0.125723 u	ppm	0.005007	3.98	41.519000	Y_R 377.433
As (188.980 nm)	-0.000239 u	ppm	0.001156	> 100.00	-1.692920	Y 242.219
B (249.678 nm)	0.001099	ppm	0.000087	7.92	44.827000	Y 242.219
Ba (493.408 nm)	0.011121	ppm	0.000842	7.57	2510.010000	Y_R 488.368
Be (234.861 nm)	0.000037	ppm	0.000044	> 100.00	-3.000110	Y_R 488.368
Bi (223.061 nm)	0.001778	ppm	0.000819	46.07	-11.417500	Y 377.433
Ca (315.887 nm)	8.291020	ppm	0.042230	0.51	6631.687915	Y_R 377.433
Cd (214.439 nm)	-0.000002 u	ppm	0.000008	> 100.00	-7.774750	Y 377.433
Co (228.615 nm)	0.000233	ppm	0.000144	61.86	-16.378900	Y 242.219
Cr (205.560 nm)	0.034883	ppm	0.000396	1.14	241.224000	Y 377.433
Cu (324.754 nm)	0.000765	ppm	0.000030	3.92	442.515000	Y 377.433
Fe (238.204 nm)	0.229714	ppm	0.004815	2.10	569.123261	Y_R 377.433
Fe H (259.940 nm)	0.180251 u	ppm	0.004008	2.22	342.785000	Y_R 377.433
K (766.491 nm)	0.325522	ppm	0.001166	0.36	2304.680000	Y_R2 488.368
Li (670.783 nm)	0.010411	ppm	0.001768	16.98	-2450.170000	Y_R2 488.368
Mg (279.078 nm)	3.930260	ppm	0.007181	0.18	13937.100000	Y 377.433
Mn (257.610 nm)	0.002342	ppm	0.000002	0.07	625.781000	Y 377.433
Mo (202.032 nm)	0.000436	ppm	0.000045	10.21	28.941600	Y 377.433
Na (589.592 nm)	10.844500	ppm	0.033352	0.31	8145.830000	Y_R2 488.368
Na H (589.593 nm)	11.944892 u	ppm	0.017272	0.14	6268.238509	Y_R4
Ni (231.604 nm)	0.004874	ppm	0.000999	20.49	15.872100	Y 377.433
P (213.618 nm)	0.001012	ppm	0.001365	> 100.00	-3.384950	Y 242.219
Pb (220.353 nm)	-0.001511 u	ppm	0.000948	62.72	7.653990	Y 242.219
S (181.972 nm)	8.922089	ppm	0.030732	0.34	4016.073336	Y 377.433
Sb (206.834 nm)	0.002548	ppm	0.001162	45.59	-2.759720	Y 377.433
Se (196.026 nm)	-0.000309 u	ppm	0.000414	> 100.00	10.013600	Y 242.219
Si (288.158 nm)	2.408560	ppm	0.002196	0.09	16395.700000	Y 377.433
Sn (189.925 nm)	-0.000462 u	ppm	0.000070	15.15	1.430090	Y 377.433
Sr (421.552 nm)	0.024725	ppm	0.000217	0.88	3663.938927	Y_R 488.368
Th (288.505 nm)	-0.002233 u	ppm	0.000888	39.75	10.421100	Y 377.433
Ti (336.122 nm)	0.000499	ppm	0.000121	24.21	-412.855000	Y 377.433
Tl (190.794 nm)	0.002065	ppm	0.000904	43.80	4.743860	Y 377.433
U (409.013 nm)	0.006213 u	ppm	0.014281	> 100.00	-23.204000	Y 377.433
V (292.401 nm)	0.000553	ppm	0.000006	1.04	-164.348000	Y 377.433
Zn (206.200 nm)	0.005854	ppm	0.000605	10.33	32.907400	Y 377.433
Zr (343.823 nm)	0.000301	ppm	0.000205	68.14	-157.164000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084047	24274.478883	0.001682	0.16
Y 377.433	1.078685	696966.594437	0.000852	0.08
Y_R 377.433	1.074640	59159.400000	0.002180	0.20
Y_R 488.368	1.071980	51805.600000	0.002153	0.20
Y_R2 488.368	1.061680	98401.260985	0.002893	0.27
Y_R4	1.072530	45925.300000	0.005154	0.48

Sample Name: 280-123573-a-1-e ms

Date: 5/24/2019 1:28:58 AM
Rack:Tube: 2:25

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050973	ppm	0.000410	0.81	1233.800000	Y 377.433
Al (394.401 nm)	10.009200 o	ppm	0.007744	0.08	120011.000000	Y 377.433
Al H (396.152 nm)	10.016800	ppm	0.005643	0.06	20923.300000	Y_R 377.433
As (188.980 nm)	2.013380	ppm	0.001860	0.09	3206.470000	Y 242.219
B (249.678 nm)	1.022190	ppm	0.000102	0.01	7356.830000	Y 242.219
Ba (493.408 nm)	2.046400	ppm	0.000556	0.03	199661.000000	Y_R 488.368
Be (234.861 nm)	1.005260	ppm	0.002057	0.20	101304.000000	Y_R 488.368
Bi (223.061 nm)	1.918190	ppm	0.001462	0.08	4361.770000	Y 377.433
Ca (315.887 nm)	89.350898	ppm	0.088950	0.10	72077.053232	Y_R 377.433
Cd (214.439 nm)	0.980413	ppm	0.000762	0.08	39224.500000	Y 377.433
Co (228.615 nm)	0.967264	ppm	0.000226	0.02	23938.900000	Y 242.219
Cr (205.560 nm)	1.143790	ppm	0.000850	0.07	8091.570000	Y 377.433
Cu (324.754 nm)	0.974899	ppm	0.006492	0.67	45714.100000	Y 377.433
Fe (238.204 nm)	11.033341 o	ppm	0.010969	0.10	27197.445241	Y_R 377.433
Fe H (259.940 nm)	11.057200	ppm	0.000185	0.00	15551.500000	Y_R 377.433
K (766.491 nm)	53.118600	ppm	0.049558	0.09	54703.400000	Y_R2 488.368
Li (670.783 nm)	1.024640	ppm	0.002613	0.26	15211.200000	Y_R2 488.368
Mg (279.078 nm)	68.552100	ppm	0.022830	0.03	242855.000000	Y 377.433
Mn (257.610 nm)	1.003300	ppm	0.000611	0.06	277492.000000	Y 377.433
Mo (202.032 nm)	1.010490	ppm	0.000222	0.02	12881.500000	Y 377.433
Na (589.592 nm)	98.093900 o	ppm	0.308587	0.31	73193.300000	Y_R2 488.368
Na H (589.593 nm)	107.187658	ppm	0.127797	0.12	53636.420911	Y_R4
Ni (231.604 nm)	0.990617	ppm	0.000414	0.04	5527.090000	Y 377.433
P (213.618 nm)	20.065900	ppm	0.000695	0.00	30081.200000	Y 242.219
Pb (220.353 nm)	0.983380	ppm	0.000291	0.03	3389.340000	Y 242.219
S (181.972 nm)	54.651350	ppm	0.025388	0.05	24565.216239	Y 377.433
Sb (206.834 nm)	1.059990	ppm	0.009229	0.87	1860.230000	Y 377.433
Se (196.026 nm)	1.954590	ppm	0.004446	0.23	3185.750000	Y 242.219
Si (288.158 nm)	14.078000	ppm	0.083467	0.59	93371.000000	Y 377.433
Sn (189.925 nm)	1.990130	ppm	0.000842	0.04	3473.440000	Y 377.433
Sr (421.552 nm)	1.124441	ppm	0.001077	0.10	164498.669470	Y_R 488.368
Th (288.505 nm)	1.020220	ppm	0.005533	0.54	1699.630000	Y 377.433
Ti (336.122 nm)	0.997998	ppm	0.000978	0.10	129564.000000	Y 377.433
Tl (190.794 nm)	1.953010	ppm	0.003776	0.19	4720.280000	Y 377.433
U (409.013 nm)	1.997000	ppm	0.006177	0.31	6150.600000	Y 377.433
V (292.401 nm)	0.991767	ppm	0.000287	0.03	52068.100000	Y 377.433
Zn (206.200 nm)	0.500684	ppm	0.000850	0.17	2490.490000	Y 377.433
Zr (343.823 nm)	0.494818	ppm	0.000555	0.11	28356.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.034746	23170.517214	0.003789	0.37
Y 377.433	1.041133	672703.270239	0.004061	0.39
Y_R 377.433	1.051900	57907.500000	0.003307	0.31
Y_R 488.368	1.047120	50604.300000	0.002341	0.22
Y_R2 488.368	1.024790	94982.107499	0.003894	0.38
Y_R4	1.057040	45261.800000	0.005072	0.48

Sample Name: 280-123573-a-1-f msd

Date: 5/24/2019 1:32:38 AM
Rack:Tube: 2:26

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051370	ppm	0.000132	0.26	1250.970000	Y 377.433
Al (394.401 nm)	10.007300 o	ppm	0.006792	0.07	119984.000000	Y 377.433
Al H (396.152 nm)	10.008500	ppm	0.007424	0.07	20901.800000	Y_R 377.433
As (188.980 nm)	1.994350	ppm	0.003515	0.18	3176.150000	Y 242.219
B (249.678 nm)	1.021990	ppm	0.002244	0.22	7355.430000	Y 242.219
Ba (493.408 nm)	2.029890	ppm	0.002067	0.10	198062.000000	Y_R 488.368
Be (234.861 nm)	0.982377	ppm	0.007908	0.80	98997.500000	Y_R 488.368
Bi (223.061 nm)	1.911530	ppm	0.007511	0.39	4346.580000	Y 377.433
Ca (315.887 nm)	89.283725	ppm	0.034191	0.04	72022.822062	Y_R 377.433
Cd (214.439 nm)	0.973591	ppm	0.001985	0.20	38951.600000	Y 377.433
Co (228.615 nm)	0.960574	ppm	0.001053	0.11	23773.100000	Y 242.219
Cr (205.560 nm)	1.143620	ppm	0.004335	0.38	8090.410000	Y 377.433
Cu (324.754 nm)	0.960649	ppm	0.002532	0.26	45053.400000	Y 377.433
Fe (238.204 nm)	11.014571 o	ppm	0.012667	0.12	27151.180753	Y_R 377.433
Fe H (259.940 nm)	11.045400	ppm	0.019352	0.18	15534.900000	Y_R 377.433
K (766.491 nm)	52.634400	ppm	0.202287	0.38	54222.800000	Y_R2 488.368
Li (670.783 nm)	1.009550	ppm	0.003520	0.35	14948.400000	Y_R2 488.368
Mg (279.078 nm)	68.484400	ppm	0.087409	0.13	242615.000000	Y 377.433
Mn (257.610 nm)	0.997421	ppm	0.000872	0.09	275865.000000	Y 377.433
Mo (202.032 nm)	1.005190	ppm	0.001147	0.11	12814.100000	Y 377.433
Na (589.592 nm)	97.603400 o	ppm	0.123680	0.13	72826.400000	Y_R2 488.368
Na H (589.593 nm)	106.775731	ppm	0.358017	0.34	53431.552476	Y_R4
Ni (231.604 nm)	0.985244	ppm	0.000494	0.05	5497.050000	Y 377.433
P (213.618 nm)	19.992900	ppm	0.033999	0.17	29974.100000	Y 242.219
Pb (220.353 nm)	0.978932	ppm	0.005922	0.60	3374.050000	Y 242.219
S (181.972 nm)	54.511684	ppm	0.153055	0.28	24502.450327	Y 377.433
Sb (206.834 nm)	1.060430	ppm	0.002761	0.26	1861.100000	Y 377.433
Se (196.026 nm)	1.934810	ppm	0.004568	0.24	3153.590000	Y 242.219
Si (288.158 nm)	14.046600	ppm	0.030587	0.22	93163.600000	Y 377.433
Sn (189.925 nm)	1.975480	ppm	0.001328	0.07	3447.890000	Y 377.433
Sr (421.552 nm)	1.115446	ppm	0.001630	0.15	163183.187221	Y_R 488.368
Th (288.505 nm)	1.020820	ppm	0.001022	0.10	1701.520000	Y 377.433
Ti (336.122 nm)	0.990785	ppm	0.000633	0.06	128626.000000	Y 377.433
Tl (190.794 nm)	1.940130	ppm	0.003983	0.21	4689.120000	Y 377.433
U (409.013 nm)	1.988300	ppm	0.005864	0.29	6123.220000	Y 377.433
V (292.401 nm)	0.985365	ppm	0.000470	0.05	51728.400000	Y 377.433
Zn (206.200 nm)	0.498221	ppm	0.000199	0.04	2478.270000	Y 377.433
Zr (343.823 nm)	0.494744	ppm	0.000011	0.00	28352.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.023326	22914.787306	0.005716	0.56
Y 377.433	1.029358	665095.521291	0.006454	0.63
Y_R 377.433	1.055370	58098.600000	0.000916	0.09
Y_R 488.368	1.051840	50832.400000	0.002019	0.19
Y_R2 488.368	1.026938	95181.225032	0.002102	0.20
Y_R4	1.053310	45102.200000	0.004645	0.44

Sample Name: 280-123573-a-1-dPDS

Date: 5/24/2019 1:36:17 AM Rack:Tube: 2:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049322	ppm	0.000746	1.51	1476.650000	Y 377.433
Al (394.401 nm)	1.006000	ppm	0.000969	0.10	12213.300000	Y 377.433
Al H (396.152 nm)	1.098280	ppm	0.012306	1.12	2096.390000	Y_R 377.433
As (188.980 nm)	0.200548	ppm	0.000023	0.01	318.187000	Y 242.219
B (249.678 nm)	0.115110	ppm	0.000605	0.53	860.933000	Y 242.219
Ba (493.408 nm)	0.154112	ppm	0.000539	0.35	16361.900000	Y_R 488.368
Be (234.861 nm)	0.049387	ppm	0.000574	1.16	4965.180000	Y_R 488.368
Bi (223.061 nm)	0.002757	ppm	0.002805	> 100.00	-8.818530	Y 377.433
Ca (315.887 nm)	58.463704	ppm	0.070970	0.12	47138.301529	Y_R 377.433
Cd (214.439 nm)	0.049529	ppm	0.000113	0.23	1974.800000	Y 377.433
Co (228.615 nm)	0.047573	ppm	0.000211	0.44	1156.300000	Y 242.219
Cr (205.560 nm)	0.215994	ppm	0.001043	0.48	1524.240000	Y 377.433
Cu (324.754 nm)	0.052021	ppm	0.000277	0.53	2801.680000	Y 377.433
Fe (238.204 nm)	1.981682	ppm	0.008297	0.42	4887.299749	Y_R 377.433
Fe H (259.940 nm)	1.933630 u	ppm	0.001629	0.08	2794.450000	Y_R 377.433
K (766.491 nm)	21.702600	ppm	0.110367	0.51	23522.000000	Y_R2 488.368
Li (670.783 nm)	0.117685	ppm	0.002540	2.16	-582.152000	Y_R2 488.368
Mg (279.078 nm)	37.819100	ppm	0.049889	0.13	134000.000000	Y 377.433
Mn (257.610 nm)	0.058895	ppm	0.000099	0.17	16268.400000	Y 377.433
Mo (202.032 nm)	0.052887	ppm	0.000075	0.14	696.356000	Y 377.433
Na (589.592 nm)	69.743100 o	ppm	0.175922	0.25	51804.600000	Y_R2 488.368
Na H (589.593 nm)	73.341799	ppm	0.022653	0.03	36803.469876	Y_R4
Ni (231.604 nm)	0.074892	ppm	0.000284	0.38	407.406000	Y 377.433
P (213.618 nm)	1.951300	ppm	0.016934	0.87	2932.780000	Y 242.219
Pb (220.353 nm)	0.095779	ppm	0.001695	1.77	342.579000	Y 242.219
S (181.972 nm)	43.547595	ppm	0.165555	0.38	19572.881172	Y 377.433
Sb (206.834 nm)	0.106264	ppm	0.002478	2.33	181.184000	Y 377.433
Se (196.026 nm)	0.195023	ppm	0.001610	0.83	327.069000	Y 242.219
Si (288.158 nm)	16.484600	ppm	0.069921	0.42	109245.000000	Y 377.433
Sn (189.925 nm)	0.097030	ppm	0.000297	0.31	171.477000	Y 377.433
Sr (421.552 nm)	0.170560	ppm	0.000335	0.20	24992.542418	Y_R 488.368
Th (288.505 nm)	0.195726	ppm	0.005866	3.00	352.045000	Y 377.433
Ti (336.122 nm)	0.049401	ppm	0.000022	0.05	6117.260000	Y 377.433
Tl (190.794 nm)	0.199608	ppm	0.001711	0.86	480.690000	Y 377.433
U (409.013 nm)	0.501265	ppm	0.002339	0.47	1516.370000	Y 377.433
V (292.401 nm)	0.049983	ppm	0.000289	0.58	2385.940000	Y 377.433
Zn (206.200 nm)	0.206181	ppm	0.001270	0.62	1027.430000	Y 377.433
Zr (343.823 nm)	0.049895	ppm	0.000029	0.06	2702.460000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043651	23369.913579	0.004637	0.44
Y 377.433	1.041924	673214.254733	0.003548	0.34
Y_R 377.433	1.050480	57829.300000	0.002302	0.22
Y_R 488.368	1.047450	50620.300000	0.004672	0.45
Y_R2 488.368	1.041850	96563.304397	0.008866	0.85
Y_R4	1.054600	45157.500000	0.001868	0.18

Sample Name: 280-123573-a-10-b

Date: 5/24/2019 1:39:52 AM Rack:Tube: 2:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000434	ppm	0.000214	49.33	-230.813000	Y 377.433
Al (394.401 nm)	0.006095	ppm	0.001642	26.93	221.284000	Y 377.433
Al H (396.152 nm)	0.116328 u	ppm	0.004308	3.70	38.015900	Y_R 377.433
As (188.980 nm)	-0.000338 u	ppm	0.000636	> 100.00	-2.106820	Y 242.219
B (249.678 nm)	0.008981	ppm	0.000766	8.53	96.143000	Y 242.219
Ba (493.408 nm)	0.020017	ppm	0.000205	1.02	3378.640000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000015	26.73	-51.010200	Y_R 488.368
Bi (223.061 nm)	0.000768 u	ppm	0.001380	> 100.00	-12.112600	Y 377.433
Ca (315.887 nm)	13.641294	ppm	0.008280	0.06	10951.171973	Y_R 377.433
Cd (214.439 nm)	0.000214	ppm	0.000057	26.45	4.791360	Y 377.433
Co (228.615 nm)	0.001842	ppm	0.000051	2.79	23.401700	Y 242.219
Cr (205.560 nm)	0.000068 u	ppm	0.000372	> 100.00	-5.498660	Y 377.433
Cu (324.754 nm)	0.000339	ppm	0.000166	48.99	419.013000	Y 377.433
Fe (238.204 nm)	9.113401 o	ppm	0.021569	0.24	22465.258946	Y_R 377.433
Fe H (259.940 nm)	9.111400	ppm	0.001264	0.01	12830.700000	Y_R 377.433
K (766.491 nm)	1.282840	ppm	0.028900	2.25	3254.850000	Y_R2 488.368
Li (670.783 nm)	0.028585	ppm	0.000580	2.03	-2133.700000	Y_R2 488.368
Mg (279.078 nm)	9.238430	ppm	0.018356	0.20	32732.100000	Y 377.433
Mn (257.610 nm)	0.789286	ppm	0.001280	0.16	218294.000000	Y 377.433
Mo (202.032 nm)	-0.000243 u	ppm	0.000664	> 100.00	20.300700	Y 377.433
Na (589.592 nm)	69.471600 o	ppm	0.149999	0.22	51576.200000	Y_R2 488.368
Na H (589.593 nm)	72.254160	ppm	0.157558	0.22	36262.541895	Y_R4
Ni (231.604 nm)	0.003589	ppm	0.000111	3.09	8.687860	Y 377.433
P (213.618 nm)	0.007265	ppm	0.005050	69.51	6.407290	Y 242.219
Pb (220.353 nm)	-0.001906 u	ppm	0.000213	11.19	6.363440	Y 242.219
S (181.972 nm)	51.717600	ppm	0.196548	0.38	23243.060607	Y 377.433
Sb (206.834 nm)	0.003746	ppm	0.000053	1.43	-0.124711	Y 377.433
Se (196.026 nm)	-0.000457 u	ppm	0.004061	> 100.00	8.460250	Y 242.219
Si (288.158 nm)	12.652900	ppm	0.018722	0.15	83970.800000	Y 377.433
Sn (189.925 nm)	0.000935	ppm	0.000928	99.27	3.867310	Y 377.433
Sr (421.552 nm)	0.069387	ppm	0.000096	0.14	10197.119644	Y_R 488.368
Th (288.505 nm)	-0.006463 u	ppm	0.003796	58.74	17.696100	Y 377.433
Ti (336.122 nm)	0.000335	ppm	0.000067	19.88	-416.019000	Y 377.433
Tl (190.794 nm)	0.001761	ppm	0.001238	70.33	2.650620	Y 377.433
U (409.013 nm)	0.008086	ppm	0.001687	20.87	-11.540200	Y 377.433
V (292.401 nm)	0.000532	ppm	0.000213	40.09	-152.574000	Y 377.433
Zn (206.200 nm)	0.012290	ppm	0.000496	4.04	66.222100	Y 377.433
Zr (343.823 nm)	0.000573	ppm	0.000066	11.50	-141.466000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.059267	23719.595296	0.002092	0.20
Y 377.433	1.054382	681263.785359	0.003001	0.28
Y_R 377.433	1.064630	58608.500000	0.000700	0.07
Y_R 488.368	1.062400	51342.400000	0.000388	0.04
Y_R2 488.368	1.057871	98048.212088	0.004314	0.41
Y_R4	1.076830	46109.200000	0.007092	0.66

Sample Name: 280-123573-a-18-b

Date: 5/24/2019 1:43:29 AM Rack:Tube: 2:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000495	ppm	0.000297	60.01	-228.290000	Y 377.433
Al (394.401 nm)	0.007274	ppm	0.001894	26.03	231.557000	Y 377.433
Al H (396.152 nm)	0.116261 u	ppm	0.001324	1.14	37.714800	Y_R 377.433
As (188.980 nm)	-0.000833 u	ppm	0.003865	> 100.00	-2.891760	Y 242.219
B (249.678 nm)	0.009433	ppm	0.000235	2.49	99.435500	Y 242.219
Ba (493.408 nm)	0.019680	ppm	0.000009	0.05	3345.850000	Y_R 488.368
Be (234.861 nm)	-0.000105 u	ppm	0.000086	82.52	-55.537300	Y_R 488.368
Bi (223.061 nm)	0.002308	ppm	0.001215	52.65	-8.617650	Y 377.433
Ca (315.887 nm)	13.487680	ppm	0.030261	0.22	10827.154215	Y_R 377.433
Cd (214.439 nm)	0.000212	ppm	0.000112	52.81	4.656420	Y 377.433
Co (228.615 nm)	0.002080	ppm	0.000076	3.67	29.274100	Y 242.219
Cr (205.560 nm)	-0.000006 u	ppm	0.000589	> 100.00	-6.021590	Y 377.433
Cu (324.754 nm)	-0.000188 u	ppm	0.000146	77.47	396.611000	Y 377.433
Fe (238.204 nm)	9.030034 o	ppm	0.036888	0.41	22259.778977	Y_R 377.433
Fe H (259.940 nm)	9.011930	ppm	0.026858	0.30	12691.700000	Y_R 377.433
K (766.491 nm)	1.285660	ppm	0.006833	0.53	3257.650000	Y_R2 488.368
Li (670.783 nm)	0.028826	ppm	0.000950	3.30	-2129.500000	Y_R2 488.368
Mg (279.078 nm)	9.126760	ppm	0.019006	0.21	32336.900000	Y 377.433
Mn (257.610 nm)	0.782305	ppm	0.001352	0.17	216364.000000	Y 377.433
Mo (202.032 nm)	-0.000045 u	ppm	0.000147	> 100.00	22.814000	Y 377.433
Na (589.592 nm)	68.550400 o	ppm	0.130030	0.19	50893.700000	Y_R2 488.368
Na H (589.593 nm)	70.872612	ppm	0.162831	0.23	35575.440746	Y_R4
Ni (231.604 nm)	0.003011	ppm	0.000710	23.59	5.462010	Y 377.433
P (213.618 nm)	0.008636	ppm	0.001458	16.88	8.634290	Y 242.219
Pb (220.353 nm)	-0.002083 u	ppm	0.002861	> 100.00	5.708740	Y 242.219
S (181.972 nm)	51.668476	ppm	0.240862	0.47	23220.965542	Y 377.433
Sb (206.834 nm)	0.000926	ppm	0.000366	39.54	-5.111210	Y 377.433
Se (196.026 nm)	0.000546	ppm	0.000692	> 100.00	10.106800	Y 242.219
Si (288.158 nm)	12.567200	ppm	0.112002	0.89	83405.300000	Y 377.433
Sn (189.925 nm)	0.000450 u	ppm	0.001669	> 100.00	3.021600	Y 377.433
Sr (421.552 nm)	0.068793	ppm	0.000391	0.57	10110.244012	Y_R 488.368
Th (288.505 nm)	-0.005628 u	ppm	0.002517	44.72	18.971700	Y 377.433
Ti (336.122 nm)	0.000413	ppm	0.000006	1.50	-406.439000	Y 377.433
Tl (190.794 nm)	0.002320	ppm	0.001920	82.77	4.025000	Y 377.433
U (409.013 nm)	0.004268 u	ppm	0.010041	> 100.00	-23.565600	Y 377.433
V (292.401 nm)	0.000258	ppm	0.000139	53.89	-165.771000	Y 377.433
Zn (206.200 nm)	0.011209	ppm	0.000239	2.13	60.841000	Y 377.433
Zr (343.823 nm)	0.000720	ppm	0.000025	3.53	-132.989000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.085393	24304.617453	0.004655	0.43
Y 377.433	1.081929	699063.048040	0.005587	0.52
Y_R 377.433	1.094010	60225.700000	0.002887	0.26
Y_R 488.368	1.091610	52754.100000	0.000242	0.02
Y_R2 488.368	1.078368	99947.966359	0.004603	0.43
Y_R4	1.094400	46861.700000	0.004156	0.38

Sample Name: mb 280-458924/1-a

Date: 5/24/2019 1:47:08 AM Rack:Tube: 2:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000349	ppm	0.000033	9.38	-233.662000	Y 377.433
Al (394.401 nm)	0.007448	ppm	0.001057	14.19	217.136000	Y 377.433
Al H (396.152 nm)	0.131753 u	ppm	0.006046	4.59	46.001900	Y_R 377.433
As (188.980 nm)	0.000100 u	ppm	0.001177	> 100.00	-1.147380	Y 242.219
B (249.678 nm)	0.007196	ppm	0.000394	5.47	88.637900	Y 242.219
Ba (493.408 nm)	-0.001540 u	ppm	0.000091	5.93	1283.500000	Y_R 488.368
Be (234.861 nm)	0.000005 u	ppm	0.000015	> 100.00	-5.444070	Y_R 488.368
Bi (223.061 nm)	0.001863	ppm	0.000551	29.55	-11.258100	Y 377.433
Ca (315.887 nm)	0.111444	ppm	0.003594	3.23	27.997924	Y_R 377.433
Cd (214.439 nm)	0.000053 u	ppm	0.000095	> 100.00	-5.669170	Y 377.433
Co (228.615 nm)	0.000255	ppm	0.000151	59.02	-15.843400	Y 242.219
Cr (205.560 nm)	0.000787	ppm	0.000372	47.26	-0.394098	Y 377.433
Cu (324.754 nm)	0.000909	ppm	0.000336	36.92	455.038000	Y 377.433
Fe (238.204 nm)	0.044489	ppm	0.002709	6.09	112.588853	Y_R 377.433
Fe H (259.940 nm)	-0.009524 u	ppm	0.002297	24.12	77.432100	Y_R 377.433
K (766.491 nm)	-0.008004 u	ppm	0.107028	> 100.00	1973.650000	Y_R2 488.368
Li (670.783 nm)	0.011577	ppm	0.000697	6.02	-2429.860000	Y_R2 488.368
Mg (279.078 nm)	0.026826	ppm	0.000984	3.67	106.899000	Y 377.433
Mn (257.610 nm)	0.000627	ppm	0.000014	2.26	151.280000	Y 377.433
Mo (202.032 nm)	-0.000562 u	ppm	0.000173	30.83	16.233500	Y 377.433
Na (589.592 nm)	0.267074	ppm	0.048804	18.27	307.908000	Y_R2 488.368
Na H (589.593 nm)	0.828226 u	ppm	0.025569	3.09	739.459321	Y_R4
Ni (231.604 nm)	-0.000458 u	ppm	0.001118	> 100.00	-13.926600	Y 377.433
P (213.618 nm)	0.011418	ppm	0.000968	8.48	12.493000	Y 242.219
Pb (220.353 nm)	0.000249 u	ppm	0.001007	> 100.00	13.753900	Y 242.219
S (181.972 nm)	0.014875	ppm	0.003743	25.16	14.441229	Y 377.433
Sb (206.834 nm)	0.003753	ppm	0.000754	20.10	-0.910005	Y 377.433
Se (196.026 nm)	0.000555	ppm	0.000303	54.59	11.465900	Y 242.219
Si (288.158 nm)	0.092609	ppm	0.000358	0.39	1118.920000	Y 377.433
Sn (189.925 nm)	0.010148	ppm	0.000641	6.31	19.936900	Y 377.433
Sr (421.552 nm)	0.000251	ppm	0.000031	12.19	84.641840	Y_R 488.368
Th (288.505 nm)	0.002583	ppm	0.000012	0.47	18.985300	Y 377.433
Ti (336.122 nm)	0.001027	ppm	0.000078	7.58	-371.948000	Y 377.433
Tl (190.794 nm)	0.001396	ppm	0.000125	8.97	3.492640	Y 377.433
U (409.013 nm)	0.000223 u	ppm	0.001460	> 100.00	-41.071500	Y 377.433
V (292.401 nm)	0.000556	ppm	0.000378	67.96	-150.318000	Y 377.433
Zn (206.200 nm)	0.002576	ppm	0.000520	20.18	16.606300	Y 377.433
Zr (343.823 nm)	0.000476	ppm	0.000188	39.50	-147.068000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120183	25083.654966	0.002844	0.25
Y 377.433	1.113962	719760.197394	0.000508	0.05
Y_R 377.433	1.126320	62004.400000	0.003437	0.31
Y_R 488.368	1.123620	54301.100000	0.001874	0.17
Y_R2 488.368	1.107684	102665.062803	0.003167	0.29
Y_R4	1.114680	47730.100000	0.010706	0.96

Sample Name: CCVH-5713036

Date: 5/24/2019 1:50:36 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004326	ppm	0.000328	7.58	-104.287000	Y 377.433
Al (394.401 nm)	49.448200 o	ppm	0.059322	0.12	589751.000000	Y 377.433
Al H (396.152 nm)	49.173600	ppm	0.143506	0.29	101109.000000	Y_R 377.433
As (188.980 nm)	0.001088 u	ppm	0.001600	> 100.00	-0.979359	Y 242.219
B (249.678 nm)	-0.002608 u	ppm	0.000935	35.83	-10.096900	Y 242.219
Ba (493.408 nm)	0.001381	ppm	0.000393	28.48	1604.370000	Y_R 488.368
Be (234.861 nm)	0.001133	ppm	0.000030	2.68	-104.286000	Y_R 488.368
Bi (223.061 nm)	0.000083 u	ppm	0.000872	> 100.00	-6.483460	Y 377.433
Ca (315.887 nm)	-0.003989 u	ppm	0.015287	> 100.00	-52.747392	Y_R 377.433
Cd (214.439 nm)	0.001374	ppm	0.000090	6.52	68.792600	Y 377.433
Co (228.615 nm)	0.003531	ppm	0.000152	4.30	65.175200	Y 242.219
Cr (205.560 nm)	0.001930	ppm	0.000119	6.16	6.305480	Y 377.433
Cu (324.754 nm)	0.002969	ppm	0.000138	4.65	1473.890000	Y 377.433
Fe (238.204 nm)	48.877730 o	ppm	0.123836	0.25	120474.687630	Y_R 377.433
Fe H (259.940 nm)	49.126600	ppm	0.173881	0.35	68781.900000	Y_R 377.433
K (766.491 nm)	0.231535	ppm	0.030353	13.11	2211.400000	Y_R2 488.368
Li (670.783 nm)	0.009283	ppm	0.001712	18.44	-2469.820000	Y_R2 488.368
Mg (279.078 nm)	0.034507	ppm	0.000595	1.72	55.021600	Y 377.433
Mn (257.610 nm)	0.001017	ppm	0.000026	2.56	259.286000	Y 377.433
Mo (202.032 nm)	0.000094 u	ppm	0.000317	> 100.00	24.588100	Y 377.433
Na (589.592 nm)	237.558000 o	ppm	0.277793	0.12	176084.000000	Y_R2 488.368
Na H (589.593 nm)	251.833001	ppm	3.276308	1.30	125574.555638	Y_R4
Ni (231.604 nm)	0.002591	ppm	0.000186	7.17	3.117960	Y 377.433
P (213.618 nm)	4.831280	ppm	0.018991	0.39	7302.060000	Y 242.219
Pb (220.353 nm)	0.003870	ppm	0.001061	27.42	18.839800	Y 242.219
S (181.972 nm)	4.939565	ppm	0.004461	0.09	2226.680912	Y 377.433
Sb (206.834 nm)	0.007506	ppm	0.003882	51.72	10.044800	Y 377.433
Se (196.026 nm)	0.006778	ppm	0.000596	8.79	7.956890	Y 242.219
Si (288.158 nm)	0.015856	ppm	0.002427	15.31	612.631000	Y 377.433
Sn (189.925 nm)	0.001244	ppm	0.000967	77.73	4.406120	Y 377.433
Sr (421.552 nm)	0.001041	ppm	0.000228	21.88	207.380152	Y_R 488.368
Th (288.505 nm)	4.896870	ppm	0.010866	0.22	8556.630000	Y 377.433
Ti (336.122 nm)	0.002134	ppm	0.000086	4.02	-228.183000	Y 377.433
Tl (190.794 nm)	0.000107 u	ppm	0.000975	> 100.00	-4.586410	Y 377.433
U (409.013 nm)	0.548671 Q	ppm	0.002621	0.48	1712.800000 Q	Y 377.433
V (292.401 nm)	0.001258	ppm	0.000125	9.91	379.207000	Y 377.433
Zn (206.200 nm)	0.003021	ppm	0.000050	1.66	26.361100	Y 377.433
Zr (343.823 nm)	0.001363	ppm	0.000010	0.74	-95.923700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070815	23978.198968	0.001998	0.19
Y 377.433	1.069649	691128.442200	0.001643	0.15
Y_R 377.433	1.094800	60269.400000	0.005720	0.52
Y_R 488.368	1.091340	52741.100000	0.006444	0.59
Y_R2 488.368	1.078761	99984.409033	0.005192	0.48
Y_R4	1.108200	47452.500000	0.015036	1.36

Sample Name: CCV-5717467

Date: 5/24/2019 1:54:20 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.484195	ppm	0.001674	0.35	16730.600000	Y 377.433
Al (394.401 nm)	0.506315	ppm	0.000401	0.08	6301.270000	Y 377.433
Al H (396.152 nm)	0.553818 u	ppm	0.001305	0.24	1145.920000	Y_R 377.433
As (188.980 nm)	0.486520	ppm	0.002734	0.56	773.838000	Y 242.219
B (249.678 nm)	0.475039	ppm	0.003267	0.69	3440.330000	Y 242.219
Ba (493.408 nm)	0.484042	ppm	0.000711	0.15	48320.100000	Y_R 488.368
Be (234.861 nm)	0.476781	ppm	0.001590	0.33	48056.500000	Y_R 488.368
Bi (223.061 nm)	0.947115	ppm	0.004483	0.47	2145.300000	Y 377.433
Ca (315.887 nm)	4.892947	ppm	0.009927	0.20	3888.425889	Y_R 377.433
Cd (214.439 nm)	0.490942	ppm	0.001690	0.34	19636.400000	Y 377.433
Co (228.615 nm)	0.486410	ppm	0.002098	0.43	12026.300000	Y 242.219
Cr (205.560 nm)	0.486480	ppm	0.000399	0.08	3437.750000	Y 377.433
Cu (324.754 nm)	0.481511	ppm	0.000508	0.11	22768.900000	Y 377.433
Fe (238.204 nm)	2.454755	ppm	0.004773	0.19	6053.309081	Y_R 377.433
Fe H (259.940 nm)	2.417080 u	ppm	0.007838	0.32	3470.430000	Y_R 377.433
K (766.491 nm)	48.608900	ppm	0.091768	0.19	50227.400000	Y_R2 488.368
Li (670.783 nm)	0.496474	ppm	0.001690	0.34	6013.950000	Y_R2 488.368
Mg (279.078 nm)	19.511700	ppm	0.055114	0.28	69141.400000	Y 377.433
Mn (257.610 nm)	0.487542	ppm	0.001494	0.31	134832.000000	Y 377.433
Mo (202.032 nm)	0.486559	ppm	0.001551	0.32	6214.670000	Y 377.433
Na (589.592 nm)	24.016100	ppm	0.017152	0.07	17999.300000	Y_R2 488.368
Na H (589.593 nm)	26.225351 u	ppm	0.010957	0.04	13370.504128	Y_R4
Ni (231.604 nm)	0.487164	ppm	0.001301	0.27	2711.750000	Y 377.433
P (213.618 nm)	0.050322	ppm	0.002469	4.91	-65.751300	Y 242.219
Pb (220.353 nm)	0.489088	ppm	0.002072	0.42	1690.760000	Y 242.219
S (181.972 nm)	0.011637	ppm	0.003161	27.16	14.706984	Y 377.433
Sb (206.834 nm)	0.489272	ppm	0.004495	0.92	853.485000	Y 377.433
Se (196.026 nm)	0.484404	ppm	0.000164	0.03	797.952000	Y 242.219
Si (288.158 nm)	4.763410	ppm	0.006009	0.13	31929.000000	Y 377.433
Sn (189.925 nm)	0.489408	ppm	0.000560	0.11	855.869000	Y 377.433
Sr (421.552 nm)	0.485907	ppm	0.000353	0.07	71112.073533	Y_R 488.368
Th (288.505 nm)	0.012588	ppm	0.000954	7.57	-12.963600	Y 377.433
Ti (336.122 nm)	0.482944	ppm	0.000954	0.20	62305.500000	Y 377.433
Tl (190.794 nm)	0.497242	ppm	0.005154	1.04	1201.330000	Y 377.433
U (409.013 nm)	0.021971	ppm	0.003726	16.96	-31.256700	Y 377.433
V (292.401 nm)	0.482554	ppm	0.001116	0.23	25267.500000	Y 377.433
Zn (206.200 nm)	0.492757	ppm	0.001793	0.36	2449.820000	Y 377.433
Zr (343.823 nm)	0.484114	ppm	0.000757	0.16	27739.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.072202	24009.251124	0.003962	0.37
Y 377.433	1.070015	691364.995078	0.003434	0.32
Y_R 377.433	1.085940	59781.200000	0.003725	0.34
Y_R 488.368	1.084360	52403.800000	0.004718	0.44
Y_R2 488.368	1.076877	99809.800411	0.001119	0.10
Y_R4	1.095870	46924.600000	0.002158	0.20

Sample Name: CCB

Date: 5/24/2019 1:57:55 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000091 u	ppm	0.000140	> 100.00	-249.114000	Y 377.433
Al (394.401 nm)	-0.001642 u	ppm	0.001020	62.15	109.180000	Y 377.433
Al H (396.152 nm)	0.127897 Zu	ppm	0.005308	4.15	37.995600 Z	Y_R 377.433
As (188.980 nm)	0.001142	ppm	0.000602	52.73	0.514907	Y 242.219
B (249.678 nm)	-0.003012 u	ppm	0.000691	22.95	15.498900	Y 242.219
Ba (493.408 nm)	-0.001646 u	ppm	0.000352	21.40	1273.220000	Y_R 488.368
Be (234.861 nm)	0.000084	ppm	0.000008	9.80	2.764060	Y_R 488.368
Bi (223.061 nm)	0.000727 u	ppm	0.002653	> 100.00	-13.856800	Y 377.433
Ca (315.887 nm)	0.009682	ppm	0.003952	40.82	-54.160298	Y_R 377.433
Cd (214.439 nm)	-0.000088 u	ppm	0.000000	0.07	-11.299600	Y 377.433
Co (228.615 nm)	0.000015 u	ppm	0.000057	> 100.00	-21.797800	Y 242.219
Cr (205.560 nm)	-0.000295 u	ppm	0.000403	> 100.00	-8.055690	Y 377.433
Cu (324.754 nm)	-0.000029 u	ppm	0.000038	> 100.00	411.041000	Y 377.433
Fe (238.204 nm)	-0.000493 u	ppm	0.000018	3.56	1.719892	Y_R 377.433
Fe H (259.940 nm)	-0.052736 u	ppm	0.002320	4.40	17.011500	Y_R 377.433
K (766.491 nm)	-0.035452 u	ppm	0.089621	> 100.00	1946.400000	Y_R2 488.368
Li (670.783 nm)	0.005922	ppm	0.000912	15.41	-2528.350000	Y_R2 488.368
Mg (279.078 nm)	0.002165	ppm	0.002221	> 100.00	19.556100	Y 377.433
Mn (257.610 nm)	0.000075	ppm	0.000029	38.36	-1.415900	Y 377.433
Mo (202.032 nm)	-0.000833 u	ppm	0.000043	5.15	12.789200	Y 377.433
Na (589.592 nm)	0.163557	ppm	0.047797	29.22	231.150000	Y_R2 488.368
Na H (589.593 nm)	0.715285 u	ppm	0.016561	2.32	683.288768	Y_R4
Ni (231.604 nm)	-0.000277 u	ppm	0.000014	5.21	-12.920500	Y 377.433
P (213.618 nm)	-0.004147 u	ppm	0.001560	37.62	-10.820000	Y 242.219
Pb (220.353 nm)	-0.001597 u	ppm	0.001292	80.89	7.417740	Y 242.219
S (181.972 nm)	0.006896	ppm	0.007418	> 100.00	10.853492	Y 377.433
Sb (206.834 nm)	0.002475	ppm	0.000254	10.28	-3.172090	Y 377.433
Se (196.026 nm)	-0.000742 u	ppm	0.001325	> 100.00	9.370060	Y 242.219
Si (288.158 nm)	-0.005642 u	ppm	0.001338	23.71	470.828000	Y 377.433
Sn (189.925 nm)	-0.000208 u	ppm	0.000805	> 100.00	1.874190	Y 377.433
Sr (421.552 nm)	-0.000099 u	ppm	0.000011	11.19	33.373720	Y_R 488.368
Th (288.505 nm)	-0.000725 u	ppm	0.000190	26.20	13.237000	Y 377.433
Ti (336.122 nm)	0.000462	ppm	0.000009	1.91	-445.607000	Y 377.433
Tl (190.794 nm)	-0.000386 u	ppm	0.000343	88.76	-0.817078	Y 377.433
U (409.013 nm)	0.004283	ppm	0.001345	31.40	-28.381400	Y 377.433
V (292.401 nm)	0.000464	ppm	0.000062	13.44	-155.240000	Y 377.433
Zn (206.200 nm)	-0.000870 u	ppm	0.000206	23.64	-0.503509	Y 377.433
Zr (343.823 nm)	0.000502	ppm	0.000007	1.38	-145.576000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.104526	24733.055496	0.006573	0.60
Y 377.433	1.099464	710392.391146	0.006880	0.63
Y_R 377.433	1.102890	60714.600000	0.002552	0.23
Y_R 488.368	1.099900	53154.800000	0.003380	0.31
Y_R2 488.368	1.081742	100260.634056	0.007432	0.69
Y_R4	1.104680	47301.700000	0.003867	0.35

Sample Name: CCVL-5717307

Date: 5/24/2019 2:01:07 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008059	ppm	0.000151	1.87	35.883700	Y 377.433
Al (394.401 nm)	0.096771	ppm	0.000274	0.28	1292.180000	Y 377.433
Al H (396.152 nm)	0.223911 u	ppm	0.002619	1.17	240.838000	Y_R 377.433
As (188.980 nm)	0.010962	ppm	0.000417	3.81	16.159000	Y 242.219
B (249.678 nm)	0.088449	ppm	0.000773	0.87	670.955000	Y 242.219
Ba (493.408 nm)	0.008206	ppm	0.000274	3.33	2227.530000	Y_R 488.368
Be (234.861 nm)	0.000989	ppm	0.000015	1.55	93.532200	Y_R 488.368
Bi (223.061 nm)	0.090667	ppm	0.001704	1.88	191.310000	Y 377.433
Ca (315.887 nm)	0.208601	ppm	0.004247	2.04	106.460780	Y_R 377.433
Cd (214.439 nm)	0.005073	ppm	0.000048	0.95	195.214000	Y 377.433
Co (228.615 nm)	0.010400	ppm	0.000025	0.24	235.398000	Y 242.219
Cr (205.560 nm)	0.010346	ppm	0.000183	1.77	67.167500	Y 377.433
Cu (324.754 nm)	0.015130	ppm	0.000578	3.82	1114.020000	Y 377.433
Fe (238.204 nm)	0.101009	ppm	0.000429	0.42	251.896534	Y_R 377.433
Fe H (259.940 nm)	0.048217 u	ppm	0.004504	9.34	158.168000	Y_R 377.433
K (766.491 nm)	2.852460	ppm	0.050992	1.79	4812.740000	Y_R2 488.368
Li (670.783 nm)	0.030809 Q	ppm	0.003507	11.38	-2094.980000 Q	Y_R2 488.368
Mg (279.078 nm)	0.201062	ppm	0.001949	0.97	723.105000	Y 377.433
Mn (257.610 nm)	0.010489	ppm	0.000019	0.19	2879.320000	Y 377.433
Mo (202.032 nm)	0.018649	ppm	0.000432	2.32	260.687000	Y 377.433
Na (589.592 nm)	1.181750	ppm	0.069127	5.85	987.547000	Y_R2 488.368
Na H (589.593 nm)	1.568664 u	ppm	0.019101	1.22	1107.709652	Y_R4
Ni (231.604 nm)	0.041352	ppm	0.000992	2.40	219.743000	Y 377.433
P (213.618 nm)	2.754270	ppm	0.011417	0.41	4158.990000	Y 242.219
Pb (220.353 nm)	0.008566	ppm	0.000245	2.86	42.399800	Y 242.219
S (181.972 nm)	0.102692	ppm	0.004449	4.33	53.923739	Y 377.433
Sb (206.834 nm)	0.026913 Q	ppm	0.000521	1.93	39.821900 Q	Y 377.433
Se (196.026 nm)	0.018571	ppm	0.002904	15.64	40.749100	Y 242.219
Si (288.158 nm)	0.468268	ppm	0.003297	0.70	3596.880000	Y 377.433
Sn (189.925 nm)	0.098165	ppm	0.000703	0.72	173.458000	Y 377.433
Sr (421.552 nm)	0.008760	ppm	0.000188	2.15	1329.018668	Y_R 488.368
Th (288.505 nm)	0.013857	ppm	0.003418	24.67	38.156700	Y 377.433
Ti (336.122 nm)	0.009938	ppm	0.000080	0.80	787.250000	Y 377.433
Tl (190.794 nm)	0.013697	ppm	0.002543	18.57	33.179400	Y 377.433
U (409.013 nm)	0.058284	ppm	0.004895	8.40	139.608000	Y 377.433
V (292.401 nm)	0.010179	ppm	0.000136	1.34	354.338000	Y 377.433
Zn (206.200 nm)	0.020810	ppm	0.000327	1.57	107.117000	Y 377.433
Zr (343.823 nm)	0.010419	ppm	0.000372	3.57	426.259000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115295	24974.198805	0.001731	0.16
Y 377.433	1.108983	716543.054133	0.000866	0.08
Y_R 377.433	1.112400	61237.900000	0.000419	0.04
Y_R 488.368	1.109430	53615.200000	0.000697	0.06
Y_R2 488.368	1.107041	102605.478005	0.003850	0.35
Y_R4	1.107930	47440.900000	0.002402	0.22

Sample Name: lcs 280-458924/2-a

Date: 5/24/2019 2:04:36 AM Rack:Tube: 2:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049558	ppm	0.000012	0.03	1197.940000	Y 377.433
Al (394.401 nm)	9.579810 o	ppm	0.000024	0.00	114840.000000	Y 377.433
Al H (396.152 nm)	9.653370	ppm	0.019685	0.20	20116.300000	Y_R 377.433
As (188.980 nm)	1.925570	ppm	0.011891	0.62	3066.590000	Y 242.219
B (249.678 nm)	1.119420	ppm	0.001845	0.16	8054.500000	Y 242.219
Ba (493.408 nm)	1.923980	ppm	0.006549	0.34	187802.000000	Y_R 488.368
Be (234.861 nm)	0.963399	ppm	0.001735	0.18	97090.000000	Y_R 488.368
Bi (223.061 nm)	1.862750	ppm	0.003974	0.21	4235.070000	Y 377.433
Ca (315.887 nm)	47.379535	ppm	0.145402	0.31	38191.839286	Y_R 377.433
Cd (214.439 nm)	0.957300	ppm	0.002225	0.23	38299.200000	Y 377.433
Co (228.615 nm)	0.939370	ppm	0.002394	0.25	23247.600000	Y 242.219
Cr (205.560 nm)	0.958736	ppm	0.007306	0.76	6780.520000	Y 377.433
Cu (324.754 nm)	0.935939	ppm	0.002462	0.26	43926.200000	Y 377.433
Fe (238.204 nm)	9.647371 o	ppm	0.007017	0.07	23781.365196	Y_R 377.433
Fe H (259.940 nm)	9.664970	ppm	0.026167	0.27	13604.800000	Y_R 377.433
K (766.491 nm)	47.758800	ppm	0.019905	0.04	49383.600000	Y_R2 488.368
Li (670.783 nm)	0.976106	ppm	0.000269	0.03	14366.100000	Y_R2 488.368
Mg (279.078 nm)	47.426900	ppm	0.071983	0.15	168008.000000	Y 377.433
Mn (257.610 nm)	0.965610	ppm	0.000805	0.08	267066.000000	Y 377.433
Mo (202.032 nm)	0.964826	ppm	0.000301	0.03	12300.400000	Y 377.433
Na (589.592 nm)	46.038400	ppm	0.069336	0.15	34607.400000	Y_R2 488.368
Na H (589.593 nm)	50.163537 u	ppm	0.261256	0.52	25275.957821	Y_R4
Ni (231.604 nm)	0.940672	ppm	0.001084	0.12	5247.920000	Y 377.433
P (213.618 nm)	19.331000	ppm	0.066335	0.34	28980.900000	Y 242.219
Pb (220.353 nm)	0.957959	ppm	0.003806	0.40	3302.390000	Y 242.219
S (181.972 nm)	9.760502	ppm	0.025464	0.26	4397.517692	Y 377.433
Sb (206.834 nm)	1.023520	ppm	0.001669	0.16	1794.800000	Y 377.433
Se (196.026 nm)	1.880470	ppm	0.007738	0.41	3065.610000	Y 242.219
Si (288.158 nm)	1.690280	ppm	0.001455	0.09	11657.700000	Y 377.433
Sn (189.925 nm)	1.926150	ppm	0.001398	0.07	3361.850000	Y 377.433
Sr (421.552 nm)	0.964430	ppm	0.002690	0.28	141096.882699	Y_R 488.368
Th (288.505 nm)	0.981383	ppm	0.001698	0.17	1636.880000	Y 377.433
Ti (336.122 nm)	0.964223	ppm	0.000265	0.03	125029.000000	Y 377.433
Tl (190.794 nm)	1.912290	ppm	0.009117	0.48	4623.850000	Y 377.433
U (409.013 nm)	1.924400	ppm	0.003283	0.17	5929.310000	Y 377.433
V (292.401 nm)	0.952666	ppm	0.000104	0.01	50063.000000	Y 377.433
Zn (206.200 nm)	0.477632	ppm	0.002467	0.52	2375.860000	Y 377.433
Zr (343.823 nm)	0.480951	ppm	0.000063	0.01	27557.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.073126	24029.932399	0.000619	0.06
Y 377.433	1.075105	694653.344120	0.000528	0.05
Y_R 377.433	1.093440	60194.500000	0.000743	0.07
Y_R 488.368	1.091690	52758.200000	0.000553	0.05
Y_R2 488.368	1.073187	99467.749896	0.000614	0.06
Y_R4	1.096150	46936.500000	0.006510	0.59

Sample Name: lcsd 280-458924/3-a

Date: 5/24/2019 2:08:14 AM Rack:Tube: 2:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050478	ppm	0.000396	0.78	1223.360000	Y 377.433
Al (394.401 nm)	9.970650 o	ppm	0.002406	0.02	119515.000000	Y 377.433
Al H (396.152 nm)	10.012300	ppm	0.000503	0.01	20865.900000	Y_R 377.433
As (188.980 nm)	1.972380	ppm	0.001218	0.06	3141.160000	Y 242.219
B (249.678 nm)	1.113930	ppm	0.000627	0.06	8014.960000	Y 242.219
Ba (493.408 nm)	1.966340	ppm	0.001802	0.09	191905.000000	Y_R 488.368
Be (234.861 nm)	0.986059	ppm	0.005043	0.51	99373.400000	Y_R 488.368
Bi (223.061 nm)	1.904790	ppm	0.004455	0.23	4331.010000	Y 377.433
Ca (315.887 nm)	49.241575	ppm	0.005300	0.01	39695.229947	Y_R 377.433
Cd (214.439 nm)	0.979347	ppm	0.001647	0.17	39181.400000	Y 377.433
Co (228.615 nm)	0.963581	ppm	0.000212	0.02	23847.200000	Y 242.219
Cr (205.560 nm)	0.977058	ppm	0.005438	0.56	6910.170000	Y 377.433
Cu (324.754 nm)	0.957155	ppm	0.005257	0.55	44911.800000	Y 377.433
Fe (238.204 nm)	9.961597 o	ppm	0.016392	0.16	24555.856641	Y_R 377.433
Fe H (259.940 nm)	9.973860	ppm	0.009900	0.10	14036.700000	Y_R 377.433
K (766.491 nm)	49.769400	ppm	0.162506	0.33	51379.200000	Y_R2 488.368
Li (670.783 nm)	0.993557	ppm	0.000301	0.03	14670.000000	Y_R2 488.368
Mg (279.078 nm)	49.406200	ppm	0.019488	0.04	175020.000000	Y 377.433
Mn (257.610 nm)	0.988291	ppm	0.000600	0.06	273339.000000	Y 377.433
Mo (202.032 nm)	0.988374	ppm	0.000202	0.02	12600.100000	Y 377.433
Na (589.592 nm)	48.089300	ppm	0.227396	0.47	36135.400000	Y_R2 488.368
Na H (589.593 nm)	52.394318	ppm	0.153145	0.29	26385.417640	Y_R4
Ni (231.604 nm)	0.960212	ppm	0.000057	0.01	5357.180000	Y 377.433
P (213.618 nm)	19.853700	ppm	0.011082	0.06	29765.200000	Y 242.219
Pb (220.353 nm)	0.977317	ppm	0.004146	0.42	3368.800000	Y 242.219
S (181.972 nm)	9.973000	ppm	0.021795	0.22	4493.131299	Y 377.433
Sb (206.834 nm)	1.050100	ppm	0.003353	0.32	1841.600000	Y 377.433
Se (196.026 nm)	1.923510	ppm	0.000379	0.02	3135.510000	Y 242.219
Si (288.158 nm)	1.496040	ppm	0.001240	0.08	10376.400000	Y 377.433
Sn (189.925 nm)	1.968830	ppm	0.003953	0.20	3436.290000	Y 377.433
Sr (421.552 nm)	0.985885	ppm	0.001378	0.14	144234.793017	Y_R 488.368
Th (288.505 nm)	1.007050	ppm	0.002295	0.23	1679.410000	Y 377.433
Ti (336.122 nm)	0.986233	ppm	0.000345	0.03	127897.000000	Y 377.433
Tl (190.794 nm)	1.959740	ppm	0.003610	0.18	4738.570000	Y 377.433
U (409.013 nm)	1.957820	ppm	0.001219	0.06	6032.570000	Y 377.433
V (292.401 nm)	0.975284	ppm	0.000465	0.05	51256.600000	Y 377.433
Zn (206.200 nm)	0.490167	ppm	0.000584	0.12	2438.130000	Y 377.433
Zr (343.823 nm)	0.491688	ppm	0.000367	0.07	28176.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.061315	23765.467266	0.000445	0.04
Y 377.433	1.064988	688116.604760	0.001055	0.10
Y_R 377.433	1.084880	59722.800000	0.004473	0.41
Y_R 488.368	1.081320	52257.100000	0.005897	0.55
Y_R2 488.368	1.069924	99165.283926	0.001527	0.14
Y_R4	1.085710	46489.700000	0.001396	0.13

Sample Name: 280-123991-a-2-d

Date: 5/24/2019 2:11:51 AM Rack:Tube: 2:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000543 u	ppm	0.000097	17.85	-429.019000	Y 377.433
Al (394.401 nm)	266.707000 o	ppm	0.608043	0.23	3186640.000000	Y 377.433
Al H (396.152 nm)	261.581000	ppm	0.025549	0.01	538940.000000	Y_R 377.433
As (188.980 nm)	0.088359	ppm	0.000853	0.96	131.778000	Y 242.219
B (249.678 nm)	0.035764	ppm	0.000245	0.69	137.420000	Y 242.219
Ba (493.408 nm)	0.713959	ppm	0.000304	0.04	70796.800000	Y_R 488.368
Be (234.861 nm)	0.004456	ppm	0.000116	2.61	-721.372000	Y_R 488.368
Bi (223.061 nm)	0.001821	ppm	0.001738	95.47	37.082700	Y 377.433
Ca (315.887 nm)	7.920373	ppm	0.002200	0.03	6398.799127	Y_R 377.433
Cd (214.439 nm)	0.000962	ppm	0.000070	7.29	148.961000	Y 377.433
Co (228.615 nm)	0.057205	ppm	0.000315	0.55	1418.450000	Y 242.219
Cr (205.560 nm)	0.318495	ppm	0.000381	0.12	2243.300000	Y 377.433
Cu (324.754 nm)	0.093494	ppm	0.000345	0.37	4813.150000	Y 377.433
Fe (238.204 nm)	267.544567 o	ppm	0.124030	0.05	659435.425540	Y_R 377.433
Fe H (259.940 nm)	271.474000	ppm	0.063032	0.02	379679.000000	Y_R 377.433
K (766.491 nm)	12.540700	ppm	0.004612	0.04	14428.600000	Y_R2 488.368
Li (670.783 nm)	0.139678	ppm	0.001703	1.22	-199.159000	Y_R2 488.368
Mg (279.078 nm)	25.838800	ppm	0.022406	0.09	91180.600000	Y 377.433
Mn (257.610 nm)	0.322440	ppm	0.000413	0.13	89164.900000	Y 377.433
Mo (202.032 nm)	0.002631	ppm	0.000105	3.98	56.863900	Y 377.433
Na (589.592 nm)	1.259280	ppm	0.010456	0.83	1189.150000	Y_R2 488.368
Na H (589.593 nm)	2.301871 u	ppm	0.004698	0.20	1472.364083	Y_R4
Ni (231.604 nm)	0.192155	ppm	0.000724	0.38	1062.490000	Y 377.433
P (213.618 nm)	1.088760	ppm	0.010652	0.98	1622.830000	Y 242.219
Pb (220.353 nm)	0.122873	ppm	0.003448	2.81	387.156000	Y 242.219
S (181.972 nm)	0.358704	ppm	0.004138	1.15	170.255261	Y 377.433
Sb (206.834 nm)	0.004232	ppm	0.000282	6.67	23.322100	Y 377.433
Se (196.026 nm)	0.010634	ppm	0.001647	15.48	-46.336900	Y 242.219
Si (288.158 nm)	4.028660	ppm	0.024749	0.61	27082.300000	Y 377.433
Sn (189.925 nm)	0.017125	ppm	0.001917	11.19	32.105100	Y 377.433
Sr (421.552 nm)	0.301687	ppm	0.000262	0.09	44208.820082	Y_R 488.368
Th (288.505 nm)	0.086530	ppm	0.003162	3.65	98.322400	Y 377.433
Ti (336.122 nm)	0.559707	ppm	0.001230	0.22	72294.200000	Y 377.433
Tl (190.794 nm)	0.011256	ppm	0.000810	7.20	-2.955640	Y 377.433
U (409.013 nm)	-0.023350 u	ppm	0.005024	21.52	67.586000	Y 377.433
V (292.401 nm)	0.453681	ppm	0.000313	0.07	23838.900000	Y 377.433
Zn (206.200 nm)	0.406545	ppm	0.002039	0.50	2062.900000	Y 377.433
Zr (343.823 nm)	0.095088	ppm	0.000222	0.23	5308.280000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103526	24710.675189	0.001532	0.14
Y 377.433	1.092806	706090.402176	0.000444	0.04
Y_R 377.433	1.118690	61584.300000	0.006728	0.60
Y_R 488.368	1.115580	53912.700000	0.005395	0.48
Y_R2 488.368	1.100429	101992.619332	0.004869	0.44
Y_R4	1.129620	48369.700000	0.009119	0.81

Sample Name: 280-123991-a-2-dSD@5

Date: 5/24/2019 2:15:38 AM Rack:Tube: 2:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000066 u	ppm	0.000080	> 100.00	-281.541000	Y 377.433
Al (394.401 nm)	54.078900 o	ppm	0.042832	0.08	646246.000000	Y 377.433
Al H (396.152 nm)	54.826200	ppm	0.176256	0.32	112781.000000	Y_R 377.433
As (188.980 nm)	0.015954	ppm	0.001733	10.86	22.483800	Y 242.219
B (249.678 nm)	0.004214	ppm	0.000211	5.01	34.266200	Y 242.219
Ba (493.408 nm)	0.147281	ppm	0.000637	0.43	15742.700000	Y_R 488.368
Be (234.861 nm)	0.000849	ppm	0.000075	8.88	-166.728000	Y_R 488.368
Bi (223.061 nm)	0.005528	ppm	0.002011	36.39	7.349000	Y 377.433
Ca (315.887 nm)	1.676854	ppm	0.006884	0.41	1305.696796	Y_R 377.433
Cd (214.439 nm)	0.000137	ppm	0.000037	27.30	22.734500	Y 377.433
Co (228.615 nm)	0.012507	ppm	0.000483	3.86	292.410000	Y 242.219
Cr (205.560 nm)	0.066571	ppm	0.000216	0.32	464.167000	Y 377.433
Cu (324.754 nm)	0.018864	ppm	0.000007	0.04	1299.490000	Y 377.433
Fe (238.204 nm)	56.671793 o	ppm	0.188396	0.33	139685.163715	Y_R 377.433
Fe H (259.940 nm)	56.940700	ppm	0.204035	0.36	79708.000000	Y_R 377.433
K (766.491 nm)	2.606490	ppm	0.084681	3.25	4568.610000	Y_R2 488.368
Li (670.783 nm)	0.037898	ppm	0.000845	2.23	-1971.530000	Y_R2 488.368
Mg (279.078 nm)	5.390640	ppm	0.004218	0.08	19030.800000	Y 377.433
Mn (257.610 nm)	0.067867	ppm	0.000075	0.11	18749.900000	Y 377.433
Mo (202.032 nm)	-0.000327 u	ppm	0.000442	> 100.00	19.227500	Y 377.433
Na (589.592 nm)	0.207202	ppm	0.022807	11.01	293.840000	Y_R2 488.368
Na H (589.593 nm)	0.650448 u	ppm	0.017637	2.71	651.042790	Y_R4
Ni (231.604 nm)	0.039815	ppm	0.000499	1.25	211.137000	Y 377.433
P (213.618 nm)	0.225638	ppm	0.000426	0.19	333.361000	Y 242.219
Pb (220.353 nm)	0.023218	ppm	0.001012	4.36	82.666800	Y 242.219
S (181.972 nm)	0.078454	ppm	0.001596	2.03	43.281400	Y 377.433
Sb (206.834 nm)	0.006601	ppm	0.000275	4.17	9.077060	Y 377.433
Se (196.026 nm)	0.005287	ppm	0.000266	5.04	3.460110	Y 242.219
Si (288.158 nm)	0.837023	ppm	0.008067	0.96	6029.310000	Y 377.433
Sn (189.925 nm)	0.002820	ppm	0.001308	46.39	7.155800	Y 377.433
Sr (421.552 nm)	0.062380	ppm	0.000332	0.53	9179.331213	Y_R 488.368
Th (288.505 nm)	0.014838	ppm	0.006286	42.36	26.632400	Y 377.433
Ti (336.122 nm)	0.115763	ppm	0.000496	0.43	14551.200000	Y 377.433
Tl (190.794 nm)	0.003186	ppm	0.000567	17.79	1.423340	Y 377.433
U (409.013 nm)	0.000683 u	ppm	0.006428	> 100.00	-0.912995	Y 377.433
V (292.401 nm)	0.093474	ppm	0.000017	0.02	4767.940000	Y 377.433
Zn (206.200 nm)	0.086294	ppm	0.000417	0.48	440.859000	Y 377.433
Zr (343.823 nm)	0.019804	ppm	0.000139	0.70	967.408000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113718	24938.885127	0.002857	0.26
Y 377.433	1.110296	717391.214731	0.004043	0.36
Y_R 377.433	1.120570	61688.000000	0.006395	0.57
Y_R 488.368	1.116390	53951.600000	0.006273	0.56
Y_R2 488.368	1.092782	101283.884707	0.000419	0.04
Y_R4	1.120330	47971.800000	0.007100	0.63

Sample Name: 280-123991-a-2-e ms

Date: 5/24/2019 2:19:20 AM Rack:Tube: 2:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050456	ppm	0.000230	0.46	949.279000	Y 377.433
Al (394.401 nm)	418.293000 o	ppm	0.288098	0.07	4997960.000000	Y 377.433
Al H (396.152 nm)	415.341000	ppm	0.293380	0.07	856257.000000	Y_R 377.433
As (188.980 nm)	2.000430	ppm	0.000195	0.01	3177.140000	Y 242.219
B (249.678 nm)	0.848476	ppm	0.000639	0.08	5935.820000	Y 242.219
Ba (493.408 nm)	2.848410	ppm	0.006054	0.21	277581.000000	Y_R 488.368
Be (234.861 nm)	0.970446	ppm	0.006293	0.65	96480.200000	Y_R 488.368
Bi (223.061 nm)	1.910200	ppm	0.008780	0.46	4398.220000	Y 377.433
Ca (315.887 nm)	55.319230	ppm	0.058320	0.11	44704.804968	Y_R 377.433
Cd (214.439 nm)	0.955404	ppm	0.000449	0.05	38357.300000	Y 377.433
Co (228.615 nm)	1.004610	ppm	0.001322	0.13	24891.900000	Y 242.219
Cr (205.560 nm)	1.430090	ppm	0.000032	0.00	10109.200000	Y 377.433
Cu (324.754 nm)	1.080470	ppm	0.003734	0.35	50726.000000	Y 377.433
Fe (238.204 nm)	313.119989 o	ppm	0.746703	0.24	771767.792433	Y_R 377.433
Fe H (259.940 nm)	319.242000	ppm	0.372083	0.12	446471.000000	Y_R 377.433
K (766.491 nm)	72.506500	ppm	0.017416	0.02	73946.400000	Y_R2 488.368
Li (670.783 nm)	1.183800	ppm	0.001119	0.09	17982.700000	Y_R2 488.368
Mg (279.078 nm)	86.594400	ppm	0.119438	0.14	306351.000000	Y 377.433
Mn (257.610 nm)	1.336290	ppm	0.001849	0.14	369594.000000	Y 377.433
Mo (202.032 nm)	0.918096	ppm	0.001368	0.15	11705.800000	Y 377.433
Na (589.592 nm)	48.461400	ppm	0.010529	0.02	36591.800000	Y_R2 488.368
Na H (589.593 nm)	53.159493	ppm	0.150857	0.28	26765.971012	Y_R4
Ni (231.604 nm)	1.197840	ppm	0.000393	0.03	6685.020000	Y 377.433
P (213.618 nm)	20.123400	ppm	0.019844	0.10	30149.800000	Y 242.219
Pb (220.353 nm)	1.067480	ppm	0.000682	0.06	3604.650000	Y 242.219
S (181.972 nm)	10.241776	ppm	0.002949	0.03	4615.230881	Y 377.433
Sb (206.834 nm)	0.490578	ppm	0.008942	1.82	881.579000	Y 377.433
Se (196.026 nm)	1.875990	ppm	0.006435	0.34	2974.240000	Y 242.219
Si (288.158 nm)	7.435670	ppm	0.007301	0.10	49556.000000	Y 377.433
Sn (189.925 nm)	1.750280	ppm	0.003666	0.21	3055.100000	Y 377.433
Sr (421.552 nm)	1.287844	ppm	0.003366	0.26	188440.593795	Y_R 488.368
Th (288.505 nm)	1.069730	ppm	0.002407	0.23	1689.990000	Y 377.433
Ti (336.122 nm)	1.629530	ppm	0.001125	0.07	211559.000000	Y 377.433
Tl (190.794 nm)	1.876510	ppm	0.001431	0.08	4505.920000	Y 377.433
U (409.013 nm)	1.915220	ppm	0.003014	0.16	6109.690000	Y 377.433
V (292.401 nm)	1.693610	ppm	0.002475	0.15	89299.500000	Y 377.433
Zn (206.200 nm)	0.925495	ppm	0.000648	0.07	4645.530000	Y 377.433
Zr (343.823 nm)	0.568445	ppm	0.000449	0.08	32602.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075278	24078.129173	0.003608	0.34
Y 377.433	1.066791	689281.515729	0.003655	0.34
Y_R 377.433	1.112360	61236.100000	0.001133	0.10
Y_R 488.368	1.106170	53457.900000	0.002279	0.21
Y_R2 488.368	1.103954	102319.332832	0.004341	0.39
Y_R4	1.148270	49168.300000	0.000219	0.02

Sample Name: 280-123991-a-2-f msd

Date: 5/24/2019 2:23:06 AM Rack:Tube: 2:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051658	ppm	0.000138	0.27	1008.100000	Y 377.433
Al (394.401 nm)	396.033000 o	ppm	0.513736	0.13	4732030.000000	Y 377.433
Al H (396.152 nm)	393.702000	ppm	0.422485	0.11	811665.000000	Y_R 377.433
As (188.980 nm)	2.024960	ppm	0.001066	0.05	3217.370000	Y 242.219
B (249.678 nm)	0.884817	ppm	0.002848	0.32	6219.510000	Y 242.219
Ba (493.408 nm)	2.831780	ppm	0.003201	0.11	275939.000000	Y_R 488.368
Be (234.861 nm)	0.991764	ppm	0.001643	0.17	98803.100000	Y_R 488.368
Bi (223.061 nm)	1.946590	ppm	0.001079	0.06	4474.020000	Y 377.433
Ca (315.887 nm)	55.383584	ppm	0.075373	0.14	44751.249233	Y_R 377.433
Cd (214.439 nm)	0.975017	ppm	0.000412	0.04	39124.500000	Y 377.433
Co (228.615 nm)	1.017270	ppm	0.000463	0.05	25206.400000	Y 242.219
Cr (205.560 nm)	1.405910	ppm	0.002094	0.15	9938.310000	Y 377.433
Cu (324.754 nm)	1.088510	ppm	0.002643	0.24	51092.200000	Y 377.433
Fe (238.204 nm)	273.916537 o	ppm	0.687392	0.25	675140.786791	Y_R 377.433
Fe H (259.940 nm)	278.881000	ppm	0.598613	0.21	390035.000000	Y_R 377.433
K (766.491 nm)	72.484000	ppm	0.030248	0.04	73924.100000	Y_R2 488.368
Li (670.783 nm)	1.194020	ppm	0.000264	0.02	18160.700000	Y_R2 488.368
Mg (279.078 nm)	84.844300	ppm	0.011525	0.01	300207.000000	Y 377.433
Mn (257.610 nm)	1.321660	ppm	0.000511	0.04	365549.000000	Y 377.433
Mo (202.032 nm)	0.940547	ppm	0.001474	0.16	11991.500000	Y 377.433
Na (589.592 nm)	49.110000	ppm	0.013168	0.03	37071.900000	Y_R2 488.368
Na H (589.593 nm)	53.778674	ppm	0.071081	0.13	27073.915569	Y_R4
Ni (231.604 nm)	1.196680	ppm	0.000035	0.00	6678.580000	Y 377.433
P (213.618 nm)	20.427800	ppm	0.012590	0.06	30607.400000	Y 242.219
Pb (220.353 nm)	1.077530	ppm	0.003029	0.28	3643.110000	Y 242.219
S (181.972 nm)	10.477909	ppm	0.001086	0.01	4721.249222	Y 377.433
Sb (206.834 nm)	0.526072	ppm	0.001712	0.33	940.204000	Y 377.433
Se (196.026 nm)	1.919930	ppm	0.005003	0.26	3056.740000	Y 242.219
Si (288.158 nm)	7.426890	ppm	0.044283	0.60	49498.100000	Y 377.433
Sn (189.925 nm)	1.794520	ppm	0.000697	0.04	3132.260000	Y 377.433
Sr (421.552 nm)	1.282662	ppm	0.001106	0.09	187676.912231	Y_R 488.368
Th (288.505 nm)	1.077790	ppm	0.005583	0.52	1711.280000	Y 377.433
Ti (336.122 nm)	1.664610	ppm	0.000488	0.03	216120.000000	Y 377.433
Tl (190.794 nm)	1.915940	ppm	0.001550	0.08	4605.750000	Y 377.433
U (409.013 nm)	1.955330	ppm	0.002431	0.12	6205.500000	Y 377.433
V (292.401 nm)	1.657130	ppm	0.000156	0.01	87366.900000	Y 377.433
Zn (206.200 nm)	0.901302	ppm	0.002765	0.31	4519.310000	Y 377.433
Zr (343.823 nm)	0.576820	ppm	0.000792	0.14	33085.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.077625	24130.694000	0.000623	0.06
Y 377.433	1.070536	691701.530944	0.000487	0.05
Y_R 377.433	1.109520	61079.700000	0.003517	0.32
Y_R 488.368	1.104330	53369.000000	0.001558	0.14
Y_R2 488.368	1.098478	101811.860714	0.002123	0.19
Y_R4	1.149420	49217.700000	0.006274	0.55

Sample Name: 280-123991-a-2-dPDS

Date: 5/24/2019 2:26:54 AM Rack:Tube: 2:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049150	ppm	0.000452	0.92	1310.610000	Y 377.433
Al (394.401 nm)	261.541000 o	ppm	0.425073	0.16	3124960.000000	Y 377.433
Al H (396.152 nm)	256.587000	ppm	0.373220	0.15	528666.000000	Y_R 377.433
As (188.980 nm)	0.286741	ppm	0.000197	0.07	448.040000	Y 242.219
B (249.678 nm)	0.132136	ppm	0.001022	0.77	831.431000	Y 242.219
Ba (493.408 nm)	0.797801	ppm	0.000064	0.01	78913.700000	Y_R 488.368
Be (234.861 nm)	0.052709	ppm	0.000053	0.10	4168.450000	Y_R 488.368
Bi (223.061 nm)	0.003805	ppm	0.001501	39.44	40.630500	Y 377.433
Ca (315.887 nm)	27.117868	ppm	0.013369	0.05	21896.384894	Y_R 377.433
Cd (214.439 nm)	0.049521	ppm	0.000322	0.65	2089.360000	Y 377.433
Co (228.615 nm)	0.104243	ppm	0.000159	0.15	2583.170000	Y 242.219
Cr (205.560 nm)	0.358833	ppm	0.000994	0.28	2528.960000	Y 377.433
Cu (324.754 nm)	0.141233	ppm	0.000268	0.19	7025.770000	Y 377.433
Fe (238.204 nm)	262.910732 o	ppm	0.206216	0.08	648014.147828	Y_R 377.433
Fe H (259.940 nm)	267.243000	ppm	0.042543	0.02	373764.000000	Y_R 377.433
K (766.491 nm)	31.958000	ppm	0.121758	0.38	33700.800000	Y_R2 488.368
Li (670.783 nm)	0.247843	ppm	0.000606	0.24	1684.380000	Y_R2 488.368
Mg (279.078 nm)	45.018600	ppm	0.095494	0.21	159138.000000	Y 377.433
Mn (257.610 nm)	0.364078	ppm	0.000670	0.18	100682.000000	Y 377.433
Mo (202.032 nm)	0.050750	ppm	0.000078	0.15	669.168000	Y 377.433
Na (589.592 nm)	20.434600	ppm	0.024771	0.12	15410.700000	Y_R2 488.368
Na H (589.593 nm)	21.848325 u	ppm	0.117156	0.54	11193.627326	Y_R4
Ni (231.604 nm)	0.235811	ppm	0.000625	0.27	1306.690000	Y 377.433
P (213.618 nm)	3.008380	ppm	0.005935	0.20	4514.770000	Y 242.219
Pb (220.353 nm)	0.221663	ppm	0.001750	0.79	728.500000	Y 242.219
S (181.972 nm)	0.357320	ppm	0.002884	0.81	170.661688	Y 377.433
Sb (206.834 nm)	0.107392	ppm	0.005298	4.93	204.616000	Y 377.433
Se (196.026 nm)	0.202836	ppm	0.005293	2.61	267.673000	Y 242.219
Si (288.158 nm)	8.845300	ppm	0.059079	0.67	58854.400000	Y 377.433
Sn (189.925 nm)	0.108168	ppm	0.001627	1.50	190.905000	Y 377.433
Sr (421.552 nm)	0.346091	ppm	0.000492	0.14	50702.090187	Y_R 488.368
Th (288.505 nm)	0.284613	ppm	0.005536	1.95	442.342000	Y 377.433
Ti (336.122 nm)	0.598812	ppm	0.001834	0.31	77443.700000	Y 377.433
Tl (190.794 nm)	0.205435	ppm	0.000292	0.14	466.999000	Y 377.433
U (409.013 nm)	0.461577	ppm	0.003960	0.86	1574.540000	Y 377.433
V (292.401 nm)	0.493298	ppm	0.001098	0.22	25922.400000	Y 377.433
Zn (206.200 nm)	0.583412	ppm	0.001740	0.30	2939.850000	Y 377.433
Zr (343.823 nm)	0.141969	ppm	0.000176	0.12	8011.460000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114644	24959.636679	0.003662	0.33
Y 377.433	1.109448	716843.237262	0.004989	0.45
Y_R 377.433	1.152620	63452.200000	0.003110	0.27
Y_R 488.368	1.148920	55523.900000	0.001915	0.17
Y_R2 488.368	1.133985	105102.792628	0.000409	0.04
Y_R4	1.164480	49862.600000	0.001825	0.16

Sample Name: 280-123991-a-3-b

Date: 5/24/2019 2:30:43 AM Rack:Tube: 2:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000810 u	ppm	0.000047	5.81	-486.992000	Y 377.433
Al (394.401 nm)	324.835000 o	ppm	0.261234	0.08	3881130.000000	Y 377.433
Al H (396.152 nm)	319.492000	ppm	0.582455	0.18	658285.000000	Y_R 377.433
As (188.980 nm)	0.099963	ppm	0.000541	0.54	149.282000	Y 242.219
B (249.678 nm)	0.036669	ppm	0.000039	0.11	123.950000	Y 242.219
Ba (493.408 nm)	1.077310	ppm	0.001315	0.12	106018.000000	Y_R 488.368
Be (234.861 nm)	0.005373	ppm	0.000459	8.55	-777.999000	Y_R 488.368
Bi (223.061 nm)	0.001652	ppm	0.002096	> 100.00	42.891300	Y 377.433
Ca (315.887 nm)	5.394207	ppm	0.016778	0.31	4373.985229	Y_R 377.433
Cd (214.439 nm)	0.005225	ppm	0.000001	0.02	334.663000	Y 377.433
Co (228.615 nm)	0.060926	ppm	0.000683	1.12	1508.510000	Y 242.219
Cr (205.560 nm)	0.375034	ppm	0.001999	0.53	2642.320000	Y 377.433
Cu (324.754 nm)	0.113034	ppm	0.000146	0.13	5735.150000	Y 377.433
Fe (238.204 nm)	302.942461 o	ppm	1.272843	0.42	746682.653641	Y_R 377.433
Fe H (259.940 nm)	308.263000	ppm	1.108740	0.36	431119.000000	Y_R 377.433
K (766.491 nm)	12.271800	ppm	0.041033	0.33	14161.700000	Y_R2 488.368
Li (670.783 nm)	0.196556	ppm	0.000719	0.37	791.281000	Y_R2 488.368
Mg (279.078 nm)	26.684900	ppm	0.047531	0.18	94129.200000	Y 377.433
Mn (257.610 nm)	0.342697	ppm	0.000337	0.10	94768.000000	Y 377.433
Mo (202.032 nm)	0.003084	ppm	0.000183	5.93	62.628800	Y 377.433
Na (589.592 nm)	0.857024	ppm	0.001302	0.15	965.753000	Y_R2 488.368
Na H (589.593 nm)	2.073512 u	ppm	0.018575	0.90	1358.791700	Y_R4
Ni (231.604 nm)	0.202702	ppm	0.001377	0.68	1121.430000	Y 377.433
P (213.618 nm)	1.035150	ppm	0.004140	0.40	1537.250000	Y 242.219
Pb (220.353 nm)	0.142771	ppm	0.001593	1.12	445.193000	Y 242.219
S (181.972 nm)	0.545561	ppm	0.003795	0.70	254.130590	Y 377.433
Sb (206.834 nm)	0.007291	ppm	0.001757	24.10	32.354700	Y 377.433
Se (196.026 nm)	0.015099	ppm	0.002333	15.45	-48.608700	Y 242.219
Si (288.158 nm)	4.419420	ppm	0.034350	0.78	29659.900000	Y 377.433
Sn (189.925 nm)	0.017192	ppm	0.001173	6.83	32.223300	Y 377.433
Sr (421.552 nm)	0.313101	ppm	0.000317	0.10	45883.198152	Y_R 488.368
Th (288.505 nm)	0.093790	ppm	0.002141	2.28	94.579300	Y 377.433
Ti (336.122 nm)	0.518554	ppm	0.000637	0.12	66935.100000	Y 377.433
Tl (190.794 nm)	0.012218	ppm	0.000838	6.86	-3.137610	Y 377.433
U (409.013 nm)	-0.019706 u	ppm	0.010911	55.37	103.369000	Y 377.433
V (292.401 nm)	0.578971	ppm	0.000455	0.08	30475.800000	Y 377.433
Zn (206.200 nm)	0.468462	ppm	0.002864	0.61	2375.490000	Y 377.433
Zr (343.823 nm)	0.102920	ppm	0.000046	0.04	5759.880000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119908	25077.512922	0.001910	0.17
Y 377.433	1.109757	717042.908474	0.002823	0.25
Y_R 377.433	1.149780	63295.800000	0.011170	0.97
Y_R 488.368	1.144860	55327.600000	0.008737	0.76
Y_R2 488.368	1.134519	105152.251438	0.000878	0.08
Y_R4	1.162640	49783.500000	0.003938	0.34

Sample Name: 280-123991-a-4-b

Date: 5/24/2019 2:34:29 AM Rack:Tube: 2:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000623 u	ppm	0.000029	4.63	-452.965000	Y 377.433
Al (394.401 nm)	278.124000 o	ppm	0.289313	0.10	3323060.000000	Y 377.433
Al H (396.152 nm)	274.116000	ppm	0.208578	0.08	564787.000000	Y_R 377.433
As (188.980 nm)	0.089896	ppm	0.000306	0.34	133.820000	Y 242.219
B (249.678 nm)	0.035714	ppm	0.000671	1.88	128.835000	Y 242.219
Ba (493.408 nm)	0.933689	ppm	0.000124	0.01	92091.600000	Y_R 488.368
Be (234.861 nm)	0.005653	ppm	0.000056	1.00	-662.095000	Y_R 488.368
Bi (223.061 nm)	-0.002544 u	ppm	0.003351	> 100.00	29.679600	Y 377.433
Ca (315.887 nm)	9.473217	ppm	0.018381	0.19	7655.619650	Y_R 377.433
Cd (214.439 nm)	0.002330	ppm	0.000454	19.48	209.938000	Y 377.433
Co (228.615 nm)	0.063963	ppm	0.000116	0.18	1584.910000	Y 242.219
Cr (205.560 nm)	0.345565	ppm	0.004549	1.32	2434.750000	Y 377.433
Cu (324.754 nm)	0.092591	ppm	0.000289	0.31	4771.120000	Y 377.433
Fe (238.204 nm)	282.330641 o	ppm	0.393475	0.14	695879.513971	Y_R 377.433
Fe H (259.940 nm)	286.598000	ppm	0.389993	0.14	400826.000000	Y_R 377.433
K (766.491 nm)	12.657400	ppm	0.041547	0.33	14544.400000	Y_R2 488.368
Li (670.783 nm)	0.171035	ppm	0.003593	2.10	346.872000	Y_R2 488.368
Mg (279.078 nm)	25.782200	ppm	0.063046	0.24	90960.000000	Y 377.433
Mn (257.610 nm)	0.377349	ppm	0.000606	0.16	104353.000000	Y 377.433
Mo (202.032 nm)	0.003936	ppm	0.000332	8.43	73.468700	Y 377.433
Na (589.592 nm)	0.713844	ppm	0.012054	1.69	830.378000	Y_R2 488.368
Na H (589.593 nm)	1.684214 u	ppm	0.011368	0.67	1165.177695	Y_R4
Ni (231.604 nm)	0.208546	ppm	0.000809	0.39	1154.090000	Y 377.433
P (213.618 nm)	1.050400	ppm	0.007739	0.74	1565.110000	Y 242.219
Pb (220.353 nm)	0.121473	ppm	0.000282	0.23	380.078000	Y 242.219
S (181.972 nm)	0.371039	ppm	0.004987	1.34	176.029926	Y 377.433
Sb (206.834 nm)	0.007665	ppm	0.000836	10.91	30.891500	Y 377.433
Se (196.026 nm)	0.016749	ppm	0.006382	38.11	-40.258600	Y 242.219
Si (288.158 nm)	3.940350	ppm	0.002856	0.07	26499.800000	Y 377.433
Sn (189.925 nm)	0.015711	ppm	0.000183	1.17	29.639400	Y 377.433
Sr (421.552 nm)	0.341925	ppm	0.000180	0.05	50095.713034	Y_R 488.368
Th (288.505 nm)	0.076791	ppm	0.003245	4.23	75.042100	Y 377.433
Ti (336.122 nm)	0.546739	ppm	0.001228	0.22	70613.400000	Y 377.433
Tl (190.794 nm)	0.013098	ppm	0.000613	4.68	0.059029	Y 377.433
U (409.013 nm)	-0.028548 u	ppm	0.010766	37.71	61.110000	Y 377.433
V (292.401 nm)	0.508587	ppm	0.000452	0.09	26745.600000	Y 377.433
Zn (206.200 nm)	0.412194	ppm	0.001213	0.29	2093.120000	Y 377.433
Zr (343.823 nm)	0.097805	ppm	0.000109	0.11	5464.960000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131051	25327.013577	0.006589	0.58
Y 377.433	1.121674	724742.765795	0.006946	0.62
Y_R 377.433	1.163650	64059.300000	0.000055	0.00
Y_R 488.368	1.158040	55964.600000	0.001681	0.15
Y_R2 488.368	1.137352	105414.860849	0.004594	0.40
Y_R4	1.173300	50239.900000	0.009159	0.78

Sample Name: 280-123991-a-5-b

Date: 5/24/2019 2:38:14 AM Rack:Tube: 2:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.001122 u	ppm	0.000062	5.52	-492.753000	Y 377.433
Al (394.401 nm)	313.337000 o	ppm	0.363527	0.12	3743770.000000	Y 377.433
Al H (396.152 nm)	308.673000	ppm	0.280210	0.09	636001.000000	Y_R 377.433
As (188.980 nm)	0.109548	ppm	0.004237	3.87	162.876000	Y 242.219
B (249.678 nm)	0.073156	ppm	0.000364	0.50	351.473000	Y 242.219
Ba (493.408 nm)	0.921358	ppm	0.001744	0.19	90958.100000	Y_R 488.368
Be (234.861 nm)	0.005542	ppm	0.000002	0.04	-1014.750000	Y_R 488.368
Bi (223.061 nm)	0.008671	ppm	0.002582	29.77	69.451400	Y 377.433
Ca (315.887 nm)	10.127686	ppm	0.008834	0.09	8192.775650	Y_R 377.433
Cd (214.439 nm)	0.001845	ppm	0.000170	9.22	225.164000	Y 377.433
Co (228.615 nm)	0.066587	ppm	0.000451	0.68	1651.170000	Y 242.219
Cr (205.560 nm)	0.386692	ppm	0.002827	0.73	2725.220000	Y 377.433
Cu (324.754 nm)	0.112787	ppm	0.000417	0.37	5714.720000	Y 377.433
Fe (238.204 nm)	361.033014 o	ppm	1.022293	0.28	889861.782237	Y_R 377.433
Fe H (259.940 nm)	364.609000	ppm	0.666229	0.18	509904.000000	Y_R 377.433
K (766.491 nm)	12.822200	ppm	0.047789	0.37	14708.000000	Y_R2 488.368
Li (670.783 nm)	0.171403	ppm	0.002002	1.17	353.277000	Y_R2 488.368
Mg (279.078 nm)	27.194900	ppm	0.043611	0.16	95853.100000	Y 377.433
Mn (257.610 nm)	0.476352	ppm	0.000498	0.10	131737.000000	Y 377.433
Mo (202.032 nm)	0.003504	ppm	0.000454	12.95	67.972800	Y 377.433
Na (589.592 nm)	1.201560	ppm	0.015844	1.32	1188.990000	Y_R2 488.368
Na H (589.593 nm)	2.158208 u	ppm	0.051420	2.38	1400.914244	Y_R4
Ni (231.604 nm)	0.214046	ppm	0.000549	0.26	1184.820000	Y 377.433
P (213.618 nm)	1.112490	ppm	0.020793	1.87	1655.010000	Y 242.219
Pb (220.353 nm)	0.142587	ppm	0.002995	2.10	446.414000	Y 242.219
S (181.972 nm)	0.516813	ppm	0.002660	0.51	241.849152	Y 377.433
Sb (206.834 nm)	0.004642	ppm	0.000829	17.85	32.669500	Y 377.433
Se (196.026 nm)	0.014117	ppm	0.001183	8.38	-66.274900	Y 242.219
Si (288.158 nm)	4.025690	ppm	0.023502	0.58	27062.800000	Y 377.433
Sn (189.925 nm)	0.017455	ppm	0.000052	0.30	32.681300	Y 377.433
Sr (421.552 nm)	0.349262	ppm	0.000960	0.27	51180.259241	Y_R 488.368
Th (288.505 nm)	0.087852	ppm	0.004302	4.90	83.345000	Y 377.433
Ti (336.122 nm)	0.576389	ppm	0.000697	0.12	74470.800000	Y 377.433
Tl (190.794 nm)	0.014459	ppm	0.000984	6.81	-5.983090	Y 377.433
U (409.013 nm)	-0.021426 u	ppm	0.005484	25.60	139.555000	Y 377.433
V (292.401 nm)	0.565556	ppm	0.000593	0.10	29758.000000	Y 377.433
Zn (206.200 nm)	0.455556	ppm	0.001083	0.24	2320.450000	Y 377.433
Zr (343.823 nm)	0.105435	ppm	0.000039	0.04	5904.920000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113165	24926.511879	0.007407	0.67
Y 377.433	1.118700	722821.255060	0.007492	0.67
Y_R 377.433	1.161420	63936.800000	0.003202	0.28
Y_R 488.368	1.157170	55922.500000	0.003846	0.33
Y_R2 488.368	1.141384	105788.532763	0.006481	0.57
Y_R4	1.174240	50280.500000	0.001877	0.16

Sample Name: CCVH-5713036

Date: 5/24/2019 2:42:07 AM
Rack:Tube: S1:1

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004036	ppm	0.000537	13.32	-114.382000	Y 377.433
Al (394.401 nm)	49.527200 o	ppm	0.017536	0.04	590697.000000	Y 377.433
Al H (396.152 nm)	49.138100	ppm	0.102626	0.21	101036.000000	Y_R 377.433
As (188.980 nm)	0.003574	ppm	0.000036	1.01	2.980810	Y 242.219
B (249.678 nm)	-0.002577 u	ppm	0.000382	14.84	-9.888110	Y 242.219
Ba (493.408 nm)	0.000941	ppm	0.000230	24.41	1561.810000	Y_R 488.368
Be (234.861 nm)	0.001000	ppm	0.000034	3.41	-117.762000	Y_R 488.368
Bi (223.061 nm)	0.002493	ppm	0.001454	58.30	-0.981121	Y 377.433
Ca (315.887 nm)	-0.000940 u	ppm	0.007764	> 100.00	-50.303663	Y_R 377.433
Cd (214.439 nm)	0.001491	ppm	0.000141	9.43	73.479600	Y 377.433
Co (228.615 nm)	0.003500	ppm	0.000011	0.31	64.416500	Y 242.219
Cr (205.560 nm)	0.001723	ppm	0.000178	10.36	4.835590	Y 377.433
Cu (324.754 nm)	0.003210	ppm	0.000539	16.78	1483.270000	Y 377.433
Fe (238.204 nm)	49.039561 o	ppm	0.100535	0.21	120873.562797	Y_R 377.433
Fe H (259.940 nm)	49.235600	ppm	0.159992	0.32	68934.400000	Y_R 377.433
K (766.491 nm)	0.591116	ppm	0.080335	13.59	2568.290000	Y_R2 488.368
Li (670.783 nm)	0.006891	ppm	0.000469	6.81	-2511.470000	Y_R2 488.368
Mg (279.078 nm)	0.034591	ppm	0.000020	0.06	55.344900	Y 377.433
Mn (257.610 nm)	0.001054	ppm	0.000002	0.17	269.484000	Y 377.433
Mo (202.032 nm)	0.000482	ppm	0.000249	51.71	29.518200	Y 377.433
Na (589.592 nm)	236.653000 o	ppm	1.449960	0.61	175413.000000	Y_R2 488.368
Na H (589.593 nm)	250.621804	ppm	1.259438	0.50	124972.176971	Y_R4
Ni (231.604 nm)	0.003335	ppm	0.000149	4.47	7.272220	Y 377.433
P (213.618 nm)	4.874890	ppm	0.039159	0.80	7368.120000	Y 242.219
Pb (220.353 nm)	0.005693	ppm	0.001012	17.77	25.108500	Y 242.219
S (181.972 nm)	5.034669	ppm	0.001855	0.04	2269.403310	Y 377.433
Sb (206.834 nm)	0.004241	ppm	0.001812	42.72	4.276500	Y 377.433
Se (196.026 nm)	0.005627	ppm	0.000168	2.98	6.079410	Y 242.219
Si (288.158 nm)	0.015100	ppm	0.001128	7.47	607.649000	Y 377.433
Sn (189.925 nm)	-0.000287 u	ppm	0.000513	> 100.00	1.736090	Y 377.433
Sr (421.552 nm)	0.001022	ppm	0.000151	14.76	204.589651	Y_R 488.368
Th (288.505 nm)	4.909080	ppm	0.000485	0.01	8577.910000	Y 377.433
Ti (336.122 nm)	0.002174	ppm	0.000054	2.50	-222.876000	Y 377.433
Tl (190.794 nm)	-0.001041 u	ppm	0.000561	53.84	-7.377470	Y 377.433
U (409.013 nm)	0.545295 Q	ppm	0.011340	2.08	1702.200000 Q	Y 377.433
V (292.401 nm)	0.001356	ppm	0.000139	10.27	383.576000	Y 377.433
Zn (206.200 nm)	0.002823	ppm	0.000336	11.92	25.383600	Y 377.433
Zr (343.823 nm)	0.001590	ppm	0.000070	4.39	-82.865200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.089004	24385.477862	0.004792	0.44
Y 377.433	1.087509	702668.419479	0.005830	0.54
Y_R 377.433	1.116870	61484.100000	0.000246	0.02
Y_R 488.368	1.113290	53801.700000	0.000856	0.08
Y_R2 488.368	1.088922	100926.135684	0.005326	0.49
Y_R4	1.110530	47552.500000	0.007850	0.71

Sample Name: CCV-5717467

Date: 5/24/2019 2:45:50 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.486593	ppm	0.000010	0.00	16814.800000	Y 377.433
Al (394.401 nm)	0.503766	ppm	0.001763	0.35	6271.020000	Y 377.433
Al H (396.152 nm)	0.558659 u	ppm	0.002351	0.42	1156.130000	Y_R 377.433
As (188.980 nm)	0.488281	ppm	0.003075	0.63	776.643000	Y 242.219
B (249.678 nm)	0.478230	ppm	0.000363	0.08	3463.200000	Y 242.219
Ba (493.408 nm)	0.484522	ppm	0.002721	0.56	48366.700000	Y_R 488.368
Be (234.861 nm)	0.480031	ppm	0.000178	0.04	48384.200000	Y_R 488.368
Bi (223.061 nm)	0.951733	ppm	0.002495	0.26	2155.840000	Y 377.433
Ca (315.887 nm)	4.895769	ppm	0.009325	0.19	3890.705316	Y_R 377.433
Cd (214.439 nm)	0.493981	ppm	0.000488	0.10	19758.100000	Y 377.433
Co (228.615 nm)	0.488712	ppm	0.000770	0.16	12083.200000	Y 242.219
Cr (205.560 nm)	0.485630	ppm	0.002745	0.57	3431.710000	Y 377.433
Cu (324.754 nm)	0.482449	ppm	0.000515	0.11	22812.500000	Y 377.433
Fe (238.204 nm)	2.464679	ppm	0.009629	0.39	6077.770558	Y_R 377.433
Fe H (259.940 nm)	2.433180 u	ppm	0.010313	0.42	3492.940000	Y_R 377.433
K (766.491 nm)	48.337600	ppm	0.169612	0.35	49958.000000	Y_R2 488.368
Li (670.783 nm)	0.497587	ppm	0.006382	1.28	6033.320000	Y_R2 488.368
Mg (279.078 nm)	19.580700	ppm	0.027133	0.14	69385.800000	Y 377.433
Mn (257.610 nm)	0.489387	ppm	0.000343	0.07	135342.000000	Y 377.433
Mo (202.032 nm)	0.488143	ppm	0.000631	0.13	6234.820000	Y 377.433
Na (589.592 nm)	23.726000	ppm	0.034988	0.15	17784.500000	Y_R2 488.368
Na H (589.593 nm)	25.844772 u	ppm	0.203953	0.79	13181.226028	Y_R4
Ni (231.604 nm)	0.488473	ppm	0.001840	0.38	2719.060000	Y 377.433
P (213.618 nm)	0.051294	ppm	0.003740	7.29	-64.809500	Y 242.219
Pb (220.353 nm)	0.490008	ppm	0.000155	0.03	1693.920000	Y 242.219
S (181.972 nm)	0.015231	ppm	0.003582	23.52	16.323725	Y 377.433
Sb (206.834 nm)	0.491948	ppm	0.000334	0.07	858.216000	Y 377.433
Se (196.026 nm)	0.489403	ppm	0.002050	0.42	806.074000	Y 242.219
Si (288.158 nm)	4.767220	ppm	0.002350	0.05	31954.100000	Y 377.433
Sn (189.925 nm)	0.491315	ppm	0.003106	0.63	859.195000	Y 377.433
Sr (421.552 nm)	0.486950	ppm	0.002328	0.48	71264.519441	Y_R 488.368
Th (288.505 nm)	0.015080	ppm	0.002158	14.31	-8.753290	Y 377.433
Ti (336.122 nm)	0.484560	ppm	0.000314	0.06	62515.600000	Y 377.433
Tl (190.794 nm)	0.499028	ppm	0.003921	0.79	1205.650000	Y 377.433
U (409.013 nm)	0.018343	ppm	0.001110	6.05	-42.709300	Y 377.433
V (292.401 nm)	0.484029	ppm	0.000008	0.00	25344.800000	Y 377.433
Zn (206.200 nm)	0.494097	ppm	0.000303	0.06	2456.470000	Y 377.433
Zr (343.823 nm)	0.485164	ppm	0.000306	0.06	27800.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.109542	24845.375397	0.005810	0.52
Y 377.433	1.108511	716238.353299	0.005200	0.47
Y_R 377.433	1.123780	61864.300000	0.002143	0.19
Y_R 488.368	1.122540	54248.800000	0.003942	0.35
Y_R2 488.368	1.098274	101792.918556	0.005416	0.49
Y_R4	1.122800	48077.900000	0.010495	0.93

Sample Name: CCB

Date: 5/24/2019 2:49:27 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000213	ppm	0.000136	63.93	-238.224000	Y 377.433
Al (394.401 nm)	-0.000819 u	ppm	0.000293	35.73	117.232000	Y 377.433
Al H (396.152 nm)	0.123584 Zu	ppm	0.012427	10.06	29.137900 Z	Y_R 377.433
As (188.980 nm)	-0.001779 u	ppm	0.001521	85.51	-4.139930	Y 242.219
B (249.678 nm)	-0.003238 u	ppm	0.000571	17.62	13.875200	Y 242.219
Ba (493.408 nm)	-0.001625 u	ppm	0.000350	21.57	1275.230000	Y_R 488.368
Be (234.861 nm)	-0.000013 u	ppm	0.000011	81.06	-7.055520	Y_R 488.368
Bi (223.061 nm)	0.001459	ppm	0.001957	> 100.00	-12.187700	Y 377.433
Ca (315.887 nm)	0.011591	ppm	0.001162	10.02	-52.617456	Y_R 377.433
Cd (214.439 nm)	0.000081	ppm	0.000039	48.03	-4.551990	Y 377.433
Co (228.615 nm)	-0.000026 u	ppm	0.000095	> 100.00	-22.797400	Y 242.219
Cr (205.560 nm)	0.000242 u	ppm	0.000499	> 100.00	-4.257470	Y 377.433
Cu (324.754 nm)	-0.000253 u	ppm	0.000111	43.87	401.355000	Y 377.433
Fe (238.204 nm)	0.001313	ppm	0.000453	34.53	6.169720	Y_R 377.433
Fe H (259.940 nm)	-0.054601 u	ppm	0.001870	3.43	14.404200	Y_R 377.433
K (766.491 nm)	0.069164	ppm	0.031658	45.77	2050.240000	Y_R2 488.368
Li (670.783 nm)	0.009284	ppm	0.001870	20.14	-2469.790000	Y_R2 488.368
Mg (279.078 nm)	0.000857 u	ppm	0.002379	> 100.00	15.159500	Y 377.433
Mn (257.610 nm)	0.000080	ppm	0.000017	20.71	0.055420	Y 377.433
Mo (202.032 nm)	-0.000287 u	ppm	0.000111	38.64	19.734300	Y 377.433
Na (589.592 nm)	0.083642	ppm	0.038561	46.10	172.049000	Y_R2 488.368
Na H (589.593 nm)	0.391604 u	ppm	0.013914	3.55	522.309064	Y_R4
Ni (231.604 nm)	0.000455 u	ppm	0.001125	> 100.00	-8.822230	Y 377.433
P (213.618 nm)	-0.000846 u	ppm	0.000681	80.42	-5.792790	Y 242.219
Pb (220.353 nm)	-0.001958 u	ppm	0.000537	27.41	6.138610	Y 242.219
S (181.972 nm)	-0.003045 u	ppm	0.006268	> 100.00	6.387712	Y 377.433
Sb (206.834 nm)	0.004479	ppm	0.000953	21.27	0.365283	Y 377.433
Se (196.026 nm)	-0.001501 u	ppm	0.003105	> 100.00	8.136080	Y 242.219
Si (288.158 nm)	-0.005290 u	ppm	0.000031	0.59	473.146000	Y 377.433
Sn (189.925 nm)	0.000004 u	ppm	0.000195	> 100.00	2.242670	Y 377.433
Sr (421.552 nm)	0.000071	ppm	0.000064	90.73	58.245294	Y_R 488.368
Th (288.505 nm)	-0.001521 u	ppm	0.004522	> 100.00	11.783000	Y 377.433
Ti (336.122 nm)	0.000526	ppm	0.000174	33.11	-437.245000	Y 377.433
Tl (190.794 nm)	0.001636	ppm	0.000030	1.83	4.079360	Y 377.433
U (409.013 nm)	0.003812 u	ppm	0.007637	> 100.00	-29.828400	Y 377.433
V (292.401 nm)	0.000386	ppm	0.000130	33.58	-158.725000	Y 377.433
Zn (206.200 nm)	0.000000 u	ppm	0.000542	> 100.00	3.815150	Y 377.433
Zr (343.823 nm)	0.000324	ppm	0.000240	74.08	-155.820000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114527	24957.002549	0.003063	0.27
Y 377.433	1.109557	716914.033992	0.002819	0.25
Y_R 377.433	1.127920	62092.200000	0.002964	0.26
Y_R 488.368	1.124890	54362.700000	0.001732	0.15
Y_R2 488.368	1.102873	102219.194325	0.004174	0.38
Y_R4	1.114200	47709.600000	0.006871	0.62

Sample Name: CCVL-5717307

Date: 5/24/2019 2:52:39 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007732	ppm	0.000198	2.56	24.163800	Y 377.433
Al (394.401 nm)	0.096072	ppm	0.001688	1.76	1286.060000	Y 377.433
Al H (396.152 nm)	0.221656 u	ppm	0.007398	3.34	236.270000	Y_R 377.433
As (188.980 nm)	0.012513	ppm	0.000992	7.93	18.629800	Y 242.219
B (249.678 nm)	0.089381	ppm	0.000074	0.08	677.635000	Y 242.219
Ba (493.408 nm)	0.008036	ppm	0.000380	4.72	2211.050000	Y_R 488.368
Be (234.861 nm)	0.000949	ppm	0.000042	4.47	89.523000	Y_R 488.368
Bi (223.061 nm)	0.088570	ppm	0.001601	1.81	186.528000	Y 377.433
Ca (315.887 nm)	0.210367	ppm	0.008630	4.10	107.884053	Y_R 377.433
Cd (214.439 nm)	0.005167	ppm	0.000111	2.14	199.006000	Y 377.433
Co (228.615 nm)	0.010469	ppm	0.000319	3.05	237.105000	Y 242.219
Cr (205.560 nm)	0.010076	ppm	0.000433	4.30	65.255100	Y 377.433
Cu (324.754 nm)	0.014827	ppm	0.000120	0.81	1098.890000	Y 377.433
Fe (238.204 nm)	0.100454	ppm	0.000603	0.60	250.529217	Y_R 377.433
Fe H (259.940 nm)	0.048221 u	ppm	0.000438	0.91	158.175000	Y_R 377.433
K (766.491 nm)	2.937900	ppm	0.041887	1.43	4897.540000	Y_R2 488.368
Li (670.783 nm)	0.036124 Q	ppm	0.001585	4.39	-2002.420000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200576	ppm	0.000384	0.19	721.166000	Y 377.433
Mn (257.610 nm)	0.010471	ppm	0.000032	0.31	2874.350000	Y 377.433
Mo (202.032 nm)	0.018604	ppm	0.000243	1.31	260.119000	Y 377.433
Na (589.592 nm)	1.173180	ppm	0.015149	1.29	981.084000	Y_R2 488.368
Na H (589.593 nm)	1.275279 u	ppm	0.015391	1.21	961.797382	Y_R4
Ni (231.604 nm)	0.042445	ppm	0.000557	1.31	225.853000	Y 377.433
P (213.618 nm)	2.741570	ppm	0.006463	0.24	4140.040000	Y 242.219
Pb (220.353 nm)	0.007032	ppm	0.001507	21.44	37.161500	Y 242.219
S (181.972 nm)	0.090232	ppm	0.000527	0.58	48.326239	Y 377.433
Sb (206.834 nm)	0.025499	ppm	0.000754	2.96	37.326700	Y 377.433
Se (196.026 nm)	0.018485	ppm	0.001178	6.38	40.608900	Y 242.219
Si (288.158 nm)	0.465481	ppm	0.001715	0.37	3578.500000	Y 377.433
Sn (189.925 nm)	0.096327	ppm	0.001656	1.72	170.251000	Y 377.433
Sr (421.552 nm)	0.008910	ppm	0.000094	1.06	1351.066497	Y_R 488.368
Th (288.505 nm)	0.012465	ppm	0.001334	10.70	35.794000	Y 377.433
Ti (336.122 nm)	0.010034	ppm	0.000135	1.34	799.608000	Y 377.433
Tl (190.794 nm)	0.015408	ppm	0.000376	2.44	37.326300	Y 377.433
U (409.013 nm)	0.065346	ppm	0.001209	1.85	161.759000	Y 377.433
V (292.401 nm)	0.010102	ppm	0.000116	1.15	349.387000	Y 377.433
Zn (206.200 nm)	0.020285	ppm	0.000457	2.25	104.510000	Y 377.433
Zr (343.823 nm)	0.010171	ppm	0.000115	1.13	411.940000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.137304	25467.050837	0.000132	0.01
Y 377.433	1.132980	732048.225446	0.000933	0.08
Y_R 377.433	1.131190	62272.300000	0.003893	0.34
Y_R 488.368	1.129130	54567.400000	0.000248	0.02
Y_R2 488.368	1.124092	104185.865845	0.004059	0.36
Y_R4	1.133290	48526.700000	0.002133	0.19

Sample Name: 280-123991-a-6-b

Date: 5/24/2019 2:56:08 AM Rack:Tube: 2:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000159 u	ppm	0.000401	> 100.00	-421.267000	Y 377.433
Al (394.401 nm)	239.750000 o	ppm	0.050451	0.02	2864560.000000	Y 377.433
Al H (396.152 nm)	236.780000	ppm	0.634646	0.27	487832.000000	Y_R 377.433
As (188.980 nm)	0.097835	ppm	0.000999	1.02	145.826000	Y 242.219
B (249.678 nm)	0.060566	ppm	0.000651	1.08	293.899000	Y 242.219
Ba (493.408 nm)	2.354030	ppm	0.005282	0.22	229687.000000	Y_R 488.368
Be (234.861 nm)	0.005064	ppm	0.000253	5.00	-819.026000	Y_R 488.368
Bi (223.061 nm)	0.006829	ppm	0.001975	28.93	55.106400	Y 377.433
Ca (315.887 nm)	12.948418	ppm	0.008638	0.07	10451.824119	Y_R 377.433
Cd (214.439 nm)	0.009845	ppm	0.000085	0.87	520.526000	Y 377.433
Co (228.615 nm)	0.105544	ppm	0.000044	0.04	2613.390000	Y 242.219
Cr (205.560 nm)	0.320145	ppm	0.000513	0.16	2255.730000	Y 377.433
Cu (324.754 nm)	0.197300	ppm	0.000029	0.01	9637.430000	Y 377.433
Fe (238.204 nm)	304.415052 o	ppm	0.055114	0.02	750312.233719	Y_R 377.433
Fe H (259.940 nm)	309.519000	ppm	0.686660	0.22	432875.000000	Y_R 377.433
K (766.491 nm)	10.617500	ppm	0.009520	0.09	12519.800000	Y_R2 488.368
Li (670.783 nm)	0.138209	ppm	0.001022	0.74	-224.742000	Y_R2 488.368
Mg (279.078 nm)	23.082400	ppm	0.004186	0.02	81362.000000	Y 377.433
Mn (257.610 nm)	10.120100	ppm	0.012438	0.12	2799190.000000	Y 377.433
Mo (202.032 nm)	0.004814	ppm	0.000473	9.81	84.650300	Y 377.433
Na (589.592 nm)	-0.053111 u	ppm	0.013901	26.17	553.117000	Y_R2 488.368
Na H (589.593 nm)	2.331192 u	ppm	0.008992	0.39	1486.946619	Y_R4
Ni (231.604 nm)	0.174145	ppm	0.000929	0.53	961.856000	Y 377.433
P (213.618 nm)	1.066380	ppm	0.004719	0.44	1563.660000	Y 242.219
Pb (220.353 nm)	0.361783	ppm	0.000812	0.22	1212.640000	Y 242.219
S (181.972 nm)	0.501178	ppm	0.001177	0.23	264.544399	Y 377.433
Sb (206.834 nm)	0.009872	ppm	0.002218	22.47	36.501800	Y 377.433
Se (196.026 nm)	0.012486	ppm	0.003660	29.31	-39.017600	Y 242.219
Si (288.158 nm)	4.083900	ppm	0.044983	1.10	27446.700000	Y 377.433
Sn (189.925 nm)	0.014655	ppm	0.001090	7.44	27.797200	Y 377.433
Sr (421.552 nm)	0.313004	ppm	0.000117	0.04	45869.302826	Y_R 488.368
Th (288.505 nm)	0.026696	ppm	0.000624	2.34	178.749000	Y 377.433
Ti (336.122 nm)	0.559280	ppm	0.000464	0.08	72255.500000	Y 377.433
Tl (190.794 nm)	0.012637	ppm	0.002144	16.97	-4.969650	Y 377.433
U (409.013 nm)	-0.026294 u	ppm	0.011156	42.43	84.042000	Y 377.433
V (292.401 nm)	0.497185	ppm	0.000255	0.05	26158.300000	Y 377.433
Zn (206.200 nm)	0.528861	ppm	0.001017	0.19	2675.620000	Y 377.433
Zr (343.823 nm)	0.097159	ppm	0.000018	0.02	5427.730000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125203	25196.080334	0.000863	0.08
Y 377.433	1.119176	723129.124810	0.002108	0.19
Y_R 377.433	1.146240	63100.800000	0.001427	0.12
Y_R 488.368	1.144850	55327.100000	0.002774	0.24
Y_R2 488.368	1.124171	104193.204457	0.008854	0.79
Y_R4	1.159320	49641.600000	0.000283	0.02

Sample Name: 280-123991-a-7-b

Date: 5/24/2019 2:59:55 AM Rack:Tube: 2:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.001470 u	ppm	0.000024	1.64	-556.639000	Y 377.433
Al (394.401 nm)	353.190000 o	ppm	0.457389	0.13	4219910.000000	Y 377.433
Al H (396.152 nm)	349.974000	ppm	0.116578	0.03	721107.000000	Y_R 377.433
As (188.980 nm)	0.121843	ppm	0.000912	0.75	182.491000	Y 242.219
B (249.678 nm)	0.044583	ppm	0.000440	0.99	147.197000	Y 242.219
Ba (493.408 nm)	1.112260	ppm	0.001736	0.16	109449.000000	Y_R 488.368
Be (234.861 nm)	0.005579	ppm	0.000097	1.74	-1007.220000	Y_R 488.368
Bi (223.061 nm)	0.002015 u	ppm	0.002919	> 100.00	54.111900	Y 377.433
Ca (315.887 nm)	6.776335	ppm	0.004113	0.06	5497.578962	Y_R 377.433
Cd (214.439 nm)	0.006751	ppm	0.000018	0.27	421.110000	Y 377.433
Co (228.615 nm)	0.072638	ppm	0.000528	0.73	1799.640000	Y 242.219
Cr (205.560 nm)	0.435225	ppm	0.003112	0.72	3068.000000	Y 377.433
Cu (324.754 nm)	0.112491	ppm	0.000401	0.36	5711.330000	Y 377.433
Fe (238.204 nm)	359.683255 o	ppm	1.052619	0.29	886534.952824	Y_R 377.433
Fe H (259.940 nm)	362.997000	ppm	0.335680	0.09	507651.000000	Y_R 377.433
K (766.491 nm)	13.269500	ppm	0.040970	0.31	15152.000000	Y_R2 488.368
Li (670.783 nm)	0.258248	ppm	0.003446	1.33	1865.570000	Y_R2 488.368
Mg (279.078 nm)	25.904200	ppm	0.011442	0.04	91280.900000	Y 377.433
Mn (257.610 nm)	0.432999	ppm	0.000322	0.07	119745.000000	Y 377.433
Mo (202.032 nm)	0.005339	ppm	0.000009	0.16	91.321800	Y 377.433
Na (589.592 nm)	0.373204	ppm	0.015588	4.18	614.527000	Y_R2 488.368
Na H (589.593 nm)	1.531816 u	ppm	0.004083	0.27	1089.383638	Y_R4
Ni (231.604 nm)	0.204713	ppm	0.000420	0.21	1132.660000	Y 377.433
P (213.618 nm)	1.242260	ppm	0.006082	0.49	1851.320000	Y 242.219
Pb (220.353 nm)	0.141242	ppm	0.000908	0.64	434.360000	Y 242.219
S (181.972 nm)	0.654036	ppm	0.007135	1.09	303.204591	Y 377.433
Sb (206.834 nm)	0.004088	ppm	0.002634	64.45	32.040400	Y 377.433
Se (196.026 nm)	0.014401	ppm	0.005821	40.42	-65.632700	Y 242.219
Si (288.158 nm)	4.270620	ppm	0.020578	0.48	28678.400000	Y 377.433
Sn (189.925 nm)	0.019192	ppm	0.001161	6.05	35.711100	Y 377.433
Sr (421.552 nm)	0.330142	ppm	0.000978	0.30	48383.797658	Y_R 488.368
Th (288.505 nm)	0.080088	ppm	0.005085	6.35	53.518800	Y 377.433
Ti (336.122 nm)	0.552199	ppm	0.000095	0.02	71314.400000	Y 377.433
Tl (190.794 nm)	0.015642	ppm	0.000924	5.91	-1.606330	Y 377.433
U (409.013 nm)	-0.014186 u	ppm	0.000036	0.25	159.688000	Y 377.433
V (292.401 nm)	0.704528	ppm	0.000071	0.01	37124.900000	Y 377.433
Zn (206.200 nm)	0.419574	ppm	0.000485	0.12	2141.730000	Y 377.433
Zr (343.823 nm)	0.124043	ppm	0.000047	0.04	6977.840000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108463	24821.224320	0.003451	0.31
Y 377.433	1.112489	718808.577701	0.001796	0.16
Y_R 377.433	1.156930	63689.500000	0.000978	0.08
Y_R 488.368	1.152660	55704.400000	0.005637	0.49
Y_R2 488.368	1.127412	104493.545508	0.003055	0.27
Y_R4	1.173360	50242.600000	0.004876	0.42

Sample Name: 280-123991-a-8-b

Date: 5/24/2019 3:03:46 AM Rack:Tube: 2:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000988 u	ppm	0.000005	0.50	-492.821000	Y 377.433
Al (394.401 nm)	284.381000 o	ppm	0.711857	0.25	3397810.000000	Y 377.433
Al H (396.152 nm)	279.270000	ppm	0.362289	0.13	575385.000000	Y_R 377.433
As (188.980 nm)	0.108911	ppm	0.001010	0.93	163.032000	Y 242.219
B (249.678 nm)	0.044934	ppm	0.000218	0.49	172.906000	Y 242.219
Ba (493.408 nm)	0.838095	ppm	0.000812	0.10	82861.400000	Y_R 488.368
Be (234.861 nm)	0.004483	ppm	0.000118	2.62	-944.461000	Y_R 488.368
Bi (223.061 nm)	-0.002016 u	ppm	0.002219	> 100.00	37.715400	Y 377.433
Ca (315.887 nm)	6.012787	ppm	0.012393	0.21	4863.194031	Y_R 377.433
Cd (214.439 nm)	0.001984	ppm	0.000152	7.65	212.786000	Y 377.433
Co (228.615 nm)	0.054134	ppm	0.000506	0.93	1340.280000	Y 242.219
Cr (205.560 nm)	0.361295	ppm	0.000547	0.15	2546.180000	Y 377.433
Cu (324.754 nm)	0.095225	ppm	0.001050	1.10	4894.980000	Y 377.433
Fe (238.204 nm)	320.324454 o	ppm	0.318222	0.10	789525.051103	Y_R 377.433
Fe H (259.940 nm)	324.073000	ppm	1.425300	0.44	453225.000000	Y_R 377.433
K (766.491 nm)	11.458600	ppm	0.072519	0.63	13354.600000	Y_R2 488.368
Li (670.783 nm)	0.219546	ppm	0.003223	1.47	1191.620000	Y_R2 488.368
Mg (279.078 nm)	21.710500	ppm	0.080516	0.37	76479.000000	Y 377.433
Mn (257.610 nm)	0.336806	ppm	0.001081	0.32	93138.600000	Y 377.433
Mo (202.032 nm)	0.004286	ppm	0.000720	16.79	77.927800	Y 377.433
Na (589.592 nm)	0.861494	ppm	0.044386	5.15	920.035000	Y_R2 488.368
Na H (589.593 nm)	1.719123 u	ppm	0.030208	1.76	1182.539219	Y_R4
Ni (231.604 nm)	0.158864	ppm	0.002153	1.36	876.444000	Y 377.433
P (213.618 nm)	0.962421	ppm	0.017855	1.86	1431.800000	Y 242.219
Pb (220.353 nm)	0.128516	ppm	0.001040	0.81	403.434000	Y 242.219
S (181.972 nm)	0.437353	ppm	0.017969	4.11	205.535685	Y 377.433
Sb (206.834 nm)	0.002488 u	ppm	0.003757	> 100.00	25.319000	Y 377.433
Se (196.026 nm)	0.015629	ppm	0.007586	48.54	-52.676500	Y 242.219
Si (288.158 nm)	3.983700	ppm	0.018743	0.47	26785.800000	Y 377.433
Sn (189.925 nm)	0.014269	ppm	0.001658	11.62	27.124100	Y 377.433
Sr (421.552 nm)	0.285885	ppm	0.000082	0.03	41905.410683	Y_R 488.368
Th (288.505 nm)	0.075480	ppm	0.005558	7.36	60.521300	Y 377.433
Ti (336.122 nm)	0.513646	ppm	0.001047	0.20	66298.600000	Y 377.433
Tl (190.794 nm)	0.015464	ppm	0.000165	1.07	1.321950	Y 377.433
U (409.013 nm)	-0.014428 u	ppm	0.008672	60.10	131.195000	Y 377.433
V (292.401 nm)	0.583261	ppm	0.002479	0.43	30706.700000	Y 377.433
Zn (206.200 nm)	0.329991	ppm	0.002986	0.90	1690.970000	Y 377.433
Zr (343.823 nm)	0.114832	ppm	0.000117	0.10	6446.730000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124554	25181.536429	0.005412	0.48
Y 377.433	1.114190	719907.596371	0.007561	0.68
Y_R 377.433	1.152360	63438.100000	0.004909	0.43
Y_R 488.368	1.146200	55392.200000	0.004597	0.40
Y_R2 488.368	1.124766	104248.335554	0.003890	0.35
Y_R4	1.165960	49925.900000	0.004044	0.35

Sample Name: 280-123991-a-9-b

Date: 5/24/2019 3:07:36 AM Rack:Tube: 2:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000595 u	ppm	0.000060	10.09	-456.911000	Y 377.433
Al (394.401 nm)	242.133000 o	ppm	0.386680	0.16	2893040.000000	Y 377.433
Al H (396.152 nm)	239.013000	ppm	0.633138	0.26	492413.000000	Y_R 377.433
As (188.980 nm)	0.091595	ppm	0.000056	0.06	137.092000	Y 242.219
B (249.678 nm)	0.033821	ppm	0.000281	0.83	126.694000	Y 242.219
Ba (493.408 nm)	0.949881	ppm	0.001392	0.15	93644.600000	Y_R 488.368
Be (234.861 nm)	0.006014	ppm	0.000070	1.16	-540.433000	Y_R 488.368
Bi (223.061 nm)	0.000504 u	ppm	0.001142	> 100.00	33.083200	Y 377.433
Ca (315.887 nm)	7.150641	ppm	0.004406	0.06	5771.612134	Y_R 377.433
Cd (214.439 nm)	0.002088	ppm	0.000111	5.32	191.601000	Y 377.433
Co (228.615 nm)	0.060427	ppm	0.000131	0.22	1499.450000	Y 242.219
Cr (205.560 nm)	0.334219	ppm	0.004481	1.34	2355.420000	Y 377.433
Cu (324.754 nm)	0.099945	ppm	0.000175	0.17	5107.380000	Y 377.433
Fe (238.204 nm)	262.370448 o	ppm	0.088822	0.03	646682.477523	Y_R 377.433
Fe H (259.940 nm)	266.373000	ppm	0.513132	0.19	372547.000000	Y_R 377.433
K (766.491 nm)	10.715000	ppm	0.049280	0.46	12616.600000	Y_R2 488.368
Li (670.783 nm)	0.196990	ppm	0.002421	1.23	798.845000	Y_R2 488.368
Mg (279.078 nm)	19.381800	ppm	0.008571	0.04	68310.200000	Y 377.433
Mn (257.610 nm)	0.879829	ppm	0.001426	0.16	243339.000000	Y 377.433
Mo (202.032 nm)	0.003463	ppm	0.000193	5.57	67.457900	Y 377.433
Na (589.592 nm)	0.358825	ppm	0.008083	2.25	570.569000	Y_R2 488.368
Na H (589.593 nm)	1.251220 u	ppm	0.007719	0.62	949.831584	Y_R4
Ni (231.604 nm)	0.174030	ppm	0.001471	0.85	961.195000	Y 377.433
P (213.618 nm)	1.309440	ppm	0.001642	0.13	1955.200000	Y 242.219
Pb (220.353 nm)	0.122522	ppm	0.002900	2.37	389.898000	Y 242.219
S (181.972 nm)	0.523221	ppm	0.008747	1.67	245.827007	Y 377.433
Sb (206.834 nm)	0.008479	ppm	0.000456	5.38	30.297200	Y 377.433
Se (196.026 nm)	0.013664	ppm	0.001280	9.37	-39.059800	Y 242.219
Si (288.158 nm)	4.316910	ppm	0.035697	0.83	28983.800000	Y 377.433
Sn (189.925 nm)	0.014072	ppm	0.002521	17.91	26.780900	Y 377.433
Sr (421.552 nm)	0.248649	ppm	0.000551	0.22	36451.309667	Y_R 488.368
Th (288.505 nm)	0.074408	ppm	0.000125	0.17	80.887300	Y 377.433
Ti (336.122 nm)	0.590244	ppm	0.001770	0.30	76261.600000	Y 377.433
Tl (190.794 nm)	0.010562	ppm	0.002029	19.21	-4.655060	Y 377.433
U (409.013 nm)	-0.041490 u	ppm	0.000302	0.73	6.264450	Y 377.433
V (292.401 nm)	0.522209	ppm	0.000556	0.11	27477.100000	Y 377.433
Zn (206.200 nm)	0.388319	ppm	0.001502	0.39	1971.600000	Y 377.433
Zr (343.823 nm)	0.100185	ppm	0.000226	0.23	5602.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136930	25458.670207	0.002665	0.23
Y 377.433	1.128806	729351.236489	0.000758	0.07
Y_R 377.433	1.159240	63816.800000	0.001137	0.10
Y_R 488.368	1.156250	55878.300000	0.001821	0.16
Y_R2 488.368	1.141141	105766.065119	0.003762	0.33
Y_R4	1.166480	49948.200000	0.010291	0.88

Sample Name: 280-123991-a-10-b

Date: 5/24/2019 3:11:23 AM Rack:Tube: 2:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000775 u	ppm	0.000112	14.51	-391.937000	Y 377.433
Al (394.401 nm)	107.143000 o	ppm	0.065164	0.06	1280250.000000	Y 377.433
Al H (396.152 nm)	106.977000	ppm	0.159053	0.15	220294.000000	Y_R 377.433
As (188.980 nm)	0.065312	ppm	0.000392	0.60	95.495600	Y 242.219
B (249.678 nm)	0.026631	ppm	0.001450	5.45	80.871600	Y 242.219
Ba (493.408 nm)	1.050110	ppm	0.004242	0.40	103346.000000	Y_R 488.368
Be (234.861 nm)	0.004192	ppm	0.000105	2.50	-681.514000	Y_R 488.368
Bi (223.061 nm)	0.000588 u	ppm	0.004028	> 100.00	31.491300	Y 377.433
Ca (315.887 nm)	5.436896	ppm	0.045006	0.83	4354.554332	Y_R 377.433
Cd (214.439 nm)	0.013102	ppm	0.000009	0.07	627.942000	Y 377.433
Co (228.615 nm)	0.072218	ppm	0.000632	0.88	1784.260000	Y 242.219
Cr (205.560 nm)	0.255948	ppm	0.000315	0.12	1804.600000	Y 377.433
Cu (324.754 nm)	0.325721	ppm	0.000032	0.01	15561.700000	Y 377.433
Fe (238.204 nm)	252.894057 o	ppm	1.452033	0.57	623325.471133	Y_R 377.433
Fe H (259.940 nm)	256.404000	ppm	0.849916	0.33	358607.000000	Y_R 377.433
K (766.491 nm)	5.721530	ppm	0.017144	0.30	7660.370000	Y_R2 488.368
Li (670.783 nm)	0.087405	ppm	0.001051	1.20	-1109.430000	Y_R2 488.368
Mg (279.078 nm)	9.093230	ppm	0.014669	0.16	31870.000000	Y 377.433
Mn (257.610 nm)	3.304250	ppm	0.001607	0.05	913934.000000	Y 377.433
Mo (202.032 nm)	0.002685	ppm	0.000391	14.55	57.550100	Y 377.433
Na (589.592 nm)	-0.255369 u	ppm	0.053189	20.83	136.562000	Y_R2 488.368
Na H (589.593 nm)	0.758919 u	ppm	0.011600	1.53	704.990023	Y_R4
Ni (231.604 nm)	0.109051	ppm	0.001435	1.32	598.061000	Y 377.433
P (213.618 nm)	1.398260	ppm	0.003433	0.25	2034.020000	Y 242.219
Pb (220.353 nm)	0.228607	ppm	0.001365	0.60	778.449000	Y 242.219
S (181.972 nm)	0.787583	ppm	0.009425	1.20	371.934670	Y 377.433
Sb (206.834 nm)	0.010742	ppm	0.002834	26.39	33.565600	Y 377.433
Se (196.026 nm)	0.009973	ppm	0.000658	6.60	-38.736300	Y 242.219
Si (288.158 nm)	3.471800	ppm	0.018506	0.53	23409.100000	Y 377.433
Sn (189.925 nm)	0.013538	ppm	0.001154	8.52	25.849300	Y 377.433
Sr (421.552 nm)	0.191350	ppm	0.000360	0.19	28069.843996	Y_R 488.368
Th (288.505 nm)	0.028464	ppm	0.002340	8.22	72.475300	Y 377.433
Ti (336.122 nm)	0.449546	ppm	0.000512	0.11	57961.900000	Y 377.433
Tl (190.794 nm)	0.010967	ppm	0.001588	14.48	-5.130380	Y 377.433
U (409.013 nm)	-0.042104 u	ppm	0.001082	2.57	3.745660	Y 377.433
V (292.401 nm)	0.317023	ppm	0.000110	0.03	16594.600000	Y 377.433
Zn (206.200 nm)	0.566337	ppm	0.000156	0.03	2853.620000	Y 377.433
Zr (343.823 nm)	0.048522	ppm	0.000008	0.02	2623.290000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.133070	25372.241050	0.003681	0.32
Y 377.433	1.131474	731074.773853	0.003886	0.34
Y_R 377.433	1.158110	63754.700000	0.000724	0.06
Y_R 488.368	1.154210	55779.300000	0.000045	0.00
Y_R2 488.368	1.135231	105218.285868	0.003730	0.33
Y_R4	1.161680	49742.400000	0.000853	0.07

Sample Name: 280-123991-a-11-b

Date: 5/24/2019 3:15:11 AM Rack:Tube: 2:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000658 u	ppm	0.000404	61.35	-427.142000	Y 377.433
Al (394.401 nm)	221.383000 o	ppm	0.032239	0.01	2645150.000000	Y 377.433
Al H (396.152 nm)	217.858000	ppm	0.040258	0.02	448823.000000	Y_R 377.433
As (188.980 nm)	0.077050	ppm	0.001373	1.78	112.923000	Y 242.219
B (249.678 nm)	0.037401	ppm	0.000118	0.31	132.229000	Y 242.219
Ba (493.408 nm)	1.020540	ppm	0.003361	0.33	100516.000000	Y_R 488.368
Be (234.861 nm)	0.004637	ppm	0.000268	5.79	-829.614000	Y_R 488.368
Bi (223.061 nm)	-0.001083 u	ppm	0.001075	99.32	35.708800	Y 377.433
Ca (315.887 nm)	6.537079	ppm	0.022234	0.34	5270.896646	Y_R 377.433
Cd (214.439 nm)	0.007563	ppm	0.000046	0.60	425.902000	Y 377.433
Co (228.615 nm)	0.051636	ppm	0.000055	0.11	1277.710000	Y 242.219
Cr (205.560 nm)	0.284321	ppm	0.000257	0.09	2002.420000	Y 377.433
Cu (324.754 nm)	0.117436	ppm	0.000152	0.13	5911.220000	Y 377.433
Fe (238.204 nm)	296.858116 o	ppm	0.958691	0.32	731686.217072	Y_R 377.433
Fe H (259.940 nm)	302.114000	ppm	0.852542	0.28	422522.000000	Y_R 377.433
K (766.491 nm)	9.752520	ppm	0.099149	1.02	11661.300000	Y_R2 488.368
Li (670.783 nm)	0.174762	ppm	0.003241	1.85	411.780000	Y_R2 488.368
Mg (279.078 nm)	18.448700	ppm	0.025353	0.14	64954.500000	Y 377.433
Mn (257.610 nm)	0.769398	ppm	0.000608	0.08	212793.000000	Y 377.433
Mo (202.032 nm)	0.003446	ppm	0.000098	2.84	67.233100	Y 377.433
Na (589.592 nm)	0.373137	ppm	0.016469	4.41	595.795000	Y_R2 488.368
Na H (589.593 nm)	1.330742 u	ppm	0.044625	3.35	989.381069	Y_R4
Ni (231.604 nm)	0.160049	ppm	0.000527	0.33	883.063000	Y 377.433
P (213.618 nm)	1.017680	ppm	0.014055	1.38	1509.770000	Y 242.219
Pb (220.353 nm)	0.112092	ppm	0.000077	0.07	358.110000	Y 242.219
S (181.972 nm)	0.581193	ppm	0.002896	0.50	271.499613	Y 377.433
Sb (206.834 nm)	0.004106	ppm	0.001284	31.29	25.682400	Y 377.433
Se (196.026 nm)	0.014811	ppm	0.004014	27.10	-46.993300	Y 242.219
Si (288.158 nm)	3.553720	ppm	0.044430	1.25	23949.500000	Y 377.433
Sn (189.925 nm)	0.013973	ppm	0.000649	4.64	26.607400	Y 377.433
Sr (421.552 nm)	0.265639	ppm	0.000539	0.20	38941.138504	Y_R 488.368
Th (288.505 nm)	0.059621	ppm	0.000115	0.19	59.339300	Y 377.433
Ti (336.122 nm)	0.495554	ppm	0.000261	0.05	63948.100000	Y 377.433
Tl (190.794 nm)	0.013186	ppm	0.000983	7.45	-2.854370	Y 377.433
U (409.013 nm)	-0.016447 u	ppm	0.007616	46.31	110.253000	Y 377.433
V (292.401 nm)	0.440118	ppm	0.000368	0.08	23126.300000	Y 377.433
Zn (206.200 nm)	0.444563	ppm	0.002494	0.56	2256.080000	Y 377.433
Zr (343.823 nm)	0.097626	ppm	0.000402	0.41	5454.650000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123176	25150.679465	0.001715	0.15
Y 377.433	1.115399	720688.520311	0.002398	0.21
Y_R 377.433	1.153140	63480.600000	0.000828	0.07
Y_R 488.368	1.147260	55443.700000	0.000666	0.06
Y_R2 488.368	1.127414	104493.755632	0.004646	0.41
Y_R4	1.168420	50031.300000	0.000704	0.06

Sample Name: 280-123991-a-12-b

Date: 5/24/2019 3:19:01 AM
Rack:Tube: 2:47

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000604 u	ppm	0.000459	76.10	-414.974000	Y 377.433
Al (394.401 nm)	193.635000 o	ppm	0.245735	0.13	2313630.000000	Y 377.433
Al H (396.152 nm)	192.253000	ppm	0.045661	0.02	396060.000000	Y_R 377.433
As (188.980 nm)	0.069203	ppm	0.001955	2.82	101.679000	Y 242.219
B (249.678 nm)	0.033153	ppm	0.001251	3.77	127.297000	Y 242.219
Ba (493.408 nm)	0.926146	ppm	0.000858	0.09	91338.500000	Y_R 488.368
Be (234.861 nm)	0.003889	ppm	0.000080	2.05	-714.394000	Y_R 488.368
Bi (223.061 nm)	-0.001530 u	ppm	0.000636	41.57	26.763200	Y 377.433
Ca (315.887 nm)	5.612579	ppm	0.004109	0.07	4518.026408	Y_R 377.433
Cd (214.439 nm)	0.004876	ppm	0.000065	1.33	299.033000	Y 377.433
Co (228.615 nm)	0.043582	ppm	0.000027	0.06	1082.600000	Y 242.219
Cr (205.560 nm)	0.256740	ppm	0.001631	0.64	1807.770000	Y 377.433
Cu (324.754 nm)	0.184093	ppm	0.000001	0.00	9001.750000	Y 377.433
Fe (238.204 nm)	253.102666 o	ppm	0.032368	0.01	623839.641877	Y_R 377.433
Fe H (259.940 nm)	256.812000	ppm	0.096608	0.04	359178.000000	Y_R 377.433
K (766.491 nm)	8.530450	ppm	0.049934	0.59	10448.300000	Y_R2 488.368
Li (670.783 nm)	0.160921	ppm	0.000342	0.21	170.747000	Y_R2 488.368
Mg (279.078 nm)	15.112600	ppm	0.002706	0.02	53196.900000	Y 377.433
Mn (257.610 nm)	0.696133	ppm	0.000129	0.02	192528.000000	Y 377.433
Mo (202.032 nm)	0.003029	ppm	0.000251	8.30	61.936600	Y 377.433
Na (589.592 nm)	0.369359	ppm	0.011400	3.09	573.674000	Y_R2 488.368
Na H (589.593 nm)	1.151132 u	ppm	0.005654	0.49	900.053494	Y_R4
Ni (231.604 nm)	0.122694	ppm	0.000325	0.26	674.304000	Y 377.433
P (213.618 nm)	0.962691	ppm	0.006531	0.68	1409.690000	Y 242.219
Pb (220.353 nm)	0.095034	ppm	0.002332	2.45	303.933000	Y 242.219
S (181.972 nm)	0.474458	ppm	0.012277	2.59	223.283041	Y 377.433
Sb (206.834 nm)	0.004419	ppm	0.000512	11.59	21.749900	Y 377.433
Se (196.026 nm)	0.013239	ppm	0.007510	56.73	-37.440900	Y 242.219
Si (288.158 nm)	3.676810	ppm	0.037645	1.02	24761.400000	Y 377.433
Sn (189.925 nm)	0.013380	ppm	0.001766	13.20	25.574000	Y 377.433
Sr (421.552 nm)	0.272333	ppm	0.000196	0.07	39913.666827	Y_R 488.368
Th (288.505 nm)	0.063330	ppm	0.006222	9.82	70.758800	Y 377.433
Ti (336.122 nm)	0.583278	ppm	0.000622	0.11	75350.200000	Y 377.433
Tl (190.794 nm)	0.008960	ppm	0.001125	12.55	-8.587250	Y 377.433
U (409.013 nm)	-0.025686 u	ppm	0.004142	16.13	49.546000	Y 377.433
V (292.401 nm)	0.415747	ppm	0.000140	0.03	21845.500000	Y 377.433
Zn (206.200 nm)	0.457246	ppm	0.000159	0.03	2312.260000	Y 377.433
Zr (343.823 nm)	0.097399	ppm	0.000335	0.34	5441.530000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130063	25304.902559	0.001207	0.11
Y 377.433	1.122713	725414.130981	0.000296	0.03
Y_R 377.433	1.151520	63391.500000	0.009649	0.84
Y_R 488.368	1.148500	55503.500000	0.009256	0.81
Y_R2 488.368	1.118955	103709.771986	0.001512	0.14
Y_R4	1.166780	49961.100000	0.006424	0.55

Sample Name: 280-123991-a-13-b

Date: 5/24/2019 3:22:49 AM
Rack:Tube: 2:48

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000505 u	ppm	0.000082	16.17	-479.441000	Y 377.433
Al (394.401 nm)	207.859000 o	ppm	0.498419	0.24	2483550.000000	Y 377.433
Al H (396.152 nm)	205.001000	ppm	0.511656	0.25	422301.000000	Y_R 377.433
As (188.980 nm)	0.108506	ppm	0.002448	2.26	161.872000	Y 242.219
B (249.678 nm)	0.034185	ppm	0.000178	0.52	85.439600	Y 242.219
Ba (493.408 nm)	0.830774	ppm	0.001387	0.17	82166.200000	Y_R 488.368
Be (234.861 nm)	0.003753	ppm	0.000330	8.79	-1095.980000	Y_R 488.368
Bi (223.061 nm)	0.005234	ppm	0.000022	0.41	57.481300	Y 377.433
Ca (315.887 nm)	4.635799	ppm	0.012801	0.28	3732.664157	Y_R 377.433
Cd (214.439 nm)	0.004599	ppm	0.000077	1.67	325.317000	Y 377.433
Co (228.615 nm)	0.053810	ppm	0.000486	0.90	1332.940000	Y 242.219
Cr (205.560 nm)	0.366655	ppm	0.001794	0.49	2586.340000	Y 377.433
Cu (324.754 nm)	0.235351	ppm	0.000905	0.38	11384.700000	Y 377.433
Fe (238.204 nm)	337.828282 o	ppm	0.698775	0.21	832667.745038	Y_R 377.433
Fe H (259.940 nm)	340.922000	ppm	0.085879	0.03	476784.000000	Y_R 377.433
K (766.491 nm)	8.794150	ppm	0.091895	1.04	10710.000000	Y_R2 488.368
Li (670.783 nm)	0.156795	ppm	0.001616	1.03	98.902300	Y_R2 488.368
Mg (279.078 nm)	15.904500	ppm	0.050957	0.32	55881.700000	Y 377.433
Mn (257.610 nm)	1.245800	ppm	0.003008	0.24	344568.000000	Y 377.433
Mo (202.032 nm)	0.004346	ppm	0.000126	2.91	78.688200	Y 377.433
Na (589.592 nm)	0.378198	ppm	0.027414	7.25	561.642000	Y_R2 488.368
Na H (589.593 nm)	1.141833 u	ppm	0.016467	1.44	895.429147	Y_R4
Ni (231.604 nm)	0.123807	ppm	0.000099	0.08	680.525000	Y 377.433
P (213.618 nm)	1.062350	ppm	0.005009	0.47	1548.720000	Y 242.219
Pb (220.353 nm)	0.155038	ppm	0.002027	1.31	507.853000	Y 242.219
S (181.972 nm)	0.374810	ppm	0.006567	1.75	180.155961	Y 377.433
Sb (206.834 nm)	0.010199	ppm	0.001293	12.67	40.497200	Y 377.433
Se (196.026 nm)	0.020095	ppm	0.003159	15.72	-49.066800	Y 242.219
Si (288.158 nm)	3.743230	ppm	0.056056	1.50	25199.500000	Y 377.433
Sn (189.925 nm)	0.013811	ppm	0.000500	3.62	26.326100	Y 377.433
Sr (421.552 nm)	0.203220	ppm	0.000494	0.24	29818.314937	Y_R 488.368
Th (288.505 nm)	0.066302	ppm	0.000211	0.32	60.382100	Y 377.433
Ti (336.122 nm)	0.529847	ppm	0.001516	0.29	68399.900000	Y 377.433
Tl (190.794 nm)	0.016028	ppm	0.002830	17.66	-1.655000	Y 377.433
U (409.013 nm)	-0.009089 u	ppm	0.007901	86.92	161.924000	Y 377.433
V (292.401 nm)	0.588771	ppm	0.001832	0.31	30997.900000	Y 377.433
Zn (206.200 nm)	0.466318	ppm	0.002504	0.54	2370.340000	Y 377.433
Zr (343.823 nm)	0.108340	ppm	0.000081	0.08	6072.420000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103147	24702.182481	0.008476	0.77
Y 377.433	1.112341	718712.993194	0.008296	0.75
Y_R 377.433	1.142760	62909.300000	0.003452	0.30
Y_R 488.368	1.140560	55119.800000	0.001501	0.13
Y_R2 488.368	1.112951	103153.219167	0.000155	0.01
Y_R4	1.149140	49205.600000	0.005065	0.44

Sample Name: 280-123991-a-14-b

Date: 5/24/2019 3:26:36 AM Rack:Tube: 2:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000528 u	ppm	0.000395	74.85	-464.283000	Y 377.433
Al (394.401 nm)	256.273000 o	ppm	0.282702	0.11	3061980.000000	Y 377.433
Al H (396.152 nm)	251.905000	ppm	0.706163	0.28	518984.000000	Y_R 377.433
As (188.980 nm)	0.084489	ppm	0.000909	1.08	125.017000	Y 242.219
B (249.678 nm)	0.029622	ppm	0.000835	2.82	81.388800	Y 242.219
Ba (493.408 nm)	1.019510	ppm	0.003366	0.33	100410.000000	Y_R 488.368
Be (234.861 nm)	0.004069	ppm	0.000025	0.61	-850.107000	Y_R 488.368
Bi (223.061 nm)	0.002991	ppm	0.000705	23.56	43.472700	Y 377.433
Ca (315.887 nm)	5.560886	ppm	0.005419	0.10	4491.417992	Y_R 377.433
Cd (214.439 nm)	0.005819	ppm	0.000037	0.64	352.420000	Y 377.433
Co (228.615 nm)	0.065026	ppm	0.000045	0.07	1603.590000	Y 242.219
Cr (205.560 nm)	0.324556	ppm	0.000595	0.18	2286.530000	Y 377.433
Cu (324.754 nm)	0.125928	ppm	0.000090	0.07	6317.300000	Y 377.433
Fe (238.204 nm)	288.981956 o	ppm	1.516520	0.52	712273.393763	Y_R 377.433
Fe H (259.940 nm)	293.311000	ppm	0.796555	0.27	410212.000000	Y_R 377.433
K (766.491 nm)	8.616610	ppm	0.135236	1.57	10533.800000	Y_R2 488.368
Li (670.783 nm)	0.199644	ppm	0.003462	1.73	845.068000	Y_R2 488.368
Mg (279.078 nm)	20.870600	ppm	0.055907	0.27	73548.100000	Y 377.433
Mn (257.610 nm)	0.307433	ppm	0.000447	0.15	85014.100000	Y 377.433
Mo (202.032 nm)	0.003064	ppm	0.000156	5.11	62.372400	Y 377.433
Na (589.592 nm)	0.697642	ppm	0.037433	5.37	835.906000	Y_R2 488.368
Na H (589.593 nm)	1.665121 u	ppm	0.010143	0.61	1155.681597	Y_R4
Ni (231.604 nm)	0.193337	ppm	0.001132	0.59	1069.090000	Y 377.433
P (213.618 nm)	0.867123	ppm	0.007262	0.84	1279.990000	Y 242.219
Pb (220.353 nm)	0.124784	ppm	0.001870	1.50	395.712000	Y 242.219
S (181.972 nm)	0.436171	ppm	0.011489	2.63	204.891526	Y 377.433
Sb (206.834 nm)	0.011859	ppm	0.001647	13.89	39.450700	Y 377.433
Se (196.026 nm)	0.013973	ppm	0.001754	12.55	-46.686000	Y 242.219
Si (288.158 nm)	3.461220	ppm	0.006473	0.19	23339.400000	Y 377.433
Sn (189.925 nm)	0.015740	ppm	0.000787	5.00	29.689700	Y 377.433
Sr (421.552 nm)	0.263280	ppm	0.000639	0.24	38594.790318	Y_R 488.368
Th (288.505 nm)	0.073481	ppm	0.001310	1.78	63.162900	Y 377.433
Ti (336.122 nm)	0.383768	ppm	0.000416	0.11	49411.100000	Y 377.433
Tl (190.794 nm)	0.011384	ppm	0.002467	21.67	-4.525890	Y 377.433
U (409.013 nm)	-0.022973 u	ppm	0.002204	9.59	83.348600	Y 377.433
V (292.401 nm)	0.546762	ppm	0.001080	0.20	28776.500000	Y 377.433
Zn (206.200 nm)	0.443633	ppm	0.001227	0.28	2250.160000	Y 377.433
Zr (343.823 nm)	0.100963	ppm	0.000381	0.38	5647.060000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.121998	25124.303291	0.006898	0.61
Y 377.433	1.112675	718928.715353	0.007717	0.69
Y_R 377.433	1.159430	63827.200000	0.002031	0.18
Y_R 488.368	1.155710	55852.100000	0.003153	0.27
Y_R2 488.368	1.129693	104704.953616	0.001878	0.17
Y_R4	1.166970	49969.200000	0.006260	0.54

Sample Name: 280-123991-a-15-b

Date: 5/24/2019 3:30:27 AM Rack:Tube: 2:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.001268 u	ppm	0.000623	49.16	-549.325000	Y 377.433
Al (394.401 nm)	292.859000 o	ppm	0.199219	0.07	3499110.000000	Y 377.433
Al H (396.152 nm)	287.533000	ppm	0.780747	0.27	592442.000000	Y_R 377.433
As (188.980 nm)	0.114629	ppm	0.001996	1.74	170.711000	Y 242.219
B (249.678 nm)	0.036127	ppm	0.000254	0.70	80.791900	Y 242.219
Ba (493.408 nm)	1.475810	ppm	0.006242	0.42	144671.000000	Y_R 488.368
Be (234.861 nm)	0.005001	ppm	0.000011	0.22	-1108.810000	Y_R 488.368
Bi (223.061 nm)	0.009349	ppm	0.000619	6.62	72.634400	Y 377.433
Ca (315.887 nm)	8.860098	ppm	0.016536	0.19	7164.048350	Y_R 377.433
Cd (214.439 nm)	0.011770	ppm	0.000162	1.38	626.311000	Y 377.433
Co (228.615 nm)	0.068200	ppm	0.000124	0.18	1690.590000	Y 242.219
Cr (205.560 nm)	0.410811	ppm	0.000695	0.17	2896.780000	Y 377.433
Cu (324.754 nm)	0.169600	ppm	0.000352	0.21	8349.690000	Y 377.433
Fe (238.204 nm)	369.543089 o	ppm	0.500407	0.14	910837.055232	Y_R 377.433
Fe H (259.940 nm)	373.458000	ppm	0.635013	0.17	522278.000000	Y_R 377.433
K (766.491 nm)	10.898400	ppm	0.048210	0.44	12798.600000	Y_R2 488.368
Li (670.783 nm)	0.249664	ppm	0.002170	0.87	1716.090000	Y_R2 488.368
Mg (279.078 nm)	21.852900	ppm	0.009918	0.05	76912.200000	Y 377.433
Mn (257.610 nm)	0.472625	ppm	0.000181	0.04	130706.000000	Y 377.433
Mo (202.032 nm)	0.004396	ppm	0.000369	8.40	79.329100	Y 377.433
Na (589.592 nm)	0.215778	ppm	0.000588	0.27	572.536000	Y_R2 488.368
Na H (589.593 nm)	1.558201 u	ppm	0.005128	0.33	1102.505974	Y_R4
Ni (231.604 nm)	0.192277	ppm	0.001639	0.85	1063.170000	Y 377.433
P (213.618 nm)	1.270640	ppm	0.001816	0.14	1880.360000	Y 242.219
Pb (220.353 nm)	0.162286	ppm	0.001031	0.64	517.865000	Y 242.219
S (181.972 nm)	0.598607	ppm	0.003035	0.51	278.523587	Y 377.433
Sb (206.834 nm)	0.010778	ppm	0.000756	7.01	44.452100	Y 377.433
Se (196.026 nm)	0.020182	ppm	0.000644	3.19	-58.953900	Y 242.219
Si (288.158 nm)	4.175440	ppm	0.033294	0.80	28050.500000	Y 377.433
Sn (189.925 nm)	0.018001	ppm	0.000596	3.31	33.633600	Y 377.433
Sr (421.552 nm)	0.367374	ppm	0.001728	0.47	53830.420782	Y_R 488.368
Th (288.505 nm)	0.092756	ppm	0.003154	3.40	74.820500	Y 377.433
Ti (336.122 nm)	0.567298	ppm	0.001005	0.18	73284.300000	Y 377.433
Tl (190.794 nm)	0.016789	ppm	0.000581	3.46	-1.979760	Y 377.433
U (409.013 nm)	-0.025047 u	ppm	0.005969	23.83	131.080000	Y 377.433
V (292.401 nm)	0.710354	ppm	0.000102	0.01	37446.000000	Y 377.433
Zn (206.200 nm)	0.711176	ppm	0.001174	0.17	3590.530000	Y 377.433
Zr (343.823 nm)	0.136956	ppm	0.000110	0.08	7722.430000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103700	24714.576369	0.003095	0.28
Y 377.433	1.109663	716982.355808	0.002798	0.25
Y_R 377.433	1.148410	63220.600000	0.003125	0.27
Y_R 488.368	1.142860	55231.100000	0.000423	0.04
Y_R2 488.368	1.122222	104012.544316	0.000710	0.06
Y_R4	1.161190	49721.500000	0.008732	0.75

Sample Name: CCVH-5713036

Date: 5/24/2019 3:34:15 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004178	ppm	0.000152	3.65	-109.436000	Y 377.433
Al (394.401 nm)	49.352100 o	ppm	0.068594	0.14	588609.000000	Y 377.433
Al H (396.152 nm)	48.872400	ppm	0.008805	0.02	100488.000000	Y_R 377.433
As (188.980 nm)	0.002665	ppm	0.000225	8.45	1.540190	Y 242.219
B (249.678 nm)	-0.002120 u	ppm	0.001716	80.94	-6.450870	Y 242.219
Ba (493.408 nm)	0.001317	ppm	0.000322	24.46	1597.970000	Y_R 488.368
Be (234.861 nm)	0.000994	ppm	0.000062	6.23	-117.130000	Y_R 488.368
Bi (223.061 nm)	0.003376	ppm	0.002810	83.23	0.984415	Y 377.433
Ca (315.887 nm)	0.004104 u	ppm	0.006507	> 100.00	-46.293944	Y_R 377.433
Cd (214.439 nm)	0.001388	ppm	0.000119	8.56	69.222700	Y 377.433
Co (228.615 nm)	0.003320	ppm	0.000011	0.32	59.968100	Y 242.219
Cr (205.560 nm)	0.001560	ppm	0.000093	5.96	3.692470	Y 377.433
Cu (324.754 nm)	0.003102	ppm	0.000263	8.47	1475.270000	Y 377.433
Fe (238.204 nm)	48.762424 o	ppm	0.010319	0.02	120190.487533	Y_R 377.433
Fe H (259.940 nm)	48.905000	ppm	0.018629	0.04	68472.100000	Y_R 377.433
K (766.491 nm)	0.693754	ppm	0.009382	1.35	2670.160000	Y_R2 488.368
Li (670.783 nm)	0.005690	ppm	0.004401	77.35	-2532.380000	Y_R2 488.368
Mg (279.078 nm)	0.035048	ppm	0.000517	1.47	57.392900	Y 377.433
Mn (257.610 nm)	0.001051	ppm	0.000008	0.75	268.765000	Y 377.433
Mo (202.032 nm)	0.000031 u	ppm	0.000499	> 100.00	23.787200	Y 377.433
Na (589.592 nm)	234.872000 o	ppm	0.743408	0.32	174094.000000	Y_R2 488.368
Na H (589.593 nm)	249.378092	ppm	2.932035	1.18	124353.627289	Y_R4
Ni (231.604 nm)	0.002173	ppm	0.001015	46.71	0.779237	Y 377.433
P (213.618 nm)	4.864850	ppm	0.013345	0.27	7352.840000	Y 242.219
Pb (220.353 nm)	0.004123	ppm	0.000104	2.51	19.751900	Y 242.219
S (181.972 nm)	4.987855	ppm	0.006539	0.13	2248.373878	Y 377.433
Sb (206.834 nm)	0.004101	ppm	0.001388	33.85	4.007390	Y 377.433
Se (196.026 nm)	0.001694	ppm	0.001639	96.75	-0.235019	Y 242.219
Si (288.158 nm)	0.014061	ppm	0.002271	16.15	600.795000	Y 377.433
Sn (189.925 nm)	0.001135 u	ppm	0.001666	> 100.00	4.216660	Y 377.433
Sr (421.552 nm)	0.001078	ppm	0.000128	11.84	212.738455	Y_R 488.368
Th (288.505 nm)	4.881190	ppm	0.005328	0.11	8529.250000	Y 377.433
Ti (336.122 nm)	0.002126	ppm	0.000027	1.27	-229.161000	Y 377.433
Tl (190.794 nm)	0.000522	ppm	0.000684	> 100.00	-3.559160	Y 377.433
U (409.013 nm)	0.538729 Q	ppm	0.001459	0.27	1681.440000 Q	Y 377.433
V (292.401 nm)	0.001555	ppm	0.000346	22.24	392.621000	Y 377.433
Zn (206.200 nm)	0.003096	ppm	0.000180	5.80	26.693700	Y 377.433
Zr (343.823 nm)	0.001597	ppm	0.000017	1.04	-82.431800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.082646	24243.122354	0.004323	0.40
Y 377.433	1.080997	698460.838010	0.005343	0.49
Y_R 377.433	1.105410	60853.500000	0.001134	0.10
Y_R 488.368	1.099290	53125.100000	0.002287	0.21
Y_R2 488.368	1.073191	99468.111231	0.001785	0.17
Y_R4	1.112920	47654.600000	0.014575	1.31

Sample Name: CCV-5717467

Date: 5/24/2019 3:37:59 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.483915	ppm	0.000346	0.07	16720.900000	Y 377.433
Al (394.401 nm)	0.504342	ppm	0.000542	0.11	6275.880000	Y 377.433
Al H (396.152 nm)	0.555629 u	ppm	0.004923	0.89	1148.560000	Y_R 377.433
As (188.980 nm)	0.483431	ppm	0.002639	0.55	768.916000	Y 242.219
B (249.678 nm)	0.475600	ppm	0.001547	0.33	3444.350000	Y 242.219
Ba (493.408 nm)	0.482196	ppm	0.000117	0.02	48141.400000	Y_R 488.368
Be (234.861 nm)	0.478211	ppm	0.003176	0.66	48200.800000	Y_R 488.368
Bi (223.061 nm)	0.946262	ppm	0.001358	0.14	2143.350000	Y 377.433
Ca (315.887 nm)	4.881587	ppm	0.022432	0.46	3879.254809	Y_R 377.433
Cd (214.439 nm)	0.492322	ppm	0.000081	0.02	19691.700000	Y 377.433
Co (228.615 nm)	0.486540	ppm	0.000946	0.19	12029.400000	Y 242.219
Cr (205.560 nm)	0.485909	ppm	0.004704	0.97	3433.700000	Y 377.433
Cu (324.754 nm)	0.481851	ppm	0.003401	0.71	22785.200000	Y 377.433
Fe (238.204 nm)	2.449366	ppm	0.006515	0.27	6040.028116	Y_R 377.433
Fe H (259.940 nm)	2.403660 u	ppm	0.004803	0.20	3451.670000	Y_R 377.433
K (766.491 nm)	47.575800	ppm	0.142821	0.30	49201.900000	Y_R2 488.368
Li (670.783 nm)	0.488652	ppm	0.001163	0.24	5877.740000	Y_R2 488.368
Mg (279.078 nm)	19.544800	ppm	0.003435	0.02	69259.000000	Y 377.433
Mn (257.610 nm)	0.488099	ppm	0.000580	0.12	134986.000000	Y 377.433
Mo (202.032 nm)	0.487170	ppm	0.000827	0.17	6222.450000	Y 377.433
Na (589.592 nm)	23.398100	ppm	0.047823	0.20	17541.100000	Y_R2 488.368
Na H (589.593 nm)	25.411710 u	ppm	0.131847	0.52	12965.846539	Y_R4
Ni (231.604 nm)	0.487953	ppm	0.000845	0.17	2716.150000	Y 377.433
P (213.618 nm)	0.054519	ppm	0.000628	1.15	-59.413000	Y 242.219
Pb (220.353 nm)	0.488607	ppm	0.005014	1.03	1689.080000	Y 242.219
S (181.972 nm)	0.012314	ppm	0.000721	5.85	15.006178	Y 377.433
Sb (206.834 nm)	0.491112	ppm	0.003889	0.79	856.760000	Y 377.433
Se (196.026 nm)	0.481556	ppm	0.001902	0.39	793.325000	Y 242.219
Si (288.158 nm)	4.747390	ppm	0.024067	0.51	31823.300000	Y 377.433
Sn (189.925 nm)	0.488176	ppm	0.001050	0.22	853.719000	Y 377.433
Sr (421.552 nm)	0.484193	ppm	0.000544	0.11	70861.343627	Y_R 488.368
Th (288.505 nm)	0.010440	ppm	0.000073	0.70	-16.673000	Y 377.433
Ti (336.122 nm)	0.482300	ppm	0.000781	0.16	62221.600000	Y 377.433
Tl (190.794 nm)	0.495323	ppm	0.001395	0.28	1196.690000	Y 377.433
U (409.013 nm)	0.021331	ppm	0.005832	27.34	-33.040500	Y 377.433
V (292.401 nm)	0.482318	ppm	0.000348	0.07	25254.800000	Y 377.433
Zn (206.200 nm)	0.491715	ppm	0.000163	0.03	2444.650000	Y 377.433
Zr (343.823 nm)	0.482769	ppm	0.001460	0.30	27662.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.100361	24639.791907	0.005467	0.50
Y 377.433	1.096449	708444.369535	0.003065	0.28
Y_R 377.433	1.114220	61338.200000	0.001700	0.15
Y_R 488.368	1.110480	53666.100000	0.003658	0.33
Y_R2 488.368	1.088624	100898.536382	0.003236	0.30
Y_R4	1.112560	47639.200000	0.005467	0.49

Sample Name: CCB

Date: 5/24/2019 3:41:35 AM
Rack:Tube: S1:4

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000401	ppm	0.000225	56.06	-231.809000	Y 377.433
Al (394.401 nm)	-0.000776 u	ppm	0.000541	69.70	119.609000	Y 377.433
Al H (396.152 nm)	0.124463 Zu	ppm	0.009442	7.59	30.967100 Z	Y_R 377.433
As (188.980 nm)	-0.000089 u	ppm	0.000550	> 100.00	-1.447150	Y 242.219
B (249.678 nm)	-0.002762 u	ppm	0.000070	2.55	17.287800	Y 242.219
Ba (493.408 nm)	-0.001812 u	ppm	0.000076	4.17	1257.130000	Y_R 488.368
Be (234.861 nm)	0.000030	ppm	0.000010	32.94	-2.711540	Y_R 488.368
Bi (223.061 nm)	0.001229	ppm	0.001368	> 100.00	-12.712300	Y 377.433
Ca (315.887 nm)	0.008964	ppm	0.006606	73.70	-54.738139	Y_R 377.433
Cd (214.439 nm)	-0.000058 u	ppm	0.000116	> 100.00	-10.131900	Y 377.433
Co (228.615 nm)	0.000032	ppm	0.000044	> 100.00	-21.375200	Y 242.219
Cr (205.560 nm)	0.000065	ppm	0.000043	66.86	-5.510080	Y 377.433
Cu (324.754 nm)	-0.000154 u	ppm	0.000069	44.45	405.357000	Y 377.433
Fe (238.204 nm)	-0.000346 u	ppm	0.000379	> 100.00	2.082332	Y_R 377.433
Fe H (259.940 nm)	-0.051603 u	ppm	0.000060	0.12	18.596000	Y_R 377.433
K (766.491 nm)	0.092823	ppm	0.079778	85.95	2073.720000	Y_R2 488.368
Li (670.783 nm)	0.011505 Z	ppm	0.001004	8.73	-2431.120000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002851	ppm	0.000246	8.63	21.922100	Y 377.433
Mn (257.610 nm)	0.000098	ppm	0.000023	23.56	4.967590	Y 377.433
Mo (202.032 nm)	-0.000289 u	ppm	0.000032	11.06	19.713600	Y 377.433
Na (589.592 nm)	0.144878	ppm	0.011058	7.63	217.329000	Y_R2 488.368
Na H (589.593 nm)	0.264785 u	ppm	0.019856	7.50	459.236419	Y_R4
Ni (231.604 nm)	-0.000781 u	ppm	0.000500	64.01	-15.730700	Y 377.433
P (213.618 nm)	0.000836	ppm	0.000603	72.19	-3.222540	Y 242.219
Pb (220.353 nm)	-0.001591 u	ppm	0.001585	99.57	7.443310	Y 242.219
S (181.972 nm)	-0.003516 u	ppm	0.000802	22.82	6.176054	Y 377.433
Sb (206.834 nm)	0.007705	ppm	0.000070	0.91	6.059710	Y 377.433
Se (196.026 nm)	-0.002576 u	ppm	0.002844	> 100.00	6.390320	Y 242.219
Si (288.158 nm)	-0.005760 u	ppm	0.001114	19.34	470.051000	Y 377.433
Sn (189.925 nm)	-0.000248 u	ppm	0.000780	> 100.00	1.803320	Y 377.433
Sr (421.552 nm)	-0.000002 u	ppm	0.000044	> 100.00	47.571157	Y_R 488.368
Th (288.505 nm)	0.001830	ppm	0.000384	21.00	17.709300	Y 377.433
Ti (336.122 nm)	0.000335	ppm	0.000044	13.18	-462.060000	Y 377.433
Tl (190.794 nm)	-0.000550 u	ppm	0.001045	> 100.00	-1.216120	Y 377.433
U (409.013 nm)	0.005282	ppm	0.005041	95.45	-25.262700	Y 377.433
V (292.401 nm)	0.000457	ppm	0.000111	24.29	-155.725000	Y 377.433
Zn (206.200 nm)	-0.000106 u	ppm	0.000656	> 100.00	3.290820	Y 377.433
Zr (343.823 nm)	0.000470	ppm	0.000305	65.04	-147.438000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.116946	25011.167666	0.000497	0.04
Y 377.433	1.109936	717159.015225	0.001012	0.09
Y_R 377.433	1.124020	61877.600000	0.002107	0.19
Y_R 488.368	1.121970	54221.300000	0.002355	0.21
Y_R2 488.368	1.107664	102663.260735	0.001665	0.15
Y_R4	1.127170	48264.900000	0.004643	0.41

Sample Name: CCVL-5717307

Date: 5/24/2019 3:44:47 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007846	ppm	0.000254	3.24	28.106300	Y 377.433
Al (394.401 nm)	0.097033	ppm	0.000513	0.53	1298.020000	Y 377.433
Al H (396.152 nm)	0.232202 u	ppm	0.002433	1.05	257.914000	Y_R 377.433
As (188.980 nm)	0.013122	ppm	0.001143	8.71	19.600800	Y 242.219
B (249.678 nm)	0.089138	ppm	0.000873	0.98	675.893000	Y 242.219
Ba (493.408 nm)	0.007916	ppm	0.000187	2.36	2199.480000	Y_R 488.368
Be (234.861 nm)	0.000990	ppm	0.000019	1.96	93.690300	Y_R 488.368
Bi (223.061 nm)	0.088711	ppm	0.000461	0.52	186.848000	Y 377.433
Ca (315.887 nm)	0.200626	ppm	0.002253	1.12	100.023064	Y_R 377.433
Cd (214.439 nm)	0.005038	ppm	0.000031	0.62	193.820000	Y 377.433
Co (228.615 nm)	0.010437	ppm	0.000183	1.75	236.311000	Y 242.219
Cr (205.560 nm)	0.009495	ppm	0.000550	5.80	61.141300	Y 377.433
Cu (324.754 nm)	0.014828	ppm	0.000181	1.22	1098.660000	Y 377.433
Fe (238.204 nm)	0.101643	ppm	0.003281	3.23	253.460216	Y_R 377.433
Fe H (259.940 nm)	0.046898 u	ppm	0.000533	1.14	156.324000	Y_R 377.433
K (766.491 nm)	2.894800	ppm	0.087360	3.02	4854.770000	Y_R2 488.368
Li (670.783 nm)	0.032634 Q	ppm	0.004851	14.86	-2063.190000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200854	ppm	0.002721	1.35	722.113000	Y 377.433
Mn (257.610 nm)	0.010436	ppm	0.000006	0.06	2864.680000	Y 377.433
Mo (202.032 nm)	0.018105	ppm	0.000126	0.69	253.769000	Y 377.433
Na (589.592 nm)	1.149470	ppm	0.005478	0.48	963.420000	Y_R2 488.368
Na H (589.593 nm)	1.088144 u	ppm	0.011105	1.02	868.727204	Y_R4
Ni (231.604 nm)	0.040812	ppm	0.000335	0.82	216.725000	Y 377.433
P (213.618 nm)	2.739400	ppm	0.006815	0.25	4136.780000	Y 242.219
Pb (220.353 nm)	0.008211	ppm	0.000894	10.88	41.218100	Y 242.219
S (181.972 nm)	0.094093	ppm	0.006898	7.33	50.059977	Y 377.433
Sb (206.834 nm)	0.023870	ppm	0.000879	3.68	34.450700	Y 377.433
Se (196.026 nm)	0.017519	ppm	0.001542	8.80	39.038700	Y 242.219
Si (288.158 nm)	0.459908	ppm	0.000810	0.18	3541.740000	Y 377.433
Sn (189.925 nm)	0.095867	ppm	0.000457	0.48	169.449000	Y 377.433
Sr (421.552 nm)	0.008809	ppm	0.000104	1.18	1336.201294	Y_R 488.368
Th (288.505 nm)	0.013012	ppm	0.002137	16.42	36.748500	Y 377.433
Ti (336.122 nm)	0.009956	ppm	0.000071	0.71	789.462000	Y 377.433
Tl (190.794 nm)	0.015454	ppm	0.001105	7.15	37.441100	Y 377.433
U (409.013 nm)	0.059678	ppm	0.008043	13.48	144.001000	Y 377.433
V (292.401 nm)	0.010226	ppm	0.000213	2.08	355.979000	Y 377.433
Zn (206.200 nm)	0.020422	ppm	0.000329	1.61	105.187000	Y 377.433
Zr (343.823 nm)	0.010122	ppm	0.000124	1.22	409.115000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.141207	25554.441693	0.002297	0.20
Y 377.433	1.136277	734178.560740	0.004241	0.37
Y_R 377.433	1.137570	62623.400000	0.001435	0.13
Y_R 488.368	1.135790	54889.100000	0.001005	0.09
Y_R2 488.368	1.100596	102008.173927	0.003069	0.28
Y_R4	1.129750	48375.200000	0.005755	0.51

Sample Name: mb 280-459144/1-a

Date: 5/24/2019 3:48:15 AM
Rack:Tube: 2:51

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000224 u	ppm	0.000453	> 100.00	-237.998000	Y 377.433
Al (394.401 nm)	0.000754	ppm	0.000201	26.69	138.184000	Y 377.433
Al H (396.152 nm)	0.126360 u	ppm	0.001536	1.22	34.763400	Y_R 377.433
As (188.980 nm)	0.000408	ppm	0.000091	22.25	-0.657971	Y 242.219
B (249.678 nm)	-0.004509 u	ppm	0.000176	3.91	4.727960	Y 242.219
Ba (493.408 nm)	-0.001976 u	ppm	0.000441	22.33	1241.310000	Y_R 488.368
Be (234.861 nm)	-0.000022 u	ppm	0.000020	93.29	-8.229010	Y_R 488.368
Bi (223.061 nm)	0.002922	ppm	0.000330	11.30	-8.837440	Y 377.433
Ca (315.887 nm)	0.021804	ppm	0.008767	40.21	-44.372588	Y_R 377.433
Cd (214.439 nm)	0.000032 u	ppm	0.000076	> 100.00	-6.497260	Y 377.433
Co (228.615 nm)	0.000267	ppm	0.000136	50.92	-15.551500	Y 242.219
Cr (205.560 nm)	0.000017 u	ppm	0.000238	> 100.00	-5.845950	Y 377.433
Cu (324.754 nm)	-0.000052 u	ppm	0.000271	> 100.00	409.792000	Y 377.433
Fe (238.204 nm)	0.072648	ppm	0.002176	3.00	181.993651	Y_R 377.433
Fe H (259.940 nm)	0.018193 u	ppm	0.001746	9.60	116.187000	Y_R 377.433
K (766.491 nm)	-0.051443 u	ppm	0.064790	> 100.00	1930.530000	Y_R2 488.368
Li (670.783 nm)	0.015440	ppm	0.000606	3.93	-2362.600000	Y_R2 488.368
Mg (279.078 nm)	0.000090 u	ppm	0.001160	> 100.00	12.068000	Y 377.433
Mn (257.610 nm)	0.001113	ppm	0.000022	1.97	285.879000	Y 377.433
Mo (202.032 nm)	-0.001304 u	ppm	0.000080	6.12	6.790020	Y 377.433
Na (589.592 nm)	0.073452	ppm	0.021199	28.86	164.412000	Y_R2 488.368
Na H (589.593 nm)	-0.025519 u	ppm	0.024015	94.11	314.856170	Y_R4
Ni (231.604 nm)	-0.000680 u	ppm	0.000546	80.30	-15.171400	Y 377.433
P (213.618 nm)	0.000624 u	ppm	0.002038	> 100.00	-3.486890	Y 242.219
Pb (220.353 nm)	-0.001084 u	ppm	0.000570	52.61	9.187970	Y 242.219
S (181.972 nm)	-0.002572 u	ppm	0.003951	> 100.00	6.603656	Y 377.433
Sb (206.834 nm)	0.004458	ppm	0.001009	22.64	0.340353	Y 377.433
Se (196.026 nm)	-0.003310 u	ppm	0.000147	4.43	5.178840	Y 242.219
Si (288.158 nm)	-0.005210 u	ppm	0.000166	3.19	473.676000	Y 377.433
Sn (189.925 nm)	0.000167 u	ppm	0.000499	> 100.00	2.527950	Y 377.433
Sr (421.552 nm)	0.000048	ppm	0.000019	40.48	54.892391	Y_R 488.368
Th (288.505 nm)	0.001089	ppm	0.000687	63.04	16.443000	Y 377.433
Ti (336.122 nm)	0.000496	ppm	0.000006	1.20	-441.191000	Y 377.433
Tl (190.794 nm)	-0.000497 u	ppm	0.001408	> 100.00	-1.091170	Y 377.433
U (409.013 nm)	0.006324	ppm	0.002565	40.57	-21.922000	Y 377.433
V (292.401 nm)	0.000577	ppm	0.000110	19.11	-149.327000	Y 377.433
Zn (206.200 nm)	0.001645	ppm	0.000450	27.33	11.994000	Y 377.433
Zr (343.823 nm)	0.000439	ppm	0.000053	12.02	-149.209000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.134618	25406.897717	0.002324	0.20
Y 377.433	1.130998	730767.343466	0.004503	0.40
Y_R 377.433	1.143310	62939.600000	0.003947	0.35
Y_R 488.368	1.141120	55146.700000	0.004275	0.37
Y_R2 488.368	1.119890	103796.424950	0.003335	0.30
Y_R4	1.127140	48263.700000	0.002865	0.25

Sample Name: lcs 280-459144/2-a

Date: 5/24/2019 3:51:42 AM Rack:Tube: 2:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000268 u	ppm	0.000476	> 100.00	-545.988000	Y 377.433
Al (394.401 nm)	9.734160 o	ppm	0.018992	0.20	116688.000000	Y 377.433
Al H (396.152 nm)	9.800740	ppm	0.010819	0.11	20428.100000	Y_R 377.433
As (188.980 nm)	1.966170	ppm	0.002213	0.11	3131.280000	Y 242.219
B (249.678 nm)	0.964526	ppm	0.000504	0.05	6944.250000	Y 242.219
Ba (493.408 nm)	1.961530	ppm	0.004201	0.21	191439.000000	Y_R 488.368
Be (234.861 nm)	0.979619	ppm	0.005114	0.52	98724.600000	Y_R 488.368
Bi (223.061 nm)	1.892710	ppm	0.010720	0.57	4303.430000	Y 377.433
Ca (315.887 nm)	48.676577	ppm	0.074351	0.15	39239.028902	Y_R 377.433
Cd (214.439 nm)	0.974853	ppm	0.002974	0.31	39001.600000	Y 377.433
Co (228.615 nm)	0.957827	ppm	0.000822	0.09	23704.700000	Y 242.219
Cr (205.560 nm)	0.971896	ppm	0.001899	0.20	6873.590000	Y 377.433
Cu (324.754 nm)	0.947859	ppm	0.005003	0.53	44479.900000	Y 377.433
Fe (238.204 nm)	9.858495 o	ppm	0.010222	0.10	24301.734892	Y_R 377.433
Fe H (259.940 nm)	9.844470	ppm	0.002853	0.03	13855.800000	Y_R 377.433
K (766.491 nm)	48.407000	ppm	0.161000	0.33	50026.900000	Y_R2 488.368
Li (670.783 nm)	0.980627	ppm	0.000862	0.09	14444.800000	Y_R2 488.368
Mg (279.078 nm)	48.791400	ppm	0.117362	0.24	172842.000000	Y 377.433
Mn (257.610 nm)	0.982551	ppm	0.002379	0.24	271752.000000	Y 377.433
Mo (202.032 nm)	0.994761	ppm	0.000515	0.05	12681.400000	Y 377.433
Na (589.592 nm)	46.085200	ppm	0.056928	0.12	34650.100000	Y_R2 488.368
Na H (589.593 nm)	50.426696	ppm	0.155776	0.31	25406.837412	Y_R4
Ni (231.604 nm)	0.957014	ppm	0.002840	0.30	5339.290000	Y 377.433
P (213.618 nm)	19.670700	ppm	0.024542	0.12	29490.500000	Y 242.219
Pb (220.353 nm)	0.975501	ppm	0.000335	0.03	3362.580000	Y 242.219
S (181.972 nm)	9.947964	ppm	0.068931	0.69	4481.821652	Y 377.433
Sb (206.834 nm)	0.005797	ppm	0.000348	6.01	-2.147460	Y 377.433
Se (196.026 nm)	1.924520	ppm	0.006024	0.31	3137.170000	Y 242.219
Si (288.158 nm)	1.932180	ppm	0.004958	0.26	13253.300000	Y 377.433
Sn (189.925 nm)	1.947150	ppm	0.007085	0.36	3398.490000	Y 377.433
Sr (421.552 nm)	0.982278	ppm	0.001088	0.11	143707.111626	Y_R 488.368
Th (288.505 nm)	0.993525	ppm	0.001766	0.18	1656.120000	Y 377.433
Ti (336.122 nm)	0.980839	ppm	0.001920	0.20	127193.000000	Y 377.433
Tl (190.794 nm)	1.950150	ppm	0.002250	0.12	4715.340000	Y 377.433
U (409.013 nm)	1.944410	ppm	0.011966	0.62	5991.370000	Y 377.433
V (292.401 nm)	0.972404	ppm	0.002218	0.23	51104.300000	Y 377.433
Zn (206.200 nm)	0.486222	ppm	0.000544	0.11	2418.530000	Y 377.433
Zr (343.823 nm)	0.486481	ppm	0.000957	0.20	27876.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.095970	24541.482510	0.001034	0.09
Y 377.433	1.100351	710965.770491	0.001472	0.13
Y_R 377.433	1.120960	61709.300000	0.003889	0.35
Y_R 488.368	1.116740	53968.500000	0.004975	0.45
Y_R2 488.368	1.104506	102370.527560	0.000708	0.06
Y_R4	1.130310	48399.400000	0.010076	0.89

Sample Name: 280-123846-a-10-a

Date: 5/24/2019 3:55:22 AM Rack:Tube: 2:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001419	ppm	0.000117	8.27	-196.847000	Y 377.433
Al (394.401 nm)	0.466652	ppm	0.003293	0.71	5762.780000	Y 377.433
Al H (396.152 nm)	0.553166 u	ppm	0.005647	1.02	985.427000	Y_R 377.433
As (188.980 nm)	0.011938	ppm	0.000987	8.27	17.098900	Y 242.219
B (249.678 nm)	0.002919	ppm	0.001051	35.99	45.495400	Y 242.219
Ba (493.408 nm)	0.016025	ppm	0.000029	0.18	3001.490000	Y_R 488.368
Be (234.861 nm)	0.000192	ppm	0.000025	12.97	-79.797800	Y_R 488.368
Bi (223.061 nm)	0.000597 u	ppm	0.002513	> 100.00	-10.265100	Y 377.433
Ca (315.887 nm)	45.513220	ppm	0.196172	0.43	36682.735024	Y_R 377.433
Cd (214.439 nm)	0.013451	ppm	0.000056	0.42	539.868000	Y 377.433
Co (228.615 nm)	0.025968	ppm	0.000513	1.97	619.838000	Y 242.219
Cr (205.560 nm)	-0.000442 u	ppm	0.000439	99.36	-9.190410	Y 377.433
Cu (324.754 nm)	0.365988	ppm	0.000615	0.17	17378.500000	Y 377.433
Fe (238.204 nm)	21.521614 o	ppm	0.065649	0.31	53048.494348	Y_R 377.433
Fe H (259.940 nm)	21.610300	ppm	0.092503	0.43	30307.400000	Y_R 377.433
K (766.491 nm)	1.999750	ppm	0.045791	2.29	3966.400000	Y_R2 488.368
Li (670.783 nm)	0.024862	ppm	0.000597	2.40	-2198.530000	Y_R2 488.368
Mg (279.078 nm)	12.144200	ppm	0.016430	0.14	43009.400000	Y 377.433
Mn (257.610 nm)	3.118270	ppm	0.001059	0.03	862490.000000	Y 377.433
Mo (202.032 nm)	0.009390	ppm	0.000131	1.39	142.877000	Y 377.433
Na (589.592 nm)	7.404050	ppm	0.001145	0.02	5598.260000	Y_R2 488.368
Na H (589.593 nm)	7.428016 u	ppm	0.069367	0.93	4021.808805	Y_R4
Ni (231.604 nm)	0.013149	ppm	0.000083	0.63	62.117800	Y 377.433
P (213.618 nm)	0.058398	ppm	0.003323	5.69	-7.382200	Y 242.219
Pb (220.353 nm)	0.112556	ppm	0.001068	0.95	399.735000	Y 242.219
S (181.972 nm)	63.581810	ppm	0.270154	0.42	28581.255924	Y 377.433
Sb (206.834 nm)	0.005624	ppm	0.000118	2.10	4.218630	Y 377.433
Se (196.026 nm)	0.000975 u	ppm	0.001941	> 100.00	10.779800	Y 242.219
Si (288.158 nm)	9.511240	ppm	0.066974	0.70	63247.100000	Y 377.433
Sn (189.925 nm)	0.000286 u	ppm	0.000639	> 100.00	2.735470	Y 377.433
Sr (421.552 nm)	0.207073	ppm	0.000813	0.39	30335.442270	Y_R 488.368
Th (288.505 nm)	-0.018634 u	ppm	0.001967	10.55	40.554000	Y 377.433
Ti (336.122 nm)	0.000517	ppm	0.000010	1.94	-284.249000	Y 377.433
Tl (190.794 nm)	0.003870	ppm	0.003532	91.26	4.929270	Y 377.433
U (409.013 nm)	0.042100	ppm	0.001342	3.19	99.920800	Y 377.433
V (292.401 nm)	0.001175	ppm	0.000093	7.90	-120.785000	Y 377.433
Zn (206.200 nm)	2.604460	ppm	0.003580	0.14	12933.500000	Y 377.433
Zr (343.823 nm)	0.000923	ppm	0.000095	10.29	-121.270000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.138678	25497.821990	0.000619	0.05
Y 377.433	1.139547	736291.522588	0.000260	0.02
Y_R 377.433	1.158260	63762.800000	0.004193	0.36
Y_R 488.368	1.156120	55871.700000	0.002923	0.25
Y_R2 488.368	1.142021	105847.629110	0.002139	0.19
Y_R4	1.158400	49602.200000	0.001951	0.17

Sample Name: 280-123846-a-11-a

Date: 5/24/2019 3:59:02 AM Rack:Tube: 2:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003741	ppm	0.000055	1.48	-115.579000	Y 377.433
Al (394.401 nm)	1.855400	ppm	0.002342	0.13	22353.500000	Y 377.433
Al H (396.152 nm)	2.036980	ppm	0.009256	0.45	4045.820000	Y_R 377.433
As (188.980 nm)	0.029933	ppm	0.003747	12.52	45.606700	Y 242.219
B (249.678 nm)	0.002730	ppm	0.000017	0.62	40.816200	Y 242.219
Ba (493.408 nm)	0.032408	ppm	0.000226	0.70	4592.830000	Y_R 488.368
Be (234.861 nm)	0.000269	ppm	0.000058	21.41	-96.911200	Y_R 488.368
Bi (223.061 nm)	0.011488	ppm	0.000295	2.57	15.610400	Y 377.433
Ca (315.887 nm)	42.203850	ppm	0.078069	0.18	34011.325851	Y_R 377.433
Cd (214.439 nm)	0.011397	ppm	0.000027	0.24	460.217000	Y 377.433
Co (228.615 nm)	0.022540	ppm	0.000120	0.53	535.699000	Y 242.219
Cr (205.560 nm)	0.000859	ppm	0.000100	11.68	-0.055947	Y 377.433
Cu (324.754 nm)	0.685764	ppm	0.002614	0.38	32231.300000	Y 377.433
Fe (238.204 nm)	27.251856 o	ppm	0.081685	0.30	67172.151425	Y_R 377.433
Fe H (259.940 nm)	27.365400	ppm	0.027522	0.10	38354.400000	Y_R 377.433
K (766.491 nm)	2.809690	ppm	0.049623	1.77	4770.290000	Y_R2 488.368
Li (670.783 nm)	0.022447	ppm	0.002131	9.49	-2240.590000	Y_R2 488.368
Mg (279.078 nm)	11.594900	ppm	0.040857	0.35	41054.900000	Y 377.433
Mn (257.610 nm)	2.828600	ppm	0.008047	0.28	782370.000000	Y 377.433
Mo (202.032 nm)	0.018338	ppm	0.000156	0.85	256.732000	Y 377.433
Na (589.592 nm)	7.213370	ppm	0.091947	1.27	5460.250000	Y_R2 488.368
Na H (589.593 nm)	7.165426 u	ppm	0.138313	1.93	3891.211954	Y_R4
Ni (231.604 nm)	0.010938	ppm	0.000739	6.75	49.764100	Y 377.433
P (213.618 nm)	0.167357	ppm	0.000035	0.02	78.101600	Y 242.219
Pb (220.353 nm)	0.634992	ppm	0.003893	0.61	2194.910000	Y 242.219
S (181.972 nm)	57.635800	ppm	0.268431	0.47	25909.190283	Y 377.433
Sb (206.834 nm)	0.008804	ppm	0.003309	37.58	10.223700	Y 377.433
Se (196.026 nm)	0.001686	ppm	0.001577	93.55	9.919070	Y 242.219
Si (288.158 nm)	10.804900	ppm	0.042535	0.39	71780.300000	Y 377.433
Sn (189.925 nm)	-0.000918 u	ppm	0.000245	26.68	0.635541	Y 377.433
Sr (421.552 nm)	0.210802	ppm	0.000418	0.20	30881.609769	Y_R 488.368
Th (288.505 nm)	-0.011632 u	ppm	0.002731	23.48	46.634700	Y 377.433
Ti (336.122 nm)	0.015157	ppm	0.000457	3.01	1608.010000	Y 377.433
Tl (190.794 nm)	0.002656	ppm	0.001548	58.30	1.293960	Y 377.433
U (409.013 nm)	0.055350	ppm	0.000106	0.19	145.953000	Y 377.433
V (292.401 nm)	0.002552	ppm	0.000119	4.65	-47.146800	Y 377.433
Zn (206.200 nm)	2.261200	ppm	0.002717	0.12	11230.700000	Y 377.433
Zr (343.823 nm)	0.001318	ppm	0.000341	25.92	-98.547600	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.142606	25585.760251	0.002914	0.26
Y 377.433	1.143483	738834.247668	0.002319	0.20
Y_R 377.433	1.157190	63703.900000	0.005366	0.46
Y_R 488.368	1.153220	55731.700000	0.003387	0.29
Y_R2 488.368	1.146076	106223.415949	0.002576	0.22
Y_R4	1.159250	49638.600000	0.008386	0.72

Sample Name: 280-123928-a-1-a

Date: 5/24/2019 4:02:42 AM Rack:Tube: 2:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000722	ppm	0.000583	80.81	-222.506000	Y 377.433
Al (394.401 nm)	0.416254	ppm	0.001468	0.35	5370.710000	Y 377.433
Al H (396.152 nm)	0.366353 u	ppm	0.008996	2.46	915.492000	Y_R 377.433
As (188.980 nm)	0.001945	ppm	0.001582	81.35	1.783830	Y 242.219
B (249.678 nm)	0.110589	ppm	0.000520	0.47	829.488000	Y 242.219
Ba (493.408 nm)	0.115143	ppm	0.000474	0.41	12586.000000	Y_R 488.368
Be (234.861 nm)	0.000027 u	ppm	0.000106	> 100.00	-4.575310	Y_R 488.368
Bi (223.061 nm)	0.000213 u	ppm	0.001812	> 100.00	-14.948300	Y 377.433
Ca (315.887 nm)	97.769148	ppm	0.016094	0.02	78870.971251	Y_R 377.433
Cd (214.439 nm)	0.000237	ppm	0.000058	24.28	1.840710	Y 377.433
Co (228.615 nm)	0.000285	ppm	0.000276	96.74	-14.720900	Y 242.219
Cr (205.560 nm)	0.000643	ppm	0.000032	5.00	-1.435540	Y 377.433
Cu (324.754 nm)	0.000786	ppm	0.000475	60.48	389.741000	Y 377.433
Fe (238.204 nm)	0.353460	ppm	0.000821	0.23	874.127638	Y_R 377.433
Fe H (259.940 nm)	0.298331 u	ppm	0.004457	1.49	507.891000	Y_R 377.433
K (766.491 nm)	7.639580	ppm	0.086351	1.13	9564.100000	Y_R2 488.368
Li (670.783 nm)	0.049551	ppm	0.005069	10.23	-1768.610000	Y_R2 488.368
Mg (279.078 nm)	19.062400	ppm	0.034608	0.18	67551.900000	Y 377.433
Mn (257.610 nm)	0.114226	ppm	0.000260	0.23	31573.000000	Y 377.433
Mo (202.032 nm)	0.001664	ppm	0.000194	11.64	44.565700	Y 377.433
Na (589.592 nm)	119.848000 o	ppm	0.126883	0.11	88912.100000	Y_R2 488.368
Na H (589.593 nm)	128.793667	ppm	0.346676	0.27	64381.986302	Y_R4
Ni (231.604 nm)	-0.000134 u	ppm	0.000203	> 100.00	-12.113500	Y 377.433
P (213.618 nm)	0.107306	ppm	0.003360	3.13	157.184000	Y 242.219
Pb (220.353 nm)	-0.000663 u	ppm	0.000823	> 100.00	10.663400	Y 242.219
S (181.972 nm)	55.587694	ppm	0.318166	0.57	24983.480388	Y 377.433
Sb (206.834 nm)	0.002972	ppm	0.002412	81.13	-2.313590	Y 377.433
Se (196.026 nm)	-0.000100 u	ppm	0.003829	> 100.00	10.484900	Y 242.219
Si (288.158 nm)	9.415160	ppm	0.012790	0.14	62613.400000	Y 377.433
Sn (189.925 nm)	-0.000195 u	ppm	0.000707	> 100.00	1.896060	Y 377.433
Sr (421.552 nm)	1.039542	ppm	0.003696	0.36	152080.664568	Y_R 488.368
Th (288.505 nm)	-0.008686 u	ppm	0.002492	28.69	-1.021200	Y 377.433
Ti (336.122 nm)	0.010055	ppm	0.000123	1.22	1133.970000	Y 377.433
Tl (190.794 nm)	0.001979	ppm	0.000753	38.04	0.774008	Y 377.433
U (409.013 nm)	0.042963	ppm	0.005049	11.75	80.371900	Y 377.433
V (292.401 nm)	0.004539	ppm	0.000102	2.26	57.738900	Y 377.433
Zn (206.200 nm)	0.004838	ppm	0.000126	2.61	27.885500	Y 377.433
Zr (343.823 nm)	0.001090	ppm	0.000042	3.89	-111.693000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092468	24463.060692	0.000801	0.07
Y 377.433	1.095735	707983.320877	0.001452	0.13
Y_R 377.433	1.122430	61790.200000	0.001143	0.10
Y_R 488.368	1.120720	54160.800000	0.005244	0.47
Y_R2 488.368	1.100915	102037.666357	0.006878	0.62
Y_R4	1.125150	48178.300000	0.004674	0.42

Sample Name: 280-123928-a-1-aSD@5

Date: 5/24/2019 4:06:12 AM Rack:Tube: 2:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000140 u	ppm	0.000506	> 100.00	-241.726000	Y 377.433
Al (394.401 nm)	0.101906	ppm	0.000032	0.03	1404.440000	Y 377.433
Al H (396.152 nm)	0.193601 u	ppm	0.003836	1.98	250.007000	Y_R 377.433
As (188.980 nm)	-0.000144 u	ppm	0.000449	> 100.00	-1.537300	Y 242.219
B (249.678 nm)	0.019814	ppm	0.000741	3.74	179.030000	Y 242.219
Ba (493.408 nm)	0.021075	ppm	0.000881	4.18	3474.040000	Y_R 488.368
Be (234.861 nm)	-0.000048 u	ppm	0.000005	10.81	-11.083500	Y_R 488.368
Bi (223.061 nm)	0.002547	ppm	0.002133	83.75	-9.681640	Y 377.433
Ca (315.887 nm)	19.818372	ppm	0.022299	0.11	15938.190537	Y_R 377.433
Cd (214.439 nm)	0.000060 u	ppm	0.000112	> 100.00	-5.321660	Y 377.433
Co (228.615 nm)	0.000122	ppm	0.000006	4.97	-19.040500	Y 242.219
Cr (205.560 nm)	0.000343	ppm	0.000350	> 100.00	-3.541650	Y 377.433
Cu (324.754 nm)	-0.000171 u	ppm	0.000132	77.03	390.069000	Y 377.433
Fe (238.204 nm)	0.114952	ppm	0.001714	1.49	286.263403	Y_R 377.433
Fe H (259.940 nm)	0.062081 u	ppm	0.001278	2.06	177.554000	Y_R 377.433
K (766.491 nm)	1.388600	ppm	0.023878	1.72	3359.820000	Y_R2 488.368
Li (670.783 nm)	0.022166	ppm	0.000914	4.12	-2245.480000	Y_R2 488.368
Mg (279.078 nm)	3.907090	ppm	0.000346	0.01	13854.600000	Y 377.433
Mn (257.610 nm)	0.023752	ppm	0.000022	0.09	6547.830000	Y 377.433
Mo (202.032 nm)	-0.000255 u	ppm	0.000085	33.39	20.142000	Y 377.433
Na (589.592 nm)	24.770300	ppm	0.027667	0.11	18463.400000	Y_R2 488.368
Na H (589.593 nm)	25.749737 u	ppm	0.121835	0.47	13133.961195	Y_R4
Ni (231.604 nm)	-0.000846 u	ppm	0.000593	70.10	-16.093100	Y 377.433
P (213.618 nm)	0.019980	ppm	0.003886	19.45	25.650500	Y 242.219
Pb (220.353 nm)	-0.000691 u	ppm	0.000764	> 100.00	10.597300	Y 242.219
S (181.972 nm)	11.052055	ppm	0.027742	0.25	4973.490640	Y 377.433
Sb (206.834 nm)	0.004468	ppm	0.005052	> 100.00	0.344453	Y 377.433
Se (196.026 nm)	0.002093	ppm	0.001700	81.25	13.980300	Y 242.219
Si (288.158 nm)	1.901870	ppm	0.001478	0.08	13053.400000	Y 377.433
Sn (189.925 nm)	0.000820	ppm	0.000469	57.22	3.667090	Y 377.433
Sr (421.552 nm)	0.206637	ppm	0.000492	0.24	30268.479508	Y_R 488.368
Th (288.505 nm)	-0.005112 u	ppm	0.001715	33.56	5.647730	Y 377.433
Ti (336.122 nm)	0.003417	ppm	0.000193	5.65	5.375160	Y 377.433
Tl (190.794 nm)	0.001176	ppm	0.001207	> 100.00	2.126980	Y 377.433
U (409.013 nm)	0.017994	ppm	0.006029	33.51	12.140500	Y 377.433
V (292.401 nm)	0.001548	ppm	0.000059	3.79	-100.244000	Y 377.433
Zn (206.200 nm)	0.003735	ppm	0.000086	2.29	22.373500	Y 377.433
Zr (343.823 nm)	0.000538	ppm	0.000178	33.06	-143.512000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131371	25334.185335	0.001201	0.11
Y 377.433	1.127096	728246.181654	0.001342	0.12
Y_R 377.433	1.142270	62882.100000	0.005525	0.48
Y_R 488.368	1.140120	55098.800000	0.006900	0.61
Y_R2 488.368	1.128795	104621.718544	0.004266	0.38
Y_R4	1.139330	48785.500000	0.010295	0.90

Sample Name: 280-123928-a-1-b ms

Date: 5/24/2019 4:09:42 AM Rack:Tube: 2:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000247	ppm	0.000086	34.93	-554.407000	Y 377.433
Al (394.401 nm)	10.399700 o	ppm	0.003674	0.04	124890.000000	Y 377.433
Al H (396.152 nm)	10.234500	ppm	0.013440	0.13	21692.600000	Y_R 377.433
As (188.980 nm)	2.006150	ppm	0.002714	0.14	3194.970000	Y 242.219
B (249.678 nm)	1.094610	ppm	0.000644	0.06	7876.380000	Y 242.219
Ba (493.408 nm)	2.059720	ppm	0.004007	0.19	200951.000000	Y_R 488.368
Be (234.861 nm)	0.984904	ppm	0.002097	0.21	99255.900000	Y_R 488.368
Bi (223.061 nm)	1.893220	ppm	0.003782	0.20	4304.690000	Y 377.433
Ca (315.887 nm)	141.494836	ppm	0.068617	0.05	114174.982760	Y_R 377.433
Cd (214.439 nm)	0.960138	ppm	0.000750	0.08	38413.000000	Y 377.433
Co (228.615 nm)	0.955545	ppm	0.000432	0.05	23648.700000	Y 242.219
Cr (205.560 nm)	0.967373	ppm	0.002477	0.26	6841.530000	Y 377.433
Cu (324.754 nm)	0.970592	ppm	0.001253	0.13	45482.500000	Y 377.433
Fe (238.204 nm)	10.212204 o	ppm	0.002177	0.02	25173.542104	Y_R 377.433
Fe H (259.940 nm)	10.207900	ppm	0.004110	0.04	14363.900000	Y_R 377.433
K (766.491 nm)	56.785100	ppm	0.010854	0.02	58342.500000	Y_R2 488.368
Li (670.783 nm)	1.022330	ppm	0.001205	0.12	15171.000000	Y_R2 488.368
Mg (279.078 nm)	66.443200	ppm	0.003337	0.01	235384.000000	Y 377.433
Mn (257.610 nm)	1.082020	ppm	0.000502	0.05	299264.000000	Y 377.433
Mo (202.032 nm)	0.993705	ppm	0.000221	0.02	12667.900000	Y 377.433
Na (589.592 nm)	159.517000 o	ppm	0.107855	0.07	118695.000000	Y_R2 488.368
Na H (589.593 nm)	173.372363	ppm	0.583386	0.34	86552.822291	Y_R4
Ni (231.604 nm)	0.948413	ppm	0.001827	0.19	5291.160000	Y 377.433
P (213.618 nm)	20.007100	ppm	0.049141	0.25	29993.700000	Y 242.219
Pb (220.353 nm)	0.964285	ppm	0.003078	0.32	3323.920000	Y 242.219
S (181.972 nm)	64.158341	ppm	0.091481	0.14	28838.572398	Y 377.433
Sb (206.834 nm)	0.005365	ppm	0.000247	4.60	-2.881450	Y 377.433
Se (196.026 nm)	1.937360	ppm	0.004833	0.25	3158.090000	Y 242.219
Si (288.158 nm)	11.442300	ppm	0.016185	0.14	75985.300000	Y 377.433
Sn (189.925 nm)	1.938590	ppm	0.003477	0.18	3383.550000	Y 377.433
Sr (421.552 nm)	1.980098	ppm	0.004068	0.21	289638.057254	Y_R 488.368
Th (288.505 nm)	0.997275	ppm	0.008063	0.81	1661.790000	Y 377.433
Ti (336.122 nm)	0.991228	ppm	0.000233	0.02	128860.000000	Y 377.433
Tl (190.794 nm)	1.893890	ppm	0.000188	0.01	4575.130000	Y 377.433
U (409.013 nm)	1.983260	ppm	0.004091	0.21	6104.780000	Y 377.433
V (292.401 nm)	0.975513	ppm	0.000475	0.05	51270.400000	Y 377.433
Zn (206.200 nm)	0.479903	ppm	0.000457	0.10	2387.220000	Y 377.433
Zr (343.823 nm)	0.458783	ppm	0.000091	0.02	26279.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076130	24097.212534	0.000990	0.09
Y 377.433	1.087165	702445.816032	0.000413	0.04
Y_R 377.433	1.107700	60979.200000	0.004965	0.45
Y_R 488.368	1.107010	53498.200000	0.001734	0.16
Y_R2 488.368	1.093513	101351.670452	0.002170	0.20
Y_R4	1.126200	48223.200000	0.007932	0.70

Sample Name: 280-123928-a-1-c msd

Date: 5/24/2019 4:13:21 AM Rack:Tube: 2:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000460	ppm	0.000061	13.17	-550.382000	Y 377.433
Al (394.401 nm)	10.454600 o	ppm	0.013530	0.13	125548.000000	Y 377.433
Al H (396.152 nm)	10.275300	ppm	0.014273	0.14	21781.500000	Y_R 377.433
As (188.980 nm)	2.018690	ppm	0.004038	0.20	3214.950000	Y 242.219
B (249.678 nm)	1.100310	ppm	0.003924	0.36	7917.190000	Y 242.219
Ba (493.408 nm)	2.076950	ppm	0.005718	0.28	202619.000000	Y_R 488.368
Be (234.861 nm)	0.993914	ppm	0.002295	0.23	100164.000000	Y_R 488.368
Bi (223.061 nm)	1.897190	ppm	0.002915	0.15	4313.740000	Y 377.433
Ca (315.887 nm)	141.986265	ppm	0.309850	0.22	114571.741192	Y_R 377.433
Cd (214.439 nm)	0.967800	ppm	0.001050	0.11	38719.500000	Y 377.433
Co (228.615 nm)	0.962910	ppm	0.003034	0.32	23831.200000	Y 242.219
Cr (205.560 nm)	0.975028	ppm	0.001060	0.11	6895.710000	Y 377.433
Cu (324.754 nm)	0.978535	ppm	0.000826	0.08	45852.200000	Y 377.433
Fe (238.204 nm)	10.255403 o	ppm	0.035066	0.34	25280.015259	Y_R 377.433
Fe H (259.940 nm)	10.245800	ppm	0.027726	0.27	14416.900000	Y_R 377.433
K (766.491 nm)	57.386000	ppm	0.010342	0.02	58938.800000	Y_R2 488.368
Li (670.783 nm)	1.026760	ppm	0.004337	0.42	15248.100000	Y_R2 488.368
Mg (279.078 nm)	66.920200	ppm	0.096709	0.14	237074.000000	Y 377.433
Mn (257.610 nm)	1.091420	ppm	0.002130	0.20	301864.000000	Y 377.433
Mo (202.032 nm)	1.003290	ppm	0.000070	0.01	12789.900000	Y 377.433
Na (589.592 nm)	160.326000 o	ppm	0.093777	0.06	119298.000000	Y_R2 488.368
Na H (589.593 nm)	174.393151	ppm	0.522450	0.30	87060.502835	Y_R4
Ni (231.604 nm)	0.956611	ppm	0.002188	0.23	5336.990000	Y 377.433
P (213.618 nm)	20.167400	ppm	0.066540	0.33	30233.800000	Y 242.219
Pb (220.353 nm)	0.971510	ppm	0.004072	0.42	3348.710000	Y 242.219
S (181.972 nm)	64.158818	ppm	0.270768	0.42	28838.837954	Y 377.433
Sb (206.834 nm)	-0.000282 u	ppm	0.000180	63.72	-12.910300	Y 377.433
Se (196.026 nm)	1.953410	ppm	0.005733	0.29	3184.190000	Y 242.219
Si (288.158 nm)	11.628000	ppm	0.031299	0.27	77210.000000	Y 377.433
Sn (189.925 nm)	1.952820	ppm	0.004311	0.22	3408.370000	Y 377.433
Sr (421.552 nm)	1.990592	ppm	0.004677	0.23	291172.874524	Y_R 488.368
Th (288.505 nm)	1.003720	ppm	0.003722	0.37	1672.210000	Y 377.433
Ti (336.122 nm)	1.000090	ppm	0.001622	0.16	130014.000000	Y 377.433
Tl (190.794 nm)	1.914060	ppm	0.007656	0.40	4623.900000	Y 377.433
U (409.013 nm)	1.995840	ppm	0.001921	0.10	6144.140000	Y 377.433
V (292.401 nm)	0.984143	ppm	0.002345	0.24	51726.500000	Y 377.433
Zn (206.200 nm)	0.481311	ppm	0.002483	0.52	2394.210000	Y 377.433
Zr (343.823 nm)	0.458401	ppm	0.000962	0.21	26257.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.073810	24045.258385	0.002185	0.20
Y 377.433	1.083936	700359.592973	0.001783	0.16
Y_R 377.433	1.106760	60927.800000	0.001711	0.15
Y_R 488.368	1.103630	53334.900000	0.002837	0.26
Y_R2 488.368	1.067393	98930.714127	0.008621	0.81
Y_R4	1.107820	47436.200000	0.004870	0.44

Sample Name: 280-123928-b-2-a

Date: 5/24/2019 4:17:00 AM Rack:Tube: 2:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000931	ppm	0.000347	37.24	-215.057000	Y 377.433
Al (394.401 nm)	0.507521	ppm	0.002500	0.49	6449.630000	Y 377.433
Al H (396.152 nm)	0.448306 u	ppm	0.005189	1.16	1067.650000	Y_R 377.433
As (188.980 nm)	0.001594	ppm	0.002072	> 100.00	1.220670	Y 242.219
B (249.678 nm)	0.107187	ppm	0.000529	0.49	805.017000	Y 242.219
Ba (493.408 nm)	0.109705	ppm	0.000669	0.61	12059.400000	Y_R 488.368
Be (234.861 nm)	0.000032	ppm	0.000003	10.90	-4.695510	Y_R 488.368
Bi (223.061 nm)	0.002248	ppm	0.000896	39.87	-10.282000	Y 377.433
Ca (315.887 nm)	96.657860	ppm	0.099278	0.10	77973.805671	Y_R 377.433
Cd (214.439 nm)	0.000282	ppm	0.000004	1.52	3.721720	Y 377.433
Co (228.615 nm)	0.000314 u	ppm	0.000530	> 100.00	-13.787800	Y 242.219
Cr (205.560 nm)	0.000328	ppm	0.000426	> 100.00	-3.674300	Y 377.433
Cu (324.754 nm)	0.000629	ppm	0.000235	37.27	383.195000	Y 377.433
Fe (238.204 nm)	0.497426	ppm	0.001436	0.29	1228.967951	Y_R 377.433
Fe H (259.940 nm)	0.442589 u	ppm	0.000672	0.15	709.599000	Y_R 377.433
K (766.491 nm)	7.194370	ppm	0.105100	1.46	9122.220000	Y_R2 488.368
Li (670.783 nm)	0.045226	ppm	0.003420	7.56	-1843.910000	Y_R2 488.368
Mg (279.078 nm)	18.358900	ppm	0.024376	0.13	65059.100000	Y 377.433
Mn (257.610 nm)	0.077956	ppm	0.000105	0.13	21540.700000	Y 377.433
Mo (202.032 nm)	0.002321	ppm	0.000038	1.65	52.925400	Y 377.433
Na (589.592 nm)	114.413000 o	ppm	0.211576	0.18	84884.600000	Y_R2 488.368
Na H (589.593 nm)	123.034911	ppm	0.507823	0.41	61517.917412	Y_R4
Ni (231.604 nm)	-0.000165 u	ppm	0.000289	> 100.00	-12.289100	Y 377.433
P (213.618 nm)	0.097033	ppm	0.000287	0.30	141.626000	Y 242.219
Pb (220.353 nm)	-0.002631 u	ppm	0.001151	43.73	3.860040	Y 242.219
S (181.972 nm)	55.607437	ppm	0.008662	0.02	24992.187250	Y 377.433
Sb (206.834 nm)	0.003209	ppm	0.000925	28.81	-1.909910	Y 377.433
Se (196.026 nm)	0.001276	ppm	0.000207	16.25	12.626700	Y 242.219
Si (288.158 nm)	8.782920	ppm	0.002633	0.03	58442.900000	Y 377.433
Sn (189.925 nm)	-0.000973 u	ppm	0.000820	84.24	0.539294	Y 377.433
Sr (421.552 nm)	0.996164	ppm	0.003671	0.37	145736.641686	Y_R 488.368
Th (288.505 nm)	-0.007819 u	ppm	0.002022	25.86	-0.261846	Y 377.433
Ti (336.122 nm)	0.014932	ppm	0.000059	0.39	1764.490000	Y 377.433
Tl (190.794 nm)	0.005924	ppm	0.001369	23.11	10.329800	Y 377.433
U (409.013 nm)	0.039438	ppm	0.002036	5.16	69.537800	Y 377.433
V (292.401 nm)	0.004676	ppm	0.000250	5.34	65.463600	Y 377.433
Zn (206.200 nm)	0.006484	ppm	0.000590	9.11	36.074000	Y 377.433
Zr (343.823 nm)	0.001294	ppm	0.000175	13.49	-99.884400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.104684	24736.610892	0.002865	0.26
Y 377.433	1.106393	714869.385823	0.000754	0.07
Y_R 377.433	1.122860	61813.700000	0.003359	0.30
Y_R 488.368	1.120320	54141.700000	0.001903	0.17
Y_R2 488.368	1.087827	100824.671113	0.008476	0.78
Y_R4	1.124180	48136.900000	0.003941	0.35

Sample Name: 280-123928-b-3-a

Date: 5/24/2019 4:20:31 AM Rack:Tube: 2:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000524	ppm	0.000004	0.82	-229.580000	Y 377.433
Al (394.401 nm)	0.501403	ppm	0.001738	0.35	6398.640000	Y 377.433
Al H (396.152 nm)	0.443954 u	ppm	0.001011	0.23	1089.010000	Y_R 377.433
As (188.980 nm)	0.001132 u	ppm	0.001792	> 100.00	0.464201	Y 242.219
B (249.678 nm)	0.117686	ppm	0.000471	0.40	879.872000	Y 242.219
Ba (493.408 nm)	0.112144	ppm	0.000136	0.12	12296.100000	Y_R 488.368
Be (234.861 nm)	0.000014 u	ppm	0.000045	> 100.00	-9.454180	Y_R 488.368
Bi (223.061 nm)	0.001578	ppm	0.000575	36.45	-11.687900	Y 377.433
Ca (315.887 nm)	106.673728	ppm	0.211897	0.20	86060.006219	Y_R 377.433
Cd (214.439 nm)	0.000280	ppm	0.000016	5.87	3.943640	Y 377.433
Co (228.615 nm)	0.000587	ppm	0.000118	20.13	-7.127830	Y 242.219
Cr (205.560 nm)	0.000924	ppm	0.000220	23.77	0.546772	Y 377.433
Cu (324.754 nm)	0.015557	ppm	0.000088	0.56	1070.260000	Y 377.433
Fe (238.204 nm)	1.172603	ppm	0.003780	0.32	2893.117328	Y_R 377.433
Fe H (259.940 nm)	1.132260 u	ppm	0.000438	0.04	1673.920000	Y_R 377.433
K (766.491 nm)	7.317900	ppm	0.164684	2.25	9244.820000	Y_R2 488.368
Li (670.783 nm)	0.050219	ppm	0.001763	3.51	-1756.980000	Y_R2 488.368
Mg (279.078 nm)	20.208900	ppm	0.085082	0.42	71612.900000	Y 377.433
Mn (257.610 nm)	0.076736	ppm	0.000295	0.38	21203.200000	Y 377.433
Mo (202.032 nm)	0.002155	ppm	0.000456	21.17	50.812100	Y 377.433
Na (589.592 nm)	127.151000 o	ppm	0.120448	0.09	94321.400000	Y_R2 488.368
Na H (589.593 nm)	136.324319	ppm	0.574139	0.42	68127.291857	Y_R4
Ni (231.604 nm)	-0.000125 u	ppm	0.000831	> 100.00	-12.064100	Y 377.433
P (213.618 nm)	0.099128	ppm	0.000725	0.73	141.047000	Y 242.219
Pb (220.353 nm)	-0.001113 u	ppm	0.002760	> 100.00	9.101940	Y 242.219
S (181.972 nm)	64.344016	ppm	0.197872	0.31	28917.237650	Y 377.433
Sb (206.834 nm)	-0.000058 u	ppm	0.000825	> 100.00	-7.605300	Y 377.433
Se (196.026 nm)	0.002606	ppm	0.000220	8.46	14.597500	Y 242.219
Si (288.158 nm)	9.093070	ppm	0.025212	0.28	60488.800000	Y 377.433
Sn (189.925 nm)	0.001406	ppm	0.001127	80.16	4.688320	Y 377.433
Sr (421.552 nm)	1.079798	ppm	0.001406	0.13	157968.152368	Y_R 488.368
Th (288.505 nm)	-0.008979 u	ppm	0.002477	27.58	-2.581320	Y 377.433
Ti (336.122 nm)	0.013512	ppm	0.000290	2.15	1613.240000	Y 377.433
Tl (190.794 nm)	0.002245	ppm	0.000832	37.08	0.933019	Y 377.433
U (409.013 nm)	0.047294	ppm	0.003020	6.39	93.376700	Y 377.433
V (292.401 nm)	0.004676	ppm	0.000213	4.56	64.556000	Y 377.433
Zn (206.200 nm)	0.008350	ppm	0.000447	5.36	45.440200	Y 377.433
Zr (343.823 nm)	0.001171	ppm	0.000031	2.68	-106.981000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092656	24467.254988	0.007168	0.66
Y 377.433	1.094692	707309.021378	0.010478	0.96
Y_R 377.433	1.128310	62113.700000	0.005191	0.46
Y_R 488.368	1.124990	54367.100000	0.005005	0.44
Y_R2 488.368	1.100915	102037.671235	0.005501	0.50
Y_R4	1.135660	48628.200000	0.006609	0.58

Sample Name: CCVH-5713036

Date: 5/24/2019 4:24:06 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004066	ppm	0.000143	3.52	-113.417000	Y 377.433
Al (394.401 nm)	49.173700 o	ppm	0.035159	0.07	586480.000000	Y 377.433
Al H (396.152 nm)	48.761800	ppm	0.013254	0.03	100260.000000	Y_R 377.433
As (188.980 nm)	0.002497	ppm	0.002490	99.71	1.275860	Y 242.219
B (249.678 nm)	-0.002472 u	ppm	0.000784	31.72	-8.929070	Y 242.219
Ba (493.408 nm)	0.001284	ppm	0.000454	35.35	1594.720000	Y_R 488.368
Be (234.861 nm)	0.001066	ppm	0.000010	0.91	-109.544000	Y_R 488.368
Bi (223.061 nm)	0.012744	ppm	0.000235	1.85	22.334400	Y 377.433
Ca (315.887 nm)	0.001445 u	ppm	0.002977	> 100.00	-48.469736	Y_R 377.433
Cd (214.439 nm)	0.001463	ppm	0.000134	9.15	72.184300	Y 377.433
Co (228.615 nm)	0.003706	ppm	0.000271	7.32	69.523100	Y 242.219
Cr (205.560 nm)	0.001581	ppm	0.000129	8.15	3.848090	Y 377.433
Cu (324.754 nm)	0.002891	ppm	0.000256	8.85	1463.730000	Y 377.433
Fe (238.204 nm)	48.618917 o	ppm	0.019903	0.04	119836.776800	Y_R 377.433
Fe H (259.940 nm)	48.786900	ppm	0.020964	0.04	68307.000000	Y_R 377.433
K (766.491 nm)	0.394355	ppm	0.031156	7.90	2373.000000	Y_R2 488.368
Li (670.783 nm)	0.016242	ppm	0.001614	9.94	-2348.630000	Y_R2 488.368
Mg (279.078 nm)	0.034810	ppm	0.001423	4.09	56.578300	Y 377.433
Mn (257.610 nm)	0.001015	ppm	0.000018	1.76	258.729000	Y 377.433
Mo (202.032 nm)	0.000509	ppm	0.000117	22.95	29.869600	Y 377.433
Na (589.592 nm)	232.874000 o	ppm	0.609101	0.26	172614.000000	Y_R2 488.368
Na H (589.593 nm)	249.069916	ppm	0.241758	0.10	124200.358770	Y_R4
Ni (231.604 nm)	0.002007	ppm	0.000446	22.23	-0.151541	Y 377.433
P (213.618 nm)	4.817990	ppm	0.012185	0.25	7282.010000	Y 242.219
Pb (220.353 nm)	0.004349	ppm	0.000112	2.58	20.560000	Y 242.219
S (181.972 nm)	4.993147	ppm	0.005644	0.11	2250.750752	Y 377.433
Sb (206.834 nm)	0.005845	ppm	0.001259	21.54	7.073600	Y 377.433
Se (196.026 nm)	0.005011	ppm	0.000889	17.74	5.178070	Y 242.219
Si (288.158 nm)	0.012513	ppm	0.000337	2.70	590.584000	Y 377.433
Sn (189.925 nm)	0.001540	ppm	0.000203	13.16	4.923260	Y 377.433
Sr (421.552 nm)	0.001129	ppm	0.000192	17.00	220.166024	Y_R 488.368
Th (288.505 nm)	4.877210	ppm	0.003958	0.08	8522.350000	Y 377.433
Ti (336.122 nm)	0.002142	ppm	0.000078	3.63	-227.073000	Y 377.433
Tl (190.794 nm)	0.001160	ppm	0.000989	85.31	-2.009770	Y 377.433
U (409.013 nm)	0.546616 Q	ppm	0.005544	1.01	1706.110000 Q	Y 377.433
V (292.401 nm)	0.001464	ppm	0.000083	5.65	386.711000	Y 377.433
Zn (206.200 nm)	0.003161	ppm	0.000603	19.08	27.004200	Y 377.433
Zr (343.823 nm)	0.001397	ppm	0.000350	25.03	-93.951700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.094112	24499.867449	0.004077	0.37
Y 377.433	1.093072	706262.739760	0.002196	0.20
Y_R 377.433	1.123900	61871.300000	0.004981	0.44
Y_R 488.368	1.118880	54072.200000	0.006277	0.56
Y_R2 488.368	1.099601	101915.928440	0.013192	1.20
Y_R4	1.127530	48280.400000	0.000842	0.07

Sample Name: CCV-5717467

Date: 5/24/2019 4:27:47 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.484657	ppm	0.001387	0.29	16746.800000	Y 377.433
Al (394.401 nm)	0.501437	ppm	0.003654	0.73	6243.440000	Y 377.433
Al H (396.152 nm)	0.557343 u	ppm	0.000949	0.17	1152.370000	Y_R 377.433
As (188.980 nm)	0.487316	ppm	0.003087	0.63	775.106000	Y 242.219
B (249.678 nm)	0.475674	ppm	0.000106	0.02	3444.880000	Y 242.219
Ba (493.408 nm)	0.482483	ppm	0.001974	0.41	48169.200000	Y_R 488.368
Be (234.861 nm)	0.478971	ppm	0.002457	0.51	48277.400000	Y_R 488.368
Bi (223.061 nm)	0.951447	ppm	0.003358	0.35	2155.180000	Y 377.433
Ca (315.887 nm)	4.885439	ppm	0.003070	0.06	3882.365956	Y_R 377.433
Cd (214.439 nm)	0.491597	ppm	0.001755	0.36	19662.700000	Y 377.433
Co (228.615 nm)	0.485855	ppm	0.000543	0.11	12012.500000	Y 242.219
Cr (205.560 nm)	0.488325	ppm	0.004305	0.88	3450.820000	Y 377.433
Cu (324.754 nm)	0.482076	ppm	0.000028	0.01	22794.900000	Y 377.433
Fe (238.204 nm)	2.448509	ppm	0.007659	0.31	6037.915369	Y_R 377.433
Fe H (259.940 nm)	2.405550 u	ppm	0.015142	0.63	3454.300000	Y_R 377.433
K (766.491 nm)	47.933700	ppm	0.332992	0.69	49557.200000	Y_R2 488.368
Li (670.783 nm)	0.490655	ppm	0.001927	0.39	5912.620000	Y_R2 488.368
Mg (279.078 nm)	19.509200	ppm	0.049462	0.25	69132.500000	Y 377.433
Mn (257.610 nm)	0.487581	ppm	0.001102	0.23	134843.000000	Y 377.433
Mo (202.032 nm)	0.486561	ppm	0.000953	0.20	6214.700000	Y 377.433
Na (589.592 nm)	23.543500	ppm	0.044894	0.19	17648.800000	Y_R2 488.368
Na H (589.593 nm)	26.000054 u	ppm	0.160340	0.62	13258.454265	Y_R4
Ni (231.604 nm)	0.488021	ppm	0.001422	0.29	2716.530000	Y 377.433
P (213.618 nm)	0.053320	ppm	0.005610	10.52	-61.337300	Y 242.219
Pb (220.353 nm)	0.490956	ppm	0.001542	0.31	1697.200000	Y 242.219
S (181.972 nm)	0.006851	ppm	0.001613	23.55	12.553455	Y 377.433
Sb (206.834 nm)	0.492816	ppm	0.003196	0.65	859.777000	Y 377.433
Se (196.026 nm)	0.483679	ppm	0.000487	0.10	796.773000	Y 242.219
Si (288.158 nm)	4.756840	ppm	0.000606	0.01	31885.600000	Y 377.433
Sn (189.925 nm)	0.488851	ppm	0.002322	0.47	854.897000	Y 377.433
Sr (421.552 nm)	0.484565	ppm	0.002313	0.48	70915.765694	Y_R 488.368
Th (288.505 nm)	0.015887	ppm	0.006815	42.90	-7.116250	Y 377.433
Ti (336.122 nm)	0.482723	ppm	0.000800	0.17	62276.600000	Y 377.433
Tl (190.794 nm)	0.497300	ppm	0.000623	0.13	1201.480000	Y 377.433
U (409.013 nm)	0.029428	ppm	0.001082	3.68	-7.733390	Y 377.433
V (292.401 nm)	0.482178	ppm	0.001375	0.29	25246.000000	Y 377.433
Zn (206.200 nm)	0.491964	ppm	0.003462	0.70	2445.880000	Y 377.433
Zr (343.823 nm)	0.483688	ppm	0.000549	0.11	27715.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119272	25063.261558	0.005937	0.53
Y 377.433	1.116701	721529.997369	0.006070	0.54
Y_R 377.433	1.131600	62295.100000	0.008582	0.76
Y_R 488.368	1.129150	54568.500000	0.009201	0.81
Y_R2 488.368	1.106979	102599.713919	0.010941	0.99
Y_R4	1.128390	48317.200000	0.005988	0.53

Sample Name: CCB

Date: 5/24/2019 4:31:22 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000014 u	ppm	0.000068	> 100.00	-245.292000	Y 377.433
Al (394.401 nm)	-0.001231 u	ppm	0.000093	7.53	114.119000	Y 377.433
Al H (396.152 nm)	0.121561 Zu	ppm	0.000099	0.08	24.917100 Z	Y_R 377.433
As (188.980 nm)	0.000417	ppm	0.000219	52.49	-0.641558	Y 242.219
B (249.678 nm)	-0.003315 u	ppm	0.000040	1.20	13.325900	Y 242.219
Ba (493.408 nm)	-0.002349 Zu	ppm	0.000341	14.51	1205.060000 Z	Y_R 488.368
Be (234.861 nm)	0.000017 u	ppm	0.000090	> 100.00	-3.985160	Y_R 488.368
Bi (223.061 nm)	0.002372	ppm	0.001586	66.86	-10.105300	Y 377.433
Ca (315.887 nm)	0.017583	ppm	0.003759	21.38	-47.781345	Y_R 377.433
Cd (214.439 nm)	0.000051 u	ppm	0.000202	> 100.00	-5.745880	Y 377.433
Co (228.615 nm)	0.000091 u	ppm	0.000164	> 100.00	-19.904800	Y 242.219
Cr (205.560 nm)	0.000168	ppm	0.000194	> 100.00	-4.778000	Y 377.433
Cu (324.754 nm)	-0.000152 u	ppm	0.000561	> 100.00	405.296000	Y 377.433
Fe (238.204 nm)	0.001487	ppm	0.000815	54.83	6.599173	Y_R 377.433
Fe H (259.940 nm)	-0.051697 u	ppm	0.002042	3.95	18.463600	Y_R 377.433
K (766.491 nm)	-0.067194 u	ppm	0.078197	> 100.00	1914.900000	Y_R2 488.368
Li (670.783 nm)	0.013748 Z	ppm	0.000939	6.83	-2392.060000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000477 u	ppm	0.000168	35.17	10.201300	Y 377.433
Mn (257.610 nm)	0.000049	ppm	0.000002	3.44	-8.506070	Y 377.433
Mo (202.032 nm)	-0.000565 u	ppm	0.000374	66.18	16.198900	Y 377.433
Na (589.592 nm)	0.144293	ppm	0.017381	12.05	216.780000	Y_R2 488.368
Na H (589.593 nm)	0.637272 u	ppm	0.007239	1.14	644.489612	Y_R4
Ni (231.604 nm)	0.000020 u	ppm	0.000534	> 100.00	-11.259800	Y 377.433
P (213.618 nm)	0.002142	ppm	0.000353	16.50	-1.198670	Y 242.219
Pb (220.353 nm)	-0.001229 u	ppm	0.000981	79.79	8.680830	Y 242.219
S (181.972 nm)	-0.001490 u	ppm	0.003710	> 100.00	7.086247	Y 377.433
Sb (206.834 nm)	0.004479	ppm	0.002089	46.64	0.362602	Y 377.433
Se (196.026 nm)	-0.001128 u	ppm	0.000119	10.52	8.742390	Y 242.219
Si (288.158 nm)	-0.005651 u	ppm	0.000501	8.86	470.767000	Y 377.433
Sn (189.925 nm)	-0.000045 u	ppm	0.000710	> 100.00	2.157750	Y 377.433
Sr (421.552 nm)	0.000004 u	ppm	0.000034	> 100.00	48.550219	Y_R 488.368
Th (288.505 nm)	-0.001097 u	ppm	0.002817	> 100.00	12.611500	Y 377.433
Ti (336.122 nm)	0.000475	ppm	0.000108	22.81	-443.915000	Y 377.433
Tl (190.794 nm)	-0.000943 u	ppm	0.000965	> 100.00	-2.168180	Y 377.433
U (409.013 nm)	0.008251	ppm	0.006681	80.97	-15.953200	Y 377.433
V (292.401 nm)	0.000517	ppm	0.000282	54.51	-152.337000	Y 377.433
Zn (206.200 nm)	-0.000275 u	ppm	0.000338	> 100.00	2.450720	Y 377.433
Zr (343.823 nm)	0.000405	ppm	0.000007	1.78	-151.190000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.132834	25366.945446	0.001929	0.17
Y 377.433	1.129727	729946.084445	0.001464	0.13
Y_R 377.433	1.147850	63189.800000	0.003451	0.30
Y_R 488.368	1.144430	55306.700000	0.005064	0.44
Y_R2 488.368	1.120936	103893.324181	0.004801	0.43
Y_R4	1.145000	49028.200000	0.000630	0.06

Sample Name: CCVL-5717307

Date: 5/24/2019 4:34:33 AM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007787	ppm	0.000015	0.19	26.111000	Y 377.433
Al (394.401 nm)	0.095106	ppm	0.000096	0.10	1274.000000	Y 377.433
Al H (396.152 nm)	0.215296 u	ppm	0.003745	1.74	223.173000	Y_R 377.433
As (188.980 nm)	0.014106	ppm	0.000938	6.65	21.168600	Y 242.219
B (249.678 nm)	0.090205	ppm	0.000048	0.05	683.540000	Y 242.219
Ba (493.408 nm)	0.007780	ppm	0.000130	1.67	2186.260000	Y_R 488.368
Be (234.861 nm)	0.000992	ppm	0.000021	2.08	93.824900	Y_R 488.368
Bi (223.061 nm)	0.089500	ppm	0.001897	2.12	188.647000	Y 377.433
Ca (315.887 nm)	0.218279	ppm	0.014538	6.66	114.270467	Y_R 377.433
Cd (214.439 nm)	0.005071	ppm	0.000090	1.78	195.166000	Y 377.433
Co (228.615 nm)	0.010365	ppm	0.000152	1.46	234.538000	Y 242.219
Cr (205.560 nm)	0.010274	ppm	0.000182	1.77	66.658700	Y 377.433
Cu (324.754 nm)	0.014825	ppm	0.000091	0.62	1098.820000	Y 377.433
Fe (238.204 nm)	0.101616	ppm	0.002716	2.67	253.393702	Y_R 377.433
Fe H (259.940 nm)	0.047900 u	ppm	0.001946	4.06	157.725000	Y_R 377.433
K (766.491 nm)	2.854190	ppm	0.042628	1.49	4814.460000	Y_R2 488.368
Li (670.783 nm)	0.038301 Q	ppm	0.001320	3.45	-1964.520000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200077	ppm	0.003099	1.55	719.531000	Y 377.433
Mn (257.610 nm)	0.010444	ppm	0.000007	0.06	2866.760000	Y 377.433
Mo (202.032 nm)	0.018407	ppm	0.000343	1.86	257.612000	Y 377.433
Na (589.592 nm)	1.121370	ppm	0.010052	0.90	942.553000	Y_R2 488.368
Na H (589.593 nm)	1.416540 u	ppm	0.002795	0.20	1032.052282	Y_R4
Ni (231.604 nm)	0.041089	ppm	0.000691	1.68	218.274000	Y 377.433
P (213.618 nm)	2.759120	ppm	0.019566	0.71	4166.500000	Y 242.219
Pb (220.353 nm)	0.007331	ppm	0.000906	12.36	38.168900	Y 242.219
S (181.972 nm)	0.091904	ppm	0.001865	2.03	49.077402	Y 377.433
Sb (206.834 nm)	0.023794	ppm	0.000302	1.27	34.313700	Y 377.433
Se (196.026 nm)	0.016715	ppm	0.000535	3.20	37.732400	Y 242.219
Si (288.158 nm)	0.465774	ppm	0.002821	0.61	3580.430000	Y 377.433
Sn (189.925 nm)	0.098335	ppm	0.002253	2.29	173.754000	Y 377.433
Sr (421.552 nm)	0.008986	ppm	0.000072	0.80	1362.188833	Y_R 488.368
Th (288.505 nm)	0.013338	ppm	0.001390	10.42	37.264400	Y 377.433
Ti (336.122 nm)	0.009997	ppm	0.000098	0.98	794.920000	Y 377.433
Tl (190.794 nm)	0.016579	ppm	0.001006	6.07	40.164300	Y 377.433
U (409.013 nm)	0.060164	ppm	0.007334	12.19	145.536000	Y 377.433
V (292.401 nm)	0.010245	ppm	0.000252	2.46	357.339000	Y 377.433
Zn (206.200 nm)	0.020496	ppm	0.000096	0.47	105.556000	Y 377.433
Zr (343.823 nm)	0.010091	ppm	0.000061	0.61	407.315000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.154950	25862.182708	0.001003	0.09
Y 377.433	1.153162	745088.445407	0.002255	0.20
Y_R 377.433	1.159160	63812.400000	0.002675	0.23
Y_R 488.368	1.157340	55930.900000	0.002944	0.25
Y_R2 488.368	1.142886	105927.749609	0.004917	0.43
Y_R4	1.164010	49842.200000	0.004900	0.42

Sample Name: 280-123928-b-4-a

Date: 5/24/2019 4:38:02 AM Rack:Tube: 2:61

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000826	ppm	0.000556	67.30	-219.085000	Y 377.433
Al (394.401 nm)	0.581612	ppm	0.003416	0.59	7342.240000	Y 377.433
Al H (396.152 nm)	0.526049 u	ppm	0.005096	0.97	1235.610000	Y_R 377.433
As (188.980 nm)	0.003406	ppm	0.000571	16.77	4.104030	Y 242.219
B (249.678 nm)	0.123454	ppm	0.000696	0.56	921.552000	Y 242.219
Ba (493.408 nm)	0.111404	ppm	0.000007	0.01	12224.000000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000048	> 100.00	-10.284300	Y_R 488.368
Bi (223.061 nm)	0.001045	ppm	0.001285	> 100.00	-13.008100	Y 377.433
Ca (315.887 nm)	105.537460	ppm	0.287847	0.27	85142.673053	Y_R 377.433
Cd (214.439 nm)	0.000292	ppm	0.000001	0.29	4.153950	Y 377.433
Co (228.615 nm)	0.000452	ppm	0.000204	45.15	-10.249600	Y 242.219
Cr (205.560 nm)	0.000517	ppm	0.000371	71.68	-2.335010	Y 377.433
Cu (324.754 nm)	0.002677	ppm	0.000012	0.43	472.757000	Y 377.433
Fe (238.204 nm)	0.596419	ppm	0.000677	0.11	1472.963382	Y_R 377.433
Fe H (259.940 nm)	0.534241 u	ppm	0.006618	1.24	837.752000	Y_R 377.433
K (766.491 nm)	7.313390	ppm	0.073465	1.00	9240.350000	Y_R2 488.368
Li (670.783 nm)	0.044543	ppm	0.001360	3.05	-1855.810000	Y_R2 488.368
Mg (279.078 nm)	19.666900	ppm	0.034581	0.18	69693.400000	Y 377.433
Mn (257.610 nm)	0.060068	ppm	0.000099	0.16	16592.700000	Y 377.433
Mo (202.032 nm)	0.002241	ppm	0.000411	18.35	51.905500	Y 377.433
Na (589.592 nm)	122.092000 o	ppm	0.403016	0.33	90573.300000	Y_R2 488.368
Na H (589.593 nm)	130.208748	ppm	0.242403	0.19	65085.764646	Y_R4
Ni (231.604 nm)	0.000870	ppm	0.000782	89.84	-6.505340	Y 377.433
P (213.618 nm)	0.114231	ppm	0.000244	0.21	167.171000	Y 242.219
Pb (220.353 nm)	-0.000755 u	ppm	0.000819	> 100.00	10.310100	Y 242.219
S (181.972 nm)	61.516253	ppm	0.031279	0.05	27646.870901	Y 377.433
Sb (206.834 nm)	-0.000037 u	ppm	0.003143	> 100.00	-7.644780	Y 377.433
Se (196.026 nm)	-0.000196 u	ppm	0.000472	> 100.00	10.180700	Y 242.219
Si (288.158 nm)	9.220370	ppm	0.017280	0.19	61328.500000	Y 377.433
Sn (189.925 nm)	0.000214 u	ppm	0.000528	> 100.00	2.609160	Y 377.433
Sr (421.552 nm)	1.020699	ppm	0.004268	0.42	149324.839960	Y_R 488.368
Th (288.505 nm)	-0.008503 u	ppm	0.008395	98.74	-2.060900	Y 377.433
Ti (336.122 nm)	0.018203	ppm	0.000752	4.13	2219.850000	Y 377.433
Tl (190.794 nm)	0.002606	ppm	0.000668	25.61	1.900830	Y 377.433
U (409.013 nm)	0.040451	ppm	0.014996	37.07	71.628100	Y 377.433
V (292.401 nm)	0.005406	ppm	0.000076	1.41	103.812000	Y 377.433
Zn (206.200 nm)	0.009832	ppm	0.001399	14.23	52.705000	Y 377.433
Zr (343.823 nm)	0.001312	ppm	0.000204	15.55	-98.848900	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103064	24700.331604	0.003730	0.34
Y 377.433	1.102797	712546.403683	0.004857	0.44
Y_R 377.433	1.119770	61643.900000	0.004097	0.37
Y_R 488.368	1.114210	53846.500000	0.005526	0.50
Y_R2 488.368	1.087067	100754.250553	0.004077	0.38
Y_R4	1.119330	47929.200000	0.005289	0.47

Sample Name: mb 280-459145/1-a

Date: 5/24/2019 4:41:34 AM Rack:Tube: 2:62

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000129 u	ppm	0.000396	> 100.00	-250.662000	Y 377.433
Al (394.401 nm)	-0.000634 u	ppm	0.000260	40.97	123.659000	Y 377.433
Al H (396.152 nm)	0.118294 u	ppm	0.007912	6.69	18.236900	Y_R 377.433
As (188.980 nm)	-0.002337 u	ppm	0.003230	> 100.00	-5.030220	Y 242.219
B (249.678 nm)	-0.003326 u	ppm	0.000917	27.57	13.238200	Y 242.219
Ba (493.408 nm)	-0.002253 u	ppm	0.000378	16.80	1214.440000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000067	> 100.00	-6.071420	Y_R 488.368
Bi (223.061 nm)	0.002613	ppm	0.002304	88.15	-9.551430	Y 377.433
Ca (315.887 nm)	0.018132	ppm	0.003608	19.90	-47.338268	Y_R 377.433
Cd (214.439 nm)	-0.000071 u	ppm	0.000012	17.47	-10.603600	Y 377.433
Co (228.615 nm)	0.000233	ppm	0.000062	26.46	-16.392900	Y 242.219
Cr (205.560 nm)	-0.000318 u	ppm	0.000389	> 100.00	-8.224560	Y 377.433
Cu (324.754 nm)	-0.000231 u	ppm	0.000007	2.91	400.508000	Y 377.433
Fe (238.204 nm)	0.019805	ppm	0.000482	2.43	51.749314	Y_R 377.433
Fe H (259.940 nm)	-0.035489 u	ppm	0.001574	4.44	41.127200	Y_R 377.433
K (766.491 nm)	-0.127436 u	ppm	0.055954	43.91	1855.110000	Y_R2 488.368
Li (670.783 nm)	0.016711	ppm	0.000377	2.26	-2340.470000	Y_R2 488.368
Mg (279.078 nm)	0.001206 u	ppm	0.002875	> 100.00	15.875800	Y 377.433
Mn (257.610 nm)	0.000393	ppm	0.000000	0.01	86.802400	Y 377.433
Mo (202.032 nm)	-0.000727 u	ppm	0.000410	56.43	14.135300	Y 377.433
Na (589.592 nm)	0.129030	ppm	0.023382	18.12	205.442000	Y_R2 488.368
Na H (589.593 nm)	0.490350 u	ppm	0.014827	3.02	571.419565	Y_R4
Ni (231.604 nm)	0.000241 u	ppm	0.000343	> 100.00	-10.022600	Y 377.433
P (213.618 nm)	0.001376	ppm	0.001597	> 100.00	-2.452910	Y 242.219
Pb (220.353 nm)	-0.001136 u	ppm	0.000174	15.35	9.040540	Y 242.219
S (181.972 nm)	0.007836	ppm	0.008217	> 100.00	11.276594	Y 377.433
Sb (206.834 nm)	0.002824	ppm	0.002145	75.97	-2.555610	Y 377.433
Se (196.026 nm)	0.000349 u	ppm	0.001485	> 100.00	11.138800	Y 242.219
Si (288.158 nm)	-0.004329 u	ppm	0.000205	4.74	479.488000	Y 377.433
Sn (189.925 nm)	0.000425	ppm	0.000150	35.30	2.978350	Y 377.433
Sr (421.552 nm)	0.000114	ppm	0.000052	45.48	64.547336	Y_R 488.368
Th (288.505 nm)	0.000675 u	ppm	0.003040	> 100.00	15.773500	Y 377.433
Ti (336.122 nm)	0.000484	ppm	0.000057	11.75	-442.700000	Y 377.433
Tl (190.794 nm)	0.000008 u	ppm	0.000071	> 100.00	0.132928	Y 377.433
U (409.013 nm)	0.009078	ppm	0.003082	33.96	-13.300000	Y 377.433
V (292.401 nm)	0.000490	ppm	0.000022	4.42	-154.788000	Y 377.433
Zn (206.200 nm)	0.001247	ppm	0.000249	19.95	10.011000	Y 377.433
Zr (343.823 nm)	0.000364	ppm	0.000032	8.69	-153.516000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.138369	25490.881139	0.005222	0.46
Y 377.433	1.133146	732155.528037	0.004860	0.43
Y_R 377.433	1.146900	63137.400000	0.005060	0.44
Y_R 488.368	1.143200	55247.200000	0.003394	0.30
Y_R2 488.368	1.123417	104123.263885	0.002051	0.18
Y_R4	1.146520	49093.300000	0.005838	0.51

Sample Name: lcs 280-459145/2-a

Date: 5/24/2019 4:44:44 AM Rack:Tube: 2:63

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000315	ppm	0.000288	91.44	-535.220000	Y 377.433
Al (394.401 nm)	9.453940 o	ppm	0.013490	0.14	113330.000000	Y 377.433
Al H (396.152 nm)	9.492400	ppm	0.031515	0.33	19778.500000	Y_R 377.433
As (188.980 nm)	1.914390	ppm	0.005753	0.30	3048.780000	Y 242.219
B (249.678 nm)	0.937186	ppm	0.001764	0.19	6748.520000	Y 242.219
Ba (493.408 nm)	1.895350	ppm	0.002257	0.12	185029.000000	Y_R 488.368
Be (234.861 nm)	0.959800	ppm	0.003524	0.37	96727.900000	Y_R 488.368
Bi (223.061 nm)	1.841640	ppm	0.009181	0.50	4186.880000	Y 377.433
Ca (315.887 nm)	47.043084	ppm	0.136638	0.29	37920.167807	Y_R 377.433
Cd (214.439 nm)	0.946508	ppm	0.000690	0.07	37867.300000	Y 377.433
Co (228.615 nm)	0.930249	ppm	0.000148	0.02	23021.500000	Y 242.219
Cr (205.560 nm)	0.945506	ppm	0.003000	0.32	6686.810000	Y 377.433
Cu (324.754 nm)	0.925190	ppm	0.000442	0.05	43427.000000	Y 377.433
Fe (238.204 nm)	9.495772 o	ppm	0.045734	0.48	23407.709669	Y_R 377.433
Fe H (259.940 nm)	9.489700	ppm	0.026127	0.28	13359.700000	Y_R 377.433
K (766.491 nm)	47.076300	ppm	0.154431	0.33	48706.200000	Y_R2 488.368
Li (670.783 nm)	0.948450	ppm	0.002952	0.31	13884.500000	Y_R2 488.368
Mg (279.078 nm)	47.296900	ppm	0.025310	0.05	167548.000000	Y 377.433
Mn (257.610 nm)	0.954239	ppm	0.000659	0.07	263921.000000	Y 377.433
Mo (202.032 nm)	0.964272	ppm	0.000644	0.07	12293.400000	Y 377.433
Na (589.592 nm)	44.957400	ppm	0.190864	0.42	33801.500000	Y_R2 488.368
Na H (589.593 nm)	49.393296 u	ppm	0.196599	0.40	24892.885007	Y_R4
Ni (231.604 nm)	0.927894	ppm	0.001751	0.19	5176.480000	Y 377.433
P (213.618 nm)	19.107200	ppm	0.003606	0.02	28645.000000	Y 242.219
Pb (220.353 nm)	0.949474	ppm	0.005232	0.55	3273.210000	Y 242.219
S (181.972 nm)	9.651603	ppm	0.022682	0.24	4348.532793	Y 377.433
Sb (206.834 nm)	0.007388	ppm	0.000547	7.41	0.821866	Y 377.433
Se (196.026 nm)	1.870750	ppm	0.000121	0.01	3049.850000	Y 242.219
Si (288.158 nm)	1.905570	ppm	0.001828	0.10	13077.800000	Y 377.433
Sn (189.925 nm)	1.888180	ppm	0.003615	0.19	3295.620000	Y 377.433
Sr (421.552 nm)	0.950957	ppm	0.000179	0.02	139126.485986	Y_R 488.368
Th (288.505 nm)	0.974373	ppm	0.000348	0.04	1625.300000	Y 377.433
Ti (336.122 nm)	0.953107	ppm	0.000099	0.01	123581.000000	Y 377.433
Tl (190.794 nm)	1.893270	ppm	0.002488	0.13	4577.850000	Y 377.433
U (409.013 nm)	1.893500	ppm	0.006574	0.35	5833.440000	Y 377.433
V (292.401 nm)	0.944207	ppm	0.001515	0.16	49616.800000	Y 377.433
Zn (206.200 nm)	0.470684	ppm	0.000911	0.19	2341.360000	Y 377.433
Zr (343.823 nm)	0.473099	ppm	0.000845	0.18	27104.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.099579	24622.289281	0.001908	0.17
Y 377.433	1.105254	714133.772651	0.001710	0.15
Y_R 377.433	1.114070	61329.900000	0.006914	0.62
Y_R 488.368	1.110150	53650.100000	0.002519	0.23
Y_R2 488.368	1.095962	101578.686372	0.001463	0.13
Y_R4	1.124800	48163.500000	0.005688	0.51

Sample Name: 280-123846-a-1-a

Date: 5/24/2019 4:48:20 AM
Rack:Tube: 2:64

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000504	ppm	0.000176	34.92	-228.829000	Y 377.433
Al (394.401 nm)	0.005669	ppm	0.000069	1.21	262.332000	Y 377.433
Al H (396.152 nm)	0.076606 u	ppm	0.010329	13.48	15.250700	Y_R 377.433
As (188.980 nm)	0.001389	ppm	0.000934	67.22	0.829891	Y 242.219
B (249.678 nm)	0.002815	ppm	0.000863	30.64	55.689100	Y 242.219
Ba (493.408 nm)	0.173676	ppm	0.000003	0.00	18257.400000	Y_R 488.368
Be (234.861 nm)	-0.000005 u	ppm	0.000001	18.41	-18.000300	Y_R 488.368
Bi (223.061 nm)	0.000552	ppm	0.000018	3.25	-13.765000	Y 377.433
Ca (315.887 nm)	43.984104	ppm	0.144927	0.33	35448.102052	Y_R 377.433
Cd (214.439 nm)	0.000192	ppm	0.000026	13.35	1.104050	Y 377.433
Co (228.615 nm)	0.001622	ppm	0.000107	6.61	17.943500	Y 242.219
Cr (205.560 nm)	-0.000528 u	ppm	0.000398	75.35	-9.711130	Y 377.433
Cu (324.754 nm)	-0.000326 u	ppm	0.000121	37.02	369.257000	Y 377.433
Fe (238.204 nm)	2.708821	ppm	0.012234	0.45	6679.520072	Y_R 377.433
Fe H (259.940 nm)	2.658710 u	ppm	0.012038	0.45	3808.290000	Y_R 377.433
K (766.491 nm)	1.144730	ppm	0.087596	7.65	3117.770000	Y_R2 488.368
Li (670.783 nm)	0.014481	ppm	0.002999	20.71	-2379.310000	Y_R2 488.368
Mg (279.078 nm)	15.343800	ppm	0.027341	0.18	54373.000000	Y 377.433
Mn (257.610 nm)	0.780236	ppm	0.000969	0.12	215791.000000	Y 377.433
Mo (202.032 nm)	0.000293	ppm	0.000359	> 100.00	27.112400	Y 377.433
Na (589.592 nm)	13.511800	ppm	0.047785	0.35	10154.700000	Y_R2 488.368
Na H (589.593 nm)	14.264251 u	ppm	0.035640	0.25	7421.752006	Y_R4
Ni (231.604 nm)	-0.001820 u	ppm	0.000322	17.68	-21.541500	Y 377.433
P (213.618 nm)	0.026264	ppm	0.000763	2.90	35.157000	Y 242.219
Pb (220.353 nm)	-0.002611 u	ppm	0.000337	12.90	4.025030	Y 242.219
S (181.972 nm)	5.326745	ppm	0.004590	0.09	2405.069997	Y 377.433
Sb (206.834 nm)	0.001747 u	ppm	0.005193	> 100.00	-4.227000	Y 377.433
Se (196.026 nm)	-0.000239 u	ppm	0.004112	> 100.00	10.587400	Y 242.219
Si (288.158 nm)	7.113040	ppm	0.005731	0.08	47427.900000	Y 377.433
Sn (189.925 nm)	-0.000146 u	ppm	0.000497	> 100.00	1.981470	Y 377.433
Sr (421.552 nm)	0.236274	ppm	0.000367	0.16	34603.371958	Y_R 488.368
Th (288.505 nm)	-0.010456 u	ppm	0.006058	57.94	10.414700	Y 377.433
Ti (336.122 nm)	0.000406	ppm	0.000031	7.74	-303.930000	Y 377.433
Tl (190.794 nm)	0.002039	ppm	0.002483	> 100.00	2.892900	Y 377.433
U (409.013 nm)	0.023816	ppm	0.001576	6.62	29.130800	Y 377.433
V (292.401 nm)	0.001198	ppm	0.000093	7.75	-118.875000	Y 377.433
Zn (206.200 nm)	0.005201	ppm	0.000002	0.03	30.047500	Y 377.433
Zr (343.823 nm)	0.000574	ppm	0.000005	0.79	-141.442000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126179	25217.926603	0.003978	0.35
Y 377.433	1.123850	726149.102986	0.005069	0.45
Y_R 377.433	1.134560	62458.200000	0.002051	0.18
Y_R 488.368	1.132550	54732.600000	0.002396	0.21
Y_R2 488.368	1.100257	101976.749818	0.000128	0.01
Y_R4	1.127040	48259.500000	0.005364	0.48

Sample Name: 280-123846-a-1-aSD@5

Date: 5/24/2019 4:51:56 AM Rack:Tube: 2:65

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000231 u	ppm	0.000424	> 100.00	-237.794000	Y 377.433
Al (394.401 nm)	0.001158	ppm	0.000181	15.62	156.911000	Y 377.433
Al H (396.152 nm)	0.112051 u	ppm	0.000108	0.10	22.495600	Y_R 377.433
As (188.980 nm)	0.001499	ppm	0.001007	67.19	1.065940	Y 242.219
B (249.678 nm)	-0.001820 u	ppm	0.000180	9.87	23.686000	Y 242.219
Ba (493.408 nm)	0.034857	ppm	0.000084	0.24	4809.460000	Y_R 488.368
Be (234.861 nm)	0.000025 u	ppm	0.000051	> 100.00	-5.840950	Y_R 488.368
Bi (223.061 nm)	0.001591	ppm	0.000621	39.05	-11.775900	Y 377.433
Ca (315.887 nm)	9.261532	ppm	0.038482	0.42	7415.217986	Y_R 377.433
Cd (214.439 nm)	0.000066 u	ppm	0.000112	> 100.00	-4.875860	Y 377.433
Co (228.615 nm)	0.000415	ppm	0.000056	13.53	-11.902900	Y 242.219
Cr (205.560 nm)	-0.000154 u	ppm	0.000322	> 100.00	-7.058300	Y 377.433
Cu (324.754 nm)	0.000104 u	ppm	0.000461	> 100.00	410.822000	Y 377.433
Fe (238.204 nm)	0.610165	ppm	0.001241	0.20	1506.842771	Y_R 377.433
Fe H (259.940 nm)	0.561259 u	ppm	0.003207	0.57	875.530000	Y_R 377.433
K (766.491 nm)	0.232451	ppm	0.034099	14.67	2212.310000	Y_R2 488.368
Li (670.783 nm)	0.014545	ppm	0.000678	4.66	-2378.190000	Y_R2 488.368
Mg (279.078 nm)	3.270020	ppm	0.004152	0.13	11597.100000	Y 377.433
Mn (257.610 nm)	0.165624	ppm	0.000095	0.06	45789.600000	Y 377.433
Mo (202.032 nm)	-0.000584 u	ppm	0.000334	57.20	15.963100	Y 377.433
Na (589.592 nm)	2.945860	ppm	0.025272	0.86	2299.620000	Y_R2 488.368
Na H (589.593 nm)	3.212476 u	ppm	0.052778	1.64	1925.245572	Y_R4
Ni (231.604 nm)	-0.001180 u	ppm	0.000147	12.43	-17.959900	Y 377.433
P (213.618 nm)	0.005782	ppm	0.003935	68.06	4.322150	Y 242.219
Pb (220.353 nm)	-0.000534 u	ppm	0.003448	> 100.00	11.086400	Y 242.219
S (181.972 nm)	1.105603	ppm	0.006989	0.63	505.347076	Y 377.433
Sb (206.834 nm)	0.002376	ppm	0.001409	59.30	-3.295690	Y 377.433
Se (196.026 nm)	-0.002452 u	ppm	0.002251	91.82	6.665210	Y 242.219
Si (288.158 nm)	1.465310	ppm	0.000415	0.03	10173.700000	Y 377.433
Sn (189.925 nm)	0.000001 u	ppm	0.000242	> 100.00	2.238740	Y 377.433
Sr (421.552 nm)	0.048988	ppm	0.000020	0.04	7212.537525	Y_R 488.368
Th (288.505 nm)	-0.003896 u	ppm	0.004620	> 100.00	10.723700	Y 377.433
Ti (336.122 nm)	0.000446	ppm	0.000013	2.81	-416.711000	Y 377.433
Tl (190.794 nm)	0.003159	ppm	0.000391	12.36	7.311920	Y 377.433
U (409.013 nm)	0.010988	ppm	0.006727	61.22	-8.095890	Y 377.433
V (292.401 nm)	0.000766	ppm	0.000418	54.58	-139.946000	Y 377.433
Zn (206.200 nm)	0.006466	ppm	0.000418	6.46	36.001000	Y 377.433
Zr (343.823 nm)	0.000344	ppm	0.000135	39.24	-154.704000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136807	25455.925203	0.004693	0.41
Y 377.433	1.133851	732610.720032	0.005869	0.52
Y_R 377.433	1.140630	62792.200000	0.004404	0.39
Y_R 488.368	1.138440	55017.300000	0.004240	0.37
Y_R2 488.368	1.114858	103329.983209	0.004325	0.39
Y_R4	1.127720	48288.200000	0.002316	0.21

Sample Name: 280-123846-a-1-b ms

Date: 5/24/2019 4:55:26 AM
Rack:Tube: 2:66

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000401	ppm	0.000138	34.49	-545.478000	Y 377.433
Al (394.401 nm)	9.829600 o	ppm	0.004945	0.05	117893.000000	Y 377.433
Al H (396.152 nm)	9.827180	ppm	0.047375	0.48	20572.200000	Y_R 377.433
As (188.980 nm)	1.994560	ppm	0.006754	0.34	3176.430000	Y 242.219
B (249.678 nm)	0.985658	ppm	0.002524	0.26	7094.130000	Y 242.219
Ba (493.408 nm)	2.148510	ppm	0.012562	0.58	209553.000000	Y_R 488.368
Be (234.861 nm)	0.987084	ppm	0.007184	0.73	99465.500000	Y_R 488.368
Bi (223.061 nm)	1.892520	ppm	0.007836	0.41	4303.490000	Y 377.433
Ca (315.887 nm)	93.297242	ppm	0.379593	0.41	75263.050385	Y_R 377.433
Cd (214.439 nm)	0.974960	ppm	0.001286	0.13	39007.100000	Y 377.433
Co (228.615 nm)	0.956739	ppm	0.000752	0.08	23678.200000	Y 242.219
Cr (205.560 nm)	0.973775	ppm	0.002662	0.27	6886.870000	Y 377.433
Cu (324.754 nm)	0.960439	ppm	0.002388	0.25	45039.000000	Y 377.433
Fe (238.204 nm)	12.572935 o	ppm	0.043529	0.35	30992.171355	Y_R 377.433
Fe H (259.940 nm)	12.615500	ppm	0.036771	0.29	17730.300000	Y_R 377.433
K (766.491 nm)	50.508100	ppm	0.256891	0.51	52112.300000	Y_R2 488.368
Li (670.783 nm)	0.984410	ppm	0.003295	0.33	14510.700000	Y_R2 488.368
Mg (279.078 nm)	64.736400	ppm	0.057506	0.09	229333.000000	Y 377.433
Mn (257.610 nm)	1.761860	ppm	0.000602	0.03	487309.000000	Y 377.433
Mo (202.032 nm)	1.003160	ppm	0.001237	0.12	12788.200000	Y 377.433
Na (589.592 nm)	60.332900 o	ppm	0.227382	0.38	45242.300000	Y_R2 488.368
Na H (589.593 nm)	66.020891	ppm	0.336297	0.51	33162.478482	Y_R4
Ni (231.604 nm)	0.951110	ppm	0.001354	0.14	5306.290000	Y 377.433
P (213.618 nm)	19.915100	ppm	0.031402	0.16	29857.100000	Y 242.219
Pb (220.353 nm)	0.976247	ppm	0.004287	0.44	3365.160000	Y 242.219
S (181.972 nm)	15.594892	ppm	0.031723	0.20	7023.021144	Y 377.433
Sb (206.834 nm)	0.003085	ppm	0.000043	1.41	-6.796630	Y 377.433
Se (196.026 nm)	1.937800	ppm	0.007991	0.41	3159.160000	Y 242.219
Si (288.158 nm)	9.305410	ppm	0.023662	0.25	61889.400000	Y 377.433
Sn (189.925 nm)	1.957850	ppm	0.004088	0.21	3417.140000	Y 377.433
Sr (421.552 nm)	1.232946	ppm	0.006168	0.50	180367.650972	Y_R 488.368
Th (288.505 nm)	1.001430	ppm	0.006307	0.63	1682.830000	Y 377.433
Ti (336.122 nm)	0.990345	ppm	0.000247	0.02	128581.000000	Y 377.433
Tl (190.794 nm)	1.944210	ppm	0.000009	0.00	4698.650000	Y 377.433
U (409.013 nm)	1.978010	ppm	0.004280	0.22	6092.500000	Y 377.433
V (292.401 nm)	0.982595	ppm	0.000384	0.04	51644.200000	Y 377.433
Zn (206.200 nm)	0.483692	ppm	0.001292	0.27	2406.390000	Y 377.433
Zr (343.823 nm)	0.488912	ppm	0.000455	0.09	28016.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075324	24079.159793	0.001678	0.16
Y 377.433	1.081718	698926.469190	0.001646	0.15
Y_R 377.433	1.109030	61052.800000	0.005206	0.47
Y_R 488.368	1.103820	53344.400000	0.006751	0.61
Y_R2 488.368	1.071394	99301.540396	0.009055	0.85
Y_R4	1.099020	47059.300000	0.001504	0.14

Sample Name: 280-123846-a-1-c msd

Date: 5/24/2019 4:59:06 AM Rack:Tube: 2:67

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000856	ppm	0.000368	42.95	-531.071000	Y 377.433
Al (394.401 nm)	9.858350 o	ppm	0.012888	0.13	118237.000000	Y 377.433
Al H (396.152 nm)	9.910200	ppm	0.038500	0.39	20741.800000	Y_R 377.433
As (188.980 nm)	2.004600	ppm	0.000687	0.03	3192.430000	Y 242.219
B (249.678 nm)	0.988739	ppm	0.000578	0.06	7116.200000	Y 242.219
Ba (493.408 nm)	2.149860	ppm	0.007117	0.33	209684.000000	Y_R 488.368
Be (234.861 nm)	0.999970	ppm	0.001952	0.20	100765.000000	Y_R 488.368
Bi (223.061 nm)	1.904980	ppm	0.000486	0.03	4331.910000	Y 377.433
Ca (315.887 nm)	92.161720	ppm	0.447875	0.49	74346.318778	Y_R 377.433
Cd (214.439 nm)	0.978222	ppm	0.000595	0.06	39137.500000	Y 377.433
Co (228.615 nm)	0.961210	ppm	0.000251	0.03	23788.900000	Y 242.219
Cr (205.560 nm)	0.977060	ppm	0.000055	0.01	6910.110000	Y 377.433
Cu (324.754 nm)	0.966882	ppm	0.002599	0.27	45338.200000	Y 377.433
Fe (238.204 nm)	12.577897 o	ppm	0.054396	0.43	31004.401105	Y_R 377.433
Fe H (259.940 nm)	12.588600	ppm	0.068598	0.54	17692.800000	Y_R 377.433
K (766.491 nm)	50.472800	ppm	0.033810	0.07	52077.300000	Y_R2 488.368
Li (670.783 nm)	0.982554	ppm	0.000001	0.00	14478.400000	Y_R2 488.368
Mg (279.078 nm)	64.330300	ppm	0.008402	0.01	227894.000000	Y 377.433
Mn (257.610 nm)	1.740220	ppm	0.000415	0.02	481323.000000	Y 377.433
Mo (202.032 nm)	1.005090	ppm	0.001118	0.11	12812.800000	Y 377.433
Na (589.592 nm)	59.645300 o	ppm	0.039113	0.07	44733.000000	Y_R2 488.368
Na H (589.593 nm)	65.987021	ppm	0.430629	0.65	33145.633149	Y_R4
Ni (231.604 nm)	0.957234	ppm	0.001218	0.13	5340.540000	Y 377.433
P (213.618 nm)	19.947200	ppm	0.019983	0.10	29903.800000	Y 242.219
Pb (220.353 nm)	0.985371	ppm	0.004939	0.50	3396.500000	Y 242.219
S (181.972 nm)	15.361045	ppm	0.032300	0.21	6917.856791	Y 377.433
Sb (206.834 nm)	0.001693	ppm	0.000544	32.14	-9.266710	Y 377.433
Se (196.026 nm)	1.939170	ppm	0.003352	0.17	3161.350000	Y 242.219
Si (288.158 nm)	9.068560	ppm	0.012275	0.14	60327.100000	Y 377.433
Sn (189.925 nm)	1.966580	ppm	0.002130	0.11	3432.380000	Y 377.433
Sr (421.552 nm)	1.228389	ppm	0.004269	0.35	179701.231884	Y_R 488.368
Th (288.505 nm)	1.001900	ppm	0.008321	0.83	1682.700000	Y 377.433
Ti (336.122 nm)	0.993675	ppm	0.000368	0.04	129010.000000	Y 377.433
Tl (190.794 nm)	1.957590	ppm	0.001225	0.06	4731.090000	Y 377.433
U (409.013 nm)	1.978550	ppm	0.007898	0.40	6094.260000	Y 377.433
V (292.401 nm)	0.986745	ppm	0.001132	0.11	51862.900000	Y 377.433
Zn (206.200 nm)	0.485967	ppm	0.000590	0.12	2417.690000	Y 377.433
Zr (343.823 nm)	0.489394	ppm	0.000193	0.04	28044.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.063474	23813.815319	0.000943	0.09
Y 377.433	1.069923	691305.362136	0.001475	0.14
Y_R 377.433	1.084060	59677.900000	0.002722	0.25
Y_R 488.368	1.082510	52314.700000	0.000947	0.09
Y_R2 488.368	1.063574	98576.765037	0.003337	0.31
Y_R4	1.079690	46231.900000	0.005793	0.54

Sample Name: 280-123846-a-2-a

Date: 5/24/2019 5:02:46 AM Rack:Tube: 2:68

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003976	ppm	0.000286	7.18	-110.611000	Y 377.433
Al (394.401 nm)	16.830600 o	ppm	0.008528	0.05	201642.000000	Y 377.433
Al H (396.152 nm)	16.639600	ppm	0.051453	0.31	34680.500000	Y_R 377.433
As (188.980 nm)	0.003748	ppm	0.001438	38.36	0.257991	Y 242.219
B (249.678 nm)	0.009474	ppm	0.000219	2.32	15.748100	Y 242.219
Ba (493.408 nm)	0.012782	ppm	0.000006	0.05	2789.820000	Y_R 488.368
Be (234.861 nm)	0.008359	ppm	0.000024	0.29	170.672000	Y_R 488.368
Bi (223.061 nm)	0.002662	ppm	0.000967	36.31	18.261200	Y 377.433
Ca (315.887 nm)	213.339387	ppm	0.451990	0.21	172179.483668	Y_R 377.433
Cd (214.439 nm)	0.129692	ppm	0.000013	0.01	5248.990000	Y 377.433
Co (228.615 nm)	0.324889	ppm	0.000568	0.17	8010.190000	Y 242.219
Cr (205.560 nm)	0.002644	ppm	0.000372	14.08	11.823000	Y 377.433
Cu (324.754 nm)	10.820000	ppm	0.025984	0.24	502729.000000	Y 377.433
Fe (238.204 nm)	153.455082 o	ppm	0.238475	0.16	378232.507080	Y_R 377.433
Fe H (259.940 nm)	154.568000	ppm	0.320576	0.21	216215.000000	Y_R 377.433
K (766.491 nm)	2.974490	ppm	0.047213	1.59	4933.860000	Y_R2 488.368
Li (670.783 nm)	0.029403	ppm	0.000760	2.58	-2119.460000	Y_R2 488.368
Mg (279.078 nm)	86.314200	ppm	0.057852	0.07	305613.000000	Y 377.433
Mn (257.610 nm)	24.704800 bo	ppm	0.033151	0.13	6833310.000000	Y 377.433
Mo (202.032 nm)	-0.000737 u	ppm	0.000028	3.84	14.010000	Y 377.433
Na (589.592 nm)	10.106200	ppm	0.019649	0.19	7599.320000	Y_R2 488.368
Na H (589.593 nm)	10.199408 u	ppm	0.015753	0.15	5400.137129	Y_R4
Ni (231.604 nm)	0.228197	ppm	0.000218	0.10	1263.960000	Y 377.433
P (213.618 nm)	1.055480	ppm	0.015514	1.47	-1094.510000	Y 242.219
Pb (220.353 nm)	0.070447	ppm	0.001513	2.15	252.927000	Y 242.219
S (181.972 nm)	450.889075 bo	ppm	2.010837	0.45	202639.156674	Y 377.433
Sb (206.834 nm)	0.001660 u	ppm	0.005409	> 100.00	8.979700	Y 377.433
Se (196.026 nm)	0.004765 b	ppm	0.005241	> 100.00	12.192500	Y 242.219
Si (288.158 nm)	14.074100	ppm	0.024214	0.17	93345.200000	Y 377.433
Sn (189.925 nm)	-0.000744 u	ppm	0.000815	> 100.00	0.938264	Y 377.433
Sr (421.552 nm)	1.707419	ppm	0.000532	0.03	249779.869421	Y_R 488.368
Th (288.505 nm)	-0.049526 bu	ppm	0.002725	5.50	398.843000	Y 377.433
Ti (336.122 nm)	-0.000334 u	ppm	0.000026	7.91	179.461000	Y 377.433
Tl (190.794 nm)	0.011422	ppm	0.001212	10.61	1.243700	Y 377.433
U (409.013 nm)	0.360741	ppm	0.008200	2.27	1172.330000	Y 377.433
V (292.401 nm)	0.000397	ppm	0.000135	34.06	-160.221000	Y 377.433
Zn (206.200 nm)	20.987300	ppm	0.109338	0.52	104191.000000	Y 377.433
Zr (343.823 nm)	0.002392	ppm	0.000009	0.38	-36.583900	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108889	24830.752411	0.010594	0.96
Y 377.433	1.120810	724184.745763	0.011801	1.05
Y_R 377.433	1.137860	62639.700000	0.004652	0.41
Y_R 488.368	1.131740	54693.600000	0.007765	0.69
Y_R2 488.368	1.102867	102218.585327	0.005078	0.46
Y_R4	1.133270	48525.900000	0.006185	0.55

Sample Name: 280-123846-a-3-a

Date: 5/24/2019 5:06:32 AM Rack:Tube: 2:69

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001205	ppm	0.000367	30.45	-204.102000	Y 377.433
Al (394.401 nm)	0.000778	ppm	0.000623	80.08	492.660000	Y 377.433
Al H (396.152 nm)	-0.121707 u	ppm	0.006841	5.62	47.047800	Y_R 377.433
As (188.980 nm)	0.000898 u	ppm	0.001501	> 100.00	0.122616	Y 242.219
B (249.678 nm)	0.012169	ppm	0.001309	10.76	124.241000	Y 242.219
Ba (493.408 nm)	0.035482	ppm	0.000593	1.67	4869.610000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000010	33.91	-9.117960	Y_R 488.368
Bi (223.061 nm)	-0.000382 u	ppm	0.002131	> 100.00	-16.363800	Y 377.433
Ca (315.887 nm)	95.323897	ppm	0.075076	0.08	76896.714146	Y_R 377.433
Cd (214.439 nm)	0.000218	ppm	0.000128	58.70	0.982430	Y 377.433
Co (228.615 nm)	-0.000138 u	ppm	0.000148	> 100.00	-25.565300	Y 242.219
Cr (205.560 nm)	0.000281	ppm	0.000294	> 100.00	-3.973170	Y 377.433
Cu (324.754 nm)	0.000001 u	ppm	0.000283	> 100.00	355.228000	Y 377.433
Fe (238.204 nm)	0.104882	ppm	0.000271	0.26	261.443738	Y_R 377.433
Fe H (259.940 nm)	0.042950 u	ppm	0.001041	2.42	150.804000	Y_R 377.433
K (766.491 nm)	1.796710	ppm	0.015109	0.84	3764.880000	Y_R2 488.368
Li (670.783 nm)	0.017107	ppm	0.000763	4.46	-2333.570000	Y_R2 488.368
Mg (279.078 nm)	28.665300	ppm	0.286576	1.00	101577.000000	Y 377.433
Mn (257.610 nm)	0.645020	ppm	0.005722	0.89	178391.000000	Y 377.433
Mo (202.032 nm)	-0.000396 u	ppm	0.000143	36.09	18.353200	Y 377.433
Na (589.592 nm)	24.221900	ppm	0.006355	0.03	18060.000000	Y_R2 488.368
Na H (589.593 nm)	25.366299 u	ppm	0.061131	0.24	12943.261729	Y_R4
Ni (231.604 nm)	-0.002692 u	ppm	0.000273	10.14	-26.409400	Y 377.433
P (213.618 nm)	0.070102	ppm	0.000075	0.11	101.112000	Y 242.219
Pb (220.353 nm)	-0.001624 u	ppm	0.000467	28.74	7.422690	Y 242.219
S (181.972 nm)	86.763506	ppm	0.731092	0.84	38989.583145	Y 377.433
Sb (206.834 nm)	0.000950 u	ppm	0.003046	> 100.00	-5.858330	Y 377.433
Se (196.026 nm)	-0.000552 u	ppm	0.000936	> 100.00	10.604000	Y 242.219
Si (288.158 nm)	7.421770	ppm	0.052837	0.71	49464.300000	Y 377.433
Sn (189.925 nm)	0.001522	ppm	0.000158	10.37	4.890780	Y 377.433
Sr (421.552 nm)	1.389068	ppm	0.003710	0.27	203198.616956	Y_R 488.368
Th (288.505 nm)	-0.010990 u	ppm	0.004723	42.98	5.771740	Y 377.433
Ti (336.122 nm)	0.000106	ppm	0.000113	> 100.00	-167.900000	Y 377.433
Tl (190.794 nm)	0.003005	ppm	0.000486	16.16	3.433630	Y 377.433
U (409.013 nm)	0.039494	ppm	0.007289	18.46	69.675400	Y 377.433
V (292.401 nm)	0.001467	ppm	0.000138	9.40	-104.909000	Y 377.433
Zn (206.200 nm)	0.004977	ppm	0.000240	4.81	28.533100	Y 377.433
Zr (343.823 nm)	0.000581	ppm	0.000268	46.11	-141.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107242	24793.881240	0.014926	1.35
Y 377.433	1.108109	715978.169094	0.016751	1.51
Y_R 377.433	1.134300	62443.400000	0.004341	0.38
Y_R 488.368	1.131420	54677.900000	0.009123	0.81
Y_R2 488.368	1.117688	103592.343337	0.009146	0.82
Y_R4	1.149530	49222.400000	0.005329	0.46

Sample Name: 280-123846-a-4-a

Date: 5/24/2019 5:10:00 AM Rack:Tube: 2:70

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000557	ppm	0.000254	45.63	-241.283000	Y 377.433
Al (394.401 nm)	33.813900 o	ppm	0.085104	0.25	404127.000000	Y 377.433
Al H (396.152 nm)	34.406100	ppm	0.033988	0.10	70704.700000	Y_R 377.433
As (188.980 nm)	0.014993	ppm	0.003580	23.88	21.572000	Y 242.219
B (249.678 nm)	0.010311	ppm	0.000395	3.83	90.492700	Y 242.219
Ba (493.408 nm)	0.154010	ppm	0.000267	0.17	16377.800000	Y_R 488.368
Be (234.861 nm)	0.001616	ppm	0.000077	4.76	4.160110	Y_R 488.368
Bi (223.061 nm)	0.006264	ppm	0.001282	20.47	5.142050	Y 377.433
Ca (315.887 nm)	23.461679	ppm	0.024276	0.10	18888.250785	Y_R 377.433
Cd (214.439 nm)	0.000457	ppm	0.000083	18.06	26.033000	Y 377.433
Co (228.615 nm)	0.012345	ppm	0.000137	1.11	300.441000	Y 242.219
Cr (205.560 nm)	0.060077	ppm	0.000069	0.11	418.766000	Y 377.433
Cu (324.754 nm)	0.088590	ppm	0.000220	0.25	4525.230000	Y 377.433
Fe (238.204 nm)	35.250623 o	ppm	0.036065	0.10	86887.172641	Y_R 377.433
Fe H (259.940 nm)	35.428500	ppm	0.042841	0.12	49628.600000	Y_R 377.433
K (766.491 nm)	5.003710	ppm	0.023302	0.47	6947.920000	Y_R2 488.368
Li (670.783 nm)	0.035397	ppm	0.001249	3.53	-2015.070000	Y_R2 488.368
Mg (279.078 nm)	10.816000	ppm	0.030103	0.28	38284.700000	Y 377.433
Mn (257.610 nm)	1.105560	ppm	0.002155	0.19	305775.000000	Y 377.433
Mo (202.032 nm)	0.000971	ppm	0.000576	59.37	35.740400	Y 377.433
Na (589.592 nm)	3.053290	ppm	0.010550	0.35	2403.490000	Y_R2 488.368
Na H (589.593 nm)	3.331441 u	ppm	0.006182	0.19	1984.411963	Y_R4
Ni (231.604 nm)	0.016757	ppm	0.001086	6.48	82.276300	Y 377.433
P (213.618 nm)	0.784892	ppm	0.009709	1.24	1162.010000	Y 242.219
Pb (220.353 nm)	0.039661	ppm	0.000887	2.24	142.417000	Y 242.219
S (181.972 nm)	8.989294	ppm	0.016740	0.19	4050.356474	Y 377.433
Sb (206.834 nm)	0.006352	ppm	0.001621	25.52	5.487910	Y 377.433
Se (196.026 nm)	0.002159	ppm	0.003016	> 100.00	5.908980	Y 242.219
Si (288.158 nm)	45.172600	ppm	0.019183	0.04	298481.000000	Y 377.433
Sn (189.925 nm)	0.001534	ppm	0.000136	8.90	4.911520	Y 377.433
Sr (421.552 nm)	0.085096	ppm	0.000048	0.06	12498.312880	Y_R 488.368
Th (288.505 nm)	0.038015	ppm	0.000241	0.63	93.990100	Y 377.433
Ti (336.122 nm)	0.375330	ppm	0.001973	0.53	48372.700000	Y 377.433
Tl (190.794 nm)	0.002175	ppm	0.001043	47.96	-1.048530	Y 377.433
U (409.013 nm)	-0.028988 u	ppm	0.001379	4.76	-111.792000	Y 377.433
V (292.401 nm)	0.046003	ppm	0.000352	0.77	2261.260000	Y 377.433
Zn (206.200 nm)	0.187453	ppm	0.001313	0.70	939.606000	Y 377.433
Zr (343.823 nm)	0.015022	ppm	0.000348	2.32	691.635000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155298	25869.966288	0.005789	0.50
Y 377.433	1.154267	745802.321256	0.005988	0.52
Y_R 377.433	1.171570	64495.200000	0.001296	0.11
Y_R 488.368	1.168650	56477.400000	0.001615	0.14
Y_R2 488.368	1.147538	106358.929985	0.001317	0.11
Y_R4	1.178100	50445.400000	0.002857	0.24

Sample Name: CCVH-5713036

Date: 5/24/2019 5:13:42 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004164	ppm	0.000198	4.76	-109.667000	Y 377.433
Al (394.401 nm)	48.865300 o	ppm	0.025620	0.05	582800.000000	Y 377.433
Al H (396.152 nm)	48.619700	ppm	0.009685	0.02	99967.300000	Y_R 377.433
As (188.980 nm)	0.002917	ppm	0.000205	7.01	1.952050	Y 242.219
B (249.678 nm)	-0.002303 u	ppm	0.000692	30.03	-7.559770	Y 242.219
Ba (493.408 nm)	0.000962	ppm	0.000364	37.81	1563.360000	Y_R 488.368
Be (234.861 nm)	0.001078	ppm	0.000052	4.86	-107.145000	Y_R 488.368
Bi (223.061 nm)	0.012106	ppm	0.001006	8.31	20.830800	Y 377.433
Ca (315.887 nm)	0.003196	ppm	0.000738	23.09	-47.096341	Y_R 377.433
Cd (214.439 nm)	0.001401	ppm	0.000031	2.18	69.598200	Y 377.433
Co (228.615 nm)	0.003458	ppm	0.000030	0.86	63.365200	Y 242.219
Cr (205.560 nm)	0.001153	ppm	0.000441	38.27	0.811509	Y 377.433
Cu (324.754 nm)	0.003342	ppm	0.000059	1.77	1479.860000	Y 377.433
Fe (238.204 nm)	48.390173 o	ppm	0.007592	0.02	119272.978179	Y_R 377.433
Fe H (259.940 nm)	48.596800	ppm	0.054887	0.11	68041.200000	Y_R 377.433
K (766.491 nm)	0.410974	ppm	0.059994	14.60	2389.490000	Y_R2 488.368
Li (670.783 nm)	0.011901	ppm	0.000548	4.61	-2424.230000	Y_R2 488.368
Mg (279.078 nm)	0.034692	ppm	0.000846	2.44	56.749800	Y 377.433
Mn (257.610 nm)	0.001073	ppm	0.000060	5.56	274.876000	Y 377.433
Mo (202.032 nm)	0.000568	ppm	0.000165	29.00	30.613100	Y 377.433
Na (589.592 nm)	232.585000 o	ppm	0.988024	0.42	172400.000000	Y_R2 488.368
Na H (589.593 nm)	248.936856	ppm	1.329121	0.53	124134.182122	Y_R4
Ni (231.604 nm)	0.002816	ppm	0.000223	7.91	4.371270	Y 377.433
P (213.618 nm)	4.809890	ppm	0.023637	0.49	7269.670000	Y 242.219
Pb (220.353 nm)	0.003402	ppm	0.000956	28.09	17.305700	Y 242.219
S (181.972 nm)	4.931377	ppm	0.006264	0.13	2223.002597	Y 377.433
Sb (206.834 nm)	0.008324	ppm	0.000506	6.08	11.425400	Y 377.433
Se (196.026 nm)	0.006433	ppm	0.001124	17.47	7.563960	Y 242.219
Si (288.158 nm)	0.099778	ppm	0.002338	2.34	1166.210000	Y 377.433
Sn (189.925 nm)	0.002323	ppm	0.000432	18.58	6.288800	Y 377.433
Sr (421.552 nm)	0.001059	ppm	0.000198	18.72	209.832932	Y_R 488.368
Th (288.505 nm)	4.846050	ppm	0.001122	0.02	8467.970000	Y 377.433
Ti (336.122 nm)	0.002086	ppm	0.000063	3.02	-234.440000	Y 377.433
Tl (190.794 nm)	0.001093	ppm	0.000389	35.60	-2.137720	Y 377.433
U (409.013 nm)	0.535359 Q	ppm	0.000975	0.18	1670.630000 Q	Y 377.433
V (292.401 nm)	0.001420	ppm	0.000279	19.62	382.082000	Y 377.433
Zn (206.200 nm)	0.003055	ppm	0.000290	9.48	26.436200	Y 377.433
Zr (343.823 nm)	0.001568	ppm	0.000022	1.39	-84.115000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084937	24294.420079	0.001829	0.17
Y 377.433	1.085528	701388.218631	0.001724	0.16
Y_R 377.433	1.113080	61275.500000	0.000254	0.02
Y_R 488.368	1.107010	53498.300000	0.002667	0.24
Y_R2 488.368	1.081864	100272.014752	0.001903	0.18
Y_R4	1.113740	47689.700000	0.010861	0.98

Sample Name: CCV-5717467

Date: 5/24/2019 5:17:24 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.480976	ppm	0.000234	0.05	16618.300000	Y 377.433
Al (394.401 nm)	0.498172	ppm	0.001529	0.31	6203.370000	Y 377.433
Al H (396.152 nm)	0.552010 u	ppm	0.006510	1.18	1140.830000	Y_R 377.433
As (188.980 nm)	0.480640	ppm	0.001712	0.36	764.469000	Y 242.219
B (249.678 nm)	0.472325	ppm	0.000335	0.07	3420.880000	Y 242.219
Ba (493.408 nm)	0.482149	ppm	0.000990	0.21	48136.800000	Y_R 488.368
Be (234.861 nm)	0.476067	ppm	0.001408	0.30	47984.600000	Y_R 488.368
Bi (223.061 nm)	0.938681	ppm	0.005231	0.56	2126.060000	Y 377.433
Ca (315.887 nm)	4.886453	ppm	0.021956	0.45	3883.182633	Y_R 377.433
Cd (214.439 nm)	0.487356	ppm	0.000282	0.06	19493.000000	Y 377.433
Co (228.615 nm)	0.483236	ppm	0.000050	0.01	11947.600000	Y 242.219
Cr (205.560 nm)	0.482334	ppm	0.000789	0.16	3408.390000	Y 377.433
Cu (324.754 nm)	0.479316	ppm	0.000427	0.09	22666.700000	Y 377.433
Fe (238.204 nm)	2.441429	ppm	0.011252	0.46	6020.465493	Y_R 377.433
Fe H (259.940 nm)	2.405550 u	ppm	0.005401	0.22	3454.310000	Y_R 377.433
K (766.491 nm)	47.603300	ppm	0.032349	0.07	49229.300000	Y_R2 488.368
Li (670.783 nm)	0.484824	ppm	0.001072	0.22	5811.070000	Y_R2 488.368
Mg (279.078 nm)	19.334100	ppm	0.006187	0.03	68512.400000	Y 377.433
Mn (257.610 nm)	0.484644	ppm	0.000327	0.07	134031.000000	Y 377.433
Mo (202.032 nm)	0.483377	ppm	0.000346	0.07	6174.180000	Y 377.433
Na (589.592 nm)	23.377900	ppm	0.033256	0.14	17526.100000	Y_R2 488.368
Na H (589.593 nm)	25.618605 u	ppm	0.329830	1.29	13068.744096	Y_R4
Ni (231.604 nm)	0.482622	ppm	0.000348	0.07	2686.360000	Y 377.433
P (213.618 nm)	0.054256	ppm	0.001376	2.54	-59.009600	Y 242.219
Pb (220.353 nm)	0.487629	ppm	0.002013	0.41	1685.750000	Y 242.219
S (181.972 nm)	0.005787	ppm	0.001574	27.19	12.066558	Y 377.433
Sb (206.834 nm)	0.490616	ppm	0.002860	0.58	855.903000	Y 377.433
Se (196.026 nm)	0.480298	ppm	0.002732	0.57	791.276000	Y 242.219
Si (288.158 nm)	4.767570	ppm	0.014507	0.30	31956.500000	Y 377.433
Sn (189.925 nm)	0.483433	ppm	0.000236	0.05	845.447000	Y 377.433
Sr (421.552 nm)	0.483866	ppm	0.002096	0.43	70813.492885	Y_R 488.368
Th (288.505 nm)	0.013842	ppm	0.000962	6.95	-10.395600	Y 377.433
Ti (336.122 nm)	0.479736	ppm	0.000799	0.17	61888.300000	Y 377.433
Tl (190.794 nm)	0.494815	ppm	0.000099	0.02	1195.470000	Y 377.433
U (409.013 nm)	0.016807	ppm	0.001820	10.83	-47.066500	Y 377.433
V (292.401 nm)	0.478981	ppm	0.000613	0.13	25077.800000	Y 377.433
Zn (206.200 nm)	0.488388	ppm	0.002752	0.56	2428.140000	Y 377.433
Zr (343.823 nm)	0.481476	ppm	0.000688	0.14	27587.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108896	24830.913216	0.000817	0.07
Y 377.433	1.108351	716134.853280	0.000965	0.09
Y_R 377.433	1.124940	61928.400000	0.003747	0.33
Y_R 488.368	1.120360	54143.800000	0.004125	0.37
Y_R2 488.368	1.098919	101852.697971	0.003336	0.30
Y_R4	1.121140	48006.700000	0.012966	1.16

Sample Name: CCB

Date: 5/24/2019 5:21:00 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000454	ppm	0.000124	27.40	-229.950000	Y 377.433
Al (394.401 nm)	-0.001858 u	ppm	0.000528	28.43	108.173000	Y 377.433
Al H (396.152 nm)	0.129135 Zu	ppm	0.001287	1.00	40.556200 Z	Y_R 377.433
As (188.980 nm)	-0.000513 u	ppm	0.000666	> 100.00	-2.122440	Y 242.219
B (249.678 nm)	-0.003704 u	ppm	0.000260	7.03	10.539600	Y 242.219
Ba (493.408 nm)	-0.001389 u	ppm	0.000513	36.93	1298.040000	Y_R 488.368
Be (234.861 nm)	0.000041 u	ppm	0.000089	> 100.00	-1.592490	Y_R 488.368
Bi (223.061 nm)	0.002061	ppm	0.000797	38.68	-10.814300	Y 377.433
Ca (315.887 nm)	0.006554	ppm	0.004739	72.31	-56.683669	Y_R 377.433
Cd (214.439 nm)	0.000090	ppm	0.000082	90.65	-4.187130	Y 377.433
Co (228.615 nm)	-0.000020 u	ppm	0.000020	98.13	-22.663400	Y 242.219
Cr (205.560 nm)	0.000126 u	ppm	0.000313	> 100.00	-5.078600	Y 377.433
Cu (324.754 nm)	0.000119	ppm	0.000069	57.84	416.781000	Y 377.433
Fe (238.204 nm)	-0.000494 u	ppm	0.000885	> 100.00	1.716178	Y_R 377.433
Fe H (259.940 nm)	-0.055828 u	ppm	0.000259	0.46	12.688600	Y_R 377.433
K (766.491 nm)	0.064390	ppm	0.045250	70.28	2045.500000	Y_R2 488.368
Li (670.783 nm)	0.014635 Z	ppm	0.000077	0.53	-2376.610000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000247 u	ppm	0.000009	3.84	10.996000	Y 377.433
Mn (257.610 nm)	0.000102	ppm	0.000047	45.73	6.285990	Y 377.433
Mo (202.032 nm)	-0.000633 u	ppm	0.000348	55.06	15.339300	Y 377.433
Na (589.592 nm)	0.061164	ppm	0.011751	19.21	155.453000	Y_R2 488.368
Na H (589.593 nm)	0.376456 u	ppm	0.020832	5.53	514.775129	Y_R4
Ni (231.604 nm)	-0.000843 u	ppm	0.000741	87.89	-16.079800	Y 377.433
P (213.618 nm)	0.001094 u	ppm	0.004307	> 100.00	-2.779350	Y 242.219
Pb (220.353 nm)	-0.001844 u	ppm	0.000133	7.19	6.569550	Y 242.219
S (181.972 nm)	-0.005562 u	ppm	0.000622	11.18	5.256926	Y 377.433
Sb (206.834 nm)	0.004854	ppm	0.000035	0.73	1.028660	Y 377.433
Se (196.026 nm)	0.000342 u	ppm	0.002724	> 100.00	11.132600	Y 242.219
Si (288.158 nm)	0.005735	ppm	0.003816	66.54	545.873000	Y 377.433
Sn (189.925 nm)	0.000820 u	ppm	0.001972	> 100.00	3.666530	Y 377.433
Sr (421.552 nm)	0.000053	ppm	0.000008	15.12	55.649692	Y_R 488.368
Th (288.505 nm)	-0.002434 u	ppm	0.002617	> 100.00	10.256400	Y 377.433
Ti (336.122 nm)	0.000363	ppm	0.000003	0.82	-458.499000	Y 377.433
Tl (190.794 nm)	0.001650	ppm	0.002024	> 100.00	4.113890	Y 377.433
U (409.013 nm)	0.010821	ppm	0.001985	18.34	-7.887470	Y 377.433
V (292.401 nm)	0.000573	ppm	0.000104	18.17	-150.226000	Y 377.433
Zn (206.200 nm)	0.000368	ppm	0.000259	70.31	5.642870	Y 377.433
Zr (343.823 nm)	0.000503	ppm	0.000034	6.80	-145.536000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120435	25089.313732	0.000826	0.07
Y 377.433	1.116673	721511.698071	0.000871	0.08
Y_R 377.433	1.123070	61825.600000	0.010243	0.91
Y_R 488.368	1.119790	54116.100000	0.010354	0.92
Y_R2 488.368	1.100141	101965.951340	0.000026	0.00
Y_R4	1.116550	47810.300000	0.003730	0.33

Sample Name: CCVL-5717307

Date: 5/24/2019 5:24:12 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007926	ppm	0.000513	6.47	30.823100	Y 377.433
Al (394.401 nm)	0.094023	ppm	0.000365	0.39	1263.390000	Y 377.433
Al H (396.152 nm)	0.229049 u	ppm	0.007706	3.36	251.433000	Y_R 377.433
As (188.980 nm)	0.011977	ppm	0.000521	4.35	17.776300	Y 242.219
B (249.678 nm)	0.088848	ppm	0.000624	0.70	673.817000	Y 242.219
Ba (493.408 nm)	0.007937	ppm	0.000755	9.51	2201.510000	Y_R 488.368
Be (234.861 nm)	0.000953	ppm	0.000026	2.74	89.962500	Y_R 488.368
Bi (223.061 nm)	0.090610	ppm	0.001099	1.21	191.181000	Y 377.433
Ca (315.887 nm)	0.215593	ppm	0.004026	1.87	112.106148	Y_R 377.433
Cd (214.439 nm)	0.005029	ppm	0.000064	1.27	193.476000	Y 377.433
Co (228.615 nm)	0.010487	ppm	0.000057	0.54	237.539000	Y 242.219
Cr (205.560 nm)	0.009681	ppm	0.000492	5.08	62.458400	Y 377.433
Cu (324.754 nm)	0.015103	ppm	0.000115	0.76	1110.750000	Y 377.433
Fe (238.204 nm)	0.098059	ppm	0.000570	0.58	244.625754	Y_R 377.433
Fe H (259.940 nm)	0.048295 u	ppm	0.000305	0.63	158.277000	Y_R 377.433
K (766.491 nm)	2.906410	ppm	0.073852	2.54	4866.290000	Y_R2 488.368
Li (670.783 nm)	0.027906 Q	ppm	0.001875	6.72	-2145.530000 Q	Y_R2 488.368
Mg (279.078 nm)	0.197838	ppm	0.003051	1.54	711.307000	Y 377.433
Mn (257.610 nm)	0.010384	ppm	0.000007	0.07	2850.270000	Y 377.433
Mo (202.032 nm)	0.018380	ppm	0.000123	0.67	257.272000	Y 377.433
Na (589.592 nm)	1.110920	ppm	0.012037	1.08	934.863000	Y_R2 488.368
Na H (589.593 nm)	1.214296 u	ppm	0.022512	1.85	931.467816	Y_R4
Ni (231.604 nm)	0.040064	ppm	0.001344	3.35	212.543000	Y 377.433
P (213.618 nm)	2.687820	ppm	0.011888	0.44	4058.600000	Y 242.219
Pb (220.353 nm)	0.009045	ppm	0.000982	10.86	44.101000	Y 242.219
S (181.972 nm)	0.089705	ppm	0.005153	5.74	48.089184	Y 377.433
Sb (206.834 nm)	0.024091	ppm	0.001317	5.46	34.841600	Y 377.433
Se (196.026 nm)	0.014846	ppm	0.001038	6.99	34.695700	Y 242.219
Si (288.158 nm)	0.471902	ppm	0.002091	0.44	3620.850000	Y 377.433
Sn (189.925 nm)	0.095139	ppm	0.001581	1.66	168.179000	Y 377.433
Sr (421.552 nm)	0.008781	ppm	0.000117	1.34	1332.177660	Y_R 488.368
Th (288.505 nm)	0.012245	ppm	0.000492	4.02	35.452700	Y 377.433
Ti (336.122 nm)	0.009830	ppm	0.000012	0.13	773.084000	Y 377.433
Tl (190.794 nm)	0.014707	ppm	0.000426	2.90	35.630300	Y 377.433
U (409.013 nm)	0.061854	ppm	0.006264	10.13	150.817000	Y 377.433
V (292.401 nm)	0.010145	ppm	0.000052	0.52	351.012000	Y 377.433
Zn (206.200 nm)	0.020965	ppm	0.000610	2.91	107.885000	Y 377.433
Zr (343.823 nm)	0.009758	ppm	0.000195	2.00	388.136000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.132484	25359.115972	0.002902	0.26
Y 377.433	1.128683	729271.597116	0.002474	0.22
Y_R 377.433	1.136130	62544.500000	0.000946	0.08
Y_R 488.368	1.130980	54656.800000	0.000522	0.05
Y_R2 488.368	1.100662	102014.252054	0.005483	0.50
Y_R4	1.127830	48293.200000	0.006331	0.56

Sample Name: 280-123846-a-5-a

Date: 5/24/2019 5:27:42 AM Rack:Tube: 2:71

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000851	ppm	0.000145	17.07	-217.054000	Y 377.433
Al (394.401 nm)	0.481261	ppm	0.002832	0.59	5979.340000	Y 377.433
Al H (396.152 nm)	0.535121 u	ppm	0.000617	0.12	1005.160000	Y_R 377.433
As (188.980 nm)	0.001303	ppm	0.000253	19.39	0.655889	Y 242.219
B (249.678 nm)	0.002764	ppm	0.000172	6.21	54.582800	Y 242.219
Ba (493.408 nm)	0.021168	ppm	0.000359	1.69	3486.060000	Y_R 488.368
Be (234.861 nm)	0.000629	ppm	0.000077	12.18	40.432500	Y_R 488.368
Bi (223.061 nm)	0.000579	ppm	0.000635	> 100.00	-13.473500	Y 377.433
Ca (315.887 nm)	96.594759	ppm	0.012812	0.01	77922.852917	Y_R 377.433
Cd (214.439 nm)	0.015467	ppm	0.000031	0.20	612.813000	Y 377.433
Co (228.615 nm)	0.039127	ppm	0.000654	1.67	945.181000	Y 242.219
Cr (205.560 nm)	-0.000532 u	ppm	0.000619	> 100.00	-9.805540	Y 377.433
Cu (324.754 nm)	0.696166	ppm	0.002147	0.31	32683.000000	Y 377.433
Fe (238.204 nm)	3.973097	ppm	0.021193	0.53	9795.656131	Y_R 377.433
Fe H (259.940 nm)	3.929400 u	ppm	0.011041	0.28	5585.020000	Y_R 377.433
K (766.491 nm)	1.173610	ppm	0.015803	1.35	3146.430000	Y_R2 488.368
Li (670.783 nm)	0.017326	ppm	0.000598	3.45	-2329.760000	Y_R2 488.368
Mg (279.078 nm)	31.555000	ppm	0.010033	0.03	111810.000000	Y 377.433
Mn (257.610 nm)	3.499130	ppm	0.001573	0.04	967838.000000	Y 377.433
Mo (202.032 nm)	-0.000427 u	ppm	0.000113	26.52	17.960400	Y 377.433
Na (589.592 nm)	6.261720	ppm	0.005864	0.09	4753.110000	Y_R2 488.368
Na H (589.593 nm)	6.392216 u	ppm	0.056237	0.88	3506.662164	Y_R4
Ni (231.604 nm)	0.023938	ppm	0.000763	3.19	122.413000	Y 377.433
P (213.618 nm)	0.075635	ppm	0.004564	6.03	-63.473900	Y 242.219
Pb (220.353 nm)	0.000867 u	ppm	0.001498	> 100.00	15.971900	Y 242.219
S (181.972 nm)	118.314871 bo	ppm	0.260401	0.22	53171.705649	Y 377.433
Sb (206.834 nm)	-0.000530 u	ppm	0.002217	> 100.00	-8.127400	Y 377.433
Se (196.026 nm)	0.000343 u	ppm	0.001995	> 100.00	15.204600	Y 242.219
Si (288.158 nm)	5.155340	ppm	0.010575	0.21	34514.300000	Y 377.433
Sn (189.925 nm)	-0.000017 u	ppm	0.000947	> 100.00	2.206620	Y 377.433
Sr (421.552 nm)	0.380144	ppm	0.001007	0.27	55644.457541	Y_R 488.368
Th (288.505 nm)	-0.026956 u	ppm	0.007962	29.54	33.901200	Y 377.433
Ti (336.122 nm)	-0.000120 u	ppm	0.000172	> 100.00	-192.086000	Y 377.433
Tl (190.794 nm)	0.002609	ppm	0.000629	24.10	2.121150	Y 377.433
U (409.013 nm)	0.051695	ppm	0.001666	3.22	110.554000	Y 377.433
V (292.401 nm)	0.001004	ppm	0.000065	6.44	-128.547000	Y 377.433
Zn (206.200 nm)	2.622120	ppm	0.000810	0.03	13018.400000	Y 377.433
Zr (343.823 nm)	0.000621	ppm	0.000027	4.30	-138.723000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115122	24970.338646	0.004671	0.42
Y 377.433	1.116851	721626.655956	0.004748	0.43
Y_R 377.433	1.131180	62272.000000	0.000434	0.04
Y_R 488.368	1.126290	54430.100000	0.000474	0.04
Y_R2 488.368	1.102197	102156.570654	0.001106	0.10
Y_R4	1.124140	48135.300000	0.005648	0.50

Sample Name: 280-123846-a-6-o

Date: 5/24/2019 5:31:19 AM Rack:Tube: 2:72

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002657	ppm	0.000119	4.50	-154.644000	Y 377.433
Al (394.401 nm)	3.172120 o	ppm	0.001633	0.05	38226.000000	Y 377.433
Al H (396.152 nm)	3.186260	ppm	0.001577	0.05	6635.570000	Y_R 377.433
As (188.980 nm)	0.027320	ppm	0.001522	5.57	39.485300	Y 242.219
B (249.678 nm)	0.007758	ppm	0.000040	0.51	37.206700	Y 242.219
Ba (493.408 nm)	0.020553	ppm	0.000115	0.56	3497.460000	Y_R 488.368
Be (234.861 nm)	0.001182	ppm	0.000067	5.69	-300.830000	Y_R 488.368
Bi (223.061 nm)	0.002906	ppm	0.001979	68.09	8.338770	Y 377.433
Ca (315.887 nm)	152.498431	ppm	0.086856	0.06	123056.759352	Y_R 377.433
Cd (214.439 nm)	0.026399	ppm	0.000005	0.02	1090.530000	Y 377.433
Co (228.615 nm)	0.094263	ppm	0.000950	1.01	2309.180000	Y 242.219
Cr (205.560 nm)	0.004241	ppm	0.000007	0.16	23.841400	Y 377.433
Cu (324.754 nm)	1.519630	ppm	0.005713	0.38	70904.600000	Y 377.433
Fe (238.204 nm)	95.254922 o	ppm	0.065293	0.07	234783.223069	Y_R 377.433
Fe H (259.940 nm)	95.833600	ppm	0.053184	0.06	134090.000000	Y_R 377.433
K (766.491 nm)	2.313620	ppm	0.000551	0.02	4277.920000	Y_R2 488.368
Li (670.783 nm)	0.025543	ppm	0.000145	0.57	-2186.670000	Y_R2 488.368
Mg (279.078 nm)	49.042300	ppm	0.185855	0.38	173640.000000	Y 377.433
Mn (257.610 nm)	11.004400	ppm	0.005385	0.05	3043800.000000	Y 377.433
Mo (202.032 nm)	0.006925	ppm	0.000010	0.15	111.511000	Y 377.433
Na (589.592 nm)	7.799380	ppm	0.104304	1.34	5892.070000	Y_R2 488.368
Na H (589.593 nm)	7.854414 u	ppm	0.039629	0.50	4233.874329	Y_R4
Ni (231.604 nm)	0.055851	ppm	0.000247	0.44	300.771000	Y 377.433
P (213.618 nm)	0.279001	ppm	0.001153	0.41	41.083700	Y 242.219
Pb (220.353 nm)	0.107725	ppm	0.000711	0.66	382.717000	Y 242.219
S (181.972 nm)	231.264328 bo	ppm	0.332659	0.14	103935.800325	Y 377.433
Sb (206.834 nm)	0.003841	ppm	0.000566	14.74	7.572680	Y 377.433
Se (196.026 nm)	0.005258	ppm	0.001332	25.33	8.856620	Y 242.219
Si (288.158 nm)	10.268600	ppm	0.026089	0.25	68242.700000	Y 377.433
Sn (189.925 nm)	0.000583	ppm	0.000045	7.78	3.252420	Y 377.433
Sr (421.552 nm)	0.848134	ppm	0.000638	0.08	124101.210402	Y_R 488.368
Th (288.505 nm)	-0.040546 u	ppm	0.001794	4.42	149.041000	Y 377.433
Ti (336.122 nm)	0.020911	ppm	0.000805	3.85	2732.490000	Y 377.433
Tl (190.794 nm)	0.007226	ppm	0.001525	21.11	-0.562648	Y 377.433
U (409.013 nm)	0.087575	ppm	0.000083	0.09	282.332000	Y 377.433
V (292.401 nm)	0.003267	ppm	0.000124	3.79	-1.859030	Y 377.433
Zn (206.200 nm)	5.025470	ppm	0.014534	0.29	24960.700000	Y 377.433
Zr (343.823 nm)	0.002016	ppm	0.000095	4.69	-58.248800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093959	24496.445598	0.006359	0.58
Y 377.433	1.104836	713863.779269	0.010727	0.97
Y_R 377.433	1.131430	62285.500000	0.002495	0.22
Y_R 488.368	1.127600	54493.600000	0.000970	0.09
Y_R2 488.368	1.098246	101790.377243	0.005667	0.52
Y_R4	1.129720	48373.900000	0.002686	0.24

Sample Name: 280-123846-a-7-a

Date: 5/24/2019 5:35:01 AM Rack:Tube: 2:73

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000135 u	ppm	0.000128	95.25	-250.597000	Y 377.433
Al (394.401 nm)	0.001848	ppm	0.001156	62.56	150.864000	Y 377.433
Al H (396.152 nm)	0.132653 u	ppm	0.004296	3.24	47.735200	Y_R 377.433
As (188.980 nm)	0.000159 u	ppm	0.000877	> 100.00	-1.052740	Y 242.219
B (249.678 nm)	0.001205	ppm	0.001633	> 100.00	45.701900	Y 242.219
Ba (493.408 nm)	-0.001864 u	ppm	0.000461	24.73	1252.060000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000046	> 100.00	-6.170700	Y_R 488.368
Bi (223.061 nm)	0.001477	ppm	0.000222	15.02	-12.141900	Y 377.433
Ca (315.887 nm)	0.084961	ppm	0.003249	3.82	6.617282	Y_R 377.433
Cd (214.439 nm)	0.000017 u	ppm	0.000112	> 100.00	-7.114770	Y 377.433
Co (228.615 nm)	0.000173	ppm	0.000157	90.83	-17.876800	Y 242.219
Cr (205.560 nm)	0.000624	ppm	0.000410	65.64	-1.540940	Y 377.433
Cu (324.754 nm)	0.000133 u	ppm	0.000386	> 100.00	418.608000	Y 377.433
Fe (238.204 nm)	0.030181	ppm	0.001566	5.19	77.323777	Y_R 377.433
Fe H (259.940 nm)	-0.025133 u	ppm	0.004333	17.24	55.607700	Y_R 377.433
K (766.491 nm)	-0.155409 u	ppm	0.122292	78.69	1827.340000	Y_R2 488.368
Li (670.783 nm)	0.013763	ppm	0.003282	23.85	-2391.810000	Y_R2 488.368
Mg (279.078 nm)	0.009596	ppm	0.000196	2.04	45.830600	Y 377.433
Mn (257.610 nm)	0.000959	ppm	0.000146	15.20	243.243000	Y 377.433
Mo (202.032 nm)	-0.001426 u	ppm	0.000122	8.55	5.241930	Y 377.433
Na (589.592 nm)	0.057795	ppm	0.033015	57.13	152.829000	Y_R2 488.368
Na H (589.593 nm)	0.058675 u	ppm	0.025927	44.19	356.729356	Y_R4
Ni (231.604 nm)	-0.000116 u	ppm	0.000883	> 100.00	-12.014700	Y 377.433
P (213.618 nm)	0.001117	ppm	0.000500	44.78	-2.874340	Y 242.219
Pb (220.353 nm)	-0.001092 u	ppm	0.000207	19.00	9.155040	Y 242.219
S (181.972 nm)	0.022323	ppm	0.006394	28.64	17.787640	Y 377.433
Sb (206.834 nm)	0.002495	ppm	0.001804	72.30	-3.126080	Y 377.433
Se (196.026 nm)	-0.001084 u	ppm	0.002369	> 100.00	8.807570	Y 242.219
Si (288.158 nm)	0.006132	ppm	0.002493	40.66	548.489000	Y 377.433
Sn (189.925 nm)	-0.000154 u	ppm	0.000914	> 100.00	1.968160	Y 377.433
Sr (421.552 nm)	0.000027 u	ppm	0.000061	> 100.00	51.841539	Y_R 488.368
Th (288.505 nm)	0.002349 u	ppm	0.004762	> 100.00	18.639000	Y 377.433
Ti (336.122 nm)	0.000563	ppm	0.000186	32.96	-432.342000	Y 377.433
Tl (190.794 nm)	0.000714	ppm	0.000082	11.46	1.846940	Y 377.433
U (409.013 nm)	0.000713 u	ppm	0.003777	> 100.00	-39.546100	Y 377.433
V (292.401 nm)	0.000389	ppm	0.000217	55.76	-159.325000	Y 377.433
Zn (206.200 nm)	0.003675	ppm	0.000363	9.88	22.059600	Y 377.433
Zr (343.823 nm)	0.000418	ppm	0.000047	11.26	-150.396000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123867	25166.149664	0.001673	0.15
Y 377.433	1.120646	724078.870392	0.000594	0.05
Y_R 377.433	1.123170	61831.000000	0.003454	0.31
Y_R 488.368	1.122190	54232.200000	0.004696	0.42
Y_R2 488.368	1.102340	102169.805431	0.004673	0.42
Y_R4	1.120270	47969.300000	0.007660	0.68

Sample Name: 280-123846-a-8-a

Date: 5/24/2019 5:38:11 AM Rack:Tube: 2:74

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000551	ppm	0.000233	42.24	-227.081000	Y 377.433
Al (394.401 nm)	0.009114	ppm	0.001253	13.74	303.148000	Y 377.433
Al H (396.152 nm)	0.089569 u	ppm	0.003302	3.69	42.560800	Y_R 377.433
As (188.980 nm)	-0.000889 u	ppm	0.001279	> 100.00	-2.799020	Y 242.219
B (249.678 nm)	0.002414	ppm	0.000427	17.68	52.818900	Y 242.219
Ba (493.408 nm)	0.173357	ppm	0.000592	0.34	18226.500000	Y_R 488.368
Be (234.861 nm)	0.000021 u	ppm	0.000043	> 100.00	-15.308700	Y_R 488.368
Bi (223.061 nm)	0.000997	ppm	0.000323	32.39	-12.752200	Y 377.433
Ca (315.887 nm)	44.060140	ppm	0.055923	0.13	35509.485338	Y_R 377.433
Cd (214.439 nm)	0.000160	ppm	0.000060	37.30	-0.195832	Y 377.433
Co (228.615 nm)	0.001352	ppm	0.000527	38.97	11.279900	Y 242.219
Cr (205.560 nm)	-0.000331 u	ppm	0.000593	> 100.00	-8.315270	Y 377.433
Cu (324.754 nm)	-0.000352 u	ppm	0.000314	89.29	368.232000	Y 377.433
Fe (238.204 nm)	2.697102	ppm	0.005839	0.22	6650.635958	Y_R 377.433
Fe H (259.940 nm)	2.653890 u	ppm	0.004431	0.17	3801.550000	Y_R 377.433
K (766.491 nm)	1.262380	ppm	0.002879	0.23	3234.540000	Y_R2 488.368
Li (670.783 nm)	0.013253	ppm	0.000372	2.81	-2400.690000	Y_R2 488.368
Mg (279.078 nm)	15.404700	ppm	0.018294	0.12	54588.900000	Y 377.433
Mn (257.610 nm)	0.786380	ppm	0.000315	0.04	217491.000000	Y 377.433
Mo (202.032 nm)	0.000248	ppm	0.000303	> 100.00	26.547300	Y 377.433
Na (589.592 nm)	13.548600	ppm	0.049522	0.37	10181.900000	Y_R2 488.368
Na H (589.593 nm)	14.099627 u	ppm	0.123593	0.88	7339.877671	Y_R4
Ni (231.604 nm)	-0.002179 u	ppm	0.000329	15.09	-23.540700	Y 377.433
P (213.618 nm)	0.025766	ppm	0.000052	0.20	34.372600	Y 242.219
Pb (220.353 nm)	-0.001704 u	ppm	0.002315	> 100.00	7.127600	Y 242.219
S (181.972 nm)	5.338794	ppm	0.008351	0.16	2410.509046	Y 377.433
Sb (206.834 nm)	0.001349 u	ppm	0.001991	> 100.00	-4.931350	Y 377.433
Se (196.026 nm)	-0.001385 u	ppm	0.001905	> 100.00	8.736810	Y 242.219
Si (288.158 nm)	7.120750	ppm	0.020112	0.28	47478.700000	Y 377.433
Sn (189.925 nm)	-0.001106 u	ppm	0.000314	28.40	0.307355	Y 377.433
Sr (421.552 nm)	0.237837	ppm	0.000261	0.11	34831.933749	Y_R 488.368
Th (288.505 nm)	-0.012865 u	ppm	0.000021	0.16	6.308010	Y 377.433
Ti (336.122 nm)	0.000317	ppm	0.000014	4.52	-315.075000	Y 377.433
Tl (190.794 nm)	0.002257	ppm	0.001315	58.27	3.413730	Y 377.433
U (409.013 nm)	0.022113	ppm	0.003087	13.96	23.757000	Y 377.433
V (292.401 nm)	0.001131	ppm	0.000069	6.11	-122.164000	Y 377.433
Zn (206.200 nm)	0.004203	ppm	0.000112	2.67	25.090700	Y 377.433
Zr (343.823 nm)	0.000566	ppm	0.000063	11.16	-141.896000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.111186	24882.202298	0.001550	0.14
Y 377.433	1.110538	717547.795985	0.001953	0.18
Y_R 377.433	1.128800	62140.700000	0.003089	0.27
Y_R 488.368	1.127520	54489.800000	0.004406	0.39
Y_R2 488.368	1.102569	102191.020666	0.002808	0.25
Y_R4	1.127690	48287.100000	0.005218	0.46

Sample Name: 280-123846-a-9-a

Date: 5/24/2019 5:41:47 AM Rack:Tube: 2:75

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004166	ppm	0.000240	5.76	-100.746000	Y 377.433
Al (394.401 nm)	1.715090	ppm	0.002280	0.13	20676.900000	Y 377.433
Al H (396.152 nm)	1.884790	ppm	0.011937	0.63	3731.910000	Y_R 377.433
As (188.980 nm)	0.027161	ppm	0.001963	7.23	41.190800	Y 242.219
B (249.678 nm)	0.001576	ppm	0.001928	> 100.00	32.556900	Y 242.219
Ba (493.408 nm)	0.032873	ppm	0.000330	1.00	4637.940000	Y_R 488.368
Be (234.861 nm)	0.000204	ppm	0.000052	25.50	-103.331000	Y_R 488.368
Bi (223.061 nm)	0.005293	ppm	0.002250	42.50	1.474420	Y 377.433
Ca (315.887 nm)	42.063769	ppm	0.118073	0.28	33898.194823	Y_R 377.433
Cd (214.439 nm)	0.011334	ppm	0.000037	0.33	457.696000	Y 377.433
Co (228.615 nm)	0.021583	ppm	0.000738	3.42	511.979000	Y 242.219
Cr (205.560 nm)	0.000679	ppm	0.000704	> 100.00	-1.325570	Y 377.433
Cu (324.754 nm)	0.682201	ppm	0.005718	0.84	32066.300000	Y 377.433
Fe (238.204 nm)	27.155842 o	ppm	0.047233	0.17	66935.501686	Y_R 377.433
Fe H (259.940 nm)	27.283000	ppm	0.035577	0.13	38239.100000	Y_R 377.433
K (766.491 nm)	2.854830	ppm	0.004089	0.14	4815.090000	Y_R2 488.368
Li (670.783 nm)	0.019955	ppm	0.004069	20.39	-2283.970000	Y_R2 488.368
Mg (279.078 nm)	11.519500	ppm	0.012970	0.11	40787.500000	Y 377.433
Mn (257.610 nm)	2.822190	ppm	0.001716	0.06	780597.000000	Y 377.433
Mo (202.032 nm)	0.018509	ppm	0.000140	0.76	258.910000	Y 377.433
Na (589.592 nm)	7.227640	ppm	0.082958	1.15	5470.940000	Y_R2 488.368
Na H (589.593 nm)	7.167876 u	ppm	0.000714	0.01	3892.430446	Y_R4
Ni (231.604 nm)	0.011279	ppm	0.000189	1.67	51.667100	Y 377.433
P (213.618 nm)	0.161131	ppm	0.005165	3.21	69.463000	Y 242.219
Pb (220.353 nm)	0.635541	ppm	0.002643	0.42	2196.840000	Y 242.219
S (181.972 nm)	57.228648	ppm	0.108517	0.19	25726.279049	Y 377.433
Sb (206.834 nm)	0.004969	ppm	0.000935	18.82	3.456020	Y 377.433
Se (196.026 nm)	-0.002544 u	ppm	0.000252	9.89	3.047820	Y 242.219
Si (288.158 nm)	10.997600	ppm	0.081456	0.74	73051.400000	Y 377.433
Sn (189.925 nm)	0.000516 u	ppm	0.001237	> 100.00	3.135890	Y 377.433
Sr (421.552 nm)	0.209528	ppm	0.000160	0.08	30695.321018	Y_R 488.368
Th (288.505 nm)	-0.012203 u	ppm	0.005021	41.15	45.620500	Y 377.433
Ti (336.122 nm)	0.013988	ppm	0.000091	0.65	1455.900000	Y 377.433
Tl (190.794 nm)	0.002632	ppm	0.000362	13.77	1.240030	Y 377.433
U (409.013 nm)	0.059931	ppm	0.006402	10.68	160.323000	Y 377.433
V (292.401 nm)	0.002338	ppm	0.000030	1.28	-58.577700	Y 377.433
Zn (206.200 nm)	2.246080	ppm	0.003130	0.14	11155.700000	Y 377.433
Zr (343.823 nm)	0.001185	ppm	0.000068	5.73	-106.204000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122839	25143.137713	0.001962	0.17
Y 377.433	1.127625	728587.875865	0.001656	0.15
Y_R 377.433	1.136580	62569.000000	0.003277	0.29
Y_R 488.368	1.131960	54704.100000	0.003077	0.27
Y_R2 488.368	1.115598	103398.589788	0.000950	0.09
Y_R4	1.130450	48405.200000	0.001952	0.17

Sample Name: mb 280-459138/1-a

Date: 5/24/2019 5:45:29 AM Rack:Tube: 2:76

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000297	ppm	0.000340	> 100.00	-235.577000	Y 377.433
Al (394.401 nm)	-0.002263 u	ppm	0.000701	31.00	105.083000	Y 377.433
Al H (396.152 nm)	0.135093 u	ppm	0.012276	9.09	52.814800	Y_R 377.433
As (188.980 nm)	-0.000743 u	ppm	0.000721	97.04	-2.490440	Y 242.219
B (249.678 nm)	-0.003248 u	ppm	0.000348	10.70	13.796500	Y 242.219
Ba (493.408 nm)	-0.001965 u	ppm	0.000183	9.30	1242.270000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000038	68.41	-11.416300	Y_R 488.368
Bi (223.061 nm)	0.001125	ppm	0.000736	65.38	-12.945700	Y 377.433
Ca (315.887 nm)	0.009830	ppm	0.000573	5.83	-54.035228	Y_R 377.433
Cd (214.439 nm)	0.000092	ppm	0.000013	14.53	-4.109070	Y 377.433
Co (228.615 nm)	0.000089	ppm	0.000035	39.52	-19.954300	Y 242.219
Cr (205.560 nm)	-0.000216 u	ppm	0.000467	> 100.00	-7.499120	Y 377.433
Cu (324.754 nm)	-0.000077 u	ppm	0.000088	> 100.00	407.234000	Y 377.433
Fe (238.204 nm)	0.018127	ppm	0.001955	10.78	47.611607	Y_R 377.433
Fe H (259.940 nm)	-0.033093 u	ppm	0.004635	14.00	44.477900	Y_R 377.433
K (766.491 nm)	-0.120807 u	ppm	0.075107	62.17	1861.690000	Y_R2 488.368
Li (670.783 nm)	0.013631	ppm	0.001199	8.80	-2394.110000	Y_R2 488.368
Mg (279.078 nm)	0.002783	ppm	0.001156	41.54	21.374500	Y 377.433
Mn (257.610 nm)	0.000417	ppm	0.000042	10.18	93.435900	Y 377.433
Mo (202.032 nm)	-0.000648 u	ppm	0.000004	0.60	15.138000	Y 377.433
Na (589.592 nm)	0.034694	ppm	0.002529	7.29	135.655000	Y_R2 488.368
Na H (589.593 nm)	-0.037463 u	ppm	0.006711	17.91	308.915997	Y_R4
Ni (231.604 nm)	-0.001103 u	ppm	0.000166	15.09	-17.532500	Y 377.433
P (213.618 nm)	-0.000786 u	ppm	0.002347	> 100.00	-5.666220	Y 242.219
Pb (220.353 nm)	-0.000886 u	ppm	0.002161	> 100.00	9.908420	Y 242.219
S (181.972 nm)	0.007760	ppm	0.002705	34.86	11.242171	Y 377.433
Sb (206.834 nm)	0.005910	ppm	0.002258	38.21	2.894660	Y 377.433
Se (196.026 nm)	0.000852 u	ppm	0.001239	> 100.00	11.956900	Y 242.219
Si (288.158 nm)	-0.002323 u	ppm	0.000007	0.32	492.721000	Y 377.433
Sn (189.925 nm)	-0.000310 u	ppm	0.000937	> 100.00	1.696400	Y 377.433
Sr (421.552 nm)	0.000003 u	ppm	0.000086	> 100.00	48.325761	Y_R 488.368
Th (288.505 nm)	0.000883	ppm	0.000999	> 100.00	16.187500	Y 377.433
Ti (336.122 nm)	0.000457	ppm	0.000057	12.42	-446.298000	Y 377.433
Tl (190.794 nm)	0.000451 u	ppm	0.001013	> 100.00	1.207080	Y 377.433
U (409.013 nm)	0.008113	ppm	0.000040	0.50	-16.361800	Y 377.433
V (292.401 nm)	0.000541	ppm	0.000001	0.13	-152.469000	Y 377.433
Zn (206.200 nm)	0.002005	ppm	0.000723	36.05	13.771300	Y 377.433
Zr (343.823 nm)	0.000474	ppm	0.000108	22.78	-147.189000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125892	25211.511740	0.002865	0.25
Y 377.433	1.123657	726024.199940	0.003387	0.30
Y_R 377.433	1.128600	62129.700000	0.002399	0.21
Y_R 488.368	1.126190	54425.500000	0.002992	0.27
Y_R2 488.368	1.108426	102733.903220	0.001952	0.18
Y_R4	1.121260	48011.700000	0.006574	0.59

Sample Name: lcs 280-459138/2-a

Date: 5/24/2019 5:48:38 AM
Rack:Tube: 2:77

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000276	ppm	0.000045	16.44	-545.278000	Y 377.433
Al (394.401 nm)	9.731130 o	ppm	0.007845	0.08	116649.000000	Y 377.433
Al H (396.152 nm)	9.794290	ppm	0.025219	0.26	20413.700000	Y_R 377.433
As (188.980 nm)	1.952130	ppm	0.002056	0.11	3108.910000	Y 242.219
B (249.678 nm)	0.960050	ppm	0.000878	0.09	6912.190000	Y 242.219
Ba (493.408 nm)	1.949920	ppm	0.004582	0.23	190315.000000	Y_R 488.368
Be (234.861 nm)	0.968205	ppm	0.001118	0.12	97573.900000	Y_R 488.368
Bi (223.061 nm)	1.878420	ppm	0.007145	0.38	4270.820000	Y 377.433
Ca (315.887 nm)	48.458731	ppm	0.005068	0.01	39063.156110	Y_R 377.433
Cd (214.439 nm)	0.965652	ppm	0.002700	0.28	38633.400000	Y 377.433
Co (228.615 nm)	0.951444	ppm	0.001278	0.13	23546.800000	Y 242.219
Cr (205.560 nm)	0.963351	ppm	0.001997	0.21	6813.080000	Y 377.433
Cu (324.754 nm)	0.952311	ppm	0.002005	0.21	44688.300000	Y 377.433
Fe (238.204 nm)	9.789470 o	ppm	0.021851	0.22	24131.603215	Y_R 377.433
Fe H (259.940 nm)	9.812240	ppm	0.012010	0.12	13810.700000	Y_R 377.433
K (766.491 nm)	48.331500	ppm	0.030343	0.06	49952.100000	Y_R2 488.368
Li (670.783 nm)	0.974793	ppm	0.000624	0.06	14343.200000	Y_R2 488.368
Mg (279.078 nm)	48.520100	ppm	0.109227	0.23	171881.000000	Y 377.433
Mn (257.610 nm)	0.979346	ppm	0.001619	0.17	270865.000000	Y 377.433
Mo (202.032 nm)	0.989117	ppm	0.001231	0.12	12609.500000	Y 377.433
Na (589.592 nm)	46.307600	ppm	0.091637	0.20	34812.100000	Y_R2 488.368
Na H (589.593 nm)	50.933998	ppm	0.229037	0.45	25659.139791	Y_R4
Ni (231.604 nm)	0.946301	ppm	0.001861	0.20	5279.410000	Y 377.433
P (213.618 nm)	19.484700	ppm	0.014343	0.07	29208.300000	Y 242.219
Pb (220.353 nm)	0.970469	ppm	0.001513	0.16	3345.290000	Y 242.219
S (181.972 nm)	9.758691	ppm	0.007714	0.08	4396.800513	Y 377.433
Sb (206.834 nm)	0.005384	ppm	0.001448	26.89	-2.911560	Y 377.433
Se (196.026 nm)	1.911770	ppm	0.007117	0.37	3116.470000	Y 242.219
Si (288.158 nm)	1.973570	ppm	0.003102	0.16	13526.300000	Y 377.433
Sn (189.925 nm)	1.922350	ppm	0.001988	0.10	3355.220000	Y 377.433
Sr (421.552 nm)	0.977390	ppm	0.001308	0.13	142992.367879	Y_R 488.368
Th (288.505 nm)	0.998931	ppm	0.000686	0.07	1665.780000	Y 377.433
Ti (336.122 nm)	0.979773	ppm	0.000840	0.09	127054.000000	Y 377.433
Tl (190.794 nm)	1.934960	ppm	0.004366	0.23	4678.550000	Y 377.433
U (409.013 nm)	1.933700	ppm	0.003016	0.16	5957.840000	Y 377.433
V (292.401 nm)	0.970137	ppm	0.001760	0.18	50988.100000	Y 377.433
Zn (206.200 nm)	0.478587	ppm	0.001813	0.38	2380.630000	Y 377.433
Zr (343.823 nm)	0.485302	ppm	0.000428	0.09	27808.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.082182	24232.732648	0.002990	0.28
Y 377.433	1.088186	703105.439466	0.004555	0.42
Y_R 377.433	1.113280	61286.700000	0.001948	0.17
Y_R 488.368	1.110810	53682.000000	0.000804	0.07
Y_R2 488.368	1.091626	101176.718660	0.000100	0.01
Y_R4	1.109960	47527.900000	0.008099	0.73

Sample Name: 280-123862-a-1-a

Date: 5/24/2019 5:52:16 AM Rack:Tube: 2:78

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000029	ppm	0.000027	92.56	-245.659000	Y 377.433
Al (394.401 nm)	0.682825	ppm	0.003211	0.47	8308.240000	Y 377.433
Al H (396.152 nm)	0.826003 u	ppm	0.003330	0.40	1504.220000	Y_R 377.433
As (188.980 nm)	0.003009	ppm	0.000968	32.18	3.456980	Y 242.219
B (249.678 nm)	0.010586	ppm	0.000814	7.69	112.289000	Y 242.219
Ba (493.408 nm)	0.050972	ppm	0.000165	0.32	6370.830000	Y_R 488.368
Be (234.861 nm)	0.000037	ppm	0.000009	23.69	-6.948780	Y_R 488.368
Bi (223.061 nm)	0.002428	ppm	0.001574	64.84	-9.770600	Y 377.433
Ca (315.887 nm)	6.179378	ppm	0.013836	0.22	4927.054226	Y_R 377.433
Cd (214.439 nm)	0.000038 u	ppm	0.000060	> 100.00	-5.777100	Y 377.433
Co (228.615 nm)	0.000504	ppm	0.000339	67.20	-9.288360	Y 242.219
Cr (205.560 nm)	0.002046	ppm	0.000049	2.37	8.506320	Y 377.433
Cu (324.754 nm)	0.004440	ppm	0.000120	2.71	613.714000	Y 377.433
Fe (238.204 nm)	1.141340	ppm	0.006393	0.56	2816.060537	Y_R 377.433
Fe H (259.940 nm)	1.104200 u	ppm	0.014294	1.29	1634.690000	Y_R 377.433
K (766.491 nm)	0.852814	ppm	0.014574	1.71	2828.030000	Y_R2 488.368
Li (670.783 nm)	0.014997	ppm	0.002973	19.82	-2370.320000	Y_R2 488.368
Mg (279.078 nm)	1.491770	ppm	0.000737	0.05	5295.560000	Y 377.433
Mn (257.610 nm)	0.020592	ppm	0.000007	0.03	5673.790000	Y 377.433
Mo (202.032 nm)	-0.000254 u	ppm	0.000597	> 100.00	20.158300	Y 377.433
Na (589.592 nm)	4.550600	ppm	0.058554	1.29	3491.580000	Y_R2 488.368
Na H (589.593 nm)	4.715887 u	ppm	0.002835	0.06	2672.954172	Y_R4
Ni (231.604 nm)	0.001143	ppm	0.001150	> 100.00	-4.976110	Y 377.433
P (213.618 nm)	0.029866	ppm	0.002249	7.53	39.662800	Y 242.219
Pb (220.353 nm)	0.000416	ppm	0.000134	32.14	14.237500	Y 242.219
S (181.972 nm)	1.390381	ppm	0.003553	0.26	632.683265	Y 377.433
Sb (206.834 nm)	0.005825	ppm	0.002746	47.14	2.813310	Y 377.433
Se (196.026 nm)	-0.001408 u	ppm	0.000058	4.09	8.001050	Y 242.219
Si (288.158 nm)	3.956180	ppm	0.012728	0.32	26604.300000	Y 377.433
Sn (189.925 nm)	0.000569	ppm	0.000304	53.45	3.229680	Y 377.433
Sr (421.552 nm)	0.073870	ppm	0.000361	0.49	10851.509094	Y_R 488.368
Th (288.505 nm)	-0.001756 u	ppm	0.001537	87.51	11.499300	Y 377.433
Ti (336.122 nm)	0.011018	ppm	0.000104	0.94	947.436000	Y 377.433
Tl (190.794 nm)	0.002813	ppm	0.001259	44.76	6.504920	Y 377.433
U (409.013 nm)	0.013452	ppm	0.002978	22.14	0.342890	Y 377.433
V (292.401 nm)	0.002849	ppm	0.000151	5.29	-30.046600	Y 377.433
Zn (206.200 nm)	0.006440	ppm	0.000352	5.46	35.953900	Y 377.433
Zr (343.823 nm)	0.000966	ppm	0.000161	16.68	-118.848000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130923	25324.164221	0.001073	0.09
Y 377.433	1.127725	728652.762269	0.000187	0.02
Y_R 377.433	1.138290	62663.400000	0.003865	0.34
Y_R 488.368	1.137960	54994.100000	0.003283	0.29
Y_R2 488.368	1.116074	103442.708781	0.006148	0.55
Y_R4	1.126370	48230.500000	0.005367	0.48

Sample Name: 280-123862-a-1-aSD@5

Date: 5/24/2019 5:55:48 AM
Rack:Tube: 2:79

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000291	ppm	0.000106	36.28	-235.856000	Y 377.433
Al (394.401 nm)	0.199409	ppm	0.000864	0.43	2516.950000	Y 377.433
Al H (396.152 nm)	0.331397 u	ppm	0.004690	1.42	462.575000	Y_R 377.433
As (188.980 nm)	0.000987	ppm	0.001088	> 100.00	0.258032	Y 242.219
B (249.678 nm)	-0.000970 u	ppm	0.000543	55.98	29.956500	Y 242.219
Ba (493.408 nm)	0.008783	ppm	0.000164	1.87	2283.550000	Y_R 488.368
Be (234.861 nm)	-0.000027 u	ppm	0.000005	19.23	-9.763780	Y_R 488.368
Bi (223.061 nm)	0.001210 u	ppm	0.001723	> 100.00	-12.701400	Y 377.433
Ca (315.887 nm)	1.282059	ppm	0.006157	0.48	973.129998	Y_R 377.433
Cd (214.439 nm)	0.000127	ppm	0.000008	6.40	-2.572160	Y 377.433
Co (228.615 nm)	0.000415	ppm	0.000008	1.88	-11.691500	Y 242.219
Cr (205.560 nm)	-0.000040 u	ppm	0.000031	77.84	-6.254890	Y 377.433
Cu (324.754 nm)	0.000832	ppm	0.000126	15.19	448.946000	Y 377.433
Fe (238.204 nm)	0.304424	ppm	0.000002	0.00	753.266225	Y_R 377.433
Fe H (259.940 nm)	0.255659 u	ppm	0.000887	0.35	448.224000	Y_R 377.433
K (766.491 nm)	0.078451	ppm	0.034129	43.50	2059.460000	Y_R2 488.368
Li (670.783 nm)	0.012714	ppm	0.000236	1.86	-2410.070000	Y_R2 488.368
Mg (279.078 nm)	0.309154	ppm	0.001234	0.40	1106.730000	Y 377.433
Mn (257.610 nm)	0.004713	ppm	0.000023	0.49	1281.460000	Y 377.433
Mo (202.032 nm)	-0.000706 u	ppm	0.000085	12.06	14.403400	Y 377.433
Na (589.592 nm)	1.012900	ppm	0.027590	2.72	862.535000	Y_R2 488.368
Na H (589.593 nm)	0.899100 u	ppm	0.045584	5.07	774.707633	Y_R4
Ni (231.604 nm)	-0.000249 u	ppm	0.000961	> 100.00	-12.761200	Y 377.433
P (213.618 nm)	0.005091	ppm	0.002244	44.09	2.911300	Y 242.219
Pb (220.353 nm)	-0.001066 u	ppm	0.000443	41.55	9.216620	Y 242.219
S (181.972 nm)	0.282154	ppm	0.007286	2.58	134.573239	Y 377.433
Sb (206.834 nm)	0.004949	ppm	0.001000	20.20	1.200530	Y 377.433
Se (196.026 nm)	-0.001665 u	ppm	0.000023	1.39	7.792130	Y 242.219
Si (288.158 nm)	0.925787	ppm	0.001855	0.20	6614.820000	Y 377.433
Sn (189.925 nm)	0.000633	ppm	0.000503	79.49	3.339750	Y 377.433
Sr (421.552 nm)	0.014048	ppm	0.000029	0.20	2102.411899	Y_R 488.368
Th (288.505 nm)	-0.001711 u	ppm	0.003504	> 100.00	11.550000	Y 377.433
Ti (336.122 nm)	0.006335	ppm	0.000193	3.05	321.973000	Y 377.433
Tl (190.794 nm)	0.000186 u	ppm	0.001186	> 100.00	0.462959	Y 377.433
U (409.013 nm)	0.001909	ppm	0.001403	73.50	-35.752900	Y 377.433
V (292.401 nm)	0.001007	ppm	0.000034	3.39	-127.113000	Y 377.433
Zn (206.200 nm)	0.004981	ppm	0.000185	3.71	28.583700	Y 377.433
Zr (343.823 nm)	0.000773	ppm	0.000059	7.62	-129.927000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131815	25344.141588	0.000975	0.09
Y 377.433	1.126322	727746.381145	0.000315	0.03
Y_R 377.433	1.142930	62919.000000	0.001637	0.14
Y_R 488.368	1.140790	55131.000000	0.004331	0.38
Y_R2 488.368	1.113532	103207.087977	0.000359	0.03
Y_R4	1.134850	48593.800000	0.010781	0.95

Sample Name: 280-123862-a-1-b ms

Date: 5/24/2019 5:59:18 AM Rack:Tube: 2:80

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000134 u	ppm	0.000719	> 100.00	-562.692000	Y 377.433
Al (394.401 nm)	11.143900 o	ppm	0.008127	0.07	133553.000000	Y 377.433
Al H (396.152 nm)	11.154500	ppm	0.005256	0.05	23251.100000	Y_R 377.433
As (188.980 nm)	1.989510	ppm	0.008049	0.40	3168.430000	Y 242.219
B (249.678 nm)	0.996200	ppm	0.000449	0.05	7170.500000	Y 242.219
Ba (493.408 nm)	2.032830	ppm	0.000384	0.02	198347.000000	Y_R 488.368
Be (234.861 nm)	0.987472	ppm	0.002008	0.20	99510.700000	Y_R 488.368
Bi (223.061 nm)	1.905270	ppm	0.004577	0.24	4332.330000	Y 377.433
Ca (315.887 nm)	55.268046	ppm	0.035109	0.06	44560.928428	Y_R 377.433
Cd (214.439 nm)	0.977115	ppm	0.000802	0.08	39092.600000	Y 377.433
Co (228.615 nm)	0.970588	ppm	0.001527	0.16	24021.200000	Y 242.219
Cr (205.560 nm)	0.987266	ppm	0.005483	0.56	6982.410000	Y 377.433
Cu (324.754 nm)	0.974551	ppm	0.005772	0.59	45716.700000	Y 377.433
Fe (238.204 nm)	11.146521 o	ppm	0.009748	0.09	27476.405314	Y_R 377.433
Fe H (259.940 nm)	11.158000	ppm	0.011700	0.10	15692.400000	Y_R 377.433
K (766.491 nm)	50.023900	ppm	0.043533	0.09	51631.800000	Y_R2 488.368
Li (670.783 nm)	0.986639	ppm	0.001364	0.14	14549.500000	Y_R2 488.368
Mg (279.078 nm)	50.834200	ppm	0.080282	0.16	180077.000000	Y 377.433
Mn (257.610 nm)	1.011770	ppm	0.000720	0.07	279834.000000	Y 377.433
Mo (202.032 nm)	1.001760	ppm	0.001942	0.19	12770.400000	Y 377.433
Na (589.592 nm)	51.424300	ppm	0.005239	0.01	38619.400000	Y_R2 488.368
Na H (589.593 nm)	56.531949	ppm	0.088437	0.16	28443.233574	Y_R4
Ni (231.604 nm)	0.965613	ppm	0.002537	0.26	5387.350000	Y 377.433
P (213.618 nm)	19.829800	ppm	0.022097	0.11	29724.400000	Y 242.219
Pb (220.353 nm)	0.984227	ppm	0.001929	0.20	3392.300000	Y 242.219
S (181.972 nm)	11.420946	ppm	0.047051	0.41	5143.928753	Y 377.433
Sb (206.834 nm)	0.005791	ppm	0.002283	39.42	-2.052000	Y 377.433
Se (196.026 nm)	1.944090	ppm	0.010936	0.56	3168.670000	Y 242.219
Si (288.158 nm)	7.128320	ppm	0.036897	0.52	47528.700000	Y 377.433
Sn (189.925 nm)	1.955100	ppm	0.002827	0.14	3412.350000	Y 377.433
Sr (421.552 nm)	1.066923	ppm	0.000210	0.02	156086.707939	Y_R 488.368
Th (288.505 nm)	1.004940	ppm	0.001440	0.14	1674.840000	Y 377.433
Ti (336.122 nm)	1.002130	ppm	0.000293	0.03	129985.000000	Y 377.433
Tl (190.794 nm)	1.956480	ppm	0.001864	0.10	4730.180000	Y 377.433
U (409.013 nm)	1.968030	ppm	0.001806	0.09	6068.870000	Y 377.433
V (292.401 nm)	0.985418	ppm	0.000825	0.08	51791.100000	Y 377.433
Zn (206.200 nm)	0.489256	ppm	0.000964	0.20	2433.790000	Y 377.433
Zr (343.823 nm)	0.457714	ppm	0.000114	0.02	26217.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084998	24295.783293	0.002553	0.24
Y 377.433	1.091938	705530.017188	0.002111	0.19
Y_R 377.433	1.115490	61408.300000	0.000084	0.01
Y_R 488.368	1.111800	53730.100000	0.000772	0.07
Y_R2 488.368	1.085740	100631.207062	0.007636	0.70
Y_R4	1.120450	47977.200000	0.001717	0.15

Sample Name: CCVH-5713036

Date: 5/24/2019 6:03:00 AM
Rack:Tube: S1:1

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003779	ppm	0.000645	17.06	-123.467000	Y 377.433
Al (394.401 nm)	48.991500 o	ppm	0.137213	0.28	584307.000000	Y 377.433
Al H (396.152 nm)	48.525400	ppm	0.038776	0.08	99773.200000	Y_R 377.433
As (188.980 nm)	0.004467	ppm	0.001937	43.37	4.423820	Y 242.219
B (249.678 nm)	-0.002575 u	ppm	0.000574	22.28	-9.464160	Y 242.219
Ba (493.408 nm)	0.001130	ppm	0.000236	20.91	1579.520000	Y_R 488.368
Be (234.861 nm)	0.001058	ppm	0.000062	5.85	-108.799000	Y_R 488.368
Bi (223.061 nm)	0.010598	ppm	0.001062	10.02	17.376900	Y 377.433
Ca (315.887 nm)	-0.001813 u	ppm	0.002540	> 100.00	-51.157127	Y_R 377.433
Cd (214.439 nm)	0.001507	ppm	0.000071	4.72	73.801200	Y 377.433
Co (228.615 nm)	0.003267	ppm	0.000179	5.46	58.672400	Y 242.219
Cr (205.560 nm)	0.001719	ppm	0.000031	1.81	4.831270	Y 377.433
Cu (324.754 nm)	0.003075	ppm	0.000269	8.73	1469.470000	Y 377.433
Fe (238.204 nm)	48.188001 o	ppm	0.019539	0.04	118774.672859	Y_R 377.433
Fe H (259.940 nm)	48.416100	ppm	0.058362	0.12	67788.400000	Y_R 377.433
K (766.491 nm)	0.498837	ppm	0.030665	6.15	2476.700000	Y_R2 488.368
Li (670.783 nm)	0.012734	ppm	0.003998	31.40	-2409.730000	Y_R2 488.368
Mg (279.078 nm)	0.035850	ppm	0.002247	6.27	60.853100	Y 377.433
Mn (257.610 nm)	0.001034	ppm	0.000028	2.72	264.026000	Y 377.433
Mo (202.032 nm)	0.000563	ppm	0.000421	74.80	30.552700	Y 377.433
Na (589.592 nm)	232.676000 o	ppm	0.684297	0.29	172467.000000	Y_R2 488.368
Na H (589.593 nm)	249.374833	ppm	0.105765	0.04	124352.006690	Y_R4
Ni (231.604 nm)	0.001805	ppm	0.000394	21.83	-1.275630	Y 377.433
P (213.618 nm)	4.835020	ppm	0.035544	0.74	7307.760000	Y 242.219
Pb (220.353 nm)	0.003954	ppm	0.000748	18.92	19.228700	Y 242.219
S (181.972 nm)	4.927867	ppm	0.011564	0.23	2221.426189	Y 377.433
Sb (206.834 nm)	0.003420	ppm	0.002225	65.06	2.762580	Y 377.433
Se (196.026 nm)	0.005503	ppm	0.002605	47.34	6.075470	Y 242.219
Si (288.158 nm)	0.016643	ppm	0.000432	2.60	617.827000	Y 377.433
Sn (189.925 nm)	0.000639 u	ppm	0.001394	> 100.00	3.350920	Y 377.433
Sr (421.552 nm)	0.001139	ppm	0.000066	5.78	221.568386	Y_R 488.368
Th (288.505 nm)	4.849360	ppm	0.013271	0.27	8473.770000	Y 377.433
Ti (336.122 nm)	0.002217	ppm	0.000080	3.61	-217.386000	Y 377.433
Tl (190.794 nm)	0.003957	ppm	0.000007	0.17	4.804260	Y 377.433
U (409.013 nm)	0.541333 Q	ppm	0.014445	2.67	1689.310000 Q	Y 377.433
V (292.401 nm)	0.001627	ppm	0.000325	19.97	393.901000	Y 377.433
Zn (206.200 nm)	0.002437	ppm	0.000033	1.37	23.358300	Y 377.433
Zr (343.823 nm)	0.001422	ppm	0.000093	6.51	-92.507000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081787	24223.881708	0.000260	0.02
Y 377.433	1.081001	698462.982646	0.000669	0.06
Y_R 377.433	1.115160	61390.000000	0.007071	0.63
Y_R 488.368	1.109990	53642.500000	0.004856	0.44
Y_R2 488.368	1.087136	100760.591840	0.010993	1.01
Y_R4	1.119250	47925.800000	0.003634	0.32

Sample Name: CCV-5717467

Date: 5/24/2019 6:06:40 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.480996	ppm	0.001121	0.23	16618.500000	Y 377.433
Al (394.401 nm)	0.499658	ppm	0.002819	0.56	6220.960000	Y 377.433
Al H (396.152 nm)	0.559963 u	ppm	0.012029	2.15	1157.050000	Y_R 377.433
As (188.980 nm)	0.482146	ppm	0.003784	0.78	766.868000	Y 242.219
B (249.678 nm)	0.473055	ppm	0.000048	0.01	3426.120000	Y 242.219
Ba (493.408 nm)	0.480839	ppm	0.000958	0.20	48009.900000	Y_R 488.368
Be (234.861 nm)	0.476402	ppm	0.002323	0.49	48018.400000	Y_R 488.368
Bi (223.061 nm)	0.941766	ppm	0.007845	0.83	2133.100000	Y 377.433
Ca (315.887 nm)	4.860232	ppm	0.000001	0.00	3862.015118	Y_R 377.433
Cd (214.439 nm)	0.487715	ppm	0.001626	0.33	19507.300000	Y 377.433
Co (228.615 nm)	0.483273	ppm	0.000452	0.09	11948.600000	Y 242.219
Cr (205.560 nm)	0.481242	ppm	0.000970	0.20	3400.640000	Y 377.433
Cu (324.754 nm)	0.480410	ppm	0.000524	0.11	22718.000000	Y 377.433
Fe (238.204 nm)	2.435942	ppm	0.007453	0.31	6006.940370	Y_R 377.433
Fe H (259.940 nm)	2.399740 u	ppm	0.007141	0.30	3446.190000	Y_R 377.433
K (766.491 nm)	47.635600	ppm	0.302078	0.63	49261.300000	Y_R2 488.368
Li (670.783 nm)	0.484453	ppm	0.002976	0.61	5804.610000	Y_R2 488.368
Mg (279.078 nm)	19.361000	ppm	0.077869	0.40	68607.300000	Y 377.433
Mn (257.610 nm)	0.484172	ppm	0.001663	0.34	133900.000000	Y 377.433
Mo (202.032 nm)	0.483374	ppm	0.000454	0.09	6174.140000	Y 377.433
Na (589.592 nm)	23.360600	ppm	0.049145	0.21	17513.000000	Y_R2 488.368
Na H (589.593 nm)	25.476312 u	ppm	0.179400	0.70	12997.975636	Y_R4
Ni (231.604 nm)	0.485630	ppm	0.001701	0.35	2703.170000	Y 377.433
P (213.618 nm)	0.055082	ppm	0.001974	3.58	-58.314100	Y 242.219
Pb (220.353 nm)	0.485121	ppm	0.001208	0.25	1677.150000	Y 242.219
S (181.972 nm)	0.013904	ppm	0.006015	43.26	15.713244	Y 377.433
Sb (206.834 nm)	0.486119	ppm	0.005390	1.11	847.935000	Y 377.433
Se (196.026 nm)	0.484319	ppm	0.000067	0.01	797.813000	Y 242.219
Si (288.158 nm)	4.761870	ppm	0.009155	0.19	31918.900000	Y 377.433
Sn (189.925 nm)	0.487682	ppm	0.002362	0.48	852.858000	Y 377.433
Sr (421.552 nm)	0.482594	ppm	0.000780	0.16	70627.460323	Y_R 488.368
Th (288.505 nm)	0.013243	ppm	0.001060	8.00	-11.481300	Y 377.433
Ti (336.122 nm)	0.479843	ppm	0.001168	0.24	61902.100000	Y 377.433
Tl (190.794 nm)	0.491810	ppm	0.002686	0.55	1188.190000	Y 377.433
U (409.013 nm)	0.027124	ppm	0.010828	39.92	-14.738200	Y 377.433
V (292.401 nm)	0.479412	ppm	0.001404	0.29	25101.700000	Y 377.433
Zn (206.200 nm)	0.487968	ppm	0.003669	0.75	2426.050000	Y 377.433
Zr (343.823 nm)	0.481034	ppm	0.000901	0.19	27562.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103773	24716.203013	0.002505	0.23
Y 377.433	1.102231	712180.237882	0.004455	0.40
Y_R 377.433	1.117680	61528.600000	0.004507	0.40
Y_R 488.368	1.114380	53854.700000	0.004437	0.40
Y_R2 488.368	1.088722	100907.597172	0.005648	0.52
Y_R4	1.122730	48074.800000	0.006597	0.59

Sample Name: CCB

Date: 5/24/2019 6:10:15 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000189	ppm	0.000119	62.93	-239.043000	Y 377.433
Al (394.401 nm)	-0.002668 u	ppm	0.000508	19.06	96.309700	Y 377.433
Al H (396.152 nm)	0.117754 Zu	ppm	0.003704	3.15	17.096100 Z	Y_R 377.433
As (188.980 nm)	-0.001254 u	ppm	0.000067	5.36	-3.302990	Y 242.219
B (249.678 nm)	-0.002576 u	ppm	0.000016	0.61	18.625700	Y 242.219
Ba (493.408 nm)	-0.001854 u	ppm	0.000380	20.49	1252.990000	Y_R 488.368
Be (234.861 nm)	0.000060	ppm	0.000014	23.04	0.363625	Y_R 488.368
Bi (223.061 nm)	0.001344 u	ppm	0.002951	> 100.00	-12.449800	Y 377.433
Ca (315.887 nm)	0.005504	ppm	0.000994	18.06	-57.534632	Y_R 377.433
Cd (214.439 nm)	0.000085	ppm	0.000066	77.89	-4.396740	Y 377.433
Co (228.615 nm)	0.000092 u	ppm	0.000221	> 100.00	-19.898900	Y 242.219
Cr (205.560 nm)	-0.000137 u	ppm	0.000362	> 100.00	-6.941460	Y 377.433
Cu (324.754 nm)	0.000115	ppm	0.000134	> 100.00	417.649000	Y 377.433
Fe (238.204 nm)	0.000651 u	ppm	0.002293	> 100.00	4.537937	Y_R 377.433
Fe H (259.940 nm)	-0.052753 u	ppm	0.001801	3.41	16.987400	Y_R 377.433
K (766.491 nm)	-0.032790 u	ppm	0.020952	63.90	1949.050000	Y_R2 488.368
Li (670.783 nm)	0.011281 Z	ppm	0.001934	17.15	-2435.020000 Z	Y_R2 488.368
Mg (279.078 nm)	0.000303 u	ppm	0.000642	> 100.00	13.154700	Y 377.433
Mn (257.610 nm)	0.000073	ppm	0.000004	5.82	-1.897650	Y 377.433
Mo (202.032 nm)	-0.000466 u	ppm	0.000407	87.37	17.462700	Y 377.433
Na (589.592 nm)	0.062938	ppm	0.021231	33.73	156.682000	Y_R2 488.368
Na H (589.593 nm)	0.288016 u	ppm	0.008831	3.07	470.790301	Y_R4
Ni (231.604 nm)	0.000357	ppm	0.000483	> 100.00	-9.374480	Y 377.433
P (213.618 nm)	0.003133	ppm	0.003363	> 100.00	0.275751	Y 242.219
Pb (220.353 nm)	-0.000468 u	ppm	0.001243	> 100.00	11.267300	Y 242.219
S (181.972 nm)	-0.005570 u	ppm	0.006727	> 100.00	5.253441	Y 377.433
Sb (206.834 nm)	0.001238 u	ppm	0.001929	> 100.00	-5.356260	Y 377.433
Se (196.026 nm)	-0.000898 u	ppm	0.001897	> 100.00	9.115940	Y 242.219
Si (288.158 nm)	-0.005469 u	ppm	0.001070	19.56	471.969000	Y 377.433
Sn (189.925 nm)	0.000162	ppm	0.000128	79.10	2.519530	Y 377.433
Sr (421.552 nm)	-0.000076 u	ppm	0.000009	11.76	36.792927	Y_R 488.368
Th (288.505 nm)	0.000794	ppm	0.000612	77.05	15.840500	Y 377.433
Ti (336.122 nm)	0.000362	ppm	0.000008	2.17	-458.559000	Y 377.433
Tl (190.794 nm)	-0.000398 u	ppm	0.001168	> 100.00	-0.849500	Y 377.433
U (409.013 nm)	-0.000046 u	ppm	0.003851	> 100.00	-41.938100	Y 377.433
V (292.401 nm)	0.000530	ppm	0.000062	11.69	-151.639000	Y 377.433
Zn (206.200 nm)	0.000427	ppm	0.000301	70.32	5.938310	Y 377.433
Zr (343.823 nm)	0.000236	ppm	0.000260	> 100.00	-160.931000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115827	24986.115496	0.005652	0.51
Y 377.433	1.110163	717305.803592	0.005270	0.47
Y_R 377.433	1.121330	61729.700000	0.004784	0.43
Y_R 488.368	1.118710	54064.100000	0.004058	0.36
Y_R2 488.368	1.098854	101846.651072	0.001308	0.12
Y_R4	1.114120	47706.100000	0.001994	0.18

Sample Name: CCVL-5717307

Date: 5/24/2019 6:13:27 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007771	ppm	0.000074	0.95	25.559600	Y 377.433
Al (394.401 nm)	0.095058	ppm	0.001419	1.49	1273.990000	Y 377.433
Al H (396.152 nm)	0.218078 u	ppm	0.002805	1.29	228.913000	Y_R 377.433
As (188.980 nm)	0.011554	ppm	0.000337	2.92	17.101300	Y 242.219
B (249.678 nm)	0.088950	ppm	0.000363	0.41	674.543000	Y 242.219
Ba (493.408 nm)	0.007973	ppm	0.000437	5.48	2205.000000	Y_R 488.368
Be (234.861 nm)	0.000989	ppm	0.000008	0.77	93.568700	Y_R 488.368
Bi (223.061 nm)	0.090495	ppm	0.000857	0.95	190.918000	Y 377.433
Ca (315.887 nm)	0.214958	ppm	0.000421	0.20	111.592021	Y_R 377.433
Cd (214.439 nm)	0.005066	ppm	0.000205	4.04	194.941000	Y 377.433
Co (228.615 nm)	0.010689	ppm	0.000081	0.76	242.546000	Y 242.219
Cr (205.560 nm)	0.009990	ppm	0.000073	0.73	64.647900	Y 377.433
Cu (324.754 nm)	0.014918	ppm	0.000442	2.96	1102.990000	Y 377.433
Fe (238.204 nm)	0.098514	ppm	0.001363	1.38	245.747995	Y_R 377.433
Fe H (259.940 nm)	0.048089 u	ppm	0.000380	0.79	157.990000	Y_R 377.433
K (766.491 nm)	2.872410	ppm	0.011779	0.41	4832.540000	Y_R2 488.368
Li (670.783 nm)	0.031918 Q	ppm	0.001466	4.59	-2075.660000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200680	ppm	0.000328	0.16	721.587000	Y 377.433
Mn (257.610 nm)	0.010375	ppm	0.000046	0.45	2847.790000	Y 377.433
Mo (202.032 nm)	0.018273	ppm	0.000090	0.49	255.900000	Y 377.433
Na (589.592 nm)	1.156940	ppm	0.008801	0.76	969.046000	Y_R2 488.368
Na H (589.593 nm)	1.162448 u	ppm	0.056263	4.84	905.681672	Y_R4
Ni (231.604 nm)	0.040378	ppm	0.000740	1.83	214.299000	Y 377.433
P (213.618 nm)	2.705640	ppm	0.014044	0.52	4085.710000	Y 242.219
Pb (220.353 nm)	0.007694	ppm	0.000098	1.27	39.429400	Y 242.219
S (181.972 nm)	0.094227	ppm	0.001958	2.08	50.120332	Y 377.433
Sb (206.834 nm)	0.020241	ppm	0.002943	14.54	28.042600	Y 377.433
Se (196.026 nm)	0.019404	ppm	0.002115	10.90	42.101900	Y 242.219
Si (288.158 nm)	0.467997	ppm	0.000980	0.21	3595.100000	Y 377.433
Sn (189.925 nm)	0.095765	ppm	0.001300	1.36	169.271000	Y 377.433
Sr (421.552 nm)	0.009037	ppm	0.000122	1.35	1369.547715	Y_R 488.368
Th (288.505 nm)	0.013365	ppm	0.002211	16.55	37.347400	Y 377.433
Ti (336.122 nm)	0.009782	ppm	0.000112	1.14	766.942000	Y 377.433
Tl (190.794 nm)	0.015420	ppm	0.000942	6.11	37.359600	Y 377.433
U (409.013 nm)	0.060281	ppm	0.005297	8.79	145.884000	Y 377.433
V (292.401 nm)	0.009960	ppm	0.000058	0.58	342.031000	Y 377.433
Zn (206.200 nm)	0.020264	ppm	0.000162	0.80	104.403000	Y 377.433
Zr (343.823 nm)	0.010035	ppm	0.000258	2.57	404.105000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.129650	25295.643013	0.001821	0.16
Y 377.433	1.125360	727124.768923	0.001303	0.12
Y_R 377.433	1.138180	62657.100000	0.000831	0.07
Y_R 488.368	1.134750	54839.200000	0.005315	0.47
Y_R2 488.368	1.105226	102437.307476	0.007345	0.66
Y_R4	1.126430	48232.900000	0.006846	0.61

Sample Name: 280-123862-a-1-c msd

Date: 5/24/2019 6:16:56 AM Rack:Tube: 2:81

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000049 u	ppm	0.000137	> 100.00	-563.718000	Y 377.433
Al (394.401 nm)	10.967200 o	ppm	0.008456	0.08	131439.000000	Y 377.433
Al H (396.152 nm)	10.966900	ppm	0.029978	0.27	22856.800000	Y_R 377.433
As (188.980 nm)	1.956940	ppm	0.001786	0.09	3116.530000	Y 242.219
B (249.678 nm)	0.976346	ppm	0.000109	0.01	7028.290000	Y 242.219
Ba (493.408 nm)	2.001720	ppm	0.003809	0.19	195333.000000	Y_R 488.368
Be (234.861 nm)	0.978848	ppm	0.000383	0.04	98641.900000	Y_R 488.368
Bi (223.061 nm)	1.869620	ppm	0.001916	0.10	4250.970000	Y 377.433
Ca (315.887 nm)	54.357218	ppm	0.125989	0.23	43825.532263	Y_R 377.433
Cd (214.439 nm)	0.962727	ppm	0.000650	0.07	38516.900000	Y 377.433
Co (228.615 nm)	0.954548	ppm	0.000594	0.06	23623.800000	Y 242.219
Cr (205.560 nm)	0.966573	ppm	0.000409	0.04	6835.880000	Y 377.433
Cu (324.754 nm)	0.959081	ppm	0.003517	0.37	44996.600000	Y 377.433
Fe (238.204 nm)	10.993415 o	ppm	0.033307	0.30	27099.037726	Y_R 377.433
Fe H (259.940 nm)	10.993700	ppm	0.027023	0.25	15462.700000	Y_R 377.433
K (766.491 nm)	49.287700	ppm	0.104373	0.21	50901.100000	Y_R2 488.368
Li (670.783 nm)	0.972232	ppm	0.000492	0.05	14298.600000	Y_R2 488.368
Mg (279.078 nm)	50.087000	ppm	0.025159	0.05	177431.000000	Y 377.433
Mn (257.610 nm)	0.995332	ppm	0.000123	0.01	275287.000000	Y 377.433
Mo (202.032 nm)	0.985720	ppm	0.000617	0.06	12566.300000	Y 377.433
Na (589.592 nm)	50.559600	ppm	0.193283	0.38	37972.600000	Y_R2 488.368
Na H (589.593 nm)	55.226258	ppm	0.060269	0.11	27793.859212	Y_R4
Ni (231.604 nm)	0.951347	ppm	0.000745	0.08	5307.600000	Y 377.433
P (213.618 nm)	19.455400	ppm	0.010999	0.06	29162.500000	Y 242.219
Pb (220.353 nm)	0.970885	ppm	0.000086	0.01	3346.490000	Y 242.219
S (181.972 nm)	11.216568	ppm	0.021400	0.19	5052.027399	Y 377.433
Sb (206.834 nm)	0.003940	ppm	0.001974	50.09	-5.260050	Y 377.433
Se (196.026 nm)	1.908390	ppm	0.003002	0.16	3110.660000	Y 242.219
Si (288.158 nm)	6.945230	ppm	0.024745	0.36	46320.900000	Y 377.433
Sn (189.925 nm)	1.923310	ppm	0.000144	0.01	3356.900000	Y 377.433
Sr (421.552 nm)	1.050075	ppm	0.003058	0.29	153622.695554	Y_R 488.368
Th (288.505 nm)	0.989245	ppm	0.003899	0.39	1648.930000	Y 377.433
Ti (336.122 nm)	0.985493	ppm	0.000771	0.08	127818.000000	Y 377.433
Tl (190.794 nm)	1.929130	ppm	0.001293	0.07	4664.070000	Y 377.433
U (409.013 nm)	1.940180	ppm	0.001564	0.08	5982.550000	Y 377.433
V (292.401 nm)	0.968927	ppm	0.000162	0.02	50921.500000	Y 377.433
Zn (206.200 nm)	0.482529	ppm	0.000505	0.10	2400.380000	Y 377.433
Zr (343.823 nm)	0.450418	ppm	0.000610	0.14	25796.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087100	24342.856664	0.001629	0.15
Y 377.433	1.093428	706492.560045	0.000150	0.01
Y_R 377.433	1.110130	61113.000000	0.000250	0.02
Y_R 488.368	1.105320	53416.900000	0.000317	0.03
Y_R2 488.368	1.089274	100958.784904	0.004926	0.45
Y_R4	1.127220	48266.900000	0.001716	0.15

Sample Name: 280-123862-a-1-aPDS

Date: 5/24/2019 6:20:36 AM Rack:Tube: 2:82

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.048414	ppm	0.000019	0.04	1443.980000	Y 377.433
Al (394.401 nm)	2.154360	ppm	0.002674	0.12	25919.700000	Y 377.433
Al H (396.152 nm)	2.333550	ppm	0.016329	0.70	4630.840000	Y_R 377.433
As (188.980 nm)	0.195015	ppm	0.001234	0.63	309.359000	Y 242.219
B (249.678 nm)	0.109268	ppm	0.000876	0.80	818.814000	Y 242.219
Ba (493.408 nm)	0.151324	ppm	0.000227	0.15	16092.200000	Y_R 488.368
Be (234.861 nm)	0.049433	ppm	0.000031	0.06	4967.940000	Y_R 488.368
Bi (223.061 nm)	0.003341	ppm	0.001446	43.27	-7.410290	Y 377.433
Ca (315.887 nm)	25.795564	ppm	0.049530	0.19	20764.351800	Y_R 377.433
Cd (214.439 nm)	0.049757	ppm	0.000155	0.31	1984.100000	Y 377.433
Co (228.615 nm)	0.049719	ppm	0.001157	2.33	1211.030000	Y 242.219
Cr (205.560 nm)	0.051233	ppm	0.000078	0.15	356.650000	Y 377.433
Cu (324.754 nm)	0.053986	ppm	0.000059	0.11	2913.030000	Y 377.433
Fe (238.204 nm)	2.423919	ppm	0.005760	0.24	5977.305795	Y_R 377.433
Fe H (259.940 nm)	2.379090 u	ppm	0.003190	0.13	3417.310000	Y_R 377.433
K (766.491 nm)	20.193800	ppm	0.029133	0.14	22024.600000	Y_R2 488.368
Li (670.783 nm)	0.111705	ppm	0.002312	2.07	-686.273000	Y_R2 488.368
Mg (279.078 nm)	21.074600	ppm	0.063823	0.30	74670.600000	Y 377.433
Mn (257.610 nm)	0.071647	ppm	0.000214	0.30	19795.600000	Y 377.433
Mo (202.032 nm)	0.049415	ppm	0.000782	1.58	652.174000	Y 377.433
Na (589.592 nm)	23.730600	ppm	0.010990	0.05	17719.800000	Y_R2 488.368
Na H (589.593 nm)	24.827856 u	ppm	0.025177	0.10	12675.471733	Y_R4
Ni (231.604 nm)	0.050229	ppm	0.000844	1.68	269.580000	Y 377.433
P (213.618 nm)	1.960580	ppm	0.014721	0.75	2946.930000	Y 242.219
Pb (220.353 nm)	0.099185	ppm	0.000383	0.39	354.319000	Y 242.219
S (181.972 nm)	1.451050	ppm	0.007615	0.52	661.018726	Y 377.433
Sb (206.834 nm)	0.106108	ppm	0.003010	2.84	179.517000	Y 377.433
Se (196.026 nm)	0.190918	ppm	0.000492	0.26	320.295000	Y 242.219
Si (288.158 nm)	9.873020	ppm	0.068378	0.69	65633.600000	Y 377.433
Sn (189.925 nm)	0.095783	ppm	0.000125	0.13	169.303000	Y 377.433
Sr (421.552 nm)	0.124897	ppm	0.000312	0.25	18314.489206	Y_R 488.368
Th (288.505 nm)	0.198558	ppm	0.002336	1.18	357.807000	Y 377.433
Ti (336.122 nm)	0.086770	ppm	0.000784	0.90	10863.100000	Y 377.433
Tl (190.794 nm)	0.201531	ppm	0.001268	0.63	486.532000	Y 377.433
U (409.013 nm)	0.506504	ppm	0.003690	0.73	1537.230000	Y 377.433
V (292.401 nm)	0.052523	ppm	0.000067	0.13	2585.960000	Y 377.433
Zn (206.200 nm)	0.205715	ppm	0.000255	0.12	1025.180000	Y 377.433
Zr (343.823 nm)	0.051502	ppm	0.000075	0.15	2795.080000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120726	25095.830999	0.004382	0.39
Y 377.433	1.117862	722279.810609	0.003948	0.35
Y_R 377.433	1.132640	62352.000000	0.002807	0.25
Y_R 488.368	1.128660	54544.500000	0.002574	0.23
Y_R2 488.368	1.114779	103322.665894	0.013834	1.24
Y_R4	1.145690	49057.800000	0.000187	0.02

Sample Name: 280-123862-a-2-a

Date: 5/24/2019 6:24:11 AM Rack:Tube: 2:83

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000223 u	ppm	0.000390	> 100.00	-238.739000	Y 377.433
Al (394.401 nm)	0.481093	ppm	0.002284	0.47	5899.530000	Y 377.433
Al H (396.152 nm)	0.608564 u	ppm	0.004138	0.68	1057.510000	Y_R 377.433
As (188.980 nm)	0.002086	ppm	0.000338	16.21	1.990570	Y 242.219
B (249.678 nm)	0.011453	ppm	0.000157	1.37	118.607000	Y 242.219
Ba (493.408 nm)	0.052328	ppm	0.000123	0.24	6502.000000	Y_R 488.368
Be (234.861 nm)	-0.000002 u	ppm	0.000048	> 100.00	-10.153900	Y_R 488.368
Bi (223.061 nm)	0.002829	ppm	0.001064	37.62	-8.885570	Y 377.433
Ca (315.887 nm)	6.380275	ppm	0.012162	0.19	5089.192951	Y_R 377.433
Cd (214.439 nm)	0.000126	ppm	0.000008	5.95	-2.306950	Y 377.433
Co (228.615 nm)	0.000329	ppm	0.000318	96.50	-13.723400	Y 242.219
Cr (205.560 nm)	0.000981	ppm	0.000328	33.40	0.965314	Y 377.433
Cu (324.754 nm)	0.002833	ppm	0.000379	13.38	538.645000	Y 377.433
Fe (238.204 nm)	0.969497	ppm	0.004995	0.52	2392.508228	Y_R 377.433
Fe H (259.940 nm)	0.924572 u	ppm	0.005661	0.61	1383.530000	Y_R 377.433
K (766.491 nm)	0.813923	ppm	0.076386	9.38	2789.430000	Y_R2 488.368
Li (670.783 nm)	0.012382	ppm	0.000405	3.27	-2415.850000	Y_R2 488.368
Mg (279.078 nm)	1.544290	ppm	0.001924	0.12	5481.850000	Y 377.433
Mn (257.610 nm)	0.024137	ppm	0.000082	0.34	6654.120000	Y 377.433
Mo (202.032 nm)	-0.000471 u	ppm	0.000344	73.00	17.397500	Y 377.433
Na (589.592 nm)	4.679920	ppm	0.041684	0.89	3587.600000	Y_R2 488.368
Na H (589.593 nm)	4.858776 u	ppm	0.000973	0.02	2744.018959	Y_R4
Ni (231.604 nm)	0.001684	ppm	0.000429	25.48	-1.955020	Y 377.433
P (213.618 nm)	0.022498	ppm	0.003140	13.96	28.835400	Y 242.219
Pb (220.353 nm)	-0.001595 u	ppm	0.000079	4.96	7.371340	Y 242.219
S (181.972 nm)	1.413653	ppm	0.018701	1.32	643.158349	Y 377.433
Sb (206.834 nm)	0.006842	ppm	0.002130	31.14	4.599450	Y 377.433
Se (196.026 nm)	-0.000176 u	ppm	0.000161	91.54	10.055300	Y 242.219
Si (288.158 nm)	3.777590	ppm	0.031038	0.82	25426.200000	Y 377.433
Sn (189.925 nm)	0.000213 u	ppm	0.000348	> 100.00	2.607150	Y 377.433
Sr (421.552 nm)	0.077490	ppm	0.000019	0.02	11380.946465	Y_R 488.368
Th (288.505 nm)	-0.002939 u	ppm	0.001309	44.54	9.551910	Y 377.433
Ti (336.122 nm)	0.008192	ppm	0.000096	1.17	580.707000	Y 377.433
Tl (190.794 nm)	0.001601	ppm	0.000615	38.42	3.593350	Y 377.433
U (409.013 nm)	0.018741	ppm	0.000227	1.21	16.748000	Y 377.433
V (292.401 nm)	0.002327	ppm	0.000379	16.28	-57.748200	Y 377.433
Zn (206.200 nm)	0.005694	ppm	0.000869	15.26	32.228200	Y 377.433
Zr (343.823 nm)	0.000911	ppm	0.000253	27.79	-121.985000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136505	25449.160143	0.003522	0.31
Y 377.433	1.131669	731200.907808	0.004838	0.43
Y_R 377.433	1.138640	62682.400000	0.005973	0.52
Y_R 488.368	1.136990	54947.500000	0.003901	0.34
Y_R2 488.368	1.118193	103639.133707	0.003032	0.27
Y_R4	1.134100	48561.600000	0.001838	0.16

Sample Name: 280-123862-a-3-a

Date: 5/24/2019 6:27:43 AM Rack:Tube: 2:84

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000378 u	ppm	0.000412	> 100.00	-259.505000	Y 377.433
Al (394.401 nm)	0.706410	ppm	0.001059	0.15	8590.380000	Y 377.433
Al H (396.152 nm)	0.856034 u	ppm	0.011934	1.39	1566.770000	Y_R 377.433
As (188.980 nm)	0.000705	ppm	0.000019	2.67	-0.215640	Y 242.219
B (249.678 nm)	0.010818	ppm	0.000268	2.48	113.948000	Y 242.219
Ba (493.408 nm)	0.051872	ppm	0.000210	0.40	6457.960000	Y_R 488.368
Be (234.861 nm)	0.000004 u	ppm	0.000006	> 100.00	-10.389400	Y_R 488.368
Bi (223.061 nm)	0.000283	ppm	0.000061	21.52	-14.658300	Y 377.433
Ca (315.887 nm)	5.583682	ppm	0.007031	0.13	4446.136429	Y_R 377.433
Cd (214.439 nm)	0.000057 u	ppm	0.000087	> 100.00	-5.009970	Y 377.433
Co (228.615 nm)	0.000689	ppm	0.000187	27.17	-4.532090	Y 242.219
Cr (205.560 nm)	0.000884	ppm	0.000304	34.43	0.273534	Y 377.433
Cu (324.754 nm)	0.001802	ppm	0.000353	19.61	490.916000	Y 377.433
Fe (238.204 nm)	1.155657	ppm	0.004789	0.41	2851.347594	Y_R 377.433
Fe H (259.940 nm)	1.112890 u	ppm	0.002073	0.19	1646.850000	Y_R 377.433
K (766.491 nm)	0.904558	ppm	0.052938	5.85	2879.390000	Y_R2 488.368
Li (670.783 nm)	0.017288	ppm	0.001482	8.57	-2330.410000	Y_R2 488.368
Mg (279.078 nm)	1.540010	ppm	0.002341	0.15	5466.700000	Y 377.433
Mn (257.610 nm)	0.037050	ppm	0.000026	0.07	10225.900000	Y 377.433
Mo (202.032 nm)	-0.000854 u	ppm	0.000094	11.02	12.516800	Y 377.433
Na (589.592 nm)	4.582880	ppm	0.006706	0.15	3515.660000	Y_R2 488.368
Na H (589.593 nm)	4.731236 u	ppm	0.004912	0.10	2680.587834	Y_R4
Ni (231.604 nm)	0.001204	ppm	0.000060	4.99	-4.639630	Y 377.433
P (213.618 nm)	0.028151	ppm	0.001499	5.32	37.707600	Y 242.219
Pb (220.353 nm)	-0.001401 u	ppm	0.000625	44.61	7.946610	Y 242.219
S (181.972 nm)	1.503416	ppm	0.008860	0.59	683.483900	Y 377.433
Sb (206.834 nm)	0.003925	ppm	0.003909	99.60	-0.564276	Y 377.433
Se (196.026 nm)	0.000278 u	ppm	0.000643	> 100.00	10.760500	Y 242.219
Si (288.158 nm)	4.478270	ppm	0.008990	0.20	30048.100000	Y 377.433
Sn (189.925 nm)	0.000313	ppm	0.000290	92.65	2.782170	Y 377.433
Sr (421.552 nm)	0.075336	ppm	0.000208	0.28	11065.959075	Y_R 488.368
Th (288.505 nm)	-0.005444 u	ppm	0.001728	31.74	5.398910	Y 377.433
Ti (336.122 nm)	0.014923	ppm	0.000185	1.24	1453.300000	Y 377.433
Tl (190.794 nm)	0.000184 u	ppm	0.000478	> 100.00	0.143212	Y 377.433
U (409.013 nm)	0.013060	ppm	0.001883	14.42	-0.852303	Y 377.433
V (292.401 nm)	0.002268	ppm	0.000320	14.10	-60.454900	Y 377.433
Zn (206.200 nm)	0.005761	ppm	0.000942	16.35	32.588700	Y 377.433
Zr (343.823 nm)	0.001350	ppm	0.000007	0.50	-96.688300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.134365	25401.223800	0.003823	0.34
Y 377.433	1.130045	730152.024271	0.002660	0.24
Y_R 377.433	1.142360	62887.200000	0.005494	0.48
Y_R 488.368	1.139130	55050.800000	0.002898	0.25
Y_R2 488.368	1.110313	102908.740913	0.003902	0.35
Y_R4	1.126950	48255.400000	0.007771	0.69

Sample Name: 280-123862-a-4-a

Date: 5/24/2019 6:31:17 AM
Rack:Tube: 2:85

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000031 u	ppm	0.000581	> 100.00	-247.670000	Y 377.433
Al (394.401 nm)	0.742957	ppm	0.001356	0.18	9027.970000	Y 377.433
Al H (396.152 nm)	0.905667 u	ppm	0.011841	1.31	1668.700000	Y_R 377.433
As (188.980 nm)	0.002893	ppm	0.003092	> 100.00	3.270010	Y 242.219
B (249.678 nm)	0.010605	ppm	0.000037	0.34	112.414000	Y 242.219
Ba (493.408 nm)	0.051004	ppm	0.000188	0.37	6373.870000	Y_R 488.368
Be (234.861 nm)	0.000022	ppm	0.000011	49.39	-8.638190	Y_R 488.368
Bi (223.061 nm)	0.002771	ppm	0.000191	6.88	-8.981690	Y 377.433
Ca (315.887 nm)	5.512116	ppm	0.004147	0.08	4388.367484	Y_R 377.433
Cd (214.439 nm)	0.000226	ppm	0.000193	85.32	1.759640	Y 377.433
Co (228.615 nm)	0.000332	ppm	0.000290	87.42	-13.290700	Y 242.219
Cr (205.560 nm)	0.001592	ppm	0.000221	13.87	5.287350	Y 377.433
Cu (324.754 nm)	0.001436	ppm	0.000060	4.15	473.822000	Y 377.433
Fe (238.204 nm)	1.167918	ppm	0.001821	0.16	2881.569211	Y_R 377.433
Fe H (259.940 nm)	1.120120 u	ppm	0.005481	0.49	1656.960000	Y_R 377.433
K (766.491 nm)	1.016120	ppm	0.034209	3.37	2990.120000	Y_R2 488.368
Li (670.783 nm)	0.014017	ppm	0.002979	21.25	-2387.380000	Y_R2 488.368
Mg (279.078 nm)	1.515650	ppm	0.001317	0.09	5380.090000	Y 377.433
Mn (257.610 nm)	0.036315	ppm	0.000024	0.07	10022.700000	Y 377.433
Mo (202.032 nm)	-0.000490 u	ppm	0.000095	19.36	17.156700	Y 377.433
Na (589.592 nm)	4.551980	ppm	0.044329	0.97	3492.570000	Y_R2 488.368
Na H (589.593 nm)	4.645077 u	ppm	0.013871	0.30	2637.737621	Y_R4
Ni (231.604 nm)	0.002039	ppm	0.000228	11.20	0.027585	Y 377.433
P (213.618 nm)	0.026575	ppm	0.002450	9.22	35.390400	Y 242.219
Pb (220.353 nm)	-0.001938 u	ppm	0.000670	34.55	6.134800	Y 242.219
S (181.972 nm)	1.469164	ppm	0.009627	0.66	668.091088	Y 377.433
Sb (206.834 nm)	0.002210	ppm	0.001461	66.14	-3.590610	Y 377.433
Se (196.026 nm)	-0.000294 u	ppm	0.000329	> 100.00	9.824620	Y 242.219
Si (288.158 nm)	4.484720	ppm	0.003556	0.08	30090.700000	Y 377.433
Sn (189.925 nm)	-0.000229 u	ppm	0.000040	17.55	1.837440	Y 377.433
Sr (421.552 nm)	0.074315	ppm	0.000215	0.29	10916.611003	Y_R 488.368
Th (288.505 nm)	-0.005380 u	ppm	0.001318	24.50	5.546190	Y 377.433
Ti (336.122 nm)	0.016236	ppm	0.000179	1.10	1623.660000	Y 377.433
Tl (190.794 nm)	0.000745	ppm	0.000589	79.11	1.496370	Y 377.433
U (409.013 nm)	0.018763	ppm	0.007947	42.36	17.057200	Y 377.433
V (292.401 nm)	0.002506	ppm	0.000340	13.56	-48.410800	Y 377.433
Zn (206.200 nm)	0.005854	ppm	0.000798	13.63	33.052800	Y 377.433
Zr (343.823 nm)	0.001432	ppm	0.000246	17.16	-91.964200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130179	25307.504447	0.003174	0.28
Y 377.433	1.126654	727961.011024	0.002166	0.19
Y_R 377.433	1.140310	62774.300000	0.001325	0.12
Y_R 488.368	1.138300	55010.400000	0.000141	0.01
Y_R2 488.368	1.118873	103702.166098	0.001172	0.10
Y_R4	1.139970	48812.900000	0.003623	0.32

Sample Name: mb 280-459137/1-a

Date: 5/24/2019 6:34:51 AM Rack:Tube: 2:86

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000013 u	ppm	0.000212	> 100.00	-246.520000	Y 377.433
Al (394.401 nm)	-0.000159 u	ppm	0.000114	71.84	128.740000	Y 377.433
Al H (396.152 nm)	0.126225 u	ppm	0.008708	6.90	34.520300	Y_R 377.433
As (188.980 nm)	0.000295	ppm	0.000304	> 100.00	-0.835820	Y 242.219
B (249.678 nm)	-0.003159 u	ppm	0.000385	12.20	14.440700	Y 242.219
Ba (493.408 nm)	-0.001128 u	ppm	0.000384	34.01	1323.390000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000049	85.33	-11.556700	Y_R 488.368
Bi (223.061 nm)	0.002811	ppm	0.001361	48.41	-9.101940	Y 377.433
Ca (315.887 nm)	0.035368	ppm	0.006805	19.24	-33.420729	Y_R 377.433
Cd (214.439 nm)	-0.000056 u	ppm	0.000136	> 100.00	-10.035400	Y 377.433
Co (228.615 nm)	0.000382	ppm	0.000249	65.18	-12.722600	Y 242.219
Cr (205.560 nm)	-0.000179 u	ppm	0.000315	> 100.00	-7.235430	Y 377.433
Cu (324.754 nm)	-0.000048 u	ppm	0.000457	> 100.00	409.252000	Y 377.433
Fe (238.204 nm)	0.007106	ppm	0.001507	21.20	20.449206	Y_R 377.433
Fe H (259.940 nm)	-0.046295 u	ppm	0.000297	0.64	26.017100	Y_R 377.433
K (766.491 nm)	-0.157134 u	ppm	0.024727	15.74	1825.630000	Y_R2 488.368
Li (670.783 nm)	0.014268	ppm	0.002235	15.67	-2383.010000	Y_R2 488.368
Mg (279.078 nm)	0.004315	ppm	0.002665	61.77	26.982700	Y 377.433
Mn (257.610 nm)	0.000159	ppm	0.000002	1.11	22.060100	Y 377.433
Mo (202.032 nm)	-0.000960 u	ppm	0.000109	11.31	11.178400	Y 377.433
Na (589.592 nm)	0.050645	ppm	0.003454	6.82	147.679000	Y_R2 488.368
Na H (589.593 nm)	-0.082527 u	ppm	0.002990	3.62	286.503759	Y_R4
Ni (231.604 nm)	-0.000447 u	ppm	0.000004	0.87	-13.865800	Y 377.433
P (213.618 nm)	-0.000630 u	ppm	0.000917	> 100.00	-5.382430	Y 242.219
Pb (220.353 nm)	-0.000505 u	ppm	0.001233	> 100.00	11.197100	Y 242.219
S (181.972 nm)	0.005771 u	ppm	0.014469	> 100.00	10.348686	Y 377.433
Sb (206.834 nm)	0.004141	ppm	0.001719	41.52	-0.229034	Y 377.433
Se (196.026 nm)	-0.001895 u	ppm	0.001499	79.13	7.494600	Y 242.219
Si (288.158 nm)	-0.001741 u	ppm	0.001208	69.40	496.560000	Y 377.433
Sn (189.925 nm)	-0.000382 u	ppm	0.000936	> 100.00	1.569380	Y 377.433
Sr (421.552 nm)	0.000055	ppm	0.000030	54.58	56.019767	Y_R 488.368
Th (288.505 nm)	-0.002260 u	ppm	0.000816	36.13	10.606400	Y 377.433
Ti (336.122 nm)	0.000363	ppm	0.000059	16.14	-458.433000	Y 377.433
Tl (190.794 nm)	0.000286	ppm	0.000396	> 100.00	0.809679	Y 377.433
U (409.013 nm)	0.006076	ppm	0.000823	13.54	-22.756000	Y 377.433
V (292.401 nm)	0.000779	ppm	0.000167	21.44	-139.081000	Y 377.433
Zn (206.200 nm)	0.002140	ppm	0.000227	10.61	14.437100	Y 377.433
Zr (343.823 nm)	0.000560	ppm	0.000291	51.87	-142.214000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.128188	25262.905353	0.003163	0.28
Y 377.433	1.126106	727606.469718	0.002515	0.22
Y_R 377.433	1.136510	62565.200000	0.002571	0.23
Y_R 488.368	1.134920	54847.400000	0.001035	0.09
Y_R2 488.368	1.113185	103174.955792	0.001482	0.13
Y_R4	1.130810	48420.800000	0.000938	0.08

Sample Name: lcs 280-459137/2-a

Date: 5/24/2019 6:38:03 AM Rack:Tube: 2:87

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000147 u	ppm	0.000162	> 100.00	-561.147000	Y 377.433
Al (394.401 nm)	9.780680 o	ppm	0.006376	0.07	117243.000000	Y 377.433
Al H (396.152 nm)	9.845940	ppm	0.031859	0.32	20521.900000	Y_R 377.433
As (188.980 nm)	1.969670	ppm	0.006368	0.32	3136.860000	Y 242.219
B (249.678 nm)	0.965070	ppm	0.002742	0.28	6948.150000	Y 242.219
Ba (493.408 nm)	1.960010	ppm	0.004849	0.25	191292.000000	Y_R 488.368
Be (234.861 nm)	0.976279	ppm	0.001570	0.16	98387.900000	Y_R 488.368
Bi (223.061 nm)	1.881380	ppm	0.005018	0.27	4277.600000	Y 377.433
Ca (315.887 nm)	48.695219	ppm	0.084758	0.17	39254.093804	Y_R 377.433
Cd (214.439 nm)	0.969801	ppm	0.000879	0.09	38799.400000	Y 377.433
Co (228.615 nm)	0.956791	ppm	0.001798	0.19	23679.100000	Y 242.219
Cr (205.560 nm)	0.969491	ppm	0.005490	0.57	6856.560000	Y 377.433
Cu (324.754 nm)	0.954517	ppm	0.005560	0.58	44790.100000	Y 377.433
Fe (238.204 nm)	9.830882 o	ppm	0.035161	0.36	24233.673529	Y_R 377.433
Fe H (259.940 nm)	9.846930	ppm	0.035132	0.36	13859.200000	Y_R 377.433
K (766.491 nm)	48.621500	ppm	0.110269	0.23	50239.800000	Y_R2 488.368
Li (670.783 nm)	0.975789	ppm	0.001394	0.14	14360.600000	Y_R2 488.368
Mg (279.078 nm)	48.839400	ppm	0.073853	0.15	173012.000000	Y 377.433
Mn (257.610 nm)	0.981354	ppm	0.001003	0.10	271421.000000	Y 377.433
Mo (202.032 nm)	0.990952	ppm	0.000424	0.04	12632.900000	Y 377.433
Na (589.592 nm)	46.592900	ppm	0.054350	0.12	35025.500000	Y_R2 488.368
Na H (589.593 nm)	51.084355	ppm	0.117460	0.23	25733.918900	Y_R4
Ni (231.604 nm)	0.953175	ppm	0.003138	0.33	5317.840000	Y 377.433
P (213.618 nm)	19.614300	ppm	0.025106	0.13	29403.900000	Y 242.219
Pb (220.353 nm)	0.973156	ppm	0.003149	0.32	3354.500000	Y 242.219
S (181.972 nm)	9.845205	ppm	0.015800	0.16	4435.686931	Y 377.433
Sb (206.834 nm)	0.005547	ppm	0.000555	10.01	-2.639350	Y 377.433
Se (196.026 nm)	1.925540	ppm	0.003744	0.19	3138.850000	Y 242.219
Si (288.158 nm)	1.986870	ppm	0.003407	0.17	13614.100000	Y 377.433
Sn (189.925 nm)	1.933460	ppm	0.001029	0.05	3374.610000	Y 377.433
Sr (421.552 nm)	0.980924	ppm	0.001990	0.20	143509.097833	Y_R 488.368
Th (288.505 nm)	0.995742	ppm	0.000766	0.08	1659.860000	Y 377.433
Ti (336.122 nm)	0.982195	ppm	0.000589	0.06	127370.000000	Y 377.433
Tl (190.794 nm)	1.945400	ppm	0.002392	0.12	4703.820000	Y 377.433
U (409.013 nm)	1.943830	ppm	0.006381	0.33	5989.440000	Y 377.433
V (292.401 nm)	0.972640	ppm	0.001821	0.19	51119.600000	Y 377.433
Zn (206.200 nm)	0.481617	ppm	0.000418	0.09	2395.670000	Y 377.433
Zr (343.823 nm)	0.485776	ppm	0.000255	0.05	27835.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086337	24325.764440	0.003048	0.28
Y 377.433	1.093527	706556.565300	0.003355	0.31
Y_R 377.433	1.115480	61407.400000	0.000562	0.05
Y_R 488.368	1.111450	53712.900000	0.000363	0.03
Y_R2 488.368	1.090082	101033.651257	0.003319	0.30
Y_R4	1.124940	48169.300000	0.004036	0.36

Sample Name: lcsd 280-459137/3-a

Date: 5/24/2019 6:41:41 AM Rack:Tube: 2:88

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000291	ppm	0.000059	20.22	-552.728000	Y 377.433
Al (394.401 nm)	9.991720 o	ppm	0.005500	0.06	119769.000000	Y 377.433
Al H (396.152 nm)	10.066800	ppm	0.002119	0.02	20987.600000	Y_R 377.433
As (188.980 nm)	2.011810	ppm	0.001200	0.06	3204.000000	Y 242.219
B (249.678 nm)	0.986072	ppm	0.001737	0.18	7098.510000	Y 242.219
Ba (493.408 nm)	2.005790	ppm	0.001304	0.07	195727.000000	Y_R 488.368
Be (234.861 nm)	1.000160	ppm	0.003812	0.38	100795.000000	Y_R 488.368
Bi (223.061 nm)	1.935650	ppm	0.007323	0.38	4401.430000	Y 377.433
Ca (315.887 nm)	49.757664	ppm	0.019665	0.04	40111.903756	Y_R 377.433
Cd (214.439 nm)	0.993616	ppm	0.001633	0.16	39752.400000	Y 377.433
Co (228.615 nm)	0.976119	ppm	0.000255	0.03	24158.100000	Y 242.219
Cr (205.560 nm)	0.992574	ppm	0.007172	0.72	7019.960000	Y 377.433
Cu (324.754 nm)	0.974670	ppm	0.000606	0.06	45728.200000	Y 377.433
Fe (238.204 nm)	10.108110 o	ppm	0.000909	0.01	24916.974915	Y_R 377.433
Fe H (259.940 nm)	10.140800	ppm	0.003038	0.03	14270.200000	Y_R 377.433
K (766.491 nm)	49.865200	ppm	0.032626	0.07	51474.300000	Y_R2 488.368
Li (670.783 nm)	0.995424	ppm	0.002775	0.28	14702.500000	Y_R2 488.368
Mg (279.078 nm)	49.997300	ppm	0.056907	0.11	177113.000000	Y 377.433
Mn (257.610 nm)	1.004350	ppm	0.000444	0.04	277782.000000	Y 377.433
Mo (202.032 nm)	1.013550	ppm	0.001170	0.12	12920.400000	Y 377.433
Na (589.592 nm)	47.500200	ppm	0.050399	0.11	35708.500000	Y_R2 488.368
Na H (589.593 nm)	52.245023	ppm	0.068110	0.13	26311.166953	Y_R4
Ni (231.604 nm)	0.976900	ppm	0.000801	0.08	5450.480000	Y 377.433
P (213.618 nm)	20.058300	ppm	0.015930	0.08	30069.800000	Y 242.219
Pb (220.353 nm)	0.994962	ppm	0.000400	0.04	3429.400000	Y 242.219
S (181.972 nm)	10.090381	ppm	0.024569	0.24	4545.944089	Y 377.433
Sb (206.834 nm)	0.004814	ppm	0.000641	13.32	-4.027200	Y 377.433
Se (196.026 nm)	1.961640	ppm	0.005879	0.30	3197.480000	Y 242.219
Si (288.158 nm)	2.032620	ppm	0.002455	0.12	13915.800000	Y 377.433
Sn (189.925 nm)	1.988840	ppm	0.001600	0.08	3471.200000	Y 377.433
Sr (421.552 nm)	1.003750	ppm	0.000989	0.10	146847.453260	Y_R 488.368
Th (288.505 nm)	1.022020	ppm	0.000504	0.05	1703.590000	Y 377.433
Ti (336.122 nm)	1.004210	ppm	0.000224	0.02	130236.000000	Y 377.433
Tl (190.794 nm)	1.987690	ppm	0.002258	0.11	4806.070000	Y 377.433
U (409.013 nm)	1.993270	ppm	0.015025	0.75	6142.850000	Y 377.433
V (292.401 nm)	0.995064	ppm	0.000171	0.02	52302.200000	Y 377.433
Zn (206.200 nm)	0.493832	ppm	0.001679	0.34	2456.340000	Y 377.433
Zr (343.823 nm)	0.498549	ppm	0.000071	0.01	28572.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086650	24332.764462	0.002887	0.27
Y 377.433	1.090764	704771.385255	0.003000	0.28
Y_R 377.433	1.112300	61232.500000	0.002894	0.26
Y_R 488.368	1.108000	53546.400000	0.002308	0.21
Y_R2 488.368	1.084055	100475.011221	0.001699	0.16
Y_R4	1.117900	47868.000000	0.008429	0.75

Sample Name: 280-123814-f-1-a

Date: 5/24/2019 6:45:20 AM Rack:Tube: 2:89

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000664	ppm	0.000079	11.91	-223.698000	Y 377.433
Al (394.401 nm)	0.168674	ppm	0.001411	0.84	2234.920000	Y 377.433
Al H (396.152 nm)	0.217180 u	ppm	0.002184	1.01	311.465000	Y_R 377.433
As (188.980 nm)	0.004239	ppm	0.000465	10.98	5.443010	Y 242.219
B (249.678 nm)	0.220317	ppm	0.000484	0.22	1616.000000	Y 242.219
Ba (493.408 nm)	0.023702	ppm	0.000166	0.70	3728.590000	Y_R 488.368
Be (234.861 nm)	0.000094	ppm	0.000053	55.75	2.845580	Y_R 488.368
Bi (223.061 nm)	0.001555	ppm	0.001477	94.99	-11.928500	Y 377.433
Ca (315.887 nm)	169.581084	ppm	0.366844	0.22	136847.471632	Y_R 377.433
Cd (214.439 nm)	0.000348	ppm	0.000183	52.67	6.208850	Y 377.433
Co (228.615 nm)	0.000250	ppm	0.000322	> 100.00	-15.793300	Y 242.219
Cr (205.560 nm)	0.000317	ppm	0.000179	56.44	-3.818460	Y 377.433
Cu (324.754 nm)	0.008574	ppm	0.000292	3.41	709.552000	Y 377.433
Fe (238.204 nm)	0.216979	ppm	0.001890	0.87	537.734621	Y_R 377.433
Fe H (259.940 nm)	0.166737 u	ppm	0.000666	0.40	323.889000	Y_R 377.433
K (766.491 nm)	0.220247	ppm	0.032548	14.78	2200.190000	Y_R2 488.368
Li (670.783 nm)	0.016558	ppm	0.001823	11.01	-2343.130000	Y_R2 488.368
Mg (279.078 nm)	7.645380	ppm	0.009304	0.12	27099.400000	Y 377.433
Mn (257.610 nm)	0.042467	ppm	0.000095	0.22	11724.400000	Y 377.433
Mo (202.032 nm)	0.017699	ppm	0.000048	0.27	248.603000	Y 377.433
Na (589.592 nm)	1.444390	ppm	0.044401	3.07	1185.030000	Y_R2 488.368
Na H (589.593 nm)	1.503965 u	ppm	0.024711	1.64	1075.532311	Y_R4
Ni (231.604 nm)	-0.000423 u	ppm	0.001609	> 100.00	-13.728900	Y 377.433
P (213.618 nm)	0.010726	ppm	0.002753	25.67	8.337170	Y 242.219
Pb (220.353 nm)	-0.003957 u	ppm	0.000187	4.71	-0.627202	Y 242.219
S (181.972 nm)	81.986089	ppm	0.213730	0.26	36845.207121	Y 377.433
Sb (206.834 nm)	0.000606	ppm	0.000259	42.78	-6.596220	Y 377.433
Se (196.026 nm)	-0.000688 u	ppm	0.004107	> 100.00	9.463320	Y 242.219
Si (288.158 nm)	3.439270	ppm	0.002877	0.08	23194.500000	Y 377.433
Sn (189.925 nm)	-0.000243 u	ppm	0.001449	> 100.00	1.811850	Y 377.433
Sr (421.552 nm)	0.317905	ppm	0.000288	0.09	46541.397224	Y_R 488.368
Th (288.505 nm)	-0.010086 u	ppm	0.002187	21.68	-6.436570	Y 377.433
Ti (336.122 nm)	0.004595	ppm	0.000095	2.07	670.248000	Y 377.433
Tl (190.794 nm)	0.004296	ppm	0.000561	13.05	3.327810	Y 377.433
U (409.013 nm)	0.038732	ppm	0.014922	38.52	57.547400	Y 377.433
V (292.401 nm)	0.002824	ppm	0.000056	2.00	-35.649700	Y 377.433
Zn (206.200 nm)	0.003068	ppm	0.000133	4.35	19.079200	Y 377.433
Zr (343.823 nm)	0.001918	ppm	0.000147	7.66	-63.914000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115884	24987.400105	0.000459	0.04
Y 377.433	1.115942	721039.497289	0.000618	0.06
Y_R 377.433	1.131510	62289.900000	0.003921	0.35
Y_R 488.368	1.127460	54486.700000	0.002325	0.21
Y_R2 488.368	1.114631	103308.987071	0.002941	0.26
Y_R4	1.131060	48431.400000	0.011373	1.01

Sample Name: 280-123814-f-1-aSD@5

Date: 5/24/2019 6:48:52 AM Rack:Tube: 2:90

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000700	ppm	0.000634	90.59	-221.921000	Y 377.433
Al (394.401 nm)	0.038479	ppm	0.000201	0.52	612.636000	Y 377.433
Al H (396.152 nm)	0.143437 u	ppm	0.007908	5.51	87.725700	Y_R 377.433
As (188.980 nm)	0.000294 u	ppm	0.002257	> 100.00	-0.839269	Y 242.219
B (249.678 nm)	0.042021	ppm	0.000859	2.05	338.213000	Y 242.219
Ba (493.408 nm)	0.003299	ppm	0.000359	10.89	1752.200000	Y_R 488.368
Be (234.861 nm)	0.000013 u	ppm	0.000077	> 100.00	-4.662450	Y_R 488.368
Bi (223.061 nm)	0.002077	ppm	0.001288	62.00	-10.766400	Y 377.433
Ca (315.887 nm)	34.152216	ppm	0.063123	0.18	27510.443303	Y_R 377.433
Cd (214.439 nm)	0.000158	ppm	0.000134	85.09	-1.439990	Y 377.433
Co (228.615 nm)	-0.000018 u	ppm	0.000175	> 100.00	-22.565400	Y 242.219
Cr (205.560 nm)	-0.000299 u	ppm	0.000367	> 100.00	-8.102160	Y 377.433
Cu (324.754 nm)	0.001248	ppm	0.000318	25.48	446.561000	Y 377.433
Fe (238.204 nm)	0.068654	ppm	0.001724	2.51	172.149743	Y_R 377.433
Fe H (259.940 nm)	0.014211 u	ppm	0.002647	18.63	110.619000	Y_R 377.433
K (766.491 nm)	-0.039230 u	ppm	0.136439	> 100.00	1942.650000	Y_R2 488.368
Li (670.783 nm)	0.015942	ppm	0.001282	8.04	-2353.850000	Y_R2 488.368
Mg (279.078 nm)	1.559820	ppm	0.001295	0.08	5537.880000	Y 377.433
Mn (257.610 nm)	0.008968	ppm	0.000004	0.04	2458.540000	Y 377.433
Mo (202.032 nm)	0.002934	ppm	0.000044	1.49	60.720000	Y 377.433
Na (589.592 nm)	0.317231	ppm	0.000802	0.25	346.012000	Y_R2 488.368
Na H (589.593 nm)	0.234676 u	ppm	0.012014	5.12	444.262314	Y_R4
Ni (231.604 nm)	-0.000440 u	ppm	0.000006	1.36	-13.826000	Y 377.433
P (213.618 nm)	0.001180	ppm	0.000556	47.16	-3.318610	Y 242.219
Pb (220.353 nm)	-0.002134 u	ppm	0.000909	42.58	5.646330	Y 242.219
S (181.972 nm)	16.259991	ppm	0.038929	0.24	7313.610035	Y 377.433
Sb (206.834 nm)	0.001830	ppm	0.001260	68.86	-4.333400	Y 377.433
Se (196.026 nm)	-0.001224 u	ppm	0.001988	> 100.00	8.581680	Y 242.219
Si (288.158 nm)	0.681388	ppm	0.001980	0.29	5002.690000	Y 377.433
Sn (189.925 nm)	-0.000858 u	ppm	0.000474	55.30	0.740285	Y 377.433
Sr (421.552 nm)	0.063220	ppm	0.000101	0.16	9293.882274	Y_R 488.368
Th (288.505 nm)	-0.012875 u	ppm	0.001516	11.78	-8.538400	Y 377.433
Ti (336.122 nm)	0.001495	ppm	0.000069	4.60	-195.174000	Y 377.433
Tl (190.794 nm)	0.001650	ppm	0.000905	54.84	2.666120	Y 377.433
U (409.013 nm)	0.026763	ppm	0.007169	26.79	37.655200	Y 377.433
V (292.401 nm)	0.001533	ppm	0.000183	11.91	-101.993000	Y 377.433
Zn (206.200 nm)	0.003809	ppm	0.000021	0.56	22.733600	Y 377.433
Zr (343.823 nm)	0.000695	ppm	0.000340	48.92	-134.432000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126743	25230.554952	0.002390	0.21
Y 377.433	1.124231	726395.497296	0.003334	0.30
Y_R 377.433	1.139090	62707.300000	0.000534	0.05
Y_R 488.368	1.135980	54898.300000	0.001562	0.14
Y_R2 488.368	1.114416	103289.046915	0.011751	1.05
Y_R4	1.128150	48307.000000	0.009269	0.82

Sample Name: CCVH-5713036

Date: 5/24/2019 6:52:21 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004495	ppm	0.000369	8.21	-98.368400	Y 377.433
Al (394.401 nm)	49.015100 o	ppm	0.102123	0.21	584584.000000	Y 377.433
Al H (396.152 nm)	48.643600	ppm	0.094402	0.19	100017.000000	Y_R 377.433
As (188.980 nm)	-0.000203 u	ppm	0.001614	> 100.00	-3.018810	Y 242.219
B (249.678 nm)	-0.002762 u	ppm	0.001042	37.73	-10.848000	Y 242.219
Ba (493.408 nm)	0.001011	ppm	0.000644	63.77	1568.060000	Y_R 488.368
Be (234.861 nm)	0.001028	ppm	0.000009	0.90	-112.187000	Y_R 488.368
Bi (223.061 nm)	0.011962	ppm	0.000975	8.15	20.502800	Y 377.433
Ca (315.887 nm)	0.008199	ppm	0.001676	20.44	-43.043965	Y_R 377.433
Cd (214.439 nm)	0.001578	ppm	0.000016	1.03	76.674100	Y 377.433
Co (228.615 nm)	0.003378	ppm	0.000111	3.30	61.387600	Y 242.219
Cr (205.560 nm)	0.001547	ppm	0.000675	43.65	3.603140	Y 377.433
Cu (324.754 nm)	0.003052	ppm	0.000155	5.07	1471.540000	Y 377.433
Fe (238.204 nm)	48.248580 o	ppm	0.086200	0.18	118923.985169	Y_R 377.433
Fe H (259.940 nm)	48.520700	ppm	0.052187	0.11	67934.700000	Y_R 377.433
K (766.491 nm)	0.372207	ppm	0.151789	40.78	2351.020000	Y_R2 488.368
Li (670.783 nm)	0.011091	ppm	0.002267	20.44	-2438.340000	Y_R2 488.368
Mg (279.078 nm)	0.036031	ppm	0.001063	2.95	61.359800	Y 377.433
Mn (257.610 nm)	0.000980	ppm	0.000001	0.10	248.991000	Y 377.433
Mo (202.032 nm)	0.000668	ppm	0.000288	43.16	31.887500	Y 377.433
Na (589.592 nm)	231.851000 o	ppm	0.302585	0.13	171855.000000	Y_R2 488.368
Na H (589.593 nm)	249.064038	ppm	0.864575	0.35	124197.435309	Y_R4
Ni (231.604 nm)	0.003161	ppm	0.000470	14.88	6.298250	Y 377.433
P (213.618 nm)	4.769860	ppm	0.059819	1.25	7209.140000	Y 242.219
Pb (220.353 nm)	0.004591	ppm	0.001107	24.11	21.402600	Y 242.219
S (181.972 nm)	4.901202	ppm	0.005519	0.11	2209.447847	Y 377.433
Sb (206.834 nm)	0.003932	ppm	0.000696	17.69	3.670770	Y 377.433
Se (196.026 nm)	0.003746	ppm	0.003031	80.92	3.197210	Y 242.219
Si (288.158 nm)	0.014832	ppm	0.001564	10.54	605.877000	Y 377.433
Sn (189.925 nm)	0.000841	ppm	0.001013	> 100.00	3.702730	Y 377.433
Sr (421.552 nm)	0.000957	ppm	0.000118	12.33	194.900071	Y_R 488.368
Th (288.505 nm)	4.863090	ppm	0.011220	0.23	8497.700000	Y 377.433
Ti (336.122 nm)	0.002031	ppm	0.000250	12.33	-241.536000	Y 377.433
Tl (190.794 nm)	0.000809 u	ppm	0.001339	> 100.00	-2.828800	Y 377.433
U (409.013 nm)	0.545042 Q	ppm	0.004084	0.75	1700.980000 Q	Y 377.433
V (292.401 nm)	0.001483	ppm	0.000032	2.17	388.017000	Y 377.433
Zn (206.200 nm)	0.002917	ppm	0.000465	15.95	25.753700	Y 377.433
Zr (343.823 nm)	0.001464	ppm	0.000110	7.53	-90.128300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.083971	24272.777385	0.007956	0.73
Y 377.433	1.082900	699690.089813	0.008959	0.83
Y_R 377.433	1.116150	61444.600000	0.002876	0.26
Y_R 488.368	1.110750	53679.300000	0.004068	0.37
Y_R2 488.368	1.084208	100489.196931	0.001762	0.16
Y_R4	1.122900	48082.000000	0.008746	0.78

Sample Name: CCV-5717467

Date: 5/24/2019 6:56:05 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.482969	ppm	0.000363	0.08	16688.000000	Y 377.433
Al (394.401 nm)	0.500556	ppm	0.002432	0.49	6232.740000	Y 377.433
Al H (396.152 nm)	0.557974 u	ppm	0.005067	0.91	1153.060000	Y_R 377.433
As (188.980 nm)	0.484264	ppm	0.000505	0.10	770.243000	Y 242.219
B (249.678 nm)	0.473522	ppm	0.001943	0.41	3429.460000	Y 242.219
Ba (493.408 nm)	0.480177	ppm	0.000068	0.01	47945.800000	Y_R 488.368
Be (234.861 nm)	0.477760	ppm	0.002596	0.54	48155.300000	Y_R 488.368
Bi (223.061 nm)	0.946817	ppm	0.000757	0.08	2144.620000	Y 377.433
Ca (315.887 nm)	4.848372	ppm	0.014703	0.30	3852.437936	Y_R 377.433
Cd (214.439 nm)	0.487390	ppm	0.000252	0.05	19494.300000	Y 377.433
Co (228.615 nm)	0.483755	ppm	0.000487	0.10	11960.500000	Y 242.219
Cr (205.560 nm)	0.487316	ppm	0.002988	0.61	3443.690000	Y 377.433
Cu (324.754 nm)	0.479838	ppm	0.001193	0.25	22690.500000	Y 377.433
Fe (238.204 nm)	2.433548	ppm	0.009541	0.39	6001.040610	Y_R 377.433
Fe H (259.940 nm)	2.400730 u	ppm	0.011214	0.47	3447.560000	Y_R 377.433
K (766.491 nm)	47.600200	ppm	0.051917	0.11	49226.200000	Y_R2 488.368
Li (670.783 nm)	0.487708	ppm	0.002471	0.51	5861.310000	Y_R2 488.368
Mg (279.078 nm)	19.384200	ppm	0.004226	0.02	68689.800000	Y 377.433
Mn (257.610 nm)	0.484594	ppm	0.000182	0.04	134017.000000	Y 377.433
Mo (202.032 nm)	0.482877	ppm	0.000210	0.04	6167.810000	Y 377.433
Na (589.592 nm)	23.455800	ppm	0.093655	0.40	17583.400000	Y_R2 488.368
Na H (589.593 nm)	25.510495 u	ppm	0.221636	0.87	13014.976079	Y_R4
Ni (231.604 nm)	0.483630	ppm	0.000450	0.09	2691.990000	Y 377.433
P (213.618 nm)	0.053252	ppm	0.002759	5.18	-60.884500	Y 242.219
Pb (220.353 nm)	0.486125	ppm	0.001588	0.33	1680.580000	Y 242.219
S (181.972 nm)	0.006678	ppm	0.000450	6.73	12.471893	Y 377.433
Sb (206.834 nm)	0.488198	ppm	0.000811	0.17	851.633000	Y 377.433
Se (196.026 nm)	0.485209	ppm	0.002323	0.48	799.261000	Y 242.219
Si (288.158 nm)	4.734890	ppm	0.020884	0.44	31740.800000	Y 377.433
Sn (189.925 nm)	0.488027	ppm	0.000433	0.09	853.460000	Y 377.433
Sr (421.552 nm)	0.482264	ppm	0.000577	0.12	70579.150394	Y_R 488.368
Th (288.505 nm)	0.014010	ppm	0.000304	2.17	-10.245100	Y 377.433
Ti (336.122 nm)	0.480756	ppm	0.000625	0.13	62020.800000	Y 377.433
Tl (190.794 nm)	0.492949	ppm	0.001954	0.40	1190.950000	Y 377.433
U (409.013 nm)	0.021233	ppm	0.007170	33.77	-33.358000	Y 377.433
V (292.401 nm)	0.480023	ppm	0.000164	0.03	25131.900000	Y 377.433
Zn (206.200 nm)	0.486628	ppm	0.000648	0.13	2419.400000	Y 377.433
Zr (343.823 nm)	0.481782	ppm	0.000595	0.12	27605.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.112121	24903.129539	0.000580	0.05
Y 377.433	1.111176	717960.313084	0.001215	0.11
Y_R 377.433	1.122910	61816.500000	0.001323	0.12
Y_R 488.368	1.120820	54165.900000	0.003559	0.32
Y_R2 488.368	1.097363	101708.497550	0.003825	0.35
Y_R4	1.119380	47931.300000	0.001240	0.11

Sample Name: CCB

Date: 5/24/2019 6:59:41 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000362	ppm	0.000102	28.07	-233.182000	Y 377.433
Al (394.401 nm)	-0.002272 u	ppm	0.000206	9.06	102.602000	Y 377.433
Al H (396.152 nm)	0.119090 Zu	ppm	0.003630	3.05	19.890400 Z	Y_R 377.433
As (188.980 nm)	-0.001148 u	ppm	0.002116	> 100.00	-3.134960	Y 242.219
B (249.678 nm)	-0.003055 u	ppm	0.000404	13.21	15.192300	Y 242.219
Ba (493.408 nm)	-0.002122 Zu	ppm	0.001049	49.45	1227.070000 Z	Y_R 488.368
Be (234.861 nm)	0.000023	ppm	0.000007	28.70	-3.392490	Y_R 488.368
Bi (223.061 nm)	0.002124	ppm	0.002808	> 100.00	-10.671700	Y 377.433
Ca (315.887 nm)	0.012371	ppm	0.011068	89.47	-51.990272	Y_R 377.433
Cd (214.439 nm)	0.000113 u	ppm	0.000177	> 100.00	-3.285310	Y 377.433
Co (228.615 nm)	0.000248	ppm	0.000126	51.02	-16.051800	Y 242.219
Cr (205.560 nm)	-0.000250 u	ppm	0.000131	52.50	-7.739380	Y 377.433
Cu (324.754 nm)	0.000221	ppm	0.000105	47.58	422.206000	Y 377.433
Fe (238.204 nm)	0.001024 u	ppm	0.001882	> 100.00	5.457486	Y_R 377.433
Fe H (259.940 nm)	-0.055432 u	ppm	0.001217	2.19	13.242400	Y_R 377.433
K (766.491 nm)	0.028240	ppm	0.009893	35.03	2009.620000	Y_R2 488.368
Li (670.783 nm)	0.012467 Z	ppm	0.002813	22.56	-2414.360000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000233 u	ppm	0.001766	> 100.00	10.964700	Y 377.433
Mn (257.610 nm)	0.000069	ppm	0.000022	31.87	-2.862040	Y 377.433
Mo (202.032 nm)	-0.000098 u	ppm	0.000095	97.11	22.139900	Y 377.433
Na (589.592 nm)	0.086004	ppm	0.025366	29.49	173.730000	Y_R2 488.368
Na H (589.593 nm)	0.214787 u	ppm	0.015676	7.30	434.370439	Y_R4
Ni (231.604 nm)	0.000063 u	ppm	0.000286	> 100.00	-11.015800	Y 377.433
P (213.618 nm)	-0.000751 u	ppm	0.001230	> 100.00	-5.703320	Y 242.219
Pb (220.353 nm)	-0.001653 u	ppm	0.000938	56.71	7.237150	Y 242.219
S (181.972 nm)	-0.002626 u	ppm	0.009761	> 100.00	6.575716	Y 377.433
Sb (206.834 nm)	0.004732	ppm	0.001660	35.07	0.809748	Y 377.433
Se (196.026 nm)	-0.003001 u	ppm	0.001093	36.43	5.699450	Y 242.219
Si (288.158 nm)	-0.004609 u	ppm	0.001196	25.94	477.643000	Y 377.433
Sn (189.925 nm)	-0.001073 u	ppm	0.001004	93.60	0.365447	Y 377.433
Sr (421.552 nm)	0.000053	ppm	0.000032	59.15	55.712628	Y_R 488.368
Th (288.505 nm)	-0.001131 u	ppm	0.001604	> 100.00	12.560700	Y 377.433
Ti (336.122 nm)	0.000360	ppm	0.000091	25.30	-458.798000	Y 377.433
Tl (190.794 nm)	0.000805	ppm	0.000148	18.37	2.065220	Y 377.433
U (409.013 nm)	0.008715	ppm	0.006074	69.70	-14.494700	Y 377.433
V (292.401 nm)	0.000584	ppm	0.000034	5.81	-149.251000	Y 377.433
Zn (206.200 nm)	0.000441	ppm	0.000376	85.39	6.003860	Y 377.433
Zr (343.823 nm)	0.000428	ppm	0.000103	24.11	-149.820000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115869	24987.058391	0.005307	0.48
Y 377.433	1.112116	718567.097603	0.004244	0.38
Y_R 377.433	1.129040	62154.000000	0.000903	0.08
Y_R 488.368	1.125450	54389.500000	0.004715	0.42
Y_R2 488.368	1.100813	102028.248614	0.003406	0.31
Y_R4	1.125330	48186.100000	0.012517	1.11

Sample Name: CCVL-5717307

Date: 5/24/2019 7:02:53 AM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008025	ppm	0.000067	0.83	34.523200	Y 377.433
Al (394.401 nm)	0.095428	ppm	0.000905	0.95	1278.000000	Y 377.433
Al H (396.152 nm)	0.217628 u	ppm	0.003932	1.81	228.017000	Y_R 377.433
As (188.980 nm)	0.015015	ppm	0.000790	5.26	22.616300	Y 242.219
B (249.678 nm)	0.088467	ppm	0.000820	0.93	671.081000	Y 242.219
Ba (493.408 nm)	0.007948	ppm	0.000011	0.13	2202.550000	Y_R 488.368
Be (234.861 nm)	0.000982	ppm	0.000013	1.35	92.903900	Y_R 488.368
Bi (223.061 nm)	0.089277	ppm	0.000213	0.24	188.139000	Y 377.433
Ca (315.887 nm)	0.209540	ppm	0.008849	4.22	107.216000	Y_R 377.433
Cd (214.439 nm)	0.005039	ppm	0.000037	0.74	193.874000	Y 377.433
Co (228.615 nm)	0.010492	ppm	0.000163	1.55	237.691000	Y 242.219
Cr (205.560 nm)	0.010089	ppm	0.000278	2.75	65.346600	Y 377.433
Cu (324.754 nm)	0.015327	ppm	0.000085	0.56	1122.060000	Y 377.433
Fe (238.204 nm)	0.098084	ppm	0.002760	2.81	244.686664	Y_R 377.433
Fe H (259.940 nm)	0.047989 u	ppm	0.002273	4.74	157.850000	Y_R 377.433
K (766.491 nm)	2.842110	ppm	0.004087	0.14	4802.470000	Y_R2 488.368
Li (670.783 nm)	0.031316 Q	ppm	0.002983	9.53	-2086.140000 Q	Y_R2 488.368
Mg (279.078 nm)	0.199897	ppm	0.000339	0.17	718.890000	Y 377.433
Mn (257.610 nm)	0.010365	ppm	0.000022	0.21	2844.860000	Y 377.433
Mo (202.032 nm)	0.018492	ppm	0.000077	0.42	258.692000	Y 377.433
Na (589.592 nm)	1.103640	ppm	0.021778	1.97	929.591000	Y_R2 488.368
Na H (589.593 nm)	1.124758 u	ppm	0.002030	0.18	886.936568	Y_R4
Ni (231.604 nm)	0.040524	ppm	0.000188	0.46	215.117000	Y 377.433
P (213.618 nm)	2.722390	ppm	0.022664	0.83	4110.810000	Y 242.219
Pb (220.353 nm)	0.007745	ppm	0.001348	17.40	39.592100	Y 242.219
S (181.972 nm)	0.083399	ppm	0.006086	7.30	45.256758	Y 377.433
Sb (206.834 nm)	0.025005	ppm	0.002910	11.64	36.451600	Y 377.433
Se (196.026 nm)	0.017901	ppm	0.000204	1.14	39.660000	Y 242.219
Si (288.158 nm)	0.465298	ppm	0.003966	0.85	3577.290000	Y 377.433
Sn (189.925 nm)	0.095620	ppm	0.000974	1.02	169.018000	Y 377.433
Sr (421.552 nm)	0.009130	ppm	0.000226	2.48	1383.256389	Y_R 488.368
Th (288.505 nm)	0.010992	ppm	0.002399	21.83	33.183700	Y 377.433
Ti (336.122 nm)	0.009981	ppm	0.000163	1.64	792.807000	Y 377.433
Tl (190.794 nm)	0.017227	ppm	0.000846	4.91	41.733200	Y 377.433
U (409.013 nm)	0.060636	ppm	0.002126	3.51	147.024000	Y 377.433
V (292.401 nm)	0.010034	ppm	0.000002	0.02	346.135000	Y 377.433
Zn (206.200 nm)	0.020080	ppm	0.000364	1.81	103.491000	Y 377.433
Zr (343.823 nm)	0.009862	ppm	0.000223	2.26	394.143000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126563	25226.535448	0.000357	0.03
Y 377.433	1.122238	725107.225494	0.000152	0.01
Y_R 377.433	1.121210	61722.800000	0.008711	0.78
Y_R 488.368	1.119770	54115.000000	0.007110	0.63
Y_R2 488.368	1.110306	102908.071551	0.008472	0.76
Y_R4	1.131280	48440.800000	0.005163	0.46

Sample Name: 280-123814-f-1-b ms

Date: 5/24/2019 7:06:24 AM Rack:Tube: 4:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000470	ppm	0.000408	86.80	-556.792000	Y 377.433
Al (394.401 nm)	10.270200 o	ppm	0.001397	0.01	123187.000000	Y 377.433
Al H (396.152 nm)	10.199000	ppm	0.023859	0.23	21355.900000	Y_R 377.433
As (188.980 nm)	2.050140	ppm	0.003511	0.17	3265.060000	Y 242.219
B (249.678 nm)	1.255110	ppm	0.000163	0.01	9026.620000	Y 242.219
Ba (493.408 nm)	2.038740	ppm	0.008471	0.42	198919.000000	Y_R 488.368
Be (234.861 nm)	1.005850	ppm	0.006573	0.65	101368.000000	Y_R 488.368
Bi (223.061 nm)	1.946590	ppm	0.001093	0.06	4426.420000	Y 377.433
Ca (315.887 nm)	222.644140	ppm	0.112195	0.05	179689.935149	Y_R 377.433
Cd (214.439 nm)	0.979775	ppm	0.001125	0.11	39198.700000	Y 377.433
Co (228.615 nm)	0.973193	ppm	0.002903	0.30	24086.000000	Y 242.219
Cr (205.560 nm)	0.995761	ppm	0.003393	0.34	7042.440000	Y 377.433
Cu (324.754 nm)	0.997377	ppm	0.001997	0.20	46682.900000	Y 377.433
Fe (238.204 nm)	10.275271 o	ppm	0.000349	0.00	25328.985841	Y_R 377.433
Fe H (259.940 nm)	10.320600	ppm	0.023938	0.23	14521.600000	Y_R 377.433
K (766.491 nm)	50.984700	ppm	0.059551	0.12	52585.400000	Y_R2 488.368
Li (670.783 nm)	1.010330	ppm	0.006596	0.65	14962.000000	Y_R2 488.368
Mg (279.078 nm)	57.171900	ppm	0.025344	0.04	202533.000000	Y 377.433
Mn (257.610 nm)	1.042520	ppm	0.000227	0.02	288338.000000	Y 377.433
Mo (202.032 nm)	1.037820	ppm	0.000400	0.04	13229.300000	Y 377.433
Na (589.592 nm)	49.732900	ppm	0.068842	0.14	37368.800000	Y_R2 488.368
Na H (589.593 nm)	54.866733	ppm	0.101749	0.19	27615.052400	Y_R4
Ni (231.604 nm)	0.965318	ppm	0.001573	0.16	5385.720000	Y 377.433
P (213.618 nm)	20.388400	ppm	0.043076	0.21	30562.100000	Y 242.219
Pb (220.353 nm)	0.991892	ppm	0.000947	0.10	3418.830000	Y 242.219
S (181.972 nm)	96.099084	ppm	0.187024	0.19	43190.567760	Y 377.433
Sb (206.834 nm)	0.005966	ppm	0.000571	9.57	-2.080790	Y 377.433
Se (196.026 nm)	1.989670	ppm	0.001251	0.06	3243.030000	Y 242.219
Si (288.158 nm)	5.681260	ppm	0.001355	0.02	37983.400000	Y 377.433
Sn (189.925 nm)	1.983960	ppm	0.002739	0.14	3462.680000	Y 377.433
Sr (421.552 nm)	1.339022	ppm	0.004817	0.36	195880.926816	Y_R 488.368
Th (288.505 nm)	1.027950	ppm	0.005443	0.53	1709.730000	Y 377.433
Ti (336.122 nm)	1.012170	ppm	0.001415	0.14	131862.000000	Y 377.433
Tl (190.794 nm)	1.963470	ppm	0.001855	0.09	4739.980000	Y 377.433
U (409.013 nm)	2.027760	ppm	0.000851	0.04	6232.680000	Y 377.433
V (292.401 nm)	1.001880	ppm	0.000855	0.09	52659.600000	Y 377.433
Zn (206.200 nm)	0.493545	ppm	0.000642	0.13	2454.940000	Y 377.433
Zr (343.823 nm)	0.465381	ppm	0.000718	0.15	26659.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.060233	23741.227846	0.004894	0.46
Y 377.433	1.072902	693230.381921	0.004730	0.44
Y_R 377.433	1.100240	60568.500000	0.001902	0.17
Y_R 488.368	1.096030	52967.600000	0.002260	0.21
Y_R2 488.368	1.070244	99195.016702	0.004747	0.44
Y_R4	1.110130	47535.300000	0.007203	0.65

Sample Name: 280-123814-f-1-c msd

Date: 5/24/2019 7:10:03 AM Rack:Tube: 4:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000159 u	ppm	0.000357	> 100.00	-565.469000	Y 377.433
Al (394.401 nm)	10.141000 o	ppm	0.006504	0.06	121641.000000	Y 377.433
Al H (396.152 nm)	10.032600	ppm	0.022331	0.22	21007.800000	Y_R 377.433
As (188.980 nm)	2.042560	ppm	0.003583	0.18	3252.980000	Y 242.219
B (249.678 nm)	1.243360	ppm	0.000532	0.04	8942.540000	Y 242.219
Ba (493.408 nm)	2.018750	ppm	0.006474	0.32	196982.000000	Y_R 488.368
Be (234.861 nm)	0.999622	ppm	0.001448	0.14	100740.000000	Y_R 488.368
Bi (223.061 nm)	1.932570	ppm	0.002768	0.14	4394.400000	Y 377.433
Ca (315.887 nm)	218.955444	ppm	0.478251	0.22	176711.863900	Y_R 377.433
Cd (214.439 nm)	0.972119	ppm	0.002124	0.22	38892.300000	Y 377.433
Co (228.615 nm)	0.966332	ppm	0.001151	0.12	23916.100000	Y 242.219
Cr (205.560 nm)	0.991442	ppm	0.006218	0.63	7011.880000	Y 377.433
Cu (324.754 nm)	0.991073	ppm	0.003973	0.40	46390.100000	Y 377.433
Fe (238.204 nm)	10.114499 o	ppm	0.034468	0.34	24932.721426	Y_R 377.433
Fe H (259.940 nm)	10.128700	ppm	0.016531	0.16	14253.200000	Y_R 377.433
K (766.491 nm)	50.316600	ppm	0.263595	0.52	51922.300000	Y_R2 488.368
Li (670.783 nm)	0.997149	ppm	0.002016	0.20	14732.500000	Y_R2 488.368
Mg (279.078 nm)	56.410000	ppm	0.157502	0.28	199834.000000	Y 377.433
Mn (257.610 nm)	1.035720	ppm	0.001854	0.18	286458.000000	Y 377.433
Mo (202.032 nm)	1.030900	ppm	0.001392	0.13	13141.200000	Y 377.433
Na (589.592 nm)	48.925100	ppm	0.175375	0.36	36765.300000	Y_R2 488.368
Na H (589.593 nm)	54.039688	ppm	0.148539	0.27	27203.728669	Y_R4
Ni (231.604 nm)	0.958259	ppm	0.004763	0.50	5346.260000	Y 377.433
P (213.618 nm)	20.187600	ppm	0.028467	0.14	30259.700000	Y 242.219
Pb (220.353 nm)	0.983661	ppm	0.002033	0.21	3390.570000	Y 242.219
S (181.972 nm)	94.595651	ppm	0.263420	0.28	42515.031525	Y 377.433
Sb (206.834 nm)	0.005570	ppm	0.004321	77.58	-2.760200	Y 377.433
Se (196.026 nm)	1.973920	ppm	0.001956	0.10	3217.470000	Y 242.219
Si (288.158 nm)	5.614830	ppm	0.006857	0.12	37545.200000	Y 377.433
Sn (189.925 nm)	1.967160	ppm	0.000108	0.01	3433.390000	Y 377.433
Sr (421.552 nm)	1.324272	ppm	0.003362	0.25	193723.722675	Y_R 488.368
Th (288.505 nm)	1.019850	ppm	0.002026	0.20	1696.230000	Y 377.433
Ti (336.122 nm)	1.005710	ppm	0.001247	0.12	131011.000000	Y 377.433
Tl (190.794 nm)	1.955480	ppm	0.001875	0.10	4720.820000	Y 377.433
U (409.013 nm)	2.010520	ppm	0.000754	0.04	6179.180000	Y 377.433
V (292.401 nm)	0.995365	ppm	0.001611	0.16	52314.700000	Y 377.433
Zn (206.200 nm)	0.484701	ppm	0.000829	0.17	2411.030000	Y 377.433
Zr (343.823 nm)	0.463438	ppm	0.000133	0.03	26547.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.060115	23738.601313	0.001791	0.17
Y 377.433	1.072793	693159.530918	0.003430	0.32
Y_R 377.433	1.102100	60671.100000	0.002481	0.23
Y_R 488.368	1.096140	52973.100000	0.003262	0.30
Y_R2 488.368	1.073689	99514.278148	0.001858	0.17
Y_R4	1.103030	47231.300000	0.002484	0.23

Sample Name: 280-123814-f-1-aPDS

Date: 5/24/2019 7:13:44 AM Rack:Tube: 4:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051612	ppm	0.000061	0.12	1556.200000	Y 377.433
Al (394.401 nm)	1.182140	ppm	0.002142	0.18	14371.100000	Y 377.433
Al H (396.152 nm)	1.240960	ppm	0.004730	0.38	2439.660000	Y_R 377.433
As (188.980 nm)	0.205890	ppm	0.000331	0.16	326.720000	Y 242.219
B (249.678 nm)	0.324549	ppm	0.000190	0.06	2362.450000	Y 242.219
Ba (493.408 nm)	0.124978	ppm	0.000463	0.37	13539.300000	Y_R 488.368
Be (234.861 nm)	0.050531	ppm	0.000064	0.13	5083.850000	Y_R 488.368
Bi (223.061 nm)	0.003380	ppm	0.001878	55.55	-7.535650	Y 377.433
Ca (315.887 nm)	186.114603	ppm	0.668690	0.36	150195.886344	Y_R 377.433
Cd (214.439 nm)	0.049660	ppm	0.000106	0.21	1979.710000	Y 377.433
Co (228.615 nm)	0.049135	ppm	0.000675	1.37	1195.120000	Y 242.219
Cr (205.560 nm)	0.050315	ppm	0.000004	0.01	350.082000	Y 377.433
Cu (324.754 nm)	0.059587	ppm	0.000092	0.16	3079.650000	Y 377.433
Fe (238.204 nm)	1.236860	ppm	0.011831	0.96	3051.493936	Y_R 377.433
Fe H (259.940 nm)	1.195410 u	ppm	0.005727	0.48	1762.220000	Y_R 377.433
K (766.491 nm)	20.381700	ppm	0.063722	0.31	22211.000000	Y_R2 488.368
Li (670.783 nm)	0.110358	ppm	0.001487	1.35	-709.740000	Y_R2 488.368
Mg (279.078 nm)	27.041700	ppm	0.139864	0.52	95814.000000	Y 377.433
Mn (257.610 nm)	0.091979	ppm	0.000322	0.35	25419.300000	Y 377.433
Mo (202.032 nm)	0.068908	ppm	0.000091	0.13	900.214000	Y 377.433
Na (589.592 nm)	21.500800	ppm	0.055732	0.26	16062.600000	Y_R2 488.368
Na H (589.593 nm)	22.602682 u	ppm	0.036361	0.16	11568.800096	Y_R4
Ni (231.604 nm)	0.048624	ppm	0.000185	0.38	260.611000	Y 377.433
P (213.618 nm)	2.030760	ppm	0.004956	0.24	3050.350000	Y 242.219
Pb (220.353 nm)	0.097525	ppm	0.001081	1.11	348.915000	Y 242.219
S (181.972 nm)	80.798749	ppm	0.563114	0.70	36312.794947	Y 377.433
Sb (206.834 nm)	0.106797	ppm	0.003017	2.83	180.634000	Y 377.433
Se (196.026 nm)	0.196212	ppm	0.002532	1.29	329.263000	Y 242.219
Si (288.158 nm)	8.351290	ppm	0.065605	0.79	55595.800000	Y 377.433
Sn (189.925 nm)	0.096202	ppm	0.000153	0.16	170.034000	Y 377.433
Sr (421.552 nm)	0.363025	ppm	0.000675	0.19	53140.328442	Y_R 488.368
Th (288.505 nm)	0.200735	ppm	0.001209	0.60	358.248000	Y 377.433
Ti (336.122 nm)	0.055530	ppm	0.000062	0.11	7350.590000	Y 377.433
Tl (190.794 nm)	0.204300	ppm	0.003009	1.47	486.721000	Y 377.433
U (409.013 nm)	0.530336	ppm	0.010675	2.01	1590.000000	Y 377.433
V (292.401 nm)	0.053056	ppm	0.000196	0.37	2609.150000	Y 377.433
Zn (206.200 nm)	0.199932	ppm	0.001848	0.92	996.299000	Y 377.433
Zr (343.823 nm)	0.051969	ppm	0.000073	0.14	2822.020000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.077462	24127.038080	0.001459	0.14
Y 377.433	1.084110	700472.084955	0.002661	0.25
Y_R 377.433	1.103890	60769.600000	0.003084	0.28
Y_R 488.368	1.100330	53175.900000	0.002052	0.19
Y_R2 488.368	1.077169	99836.822131	0.007893	0.73
Y_R4	1.102180	47194.700000	0.000545	0.05

Sample Name: 280-123814-f-2-a

Date: 5/24/2019 7:17:23 AM Rack:Tube: 4:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000463	ppm	0.000105	22.71	-230.158000	Y 377.433
Al (394.401 nm)	1.500250	ppm	0.002606	0.17	18071.700000	Y 377.433
Al H (396.152 nm)	1.675180	ppm	0.003781	0.23	3247.240000	Y_R 377.433
As (188.980 nm)	0.000522 u	ppm	0.001793	> 100.00	-0.507808	Y 242.219
B (249.678 nm)	0.006314	ppm	0.000514	8.15	81.650100	Y 242.219
Ba (493.408 nm)	0.035080	ppm	0.000371	1.06	4831.440000	Y_R 488.368
Be (234.861 nm)	0.000097	ppm	0.000032	33.53	-1.094800	Y_R 488.368
Bi (223.061 nm)	0.000634 u	ppm	0.001456	> 100.00	-13.853700	Y 377.433
Ca (315.887 nm)	15.023380	ppm	0.034678	0.23	12067.377613	Y_R 377.433
Cd (214.439 nm)	0.000297	ppm	0.000045	15.00	4.616120	Y 377.433
Co (228.615 nm)	0.000844	ppm	0.000073	8.70	0.458323	Y 242.219
Cr (205.560 nm)	0.002169	ppm	0.000757	34.91	9.355970	Y 377.433
Cu (324.754 nm)	0.013730	ppm	0.000131	0.96	1039.250000	Y 377.433
Fe (238.204 nm)	1.181518	ppm	0.001572	0.13	2915.088850	Y_R 377.433
Fe H (259.940 nm)	1.141940 u	ppm	0.009559	0.84	1687.460000	Y_R 377.433
K (766.491 nm)	0.866733	ppm	0.056384	6.51	2841.850000	Y_R2 488.368
Li (670.783 nm)	0.018743	ppm	0.003893	20.77	-2305.080000	Y_R2 488.368
Mg (279.078 nm)	2.217900	ppm	0.000164	0.01	7868.430000	Y 377.433
Mn (257.610 nm)	0.017285	ppm	0.000049	0.28	4759.070000	Y 377.433
Mo (202.032 nm)	-0.000310 u	ppm	0.000171	55.21	19.445400	Y 377.433
Na (589.592 nm)	1.823990	ppm	0.045843	2.51	1468.590000	Y_R2 488.368
Na H (589.593 nm)	1.933716 u	ppm	0.015816	0.82	1289.265324	Y_R4
Ni (231.604 nm)	0.002091	ppm	0.000638	30.49	0.319778	Y 377.433
P (213.618 nm)	0.028786	ppm	0.000124	0.43	35.590300	Y 242.219
Pb (220.353 nm)	-0.000388 u	ppm	0.000162	41.64	11.256500	Y 242.219
S (181.972 nm)	2.166279	ppm	0.015598	0.72	981.636898	Y 377.433
Sb (206.834 nm)	0.002009	ppm	0.001165	57.99	-4.053710	Y 377.433
Se (196.026 nm)	-0.001462 u	ppm	0.003823	> 100.00	7.895040	Y 242.219
Si (288.158 nm)	5.625770	ppm	0.038919	0.69	37617.400000	Y 377.433
Sn (189.925 nm)	-0.000573 u	ppm	0.000726	> 100.00	1.237540	Y 377.433
Sr (421.552 nm)	0.060918	ppm	0.000108	0.18	8957.326420	Y_R 488.368
Th (288.505 nm)	-0.006169 u	ppm	0.002074	33.62	3.338690	Y 377.433
Ti (336.122 nm)	0.039776	ppm	0.000024	0.06	4716.540000	Y 377.433
Tl (190.794 nm)	0.001239	ppm	0.001155	93.19	2.198940	Y 377.433
U (409.013 nm)	0.004231 u	ppm	0.006205	> 100.00	-29.990200	Y 377.433
V (292.401 nm)	0.003890	ppm	0.000002	0.05	25.846700	Y 377.433
Zn (206.200 nm)	0.018644	ppm	0.000096	0.51	96.531400	Y 377.433
Zr (343.823 nm)	0.003532	ppm	0.000202	5.71	29.134300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.129865	25300.470761	0.001626	0.14
Y 377.433	1.126770	728035.560050	0.001117	0.10
Y_R 377.433	1.137000	62592.100000	0.007684	0.68
Y_R 488.368	1.133430	54775.100000	0.007525	0.66
Y_R2 488.368	1.118880	103702.789771	0.006063	0.54
Y_R4	1.141330	48871.100000	0.002018	0.18

Sample Name: 280-123814-f-3-a

Date: 5/24/2019 7:20:57 AM Rack:Tube: 4:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000729	ppm	0.000334	45.84	-220.884000	Y 377.433
Al (394.401 nm)	1.360590	ppm	0.003075	0.23	16403.300000	Y 377.433
Al H (396.152 nm)	1.533050	ppm	0.010888	0.71	2954.070000	Y_R 377.433
As (188.980 nm)	0.001236	ppm	0.001743	> 100.00	0.634513	Y 242.219
B (249.678 nm)	0.005758	ppm	0.000322	5.59	77.745200	Y 242.219
Ba (493.408 nm)	0.034267	ppm	0.000508	1.48	4752.600000	Y_R 488.368
Be (234.861 nm)	0.000099	ppm	0.000005	5.33	-0.298743	Y_R 488.368
Bi (223.061 nm)	-0.000742 u	ppm	0.001025	> 100.00	-17.015700	Y 377.433
Ca (315.887 nm)	15.155361	ppm	0.005220	0.03	12173.894354	Y_R 377.433
Cd (214.439 nm)	0.000248	ppm	0.000026	10.29	2.591130	Y 377.433
Co (228.615 nm)	0.000750	ppm	0.000188	25.06	-2.043950	Y 242.219
Cr (205.560 nm)	0.002335	ppm	0.000032	1.38	10.535200	Y 377.433
Cu (324.754 nm)	0.012009	ppm	0.000159	1.33	959.481000	Y 377.433
Fe (238.204 nm)	1.050501	ppm	0.001498	0.14	2592.164842	Y_R 377.433
Fe H (259.940 nm)	1.004490 u	ppm	0.004139	0.41	1495.280000	Y_R 377.433
K (766.491 nm)	0.803925	ppm	0.047017	5.85	2779.510000	Y_R2 488.368
Li (670.783 nm)	0.016851	ppm	0.000784	4.65	-2338.040000	Y_R2 488.368
Mg (279.078 nm)	2.262500	ppm	0.003814	0.17	8026.470000	Y 377.433
Mn (257.610 nm)	0.018350	ppm	0.000061	0.33	5053.670000	Y 377.433
Mo (202.032 nm)	-0.000791 u	ppm	0.000060	7.58	13.320700	Y 377.433
Na (589.592 nm)	1.757970	ppm	0.071520	4.07	1419.570000	Y_R2 488.368
Na H (589.593 nm)	1.796727 u	ppm	0.015318	0.85	1221.134955	Y_R4
Ni (231.604 nm)	0.002442	ppm	0.000606	24.81	2.280110	Y 377.433
P (213.618 nm)	0.030422	ppm	0.001406	4.62	38.654000	Y 242.219
Pb (220.353 nm)	-0.001100 u	ppm	0.001143	> 100.00	8.868400	Y 242.219
S (181.972 nm)	2.219251	ppm	0.029982	1.35	1005.441328	Y 377.433
Sb (206.834 nm)	0.001561 u	ppm	0.006734	> 100.00	-4.836920	Y 377.433
Se (196.026 nm)	-0.000723 u	ppm	0.002107	> 100.00	9.136290	Y 242.219
Si (288.158 nm)	5.322820	ppm	0.000880	0.02	35619.000000	Y 377.433
Sn (189.925 nm)	0.000078 u	ppm	0.000124	> 100.00	2.372370	Y 377.433
Sr (421.552 nm)	0.060469	ppm	0.000232	0.38	8891.613384	Y_R 488.368
Th (288.505 nm)	-0.000993 u	ppm	0.001418	> 100.00	12.463700	Y 377.433
Ti (336.122 nm)	0.035959	ppm	0.000204	0.57	4220.710000	Y 377.433
Tl (190.794 nm)	0.000290	ppm	0.000321	> 100.00	-0.070884	Y 377.433
U (409.013 nm)	0.018662	ppm	0.006398	34.28	15.133400	Y 377.433
V (292.401 nm)	0.003741	ppm	0.000028	0.74	17.818700	Y 377.433
Zn (206.200 nm)	0.018837	ppm	0.000449	2.39	97.470500	Y 377.433
Zr (343.823 nm)	0.003469	ppm	0.000037	1.06	25.480300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.134477	25403.744912	0.000288	0.03
Y 377.433	1.129775	729976.994508	0.000722	0.06
Y_R 377.433	1.141830	62858.000000	0.003174	0.28
Y_R 488.368	1.137590	54976.300000	0.003261	0.29
Y_R2 488.368	1.118623	103678.953711	0.002556	0.23
Y_R4	1.144780	49018.700000	0.000214	0.02

Sample Name: 280-123853-f-1-a

Date: 5/24/2019 7:24:31 AM Rack:Tube: 4:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000851	ppm	0.000132	15.52	-216.679000	Y 377.433
Al (394.401 nm)	0.106645	ppm	0.001930	1.81	1504.200000	Y 377.433
Al H (396.152 nm)	0.141644 u	ppm	0.010756	7.59	188.273000	Y_R 377.433
As (188.980 nm)	-0.000414 u	ppm	0.001367	> 100.00	-1.974150	Y 242.219
B (249.678 nm)	0.011566	ppm	0.000643	5.56	119.795000	Y 242.219
Ba (493.408 nm)	0.056229	ppm	0.000124	0.22	6879.390000	Y_R 488.368
Be (234.861 nm)	-0.000037 u	ppm	0.000042	> 100.00	-10.865800	Y_R 488.368
Bi (223.061 nm)	0.001885	ppm	0.001761	93.41	-11.152400	Y 377.433
Ca (315.887 nm)	123.226916	ppm	0.215054	0.17	99423.929311	Y_R 377.433
Cd (214.439 nm)	0.000542	ppm	0.000050	9.22	14.017400	Y 377.433
Co (228.615 nm)	0.001125	ppm	0.000116	10.29	5.758820	Y 242.219
Cr (205.560 nm)	0.032383	ppm	0.000083	0.25	223.475000	Y 377.433
Cu (324.754 nm)	0.011470	ppm	0.000036	0.32	872.183000	Y 377.433
Fe (238.204 nm)	0.316266	ppm	0.001775	0.56	782.453900	Y_R 377.433
Fe H (259.940 nm)	0.271386 u	ppm	0.002200	0.81	470.215000	Y_R 377.433
K (766.491 nm)	2.717400	ppm	0.148452	5.46	4678.690000	Y_R2 488.368
Li (670.783 nm)	0.018624	ppm	0.005538	29.74	-2307.160000	Y_R2 488.368
Mg (279.078 nm)	10.744300	ppm	0.033267	0.31	38079.700000	Y 377.433
Mn (257.610 nm)	0.039245	ppm	0.000097	0.25	10833.200000	Y 377.433
Mo (202.032 nm)	0.002606	ppm	0.000211	8.10	56.542900	Y 377.433
Na (589.592 nm)	400.408000 o	ppm	1.912330	0.48	296727.000000	Y_R2 488.368
Na H (589.593 nm)	446.529861	ppm	0.208825	0.05	222405.387906	Y_R4
Ni (231.604 nm)	0.015335	ppm	0.001312	8.55	74.330500	Y 377.433
P (213.618 nm)	0.011711	ppm	0.001260	10.76	9.626490	Y 242.219
Pb (220.353 nm)	-0.000593 u	ppm	0.003122	> 100.00	10.859600	Y 242.219
S (181.972 nm)	5.618978	ppm	0.036957	0.66	2537.852513	Y 377.433
Sb (206.834 nm)	0.003014	ppm	0.001082	35.91	-1.973360	Y 377.433
Se (196.026 nm)	0.002355	ppm	0.001462	62.10	14.373600	Y 242.219
Si (288.158 nm)	5.138740	ppm	0.036418	0.71	34404.800000	Y 377.433
Sn (189.925 nm)	-0.000618 u	ppm	0.000201	32.57	1.158000	Y 377.433
Sr (421.552 nm)	0.378478	ppm	0.001144	0.30	55400.276228	Y_R 488.368
Th (288.505 nm)	-0.010360 u	ppm	0.001082	10.44	-5.907420	Y 377.433
Ti (336.122 nm)	0.001417	ppm	0.000476	33.61	98.391400	Y 377.433
Tl (190.794 nm)	0.002881	ppm	0.000856	29.72	1.924190	Y 377.433
U (409.013 nm)	0.018438	ppm	0.008784	47.64	0.197560	Y 377.433
V (292.401 nm)	0.001666	ppm	0.000020	1.20	-106.334000	Y 377.433
Zn (206.200 nm)	0.003502	ppm	0.000526	15.01	21.246900	Y 377.433
Zr (343.823 nm)	0.000778	ppm	0.000227	29.23	-129.684000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.054708	23617.514057	0.001829	0.17
Y 377.433	1.058714	684062.699281	0.002460	0.23
Y_R 377.433	1.099580	60532.400000	0.001514	0.14
Y_R 488.368	1.096030	52968.000000	0.001490	0.14
Y_R2 488.368	1.076409	99766.354639	0.009778	0.91
Y_R4	1.098510	47037.500000	0.000683	0.06

Sample Name: 280-123853-f-2-a

Date: 5/24/2019 7:28:10 AM Rack:Tube: 4:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001293	ppm	0.000250	19.33	-201.953000	Y 377.433
Al (394.401 nm)	1.667900	ppm	0.004705	0.28	20152.800000	Y 377.433
Al H (396.152 nm)	1.771480	ppm	0.003636	0.21	3544.930000	Y_R 377.433
As (188.980 nm)	0.001625	ppm	0.000539	33.16	1.175360	Y 242.219
B (249.678 nm)	0.023444	ppm	0.001419	6.05	202.924000	Y 242.219
Ba (493.408 nm)	0.013379	ppm	0.000268	2.01	2731.430000	Y_R 488.368
Be (234.861 nm)	0.000042	ppm	0.000057	> 100.00	-17.837500	Y_R 488.368
Bi (223.061 nm)	0.003145	ppm	0.000268	8.53	-7.656420	Y 377.433
Ca (315.887 nm)	131.327107	ppm	0.459664	0.35	105963.944983	Y_R 377.433
Cd (214.439 nm)	0.000422	ppm	0.000006	1.41	10.757100	Y 377.433
Co (228.615 nm)	0.001929	ppm	0.000063	3.29	27.062600	Y 242.219
Cr (205.560 nm)	0.013961	ppm	0.001242	8.90	92.907500	Y 377.433
Cu (324.754 nm)	0.006975	ppm	0.000412	5.91	661.251000	Y 377.433
Fe (238.204 nm)	3.753681	ppm	0.011334	0.30	9254.848270	Y_R 377.433
Fe H (259.940 nm)	3.722520 u	ppm	0.009075	0.24	5295.750000	Y_R 377.433
K (766.491 nm)	3.163950	ppm	0.037764	1.19	5121.900000	Y_R2 488.368
Li (670.783 nm)	0.023309	ppm	0.002518	10.80	-2225.580000	Y_R2 488.368
Mg (279.078 nm)	39.759300	ppm	0.038471	0.10	140880.000000	Y 377.433
Mn (257.610 nm)	0.515618	ppm	0.000012	0.00	142598.000000	Y 377.433
Mo (202.032 nm)	-0.000534 u	ppm	0.000263	49.25	16.591600	Y 377.433
Na (589.592 nm)	306.929000 o	ppm	0.137502	0.04	227473.000000	Y_R2 488.368
Na H (589.593 nm)	337.981486	ppm	2.148616	0.64	168419.774193	Y_R4
Ni (231.604 nm)	0.004470	ppm	0.000990	22.15	13.608900	Y 377.433
P (213.618 nm)	0.056303	ppm	0.002257	4.01	78.382400	Y 242.219
Pb (220.353 nm)	-0.000147 u	ppm	0.000879	> 100.00	12.035100	Y 242.219
S (181.972 nm)	16.402150	ppm	0.031946	0.19	7383.651086	Y 377.433
Sb (206.834 nm)	-0.002475 u	ppm	0.002541	> 100.00	-11.627600	Y 377.433
Se (196.026 nm)	0.001741	ppm	0.001342	77.06	13.122200	Y 242.219
Si (288.158 nm)	9.115520	ppm	0.053004	0.58	60636.800000	Y 377.433
Sn (189.925 nm)	0.000923 u	ppm	0.001491	> 100.00	3.845640	Y 377.433
Sr (421.552 nm)	0.378552	ppm	0.000907	0.24	55411.574599	Y_R 488.368
Th (288.505 nm)	-0.005838 u	ppm	0.001551	26.58	10.412000	Y 377.433
Ti (336.122 nm)	0.034925	ppm	0.000950	2.72	4482.860000	Y 377.433
Tl (190.794 nm)	0.001300	ppm	0.000660	50.75	-2.785030	Y 377.433
U (409.013 nm)	0.025734	ppm	0.001399	5.43	24.393600	Y 377.433
V (292.401 nm)	0.004879	ppm	0.000091	1.87	74.543500	Y 377.433
Zn (206.200 nm)	0.012850	ppm	0.000609	4.74	68.171500	Y 377.433
Zr (343.823 nm)	0.001784	ppm	0.000073	4.12	-71.646100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.052132	23559.837201	0.003068	0.29
Y 377.433	1.058206	683734.444308	0.003342	0.32
Y_R 377.433	1.095140	60287.900000	0.001009	0.09
Y_R 488.368	1.091970	52771.500000	0.000056	0.01
Y_R2 488.368	1.073499	99496.651058	0.003990	0.37
Y_R4	1.113110	47662.900000	0.007610	0.68

Sample Name: 280-123853-f-3-a

Date: 5/24/2019 7:31:48 AM Rack:Tube: 4:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000614	ppm	0.000002	0.35	-225.741000	Y 377.433
Al (394.401 nm)	2.213630	ppm	0.000443	0.02	27050.500000	Y 377.433
Al H (396.152 nm)	2.125130	ppm	0.004901	0.23	4878.310000	Y_R 377.433
As (188.980 nm)	0.000294	ppm	0.000110	37.51	-0.937919	Y 242.219
B (249.678 nm)	0.014337	ppm	0.000534	3.72	137.790000	Y 242.219
Ba (493.408 nm)	0.225931	ppm	0.000264	0.12	23319.600000	Y_R 488.368
Be (234.861 nm)	0.000157	ppm	0.000047	30.31	-5.223510	Y_R 488.368
Bi (223.061 nm)	0.000667	ppm	0.000814	> 100.00	-13.356000	Y 377.433
Ca (315.887 nm)	47.551598	ppm	0.051579	0.11	38328.873146	Y_R 377.433
Cd (214.439 nm)	0.029667	ppm	0.000035	0.12	1180.770000	Y 377.433
Co (228.615 nm)	0.001277	ppm	0.000117	9.15	12.159100	Y 242.219
Cr (205.560 nm)	0.002549	ppm	0.000579	22.73	12.024800	Y 377.433
Cu (324.754 nm)	0.015795	ppm	0.000014	0.09	1115.870000	Y 377.433
Fe (238.204 nm)	3.515119	ppm	0.009185	0.26	8666.849349	Y_R 377.433
Fe H (259.940 nm)	3.469220 u	ppm	0.000602	0.02	4941.590000	Y_R 377.433
K (766.491 nm)	1.595000	ppm	0.097395	6.11	3564.680000	Y_R2 488.368
Li (670.783 nm)	0.052143	ppm	0.001361	2.61	-1723.480000	Y_R2 488.368
Mg (279.078 nm)	25.353700	ppm	0.002118	0.01	89838.900000	Y 377.433
Mn (257.610 nm)	0.156404	ppm	0.000082	0.05	43239.400000	Y 377.433
Mo (202.032 nm)	-0.000379 u	ppm	0.000473	> 100.00	18.567800	Y 377.433
Na (589.592 nm)	15.631500	ppm	0.000147	0.00	11735.600000	Y_R2 488.368
Na H (589.593 nm)	17.243664 u	ppm	0.029220	0.17	8903.537931	Y_R4
Ni (231.604 nm)	0.001079	ppm	0.000171	15.81	-5.336740	Y 377.433
P (213.618 nm)	0.155662	ppm	0.002092	1.34	226.947000	Y 242.219
Pb (220.353 nm)	0.001266	ppm	0.000765	60.39	16.802900	Y 242.219
S (181.972 nm)	9.387977	ppm	0.010455	0.11	4227.697546	Y 377.433
Sb (206.834 nm)	-0.000348 u	ppm	0.003328	> 100.00	-8.095100	Y 377.433
Se (196.026 nm)	-0.002358 u	ppm	0.003232	> 100.00	5.995800	Y 242.219
Si (288.158 nm)	7.015090	ppm	0.048959	0.70	46781.800000	Y 377.433
Sn (189.925 nm)	0.001010	ppm	0.000292	28.92	3.997730	Y 377.433
Sr (421.552 nm)	1.874077	ppm	0.000579	0.03	274131.550145	Y_R 488.368
Th (288.505 nm)	-0.005074 u	ppm	0.000245	4.83	6.926930	Y 377.433
Ti (336.122 nm)	0.061004	ppm	0.002870	4.70	7587.630000	Y 377.433
Tl (190.794 nm)	0.002458	ppm	0.002931	> 100.00	3.413600	Y 377.433
U (409.013 nm)	0.027236	ppm	0.013035	47.86	39.738700	Y 377.433
V (292.401 nm)	0.004802	ppm	0.000033	0.69	74.220700	Y 377.433
Zn (206.200 nm)	0.065936	ppm	0.000072	0.11	331.610000	Y 377.433
Zr (343.823 nm)	0.002169	ppm	0.000222	10.24	-49.465700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105914	24764.136709	0.000259	0.02
Y 377.433	1.108260	716075.762275	0.000590	0.05
Y_R 377.433	1.134890	62476.100000	0.004571	0.40
Y_R 488.368	1.129980	54608.300000	0.004503	0.40
Y_R2 488.368	1.103710	102296.754692	0.004947	0.45
Y_R4	1.123020	48087.000000	0.002831	0.25

Sample Name: 280-123853-f-4-a

Date: 5/24/2019 7:35:24 AM Rack:Tube: 4:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000617	ppm	0.000031	5.07	-225.056000	Y 377.433
Al (394.401 nm)	0.491253	ppm	0.003178	0.65	6032.140000	Y 377.433
Al H (396.152 nm)	0.606021 u	ppm	0.009411	1.55	1059.270000	Y_R 377.433
As (188.980 nm)	0.000749	ppm	0.000866	> 100.00	-0.191098	Y 242.219
B (249.678 nm)	0.006034	ppm	0.000433	7.18	78.718900	Y 242.219
Ba (493.408 nm)	0.007108	ppm	0.000090	1.27	2123.230000	Y_R 488.368
Be (234.861 nm)	-0.000032 u	ppm	0.000077	> 100.00	-21.021700	Y_R 488.368
Bi (223.061 nm)	0.000844 u	ppm	0.003240	> 100.00	-13.086700	Y 377.433
Ca (315.887 nm)	51.689136	ppm	0.060174	0.12	41668.801614	Y_R 377.433
Cd (214.439 nm)	0.000185	ppm	0.000068	36.64	0.833300	Y 377.433
Co (228.615 nm)	0.002242	ppm	0.000229	10.20	34.100900	Y 242.219
Cr (205.560 nm)	0.339917	ppm	0.000561	0.17	2402.490000	Y 377.433
Cu (324.754 nm)	0.006893	ppm	0.000236	3.43	701.365000	Y 377.433
Fe (238.204 nm)	2.771664	ppm	0.002166	0.08	6834.413604	Y_R 377.433
Fe H (259.940 nm)	2.714050 u	ppm	0.006559	0.24	3885.660000	Y_R 377.433
K (766.491 nm)	1.051390	ppm	0.073834	7.02	3025.120000	Y_R2 488.368
Li (670.783 nm)	0.015755	ppm	0.001879	11.93	-2357.120000	Y_R2 488.368
Mg (279.078 nm)	15.264700	ppm	0.027235	0.18	54093.100000	Y 377.433
Mn (257.610 nm)	0.087753	ppm	0.000257	0.29	24250.500000	Y 377.433
Mo (202.032 nm)	0.003421	ppm	0.000134	3.92	66.918100	Y 377.433
Na (589.592 nm)	35.663700	ppm	0.080844	0.23	26529.900000	Y_R2 488.368
Na H (589.593 nm)	37.862008 u	ppm	0.362090	0.96	19157.896455	Y_R4
Ni (231.604 nm)	0.208323	ppm	0.000929	0.45	1152.840000	Y 377.433
P (213.618 nm)	0.018895	ppm	0.004026	21.31	21.924100	Y 242.219
Pb (220.353 nm)	-0.001700 u	ppm	0.000516	30.35	6.407640	Y 242.219
S (181.972 nm)	2.448677	ppm	0.002955	0.12	1110.455850	Y 377.433
Sb (206.834 nm)	0.002859	ppm	0.002239	78.31	0.331236	Y 377.433
Se (196.026 nm)	-0.001607 u	ppm	0.000753	46.85	7.323400	Y 242.219
Si (288.158 nm)	4.991140	ppm	0.026242	0.53	33431.100000	Y 377.433
Sn (189.925 nm)	-0.000549 u	ppm	0.000013	2.39	1.278020	Y 377.433
Sr (421.552 nm)	0.119755	ppm	0.000514	0.43	17562.389218	Y_R 488.368
Th (288.505 nm)	-0.003267 u	ppm	0.003968	> 100.00	8.935700	Y 377.433
Ti (336.122 nm)	0.009264	ppm	0.000814	8.79	876.420000	Y 377.433
Tl (190.794 nm)	0.000621 u	ppm	0.001724	> 100.00	-0.912981	Y 377.433
U (409.013 nm)	0.022453	ppm	0.002367	10.54	23.861800	Y 377.433
V (292.401 nm)	0.003115	ppm	0.000282	9.07	-144.960000	Y 377.433
Zn (206.200 nm)	0.005836	ppm	0.000117	2.01	33.210800	Y 377.433
Zr (343.823 nm)	0.000813	ppm	0.000033	4.09	-127.651000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105908	24763.998983	0.004837	0.44
Y 377.433	1.107691	715708.549580	0.005790	0.52
Y_R 377.433	1.126020	61987.600000	0.002566	0.23
Y_R 488.368	1.123290	54285.300000	0.000025	0.00
Y_R2 488.368	1.105233	102437.947476	0.000506	0.05
Y_R4	1.115720	47774.500000	0.004225	0.38

Sample Name: 280-123853-f-5-a

Date: 5/24/2019 7:39:02 AM Rack:Tube: 4:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000813	ppm	0.000042	5.19	-218.513000	Y 377.433
Al (394.401 nm)	0.401943	ppm	0.000078	0.02	4970.360000	Y 377.433
Al H (396.152 nm)	0.514807 u	ppm	0.006545	1.27	871.792000	Y_R 377.433
As (188.980 nm)	0.000462 u	ppm	0.002815	> 100.00	-0.641724	Y 242.219
B (249.678 nm)	0.006612	ppm	0.000102	1.54	83.018700	Y 242.219
Ba (493.408 nm)	0.006825	ppm	0.000111	1.62	2095.690000	Y_R 488.368
Be (234.861 nm)	-0.000015 u	ppm	0.000042	> 100.00	-18.149600	Y_R 488.368
Bi (223.061 nm)	0.001646	ppm	0.001510	91.72	-11.306300	Y 377.433
Ca (315.887 nm)	52.726408	ppm	0.054799	0.10	42506.207699	Y_R 377.433
Cd (214.439 nm)	0.000323	ppm	0.000103	32.01	6.231990	Y 377.433
Co (228.615 nm)	0.001852	ppm	0.000014	0.77	24.414800	Y 242.219
Cr (205.560 nm)	0.299057	ppm	0.001140	0.38	2112.910000	Y 377.433
Cu (324.754 nm)	0.006980	ppm	0.000067	0.96	702.458000	Y 377.433
Fe (238.204 nm)	2.496654	ppm	0.013876	0.56	6156.581153	Y_R 377.433
Fe H (259.940 nm)	2.460650 u	ppm	0.002154	0.09	3531.350000	Y_R 377.433
K (766.491 nm)	0.987811	ppm	0.032473	3.29	2962.020000	Y_R2 488.368
Li (670.783 nm)	0.017236	ppm	0.001783	10.34	-2331.330000	Y_R2 488.368
Mg (279.078 nm)	15.523800	ppm	0.014433	0.09	55011.000000	Y 377.433
Mn (257.610 nm)	0.088020	ppm	0.000076	0.09	24324.400000	Y 377.433
Mo (202.032 nm)	0.001974	ppm	0.000075	3.79	48.506100	Y 377.433
Na (589.592 nm)	36.062100	ppm	0.094454	0.26	26825.000000	Y_R2 488.368
Na H (589.593 nm)	38.058753 u	ppm	0.164859	0.43	19255.746044	Y_R4
Ni (231.604 nm)	0.218189	ppm	0.000958	0.44	1207.970000	Y 377.433
P (213.618 nm)	0.020383	ppm	0.000619	3.04	24.211400	Y 242.219
Pb (220.353 nm)	-0.001110 u	ppm	0.001658	> 100.00	8.602680	Y 242.219
S (181.972 nm)	2.478859	ppm	0.006784	0.27	1124.065187	Y 377.433
Sb (206.834 nm)	0.001910	ppm	0.000495	25.90	-1.676050	Y 377.433
Se (196.026 nm)	-0.000068 u	ppm	0.000113	> 100.00	9.898350	Y 242.219
Si (288.158 nm)	4.872290	ppm	0.037580	0.77	32647.200000	Y 377.433
Sn (189.925 nm)	0.001057	ppm	0.000426	40.30	4.079550	Y 377.433
Sr (421.552 nm)	0.121986	ppm	0.000111	0.09	17888.631624	Y_R 488.368
Th (288.505 nm)	-0.005873 u	ppm	0.005136	87.45	4.526950	Y 377.433
Ti (336.122 nm)	0.006868	ppm	0.000076	1.11	568.581000	Y 377.433
Tl (190.794 nm)	-0.000295 u	ppm	0.000043	14.64	-3.128720	Y 377.433
U (409.013 nm)	0.032046	ppm	0.001068	3.33	53.586000	Y 377.433
V (292.401 nm)	0.003163	ppm	0.000053	1.67	-128.472000	Y 377.433
Zn (206.200 nm)	0.004569	ppm	0.000041	0.89	26.878300	Y 377.433
Zr (343.823 nm)	0.000642	ppm	0.000446	69.51	-137.495000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.100667	24646.642553	0.001511	0.14
Y 377.433	1.101588	711764.889986	0.000408	0.04
Y_R 377.433	1.127230	62054.300000	0.003197	0.28
Y_R 488.368	1.123930	54316.200000	0.002013	0.18
Y_R2 488.368	1.095764	101560.261441	0.007205	0.66
Y_R4	1.123860	48123.300000	0.000705	0.06

Sample Name: CCVH-5713036

Date: 5/24/2019 7:42:38 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004143	ppm	0.000159	3.83	-110.600000	Y 377.433
Al (394.401 nm)	48.873600 o	ppm	0.024091	0.05	582901.000000	Y 377.433
Al H (396.152 nm)	48.580400	ppm	0.071669	0.15	99886.400000	Y_R 377.433
As (188.980 nm)	0.003780	ppm	0.002004	53.02	3.330940	Y 242.219
B (249.678 nm)	-0.003647 u	ppm	0.000313	8.59	-17.113400	Y 242.219
Ba (493.408 nm)	0.000631	ppm	0.000163	25.87	1531.240000	Y_R 488.368
Be (234.861 nm)	0.001057	ppm	0.000041	3.88	-108.694000	Y_R 488.368
Bi (223.061 nm)	0.009617	ppm	0.002596	26.99	15.130600	Y 377.433
Ca (315.887 nm)	0.003487 u	ppm	0.005955	> 100.00	-46.864748	Y_R 377.433
Cd (214.439 nm)	0.001349	ppm	0.000110	8.19	67.464300	Y 377.433
Co (228.615 nm)	0.003425	ppm	0.000046	1.34	62.563700	Y 242.219
Cr (205.560 nm)	0.001835	ppm	0.000189	10.29	5.644950	Y 377.433
Cu (324.754 nm)	0.003133	ppm	0.000389	12.43	1469.920000	Y 377.433
Fe (238.204 nm)	48.214563 o	ppm	0.057741	0.12	118840.141922	Y_R 377.433
Fe H (259.940 nm)	48.464200	ppm	0.021114	0.04	67855.800000	Y_R 377.433
K (766.491 nm)	0.257106	ppm	0.069231	26.93	2236.780000	Y_R2 488.368
Li (670.783 nm)	0.012192	ppm	0.000630	5.17	-2419.170000	Y_R2 488.368
Mg (279.078 nm)	0.036328	ppm	0.001990	5.48	62.557400	Y 377.433
Mn (257.610 nm)	0.001025	ppm	0.000003	0.29	261.589000	Y 377.433
Mo (202.032 nm)	0.000561	ppm	0.000461	82.16	30.524500	Y 377.433
Na (589.592 nm)	233.777000 o	ppm	0.250287	0.11	173282.000000	Y_R2 488.368
Na H (589.593 nm)	249.737682	ppm	1.655183	0.66	124532.466335	Y_R4
Ni (231.604 nm)	0.002584	ppm	0.000140	5.42	3.072010	Y 377.433
P (213.618 nm)	4.775130	ppm	0.030891	0.65	7217.250000	Y 242.219
Pb (220.353 nm)	0.006288	ppm	0.000482	7.67	27.248900	Y 242.219
S (181.972 nm)	4.894055	ppm	0.011274	0.23	2206.237181	Y 377.433
Sb (206.834 nm)	0.005473	ppm	0.001448	26.46	6.386600	Y 377.433
Se (196.026 nm)	0.007484	ppm	0.000121	1.61	9.308100	Y 242.219
Si (288.158 nm)	0.014986	ppm	0.001079	7.20	606.893000	Y 377.433
Sn (189.925 nm)	0.000410 u	ppm	0.000856	> 100.00	2.951050	Y 377.433
Sr (421.552 nm)	0.001037	ppm	0.000013	1.27	206.598078	Y_R 488.368
Th (288.505 nm)	4.840150	ppm	0.013354	0.28	8457.720000	Y 377.433
Ti (336.122 nm)	0.002079	ppm	0.000012	0.57	-235.267000	Y 377.433
Tl (190.794 nm)	-0.000805 u	ppm	0.001977	> 100.00	-6.721570	Y 377.433
U (409.013 nm)	0.544755 Q	ppm	0.004184	0.77	1699.980000 Q	Y 377.433
V (292.401 nm)	0.001560	ppm	0.000196	12.57	388.870000	Y 377.433
Zn (206.200 nm)	0.002362	ppm	0.000115	4.88	22.975500	Y 377.433
Zr (343.823 nm)	0.001456	ppm	0.000055	3.78	-90.567200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080772	24201.146377	0.005711	0.53
Y 377.433	1.082592	699491.192589	0.005590	0.52
Y_R 377.433	1.120180	61666.100000	0.000899	0.08
Y_R 488.368	1.114700	53870.100000	0.000737	0.07
Y_R2 488.368	1.082394	100321.109750	0.003293	0.30
Y_R4	1.119760	47947.600000	0.001585	0.14

Sample Name: CCV-5717467

Date: 5/24/2019 7:46:22 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.480768	ppm	0.002593	0.54	16610.700000	Y 377.433
Al (394.401 nm)	0.498269	ppm	0.001278	0.26	6205.750000	Y 377.433
Al H (396.152 nm)	0.558350 u	ppm	0.002347	0.42	1153.250000	Y_R 377.433
As (188.980 nm)	0.479797	ppm	0.001498	0.31	763.126000	Y 242.219
B (249.678 nm)	0.472833	ppm	0.001317	0.28	3424.530000	Y 242.219
Ba (493.408 nm)	0.479619	ppm	0.000574	0.12	47891.800000	Y_R 488.368
Be (234.861 nm)	0.470653	ppm	0.002940	0.62	47438.700000	Y_R 488.368
Bi (223.061 nm)	0.938878	ppm	0.006584	0.70	2126.510000	Y 377.433
Ca (315.887 nm)	4.847995	ppm	0.012138	0.25	3852.135058	Y_R 377.433
Cd (214.439 nm)	0.484954	ppm	0.001970	0.41	19396.800000	Y 377.433
Co (228.615 nm)	0.481766	ppm	0.001873	0.39	11911.300000	Y 242.219
Cr (205.560 nm)	0.481675	ppm	0.003293	0.68	3403.740000	Y 377.433
Cu (324.754 nm)	0.478705	ppm	0.005584	1.17	22637.700000	Y 377.433
Fe (238.204 nm)	2.431024	ppm	0.003050	0.13	5994.819761	Y_R 377.433
Fe H (259.940 nm)	2.396520 u	ppm	0.006419	0.27	3441.690000	Y_R 377.433
K (766.491 nm)	47.542500	ppm	0.150872	0.32	49168.900000	Y_R2 488.368
Li (670.783 nm)	0.485281	ppm	0.001815	0.37	5819.030000	Y_R2 488.368
Mg (279.078 nm)	19.288800	ppm	0.068129	0.35	68351.600000	Y 377.433
Mn (257.610 nm)	0.482617	ppm	0.001681	0.35	133470.000000	Y 377.433
Mo (202.032 nm)	0.481381	ppm	0.001315	0.27	6148.780000	Y 377.433
Na (589.592 nm)	23.360000	ppm	0.211965	0.91	17512.300000	Y_R2 488.368
Na H (589.593 nm)	25.835803 u	ppm	0.011718	0.05	13176.765500	Y_R4
Ni (231.604 nm)	0.482816	ppm	0.002206	0.46	2687.440000	Y 377.433
P (213.618 nm)	0.052965	ppm	0.006156	11.62	-61.076500	Y 242.219
Pb (220.353 nm)	0.485002	ppm	0.000147	0.03	1676.760000	Y 242.219
S (181.972 nm)	0.002178 u	ppm	0.005898	> 100.00	10.441843	Y 377.433
Sb (206.834 nm)	0.489060	ppm	0.005799	1.19	853.143000	Y 377.433
Se (196.026 nm)	0.485083	ppm	0.004339	0.89	799.053000	Y 242.219
Si (288.158 nm)	4.726900	ppm	0.006506	0.14	31688.200000	Y 377.433
Sn (189.925 nm)	0.486166	ppm	0.004632	0.95	850.214000	Y 377.433
Sr (421.552 nm)	0.481376	ppm	0.000493	0.10	70449.336884	Y_R 488.368
Th (288.505 nm)	0.013570	ppm	0.000479	3.53	-10.773100	Y 377.433
Ti (336.122 nm)	0.479313	ppm	0.001226	0.26	61833.200000	Y 377.433
Tl (190.794 nm)	0.488730	ppm	0.000733	0.15	1180.740000	Y 377.433
U (409.013 nm)	0.022550	ppm	0.012589	55.83	-29.067800	Y 377.433
V (292.401 nm)	0.478476	ppm	0.001612	0.34	25051.400000	Y 377.433
Zn (206.200 nm)	0.485900	ppm	0.002924	0.60	2415.790000	Y 377.433
Zr (343.823 nm)	0.480808	ppm	0.000983	0.20	27549.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107481	24799.236810	0.003916	0.35
Y 377.433	1.106696	715065.091955	0.004275	0.39
Y_R 377.433	1.128930	62148.100000	0.006181	0.55
Y_R 488.368	1.127070	54468.100000	0.005908	0.52
Y_R2 488.368	1.092549	101262.309620	0.003640	0.33
Y_R4	1.128300	48313.000000	0.008552	0.76

Sample Name: CCB

Date: 5/24/2019 7:49:58 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000535	ppm	0.000290	54.10	-227.312000	Y 377.433
Al (394.401 nm)	-0.002673 u	ppm	0.000047	1.76	98.801500	Y 377.433
Al H (396.152 nm)	0.115456 Zu	ppm	0.003159	2.74	12.271400 Z	Y_R 377.433
As (188.980 nm)	-0.000333 u	ppm	0.001655	> 100.00	-1.835420	Y 242.219
B (249.678 nm)	-0.003686 u	ppm	0.000053	1.44	10.665700	Y 242.219
Ba (493.408 nm)	-0.001672 u	ppm	0.000005	0.30	1270.690000	Y_R 488.368
Be (234.861 nm)	0.000039 u	ppm	0.000089	> 100.00	-1.738650	Y_R 488.368
Bi (223.061 nm)	0.002805	ppm	0.001359	48.43	-9.117000	Y 377.433
Ca (315.887 nm)	0.011305	ppm	0.003855	34.10	-52.851520	Y_R 377.433
Cd (214.439 nm)	0.000056	ppm	0.000019	34.41	-5.534630	Y 377.433
Co (228.615 nm)	0.000148	ppm	0.000094	63.58	-18.489000	Y 242.219
Cr (205.560 nm)	0.000001 u	ppm	0.000072	> 100.00	-5.958890	Y 377.433
Cu (324.754 nm)	0.000320	ppm	0.000089	27.84	426.213000	Y 377.433
Fe (238.204 nm)	0.000400	ppm	0.000466	> 100.00	3.920654	Y_R 377.433
Fe H (259.940 nm)	-0.053896 u	ppm	0.001515	2.81	15.390000	Y_R 377.433
K (766.491 nm)	0.055621	ppm	0.054159	97.37	2036.800000	Y_R2 488.368
Li (670.783 nm)	0.010880 Z	ppm	0.000479	4.41	-2442.000000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002481	ppm	0.000104	4.20	20.505800	Y 377.433
Mn (257.610 nm)	0.000128	ppm	0.000009	6.94	13.485600	Y 377.433
Mo (202.032 nm)	-0.000986 u	ppm	0.000263	26.70	10.839600	Y 377.433
Na (589.592 nm)	0.105566	ppm	0.022190	21.02	188.305000	Y_R2 488.368
Na H (589.593 nm)	0.599763 u	ppm	0.021639	3.61	625.834748	Y_R4
Ni (231.604 nm)	-0.000225 u	ppm	0.000377	> 100.00	-12.624100	Y 377.433
P (213.618 nm)	-0.000271 u	ppm	0.002580	> 100.00	-4.928880	Y 242.219
Pb (220.353 nm)	-0.001493 u	ppm	0.000266	17.78	7.803320	Y 242.219
S (181.972 nm)	-0.000854 u	ppm	0.006064	> 100.00	7.371958	Y 377.433
Sb (206.834 nm)	0.002506	ppm	0.001427	56.95	-3.111130	Y 377.433
Se (196.026 nm)	-0.002072 u	ppm	0.000860	41.51	7.209360	Y 242.219
Si (288.158 nm)	-0.005408 u	ppm	0.000174	3.22	472.367000	Y 377.433
Sn (189.925 nm)	0.000045 u	ppm	0.000945	> 100.00	2.314950	Y 377.433
Sr (421.552 nm)	0.000009 u	ppm	0.000132	> 100.00	49.226025	Y_R 488.368
Th (288.505 nm)	-0.002416 u	ppm	0.000503	20.82	10.315300	Y 377.433
Ti (336.122 nm)	0.000461	ppm	0.000046	9.89	-445.681000	Y 377.433
Tl (190.794 nm)	0.000944	ppm	0.000425	45.05	2.406780	Y 377.433
U (409.013 nm)	0.014728	ppm	0.002323	15.78	4.381510	Y 377.433
V (292.401 nm)	0.000503	ppm	0.000001	0.16	-153.919000	Y 377.433
Zn (206.200 nm)	-0.000116 u	ppm	0.000101	86.79	3.238670	Y 377.433
Zr (343.823 nm)	0.000290	ppm	0.000192	66.39	-157.812000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114573	24958.047686	0.000960	0.09
Y 377.433	1.111153	717945.396271	0.002190	0.20
Y_R 377.433	1.120160	61665.300000	0.000052	0.00
Y_R 488.368	1.119680	54110.900000	0.001023	0.09
Y_R2 488.368	1.091566	101171.235040	0.000589	0.05
Y_R4	1.110810	47564.200000	0.007997	0.72

Sample Name: CCVL-5717307

Date: 5/24/2019 7:53:10 AM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007950	ppm	0.000249	3.13	31.800800	Y 377.433
Al (394.401 nm)	0.095211	ppm	0.000709	0.74	1276.090000	Y 377.433
Al H (396.152 nm)	0.224380 u	ppm	0.012091	5.39	241.863000	Y_R 377.433
As (188.980 nm)	0.014229	ppm	0.001096	7.70	21.364100	Y 242.219
B (249.678 nm)	0.088348	ppm	0.000318	0.36	670.228000	Y 242.219
Ba (493.408 nm)	0.008116	ppm	0.000107	1.31	2218.840000	Y_R 488.368
Be (234.861 nm)	0.001023	ppm	0.000026	2.51	96.999400	Y_R 488.368
Bi (223.061 nm)	0.089243	ppm	0.002723	3.05	188.062000	Y 377.433
Ca (315.887 nm)	0.208691	ppm	0.007095	3.40	106.533795	Y_R 377.433
Cd (214.439 nm)	0.005020	ppm	0.000006	0.13	193.103000	Y 377.433
Co (228.615 nm)	0.010434	ppm	0.000291	2.79	236.248000	Y 242.219
Cr (205.560 nm)	0.009666	ppm	0.000524	5.42	62.349900	Y 377.433
Cu (324.754 nm)	0.015419	ppm	0.000251	1.63	1126.140000	Y 377.433
Fe (238.204 nm)	0.098895	ppm	0.001420	1.44	246.685551	Y_R 377.433
Fe H (259.940 nm)	0.043975 u	ppm	0.004051	9.21	152.237000	Y_R 377.433
K (766.491 nm)	2.881400	ppm	0.023918	0.83	4841.460000	Y_R2 488.368
Li (670.783 nm)	0.035318 Q	ppm	0.006969	19.73	-2016.460000 Q	Y_R2 488.368
Mg (279.078 nm)	0.196396	ppm	0.003610	1.84	706.351000	Y 377.433
Mn (257.610 nm)	0.010338	ppm	0.000003	0.03	2837.580000	Y 377.433
Mo (202.032 nm)	0.018333	ppm	0.000654	3.56	256.662000	Y 377.433
Na (589.592 nm)	1.150250	ppm	0.056013	4.87	964.116000	Y_R2 488.368
Na H (589.593 nm)	1.409025 u	ppm	0.052410	3.72	1028.314648	Y_R4
Ni (231.604 nm)	0.040815	ppm	0.000202	0.50	216.741000	Y 377.433
P (213.618 nm)	2.709870	ppm	0.024358	0.90	4091.950000	Y 242.219
Pb (220.353 nm)	0.008025	ppm	0.001963	24.45	40.576100	Y 242.219
S (181.972 nm)	0.089184	ppm	0.002508	2.81	47.854921	Y 377.433
Sb (206.834 nm)	0.022684	ppm	0.002113	9.32	32.356000	Y 377.433
Se (196.026 nm)	0.016475	ppm	0.002902	17.61	37.343000	Y 242.219
Si (288.158 nm)	0.467119	ppm	0.000603	0.13	3589.300000	Y 377.433
Sn (189.925 nm)	0.095778	ppm	0.000749	0.78	169.294000	Y 377.433
Sr (421.552 nm)	0.008886	ppm	0.000076	0.86	1347.476821	Y_R 488.368
Th (288.505 nm)	0.012650	ppm	0.001411	11.15	36.107000	Y 377.433
Ti (336.122 nm)	0.009799	ppm	0.000097	0.99	769.059000	Y 377.433
Tl (190.794 nm)	0.015670	ppm	0.000498	3.18	37.963700	Y 377.433
U (409.013 nm)	0.058434	ppm	0.002139	3.66	140.098000	Y 377.433
V (292.401 nm)	0.010194	ppm	0.000164	1.61	354.328000	Y 377.433
Zn (206.200 nm)	0.019856	ppm	0.000033	0.17	102.379000	Y 377.433
Zr (343.823 nm)	0.009987	ppm	0.000045	0.45	401.319000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125142	25194.706991	0.001365	0.12
Y 377.433	1.121784	724814.282565	0.002813	0.25
Y_R 377.433	1.128910	62146.800000	0.001810	0.16
Y_R 488.368	1.126490	54440.000000	0.001048	0.09
Y_R2 488.368	1.104261	102347.802315	0.004331	0.39
Y_R4	1.120360	47973.000000	0.000086	0.01

Sample Name: 280-123853-f-6-a

Date: 5/24/2019 7:56:40 AM Rack:Tube: 4:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000889	ppm	0.000410	46.18	-215.402000	Y 377.433
Al (394.401 nm)	0.088569	ppm	0.000160	0.18	1284.400000	Y 377.433
Al H (396.152 nm)	0.145285 u	ppm	0.003411	2.35	198.335000	Y_R 377.433
As (188.980 nm)	0.001777	ppm	0.000624	35.15	1.515940	Y 242.219
B (249.678 nm)	0.017018	ppm	0.000485	2.85	158.864000	Y 242.219
Ba (493.408 nm)	0.108843	ppm	0.000290	0.27	11975.700000	Y_R 488.368
Be (234.861 nm)	-0.000008 u	ppm	0.000052	> 100.00	-7.946900	Y_R 488.368
Bi (223.061 nm)	0.001515	ppm	0.001068	70.48	-11.995200	Y 377.433
Ca (315.887 nm)	77.582580	ppm	0.026593	0.03	62573.481503	Y_R 377.433
Cd (214.439 nm)	0.000208	ppm	0.000088	42.44	0.684082	Y 377.433
Co (228.615 nm)	-0.000313 u	ppm	0.000226	72.07	-29.850100	Y 242.219
Cr (205.560 nm)	0.001039	ppm	0.000459	44.17	1.391850	Y 377.433
Cu (324.754 nm)	0.000521	ppm	0.000284	54.59	388.990000	Y 377.433
Fe (238.204 nm)	0.327556	ppm	0.001952	0.60	810.280623	Y_R 377.433
Fe H (259.940 nm)	0.270863 u	ppm	0.001902	0.70	469.484000	Y_R 377.433
K (766.491 nm)	1.938260	ppm	0.067558	3.49	3905.370000	Y_R2 488.368
Li (670.783 nm)	0.028002	ppm	0.000131	0.47	-2143.850000	Y_R2 488.368
Mg (279.078 nm)	13.048800	ppm	0.017134	0.13	46245.100000	Y 377.433
Mn (257.610 nm)	0.081049	ppm	0.000117	0.14	22396.100000	Y 377.433
Mo (202.032 nm)	-0.000687 u	ppm	0.000182	26.52	14.646700	Y 377.433
Na (589.592 nm)	128.195000 o	ppm	0.048141	0.04	95093.800000	Y_R2 488.368
Na H (589.593 nm)	138.762952	ppm	0.796504	0.57	69340.125300	Y_R4
Ni (231.604 nm)	-0.001489 u	ppm	0.000306	20.52	-19.687400	Y 377.433
P (213.618 nm)	0.016541	ppm	0.000095	0.57	19.995100	Y 242.219
Pb (220.353 nm)	-0.000965 u	ppm	0.000350	36.26	9.655990	Y 242.219
S (181.972 nm)	8.672149	ppm	0.018528	0.21	3907.346563	Y 377.433
Sb (206.834 nm)	0.000683 u	ppm	0.001738	> 100.00	-6.306930	Y 377.433
Se (196.026 nm)	-0.000149 u	ppm	0.000613	> 100.00	10.363100	Y 242.219
Si (288.158 nm)	3.195130	ppm	0.001098	0.03	21584.100000	Y 377.433
Sn (189.925 nm)	0.001781	ppm	0.000179	10.03	5.341990	Y 377.433
Sr (421.552 nm)	0.359953	ppm	0.000639	0.18	52690.922336	Y_R 488.368
Th (288.505 nm)	-0.007542 u	ppm	0.002417	32.05	1.014740	Y 377.433
Ti (336.122 nm)	0.001588	ppm	0.000135	8.48	-34.367200	Y 377.433
Tl (190.794 nm)	0.003875	ppm	0.000339	8.75	6.232120	Y 377.433
U (409.013 nm)	0.029468	ppm	0.003131	10.63	40.669100	Y 377.433
V (292.401 nm)	0.001757	ppm	0.000211	12.02	-89.667200	Y 377.433
Zn (206.200 nm)	0.007122	ppm	0.000248	3.49	39.213500	Y 377.433
Zr (343.823 nm)	0.000590	ppm	0.000104	17.61	-140.472000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086757	24335.161859	0.001723	0.16
Y 377.433	1.088512	703315.971253	0.000360	0.03
Y_R 377.433	1.111000	61160.900000	0.002313	0.21
Y_R 488.368	1.108330	53562.300000	0.000487	0.04
Y_R2 488.368	1.087822	100824.149432	0.008305	0.76
Y_R4	1.112950	47655.900000	0.011426	1.03

Sample Name: CCVH-5713036

Date: 5/24/2019 8:00:14 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004426	ppm	0.000059	1.33	-100.576000	Y 377.433
Al (394.401 nm)	48.926000 o	ppm	0.037312	0.08	583523.000000	Y 377.433
Al H (396.152 nm)	48.625800	ppm	0.078639	0.16	99980.000000	Y_R 377.433
As (188.980 nm)	0.000267 u	ppm	0.002496	> 100.00	-2.269370	Y 242.219
B (249.678 nm)	-0.002224 u	ppm	0.000421	18.93	-6.986750	Y 242.219
Ba (493.408 nm)	0.001439	ppm	0.000234	16.27	1609.560000	Y_R 488.368
Be (234.861 nm)	0.001028	ppm	0.000012	1.14	-112.187000	Y_R 488.368
Bi (223.061 nm)	0.014438	ppm	0.001104	7.65	26.148500	Y 377.433
Ca (315.887 nm)	0.002862	ppm	0.002160	75.47	-47.357190	Y_R 377.433
Cd (214.439 nm)	0.001374	ppm	0.000024	1.73	68.510600	Y 377.433
Co (228.615 nm)	0.003544	ppm	0.000209	5.89	65.496000	Y 242.219
Cr (205.560 nm)	0.001347	ppm	0.000247	18.35	2.194120	Y 377.433
Cu (324.754 nm)	0.003249	ppm	0.000314	9.65	1478.540000	Y 377.433
Fe (238.204 nm)	48.220445 o	ppm	0.124714	0.26	118854.640804	Y_R 377.433
Fe H (259.940 nm)	48.481000	ppm	0.126744	0.26	67879.200000	Y_R 377.433
K (766.491 nm)	0.198424	ppm	0.056614	28.53	2178.530000	Y_R2 488.368
Li (670.783 nm)	0.010952	ppm	0.001736	15.85	-2440.760000	Y_R2 488.368
Mg (279.078 nm)	0.038562	ppm	0.001710	4.43	70.426300	Y 377.433
Mn (257.610 nm)	0.000992	ppm	0.000017	1.68	252.330000	Y 377.433
Mo (202.032 nm)	0.000093	ppm	0.000054	58.04	24.570900	Y 377.433
Na (589.592 nm)	230.840000 o	ppm	0.505543	0.22	171107.000000	Y_R2 488.368
Na H (589.593 nm)	247.831712	ppm	2.214587	0.89	123584.548406	Y_R4
Ni (231.604 nm)	0.003039	ppm	0.001167	38.39	5.614500	Y 377.433
P (213.618 nm)	4.781650	ppm	0.064998	1.36	7226.920000	Y 242.219
Pb (220.353 nm)	0.003752	ppm	0.001724	45.94	18.511900	Y 242.219
S (181.972 nm)	4.877596	ppm	0.013810	0.28	2198.843873	Y 377.433
Sb (206.834 nm)	0.006244	ppm	0.002742	43.91	7.756940	Y 377.433
Se (196.026 nm)	0.004957	ppm	0.001069	21.56	5.167270	Y 242.219
Si (288.158 nm)	0.014024	ppm	0.000085	0.61	600.549000	Y 377.433
Sn (189.925 nm)	0.000817	ppm	0.000641	78.47	3.662020	Y 377.433
Sr (421.552 nm)	0.001138	ppm	0.000089	7.83	221.485862	Y_R 488.368
Th (288.505 nm)	4.844860	ppm	0.000664	0.01	8465.880000	Y 377.433
Ti (336.122 nm)	0.002110	ppm	0.000039	1.85	-231.240000	Y 377.433
Tl (190.794 nm)	0.000031 u	ppm	0.003453	> 100.00	-4.706740	Y 377.433
U (409.013 nm)	0.532956 Q	ppm	0.002101	0.39	1663.090000 Q	Y 377.433
V (292.401 nm)	0.001464	ppm	0.000358	24.45	386.022000	Y 377.433
Zn (206.200 nm)	0.003249	ppm	0.000031	0.97	27.395800	Y 377.433
Zr (343.823 nm)	0.001620	ppm	0.000205	12.63	-81.096700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076353	24102.207681	0.005061	0.47
Y 377.433	1.075432	694865.083732	0.004229	0.39
Y_R 377.433	1.105920	60881.300000	0.006231	0.56
Y_R 488.368	1.102860	53297.700000	0.004893	0.44
Y_R2 488.368	1.082699	100349.378274	0.002595	0.24
Y_R4	1.120500	47979.200000	0.008878	0.79

Sample Name: CCV-5717467

Date: 5/24/2019 8:03:56 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.479820	ppm	0.000047	0.01	16577.100000	Y 377.433
Al (394.401 nm)	0.497850	ppm	0.002071	0.42	6198.940000	Y 377.433
Al H (396.152 nm)	0.562884 u	ppm	0.008175	1.45	1162.820000	Y_R 377.433
As (188.980 nm)	0.480871	ppm	0.003268	0.68	764.838000	Y 242.219
B (249.678 nm)	0.471860	ppm	0.000411	0.09	3417.560000	Y 242.219
Ba (493.408 nm)	0.479906	ppm	0.000720	0.15	47919.500000	Y_R 488.368
Be (234.861 nm)	0.471838	ppm	0.003046	0.65	47558.200000	Y_R 488.368
Bi (223.061 nm)	0.939218	ppm	0.002010	0.21	2127.280000	Y 377.433
Ca (315.887 nm)	4.858411	ppm	0.004247	0.09	3860.546030	Y_R 377.433
Cd (214.439 nm)	0.484375	ppm	0.000449	0.09	19373.700000	Y 377.433
Co (228.615 nm)	0.480426	ppm	0.000274	0.06	11878.100000	Y 242.219
Cr (205.560 nm)	0.477280	ppm	0.003719	0.78	3372.590000	Y 377.433
Cu (324.754 nm)	0.479454	ppm	0.001599	0.33	22674.000000	Y 377.433
Fe (238.204 nm)	2.427750	ppm	0.003960	0.16	5986.749111	Y_R 377.433
Fe H (259.940 nm)	2.393630 u	ppm	0.001760	0.07	3437.650000	Y_R 377.433
K (766.491 nm)	47.183500	ppm	0.027438	0.06	48812.600000	Y_R2 488.368
Li (670.783 nm)	0.485466	ppm	0.001873	0.39	5822.250000	Y_R2 488.368
Mg (279.078 nm)	19.266200	ppm	0.011044	0.06	68271.400000	Y 377.433
Mn (257.610 nm)	0.481883	ppm	0.000009	0.00	133267.000000	Y 377.433
Mo (202.032 nm)	0.480562	ppm	0.000418	0.09	6138.350000	Y 377.433
Na (589.592 nm)	23.225300	ppm	0.001843	0.01	17412.600000	Y_R2 488.368
Na H (589.593 nm)	25.906548 u	ppm	0.160581	0.62	13211.949872	Y_R4
Ni (231.604 nm)	0.480415	ppm	0.000128	0.03	2674.020000	Y 377.433
P (213.618 nm)	0.054203	ppm	0.002632	4.86	-59.443600	Y 242.219
Pb (220.353 nm)	0.482354	ppm	0.000286	0.06	1667.660000	Y 242.219
S (181.972 nm)	0.011703	ppm	0.003018	25.78	14.720922	Y 377.433
Sb (206.834 nm)	0.488115	ppm	0.005068	1.04	851.446000	Y 377.433
Se (196.026 nm)	0.480929	ppm	0.002819	0.59	792.303000	Y 242.219
Si (288.158 nm)	4.730950	ppm	0.025573	0.54	31714.900000	Y 377.433
Sn (189.925 nm)	0.484211	ppm	0.000335	0.07	846.803000	Y 377.433
Sr (421.552 nm)	0.481455	ppm	0.001292	0.27	70460.882739	Y_R 488.368
Th (288.505 nm)	0.015145	ppm	0.001242	8.20	-8.033370	Y 377.433
Ti (336.122 nm)	0.478612	ppm	0.000052	0.01	61742.000000	Y 377.433
Tl (190.794 nm)	0.489251	ppm	0.001243	0.25	1182.000000	Y 377.433
U (409.013 nm)	0.020725	ppm	0.007278	35.12	-34.684200	Y 377.433
V (292.401 nm)	0.478156	ppm	0.000519	0.11	25036.900000	Y 377.433
Zn (206.200 nm)	0.483896	ppm	0.000387	0.08	2405.840000	Y 377.433
Zr (343.823 nm)	0.479870	ppm	0.000165	0.03	27495.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107042	24789.403238	0.003754	0.34
Y 377.433	1.106138	714705.067142	0.003672	0.33
Y_R 377.433	1.124750	61917.800000	0.005874	0.52
Y_R 488.368	1.122600	54251.700000	0.003924	0.35
Y_R2 488.368	1.099268	101885.023637	0.000928	0.08
Y_R4	1.128340	48314.900000	0.001732	0.15

Sample Name: CCB

Date: 5/24/2019 8:07:32 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000078 u	ppm	0.000424	> 100.00	-243.534000	Y 377.433
Al (394.401 nm)	-0.003051 u	ppm	0.000545	17.85	96.475200	Y 377.433
Al H (396.152 nm)	0.117268 Zu	ppm	0.000449	0.38	16.134800 Z	Y_R 377.433
As (188.980 nm)	0.002347	ppm	0.000635	27.07	2.433740	Y 242.219
B (249.678 nm)	-0.002516 u	ppm	0.000229	9.12	19.054400	Y 242.219
Ba (493.408 nm)	-0.001736 u	ppm	0.000011	0.63	1264.500000	Y_R 488.368
Be (234.861 nm)	-0.000031 u	ppm	0.000066	> 100.00	-8.816250	Y_R 488.368
Bi (223.061 nm)	0.001415	ppm	0.000495	35.01	-12.287600	Y 377.433
Ca (315.887 nm)	0.013148	ppm	0.003964	30.15	-51.365596	Y_R 377.433
Cd (214.439 nm)	0.000077	ppm	0.000073	94.56	-4.715170	Y 377.433
Co (228.615 nm)	0.000192	ppm	0.000089	46.19	-17.411000	Y 242.219
Cr (205.560 nm)	-0.000109 u	ppm	0.000621	> 100.00	-6.737850	Y 377.433
Cu (324.754 nm)	0.000190	ppm	0.000101	53.25	419.184000	Y 377.433
Fe (238.204 nm)	0.000941	ppm	0.000852	90.56	5.254299	Y_R 377.433
Fe H (259.940 nm)	-0.056490 u	ppm	0.001726	3.06	11.762200	Y_R 377.433
K (766.491 nm)	-0.089154 u	ppm	0.091188	> 100.00	1893.100000	Y_R2 488.368
Li (670.783 nm)	0.010590 Z	ppm	0.001468	13.86	-2447.060000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001994	ppm	0.000678	33.99	18.543400	Y 377.433
Mn (257.610 nm)	0.000077	ppm	0.000034	43.68	-0.695824	Y 377.433
Mo (202.032 nm)	-0.000592 u	ppm	0.000379	63.90	15.849700	Y 377.433
Na (589.592 nm)	0.108352	ppm	0.017646	16.29	190.310000	Y_R2 488.368
Na H (589.593 nm)	0.599629 u	ppm	0.039277	6.55	625.768317	Y_R4
Ni (231.604 nm)	0.000272 u	ppm	0.000446	> 100.00	-9.845170	Y 377.433
P (213.618 nm)	-0.001013 u	ppm	0.001680	> 100.00	-6.083890	Y 242.219
Pb (220.353 nm)	-0.000752 u	ppm	0.000682	90.70	10.385700	Y 242.219
S (181.972 nm)	-0.002380 u	ppm	0.005594	> 100.00	6.686448	Y 377.433
Sb (206.834 nm)	0.003018	ppm	0.001414	46.86	-2.215970	Y 377.433
Se (196.026 nm)	-0.001724 u	ppm	0.001893	> 100.00	7.773480	Y 242.219
Si (288.158 nm)	-0.005693 u	ppm	0.001697	29.81	470.488000	Y 377.433
Sn (189.925 nm)	0.000341	ppm	0.000070	20.49	2.831480	Y 377.433
Sr (421.552 nm)	-0.000054 u	ppm	0.000058	> 100.00	40.080712	Y_R 488.368
Th (288.505 nm)	-0.001717 u	ppm	0.002663	> 100.00	11.621600	Y 377.433
Ti (336.122 nm)	0.000444	ppm	0.000001	0.18	-447.940000	Y 377.433
Tl (190.794 nm)	0.001350	ppm	0.000569	42.14	3.384900	Y 377.433
U (409.013 nm)	0.001887 u	ppm	0.005422	> 100.00	-35.858800	Y 377.433
V (292.401 nm)	0.000703	ppm	0.000092	13.08	-144.145000	Y 377.433
Zn (206.200 nm)	-0.000245 u	ppm	0.000049	20.06	2.599020	Y 377.433
Zr (343.823 nm)	0.000385	ppm	0.000014	3.67	-152.302000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120484	25090.397984	0.003593	0.32
Y 377.433	1.116916	721668.771013	0.002097	0.19
Y_R 377.433	1.127290	62057.800000	0.000667	0.06
Y_R 488.368	1.125600	54397.000000	0.001148	0.10
Y_R2 488.368	1.111176	102988.741977	0.002625	0.24
Y_R4	1.131850	48465.100000	0.005175	0.46

Sample Name: CCVL-5717307

Date: 5/24/2019 8:10:44 AM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007962	ppm	0.000120	1.51	32.465700	Y 377.433
Al (394.401 nm)	0.094402	ppm	0.000332	0.35	1263.750000	Y 377.433
Al H (396.152 nm)	0.223579 u	ppm	0.001875	0.84	240.190000	Y_R 377.433
As (188.980 nm)	0.013471	ppm	0.000345	2.56	20.156400	Y 242.219
B (249.678 nm)	0.088538	ppm	0.000623	0.70	671.596000	Y 242.219
Ba (493.408 nm)	0.007587	ppm	0.000451	5.94	2167.600000	Y_R 488.368
Be (234.861 nm)	0.000968	ppm	0.000052	5.33	91.422800	Y_R 488.368
Bi (223.061 nm)	0.086194	ppm	0.000044	0.05	181.107000	Y 377.433
Ca (315.887 nm)	0.205022	ppm	0.000795	0.39	103.570119	Y_R 377.433
Cd (214.439 nm)	0.005059	ppm	0.000013	0.26	194.680000	Y 377.433
Co (228.615 nm)	0.010451	ppm	0.000352	3.37	236.655000	Y 242.219
Cr (205.560 nm)	0.009635	ppm	0.000074	0.77	62.135400	Y 377.433
Cu (324.754 nm)	0.014626	ppm	0.000076	0.52	1090.850000	Y 377.433
Fe (238.204 nm)	0.098513	ppm	0.001025	1.04	245.743545	Y_R 377.433
Fe H (259.940 nm)	0.051052 u	ppm	0.000923	1.81	162.132000	Y_R 377.433
K (766.491 nm)	2.785070	ppm	0.017603	0.63	4745.860000	Y_R2 488.368
Li (670.783 nm)	0.034932 Q	ppm	0.001060	3.03	-2023.180000 Q	Y_R2 488.368
Mg (279.078 nm)	0.196918	ppm	0.000423	0.21	708.396000	Y 377.433
Mn (257.610 nm)	0.010351	ppm	0.000005	0.05	2841.040000	Y 377.433
Mo (202.032 nm)	0.018256	ppm	0.000232	1.27	255.692000	Y 377.433
Na (589.592 nm)	1.135400	ppm	0.010318	0.91	952.893000	Y_R2 488.368
Na H (589.593 nm)	1.388204 u	ppm	0.005636	0.41	1017.959506	Y_R4
Ni (231.604 nm)	0.039637	ppm	0.002134	5.38	210.162000	Y 377.433
P (213.618 nm)	2.717970	ppm	0.027126	1.00	4104.380000	Y 242.219
Pb (220.353 nm)	0.007888	ppm	0.001023	12.97	40.077200	Y 242.219
S (181.972 nm)	0.093550	ppm	0.006605	7.06	49.816201	Y 377.433
Sb (206.834 nm)	0.024886	ppm	0.001282	5.15	36.244600	Y 377.433
Se (196.026 nm)	0.017776	ppm	0.000031	0.17	39.456600	Y 242.219
Si (288.158 nm)	0.461599	ppm	0.000938	0.20	3552.900000	Y 377.433
Sn (189.925 nm)	0.096383	ppm	0.000950	0.99	170.349000	Y 377.433
Sr (421.552 nm)	0.008857	ppm	0.000026	0.29	1343.238240	Y_R 488.368
Th (288.505 nm)	0.017118	ppm	0.001200	7.01	43.877600	Y 377.433
Ti (336.122 nm)	0.009775	ppm	0.000054	0.55	765.956000	Y 377.433
Tl (190.794 nm)	0.016005	ppm	0.001044	6.52	38.776900	Y 377.433
U (409.013 nm)	0.057732	ppm	0.003217	5.57	137.902000	Y 377.433
V (292.401 nm)	0.010281	ppm	0.000148	1.44	360.061000	Y 377.433
Zn (206.200 nm)	0.020687	ppm	0.000416	2.01	106.502000	Y 377.433
Zr (343.823 nm)	0.009953	ppm	0.000072	0.73	399.401000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.135171	25419.287374	0.005570	0.49
Y 377.433	1.132807	731936.260990	0.007554	0.67
Y_R 377.433	1.147720	63182.300000	0.011689	1.02
Y_R 488.368	1.146410	55402.300000	0.010976	0.96
Y_R2 488.368	1.128715	104614.308807	0.000209	0.02
Y_R4	1.141320	48870.600000	0.007830	0.69

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG No.:

Project: Griffiss AFB, LF007 Landfill 5

Client Sample ID	Lab Sample ID
LF5MW-3_0519	280-123814-1
LF5MW-5_0519	280-123814-2
LF5MW-5_0519-a	280-123814-3

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF5MW-3_0519 Lab Sample ID: 280-123814-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2019 16:10

Reporting Basis: WET Date Received: 05/15/2019 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.020	0.020	0.020	0.0068	mg/L	U		1	9066
Color	100	25	25	25	PCU		D	5	SM 2120B
Hardness	450	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.15	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	1.3	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.53	0.50	0.20	0.19	mg/L			1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.081	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.068	0.50	0.10	0.049	mg/L	J		1	9056A
Sulfate	230	25	15	5.2	mg/L		D	5	9056A
Total Organic Carbon - Quad	11	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	210	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	610	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF5MW-5_0519 Lab Sample ID: 280-123814-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2019 16:40

Reporting Basis: WET Date Received: 05/15/2019 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	30	20	20	8.7	mg/L		B	1	410.4
Phenols, Total	0.0078	0.020	0.020	0.0068	mg/L	J		1	9066
Color	100	25	25	25	PCU		D	5	SM 2120B
Hardness	46	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	1.2	0.50	0.10	0.042	mg/L			1	9056A
Chloride	1.9	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.34	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	1.2	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	5.3	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	16	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	39	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	110	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF5MW-5_0519-a
Lab Sample ID: 280-123814-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123814-1
SDG ID.:
Matrix: Water
Date Sampled: 05/14/2019 16:40
Reporting Basis: WET
Date Received: 05/15/2019 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	29	20	20	8.7	mg/L		B	1	410.4
Phenols, Total	0.0092	0.020	0.020	0.0068	mg/L	J		1	9066
Color	130	25	25	25	PCU		D	5	SM 2120B
Hardness	45	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.090	0.50	0.10	0.042	mg/L	J		1	9056A
Chloride	1.8	3.0	3.0	1.0	mg/L	J	J1	1	9056A
Orthophosphate as P	0.32	0.50	0.20	0.19	mg/L	J	J1	1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.090	0.50	0.10	0.042	mg/L	J		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	5.4	5.0	3.0	1.0	mg/L		J1	1	9056A
Total Organic Carbon - Quad	16	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	41	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	94	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Analyst: MJS Batch Start Date: 05/28/2019

Reporting Units: mg/L Analytical Batch No.: 459641

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	10:26	Ammonia	0.497	0.498	100	90-110		350.1 ICV_00350
15	ICV	10:28	Ammonia	2.47	2.49	99	90-110		350.1 ICV_00350
16	ICB	10:30	Ammonia	0.050				U	
32	CCVL	11:02	Ammonia	0.465	0.500	93	90-110		350.1 cal_00367
33	CCV	11:04	Ammonia	2.59	2.50	103	90-110		350.1 cal_00367
34	CCB	11:06	Ammonia	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Analyst: SVC Batch Start Date: 06/03/2019

Reporting Units: mg/L Analytical Batch No.: 460322

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	20:05	Nitrogen, Kjeldahl	5.09	5.00	102	90-110		TKN ICV 25_00078
14	ICB	20:07	Nitrogen, Kjeldahl	0.50				U	
31	CCV	20:28	Nitrogen, Kjeldahl	4.79	5.00	96	90-110		TKN 25ppm_00794
32	CCB	20:29	Nitrogen, Kjeldahl	0.50				U	
50	CCV	20:52	Nitrogen, Kjeldahl	4.91	5.00	98	90-110		TKN 25ppm_00794
51	CCB	20:53	Nitrogen, Kjeldahl	0.50				U	
65	CCV	21:10	Nitrogen, Kjeldahl	4.60	5.00	92	90-110		TKN 25ppm_00794
66	CCB	21:12	Nitrogen, Kjeldahl	0.50				U	
80	CCV	21:29	Nitrogen, Kjeldahl	4.81	5.00	96	90-110		TKN 25ppm_00794
81	CCB	21:30	Nitrogen, Kjeldahl	0.50				U	
98	CCV	21:52	Nitrogen, Kjeldahl	4.75	5.00	95	90-110		TKN 25ppm_00794
99	CCB	21:53	Nitrogen, Kjeldahl	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Analyst: SGB Batch Start Date: 05/20/2019

Reporting Units: mg/L Analytical Batch No.: 458808

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	12:23	Chemical Oxygen Demand (COD)	82.7	75.4	110	90-110		COD icv std_00034
2	ICB	12:23	Chemical Oxygen Demand (COD)	20				U	
16	CCV	12:23	Chemical Oxygen Demand (COD)	101	100	101	90-110		COD cal std_00048
17	CCB	12:23	Chemical Oxygen Demand (COD)	20				U	
28	CCV	12:23	Chemical Oxygen Demand (COD)	102	100	102	90-110		COD cal std_00048
29	CCB	12:23	Chemical Oxygen Demand (COD)	20				U	
34	CCV	12:23	Chemical Oxygen Demand (COD)	105	100	105	90-110		COD cal std_00048
35	CCB	12:23	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Analyst: ARM Batch Start Date: 06/04/2019

Reporting Units: mg/L Analytical Batch No.: 460486

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	21:31	Phenols, Total	0.189	0.200	95	90-110		Phenol ICV 10_00605
14	ICVL	21:34	Phenols, Total	0.102	0.100	102	90-110		Phenol ICV 10_00605
15	ICB	21:37	Phenols, Total	0.020				U	
29	CCV	22:19	Phenols, Total	0.206	0.201	103	90-110		Phenol CAL 10_00730
30	CCVL	22:22	Phenols, Total	0.0984	0.101	98	90-110		Phenol CAL 10_00730
31	CCB	22:25	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458327

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Nitrate Nitrite as N	8.06	8.00	101	90-110		
			Orthophosphate as P	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrate	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrite	3.83	4.00	96	90-110		IC ICV 5_00233
9	ICB	19:27	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
21	CCV	22:44	Nitrate Nitrite as N	9.69	10.0	97	90-110		
			Orthophosphate as P	5.07	5.00	101	90-110		IC LCS_01576
			Nitrate	4.85	5.00	97	90-110		IC LCS_01576
			Nitrite	4.84	5.00	97	90-110		IC LCS_01576
22	CCB	23:01	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458328

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Bromide	4.36	4.00	109	90-110		IC ICV 5_00233
			Chloride	76.8	80.0	96	90-110		IC CL ICV_00016
			Fluoride	4.12	4.00	103	90-110		IC ICV 5_00233
			Sulfate	75.6	80.0	94	90-110		IC SO4 ICV_00017
9	ICB	19:27	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	
21	CCV	22:44	Bromide	4.91	5.00	98	90-110		IC LCS_01576
			Chloride	95.2	100	95	90-110		IC LCS_01576
			Fluoride	4.76	5.00	95	90-110		IC LCS_01576
			Sulfate	93.4	100	93	90-110		IC LCS_01576
22	CCB	23:01	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/05/2019

Reporting Units: mg/L Analytical Batch No.: 460796

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	15:35	Total Organic Carbon - Quad	20.5	20.0	102	90-110		TOC ICV Std_00037
2	ICB	15:51	Total Organic Carbon - Quad	0.50				U	
16	CCV	19:34	Total Organic Carbon - Quad	25.4	25.0	102	90-110		TOC ICV Std_00037
17	CCB	19:49	Total Organic Carbon - Quad	0.50				U	
26	CCV	22:26	Total Organic Carbon - Quad	25.3	25.0	101	90-110		TOC ICV Std_00037
27	CCB	22:43	Total Organic Carbon - Quad	0.50				U	
39	CCV	02:11	Total Organic Carbon - Quad	25.3	25.0	101	90-110		TOC ICV Std_00037
40	CCB	02:26	Total Organic Carbon - Quad	0.50				U	
51	CCV	05:26	Total Organic Carbon - Quad	25.5	25.0	102	90-110		TOC ICV Std_00037
52	CCB	05:41	Total Organic Carbon - Quad	0.50				U	
63	CCV	08:29	Total Organic Carbon - Quad	25.7	25.0	103	90-110		TOC ICV Std_00037
64	CCB	08:44	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Analyst: SGB Batch Start Date: 05/22/2019

Reporting Units: mg/L Analytical Batch No.: 459192

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	CCV	19:36	Alkalinity	196	200	98	90-110		Alk daily lcs 00821
17	CCB	19:41	Alkalinity	10				U	
28	CCV	20:54	Alkalinity	197	200	98	90-110		Alk daily lcs 00821
29	CCB	20:59	Alkalinity	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 459641 Date: 05/28/2019 10:36							
350.1	MB 280-459641/19	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 460322 Date: 06/03/2019 20:39 Prep Batch: 460066 Date: 05/31/2019 16:13							
351.2	MB 280-460066/2-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 458808 Date: 05/20/2019 12:23							
410.4	MB 280-458808/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 458327 Date: 05/15/2019 20:33							
9056A	MB 280-458327/13	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458327/13	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-458327/13	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458327/13	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458328 Date: 05/15/2019 20:33							
9056A	MB 280-458328/13	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458328/13	Chloride	3.0	U M	mg/L	3.0	1
9056A	MB 280-458328/13	Fluoride	0.10	U M	mg/L	1.0	1
9056A	MB 280-458328/13	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 460796 Date: 06/05/2019 16:38							
9060A	MB 280-460796/5	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 460796 Date: 06/06/2019 01:22							
9060A	MB 280-460796/36	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 460486 Date: 06/04/2019 21:46 Prep Batch: 460448 Date: 06/04/2019 16:52							
9066	MB 280-460448/2-A	Phenols, Total	0.020	U	mg/L	0.020	1
Batch ID: 458350 Date: 05/15/2019 22:55							
SM 2120B	MB 280-458350/1	Color	5.0	U	PCU	5.0	1
Batch ID: 459192 Date: 05/22/2019 18:31							
SM 2320B	MB 280-459192/5	Alkalinity	10	U	mg/L	10	1
Batch ID: 459282 Date: 05/23/2019 18:59							
SM 2340C	MB 280-459282/2	Hardness	0.81	U	mg/L	3.0	1
Batch ID: 458569 Date: 05/17/2019 11:38							
SM 2540C	MB 280-458569/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 458814 Date: 05/20/2019 14:08							
SM 2540C	MB 280-458814/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 458314 Date: 05/15/2019 15:45							
SM5210B	MB 280-458314/4	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
UNSEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458314 Date: 05/15/2019 15:45							
SM5210B	USB 280-458314/2	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

FORM III-IN

3-IN
SEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458314 Date: 05/15/2019 15:45							
SM5210B	SCB 280-458314/1	Biochemical Oxygen Demand	0.630	J	mg/L	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459641 Date: 05/28/2019 10:40											
350.1	280-123814-1	Ammonia	0.050	U	mg/L						
350.1	280-123814-1 MS	Ammonia	1.07		mg/L	1.00	107	90-110			
Batch ID: 460322 Date: 06/03/2019 20:42 Prep Batch: 460066 Date: 05/31/2019 16:13											
351.2	280-123776-B-1-B	Nitrogen, Kjeldahl	0.50	U	mg/L						J1
351.2	280-123776-B-1-B MS	Nitrogen, Kjeldahl	1.99		mg/L	3.00	66	90-110			J1
Batch ID: 458808 Date: 05/20/2019 12:23											
410.4	280-123476-D-3	Chemical Oxygen Demand (COD)	11	J	mg/L						J1
410.4	280-123476-D-3 MS	Chemical Oxygen Demand (COD)	62.0		mg/L	50.0	101	90-110			
Batch ID: 458327 Date: 05/15/2019 22:11											
9056A	280-123814-3	Nitrate Nitrite as N	0.090	J	mg/L						
9056A	280-123814-3 MS	Nitrate Nitrite as N	9.91		mg/L	10.0	98	80-120			
9056A	280-123814-3	Orthophosphate as P	0.32	J	mg/L						J1
9056A	280-123814-3 MS	Orthophosphate as P	7.80		mg/L	5.00	150	80-116			J1
9056A	280-123814-3	Nitrate	0.090	J	mg/L						
9056A	280-123814-3 MS	Nitrate	5.04		mg/L	5.00	99	88-111			
9056A	280-123814-3	Nitrite	0.10	U	mg/L						
9056A	280-123814-3 MS	Nitrite	4.87		mg/L	5.00	97	87-111			
Batch ID: 458328 Date: 05/15/2019 22:11											
9056A	280-123814-3	Bromide	0.20	U	mg/L						
9056A	280-123814-3 MS	Bromide	5.20		mg/L	5.00	104	91-110			
9056A	280-123814-3	Chloride	1.8	J	mg/L						J1
9056A	280-123814-3 MS	Chloride	22.5		mg/L	25.0	83	87-111			J1
9056A	280-123814-3	Fluoride	0.10	U	mg/L						
9056A	280-123814-3 MS	Fluoride	5.07		mg/L	5.00	101	88-112			
9056A	280-123814-3	Sulfate	5.4		mg/L						J1
9056A	280-123814-3 MS	Sulfate	26.7		mg/L	25.0	85	87-112			J1
Batch ID: 460796 Date: 06/05/2019 17:32											
9060A	280-123712-B-1	Total Organic Carbon - Quad	2100		mg/L						
9060A	280-123712-B-1 MS	Total Organic Carbon - Quad	4510		mg/L	2500	97	88-112			
Batch ID: 460486 Date: 06/04/2019 21:52 Prep Batch: 460448 Date: 06/04/2019 16:52											
9066	280-123814-1	Phenols, Total	0.020	U	mg/L						
9066	280-123814-1 MS	Phenols, Total	0.187		mg/L	0.201	93	72-118			
Batch ID: 459282 Date: 05/23/2019 18:59											
SM 2340C	280-123639-E-1	Hardness	230		mg/L						

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
SM 2340C	280-123639-E-1 MS	Hardness	642		mg/L	398	103	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459641 Date: 05/28/2019 10:42											
350.1	280-123814-1 MSD	Ammonia	1.08		mg/L	1.00	108	90-110	1	10	
Batch ID: 460322 Date: 06/03/2019 20:43 Prep Batch: 460066 Date: 05/31/2019 16:13											
351.2	280-123776-B-1-C MSD	Nitrogen, Kjeldahl	2.25		mg/L	3.00	75	90-110	12	25	J1
Batch ID: 458808 Date: 05/20/2019 12:23											
410.4	280-123476-D-3 MSD	Chemical Oxygen Demand (COD)	62.0		mg/L	50.0	101	90-110	0	11	
Batch ID: 458327 Date: 05/15/2019 22:28											
9056A	280-123814-3 MSD	Nitrate Nitrite as N	10.0		mg/L	10.0	100	80-120	1	10	
9056A	280-123814-3 MSD	Orthophosphate as P	7.89		mg/L	5.00	151	80-116	1	10	J1
9056A	280-123814-3 MSD	Nitrate	5.10		mg/L	5.00	100	88-111	1	10	
9056A	280-123814-3 MSD	Nitrite	4.94		mg/L	5.00	99	87-111	1	10	
Batch ID: 458328 Date: 05/15/2019 22:28											
9056A	280-123814-3 MSD	Bromide	5.28		mg/L	5.00	106	91-110	1	10	
9056A	280-123814-3 MSD	Chloride	22.8		mg/L	25.0	84	87-111	1	10	J1
9056A	280-123814-3 MSD	Fluoride	5.14		mg/L	5.00	103	88-112	1	10	
9056A	280-123814-3 MSD	Sulfate	27.1		mg/L	25.0	87	87-112	2	10	
Batch ID: 460796 Date: 06/05/2019 17:47											
9060A	280-123712-B-1 MSD	Total Organic Carbon - Quad	4560		mg/L	2500	99	88-112	1	15	
Batch ID: 460486 Date: 06/04/2019 21:55 Prep Batch: 460448 Date: 06/04/2019 16:52											
9066	280-123814-1 MSD	Phenols, Total	0.189		mg/L	0.201	94	72-118	1	16	
Batch ID: 459282 Date: 05/23/2019 18:59											
SM 2340C	280-123639-E-1 MSD	Hardness	627		mg/L	398	99	90-110	2	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 458327 Date: 05/15/2019 21:55								
9056A	LF5MW-5_0519-a	280-123814-3	Nitrate Nitrite as N	0.090	mg/L			J
9056A	LF5MW-5_0519-a	280-123814-3 DU	Nitrate Nitrite as N	0.0839	mg/L	7	10	J
9056A	LF5MW-5_0519-a	280-123814-3	Orthophosphate as P	0.32	mg/L			J
9056A	LF5MW-5_0519-a	280-123814-3 DU	Orthophosphate as P	0.316	mg/L	0.6	10	J
9056A	LF5MW-5_0519-a	280-123814-3	Nitrate	0.090	mg/L			J
9056A	LF5MW-5_0519-a	280-123814-3 DU	Nitrate	0.0839	mg/L	7	10	J
9056A	LF5MW-5_0519-a	280-123814-3	Nitrite	0.10	mg/L			U
9056A	LF5MW-5_0519-a	280-123814-3 DU	Nitrite	0.10	mg/L	NC	10	U
Batch ID: 458328 Date: 05/15/2019 21:55								
9056A	LF5MW-5_0519-a	280-123814-3	Bromide	0.20	mg/L			U
9056A	LF5MW-5_0519-a	280-123814-3 DU	Bromide	0.208	mg/L	NC	10	J
9056A	LF5MW-5_0519-a	280-123814-3	Chloride	1.8	mg/L			J
9056A	LF5MW-5_0519-a	280-123814-3 DU	Chloride	1.82	mg/L	0.5	10	J M
9056A	LF5MW-5_0519-a	280-123814-3	Fluoride	0.10	mg/L			U
9056A	LF5MW-5_0519-a	280-123814-3 DU	Fluoride	0.10	mg/L	NC	10	U
9056A	LF5MW-5_0519-a	280-123814-3	Sulfate	5.4	mg/L			
9056A	LF5MW-5_0519-a	280-123814-3 DU	Sulfate	5.41	mg/L	0.2	10	
Batch ID: 458350 Date: 05/15/2019 22:55								
SM 2120B	LF5MW-3_0519	280-123814-1	Color	100	PCU			
SM 2120B	LF5MW-3_0519	280-123814-1 DU	Color	100	PCU	0	20	D
Batch ID: 459192 Date: 05/22/2019 18:42								
SM 2320B		280-123715-B-4	Alkalinity	96	mg/L			
SM 2320B		280-123715-B-4 DU	Alkalinity	97.5	mg/L	2	10	
Batch ID: 458569 Date: 05/17/2019 11:38								
SM 2540C		280-123912-C-1	Total Dissolved Solids (TDS)	1200	mg/L			
SM 2540C		280-123912-C-1 DU	Total Dissolved Solids (TDS)	1170	mg/L	1	10	
Batch ID: 458814 Date: 05/20/2019 14:08								
SM 2540C	LF5MW-3_0519	280-123814-1	Total Dissolved Solids (TDS)	610	mg/L			
SM 2540C	LF5MW-3_0519	280-123814-1 DU	Total Dissolved Solids (TDS)	597	mg/L	2	10	
Batch ID: 458314 Date: 05/15/2019 15:46								
SM5210B		280-123815-A-1	Biochemical Oxygen Demand	0.59	mg/L			U
SM5210B		280-123815-A-1 DU	Biochemical Oxygen Demand	0.59	mg/L	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459641	Date: 05/28/2019 10:34										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-459641/18	Ammonia	2.57		mg/L	2.50	103	90-110			
Batch ID: 460322	Date: 06/03/2019 21:32	Prep Batch: 460066	Date: 05/31/2019 16:13								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460066/27-A	Nitrogen, Kjeldahl	276		mg/L	288	96	90-110			
Batch ID: 458808	Date: 05/20/2019 12:23										
						LCS Source: COD cal std_00048					
410.4	LCS 280-458808/3	Chemical Oxygen Demand (COD)	99.0		mg/L	100	99	90-110	10	11	
Batch ID: 458327	Date: 05/15/2019 20:00										
						LCS Source:					
9056A	LCS 280-458327/11	Nitrate Nitrite as N	9.65		mg/L	10.0	97	80-120	0	10	
						LCS Source: IC LCS_01576					
9056A	LCS 280-458327/11	Orthophosphate as P	4.88		mg/L	5.00	98	80-116	0	10	
9056A	LCS 280-458327/11	Nitrate	4.81		mg/L	5.00	96	88-111	0	10	
9056A	LCS 280-458327/11	Nitrite	4.84		mg/L	5.00	97	87-111	0	10	
Batch ID: 458328	Date: 05/15/2019 20:00										
						LCS Source: IC LCS_01576					
9056A	LCS 280-458328/11	Bromide	4.90		mg/L	5.00	98	91-110	0	10	
9056A	LCS 280-458328/11	Chloride	95.0		mg/L	100	95	87-111	0	10	
9056A	LCS 280-458328/11	Fluoride	4.74		mg/L	5.00	95	88-112	1	10	
9056A	LCS 280-458328/11	Sulfate	93.4		mg/L	100	93	87-112	0	10	
Batch ID: 460796	Date: 06/05/2019 16:06										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-460796/3	Total Organic Carbon - Quad	24.7		mg/L	25.0	99	88-112	1	15	
Batch ID: 460796	Date: 06/06/2019 00:53										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-460796/34	Total Organic Carbon - Quad	24.5		mg/L	25.0	98	88-112	0	15	
Batch ID: 460486	Date: 06/04/2019 21:43	Prep Batch: 460448	Date: 06/04/2019 16:52								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460448/1-A	Phenols, Total	0.181		mg/L	0.201	90	90-110			
Batch ID: 459192	Date: 05/22/2019 18:26										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459192/4	Alkalinity	196		mg/L	200	98	89-109			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459282	Date: 05/23/2019 18:59										
						LCS Source: Hard lcs std_00050					
SM 2340C	LCS 280-459282/1	Hardness	395		mg/L	398	99	90-110			
Batch ID: 458569	Date: 05/17/2019 11:38										
						LCS Source: TDS LCS_00537_00054					
SM 2540C	LCS 280-458569/2	Total Dissolved Solids (TDS)	514		mg/L	500	103	93-110	5	20	
Batch ID: 458814	Date: 05/20/2019 14:08										
						LCS Source: TDS LCS_00537_00054					
SM 2540C	LCS 280-458814/2	Total Dissolved Solids (TDS)	492		mg/L	500	98	93-110			
Batch ID: 458314	Date: 05/15/2019 15:45										
						LCS Source: BOD Std_00001_00046					
SM5210B	LCS 280-458314/3	Biochemical Oxygen Demand	196		mg/L	198	99	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458808	Date: 05/20/2019 12:23										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-458808/4	Chemical Oxygen Demand (COD)	109		mg/L	100	109	90-110	10	11	
Batch ID: 458327	Date: 05/15/2019 20:16										
						LCSD Source:					
9056A	LCSD 280-458327/12	Nitrate Nitrite as N	9.65		mg/L	10.0	97	80-120	0	10	
						LCSD Source: IC LCS_01576					
9056A	LCSD 280-458327/12	Orthophosphate as P	4.89		mg/L	5.00	98	80-116	0	10	
9056A	LCSD 280-458327/12	Nitrate	4.81		mg/L	5.00	96	88-111	0	10	
9056A	LCSD 280-458327/12	Nitrite	4.84		mg/L	5.00	97	87-111	0	10	
Batch ID: 458328	Date: 05/15/2019 20:16										
						LCSD Source: IC LCS_01576					
9056A	LCSD 280-458328/12	Bromide	4.90		mg/L	5.00	98	91-110	0	10	
9056A	LCSD 280-458328/12	Chloride	95.1		mg/L	100	95	87-111	0	10	
9056A	LCSD 280-458328/12	Fluoride	4.76		mg/L	5.00	95	88-112	1	10	
9056A	LCSD 280-458328/12	Sulfate	93.4		mg/L	100	93	87-112	0	10	
Batch ID: 460796	Date: 06/05/2019 16:21										
						LCSD Source: TOC LCS Std_00046					
9060A	LCSD 280-460796/4	Total Organic Carbon - Quad	24.8		mg/L	25.0	99	88-112	1	15	
Batch ID: 460796	Date: 06/06/2019 01:08										
						LCSD Source: TOC LCS Std_00046					
9060A	LCSD 280-460796/35	Total Organic Carbon - Quad	24.6		mg/L	25.0	98	88-112	0	15	
Batch ID: 458569	Date: 05/17/2019 11:38										
						LCSD Source: TDS LCS_00537_00054					
SM 2540C	LCSD 280-458569/3	Total Dissolved Solids (TDS)	491		mg/L	500	98	93-110	5	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458327	Date: 05/15/2019 19:43										
						LCS Source:					
9056A	MRL 280-458327/10	Nitrate Nitrite as N	0.432	J	mg/L	0.400	108	50-150			
						LCS Source: IC Cal low_00458					
9056A	MRL 280-458327/10	Orthophosphate as P	0.192	J	mg/L	0.200	96	50-150			
9056A	MRL 280-458327/10	Nitrate	0.221	J	mg/L	0.200	111	50-150			
9056A	MRL 280-458327/10	Nitrite	0.211	J	mg/L	0.200	106	50-150			
Batch ID: 458328	Date: 05/15/2019 19:43										
						LCS Source: IC CAL cl/so4_00256					
9056A	MRL 280-458328/10	Chloride	2.30	J	mg/L	2.50	92	50-150			M
9056A	MRL 280-458328/10	Sulfate	2.35	J	mg/L	2.50	94	50-150			
						LCS Source: IC Cal low_00458					
9056A	MRL 280-458328/10	Bromide	0.206	J	mg/L	0.200	103	50-150			
9056A	MRL 280-458328/10	Fluoride	0.180	J	mg/L	0.200	90	50-150			M

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 DL Date: 02/03/2019 00:00

Prep Method: Distill/Phenol

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (PCU)	
Color		5	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B XRL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (PCU)	
Color		5	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Hardness		3	0.3

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness		3	0.3

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.06
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.0597
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A DL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A XMDL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		10	3.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B DL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Biochemical Oxygen Demand		2	0.236

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123814-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B XMDL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Biochemical Oxygen Demand		2	0.236

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-460066/2-A	05/31/2019 16:13	460066		25	25
280-123776-B-1-B MS	05/31/2019 16:13	460066		25	25
280-123776-B-1-C MSD	05/31/2019 16:13	460066		25	25
280-123814-1	05/31/2019 16:13	460066		25	25
280-123814-2	05/31/2019 16:13	460066		25	25
280-123814-3	05/31/2019 16:13	460066		25	25
LCS 280-460066/27-A	05/31/2019 16:13	460066		0.52	25

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460448/1-A	06/04/2019 16:52	460448		50	50
MB 280-460448/2-A	06/04/2019 16:52	460448		50	50
280-123814-1	06/04/2019 16:52	460448		50	50
280-123814-1 MS	06/04/2019 16:52	460448		50	50
280-123814-1 MSD	06/04/2019 16:52	460448		50	50
280-123814-2	06/04/2019 16:52	460448		50	50
280-123814-3	06/04/2019 16:52	460448		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/28/2019 10:00 End Date: 05/28/2019 13:36

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			10:00																									
ZZZZZZ			10:02																									
ZZZZZZ			10:04																									
IC 280-459641/4			10:06	X																								
IC 280-459641/5			10:08	X																								
IC 280-459641/6			10:10	X																								
IC 280-459641/7			10:12	X																								
IC 280-459641/8			10:14	X																								
IC 280-459641/9			10:16	X																								
IC 280-459641/10			10:18	X																								
IC 280-459641/11			10:20	X																								
ZZZZZZ			10:22																									
ZZZZZZ			10:24																									
ICVL 280-459641/14	1		10:26	X																								
ICV 280-459641/15	1		10:28	X																								
ICB 280-459641/16	1		10:30	X																								
ZZZZZZ			10:32																									
LCS 280-459641/18	1	T	10:34	X																								
MB 280-459641/19	1	T	10:36	X																								
280-123814-1	1	T	10:38	X																								
280-123814-1 MS	1	T	10:40	X																								
280-123814-1 MSD	1	T	10:42	X																								
280-123814-2	1	T	10:44	X																								
280-123814-3	1	T	10:46	X																								
ZZZZZZ			10:48																									
ZZZZZZ			10:50																									
ZZZZZZ			10:52																									
ZZZZZZ			10:54																									
ZZZZZZ			10:56																									
RINSE 280-459641/30			10:58																									
ZZZZZZ			11:00																									
CCVL 280-459641/32	1		11:02	X																								
CCV 280-459641/33	1		11:04	X																								
CCB 280-459641/34	1		11:06	X																								
ZZZZZZ			11:08																									
ZZZZZZ			11:10																									
ZZZZZZ			11:12																									
ZZZZZZ			11:14																									
ZZZZZZ			11:16																									
ZZZZZZ			11:18																									
ZZZZZZ			11:20																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/28/2019 10:00 End Date: 05/28/2019 13:36

Lab Sample Id	D/F	Type	Time	Analytes																									
				NH3																									
ZZZZZZ			11:22																										
ZZZZZZ			11:24																										
ZZZZZZ			11:26																										
ZZZZZZ			11:28																										
RINSE 280-459641/46			11:30																										
ZZZZZZ			11:32																										
CCVL 280-459641/48			11:34																										
CCV 280-459641/49			11:36																										
CCB 280-459641/50			11:38																										
ZZZZZZ			11:40																										
ZZZZZZ			11:42																										
ZZZZZZ			11:44																										
ZZZZZZ			11:46																										
ZZZZZZ			11:48																										
RINSE 280-459641/56			11:50																										
ZZZZZZ			11:52																										
CCVL 280-459641/58			11:54																										
CCV 280-459641/59			11:56																										
CCB 280-459641/60			11:58																										
ZZZZZZ			12:00																										
ZZZZZZ			12:02																										
ZZZZZZ			12:04																										
ZZZZZZ			12:06																										
ZZZZZZ			12:08																										
ZZZZZZ			12:10																										
ZZZZZZ			12:12																										
ZZZZZZ			12:14																										
ZZZZZZ			12:16																										
ZZZZZZ			12:18																										
ZZZZZZ			12:20																										
ZZZZZZ			12:22																										
ZZZZZZ			12:24																										
RINSE 280-459641/74			12:26																										
ZZZZZZ			12:28																										
CCVL 280-459641/76			12:30																										
CCV 280-459641/77			12:32																										
CCB 280-459641/78			12:34																										
ZZZZZZ			12:36																										
ZZZZZZ			12:38																										
ZZZZZZ			12:40																										
ZZZZZZ			12:42																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/28/2019 10:00 End Date: 05/28/2019 13:36

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			12:44																									
ZZZZZZ			12:46																									
ZZZZZZ			12:48																									
ZZZZZZ			12:50																									
ZZZZZZ			12:52																									
ZZZZZZ			12:54																									
ZZZZZZ			12:56																									
RINSE 280-459641/90			12:58																									
ZZZZZZ			13:00																									
CCVL 280-459641/92			13:02																									
CCV 280-459641/93			13:04																									
CCB 280-459641/94			13:06																									
ZZZZZZ			13:08																									
ZZZZZZ			13:10																									
ZZZZZZ			13:12																									
ZZZZZZ			13:14																									
ZZZZZZ			13:16																									
RINSE 280-459641/100			13:18																									
ZZZZZZ			13:20																									
CCVL 280-459641/102			13:22																									
CCV 280-459641/103			13:24																									
CCB 280-459641/104			13:26																									
ZZZZZZ			13:28																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/03/2019 19:51 End Date: 06/03/2019 22:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			19:51																									
ZZZZZZ			19:52																									
ZZZZZZ			19:53																									
ZZZZZZ			19:54																									
IC 280-460066/36-A			19:55	X																								
IC 280-460066/37-A			19:57	X																								
IC 280-460066/38-A			19:58	X																								
IC 280-460066/39-A			19:59	X																								
IC 280-460066/40-A			20:00	X																								
IC 280-460066/41-A			20:02	X																								
ZZZZZZ			20:03																									
ZZZZZZ			20:04																									
ICV 280-460066/42-A	1		20:05	X																								
ICB 280-460066/43-A	1		20:07	X																								
ZZZZZZ			20:08																									
ZZZZZZ			20:09																									
ZZZZZZ			20:10																									
ZZZZZZ			20:12																									
ZZZZZZ			20:13																									
ZZZZZZ			20:14																									
ZZZZZZ			20:15																									
ZZZZZZ			20:17																									
ZZZZZZ			20:18																									
ZZZZZZ			20:19																									
ZZZZZZ			20:20																									
ZZZZZZ			20:22																									
ZZZZZZ			20:23																									
ZZZZZZ			20:24																									
ZZZZZZ			20:25																									
ZZZZZZ			20:27																									
CCV 280-460066/44-A	1		20:28	X																								
CCB 280-460066/45-A	1		20:29	X																								
ZZZZZZ			20:30																									
ZZZZZZ			20:32																									
ZZZZZZ			20:33																									
ZZZZZZ			20:34																									
ZZZZZZ			20:35																									
ZZZZZZ			20:37																									
ZZZZZZ			20:38																									
MB 280-460066/2-A	1	T	20:39	X																								
ZZZZZZ			20:40																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/03/2019 19:51 End Date: 06/03/2019 22:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
280-123776-B-1-B MS	1	T	20:42	X																								
280-123776-B-1-C MSD	1	T	20:43	X																								
ZZZZZZ			20:44																									
ZZZZZZ			20:45																									
ZZZZZZ			20:47																									
ZZZZZZ			20:48																									
ZZZZZZ			20:49																									
ZZZZZZ			20:50																									
CCV 280-460066/44-A	1		20:52	X																								
CCB 280-460066/45-A	1		20:53	X																								
ZZZZZZ			20:54																									
280-123814-1	1	T	20:55	X																								
280-123814-2	1	T	20:57	X																								
280-123814-3	1	T	20:58	X																								
ZZZZZZ			20:59																									
ZZZZZZ			21:00																									
ZZZZZZ			21:02																									
ZZZZZZ			21:03																									
ZZZZZZ			21:04																									
ZZZZZZ			21:05																									
ZZZZZZ			21:07																									
ZZZZZZ			21:08																									
ZZZZZZ			21:09																									
CCV 280-460066/44-A	1		21:10	X																								
CCB 280-460066/45-A	1		21:12	X																								
ZZZZZZ			21:13																									
ZZZZZZ			21:14																									
ZZZZZZ			21:15																									
ZZZZZZ			21:17																									
ZZZZZZ			21:18																									
ZZZZZZ			21:19																									
ZZZZZZ			21:20																									
ZZZZZZ			21:22																									
ZZZZZZ			21:23																									
ZZZZZZ			21:24																									
ZZZZZZ			21:25																									
ZZZZZZ			21:27																									
ZZZZZZ			21:28																									
CCV 280-460066/44-A	1		21:29	X																								
CCB 280-460066/45-A	1		21:30	X																								
LCS 280-460066/27-A	1	T	21:32	X																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/03/2019 19:51 End Date: 06/03/2019 22:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			21:33																									
ZZZZZZ			21:34																									
ZZZZZZ			21:35																									
ZZZZZZ			21:37																									
ZZZZZZ			21:38																									
ZZZZZZ			21:39																									
ZZZZZZ			21:40																									
ZZZZZZ			21:42																									
ZZZZZZ			21:43																									
ZZZZZZ			21:44																									
ZZZZZZ			21:45																									
ZZZZZZ			21:47																									
ZZZZZZ			21:48																									
ZZZZZZ			21:49																									
ZZZZZZ			21:50																									
CCV 280-460066/44-A	1		21:52	X																								
CCB 280-460066/45-A	1		21:53	X																								
ZZZZZZ			21:54																									
ZZZZZZ			21:55																									
ZZZZZZ			21:57																									
ZZZZZZ			21:58																									
CCV 280-460066/44-A			21:59																									
CCB 280-460066/45-A			22:00																									
ZZZZZZ			22:02																									
ZZZZZZ			22:03																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 05/20/2019 12:23 End Date: 05/20/2019 12:23

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-458808/1	1		12:23	X																								
ICB 280-458808/2	1		12:23	X																								
LCS 280-458808/3	1	T	12:23	X																								
LCSD 280-458808/4	1	T	12:23	X																								
MB 280-458808/5	1	T	12:23	X																								
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
CCV 280-458808/16	1		12:23	X																								
CCB 280-458808/17	1		12:23	X																								
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
280-123476-D-3 MS	1	T	12:23	X																								
280-123476-D-3 MSD	1	T	12:23	X																								
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
280-123814-1	1	T	12:23	X																								
CCV 280-458808/28	1		12:23	X																								
CCB 280-458808/29	1		12:23	X																								
280-123814-2	1	T	12:23	X																								
280-123814-3	1	T	12:23	X																								
ZZZZZZ			12:23																									
ZZZZZZ			12:23																									
CCV 280-458808/34	1		12:23	X																								
CCB 280-458808/35	1		12:23	X																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/04/2019 20:55 End Date: 06/05/2019 01:52

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			20:55	
ZZZZZZ			20:58	
ZZZZZZ			21:01	
ZZZZZZ			21:04	
IC 280-460486/5			21:07	X
IC 280-460486/6			21:10	X
IC 280-460486/7			21:13	X
IC 280-460486/8			21:16	X
IC 280-460486/9			21:19	X
IC 280-460486/10			21:22	X
ZZZZZZ			21:25	
ZZZZZZ			21:28	
ICV 280-460486/13	1		21:31	X
ICVL 280-460486/14	1		21:34	X
ICB 280-460486/15	1		21:37	X
ZZZZZZ			21:40	
LCS 280-460448/1-A	1	T	21:43	X
MB 280-460448/2-A	1	T	21:46	X
280-123814-1	1	T	21:49	X
280-123814-1 MS	1	T	21:52	X
280-123814-1 MSD	1	T	21:55	X
280-123814-2	1	T	21:58	X
280-123814-3	1	T	22:01	X
ZZZZZZ			22:04	
ZZZZZZ			22:07	
ZZZZZZ			22:10	
ZZZZZZ			22:13	
ZZZZZZ			22:16	
CCV 280-460486/29	1		22:19	X
CCVL 280-460486/30	1		22:22	X
CCB 280-460486/31	1		22:25	X
ZZZZZZ			22:28	
ZZZZZZ			22:31	
ZZZZZZ			22:34	
ZZZZZZ			22:37	
ZZZZZZ			22:40	
ZZZZZZ			22:43	
ZZZZZZ			22:46	
ZZZZZZ			22:49	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/04/2019 20:55 End Date: 06/05/2019 01:52

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			22:52	
ZZZZZZ			22:55	
ZZZZZZ			22:58	
ZZZZZZ			23:01	
ZZZZZZ			23:04	
CCV 280-460486/45			23:07	
CCVL 280-460486/46			23:10	
CCB 280-460486/47			23:13	
ZZZZZZ			23:16	
ZZZZZZ			23:19	
ZZZZZZ			23:22	
ZZZZZZ			23:41	
ZZZZZZ			23:44	
ZZZZZZ			23:47	
ZZZZZZ			23:50	
ZZZZZZ			23:53	
ZZZZZZ			23:56	
ZZZZZZ			23:59	
ZZZZZZ			00:02	
ZZZZZZ			00:05	
ZZZZZZ			00:08	
CCV 280-460486/61			00:11	
CCVL 280-460486/62			00:14	
CCB 280-460486/63			00:17	
ZZZZZZ			00:20	
ZZZZZZ			00:23	
ZZZZZZ			00:26	
ZZZZZZ			00:29	
ZZZZZZ			00:32	
ZZZZZZ			00:35	
ZZZZZZ			00:38	
ZZZZZZ			00:41	
ZZZZZZ			00:44	
ZZZZZZ			00:47	
ZZZZZZ			00:50	
ZZZZZZ			00:53	
ZZZZZZ			00:56	
CCV 280-460486/77			00:59	
CCVL 280-460486/78			01:02	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/04/2019 20:55 End Date: 06/05/2019 01:52

Lab Sample Id	D/F	Type	Time	Analytes																									
				PhenT																									
CCB 280-460486/79			01:05																										
ZZZZZZ			01:08																										
ZZZZZZ			01:11																										
ZZZZZZ			01:14																										
ZZZZZZ			01:17																										
ZZZZZZ			01:20																										
ZZZZZZ			01:23																										
ZZZZZZ			01:26																										
ZZZZZZ			01:31																										
ZZZZZZ			01:34																										
ZZZZZZ			01:37																										
ZZZZZZ			01:40																										
CCV 280-460486/91			01:43																										
CCVL 280-460486/92			01:46																										
CCB 280-460486/93			01:49																										
ZZZZZZ			01:52																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2120B

Start Date: 05/15/2019 22:55 End Date: 05/15/2019 22:57

Lab Sample Id	D/F	Type	Time	Analytes																								
				Color																								
MB 280-458350/1	1	T	22:55	X																								
280-123814-1	5	T	22:55	X																								
280-123814-1 DU	5	T	22:55	X																								
280-123814-2	5	T	22:55	X																								
280-123814-3	5	T	22:57	X																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340C

Start Date: 05/23/2019 18:59 End Date: 05/23/2019 18:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
LCS 280-459282/1	1	T	18:59	X																								
MB 280-459282/2	1	T	18:59	X																								
ZZZZZZ			18:59																									
280-123639-E-1 MS	1	T	18:59	X																								
280-123639-E-1 MSD	1	T	18:59	X																								
ZZZZZZ			18:59																									
ZZZZZZ			18:59																									
ZZZZZZ			18:59																									
ZZZZZZ			18:59																									
ZZZZZZ			18:59																									
ZZZZZZ			18:59																									
ZZZZZZ			18:59																									
280-123814-1	1	T	18:59	X																								
280-123814-2	1	T	18:59	X																								
280-123814-3	1	T	18:59	X																								
ZZZZZZ			18:59																									
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ZZZZZZ			18:59																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
RTC 280-458327/1			17:16																											
STD 280-458327/2 IC	1		17:32	X	X	X	X																							
STD 280-458327/3 IC	1		17:49	X	X	X	X																							
STD 280-458327/4 IC	1		18:05	X	X	X	X																							
STD 280-458327/5 IC	1		18:21	X	X	X	X																							
STD 280-458327/6 IC	1		18:38	X	X	X	X																							
STD 280-458327/7 IC	1		18:54	X	X	X	X																							
ICV 280-458327/8	1		19:11	X	X	X	X																							
ICB 280-458327/9	1		19:27	X	X	X	X																							
MRL 280-458327/10	1	T	19:43	X	X	X	X																							
LCS 280-458327/11	1	T	20:00	X	X	X	X																							
LCSD 280-458327/12	1	T	20:16	X	X	X	X																							
MB 280-458327/13	1	T	20:33	X	X	X	X																							
280-123814-1	1	T	20:49	X	X	X	X																							
ZZZZZZ			21:06																											
280-123814-2	1	T	21:22	X	X	X	X																							
280-123814-3	1	T	21:38	X	X	X	X																							
280-123814-3 DU	1	T	21:55	X	X	X	X																							
280-123814-3 MS	1	T	22:11	X	X	X	X																							
280-123814-3 MSD	1	T	22:28	X	X	X	X																							
CCV 280-458327/21	1		22:44	X	X	X	X																							
CCB 280-458327/22	1		23:01	X	X	X	X																							
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:50																											
ZZZZZZ			00:06																											
ZZZZZZ			00:23																											
ZZZZZZ			00:39																											
ZZZZZZ			00:55																											
ZZZZZZ			01:12																											
ZZZZZZ			01:28																											
ZZZZZZ			01:45																											
CCV 280-458327/33			02:01																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCB 280-458327/34			02:17																											
ZZZZZZ			02:34																											
ZZZZZZ			02:50																											
ZZZZZZ			03:07																											
ZZZZZZ			03:23																											
ZZZZZZ			03:40																											
ZZZZZZ			03:56																											
ZZZZZZ			04:12																											
ZZZZZZ			04:29																											
ZZZZZZ			04:45																											
ZZZZZZ			05:02																											
CCV 280-458327/45			05:18																											
CCB 280-458327/46			05:34																											
ZZZZZZ			05:51																											
ZZZZZZ			06:07																											
ZZZZZZ			06:24																											
ZZZZZZ			08:25																											
ZZZZZZ			08:41																											
ZZZZZZ			08:57																											
ZZZZZZ			09:14																											
ZZZZZZ			09:30																											
ZZZZZZ			09:47																											
ZZZZZZ			10:03																											
CCV 280-458327/57			10:19																											
CCB 280-458327/58			10:36																											
ZZZZZZ			10:52																											
ZZZZZZ			11:09																											
ZZZZZZ			11:25																											
ZZZZZZ			11:42																											
ZZZZZZ			11:58																											
ZZZZZZ			12:14																											
ZZZZZZ			12:31																											
ZZZZZZ			12:47																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				NNO32	NO2-N	NO3	Orthophosasp																						
CCV 280-458327/67			13:04																										
CCB 280-458327/68			13:20																										

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	F	SO4																							
RTC 280-458328/1			17:16																											
STD 280-458328/2 IC	1		17:32	X	X	X	X																							
STD 280-458328/3 IC	1		17:49	X	X	X	X																							
STD 280-458328/4 IC	1		18:05	X	X	X	X																							
STD 280-458328/5 IC	1		18:21	X	X	X	X																							
STD 280-458328/6 IC	1		18:38	X	X	X	X																							
STD 280-458328/7 IC	1		18:54	X	X	X	X																							
ICV 280-458328/8	1		19:11	X	X	X	X																							
ICB 280-458328/9	1		19:27	X	X	X	X																							
MRL 280-458328/10	1	T	19:43	X	X	X	X																							
LCS 280-458328/11	1	T	20:00	X	X	X	X																							
LCSD 280-458328/12	1	T	20:16	X	X	X	X																							
MB 280-458328/13	1	T	20:33	X	X	X	X																							
280-123814-1	1	T	20:49	X	X	X																								
280-123814-1	5	T	21:06				X																							
280-123814-2	1	T	21:22	X	X	X	X																							
280-123814-3	1	T	21:38	X	X	X	X																							
280-123814-3 DU	1	T	21:55	X	X	X	X																							
280-123814-3 MS	1	T	22:11	X	X	X	X																							
280-123814-3 MSD	1	T	22:28	X	X	X	X																							
CCV 280-458328/21	1		22:44	X	X	X	X																							
CCB 280-458328/22	1		23:01	X	X	X	X																							
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:50																											
ZZZZZZ			00:06																											
ZZZZZZ			00:23																											
ZZZZZZ			00:39																											
ZZZZZZ			00:55																											
ZZZZZZ			01:12																											
ZZZZZZ			01:28																											
ZZZZZZ			01:45																											
CCV 280-458328/33			02:01																											
CCB 280-458328/34			02:17																											
ZZZZZZ			02:34																											
ZZZZZZ			02:50																											
ZZZZZZ			03:56																											
ZZZZZZ			04:12																											
ZZZZZZ			04:29																											
ZZZZZZ			04:45																											
ZZZZZZ			05:02																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																						
CCV 280-458328/45			05:18																										
CCB 280-458328/46			05:34																										
ZZZZZZ			05:51																										
ZZZZZZ			06:07																										
ZZZZZZ			06:24																										
ZZZZZZ			08:25																										
ZZZZZZ			08:41																										
ZZZZZZ			08:57																										
ZZZZZZ			09:14																										
ZZZZZZ			09:30																										
ZZZZZZ			09:47																										
ZZZZZZ			10:03																										
CCV 280-458328/57			10:19																										
CCB 280-458328/58			10:36																										
ZZZZZZ			10:52																										
ZZZZZZ			11:09																										
ZZZZZZ			11:25																										
ZZZZZZ			11:42																										
ZZZZZZ			11:58																										
ZZZZZZ			12:14																										
ZZZZZZ			12:31																										
ZZZZZZ			12:47																										
CCV 280-458328/67			13:04																										
CCB 280-458328/68			13:20																										

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/05/2019 15:35 End Date: 06/06/2019 10:03

Lab Sample Id	D/F	Type	Time	Analytes
				TOCQ
ICV 280-460796/1	1		15:35	X
ICB 280-460796/2	1		15:51	X
LCS 280-460796/3	1	T	16:06	X
LCSD 280-460796/4	1	T	16:21	X
MB 280-460796/5	1	T	16:38	X
ZZZZZZ			16:56	
ZZZZZZ			17:13	
280-123712-B-1 MS	100	T	17:32	X
280-123712-B-1 MSD	100	T	17:47	X
ZZZZZZ			18:02	
ZZZZZZ			18:16	
ZZZZZZ			18:31	
ZZZZZZ			18:46	
ZZZZZZ			19:03	
ZZZZZZ			19:17	
CCV 280-460796/16	1		19:34	X
CCB 280-460796/17	1		19:49	X
ZZZZZZ			20:10	
ZZZZZZ			20:30	
ZZZZZZ			20:45	
ZZZZZZ			21:02	
ZZZZZZ			21:19	
ZZZZZZ			21:36	
ZZZZZZ			21:50	
ZZZZZZ			22:09	
CCV 280-460796/26	1		22:26	X
CCB 280-460796/27	1		22:43	X
ZZZZZZ			23:02	
ZZZZZZ			23:31	
ZZZZZZ			23:48	
ZZZZZZ			00:07	
ZZZZZZ			00:23	
ZZZZZZ			00:38	
LCS 280-460796/34	1	T	00:53	X
LCSD 280-460796/35	1	T	01:08	X
MB 280-460796/36	1	T	01:22	X
ZZZZZZ			01:37	
ZZZZZZ			01:56	
CCV 280-460796/39	1		02:11	X
CCB 280-460796/40	1		02:26	X

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/05/2019 15:35 End Date: 06/06/2019 10:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ZZZZZZ			02:42																										
ZZZZZZ			02:57																										
ZZZZZZ			03:14																										
ZZZZZZ			03:33																										
ZZZZZZ			03:47																										
ZZZZZZ			04:02																										
ZZZZZZ			04:21																										
ZZZZZZ			04:40																										
ZZZZZZ			04:54																										
ZZZZZZ			05:11																										
CCV 280-460796/51	1		05:26	X																									
CCB 280-460796/52	1		05:41	X																									
ZZZZZZ			05:55																										
280-123814-1	1	T	06:10	X																									
280-123814-2	1	T	06:25	X																									
280-123814-3	1	T	06:40	X																									
ZZZZZZ			06:58																										
ZZZZZZ			07:13																										
ZZZZZZ			07:28																										
ZZZZZZ			07:45																										
ZZZZZZ			07:59																										
ZZZZZZ			08:14																										
CCV 280-460796/63	1		08:29	X																									
CCB 280-460796/64	1		08:44	X																									
ZZZZZZ			08:59																										
ZZZZZZ			09:14																										
ZZZZZZ			09:31																										
CCV 280-460796/68			09:48																										
CCB 280-460796/69			10:03																										

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/22/2019 18:11 End Date: 05/23/2019 03:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-459192/1			18:11																									
ZZZZZZ			18:18																									
ZZZZZZ			18:19																									
LCS 280-459192/4	1	T	18:26	X																								
MB 280-459192/5	1	T	18:31	X																								
ZZZZZZ			18:36																									
280-123715-B-4 DU	1	T	18:42	X																								
ZZZZZZ			18:46																									
ZZZZZZ			18:52																									
ZZZZZZ			19:02																									
ZZZZZZ			19:06																									
ZZZZZZ			19:11																									
ZZZZZZ			19:17																									
ZZZZZZ			19:22																									
ZZZZZZ			19:31																									
CCV 280-459192/16	1		19:36	X																								
CCB 280-459192/17	1		19:41	X																								
ZZZZZZ			19:48																									
ZZZZZZ			19:54																									
ZZZZZZ			20:01																									
ZZZZZZ			20:07																									
280-123814-3	1	T	20:12	X																								
280-123814-1	1	T	20:18	X																								
280-123814-2	1	T	20:22	X																								
ZZZZZZ			20:30																									
ZZZZZZ			20:38																									
ZZZZZZ			20:48																									
CCV 280-459192/28	1		20:54	X																								
CCB 280-459192/29	1		20:59	X																								
ZZZZZZ			21:05																									
ZZZZZZ			21:10																									
ZZZZZZ			21:18																									
ZZZZZZ			21:28																									
ZZZZZZ			21:34																									
ZZZZZZ			21:42																									
ZZZZZZ			21:48																									
ZZZZZZ			21:55																									
ZZZZZZ			22:01																									
ZZZZZZ			22:08																									
ZZZZZZ			22:15																									
ZZZZZZ			22:23																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/22/2019 18:11 End Date: 05/23/2019 03:56

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
CCV 280-459192/42			22:30	
CCB 280-459192/43			22:34	
ZZZZZZ			22:42	
ZZZZZZ			22:48	
ZZZZZZ			22:56	
ZZZZZZ			23:05	
ZZZZZZ			23:13	
ZZZZZZ			23:19	
ZZZZZZ			23:26	
ZZZZZZ			23:32	
ZZZZZZ			23:35	
ZZZZZZ			23:42	
CCV 280-459192/54			23:48	
CCB 280-459192/55			23:53	
ZZZZZZ			23:58	
ZZZZZZ			00:04	
ZZZZZZ			00:10	
ZZZZZZ			00:16	
ZZZZZZ			00:22	
ZZZZZZ			00:30	
ZZZZZZ			00:36	
ZZZZZZ			00:42	
ZZZZZZ			00:47	
ZZZZZZ			00:55	
CCV 280-459192/66			01:01	
CCB 280-459192/67			01:06	
ZZZZZZ			01:11	
ZZZZZZ			01:16	
ZZZZZZ			01:22	
ZZZZZZ			01:26	
ZZZZZZ			01:33	
ZZZZZZ			01:39	
ZZZZZZ			01:45	
ZZZZZZ			01:51	
ZZZZZZ			01:56	
ZZZZZZ			02:02	
ZZZZZZ			02:08	
ZZZZZZ			02:16	
CCV 280-459192/80			02:21	
CCB 280-459192/81			02:24	
ZZZZZZ			02:30	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/22/2019 18:11 End Date: 05/23/2019 03:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			02:35																									
ZZZZZZ			02:39																									
ZZZZZZ			02:44																									
ZZZZZZ			02:52																									
ZZZZZZ			03:01																									
ZZZZZZ			03:08																									
ZZZZZZ			03:16																									
ZZZZZZ			03:22																									
ZZZZZZ			03:29																									
ZZZZZZ			03:37																									
ZZZZZZ			03:45																									
CCV 280-459192/94			03:51																									
CCB 280-459192/95			03:56																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/17/2019 11:38 End Date: 05/17/2019 11:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-458569/1	1	T	11:38	X																								
LCS 280-458569/2	1	T	11:38	X																								
LCSD 280-458569/3	1	T	11:38	X																								
ZZZZZZ			11:38																									
280-123912-C-1 DU	1	T	11:38	X																								
ZZZZZZ			11:38																									
ZZZZZZ			11:38																									
ZZZZZZ			11:38																									
ZZZZZZ			11:38																									
ZZZZZZ			11:38																									
280-123814-3	1	T	11:38	X																								
ZZZZZZ			11:38																									
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ZZZZZZ			11:38																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/20/2019 14:08 End Date: 05/20/2019 14:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-458814/1	1	T	14:08	X																								
LCS 280-458814/2	1	T	14:08	X																								
280-123814-1	1	T	14:08	X																								
280-123814-1 DU	1	T	14:08	X																								
280-123814-2	1	T	14:08	X																								
ZZZZZZ			14:08																									
ZZZZZZ			14:08																									
ZZZZZZ			14:08																									
ZZZZZZ			14:08																									
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ZZZZZZ			14:08																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM5210B

Start Date: 05/15/2019 15:45 End Date: 05/15/2019 18:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				BOD																								
SCB 280-458314/1	1	T	15:45	X																								
USB 280-458314/2	1	T	15:45	X																								
LCS 280-458314/3	1	T	15:45	X																								
MB 280-458314/4	1	T	15:45	X																								
ZZZZZZ			15:46																									
280-123815-A-1 DU	1	T	15:46	X																								
280-123814-1	1	T	15:46	X																								
280-123814-2	1	T	15:46	X																								
280-123814-3	1	T	15:46	X																								
ZZZZZZ			15:46																									
ZZZZZZ			15:46																									
ZZZZZZ			15:46																									
ZZZZZZ			15:46																									
ZZZZZZ			15:46																									
ZZZZZZ			18:07																									
ZZZZZZ			18:07																									
ZZZZZZ			18:07																									
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ZZZZZZ			18:07																									
ZZZZZZ			18:07																									
ZZZZZZ			18:07																									
ZZZZZZ			18:08																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 459641 Batch Start Date: 05/28/19 10:00 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
ICVL 280-459641/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-459641/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-459641/16		350.1			10 mL	10 mL			
LCS 280-459641/18		350.1			100 mL	100 mL		2.5 mL	
MB 280-459641/19		350.1			10 mL	10 mL			
280-123814-E-1	LF5MW-3_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123814-E-1 MS	LF5MW-3_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123814-E-1 MSD	LF5MW-3_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123814-D-2	LF5MW-5_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123814-E-3	LF5MW-5_0519-a	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459641/32		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459641/33		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459641/34		350.1			10 mL	10 mL			

Batch Notes	
Carrier Identification	350.1 complex_00424
Hypochlorite ID	350.1 bleach_01066
Sodium Nitroprusside ID	350.1 color_00152
Pipette/Syringe/Dispenser ID	JPX100, JPX1000, JPX5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 460066 Batch Start Date: 05/31/19 16:12 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00794	TKN ICV 25 00078	
MB 280-460066/2		351.2, 351.2		<2	25 mL	25 mL			
280-123776-B-1 MS		351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123776-B-1 MSD		351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123814-D-1	LF5MW-3_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123814-D-2	LF5MW-5_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123814-E-3	LF5MW-5_0519-a	351.2, 351.2	T	<2	25 mL	25 mL			
LCS 280-460066/27		351.2, 351.2			0.52 mL	25 mL	6 mL		
ICV 280-460066/42		351.2, 351.2			25 mL	25 mL		5 mL	
ICB 280-460066/43		351.2, 351.2			25 mL	25 mL			
CCV 280-460066/44		351.2, 351.2			25 mL	25 mL	5 mL		
CCB 280-460066/45		351.2, 351.2			25 mL	25 mL			

Batch Notes	
Block Digestion End time	06/01/19 0400
Block Digestion Start time	05/31/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00126
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 460322 Batch Start Date: 06/03/19 19:51 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-460066/42-A		351.2		4 mL					
ICB 280-460066/43-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
MB 280-460066/2-A		351.2		4 mL					
280-123776-B-1-B MS		351.2	T	4 mL					
280-123776-B-1-C MSD		351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123814-D-1-A	LF5MW-3_0519	351.2	T	4 mL					
280-123814-D-2-A	LF5MW-5_0519	351.2	T	4 mL					
280-123814-E-3-A	LF5MW-5_0519-a	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
LCS 280-460066/27-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 460322 Batch Start Date: 06/03/19 19:51 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Batch Notes	
Buffer Reagent ID	TKN buffer_00118
Hypochlorite ID	TKN hypo_00663
Sodium Nitroprusside ID	Sodium Nitro_00094
Pipette/Syringe/Dispenser ID	5000nxn, 1000nxn

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 457887 Batch Start Date: 05/13/19 07:39 Batch Analyst: Loux, Lauren P

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	COD cal std 00048			
IC 280-457887/1		410.4		50 mL	50 mL	0.25 mL			
IC 280-457887/2		410.4		50 mL	50 mL	0.5 mL			
IC 280-457887/3		410.4		50 mL	50 mL	1 mL			
IC 280-457887/4		410.4		50 mL	50 mL	2.5 mL			
IC 280-457887/5		410.4		50 mL	50 mL	5 mL			
IC 280-457887/6		410.4		50 mL	50 mL	7.5 mL			

Batch Notes	
Block Digestor ID	Hach4AA, Hach4BB, Hach6AA
Chlorine ID	HC850274
Temperature - Corrected - End	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Temperature - Corrected - Start	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Digestion End Time	05/13/2019 11:27
Digestion Start Time	05/13/2019 09:27
Pipette/Syringe/Dispenser ID	5000LL, 1000LL
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Temperature - Uncorrected - Start	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458808 Batch Start Date: 05/20/19 12:22 Batch Analyst: Barker, Scott G

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-458808/1		410.4		100 mL	100 mL				
ICB 280-458808/2		410.4		100 mL	100 mL				
LCS 280-458808/3		410.4		100 mL	100 mL				10 mL
LCSD 280-458808/4		410.4		100 mL	100 mL				10 mL
MB 280-458808/5		410.4		100 mL	100 mL				
CCV 280-458808/16		410.4		100 mL	100 mL				10 mL
CCB 280-458808/17		410.4		100 mL	100 mL				
280-123476-D-3 MS		410.4	T	100 mL	100 mL	<1000	<2 SU	<2 SU	
280-123476-D-3 MSD		410.4	T	100 mL	100 mL	<1000	<2 SU	<2 SU	
280-123814-E-1	LF5MW-3_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-458808/28		410.4		100 mL	100 mL				10 mL
CCB 280-458808/29		410.4		100 mL	100 mL				
280-123814-E-2	LF5MW-5_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123814-E-3	LF5MW-5_0519-a	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-458808/34		410.4		100 mL	100 mL				10 mL
CCB 280-458808/35		410.4		100 mL	100 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
ICV 280-458808/1		410.4		7.5 mL					
ICB 280-458808/2		410.4							
LCS 280-458808/3		410.4							
LCSD 280-458808/4		410.4							
MB 280-458808/5		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458808 Batch Start Date: 05/20/19 12:22 Batch Analyst: Barker, Scott G

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
CCV 280-458808/16		410.4							
CCB 280-458808/17		410.4							
280-123476-D-3 MS		410.4	T		0.5 mL				
280-123476-D-3 MSD		410.4	T		0.5 mL				
280-123814-E-1	LF5MW-3_0519	410.4	T						
CCV 280-458808/28		410.4							
CCB 280-458808/29		410.4							
280-123814-E-2	LF5MW-5_0519	410.4	T						
280-123814-E-3	LF5MW-5_0519-a	410.4	T						
CCV 280-458808/34		410.4							
CCB 280-458808/35		410.4							

Batch Notes	
Batch Comment	CJ training SB
Block Digestor ID	Hach 4, Hach 6
Chlorine ID	hc850274
Temperature - Corrected - End	Hach 4 BB 150, Hach 6 AA 149, Hach 6 BB 150 Degrees C
Temperature - Corrected - Start	Hach 4 BB 150, Hach 6 AA 149, Hach 6 BB 150 Degrees C
Digestion End Time	05/20/2019 19:06
Digestion Start Time	05/20/2019 17:06
Pipette/Syringe/Dispenser ID	5000 ADI, 1 MLS
Sufficient Volume for Batch QC	yes
Temperature - Uncorrected - End	Hach 4 BB 150, Hach 6 AA 150, Hach 6 BB 150 Degrees C
Temperature - Uncorrected - Start	Hach 4 BB 150, Hach 6 AA 150, Hach 6 BB 150 Degrees C
Vial Lot Number	A9112A

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458808 Batch Start Date: 05/20/19 12:22 Batch Analyst: Barker, Scott G

Batch Method: 410.4 Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 460448 Batch Start Date: 06/04/19 17:30 Batch Analyst: Moser, Angela R

Batch Method: Distill/Phenol Batch End Date: 06/04/19 21:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
LCS 280-460448/1		Distill/Phenol, 9066		50 mL	50 mL				1 mL
MB 280-460448/2		Distill/Phenol, 9066		50 mL	50 mL				
280-123814-G-1	LF5MW-3_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123814-G-1 MS	LF5MW-3_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123814-G-1 MSD	LF5MW-3_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123814-G-2	LF5MW-5_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123814-G-3	LF5MW-5_0519-a	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 460486 Batch Start Date: 06/04/19 20:55 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460486/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460486/14		9066		100 mL	100 mL		1 mL		
ICB 280-460486/15		9066		100 mL	100 mL				
LCS 280-460448/1-A		9066		100 mL	100 mL				
MB 280-460448/2-A		9066		100 mL	100 mL				
280-123814-G-1-A	LF5MW-3_0519	9066	T	100 mL	100 mL				
280-123814-G-1-B MS	LF5MW-3_0519	9066	T	100 mL	100 mL				
280-123814-G-1-C MSD	LF5MW-3_0519	9066	T	100 mL	100 mL				
280-123814-G-2-A	LF5MW-5_0519	9066	T	100 mL	100 mL				
280-123814-G-3-A	LF5MW-5_0519-a	9066	T	100 mL	100 mL				
CCV 280-460486/29		9066		100 mL	100 mL	2 mL			
CCVL 280-460486/30		9066		100 mL	100 mL	1 mL			
CCB 280-460486/31		9066		100 mL	100 mL				

Batch Notes	
Batch Comment	RK training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00408
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458350 Batch Start Date: 05/15/19 22:55 Batch Analyst: Bryant, Chase K

Batch Method: SM 2120B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount			
MB 280-458350/1		SM 2120B		7 SU	50 mL	50 mL			
280-123814-J-1	LF5MW-3_0519	SM 2120B	T	7 SU	10 mL	50 mL			
280-123814-J-1 DU	LF5MW-3_0519	SM 2120B	T	7 SU	10 mL	50 mL			
280-123814-H-2	LF5MW-5_0519	SM 2120B	T	7 SU	10 mL	50 mL			
280-123814-H-3	LF5MW-5_0519-a	SM 2120B	T	7 SU	10 mL	50 mL			

Batch Notes	
pH Meter ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 459282 Batch Start Date: 05/23/19 18:58 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
LCS 280-459282/1		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	10.01 mL
MB 280-459282/2		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	0.00 mL
280-123639-E-1 MS		SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	16.27 mL
280-123639-E-1 MSD		SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	15.91 mL
280-123814-F-1	LF5MW-3_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	11.30 mL
280-123814-F-2	LF5MW-5_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	1.16 mL
280-123814-F-3	LF5MW-5_0519-a	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	1.13 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00050				
LCS 280-459282/1		SM 2340C		10.01 mL	10 mL				
MB 280-459282/2		SM 2340C		0 mL					
280-123639-E-1 MS		SM 2340C	T	16.27 mL	10 mL				
280-123639-E-1 MSD		SM 2340C	T	15.91 mL	10 mL				
280-123814-F-1	LF5MW-3_0519	SM 2340C	T	11.3 mL					
280-123814-F-2	LF5MW-5_0519	SM 2340C	T	1.16 mL					
280-123814-F-3	LF5MW-5_0519-a	SM 2340C	T	1.13 mL					

Batch Notes	
Batch Comment	KS trained by DA
Buffer Reagent ID	Mg EDTA 00009
Indicator Reagent ID	Hardness ind 00008
Nominal Amount Used	25 mL
pH Strip ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000
Normality of First Titrant	0.01972 N
Titrant ID	EDTA Titrant 00090
Titrant Standardization Date	05/23/2019

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 459282 Batch Start Date: 05/23/19 18:58 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458327/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458327/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458327/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458327/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458327/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458327/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458327/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458327/9		9056A		5 mL	5 mL				
MRL 280-458327/10		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458327/11		9056A		5 mL	5 mL				
LCSD 280-458327/12		9056A		5 mL	5 mL				
MB 280-458327/13		9056A		5 mL	5 mL				
280-123814-I-1	LF5MW-3_0519	9056A	T	5 mL	5 mL				
280-123814-I-1	LF5MW-3_0519	9056A	T	5 mL	5 mL				
280-123814-I-2	LF5MW-5_0519	9056A	T	5 mL	5 mL				
280-123814-I-3	LF5MW-5_0519-a	9056A	T	5 mL	5 mL				
280-123814-I-3 DU	LF5MW-5_0519-a	9056A	T	5 mL	5 mL				
280-123814-I-3 MS	LF5MW-5_0519-a	9056A	T	5 mL	5 mL				
280-123814-I-3 MSD	LF5MW-5_0519-a	9056A	T	5 mL	5 mL				
CCV 280-458327/21		9056A		5 mL	5 mL				
CCB 280-458327/22		9056A		5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 01576	IC SO4 ICV 00017	ICMS/MSD WEEK 00592			
STD 280-458327/2 IC		9056A							
STD 280-458327/3 IC		9056A							
STD 280-458327/4 IC		9056A							
STD 280-458327/5 IC		9056A							
STD 280-458327/6 IC		9056A							
STD 280-458327/7 IC		9056A							
ICV 280-458327/8		9056A			0.4 mL				
ICB 280-458327/9		9056A							
MRL 280-458327/10		9056A							
LCS 280-458327/11		9056A		5 mL					
LCSD 280-458327/12		9056A		5 mL					
MB 280-458327/13		9056A							
280-123814-I-1	LF5MW-3_0519	9056A	T						
280-123814-I-1	LF5MW-3_0519	9056A	T						
280-123814-I-2	LF5MW-5_0519	9056A	T						
280-123814-I-3	LF5MW-5_0519-a	9056A	T						
280-123814-I-3 DU	LF5MW-5_0519-a	9056A	T						
280-123814-I-3 MS	LF5MW-5_0519-a	9056A	T			0.05 mL			
280-123814-I-3 MSD	LF5MW-5_0519-a	9056A	T			0.05 mL			
CCV 280-458327/21		9056A		5 mL					
CCB 280-458327/22		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458328/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458328/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458328/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458328/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458328/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458328/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458328/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458328/9		9056A		5 mL	5 mL				
MRL 280-458328/10		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458328/11		9056A		5 mL	5 mL				
LCSD 280-458328/12		9056A		5 mL	5 mL				
MB 280-458328/13		9056A		5 mL	5 mL				
280-123814-I-1	LF5MW-3_0519	9056A	T	5 mL	5 mL				
280-123814-I-1	LF5MW-3_0519	9056A	T	5 mL	5 mL				
280-123814-I-2	LF5MW-5_0519	9056A	T	5 mL	5 mL				
280-123814-I-3	LF5MW-5_0519-a	9056A	T	5 mL	5 mL				
280-123814-I-3 DU	LF5MW-5_0519-a	9056A	T	5 mL	5 mL				
280-123814-I-3 MS	LF5MW-5_0519-a	9056A	T	5 mL	5 mL				
280-123814-I-3 MSD	LF5MW-5_0519-a	9056A	T	5 mL	5 mL				
CCV 280-458328/21		9056A		5 mL	5 mL				
CCB 280-458328/22		9056A		5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 01576	IC SO4 ICV 00017	ICMS/MSD WEEK 00592			
STD 280-458328/2 IC		9056A							
STD 280-458328/3 IC		9056A							
STD 280-458328/4 IC		9056A							
STD 280-458328/5 IC		9056A							
STD 280-458328/6 IC		9056A							
STD 280-458328/7 IC		9056A							
ICV 280-458328/8		9056A			0.4 mL				
ICB 280-458328/9		9056A							
MRL 280-458328/10		9056A							
LCS 280-458328/11		9056A		5 mL					
LCSD 280-458328/12		9056A		5 mL					
MB 280-458328/13		9056A							
280-123814-I-1	LF5MW-3_0519	9056A	T						
280-123814-I-1	LF5MW-3_0519	9056A	T						
280-123814-I-2	LF5MW-5_0519	9056A	T						
280-123814-I-3	LF5MW-5_0519-a	9056A	T						
280-123814-I-3 DU	LF5MW-5_0519-a	9056A	T						
280-123814-I-3 MS	LF5MW-5_0519-a	9056A	T			0.05 mL			
280-123814-I-3 MSD	LF5MW-5_0519-a	9056A	T			0.05 mL			
CCV 280-458328/21		9056A		5 mL					
CCB 280-458328/22		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 460796 Batch Start Date: 06/05/19 15:35 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-460796/1		9060A		50 mL	50 mL	1 mL			
ICB 280-460796/2		9060A		20 mL	20 mL				
LCS 280-460796/3		9060A		200 mL	200 mL		5 mL		
LCSD 280-460796/4		9060A		200 mL	200 mL		5 mL		
MB 280-460796/5		9060A		20 mL	20 mL				
280-123712-B-1 MS		9060A	T	50 mL	50 mL		1.25 mL		
280-123712-B-1 MSD		9060A	T	50 mL	50 mL		1.25 mL		
CCV 280-460796/16		9060A		200 mL	200 mL	5 mL			
CCB 280-460796/17		9060A		20 mL	20 mL				
CCV 280-460796/26		9060A		200 mL	200 mL	5 mL			
CCB 280-460796/27		9060A		20 mL	20 mL				
LCS 280-460796/34		9060A		200 mL	200 mL		5 mL		
LCSD 280-460796/35		9060A		200 mL	200 mL		5 mL		
MB 280-460796/36		9060A		20 mL	20 mL				
CCV 280-460796/39		9060A		200 mL	200 mL	5 mL			
CCB 280-460796/40		9060A		20 mL	20 mL				
CCV 280-460796/51		9060A		200 mL	200 mL	5 mL			
CCB 280-460796/52		9060A		20 mL	20 mL				
280-123814-E-1	LF5MW-3_0519	9060A	T	20 mL	20 mL				
280-123814-E-2	LF5MW-5_0519	9060A	T	20 mL	20 mL				
280-123814-D-3	LF5MW-5_0519-a	9060A	T	20 mL	20 mL				
CCV 280-460796/63		9060A		200 mL	200 mL	5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 460796 Batch Start Date: 06/05/19 15:35 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
CCB 280-460796/64		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 460797 Batch Start Date: 06/05/19 15:35 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC LCS Std 00046			
LCS 280-460797/3		9060A		200 mL	200 mL	5 mL			
LCSD 280-460797/4		9060A		200 mL	200 mL	5 mL			
MB 280-460797/5		9060A		20 mL	20 mL				
280-123712-B-1 MS		9060A	T	50 mL	50 mL	1.25 mL			
280-123712-B-1 MSD		9060A	T	50 mL	50 mL	1.25 mL			
LCS 280-460797/34		9060A		200 mL	200 mL	5 mL			
LCSD 280-460797/35		9060A		200 mL	200 mL	5 mL			
MB 280-460797/36		9060A		20 mL	20 mL				
280-123814-E-1	LF5MW-3_0519	9060A	T	20 mL	20 mL				
280-123814-E-2	LF5MW-5_0519	9060A	T	20 mL	20 mL				
280-123814-D-3	LF5MW-5_0519-a	9060A	T	20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 459192 Batch Start Date: 05/22/19 18:11 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
LCS 280-459192/4		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459192/5		SM 2320B		InitialAmount is blank					
280-123715-B-4 DU		SM 2320B	T	InitialAmount is blank					
CCV 280-459192/16		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/17		SM 2320B		InitialAmount is blank					
280-123814-B-3	LF5MW-5_0519-a	SM 2320B	T	InitialAmount is blank					
280-123814-B-1	LF5MW-3_0519	SM 2320B	T	InitialAmount is blank					
280-123814-B-2	LF5MW-5_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459192/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/29		SM 2320B		InitialAmount is blank					

Batch Notes	
Acid ID	0.02 H2SO4_00258
pH Buffer 1 ID	pH 2.0 buffer_00079
pH Buffer 2 ID	pH 4.0 buffer_00178
pH Buffer 3 ID	pH 7.0 buffer_00258
pH Buffer 4 ID	pH 10 buffer_00142
pH Buffer 5 ID	pH 12 buffer_00148
pH Buffer 6 ID	pH 7.0 buffer_00147
Sodium Carbonate ID	Alk Stk Std_00016
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000 ADI
Probe ID	PCE 86 pH 1105 sep14
Normality of First Titrant	0.02 N

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 459192 Batch Start Date: 05/22/19 18:11 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458569 Batch Start Date: 05/17/19 11:37 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-458569/1		SM 2540C		0.34 umhos/cm	3.4722A0383450	3.4722 g	100 mL	3.4724 g	3.4721 g
LCS 280-458569/2		SM 2540C			3.2780A0383451	3.2780 g	100 mL	3.3315 g	3.3298 g
LCSD 280-458569/3		SM 2540C			3.1408A0383452	3.1408 g	100 mL	3.1906 g	3.1899 g
280-123912-C-1 DU		SM 2540C	T	1548 umhos/cm	3.8223A0383454	3.8223 g	50 mL	3.8814 g	3.8810 g
280-123814-A-3	LF5MW-5_0519-a	SM 2540C	T	95.3 umhos/cm	3.7673A0383460	3.7673 g	100 mL	3.7780 g	3.7768 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight3	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2
MB 280-458569/1		SM 2540C		3.4724 g	Pass No Unit	Pass No Unit	N/A	0.0002 g	-0.0001 g
LCS 280-458569/2		SM 2540C		3.3294 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0535 g	0.0518 g
LCSD 280-458569/3		SM 2540C		3.1899 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0498 g	0.0491 g
280-123912-C-1 DU		SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0591 g	0.0587 g
280-123814-A-3	LF5MW-5_0519-a	SM 2540C	T	3.7767 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0107 g	0.0095 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue3	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00054	
MB 280-458569/1		SM 2540C		0.0002 g	N/A g	100 mL	OK		
LCS 280-458569/2		SM 2540C		0.0514 g	N/A g	100 mL	OK	100 mL	
LCSD 280-458569/3		SM 2540C		0.0491 g	N/A g	100 mL	OK	100 mL	
280-123912-C-1 DU		SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123814-A-3	LF5MW-5_0519-a	SM 2540C	T	0.0094 g	N/A g	100 mL	OK		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458569 Batch Start Date: 05/17/19 11:37 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/23/2019 14:20
Date/Time - Out - CW (WT2)	05/23/2019 16:15
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Date/Time - In - CW (WT3)	05/23/2019 19:06
Date/Time - Out - CW (WT3)	05/24/2019 10:10
Temperature - Start - CW (WT3) - Correct	180 Celsius
Temperature - End - CW (WT3) - Correct	180 Celsius
Temperature - Start-CW(WT3) -Uncorrected	180 Celsius
Temperature - End-CW(WT3) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/17/2019 13:15
Date/Time - Out	05/23/2019 08:55
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/23/2019 08:55 No Unit
Weight(WT1) Date/Time Out	05/23/2019 11:30

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458569 Batch Start Date: 05/17/19 11:37 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458814 Batch Start Date: 05/20/19 14:07 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-458814/1		SM 2540C		0.71 umhos/cm	3.4632A0383425	3.4632 g	100 mL	3.4632 g	3.4632 g
LCS 280-458814/2		SM 2540C			3.4886A0383426	3.4886 g	100 mL	3.5379 g	3.5378 g
280-123814-B-1	LF5MW-3_0519	SM 2540C	T	777 umhos/cm	3.4386A0383427	3.4386 g	100 mL	3.4989 g	3.4993 g
280-123814-B-1 DU	LF5MW-3_0519	SM 2540C	T	777 umhos/cm	3.4998A0383428	3.4998 g	100 mL	3.5598 g	3.5595 g
280-123814-B-2	LF5MW-5_0519	SM 2540C	T	97.7 umhos/cm	3.4672A0383429	3.4672 g	100 mL	3.4774 g	3.4779 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 280-458814/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	0 g	0 g	N/A g
LCS 280-458814/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0493 g	0.0492 g	N/A g
280-123814-B-1	LF5MW-3_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0603 g	0.0607 g	N/A g
280-123814-B-1 DU	LF5MW-3_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.06 g	0.0597 g	N/A g
280-123814-B-2	LF5MW-5_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0102 g	0.0107 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00054		
MB 280-458814/1		SM 2540C		N/A g	100 mL	OK			
LCS 280-458814/2		SM 2540C		N/A g	100 mL	OK	100 mL		
280-123814-B-1	LF5MW-3_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123814-B-1 DU	LF5MW-3_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123814-B-2	LF5MW-5_0519	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458814 Batch Start Date: 05/20/19 14:07 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/23/2019 14:46
Date/Time - Out - CW (WT2)	05/23/2019 16:15
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Date/Time - In - CW (WT3)	05/23/2019 18:53
Date/Time - Out - CW (WT3)	05/24/2019 10:10
Temperature - Start - CW (WT3) - Correct	180 Celsius
Temperature - End - CW (WT3) - Correct	180 Celsius
Temperature - Start-CW(WT3) -Uncorrected	180 Celsius
Temperature - End-CW(WT3) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/20/2019 15:45
Date/Time - Out	05/22/2019 12:30
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/22/2019 12:30 No Unit
Weight(WT1) Date/Time Out	05/23/2019 11:30

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458814 Batch Start Date: 05/20/19 14:07 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458314 Batch Start Date: 05/15/19 15:45 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	Initial_DO	InitialTemp	Final pH	Bot1Num
SCB 280-458314/1		SM5210B				7.19	21.49 Celsius		1
USB 280-458314/2		SM5210B				7.20	21.51 Celsius		5
LCS 280-458314/3		SM5210B				7.20	21.35 Celsius		8
MB 280-458314/4		SM5210B				7.21	21.28 Celsius		11
280-123815-A-1 DU		SM5210B	T	7.98 SU	no	7.23	21.01 Celsius	7.98 SU	15
280-123814-A-1	LF5MW-3_0519	SM5210B	T	6.67 SU	no	7.23	20.91 Celsius	6.67 SU	18
280-123814-A-2	LF5MW-5_0519	SM5210B	T	6.03 SU	no	7.23	20.84 Celsius	6.03 SU	21
280-123814-A-3	LF5MW-5_0519-a	SM5210B	T	6.02 SU	no	7.22	20.79 Celsius	6.02 SU	24

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
SCB 280-458314/1		SM5210B		21.46 Celsius	15 mL	7.17 mg/L	4.74 mg/L	2.43 mg/L	0.648 mg/L
USB 280-458314/2		SM5210B		21.54 Celsius	300 mL	7.19 mg/L	7.13 mg/L	0.06 mg/L	0.06 mg/L
LCS 280-458314/3		SM5210B		21.45 Celsius	6 mL	7.26 mg/L	2.58 mg/L	4.68 mg/L	202.49 mg/L
MB 280-458314/4		SM5210B		21.30 Celsius	300 mL	7.20 mg/L	6.64 mg/L	0.56 mg/L	-0.07 mg/L
280-123815-A-1 DU		SM5210B	T	21.21 Celsius	60 mL	7.47 mg/L	6.62 mg/L	0.85 mg/L	1.099 mg/L
280-123814-A-1	LF5MW-3_0519	SM5210B	T	21.28 Celsius	60 mL	7.39 mg/L	6.69 mg/L	0.7 mg/L	0.349 mg/L
280-123814-A-2	LF5MW-5_0519	SM5210B	T	21.31 Celsius	60 mL	7.22 mg/L	6.52 mg/L	0.7 mg/L	0.349 mg/L
280-123814-A-3	LF5MW-5_0519-a	SM5210B	T	21.30 Celsius	60 mL	7.23 mg/L	6.49 mg/L	0.74 mg/L	0.549 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
SCB 280-458314/1		SM5210B		No. % DO < 50%	34 %	2	21.45 Celsius	20 mL	7.16 mg/L
USB 280-458314/2		SM5210B		Yes. USB		6	21.54 Celsius	300 mL	7.16 mg/L
LCS 280-458314/3		SM5210B		YES. Pass		9	21.34 Celsius	6 mL	7.18 mg/L
MB 280-458314/4		SM5210B		No. DO Deplete Fail					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458314 Batch Start Date: 05/15/19 15:45 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
280-123815-A-1 DU		SM5210B	T	No. DO Deplete Fail		16	20.88 Celsius	120 mL	7.82 mg/L
280-123814-A-1	LF5MW-3_0519	SM5210B	T	No. DO Deplete Fail		19	20.93 Celsius	120 mL	7.68 mg/L
280-123814-A-2	LF5MW-5_0519	SM5210B	T	No. DO Deplete Fail		22	20.96 Celsius	120 mL	7.19 mg/L
280-123814-A-3	LF5MW-5_0519-a	SM5210B	T	No. DO Deplete Fail		25	21.07 Celsius	120 mL	7.25 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
SCB 280-458314/1		SM5210B		4.03 mg/L	44 %	3.13 mg/L	0.626 mg/L	yes	3
USB 280-458314/2		SM5210B		7.16 mg/L		0 mg/L	0 mg/L	Yes. Pass	7
LCS 280-458314/3		SM5210B		2.61 mg/L		4.57 mg/L	196.99 mg/L	YES. Pass	10
MB 280-458314/4		SM5210B							
280-123815-A-1 DU		SM5210B	T	6.67 mg/L		1.15 mg/L	1.3 mg/L	No. DO Deplete Fail	17
280-123814-A-1	LF5MW-3_0519	SM5210B	T	6.81 mg/L		0.87 mg/L	0.6 mg/L	No. DO Deplete Fail	20
280-123814-A-2	LF5MW-5_0519	SM5210B	T	6.31 mg/L		0.88 mg/L	0.625 mg/L	No. DO Deplete Fail	23
280-123814-A-3	LF5MW-5_0519-a	SM5210B	T	6.52 mg/L		0.73 mg/L	0.25 mg/L	No. DO Deplete Fail	26

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
SCB 280-458314/1		SM5210B		21.39 Celsius	25 mL	7.18 mg/L	3.46 mg/L	3.72 mg/L	0.595 mg/L
USB 280-458314/2		SM5210B		21.49 Celsius	300 mL	7.16 mg/L	7.14 mg/L	0.02 mg/L	0.02 mg/L
LCS 280-458314/3		SM5210B		21.30 Celsius	6 mL	7.20 mg/L	2.81 mg/L	4.39 mg/L	187.99 mg/L
MB 280-458314/4		SM5210B							
280-123815-A-1 DU		SM5210B	T	20.44 Celsius	240 mL	7.82 mg/L	6.68 mg/L	1.14 mg/L	0.637 mg/L
280-123814-A-1	LF5MW-3_0519	SM5210B	T	20.43 Celsius	240 mL	7.70 mg/L	6.92 mg/L	0.78 mg/L	0.187 mg/L
280-123814-A-2	LF5MW-5_0519	SM5210B	T	20.38 Celsius	240 mL	7.17 mg/L	6.30 mg/L	0.87 mg/L	0.3 mg/L
280-123814-A-3	LF5MW-5_0519-a	SM5210B	T	20.75 Celsius	240 mL	7.26 mg/L	6.13 mg/L	1.13 mg/L	0.625 mg/L

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458314 Batch Start Date: 05/15/19 15:45 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
SCB 280-458314/1		SM5210B		52 %	YES. Pass	4	21.42 Celsius	30 mL	7.17 mg/L
USB 280-458314/2		SM5210B			Yes. Pass				
LCS 280-458314/3		SM5210B			YES. Pass				
MB 280-458314/4		SM5210B							
280-123815-A-1 DU		SM5210B	T		NO. Deplete Fail				
280-123814-A-1	LF5MW-3_0519	SM5210B	T		NO. Deplete Fail				
280-123814-A-2	LF5MW-5_0519	SM5210B	T		NO. Deplete Fail				
280-123814-A-3	LF5MW-5_0519-a	SM5210B	T		NO. Deplete Fail				

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
SCB 280-458314/1		SM5210B		2.15 mg/L	5.02 mg/L	0.669 mg/L	70 %	YES. Pass	300 mL
USB 280-458314/2		SM5210B							300 mL
LCS 280-458314/3		SM5210B							300 mL
MB 280-458314/4		SM5210B							300 mL
280-123815-A-1 DU		SM5210B	T						300 mL
280-123814-A-1	LF5MW-3_0519	SM5210B	T						300 mL
280-123814-A-2	LF5MW-5_0519	SM5210B	T						300 mL
280-123814-A-3	LF5MW-5_0519-a	SM5210B	T						300 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
SCB 280-458314/1		SM5210B		7.15	21.70 Celsius				
USB 280-458314/2		SM5210B		7.14	21.64 Celsius				
LCS 280-458314/3		SM5210B		7.20	21.58 Celsius	6 mL			
MB 280-458314/4		SM5210B		7.16	21.57 Celsius				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458314 Batch Start Date: 05/15/19 15:45 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
280-123815-A-1 DU		SM5210B	T	7.20	21.51 Celsius		pH temp= 14.0, color= clear		
280-123814-A-1	LF5MW-3_0519	SM5210B	T	7.20	21.49 Celsius		pH temp= 13.1, color= pale yellow/turbid		
280-123814-A-2	LF5MW-5_0519	SM5210B	T	7.20	21.45 Celsius		pH temp= 12.8, color= pale yellow/turbid		
280-123814-A-3	LF5MW-5_0519-a	SM5210B	T	7.19	21.45 Celsius		pH temp= 13.6, color= pale yellow/turbid		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123814-1

SDG No.:

Batch Number: 458314 Batch Start Date: 05/15/19 15:45 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Batch Notes	
Barometer ID	YSI 5100 BOD Probe: 16H100313
Batch Comment	Room Temp= 21.57 EC trained by ckb
Calibration - Final Date/Time	05/20/2019 23:40
Calibration - Initial Date/Time	05/15/2019 17:00
Dilution Water ID	Elga water 18.2 micro ohms
Sulfuric Acid ID	1N H2SO4_00033
Incubator ID	BOD3
Sodium Hydroxide ID	1N NaOH_00047
Nitrification Inhibitor ID	Nitrogen inhibitor_00012
Nominal Amount Used	300 mL
Nutrient Buffer Pillow ID	BOD buffer_00038
pH Meter ID	SV-15261, QX1-15909
Pipette/Syringe/Dispenser ID	5000 BOD 1000BOD
Probe ID	YSI 5010 BOD Probe 15A100003
Residual Chlorine Pillow Lot #	free chlorine micro check lot: 111418
Amount of Seed added to each Sample	4 mL
Seed Correction	0.6302 mg/L
Seed ID	Polyseed_00020 Seeded @ 18:22 EC readback ARM 23:57
Thermometer ID	BOD log tag 3
Uncorrected Incubator Temp - Final	20.3 Celsius
Uncorrected Incubator Temp - Initial	20.30 Celsius
Barometric Pressure - Uncorrected	initial:624 final: 620

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Table - 052819.tbl

File name: C:\FLOW_4\052819.TBL
Date: 28-May-19

Cup	Name	Type	R	Dil	Wt		Comment
5	Sync	SYNC	1	1	1		
0	blk	CO	1	1	1		
0	Read Baseline	RB	1	1	1		
1	Cal 0.0 PPB	C	1	1	1		
3	Cal 25.0 ppb	C	1	1	1		
4	Cal 50.0 ppb	C	1	1	1		
5	Cal 100.0 ppb	C	1	1	1		
6	Cal 500.0 ppb	C	1	1	1		
7	Cal 1000.0 ppb	C	1	1	1		
8	Cal 2500.0 ppb	C	1	1	1		
9	Cal 5000.0 ppb	C	1	1	1		
0	blank	BLNK	1	1	1		
0	read baseline	RB	1	1	1		
10	ICVL 500.0 ppb	U	1	1	1		
11	ICV 2500.0 ppb	U	1	1	1		
1	ICB	U	1	1	1		pH el-
0	read baseline	RB	1	1	1		
8	LCS	U	1	1	1		
12	MB	U	1	1	1		
13	280-123814-e-1	U	1	1	1	L2	N
14	MS 280-123814-e-1	U	1	1	1		
15	MSD 280-123814-e-1	U	1	1	1		
16	280-123814-d-2	U	1	1	1	L2	N
17	280-123814-e-3	U	1	1	1	L2	N
18	280-124034-e-1	U	1	100	1	L2	N
19	280-123676-d-2	U	1	100	1	L2	N
20	280-123832-c-1	U	1	1	1	L2	N
21	280-123832-d-2	U	1	1	1	L2	N
22	280-123832-d-4	U	1	1	1	L2	N
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
6	CCVL 500 ppb	U	1	1	1		
8	CCV 2500 ppb	U	1	1	1		
12	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
23	280-123832-d-6	U	1	1	1	L2	N
24	280-123832-c-7	U	1	1	1	L2	N
25	280-123832-c-8	U	1	1	1	L2	N
26	MS 280-123832-c-8	U	1	1	1		
27	MSD 280-123832-c-8	U	1	1	1		
28	280-123832-d-10	U	1	1	1	L2	N
29	280-123832-c-11	U	1	1	1	L2	N
30	280-123834-f-1	U	1	1	1	L2	N
31	280-123834-e-2	U	1	1	1	L2	N
32	280-123834-e-3	U	1	1	1	L2	N
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
6	CCVL 500 ppb	U	1	1	1		
8	CCV 2500 ppb	U	1	1	1		
12	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
33	280-123842-d-1	U	1	1	1	L2	N
34	280-123844-d-1	U	1	1	1	L2	N
35	280-123843-b-1	U	1	1	1	L2	N
36	280-123843-b-2	U	1	1	1	L2	N
0	Rinse	U	1	1	1		

Cup	Name	Type	R	Dil	Wt		Comment		
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				
8	LCS	U	1	1	1				
12	MB	U	1	1	1				
37	280-123843-c-3	U	1	1	1		C2		N
38	MS 280-123843-c-3	U	1	1	1				
39	MSD 280-123843-c-3	U	1	1	1				
40	280-123843-b-4	U	1	1	1		C2		N
41	280-123843-b-5	U	1	1	1		C2		N
42	580-86233-c-1	U	1	~~1~~ 10	1		C2		N
43	280-124045-f-1	U	1	1 MDS 5/28/19	1		~~C2~~ 7		N
44	280-124225-j-1	U	1	100	1		C2	MS 5/28/19	N
45	280-124245-a-1	U	1	100	1		C2		N
46	280-123863-d-2	U	1	5	1		C2		N
0	Rinse	U	1	1	1				
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				
47	280-123863-d-3	U	1	500	1		9 C2		N
48	280-123863-d-4	U	1	10	1				
49	280-123955-b-1	U	1	1	1		C2		N
50	MS 280-123955-b-1	U	1	1	1				
51	MSD 280-123955-b-1	U	1	1	1				
52	280-123955-b-2	U	1	1	1		C2		N
53	280-123955-b-3	U	1	1	1		C2		N
54	280-123955-b-4	U	1	1	1		C2		N
55	280-123955-b-5	U	1	1	1		C2		N
56	280-123955-b-6	U	1	1	1		C2		N
0	Rinse	U	1	1	1				
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				
57	280-123955-b-7	U	1	1	1		C2		N
58	280-123955-b-8	U	1	1	1		C2		N
59	280-123955-b-9	U	1	1	1		C2		N
60	280-123955-b-10	U	1	1	1		C2		N
0	Rinse	U	1	1	1				
0	Read Baseline	RB	1	1	1				
6	CCVL 500 ppb	U	1	1	1				
8	CCV 2500 ppb	U	1	1	1				
12	CCB	U	1	1	1				
0	Read Baseline	RB	1	1	1				

Run Results Report

Facility Name
Facility Location
Department
Operator Name MJS
Operator ID MJS
Platform FS 3000
Software Rev Code 222
Data system ID 57

Result path C:\FLOW_4\052819.RST
Sample table path C:\FLOW_4\052819.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 28-May-19
Time acquired 13:42

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
28-May-19	10:00	5	Sync	11129	98.974	
28-May-19	10:02	0	blk	-164	7.618	
28-May-19	10:04	0	Read Baseline	0	8.942	BL
28-May-19	10:06	1	Cal 0.0 PPB	-62	8.444	
28-May-19	10:08	3	Cal 25.0 ppb	2680	30.614	
28-May-19	10:10	4	Cal 50.0 ppb	5651	54.640	
28-May-19	10:12	5	Cal 100.0 ppb	11374	100.952	
28-May-19	10:14	6	Cal 500.0 ppb	60177	497.151	
28-May-19	10:16	7	Cal 1000.0 ppb	115347	947.764	
28-May-19	10:18	8	Cal 2500.0 ppb	306728	2533.346	
28-May-19	10:20	9	Cal 5000.0 ppb	595664	4993.145	
28-May-19	10:22	0	blank	281	11.211	
28-May-19	10:24	0	read baseline	0	8.942	BL
28-May-19	10:26	10	ICVL 500.0 ppb	60103	496.552	
28-May-19	10:28	11	ICV 2500.0 ppb	299317	2471.301	
28-May-19	10:30	1	ICB	-278	6.698	
28-May-19	10:32	0	read baseline	0	8.942	BL
28-May-19	10:34	8	LCS	310697	2566.596	
28-May-19	10:36	12	MB	-188	7.420	
28-May-19	10:38	13	280-123814-e-1	-142	7.794	
28-May-19	10:40	14	MS 280-123814-e-1	130373	1070.998	
28-May-19	10:42	15	MSD 280-123814-e-1	131641	1081.402	
28-May-19	10:44	16	280-123814-d-2	-150	7.730	
28-May-19	10:46	17	280-123814-e-3	85	9.630	
28-May-19	10:48	18	.280-124034-e-1	4243	4325.461	
28-May-19	10:50	19	.280-123676-d-2	4253	4333.175	
28-May-19	10:52	20	280-123832-c-1	152674	1254.285	
28-May-19	10:54	21	280-123832-d-2	1076	17.638	
28-May-19	10:56	22	280-123832-d-4	1093	17.780	
28-May-19	10:58	0	Rinse	79	9.577	
28-May-19	11:00	0	Read Baseline	0	8.942	BL
28-May-19	11:02	6	CCVL 500 ppb	56169	464.528	
28-May-19	11:04	8	CCV 2500 ppb	313008	2585.964	
28-May-19	11:06	12	CCB	-75	8.332	
28-May-19	11:08	0	Read Baseline	0	8.942	BL
28-May-19	11:10	23	280-123832-d-6	133	10.015	
28-May-19	11:12	24	280-123832-c-7	-426	5.499	
28-May-19	11:14	25	280-123832-c-8	211110	1736.801	
28-May-19	11:16	26	MS 280-123832-c-8	333632	2759.038	
28-May-19	11:18	27	MSD 280-123832-c-8	335572	2775.339	
28-May-19	11:20	28	280-123832-d-10	4312	43.810	
28-May-19	11:22	29	280-123832-c-11	553	13.409	
28-May-19	11:24	30	280-123834-f-1	2648	30.350	
28-May-19	11:26	31	280-123834-e-2	7226	67.384	
28-May-19	11:28	32	280-123834-e-3	34393	287.551	
28-May-19	11:30	0	Rinse	0	8.944	

Result path C:\FLOW_4\052819.RST
Sample table path C:\FLOW_4\052819.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 28-May-19
Time acquired 13:42

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
28-May-19	11:32	0	Read Baseline	0	8.942	BL
28-May-19	11:34	6	CCVL 500 ppb	59165	488.915	
28-May-19	11:36	8	CCV 2500 ppb	296483	2447.584	
28-May-19	11:38	12	CCB	54	9.383	
28-May-19	11:40	0	Read Baseline	0	8.942	BL
28-May-19	11:42	33	280-123842-d-1	27332	230.257	
28-May-19	11:44	34	280-123844-d-1	14561	126.756	
28-May-19	11:46	35	280-123843-b-1	1708	22.753	
28-May-19	11:48	36	280-123843-b-2	1660	22.365	
28-May-19	11:50	0	Rinse	154	10.188	
28-May-19	11:52	0	Read Baseline	0	8.942	BL
28-May-19	11:54	6	CCVL 500 ppb	58039	479.747	
28-May-19	11:56	8	CCV 2500 ppb	291306	2404.285	
28-May-19	11:58	12	CCB	164	10.269	
28-May-19	12:00	0	Read Baseline	0	8.942	BL
28-May-19	12:02	8	LCS	307352	2538.573	
28-May-19	12:04	12	MB	-70	8.378	
28-May-19	12:06	37	280-123843-c-3	-256	6.874	
28-May-19	12:08	38	MS 280-123843-c-3	131409	1079.500	
28-May-19	12:10	39	MSD 280-123843-c-3	131011	1076.233	
28-May-19	12:12	40	280-123843-b-4	1631	22.132	
28-May-19	12:14	41	280-123843-b-5	-229	7.094	
28-May-19	12:16	42	580-86233-c-1	152939	12564.629	
28-May-19	12:18	43	280-124045-f-1	528	13.209	
28-May-19	12:20	44	280-124225-j-1	1629391	1444360.625	HI
28-May-19	12:22	45	280-124245-a-1	4286	4360.053	FL
28-May-19	12:24	46	280-123863-d-2	384935	15956.543	
28-May-19	12:26	0	Rinse	332	11.627	
28-May-19	12:28	0	Read Baseline	0	8.942	BL
28-May-19	12:30	6	CCVL 500 ppb	63133	521.221	
28-May-19	12:32	8	CCV 2500 ppb	319724	2642.279	
28-May-19	12:34	12	CCB	157	10.211	
28-May-19	12:36	0	Read Baseline	0	8.942	BL
28-May-19	12:38	47	280-123863-d-3	23051	97771.477	
28-May-19	12:40	48	280-123863-d-4	54997	4549.920	
28-May-19	12:42	49	280-123955-b-1	45542	378.107	
28-May-19	12:44	50	MS 280-123955-b-1	157326	1292.577	
28-May-19	12:46	51	MSD 280-123955-b-1	178492	1467.071	
28-May-19	12:48	52	280-123955-b-2	-50	8.540	
28-May-19	12:50	53	280-123955-b-3	97020	797.753	
28-May-19	12:52	54	280-123955-b-4	123955	1018.336	
28-May-19	12:54	55	280-123955-b-5	79836	657.389	
28-May-19	12:56	56	280-123955-b-6	52788	437.020	
28-May-19	12:58	0	Rinse	-124	7.943	
28-May-19	13:00	0	Read Baseline	0	8.942	BL
28-May-19	13:02	6	CCVL 500 ppb	60441	499.303	
28-May-19	13:04	8	CCV 2500 ppb	326162	2696.305	
28-May-19	13:06	12	CCB	85	9.633	
28-May-19	13:08	0	Read Baseline	0	8.942	BL
28-May-19	13:10	57	280-123955-b-7	55174	456.431	
28-May-19	13:12	58	280-123955-b-8	346531	2867.485	
28-May-19	13:14	59	280-123955-b-9	24751	209.330	
28-May-19	13:16	60	280-123955-b-10	1134	18.114	
28-May-19	13:18	0	Rinse	92	9.687	
28-May-19	13:20	0	Read Baseline	0	8.942	BL
28-May-19	13:22	6	CCVL 500 ppb	55477	458.900	
28-May-19	13:24	8	CCV 2500 ppb	324488	2682.254	

Result path C:\FLOW_4\052819.RST
Sample table path C:\FLOW_4\052819.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 28-May-19
Time acquired 13:42

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
28-May-19	13:26	12	CCB	68	9.491	
28-May-19	13:28	0	Read Baseline	0	8.942	BL
28-May-19	13:34	18	280-124034-e-1	220843	181748.688	
28-May-19	13:36	19	280-123676-d-2	172261	141566.062	

Peak Table:Ammonia

File name: C:\FLOW_4\052819.RST
Date: 28-May-19
Operator: MJS

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	11129	98.974251	
2	0	blk	1	CO	1	1	-164	7.617519	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
4	1	Cal 0.0 PPB	1	C	1	1	-62	8.444231	
5	3	Cal 25.0 ppb	1	C	1	1	2680	30.614069	
6	4	Cal 50.0 ppb	1	C	1	1	5651	54.640106	
7	5	Cal 100.0 ppb	1	C	1	1	11374	100.951683	
8	6	Cal 500.0 ppb	1	C	1	1	60177	497.150513	
9	7	Cal 1000.0 ppb	1	C	1	1	115347	947.764099	
10	8	Cal 2500.0 ppb	1	C	1	1	306728	2533.346191	
11	9	Cal 5000.0 ppb	1	C	1	1	595664	4993.145020	
12	0	blank	1	BLNK	1	1	281	11.210928	
B	0	read baseline	1	RB	1	1	0	8.942436	BL
14	10	ICVL 500.0 ppb	1	U	1	1	60103	496.552002	
15	11	ICV 2500.0 ppb	1	U	1	1	299317	2471.301025	
16	1	ICB	1	U	1	1	-278	6.697810	
B	0	read baseline	1	RB	1	1	0	8.942436	BL
18	8	LCS	1	U	1	1	310697	2566.596436	
19	12	MB	1	U	1	1	-188	7.420424	
20	13	280-123814-e-1	1	U	1	1	-142	7.794078	
21	14	MS 280-123814-e-1	1	U	1	1	130373	1070.998169	
22	15	MSD 280-123814-e-1	1	U	1	1	131641	1081.402100	
23	16	280-123814-d-2	1	U	1	1	-150	7.729836	
24	17	280-123814-e-3	1	U	1	1	85	9.630496	
25	18	.280-124034-e-1	1	U	100	1	4243	4325.460938	
26	19	.280-123676-d-2	1	U	100	1	4253	4333.175293	
27	20	280-123832-c-1	1	U	1	1	152674	1254.284546	
28	21	280-123832-d-2	1	U	1	1	1076	17.638046	
29	22	280-123832-d-4	1	U	1	1	1093	17.780313	
30	0	Rinse	1	U	1	1	79	9.577207	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
32	6	CCVL 500 ppb	1	U	1	1	56169	464.528442	
33	8	CCV 2500 ppb	1	U	1	1	313008	2585.963867	
34	12	CCB	1	U	1	1	-75	8.332233	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
36	23	280-123832-d-6	1	U	1	1	133	10.015054	
37	24	280-123832-c-7	1	U	1	1	-426	5.498975	
38	25	280-123832-c-8	1	U	1	1	211110	1736.801025	
39	26	MS 280-123832-c-8	1	U	1	1	333632	2759.038086	
40	27	MSD 280-123832-c-8	1	U	1	1	335572	2775.339355	
41	28	280-123832-d-10	1	U	1	1	4312	43.810215	
42	29	280-123832-c-11	1	U	1	1	553	13.409419	
43	30	280-123834-f-1	1	U	1	1	2648	30.350458	
44	31	280-123834-e-2	1	U	1	1	7226	67.384323	
45	32	280-123834-e-3	1	U	1	1	34393	287.550995	
46	0	Rinse	1	U	1	1	0	8.944362	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
48	6	CCVL 500 ppb	1	U	1	1	59165	488.915192	
49	8	CCV 2500 ppb	1	U	1	1	296483	2447.584229	
50	12	CCB	1	U	1	1	54	9.382811	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
52	33	280-123842-d-1	1	U	1	1	27332	230.256836	
53	34	280-123844-d-1	1	U	1	1	14561	126.755768	
54	35	280-123843-b-1	1	U	1	1	1708	22.752960	
55	36	280-123843-b-2	1	U	1	1	1660	22.364752	
56	0	Rinse	1	U	1	1	154	10.188354	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
58	6	CCVL 500 ppb	1	U	1	1	58039	479.747131	
59	8	CCV 2500 ppb	1	U	1	1	291306	2404.285156	
60	12	CCB	1	U	1	1	164	10.269135	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
62	8	LCS	1	U	1	1	307352	2538.572754	
63	12	MB	1	U	1	1	-70	8.377738	
64	37	280-123843-c-3	1	U	1	1	-256	6.873998	
65	38	MS 280-123843-c-3	1	U	1	1	131409	1079.499756	
66	39	MSD 280-123843-c-3	1	U	1	1	131011	1076.232788	
67	40	280-123843-b-4	1	U	1	1	1631	22.132111	
68	41	280-123843-b-5	1	U	1	1	-229	7.094176	
69	42	580-86233-c-1	1	U	10	1	152939	12564.628906	
70	43	280-124045-f-1	1	U	1	1	528	13.209052	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	44	280-124225-j-1	1	U	100	1	1629391	1444360.625000	HI
72	45	280-124245-a-1	1	U	100	1	4286	4360.052734	FL
73	46	280-123863-d-2	1	U	5	1	384935	15956.542969	
74	0	Rinse	1	U	1	1	332	11.626774	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
76	6	CCVL 500 ppb	1	U	1	1	63133	521.221130	
77	8	CCV 2500 ppb	1	U	1	1	319724	2642.279297	
78	12	CCB	1	U	1	1	157	10.211310	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
80	47	280-123863-d-3	1	U	500	1	23051	97771.476562	
81	48	280-123863-d-4	1	U	10	1	54997	4549.919922	
82	49	280-123955-b-1	1	U	1	1	45542	378.106659	
83	50	MS 280-123955-b-1	1	U	1	1	157326	1292.577148	
84	51	MSD 280-123955-b-1	1	U	1	1	178492	1467.070923	
85	52	280-123955-b-2	1	U	1	1	-50	8.539579	
86	53	280-123955-b-3	1	U	1	1	97020	797.753418	
87	54	280-123955-b-4	1	U	1	1	123955	1018.335815	
88	55	280-123955-b-5	1	U	1	1	79836	657.389282	
89	56	280-123955-b-6	1	U	1	1	52788	437.019592	
90	0	Rinse	1	U	1	1	-124	7.943411	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
92	6	CCVL 500 ppb	1	U	1	1	60441	499.303436	
93	8	CCV 2500 ppb	1	U	1	1	326162	2696.304932	
94	12	CCB	1	U	1	1	85	9.633316	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
96	57	280-123955-b-7	1	U	1	1	55174	456.431396	
97	58	280-123955-b-8	1	U	1	1	346531	2867.484863	
98	59	280-123955-b-9	1	U	1	1	24751	209.329941	
99	60	280-123955-b-10	1	U	1	1	1134	18.113926	
100	0	Rinse	1	U	1	1	92	9.687149	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
102	6	CCVL 500 ppb	1	U	1	1	55477	458.900177	
103	8	CCV 2500 ppb	1	U	1	1	324488	2682.253662	
104	12	CCB	1	U	1	1	68	9.490938	
B	0	Read Baseline	1	RB	1	1	0	8.942436	BL
106	18	280-124034-e-1	1	U	100	1	220843	181748.687500	
107	19	280-123676-d-2	1	U	100	1	172261	141566.062500	

Ammonia:Calibration 1: Peak 4-107

File name: C:\FLOW_4\052819.RST
Date: 28-May-19
Operator: MJS

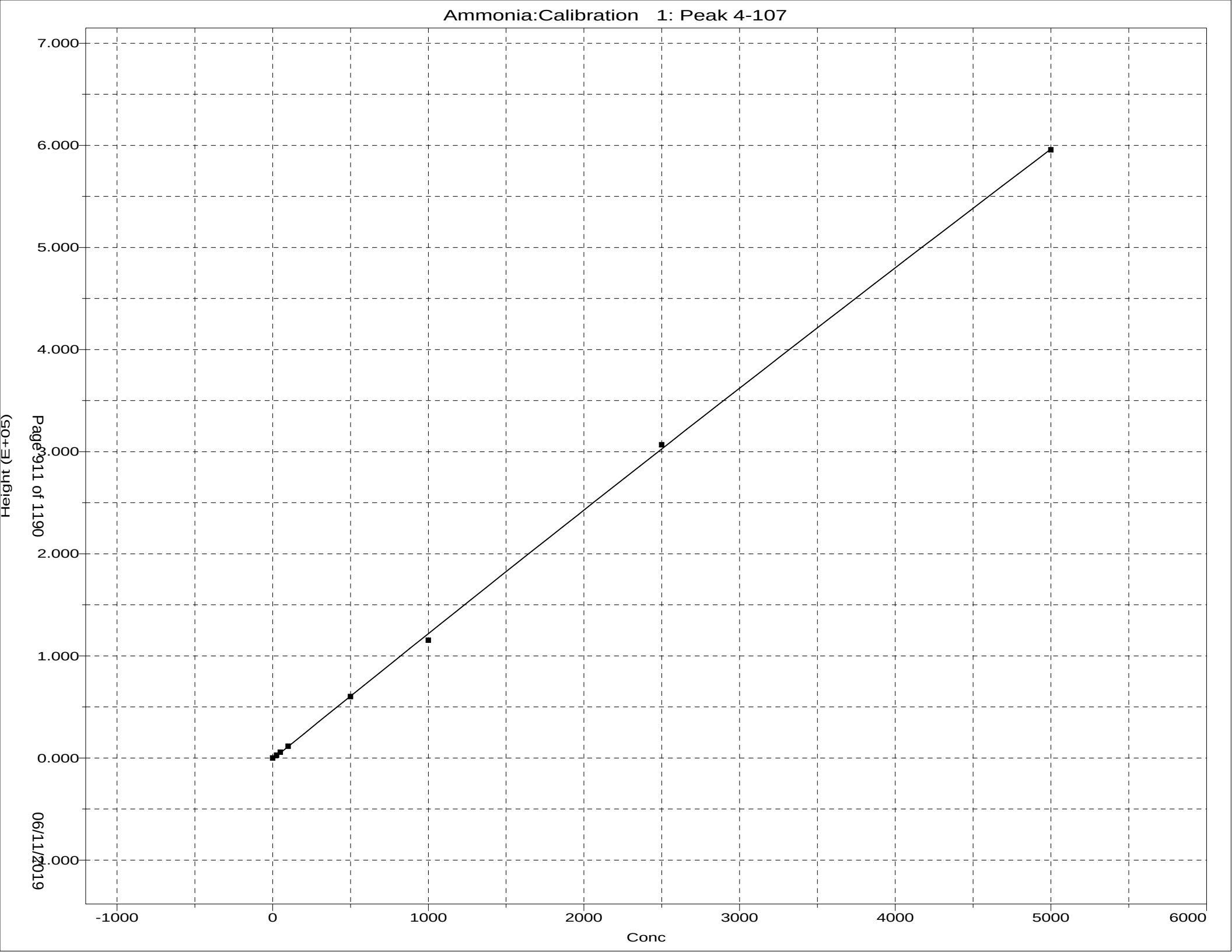
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*	Cal 0.0 PPB	0.000000	-61.626587
*	Cal 25.0 ppb	25.000000	2680.288574
*	Cal 50.0 ppb	50.000000	5650.776367
*	Cal 100.0 ppb	100.000000	11373.639648
*	Cal 500.0 ppb	500.000000	60176.804688
*	Cal 1000.0 ppb	1000.000000	115346.773438
*	Cal 2500.0 ppb	2500.000000	306727.812500
*	Cal 5000.0 ppb	5000.000000	595663.812500

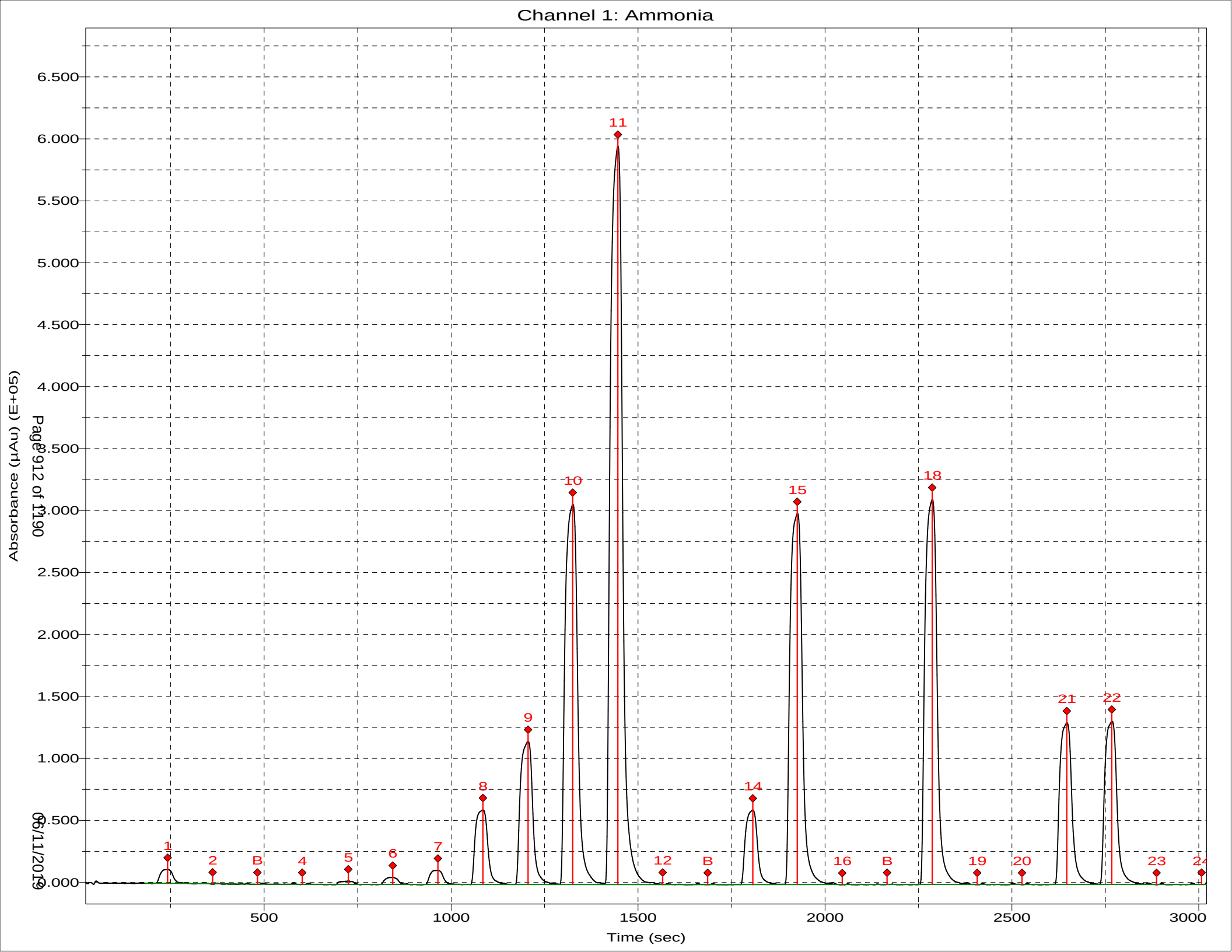
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a: (intercept) 8.9424e+00
b: 8.0843e-03
c: 4.7542e-10

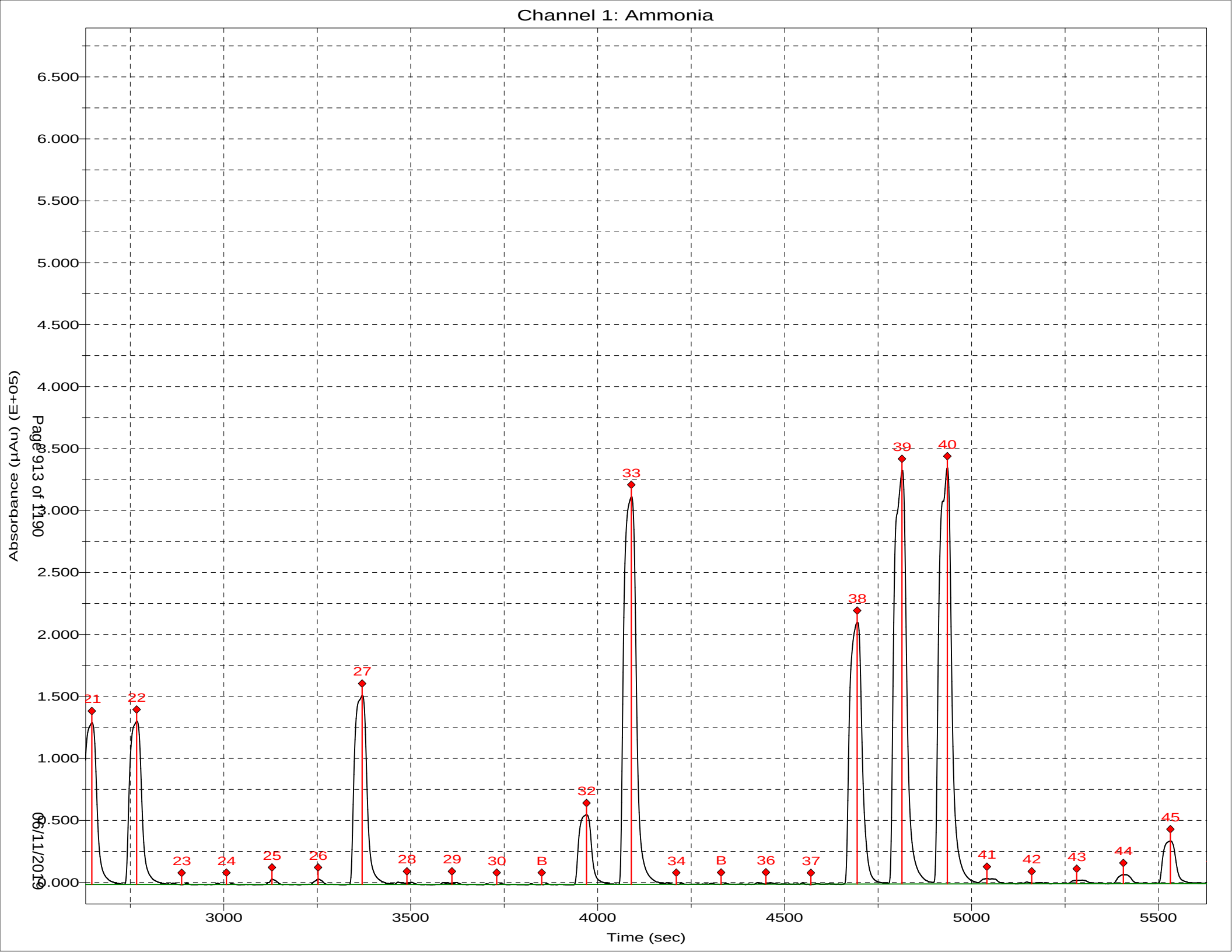
Corr Coef: 0.999911

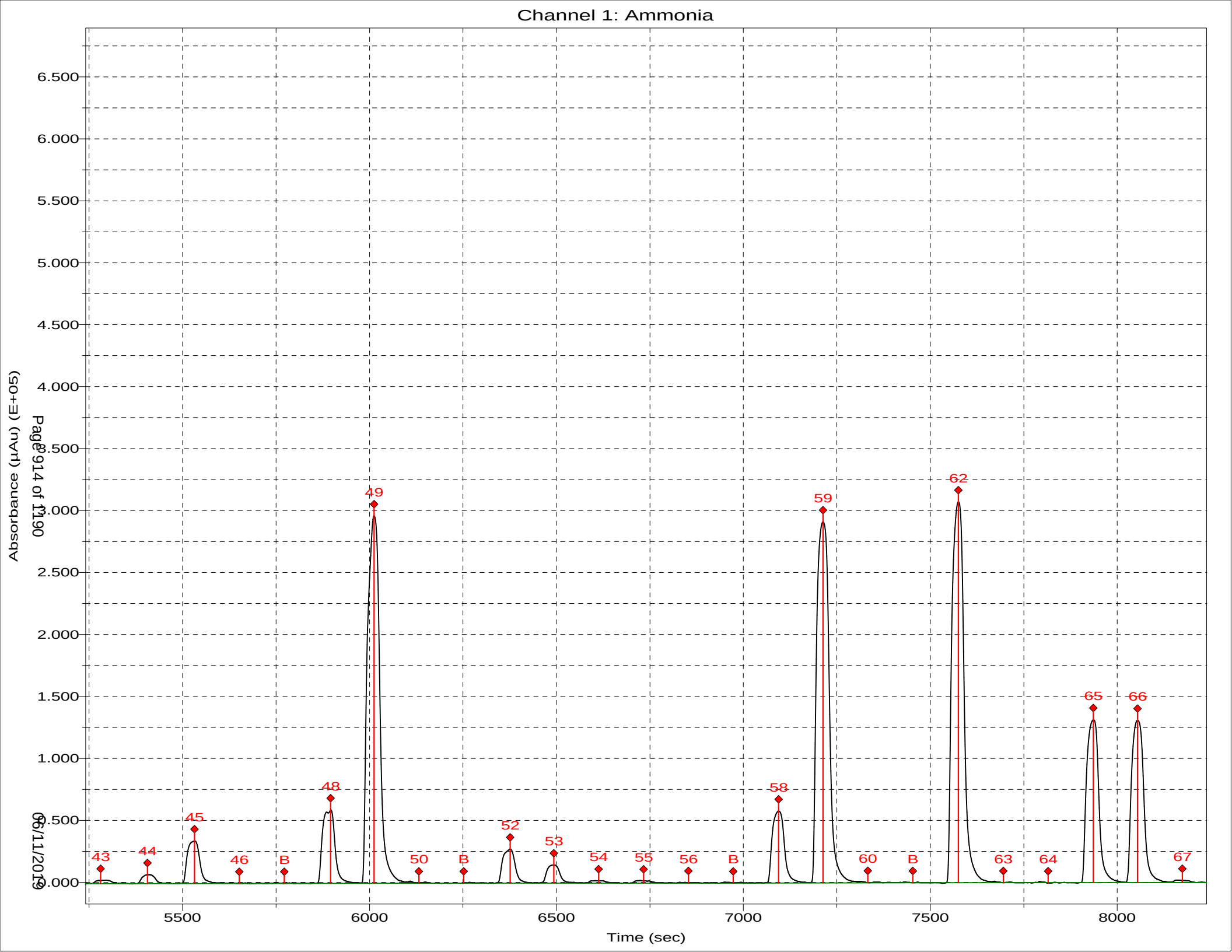
Carryover: 0%

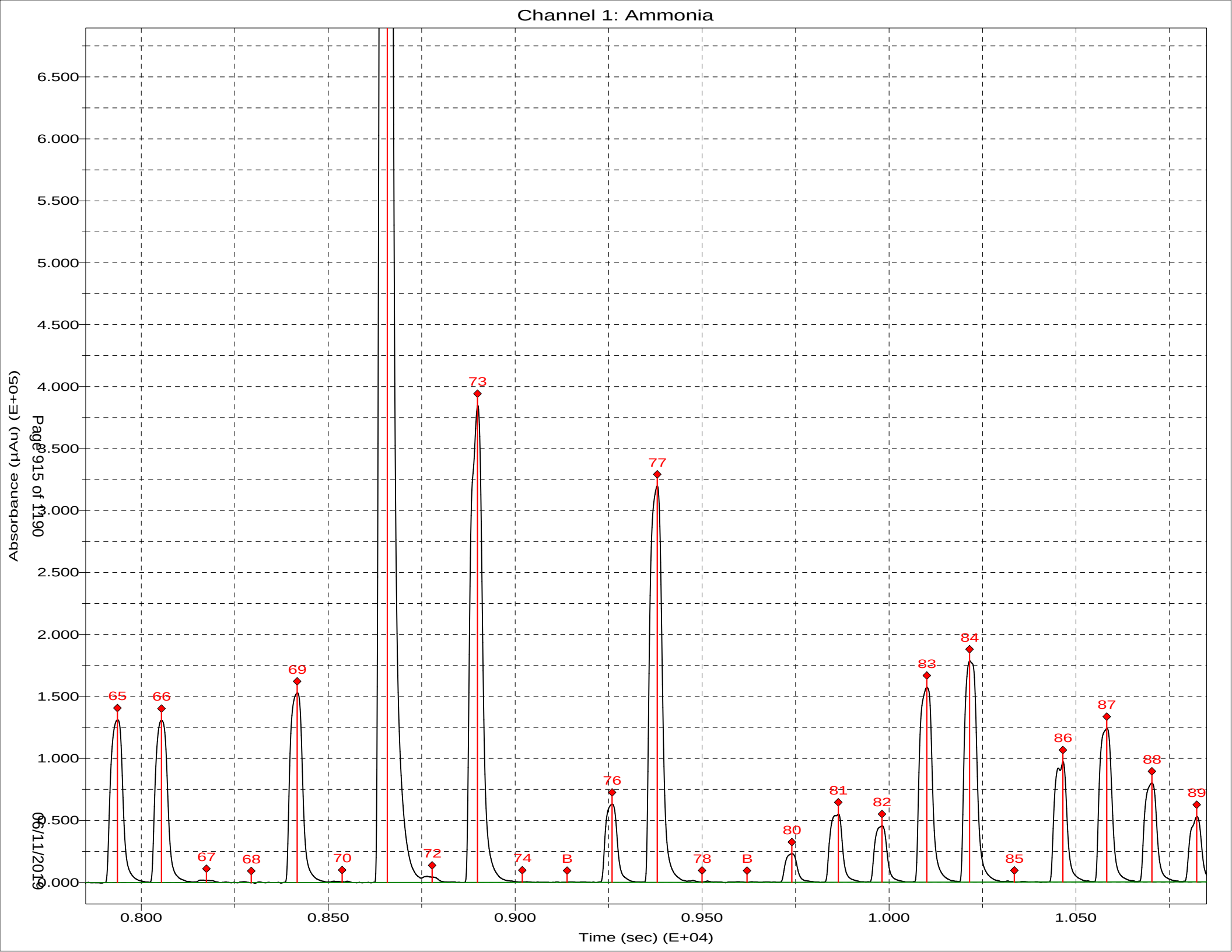
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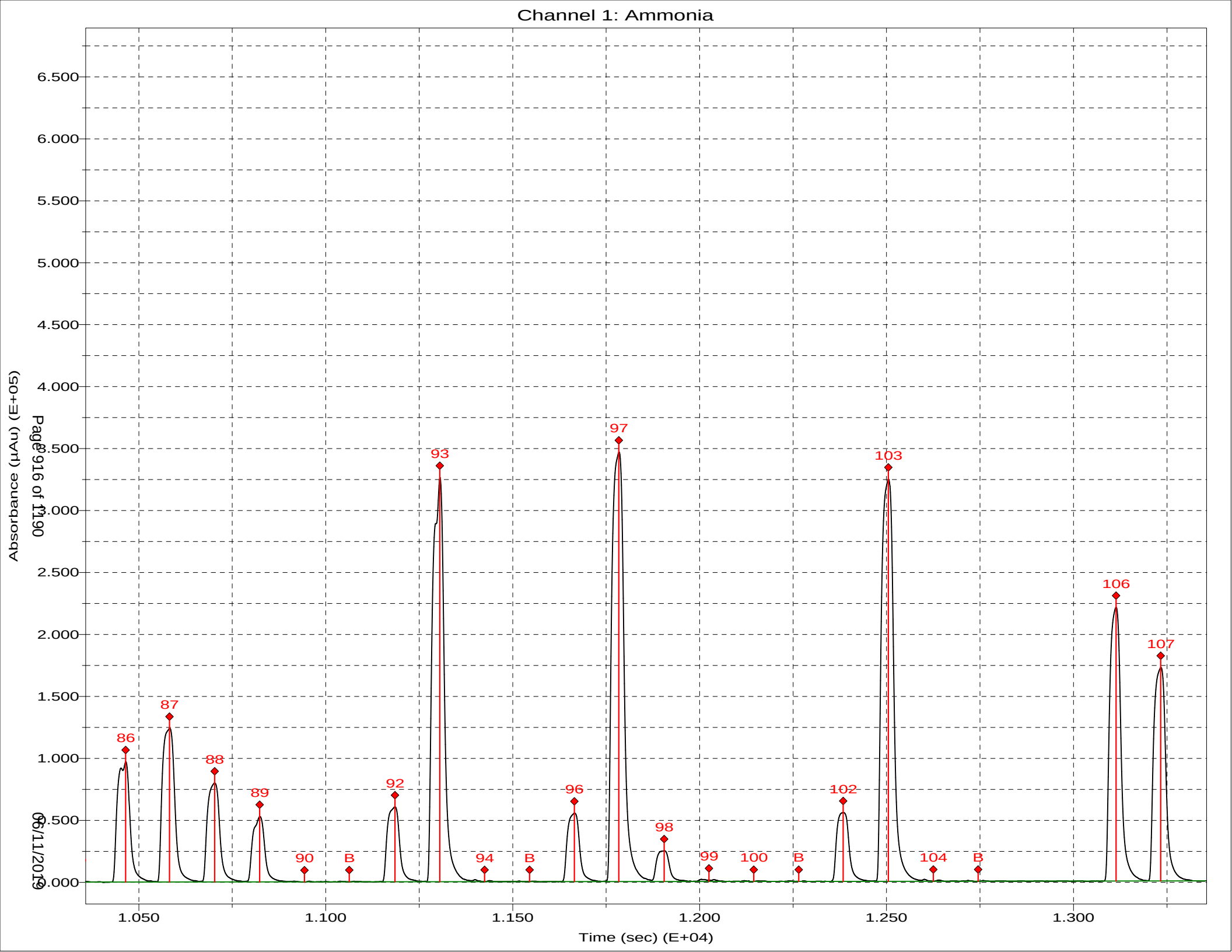

Ammonia:Calibration 1: Peak 4-107
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Height (E+05)
-1000
0
1000
2000
3000
4000
5000
6000
Conc
Page 911 of 1190
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Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.500
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
21
22
23
24
500
1000
1500
2000
2500
3000
Time (sec)
Page 912 of 1190
06/11/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.500
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
3000
3500
4000
4500
5000
5500
Time (sec)
21
22
23
24
25
26
27
28
29
30
B
32
33
34
B
36
37
38
39
40
41
42
43
44
45
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Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.500
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
5500
6000
6500
7000
7500
8000
Time (sec)
43
44
45
46
B
48
49
50
B
52
53
54
55
56
B
58
59
60
B
62
63
64
65
66
67


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
6.500
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.800
0.850
0.900
0.950
1.000
1.050
65
66
67
68
69
70
72
73
74
B
76
77
78
B
80
81
82
83
84
85
86
87
88
89
Page 915 of 1190
06/11/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.500
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.050
1.100
1.150
1.200
1.250
1.300
Time (sec) (E+04)
86
87
88
89
90
B
92
93
94
B
96
97
98
99
100
B
102
103
104
B
106
107
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Sample Table for 060319

	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-460066/42-A	Unknown	4 ml
14	1:16	ICB 280-460066/43-A	Unknown	4 ml
15	1:17	LCS 280-459431/1-A	Unknown	4 ml
16	1:18	MB 280-459431/2-A	Unknown	4 ml
17	1:19	280-123627-H-1-B	Unknown	4 ml
18	1:20	280-123627-H-1-C MS	Unknown	4 ml
19	1:21	280-123627-H-1-D MS	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	280-123581-F-2-A	Unknown	4 ml
22	1:24	280-123581-E-3-A	Unknown	4 ml
23	1:25	280-123581-F-4-A	Unknown	4 ml
24	1:26	280-123581-F-5-A	Unknown	4 ml
25	1:27	280-123581-F-6-A	Unknown	4 ml
26	1:28	280-124092-A-1-A	Unknown	4 ml
27	1:29	280-123636-F-1-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-460066/44-A	Unknown	4 ml
30	1:32	CCB 280-460066/45-A	Unknown	4 ml
31	1:33	280-123636-F-2-A	Unknown	4 ml
32	1:34	280-123636-E-3-A	Unknown	4 ml
33	1:35	280-123636-E-4-A	Unknown	4 ml
34	1:36	w	Blank	4 ml
35	1:37	xLCS 280-460066/1-A	Unknown	4 ml
36	1:38	MB 280-460066/2-A	Unknown	4 ml
37	1:39	280-123776-B-1-A	Unknown	4 ml
38	1:40	280-123776-B-1-B MS	Unknown	4 ml
39	1:41	280-123776-B-1-C MS	Unknown	4 ml
40	1:42	w	Blank	4 ml
41	1:43	280-123776-B-2-A	Unknown	4 ml
42	1:44	280-123776-B-3-D	Unknown	4 ml
43	1:45	w	Blank	4 ml
44	1:46	CCV 280-460066/44-A	Unknown	4 ml

	Position	Identifier	Type	Cup Type
45	1:47	CCB 280-460066/45-A	Unknown	4 ml
46	1:48	280-123822-H-1-A	Unknown	4 ml
47	1:49	280-123814-D-1-A	Unknown	4 ml
48	1:50	280-123814-D-2-A	Unknown	4 ml
49	1:51	280-123814-E-3-A	Unknown	4 ml
50	1:52	280-124041-E-1-A	Unknown	4 ml
51	1:53	280-124112-A-1-A	Unknown	4 ml
52	1:54	280-123820-K-2-A	Unknown	4 ml
53	1:55	280-123820-K-3-A	Unknown	4 ml
54	1:56	280-123820-K-3-B MS	Unknown	4 ml
55	1:57	280-123820-K-3-C MS	Unknown	4 ml
56	1:58	w	Blank	4 ml
57	1:59	CCV 280-460066/44-A	Unknown	4 ml
58	1:60	CCB 280-460066/45-A	Unknown	4 ml
59	2:1	280-123820-K-4-A	Unknown	4 ml
60	2:2	280-123820-K-5-A	Unknown	4 ml
61	2:3	280-124043-F-1-A	Unknown	4 ml
62	2:4	280-123834-F-1-A	Unknown	4 ml
63	2:5	280-123834-D-2-A	Unknown	4 ml
64	2:6	280-123834-E-3-A	Unknown	4 ml
65	2:7	280-124042-E-1-A	Unknown	4 ml
66	2:8	280-124319-B-1-A	Unknown	4 ml
67	2:9	280-124045-F-1-A	Unknown	4 ml
68	2:10	280-123822-H-1-A	Unknown	4 ml
69	2:11	w	Blank	4 ml
70	2:12	CCV 280-460066/44-A	Unknown	4 ml
71	2:13	CCB 280-460066/45-A	Unknown	4 ml
72	2:14	LCS 280-460066/27-A	Unknown	4 ml
73	2:15	MB 280-460066/28-A	Unknown	4 ml
74	2:16	280-123899-A-1-D	Unknown	4 ml
75	2:17	280-123899-A-1-E MS	Unknown	4 ml
76	2:18	280-123899-A-1-F MSI	Unknown	4 ml
77	2:19	LCS 280-460066/1-A	Unknown	4 ml
78	2:20	280-123899-A-2-B	Unknown	4 ml
79	2:21	280-123899-A-3-B	Unknown	4 ml
80	2:22	280-123899-A-4-B	Unknown	4 ml
81	2:23	280-124094-C-1-B	Unknown	4 ml
82	2:24	280-123822-H-1-A	Unknown	4 ml
83	2:25	w	Blank	4 ml
84	2:26	CCV 280-460066/44-A	Unknown	4 ml
85	2:27	CCB 280-460066/45-A	Unknown	4 ml
86	2:28	w	Blank	4 ml
87	2:29	w	Blank	4 ml
88	2:30	280-124094-C-1-B	Unknown	4 ml

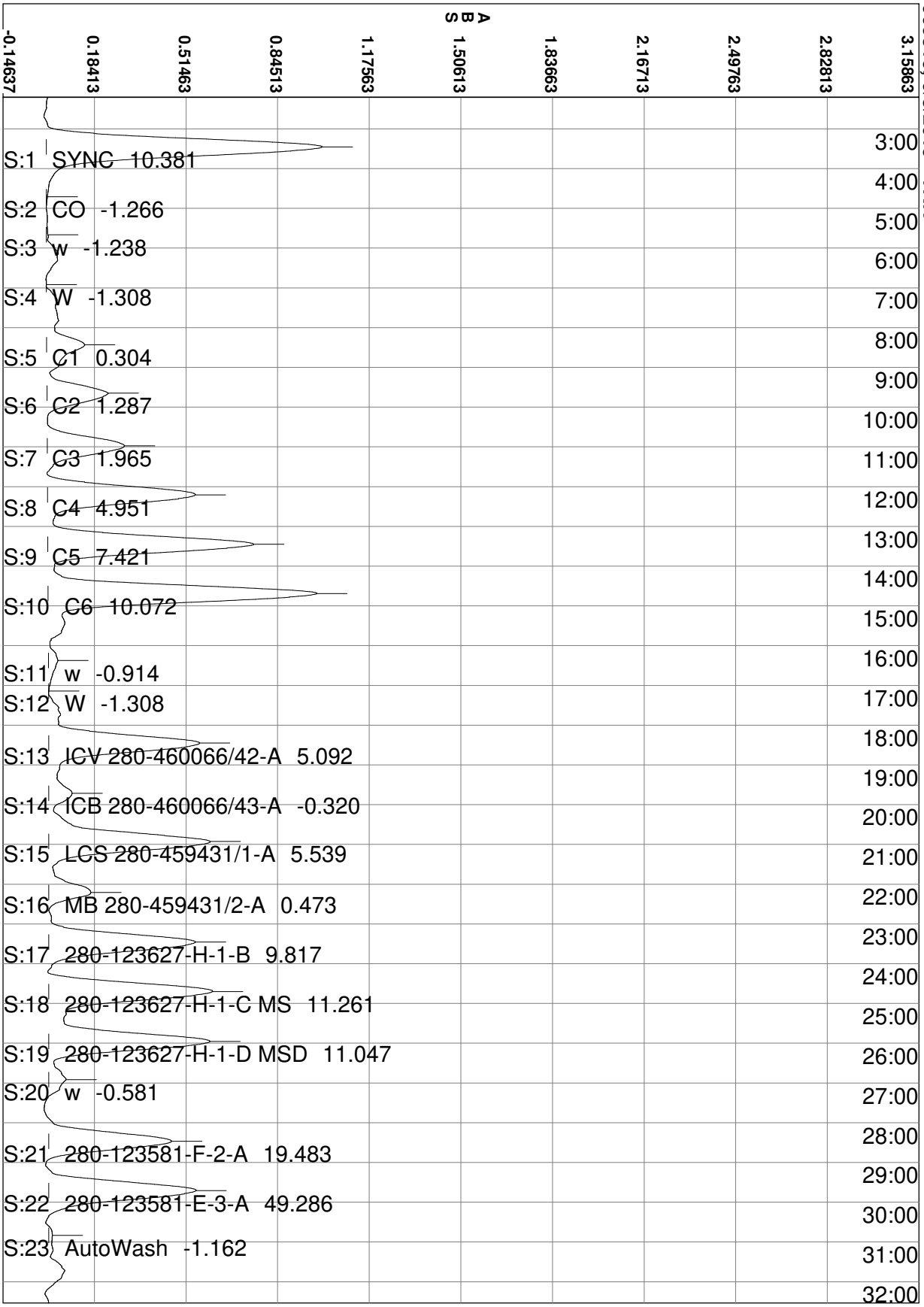
	Position	Identifier	Type	Cup Type
89	2:31	w	Blank	4 ml
90	2:32	CCV 280-460066/44-A	Unknown	4 ml
91	2:33	CCB 280-460066/45-A	Unknown	4 ml

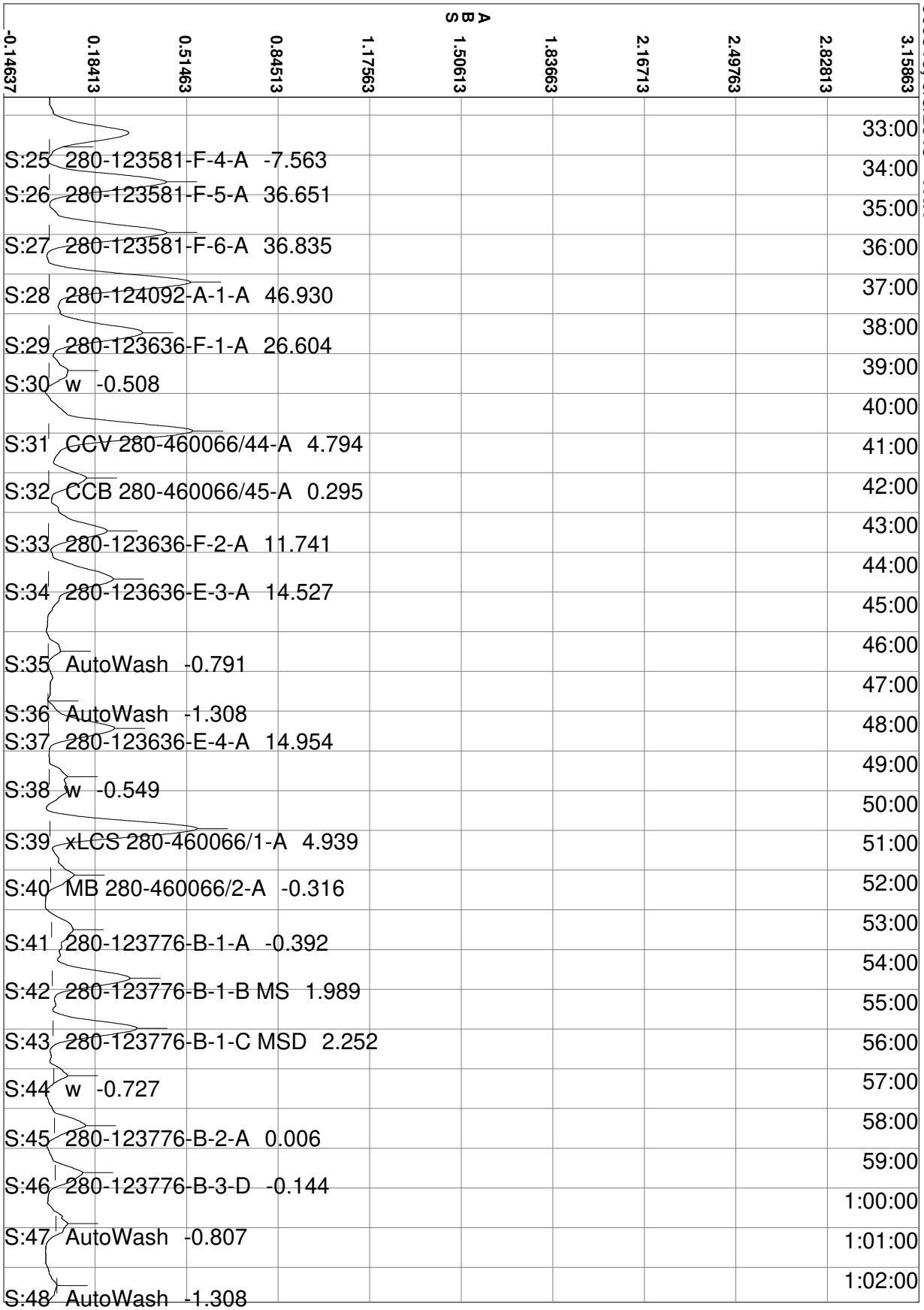
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Configuration: TKN
Run date: 6/3/2019

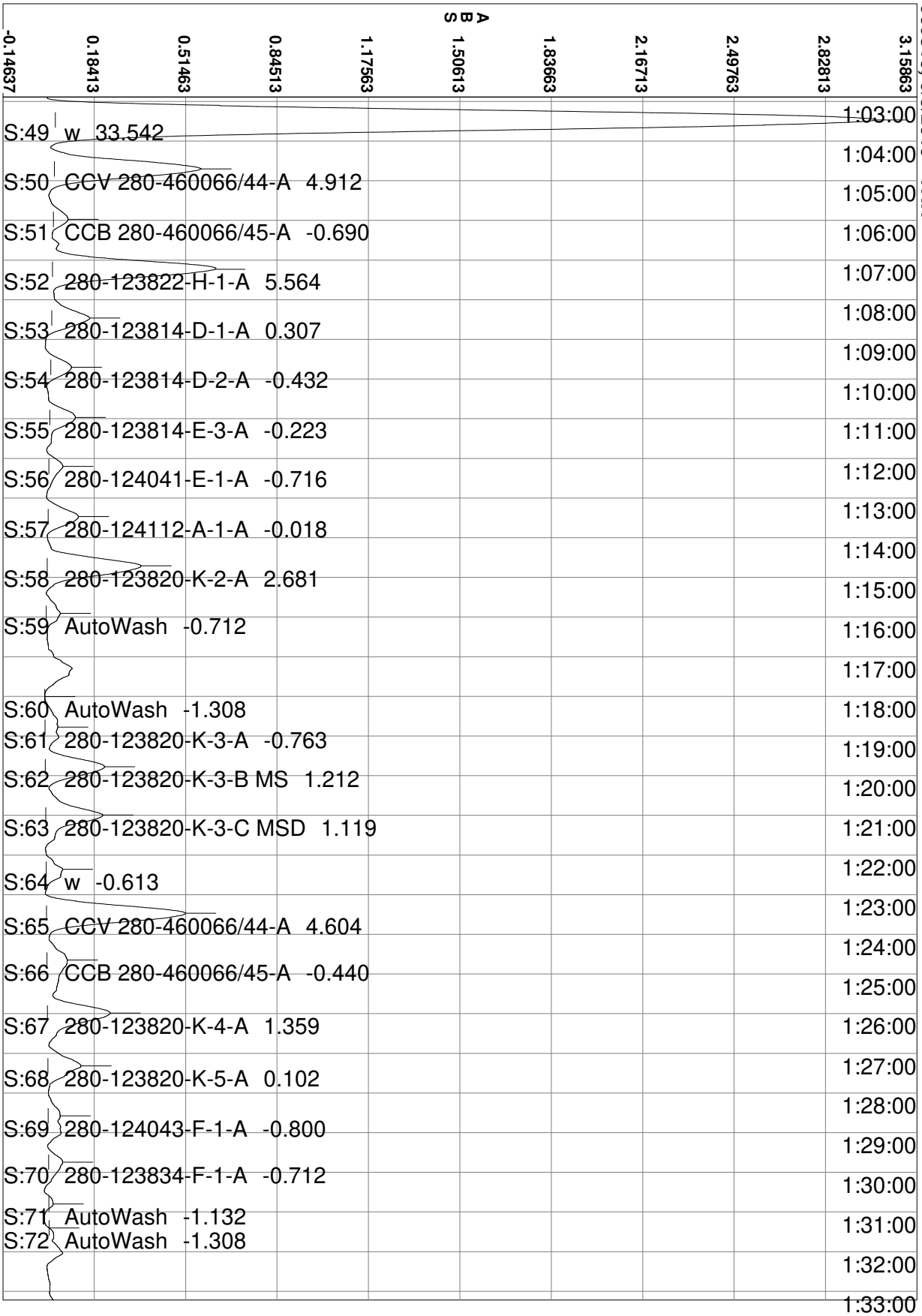
	Position	Identifier	Type	Comme	Date	Time	otal	TKN Cor Ht	mg/l
1	1:1	SYNC	SYNC	50;351.2	6/3/2019	7:51:39 PM	1	0.99328	10.381
2	1:2	CO	Carry over		6/3/2019	7:52:09 PM	1	0.00357	-1.266
3	1:3	w	Blank		6/3/2019	7:53:24 PM	1	0.00590	-1.238
4	1:4	W	Wash		6/3/2019	7:54:39 PM	1	0.00000	-1.308
5	1:5	C1	Calibrant		6/3/2019	7:55:54 PM	1	0.13699	0.304
6	1:6	C2	Calibrant		6/3/2019	7:57:09 PM	1	0.22050	1.287
7	1:7	C3	Calibrant		6/3/2019	7:58:24 PM	1	0.27813	1.965
8	1:8	C4	Calibrant		6/3/2019	7:59:39 PM	1	0.53186	4.951
9	1:9	C5	Calibrant		6/3/2019	8:00:54 PM	1	0.74174	7.421
10	1:10	C6	Calibrant		6/3/2019	8:02:09 PM	1	0.96708	10.072
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99908
		Intercept:							0.11113
		Linear coef:							0.084981
11	1:13	w	Blank		6/3/2019	8:03:24 PM	1	0.03349	-0.914
12	1:14	W	Wash		6/3/2019	8:04:39 PM	1	0.00000	-1.308
13	1:15	ICV 280-460066/42-A	Unknown		6/3/2019	8:05:54 PM	1	0.54383	5.092
14	1:16	ICB 280-460066/43-A	Unknown		6/3/2019	8:07:09 PM	1	0.08394	-0.320
15	1:17	LCS 280-459431/1-A	Unknown		6/3/2019	8:08:24 PM	1	0.58186	5.539
16	1:18	MB 280-459431/2-A	Unknown		6/3/2019	8:09:40 PM	1	0.15131	0.473
17	1:19	280-123627-H-1-B	Unknown		6/3/2019	8:10:54 PM	2	0.52824	9.817
18	1:20	280-123627-H-1-C MS	Unknown		6/3/2019	8:12:09 PM	2	0.58962	11.261
19	1:21	280-123627-H-1-D MSD	Unknown		6/3/2019	8:13:24 PM	2	0.58054	11.047
20	1:22	w	Blank		6/3/2019	8:14:39 PM	1	0.06174	-0.581
21	1:23	280-123581-F-2-A	Unknown		6/3/2019	8:15:54 PM	5	0.44228	19.483
22	1:24	280-123581-E-3-A	Unknown		6/3/2019	8:17:09 PM	10	0.52997	49.286
23	0	AutoWash	AutoWash		6/3/2019	8:18:25 PM	1	0.01241	-1.162
24	0	AutoWash	AutoWash		6/3/2019	8:19:39 PM	1	0.00000	-1.308
25	1:25	280-123581-F-4-A	Unknown		6/3/2019	8:20:54 PM	10	0.04686	-7.563
26	1:26	280-123581-F-5-A	Unknown		6/3/2019	8:22:09 PM	10	0.42259	36.651
27	1:27	280-123581-F-6-A	Unknown		6/3/2019	8:23:24 PM	10	0.42416	36.835
28	1:28	280-124092-A-1-A	Unknown		6/3/2019	8:24:39 PM	10	0.50995	46.930
29	1:29	280-123636-F-1-A	Unknown		6/3/2019	8:25:54 PM	10	0.33722	26.604
30	1:30	w	Blank		6/3/2019	8:27:09 PM	1	0.06795	-0.508
31	1:31	CCV 280-460066/44-A	Unknown		6/3/2019	8:28:24 PM	1	0.51857	4.794
32	1:32	CCB 280-460066/45-A	Unknown		6/3/2019	8:29:39 PM	1	0.13620	0.295
33	1:33	280-123636-F-2-A	Unknown		6/3/2019	8:30:54 PM	10	0.21091	11.741
34	1:34	280-123636-E-3-A	Unknown		6/3/2019	8:32:09 PM	10	0.23459	14.527
35	0	AutoWash	AutoWash		6/3/2019	8:33:24 PM	1	0.04387	-0.791
36	0	AutoWash	AutoWash		6/3/2019	8:34:39 PM	1	0.00000	-1.308
37	1:35	280-123636-E-4-A	Unknown		6/3/2019	8:35:54 PM	10	0.23821	14.954
38	1:36	w	Blank		6/3/2019	8:37:09 PM	1	0.06452	-0.549

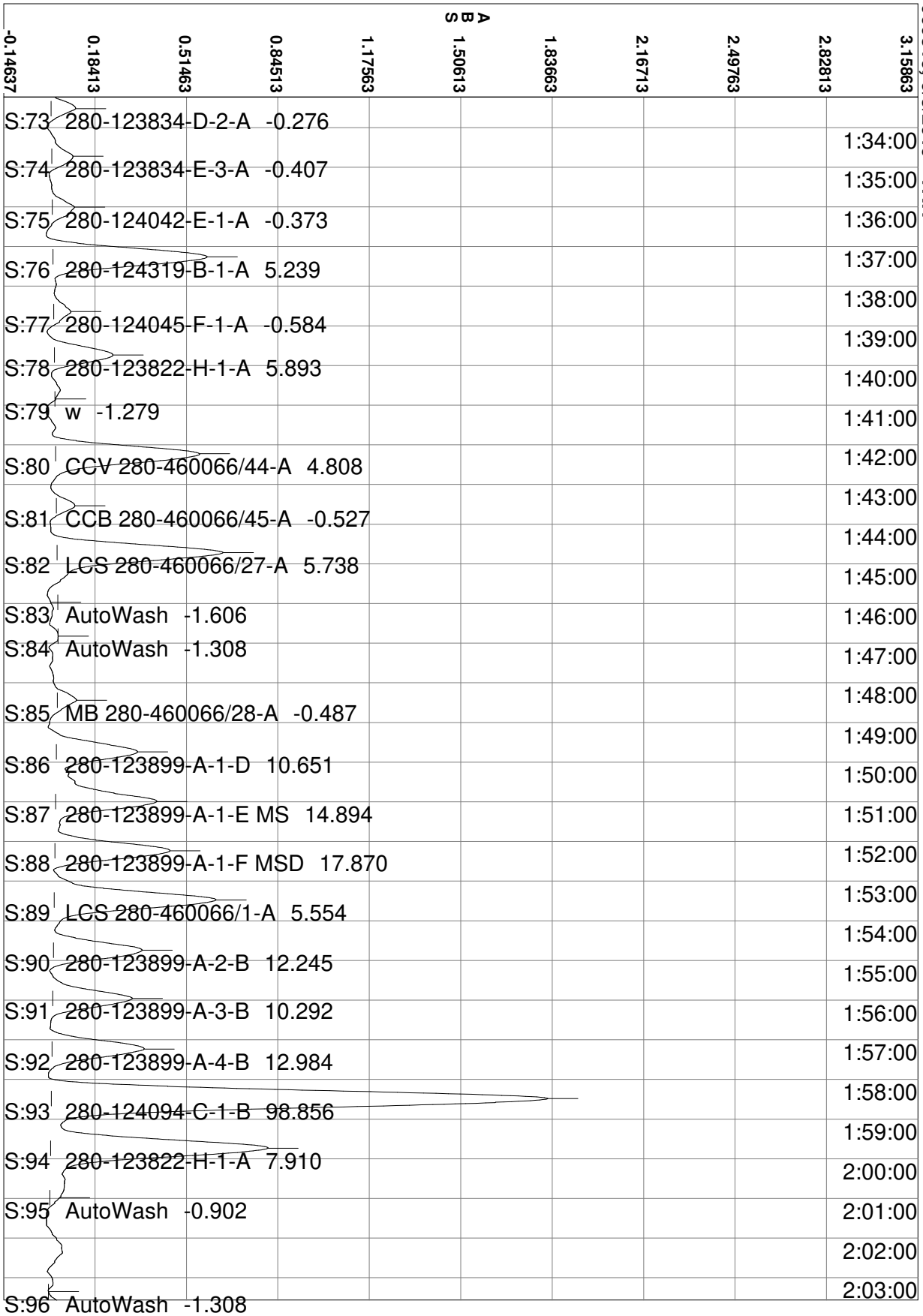
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39	1:37	xLCS 280-460066/1-A	Unknown		6/3/2019	8:38:24 PM	1	0.53087	4.939
40	1:38	MB 280-460066/2-A	Unknown		6/3/2019	8:39:39 PM	1	0.08428	-0.316
41	1:39	280-123776-B-1-A	Unknown		6/3/2019	8:40:54 PM	1	0.07781	-0.392
42	1:40	280-123776-B-1-B MS	Unknown		6/3/2019	8:42:09 PM	1	0.28019	1.989
43	1:41	280-123776-B-1-C MSD	Unknown		6/3/2019	8:43:24 PM	1	0.30250	2.252
44	1:42	w	Blank		6/3/2019	8:44:39 PM	1	0.04939	-0.727
45	1:43	280-123776-B-2-A	Unknown		6/3/2019	8:45:54 PM	1	0.11166	0.006
46	1:44	280-123776-B-3-D	Unknown		6/3/2019	8:47:09 PM	1	0.09888	-0.144
47	0	AutoWash	AutoWash		6/3/2019	8:48:24 PM	1	0.04251	-0.807
48	0	AutoWash	AutoWash		6/3/2019	8:49:39 PM	1	0.00000	-1.308
49	1:45	w	Blank		6/3/2019	8:50:54 PM	1	2.96157	33.542
50	1:46	CCV 280-460066/44-A	Unknown		6/3/2019	8:52:09 PM	1	0.52855	4.912
51	1:47	CCB 280-460066/45-A	Unknown		6/3/2019	8:53:24 PM	1	0.05253	-0.690
52	1:48	280-123822-H-1-A	Unknown		6/3/2019	8:54:39 PM	1	0.58397	5.564
53	1:49	280-123814-D-1-A	Unknown		6/3/2019	8:55:54 PM	1	0.13721	0.307
54	1:50	280-123814-D-2-A	Unknown		6/3/2019	8:57:09 PM	1	0.07444	-0.432
55	1:51	280-123814-E-3-A	Unknown		6/3/2019	8:58:24 PM	1	0.09221	-0.223
56	1:52	280-124041-E-1-A	Unknown		6/3/2019	8:59:39 PM	1	0.05032	-0.716
57	1:53	280-124112-A-1-A	Unknown		6/3/2019	9:00:54 PM	1	0.10961	-0.018
58	1:54	280-123820-K-2-A	Unknown		6/3/2019	9:02:09 PM	1	0.33898	2.681
59	0	AutoWash	AutoWash		6/3/2019	9:03:24 PM	1	0.05061	-0.712
60	0	AutoWash	AutoWash		6/3/2019	9:04:39 PM	1	0.00000	-1.308
61	1:55	280-123820-K-3-A	Unknown		6/3/2019	9:05:54 PM	1	0.04629	-0.763
62	1:56	280-123820-K-3-B MS	Unknown		6/3/2019	9:07:09 PM	1	0.21409	1.212
63	1:57	280-123820-K-3-C MSD	Unknown		6/3/2019	9:08:24 PM	1	0.20625	1.119
64	1:58	w	Blank		6/3/2019	9:09:39 PM	1	0.05906	-0.613
65	1:59	CCV 280-460066/44-A	Unknown		6/3/2019	9:10:54 PM	1	0.50240	4.604
66	1:60	CCB 280-460066/45-A	Unknown		6/3/2019	9:12:09 PM	1	0.07372	-0.440
67	2:1	280-123820-K-4-A	Unknown		6/3/2019	9:13:24 PM	1	0.22666	1.359
68	2:2	280-123820-K-5-A	Unknown		6/3/2019	9:14:39 PM	1	0.11978	0.102
69	2:3	280-124043-F-1-A	Unknown		6/3/2019	9:15:54 PM	1	0.04315	-0.800
70	2:4	280-123834-F-1-A	Unknown		6/3/2019	9:17:09 PM	1	0.05066	-0.712
71	0	AutoWash	AutoWash		6/3/2019	9:18:24 PM	1	0.01497	-1.132
72	0	AutoWash	AutoWash		6/3/2019	9:19:39 PM	1	0.00000	-1.308
73	2:5	280-123834-D-2-A	Unknown		6/3/2019	9:20:54 PM	1	0.08770	-0.276
74	2:6	280-123834-E-3-A	Unknown		6/3/2019	9:22:09 PM	1	0.07654	-0.407
75	2:7	280-124042-E-1-A	Unknown		6/3/2019	9:23:24 PM	1	0.07946	-0.373
76	2:8	280-124319-B-1-A	Unknown		6/3/2019	9:24:39 PM	1	0.55631	5.239
77	2:9	280-124045-F-1-A	Unknown		6/3/2019	9:25:54 PM	1	0.06150	-0.584
78	2:10	280-123822-H-1-A	Unknown		6/3/2019	9:27:09 PM	5	0.21130	5.893
79	2:11	w	Blank		6/3/2019	9:28:24 PM	1	0.00246	-1.279
80	2:12	CCV 280-460066/44-A	Unknown		6/3/2019	9:29:39 PM	1	0.51969	4.808
81	2:13	CCB 280-460066/45-A	Unknown		6/3/2019	9:30:54 PM	1	0.06633	-0.527
82	2:14	LCS 280-460066/27-A	Unknown		6/3/2019	9:32:09 PM	1	0.59878	5.738
83	0	AutoWash	AutoWash		6/3/2019	9:33:24 PM	1	-0.02537	-1.606
84	0	AutoWash	AutoWash		6/3/2019	9:34:39 PM	1	0.00000	-1.308
85	2:15	MB 280-460066/28-A	Unknown		6/3/2019	9:35:54 PM	1	0.06970	-0.487
86	2:16	280-123899-A-1-D	Unknown		6/3/2019	9:37:09 PM	5	0.29217	10.651

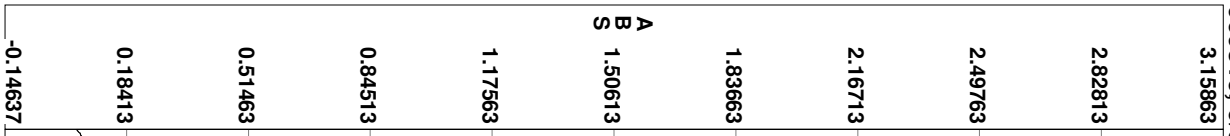
	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
87	2:17	280-123899-A-1-E MS	Unknown		6/3/2019	9:38:24 PM	5	0.36428	14.894
88	2:18	280-123899-A-1-F MSD	Unknown		6/3/2019	9:39:39 PM	5	0.41486	17.870
89	2:19	LCS 280-460066/1-A	Unknown		6/3/2019	9:40:54 PM	1	0.58309	5.554
90	2:20	280-123899-A-2-B	Unknown		6/3/2019	9:42:09 PM	5	0.31925	12.245
91	2:21	280-123899-A-3-B	Unknown		6/3/2019	9:43:24 PM	5	0.28605	10.292
92	2:22	280-123899-A-4-B	Unknown		6/3/2019	9:44:39 PM	5	0.33181	12.984
93	2:23	280-124094-C-1-B	Unknown		6/3/2019	9:45:54 PM	5	1.79132	98.856
94	2:24	280-123822-H-1-A	Unknown		6/3/2019	9:47:09 PM	1	0.78330	7.910
95	0	AutoWash	AutoWash		6/3/2019	9:48:24 PM	1	0.03446	-0.902
96	0	AutoWash	AutoWash		6/3/2019	9:49:39 PM	1	0.00000	-1.308
97	2:25	w	Blank		6/3/2019	9:50:54 PM	1	0.05892	-0.614
98	2:26	CCV 280-460066/44-A	Unknown		6/3/2019	9:52:09 PM	1	0.51471	4.749
99	2:27	CCB 280-460066/45-A	Unknown		6/3/2019	9:53:24 PM	1	0.07693	-0.402
100	2:28	w	Blank		6/3/2019	9:54:39 PM	1	0.03878	-0.851
101	2:29	w	Blank		6/3/2019	9:55:54 PM	1	0.00515	-1.247
102	2:30	280-124094-C-1-B	Unknown		6/3/2019	9:57:09 PM	10	0.93039	96.404
103	2:31	w	Blank		6/3/2019	9:58:24 PM	1	0.03821	-0.858
104	2:32	CCV 280-460066/44-A	Unknown		6/3/2019	9:59:39 PM	1	0.54671	5.126
105	2:33	CCB 280-460066/45-A	Unknown		6/3/2019	10:00:54 P	1	0.02879	-0.969
106	0	AutoWash	AutoWash		6/3/2019	10:02:08 P	1	0.01114	-1.177
107	0	AutoWash	AutoWash		6/3/2019	10:03:23 P	1	0.00000	-1.308


060319, 6/3/2019 - TKN
ABS
-0.14637
0.18413
0.51463
0.84513
1.17563
1.50613
1.83663
2.16713
2.49763
2.82813
3.15863
S:1 SYNC 10.381
S:2 CO -1.266
S:3 w -1.238
S:4 W -1.308
S:5 C1 0.304
S:6 C2 1.287
S:7 C3 1.965
S:8 C4 4.951
S:9 C5 7.421
S:10 C6 10.072
S:11 w -0.914
S:12 W -1.308
S:13 ICV 280-460066/42-A 5.092
S:14 ICB 280-460066/43-A -0.320
S:15 LCS 280-459431/1-A 5.539
S:16 MB 280-459431/2-A 0.473
S:17 280-123627-H-1-B 9.817
S:18 280-123627-H-1-C MS 11.261
S:19 280-123627-H-1-D MSD 11.047
S:20 w -0.581
S:21 280-123581-F-2-A 19.483
S:22 280-123581-E-3-A 49.286
S:23 AutoWash -1.162
3:00
4:00
5:00
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060319, 6/3/2019 - TKN
ABS
-0.14637
0.18413
0.51463
0.84513
1.17563
1.50613
1.83663
2.16713
2.49763
2.82813
3.15863
S:25 280-123581-F-4-A -7.563
S:26 280-123581-F-5-A 36.651
S:27 280-123581-F-6-A 36.835
S:28 280-124092-A-1-A 46.930
S:29 280-123636-F-1-A 26.604
S:30 w -0.508
S:31 CCV 280-460066/44-A 4.794
S:32 CCB 280-460066/45-A 0.295
S:33 280-123636-F-2-A 11.741
S:34 280-123636-E-3-A 14.527
S:35 AutoWash -0.791
S:36 AutoWash -1.308
S:37 280-123636-E-4-A 14.954
S:38 w -0.549
S:39 xLCS 280-460066/1-A 4.939
S:40 MB 280-460066/2-A -0.316
S:41 280-123776-B-1-A -0.392
S:42 280-123776-B-1-B MS 1.989
S:43 280-123776-B-1-C MSD 2.252
S:44 w -0.727
S:45 280-123776-B-2-A 0.006
S:46 280-123776-B-3-D -0.144
S:47 AutoWash -0.807
S:48 AutoWash -1.308
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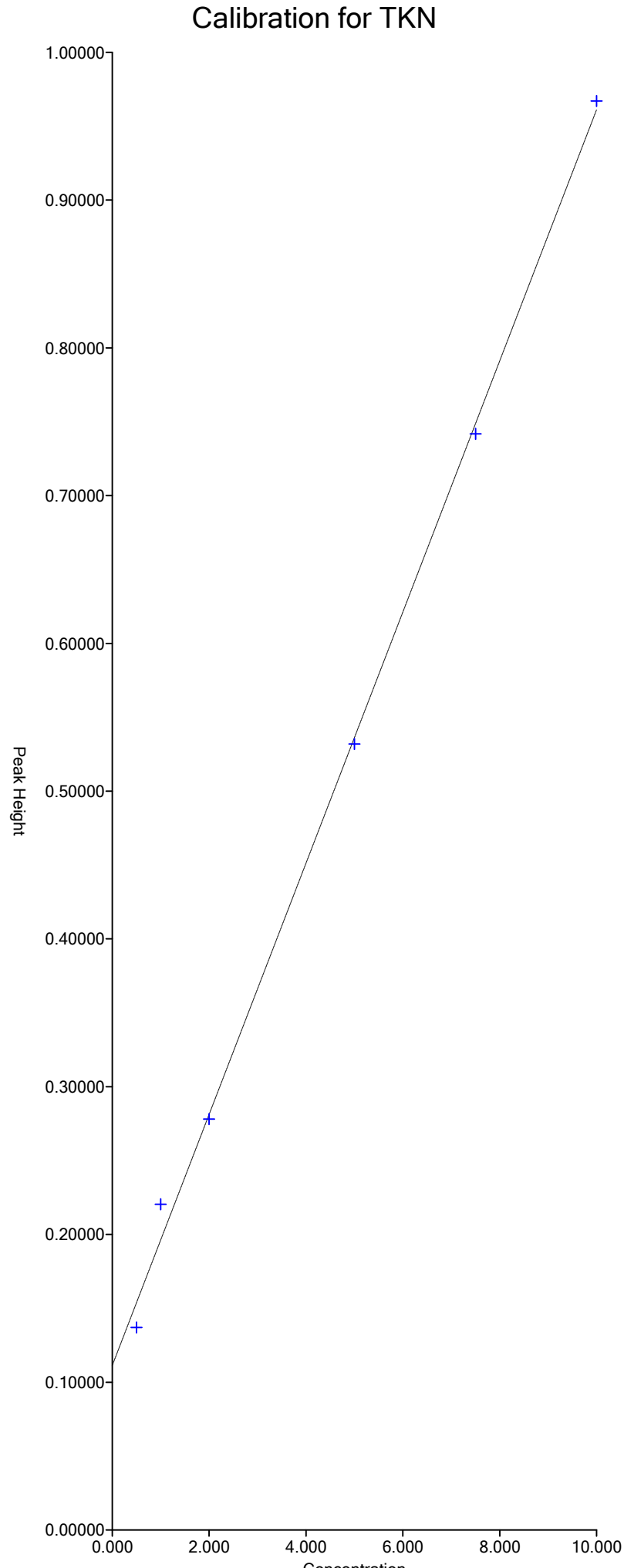

060319, 6/3/2019 - TKN
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0.51463
0.84513
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1.50613
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2.16713
2.49763
2.82813
3.15863
S:49 w 33.542
S:50 CCV 280-460066/44-A 4.912
S:51 CCB 280-460066/45-A -0.690
S:52 280-123822-H-1-A 5.564
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S:54 280-123814-D-2-A -0.432
S:55 280-123814-E-3-A -0.223
S:56 280-124041-E-1-A -0.716
S:57 280-124112-A-1-A -0.018
S:58 280-123820-K-2-A 2.681
S:59 AutoWash -0.712
S:60 AutoWash -1.308
S:61 280-123820-K-3-A -0.763
S:62 280-123820-K-3-B MS 1.212
S:63 280-123820-K-3-C MSD 1.119
S:64 w -0.613
S:65 CCV 280-460066/44-A 4.604
S:66 CCB 280-460066/45-A -0.440
S:67 280-123820-K-4-A 1.359
S:68 280-123820-K-5-A 0.102
S:69 280-124043-F-1-A -0.800
S:70 280-123834-F-1-A -0.712
S:71 AutoWash -1.132
S:72 AutoWash -1.308
1:03:00
1:04:00
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060319, 6/3/2019 - TKN
ABS
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2.49763
2.82813
3.15863
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S:74 280-123834-E-3-A -0.407
S:75 280-124042-E-1-A -0.373
S:76 280-124319-B-1-A 5.239
S:77 280-124045-F-1-A -0.584
S:78 280-123822-H-1-A 5.893
S:79 w -1.279
S:80 CCV 280-460066/44-A 4.808
S:81 CCB 280-460066/45-A -0.527
S:82 LCS 280-460066/27-A 5.738
S:83 AutoWash -1.606
S:84 AutoWash -1.308
S:85 MB 280-460066/28-A -0.487
S:86 280-123899-A-1-D 10.651
S:87 280-123899-A-1-E MS 14.894
S:88 280-123899-A-1-F MSD 17.870
S:89 LCS 280-460066/1-A 5.554
S:90 280-123899-A-2-B 12.245
S:91 280-123899-A-3-B 10.292
S:92 280-123899-A-4-B 12.984
S:93 280-124094-C-1-B 98.856
S:94 280-123822-H-1-A 7.910
S:95 AutoWash -0.902
S:96 AutoWash -1.308
1:34:00
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2:01:00
2:02:00
2:03:00



060319, 6/3/2019 - TKN

S:97 w -0.614	2:04:00
S:98 CCV 280-460066/44-A 4.749	2:05:00
S:99 CCB 280-460066/45-A -0.402	2:06:00
S:100 w -0.851	2:07:00
S:101 w -1.247	2:08:00
S:102 280-124094-C-1-B 96.404	2:09:00
	2:10:00
S:103 w -0.858	2:11:00
S:104 CCV 280-460066/44-A 5.126	2:12:00
S:105 CCB 280-460066/45-A -0.969	2:13:00
	2:14:00
S:106 AutoWash -1.177	2:15:00
S:107 AutoWash -1.308	2:16:00
	2:17:00
	2:18:00
	2:19:00
	2:20:00
	2:21:00
	2:22:00
	2:23:00
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	2:27:00
	2:28:00
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	2:30:00
	2:31:00
	2:32:00
	2:33:00



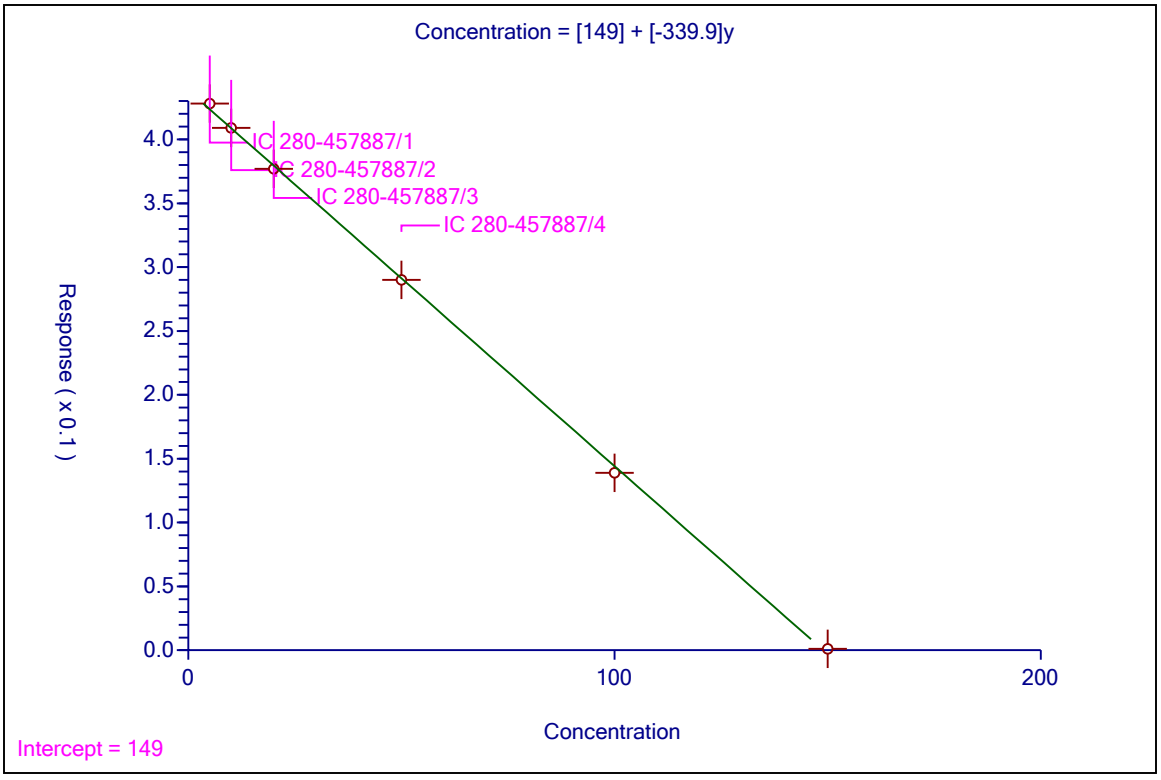
Segment 1: Equation: y = 0.08498x + 0.1111
Correlation: 0.9991
X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-457887/1	5.0	0.428			0.0856	Y
2	IC 280-457887/2	10.0	0.409			0.0409	Y
3	IC 280-457887/3	20.0	0.377			0.01885	Y
4	IC 280-457887/4	50.0	0.29			0.0058	Y
5	IC 280-457887/5	100.0	0.139			0.00139	Y
6	IC 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123027-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 16 Lab ID: **280-123027-K-1** Inj Date: 5/13/2019 7:39:00AM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.374	21.87740 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123112-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123113-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 17 Lab ID: **280-123113-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	11 J mg/L				

RS# 18 Lab ID: **280-123113-A-2** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.227	71.84270 mg/L	mg/L				

RS# 19 Lab ID: **280-123113-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 20 Lab ID: **280-123113-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.394	15.07940 mg/L	15 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.150	98.01500	mg/L	mg/L	98	90	110	

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123114-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 21 Lab ID: **280-123114-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.404	11.68040 mg/L	12 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123115-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

RS# 24 Lab ID: **280-123115-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 25 Lab ID: **280-123115-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.359	26.97590 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.148	98.69480	mg/L	mg/L	99	90	110	

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	20 U mg/L				

Job Number: 280-123267-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 29 Lab ID: **280-123267-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 30 Lab ID: **280-123267-E-2** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.381	19.49810 mg/L	39 J mg/L				

RS# 31 Lab ID: **280-123267-E-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.340	33.43400 mg/L	mg/L				

RS# 32 Lab ID: **280-123267-E-4** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.061	128.2661 mg/L	mg/L				

RS# 33 Lab ID: **280-123267-B-5** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.428	3.522800 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	mg/L				

RS# 36 Lab ID: **280-123267-B-6** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	mg/L				

RS# 37 Lab ID: **280-123267-C-7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.464	-8.713600 mg/L	mg/L				

RS# 38 Lab ID: **280-123267-B-8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 39 Lab ID: **280-123267-D-9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.292	49.74920 mg/L	mg/L				

RS# 40 Lab ID: **CCV 280-457887/40** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 41 Lab ID: **CCB 280-457887/41** Inj Date: 5/13/2019 7:39:49AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123444-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 15 Lab ID: **280-123444-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

410.4 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-458808

Analyst: Barker, Scott G

Batch Open: 5/20/2019 12:22:00PM

Batch End:

Dilution History Worksheet

	Input Sample Lab ID	Analytical Method	Project	Dilution History
6	280-123345-E-9	410.4	325|Rumble I	>1000 Cl 2x
6	280-123345-E-9	410.4	852|Muskogee RDF	
6	280-123345-E-9	410.4	NE03|Pheasant Point LF	
6	280-123345-E-9	410.4	OR10|Forest Grove	
6	280-123345-E-9	410.4	OR10|Forest Grove	
6	280-123345-E-9	410.4	Price Pit Landfill Site, NJ	
7	280-123345-E-9 MS	410.4	Price Pit Landfill Site, NJ	
8	280-123345-E-9 MSD	410.4	Price Pit Landfill Site, NJ	
9	280-123345-B-5	410.4	Price Pit Landfill Site, NJ	
10	280-123399-G-2	410.4	852|Muskogee RDF	2,10,2,2,1,1,2,2 >1000 Cl 2x 5x
11	280-123399-F-3	410.4	852|Muskogee RDF	5,5,5,5,1,5,5,5 5x
12	280-123399-G-1	410.4	852|Muskogee RDF	5,5,5,5,5,5,5,5 >3000 Cl 5x
13	280-123404-B-1	410.4	OR10|Forest Grove	5 5x
14	280-123405-B-1	410.4	OR10|Forest Grove	20 20x
15	280-123459-D-1	410.4	NE03|Pheasant Point LF	20,20 >3000 Cl 20x
18	280-123476-B-1	410.4	325|Rumble I	1,1,1,1,1,1,1,1
19	280-123476-C-2	410.4	325|Rumble I	1,1,1,1,1,2,2,2 >1000 Cl 2x
20	280-123476-D-3	410.4	149|Covel Gardens	
20	280-123476-D-3	410.4	325|Rumble I	
20	280-123476-D-3	410.4	325|Rumble I	1,1,1,1,1,1,1,1
20	280-123476-D-3	410.4	326|Rumble II	
20	280-123476-D-3	410.4	Griffiss AFB, NY (BRAC Eastern)	
21	280-123476-D-3 MS	410.4	325|Rumble I	

410.4 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-458808 Analyst: Barker, Scott G Batch Open: 5/20/2019 12:22:00PM

Batch End:

22	280-123476-D-3 MSD	410.4	325|Rumble I	
23	280-123476-C-4	410.4	325|Rumble I	1,1,1,1,1,1,1,1
24	280-123476-B-5	410.4	325|Rumble I	1,1,2,1,1,1,1,1
25	280-123478-C-1	410.4	326|Rumble II	1,1,1,1,1,1,1,1
26	280-123478-C-2	410.4	326|Rumble II	1,1,1,1,1,1,1,1
27	280-123814-E-1	410.4	Griffiss AFB, NY (BRAC Eastern)	
30	280-123814-E-2	410.4	Griffiss AFB, NY (BRAC Eastern)	
31	280-123814-E-3	410.4	Griffiss AFB, NY (BRAC Eastern)	
32	280-123480-B-1	410.4	325|Rumble I	2,2,2,2,2 pH 4 2x → 5, 10x
33	280-123966-H-1	410.4	149|Covel Gardens	50 pH 7, >5K Cl 50x

3/c
SAO
5/22/19

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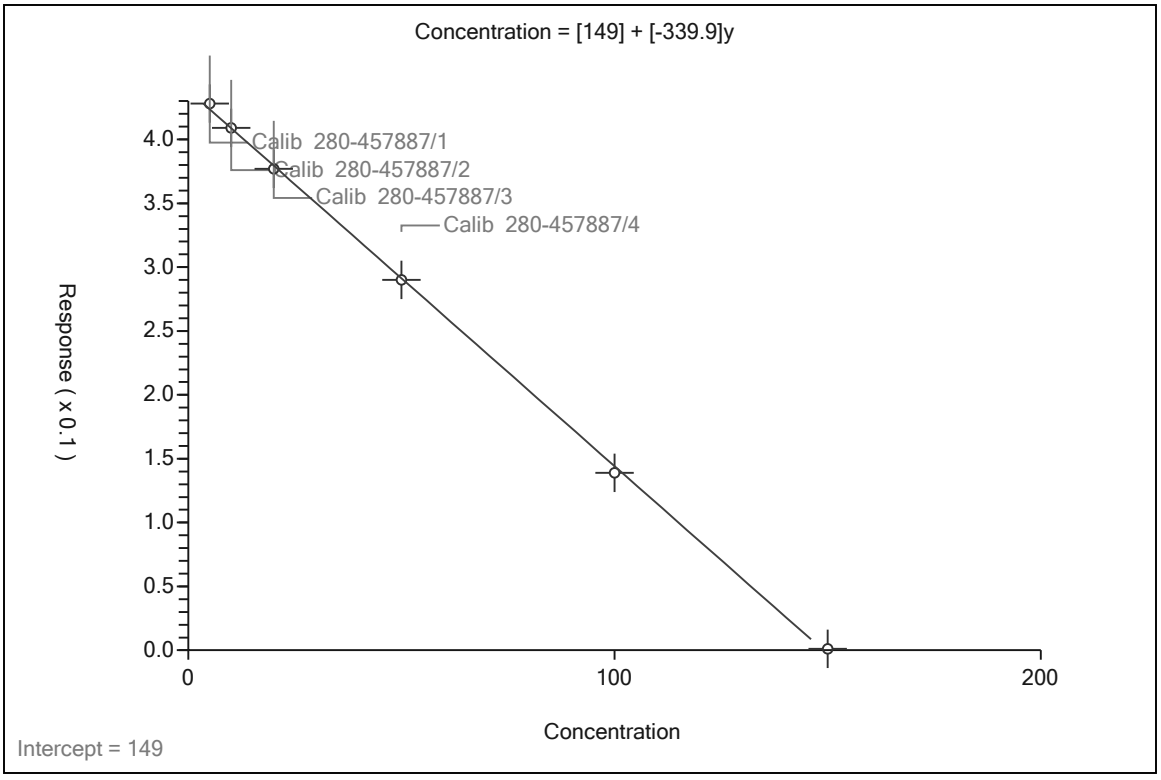
06/11/2019

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123345-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	12 J mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 9 Lab ID: **280-123345-B-5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.401	12.70010 mg/L	13 J mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123399-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 10 Lab ID: **280-123399-G-2** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.213	76.60130 mg/L	mg/L				

RS# 11 Lab ID: **280-123399-F-3** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L				

RS# 12 Lab ID: **280-123399-G-1** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.046	133.3646 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.421	5.902100	mg/L	mg/L

TALS Raw Data Report

Job Number: 280-123404-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 13 Lab ID: **280-123404-B-1** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.029	139.1429 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123405-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 14 Lab ID: **280-123405-B-1** Inj Date: 5/20/2019 12:23:51PM Dil: 20 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.131	104.4731 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123459-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	12 J mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 15 Lab ID: **280-123459-D-1** Inj Date: 5/20/2019 12:23:51PM Dil: 20 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123476-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

RS# 18 Lab ID: **280-123476-B-1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.371	22.89710 mg/L	mg/L				

RS# 19 Lab ID: **280-123476-C-2** Inj Date: 5/20/2019 12:23:51PM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.413	8.621300 mg/L	mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.405	11.34050	mg/L	mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 23 Lab ID: **280-123476-C-4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.366	24.59660 mg/L	mg/L				

RS# 24 Lab ID: **280-123476-B-5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.364	25.27640 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90 110		

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123478-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 25 Lab ID: **280-123478-C-1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.416	7.601600 mg/L	mg/L				

RS# 26 Lab ID: **280-123478-C-2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De		mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90	110	

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123480-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90 110		

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

RS# 32 Lab ID: **280-123480-B-1** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.134	103.4534	mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-458808/34** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.130	104.8130 mg/L	mg/L	105	90 110		

RS# 35 Lab ID: **CCB 280-458808/35** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123814-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	11 J mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 27 Lab ID: **280-123814-E-1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.418	6.921800 mg/L	20 U mg/L				

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90 110		

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.433	1.823300 mg/L	20 U mg/L					

RS# 30 Lab ID: **280-123814-E-2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.350	30.03500 mg/L	mg/L				

RS# 31 Lab ID: **280-123814-E-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.352	29.35520 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-458808/34** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.130	104.8130 mg/L	mg/L	105	90 110		

RS# 35 Lab ID: **CCB 280-458808/35** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123966-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90 110		

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

RS# 33 Lab ID: **280-123966-H-1** Inj Date: 5/20/2019 12:23:51PM Dil: 50 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units
Chemical Oxygen De	0.368	23.91680 mg/L	mg/L

RS# 34 Lab ID: **CCV 280-458808/34** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.130	104.8130 mg/L	mg/L	105	90 110		

RS# 35 Lab ID: **CCB 280-458808/35** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

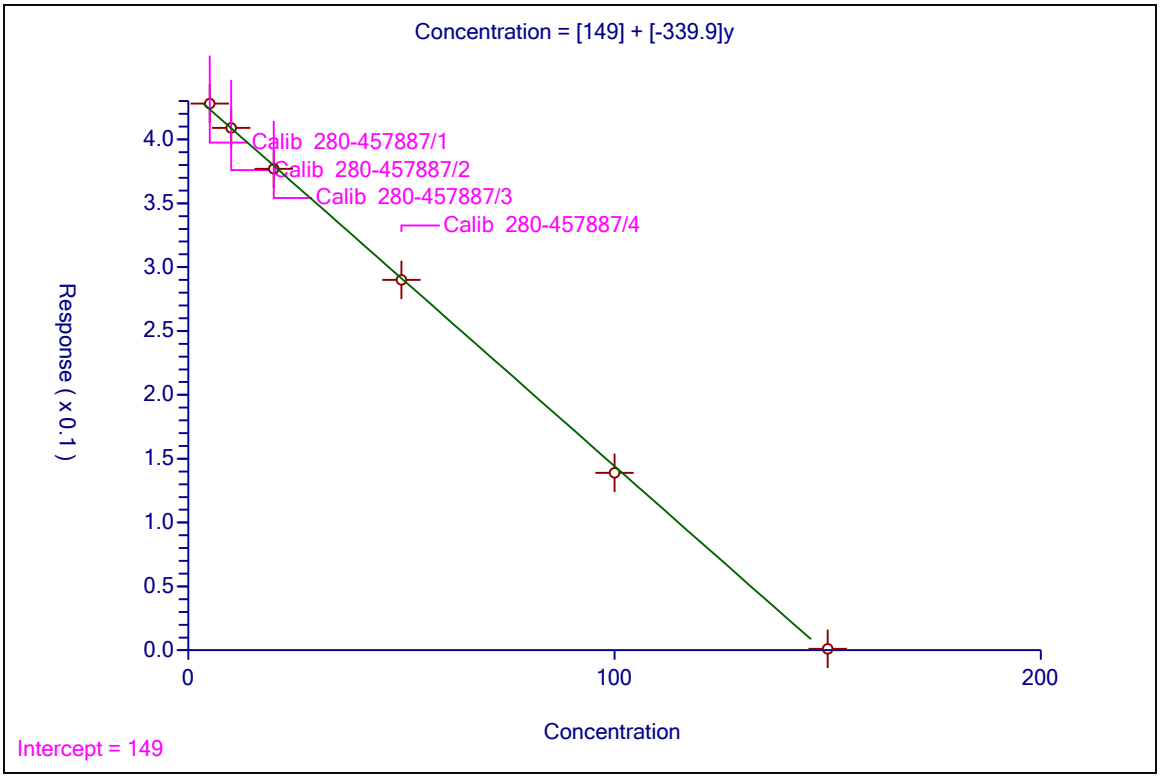
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123345-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	12 J mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 9 Lab ID: **280-123345-B-5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.401	12.70010 mg/L	13 J mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123399-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 10 Lab ID: **280-123399-G-2** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.213	76.60130 mg/L	mg/L				

RS# 11 Lab ID: **280-123399-F-3** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L				

RS# 12 Lab ID: **280-123399-G-1** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.046	133.3646 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123404-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 13 Lab ID: **280-123404-B-1** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.029	139.1429 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123405-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 14 Lab ID: **280-123405-B-1** Inj Date: 5/20/2019 12:23:51PM Dil: 20 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.131	104.4731 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123459-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	12 J mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 15 Lab ID: **280-123459-D-1** Inj Date: 5/20/2019 12:23:51PM Dil: 20 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123476-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 6 Lab ID: **280-123345-E-9** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.403	12.02030 mg/L	mg/L				

RS# 7 Lab ID: **280-123345-E-9 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.273	56.20730 mg/L	mg/L	88	90 110		

RS# 8 Lab ID: **280-123345-E-9 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.266	58.58660 mg/L	mg/L	93	90 110	4	11

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

RS# 18 Lab ID: **280-123476-B-1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.371	22.89710 mg/L	mg/L				

RS# 19 Lab ID: **280-123476-C-2** Inj Date: 5/20/2019 12:23:51PM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.413	8.621300 mg/L	mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 23 Lab ID: **280-123476-C-4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.366	24.59660 mg/L	mg/L				

RS# 24 Lab ID: **280-123476-B-5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.364	25.27640 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90 110		

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123478-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 25 Lab ID: **280-123478-C-1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.416	7.601600 mg/L	mg/L				

RS# 26 Lab ID: **280-123478-C-2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De		mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90 110		

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123480-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90 110		

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

RS# 32 Lab ID: **280-123480-B-1** Inj Date: 5/20/2019 12:23:51PM Dil: 5 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.134	103.4534 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-458808/34** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.130	104.8130 mg/L	mg/L	105	90 110		

RS# 35 Lab ID: **CCB 280-458808/35** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123814-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	11 J mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 27 Lab ID: **280-123814-E-1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.418	6.921800 mg/L	20 U mg/L				

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90 110		

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	20 U mg/L				

RS# 30 Lab ID: **280-123814-E-2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.350	30.03500 mg/L	mg/L				

RS# 31 Lab ID: **280-123814-E-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.352	29.35520 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-458808/34** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.130	104.8130 mg/L	mg/L	105	90 110		

RS# 35 Lab ID: **CCB 280-458808/35** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123966-1
LIMS Batch: 458808
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-458808/1** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.195	82.71950 mg/L	mg/L	110	90 110		

RS# 2 Lab ID: **ICB 280-458808/2** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.459	-7.014100 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458808/3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-458808/4** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.117	109.2317 mg/L	mg/L	109	90 110	10	11

RS# 5 Lab ID: **MB 280-458808/5** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-458808/16** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 17 Lab ID: **CCB 280-458808/17** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

RS# 20 Lab ID: **280-123476-D-3** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.405	11.34050 mg/L	mg/L				

RS# 21 Lab ID: **280-123476-D-3 MS** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110		

RS# 22 Lab ID: **280-123476-D-3 MSD** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L	101	90 110	0	11

RS# 28 Lab ID: **CCV 280-458808/28** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.137	102.4337 mg/L	mg/L	102	90 110		

RS# 29 Lab ID: **CCB 280-458808/29** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

RS# 33 Lab ID: **280-123966-H-1** Inj Date: 5/20/2019 12:23:51PM Dil: 50 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.368	23.91680 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-458808/34** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.130	104.8130 mg/L	mg/L	105	90 110		

RS# 35 Lab ID: **CCB 280-458808/35** Inj Date: 5/20/2019 12:23:51PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.421	5.902100 mg/L	mg/L				

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060419.RST
Sample table path	C:\FLOW_4\p060419.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	05-Jun-19
Time acquired	01:56

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
04-Jun-19	20:55	106	Sync	1245806	513.563	HI
04-Jun-19	20:58	0	Carryover	11709	3.931	
04-Jun-19	21:01	0	Carryover	2187	0.401	
04-Jun-19	21:04	0	Read Baseline	-184	-0.477	BL
04-Jun-19	21:07	101	Cal 10.0 ppb	37447	13.503	
04-Jun-19	21:10	102	Cal 20.0 ppb	55485	20.238	
04-Jun-19	21:13	103	Cal 50.0 ppb	130348	48.427	
04-Jun-19	21:16	104	Cal 100 ppb	252879	95.388	
04-Jun-19	21:19	105	Cal 200 ppb	524789	203.242	
04-Jun-19	21:22	106	Cal 500 ppb	1215058	499.608	
04-Jun-19	21:25	0	Blank	12730	4.310	
04-Jun-19	21:28	0	Read Baseline	6640	2.051	BL UM
04-Jun-19	21:31	107	ICV 200 ppb	489929	189.134	
04-Jun-19	21:34	109	ICVL 100 ppb	268865	101.590	
04-Jun-19	21:37	0	ICB	6656	2.057	
04-Jun-19	21:40	0	Read Baseline	9338	3.051	BL UM
04-Jun-19	21:43	113	LCS 280-460448/1-A	470469	181.294	
04-Jun-19	21:46	114	MB 280-460448/2-A	16382	5.665	
04-Jun-19	21:49	115	280-123814-G-1-A	16630	5.758	
04-Jun-19	21:52	116	280-123814-G-1-B MS	485758	187.452	
04-Jun-19	21:55	117	280-123814-G-1-C MSD	488626	188.608	
04-Jun-19	21:58	118	280-123814-G-2-A	22080	7.783	
04-Jun-19	22:01	119	280-123814-G-3-A	25790	9.162	
04-Jun-19	22:04	120	280-123817-C-1-A	91729	33.838	
04-Jun-19	22:07	121	280-123817-C-2-A	714730	281.564	
04-Jun-19	22:10	122	280-123817-C-3-A	58576	21.394	
04-Jun-19	22:13	0	Blank	2941	0.680	
04-Jun-19	22:16	0	Read Baseline	23	-0.400	BL
04-Jun-19	22:19	108	CCV 200 ppb	532789	206.492	
04-Jun-19	22:22	104	CCVL 100 ppb	260712	98.425	
04-Jun-19	22:25	0	CCB	5019	1.450	
04-Jun-19	22:28	0	Read Baseline	2939	0.680	BL
04-Jun-19	22:31	123	280-123817-D-5-A	178861	66.898	
04-Jun-19	22:34	124	280-123834-I-1-A	34322	12.339	
04-Jun-19	22:37	125	280-123853-G-1-A	16399	5.672	
04-Jun-19	22:40	126	280-123853-G-2-A	20366	7.145	
04-Jun-19	22:43	127	280-123853-G-3-A	16693	5.781	
04-Jun-19	22:46	128	280-123855-C-6-A	14872	5.105	
04-Jun-19	22:49	129	280-123855-C-6-B MS	489651	189.022	
04-Jun-19	22:52	130	280-123855-C-6-C MSD	484875	187.096	
04-Jun-19	22:55	131	280-123887-A-2-A	20680	7.262	
04-Jun-19	22:58	132	280-123887-A-4-A	26252	9.334	

Result path C:\FLOW_4\P060419.RST
Sample table path C:\FLOW_4\p060419.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 05-Jun-19
Time acquired 01:56

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
04-Jun-19	23:01	0	Blank	3308	0.816	
04-Jun-19	23:04	0	Read Baseline	1677	0.212	BL
04-Jun-19	23:07	108	CCV 200 ppb	532123	206.221	
04-Jun-19	23:10	104	CCVL 100 ppb	258967	97.748	
04-Jun-19	23:13	0	CCB	7182	2.252	
04-Jun-19	23:16	0	Read Baseline	711	-0.145	BL
04-Jun-19	23:19	133	280-123887-A-5-A	35885	12.921	
04-Jun-19	23:22	134	280-123904-C-1-A	119219	44.213	
04-Jun-19	23:41	135	280-123904-B-2-A	1184694	485.891	
04-Jun-19	23:44	136	280-123904-C-3-A	64392	23.572	
04-Jun-19	23:47	137	x280-123904-C-4-A	1243092	512.329	HI
04-Jun-19	23:50	138	280-123904-D-5-A	731207	288.474	FL
04-Jun-19	23:53	139	LCS 280-460449/1-A	498815	192.723	FL
04-Jun-19	23:56	140	MB 280-460449/2-A	65170	23.864	
04-Jun-19	23:59	141	280-123993-A-1-A	36602	13.188	
05-Jun-19	00:02	142	280-123993-A-1-B MS	519057	200.917	
05-Jun-19	00:05	0	Blank	-6309	-2.743	LO
05-Jun-19	00:08	0	Read Baseline	-11354	-4.608	BL UM
05-Jun-19	00:11	108	CCV 200 ppb	530455	205.544	
05-Jun-19	00:14	104	CCVL 100 ppb	259057	97.783	
05-Jun-19	00:17	0	CCB	-13235	-5.303	LO
05-Jun-19	00:20	0	Read Baseline	-11215	-4.557	BL
05-Jun-19	00:23	143	280-123993-A-1-C MSD	536866	208.150	
05-Jun-19	00:26	144	280-123993-B-2-A	145271	54.092	
05-Jun-19	00:29	145	280-123993-A-3-A	41721	15.097	
05-Jun-19	00:32	146	x280-123993-B-4-A	9823	3.231	
05-Jun-19	00:35	147	440-241295-O-19-A	17809	6.195	
05-Jun-19	00:38	148	440-241295-O-20-A	19458	6.808	
05-Jun-19	00:41	149	440-241295-O-21-A	13576	4.624	
05-Jun-19	00:44	150	440-241433-O-17-A	6274	1.915	
05-Jun-19	00:47	151	440-241657-S-1-A	25285	8.974	
05-Jun-19	00:50	152	280-123889-A-2-A	72957	26.783	
05-Jun-19	00:53	0	Blank	-2395	-1.295	LO
05-Jun-19	00:56	0	Read Baseline	-5522	-2.452	BL
05-Jun-19	00:59	108	CCV 200 ppb	514178	198.939	
05-Jun-19	01:02	104	CCVL 100 ppb	260487	98.337	
05-Jun-19	01:05	0	CCB	5890	1.773	
05-Jun-19	01:08	0	Read Baseline	7751	2.463	BL
05-Jun-19	01:11	153	LCS 280-459050/1-A	455746	175.380	
05-Jun-19	01:14	154	MB 280-459050/2-A	30330	10.852	
05-Jun-19	01:17	155	280-123273-G-19-A	10086	3.329	
05-Jun-19	01:20	156	280-123273-G-1-A	15535	5.351	
05-Jun-19	01:23	157	280-123273-G-1-B MS	12750	4.317	
05-Jun-19	01:26	158	280-123273-G-1-C MSD	404918	155.076	
05-Jun-19	01:31	140	MB 280-460449/2-A	54167	19.745	
05-Jun-19	01:34	159	280-123904-C-4-A	587397	457.576	
05-Jun-19	01:37	0	Blank	-8892	-3.698	LO
05-Jun-19	01:40	0	Read Baseline	-14767	-5.868	BL UM
05-Jun-19	01:43	108	CCV 200 ppb	526713	204.024	
05-Jun-19	01:46	104	CCVL 100 ppb	250154	94.332	
05-Jun-19	01:49	0	CCB	5684	1.697	
05-Jun-19	01:52	0	Read Baseline	3047	0.720	BL UM

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060419.RST
Date: 05-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1245806	513.563293	HI
2	0	Carryover	1	CO	1	1	11709	3.930784	
3	0	Carryover	2	CO	1	1	2187	0.401123	
B	0	Read Baseline	1	RB	1	1	-184	-0.476786	BL
5	101	Cal 10.0 ppb	1	C	1	1	37447	13.503100	
6	102	Cal 20.0 ppb	1	C	1	1	55485	20.238047	
7	103	Cal 50.0 ppb	1	C	1	1	130348	48.427494	
8	104	Cal 100 ppb	1	C	1	1	252879	95.388077	
9	105	Cal 200 ppb	1	C	1	1	524789	203.242371	
10	106	Cal 500 ppb	1	C	1	1	1215058	499.608337	
11	0	Blank	1	BLNK	1	1	12730	4.309968	
B	0	Read Baseline	1	RB	1	1	6640	2.051156	BL UM
13	107	ICV 200 ppb	1	U	1	1	489929	189.134323	
14	109	ICVL 100 ppb	1	U	1	1	268865	101.589760	
15	0	ICB	1	U	1	1	6656	2.057112	
B	0	Read Baseline	1	RB	1	1	9338	3.051449	BL UM
17	113	LCS 280-460448/1-A 1	U		1	1	470469	181.294434	
18	114	MB 280-460448/2-A 1	U		1	1	16382	5.665353	
19	115	280-123814-G-1-A 1	U		1	1	16630	5.757562	
20	116	280-123814-G-1-B MS 1	U		1	1	485758	187.452057	
21	117	280-123814-G-1-C MSD 1	U		1	1	488626	188.608490	
22	118	280-123814-G-2-A 1	U		1	1	22080	7.782601	
23	119	280-123814-G-3-A 1	U		1	1	25790	9.162048	
24	120	280-123817-C-1-A 1	U		1	1	91729	33.838299	
25	121	280-123817-C-2-A 1	U		1	1	714730	281.564362	
26	122	280-123817-C-3-A 1	U		1	1	58576	21.394379	
27	0	Blank	1	BLNK	1	1	2941	0.680357	
B	0	Read Baseline	1	RB	1	1	23	-0.400348	BL
29	108	CCV 200 ppb	1	CCV	1	1	532789	206.491699	
30	104	CCVL 100 ppb	1	U	1	1	260712	98.424728	
31	0	CCB	1	U	1	1	5019	1.450441	
B	0	Read Baseline	1	RB	1	1	2939	0.679620	BL
33	123	280-123817-D-5-A 1	U		1	1	178861	66.898262	
34	124	280-123834-I-1-A 1	U		1	1	34322	12.338527	
35	125	280-123853-G-1-A 1	U		1	1	16399	5.671928	
36	126	280-123853-G-2-A 1	U		1	1	20366	7.145356	
37	127	280-123853-G-3-A 1	U		1	1	16693	5.781096	
38	128	280-123855-C-6-A 1	U		1	1	14872	5.104850	
39	129	280-123855-C-6-B MS 1	U		1	1	489651	189.021988	
40	130	280-123855-C-6-C MSD 1	U		1	1	484875	187.095642	
41	131	280-123887-A-2-A 1	U		1	1	20680	7.262039	
42	132	280-123887-A-4-A 1	U		1	1	26252	9.333813	
43	0	Blank	1	BLNK	1	1	3308	0.816421	
B	0	Read Baseline	1	RB	1	1	1677	0.212232	BL
45	108	CCV 200 ppb	1	CCV	1	1	532123	206.221161	
46	104	CCVL 100 ppb	1	U	1	1	258967	97.747696	
47	0	CCB	1	U	1	1	7182	2.251869	
B	0	Read Baseline	1	RB	1	1	711	-0.145337	BL
49	133	280-123887-A-5-A 1	U		1	1	35885	12.920652	
50	134	280-123904-C-1-A 1	U		1	1	119219	44.212780	
51	135	280-123904-B-2-A 1	U		1	1	1184694	485.890900	
52	136	280-123904-C-3-A 1	U		1	1	64392	23.571949	
53	137	x280-123904-C-4-A 1	U		1	1	1243092	512.328674	HI
54	138	280-123904-D-5-A 1	U		1	1	731207	288.474121	FL
55	139	LCS 280-460449/1-A 1	U		1	1	498815	192.722839	FL
56	140	MB 280-460449/2-A 1	U		1	1	65170	23.863546	
57	141	280-123993-A-1-A 1	U		1	1	36602	13.187839	
58	142	280-123993-A-1-B MS 1	U		1	1	519057	200.917053	
59	0	Blank	1	BLNK	1	1	-6309	-2.743356	LO
B	0	Read Baseline	1	RB	1	1	-11354	-4.607881	BL UM
61	108	CCV 200 ppb	1	CCV	1	1	530455	205.543549	
62	104	CCVL 100 ppb	1	U	1	1	259057	97.782692	
63	0	CCB	1	U	1	1	-13235	-5.302634	LO
B	0	Read Baseline	1	RB	1	1	-11215	-4.556714	BL
65	143	280-123993-A-1-C MSD 1	U		1	1	536866	208.149582	
66	144	280-123993-B-2-A 1	U		1	1	145271	54.092243	
67	145	280-123993-A-3-A 1	U		1	1	41721	15.096875	
68	146	x280-123993-B-4-A 1	U		1	1	9823	3.231411	
69	147	440-241295-O-19-A 1	U		1	1	17809	6.195350	
70	148	440-241295-O-20-A 1	U		1	1	19458	6.808082	

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
71	149	440-241295-O-21-A 1 U			1	1	13576	4.623711	
72	150	440-241433-O-17-A 1 U			1	1	6274	1.915482	
73	151	440-241657-S-1-A 1 U			1	1	25285	8.974460	
74	152	280-123889-A-2-A 1 U			1	1	72957	26.783182	
75	0	Blank	1	BLNK	1	1	-2395	-1.295310	LO
B	0	Read Baseline	1	RB	1	1	-5522	-2.452140	BL
77	108	CCV 200 ppb	1	CCV	1	1	514178	198.939468	
78	104	CCVL 100 ppb	1	U	1	1	260487	98.337265	
79	0	CCB	1	U	1	1	5890	1.773003	
B	0	Read Baseline	1	RB	1	1	7751	2.463106	BL
81	153	LCS 280-459050/1-A 1 U			1	1	455746	175.380310	
82	154	MB 280-459050/2-A 1 U			1	1	30330	10.851812	
83	155	280-123273-G-19-A 1 U			1	1	10086	3.328903	
84	156	280-123273-G-1-A 1 U			1	1	15535	5.350996	
85	157	280-123273-G-1-B MS 1 U			1	1	12750	4.317285	
86	158	280-123273-G-1-C MSD 1 U			1	1	404918	155.075897	
87	140	MB 280-460449/2-A 1 U			1	1	54167	19.745157	
88	159	280-123904-C-4-A 1 U			2	1	587397	457.576080	
89	0	Blank	1	BLNK	1	1	-8892	-3.698333	LO
B	0	Read Baseline	1	RB	1	1	-14767	-5.868441	BL UM
91	108	CCV 200 ppb	1	CCV	1	1	526713	204.023712	
92	104	CCVL 100 ppb	1	U	1	1	250154	94.332497	
93	0	CCB	1	U	1	1	5684	1.696897	
B	0	Read Baseline	1	RB	1	1	3047	0.719803	BL UM

Phenols, Total:Calibration 1: Peak 5-94

File name: C:\FLOW_4\P060419.RST
Date: 05-Jun-19
Operator: AM

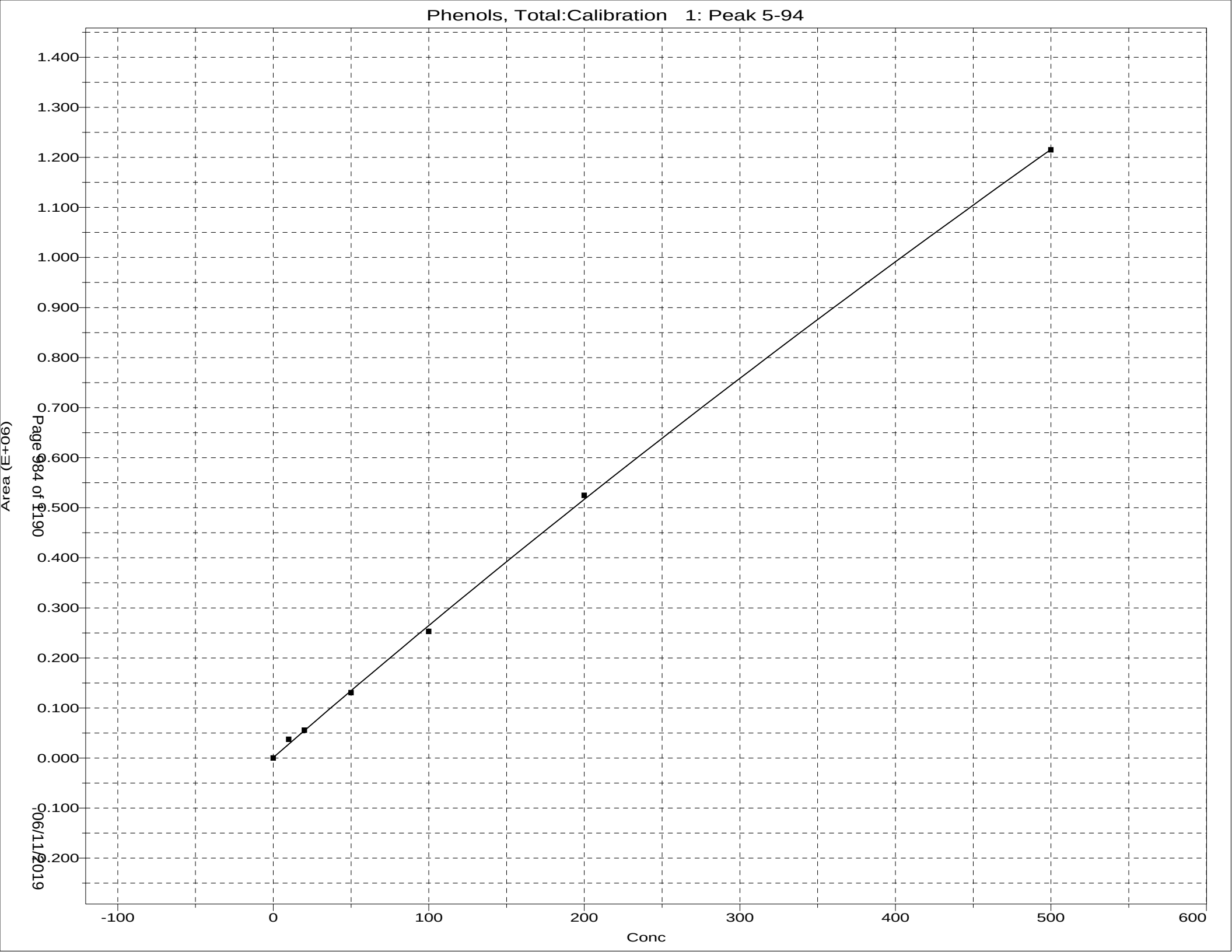
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*	Cal 10.0 ppb	10.000000	37447.335938
*	Cal 20.0 ppb	20.000000	55484.652344
*	Cal 50.0 ppb	50.000000	130347.851562
*	Cal 100 ppb	100.000000	252879.328125
*	Cal 200 ppb	200.000000	524788.562500
*	Cal 500 ppb	500.000000	1215058.125000

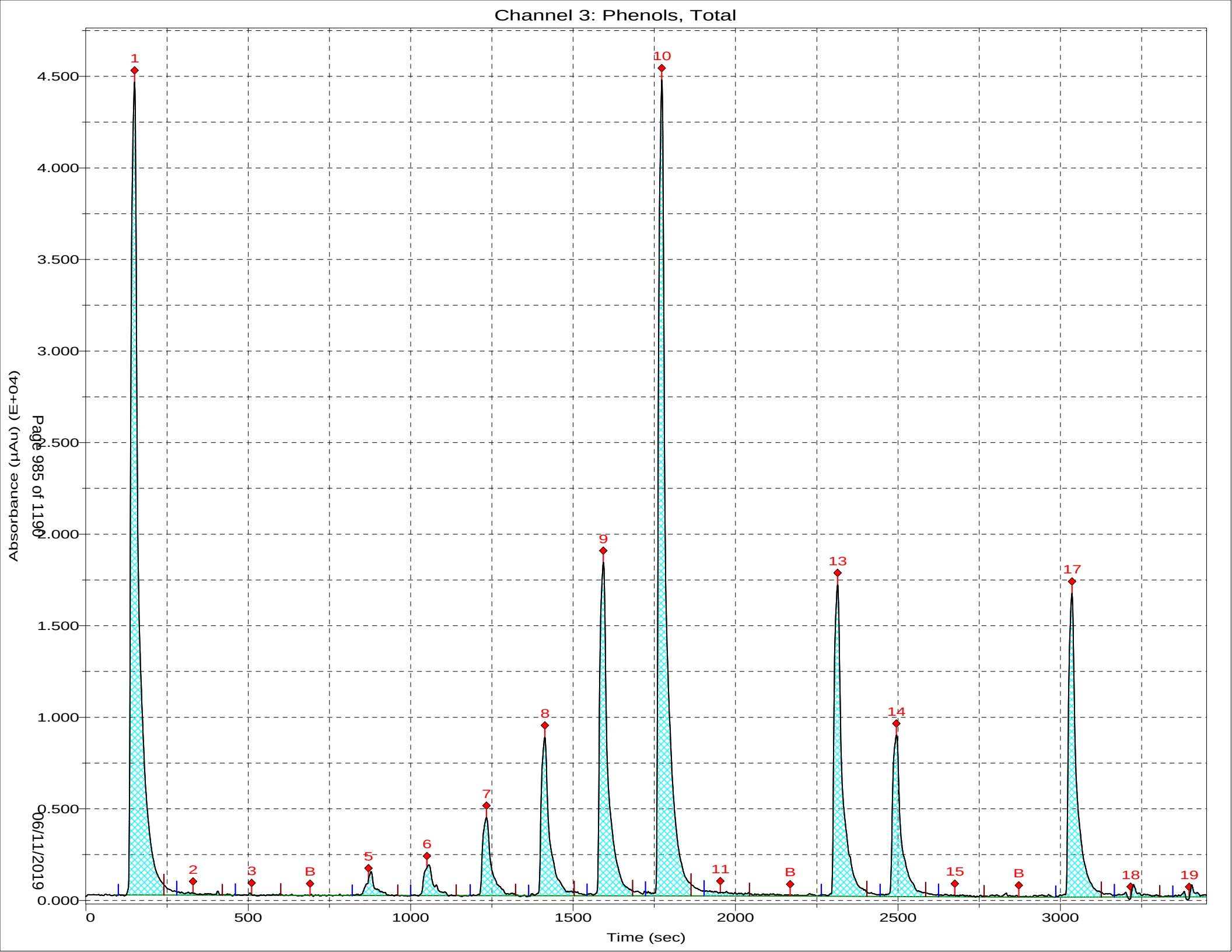
Calib Coef:
x=cyy+by+a
a: (intercept) -4.0875e-01
b: 3.7023e-04
c: 3.3978e-11

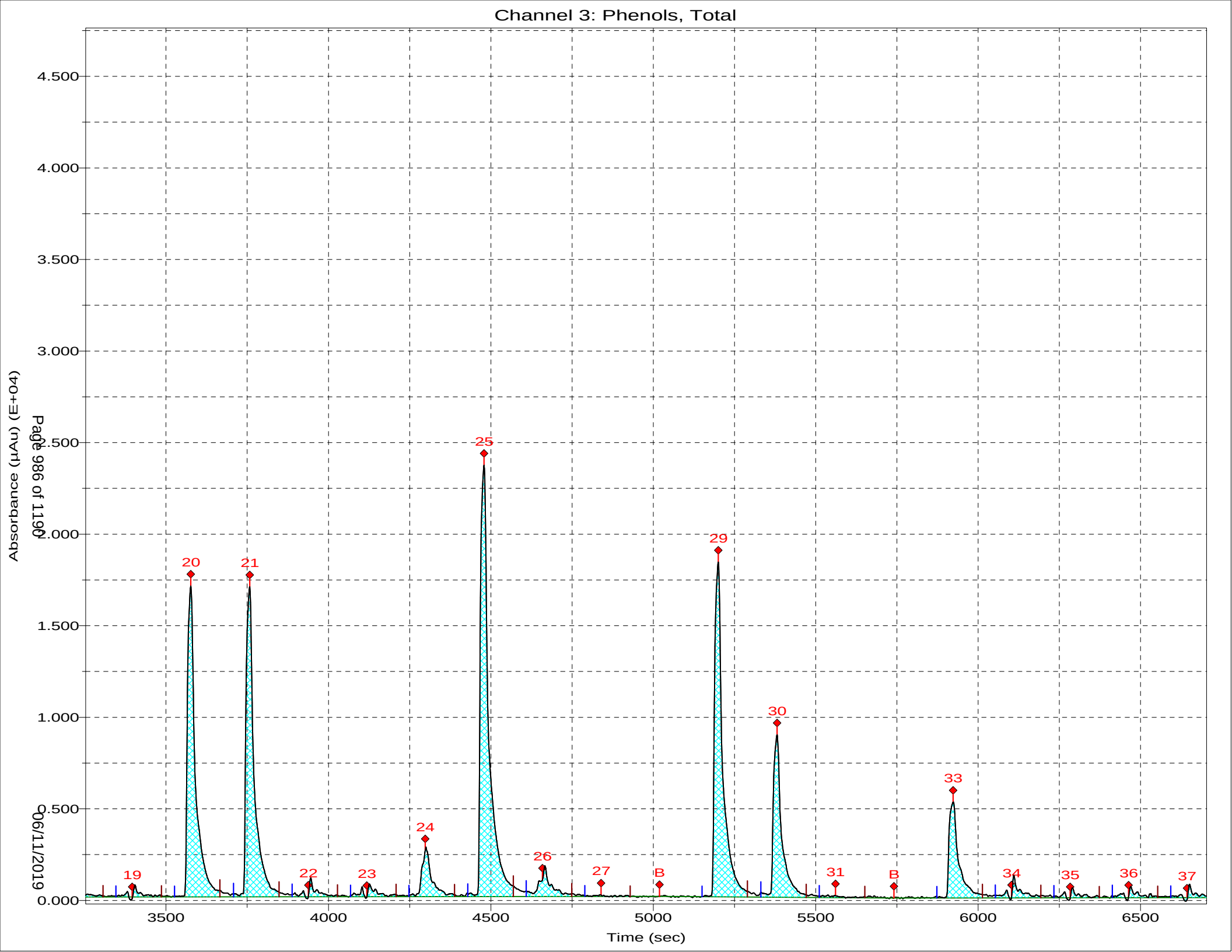
Corr Coef: 0.999878

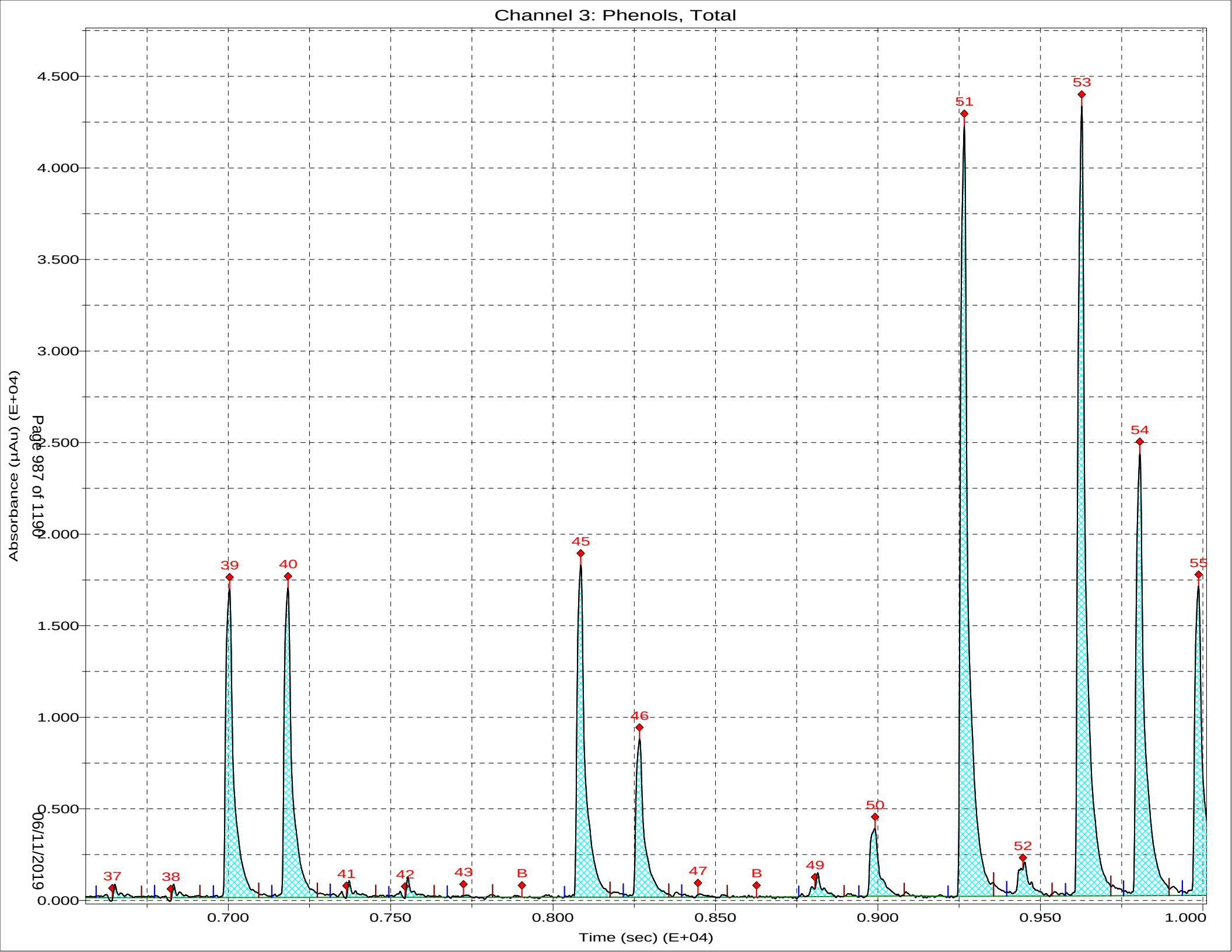
Carryover: 0.94%

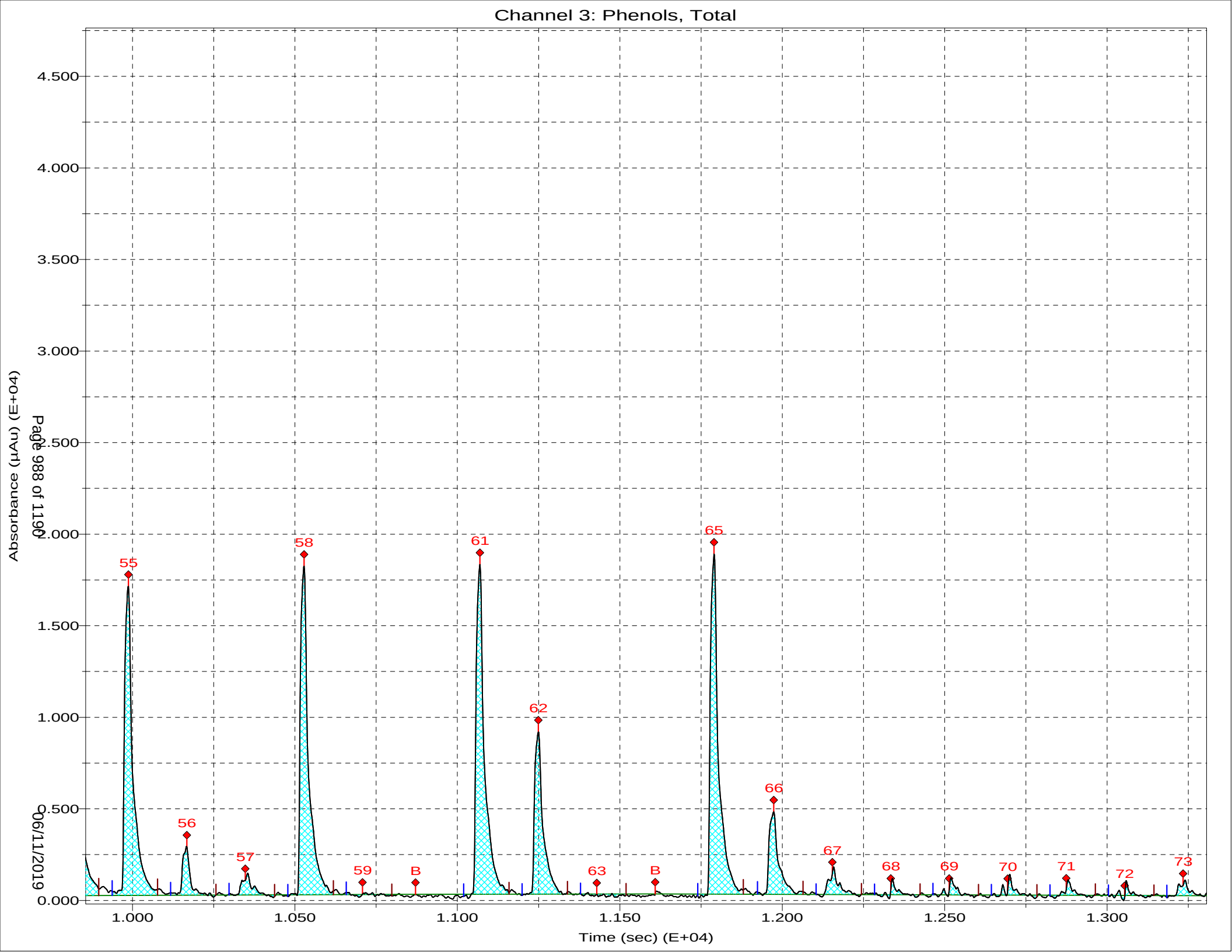
No Drift Peaks

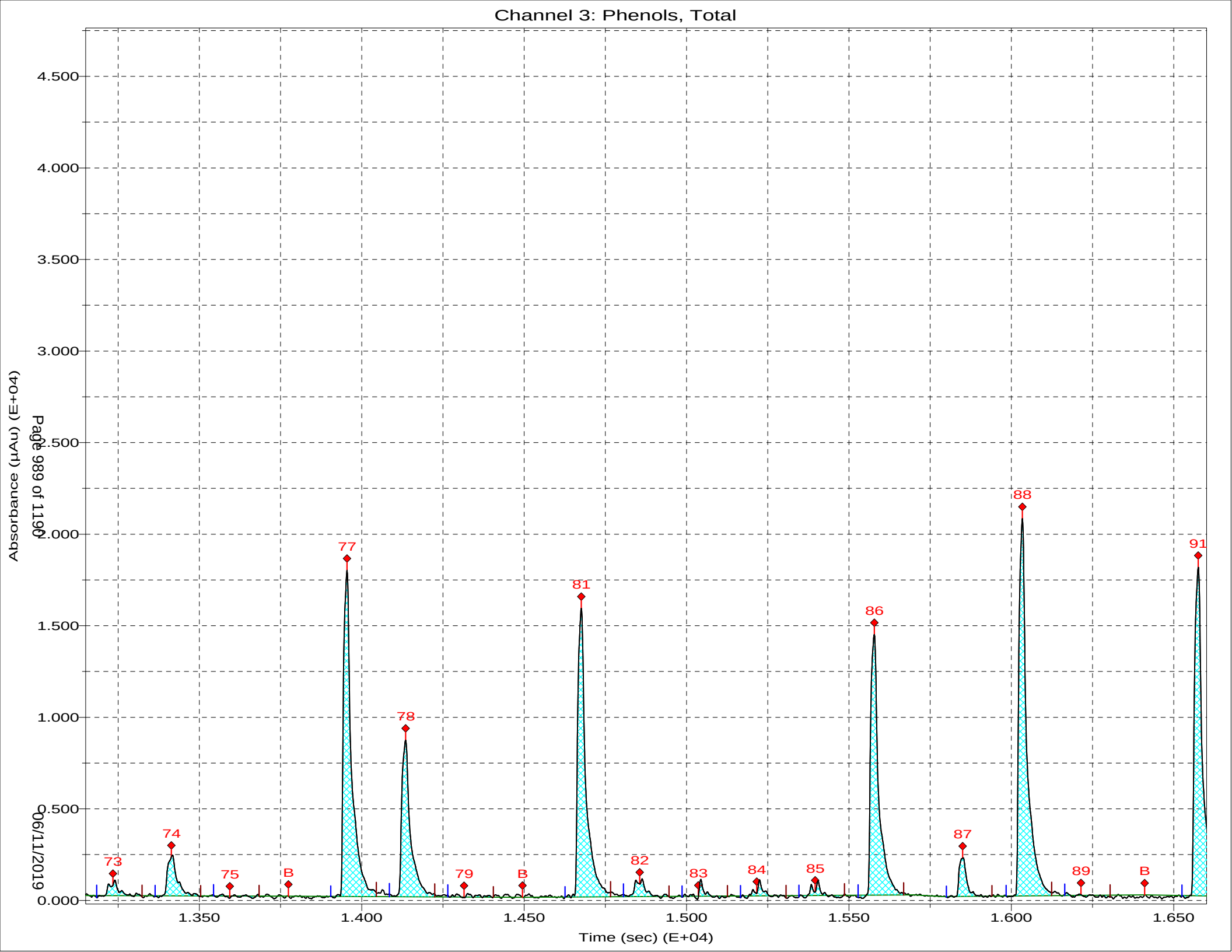

Phenols, Total:Calibration 1: Peak 5-94
Area (E+06)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-100
0
100
200
300
400
500
600
Conc

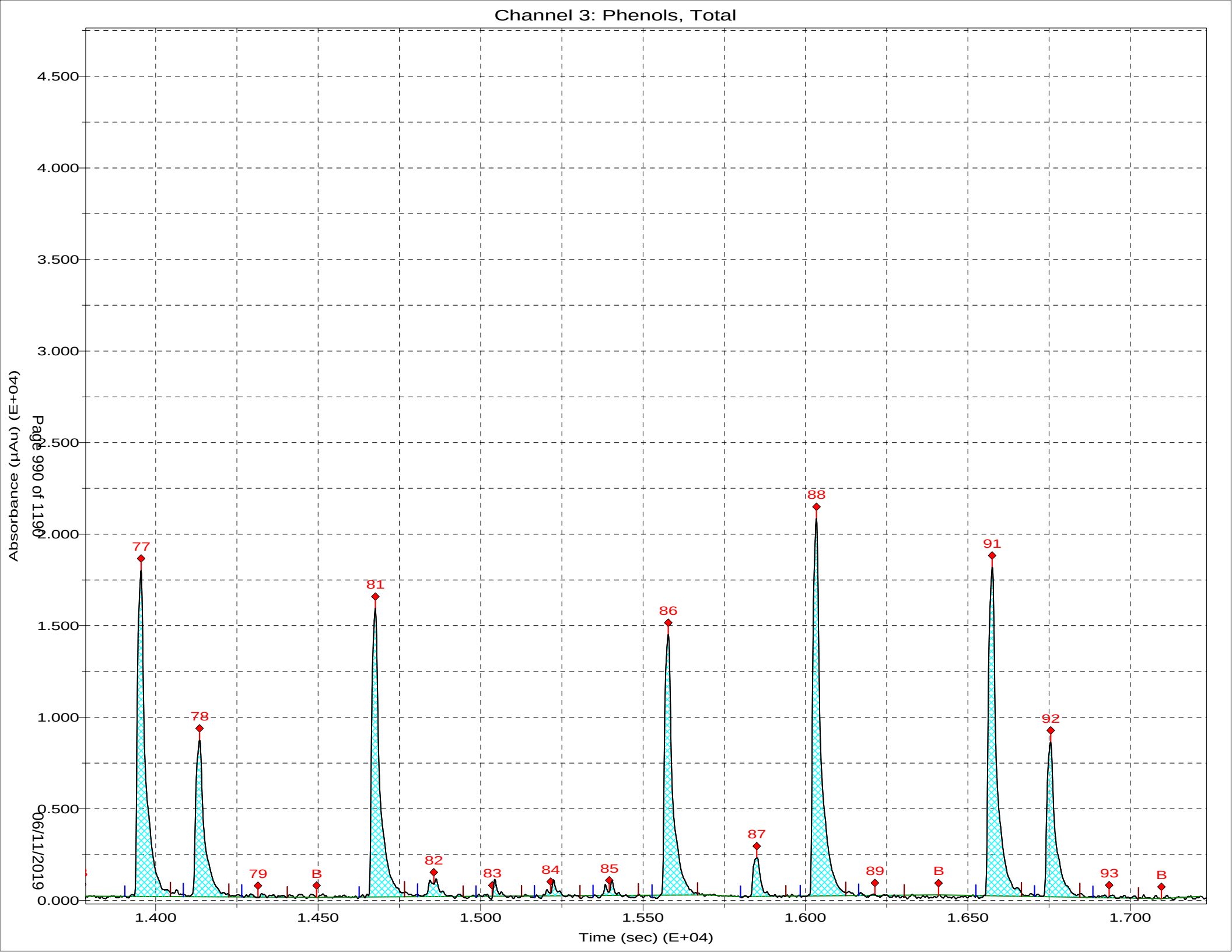

Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0
500
1000
1500
2000
2500
3000
Time (sec)
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
Page 985 of 1190
06/11/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
3500
4000
4500
5000
5500
6000
6500
19
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.700
0.750
0.800
0.850
0.900
0.950
1.000
Time (sec) (E+04)
37
38
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.000
1.050
1.100
1.150
1.200
1.250
1.300
Time (sec) (E+04)
55
56
57
58
59
B
61
62
63
B
65
66
67
68
69
70
71
72
73
Page 988 of 1190
06/11/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.350
1.400
1.450
1.500
1.550
1.600
1.650
Time (sec) (E+04)
73
74
75
B
77
78
79
B
81
82
83
84
85
86
87
88
89
B
91


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.400
1.450
1.500
1.550
1.600
1.650
1.700
77
78
79
B
81
82
83
84
85
86
87
88
89
B
91
92
93
B

Color Bench Sheet

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Analyst: CKB	Batch #: 458350	SOP: DV-WC-0058 SM 2120B
Date: 5/15/19		

Calibration Standard TALS ID: COLOR STD - 00018 1.0 N HCl TALS ID: N/A

1.0 N NaOH TALS ID: N/A

Sample ID	pH	Observed Color	Dilution Factor	Sample Centrifuged?	Final Color
Method Blank	7	<5	N/A	Yes (No)	ND
280-123814-J-1	7	20	5x	Yes (No)	100
DU 280-123814-J-1	7	20	5x	Yes (No)	100
280-123814-H-2	7	20	5x	Yes (No)	100
280-123814-H-3	7	25	5x	Yes (No)	130
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	

CKB 5/15/19

Comments: _____

HARDNESS BY TITRATION -- Method 2340C

Analyst:	KS	**Titration Solutions**		**SOP Information:**	**Rep. / Detection Limits**
Date:	5/23/2019	Solution 1:	EDTA	Number: DV-WC-0060	MDL (mg/L) 1.3
Time:	19:06	ID #	_00090	Revision: 4	RL (mg/L) 5
Batch No.:	459282	Source:	RICCA	**Calibration Information**	Spike Concentrations:
		Normality:	0.01972	Std# Hard 00051	LCS Spike Vol (mL) 10
Pipette Verification				Made By: LabChem	MS Spike Vol (mL) 10
at 5 mL:	4.95 g			Concentration (mg/L): 1000	LCS conc. (mg/L) 1000.0
Brinkmann bottletop				Exp: 6/13/20	MS conc (mg/L) 1000.0
Buret 50					

Sample ID	Sample pH	Sample Volume	Buret Start	Buret Stop	Flags	Final mL	Sample Conc mg/L	Prep D.F.	Analyt. D.F.	Final Conc mg/L	Titrant TV
titrant stdz	7	10	0.00	10.27		10.27	1012.475	1	1	1012.48	0.01947
titrant stdz	7	10	0.00	10.02		10.02	987.829	1	1	987.83	0.01996

Buffer:	Hardness Buffer 00009	Exp:	7 15 2019
Calmagite Indicator:	0289-11_00008	Exp:	12 31 2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	NC	NC	M
2 Chloride	3.234	3.242	-0.008	4716909	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	1976056	0.2000	0.2135	a
4 Bromide	4.642	4.642	0.000	382484	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	2120855	0.2000	0.2208	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	0.2000	0.2189	a
6 Sulfate	6.409	6.434	-0.025	3612640	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

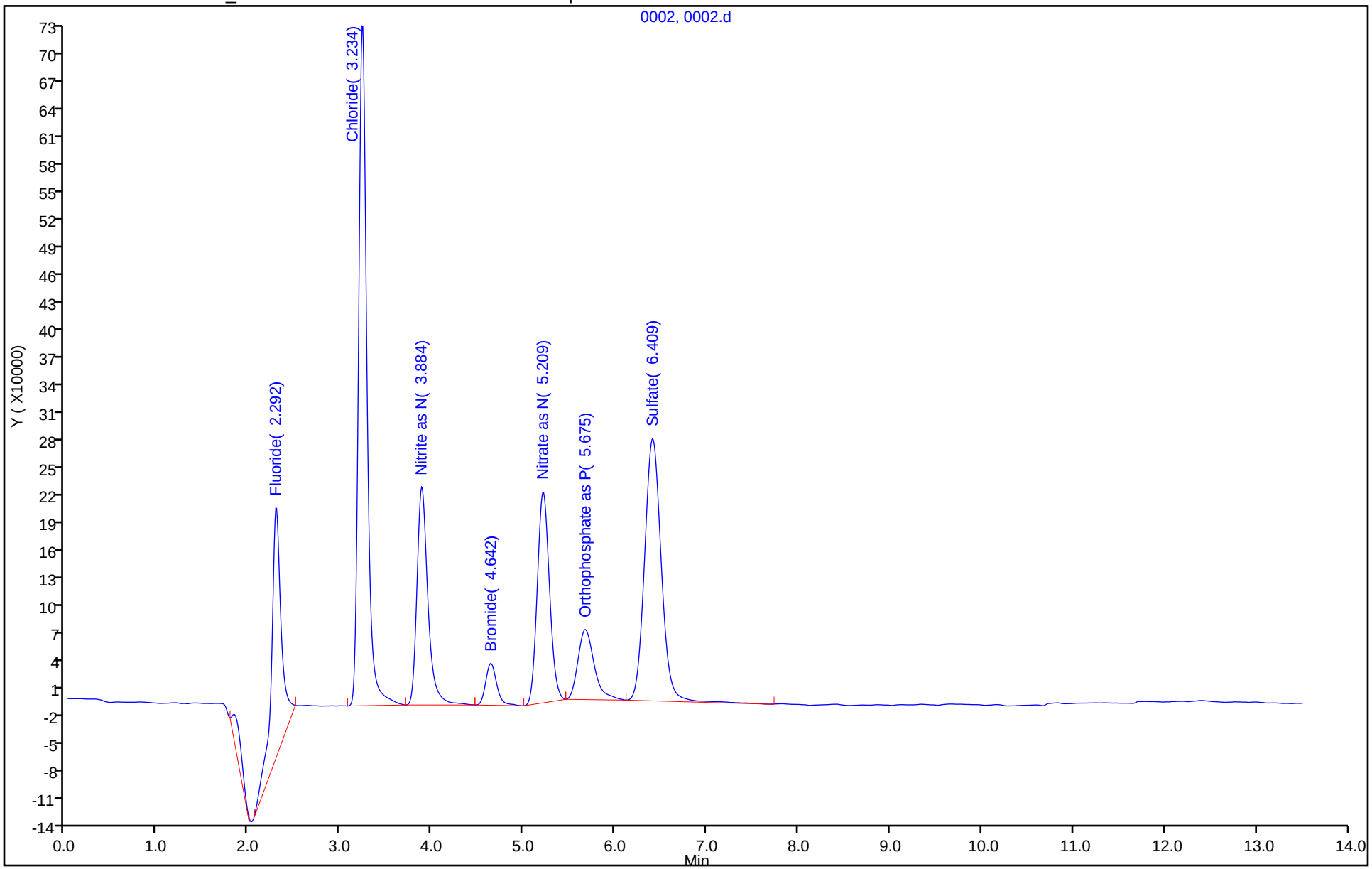
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

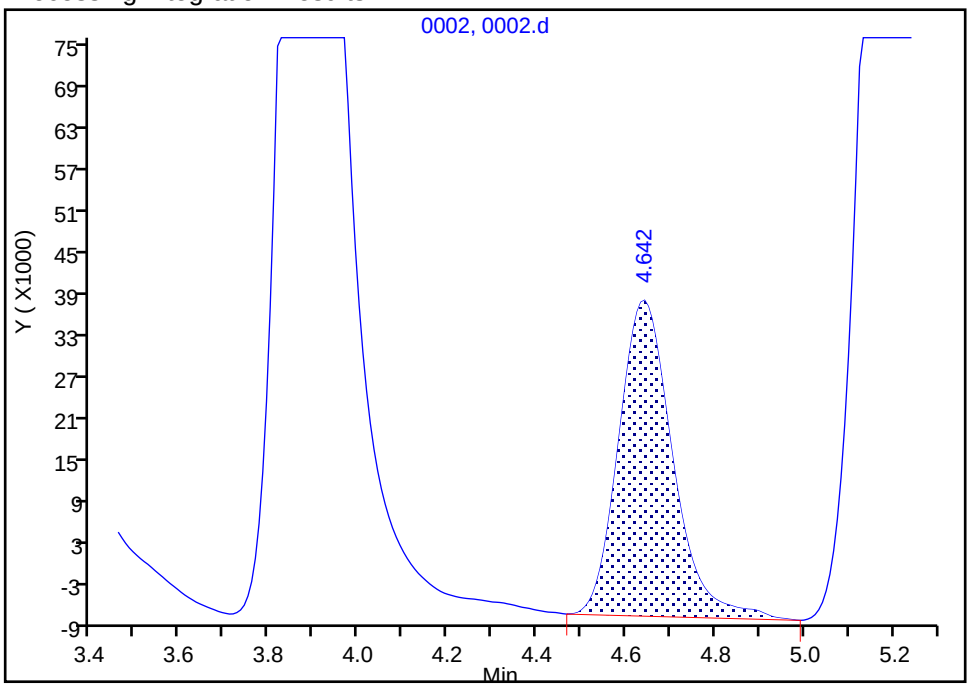
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Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

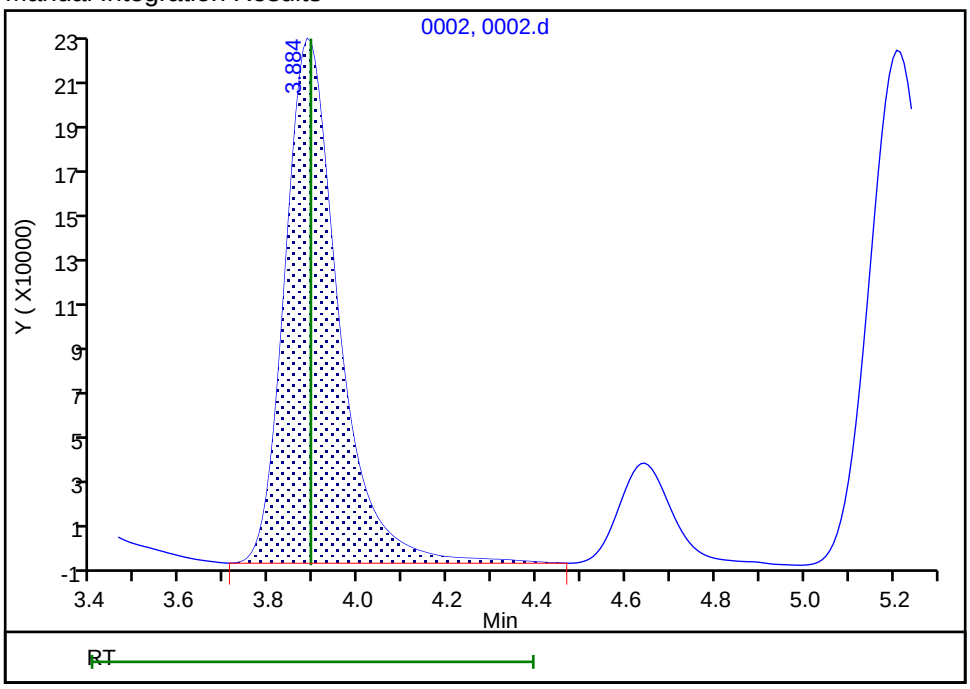
Processing Integration Results

RT: 4.64
Area: 382484
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 1976056
Amount: 0.213513
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:40
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

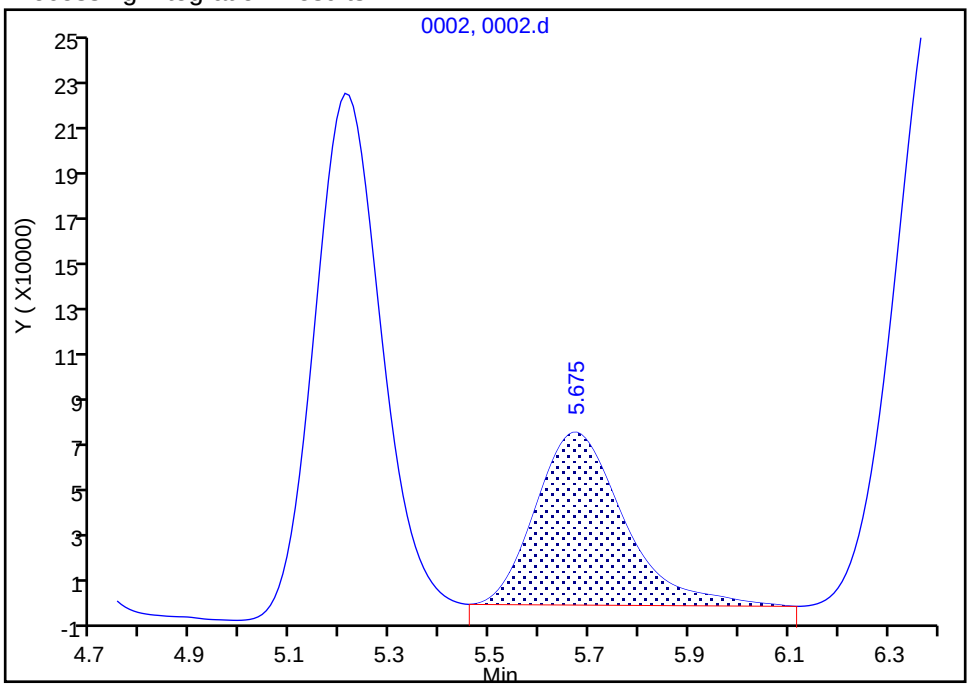
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Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

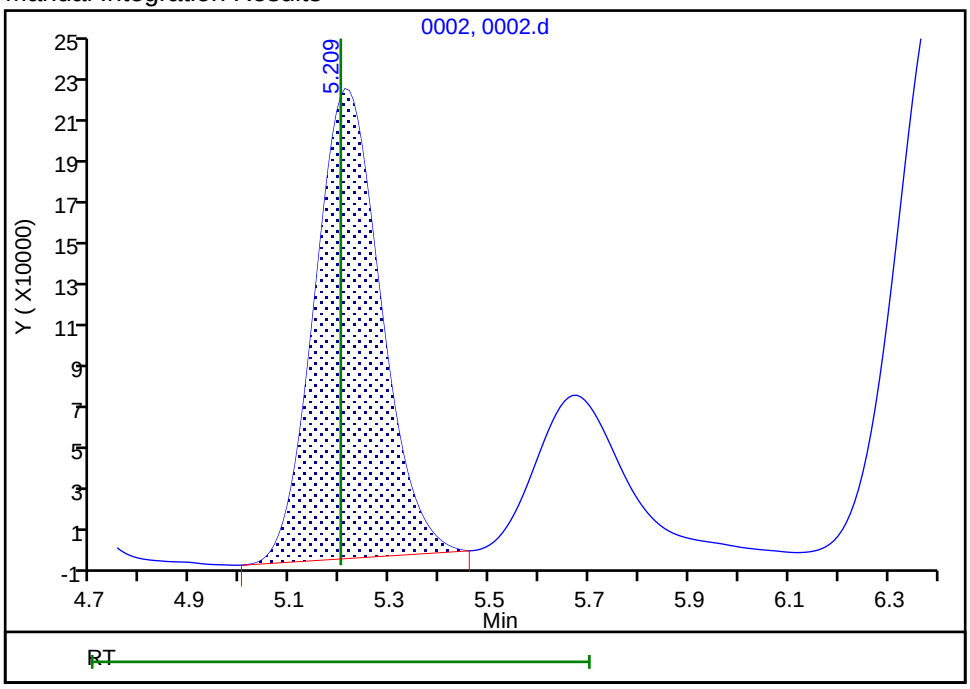
Processing Integration Results

RT: 5.68
Area: 939373
Amount: 0.215245
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 2120855
Amount: 0.220835
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

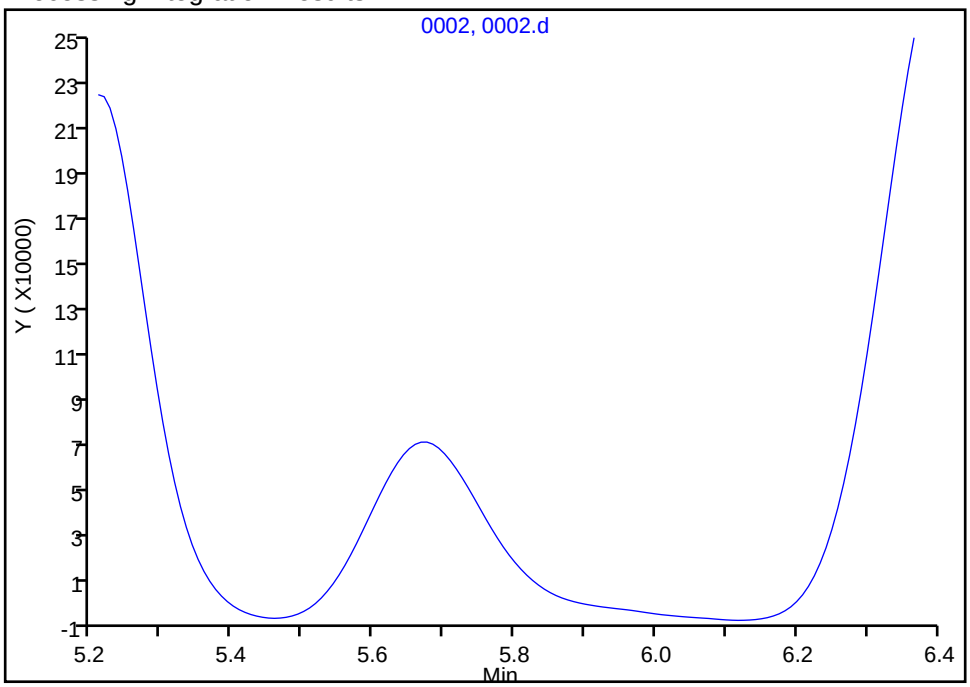
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Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L1				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

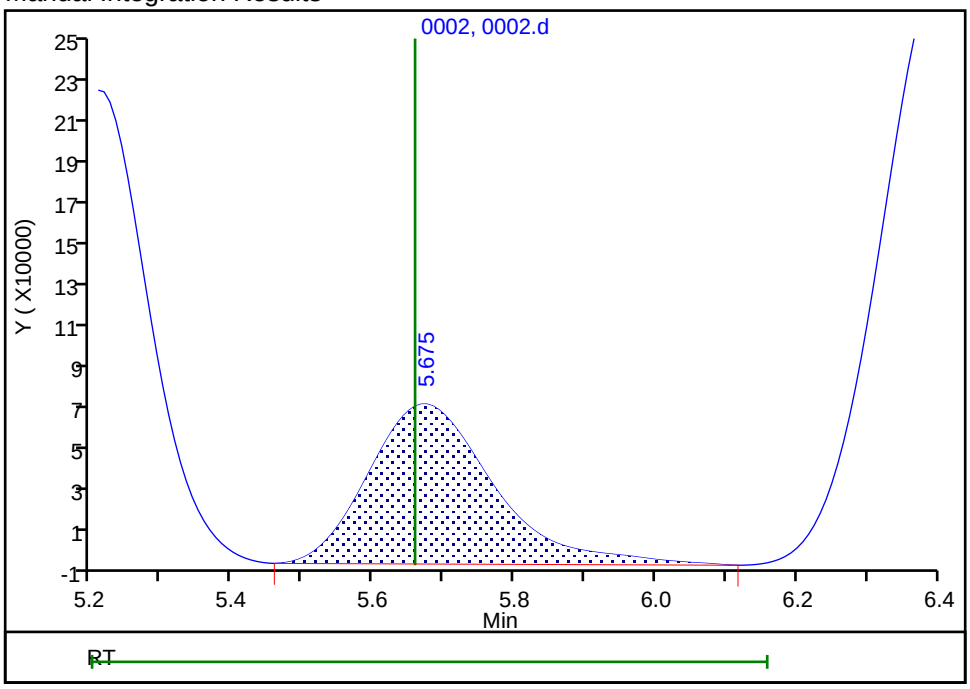
Not Detected
Expected RT: 5.66

Processing Integration Results



RT: 5.68
Area: 939373
Amount: 0.218915
Amount Units: ug/ml

Manual Integration Results



Reviewer: phantl, 15-May-2019 19:05:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	0.2000	0.1247	M
2 Chloride	3.234	3.242	-0.008	4716909	1.00	1.32	
3 Nitrite as N	3.884	3.892	-0.008	1976056	NC	NC	a
4 Bromide	4.642	4.642	0.000	382484	0.2000	0.2043	a
5 Nitrate as N	5.209	5.200	0.009	2120855	NC	NC	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	3612640	1.00	1.25	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

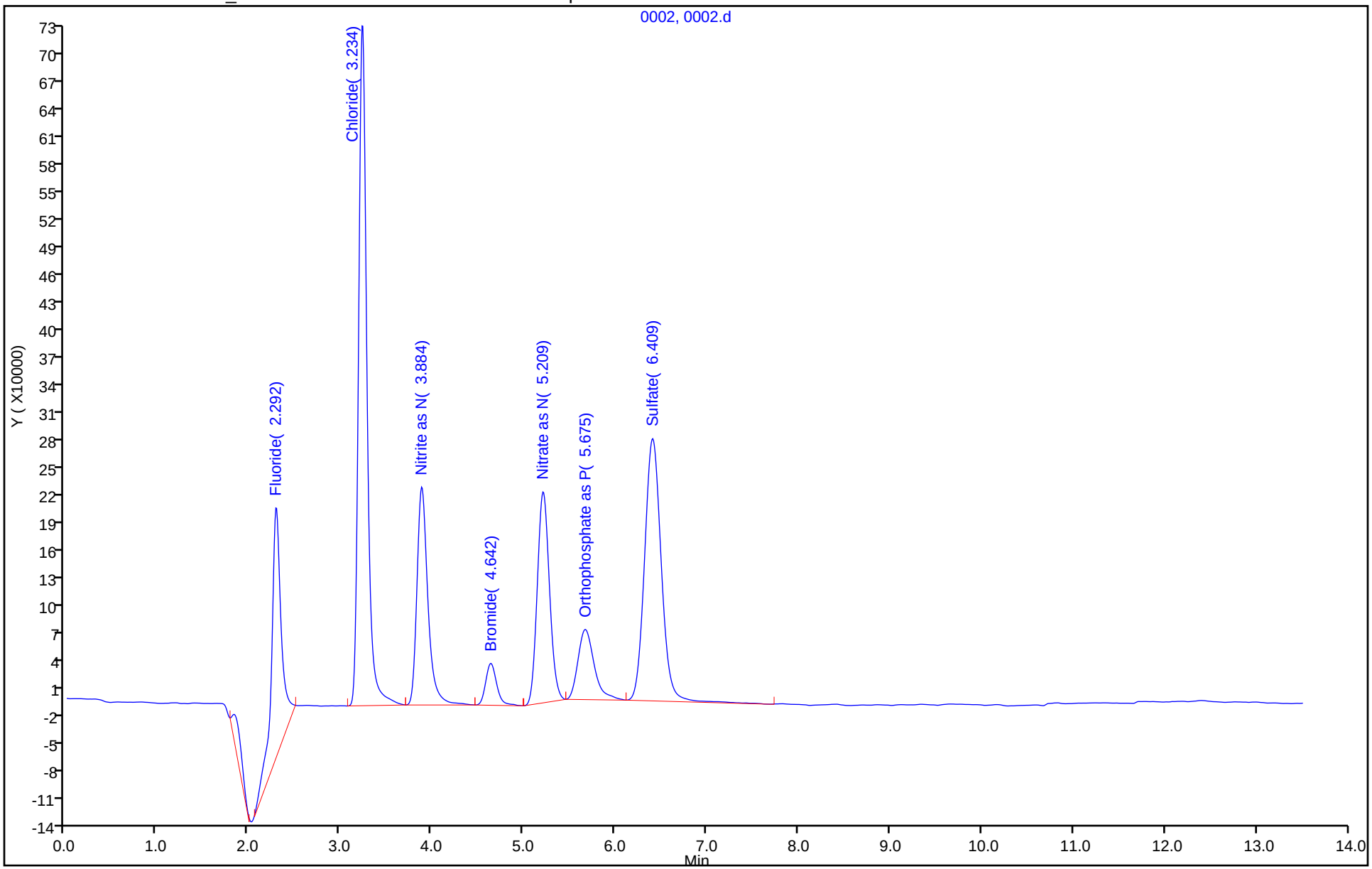
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

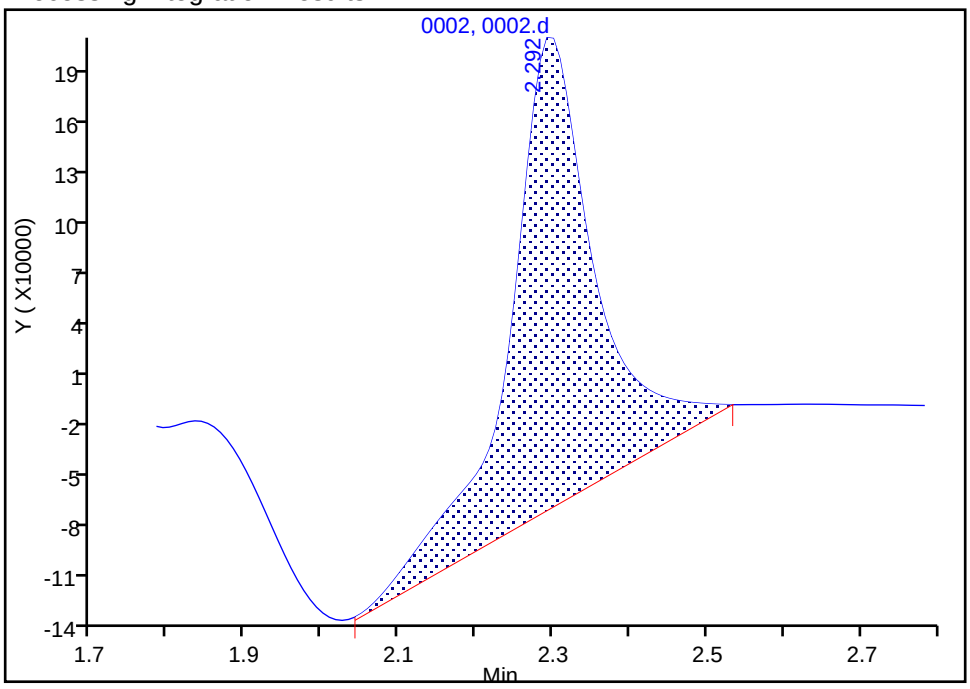
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

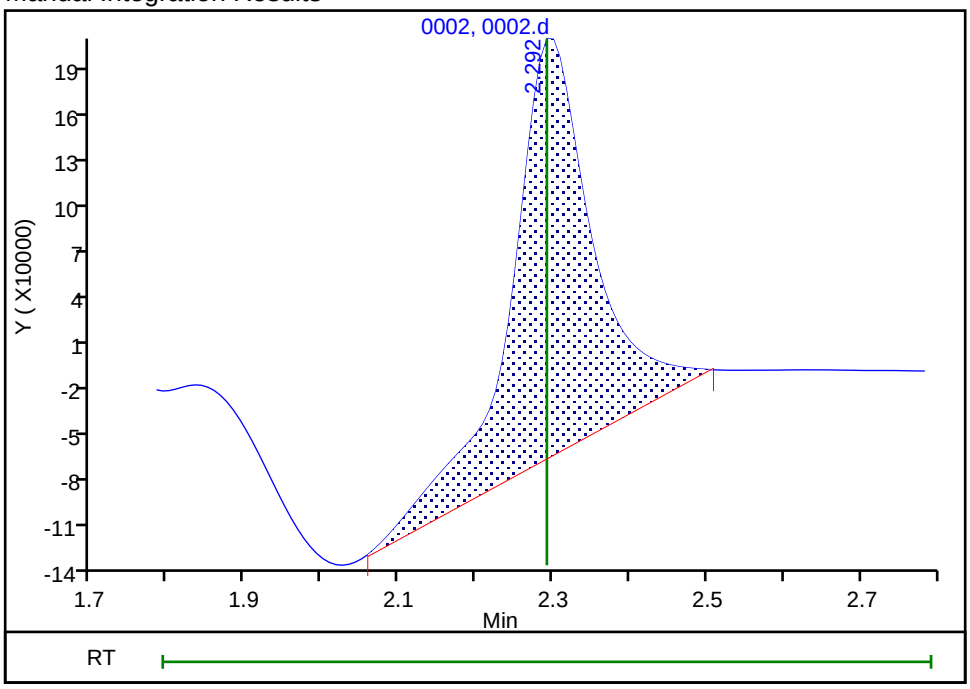
Processing Integration Results

RT: 2.29
Area: 2156044
Amount: 0.130825
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2026299
Amount: 0.124737
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:10:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

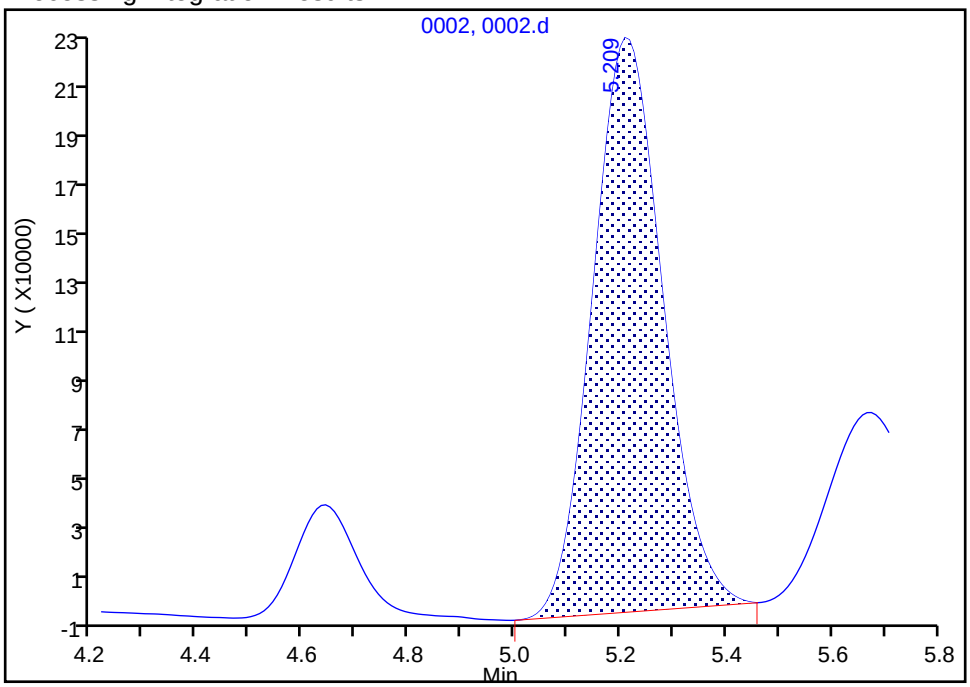
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

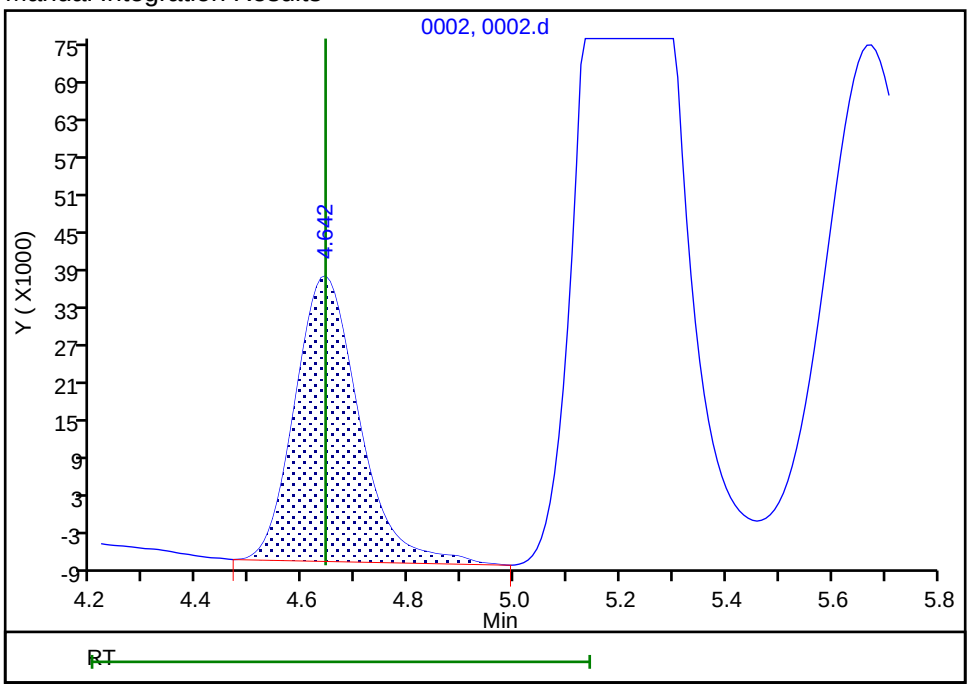
Processing Integration Results

RT: 5.21
Area: 2120855
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 382484
Amount: 0.204318
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

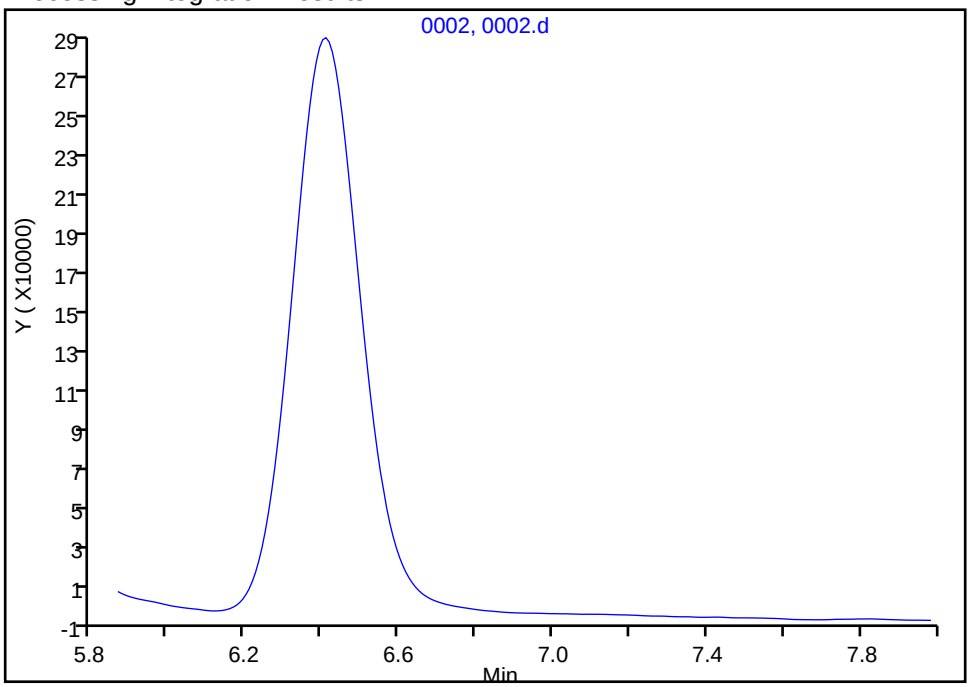
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

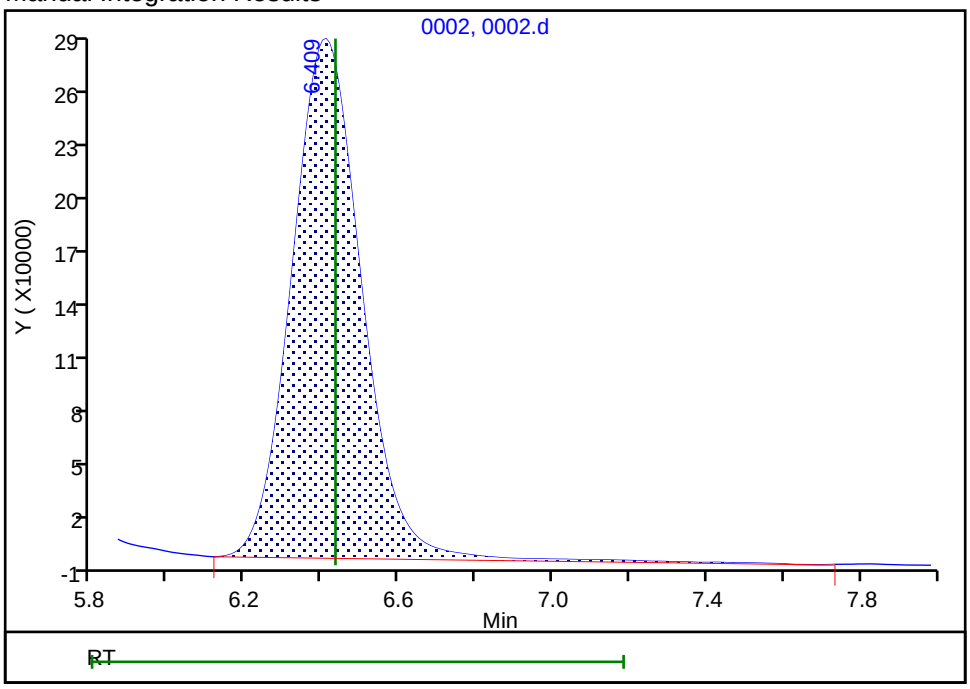
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 3612640
Amount: 1.245045
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:12
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	NC	NC	
2 Chloride	3.234	3.242	-0.008	11441790	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	4889442	0.5000	0.4912	a
4 Bromide	4.634	4.642	-0.008	953603	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	5219434	0.5000	0.4876	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	0.5000	0.4793	a
6 Sulfate	6.409	6.434	-0.025	8699908	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

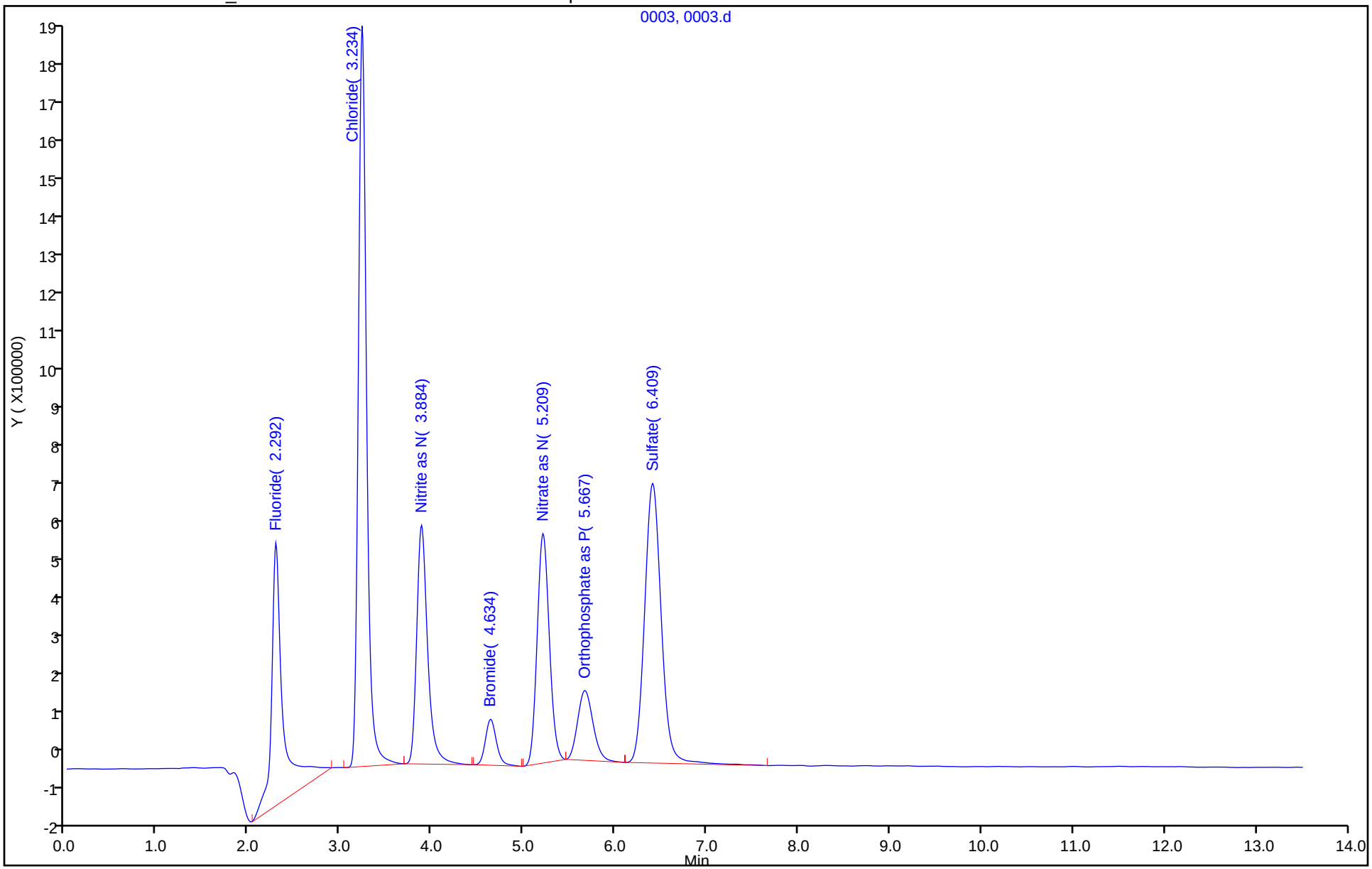
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

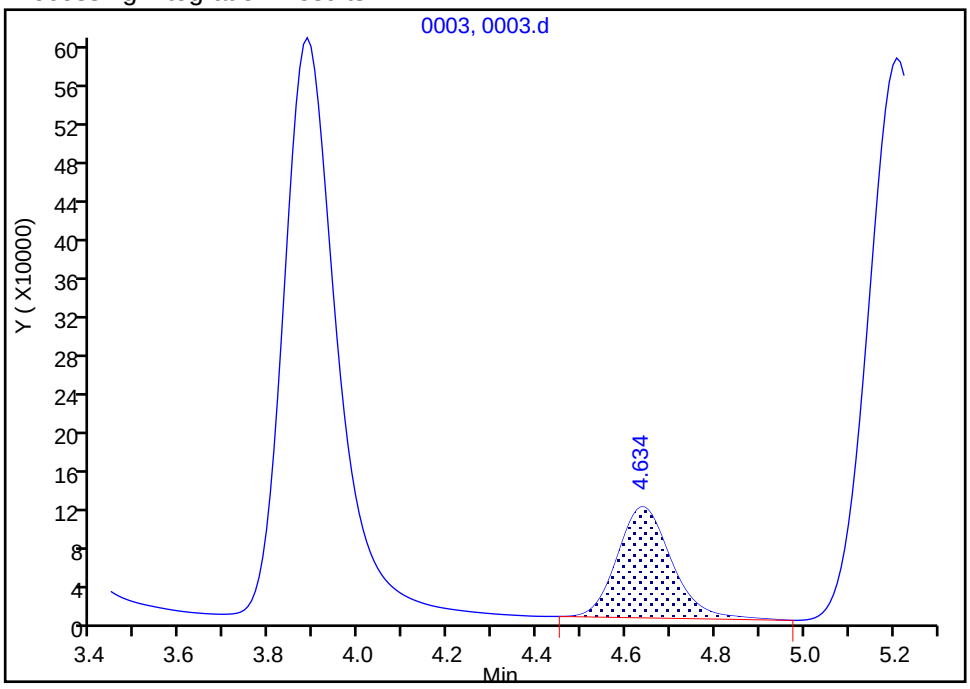
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

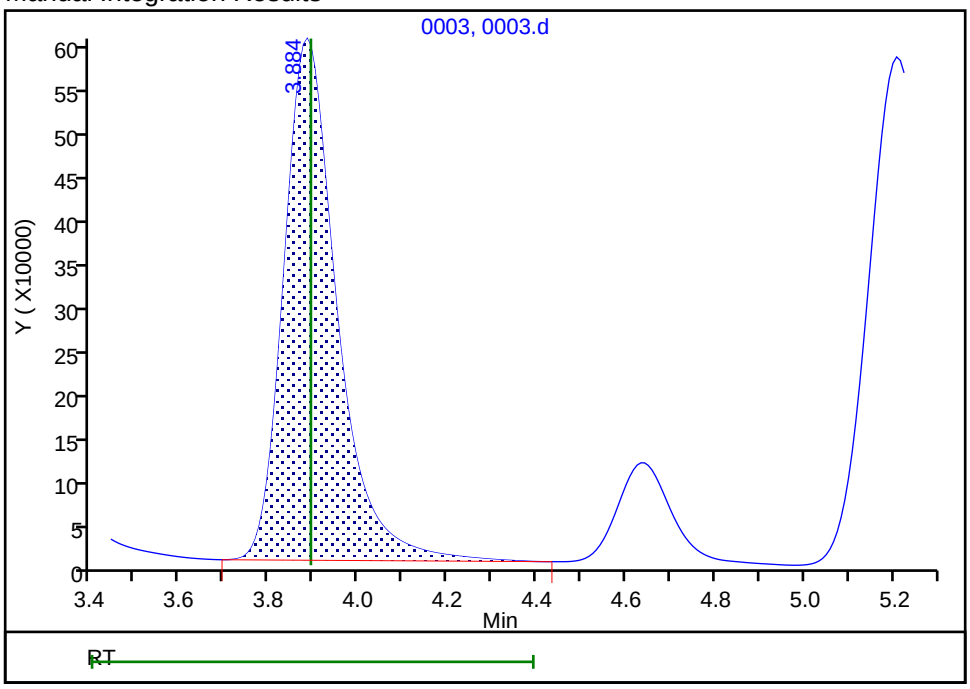
Processing Integration Results

RT: 4.63
Area: 953603
Amount: -0.100903
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 4889442
Amount: 0.491191
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

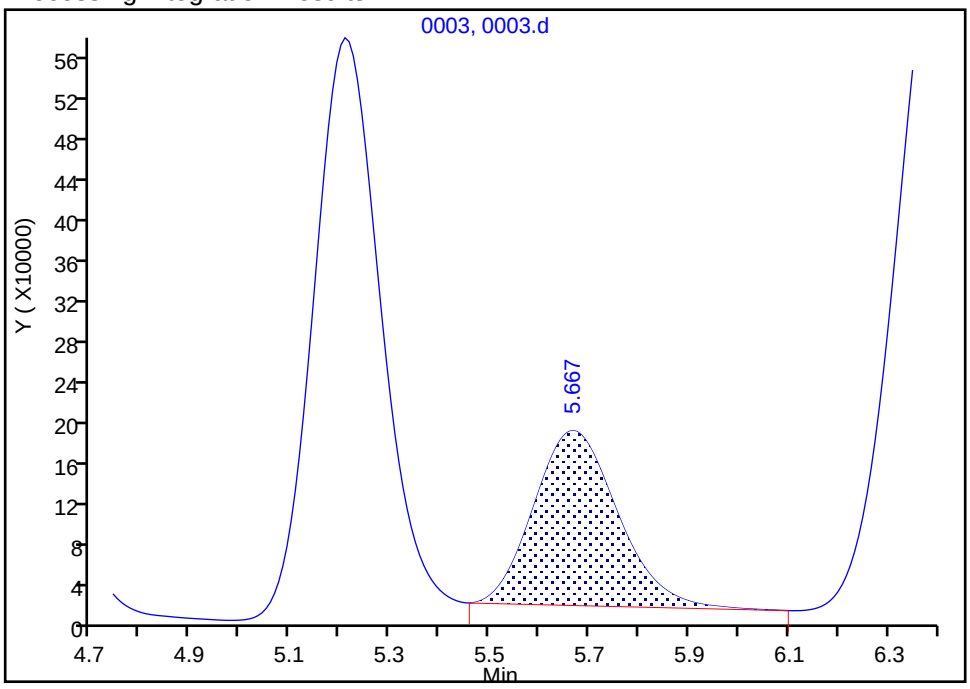
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d				
Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

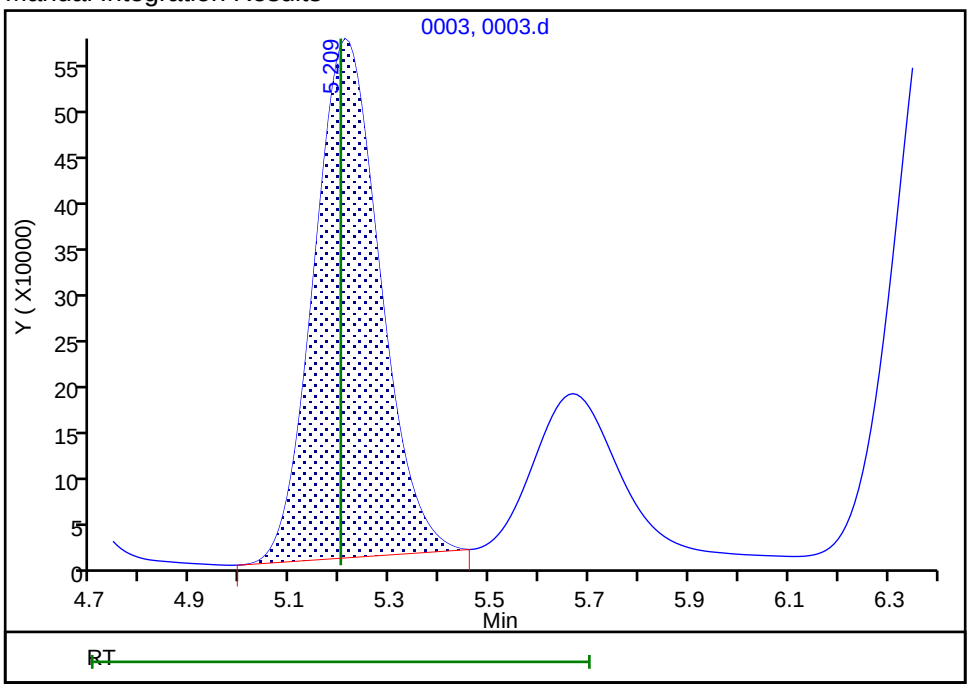
Processing Integration Results

RT: 5.67
Area: 2017876
Amount: 0.290238
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 5219434
Amount: 0.487631
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

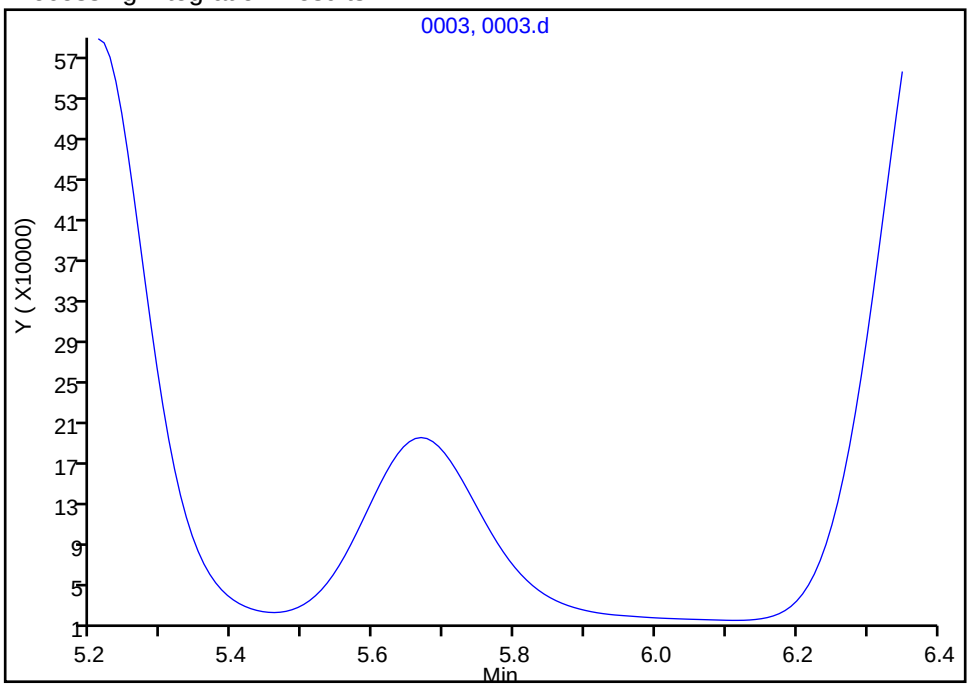
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

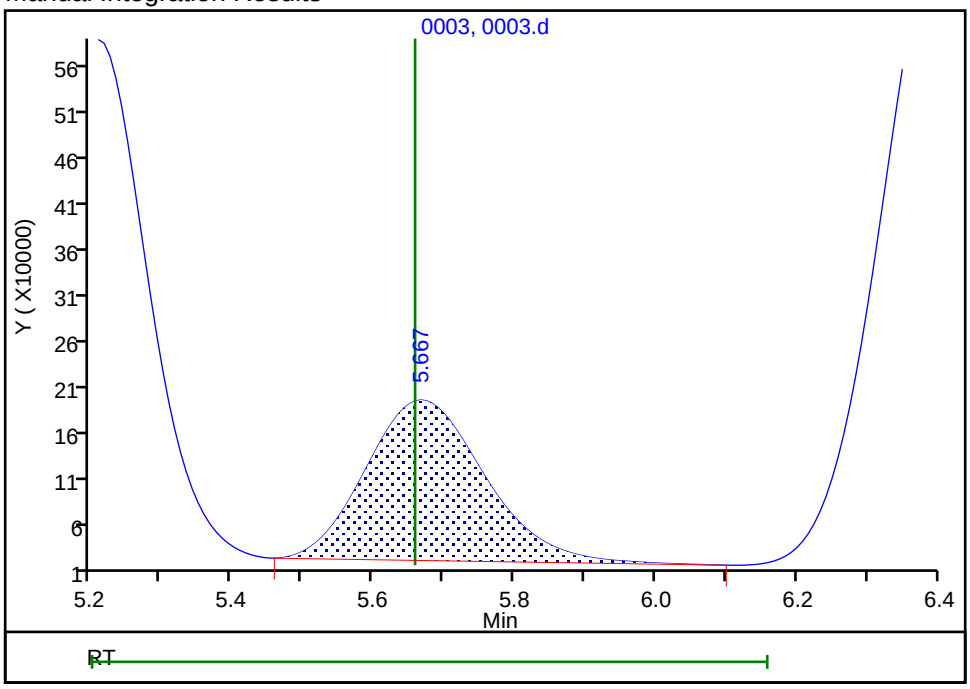
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 2017876
Amount: 0.479288
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	0.5000	0.6311	
2 Chloride	3.234	3.242	-0.008	11441790	2.50	2.32	
3 Nitrite as N	3.884	3.892	-0.008	4889442	NC	NC	a
4 Bromide	4.634	4.642	-0.008	953603	0.5000	0.4980	a
5 Nitrate as N	5.209	5.200	0.009	5219434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	8699908	2.50	2.38	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

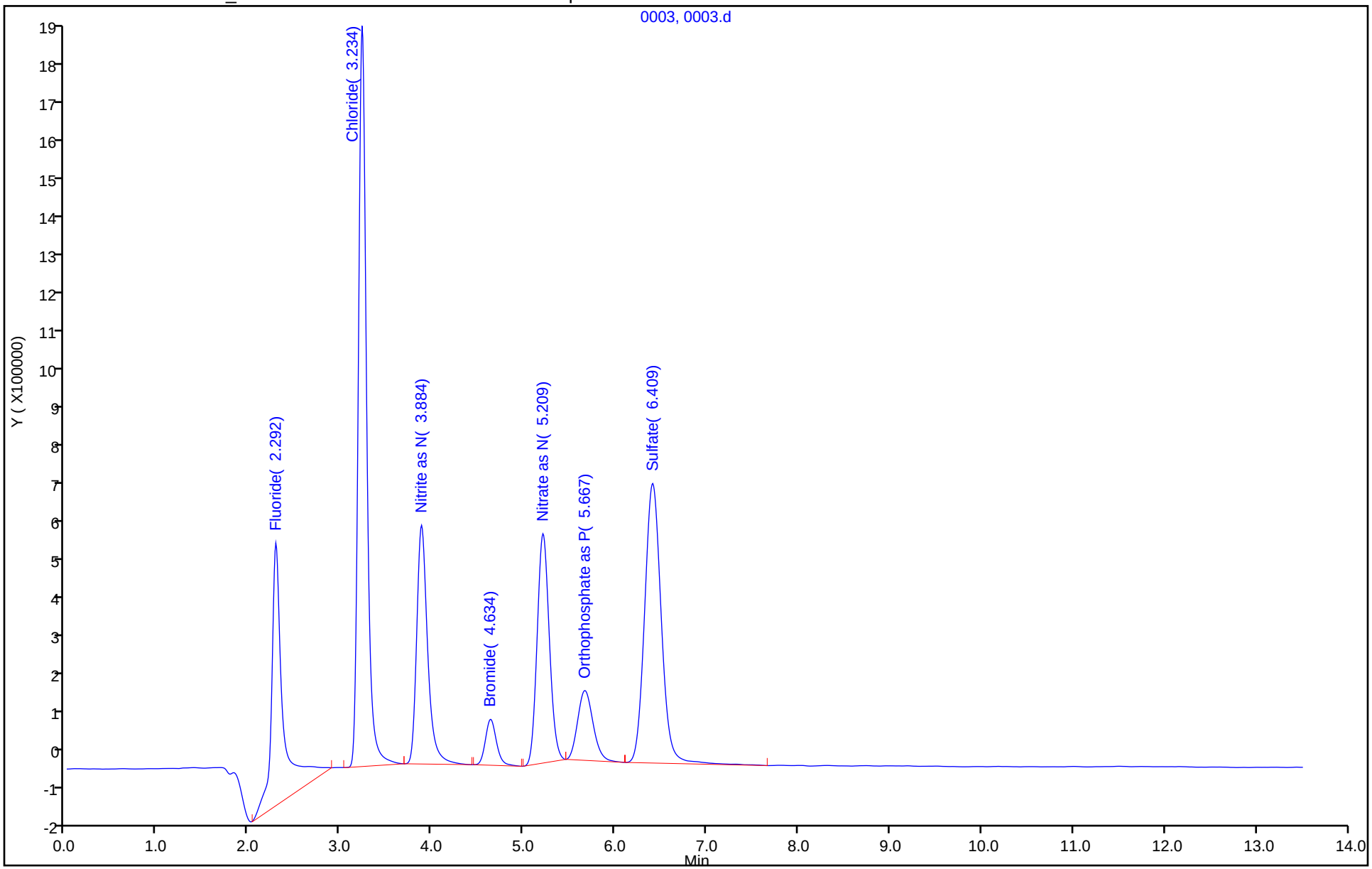
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

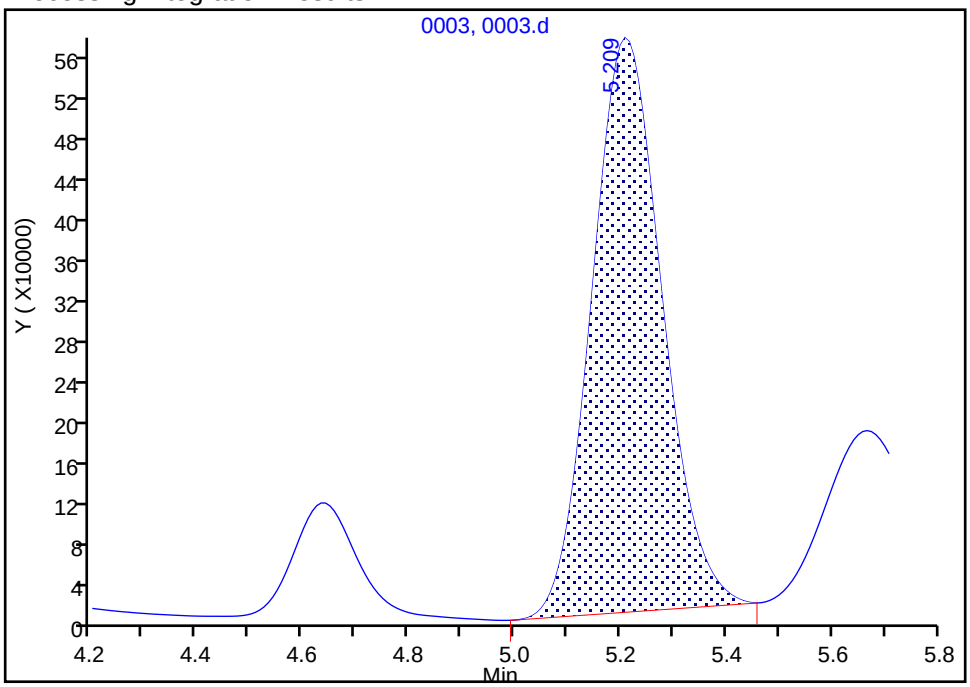
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

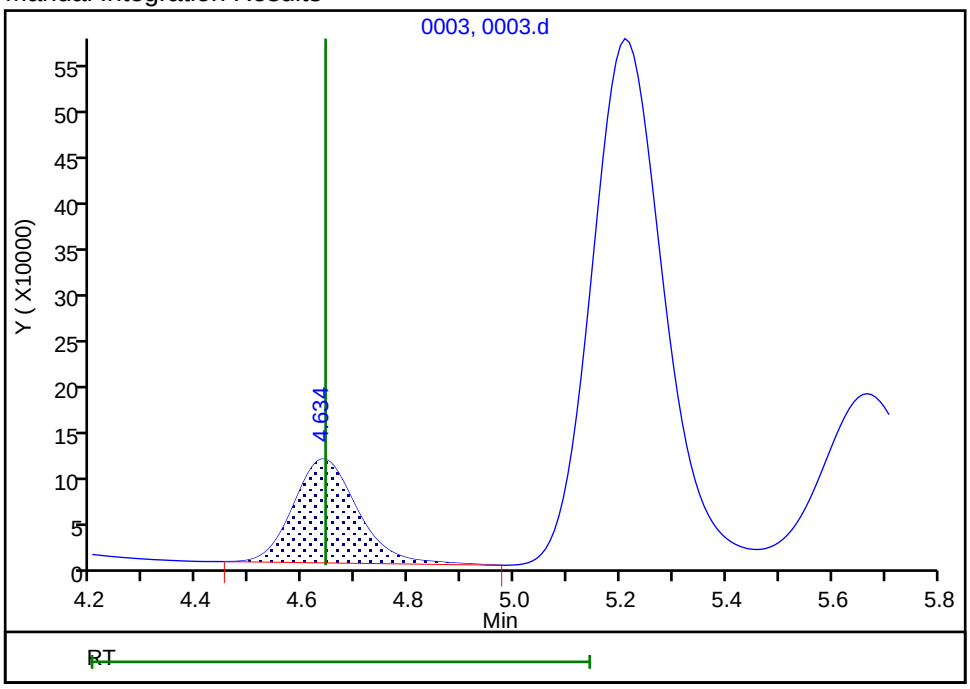
Processing Integration Results

RT: 5.21
Area: 5219434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 953603
Amount: 0.497971
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

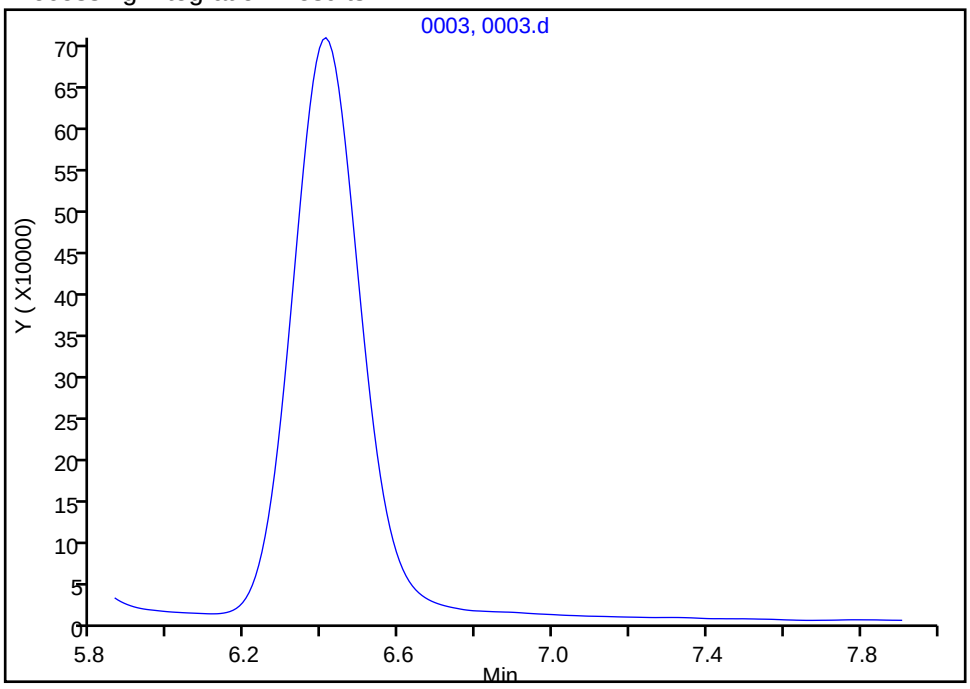
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

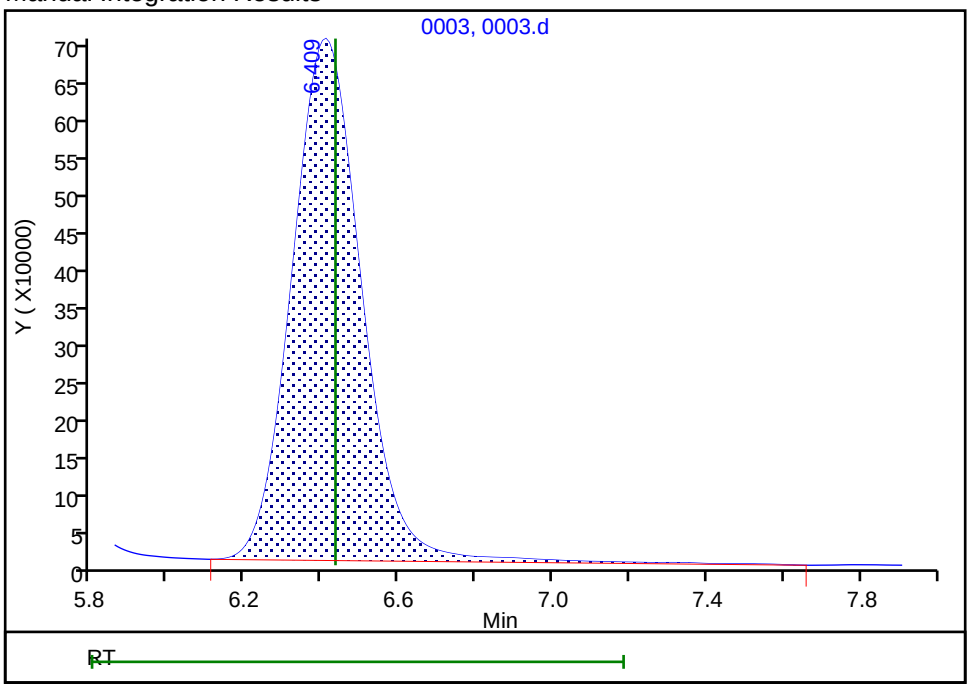
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 8699908
Amount: 2.382508
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:24
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	NC	NC	
2 Chloride	3.234	3.242	-0.008	23461594	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	9866046	1.00	0.9655	a
4 Bromide	4.642	4.642	0.000	1893846	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	10516434	1.00	0.9437	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	1.00	0.9615	a
6 Sulfate	6.409	6.434	-0.025	17587626	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

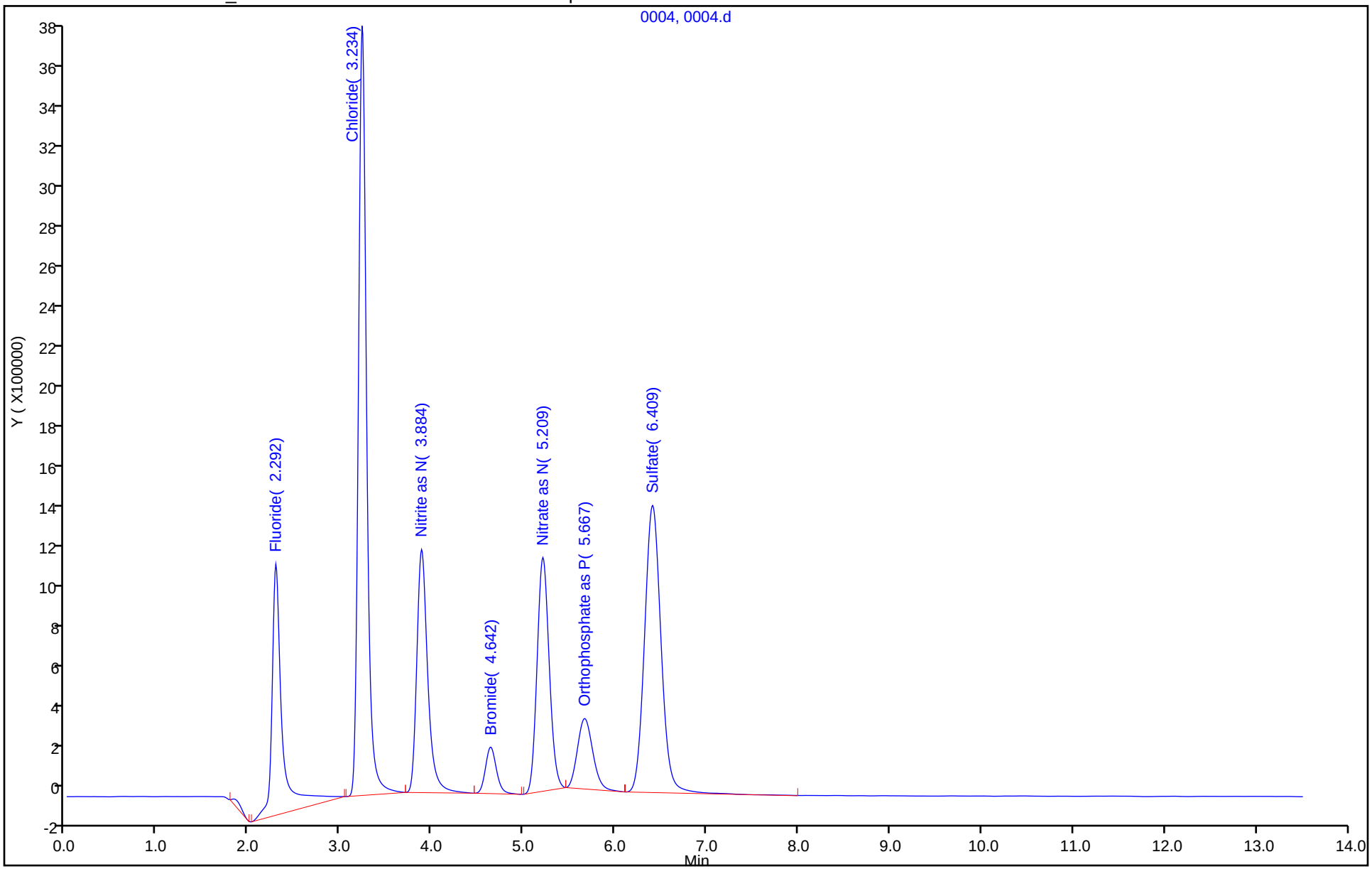
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

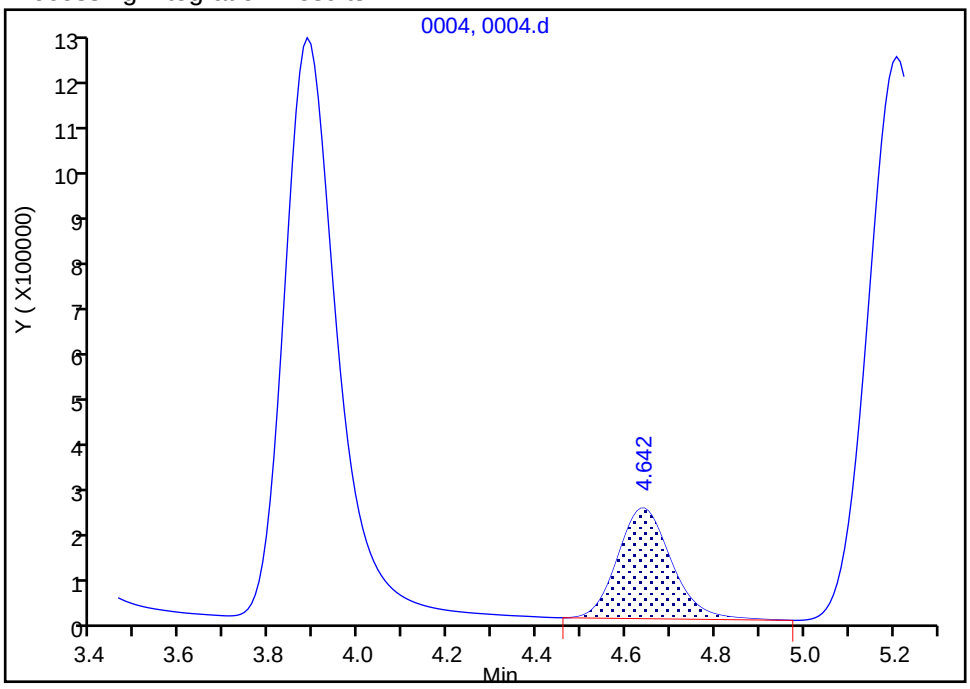
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

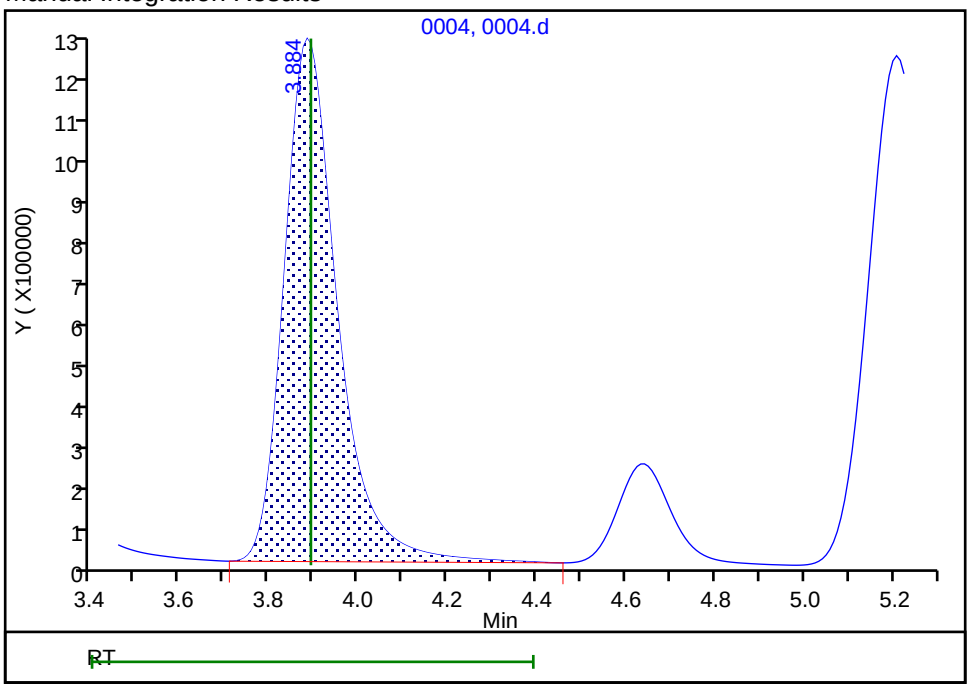
Processing Integration Results

RT: 4.64
Area: 1893846
Amount: -0.132556
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 9866046
Amount: 0.965516
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:43
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

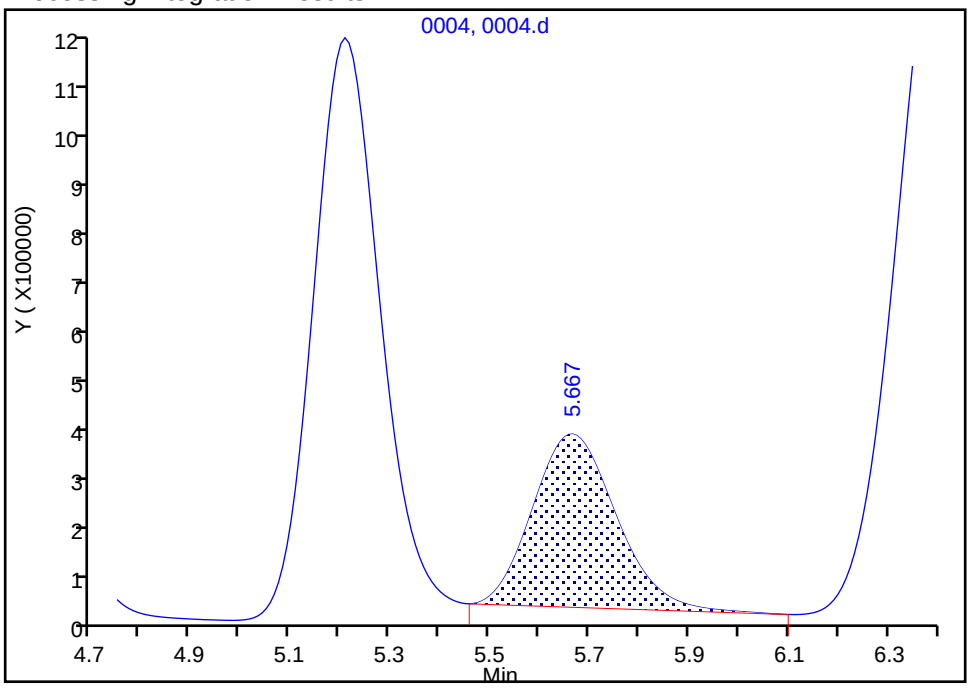
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

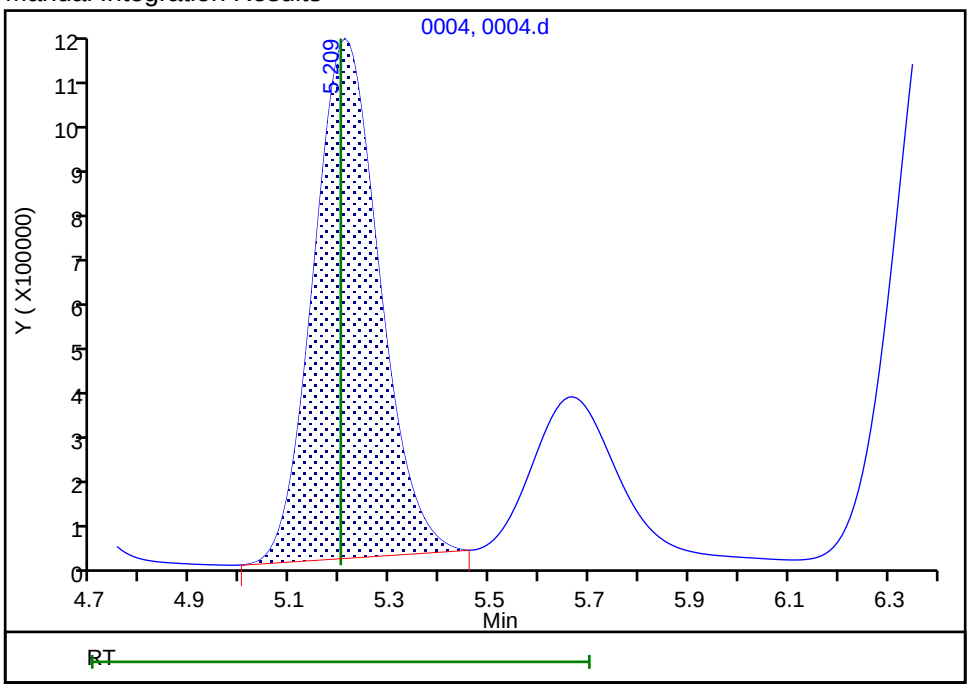
Processing Integration Results

RT: 5.67
Area: 4015320
Amount: 0.609716
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 10516434
Amount: 0.943717
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:47
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

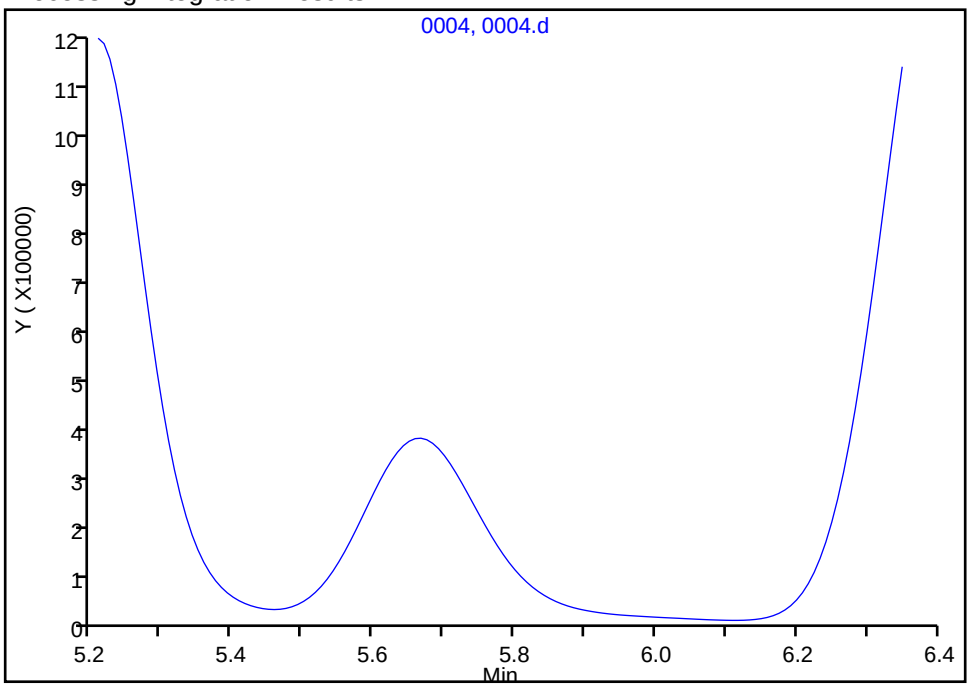
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d				
Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

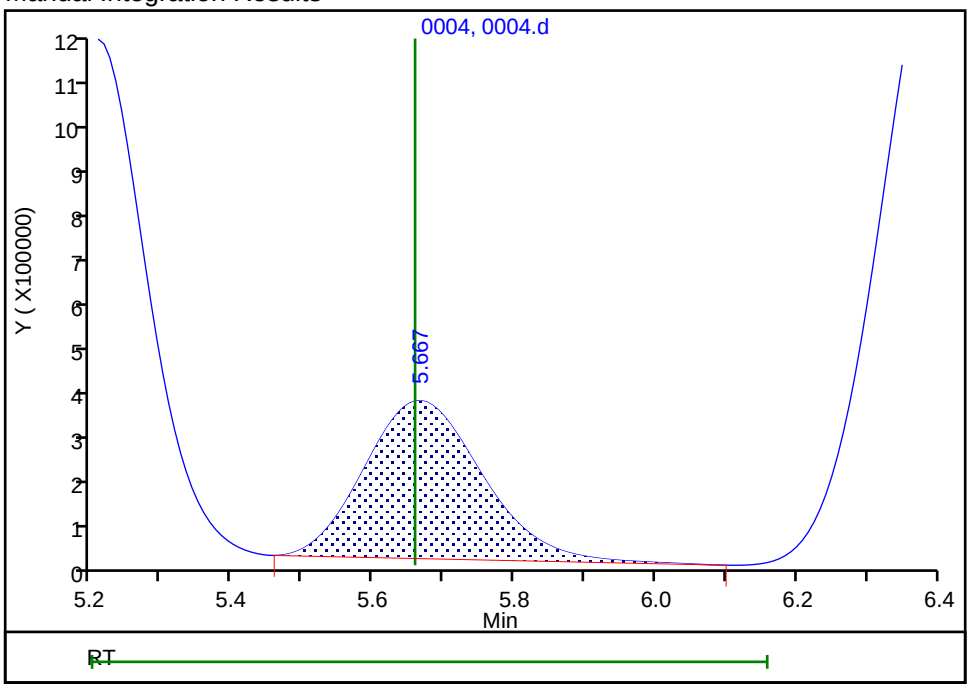
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 4015320
Amount: 0.961514
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	1.00	1.16	
2 Chloride	3.234	3.242	-0.008	23461594	5.00	4.11	
3 Nitrite as N	3.884	3.892	-0.008	9866046	NC	NC	a
4 Bromide	4.642	4.642	0.000	1893846	1.00	0.9814	a
5 Nitrate as N	5.209	5.200	0.009	10516434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	17587626	5.00	4.37	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

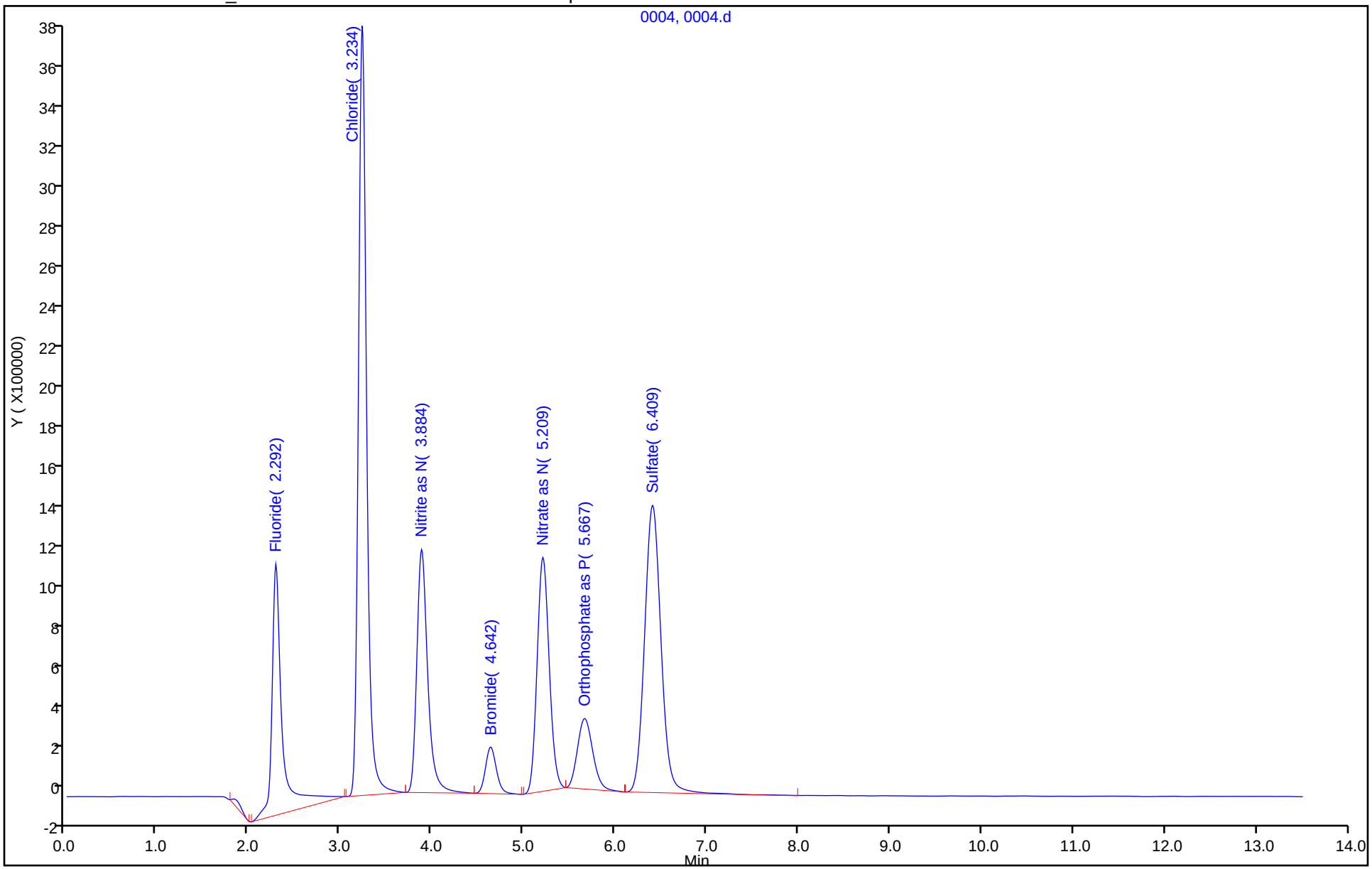
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

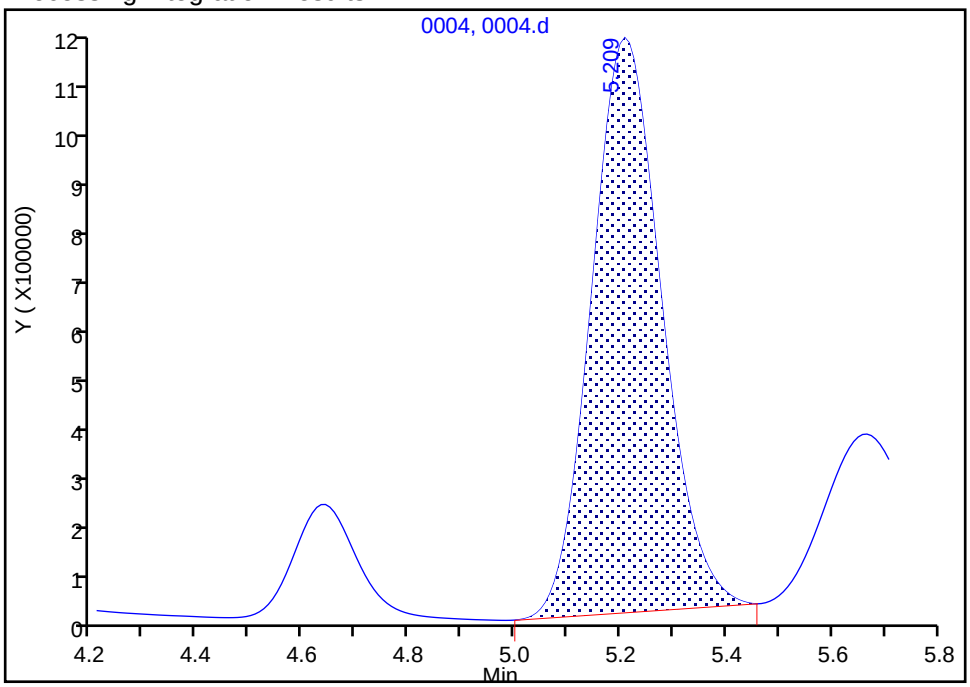
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

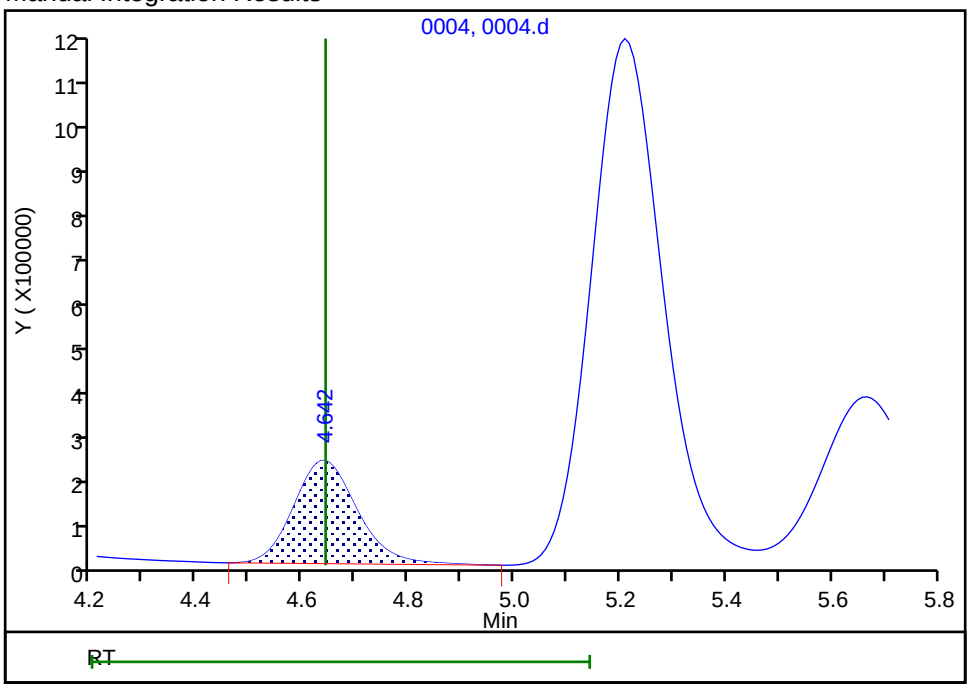
Processing Integration Results

RT: 5.21
Area: 10516434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 1893846
Amount: 0.981416
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:15
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

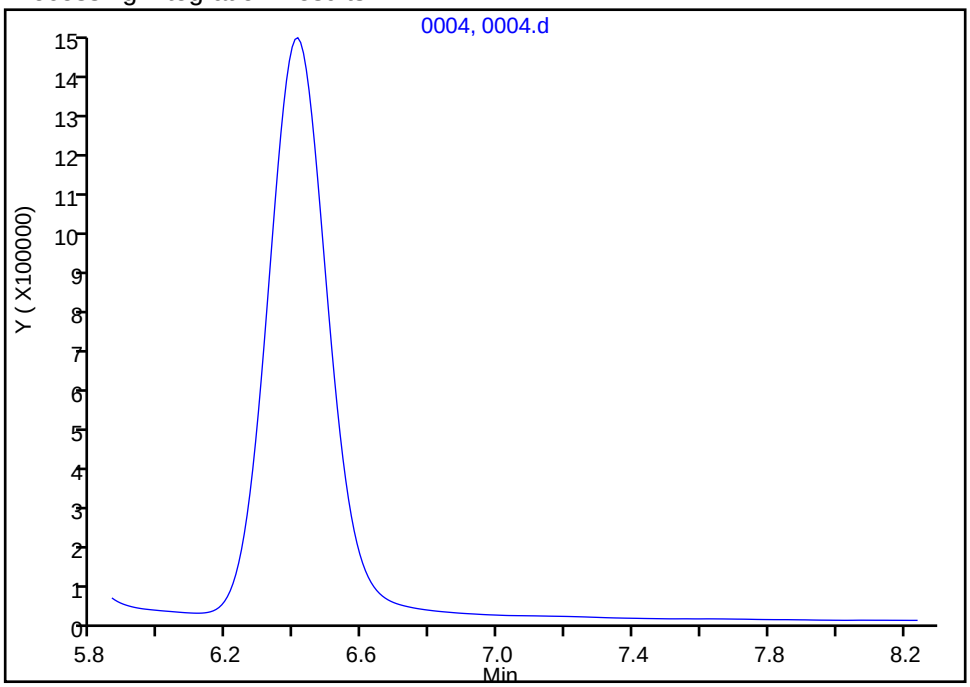
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

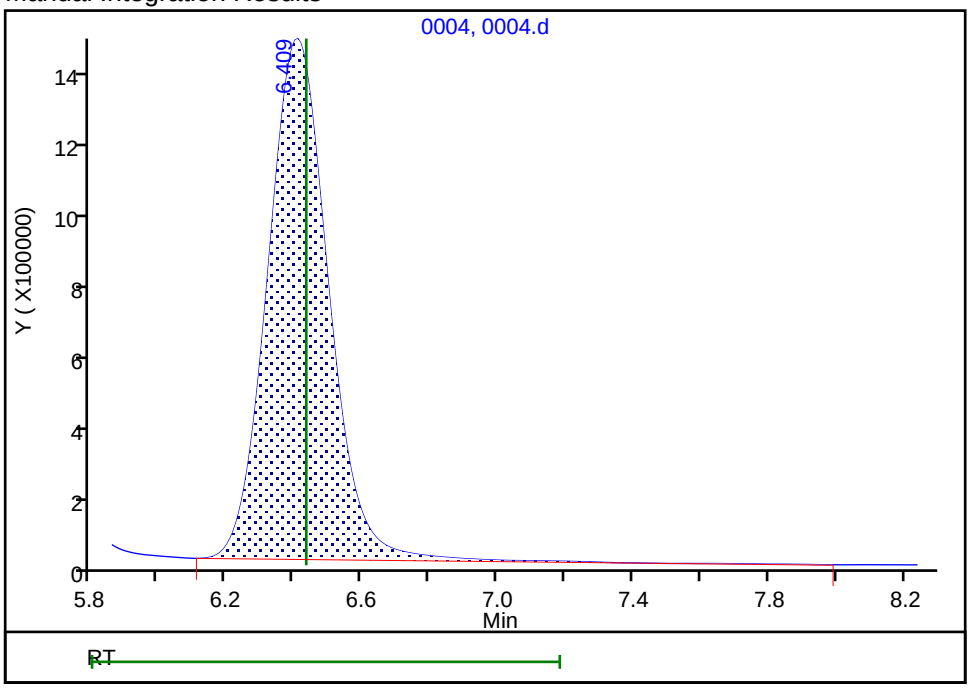
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 17587626
Amount: 4.369714
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:10
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	NC	NC	
2 Chloride	3.242	3.242	0.000	361228288	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	40367514	4.00	3.87	a
4 Bromide	4.634	4.634	0.000	7626440	NC	NC	a
5 Nitrate as N	5.200	5.200	0.000	43835884	4.00	3.81	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	4.00	3.88	a
6 Sulfate	6.434	6.434	0.000	241149184	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

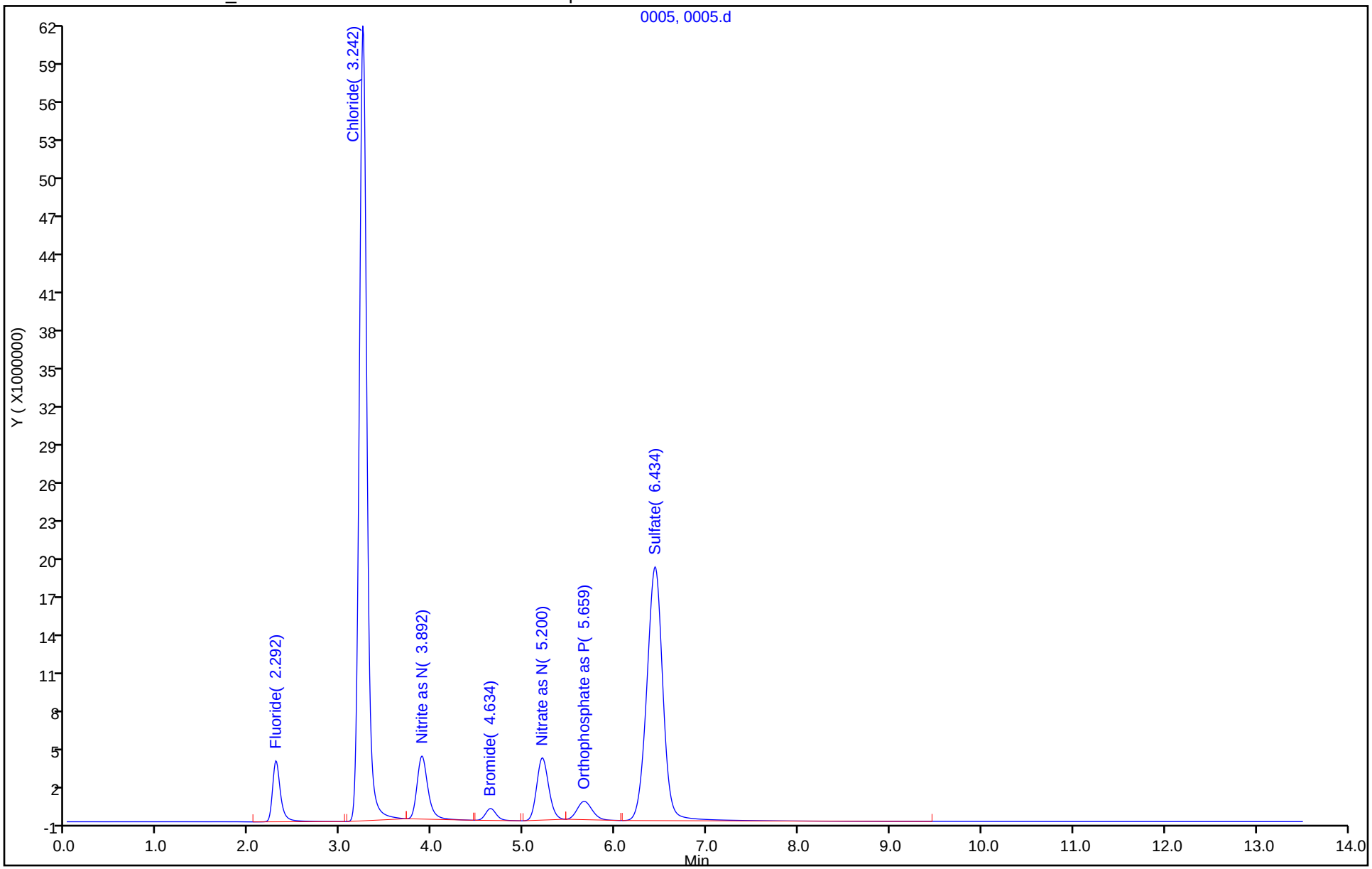
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

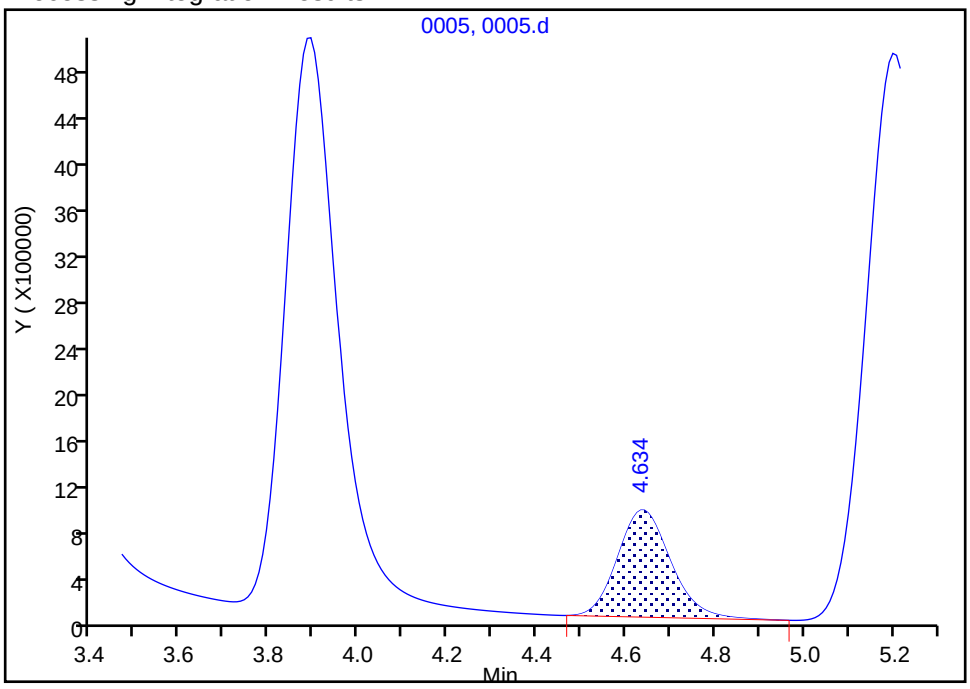
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

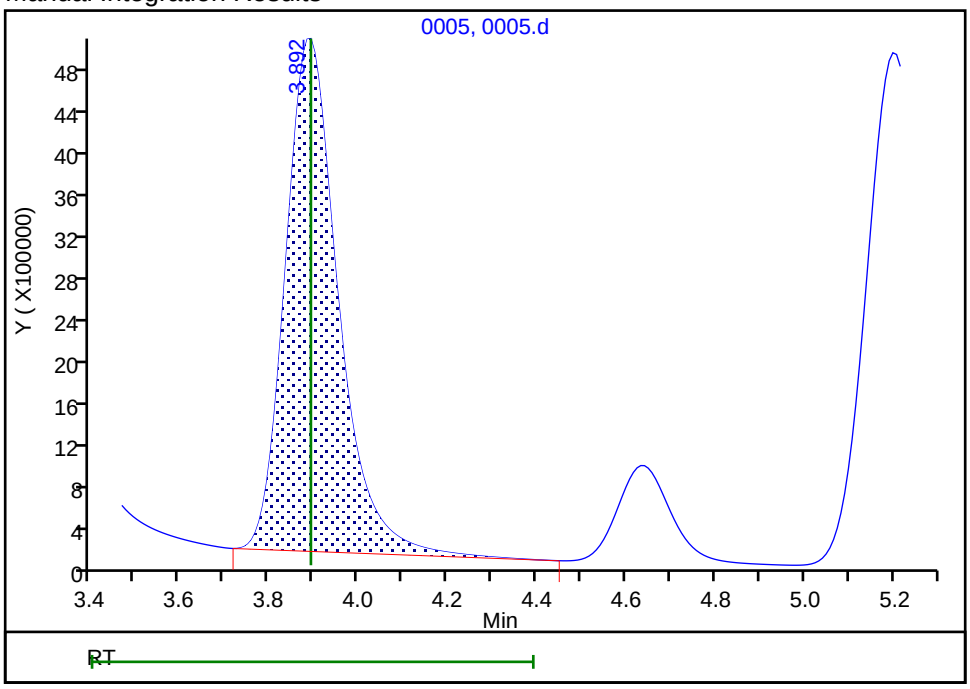
Processing Integration Results

RT: 4.63
Area: 7626440
Amount: 2.554556
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 40367514
Amount: 3.872644
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:32
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

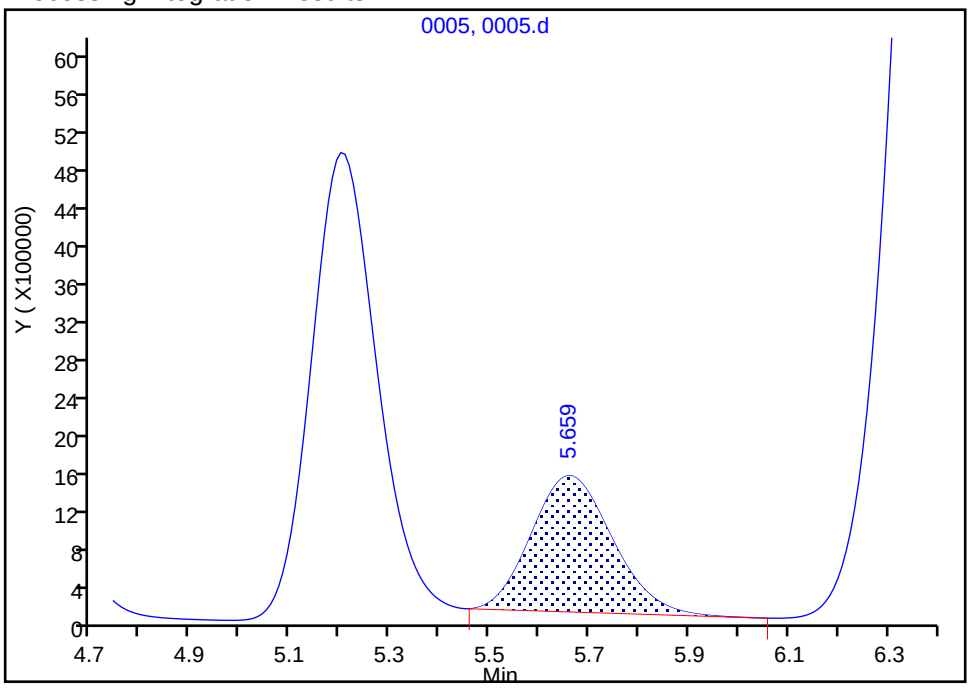
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

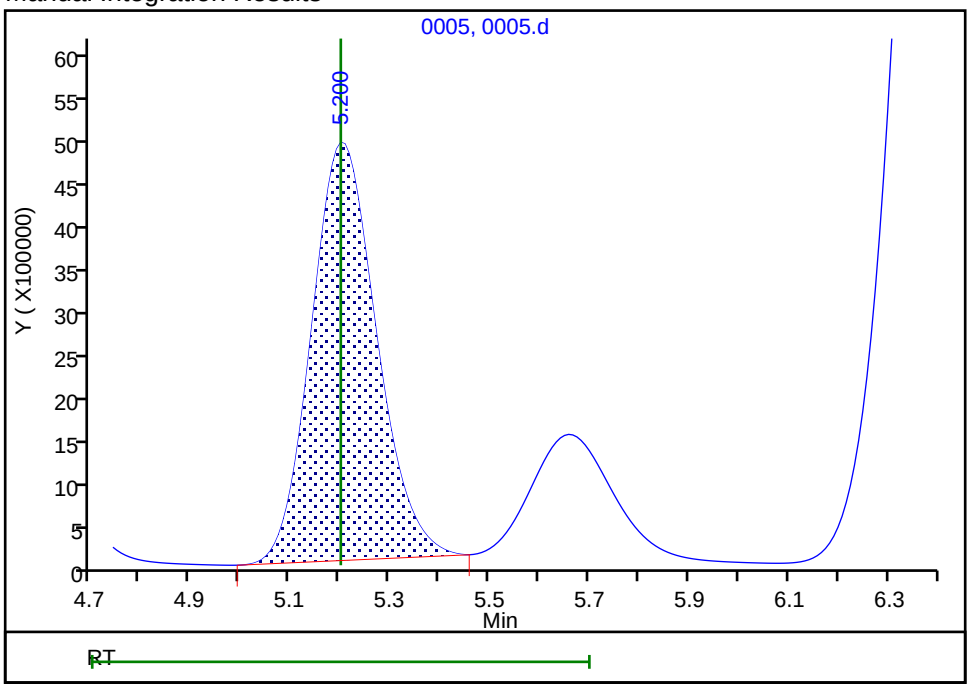
Processing Integration Results

RT: 5.66
Area: 16089342
Amount: 3.399959
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 43835884
Amount: 3.812608
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:36
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

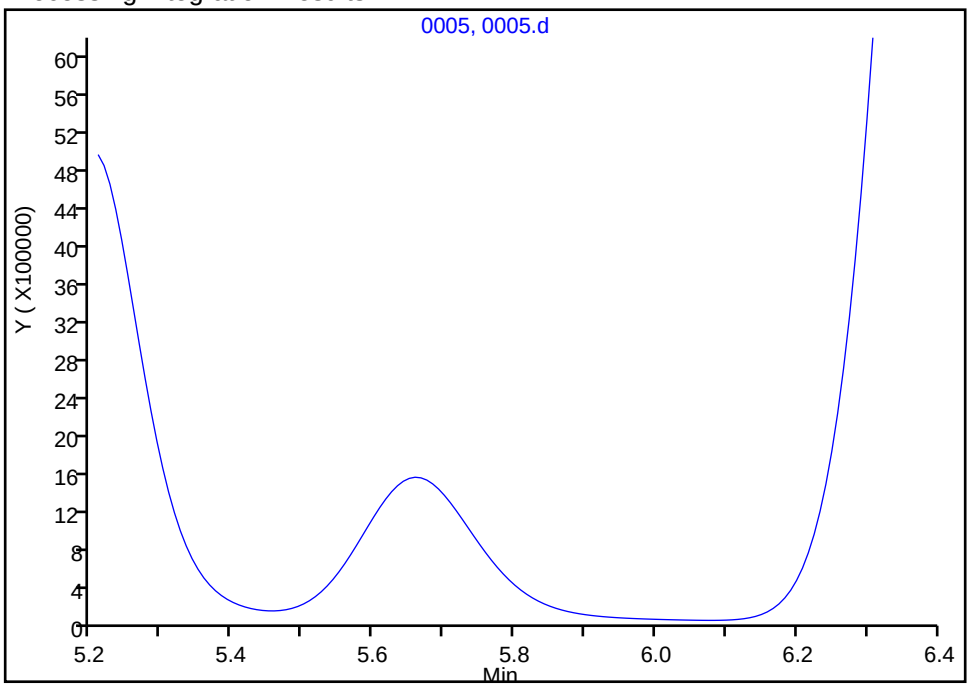
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

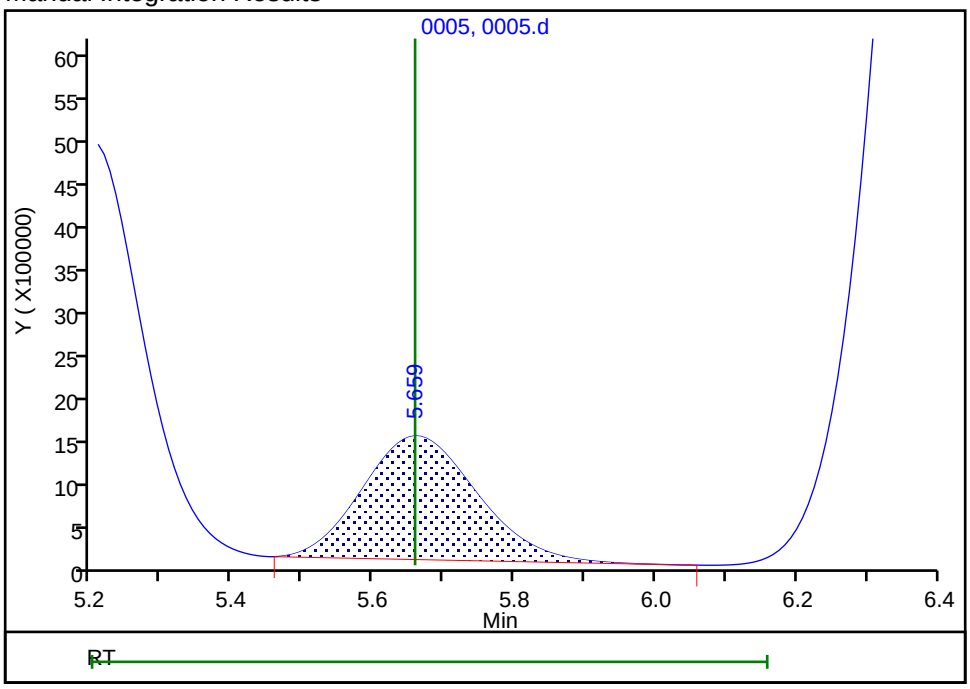
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 16089342
Amount: 3.876438
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	4.00	3.86	
2 Chloride	3.242	3.242	0.000	361228288	60.0	54.3	
3 Nitrite as N	3.892	3.892	0.000	40367514	NC	NC	a
4 Bromide	4.634	4.634	0.000	7626440	4.00	3.94	a
5 Nitrate as N	5.200	5.200	0.000	43835884	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	NC	NC	a
6 Sulfate	6.434	6.434	0.000	241149184	60.0	54.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

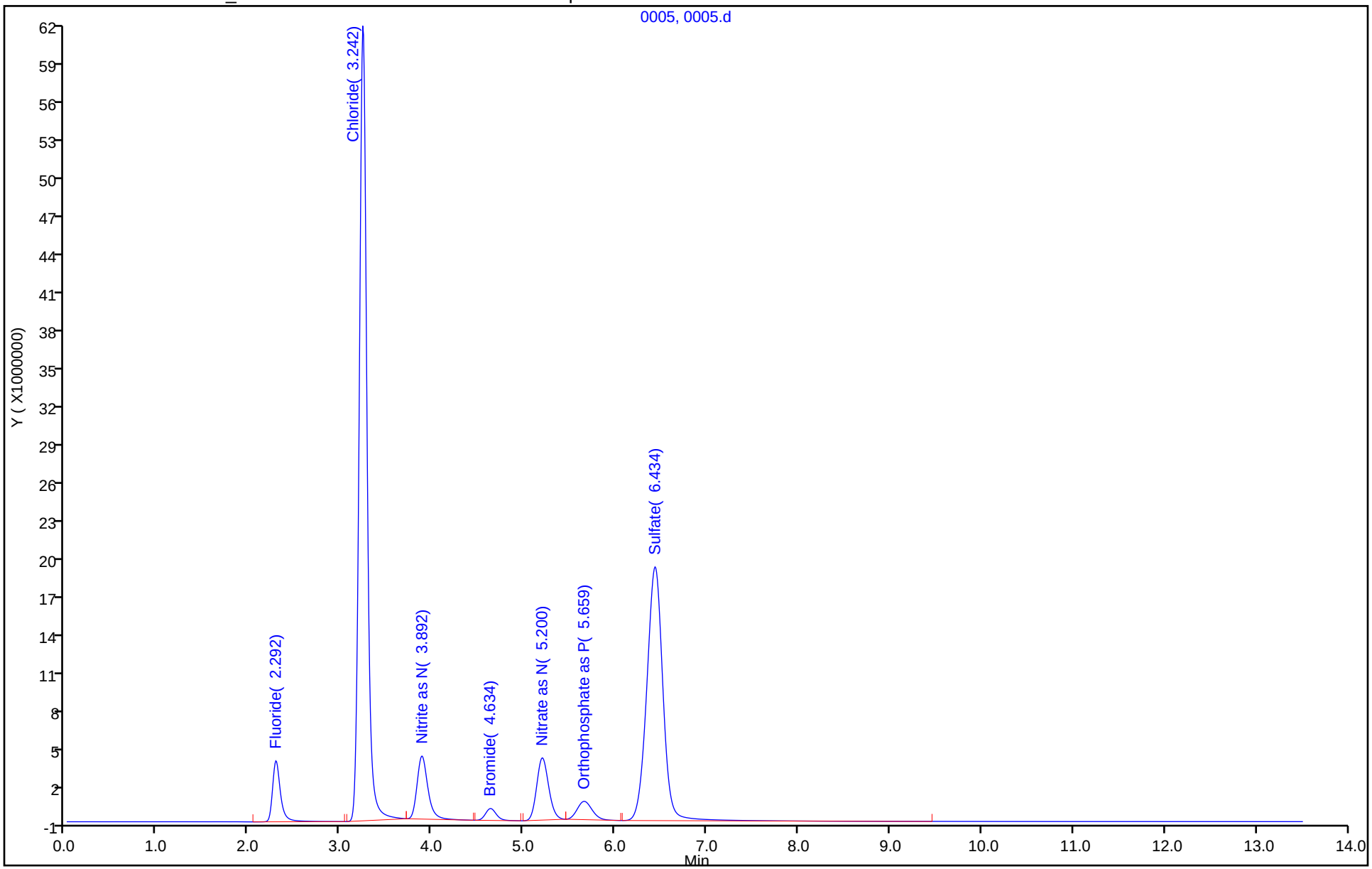
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

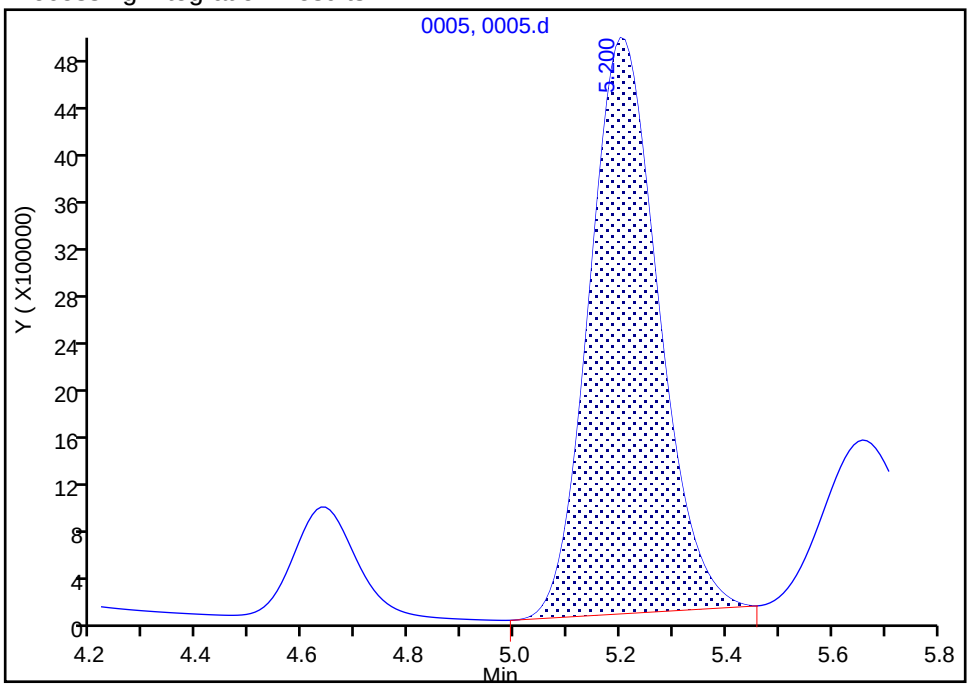
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

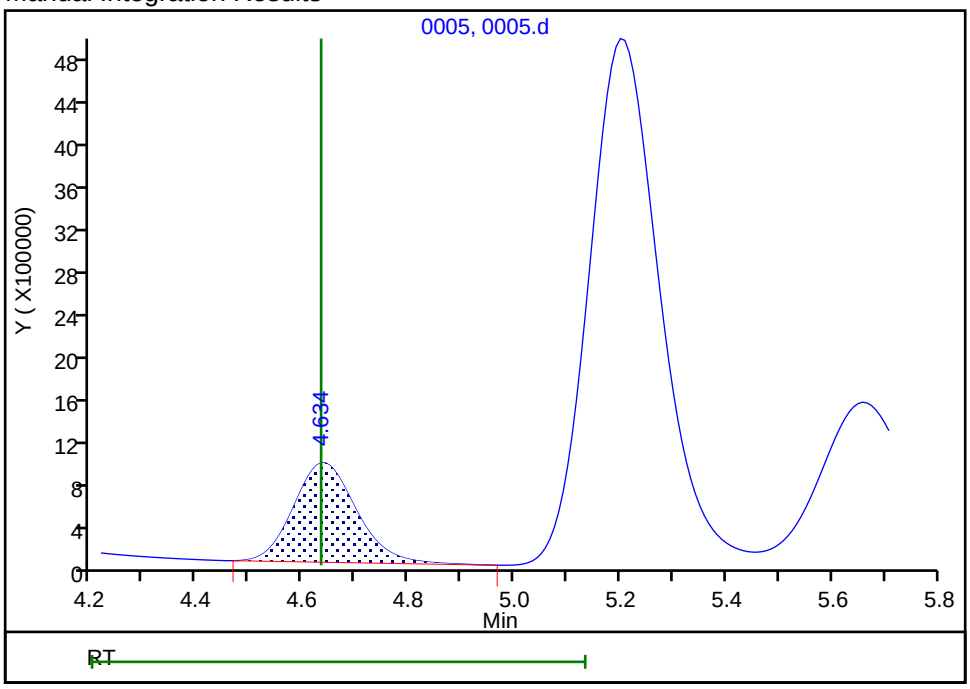
Processing Integration Results

RT: 5.20
Area: 43835884
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 7626440
Amount: 3.940762
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 08:31:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

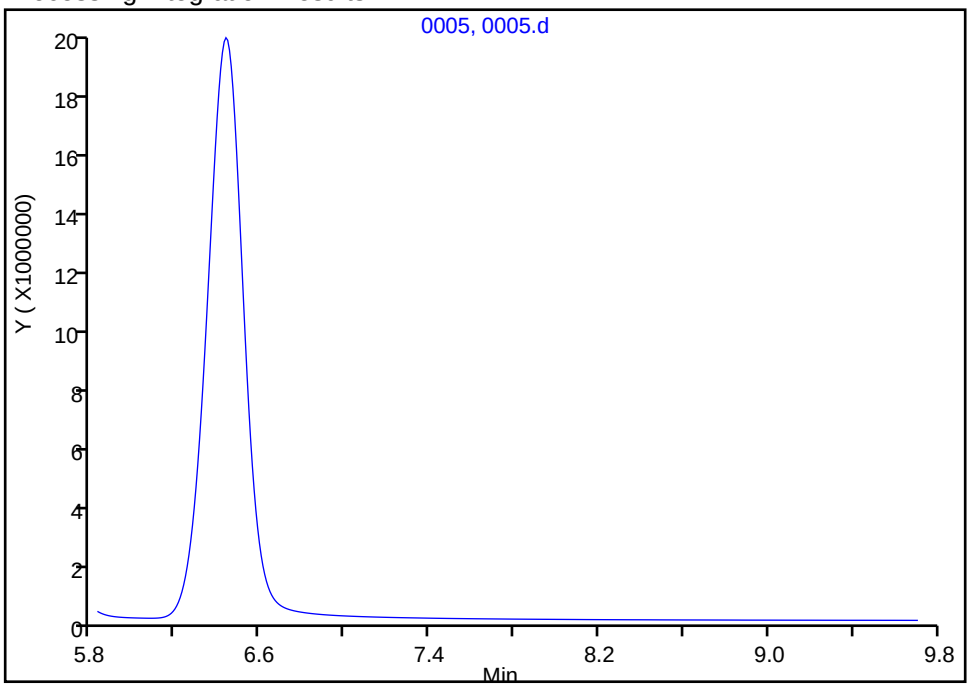
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d				
Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L4				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

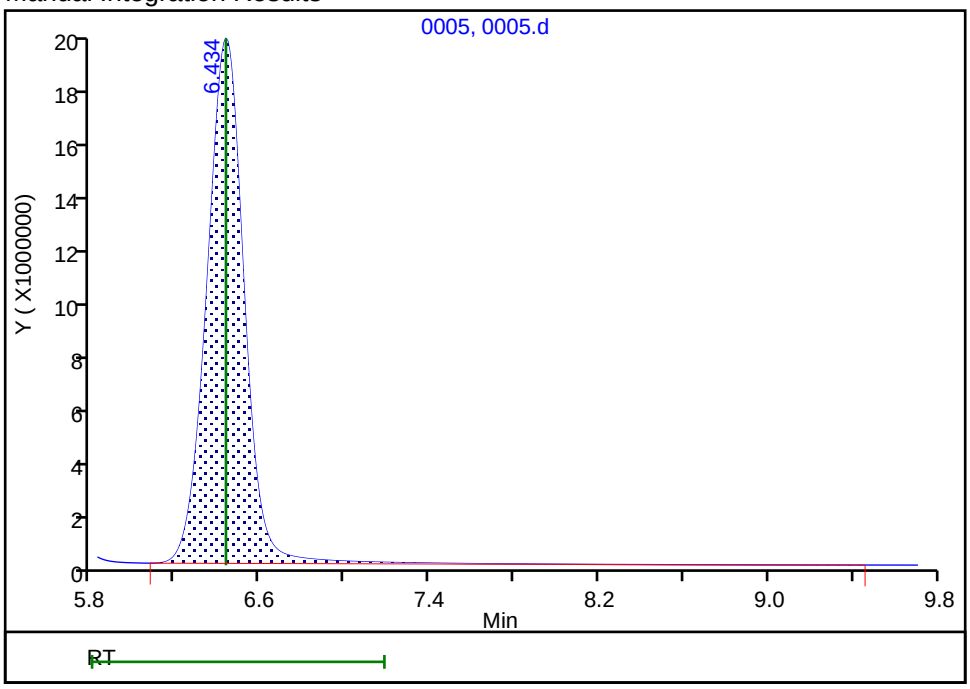
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.43
Area: 241149184
Amount: 54.355882
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:52
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	NC	NC	
2 Chloride	3.251	3.250	0.001	792237933	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	83950148	8.00	8.03	a
4 Bromide	4.634	4.642	-0.008	15499336	NC	NC	a
5 Nitrate as N	5.201	5.200	0.001	92548386	8.00	8.01	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	8.00	7.99	a
6 Sulfate	6.459	6.442	0.017	523125792	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

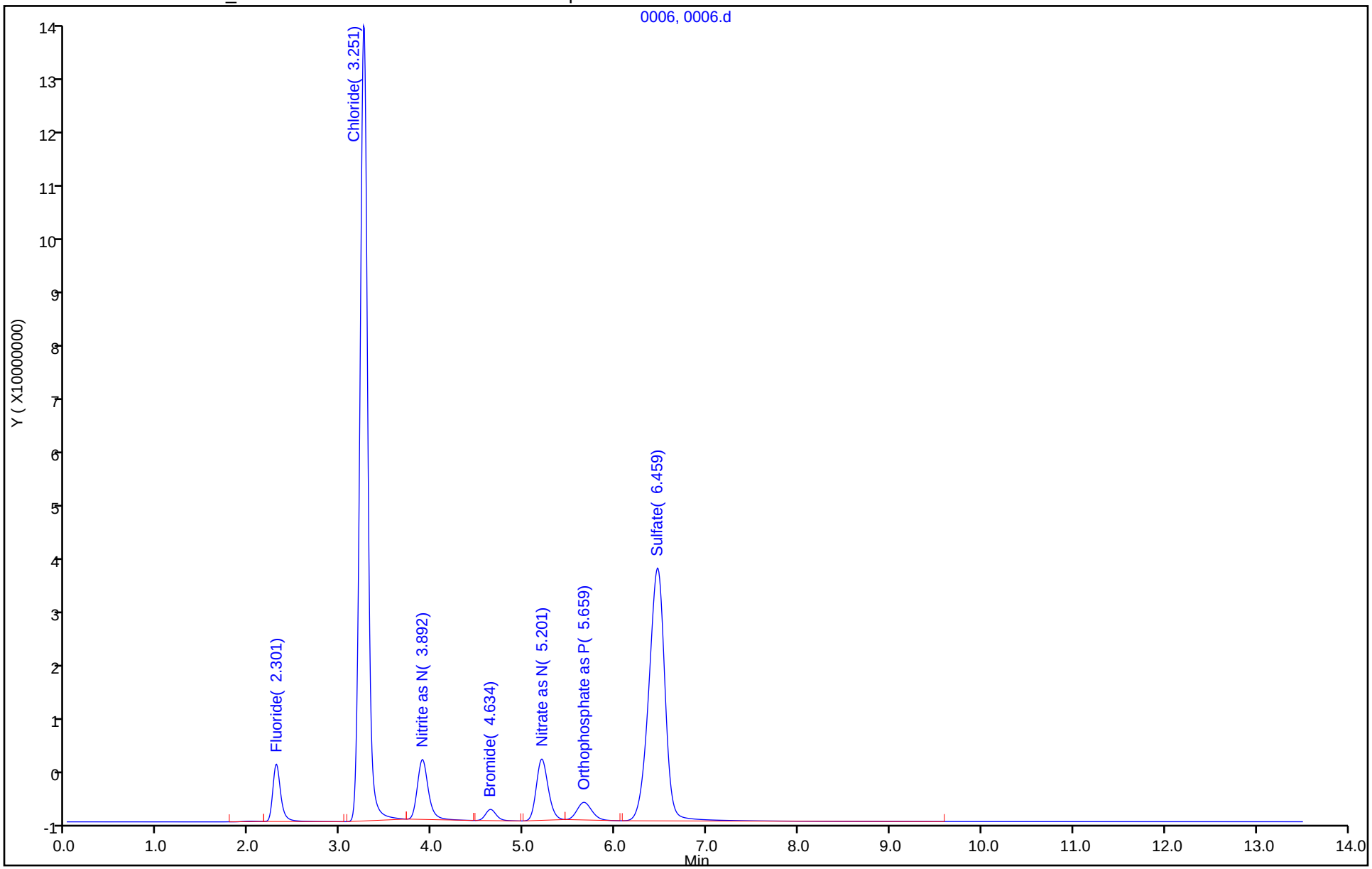
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

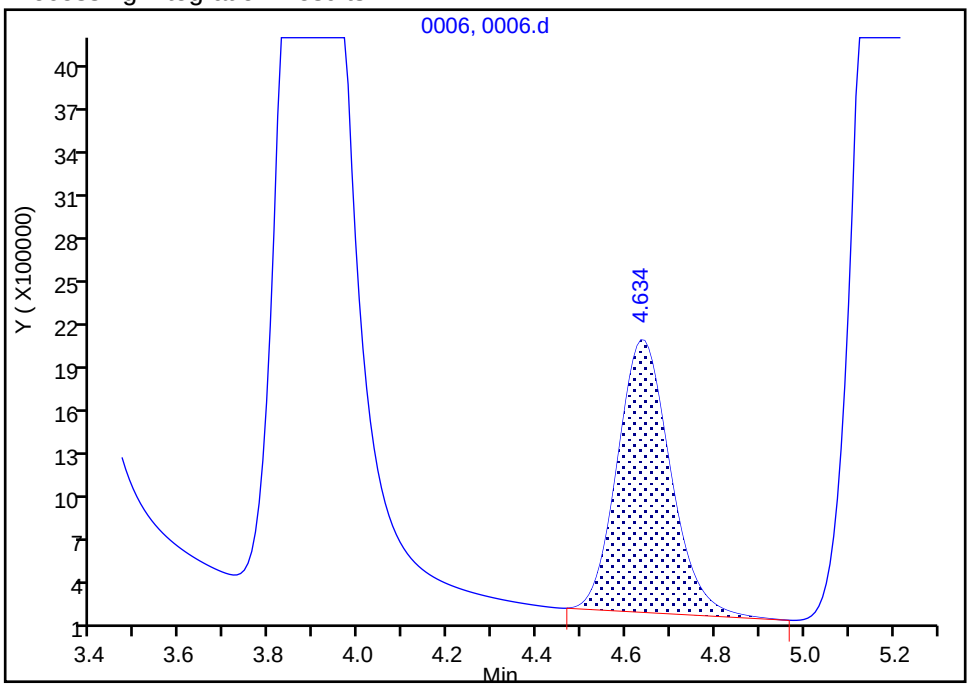
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

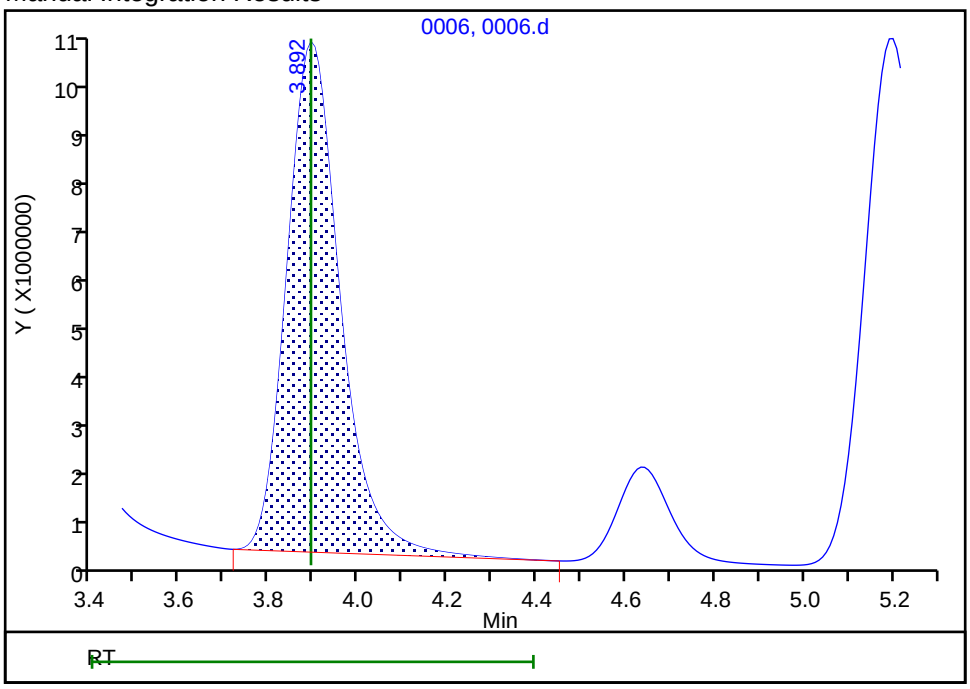
Processing Integration Results

RT: 4.63
Area: 15499336
Amount: 2.959649
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 83950148
Amount: 8.026551
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:18
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

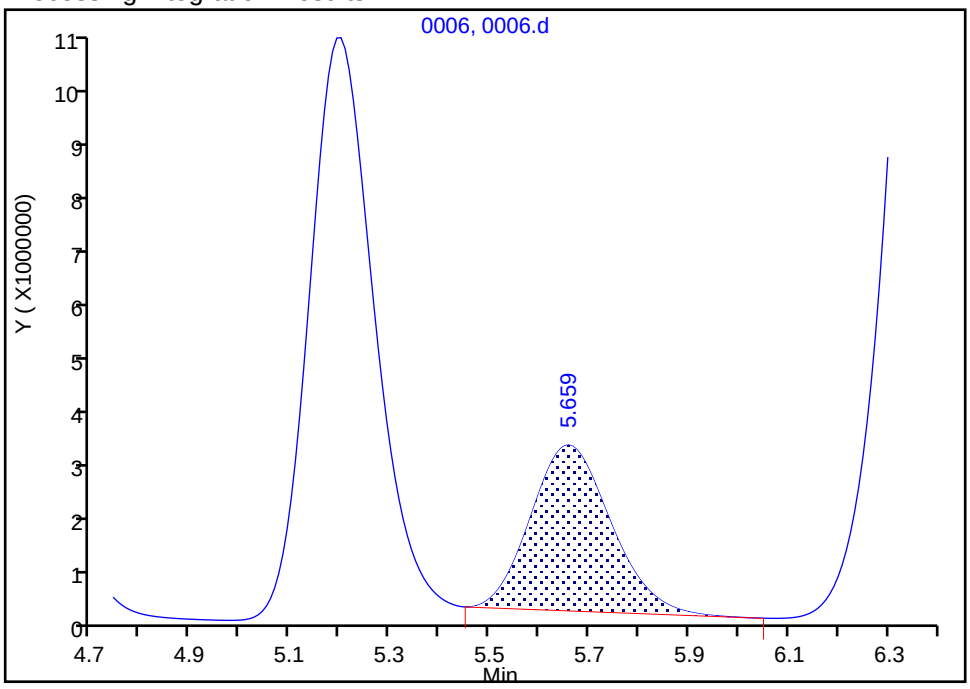
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

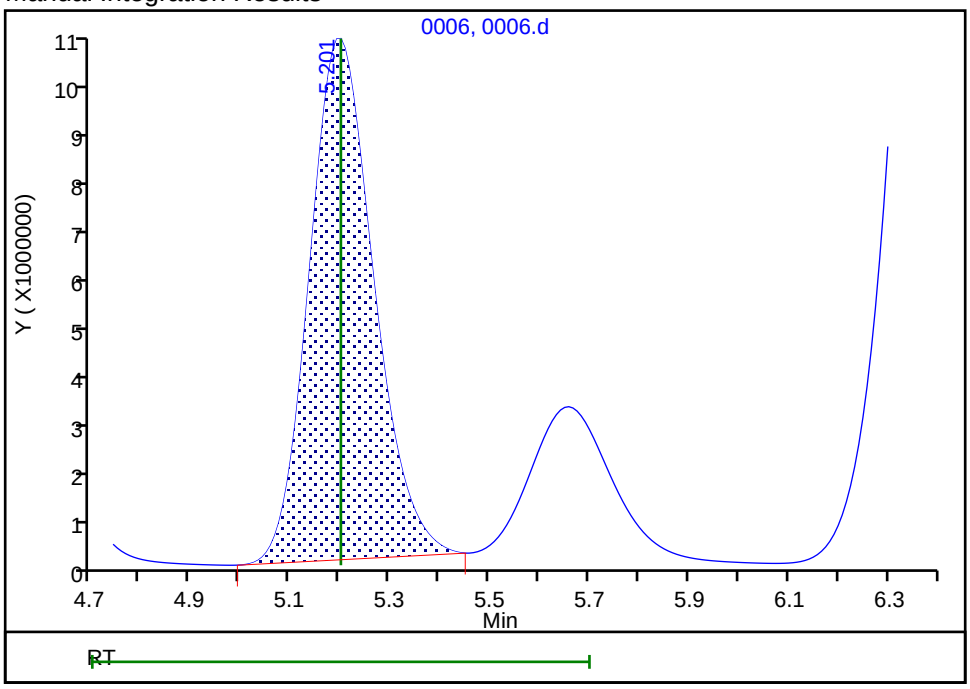
Processing Integration Results

RT: 5.66
Area: 33143352
Amount: 5.007844
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 92548386
Amount: 8.006881
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:22
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

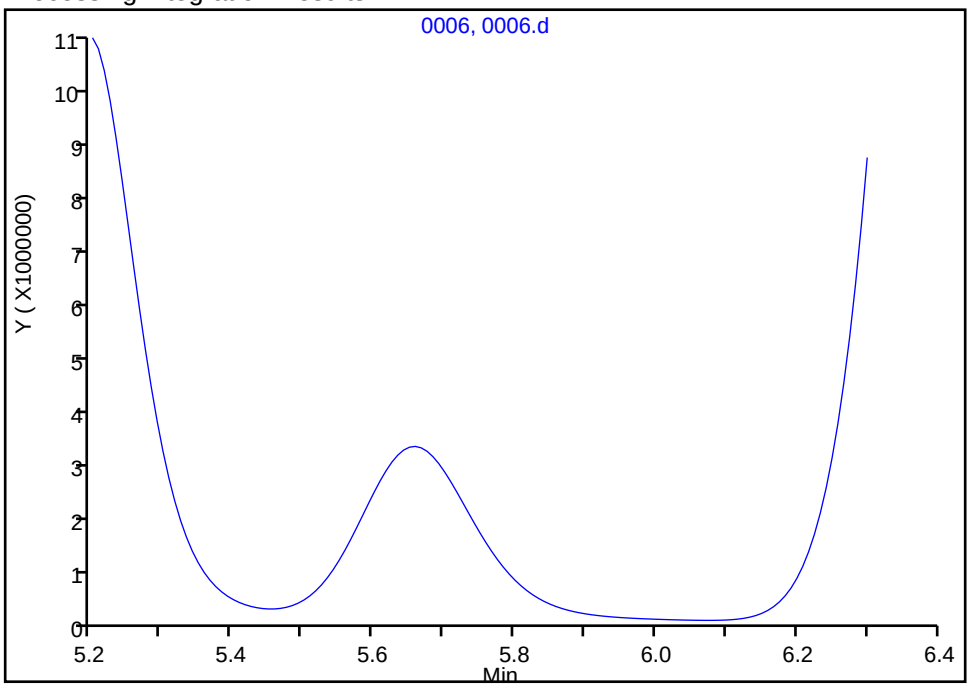
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d				
Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

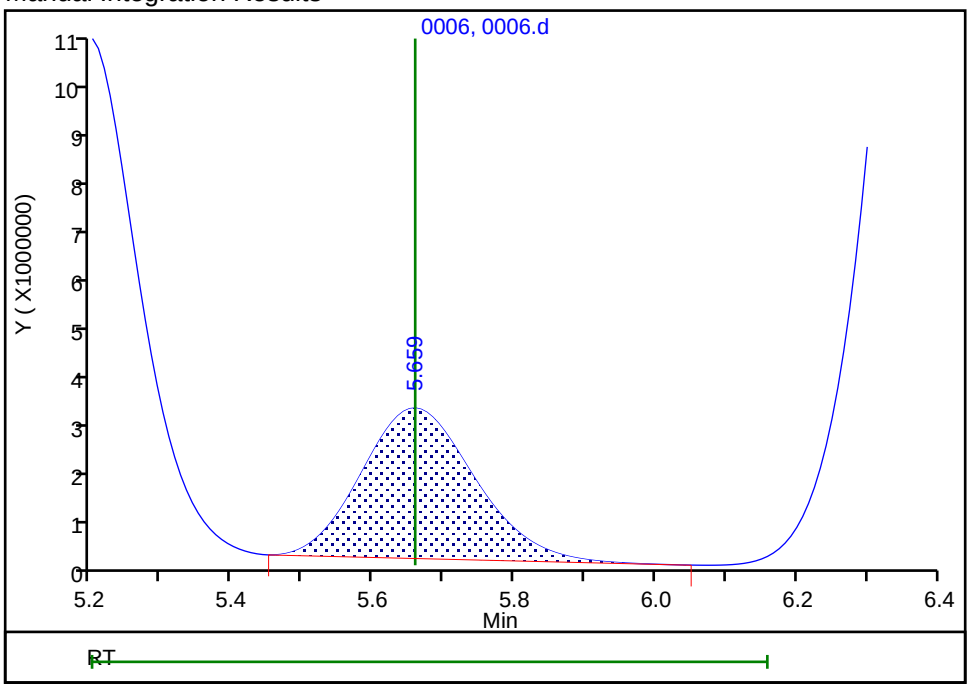
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 33143352
Amount: 7.993638
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:27
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	8.00	7.94	
2 Chloride	3.251	3.250	0.001	792237933	120.0	118.4	
3 Nitrite as N	3.892	3.892	0.000	83950148	NC	NC	a
4 Bromide	4.634	4.642	-0.008	15499336	8.00	7.98	a
5 Nitrate as N	5.201	5.200	0.001	92548386	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	NC	NC	a
6 Sulfate	6.459	6.442	0.017	523125792	120.0	117.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

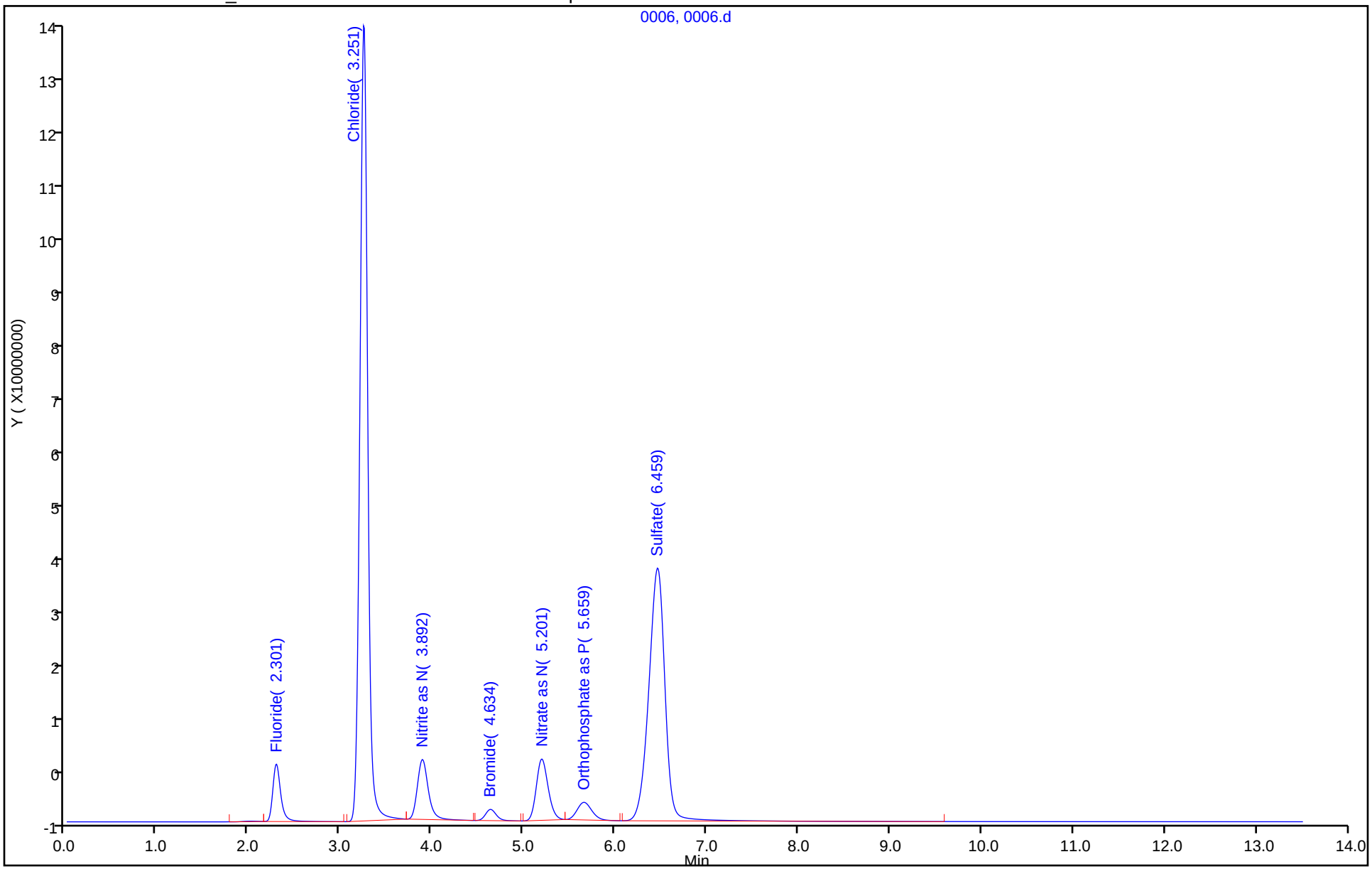
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

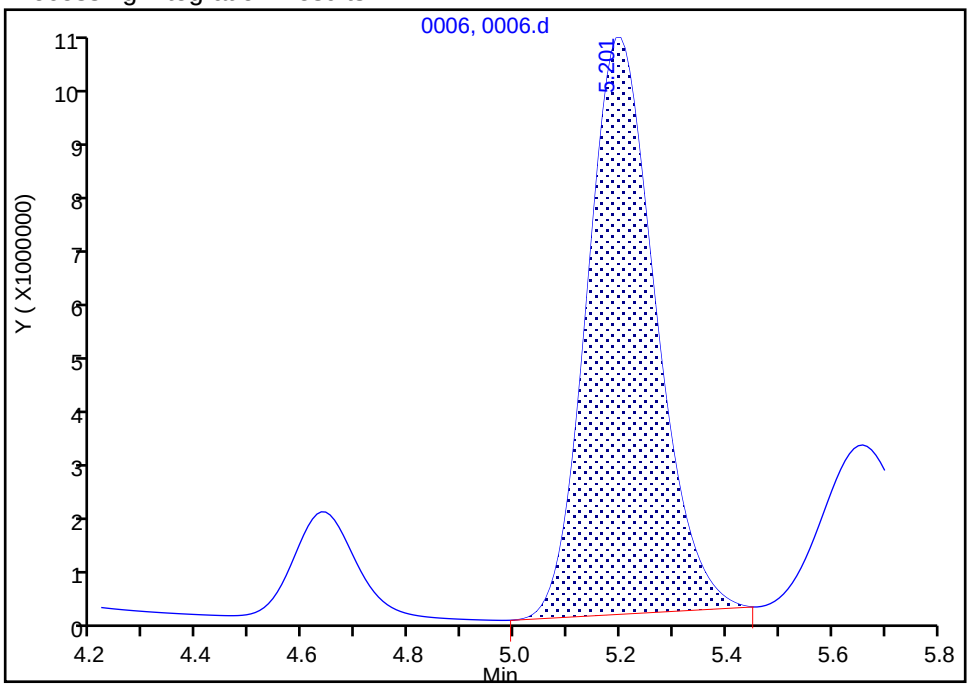
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

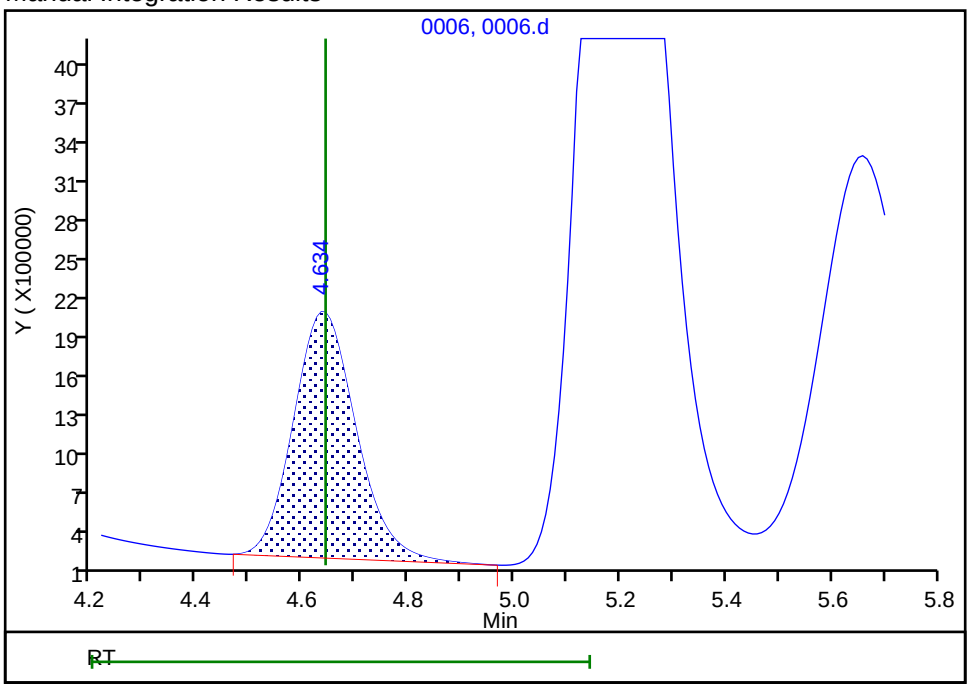
Processing Integration Results

RT: 5.20
Area: 92548386
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 15499336
Amount: 7.976961
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:37
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

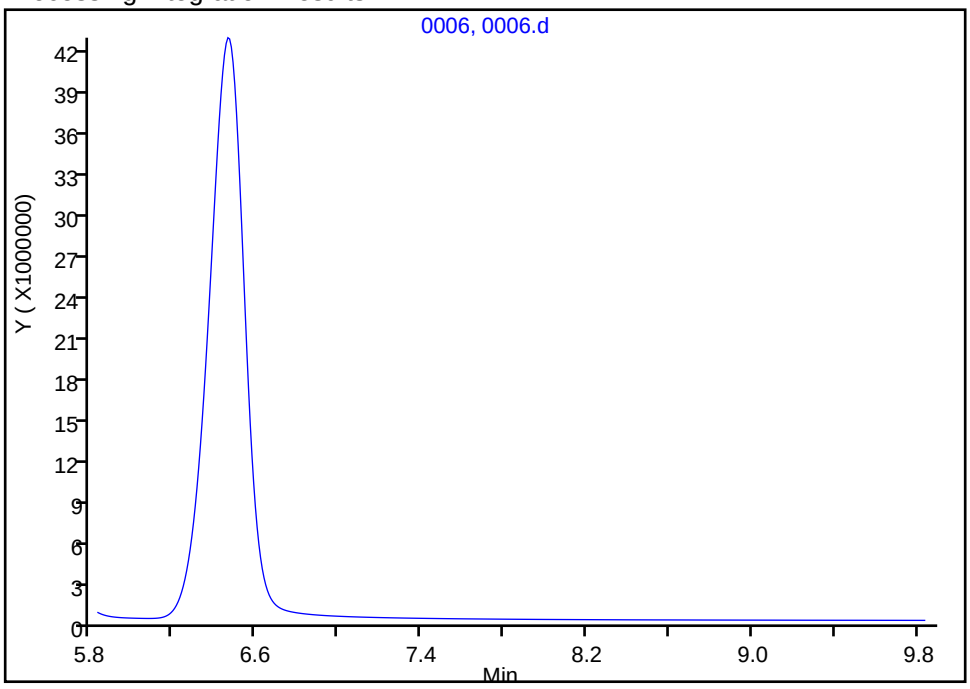
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d				
Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

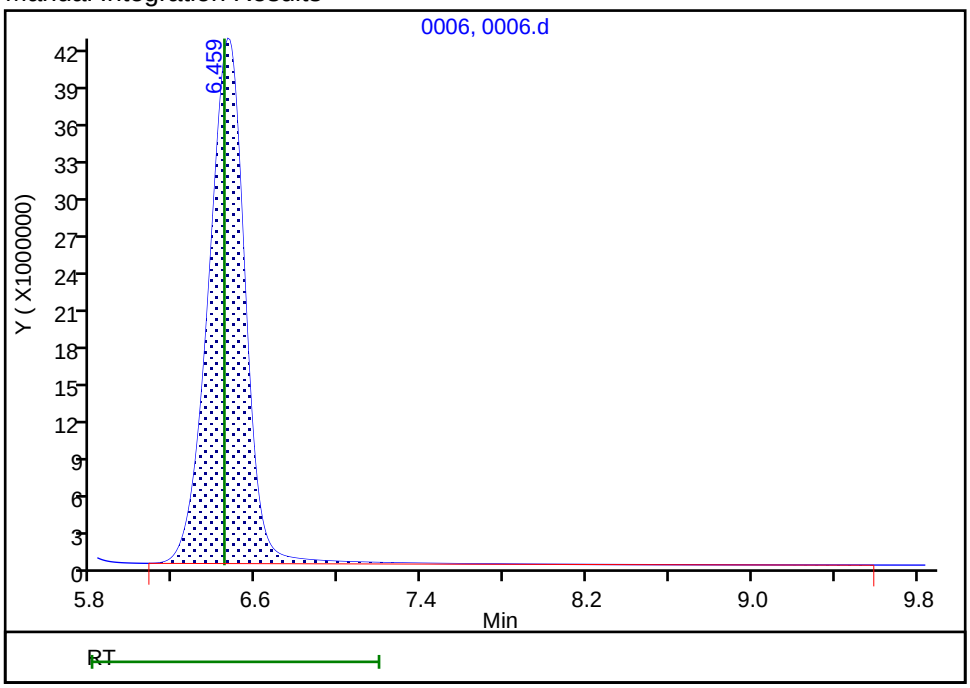
Not Detected
Expected RT: 6.44

Processing Integration Results



Manual Integration Results

RT: 6.46
Area: 523125792
Amount: 117.4031
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	NC	NC	
2 Chloride	3.267	3.250	0.017	1394323073	NC	NC	
3 Nitrite as N	3.901	3.892	0.009	106025591	10.0	10.1	
4 Bromide	4.642	4.642	0.000	19510403	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	118348380	10.0	10.2	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	10.0	10.2	
6 Sulfate	6.484	6.442	0.042	931644146	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

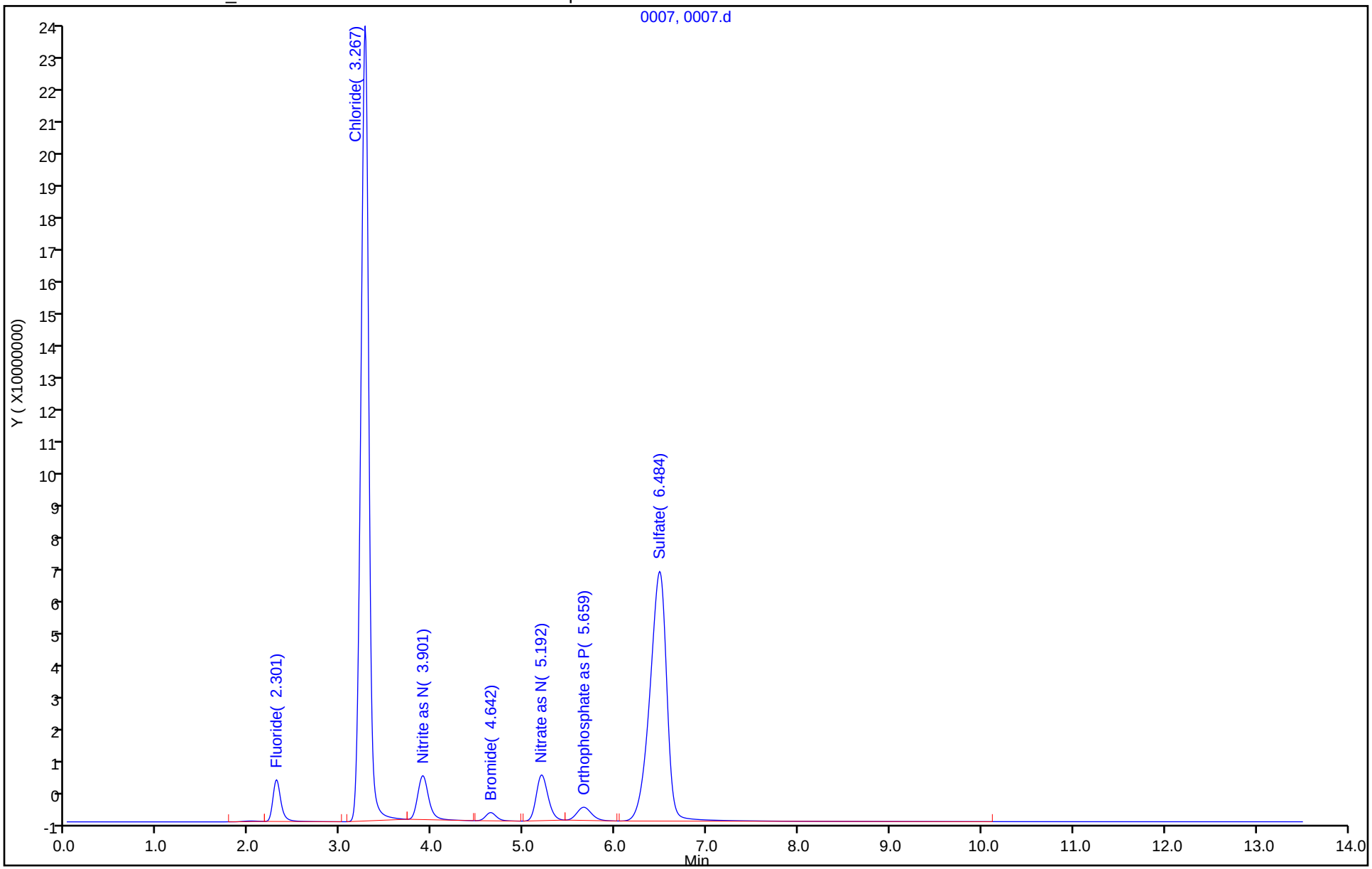
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	10.0	9.99	
2 Chloride	3.267	3.250	0.017	1394323073	200.0	208.0	
3 Nitrite as N	3.901	3.892	0.009	106025591	NC	NC	
4 Bromide	4.642	4.642	0.000	19510403	10.0	10.0	
5 Nitrate as N	5.192	5.200	-0.008	118348380	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	NC	NC	
6 Sulfate	6.484	6.442	0.042	931644146	200.0	208.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

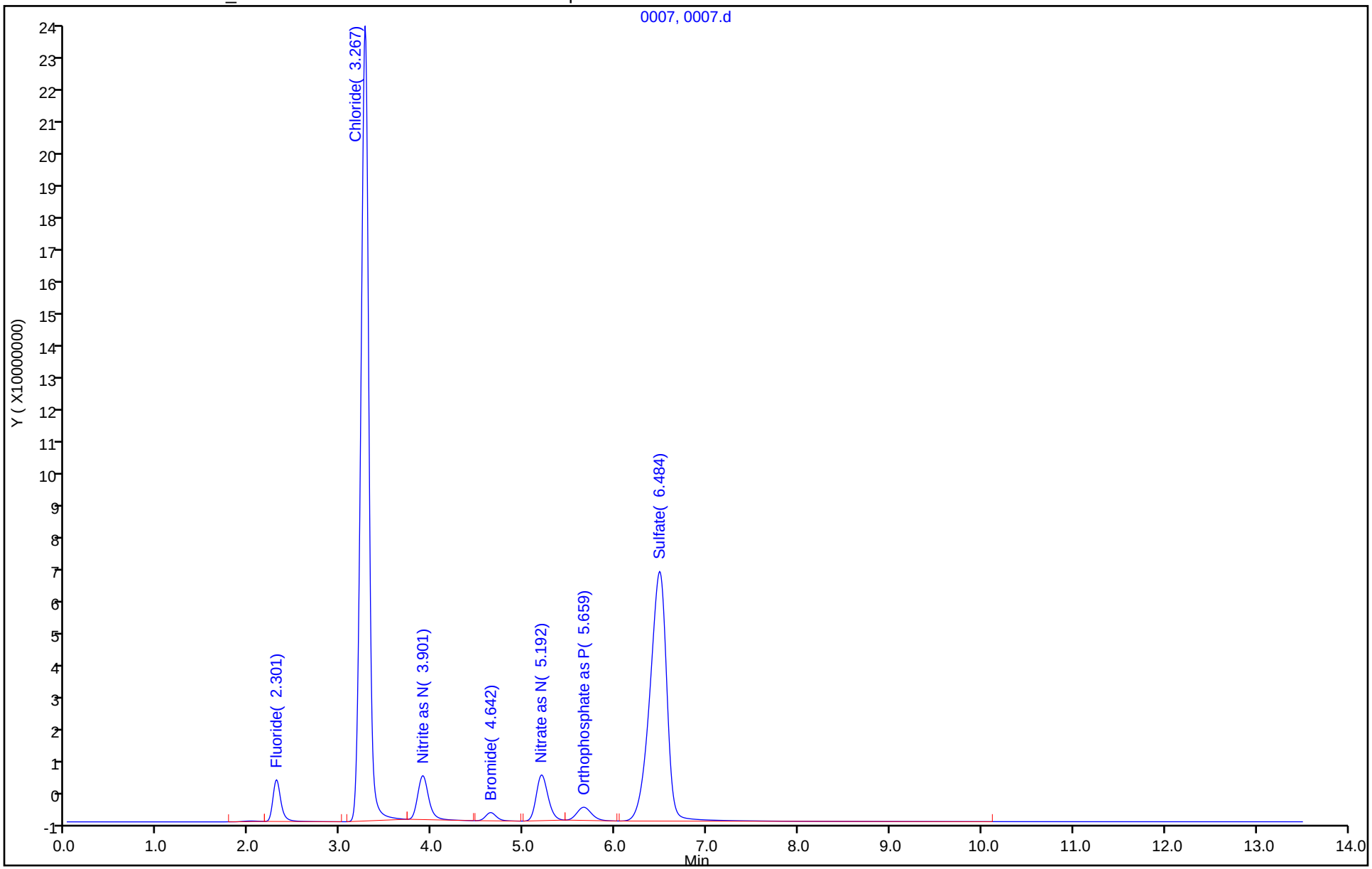
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
8 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	15-May-2019 19:11:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-008				
Misc. Info.:	24520				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:06	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	NC	NC	
2 Chloride	3.250	3.250	0.000	511999139	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	39889751	4.00	3.83	
4 Bromide	4.642	4.642	0.000	8464974	NC	NC	
5 Nitrate as N	5.200	5.200	0.000	48666748	4.00	4.23	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	4.00	4.23	
6 Sulfate	6.442	6.442	0.000	336075353	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

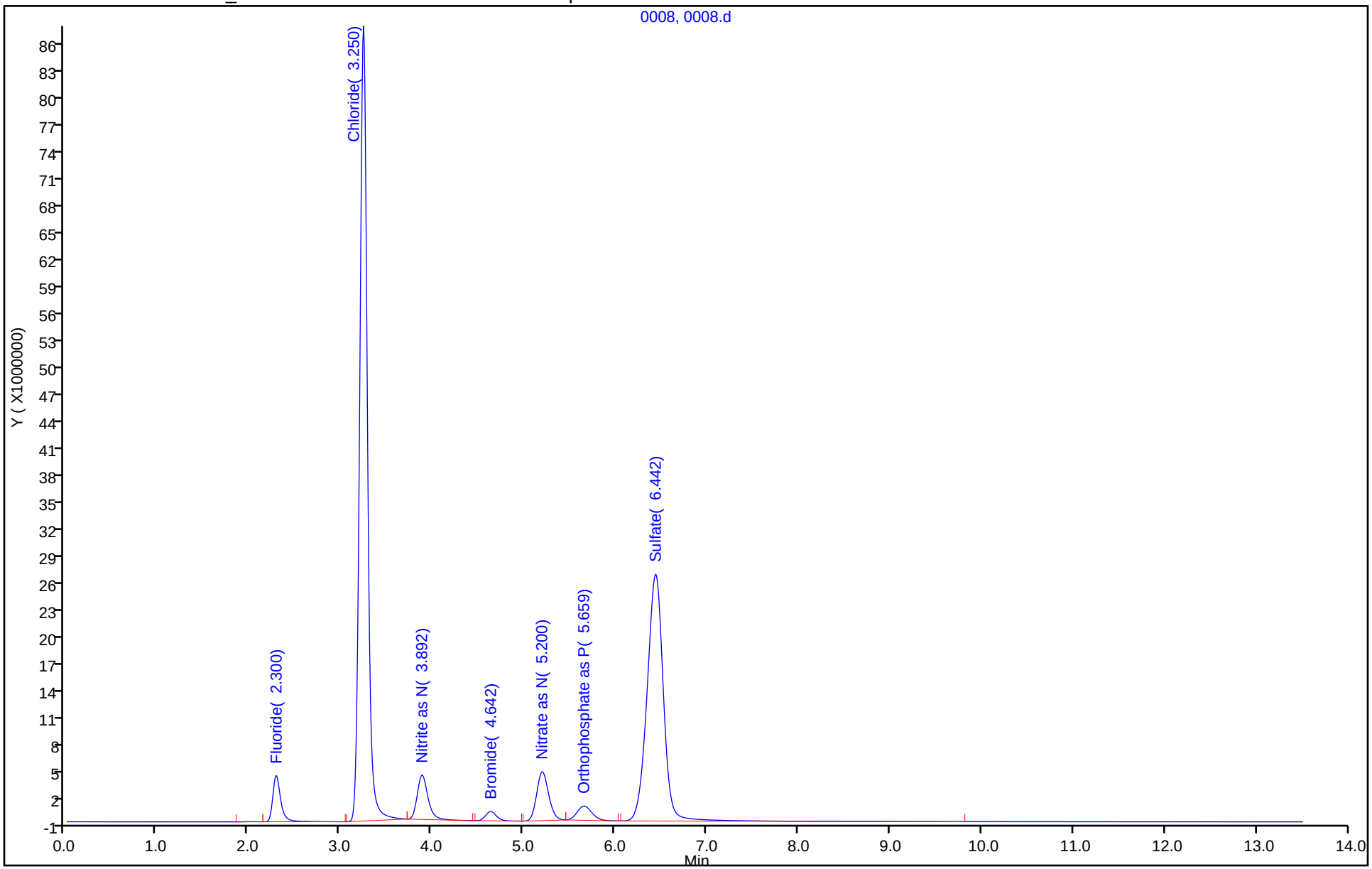
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d

Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 Inst ID: 11 Analysis Date: 05/15/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	15-May-2019 19:11:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-008				
Misc. Info.:	24520				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 07:56:06	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	4.00	4.12	
2 Chloride	3.250	3.250	0.000	511999139	80.0	76.8	
3 Nitrite as N	3.892	3.892	0.000	39889751	NC	NC	
4 Bromide	4.642	4.642	0.000	8464974	4.00	4.36	
5 Nitrate as N	5.200	5.200	0.000	48666748	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	NC	NC	
6 Sulfate	6.442	6.442	0.000	336075353	80.0	75.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

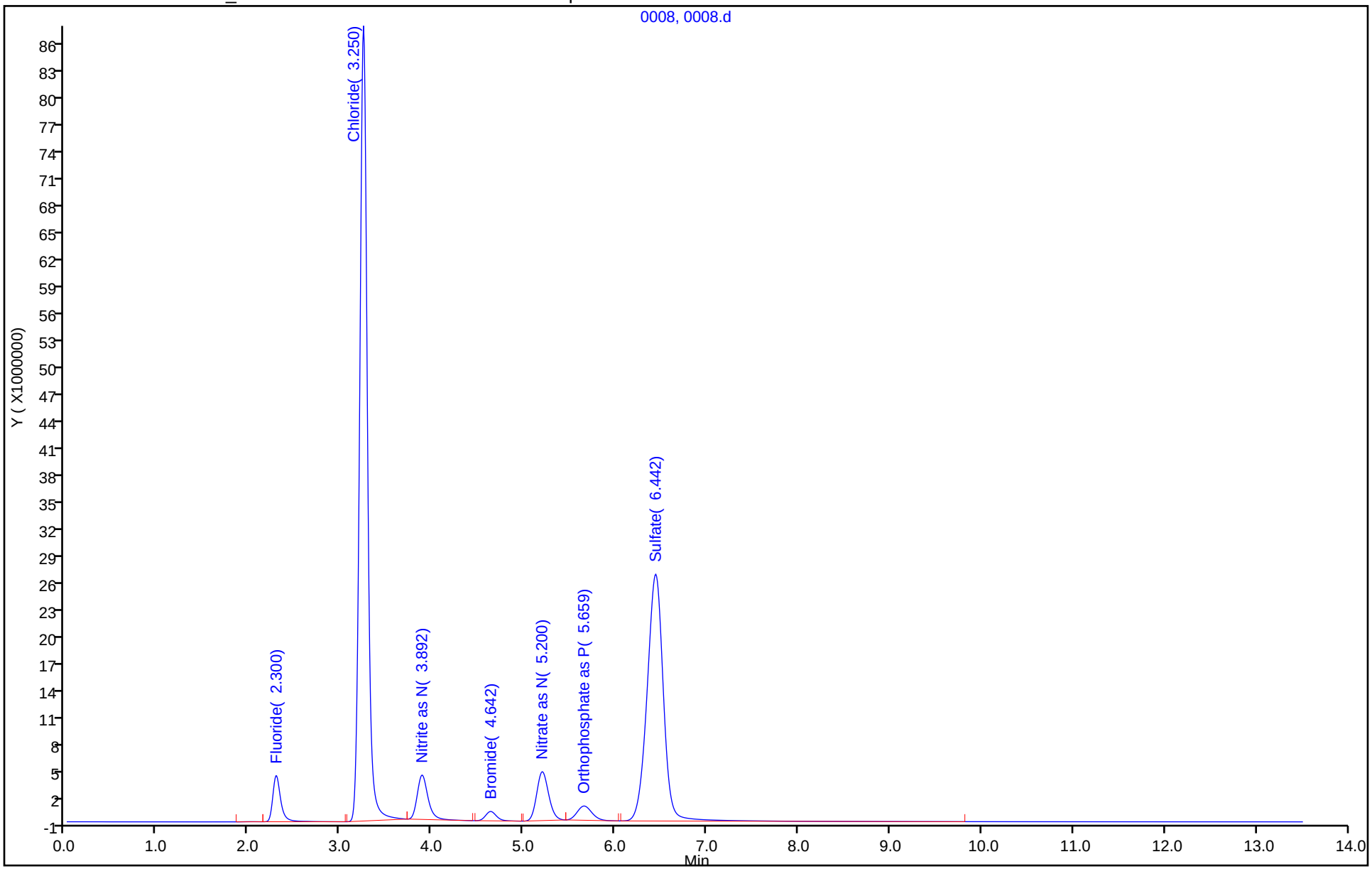
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d

Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		NC	M
2 Chloride	3.234	3.250	-0.016	71906		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		0.0412	
6 Sulfate	6.409	6.442	-0.033	254965		NC	

QC Flag Legend

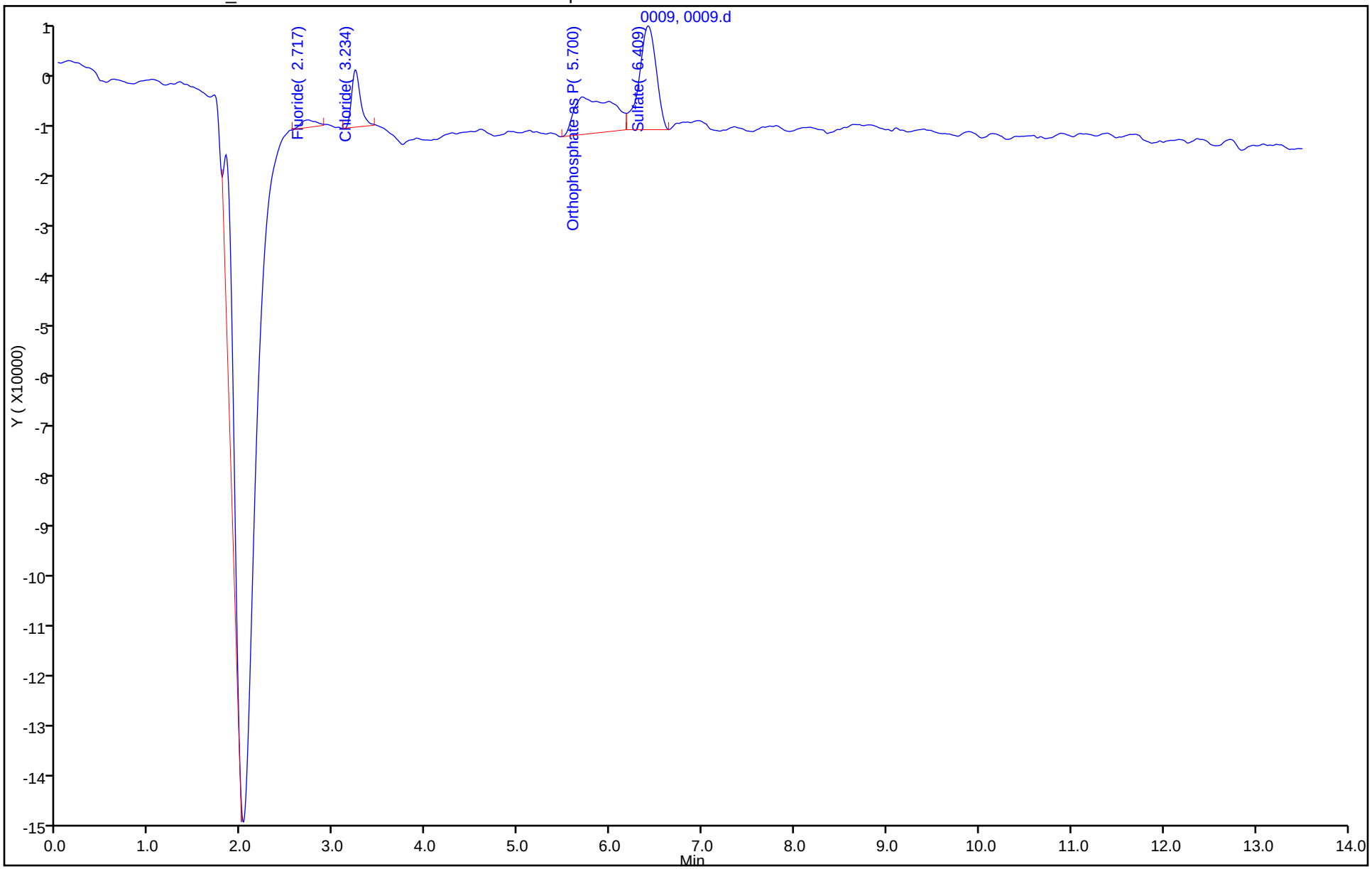
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		-0.1524	M
2 Chloride	3.234	3.250	-0.016	71906		0.6279	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		NC	
6 Sulfate	6.409	6.442	-0.033	254965		0.4943	

QC Flag Legend

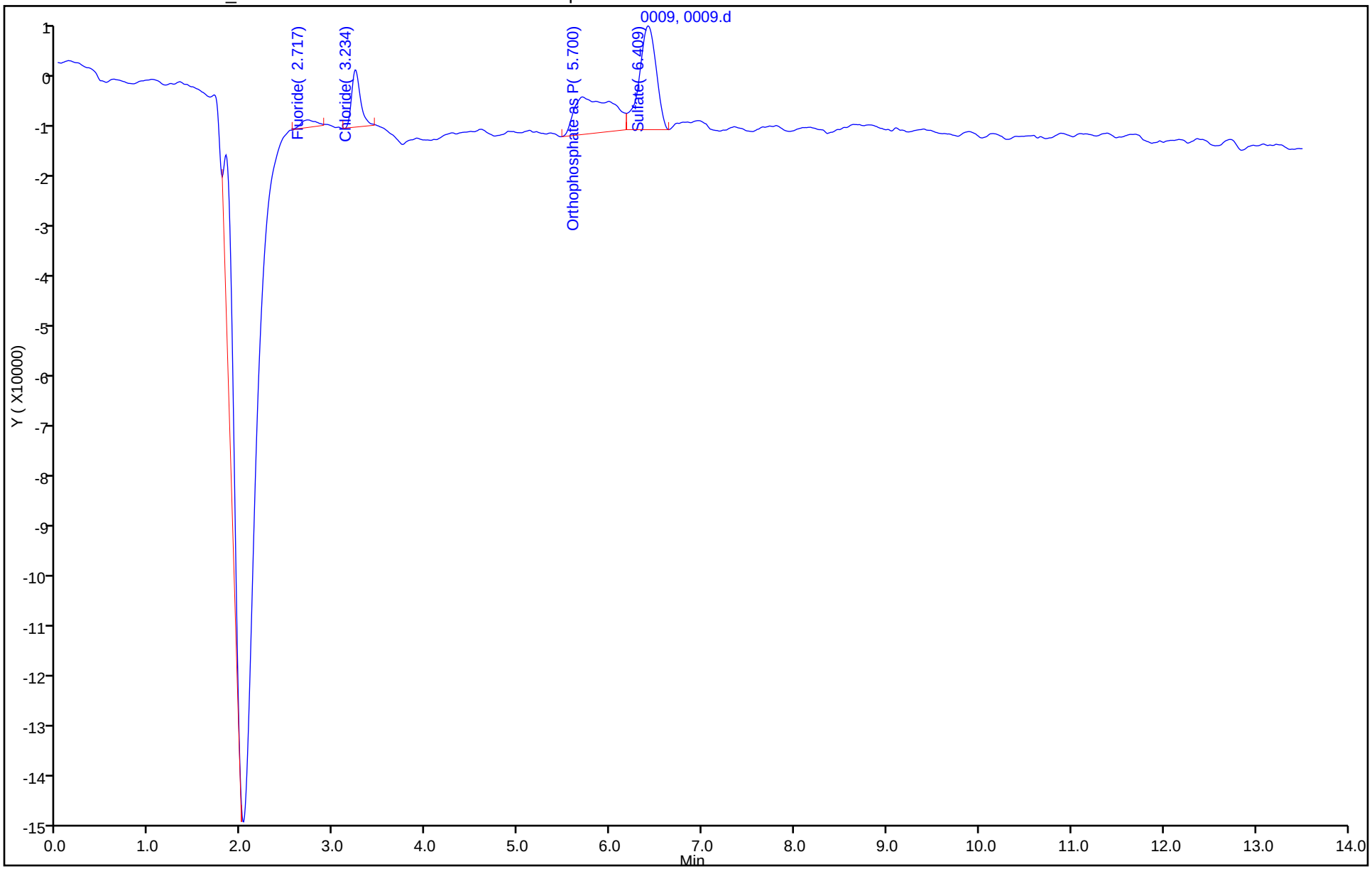
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

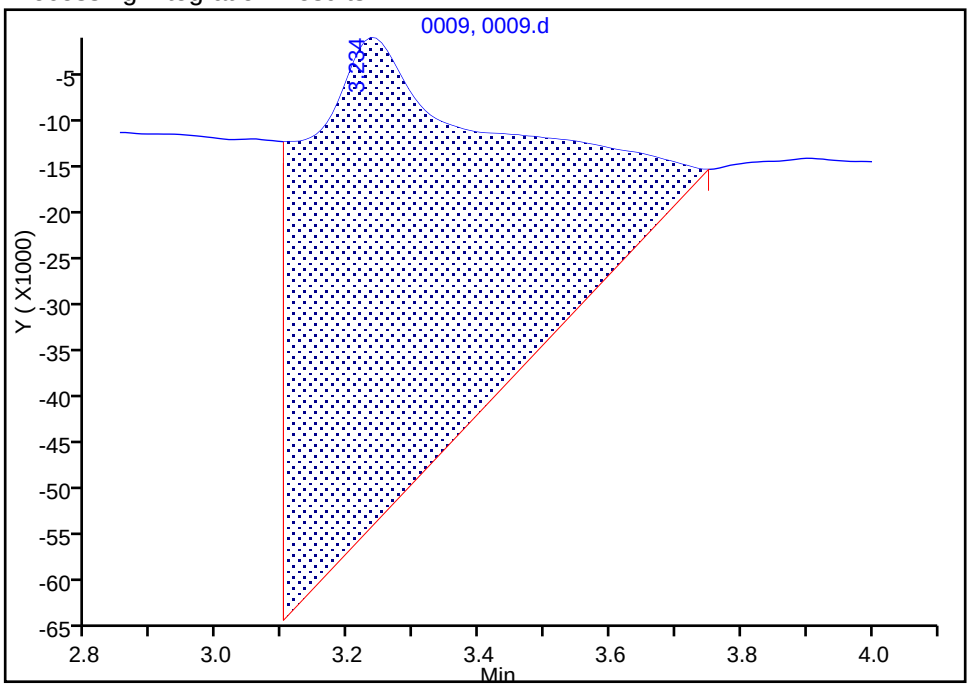
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d				
Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ICB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

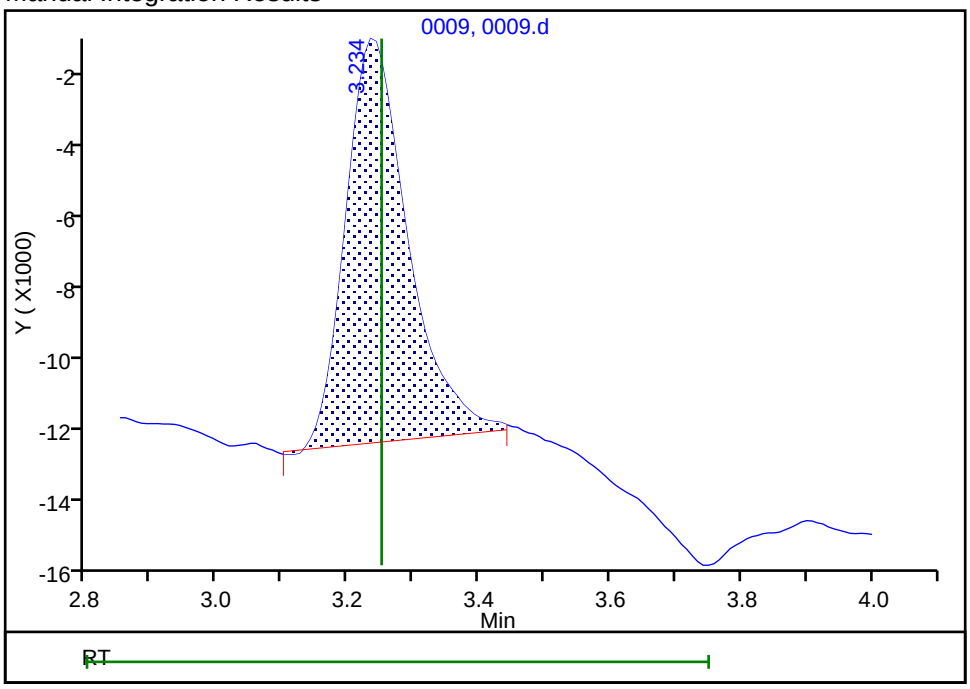
Processing Integration Results

RT: 3.23
Area: 1127161
Amount: 0.784817
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 71906
Amount: 0.627881
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:53

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

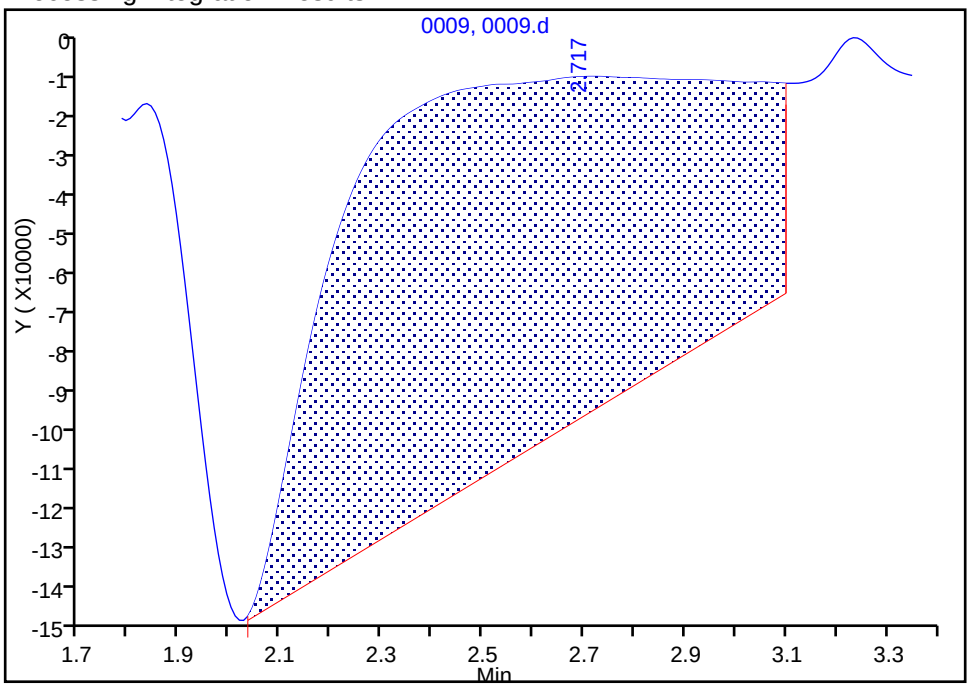
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d				
Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ICB				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

1 Fluoride, CAS: 16984-48-8

Signal: 1

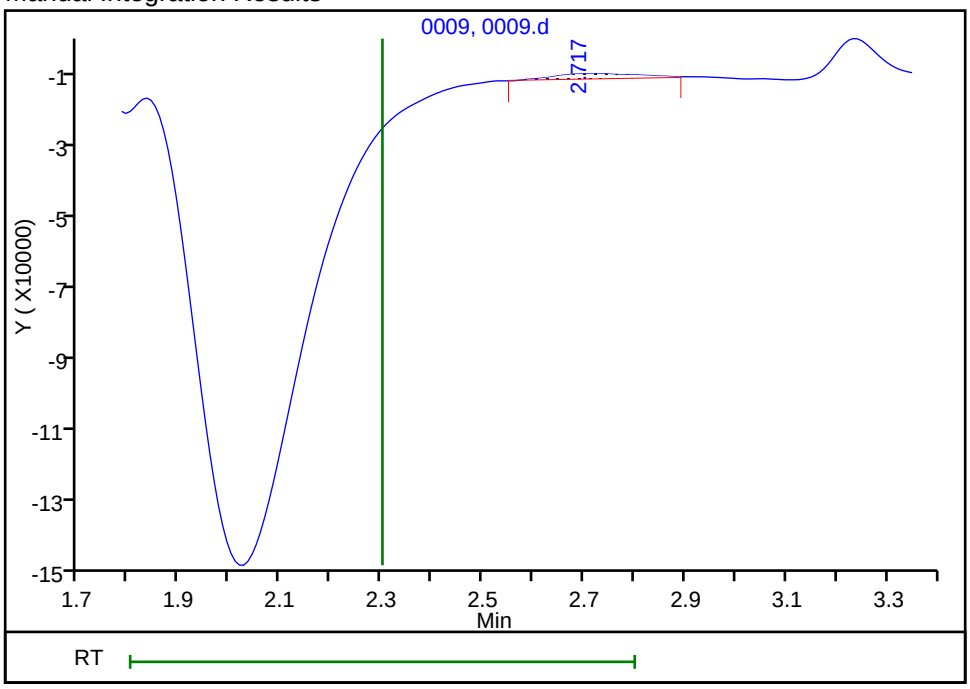
Processing Integration Results

RT: 2.72
Area: 4799643
Amount: 0.507035
Amount Units: ug/ml



Manual Integration Results

RT: 2.72
Area: 15994
Amount: -0.152378
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0010.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 15-May-2019 19:43:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-010
Misc. Info.: 25740
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 22:51:40 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 22:51:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2429327	NC	NC	M
2 Chloride	3.234	3.242	-0.008	11293316	NC	NC	M
3 Nitrite as N	3.884	3.892	-0.008	1954729	0.2000	0.2115	
4 Bromide	4.634	4.634	0.000	383896	NC	NC	
5 Nitrate as N	5.209	5.200	0.009	2122800	0.2000	0.2210	
7 Orthophosphate as P	5.659	5.659	0.000	826088	0.2000	0.1916	
6 Sulfate	6.400	6.434	-0.034	8543578	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

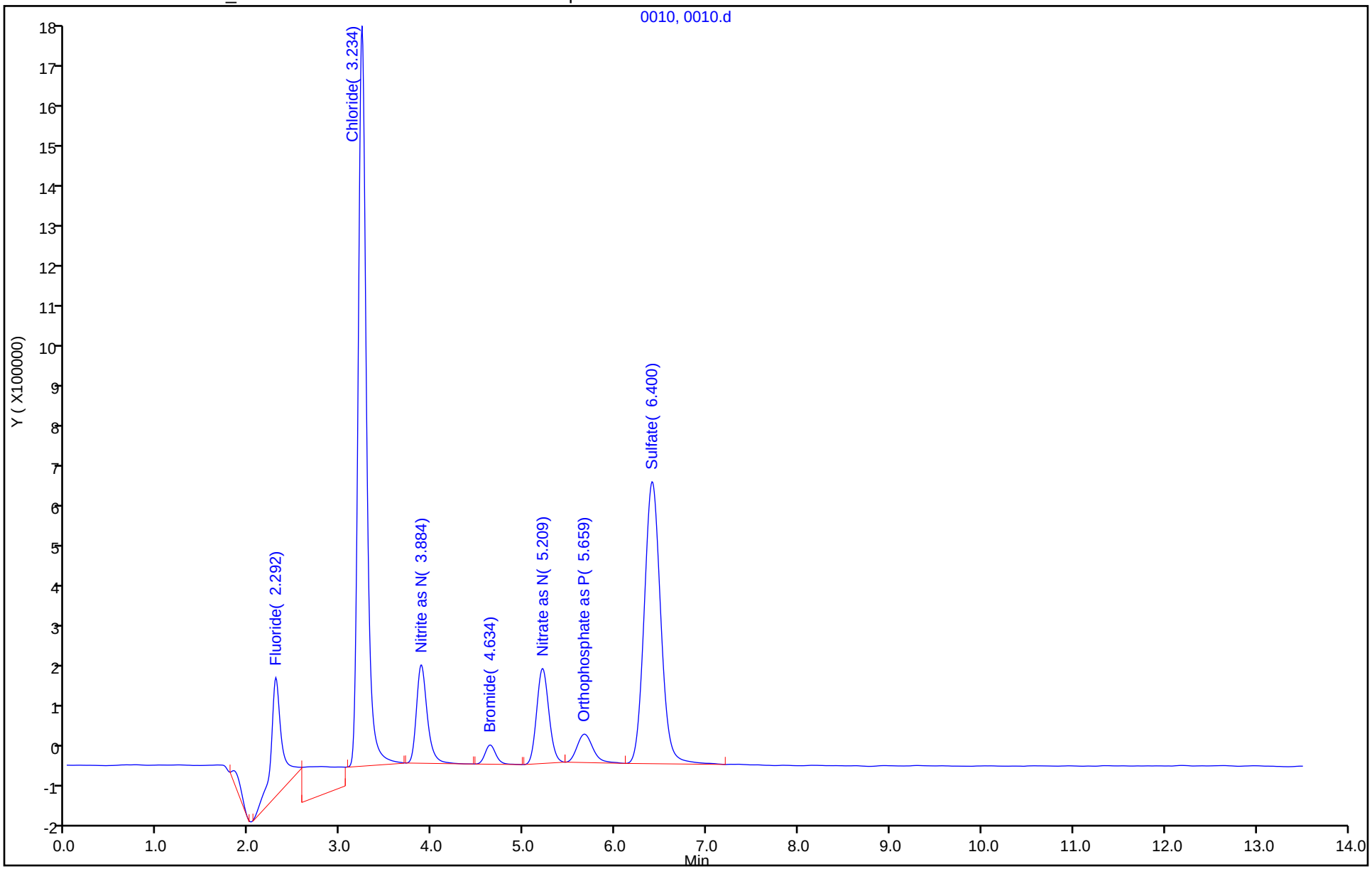
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 22:56:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0010.d

Injection Date:	15-May-2019 19:43:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0010.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 15-May-2019 19:43:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-010
Misc. Info.: 25740
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 22:51:40 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 22:51:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2429327	0.2000	0.1803	M
2 Chloride	3.234	3.242	-0.008	11293316	2.50	2.30	M
3 Nitrite as N	3.884	3.892	-0.008	1954729	NC	NC	
4 Bromide	4.634	4.634	0.000	383896	0.2000	0.2056	
5 Nitrate as N	5.209	5.200	0.009	2122800	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	826088	NC	NC	
6 Sulfate	6.400	6.434	-0.034	8543578	2.50	2.35	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

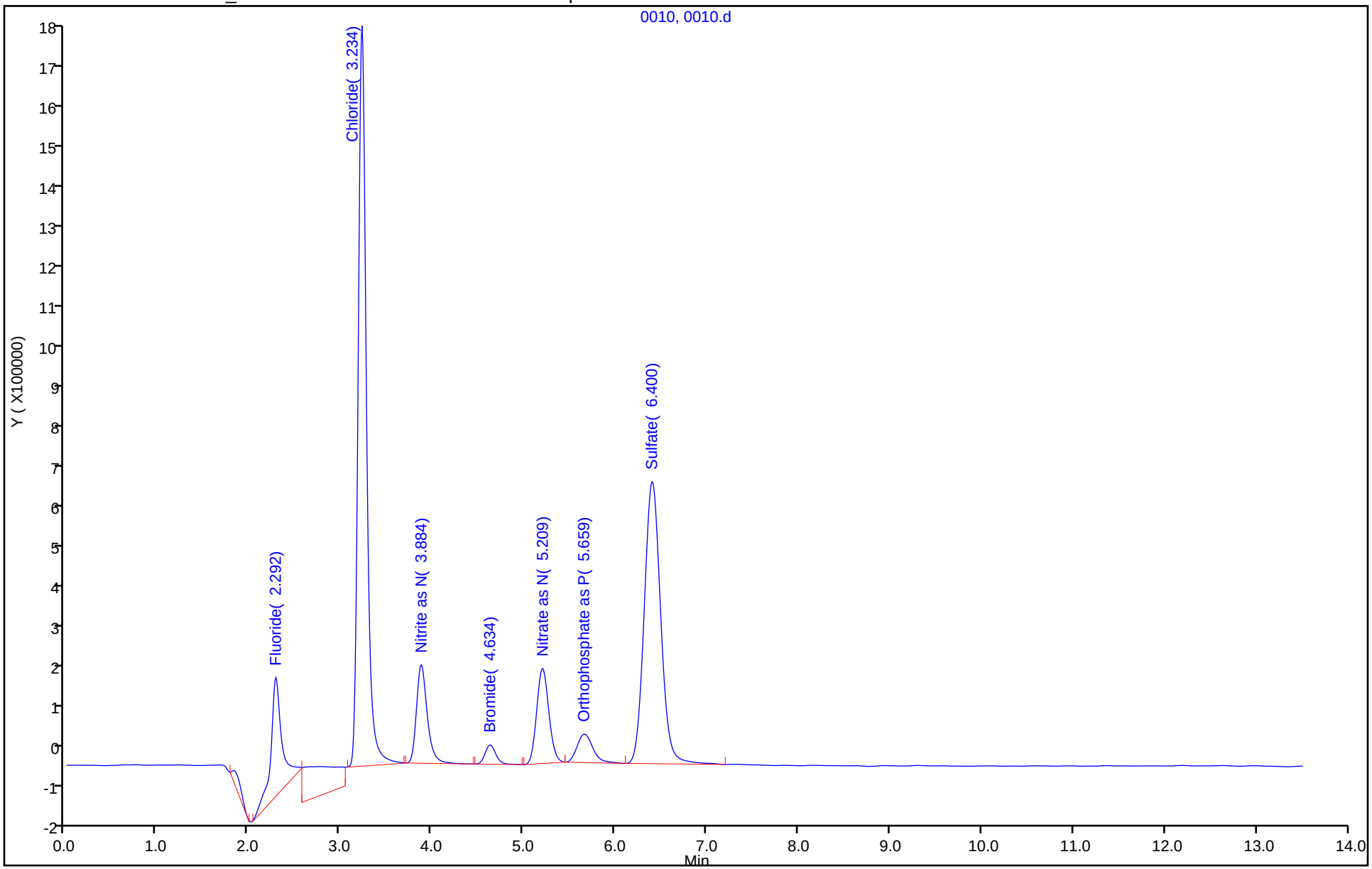
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 22:56:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0010.d

Injection Date:	15-May-2019 19:43:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

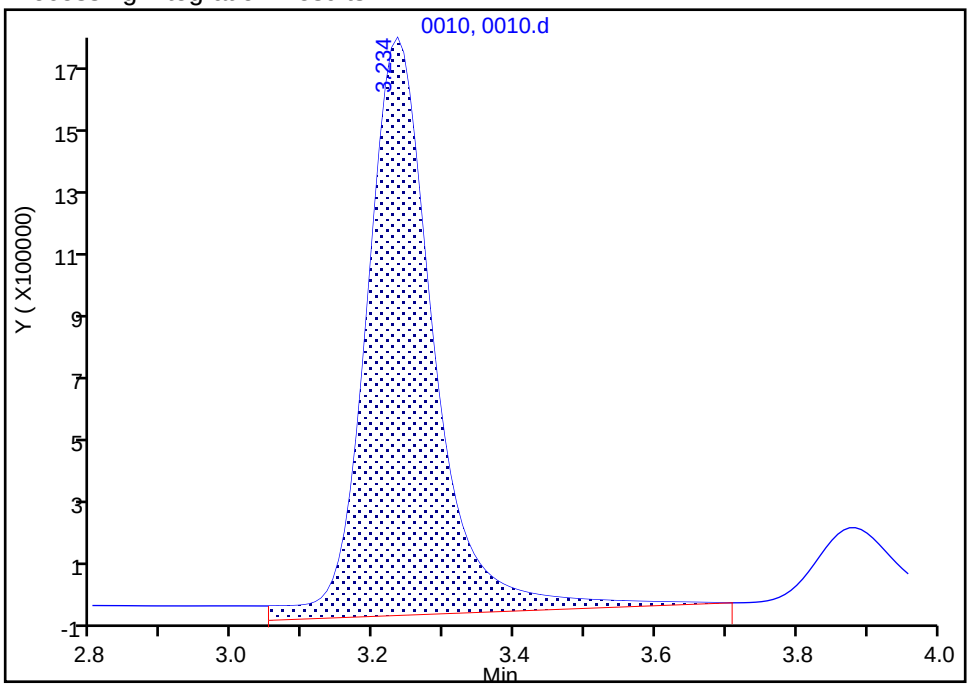
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0010.d
Injection Date: 15-May-2019 19:43:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

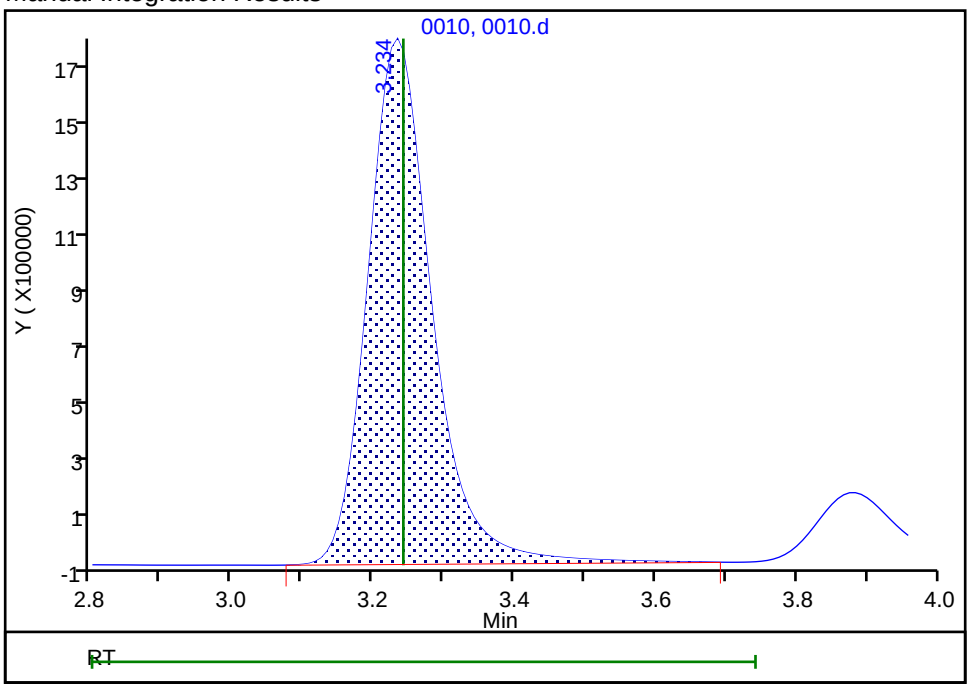
Processing Integration Results

RT: 3.23
Area: 12176202
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 11293316
Amount: 2.296717
Amount Units: ug/ml



Reviewer: phantl, 16-May-2019 22:51:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

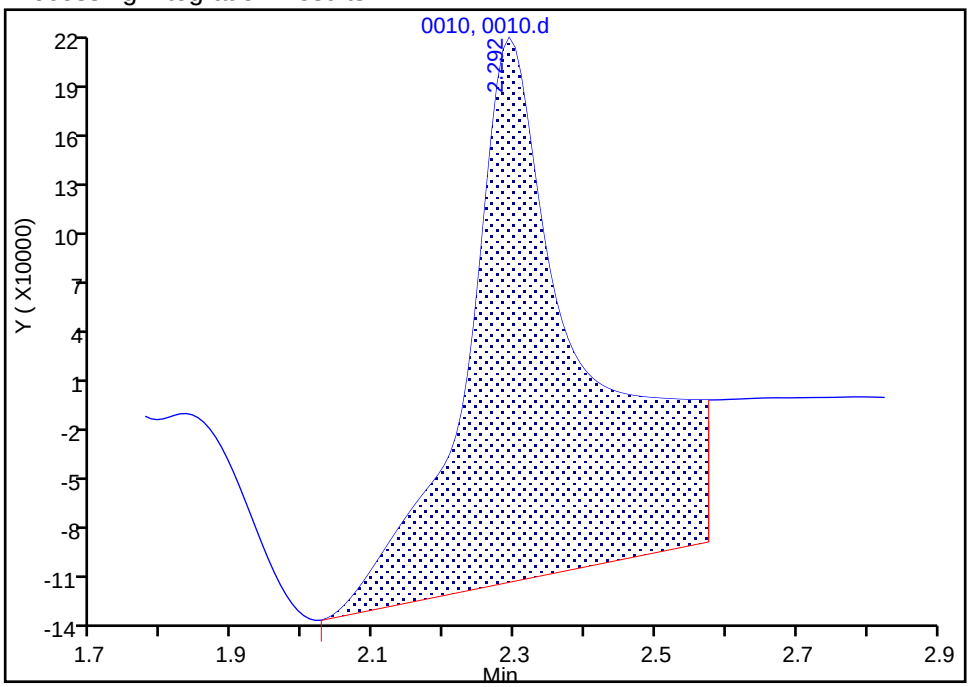
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0010.d				
Injection Date:	15-May-2019 19:43:00	Instrument ID:	WC_IonChrom11		
Lims ID:	MRL				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

1 Fluoride, CAS: 16984-48-8

Signal: 1

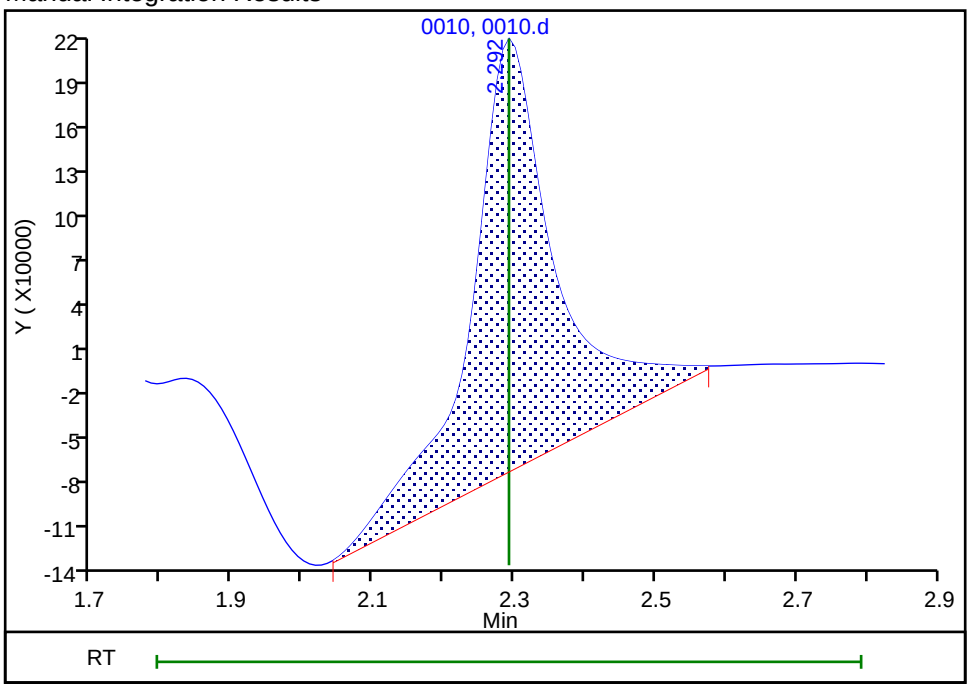
Processing Integration Results

RT: 2.29
Area: 3760039
Amount: 0.363728
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2429327
Amount: 0.180293
Amount Units: ug/ml



Reviewer: phantl, 16-May-2019 22:50:58

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0011.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 15-May-2019 20:00:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-011
Misc. Info.: 7044 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	35502953	NC	NC	
2 Chloride	3.251	3.250	0.001	634879240	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	50518467	5.00	4.84	
4 Bromide	4.634	4.642	-0.008	9516089	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	55464872	5.00	4.81	
7 Orthophosphate as P	5.651	5.659	-0.008	20247294	5.00	4.88	
6 Sulfate	6.451	6.442	0.009	415706652	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

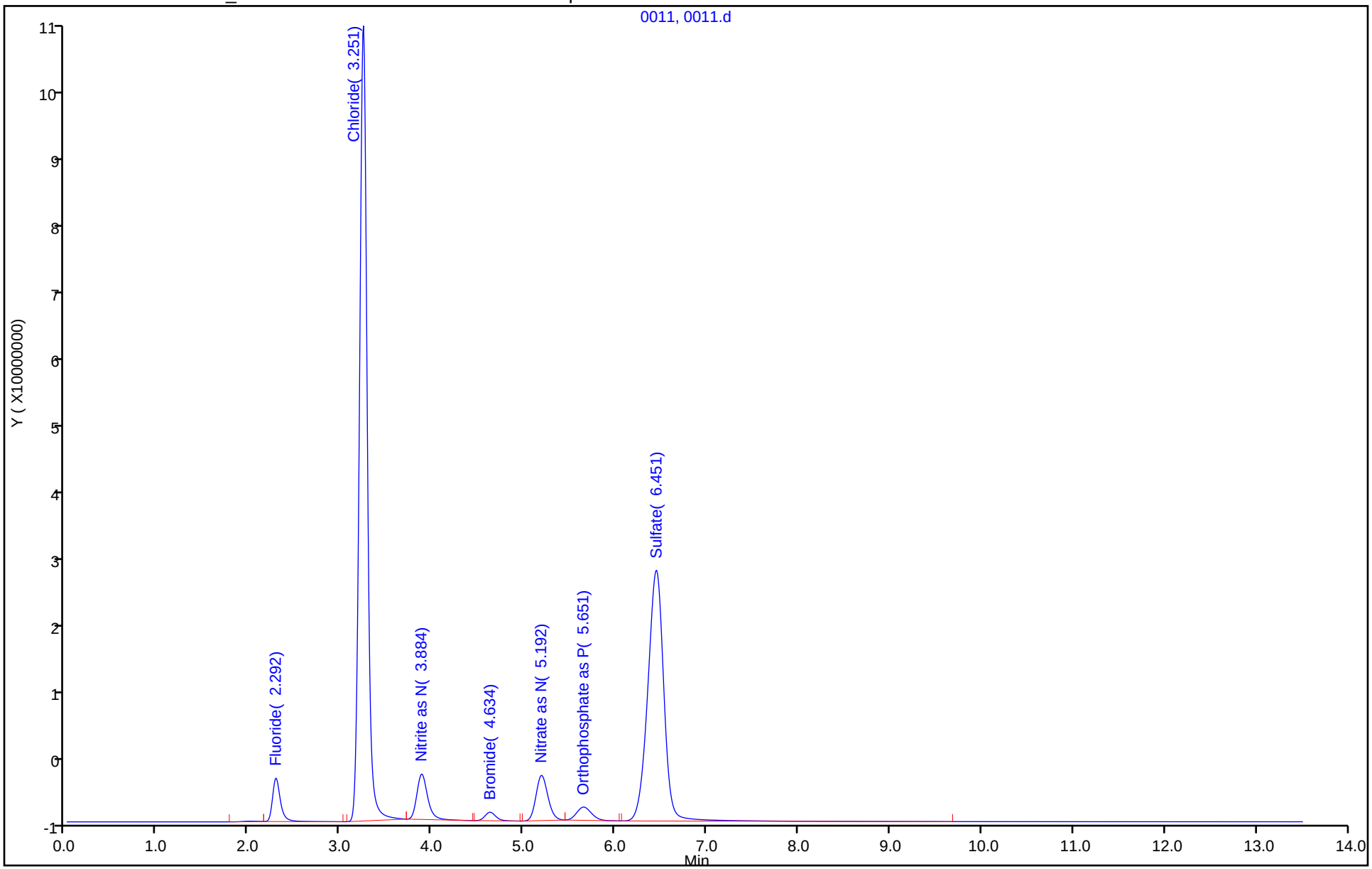
IC LCS_01576 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 07:56:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0011.d

Injection Date:	15-May-2019 20:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	11
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0011.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 15-May-2019 20:00:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-011
Misc. Info.: 7044 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	35502953	5.00	4.74	
2 Chloride	3.251	3.250	0.001	634879240	100.0	95.0	
3 Nitrite as N	3.884	3.892	-0.008	50518467	NC	NC	
4 Bromide	4.634	4.642	-0.008	9516089	5.00	4.90	
5 Nitrate as N	5.192	5.200	-0.008	55464872	NC	NC	
7 Orthophosphate as P	5.651	5.659	-0.008	20247294	NC	NC	
6 Sulfate	6.451	6.442	0.009	415706652	100.0	93.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

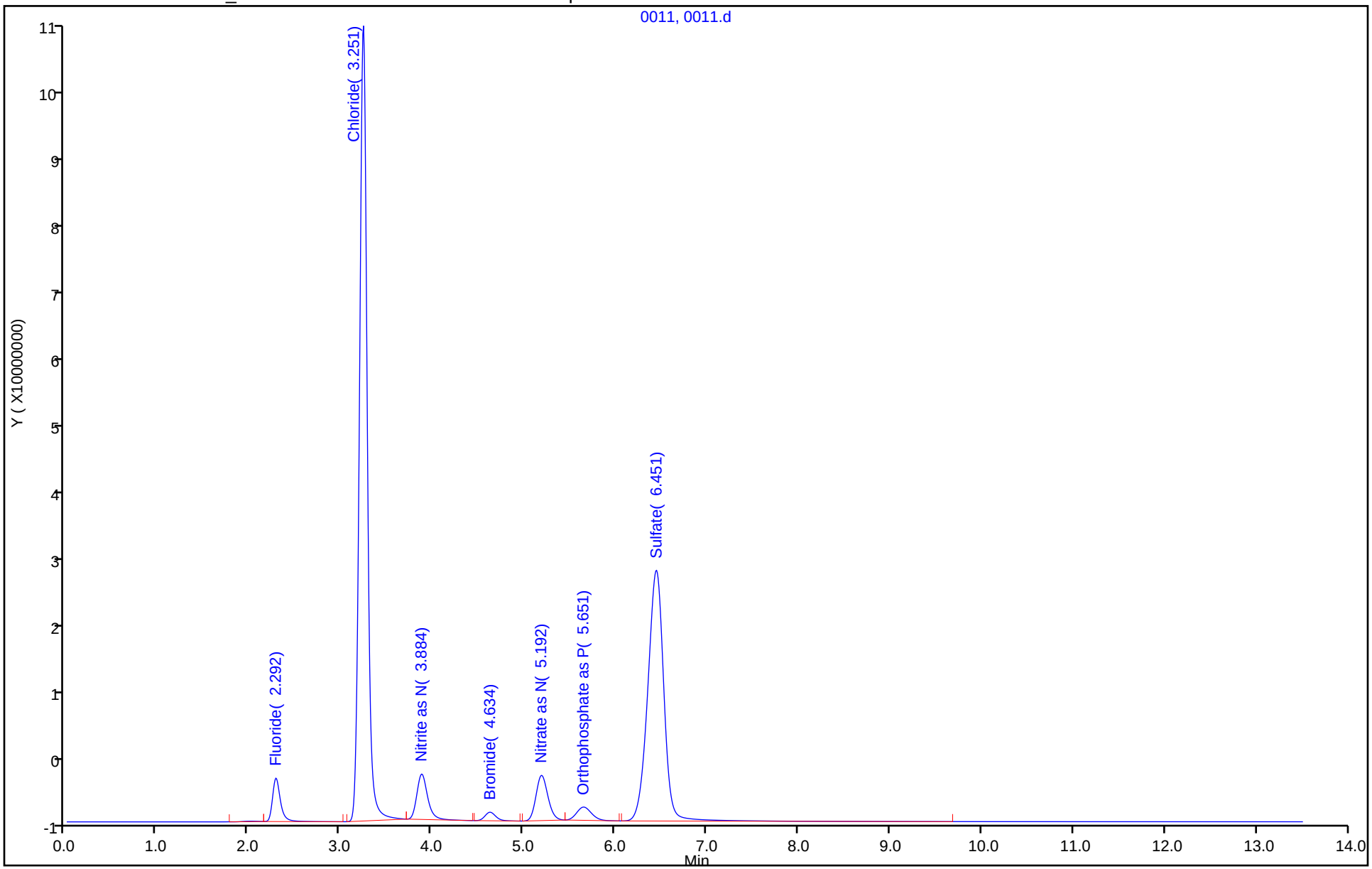
IC LCS_01576 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 07:56:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0011.d

Injection Date:	15-May-2019 20:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	11
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0012.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 15-May-2019 20:16:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-012
Misc. Info.: 27679 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	35676942	NC	NC	
2 Chloride	3.250	3.250	0.000	635185743	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	50544192	5.00	4.84	
4 Bromide	4.634	4.642	-0.008	9509357	NC	NC	
5 Nitrate as N	5.200	5.200	0.000	55437807	5.00	4.81	
7 Orthophosphate as P	5.659	5.659	0.000	20291349	5.00	4.89	
6 Sulfate	6.450	6.442	0.008	415687371	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

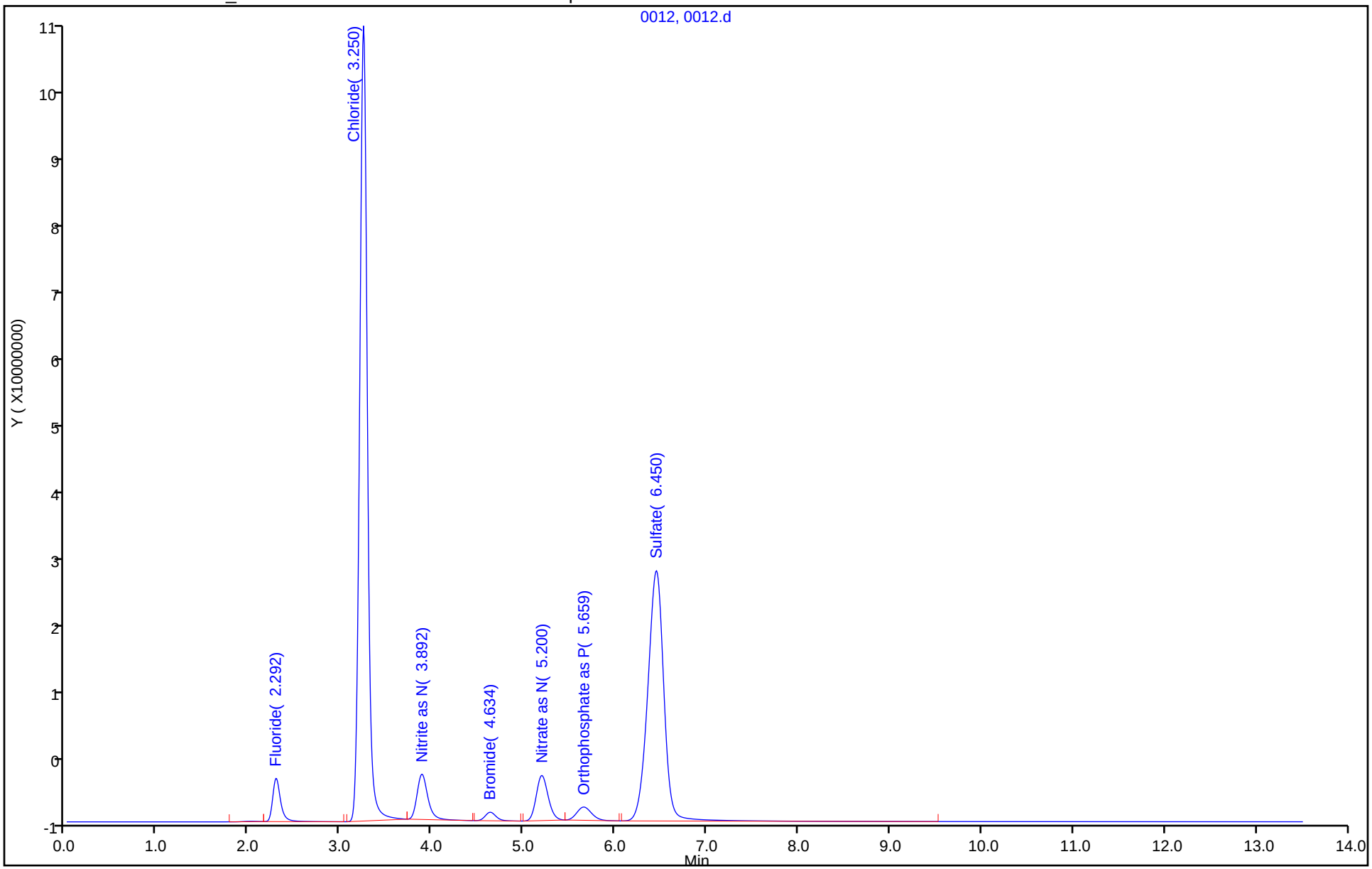
IC LCS_01576 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 07:56:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0012.d

Injection Date:	15-May-2019 20:16:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	12
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0012.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 15-May-2019 20:16:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-012
Misc. Info.: 27679 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	35676942	5.00	4.76	
2 Chloride	3.250	3.250	0.000	635185743	100.0	95.1	
3 Nitrite as N	3.892	3.892	0.000	50544192	NC	NC	
4 Bromide	4.634	4.642	-0.008	9509357	5.00	4.90	
5 Nitrate as N	5.200	5.200	0.000	55437807	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	20291349	NC	NC	
6 Sulfate	6.450	6.442	0.008	415687371	100.0	93.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

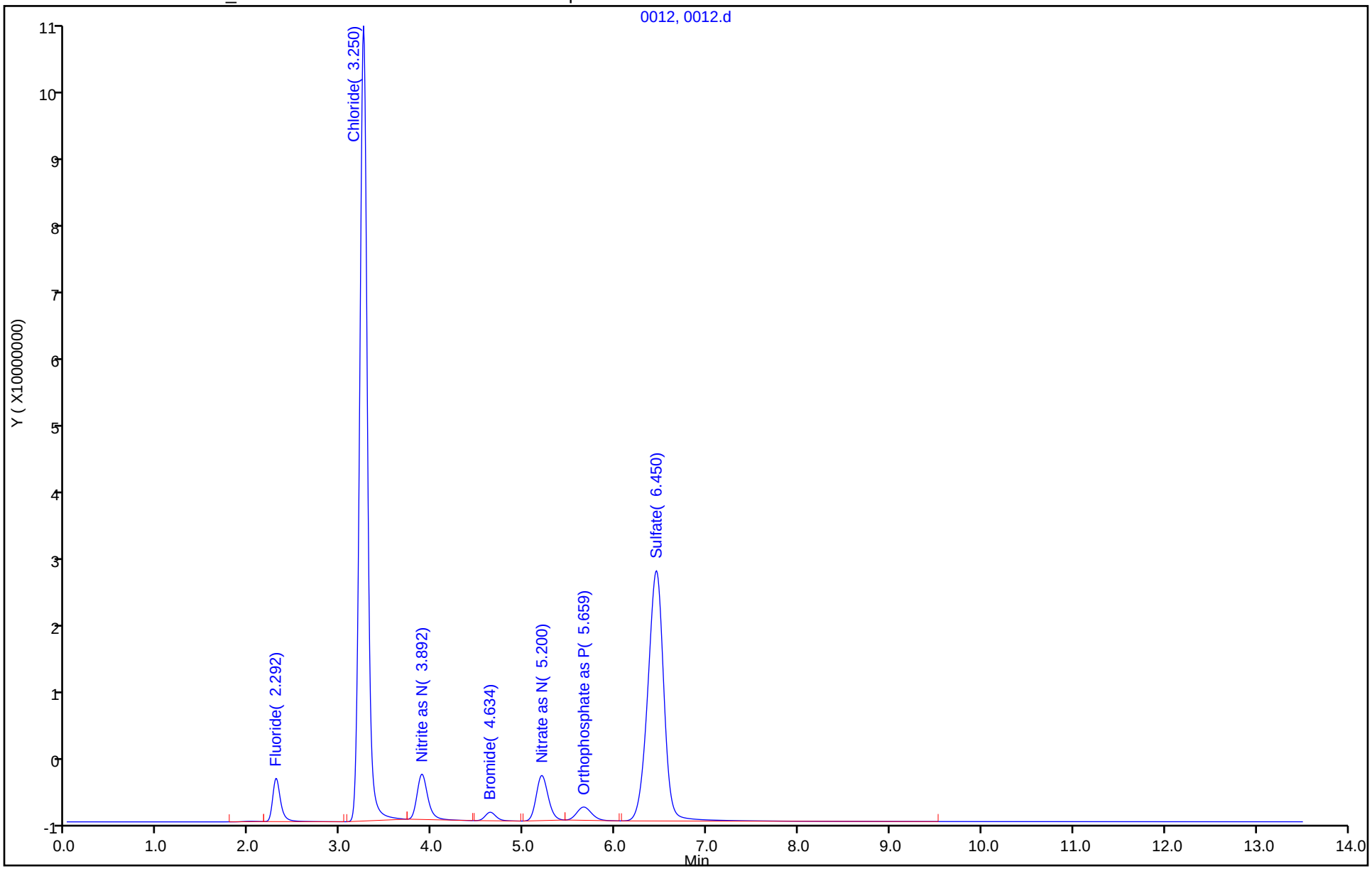
IC LCS_01576 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 07:56:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0012.d

Injection Date:	15-May-2019 20:16:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	12
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0013.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 15-May-2019 20:33:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-013
Misc. Info.: 6004 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:52:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.475	2.300	0.175	7267		NC	M
2 Chloride	2.792	3.250	-0.458	23214		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.892	5.659	0.233	350713		0.0768	
6 Sulfate	6.425	6.442	-0.017	189632		NC	

QC Flag Legend

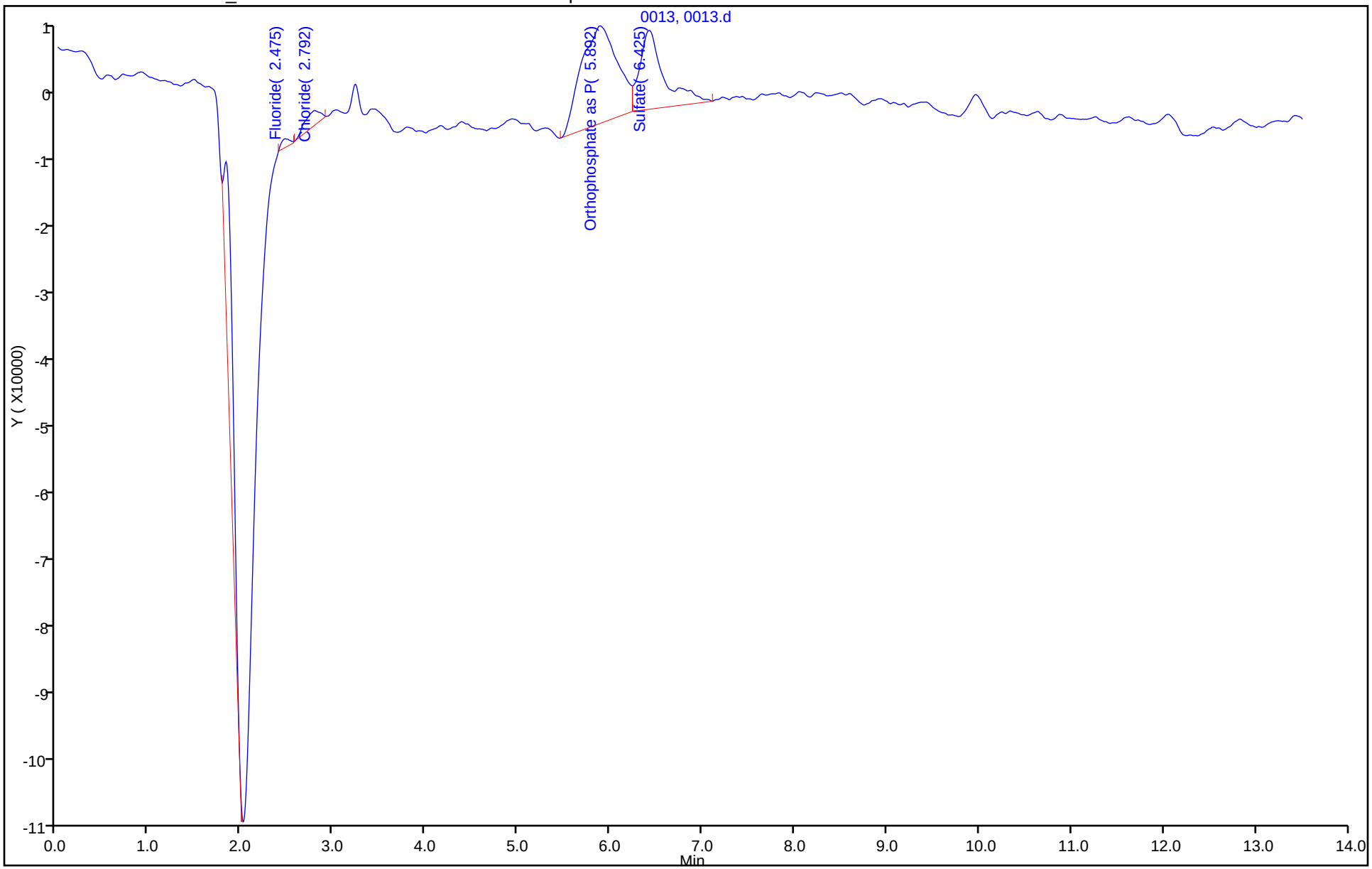
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0013.d

Injection Date:	15-May-2019 20:33:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	13
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0013.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 15-May-2019 20:33:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-013
Misc. Info.: 6004 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:52:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.475	2.300	0.175	7267		-0.1536	M
2 Chloride	2.792	3.250	-0.458	23214		0.6206	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.892	5.659	0.233	350713		NC	
6 Sulfate	6.425	6.442	-0.017	189632		0.4797	

QC Flag Legend

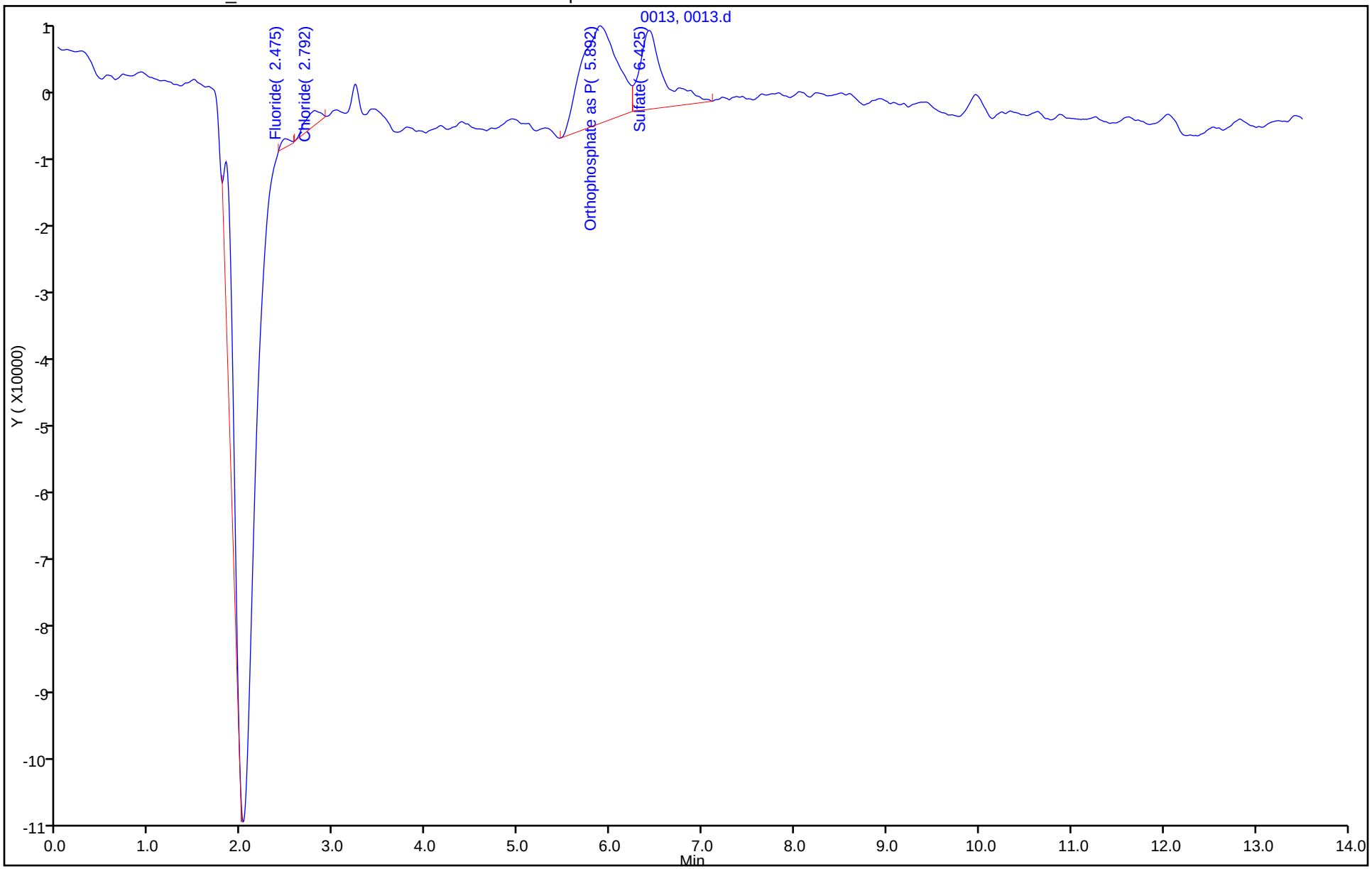
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0013.d

Injection Date:	15-May-2019 20:33:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	13
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

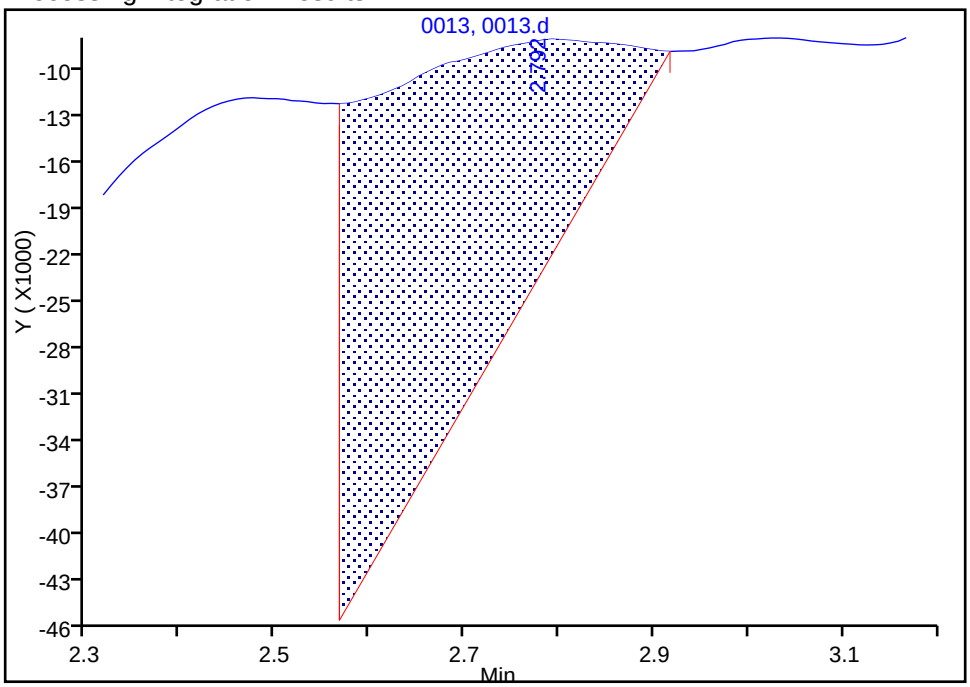
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0013.d
Injection Date: 15-May-2019 20:33:00 Instrument ID: WC_IonChrom11
Lims ID: MB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

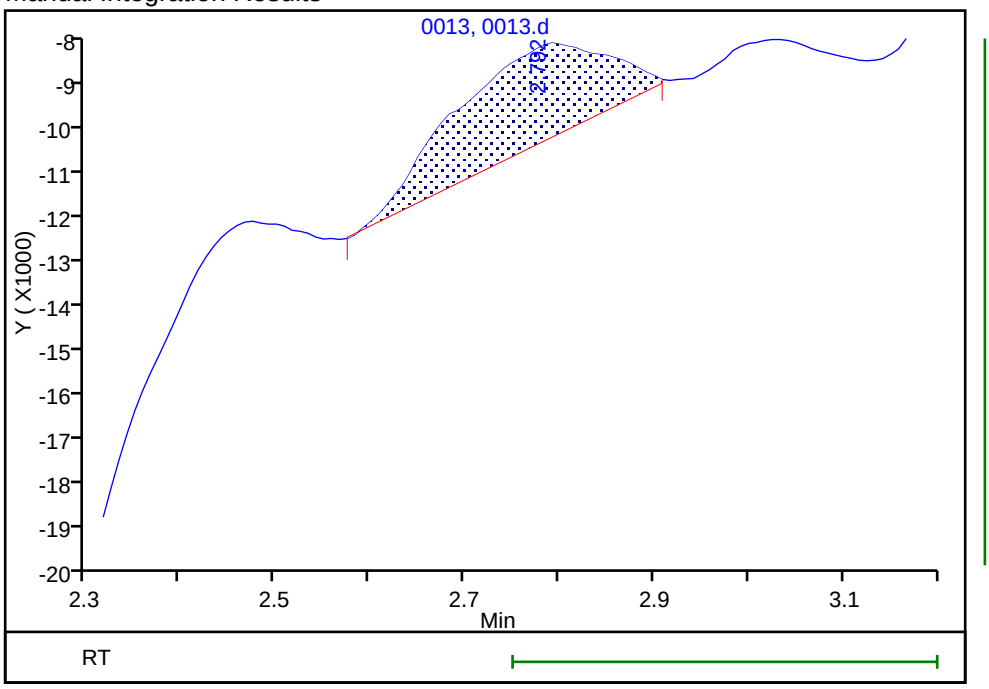
Processing Integration Results

RT: 2.79
Area: 366686
Amount: 0.671720
Amount Units: ug/ml



Manual Integration Results

RT: 2.79
Area: 23214
Amount: 0.620640
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:52:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

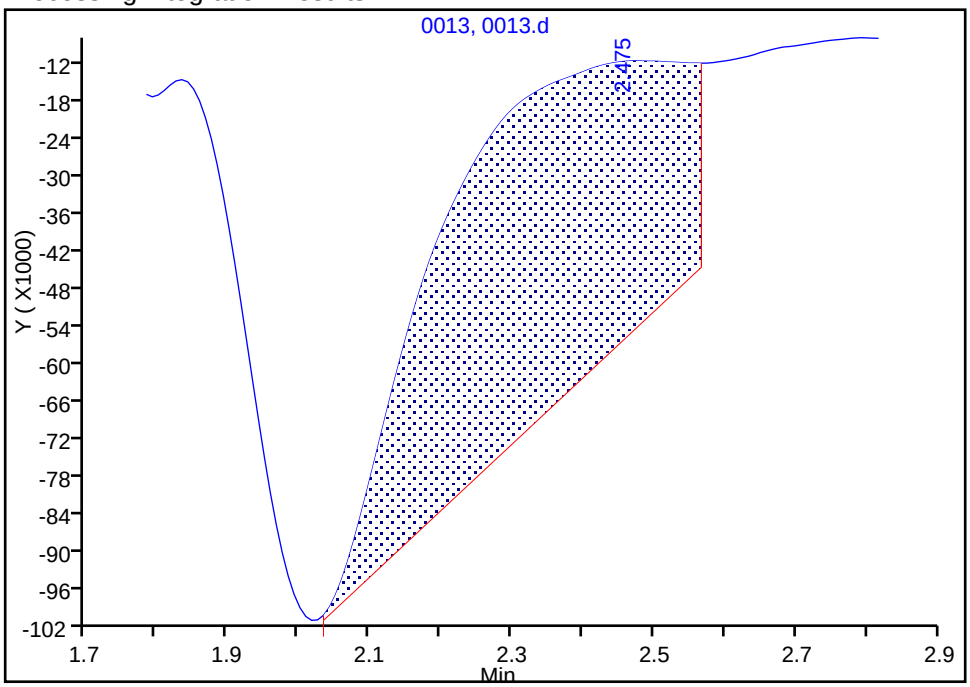
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0013.d
Injection Date: 15-May-2019 20:33:00 Instrument ID: WC_IonChrom11
Lims ID: MB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

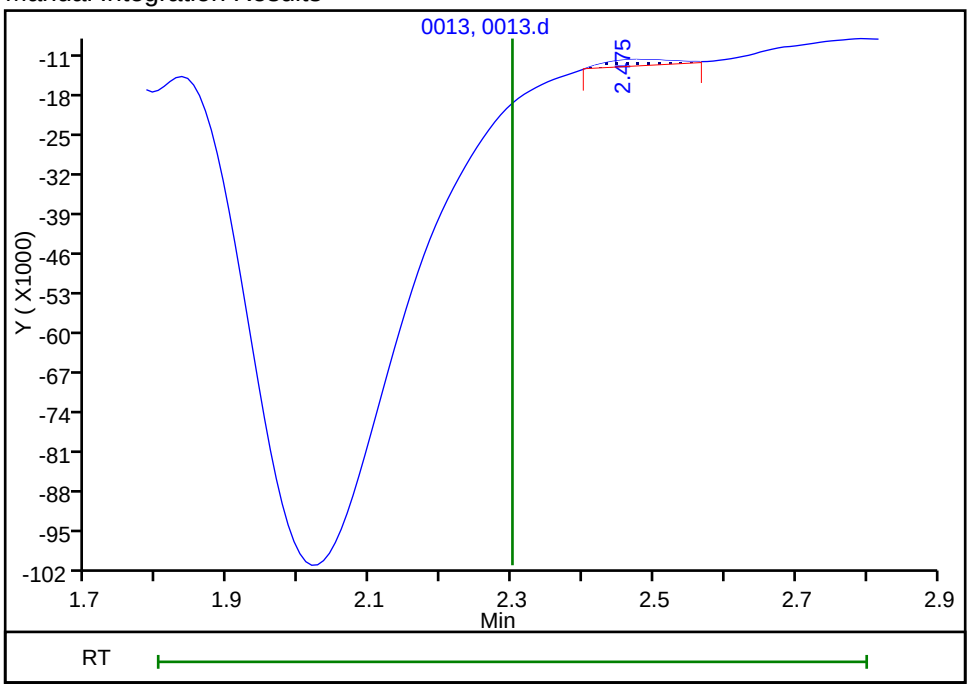
Processing Integration Results

RT: 2.48
Area: 1250660
Amount: 0.017817
Amount Units: ug/ml



Manual Integration Results

RT: 2.48
Area: 7267
Amount: -0.153581
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:52:34
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0014.d
Lims ID: 280-123814-I-1
Client ID: LF5MW-3_0519
Sample Type: Client
Inject. Date: 15-May-2019 20:49:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-014
Misc. Info.: 22129 752F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 23:00:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	1069802	NC	
2 Chloride	3.234	3.250	-0.016	4319677	NC	
3 Nitrite as N	3.651	3.892	-0.241	452978	0.0683	
4 Bromide		4.642			ND	
5 Nitrate as N	5.251	5.200	0.051	499344	0.0812	
7 Orthophosphate as P	5.742	5.659	0.083	2226579	0.5297	
6 Sulfate	6.534	6.442	0.092	1226472301	NC	

QC Flag Legend

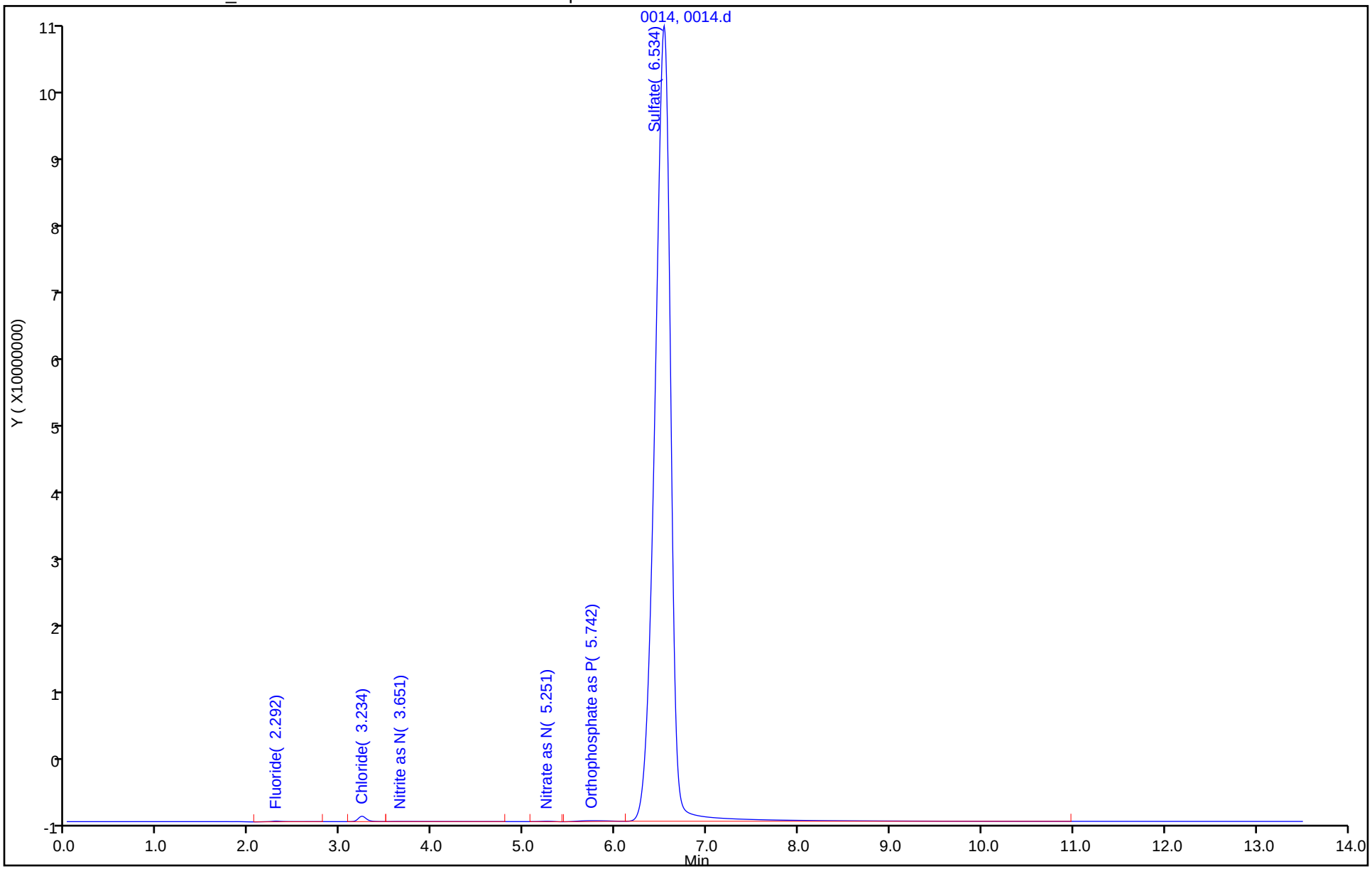
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 07:56:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0014.d

Injection Date:	15-May-2019 20:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-1	Lab Sample ID:	280-123814-1	Worklist Smp#:	14
Client ID:	LF5MW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0014.d
Lims ID: 280-123814-I-1
Client ID: LF5MW-3_0519
Sample Type: Client
Inject. Date: 15-May-2019 20:49:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-014
Misc. Info.: 22129 752F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 23:00:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	1069802	-0.007114	
2 Chloride	3.234	3.250	-0.016	4319677	1.26	
3 Nitrite as N	3.651	3.892	-0.241	452978	NC	
4 Bromide		4.642			ND	
5 Nitrate as N	5.251	5.200	0.051	499344	NC	
7 Orthophosphate as P	5.742	5.659	0.083	2226579	NC	
6 Sulfate	6.534	6.442	0.092	1226472301	274.7	E

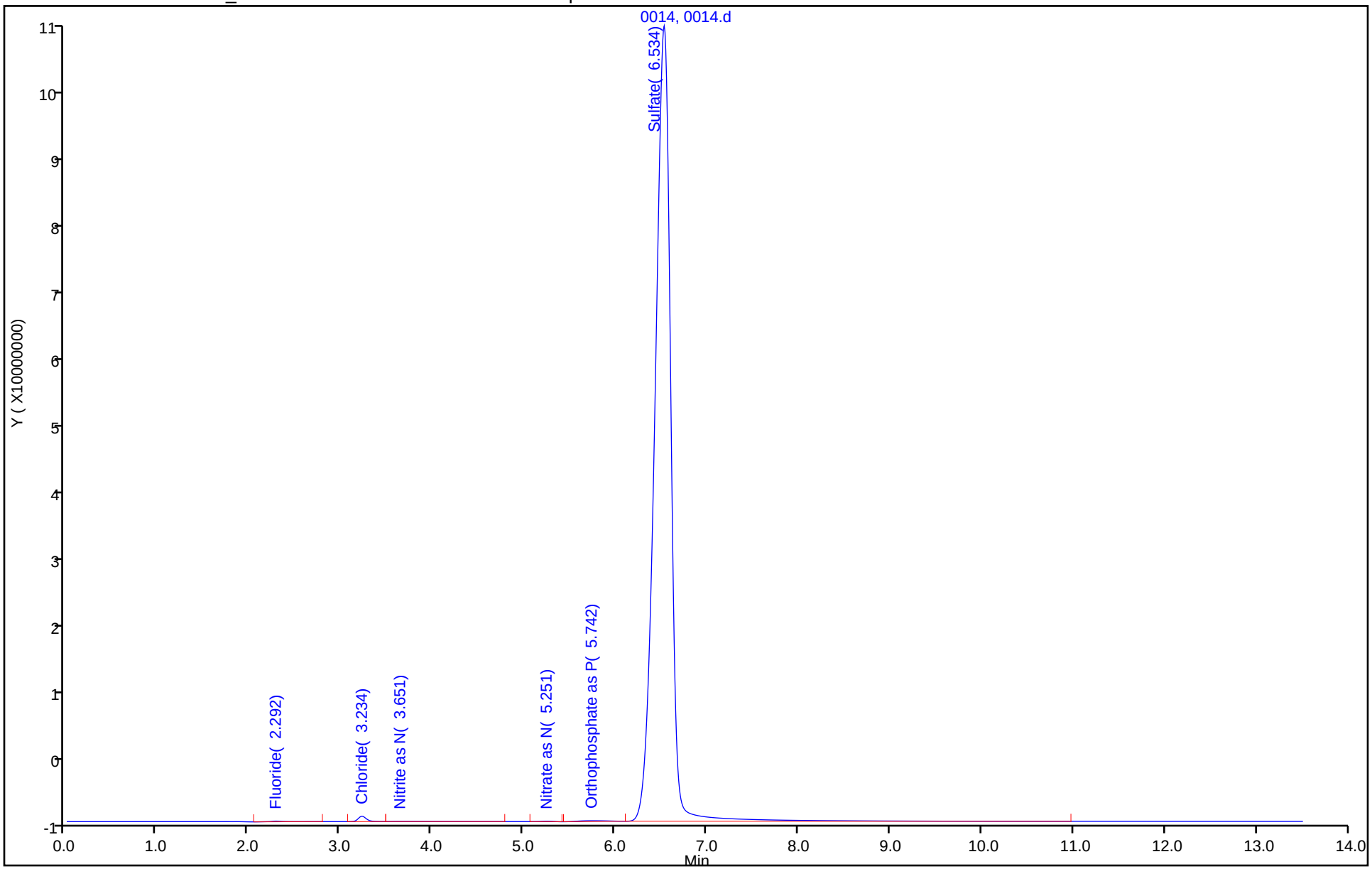
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 16-May-2019 07:56:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0014.d				
Injection Date:	15-May-2019 20:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-1	Lab Sample ID:	280-123814-1	Worklist Smp#:	14
Client ID:	LF5MW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0015.d
Lims ID: 280-123814-I-1
Client ID: LF5MW-3_0519
Sample Type: Client
Inject. Date: 15-May-2019 21:06:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0081929-015
Misc. Info.: 23015
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.309	2.300	0.009	1397651	0.0381	
2 Chloride	3.234	3.250	-0.016	5423737	1.42	
3 Nitrite as N		3.892			ND	
4 Bromide	4.425	4.642	-0.217	1234425	0.6424	
5 Nitrate as N	5.025	5.200	-0.175	167752	NC	
7 Orthophosphate as P	5.900	5.659	0.241	423885	NC	
6 Sulfate	6.434	6.442	-0.008	202687472	45.8	

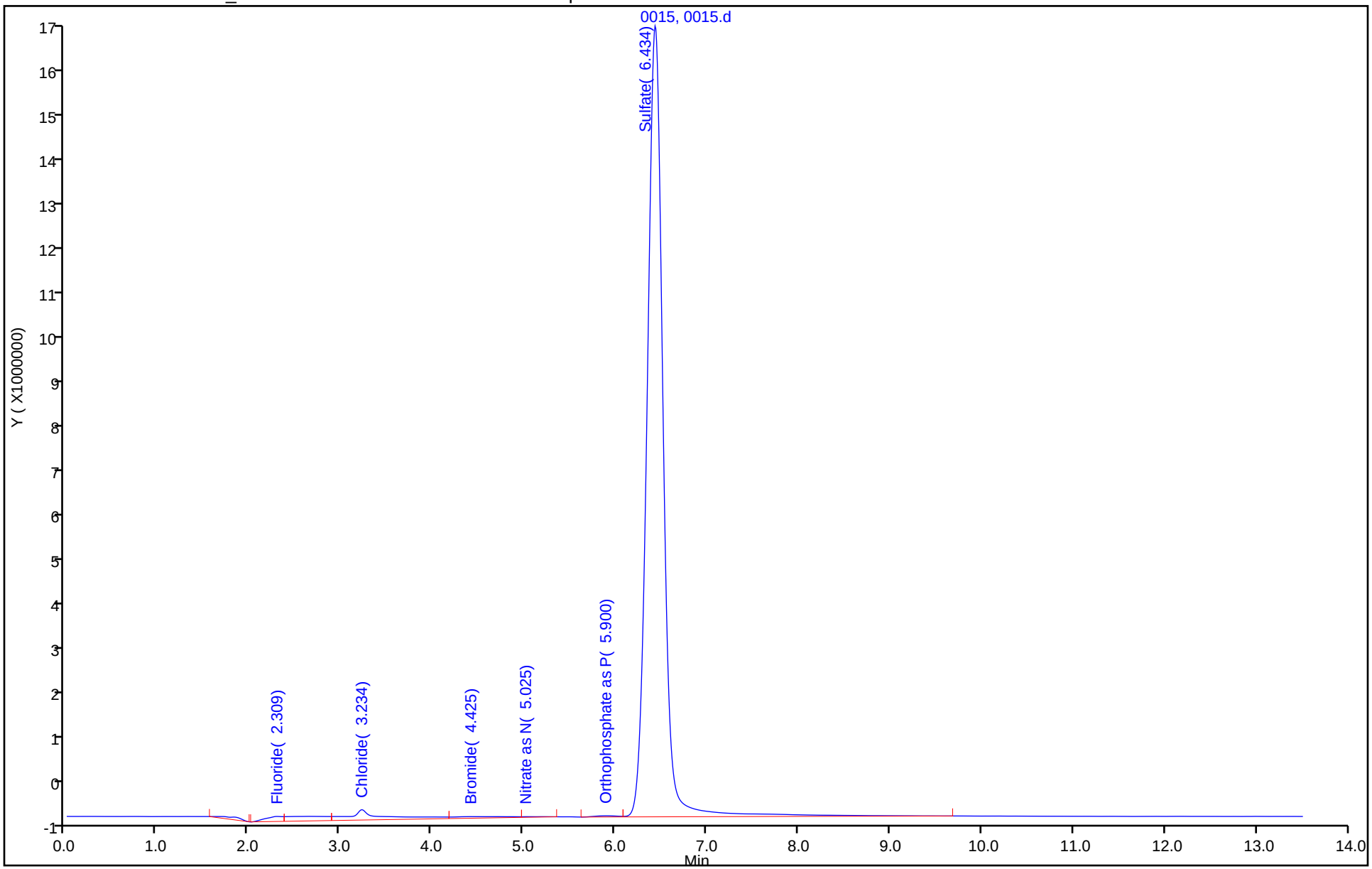
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 07:56:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0015.d				
Injection Date:	15-May-2019 21:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-1	Lab Sample ID:	280-123814-1	Worklist Smp#:	15
Client ID:	LF5MW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0016.d
Lims ID: 280-123814-I-2
Client ID: LF5MW-5_0519
Sample Type: Client
Inject. Date: 15-May-2019 21:22:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-016
Misc. Info.: 21530 94F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	871355	NC	
2 Chloride	3.234	3.250	-0.016	8709881	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.642			ND	
5 Nitrate as N	5.225	5.200	0.025	13131300	1.17	
7 Orthophosphate as P	5.767	5.659	0.108	1457493	0.3440	
6 Sulfate	6.425	6.442	-0.017	21902859	NC	

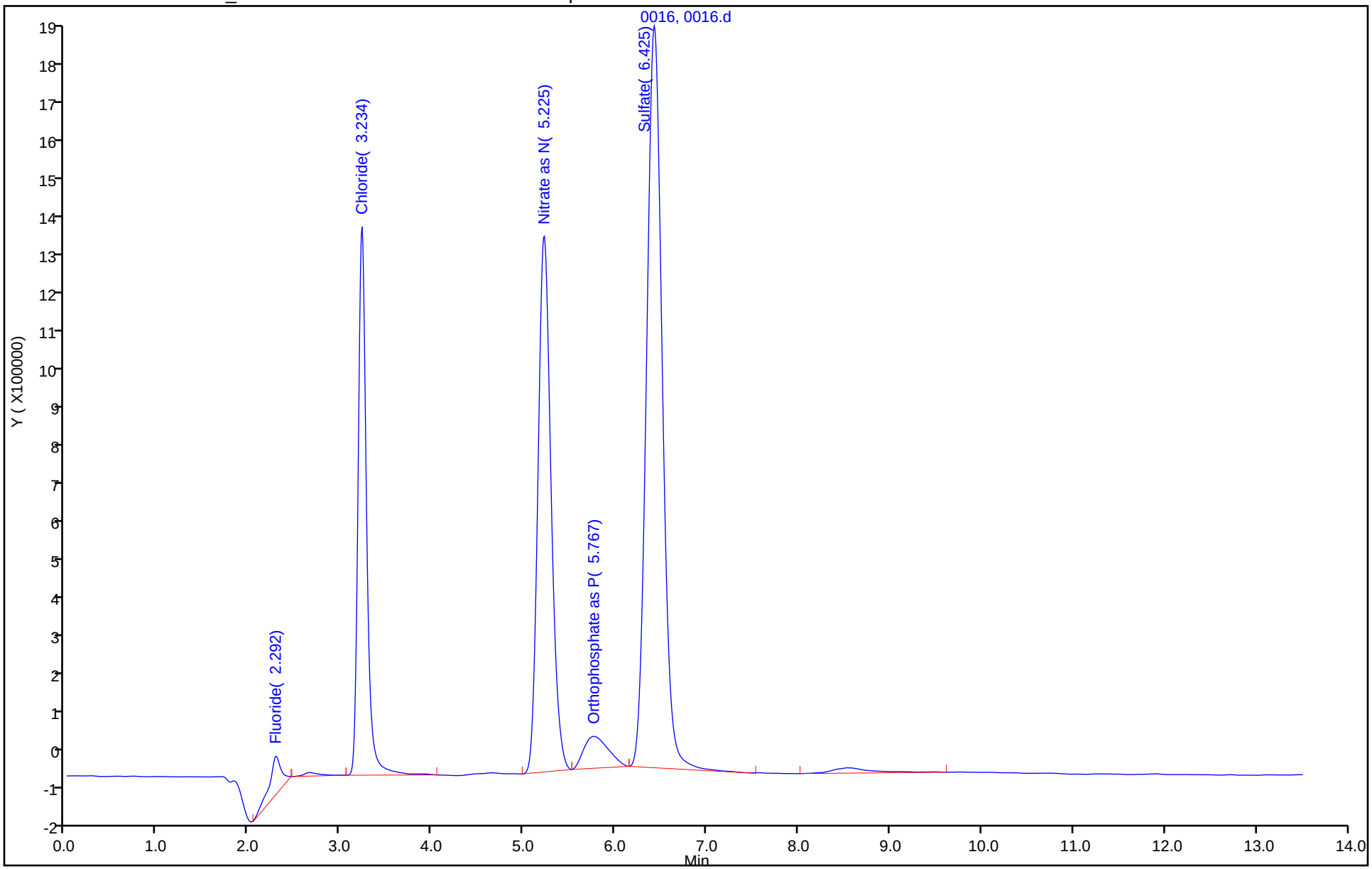
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 07:56:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0016.d				
Injection Date:	15-May-2019 21:22:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-2	Lab Sample ID:	280-123814-2	Worklist Smp#:	16
Client ID:	LF5MW-5_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0016.d
Lims ID: 280-123814-I-2
Client ID: LF5MW-5_0519
Sample Type: Client
Inject. Date: 15-May-2019 21:22:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-016
Misc. Info.: 21530 94F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	871355	-0.0345	
2 Chloride	3.234	3.250	-0.016	8709881	1.91	
3 Nitrite as N		3.892			ND	
4 Bromide		4.642			ND	
5 Nitrate as N	5.225	5.200	0.025	13131300	NC	
7 Orthophosphate as P	5.767	5.659	0.108	1457493	NC	
6 Sulfate	6.425	6.442	-0.017	21902859	5.33	

QC Flag Legend

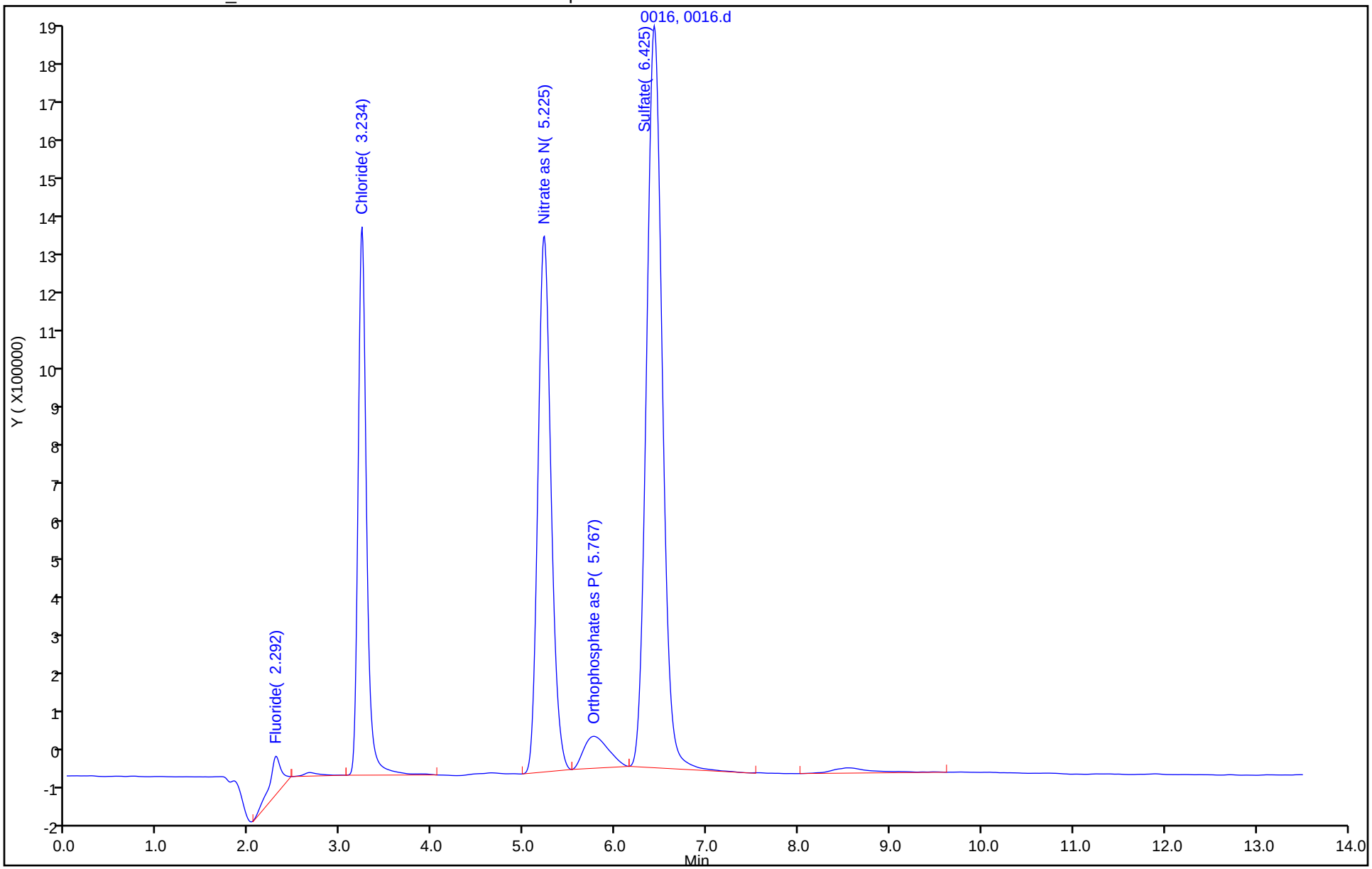
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 07:56:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0016.d

Injection Date:	15-May-2019 21:22:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-2	Lab Sample ID:	280-123814-2	Worklist Smp#:	16
Client ID:	LF5MW-5_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0017.d
Lims ID: 280-123814-I-3
Client ID: LF5MW-5_0519-a
Sample Type: Client
Inject. Date: 15-May-2019 21:38:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-017
Misc. Info.: 6192 96F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	709820	NC	
2 Chloride	3.234	3.250	-0.016	8153513	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.667	4.642	0.025	132542	NC	
5 Nitrate as N	5.225	5.200	0.025	605411	0.0904	
7 Orthophosphate as P	5.792	5.659	0.133	1348299	0.3176	
6 Sulfate	6.425	6.442	-0.017	22275419	NC	

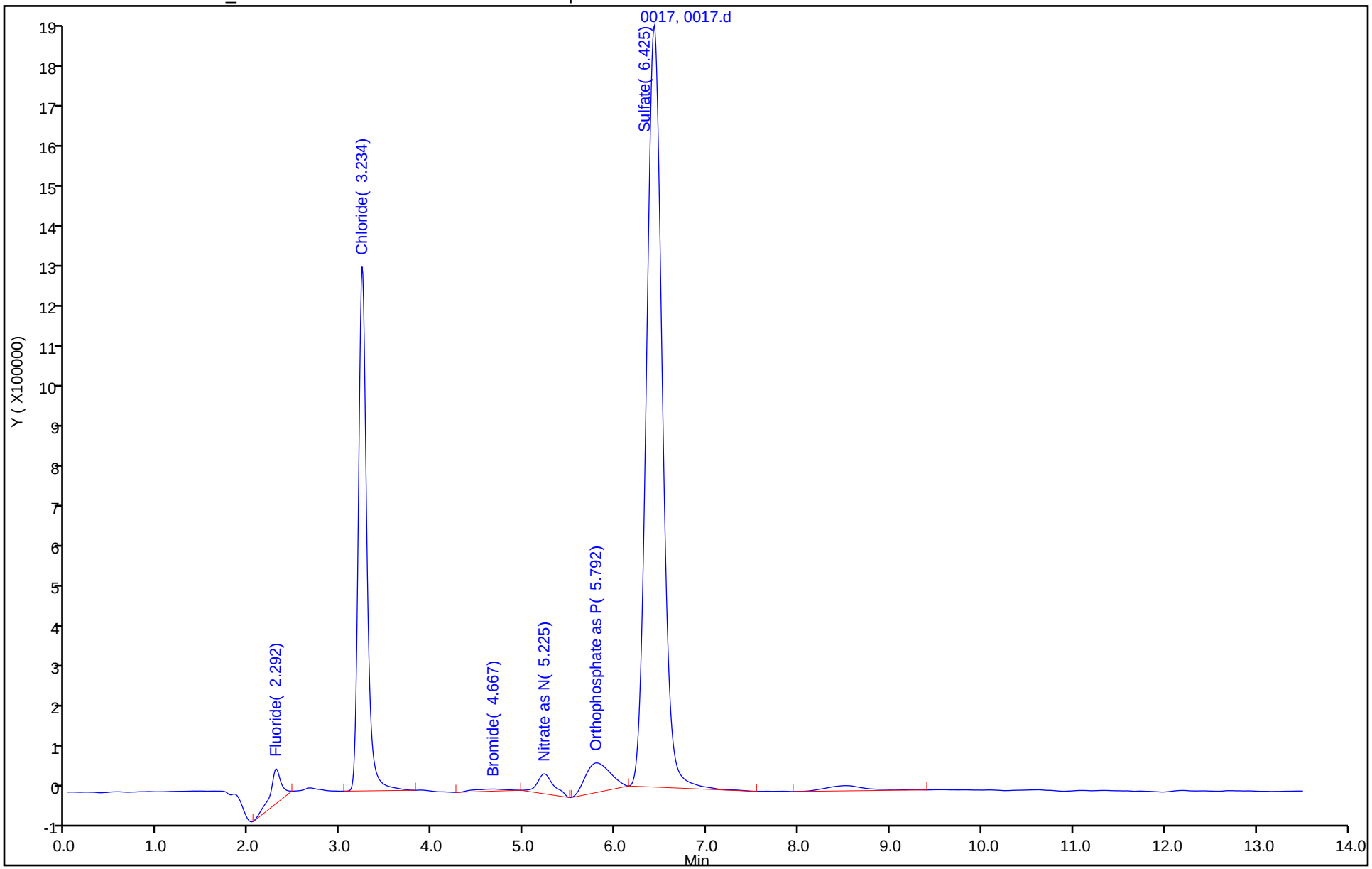
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 07:55:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0017.d				
Injection Date:	15-May-2019 21:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-3	Lab Sample ID:	280-123814-3	Worklist Smp#:	17
Client ID:	LF5MW-5_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0017.d
Lims ID: 280-123814-I-3
Client ID: LF5MW-5_0519-a
Sample Type: Client
Inject. Date: 15-May-2019 21:38:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-017
Misc. Info.: 6192 96F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	709820	-0.0567	
2 Chloride	3.234	3.250	-0.016	8153513	1.83	
3 Nitrite as N		3.892			ND	
4 Bromide	4.667	4.642	0.025	132542	0.0758	
5 Nitrate as N	5.225	5.200	0.025	605411	NC	
7 Orthophosphate as P	5.792	5.659	0.133	1348299	NC	
6 Sulfate	6.425	6.442	-0.017	22275419	5.42	

QC Flag Legend

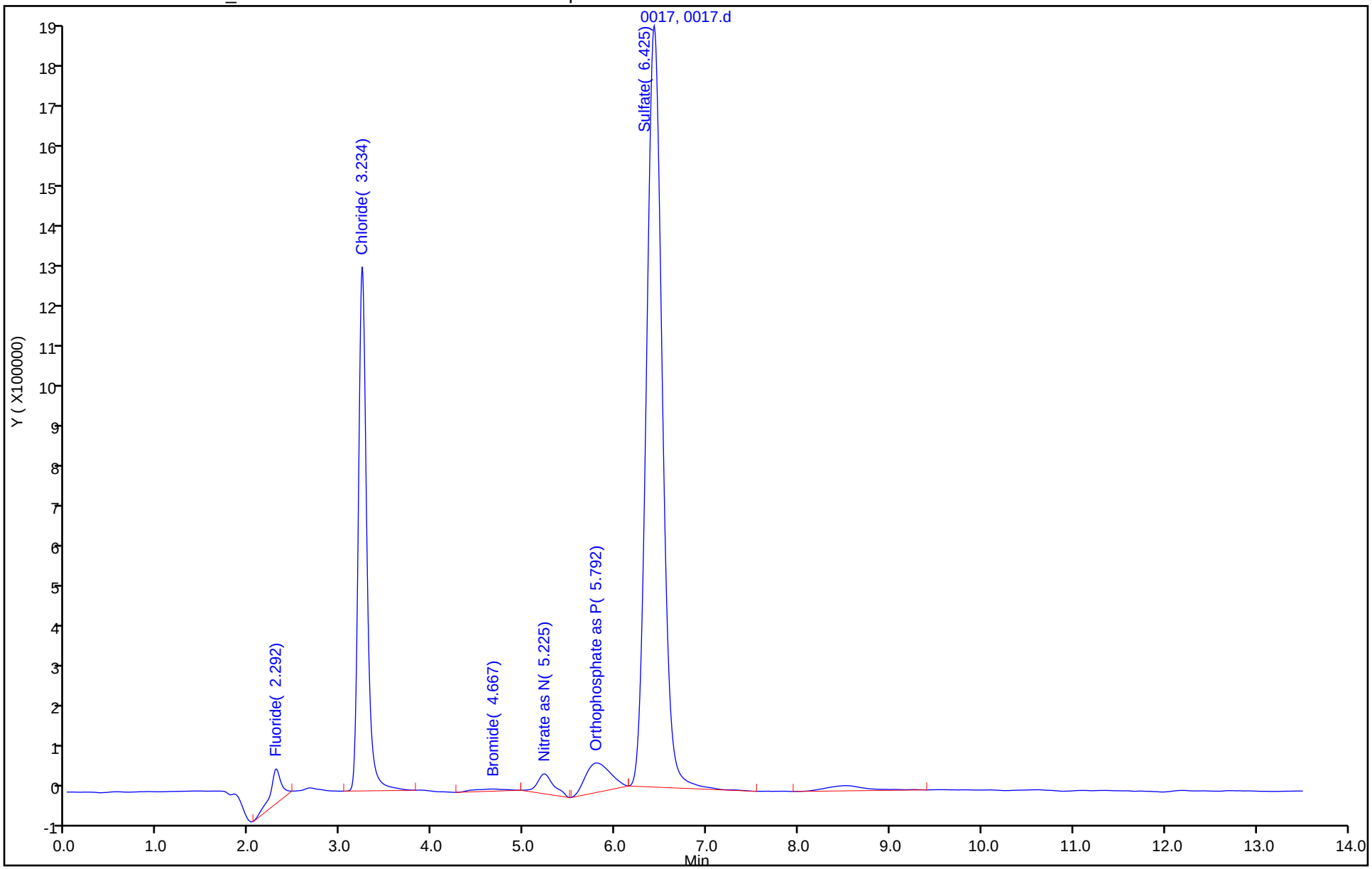
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 07:55:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0017.d

Injection Date:	15-May-2019 21:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-3	Lab Sample ID:	280-123814-3	Worklist Smp#:	17
Client ID:	LF5MW-5_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0018.d
Lims ID: 280-123814-I-3 DU
Client ID:
Sample Type: DU
Inject. Date: 15-May-2019 21:55:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-018
Misc. Info.: 12941 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:54:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	1438006		NC	
2 Chloride	3.234	3.250	-0.016	8091127		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide	4.642	4.642	0.000	390512		NC	
5 Nitrate as N	5.226	5.200	0.026	530011		0.0839	
7 Orthophosphate as P	5.792	5.659	0.133	1340303		0.3157	
6 Sulfate	6.426	6.442	-0.016	22218485		NC	

QC Flag Legend

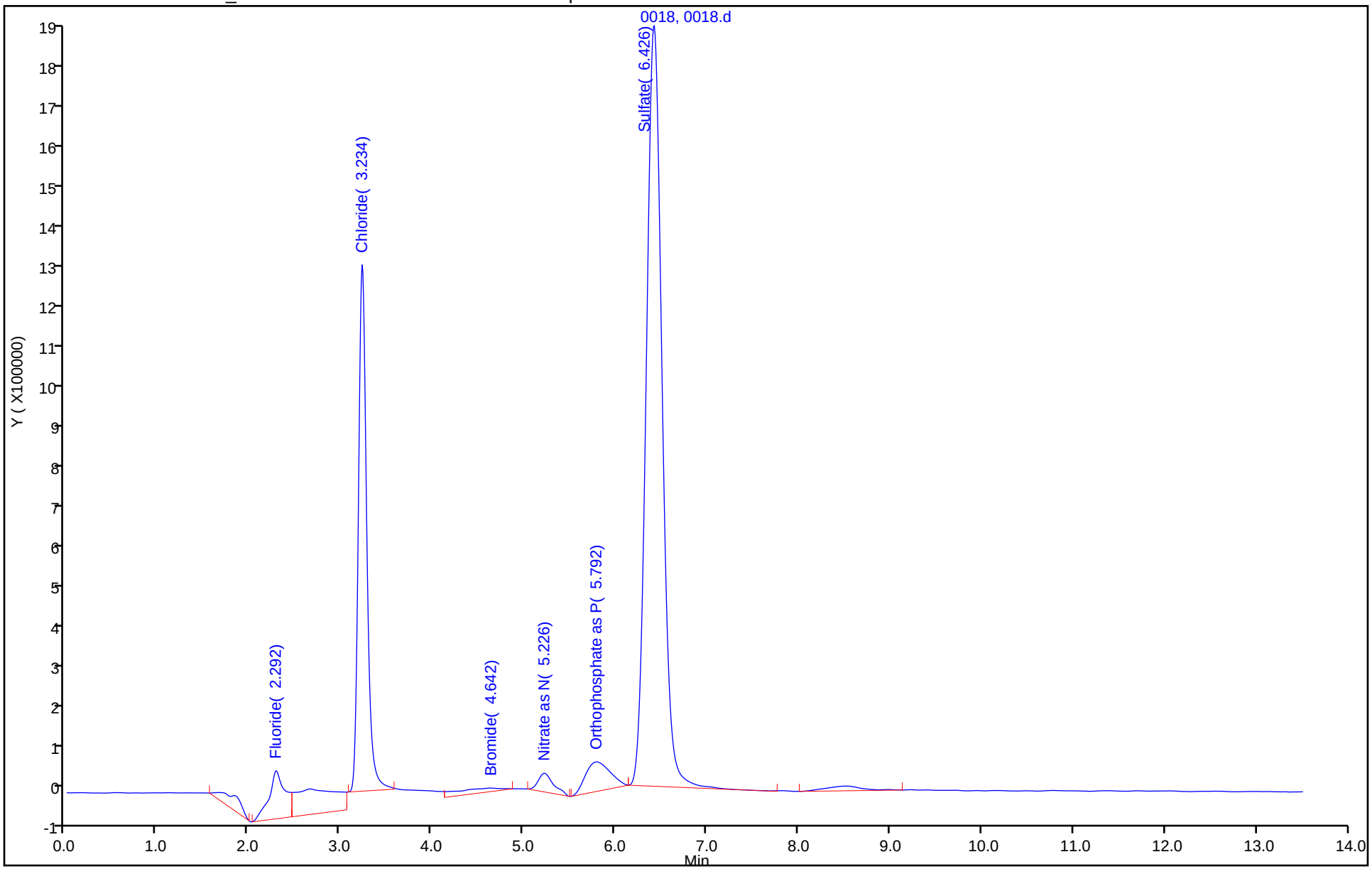
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:55:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0018.d

Injection Date:	15-May-2019 21:55:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-3 DU			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0018.d
Lims ID: 280-123814-I-3 DU
Client ID:
Sample Type: DU
Inject. Date: 15-May-2019 21:55:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-018
Misc. Info.: 12941 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:54:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	1438006		0.0436	
2 Chloride	3.234	3.250	-0.016	8091127		1.82	M
3 Nitrite as N		3.892				ND	
4 Bromide	4.642	4.642	0.000	390512		0.2084	
5 Nitrate as N	5.226	5.200	0.026	530011		NC	
7 Orthophosphate as P	5.792	5.659	0.133	1340303		NC	
6 Sulfate	6.426	6.442	-0.016	22218485		5.41	

QC Flag Legend

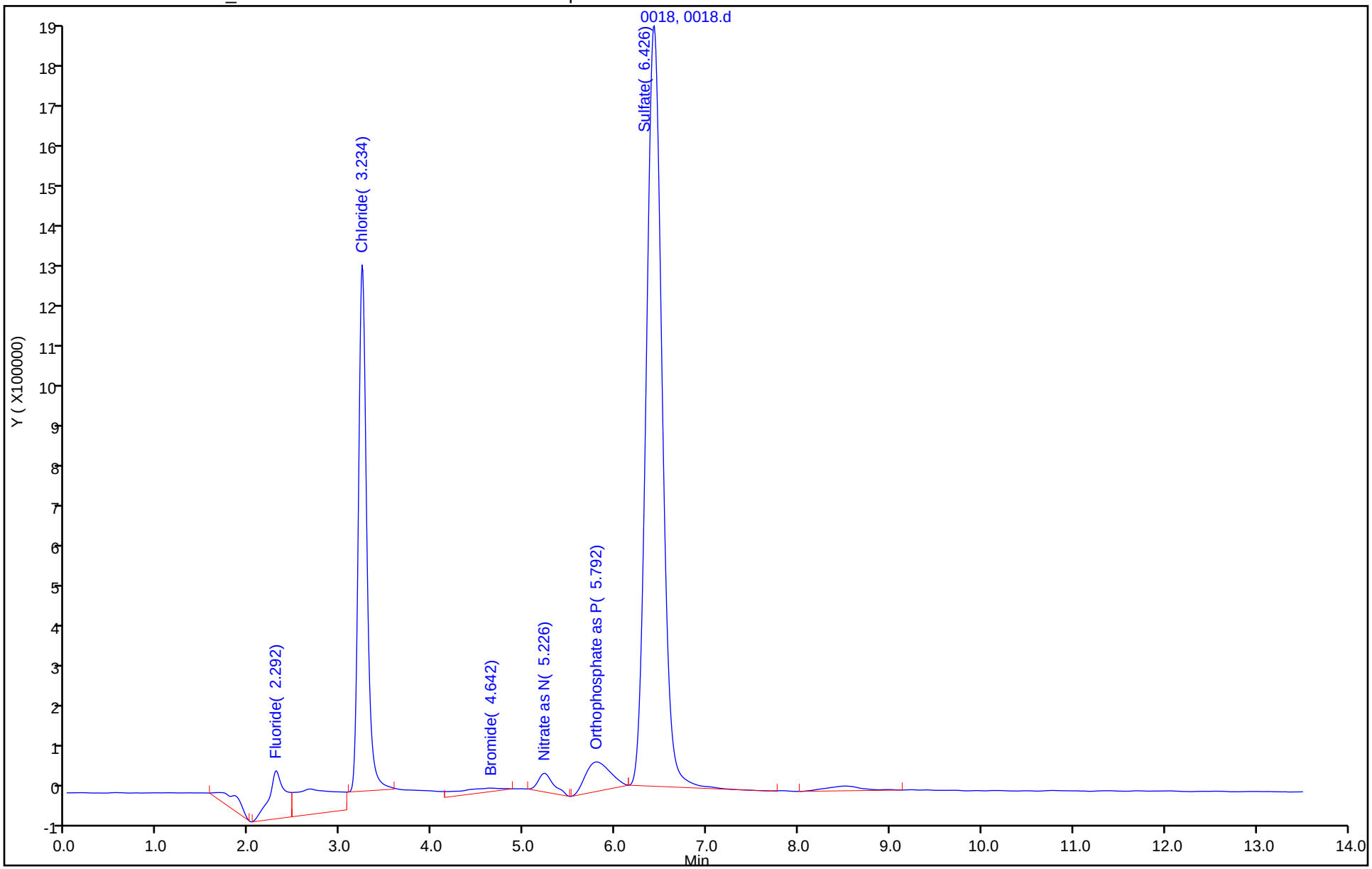
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:55:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0018.d

Injection Date:	15-May-2019 21:55:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-3 DU			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

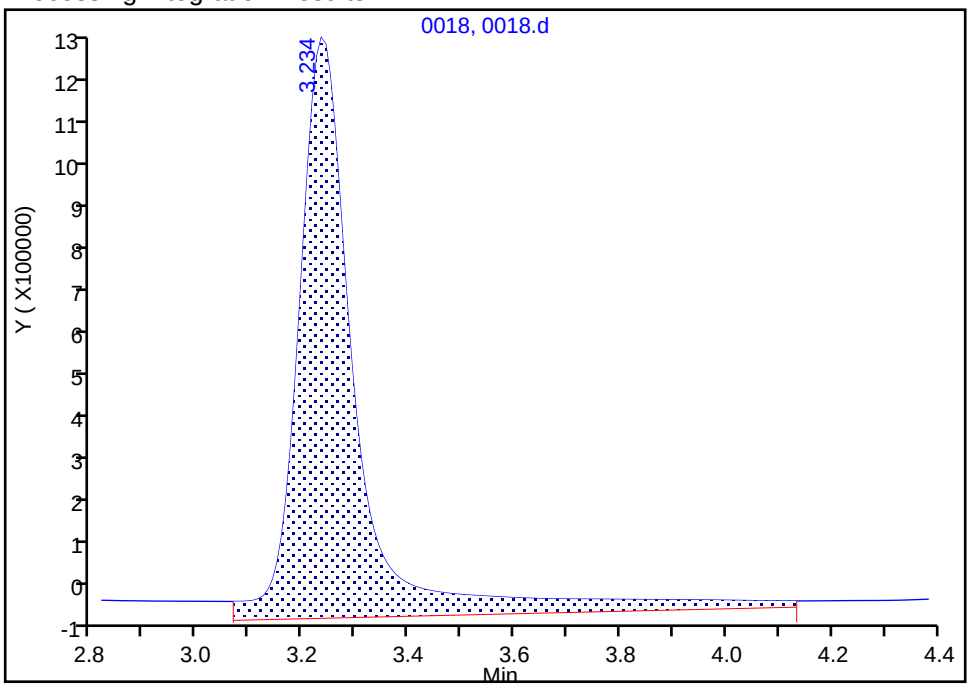
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0018.d		
Injection Date:	15-May-2019 21:55:00	Instrument ID:	WC_IonChrom11
Lims ID:	280-123814-I-3 DU		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

2 Chloride, CAS: 16887-00-6

Signal: 1

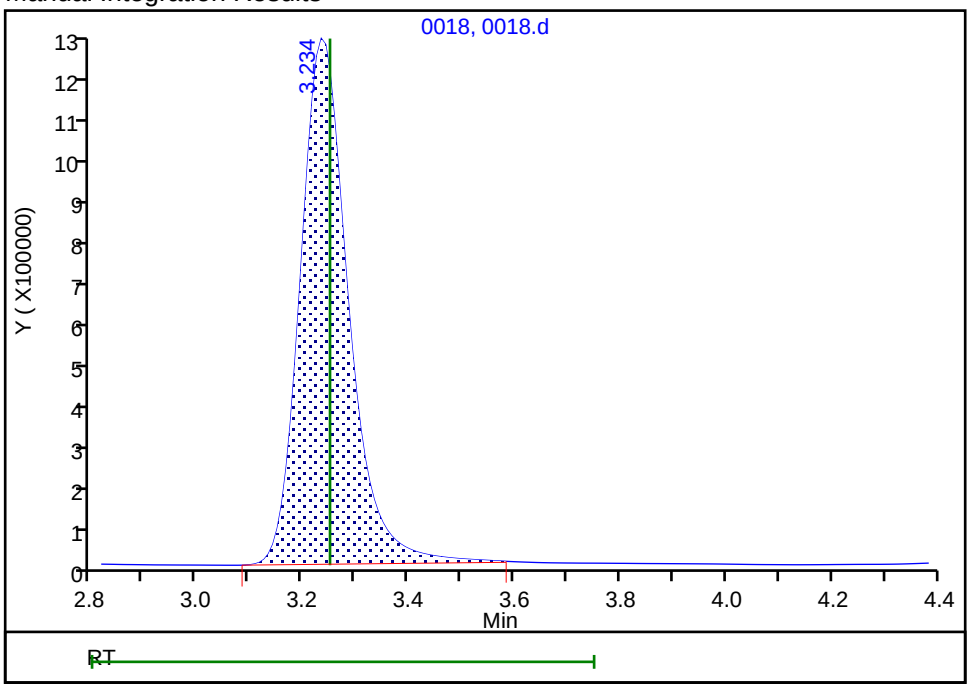
Processing Integration Results

RT: 3.23
Area: 10127832
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 8091127
Amount: 1.820491
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:54:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0019.d
Lims ID: 280-123814-I-3 MS
Client ID:
Sample Type: MS
Inject. Date: 15-May-2019 22:11:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-019
Misc. Info.: 29573 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	37901924	NC	NC	
2 Chloride	3.234	3.250	-0.016	147175850	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	50876343	5.00	4.87	
4 Bromide	4.634	4.642	-0.008	10106525	NC	NC	
5 Nitrate as N	5.209	5.200	0.009	58038177	5.00	5.04	
7 Orthophosphate as P	5.684	5.659	0.025	32353057	5.00	7.80	
6 Sulfate	6.434	6.442	-0.008	117404561	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

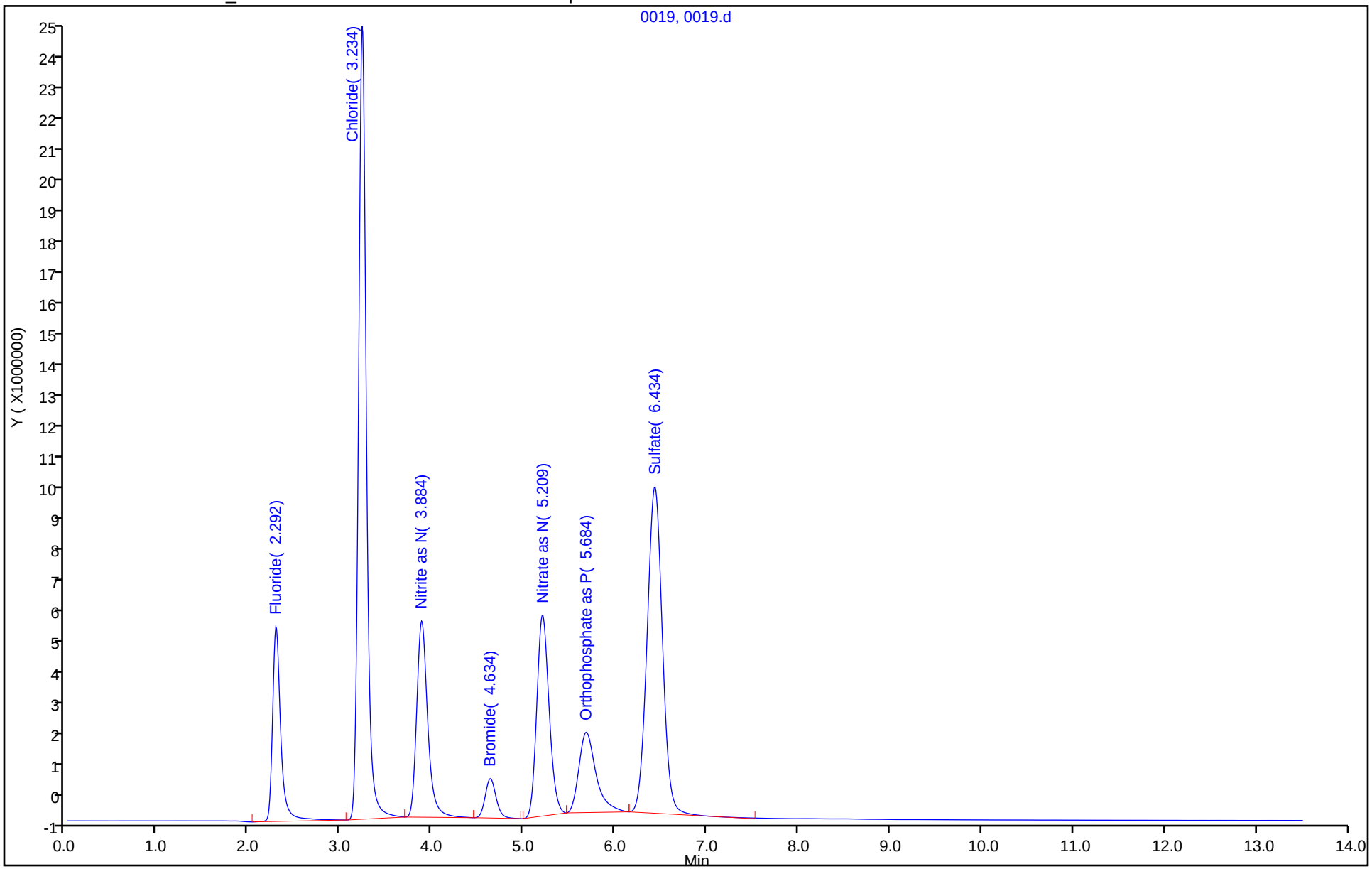
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:55:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0019.d

Injection Date:	15-May-2019 22:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-3 MS			Worklist Smp#:	19
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0019.d
Lims ID: 280-123814-I-3 MS
Client ID:
Sample Type: MS
Inject. Date: 15-May-2019 22:11:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-019
Misc. Info.: 29573 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	37901924	5.00	5.07	
2 Chloride	3.234	3.250	-0.016	147175850	25.0	22.5	
3 Nitrite as N	3.884	3.892	-0.008	50876343	NC	NC	
4 Bromide	4.634	4.642	-0.008	10106525	5.00	5.20	
5 Nitrate as N	5.209	5.200	0.009	58038177	NC	NC	
7 Orthophosphate as P	5.684	5.659	0.025	32353057	NC	NC	
6 Sulfate	6.434	6.442	-0.008	117404561	25.0	26.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

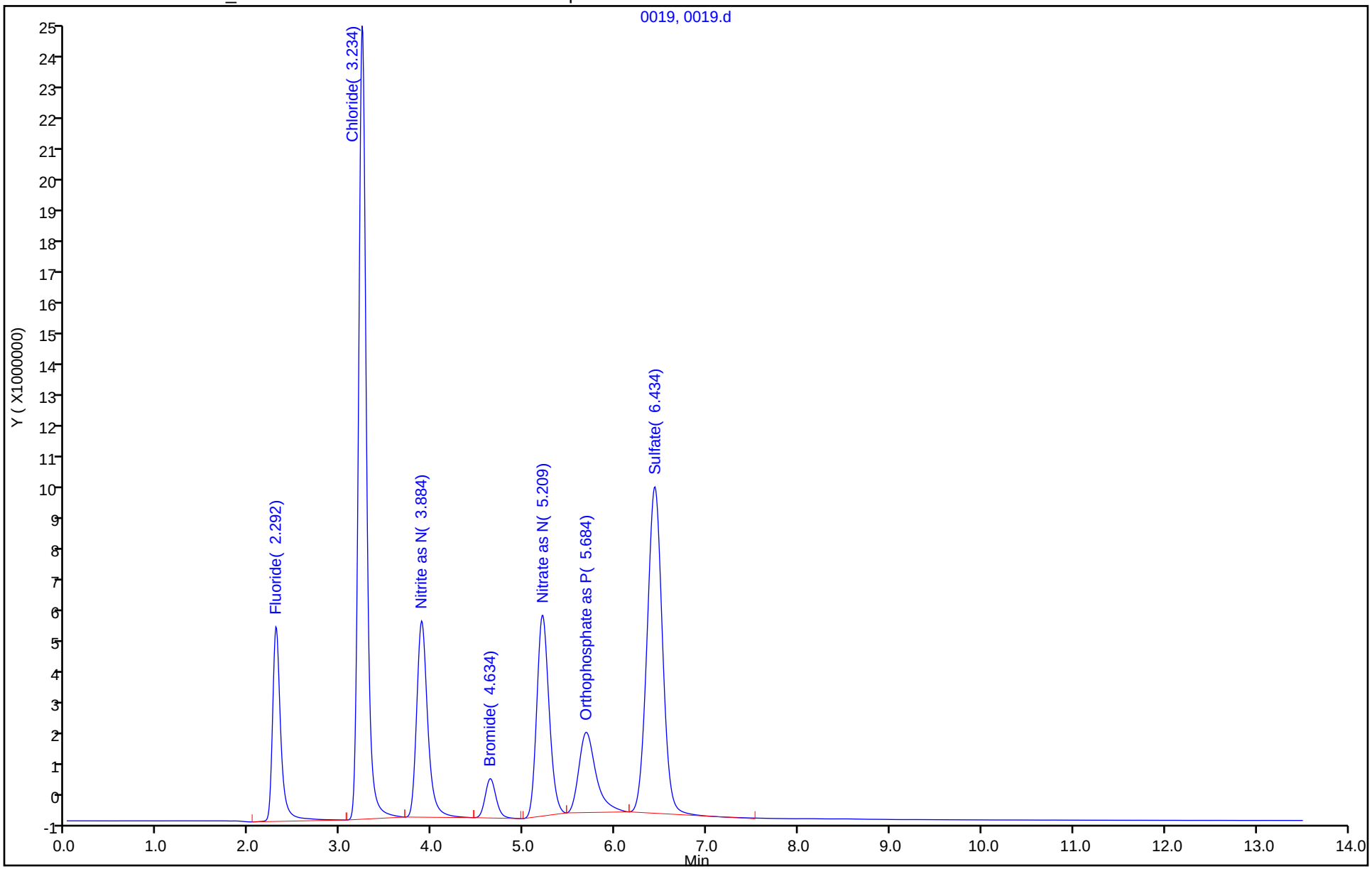
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:55:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0019.d

Injection Date:	15-May-2019 22:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-3 MS			Worklist Smp#:	19
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0020.d
Lims ID: 280-123814-I-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 15-May-2019 22:28:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-020
Misc. Info.: 29857 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	38433237	NC	NC	
2 Chloride	3.242	3.250	-0.008	149134200	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	51541494	5.00	4.94	
4 Bromide	4.634	4.642	-0.008	10248511	NC	NC	
5 Nitrate as N	5.209	5.200	0.009	58738250	5.00	5.10	
7 Orthophosphate as P	5.684	5.659	0.025	32712173	5.00	7.89	
6 Sulfate	6.434	6.442	-0.008	119371109	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

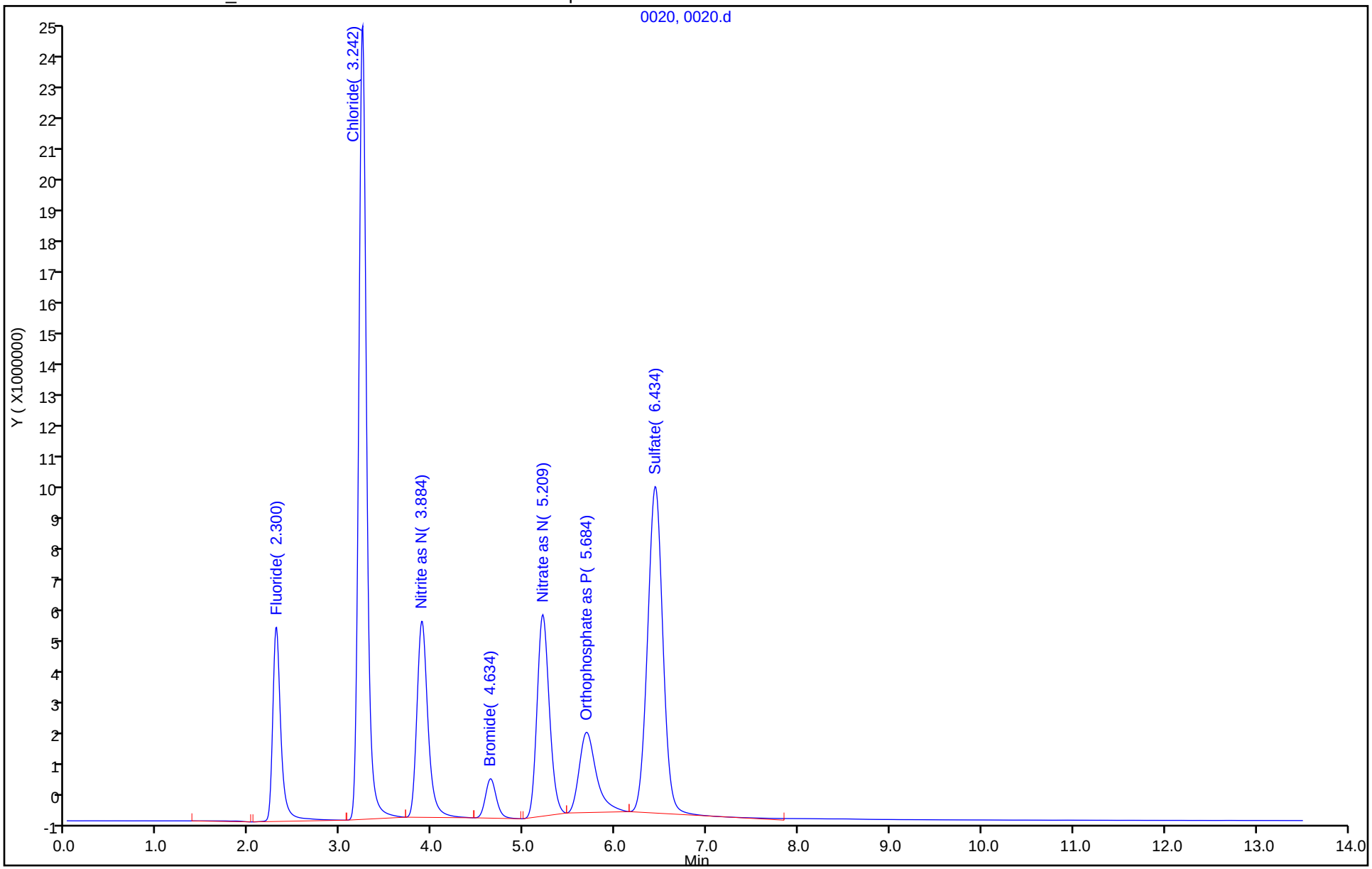
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:55:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0020.d

Injection Date:	15-May-2019 22:28:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-3 MSD			Worklist Smp#:	20
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0020.d
Lims ID: 280-123814-I-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 15-May-2019 22:28:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-020
Misc. Info.: 29857 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	38433237	5.00	5.14	
2 Chloride	3.242	3.250	-0.008	149134200	25.0	22.8	
3 Nitrite as N	3.884	3.892	-0.008	51541494	NC	NC	
4 Bromide	4.634	4.642	-0.008	10248511	5.00	5.28	
5 Nitrate as N	5.209	5.200	0.009	58738250	NC	NC	
7 Orthophosphate as P	5.684	5.659	0.025	32712173	NC	NC	
6 Sulfate	6.434	6.442	-0.008	119371109	25.0	27.1	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

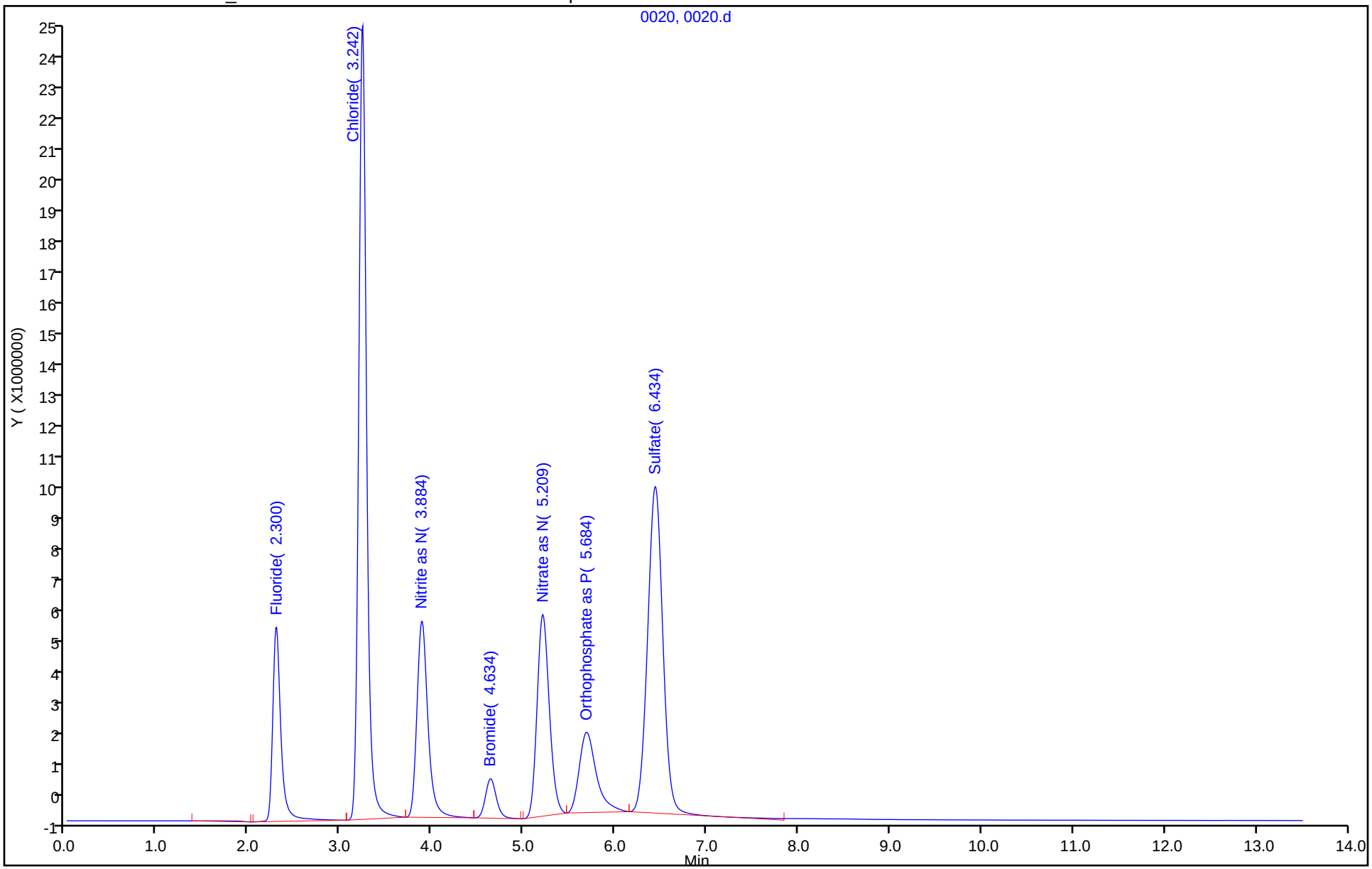
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:55:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0020.d

Injection Date:	15-May-2019 22:28:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123814-I-3 MSD			Worklist Smp#:	20
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0021.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 15-May-2019 22:44:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-021
Misc. Info.: 2231
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	35660894	NC	NC	
2 Chloride	3.250	3.250	0.000	635706631	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	50549475	5.00	4.84	
4 Bromide	4.634	4.642	-0.008	9540990	NC	NC	
5 Nitrate as N	5.200	5.200	0.000	55886353	5.00	4.85	
7 Orthophosphate as P	5.650	5.659	-0.009	21052948	5.00	5.07	
6 Sulfate	6.442	6.442	0.000	415837430	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

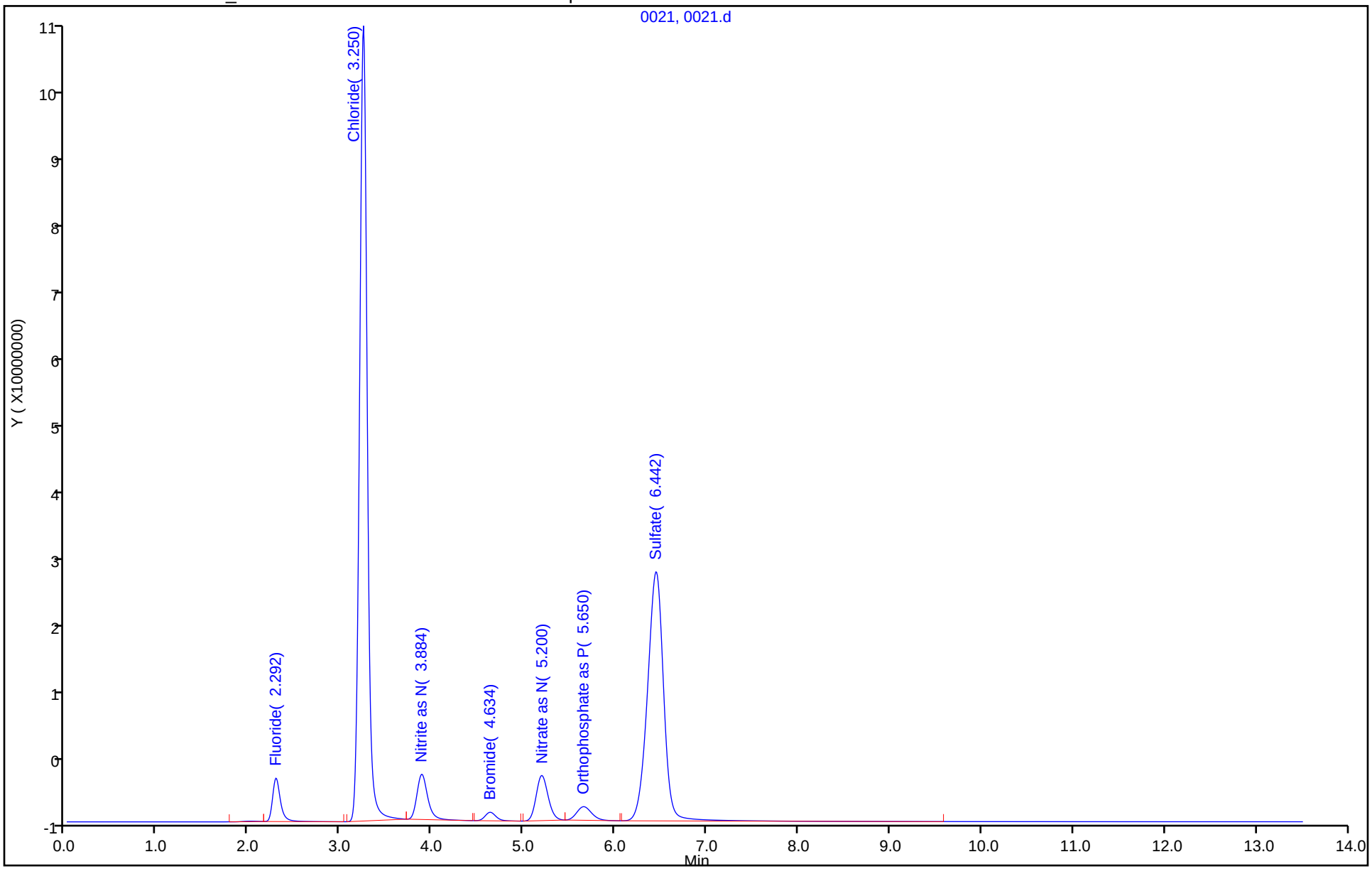
IC LCS_01576 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 07:55:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0021.d

Injection Date:	15-May-2019 22:44:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	21
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0021.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 15-May-2019 22:44:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-021
Misc. Info.: 2231
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.300	-0.008	35660894	5.00	4.76	
2 Chloride	3.250	3.250	0.000	635706631	100.0	95.2	
3 Nitrite as N	3.884	3.892	-0.008	50549475	NC	NC	
4 Bromide	4.634	4.642	-0.008	9540990	5.00	4.91	
5 Nitrate as N	5.200	5.200	0.000	55886353	NC	NC	
7 Orthophosphate as P	5.650	5.659	-0.009	21052948	NC	NC	
6 Sulfate	6.442	6.442	0.000	415837430	100.0	93.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

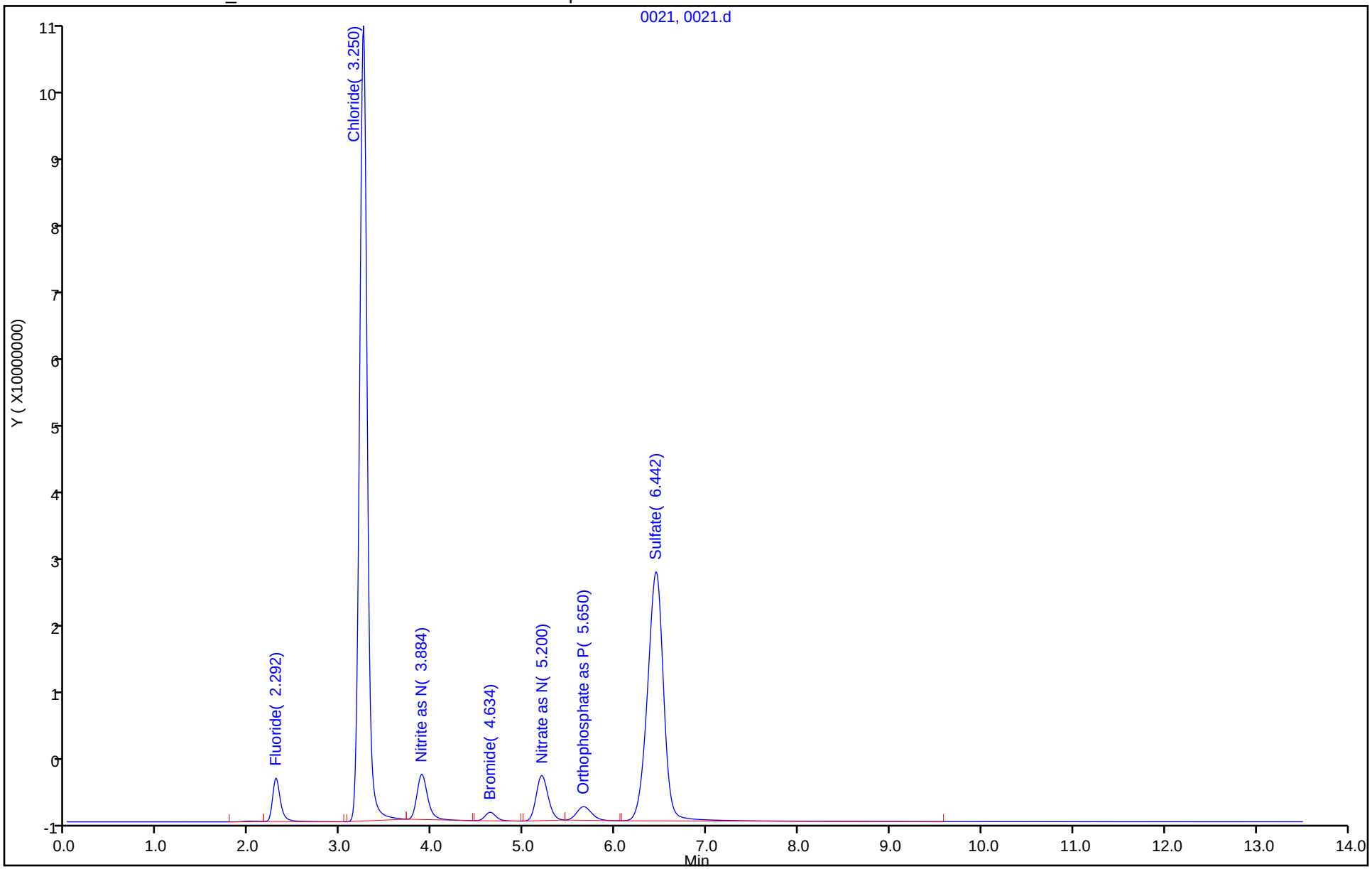
IC LCS_01576 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 07:55:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0021.d

Injection Date:	15-May-2019 22:44:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	21
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0022.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 15-May-2019 23:01:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-022
Misc. Info.: 7142
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:53:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.667	2.300	0.367	19019		NC	M
2 Chloride		3.250				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.734	5.659	0.075	259605		0.0548	
6 Sulfate	6.409	6.442	-0.033	172708		NC	

QC Flag Legend

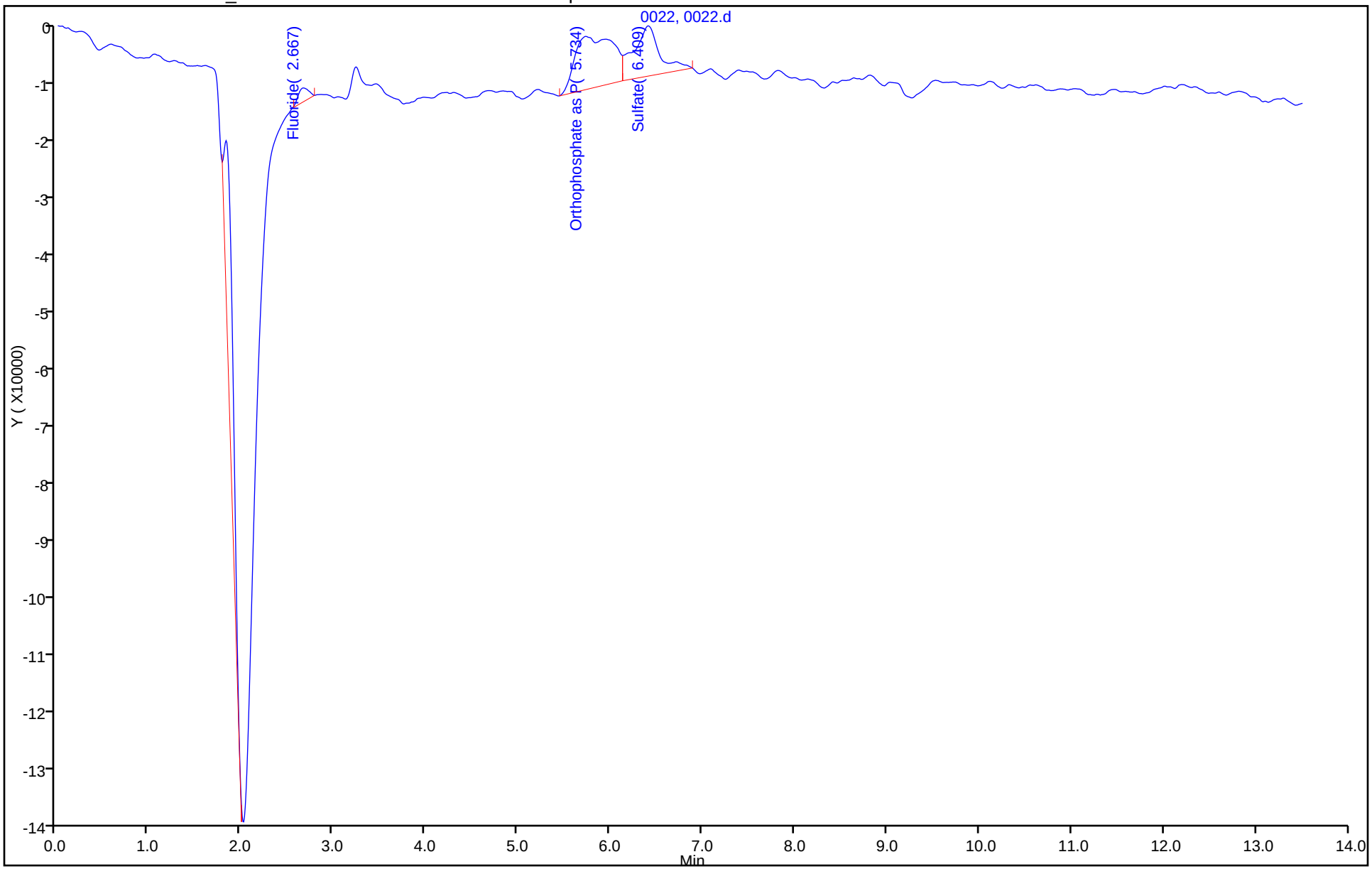
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:55:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0022.d

Injection Date:	15-May-2019 23:01:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	22
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0022.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 15-May-2019 23:01:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-022
Misc. Info.: 7142
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:48 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:53:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.667	2.300	0.367	19019		-0.1520	M
2 Chloride		3.250				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.734	5.659	0.075	259605		NC	
6 Sulfate	6.409	6.442	-0.033	172708		0.4759	

QC Flag Legend

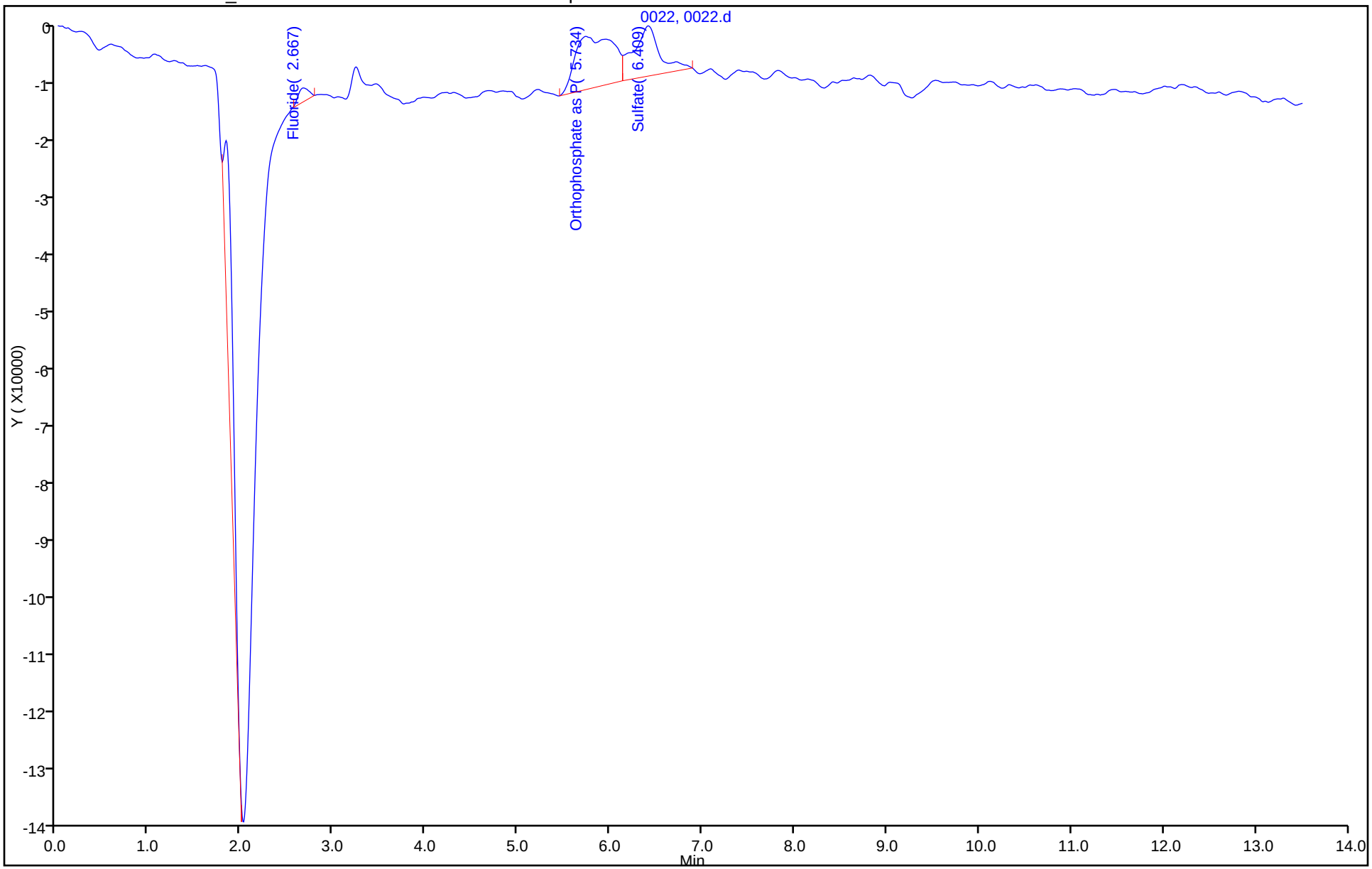
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:55:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0022.d

Injection Date:	15-May-2019 23:01:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	22
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

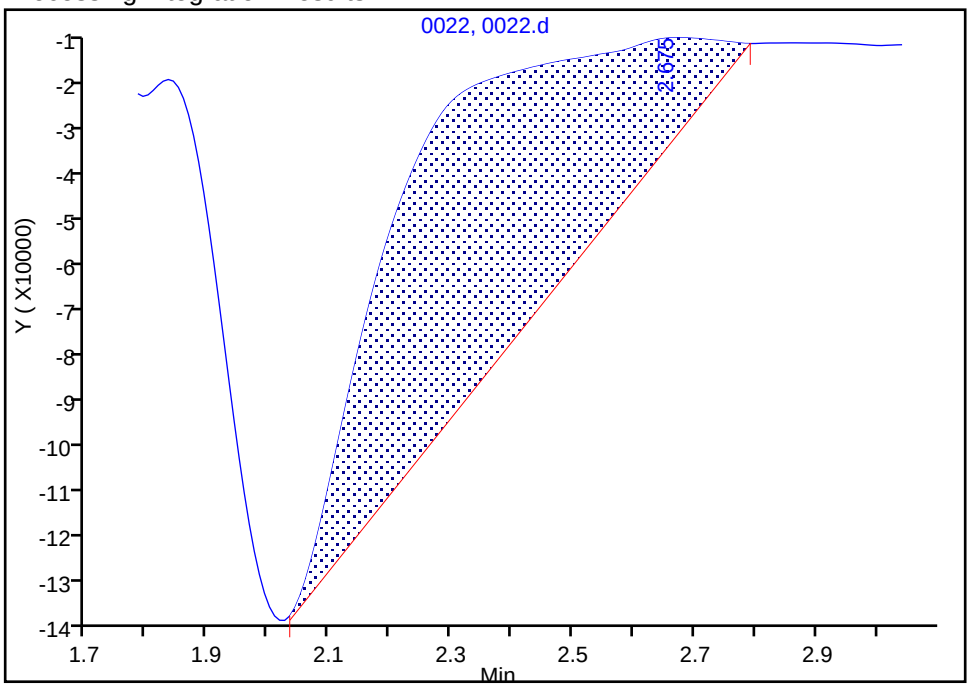
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0022.d		
Injection Date:	15-May-2019 23:01:00	Instrument ID:	WC_IonChrom11
Lims ID:	ccb		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 22
Injection Vol:	10.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

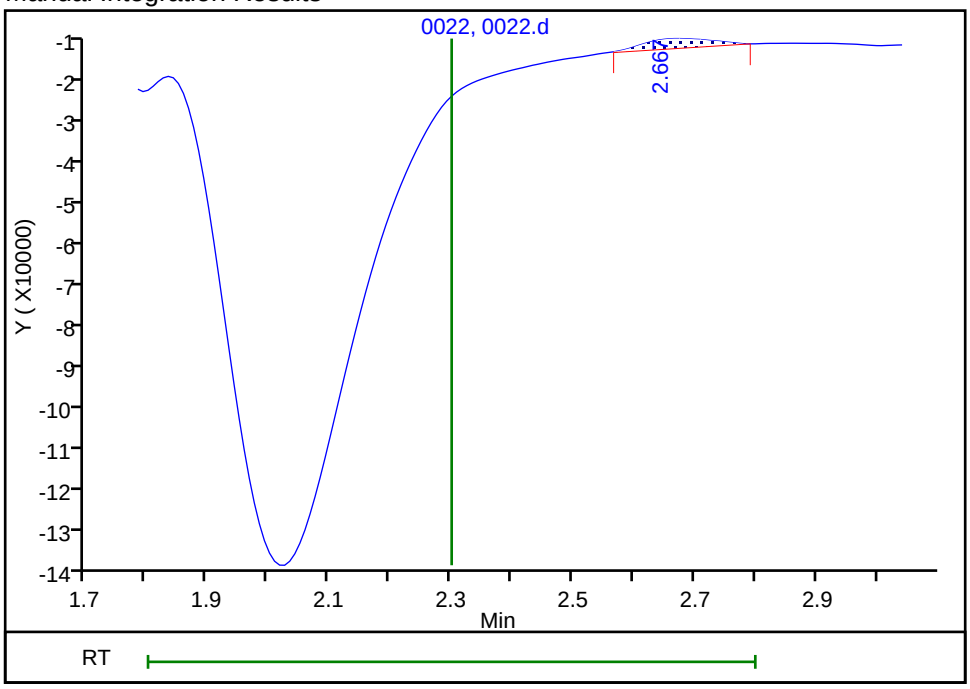
Processing Integration Results

RT: 2.68
Area: 1795035
Amount: 0.092858
Amount Units: ug/ml



Manual Integration Results

RT: 2.67
Area: 19019
Amount: -0.151961
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:53:17
Audit Action: Manually Integrated Audit Reason: Peak not integrated

pH & Ultra

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	cl			1
2*	NPOC	ICB	1.000	cl			2
3*	NPOC	LCS	1.000	cl			3
4*	NPOC	LCSD	1.000	cl			4
5*	NPOC	MB	1.000	cl			5
6*	NPOC	TIC	1.000	cl			6
7*	NPOC	280-123712-b-1	100x 1.000	cl	aqua		7
8*	NPOC	MS 280-123712-b-1	100x 1.000	cl			8
9*	NPOC	MSD 280-123712-b-1	100x 1.000	cl			9
10*	NPOC	280-123712-c-1	100x 1.000	cl			10
11*	NPOC	MS 280-123712-c-1	100x 1.000	cl			11
12*	NPOC	MSD 280-123712-c-1	100x 1.000	cl			12
13*	NPOC	280-123712-b-2	100x 1.000	cl			13
14*	NPOC	280-123712-c-2	100x 1.000	cl			14
15*	NPOC	280-123605-m-5	1.000	cl			15
16*	NPOC	CCV	1.000	cl			16
17*	NPOC	CCB	1.000	cl			17
18*	NPOC	280-123619-c-6	1.000	cl			18
19*	NPOC	280-123624-b-1	1.000	cl			19
20*	NPOC	280-123624-b-2	1.000	cl			20
21*	NPOC	280-123691-c-1	1.000	cl			21
22*	NPOC	280-123691-c-2	1.000	cl			22
23*	NPOC	280-123692-c-1	1.000	cl			23
24*	NPOC	280-123692-c-2	1.000	cl			24
25*	NPOC	280-123693-c-1	1.000	cl			25
26*	NPOC	~~280-123693-c-2~~ CCV	1.000	cl			26
27*	NPOC	~~280-123693-d-3~~ CCB	1.000	cl			27
28*	NPOC	~~CCV~~	1.000	cl			28
29*	NPOC	~~CCB~~	1.000	cl			29
30*	NPOC	280-123693-d-4	1.000	cl			30
31*	NPOC	280-123730-a-8	1.000	cl			31
32*	NPOC	280-123730-a-9	1.000	cl			32
33*	NPOC	280-123730-a-10	1.000	cl			33
34*	NPOC	280-123730-a-11	1.000	cl			34
35*	NPOC	LCS	1.000	cl			35
36*	NPOC	LCSD	1.000	cl			36
37*	NPOC	MB	1.000	cl			37
38*	NPOC	TIC	1.000	cl			38
39*	NPOC	280-123730-a-12	1.000	cl			39
40*	NPOC	CCV	1.000	cl			40
41*	NPOC	CCB	1.000	cl			41
42*	NPOC	280-123730-a-17	1.000	cl			42
43*	NPOC	280-123730-a-18	1.000	cl			43
44*	NPOC	280-123730-a-24	1.000	cl			44
45*	NPOC	280-123730-a-25	1.000	cl			45
46*	NPOC	280-123829-b-4	1.000	cl			46
47*	NPOC	280-123766-a-5	1.000	cl			47
48*	NPOC	280-123757-c-1	1.000	cl			48
49*	NPOC	280-123757-b-2	1.000	cl			49
50*	NPOC	280-123757-b-3	1.000	cl			50
51*	NPOC	280-123757-c-4	1.000	cl			51

pH ultra

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
52*	NPOC	CCV	1.000				52
53*	NPOC	CCB	1.000				53
54*	NPOC	280-123757-c-5	1.000				54
55*	NPOC	280-123814-e-1	1.000				55
56*	NPOC	280-123814-e-2	1.000				56
57*	NPOC	280-123814-d-3	1.000				57
58*	NPOC	280-123829-b-1	1.000				58
59*	NPOC	280-123829-b-2	1.000				59
60*	NPOC	280-123829-b-3	1.000				60
61*	NPOC T	280-123590-d-2	100p 1.000		out of temp		61
62*	NPOC T	MS 280-123590-d-2	100p 1.000				62
63*	NPOC T	MSD 280-123590-d-2	100p 1.000				63
64*	NPOC	CCV	1.000				64
65*	NPOC	CCB	1.000				65
66*	NPOC D	280-123590-c-2	100p 1.000		out of temp		66
67*	NPOC D	MS 280-123590-c-2	100p 1.000				67
68*	NPOC D	MSD 280-123590-c-2	100p 1.000				68
69*	NPOC	CCV	1.000				69
70*	NPOC	CCB	1.000				70

Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	ICV
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

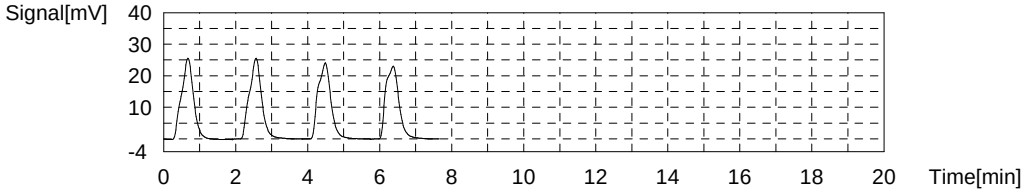
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.48mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.08	20.61mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 3:35:01 PM
2	61.49	20.75mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 3:37:08 PM
3	60.35	20.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 3:39:12 PM
4	59.88	20.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 3:41:15 PM

Mean Area 60.70
Mean Conc. 20.48mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

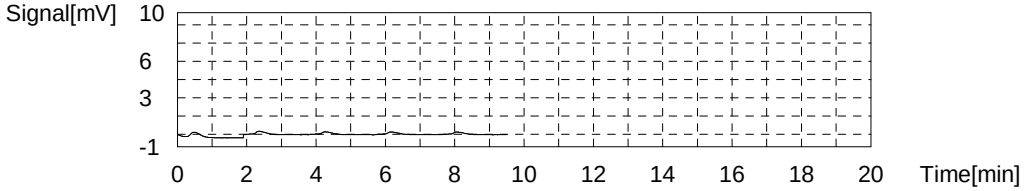
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04443mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6968	0.1542mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 3:49:47 PM
2	0.4230	0.06140mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 3:51:51 PM
3	0.3326	0.03077mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 3:53:55 PM
4	0.4205	0.06055mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 3:55:59 PM
5	0.3155	0.02498mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 3:58:02 PM

Mean Area 0.3729
Mean Conc. 0.04443mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

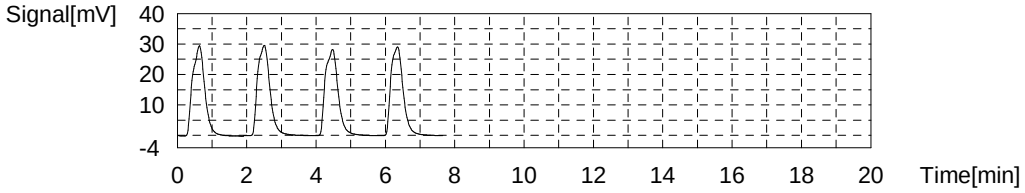
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.68mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	73.37	24.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:06:33 PM
2	74.07	25.01mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:08:40 PM
3	72.83	24.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:10:44 PM
4	72.04	24.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:12:47 PM

Mean Area 73.08
Mean Conc. 24.68mg/L



Sample

Sample Name: LCSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

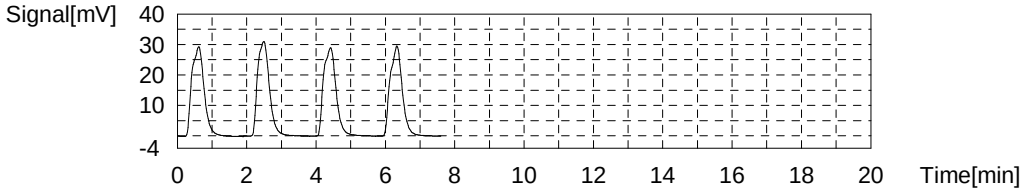
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.84mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.04	25.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:21:19 PM
2	74.42	25.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:23:23 PM
3	73.31	24.75mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:25:27 PM
4	72.45	24.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:27:30 PM

Mean Area 73.56
Mean Conc. 24.84mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

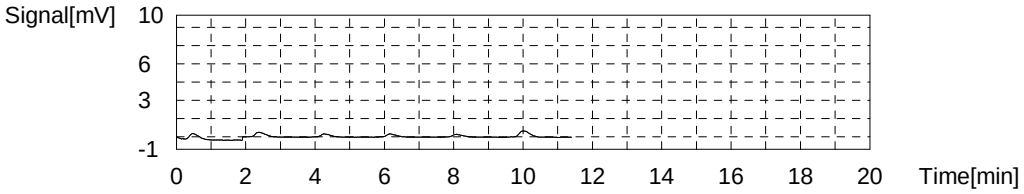
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09207mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8235	0.1971mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:36:02 PM
2	0.7479	0.1715mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:38:06 PM
3	0.4349	0.06543mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:40:10 PM
4	0.4541	0.07193mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:42:13 PM
5	0.4172	0.05943mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:44:17 PM
6	0.9869	0.2524mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:46:21 PM

Mean Area 0.5135
Mean Conc. 0.09207mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

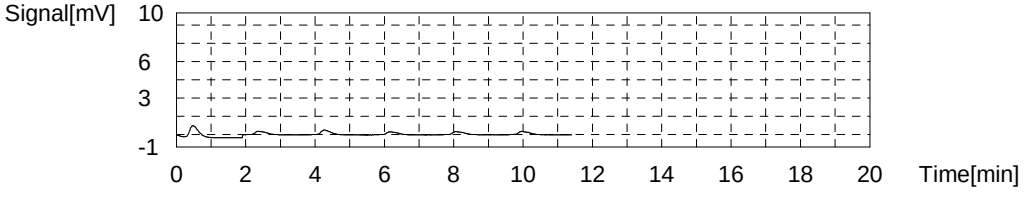
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09169mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.585	0.4551mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:54:47 PM
2	0.5509	0.1047mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:56:51 PM
3	0.7063	0.1574mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 4:58:55 PM
4	0.4748	0.07895mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:00:58 PM
5	0.5091	0.09057mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:03:02 PM
6	0.5149	0.09253mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:05:06 PM

Mean Area 0.5124
Mean Conc. 0.09169mg/L



Sample

Sample Name: 280-123712-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

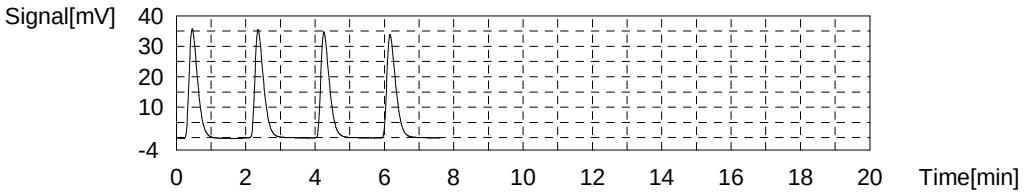
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:2082mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.55	2111mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:13:32 PM
2	62.67	2115mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:15:36 PM
3	60.65	2047mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:17:40 PM
4	60.98	2058mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:19:44 PM

Mean Area 61.71
Mean Conc. 2082mg/L



Sample

Sample Name: MS 280-123712-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

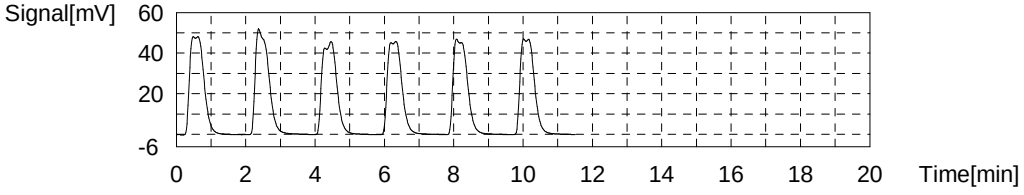
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:4505mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	139.1	4704mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:28:16 PM
2	138.4	4681mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:30:20 PM
3	134.2	4538mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:32:24 PM
4	132.0	4464mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:34:28 PM
5	133.2	4504mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:36:33 PM
6	133.5	4515mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:38:41 PM

Mean Area 133.2
Mean Conc. 4505mg/L



Sample

Sample Name: MSD 280-123712-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

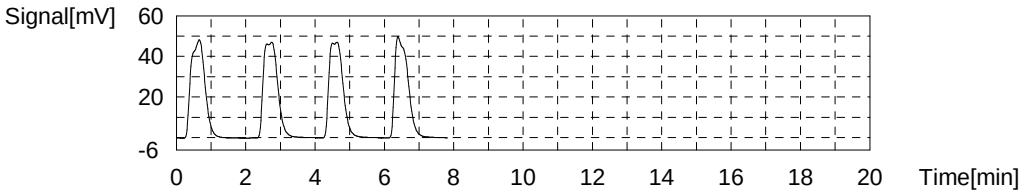
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:4558mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	137.7	4657mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:47:20 PM
2	135.9	4596mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:49:24 PM
3	133.2	4504mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:51:27 PM
4	132.3	4474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 5:53:31 PM

Mean Area 134.8
Mean Conc. 4558mg/L



Sample

Sample Name: 280-123712-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

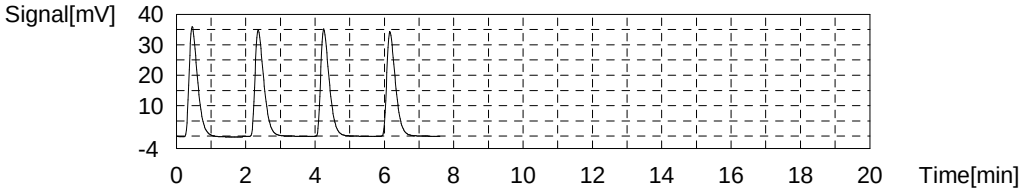
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:2087mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.77	2118mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:02:03 PM
2	62.57	2112mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:04:07 PM
3	61.24	2066mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:06:11 PM
4	60.82	2052mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:08:14 PM

Mean Area 61.85
Mean Conc. 2087mg/L



Sample

Sample Name: MS 280-123712-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

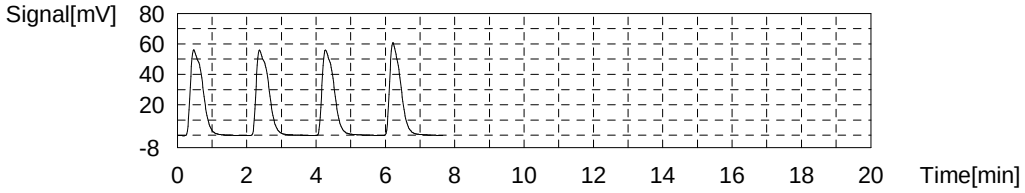
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:4629mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	138.8	4694mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:16:46 PM
2	139.0	4701mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:18:50 PM
3	134.8	4559mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:20:57 PM
4	134.9	4562mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:23:00 PM

Mean Area 136.9
Mean Conc. 4629mg/L



Sample

Sample Name: MSD 280-123712-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

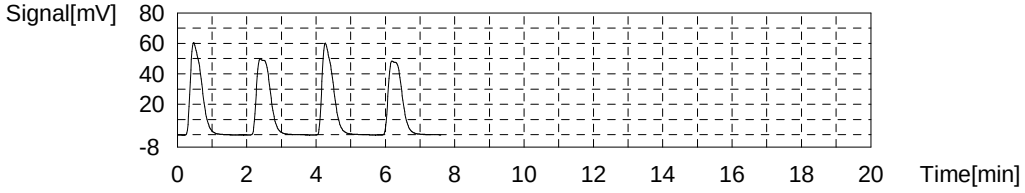
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:4574mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	137.5	4650mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:31:32 PM
2	137.2	4640mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:33:36 PM
3	134.0	4531mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:35:40 PM
4	132.3	4474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:37:43 PM

Mean Area 135.3
Mean Conc. 4574mg/L



Sample

Sample Name: 280-123712-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

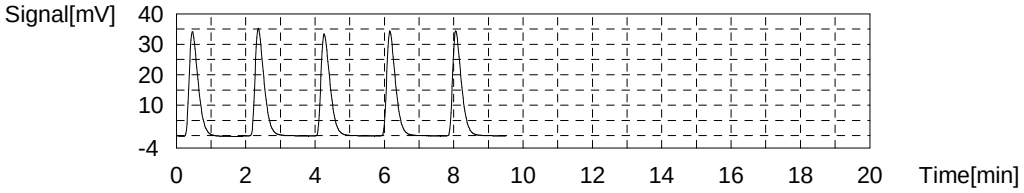
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:2073mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.28	2102mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:46:15 PM
2	63.78	2153mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:48:19 PM
3	61.18	2064mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:50:23 PM
4	61.04	2060mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:52:27 PM
5	61.17	2064mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 6:54:30 PM

Mean Area 61.42
Mean Conc. 2073mg/L



Sample

Sample Name: 280-123712-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

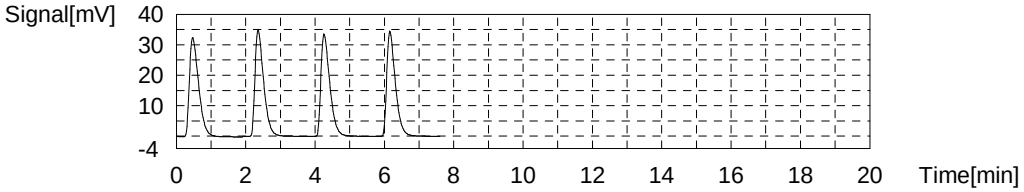
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:2050mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.22	2066mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:03:01 PM
2	61.26	2067mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:05:05 PM
3	60.30	2035mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:07:09 PM
4	60.27	2034mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:09:12 PM

Mean Area 60.76
Mean Conc. 2050mg/L



Sample

Sample Name: 280-123605-m-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

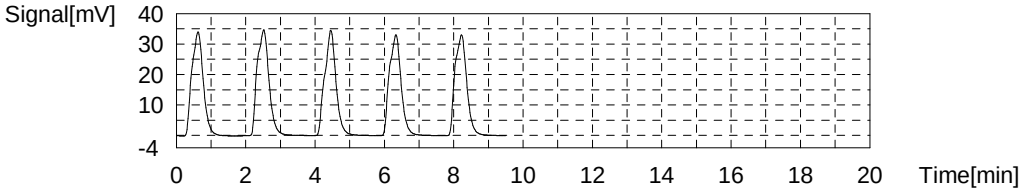
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.70mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.77	26.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:17:44 PM
2	83.06	28.06mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:19:48 PM
3	78.94	26.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:21:52 PM
4	78.62	26.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:23:55 PM
5	78.93	26.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:25:59 PM

Mean Area 79.06
Mean Conc. 26.70mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

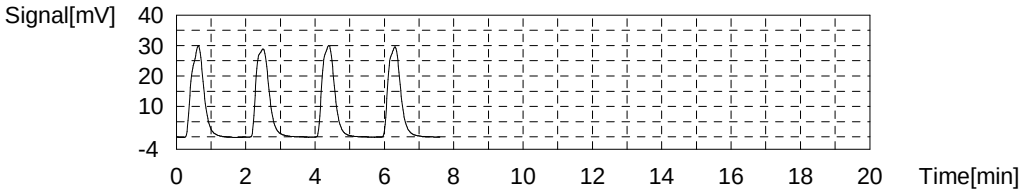
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.82	25.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:34:30 PM
2	75.59	25.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:36:34 PM
3	74.75	25.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:38:38 PM
4	74.55	25.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:40:41 PM

Mean Area 75.18
Mean Conc. 25.39mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

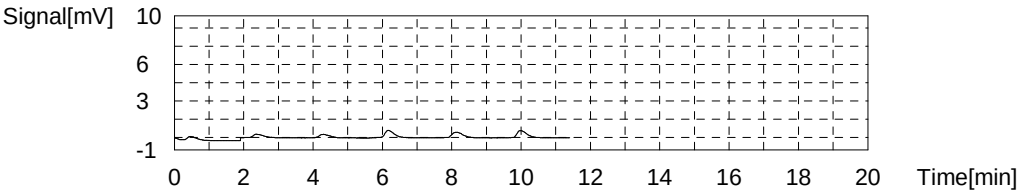
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1324mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5006	0.08769mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:49:13 PM
2	0.5293	0.09741mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:51:17 PM
3	0.5396	0.1009mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:53:21 PM
4	1.061	0.2775mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:55:24 PM
5	0.9611	0.2437mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:57:28 PM
6	1.121	0.2979mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 7:59:32 PM

Mean Area 0.6327
Mean Conc. 0.1324mg/L



Sample

Sample Name: 280-123619-c-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

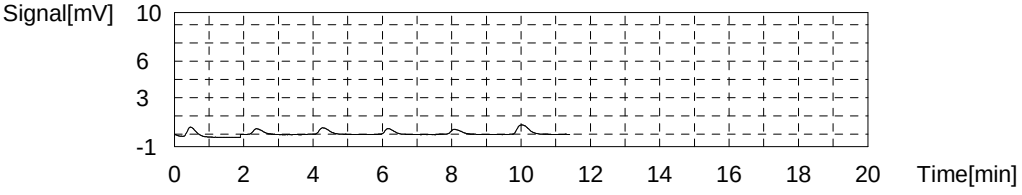
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2226mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.348	0.3748mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:07:58 PM
2	0.9129	0.2274mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:10:02 PM
3	1.045	0.2721mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:12:06 PM
4	0.8481	0.2054mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:14:10 PM
5	0.7897	0.1856mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:16:13 PM
6	1.760	0.5143mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:18:17 PM

Mean Area 0.8989
Mean Conc. 0.2226mg/L



Sample

Sample Name: 280-123624-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

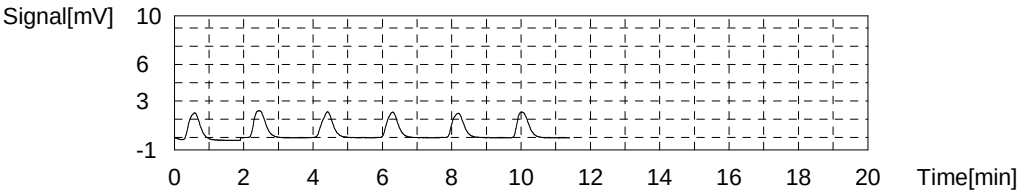
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.496mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.997	1.611mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:26:43 PM
2	5.079	1.639mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:28:47 PM
3	4.630	1.487mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:30:50 PM
4	4.637	1.489mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:32:54 PM
5	4.605	1.478mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:34:58 PM
6	4.763	1.532mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:37:02 PM

Mean Area 4.659
Mean Conc. 1.496mg/L



Sample

Sample Name: 280-123624-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

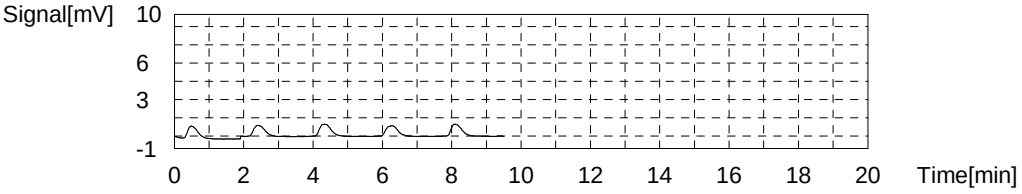
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6010mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.959	0.5818mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:45:28 PM
2	2.015	0.6007mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:47:32 PM
3	2.300	0.6973mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:49:36 PM
4	2.019	0.6021mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:51:39 PM
5	2.070	0.6194mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 8:53:43 PM

Mean Area 2.016
Mean Conc. 0.6010mg/L



Sample

Sample Name: 280-123691-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

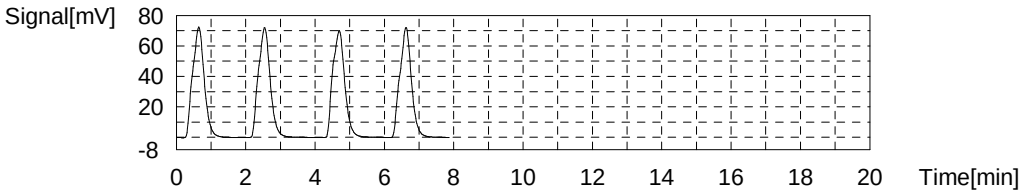
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:57.81mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	171.8	58.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:02:14 PM
2	172.4	58.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:04:34 PM
3	170.1	57.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:06:38 PM
4	169.2	57.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:08:41 PM

Mean Area 170.9
Mean Conc. 57.81mg/L



Sample

Sample Name: 280-123691-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

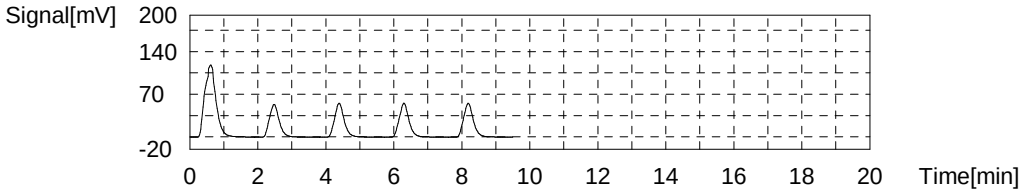
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:88.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	275.5	93.25mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:17:13 PM
2	107.5	86.63mg/L	21uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:19:17 PM
3	108.9	87.76mg/L	21uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:21:20 PM
4	110.3	88.89mg/L	21uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:23:24 PM
5	110.8	89.29mg/L	21uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:25:28 PM

Mean Area 109.4
Mean Conc. 88.14mg/L



Sample

Sample Name: 280-123692-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

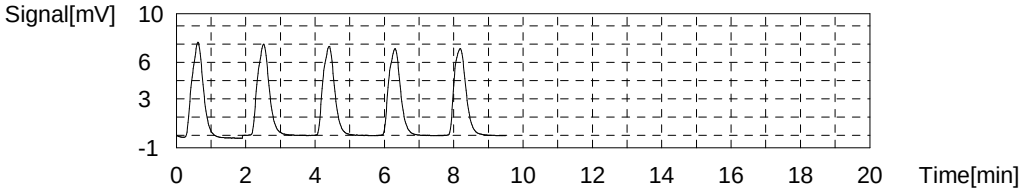
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.722mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.03	6.026mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:33:59 PM
2	17.55	5.864mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:36:03 PM
3	17.01	5.681mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:38:06 PM
4	16.91	5.647mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:40:10 PM
5	17.06	5.698mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:42:14 PM

Mean Area 17.13
Mean Conc. 5.722mg/L



Sample

Sample Name: 280-123692-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

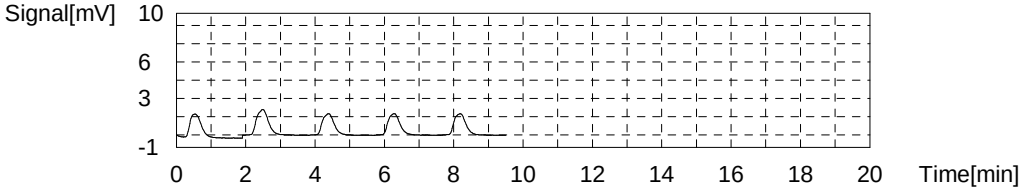
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.312mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.238	1.354mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:50:45 PM
2	4.920	1.585mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:52:49 PM
3	4.085	1.302mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:54:53 PM
4	4.110	1.310mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:56:56 PM
5	4.024	1.281mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 9:59:00 PM

Mean Area 4.114
Mean Conc. 1.312mg/L



Sample

Sample Name: 280-123693-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

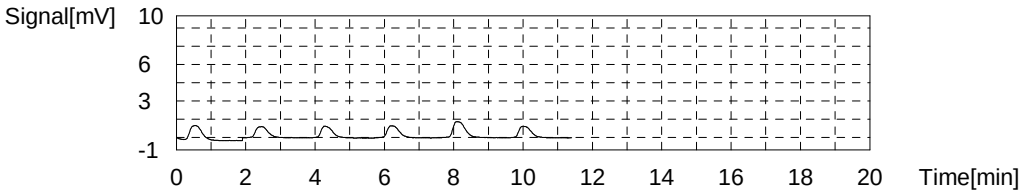
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6479mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.725	0.8413mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:07:31 PM
2	2.108	0.6322mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:09:35 PM
3	2.065	0.6177mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:11:38 PM
4	2.212	0.6675mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:13:42 PM
5	3.158	0.9880mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:15:46 PM
6	2.232	0.6742mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:17:50 PM

Mean Area 2.154
Mean Conc. 0.6479mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

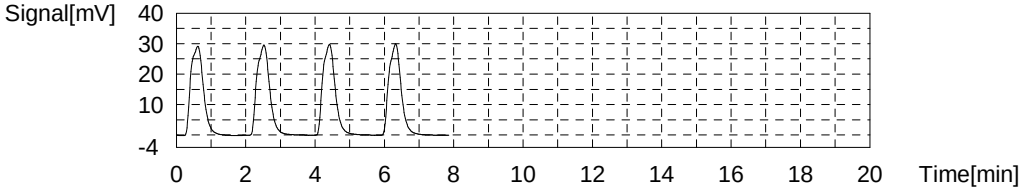
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.64	25.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:26:16 PM
2	75.79	25.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:28:20 PM
3	74.36	25.11mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:30:24 PM
4	74.45	25.14mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:32:42 PM

Mean Area 75.06
Mean Conc. 25.35mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

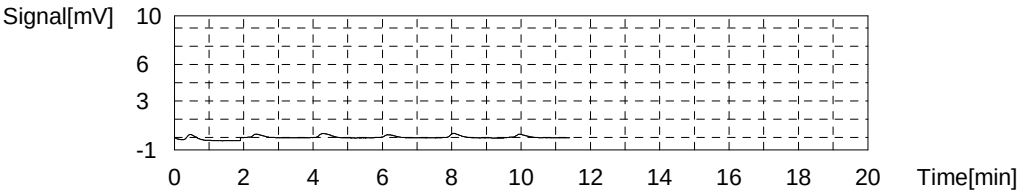
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09053mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7341	0.1668mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:41:14 PM
2	0.4673	0.07641mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:43:18 PM
3	0.7253	0.1638mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:45:21 PM
4	0.4235	0.06157mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:47:25 PM
5	0.6278	0.1308mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:49:29 PM
6	0.5173	0.09335mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:51:33 PM

Mean Area 0.5090
Mean Conc. 0.09053mg/L



Sample

Sample Name:
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

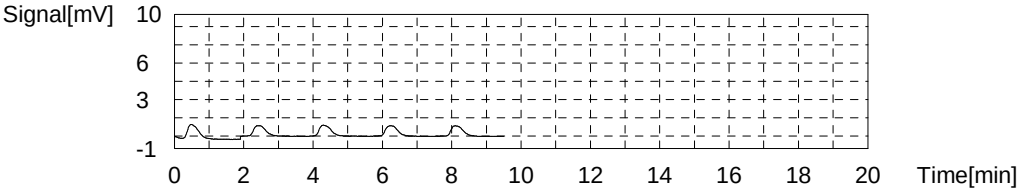
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6029mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.424	0.7393mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 10:59:59 PM
2	2.016	0.6011mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:02:03 PM
3	2.115	0.6346mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:04:06 PM
4	1.992	0.5929mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:06:10 PM
5	1.962	0.5828mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:08:14 PM

Mean Area 2.021
Mean Conc. 0.6029mg/L



Sample

Sample Name:
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

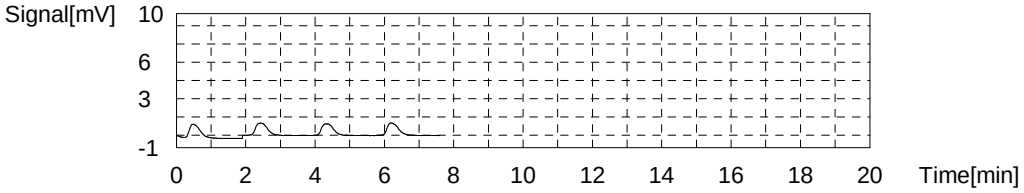
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6832mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.293	0.6949mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:16:45 PM
2	2.363	0.7186mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:18:49 PM
3	2.193	0.6610mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:20:53 PM
4	2.185	0.6583mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:22:56 PM

Mean Area 2.259
Mean Conc. 0.6832mg/L



Sample

Sample Name: 280-123693-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

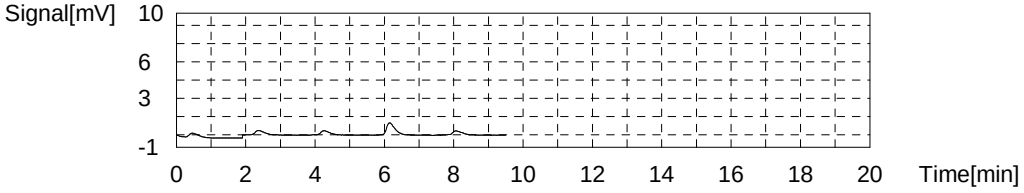
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1240mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5902	0.1180mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:31:28 PM
2	0.6259	0.1301mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:33:32 PM
3	0.5844	0.1161mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:35:36 PM
4	1.680	0.4872mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:37:39 PM
5	0.6310	0.1319mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:39:43 PM

Mean Area 0.6079
Mean Conc. 0.1240mg/L



Sample

Sample Name: 280-123730-a-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

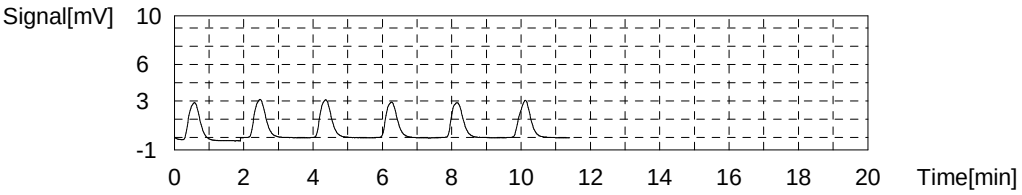
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.264mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.807	2.224mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:48:15 PM
2	7.099	2.323mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:50:19 PM
3	6.953	2.274mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:52:23 PM
4	6.591	2.151mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:54:26 PM
5	6.509	2.123mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:56:30 PM
6	6.837	2.234mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/5/2019 11:58:34 PM

Mean Area 6.924
Mean Conc. 2.264mg/L



Sample

Sample Name: 280-123730-a-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

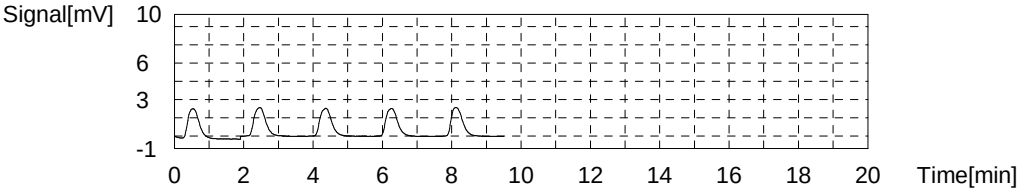
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.718mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.434	1.759mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:07:01 AM
2	5.528	1.791mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:09:05 AM
3	5.232	1.691mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:11:08 AM
4	5.232	1.691mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:13:12 AM
5	5.356	1.733mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:15:16 AM

Mean Area 5.313
Mean Conc. 1.718mg/L



Sample

Sample Name: 280-123730-a-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

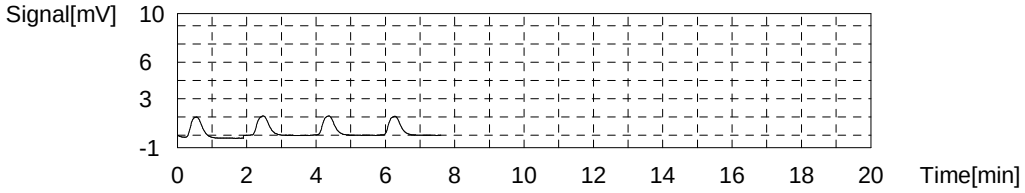
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.158mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.720	1.178mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:23:48 AM
2	3.693	1.169mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:25:52 AM
3	3.569	1.127mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:27:55 AM
4	3.661	1.158mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:29:59 AM

Mean Area 3.661
Mean Conc. 1.158mg/L



Sample

Sample Name: 280-123730-a-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

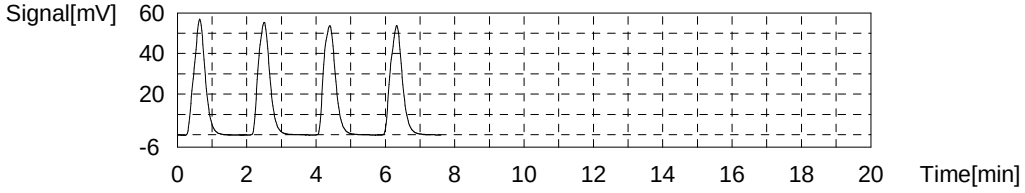
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:43.74mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	130.3	44.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:38:32 AM
2	129.5	43.79mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:40:36 AM
3	128.3	43.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:42:39 AM
4	129.3	43.72mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:44:43 AM

Mean Area 129.4
Mean Conc. 43.74mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

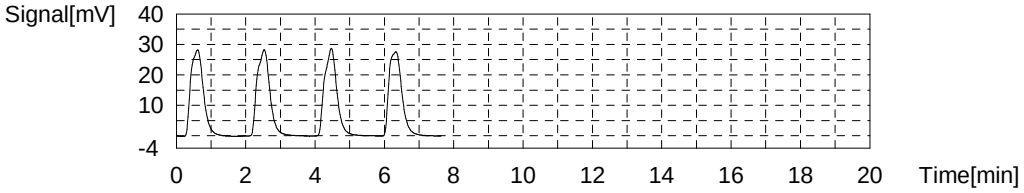
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	73.23	24.73mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:53:16 AM
2	73.10	24.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:55:22 AM
3	71.88	24.27mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:57:26 AM
4	72.34	24.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 12:59:29 AM

Mean Area 72.64
Mean Conc. 24.53mg/L



Sample

Sample Name: LCSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

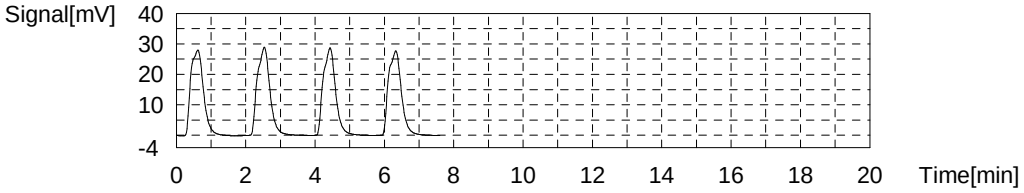
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	73.39	24.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:08:02 AM
2	73.67	24.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:10:06 AM
3	72.03	24.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:12:09 AM
4	72.40	24.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:14:13 AM

Mean Area 72.87
Mean Conc. 24.61mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

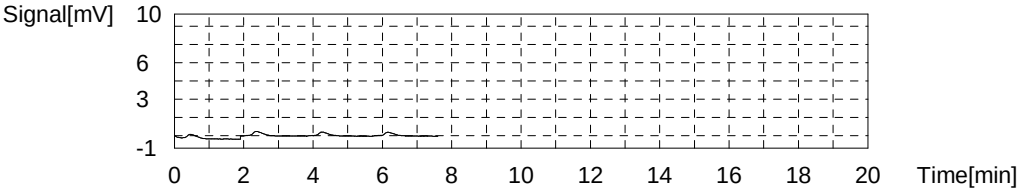
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1017mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5117	0.09145mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:22:46 AM
2	0.6351	0.1333mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:24:50 AM
3	0.5611	0.1082mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:26:53 AM
4	0.4600	0.07393mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:28:57 AM

Mean Area 0.5420
Mean Conc. 0.1017mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

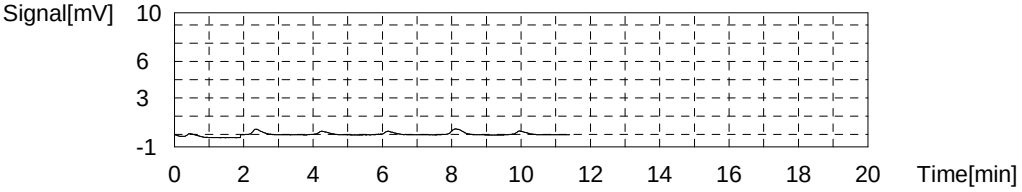
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07632mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4014	0.05408mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:37:30 AM
2	0.7725	0.1798mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:39:34 AM
3	0.4678	0.07658mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:41:37 AM
4	0.4523	0.07133mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:43:41 AM
5	1.006	0.2589mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:45:45 AM
6	0.5467	0.1033mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:47:49 AM

Mean Area 0.4671
Mean Conc. 0.07632mg/L



Sample

Sample Name: 280-123730-a-12
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

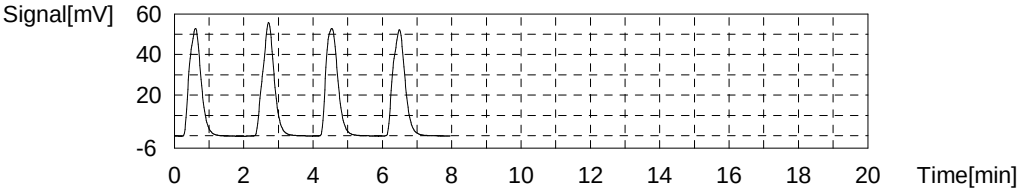
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:43.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	126.9	42.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:56:25 AM
2	129.5	43.79mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 1:58:29 AM
3	127.5	43.11mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:00:32 AM
4	128.2	43.35mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:02:47 AM

Mean Area 128.0
Mean Conc. 43.29mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

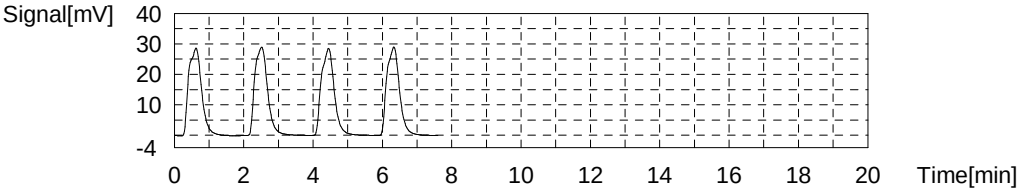
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.72	25.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:11:20 AM
2	75.07	25.35mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:13:24 AM
3	74.17	25.05mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:15:28 AM
4	74.54	25.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:17:31 AM

Mean Area 74.88
Mean Conc. 25.28mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

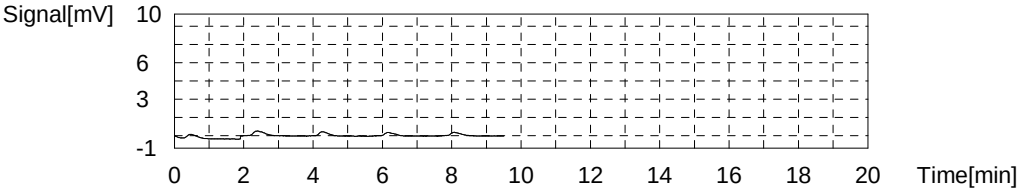
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1056mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5726	0.1121mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:26:04 AM
2	0.8206	0.1961mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:28:08 AM
3	0.6074	0.1239mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:30:11 AM
4	0.5335	0.09883mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:32:15 AM
5	0.5005	0.08765mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:34:19 AM

Mean Area 0.5535
Mean Conc. 0.1056mg/L



Sample

Sample Name: 280-123730-a-17
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

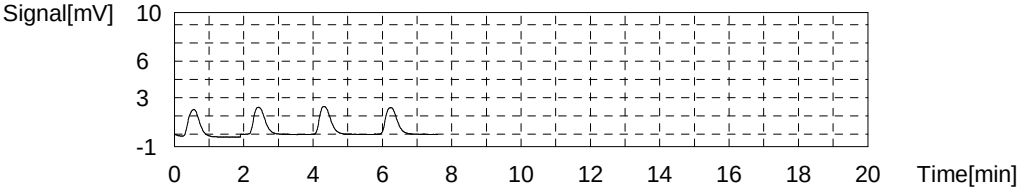
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.599mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.868	1.567mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:42:51 AM
2	4.937	1.591mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:44:55 AM
3	5.016	1.617mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:46:58 AM
4	5.024	1.620mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:49:02 AM

Mean Area 4.961
Mean Conc. 1.599mg/L



Sample

Sample Name: 280-123730-a-18
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

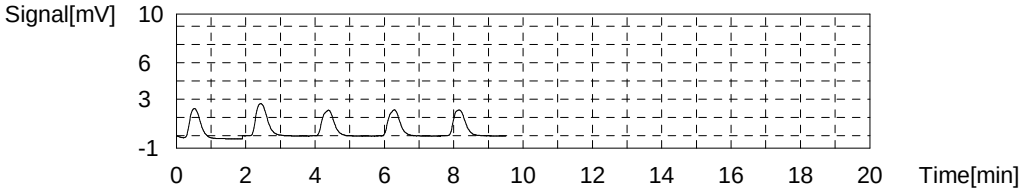
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.604mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.094	1.644mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:57:35 AM
2	5.982	1.945mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 2:59:39 AM
3	4.911	1.582mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:01:42 AM
4	4.952	1.596mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:03:46 AM
5	4.945	1.593mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:05:50 AM

Mean Area 4.976
Mean Conc. 1.604mg/L



Sample

Sample Name: 280-123730-a-24
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

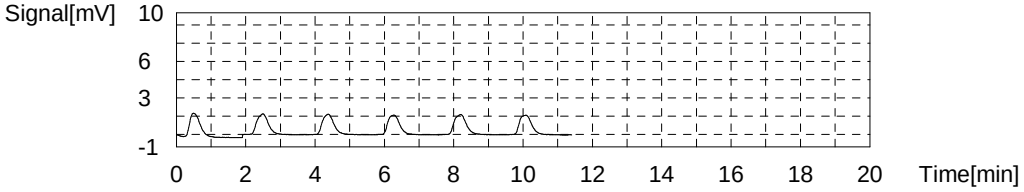
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.247mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.989	1.269mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:14:22 AM
2	3.885	1.234mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:16:26 AM
3	3.757	1.191mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:18:29 AM
4	3.694	1.170mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:20:33 AM
5	3.953	1.257mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:22:37 AM
6	3.860	1.226mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:24:41 AM

Mean Area 3.922
Mean Conc. 1.247mg/L



Sample

Sample Name: 280-123730-a-25
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

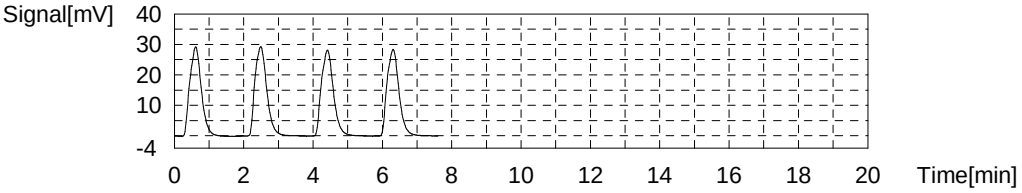
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	68.84	23.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:33:07 AM
2	70.04	23.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:35:11 AM
3	68.47	23.11mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:37:15 AM
4	68.43	23.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:39:18 AM

Mean Area 68.94
Mean Conc. 23.28mg/L



Sample

Sample Name: 280-123829-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

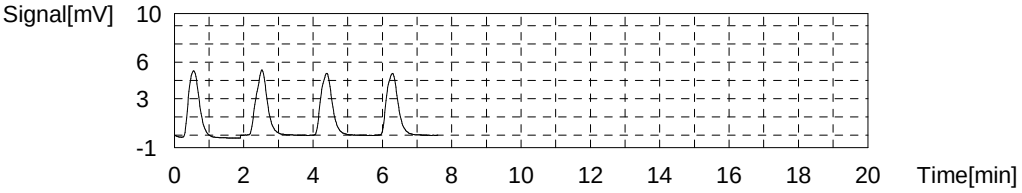
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.938mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.00	3.983mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:47:51 AM
2	12.01	3.987mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:49:54 AM
3	11.76	3.902mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:51:58 AM
4	11.69	3.878mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 3:54:02 AM

Mean Area 11.86
Mean Conc. 3.938mg/L



Sample

Sample Name: 280-123766-a-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

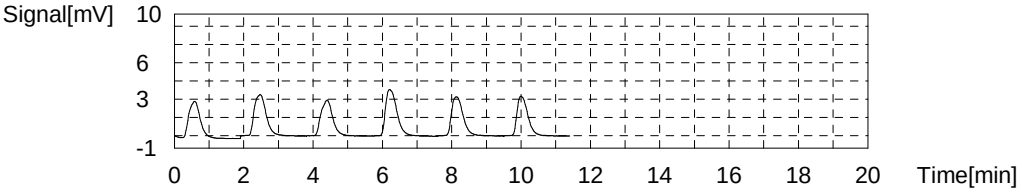
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.271mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.803	2.223mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:02:35 AM
2	7.976	2.620mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:04:39 AM
3	6.789	2.218mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:06:42 AM
4	8.609	2.835mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:08:46 AM
5	7.251	2.375mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:10:50 AM
6	6.939	2.269mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:12:54 AM

Mean Area 6.946
Mean Conc. 2.271mg/L



Sample

Sample Name: 280-123757-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

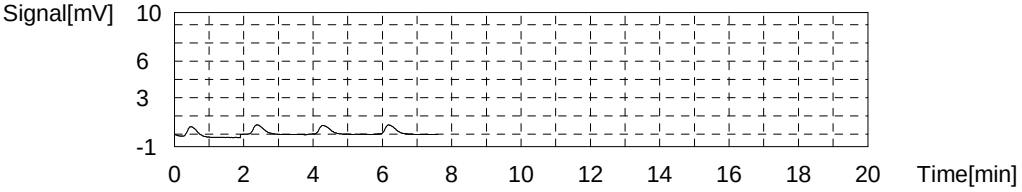
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4517mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.514	0.4310mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:21:20 AM
2	1.617	0.4659mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:23:24 AM
3	1.509	0.4293mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:25:27 AM
4	1.660	0.4805mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:27:31 AM

Mean Area 1.575
Mean Conc. 0.4517mg/L



Sample

Sample Name: 280-123757-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

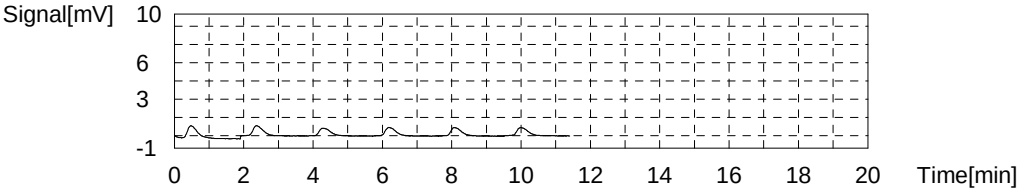
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3839mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.961	0.5824mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:36:04 AM
2	1.613	0.4645mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:38:08 AM
3	1.340	0.3721mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:40:11 AM
4	1.408	0.3951mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:42:15 AM
5	1.346	0.3741mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:44:19 AM
6	1.406	0.3944mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:46:23 AM

Mean Area 1.375
Mean Conc. 0.3839mg/L



Sample

Sample Name: 280-123757-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

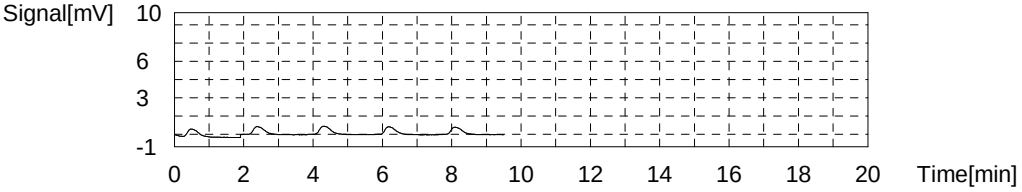
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3533mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.202	0.3253mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:54:49 AM
2	1.356	0.3775mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:56:53 AM
3	1.456	0.4114mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 4:58:57 AM
4	1.304	0.3599mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:01:00 AM
5	1.277	0.3507mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:03:04 AM

Mean Area 1.285
Mean Conc. 0.3533mg/L



Sample

Sample Name: 280-123757-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

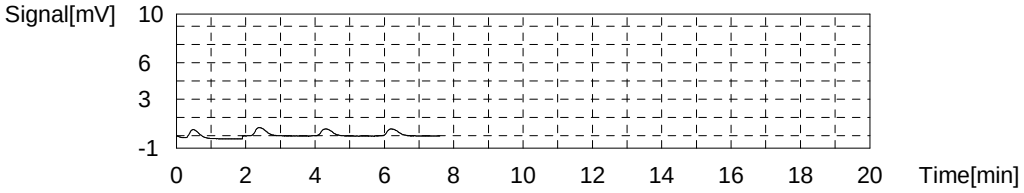
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3517mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.261	0.3453mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:11:36 AM
2	1.420	0.3992mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:13:39 AM
3	1.223	0.3324mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:15:43 AM
4	1.216	0.3301mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:17:47 AM

Mean Area 1.280
Mean Conc. 0.3517mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

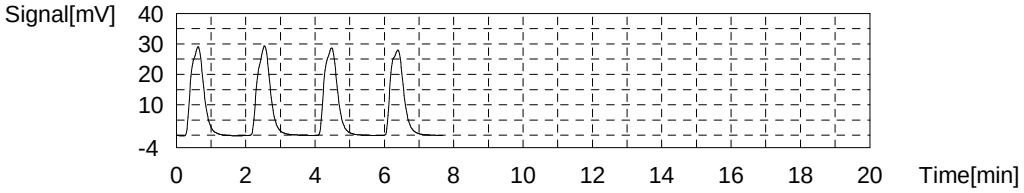
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.50mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.91	25.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:26:20 AM
2	76.21	25.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:28:27 AM
3	75.33	25.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:30:31 AM
4	74.54	25.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:32:35 AM

Mean Area 75.50
Mean Conc. 25.50mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

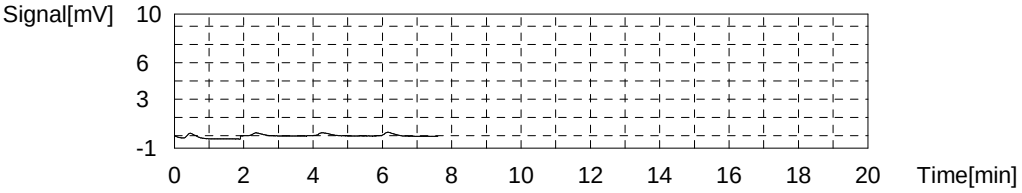
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08886mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6114	0.1252mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:41:08 AM
2	0.3869	0.04917mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:43:12 AM
3	0.4899	0.08406mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:45:15 AM
4	0.5280	0.09697mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:47:19 AM

Mean Area 0.5041
Mean Conc. 0.08886mg/L



Sample

Sample Name: 280-123757-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

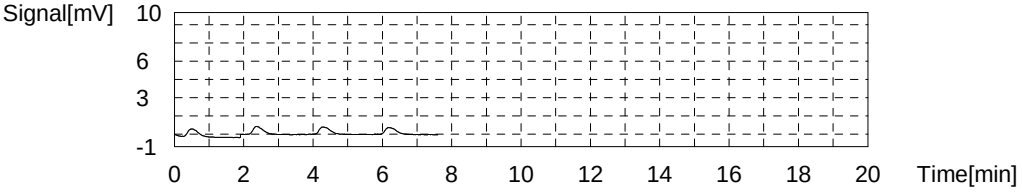
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3441mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.270	0.3483mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:55:52 AM
2	1.284	0.3531mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:57:56 AM
3	1.250	0.3416mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 5:59:59 AM
4	1.226	0.3334mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:02:03 AM

Mean Area 1.258
Mean Conc. 0.3441mg/L



Sample

Sample Name: 280-123814-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

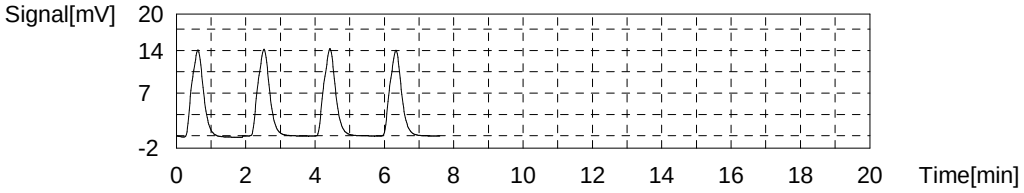
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.66	11.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:10:37 AM
2	33.53	11.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:12:40 AM
3	33.70	11.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:14:44 AM
4	32.96	11.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:16:48 AM

Mean Area 33.46
Mean Conc. 11.25mg/L



Sample

Sample Name: 280-123814-e-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

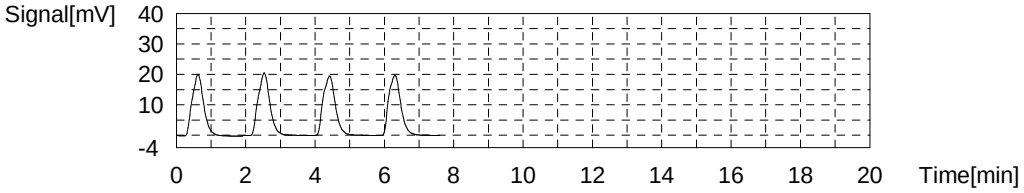
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.09mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.03	15.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:25:22 AM
2	48.34	16.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:27:25 AM
3	47.59	16.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:29:29 AM
4	47.95	16.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:31:33 AM

Mean Area 47.73
Mean Conc. 16.09mg/L



Sample

Sample Name: 280-123814-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

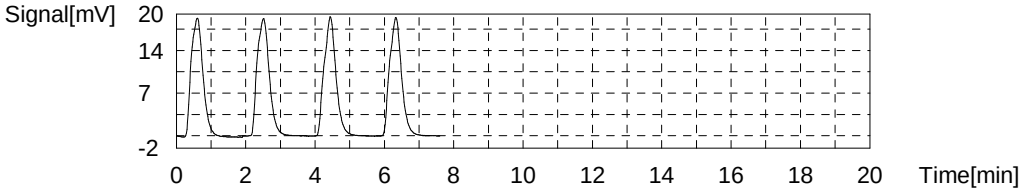
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.82mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	46.83	15.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:40:07 AM
2	47.20	15.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:42:10 AM
3	46.87	15.80mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:44:14 AM
4	46.87	15.80mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:46:18 AM

Mean Area 46.94
Mean Conc. 15.82mg/L



Sample

Sample Name: 280-123829-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

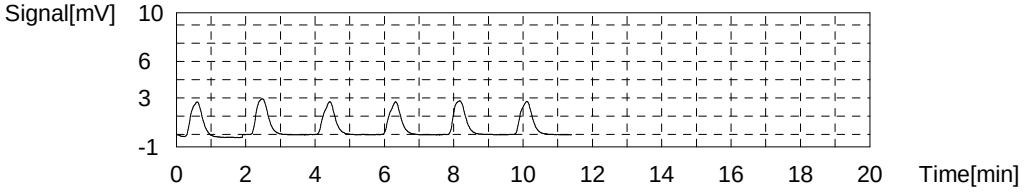
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.071mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.663	2.175mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:54:52 AM
2	6.946	2.271mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:56:55 AM
3	6.237	2.031mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 6:58:59 AM
4	6.290	2.049mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:01:03 AM
5	6.521	2.127mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:03:07 AM
6	6.372	2.077mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:05:11 AM

Mean Area 6.355
Mean Conc. 2.071mg/L



Sample

Sample Name: 280-123829-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

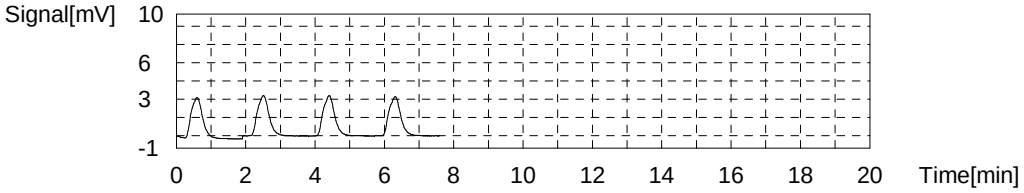
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.475mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.397	2.424mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:13:38 AM
2	7.606	2.495mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:15:42 AM
3	7.582	2.487mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:17:45 AM
4	7.604	2.494mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:19:49 AM

Mean Area 7.547
Mean Conc. 2.475mg/L



Sample

Sample Name: 280-123829-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

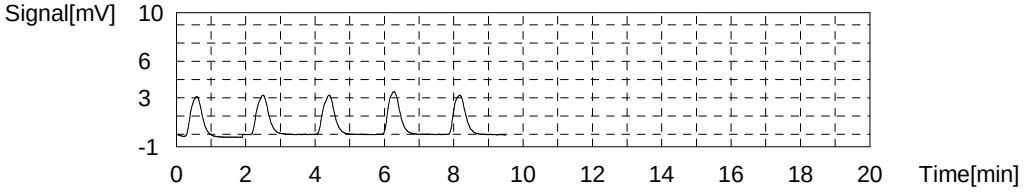
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.473mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.545	2.474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:28:23 AM
2	7.612	2.497mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:30:26 AM
3	7.460	2.445mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:32:31 AM
4	8.133	2.673mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:34:34 AM
5	7.552	2.477mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:36:38 AM

Mean Area 7.542
Mean Conc. 2.473mg/L



Sample

Sample Name: 280-123590-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

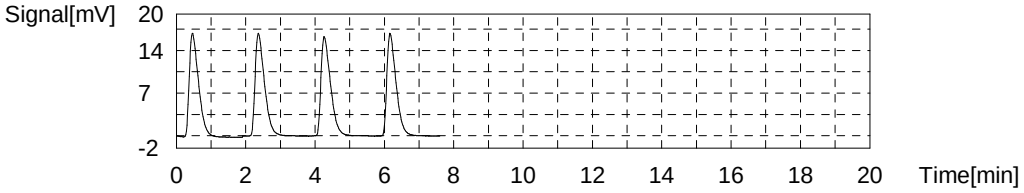
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:1063mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	31.95	1074mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:45:11 AM
2	31.86	1071mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:47:14 AM
3	31.36	1054mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:49:18 AM
4	31.31	1053mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:51:22 AM

Mean Area 31.62
Mean Conc. 1063mg/L



Sample

Sample Name: MS 280-123590-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

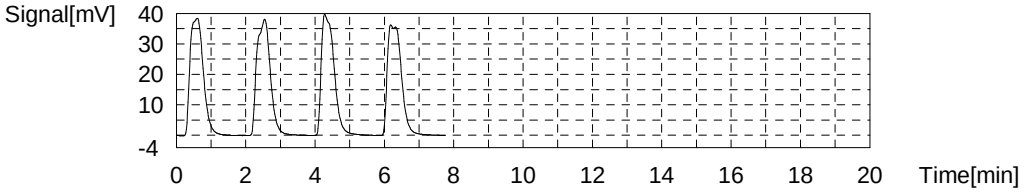
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:3501mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	104.4	3529mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 7:59:56 AM
2	104.0	3515mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:01:59 AM
3	102.7	3471mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:04:03 AM
4	103.2	3488mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:06:16 AM

Mean Area 103.6
Mean Conc. 3501mg/L



Sample

Sample Name: MSD 280-123590-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

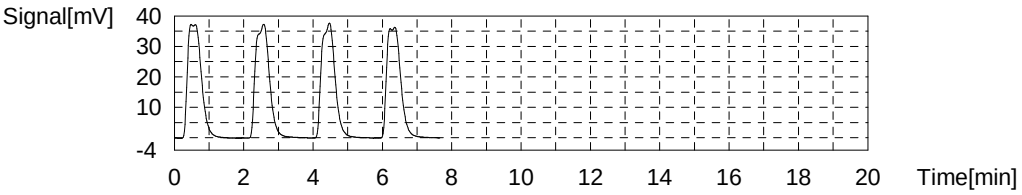
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:3488mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	104.4	3529mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:14:52 AM
2	104.2	3522mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:16:55 AM
3	102.3	3458mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:18:59 AM
4	101.9	3444mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:21:04 AM

Mean Area 103.2
Mean Conc. 3488mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

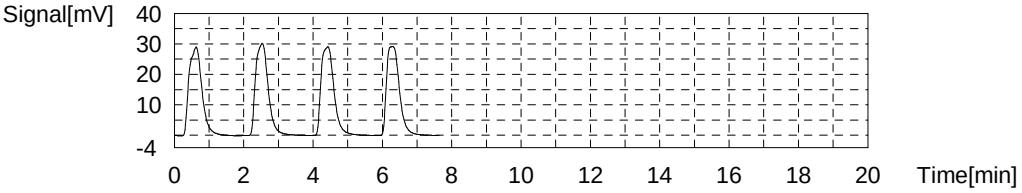
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.71mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.72	25.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:29:40 AM
2	76.75	25.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:31:44 AM
3	75.54	25.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:33:47 AM
4	75.52	25.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:35:51 AM

Mean Area 76.13
Mean Conc. 25.71mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

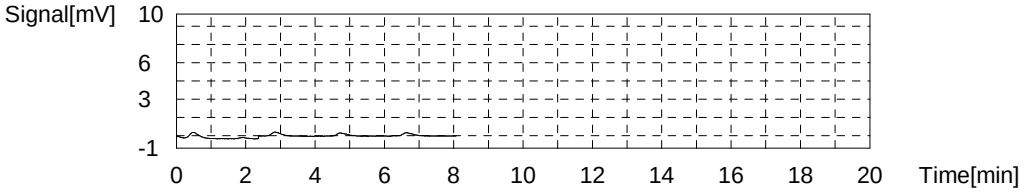
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1054mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6617	0.1423mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:44:53 AM
2	0.5811	0.1150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:46:56 AM
3	0.5038	0.08877mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:49:00 AM
4	0.4646	0.07549mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:51:04 AM

Mean Area 0.5528
Mean Conc. 0.1054mg/L



Sample

Sample Name: 280-123590-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

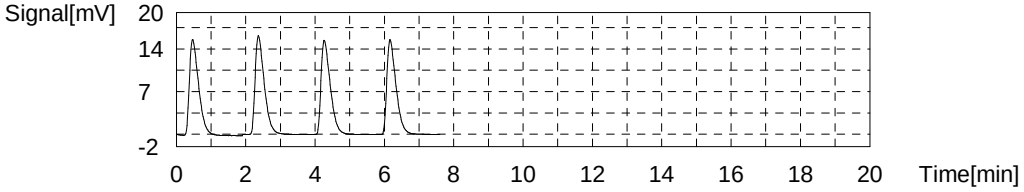
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:983.8mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.40	987.8mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 8:59:38 AM
2	30.04	1010mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:01:41 AM
3	28.80	967.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:03:45 AM
4	28.88	970.2mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:05:49 AM

Mean Area 29.28
Mean Conc. 983.8mg/L



Sample

Sample Name: MS 280-123590-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

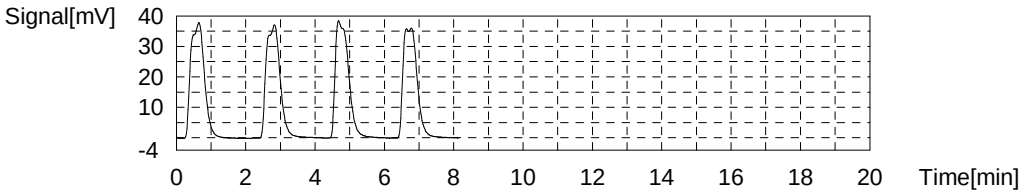
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:3502mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	105.6	3569mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:14:40 AM
2	103.8	3508mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:16:50 AM
3	103.2	3488mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:18:57 AM
4	101.9	3444mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:21:06 AM

Mean Area 103.6
Mean Conc. 3502mg/L



Sample

Sample Name: MSD 280-123590-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

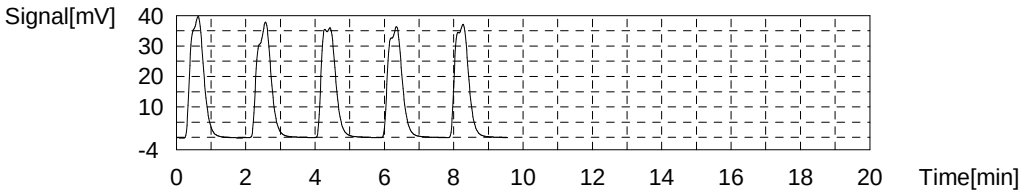
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:3472mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	107.0	3617mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:29:40 AM
2	104.6	3535mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:31:43 AM
3	102.4	3461mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:33:47 AM
4	101.9	3444mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:35:53 AM
5	102.0	3447mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:37:58 AM

Mean Area 102.7
Mean Conc. 3472mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

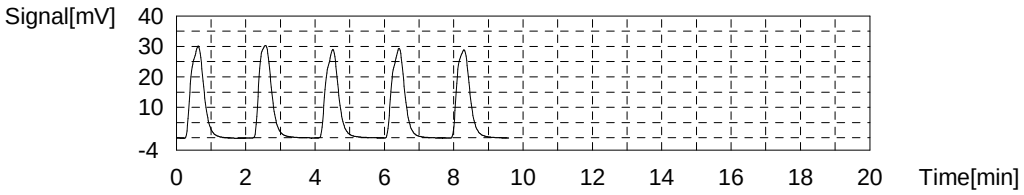
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.27	26.77mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:46:36 AM
2	76.35	25.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:48:40 AM
3	73.78	24.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:50:43 AM
4	75.11	25.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:52:47 AM
5	74.87	25.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 9:54:51 AM

Mean Area 75.03
Mean Conc. 25.34mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

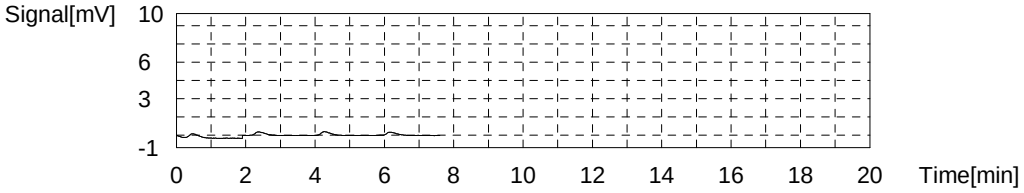
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09460mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5297	0.09755mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 10:03:24 AM
2	0.5372	0.1001mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 10:05:27 AM
3	0.5772	0.1136mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 10:07:31 AM
4	0.4399	0.06712mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/6/2019 10:09:35 AM

Mean Area 0.5210
Mean Conc. 0.09460mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

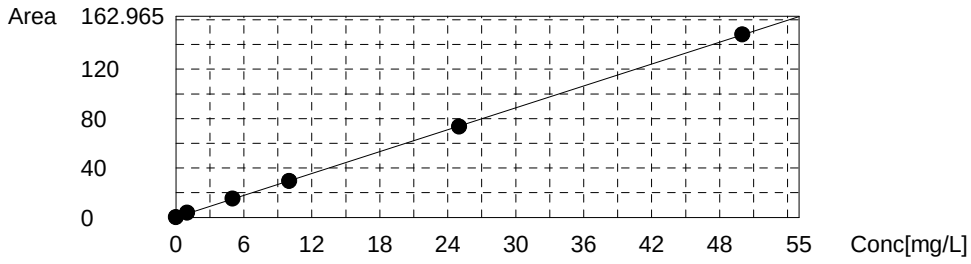
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

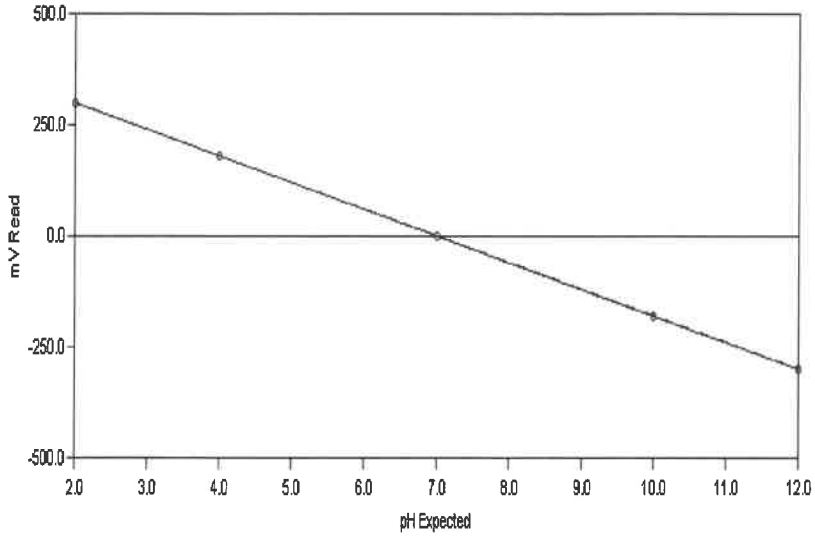
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



Calibration Record # 458



Calibration Settings

Calibration ID	PH	Date	5/22/2019
Channel	1	Time	9:42 AM
Probe Type	pH	Temperature	295.49 K 22.34 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.839	CorrCoeff	1.0000
Intercept	-0.050	Equation: Y = (-59.839) X + (-0.050)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.839	-65.00	-54.00
Intercept	-0.050	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	298.58
	4.00	180.05
	7.00	0.48
	10.00	-180.41
	12.00	-298.95

Test America
Water Analysis Report

Analyst: S&B

Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
rinse	5/22/2019	6:11 PM	23.15	-1.00	5.79	-1.00	-1.00	-1.00	.00	1.17	1.17	.00	.00	.00	.03	.05	.02
check	5/22/2019	6:18 PM	22.57	-1.00	10.48	-1.00	-1.00	-1.00	95.61	194.75	3.53	191.23	.00	.96	1.95	-1.00	.02
b7	5/22/2019	6:19 PM	22.08	-1.00	7.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
lcs	5/22/2019	6:26 PM	22.02	-1.00	10.50	-1.00	-1.00	-1.00	96.23	195.53	3.06	192.46	.00	.96	1.96	-1.00	.02
mb	5/22/2019	6:31 PM	22.13	-1.00	7.64	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-123715-B-4	5/22/2019	6:36 PM	21.85	-1.00	7.87	-1.00	-1.00	-1.00	.00	95.91	95.91	.00	.00	.00	.96	-1.00	.02
280-123715-B-4	5/22/2019	6:42 PM	21.74	-1.00	7.95	-1.00	-1.00	-1.00	.00	97.45	97.45	.00	.00	.00	.97	-1.00	.02
280-123715-B-5	5/22/2019	6:46 PM	21.74	-1.00	6.24	-1.00	-1.00	-1.00	.00	.75	.75	.00	.00	.00	.02	.04	.02
280-123692-B-1	5/22/2019	6:52 PM	21.82	-1.00	7.42	-1.00	-1.00	-1.00	.00	201.76	201.76	.00	.00	.00	2.02	-1.00	.02
280-123692-B-2	5/22/2019	7:02 PM	22.66	-1.00	7.79	-1.00	-1.00	-1.00	.00	132.96	132.96	.00	.00	.00	1.33	-1.00	.02
280-123693-B-4	5/22/2019	7:06 PM	22.42	-1.00	6.19	-1.00	-1.00	-1.00	.00	1.11	1.11	.00	.00	.00	.03	.04	.02
280-123693-A-1	5/22/2019	7:11 PM	21.86	-1.00	7.84	-1.00	-1.00	-1.00	.00	173.75	173.75	.00	.00	.00	1.74	-1.00	.02
280-123693-A-2	5/22/2019	7:17 PM	21.63	-1.00	7.92	-1.00	-1.00	-1.00	.00	173.47	173.47	.00	.00	.00	1.73	-1.00	.02
280-123693-A-3	5/22/2019	7:22 PM	21.51	-1.00	7.00	-1.00	-1.00	-1.00	.00	98.75	98.75	.00	.00	.00	.99	-1.00	.02
280-123706-A-1	5/22/2019	7:31 PM	21.41	-1.00	7.73	-1.00	-1.00	-1.00	.00	650.29	650.29	.00	.00	.00	6.50	-1.00	.02
ccv	5/22/2019	7:36 PM	21.48	-1.00	10.52	-1.00	-1.00	-1.00	96.16	196.14	3.82	192.32	.00	.96	1.96	-1.00	.02
ccb	5/22/2019	7:41 PM	21.60	-1.00	6.56	-1.00	-1.00	-1.00	.00	.77	.77	.00	.00	.00	.02	.04	.02
280-123714-A-1	5/22/2019	7:48 PM	21.54	-1.00	7.48	-1.00	-1.00	-1.00	.00	314.39	314.39	.00	.00	.00	3.14	-1.00	.02
280-123761-H-3	5/22/2019	7:54 PM	21.89	-1.00	7.98	-1.00	-1.00	-1.00	.00	344.27	344.27	.00	.00	.00	3.44	-1.00	.02
280-123761-I-4	5/22/2019	8:01 PM	22.17	-1.00	7.92	-1.00	-1.00	-1.00	.00	372.63	372.63	.00	.00	.00	3.73	-1.00	.02
280-123761-I-2	5/22/2019	8:07 PM	22.23	-1.00	7.95	-1.00	-1.00	-1.00	.00	343.86	343.86	.00	.00	.00	3.44	-1.00	.02
280-123814-B-3	5/22/2019	8:12 PM	22.05	-1.00	6.51	-1.00	-1.00	-1.00	.00	41.08	41.08	.00	.00	.00	.41	-1.00	.02
280-123814-B-1	5/22/2019	8:18 PM	21.77	-1.00	7.15	-1.00	-1.00	-1.00	.00	205.07	205.07	.00	.00	.00	2.05	-1.00	.02
280-123814-B-2	5/22/2019	8:22 PM	21.69	-1.00	6.54	-1.00	-1.00	-1.00	.00	38.89	38.89	.00	.00	.00	.39	-1.00	.02
280-123820-I-2	5/22/2019	8:30 PM	21.66	-1.00	7.80	-1.00	-1.00	-1.00	.00	560.22	560.22	.00	.00	.00	5.60	-1.00	.02
280-123820-I-3	5/22/2019	8:38 PM	21.89	-1.00	8.04	-1.00	-1.00	-1.00	.00	470.66	470.66	.00	.00	.00	4.71	-1.00	.02
280-123820-I-4	5/22/2019	8:48 PM	22.00	-1.00	8.04	-1.00	-1.00	-1.00	.00	777.04	777.04	.00	.00	.00	7.77	-1.00	.02

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GENERAL RESULTS REPORT.SRW
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Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
ccv	5/22/2019	8:54 PM	22.20	-1.00	10.45	-1.00	-1.00	-1.00	94.65	196.93	7.63	189.30	.00	.95	1.97	-1.00	.02
ccb	5/22/2019	8:59 PM	22.23	-1.00	6.50	-1.00	-1.00	-1.00	.00	1.24	1.24	.00	.00	.00	.03	.04	.02
lcs	5/22/2019	9:05 PM	22.37	-1.00	10.44	-1.00	-1.00	-1.00	94.96	197.74	7.83	189.91	.00	.95	1.98	-1.00	.02
mb	5/22/2019	9:10 PM	22.57	-1.00	6.67	-1.00	-1.00	-1.00	.00	1.25	1.25	.00	.00	.00	.03	.04	.02
280-123820-I-5	5/22/2019	9:18 PM	22.37	-1.00	7.75	-1.00	-1.00	-1.00	.00	682.57	682.57	.00	.00	.00	6.83	-1.00	.02
du	5/22/2019	9:28 PM	22.40	-1.00	7.77	-1.00	-1.00	-1.00	.00	708.79	708.79	.00	.00	.00	7.09	-1.00	.02
280-123843-A-1	5/22/2019	9:34 PM	22.42	-1.00	7.89	-1.00	-1.00	-1.00	.00	302.34	302.34	.00	.00	.00	3.02	-1.00	.02
280-123843-A-2	5/22/2019	9:42 PM	22.25	-1.00	7.44	-1.00	-1.00	-1.00	.00	569.30	569.30	.00	.00	.00	5.69	-1.00	.02
280-123843-A-3 Leak	5/22/2019	9:48 PM	22.35	-1.00	7.93	-1.00	-1.00	-1.00	.00	286.08	286.08	.00	.00	.00	2.86	-1.00	.02
280-123843-A-4	5/22/2019	9:55 PM	22.35	-1.00	7.95	-1.00	-1.00	-1.00	.00	352.28	352.28	.00	.00	.00	3.52	-1.00	.02
280-123843-A-5	5/22/2019	10:01 PM	22.43	-1.00	7.96	-1.00	-1.00	-1.00	.00	300.76	300.76	.00	.00	.00	3.01	-1.00	.02
280-123844-A-1	5/22/2019	10:08 PM	22.54	-1.00	8.38	-1.00	-1.00	-1.00	4.60	325.16	315.96	9.19	.00	.05	3.25	-1.00	.02
280-123845-D-2	5/22/2019	10:15 PM	22.70	-1.00	7.55	-1.00	-1.00	-1.00	.00	424.55	424.55	.00	.00	.00	4.25	-1.00	.02
280-123845-C-6	5/22/2019	10:23 PM	22.99	-1.00	7.56	-1.00	-1.00	-1.00	.00	585.11	585.11	.00	.00	.00	5.85	-1.00	.02
ccv	5/22/2019	10:30 PM	22.87	-1.00	10.41	-1.00	-1.00	-1.00	92.22	198.25	13.80	184.45	.00	.92	1.98	-1.00	.02
ccb	5/22/2019	10:34 PM	22.69	-1.00	6.42	-1.00	-1.00	-1.00	.00	1.09	1.09	.00	.00	.00	.03	.04	.02
280-123845-C-8	5/22/2019	10:42 PM	22.52	-1.00	7.76	-1.00	-1.00	-1.00	.00	454.07	454.07	.00	.00	.00	4.54	-1.00	.02
280-123845-C-10	5/22/2019	10:48 PM	22.58	-1.00	7.81	-1.00	-1.00	-1.00	.00	357.65	357.65	.00	.00	.00	3.58	-1.00	.02
280-123845-A-11	5/22/2019	10:56 PM	22.57	-1.00	7.72	-1.00	-1.00	-1.00	.00	526.16	526.16	.00	.00	.00	5.26	-1.00	.02
280-123845-C-13	5/22/2019	11:05 PM	22.70	-1.00	7.59	-1.00	-1.00	-1.00	.00	623.65	623.65	.00	.00	.00	6.24	-1.00	.02
280-123845-C-14	5/22/2019	11:13 PM	22.78	-1.00	7.64	-1.00	-1.00	-1.00	.00	621.85	621.85	.00	.00	.00	6.22	-1.00	.02
280-123845-C-15	5/22/2019	11:19 PM	22.89	-1.00	7.85	-1.00	-1.00	-1.00	.00	360.91	360.91	.00	.00	.00	3.61	-1.00	.02
280-123845-A-21	5/22/2019	11:26 PM	22.89	-1.00	7.89	-1.00	-1.00	-1.00	.00	304.50	304.50	.00	.00	.00	3.05	-1.00	.02
280-123845-A-24	5/22/2019	11:32 PM	22.95	-1.00	7.88	-1.00	-1.00	-1.00	.00	348.47	348.47	.00	.00	.00	3.48	-1.00	.02
280-123846-D-2	5/22/2019	11:35 PM	23.17	-1.00	3.29	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-123853-H-1	5/22/2019	11:42 PM	22.95	-1.00	7.94	-1.00	-1.00	-1.00	.00	270.00	270.00	.00	.00	.00	2.70	-1.00	.02
ccv	5/22/2019	11:48 PM	22.95	-1.00	10.37	-1.00	-1.00	-1.00	89.33	201.11	22.45	178.66	.00	.89	2.01	-1.00	.02
ccb	5/22/2019	11:53 PM	22.90	-1.00	6.55	-1.00	-1.00	-1.00	.00	1.07	1.07	.00	.00	.00	.03	.04	.02
280-123853-J-2	5/22/2019	11:58 PM	22.75	-1.00	7.95	-1.00	-1.00	-1.00	.00	149.89	149.89	.00	.00	.00	1.50	-1.00	.02
280-123853-J-3	5/23/2019	12:04 AM	22.75	-1.00	8.10	-1.00	-1.00	-1.00	.00	160.57	160.57	.00	.00	.00	1.61	-1.00	.02

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Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123853-H-4	5/23/2019	12:10 AM	22.75	-1.00	7.99	-1.00	-1.00	-1.00	.00	70.20	70.20	.00	.00	.00	.70	-1.00	.02
280-123853-H-5	5/23/2019	12:16 AM	22.84	-1.00	8.00	-1.00	-1.00	-1.00	.00	70.76	70.76	.00	.00	.00	.71	-1.00	.02
280-123853-J-6	5/23/2019	12:22 AM	22.87	-1.00	8.11	-1.00	-1.00	-1.00	.00	199.68	199.68	.00	.00	.00	2.00	-1.00	.02
280-123863-B-4	5/23/2019	12:30 AM	22.90	-1.00	8.12	-1.00	-1.00	-1.00	.00	639.93	639.93	.00	.00	.00	6.40	-1.00	.02
280-123924-B-1	5/23/2019	12:36 AM	23.04	-1.00	8.11	-1.00	-1.00	-1.00	.00	157.18	157.18	.00	.00	.00	1.57	-1.00	.02
280-123924-B-2	5/23/2019	12:42 AM	23.31	-1.00	8.16	-1.00	-1.00	-1.00	.00	112.35	112.35	.00	.00	.00	1.12	-1.00	.02
280-123924-A-3	5/23/2019	12:47 AM	23.25	-1.00	8.12	-1.00	-1.00	-1.00	.00	215.31	215.31	.00	.00	.00	2.15	-1.00	.02
280-123924-A-4	5/23/2019	12:55 AM	23.17	-1.00	7.52	-1.00	-1.00	-1.00	.00	374.00	374.00	.00	.00	.00	3.74	-1.00	.02
ccv	5/23/2019	1:01 AM	23.12	-1.00	10.36	-1.00	-1.00	-1.00	88.82	198.65	21.01	177.64	.00	.89	1.99	-1.00	.02
ccb	5/23/2019	1:06 AM	23.11	-1.00	6.37	-1.00	-1.00	-1.00	.00	1.03	1.03	.00	.00	.00	.03	.04	.02
lcs	5/23/2019	1:11 AM	22.86	-1.00	10.37	-1.00	-1.00	-1.00	90.45	198.58	17.68	180.91	.00	.90	1.99	-1.00	.02
mb	5/23/2019	1:16 AM	22.96	-1.00	6.46	-1.00	-1.00	-1.00	.00	1.21	1.21	.00	.00	.00	.03	.04	.02
280-123924-A-5	5/23/2019	1:22 AM	22.90	-1.00	8.15	-1.00	-1.00	-1.00	.00	161.43	161.43	.00	.00	.00	1.61	-1.00	.02
du	5/23/2019	1:26 AM	23.12	-1.00	6.63	-1.00	-1.00	-1.00	.00	10.35	10.35	.00	.00	.00	.12	.13	.02
280-123924-B-6	5/23/2019	1:33 AM	23.01	-1.00	7.97	-1.00	-1.00	-1.00	.00	407.87	407.87	.00	.00	.00	4.08	-1.00	.02
280-123924-B-7	5/23/2019	1:39 AM	23.07	-1.00	8.17	-1.00	-1.00	-1.00	.00	214.31	214.31	.00	.00	.00	2.14	-1.00	.02
280-123924-B-8	5/23/2019	1:45 AM	23.11	-1.00	8.18	-1.00	-1.00	-1.00	.00	209.97	209.97	.00	.00	.00	2.10	-1.00	.02
280-123924-B-9	5/23/2019	1:51 AM	23.35	-1.00	8.18	-1.00	-1.00	-1.00	.00	210.20	210.20	.00	.00	.00	2.10	-1.00	.02
280-123924-A-10	5/23/2019	1:56 AM	23.25	-1.00	7.48	-1.00	-1.00	-1.00	.00	85.80	85.80	.00	.00	.00	.86	-1.00	.02
280-123924-A-11	5/23/2019	2:02 AM	23.17	-1.00	7.85	-1.00	-1.00	-1.00	.00	88.82	88.82	.00	.00	.00	.89	-1.00	.02
280-123924-B-12	5/23/2019	2:08 AM	23.15	-1.00	8.09	-1.00	-1.00	-1.00	.00	209.29	209.29	.00	.00	.00	2.09	-1.00	.02
280-123955-A-1	5/23/2019	2:16 AM	23.14	-1.00	7.81	-1.00	-1.00	-1.00	.00	436.20	436.20	.00	.00	.00	4.36	-1.00	.02
ccv	5/23/2019	2:21 AM	23.09	-1.00	10.35	-1.00	-1.00	-1.00	88.99	200.53	22.56	177.97	.00	.89	2.01	-1.00	.02
ccb	5/23/2019	2:24 AM	23.01	-1.00	3.73	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
lcs	5/23/2019	2:30 AM	22.86	-1.00	10.30	-1.00	-1.00	-1.00	85.04	196.74	26.65	170.09	.00	.85	1.97	-1.00	.02
mb	5/23/2019	2:35 AM	23.04	-1.00	7.04	-1.00	-1.00	-1.00	.00	1.25	1.25	.00	.00	.00	.03	.05	.02
280-123955-A-2	5/23/2019	2:39 AM	23.03	-1.00	6.65	-1.00	-1.00	-1.00	.00	1.51	1.51	.00	.00	.00	.03	.05	.02
du	5/23/2019	2:44 AM	23.06	-1.00	6.58	-1.00	-1.00	-1.00	.00	1.34	1.34	.00	.00	.00	.03	.05	.02
280-123955-A-3	5/23/2019	2:52 AM	23.38	-1.00	7.76	-1.00	-1.00	-1.00	.00	615.92	615.92	.00	.00	.00	6.16	-1.00	.02
280-123955-A-4	5/23/2019	3:01 AM	23.43	-1.00	7.73	-1.00	-1.00	-1.00	.00	650.48	650.48	.00	.00	.00	6.50	-1.00	.02

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Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123955-A-5	5/23/2019	3:08 AM	23.44	-1.00	7.86	-1.00	-1.00	-1.00	.00	511.51	511.51	.00	.00	.00	5.12	-1.00	.02
280-123955-A-6	5/23/2019	3:16 AM	23.39	-1.00	7.89	-1.00	-1.00	-1.00	.00	380.89	380.89	.00	.00	.00	3.81	-1.00	.02
280-123955-A-7	5/23/2019	3:22 AM	23.33	-1.00	7.98	-1.00	-1.00	-1.00	.00	342.38	342.38	.00	.00	.00	3.42	-1.00	.02
280-123955-A-8	5/23/2019	3:29 AM	23.30	-1.00	7.86	-1.00	-1.00	-1.00	.00	480.25	480.25	.00	.00	.00	4.80	-1.00	.02
280-123955-A-9	5/23/2019	3:37 AM	23.25	-1.00	7.91	-1.00	-1.00	-1.00	.00	453.90	453.90	.00	.00	.00	4.54	-1.00	.02
280-123955-A-10	5/23/2019	3:45 AM	23.23	-1.00	7.72	-1.00	-1.00	-1.00	.00	629.93	629.93	.00	.00	.00	6.30	-1.00	.02
ccv	5/23/2019	3:51 AM	23.28	-1.00	10.28	-1.00	-1.00	-1.00	84.05	200.32	32.22	168.09	.00	.84	2.00	-1.00	.02
ccb	5/23/2019	3:56 AM	23.27	-1.00	5.44	-1.00	-1.00	-1.00	.00	.30	.30	.00	.00	.00	.02	.04	.02

PC-TitratION PLUS by Man-Tech Associates, Inc.

GENERAL RESULTS REPORT.SRW

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2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

06/11/2019

Batch Number: 280-458569

Analyst: Setjoadi, Mayori J

Batch Open: 5/17/2019 11:37:00AM

Batch End:

Solids, Total Dissolved (TDS)

Conductivity MJS 5/17/19

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~280-458569/1 N/A	N/A		100	0.34	N/A	N/A	N/A		
2	LCS~280-458569/2 N/A	N/A				N/A	N/A	N/A		
3	LCSD~280-458569/3 N/A	N/A				N/A	N/A	N/A		
4	280-123912-C-1 (2540C_Calcd)	N/A (280-123912-1)	Water	50	1548	6/12/19	17_Days	4		
5	280-123912-C-1 (2540C_Calcd)	N/A (280-123912-1)	Water	50	1548	6/12/19	17_Days	4		
6	280-123912-C-2 (2540C_Calcd)	N/A (280-123912-1)	Water	50	2279	6/12/19	17_Days	4		
7	280-123912-C-3 (2540C_Calcd)	N/A (280-123912-1)	Water	100	1038	6/12/19	17_Days	4		
8	280-123912-D-4 (2540C_Calcd)	N/A (280-123912-1)	Water	100	1025	6/12/19	17_Days	4		
9	280-123912-D-5 (2540C_Calcd)	N/A (280-123912-1)	Water	25	4330	6/12/19	17_Days	4		
10	280-123535-S-3 (2540C_Calcd)	N/A (280-123535-1)	Water	50	~~50~~ H MJS 5/17/19	5/28/19	12_Days	4		
11	280-123814-A-3 (2540C_Calcd)	N/A (280-123814-1)	Water	100	95.3	6/3/19	12_Days	4		
12	280-123912-C-6 (2540C_Calcd)	N/A (280-123912-1)	Water	25	5820	6/12/19	17_Days	4		
13	280-123912-D-7 (2540C_Calcd)	N/A (280-123912-1)	Water	50	2508	6/12/19	17_Days	4		
14	280-123912-D-8 (2540C_Calcd)	N/A (280-123912-1)	Water	50	1158	6/12/19	17_Days	4		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-458569 Analyst: Setjoadi, Mayori J Batch Open: 5/17/2019 11:37:00AM

Batch End:

15	280-123912-D-9 (2540C_Calcd)	N/A (280-123912-1)	Water	25	5830	6/12/19	17_Days	4	
16	280-123912-C-10 (2540C_Calcd)	N/A (280-123912-1)	Water	100	1.12	6/12/19	17_Days	4	
17	280-123912-C-11 (2540C_Calcd)	N/A (280-123912-1)	Water	50	1349	6/12/19	17_Days	4	
18	280-123912-D-12 (2540C_Calcd)	N/A (280-123912-1)	Water	25	4190	6/12/19	17_Days	4	
19	280-123912-C-13 (2540C_Calcd)	N/A (280-123912-1)	Water	10	9390	6/12/19	17_Days	4	
20	280-123912-C-14 (2540C_Calcd)	N/A (280-123912-1)	Water	100	945	6/12/19	17_Days	4	
21	280-123912-D-15 (2540C_Calcd)	N/A (280-123912-1)	Water	25	3240	6/12/19	17_Days	4	
22	280-123912-E-16 (2540C_Calcd)	N/A (280-123912-1)	Water	100	938	6/12/19	17_Days	4	
23	280-123912-C-17 (2540C_Calcd)	N/A (280-123912-1)	Water	25	4610	6/12/19	17_Days	4	
24	280-123912-C-17 (2540C_Calcd)	N/A (280-123912-1)	Water	25	4610	6/12/19	17_Days	4	

06/11/2019

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2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

In 15:45

Batch Number: 280-458814

Analyst: Setjoadi, Mayori J

Batch Open: 5/20/2019 2:07:00PM

Batch End:

06/11/2019

Solids, Total Dissolved (TDS)

Conductivity MOS 5/20/19

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~280-458814/1 N/A	N/A			0.71	N/A	N/A	N/A		
2	LCS~280-458814/2 N/A	N/A				N/A	N/A	N/A		
3	280-123814-B-1 (2540C_Calcd)	N/A (280-123814-1)	Water	100	777	6/3/19	12_Days	4		
4	280-123814-B-1 (2540C_Calcd)	N/A (280-123814-1)	Water	100	777	6/3/19	12_Days	4		
5	280-123814-B-2 (2540C_Calcd)	N/A (280-123814-1)	Water	100	97.7	6/3/19	12_Days	4		
6	280-123817-A-1 (2540C_Calcd)	N/A (280-123817-1)	Water	50	H	6/3/19	12_Day_Rush	2		
7	280-123817-B-2 (2540C_Calcd)	N/A (280-123817-1)	Water	100	H	6/3/19	12_Day_Rush	2		
8	280-123817-A-3 (2540C_Calcd)	N/A (280-123817-1)	Water	25	H	6/3/19	12_Day_Rush	2		
9	280-123817-B-5 (2540C_Calcd)	N/A (280-123817-1)	Water	10	6640	6/3/19	12_Day_Rush	2		
10	280-123820-I-2 (2540C_Calcd)	N/A (280-123820-1)	Water	25	H	6/3/19	12_Day_Rush	2		
11	280-123820-I-3 (2540C_Calcd)	N/A (280-123820-1)	Water	100	H	6/3/19	12_Day_Rush	2		
12	280-123820-I-4 (2540C_Calcd)	N/A (280-123820-1)	Water	50	H	6/3/19	12_Day_Rush	2		
13	280-123820-I-5 (2540C_Calcd)	N/A (280-123820-1)	Water	100	H	6/3/19	12_Day_Rush	2		
14	280-123822-D-1 (2540C_Calcd)	N/A (280-123822-1)	Water	5	H	6/3/19	12_Day_Rush	2		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-458814 Analyst: Setjoadi, Mayori J Batch Open: 5/20/2019 2:07:00PM

Batch End:

15	280-123834-C-1 (2540C_Calcd)	N/A (280-123834-1)	Water	100	506	6/3/19	12_Days	4	
16	280-123834-B-2 (2540C_Calcd)	N/A (280-123834-1)	Water	100	262	6/3/19	12_Days	4	
17	280-123834-A-3 (2540C_Calcd)	N/A (280-123834-1)	Water	100	872	6/3/19	12_Days	4	
18	280-123903-E-1 (2540C_Calcd)	N/A (280-123903-1)	Water	25	3840	6/4/19	12_Days	2	
19	280-123903-E-2 (2540C_Calcd)	N/A (280-123903-1)	Water	25	3230	6/4/19	12_Days	2	
20	280-123903-E-3 (2540C_Calcd)	N/A (280-123903-1)	Water	50	2718	6/4/19	12_Days	2	
21	280-123903-C-4 (2540C_Calcd)	N/A (280-123903-1)	Water	50	1720	6/4/19	12_Days	2	
22	280-123971-D-1 (2540C_Calcd)	N/A (280-123971-1)	Water	25	2957	6/3/19	12_Days	2	
23	280-123971-D-2 (2540C_Calcd)	N/A (280-123971-1)	Water	100	656	6/3/19	12_Days	2	
24	280-123971-D-2 (2540C_Calcd)	N/A (280-123971-1)	Water	100	656	6/3/19	12_Days	2	

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.367	149.1	21.0904	12.65424

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.338	149.1	31.2056	18.72336

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.351	149.1	26.6712	16.00272

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.452	149.1	-8.5576	-5.13456

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
10	-348.8	0.302	149.1	43.7624	262.5744

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
20	-348.8	0.267	149.1	55.9704	671.6448

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
5	-348.8	0.125	149.1	105.5	316.5

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
5	-348.8	0.144	149.1	98.8728	296.6184

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
25	-348.8	0.206	149.1	77.2472	1158.708

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.462	149.1	-12.0456	-7.22736

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.451	149.1	-8.2088	-4.92528

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.428	149.1	-0.1864	-0.11184

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.330	149.1	33.996	20.3976

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.304	149.1	43.0648	25.83888

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.460	149.1	-11.348	-6.8088

TALS Raw Data Report

Job Number: 280-123814-1
LIMS Batch: 458314
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458314/1** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	0.630 J mg/L	79	75 125		

RS# 2 Lab ID: **USB 280-458314/2** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458314/3** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen		366666666 mg/L	mg/L	99	85 115		

RS# 4 Lab ID: **MB 280-458314/4** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123815-A-1** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123815-A-1 DU** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 7 Lab ID: **280-123814-A-1** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 8 Lab ID: **280-123814-A-2** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 9 Lab ID: **280-123814-A-3** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

TALS Raw Data Report

Job Number: 280-123815-1
LIMS Batch: 458314
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458314/1** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	mg/L	79	75 125		

RS# 2 Lab ID: **USB 280-458314/2** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458314/3** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen		366666666 mg/L	mg/L	99	85 115		

RS# 4 Lab ID: **MB 280-458314/4** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 5 Lab ID: **280-123815-A-1** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 6 Lab ID: **280-123815-A-1 DU** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	mg/L			NC	20

TALS Raw Data Report

Job Number: 280-123817-1
LIMS Batch: 458314
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458314/1** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	777777777	mg/L	0.630 J mg/L	79	75 125		

RS# 2 Lab ID: **USB 280-458314/2** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	366666667	mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458314/3** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen	366666666	mg/L	mg/L	99	85 115		

RS# 4 Lab ID: **MB 280-458314/4** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 5 Lab ID: **280-123815-A-1** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 6 Lab ID: **280-123815-A-1 DU** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	mg/L			NC	20

RS# 10 Lab ID: **280-123817-A-1** Inj Date: 5/15/2019 3:46:02PM Dil: 10 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		2.2798 mg/L	mg/L				

RS# 11 Lab ID: **280-123817-B-2** Inj Date: 5/15/2019 3:46:02PM Dil: 20 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		2.5498 mg/L	mg/L				

RS# 12 Lab ID: **280-123817-A-3** Inj Date: 5/15/2019 3:46:02PM Dil: 5 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		<39.875 mg/L	mg/L				

RS# 13 Lab ID: **280-123817-B-5** Inj Date: 5/15/2019 3:46:02PM Dil: 5 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		1.7998 mg/L	110 J mg/L				

TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 458314
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458314/1** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	mg/L	79	75 125		

RS# 2 Lab ID: **USB 280-458314/2** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	mg/L				

RS# 16 Lab ID: **LCS 280-458314/16** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		4.1398 mg/L	207 J mg/L	105	58 128		
Biochemical Oxygen		mg/L	mg/L	NaN	85 115		

RS# 17 Lab ID: **MB 280-458314/17** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 18 Lab ID: **280-123834-C-2** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 19 Lab ID: **280-123834-C-2 DU** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L			NC	20
Biochemical Oxygen		mg/L	mg/L				20

RS# 22 Lab ID: **280-123822-F-1** Inj Date: 5/15/2019 6:08:58PM Dil: 25 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		4.98715 mg/L	mg/L				
Biochemical Oxygen		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123834-2
LIMS Batch: 458314
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458314/1** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	777777777	mg/L	0.630 J mg/L	79	75 125		

RS# 2 Lab ID: **USB 280-458314/2** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	366666667	mg/L	0.24 U mg/L				

RS# 3 Lab ID: **LCS 280-458314/3** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen	366666666	mg/L	mg/L	99	85 115		

RS# 4 Lab ID: **MB 280-458314/4** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.24 U mg/L				

RS# 5 Lab ID: **280-123815-A-1** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.24 U mg/L				

RS# 6 Lab ID: **280-123815-A-1 DU** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.24 U mg/L			NC	20

RS# 16 Lab ID: **LCS 280-458314/16** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		4.1398 mg/L	207 J mg/L	105	58 128		
Biochemical Oxygen		mg/L	mg/L	NaN	85 115		

RS# 17 Lab ID: **MB 280-458314/17** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	0.24 U mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 18 Lab ID: **280-123834-C-2** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	0.24 U mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 19 Lab ID: **280-123834-C-2 DU** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	0.24 U mg/L			NC	20
Biochemical Oxygen		mg/L	mg/L				20

RS# 20 Lab ID: **280-123834-E-1** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	0.24 U mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 21 Lab ID: **280-123834-C-3** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	0.24 U mg/L				
Biochemical Oxygen		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123840-1
LIMS Batch: 458314
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458314/1** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	0.630 J mg/L	79	75 125		

RS# 2 Lab ID: **USB 280-458314/2** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458314/3** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen		366666666 mg/L	mg/L	99	85 115		

RS# 4 Lab ID: **MB 280-458314/4** Inj Date: 5/15/2019 3:45:57PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 5 Lab ID: **280-123815-A-1** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 6 Lab ID: **280-123815-A-1 DU** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	mg/L			NC	20

RS# 14 Lab ID: **280-123840-A-1** Inj Date: 5/15/2019 3:46:02PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		1.9298 mg/L	9.6 J mg/L				

RS# 15 Lab ID: **280-123840-A-2** Inj Date: 5/15/2019 6:07:55PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		5.7798 mg/L	mg/L				

Shipping and Receiving Documents

Chain of Custody Record 299609

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Marcia Oliva	Site Contact:	Date: 5/14/19	COC No:
Company Name: Bhate Environmental	Tel/Fax: 303-725-7631	Lab Contact:	Carrier:	___ of ___ COCs
Address: 445 Union Blvd #129	Analysis Turnaround Time			Sampler: G. Carmichael, H. Cavanaugh
City/State/Zip: Lakewood, CO 80228	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 303-725-7631	TAT if different from Below ____			Walk-in Client:
Fax: EMAIL: molivu@bhateenv.com	☐ 2 weeks			Lab Sampling:
Project Name: LF007 Landfill 5	☐ 1 week			
Site: GRIFFIS	☐ 2 days			Job / SDG No.:
PO # 3342	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Alkalinity [2320B]	Color [2120B]	Anions [9056A-28D_DOD5]	Anions [9056A-48H_DOD5]	Hardness [2340C]	Total Metal-Boron [6010C_DOD5]	Ammonia [350.1]	TKN [351.2]	COD [410.4]	TOC [9060A]	Phenolics [9066]	BOD [SM5210B-Borate]	TDS [2540C_Calc]	Sample Specific Notes:
LF5MW-3_0519	5/14/19	16:10		GW	10	N		x	x	x	x	x	x	x	x	x	x	x	x	x	
LF5MW-5_0519	5/14/19	16:40		GW	10	N		x	x	x	x	x	x	x	x	x	x	x	x	x	
LF5MW-5_0519-9	5/14/19	16:40		GW	10	N		x	x	x	x	x	x	x	x	x	x	x	x	x	



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ | Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
H. Cavanaugh	ECC	5/14/19 18:20		TAEN	5/15/19 0915
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

1.6, 33, 10, IR9 by AHG 5.15.19

Login Sample Receipt Checklist

Client: Bhate Environmental

Job Number: 280-123814-1

Login Number: 123814
List Number: 1
Creator: Gomez, Alyssa I

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 280-123853-1

Job Description: Griffiss AFB, LF009 Landfill 6

For:
Bhate Environmental
445 Union Blvd Ste.129
Lakewood, CO 80226

Attention: Marcia Olive



Approved for release.
Kayse 1 Zalmai
Project Manager I
6/11/2019 3:20 PM

Kayse 1 Zalmai, Project Manager I
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
kayse.zalmai@testamericainc.com
06/11/2019

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Qualifiers

Metals

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE
Client: Bhate Environmental
Project: Griffiss AFB, LF009 Landfill 6
Report Number: 280-123853-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interfererences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/16/2019; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8º C, 1.3º C and 2.9º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for total metals (ICP) in accordance with 6010C. The samples were prepared on 05/23/2019 and analyzed on 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/29/2019.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 280-459818 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL KJELDAHL NITROGEN

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 06/04/2019 and analyzed on 06/05/2019.

Nitrogen, Kjeldahl failed the recovery criteria low for the MS and MSD of sample 280-123930-3 in batch 280-460603.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for

chemical oxygen demand in accordance with EPA Method 410.4. The samples were analyzed on 06/05/2019.

The following samples were analyzed at a 2x dilution due to the chloride pre-screening result(s) obtained: LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), LF6/TMCSW-3_0519 (280-123853-6) and (280-123855-D-5).

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AND ORTHOPHOSPHATE AS P

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for nitrate-nitrite and orthophosphate as P in accordance with 9056A_48H_DOD5. The samples were analyzed on 05/16/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFATE

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for sulfate in accordance with 9056A. The samples were analyzed on 05/16/2019.

Fluoride was detected in method blank MB 280-458414/6 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

Samples LF6MW-1_0519 (280-123853-1)[20X], 775VMW-18R_0519 (280-123853-2)[20X] and LF6/TMCSW-3_0519 (280-123853-6)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 06/07/2019 and 06/08/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PHENOLICS, TOTAL RECOVERABLE

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for phenolics, total recoverable in accordance with EPA SW-846 Method 9066. The samples were prepared and analyzed on 06/04/2019 and 06/06/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

COLOR

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for color in accordance with SM20 2120B - Colorimetric. The samples were analyzed on 05/16/2019.

Sample TMC-USGS-2_0519 (280-123853-3)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for alkalinity in accordance with SM20 2320B. The samples were analyzed on 05/22/2019 and 05/23/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HARDNESS

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for hardness in accordance with SM20 2340C. The samples were analyzed on 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3),

LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 05/21/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND

Samples LF6MW-1_0519 (280-123853-1), 775VMW-18R_0519 (280-123853-2), TMC-USGS-2_0519 (280-123853-3), LF6VMW-21_0519 (280-123853-4), LF6VMW-21_0519-a (280-123853-5) and LF6/TMCSW-3_0519 (280-123853-6) were analyzed for Biochemical Oxygen Demand in accordance with SM20 5210B. The samples were analyzed on 05/16/2019.

Biochemical Oxygen Demand was detected in method blank SCB 280-458482/1 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

The sample duplicate (DUP) precision for analytical batch 280-458482 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Bhate Environmental
Job ID: 280-123853-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Client Sample ID: LF6MW-1_0519 — Lab Sample ID: 280-123853-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	12	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.78		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	680	D	60	20	mg/L	20		9056A	Total/NA
Orthophosphate as P	0.41	J	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.94	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.78		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	14		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	0.77	J	1.0	0.16	mg/L	1		9060A	Total/NA
Color	15		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	270		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	360		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	1700		40	19	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 775VMW-18R_0519 — Lab Sample ID: 280-123853-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	23	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	2.8		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	690	D	60	20	mg/L	20		9056A	Total/NA
Orthophosphate as P	0.27	J	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.90	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	2.8		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	45		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	0.80	J	1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0071	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	20		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	150		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	510		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	1500		40	19	mg/L	1		SM 2540C	Total/NA

Client Sample ID: TMC-USGS-2_0519 — Lab Sample ID: 280-123853-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	14	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.051	J	0.10	0.022	mg/L	1		350.1	Total/NA
Bromide	0.25	J	0.50	0.11	mg/L	1		9056A	Total/NA
Nitrate Nitrite as N	0.86		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	45		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.34	J	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.86		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	24		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	0.61	J	1.0	0.16	mg/L	1		9060A	Total/NA
Color	10	D	10	10	PCU	2		SM 2120B	Total/NA
Alkalinity	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	230		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	330		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6VMW-21_0519 — Lab Sample ID: 280-123853-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	6.0	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.62		0.50	0.042	mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF6VMW-21_0519 (Continued)
Lab Sample ID: 280-123853-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Chloride	150		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.20	J	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.62		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	6.5		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	0.37	J	1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0091	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	20		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	70		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	190		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	350		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6VMW-21_0519-a
Lab Sample ID: 280-123853-5

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	6.6	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrate Nitrite as N	0.62		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	150		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.19	J	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.62		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	6.4		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	0.32	J	1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0076	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	30		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	71		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	190		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	360		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6/TMCSW-3_0519
Lab Sample ID: 280-123853-6

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	17	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.033	J	0.10	0.022	mg/L	1		350.1	Total/NA
Bromide	1.1		0.50	0.11	mg/L	1		9056A	Total/NA
Nitrate Nitrite as N	0.59		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	220	D	15	5.1	mg/L	5		9056A	Total/NA
Orthophosphate as P	0.38	J	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.59		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	22		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	4.3		1.0	0.16	mg/L	1		9060A	Total/NA
Color	40		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	200		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	250		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	650		10	4.7	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF6MW-1_0519
Lab Sample ID: 280-123853-1

Date Collected: 05/15/19 14:15
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**12**	**J**	100	4.4	ug/L		05/23/19 08:00	05/24/19 07:24	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 11:40	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:54	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/05/19 10:06	2
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 19:37	1
Nitrate Nitrite as N	**0.78**		0.50	0.042	mg/L			05/16/19 19:37	1
Chloride	**680**	**D**	60	20	mg/L			05/16/19 19:53	20
Orthophosphate as P	**0.41**	**J**	0.50	0.19	mg/L			05/16/19 19:37	1
Fluoride	**0.94**	**J**	1.0	0.060	mg/L			05/16/19 19:37	1
Nitrate	**0.78**		0.50	0.042	mg/L			05/16/19 19:37	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 19:37	1
Sulfate	**14**		5.0	1.0	mg/L			05/16/19 19:37	1
Total Organic Carbon - Quad	**0.77**	**J**	1.0	0.16	mg/L			06/07/19 22:36	1
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 22:37	1
Color	**15**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**270**		10	3.1	mg/L			05/22/19 23:42	1
Hardness	**360**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**1700**		40	19	mg/L			05/21/19 20:04	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: 775VMW-18R_0519
Lab Sample ID: 280-123853-2

Date Collected: 05/15/19 14:18
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**23**	**J**	100	4.4	ug/L		05/23/19 08:00	05/24/19 07:28	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 11:42	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:55	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/05/19 10:06	2
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 20:09	1
Nitrate Nitrite as N	**2.8**		0.50	0.042	mg/L			05/16/19 20:09	1
Chloride	**690**	**D**	60	20	mg/L			05/16/19 20:26	20
Orthophosphate as P	**0.27**	**J**	0.50	0.19	mg/L			05/16/19 20:09	1
Fluoride	**0.90**	**J**	1.0	0.060	mg/L			05/16/19 20:09	1
Nitrate	**2.8**		0.50	0.042	mg/L			05/16/19 20:09	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 20:09	1
Sulfate	**45**		5.0	1.0	mg/L			05/16/19 20:09	1
Total Organic Carbon - Quad	**0.80**	**J**	1.0	0.16	mg/L			06/07/19 23:21	1
Phenols, Total	**0.0071**	**J**	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 22:40	1
Color	**20**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**150**		10	3.1	mg/L			05/22/19 23:58	1
Hardness	**510**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**1500**		40	19	mg/L			05/21/19 20:04	1

Client Sample ID: 775VMW-18R_0519
Lab Sample ID: 280-123853-2
Date Collected: 05/15/19 14:18
Matrix: Water
Date Received: 05/16/19 08:55

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: TMC-USGS-2_0519
Lab Sample ID: 280-123853-3
Date Collected: 05/15/19 17:00
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**14**	**J**	100	4.4	ug/L		05/23/19 08:00	05/24/19 07:31	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.051**	**J**	0.10	0.022	mg/L			05/29/19 11:56	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:59	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/05/19 10:06	1
Bromide	**0.25**	**J**	0.50	0.11	mg/L			05/16/19 20:42	1
Nitrate Nitrite as N	**0.86**		0.50	0.042	mg/L			05/16/19 20:42	1
Chloride	**45**		3.0	1.0	mg/L			05/16/19 20:42	1
Orthophosphate as P	**0.34**	**J**	0.50	0.19	mg/L			05/16/19 20:42	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/16/19 20:42	1
Nitrate	**0.86**		0.50	0.042	mg/L			05/16/19 20:42	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 20:42	1
Sulfate	**24**		5.0	1.0	mg/L			05/16/19 20:42	1
Total Organic Carbon - Quad	**0.61**	**J**	1.0	0.16	mg/L			06/07/19 23:35	1
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 22:43	1
Color	**10**	**D**	10	10	PCU			05/16/19 18:11	2
Alkalinity	**160**		10	3.1	mg/L			05/23/19 00:04	1
Hardness	**230**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**330**		10	4.7	mg/L			05/21/19 20:04	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: LF6VMW-21_0519
Lab Sample ID: 280-123853-4
Date Collected: 05/15/19 16:38
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.0**	**J**	100	4.4	ug/L		05/23/19 08:00	05/24/19 07:35	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 11:58	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 19:00	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/05/19 10:06	1
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 22:21	1
Nitrate Nitrite as N	**0.62**		0.50	0.042	mg/L			05/16/19 22:21	1
Chloride	**150**		3.0	1.0	mg/L			05/16/19 22:21	1
Orthophosphate as P	**0.20**	**J**	0.50	0.19	mg/L			05/16/19 22:21	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/16/19 22:21	1
Nitrate	**0.62**		0.50	0.042	mg/L			05/16/19 22:21	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 22:21	1

Client Sample ID: LF6VMW-21_0519
Lab Sample ID: 280-123853-4
Date Collected: 05/15/19 16:38
Matrix: Water
Date Received: 05/16/19 08:55

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**6.5**		5.0	1.0	mg/L			05/16/19 22:21	1
Total Organic Carbon - Quad	**0.37**	**J**	1.0	0.16	mg/L			06/07/19 23:54	1
Phenols, Total	**0.0091**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 19:20	1
Color	**20**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**70**		10	3.1	mg/L			05/23/19 00:10	1
Hardness	**190**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**350**		10	4.7	mg/L			05/21/19 20:04	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: LF6VMW-21_0519-a
Lab Sample ID: 280-123853-5
Date Collected: 05/15/19 16:38
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.6**	**J**	100	4.4	ug/L		05/23/19 08:00	05/24/19 07:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 12:00	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 19:02	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/05/19 10:06	1
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 22:54	1
Nitrate Nitrite as N	**0.62**		0.50	0.042	mg/L			05/16/19 22:54	1
Chloride	**150**		3.0	1.0	mg/L			05/16/19 22:54	1
Orthophosphate as P	**0.19**	**J**	0.50	0.19	mg/L			05/16/19 22:54	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/16/19 22:54	1
Nitrate	**0.62**		0.50	0.042	mg/L			05/16/19 22:54	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 22:54	1
Sulfate	**6.4**		5.0	1.0	mg/L			05/16/19 22:54	1
Total Organic Carbon - Quad	**0.32**	**J**	1.0	0.16	mg/L			06/08/19 00:09	1
Phenols, Total	**0.0076**	**J**	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 19:23	1
Color	**30**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**71**		10	3.1	mg/L			05/23/19 00:16	1
Hardness	**190**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**360**		10	4.7	mg/L			05/21/19 20:04	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Client Sample ID: LF6/TMCSW-3_0519
Lab Sample ID: 280-123853-6
Date Collected: 05/15/19 17:30
Matrix: Water
Date Received: 05/16/19 08:55

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**17**	**J**	100	4.4	ug/L		05/23/19 08:00	05/24/19 07:56	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.033**	**J**	0.10	0.022	mg/L			05/29/19 12:06	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 19:03	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/05/19 10:06	2

Client Sample ID: LF6/TMCSW-3_0519
Lab Sample ID: 280-123853-6

Date Collected: 05/15/19 17:30
Matrix: Water
Date Received: 05/16/19 08:55

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**1.1**		0.50	0.11	mg/L			05/16/19 23:26	1
Nitrate Nitrite as N	**0.59**		0.50	0.042	mg/L			05/16/19 23:26	1
Chloride	**220**	**D**	15	5.1	mg/L			05/16/19 23:43	5
Orthophosphate as P	**0.38**	**J**	0.50	0.19	mg/L			05/16/19 23:26	1
Fluoride	0.10	U	1.0	0.060	mg/L			05/16/19 23:26	1
Nitrate	**0.59**		0.50	0.042	mg/L			05/16/19 23:26	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 23:26	1
Sulfate	**22**		5.0	1.0	mg/L			05/16/19 23:26	1
Total Organic Carbon - Quad	**4.3**		1.0	0.16	mg/L			06/08/19 00:26	1
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 19:26	1
Color	**40**		5.0	5.0	PCU			05/16/19 18:11	1
Alkalinity	**200**		10	3.1	mg/L			05/23/19 00:22	1
Hardness	**250**		3.0	0.30	mg/L			05/24/19 15:23	1
Total Dissolved Solids (TDS)	**650**		10	4.7	mg/L			05/21/19 20:04	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Default Detection Limits

Client: Bhate Environmental
Job ID: 280-123853-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Method: 6010C - Metals (ICP)

Prep: 3010A

Analyte	LOQ	DL	Units
Boron	100	4.4	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Chemical Oxygen Demand (COD)	20	8.7	mg/L
Bromide	0.50	0.11	mg/L
Chloride	3.0	1.0	mg/L
Fluoride	1.0	0.060	mg/L
Nitrate	0.50	0.042	mg/L
Nitrate Nitrite as N	0.50	0.042	mg/L
Nitrite	0.50	0.049	mg/L
Orthophosphate as P	0.50	0.19	mg/L
Sulfate	5.0	1.0	mg/L
Total Organic Carbon - Quad	1.0	0.16	mg/L
Color	5.0	5.0	PCU
Alkalinity	10	3.1	mg/L
Hardness	3.0	0.30	mg/L
Total Dissolved Solids (TDS)	10	4.7	mg/L
Biochemical Oxygen Demand	2.0	0.24	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: Distill/Phenol

Analyte	LOQ	DL	Units
Phenols, Total	0.020	0.0068	mg/L

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-459137/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15	U	100	4.4	ug/L		05/23/19 08:00	05/24/19 06:34	1

Lab Sample ID: LCS 280-459137/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	965		ug/L		97	85 - 113

Lab Sample ID: LCSD 280-459137/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	986		ug/L		99	85 - 113	2	20

Lab Sample ID: 280-123814-F-1-B MS
Client Sample ID: Matrix Spike
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	220		1000	1260		ug/L		103	85 - 113

Lab Sample ID: 280-123814-F-1-C MSD
Client Sample ID: Matrix Spike Duplicate
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459331
Prep Batch: 459137

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	220		1000	1240		ug/L		102	85 - 113	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-459818/19
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459818

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/29/19 11:22	1

Lab Sample ID: LCS 280-459818/18
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.57		mg/L		103	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 280-123853-5 MS
Client Sample ID: LF6VMW-21_0519-a
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459818

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.050	U J1	1.00	1.11	J1	mg/L		111	90 - 110

Lab Sample ID: 280-123853-5 MSD
Client Sample ID: LF6VMW-21_0519-a
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459818

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.050	U J1	1.00	1.13	J1	mg/L		113	90 - 110	2	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-460465/28-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460603
Prep Batch: 460465

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 18:39	1

Lab Sample ID: MB 280-460465/2-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460603
Prep Batch: 460465

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/04/19 19:37	06/05/19 17:48	1

Lab Sample ID: LCS 280-460465/1-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460603
Prep Batch: 460465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	6.00	6.25		mg/L		104	90 - 110

Lab Sample ID: LCS 280-460465/27-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460603
Prep Batch: 460465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	6.00	6.11		mg/L		102	90 - 110

Lab Sample ID: 280-123930-E-3-B MS
Client Sample ID: Matrix Spike
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460603
Prep Batch: 460465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	0.50	U J1	3.00	2.48	J1	mg/L		83	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: 280-123930-E-3-C MSD
Matrix: Water
Analysis Batch: 460603

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 460465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	0.50	U J1	3.00	2.58	J1	mg/L		86	90 - 110	4	25

Method: 410.4 - COD

Lab Sample ID: MB 280-460546/5
Matrix: Water
Analysis Batch: 460546

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/05/19 10:06	1

Lab Sample ID: LCS 280-460546/3
Matrix: Water
Analysis Batch: 460546

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	96.3		mg/L		96	90 - 110

Lab Sample ID: LCSD 280-460546/4
Matrix: Water
Analysis Batch: 460546

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	100	95.3		mg/L		95	90 - 110	1	11

Lab Sample ID: 280-123855-D-5 MS
Matrix: Water
Analysis Batch: 460546

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	40	U	100	104	D	mg/L		104	90 - 110

Lab Sample ID: 280-123855-D-5 MSD
Matrix: Water
Analysis Batch: 460546

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	40	U	100	95.4	D	mg/L		95	90 - 110	9	11

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-458413/6
Matrix: Water
Analysis Batch: 458413

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/16/19 15:06	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			05/16/19 15:06	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/16/19 15:06	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/16/19 15:06	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 280-458413/4
Matrix: Water
Analysis Batch: 458413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	10.0	9.86		mg/L		99	80 - 120
Orthophosphate as P	5.00	5.02		mg/L		100	80 - 116
Nitrate	5.00	4.95		mg/L		99	88 - 111
Nitrite	5.00	4.91		mg/L		98	87 - 111

Lab Sample ID: LCSD 280-458413/5
Matrix: Water
Analysis Batch: 458413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	9.89		mg/L		99	80 - 120	0	10
Orthophosphate as P	5.00	5.04		mg/L		101	80 - 116	0	10
Nitrate	5.00	4.96		mg/L		99	88 - 111	0	10
Nitrite	5.00	4.93		mg/L		99	87 - 111	0	10

Lab Sample ID: MRL 280-458413/3
Matrix: Water
Analysis Batch: 458413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.442	J	mg/L		111	50 - 150
Orthophosphate as P	0.200	0.205	J	mg/L		102	50 - 150
Nitrate	0.200	0.228	J	mg/L		114	50 - 150
Nitrite	0.200	0.214	J	mg/L		107	50 - 150

Lab Sample ID: 280-123853-3 DU
Matrix: Water
Analysis Batch: 458413

Client Sample ID: TMC-USGS-2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.86		0.857		mg/L		0.3	10
Orthophosphate as P	0.34	J	0.336	J	mg/L		1	10
Nitrate	0.86		0.857		mg/L		0.09	10
Nitrite	0.10	U	0.10	U	mg/L		NC	10

Lab Sample ID: MB 280-458414/6
Matrix: Water
Analysis Batch: 458414

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/16/19 15:06	1
Chloride	3.0	U	3.0	1.0	mg/L			05/16/19 15:06	1
Fluoride	0.389	J	1.0	0.060	mg/L			05/16/19 15:06	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/16/19 15:06	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 280-458414/4
Matrix: Water
Analysis Batch: 458414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.21		mg/L		104	91 - 110
Chloride	100	95.4		mg/L		95	87 - 111
Fluoride	5.00	4.98		mg/L		100	88 - 112
Sulfate	100	93.6		mg/L		94	87 - 112

Lab Sample ID: LCSD 280-458414/5
Matrix: Water
Analysis Batch: 458414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.21		mg/L		104	91 - 110	0	10
Chloride	100	95.7		mg/L		96	87 - 111	0	10
Fluoride	5.00	4.99		mg/L		100	88 - 112	0	10
Sulfate	100	93.6		mg/L		94	87 - 112	0	10

Lab Sample ID: MRL 280-458414/3
Matrix: Water
Analysis Batch: 458414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.212	J	mg/L		106	50 - 150
Chloride	2.50	2.33	J M	mg/L		93	50 - 150
Fluoride	0.200	0.152	J M	mg/L		76	50 - 150
Sulfate	2.50	2.37	J	mg/L		95	50 - 150

Lab Sample ID: 280-123853-3 DU
Matrix: Water
Analysis Batch: 458414

Client Sample ID: TMC-USGS-2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.25	J	0.254	J	mg/L		0.3	10
Chloride	45		45.1		mg/L		0.07	10
Fluoride	0.10	U	0.10	U	mg/L		NC	10
Sulfate	24		24.4		mg/L		0.3	10

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-460997/4
Matrix: Water
Analysis Batch: 460997

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/07/19 16:34	1

Lab Sample ID: LCS 280-460997/3
Matrix: Water
Analysis Batch: 460997

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	24.4		mg/L		98	88 - 112

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: 280-123843-B-1 MS
Matrix: Water
Analysis Batch: 460997

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	0.57	J	25.0	25.6		mg/L		100	88 - 112

Lab Sample ID: 280-123843-B-1 MSD
Matrix: Water
Analysis Batch: 460997

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	0.57	J	25.0	25.6		mg/L		100	88 - 112	0	15

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 280-460448/2-A
Matrix: Water
Analysis Batch: 460486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460448

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/04/19 16:52	06/04/19 21:46	1

Lab Sample ID: LCS 280-460448/1-A
Matrix: Water
Analysis Batch: 460486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.181		mg/L		90	90 - 110

Lab Sample ID: 280-123814-G-1-B MS
Matrix: Water
Analysis Batch: 460486

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 460448

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.020	U	0.201	0.187		mg/L		93	72 - 118

Lab Sample ID: 280-123814-G-1-C MSD
Matrix: Water
Analysis Batch: 460486

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 460448

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenols, Total	0.020	U	0.201	0.189		mg/L		94	72 - 118	1	16

Lab Sample ID: MB 280-460735/2-A
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460735

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/06/19 15:30	06/06/19 19:05	1

Method: 9066 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 280-460735/1-A
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460735

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenols, Total			0.201	0.201		mg/L		100	90 - 110		

Lab Sample ID: 280-123855-D-1-C MS
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 460735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenols, Total	0.010	J	0.201	0.207		mg/L		98	72 - 118		

Lab Sample ID: 280-123855-D-1-D MSD
Matrix: Water
Analysis Batch: 460772

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 460735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenols, Total	0.010	J	0.201	0.214		mg/L		101	72 - 118	3	16

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-458496/1
Matrix: Water
Analysis Batch: 458496

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0	U	5.0	5.0	PCU			05/16/19 18:11	1

Lab Sample ID: 280-123853-1 DU
Matrix: Water
Analysis Batch: 458496

Client Sample ID: LF6MW-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	15		15.0		PCU		0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-459192/31
Matrix: Water
Analysis Batch: 459192

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/22/19 21:10	1

Lab Sample ID: LCS 280-459192/30
Matrix: Water
Analysis Batch: 459192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			200	198		mg/L		99	89 - 109		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 280-123820-I-5 DU
Matrix: Water
Analysis Batch: 459192

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	680			709		mg/L				4	10

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 280-459401/2
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness	0.81	U	3.0	0.30	mg/L			05/24/19 15:23	1

Lab Sample ID: LCS 280-459401/1
Matrix: Water
Analysis Batch: 459401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness			398	398		mg/L		100	90 - 110		

Lab Sample ID: 280-123853-1 MS
Matrix: Water
Analysis Batch: 459401

Client Sample ID: LF6MW-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness	360		398	764		mg/L		102	90 - 110		

Lab Sample ID: 280-123853-1 MSD
Matrix: Water
Analysis Batch: 459401

Client Sample ID: LF6MW-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hardness	360		398	766		mg/L		102	90 - 110	0	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-458975/1
Matrix: Water
Analysis Batch: 458975

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			05/21/19 20:04	1

Lab Sample ID: LCS 280-458975/2
Matrix: Water
Analysis Batch: 458975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids (TDS)			500	496		mg/L		99	93 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 280-123853-1 DU
Matrix: Water
Analysis Batch: 458975

Client Sample ID: LF6MW-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids (TDS)	1700			1700		mg/L				3	10

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-458482/9
Matrix: Water
Analysis Batch: 458482

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Lab Sample ID: SCB 280-458482/1
Matrix: Water
Analysis Batch: 458482

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.719	J	2.0	0.24	mg/L			05/16/19 16:27	1

Lab Sample ID: USB 280-458482/2
Matrix: Water
Analysis Batch: 458482

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/16/19 16:27	1

Lab Sample ID: LCS 280-458482/8
Matrix: Water
Analysis Batch: 458482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	202		mg/L		102	85 - 115		

Lab Sample ID: 280-123853-1 DU
Matrix: Water
Analysis Batch: 458482

Client Sample ID: LF6MW-1_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	0.59	U		0.59	U	mg/L				NC	20

Metals

Prep Batch: 459137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	3010A	
280-123853-2	775VMW-18R_0519	Total/NA	Water	3010A	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	3010A	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	3010A	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	3010A	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	3010A	
MB 280-459137/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-459137/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-459137/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-123814-F-1-B MS	Matrix Spike	Total/NA	Water	3010A	
280-123814-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

Analysis Batch: 459331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	6010C	459137
280-123853-2	775VMW-18R_0519	Total/NA	Water	6010C	459137
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	6010C	459137
280-123853-4	LF6VMW-21_0519	Total/NA	Water	6010C	459137
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	6010C	459137
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	6010C	459137
MB 280-459137/1-A	Method Blank	Total/NA	Water	6010C	459137
LCS 280-459137/2-A	Lab Control Sample	Total/NA	Water	6010C	459137
LCSD 280-459137/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	459137
280-123814-F-1-B MS	Matrix Spike	Total/NA	Water	6010C	459137
280-123814-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010C	459137

General Chemistry

Analysis Batch: 458413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	9056A	
280-123853-2	775VMW-18R_0519	Total/NA	Water	9056A	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	9056A	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	9056A	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	9056A	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	9056A	
MB 280-458413/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458413/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458413/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458413/3	Lab Control Sample	Total/NA	Water	9056A	
280-123853-3 MS	TMC-USGS-2_0519	Total/NA	Water	9056A	
280-123853-3 MSD	TMC-USGS-2_0519	Total/NA	Water	9056A	
280-123853-3 DU	TMC-USGS-2_0519	Total/NA	Water	9056A	

Analysis Batch: 458414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	9056A	
280-123853-1	LF6MW-1_0519	Total/NA	Water	9056A	
280-123853-2	775VMW-18R_0519	Total/NA	Water	9056A	
280-123853-2	775VMW-18R_0519	Total/NA	Water	9056A	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 458414 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-4	LF6VMW-21_0519	Total/NA	Water	9056A	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	9056A	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	9056A	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	9056A	
MB 280-458414/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458414/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458414/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458414/3	Lab Control Sample	Total/NA	Water	9056A	
280-123853-3 MS	TMC-USGS-2_0519	Total/NA	Water	9056A	
280-123853-3 MSD	TMC-USGS-2_0519	Total/NA	Water	9056A	
280-123853-3 DU	TMC-USGS-2_0519	Total/NA	Water	9056A	

Analysis Batch: 458482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	SM5210B	
280-123853-2	775VMW-18R_0519	Total/NA	Water	SM5210B	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	SM5210B	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	SM5210B	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	SM5210B	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	SM5210B	
MB 280-458482/9	Method Blank	Total/NA	Water	SM5210B	
SCB 280-458482/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-458482/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-458482/8	Lab Control Sample	Total/NA	Water	SM5210B	
280-123853-1 DU	LF6MW-1_0519	Total/NA	Water	SM5210B	

Analysis Batch: 458496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	SM 2120B	
280-123853-2	775VMW-18R_0519	Total/NA	Water	SM 2120B	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	SM 2120B	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	SM 2120B	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	SM 2120B	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	SM 2120B	
MB 280-458496/1	Method Blank	Total/NA	Water	SM 2120B	
280-123853-1 DU	LF6MW-1_0519	Total/NA	Water	SM 2120B	

Analysis Batch: 458975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	SM 2540C	
280-123853-2	775VMW-18R_0519	Total/NA	Water	SM 2540C	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	SM 2540C	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	SM 2540C	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	SM 2540C	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	SM 2540C	
MB 280-458975/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-458975/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-123853-1 DU	LF6MW-1_0519	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 459192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	SM 2320B	
280-123853-2	775VMW-18R_0519	Total/NA	Water	SM 2320B	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	SM 2320B	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	SM 2320B	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	SM 2320B	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	SM 2320B	
MB 280-459192/31	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-459192/30	Lab Control Sample	Total/NA	Water	SM 2320B	
280-123820-I-5 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 459401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	SM 2340C	
280-123853-2	775VMW-18R_0519	Total/NA	Water	SM 2340C	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	SM 2340C	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	SM 2340C	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	SM 2340C	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	SM 2340C	
MB 280-459401/2	Method Blank	Total/NA	Water	SM 2340C	
LCS 280-459401/1	Lab Control Sample	Total/NA	Water	SM 2340C	
280-123853-1 MS	LF6MW-1_0519	Total/NA	Water	SM 2340C	
280-123853-1 MSD	LF6MW-1_0519	Total/NA	Water	SM 2340C	

Analysis Batch: 459818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	350.1	
280-123853-2	775VMW-18R_0519	Total/NA	Water	350.1	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	350.1	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	350.1	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	350.1	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	350.1	
MB 280-459818/19	Method Blank	Total/NA	Water	350.1	
LCS 280-459818/18	Lab Control Sample	Total/NA	Water	350.1	
280-123853-5 MS	LF6VMW-21_0519-a	Total/NA	Water	350.1	
280-123853-5 MSD	LF6VMW-21_0519-a	Total/NA	Water	350.1	

Prep Batch: 460448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	Distill/Phenol	
280-123853-2	775VMW-18R_0519	Total/NA	Water	Distill/Phenol	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	Distill/Phenol	
MB 280-460448/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460448/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
280-123814-G-1-B MS	Matrix Spike	Total/NA	Water	Distill/Phenol	
280-123814-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	Distill/Phenol	

Prep Batch: 460465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	351.2	
280-123853-2	775VMW-18R_0519	Total/NA	Water	351.2	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	351.2	

General Chemistry (Continued)

Prep Batch: 460465 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-4	LF6VMW-21_0519	Total/NA	Water	351.2	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	351.2	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	351.2	
MB 280-460465/28-A	Method Blank	Total/NA	Water	351.2	
MB 280-460465/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-460465/1-A	Lab Control Sample	Total/NA	Water	351.2	
LCS 280-460465/27-A	Lab Control Sample	Total/NA	Water	351.2	
280-123930-E-3-B MS	Matrix Spike	Total/NA	Water	351.2	
280-123930-E-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	351.2	

Analysis Batch: 460486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	9066	460448
280-123853-2	775VMW-18R_0519	Total/NA	Water	9066	460448
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	9066	460448
MB 280-460448/2-A	Method Blank	Total/NA	Water	9066	460448
LCS 280-460448/1-A	Lab Control Sample	Total/NA	Water	9066	460448
280-123814-G-1-B MS	Matrix Spike	Total/NA	Water	9066	460448
280-123814-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	9066	460448

Analysis Batch: 460546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	410.4	
280-123853-2	775VMW-18R_0519	Total/NA	Water	410.4	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	410.4	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	410.4	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	410.4	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	410.4	
MB 280-460546/5	Method Blank	Total/NA	Water	410.4	
LCS 280-460546/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-460546/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-123855-D-5 MS	Matrix Spike	Total/NA	Water	410.4	
280-123855-D-5 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 460603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	351.2	460465
280-123853-2	775VMW-18R_0519	Total/NA	Water	351.2	460465
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	351.2	460465
280-123853-4	LF6VMW-21_0519	Total/NA	Water	351.2	460465
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	351.2	460465
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	351.2	460465
MB 280-460465/28-A	Method Blank	Total/NA	Water	351.2	460465
MB 280-460465/2-A	Method Blank	Total/NA	Water	351.2	460465
LCS 280-460465/1-A	Lab Control Sample	Total/NA	Water	351.2	460465
LCS 280-460465/27-A	Lab Control Sample	Total/NA	Water	351.2	460465
280-123930-E-3-B MS	Matrix Spike	Total/NA	Water	351.2	460465
280-123930-E-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	351.2	460465

General Chemistry

Prep Batch: 460735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-4	LF6VMW-21_0519	Total/NA	Water	Distill/Phenol	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	Distill/Phenol	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	Distill/Phenol	
MB 280-460735/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460735/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
280-123855-D-1-C MS	Matrix Spike	Total/NA	Water	Distill/Phenol	
280-123855-D-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	Distill/Phenol	

Analysis Batch: 460772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-4	LF6VMW-21_0519	Total/NA	Water	9066	460735
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	9066	460735
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	9066	460735
MB 280-460735/2-A	Method Blank	Total/NA	Water	9066	460735
LCS 280-460735/1-A	Lab Control Sample	Total/NA	Water	9066	460735
280-123855-D-1-C MS	Matrix Spike	Total/NA	Water	9066	460735
280-123855-D-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	9066	460735

Analysis Batch: 460997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123853-1	LF6MW-1_0519	Total/NA	Water	9060A	
280-123853-2	775VMW-18R_0519	Total/NA	Water	9060A	
280-123853-3	TMC-USGS-2_0519	Total/NA	Water	9060A	
280-123853-4	LF6VMW-21_0519	Total/NA	Water	9060A	
280-123853-5	LF6VMW-21_0519-a	Total/NA	Water	9060A	
280-123853-6	LF6/TMCSW-3_0519	Total/NA	Water	9060A	
MB 280-460997/4	Method Blank	Total/NA	Water	9060A	
LCS 280-460997/3	Lab Control Sample	Total/NA	Water	9060A	
280-123843-B-1 MS	Matrix Spike	Total/NA	Water	9060A	
280-123843-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	9060A	

Client Sample ID: LF6MW-1_0519
Date Collected: 05/15/19 14:15
Date Received: 05/16/19 08:55

Lab Sample ID: 280-123853-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459137	05/23/19 08:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459331	05/24/19 07:24	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 11:40	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:54	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460546	06/05/19 10:06	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 19:37	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 19:37	JAP	TAL DEN
Total/NA	Analysis	9056A		20	5 mL	5 mL	458414	05/16/19 19:53	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460997	06/07/19 22:36	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460448	06/04/19 16:52	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460486	06/04/19 22:37	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/22/19 23:42	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	458975	05/21/19 20:04	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: 775VMW-18R_0519
Date Collected: 05/15/19 14:18
Date Received: 05/16/19 08:55

Lab Sample ID: 280-123853-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459137	05/23/19 08:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459331	05/24/19 07:28	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 11:42	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:55	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460546	06/05/19 10:06	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 20:09	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 20:09	JAP	TAL DEN
Total/NA	Analysis	9056A		20	5 mL	5 mL	458414	05/16/19 20:26	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460997	06/07/19 23:21	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460448	06/04/19 16:52	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460486	06/04/19 22:40	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/22/19 23:58	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	458975	05/21/19 20:04	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: TMC-USGS-2_0519
Lab Sample ID: 280-123853-3
Date Collected: 05/15/19 17:00
Matrix: Water
Date Received: 05/16/19 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459137	05/23/19 08:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459331	05/24/19 07:31	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 11:56	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 18:59	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460546	06/05/19 10:06	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 20:42	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 20:42	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460997	06/07/19 23:35	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460448	06/04/19 16:52	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460486	06/04/19 22:43	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		2	25 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/23/19 00:04	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	458975	05/21/19 20:04	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: LF6VMW-21_0519
Lab Sample ID: 280-123853-4
Date Collected: 05/15/19 16:38
Matrix: Water
Date Received: 05/16/19 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459137	05/23/19 08:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459331	05/24/19 07:35	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 11:58	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 19:00	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460546	06/05/19 10:06	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 22:21	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 22:21	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460997	06/07/19 23:54	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 19:20	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/23/19 00:10	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	458975	05/21/19 20:04	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: LF6VMW-21_0519-a
Lab Sample ID: 280-123853-5

Date Collected: 05/15/19 16:38
Matrix: Water
Date Received: 05/16/19 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459137	05/23/19 08:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459331	05/24/19 07:39	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 12:00	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 19:02	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460546	06/05/19 10:06	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 22:54	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 22:54	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460997	06/08/19 00:09	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 19:23	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/23/19 00:16	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	458975	05/21/19 20:04	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Client Sample ID: LF6/TMCSW-3_0519
Lab Sample ID: 280-123853-6

Date Collected: 05/15/19 17:30
Matrix: Water
Date Received: 05/16/19 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459137	05/23/19 08:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459331	05/24/19 07:56	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459818	05/29/19 12:06	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460465	06/04/19 19:37	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460603	06/05/19 19:03	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460546	06/05/19 10:06	CCJ	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458413	05/16/19 23:26	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458414	05/16/19 23:26	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458414	05/16/19 23:43	JAP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	460997	06/08/19 00:26	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460735	06/06/19 15:30	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 19:26	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458496	05/16/19 18:11	KES	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/23/19 00:22	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459401	05/24/19 15:23	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	458975	05/21/19 20:04	SVC	TAL DEN
Total/NA	Analysis	SM5210B		1			458482	05/16/19 16:27	EC	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Bhate Environmental
Job ID: 280-123853-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Laboratory: Eurofins TestAmerica, Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD		2907.01	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2120B		Water	Color
SM 2340C		Water	Hardness

New York	NELAP	2	11964	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3010A	Water	Boron
9056A		Water	Bromide
9056A		Water	Chloride
9056A		Water	Fluoride
9056A		Water	Nitrate
9056A		Water	Nitrate Nitrite as N
9056A		Water	Nitrite
9056A		Water	Orthophosphate as P
9056A		Water	Sulfate
9060A		Water	Total Organic Carbon - Quad

Method Summary

Client: Bhate Environmental
Job ID: 280-123853-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
9066	Phenolics, Total Recoverable	SW846	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
Distill/Phenol	Distillation, Phenolics	None	TAL DEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Bhate Environmental
Job ID: 280-123853-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-123853-1	LF6MW-1_0519	Water	05/15/19 14:15	05/16/19 08:55	
280-123853-2	775VMW-18R_0519	Water	05/15/19 14:18	05/16/19 08:55	
280-123853-3	TMC-USGS-2_0519	Water	05/15/19 17:00	05/16/19 08:55	
280-123853-4	LF6VMW-21_0519	Water	05/15/19 16:38	05/16/19 08:55	
280-123853-5	LF6VMW-21_0519-a	Water	05/15/19 16:38	05/16/19 08:55	
280-123853-6	LF6/TMCSW-3_0519	Water	05/15/19 17:30	05/16/19 08:55	

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:04
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:04
Orthophosphate as P	5.68	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458327/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:05
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:06
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:07
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:07
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:07

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:08
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:08
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/15/19 19:10
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458328/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458328/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:07
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:07

Lab Sample ID: STD 280-458328/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	pedrickj	05/16/19 08:31
Sulfate	6.43	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:08
Sulfate	6.46	Peak assignment corrected	phantl	05/15/19 19:08

Lab Sample ID: ICB 280-458328/9 Client Sample ID:

Date Analyzed: 05/15/19 19:27 Lab File ID: 0009.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.72	Incomplete Integration	pedrickj	05/16/19 07:51
Chloride	3.23	Incomplete Integration	pedrickj	05/16/19 07:51

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458414

Lab Sample ID: MRL 280-458414/3 Client Sample ID:

Date Analyzed: 05/16/19 14:17 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/16/19 15:17
Chloride	3.23	Incomplete Integration	phantl	05/16/19 15:18

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00367	06/04/19	05/28/19	Di Water, Lot na	100 mL	NH3 CAL STD_00030	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00030	02/28/20		Ricca, Lot 1808L28		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00350	06/04/19	05/28/19	na, Lot na	100 mL	NH3 ICV STD_00026	10 mL	Ammonia	99.6 mg/L
.NH3 ICV STD_00026	04/01/20		Inorganic Ventures, Lot M2-NH662533		(Purchased Reagent)		Ammonia	996 mg/L
Alk daily lcs_00821	05/27/19	05/20/19	Di Water, Lot na	1000 mL	Alk stk std_00016	4 mL	Alkalinity	200 mg/L
.Alk stk std_00016	06/30/20		Fischer, Lot 182564		(Purchased Reagent)		Alkalinity	50 g/L
BOD Std_00001_00046	02/15/24		HACH, Lot A9046		(Purchased Reagent)		Biochemical Oxygen Demand	198 mg/L
COD cal std_00048	09/01/20		Ricca, Lot 1904987		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1000 mg/L
COD icv std_00034	02/01/20		HACH, Lot A9057		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1005 mg/L
cod ms/msd_00022	09/30/19		Chemetrics, Lot 90427		(Purchased Reagent)		Chemical Oxygen Demand (COD)	10000 mg/L
Hard lcs std_00050	06/13/20		Lab Chem, Lot H159-16		(Purchased Reagent)		Hardness	0.996 mg/mL
IC CAL cl/so4_00256	05/17/19	05/10/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00458	05/18/19	05/11/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC CL ICV_00016	10/31/19		ERA, Lot 091017		(Purchased Reagent)		Chloride	1000 mg/L
IC ICV 5_00233	05/16/19	05/09/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00016	0.5 mL	Nitrite	50 mg/L
					IC NO3 ICV_00014	0.5 mL	Nitrate	50 mg/L
					IC PO4 ICV_00015	0.5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC NO2 ICV_00016	05/31/20		ERA, Lot 020518		(Purchased Reagent)		Nitrite	1000 mg/L
.IC NO3 ICV_00014	12/31/19		ERA, Lot 031217		(Purchased Reagent)		Nitrate	1000 mg/L
.IC PO4 ICV_00015	06/30/19		ERA, Lot 060617		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC LCS_01577	05/17/19	05/16/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Fluoride	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00017	06/30/19		ERA, Lot 210617		(Purchased Reagent)		Sulfate	1000 mg/L
ICP CCV_00382	06/25/20	05/21/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00843	250 mL	Boron	0.5 mg/L
.ICP ICAL1A_00843	06/25/20	05/23/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	1000 mL	ICP CAL STD 4_00003	10 mL	Boron	1 mg/L
..ICP CAL STD 4_00003	09/22/20		CPI, Lot 10094465-3		(Purchased Reagent)		Boron	100 mg/L
ICP ICSA_00186	03/18/20	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.Icp stk ICSA_00029	03/18/20		CPI, Lot 982821-1		(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICSAB_00213	06/03/19	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Li_00040	0.25 mL	Li	1 mg/L
					ICP ICSAB 1_00001	2.5 mL	Mo	1 mg/L
							Sb	1 mg/L
							Si	10 mg/L
							Sn	1 mg/L
							Ti	1 mg/L
					ICP ICSAB 2_00001	2.5 mL	Ag	1 mg/L
							As	1 mg/L
							Ba	1 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Be	0.5 mg/L
							Boron	10 mg/L
							Cd	1 mg/L
							Co	1 mg/L
							Cr	1 mg/L
							Cu	1 mg/L
							K	10 mg/L
							Mn	1 mg/L
							Na	10 mg/L
							Ni	1 mg/L
							P	10 mg/L
							Pb	1 mg/L
							Se	1 mg/L
							Sr	1 mg/L
							Tl	1 mg/L
							V	1 mg/L
							Zn	1 mg/L
					Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.1000 Li_00040	05/16/20		CPI, Lot 751942-43		(Purchased Reagent)		Li	1000 mg/L
.ICP ICSAB 1_00001	06/03/19		CPI, Lot 990624-2		(Purchased Reagent)		Mo	100 mg/L
							Sb	100 mg/L
							Si	1000 mg/L
							Sn	100 mg/L
							Ti	100 mg/L
.ICP ICSAB 2_00001	06/03/19		CPI, Lot 990626-2		(Purchased Reagent)		Ag	100 mg/L
							As	100 mg/L
							Ba	100 mg/L
							Be	50 mg/L
							Boron	1000 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							K	1000 mg/L
							Mn	100 mg/L
							Na	1000 mg/L
							Ni	100 mg/L
							P	1000 mg/L
							Pb	100 mg/L
							Se	100 mg/L
							Sr	100 mg/L
							Tl	100 mg/L
							V	100 mg/L
							Zn	100 mg/L
.Icp stk ICSA_00029	03/18/20		CPI, Lot 982821-1		(Purchased Reagent)		Al	5000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICV_00821	10/16/19	05/23/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP CAL STD 4_00002	0.25 mL	Boron	0.25 ppm
.ICP CAL STD 4_00002	09/22/20	CPI, Lot 10094465-2			(Purchased Reagent)		Boron	100 mg/L
ICP LLCCV_02549	05/24/19	05/23/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV-2a_00010	1 mL	Boron	100 ppb
.ICP LLCCV-2a_00010	06/18/19	CPI, Lot 10090185-1			(Purchased Reagent)		Boron	10 mg/L
ICP PDS 2_00021	05/13/20	Inorganic Ventures, Lot M2-MEB659765			(Purchased Reagent)		Boron	10 mg/L
Phenol CAL 10_00730	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol CAL_00012	1 mL	Phenolics, Total Recoverable	10.07 mg/L
							Phenols, Total	10.07 mg/L
.Phenol CAL_00012	12/07/19	Lab Chem, Lot G341-02			(Purchased Reagent)		Phenolics, Total Recoverable	1007 mg/L
							Phenols, Total	1007 mg/L
Phenol ICV 10_00605	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol ICV_00013	1 mL	Phenols, Total	10 mg/L
.Phenol ICV_00013	02/29/20	ERA, Lot 090817			(Purchased Reagent)		Phenols, Total	1000 mg/L
PREP SPK 1_00008	05/13/20	CPI, Lot 993218-1			(Purchased Reagent)		As	200 mg/L
							Ba	200 mg/L
							Be	100 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							Li	100 mg/L
							Mn	100 mg/L
							Mo	100 mg/L
							Ni	100 mg/L
							Pb	100 mg/L
							Se	200 mg/L
							Si	200 mg/L
							SiO2	428 mg/L
							Sn	200 mg/L
							Sr	100 mg/L
							Ti	100 mg/L
							Tl	200 mg/L
							V	100 mg/L
PREP SPK 2_00004	05/13/20	CPI, Lot 992745-2			(Purchased Reagent)		Al	1000 mg/L
							Ca	5000 mg/L
							Fe	1000 mg/L
							K	5000 mg/L
							Mg	5000 mg/L
							Na	5000 mg/L
PREP SPK 3_00004	05/13/20	CPI, Lot 992746-1			(Purchased Reagent)		P	2000 mg/L
							Sulfur	1000 mg/L
							U	200 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							W	100 mg/L
PREP SPK 4_00004	05/08/20	CPI, Lot 10094085-3			(Purchased Reagent)		Bi	200 mg/L
							Boron	100 mg/L
							Th	100 mg/L
							Zn	50 mg/L
							Zr	50 mg/L
TDS LCS_00537_00054	08/16/19	05/16/19	Di Water, Lot na	1000 mL	NaCl f_00004	0.5 g	Total Dissolved Solids (TDS)	500 mg/L
.NaCl f_00004	04/14/21	JT Baker, Lot J48622			(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g
TKN 25ppm_00794	07/01/19	05/31/19	Di Water, Lot 1	100 mL	TKN 100PPM_00108	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN 100PPM_00108	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21	nsi lab solutions, Lot 010617			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TKN ICV 25_00078	07/01/19	05/31/19	DI water, Lot 1	100 mL	TKN ICV 100_00070	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN ICV 100_00070	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20	ERA, Lot 281018			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TOC ICV Std_00037	01/31/20	Ricca, Lot 1807G06			(Purchased Reagent)		TOC Result 1	1000 ppm
							TOC Result 2	1000 ppm
							TOC Result 3	1000 ppm
							TOC Result 4	1000 ppm
							Total Organic Carbon - Quad	1000 ppm
TOC LCS Std_00046	03/31/21	Ultra Scientific, Lot CT-0920			(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm

Reagent

1000 Li_00040

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000291

SE Std Lithium (Li) – 1000 µg/mL

Lot #: 751942-43

Matrix: 5% HNO_3

5658289
ID: 1000 Li_00040
Exp:05/16/20 Prpd:CRR Opn:03/26/19
1000 Li CPI

Element	Certified Concentration & Uncertainty
Li	1002 ± 3 µg/mL (w/v)
	993 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	35	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<100	V	<1
Al	9	Cs	7	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	30	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	2	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Zn	<2
Ba	2	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	MAJOR	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 16, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

Alk stk std_00016

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Quality Test / Release Date	06/05/2018
Lot Number	182564	Expiration Date	Jun/2020
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
COLOR	APHA	<= 5	<5
NORMALITY		Inclusive Between 0.995 - 1.000	1.000
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

BOD Std_00001_00046

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY: **ez GGA for BOD Test**
COMMODITY NUMBER: **2514420**
LOT NUMBER: **A9046**

MANUFACTURE DATE: **2/25/2019**

DATE OF ANALYSIS: **2/28/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
Confirmation test to ensure glutamic acid has been added.	To Pass	Passed
COD Concentration used to confirm the total concentration of Glucose-Glutamic Acid is correct.	884 to 956 mg/l	911.0 mg/l

The expiration date is Feb 2024

After preparation following the instruction sheet the BOD concentration is 198 mg/L.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

COD cal std_00048

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Potassium Acid Phthalate Standard, 1000 ppm Chemical Oxygen Demand (COD)

Lot Number: 1904987 **Product Number:** 5868

Manufacture Date: APR 05, 2019
Expiration Date: SEP 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is estimated based upon the volumetric method of preparation. It is certified that a COD of 500 mg/L should be obtained on a 25.0 mL aliquot of this standard solution diluted to 50 mL. The manufacturing specification for this product is Chemical Oxygen Demand (COD) = 1.000 ± 0.005 mg per mL at 20°C. This is the equivalent quantity of Oxygen that this standard solution will consume, based on the reduction of a Potassium Dichromate Standard Solution under the specified conditions in the ASTM D 1252-95 test methods.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Chemical Oxygen Demand (COD)	995-1005 ppm	1000 ppm

Specification	Reference
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg COD)	ASTM (D 1252 A)
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg/L)	ASTM (D 1252 B)
Stock Potassium Acid Phthalate	EPA (410.4)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5868-16	500 mL natural poly	18 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (04/05/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

COD icv std_00034

Certificate of Analysis List

For request number 1116752

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
2253929	9057	N/A	N/A	Chemical Oxygen Demand Standard Solution 1000 mg/l COD

Total Enclosures: 1

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY:**Chemical Oxygen Demand Standard Solution 1000 mg/l COD**

COMMODITY NUMBER: **2253929**	MANUFACTURE DATE:	DATE OF ANALYSIS:
LOT NUMBER: **A9057**	**3/2/2019**	**3/3/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
COD Concentration	950 to 1050 ppm	986.0 ppm

The expiration date is Feb 2020

The item 2253929 is traceable to NIST standards SRM 84L Potassium Hydrogen Phthalate LOT N/A.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

cod ms/msd_00022

CHEMetrics Simplicity in Water Analysis

January 2, 2019

CERTIFICATE OF ANALYSIS

CHEMetrics Inc., certifies that the following COD Standard Solution has been manufactured from Primary Standard Grade (99.99+% purity) Potassium Hydrogen Phthalate (CAS No. 877-24-7). The reported standard solution concentration is calculated from wt/vol measurements obtained using analytical balances (readable to 0.0001 gram and calibrated with NIST traceable weights) and ASTM Class A volumetric glassware.

To maintain the stated accuracy for the duration of the established shelf-life, store this solution under refrigeration 2°C - 8°C (36°F - 46°F).

Cat. No.	Lot No.	Accuracy	Date of Manufacture	Product Description
A-7310	90427	10,000 ± 500	Sept. 2018	10,000 ppm COD Standard

Sincerely,

Teresa A. Neale
Vice President of Operations & Product Support

4295 Catlett Road, Midland, VA 22728 ■ P: 800.356.3072 ■ F: 540.788.4856 ■ www.chemetrics.com

Reagent

Hard lcs std_00050

LabChem
performance through
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CALCIUM CARBONATE STANDARD 1mL = 1mg CaCO3 (0.01M)

Catalog Number: LC12700
Lot Number: H159-16

Mfg Date: 06/13/2018
Expiration Date: 06/13/2020

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Molarity	0.0100M +/- 0.0001M	0.0100M
Concentration mg CaCO3/mL	1.000 +/- 0.010mg CaCO3/mL	1.000 mg CaCO3/mL
Traceable to NIST	Calcium Carbonate	915b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted By: Greg Albright, Chemist Supervisor



An ISO9001:2008 certified company. Registration # 0306-01

07/05/2018 9:24:43 AM

Reagent

IC BR ICV_00012

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Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 1804F11 **Product Number:** 1180

Manufacture Date: APR 06, 2018
Expiration Date: SEP 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Israel Alamudun (04/06/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC BR ICV_00014

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Bromide
CATALOG NUMBER:	046 -125 mL; 987 - 500 mL
LOT NUMBER:	450817
ISSUE DATE:	September 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Bromide (KBr)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	1.2%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3184 Bromide
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 8/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

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Reagent

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Reference Materials Producer
Cert #2495.01

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Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-101CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018 Certifying Officer: Kathleen Cullin

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Reagent

IC CL cal_00058

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-154CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 997 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 996 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: APR - - 2019

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials -- Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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Reagent

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ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Chloride
CATALOG NUMBER:	047 -125 mL; 988 - 500 mL
LOT NUMBER:	091017
ISSUE DATE:	October 17, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Chloride (NaCl)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9984 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3182 Chloride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

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CERTIFICATE NO. 1539.02

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Reagent

IC F ICV_00012

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Fluoride
CATALOG NUMBER:	050 -125 mL; 989 - 500 mL
LOT NUMBER:	230918
ISSUE DATE:	October 11, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Fluoride (KF)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9995 ± 0.0008 g/mL at 20.6°C and 752 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	3183 Fluoride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 9/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

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CERTIFICATE NO. 1539.03

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Reagent

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Certificate of Analysis

Fluoride Standard, 1000 ppm F-

Lot Number: 4805C89 **Product Number:** 3173

Manufacture Date: MAY 07, 2018
Expiration Date: OCT 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1000 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2)

Lot Number: 1902672 **Product Number:** R5444900

Manufacture Date: FEB 04, 2019
Expiration Date: JUL 2019

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	995 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (02/04/2019)
Quality Control Supervisor
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Reagent

IC N03 cal_00019

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Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2807E96 **Product Number:** 5459

Manufacture Date: JUL 24, 2018
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Andy Baumgartner (07/24/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC NO2 ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO_2-N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	020518
ISSUE DATE:	May 16, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite ($NaNO_2$)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	4.7%
MATRIX:	18 megohm deionized water
DENSITY:	1.0004 ± 0.0008 g/mL at 19.2°C and 752 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	-
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 5/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

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ISO/IEC 17025:2005

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Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H_2O

Lot Number: 4902D52 **Product Number:** AP1KW

Manufacture Date: FEB 08, 2019
Expiration Date: JAN 2021

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs (02/08/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC PO4 ICV_00015

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Phosphate as P (PO_4-P)
CATALOG NUMBER:	061 -125 mL; 993 - 500 mL
LOT NUMBER:	060617
ISSUE DATE:	June 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Dihydrogen Phosphate (KH_2PO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9996 ± 0.0008 g/mL at 23.5°C and 622 mm Hg
TRACEABILITY[3]:	103%
NIST/SRM:	3186 Phosphate
VERIFICATION METHOD:	Ion Chromatography
STORAGE: THIS	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC SO4 ICV_00017

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	210617
ISSUE DATE:	June 27, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9987 ± 0.0008 g/mL at 22.5°C and 757 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC sulfatecal_00053

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: AUG - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC sulfatecal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

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Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

ICP CAL STD 4_00002

CPI INTERNATIONAL

5617886
ID: ICP CAL STD 4_00002
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 SECONDARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-SS

Custom ISO G34 Second Source Standard

Lot #: 10094465-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 µg/mL	Ca	999.9 ± 5.0 µg/mL	Na	5000 ± 25 µg/mL
Al	99.98 ± 0.50 µg/mL	Fe	500.1 ± 2.5 µg/mL	Zn	100.0 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	10,000 ± 50 µg/mL	Zr	100.0 ± 0.5 µg/mL
Bi	200.0 ± 1.0 µg/mL	Mg	4000 ± 20 µg/mL		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP CAL STD 4_00003

CPI INTERNATIONAL

5617860
ID: ICP CAL STD 4_00001
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 PRIMARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-500

Custom ISO G34 Standard

Lot #: 10094465-3

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.1 ± 0.5 µg/mL	Ca	1000 ± 5 µg/mL	Na	5000 ± 25 µg/mL
Al	100.1 ± 0.5 µg/mL	Fe	500.3 ± 2.5 µg/mL	Zn	100.1 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	9999 ± 50 µg/mL	Zr	99.98 ± 0.50 µg/mL
Bi	200.2 ± 1.0 µg/mL	Mg	4001 ± 20 µg/mL		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Europe
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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP ICSAB 1_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

5471540
ID: ICP ICSAB 1_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 1 CPI

Lot #: 990624-2

Matrix: 5% HNO_3/0.5% HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.0 ± 0.5 mg/L
Sb	100.0 ± 0.5 mg/L	Sn	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-1		
Vendor	CPI		
Lot number	990624-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICPICSAB1_00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CR	Instrument ID	MT-025
Verification Date	1/30/19	Method Reference	6010B
ID of Standard Used for Verification	5528932/5528182	Batch # / Chrom Work List #	445975

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:

Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	N/A

1st Level Review CL Date: 1/31/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

TestAmerica
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Reagent ID: ICP ICSAB 1_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 1 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990624-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-1
Open Date:	01/29/2019		
Container(s):	5471540		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Mo					100.00000	mg/L
Sb					100.00000	mg/L
Si					1000.00000	mg/L
Sn					100.00000	mg/L
Ti					100.00000	mg/L

Sample Name: xICSAB sol 1 100x Acquired: 1/30/2019 11:16:24 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: reagent bottle check

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.02433**	**.01266**	**.01718**	**.01887**	**.00044**	**.02174**	**.47181**	**.00071**
Stddev	.00004	.00024	.00489	.00084	.00010	.00012	.00685	.00076	.00006
%RSD	7.0663	.98064	38.631	4.8888	.52301	27.840	31.508	.16192	8.4479
#1	.00053	.02450	.01612	.01658	.01880	.00035	.02659	.47235	.00067
#2	.00058	.02416	.00920	.01777	.01894	.00052	.01690	.47127	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00242**	**.00153**	**.02006**	**.56757**	**.01037**	**.47512**	**.00496**	**1.0133**
Stddev	.00010	.00025	.00005	.00110	.03642	.00435	.00725	.00001	.0039
%RSD	2.5510	10.211	3.1263	5.4797	6.4175	42.012	1.5261	.23393	.38063
#1	.00417	.00225	.00150	.02084	.54181	.00729	.47000	.00497	1.0160
#2	.00403	.00260	.00157	.01928	.59333	.01345	.48025	.00496	1.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49431**	**.00430**	**.08410**	**.01084**	**.03507**	**.99570**	**.01580**	**9.9173**	**21.223**
Stddev	.00501	.00053	.00063	.00088	.00283	.00482	.00254	.0370	.079
%RSD	1.0130	12.416	.75155	8.1609	8.0821	.48413	16.067	.37264	.37264
#1	.49077	.00468	.08455	.01146	.03707	.99230	.01760	9.8912	21.167
#2	.49785	.00392	.08365	.01021	.03306	.99911	.01401	9.9434	21.279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0648**	**.00964**	**.01036**	**1.0237**	**.01971**	**.02237**	**.00551**	**.00635**	**.00546**
Stddev	.0013	.00014	.00233	.0003	.00077	.01226	.00033	.00030	.00002
%RSD	.12116	1.4717	22.449	.02853	3.9220	54.809	6.0687	4.7932	.32279
#1	1.0658	.00954	.00871	1.0239	.02026	.03104	.00575	.00656	.00548
#2	1.0639	.00974	.01200	1.0235	.01916	.01370	.00527	.00613	.00545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4001.5**	**55629.**	**4846.2**
Stddev	8.9	65.	20.9
%RSD	.22316	.11631	.43220
#1	3995.2	55583.	4861.0
#2	4007.8	55674.	4831.4

Reagent

ICP ICSAB 2_00001

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-2		
Vendor	CPI		
Lot number	990626-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICP ICSAB 2-00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CL/CR	Instrument ID	MT_052 MT_025
Verification Date	1/21/19 1/29/19	Method Reference	L0103
ID of Standard Used for Verification	Calibration STDS	Batch # / Chrom Work List #	4449158/4455894

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

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Reagent ID: ICP ICSAB 2_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 2 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990626-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-2
Open Date:	01/29/2019		
Container(s):	5471537		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
As					100.00000	mg/L
B					1000.00000	mg/L
Ba					100.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					100.00000	mg/L
Cr					100.00000	mg/L
Cu					100.00000	mg/L
K					1000.00000	mg/L
Mn					100.00000	mg/L
Na					1000.00000	mg/L
Ni					100.00000	mg/L
P					1000.00000	mg/L
Pb					100.00000	mg/L
Se					100.00000	mg/L
Sr					100.00000	mg/L
Tl					100.00000	mg/L
V					100.00000	mg/L
Zn					100.00000	mg/L

52A012119.esws

Tuesday, January 22, 2019 7:50 AM

User: denmet

Workstation: DENPC507

Sample Name: ICSAB 2 100X

Date: 1/21/2019 2:07:16 PM

Rack:Tube: 1:90

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.966867	ppm	0.002732	0.28	27113.200000	Y 377.433
Al (394.401 nm)	-0.018589 u	ppm	0.000377	2.03	120.753000	Y 377.433
Al H (396.152 nm)	-0.080631 u	ppm	0.000855	1.06	12.478800	Y_R 377.433
As (188.980 nm)	0.937518	ppm	0.002548	0.27	1229.410000	Y 242.219
B (249.678 nm)	9.446880	ppm	0.011734	0.12	33938.900000	Y 242.219
Ba (493.408 nm)	0.969569	ppm	0.001606	0.17	87740.300000	Y_R 488.368
Be (234.861 nm)	0.466384	ppm	0.000072	0.02	26151.800000	Y_R 488.368
Bi (223.061 nm)	0.001837	ppm	0.002483	> 100.00	44.091400	Y 377.433
Ca (315.887 nm)	-0.003106 u	ppm	0.007441	> 100.00	18.818785	Y_R 377.433
Cd (214.439 nm)	0.974802	ppm	0.002985	0.31	25402.900000	Y 377.433
Co (228.615 nm)	0.978758	ppm	0.004920	0.50	20392.400000	Y 242.219
Cr (205.560 nm)	0.948655	ppm	0.001917	0.20	3826.770000	Y 377.433
Cu (324.754 nm)	0.971137	ppm	0.002614	0.27	45503.100000	Y 377.433
Fe (238.204 nm)	-0.000041 u	ppm	0.005163	> 100.00	10.116548	Y_R 377.433
Fe H (259.940 nm)	-0.222218 u	ppm	0.000618	0.28	1.482800	Y_R 377.433
K (766.491 nm)	9.955440	ppm	0.046489	0.47	11734.600000	Y_R2 488.368
Li (670.783 nm)	0.002338	ppm	0.002398	> 100.00	-636.367000	Y_R2 488.368
Mg (279.078 nm)	-0.004893 u	ppm	0.001386	28.33	1.042300	Y 377.433
Mn (257.610 nm)	0.984512	ppm	0.002227	0.23	189159.000000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000717	> 100.00	21.118500	Y 377.433
Na (589.592 nm)	9.389940	ppm	0.127054	1.35	4480.750000	Y_R2 488.368
Na H (589.593 nm)	7.370639 u	ppm	0.011086	0.15	3061.539033	Y_R4
Ni (231.604 nm)	0.972725	ppm	0.002305	0.24	3493.420000	Y 377.433
P (213.618 nm)	9.363070	ppm	0.023289	0.25	9381.970000	Y 242.219
Pb (220.353 nm)	0.994713	ppm	0.002048	0.21	2187.470000	Y 242.219
S (181.972 nm)	-0.017508 u	ppm	0.000015	0.09	2.280092	Y 377.433
Sb (206.834 nm)	0.001746 u	ppm	0.003005	> 100.00	29.044800	Y 377.433
Se (196.026 nm)	0.894485	ppm	0.006733	0.75	1281.770000	Y 242.219
Si (288.158 nm)	-0.001748 u	ppm	0.000507	29.01	377.617000	Y 377.433
Sn (189.925 nm)	-0.004588 u	ppm	0.000168	3.65	-1.654320	Y 377.433
Sr (421.552 nm)	0.967161	ppm	0.001611	0.17	106421.982008	Y_R 488.368
Th (288.505 nm)	-0.048933 u	ppm	0.005261	10.75	-112.903000	Y 377.433
Ti (336.122 nm)	0.000456	ppm	0.000097	21.34	-304.249000	Y 377.433
Tl (190.794 nm)	0.993837	ppm	0.000436	0.04	568.452000	Y 377.433
U (409.013 nm)	0.002082 u	ppm	0.006736	> 100.00	238.011000	Y 377.433
V (292.401 nm)	0.964201	ppm	0.002968	0.31	41257.400000	Y 377.433
Zn (206.200 nm)	0.992230	ppm	0.004980	0.50	3092.660000	Y 377.433
Zr (343.823 nm)	0.000098 u	ppm	0.000260	> 100.00	-51.254600	Y 377.433

Sample Name: ICSAB Sol 2 Acquired: 1/29/2019 15:38:12 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 100x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W **.96906**	**-.00340**	**1.0112**	**9.4842**	**1.0100**	**.49999**	**.00175**	**-.06604**	**.95028**
Stddev	.00070	.00005	.0084	.0140	.0002	.00072	.00805	.00493	.00089
%RSD	.07261	1.5359	.83124	.14767	.02300	.14445	460.44	7.4694	.09328
#1	.96857	-.00336	1.0053	9.4941	1.0102	.50051	.00744	-.06255	.95091
#2	.96956	-.00344	1.0172	9.4743	1.0099	.49948	-.00394	-.06953	.94966
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.02000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.97510**	**.98255**	**1.0095**	**-.00152**	**10.088**	**.00379**	**-.00580**	**.91712**	**.00092**
Stddev	.00391	.00157	.0019	.00267	.030	.00092	.00435	.00154	.00057
%RSD	.40132	.16023	.18807	175.43	.29831	24.241	75.007	.16823	61.615
#1	.97787	.98367	1.0108	-.00342	10.109	.00443	-.00887	.91821	.00052
#2	.97233	.98144	1.0081	.00037	10.067	.00314	-.00272	.91603	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.062**	W **10.363**	**.97101**	**9.3122**	**.99342**	**.01022**	**-.00250**	**1.0041**	**-.01800**
Stddev	.003	.128	.00214	.0214	.00289	.00320	.00030	.0007	.00696
%RSD	.02670	1.2361	.22005	.22968	.29093	31.312	12.156	.06617	38.635
#1	10.060	10.273	.97252	9.3273	.99546	.01248	-.00271	1.0037	-.02292
#2	10.064	10.454	.96950	9.2970	.99137	.00795	-.00228	1.0046	-.01309
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.03853**	**-.00056**	**1.0257**	**.00369**	**.00020**	**1.0532**	**.01005**	**.92759**	**.89480**
Stddev	.01489	.00053	.0020	.00219	.00018	.0029	.01643	.00224	.00413
%RSD	38.635	93.658	.19274	59.457	90.526	.27479	163.59	.24111	.46200
#1	-.04905	-.00019	1.0271	.00524	.00032	1.0552	-.00157	.92917	.89772
#2	-.02800	-.00094	1.0243	.00214	.00007	1.0511	.02166	.92601	.89188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.00366**
Stddev	.00163
%RSD	44.615
#1	.00251
#2	.00482
Check ?	Chk Pass
High Limit	
Low Limit	

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

5471537
ID: ICP ICSAB 2_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 2 CPI

Lot #: 990626-2

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	99.98 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L
As	100.0 ± 0.5 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	100.1 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.1 ± 0.5 mg/L	Zn	100.1 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP LLCCV-2a_00010

Standard Verification Form TA-CM-OCT18-DENSR-500

Standard Information			
Vendor Standard Name	ICP LLCCV-2A		
Vendor	CPI International		
Lot number	# 10090185-1		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID ICP LLCCV-4-00010	
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	SS/CR	Instrument ID	MT-25/MT51
Verification Date	1/30/19	Method Reference	6010C
ID of Standard Used for Verification	ICP LLCCV4-00010	Batch # / Chrom Work List #	446036 446039
Attach to this form: formulary report , COA and data used for verification Attach to standard in TALS: this form and all supporting documentation including the original CoA			
See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐
New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.			
New Expiration Date:	5/19/19		

1st Level Review SS Date: 1/30/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00255**	**.00036**	**1.0047**	**.00032**
Stddev	.00007	.00061	.00058	.0085	.00017
%RSD	22.249	24.069	160.98	.84480	52.650
#1	.00038	.00212	-.00005	1.0107	.00020
#2	.00028	.00298	.00077	.99868	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00000**	**-.00048**	**-.00028**	**-.00042**
Stddev	.00001	.00553	.00256	.00005	.00010
%RSD	17.443	748150.	537.38	16.632	24.554
#1	.00003	-.00391	-.00229	-.00024	-.00035
#2	.00004	.00391	.00134	-.00031	-.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00130**	**.00088**	**.04958**	**.00161**
Stddev	.00008	.00040	.00450	.00732	.00228
%RSD	36.641	30.925	510.71	14.755	141.15
#1	.00028	-.00102	.00406	.05476	.00322
#2	.00017	-.00159	-.00230	.04441	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00017**	**.20636**	**.06243**	**-.00068**
Stddev	.00621	.00002	.00144	.00668	.00007
%RSD	704.64	12.859	.69592	10.708	10.347
#1	.00527	.00016	.20737	.06715	-.00073
#2	-.00351	.00019	.20534	.05770	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W **28.602**	**.00941**	**.93219**	**.20441**	**-.00477**
Stddev	.231	.00080	.00830	.00111	.00057
%RSD	.80679	8.5162	.89068	.54438	11.917
#1	28.765	.00998	.93806	.20519	-.00518
#2	28.439	.00885	.92632	.20362	-.00437
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000				
Low Limit	-6.0000				

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837
Line	288.158 {117}	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**6.9653**	**14.906**	**1.0635**	**.00005**	**.00074**
Stddev	.5657	1.211	.0080	.00010	.00128
%RSD	8.1224	8.1224	.75098	204.33	172.19
#1	6.5652	14.050	1.0691	.00012	-.00016
#2	7.3653	15.762	1.0578	-.00002	.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.10301**	**-.00165**	**-.01130**	**.00045**	**.00148**
Stddev	.00039	.00056	.00796	.00022	.00019
%RSD	.37486	34.177	70.407	49.618	12.553
#1	.10274	-.00125	-.00568	.00060	.00161
#2	.10328	-.00205	-.01693	.00029	.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.10737**
Stddev	.00304
%RSD	2.8315
#1	.10952
#2	.10522
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3890.6**	**54764.**	**4797.3**
Stddev	19.3	21.	3.8
%RSD	.49699	.03853	.07876
#1	3904.3	54779.	4794.6
#2	3876.9	54749.	4799.9

Sample Name: IIccv 2a

Date: 1/30/2019 2:27:53 PM

Rack:Tube: 3:12

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000048	3.81	-339.440000	Y 377.433
Al (167.019 nm)	0.001696	ppm	0.000845	49.83	1.871810	Y_R 377.433
Al H (396.152 nm)	-0.020587 u	ppm	0.002888	14.03	32.631734	Y_R 377.433
As (188.980 nm)	0.000723 u	ppm	0.002356	> 100.00	-0.970725	Y 242.219
B (249.678 nm)	0.813216	ppm	0.047006	5.78	21874.000000	Y 242.219
Ba (493.408 nm)	-0.000896 u	ppm	0.000024	2.69	598.598000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000016	> 100.00	-47.571600	Y_R 488.368
Bi (223.061 nm)	-0.004182 u	ppm	0.000579	13.85	11.245000	Y 377.433
Ca (315.887 nm)	0.022497	ppm	0.007400	32.89	-56.854280	Y_R 377.433
Cd (214.439 nm)	-0.000023 u	ppm	0.000024	> 100.00	5.258060	Y 377.433
Co (228.615 nm)	0.000071	ppm	0.000056	78.59	-38.009000	Y 242.219
Cr (205.560 nm)	0.000045	ppm	0.000039	86.68	-3.139690	Y 377.433
Cu (324.754 nm)	0.001245	ppm	0.000109	8.79	622.379000	Y 377.433
Fe (238.204 nm)	0.000681	ppm	0.000210	30.84	21.007438	Y_R 377.433
Fe H (259.940 nm)	-0.161781 u	ppm	0.002169	1.34	15.721500	Y_R 377.433
K (766.491 nm)	0.111372	ppm	0.057292	51.44	-830.133000	Y_R2 488.368
Li (670.783 nm)	0.009646	ppm	0.000473	4.90	-1348.180000	Y_R2 488.368
Mg (279.078 nm)	0.000264	ppm	0.000066	24.84	60.535800	Y 377.433
Mn (257.610 nm)	-0.000023 u	ppm	0.000008	35.49	70.205200	Y 377.433
Mo (202.032 nm)	0.169223	ppm	0.010445	6.17	1702.140000	Y 377.433
Na (589.592 nm)	-0.029006 u	ppm	0.010864	37.45	385.781000	Y_R2 488.368
Na H (589.593 nm)	-0.896086 u	ppm	0.020122	2.25	2225.768499	Y_R 488.368
Ni (231.604 nm)	0.000372 u	ppm	0.000677	> 100.00	0.134162	Y 377.433
P (213.618 nm)	23.045500 o	ppm	1.330770	5.77	58100.800000	Y 242.219
Pb (220.353 nm)	-0.001310 u	ppm	0.000331	25.30	-1.855490	Y 242.219
S (181.972 nm)	0.728365	ppm	0.040987	5.63	417.926408	Y 377.433
Sb (206.834 nm)	0.165059	ppm	0.009553	5.79	476.065000	Y 377.433
Se (196.026 nm)	-0.002999 u	ppm	0.001270	42.36	11.827200	Y 242.219
Si (288.158 nm)	5.208390	ppm	0.502562	9.65	48419.800000	Y 377.433
Sn (189.925 nm)	0.837532	ppm	0.048034	5.74	2234.630000	Y 377.433
Sr (421.552 nm)	0.000133	ppm	0.000061	46.11	158.521803	Y_R 488.368
Th (288.505 nm)	0.003026	ppm	0.000486	16.08	69.191200	Y 377.433
Ti (336.122 nm)	0.083021	ppm	0.004935	5.94	12374.600000	Y 377.433
Tl (190.794 nm)	0.000337	ppm	0.000105	31.25	-9.290920	Y 377.433
U (409.013 nm)	0.001927	ppm	0.000273	14.16	-152.923000	Y 377.433
V (292.401 nm)	-0.000419 u	ppm	0.000023	5.46	15.573700	Y 377.433
Zn (206.200 nm)	0.000466	ppm	0.000052	11.15	2.238410	Y 377.433
Zr (343.823 nm)	0.085063	ppm	0.005356	6.30	12032.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.937661	19025.790936	0.001064	0.11
Y 377.433	0.960036	985122.681103	0.000581	0.06
Y_R 377.433	1.006470	69104.000000	0.004101	0.41
Y_R 488.368	1.019670	40383.200000	0.014164	1.39
Y_R2 488.368	1.053637	81193.558986	0.004178	0.40

5500073
ID: ICP LLCCV-2a_00010
Exp: 05/18/18 Prpd: SJS
ICP LLCCV-2A CPI

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN5R-500

Custom ISO Guide 34 ICP LLCCV-2A

Lot #: 10090185-1

Matrix: 2% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
B	10.01 ± 0.05 µg/mL	S	10.01 ± 0.05 µg/mL	Sn	10.01 ± 0.05 µg/mL
Mo	2.01 ± 0.01 µg/mL	Sb	2.02 ± 0.01 µg/mL	Ti	1.00 ± 0.01 µg/mL
P	300.0 ± 1.5 µg/mL	Si	49.19 ± 0.25 µg/mL	Zr	1.01 ± 0.01 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 18, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP PDS 2_00021

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

toll: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	STLDEN-PDS-2A
Lot Number:	M2-MEB659765
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	500 µg/mL ea: Silicon, 10 µg/mL ea: Tin, Boron, Antimony, 5 µg/mL ea: Molybdenum, Titanium, Zirconium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.07 µg/mL	Boron, B	10.00 ± 0.07 µg/mL
Molybdenum, Mo	5.002 ± 0.030 µg/mL	Silicon, Si	500.0 ± 3.2 µg/mL
Tin, Sn	10.00 ± 0.08 µg/mL	Titanium, Ti	5.002 ± 0.030 µg/mL
Zirconium, Zr	5.001 ± 0.030 µg/mL		

Density: 1.016 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
B	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	130920
Zr	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods **Characterization of CRM by one method**

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 07, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 07, 2020

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Reagent

Icp stk ICSA_00029

CPI INTERNATIONAL

5514208
ID: lcp stk ICSA_00027
Exp: 07/08/19 Prpd: SJS
ICP stock ICSA solution

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 982821-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 8, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

NaCl f_00004

Sodium Chloride, Crystal

`BAKER ANALYZED´® A.C.S. Reagent

Product No. 3624
Lot No. J48622
Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO_3)	0.003 % max.	0.002 %
Phosphate (PO_4)	5 ppm max.	< 3 ppm
Sulfate (SO_4)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %
For Laboratory, Research or Manufacturing Use		
Country of Origin: USA		

ISO
Phillipsburg, NJ 9001.2008, 14001.2004
Paris, KY 9001.2008
Mexico City, Mexico 9001.2008
Deventer, The Netherlands 9001.2008, 14001.2004, 13485.2003
Selangor, Malaysia 9001.2008
Panoli, India 9001.2008
Gliwice, Poland 9001.2008, 17025.2005

Marcy M. Matlosz
Director of QA & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151
Avantor ™ Performance Materials. Inc. (formerly Mallinckrodt Baker, Inc.)
222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Reagent

NH3 CAL STD_00030

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 1808L28 **Product Number:** 5455

Manufacture Date: AUG 29, 2018
Expiration Date: FEB 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (08/29/2018)

Quality Control Supervisor

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00026

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	M2-NH662533
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium Chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 996 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **993 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **997 ± 2 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\ (u_{char\ a})^2 + (w_b)^2\ (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

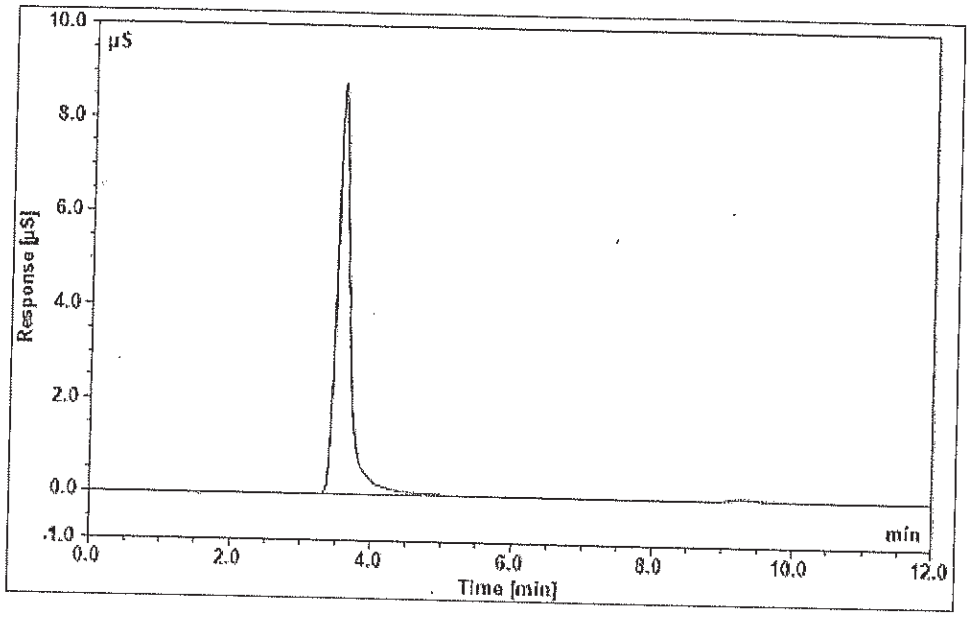
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS12A-5µm 3x150mm	**Eluent:**	20 mM MSA
Guard Column:	IonPac CG12A-5µm 3x30mm	**Eluent Flow Rate:**	0.50 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35° C
		Cell Temp:	35° C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	10 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	30 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 03, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- November 03, 2021

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

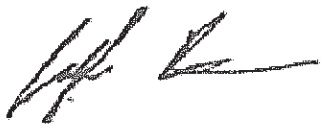
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

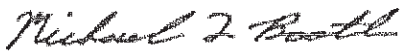
Certificate Prepared By:

Joseph Burns
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

Phenol CAL_00012

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: PHENOL STANDARD, 1000ppm (1mL = 1mg)

Mfg. Date: 12/07/2017

Catalog Number: LC18330

Exp. Date: 12/07/2019

Lot Number: G341-02

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm Phenol	1000ppm +/- 10ppm	1007 ppm
Concentration mg Phenol / L	1.000 + / - 0.010 mg/mL	1.007 mg/mL
Traceable to NIST	Potassium Dichromate	136f

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor

Greg Albright

An ISO9001:2008 certified company. Registration # 0306-01

03/23/2018 5:05 PM

Form #17.13 07/28/2016

Reagent

Phenol ICV_00013

ERA
A Waters Company

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1-800-LAB-SPEX
www.spexcsp.com

Certificate of Analysis

PRODUCT:	1000 mg/L Phenol
CATALOG NUMBER:	982
LOT NUMBER:	090817
ISSUE DATE:	August 18, 2017
REVISION DATE:	August 2, 2018
STARTING MATERIAL:	Phenol (C_6H_5OH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.8%
MATRIX:	18 megohm deionized water and 1% (v/v) H_2SO_4
DENSITY:	1.0085 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	NA
VERIFICATION METHOD:	Spectrophotometry
STORAGE:	Store at 4 ± 2°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

PREP SPK 1_00008

CPI INTERNATIONAL

5643174
ID: PREP SPK 1_00008
Exp: 05/21/20 Prpd: MRJ
Metals Prep Spike Mix 1 C

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 993218-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.1 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.1 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 21, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

TKN CAL STD_00017

nsi lab solutions
protect more. test more.
7212 ACC Blvd. | Raleigh, NC 27617 | 800.234.7837

Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Catalog Number: IS-009, IS-009-500
Lot Number: 010617

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00011

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00037

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 4901G09 **Product Number:** 1847

Manufacture Date: JAN 22, 2019
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-32	1 L amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jim Gibbs (01/22/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00046

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1000 ± 5 µg/mL	NAA00089; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG No.:

Project: Griffiss AFB, LF009 Landfill 6

Client Sample ID	Lab Sample ID
LF6MW-1_0519	280-123853-1
775VMW-18R_0519	280-123853-2
TMC-USGS-2_0519	280-123853-3
LF6VMW-21_0519	280-123853-4
LF6VMW-21_0519-a	280-123853-5
LF6/TMCSW-3_0519	280-123853-6

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6MW-1_0519 Lab Sample ID: 280-123853-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 14:15

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	12	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 775VMW-18R_0519 Lab Sample ID: 280-123853-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 14:18

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	23	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TMC-USGS-2_0519 Lab Sample ID: 280-123853-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 17:00

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	14	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6VMW-21_0519 Lab Sample ID: 280-123853-4

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 16:38

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	6.0	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6VMW-21_0519-a
Lab Sample ID: 280-123853-5
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123853-1
SDG ID.:
Matrix: Water
Date Sampled: 05/15/2019 16:38
Reporting Basis: WET
Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	6.6	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6/TMCSW-3_0519 Lab Sample ID: 280-123853-6

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 17:30

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	17	100	15	4.4	ug/L	J		1	6010C

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

ICV Source: ICP ICV_00821 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	ICV 280-459331/10 05/23/2019 15:01				ICV 280-459331/11 05/23/2019 15:05				CCV 280-459331/151 05/24/2019 06:06			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	237		250	95	238		250	95	473		500	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

ICV Source: ICP ICV_00821 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	CCV 280-459331/165 05/24/2019 06:56				CCV 280-459331/179 05/24/2019 07:46				CCV 280-459331/184 05/24/2019 08:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	474		500	95	473		500	95	472		500	94

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

ICV Source: ICP LLCCV_02549 Concentration Units: ug/L

CCV Source: ICP LLCCV_02549

Analyte	ICVL 280-459331/12 05/23/2019 15:15				CCVL 280-459331/153 05/24/2019 06:13				CCVL 280-459331/167 05/24/2019 07:02			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	92.7	J	100	93	89.0	J	100	89	88.5	J	100	88

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

ICV Source: ICP LLCCV_02549 Concentration Units: ug/L

CCV Source: ICP LLCCV_02549

Analyte	CCVL 280-459331/181 05/24/2019 07:53				CCVL 280-459331/186 05/24/2019 08:10							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	88.3	J	100	88	88.5	J	100	89				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Method: 6010C Instrument ID: MT_052

Lab Sample ID: CRI 280-459331/16 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_02549

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Boron	100	94.1	J	94	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-459331/15 05/23/2019 15:25		CCB 280-459331/152 05/24/2019 06:10		CCB 280-459331/166 05/24/2019 06:59		CCB 280-459331/180 05/24/2019 07:49	
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 280-459331/185 05/24/2019 08:07							
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-459137/1-A

Instrument Code: MT_052 Batch No.: 459331

CAS No.	Analyte	Concentration	C	Q	Method
7440-42-8	Boron	15	U		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Lab Sample ID: ICSA 280-459331/17 Instrument ID: MT_052

Lab File ID: 52A052319CC.csv ICS Source: ICP ICSA_00186

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		**12.5**	
Aluminum	*500000*	*511430*	*102*
Antimony		*-2.20*	
Arsenic		*-2.55*	
Barium		*0.533*	
Cadmium		*0.849*	
Calcium	*500000*	*480792*	*96*
Cobalt		*-0.340*	
Copper		*-1.79*	
Iron	*200000*	*192568*	*96*
Lead		*5.05*	
Lithium		*0.172*	
Magnesium	*500000*	*502792*	*101*
Manganese		*0.627*	
Molybdenum		*0.125*	
Nickel		*-7.87*	
Phosphorus		*13.9*	
Potassium		*88.2*	
Selenium		*6.21*	
Silicon		*34.1*	
Silver		*1.88*	
Thallium		*13.2*	
Tin		*1.34*	
Titanium		*-1.15*	
Vanadium		*1.51*	
Zinc		*-2.27*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Lab Sample ID: ICSAB 280-459331/18 Instrument ID: MT_052

Lab File ID: 52A052319CC.csv ICS Source: ICP ICSAB_00213

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Boron	**10000**	**10790**	**108**
Aluminum	*500000*	*525790*	*105*
Antimony	*1000*	*1034*	*103*
Arsenic	*1000*	*1066*	*107*
Barium	*1000*	*1050*	*105*
Beryllium	*500*	*516*	*103*
Cadmium	*1000*	*991*	*99*
Calcium	*500000*	*492742*	*99*
Chromium	*1000*	*1018*	*102*
Cobalt	*1000*	*969*	*97*
Copper	*1000*	*1075*	*107*
Iron	*200000*	*197655*	*99*
Lead	*1000*	*998*	*100*
Lithium	*1000*	*1088*	*109*
Magnesium	*500000*	*517215*	*103*
Manganese	*1000*	*1018*	*102*
Molybdenum	*1000*	*1003*	*100*
Nickel	*1000*	*958*	*96*
Phosphorus	*10000*	*10503*	*105*
Potassium	*10000*	*11194*	*112*
Selenium	*1000*	*1041*	*104*
Silicon	*10000*	*10394*	*104*
Silver	*1000*	*1136*	*114*
Sodium	*10000*	*10427*	*104*
Strontium	*1000*	*1053*	*105*
Thallium	*1000*	*998*	*100*
Tin	*1000*	*978*	*98*
Titanium	*1000*	*1023*	*102*
Vanadium	*1000*	*1026*	*103*
Zinc	*1000*	*967*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 280-123814-F-1-B MS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	1260		220		1000	103	85-113		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 280-123814-F-1-C MSD

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	1240		1000	102	85-113	1	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 280-123814-F-1-A PDS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	325		220		100	104	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-459137/2-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Boron	1000	965		97	85	113		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-459137/3-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	986		1000	99	85-113	2	20		6010C

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-123814-F-1-A SD ^5

SDG No:

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123853-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Boron	220		210	J	NC	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C DL Date: 02/03/2019 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Boron	208.9	100	4.37

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Boron		100	4.37

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	394.401														
Aluminum	396.152								-0.000104					-0.000023	
Antimony	206.834											0.004372		0.00005	
Arsenic	188.980													-0.000018	
Barium	493.408													0.000008	
Beryllium	234.861													-0.000043	
Bismuth	223.061													0.000079	0.000001
Boron	249.678													-0.000081	
Cadmium	214.439													0.000011	
Calcium	315.887		0.000314												
Chromium	205.560		-0.000004				-0.00014								
Cobalt	228.615													0	
Copper	324.754		0.000005						-0.000012						
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.000052									-0.00051			
Lithium	670.783														
Magnesium	279.078													-0.000401	
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604								0					0	
Phosphorus	213.618												-0.16455		
Potassium	766.491														
Selenium	196.026													-0.000171	
Silicon	288.158													0	
Silver	328.068														
Sodium	589.592					-0.030677	-								
Sodium	589.593					-0.275847									
Strontium	421.552													0.000001	
Sulfur	181.972								0.000105					-	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.794		0.00001118						-0.000017		0.00204			-0.000053	
Thorium	288.505						-0.00596		-0.000014					-0.000047	
Tin	189.925														
Titanium	336.122								0.000026					-	
Uranium	409.013								-0.000041					0.000232	
Vanadium	292.401											-0.00709			
Zinc	206.200													0.000031	
Zirconium	343.823													0	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Aluminum	396.152				0.040824										0.190657
Aluminum	394.401														0.02099
Antimony	206.834				-0.00389									-0.00029	
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560				-0.0007		-0.00029								
Cobalt	228.615						0.0001								
Copper	324.754				0.000286										
Iron	238.204														
Iron	259.940														
Lead	220.353				-0.000822										
Lithium	670.783														
Magnesium	279.078														
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618				-0.023999										
Potassium	766.491														
Selenium	196.026			0.000916	0.000109										
Silicon	288.158														
Silver	328.068														
Sodium	589.593														
Sodium	589.592														
Strontium	421.552														
Sulfur	181.972			0.006869											

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Thallium	190.794				-0.00234										
Thorium	288.505			0.011354											
Tin	189.925														
Titanium	336.122						0.000067								
Uranium	409.013														
Vanadium	292.401				-0.0014										
Zinc	206.200														
Zirconium	343.823														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	394.401	-0.021133			0.011488										
Aluminum	396.152														
Antimony	206.834		0.00261					-0.00114							
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560														
Cobalt	228.615		0.001881												
Copper	324.754	0.004174	-0.000232		-0.00125										
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.00043		0.000755										
Lithium	670.783														
Magnesium	279.078				-0.00486										
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604			0.000222											
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026														
Silicon	288.158														
Silver	328.068				-0.000389	-0.011329		0.0060693							
Sodium	589.592														
Sodium	589.593														
Strontium	421.552														
Sulfur	181.972														

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.794		-0.00212												
Thorium	288.505		-		0.002914	-0.06422									
Tin	189.925														
Titanium	336.122														
Uranium	409.013							-0.039324							
Vanadium	292.401	0.002016	0.000703		-0.0001										
Zinc	206.200														
Zirconium	343.823														

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123853-1

SDG No.:

Instrument ID: MT_052 Date: 04/09/2019 07:05

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Boron		50	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-459137/1-A	05/23/2019 08:00	459137		50	50
LCS 280-459137/2-A	05/23/2019 08:00	459137		50	50
LCSD 280-459137/3-A	05/23/2019 08:00	459137		50	50
280-123814-F-1-B MS	05/23/2019 08:00	459137		50	50
280-123814-F-1-C MSD	05/23/2019 08:00	459137		50	50
280-123853-1	05/23/2019 08:00	459137		50	50
280-123853-2	05/23/2019 08:00	459137		50	50
280-123853-3	05/23/2019 08:00	459137		50	50
280-123853-4	05/23/2019 08:00	459137		50	50
280-123853-5	05/23/2019 08:00	459137		50	50
280-123853-6	05/23/2019 08:00	459137		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes																								
				B																								
ICIS 280-459331/1	1		14:20	X																								
IC 280-459331/2			14:23	X																								
IC 280-459331/3			14:27	X																								
IC 280-459331/4			14:31	X																								
ZZZZZZ			14:35																									
ZZZZZZ			14:38																									
ZZZZZZ			14:42																									
ICVH 280-459331/8	1		14:49	X																								
ICVH 280-459331/9	1		14:52	X																								
ICV 280-459331/10	1		15:01	X																								
ICV 280-459331/11	1		15:05	X																								
ICVL 280-459331/12	1		15:15	X																								
CCVH 280-459331/13			15:18																									
CCV 280-459331/14			15:22																									
ICB 280-459331/15	1		15:25	X																								
CRI 280-459331/16	1		15:28	X																								
ICSA 280-459331/17	1		15:32	X																								
ICSAB 280-459331/18	1		15:36	X																								
LRA 280-459331/19			15:40																									
CCVH 280-459331/20			15:44																									
CCV 280-459331/21			15:48																									
CCB 280-459331/22			15:51																									
CCVL 280-459331/23			15:54																									
CCVH 280-459331/24			22:31																									
CCV 280-459331/25			22:34																									
CCB 280-459331/26			22:38																									
CCVL 280-459331/27			22:41																									
ZZZZZZ			22:45																									
ZZZZZZ			22:48																									
ZZZZZZ			22:52																									
ZZZZZZ			22:55																									
ZZZZZZ			22:59																									
ZZZZZZ			23:02																									
ZZZZZZ			23:06																									
ZZZZZZ			23:10																									
ZZZZZZ			23:13																									
ZZZZZZ			23:17																									
CCVH 280-459331/38			23:21																									
CCV 280-459331/39			23:24																									
CCB 280-459331/40			23:28																									
CCVL 280-459331/41			23:31																									
ZZZZZZ			23:35																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			23:38	
ZZZZZZ			23:42	
ZZZZZZ			23:45	
ZZZZZZ			23:48	
ZZZZZZ			23:52	
ZZZZZZ			23:56	
ZZZZZZ			23:59	
ZZZZZZ			00:03	
ZZZZZZ			00:06	
CCVH 280-459331/52			00:10	
CCV 280-459331/53			00:14	
CCB 280-459331/54			00:17	
CCVL 280-459331/55			00:21	
ZZZZZZ			00:24	
ZZZZZZ			00:28	
ZZZZZZ			00:31	
ZZZZZZ			00:35	
ZZZZZZ			00:39	
ZZZZZZ			00:42	
ZZZZZZ			00:46	
ZZZZZZ			00:50	
ZZZZZZ			00:53	
ZZZZZZ			00:57	
CCVH 280-459331/66			01:00	
CCV 280-459331/67			01:04	
CCB 280-459331/68			01:07	
CCVL 280-459331/69			01:11	
ZZZZZZ			01:14	
ZZZZZZ			01:18	
ZZZZZZ			01:21	
ZZZZZZ			01:25	
ZZZZZZ			01:28	
ZZZZZZ			01:32	
ZZZZZZ			01:36	
ZZZZZZ			01:39	
ZZZZZZ			01:43	
ZZZZZZ			01:47	
CCVH 280-459331/80			01:50	
CCV 280-459331/81			01:54	
CCB 280-459331/82			01:57	
CCVL 280-459331/83			02:01	
ZZZZZZ			02:04	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes																								
				B																								
ZZZZZZ			02:08																									
ZZZZZZ			02:11																									
ZZZZZZ			02:15																									
ZZZZZZ			02:19																									
ZZZZZZ			02:23																									
ZZZZZZ			02:26																									
ZZZZZZ			02:30																									
ZZZZZZ			02:34																									
ZZZZZZ			02:38																									
CCVH 280-459331/94			02:42																									
CCV 280-459331/95			02:45																									
CCB 280-459331/96			02:49																									
CCVL 280-459331/97			02:52																									
ZZZZZZ			02:56																									
ZZZZZZ			02:59																									
ZZZZZZ			03:03																									
ZZZZZZ			03:07																									
ZZZZZZ			03:11																									
ZZZZZZ			03:15																									
ZZZZZZ			03:19																									
ZZZZZZ			03:22																									
ZZZZZZ			03:26																									
ZZZZZZ			03:30																									
CCVH 280-459331/108			03:34																									
CCV 280-459331/109			03:37																									
CCB 280-459331/110			03:41																									
CCVL 280-459331/111			03:44																									
ZZZZZZ			03:48																									
ZZZZZZ			03:51																									
ZZZZZZ			03:55																									
ZZZZZZ			03:59																									
ZZZZZZ			04:02																									
ZZZZZZ			04:06																									
ZZZZZZ			04:09																									
ZZZZZZ			04:13																									
ZZZZZZ			04:17																									
ZZZZZZ			04:20																									
CCVH 280-459331/122			04:24																									
CCV 280-459331/123			04:27																									
CCB 280-459331/124			04:31																									
CCVL 280-459331/125			04:34																									
ZZZZZZ			04:38																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			04:41	
ZZZZZZ			04:44	
ZZZZZZ			04:48	
ZZZZZZ			04:51	
ZZZZZZ			04:55	
ZZZZZZ			04:59	
ZZZZZZ			05:02	
ZZZZZZ			05:06	
ZZZZZZ			05:10	
CCVH 280-459331/136			05:13	
CCV 280-459331/137			05:17	
CCB 280-459331/138			05:21	
CCVL 280-459331/139			05:24	
ZZZZZZ			05:27	
ZZZZZZ			05:31	
ZZZZZZ			05:35	
ZZZZZZ			05:38	
ZZZZZZ			05:41	
ZZZZZZ			05:45	
ZZZZZZ			05:48	
ZZZZZZ			05:52	
ZZZZZZ			05:55	
ZZZZZZ			05:59	
CCVH 280-459331/150	1		06:03	X
CCV 280-459331/151	1		06:06	X
CCB 280-459331/152	1		06:10	X
CCVL 280-459331/153	1		06:13	X
ZZZZZZ			06:16	
ZZZZZZ			06:20	
ZZZZZZ			06:24	
ZZZZZZ			06:27	
ZZZZZZ			06:31	
MB 280-459137/1-A	1	T	06:34	X
LCS 280-459137/2-A	1	T	06:38	X
LCSD 280-459137/3-A	1	T	06:41	X
ZZZZZZ			06:45	
280-123814-F-1-A SD ^5	5	T	06:48	X
CCVH 280-459331/164	1		06:52	X
CCV 280-459331/165	1		06:56	X
CCB 280-459331/166	1		06:59	X
CCVL 280-459331/167	1		07:02	X
280-123814-F-1-B MS	1	T	07:06	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/23/2019 14:20 End Date: 05/24/2019 08:10

Lab Sample Id	D/F	Type	Time	Analytes
				B
280-123814-F-1-C MSD	1	T	07:10	X
280-123814-F-1-A PDS	1	T	07:13	X
ZZZZZZ			07:17	
ZZZZZZ			07:20	
280-123853-1	1	T	07:24	X
280-123853-2	1	T	07:28	X
280-123853-3	1	T	07:31	X
280-123853-4	1	T	07:35	X
280-123853-5	1	T	07:39	X
CCVH 280-459331/178	1		07:42	X
CCV 280-459331/179	1		07:46	X
CCB 280-459331/180	1		07:49	X
CCVL 280-459331/181	1		07:53	X
280-123853-6	1	T	07:56	X
CCVH 280-459331/183	1		08:00	X
CCV 280-459331/184	1		08:03	X
CCB 280-459331/185	1		08:07	X
CCVL 280-459331/186	1		08:10	X

Prep Types:
T = Total/NA

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

ICP Instrument ID: MT_052 Start Date: 05/23/2019 End Date: 05/24/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 242.219	Q	Element Y 377.433	Q	Element Y 488.368	Q	Element	Q	Element	Q
ICIS 280-459331/1	14:20										
ICVH 280-459331/8	14:49	101		100		102					
ICVH 280-459331/9	14:52	101		101		102					
ICV 280-459331/10	15:01	103		103		104					
ICV 280-459331/11	15:05	104		104		104					
ICVL 280-459331/12	15:15	106		105		106					
ICB 280-459331/15	15:25	106		106		107					
CRI 280-459331/16	15:28	108		108		108					
ICSA 280-459331/17	15:32	95		96		102					
ICSAB 280-459331/18	15:36	95		96		101					
CCVH 280-459331/150	06:03	108		108		111					
CCV 280-459331/151	06:06	110		110		111					
CCB 280-459331/152	06:10	112		111		112					
CCVL 280-459331/153	06:13	113		113		113					
MB 280-459137/1-A	06:34	113		113		113					
LCS 280-459137/2-A	06:38	109		109		111					
LCSD 280-459137/3-A	06:41	109		109		111					
280-123814-F-1-A SD ^5	06:48	113		112		114					
CCVH 280-459331/164	06:52	108		108		111					
CCV 280-459331/165	06:56	111		111		112					
CCB 280-459331/166	06:59	112		111		113					
CCVL 280-459331/167	07:02	113		112		112					
280-123814-F-1-B MS	07:06	106		107		110					
280-123814-F-1-C MSD	07:10	106		107		110					
280-123814-F-1-A PDS	07:13	108		108		110					
280-123853-1	07:24	105		106		110					
280-123853-2	07:28	105		106		109					
280-123853-3	07:31	111		111		113					
280-123853-4	07:35	111		111		112					
280-123853-5	07:39	110		110		112					
CCVH 280-459331/178	07:42	108		108		111					
CCV 280-459331/179	07:46	111		111		113					
CCB 280-459331/180	07:49	111		111		112					
CCVL 280-459331/181	07:53	113		112		113					
280-123853-6	07:56	109		109		111					
CCVH 280-459331/183	08:00	108		108		110					
CCV 280-459331/184	08:03	111		111		112					
CCB 280-459331/185	08:07	112		112		113					

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

ICP Instrument ID: MT_052 Start Date: 05/23/2019 End Date: 05/24/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 242.219	Q	Element Y 377.433	Q	Element Y 488.368	Q	Element	Q	Element	Q
CCVL 280-459331/186	08:10	114		113		115					

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 459137 Batch Start Date: 05/23/19 08:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/23/19 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	PREP SPK 1 00008	PREP SPK 2 00004	PREP SPK 3 00004
MB 280-459137/1		3010A, 6010C			50 mL	50 mL			
LCS 280-459137/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
LCSD 280-459137/3		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123814-F-1 MS		3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123814-F-1 MSD		3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123853-F-1	LF6MW-1_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123853-F-2	775VMW-18R_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123853-F-3	TMC-USGS-2_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123853-F-4	LF6VMW-21_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123853-F-5	LF6VMW-21_0519-a	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123853-F-6	LF6/TMCSW-3_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PREP SPK 4 00004					
MB 280-459137/1		3010A, 6010C							
LCS 280-459137/2		3010A, 6010C		0.5 mL					
LCSD 280-459137/3		3010A, 6010C		0.5 mL					
280-123814-F-1 MS		3010A, 6010C	T	0.5 mL					
280-123814-F-1 MSD		3010A, 6010C	T	0.5 mL					
280-123853-F-1	LF6MW-1_0519	3010A, 6010C	T						
280-123853-F-2	775VMW-18R_0519	3010A, 6010C	T						
280-123853-F-3	TMC-USGS-2_0519	3010A, 6010C	T						
280-123853-F-4	LF6VMW-21_0519	3010A, 6010C	T						
280-123853-F-5	LF6VMW-21_0519-a	3010A, 6010C	T						
280-123853-F-6	LF6/TMCSW-3_0519	3010A, 6010C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 459137 Batch Start Date: 05/23/19 08:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/23/19 14:00

Batch Notes	
Temperature - Corrected - End	95 Degrees C
Temperature - Corrected - Start	90 Degrees C
Digestion End Time	05/23/2019 14:00
Digestion Start Time	05/23/2019 08:00
Digestion Unit ID	03
Hydrochloric Acid ID	0000217157-05/03
Nitric Acid ID	0000216908-05/03
Pipette/Syringe/Dispenser ID	MET-116
Thermometer ID	QA-51
Digestion Tube/Cup ID	1812114
Temperature - Uncorrected - End	96 Degrees C
Temperature - Uncorrected - Start	91 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Path: D:\My Results\52A052319B.esws

Date created: 5/23/2019 2:14:37 PM

Instrument used: MY18171010

Software Version : 7.4.2.10790

Firmware Version : 3784

Notes:

Sample Name: icis

Date: 5/23/2019 2:20:12 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000000	ppm	N/A	N/A	-245.843000	Y 377.433
Al (394.401 nm)	0.000000	ppm	N/A	N/A	129.121000	Y 377.433
Al H (396.152 nm)	0.000000	ppm	N/A	N/A	35.769000	Y_R 377.433
As (188.980 nm)	0.000000	ppm	N/A	N/A	-1.305310	Y 242.219
B (249.678 nm)	0.000000	ppm	N/A	N/A	37.086100	Y 242.219
Ba (493.408 nm)	0.000000	ppm	N/A	N/A	1432.610000	Y_R 488.368
Be (234.861 nm)	0.000000	ppm	N/A	N/A	-5.717390	Y_R 488.368
Bi (223.061 nm)	0.000000	ppm	N/A	N/A	-15.515600	Y 377.433
Ca (315.887 nm)	0.000000	ppm	N/A	N/A	-61.974858	Y_R 377.433
Cd (214.439 nm)	0.000000	ppm	N/A	N/A	-7.791640	Y 377.433
Co (228.615 nm)	0.000000	ppm	N/A	N/A	-22.162300	Y 242.219
Cr (205.560 nm)	0.000000	ppm	N/A	N/A	-5.972750	Y 377.433
Cu (324.754 nm)	0.000000	ppm	N/A	N/A	412.073000	Y 377.433
Fe (238.204 nm)	0.000000	ppm	N/A	N/A	2.934082	Y_R 377.433
Fe H (259.940 nm)	0.000000	ppm	N/A	N/A	10.377600	Y_R 377.433
K (766.491 nm)	0.000000	ppm	N/A	N/A	1981.590000	Y_R2 488.368
Li (670.783 nm)	0.000000	ppm	N/A	N/A	-2631.470000	Y_R2 488.368
Mg (279.078 nm)	0.000000	ppm	N/A	N/A	11.926500	Y 377.433
Mn (257.610 nm)	0.000000	ppm	N/A	N/A	-22.027400	Y 377.433
Mo (202.032 nm)	0.000000	ppm	N/A	N/A	23.388100	Y 377.433
Na (589.592 nm)	0.000000	ppm	N/A	N/A	110.458000	Y_R2 488.368
Na H (589.593 nm)	0.000000	ppm	N/A	N/A	74.255605	Y_R4
Ni (231.604 nm)	0.000000	ppm	N/A	N/A	-11.368600	Y 377.433
P (213.618 nm)	0.000000	ppm	N/A	N/A	-4.801010	Y 242.219
Pb (220.353 nm)	0.000000	ppm	N/A	N/A	12.896700	Y 242.219
S (181.972 nm)	0.000000	ppm	N/A	N/A	7.755626	Y 377.433
Sb (206.834 nm)	0.000000	ppm	N/A	N/A	-7.546230	Y 377.433
Se (196.026 nm)	0.000000	ppm	N/A	N/A	10.576300	Y 242.219
Si (288.158 nm)	0.000000	ppm	N/A	N/A	508.043000	Y 377.433
Sn (189.925 nm)	0.000000	ppm	N/A	N/A	2.236410	Y 377.433
Sr (421.552 nm)	0.000000	ppm	N/A	N/A	47.918003	Y_R 488.368
Th (288.505 nm)	0.000000	ppm	N/A	N/A	14.500400	Y 377.433
Ti (336.122 nm)	0.000000	ppm	N/A	N/A	-505.640000	Y 377.433
Tl (190.794 nm)	0.000000	ppm	N/A	N/A	0.114689	Y 377.433
U (409.013 nm)	0.000000	ppm	N/A	N/A	-41.789400	Y 377.433
V (292.401 nm)	0.000000	ppm	N/A	N/A	-180.049000	Y 377.433
Zn (206.200 nm)	0.000000	ppm	N/A	N/A	3.816730	Y 377.433
Zr (343.823 nm)	0.000000	ppm	N/A	N/A	-174.520000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.000000	22392.468229	0.000000	0.00
Y 377.433	1.000000	646126.278119	0.000000	0.00
Y_R 377.433	1.000000	55050.400000	0.000000	0.00
Y_R 488.368	1.000000	48327.000000	0.000000	0.00
Y_R2 488.368	1.000000	92684.454488	0.000000	0.00
Y_R4	1.000000	42819.500000	0.000000	0.00

Sample Name: ic1

Date: 5/23/2019 2:23:25 PM Rack:Tube: 3:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.000000	ppm	N/A	N/A	34998.700000	Y 377.433
Al (394.401 nm)	1.000000	ppm	N/A	N/A	12076.500000	Y 377.433
Al H (396.152 nm)	1.000000	ppm	N/A	N/A	1835.310000	Y_R 377.433
As (188.980 nm)	1.000000	ppm	N/A	N/A	1592.080000	Y 242.219
B (249.678 nm)	1.000000	ppm	N/A	N/A	7204.230000	Y 242.219
Ba (493.408 nm)	1.000000	ppm	N/A	N/A	98295.400000	Y_R 488.368
Be (234.861 nm)	1.000000	ppm	N/A	N/A	100822.000000	Y_R 488.368
Bi (223.061 nm)	2.000000	ppm	N/A	N/A	4546.260000	Y 377.433
Ca (315.887 nm)	10.000000	ppm	N/A	N/A	8011.414023	Y_R 377.433
Cd (214.439 nm)	1.000000	ppm	N/A	N/A	40003.400000	Y 377.433
Co (228.615 nm)	1.000000	ppm	N/A	N/A	24699.400000	Y 242.219
Cr (205.560 nm)	1.000000	ppm	N/A	N/A	7080.800000	Y 377.433
Cu (324.754 nm)	1.000000	ppm	N/A	N/A	46846.200000	Y 377.433
Fe (238.204 nm)	5.000000	ppm	N/A	N/A	12326.721853	Y_R 377.433
Fe H (259.940 nm)	5.000000	ppm	N/A	N/A	7081.990000	Y_R 377.433
K (766.491 nm)	100.000000	ppm	N/A	N/A	101235.000000	Y_R2 488.368
Li (670.783 nm)	1.000000	ppm	N/A	N/A	14782.200000	Y_R2 488.368
Mg (279.078 nm)	40.000000	ppm	N/A	N/A	141739.000000	Y 377.433
Mn (257.610 nm)	1.000000	ppm	N/A	N/A	276578.000000	Y 377.433
Mo (202.032 nm)	1.000000	ppm	N/A	N/A	12748.000000	Y 377.433
Na (589.592 nm)		ppm	N/A	N/A	36401.200000	Y_R2 488.368
Na H (589.593 nm)		ppm	N/A	N/A	25505.392891	Y_R4
Ni (231.604 nm)	1.000000	ppm	N/A	N/A	5577.100000	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	-134.168000	Y 242.219
Pb (220.353 nm)	1.000000	ppm	N/A	N/A	3449.580000	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	17.159542	Y 377.433
Sb (206.834 nm)	1.000000	ppm	N/A	N/A	1757.980000	Y 377.433
Se (196.026 nm)	1.000000	ppm	N/A	N/A	1635.770000	Y 242.219
Si (288.158 nm)	10.000000	ppm	N/A	N/A	66471.200000	Y 377.433
Sn (189.925 nm)	1.000000	ppm	N/A	N/A	1746.450000	Y 377.433
Sr (421.552 nm)	1.000000	ppm	N/A	N/A	146297.574754	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	-45.074300	Y 377.433
Ti (336.122 nm)	1.000000	ppm	N/A	N/A	129511.000000	Y 377.433
Tl (190.794 nm)	1.000000	ppm	N/A	N/A	2422.570000	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	-81.151200	Y 377.433
V (292.401 nm)	1.000000	ppm	N/A	N/A	52973.100000	Y 377.433
Zn (206.200 nm)	1.000000	ppm	N/A	N/A	4966.970000	Y 377.433
Zr (343.823 nm)	1.000000	ppm	N/A	N/A	57486.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.995189	22284.741302	0.000669	0.07
Y 377.433	0.996689	643986.691041	0.001335	0.13
Y_R 377.433	1.003140	55223.400000	0.007629	0.76
Y_R 488.368	1.003270	48485.100000	0.002955	0.29
Y_R2 488.368	1.007931	93419.553462	0.003842	0.38
Y_R4	1.008090	43166.100000	0.004406	0.44

Sample Name: ic3

Date: 5/23/2019 2:27:32 PM Rack:Tube: 3:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-219.768000	Y 377.433
Al (394.401 nm)		ppm	N/A	N/A	564.147000	Y 377.433
Al H (396.152 nm)		ppm	N/A	N/A	113.398000	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	-2.928760	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	42.274500	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1416.490000	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	1.460300	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	-12.327800	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-61.353721	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	-7.234030	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	-24.465600	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-5.557170	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	445.191000	Y 377.433
Fe (238.204 nm)		ppm	N/A	N/A	84.992882	Y_R 377.433
Fe H (259.940 nm)		ppm	N/A	N/A	57.791800	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	2116.130000	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2678.600000	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	18.102200	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	5.649240	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	23.146800	Y 377.433
Na (589.592 nm)	50.000000	ppm	N/A	N/A	37148.300000	Y_R2 488.368
Na H (589.593 nm)	50.000000	ppm	N/A	N/A	25194.623959	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	-12.677400	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	-4.046980	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	10.397900	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	10.293509	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	0.934331	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	9.293060	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	541.093000	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	3.094850	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	44.555536	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	14.734400	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-499.666000	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	7.420470	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	-4.057650	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	-163.839000	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	5.634910	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-166.735000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.011046	22639.826395	0.000305	0.03
Y 377.433	1.007526	650988.786067	0.000899	0.09
Y_R 377.433	1.014120	55827.900000	0.001810	0.18
Y_R 488.368	1.012210	48917.200000	0.002947	0.29
Y_R2 488.368	1.002093	92878.485933	0.002299	0.23
Y_R4	1.012710	43363.500000	0.003701	0.37

Sample Name: ic2

Date: 5/23/2019 2:31:09 PM Rack:Tube: 3:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-69.683900	Y 377.433
Al (394.401 nm)	100.000000	ppm	N/A	N/A	1215120.000000	Y 377.433
Al H (396.152 nm)	100.000000	ppm	N/A	N/A	205853.000000	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	0.118264	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	-31.134100	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1780.360000	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	-493.710000	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	8.855730	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-78.279203	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	36.656300	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	77.330300	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-3.323440	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	2561.990000	Y 377.433
Fe (238.204 nm)	100.000000	ppm	N/A	N/A	244947.184798	Y_R 377.433
Fe H (259.940 nm)	100.000000	ppm	N/A	N/A	139916.000000	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	2090.400000	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2639.610000	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	-285.486000	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	-308.469000	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	7.955120	Y 377.433
Na (589.592 nm)	500.000000	ppm	N/A	N/A	349451.000000	Y_R2 488.368
Na H (589.593 nm)	500.000000	ppm	N/A	N/A	248998.308046	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	4.015940	Y 377.433
P (213.618 nm)	10.000000	ppm	N/A	N/A	15128.400000	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	19.783600	Y 242.219
S (181.972 nm)	10.000000	ppm	N/A	N/A	4499.889661	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	15.907000	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	5.921940	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	740.633000	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	1.214230	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	103.415971	Y_R 488.368
Th (288.505 nm)	10.000000	ppm	N/A	N/A	17463.000000	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-407.955000	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	-19.384200	Y 377.433
U (409.013 nm)	1.000000	ppm	N/A	N/A	3091.200000	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	790.064000	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	27.382900	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-184.095000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.975957	21854.090086	0.000393	0.04
Y 377.433	0.971549	627743.636162	0.000707	0.07
Y_R 377.433	1.003170	55224.900000	0.000839	0.08
Y_R 488.368	0.998273	48243.500000	0.000566	0.06
Y_R2 488.368	0.994100	92137.611669	0.004418	0.44
Y_R4	1.013080	43379.700000	0.010207	1.01

Sample Name: S1-5717466

Date: 5/23/2019 2:35:16 PM
Rack:Tube: 3:4

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.001840	ppm	0.001579	0.16	34877.300000	Y 377.433
Al (394.401 nm)	1.006220	ppm	0.001341	0.13	12401.300000	Y 377.433
Al H (396.152 nm)	0.972867	ppm	0.004334	0.45	2255.890000	Y_R 377.433
As (188.980 nm)	1.003290	ppm	0.002299	0.23	1597.170000	Y 242.219
B (249.678 nm)	1.003840	ppm	0.001510	0.15	7228.820000	Y 242.219
Ba (493.408 nm)	0.997428	ppm	0.000251	0.03	98050.200000	Y_R 488.368
Be (234.861 nm)	0.990337	ppm	0.002898	0.29	99826.300000	Y_R 488.368
Bi (223.061 nm)	1.996620	ppm	0.003230	0.16	4539.680000	Y 377.433
Ca (315.887 nm)	9.962633	ppm	0.024703	0.25	7981.518153	Y_R 377.433
Cd (214.439 nm)	1.007090	ppm	0.002076	0.21	40289.200000	Y 377.433
Co (228.615 nm)	1.001990	ppm	0.002354	0.23	24797.600000	Y 242.219
Cr (205.560 nm)	1.006320	ppm	0.000775	0.08	7117.590000	Y 377.433
Cu (324.754 nm)	1.000440	ppm	0.000606	0.06	46865.400000	Y 377.433
Fe (238.204 nm)	4.998029	ppm	0.004165	0.08	12321.864522	Y_R 377.433
Fe H (259.940 nm)	4.985540	ppm	0.008452	0.17	7061.780000	Y_R 377.433
K (766.491 nm)	98.007500	ppm	0.352239	0.36	99256.900000	Y_R2 488.368
Li (670.783 nm)	0.998391	ppm	0.008272	0.83	14754.100000	Y_R2 488.368
Mg (279.078 nm)	40.303800	ppm	0.090653	0.22	142808.000000	Y 377.433
Mn (257.610 nm)	1.003020	ppm	0.001457	0.15	277414.000000	Y 377.433
Mo (202.032 nm)	1.002950	ppm	0.002291	0.23	12785.500000	Y 377.433
Na (589.592 nm)	48.659100	ppm	0.195700	0.40	36359.100000	Y_R2 488.368
Na H (589.593 nm)	50.723935	ppm	0.172691	0.34	25554.667038	Y_R4
Ni (231.604 nm)	1.004140	ppm	0.003240	0.32	5601.470000	Y 377.433
P (213.618 nm)	0.102581	ppm	0.002312	2.25	-135.077000	Y 242.219
Pb (220.353 nm)	1.001350	ppm	0.004275	0.43	3447.980000	Y 242.219
S (181.972 nm)	0.019850	ppm	0.006788	34.19	20.236663	Y 377.433
Sb (206.834 nm)	1.006540	ppm	0.002988	0.30	1763.720000	Y 377.433
Se (196.026 nm)	1.006920	ppm	0.001830	0.18	1647.290000	Y 242.219
Si (288.158 nm)	10.017800	ppm	0.035842	0.36	66588.700000	Y 377.433
Sn (189.925 nm)	1.000620	ppm	0.004505	0.45	1747.530000	Y 377.433
Sr (421.552 nm)	1.002868	ppm	0.001632	0.16	146717.684692	Y_R 488.368
Th (288.505 nm)	0.027489	ppm	0.004421	16.08	-40.877300	Y 377.433
Ti (336.122 nm)	1.001960	ppm	0.001329	0.13	129808.000000	Y 377.433
Tl (190.794 nm)	1.008610	ppm	0.003167	0.31	2436.530000	Y 377.433
U (409.013 nm)	0.032665	ppm	0.004675	14.31	-60.465800	Y 377.433
V (292.401 nm)	1.002660	ppm	0.000717	0.07	52698.900000	Y 377.433
Zn (206.200 nm)	1.005470	ppm	0.001623	0.16	4994.870000	Y 377.433
Zr (343.823 nm)	1.002390	ppm	0.000461	0.05	57623.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.999574	22382.926023	0.007386	0.74
Y 377.433	0.998021	644847.340769	0.007092	0.71
Y_R 377.433	1.023200	56327.400000	0.003814	0.37
Y_R 488.368	1.020020	49294.500000	0.003677	0.36
Y_R2 488.368	1.016834	94244.706604	0.002047	0.20
Y_R4	1.002460	42924.700000	0.004061	0.41

Sample Name: S3-5617381

Date: 5/23/2019 2:38:52 PM
Rack:Tube: 3:5

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001294	ppm	0.000176	13.56	-200.690000	Y 377.433
Al (394.401 nm)	0.042119	ppm	0.001287	3.06	633.840000	Y 377.433
Al H (396.152 nm)	0.177601 u	ppm	0.012545	7.06	140.879000	Y_R 377.433
As (188.980 nm)	0.002078	ppm	0.002799	> 100.00	2.003450	Y 242.219
B (249.678 nm)	0.001201	ppm	0.000210	17.47	45.661200	Y 242.219
Ba (493.408 nm)	0.000734	ppm	0.000629	85.70	1503.730000	Y_R 488.368
Be (234.861 nm)	0.001111	ppm	0.000022	2.02	106.054000	Y_R 488.368
Bi (223.061 nm)	0.003476	ppm	0.000977	28.09	-7.577630	Y 377.433
Ca (315.887 nm)	0.045618	ppm	0.000344	0.75	-25.134315	Y_R 377.433
Cd (214.439 nm)	0.001169	ppm	0.000038	3.25	39.005200	Y 377.433
Co (228.615 nm)	0.001199	ppm	0.000096	8.01	7.515620	Y 242.219
Cr (205.560 nm)	0.000694	ppm	0.000045	6.54	-1.064590	Y 377.433
Cu (324.754 nm)	0.001747	ppm	0.000295	16.86	493.151000	Y 377.433
Fe (238.204 nm)	0.051800	ppm	0.001926	3.72	130.608627	Y_R 377.433
Fe H (259.940 nm)	0.001432 u	ppm	0.003008	> 100.00	92.751800	Y_R 377.433
K (766.491 nm)	0.199385	ppm	0.225322	> 100.00	2179.490000	Y_R2 488.368
Li (670.783 nm)	-0.001177 u	ppm	0.001457	> 100.00	-2651.960000	Y_R2 488.368
Mg (279.078 nm)	0.048481	ppm	0.000881	1.82	183.279000	Y 377.433
Mn (257.610 nm)	0.001507	ppm	0.000017	1.12	394.844000	Y 377.433
Mo (202.032 nm)	0.001240	ppm	0.000117	9.44	39.168300	Y 377.433
Na (589.592 nm)	49.821500	ppm	0.107143	0.22	37016.300000	Y_R2 488.368
Na H (589.593 nm)	49.858346 u	ppm	0.117549	0.24	25124.173311	Y_R4
Ni (231.604 nm)	0.000435	ppm	0.000430	98.65	-8.934930	Y 377.433
P (213.618 nm)	0.001470 u	ppm	0.003374	> 100.00	-2.945170	Y 242.219
Pb (220.353 nm)	-0.001810 u	ppm	0.000899	49.69	6.716000	Y 242.219
S (181.972 nm)	0.014109	ppm	0.006135	43.49	14.098884	Y 377.433
Sb (206.834 nm)	0.003549	ppm	0.001051	29.61	-1.289030	Y 377.433
Se (196.026 nm)	0.000127 u	ppm	0.000296	> 100.00	10.771100	Y 242.219
Si (288.158 nm)	0.015212	ppm	0.001779	11.69	608.386000	Y 377.433
Sn (189.925 nm)	0.001962	ppm	0.000156	7.97	5.659040	Y 377.433
Sr (421.552 nm)	0.000754	ppm	0.000105	13.93	158.196345	Y_R 488.368
Th (288.505 nm)	0.001097 u	ppm	0.001554	> 100.00	16.400300	Y 377.433
Ti (336.122 nm)	0.001472	ppm	0.000013	0.91	-314.204000	Y 377.433
Tl (190.794 nm)	-0.000281 u	ppm	0.000131	46.63	-0.580218	Y 377.433
U (409.013 nm)	0.017151	ppm	0.007844	45.73	11.823100	Y 377.433
V (292.401 nm)	0.001423	ppm	0.000102	7.14	-105.104000	Y 377.433
Zn (206.200 nm)	0.007527	ppm	0.000223	2.97	41.182800	Y 377.433
Zr (343.823 nm)	0.001423	ppm	0.000340	23.90	-92.440600	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.030173	23068.119884	0.002286	0.22
Y 377.433	1.025320	662485.990846	0.002754	0.27
Y_R 377.433	1.035700	57015.800000	0.001203	0.12
Y_R 488.368	1.033220	49932.300000	0.000311	0.03
Y_R2 488.368	1.017991	94351.932538	0.002524	0.25
Y_R4	1.012700	43363.200000	0.008292	0.82

Sample Name: S2-5713035

Date: 5/23/2019 2:42:26 PM Rack:Tube: 3:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.006007	ppm	0.000015	0.26	-54.489200	Y 377.433
Al (394.401 nm)	101.477000 o	ppm	0.097313	0.10	1210140.000000	Y 377.433
Al H (396.152 nm)	100.053000	ppm	0.107828	0.11	205957.000000	Y_R 377.433
As (188.980 nm)	0.002441 u	ppm	0.004456	> 100.00	-0.289229	Y 242.219
B (249.678 nm)	-0.001950 u	ppm	0.000222	11.39	-35.053600	Y 242.219
Ba (493.408 nm)	0.002517	ppm	0.000164	6.51	1754.050000	Y_R 488.368
Be (234.861 nm)	-0.000507 u	ppm	0.000026	5.08	-491.221000	Y_R 488.368
Bi (223.061 nm)	-0.009433 u	ppm	0.003255	34.50	-18.977600	Y 377.433
Ca (315.887 nm)	-0.050443 u	ppm	0.003506	6.95	-77.332391	Y_R 377.433
Cd (214.439 nm)	0.000126	ppm	0.000089	70.82	41.343300	Y 377.433
Co (228.615 nm)	0.003463	ppm	0.000050	1.43	63.438300	Y 242.219
Cr (205.560 nm)	0.001390	ppm	0.000674	48.52	1.036920	Y 377.433
Cu (324.754 nm)	0.005271	ppm	0.000664	12.60	2553.550000	Y 377.433
Fe (238.204 nm)	99.326264 o	ppm	0.198048	0.20	244818.093963	Y_R 377.433
Fe H (259.940 nm)	100.106000	ppm	0.159282	0.16	140063.000000	Y_R 377.433
K (766.491 nm)	0.374829	ppm	0.024297	6.48	2353.620000	Y_R2 488.368
Li (670.783 nm)	-0.006120 u	ppm	0.002720	44.44	-2738.040000	Y_R2 488.368
Mg (279.078 nm)	-0.036099 u	ppm	0.000807	2.24	-275.550000	Y 377.433
Mn (257.610 nm)	-0.001054 u	ppm	0.000001	0.05	-313.493000	Y 377.433
Mo (202.032 nm)	-0.000759 u	ppm	0.000278	36.69	13.730100	Y 377.433
Na (589.592 nm)	469.518000 o	ppm	0.716624	0.15	347910.000000	Y_R2 488.368
Na H (589.593 nm)	498.305486	ppm	2.129881	0.43	248155.555825	Y_R4
Ni (231.604 nm)	0.002538	ppm	0.000057	2.25	2.815720	Y 377.433
P (213.618 nm)	9.958500	ppm	0.023470	0.24	15056.800000	Y 242.219
Pb (220.353 nm)	0.008442	ppm	0.001037	12.28	26.623700	Y 242.219
S (181.972 nm)	10.016058	ppm	0.019714	0.20	4507.107138	Y 377.433
Sb (206.834 nm)	0.004555	ppm	0.002020	44.34	9.356580	Y 377.433
Se (196.026 nm)	0.013764	ppm	0.001247	9.06	5.104320	Y 242.219
Si (288.158 nm)	0.033249	ppm	0.000881	2.65	727.365000	Y 377.433
Sn (189.925 nm)	-0.001367 u	ppm	0.000395	28.91	-0.147708	Y 377.433
Sr (421.552 nm)	0.000344	ppm	0.000083	24.22	112.895083	Y_R 488.368
Th (288.505 nm)	9.980770	ppm	0.003000	0.03	17424.500000	Y 377.433
Ti (336.122 nm)	0.000681	ppm	0.000098	14.38	-417.059000	Y 377.433
Tl (190.794 nm)	-0.004047 u	ppm	0.000676	16.71	-19.809300	Y 377.433
U (409.013 nm)	0.998546	ppm	0.002458	0.25	3159.550000	Y 377.433
V (292.401 nm)	-0.001022 u	ppm	0.000000	0.03	780.042000	Y 377.433
Zn (206.200 nm)	0.001138	ppm	0.000629	55.24	24.879800	Y 377.433
Zr (343.823 nm)	-0.000379 u	ppm	0.000206	54.32	-196.381000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.987159	22104.936506	0.006893	0.70
Y 377.433	0.981846	634396.620178	0.008157	0.83
Y_R 377.433	1.012090	55716.100000	0.002335	0.23
Y_R 488.368	1.008670	48746.100000	0.001622	0.16
Y_R2 488.368	0.994684	92191.701584	0.000780	0.08
Y_R4	1.023510	43826.000000	0.008088	0.79

Sample Name: ICVH-5717305

Date: 5/23/2019 2:49:08 PM
Rack:Tube: 3:7

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001947	ppm	0.000129	6.61	-184.333000	Y 377.433
Al (394.401 nm)	39.816500 o	ppm	0.013951	0.04	475158.000000	Y 377.433
Al H (396.152 nm)	39.493700	ppm	0.009416	0.02	81158.800000	Y_R 377.433
As (188.980 nm)	-0.001030 u	ppm	0.001909	> 100.00	-5.226910	Y 242.219
B (249.678 nm)	-0.000044 u	ppm	0.001455	> 100.00	-9.385800	Y 242.219
Ba (493.408 nm)	0.000041 u	ppm	0.000119	> 100.00	1498.140000	Y_R 488.368
Be (234.861 nm)	-0.000481 u	ppm	0.000094	19.45	-398.915000	Y_R 488.368
Bi (223.061 nm)	0.003212	ppm	0.000523	16.29	6.135760	Y 377.433
Ca (315.887 nm)	-0.002663 u	ppm	0.008708	> 100.00	-54.128038	Y_R 377.433
Cd (214.439 nm)	0.000045	ppm	0.000034	75.34	29.017100	Y 377.433
Co (228.615 nm)	-0.000993 u	ppm	0.000067	6.74	-46.724500	Y 242.219
Cr (205.560 nm)	0.000376	ppm	0.000045	11.98	-4.419950	Y 377.433
Cu (324.754 nm)	0.001930	ppm	0.000109	5.66	1049.380000	Y 377.433
Fe (238.204 nm)	78.973342 o	ppm	0.073294	0.09	194653.074341	Y_R 377.433
Fe H (259.940 nm)	79.578400	ppm	0.051639	0.06	111361.000000	Y_R 377.433
K (766.491 nm)	0.035456	ppm	0.044804	> 100.00	2016.780000	Y_R2 488.368
Li (670.783 nm)	-0.004572 u	ppm	0.001997	43.67	-2711.080000	Y_R2 488.368
Mg (279.078 nm)	-0.010878 u	ppm	0.002808	25.82	-147.127000	Y 377.433
Mn (257.610 nm)	0.000171	ppm	0.000004	2.54	25.399800	Y 377.433
Mo (202.032 nm)	-0.001266 u	ppm	0.000028	2.24	7.275650	Y 377.433
Na (589.592 nm)	78.037700 o	ppm	0.027100	0.03	57917.500000	Y_R2 488.368
Na H (589.593 nm)	78.069165	ppm	0.127626	0.16	39154.585146	Y_R4
Ni (231.604 nm)	-0.001061 u	ppm	0.000247	23.28	-17.298600	Y 377.433
P (213.618 nm)	3.851190	ppm	0.000772	0.02	5821.570000	Y 242.219
Pb (220.353 nm)	-0.002127 u	ppm	0.003085	> 100.00	-0.318210	Y 242.219
S (181.972 nm)	3.980637	ppm	0.011804	0.30	1795.914329	Y 377.433
Sb (206.834 nm)	0.006593	ppm	0.000895	13.57	11.117600	Y 377.433
Se (196.026 nm)	0.004630	ppm	0.000738	15.94	-3.991890	Y 242.219
Si (288.158 nm)	0.001369	ppm	0.000867	63.36	517.074000	Y 377.433
Sn (189.925 nm)	0.000318	ppm	0.000398	> 100.00	2.791460	Y 377.433
Sr (421.552 nm)	0.000130	ppm	0.000061	46.72	78.489976	Y_R 488.368
Th (288.505 nm)	2.919120	ppm	0.003077	0.11	5103.280000	Y 377.433
Ti (336.122 nm)	0.000336	ppm	0.000106	31.66	-461.887000	Y 377.433
Tl (190.794 nm)	0.001947	ppm	0.000778	39.94	-4.300970	Y 377.433
U (409.013 nm)	0.398775	ppm	0.003830	0.96	1265.220000	Y 377.433
V (292.401 nm)	-0.000217 u	ppm	0.000054	25.03	97.023000	Y 377.433
Zn (206.200 nm)	-0.001048 u	ppm	0.000031	2.95	10.847700	Y 377.433
Zr (343.823 nm)	0.001159	ppm	0.000044	3.81	-107.681000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.006354	22534.751952	0.006211	0.62
Y 377.433	1.002567	647784.638112	0.006702	0.67
Y_R 377.433	1.025860	56473.900000	0.003243	0.32
Y_R 488.368	1.022490	49413.800000	0.000931	0.09
Y_R2 488.368	1.013534	93938.865392	0.001672	0.16
Y_R4	1.016970	43546.100000	0.003544	0.35

Sample Name: ICVH-5717305

Date: 5/23/2019 2:52:52 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001614	ppm	0.000437	27.09	-196.213000	Y 377.433
Al (394.401 nm)	39.687000 o	ppm	0.085737	0.22	473614.000000	Y 377.433
Al H (396.152 nm)	39.429600	ppm	0.084890	0.22	81026.600000	Y_R 377.433
As (188.980 nm)	-0.001991 u	ppm	0.000619	31.07	-6.756680	Y 242.219
B (249.678 nm)	0.000038	ppm	0.000045	> 100.00	-8.768180	Y 242.219
Ba (493.408 nm)	-0.000001 u	ppm	0.000366	> 100.00	1494.110000	Y_R 488.368
Be (234.861 nm)	-0.000519 u	ppm	0.000077	14.79	-402.489000	Y_R 488.368
Bi (223.061 nm)	0.004246	ppm	0.000449	10.58	8.484890	Y 377.433
Ca (315.887 nm)	-0.001825 u	ppm	0.000674	36.92	-53.471432	Y_R 377.433
Cd (214.439 nm)	0.000091	ppm	0.000010	10.57	30.798700	Y 377.433
Co (228.615 nm)	0.000398	ppm	0.000354	88.91	-12.329000	Y 242.219
Cr (205.560 nm)	0.000346	ppm	0.000017	5.02	-4.634230	Y 377.433
Cu (324.754 nm)	0.001903	ppm	0.000599	31.47	1046.190000	Y 377.433
Fe (238.204 nm)	78.773136 o	ppm	0.340775	0.43	194159.617128	Y_R 377.433
Fe H (259.940 nm)	79.442100	ppm	0.274689	0.35	111171.000000	Y_R 377.433
K (766.491 nm)	0.114432	ppm	0.004186	3.66	2095.170000	Y_R2 488.368
Li (670.783 nm)	-0.004645 u	ppm	0.003700	79.66	-2712.360000	Y_R2 488.368
Mg (279.078 nm)	-0.012068 u	ppm	0.001844	15.28	-151.287000	Y 377.433
Mn (257.610 nm)	0.000139	ppm	0.000067	48.07	16.391300	Y 377.433
Mo (202.032 nm)	-0.001081 u	ppm	0.000123	11.37	9.626690	Y 377.433
Na (589.592 nm)	78.073900 o	ppm	0.978992	1.25	57944.300000	Y_R2 488.368
Na H (589.593 nm)	77.186229	ppm	0.243632	0.32	38715.464300	Y_R4
Ni (231.604 nm)	-0.000459 u	ppm	0.000251	54.75	-13.929600	Y 377.433
P (213.618 nm)	3.847970	ppm	0.000248	0.01	5816.690000	Y 242.219
Pb (220.353 nm)	-0.001331 u	ppm	0.000127	9.54	2.433940	Y 242.219
S (181.972 nm)	3.970519	ppm	0.000482	0.01	1791.369502	Y 377.433
Sb (206.834 nm)	0.005294	ppm	0.000998	18.85	8.820680	Y 377.433
Se (196.026 nm)	0.007216	ppm	0.000406	5.63	0.225444	Y 242.219
Si (288.158 nm)	-0.000389 u	ppm	0.000674	> 100.00	505.479000	Y 377.433
Sn (189.925 nm)	0.001836	ppm	0.001554	84.64	5.438090	Y 377.433
Sr (421.552 nm)	0.000107	ppm	0.000007	6.95	75.162578	Y_R 488.368
Th (288.505 nm)	2.906990	ppm	0.007722	0.27	5082.110000	Y 377.433
Ti (336.122 nm)	0.000306	ppm	0.000051	16.70	-465.795000	Y 377.433
Tl (190.794 nm)	0.001588	ppm	0.000913	57.51	-5.164140	Y 377.433
U (409.013 nm)	0.401901	ppm	0.000684	0.17	1275.030000	Y 377.433
V (292.401 nm)	-0.000142 u	ppm	0.000338	> 100.00	99.851900	Y 377.433
Zn (206.200 nm)	-0.000966 u	ppm	0.000152	15.78	11.245500	Y 377.433
Zr (343.823 nm)	0.001330	ppm	0.000188	14.12	-97.856100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.008800	22589.517665	0.000290	0.03
Y 377.433	1.005135	649444.178895	0.000221	0.02
Y_R 377.433	1.018960	56094.100000	0.001174	0.12
Y_R 488.368	1.017810	49187.900000	0.001956	0.19
Y_R2 488.368	0.996118	92324.640841	0.013257	1.33
Y_R4	1.010380	43264.100000	0.001109	0.11

Sample Name: ICV-5717304

Date: 5/23/2019 3:01:52 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.245092	ppm	0.000052	0.02	8347.000000	Y 377.433
Al (394.401 nm)	0.241997	ppm	0.003088	1.28	3081.260000	Y 377.433
Al H (396.152 nm)	0.327836 u	ppm	0.001789	0.55	567.074000	Y_R 377.433
As (188.980 nm)	0.241695	ppm	0.001667	0.69	383.773000	Y 242.219
B (249.678 nm)	0.236770 Q	ppm	0.001029	0.43	1733.340000 Q	Y 242.219
Ba (493.408 nm)	0.246342	ppm	0.000146	0.06	25295.000000	Y_R 488.368
Be (234.861 nm)	0.248023	ppm	0.000578	0.23	24996.600000	Y_R 488.368
Bi (223.061 nm)	0.456750	ppm	0.000156	0.03	1026.550000	Y 377.433
Ca (315.887 nm)	2.460483	ppm	0.002632	0.11	1924.532354	Y_R 377.433
Cd (214.439 nm)	0.249102	ppm	0.000420	0.17	9959.620000	Y 377.433
Co (228.615 nm)	0.246557	ppm	0.000298	0.12	6085.040000	Y 242.219
Cr (205.560 nm)	0.249738	ppm	0.000012	0.00	1761.890000	Y 377.433
Cu (324.754 nm)	0.246045	ppm	0.000478	0.19	11837.300000	Y 377.433
Fe (238.204 nm)	1.212823	ppm	0.002720	0.22	2992.248810	Y_R 377.433
Fe H (259.940 nm)	1.174220 u	ppm	0.009169	0.78	1732.610000	Y_R 377.433
K (766.491 nm)	23.839000	ppm	0.080056	0.34	25642.500000	Y_R2 488.368
Li (670.783 nm)	0.243942	ppm	0.000947	0.39	1616.440000	Y_R2 488.368
Mg (279.078 nm)	9.820450	ppm	0.005963	0.06	34805.600000	Y 377.433
Mn (257.610 nm)	0.249769	ppm	0.000266	0.11	69064.100000	Y 377.433
Mo (202.032 nm)	0.246816	ppm	0.000473	0.19	3164.030000	Y 377.433
Na (589.592 nm)	11.950300	ppm	0.032362	0.27	9012.950000	Y_R2 488.368
Na H (589.593 nm)	11.818236 u	ppm	0.008732	0.07	6205.247564	Y_R4
Ni (231.604 nm)	0.252319	ppm	0.000892	0.35	1399.020000	Y 377.433
P (213.618 nm)	0.027044 Q	ppm	0.001882	6.96	-34.044600 Q	Y 242.219
Pb (220.353 nm)	0.249535	ppm	0.000701	0.28	868.955000	Y 242.219
S (181.972 nm)	0.002476 u	ppm	0.007109	> 100.00	9.751526	Y 377.433
Sb (206.834 nm)	0.259353	ppm	0.004428	1.71	448.940000	Y 377.433
Se (196.026 nm)	0.239934	ppm	0.001298	0.54	400.592000	Y 242.219
Si (288.158 nm)	2.420980	ppm	0.002162	0.09	16477.600000	Y 377.433
Sn (189.925 nm)	0.244771	ppm	0.000266	0.11	429.170000	Y 377.433
Sr (421.552 nm)	0.245798	ppm	0.000933	0.38	35995.983133	Y_R 488.368
Th (288.505 nm)	0.011476	ppm	0.000062	0.54	9.320650	Y 377.433
Ti (336.122 nm)	0.244155	ppm	0.000281	0.12	31248.800000	Y 377.433
Tl (190.794 nm)	0.253802	ppm	0.001037	0.41	613.262000	Y 377.433
U (409.013 nm)	0.006120	ppm	0.007503	> 100.00	-52.340100	Y 377.433
V (292.401 nm)	0.245533	ppm	0.000478	0.19	12768.300000	Y 377.433
Zn (206.200 nm)	0.244469	ppm	0.000986	0.40	1217.340000	Y 377.433
Zr (343.823 nm)	0.245615	ppm	0.000027	0.01	13987.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.029994	23064.113214	0.002962	0.29
Y 377.433	1.026457	663220.768427	0.003045	0.30
Y_R 377.433	1.039440	57221.500000	0.004107	0.40
Y_R 488.368	1.036150	50074.100000	0.002427	0.23
Y_R2 488.368	1.036877	96102.345126	0.007511	0.72
Y_R4	1.017450	43566.500000	0.000814	0.08

Sample Name: ICV-5717304

Date: 5/23/2019 3:05:25 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.244748	ppm	0.000199	0.08	8335.240000	Y 377.433
Al (394.401 nm)	0.241069	ppm	0.002454	1.02	3070.080000	Y 377.433
Al H (396.152 nm)	0.328724 u	ppm	0.008631	2.63	568.788000	Y_R 377.433
As (188.980 nm)	0.238549	ppm	0.000685	0.29	378.761000	Y 242.219
B (249.678 nm)	0.237921	ppm	0.000409	0.17	1741.590000	Y 242.219
Ba (493.408 nm)	0.246465	ppm	0.000134	0.05	25306.900000	Y_R 488.368
Be (234.861 nm)	0.248721	ppm	0.001480	0.59	25067.100000	Y_R 488.368
Bi (223.061 nm)	0.457508	ppm	0.002949	0.64	1028.290000	Y 377.433
Ca (315.887 nm)	2.449743	ppm	0.010398	0.42	1915.861191	Y_R 377.433
Cd (214.439 nm)	0.249339	ppm	0.000015	0.01	9969.110000	Y 377.433
Co (228.615 nm)	0.246573	ppm	0.000168	0.07	6085.400000	Y 242.219
Cr (205.560 nm)	0.249133	ppm	0.000292	0.12	1757.600000	Y 377.433
Cu (324.754 nm)	0.246017	ppm	0.000145	0.06	11835.600000	Y 377.433
Fe (238.204 nm)	1.219765	ppm	0.008038	0.66	3009.359422	Y_R 377.433
Fe H (259.940 nm)	1.176260 u	ppm	0.001935	0.16	1735.450000	Y_R 377.433
K (766.491 nm)	24.233500	ppm	0.076351	0.32	26034.000000	Y_R2 488.368
Li (670.783 nm)	0.249996	ppm	0.001301	0.52	1721.870000	Y_R2 488.368
Mg (279.078 nm)	9.820850	ppm	0.016970	0.17	34807.100000	Y 377.433
Mn (257.610 nm)	0.249626	ppm	0.000329	0.13	69024.700000	Y 377.433
Mo (202.032 nm)	0.247546	ppm	0.000207	0.08	3173.320000	Y 377.433
Na (589.592 nm)	11.996700	ppm	0.017270	0.14	9047.160000	Y_R2 488.368
Na H (589.593 nm)	11.685231 u	ppm	0.047274	0.40	6139.098417	Y_R4
Ni (231.604 nm)	0.250224	ppm	0.000241	0.10	1387.310000	Y 377.433
P (213.618 nm)	0.027870 Q	ppm	0.000967	3.47	-32.695800 Q	Y 242.219
Pb (220.353 nm)	0.249558	ppm	0.001523	0.61	869.011000	Y 242.219
S (181.972 nm)	0.002242	ppm	0.001989	88.74	9.644992	Y 377.433
Sb (206.834 nm)	0.255216	ppm	0.000761	0.30	441.640000	Y 377.433
Se (196.026 nm)	0.237739	ppm	0.000965	0.41	397.023000	Y 242.219
Si (288.158 nm)	2.418260	ppm	0.004164	0.17	16459.600000	Y 377.433
Sn (189.925 nm)	0.243481	ppm	0.002693	1.11	426.920000	Y 377.433
Sr (421.552 nm)	0.245663	ppm	0.000260	0.11	35976.182173	Y_R 488.368
Th (288.505 nm)	0.008874	ppm	0.002030	22.87	4.828190	Y 377.433
Ti (336.122 nm)	0.243735	ppm	0.000564	0.23	31194.100000	Y 377.433
Tl (190.794 nm)	0.250120	ppm	0.000686	0.27	604.336000	Y 377.433
U (409.013 nm)	0.011816	ppm	0.001438	12.17	-34.429600	Y 377.433
V (292.401 nm)	0.245182	ppm	0.000106	0.04	12749.600000	Y 377.433
Zn (206.200 nm)	0.244467	ppm	0.000695	0.28	1217.330000	Y 377.433
Zr (343.823 nm)	0.245036	ppm	0.000513	0.21	13954.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.042273	23339.057742	0.002118	0.20
Y 377.433	1.037267	670205.748028	0.001005	0.10
Y_R 377.433	1.045400	57549.400000	0.003169	0.30
Y_R 488.368	1.043680	50437.900000	0.003245	0.31
Y_R2 488.368	1.038321	96236.244664	0.002462	0.24
Y_R4	1.030770	44137.000000	0.000554	0.05

Sample Name: ICVL-5717307

Date: 5/23/2019 3:15:05 PM Rack:Tube: 3:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008076	ppm	0.000188	2.33	36.237400	Y 377.433
Al (394.401 nm)	0.098789	ppm	0.000841	0.85	1318.700000	Y 377.433
Al H (396.152 nm)	0.224669 u	ppm	0.008549	3.81	242.599000	Y_R 377.433
As (188.980 nm)	0.014383	ppm	0.000071	0.49	21.608600	Y 242.219
B (249.678 nm)	0.092685	ppm	0.000267	0.29	701.310000	Y 242.219
Ba (493.408 nm)	0.009175	ppm	0.000315	3.44	2321.400000	Y_R 488.368
Be (234.861 nm)	0.000941	ppm	0.000012	1.33	88.663800	Y_R 488.368
Bi (223.061 nm)	0.090943	ppm	0.005859	6.44	191.940000	Y 377.433
Ca (315.887 nm)	0.207835	ppm	0.002930	1.41	105.843030	Y_R 377.433
Cd (214.439 nm)	0.005136	ppm	0.000020	0.39	197.769000	Y 377.433
Co (228.615 nm)	0.010691	ppm	0.000198	1.86	242.618000	Y 242.219
Cr (205.560 nm)	0.010139	ppm	0.000599	5.91	65.698400	Y 377.433
Cu (324.754 nm)	0.015552	ppm	0.000541	3.48	1132.550000	Y 377.433
Fe (238.204 nm)	0.103283	ppm	0.002727	2.64	257.501195	Y_R 377.433
Fe H (259.940 nm)	0.054265 u	ppm	0.001406	2.59	166.625000	Y_R 377.433
K (766.491 nm)	2.906260	ppm	0.048716	1.68	4866.140000	Y_R2 488.368
Li (670.783 nm)	0.025825	ppm	0.003794	14.69	-2181.760000	Y_R2 488.368
Mg (279.078 nm)	0.202770	ppm	0.000937	0.46	728.920000	Y 377.433
Mn (257.610 nm)	0.010709	ppm	0.000012	0.11	2940.190000	Y 377.433
Mo (202.032 nm)	0.018916	ppm	0.000020	0.11	264.091000	Y 377.433
Na (589.592 nm)	1.149660	ppm	0.001857	0.16	963.911000	Y_R2 488.368
Na H (589.593 nm)	0.561227 u	ppm	0.003705	0.66	606.669485	Y_R4
Ni (231.604 nm)	0.042864	ppm	0.000404	0.94	228.195000	Y 377.433
P (213.618 nm)	2.787270	ppm	0.000421	0.02	4208.690000	Y 242.219
Pb (220.353 nm)	0.008564	ppm	0.000440	5.13	42.426000	Y 242.219
S (181.972 nm)	0.090728	ppm	0.001140	1.26	48.550152	Y 377.433
Sb (206.834 nm)	0.025685	ppm	0.000717	2.79	37.651600	Y 377.433
Se (196.026 nm)	0.018034	ppm	0.004712	26.13	39.874900	Y 242.219
Si (288.158 nm)	0.477628	ppm	0.001390	0.29	3658.630000	Y 377.433
Sn (189.925 nm)	0.099953	ppm	0.000981	0.98	176.576000	Y 377.433
Sr (421.552 nm)	0.009101	ppm	0.000055	0.61	1378.924738	Y_R 488.368
Th (288.505 nm)	0.014041	ppm	0.000026	0.18	38.541100	Y 377.433
Ti (336.122 nm)	0.009967	ppm	0.000067	0.67	790.943000	Y 377.433
Tl (190.794 nm)	0.014835	ppm	0.001968	13.27	35.935500	Y 377.433
U (409.013 nm)	0.061573	ppm	0.009034	14.67	149.932000	Y 377.433
V (292.401 nm)	0.010096	ppm	0.000071	0.70	349.021000	Y 377.433
Zn (206.200 nm)	0.021405	ppm	0.000108	0.51	110.070000	Y 377.433
Zr (343.823 nm)	0.010118 Q	ppm	0.000285	2.82	408.870000 Q	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.055363	23632.189759	0.005103	0.48
Y 377.433	1.049595	678170.788701	0.004860	0.46
Y_R 377.433	1.059900	58348.100000	0.003382	0.32
Y_R 488.368	1.058020	51131.000000	0.003916	0.37
Y_R2 488.368	1.045193	96873.158354	0.002012	0.19
Y_R4	1.026850	43969.200000	0.003871	0.38

Sample Name: CCVH-5713036

Date: 5/23/2019 3:18:32 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004550	ppm	0.000223	4.89	-96.405800	Y 377.433
Al (394.401 nm)	50.497500 o	ppm	0.085506	0.17	602264.000000	Y 377.433
Al H (396.152 nm)	49.736400	ppm	0.026673	0.05	102269.000000	Y_R 377.433
As (188.980 nm)	0.003002	ppm	0.000444	14.79	2.055250	Y 242.219
B (249.678 nm)	-0.000230 u	ppm	0.000217	94.19	6.644290	Y 242.219
Ba (493.408 nm)	0.001921	ppm	0.000087	4.54	1657.090000	Y_R 488.368
Be (234.861 nm)	0.001140	ppm	0.000025	2.18	-105.835000	Y_R 488.368
Bi (223.061 nm)	0.010899	ppm	0.000081	0.74	18.281200	Y 377.433
Ca (315.887 nm)	-0.012138 u	ppm	0.004476	36.88	-59.181222	Y_R 377.433
Cd (214.439 nm)	0.001466	ppm	0.000039	2.64	72.705300	Y 377.433
Co (228.615 nm)	0.003455	ppm	0.000278	8.04	63.296700	Y 242.219
Cr (205.560 nm)	0.001740	ppm	0.000129	7.41	4.943810	Y 377.433
Cu (324.754 nm)	0.003725	ppm	0.000165	4.43	1528.010000	Y 377.433
Fe (238.204 nm)	49.305844 o	ppm	0.146950	0.30	121529.886719	Y_R 377.433
Fe H (259.940 nm)	49.666100	ppm	0.072071	0.15	69536.400000	Y_R 377.433
K (766.491 nm)	0.207216	ppm	0.019910	9.61	2187.260000	Y_R2 488.368
Li (670.783 nm)	0.003275 u	ppm	0.005231	> 100.00	-2574.440000	Y_R2 488.368
Mg (279.078 nm)	0.038058	ppm	0.000365	0.96	66.717100	Y 377.433
Mn (257.610 nm)	0.000999	ppm	0.000002	0.23	254.273000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000296	> 100.00	24.683900	Y 377.433
Na (589.592 nm)	241.335000 o	ppm	0.462528	0.19	178881.000000	Y_R2 488.368
Na H (589.593 nm)	247.472697	ppm	2.304556	0.93	123405.995519	Y_R4
Ni (231.604 nm)	0.001876	ppm	0.000594	31.69	-0.882112	Y 377.433
P (213.618 nm)	4.889020	ppm	0.031818	0.65	7389.100000	Y 242.219
Pb (220.353 nm)	0.004088	ppm	0.001139	27.86	19.508900	Y 242.219
S (181.972 nm)	4.947969	ppm	0.012941	0.26	2230.456381	Y 377.433
Sb (206.834 nm)	0.008307	ppm	0.000633	7.62	11.502500	Y 377.433
Se (196.026 nm)	0.007416	ppm	0.000265	3.57	8.847890	Y 242.219
Si (288.158 nm)	0.015959	ppm	0.000589	3.69	613.315000	Y 377.433
Sn (189.925 nm)	0.000894	ppm	0.000542	60.65	3.795770	Y 377.433
Sr (421.552 nm)	0.001000	ppm	0.000126	12.61	201.456488	Y_R 488.368
Th (288.505 nm)	4.984370	ppm	0.006746	0.14	8709.330000	Y 377.433
Ti (336.122 nm)	0.001897	ppm	0.000057	3.00	-258.895000	Y 377.433
Tl (190.794 nm)	0.001196	ppm	0.000578	48.30	-2.000230	Y 377.433
U (409.013 nm)	0.550485 Q	ppm	0.006802	1.24	1718.840000 Q	Y 377.433
V (292.401 nm)	0.000775	ppm	0.000143	18.41	363.847000	Y 377.433
Zn (206.200 nm)	0.002887	ppm	0.000375	13.00	25.777500	Y 377.433
Zr (343.823 nm)	0.001382	ppm	0.000006	0.44	-94.805800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.016337	22758.282857	0.002707	0.27
Y 377.433	1.010067	652630.639344	0.004476	0.44
Y_R 377.433	1.028470	56617.500000	0.002264	0.22
Y_R 488.368	1.025690	49568.300000	0.001213	0.12
Y_R2 488.368	1.022303	94751.587277	0.006525	0.64
Y_R4	1.023030	43805.500000	0.010610	1.04

Sample Name: CCV-5717467

Date: 5/23/2019 3:22:13 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.494152	ppm	0.000946	0.19	17079.300000	Y 377.433
Al (394.401 nm)	0.516476	ppm	0.000339	0.07	6425.030000	Y 377.433
Al H (396.152 nm)	0.557906 u	ppm	0.002192	0.39	1159.160000	Y_R 377.433
As (188.980 nm)	0.492527	ppm	0.001278	0.26	783.407000	Y 242.219
B (249.678 nm)	0.489751	ppm	0.002237	0.46	3545.740000	Y 242.219
Ba (493.408 nm)	0.494591	ppm	0.001040	0.21	49342.000000	Y_R 488.368
Be (234.861 nm)	0.488784	ppm	0.001715	0.35	49266.500000	Y_R 488.368
Bi (223.061 nm)	0.965228	ppm	0.000779	0.08	2186.620000	Y 377.433
Ca (315.887 nm)	4.940278	ppm	0.030940	0.63	3926.641364	Y_R 377.433
Cd (214.439 nm)	0.499543	ppm	0.001684	0.34	19980.600000	Y 377.433
Co (228.615 nm)	0.496129	ppm	0.002346	0.47	12267.000000	Y 242.219
Cr (205.560 nm)	0.498428	ppm	0.001205	0.24	3522.340000	Y 377.433
Cu (324.754 nm)	0.496654	ppm	0.000143	0.03	23471.800000	Y 377.433
Fe (238.204 nm)	2.492428	ppm	0.014204	0.57	6146.164070	Y_R 377.433
Fe H (259.940 nm)	2.458310 u	ppm	0.002771	0.11	3528.080000	Y_R 377.433
K (766.491 nm)	48.293800	ppm	0.139381	0.29	49914.600000	Y_R2 488.368
Li (670.783 nm)	0.500379	ppm	0.002535	0.51	6081.940000	Y_R2 488.368
Mg (279.078 nm)	19.869700	ppm	0.030920	0.16	70409.900000	Y 377.433
Mn (257.610 nm)	0.497522	ppm	0.001119	0.22	137592.000000	Y 377.433
Mo (202.032 nm)	0.494104	ppm	0.000746	0.15	6310.680000	Y 377.433
Na (589.592 nm)	24.063100	ppm	0.048373	0.20	18036.200000	Y_R2 488.368
Na H (589.593 nm)	24.599326 u	ppm	0.120136	0.49	12561.813911	Y_R4
Ni (231.604 nm)	0.497646	ppm	0.001833	0.37	2770.340000	Y 377.433
P (213.618 nm)	0.057576	ppm	0.003018	5.24	-59.082500	Y 242.219
Pb (220.353 nm)	0.497211	ppm	0.001892	0.38	1718.590000	Y 242.219
S (181.972 nm)	0.009045	ppm	0.007584	83.85	13.584998	Y 377.433
Sb (206.834 nm)	0.504523	ppm	0.001167	0.23	880.364000	Y 377.433
Se (196.026 nm)	0.492781	ppm	0.003230	0.66	811.572000	Y 242.219
Si (288.158 nm)	4.884880	ppm	0.002656	0.05	32730.300000	Y 377.433
Sn (189.925 nm)	0.496760	ppm	0.000530	0.11	868.691000	Y 377.433
Sr (421.552 nm)	0.494245	ppm	0.000725	0.15	72331.400483	Y_R 488.368
Th (288.505 nm)	0.017788	ppm	0.000067	0.38	-5.193960	Y 377.433
Ti (336.122 nm)	0.492190	ppm	0.000623	0.13	63508.000000	Y 377.433
Tl (190.794 nm)	0.503739	ppm	0.003130	0.62	1217.010000	Y 377.433
U (409.013 nm)	0.017856	ppm	0.004564	25.56	-45.602300	Y 377.433
V (292.401 nm)	0.493922	ppm	0.000237	0.05	25867.100000	Y 377.433
Zn (206.200 nm)	0.500513	ppm	0.002445	0.49	2488.320000	Y 377.433
Zr (343.823 nm)	0.494972	ppm	0.000784	0.16	28365.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045894	23420.154857	0.004701	0.45
Y 377.433	1.042744	673743.978430	0.004372	0.42
Y_R 377.433	1.062440	58487.600000	0.002037	0.19
Y_R 488.368	1.058120	51136.000000	0.001376	0.13
Y_R2 488.368	1.061805	98412.804267	0.011890	1.12
Y_R4	1.050670	44989.000000	0.009905	0.94

Sample Name: ICB

Date: 5/23/2019 3:25:46 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000182	ppm	0.000092	50.39	-239.587000	Y 377.433
Al (394.401 nm)	-0.001835 u	ppm	0.001633	89.01	107.258000	Y 377.433
Al H (396.152 nm)	0.133804 Zu	ppm	0.004929	3.68	50.214100 Z	Y_R 377.433
As (188.980 nm)	-0.000896 u	ppm	0.000282	31.44	-2.733720	Y 242.219
B (249.678 nm)	-0.000300 u	ppm	0.000098	32.70	34.935300	Y 242.219
Ba (493.408 nm)	-0.001239 u	ppm	0.000574	46.30	1312.610000	Y_R 488.368
Be (234.861 nm)	0.000043	ppm	0.000037	87.00	-1.397820	Y_R 488.368
Bi (223.061 nm)	0.000848	ppm	0.000398	46.96	-13.582000	Y 377.433
Ca (315.887 nm)	0.002653 u	ppm	0.004347	> 100.00	-59.832688	Y_R 377.433
Cd (214.439 nm)	0.000058	ppm	0.000003	5.16	-5.474740	Y 377.433
Co (228.615 nm)	0.000326 u	ppm	0.000625	> 100.00	-14.114900	Y 242.219
Cr (205.560 nm)	-0.000143 u	ppm	0.000338	> 100.00	-6.984280	Y 377.433
Cu (324.754 nm)	0.000289 u	ppm	0.000566	> 100.00	425.737000	Y 377.433
Fe (238.204 nm)	0.001271	ppm	0.000838	65.88	6.067284	Y_R 377.433
Fe H (259.940 nm)	-0.055559 u	ppm	0.003794	6.83	13.064400	Y_R 377.433
K (766.491 nm)	-0.039449 u	ppm	0.086577	> 100.00	1942.440000	Y_R2 488.368
Li (670.783 nm)	0.008355	ppm	0.001897	22.71	-2485.980000	Y_R2 488.368
Mg (279.078 nm)	0.000453 u	ppm	0.001428	> 100.00	13.427100	Y 377.433
Mn (257.610 nm)	0.000069	ppm	0.000020	29.38	-3.007860	Y 377.433
Mo (202.032 nm)	-0.000297 u	ppm	0.000530	> 100.00	19.604500	Y 377.433
Na (589.592 nm)	0.082242	ppm	0.001370	1.67	171.127000	Y_R2 488.368
Na H (589.593 nm)	-0.459644 u	ppm	0.023191	5.05	98.947903	Y_R4
Ni (231.604 nm)	-0.000425 u	ppm	0.000183	42.97	-13.745500	Y 377.433
P (213.618 nm)	-0.002300 u	ppm	0.002779	> 100.00	-8.204280	Y 242.219
Pb (220.353 nm)	-0.001425 u	ppm	0.002435	> 100.00	8.017820	Y 242.219
S (181.972 nm)	-0.010313 u	ppm	0.003156	30.61	3.122888	Y 377.433
Sb (206.834 nm)	0.004024	ppm	0.000336	8.34	-0.434829	Y 377.433
Se (196.026 nm)	-0.001304 u	ppm	0.000012	0.91	8.456610	Y 242.219
Si (288.158 nm)	-0.003124 u	ppm	0.001013	32.42	487.435000	Y 377.433
Sn (189.925 nm)	0.001020	ppm	0.000013	1.24	4.015300	Y 377.433
Sr (421.552 nm)	0.000148	ppm	0.000024	15.88	69.606916	Y_R 488.368
Th (288.505 nm)	0.001424 u	ppm	0.002393	> 100.00	16.999700	Y 377.433
Ti (336.122 nm)	0.000189	ppm	0.000005	2.74	-481.040000	Y 377.433
Tl (190.794 nm)	-0.000831 u	ppm	0.000348	41.84	-1.893760	Y 377.433
U (409.013 nm)	0.005164	ppm	0.005863	> 100.00	-25.587100	Y 377.433
V (292.401 nm)	0.000329	ppm	0.000126	38.29	-162.593000	Y 377.433
Zn (206.200 nm)	-0.000178 u	ppm	0.000189	> 100.00	2.931550	Y 377.433
Zr (343.823 nm)	0.000221	ppm	0.000172	77.93	-161.805000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.060710	23751.922744	0.000785	0.07
Y 377.433	1.056203	682440.541383	0.001568	0.15
Y_R 377.433	1.068360	58813.600000	0.001725	0.16
Y_R 488.368	1.068350	51630.300000	0.000884	0.08
Y_R2 488.368	1.062731	98498.600137	0.001148	0.11
Y_R4	1.041700	44604.900000	0.004060	0.39

Sample Name: CRI-5717307

Date: 5/23/2019 3:28:57 PM Rack:Tube: 3:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008116	ppm	0.000027	0.34	37.671400	Y 377.433
Al (394.401 nm)	0.102218	ppm	0.000032	0.03	1359.630000	Y 377.433
Al H (396.152 nm)	0.234519 u	ppm	0.011428	4.87	262.855000	Y_R 377.433
As (188.980 nm)	0.014698	ppm	0.000186	1.26	22.110100	Y 242.219
B (249.678 nm)	0.094146	ppm	0.001399	1.49	711.779000	Y 242.219
Ba (493.408 nm)	0.008882	ppm	0.000109	1.23	2293.050000	Y_R 488.368
Be (234.861 nm)	0.001005	ppm	0.000018	1.77	95.102200	Y_R 488.368
Bi (223.061 nm)	0.089405	ppm	0.001876	2.10	188.434000	Y 377.433
Ca (315.887 nm)	0.218126	ppm	0.008905	4.08	114.151765	Y_R 377.433
Cd (214.439 nm)	0.005174	ppm	0.000039	0.75	199.271000	Y 377.433
Co (228.615 nm)	0.010609	ppm	0.000304	2.87	240.592000	Y 242.219
Cr (205.560 nm)	0.010318	ppm	0.000206	2.00	66.965700	Y 377.433
Cu (324.754 nm)	0.016165	ppm	0.000513	3.17	1160.810000	Y 377.433
Fe (238.204 nm)	0.112306	ppm	0.000376	0.34	279.740573	Y_R 377.433
Fe H (259.940 nm)	0.060973 u	ppm	0.001221	2.00	176.005000	Y_R 377.433
K (766.491 nm)	2.856280	ppm	0.147646	5.17	4816.540000	Y_R2 488.368
Li (670.783 nm)	0.026437 Q	ppm	0.000673	2.55	-2171.100000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202460	ppm	0.001020	0.50	727.878000	Y 377.433
Mn (257.610 nm)	0.010870	ppm	0.000037	0.34	2984.480000	Y 377.433
Mo (202.032 nm)	0.019039	ppm	0.000125	0.65	265.655000	Y 377.433
Na (589.592 nm)	1.079800	ppm	0.009298	0.86	912.073000	Y_R2 488.368
Na H (589.593 nm)	0.595675 u	ppm	0.024031	4.03	623.801816	Y_R4
Ni (231.604 nm)	0.042980	ppm	0.000571	1.33	228.846000	Y 377.433
P (213.618 nm)	2.798430	ppm	0.008025	0.29	4225.530000	Y 242.219
Pb (220.353 nm)	0.008141	ppm	0.000576	7.08	40.958700	Y 242.219
S (181.972 nm)	0.092816	ppm	0.000086	0.09	49.488768	Y 377.433
Sb (206.834 nm)	0.021408	ppm	0.000479	2.24	30.097100	Y 377.433
Se (196.026 nm)	0.017627	ppm	0.001271	7.21	39.212300	Y 242.219
Si (288.158 nm)	0.480552	ppm	0.001840	0.38	3677.920000	Y 377.433
Sn (189.925 nm)	0.099316	ppm	0.001782	1.79	175.465000	Y 377.433
Sr (421.552 nm)	0.008975	ppm	0.000062	0.69	1360.519840	Y_R 488.368
Th (288.505 nm)	0.011169 Q	ppm	0.004663	41.75	33.493900 Q	Y 377.433
Ti (336.122 nm)	0.010167	ppm	0.000158	1.55	816.929000	Y 377.433
Tl (190.794 nm)	0.017036	ppm	0.000969	5.69	41.265200	Y 377.433
U (409.013 nm)	0.060580	ppm	0.004165	6.88	146.797000	Y 377.433
V (292.401 nm)	0.010205	ppm	0.000062	0.61	354.890000	Y 377.433
Zn (206.200 nm)	0.025518 Q	ppm	0.000768	3.01	130.483000 Q	Y 377.433
Zr (343.823 nm)	0.010215 Q	ppm	0.000058	0.57	414.456000 Q	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081904	24226.505331	0.000728	0.07
Y 377.433	1.077389	696129.636233	0.001094	0.10
Y_R 377.433	1.086360	59804.500000	0.004495	0.41
Y_R 488.368	1.084280	52400.200000	0.003461	0.32
Y_R2 488.368	1.081894	100274.747799	0.001694	0.16
Y_R4	1.057550	45283.500000	0.000992	0.09

Sample Name: ICSA-5714842

Date: 5/23/2019 3:32:25 PM Rack:Tube: 3:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001877	ppm	0.000587	31.25	-182.317000	Y 377.433
Al (394.401 nm)	508.791000 o	ppm	0.091856	0.02	6078870.000000	Y 377.433
Al H (396.152 nm)	511.430000	ppm	1.786630	0.35	1053610.000000	Y_R 377.433
As (188.980 nm)	-0.002549 u	ppm	0.001659	65.09	-10.839700	Y 242.219
B (249.678 nm)	0.012515	ppm	0.001342	10.72	16.020300	Y 242.219
Ba (493.408 nm)	0.000533	ppm	0.000063	11.82	1632.120000	Y_R 488.368
Be (234.861 nm)	-0.000801 Ku	ppm	0.000156	19.44	-913.682000 K	Y_R 488.368
Bi (223.061 nm)	0.007670	ppm	0.002367	30.86	36.357700	Y 377.433
Ca (315.887 nm)	480.792165	ppm	0.740179	0.15	388230.056919	Y_R 377.433
Cd (214.439 nm)	0.000849	ppm	0.000052	6.16	110.147000	Y 377.433
Co (228.615 nm)	-0.000340 u	ppm	0.000337	99.23	-30.541800	Y 242.219
Cr (205.560 nm)	0.005285 K	ppm	0.001608	30.43	16.965700 K	Y 377.433
Cu (324.754 nm)	-0.001792 u	ppm	0.000126	7.03	168.997000	Y 377.433
Fe (238.204 nm)	189.594112 o	ppm	0.157334	0.08	467306.454845	Y_R 377.433
Fe H (259.940 nm)	192.568000	ppm	0.253925	0.13	269348.000000	Y_R 377.433
K (766.491 nm)	0.088232	ppm	0.012526	14.20	2069.160000	Y_R2 488.368
Li (670.783 nm)	0.000172 u	ppm	0.001018	> 100.00	-2628.470000	Y_R2 488.368
Mg (279.078 nm)	502.792000	ppm	0.235411	0.05	1781220.000000	Y 377.433
Mn (257.610 nm)	0.000627	ppm	0.000019	2.96	151.429000	Y 377.433
Mo (202.032 nm)	0.000125 u	ppm	0.000374	> 100.00	24.978000	Y 377.433
Na (589.592 nm)	0.295399	ppm	0.031971	10.82	329.508000	Y_R2 488.368
Na H (589.593 nm)	0.479125 u	ppm	0.023836	4.97	565.836683	Y_R4
Ni (231.604 nm)	-0.007865 Ku	ppm	0.000450	5.73	-55.317200 K	Y 377.433
P (213.618 nm)	0.013913	ppm	0.004227	30.38	18.513300	Y 242.219
Pb (220.353 nm)	0.005054 K	ppm	0.003497	69.20	-60.877100 K	Y 242.219
S (181.972 nm)	-0.004440 u	ppm	0.012057	> 100.00	28.855081	Y 377.433
Sb (206.834 nm)	-0.002200 u	ppm	0.002056	93.47	5.452860	Y 377.433
Se (196.026 nm)	0.006207	ppm	0.005537	89.22	-32.358400	Y 242.219
Si (288.158 nm)	0.034103	ppm	0.001865	5.47	732.998000	Y 377.433
Sn (189.925 nm)	0.001340	ppm	0.000619	46.18	4.573290	Y 377.433
Sr (421.552 nm)	0.007316 K	ppm	0.000213	2.92	1145.794955 K	Y_R 488.368
Th (288.505 nm)	0.013386 K	ppm	0.001349	10.08	10.519400 K	Y 377.433
Ti (336.122 nm)	-0.001147 u	ppm	0.000256	22.29	1000.050000	Y 377.433
Tl (190.794 nm)	0.013177 K	ppm	0.000243	1.84	1.245450 K	Y 377.433
U (409.013 nm)	0.049998	ppm	0.008527	17.05	190.440000	Y 377.433
V (292.401 nm)	0.001509	ppm	0.000347	23.02	-108.671000	Y 377.433
Zn (206.200 nm)	-0.002265 u	ppm	0.000611	26.99	21.932500	Y 377.433
Zr (343.823 nm)	0.003460	ppm	0.000176	5.10	24.961400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.951323	21302.478076	0.000262	0.03
Y 377.433	0.955193	617175.528393	0.001069	0.11
Y_R 377.433	1.018780	56084.400000	0.003669	0.36
Y_R 488.368	1.016380	49118.700000	0.007487	0.74
Y_R2 488.368	1.004310	93083.909608	0.000784	0.08
Y_R4	1.000360	42834.800000	0.001015	0.10

Sample Name: ICSAB-5707812

Date: 5/23/2019 3:36:14 PM Rack:Tube: 3:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.136130	ppm	0.001355	0.12	39594.200000	Y 377.433
Al (394.401 nm)	521.091000 o	ppm	0.096041	0.02	6225590.000000	Y 377.433
Al H (396.152 nm)	525.790000	ppm	0.278814	0.05	1083700.000000	Y_R 377.433
As (188.980 nm)	1.065690	ppm	0.002933	0.28	1691.130000	Y 242.219
B (249.678 nm)	10.790400	ppm	0.004023	0.04	77259.900000	Y 242.219
Ba (493.408 nm)	1.050390	ppm	0.000578	0.06	103328.000000	Y_R 488.368
Be (234.861 nm)	0.515539	ppm	0.004170	0.81	51125.800000	Y_R 488.368
Bi (223.061 nm)	0.992504	ppm	0.008099	0.82	2283.600000	Y 377.433
Ca (315.887 nm)	492.742413	ppm	0.157979	0.03	397881.642924	Y_R 377.433
Cd (214.439 nm)	0.991460	ppm	0.001545	0.16	39747.900000	Y 377.433
Co (228.615 nm)	0.969066	ppm	0.000874	0.09	23984.400000	Y 242.219
Cr (205.560 nm)	1.017810	ppm	0.001935	0.19	7184.760000	Y 377.433
Cu (324.754 nm)	1.074710	ppm	0.001722	0.16	50536.400000	Y 377.433
Fe (238.204 nm)	194.713716 o	ppm	0.225526	0.12	479925.037706	Y_R 377.433
Fe H (259.940 nm)	197.655000	ppm	0.173821	0.09	276462.000000	Y_R 377.433
K (766.491 nm)	11.194100	ppm	0.082632	0.74	13092.000000	Y_R2 488.368
Li (670.783 nm)	1.088400	ppm	0.005993	0.55	16321.500000	Y_R2 488.368
Mg (279.078 nm)	517.215000	ppm	0.711421	0.14	1832310.000000	Y 377.433
Mn (257.610 nm)	1.017570	ppm	0.001171	0.12	281438.000000	Y 377.433
Mo (202.032 nm)	1.002510	ppm	0.001723	0.17	12780.000000	Y 377.433
Na (589.592 nm)	10.426900	ppm	0.017182	0.16	8048.690000	Y_R2 488.368
Na H (589.593 nm)	12.014677 Gu	ppm	0.092141	0.77	6302.945598 G	Y_R4
Ni (231.604 nm)	0.958384	ppm	0.001972	0.21	5345.760000	Y 377.433
P (213.618 nm)	10.502600	ppm	0.003655	0.03	15585.100000	Y 242.219
Pb (220.353 nm)	0.997898	ppm	0.002092	0.21	3342.500000	Y 242.219
S (181.972 nm)	10.759634 G	ppm	0.021955	0.20	4867.911859 G	Y 377.433
Sb (206.834 nm)	1.034370	ppm	0.005338	0.52	1829.770000	Y 377.433
Se (196.026 nm)	1.041180	ppm	0.000576	0.06	1649.950000	Y 242.219
Si (288.158 nm)	10.394400	ppm	0.013298	0.13	69072.600000	Y 377.433
Sn (189.925 nm)	0.977730	ppm	0.001289	0.13	1707.610000	Y 377.433
Sr (421.552 nm)	1.052791	ppm	0.001210	0.11	154046.954462	Y_R 488.368
Th (288.505 nm)	2.093560	ppm	0.004089	0.20	3539.290000	Y 377.433
Ti (336.122 nm)	1.023310	ppm	0.000021	0.00	134245.000000	Y 377.433
Tl (190.794 nm)	0.998300	ppm	0.000072	0.01	2380.820000	Y 377.433
U (409.013 nm)	0.079719	ppm	0.000746	0.94	164.376000	Y 377.433
V (292.401 nm)	1.025870	ppm	0.001602	0.16	54133.800000	Y 377.433
Zn (206.200 nm)	0.966902	ppm	0.002872	0.30	4832.840000	Y 377.433
Zr (343.823 nm)	0.987060	ppm	0.000069	0.01	56739.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.951775	21312.601371	0.001999	0.21
Y 377.433	0.955348	617275.554771	0.002476	0.26
Y_R 377.433	1.016850	55977.900000	0.005145	0.51
Y_R 488.368	1.009250	48773.800000	0.006943	0.69
Y_R2 488.368	1.007961	93422.326168	0.003214	0.32
Y_R4	1.008170	43169.100000	0.011523	1.14

Sample Name: LRA-5681702

Date: 5/23/2019 3:40:11 PM Rack:Tube: 3:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.015723 u	ppm	0.000106	0.67	-4770.710000	Y 377.433
Al (394.401 nm)	-0.175719 u	ppm	0.000891	0.51	602.270000	Y 377.433
Al H (396.152 nm)	-1.781570 u	ppm	0.001835	0.10	545.437000	Y_R 377.433
As (188.980 nm)	10.056100	ppm	0.001284	0.01	16008.000000	Y 242.219
B (249.678 nm)	10.283800	ppm	0.027259	0.27	73460.000000	Y 242.219
Ba (493.408 nm)	12.434400	ppm	0.050539	0.41	1206240.000000	Y_R 488.368
Be (234.861 nm)	-0.002413 u	ppm	0.000346	14.35	-2361.210000	Y_R 488.368
Bi (223.061 nm)	-0.024622 u	ppm	0.002128	8.64	16.108700	Y 377.433
Ca (315.887 nm)	0.019200	ppm	0.000281	1.46	-46.411165	Y_R 377.433
Cd (214.439 nm)	2.022840	ppm	0.005451	0.27	81142.600000	Y 377.433
Co (228.615 nm)	5.221560	ppm	0.007433	0.14	129547.000000	Y 242.219
Cr (205.560 nm)	10.090100	ppm	0.009668	0.10	71454.500000	Y 377.433
Cu (324.754 nm)	10.502500	ppm	0.055188	0.53	488056.000000	Y 377.433
Fe (238.204 nm)	484.452978 o	ppm	0.877640	0.18	1194062.070164	Y_R 377.433
Fe H (259.940 nm)	490.557000	ppm	0.689998	0.14	686012.000000	Y_R 377.433
K (766.491 nm)	-0.169863 u	ppm	0.050865	29.94	1813.000000	Y_R2 488.368
Li (670.783 nm)	0.005915	ppm	0.000890	15.05	-2528.460000	Y_R2 488.368
Mg (279.078 nm)	0.005335	ppm	0.002288	42.88	-663.074000	Y 377.433
Mn (257.610 nm)	9.972570	ppm	0.011917	0.12	2758390.000000	Y 377.433
Mo (202.032 nm)	4.999250	ppm	0.007120	0.14	63636.900000	Y 377.433
Na (589.592 nm)	-6.140860 u	ppm	0.006993	0.11	-1890.710000	Y_R2 488.368
Na H (589.593 nm)	6.471723 u	ppm	0.099305	1.53	3546.204715	Y_R4
Ni (231.604 nm)	10.310500	ppm	0.025562	0.25	57614.800000	Y 377.433
P (213.618 nm)	1.008160	ppm	0.007815	0.78	-1259.210000	Y 242.219
Pb (220.353 nm)	10.520500	ppm	0.013650	0.13	36122.400000	Y 242.219
S (181.972 nm)	-0.017851 u	ppm	0.004261	23.87	30.453451	Y 377.433
Sb (206.834 nm)	0.043827	ppm	0.001542	3.52	111.175000	Y 377.433
Se (196.026 nm)	4.995440	ppm	0.017539	0.35	8009.450000	Y 242.219
Si (288.158 nm)	49.237500	ppm	0.055497	0.11	325294.000000	Y 377.433
Sn (189.925 nm)	0.000332 u	ppm	0.000874	> 100.00	2.816290	Y 377.433
Sr (421.552 nm)	10.293918	ppm	0.049061	0.48	1505601.106425	Y_R 488.368
Th (288.505 nm)	0.197388	ppm	0.000226	0.11	-598.014000	Y 377.433
Ti (336.122 nm)	9.843660	ppm	0.007813	0.08	1279420.000000	Y 377.433
Tl (190.794 nm)	5.229910	ppm	0.012596	0.24	12553.700000	Y 377.433
U (409.013 nm)	-0.015804 u	ppm	0.007894	49.95	261.229000	Y 377.433
V (292.401 nm)	9.909240	ppm	0.004206	0.04	522719.000000	Y 377.433
Zn (206.200 nm)	9.677210	ppm	0.020196	0.21	48108.200000	Y 377.433
Zr (343.823 nm)	0.011886	ppm	0.000064	0.54	510.836000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043494	23366.406165	0.004433	0.42
Y 377.433	1.064526	687818.281971	0.004958	0.47
Y_R 377.433	1.084470	59700.500000	0.003590	0.33
Y_R 488.368	1.079070	52148.100000	0.005700	0.53
Y_R2 488.368	1.078267	99938.555849	0.000587	0.05
Y_R4	1.052980	45088.200000	0.007559	0.72

Sample Name: CCVH-5713036

Date: 5/23/2019 3:44:02 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004256	ppm	0.000044	1.02	-107.113000	Y 377.433
Al (394.401 nm)	50.507500 o	ppm	0.008552	0.02	602381.000000	Y 377.433
Al H (396.152 nm)	49.859900	ppm	0.031229	0.06	102523.000000	Y_R 377.433
As (188.980 nm)	0.001009 u	ppm	0.001908	> 100.00	-1.124670	Y 242.219
B (249.678 nm)	0.011181	ppm	0.000954	8.53	88.346300	Y 242.219
Ba (493.408 nm)	0.002139	ppm	0.000069	3.22	1678.350000	Y_R 488.368
Be (234.861 nm)	0.001164	ppm	0.000033	2.80	-104.032000	Y_R 488.368
Bi (223.061 nm)	0.012042	ppm	0.002133	17.71	20.913400	Y 377.433
Ca (315.887 nm)	-0.004242 u	ppm	0.000341	8.03	-52.775352	Y_R 377.433
Cd (214.439 nm)	0.001465	ppm	0.000021	1.42	72.719200	Y 377.433
Co (228.615 nm)	0.003796	ppm	0.000188	4.96	71.749600	Y 242.219
Cr (205.560 nm)	0.002436	ppm	0.000233	9.57	9.866220	Y 377.433
Cu (324.754 nm)	0.003871	ppm	0.000125	3.23	1536.810000	Y 377.433
Fe (238.204 nm)	49.470601 o	ppm	0.064608	0.13	121935.971935	Y_R 377.433
Fe H (259.940 nm)	49.746700	ppm	0.113716	0.23	69649.000000	Y_R 377.433
K (766.491 nm)	0.132086	ppm	0.005105	3.86	2112.690000	Y_R2 488.368
Li (670.783 nm)	0.005920	ppm	0.006484	> 100.00	-2528.380000	Y_R2 488.368
Mg (279.078 nm)	0.038479	ppm	0.000180	0.47	68.012600	Y 377.433
Mn (257.610 nm)	0.001353	ppm	0.000100	7.40	352.127000	Y 377.433
Mo (202.032 nm)	0.001401	ppm	0.000019	1.36	41.210600	Y 377.433
Na (589.592 nm)	240.054000 o	ppm	0.548931	0.23	177933.000000	Y_R2 488.368
Na H (589.593 nm)	251.350066	ppm	1.473054	0.59	125334.371948	Y_R4
Ni (231.604 nm)	0.003275	ppm	0.001578	48.19	6.938740	Y 377.433
P (213.618 nm)	4.908220	ppm	0.009614	0.20	7418.000000	Y 242.219
Pb (220.353 nm)	0.005902	ppm	0.002842	48.16	25.717500	Y 242.219
S (181.972 nm)	4.991616	ppm	0.006559	0.13	2250.064314	Y 377.433
Sb (206.834 nm)	0.008559	ppm	0.001313	15.34	11.953600	Y 377.433
Se (196.026 nm)	0.006284	ppm	0.000467	7.43	6.971250	Y 242.219
Si (288.158 nm)	0.028364	ppm	0.003049	10.75	695.137000	Y 377.433
Sn (189.925 nm)	0.001273	ppm	0.000518	40.67	4.457170	Y 377.433
Sr (421.552 nm)	0.001298	ppm	0.000109	8.38	244.990280	Y_R 488.368
Th (288.505 nm)	5.003170	ppm	0.002064	0.04	8742.020000	Y 377.433
Ti (336.122 nm)	0.002321	ppm	0.000159	6.84	-203.833000	Y 377.433
Tl (190.794 nm)	0.004007	ppm	0.000113	2.82	4.787120	Y 377.433
U (409.013 nm)	0.548451 Q	ppm	0.006529	1.19	1712.570000 Q	Y 377.433
V (292.401 nm)	0.001709	ppm	0.000090	5.24	414.278000	Y 377.433
Zn (206.200 nm)	0.003335	ppm	0.001299	38.95	28.021100	Y 377.433
Zr (343.823 nm)	0.001386	ppm	0.000191	13.76	-94.615500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.029660	23056.631947	0.000352	0.03
Y 377.433	1.025601	662668.028919	0.000457	0.04
Y_R 377.433	1.054230	58035.600000	0.003013	0.29
Y_R 488.368	1.050060	50746.200000	0.001675	0.16
Y_R2 488.368	1.037456	96156.002686	0.000694	0.07
Y_R4	1.036290	44373.500000	0.009800	0.95

Sample Name: CCV-5717467

Date: 5/23/2019 3:48:08 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.492317	ppm	0.000987	0.20	17014.600000	Y 377.433
Al (394.401 nm)	0.511004	ppm	0.000338	0.07	6362.290000	Y 377.433
Al H (396.152 nm)	0.562757 u	ppm	0.006126	1.09	1168.690000	Y_R 377.433
As (188.980 nm)	0.491738	ppm	0.000807	0.16	782.151000	Y 242.219
B (249.678 nm)	0.496692	ppm	0.000203	0.04	3595.500000	Y 242.219
Ba (493.408 nm)	0.493477	ppm	0.000597	0.12	49234.100000	Y_R 488.368
Be (234.861 nm)	0.486649	ppm	0.000685	0.14	49051.400000	Y_R 488.368
Bi (223.061 nm)	0.963350	ppm	0.002411	0.25	2182.340000	Y 377.433
Ca (315.887 nm)	4.967750	ppm	0.000023	0.00	3948.819319	Y_R 377.433
Cd (214.439 nm)	0.499343	ppm	0.001013	0.20	19972.600000	Y 377.433
Co (228.615 nm)	0.494776	ppm	0.000598	0.12	12233.600000	Y 242.219
Cr (205.560 nm)	0.494560	ppm	0.002420	0.49	3494.930000	Y 377.433
Cu (324.754 nm)	0.495397	ppm	0.001401	0.28	23412.000000	Y 377.433
Fe (238.204 nm)	2.488550	ppm	0.002985	0.12	6136.606119	Y_R 377.433
Fe H (259.940 nm)	2.450130 u	ppm	0.000800	0.03	3516.640000	Y_R 377.433
K (766.491 nm)	48.036700	ppm	0.134800	0.28	49659.500000	Y_R2 488.368
Li (670.783 nm)	0.493825	ppm	0.001344	0.27	5967.810000	Y_R2 488.368
Mg (279.078 nm)	19.881500	ppm	0.022126	0.11	70451.400000	Y 377.433
Mn (257.610 nm)	0.497903	ppm	0.000532	0.11	137698.000000	Y 377.433
Mo (202.032 nm)	0.494933	ppm	0.000411	0.08	6321.220000	Y 377.433
Na (589.592 nm)	23.901300	ppm	0.020578	0.09	17916.100000	Y_R2 488.368
Na H (589.593 nm)	25.396814 u	ppm	0.133068	0.52	12958.437918	Y_R4
Ni (231.604 nm)	0.497971	ppm	0.000247	0.05	2772.150000	Y 377.433
P (213.618 nm)	0.055131	ppm	0.001079	1.96	-62.610000	Y 242.219
Pb (220.353 nm)	0.495989	ppm	0.000410	0.08	1714.430000	Y 242.219
S (181.972 nm)	0.014628	ppm	0.005256	35.93	16.088583	Y 377.433
Sb (206.834 nm)	0.500978	ppm	0.003481	0.69	874.109000	Y 377.433
Se (196.026 nm)	0.492241	ppm	0.000893	0.18	810.695000	Y 242.219
Si (288.158 nm)	4.906940	ppm	0.000921	0.02	32875.800000	Y 377.433
Sn (189.925 nm)	0.495258	ppm	0.001675	0.34	866.072000	Y 377.433
Sr (421.552 nm)	0.494531	ppm	0.000116	0.02	72373.322408	Y_R 488.368
Th (288.505 nm)	0.014874	ppm	0.004789	32.19	-10.062600	Y 377.433
Ti (336.122 nm)	0.491910	ppm	0.000083	0.02	63471.600000	Y 377.433
Tl (190.794 nm)	0.504074	ppm	0.002932	0.58	1217.810000	Y 377.433
U (409.013 nm)	0.024595	ppm	0.003389	13.78	-24.325100	Y 377.433
V (292.401 nm)	0.493422	ppm	0.000979	0.20	25839.400000	Y 377.433
Zn (206.200 nm)	0.500231	ppm	0.001726	0.34	2486.920000	Y 377.433
Zr (343.823 nm)	0.494358	ppm	0.000197	0.04	28330.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.051079	23536.251506	0.001209	0.11
Y 377.433	1.046224	675992.588564	0.001028	0.10
Y_R 377.433	1.066890	58732.700000	0.001789	0.17
Y_R 488.368	1.063840	51412.100000	0.002392	0.22
Y_R2 488.368	1.046637	97006.934471	0.005802	0.55
Y_R4	1.044000	44703.500000	0.003342	0.32

Sample Name: CCB

Date: 5/23/2019 3:51:41 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000093 u	ppm	0.000072	77.06	-249.391000	Y 377.433
Al (394.401 nm)	-0.002380 u	ppm	0.000559	23.48	102.938000	Y 377.433
Al H (396.152 nm)	0.124411 Zu	ppm	0.003647	2.93	30.832500 Z	Y_R 377.433
As (188.980 nm)	0.000353 u	ppm	0.004835	> 100.00	-0.742225	Y 242.219
B (249.678 nm)	0.001684	ppm	0.000930	55.22	49.156400	Y 242.219
Ba (493.408 nm)	-0.001351 u	ppm	0.000458	33.89	1301.780000	Y_R 488.368
Be (234.861 nm)	0.000055	ppm	0.000049	89.11	-0.170330	Y_R 488.368
Bi (223.061 nm)	0.000227 u	ppm	0.000921	> 100.00	-14.997600	Y 377.433
Ca (315.887 nm)	0.003110 u	ppm	0.005127	> 100.00	-59.465604	Y_R 377.433
Cd (214.439 nm)	0.000084	ppm	0.000044	51.72	-4.414160	Y 377.433
Co (228.615 nm)	-0.000066 u	ppm	0.000002	2.85	-23.791600	Y 242.219
Cr (205.560 nm)	-0.000197 u	ppm	0.000143	72.26	-7.363640	Y 377.433
Cu (324.754 nm)	0.000399	ppm	0.000043	10.75	429.549000	Y 377.433
Fe (238.204 nm)	0.001218 u	ppm	0.002194	> 100.00	5.937206	Y_R 377.433
Fe H (259.940 nm)	-0.050228 u	ppm	0.001715	3.42	20.518200	Y_R 377.433
K (766.491 nm)	-0.035849 u	ppm	0.028225	78.73	1946.010000	Y_R2 488.368
Li (670.783 nm)	0.004795	ppm	0.000293	6.11	-2547.960000	Y_R2 488.368
Mg (279.078 nm)	0.002046	ppm	0.001446	70.70	18.926800	Y 377.433
Mn (257.610 nm)	0.000084	ppm	0.000008	9.12	1.259850	Y 377.433
Mo (202.032 nm)	-0.000639 u	ppm	0.000404	63.20	15.257900	Y 377.433
Na (589.592 nm)	0.079278	ppm	0.001670	2.11	168.895000	Y_R2 488.368
Na H (589.593 nm)	-0.015917 u	ppm	0.029827	> 100.00	319.631706	Y_R4
Ni (231.604 nm)	-0.001016 u	ppm	0.000209	20.53	-17.042300	Y 377.433
P (213.618 nm)	-0.003318 u	ppm	0.000396	11.94	-9.718300	Y 242.219
Pb (220.353 nm)	-0.001106 u	ppm	0.000851	76.97	9.137730	Y 242.219
S (181.972 nm)	-0.003998 u	ppm	0.007290	> 100.00	5.959736	Y 377.433
Sb (206.834 nm)	0.005709	ppm	0.000355	6.21	2.536110	Y 377.433
Se (196.026 nm)	-0.002198 u	ppm	0.000542	24.64	7.003270	Y 242.219
Si (288.158 nm)	-0.001042 u	ppm	0.000568	54.54	501.168000	Y 377.433
Sn (189.925 nm)	-0.000165 u	ppm	0.000741	> 100.00	1.948030	Y 377.433
Sr (421.552 nm)	0.000024 u	ppm	0.000118	> 100.00	51.483460	Y_R 488.368
Th (288.505 nm)	-0.002170 u	ppm	0.000623	28.70	10.760900	Y 377.433
Ti (336.122 nm)	0.000444	ppm	0.000032	7.32	-447.921000	Y 377.433
Tl (190.794 nm)	0.001566	ppm	0.000669	42.70	3.911890	Y 377.433
U (409.013 nm)	0.011157	ppm	0.010632	95.29	-6.844160	Y 377.433
V (292.401 nm)	0.000151 u	ppm	0.000305	> 100.00	-172.628000	Y 377.433
Zn (206.200 nm)	-0.000731 u	ppm	0.000094	12.81	0.190286	Y 377.433
Zr (343.823 nm)	0.000224	ppm	0.000032	14.27	-161.588000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071719	23998.435164	0.000972	0.09
Y 377.433	1.064925	688076.283049	0.002588	0.24
Y_R 377.433	1.072800	59058.300000	0.002676	0.25
Y_R 488.368	1.071280	51771.700000	0.002050	0.19
Y_R2 488.368	1.063578	98577.147240	0.000389	0.04
Y_R4	1.045040	44748.100000	0.003248	0.31

Sample Name: CCVL-5717307

Date: 5/23/2019 3:54:51 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007985	ppm	0.000302	3.78	33.012900	Y 377.433
Al (394.401 nm)	0.099357	ppm	0.001123	1.13	1323.800000	Y 377.433
Al H (396.152 nm)	0.231142 u	ppm	0.001301	0.56	255.886000	Y_R 377.433
As (188.980 nm)	0.013725	ppm	0.001073	7.82	20.560200	Y 242.219
B (249.678 nm)	0.096267	ppm	0.000679	0.71	726.988000	Y 242.219
Ba (493.408 nm)	0.009020	ppm	0.000256	2.84	2306.410000	Y_R 488.368
Be (234.861 nm)	0.001041	ppm	0.000044	4.25	98.777400	Y_R 488.368
Bi (223.061 nm)	0.089825	ppm	0.000670	0.75	189.389000	Y 377.433
Ca (315.887 nm)	0.218612	ppm	0.008651	3.96	114.543161	Y_R 377.433
Cd (214.439 nm)	0.005250	ppm	0.000065	1.24	202.299000	Y 377.433
Co (228.615 nm)	0.010691	ppm	0.000172	1.61	242.628000	Y 242.219
Cr (205.560 nm)	0.010165	ppm	0.000533	5.24	65.880900	Y 377.433
Cu (324.754 nm)	0.015511	ppm	0.000141	0.91	1131.580000	Y 377.433
Fe (238.204 nm)	0.099760	ppm	0.001256	1.26	248.818645	Y_R 377.433
Fe H (259.940 nm)	0.050858 u	ppm	0.004180	8.22	161.862000	Y_R 377.433
K (766.491 nm)	2.974880	ppm	0.015895	0.53	4934.250000	Y_R2 488.368
Li (670.783 nm)	0.026543 Q	ppm	0.001902	7.17	-2169.260000 Q	Y_R2 488.368
Mg (279.078 nm)	0.203881	ppm	0.000874	0.43	732.974000	Y 377.433
Mn (257.610 nm)	0.010651	ppm	0.000093	0.88	2923.940000	Y 377.433
Mo (202.032 nm)	0.018700	ppm	0.000153	0.82	261.337000	Y 377.433
Na (589.592 nm)	1.161370	ppm	0.060014	5.17	972.573000	Y_R2 488.368
Na H (589.593 nm)	0.910373 u	ppm	0.037651	4.14	780.314352	Y_R4
Ni (231.604 nm)	0.042297	ppm	0.000471	1.11	225.024000	Y 377.433
P (213.618 nm)	2.769580	ppm	0.012090	0.44	4182.130000	Y 242.219
Pb (220.353 nm)	0.008133	ppm	0.000274	3.37	40.927000	Y 242.219
S (181.972 nm)	0.093246	ppm	0.006283	6.74	49.680944	Y 377.433
Sb (206.834 nm)	0.021006	ppm	0.001697	8.08	29.390500	Y 377.433
Se (196.026 nm)	0.018264	ppm	0.000529	2.90	40.249700	Y 242.219
Si (288.158 nm)	0.484555	ppm	0.000465	0.10	3704.320000	Y 377.433
Sn (189.925 nm)	0.099034	ppm	0.000784	0.79	174.973000	Y 377.433
Sr (421.552 nm)	0.009069	ppm	0.000209	2.30	1374.236921	Y_R 488.368
Th (288.505 nm)	0.015322	ppm	0.001194	7.79	40.704400	Y 377.433
Ti (336.122 nm)	0.010082	ppm	0.000029	0.29	805.902000	Y 377.433
Tl (190.794 nm)	0.014763	ppm	0.000763	5.17	35.765300	Y 377.433
U (409.013 nm)	0.059955	ppm	0.007830	13.06	144.844000	Y 377.433
V (292.401 nm)	0.010188	ppm	0.000120	1.18	354.702000	Y 377.433
Zn (206.200 nm)	0.021390	ppm	0.000708	3.31	109.995000	Y 377.433
Zr (343.823 nm)	0.010134	ppm	0.000002	0.02	409.785000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.078330	24146.466631	0.004207	0.39
Y 377.433	1.072854	693199.483682	0.006557	0.61
Y_R 377.433	1.083440	59643.900000	0.003141	0.29
Y_R 488.368	1.082050	52292.000000	0.001250	0.12
Y_R2 488.368	1.067176	98910.661160	0.008507	0.80
Y_R4	1.048770	44907.900000	0.000237	0.02

Sample Name: lb 280-458344/1-d

Date: 5/23/2019 3:58:19 PM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000368	ppm	0.000467	> 100.00	-232.660000	Y 377.433
Al (394.401 nm)	0.003061	ppm	0.000676	22.09	163.571000	Y 377.433
Al H (396.152 nm)	0.131351 u	ppm	0.001172	0.89	45.150900	Y_R 377.433
As (188.980 nm)	0.003073	ppm	0.001307	42.53	3.590750	Y 242.219
B (249.678 nm)	0.016172	ppm	0.000147	0.91	152.986000	Y 242.219
Ba (493.408 nm)	0.000250	ppm	0.000175	69.91	1456.850000	Y_R 488.368
Be (234.861 nm)	-0.000013 u	ppm	0.000068	> 100.00	-7.095550	Y_R 488.368
Bi (223.061 nm)	0.002447	ppm	0.002538	> 100.00	-9.930040	Y 377.433
Ca (315.887 nm)	0.145545	ppm	0.010657	7.32	55.530501	Y_R 377.433
Cd (214.439 nm)	-0.000056 u	ppm	0.000111	> 100.00	-10.020000	Y 377.433
Co (228.615 nm)	-0.000078 u	ppm	0.000010	12.77	-24.081900	Y 242.219
Cr (205.560 nm)	0.000240 u	ppm	0.000439	> 100.00	-4.266370	Y 377.433
Cu (324.754 nm)	0.004940	ppm	0.000131	2.64	642.037000	Y 377.433
Fe (238.204 nm)	0.015838	ppm	0.002328	14.70	41.970300	Y_R 377.433
Fe H (259.940 nm)	-0.037205 u	ppm	0.000299	0.80	38.727600	Y_R 377.433
K (766.491 nm)	0.226289	ppm	0.054665	24.16	2206.190000	Y_R2 488.368
Li (670.783 nm)	0.002101	ppm	0.001320	62.86	-2594.890000	Y_R2 488.368
Mg (279.078 nm)	0.027067	ppm	0.001078	3.98	108.168000	Y 377.433
Mn (257.610 nm)	0.000592	ppm	0.000009	1.48	141.614000	Y 377.433
Mo (202.032 nm)	-0.000928 u	ppm	0.000043	4.60	11.580200	Y 377.433
Na (589.592 nm)	261.074000 o	ppm	0.686276	0.26	193503.000000	Y_R2 488.368
Na H (589.593 nm)	276.980452	ppm	0.132057	0.05	138081.427020	Y_R4
Ni (231.604 nm)	-0.000083 u	ppm	0.000916	> 100.00	-11.833600	Y 377.433
P (213.618 nm)	0.001117	ppm	0.001460	> 100.00	-4.264620	Y 242.219
Pb (220.353 nm)	-0.002884 u	ppm	0.000679	23.55	2.929490	Y 242.219
S (181.972 nm)	0.008532	ppm	0.000354	4.15	11.593396	Y 377.433
Sb (206.834 nm)	0.003555	ppm	0.000565	15.88	-1.263780	Y 377.433
Se (196.026 nm)	-0.003726 u	ppm	0.002141	57.47	4.517190	Y 242.219
Si (288.158 nm)	0.006748	ppm	0.000420	6.22	552.557000	Y 377.433
Sn (189.925 nm)	0.000400 u	ppm	0.000729	> 100.00	2.934720	Y 377.433
Sr (421.552 nm)	0.000037	ppm	0.000018	47.96	53.386938	Y_R 488.368
Th (288.505 nm)	-0.002730 u	ppm	0.005781	> 100.00	9.627000	Y 377.433
Ti (336.122 nm)	0.000312	ppm	0.000096	30.80	-464.895000	Y 377.433
Tl (190.794 nm)	-0.000689 u	ppm	0.000990	> 100.00	-1.557030	Y 377.433
U (409.013 nm)	-0.003925 u	ppm	0.001998	50.91	-54.068000	Y 377.433
V (292.401 nm)	-0.000076 u	ppm	0.000295	> 100.00	-183.301000	Y 377.433
Zn (206.200 nm)	0.003851	ppm	0.000627	16.27	22.930500	Y 377.433
Zr (343.823 nm)	0.000245	ppm	0.000075	30.43	-160.394000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.028952	23040.776350	0.001814	0.18
Y 377.433	1.026687	663369.750325	0.004223	0.41
Y_R 377.433	1.051330	57875.900000	0.004635	0.44
Y_R 488.368	1.046890	50593.000000	0.005746	0.55
Y_R2 488.368	1.037171	96129.589479	0.002632	0.25
Y_R4	1.032330	44203.700000	0.000581	0.06

Sample Name: lcs 280-458344/2-d

Date: 5/23/2019 4:02:14 PM Rack:Tube: 1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.216546	ppm	0.000805	0.37	7321.120000	Y 377.433
Al (394.401 nm)	2.040350	ppm	0.003732	0.18	24556.900000	Y 377.433
Al H (396.152 nm)	2.116810	ppm	0.007255	0.34	4229.410000	Y_R 377.433
As (188.980 nm)	1.013990	ppm	0.001250	0.12	1614.310000	Y 242.219
B (249.678 nm)	0.214174	ppm	0.000850	0.40	1570.920000	Y 242.219
Ba (493.408 nm)	2.439210	ppm	0.000160	0.01	237703.000000	Y_R 488.368
Be (234.861 nm)	0.198761	ppm	0.002113	1.06	20026.100000	Y_R 488.368
Bi (223.061 nm)	0.370285	ppm	0.004721	1.27	829.456000	Y 377.433
Ca (315.887 nm)	10.218217	ppm	0.004279	0.04	8188.103156	Y_R 377.433
Cd (214.439 nm)	0.412043	ppm	0.001229	0.30	16479.400000	Y 377.433
Co (228.615 nm)	0.202065	ppm	0.000330	0.16	4983.050000	Y 242.219
Cr (205.560 nm)	1.223560	ppm	0.000738	0.06	8663.410000	Y 377.433
Cu (324.754 nm)	0.625986	ppm	0.000248	0.04	29491.200000	Y 377.433
Fe (238.204 nm)	2.033881	ppm	0.001964	0.10	5015.956680	Y_R 377.433
Fe H (259.940 nm)	1.996020 u	ppm	0.003270	0.16	2881.680000	Y_R 377.433
K (766.491 nm)	10.314000	ppm	0.053490	0.52	12218.500000	Y_R2 488.368
Li (670.783 nm)	0.204465	ppm	0.000085	0.04	929.010000	Y_R2 488.368
Mg (279.078 nm)	9.970310	ppm	0.016678	0.17	35329.100000	Y 377.433
Mn (257.610 nm)	0.202563	ppm	0.000512	0.25	56007.000000	Y 377.433
Mo (202.032 nm)	0.204154	ppm	0.001341	0.66	2621.180000	Y 377.433
Na (589.592 nm)	291.843000 o	ppm	0.852174	0.29	216795.000000	Y_R2 488.368
Na H (589.593 nm)	313.373277	ppm	0.855990	0.27	156181.089864	Y_R4
Ni (231.604 nm)	0.204703	ppm	0.002121	1.04	1133.100000	Y 377.433
P (213.618 nm)	4.099210	ppm	0.015501	0.38	6035.110000	Y 242.219
Pb (220.353 nm)	1.218930	ppm	0.004115	0.34	4199.560000	Y 242.219
S (181.972 nm)	2.039616	ppm	0.002746	0.13	925.080543	Y 377.433
Sb (206.834 nm)	0.003303	ppm	0.002315	70.07	5.218850	Y 377.433
Se (196.026 nm)	0.603493	ppm	0.006701	1.11	991.139000	Y 242.219
Si (288.158 nm)	0.412314	ppm	0.000798	0.19	3227.790000	Y 377.433
Sn (189.925 nm)	0.400637	ppm	0.000385	0.10	701.033000	Y 377.433
Sr (421.552 nm)	0.198427	ppm	0.000159	0.08	29068.130059	Y_R 488.368
Th (288.505 nm)	0.206229	ppm	0.003637	1.76	355.163000	Y 377.433
Ti (336.122 nm)	0.203051	ppm	0.000166	0.08	25930.400000	Y 377.433
Tl (190.794 nm)	0.396243	ppm	0.001371	0.35	958.180000	Y 377.433
U (409.013 nm)	0.391432	ppm	0.003875	0.99	1172.930000	Y 377.433
V (292.401 nm)	0.202615	ppm	0.000186	0.09	10120.900000	Y 377.433
Zn (206.200 nm)	0.526564	ppm	0.003937	0.75	2617.550000	Y 377.433
Zr (343.823 nm)	0.096138	ppm	0.000031	0.03	5368.820000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.028888	23039.350175	0.001140	0.11
Y 377.433	1.027365	663807.660903	0.002303	0.22
Y_R 377.433	1.061910	58458.700000	0.009161	0.86
Y_R 488.368	1.060200	51236.200000	0.009376	0.88
Y_R2 488.368	1.053167	97612.184184	0.005895	0.56
Y_R4	1.065070	45605.800000	0.009346	0.88

Sample Name: lcsd 280-458344/8-c

Date: 5/23/2019 4:06:19 PM Rack:Tube: 1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.204053	ppm	0.000267	0.13	6885.210000	Y 377.433
Al (394.401 nm)	1.908180	ppm	0.000676	0.04	22975.600000	Y 377.433
Al H (396.152 nm)	1.997640	ppm	0.005976	0.30	3978.280000	Y_R 377.433
As (188.980 nm)	0.947816	ppm	0.005611	0.59	1508.870000	Y 242.219
B (249.678 nm)	0.199216	ppm	0.000791	0.40	1463.750000	Y 242.219
Ba (493.408 nm)	2.293730	ppm	0.003545	0.15	223611.000000	Y_R 488.368
Be (234.861 nm)	0.182180	ppm	0.000449	0.25	18354.600000	Y_R 488.368
Bi (223.061 nm)	0.343617	ppm	0.001575	0.46	768.612000	Y 377.433
Ca (315.887 nm)	9.594918	ppm	0.020972	0.22	7684.857887	Y_R 377.433
Cd (214.439 nm)	0.386498	ppm	0.000881	0.23	15457.300000	Y 377.433
Co (228.615 nm)	0.189903	ppm	0.001527	0.80	4681.790000	Y 242.219
Cr (205.560 nm)	1.145810	ppm	0.000159	0.01	8112.530000	Y 377.433
Cu (324.754 nm)	0.588193	ppm	0.004555	0.77	27735.000000	Y 377.433
Fe (238.204 nm)	1.963375	ppm	0.007201	0.37	4842.176366	Y_R 377.433
Fe H (259.940 nm)	1.921980 u	ppm	0.004117	0.21	2778.150000	Y_R 377.433
K (766.491 nm)	9.520820	ppm	0.104209	1.09	11431.300000	Y_R2 488.368
Li (670.783 nm)	0.198123	ppm	0.000570	0.29	818.577000	Y_R2 488.368
Mg (279.078 nm)	9.345630	ppm	0.005842	0.06	33116.200000	Y 377.433
Mn (257.610 nm)	0.190249	ppm	0.000095	0.05	52600.900000	Y 377.433
Mo (202.032 nm)	0.191903	ppm	0.000161	0.08	2465.280000	Y 377.433
Na (589.592 nm)	273.269000 o	ppm	0.793893	0.29	203006.000000	Y_R2 488.368
Na H (589.593 nm)	296.012397	ppm	2.431896	0.82	147546.803230	Y_R4
Ni (231.604 nm)	0.191405	ppm	0.000329	0.17	1058.750000	Y 377.433
P (213.618 nm)	3.847560	ppm	0.003080	0.08	5664.330000	Y 242.219
Pb (220.353 nm)	1.143490	ppm	0.000964	0.08	3940.450000	Y 242.219
S (181.972 nm)	1.912511	ppm	0.012578	0.66	867.914522	Y 377.433
Sb (206.834 nm)	0.004345	ppm	0.001574	36.22	6.629450	Y 377.433
Se (196.026 nm)	0.564905	ppm	0.005357	0.95	928.425000	Y 242.219
Si (288.158 nm)	0.386527	ppm	0.000401	0.10	3057.700000	Y 377.433
Sn (189.925 nm)	0.378105	ppm	0.003390	0.90	661.733000	Y 377.433
Sr (421.552 nm)	0.186864	ppm	0.000001	0.00	27376.995191	Y_R 488.368
Th (288.505 nm)	0.192816	ppm	0.004154	2.15	333.070000	Y 377.433
Ti (336.122 nm)	0.190857	ppm	0.000135	0.07	24342.700000	Y 377.433
Tl (190.794 nm)	0.374095	ppm	0.000495	0.13	904.631000	Y 377.433
U (409.013 nm)	0.367465	ppm	0.010587	2.88	1098.540000	Y 377.433
V (292.401 nm)	0.189952	ppm	0.000341	0.18	9476.440000	Y 377.433
Zn (206.200 nm)	0.490656	ppm	0.000662	0.13	2439.320000	Y 377.433
Zr (343.823 nm)	0.090764	ppm	0.000385	0.42	5058.950000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.046093	23424.613199	0.004121	0.39
Y 377.433	1.044612	674951.150797	0.005331	0.51
Y_R 377.433	1.103610	60754.100000	0.000660	0.06
Y_R 488.368	1.101300	53222.700000	0.001714	0.16
Y_R2 488.368	1.082728	100352.041197	0.000882	0.08
Y_R4	1.087370	46560.500000	0.010395	0.96

Sample Name: 160-33998-e-3-g

Date: 5/23/2019 4:10:09 PM Rack:Tube: 1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000167 u	ppm	0.000268	> 100.00	-239.958000	Y 377.433
Al (394.401 nm)	0.046441	ppm	0.003227	6.95	687.711000	Y 377.433
Al H (396.152 nm)	0.172318 u	ppm	0.004737	2.75	134.945000	Y_R 377.433
As (188.980 nm)	0.000238 u	ppm	0.001707	> 100.00	-0.928196	Y 242.219
B (249.678 nm)	0.007074	ppm	0.000558	7.88	87.754500	Y 242.219
Ba (493.408 nm)	0.020528	ppm	0.000246	1.20	3421.070000	Y_R 488.368
Be (234.861 nm)	0.000083	ppm	0.000044	53.00	2.452030	Y_R 488.368
Bi (223.061 nm)	0.002588	ppm	0.002949	> 100.00	-9.602560	Y 377.433
Ca (315.887 nm)	3.033016	ppm	0.001724	0.06	2386.706467	Y_R 377.433
Cd (214.439 nm)	0.000103	ppm	0.000084	81.28	-3.640510	Y 377.433
Co (228.615 nm)	0.003346	ppm	0.000223	6.65	60.589300	Y 242.219
Cr (205.560 nm)	0.000114 u	ppm	0.000297	> 100.00	-5.179020	Y 377.433
Cu (324.754 nm)	0.002067	ppm	0.000215	10.40	506.413000	Y 377.433
Fe (238.204 nm)	0.053883	ppm	0.001350	2.50	135.741946	Y_R 377.433
Fe H (259.940 nm)	0.004065 u	ppm	0.003293	81.00	96.434000	Y_R 377.433
K (766.491 nm)	0.410250	ppm	0.045353	11.06	2388.780000	Y_R2 488.368
Li (670.783 nm)	0.014146	ppm	0.003309	23.39	-2385.130000	Y_R2 488.368
Mg (279.078 nm)	1.227290	ppm	0.005890	0.48	4360.390000	Y 377.433
Mn (257.610 nm)	0.039163	ppm	0.000010	0.03	10810.500000	Y 377.433
Mo (202.032 nm)	-0.000340 u	ppm	0.000575	> 100.00	19.060100	Y 377.433
Na (589.592 nm)	272.984000 o	ppm	0.340655	0.12	202330.000000	Y_R2 488.368
Na H (589.593 nm)	292.064150	ppm	0.579546	0.20	145583.176462	Y_R4
Ni (231.604 nm)	0.007699	ppm	0.000859	11.16	31.659000	Y 377.433
P (213.618 nm)	0.000633	ppm	0.000802	> 100.00	-4.121870	Y 242.219
Pb (220.353 nm)	-0.002046 u	ppm	0.001762	86.14	5.856440	Y 242.219
S (181.972 nm)	0.522997	ppm	0.005891	1.13	242.951590	Y 377.433
Sb (206.834 nm)	0.005998	ppm	0.000219	3.65	3.051100	Y 377.433
Se (196.026 nm)	0.001898	ppm	0.002555	> 100.00	13.704400	Y 242.219
Si (288.158 nm)	0.334527	ppm	0.001094	0.33	2714.690000	Y 377.433
Sn (189.925 nm)	0.000200 u	ppm	0.000400	> 100.00	2.585860	Y 377.433
Sr (421.552 nm)	0.015432	ppm	0.000112	0.73	2304.783528	Y_R 488.368
Th (288.505 nm)	-0.002210 u	ppm	0.000284	12.85	11.316800	Y 377.433
Ti (336.122 nm)	0.000504	ppm	0.000000	0.06	-430.123000	Y 377.433
Tl (190.794 nm)	0.000774	ppm	0.000083	10.68	1.875890	Y 377.433
U (409.013 nm)	0.004028 u	ppm	0.007667	> 100.00	-29.522800	Y 377.433
V (292.401 nm)	0.000424	ppm	0.000098	23.21	-157.599000	Y 377.433
Zn (206.200 nm)	0.018387	ppm	0.000424	2.30	95.082500	Y 377.433
Zr (343.823 nm)	0.000351	ppm	0.000007	1.88	-154.308000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070140	23963.080477	0.001496	0.14
Y 377.433	1.069939	691315.547217	0.003220	0.30
Y_R 377.433	1.098630	60479.800000	0.001938	0.18
Y_R 488.368	1.095780	52955.900000	0.002541	0.23
Y_R2 488.368	1.097822	101751.070634	0.004874	0.44
Y_R4	1.101710	47174.600000	0.003880	0.35

Sample Name: 160-34008-d-4-f

Date: 5/23/2019 4:14:04 PM Rack:Tube: 1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000448	ppm	0.000243	54.30	-231.322000	Y 377.433
Al (394.401 nm)	0.017247	ppm	0.000092	0.53	426.552000	Y 377.433
Al H (396.152 nm)	0.060784 u	ppm	0.001606	2.64	-7.359420	Y_R 377.433
As (188.980 nm)	0.001948	ppm	0.001839	94.38	1.797480	Y 242.219
B (249.678 nm)	0.017338	ppm	0.000135	0.78	161.326000	Y 242.219
Ba (493.408 nm)	0.120709	ppm	0.000365	0.30	13124.800000	Y_R 488.368
Be (234.861 nm)	-0.000013 u	ppm	0.000028	> 100.00	-7.267740	Y_R 488.368
Bi (223.061 nm)	0.003882	ppm	0.003396	87.47	-6.651040	Y 377.433
Ca (315.887 nm)	155.839530	ppm	0.060067	0.04	125753.340018	Y_R 377.433
Cd (214.439 nm)	0.000647	ppm	0.000054	8.37	18.121100	Y 377.433
Co (228.615 nm)	-0.000148 u	ppm	0.000233	> 100.00	-25.831800	Y 242.219
Cr (205.560 nm)	0.000818	ppm	0.000385	47.04	-0.185151	Y 377.433
Cu (324.754 nm)	0.010420	ppm	0.000416	3.99	802.599000	Y 377.433
Fe (238.204 nm)	0.045022	ppm	0.002276	5.06	113.903599	Y_R 377.433
Fe H (259.940 nm)	-0.009813 u	ppm	0.001335	13.60	77.028200	Y_R 377.433
K (766.491 nm)	0.723332	ppm	0.031037	4.29	2699.520000	Y_R2 488.368
Li (670.783 nm)	0.013411	ppm	0.002168	16.17	-2397.930000	Y_R2 488.368
Mg (279.078 nm)	2.411260	ppm	0.001203	0.05	8554.550000	Y 377.433
Mn (257.610 nm)	0.423939	ppm	0.000101	0.02	117240.000000	Y 377.433
Mo (202.032 nm)	0.001005	ppm	0.000425	42.25	36.178400	Y 377.433
Na (589.592 nm)	301.286000 o	ppm	0.431708	0.14	223315.000000	Y_R2 488.368
Na H (589.593 nm)	330.053118	ppm	4.029409	1.22	164476.667335	Y_R4
Ni (231.604 nm)	0.000321	ppm	0.000196	60.86	-9.571870	Y 377.433
P (213.618 nm)	0.009178	ppm	0.007631	83.14	6.146080	Y 242.219
Pb (220.353 nm)	-0.003934 u	ppm	0.001665	42.33	-0.501748	Y 242.219
S (181.972 nm)	0.587220	ppm	0.001104	0.19	280.245690	Y 377.433
Sb (206.834 nm)	0.001410	ppm	0.000565	40.10	-5.051230	Y 377.433
Se (196.026 nm)	-0.001463 u	ppm	0.000914	62.51	8.815080	Y 242.219
Si (288.158 nm)	1.236980	ppm	0.000415	0.03	8667.530000	Y 377.433
Sn (189.925 nm)	-0.000982 u	ppm	0.001579	> 100.00	0.523977	Y 377.433
Sr (421.552 nm)	0.322807	ppm	0.000394	0.12	47258.268692	Y_R 488.368
Th (288.505 nm)	-0.018137 u	ppm	0.001259	6.94	-12.631100	Y 377.433
Ti (336.122 nm)	-0.000453 u	ppm	0.000044	9.78	-34.152800	Y 377.433
Tl (190.794 nm)	0.003661	ppm	0.000401	10.96	2.509530	Y 377.433
U (409.013 nm)	0.033073	ppm	0.002582	7.81	41.696900	Y 377.433
V (292.401 nm)	0.001914	ppm	0.000122	6.39	-83.036500	Y 377.433
Zn (206.200 nm)	0.036263	ppm	0.000499	1.38	183.801000	Y 377.433
Zr (343.823 nm)	0.000462	ppm	0.000109	23.71	-147.905000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.053641	23593.627381	0.000795	0.08
Y 377.433	1.059011	684255.007281	0.000119	0.01
Y_R 377.433	1.107930	60992.200000	0.002820	0.25
Y_R 488.368	1.104320	53368.200000	0.001762	0.16
Y_R2 488.368	1.102655	102198.963365	0.007272	0.66
Y_R4	1.090100	46677.500000	0.004969	0.46

Sample Name: 160-34008-d-6-e

Date: 5/23/2019 4:18:09 PM Rack:Tube: 1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000580	ppm	0.000012	2.13	-226.224000	Y 377.433
Al (394.401 nm)	0.017409	ppm	0.000738	4.24	413.991000	Y 377.433
Al H (396.152 nm)	0.064488 u	ppm	0.016878	26.17	-10.673000	Y_R 377.433
As (188.980 nm)	0.000631	ppm	0.000888	> 100.00	-0.304624	Y 242.219
B (249.678 nm)	0.026750	ppm	0.000785	2.94	228.695000	Y 242.219
Ba (493.408 nm)	0.160367	ppm	0.000509	0.32	16966.400000	Y_R 488.368
Be (234.861 nm)	0.000027	ppm	0.000030	> 100.00	-3.802300	Y_R 488.368
Bi (223.061 nm)	0.001940	ppm	0.001231	63.43	-11.053100	Y 377.433
Ca (315.887 nm)	159.258672	ppm	0.137313	0.09	128513.744396	Y_R 377.433
Cd (214.439 nm)	0.000842	ppm	0.000053	6.26	25.988200	Y 377.433
Co (228.615 nm)	0.003277	ppm	0.000386	11.76	58.868100	Y 242.219
Cr (205.560 nm)	0.000087 u	ppm	0.000509	> 100.00	-5.387610	Y 377.433
Cu (324.754 nm)	0.001944	ppm	0.000756	38.90	412.178000	Y 377.433
Fe (238.204 nm)	0.189863	ppm	0.000428	0.23	470.899579	Y_R 377.433
Fe H (259.940 nm)	0.133093 u	ppm	0.001292	0.97	276.846000	Y_R 377.433
K (766.491 nm)	1.035350	ppm	0.071652	6.92	3009.210000	Y_R2 488.368
Li (670.783 nm)	0.015824	ppm	0.008462	53.48	-2355.920000	Y_R2 488.368
Mg (279.078 nm)	2.382410	ppm	0.001330	0.06	8452.450000	Y 377.433
Mn (257.610 nm)	2.328950	ppm	0.002544	0.11	644167.000000	Y 377.433
Mo (202.032 nm)	0.001872	ppm	0.000041	2.21	47.210200	Y 377.433
Na (589.592 nm)	316.824000 o	ppm	0.566055	0.18	234833.000000	Y_R2 488.368
Na H (589.593 nm)	346.771146	ppm	1.599760	0.46	172791.236761	Y_R4
Ni (231.604 nm)	0.009753	ppm	0.001164	11.93	43.138300	Y 377.433
P (213.618 nm)	-0.001397 u	ppm	0.003524	> 100.00	-7.741510	Y 242.219
Pb (220.353 nm)	-0.000585 u	ppm	0.000145	24.84	10.952000	Y 242.219
S (181.972 nm)	1.111996	ppm	0.009385	0.84	522.000599	Y 377.433
Sb (206.834 nm)	-0.001492 u	ppm	0.003251	> 100.00	-10.170600	Y 377.433
Se (196.026 nm)	-0.001011 u	ppm	0.002016	> 100.00	12.331800	Y 242.219
Si (288.158 nm)	1.387200	ppm	0.002257	0.16	9658.420000	Y 377.433
Sn (189.925 nm)	0.000352	ppm	0.000478	> 100.00	2.850580	Y 377.433
Sr (421.552 nm)	0.296648	ppm	0.000402	0.14	43432.643918	Y_R 488.368
Th (288.505 nm)	-0.023622 u	ppm	0.000594	2.51	15.204300	Y 377.433
Ti (336.122 nm)	-0.000566 u	ppm	0.000070	12.37	-36.755900	Y 377.433
Tl (190.794 nm)	0.003109	ppm	0.000587	18.89	1.016280	Y 377.433
U (409.013 nm)	0.048269	ppm	0.010349	21.44	88.951700	Y 377.433
V (292.401 nm)	0.001493	ppm	0.000229	15.33	-102.073000	Y 377.433
Zn (206.200 nm)	0.134351	ppm	0.000292	0.22	670.650000	Y 377.433
Zr (343.823 nm)	0.000395	ppm	0.000199	50.32	-151.727000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.058551	23703.575539	0.000862	0.08
Y 377.433	1.064936	688083.056960	0.002500	0.23
Y_R 377.433	1.116260	61450.400000	0.005064	0.45
Y_R 488.368	1.112970	53786.300000	0.005331	0.48
Y_R2 488.368	1.097113	101685.341505	0.000282	0.03
Y_R4	1.103760	47262.200000	0.005525	0.50

Sample Name: 280-123668-b-1-f

Date: 5/23/2019 4:22:16 PM Rack:Tube: 1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000266	ppm	0.000175	65.78	-236.755000	Y 377.433
Al (394.401 nm)	0.057988	ppm	0.000032	0.05	876.344000	Y 377.433
Al H (396.152 nm)	0.128996 u	ppm	0.010373	8.04	110.727000	Y_R 377.433
As (188.980 nm)	0.002839	ppm	0.002323	81.83	3.214700	Y 242.219
B (249.678 nm)	0.025419	ppm	0.001199	4.72	219.194000	Y 242.219
Ba (493.408 nm)	0.115831	ppm	0.000127	0.11	12652.500000	Y_R 488.368
Be (234.861 nm)	0.000099	ppm	0.000002	1.97	3.718220	Y_R 488.368
Bi (223.061 nm)	0.004009	ppm	0.001233	30.76	-6.346830	Y 377.433
Ca (315.887 nm)	51.472445	ppm	0.032140	0.06	41493.740986	Y_R 377.433
Cd (214.439 nm)	0.000622	ppm	0.000027	4.35	17.133300	Y 377.433
Co (228.615 nm)	0.000911	ppm	0.000240	26.33	0.362498	Y 242.219
Cr (205.560 nm)	0.002962	ppm	0.000232	7.83	15.016700	Y 377.433
Cu (324.754 nm)	0.003654	ppm	0.000512	14.01	551.123000	Y 377.433
Fe (238.204 nm)	0.127251	ppm	0.001542	1.21	316.577429	Y_R 377.433
Fe H (259.940 nm)	0.074761 u	ppm	0.001444	1.93	195.284000	Y_R 377.433
K (766.491 nm)	0.828470	ppm	0.052098	6.29	2803.870000	Y_R2 488.368
Li (670.783 nm)	0.014662	ppm	0.001806	12.32	-2376.140000	Y_R2 488.368
Mg (279.078 nm)	2.466930	ppm	0.001318	0.05	8752.470000	Y 377.433
Mn (257.610 nm)	0.253792	ppm	0.000059	0.02	70176.800000	Y 377.433
Mo (202.032 nm)	-0.000184 u	ppm	0.000065	35.36	21.045100	Y 377.433
Na (589.592 nm)	251.414000 o	ppm	0.144740	0.06	186370.000000	Y_R2 488.368
Na H (589.593 nm)	270.813372	ppm	1.320394	0.49	135014.282141	Y_R4
Ni (231.604 nm)	0.002099	ppm	0.000550	26.18	0.362624	Y 377.433
P (213.618 nm)	0.006093	ppm	0.001987	32.61	3.508850	Y 242.219
Pb (220.353 nm)	-0.000928 u	ppm	0.001385	> 100.00	9.700670	Y 242.219
S (181.972 nm)	0.845119	ppm	0.008270	0.98	390.613044	Y 377.433
Sb (206.834 nm)	0.003380	ppm	0.000408	12.08	-1.548790	Y 377.433
Se (196.026 nm)	-0.003381 u	ppm	0.003073	90.91	5.422430	Y 242.219
Si (288.158 nm)	2.730890	ppm	0.001106	0.04	18521.800000	Y 377.433
Sn (189.925 nm)	0.000853	ppm	0.000646	75.78	3.723870	Y 377.433
Sr (421.552 nm)	0.208230	ppm	0.000486	0.23	30501.567693	Y_R 488.368
Th (288.505 nm)	-0.013930 u	ppm	0.003235	23.22	-6.190130	Y 377.433
Ti (336.122 nm)	0.000162	ppm	0.000024	14.65	-309.650000	Y 377.433
Tl (190.794 nm)	0.002049	ppm	0.000817	39.87	2.935050	Y 377.433
U (409.013 nm)	0.017940	ppm	0.001522	8.49	7.840550	Y 377.433
V (292.401 nm)	0.001483	ppm	0.000031	2.09	-103.118000	Y 377.433
Zn (206.200 nm)	0.019187	ppm	0.001440	7.51	99.062200	Y 377.433
Zr (343.823 nm)	0.000543	ppm	0.000129	23.70	-143.220000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076714	24110.288089	0.002290	0.21
Y 377.433	1.080170	697926.440760	0.002843	0.26
Y_R 377.433	1.126020	61988.100000	0.002819	0.25
Y_R 488.368	1.123090	54275.300000	0.004527	0.40
Y_R2 488.368	1.106220	102529.396655	0.001890	0.17
Y_R4	1.106780	47391.600000	0.009534	0.86

Sample Name: 280-123668-b-1-fSD@5

Date: 5/23/2019 4:26:00 PM Rack:Tube: 1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000340	ppm	0.000158	46.67	-233.956000	Y 377.433
Al (394.401 nm)	0.012702	ppm	0.000205	1.61	292.766000	Y 377.433
Al H (396.152 nm)	0.123955 u	ppm	0.006252	5.04	43.776200	Y_R 377.433
As (188.980 nm)	0.001244 u	ppm	0.003236	> 100.00	0.675611	Y 242.219
B (249.678 nm)	0.003289	ppm	0.000093	2.84	60.621800	Y 242.219
Ba (493.408 nm)	0.021999	ppm	0.000165	0.75	3563.550000	Y_R 488.368
Be (234.861 nm)	0.000035	ppm	0.000033	94.18	-2.467310	Y_R 488.368
Bi (223.061 nm)	-0.000371 u	ppm	0.001557	> 100.00	-16.350500	Y 377.433
Ca (315.887 nm)	10.478196	ppm	0.002631	0.03	8397.482101	Y_R 377.433
Cd (214.439 nm)	0.000185	ppm	0.000018	9.54	-0.358517	Y 377.433
Co (228.615 nm)	0.000344	ppm	0.000286	83.01	-13.657400	Y 242.219
Cr (205.560 nm)	-0.000109 u	ppm	0.000266	> 100.00	-6.741500	Y 377.433
Cu (324.754 nm)	0.001099	ppm	0.000042	3.79	456.337000	Y 377.433
Fe (238.204 nm)	0.067157	ppm	0.003285	4.89	168.460234	Y_R 377.433
Fe H (259.940 nm)	0.011665 u	ppm	0.004221	36.19	107.060000	Y_R 377.433
K (766.491 nm)	0.000781 u	ppm	0.091911	> 100.00	1982.370000	Y_R2 488.368
Li (670.783 nm)	0.018293	ppm	0.002594	14.18	-2312.930000	Y_R2 488.368
Mg (279.078 nm)	0.504162	ppm	0.001367	0.27	1798.070000	Y 377.433
Mn (257.610 nm)	0.052145	ppm	0.000106	0.20	14401.300000	Y 377.433
Mo (202.032 nm)	-0.000692 u	ppm	0.000124	17.86	14.577000	Y 377.433
Na (589.592 nm)	52.674800	ppm	0.249832	0.47	39134.100000	Y_R2 488.368
Na H (589.593 nm)	55.064975	ppm	0.096677	0.18	27713.646116	Y_R4
Ni (231.604 nm)	0.000858	ppm	0.001087	> 100.00	-6.571470	Y 377.433
P (213.618 nm)	0.002684	ppm	0.002769	> 100.00	-0.727308	Y 242.219
Pb (220.353 nm)	-0.003175 u	ppm	0.002189	68.95	2.001560	Y 242.219
S (181.972 nm)	0.164869	ppm	0.000081	0.05	82.466820	Y 377.433
Sb (206.834 nm)	0.001781	ppm	0.000556	31.19	-4.387150	Y 377.433
Se (196.026 nm)	-0.001456 u	ppm	0.004108	> 100.00	8.268500	Y 242.219
Si (288.158 nm)	0.542927	ppm	0.000691	0.13	4089.360000	Y 377.433
Sn (189.925 nm)	0.001213	ppm	0.000190	15.69	4.352770	Y 377.433
Sr (421.552 nm)	0.041455	ppm	0.000111	0.27	6110.765052	Y_R 488.368
Th (288.505 nm)	-0.003501 u	ppm	0.000553	15.80	9.175390	Y 377.433
Ti (336.122 nm)	0.000424	ppm	0.000017	3.90	-415.394000	Y 377.433
Tl (190.794 nm)	0.001115 u	ppm	0.001672	> 100.00	2.386620	Y 377.433
U (409.013 nm)	0.014813	ppm	0.006781	45.78	3.327250	Y 377.433
V (292.401 nm)	0.000560	ppm	0.000153	27.29	-150.908000	Y 377.433
Zn (206.200 nm)	0.006559	ppm	0.000398	6.06	36.381200	Y 377.433
Zr (343.823 nm)	0.000511	ppm	0.000072	14.01	-145.037000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.106037	24766.903288	0.004301	0.39
Y 377.433	1.104976	713954.007070	0.003297	0.30
Y_R 377.433	1.135560	62513.100000	0.000589	0.05
Y_R 488.368	1.131910	54701.700000	0.000071	0.01
Y_R2 488.368	1.124879	104258.794460	0.003872	0.34
Y_R4	1.128890	48338.300000	0.000821	0.07

Sample Name: 280-123668-b-1-g ms

Date: 5/23/2019 4:29:30 PM Rack:Tube: 1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.218149	ppm	0.000236	0.11	7376.910000	Y 377.433
Al (394.401 nm)	2.075760	ppm	0.000410	0.02	25048.500000	Y 377.433
Al H (396.152 nm)	2.121290	ppm	0.008172	0.39	4320.810000	Y_R 377.433
As (188.980 nm)	1.022340	ppm	0.004735	0.46	1627.620000	Y 242.219
B (249.678 nm)	0.227374	ppm	0.001515	0.67	1665.530000	Y 242.219
Ba (493.408 nm)	2.571720	ppm	0.004079	0.16	250538.000000	Y_R 488.368
Be (234.861 nm)	0.200317	ppm	0.000170	0.08	20183.100000	Y_R 488.368
Bi (223.061 nm)	0.376048	ppm	0.001307	0.35	842.597000	Y 377.433
Ca (315.887 nm)	68.272747	ppm	0.162042	0.24	55057.798149	Y_R 377.433
Cd (214.439 nm)	0.406803	ppm	0.001055	0.26	16269.700000	Y 377.433
Co (228.615 nm)	0.201142	ppm	0.000375	0.19	4960.200000	Y 242.219
Cr (205.560 nm)	1.218680	ppm	0.004103	0.34	8628.870000	Y 377.433
Cu (324.754 nm)	0.621859	ppm	0.004611	0.74	29262.300000	Y 377.433
Fe (238.204 nm)	2.020301	ppm	0.006879	0.34	4982.486196	Y_R 377.433
Fe H (259.940 nm)	1.974400 u	ppm	0.012241	0.62	2851.450000	Y_R 377.433
K (766.491 nm)	11.054500	ppm	0.229357	2.07	12953.500000	Y_R2 488.368
Li (670.783 nm)	0.212164	ppm	0.001645	0.78	1063.080000	Y_R2 488.368
Mg (279.078 nm)	12.523800	ppm	0.005641	0.05	44376.100000	Y 377.433
Mn (257.610 nm)	0.487283	ppm	0.000319	0.07	134760.000000	Y 377.433
Mo (202.032 nm)	0.204472	ppm	0.000074	0.04	2625.210000	Y 377.433
Na (589.592 nm)	288.647000 o	ppm	1.158610	0.40	214455.000000	Y_R2 488.368
Na H (589.593 nm)	317.730468	ppm	2.309154	0.73	158348.101825	Y_R4
Ni (231.604 nm)	0.203963	ppm	0.000228	0.11	1128.950000	Y 377.433
P (213.618 nm)	4.165150	ppm	0.001540	0.04	6135.880000	Y 242.219
Pb (220.353 nm)	1.211550	ppm	0.000125	0.01	4174.260000	Y 242.219
S (181.972 nm)	3.040963	ppm	0.015217	0.50	1378.526708	Y 377.433
Sb (206.834 nm)	0.007889	ppm	0.001789	22.67	13.318000	Y 377.433
Se (196.026 nm)	0.609885	ppm	0.002743	0.45	1001.950000	Y 242.219
Si (288.158 nm)	3.601590	ppm	0.001903	0.05	24265.300000	Y 377.433
Sn (189.925 nm)	0.397918	ppm	0.001625	0.41	696.291000	Y 377.433
Sr (421.552 nm)	0.440993	ppm	0.000338	0.08	64543.232275	Y_R 488.368
Th (288.505 nm)	0.196357	ppm	0.001301	0.66	342.250000	Y 377.433
Ti (336.122 nm)	0.202555	ppm	0.000148	0.07	26063.500000	Y 377.433
Tl (190.794 nm)	0.393035	ppm	0.000980	0.25	948.004000	Y 377.433
U (409.013 nm)	0.412660	ppm	0.001606	0.39	1232.160000	Y 377.433
V (292.401 nm)	0.203000	ppm	0.000102	0.05	10138.300000	Y 377.433
Zn (206.200 nm)	0.524160	ppm	0.001301	0.25	2605.610000	Y 377.433
Zr (343.823 nm)	0.093749	ppm	0.000202	0.22	5231.090000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070638	23974.234130	0.001269	0.12
Y 377.433	1.075928	695185.539139	0.000365	0.03
Y_R 377.433	1.113430	61294.500000	0.001211	0.11
Y_R 488.368	1.106490	53473.300000	0.002275	0.21
Y_R2 488.368	1.107302	102629.705937	0.008041	0.73
Y_R4	1.111290	47584.800000	0.006099	0.55

Sample Name: 280-123668-b-1-h msd

Date: 5/23/2019 4:33:17 PM
Rack:Tube: 1:10

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.214968	ppm	0.000971	0.45	7265.810000	Y 377.433
Al (394.401 nm)	2.047460	ppm	0.001581	0.08	24710.100000	Y 377.433
Al H (396.152 nm)	2.096840	ppm	0.009740	0.46	4267.790000	Y_R 377.433
As (188.980 nm)	1.005030	ppm	0.006917	0.69	1600.030000	Y 242.219
B (249.678 nm)	0.223858	ppm	0.001455	0.65	1640.340000	Y 242.219
Ba (493.408 nm)	2.533660	ppm	0.003417	0.13	246852.000000	Y_R 488.368
Be (234.861 nm)	0.195022	ppm	0.000568	0.29	19649.300000	Y_R 488.368
Bi (223.061 nm)	0.372219	ppm	0.002588	0.70	833.861000	Y 377.433
Ca (315.887 nm)	67.243337	ppm	0.171062	0.25	54226.708122	Y_R 377.433
Cd (214.439 nm)	0.401172	ppm	0.001669	0.42	16044.400000	Y 377.433
Co (228.615 nm)	0.199216	ppm	0.000860	0.43	4912.470000	Y 242.219
Cr (205.560 nm)	1.204230	ppm	0.012760	1.06	8526.510000	Y 377.433
Cu (324.754 nm)	0.615529	ppm	0.000336	0.05	28967.700000	Y 377.433
Fe (238.204 nm)	2.006553	ppm	0.000625	0.03	4948.601583	Y_R 377.433
Fe H (259.940 nm)	1.955160 u	ppm	0.008575	0.44	2824.550000	Y_R 377.433
K (766.491 nm)	10.873200	ppm	0.053406	0.49	12773.500000	Y_R2 488.368
Li (670.783 nm)	0.217038	ppm	0.001650	0.76	1147.950000	Y_R2 488.368
Mg (279.078 nm)	12.369200	ppm	0.041720	0.34	43828.300000	Y 377.433
Mn (257.610 nm)	0.480947	ppm	0.001624	0.34	133008.000000	Y 377.433
Mo (202.032 nm)	0.202850	ppm	0.000742	0.37	2604.580000	Y 377.433
Na (589.592 nm)	284.483000 o	ppm	0.072734	0.03	211362.000000	Y_R2 488.368
Na H (589.593 nm)	314.021138	ppm	1.195549	0.38	156503.298062	Y_R4
Ni (231.604 nm)	0.201500	ppm	0.001055	0.52	1115.190000	Y 377.433
P (213.618 nm)	4.101630	ppm	0.020658	0.50	6041.320000	Y 242.219
Pb (220.353 nm)	1.192930	ppm	0.002625	0.22	4110.330000	Y 242.219
S (181.972 nm)	2.994354	ppm	0.021231	0.71	1357.527034	Y 377.433
Sb (206.834 nm)	0.008604	ppm	0.000310	3.60	14.492900	Y 377.433
Se (196.026 nm)	0.597460	ppm	0.001422	0.24	981.754000	Y 242.219
Si (288.158 nm)	3.552930	ppm	0.013812	0.39	23944.300000	Y 377.433
Sn (189.925 nm)	0.393371	ppm	0.001367	0.35	688.359000	Y 377.433
Sr (421.552 nm)	0.433802	ppm	0.000608	0.14	63491.650917	Y_R 488.368
Th (288.505 nm)	0.188565	ppm	0.001527	0.81	328.914000	Y 377.433
Ti (336.122 nm)	0.200117	ppm	0.000589	0.29	25743.300000	Y 377.433
Tl (190.794 nm)	0.388707	ppm	0.000164	0.04	937.572000	Y 377.433
U (409.013 nm)	0.417678	ppm	0.003376	0.81	1248.050000	Y 377.433
V (292.401 nm)	0.200557	ppm	0.000544	0.27	10013.500000	Y 377.433
Zn (206.200 nm)	0.513959	ppm	0.002293	0.45	2554.980000	Y 377.433
Zr (343.823 nm)	0.093361	ppm	0.000442	0.47	5208.730000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071748	23999.083108	0.004432	0.41
Y 377.433	1.076046	695261.395702	0.004748	0.44
Y_R 377.433	1.124590	61908.900000	0.003066	0.27
Y_R 488.368	1.121350	54191.600000	0.002930	0.26
Y_R2 488.368	1.111065	102978.495818	0.006605	0.59
Y_R4	1.117510	47851.400000	0.011493	1.03

Sample Name: CCVH-5713036

Date: 5/23/2019 4:37:09 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003739	ppm	0.000061	1.62	-125.104000	Y 377.433
Al (394.401 nm)	50.105200 o	ppm	0.024691	0.05	597584.000000	Y 377.433
Al H (396.152 nm)	49.712700	ppm	0.225513	0.45	102220.000000	Y_R 377.433
As (188.980 nm)	0.003473	ppm	0.000543	15.63	2.808560	Y 242.219
B (249.678 nm)	-0.001167 u	ppm	0.000831	71.19	-0.023839	Y 242.219
Ba (493.408 nm)	0.000344	ppm	0.000101	29.34	1504.320000	Y_R 488.368
Be (234.861 nm)	0.001001	ppm	0.000029	2.85	-119.421000	Y_R 488.368
Bi (223.061 nm)	-0.003275 u	ppm	0.001580	48.26	-14.062700	Y 377.433
Ca (315.887 nm)	-0.001545 u	ppm	0.002071	> 100.00	-50.640999	Y_R 377.433
Cd (214.439 nm)	0.001420	ppm	0.000062	4.34	70.808200	Y 377.433
Co (228.615 nm)	0.003395	ppm	0.000130	3.84	61.808200	Y 242.219
Cr (205.560 nm)	0.001579	ppm	0.000442	27.97	3.803880	Y 377.433
Cu (324.754 nm)	0.003065	ppm	0.000272	8.88	1491.600000	Y 377.433
Fe (238.204 nm)	49.437579 o	ppm	0.258338	0.52	121854.580218	Y_R 377.433
Fe H (259.940 nm)	49.617200	ppm	0.253469	0.51	69467.900000	Y_R 377.433
K (766.491 nm)	-0.037859 u	ppm	0.058735	> 100.00	1944.020000	Y_R2 488.368
Li (670.783 nm)	0.018518	ppm	0.001728	9.33	-2308.990000	Y_R2 488.368
Mg (279.078 nm)	0.033912	ppm	0.003556	10.49	52.054000	Y 377.433
Mn (257.610 nm)	0.001046	ppm	0.000001	0.08	267.283000	Y 377.433
Mo (202.032 nm)	0.000517	ppm	0.000087	16.90	29.971700	Y 377.433
Na (589.592 nm)	239.169000 o	ppm	1.764130	0.74	177277.000000	Y_R2 488.368
Na H (589.593 nm)	254.400355	ppm	1.102999	0.43	126851.407296	Y_R4
Ni (231.604 nm)	0.002861	ppm	0.000794	27.75	4.617760	Y 377.433
P (213.618 nm)	4.909720	ppm	0.030567	0.62	7420.770000	Y 242.219
Pb (220.353 nm)	0.004747	ppm	0.002025	42.66	21.796700	Y 242.219
S (181.972 nm)	5.045769	ppm	0.019277	0.38	2274.388857	Y 377.433
Sb (206.834 nm)	0.006982	ppm	0.002229	31.92	9.150870	Y 377.433
Se (196.026 nm)	0.007273	ppm	0.001155	15.88	8.640120	Y 242.219
Si (288.158 nm)	0.016420	ppm	0.000391	2.38	616.356000	Y 377.433
Sn (189.925 nm)	0.000731	ppm	0.000043	5.86	3.510590	Y 377.433
Sr (421.552 nm)	0.001226	ppm	0.000127	10.39	234.461611	Y_R 488.368
Th (288.505 nm)	4.985050	ppm	0.001799	0.04	8710.520000	Y 377.433
Ti (336.122 nm)	0.002192	ppm	0.000039	1.79	-220.670000	Y 377.433
Tl (190.794 nm)	-0.000631 u	ppm	0.000721	> 100.00	-6.419320	Y 377.433
U (409.013 nm)	0.563191 Q	ppm	0.015351	2.73	1758.590000 Q	Y 377.433
V (292.401 nm)	0.001150	ppm	0.000078	6.82	380.582000	Y 377.433
Zn (206.200 nm)	0.002775	ppm	0.000487	17.56	25.209000	Y 377.433
Zr (343.823 nm)	0.001687	ppm	0.000203	12.04	-77.238400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.090172	24411.633854	0.002944	0.27
Y 377.433	1.090875	704842.735073	0.002276	0.21
Y_R 377.433	1.133120	62378.800000	0.009193	0.81
Y_R 488.368	1.129460	54583.300000	0.010805	0.96
Y_R2 488.368	1.141964	105842.280120	0.000841	0.07
Y_R4	1.147550	49137.400000	0.013006	1.13

Sample Name: CCV-5717467

Date: 5/23/2019 4:40:53 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.493493	ppm	0.001060	0.21	17057.000000	Y 377.433
Al (394.401 nm)	0.512745	ppm	0.002499	0.49	6379.720000	Y 377.433
Al H (396.152 nm)	0.575352 u	ppm	0.005125	0.89	1194.350000	Y_R 377.433
As (188.980 nm)	0.495692	ppm	0.003156	0.64	788.451000	Y 242.219
B (249.678 nm)	0.491456	ppm	0.002432	0.49	3557.970000	Y 242.219
Ba (493.408 nm)	0.493342	ppm	0.000503	0.10	49221.000000	Y_R 488.368
Be (234.861 nm)	0.479668	ppm	0.000379	0.08	48347.500000	Y_R 488.368
Bi (223.061 nm)	0.970570	ppm	0.003770	0.39	2198.810000	Y 377.433
Ca (315.887 nm)	4.970934	ppm	0.005240	0.11	3951.390875	Y_R 377.433
Cd (214.439 nm)	0.496454	ppm	0.001798	0.36	19857.000000	Y 377.433
Co (228.615 nm)	0.495145	ppm	0.000716	0.14	12242.600000	Y 242.219
Cr (205.560 nm)	0.495139	ppm	0.002630	0.53	3499.070000	Y 377.433
Cu (324.754 nm)	0.496330	ppm	0.004709	0.95	23457.300000	Y 377.433
Fe (238.204 nm)	2.494034	ppm	0.003047	0.12	6150.122997	Y_R 377.433
Fe H (259.940 nm)	2.444940 u	ppm	0.002703	0.11	3509.390000	Y_R 377.433
K (766.491 nm)	48.073400	ppm	0.129089	0.27	49695.900000	Y_R2 488.368
Li (670.783 nm)	0.510903	ppm	0.000840	0.16	6265.200000	Y_R2 488.368
Mg (279.078 nm)	19.665800	ppm	0.070433	0.36	69687.500000	Y 377.433
Mn (257.610 nm)	0.495411	ppm	0.001304	0.26	137009.000000	Y 377.433
Mo (202.032 nm)	0.492883	ppm	0.000234	0.05	6295.130000	Y 377.433
Na (589.592 nm)	24.131400	ppm	0.067122	0.28	18086.500000	Y_R2 488.368
Na H (589.593 nm)	26.900786 u	ppm	0.307435	1.14	13706.425663	Y_R4
Ni (231.604 nm)	0.493143	ppm	0.000692	0.14	2745.160000	Y 377.433
P (213.618 nm)	0.055546	ppm	0.003352	6.04	-61.689800	Y 242.219
Pb (220.353 nm)	0.496918	ppm	0.001291	0.26	1717.610000	Y 242.219
S (181.972 nm)	0.007145	ppm	0.006198	86.74	12.713979	Y 377.433
Sb (206.834 nm)	0.501422	ppm	0.003056	0.61	874.918000	Y 377.433
Se (196.026 nm)	0.494388	ppm	0.003194	0.65	814.178000	Y 242.219
Si (288.158 nm)	4.871120	ppm	0.016236	0.33	32639.500000	Y 377.433
Sn (189.925 nm)	0.493064	ppm	0.001379	0.28	862.245000	Y 377.433
Sr (421.552 nm)	0.495703	ppm	0.000721	0.15	72544.719993	Y_R 488.368
Th (288.505 nm)	0.016471	ppm	0.004983	30.25	-7.012150	Y 377.433
Ti (336.122 nm)	0.492069	ppm	0.001295	0.26	63492.100000	Y 377.433
Tl (190.794 nm)	0.501541	ppm	0.000430	0.09	1211.700000	Y 377.433
U (409.013 nm)	0.019442	ppm	0.004215	21.68	-40.239600	Y 377.433
V (292.401 nm)	0.491086	ppm	0.001550	0.32	25717.400000	Y 377.433
Zn (206.200 nm)	0.494630	ppm	0.001161	0.23	2459.120000	Y 377.433
Zr (343.823 nm)	0.493640	ppm	0.001072	0.22	28289.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123363	25154.866098	0.002557	0.23
Y 377.433	1.126367	727775.320272	0.004280	0.38
Y_R 377.433	1.160130	63865.400000	0.000684	0.06
Y_R 488.368	1.158110	55968.100000	0.000033	0.00
Y_R2 488.368	1.153216	106885.160139	0.003934	0.34
Y_R4	1.153790	49404.700000	0.013891	1.20

Sample Name: CCB

Date: 5/23/2019 4:44:29 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000389 u	ppm	0.000019	4.99	-259.414000	Y 377.433
Al (394.401 nm)	-0.001057 u	ppm	0.001853	> 100.00	115.900000	Y 377.433
Al H (396.152 nm)	0.120237 Zu	ppm	0.006406	5.33	22.159800 Z	Y_R 377.433
As (188.980 nm)	0.000037 u	ppm	0.000672	> 100.00	-1.245660	Y 242.219
B (249.678 nm)	-0.002468 u	ppm	0.000040	1.62	19.395500	Y 242.219
Ba (493.408 nm)	-0.002314 Zu	ppm	0.000110	4.75	1208.490000 Z	Y_R 488.368
Be (234.861 nm)	0.000004	ppm	0.000002	56.06	-5.276100	Y_R 488.368
Bi (223.061 nm)	0.001452	ppm	0.000236	16.23	-12.203500	Y 377.433
Ca (315.887 nm)	0.012585	ppm	0.000386	3.06	-51.815395	Y_R 377.433
Cd (214.439 nm)	0.000025	ppm	0.000014	57.49	-6.793480	Y 377.433
Co (228.615 nm)	0.000469	ppm	0.000319	67.99	-10.562400	Y 242.219
Cr (205.560 nm)	0.000082	ppm	0.000106	> 100.00	-5.383350	Y 377.433
Cu (324.754 nm)	0.000335	ppm	0.000278	83.01	427.744000	Y 377.433
Fe (238.204 nm)	-0.000001 u	ppm	0.001055	> 100.00	2.932480	Y_R 377.433
Fe H (259.940 nm)	-0.055833 u	ppm	0.000451	0.81	12.681500	Y_R 377.433
K (766.491 nm)	-0.300086 u	ppm	0.012935	4.31	1683.750000	Y_R2 488.368
Li (670.783 nm)	0.017013 Z	ppm	0.000224	1.32	-2335.210000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000013 u	ppm	0.001520	> 100.00	11.997400	Y 377.433
Mn (257.610 nm)	0.000073	ppm	0.000013	18.19	-1.939750	Y 377.433
Mo (202.032 nm)	-0.000816 u	ppm	0.000092	11.32	13.004900	Y 377.433
Na (589.592 nm)	0.149764	ppm	0.019253	12.86	220.876000	Y_R2 488.368
Na H (589.593 nm)	0.919676 u	ppm	0.005339	0.58	784.940992	Y_R4
Ni (231.604 nm)	0.000041 u	ppm	0.000663	> 100.00	-11.135400	Y 377.433
P (213.618 nm)	-0.003347 u	ppm	0.000818	24.43	-9.555280	Y 242.219
Pb (220.353 nm)	-0.000825 u	ppm	0.001211	> 100.00	10.048400	Y 242.219
S (181.972 nm)	-0.003618 u	ppm	0.005646	> 100.00	6.129762	Y 377.433
Sb (206.834 nm)	0.005888	ppm	0.002839	48.21	2.859800	Y 377.433
Se (196.026 nm)	0.001406	ppm	0.000202	14.39	12.860700	Y 242.219
Si (288.158 nm)	-0.005609 u	ppm	0.000449	8.00	471.042000	Y 377.433
Sn (189.925 nm)	0.001046	ppm	0.000337	32.23	4.060650	Y 377.433
Sr (421.552 nm)	0.000076	ppm	0.000070	92.98	58.999028	Y_R 488.368
Th (288.505 nm)	-0.002397 u	ppm	0.001036	43.23	10.285900	Y 377.433
Ti (336.122 nm)	0.000666	ppm	0.000134	20.20	-419.135000	Y 377.433
Tl (190.794 nm)	0.001424 u	ppm	0.002514	> 100.00	3.573170	Y 377.433
U (409.013 nm)	0.007112	ppm	0.006126	86.14	-19.531400	Y 377.433
V (292.401 nm)	0.000620	ppm	0.000038	6.07	-146.841000	Y 377.433
Zn (206.200 nm)	-0.000489 u	ppm	0.000526	> 100.00	1.388030	Y 377.433
Zr (343.823 nm)	0.000322	ppm	0.000099	30.73	-155.941000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.137095	25462.368233	0.006888	0.61
Y 377.433	1.138370	735530.784749	0.008086	0.71
Y_R 377.433	1.159140	63811.200000	0.001396	0.12
Y_R 488.368	1.155910	55861.600000	0.001811	0.16
Y_R2 488.368	1.151911	106764.217428	0.001582	0.14
Y_R4	1.148260	49167.800000	0.003869	0.34

Sample Name: CCVL-5717307

Date: 5/23/2019 4:47:40 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007971	ppm	0.000439	5.51	32.476700	Y 377.433
Al (394.401 nm)	0.097006	ppm	0.000313	0.32	1298.070000	Y 377.433
Al H (396.152 nm)	0.231418 u	ppm	0.007126	3.08	256.504000	Y_R 377.433
As (188.980 nm)	0.012636	ppm	0.000464	3.67	18.825600	Y 242.219
B (249.678 nm)	0.093711	ppm	0.000677	0.72	708.671000	Y 242.219
Ba (493.408 nm)	0.007039	ppm	0.000139	1.97	2114.550000	Y_R 488.368
Be (234.861 nm)	0.000976	ppm	0.000011	1.12	92.222900	Y_R 488.368
Bi (223.061 nm)	0.090559	ppm	0.001154	1.27	191.063000	Y 377.433
Ca (315.887 nm)	0.210540	ppm	0.001080	0.51	108.024717	Y_R 377.433
Cd (214.439 nm)	0.005176	ppm	0.000038	0.74	199.358000	Y 377.433
Co (228.615 nm)	0.010611	ppm	0.000173	1.63	240.632000	Y 242.219
Cr (205.560 nm)	0.010125	ppm	0.000229	2.26	65.601200	Y 377.433
Cu (324.754 nm)	0.015916	ppm	0.000060	0.37	1149.050000	Y 377.433
Fe (238.204 nm)	0.099957	ppm	0.000685	0.69	249.303942	Y_R 377.433
Fe H (259.940 nm)	0.048054 u	ppm	0.000673	1.40	157.941000	Y_R 377.433
K (766.491 nm)	2.641250	ppm	0.007846	0.30	4603.110000	Y_R2 488.368
Li (670.783 nm)	0.042669 Q	ppm	0.001628	3.82	-1888.440000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200651	ppm	0.000791	0.39	721.375000	Y 377.433
Mn (257.610 nm)	0.010553	ppm	0.000010	0.09	2897.050000	Y 377.433
Mo (202.032 nm)	0.018463	ppm	0.000039	0.21	258.319000	Y 377.433
Na (589.592 nm)	1.186490	ppm	0.039301	3.31	990.686000	Y_R2 488.368
Na H (589.593 nm)	1.692427 u	ppm	0.025347	1.50	1169.262232	Y_R4
Ni (231.604 nm)	0.041785	ppm	0.000254	0.61	222.162000	Y 377.433
P (213.618 nm)	2.781640	ppm	0.004733	0.17	4200.500000	Y 242.219
Pb (220.353 nm)	0.009106	ppm	0.000639	7.01	44.296700	Y 242.219
S (181.972 nm)	0.091836	ppm	0.009042	9.85	49.047037	Y 377.433
Sb (206.834 nm)	0.024101	ppm	0.000778	3.23	34.854600	Y 377.433
Se (196.026 nm)	0.016596	ppm	0.000539	3.25	37.539000	Y 242.219
Si (288.158 nm)	0.471492	ppm	0.000042	0.01	3618.150000	Y 377.433
Sn (189.925 nm)	0.096980	ppm	0.000213	0.22	171.390000	Y 377.433
Sr (421.552 nm)	0.009250	ppm	0.000037	0.40	1400.779493	Y_R 488.368
Th (288.505 nm)	0.014019	ppm	0.001701	12.13	38.500900	Y 377.433
Ti (336.122 nm)	0.010371	ppm	0.000002	0.02	843.525000	Y 377.433
Tl (190.794 nm)	0.015958	ppm	0.001193	7.47	38.657400	Y 377.433
U (409.013 nm)	0.067339	ppm	0.000646	0.96	167.984000	Y 377.433
V (292.401 nm)	0.010239	ppm	0.000026	0.25	356.551000	Y 377.433
Zn (206.200 nm)	0.020883	ppm	0.000804	3.85	107.476000	Y 377.433
Zr (343.823 nm)	0.010332	ppm	0.000082	0.80	421.197000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.152657	25810.840624	0.002885	0.25
Y 377.433	1.153055	745018.913111	0.004143	0.36
Y_R 377.433	1.182290	65085.600000	0.001203	0.10
Y_R 488.368	1.178520	56954.500000	0.002077	0.18
Y_R2 488.368	1.175644	108963.887192	0.001626	0.14
Y_R4	1.160760	49703.300000	0.000914	0.08

Sample Name: 280-123668-b-1-fPDS

Date: 5/23/2019 4:51:08 PM Rack:Tube: 1:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052321	ppm	0.000480	0.92	1582.090000	Y 377.433
Al (394.401 nm)	1.065170	ppm	0.005660	0.53	12941.400000	Y 377.433
Al H (396.152 nm)	1.129630	ppm	0.009495	0.84	2192.330000	Y_R 377.433
As (188.980 nm)	0.205185	ppm	0.001039	0.51	325.602000	Y 242.219
B (249.678 nm)	0.124302	ppm	0.000110	0.09	927.353000	Y 242.219
Ba (493.408 nm)	0.214200	ppm	0.000036	0.02	22181.400000	Y_R 488.368
Be (234.861 nm)	0.049842	ppm	0.000415	0.83	5015.110000	Y_R 488.368
Bi (223.061 nm)	0.004482	ppm	0.001811	40.41	-5.051920	Y 377.433
Ca (315.887 nm)	70.159408	ppm	0.357067	0.51	56580.709629	Y_R 377.433
Cd (214.439 nm)	0.051089	ppm	0.000294	0.58	2036.800000	Y 377.433
Co (228.615 nm)	0.051318	ppm	0.001217	2.37	1248.850000	Y 242.219
Cr (205.560 nm)	0.052142	ppm	0.001137	2.18	363.114000	Y 377.433
Cu (324.754 nm)	0.055187	ppm	0.000048	0.09	2942.660000	Y 377.433
Fe (238.204 nm)	1.067086	ppm	0.004922	0.46	2633.043363	Y_R 377.433
Fe H (259.940 nm)	1.020140 u	ppm	0.003780	0.37	1517.170000	Y_R 377.433
K (766.491 nm)	20.904200	ppm	0.039593	0.19	22729.600000	Y_R2 488.368
Li (670.783 nm)	0.114325	ppm	0.000471	0.41	-640.655000	Y_R2 488.368
Mg (279.078 nm)	21.738500	ppm	0.049058	0.23	77024.900000	Y 377.433
Mn (257.610 nm)	0.298179	ppm	0.000726	0.24	82454.300000	Y 377.433
Mo (202.032 nm)	0.050948	ppm	0.000046	0.09	671.676000	Y 377.433
Na (589.592 nm)	265.479000 o	ppm	0.469076	0.18	196810.000000	Y_R2 488.368
Na H (589.593 nm)	289.220461	ppm	1.646421	0.57	144168.891872	Y_R4
Ni (231.604 nm)	0.051613	ppm	0.002178	4.22	277.300000	Y 377.433
P (213.618 nm)	2.056590	ppm	0.021763	1.06	3091.590000	Y 242.219
Pb (220.353 nm)	0.098569	ppm	0.001472	1.49	352.448000	Y 242.219
S (181.972 nm)	0.849865	ppm	0.005582	0.66	393.757131	Y 377.433
Sb (206.834 nm)	0.102293	ppm	0.000830	0.81	172.825000	Y 377.433
Se (196.026 nm)	0.199832	ppm	0.002573	1.29	335.496000	Y 242.219
Si (288.158 nm)	7.647480	ppm	0.052961	0.69	50953.200000	Y 377.433
Sn (189.925 nm)	0.097805	ppm	0.000114	0.12	172.830000	Y 377.433
Sr (421.552 nm)	0.257891	ppm	0.000725	0.28	37764.513007	Y_R 488.368
Th (288.505 nm)	0.199178	ppm	0.001179	0.59	362.383000	Y 377.433
Ti (336.122 nm)	0.050600	ppm	0.000237	0.47	6311.400000	Y 377.433
Tl (190.794 nm)	0.195130	ppm	0.000015	0.01	469.516000	Y 377.433
U (409.013 nm)	0.518699	ppm	0.008323	1.60	1568.660000	Y 377.433
V (292.401 nm)	0.051787	ppm	0.000094	0.18	2544.310000	Y 377.433
Zn (206.200 nm)	0.214544	ppm	0.000873	0.41	1068.790000	Y 377.433
Zr (343.823 nm)	0.051761	ppm	0.000150	0.29	2810.030000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.091195	24434.557757	0.001294	0.12
Y 377.433	1.097863	709358.047484	0.002233	0.20
Y_R 377.433	1.140890	62806.200000	0.004998	0.44
Y_R 488.368	1.134470	54825.300000	0.002859	0.25
Y_R2 488.368	1.112056	103070.264929	0.004536	0.41
Y_R4	1.126680	48243.700000	0.009663	0.86

Sample Name: mb 280-458909/1-a

Date: 5/23/2019 4:54:52 PM Rack:Tube: 1:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000472 u	ppm	0.000009	1.87	-262.413000	Y 377.433
Al (394.401 nm)	0.004189	ppm	0.000052	1.23	179.848000	Y 377.433
Al H (396.152 nm)	0.129142 u	ppm	0.007480	5.79	40.562200	Y_R 377.433
As (188.980 nm)	-0.000910 u	ppm	0.000403	44.33	-2.755710	Y 242.219
B (249.678 nm)	0.007062	ppm	0.000407	5.76	87.679300	Y 242.219
Ba (493.408 nm)	-0.001942 u	ppm	0.000100	5.15	1244.510000	Y_R 488.368
Be (234.861 nm)	0.000003 u	ppm	0.000015	> 100.00	-5.569770	Y_R 488.368
Bi (223.061 nm)	0.003537	ppm	0.000775	21.92	-7.441830	Y 377.433
Ca (315.887 nm)	0.077947	ppm	0.013522	17.35	0.956091	Y_R 377.433
Cd (214.439 nm)	-0.000050 u	ppm	0.000089	> 100.00	-9.765400	Y 377.433
Co (228.615 nm)	0.000138	ppm	0.000112	81.19	-18.738100	Y 242.219
Cr (205.560 nm)	0.000440	ppm	0.000142	32.24	-2.846590	Y 377.433
Cu (324.754 nm)	0.001644	ppm	0.000338	20.55	487.952000	Y 377.433
Fe (238.204 nm)	0.040444	ppm	0.000186	0.46	102.619947	Y_R 377.433
Fe H (259.940 nm)	-0.014867 u	ppm	0.000050	0.34	69.962200	Y_R 377.433
K (766.491 nm)	-0.213226 u	ppm	0.089793	42.11	1769.960000	Y_R2 488.368
Li (670.783 nm)	0.014162	ppm	0.003424	24.18	-2384.860000	Y_R2 488.368
Mg (279.078 nm)	0.018875	ppm	0.002045	10.83	78.722500	Y 377.433
Mn (257.610 nm)	0.000603	ppm	0.000005	0.84	144.781000	Y 377.433
Mo (202.032 nm)	-0.000595 u	ppm	0.000206	34.67	15.812200	Y 377.433
Na (589.592 nm)	0.275306	ppm	0.027285	9.91	313.915000	Y_R2 488.368
Na H (589.593 nm)	1.101075 u	ppm	0.019272	1.75	875.158031	Y_R4
Ni (231.604 nm)	0.000768	ppm	0.000334	43.45	-7.077130	Y 377.433
P (213.618 nm)	0.008258	ppm	0.001411	17.08	7.619320	Y 242.219
Pb (220.353 nm)	-0.001754 u	ppm	0.000176	10.04	6.872300	Y 242.219
S (181.972 nm)	0.005444	ppm	0.006390	> 100.00	10.203697	Y 377.433
Sb (206.834 nm)	0.004977	ppm	0.001283	25.78	1.247120	Y 377.433
Se (196.026 nm)	-0.002083 u	ppm	0.002186	> 100.00	7.181390	Y 242.219
Si (288.158 nm)	0.057194	ppm	0.000073	0.13	885.313000	Y 377.433
Sn (189.925 nm)	0.006450	ppm	0.001022	15.84	13.486600	Y 377.433
Sr (421.552 nm)	0.000138	ppm	0.000003	1.89	68.152799	Y_R 488.368
Th (288.505 nm)	-0.000800 u	ppm	0.000655	81.94	13.133000	Y 377.433
Ti (336.122 nm)	0.000895	ppm	0.000173	19.36	-389.204000	Y 377.433
Tl (190.794 nm)	0.000225 u	ppm	0.000490	> 100.00	0.658058	Y 377.433
U (409.013 nm)	0.009604	ppm	0.002301	23.96	-11.694100	Y 377.433
V (292.401 nm)	0.000276	ppm	0.000175	63.34	-165.658000	Y 377.433
Zn (206.200 nm)	0.006052	ppm	0.000381	6.30	33.859600	Y 377.433
Zr (343.823 nm)	0.000567	ppm	0.000045	7.97	-141.829000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.142893	25592.185621	0.003999	0.35
Y 377.433	1.142792	738387.814704	0.003201	0.28
Y_R 377.433	1.163080	64028.300000	0.003026	0.26
Y_R 488.368	1.160660	56091.300000	0.001396	0.12
Y_R2 488.368	1.142827	105922.299786	0.005434	0.48
Y_R4	1.133530	48537.200000	0.007299	0.64

Sample Name: lcs 280-458909/2-a

Date: 5/23/2019 4:58:03 PM
Rack:Tube: 1:13

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050284	ppm	0.000248	0.49	1214.910000	Y 377.433
Al (394.401 nm)	9.939210 o	ppm	0.018773	0.19	119142.000000	Y 377.433
Al H (396.152 nm)	9.981030	ppm	0.011159	0.11	20803.700000	Y_R 377.433
As (188.980 nm)	1.975860	ppm	0.001054	0.05	3146.720000	Y 242.219
B (249.678 nm)	1.180290	ppm	0.000184	0.02	8490.660000	Y 242.219
Ba (493.408 nm)	1.978360	ppm	0.003935	0.20	193069.000000	Y_R 488.368
Be (234.861 nm)	0.965969	ppm	0.003182	0.33	97348.200000	Y_R 488.368
Bi (223.061 nm)	1.885300	ppm	0.003929	0.21	4286.540000	Y 377.433
Ca (315.887 nm)	48.936682	ppm	0.011476	0.02	39449.067853	Y_R 377.433
Cd (214.439 nm)	0.970634	ppm	0.001058	0.11	38832.800000	Y 377.433
Co (228.615 nm)	0.966554	ppm	0.000168	0.02	23920.900000	Y 242.219
Cr (205.560 nm)	0.972664	ppm	0.005921	0.61	6879.040000	Y 377.433
Cu (324.754 nm)	0.969630	ppm	0.008646	0.89	45490.800000	Y 377.433
Fe (238.204 nm)	9.894914 o	ppm	0.008239	0.08	24391.499325	Y_R 377.433
Fe H (259.940 nm)	9.896030	ppm	0.000600	0.01	13927.900000	Y_R 377.433
K (766.491 nm)	48.343000	ppm	0.170892	0.35	49963.400000	Y_R2 488.368
Li (670.783 nm)	0.998881	ppm	0.000049	0.00	14762.700000	Y_R2 488.368
Mg (279.078 nm)	48.868900	ppm	0.074035	0.15	173116.000000	Y 377.433
Mn (257.610 nm)	0.989991	ppm	0.001794	0.18	273809.000000	Y 377.433
Mo (202.032 nm)	0.994455	ppm	0.000146	0.01	12677.500000	Y 377.433
Na (589.592 nm)	47.307900	ppm	0.017996	0.04	35559.100000	Y_R2 488.368
Na H (589.593 nm)	52.985816	ppm	0.312126	0.59	26679.594193	Y_R4
Ni (231.604 nm)	0.959522	ppm	0.000053	0.01	5353.310000	Y 377.433
P (213.618 nm)	19.666800	ppm	0.009781	0.05	29479.600000	Y 242.219
Pb (220.353 nm)	0.975368	ppm	0.000185	0.02	3362.140000	Y 242.219
S (181.972 nm)	9.897100	ppm	0.030508	0.31	4459.013975	Y 377.433
Sb (206.834 nm)	0.004832	ppm	0.000381	7.89	-3.890000	Y 377.433
Se (196.026 nm)	1.918870	ppm	0.002923	0.15	3128.000000	Y 242.219
Si (288.158 nm)	2.245710	ppm	0.003162	0.14	15321.500000	Y 377.433
Sn (189.925 nm)	1.940030	ppm	0.000271	0.01	3386.060000	Y 377.433
Sr (421.552 nm)	0.992572	ppm	0.001702	0.17	145212.721922	Y_R 488.368
Th (288.505 nm)	1.004380	ppm	0.001853	0.18	1674.670000	Y 377.433
Ti (336.122 nm)	0.990967	ppm	0.000922	0.09	128511.000000	Y 377.433
Tl (190.794 nm)	1.950260	ppm	0.000191	0.01	4715.590000	Y 377.433
U (409.013 nm)	1.970840	ppm	0.005632	0.29	6073.340000	Y 377.433
V (292.401 nm)	0.979913	ppm	0.000801	0.08	51502.600000	Y 377.433
Zn (206.200 nm)	0.481468	ppm	0.000710	0.15	2394.940000	Y 377.433
Zr (343.823 nm)	0.492939	ppm	0.000951	0.19	28248.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081464	24216.642538	0.000841	0.08
Y 377.433	1.090607	704669.628039	0.000047	0.00
Y_R 377.433	1.136360	62557.200000	0.001611	0.14
Y_R 488.368	1.129010	54561.900000	0.001385	0.12
Y_R2 488.368	1.114605	103306.571337	0.000325	0.03
Y_R4	1.112130	47621.000000	0.001191	0.11

Sample Name: lcsd 280-458909/3-a

Date: 5/23/2019 5:01:41 PM
Rack:Tube: 1:14

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050788	ppm	0.000244	0.48	1229.670000	Y 377.433
Al (394.401 nm)	10.310700 o	ppm	0.009880	0.10	123579.000000	Y 377.433
Al H (396.152 nm)	10.300600	ppm	0.008094	0.08	21467.400000	Y_R 377.433
As (188.980 nm)	2.013150	ppm	0.000222	0.01	3206.120000	Y 242.219
B (249.678 nm)	1.154960	ppm	0.003228	0.28	8308.990000	Y 242.219
Ba (493.408 nm)	2.002460	ppm	0.000897	0.04	195404.000000	Y_R 488.368
Be (234.861 nm)	0.987117	ppm	0.000896	0.09	99479.400000	Y_R 488.368
Bi (223.061 nm)	1.920770	ppm	0.009136	0.48	4367.490000	Y 377.433
Ca (315.887 nm)	49.922351	ppm	0.040386	0.08	40244.918972	Y_R 377.433
Cd (214.439 nm)	0.983705	ppm	0.000303	0.03	39355.800000	Y 377.433
Co (228.615 nm)	0.979544	ppm	0.002573	0.26	24242.700000	Y 242.219
Cr (205.560 nm)	0.987185	ppm	0.003743	0.38	6981.840000	Y 377.433
Cu (324.754 nm)	0.981515	ppm	0.003489	0.36	46045.500000	Y 377.433
Fe (238.204 nm)	10.139101 o	ppm	0.006021	0.06	24993.359925	Y_R 377.433
Fe H (259.940 nm)	10.145500	ppm	0.014034	0.14	14276.700000	Y_R 377.433
K (766.491 nm)	48.827800	ppm	0.104415	0.21	50444.600000	Y_R2 488.368
Li (670.783 nm)	1.009660	ppm	0.003915	0.39	14950.400000	Y_R2 488.368
Mg (279.078 nm)	49.523900	ppm	0.033705	0.07	175436.000000	Y 377.433
Mn (257.610 nm)	1.003170	ppm	0.000651	0.06	277455.000000	Y 377.433
Mo (202.032 nm)	1.005510	ppm	0.000207	0.02	12818.100000	Y 377.433
Na (589.592 nm)	47.633500	ppm	0.042574	0.09	35805.300000	Y_R2 488.368
Na H (589.593 nm)	53.304793	ppm	0.110173	0.21	26838.234792	Y_R4
Ni (231.604 nm)	0.972054	ppm	0.000777	0.08	5423.370000	Y 377.433
P (213.618 nm)	19.980200	ppm	0.036303	0.18	29950.600000	Y 242.219
Pb (220.353 nm)	0.990964	ppm	0.000268	0.03	3415.630000	Y 242.219
S (181.972 nm)	10.070983	ppm	0.003576	0.04	4537.209858	Y 377.433
Sb (206.834 nm)	0.002174 u	ppm	0.003856	> 100.00	-8.640910	Y 377.433
Se (196.026 nm)	1.958640	ppm	0.000298	0.02	3192.590000	Y 242.219
Si (288.158 nm)	1.914340	ppm	0.004829	0.25	13135.600000	Y 377.433
Sn (189.925 nm)	1.968560	ppm	0.001332	0.07	3435.820000	Y 377.433
Sr (421.552 nm)	1.004424	ppm	0.000424	0.04	146946.109469	Y_R 488.368
Th (288.505 nm)	1.024060	ppm	0.003081	0.30	1707.900000	Y 377.433
Ti (336.122 nm)	1.005020	ppm	0.001257	0.13	130341.000000	Y 377.433
Tl (190.794 nm)	1.972660	ppm	0.004306	0.22	4769.720000	Y 377.433
U (409.013 nm)	1.991370	ppm	0.000157	0.01	6137.050000	Y 377.433
V (292.401 nm)	0.989934	ppm	0.000113	0.01	52032.500000	Y 377.433
Zn (206.200 nm)	0.488849	ppm	0.000380	0.08	2431.610000	Y 377.433
Zr (343.823 nm)	0.498486	ppm	0.000682	0.14	28568.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086238	24323.543200	0.000914	0.08
Y 377.433	1.096171	708265.011222	0.000815	0.07
Y_R 377.433	1.130890	62255.800000	0.004225	0.37
Y_R 488.368	1.127140	54471.100000	0.003416	0.30
Y_R2 488.368	1.125054	104274.998961	0.003512	0.31
Y_R4	1.133570	48538.900000	0.002988	0.26

Sample Name: 280-123350-j-1-b

Date: 5/23/2019 5:05:20 PM Rack:Tube: 1:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000018	ppm	0.000002	10.42	-304.103000	Y 377.433
Al (394.401 nm)	85.854900 o	ppm	0.180084	0.21	1026060.000000	Y 377.433
Al H (396.152 nm)	87.297400	ppm	0.064879	0.07	179924.000000	Y_R 377.433
As (188.980 nm)	0.047415	ppm	0.000496	1.05	71.845900	Y 242.219
B (249.678 nm)	0.066016	ppm	0.000590	0.89	461.680000	Y 242.219
Ba (493.408 nm)	1.213820	ppm	0.000030	0.00	119072.000000	Y_R 488.368
Be (234.861 nm)	0.003292	ppm	0.000034	1.04	-36.328900	Y_R 488.368
Bi (223.061 nm)	0.005544	ppm	0.002904	52.38	12.227600	Y 377.433
Ca (315.887 nm)	246.117786	ppm	0.085330	0.03	198660.634973	Y_R 377.433
Cd (214.439 nm)	0.001565	ppm	0.000046	2.93	91.633500	Y 377.433
Co (228.615 nm)	0.032642	ppm	0.001501	4.60	855.213000	Y 242.219
Cr (205.560 nm)	0.104490	ppm	0.000347	0.33	731.924000	Y 377.433
Cu (324.754 nm)	0.049748	ppm	0.000226	0.46	2595.720000	Y 377.433
Fe (238.204 nm)	83.560745 o	ppm	0.035707	0.04	205959.910566	Y_R 377.433
Fe H (259.940 nm)	84.031000	ppm	0.024912	0.03	117587.000000	Y_R 377.433
K (766.491 nm)	12.919700	ppm	0.033315	0.26	14804.800000	Y_R2 488.368
Li (670.783 nm)	0.151290	ppm	0.001850	1.22	3.045320	Y_R2 488.368
Mg (279.078 nm)	31.643500	ppm	0.025377	0.08	112011.000000	Y 377.433
Mn (257.610 nm)	1.672530	ppm	0.001352	0.08	462600.000000	Y 377.433
Mo (202.032 nm)	0.002921	ppm	0.000196	6.70	60.555500	Y 377.433
Na (589.592 nm)	12.428900	ppm	0.022072	0.18	9565.870000	Y_R2 488.368
Na H (589.593 nm)	15.454812 u	ppm	0.135615	0.88	8013.867661	Y_R4
Ni (231.604 nm)	0.054545	ppm	0.000268	0.49	293.457000	Y 377.433
P (213.618 nm)	3.645670	ppm	0.002021	0.06	5501.190000	Y 242.219
Pb (220.353 nm)	0.635835	ppm	0.001600	0.25	2180.080000	Y 242.219
S (181.972 nm)	1.238934	ppm	0.002254	0.18	581.100669	Y 377.433
Sb (206.834 nm)	-0.000529 u	ppm	0.000438	82.67	-7.472890	Y 377.433
Se (196.026 nm)	0.000222 u	ppm	0.000469	> 100.00	-9.833250	Y 242.219
Si (288.158 nm)	3.391160	ppm	0.003796	0.11	22877.200000	Y 377.433
Sn (189.925 nm)	0.010371	ppm	0.001125	10.85	20.325800	Y 377.433
Sr (421.552 nm)	0.780972	ppm	0.000691	0.09	114277.040035	Y_R 488.368
Th (288.505 nm)	0.031682	ppm	0.001670	5.27	67.346600	Y 377.433
Ti (336.122 nm)	1.512590	ppm	0.003234	0.21	196993.000000	Y 377.433
Tl (190.794 nm)	0.012041	ppm	0.001269	10.54	3.105030	Y 377.433
U (409.013 nm)	-0.011453 u	ppm	0.004358	38.06	-60.747300	Y 377.433
V (292.401 nm)	0.197326	ppm	0.000567	0.29	10329.200000	Y 377.433
Zn (206.200 nm)	0.220139	ppm	0.000325	0.15	1109.270000	Y 377.433
Zr (343.823 nm)	0.099579	ppm	0.000000	0.00	5567.250000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.112349	24908.229023	0.001470	0.13
Y 377.433	1.120741	724140.256506	0.001134	0.10
Y_R 377.433	1.165060	64137.100000	0.002371	0.20
Y_R 488.368	1.159150	56018.300000	0.001556	0.13
Y_R2 488.368	1.145851	106202.578337	0.001103	0.10
Y_R4	1.172670	50213.100000	0.005830	0.50

Sample Name: 280-123350-j-1-bSD@5

Date: 5/23/2019 5:09:04 PM Rack:Tube: 1:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000195 u	ppm	0.000526	> 100.00	-251.127000	Y 377.433
Al (394.401 nm)	17.777600 o	ppm	0.033441	0.19	212570.000000	Y 377.433
Al H (396.152 nm)	18.148400	ppm	0.067290	0.37	37224.900000	Y_R 377.433
As (188.980 nm)	0.008897	ppm	0.000998	11.22	12.368100	Y 242.219
B (249.678 nm)	0.013221	ppm	0.000548	4.14	121.672000	Y 242.219
Ba (493.408 nm)	0.248092	ppm	0.000550	0.22	25477.000000	Y_R 488.368
Be (234.861 nm)	0.000726	ppm	0.000045	6.27	-8.483830	Y_R 488.368
Bi (223.061 nm)	0.007868	ppm	0.000281	3.57	5.592040	Y 377.433
Ca (315.887 nm)	51.380186	ppm	0.149064	0.29	41423.824770	Y_R 377.433
Cd (214.439 nm)	0.000530	ppm	0.000107	20.12	21.131700	Y 377.433
Co (228.615 nm)	0.006726	ppm	0.000172	2.55	158.489000	Y 242.219
Cr (205.560 nm)	0.021762	ppm	0.000207	0.95	147.711000	Y 377.433
Cu (324.754 nm)	0.010130	ppm	0.000060	0.59	852.650000	Y 377.433
Fe (238.204 nm)	17.506136 o	ppm	0.038510	0.22	43151.314415	Y_R 377.433
Fe H (259.940 nm)	17.629300	ppm	0.061257	0.35	24740.800000	Y_R 377.433
K (766.491 nm)	2.447700	ppm	0.044360	1.81	4411.010000	Y_R2 488.368
Li (670.783 nm)	0.045138	ppm	0.000256	0.57	-1845.450000	Y_R2 488.368
Mg (279.078 nm)	6.704180	ppm	0.002271	0.03	23740.500000	Y 377.433
Mn (257.610 nm)	0.354467	ppm	0.000104	0.03	98023.400000	Y 377.433
Mo (202.032 nm)	0.000283	ppm	0.000023	8.09	26.992100	Y 377.433
Na (589.592 nm)	2.649820	ppm	0.008110	0.31	2123.650000	Y_R2 488.368
Na H (589.593 nm)	3.543898 u	ppm	0.068513	1.93	2090.075636	Y_R4
Ni (231.604 nm)	0.010891	ppm	0.000204	1.87	49.496400	Y 377.433
P (213.618 nm)	0.748057	ppm	0.000393	0.05	1125.250000	Y 242.219
Pb (220.353 nm)	0.135003	ppm	0.000202	0.15	473.233000	Y 242.219
S (181.972 nm)	0.248031	ppm	0.002771	1.12	122.685043	Y 377.433
Sb (206.834 nm)	0.002540	ppm	0.001912	75.25	-2.814380	Y 377.433
Se (196.026 nm)	-0.001799 u	ppm	0.000372	20.67	3.307540	Y 242.219
Si (288.158 nm)	0.692909	ppm	0.007482	1.08	5078.690000	Y 377.433
Sn (189.925 nm)	0.000901	ppm	0.000434	48.14	3.808300	Y 377.433
Sr (421.552 nm)	0.159229	ppm	0.000585	0.37	23337.688869	Y_R 488.368
Th (288.505 nm)	-0.001868 u	ppm	0.004037	> 100.00	11.129300	Y 377.433
Ti (336.122 nm)	0.310888	ppm	0.000651	0.21	40088.900000	Y 377.433
Tl (190.794 nm)	0.004100	ppm	0.001958	47.76	4.610380	Y 377.433
U (409.013 nm)	0.021263	ppm	0.015726	73.96	28.358100	Y 377.433
V (292.401 nm)	0.041197	ppm	0.000240	0.58	2011.130000	Y 377.433
Zn (206.200 nm)	0.051280	ppm	0.000349	0.68	261.022000	Y 377.433
Zr (343.823 nm)	0.021050	ppm	0.000077	0.37	1039.260000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.127486	25247.184600	0.001034	0.09
Y 377.433	1.130735	730597.765393	0.001452	0.13
Y_R 377.433	1.161740	63954.500000	0.004554	0.39
Y_R 488.368	1.155580	55845.900000	0.005711	0.49
Y_R2 488.368	1.148894	106484.612687	0.002032	0.18
Y_R4	1.151790	49319.200000	0.006656	0.58

Sample Name: 280-123350-j-1-c ms

Date: 5/23/2019 5:12:44 PM Rack:Tube: 1:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051769	ppm	0.000775	1.50	1194.850000	Y 377.433
Al (394.401 nm)	81.642800 o	ppm	0.030185	0.04	975971.000000	Y 377.433
Al H (396.152 nm)	82.637000	ppm	0.010834	0.01	170754.000000	Y_R 377.433
As (188.980 nm)	2.041500	ppm	0.003688	0.18	3248.760000	Y 242.219
B (249.678 nm)	1.062180	ppm	0.000026	0.00	7592.700000	Y 242.219
Ba (493.408 nm)	3.208750	ppm	0.002335	0.07	312318.000000	Y_R 488.368
Be (234.861 nm)	0.981773	ppm	0.004406	0.45	98557.400000	Y_R 488.368
Bi (223.061 nm)	1.921000	ppm	0.000179	0.01	4383.970000	Y 377.433
Ca (315.887 nm)	244.465571	ppm	0.159611	0.07	197325.611254	Y_R 377.433
Cd (214.439 nm)	0.956778	ppm	0.000908	0.09	38317.400000	Y 377.433
Co (228.615 nm)	0.996121	ppm	0.000710	0.07	24776.300000	Y 242.219
Cr (205.560 nm)	1.063980	ppm	0.001215	0.11	7524.130000	Y 377.433
Cu (324.754 nm)	1.036100	ppm	0.006365	0.61	48465.400000	Y 377.433
Fe (238.204 nm)	98.382654 o	ppm	0.007634	0.01	242492.324230	Y_R 377.433
Fe H (259.940 nm)	98.987100	ppm	0.063719	0.06	138499.000000	Y_R 377.433
K (766.491 nm)	60.758500	ppm	0.211527	0.35	62286.100000	Y_R2 488.368
Li (670.783 nm)	1.120700	ppm	0.000957	0.09	16883.900000	Y_R2 488.368
Mg (279.078 nm)	71.280200	ppm	0.034984	0.05	252397.000000	Y 377.433
Mn (257.610 nm)	2.720760	ppm	0.000119	0.00	752541.000000	Y 377.433
Mo (202.032 nm)	0.982295	ppm	0.000290	0.03	12522.700000	Y 377.433
Na (589.592 nm)	55.961700 o	ppm	0.067963	0.12	42221.800000	Y_R2 488.368
Na H (589.593 nm)	63.874643	ppm	0.216676	0.34	32095.059844	Y_R4
Ni (231.604 nm)	1.002990	ppm	0.001021	0.10	5596.170000	Y 377.433
P (213.618 nm)	23.427100	ppm	0.020111	0.09	35155.600000	Y 242.219
Pb (220.353 nm)	1.015650	ppm	0.000946	0.09	3483.450000	Y 242.219
S (181.972 nm)	10.697163	ppm	0.014017	0.13	4832.979205	Y 377.433
Sb (206.834 nm)	0.005967	ppm	0.002479	41.54	-5.772180	Y 377.433
Se (196.026 nm)	1.947320	ppm	0.005918	0.30	3152.160000	Y 242.219
Si (288.158 nm)	5.443660	ppm	0.023749	0.44	36416.100000	Y 377.433
Sn (189.925 nm)	1.898800	ppm	0.001302	0.07	3314.150000	Y 377.433
Sr (421.552 nm)	1.683063	ppm	0.000753	0.04	246209.748234	Y_R 488.368
Th (288.505 nm)	1.047300	ppm	0.005713	0.55	1745.490000	Y 377.433
Ti (336.122 nm)	3.663190	ppm	0.001272	0.03	476608.000000	Y 377.433
Tl (190.794 nm)	1.916640	ppm	0.000738	0.04	4603.160000	Y 377.433
U (409.013 nm)	1.962510	ppm	0.003728	0.19	6074.950000	Y 377.433
V (292.401 nm)	1.208310	ppm	0.000453	0.04	63715.800000	Y 377.433
Zn (206.200 nm)	0.669707	ppm	0.001670	0.25	3342.830000	Y 377.433
Zr (343.823 nm)	0.585612	ppm	0.000617	0.11	33592.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081276	24212.435249	0.000029	0.00
Y 377.433	1.094376	707104.770411	0.000791	0.07
Y_R 377.433	1.149530	63282.300000	0.005003	0.44
Y_R 488.368	1.142150	55196.600000	0.004824	0.42
Y_R2 488.368	1.137697	105446.833263	0.003077	0.27
Y_R4	1.150570	49266.700000	0.001715	0.15

Sample Name: 280-123350-j-1-d msd

Date: 5/23/2019 5:16:30 PM
Rack:Tube: 1:18

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051279	ppm	0.000001	0.00	1187.550000	Y 377.433
Al (394.401 nm)	74.267300 o	ppm	0.171900	0.23	887830.000000	Y 377.433
Al H (396.152 nm)	75.003900	ppm	0.077993	0.10	154996.000000	Y_R 377.433
As (188.980 nm)	2.027300	ppm	0.005119	0.25	3226.470000	Y 242.219
B (249.678 nm)	1.055350	ppm	0.001944	0.18	7550.460000	Y 242.219
Ba (493.408 nm)	3.174920	ppm	0.007646	0.24	309032.000000	Y_R 488.368
Be (234.861 nm)	0.990687	ppm	0.003664	0.37	99506.300000	Y_R 488.368
Bi (223.061 nm)	1.925160	ppm	0.000720	0.04	4391.370000	Y 377.433
Ca (315.887 nm)	209.728406	ppm	0.121411	0.06	169279.004102	Y_R 377.433
Cd (214.439 nm)	0.959652	ppm	0.000143	0.01	38427.300000	Y 377.433
Co (228.615 nm)	0.993987	ppm	0.000650	0.07	24708.800000	Y 242.219
Cr (205.560 nm)	1.053180	ppm	0.002965	0.28	7447.760000	Y 377.433
Cu (324.754 nm)	1.024040	ppm	0.004818	0.47	47926.200000	Y 377.433
Fe (238.204 nm)	86.905863 o	ppm	0.094680	0.11	214204.815283	Y_R 377.433
Fe H (259.940 nm)	87.490700	ppm	0.046368	0.05	122425.000000	Y_R 377.433
K (766.491 nm)	59.760800	ppm	0.153304	0.26	61295.900000	Y_R2 488.368
Li (670.783 nm)	1.105140	ppm	0.005112	0.46	16613.000000	Y_R2 488.368
Mg (279.078 nm)	69.055800	ppm	0.012695	0.02	244532.000000	Y 377.433
Mn (257.610 nm)	2.425100	ppm	0.002681	0.11	670761.000000	Y 377.433
Mo (202.032 nm)	0.985325	ppm	0.001015	0.10	12561.300000	Y 377.433
Na (589.592 nm)	54.674500	ppm	0.141485	0.26	41265.100000	Y_R2 488.368
Na H (589.593 nm)	62.201429	ppm	0.095759	0.15	31262.901055	Y_R4
Ni (231.604 nm)	0.998018	ppm	0.001152	0.12	5568.390000	Y 377.433
P (213.618 nm)	23.215400	ppm	0.005674	0.02	34837.800000	Y 242.219
Pb (220.353 nm)	1.014680	ppm	0.002368	0.23	3481.980000	Y 242.219
S (181.972 nm)	10.634179	ppm	0.011268	0.11	4802.142627	Y 377.433
Sb (206.834 nm)	0.001898	ppm	0.000285	15.03	-12.597600	Y 377.433
Se (196.026 nm)	1.943490	ppm	0.001926	0.10	3148.710000	Y 242.219
Si (288.158 nm)	5.357130	ppm	0.042441	0.79	35845.400000	Y 377.433
Sn (189.925 nm)	1.909210	ppm	0.004446	0.23	3332.300000	Y 377.433
Sr (421.552 nm)	1.588028	ppm	0.003724	0.23	232309.233662	Y_R 488.368
Th (288.505 nm)	1.039680	ppm	0.003895	0.37	1731.470000	Y 377.433
Ti (336.122 nm)	3.346600	ppm	0.004791	0.14	435328.000000	Y 377.433
Tl (190.794 nm)	1.923540	ppm	0.002393	0.12	4624.170000	Y 377.433
U (409.013 nm)	1.966190	ppm	0.009632	0.49	6083.760000	Y 377.433
V (292.401 nm)	1.178730	ppm	0.001358	0.12	62134.800000	Y 377.433
Zn (206.200 nm)	0.645938	ppm	0.000007	0.00	3223.090000	Y 377.433
Zr (343.823 nm)	0.575888	ppm	0.000261	0.05	33031.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080003	24183.925280	0.000098	0.01
Y 377.433	1.092826	706103.684714	0.000565	0.05
Y_R 377.433	1.133380	62392.800000	0.000273	0.02
Y_R 488.368	1.128900	54556.500000	0.001622	0.14
Y_R2 488.368	1.130602	104789.204172	0.002906	0.26
Y_R4	1.150600	49268.100000	0.002501	0.22

Sample Name: 280-123350-j-1-bPDS

Date: 5/23/2019 5:20:18 PM
Rack:Tube: 1:19

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050025	ppm	0.000248	0.50	1439.970000	Y 377.433
Al (394.401 nm)	58.240000 o	ppm	0.004108	0.01	696220.000000	Y 377.433
Al H (396.152 nm)	58.898500	ppm	0.025430	0.04	121519.000000	Y_R 377.433
As (188.980 nm)	0.230797	ppm	0.003026	1.31	363.977000	Y 242.219
B (249.678 nm)	0.157943	ppm	0.000205	0.13	1119.170000	Y 242.219
Ba (493.408 nm)	1.262420	ppm	0.004183	0.33	123781.000000	Y_R 488.368
Be (234.861 nm)	0.050093	ppm	0.000020	0.04	4672.280000	Y_R 488.368
Bi (223.061 nm)	0.000876 u	ppm	0.002647	> 100.00	2.040890	Y 377.433
Ca (315.887 nm)	219.293567	ppm	0.003248	0.00	176997.207373	Y_R 377.433
Cd (214.439 nm)	0.048181	ppm	0.000010	0.02	1957.810000	Y 377.433
Co (228.615 nm)	0.076526	ppm	0.000567	0.74	1952.310000	Y 242.219
Cr (205.560 nm)	0.117784	ppm	0.000544	0.46	826.591000	Y 377.433
Cu (324.754 nm)	0.085909	ppm	0.000498	0.58	4288.640000	Y 377.433
Fe (238.204 nm)	85.773971 o	ppm	0.104021	0.12	211414.977010	Y_R 377.433
Fe H (259.940 nm)	86.252400	ppm	0.031034	0.04	120693.000000	Y_R 377.433
K (766.491 nm)	28.507100	ppm	0.034814	0.12	30275.700000	Y_R2 488.368
Li (670.783 nm)	0.211054	ppm	0.001220	0.58	1043.750000	Y_R2 488.368
Mg (279.078 nm)	39.196400	ppm	0.047669	0.12	138761.000000	Y 377.433
Mn (257.610 nm)	2.069590	ppm	0.001258	0.06	572427.000000	Y 377.433
Mo (202.032 nm)	0.050271	ppm	0.000254	0.51	663.071000	Y 377.433
Na (589.592 nm)	29.827300	ppm	0.061788	0.21	22463.600000	Y_R2 488.368
Na H (589.593 nm)	33.197662 u	ppm	0.265616	0.80	16838.123703	Y_R4
Ni (231.604 nm)	0.091504	ppm	0.001837	2.01	500.226000	Y 377.433
P (213.618 nm)	5.481130	ppm	0.009440	0.17	8268.440000	Y 242.219
Pb (220.353 nm)	0.138914	ppm	0.000727	0.52	478.063000	Y 242.219
S (181.972 nm)	0.635056	ppm	0.013822	2.18	309.776420	Y 377.433
Sb (206.834 nm)	0.103127	ppm	0.002846	2.76	174.204000	Y 377.433
Se (196.026 nm)	0.194800	ppm	0.002937	1.51	306.338000	Y 242.219
Si (288.158 nm)	6.590900	ppm	0.028093	0.43	43983.700000	Y 377.433
Sn (189.925 nm)	0.102614	ppm	0.001164	1.13	181.216000	Y 377.433
Sr (421.552 nm)	1.059742	ppm	0.001925	0.18	155047.407562	Y_R 488.368
Th (288.505 nm)	0.225367	ppm	0.000214	0.09	410.357000	Y 377.433
Ti (336.122 nm)	1.773560	ppm	0.000903	0.05	230833.000000	Y 377.433
Tl (190.794 nm)	0.197589	ppm	0.000195	0.10	451.241000	Y 377.433
U (409.013 nm)	0.481708	ppm	0.007241	1.50	1485.670000	Y 377.433
V (292.401 nm)	0.243563	ppm	0.000046	0.02	12782.800000	Y 377.433
Zn (206.200 nm)	0.385872	ppm	0.000691	0.18	1932.190000	Y 377.433
Zr (343.823 nm)	0.130869	ppm	0.000280	0.21	7371.460000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.102458	24686.752543	0.002156	0.20
Y 377.433	1.113666	719569.148210	0.001645	0.15
Y_R 377.433	1.155150	63591.200000	0.000158	0.01
Y_R 488.368	1.147920	55475.400000	0.003308	0.29
Y_R2 488.368	1.145542	106173.966518	0.004695	0.41
Y_R4	1.163500	49820.700000	0.007118	0.61

Sample Name: 280-123350-j-2-b

Date: 5/23/2019 5:24:04 PM Rack:Tube: 1:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000066 u	ppm	0.000566	> 100.00	-309.675000	Y 377.433
Al (394.401 nm)	62.468900 o	ppm	0.044474	0.07	746631.000000	Y 377.433
Al H (396.152 nm)	63.716200	ppm	0.131481	0.21	131298.000000	Y_R 377.433
As (188.980 nm)	0.030572	ppm	0.000620	2.03	45.113700	Y 242.219
B (249.678 nm)	0.054794	ppm	0.000227	0.41	383.377000	Y 242.219
Ba (493.408 nm)	0.976240	ppm	0.001643	0.17	96055.900000	Y_R 488.368
Be (234.861 nm)	0.002418	ppm	0.000008	0.35	-108.621000	Y_R 488.368
Bi (223.061 nm)	0.004363	ppm	0.000461	10.56	8.872520	Y 377.433
Ca (315.887 nm)	192.019870	ppm	0.529844	0.28	154979.298083	Y_R 377.433
Cd (214.439 nm)	0.001208	ppm	0.000168	13.90	75.725100	Y 377.433
Co (228.615 nm)	0.029142	ppm	0.000400	1.37	773.690000	Y 242.219
Cr (205.560 nm)	0.083859	ppm	0.000210	0.25	586.384000	Y 377.433
Cu (324.754 nm)	0.058981	ppm	0.000395	0.67	3047.170000	Y 377.433
Fe (238.204 nm)	79.779335 o	ppm	0.243005	0.30	196639.652944	Y_R 377.433
Fe H (259.940 nm)	80.258200	ppm	0.274869	0.34	112312.000000	Y_R 377.433
K (766.491 nm)	11.848800	ppm	0.161860	1.37	13741.900000	Y_R2 488.368
Li (670.783 nm)	0.124332	ppm	0.001697	1.37	-466.399000	Y_R2 488.368
Mg (279.078 nm)	25.259400	ppm	0.052508	0.21	89396.100000	Y 377.433
Mn (257.610 nm)	1.784090	ppm	0.001356	0.08	493458.000000	Y 377.433
Mo (202.032 nm)	0.001020	ppm	0.000214	20.99	36.368500	Y 377.433
Na (589.592 nm)	5.554540	ppm	0.023930	0.43	4424.730000	Y_R2 488.368
Na H (589.593 nm)	7.088628 u	ppm	0.056423	0.80	3853.016878	Y_R4
Ni (231.604 nm)	0.057833	ppm	0.001120	1.94	311.827000	Y 377.433
P (213.618 nm)	3.407800	ppm	0.023199	0.68	5139.290000	Y 242.219
Pb (220.353 nm)	0.100948	ppm	0.000792	0.78	345.992000	Y 242.219
S (181.972 nm)	0.788760	ppm	0.018674	2.37	376.650709	Y 377.433
Sb (206.834 nm)	0.005546	ppm	0.003917	70.63	2.310470	Y 377.433
Se (196.026 nm)	0.002745	ppm	0.002297	83.67	-4.551800	Y 242.219
Si (288.158 nm)	2.344860	ppm	0.017332	0.74	15975.500000	Y 377.433
Sn (189.925 nm)	0.011843	ppm	0.000041	0.34	22.893100	Y 377.433
Sr (421.552 nm)	0.673460	ppm	0.001102	0.16	98552.893269	Y_R 488.368
Th (288.505 nm)	0.030157	ppm	0.005953	19.74	68.796000	Y 377.433
Ti (336.122 nm)	1.619490	ppm	0.000890	0.05	210708.000000	Y 377.433
Tl (190.794 nm)	0.006728	ppm	0.000821	12.21	-8.249700	Y 377.433
U (409.013 nm)	-0.001531 u	ppm	0.004129	> 100.00	-23.668600	Y 377.433
V (292.401 nm)	0.195999	ppm	0.000306	0.16	10269.900000	Y 377.433
Zn (206.200 nm)	0.205566	ppm	0.000574	0.28	1036.380000	Y 377.433
Zr (343.823 nm)	0.085682	ppm	0.000123	0.14	4765.920000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.117537	25024.415882	0.002598	0.23
Y 377.433	1.127265	728355.661250	0.002769	0.25
Y_R 377.433	1.157480	63719.500000	0.002444	0.21
Y_R 488.368	1.152920	55717.000000	0.003135	0.27
Y_R2 488.368	1.152362	106806.030117	0.011208	0.97
Y_R4	1.173660	50255.600000	0.002501	0.21

Sample Name: CCVH-5713036

Date: 5/23/2019 5:27:52 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004222	ppm	0.000042	1.01	-107.942000	Y 377.433
Al (394.401 nm)	50.158400 o	ppm	0.003739	0.01	598223.000000	Y 377.433
Al H (396.152 nm)	49.554100	ppm	0.170485	0.34	101893.000000	Y_R 377.433
As (188.980 nm)	0.003354	ppm	0.000594	17.72	2.621080	Y 242.219
B (249.678 nm)	-0.001198 u	ppm	0.000336	28.08	-0.187383	Y 242.219
Ba (493.408 nm)	0.001207	ppm	0.000510	42.25	1587.770000	Y_R 488.368
Be (234.861 nm)	0.001045	ppm	0.000037	3.53	-114.544000	Y_R 488.368
Bi (223.061 nm)	-0.004289 u	ppm	0.001568	36.56	-16.394200	Y 377.433
Ca (315.887 nm)	0.013378	ppm	0.003111	23.25	-38.636159	Y_R 377.433
Cd (214.439 nm)	0.001504	ppm	0.000148	9.82	74.147700	Y 377.433
Co (228.615 nm)	0.003279	ppm	0.000015	0.47	58.957600	Y 242.219
Cr (205.560 nm)	0.002074	ppm	0.000254	12.25	7.313780	Y 377.433
Cu (324.754 nm)	0.003306	ppm	0.000228	6.89	1499.750000	Y 377.433
Fe (238.204 nm)	49.300534 o	ppm	0.196248	0.40	121516.798288	Y_R 377.433
Fe H (259.940 nm)	49.488800	ppm	0.172388	0.35	69288.400000	Y_R 377.433
K (766.491 nm)	0.200171	ppm	0.005863	2.93	2180.270000	Y_R2 488.368
Li (670.783 nm)	0.014108	ppm	0.003985	28.25	-2385.790000	Y_R2 488.368
Mg (279.078 nm)	0.033054	ppm	0.001477	4.47	49.345900	Y 377.433
Mn (257.610 nm)	0.001091	ppm	0.000041	3.75	279.658000	Y 377.433
Mo (202.032 nm)	0.000271 u	ppm	0.000395	> 100.00	26.835200	Y 377.433
Na (589.592 nm)	235.272000 o	ppm	0.322316	0.14	174390.000000	Y_R2 488.368
Na H (589.593 nm)	256.007683	ppm	0.970750	0.38	127650.798388	Y_R4
Ni (231.604 nm)	0.002375	ppm	0.000038	1.59	1.904560	Y 377.433
P (213.618 nm)	4.901170	ppm	0.013724	0.28	7407.770000	Y 242.219
Pb (220.353 nm)	0.004355	ppm	0.000934	21.44	20.450300	Y 242.219
S (181.972 nm)	5.065024	ppm	0.009787	0.19	2283.038966	Y 377.433
Sb (206.834 nm)	0.006376	ppm	0.000725	11.36	8.073600	Y 377.433
Se (196.026 nm)	0.006010	ppm	0.000859	14.29	6.615720	Y 242.219
Si (288.158 nm)	0.013868	ppm	0.001252	9.03	599.518000	Y 377.433
Sn (189.925 nm)	0.001016	ppm	0.000564	55.56	4.008330	Y 377.433
Sr (421.552 nm)	0.001022	ppm	0.000097	9.45	204.605587	Y_R 488.368
Th (288.505 nm)	4.977630	ppm	0.004002	0.08	8697.510000	Y 377.433
Ti (336.122 nm)	0.002539	ppm	0.000026	1.02	-175.547000	Y 377.433
Tl (190.794 nm)	-0.000873 u	ppm	0.001149	> 100.00	-6.996570	Y 377.433
U (409.013 nm)	0.553586 Q	ppm	0.002334	0.42	1728.400000 Q	Y 377.433
V (292.401 nm)	0.001360	ppm	0.000231	16.97	390.283000	Y 377.433
Zn (206.200 nm)	0.003208	ppm	0.000153	4.78	27.342200	Y 377.433
Zr (343.823 nm)	0.001669	ppm	0.000038	2.25	-78.292400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.090700	24423.463060	0.000993	0.09
Y 377.433	1.092839	706112.215982	0.000428	0.04
Y_R 377.433	1.132240	62330.000000	0.003354	0.30
Y_R 488.368	1.123880	54313.600000	0.000820	0.07
Y_R2 488.368	1.116593	103490.782538	0.000015	0.00
Y_R4	1.141690	48886.500000	0.014073	1.23

Sample Name: CCV-5717467

Date: 5/23/2019 5:31:38 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.490125	ppm	0.000586	0.12	16938.900000	Y 377.433
Al (394.401 nm)	0.511616	ppm	0.002464	0.48	6367.070000	Y 377.433
Al H (396.152 nm)	0.562973 u	ppm	0.010027	1.78	1167.310000	Y_R 377.433
As (188.980 nm)	0.492940	ppm	0.001779	0.36	784.066000	Y 242.219
B (249.678 nm)	0.488094	ppm	0.000071	0.01	3533.890000	Y 242.219
Ba (493.408 nm)	0.489878	ppm	0.000166	0.03	48885.500000	Y_R 488.368
Be (234.861 nm)	0.478825	ppm	0.001725	0.36	48262.600000	Y_R 488.368
Bi (223.061 nm)	0.963948	ppm	0.004336	0.45	2183.700000	Y 377.433
Ca (315.887 nm)	4.950912	ppm	0.012998	0.26	3935.224936	Y_R 377.433
Cd (214.439 nm)	0.495062	ppm	0.001327	0.27	19801.300000	Y 377.433
Co (228.615 nm)	0.493331	ppm	0.000675	0.14	12197.600000	Y 242.219
Cr (205.560 nm)	0.490888	ppm	0.000557	0.11	3468.960000	Y 377.433
Cu (324.754 nm)	0.491647	ppm	0.001209	0.25	23238.900000	Y 377.433
Fe (238.204 nm)	2.481047	ppm	0.001035	0.04	6118.113563	Y_R 377.433
Fe H (259.940 nm)	2.437830 u	ppm	0.014434	0.59	3499.440000	Y_R 377.433
K (766.491 nm)	47.962300	ppm	0.025144	0.05	49585.600000	Y_R2 488.368
Li (670.783 nm)	0.499580	ppm	0.001847	0.37	6068.030000	Y_R2 488.368
Mg (279.078 nm)	19.586600	ppm	0.038457	0.20	69406.900000	Y 377.433
Mn (257.610 nm)	0.493766	ppm	0.000859	0.17	136554.000000	Y 377.433
Mo (202.032 nm)	0.491886	ppm	0.000145	0.03	6282.460000	Y 377.433
Na (589.592 nm)	23.867300	ppm	0.001088	0.00	17890.300000	Y_R2 488.368
Na H (589.593 nm)	26.261810 u	ppm	0.194891	0.74	13388.636604	Y_R4
Ni (231.604 nm)	0.491773	ppm	0.001779	0.36	2737.510000	Y 377.433
P (213.618 nm)	0.054280	ppm	0.000887	1.63	-62.399800	Y 242.219
Pb (220.353 nm)	0.494856	ppm	0.000704	0.14	1710.560000	Y 242.219
S (181.972 nm)	0.001195 u	ppm	0.009986	> 100.00	10.032229	Y 377.433
Sb (206.834 nm)	0.498960	ppm	0.001050	0.21	870.585000	Y 377.433
Se (196.026 nm)	0.496243	ppm	0.001131	0.23	817.195000	Y 242.219
Si (288.158 nm)	4.822750	ppm	0.010258	0.21	32320.400000	Y 377.433
Sn (189.925 nm)	0.489094	ppm	0.000008	0.00	855.320000	Y 377.433
Sr (421.552 nm)	0.493923	ppm	0.000459	0.09	72284.360059	Y_R 488.368
Th (288.505 nm)	0.012245	ppm	0.000745	6.09	-14.018800	Y 377.433
Ti (336.122 nm)	0.489104	ppm	0.000235	0.05	63106.600000	Y 377.433
Tl (190.794 nm)	0.501246	ppm	0.006201	1.24	1211.000000	Y 377.433
U (409.013 nm)	0.022519	ppm	0.013418	59.58	-30.282400	Y 377.433
V (292.401 nm)	0.488205	ppm	0.000493	0.10	25564.400000	Y 377.433
Zn (206.200 nm)	0.494255	ppm	0.002001	0.40	2457.260000	Y 377.433
Zr (343.823 nm)	0.490992	ppm	0.000500	0.10	28136.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.109772	24850.526928	0.005288	0.48
Y 377.433	1.111087	717902.363772	0.005640	0.51
Y_R 377.433	1.143700	62961.300000	0.001647	0.14
Y_R 488.368	1.140660	55124.600000	0.000018	0.00
Y_R2 488.368	1.121438	103939.859752	0.000350	0.03
Y_R4	1.132820	48506.600000	0.010665	0.94

Sample Name: CCB

Date: 5/23/2019 5:35:10 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000073 u	ppm	0.000148	> 100.00	-248.369000	Y 377.433
Al (394.401 nm)	-0.001254 u	ppm	0.001813	> 100.00	114.757000	Y 377.433
Al H (396.152 nm)	0.126945 Zu	ppm	0.003010	2.37	36.020300 Z	Y_R 377.433
As (188.980 nm)	-0.000859 u	ppm	0.001723	> 100.00	-2.673410	Y 242.219
B (249.678 nm)	-0.002599 u	ppm	0.000052	2.01	18.459600	Y 242.219
Ba (493.408 nm)	-0.002340 Zu	ppm	0.000146	6.24	1205.950000 Z	Y_R 488.368
Be (234.861 nm)	-0.000009 u	ppm	0.000039	> 100.00	-6.616260	Y_R 488.368
Bi (223.061 nm)	0.001696	ppm	0.000079	4.64	-11.648500	Y 377.433
Ca (315.887 nm)	0.011016	ppm	0.006462	58.66	-53.082217	Y_R 377.433
Cd (214.439 nm)	0.000089	ppm	0.000027	30.23	-4.243890	Y 377.433
Co (228.615 nm)	0.000073	ppm	0.000025	33.63	-20.367400	Y 242.219
Cr (205.560 nm)	-0.000451 u	ppm	0.000307	68.13	-9.160690	Y 377.433
Cu (324.754 nm)	0.000005 u	ppm	0.000292	> 100.00	411.910000	Y 377.433
Fe (238.204 nm)	-0.000257 u	ppm	0.000271	> 100.00	2.299435	Y_R 377.433
Fe H (259.940 nm)	-0.052615 u	ppm	0.002887	5.49	17.180700	Y_R 377.433
K (766.491 nm)	-0.189298 u	ppm	0.013702	7.24	1793.710000	Y_R2 488.368
Li (670.783 nm)	0.013395 Z	ppm	0.001446	10.80	-2398.210000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002603	ppm	0.000715	27.47	21.109200	Y 377.433
Mn (257.610 nm)	0.000069	ppm	0.000031	45.19	-2.894780	Y 377.433
Mo (202.032 nm)	-0.000551 u	ppm	0.000110	19.97	16.372300	Y 377.433
Na (589.592 nm)	0.131684	ppm	0.000512	0.39	207.457000	Y_R2 488.368
Na H (589.593 nm)	0.468758 u	ppm	0.035382	7.55	560.680540	Y_R4
Ni (231.604 nm)	-0.000884 u	ppm	0.000402	45.48	-16.307200	Y 377.433
P (213.618 nm)	0.000855	ppm	0.000721	84.30	-3.146060	Y 242.219
Pb (220.353 nm)	-0.001694 u	ppm	0.002179	> 100.00	7.086650	Y 242.219
S (181.972 nm)	-0.004745 u	ppm	0.000452	9.53	5.623682	Y 377.433
Sb (206.834 nm)	0.004403	ppm	0.002121	48.17	0.232967	Y 377.433
Se (196.026 nm)	-0.001116 u	ppm	0.002506	> 100.00	8.762160	Y 242.219
Si (288.158 nm)	-0.005624 u	ppm	0.002025	36.00	470.944000	Y 377.433
Sn (189.925 nm)	-0.000424 u	ppm	0.000133	31.35	1.496260	Y 377.433
Sr (421.552 nm)	0.000070	ppm	0.000008	11.75	58.120984	Y_R 488.368
Th (288.505 nm)	-0.002902 u	ppm	0.005115	> 100.00	9.468370	Y 377.433
Ti (336.122 nm)	0.000458	ppm	0.000042	9.08	-446.127000	Y 377.433
Tl (190.794 nm)	0.001096 u	ppm	0.003861	> 100.00	2.777800	Y 377.433
U (409.013 nm)	0.005007	ppm	0.000156	3.11	-26.097900	Y 377.433
V (292.401 nm)	0.000365	ppm	0.000150	41.05	-160.690000	Y 377.433
Zn (206.200 nm)	-0.000398 u	ppm	0.000466	> 100.00	1.840180	Y 377.433
Zr (343.823 nm)	0.000503	ppm	0.000171	33.88	-145.495000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115822	24986.016175	0.001528	0.14
Y 377.433	1.114374	720026.626444	0.000486	0.04
Y_R 377.433	1.141760	62854.600000	0.000147	0.01
Y_R 488.368	1.139620	55074.400000	0.003146	0.28
Y_R2 488.368	1.128325	104578.229592	0.009643	0.85
Y_R4	1.127340	48272.300000	0.004775	0.42

Sample Name: CCVL-5717307

Date: 5/23/2019 5:38:21 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007790	ppm	0.000058	0.75	26.182800	Y 377.433
Al (394.401 nm)	0.098659	ppm	0.000967	0.98	1316.740000	Y 377.433
Al H (396.152 nm)	0.223542 u	ppm	0.005817	2.60	240.262000	Y_R 377.433
As (188.980 nm)	0.013049	ppm	0.001362	10.44	19.483800	Y 242.219
B (249.678 nm)	0.093383	ppm	0.001081	1.16	706.313000	Y 242.219
Ba (493.408 nm)	0.007635	ppm	0.000215	2.81	2172.240000	Y_R 488.368
Be (234.861 nm)	0.000936	ppm	0.000042	4.49	88.200700	Y_R 488.368
Bi (223.061 nm)	0.087150	ppm	0.004664	5.35	183.289000	Y 377.433
Ca (315.887 nm)	0.215393	ppm	0.002323	1.08	111.943812	Y_R 377.433
Cd (214.439 nm)	0.005166	ppm	0.000028	0.55	198.963000	Y 377.433
Co (228.615 nm)	0.010762	ppm	0.000010	0.09	244.364000	Y 242.219
Cr (205.560 nm)	0.010154	ppm	0.000001	0.01	65.801800	Y 377.433
Cu (324.754 nm)	0.015536	ppm	0.000115	0.74	1132.040000	Y 377.433
Fe (238.204 nm)	0.102833	ppm	0.002864	2.78	256.392371	Y_R 377.433
Fe H (259.940 nm)	0.045577 u	ppm	0.000853	1.87	154.478000	Y_R 377.433
K (766.491 nm)	2.744770	ppm	0.005908	0.22	4705.850000	Y_R2 488.368
Li (670.783 nm)	0.035655 Q	ppm	0.001376	3.86	-2010.580000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200110	ppm	0.002819	1.41	719.513000	Y 377.433
Mn (257.610 nm)	0.010588	ppm	0.000034	0.32	2906.490000	Y 377.433
Mo (202.032 nm)	0.019155	ppm	0.000009	0.04	267.131000	Y 377.433
Na (589.592 nm)	1.174550	ppm	0.022215	1.89	981.932000	Y_R2 488.368
Na H (589.593 nm)	1.370706 u	ppm	0.022698	1.66	1009.256927	Y_R4
Ni (231.604 nm)	0.041704	ppm	0.001119	2.68	221.710000	Y 377.433
P (213.618 nm)	2.788930	ppm	0.024217	0.87	4211.420000	Y 242.219
Pb (220.353 nm)	0.007953	ppm	0.000793	9.97	40.323100	Y 242.219
S (181.972 nm)	0.086959	ppm	0.007225	8.31	46.856391	Y 377.433
Sb (206.834 nm)	0.023274	ppm	0.000353	1.52	33.393100	Y 377.433
Se (196.026 nm)	0.015729	ppm	0.001653	10.51	36.128400	Y 242.219
Si (288.158 nm)	0.470303	ppm	0.000528	0.11	3610.310000	Y 377.433
Sn (189.925 nm)	0.098387	ppm	0.000448	0.46	173.845000	Y 377.433
Sr (421.552 nm)	0.009119	ppm	0.000059	0.65	1381.588465	Y_R 488.368
Th (288.505 nm)	0.014951	ppm	0.001368	9.15	40.109000	Y 377.433
Ti (336.122 nm)	0.010136	ppm	0.000154	1.52	812.971000	Y 377.433
Tl (190.794 nm)	0.015467	ppm	0.002859	18.48	37.466000	Y 377.433
U (409.013 nm)	0.067089	ppm	0.005166	7.70	167.182000	Y 377.433
V (292.401 nm)	0.010054	ppm	0.000124	1.23	346.987000	Y 377.433
Zn (206.200 nm)	0.020526	ppm	0.000477	2.32	105.707000	Y 377.433
Zr (343.823 nm)	0.010546	ppm	0.000292	2.77	433.552000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.127966	25257.951216	0.004148	0.37
Y 377.433	1.127269	728358.088685	0.003176	0.28
Y_R 377.433	1.148080	63202.200000	0.003333	0.29
Y_R 488.368	1.144900	55329.800000	0.001664	0.15
Y_R2 488.368	1.141620	105810.443274	0.006827	0.60
Y_R4	1.138560	48752.600000	0.007016	0.62

Sample Name: 280-123350-j-14-a

Date: 5/23/2019 5:41:50 PM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000122 u	ppm	0.000370	> 100.00	-300.480000	Y 377.433
Al (394.401 nm)	85.847100 o	ppm	0.015123	0.02	1025960.000000	Y 377.433
Al H (396.152 nm)	87.026000	ppm	0.238492	0.27	179364.000000	Y_R 377.433
As (188.980 nm)	0.047853	ppm	0.002832	5.92	72.550000	Y 242.219
B (249.678 nm)	0.065622	ppm	0.000333	0.51	458.973000	Y 242.219
Ba (493.408 nm)	1.209650	ppm	0.004060	0.34	118668.000000	Y_R 488.368
Be (234.861 nm)	0.003278	ppm	0.000104	3.18	-36.981000	Y_R 488.368
Bi (223.061 nm)	0.003261	ppm	0.000118	3.62	6.985680	Y 377.433
Ca (315.887 nm)	245.693925	ppm	0.573373	0.23	198318.363609	Y_R 377.433
Cd (214.439 nm)	0.001584	ppm	0.000134	8.46	92.311500	Y 377.433
Co (228.615 nm)	0.032299	ppm	0.000951	2.94	846.687000	Y 242.219
Cr (205.560 nm)	0.105259	ppm	0.000503	0.48	737.378000	Y 377.433
Cu (324.754 nm)	0.049778	ppm	0.000156	0.31	2597.590000	Y 377.433
Fe (238.204 nm)	83.335297 o	ppm	0.122563	0.15	205404.237344	Y_R 377.433
Fe H (259.940 nm)	83.762600	ppm	0.191124	0.23	117212.000000	Y_R 377.433
K (766.491 nm)	12.913200	ppm	0.020337	0.16	14798.300000	Y_R2 488.368
Li (670.783 nm)	0.150463	ppm	0.000562	0.37	-11.362900	Y_R2 488.368
Mg (279.078 nm)	31.534300	ppm	0.037110	0.12	111624.000000	Y 377.433
Mn (257.610 nm)	1.672970	ppm	0.003507	0.21	462723.000000	Y 377.433
Mo (202.032 nm)	0.002718	ppm	0.000270	9.94	57.968200	Y 377.433
Na (589.592 nm)	12.303100	ppm	0.021273	0.17	9471.860000	Y_R2 488.368
Na H (589.593 nm)	14.128831 u	ppm	0.094510	0.67	7354.402308	Y_R4
Ni (231.604 nm)	0.054095	ppm	0.000282	0.52	290.942000	Y 377.433
P (213.618 nm)	3.637950	ppm	0.022050	0.61	5489.510000	Y 242.219
Pb (220.353 nm)	0.636335	ppm	0.000068	0.01	2181.870000	Y 242.219
S (181.972 nm)	1.242720	ppm	0.007585	0.61	582.728382	Y 377.433
Sb (206.834 nm)	0.004667	ppm	0.003949	84.63	1.695810	Y 377.433
Se (196.026 nm)	0.001243 u	ppm	0.001801	> 100.00	-8.122480	Y 242.219
Si (288.158 nm)	3.440610	ppm	0.015059	0.44	23203.400000	Y 377.433
Sn (189.925 nm)	0.008052	ppm	0.003119	38.73	16.280500	Y 377.433
Sr (421.552 nm)	0.779280	ppm	0.002435	0.31	114029.596722	Y_R 488.368
Th (288.505 nm)	0.034873	ppm	0.002015	5.78	72.984200	Y 377.433
Ti (336.122 nm)	1.512490	ppm	0.000146	0.01	196975.000000	Y 377.433
Tl (190.794 nm)	0.009761	ppm	0.000432	4.42	-2.340020	Y 377.433
U (409.013 nm)	-0.000302 u	ppm	0.005894	> 100.00	-25.791500	Y 377.433
V (292.401 nm)	0.197444	ppm	0.000104	0.05	10334.800000	Y 377.433
Zn (206.200 nm)	0.223683	ppm	0.000087	0.04	1126.820000	Y 377.433
Zr (343.823 nm)	0.099546	ppm	0.000245	0.25	5565.360000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105860	24762.934863	0.000649	0.06
Y 377.433	1.114562	720147.584610	0.000878	0.08
Y_R 377.433	1.167440	64267.900000	0.001583	0.14
Y_R 488.368	1.160510	56084.100000	0.000976	0.08
Y_R2 488.368	1.151228	106700.920128	0.000912	0.08
Y_R4	1.172180	50192.000000	0.001552	0.13

Sample Name: 280-123350-j-16-a

Date: 5/23/2019 5:45:35 PM Rack:Tube: 1:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000419	ppm	0.000551	> 100.00	-322.152000	Y 377.433
Al (394.401 nm)	182.484000 o	ppm	0.058487	0.03	2180640.000000	Y 377.433
Al H (396.152 nm)	182.990000	ppm	0.442145	0.24	377328.000000	Y_R 377.433
As (188.980 nm)	0.058942	ppm	0.002987	5.07	88.043400	Y 242.219
B (249.678 nm)	0.144894	ppm	0.000969	0.67	983.076000	Y 242.219
Ba (493.408 nm)	0.573866	ppm	0.001628	0.28	57142.400000	Y_R 488.368
Be (234.861 nm)	0.006725	ppm	0.000019	0.28	-18.396700	Y_R 488.368
Bi (223.061 nm)	-0.002462 u	ppm	0.001559	63.33	7.640660	Y 377.433
Ca (315.887 nm)	178.192094	ppm	0.497998	0.28	143845.877037	Y_R 377.433
Cd (214.439 nm)	0.001107	ppm	0.000030	2.67	106.638000	Y 377.433
Co (228.615 nm)	0.051845	ppm	0.000001	0.00	1426.820000	Y 242.219
Cr (205.560 nm)	0.125969	ppm	0.000185	0.15	881.376000	Y 377.433
Cu (324.754 nm)	0.164522	ppm	0.000283	0.17	7963.410000	Y 377.433
Fe (238.204 nm)	158.991539 o	ppm	0.469151	0.30	391878.531396	Y_R 377.433
Fe H (259.940 nm)	160.035000	ppm	0.459067	0.29	223859.000000	Y_R 377.433
K (766.491 nm)	28.824400	ppm	0.040269	0.14	30590.600000	Y_R2 488.368
Li (670.783 nm)	0.242756	ppm	0.000123	0.05	1595.800000	Y_R2 488.368
Mg (279.078 nm)	66.882400	ppm	0.103603	0.15	236760.000000	Y 377.433
Mn (257.610 nm)	1.794240	ppm	0.003108	0.17	496265.000000	Y 377.433
Mo (202.032 nm)	0.000445	ppm	0.000375	84.26	29.051000	Y 377.433
Na (589.592 nm)	15.809600	ppm	0.032268	0.20	11938.700000	Y_R2 488.368
Na H (589.593 nm)	17.035957 u	ppm	0.079034	0.46	8800.236636	Y_R4
Ni (231.604 nm)	0.082089	ppm	0.000459	0.56	447.383000	Y 377.433
P (213.618 nm)	4.707030	ppm	0.049428	1.05	7080.320000	Y 242.219
Pb (220.353 nm)	0.115496	ppm	0.000610	0.53	371.732000	Y 242.219
S (181.972 nm)	0.521476	ppm	0.009138	1.75	255.951547	Y 377.433
Sb (206.834 nm)	-0.000736 u	ppm	0.004989	> 100.00	-10.813400	Y 377.433
Se (196.026 nm)	0.004419 u	ppm	0.007056	> 100.00	-23.868900	Y 242.219
Si (288.158 nm)	2.994160	ppm	0.006647	0.22	20258.500000	Y 377.433
Sn (189.925 nm)	0.011114	ppm	0.000197	1.78	21.622100	Y 377.433
Sr (421.552 nm)	1.270916	ppm	0.003431	0.27	185942.316808	Y_R 488.368
Th (288.505 nm)	0.048972	ppm	0.008671	17.71	79.276300	Y 377.433
Ti (336.122 nm)	3.591460	ppm	0.002862	0.08	467050.000000	Y 377.433
Tl (190.794 nm)	0.012279	ppm	0.000036	0.29	-11.190700	Y 377.433
U (409.013 nm)	0.019987	ppm	0.001586	7.94	86.306600	Y 377.433
V (292.401 nm)	0.338355	ppm	0.000426	0.13	17894.800000	Y 377.433
Zn (206.200 nm)	0.407903	ppm	0.003835	0.94	2052.810000	Y 377.433
Zr (343.823 nm)	0.223006	ppm	0.000081	0.04	12684.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.099186	24613.497159	0.001250	0.11
Y 377.433	1.104127	713405.335872	0.002549	0.23
Y_R 377.433	1.158130	63755.500000	0.005291	0.46
Y_R 488.368	1.153400	55740.500000	0.004562	0.40
Y_R2 488.368	1.147946	106396.779789	0.001827	0.16
Y_R4	1.173100	50231.400000	0.004176	0.36

Sample Name: 280-123350-j-17-d

Date: 5/23/2019 5:49:23 PM Rack:Tube: 1:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000102 u	ppm	0.000127	> 100.00	-376.923000	Y 377.433
Al (394.401 nm)	232.661000 o	ppm	0.142293	0.06	2780120.000000	Y 377.433
Al H (396.152 nm)	232.204000	ppm	0.583540	0.25	478725.000000	Y_R 377.433
As (188.980 nm)	0.069550	ppm	0.000386	0.55	104.296000	Y 242.219
B (249.678 nm)	0.146290	ppm	0.001005	0.69	979.936000	Y 242.219
Ba (493.408 nm)	0.716638	ppm	0.002217	0.31	70989.200000	Y_R 488.368
Be (234.861 nm)	0.008675	ppm	0.000089	1.03	80.107200	Y_R 488.368
Bi (223.061 nm)	0.000434 u	ppm	0.003256	> 100.00	18.355400	Y 377.433
Ca (315.887 nm)	202.845186	ppm	0.338454	0.17	163761.756391	Y_R 377.433
Cd (214.439 nm)	0.001991	ppm	0.000044	2.22	151.947000	Y 377.433
Co (228.615 nm)	0.063018	ppm	0.000045	0.07	1581.450000	Y 242.219
Cr (205.560 nm)	0.193631	ppm	0.002078	1.07	1359.310000	Y 377.433
Cu (324.754 nm)	0.179188	ppm	0.000256	0.14	8675.490000	Y 377.433
Fe (238.204 nm)	181.883726 o	ppm	0.086728	0.05	448302.221020	Y_R 377.433
Fe H (259.940 nm)	184.941000	ppm	0.311241	0.17	258685.000000	Y_R 377.433
K (766.491 nm)	40.962400	ppm	0.112080	0.27	42638.000000	Y_R2 488.368
Li (670.783 nm)	0.317881	ppm	0.001221	0.38	2904.000000	Y_R2 488.368
Mg (279.078 nm)	82.230600	ppm	0.034502	0.04	291110.000000	Y 377.433
Mn (257.610 nm)	1.668690	ppm	0.000882	0.05	461537.000000	Y 377.433
Mo (202.032 nm)	0.002625	ppm	0.000038	1.45	56.786400	Y 377.433
Na (589.592 nm)	14.196500	ppm	0.019099	0.13	10773.200000	Y_R2 488.368
Na H (589.593 nm)	15.921603 u	ppm	0.029439	0.18	8246.021996	Y_R4
Ni (231.604 nm)	0.164294	ppm	0.001001	0.61	906.788000	Y 377.433
P (213.618 nm)	4.461470	ppm	0.012719	0.29	6704.820000	Y 242.219
Pb (220.353 nm)	0.131468	ppm	0.001289	0.98	421.475000	Y 242.219
S (181.972 nm)	0.744953	ppm	0.001485	0.20	357.120608	Y 377.433
Sb (206.834 nm)	0.000751 u	ppm	0.002145	> 100.00	6.503310	Y 377.433
Se (196.026 nm)	0.005436	ppm	0.004005	73.68	-28.694100	Y 242.219
Si (288.158 nm)	4.550440	ppm	0.057090	1.25	30524.200000	Y 377.433
Sn (189.925 nm)	0.013914	ppm	0.000068	0.49	26.506000	Y 377.433
Sr (421.552 nm)	1.225611	ppm	0.003017	0.25	179319.785831	Y_R 488.368
Th (288.505 nm)	0.071535	ppm	0.001794	2.51	106.966000	Y 377.433
Ti (336.122 nm)	0.977042	ppm	0.002055	0.21	127217.000000	Y 377.433
Tl (190.794 nm)	0.011496	ppm	0.001104	9.60	-2.207770	Y 377.433
U (409.013 nm)	-0.013582 u	ppm	0.003433	25.28	2.058970	Y 377.433
V (292.401 nm)	0.399309	ppm	0.000057	0.01	21014.400000	Y 377.433
Zn (206.200 nm)	0.582367	ppm	0.000914	0.16	2922.190000	Y 377.433
Zr (343.823 nm)	0.160580	ppm	0.000274	0.17	9084.590000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105765	24760.810843	0.001555	0.14
Y 377.433	1.109487	716868.903930	0.001163	0.10
Y_R 377.433	1.165810	64178.200000	0.000883	0.08
Y_R 488.368	1.158970	56009.600000	0.002053	0.18
Y_R2 488.368	1.149959	106583.309393	0.005170	0.45
Y_R4	1.171040	50143.300000	0.001189	0.10

Sample Name: mb 280-457072/1-a

Date: 5/23/2019 5:53:17 PM Rack:Tube: 1:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000020 u	ppm	0.000359	> 100.00	-246.455000	Y 377.433
Al (394.401 nm)	0.010079	ppm	0.001251	12.41	249.448000	Y 377.433
Al H (396.152 nm)	0.130130 u	ppm	0.007794	5.99	42.578200	Y_R 377.433
As (188.980 nm)	0.000727 u	ppm	0.003018	> 100.00	-0.147525	Y 242.219
B (249.678 nm)	-0.002115 u	ppm	0.000623	29.47	21.911100	Y 242.219
Ba (493.408 nm)	-0.002645 u	ppm	0.000034	1.27	1176.460000	Y_R 488.368
Be (234.861 nm)	-0.000015 u	ppm	0.000024	> 100.00	-7.362030	Y_R 488.368
Bi (223.061 nm)	0.000569	ppm	0.000405	71.28	-14.214400	Y 377.433
Ca (315.887 nm)	0.021734	ppm	0.003776	17.38	-44.428788	Y_R 377.433
Cd (214.439 nm)	-0.000057 u	ppm	0.000043	74.78	-10.065600	Y 377.433
Co (228.615 nm)	0.000099 u	ppm	0.000220	> 100.00	-19.697000	Y 242.219
Cr (205.560 nm)	0.000281 u	ppm	0.000667	> 100.00	-3.975950	Y 377.433
Cu (324.754 nm)	0.000642	ppm	0.000147	22.82	441.560000	Y 377.433
Fe (238.204 nm)	0.025292	ppm	0.000155	0.61	65.272858	Y_R 377.433
Fe H (259.940 nm)	-0.027628 u	ppm	0.001622	5.87	52.119100	Y_R 377.433
K (766.491 nm)	-0.225384 u	ppm	0.042241	18.74	1757.890000	Y_R2 488.368
Li (670.783 nm)	0.015910	ppm	0.000167	1.05	-2354.420000	Y_R2 488.368
Mg (279.078 nm)	0.009329	ppm	0.000797	8.54	45.073900	Y 377.433
Mn (257.610 nm)	0.000627	ppm	0.000017	2.65	151.520000	Y 377.433
Mo (202.032 nm)	-0.000782 u	ppm	0.000414	52.96	13.439700	Y 377.433
Na (589.592 nm)	0.088406	ppm	0.000267	0.30	175.309000	Y_R2 488.368
Na H (589.593 nm)	0.145264 u	ppm	0.036409	25.06	399.793795	Y_R4
Ni (231.604 nm)	-0.000435 u	ppm	0.000184	42.38	-13.800500	Y 377.433
P (213.618 nm)	0.000774 u	ppm	0.001919	> 100.00	-3.458640	Y 242.219
Pb (220.353 nm)	-0.001843 u	ppm	0.001547	83.97	6.545050	Y 242.219
S (181.972 nm)	-0.005594 u	ppm	0.004415	78.92	5.244405	Y 377.433
Sb (206.834 nm)	0.005009	ppm	0.000970	19.36	1.306640	Y 377.433
Se (196.026 nm)	-0.002276 u	ppm	0.002787	> 100.00	6.870620	Y 242.219
Si (288.158 nm)	0.000051 u	ppm	0.000303	> 100.00	508.377000	Y 377.433
Sn (189.925 nm)	0.000143 u	ppm	0.000336	> 100.00	2.486620	Y 377.433
Sr (421.552 nm)	0.000113	ppm	0.000099	87.87	64.481009	Y_R 488.368
Th (288.505 nm)	-0.000311 u	ppm	0.008452	> 100.00	13.928900	Y 377.433
Ti (336.122 nm)	0.000818	ppm	0.000031	3.73	-399.276000	Y 377.433
Tl (190.794 nm)	-0.001031 u	ppm	0.002082	> 100.00	-2.384740	Y 377.433
U (409.013 nm)	0.004163 u	ppm	0.007830	> 100.00	-28.724300	Y 377.433
V (292.401 nm)	0.000529	ppm	0.000148	27.90	-152.028000	Y 377.433
Zn (206.200 nm)	0.003938	ppm	0.000652	16.56	23.364100	Y 377.433
Zr (343.823 nm)	0.000560	ppm	0.000103	18.31	-142.232000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.134015	25393.389258	0.001576	0.14
Y 377.433	1.133323	732269.771476	0.000221	0.02
Y_R 377.433	1.162410	63991.300000	0.000880	0.08
Y_R 488.368	1.158160	55970.500000	0.003825	0.33
Y_R2 488.368	1.148441	106442.591273	0.003910	0.34
Y_R4	1.137750	48717.800000	0.005782	0.51

Sample Name: lcs 280-457072/2-a

Date: 5/23/2019 5:56:29 PM Rack:Tube: 1:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000285 u	ppm	0.000157	55.08	-578.663000	Y 377.433
Al (394.401 nm)	10.203100 o	ppm	0.006515	0.06	122302.000000	Y 377.433
Al H (396.152 nm)	10.149200	ppm	0.034017	0.34	21166.500000	Y_R 377.433
As (188.980 nm)	2.067340	ppm	0.001103	0.05	3292.470000	Y 242.219
B (249.678 nm)	1.015180	ppm	0.000522	0.05	7307.010000	Y 242.219
Ba (493.408 nm)	2.051950	ppm	0.007751	0.38	200198.000000	Y_R 488.368
Be (234.861 nm)	1.008290	ppm	0.005104	0.51	101614.000000	Y_R 488.368
Bi (223.061 nm)	1.959430	ppm	0.008630	0.44	4455.700000	Y 377.433
Ca (315.887 nm)	50.531657	ppm	0.068403	0.14	40736.797756	Y_R 377.433
Cd (214.439 nm)	1.008000	ppm	0.001075	0.11	40327.800000	Y 377.433
Co (228.615 nm)	1.000240	ppm	0.001339	0.13	24755.300000	Y 242.219
Cr (205.560 nm)	1.004180	ppm	0.000391	0.04	7102.090000	Y 377.433
Cu (324.754 nm)	0.998844	ppm	0.002157	0.22	46850.000000	Y 377.433
Fe (238.204 nm)	10.328342 o	ppm	0.021501	0.21	25459.794004	Y_R 377.433
Fe H (259.940 nm)	10.303100	ppm	0.025346	0.25	14497.000000	Y_R 377.433
K (766.491 nm)	49.567400	ppm	0.068154	0.14	51178.700000	Y_R2 488.368
Li (670.783 nm)	1.019910	ppm	0.003753	0.37	15128.900000	Y_R2 488.368
Mg (279.078 nm)	50.279700	ppm	0.047058	0.09	178113.000000	Y 377.433
Mn (257.610 nm)	1.026130	ppm	0.000630	0.06	283806.000000	Y 377.433
Mo (202.032 nm)	1.036610	ppm	0.001178	0.11	13213.900000	Y 377.433
Na (589.592 nm)	47.889100	ppm	0.011444	0.02	36005.200000	Y_R2 488.368
Na H (589.593 nm)	53.282895	ppm	0.199871	0.38	26827.343915	Y_R4
Ni (231.604 nm)	0.993091	ppm	0.002491	0.25	5540.990000	Y 377.433
P (213.618 nm)	20.569100	ppm	0.035537	0.17	30836.600000	Y 242.219
Pb (220.353 nm)	1.013180	ppm	0.003051	0.30	3492.000000	Y 242.219
S (181.972 nm)	10.421000	ppm	0.001832	0.02	4694.526637	Y 377.433
Sb (206.834 nm)	0.002737 u	ppm	0.004300	> 100.00	-7.789880	Y 377.433
Se (196.026 nm)	2.022550	ppm	0.001742	0.09	3296.440000	Y 242.219
Si (288.158 nm)	2.066250	ppm	0.002991	0.14	14137.700000	Y 377.433
Sn (189.925 nm)	2.003390	ppm	0.005273	0.26	3496.570000	Y 377.433
Sr (421.552 nm)	1.028384	ppm	0.004357	0.42	150450.268082	Y_R 488.368
Th (288.505 nm)	1.042810	ppm	0.002175	0.21	1738.450000	Y 377.433
Ti (336.122 nm)	1.025110	ppm	0.000509	0.05	132955.000000	Y 377.433
Tl (190.794 nm)	2.024070	ppm	0.001199	0.06	4894.060000	Y 377.433
U (409.013 nm)	2.036400	ppm	0.003744	0.18	6277.310000	Y 377.433
V (292.401 nm)	1.013520	ppm	0.000169	0.02	53275.600000	Y 377.433
Zn (206.200 nm)	0.498379	ppm	0.002839	0.57	2478.940000	Y 377.433
Zr (343.823 nm)	0.506570	ppm	0.000041	0.01	29034.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093940	24496.006578	0.004140	0.38
Y 377.433	1.103233	712828.005276	0.004110	0.37
Y_R 377.433	1.144970	63031.200000	0.001544	0.13
Y_R 488.368	1.140040	55094.900000	0.002749	0.24
Y_R2 488.368	1.131575	104879.445012	0.000371	0.03
Y_R4	1.145300	49041.100000	0.005952	0.52

Sample Name: 280-122974-a-4-b

Date: 5/23/2019 6:00:08 PM Rack:Tube: 1:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000197 u	ppm	0.000312	> 100.00	-243.020000	Y 377.433
Al (394.401 nm)	0.008265	ppm	0.000676	8.17	298.572000	Y 377.433
Al H (396.152 nm)	0.079532 u	ppm	0.006303	7.93	30.427700	Y_R 377.433
As (188.980 nm)	0.005619	ppm	0.002096	37.31	7.646270	Y 242.219
B (249.678 nm)	0.013978	ppm	0.000727	5.20	137.231000	Y 242.219
Ba (493.408 nm)	0.034189	ppm	0.000848	2.48	4744.320000	Y_R 488.368
Be (234.861 nm)	0.000049	ppm	0.000048	98.36	-1.047250	Y_R 488.368
Bi (223.061 nm)	0.002657	ppm	0.000123	4.64	-9.431440	Y 377.433
Ca (315.887 nm)	51.554260	ppm	0.006550	0.01	41559.779967	Y_R 377.433
Cd (214.439 nm)	0.000239	ppm	0.000048	20.02	1.787440	Y 377.433
Co (228.615 nm)	-0.000174 u	ppm	0.000053	30.45	-26.471800	Y 242.219
Cr (205.560 nm)	0.008237	ppm	0.000738	8.96	52.389300	Y 377.433
Cu (324.754 nm)	0.000534	ppm	0.000248	46.52	405.616000	Y 377.433
Fe (238.204 nm)	0.061561	ppm	0.001032	1.68	154.668232	Y_R 377.433
Fe H (259.940 nm)	0.005105 u	ppm	0.001849	36.21	97.888100	Y_R 377.433
K (766.491 nm)	5.300110	ppm	0.002919	0.06	7242.110000	Y_R2 488.368
Li (670.783 nm)	0.022109	ppm	0.005689	25.73	-2246.460000	Y_R2 488.368
Mg (279.078 nm)	12.125300	ppm	0.028669	0.24	42973.200000	Y 377.433
Mn (257.610 nm)	0.001119	ppm	0.000044	3.98	287.419000	Y 377.433
Mo (202.032 nm)	0.002197	ppm	0.000303	13.80	51.347000	Y 377.433
Na (589.592 nm)	16.403400	ppm	0.039388	0.24	12268.200000	Y_R2 488.368
Na H (589.593 nm)	17.144199 u	ppm	0.069136	0.40	8854.069805	Y_R4
Ni (231.604 nm)	-0.001270 u	ppm	0.000011	0.85	-18.464900	Y 377.433
P (213.618 nm)	0.040442	ppm	0.000286	0.71	56.297400	Y 242.219
Pb (220.353 nm)	-0.001485 u	ppm	0.000370	24.94	7.848720	Y 242.219
S (181.972 nm)	21.112398	ppm	0.094023	0.45	9494.164551	Y 377.433
Sb (206.834 nm)	0.004588	ppm	0.001944	42.37	0.606377	Y 377.433
Se (196.026 nm)	0.001450 u	ppm	0.002071	> 100.00	12.917300	Y 242.219
Si (288.158 nm)	14.841000	ppm	0.046787	0.32	98404.200000	Y 377.433
Sn (189.925 nm)	0.000595	ppm	0.000825	> 100.00	3.274200	Y 377.433
Sr (421.552 nm)	0.263389	ppm	0.000115	0.04	38568.448649	Y_R 488.368
Th (288.505 nm)	-0.003851 u	ppm	0.000927	24.06	5.628540	Y 377.433
Ti (336.122 nm)	0.000378	ppm	0.000216	57.31	-282.168000	Y 377.433
Tl (190.794 nm)	0.002313	ppm	0.002176	94.09	3.570330	Y 377.433
U (409.013 nm)	0.026182	ppm	0.003748	14.31	33.693100	Y 377.433
V (292.401 nm)	0.009973	ppm	0.000089	0.90	344.839000	Y 377.433
Zn (206.200 nm)	0.004787	ppm	0.000864	18.06	27.583700	Y 377.433
Zr (343.823 nm)	0.000525	ppm	0.000300	57.16	-144.274000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119963	25078.725194	0.004698	0.42
Y 377.433	1.121986	724944.846548	0.002682	0.24
Y_R 377.433	1.158200	63759.600000	0.003559	0.31
Y_R 488.368	1.152380	55690.800000	0.005108	0.44
Y_R2 488.368	1.141289	105779.736587	0.007059	0.62
Y_R4	1.148750	49188.700000	0.002872	0.25

Sample Name: 280-122974-a-4-bSD@5

Date: 5/23/2019 6:03:37 PM Rack:Tube: 1:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000182	ppm	0.000147	80.50	-240.197000	Y 377.433
Al (394.401 nm)	0.000810	ppm	0.000151	18.60	154.381000	Y 377.433
Al H (396.152 nm)	0.118468 u	ppm	0.004306	3.63	36.682700	Y_R 377.433
As (188.980 nm)	0.001166	ppm	0.001010	86.57	0.550902	Y 242.219
B (249.678 nm)	0.000017 u	ppm	0.000745	> 100.00	37.159700	Y 242.219
Ba (493.408 nm)	0.005078	ppm	0.000506	9.97	1924.590000	Y_R 488.368
Be (234.861 nm)	-0.000013 u	ppm	0.000033	> 100.00	-7.379500	Y_R 488.368
Bi (223.061 nm)	0.002182	ppm	0.000425	19.49	-10.521000	Y 377.433
Ca (315.887 nm)	10.407788	ppm	0.006780	0.07	8340.635359	Y_R 377.433
Cd (214.439 nm)	0.000048	ppm	0.000058	> 100.00	-5.828330	Y 377.433
Co (228.615 nm)	0.000072	ppm	0.000033	45.66	-20.393400	Y 242.219
Cr (205.560 nm)	0.001540	ppm	0.000528	34.27	4.950330	Y 377.433
Cu (324.754 nm)	0.000157	ppm	0.000081	51.47	412.298000	Y 377.433
Fe (238.204 nm)	0.084301	ppm	0.002132	2.53	210.715439	Y_R 377.433
Fe H (259.940 nm)	0.031007 u	ppm	0.000728	2.35	134.105000	Y_R 377.433
K (766.491 nm)	0.886442	ppm	0.067855	7.65	2861.410000	Y_R2 488.368
Li (670.783 nm)	0.019409	ppm	0.001580	8.14	-2293.480000	Y_R2 488.368
Mg (279.078 nm)	2.469190	ppm	0.001252	0.05	8760.290000	Y 377.433
Mn (257.610 nm)	0.000974	ppm	0.000041	4.20	247.420000	Y 377.433
Mo (202.032 nm)	-0.000108 u	ppm	0.000215	> 100.00	22.018300	Y 377.433
Na (589.592 nm)	3.388800	ppm	0.010416	0.31	2621.690000	Y_R2 488.368
Na H (589.593 nm)	3.477073 u	ppm	0.006079	0.17	2056.840962	Y_R4
Ni (231.604 nm)	-0.000267 u	ppm	0.000056	21.01	-12.858800	Y 377.433
P (213.618 nm)	0.010252	ppm	0.004345	42.38	10.936900	Y 242.219
Pb (220.353 nm)	-0.002322 u	ppm	0.000399	17.20	4.955060	Y 242.219
S (181.972 nm)	4.204181	ppm	0.021712	0.52	1896.818998	Y 377.433
Sb (206.834 nm)	0.004953	ppm	0.000516	10.41	1.219390	Y 377.433
Se (196.026 nm)	-0.000920 u	ppm	0.000806	87.63	9.059180	Y 242.219
Si (288.158 nm)	2.924940	ppm	0.002072	0.07	19801.800000	Y 377.433
Sn (189.925 nm)	-0.000539 u	ppm	0.000172	31.92	1.296070	Y 377.433
Sr (421.552 nm)	0.052132	ppm	0.000079	0.15	7672.263483	Y_R 488.368
Th (288.505 nm)	-0.002700 u	ppm	0.001786	66.15	9.451800	Y 377.433
Ti (336.122 nm)	0.000589	ppm	0.000021	3.54	-394.189000	Y 377.433
Tl (190.794 nm)	0.001416	ppm	0.000211	14.90	3.112400	Y 377.433
U (409.013 nm)	0.016394	ppm	0.001515	9.24	8.288290	Y 377.433
V (292.401 nm)	0.002131	ppm	0.000297	13.93	-68.278900	Y 377.433
Zn (206.200 nm)	0.005109	ppm	0.000699	13.69	29.187200	Y 377.433
Zr (343.823 nm)	0.000476	ppm	0.000015	3.19	-147.071000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.139828	25523.572808	0.000493	0.04
Y 377.433	1.140189	736705.978843	0.000558	0.05
Y_R 377.433	1.159970	63857.000000	0.000237	0.02
Y_R 488.368	1.158040	55964.800000	0.000074	0.01
Y_R2 488.368	1.149621	106552.041007	0.002645	0.23
Y_R4	1.150480	49262.800000	0.001396	0.12

Sample Name: 280-122974-a-4-c ms

Date: 5/23/2019 6:07:07 PM Rack:Tube: 1:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000079	ppm	0.000046	58.48	-576.941000	Y 377.433
Al (394.401 nm)	10.295500 o	ppm	0.008512	0.08	123481.000000	Y 377.433
Al H (396.152 nm)	10.258100	ppm	0.022897	0.22	21493.800000	Y_R 377.433
As (188.980 nm)	2.123310	ppm	0.009776	0.46	3381.640000	Y 242.219
B (249.678 nm)	1.066400	ppm	0.001288	0.12	7674.090000	Y 242.219
Ba (493.408 nm)	2.121040	ppm	0.002599	0.12	206890.000000	Y_R 488.368
Be (234.861 nm)	1.030330	ppm	0.000959	0.09	103836.000000	Y_R 488.368
Bi (223.061 nm)	1.989020	ppm	0.002233	0.11	4523.210000	Y 377.433
Ca (315.887 nm)	103.300138	ppm	0.026322	0.03	83338.888651	Y_R 377.433
Cd (214.439 nm)	1.017270	ppm	0.000990	0.10	40699.100000	Y 377.433
Co (228.615 nm)	1.010100	ppm	0.001547	0.15	24999.800000	Y 242.219
Cr (205.560 nm)	1.037540	ppm	0.006307	0.61	7338.350000	Y 377.433
Cu (324.754 nm)	1.023440	ppm	0.001588	0.16	47962.200000	Y 377.433
Fe (238.204 nm)	10.379852 o	ppm	0.000200	0.00	25586.752718	Y_R 377.433
Fe H (259.940 nm)	10.372000	ppm	0.013919	0.13	14593.500000	Y_R 377.433
K (766.491 nm)	56.490800	ppm	0.040736	0.07	58050.400000	Y_R2 488.368
Li (670.783 nm)	1.044220	ppm	0.001141	0.11	15552.200000	Y_R2 488.368
Mg (279.078 nm)	62.988700	ppm	0.105506	0.17	223142.000000	Y 377.433
Mn (257.610 nm)	1.035510	ppm	0.001340	0.13	286400.000000	Y 377.433
Mo (202.032 nm)	1.054640	ppm	0.000464	0.04	13443.300000	Y 377.433
Na (589.592 nm)	65.285800 o	ppm	0.108861	0.17	48905.800000	Y_R2 488.368
Na H (589.593 nm)	72.283809	ppm	0.101788	0.14	36277.287310	Y_R4
Ni (231.604 nm)	0.998545	ppm	0.000477	0.05	5571.500000	Y 377.433
P (213.618 nm)	20.938500	ppm	0.041057	0.20	31388.700000	Y 242.219
Pb (220.353 nm)	1.024520	ppm	0.003201	0.31	3530.880000	Y 242.219
S (181.972 nm)	32.470314	ppm	0.140010	0.43	14601.911413	Y 377.433
Sb (206.834 nm)	0.001700 u	ppm	0.002807	> 100.00	-9.587130	Y 377.433
Se (196.026 nm)	2.059840	ppm	0.004995	0.24	3357.040000	Y 242.219
Si (288.158 nm)	17.422700	ppm	0.042131	0.24	115434.000000	Y 377.433
Sn (189.925 nm)	2.049040	ppm	0.003713	0.18	3576.190000	Y 377.433
Sr (421.552 nm)	1.315303	ppm	0.000781	0.06	192412.077852	Y_R 488.368
Th (288.505 nm)	1.053440	ppm	0.001168	0.11	1752.530000	Y 377.433
Ti (336.122 nm)	1.041510	ppm	0.000762	0.07	135267.000000	Y 377.433
Tl (190.794 nm)	2.038940	ppm	0.002097	0.10	4927.740000	Y 377.433
U (409.013 nm)	2.069700	ppm	0.004647	0.22	6374.140000	Y 377.433
V (292.401 nm)	1.042910	ppm	0.001361	0.13	54823.000000	Y 377.433
Zn (206.200 nm)	0.498867	ppm	0.001165	0.23	2481.370000	Y 377.433
Zr (343.823 nm)	0.511936	ppm	0.000341	0.07	29344.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.079772	24178.768632	0.003806	0.35
Y 377.433	1.092299	705762.920290	0.003949	0.36
Y_R 377.433	1.131160	62270.900000	0.005797	0.51
Y_R 488.368	1.128130	54519.000000	0.004596	0.41
Y_R2 488.368	1.116899	103519.187908	0.002676	0.24
Y_R4	1.115490	47764.600000	0.007539	0.68

Sample Name: 280-122974-a-4-d msd

Date: 5/23/2019 6:10:46 PM Rack:Tube: 1:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000051 u	ppm	0.000512	> 100.00	-579.283000	Y 377.433
Al (394.401 nm)	10.331800 o	ppm	0.006025	0.06	123913.000000	Y 377.433
Al H (396.152 nm)	10.213800	ppm	0.006306	0.06	21399.500000	Y_R 377.433
As (188.980 nm)	2.112540	ppm	0.002915	0.14	3364.460000	Y 242.219
B (249.678 nm)	1.068570	ppm	0.000546	0.05	7689.120000	Y 242.219
Ba (493.408 nm)	2.105810	ppm	0.000060	0.00	205416.000000	Y_R 488.368
Be (234.861 nm)	1.024010	ppm	0.003223	0.31	103194.000000	Y_R 488.368
Bi (223.061 nm)	1.999010	ppm	0.008461	0.42	4546.160000	Y 377.433
Ca (315.887 nm)	103.027102	ppm	0.073655	0.07	83118.445386	Y_R 377.433
Cd (214.439 nm)	1.015590	ppm	0.001462	0.14	40632.200000	Y 377.433
Co (228.615 nm)	1.004740	ppm	0.000546	0.05	24867.200000	Y 242.219
Cr (205.560 nm)	1.027220	ppm	0.006901	0.67	7265.270000	Y 377.433
Cu (324.754 nm)	1.022060	ppm	0.000833	0.08	47898.500000	Y 377.433
Fe (238.204 nm)	11.271544 o	ppm	0.036287	0.32	27784.557798	Y_R 377.433
Fe H (259.940 nm)	11.276500	ppm	0.035761	0.32	15858.000000	Y_R 377.433
K (766.491 nm)	56.423800	ppm	0.021284	0.04	57983.900000	Y_R2 488.368
Li (670.783 nm)	1.041820	ppm	0.000970	0.09	15510.500000	Y_R2 488.368
Mg (279.078 nm)	63.180900	ppm	0.025775	0.04	223822.000000	Y 377.433
Mn (257.610 nm)	1.062430	ppm	0.001088	0.10	293845.000000	Y 377.433
Mo (202.032 nm)	1.050810	ppm	0.000838	0.08	13394.500000	Y 377.433
Na (589.592 nm)	65.121000 o	ppm	0.047405	0.07	48780.400000	Y_R2 488.368
Na H (589.593 nm)	72.127161	ppm	0.273526	0.38	36199.379976	Y_R4
Ni (231.604 nm)	0.995762	ppm	0.000615	0.06	5555.930000	Y 377.433
P (213.618 nm)	20.910500	ppm	0.041839	0.20	31346.600000	Y 242.219
Pb (220.353 nm)	1.023000	ppm	0.001108	0.11	3525.690000	Y 242.219
S (181.972 nm)	32.695219	ppm	0.132482	0.41	14702.995727	Y 377.433
Sb (206.834 nm)	0.005081	ppm	0.001145	22.53	-3.574710	Y 377.433
Se (196.026 nm)	2.054800	ppm	0.002985	0.15	3348.640000	Y 242.219
Si (288.158 nm)	17.491900	ppm	0.017486	0.10	115890.000000	Y 377.433
Sn (189.925 nm)	2.047970	ppm	0.002400	0.12	3574.330000	Y 377.433
Sr (421.552 nm)	1.310025	ppm	0.000901	0.07	191640.224690	Y_R 488.368
Th (288.505 nm)	1.054800	ppm	0.000523	0.05	1755.960000	Y 377.433
Ti (336.122 nm)	1.037120	ppm	0.000137	0.01	134695.000000	Y 377.433
Tl (190.794 nm)	2.032260	ppm	0.001304	0.06	4911.480000	Y 377.433
U (409.013 nm)	2.066390	ppm	0.002395	0.12	6364.560000	Y 377.433
V (292.401 nm)	1.038230	ppm	0.000063	0.01	54579.200000	Y 377.433
Zn (206.200 nm)	0.500553	ppm	0.001144	0.23	2489.870000	Y 377.433
Zr (343.823 nm)	0.511442	ppm	0.000024	0.00	29315.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.083593	24264.318021	0.000163	0.02
Y 377.433	1.094300	707055.768691	0.000190	0.02
Y_R 377.433	1.140730	62797.500000	0.003210	0.28
Y_R 488.368	1.135890	54894.200000	0.003261	0.29
Y_R2 488.368	1.130234	104755.096672	0.003327	0.29
Y_R4	1.139690	48800.700000	0.010385	0.91

Sample Name: 280-122974-a-4-bPDS

Date: 5/23/2019 6:14:25 PM
Rack:Tube: 1:30

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050379	ppm	0.000447	0.89	1510.830000	Y 377.433
Al (394.401 nm)	0.971459	ppm	0.001465	0.15	11834.300000	Y 377.433
Al H (396.152 nm)	1.037200	ppm	0.005516	0.53	2021.580000	Y_R 377.433
As (188.980 nm)	0.199321	ppm	0.000630	0.32	316.260000	Y 242.219
B (249.678 nm)	0.116484	ppm	0.000566	0.49	871.343000	Y 242.219
Ba (493.408 nm)	0.131580	ppm	0.000266	0.20	14178.600000	Y_R 488.368
Be (234.861 nm)	0.048754	ppm	0.000560	1.15	4905.500000	Y_R 488.368
Bi (223.061 nm)	0.004811	ppm	0.000238	4.95	-4.299480	Y 377.433
Ca (315.887 nm)	69.719271	ppm	0.219414	0.31	56225.353176	Y_R 377.433
Cd (214.439 nm)	0.048689	ppm	0.000045	0.09	1940.760000	Y 377.433
Co (228.615 nm)	0.048641	ppm	0.000500	1.03	1182.660000	Y 242.219
Cr (205.560 nm)	0.055826	ppm	0.000550	0.98	389.229000	Y 377.433
Cu (324.754 nm)	0.048937	ppm	0.000067	0.14	2652.880000	Y 377.433
Fe (238.204 nm)	1.038899	ppm	0.001515	0.15	2563.567605	Y_R 377.433
Fe H (259.940 nm)	0.979366 u	ppm	0.001519	0.16	1460.150000	Y_R 377.433
K (766.491 nm)	24.109200	ppm	0.110963	0.46	25910.600000	Y_R2 488.368
Li (670.783 nm)	0.113678	ppm	0.001086	0.96	-651.917000	Y_R2 488.368
Mg (279.078 nm)	30.858300	ppm	0.001087	0.00	109338.000000	Y 377.433
Mn (257.610 nm)	0.050063	ppm	0.000089	0.18	13825.400000	Y 377.433
Mo (202.032 nm)	0.053573	ppm	0.000105	0.20	705.083000	Y 377.433
Na (589.592 nm)	34.878200	ppm	0.069231	0.20	25973.400000	Y_R2 488.368
Na H (589.593 nm)	37.174909 u	ppm	0.178286	0.48	18816.173844	Y_R4
Ni (231.604 nm)	0.044985	ppm	0.000534	1.19	240.268000	Y 377.433
P (213.618 nm)	1.971890	ppm	0.002160	0.11	2964.800000	Y 242.219
Pb (220.353 nm)	0.095838	ppm	0.002160	2.25	343.075000	Y 242.219
S (181.972 nm)	21.074237	ppm	0.104940	0.50	9478.030940	Y 377.433
Sb (206.834 nm)	0.107069	ppm	0.003001	2.80	181.273000	Y 377.433
Se (196.026 nm)	0.192529	ppm	0.003571	1.85	323.267000	Y 242.219
Si (288.158 nm)	19.501000	ppm	0.003633	0.02	129143.000000	Y 377.433
Sn (189.925 nm)	0.099494	ppm	0.000840	0.84	175.775000	Y 377.433
Sr (421.552 nm)	0.307542	ppm	0.000631	0.21	45025.987782	Y_R 488.368
Th (288.505 nm)	0.195675	ppm	0.002302	1.18	350.688000	Y 377.433
Ti (336.122 nm)	0.050369	ppm	0.000077	0.15	6279.540000	Y 377.433
Tl (190.794 nm)	0.197560	ppm	0.001205	0.61	475.405000	Y 377.433
U (409.013 nm)	0.509459	ppm	0.001977	0.39	1539.800000	Y 377.433
V (292.401 nm)	0.058310	ppm	0.000056	0.10	2889.260000	Y 377.433
Zn (206.200 nm)	0.210115	ppm	0.000293	0.14	1046.810000	Y 377.433
Zr (343.823 nm)	0.051294	ppm	0.000235	0.46	2783.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.101191	24658.392840	0.004133	0.38
Y 377.433	1.105192	714093.876987	0.004926	0.45
Y_R 377.433	1.128070	62100.600000	0.004785	0.42
Y_R 488.368	1.124310	54334.700000	0.005250	0.47
Y_R2 488.368	1.123770	104156.053553	0.000365	0.03
Y_R4	1.135150	48606.400000	0.008225	0.72

Sample Name: CCVH-5713036

Date: 5/23/2019 6:18:01 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003737	ppm	0.000752	20.14	-125.166000	Y 377.433
Al (394.401 nm)	50.051000 o	ppm	0.114664	0.23	596946.000000	Y 377.433
Al H (396.152 nm)	49.480200	ppm	0.054538	0.11	101741.000000	Y_R 377.433
As (188.980 nm)	0.003075	ppm	0.002070	67.31	2.182860	Y 242.219
B (249.678 nm)	-0.001607 u	ppm	0.000416	25.91	-2.991360	Y 242.219
Ba (493.408 nm)	0.000741	ppm	0.000100	13.51	1542.480000	Y_R 488.368
Be (234.861 nm)	0.001045	ppm	0.000047	4.49	-113.671000	Y_R 488.368
Bi (223.061 nm)	0.007669	ppm	0.002522	32.89	10.841600	Y 377.433
Ca (315.887 nm)	-0.001179 u	ppm	0.020282	> 100.00	-50.412389	Y_R 377.433
Cd (214.439 nm)	0.001370	ppm	0.000147	10.70	68.666400	Y 377.433
Co (228.615 nm)	0.003090	ppm	0.000181	5.85	54.289500	Y 242.219
Cr (205.560 nm)	0.001867	ppm	0.000106	5.70	5.852010	Y 377.433
Cu (324.754 nm)	0.003540	ppm	0.000569	16.06	1506.920000	Y 377.433
Fe (238.204 nm)	49.208194 o	ppm	0.005357	0.01	121289.202764	Y_R 377.433
Fe H (259.940 nm)	49.324500	ppm	0.013509	0.03	69058.600000	Y_R 377.433
K (766.491 nm)	0.378676	ppm	0.008936	2.36	2357.440000	Y_R2 488.368
Li (670.783 nm)	0.015864	ppm	0.003521	22.19	-2355.210000	Y_R2 488.368
Mg (279.078 nm)	0.033660	ppm	0.000617	1.83	51.710900	Y 377.433
Mn (257.610 nm)	0.001007	ppm	0.000056	5.57	256.499000	Y 377.433
Mo (202.032 nm)	0.000556	ppm	0.000065	11.72	30.457400	Y 377.433
Na (589.592 nm)	235.844000 o	ppm	0.503302	0.21	174813.000000	Y_R2 488.368
Na H (589.593 nm)	255.008912	ppm	0.450983	0.18	127154.067676	Y_R4
Ni (231.604 nm)	0.002599	ppm	0.000082	3.17	3.158200	Y 377.433
P (213.618 nm)	4.917310	ppm	0.006657	0.14	7432.170000	Y 242.219
Pb (220.353 nm)	0.003211	ppm	0.000054	1.69	16.550200	Y 242.219
S (181.972 nm)	5.086591	ppm	0.023622	0.46	2292.726736	Y 377.433
Sb (206.834 nm)	0.008690	ppm	0.001642	18.90	12.138900	Y 377.433
Se (196.026 nm)	0.008290	ppm	0.001542	18.61	10.381100	Y 242.219
Si (288.158 nm)	0.017241	ppm	0.001985	11.51	621.767000	Y 377.433
Sn (189.925 nm)	0.000554	ppm	0.000393	70.98	3.202300	Y 377.433
Sr (421.552 nm)	0.000981	ppm	0.000053	5.41	198.593579	Y_R 488.368
Th (288.505 nm)	4.968250	ppm	0.003557	0.07	8681.190000	Y 377.433
Ti (336.122 nm)	0.002340	ppm	0.000049	2.08	-201.314000	Y 377.433
Tl (190.794 nm)	-0.000182 u	ppm	0.000219	> 100.00	-5.300020	Y 377.433
U (409.013 nm)	0.550126 Q	ppm	0.002937	0.53	1717.410000 Q	Y 377.433
V (292.401 nm)	0.001260	ppm	0.000009	0.74	382.682000	Y 377.433
Zn (206.200 nm)	0.003068	ppm	0.000265	8.62	26.613700	Y 377.433
Zr (343.823 nm)	0.001649	ppm	0.000043	2.63	-79.451400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084311	24280.397687	0.005060	0.47
Y 377.433	1.085244	701204.938794	0.005571	0.51
Y_R 377.433	1.115720	61420.900000	0.002400	0.22
Y_R 488.368	1.111840	53732.100000	0.002075	0.19
Y_R2 488.368	1.102129	102150.219207	0.003859	0.35
Y_R4	1.117400	47846.600000	0.000609	0.05

Sample Name: CCV-5717467

Date: 5/23/2019 6:21:44 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.489116	ppm	0.000210	0.04	16903.400000	Y 377.433
Al (394.401 nm)	0.511848	ppm	0.001106	0.22	6369.940000	Y 377.433
Al H (396.152 nm)	0.554526 u	ppm	0.003445	0.62	1149.920000	Y_R 377.433
As (188.980 nm)	0.495510	ppm	0.000014	0.00	788.162000	Y 242.219
B (249.678 nm)	0.490095	ppm	0.000392	0.08	3548.230000	Y 242.219
Ba (493.408 nm)	0.491061	ppm	0.000792	0.16	49000.000000	Y_R 488.368
Be (234.861 nm)	0.480210	ppm	0.001733	0.36	48402.200000	Y_R 488.368
Bi (223.061 nm)	0.961172	ppm	0.001217	0.13	2177.370000	Y 377.433
Ca (315.887 nm)	4.945133	ppm	0.000002	0.00	3930.557248	Y_R 377.433
Cd (214.439 nm)	0.496363	ppm	0.000547	0.11	19853.400000	Y 377.433
Co (228.615 nm)	0.493790	ppm	0.000563	0.11	12209.000000	Y 242.219
Cr (205.560 nm)	0.486857	ppm	0.001554	0.32	3440.380000	Y 377.433
Cu (324.754 nm)	0.489088	ppm	0.004149	0.85	23119.900000	Y 377.433
Fe (238.204 nm)	2.479414	ppm	0.002728	0.11	6114.089410	Y_R 377.433
Fe H (259.940 nm)	2.427100 u	ppm	0.007040	0.29	3484.440000	Y_R 377.433
K (766.491 nm)	47.825400	ppm	0.009983	0.02	49449.700000	Y_R2 488.368
Li (670.783 nm)	0.496200	ppm	0.005588	1.13	6009.180000	Y_R2 488.368
Mg (279.078 nm)	19.597800	ppm	0.032966	0.17	69446.600000	Y 377.433
Mn (257.610 nm)	0.493807	ppm	0.000336	0.07	136565.000000	Y 377.433
Mo (202.032 nm)	0.493827	ppm	0.000213	0.04	6307.160000	Y 377.433
Na (589.592 nm)	23.723800	ppm	0.061955	0.26	17784.100000	Y_R2 488.368
Na H (589.593 nm)	26.330386 u	ppm	0.257998	0.98	13422.742242	Y_R4
Ni (231.604 nm)	0.490961	ppm	0.000976	0.20	2732.970000	Y 377.433
P (213.618 nm)	0.053823	ppm	0.004480	8.32	-62.291600	Y 242.219
Pb (220.353 nm)	0.492562	ppm	0.000345	0.07	1702.670000	Y 242.219
S (181.972 nm)	0.009984	ppm	0.000557	5.58	13.974271	Y 377.433
Sb (206.834 nm)	0.498600	ppm	0.000393	0.08	869.925000	Y 377.433
Se (196.026 nm)	0.494830	ppm	0.003818	0.77	814.896000	Y 242.219
Si (288.158 nm)	4.834970	ppm	0.028314	0.59	32401.000000	Y 377.433
Sn (189.925 nm)	0.488034	ppm	0.000527	0.11	853.472000	Y 377.433
Sr (421.552 nm)	0.493537	ppm	0.000096	0.02	72227.826230	Y_R 488.368
Th (288.505 nm)	0.010939	ppm	0.002557	23.38	-16.311200	Y 377.433
Ti (336.122 nm)	0.488814	ppm	0.000015	0.00	63068.800000	Y 377.433
Tl (190.794 nm)	0.501523	ppm	0.004150	0.83	1211.670000	Y 377.433
U (409.013 nm)	0.022899	ppm	0.005905	25.79	-29.001000	Y 377.433
V (292.401 nm)	0.488544	ppm	0.000002	0.00	25583.500000	Y 377.433
Zn (206.200 nm)	0.495108	ppm	0.000583	0.12	2461.490000	Y 377.433
Zr (343.823 nm)	0.491060	ppm	0.000213	0.04	28140.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.095795	24537.548180	0.003451	0.31
Y 377.433	1.095619	707908.507742	0.003765	0.34
Y_R 377.433	1.124790	61920.100000	0.000883	0.08
Y_R 488.368	1.120660	54158.100000	0.000699	0.06
Y_R2 488.368	1.109058	102792.401860	0.002994	0.27
Y_R4	1.104260	47283.800000	0.006916	0.63

Sample Name: CCB

Date: 5/23/2019 6:25:20 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000173 u	ppm	0.000248	> 100.00	-252.008000	Y 377.433
Al (394.401 nm)	-0.002264 u	ppm	0.000073	3.24	102.734000	Y 377.433
Al H (396.152 nm)	0.113970 Zu	ppm	0.003283	2.88	9.253850 Z	Y_R 377.433
As (188.980 nm)	0.000184 u	ppm	0.001429	> 100.00	-1.012380	Y 242.219
B (249.678 nm)	-0.002213 u	ppm	0.000753	34.02	21.225700	Y 242.219
Ba (493.408 nm)	-0.001823 u	ppm	0.000067	3.65	1256.050000	Y_R 488.368
Be (234.861 nm)	0.000037	ppm	0.000008	22.07	-1.995240	Y_R 488.368
Bi (223.061 nm)	0.001846	ppm	0.000176	9.51	-11.304200	Y 377.433
Ca (315.887 nm)	0.010824	ppm	0.000184	1.70	-53.239724	Y_R 377.433
Cd (214.439 nm)	0.000097	ppm	0.000053	54.82	-3.890440	Y 377.433
Co (228.615 nm)	-0.000189 u	ppm	0.000120	63.37	-26.836500	Y 242.219
Cr (205.560 nm)	-0.000189 u	ppm	0.000262	> 100.00	-7.310190	Y 377.433
Cu (324.754 nm)	0.000438	ppm	0.000233	53.34	431.807000	Y 377.433
Fe (238.204 nm)	0.000578	ppm	0.000546	94.60	4.357762	Y_R 377.433
Fe H (259.940 nm)	-0.057122 u	ppm	0.001019	1.78	10.879000	Y_R 377.433
K (766.491 nm)	-0.128302 u	ppm	0.014572	11.36	1854.250000	Y_R2 488.368
Li (670.783 nm)	0.009795	ppm	0.003466	35.38	-2460.900000	Y_R2 488.368
Mg (279.078 nm)	-0.000773 u	ppm	0.000945	> 100.00	9.198390	Y 377.433
Mn (257.610 nm)	0.000052	ppm	0.000006	12.07	-7.640130	Y 377.433
Mo (202.032 nm)	-0.000691 u	ppm	0.000481	69.59	14.593100	Y 377.433
Na (589.592 nm)	0.091119	ppm	0.039895	43.78	177.563000	Y_R2 488.368
Na H (589.593 nm)	0.387060 u	ppm	0.047725	12.33	520.049090	Y_R4
Ni (231.604 nm)	-0.000481 u	ppm	0.000180	37.41	-14.054300	Y 377.433
P (213.618 nm)	-0.000052 u	ppm	0.004474	> 100.00	-4.726850	Y 242.219
Pb (220.353 nm)	-0.001839 u	ppm	0.000528	28.70	6.578660	Y 242.219
S (181.972 nm)	-0.006335 u	ppm	0.001166	18.41	4.909742	Y 377.433
Sb (206.834 nm)	0.005777	ppm	0.003495	60.50	2.660160	Y 377.433
Se (196.026 nm)	0.001443	ppm	0.000364	25.23	12.921300	Y 242.219
Si (288.158 nm)	-0.004801 u	ppm	0.002684	55.91	476.374000	Y 377.433
Sn (189.925 nm)	0.000694	ppm	0.000433	62.37	3.446390	Y 377.433
Sr (421.552 nm)	-0.000043 u	ppm	0.000012	28.35	41.658438	Y_R 488.368
Th (288.505 nm)	-0.003245 u	ppm	0.002925	90.16	8.818220	Y 377.433
Ti (336.122 nm)	0.000473	ppm	0.000191	40.26	-444.127000	Y 377.433
Tl (190.794 nm)	0.000284 u	ppm	0.000925	> 100.00	0.804166	Y 377.433
U (409.013 nm)	0.007284	ppm	0.005491	75.38	-18.964300	Y 377.433
V (292.401 nm)	0.000612	ppm	0.000052	8.52	-147.899000	Y 377.433
Zn (206.200 nm)	0.000071 u	ppm	0.000257	> 100.00	4.169670	Y 377.433
Zr (343.823 nm)	0.000517	ppm	0.000109	21.12	-144.684000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.109748	24849.988612	0.002290	0.21
Y 377.433	1.108865	716466.907082	0.002485	0.22
Y_R 377.433	1.123070	61825.500000	0.004786	0.43
Y_R 488.368	1.120000	54126.200000	0.005819	0.52
Y_R2 488.368	1.110705	102945.093008	0.006844	0.62
Y_R4	1.103520	47252.100000	0.007743	0.70

Sample Name: CCVL-5717307

Date: 5/23/2019 6:28:32 PM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008384	ppm	0.000183	2.18	47.269600	Y 377.433
Al (394.401 nm)	0.097802	ppm	0.001078	1.10	1306.640000	Y 377.433
Al H (396.152 nm)	0.225535 u	ppm	0.000797	0.35	244.309000	Y_R 377.433
As (188.980 nm)	0.012564	ppm	0.001871	14.89	18.710900	Y 242.219
B (249.678 nm)	0.092995	ppm	0.000397	0.43	703.536000	Y 242.219
Ba (493.408 nm)	0.008129	ppm	0.000394	4.85	2220.080000	Y_R 488.368
Be (234.861 nm)	0.000973	ppm	0.000071	7.30	91.976300	Y_R 488.368
Bi (223.061 nm)	0.090296	ppm	0.002217	2.46	190.464000	Y 377.433
Ca (315.887 nm)	0.209229	ppm	0.004927	2.35	106.966831	Y_R 377.433
Cd (214.439 nm)	0.005167	ppm	0.000094	1.82	198.997000	Y 377.433
Co (228.615 nm)	0.010340	ppm	0.000223	2.16	233.925000	Y 242.219
Cr (205.560 nm)	0.009913	ppm	0.000101	1.02	64.098900	Y 377.433
Cu (324.754 nm)	0.015507	ppm	0.000038	0.25	1130.460000	Y 377.433
Fe (238.204 nm)	0.101650	ppm	0.000723	0.71	253.477888	Y_R 377.433
Fe H (259.940 nm)	0.049086 u	ppm	0.003551	7.23	159.384000	Y_R 377.433
K (766.491 nm)	2.840500	ppm	0.056192	1.98	4800.870000	Y_R2 488.368
Li (670.783 nm)	0.034618 Q	ppm	0.000797	2.30	-2028.640000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202933	ppm	0.002044	1.01	729.558000	Y 377.433
Mn (257.610 nm)	0.010585	ppm	0.000034	0.32	2905.820000	Y 377.433
Mo (202.032 nm)	0.019102	ppm	0.000269	1.41	266.458000	Y 377.433
Na (589.592 nm)	1.116380	ppm	0.021431	1.92	938.986000	Y_R2 488.368
Na H (589.593 nm)	1.251278 u	ppm	0.004918	0.39	949.860298	Y_R4
Ni (231.604 nm)	0.041215	ppm	0.001077	2.61	218.980000	Y 377.433
P (213.618 nm)	2.784630	ppm	0.013042	0.47	4204.860000	Y 242.219
Pb (220.353 nm)	0.007080	ppm	0.001144	16.16	37.318200	Y 242.219
S (181.972 nm)	0.090062	ppm	0.006098	6.77	48.250225	Y 377.433
Sb (206.834 nm)	0.023504	ppm	0.001082	4.60	33.798000	Y 377.433
Se (196.026 nm)	0.014702	ppm	0.001474	10.02	34.460100	Y 242.219
Si (288.158 nm)	0.473952	ppm	0.001005	0.21	3634.380000	Y 377.433
Sn (189.925 nm)	0.098556	ppm	0.000590	0.60	174.140000	Y 377.433
Sr (421.552 nm)	0.009051	ppm	0.000004	0.04	1371.641072	Y_R 488.368
Th (288.505 nm)	0.012120	ppm	0.001121	9.25	35.187400	Y 377.433
Ti (336.122 nm)	0.010062	ppm	0.000076	0.76	803.349000	Y 377.433
Tl (190.794 nm)	0.015454	ppm	0.000437	2.83	37.435900	Y 377.433
U (409.013 nm)	0.063493	ppm	0.007476	11.78	155.909000	Y 377.433
V (292.401 nm)	0.010245	ppm	0.000073	0.71	357.189000	Y 377.433
Zn (206.200 nm)	0.020619	ppm	0.000729	3.53	106.168000	Y 377.433
Zr (343.823 nm)	0.010272	ppm	0.000190	1.85	417.787000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113865	24942.187171	0.000716	0.06
Y 377.433	1.112918	719085.295299	0.001720	0.15
Y_R 377.433	1.134340	62445.600000	0.003134	0.28
Y_R 488.368	1.132050	54708.700000	0.000049	0.00
Y_R2 488.368	1.122693	104056.197199	0.000935	0.08
Y_R4	1.116610	47812.700000	0.001241	0.11

Sample Name: mb 280-458910/1-a

Date: 5/23/2019 6:32:01 PM Rack:Tube: 1:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000010 u	ppm	0.000329	> 100.00	-245.524000	Y 377.433
Al (394.401 nm)	0.011834	ppm	0.000005	0.04	271.376000	Y 377.433
Al H (396.152 nm)	0.135531 u	ppm	0.004365	3.22	53.731100	Y_R 377.433
As (188.980 nm)	-0.000669 u	ppm	0.002898	> 100.00	-2.372260	Y 242.219
B (249.678 nm)	-0.001952 u	ppm	0.000807	41.33	23.071300	Y 242.219
Ba (493.408 nm)	-0.001740 u	ppm	0.000374	21.51	1264.120000	Y_R 488.368
Be (234.861 nm)	0.000019	ppm	0.000023	> 100.00	-3.975860	Y_R 488.368
Bi (223.061 nm)	0.002328	ppm	0.000057	2.44	-10.196400	Y 377.433
Ca (315.887 nm)	0.097001	ppm	0.002020	2.08	16.339848	Y_R 377.433
Cd (214.439 nm)	0.000136	ppm	0.000078	57.61	-2.347120	Y 377.433
Co (228.615 nm)	0.000084 u	ppm	0.000311	> 100.00	-20.060400	Y 242.219
Cr (205.560 nm)	0.000814	ppm	0.000300	36.91	-0.198388	Y 377.433
Cu (324.754 nm)	0.002373	ppm	0.000137	5.76	521.901000	Y 377.433
Fe (238.204 nm)	0.048205	ppm	0.000740	1.53	121.747648	Y_R 377.433
Fe H (259.940 nm)	-0.002974 u	ppm	0.000317	10.65	86.590500	Y_R 377.433
K (766.491 nm)	-0.155870 u	ppm	0.017592	11.29	1826.890000	Y_R2 488.368
Li (670.783 nm)	0.012385	ppm	0.000654	5.28	-2415.810000	Y_R2 488.368
Mg (279.078 nm)	0.024505	ppm	0.001117	4.56	98.549400	Y 377.433
Mn (257.610 nm)	0.000618	ppm	0.000006	0.97	148.973000	Y 377.433
Mo (202.032 nm)	-0.000787 u	ppm	0.000144	18.31	13.376000	Y 377.433
Na (589.592 nm)	0.134541	ppm	0.019329	14.37	209.652000	Y_R2 488.368
Na H (589.593 nm)	0.174873 u	ppm	0.004657	2.66	414.519746	Y_R4
Ni (231.604 nm)	0.000187 u	ppm	0.000764	> 100.00	-10.324400	Y 377.433
P (213.618 nm)	0.015309	ppm	0.000741	4.84	18.162300	Y 242.219
Pb (220.353 nm)	-0.001486 u	ppm	0.001090	73.35	7.810250	Y 242.219
S (181.972 nm)	0.007555	ppm	0.005664	74.96	11.152912	Y 377.433
Sb (206.834 nm)	0.003242	ppm	0.002764	85.25	-1.815700	Y 377.433
Se (196.026 nm)	-0.002724 u	ppm	0.001135	41.65	6.136130	Y 242.219
Si (288.158 nm)	0.022116	ppm	0.001350	6.10	653.930000	Y 377.433
Sn (189.925 nm)	0.011016	ppm	0.000124	1.13	21.451200	Y 377.433
Sr (421.552 nm)	0.000179	ppm	0.000120	67.32	74.078168	Y_R 488.368
Th (288.505 nm)	-0.000570 u	ppm	0.003036	> 100.00	13.573500	Y 377.433
Ti (336.122 nm)	0.001025	ppm	0.000054	5.30	-372.322000	Y 377.433
Tl (190.794 nm)	0.000297 u	ppm	0.000762	> 100.00	0.828984	Y 377.433
U (409.013 nm)	0.007397	ppm	0.003128	42.30	-18.583300	Y 377.433
V (292.401 nm)	0.000382	ppm	0.000111	29.18	-160.201000	Y 377.433
Zn (206.200 nm)	0.004393	ppm	0.000079	1.79	25.629200	Y 377.433
Zr (343.823 nm)	0.000498	ppm	0.000234	46.97	-145.780000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124237	25174.432066	0.000203	0.02
Y 377.433	1.124076	726295.320531	0.000567	0.05
Y_R 377.433	1.140320	62774.800000	0.002197	0.19
Y_R 488.368	1.134760	54839.500000	0.005083	0.45
Y_R2 488.368	1.132078	104926.007126	0.000118	0.01
Y_R4	1.125030	48173.200000	0.003125	0.28

Sample Name: lcs 280-458910/2-a

Date: 5/23/2019 6:35:21 PM Rack:Tube: 1:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050042	ppm	0.000171	0.34	1205.610000	Y 377.433
Al (394.401 nm)	9.859000 o	ppm	0.000117	0.00	118181.000000	Y 377.433
Al H (396.152 nm)	9.922070	ppm	0.014414	0.15	20681.900000	Y_R 377.433
As (188.980 nm)	1.984240	ppm	0.004466	0.23	3160.070000	Y 242.219
B (249.678 nm)	0.968687	ppm	0.003430	0.35	6974.030000	Y 242.219
Ba (493.408 nm)	1.978570	ppm	0.000008	0.00	193090.000000	Y_R 488.368
Be (234.861 nm)	0.971714	ppm	0.001061	0.11	97927.200000	Y_R 488.368
Bi (223.061 nm)	1.888920	ppm	0.004703	0.25	4294.810000	Y 377.433
Ca (315.887 nm)	49.128385	ppm	0.016507	0.03	39603.822924	Y_R 377.433
Cd (214.439 nm)	0.974717	ppm	0.000681	0.07	38996.200000	Y 377.433
Co (228.615 nm)	0.969115	ppm	0.001765	0.18	23984.100000	Y 242.219
Cr (205.560 nm)	0.975723	ppm	0.008272	0.85	6900.690000	Y 377.433
Cu (324.754 nm)	0.971932	ppm	0.002591	0.27	45599.100000	Y 377.433
Fe (238.204 nm)	9.943759 o	ppm	0.007446	0.07	24511.889639	Y_R 377.433
Fe H (259.940 nm)	9.926270	ppm	0.012272	0.12	13970.100000	Y_R 377.433
K (766.491 nm)	48.469600	ppm	0.369501	0.76	50089.100000	Y_R2 488.368
Li (670.783 nm)	0.989748	ppm	0.007226	0.73	14603.600000	Y_R2 488.368
Mg (279.078 nm)	48.863500	ppm	0.034581	0.07	173097.000000	Y 377.433
Mn (257.610 nm)	0.992643	ppm	0.000256	0.03	274543.000000	Y 377.433
Mo (202.032 nm)	0.999507	ppm	0.000951	0.10	12741.700000	Y 377.433
Na (589.592 nm)	47.031200	ppm	0.379732	0.81	35354.400000	Y_R2 488.368
Na H (589.593 nm)	51.872843	ppm	0.091180	0.18	26126.066678	Y_R4
Ni (231.604 nm)	0.962193	ppm	0.002257	0.23	5368.240000	Y 377.433
P (213.618 nm)	19.713100	ppm	0.037838	0.19	29549.400000	Y 242.219
Pb (220.353 nm)	0.981126	ppm	0.000673	0.07	3381.900000	Y 242.219
S (181.972 nm)	9.937598	ppm	0.031683	0.32	4477.208792	Y 377.433
Sb (206.834 nm)	0.000634 u	ppm	0.003135	> 100.00	-11.294500	Y 377.433
Se (196.026 nm)	1.925690	ppm	0.008660	0.45	3139.070000	Y 242.219
Si (288.158 nm)	0.763273	ppm	0.001192	0.16	5542.830000	Y 377.433
Sn (189.925 nm)	1.947380	ppm	0.002555	0.13	3398.890000	Y 377.433
Sr (421.552 nm)	0.992358	ppm	0.000105	0.01	145181.423049	Y_R 488.368
Th (288.505 nm)	1.014240	ppm	0.008655	0.85	1691.670000	Y 377.433
Ti (336.122 nm)	0.990334	ppm	0.000600	0.06	128429.000000	Y 377.433
Tl (190.794 nm)	1.957330	ppm	0.004960	0.25	4732.690000	Y 377.433
U (409.013 nm)	1.962740	ppm	0.001313	0.07	6048.350000	Y 377.433
V (292.401 nm)	0.980999	ppm	0.000691	0.07	51559.700000	Y 377.433
Zn (206.200 nm)	0.482792	ppm	0.001612	0.33	2401.510000	Y 377.433
Zr (343.823 nm)	0.490601	ppm	0.000541	0.11	28113.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071091	23984.370873	0.000199	0.02
Y 377.433	1.078197	696651.707287	0.000676	0.06
Y_R 377.433	1.117410	61513.800000	0.000099	0.01
Y_R 488.368	1.112950	53785.300000	0.000143	0.01
Y_R2 488.368	1.098196	101785.741904	0.009057	0.82
Y_R4	1.110080	47532.900000	0.000932	0.08

Sample Name: 280-123861-a-1-a

Date: 5/23/2019 6:38:58 PM Rack:Tube: 1:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000256 u	ppm	0.000578	> 100.00	-364.741000	Y 377.433
Al (394.401 nm)	156.648000 o	ppm	0.213863	0.14	1871820.000000	Y 377.433
Al H (396.152 nm)	157.854000	ppm	0.090835	0.06	325279.000000	Y_R 377.433
As (188.980 nm)	0.067525	ppm	0.001416	2.10	101.906000	Y 242.219
B (249.678 nm)	0.383808	ppm	0.001546	0.40	2699.200000	Y 242.219
Ba (493.408 nm)	0.802575	ppm	0.001825	0.23	79290.600000	Y_R 488.368
Be (234.861 nm)	0.006182	ppm	0.000212	3.43	-44.800500	Y_R 488.368
Bi (223.061 nm)	-0.003273 u	ppm	0.003048	93.13	4.619350	Y 377.433
Ca (315.887 nm)	321.343820	ppm	0.463437	0.14	259411.438043	Y_R 377.433
Cd (214.439 nm)	0.001799	ppm	0.000018	1.00	131.448000	Y 377.433
Co (228.615 nm)	0.070121	ppm	0.000323	0.46	1985.630000	Y 242.219
Cr (205.560 nm)	0.157207	ppm	0.000444	0.28	1103.320000	Y 377.433
Cu (324.754 nm)	0.170933	ppm	0.000017	0.01	8158.050000	Y 377.433
Fe (238.204 nm)	152.829300 o	ppm	0.254167	0.17	376690.105885	Y_R 377.433
Fe H (259.940 nm)	153.809000	ppm	0.200951	0.13	215154.000000	Y_R 377.433
K (766.491 nm)	30.766600	ppm	0.000474	0.00	32518.300000	Y_R2 488.368
Li (670.783 nm)	0.311876	ppm	0.002008	0.64	2799.430000	Y_R2 488.368
Mg (279.078 nm)	76.297300	ppm	0.043862	0.06	270129.000000	Y 377.433
Mn (257.610 nm)	3.382140	ppm	0.004590	0.14	935479.000000	Y 377.433
Mo (202.032 nm)	0.011299	ppm	0.001333	11.80	167.168000	Y 377.433
Na (589.592 nm)	23.082800	ppm	0.011889	0.05	17373.400000	Y_R2 488.368
Na H (589.593 nm)	25.156717 u	ppm	0.196602	0.78	12839.027731	Y_R4
Ni (231.604 nm)	0.129826	ppm	0.000208	0.16	714.161000	Y 377.433
P (213.618 nm)	5.506460	ppm	0.012682	0.23	8287.810000	Y 242.219
Pb (220.353 nm)	0.079496	ppm	0.001675	2.11	248.950000	Y 242.219
S (181.972 nm)	6.655790	ppm	0.007146	0.11	3023.177240	Y 377.433
Sb (206.834 nm)	-0.000254 u	ppm	0.004115	> 100.00	-20.719800	Y 377.433
Se (196.026 nm)	0.004969	ppm	0.000123	2.48	-18.818600	Y 242.219
Si (288.158 nm)	2.402580	ppm	0.002455	0.10	16356.200000	Y 377.433
Sn (189.925 nm)	0.009749	ppm	0.000424	4.35	19.240500	Y 377.433
Sr (421.552 nm)	0.709348	ppm	0.001448	0.20	103812.109817	Y_R 488.368
Th (288.505 nm)	0.068641	ppm	0.000734	1.07	137.893000	Y 377.433
Ti (336.122 nm)	5.889140	ppm	0.007027	0.12	766271.000000	Y 377.433
Tl (190.794 nm)	0.013125	ppm	0.002154	16.41	-26.641800	Y 377.433
U (409.013 nm)	-0.020386 u	ppm	0.004600	22.56	-49.131600	Y 377.433
V (292.401 nm)	0.368550	ppm	0.000032	0.01	19577.900000	Y 377.433
Zn (206.200 nm)	0.412796	ppm	0.000136	0.03	2076.090000	Y 377.433
Zr (343.823 nm)	0.107467	ppm	0.000186	0.17	6022.050000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105953	24765.025848	0.003618	0.33
Y 377.433	1.112531	718835.629738	0.001652	0.15
Y_R 377.433	1.169350	64373.300000	0.000188	0.02
Y_R 488.368	1.163280	56217.900000	0.001610	0.14
Y_R2 488.368	1.162101	107708.716325	0.001705	0.15
Y_R4	1.174820	50305.100000	0.004747	0.40

Sample Name: 280-123861-a-2-a

Date: 5/23/2019 6:42:47 PM Rack:Tube: 1:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000295	ppm	0.000125	42.42	-366.585000	Y 377.433
Al (394.401 nm)	162.574000 o	ppm	0.239483	0.15	1942690.000000	Y 377.433
Al H (396.152 nm)	165.168000	ppm	0.109094	0.07	340459.000000	Y_R 377.433
As (188.980 nm)	0.067118	ppm	0.001288	1.92	101.009000	Y 242.219
B (249.678 nm)	0.339758	ppm	0.000081	0.02	2378.470000	Y 242.219
Ba (493.408 nm)	1.022440	ppm	0.002214	0.22	100594.000000	Y_R 488.368
Be (234.861 nm)	0.006927	ppm	0.000097	1.40	-7.195680	Y_R 488.368
Bi (223.061 nm)	-0.009470 u	ppm	0.000264	2.79	-7.951300	Y 377.433
Ca (315.887 nm)	392.793029	ppm	0.613909	0.16	317097.033883	Y_R 377.433
Cd (214.439 nm)	0.001825	ppm	0.000094	5.17	136.275000	Y 377.433
Co (228.615 nm)	0.068152	ppm	0.001296	1.90	1939.350000	Y 242.219
Cr (205.560 nm)	0.169589	ppm	0.000828	0.49	1190.880000	Y 377.433
Cu (324.754 nm)	0.172822	ppm	0.000494	0.29	8211.920000	Y 377.433
Fe (238.204 nm)	161.223195 o	ppm	0.213207	0.13	397379.022101	Y_R 377.433
Fe H (259.940 nm)	162.371000	ppm	0.177518	0.11	227126.000000	Y_R 377.433
K (766.491 nm)	33.922200	ppm	0.034222	0.10	35650.400000	Y_R2 488.368
Li (670.783 nm)	0.291318	ppm	0.000080	0.03	2441.440000	Y_R2 488.368
Mg (279.078 nm)	78.097100	ppm	0.063412	0.08	276494.000000	Y 377.433
Mn (257.610 nm)	3.119620	ppm	0.002203	0.07	862865.000000	Y 377.433
Mo (202.032 nm)	0.007093	ppm	0.000114	1.60	113.643000	Y 377.433
Na (589.592 nm)	18.201800	ppm	0.033030	0.18	13802.800000	Y_R2 488.368
Na H (589.593 nm)	20.367238 u	ppm	0.151566	0.74	10457.021265	Y_R4
Ni (231.604 nm)	0.129028	ppm	0.001687	1.31	709.701000	Y 377.433
P (213.618 nm)	6.330140	ppm	0.004621	0.07	9534.460000	Y 242.219
Pb (220.353 nm)	0.082409	ppm	0.004215	5.12	257.528000	Y 242.219
S (181.972 nm)	5.388286	ppm	0.020652	0.38	2456.376481	Y 377.433
Sb (206.834 nm)	0.001721	ppm	0.000143	8.31	-16.572600	Y 377.433
Se (196.026 nm)	0.003936	ppm	0.000362	9.19	-23.285500	Y 242.219
Si (288.158 nm)	2.856380	ppm	0.001544	0.05	19349.600000	Y 377.433
Sn (189.925 nm)	0.011595	ppm	0.000426	3.68	22.460700	Y 377.433
Sr (421.552 nm)	1.023493	ppm	0.001243	0.12	149756.965586	Y_R 488.368
Th (288.505 nm)	0.082730	ppm	0.001655	2.00	154.134000	Y 377.433
Ti (336.122 nm)	5.941140	ppm	0.004538	0.08	773274.000000	Y 377.433
Tl (190.794 nm)	0.016227	ppm	0.001209	7.45	-23.237600	Y 377.433
U (409.013 nm)	-0.031276 u	ppm	0.002778	8.88	-85.620500	Y 377.433
V (292.401 nm)	0.374503	ppm	0.000326	0.09	19894.700000	Y 377.433
Zn (206.200 nm)	0.426354	ppm	0.000348	0.08	2144.710000	Y 377.433
Zr (343.823 nm)	0.103093	ppm	0.000059	0.06	5769.890000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114066	24946.695231	0.000418	0.04
Y 377.433	1.122038	724978.395634	0.001223	0.11
Y_R 377.433	1.172690	64557.100000	0.003522	0.30
Y_R 488.368	1.167430	56418.600000	0.004973	0.43
Y_R2 488.368	1.165747	108046.645639	0.000886	0.08
Y_R4	1.185040	50742.900000	0.008438	0.71

Sample Name: 280-123861-a-3-a

Date: 5/23/2019 6:46:35 PM Rack:Tube: 1:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000243	ppm	0.000000	0.03	-370.924000	Y 377.433
Al (394.401 nm)	178.020000 bo	ppm	0.292534	0.16	2130700.000000	Y 377.433
Al H (396.152 nm)	177.738000 b	ppm	0.744731	0.42	371822.000000	Y_R 377.433
As (188.980 nm)	0.068778	ppm	0.003157	4.59	103.490000	Y 242.219
B (249.678 nm)	0.327089	ppm	0.000174	0.05	2284.330000	Y 242.219
Ba (493.408 nm)	2.559910	ppm	0.008510	0.33	249523.000000	Y_R 488.368
Be (234.861 nm)	0.007224	ppm	0.000212	2.94	-2.171830	Y_R 488.368
Bi (223.061 nm)	-0.007960 u	ppm	0.001577	19.81	-3.458870	Y 377.433
Ca (315.887 nm)	309.959057	ppm	1.011806	0.33	250225.805542	Y_R 377.433
Cd (214.439 nm)	0.001561	ppm	0.000048	3.09	128.230000	Y 377.433
Co (228.615 nm)	0.071000	ppm	0.000923	1.30	1996.280000	Y 242.219
Cr (205.560 nm)	0.178685	ppm	0.001067	0.60	1254.900000	Y 377.433
Cu (324.754 nm)	0.195120	ppm	0.000361	0.18	9300.050000	Y 377.433
Fe (238.204 nm)	166.894947 o	ppm	0.495847	0.30	411358.516509	Y_R 377.433
Fe H (259.940 nm)	168.093000	ppm	0.537134	0.32	235127.000000	Y_R 377.433
K (766.491 nm)	38.929700	ppm	0.038567	0.10	40620.500000	Y_R2 488.368
Li (670.783 nm)	0.301313	ppm	0.003895	1.29	2615.490000	Y_R2 488.368
Mg (279.078 nm)	80.925700	ppm	0.058349	0.07	286508.000000	Y 377.433
Mn (257.610 nm)	3.442360	ppm	0.006440	0.19	952136.000000	Y 377.433
Mo (202.032 nm)	0.006253	ppm	0.000144	2.30	102.955000	Y 377.433
Na (589.592 nm)	17.958200	ppm	0.021501	0.12	13937.600000	Y_R2 488.368
Na H (589.593 nm)	21.767343 u	ppm	0.023170	0.11	11153.351302	Y_R4
Ni (231.604 nm)	0.133978	ppm	0.001144	0.85	737.366000	Y 377.433
P (213.618 nm)	5.087090	ppm	0.016662	0.33	7647.560000	Y 242.219
Pb (220.353 nm)	0.086332	ppm	0.002745	3.18	268.701000	Y 242.219
S (181.972 nm)	10.455865	ppm	0.002770	0.03	4729.892485	Y 377.433
Sb (206.834 nm)	0.000223 u	ppm	0.000580	> 100.00	-17.327900	Y 377.433
Se (196.026 nm)	0.005669	ppm	0.000530	9.35	-21.592000	Y 242.219
Si (288.158 nm)	2.717570	ppm	0.002087	0.08	18434.000000	Y 377.433
Sn (189.925 nm)	0.012152	ppm	0.001093	8.99	23.431600	Y 377.433
Sr (421.552 nm)	14.947486 bo	ppm	0.052998	0.35	2186137.059720	Y_R 488.368
Th (288.505 nm)	0.076805	ppm	0.003716	4.84	150.331000	Y 377.433
Ti (336.122 nm)	5.650580	ppm	0.006295	0.11	735217.000000	Y 377.433
Tl (190.794 nm)	0.016363	ppm	0.001185	7.24	-18.326200	Y 377.433
U (409.013 nm)	-0.043266 u	ppm	0.009905	22.89	-109.774000	Y 377.433
V (292.401 nm)	0.386664	ppm	0.000045	0.01	20527.200000	Y 377.433
Zn (206.200 nm)	0.444510	ppm	0.000583	0.13	2235.710000	Y 377.433
Zr (343.823 nm)	0.114381	ppm	0.000169	0.15	6420.770000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.118316	25041.847297	0.000970	0.09
Y 377.433	1.125825	727425.043067	0.000268	0.02
Y_R 377.433	1.179910	64954.500000	0.003265	0.28
Y_R 488.368	1.174260	56748.500000	0.002767	0.24
Y_R2 488.368	1.171681	108596.574288	0.002949	0.25
Y_R4	1.185600	50766.900000	0.001671	0.14

Sample Name: 280-123861-a-3-aSD@5

Date: 5/23/2019 6:50:23 PM Rack:Tube: 1:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000159 u	ppm	0.000286	> 100.00	-268.747000	Y 377.433
Al (394.401 nm)	37.614400 o	ppm	0.033820	0.09	450316.000000	Y 377.433
Al H (396.152 nm)	37.678200	ppm	0.080694	0.21	78648.400000	Y_R 377.433
As (188.980 nm)	0.016899	ppm	0.001353	8.00	24.582900	Y 242.219
B (249.678 nm)	0.068126	ppm	0.000586	0.86	504.331000	Y 242.219
Ba (493.408 nm)	0.539431	ppm	0.000571	0.11	53711.500000	Y_R 488.368
Be (234.861 nm)	0.001539	ppm	0.000060	3.87	-7.535970	Y_R 488.368
Bi (223.061 nm)	0.003979	ppm	0.001724	43.34	0.104350	Y 377.433
Ca (315.887 nm)	67.073920	ppm	0.164233	0.24	54099.083973	Y_R 377.433
Cd (214.439 nm)	0.000517	ppm	0.000087	16.82	28.850900	Y 377.433
Co (228.615 nm)	0.015897	ppm	0.000425	2.67	426.753000	Y 242.219
Cr (205.560 nm)	0.037946	ppm	0.000283	0.74	261.798000	Y 377.433
Cu (324.754 nm)	0.040622	ppm	0.000493	1.21	2258.100000	Y 377.433
Fe (238.204 nm)	36.223881 o	ppm	0.130202	0.36	89286.018850	Y_R 377.433
Fe H (259.940 nm)	36.335000	ppm	0.077221	0.21	50896.200000	Y_R 377.433
K (766.491 nm)	7.938050	ppm	0.104029	1.31	9860.340000	Y_R2 488.368
Li (670.783 nm)	0.072839	ppm	0.006397	8.78	-1363.080000	Y_R2 488.368
Mg (279.078 nm)	17.409900	ppm	0.036092	0.21	61646.400000	Y 377.433
Mn (257.610 nm)	0.754078	ppm	0.001174	0.16	208556.000000	Y 377.433
Mo (202.032 nm)	0.000748	ppm	0.000058	7.79	32.900000	Y 377.433
Na (589.592 nm)	3.848530	ppm	0.005688	0.15	3071.470000	Y_R2 488.368
Na H (589.593 nm)	4.629114 u	ppm	0.011126	0.24	2629.798525	Y_R4
Ni (231.604 nm)	0.027404	ppm	0.000710	2.59	141.778000	Y 377.433
P (213.618 nm)	1.068170	ppm	0.002581	0.24	1602.640000	Y 242.219
Pb (220.353 nm)	0.018650	ppm	0.000693	3.72	68.399700	Y 242.219
S (181.972 nm)	2.186747	ppm	0.011534	0.53	995.541618	Y 377.433
Sb (206.834 nm)	0.004559	ppm	0.001762	38.65	-1.594950	Y 377.433
Se (196.026 nm)	0.000461 u	ppm	0.001016	> 100.00	2.371350	Y 242.219
Si (288.158 nm)	0.572073	ppm	0.002466	0.43	4281.610000	Y 377.433
Sn (189.925 nm)	0.001488	ppm	0.000568	38.17	4.831760	Y 377.433
Sr (421.552 nm)	3.181925	ppm	0.006327	0.20	465408.715773	Y_R 488.368
Th (288.505 nm)	0.007827	ppm	0.006943	88.71	29.042200	Y 377.433
Ti (336.122 nm)	1.202220	ppm	0.001956	0.16	156029.000000	Y 377.433
Tl (190.794 nm)	0.003053	ppm	0.000718	23.53	-4.957590	Y 377.433
U (409.013 nm)	0.008033 u	ppm	0.013077	> 100.00	-1.936960	Y 377.433
V (292.401 nm)	0.083240	ppm	0.000261	0.31	4275.200000	Y 377.433
Zn (206.200 nm)	0.099833	ppm	0.000152	0.15	504.873000	Y 377.433
Zr (343.823 nm)	0.024778	ppm	0.000005	0.02	1254.180000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.109128	24836.118871	0.001975	0.18
Y 377.433	1.109880	717122.317560	0.002398	0.22
Y_R 377.433	1.134660	62463.500000	0.003810	0.34
Y_R 488.368	1.129760	54597.700000	0.004000	0.35
Y_R2 488.368	1.130301	104761.356123	0.006481	0.57
Y_R4	1.138560	48752.400000	0.007510	0.66

Sample Name: 280-123861-a-3-b ms

Date: 5/23/2019 6:54:05 PM Rack:Tube: 1:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052297	ppm	0.000703	1.35	1173.080000	Y 377.433
Al (394.401 nm)	182.989000 o	ppm	0.010624	0.01	2187360.000000	Y 377.433
Al H (396.152 nm)	186.537000	ppm	0.256935	0.14	385693.000000	Y_R 377.433
As (188.980 nm)	2.053950	ppm	0.003012	0.15	3267.270000	Y 242.219
B (249.678 nm)	1.299100	ppm	0.003173	0.24	9263.870000	Y 242.219
Ba (493.408 nm)	3.238950	ppm	0.000177	0.01	315279.000000	Y_R 488.368
Be (234.861 nm)	0.981872	ppm	0.003082	0.31	98367.000000	Y_R 488.368
Bi (223.061 nm)	1.898870	ppm	0.004200	0.22	4341.880000	Y 377.433
Ca (315.887 nm)	559.494009	ppm	1.268515	0.23	451686.798624	Y_R 377.433
Cd (214.439 nm)	0.932355	ppm	0.001076	0.12	37360.500000	Y 377.433
Co (228.615 nm)	0.995294	ppm	0.002152	0.22	24855.100000	Y 242.219
Cr (205.560 nm)	1.115170	ppm	0.004313	0.39	7884.120000	Y 377.433
Cu (324.754 nm)	1.150370	ppm	0.005537	0.48	53599.300000	Y 377.433
Fe (238.204 nm)	144.633864 o	ppm	0.322763	0.22	356490.342257	Y_R 377.433
Fe H (259.940 nm)	145.987000	ppm	0.261056	0.18	204216.000000	Y_R 377.433
K (766.491 nm)	89.506600	ppm	0.279033	0.31	90819.500000	Y_R2 488.368
Li (670.783 nm)	1.252790	ppm	0.005744	0.46	19184.200000	Y_R2 488.368
Mg (279.078 nm)	119.041000	ppm	0.156945	0.13	421556.000000	Y 377.433
Mn (257.610 nm)	3.957830	ppm	0.003165	0.08	1094710.000000	Y 377.433
Mo (202.032 nm)	0.930259	ppm	0.000776	0.08	11860.600000	Y 377.433
Na (589.592 nm)	63.370800 o	ppm	0.118604	0.19	47716.600000	Y_R2 488.368
Na H (589.593 nm)	71.475063	ppm	0.364115	0.51	35875.064653	Y_R4
Ni (231.604 nm)	1.039720	ppm	0.001079	0.10	5801.310000	Y 377.433
P (213.618 nm)	24.305400	ppm	0.085190	0.35	36457.900000	Y 242.219
Pb (220.353 nm)	1.017490	ppm	0.001281	0.13	3467.920000	Y 242.219
S (181.972 nm)	14.509158	ppm	0.037954	0.26	6564.129750	Y 377.433
Sb (206.834 nm)	0.005785	ppm	0.002835	49.00	-10.988900	Y 377.433
Se (196.026 nm)	1.933360	ppm	0.007173	0.37	3118.430000	Y 242.219
Si (288.158 nm)	5.498600	ppm	0.023195	0.42	36778.500000	Y 377.433
Sn (189.925 nm)	1.783520	ppm	0.000604	0.03	3113.080000	Y 377.433
Sr (421.552 nm)	3.980685	ppm	0.007509	0.19	582242.909825	Y_R 488.368
Th (288.505 nm)	1.060040	ppm	0.005284	0.50	1768.810000	Y 377.433
Ti (336.122 nm)	5.798150	ppm	0.000746	0.01	755261.000000	Y 377.433
Tl (190.794 nm)	1.850680	ppm	0.002992	0.16	4416.570000	Y 377.433
U (409.013 nm)	1.914030	ppm	0.001528	0.08	5916.460000	Y 377.433
V (292.401 nm)	1.305620	ppm	0.001750	0.13	68955.000000	Y 377.433
Zn (206.200 nm)	0.822227	ppm	0.003529	0.43	4106.930000	Y 377.433
Zr (343.823 nm)	0.581289	ppm	0.000421	0.07	33342.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071875	24001.925097	0.003737	0.35
Y 377.433	1.083563	700118.617587	0.003190	0.29
Y_R 377.433	1.143780	62965.400000	0.000656	0.06
Y_R 488.368	1.136210	54909.400000	0.002292	0.20
Y_R2 488.368	1.125511	104317.411829	0.001607	0.14
Y_R4	1.153030	49372.200000	0.004968	0.43

Sample Name: 280-123861-a-3-c msd

Date: 5/23/2019 6:57:51 PM Rack:Tube: 1:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050796	ppm	0.000571	1.12	1135.700000	Y 377.433
Al (394.401 nm)	162.931000 o	ppm	0.248221	0.15	1947460.000000	Y 377.433
Al H (396.152 nm)	163.597000	ppm	0.425110	0.26	338106.000000	Y_R 377.433
As (188.980 nm)	2.002050	ppm	0.002900	0.14	3184.870000	Y 242.219
B (249.678 nm)	1.230990	ppm	0.001939	0.16	8781.620000	Y 242.219
Ba (493.408 nm)	2.760900	ppm	0.010368	0.38	268965.000000	Y_R 488.368
Be (234.861 nm)	0.962964	ppm	0.002545	0.26	96504.600000	Y_R 488.368
Bi (223.061 nm)	1.879570	ppm	0.000745	0.04	4296.020000	Y 377.433
Ca (315.887 nm)	202.587653	ppm	0.273857	0.14	163536.532677	Y_R 377.433
Cd (214.439 nm)	0.939275	ppm	0.000034	0.00	37633.000000	Y 377.433
Co (228.615 nm)	0.997445	ppm	0.001133	0.11	24894.300000	Y 242.219
Cr (205.560 nm)	1.101780	ppm	0.000920	0.08	7789.890000	Y 377.433
Cu (324.754 nm)	1.120510	ppm	0.004748	0.42	52411.400000	Y 377.433
Fe (238.204 nm)	134.325178 o	ppm	0.134586	0.10	331081.930796	Y_R 377.433
Fe H (259.940 nm)	135.259000	ppm	0.171203	0.13	189217.000000	Y_R 377.433
K (766.491 nm)	81.845900	ppm	0.322570	0.39	83216.000000	Y_R2 488.368
Li (670.783 nm)	1.208050	ppm	0.000845	0.07	18405.000000	Y_R2 488.368
Mg (279.078 nm)	109.837000	ppm	0.119430	0.11	388962.000000	Y 377.433
Mn (257.610 nm)	3.700030	ppm	0.004628	0.13	1023410.000000	Y 377.433
Mo (202.032 nm)	0.932889	ppm	0.001100	0.12	11894.100000	Y 377.433
Na (589.592 nm)	59.973800 o	ppm	0.166060	0.28	45102.100000	Y_R2 488.368
Na H (589.593 nm)	66.833159	ppm	0.213353	0.32	33566.453073	Y_R4
Ni (231.604 nm)	1.039090	ppm	0.001570	0.15	5797.840000	Y 377.433
P (213.618 nm)	22.788900	ppm	0.003110	0.01	34170.800000	Y 242.219
Pb (220.353 nm)	1.016600	ppm	0.004189	0.41	3469.390000	Y 242.219
S (181.972 nm)	13.569998	ppm	0.022880	0.17	6124.514856	Y 377.433
Sb (206.834 nm)	0.002778	ppm	0.002349	84.55	-15.929400	Y 377.433
Se (196.026 nm)	1.909460	ppm	0.009819	0.51	3082.050000	Y 242.219
Si (288.158 nm)	4.486940	ppm	0.021185	0.47	30105.300000	Y 377.433
Sn (189.925 nm)	1.813100	ppm	0.000015	0.00	3164.680000	Y 377.433
Sr (421.552 nm)	2.979874	ppm	0.013153	0.44	435873.185476	Y_R 488.368
Th (288.505 nm)	1.046040	ppm	0.005986	0.57	1754.480000	Y 377.433
Ti (336.122 nm)	5.492010	ppm	0.006347	0.12	714244.000000	Y 377.433
Tl (190.794 nm)	1.872030	ppm	0.002508	0.13	4485.280000	Y 377.433
U (409.013 nm)	1.890460	ppm	0.010120	0.54	5883.490000	Y 377.433
V (292.401 nm)	1.258940	ppm	0.001286	0.10	66468.900000	Y 377.433
Zn (206.200 nm)	0.795478	ppm	0.000878	0.11	3972.600000	Y 377.433
Zr (343.823 nm)	0.564091	ppm	0.000528	0.09	32351.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.095354	24527.673355	0.000197	0.02
Y 377.433	1.102584	712408.672263	0.000038	0.00
Y_R 377.433	1.157820	63738.300000	0.000841	0.07
Y_R 488.368	1.151520	55649.400000	0.000675	0.06
Y_R2 488.368	1.134881	105185.795122	0.004688	0.41
Y_R4	1.160330	49684.500000	0.010487	0.90

Sample Name: 280-123861-a-3-aPDS

Date: 5/23/2019 7:01:35 PM Rack:Tube: 1:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.048132	ppm	0.000131	0.27	1304.740000	Y 377.433
Al (394.401 nm)	175.369000 bo	ppm	0.096960	0.06	2098980.000000	Y 377.433
Al H (396.152 nm)	174.828000 b	ppm	0.209156	0.12	365716.000000	Y_R 377.433
As (188.980 nm)	0.256030	ppm	0.003792	1.48	401.942000	Y 242.219
B (249.678 nm)	0.415611	ppm	0.000274	0.07	2920.570000	Y 242.219
Ba (493.408 nm)	2.598590	ppm	0.000499	0.02	253267.000000	Y_R 488.368
Be (234.861 nm)	0.052954	ppm	0.000240	0.45	4622.150000	Y_R 488.368
Bi (223.061 nm)	-0.007028 u	ppm	0.002806	39.93	-1.848830	Y 377.433
Ca (315.887 nm)	320.301137	ppm	0.271778	0.08	258574.617507	Y_R 377.433
Cd (214.439 nm)	0.046860	ppm	0.000039	0.08	1939.340000	Y 377.433
Co (228.615 nm)	0.114657	ppm	0.000273	0.24	3073.100000	Y 242.219
Cr (205.560 nm)	0.219838	ppm	0.001868	0.85	1546.290000	Y 377.433
Cu (324.754 nm)	0.240061	ppm	0.000071	0.03	11389.600000	Y 377.433
Fe (238.204 nm)	163.915521 o	ppm	0.092099	0.06	404014.953666	Y_R 377.433
Fe H (259.940 nm)	165.364000	ppm	0.170022	0.10	231310.000000	Y_R 377.433
K (766.491 nm)	57.071300	ppm	0.196747	0.34	58626.500000	Y_R2 488.368
Li (670.783 nm)	0.390051	ppm	0.000927	0.24	4160.740000	Y_R2 488.368
Mg (279.078 nm)	97.791800	ppm	0.082600	0.08	346265.000000	Y 377.433
Mn (257.610 nm)	3.421580	ppm	0.001034	0.03	946388.000000	Y 377.433
Mo (202.032 nm)	0.050913	ppm	0.000009	0.02	671.243000	Y 377.433
Na (589.592 nm)	36.264100	ppm	0.093565	0.26	27506.100000	Y_R2 488.368
Na H (589.593 nm)	41.111014 u	ppm	0.006016	0.01	20773.762397	Y_R4
Ni (231.604 nm)	0.175328	ppm	0.000304	0.17	968.661000	Y 377.433
P (213.618 nm)	6.895090	ppm	0.005612	0.08	10370.800000	Y 242.219
Pb (220.353 nm)	0.176006	ppm	0.002656	1.51	578.393000	Y 242.219
S (181.972 nm)	10.308377	ppm	0.011126	0.11	4664.112603	Y 377.433
Sb (206.834 nm)	0.097705	ppm	0.001075	1.10	154.641000	Y 377.433
Se (196.026 nm)	0.189343	ppm	0.000106	0.06	277.760000	Y 242.219
Si (288.158 nm)	7.145530	ppm	0.004721	0.07	47642.200000	Y 377.433
Sn (189.925 nm)	0.096987	ppm	0.000419	0.43	171.403000	Y 377.433
Sr (421.552 nm)	14.650289 bo	ppm	0.010295	0.07	2142671.652310	Y_R 488.368
Th (288.505 nm)	0.265259	ppm	0.003267	1.23	476.236000	Y 377.433
Ti (336.122 nm)	5.594790	ppm	0.006215	0.11	728000.000000	Y 377.433
Tl (190.794 nm)	0.196050	ppm	0.002688	1.37	417.061000	Y 377.433
U (409.013 nm)	0.415092	ppm	0.005950	1.43	1317.280000	Y 377.433
V (292.401 nm)	0.425707	ppm	0.000438	0.10	22577.400000	Y 377.433
Zn (206.200 nm)	0.612984	ppm	0.001103	0.18	3071.390000	Y 377.433
Zr (343.823 nm)	0.157365	ppm	0.000162	0.10	8899.210000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123168	25150.510609	0.002460	0.22
Y 377.433	1.129993	730118.440730	0.000668	0.06
Y_R 377.433	1.196130	65847.700000	0.002581	0.22
Y_R 488.368	1.190080	57512.900000	0.001454	0.12
Y_R2 488.368	1.180626	109425.678253	0.000427	0.04
Y_R4	1.197690	51284.500000	0.006473	0.54

Sample Name: 280-123861-a-4-a

Date: 5/23/2019 7:05:23 PM Rack:Tube: 1:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000457	ppm	0.000179	39.18	-352.314000	Y 377.433
Al (394.401 nm)	168.663000 o	ppm	0.138615	0.08	2015490.000000	Y 377.433
Al H (396.152 nm)	170.819000	ppm	0.154570	0.09	352152.000000	Y_R 377.433
As (188.980 nm)	0.068324	ppm	0.002518	3.69	102.825000	Y 242.219
B (249.678 nm)	0.356585	ppm	0.001229	0.34	2496.890000	Y 242.219
Ba (493.408 nm)	0.937444	ppm	0.001228	0.13	92364.100000	Y_R 488.368
Be (234.861 nm)	0.006666	ppm	0.000440	6.60	-49.751400	Y_R 488.368
Bi (223.061 nm)	-0.007965 u	ppm	0.000870	10.92	-3.838250	Y 377.433
Ca (315.887 nm)	392.690116	ppm	0.334973	0.09	317015.392706	Y_R 377.433
Cd (214.439 nm)	0.002108	ppm	0.000212	10.04	149.264000	Y 377.433
Co (228.615 nm)	0.070987	ppm	0.000027	0.04	2004.650000	Y 242.219
Cr (205.560 nm)	0.179574	ppm	0.001262	0.70	1261.430000	Y 377.433
Cu (324.754 nm)	0.181502	ppm	0.000384	0.21	8602.190000	Y 377.433
Fe (238.204 nm)	164.749614 o	ppm	0.161623	0.10	406070.789047	Y_R 377.433
Fe H (259.940 nm)	166.153000	ppm	0.218034	0.13	232413.000000	Y_R 377.433
K (766.491 nm)	36.499500	ppm	0.105566	0.29	38208.400000	Y_R2 488.368
Li (670.783 nm)	0.308114	ppm	0.001441	0.47	2733.910000	Y_R2 488.368
Mg (279.078 nm)	78.927400	ppm	0.001380	0.00	279430.000000	Y 377.433
Mn (257.610 nm)	3.408970	ppm	0.005019	0.15	942899.000000	Y 377.433
Mo (202.032 nm)	0.012071	ppm	0.000282	2.34	176.984000	Y 377.433
Na (589.592 nm)	21.083700	ppm	0.053004	0.25	15919.900000	Y_R2 488.368
Na H (589.593 nm)	23.118205 u	ppm	0.101199	0.44	11825.191049	Y_R4
Ni (231.604 nm)	0.140215	ppm	0.000226	0.16	772.226000	Y 377.433
P (213.618 nm)	5.484270	ppm	0.017401	0.32	8251.980000	Y 242.219
Pb (220.353 nm)	0.085967	ppm	0.001357	1.58	268.850000	Y 242.219
S (181.972 nm)	4.242938	ppm	0.003320	0.08	1942.850603	Y 377.433
Sb (206.834 nm)	0.001257	ppm	0.000774	61.54	-16.557500	Y 377.433
Se (196.026 nm)	0.003426	ppm	0.003037	88.65	-24.716200	Y 242.219
Si (288.158 nm)	2.959350	ppm	0.001121	0.04	20028.800000	Y 377.433
Sn (189.925 nm)	0.010995	ppm	0.002540	23.11	21.413300	Y 377.433
Sr (421.552 nm)	1.145745	ppm	0.001659	0.14	167636.906458	Y_R 488.368
Th (288.505 nm)	0.080788	ppm	0.001612	2.00	157.978000	Y 377.433
Ti (336.122 nm)	5.834730	ppm	0.007559	0.13	759444.000000	Y 377.433
Tl (190.794 nm)	0.018582	ppm	0.002406	12.95	-17.401300	Y 377.433
U (409.013 nm)	-0.034088 u	ppm	0.003863	11.33	-93.176600	Y 377.433
V (292.401 nm)	0.358545	ppm	0.000369	0.10	19030.300000	Y 377.433
Zn (206.200 nm)	0.427190	ppm	0.000786	0.18	2149.440000	Y 377.433
Zr (343.823 nm)	0.113208	ppm	0.000058	0.05	6353.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110413	24864.896254	0.006400	0.58
Y 377.433	1.116919	721670.551372	0.003271	0.29
Y_R 377.433	1.178380	64870.500000	0.003757	0.32
Y_R 488.368	1.169520	56519.600000	0.005257	0.45
Y_R2 488.368	1.157540	107285.963012	0.004696	0.41
Y_R4	1.181170	50576.900000	0.000608	0.05

Sample Name: CCVH-5713036

Date: 5/23/2019 7:09:14 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004313	ppm	0.000135	3.12	-104.631000	Y 377.433
Al (394.401 nm)	49.837100 o	ppm	0.036889	0.07	594387.000000	Y 377.433
Al H (396.152 nm)	49.438500	ppm	0.011996	0.02	101655.000000	Y_R 377.433
As (188.980 nm)	0.000732 u	ppm	0.001863	> 100.00	-1.552850	Y 242.219
B (249.678 nm)	-0.002027 u	ppm	0.000550	27.15	-6.078210	Y 242.219
Ba (493.408 nm)	0.001230	ppm	0.000224	18.19	1589.980000	Y_R 488.368
Be (234.861 nm)	0.001042	ppm	0.000081	7.78	-114.480000	Y_R 488.368
Bi (223.061 nm)	-0.001316 u	ppm	0.000092	6.97	-9.629560	Y 377.433
Ca (315.887 nm)	0.006948	ppm	0.002505	36.05	-43.857965	Y_R 377.433
Cd (214.439 nm)	0.001381	ppm	0.000101	7.29	69.168300	Y 377.433
Co (228.615 nm)	0.003375	ppm	0.000024	0.71	61.356200	Y 242.219
Cr (205.560 nm)	0.001653	ppm	0.000448	27.08	4.334650	Y 377.433
Cu (324.754 nm)	0.003759	ppm	0.000059	1.57	1518.520000	Y 377.433
Fe (238.204 nm)	49.188184 o	ppm	0.019409	0.04	121239.882345	Y_R 377.433
Fe H (259.940 nm)	49.341600	ppm	0.106860	0.22	69082.600000	Y_R 377.433
K (766.491 nm)	0.478323	ppm	0.033528	7.01	2456.340000	Y_R2 488.368
Li (670.783 nm)	0.014736	ppm	0.002360	16.02	-2374.860000	Y_R2 488.368
Mg (279.078 nm)	0.039988	ppm	0.000366	0.92	74.133900	Y 377.433
Mn (257.610 nm)	0.001161	ppm	0.000042	3.63	299.090000	Y 377.433
Mo (202.032 nm)	0.000552	ppm	0.000460	83.36	30.410300	Y 377.433
Na (589.592 nm)	236.081000 o	ppm	0.473786	0.20	174989.000000	Y_R2 488.368
Na H (589.593 nm)	254.036073	ppm	1.143455	0.45	126670.234578	Y_R4
Ni (231.604 nm)	0.002494	ppm	0.000133	5.33	2.570420	Y 377.433
P (213.618 nm)	4.909210	ppm	0.009434	0.19	7419.890000	Y 242.219
Pb (220.353 nm)	0.005670	ppm	0.000402	7.09	24.976900	Y 242.219
S (181.972 nm)	5.035309	ppm	0.009598	0.19	2269.691217	Y 377.433
Sb (206.834 nm)	0.008787	ppm	0.000188	2.13	12.317000	Y 377.433
Se (196.026 nm)	0.005549	ppm	0.002157	38.88	5.889830	Y 242.219
Si (288.158 nm)	0.016792	ppm	0.000992	5.91	618.811000	Y 377.433
Sn (189.925 nm)	-0.000181 u	ppm	0.000169	93.45	1.920050	Y 377.433
Sr (421.552 nm)	0.001104	ppm	0.000075	6.76	216.612561	Y_R 488.368
Th (288.505 nm)	4.957110	ppm	0.003502	0.07	8661.720000	Y 377.433
Ti (336.122 nm)	0.002618	ppm	0.000038	1.44	-165.155000	Y 377.433
Tl (190.794 nm)	0.000989	ppm	0.001390	> 100.00	-2.481990	Y 377.433
U (409.013 nm)	0.541690 Q	ppm	0.002043	0.38	1691.080000 Q	Y 377.433
V (292.401 nm)	0.001044	ppm	0.000059	5.63	372.404000	Y 377.433
Zn (206.200 nm)	0.002766	ppm	0.001088	39.34	25.132500	Y 377.433
Zr (343.823 nm)	0.001694	ppm	0.000109	6.46	-76.818500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.082130	24231.553842	0.002149	0.20
Y 377.433	1.083034	699777.027347	0.001514	0.14
Y_R 377.433	1.118030	61547.700000	0.003456	0.31
Y_R 488.368	1.113290	53801.800000	0.001501	0.13
Y_R2 488.368	1.108227	102715.396570	0.007941	0.72
Y_R4	1.122770	48076.600000	0.008141	0.73

Sample Name: CCV-5717467

Date: 5/23/2019 7:12:59 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.490503	ppm	0.000794	0.16	16952.000000	Y 377.433
Al (394.401 nm)	0.510372	ppm	0.000787	0.15	6351.250000	Y 377.433
Al H (396.152 nm)	0.552425 u	ppm	0.001054	0.19	1145.660000	Y_R 377.433
As (188.980 nm)	0.492563	ppm	0.001329	0.27	783.466000	Y 242.219
B (249.678 nm)	0.489578	ppm	0.001379	0.28	3544.520000	Y 242.219
Ba (493.408 nm)	0.489182	ppm	0.000377	0.08	48818.000000	Y_R 488.368
Be (234.861 nm)	0.480999	ppm	0.003160	0.66	48481.800000	Y_R 488.368
Bi (223.061 nm)	0.964758	ppm	0.000337	0.03	2185.550000	Y 377.433
Ca (315.887 nm)	4.926369	ppm	0.012099	0.25	3915.409544	Y_R 377.433
Cd (214.439 nm)	0.495461	ppm	0.000789	0.16	19817.300000	Y 377.433
Co (228.615 nm)	0.492327	ppm	0.000941	0.19	12172.800000	Y 242.219
Cr (205.560 nm)	0.494261	ppm	0.001668	0.34	3492.850000	Y 377.433
Cu (324.754 nm)	0.493569	ppm	0.001570	0.32	23328.700000	Y 377.433
Fe (238.204 nm)	2.473843	ppm	0.000304	0.01	6100.357334	Y_R 377.433
Fe H (259.940 nm)	2.436700 u	ppm	0.003845	0.16	3497.870000	Y_R 377.433
K (766.491 nm)	48.157300	ppm	0.131363	0.27	49779.100000	Y_R2 488.368
Li (670.783 nm)	0.501345	ppm	0.005264	1.05	6098.770000	Y_R2 488.368
Mg (279.078 nm)	19.629000	ppm	0.045240	0.23	69557.000000	Y 377.433
Mn (257.610 nm)	0.494157	ppm	0.001071	0.22	136662.000000	Y 377.433
Mo (202.032 nm)	0.492623	ppm	0.001568	0.32	6291.840000	Y 377.433
Na (589.592 nm)	23.940300	ppm	0.098428	0.41	17944.300000	Y_R2 488.368
Na H (589.593 nm)	26.193715 u	ppm	0.043910	0.17	13354.770112	Y_R4
Ni (231.604 nm)	0.493332	ppm	0.000373	0.08	2746.220000	Y 377.433
P (213.618 nm)	0.051968	ppm	0.001383	2.66	-66.338300	Y 242.219
Pb (220.353 nm)	0.496525	ppm	0.003254	0.66	1716.280000	Y 242.219
S (181.972 nm)	0.006330	ppm	0.000830	13.12	12.341131	Y 377.433
Sb (206.834 nm)	0.499424	ppm	0.003479	0.70	871.413000	Y 377.433
Se (196.026 nm)	0.496646	ppm	0.001604	0.32	817.853000	Y 242.219
Si (288.158 nm)	4.833420	ppm	0.014647	0.30	32390.800000	Y 377.433
Sn (189.925 nm)	0.491766	ppm	0.003214	0.65	859.981000	Y 377.433
Sr (421.552 nm)	0.492098	ppm	0.000180	0.04	72017.486403	Y_R 488.368
Th (288.505 nm)	0.014238	ppm	0.001198	8.41	-10.618900	Y 377.433
Ti (336.122 nm)	0.489026	ppm	0.000632	0.13	63096.400000	Y 377.433
Tl (190.794 nm)	0.500670	ppm	0.001465	0.29	1209.600000	Y 377.433
U (409.013 nm)	0.022509	ppm	0.005968	26.51	-30.238400	Y 377.433
V (292.401 nm)	0.488618	ppm	0.000826	0.17	25585.800000	Y 377.433
Zn (206.200 nm)	0.494141	ppm	0.001669	0.34	2456.700000	Y 377.433
Zr (343.823 nm)	0.490286	ppm	0.000407	0.08	28095.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103530	24710.770242	0.004194	0.38
Y 377.433	1.103267	712849.966309	0.003258	0.30
Y_R 377.433	1.132890	62366.000000	0.005084	0.45
Y_R 488.368	1.128710	54547.100000	0.005046	0.45
Y_R2 488.368	1.116146	103449.428162	0.007662	0.69
Y_R4	1.121290	48012.900000	0.006028	0.54

Sample Name: CCB

Date: 5/23/2019 7:16:36 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000227 u	ppm	0.000389	> 100.00	-254.036000	Y 377.433
Al (394.401 nm)	-0.001595 u	ppm	0.001942	> 100.00	111.532000	Y 377.433
Al H (396.152 nm)	0.124916 Zu	ppm	0.011998	9.61	31.791700 Z	Y_R 377.433
As (188.980 nm)	0.000256 u	ppm	0.001524	> 100.00	-0.897481	Y 242.219
B (249.678 nm)	-0.002783 u	ppm	0.000643	23.12	17.141700	Y 242.219
Ba (493.408 nm)	-0.001898 u	ppm	0.000346	18.22	1248.770000	Y_R 488.368
Be (234.861 nm)	-0.000006 u	ppm	0.000001	20.49	-6.316760	Y_R 488.368
Bi (223.061 nm)	0.002231	ppm	0.001690	75.77	-10.427300	Y 377.433
Ca (315.887 nm)	-0.007085 u	ppm	0.006763	95.46	-67.695266	Y_R 377.433
Cd (214.439 nm)	-0.000006 u	ppm	0.000111	> 100.00	-8.045840	Y 377.433
Co (228.615 nm)	0.000258	ppm	0.000080	31.12	-15.795900	Y 242.219
Cr (205.560 nm)	0.000547	ppm	0.000004	0.79	-2.092030	Y 377.433
Cu (324.754 nm)	0.000413	ppm	0.000152	36.72	430.778000	Y 377.433
Fe (238.204 nm)	0.001660	ppm	0.000906	54.60	7.024609	Y_R 377.433
Fe H (259.940 nm)	-0.052477 u	ppm	0.000734	1.40	17.374100	Y_R 377.433
K (766.491 nm)	-0.115574 u	ppm	0.046988	40.66	1866.880000	Y_R2 488.368
Li (670.783 nm)	0.016554 Z	ppm	0.002127	12.85	-2343.200000 Z	Y_R2 488.368
Mg (279.078 nm)	0.000135 u	ppm	0.001660	> 100.00	12.147300	Y 377.433
Mn (257.610 nm)	0.000071	ppm	0.000019	27.39	-2.489100	Y 377.433
Mo (202.032 nm)	-0.000655 u	ppm	0.000017	2.53	15.055200	Y 377.433
Na (589.592 nm)	0.095961	ppm	0.005083	5.30	181.117000	Y_R2 488.368
Na H (589.593 nm)	0.393218 u	ppm	0.028640	7.28	523.111404	Y_R4
Ni (231.604 nm)	-0.000261 u	ppm	0.000047	17.90	-12.829400	Y 377.433
P (213.618 nm)	0.000707 u	ppm	0.002448	> 100.00	-3.463840	Y 242.219
Pb (220.353 nm)	-0.001176 u	ppm	0.001594	> 100.00	8.895820	Y 242.219
S (181.972 nm)	-0.005041 u	ppm	0.001440	28.56	5.490704	Y 377.433
Sb (206.834 nm)	0.003426	ppm	0.001203	35.11	-1.484580	Y 377.433
Se (196.026 nm)	0.001107 u	ppm	0.002298	> 100.00	12.375400	Y 242.219
Si (288.158 nm)	-0.004986 u	ppm	0.000829	16.63	475.155000	Y 377.433
Sn (189.925 nm)	0.000015 u	ppm	0.000815	> 100.00	2.262120	Y 377.433
Sr (421.552 nm)	0.000022 u	ppm	0.000161	> 100.00	51.207591	Y_R 488.368
Th (288.505 nm)	0.000586 u	ppm	0.002654	> 100.00	15.596000	Y 377.433
Ti (336.122 nm)	0.000525	ppm	0.000030	5.76	-437.372000	Y 377.433
Tl (190.794 nm)	0.000007 u	ppm	0.001953	> 100.00	0.138761	Y 377.433
U (409.013 nm)	0.011451	ppm	0.002174	18.99	-5.931660	Y 377.433
V (292.401 nm)	0.000466	ppm	0.000238	51.05	-155.997000	Y 377.433
Zn (206.200 nm)	-0.000264 u	ppm	0.000055	20.97	2.506470	Y 377.433
Zr (343.823 nm)	0.000760	ppm	0.000130	17.09	-130.720000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115874	24987.172942	0.007388	0.66
Y 377.433	1.113703	719593.039104	0.004721	0.42
Y_R 377.433	1.133720	62411.800000	0.002090	0.18
Y_R 488.368	1.128450	54534.700000	0.000358	0.03
Y_R2 488.368	1.120713	103872.672294	0.001796	0.16
Y_R4	1.122760	48075.800000	0.006839	0.61

Sample Name: CCVL-5717307

Date: 5/23/2019 7:19:47 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008052	ppm	0.000345	4.29	35.399800	Y 377.433
Al (394.401 nm)	0.096125	ppm	0.000413	0.43	1286.030000	Y 377.433
Al H (396.152 nm)	0.225601 u	ppm	0.003997	1.77	244.483000	Y_R 377.433
As (188.980 nm)	0.013730	ppm	0.000234	1.71	20.569100	Y 242.219
B (249.678 nm)	0.092201	ppm	0.000748	0.81	697.844000	Y 242.219
Ba (493.408 nm)	0.007643	ppm	0.000089	1.17	2173.020000	Y_R 488.368
Be (234.861 nm)	0.001008	ppm	0.000036	3.58	95.478000	Y_R 488.368
Bi (223.061 nm)	0.088678	ppm	0.006103	6.88	186.773000	Y 377.433
Ca (315.887 nm)	0.210910	ppm	0.002250	1.07	108.322970	Y_R 377.433
Cd (214.439 nm)	0.005066	ppm	0.000011	0.21	194.936000	Y 377.433
Co (228.615 nm)	0.010684	ppm	0.000039	0.36	242.432000	Y 242.219
Cr (205.560 nm)	0.009679	ppm	0.000159	1.64	62.445100	Y 377.433
Cu (324.754 nm)	0.015381	ppm	0.000199	1.29	1125.310000	Y 377.433
Fe (238.204 nm)	0.104493	ppm	0.001251	1.20	260.483040	Y_R 377.433
Fe H (259.940 nm)	0.050617 u	ppm	0.000540	1.07	161.524000	Y_R 377.433
K (766.491 nm)	2.835230	ppm	0.061028	2.15	4795.640000	Y_R2 488.368
Li (670.783 nm)	0.033573 Q	ppm	0.001509	4.49	-2046.840000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202533	ppm	0.000150	0.07	728.044000	Y 377.433
Mn (257.610 nm)	0.010558	ppm	0.000003	0.03	2898.220000	Y 377.433
Mo (202.032 nm)	0.018852	ppm	0.000368	1.95	263.266000	Y 377.433
Na (589.592 nm)	1.133730	ppm	0.009772	0.86	951.788000	Y_R2 488.368
Na H (589.593 nm)	1.226566 u	ppm	0.004486	0.37	937.570011	Y_R4
Ni (231.604 nm)	0.041215	ppm	0.001125	2.73	218.984000	Y 377.433
P (213.618 nm)	2.784550	ppm	0.020736	0.74	4204.810000	Y 242.219
Pb (220.353 nm)	0.007248	ppm	0.001195	16.49	37.911100	Y 242.219
S (181.972 nm)	0.087870	ppm	0.008917	10.15	47.265601	Y 377.433
Sb (206.834 nm)	0.024436	ppm	0.001172	4.80	35.443700	Y 377.433
Se (196.026 nm)	0.017385	ppm	0.001117	6.42	38.820400	Y 242.219
Si (288.158 nm)	0.469246	ppm	0.002236	0.48	3603.330000	Y 377.433
Sn (189.925 nm)	0.097005	ppm	0.000664	0.68	171.434000	Y 377.433
Sr (421.552 nm)	0.009134	ppm	0.000031	0.34	1383.794459	Y_R 488.368
Th (288.505 nm)	0.016782	ppm	0.001411	8.41	43.349700	Y 377.433
Ti (336.122 nm)	0.010233	ppm	0.000030	0.29	825.576000	Y 377.433
Tl (190.794 nm)	0.017062	ppm	0.001836	10.76	41.330200	Y 377.433
U (409.013 nm)	0.068253	ppm	0.000724	1.06	170.867000	Y 377.433
V (292.401 nm)	0.010158	ppm	0.000069	0.68	352.867000	Y 377.433
Zn (206.200 nm)	0.020753	ppm	0.000099	0.48	106.833000	Y 377.433
Zr (343.823 nm)	0.009957	ppm	0.000121	1.22	399.610000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131237	25331.183161	0.001211	0.11
Y 377.433	1.128975	729460.692987	0.001100	0.10
Y_R 377.433	1.143900	62972.200000	0.000750	0.07
Y_R 488.368	1.139880	55086.900000	0.000391	0.03
Y_R2 488.368	1.126984	104453.941272	0.002926	0.26
Y_R4	1.128380	48316.800000	0.002378	0.21

Sample Name: 280-123861-a-5-a

Date: 5/23/2019 7:23:15 PM Rack:Tube: 1:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000517	ppm	0.000475	91.99	-371.462000	Y 377.433
Al (394.401 nm)	178.470000 o	ppm	0.064200	0.04	2132610.000000	Y 377.433
Al H (396.152 nm)	180.559000	ppm	0.548136	0.30	372181.000000	Y_R 377.433
As (188.980 nm)	0.079242	ppm	0.002853	3.60	120.169000	Y 242.219
B (249.678 nm)	0.289773	ppm	0.001001	0.35	2017.010000	Y 242.219
Ba (493.408 nm)	2.923490	ppm	0.007998	0.27	284740.000000	Y_R 488.368
Be (234.861 nm)	0.007174	ppm	0.000112	1.57	-6.134320	Y_R 488.368
Bi (223.061 nm)	-0.006055 u	ppm	0.000040	0.66	0.839322	Y 377.433
Ca (315.887 nm)	350.554552	ppm	1.434714	0.41	283000.175279	Y_R 377.433
Cd (214.439 nm)	0.001683	ppm	0.000076	4.49	133.021000	Y 377.433
Co (228.615 nm)	0.076644	ppm	0.000098	0.13	2133.800000	Y 242.219
Cr (205.560 nm)	0.182906	ppm	0.000084	0.05	1284.810000	Y 377.433
Cu (324.754 nm)	0.180847	ppm	0.000050	0.03	8613.320000	Y 377.433
Fe (238.204 nm)	166.528982 o	ppm	0.806462	0.48	410456.500880	Y_R 377.433
Fe H (259.940 nm)	167.928000	ppm	0.804126	0.48	234895.000000	Y_R 377.433
K (766.491 nm)	37.212400	ppm	0.063614	0.17	38916.000000	Y_R2 488.368
Li (670.783 nm)	0.328887	ppm	0.003088	0.94	3095.640000	Y_R2 488.368
Mg (279.078 nm)	86.747100	ppm	0.169897	0.20	307134.000000	Y 377.433
Mn (257.610 nm)	3.411590	ppm	0.003187	0.09	943624.000000	Y 377.433
Mo (202.032 nm)	0.003693	ppm	0.000286	7.75	70.378300	Y 377.433
Na (589.592 nm)	19.421600	ppm	0.008422	0.04	15095.900000	Y_R2 488.368
Na H (589.593 nm)	23.472521 u	ppm	0.029917	0.13	12001.407001	Y_R4
Ni (231.604 nm)	0.142991	ppm	0.001226	0.86	787.736000	Y 377.433
P (213.618 nm)	5.979980	ppm	0.019621	0.33	9002.300000	Y 242.219
Pb (220.353 nm)	0.089778	ppm	0.001099	1.22	280.585000	Y 242.219
S (181.972 nm)	5.884854	ppm	0.017525	0.30	2678.422821	Y 377.433
Sb (206.834 nm)	0.004959	ppm	0.003598	72.56	-8.739730	Y 377.433
Se (196.026 nm)	0.005786	ppm	0.006879	> 100.00	-21.370600	Y 242.219
Si (288.158 nm)	2.636660	ppm	0.004025	0.15	17900.300000	Y 377.433
Sn (189.925 nm)	0.010327	ppm	0.000431	4.17	20.248400	Y 377.433
Sr (421.552 nm)	1.013693	ppm	0.001507	0.15	148324.555473	Y_R 488.368
Th (288.505 nm)	0.079237	ppm	0.001234	1.56	150.172000	Y 377.433
Ti (336.122 nm)	5.604830	ppm	0.005548	0.10	729409.000000	Y 377.433
Tl (190.794 nm)	0.017667	ppm	0.000503	2.85	-16.580200	Y 377.433
U (409.013 nm)	-0.035247 u	ppm	0.010243	29.06	-90.382600	Y 377.433
V (292.401 nm)	0.412766	ppm	0.000640	0.15	21910.900000	Y 377.433
Zn (206.200 nm)	0.453000	ppm	0.001151	0.25	2277.810000	Y 377.433
Zr (343.823 nm)	0.115749	ppm	0.000252	0.22	6499.630000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110604	24869.159329	0.005497	0.49
Y 377.433	1.117839	722265.240078	0.005246	0.47
Y_R 377.433	1.175090	64689.200000	0.006724	0.57
Y_R 488.368	1.166770	56386.300000	0.005022	0.43
Y_R2 488.368	1.153296	106892.617760	0.002415	0.21
Y_R4	1.168190	50021.300000	0.003867	0.33

Sample Name: 280-123861-a-6-a

Date: 5/23/2019 7:27:05 PM Rack:Tube: 1:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000181	ppm	0.000065	35.76	-450.403000	Y 377.433
Al (394.401 nm)	144.994000 o	ppm	0.150646	0.10	1732980.000000	Y 377.433
Al H (396.152 nm)	146.852000	ppm	0.190444	0.13	303221.000000	Y_R 377.433
As (188.980 nm)	0.146512	ppm	0.002011	1.37	227.999000	Y 242.219
B (249.678 nm)	0.187956	ppm	0.001247	0.66	1300.270000	Y 242.219
Ba (493.408 nm)	0.718150	ppm	0.000826	0.11	71106.600000	Y_R 488.368
Be (234.861 nm)	0.005876	ppm	0.000132	2.25	-39.961200	Y_R 488.368
Bi (223.061 nm)	-0.006824 u	ppm	0.003580	52.47	-4.960360	Y 377.433
Ca (315.887 nm)	344.056704	ppm	0.598218	0.17	277745.716978	Y_R 377.433
Cd (214.439 nm)	0.001451	ppm	0.000147	10.17	113.871000	Y 377.433
Co (228.615 nm)	0.060726	ppm	0.001014	1.67	1754.160000	Y 242.219
Cr (205.560 nm)	0.172293	ppm	0.000635	0.37	1210.600000	Y 377.433
Cu (324.754 nm)	0.141532	ppm	0.000083	0.06	6777.410000	Y 377.433
Fe (238.204 nm)	144.541251 o	ppm	0.246971	0.17	356262.075232	Y_R 377.433
Fe H (259.940 nm)	145.440000	ppm	0.224130	0.15	203453.000000	Y_R 377.433
K (766.491 nm)	31.873400	ppm	0.019684	0.06	33616.900000	Y_R2 488.368
Li (670.783 nm)	0.351257	ppm	0.002114	0.60	3485.190000	Y_R2 488.368
Mg (279.078 nm)	77.407000	ppm	0.059211	0.08	274073.000000	Y 377.433
Mn (257.610 nm)	2.403440	ppm	0.001095	0.05	664770.000000	Y 377.433
Mo (202.032 nm)	0.002828	ppm	0.000259	9.17	59.376200	Y 377.433
Na (589.592 nm)	9.852980	ppm	0.006544	0.07	7555.960000	Y_R2 488.368
Na H (589.593 nm)	11.084035 u	ppm	0.046508	0.42	5840.098832	Y_R4
Ni (231.604 nm)	0.118074	ppm	0.000318	0.27	648.486000	Y 377.433
P (213.618 nm)	5.619170	ppm	0.003310	0.06	8466.400000	Y 242.219
Pb (220.353 nm)	0.075613	ppm	0.000441	0.58	237.474000	Y 242.219
S (181.972 nm)	1.536259	ppm	0.013695	0.89	721.515241	Y 377.433
Sb (206.834 nm)	0.001028 u	ppm	0.003136	> 100.00	-19.052100	Y 377.433
Se (196.026 nm)	0.004639	ppm	0.001697	36.58	-18.504900	Y 242.219
Si (288.158 nm)	2.562520	ppm	0.008911	0.35	17411.200000	Y 377.433
Sn (189.925 nm)	0.012842	ppm	0.001678	13.07	24.634700	Y 377.433
Sr (421.552 nm)	2.294382	ppm	0.000453	0.02	335621.676894	Y_R 488.368
Th (288.505 nm)	0.078122	ppm	0.006989	8.95	113.275000	Y 377.433
Ti (336.122 nm)	5.904370	ppm	0.007700	0.13	768328.000000	Y 377.433
Tl (190.794 nm)	0.016174	ppm	0.002342	14.48	-19.521600	Y 377.433
U (409.013 nm)	-0.028619 u	ppm	0.003069	10.73	-81.395500	Y 377.433
V (292.401 nm)	0.564829	ppm	0.000545	0.10	30006.500000	Y 377.433
Zn (206.200 nm)	0.372505	ppm	0.000730	0.20	1874.850000	Y 377.433
Zr (343.823 nm)	0.088080	ppm	0.000158	0.18	4904.230000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.100904	24651.958489	0.000302	0.03
Y 377.433	1.108904	716491.963383	0.000866	0.08
Y_R 377.433	1.163960	64076.500000	0.007540	0.65
Y_R 488.368	1.156440	55887.300000	0.005610	0.49
Y_R2 488.368	1.146346	106248.430751	0.002873	0.25
Y_R4	1.163850	49835.500000	0.000372	0.03

Sample Name: 280-123861-a-7-a

Date: 5/23/2019 7:30:53 PM Rack:Tube: 1:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000473	ppm	0.000632	> 100.00	-338.845000	Y 377.433
Al (394.401 nm)	125.225000 o	ppm	0.011572	0.01	1496510.000000	Y 377.433
Al H (396.152 nm)	126.520000	ppm	0.035590	0.03	260889.000000	Y_R 377.433
As (188.980 nm)	0.056392	ppm	0.003994	7.08	84.901300	Y 242.219
B (249.678 nm)	0.235388	ppm	0.002005	0.85	1650.300000	Y 242.219
Ba (493.408 nm)	0.877768	ppm	0.000235	0.03	86554.200000	Y_R 488.368
Be (234.861 nm)	0.005187	ppm	0.000091	1.75	-34.168100	Y_R 488.368
Bi (223.061 nm)	-0.004052 u	ppm	0.000865	21.35	-1.781410	Y 377.433
Ca (315.887 nm)	235.981059	ppm	0.093174	0.04	190486.822693	Y_R 377.433
Cd (214.439 nm)	0.001367	ppm	0.000071	5.23	102.881000	Y 377.433
Co (228.615 nm)	0.052904	ppm	0.000509	0.96	1501.730000	Y 242.219
Cr (205.560 nm)	0.138797	ppm	0.000404	0.29	973.831000	Y 377.433
Cu (324.754 nm)	0.134685	ppm	0.000320	0.24	6521.060000	Y 377.433
Fe (238.204 nm)	127.057180 o	ppm	0.076716	0.06	313168.079170	Y_R 377.433
Fe H (259.940 nm)	127.636000	ppm	0.034967	0.03	178558.000000	Y_R 377.433
K (766.491 nm)	25.501400	ppm	0.031270	0.12	27292.500000	Y_R2 488.368
Li (670.783 nm)	0.242281	ppm	0.002180	0.90	1587.520000	Y_R2 488.368
Mg (279.078 nm)	59.540800	ppm	0.091772	0.15	210794.000000	Y 377.433
Mn (257.610 nm)	2.430470	ppm	0.003143	0.13	672246.000000	Y 377.433
Mo (202.032 nm)	0.005361	ppm	0.000102	1.90	91.599500	Y 377.433
Na (589.592 nm)	14.055700	ppm	0.027300	0.19	10701.900000	Y_R2 488.368
Na H (589.593 nm)	15.458091 u	ppm	0.039384	0.25	8015.498214	Y_R4
Ni (231.604 nm)	0.099188	ppm	0.000454	0.46	542.945000	Y 377.433
P (213.618 nm)	4.321180	ppm	0.019484	0.45	6503.130000	Y 242.219
Pb (220.353 nm)	0.064494	ppm	0.005158	8.00	204.884000	Y 242.219
S (181.972 nm)	4.802304	ppm	0.038116	0.79	2183.611572	Y 377.433
Sb (206.834 nm)	0.001866	ppm	0.001620	86.83	-13.530200	Y 377.433
Se (196.026 nm)	0.004867	ppm	0.003651	75.00	-13.272700	Y 242.219
Si (288.158 nm)	2.426800	ppm	0.004765	0.20	16516.000000	Y 377.433
Sn (189.925 nm)	0.009829	ppm	0.001631	16.59	19.380300	Y 377.433
Sr (421.552 nm)	1.126710	ppm	0.000222	0.02	164847.524618	Y_R 488.368
Th (288.505 nm)	0.057927	ppm	0.001186	2.05	111.413000	Y 377.433
Ti (336.122 nm)	4.637060	ppm	0.002258	0.05	603189.000000	Y 377.433
Tl (190.794 nm)	0.012096	ppm	0.000080	0.66	-16.793600	Y 377.433
U (409.013 nm)	-0.011824 u	ppm	0.000635	5.37	-26.898900	Y 377.433
V (292.401 nm)	0.311757	ppm	0.000423	0.14	16515.500000	Y 377.433
Zn (206.200 nm)	0.323217	ppm	0.000550	0.17	1627.560000	Y 377.433
Zr (343.823 nm)	0.083821	ppm	0.000003	0.00	4658.660000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107677	24803.625441	0.002164	0.20
Y 377.433	1.114096	719846.832288	0.002738	0.25
Y_R 377.433	1.153230	63485.700000	0.000569	0.05
Y_R 488.368	1.147220	55441.900000	0.000354	0.03
Y_R2 488.368	1.145037	106127.137879	0.001433	0.13
Y_R4	1.167770	50003.200000	0.003329	0.29

Sample Name: 280-123861-a-8-a

Date: 5/23/2019 7:34:41 PM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000200	ppm	0.000069	34.53	-310.511000	Y 377.433
Al (394.401 nm)	74.332800 o	ppm	0.112054	0.15	888637.000000	Y 377.433
Al H (396.152 nm)	74.813100	ppm	0.079872	0.11	154618.000000	Y_R 377.433
As (188.980 nm)	0.033588	ppm	0.001119	3.33	49.379800	Y 242.219
B (249.678 nm)	0.178930	ppm	0.000719	0.40	1262.150000	Y 242.219
Ba (493.408 nm)	0.943618	ppm	0.000386	0.04	92910.600000	Y_R 488.368
Be (234.861 nm)	0.003483	ppm	0.000043	1.23	-82.785400	Y_R 488.368
Bi (223.061 nm)	-0.003158 u	ppm	0.000942	29.82	-4.885640	Y 377.433
Ca (315.887 nm)	95.867824	ppm	0.091330	0.10	77354.874358	Y_R 377.433
Cd (214.439 nm)	0.000812	ppm	0.000143	17.58	68.191900	Y 377.433
Co (228.615 nm)	0.041819	ppm	0.000293	0.70	1178.290000	Y 242.219
Cr (205.560 nm)	0.086867	ppm	0.000358	0.41	607.332000	Y 377.433
Cu (324.754 nm)	0.105168	ppm	0.000128	0.12	5235.500000	Y 377.433
Fe (238.204 nm)	98.627739 o	ppm	0.039163	0.04	243096.398999	Y_R 377.433
Fe H (259.940 nm)	98.959500	ppm	0.009465	0.01	138461.000000	Y_R 377.433
K (766.491 nm)	14.615900	ppm	0.079354	0.54	16488.300000	Y_R2 488.368
Li (670.783 nm)	0.207558	ppm	0.007577	3.65	982.869000	Y_R2 488.368
Mg (279.078 nm)	42.127400	ppm	0.139126	0.33	149136.000000	Y 377.433
Mn (257.610 nm)	1.909500	ppm	0.006204	0.32	528145.000000	Y 377.433
Mo (202.032 nm)	0.004229	ppm	0.000496	11.73	77.203200	Y 377.433
Na (589.592 nm)	7.783400	ppm	0.044429	0.57	6069.030000	Y_R2 488.368
Na H (589.593 nm)	8.968877 u	ppm	0.089913	1.00	4788.142642	Y_R4
Ni (231.604 nm)	0.073508	ppm	0.001259	1.71	399.431000	Y 377.433
P (213.618 nm)	4.285600	ppm	0.004420	0.10	6456.300000	Y 242.219
Pb (220.353 nm)	0.039170	ppm	0.002644	6.75	128.723000	Y 242.219
S (181.972 nm)	2.019093	ppm	0.001920	0.10	925.123420	Y 377.433
Sb (206.834 nm)	0.000148 u	ppm	0.000748	> 100.00	-14.519300	Y 377.433
Se (196.026 nm)	0.001977	ppm	0.001238	62.60	-10.848500	Y 242.219
Si (288.158 nm)	1.689250	ppm	0.006704	0.40	11650.800000	Y 377.433
Sn (189.925 nm)	0.010802	ppm	0.001428	13.22	21.076600	Y 377.433
Sr (421.552 nm)	1.777435	ppm	0.001808	0.10	260011.553262	Y_R 488.368
Th (288.505 nm)	0.063129	ppm	0.001063	1.68	128.435000	Y 377.433
Ti (336.122 nm)	3.576840	ppm	0.005761	0.16	464868.000000	Y 377.433
Tl (190.794 nm)	0.008406	ppm	0.001383	16.45	-12.300800	Y 377.433
U (409.013 nm)	-0.010630 u	ppm	0.007261	68.31	-22.159800	Y 377.433
V (292.401 nm)	0.202772	ppm	0.000310	0.15	10706.600000	Y 377.433
Zn (206.200 nm)	0.254256	ppm	0.000143	0.06	1280.920000	Y 377.433
Zr (343.823 nm)	0.054385	ppm	0.000195	0.36	2961.350000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.135237	25420.769131	0.003526	0.31
Y 377.433	1.139443	736224.252473	0.004346	0.38
Y_R 377.433	1.170170	64418.500000	0.002010	0.17
Y_R 488.368	1.167270	56410.700000	0.002709	0.23
Y_R2 488.368	1.147413	106347.344674	0.006445	0.56
Y_R4	1.183100	50659.500000	0.005620	0.47

Sample Name: 280-123861-a-9-a

Date: 5/23/2019 7:38:28 PM Rack:Tube: 1:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000455	ppm	0.000403	88.55	-339.968000	Y 377.433
Al (394.401 nm)	134.321000 o	ppm	0.076888	0.06	1605250.000000	Y 377.433
Al H (396.152 nm)	135.805000	ppm	0.271315	0.20	280133.000000	Y_R 377.433
As (188.980 nm)	0.057344	ppm	0.002396	4.18	86.031400	Y 242.219
B (249.678 nm)	0.281609	ppm	0.000210	0.07	1973.770000	Y 242.219
Ba (493.408 nm)	1.465510	ppm	0.003860	0.26	143495.000000	Y_R 488.368
Be (234.861 nm)	0.005519	ppm	0.000153	2.78	-58.976300	Y_R 488.368
Bi (223.061 nm)	-0.001378 u	ppm	0.002876	> 100.00	6.747780	Y 377.433
Ca (315.887 nm)	316.450450	ppm	0.799925	0.25	255455.273267	Y_R 377.433
Cd (214.439 nm)	0.001408	ppm	0.000014	0.96	110.434000	Y 377.433
Co (228.615 nm)	0.060313	ppm	0.000872	1.45	1684.740000	Y 242.219
Cr (205.560 nm)	0.148224	ppm	0.001232	0.83	1040.350000	Y 377.433
Cu (324.754 nm)	0.143956	ppm	0.000474	0.33	6916.480000	Y 377.433
Fe (238.204 nm)	140.597421 o	ppm	0.319581	0.23	346541.489049	Y_R 377.433
Fe H (259.940 nm)	141.564000	ppm	0.330292	0.23	198032.000000	Y_R 377.433
K (766.491 nm)	28.183700	ppm	0.066102	0.23	29954.800000	Y_R2 488.368
Li (670.783 nm)	0.243364	ppm	0.003369	1.38	1606.380000	Y_R2 488.368
Mg (279.078 nm)	66.484100	ppm	0.142395	0.21	235376.000000	Y 377.433
Mn (257.610 nm)	2.627780	ppm	0.003788	0.14	726822.000000	Y 377.433
Mo (202.032 nm)	0.005714	ppm	0.000092	1.61	96.094300	Y 377.433
Na (589.592 nm)	15.063500	ppm	0.043601	0.29	11568.900000	Y_R2 488.368
Na H (589.593 nm)	17.223249 u	ppm	0.051464	0.30	8893.384896	Y_R4
Ni (231.604 nm)	0.108497	ppm	0.000126	0.12	594.968000	Y 377.433
P (213.618 nm)	4.910420	ppm	0.017708	0.36	7393.130000	Y 242.219
Pb (220.353 nm)	0.068122	ppm	0.000740	1.09	215.649000	Y 242.219
S (181.972 nm)	4.612470	ppm	0.034838	0.76	2102.773065	Y 377.433
Sb (206.834 nm)	0.002232	ppm	0.003031	> 100.00	-11.615900	Y 377.433
Se (196.026 nm)	0.003914	ppm	0.002749	70.23	-18.271300	Y 242.219
Si (288.158 nm)	2.738520	ppm	0.007621	0.28	18572.100000	Y 377.433
Sn (189.925 nm)	0.011291	ppm	0.002084	18.46	21.930800	Y 377.433
Sr (421.552 nm)	1.452128	ppm	0.003085	0.21	212441.730781	Y_R 488.368
Th (288.505 nm)	0.068051	ppm	0.000969	1.42	129.379000	Y 377.433
Ti (336.122 nm)	4.634170	ppm	0.004439	0.10	603088.000000	Y 377.433
Tl (190.794 nm)	0.013525	ppm	0.002019	14.93	-18.104300	Y 377.433
U (409.013 nm)	-0.016871 u	ppm	0.005176	30.68	-43.889500	Y 377.433
V (292.401 nm)	0.314962	ppm	0.000161	0.05	16686.600000	Y 377.433
Zn (206.200 nm)	0.363022	ppm	0.000605	0.17	1827.190000	Y 377.433
Zr (343.823 nm)	0.087695	ppm	0.000203	0.23	4882.030000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108934	24831.763109	0.001127	0.10
Y 377.433	1.115631	720838.703340	0.003863	0.35
Y_R 377.433	1.168830	64344.800000	0.005851	0.50
Y_R 488.368	1.163820	56243.700000	0.005740	0.49
Y_R2 488.368	1.147749	106378.474267	0.000835	0.07
Y_R4	1.169560	50079.900000	0.001767	0.15

Sample Name: mb 280-458299/1-a

Date: 5/23/2019 7:42:16 PM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000157 u	ppm	0.000204	> 100.00	-251.253000	Y 377.433
Al (394.401 nm)	0.006519	ppm	0.001070	16.41	207.444000	Y 377.433
Al H (396.152 nm)	0.131289 u	ppm	0.001306	0.99	44.975900	Y_R 377.433
As (188.980 nm)	0.000255	ppm	0.000337	> 100.00	-0.904815	Y 242.219
B (249.678 nm)	-0.002806 u	ppm	0.000372	13.27	16.848600	Y 242.219
Ba (493.408 nm)	-0.002065 u	ppm	0.000046	2.21	1232.720000	Y_R 488.368
Be (234.861 nm)	-0.000008 u	ppm	0.000020	> 100.00	-7.498900	Y_R 488.368
Bi (223.061 nm)	0.001945	ppm	0.001611	82.84	-11.039400	Y 377.433
Ca (315.887 nm)	0.038205	ppm	0.001476	3.86	-31.131102	Y_R 377.433
Cd (214.439 nm)	0.000052 u	ppm	0.000088	> 100.00	-5.614430	Y 377.433
Co (228.615 nm)	-0.000042 u	ppm	0.000028	67.77	-23.184000	Y 242.219
Cr (205.560 nm)	0.000032 u	ppm	0.000466	> 100.00	-5.740200	Y 377.433
Cu (324.754 nm)	0.001017	ppm	0.000245	24.12	459.249000	Y 377.433
Fe (238.204 nm)	0.223023	ppm	0.002207	0.99	552.631288	Y_R 377.433
Fe H (259.940 nm)	0.171298 u	ppm	0.002952	1.72	330.266000	Y_R 377.433
K (766.491 nm)	-0.226974 u	ppm	0.000263	0.12	1756.310000	Y_R2 488.368
Li (670.783 nm)	0.013624	ppm	0.000313	2.30	-2394.220000	Y_R2 488.368
Mg (279.078 nm)	0.003645	ppm	0.001022	28.02	24.412700	Y 377.433
Mn (257.610 nm)	0.002028	ppm	0.000037	1.82	538.813000	Y 377.433
Mo (202.032 nm)	-0.000675 u	ppm	0.000219	32.43	14.802800	Y 377.433
Na (589.592 nm)	0.036321	ppm	0.040883	> 100.00	136.872000	Y_R2 488.368
Na H (589.593 nm)	0.017074 u	ppm	0.023326	> 100.00	336.039468	Y_R4
Ni (231.604 nm)	-0.000930 u	ppm	0.000641	68.90	-16.567100	Y 377.433
P (213.618 nm)	-0.001132 u	ppm	0.000115	10.13	-6.435600	Y 242.219
Pb (220.353 nm)	-0.000929 u	ppm	0.000228	24.51	9.721620	Y 242.219
S (181.972 nm)	0.002419 u	ppm	0.006376	> 100.00	8.848531	Y 377.433
Sb (206.834 nm)	0.003913	ppm	0.002187	55.89	-0.615347	Y 377.433
Se (196.026 nm)	-0.003058 u	ppm	0.002642	86.41	5.547900	Y 242.219
Si (288.158 nm)	0.000650 u	ppm	0.001572	> 100.00	512.328000	Y 377.433
Sn (189.925 nm)	0.000140 u	ppm	0.000663	> 100.00	2.481050	Y 377.433
Sr (421.552 nm)	0.000056	ppm	0.000044	78.40	56.144224	Y_R 488.368
Th (288.505 nm)	-0.002358 u	ppm	0.000700	29.68	10.497700	Y 377.433
Ti (336.122 nm)	0.000871	ppm	0.000067	7.75	-392.444000	Y 377.433
Tl (190.794 nm)	0.001468	ppm	0.000700	47.66	3.643290	Y 377.433
U (409.013 nm)	0.012268	ppm	0.007938	64.71	-3.204040	Y 377.433
V (292.401 nm)	0.000103 u	ppm	0.000359	> 100.00	-174.801000	Y 377.433
Zn (206.200 nm)	0.001553	ppm	0.000168	10.79	11.560700	Y 377.433
Zr (343.823 nm)	0.000626	ppm	0.000002	0.39	-138.446000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122990	25146.518444	0.004756	0.42
Y 377.433	1.121313	724509.688648	0.004184	0.37
Y_R 377.433	1.142900	62917.300000	0.000757	0.07
Y_R 488.368	1.140730	55127.800000	0.001273	0.11
Y_R2 488.368	1.122800	104066.078384	0.002281	0.20
Y_R4	1.121780	48034.300000	0.007168	0.64

Sample Name: lcs 280-458299/2-a

Date: 5/23/2019 7:45:45 PM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051434	ppm	0.000163	0.32	1249.360000	Y 377.433
Al (394.401 nm)	10.040200 o	ppm	0.003344	0.03	120350.000000	Y 377.433
Al H (396.152 nm)	10.085800	ppm	0.008986	0.09	21028.000000	Y_R 377.433
As (188.980 nm)	2.021150	ppm	0.009886	0.49	3218.880000	Y 242.219
B (249.678 nm)	1.002740	ppm	0.001089	0.11	7218.020000	Y 242.219
Ba (493.408 nm)	2.017480	ppm	0.001472	0.07	196860.000000	Y_R 488.368
Be (234.861 nm)	1.000180	ppm	0.002486	0.25	100796.000000	Y_R 488.368
Bi (223.061 nm)	1.945930	ppm	0.005825	0.30	4424.860000	Y 377.433
Ca (315.887 nm)	50.004147	ppm	0.069881	0.14	40310.904084	Y_R 377.433
Cd (214.439 nm)	0.993863	ppm	0.001018	0.10	39762.300000	Y 377.433
Co (228.615 nm)	0.982388	ppm	0.000137	0.01	24313.200000	Y 242.219
Cr (205.560 nm)	0.992153	ppm	0.001898	0.19	7016.960000	Y 377.433
Cu (324.754 nm)	0.980255	ppm	0.005368	0.55	45987.500000	Y 377.433
Fe (238.204 nm)	10.113292 o	ppm	0.010384	0.10	24929.746516	Y_R 377.433
Fe H (259.940 nm)	10.082200	ppm	0.002054	0.02	14188.100000	Y_R 377.433
K (766.491 nm)	49.455200	ppm	0.109016	0.22	51067.300000	Y_R2 488.368
Li (670.783 nm)	1.007440	ppm	0.001081	0.11	14911.700000	Y_R2 488.368
Mg (279.078 nm)	49.779200	ppm	0.026839	0.05	176340.000000	Y 377.433
Mn (257.610 nm)	1.010200	ppm	0.001436	0.14	279399.000000	Y 377.433
Mo (202.032 nm)	1.021870	ppm	0.000756	0.07	13026.300000	Y 377.433
Na (589.592 nm)	47.742900	ppm	0.053470	0.11	35889.700000	Y_R2 488.368
Na H (589.593 nm)	52.635546	ppm	0.294204	0.56	26505.390598	Y_R4
Ni (231.604 nm)	0.978128	ppm	0.001549	0.16	5457.340000	Y 377.433
P (213.618 nm)	20.124100	ppm	0.017438	0.09	30168.100000	Y 242.219
Pb (220.353 nm)	0.997142	ppm	0.000191	0.02	3436.890000	Y 242.219
S (181.972 nm)	10.155868	ppm	0.010717	0.11	4575.352340	Y 377.433
Sb (206.834 nm)	1.070770	ppm	0.000847	0.08	1877.930000	Y 377.433
Se (196.026 nm)	1.969700	ppm	0.006703	0.34	3210.580000	Y 242.219
Si (288.158 nm)	2.039600	ppm	0.002565	0.13	13961.900000	Y 377.433
Sn (189.925 nm)	1.973980	ppm	0.002286	0.12	3445.290000	Y 377.433
Sr (421.552 nm)	1.010994	ppm	0.001436	0.14	147906.861335	Y_R 488.368
Th (288.505 nm)	1.035470	ppm	0.001052	0.10	1726.900000	Y 377.433
Ti (336.122 nm)	1.008640	ppm	0.000763	0.08	130812.000000	Y 377.433
Tl (190.794 nm)	1.994790	ppm	0.000294	0.01	4823.230000	Y 377.433
U (409.013 nm)	1.996660	ppm	0.007046	0.35	6153.240000	Y 377.433
V (292.401 nm)	0.999354	ppm	0.000880	0.09	52529.100000	Y 377.433
Zn (206.200 nm)	0.494774	ppm	0.000398	0.08	2461.010000	Y 377.433
Zr (343.823 nm)	0.501710	ppm	0.000430	0.09	28754.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080196	24188.250395	0.003686	0.34
Y 377.433	1.086063	701733.631676	0.002358	0.22
Y_R 377.433	1.115140	61389.100000	0.001531	0.14
Y_R 488.368	1.109170	53602.900000	0.000921	0.08
Y_R2 488.368	1.099860	101939.961740	0.000158	0.01
Y_R4	1.104630	47299.900000	0.002967	0.27

Sample Name: 280-123513-b-3-c@50

Date: 5/23/2019 7:49:23 PM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000044 u	ppm	0.000102	> 100.00	-244.289000	Y 377.433
Al (394.401 nm)	-0.022602 u	ppm	0.001685	7.46	970.863000	Y 377.433
Al H (396.152 nm)	-0.656022 u	ppm	0.006888	1.05	159.497000	Y_R 377.433
As (188.980 nm)	-0.000176 u	ppm	0.003072	> 100.00	-1.598850	Y 242.219
B (249.678 nm)	0.036535	ppm	0.000492	1.35	298.655000	Y 242.219
Ba (493.408 nm)	0.011160	ppm	0.000087	0.78	2513.940000	Y_R 488.368
Be (234.861 nm)	-0.000008 u	ppm	0.000075	> 100.00	-8.566640	Y_R 488.368
Bi (223.061 nm)	0.001657	ppm	0.000934	56.35	-11.645000	Y 377.433
Ca (315.887 nm)	26.500473	ppm	0.083072	0.31	21332.904567	Y_R 377.433
Cd (214.439 nm)	0.000230	ppm	0.000079	34.18	1.620480	Y 377.433
Co (228.615 nm)	0.000284 u	ppm	0.000412	> 100.00	-15.070000	Y 242.219
Cr (205.560 nm)	0.000045 u	ppm	0.000507	> 100.00	-5.649930	Y 377.433
Cu (324.754 nm)	0.000365	ppm	0.000355	97.29	415.017000	Y 377.433
Fe (238.204 nm)	0.478555	ppm	0.000787	0.16	1182.455341	Y_R 377.433
Fe H (259.940 nm)	0.426687 u	ppm	0.001504	0.35	687.364000	Y_R 377.433
K (766.491 nm)	1.661630	ppm	0.004133	0.25	3630.800000	Y_R2 488.368
Li (670.783 nm)	0.059078	ppm	0.003135	5.31	-1602.710000	Y_R2 488.368
Mg (279.078 nm)	21.011000	ppm	0.015759	0.08	74456.800000	Y 377.433
Mn (257.610 nm)	0.032004	ppm	0.000007	0.02	8830.290000	Y 377.433
Mo (202.032 nm)	-0.000543 u	ppm	0.000172	31.75	16.477500	Y 377.433
Na (589.592 nm)	322.325000 o	ppm	1.886470	0.59	238877.000000	Y_R2 488.368
Na H (589.593 nm)	354.955132	ppm	0.793839	0.22	176861.472657	Y_R4
Ni (231.604 nm)	-0.001818 u	ppm	0.000395	21.75	-21.523600	Y 377.433
P (213.618 nm)	0.004114	ppm	0.004757	> 100.00	1.368270	Y 242.219
Pb (220.353 nm)	-0.000163 u	ppm	0.000058	35.53	12.341000	Y 242.219
S (181.972 nm)	1.917838	ppm	0.017840	0.93	870.615086	Y 377.433
Sb (206.834 nm)	0.004842	ppm	0.004116	85.01	1.038370	Y 377.433
Se (196.026 nm)	0.000844 u	ppm	0.002609	> 100.00	11.862000	Y 242.219
Si (288.158 nm)	0.253457	ppm	0.002393	0.94	2179.930000	Y 377.433
Sn (189.925 nm)	-0.000251 u	ppm	0.000491	> 100.00	1.798970	Y 377.433
Sr (421.552 nm)	4.460447	ppm	0.011322	0.25	652386.826704	Y_R 488.368
Th (288.505 nm)	0.003240	ppm	0.004407	> 100.00	20.118700	Y 377.433
Ti (336.122 nm)	0.002663	ppm	0.000038	1.44	-70.278500	Y 377.433
Tl (190.794 nm)	0.003048	ppm	0.000223	7.33	6.345900	Y 377.433
U (409.013 nm)	0.014800	ppm	0.000142	0.96	1.486650	Y 377.433
V (292.401 nm)	0.000791	ppm	0.000002	0.30	-137.680000	Y 377.433
Zn (206.200 nm)	0.003011	ppm	0.000589	19.57	18.837100	Y 377.433
Zr (343.823 nm)	0.000768	ppm	0.000048	6.30	-130.246000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.056972	23668.206398	0.000894	0.08
Y 377.433	1.054909	681604.733573	0.000862	0.08
Y_R 377.433	1.092950	60167.200000	0.009924	0.91
Y_R 488.368	1.092250	52785.200000	0.006593	0.60
Y_R2 488.368	1.077048	99825.605570	0.001908	0.18
Y_R4	1.074730	46019.500000	0.005942	0.55

Sample Name: 280-123513-b-3-cSD250

Date: 5/23/2019 7:53:17 PM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000060 u	ppm	0.000269	> 100.00	-248.004000	Y 377.433
Al (394.401 nm)	-0.002779 u	ppm	0.000412	14.82	319.162000	Y 377.433
Al H (396.152 nm)	-0.033330 u	ppm	0.005914	17.74	55.075200	Y_R 377.433
As (188.980 nm)	-0.000654 u	ppm	0.002853	> 100.00	-2.350630	Y 242.219
B (249.678 nm)	0.005071	ppm	0.000790	15.58	73.361800	Y 242.219
Ba (493.408 nm)	0.000685	ppm	0.000117	17.10	1499.050000	Y_R 488.368
Be (234.861 nm)	0.000011 u	ppm	0.000064	> 100.00	-5.116240	Y_R 488.368
Bi (223.061 nm)	0.001073	ppm	0.001517	> 100.00	-13.046200	Y 377.433
Ca (315.887 nm)	5.308560	ppm	0.002112	0.04	4223.832868	Y_R 377.433
Cd (214.439 nm)	0.000034 u	ppm	0.000115	> 100.00	-6.384770	Y 377.433
Co (228.615 nm)	0.000191	ppm	0.000075	39.38	-17.427600	Y 242.219
Cr (205.560 nm)	-0.000009 u	ppm	0.000246	> 100.00	-6.031180	Y 377.433
Cu (324.754 nm)	0.000653	ppm	0.000147	22.49	439.799000	Y 377.433
Fe (238.204 nm)	0.119500	ppm	0.001479	1.24	297.473387	Y_R 377.433
Fe H (259.940 nm)	0.061934 u	ppm	0.000050	0.08	177.348000	Y_R 377.433
K (766.491 nm)	0.089555	ppm	0.076109	84.99	2070.480000	Y_R2 488.368
Li (670.783 nm)	0.021820	ppm	0.001268	5.81	-2251.490000	Y_R2 488.368
Mg (279.078 nm)	4.258910	ppm	0.011310	0.27	15101.800000	Y 377.433
Mn (257.610 nm)	0.006665	ppm	0.000028	0.42	1821.590000	Y 377.433
Mo (202.032 nm)	-0.000562 u	ppm	0.000388	69.02	16.233400	Y 377.433
Na (589.592 nm)	67.697100 o	ppm	0.197617	0.29	50257.700000	Y_R2 488.368
Na H (589.593 nm)	71.194413	ppm	0.207488	0.29	35735.485307	Y_R4
Ni (231.604 nm)	-0.000923 u	ppm	0.000175	18.93	-16.523400	Y 377.433
P (213.618 nm)	0.000316 u	ppm	0.001022	> 100.00	-4.271520	Y 242.219
Pb (220.353 nm)	0.000059 u	ppm	0.000966	> 100.00	13.098700	Y 242.219
S (181.972 nm)	0.371164	ppm	0.002866	0.77	174.752708	Y 377.433
Sb (206.834 nm)	0.006182	ppm	0.003430	55.48	3.382320	Y 377.433
Se (196.026 nm)	-0.003550 u	ppm	0.002507	70.61	4.782800	Y 242.219
Si (288.158 nm)	0.045779	ppm	0.000692	1.51	810.015000	Y 377.433
Sn (189.925 nm)	-0.000310 u	ppm	0.000894	> 100.00	1.694850	Y 377.433
Sr (421.552 nm)	0.896851	ppm	0.000703	0.08	131212.100487	Y_R 488.368
Th (288.505 nm)	0.001821 u	ppm	0.002669	> 100.00	17.646000	Y 377.433
Ti (336.122 nm)	0.000982	ppm	0.000024	2.43	-360.457000	Y 377.433
Tl (190.794 nm)	0.001070	ppm	0.000308	28.74	2.479210	Y 377.433
U (409.013 nm)	0.011799	ppm	0.004603	39.01	-5.409230	Y 377.433
V (292.401 nm)	0.000419	ppm	0.000075	17.96	-157.612000	Y 377.433
Zn (206.200 nm)	0.002383	ppm	0.000505	21.19	15.663200	Y 377.433
Zr (343.823 nm)	0.000656	ppm	0.000025	3.80	-136.693000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084471	24283.983006	0.005526	0.51
Y 377.433	1.081205	698594.836355	0.004855	0.45
Y_R 377.433	1.108120	61002.200000	0.001742	0.16
Y_R 488.368	1.106850	53490.600000	0.001555	0.14
Y_R2 488.368	1.088996	100933.018614	0.001485	0.14
Y_R4	1.085610	46485.400000	0.001985	0.18

Sample Name: 280-123513-b-3-d ms@50

Date: 5/23/2019 7:56:50 PM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001892	ppm	0.000119	6.29	-185.565000	Y 377.433
Al (394.401 nm)	0.222306	ppm	0.001396	0.63	3906.820000	Y 377.433
Al H (396.152 nm)	-0.423609 u	ppm	0.003160	0.75	657.139000	Y_R 377.433
As (188.980 nm)	0.042563	ppm	0.002932	6.89	66.494100	Y 242.219
B (249.678 nm)	0.056843	ppm	0.000316	0.56	444.087000	Y 242.219
Ba (493.408 nm)	0.051355	ppm	0.000002	0.00	6407.560000	Y_R 488.368
Be (234.861 nm)	0.020109	ppm	0.000098	0.49	2018.810000	Y_R 488.368
Bi (223.061 nm)	0.034116	ppm	0.002198	6.44	62.430200	Y 377.433
Ca (315.887 nm)	27.554846	ppm	0.058589	0.21	22184.198488	Y_R 377.433
Cd (214.439 nm)	0.020803	ppm	0.000085	0.41	824.875000	Y 377.433
Co (228.615 nm)	0.020241	ppm	0.000070	0.34	479.303000	Y 242.219
Cr (205.560 nm)	0.020509	ppm	0.000935	4.56	139.200000	Y 377.433
Cu (324.754 nm)	0.022526	ppm	0.000305	1.35	1445.320000	Y 377.433
Fe (238.204 nm)	0.691628	ppm	0.003958	0.57	1707.630065	Y_R 377.433
Fe H (259.940 nm)	0.636101 u	ppm	0.005071	0.80	980.177000	Y_R 377.433
K (766.491 nm)	2.431470	ppm	0.030416	1.25	4394.900000	Y_R2 488.368
Li (670.783 nm)	0.082725	ppm	0.001389	1.68	-1190.920000	Y_R2 488.368
Mg (279.078 nm)	22.109100	ppm	0.051654	0.23	78346.700000	Y 377.433
Mn (257.610 nm)	0.053872	ppm	0.000111	0.21	14878.900000	Y 377.433
Mo (202.032 nm)	0.020628	ppm	0.000360	1.75	285.877000	Y 377.433
Na (589.592 nm)	322.749000 o	ppm	1.355700	0.42	239200.000000	Y_R2 488.368
Na H (589.593 nm)	356.024389	ppm	0.695089	0.20	177393.258735	Y_R4
Ni (231.604 nm)	0.019431	ppm	0.000245	1.26	97.268300	Y 377.433
P (213.618 nm)	0.421273	ppm	0.000936	0.22	626.298000	Y 242.219
Pb (220.353 nm)	0.019677	ppm	0.001677	8.52	80.413300	Y 242.219
S (181.972 nm)	2.109719	ppm	0.005042	0.24	956.928870	Y 377.433
Sb (206.834 nm)	0.023452	ppm	0.001038	4.43	33.793700	Y 377.433
Se (196.026 nm)	0.039343	ppm	0.002093	5.32	74.407200	Y 242.219
Si (288.158 nm)	0.365224	ppm	0.002331	0.64	2917.170000	Y 377.433
Sn (189.925 nm)	0.038197	ppm	0.001843	4.83	68.860200	Y 377.433
Sr (421.552 nm)	4.502151	ppm	0.002535	0.06	658486.071638	Y_R 488.368
Th (288.505 nm)	0.021047	ppm	0.000466	2.22	49.155000	Y 377.433
Ti (336.122 nm)	0.024016	ppm	0.000029	0.12	2709.790000	Y 377.433
Tl (190.794 nm)	0.040348	ppm	0.000372	0.92	96.509200	Y 377.433
U (409.013 nm)	0.040296	ppm	0.000478	1.19	80.137500	Y 377.433
V (292.401 nm)	0.021142	ppm	0.000159	0.75	936.182000	Y 377.433
Zn (206.200 nm)	0.014133	ppm	0.000399	2.82	74.067000	Y 377.433
Zr (343.823 nm)	0.010321	ppm	0.000205	1.99	420.616000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.044853	23396.828355	0.001881	0.18
Y 377.433	1.043982	674544.356430	0.002215	0.21
Y_R 377.433	1.085560	59760.700000	0.000587	0.05
Y_R 488.368	1.085060	52437.600000	0.001439	0.13
Y_R2 488.368	1.087995	100840.262848	0.002175	0.20
Y_R4	1.096370	46946.200000	0.009552	0.87

Sample Name: CCVH-5713036

Date: 5/23/2019 8:00:57 PM
Rack:Tube: S1:1

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003912	ppm	0.000174	4.44	-118.557000	Y 377.433
Al (394.401 nm)	49.802600 o	ppm	0.045744	0.09	593979.000000	Y 377.433
Al H (396.152 nm)	49.360400	ppm	0.018090	0.04	101494.000000	Y_R 377.433
As (188.980 nm)	0.003860	ppm	0.001748	45.29	3.433880	Y 242.219
B (249.678 nm)	-0.002353 u	ppm	0.000273	11.59	-8.340370	Y 242.219
Ba (493.408 nm)	0.001791	ppm	0.000081	4.50	1644.250000	Y_R 488.368
Be (234.861 nm)	0.001085	ppm	0.000021	1.92	-109.662000	Y_R 488.368
Bi (223.061 nm)	0.011250	ppm	0.005056	44.95	19.009400	Y 377.433
Ca (315.887 nm)	-0.009340 u	ppm	0.001914	20.50	-57.023160	Y_R 377.433
Cd (214.439 nm)	0.001490	ppm	0.000132	8.84	73.461800	Y 377.433
Co (228.615 nm)	0.003424	ppm	0.000078	2.28	62.550600	Y 242.219
Cr (205.560 nm)	0.001588	ppm	0.001119	70.45	3.873780	Y 377.433
Cu (324.754 nm)	0.003311	ppm	0.000302	9.13	1493.840000	Y 377.433
Fe (238.204 nm)	49.162878 o	ppm	0.005724	0.01	121177.509621	Y_R 377.433
Fe H (259.940 nm)	49.236300	ppm	0.054812	0.11	68935.400000	Y_R 377.433
K (766.491 nm)	0.331509	ppm	0.057810	17.44	2310.620000	Y_R2 488.368
Li (670.783 nm)	0.013885	ppm	0.002297	16.55	-2389.680000	Y_R2 488.368
Mg (279.078 nm)	0.036739	ppm	0.000546	1.49	62.836400	Y 377.433
Mn (257.610 nm)	0.001027	ppm	0.000036	3.48	262.074000	Y 377.433
Mo (202.032 nm)	0.000920	ppm	0.000080	8.64	35.097400	Y 377.433
Na (589.592 nm)	235.352000 o	ppm	0.422563	0.18	174450.000000	Y_R2 488.368
Na H (589.593 nm)	252.942663	ppm	0.318190	0.13	126126.436580	Y_R4
Ni (231.604 nm)	0.002756	ppm	0.000806	29.26	4.033090	Y 377.433
P (213.618 nm)	4.875150	ppm	0.008123	0.17	7368.340000	Y 242.219
Pb (220.353 nm)	0.003699	ppm	0.001115	30.15	18.206600	Y 242.219
S (181.972 nm)	5.026779	ppm	0.023973	0.48	2265.858334	Y 377.433
Sb (206.834 nm)	0.007312	ppm	0.000261	3.57	9.702630	Y 377.433
Se (196.026 nm)	0.007952	ppm	0.000832	10.46	9.830510	Y 242.219
Si (288.158 nm)	0.013101	ppm	0.000655	5.00	594.463000	Y 377.433
Sn (189.925 nm)	0.000222 u	ppm	0.001243	> 100.00	2.622860	Y 377.433
Sr (421.552 nm)	0.001135	ppm	0.000092	8.10	221.063659	Y_R 488.368
Th (288.505 nm)	4.947770	ppm	0.005430	0.11	8645.470000	Y 377.433
Ti (336.122 nm)	0.002272	ppm	0.000229	10.06	-210.272000	Y 377.433
Tl (190.794 nm)	0.000388	ppm	0.000375	96.55	-3.922090	Y 377.433
U (409.013 nm)	0.542849 Q	ppm	0.004228	0.78	1694.620000 Q	Y 377.433
V (292.401 nm)	0.000922	ppm	0.000038	4.07	363.744000	Y 377.433
Zn (206.200 nm)	0.002647	ppm	0.000711	26.85	24.522200	Y 377.433
Zr (343.823 nm)	0.001632	ppm	0.000259	15.88	-80.394500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.059643	23728.017381	0.003719	0.35
Y 377.433	1.058837	684142.238602	0.003529	0.33
Y_R 377.433	1.081240	59522.700000	0.001904	0.18
Y_R 488.368	1.078400	52115.700000	0.000674	0.06
Y_R2 488.368	1.068457	99029.361009	0.000888	0.08
Y_R4	1.081120	46293.100000	0.005220	0.48

Sample Name: CCV-5717467

Date: 5/23/2019 8:04:39 PM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.487863	ppm	0.000723	0.15	16859.200000	Y 377.433
Al (394.401 nm)	0.510726	ppm	0.000837	0.16	6354.100000	Y 377.433
Al H (396.152 nm)	0.558259 u	ppm	0.005236	0.94	1156.540000	Y_R 377.433
As (188.980 nm)	0.489248	ppm	0.001469	0.30	778.184000	Y 242.219
B (249.678 nm)	0.484404	ppm	0.001625	0.34	3507.440000	Y 242.219
Ba (493.408 nm)	0.488442	ppm	0.002193	0.45	48746.400000	Y_R 488.368
Be (234.861 nm)	0.482152	ppm	0.001457	0.30	48598.000000	Y_R 488.368
Bi (223.061 nm)	0.954828	ppm	0.001973	0.21	2162.890000	Y 377.433
Ca (315.887 nm)	4.952115	ppm	0.014368	0.29	3936.192142	Y_R 377.433
Cd (214.439 nm)	0.495942	ppm	0.000983	0.20	19836.500000	Y 377.433
Co (228.615 nm)	0.490787	ppm	0.001322	0.27	12134.700000	Y 242.219
Cr (205.560 nm)	0.491377	ppm	0.002549	0.52	3472.420000	Y 377.433
Cu (324.754 nm)	0.484277	ppm	0.004638	0.96	22897.800000	Y 377.433
Fe (238.204 nm)	2.472732	ppm	0.010453	0.42	6097.620130	Y_R 377.433
Fe H (259.940 nm)	2.442080 u	ppm	0.005843	0.24	3505.390000	Y_R 377.433
K (766.491 nm)	47.985000	ppm	0.245091	0.51	49608.100000	Y_R2 488.368
Li (670.783 nm)	0.488379	ppm	0.000061	0.01	5872.990000	Y_R2 488.368
Mg (279.078 nm)	19.656900	ppm	0.032641	0.17	69656.000000	Y 377.433
Mn (257.610 nm)	0.493269	ppm	0.000394	0.08	136416.000000	Y 377.433
Mo (202.032 nm)	0.492542	ppm	0.000786	0.16	6290.800000	Y 377.433
Na (589.592 nm)	23.769500	ppm	0.057896	0.24	17817.500000	Y_R2 488.368
Na H (589.593 nm)	26.617574 u	ppm	0.036399	0.14	13565.572549	Y_R4
Ni (231.604 nm)	0.490352	ppm	0.000005	0.00	2729.570000	Y 377.433
P (213.618 nm)	0.055532	ppm	0.003886	7.00	-59.021600	Y 242.219
Pb (220.353 nm)	0.493643	ppm	0.003341	0.68	1706.380000	Y 242.219
S (181.972 nm)	0.002532 u	ppm	0.004822	> 100.00	10.629632	Y 377.433
Sb (206.834 nm)	0.498220	ppm	0.001805	0.36	869.300000	Y 377.433
Se (196.026 nm)	0.488363	ppm	0.002693	0.55	804.388000	Y 242.219
Si (288.158 nm)	4.781160	ppm	0.014974	0.31	32046.000000	Y 377.433
Sn (189.925 nm)	0.490144	ppm	0.002677	0.55	857.152000	Y 377.433
Sr (421.552 nm)	0.490237	ppm	0.001841	0.38	71745.233429	Y_R 488.368
Th (288.505 nm)	0.018212	ppm	0.002191	12.03	-3.595900	Y 377.433
Ti (336.122 nm)	0.487249	ppm	0.000513	0.11	62865.300000	Y 377.433
Tl (190.794 nm)	0.501159	ppm	0.002770	0.55	1210.780000	Y 377.433
U (409.013 nm)	0.021340	ppm	0.005444	25.51	-33.786700	Y 377.433
V (292.401 nm)	0.487702	ppm	0.000267	0.05	25537.700000	Y 377.433
Zn (206.200 nm)	0.495795	ppm	0.000295	0.06	2464.900000	Y 377.433
Zr (343.823 nm)	0.489097	ppm	0.000304	0.06	28027.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075701	24087.601914	0.001191	0.11
Y 377.433	1.070405	691616.972208	0.000030	0.00
Y_R 377.433	1.091360	60079.800000	0.005529	0.51
Y_R 488.368	1.089730	52663.200000	0.005956	0.55
Y_R2 488.368	1.064288	98642.984346	0.002888	0.27
Y_R4	1.069650	45802.000000	0.002388	0.22

Sample Name: CCB

Date: 5/23/2019 8:08:14 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000043 u	ppm	0.000648	> 100.00	-247.353000	Y 377.433
Al (394.401 nm)	-0.001299 u	ppm	0.000418	32.17	112.225000	Y 377.433
Al H (396.152 nm)	0.132073 Zu	ppm	0.007126	5.40	46.616600 Z	Y_R 377.433
As (188.980 nm)	0.000400 u	ppm	0.002575	> 100.00	-0.667978	Y 242.219
B (249.678 nm)	-0.002778 u	ppm	0.000898	32.34	17.177900	Y 242.219
Ba (493.408 nm)	-0.001149 u	ppm	0.000246	21.38	1321.290000	Y_R 488.368
Be (234.861 nm)	0.000055	ppm	0.000031	56.46	-0.163667	Y_R 488.368
Bi (223.061 nm)	0.001002	ppm	0.000412	41.16	-13.229900	Y 377.433
Ca (315.887 nm)	0.001096 u	ppm	0.009725	> 100.00	-61.090969	Y_R 377.433
Cd (214.439 nm)	0.000015 u	ppm	0.000094	> 100.00	-7.193940	Y 377.433
Co (228.615 nm)	0.000259	ppm	0.000007	2.58	-15.759700	Y 242.219
Cr (205.560 nm)	0.000024	ppm	0.000007	30.48	-5.797300	Y 377.433
Cu (324.754 nm)	0.000139	ppm	0.000014	10.39	419.516000	Y 377.433
Fe (238.204 nm)	0.002068	ppm	0.000689	33.32	8.030600	Y_R 377.433
Fe H (259.940 nm)	-0.055375 u	ppm	0.002483	4.48	13.320900	Y_R 377.433
K (766.491 nm)	-0.031723 u	ppm	0.014559	45.90	1950.100000	Y_R2 488.368
Li (670.783 nm)	-0.000733 u	ppm	0.000627	85.51	-2644.230000	Y_R2 488.368
Mg (279.078 nm)	0.000206 u	ppm	0.002177	> 100.00	12.669200	Y 377.433
Mn (257.610 nm)	0.000086	ppm	0.000021	24.05	1.823180	Y 377.433
Mo (202.032 nm)	-0.000321 u	ppm	0.000360	> 100.00	19.309300	Y 377.433
Na (589.592 nm)	0.154629	ppm	0.052741	34.11	224.720000	Y_R2 488.368
Na H (589.593 nm)	0.757183 u	ppm	0.029587	3.91	704.126591	Y_R4
Ni (231.604 nm)	-0.000677 u	ppm	0.000907	> 100.00	-15.152300	Y 377.433
P (213.618 nm)	0.004657	ppm	0.001562	33.54	2.407520	Y 242.219
Pb (220.353 nm)	-0.001305 u	ppm	0.000153	11.74	8.409730	Y 242.219
S (181.972 nm)	-0.001588 u	ppm	0.000582	36.65	7.042031	Y 377.433
Sb (206.834 nm)	0.004127	ppm	0.002199	53.27	-0.257702	Y 377.433
Se (196.026 nm)	0.001071 u	ppm	0.002235	> 100.00	12.316700	Y 242.219
Si (288.158 nm)	-0.004662 u	ppm	0.001376	29.51	477.289000	Y 377.433
Sn (189.925 nm)	0.001267	ppm	0.000022	1.76	4.446970	Y 377.433
Sr (421.552 nm)	0.000029	ppm	0.000017	58.95	52.103292	Y_R 488.368
Th (288.505 nm)	0.000954 u	ppm	0.001498	> 100.00	16.162500	Y 377.433
Ti (336.122 nm)	0.000367	ppm	0.000016	4.45	-457.947000	Y 377.433
Tl (190.794 nm)	0.001319	ppm	0.000245	18.55	3.310360	Y 377.433
U (409.013 nm)	0.008755	ppm	0.004951	56.55	-14.345200	Y 377.433
V (292.401 nm)	0.000200	ppm	0.000260	> 100.00	-168.874000	Y 377.433
Zn (206.200 nm)	-0.000017 u	ppm	0.000659	> 100.00	3.734820	Y 377.433
Zr (343.823 nm)	0.000197 u	ppm	0.000296	> 100.00	-163.179000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.072915	24025.215629	0.002842	0.26
Y 377.433	1.065481	688435.383330	0.003733	0.35
Y_R 377.433	1.071030	58960.800000	0.004261	0.40
Y_R 488.368	1.069190	51670.900000	0.002848	0.27
Y_R2 488.368	1.059545	98203.305255	0.001937	0.18
Y_R4	1.070660	45844.900000	0.000496	0.05

Sample Name: CCVL-5717307

Date: 5/23/2019 8:11:26 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007511	ppm	0.000359	4.79	16.171700	Y 377.433
Al (394.401 nm)	0.099033	ppm	0.000270	0.27	1322.790000	Y 377.433
Al H (396.152 nm)	0.228826 u	ppm	0.006804	2.97	251.120000	Y_R 377.433
As (188.980 nm)	0.015899	ppm	0.001371	8.62	24.025300	Y 242.219
B (249.678 nm)	0.091844	ppm	0.000339	0.37	695.287000	Y 242.219
Ba (493.408 nm)	0.008437	ppm	0.000147	1.74	2249.950000	Y_R 488.368
Be (234.861 nm)	0.000973	ppm	0.000012	1.28	91.975600	Y_R 488.368
Bi (223.061 nm)	0.088555	ppm	0.001203	1.36	186.494000	Y 377.433
Ca (315.887 nm)	0.197123	ppm	0.005840	2.96	97.192713	Y_R 377.433
Cd (214.439 nm)	0.005187	ppm	0.000179	3.46	199.790000	Y 377.433
Co (228.615 nm)	0.010544	ppm	0.000496	4.71	238.977000	Y 242.219
Cr (205.560 nm)	0.009504	ppm	0.000579	6.10	61.197100	Y 377.433
Cu (324.754 nm)	0.015379	ppm	0.000455	2.96	1124.140000	Y 377.433
Fe (238.204 nm)	0.101178	ppm	0.000725	0.72	252.313888	Y_R 377.433
Fe H (259.940 nm)	0.050506 u	ppm	0.000416	0.82	161.370000	Y_R 377.433
K (766.491 nm)	2.909550	ppm	0.085440	2.94	4869.400000	Y_R2 488.368
Li (670.783 nm)	0.027710 Q	ppm	0.004127	14.89	-2148.940000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202948	ppm	0.002004	0.99	729.349000	Y 377.433
Mn (257.610 nm)	0.010586	ppm	0.000049	0.47	2906.150000	Y 377.433
Mo (202.032 nm)	0.018493	ppm	0.000334	1.80	258.705000	Y 377.433
Na (589.592 nm)	1.203870	ppm	0.046059	3.83	1003.850000	Y_R2 488.368
Na H (589.593 nm)	1.479949 u	ppm	0.003240	0.22	1063.588123	Y_R4
Ni (231.604 nm)	0.041741	ppm	0.000727	1.74	221.919000	Y 377.433
P (213.618 nm)	2.766230	ppm	0.000767	0.03	4177.060000	Y 242.219
Pb (220.353 nm)	0.007612	ppm	0.001819	23.90	39.187500	Y 242.219
S (181.972 nm)	0.088745	ppm	0.005737	6.47	47.657827	Y 377.433
Sb (206.834 nm)	0.025273	ppm	0.004328	17.13	36.924500	Y 377.433
Se (196.026 nm)	0.017277	ppm	0.000879	5.09	38.645600	Y 242.219
Si (288.158 nm)	0.472342	ppm	0.002709	0.57	3623.760000	Y 377.433
Sn (189.925 nm)	0.098425	ppm	0.000314	0.32	173.911000	Y 377.433
Sr (421.552 nm)	0.009101	ppm	0.000101	1.11	1378.924678	Y_R 488.368
Th (288.505 nm)	0.013918	ppm	0.001321	9.49	38.383200	Y 377.433
Ti (336.122 nm)	0.010067	ppm	0.000019	0.19	803.873000	Y 377.433
Tl (190.794 nm)	0.016215	ppm	0.000458	2.82	39.279500	Y 377.433
U (409.013 nm)	0.073080	ppm	0.006043	8.27	185.969000	Y 377.433
V (292.401 nm)	0.010109	ppm	0.000184	1.82	349.304000	Y 377.433
Zn (206.200 nm)	0.020489	ppm	0.000197	0.96	105.520000	Y 377.433
Zr (343.823 nm)	0.010253	ppm	0.000280	2.73	416.698000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.089443	24395.321720	0.000504	0.05
Y 377.433	1.083833	700293.046127	0.000668	0.06
Y_R 377.433	1.090510	60033.200000	0.002942	0.27
Y_R 488.368	1.088780	52617.500000	0.001983	0.18
Y_R2 488.368	1.079260	100030.599655	0.004750	0.44
Y_R4	1.072140	45908.400000	0.004914	0.46

Sample Name: 280-123513-b-3-e msd@50

Date: 5/23/2019 8:14:54 PM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001510	ppm	0.000694	45.95	-199.376000	Y 377.433
Al (394.401 nm)	0.226413	ppm	0.002277	1.01	3957.460000	Y 377.433
Al H (396.152 nm)	-0.421145 u	ppm	0.004952	1.18	660.999000	Y_R 377.433
As (188.980 nm)	0.041464	ppm	0.002215	5.34	64.742300	Y 242.219
B (249.678 nm)	0.056751	ppm	0.000255	0.45	443.433000	Y 242.219
Ba (493.408 nm)	0.052187	ppm	0.000100	0.19	6488.110000	Y_R 488.368
Be (234.861 nm)	0.020650	ppm	0.000048	0.23	2073.420000	Y_R 488.368
Bi (223.061 nm)	0.035806	ppm	0.000346	0.97	66.282200	Y 377.433
Ca (315.887 nm)	27.543800	ppm	0.049928	0.18	22175.283531	Y_R 377.433
Cd (214.439 nm)	0.021226	ppm	0.000154	0.73	841.777000	Y 377.433
Co (228.615 nm)	0.020858	ppm	0.000161	0.77	494.570000	Y 242.219
Cr (205.560 nm)	0.020623	ppm	0.000292	1.42	140.010000	Y 377.433
Cu (324.754 nm)	0.021568	ppm	0.000300	1.39	1399.720000	Y 377.433
Fe (238.204 nm)	0.683428	ppm	0.000008	0.00	1687.418864	Y_R 377.433
Fe H (259.940 nm)	0.620231 u	ppm	0.000324	0.05	957.986000	Y_R 377.433
K (766.491 nm)	2.624230	ppm	0.034130	1.30	4586.220000	Y_R2 488.368
Li (670.783 nm)	0.076463	ppm	0.001144	1.50	-1299.970000	Y_R2 488.368
Mg (279.078 nm)	22.214900	ppm	0.006912	0.03	78721.200000	Y 377.433
Mn (257.610 nm)	0.052643	ppm	0.000005	0.01	14539.000000	Y 377.433
Mo (202.032 nm)	0.020526	ppm	0.000183	0.89	284.574000	Y 377.433
Na (589.592 nm)	321.711000 o	ppm	0.029589	0.01	238431.000000	Y_R2 488.368
Na H (589.593 nm)	354.564070	ppm	1.672922	0.47	176666.981353	Y_R4
Ni (231.604 nm)	0.019032	ppm	0.000226	1.19	95.043200	Y 377.433
P (213.618 nm)	0.431206	ppm	0.006953	1.61	641.526000	Y 242.219
Pb (220.353 nm)	0.018021	ppm	0.001118	6.21	74.758000	Y 242.219
S (181.972 nm)	2.111988	ppm	0.003066	0.15	957.945200	Y 377.433
Sb (206.834 nm)	0.024339	ppm	0.001827	7.51	35.365000	Y 377.433
Se (196.026 nm)	0.042566	ppm	0.004478	10.52	79.646000	Y 242.219
Si (288.158 nm)	0.361514	ppm	0.001682	0.47	2892.710000	Y 377.433
Sn (189.925 nm)	0.038291	ppm	0.001855	4.84	69.023800	Y 377.433
Sr (421.552 nm)	4.498285	ppm	0.015992	0.36	657920.726929	Y_R 488.368
Th (288.505 nm)	0.019364	ppm	0.002036	10.51	46.233900	Y 377.433
Ti (336.122 nm)	0.024587	ppm	0.000006	0.03	2784.050000	Y 377.433
Tl (190.794 nm)	0.041721	ppm	0.003589	8.60	99.835900	Y 377.433
U (409.013 nm)	0.042724	ppm	0.008340	19.52	87.742400	Y 377.433
V (292.401 nm)	0.021611	ppm	0.000015	0.07	959.876000	Y 377.433
Zn (206.200 nm)	0.014396	ppm	0.000424	2.95	75.369900	Y 377.433
Zr (343.823 nm)	0.010498	ppm	0.000058	0.55	430.776000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.035902	23196.391605	0.003195	0.31
Y 377.433	1.034434	668374.716285	0.003507	0.34
Y_R 377.433	1.070720	58943.500000	0.003455	0.32
Y_R 488.368	1.068190	51622.500000	0.003576	0.33
Y_R2 488.368	1.043932	96756.282557	0.000872	0.08
Y_R4	1.078140	46165.500000	0.010147	0.94

Sample Name: 280-123513-b-4-c@20

Date: 5/23/2019 8:18:44 PM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000179	ppm	0.000143	79.93	-239.542000	Y 377.433
Al (394.401 nm)	-0.041541 u	ppm	0.000501	1.21	206.582000	Y 377.433
Al H (396.152 nm)	-0.312753 u	ppm	0.004479	1.43	25.874700	Y_R 377.433
As (188.980 nm)	-0.001159 u	ppm	0.000646	55.74	-3.153210	Y 242.219
B (249.678 nm)	0.081337	ppm	0.000546	0.67	620.012000	Y 242.219
Ba (493.408 nm)	0.017682	ppm	0.000315	1.78	3145.390000	Y_R 488.368
Be (234.861 nm)	0.000003 u	ppm	0.000073	> 100.00	-5.640090	Y_R 488.368
Bi (223.061 nm)	0.002204	ppm	0.001414	64.13	-10.475700	Y 377.433
Ca (315.887 nm)	12.985338	ppm	0.032215	0.25	10421.593394	Y_R 377.433
Cd (214.439 nm)	0.000039 u	ppm	0.000189	> 100.00	-6.195550	Y 377.433
Co (228.615 nm)	0.000021 u	ppm	0.000070	> 100.00	-21.640600	Y 242.219
Cr (205.560 nm)	0.000048 u	ppm	0.000367	> 100.00	-5.630050	Y 377.433
Cu (324.754 nm)	0.000349	ppm	0.000100	28.66	421.132000	Y 377.433
Fe (238.204 nm)	0.047164	ppm	0.005209	11.04	119.181787	Y_R 377.433
Fe H (259.940 nm)	-0.013618 u	ppm	0.002911	21.38	71.707900	Y_R 377.433
K (766.491 nm)	1.479190	ppm	0.062315	4.21	3449.730000	Y_R2 488.368
Li (670.783 nm)	0.045982	ppm	0.001542	3.35	-1830.760000	Y_R2 488.368
Mg (279.078 nm)	10.350000	ppm	0.010612	0.10	36683.500000	Y 377.433
Mn (257.610 nm)	0.011803	ppm	0.000014	0.12	3242.790000	Y 377.433
Mo (202.032 nm)	-0.000663 u	ppm	0.000089	13.39	14.946800	Y 377.433
Na (589.592 nm)	280.217000 o	ppm	0.624725	0.22	207687.000000	Y_R2 488.368
Na H (589.593 nm)	305.671392	ppm	0.444621	0.15	152350.622714	Y_R4
Ni (231.604 nm)	-0.000552 u	ppm	0.000661	> 100.00	-14.454800	Y 377.433
P (213.618 nm)	-0.000372 u	ppm	0.003424	> 100.00	-5.452760	Y 242.219
Pb (220.353 nm)	-0.002349 u	ppm	0.000776	33.04	4.838360	Y 242.219
S (181.972 nm)	3.247736	ppm	0.006955	0.21	1467.326538	Y 377.433
Sb (206.834 nm)	0.001877 u	ppm	0.005068	> 100.00	-4.225640	Y 377.433
Se (196.026 nm)	-0.002780 u	ppm	0.000832	29.92	6.062600	Y 242.219
Si (288.158 nm)	0.268453	ppm	0.000673	0.25	2278.840000	Y 377.433
Sn (189.925 nm)	-0.000101 u	ppm	0.001050	> 100.00	2.060040	Y 377.433
Sr (421.552 nm)	2.295950	ppm	0.014292	0.62	335829.828044	Y_R 488.368
Th (288.505 nm)	-0.001833 u	ppm	0.005811	> 100.00	11.242900	Y 377.433
Ti (336.122 nm)	0.000163	ppm	0.000119	73.29	-440.916000	Y 377.433
Tl (190.794 nm)	0.000887 u	ppm	0.001790	> 100.00	1.731450	Y 377.433
U (409.013 nm)	0.001512 u	ppm	0.003660	> 100.00	-38.680500	Y 377.433
V (292.401 nm)	0.000449	ppm	0.000005	1.06	-155.976000	Y 377.433
Zn (206.200 nm)	0.003337	ppm	0.000109	3.27	20.386800	Y 377.433
Zr (343.823 nm)	0.000389	ppm	0.000086	22.12	-152.084000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.039238	23271.108679	0.001218	0.12
Y 377.433	1.034924	668691.846710	0.000891	0.09
Y_R 377.433	1.064240	58587.000000	0.002803	0.26
Y_R 488.368	1.060750	51262.900000	0.004088	0.39
Y_R2 488.368	1.036677	96083.879416	0.003078	0.30
Y_R4	1.053970	45130.400000	0.005871	0.56

Sample Name: 280-123578-d-1-e

Date: 5/23/2019 8:22:34 PM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000667	ppm	0.000098	14.70	-222.642000	Y 377.433
Al (394.401 nm)	0.546671	ppm	0.002297	0.42	7568.400000	Y 377.433
Al H (396.152 nm)	0.066784 u	ppm	0.005163	7.73	1315.690000	Y_R 377.433
As (188.980 nm)	0.000995	ppm	0.001196	> 100.00	0.265858	Y 242.219
B (249.678 nm)	0.318217	ppm	0.000538	0.17	2317.510000	Y 242.219
Ba (493.408 nm)	0.054402	ppm	0.000141	0.26	6702.560000	Y_R 488.368
Be (234.861 nm)	0.000041	ppm	0.000006	15.70	-3.730000	Y_R 488.368
Bi (223.061 nm)	0.002048	ppm	0.001456	71.08	-10.743800	Y 377.433
Ca (315.887 nm)	89.565733	ppm	0.244525	0.27	72248.085001	Y_R 377.433
Cd (214.439 nm)	0.000241	ppm	0.000061	25.19	2.053110	Y 377.433
Co (228.615 nm)	0.000009 u	ppm	0.000126	> 100.00	-21.447200	Y 242.219
Cr (205.560 nm)	0.000085 u	ppm	0.000381	> 100.00	-5.394910	Y 377.433
Cu (324.754 nm)	0.000599	ppm	0.000560	93.54	389.945000	Y 377.433
Fe (238.204 nm)	0.490245	ppm	0.001383	0.28	1211.268320	Y_R 377.433
Fe H (259.940 nm)	0.428941 u	ppm	0.003624	0.84	690.515000	Y_R 377.433
K (766.491 nm)	4.887550	ppm	0.089101	1.82	6832.630000	Y_R2 488.368
Li (670.783 nm)	0.051026	ppm	0.004600	9.01	-1742.930000	Y_R2 488.368
Mg (279.078 nm)	33.405200	ppm	0.046043	0.14	118371.000000	Y 377.433
Mn (257.610 nm)	0.025500	ppm	0.000018	0.07	7031.300000	Y 377.433
Mo (202.032 nm)	0.000968	ppm	0.000258	26.66	35.700900	Y 377.433
Na (589.592 nm)	217.484000 o	ppm	0.317965	0.15	161225.000000	Y_R2 488.368
Na H (589.593 nm)	233.501619	ppm	0.109488	0.05	116457.598000	Y_R4
Ni (231.604 nm)	-0.000973 u	ppm	0.002060	> 100.00	-16.801800	Y 377.433
P (213.618 nm)	0.015697	ppm	0.001637	10.43	18.462400	Y 242.219
Pb (220.353 nm)	-0.000961 u	ppm	0.001690	> 100.00	9.466310	Y 242.219
S (181.972 nm)	124.254932 bo	ppm	0.134159	0.11	55829.059765	Y 377.433
Sb (206.834 nm)	0.003818	ppm	0.000858	22.46	-0.811339	Y 377.433
Se (196.026 nm)	-0.001526 u	ppm	0.003383	> 100.00	7.996860	Y 242.219
Si (288.158 nm)	4.412090	ppm	0.023772	0.54	29611.600000	Y 377.433
Sn (189.925 nm)	0.000176 u	ppm	0.000655	> 100.00	2.543230	Y 377.433
Sr (421.552 nm)	3.634521	ppm	0.002824	0.08	531595.404973	Y_R 488.368
Th (288.505 nm)	-0.003033 u	ppm	0.001407	46.39	7.293160	Y 377.433
Ti (336.122 nm)	0.012475	ppm	0.000158	1.27	1420.510000	Y 377.433
Tl (190.794 nm)	0.002114	ppm	0.000388	18.34	1.423170	Y 377.433
U (409.013 nm)	0.021036	ppm	0.005794	27.54	12.795600	Y 377.433
V (292.401 nm)	0.001773	ppm	0.000227	12.82	-85.775900	Y 377.433
Zn (206.200 nm)	0.005247	ppm	0.000615	11.73	29.933300	Y 377.433
Zr (343.823 nm)	0.001188	ppm	0.000132	11.11	-106.037000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045310	23407.079452	0.001194	0.11
Y 377.433	1.046721	676314.065745	0.001479	0.14
Y_R 377.433	1.074100	59129.600000	0.003194	0.30
Y_R 488.368	1.070940	51755.200000	0.003918	0.37
Y_R2 488.368	1.062344	98462.739688	0.002922	0.28
Y_R4	1.073450	45964.600000	0.000195	0.02

Sample Name: 280-123578-d-2-c

Date: 5/23/2019 8:26:13 PM Rack:Tube: 1:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000028 u	ppm	0.000107	> 100.00	-244.909000	Y 377.433
Al (394.401 nm)	0.004883	ppm	0.001351	27.66	189.553000	Y 377.433
Al H (396.152 nm)	0.128227 u	ppm	0.004471	3.49	38.696200	Y_R 377.433
As (188.980 nm)	0.001281	ppm	0.000019	1.48	0.733600	Y 242.219
B (249.678 nm)	0.051771	ppm	0.001079	2.08	408.098000	Y 242.219
Ba (493.408 nm)	-0.000969 u	ppm	0.000445	45.89	1338.790000	Y_R 488.368
Be (234.861 nm)	-0.000018 u	ppm	0.000026	> 100.00	-7.801450	Y_R 488.368
Bi (223.061 nm)	0.002536	ppm	0.000774	30.52	-9.719960	Y 377.433
Ca (315.887 nm)	0.086769	ppm	0.006133	7.07	8.076366	Y_R 377.433
Cd (214.439 nm)	0.000131	ppm	0.000016	11.87	-2.527600	Y 377.433
Co (228.615 nm)	0.000001 u	ppm	0.000056	> 100.00	-22.134700	Y 242.219
Cr (205.560 nm)	-0.000031 u	ppm	0.000026	82.10	-6.186630	Y 377.433
Cu (324.754 nm)	0.000752	ppm	0.000054	7.19	445.994000	Y 377.433
Fe (238.204 nm)	0.066344	ppm	0.000792	1.19	166.457114	Y_R 377.433
Fe H (259.940 nm)	0.014169 u	ppm	0.001521	10.74	110.561000	Y_R 377.433
K (766.491 nm)	-0.063050 u	ppm	0.024208	38.39	1919.010000	Y_R2 488.368
Li (670.783 nm)	0.005672	ppm	0.000319	5.63	-2532.700000	Y_R2 488.368
Mg (279.078 nm)	0.007087	ppm	0.001536	21.68	36.711800	Y 377.433
Mn (257.610 nm)	0.000492	ppm	0.000009	1.91	114.084000	Y 377.433
Mo (202.032 nm)	-0.000603 u	ppm	0.000151	24.99	15.717200	Y 377.433
Na (589.592 nm)	0.729682	ppm	0.031627	4.33	650.680000	Y_R2 488.368
Na H (589.593 nm)	1.776063 u	ppm	0.018157	1.02	1210.858053	Y_R4
Ni (231.604 nm)	-0.000490 u	ppm	0.000722	> 100.00	-14.103900	Y 377.433
P (213.618 nm)	0.000059 u	ppm	0.001718	> 100.00	-4.626790	Y 242.219
Pb (220.353 nm)	-0.001291 u	ppm	0.000035	2.68	8.497310	Y 242.219
S (181.972 nm)	0.001328 u	ppm	0.003136	> 100.00	8.354890	Y 377.433
Sb (206.834 nm)	0.005435	ppm	0.002840	52.24	2.063320	Y 377.433
Se (196.026 nm)	-0.002953 u	ppm	0.000537	18.18	5.759640	Y 242.219
Si (288.158 nm)	0.114155	ppm	0.001267	1.11	1261.040000	Y 377.433
Sn (189.925 nm)	0.000383	ppm	0.000112	29.40	2.903570	Y 377.433
Sr (421.552 nm)	0.000150	ppm	0.000113	75.26	69.920440	Y_R 488.368
Th (288.505 nm)	-0.002064 u	ppm	0.001930	93.48	10.996300	Y 377.433
Ti (336.122 nm)	0.000522	ppm	0.000131	25.08	-437.652000	Y 377.433
Tl (190.794 nm)	0.000784 u	ppm	0.001474	> 100.00	2.007710	Y 377.433
U (409.013 nm)	-0.000350 u	ppm	0.001787	> 100.00	-42.869300	Y 377.433
V (292.401 nm)	0.000192	ppm	0.000189	98.53	-170.734000	Y 377.433
Zn (206.200 nm)	0.002239	ppm	0.000248	11.08	14.939000	Y 377.433
Zr (343.823 nm)	0.000609	ppm	0.000057	9.43	-139.389000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087827	24359.129980	0.003643	0.33
Y 377.433	1.083371	699994.568430	0.004384	0.40
Y_R 377.433	1.086940	59836.500000	0.003551	0.33
Y_R 488.368	1.083930	52383.000000	0.001546	0.14
Y_R2 488.368	1.074060	99548.650046	0.001538	0.14
Y_R4	1.078380	46175.800000	0.004143	0.38

Sample Name: 280-123610-c-1-d@20

Date: 5/23/2019 8:29:40 PM Rack:Tube: 1:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000620	ppm	0.000149	23.98	-223.899000	Y 377.433
Al (394.401 nm)	0.178216	ppm	0.000904	0.51	2274.370000	Y 377.433
Al H (396.152 nm)	0.296304 u	ppm	0.009132	3.08	412.682000	Y_R 377.433
As (188.980 nm)	0.007744	ppm	0.000503	6.49	10.990100	Y 242.219
B (249.678 nm)	2.357390	ppm	0.004093	0.17	16932.000000	Y 242.219
Ba (493.408 nm)	0.041261	ppm	0.000694	1.68	5430.410000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000050	> 100.00	-14.308700	Y_R 488.368
Bi (223.061 nm)	0.002829 u	ppm	0.004176	> 100.00	-8.672150	Y 377.433
Ca (315.887 nm)	7.884423	ppm	0.000433	0.01	6303.469699	Y_R 377.433
Cd (214.439 nm)	0.000042 u	ppm	0.000105	> 100.00	-5.438550	Y 377.433
Co (228.615 nm)	0.002993	ppm	0.000250	8.36	52.619600	Y 242.219
Cr (205.560 nm)	0.023686	ppm	0.000310	1.31	161.849000	Y 377.433
Cu (324.754 nm)	0.001239	ppm	0.000216	17.42	466.790000	Y 377.433
Fe (238.204 nm)	1.513234	ppm	0.007098	0.47	3732.687932	Y_R 377.433
Fe H (259.940 nm)	1.475860 u	ppm	0.008607	0.58	2154.370000	Y_R 377.433
K (766.491 nm)	51.028700	ppm	0.387710	0.76	52629.100000	Y_R2 488.368
Li (670.783 nm)	0.318581	ppm	0.000690	0.22	2916.180000	Y_R2 488.368
Mg (279.078 nm)	23.949200	ppm	0.004220	0.02	84866.200000	Y 377.433
Mn (257.610 nm)	0.082735	ppm	0.000033	0.04	22862.500000	Y 377.433
Mo (202.032 nm)	-0.000234 u	ppm	0.000336	> 100.00	20.414500	Y 377.433
Na (589.592 nm)	249.626000 o	ppm	1.475220	0.59	185031.000000	Y_R2 488.368
Na H (589.593 nm)	272.566232	ppm	0.867979	0.32	135886.052120	Y_R4
Ni (231.604 nm)	0.016984	ppm	0.000398	2.35	83.549600	Y 377.433
P (213.618 nm)	0.543369	ppm	0.000741	0.14	817.176000	Y 242.219
Pb (220.353 nm)	-0.001004 u	ppm	0.000953	94.96	9.332190	Y 242.219
S (181.972 nm)	4.864982	ppm	0.009885	0.20	2193.792440	Y 377.433
Sb (206.834 nm)	0.002665	ppm	0.000562	21.08	-2.634190	Y 377.433
Se (196.026 nm)	-0.001328 u	ppm	0.001764	> 100.00	8.119490	Y 242.219
Si (288.158 nm)	2.846790	ppm	0.004968	0.17	19286.400000	Y 377.433
Sn (189.925 nm)	0.002813	ppm	0.001063	37.78	7.143730	Y 377.433
Sr (421.552 nm)	0.074993	ppm	0.000155	0.21	11015.828332	Y_R 488.368
Th (288.505 nm)	0.004389	ppm	0.000212	4.83	22.334500	Y 377.433
Ti (336.122 nm)	0.017762	ppm	0.000160	0.90	1830.200000	Y 377.433
Tl (190.794 nm)	-0.000337 u	ppm	0.000263	77.96	-1.282580	Y 377.433
U (409.013 nm)	0.001161	ppm	0.000909	78.29	-40.302700	Y 377.433
V (292.401 nm)	0.010513	ppm	0.000145	1.38	371.428000	Y 377.433
Zn (206.200 nm)	0.013463	ppm	0.000163	1.21	70.869900	Y 377.433
Zr (343.823 nm)	0.018199	ppm	0.000017	0.09	874.831000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.058592	23704.476728	0.002275	0.21
Y 377.433	1.057639	683368.034301	0.001245	0.12
Y_R 377.433	1.086540	59814.200000	0.004683	0.43
Y_R 488.368	1.083770	52375.500000	0.004954	0.46
Y_R2 488.368	1.057942	98054.796648	0.004491	0.42
Y_R4	1.075940	46071.000000	0.003147	0.29

Sample Name: mb 280-458719/1-a

Date: 5/23/2019 8:33:25 PM Rack:Tube: 1:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000046 u	ppm	0.000174	> 100.00	-247.531000	Y 377.433
Al (394.401 nm)	0.002564	ppm	0.000861	33.57	160.111000	Y 377.433
Al H (396.152 nm)	0.132479 u	ppm	0.002265	1.71	47.396500	Y_R 377.433
As (188.980 nm)	0.001308	ppm	0.000452	34.56	0.776677	Y 242.219
B (249.678 nm)	-0.001041 u	ppm	0.000256	24.63	29.595800	Y 242.219
Ba (493.408 nm)	-0.001162 u	ppm	0.000224	19.25	1320.070000	Y_R 488.368
Be (234.861 nm)	0.000004 u	ppm	0.000016	> 100.00	-5.551040	Y_R 488.368
Bi (223.061 nm)	0.001263 u	ppm	0.001883	> 100.00	-12.625600	Y 377.433
Ca (315.887 nm)	0.023935	ppm	0.004368	18.25	-42.648802	Y_R 377.433
Cd (214.439 nm)	0.000050	ppm	0.000040	79.39	-5.750700	Y 377.433
Co (228.615 nm)	0.000089	ppm	0.000073	81.69	-19.957500	Y 242.219
Cr (205.560 nm)	0.000001 u	ppm	0.000699	> 100.00	-5.965160	Y 377.433
Cu (324.754 nm)	0.000244	ppm	0.000020	8.38	423.154000	Y 377.433
Fe (238.204 nm)	0.048977	ppm	0.000147	0.30	123.651463	Y_R 377.433
Fe H (259.940 nm)	-0.001849 u	ppm	0.001773	95.87	88.163500	Y_R 377.433
K (766.491 nm)	0.015467	ppm	0.015178	98.13	1996.940000	Y_R2 488.368
Li (670.783 nm)	0.003895	ppm	0.000981	25.19	-2563.630000	Y_R2 488.368
Mg (279.078 nm)	0.002275	ppm	0.000078	3.42	19.893900	Y 377.433
Mn (257.610 nm)	0.000629	ppm	0.000039	6.22	151.905000	Y 377.433
Mo (202.032 nm)	-0.000618 u	ppm	0.000191	30.81	15.519800	Y 377.433
Na (589.592 nm)	0.186926	ppm	0.021093	11.28	248.649000	Y_R2 488.368
Na H (589.593 nm)	1.227376 u	ppm	0.017513	1.43	937.973192	Y_R4
Ni (231.604 nm)	0.000182 u	ppm	0.000636	> 100.00	-10.349500	Y 377.433
P (213.618 nm)	0.000652 u	ppm	0.000993	> 100.00	-3.646980	Y 242.219
Pb (220.353 nm)	-0.001048 u	ppm	0.000932	88.96	9.297720	Y 242.219
S (181.972 nm)	0.000428 u	ppm	0.003395	> 100.00	7.949659	Y 377.433
Sb (206.834 nm)	0.003640	ppm	0.002962	81.38	-1.106550	Y 377.433
Se (196.026 nm)	-0.000136 u	ppm	0.001433	> 100.00	10.342400	Y 242.219
Si (288.158 nm)	0.018471	ppm	0.003030	16.40	629.881000	Y 377.433
Sn (189.925 nm)	0.000147 u	ppm	0.001160	> 100.00	2.492530	Y 377.433
Sr (421.552 nm)	-0.000092 u	ppm	0.000113	> 100.00	34.417348	Y_R 488.368
Th (288.505 nm)	0.002112	ppm	0.000727	34.41	18.184700	Y 377.433
Ti (336.122 nm)	0.000338	ppm	0.000071	20.85	-461.664000	Y 377.433
Tl (190.794 nm)	0.000694 u	ppm	0.001483	> 100.00	1.790990	Y 377.433
U (409.013 nm)	0.004076	ppm	0.000626	15.35	-28.989200	Y 377.433
V (292.401 nm)	0.000249	ppm	0.000145	58.34	-167.251000	Y 377.433
Zn (206.200 nm)	0.002794	ppm	0.000062	2.24	17.692900	Y 377.433
Zr (343.823 nm)	0.000378	ppm	0.000002	0.42	-152.722000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086158	24321.758120	0.001817	0.17
Y 377.433	1.079744	697650.974921	0.002770	0.26
Y_R 377.433	1.085290	59745.800000	0.001988	0.18
Y_R 488.368	1.080080	52197.000000	0.001287	0.12
Y_R2 488.368	1.064972	98706.316226	0.002748	0.26
Y_R4	1.072690	45931.900000	0.004433	0.41

Sample Name: lcs 280-458719/2-a

Date: 5/23/2019 8:36:50 PM Rack:Tube: 1:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051305	ppm	0.000104	0.20	1240.760000	Y 377.433
Al (394.401 nm)	10.115300 o	ppm	0.013731	0.14	121248.000000	Y 377.433
Al H (396.152 nm)	10.177400	ppm	0.033530	0.33	21220.200000	Y_R 377.433
As (188.980 nm)	2.028080	ppm	0.006245	0.31	3229.910000	Y 242.219
B (249.678 nm)	0.993745	ppm	0.001978	0.20	7153.490000	Y 242.219
Ba (493.408 nm)	2.027510	ppm	0.001143	0.06	197831.000000	Y_R 488.368
Be (234.861 nm)	1.012600	ppm	0.006668	0.66	102049.000000	Y_R 488.368
Bi (223.061 nm)	1.930190	ppm	0.000895	0.05	4388.990000	Y 377.433
Ca (315.887 nm)	50.233898	ppm	0.127766	0.25	40496.413715	Y_R 377.433
Cd (214.439 nm)	1.002740	ppm	0.000311	0.03	40117.500000	Y 377.433
Co (228.615 nm)	0.986329	ppm	0.000457	0.05	24411.000000	Y 242.219
Cr (205.560 nm)	1.002690	ppm	0.004939	0.49	7091.590000	Y 377.433
Cu (324.754 nm)	0.985601	ppm	0.002459	0.25	46236.200000	Y 377.433
Fe (238.204 nm)	10.151872 o	ppm	0.004557	0.04	25024.836548	Y_R 377.433
Fe H (259.940 nm)	10.162100	ppm	0.006040	0.06	14299.900000	Y_R 377.433
K (766.491 nm)	49.912400	ppm	0.027322	0.05	51521.100000	Y_R2 488.368
Li (670.783 nm)	1.001890	ppm	0.000705	0.07	14815.000000	Y_R2 488.368
Mg (279.078 nm)	50.287100	ppm	0.034105	0.07	178140.000000	Y 377.433
Mn (257.610 nm)	1.016530	ppm	0.001742	0.17	281149.000000	Y 377.433
Mo (202.032 nm)	1.025490	ppm	0.001077	0.11	13072.300000	Y 377.433
Na (589.592 nm)	48.291100	ppm	0.021362	0.04	36297.200000	Y_R2 488.368
Na H (589.593 nm)	53.510852	ppm	0.128515	0.24	26940.716601	Y_R4
Ni (231.604 nm)	0.984674	ppm	0.002032	0.21	5493.950000	Y 377.433
P (213.618 nm)	20.122300	ppm	0.033939	0.17	30163.400000	Y 242.219
Pb (220.353 nm)	1.005830	ppm	0.003129	0.31	3466.690000	Y 242.219
S (181.972 nm)	10.055382	ppm	0.018576	0.18	4530.277320	Y 377.433
Sb (206.834 nm)	0.004201	ppm	0.001670	39.76	-5.153980	Y 377.433
Se (196.026 nm)	1.982150	ppm	0.004281	0.22	3230.820000	Y 242.219
Si (288.158 nm)	2.123740	ppm	0.000524	0.02	14516.900000	Y 377.433
Sn (189.925 nm)	2.004200	ppm	0.003171	0.16	3498.000000	Y 377.433
Sr (421.552 nm)	1.014646	ppm	0.000068	0.01	148441.007953	Y_R 488.368
Th (288.505 nm)	1.029590	ppm	0.006983	0.68	1715.570000	Y 377.433
Ti (336.122 nm)	1.015180	ppm	0.001456	0.14	131664.000000	Y 377.433
Tl (190.794 nm)	2.011600	ppm	0.000148	0.01	4863.890000	Y 377.433
U (409.013 nm)	1.999310	ppm	0.003767	0.19	6161.500000	Y 377.433
V (292.401 nm)	1.007290	ppm	0.002183	0.22	52947.100000	Y 377.433
Zn (206.200 nm)	0.496915	ppm	0.000690	0.14	2471.650000	Y 377.433
Zr (343.823 nm)	0.500997	ppm	0.000014	0.00	28713.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.039913	23286.224773	0.001852	0.18
Y 377.433	1.043686	674352.837200	0.000403	0.04
Y_R 377.433	1.061010	58409.200000	0.006579	0.62
Y_R 488.368	1.058720	51164.800000	0.006095	0.58
Y_R2 488.368	1.046782	97020.401813	0.004351	0.42
Y_R4	1.073860	45982.300000	0.004349	0.40

Sample Name: 280-123847-g-1-a

Date: 5/23/2019 8:40:30 PM Rack:Tube: 1:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001544	ppm	0.000050	3.21	-192.296000	Y 377.433
Al (394.401 nm)	0.009553	ppm	0.001747	18.29	494.382000	Y 377.433
Al H (396.152 nm)	-0.050093 u	ppm	0.015793	31.53	37.633200	Y_R 377.433
As (188.980 nm)	0.024392	ppm	0.001592	6.53	37.293500	Y 242.219
B (249.678 nm)	0.338368	ppm	0.000427	0.13	2456.810000	Y 242.219
Ba (493.408 nm)	0.492772	ppm	0.000578	0.12	49171.100000	Y_R 488.368
Be (234.861 nm)	0.000018	ppm	0.000002	9.28	-44.263500	Y_R 488.368
Bi (223.061 nm)	-0.001804 u	ppm	0.000099	5.51	-17.951800	Y 377.433
Ca (315.887 nm)	115.436045	ppm	0.291448	0.25	93134.038790	Y_R 377.433
Cd (214.439 nm)	0.000173	ppm	0.000021	12.05	3.225050	Y 377.433
Co (228.615 nm)	0.000348	ppm	0.000404	> 100.00	-13.553100	Y 242.219
Cr (205.560 nm)	0.000277 u	ppm	0.000426	> 100.00	-4.010260	Y 377.433
Cu (324.754 nm)	-0.001317 u	ppm	0.000467	35.46	286.575000	Y 377.433
Fe (238.204 nm)	9.259432 o	ppm	0.019363	0.21	22825.189912	Y_R 377.433
Fe H (259.940 nm)	9.262540	ppm	0.005876	0.06	13042.100000	Y_R 377.433
K (766.491 nm)	0.281994	ppm	0.070187	24.89	2261.480000	Y_R2 488.368
Li (670.783 nm)	0.011838	ppm	0.001994	16.85	-2425.330000	Y_R2 488.368
Mg (279.078 nm)	78.739900	ppm	0.042417	0.05	278987.000000	Y 377.433
Mn (257.610 nm)	0.846857	ppm	0.000097	0.01	234219.000000	Y 377.433
Mo (202.032 nm)	0.000755	ppm	0.000441	58.45	32.996100	Y 377.433
Na (589.592 nm)	78.559300 o	ppm	0.351801	0.45	58404.200000	Y_R2 488.368
Na H (589.593 nm)	83.297039	ppm	0.073103	0.09	41754.623906	Y_R4
Ni (231.604 nm)	-0.004746 u	ppm	0.000184	3.89	-37.887600	Y 377.433
P (213.618 nm)	0.024097	ppm	0.002907	12.06	31.767500	Y 242.219
Pb (220.353 nm)	0.015666	ppm	0.000154	0.98	66.806200	Y 242.219
S (181.972 nm)	2.398685	ppm	0.007051	0.29	1093.370749	Y 377.433
Sb (206.834 nm)	0.001128 u	ppm	0.002828	> 100.00	-4.733350	Y 377.433
Se (196.026 nm)	0.000634 u	ppm	0.001973	> 100.00	10.274500	Y 242.219
Si (288.158 nm)	11.282400	ppm	0.032517	0.29	74930.200000	Y 377.433
Sn (189.925 nm)	-0.000369 u	ppm	0.000644	> 100.00	1.593430	Y 377.433
Sr (421.552 nm)	0.999017	ppm	0.001737	0.17	146155.190541	Y_R 488.368
Th (288.505 nm)	-0.001049 u	ppm	0.002470	> 100.00	25.712000	Y 377.433
Ti (336.122 nm)	-0.000256 u	ppm	0.000009	3.48	-145.448000	Y 377.433
Tl (190.794 nm)	0.003732	ppm	0.002050	54.92	3.161360	Y 377.433
U (409.013 nm)	0.028923	ppm	0.002072	7.17	40.581600	Y 377.433
V (292.401 nm)	0.001427	ppm	0.000029	2.04	-104.777000	Y 377.433
Zn (206.200 nm)	0.004252	ppm	0.000022	0.53	26.351800	Y 377.433
Zr (343.823 nm)	0.000925	ppm	0.000083	8.97	-121.161000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.046025	23423.070911	0.002104	0.20
Y 377.433	1.047277	676673.380098	0.002095	0.20
Y_R 377.433	1.070490	58930.800000	0.004207	0.39
Y_R 488.368	1.064690	51453.300000	0.003063	0.29
Y_R2 488.368	1.051598	97466.755438	0.003080	0.29
Y_R4	1.057210	45269.100000	0.000101	0.01

Sample Name: 280-123847-g-2-a

Date: 5/23/2019 8:44:08 PM Rack:Tube: 1:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001173	ppm	0.000490	41.75	-205.269000	Y 377.433
Al (394.401 nm)	0.004695	ppm	0.001247	26.56	434.250000	Y 377.433
Al H (396.152 nm)	-0.067725 u	ppm	0.001075	1.59	-3.986270	Y_R 377.433
As (188.980 nm)	0.023531	ppm	0.001162	4.94	35.921700	Y 242.219
B (249.678 nm)	0.333494	ppm	0.000590	0.18	2421.890000	Y 242.219
Ba (493.408 nm)	0.485236	ppm	0.000971	0.20	48441.100000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000054	96.64	-51.671700	Y_R 488.368
Bi (223.061 nm)	0.001220 u	ppm	0.001783	> 100.00	-11.058100	Y 377.433
Ca (315.887 nm)	113.940698	ppm	0.007097	0.01	91926.779921	Y_R 377.433
Cd (214.439 nm)	0.000276	ppm	0.000066	23.94	7.330830	Y 377.433
Co (228.615 nm)	0.000219 u	ppm	0.000375	> 100.00	-16.762000	Y 242.219
Cr (205.560 nm)	0.000393	ppm	0.000188	47.95	-3.184710	Y 377.433
Cu (324.754 nm)	-0.000998 u	ppm	0.000124	12.44	301.372000	Y 377.433
Fe (238.204 nm)	9.264959 o	ppm	0.021065	0.23	22838.811304	Y_R 377.433
Fe H (259.940 nm)	9.238660	ppm	0.007984	0.09	13008.700000	Y_R 377.433
K (766.491 nm)	0.285103	ppm	0.044711	15.68	2264.560000	Y_R2 488.368
Li (670.783 nm)	0.009621	ppm	0.005006	52.04	-2463.940000	Y_R2 488.368
Mg (279.078 nm)	77.635500	ppm	0.080788	0.10	275074.000000	Y 377.433
Mn (257.610 nm)	0.836520	ppm	0.000790	0.09	231359.000000	Y 377.433
Mo (202.032 nm)	0.000184	ppm	0.000170	92.69	25.727000	Y 377.433
Na (589.592 nm)	77.761100 o	ppm	0.026630	0.03	57811.400000	Y_R2 488.368
Na H (589.593 nm)	82.329217	ppm	0.178058	0.22	41273.286047	Y_R4
Ni (231.604 nm)	-0.003822 u	ppm	0.001448	37.89	-32.728100	Y 377.433
P (213.618 nm)	0.026278	ppm	0.000266	1.01	35.068500	Y 242.219
Pb (220.353 nm)	0.016955	ppm	0.000485	2.86	71.253800	Y 242.219
S (181.972 nm)	2.346841	ppm	0.018235	0.78	1069.976567	Y 377.433
Sb (206.834 nm)	-0.002548 u	ppm	0.000542	21.25	-11.223000	Y 377.433
Se (196.026 nm)	0.000545 u	ppm	0.002112	> 100.00	10.119000	Y 242.219
Si (288.158 nm)	11.122300	ppm	0.043244	0.39	73874.000000	Y 377.433
Sn (189.925 nm)	0.001058	ppm	0.000192	18.11	4.081770	Y 377.433
Sr (421.552 nm)	0.984956	ppm	0.000793	0.08	144098.754175	Y_R 488.368
Th (288.505 nm)	-0.002951 u	ppm	0.000567	19.20	22.272900	Y 377.433
Ti (336.122 nm)	-0.000447 u	ppm	0.000123	27.51	-175.440000	Y 377.433
Tl (190.794 nm)	0.002100 u	ppm	0.003161	> 100.00	-0.723798	Y 377.433
U (409.013 nm)	0.040580	ppm	0.004532	11.17	77.264900	Y 377.433
V (292.401 nm)	0.001457	ppm	0.000134	9.18	-103.750000	Y 377.433
Zn (206.200 nm)	0.006160	ppm	0.001113	18.08	35.817800	Y 377.433
Zr (343.823 nm)	0.001019	ppm	0.000135	13.21	-115.738000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045019	23400.552043	0.002166	0.21
Y 377.433	1.049277	677965.280546	0.001455	0.14
Y_R 377.433	1.066300	58700.400000	0.003671	0.34
Y_R 488.368	1.062850	51364.400000	0.004102	0.39
Y_R2 488.368	1.036879	96102.520406	0.006773	0.65
Y_R4	1.055000	45174.600000	0.000716	0.07

Sample Name: 280-123847-g-3-a

Date: 5/23/2019 8:47:46 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001784	ppm	0.000013	0.75	-194.370000	Y 377.433
Al (394.401 nm)	0.060269	ppm	0.000173	0.29	1697.190000	Y 377.433
Al H (396.152 nm)	-0.404655 u	ppm	0.006381	1.58	225.513000	Y_R 377.433
As (188.980 nm)	0.002513	ppm	0.000507	20.20	2.697990	Y 242.219
B (249.678 nm)	1.684770	ppm	0.001815	0.11	12112.000000	Y 242.219
Ba (493.408 nm)	0.014935	ppm	0.000025	0.17	2879.260000	Y_R 488.368
Be (234.861 nm)	-0.000044 u	ppm	0.000039	89.57	-10.245600	Y_R 488.368
Bi (223.061 nm)	0.002338	ppm	0.000756	32.35	-10.169200	Y 377.433
Ca (315.887 nm)	157.189015	ppm	0.102303	0.07	126842.852119	Y_R 377.433
Cd (214.439 nm)	0.000400	ppm	0.000071	17.85	8.242030	Y 377.433
Co (228.615 nm)	-0.000196 u	ppm	0.000222	> 100.00	-27.012100	Y 242.219
Cr (205.560 nm)	0.001937	ppm	0.000330	17.04	7.653070	Y 377.433
Cu (324.754 nm)	-0.000702 u	ppm	0.000036	5.15	288.969000	Y 377.433
Fe (238.204 nm)	0.024388	ppm	0.003199	13.12	63.043395	Y_R 377.433
Fe H (259.940 nm)	-0.044758 u	ppm	0.001253	2.80	28.166100	Y_R 377.433
K (766.491 nm)	3.994090	ppm	0.001210	0.03	5945.840000	Y_R2 488.368
Li (670.783 nm)	0.074500	ppm	0.005296	7.11	-1334.150000	Y_R2 488.368
Mg (279.078 nm)	80.415000	ppm	0.130227	0.16	284935.000000	Y 377.433
Mn (257.610 nm)	0.000905	ppm	0.000044	4.91	228.180000	Y 377.433
Mo (202.032 nm)	0.020081	ppm	0.000003	0.02	278.908000	Y 377.433
Na (589.592 nm)	582.050000 o	ppm	1.149080	0.20	431271.000000	Y_R2 488.368
Na H (589.593 nm)	660.400663	ppm	1.365955	0.21	328772.217789	Y_R4
Ni (231.604 nm)	-0.003297 u	ppm	0.000512	15.54	-29.791000	Y 377.433
P (213.618 nm)	0.009620	ppm	0.002870	29.84	8.626730	Y 242.219
Pb (220.353 nm)	-0.001702 u	ppm	0.000990	58.20	7.141910	Y 242.219
S (181.972 nm)	215.516185 bo	ppm	0.638374	0.30	96827.990018	Y 377.433
Sb (206.834 nm)	0.000590 u	ppm	0.002704	> 100.00	-6.623940	Y 377.433
Se (196.026 nm)	0.019930	ppm	0.001213	6.08	42.963700	Y 242.219
Si (288.158 nm)	7.836060	ppm	0.003689	0.05	52197.200000	Y 377.433
Sn (189.925 nm)	0.000808	ppm	0.000267	33.02	3.645790	Y 377.433
Sr (421.552 nm)	3.361163	ppm	0.007264	0.22	491616.906497	Y_R 488.368
Th (288.505 nm)	0.002933	ppm	0.001403	47.84	13.058200	Y 377.433
Ti (336.122 nm)	-0.000655 u	ppm	0.000077	11.75	-55.284900	Y 377.433
Tl (190.794 nm)	0.004302	ppm	0.001228	28.56	3.896450	Y 377.433
U (409.013 nm)	0.050769	ppm	0.009019	17.77	96.915000	Y 377.433
V (292.401 nm)	0.026415	ppm	0.000305	1.16	1218.900000	Y 377.433
Zn (206.200 nm)	0.004181	ppm	0.000309	7.39	24.573700	Y 377.433
Zr (343.823 nm)	0.000262	ppm	0.000181	69.06	-159.435000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993865	22255.091519	0.000216	0.02
Y 377.433	0.998986	645471.262556	0.001683	0.17
Y_R 377.433	1.047300	57654.500000	0.003210	0.31
Y_R 488.368	1.041990	50356.400000	0.001088	0.10
Y_R2 488.368	1.016066	94173.485813	0.002678	0.26
Y_R4	1.028900	44056.800000	0.005922	0.58

Sample Name: CCVH-5713036

Date: 5/23/2019 8:51:52 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004589	ppm	0.000039	0.84	-95.127200	Y 377.433
Al (394.401 nm)	50.041500 o	ppm	0.039865	0.08	596830.000000	Y 377.433
Al H (396.152 nm)	49.489500	ppm	0.074322	0.15	101760.000000	Y_R 377.433
As (188.980 nm)	0.004482	ppm	0.002573	57.40	4.419400	Y 242.219
B (249.678 nm)	-0.000921 u	ppm	0.000197	21.45	1.795070	Y 242.219
Ba (493.408 nm)	0.001658	ppm	0.000156	9.43	1631.470000	Y_R 488.368
Be (234.861 nm)	0.001014	ppm	0.000117	11.49	-117.750000	Y_R 488.368
Bi (223.061 nm)	0.009195	ppm	0.000759	8.26	14.363900	Y 377.433
Ca (315.887 nm)	-0.010901 u	ppm	0.007626	69.96	-58.250176	Y_R 377.433
Cd (214.439 nm)	0.001463	ppm	0.000108	7.36	72.503800	Y 377.433
Co (228.615 nm)	0.003100	ppm	0.000018	0.58	54.519300	Y 242.219
Cr (205.560 nm)	0.001518	ppm	0.000899	59.20	3.377280	Y 377.433
Cu (324.754 nm)	0.003460	ppm	0.000329	9.51	1504.690000	Y 377.433
Fe (238.204 nm)	49.246268 o	ppm	0.111802	0.23	121383.046020	Y_R 377.433
Fe H (259.940 nm)	49.400800	ppm	0.153034	0.31	69165.300000	Y_R 377.433
K (766.491 nm)	0.351373	ppm	0.051560	14.67	2330.340000	Y_R2 488.368
Li (670.783 nm)	0.002872	ppm	0.000585	20.36	-2581.460000	Y_R2 488.368
Mg (279.078 nm)	0.036244	ppm	0.000863	2.38	60.565200	Y 377.433
Mn (257.610 nm)	0.001015	ppm	0.000006	0.55	258.694000	Y 377.433
Mo (202.032 nm)	0.000266 u	ppm	0.000594	> 100.00	26.775900	Y 377.433
Na (589.592 nm)	238.395000 o	ppm	0.607001	0.25	176703.000000	Y_R2 488.368
Na H (589.593 nm)	255.076577	ppm	0.578301	0.23	127187.720414	Y_R4
Ni (231.604 nm)	0.003343	ppm	0.001142	34.16	7.316990	Y 377.433
P (213.618 nm)	4.889830	ppm	0.013531	0.28	7390.470000	Y 242.219
Pb (220.353 nm)	0.006827	ppm	0.001064	15.59	28.964300	Y 242.219
S (181.972 nm)	5.030256	ppm	0.026758	0.53	2267.420719	Y 377.433
Sb (206.834 nm)	0.004280	ppm	0.001499	35.02	4.376050	Y 377.433
Se (196.026 nm)	0.004921	ppm	0.001584	32.18	4.840970	Y 242.219
Si (288.158 nm)	0.017983	ppm	0.001183	6.58	626.667000	Y 377.433
Sn (189.925 nm)	0.000513	ppm	0.000597	> 100.00	3.132060	Y 377.433
Sr (421.552 nm)	0.001035	ppm	0.000085	8.23	206.516513	Y_R 488.368
Th (288.505 nm)	4.953970	ppm	0.002585	0.05	8656.270000	Y 377.433
Ti (336.122 nm)	0.002047	ppm	0.000010	0.48	-239.448000	Y 377.433
Tl (190.794 nm)	0.001236	ppm	0.000445	36.02	-1.890810	Y 377.433
U (409.013 nm)	0.547996 Q	ppm	0.001390	0.25	1710.950000 Q	Y 377.433
V (292.401 nm)	0.001138	ppm	0.000108	9.49	377.227000	Y 377.433
Zn (206.200 nm)	0.003308	ppm	0.000807	24.40	27.841100	Y 377.433
Zr (343.823 nm)	0.001510	ppm	0.000061	4.02	-87.424500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.042116	23335.547615	0.002309	0.22
Y 377.433	1.039545	671677.119061	0.000932	0.09
Y_R 377.433	1.056900	58182.800000	0.006477	0.61
Y_R 488.368	1.053570	50915.800000	0.003616	0.34
Y_R2 488.368	1.045746	96924.413517	0.002032	0.19
Y_R4	1.063660	45545.300000	0.002645	0.25

Sample Name: CCV-5717467

Date: 5/23/2019 8:55:36 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.488197	ppm	0.001503	0.31	16870.600000	Y 377.433
Al (394.401 nm)	0.511405	ppm	0.003530	0.69	6363.210000	Y 377.433
Al H (396.152 nm)	0.571625 u	ppm	0.003214	0.56	1184.770000	Y_R 377.433
As (188.980 nm)	0.491806	ppm	0.001882	0.38	782.259000	Y 242.219
B (249.678 nm)	0.483845	ppm	0.001166	0.24	3503.430000	Y 242.219
Ba (493.408 nm)	0.489516	ppm	0.000768	0.16	48850.400000	Y_R 488.368
Be (234.861 nm)	0.485762	ppm	0.001277	0.26	48962.000000	Y_R 488.368
Bi (223.061 nm)	0.958783	ppm	0.007484	0.78	2171.920000	Y 377.433
Ca (315.887 nm)	4.934038	ppm	0.001478	0.03	3921.604616	Y_R 377.433
Cd (214.439 nm)	0.495850	ppm	0.001984	0.40	19832.800000	Y 377.433
Co (228.615 nm)	0.491450	ppm	0.000460	0.09	12151.100000	Y 242.219
Cr (205.560 nm)	0.490894	ppm	0.002862	0.58	3468.980000	Y 377.433
Cu (324.754 nm)	0.488057	ppm	0.003495	0.72	23072.600000	Y 377.433
Fe (238.204 nm)	2.476260	ppm	0.007525	0.30	6106.315704	Y_R 377.433
Fe H (259.940 nm)	2.432150 u	ppm	0.007197	0.30	3491.490000	Y_R 377.433
K (766.491 nm)	48.312100	ppm	0.167542	0.35	49932.800000	Y_R2 488.368
Li (670.783 nm)	0.490350	ppm	0.000485	0.10	5907.300000	Y_R2 488.368
Mg (279.078 nm)	19.718400	ppm	0.067615	0.34	69874.000000	Y 377.433
Mn (257.610 nm)	0.493159	ppm	0.001081	0.22	136386.000000	Y 377.433
Mo (202.032 nm)	0.491805	ppm	0.001872	0.38	6281.420000	Y 377.433
Na (589.592 nm)	23.994500	ppm	0.062313	0.26	17984.400000	Y_R2 488.368
Na H (589.593 nm)	26.965286 u	ppm	0.206489	0.77	13738.504285	Y_R4
Ni (231.604 nm)	0.493307	ppm	0.002849	0.58	2746.080000	Y 377.433
P (213.618 nm)	0.055265	ppm	0.001103	2.00	-60.869900	Y 242.219
Pb (220.353 nm)	0.493386	ppm	0.002434	0.49	1705.480000	Y 242.219
S (181.972 nm)	0.001150 u	ppm	0.006800	> 100.00	10.014165	Y 377.433
Sb (206.834 nm)	0.496051	ppm	0.004264	0.86	865.433000	Y 377.433
Se (196.026 nm)	0.489055	ppm	0.000983	0.20	805.513000	Y 242.219
Si (288.158 nm)	4.827360	ppm	0.014983	0.31	32350.800000	Y 377.433
Sn (189.925 nm)	0.492877	ppm	0.000483	0.10	861.920000	Y 377.433
Sr (421.552 nm)	0.490412	ppm	0.000761	0.16	71770.934481	Y_R 488.368
Th (288.505 nm)	0.013101	ppm	0.002107	16.08	-12.746200	Y 377.433
Ti (336.122 nm)	0.488181	ppm	0.000714	0.15	62986.500000	Y 377.433
Tl (190.794 nm)	0.502819	ppm	0.000911	0.18	1214.810000	Y 377.433
U (409.013 nm)	0.019842	ppm	0.003026	15.25	-38.656900	Y 377.433
V (292.401 nm)	0.488413	ppm	0.000926	0.19	25576.200000	Y 377.433
Zn (206.200 nm)	0.497011	ppm	0.000784	0.16	2470.940000	Y 377.433
Zr (343.823 nm)	0.490265	ppm	0.000943	0.19	28094.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.052035	23557.654879	0.000745	0.07
Y 377.433	1.048749	677624.248394	0.002399	0.23
Y_R 377.433	1.058890	58292.300000	0.001231	0.12
Y_R 488.368	1.057630	51111.900000	0.002914	0.28
Y_R2 488.368	1.044635	96821.422427	0.003336	0.32
Y_R4	1.120060	47960.200000	0.010394	0.93

Sample Name: CCB

Date: 5/23/2019 8:59:12 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000167	ppm	0.000034	20.55	-239.603000	Y 377.433
Al (394.401 nm)	-0.002210 u	ppm	0.000178	8.07	100.272000	Y 377.433
Al H (396.152 nm)	0.121779 Zu	ppm	0.002568	2.11	25.410500 Z	Y_R 377.433
As (188.980 nm)	-0.000600 u	ppm	0.000191	31.88	-2.261310	Y 242.219
B (249.678 nm)	-0.003171 u	ppm	0.000102	3.21	14.361200	Y 242.219
Ba (493.408 nm)	-0.001949 u	ppm	0.000087	4.48	1243.850000	Y_R 488.368
Be (234.861 nm)	-0.000041 u	ppm	0.000069	> 100.00	-9.831270	Y_R 488.368
Bi (223.061 nm)	0.002015	ppm	0.001810	89.81	-10.919000	Y 377.433
Ca (315.887 nm)	0.004867	ppm	0.002972	61.07	-58.049268	Y_R 377.433
Cd (214.439 nm)	0.000111 u	ppm	0.000189	> 100.00	-3.330350	Y 377.433
Co (228.615 nm)	0.000090	ppm	0.000037	41.08	-19.946000	Y 242.219
Cr (205.560 nm)	-0.000318 u	ppm	0.000428	> 100.00	-8.224060	Y 377.433
Cu (324.754 nm)	-0.000085 u	ppm	0.000156	> 100.00	409.384000	Y 377.433
Fe (238.204 nm)	0.001382	ppm	0.000826	59.79	6.340257	Y_R 377.433
Fe H (259.940 nm)	-0.055453 u	ppm	0.003239	5.84	13.212400	Y_R 377.433
K (766.491 nm)	-0.171144 u	ppm	0.013069	7.64	1811.730000	Y_R2 488.368
Li (670.783 nm)	0.012231 Z	ppm	0.003752	30.68	-2418.480000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002032	ppm	0.000219	10.77	19.336300	Y 377.433
Mn (257.610 nm)	0.000073	ppm	0.000013	17.25	-1.719830	Y 377.433
Mo (202.032 nm)	-0.000169 u	ppm	0.000279	> 100.00	21.233600	Y 377.433
Na (589.592 nm)	0.127022	ppm	0.005385	4.24	204.042000	Y_R2 488.368
Na H (589.593 nm)	0.940085 u	ppm	0.008774	0.93	795.091073	Y_R4
Ni (231.604 nm)	0.000232 u	ppm	0.000762	> 100.00	-10.070900	Y 377.433
P (213.618 nm)	-0.002179 u	ppm	0.001589	72.94	-7.742790	Y 242.219
Pb (220.353 nm)	-0.001628 u	ppm	0.000457	28.07	7.272560	Y 242.219
S (181.972 nm)	-0.003147 u	ppm	0.002417	76.81	6.341513	Y 377.433
Sb (206.834 nm)	0.004111	ppm	0.000513	12.49	-0.288678	Y 377.433
Se (196.026 nm)	0.000101 u	ppm	0.003585	> 100.00	10.740300	Y 242.219
Si (288.158 nm)	-0.004354 u	ppm	0.000121	2.78	479.322000	Y 377.433
Sn (189.925 nm)	0.000622	ppm	0.000797	> 100.00	3.322180	Y 377.433
Sr (421.552 nm)	0.000030	ppm	0.000028	92.95	52.355835	Y_R 488.368
Th (288.505 nm)	0.001698 u	ppm	0.004218	> 100.00	17.442300	Y 377.433
Ti (336.122 nm)	0.000443	ppm	0.000119	26.80	-448.140000	Y 377.433
Tl (190.794 nm)	0.001198	ppm	0.000119	9.96	3.014950	Y 377.433
U (409.013 nm)	0.001778	ppm	0.000235	13.23	-36.240900	Y 377.433
V (292.401 nm)	0.000483	ppm	0.000113	23.50	-153.430000	Y 377.433
Zn (206.200 nm)	-0.000289 u	ppm	0.000049	16.92	2.383520	Y 377.433
Zr (343.823 nm)	0.000425	ppm	0.000097	22.77	-150.014000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.117831	25031.001747	0.002368	0.21
Y 377.433	1.111528	718187.209818	0.002247	0.20
Y_R 377.433	1.133160	62380.800000	0.001302	0.11
Y_R 488.368	1.130200	54619.300000	0.003750	0.33
Y_R2 488.368	1.112347	103097.275647	0.005473	0.49
Y_R4	1.140150	48820.600000	0.002008	0.18

Sample Name: CCVL-5717307

Date: 5/23/2019 9:02:24 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008232	ppm	0.000001	0.01	41.766800	Y 377.433
Al (394.401 nm)	0.097525	ppm	0.002237	2.29	1303.990000	Y 377.433
Al H (396.152 nm)	0.226773 u	ppm	0.004219	1.86	246.878000	Y_R 377.433
As (188.980 nm)	0.012682	ppm	0.001518	11.97	18.898600	Y 242.219
B (249.678 nm)	0.092682	ppm	0.000400	0.43	701.289000	Y 242.219
Ba (493.408 nm)	0.007833	ppm	0.000129	1.65	2191.430000	Y_R 488.368
Be (234.861 nm)	0.001030	ppm	0.000009	0.87	97.673500	Y_R 488.368
Bi (223.061 nm)	0.087318	ppm	0.001781	2.04	183.671000	Y 377.433
Ca (315.887 nm)	0.212790	ppm	0.005369	2.52	109.841709	Y_R 377.433
Cd (214.439 nm)	0.005078	ppm	0.000146	2.87	195.430000	Y 377.433
Co (228.615 nm)	0.010499	ppm	0.000055	0.52	237.857000	Y 242.219
Cr (205.560 nm)	0.009934	ppm	0.000610	6.14	64.250600	Y 377.433
Cu (324.754 nm)	0.015419	ppm	0.000010	0.07	1125.980000	Y 377.433
Fe (238.204 nm)	0.101106	ppm	0.002926	2.89	252.135690	Y_R 377.433
Fe H (259.940 nm)	0.050305 u	ppm	0.000758	1.51	161.088000	Y_R 377.433
K (766.491 nm)	2.817580	ppm	0.006293	0.22	4778.130000	Y_R2 488.368
Li (670.783 nm)	0.034974 Q	ppm	0.002173	6.21	-2022.440000 Q	Y_R2 488.368
Mg (279.078 nm)	0.205408	ppm	0.000207	0.10	738.280000	Y 377.433
Mn (257.610 nm)	0.010590	ppm	0.000028	0.26	2907.110000	Y 377.433
Mo (202.032 nm)	0.018546	ppm	0.000138	0.74	259.376000	Y 377.433
Na (589.592 nm)	1.179210	ppm	0.030633	2.60	985.465000	Y_R2 488.368
Na H (589.593 nm)	1.652429 u	ppm	0.018925	1.15	1149.369262	Y_R4
Ni (231.604 nm)	0.041674	ppm	0.000694	1.67	221.542000	Y 377.433
P (213.618 nm)	2.782560	ppm	0.010024	0.36	4201.820000	Y 242.219
Pb (220.353 nm)	0.008821	ppm	0.002112	23.95	43.307100	Y 242.219
S (181.972 nm)	0.092952	ppm	0.005435	5.85	49.548273	Y 377.433
Sb (206.834 nm)	0.022444	ppm	0.004509	20.09	31.929300	Y 377.433
Se (196.026 nm)	0.018500	ppm	0.001669	9.02	40.632800	Y 242.219
Si (288.158 nm)	0.475826	ppm	0.000027	0.01	3646.740000	Y 377.433
Sn (189.925 nm)	0.100697	ppm	0.000865	0.86	177.874000	Y 377.433
Sr (421.552 nm)	0.009060	ppm	0.000120	1.33	1373.007106	Y_R 488.368
Th (288.505 nm)	0.014233	ppm	0.003528	24.79	38.868800	Y 377.433
Ti (336.122 nm)	0.010117	ppm	0.000132	1.31	810.478000	Y 377.433
Tl (190.794 nm)	0.014777	ppm	0.000023	0.16	35.797300	Y 377.433
U (409.013 nm)	0.060672	ppm	0.004935	8.13	147.089000	Y 377.433
V (292.401 nm)	0.010298	ppm	0.000063	0.61	359.605000	Y 377.433
Zn (206.200 nm)	0.020762	ppm	0.000069	0.33	106.875000	Y 377.433
Zr (343.823 nm)	0.010283	ppm	0.000287	2.79	418.429000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.137650	25474.800831	0.003576	0.31
Y 377.433	1.132618	731814.435461	0.003369	0.30
Y_R 377.433	1.147070	63146.900000	0.001021	0.09
Y_R 488.368	1.143390	55256.600000	0.000134	0.01
Y_R2 488.368	1.142296	105873.084140	0.004374	0.38
Y_R4	1.148020	49157.700000	0.006552	0.57

Sample Name: 280-123847-g-4-a

Date: 5/23/2019 9:05:52 PM Rack:Tube: 1:61

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000832	ppm	0.000260	31.26	-229.712000	Y 377.433
Al (394.401 nm)	0.176892	ppm	0.000192	0.11	2432.000000	Y 377.433
Al H (396.152 nm)	0.166327 u	ppm	0.004735	2.85	393.572000	Y_R 377.433
As (188.980 nm)	0.003576	ppm	0.000610	17.05	4.391330	Y 242.219
B (249.678 nm)	0.454394	ppm	0.001004	0.22	3293.780000	Y 242.219
Ba (493.408 nm)	0.022495	ppm	0.000324	1.44	3611.590000	Y_R 488.368
Be (234.861 nm)	0.000000 u	ppm	0.000073	> 100.00	-5.820080	Y_R 488.368
Bi (223.061 nm)	0.005602	ppm	0.001693	30.23	-2.730580	Y 377.433
Ca (315.887 nm)	61.392299	ppm	0.144853	0.24	49502.459989	Y_R 377.433
Cd (214.439 nm)	0.000625	ppm	0.000158	25.31	17.209200	Y 377.433
Co (228.615 nm)	-0.000124 u	ppm	0.000287	> 100.00	-25.229000	Y 242.219
Cr (205.560 nm)	0.004670	ppm	0.000274	5.87	27.105700	Y 377.433
Cu (324.754 nm)	0.000027 u	ppm	0.000710	> 100.00	376.987000	Y 377.433
Fe (238.204 nm)	0.021188	ppm	0.000523	2.47	55.156591	Y_R 377.433
Fe H (259.940 nm)	-0.039413 u	ppm	0.005395	13.69	35.640400	Y_R 377.433
K (766.491 nm)	1.756190	ppm	0.111357	6.34	3724.660000	Y_R2 488.368
Li (670.783 nm)	0.042881	ppm	0.000725	1.69	-1884.750000	Y_R2 488.368
Mg (279.078 nm)	37.448100	ppm	0.009537	0.03	132696.000000	Y 377.433
Mn (257.610 nm)	0.001376	ppm	0.000030	2.17	358.509000	Y 377.433
Mo (202.032 nm)	0.002416	ppm	0.000355	14.68	54.125800	Y 377.433
Na (589.592 nm)	273.034000 o	ppm	1.143500	0.42	202367.000000	Y_R2 488.368
Na H (589.593 nm)	296.002875	ppm	0.290133	0.10	147542.067768	Y_R4
Ni (231.604 nm)	-0.001387 u	ppm	0.000107	7.69	-19.121600	Y 377.433
P (213.618 nm)	0.001961	ppm	0.002153	> 100.00	-2.153750	Y 242.219
Pb (220.353 nm)	-0.001158 u	ppm	0.000085	7.31	8.969850	Y 242.219
S (181.972 nm)	64.409113	ppm	0.182603	0.28	28944.123491	Y 377.433
Sb (206.834 nm)	0.000941 u	ppm	0.003806	> 100.00	-5.862840	Y 377.433
Se (196.026 nm)	0.013231	ppm	0.002010	15.19	32.075200	Y 242.219
Si (288.158 nm)	14.277200	ppm	0.029080	0.20	94684.600000	Y 377.433
Sn (189.925 nm)	0.000055 u	ppm	0.000210	> 100.00	2.331710	Y 377.433
Sr (421.552 nm)	0.736697	ppm	0.000883	0.12	107789.566738	Y_R 488.368
Th (288.505 nm)	0.002277	ppm	0.002379	> 100.00	13.578600	Y 377.433
Ti (336.122 nm)	0.000052	ppm	0.000025	48.98	-289.162000	Y 377.433
Tl (190.794 nm)	-0.000210 u	ppm	0.002095	> 100.00	-2.961840	Y 377.433
U (409.013 nm)	0.027965	ppm	0.003828	13.69	37.842100	Y 377.433
V (292.401 nm)	0.032544	ppm	0.000048	0.15	1545.840000	Y 377.433
Zn (206.200 nm)	0.007181	ppm	0.000075	1.05	39.461200	Y 377.433
Zr (343.823 nm)	0.000604	ppm	0.000108	17.94	-139.685000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076017	24094.669160	0.001820	0.17
Y 377.433	1.078008	696529.310402	0.001528	0.14
Y_R 377.433	1.109190	61061.200000	0.000665	0.06
Y_R 488.368	1.104450	53374.900000	0.000859	0.08
Y_R2 488.368	1.089388	100969.289295	0.000063	0.01
Y_R4	1.123530	48109.100000	0.001321	0.12

Sample Name: 280-123847-g-5-a

Date: 5/23/2019 9:09:27 PM Rack:Tube: 1:62

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001218	ppm	0.000361	29.60	-203.762000	Y 377.433
Al (394.401 nm)	0.076728	ppm	0.002108	2.75	1259.770000	Y 377.433
Al H (396.152 nm)	0.042639 u	ppm	0.001048	2.46	176.195000	Y_R 377.433
As (188.980 nm)	0.017317	ppm	0.002535	14.64	26.120300	Y 242.219
B (249.678 nm)	0.306990	ppm	0.000460	0.15	2233.950000	Y 242.219
Ba (493.408 nm)	0.520122	ppm	0.000085	0.02	51817.600000	Y_R 488.368
Be (234.861 nm)	-0.000085 u	ppm	0.000043	50.28	-39.594300	Y_R 488.368
Bi (223.061 nm)	0.002954	ppm	0.001238	41.91	-7.727190	Y 377.433
Ca (315.887 nm)	87.667501	ppm	0.077560	0.09	70715.421284	Y_R 377.433
Cd (214.439 nm)	0.000284	ppm	0.000012	4.40	6.121770	Y 377.433
Co (228.615 nm)	0.001031	ppm	0.000236	22.84	3.391170	Y 242.219
Cr (205.560 nm)	0.000367	ppm	0.000107	29.22	-3.429450	Y 377.433
Cu (324.754 nm)	-0.001018 u	ppm	0.000226	22.20	315.439000	Y 377.433
Fe (238.204 nm)	5.793280 o	ppm	0.004550	0.08	14281.965862	Y_R 377.433
Fe H (259.940 nm)	5.762720	ppm	0.020843	0.36	8148.470000	Y_R 377.433
K (766.491 nm)	0.801240	ppm	0.052002	6.49	2776.850000	Y_R2 488.368
Li (670.783 nm)	0.024344	ppm	0.003343	13.73	-2207.540000	Y_R2 488.368
Mg (279.078 nm)	70.206500	ppm	0.053518	0.08	248757.000000	Y 377.433
Mn (257.610 nm)	0.528150	ppm	0.000716	0.14	146064.000000	Y 377.433
Mo (202.032 nm)	0.010501	ppm	0.000155	1.48	157.014000	Y 377.433
Na (589.592 nm)	60.449600 o	ppm	0.058028	0.10	44995.000000	Y_R2 488.368
Na H (589.593 nm)	63.928529	ppm	0.122281	0.19	32121.859843	Y_R4
Ni (231.604 nm)	-0.000786 u	ppm	0.000360	45.75	-15.762300	Y 377.433
P (213.618 nm)	0.055959	ppm	0.000004	0.01	79.687800	Y 242.219
Pb (220.353 nm)	0.004130	ppm	0.000835	20.21	27.127400	Y 242.219
S (181.972 nm)	0.183791	ppm	0.009530	5.19	96.129553	Y 377.433
Sb (206.834 nm)	-0.000838 u	ppm	0.001534	> 100.00	-8.586100	Y 377.433
Se (196.026 nm)	-0.000578 u	ppm	0.002582	> 100.00	8.805020	Y 242.219
Si (288.158 nm)	12.269000	ppm	0.023903	0.19	81437.900000	Y 377.433
Sn (189.925 nm)	0.000058 u	ppm	0.001143	> 100.00	2.337450	Y 377.433
Sr (421.552 nm)	0.845715	ppm	0.000101	0.01	123734.334183	Y_R 488.368
Th (288.505 nm)	0.005060	ppm	0.004232	83.63	31.077000	Y 377.433
Ti (336.122 nm)	0.001550	ppm	0.000194	12.52	-4.119620	Y 377.433
Tl (190.794 nm)	0.001460	ppm	0.000295	20.24	-0.816036	Y 377.433
U (409.013 nm)	0.026353	ppm	0.005446	20.67	33.540700	Y 377.433
V (292.401 nm)	0.001592	ppm	0.000037	2.31	-97.043200	Y 377.433
Zn (206.200 nm)	0.002722	ppm	0.000909	33.40	18.221700	Y 377.433
Zr (343.823 nm)	0.001188	ppm	0.000072	6.08	-106.037000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.106392	24774.855343	0.001424	0.13
Y 377.433	1.110611	717594.687332	0.002405	0.22
Y_R 377.433	1.126810	62031.400000	0.001602	0.14
Y_R 488.368	1.123320	54286.500000	0.002825	0.25
Y_R2 488.368	1.118331	103651.917907	0.001231	0.11
Y_R4	1.132790	48505.500000	0.005545	0.49

Sample Name: 280-123847-g-6-a

Date: 5/23/2019 9:13:06 PM Rack:Tube: 1:63

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001148	ppm	0.000404	35.19	-207.705000	Y 377.433
Al (394.401 nm)	0.161817	ppm	0.003458	2.14	2205.000000	Y 377.433
Al H (396.152 nm)	0.179876 u	ppm	0.007005	3.89	354.394000	Y_R 377.433
As (188.980 nm)	0.004116	ppm	0.000054	1.31	5.242590	Y 242.219
B (249.678 nm)	0.398924	ppm	0.000112	0.03	2896.020000	Y 242.219
Ba (493.408 nm)	0.051248	ppm	0.000468	0.91	6396.920000	Y_R 488.368
Be (234.861 nm)	0.000039 u	ppm	0.000088	> 100.00	-3.403380	Y_R 488.368
Bi (223.061 nm)	0.003465	ppm	0.002901	83.72	-7.542550	Y 377.433
Ca (315.887 nm)	52.427678	ppm	0.132909	0.25	42264.967357	Y_R 377.433
Cd (214.439 nm)	0.000231	ppm	0.000000	0.17	1.595440	Y 377.433
Co (228.615 nm)	0.000313	ppm	0.000201	64.12	-14.294200	Y 242.219
Cr (205.560 nm)	0.000504 u	ppm	0.000833	> 100.00	-2.430970	Y 377.433
Cu (324.754 nm)	-0.000143 u	ppm	0.000172	> 100.00	374.875000	Y 377.433
Fe (238.204 nm)	0.364697	ppm	0.003363	0.92	901.823605	Y_R 377.433
Fe H (259.940 nm)	0.308237 u	ppm	0.001153	0.37	521.742000	Y_R 377.433
K (766.491 nm)	1.858590	ppm	0.058163	3.13	3826.290000	Y_R2 488.368
Li (670.783 nm)	0.040217	ppm	0.005234	13.01	-1931.140000	Y_R2 488.368
Mg (279.078 nm)	31.619300	ppm	0.019866	0.06	112044.000000	Y 377.433
Mn (257.610 nm)	0.082803	ppm	0.000011	0.01	22881.200000	Y 377.433
Mo (202.032 nm)	0.005591	ppm	0.000286	5.12	94.530800	Y 377.433
Na (589.592 nm)	240.705000 o	ppm	0.196676	0.08	178425.000000	Y_R2 488.368
Na H (589.593 nm)	258.195976	ppm	0.954690	0.37	128739.127266	Y_R4
Ni (231.604 nm)	-0.001117 u	ppm	0.001078	96.53	-17.612900	Y 377.433
P (213.618 nm)	0.035143	ppm	0.004920	14.00	48.121500	Y 242.219
Pb (220.353 nm)	0.007676	ppm	0.002261	29.46	39.257100	Y 242.219
S (181.972 nm)	48.773647	ppm	0.091330	0.19	21920.285747	Y 377.433
Sb (206.834 nm)	0.000557 u	ppm	0.001686	> 100.00	-6.576480	Y 377.433
Se (196.026 nm)	0.002103	ppm	0.000355	16.89	14.015600	Y 242.219
Si (288.158 nm)	14.265100	ppm	0.016445	0.12	94604.800000	Y 377.433
Sn (189.925 nm)	0.000084 u	ppm	0.000566	> 100.00	2.383430	Y 377.433
Sr (421.552 nm)	0.560421	ppm	0.001961	0.35	82009.323162	Y_R 488.368
Th (288.505 nm)	-0.002839 u	ppm	0.000015	0.54	9.258630	Y 377.433
Ti (336.122 nm)	0.003413	ppm	0.000035	1.03	117.272000	Y 377.433
Tl (190.794 nm)	0.001612	ppm	0.001023	63.45	1.749870	Y 377.433
U (409.013 nm)	0.030402	ppm	0.010362	34.08	46.872400	Y 377.433
V (292.401 nm)	0.006293	ppm	0.000091	1.45	152.995000	Y 377.433
Zn (206.200 nm)	0.004241	ppm	0.000272	6.40	24.919900	Y 377.433
Zr (343.823 nm)	0.000903	ppm	0.000105	11.58	-122.454000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.079094	24163.579939	0.000472	0.04
Y 377.433	1.081140	698552.814341	0.000875	0.08
Y_R 377.433	1.109870	61098.600000	0.001451	0.13
Y_R 488.368	1.106770	53487.000000	0.004302	0.39
Y_R2 488.368	1.093748	101373.464734	0.005039	0.46
Y_R4	1.116840	47822.600000	0.005782	0.52

Sample Name: 280-123847-g-8-a

Date: 5/23/2019 9:16:40 PM Rack:Tube: 1:64

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001155	ppm	0.000243	21.02	-205.633000	Y 377.433
Al (394.401 nm)	0.752680	ppm	0.000721	0.10	9254.020000	Y 377.433
Al H (396.152 nm)	0.778228 u	ppm	0.002403	0.31	1572.110000	Y_R 377.433
As (188.980 nm)	0.008749	ppm	0.001897	21.68	12.563700	Y 242.219
B (249.678 nm)	0.447264	ppm	0.000890	0.20	3241.230000	Y 242.219
Ba (493.408 nm)	0.316465	ppm	0.000387	0.12	32088.300000	Y_R 488.368
Be (234.861 nm)	-0.000005 u	ppm	0.000006	> 100.00	-17.160800	Y_R 488.368
Bi (223.061 nm)	0.000702 u	ppm	0.002769	> 100.00	-13.460500	Y 377.433
Ca (315.887 nm)	76.234113	ppm	0.020847	0.03	61484.980919	Y_R 377.433
Cd (214.439 nm)	0.000328	ppm	0.000078	23.73	6.430770	Y 377.433
Co (228.615 nm)	0.000384	ppm	0.000374	97.34	-12.049400	Y 242.219
Cr (205.560 nm)	0.000723	ppm	0.000122	16.87	-0.870690	Y 377.433
Cu (324.754 nm)	-0.000777 u	ppm	0.000140	17.95	334.927000	Y 377.433
Fe (238.204 nm)	2.502620	ppm	0.006370	0.25	6171.286479	Y_R 377.433
Fe H (259.940 nm)	2.469230 u	ppm	0.009167	0.37	3543.340000	Y_R 377.433
K (766.491 nm)	0.538012	ppm	0.074944	13.93	2515.580000	Y_R2 488.368
Li (670.783 nm)	0.019079	ppm	0.001642	8.61	-2299.230000	Y_R2 488.368
Mg (279.078 nm)	45.862600	ppm	0.009122	0.02	162507.000000	Y 377.433
Mn (257.610 nm)	0.628237	ppm	0.000268	0.04	173748.000000	Y 377.433
Mo (202.032 nm)	0.000350	ppm	0.000059	16.91	27.842600	Y 377.433
Na (589.592 nm)	106.476000 o	ppm	0.124401	0.12	79047.700000	Y_R2 488.368
Na H (589.593 nm)	114.728870	ppm	0.219396	0.19	57386.978809	Y_R4
Ni (231.604 nm)	-0.002838 u	ppm	0.000051	1.79	-27.225500	Y 377.433
P (213.618 nm)	0.022551	ppm	0.006390	28.34	29.316700	Y 242.219
Pb (220.353 nm)	-0.000214 u	ppm	0.000555	> 100.00	12.025300	Y 242.219
S (181.972 nm)	0.104289	ppm	0.003298	3.16	60.180141	Y 377.433
Sb (206.834 nm)	-0.000163 u	ppm	0.003532	> 100.00	-7.670550	Y 377.433
Se (196.026 nm)	-0.000137 u	ppm	0.002698	> 100.00	10.587000	Y 242.219
Si (288.158 nm)	12.114500	ppm	0.005682	0.05	80419.200000	Y 377.433
Sn (189.925 nm)	0.000968	ppm	0.001004	> 100.00	3.925120	Y 377.433
Sr (421.552 nm)	0.535772	ppm	0.000208	0.04	78404.734641	Y_R 488.368
Th (288.505 nm)	0.000079 u	ppm	0.002662	> 100.00	24.781400	Y 377.433
Ti (336.122 nm)	0.015374	ppm	0.000324	2.11	1754.210000	Y 377.433
Tl (190.794 nm)	0.001859	ppm	0.000290	15.61	1.063210	Y 377.433
U (409.013 nm)	0.025537	ppm	0.004343	17.01	29.949400	Y 377.433
V (292.401 nm)	0.002431	ppm	0.000102	4.18	-49.895800	Y 377.433
Zn (206.200 nm)	0.004248	ppm	0.000530	12.47	25.286000	Y 377.433
Zr (343.823 nm)	0.001863	ppm	0.000143	7.65	-67.075700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.089950	24406.671795	0.003241	0.30
Y 377.433	1.092656	705993.662255	0.001932	0.18
Y_R 377.433	1.122060	61769.700000	0.001068	0.10
Y_R 488.368	1.115500	53908.800000	0.000553	0.05
Y_R2 488.368	1.099600	101915.791142	0.001517	0.14
Y_R4	1.118600	47898.100000	0.004048	0.36

Sample Name: 280-123847-g-9-a

Date: 5/23/2019 9:20:16 PM Rack:Tube: 1:65

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001107	ppm	0.000422	38.12	-216.124000	Y 377.433
Al (394.401 nm)	0.076705	ppm	0.000142	0.19	1247.830000	Y 377.433
Al H (396.152 nm)	0.042078 u	ppm	0.002268	5.39	152.622000	Y_R 377.433
As (188.980 nm)	0.002405	ppm	0.001643	68.33	2.524700	Y 242.219
B (249.678 nm)	0.446296	ppm	0.000879	0.20	3235.700000	Y 242.219
Ba (493.408 nm)	0.030688	ppm	0.000470	1.53	4405.150000	Y_R 488.368
Be (234.861 nm)	-0.000016 u	ppm	0.000031	> 100.00	-7.691970	Y_R 488.368
Bi (223.061 nm)	0.001646	ppm	0.000239	14.55	-11.742500	Y 377.433
Ca (315.887 nm)	73.399271	ppm	0.064616	0.09	59196.128571	Y_R 377.433
Cd (214.439 nm)	0.000438	ppm	0.000019	4.32	9.775860	Y 377.433
Co (228.615 nm)	-0.000260 u	ppm	0.000210	80.81	-28.514200	Y 242.219
Cr (205.560 nm)	0.002255	ppm	0.000302	13.38	9.987080	Y 377.433
Cu (324.754 nm)	-0.000241 u	ppm	0.000448	> 100.00	356.759000	Y 377.433
Fe (238.204 nm)	0.078744	ppm	0.000991	1.26	197.019255	Y_R 377.433
Fe H (259.940 nm)	0.019527 u	ppm	0.001872	9.59	118.053000	Y_R 377.433
K (766.491 nm)	1.946770	ppm	0.058535	3.01	3913.820000	Y_R2 488.368
Li (670.783 nm)	0.042901	ppm	0.007966	18.57	-1884.400000	Y_R2 488.368
Mg (279.078 nm)	42.955400	ppm	0.038658	0.09	152209.000000	Y 377.433
Mn (257.610 nm)	0.008297	ppm	0.000035	0.42	2272.910000	Y 377.433
Mo (202.032 nm)	0.004633	ppm	0.000242	5.23	82.340700	Y 377.433
Na (589.592 nm)	287.528000 o	ppm	0.127145	0.04	213105.000000	Y_R2 488.368
Na H (589.593 nm)	313.324023	ppm	0.919204	0.29	156156.593651	Y_R4
Ni (231.604 nm)	-0.001733 u	ppm	0.000085	4.89	-21.053900	Y 377.433
P (213.618 nm)	0.029215	ppm	0.003479	11.91	39.103400	Y 242.219
Pb (220.353 nm)	-0.002412 u	ppm	0.000058	2.41	4.689720	Y 242.219
S (181.972 nm)	79.712824	ppm	0.116541	0.15	35819.350330	Y 377.433
Sb (206.834 nm)	0.000424 u	ppm	0.001511	> 100.00	-6.814020	Y 377.433
Se (196.026 nm)	0.013106	ppm	0.002800	21.37	31.867300	Y 242.219
Si (288.158 nm)	14.810300	ppm	0.102967	0.70	98201.100000	Y 377.433
Sn (189.925 nm)	0.001835	ppm	0.000546	29.78	5.436390	Y 377.433
Sr (421.552 nm)	0.781218	ppm	0.000485	0.06	114300.850493	Y_R 488.368
Th (288.505 nm)	-0.001131 u	ppm	0.000096	8.53	8.596790	Y 377.433
Ti (336.122 nm)	0.001725	ppm	0.000063	3.67	-30.468000	Y 377.433
Tl (190.794 nm)	0.001551	ppm	0.000417	26.89	0.771559	Y 377.433
U (409.013 nm)	0.033528	ppm	0.001257	3.75	53.721800	Y 377.433
V (292.401 nm)	0.022381	ppm	0.000143	0.64	1005.900000	Y 377.433
Zn (206.200 nm)	0.003778	ppm	0.000154	4.09	22.579400	Y 377.433
Zr (343.823 nm)	0.000652	ppm	0.000228	35.05	-136.953000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071889	24002.247109	0.000781	0.07
Y 377.433	1.075322	694793.897441	0.002449	0.23
Y_R 377.433	1.103250	60734.600000	0.002684	0.24
Y_R 488.368	1.097120	53020.600000	0.003022	0.28
Y_R2 488.368	1.084216	100489.926901	0.001947	0.18
Y_R4	1.106350	47373.400000	0.010518	0.95

Sample Name: 280-123847-g-10-a

Date: 5/23/2019 9:23:51 PM Rack:Tube: 1:66

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001513	ppm	0.000118	7.82	-192.667000	Y 377.433
Al (394.401 nm)	0.011327	ppm	0.001441	12.73	466.765000	Y 377.433
Al H (396.152 nm)	-0.024173 u	ppm	0.000118	0.49	21.935900	Y_R 377.433
As (188.980 nm)	0.008029	ppm	0.001341	16.70	11.354000	Y 242.219
B (249.678 nm)	0.245179	ppm	0.001381	0.56	1791.610000	Y 242.219
Ba (493.408 nm)	0.525733	ppm	0.000389	0.07	52360.200000	Y_R 488.368
Be (234.861 nm)	-0.000049 u	ppm	0.000015	30.29	-30.938400	Y_R 488.368
Bi (223.061 nm)	0.002199	ppm	0.001467	66.72	-9.657290	Y 377.433
Ca (315.887 nm)	89.646563	ppm	0.141943	0.16	72313.181878	Y_R 377.433
Cd (214.439 nm)	0.000234	ppm	0.000116	49.71	3.618190	Y 377.433
Co (228.615 nm)	-0.000173 u	ppm	0.000197	> 100.00	-26.444000	Y 242.219
Cr (205.560 nm)	-0.000242 u	ppm	0.000229	94.58	-7.685970	Y 377.433
Cu (324.754 nm)	-0.001629 u	ppm	0.000049	2.99	286.387000	Y 377.433
Fe (238.204 nm)	4.643779	ppm	0.007574	0.16	11448.724260	Y_R 377.433
Fe H (259.940 nm)	4.616640	ppm	0.004768	0.10	6545.960000	Y_R 377.433
K (766.491 nm)	0.425831	ppm	0.026530	6.23	2404.240000	Y_R2 488.368
Li (670.783 nm)	0.019875	ppm	0.000928	4.67	-2285.380000	Y_R2 488.368
Mg (279.078 nm)	73.786300	ppm	0.050527	0.07	261443.000000	Y 377.433
Mn (257.610 nm)	0.769018	ppm	0.000111	0.01	212688.000000	Y 377.433
Mo (202.032 nm)	0.000021 u	ppm	0.000543	> 100.00	23.654300	Y 377.433
Na (589.592 nm)	78.936000 o	ppm	0.161957	0.21	58690.000000	Y_R2 488.368
Na H (589.593 nm)	84.350767	ppm	0.027737	0.03	42278.686861	Y_R4
Ni (231.604 nm)	-0.003592 u	ppm	0.000526	14.64	-31.439100	Y 377.433
P (213.618 nm)	0.006950	ppm	0.003934	56.59	5.887340	Y 242.219
Pb (220.353 nm)	0.006418	ppm	0.001257	19.58	34.983900	Y 242.219
S (181.972 nm)	0.174309	ppm	0.012667	7.27	92.709948	Y 377.433
Sb (206.834 nm)	0.000595 u	ppm	0.004466	> 100.00	-6.084170	Y 377.433
Se (196.026 nm)	0.000265 u	ppm	0.000990	> 100.00	10.851700	Y 242.219
Si (288.158 nm)	10.577200	ppm	0.044570	0.42	70278.300000	Y 377.433
Sn (189.925 nm)	-0.001628 u	ppm	0.001406	86.39	-0.603037	Y 377.433
Sr (421.552 nm)	0.806859	ppm	0.000566	0.07	118051.448698	Y_R 488.368
Th (288.505 nm)	-0.000831 u	ppm	0.000524	63.09	25.623600	Y 377.433
Ti (336.122 nm)	-0.000300 u	ppm	0.000072	24.11	-237.682000	Y 377.433
Tl (190.794 nm)	0.002405	ppm	0.000301	12.52	1.598940	Y 377.433
U (409.013 nm)	0.028282	ppm	0.001573	5.56	38.425700	Y 377.433
V (292.401 nm)	0.000973	ppm	0.000076	7.80	-128.402000	Y 377.433
Zn (206.200 nm)	0.004144	ppm	0.000489	11.81	25.103400	Y 377.433
Zr (343.823 nm)	0.001421	ppm	0.000008	0.58	-92.567200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076773	24111.597569	0.000097	0.01
Y 377.433	1.081702	698915.807222	0.000166	0.02
Y_R 377.433	1.105670	60867.400000	0.000986	0.09
Y_R 488.368	1.103190	53313.800000	0.000595	0.05
Y_R2 488.368	1.090759	101096.413539	0.001825	0.17
Y_R4	1.106410	47375.800000	0.005563	0.50

Sample Name: 280-123847-g-13-a

Date: 5/23/2019 9:27:29 PM Rack:Tube: 1:67

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000165 u	ppm	0.000360	> 100.00	-240.123000	Y 377.433
Al (394.401 nm)	0.000889	ppm	0.000574	64.59	140.099000	Y 377.433
Al H (396.152 nm)	0.126565 u	ppm	0.000867	0.68	35.278600	Y_R 377.433
As (188.980 nm)	0.000499 u	ppm	0.001169	> 100.00	-0.510822	Y 242.219
B (249.678 nm)	0.069240	ppm	0.000988	1.43	533.324000	Y 242.219
Ba (493.408 nm)	-0.001736 u	ppm	0.000373	21.50	1264.450000	Y_R 488.368
Be (234.861 nm)	0.000011 u	ppm	0.000066	> 100.00	-4.734070	Y_R 488.368
Bi (223.061 nm)	0.001905	ppm	0.000217	11.39	-11.165800	Y 377.433
Ca (315.887 nm)	0.028109	ppm	0.008765	31.18	-39.283910	Y_R 377.433
Cd (214.439 nm)	-0.000065 u	ppm	0.000001	1.11	-10.393000	Y 377.433
Co (228.615 nm)	-0.000109 u	ppm	0.000501	> 100.00	-24.852400	Y 242.219
Cr (205.560 nm)	0.000224	ppm	0.000026	11.66	-4.380980	Y 377.433
Cu (324.754 nm)	0.000122 u	ppm	0.000369	> 100.00	417.624000	Y 377.433
Fe (238.204 nm)	0.028000	ppm	0.000050	0.18	71.948371	Y_R 377.433
Fe H (259.940 nm)	-0.029152 u	ppm	0.004079	13.99	49.987200	Y_R 377.433
K (766.491 nm)	-0.123123 u	ppm	0.062580	50.83	1859.390000	Y_R2 488.368
Li (670.783 nm)	0.015388	ppm	0.001103	7.17	-2363.510000	Y_R2 488.368
Mg (279.078 nm)	0.004605	ppm	0.000601	13.04	28.135800	Y 377.433
Mn (257.610 nm)	0.000417	ppm	0.000007	1.80	93.406100	Y 377.433
Mo (202.032 nm)	-0.000396 u	ppm	0.000105	26.40	18.346700	Y 377.433
Na (589.592 nm)	0.169958	ppm	0.040413	23.78	235.925000	Y_R2 488.368
Na H (589.593 nm)	1.149100 u	ppm	0.025702	2.24	899.043010	Y_R4
Ni (231.604 nm)	-0.000628 u	ppm	0.000095	15.18	-14.878900	Y 377.433
P (213.618 nm)	0.001247 u	ppm	0.004953	> 100.00	-2.647450	Y 242.219
Pb (220.353 nm)	-0.001673 u	ppm	0.000936	55.93	7.158600	Y 242.219
S (181.972 nm)	0.002187 u	ppm	0.009462	> 100.00	8.739452	Y 377.433
Sb (206.834 nm)	0.003082	ppm	0.000827	26.82	-2.095810	Y 377.433
Se (196.026 nm)	-0.000754 u	ppm	0.000793	> 100.00	9.344120	Y 242.219
Si (288.158 nm)	-0.001811 u	ppm	0.000513	28.30	496.097000	Y 377.433
Sn (189.925 nm)	-0.000055 u	ppm	0.000741	> 100.00	2.141260	Y 377.433
Sr (421.552 nm)	0.000071 u	ppm	0.000123	> 100.00	58.255307	Y_R 488.368
Th (288.505 nm)	0.000424 u	ppm	0.002677	> 100.00	15.249700	Y 377.433
Ti (336.122 nm)	0.000533	ppm	0.000104	19.52	-436.361000	Y 377.433
Tl (190.794 nm)	-0.000408 u	ppm	0.000497	> 100.00	-0.875688	Y 377.433
U (409.013 nm)	0.003662	ppm	0.000603	16.46	-30.309400	Y 377.433
V (292.401 nm)	0.000559	ppm	0.000045	7.97	-150.708000	Y 377.433
Zn (206.200 nm)	0.002112	ppm	0.000412	19.49	14.302900	Y 377.433
Zr (343.823 nm)	0.000310	ppm	0.000133	43.00	-156.658000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123454	25156.903667	0.002306	0.21
Y 377.433	1.120211	723797.554174	0.001241	0.11
Y_R 377.433	1.120260	61670.700000	0.001673	0.15
Y_R 488.368	1.116220	53943.300000	0.001733	0.16
Y_R2 488.368	1.112052	103069.904946	0.007160	0.64
Y_R4	1.121890	48038.700000	0.001155	0.10

Sample Name: 280-123847-g-14-a

Date: 5/23/2019 9:30:39 PM Rack:Tube: 1:68

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000496	ppm	0.000109	22.08	-230.961000	Y 377.433
Al (394.401 nm)	0.187450	ppm	0.002004	1.07	2456.540000	Y 377.433
Al H (396.152 nm)	0.251596 u	ppm	0.002656	1.06	406.226000	Y_R 377.433
As (188.980 nm)	0.002381	ppm	0.000727	30.54	2.479240	Y 242.219
B (249.678 nm)	0.109666	ppm	0.000660	0.60	822.889000	Y 242.219
Ba (493.408 nm)	0.186822	ppm	0.000607	0.32	19528.900000	Y_R 488.368
Be (234.861 nm)	-0.000064 u	ppm	0.000013	20.42	-13.550100	Y_R 488.368
Bi (223.061 nm)	0.003859	ppm	0.000138	3.57	-6.643550	Y 377.433
Ca (315.887 nm)	60.025224	ppm	0.060664	0.10	48398.768894	Y_R 377.433
Cd (214.439 nm)	0.000179	ppm	0.000033	18.41	-0.477359	Y 377.433
Co (228.615 nm)	0.000275	ppm	0.000233	84.70	-15.211400	Y 242.219
Cr (205.560 nm)	-0.000019 u	ppm	0.000115	> 100.00	-6.135890	Y 377.433
Cu (324.754 nm)	0.002032	ppm	0.000336	16.56	469.187000	Y 377.433
Fe (238.204 nm)	0.320004	ppm	0.001048	0.33	791.665239	Y_R 377.433
Fe H (259.940 nm)	0.265762 u	ppm	0.001421	0.53	462.350000	Y_R 377.433
K (766.491 nm)	5.599990	ppm	0.027291	0.49	7539.740000	Y_R2 488.368
Li (670.783 nm)	0.015118	ppm	0.001866	12.34	-2368.210000	Y_R2 488.368
Mg (279.078 nm)	19.587900	ppm	0.015877	0.08	69413.900000	Y 377.433
Mn (257.610 nm)	0.170146	ppm	0.000021	0.01	47040.300000	Y 377.433
Mo (202.032 nm)	0.004887	ppm	0.000589	12.05	85.572400	Y 377.433
Na (589.592 nm)	35.737200	ppm	0.013921	0.04	26621.000000	Y_R2 488.368
Na H (589.593 nm)	37.865232 u	ppm	0.203642	0.54	19159.499966	Y_R4
Ni (231.604 nm)	-0.000973 u	ppm	0.000854	87.77	-16.807600	Y 377.433
P (213.618 nm)	0.518723	ppm	0.003984	0.77	779.374000	Y 242.219
Pb (220.353 nm)	-0.001346 u	ppm	0.000702	52.18	8.350380	Y 242.219
S (181.972 nm)	2.122497	ppm	0.010829	0.51	964.600156	Y 377.433
Sb (206.834 nm)	0.003503	ppm	0.001878	53.62	-1.381480	Y 377.433
Se (196.026 nm)	-0.001047 u	ppm	0.001997	> 100.00	9.039420	Y 242.219
Si (288.158 nm)	8.242470	ppm	0.032592	0.40	54878.000000	Y 377.433
Sn (189.925 nm)	0.000806	ppm	0.000333	41.31	3.643100	Y 377.433
Sr (421.552 nm)	0.320296	ppm	0.000166	0.05	46891.130734	Y_R 488.368
Th (288.505 nm)	-0.005579 u	ppm	0.002743	49.16	6.277560	Y 377.433
Ti (336.122 nm)	0.003942	ppm	0.000014	0.35	212.260000	Y 377.433
Tl (190.794 nm)	-0.000648 u	ppm	0.000110	17.03	-4.039280	Y 377.433
U (409.013 nm)	0.025098	ppm	0.015912	63.40	29.210900	Y 377.433
V (292.401 nm)	0.006056	ppm	0.000017	0.28	138.576000	Y 377.433
Zn (206.200 nm)	0.006164	ppm	0.000338	5.49	34.459800	Y 377.433
Zr (343.823 nm)	0.000831	ppm	0.000148	17.78	-126.610000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105637	24757.935131	0.000193	0.02
Y 377.433	1.106090	714673.795374	0.000111	0.01
Y_R 377.433	1.122610	61800.000000	0.002783	0.25
Y_R 488.368	1.118240	54041.100000	0.001237	0.11
Y_R2 488.368	1.105086	102424.282518	0.004012	0.36
Y_R4	1.122990	48086.000000	0.009070	0.81

Sample Name: 280-123847-g-15-a

Date: 5/23/2019 9:34:13 PM Rack:Tube: 1:69

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001121	ppm	0.000024	2.11	-218.944000	Y 377.433
Al (394.401 nm)	0.239795	ppm	0.000071	0.03	3125.570000	Y 377.433
Al H (396.152 nm)	0.262694 u	ppm	0.001456	0.55	509.324000	Y_R 377.433
As (188.980 nm)	0.004396	ppm	0.001028	23.37	5.699140	Y 242.219
B (249.678 nm)	0.427109	ppm	0.000395	0.09	3098.230000	Y 242.219
Ba (493.408 nm)	0.020291	ppm	0.000029	0.14	3398.100000	Y_R 488.368
Be (234.861 nm)	-0.000052 u	ppm	0.000058	> 100.00	-11.032600	Y_R 488.368
Bi (223.061 nm)	0.003733	ppm	0.000244	6.55	-6.994370	Y 377.433
Ca (315.887 nm)	52.852431	ppm	0.059781	0.11	42607.909225	Y_R 377.433
Cd (214.439 nm)	0.000271	ppm	0.000136	50.36	3.057170	Y 377.433
Co (228.615 nm)	0.000045 u	ppm	0.000085	> 100.00	-21.039100	Y 242.219
Cr (205.560 nm)	0.005493	ppm	0.000023	0.42	32.920700	Y 377.433
Cu (324.754 nm)	-0.000407 u	ppm	0.000467	> 100.00	363.146000	Y 377.433
Fe (238.204 nm)	0.022781	ppm	0.002830	12.42	59.083048	Y_R 377.433
Fe H (259.940 nm)	-0.031672 u	ppm	0.003565	11.26	46.464100	Y_R 377.433
K (766.491 nm)	1.414980	ppm	0.088833	6.28	3386.000000	Y_R2 488.368
Li (670.783 nm)	0.035081	ppm	0.000307	0.88	-2020.580000	Y_R2 488.368
Mg (279.078 nm)	30.390600	ppm	0.011674	0.04	107691.000000	Y 377.433
Mn (257.610 nm)	0.000552	ppm	0.000008	1.48	130.657000	Y 377.433
Mo (202.032 nm)	0.003242	ppm	0.000151	4.64	64.644100	Y 377.433
Na (589.592 nm)	257.582000 o	ppm	0.003439	0.00	190920.000000	Y_R2 488.368
Na H (589.593 nm)	276.185943	ppm	2.304354	0.83	137686.284847	Y_R4
Ni (231.604 nm)	0.002989	ppm	0.000669	22.38	5.338820	Y 377.433
P (213.618 nm)	0.005373	ppm	0.002765	51.46	3.135170	Y 242.219
Pb (220.353 nm)	-0.001918 u	ppm	0.001218	63.50	6.261950	Y 242.219
S (181.972 nm)	61.299034	ppm	0.130828	0.21	27546.626625	Y 377.433
Sb (206.834 nm)	-0.000498 u	ppm	0.000917	> 100.00	-8.401440	Y 377.433
Se (196.026 nm)	0.009486	ppm	0.002158	22.75	25.988500	Y 242.219
Si (288.158 nm)	14.239400	ppm	0.048551	0.34	94435.500000	Y 377.433
Sn (189.925 nm)	0.000179	ppm	0.000146	81.44	2.549140	Y 377.433
Sr (421.552 nm)	0.520401	ppm	0.000862	0.17	76156.338365	Y_R 488.368
Th (288.505 nm)	-0.001855 u	ppm	0.002622	> 100.00	6.458640	Y 377.433
Ti (336.122 nm)	0.000024 u	ppm	0.000118	> 100.00	-321.760000	Y 377.433
Tl (190.794 nm)	0.002046	ppm	0.000226	11.05	2.853350	Y 377.433
U (409.013 nm)	0.027633	ppm	0.002334	8.45	37.904400	Y 377.433
V (292.401 nm)	0.032137	ppm	0.000041	0.13	1525.310000	Y 377.433
Zn (206.200 nm)	0.006604	ppm	0.000265	4.02	36.594500	Y 377.433
Zr (343.823 nm)	0.000518	ppm	0.000160	30.79	-144.633000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.061918	23778.960751	0.000465	0.04
Y 377.433	1.062834	686724.678871	0.001639	0.15
Y_R 377.433	1.087710	59878.600000	0.000820	0.08
Y_R 488.368	1.083890	52381.200000	0.000835	0.08
Y_R2 488.368	1.062081	98438.427266	0.004624	0.44
Y_R4	1.075220	46040.300000	0.006715	0.62

Sample Name: 280-123847-g-15-aSD@5

Date: 5/23/2019 9:37:48 PM Rack:Tube: 1:70

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000358 u	ppm	0.000805	> 100.00	-235.597000	Y 377.433
Al (394.401 nm)	0.050976	ppm	0.000608	1.19	764.271000	Y 377.433
Al H (396.152 nm)	0.161030 u	ppm	0.004187	2.60	145.321000	Y_R 377.433
As (188.980 nm)	0.001596	ppm	0.000565	35.40	1.228680	Y 242.219
B (249.678 nm)	0.081509	ppm	0.000755	0.93	621.103000	Y 242.219
Ba (493.408 nm)	0.003808	ppm	0.000006	0.16	1801.650000	Y_R 488.368
Be (234.861 nm)	0.000015 u	ppm	0.000051	> 100.00	-5.448020	Y_R 488.368
Bi (223.061 nm)	0.001793	ppm	0.000598	33.35	-11.372200	Y 377.433
Ca (315.887 nm)	10.810120	ppm	0.008112	0.08	8665.465255	Y_R 377.433
Cd (214.439 nm)	0.000048	ppm	0.000048	> 100.00	-5.758360	Y 377.433
Co (228.615 nm)	0.000208	ppm	0.000139	66.61	-17.018400	Y 242.219
Cr (205.560 nm)	0.000888	ppm	0.000170	19.18	0.320611	Y 377.433
Cu (324.754 nm)	0.000390	ppm	0.000207	53.14	424.293000	Y 377.433
Fe (238.204 nm)	0.289848	ppm	0.003410	1.18	717.338154	Y_R 377.433
Fe H (259.940 nm)	0.238636 u	ppm	0.001070	0.45	424.422000	Y_R 377.433
K (766.491 nm)	0.139645	ppm	0.096483	69.09	2120.190000	Y_R2 488.368
Li (670.783 nm)	0.020526	ppm	0.001554	7.57	-2274.040000	Y_R2 488.368
Mg (279.078 nm)	6.212870	ppm	0.009122	0.15	22024.800000	Y 377.433
Mn (257.610 nm)	0.002907	ppm	0.000034	1.16	782.055000	Y 377.433
Mo (202.032 nm)	0.000321	ppm	0.000172	53.40	27.475200	Y 377.433
Na (589.592 nm)	54.058100	ppm	0.072965	0.13	40155.100000	Y_R2 488.368
Na H (589.593 nm)	56.385275	ppm	0.078809	0.14	28370.286458	Y_R4
Ni (231.604 nm)	0.000133	ppm	0.000035	26.26	-10.627900	Y 377.433
P (213.618 nm)	0.003012 u	ppm	0.005488	> 100.00	-0.225072	Y 242.219
Pb (220.353 nm)	-0.001482 u	ppm	0.000811	54.71	7.791450	Y 242.219
S (181.972 nm)	12.136617	ppm	0.038042	0.31	5460.205660	Y 377.433
Sb (206.834 nm)	0.005030	ppm	0.001144	22.75	1.366800	Y 377.433
Se (196.026 nm)	0.003854	ppm	0.000645	16.73	16.763700	Y 242.219
Si (288.158 nm)	2.838850	ppm	0.007148	0.25	19234.000000	Y 377.433
Sn (189.925 nm)	0.000873	ppm	0.000382	43.76	3.759250	Y 377.433
Sr (421.552 nm)	0.105195	ppm	0.000039	0.04	15432.763509	Y_R 488.368
Th (288.505 nm)	0.001425	ppm	0.001389	97.42	16.077800	Y 377.433
Ti (336.122 nm)	0.000309	ppm	0.000000	0.11	-428.857000	Y 377.433
Tl (190.794 nm)	-0.000857 u	ppm	0.000934	> 100.00	-2.446100	Y 377.433
U (409.013 nm)	0.010306	ppm	0.001948	18.90	-10.666700	Y 377.433
V (292.401 nm)	0.006731	ppm	0.000262	3.89	177.307000	Y 377.433
Zn (206.200 nm)	0.006378	ppm	0.000410	6.44	35.518400	Y 377.433
Zr (343.823 nm)	0.000442	ppm	0.000068	15.42	-149.051000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.098786	24604.526360	0.003504	0.32
Y 377.433	1.095502	707832.332867	0.004553	0.42
Y_R 377.433	1.123220	61833.500000	0.001776	0.16
Y_R 488.368	1.119990	54125.600000	0.002256	0.20
Y_R2 488.368	1.105815	102491.832061	0.001861	0.17
Y_R4	1.125350	48187.000000	0.004453	0.40

Sample Name: CCVH-5713036

Date: 5/23/2019 9:41:17 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004258	ppm	0.000216	5.07	-106.911000	Y 377.433
Al (394.401 nm)	50.024000 o	ppm	0.008987	0.02	596618.000000	Y 377.433
Al H (396.152 nm)	49.621900	ppm	0.109999	0.22	102033.000000	Y_R 377.433
As (188.980 nm)	0.002212	ppm	0.001442	65.16	0.796826	Y 242.219
B (249.678 nm)	-0.002482 u	ppm	0.000090	3.62	-9.508460	Y 242.219
Ba (493.408 nm)	0.001478	ppm	0.000101	6.84	1614.180000	Y_R 488.368
Be (234.861 nm)	0.001109	ppm	0.000042	3.78	-109.054000	Y_R 488.368
Bi (223.061 nm)	-0.003359 u	ppm	0.001699	50.58	-14.236100	Y 377.433
Ca (315.887 nm)	-0.003163 u	ppm	0.003547	> 100.00	-51.959102	Y_R 377.433
Cd (214.439 nm)	0.001460	ppm	0.000025	1.69	72.445400	Y 377.433
Co (228.615 nm)	0.003290	ppm	0.000023	0.71	59.233500	Y 242.219
Cr (205.560 nm)	0.001630	ppm	0.000528	32.40	4.163810	Y 377.433
Cu (324.754 nm)	0.003118	ppm	0.000055	1.76	1491.120000	Y 377.433
Fe (238.204 nm)	49.312103 o	ppm	0.085245	0.17	121545.312903	Y_R 377.433
Fe H (259.940 nm)	49.665800	ppm	0.135684	0.27	69535.900000	Y_R 377.433
K (766.491 nm)	0.143445	ppm	0.062906	43.85	2123.960000	Y_R2 488.368
Li (670.783 nm)	0.011956	ppm	0.003070	25.68	-2423.270000	Y_R2 488.368
Mg (279.078 nm)	0.035384	ppm	0.001103	3.12	57.178000	Y 377.433
Mn (257.610 nm)	0.000984	ppm	0.000012	1.19	250.115000	Y 377.433
Mo (202.032 nm)	0.000492	ppm	0.000243	49.42	29.646400	Y 377.433
Na (589.592 nm)	240.430000 o	ppm	0.643464	0.27	178211.000000	Y_R2 488.368
Na H (589.593 nm)	254.097881	ppm	1.707472	0.67	126700.974350	Y_R4
Ni (231.604 nm)	0.003558	ppm	0.000445	12.49	8.517900	Y 377.433
P (213.618 nm)	4.909680	ppm	0.023258	0.47	7420.610000	Y 242.219
Pb (220.353 nm)	0.005066	ppm	0.000536	10.58	22.889700	Y 242.219
S (181.972 nm)	5.019103	ppm	0.013933	0.28	2262.410969	Y 377.433
Sb (206.834 nm)	0.008099	ppm	0.001266	15.63	11.133800	Y 377.433
Se (196.026 nm)	0.007301	ppm	0.002901	39.74	8.655850	Y 242.219
Si (288.158 nm)	0.015196	ppm	0.000234	1.54	608.280000	Y 377.433
Sn (189.925 nm)	0.002023	ppm	0.000720	35.58	5.765120	Y 377.433
Sr (421.552 nm)	0.001035	ppm	0.000171	16.54	206.538902	Y_R 488.368
Th (288.505 nm)	4.940270	ppm	0.000874	0.02	8632.340000	Y 377.433
Ti (336.122 nm)	0.002194	ppm	0.000243	11.10	-220.382000	Y 377.433
Tl (190.794 nm)	0.000896	ppm	0.000055	6.09	-2.734130	Y 377.433
U (409.013 nm)	0.550224 Q	ppm	0.008241	1.50	1718.070000 Q	Y 377.433
V (292.401 nm)	0.001550	ppm	0.000205	13.19	400.175000	Y 377.433
Zn (206.200 nm)	0.003388	ppm	0.000441	13.01	28.265600	Y 377.433
Zr (343.823 nm)	0.001391	ppm	0.000191	13.74	-94.324200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076020	24094.734253	0.004187	0.39
Y 377.433	1.072327	692858.402177	0.004650	0.43
Y_R 377.433	1.097410	60412.700000	0.000500	0.05
Y_R 488.368	1.092130	52779.400000	0.003229	0.30
Y_R2 488.368	1.089460	100976.048730	0.001508	0.14
Y_R4	1.128390	48317.100000	0.002698	0.24

Sample Name: CCV-5717467

Date: 5/23/2019 9:45:01 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.493233	ppm	0.001694	0.34	17047.200000	Y 377.433
Al (394.401 nm)	0.508592	ppm	0.001251	0.25	6327.510000	Y 377.433
Al H (396.152 nm)	0.564976 u	ppm	0.001908	0.34	1172.860000	Y_R 377.433
As (188.980 nm)	0.496409	ppm	0.001861	0.37	789.593000	Y 242.219
B (249.678 nm)	0.486593	ppm	0.003374	0.69	3523.120000	Y 242.219
Ba (493.408 nm)	0.490362	ppm	0.000285	0.06	48932.400000	Y_R 488.368
Be (234.861 nm)	0.489751	ppm	0.001784	0.36	49364.200000	Y_R 488.368
Bi (223.061 nm)	0.970239	ppm	0.007221	0.74	2198.050000	Y 377.433
Ca (315.887 nm)	4.924582	ppm	0.001542	0.03	3913.968782	Y_R 377.433
Cd (214.439 nm)	0.499085	ppm	0.001380	0.28	19962.300000	Y 377.433
Co (228.615 nm)	0.493795	ppm	0.001110	0.22	12209.200000	Y 242.219
Cr (205.560 nm)	0.496076	ppm	0.001144	0.23	3505.690000	Y 377.433
Cu (324.754 nm)	0.493096	ppm	0.000454	0.09	23308.400000	Y 377.433
Fe (238.204 nm)	2.473032	ppm	0.006378	0.26	6098.358379	Y_R 377.433
Fe H (259.940 nm)	2.450840 u	ppm	0.005095	0.21	3517.640000	Y_R 377.433
K (766.491 nm)	48.784900	ppm	0.166048	0.34	50402.100000	Y_R2 488.368
Li (670.783 nm)	0.498829	ppm	0.003175	0.64	6054.960000	Y_R2 488.368
Mg (279.078 nm)	19.866200	ppm	0.056592	0.28	70397.700000	Y 377.433
Mn (257.610 nm)	0.494742	ppm	0.001143	0.23	136824.000000	Y 377.433
Mo (202.032 nm)	0.491082	ppm	0.002378	0.48	6272.230000	Y 377.433
Na (589.592 nm)	24.117600	ppm	0.049304	0.20	18075.600000	Y_R2 488.368
Na H (589.593 nm)	26.759844 u	ppm	0.089541	0.33	13636.329281	Y_R4
Ni (231.604 nm)	0.495598	ppm	0.003342	0.67	2758.890000	Y 377.433
P (213.618 nm)	0.060106	ppm	0.004081	6.79	-54.072000	Y 242.219
Pb (220.353 nm)	0.498642	ppm	0.000446	0.09	1723.500000	Y 242.219
S (181.972 nm)	0.012042	ppm	0.000572	4.75	14.921390	Y 377.433
Sb (206.834 nm)	0.500328	ppm	0.002055	0.41	872.973000	Y 377.433
Se (196.026 nm)	0.498819	ppm	0.001908	0.38	821.388000	Y 242.219
Si (288.158 nm)	4.851260	ppm	0.007912	0.16	32508.500000	Y 377.433
Sn (189.925 nm)	0.500597	ppm	0.001222	0.24	875.384000	Y 377.433
Sr (421.552 nm)	0.492872	ppm	0.000872	0.18	72130.645169	Y_R 488.368
Th (288.505 nm)	0.014864	ppm	0.001279	8.61	-10.040000	Y 377.433
Ti (336.122 nm)	0.490693	ppm	0.000449	0.09	63313.200000	Y 377.433
Tl (190.794 nm)	0.503531	ppm	0.001615	0.32	1216.530000	Y 377.433
U (409.013 nm)	0.014750	ppm	0.005722	38.80	-54.729000	Y 377.433
V (292.401 nm)	0.490871	ppm	0.001141	0.23	25707.200000	Y 377.433
Zn (206.200 nm)	0.501522	ppm	0.000929	0.19	2493.330000	Y 377.433
Zr (343.823 nm)	0.490495	ppm	0.000201	0.04	28107.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.106876	24785.679329	0.004599	0.42
Y 377.433	1.106236	714768.205904	0.004641	0.42
Y_R 377.433	1.117530	61520.400000	0.003162	0.28
Y_R 488.368	1.113860	53829.600000	0.004239	0.38
Y_R2 488.368	1.094432	101436.805161	0.007384	0.67
Y_R4	1.114880	47738.500000	0.002840	0.25

Sample Name: CCB

Date: 5/23/2019 9:48:37 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000026 u	ppm	0.000211	> 100.00	-246.839000	Y 377.433
Al (394.401 nm)	-0.001465 u	ppm	0.001067	72.84	112.661000	Y 377.433
Al H (396.152 nm)	0.129791 Zu	ppm	0.002501	1.93	41.873800 Z	Y_R 377.433
As (188.980 nm)	-0.001047 u	ppm	0.000780	74.53	-2.973810	Y 242.219
B (249.678 nm)	-0.002968 u	ppm	0.001211	40.79	15.811600	Y 242.219
Ba (493.408 nm)	-0.001400 u	ppm	0.000042	3.00	1296.980000	Y_R 488.368
Be (234.861 nm)	0.000019 u	ppm	0.000045	> 100.00	-3.781780	Y_R 488.368
Bi (223.061 nm)	0.002535	ppm	0.000092	3.61	-9.732920	Y 377.433
Ca (315.887 nm)	0.007785	ppm	0.003029	38.91	-55.687396	Y_R 377.433
Cd (214.439 nm)	0.000041	ppm	0.000035	85.92	-6.153240	Y 377.433
Co (228.615 nm)	0.000334	ppm	0.000098	29.33	-13.918300	Y 242.219
Cr (205.560 nm)	-0.000035 u	ppm	0.000072	> 100.00	-6.211420	Y 377.433
Cu (324.754 nm)	-0.000071 u	ppm	0.000210	> 100.00	408.262000	Y 377.433
Fe (238.204 nm)	0.000863	ppm	0.000549	63.59	5.062267	Y_R 377.433
Fe H (259.940 nm)	-0.053511 u	ppm	0.000293	0.55	15.928100	Y_R 377.433
K (766.491 nm)	-0.063035 u	ppm	0.003435	5.45	1919.030000	Y_R2 488.368
Li (670.783 nm)	0.012075 Z	ppm	0.000022	0.18	-2421.190000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000864 u	ppm	0.000192	22.29	8.740480	Y 377.433
Mn (257.610 nm)	0.000049	ppm	0.000035	71.42	-8.584820	Y 377.433
Mo (202.032 nm)	-0.000525 u	ppm	0.000123	23.44	16.708300	Y 377.433
Na (589.592 nm)	0.108869	ppm	0.011325	10.40	190.777000	Y_R2 488.368
Na H (589.593 nm)	0.803063 u	ppm	0.046282	5.76	726.944659	Y_R4
Ni (231.604 nm)	-0.000207 u	ppm	0.000225	> 100.00	-12.521300	Y 377.433
P (213.618 nm)	0.000165 u	ppm	0.001193	> 100.00	-4.161630	Y 242.219
Pb (220.353 nm)	-0.001984 u	ppm	0.001177	59.32	6.097640	Y 242.219
S (181.972 nm)	-0.006203 u	ppm	0.007824	> 100.00	4.969106	Y 377.433
Sb (206.834 nm)	0.005632	ppm	0.001082	19.21	2.404890	Y 377.433
Se (196.026 nm)	-0.001304 u	ppm	0.002473	> 100.00	8.456470	Y 242.219
Si (288.158 nm)	-0.005909 u	ppm	0.001125	19.05	469.067000	Y 377.433
Sn (189.925 nm)	0.000739	ppm	0.000589	79.74	3.525300	Y 377.433
Sr (421.552 nm)	0.000044	ppm	0.000021	47.52	54.380858	Y_R 488.368
Th (288.505 nm)	-0.001439 u	ppm	0.000343	23.85	12.035800	Y 377.433
Ti (336.122 nm)	0.000421	ppm	0.000029	6.93	-450.889000	Y 377.433
Tl (190.794 nm)	0.000988 u	ppm	0.001722	> 100.00	2.512310	Y 377.433
U (409.013 nm)	0.002797 u	ppm	0.010193	> 100.00	-33.019000	Y 377.433
V (292.401 nm)	0.000324	ppm	0.000077	23.90	-163.300000	Y 377.433
Zn (206.200 nm)	-0.000259 u	ppm	0.000140	53.99	2.532470	Y 377.433
Zr (343.823 nm)	0.000548	ppm	0.000011	2.03	-142.946000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110466	24866.078495	0.002287	0.21
Y 377.433	1.104626	713728.194298	0.002873	0.26
Y_R 377.433	1.110770	61148.500000	0.002141	0.19
Y_R 488.368	1.108570	53573.900000	0.004749	0.43
Y_R2 488.368	1.095931	101575.758508	0.005736	0.52
Y_R4	1.099540	47081.900000	0.008029	0.73

Sample Name: CCVL-5717307

Date: 5/23/2019 9:51:48 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007813	ppm	0.000381	4.88	26.887500	Y 377.433
Al (394.401 nm)	0.096504	ppm	0.000005	0.00	1289.970000	Y 377.433
Al H (396.152 nm)	0.221214 u	ppm	0.001833	0.83	235.368000	Y_R 377.433
As (188.980 nm)	0.013811	ppm	0.001105	8.00	20.697800	Y 242.219
B (249.678 nm)	0.092244	ppm	0.000251	0.27	698.154000	Y 242.219
Ba (493.408 nm)	0.008378	ppm	0.000382	4.56	2244.170000	Y_R 488.368
Be (234.861 nm)	0.000970	ppm	0.000000	0.02	91.624200	Y_R 488.368
Bi (223.061 nm)	0.087791	ppm	0.000162	0.18	184.751000	Y 377.433
Ca (315.887 nm)	0.206105	ppm	0.009540	4.63	104.442662	Y_R 377.433
Cd (214.439 nm)	0.005215	ppm	0.000065	1.24	200.931000	Y 377.433
Co (228.615 nm)	0.010675	ppm	0.000197	1.84	242.204000	Y 242.219
Cr (205.560 nm)	0.009888	ppm	0.000211	2.14	63.923900	Y 377.433
Cu (324.754 nm)	0.015166	ppm	0.000168	1.10	1115.550000	Y 377.433
Fe (238.204 nm)	0.100411	ppm	0.001196	1.19	250.423544	Y_R 377.433
Fe H (259.940 nm)	0.047532 u	ppm	0.002603	5.48	157.211000	Y_R 377.433
K (766.491 nm)	2.796410	ppm	0.015272	0.55	4757.110000	Y_R2 488.368
Li (670.783 nm)	0.031531 Q	ppm	0.000976	3.09	-2082.400000 Q	Y_R2 488.368
Mg (279.078 nm)	0.203455	ppm	0.000253	0.12	731.384000	Y 377.433
Mn (257.610 nm)	0.010547	ppm	0.000016	0.15	2895.380000	Y 377.433
Mo (202.032 nm)	0.017934	ppm	0.000047	0.26	251.586000	Y 377.433
Na (589.592 nm)	1.181920	ppm	0.040647	3.44	987.569000	Y_R2 488.368
Na H (589.593 nm)	1.581682 u	ppm	0.046139	2.92	1114.184212	Y_R4
Ni (231.604 nm)	0.041038	ppm	0.000243	0.59	217.989000	Y 377.433
P (213.618 nm)	2.775970	ppm	0.017142	0.62	4191.930000	Y 242.219
Pb (220.353 nm)	0.007879	ppm	0.000706	8.96	40.072700	Y 242.219
S (181.972 nm)	0.086291	ppm	0.000544	0.63	46.556054	Y 377.433
Sb (206.834 nm)	0.026339 Q	ppm	0.002310	8.77	38.809400 Q	Y 377.433
Se (196.026 nm)	0.018415	ppm	0.001479	8.03	40.495200	Y 242.219
Si (288.158 nm)	0.472519	ppm	0.000626	0.13	3624.930000	Y 377.433
Sn (189.925 nm)	0.098514	ppm	0.001579	1.60	174.066000	Y 377.433
Sr (421.552 nm)	0.009075	ppm	0.000146	1.61	1375.125543	Y_R 488.368
Th (288.505 nm)	0.017863	ppm	0.000067	0.37	45.175300	Y 377.433
Ti (336.122 nm)	0.010049	ppm	0.000040	0.40	801.572000	Y 377.433
Tl (190.794 nm)	0.015653	ppm	0.000115	0.74	37.923200	Y 377.433
U (409.013 nm)	0.066504	ppm	0.002736	4.11	165.383000	Y 377.433
V (292.401 nm)	0.010233	ppm	0.000475	4.64	357.138000	Y 377.433
Zn (206.200 nm)	0.020905	ppm	0.000528	2.53	107.587000	Y 377.433
Zr (343.823 nm)	0.010227	ppm	0.000040	0.39	415.175000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119359	25065.212125	0.001942	0.17
Y 377.433	1.114500	720107.480229	0.002784	0.25
Y_R 377.433	1.127490	62068.900000	0.002246	0.20
Y_R 488.368	1.122440	54244.100000	0.001226	0.11
Y_R2 488.368	1.110924	102965.353376	0.003188	0.29
Y_R4	1.119680	47943.900000	0.006498	0.58

Sample Name: 280-123847-g-15-b ms

Date: 5/23/2019 9:55:17 PM Rack:Tube: 1:71

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054126	ppm	0.000659	1.22	1320.310000	Y 377.433
Al (394.401 nm)	10.542000 o	ppm	0.004928	0.05	126488.000000	Y 377.433
Al H (396.152 nm)	10.420900	ppm	0.035351	0.34	21934.300000	Y_R 377.433
As (188.980 nm)	2.114260	ppm	0.005254	0.25	3367.230000	Y 242.219
B (249.678 nm)	1.482220	ppm	0.002102	0.14	10654.400000	Y 242.219
Ba (493.408 nm)	2.080410	ppm	0.000800	0.04	202955.000000	Y_R 488.368
Be (234.861 nm)	1.030370	ppm	0.003473	0.34	103839.000000	Y_R 488.368
Bi (223.061 nm)	1.998920	ppm	0.003582	0.18	4545.800000	Y 377.433
Ca (315.887 nm)	104.932351	ppm	0.024277	0.02	84656.697333	Y_R 377.433
Cd (214.439 nm)	1.010570	ppm	0.001176	0.12	40430.900000	Y 377.433
Co (228.615 nm)	1.008730	ppm	0.000620	0.06	24965.800000	Y 242.219
Cr (205.560 nm)	1.028880	ppm	0.001916	0.19	7276.960000	Y 377.433
Cu (324.754 nm)	1.022570	ppm	0.002206	0.22	47922.600000	Y 377.433
Fe (238.204 nm)	10.309775 o	ppm	0.010889	0.11	25414.029084	Y_R 377.433
Fe H (259.940 nm)	10.356100	ppm	0.029410	0.28	14571.100000	Y_R 377.433
K (766.491 nm)	55.019100	ppm	0.121375	0.22	56589.700000	Y_R2 488.368
Li (670.783 nm)	1.078710	ppm	0.003632	0.34	16152.900000	Y_R2 488.368
Mg (279.078 nm)	82.704400	ppm	0.084591	0.10	292999.000000	Y 377.433
Mn (257.610 nm)	1.026450	ppm	0.000692	0.07	283893.000000	Y 377.433
Mo (202.032 nm)	1.041250	ppm	0.000471	0.05	13272.900000	Y 377.433
Na (589.592 nm)	310.334000 o	ppm	0.154344	0.05	230418.000000	Y_R2 488.368
Na H (589.593 nm)	339.981094	ppm	2.363832	0.70	169414.262208	Y_R4
Ni (231.604 nm)	1.010580	ppm	0.001533	0.15	5638.700000	Y 377.433
P (213.618 nm)	20.968200	ppm	0.036687	0.17	31432.800000	Y 242.219
Pb (220.353 nm)	1.009840	ppm	0.002274	0.23	3480.330000	Y 242.219
S (181.972 nm)	73.614363	ppm	0.074894	0.10	33084.512096	Y 377.433
Sb (206.834 nm)	0.005618	ppm	0.000388	6.92	-2.770700	Y 377.433
Se (196.026 nm)	2.061840	ppm	0.002877	0.14	3360.300000	Y 242.219
Si (288.158 nm)	17.021900	ppm	0.031281	0.18	112790.000000	Y 377.433
Sn (189.925 nm)	2.055650	ppm	0.004079	0.20	3587.720000	Y 377.433
Sr (421.552 nm)	1.575913	ppm	0.000439	0.03	230526.165863	Y_R 488.368
Th (288.505 nm)	1.053330	ppm	0.000338	0.03	1749.620000	Y 377.433
Ti (336.122 nm)	1.037210	ppm	0.000138	0.01	134718.000000	Y 377.433
Tl (190.794 nm)	1.979950	ppm	0.000290	0.01	4784.820000	Y 377.433
U (409.013 nm)	2.065720	ppm	0.000010	0.00	6361.150000	Y 377.433
V (292.401 nm)	1.059170	ppm	0.000409	0.04	55696.400000	Y 377.433
Zn (206.200 nm)	0.506806	ppm	0.000282	0.06	2520.770000	Y 377.433
Zr (343.823 nm)	0.510596	ppm	0.000388	0.08	29266.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043108	23357.767300	0.000236	0.02
Y 377.433	1.050261	678601.284495	0.000471	0.04
Y_R 377.433	1.086630	59819.500000	0.003622	0.33
Y_R 488.368	1.082830	52329.700000	0.003140	0.29
Y_R2 488.368	1.073702	99515.452303	0.000979	0.09
Y_R4	1.094130	46850.100000	0.004047	0.37

Sample Name: 280-123847-g-15-c msd

Date: 5/23/2019 9:58:57 PM Rack:Tube: 1:72

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.053934	ppm	0.000490	0.91	1315.580000	Y 377.433
Al (394.401 nm)	10.442300 o	ppm	0.006812	0.07	125293.000000	Y 377.433
Al H (396.152 nm)	10.308700	ppm	0.045351	0.44	21697.300000	Y_R 377.433
As (188.980 nm)	2.109840	ppm	0.006298	0.30	3360.180000	Y 242.219
B (249.678 nm)	1.473310	ppm	0.000490	0.03	10590.500000	Y 242.219
Ba (493.408 nm)	2.065520	ppm	0.002463	0.12	201512.000000	Y_R 488.368
Be (234.861 nm)	1.025720	ppm	0.007572	0.74	103371.000000	Y_R 488.368
Bi (223.061 nm)	1.980210	ppm	0.000173	0.01	4503.100000	Y 377.433
Ca (315.887 nm)	104.046730	ppm	0.240103	0.23	83941.671208	Y_R 377.433
Cd (214.439 nm)	1.006740	ppm	0.000133	0.01	40277.600000	Y 377.433
Co (228.615 nm)	1.005020	ppm	0.001229	0.12	24873.700000	Y 242.219
Cr (205.560 nm)	1.024760	ppm	0.002803	0.27	7247.860000	Y 377.433
Cu (324.754 nm)	1.015730	ppm	0.000254	0.02	47605.500000	Y 377.433
Fe (238.204 nm)	10.226488 o	ppm	0.020029	0.20	25208.748586	Y_R 377.433
Fe H (259.940 nm)	10.255800	ppm	0.031787	0.31	14430.900000	Y_R 377.433
K (766.491 nm)	54.603400	ppm	0.097458	0.18	56177.000000	Y_R2 488.368
Li (670.783 nm)	1.065810	ppm	0.006961	0.65	15928.100000	Y_R2 488.368
Mg (279.078 nm)	82.093100	ppm	0.001979	0.00	290834.000000	Y 377.433
Mn (257.610 nm)	1.020900	ppm	0.000029	0.00	282358.000000	Y 377.433
Mo (202.032 nm)	1.036330	ppm	0.000610	0.06	13210.300000	Y 377.433
Na (589.592 nm)	308.368000 o	ppm	0.194180	0.06	228959.000000	Y_R2 488.368
Na H (589.593 nm)	336.295232	ppm	0.034052	0.01	167581.129755	Y_R4
Ni (231.604 nm)	1.005720	ppm	0.001474	0.15	5611.500000	Y 377.433
P (213.618 nm)	20.826900	ppm	0.027582	0.13	31220.600000	Y 242.219
Pb (220.353 nm)	1.003760	ppm	0.004177	0.42	3459.460000	Y 242.219
S (181.972 nm)	73.330716	ppm	0.166879	0.23	32957.023891	Y 377.433
Sb (206.834 nm)	0.005447	ppm	0.000536	9.84	-2.998290	Y 377.433
Se (196.026 nm)	2.060330	ppm	0.006026	0.29	3357.860000	Y 242.219
Si (288.158 nm)	16.942100	ppm	0.006749	0.04	112263.000000	Y 377.433
Sn (189.925 nm)	2.042800	ppm	0.000601	0.03	3565.320000	Y 377.433
Sr (421.552 nm)	1.563712	ppm	0.000760	0.05	228741.713337	Y_R 488.368
Th (288.505 nm)	1.045070	ppm	0.004363	0.42	1735.940000	Y 377.433
Ti (336.122 nm)	1.030440	ppm	0.000614	0.06	133834.000000	Y 377.433
Tl (190.794 nm)	1.970340	ppm	0.002616	0.13	4761.630000	Y 377.433
U (409.013 nm)	2.045000	ppm	0.007428	0.36	6296.890000	Y 377.433
V (292.401 nm)	1.052450	ppm	0.000751	0.07	55340.400000	Y 377.433
Zn (206.200 nm)	0.504316	ppm	0.001003	0.20	2508.390000	Y 377.433
Zr (343.823 nm)	0.506793	ppm	0.000474	0.09	29047.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047669	23459.899330	0.002469	0.24
Y 377.433	1.055660	682089.354271	0.002577	0.24
Y_R 377.433	1.092420	60138.400000	0.006423	0.59
Y_R 488.368	1.087290	52545.400000	0.004558	0.42
Y_R2 488.368	1.071491	99310.532208	0.001224	0.11
Y_R4	1.112060	47617.700000	0.002663	0.24

Sample Name: 280-123847-g-15-aPDS

Date: 5/23/2019 10:02:37 PM Rack:Tube: 1:73

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052532	ppm	0.000150	0.29	1577.150000	Y 377.433
Al (394.401 nm)	1.236860	ppm	0.002105	0.17	15069.400000	Y 377.433
Al H (396.152 nm)	1.257100	ppm	0.015543	1.24	2576.050000	Y_R 377.433
As (188.980 nm)	0.213476	ppm	0.000752	0.35	338.812000	Y 242.219
B (249.678 nm)	0.526370	ppm	0.000785	0.15	3809.000000	Y 242.219
Ba (493.408 nm)	0.120087	ppm	0.000135	0.11	13065.400000	Y_R 488.368
Be (234.861 nm)	0.050615	ppm	0.000073	0.14	5092.810000	Y_R 488.368
Bi (223.061 nm)	0.002822	ppm	0.000624	22.13	-8.825080	Y 377.433
Ca (315.887 nm)	71.461357	ppm	0.104651	0.15	57631.871245	Y_R 377.433
Cd (214.439 nm)	0.050451	ppm	0.000143	0.28	2011.300000	Y 377.433
Co (228.615 nm)	0.050095	ppm	0.000532	1.06	1218.630000	Y 242.219
Cr (205.560 nm)	0.054551	ppm	0.000829	1.52	380.163000	Y 377.433
Cu (324.754 nm)	0.051675	ppm	0.000198	0.38	2779.450000	Y 377.433
Fe (238.204 nm)	1.127920	ppm	0.001409	0.12	2782.983812	Y_R 377.433
Fe H (259.940 nm)	1.088640 u	ppm	0.009177	0.84	1612.930000	Y_R 377.433
K (766.491 nm)	22.180800	ppm	0.014369	0.06	23996.700000	Y_R2 488.368
Li (670.783 nm)	0.139948	ppm	0.000134	0.10	-194.466000	Y_R2 488.368
Mg (279.078 nm)	49.717800	ppm	0.020394	0.04	176160.000000	Y 377.433
Mn (257.610 nm)	0.051512	ppm	0.000052	0.10	14226.300000	Y 377.433
Mo (202.032 nm)	0.054259	ppm	0.000379	0.70	713.812000	Y 377.433
Na (589.592 nm)	269.631000 o	ppm	1.263220	0.47	199866.000000	Y_R2 488.368
Na H (589.593 nm)	291.788074	ppm	1.669876	0.57	145445.872292	Y_R4
Ni (231.604 nm)	0.053340	ppm	0.000721	1.35	286.966000	Y 377.433
P (213.618 nm)	2.065160	ppm	0.012255	0.59	3105.060000	Y 242.219
Pb (220.353 nm)	0.097420	ppm	0.002765	2.84	348.480000	Y 242.219
S (181.972 nm)	60.653615	ppm	0.125787	0.21	27257.747492	Y 377.433
Sb (206.834 nm)	0.107997	ppm	0.000006	0.01	182.898000	Y 377.433
Se (196.026 nm)	0.212737	ppm	0.000467	0.22	356.086000	Y 242.219
Si (288.158 nm)	18.954800	ppm	0.033522	0.18	125540.000000	Y 377.433
Sn (189.925 nm)	0.099142	ppm	0.002089	2.11	175.161000	Y 377.433
Sr (421.552 nm)	0.564599	ppm	0.001298	0.23	82620.491160	Y_R 488.368
Th (288.505 nm)	0.201682	ppm	0.000122	0.06	358.467000	Y 377.433
Ti (336.122 nm)	0.050425	ppm	0.000094	0.19	6295.710000	Y 377.433
Tl (190.794 nm)	0.199055	ppm	0.000100	0.05	478.916000	Y 377.433
U (409.013 nm)	0.525084	ppm	0.005124	0.98	1588.470000	Y 377.433
V (292.401 nm)	0.081769	ppm	0.000667	0.82	4137.080000	Y 377.433
Zn (206.200 nm)	0.210393	ppm	0.000214	0.10	1048.210000	Y 377.433
Zr (343.823 nm)	0.051390	ppm	0.000228	0.44	2788.650000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081657	24220.975949	0.001609	0.15
Y 377.433	1.085088	701103.760417	0.000636	0.06
Y_R 377.433	1.117500	61518.900000	0.002085	0.19
Y_R 488.368	1.112200	53749.300000	0.000581	0.05
Y_R2 488.368	1.102818	102214.128880	0.003661	0.33
Y_R4	1.121110	48005.300000	0.002619	0.23

Sample Name: 280-123847-g-16-a

Date: 5/23/2019 10:06:14 PM Rack:Tube: 1:74

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001746	ppm	0.000275	15.76	-187.708000	Y 377.433
Al (394.401 nm)	0.223505	ppm	0.000477	0.21	4341.110000	Y 377.433
Al H (396.152 nm)	-0.733608 u	ppm	0.003343	0.46	571.674000	Y_R 377.433
As (188.980 nm)	0.003173	ppm	0.000146	4.59	3.749510	Y 242.219
B (249.678 nm)	2.248260	ppm	0.001039	0.05	16150.600000	Y 242.219
Ba (493.408 nm)	0.015307	ppm	0.000333	2.18	2915.270000	Y_R 488.368
Be (234.861 nm)	0.000023	ppm	0.000019	83.78	-3.503380	Y_R 488.368
Bi (223.061 nm)	0.001095	ppm	0.001326	> 100.00	-13.005500	Y 377.433
Ca (315.887 nm)	496.170690	ppm	0.641008	0.13	400516.010748	Y_R 377.433
Cd (214.439 nm)	0.000368	ppm	0.000120	32.62	6.931660	Y 377.433
Co (228.615 nm)	-0.000044 u	ppm	0.000433	> 100.00	-23.257500	Y 242.219
Cr (205.560 nm)	0.000595	ppm	0.000361	60.69	-1.884730	Y 377.433
Cu (324.754 nm)	-0.001911 u	ppm	0.000635	33.24	43.754200	Y 377.433
Fe (238.204 nm)	0.016874	ppm	0.000154	0.91	44.525282	Y_R 377.433
Fe H (259.940 nm)	-0.051938 u	ppm	0.005963	11.48	18.127400	Y_R 377.433
K (766.491 nm)	4.772220	ppm	0.150242	3.15	6718.160000	Y_R2 488.368
Li (670.783 nm)	0.081550	ppm	0.001488	1.83	-1211.390000	Y_R2 488.368
Mg (279.078 nm)	116.806000	ppm	0.165723	0.14	413874.000000	Y 377.433
Mn (257.610 nm)	0.027894	ppm	0.000012	0.04	7693.500000	Y 377.433
Mo (202.032 nm)	0.022556	ppm	0.000368	1.63	310.405000	Y 377.433
Na (589.592 nm)	647.029000 o	ppm	1.710960	0.26	479405.000000	Y_R2 488.368
Na H (589.593 nm)	744.906748	ppm	1.556610	0.21	370800.602648	Y_R4
Ni (231.604 nm)	0.000947	ppm	0.000313	33.03	-6.074420	Y 377.433
P (213.618 nm)	0.008177	ppm	0.003390	41.47	5.990100	Y 242.219
Pb (220.353 nm)	-0.003604 u	ppm	0.000890	24.70	0.448225	Y 242.219
S (181.972 nm)	577.979992 bo	ppm	1.929004	0.33	259667.992791	Y 377.433
Sb (206.834 nm)	-0.003625 u	ppm	0.002089	57.63	-14.092500	Y 377.433
Se (196.026 nm)	0.023564	ppm	0.000963	4.09	48.912800	Y 242.219
Si (288.158 nm)	6.225770	ppm	0.039170	0.63	41575.100000	Y 377.433
Sn (189.925 nm)	-0.001296 u	ppm	0.000942	72.69	-0.024231	Y 377.433
Sr (421.552 nm)	6.142330	ppm	0.018958	0.31	898361.642039	Y_R 488.368
Th (288.505 nm)	0.012502	ppm	0.000092	0.74	23.545200	Y 377.433
Ti (336.122 nm)	-0.002620 u	ppm	0.000089	3.40	858.812000	Y 377.433
Tl (190.794 nm)	0.011080	ppm	0.000396	3.57	6.064920	Y 377.433
U (409.013 nm)	0.014948	ppm	0.005213	34.87	-59.763500	Y 377.433
V (292.401 nm)	0.008142	ppm	0.000095	1.17	250.841000	Y 377.433
Zn (206.200 nm)	0.004406	ppm	0.000808	18.33	25.687900	Y 377.433
Zr (343.823 nm)	0.000314	ppm	0.000303	96.59	-156.440000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.992128	22216.197891	0.000582	0.06
Y 377.433	1.005474	649662.966816	0.001022	0.10
Y_R 377.433	1.059510	58326.500000	0.006190	0.58
Y_R 488.368	1.052560	50866.900000	0.007440	0.71
Y_R2 488.368	1.051812	97486.583874	0.010247	0.97
Y_R4	1.066000	45645.500000	0.000775	0.07

Sample Name: mb 280-459146/1-a

Date: 5/23/2019 10:09:54 PM Rack:Tube: 1:75

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000190	ppm	0.000231	> 100.00	-238.988000	Y 377.433
Al (394.401 nm)	0.000182 u	ppm	0.000300	> 100.00	130.624000	Y 377.433
Al H (396.152 nm)	0.123631 u	ppm	0.005635	4.56	29.211500	Y_R 377.433
As (188.980 nm)	-0.001540 u	ppm	0.001240	80.55	-3.758420	Y 242.219
B (249.678 nm)	-0.000593 u	ppm	0.000209	35.16	32.833000	Y 242.219
Ba (493.408 nm)	-0.001810 u	ppm	0.000231	12.75	1257.260000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000004	7.44	-10.471900	Y_R 488.368
Bi (223.061 nm)	0.002308	ppm	0.000306	13.24	-10.252400	Y 377.433
Ca (315.887 nm)	0.020089	ppm	0.001724	8.58	-45.756734	Y_R 377.433
Cd (214.439 nm)	0.000002 u	ppm	0.000073	> 100.00	-7.726740	Y 377.433
Co (228.615 nm)	0.000134	ppm	0.000162	> 100.00	-18.851900	Y 242.219
Cr (205.560 nm)	-0.000033 u	ppm	0.000382	> 100.00	-6.199720	Y 377.433
Cu (324.754 nm)	0.000232	ppm	0.000030	12.78	423.074000	Y 377.433
Fe (238.204 nm)	0.001008	ppm	0.000496	49.16	5.419190	Y_R 377.433
Fe H (259.940 nm)	-0.049541 u	ppm	0.003727	7.52	21.479400	Y_R 377.433
K (766.491 nm)	-0.126842 u	ppm	0.000928	0.73	1855.700000	Y_R2 488.368
Li (670.783 nm)	0.013703	ppm	0.002964	21.63	-2392.860000	Y_R2 488.368
Mg (279.078 nm)	0.007771	ppm	0.002008	25.84	39.556400	Y 377.433
Mn (257.610 nm)	0.000159	ppm	0.000027	17.22	21.873100	Y 377.433
Mo (202.032 nm)	-0.000627 u	ppm	0.000066	10.47	15.414800	Y 377.433
Na (589.592 nm)	0.330441	ppm	0.004720	1.43	354.790000	Y_R2 488.368
Na H (589.593 nm)	2.086450 u	ppm	0.003249	0.16	1365.226003	Y_R4
Ni (231.604 nm)	-0.000198 u	ppm	0.000065	32.80	-12.474000	Y 377.433
P (213.618 nm)	-0.002076 u	ppm	0.001048	50.48	-7.671390	Y 242.219
Pb (220.353 nm)	-0.001504 u	ppm	0.000645	42.88	7.713280	Y 242.219
S (181.972 nm)	0.022949	ppm	0.006179	26.92	18.065396	Y 377.433
Sb (206.834 nm)	0.005091	ppm	0.002291	45.01	1.445760	Y 377.433
Se (196.026 nm)	0.000083 u	ppm	0.001336	> 100.00	10.711500	Y 242.219
Si (288.158 nm)	-0.004133 u	ppm	0.000275	6.66	480.778000	Y 377.433
Sn (189.925 nm)	-0.000920 u	ppm	0.000088	9.55	0.632194	Y 377.433
Sr (421.552 nm)	0.000089	ppm	0.000039	43.37	60.972348	Y_R 488.368
Th (288.505 nm)	-0.001927 u	ppm	0.003130	> 100.00	11.136700	Y 377.433
Ti (336.122 nm)	0.000582	ppm	0.000032	5.54	-429.961000	Y 377.433
Tl (190.794 nm)	0.000644	ppm	0.000649	> 100.00	1.677370	Y 377.433
U (409.013 nm)	0.003389	ppm	0.002394	70.64	-31.166500	Y 377.433
V (292.401 nm)	0.000572	ppm	0.000176	30.68	-149.442000	Y 377.433
Zn (206.200 nm)	0.001256	ppm	0.000047	3.71	10.052000	Y 377.433
Zr (343.823 nm)	0.000468	ppm	0.000099	21.23	-147.511000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113316	24929.899059	0.004335	0.39
Y 377.433	1.109988	717192.286514	0.004894	0.44
Y_R 377.433	1.133830	62418.000000	0.004401	0.39
Y_R 488.368	1.130470	54632.100000	0.005987	0.53
Y_R2 488.368	1.118680	103684.221630	0.006183	0.55
Y_R4	1.110740	47561.400000	0.001167	0.11

Sample Name: lcs 280-459146/2-a

Date: 5/23/2019 10:13:06 PM Rack:Tube: 1:76

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000021 u	ppm	0.000617	> 100.00	-551.074000	Y 377.433
Al (394.401 nm)	9.638940 o	ppm	0.001588	0.02	115547.000000	Y 377.433
Al H (396.152 nm)	9.724320	ppm	0.030506	0.31	20266.200000	Y_R 377.433
As (188.980 nm)	1.928220	ppm	0.001213	0.06	3070.800000	Y 242.219
B (249.678 nm)	0.957895	ppm	0.000944	0.10	6896.790000	Y 242.219
Ba (493.408 nm)	1.937830	ppm	0.002877	0.15	189144.000000	Y_R 488.368
Be (234.861 nm)	0.960907	ppm	0.002668	0.28	96838.500000	Y_R 488.368
Bi (223.061 nm)	1.861140	ppm	0.005626	0.30	4231.400000	Y 377.433
Ca (315.887 nm)	47.956530	ppm	0.063525	0.13	38657.690256	Y_R 377.433
Cd (214.439 nm)	0.952984	ppm	0.000415	0.04	38126.500000	Y 377.433
Co (228.615 nm)	0.940600	ppm	0.000700	0.07	23278.200000	Y 242.219
Cr (205.560 nm)	0.958818	ppm	0.002069	0.22	6781.050000	Y 377.433
Cu (324.754 nm)	0.939213	ppm	0.002055	0.22	44078.900000	Y 377.433
Fe (238.204 nm)	9.705906 o	ppm	0.008522	0.09	23925.640097	Y_R 377.433
Fe H (259.940 nm)	9.722260	ppm	0.010477	0.11	13684.900000	Y_R 377.433
K (766.491 nm)	48.053800	ppm	0.036405	0.08	49676.400000	Y_R2 488.368
Li (670.783 nm)	0.976357	ppm	0.001072	0.11	14370.400000	Y_R2 488.368
Mg (279.078 nm)	47.945700	ppm	0.013442	0.03	169846.000000	Y 377.433
Mn (257.610 nm)	0.967109	ppm	0.000093	0.01	267480.000000	Y 377.433
Mo (202.032 nm)	0.973133	ppm	0.000111	0.01	12406.100000	Y 377.433
Na (589.592 nm)	46.489100	ppm	0.109042	0.23	34944.300000	Y_R2 488.368
Na H (589.593 nm)	52.417644	ppm	0.071027	0.14	26397.018688	Y_R4
Ni (231.604 nm)	0.939738	ppm	0.001347	0.14	5242.710000	Y 377.433
P (213.618 nm)	19.289200	ppm	0.024657	0.13	28916.200000	Y 242.219
Pb (220.353 nm)	0.957492	ppm	0.001180	0.12	3300.760000	Y 242.219
S (181.972 nm)	9.641150	ppm	0.008032	0.08	4343.952759	Y 377.433
Sb (206.834 nm)	0.004161	ppm	0.000626	15.05	-4.987750	Y 377.433
Se (196.026 nm)	1.888930	ppm	0.000135	0.01	3079.360000	Y 242.219
Si (288.158 nm)	1.956350	ppm	0.000129	0.01	13412.700000	Y 377.433
Sn (189.925 nm)	1.904760	ppm	0.003793	0.20	3324.540000	Y 377.433
Sr (421.552 nm)	0.970411	ppm	0.001686	0.17	141971.647712	Y_R 488.368
Th (288.505 nm)	0.991229	ppm	0.003997	0.40	1653.280000	Y 377.433
Ti (336.122 nm)	0.968184	ppm	0.000554	0.06	125546.000000	Y 377.433
Tl (190.794 nm)	1.916870	ppm	0.004711	0.25	4634.860000	Y 377.433
U (409.013 nm)	1.933220	ppm	0.002342	0.12	5956.770000	Y 377.433
V (292.401 nm)	0.959425	ppm	0.000437	0.05	50422.300000	Y 377.433
Zn (206.200 nm)	0.475515	ppm	0.001271	0.27	2365.370000	Y 377.433
Zr (343.823 nm)	0.481396	ppm	0.000547	0.11	27583.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080683	24199.153480	0.000931	0.09
Y 377.433	1.086450	701983.798134	0.000349	0.03
Y_R 377.433	1.112010	61216.800000	0.003365	0.30
Y_R 488.368	1.107340	53514.200000	0.002582	0.23
Y_R2 488.368	1.097899	101758.156419	0.007345	0.67
Y_R4	1.099620	47085.100000	0.001941	0.18

Sample Name: 280-123951-d-1-a

Date: 5/23/2019 10:16:46 PM Rack:Tube: 1:77

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000731	ppm	0.000054	7.33	-221.764000	Y 377.433
Al (394.401 nm)	0.026731	ppm	0.000196	0.73	494.013000	Y 377.433
Al H (396.152 nm)	0.117874 u	ppm	0.000156	0.13	85.711200	Y_R 377.433
As (188.980 nm)	0.003074	ppm	0.003849	> 100.00	3.590670	Y 242.219
B (249.678 nm)	0.141471	ppm	0.000492	0.35	1051.000000	Y 242.219
Ba (493.408 nm)	0.015121	ppm	0.000273	1.81	2897.320000	Y_R 488.368
Be (234.861 nm)	0.000025 u	ppm	0.000073	> 100.00	-3.364070	Y_R 488.368
Bi (223.061 nm)	0.002447	ppm	0.001135	46.37	-9.924310	Y 377.433
Ca (315.887 nm)	25.789733	ppm	0.007197	0.03	20759.086166	Y_R 377.433
Cd (214.439 nm)	0.000237	ppm	0.000070	29.38	1.710140	Y 377.433
Co (228.615 nm)	0.000339	ppm	0.000193	56.98	-13.715200	Y 242.219
Cr (205.560 nm)	0.000840	ppm	0.000591	70.34	-0.045677	Y 377.433
Cu (324.754 nm)	0.000578	ppm	0.000357	61.73	426.318000	Y 377.433
Fe (238.204 nm)	0.049266	ppm	0.001535	3.11	124.362894	Y_R 377.433
Fe H (259.940 nm)	-0.021153 u	ppm	0.000740	3.50	61.172300	Y_R 377.433
K (766.491 nm)	0.291959	ppm	0.036065	12.35	2271.370000	Y_R2 488.368
Li (670.783 nm)	0.024056	ppm	0.000793	3.30	-2212.560000	Y_R2 488.368
Mg (279.078 nm)	70.009400	ppm	0.114420	0.16	248067.000000	Y 377.433
Mn (257.610 nm)	0.008586	ppm	0.000066	0.77	2352.910000	Y 377.433
Mo (202.032 nm)	0.002823	ppm	0.000187	6.62	59.305500	Y 377.433
Na (589.592 nm)	36.740700	ppm	0.036879	0.10	27329.400000	Y_R2 488.368
Na H (589.593 nm)	38.931269 u	ppm	0.125880	0.32	19689.684614	Y_R4
Ni (231.604 nm)	0.004068	ppm	0.000148	3.63	11.367500	Y 377.433
P (213.618 nm)	0.032825	ppm	0.001238	3.77	44.447800	Y 242.219
Pb (220.353 nm)	-0.001122 u	ppm	0.002290	> 100.00	9.061670	Y 242.219
S (181.972 nm)	75.759875	ppm	0.138873	0.18	34041.355217	Y 377.433
Sb (206.834 nm)	0.002492	ppm	0.001088	43.67	-3.158990	Y 377.433
Se (196.026 nm)	-0.003837 u	ppm	0.001287	33.54	4.339890	Y 242.219
Si (288.158 nm)	0.810444	ppm	0.002468	0.30	5853.980000	Y 377.433
Sn (189.925 nm)	0.000915	ppm	0.000901	98.43	3.832510	Y 377.433
Sr (421.552 nm)	0.187979	ppm	0.000300	0.16	27539.716408	Y_R 488.368
Th (288.505 nm)	0.010600	ppm	0.000516	4.87	32.158600	Y 377.433
Ti (336.122 nm)	0.001024	ppm	0.000023	2.23	-284.862000	Y 377.433
Tl (190.794 nm)	0.000981	ppm	0.000176	17.91	1.396320	Y 377.433
U (409.013 nm)	0.025781	ppm	0.004586	17.79	35.657800	Y 377.433
V (292.401 nm)	0.004154	ppm	0.000229	5.51	40.840400	Y 377.433
Zn (206.200 nm)	0.003499	ppm	0.000662	18.92	21.192800	Y 377.433
Zr (343.823 nm)	0.000576	ppm	0.000065	11.25	-141.331000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.094411	24506.554083	0.001926	0.18
Y 377.433	1.095088	707565.130087	0.001852	0.17
Y_R 377.433	1.115460	61406.400000	0.002301	0.21
Y_R 488.368	1.112740	53775.100000	0.002996	0.27
Y_R2 488.368	1.102474	102182.207312	0.003129	0.28
Y_R4	1.108250	47454.700000	0.004291	0.39

Sample Name: 280-123951-d-1-aSD@5

Date: 5/23/2019 10:20:16 PM Rack:Tube: 1:78

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000287	ppm	0.000227	79.15	-236.037000	Y 377.433
Al (394.401 nm)	0.005267	ppm	0.002464	46.79	201.490000	Y 377.433
Al H (396.152 nm)	0.121900 u	ppm	0.007468	6.13	39.161900	Y_R 377.433
As (188.980 nm)	0.002563	ppm	0.000954	37.24	2.774190	Y 242.219
B (249.678 nm)	0.026608	ppm	0.000331	1.24	227.698000	Y 242.219
Ba (493.408 nm)	0.001384	ppm	0.000228	16.45	1566.830000	Y_R 488.368
Be (234.861 nm)	-0.000026 u	ppm	0.000038	> 100.00	-8.988850	Y_R 488.368
Bi (223.061 nm)	0.000221 u	ppm	0.000914	> 100.00	-14.985300	Y 377.433
Ca (315.887 nm)	5.223399	ppm	0.013495	0.26	4155.078527	Y_R 377.433
Cd (214.439 nm)	0.000184	ppm	0.000032	17.38	-0.351640	Y 377.433
Co (228.615 nm)	-0.000022 u	ppm	0.000038	> 100.00	-22.692300	Y 242.219
Cr (205.560 nm)	0.000055 u	ppm	0.000281	> 100.00	-5.581150	Y 377.433
Cu (324.754 nm)	0.002936	ppm	0.000577	19.66	545.590000	Y 377.433
Fe (238.204 nm)	0.150118	ppm	0.002606	1.74	372.937612	Y_R 377.433
Fe H (259.940 nm)	0.087706 u	ppm	0.002389	2.72	213.384000	Y_R 377.433
K (766.491 nm)	-0.181832 u	ppm	0.035033	19.27	1801.120000	Y_R2 488.368
Li (670.783 nm)	0.015349	ppm	0.001239	8.07	-2364.190000	Y_R2 488.368
Mg (279.078 nm)	14.095700	ppm	0.011926	0.08	49955.100000	Y 377.433
Mn (257.610 nm)	0.002608	ppm	0.000010	0.40	699.335000	Y 377.433
Mo (202.032 nm)	0.000185 u	ppm	0.000487	> 100.00	25.736100	Y 377.433
Na (589.592 nm)	7.610620	ppm	0.062421	0.82	5748.270000	Y_R2 488.368
Na H (589.593 nm)	8.372789 u	ppm	0.086957	1.04	4491.683667	Y_R4
Ni (231.604 nm)	0.000349	ppm	0.000106	30.27	-9.417580	Y 377.433
P (213.618 nm)	0.005516	ppm	0.001480	26.84	2.964210	Y 242.219
Pb (220.353 nm)	-0.001420 u	ppm	0.001342	94.53	8.026330	Y 242.219
S (181.972 nm)	15.240766	ppm	0.011504	0.08	6854.362420	Y 377.433
Sb (206.834 nm)	0.002160	ppm	0.000004	0.19	-3.719230	Y 377.433
Se (196.026 nm)	-0.002484 u	ppm	0.003253	> 100.00	6.500870	Y 242.219
Si (288.158 nm)	0.155994	ppm	0.001055	0.68	1537.030000	Y 377.433
Sn (189.925 nm)	-0.000968 u	ppm	0.000332	34.23	0.547438	Y 377.433
Sr (421.552 nm)	0.037237	ppm	0.000034	0.09	5493.769317	Y_R 488.368
Th (288.505 nm)	0.002443	ppm	0.003210	> 100.00	18.621400	Y 377.433
Ti (336.122 nm)	0.000777	ppm	0.000103	13.25	-387.261000	Y 377.433
Tl (190.794 nm)	0.000433 u	ppm	0.001464	> 100.00	0.929760	Y 377.433
U (409.013 nm)	0.001755	ppm	0.000136	7.78	-36.839300	Y 377.433
V (292.401 nm)	0.001090	ppm	0.000116	10.65	-122.232000	Y 377.433
Zn (206.200 nm)	0.010913	ppm	0.000012	0.11	58.003100	Y 377.433
Zr (343.823 nm)	0.000563	ppm	0.000040	7.08	-142.047000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123113	25149.261294	0.001665	0.15
Y 377.433	1.117690	722169.120341	0.002285	0.20
Y_R 377.433	1.132130	62324.400000	0.000563	0.05
Y_R 488.368	1.130000	54609.400000	0.001132	0.10
Y_R2 488.368	1.121578	103952.834000	0.002477	0.22
Y_R4	1.115440	47762.700000	0.006382	0.57

Sample Name: 280-123951-d-1-b ms

Date: 5/23/2019 10:23:46 PM Rack:Tube: 1:79

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001041	ppm	0.000360	34.55	-533.655000	Y 377.433
Al (394.401 nm)	10.081500 o	ppm	0.000378	0.00	120892.000000	Y 377.433
Al H (396.152 nm)	10.034500	ppm	0.045565	0.45	20990.300000	Y_R 377.433
As (188.980 nm)	2.041790	ppm	0.003851	0.19	3251.770000	Y 242.219
B (249.678 nm)	1.140190	ppm	0.000106	0.01	8203.150000	Y 242.219
Ba (493.408 nm)	2.023010	ppm	0.004536	0.22	197395.000000	Y_R 488.368
Be (234.861 nm)	0.992097	ppm	0.003217	0.32	99981.800000	Y_R 488.368
Bi (223.061 nm)	1.933060	ppm	0.001128	0.06	4395.510000	Y 377.433
Ca (315.887 nm)	74.065561	ppm	0.262359	0.35	59736.617329	Y_R 377.433
Cd (214.439 nm)	0.980359	ppm	0.001934	0.20	39222.000000	Y 377.433
Co (228.615 nm)	0.970860	ppm	0.000149	0.02	24028.200000	Y 242.219
Cr (205.560 nm)	0.988208	ppm	0.005848	0.59	6989.020000	Y 377.433
Cu (324.754 nm)	0.983368	ppm	0.000129	0.01	46116.700000	Y 377.433
Fe (238.204 nm)	10.021189 o	ppm	0.037423	0.37	24702.734965	Y_R 377.433
Fe H (259.940 nm)	10.053700	ppm	0.062460	0.62	14148.300000	Y_R 377.433
K (766.491 nm)	50.955000	ppm	0.100089	0.20	52556.000000	Y_R2 488.368
Li (670.783 nm)	1.034510	ppm	0.001088	0.11	15383.100000	Y_R2 488.368
Mg (279.078 nm)	117.705000	ppm	0.078053	0.07	417014.000000	Y 377.433
Mn (257.610 nm)	1.009420	ppm	0.000664	0.07	279182.000000	Y 377.433
Mo (202.032 nm)	1.014610	ppm	0.000512	0.05	12934.000000	Y 377.433
Na (589.592 nm)	83.841400 o	ppm	0.130506	0.16	62630.700000	Y_R2 488.368
Na H (589.593 nm)	91.024985	ppm	0.367023	0.40	45598.052461	Y_R4
Ni (231.604 nm)	0.969677	ppm	0.001925	0.20	5410.080000	Y 377.433
P (213.618 nm)	20.215200	ppm	0.034210	0.17	30304.600000	Y 242.219
Pb (220.353 nm)	0.988335	ppm	0.000413	0.04	3406.630000	Y 242.219
S (181.972 nm)	84.399054	ppm	0.276751	0.33	37927.586548	Y 377.433
Sb (206.834 nm)	0.003226	ppm	0.001517	47.04	-6.861680	Y 377.433
Se (196.026 nm)	1.984750	ppm	0.003912	0.20	3235.060000	Y 242.219
Si (288.158 nm)	2.834100	ppm	0.008821	0.31	19202.700000	Y 377.433
Sn (189.925 nm)	1.971010	ppm	0.002362	0.12	3440.100000	Y 377.433
Sr (421.552 nm)	1.192181	ppm	0.002451	0.21	174405.432079	Y_R 488.368
Th (288.505 nm)	1.032050	ppm	0.003839	0.37	1720.190000	Y 377.433
Ti (336.122 nm)	1.007440	ppm	0.000576	0.06	130740.000000	Y 377.433
Tl (190.794 nm)	1.958130	ppm	0.001863	0.10	4733.400000	Y 377.433
U (409.013 nm)	2.006770	ppm	0.001274	0.06	6184.990000	Y 377.433
V (292.401 nm)	0.999141	ppm	0.001589	0.16	52520.300000	Y 377.433
Zn (206.200 nm)	0.489242	ppm	0.000941	0.19	2433.550000	Y 377.433
Zr (343.823 nm)	0.473931	ppm	0.000463	0.10	27152.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.053669	23594.246560	0.000819	0.08
Y 377.433	1.064023	687493.275308	0.000762	0.07
Y_R 377.433	1.097360	60410.200000	0.003684	0.34
Y_R 488.368	1.092550	52799.800000	0.001613	0.15
Y_R2 488.368	1.083103	100386.821364	0.000412	0.04
Y_R4	1.088620	46614.300000	0.006121	0.56

Sample Name: 280-123951-d-1-c msd

Date: 5/23/2019 10:27:26 PM Rack:Tube: 1:80

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000614	ppm	0.000405	65.91	-548.764000	Y 377.433
Al (394.401 nm)	10.156600 o	ppm	0.022028	0.22	121789.000000	Y 377.433
Al H (396.152 nm)	10.117300	ppm	0.025237	0.25	21161.400000	Y_R 377.433
As (188.980 nm)	2.039700	ppm	0.004923	0.24	3248.430000	Y 242.219
B (249.678 nm)	1.139740	ppm	0.002185	0.19	8199.840000	Y 242.219
Ba (493.408 nm)	2.029110	ppm	0.003863	0.19	197985.000000	Y_R 488.368
Be (234.861 nm)	0.998870	ppm	0.005057	0.51	100664.000000	Y_R 488.368
Bi (223.061 nm)	1.939850	ppm	0.004250	0.22	4411.030000	Y 377.433
Ca (315.887 nm)	73.968285	ppm	0.177452	0.24	59658.103111	Y_R 377.433
Cd (214.439 nm)	0.981713	ppm	0.003498	0.36	39276.200000	Y 377.433
Co (228.615 nm)	0.972049	ppm	0.002388	0.25	24057.700000	Y 242.219
Cr (205.560 nm)	0.988265	ppm	0.008020	0.81	6989.400000	Y 377.433
Cu (324.754 nm)	0.988877	ppm	0.004765	0.48	46373.600000	Y 377.433
Fe (238.204 nm)	10.141266 o	ppm	0.009602	0.09	24998.695637	Y_R 377.433
Fe H (259.940 nm)	10.175100	ppm	0.024194	0.24	14318.100000	Y_R 377.433
K (766.491 nm)	51.492400	ppm	0.118946	0.23	53089.300000	Y_R2 488.368
Li (670.783 nm)	1.026210	ppm	0.009215	0.90	15238.600000	Y_R2 488.368
Mg (279.078 nm)	116.954000	ppm	0.190906	0.16	414351.000000	Y 377.433
Mn (257.610 nm)	1.012020	ppm	0.002177	0.22	279903.000000	Y 377.433
Mo (202.032 nm)	1.018320	ppm	0.001190	0.12	12981.100000	Y 377.433
Na (589.592 nm)	83.215400 o	ppm	0.244436	0.29	62168.200000	Y_R2 488.368
Na H (589.593 nm)	90.541700	ppm	0.340963	0.38	45357.694523	Y_R4
Ni (231.604 nm)	0.971909	ppm	0.005161	0.53	5422.560000	Y 377.433
P (213.618 nm)	20.249500	ppm	0.049366	0.24	30354.900000	Y 242.219
Pb (220.353 nm)	0.990013	ppm	0.000294	0.03	3412.400000	Y 242.219
S (181.972 nm)	83.015059	ppm	0.283948	0.34	37305.883913	Y 377.433
Sb (206.834 nm)	0.003807	ppm	0.000908	23.85	-5.858070	Y 377.433
Se (196.026 nm)	1.981450	ppm	0.006234	0.31	3229.670000	Y 242.219
Si (288.158 nm)	2.829070	ppm	0.007249	0.26	19169.500000	Y 377.433
Sn (189.925 nm)	1.979130	ppm	0.001878	0.09	3454.250000	Y 377.433
Sr (421.552 nm)	1.192189	ppm	0.000452	0.04	174406.597938	Y_R 488.368
Th (288.505 nm)	1.038610	ppm	0.000916	0.09	1731.350000	Y 377.433
Ti (336.122 nm)	1.009110	ppm	0.000867	0.09	130957.000000	Y 377.433
Tl (190.794 nm)	1.965370	ppm	0.001138	0.06	4750.910000	Y 377.433
U (409.013 nm)	2.018830	ppm	0.007071	0.35	6222.130000	Y 377.433
V (292.401 nm)	1.001570	ppm	0.001088	0.11	52648.800000	Y 377.433
Zn (206.200 nm)	0.490422	ppm	0.001458	0.30	2439.420000	Y 377.433
Zr (343.823 nm)	0.479245	ppm	0.000360	0.08	27459.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.055366	23632.240856	0.004927	0.47
Y 377.433	1.064207	687611.864951	0.005805	0.55
Y_R 377.433	1.093920	60220.900000	0.002142	0.20
Y_R 488.368	1.088260	52592.400000	0.001472	0.14
Y_R2 488.368	1.083932	100463.670205	0.000281	0.03
Y_R4	1.092990	46801.200000	0.009550	0.87

Sample Name: CCVH-5713036

Date: 5/23/2019 10:31:08 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004139	ppm	0.000034	0.83	-110.915000	Y 377.433
Al (394.401 nm)	49.743500 o	ppm	0.045754	0.09	593267.000000	Y 377.433
Al H (396.152 nm)	49.333900	ppm	0.060899	0.12	101439.000000	Y_R 377.433
As (188.980 nm)	0.003262	ppm	0.002092	64.14	2.480870	Y 242.219
B (249.678 nm)	-0.000583 u	ppm	0.000315	54.10	4.346670	Y 242.219
Ba (493.408 nm)	0.001316	ppm	0.000429	32.63	1598.240000	Y_R 488.368
Be (234.861 nm)	0.001092	ppm	0.000019	1.75	-108.951000	Y_R 488.368
Bi (223.061 nm)	0.011074	ppm	0.000313	2.82	18.609400	Y 377.433
Ca (315.887 nm)	0.004100	ppm	0.000274	6.68	-46.172871	Y_R 377.433
Cd (214.439 nm)	0.001511	ppm	0.000012	0.80	74.335400	Y 377.433
Co (228.615 nm)	0.003603	ppm	0.000343	9.53	66.978200	Y 242.219
Cr (205.560 nm)	0.001386	ppm	0.000549	39.59	2.442900	Y 377.433
Cu (324.754 nm)	0.003438	ppm	0.000181	5.27	1505.100000	Y 377.433
Fe (238.204 nm)	48.918005 o	ppm	0.060002	0.12	120573.955416	Y_R 377.433
Fe H (259.940 nm)	49.162500	ppm	0.011178	0.02	68832.100000	Y_R 377.433
K (766.491 nm)	0.290672	ppm	0.015950	5.49	2270.090000	Y_R2 488.368
Li (670.783 nm)	0.008870	ppm	0.000479	5.40	-2477.010000	Y_R2 488.368
Mg (279.078 nm)	0.041128	ppm	0.001731	4.21	78.393200	Y 377.433
Mn (257.610 nm)	0.001054	ppm	0.000016	1.51	269.487000	Y 377.433
Mo (202.032 nm)	0.000302	ppm	0.000074	24.41	27.232700	Y 377.433
Na (589.592 nm)	240.222000 o	ppm	0.312700	0.13	178057.000000	Y_R2 488.368
Na H (589.593 nm)	253.959288	ppm	1.134990	0.45	126632.046383	Y_R4
Ni (231.604 nm)	0.002481	ppm	0.000716	28.88	2.498510	Y 377.433
P (213.618 nm)	4.878970	ppm	0.047855	0.98	7374.100000	Y 242.219
Pb (220.353 nm)	0.003231	ppm	0.000356	11.01	16.599800	Y 242.219
S (181.972 nm)	4.967773	ppm	0.010866	0.22	2239.352730	Y 377.433
Sb (206.834 nm)	0.002525	ppm	0.001910	75.64	1.254380	Y 377.433
Se (196.026 nm)	0.008907	ppm	0.002208	24.79	11.382400	Y 242.219
Si (288.158 nm)	0.015129	ppm	0.000065	0.43	607.838000	Y 377.433
Sn (189.925 nm)	0.001789	ppm	0.000641	35.81	5.356160	Y 377.433
Sr (421.552 nm)	0.001160	ppm	0.000046	3.95	224.729143	Y_R 488.368
Th (288.505 nm)	4.933540	ppm	0.004237	0.09	8620.540000	Y 377.433
Ti (336.122 nm)	0.002345	ppm	0.000125	5.32	-200.660000	Y 377.433
Tl (190.794 nm)	0.001632	ppm	0.000860	52.68	-0.906211	Y 377.433
U (409.013 nm)	0.540519 Q	ppm	0.009153	1.69	1687.340000 Q	Y 377.433
V (292.401 nm)	0.001603	ppm	0.000260	16.23	402.931000	Y 377.433
Zn (206.200 nm)	0.002998	ppm	0.000482	16.07	26.267700	Y 377.433
Zr (343.823 nm)	0.001591	ppm	0.000246	15.47	-82.783200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.072296	24011.354601	0.004167	0.39
Y 377.433	1.071335	692217.521194	0.004943	0.46
Y_R 377.433	1.097810	60434.800000	0.000434	0.04
Y_R 488.368	1.091110	52730.000000	0.001348	0.12
Y_R2 488.368	1.081180	100208.553796	0.003934	0.36
Y_R4	1.102950	47227.700000	0.002338	0.21

Sample Name: CCV-5717467

Date: 5/23/2019 10:34:51 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.489597	ppm	0.000607	0.12	16920.200000	Y 377.433
Al (394.401 nm)	0.505250	ppm	0.000945	0.19	6289.340000	Y 377.433
Al H (396.152 nm)	0.559292 u	ppm	0.002287	0.41	1159.680000	Y_R 377.433
As (188.980 nm)	0.489671	ppm	0.004908	1.00	778.858000	Y 242.219
B (249.678 nm)	0.483214	ppm	0.001540	0.32	3498.910000	Y 242.219
Ba (493.408 nm)	0.488190	ppm	0.000725	0.15	48722.000000	Y_R 488.368
Be (234.861 nm)	0.480979	ppm	0.004513	0.94	48479.700000	Y_R 488.368
Bi (223.061 nm)	0.956329	ppm	0.001093	0.11	2166.320000	Y 377.433
Ca (315.887 nm)	4.915958	ppm	0.004403	0.09	3907.006089	Y_R 377.433
Cd (214.439 nm)	0.493062	ppm	0.000619	0.13	19721.300000	Y 377.433
Co (228.615 nm)	0.489361	ppm	0.000797	0.16	12099.400000	Y 242.219
Cr (205.560 nm)	0.488615	ppm	0.000294	0.06	3452.850000	Y 377.433
Cu (324.754 nm)	0.488114	ppm	0.003062	0.63	23076.000000	Y 377.433
Fe (238.204 nm)	2.464515	ppm	0.001506	0.06	6077.364903	Y_R 377.433
Fe H (259.940 nm)	2.425860 u	ppm	0.009116	0.38	3482.710000	Y_R 377.433
K (766.491 nm)	48.620600	ppm	0.059470	0.12	50239.000000	Y_R2 488.368
Li (670.783 nm)	0.501769	ppm	0.003699	0.74	6106.150000	Y_R2 488.368
Mg (279.078 nm)	19.667100	ppm	0.014472	0.07	69692.000000	Y 377.433
Mn (257.610 nm)	0.491499	ppm	0.000402	0.08	135927.000000	Y 377.433
Mo (202.032 nm)	0.488025	ppm	0.000296	0.06	6233.320000	Y 377.433
Na (589.592 nm)	24.094200	ppm	0.131323	0.55	18057.900000	Y_R2 488.368
Na H (589.593 nm)	26.480897 u	ppm	0.127766	0.48	13497.597433	Y_R4
Ni (231.604 nm)	0.491549	ppm	0.000882	0.18	2736.260000	Y 377.433
P (213.618 nm)	0.053868	ppm	0.003339	6.20	-62.546600	Y 242.219
Pb (220.353 nm)	0.491813	ppm	0.002156	0.44	1700.100000	Y 242.219
S (181.972 nm)	0.005227 u	ppm	0.012590	> 100.00	11.845926	Y 377.433
Sb (206.834 nm)	0.493779	ppm	0.000017	0.00	861.417000	Y 377.433
Se (196.026 nm)	0.492106	ppm	0.002380	0.48	810.472000	Y 242.219
Si (288.158 nm)	4.827770	ppm	0.015095	0.31	32353.500000	Y 377.433
Sn (189.925 nm)	0.491602	ppm	0.000061	0.01	859.694000	Y 377.433
Sr (421.552 nm)	0.490637	ppm	0.000247	0.05	71803.826879	Y_R 488.368
Th (288.505 nm)	0.013609	ppm	0.001677	12.33	-11.645600	Y 377.433
Ti (336.122 nm)	0.487507	ppm	0.000174	0.04	62898.900000	Y 377.433
Tl (190.794 nm)	0.500106	ppm	0.002331	0.47	1208.250000	Y 377.433
U (409.013 nm)	0.016990	ppm	0.001692	9.96	-47.474900	Y 377.433
V (292.401 nm)	0.486805	ppm	0.000176	0.04	25492.500000	Y 377.433
Zn (206.200 nm)	0.493352	ppm	0.000293	0.06	2452.780000	Y 377.433
Zr (343.823 nm)	0.488652	ppm	0.001149	0.24	28001.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.091760	24447.193298	0.004977	0.46
Y 377.433	1.089667	704062.194595	0.006637	0.61
Y_R 377.433	1.110530	61135.200000	0.004251	0.38
Y_R 488.368	1.107440	53519.200000	0.003404	0.31
Y_R2 488.368	1.092620	101268.844739	0.001738	0.16
Y_R4	1.114810	47735.500000	0.002562	0.23

Sample Name: CCB

Date: 5/23/2019 10:38:26 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000388	ppm	0.000251	64.72	-232.241000	Y 377.433
Al (394.401 nm)	-0.002177 u	ppm	0.000508	23.32	104.087000	Y 377.433
Al H (396.152 nm)	0.114796 Zu	ppm	0.004070	3.55	10.938100 Z	Y_R 377.433
As (188.980 nm)	0.001062	ppm	0.000075	7.11	0.386238	Y 242.219
B (249.678 nm)	-0.002388 u	ppm	0.000746	31.26	19.972400	Y 242.219
Ba (493.408 nm)	-0.001303 u	ppm	0.000263	20.19	1306.370000	Y_R 488.368
Be (234.861 nm)	0.000021	ppm	0.000004	21.92	-3.652530	Y_R 488.368
Bi (223.061 nm)	0.002900	ppm	0.001020	35.18	-8.901460	Y 377.433
Ca (315.887 nm)	0.005258 u	ppm	0.012904	> 100.00	-57.733725	Y_R 377.433
Cd (214.439 nm)	0.000104	ppm	0.000001	1.25	-3.643420	Y 377.433
Co (228.615 nm)	0.000312	ppm	0.000202	64.85	-14.450300	Y 242.219
Cr (205.560 nm)	-0.000362 u	ppm	0.000000	0.00	-8.529650	Y 377.433
Cu (324.754 nm)	0.000103 u	ppm	0.000267	> 100.00	416.089000	Y 377.433
Fe (238.204 nm)	0.000531	ppm	0.000321	60.37	4.242802	Y_R 377.433
Fe H (259.940 nm)	-0.054994 u	ppm	0.003677	6.69	13.854000	Y_R 377.433
K (766.491 nm)	-0.004846 u	ppm	0.119394	> 100.00	1976.780000	Y_R2 488.368
Li (670.783 nm)	0.008311	ppm	0.003267	39.31	-2486.740000	Y_R2 488.368
Mg (279.078 nm)	0.002807	ppm	0.000706	25.14	21.868000	Y 377.433
Mn (257.610 nm)	0.000092	ppm	0.000000	0.45	3.497450	Y 377.433
Mo (202.032 nm)	-0.001354 u	ppm	0.000311	22.99	6.155360	Y 377.433
Na (589.592 nm)	0.118812	ppm	0.023862	20.08	198.172000	Y_R2 488.368
Na H (589.593 nm)	0.662681 u	ppm	0.055404	8.36	657.126498	Y_R4
Ni (231.604 nm)	-0.000534 u	ppm	0.000401	75.02	-14.353800	Y 377.433
P (213.618 nm)	-0.001293 u	ppm	0.002021	> 100.00	-6.452390	Y 242.219
Pb (220.353 nm)	-0.000478 u	ppm	0.001810	> 100.00	11.260600	Y 242.219
S (181.972 nm)	-0.001503 u	ppm	0.001261	83.89	7.080221	Y 377.433
Sb (206.834 nm)	0.005189	ppm	0.004369	84.21	1.620530	Y 377.433
Se (196.026 nm)	-0.001292 u	ppm	0.001181	91.42	8.476120	Y 242.219
Si (288.158 nm)	-0.005785 u	ppm	0.001400	24.20	469.885000	Y 377.433
Sn (189.925 nm)	0.001097	ppm	0.001399	> 100.00	4.150220	Y 377.433
Sr (421.552 nm)	0.000137	ppm	0.000009	6.33	67.993189	Y_R 488.368
Th (288.505 nm)	-0.005844 u	ppm	0.001901	32.54	4.281080	Y 377.433
Ti (336.122 nm)	0.000422	ppm	0.000022	5.13	-450.864000	Y 377.433
Tl (190.794 nm)	-0.000044 u	ppm	0.002397	> 100.00	0.014445	Y 377.433
U (409.013 nm)	0.001933 u	ppm	0.005719	> 100.00	-35.730200	Y 377.433
V (292.401 nm)	0.000442	ppm	0.000119	26.82	-156.779000	Y 377.433
Zn (206.200 nm)	-0.000392 u	ppm	0.000031	8.01	1.873740	Y 377.433
Zr (343.823 nm)	0.000452	ppm	0.000119	26.32	-148.463000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105429	24753.280189	0.003864	0.35
Y 377.433	1.102089	712088.427088	0.005215	0.47
Y_R 377.433	1.109810	61095.500000	0.004372	0.39
Y_R 488.368	1.106230	53460.800000	0.004805	0.43
Y_R2 488.368	1.096000	101582.161601	0.002982	0.27
Y_R4	1.112510	47637.000000	0.001140	0.10

Sample Name: CCVL-5717307

Date: 5/23/2019 10:41:38 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007884	ppm	0.000017	0.22	29.514200	Y 377.433
Al (394.401 nm)	0.097167	ppm	0.000230	0.24	1299.770000	Y 377.433
Al H (396.152 nm)	0.232205 u	ppm	0.002970	1.28	258.096000	Y_R 377.433
As (188.980 nm)	0.013115	ppm	0.001613	12.30	19.588400	Y 242.219
B (249.678 nm)	0.092763	ppm	0.001578	1.70	701.872000	Y 242.219
Ba (493.408 nm)	0.007993	ppm	0.000336	4.21	2206.890000	Y_R 488.368
Be (234.861 nm)	0.000923	ppm	0.000014	1.47	86.914700	Y_R 488.368
Bi (223.061 nm)	0.088343	ppm	0.001691	1.91	186.011000	Y 377.433
Ca (315.887 nm)	0.208619	ppm	0.000887	0.43	106.475437	Y_R 377.433
Cd (214.439 nm)	0.005102	ppm	0.000001	0.02	196.401000	Y 377.433
Co (228.615 nm)	0.010569	ppm	0.000091	0.86	239.589000	Y 242.219
Cr (205.560 nm)	0.009802	ppm	0.000264	2.69	63.312800	Y 377.433
Cu (324.754 nm)	0.015272	ppm	0.000246	1.61	1119.310000	Y 377.433
Fe (238.204 nm)	0.103197	ppm	0.004681	4.54	257.288669	Y_R 377.433
Fe H (259.940 nm)	0.053505 u	ppm	0.003823	7.15	165.562000	Y_R 377.433
K (766.491 nm)	2.935120	ppm	0.113585	3.87	4894.790000	Y_R2 488.368
Li (670.783 nm)	0.034013 Q	ppm	0.000424	1.25	-2039.170000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202831	ppm	0.000392	0.19	729.099000	Y 377.433
Mn (257.610 nm)	0.010554	ppm	0.000012	0.11	2897.270000	Y 377.433
Mo (202.032 nm)	0.018441	ppm	0.000026	0.14	258.048000	Y 377.433
Na (589.592 nm)	1.175930	ppm	0.036008	3.06	983.159000	Y_R2 488.368
Na H (589.593 nm)	1.549861 u	ppm	0.050100	3.23	1098.358030	Y_R4
Ni (231.604 nm)	0.041621	ppm	0.000376	0.90	221.250000	Y 377.433
P (213.618 nm)	2.751460	ppm	0.009301	0.34	4154.730000	Y 242.219
Pb (220.353 nm)	0.008543	ppm	0.000206	2.41	42.359900	Y 242.219
S (181.972 nm)	0.087103	ppm	0.004960	5.69	46.920485	Y 377.433
Sb (206.834 nm)	0.021382	ppm	0.002540	11.88	30.051300	Y 377.433
Se (196.026 nm)	0.018132	ppm	0.000732	4.03	40.035200	Y 242.219
Si (288.158 nm)	0.469987	ppm	0.004015	0.85	3608.220000	Y 377.433
Sn (189.925 nm)	0.097276	ppm	0.001495	1.54	171.906000	Y 377.433
Sr (421.552 nm)	0.009117	ppm	0.000179	1.96	1381.347615	Y_R 488.368
Th (288.505 nm)	0.016162	ppm	0.003018	18.67	42.269700	Y 377.433
Ti (336.122 nm)	0.010062	ppm	0.000148	1.47	803.308000	Y 377.433
Tl (190.794 nm)	0.016258	ppm	0.001104	6.79	39.386300	Y 377.433
U (409.013 nm)	0.059342	ppm	0.001190	2.00	142.925000	Y 377.433
V (292.401 nm)	0.010013	ppm	0.000223	2.22	344.731000	Y 377.433
Zn (206.200 nm)	0.020753	ppm	0.000349	1.68	106.834000	Y 377.433
Zr (343.823 nm)	0.010155	ppm	0.000363	3.58	411.015000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115104	24969.936717	0.002751	0.25
Y 377.433	1.111876	718412.353411	0.001683	0.15
Y_R 377.433	1.128570	62128.400000	0.006537	0.58
Y_R 488.368	1.122160	54230.800000	0.006603	0.59
Y_R2 488.368	1.107000	102601.707039	0.002387	0.22
Y_R4	1.117460	47849.200000	0.002578	0.23

Sample Name: 280-123970-d-1-a

Date: 5/23/2019 10:45:08 PM Rack:Tube: 1:81

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002184	ppm	0.000737	33.75	-171.022000	Y 377.433
Al (394.401 nm)	0.005966	ppm	0.001489	24.96	545.359000	Y 377.433
Al H (396.152 nm)	-0.130913 u	ppm	0.000777	0.59	5.091490	Y_R 377.433
As (188.980 nm)	0.008598	ppm	0.001448	16.85	12.378400	Y 242.219
B (249.678 nm)	2.498530	ppm	0.002012	0.08	17944.100000	Y 242.219
Ba (493.408 nm)	0.640187	ppm	0.000097	0.02	63443.400000	Y_R 488.368
Be (234.861 nm)	-0.000052 u	ppm	0.000044	84.66	-13.421300	Y_R 488.368
Bi (223.061 nm)	0.001041	ppm	0.000107	10.28	-12.977800	Y 377.433
Ca (315.887 nm)	162.061812	ppm	0.088989	0.05	130776.825922	Y_R 377.433
Cd (214.439 nm)	0.000287	ppm	0.000043	15.14	3.937540	Y 377.433
Co (228.615 nm)	0.019620	ppm	0.000581	2.96	463.506000	Y 242.219
Cr (205.560 nm)	0.003638	ppm	0.000169	4.64	19.261200	Y 377.433
Cu (324.754 nm)	-0.000240 u	ppm	0.000024	9.94	308.599000	Y 377.433
Fe (238.204 nm)	0.560020	ppm	0.006465	1.15	1383.246845	Y_R 377.433
Fe H (259.940 nm)	0.487241 u	ppm	0.001099	0.23	772.033000	Y_R 377.433
K (766.491 nm)	26.890000	ppm	0.056757	0.21	28670.700000	Y_R2 488.368
Li (670.783 nm)	0.030697	ppm	0.003257	10.61	-2096.920000	Y_R2 488.368
Mg (279.078 nm)	292.929000	ppm	0.027542	0.01	1037910.000000	Y 377.433
Mn (257.610 nm)	2.216700	ppm	0.000712	0.03	613117.000000	Y 377.433
Mo (202.032 nm)	0.012234	ppm	0.000012	0.09	179.061000	Y 377.433
Na (589.592 nm)	341.567000 o	ppm	0.600099	0.18	253259.000000	Y_R2 488.368
Na H (589.593 nm)	377.860558	ppm	1.343398	0.36	188253.292533	Y_R4
Ni (231.604 nm)	0.240439	ppm	0.000149	0.06	1332.320000	Y 377.433
P (213.618 nm)	0.292460	ppm	0.005295	1.81	436.755000	Y 242.219
Pb (220.353 nm)	-0.002735 u	ppm	0.001226	44.84	3.554030	Y 242.219
S (181.972 nm)	53.097101	ppm	0.025160	0.05	23874.239516	Y 377.433
Sb (206.834 nm)	-0.002727 u	ppm	0.003967	> 100.00	-12.369400	Y 377.433
Se (196.026 nm)	-0.001926 u	ppm	0.001985	> 100.00	10.582700	Y 242.219
Si (288.158 nm)	20.618200	ppm	0.000799	0.00	136512.000000	Y 377.433
Sn (189.925 nm)	-0.000458 u	ppm	0.001424	> 100.00	1.437160	Y 377.433
Sr (421.552 nm)	1.362849	ppm	0.000755	0.06	199364.230805	Y_R 488.368
Th (288.505 nm)	-0.000151 u	ppm	0.005715	> 100.00	53.565300	Y 377.433
Ti (336.122 nm)	0.000093	ppm	0.000028	30.09	62.850800	Y 377.433
Tl (190.794 nm)	0.004405	ppm	0.001929	43.79	3.981120	Y 377.433
U (409.013 nm)	0.033210	ppm	0.006148	18.51	41.476000	Y 377.433
V (292.401 nm)	0.004644	ppm	0.000066	1.43	62.959700	Y 377.433
Zn (206.200 nm)	0.011759	ppm	0.000989	8.41	62.265100	Y 377.433
Zr (343.823 nm)	0.001309	ppm	0.000056	4.25	-99.017400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.026861	22993.948009	0.006543	0.64
Y 377.433	1.042431	673541.922124	0.006618	0.63
Y_R 377.433	1.094170	60234.600000	0.003654	0.33
Y_R 488.368	1.087250	52543.300000	0.005113	0.47
Y_R2 488.368	1.069313	99108.648017	0.001160	0.11
Y_R4	1.084990	46458.600000	0.002393	0.22

Sample Name: mb 280-458931/1-a

Date: 5/23/2019 10:48:41 PM Rack:Tube: 1:82

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000079 u	ppm	0.000129	> 100.00	-248.450000	Y 377.433
Al (394.401 nm)	0.013178	ppm	0.000212	1.61	285.178000	Y 377.433
Al H (396.152 nm)	0.140015 u	ppm	0.008889	6.35	62.949700	Y_R 377.433
As (188.980 nm)	0.000384 u	ppm	0.001888	> 100.00	-0.698887	Y 242.219
B (249.678 nm)	-0.000307 u	ppm	0.000064	20.79	34.771500	Y 242.219
Ba (493.408 nm)	-0.002018 u	ppm	0.000215	10.65	1237.330000	Y_R 488.368
Be (234.861 nm)	-0.000051 u	ppm	0.000001	2.74	-11.729700	Y_R 488.368
Bi (223.061 nm)	0.000859	ppm	0.000187	21.77	-13.523300	Y 377.433
Ca (315.887 nm)	0.050060	ppm	0.013947	27.86	-21.558156	Y_R 377.433
Cd (214.439 nm)	0.000055	ppm	0.000037	67.10	-5.520980	Y 377.433
Co (228.615 nm)	0.000189	ppm	0.000029	15.54	-17.494300	Y 242.219
Cr (205.560 nm)	-0.000159 u	ppm	0.000006	3.60	-7.094920	Y 377.433
Cu (324.754 nm)	0.000179 u	ppm	0.000379	> 100.00	420.884000	Y 377.433
Fe (238.204 nm)	0.190086	ppm	0.003453	1.82	471.449396	Y_R 377.433
Fe H (259.940 nm)	0.139771 u	ppm	0.004385	3.14	286.184000	Y_R 377.433
K (766.491 nm)	-0.199498 u	ppm	0.022196	11.13	1783.580000	Y_R2 488.368
Li (670.783 nm)	0.014259	ppm	0.004958	34.77	-2383.170000	Y_R2 488.368
Mg (279.078 nm)	0.019925	ppm	0.005063	25.41	82.445000	Y 377.433
Mn (257.610 nm)	0.001534	ppm	0.000054	3.49	402.166000	Y 377.433
Mo (202.032 nm)	-0.000699 u	ppm	0.000290	41.54	14.492100	Y 377.433
Na (589.592 nm)	0.164244	ppm	0.007161	4.36	231.614000	Y_R2 488.368
Na H (589.593 nm)	1.088979 u	ppm	0.008562	0.79	869.142546	Y_R4
Ni (231.604 nm)	-0.000427 u	ppm	0.000953	> 100.00	-13.754300	Y 377.433
P (213.618 nm)	-0.004898 u	ppm	0.000739	15.08	-11.917800	Y 242.219
Pb (220.353 nm)	-0.001262 u	ppm	0.000538	42.67	8.532860	Y 242.219
S (181.972 nm)	0.012193	ppm	0.004765	39.08	13.238283	Y 377.433
Sb (206.834 nm)	0.002585	ppm	0.000685	26.49	-2.961410	Y 377.433
Se (196.026 nm)	-0.000865 u	ppm	0.002579	> 100.00	9.119920	Y 242.219
Si (288.158 nm)	0.038469	ppm	0.004026	10.46	761.799000	Y 377.433
Sn (189.925 nm)	0.000872	ppm	0.000596	68.40	3.756930	Y 377.433
Sr (421.552 nm)	0.000073	ppm	0.000010	13.84	58.561103	Y_R 488.368
Th (288.505 nm)	-0.002913 u	ppm	0.000618	21.21	9.377190	Y 377.433
Ti (336.122 nm)	0.000596	ppm	0.000034	5.69	-428.124000	Y 377.433
Tl (190.794 nm)	0.001324 u	ppm	0.002134	> 100.00	3.300820	Y 377.433
U (409.013 nm)	-0.000795 u	ppm	0.002336	> 100.00	-44.162100	Y 377.433
V (292.401 nm)	0.000513	ppm	0.000050	9.75	-152.264000	Y 377.433
Zn (206.200 nm)	0.003137	ppm	0.000015	0.47	19.414300	Y 377.433
Zr (343.823 nm)	0.000414	ppm	0.000093	22.47	-150.633000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125862	25210.831853	0.002972	0.26
Y 377.433	1.122229	725101.613911	0.004512	0.40
Y_R 377.433	1.140210	62769.200000	0.000271	0.02
Y_R 488.368	1.135530	54876.900000	0.001459	0.13
Y_R2 488.368	1.126587	104417.100130	0.000598	0.05
Y_R4	1.131790	48462.600000	0.002305	0.20

Sample Name: lcs 280-458931/2-a

Date: 5/23/2019 10:52:10 PM Rack:Tube: 1:83

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051808	ppm	0.000359	0.69	1262.060000	Y 377.433
Al (394.401 nm)	10.089600 o	ppm	0.014124	0.14	120943.000000	Y 377.433
Al H (396.152 nm)	10.132500	ppm	0.038038	0.38	21124.800000	Y_R 377.433
As (188.980 nm)	2.021030	ppm	0.004029	0.20	3218.680000	Y 242.219
B (249.678 nm)	0.999967	ppm	0.003725	0.37	7198.090000	Y 242.219
Ba (493.408 nm)	2.013140	ppm	0.001153	0.06	196439.000000	Y_R 488.368
Be (234.861 nm)	1.001780	ppm	0.001416	0.14	100958.000000	Y_R 488.368
Bi (223.061 nm)	1.940380	ppm	0.001554	0.08	4412.230000	Y 377.433
Ca (315.887 nm)	50.009945	ppm	0.029921	0.06	40315.595874	Y_R 377.433
Cd (214.439 nm)	0.994434	ppm	0.003098	0.31	39785.100000	Y 377.433
Co (228.615 nm)	0.981032	ppm	0.002748	0.28	24279.700000	Y 242.219
Cr (205.560 nm)	0.991306	ppm	0.004614	0.47	7010.950000	Y 377.433
Cu (324.754 nm)	0.973440	ppm	0.007252	0.74	45669.300000	Y 377.433
Fe (238.204 nm)	10.128423 o	ppm	0.024276	0.24	24967.041329	Y_R 377.433
Fe H (259.940 nm)	10.137800	ppm	0.030906	0.30	14265.900000	Y_R 377.433
K (766.491 nm)	50.770800	ppm	0.309233	0.61	52373.100000	Y_R2 488.368
Li (670.783 nm)	1.019690	ppm	0.003503	0.34	15125.000000	Y_R2 488.368
Mg (279.078 nm)	50.364200	ppm	0.131318	0.26	178413.000000	Y 377.433
Mn (257.610 nm)	1.007260	ppm	0.002125	0.21	278586.000000	Y 377.433
Mo (202.032 nm)	1.014360	ppm	0.001842	0.18	12930.800000	Y 377.433
Na (589.592 nm)	48.906400	ppm	0.171384	0.35	36751.500000	Y_R2 488.368
Na H (589.593 nm)	53.893298	ppm	0.347872	0.65	27130.922573	Y_R4
Ni (231.604 nm)	0.979068	ppm	0.001497	0.15	5462.600000	Y 377.433
P (213.618 nm)	20.224800	ppm	0.060039	0.30	30322.000000	Y 242.219
Pb (220.353 nm)	1.000690	ppm	0.003250	0.32	3449.080000	Y 242.219
S (181.972 nm)	10.138971	ppm	0.028707	0.28	4567.796929	Y 377.433
Sb (206.834 nm)	1.066930	ppm	0.004049	0.38	1871.140000	Y 377.433
Se (196.026 nm)	1.987990	ppm	0.002421	0.12	3240.300000	Y 242.219
Si (288.158 nm)	2.106270	ppm	0.002843	0.13	14401.700000	Y 377.433
Sn (189.925 nm)	1.984470	ppm	0.003948	0.20	3463.570000	Y 377.433
Sr (421.552 nm)	1.007906	ppm	0.001279	0.13	147455.320238	Y_R 488.368
Th (288.505 nm)	1.023230	ppm	0.004128	0.40	1705.580000	Y 377.433
Ti (336.122 nm)	1.007300	ppm	0.001958	0.19	130638.000000	Y 377.433
Tl (190.794 nm)	1.991820	ppm	0.002295	0.12	4816.050000	Y 377.433
U (409.013 nm)	2.004620	ppm	0.001490	0.07	6178.300000	Y 377.433
V (292.401 nm)	0.997107	ppm	0.001547	0.16	52410.100000	Y 377.433
Zn (206.200 nm)	0.496152	ppm	0.000599	0.12	2467.860000	Y 377.433
Zr (343.823 nm)	0.499552	ppm	0.000783	0.16	28629.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081102	24208.543404	0.002991	0.28
Y 377.433	1.087252	702501.960989	0.003248	0.30
Y_R 377.433	1.114320	61343.700000	0.001141	0.10
Y_R 488.368	1.109510	53619.500000	0.002549	0.23
Y_R2 488.368	1.094867	101477.106934	0.006123	0.56
Y_R4	1.118590	47897.400000	0.003383	0.30

Sample Name: 280-123966-e-1-e

Date: 5/23/2019 10:55:47 PM Rack:Tube: 1:84

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002589	ppm	0.000653	25.21	-156.966000	Y 377.433
Al (394.401 nm)	-0.113195 u	ppm	0.000936	0.83	852.342000	Y 377.433
Al H (396.152 nm)	-1.435740 u	ppm	0.000931	0.06	-5.857890	Y_R 377.433
As (188.980 nm)	0.032621	ppm	0.000859	2.63	50.639600	Y 242.219
B (249.678 nm)	3.198720	ppm	0.000602	0.02	22962.100000	Y 242.219
Ba (493.408 nm)	1.787390	ppm	0.003004	0.17	174565.000000	Y_R 488.368
Be (234.861 nm)	0.000040	ppm	0.000026	65.39	-6.595500	Y_R 488.368
Bi (223.061 nm)	0.003368	ppm	0.000207	6.16	-7.493060	Y 377.433
Ca (315.887 nm)	354.900254	ppm	0.620139	0.17	286462.805067	Y_R 377.433
Cd (214.439 nm)	0.000569	ppm	0.000144	25.25	15.470600	Y 377.433
Co (228.615 nm)	0.003278	ppm	0.000021	0.63	58.980900	Y 242.219
Cr (205.560 nm)	0.004901	ppm	0.000692	14.12	28.706900	Y 377.433
Cu (324.754 nm)	-0.000157 u	ppm	0.000212	> 100.00	206.650000	Y 377.433
Fe (238.204 nm)	1.131541	ppm	0.002307	0.20	2791.908824	Y_R 377.433
Fe H (259.940 nm)	1.072260 u	ppm	0.006084	0.57	1590.030000	Y_R 377.433
K (766.491 nm)	59.578500	ppm	0.015379	0.03	61115.000000	Y_R2 488.368
Li (670.783 nm)	0.334760	ppm	0.000051	0.02	3197.920000	Y_R2 488.368
Mg (279.078 nm)	144.070000	ppm	0.122622	0.09	510476.000000	Y 377.433
Mn (257.610 nm)	1.130930	ppm	0.000081	0.01	312793.000000	Y 377.433
Mo (202.032 nm)	0.000119 u	ppm	0.000441	> 100.00	24.899000	Y 377.433
Na (589.592 nm)	627.360000 o	ppm	1.854730	0.30	465198.000000	Y_R2 488.368
Na H (589.593 nm)	729.029148	ppm	3.618675	0.50	362904.012672	Y_R4
Ni (231.604 nm)	0.024153	ppm	0.000009	0.04	123.614000	Y 377.433
P (213.618 nm)	0.179791	ppm	0.002713	1.51	266.400000	Y 242.219
Pb (220.353 nm)	-0.001847 u	ppm	0.001901	> 100.00	6.574430	Y 242.219
S (181.972 nm)	26.238497	ppm	0.073386	0.28	11814.906632	Y 377.433
Sb (206.834 nm)	0.002540 u	ppm	0.005143	> 100.00	-2.923310	Y 377.433
Se (196.026 nm)	0.000938	ppm	0.000977	> 100.00	13.467700	Y 242.219
Si (288.158 nm)	17.590600	ppm	0.057987	0.33	116541.000000	Y 377.433
Sn (189.925 nm)	0.000441	ppm	0.000162	36.79	3.005800	Y 377.433
Sr (421.552 nm)	8.287868	ppm	0.018861	0.23	1212145.948927	Y_R 488.368
Th (288.505 nm)	0.004960	ppm	0.000854	17.23	35.917000	Y 377.433
Ti (336.122 nm)	0.000486	ppm	0.000109	22.54	774.517000	Y 377.433
Tl (190.794 nm)	0.007951	ppm	0.001851	23.29	4.412090	Y 377.433
U (409.013 nm)	0.008820	ppm	0.000062	0.71	-59.623700	Y 377.433
V (292.401 nm)	0.005460	ppm	0.000007	0.13	109.036000	Y 377.433
Zn (206.200 nm)	0.032935	ppm	0.000021	0.07	167.455000	Y 377.433
Zr (343.823 nm)	0.000886	ppm	0.000025	2.87	-123.434000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.011063	22640.194567	0.003926	0.39
Y 377.433	1.027262	663740.801115	0.005163	0.50
Y_R 377.433	1.083230	59632.400000	0.006362	0.59
Y_R 488.368	1.076790	52038.100000	0.002293	0.21
Y_R2 488.368	1.059259	98176.876571	0.000987	0.09
Y_R4	1.074020	45988.800000	0.003536	0.33

Sample Name: 280-123966-e-1-eSD@5

Date: 5/23/2019 10:59:24 PM Rack:Tube: 1:85

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001550	ppm	0.000023	1.50	-191.769000	Y 377.433
Al (394.401 nm)	-0.016086 u	ppm	0.001163	7.23	343.953000	Y 377.433
Al H (396.152 nm)	-0.177399 u	ppm	0.002809	1.58	26.318200	Y_R 377.433
As (188.980 nm)	0.006608	ppm	0.000019	0.29	9.207670	Y 242.219
B (249.678 nm)	0.602086	ppm	0.000272	0.05	4351.990000	Y 242.219
Ba (493.408 nm)	0.342289	ppm	0.000410	0.12	34588.100000	Y_R 488.368
Be (234.861 nm)	0.000022	ppm	0.000008	35.76	-5.940870	Y_R 488.368
Bi (223.061 nm)	0.002076	ppm	0.001984	95.53	-10.652900	Y 377.433
Ca (315.887 nm)	70.264677	ppm	0.011987	0.02	56665.429613	Y_R 377.433
Cd (214.439 nm)	0.000074 u	ppm	0.000205	> 100.00	-4.589200	Y 377.433
Co (228.615 nm)	0.000263	ppm	0.000025	9.32	-15.634900	Y 242.219
Cr (205.560 nm)	0.000537	ppm	0.000544	> 100.00	-2.172680	Y 377.433
Cu (324.754 nm)	0.000092	ppm	0.000080	87.65	374.960000	Y 377.433
Fe (238.204 nm)	0.561953	ppm	0.014460	2.57	1388.011080	Y_R 377.433
Fe H (259.940 nm)	0.511786 u	ppm	0.009235	1.80	806.354000	Y_R 377.433
K (766.491 nm)	10.668300	ppm	0.029420	0.28	12570.200000	Y_R2 488.368
Li (670.783 nm)	0.072390	ppm	0.000375	0.52	-1370.890000	Y_R2 488.368
Mg (279.078 nm)	28.212600	ppm	0.004220	0.01	99973.000000	Y 377.433
Mn (257.610 nm)	0.226881	ppm	0.000081	0.04	62733.300000	Y 377.433
Mo (202.032 nm)	-0.000545 u	ppm	0.000217	39.78	16.456500	Y 377.433
Na (589.592 nm)	132.130000 o	ppm	0.186483	0.14	98056.300000	Y_R2 488.368
Na H (589.593 nm)	141.585558	ppm	0.741087	0.52	70743.924814	Y_R4
Ni (231.604 nm)	0.004173	ppm	0.000769	18.42	11.953400	Y 377.433
P (213.618 nm)	0.033830	ppm	0.002155	6.37	46.263400	Y 242.219
Pb (220.353 nm)	-0.003510 u	ppm	0.001067	30.40	0.877186	Y 242.219
S (181.972 nm)	4.942362	ppm	0.006903	0.14	2231.987636	Y 377.433
Sb (206.834 nm)	0.002345	ppm	0.001188	50.67	-3.348450	Y 377.433
Se (196.026 nm)	-0.002789 u	ppm	0.002884	> 100.00	6.223140	Y 242.219
Si (288.158 nm)	3.379410	ppm	0.002206	0.07	22799.700000	Y 377.433
Sn (189.925 nm)	-0.000318 u	ppm	0.000644	> 100.00	1.680910	Y 377.433
Sr (421.552 nm)	1.609167	ppm	0.000360	0.02	235388.095207	Y_R 488.368
Th (288.505 nm)	-0.007149 u	ppm	0.002380	33.29	4.670200	Y 377.433
Ti (336.122 nm)	0.000340	ppm	0.000033	9.66	-220.832000	Y 377.433
Tl (190.794 nm)	0.000522 u	ppm	0.000924	> 100.00	-1.625050	Y 377.433
U (409.013 nm)	0.030873	ppm	0.006963	22.55	46.176400	Y 377.433
V (292.401 nm)	0.001585	ppm	0.000175	11.05	-97.308700	Y 377.433
Zn (206.200 nm)	0.015940	ppm	0.000745	4.67	83.014700	Y 377.433
Zr (343.823 nm)	0.000496	ppm	0.000186	37.61	-145.946000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080053	24185.058634	0.000148	0.01
Y 377.433	1.080876	698382.215014	0.000574	0.05
Y_R 377.433	1.122090	61771.600000	0.002494	0.22
Y_R 488.368	1.118440	54051.000000	0.001518	0.14
Y_R2 488.368	1.103741	102299.658174	0.000249	0.02
Y_R4	1.111990	47614.600000	0.007505	0.67

Sample Name: 280-123966-e-1-f ms

Date: 5/23/2019 11:02:58 PM Rack:Tube: 1:86

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.055105	ppm	0.000307	0.56	1369.520000	Y 377.433
Al (394.401 nm)	9.771580 o	ppm	0.005027	0.05	119221.000000	Y 377.433
Al H (396.152 nm)	8.419490	ppm	0.006762	0.08	20774.800000	Y_R 377.433
As (188.980 nm)	2.050790	ppm	0.005005	0.24	3266.080000	Y 242.219
B (249.678 nm)	4.268500	ppm	0.004721	0.11	30623.800000	Y 242.219
Ba (493.408 nm)	3.748600	ppm	0.010173	0.27	364541.000000	Y_R 488.368
Be (234.861 nm)	0.960364	ppm	0.006889	0.72	96779.100000	Y_R 488.368
Bi (223.061 nm)	1.915110	ppm	0.001367	0.07	4354.850000	Y 377.433
Ca (315.887 nm)	400.869084	ppm	0.925438	0.23	323577.806175	Y_R 377.433
Cd (214.439 nm)	0.922950	ppm	0.000040	0.00	36925.300000	Y 377.433
Co (228.615 nm)	0.950727	ppm	0.000849	0.09	23529.000000	Y 242.219
Cr (205.560 nm)	0.966544	ppm	0.004939	0.51	6835.820000	Y 377.433
Cu (324.754 nm)	1.003100	ppm	0.004788	0.48	46846.500000	Y 377.433
Fe (238.204 nm)	10.733957 o	ppm	0.021067	0.20	26459.534688	Y_R 377.433
Fe H (259.940 nm)	10.802100	ppm	0.028410	0.26	15194.800000	Y_R 377.433
K (766.491 nm)	113.748000	ppm	0.213426	0.19	114880.000000	Y_R2 488.368
Li (670.783 nm)	1.349470	ppm	0.005920	0.44	20867.700000	Y_R2 488.368
Mg (279.078 nm)	191.868000	ppm	0.122631	0.06	679784.000000	Y 377.433
Mn (257.610 nm)	2.064000	ppm	0.002062	0.10	570881.000000	Y 377.433
Mo (202.032 nm)	0.959351	ppm	0.001454	0.15	12230.800000	Y 377.433
Na (589.592 nm)	665.810000 o	ppm	2.388600	0.36	494082.000000	Y_R2 488.368
Na H (589.593 nm)	779.383839	ppm	1.721472	0.22	387947.491230	Y_R4
Ni (231.604 nm)	0.954464	ppm	0.000230	0.02	5324.840000	Y 377.433
P (213.618 nm)	20.568700	ppm	0.023749	0.12	30835.000000	Y 242.219
Pb (220.353 nm)	0.935972	ppm	0.005387	0.58	3226.770000	Y 242.219
S (181.972 nm)	36.407692	ppm	0.054971	0.15	16388.179647	Y 377.433
Sb (206.834 nm)	1.041600	ppm	0.002839	0.27	1827.050000	Y 377.433
Se (196.026 nm)	1.957010	ppm	0.001168	0.06	3191.340000	Y 242.219
Si (288.158 nm)	18.579600	ppm	0.050291	0.27	123065.000000	Y 377.433
Sn (189.925 nm)	1.842750	ppm	0.000143	0.01	3216.380000	Y 377.433
Sr (421.552 nm)	9.300996	ppm	0.019446	0.21	1360317.002563	Y_R 488.368
Th (288.505 nm)	0.999496	ppm	0.004428	0.44	1679.660000	Y 377.433
Ti (336.122 nm)	0.978378	ppm	0.001561	0.16	128086.000000	Y 377.433
Tl (190.794 nm)	1.783830	ppm	0.001585	0.09	4297.750000	Y 377.433
U (409.013 nm)	1.979950	ppm	0.006118	0.31	6067.970000	Y 377.433
V (292.401 nm)	0.964530	ppm	0.000740	0.08	50692.300000	Y 377.433
Zn (206.200 nm)	0.498847	ppm	0.001220	0.24	2481.330000	Y 377.433
Zr (343.823 nm)	0.398897	ppm	0.000740	0.19	22826.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.989950	22167.429896	0.003446	0.35
Y 377.433	1.012811	654403.680869	0.004042	0.40
Y_R 377.433	1.080440	59478.700000	0.001631	0.15
Y_R 488.368	1.073500	51879.200000	0.001761	0.16
Y_R2 488.368	1.056433	97914.878191	0.003537	0.33
Y_R4	1.072230	45912.100000	0.003340	0.31

Sample Name: 280-123966-e-1-g msd

Date: 5/23/2019 11:06:37 PM Rack:Tube: 1:87

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.056966	ppm	0.000352	0.62	1414.090000	Y 377.433
Al (394.401 nm)	10.207300 o	ppm	0.002361	0.02	124516.000000	Y 377.433
Al H (396.152 nm)	8.825030	ppm	0.005829	0.07	21747.000000	Y_R 377.433
As (188.980 nm)	2.163670	ppm	0.001840	0.09	3445.920000	Y 242.219
B (249.678 nm)	4.422060	ppm	0.008669	0.20	31724.000000	Y 242.219
Ba (493.408 nm)	3.929410	ppm	0.003346	0.09	382055.000000	Y_R 488.368
Be (234.861 nm)	1.022660	ppm	0.008177	0.80	103058.000000	Y_R 488.368
Bi (223.061 nm)	2.004330	ppm	0.004766	0.24	4558.450000	Y 377.433
Ca (315.887 nm)	416.115218	ppm	0.129009	0.03	335886.726118	Y_R 377.433
Cd (214.439 nm)	0.974417	ppm	0.001538	0.16	38984.800000	Y 377.433
Co (228.615 nm)	1.004900	ppm	0.002634	0.26	24870.900000	Y 242.219
Cr (205.560 nm)	1.012520	ppm	0.001170	0.12	7161.180000	Y 377.433
Cu (324.754 nm)	1.060560	ppm	0.004688	0.44	49508.500000	Y 377.433
Fe (238.204 nm)	11.285486 o	ppm	0.006648	0.06	27818.921026	Y_R 377.433
Fe H (259.940 nm)	11.372400	ppm	0.024469	0.22	15992.200000	Y_R 377.433
K (766.491 nm)	119.277000	ppm	0.841202	0.71	120367.000000	Y_R2 488.368
Li (670.783 nm)	1.431930	ppm	0.002103	0.15	22303.700000	Y_R2 488.368
Mg (279.078 nm)	199.471000	ppm	0.048630	0.02	706723.000000	Y 377.433
Mn (257.610 nm)	2.161450	ppm	0.000135	0.01	597836.000000	Y 377.433
Mo (202.032 nm)	1.013470	ppm	0.000143	0.01	12919.400000	Y 377.433
Na (589.592 nm)	691.667000 o	ppm	3.527750	0.51	513272.000000	Y_R2 488.368
Na H (589.593 nm)	810.106612	ppm	1.823088	0.23	403227.201971	Y_R4
Ni (231.604 nm)	1.005310	ppm	0.000031	0.00	5609.140000	Y 377.433
P (213.618 nm)	21.503700	ppm	0.048882	0.23	32233.800000	Y 242.219
Pb (220.353 nm)	0.988096	ppm	0.002795	0.28	3405.720000	Y 242.219
S (181.972 nm)	37.824120	ppm	0.027800	0.07	17025.489985	Y 377.433
Sb (206.834 nm)	1.092760	ppm	0.007032	0.64	1917.100000	Y 377.433
Se (196.026 nm)	2.072170	ppm	0.005711	0.28	3378.510000	Y 242.219
Si (288.158 nm)	19.246200	ppm	0.031704	0.16	127462.000000	Y 377.433
Sn (189.925 nm)	1.942410	ppm	0.001360	0.07	3390.210000	Y 377.433
Sr (421.552 nm)	9.643755	ppm	0.000597	0.01	1410445.413598	Y_R 488.368
Th (288.505 nm)	1.044300	ppm	0.004980	0.48	1752.950000	Y 377.433
Ti (336.122 nm)	1.033810	ppm	0.000932	0.09	135345.000000	Y 377.433
Tl (190.794 nm)	1.885780	ppm	0.004607	0.24	4543.700000	Y 377.433
U (409.013 nm)	2.069550	ppm	0.007645	0.37	6345.770000	Y 377.433
V (292.401 nm)	1.019860	ppm	0.000325	0.03	53612.100000	Y 377.433
Zn (206.200 nm)	0.519170	ppm	0.001941	0.37	2582.280000	Y 377.433
Zr (343.823 nm)	0.409584	ppm	0.000778	0.19	23442.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984687	22049.565733	0.005833	0.59
Y 377.433	1.007642	651063.775496	0.004173	0.41
Y_R 377.433	1.068150	58801.900000	0.003652	0.34
Y_R 488.368	1.061040	51277.100000	0.003496	0.33
Y_R2 488.368	1.040562	96443.936515	0.005590	0.54
Y_R4	1.073130	45950.900000	0.002835	0.26

Sample Name: mb 280-458933/1-a

Date: 5/23/2019 11:10:18 PM Rack:Tube: 1:88

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000091 u	ppm	0.000147	> 100.00	-242.707000	Y 377.433
Al (394.401 nm)	0.002043	ppm	0.001372	67.19	151.779000	Y 377.433
Al H (396.152 nm)	0.132912 u	ppm	0.002857	2.15	48.432700	Y_R 377.433
As (188.980 nm)	-0.000971 u	ppm	0.000809	83.33	-2.854760	Y 242.219
B (249.678 nm)	0.002733	ppm	0.000591	21.61	56.615700	Y 242.219
Ba (493.408 nm)	-0.001817 u	ppm	0.000082	4.51	1256.730000	Y_R 488.368
Be (234.861 nm)	0.000017 u	ppm	0.000035	> 100.00	-4.427470	Y_R 488.368
Bi (223.061 nm)	0.001444	ppm	0.001703	> 100.00	-12.203900	Y 377.433
Ca (315.887 nm)	0.038444	ppm	0.008092	21.05	-30.936764	Y_R 377.433
Cd (214.439 nm)	0.000045	ppm	0.000041	90.76	-5.938020	Y 377.433
Co (228.615 nm)	0.000004 u	ppm	0.000562	> 100.00	-22.044500	Y 242.219
Cr (205.560 nm)	0.000454	ppm	0.000020	4.39	-2.754970	Y 377.433
Cu (324.754 nm)	0.000320	ppm	0.000121	37.86	427.761000	Y 377.433
Fe (238.204 nm)	0.102762	ppm	0.001605	1.56	256.217576	Y_R 377.433
Fe H (259.940 nm)	0.052345 u	ppm	0.003588	6.85	163.940000	Y_R 377.433
K (766.491 nm)	-0.110796 u	ppm	0.035204	31.77	1871.620000	Y_R2 488.368
Li (670.783 nm)	0.011992	ppm	0.000845	7.05	-2422.650000	Y_R2 488.368
Mg (279.078 nm)	0.010931	ppm	0.001724	15.77	50.682600	Y 377.433
Mn (257.610 nm)	0.001214	ppm	0.000027	2.25	313.721000	Y 377.433
Mo (202.032 nm)	0.000323	ppm	0.000194	60.04	27.495800	Y 377.433
Na (589.592 nm)	0.371448	ppm	0.019637	5.29	385.064000	Y_R2 488.368
Na H (589.593 nm)	2.194854 u	ppm	0.009298	0.42	1419.139822	Y_R4
Ni (231.604 nm)	-0.000217 u	ppm	0.000409	> 100.00	-12.579700	Y 377.433
P (213.618 nm)	0.002105	ppm	0.001314	62.42	-1.435620	Y 242.219
Pb (220.353 nm)	-0.002095 u	ppm	0.000467	22.31	5.669200	Y 242.219
S (181.972 nm)	0.012487	ppm	0.008416	67.40	13.368760	Y 377.433
Sb (206.834 nm)	0.005788	ppm	0.002133	36.85	2.683240	Y 377.433
Se (196.026 nm)	-0.001574 u	ppm	0.003980	> 100.00	7.992140	Y 242.219
Si (288.158 nm)	0.009645	ppm	0.001500	15.55	571.666000	Y 377.433
Sn (189.925 nm)	0.000635 u	ppm	0.002340	> 100.00	3.344500	Y 377.433
Sr (421.552 nm)	0.000094	ppm	0.000105	> 100.00	61.680990	Y_R 488.368
Th (288.505 nm)	0.000925 u	ppm	0.003240	> 100.00	16.025200	Y 377.433
Ti (336.122 nm)	0.000657	ppm	0.000037	5.64	-420.241000	Y 377.433
Tl (190.794 nm)	0.000754	ppm	0.000203	26.95	1.924400	Y 377.433
U (409.013 nm)	-0.000967 u	ppm	0.007384	> 100.00	-44.734800	Y 377.433
V (292.401 nm)	0.000555	ppm	0.000067	12.08	-150.121000	Y 377.433
Zn (206.200 nm)	0.001551	ppm	0.000643	41.45	11.529600	Y 377.433
Zr (343.823 nm)	0.000392	ppm	0.000010	2.59	-151.942000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126562	25226.494853	0.001323	0.12
Y 377.433	1.123966	726223.761919	0.001238	0.11
Y_R 377.433	1.137270	62607.000000	0.008809	0.77
Y_R 488.368	1.133880	54797.200000	0.008744	0.77
Y_R2 488.368	1.127419	104494.232066	0.000981	0.09
Y_R4	1.138240	48739.100000	0.000384	0.03

Sample Name: lcs 280-458933/2-a

Date: 5/23/2019 11:13:46 PM Rack:Tube: 1:89

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051215	ppm	0.000228	0.44	1239.920000	Y 377.433
Al (394.401 nm)	9.992960 o	ppm	0.016565	0.17	119787.000000	Y 377.433
Al H (396.152 nm)	10.051400	ppm	0.027785	0.28	20958.000000	Y_R 377.433
As (188.980 nm)	2.010190	ppm	0.001006	0.05	3201.410000	Y 242.219
B (249.678 nm)	0.994819	ppm	0.000024	0.00	7161.170000	Y 242.219
Ba (493.408 nm)	2.010550	ppm	0.000941	0.05	196188.000000	Y_R 488.368
Be (234.861 nm)	0.995689	ppm	0.003238	0.33	100343.000000	Y_R 488.368
Bi (223.061 nm)	1.931510	ppm	0.000540	0.03	4391.990000	Y 377.433
Ca (315.887 nm)	49.585235	ppm	0.079039	0.16	39972.694334	Y_R 377.433
Cd (214.439 nm)	0.989483	ppm	0.000645	0.07	39587.100000	Y 377.433
Co (228.615 nm)	0.979034	ppm	0.000044	0.00	24230.300000	Y 242.219
Cr (205.560 nm)	0.996068	ppm	0.005562	0.56	7044.720000	Y 377.433
Cu (324.754 nm)	0.979833	ppm	0.000695	0.07	45967.700000	Y 377.433
Fe (238.204 nm)	10.140129 o	ppm	0.001257	0.01	24995.892429	Y_R 377.433
Fe H (259.940 nm)	10.161400	ppm	0.010303	0.10	14299.000000	Y_R 377.433
K (766.491 nm)	50.736600	ppm	0.203856	0.40	52339.200000	Y_R2 488.368
Li (670.783 nm)	1.020940	ppm	0.003024	0.30	15146.800000	Y_R2 488.368
Mg (279.078 nm)	49.929900	ppm	0.029946	0.06	176874.000000	Y 377.433
Mn (257.610 nm)	1.006830	ppm	0.000886	0.09	278468.000000	Y 377.433
Mo (202.032 nm)	1.010650	ppm	0.001937	0.19	12883.500000	Y 377.433
Na (589.592 nm)	48.748000	ppm	0.226643	0.46	36632.200000	Y_R2 488.368
Na H (589.593 nm)	53.853631	ppm	0.367311	0.68	27111.194584	Y_R4
Ni (231.604 nm)	0.979068	ppm	0.000237	0.02	5462.600000	Y 377.433
P (213.618 nm)	20.024700	ppm	0.004724	0.02	30017.400000	Y 242.219
Pb (220.353 nm)	0.996315	ppm	0.002696	0.27	3434.070000	Y 242.219
S (181.972 nm)	9.981983	ppm	0.018114	0.18	4497.274184	Y 377.433
Sb (206.834 nm)	1.058220	ppm	0.001746	0.17	1855.770000	Y 377.433
Se (196.026 nm)	1.971030	ppm	0.006385	0.32	3212.740000	Y 242.219
Si (288.158 nm)	2.057680	ppm	0.002191	0.11	14081.100000	Y 377.433
Sn (189.925 nm)	1.988920	ppm	0.003123	0.16	3471.340000	Y 377.433
Sr (421.552 nm)	1.006247	ppm	0.000690	0.07	147212.639958	Y_R 488.368
Th (288.505 nm)	1.027660	ppm	0.001495	0.15	1713.060000	Y 377.433
Ti (336.122 nm)	1.007780	ppm	0.000549	0.05	130701.000000	Y 377.433
Tl (190.794 nm)	1.985750	ppm	0.001848	0.09	4801.370000	Y 377.433
U (409.013 nm)	2.006490	ppm	0.006428	0.32	6184.150000	Y 377.433
V (292.401 nm)	0.998740	ppm	0.001011	0.10	52496.900000	Y 377.433
Zn (206.200 nm)	0.496556	ppm	0.000970	0.20	2469.870000	Y 377.433
Zr (343.823 nm)	0.499445	ppm	0.000421	0.08	28623.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084466	24283.864228	0.003021	0.28
Y 377.433	1.091065	704965.909880	0.002471	0.23
Y_R 377.433	1.118090	61551.400000	0.000561	0.05
Y_R 488.368	1.114790	53874.400000	0.000287	0.03
Y_R2 488.368	1.090901	101109.582604	0.004079	0.37
Y_R4	1.127650	48285.300000	0.003260	0.29

Sample Name: 280-123564-m-1-b

Date: 5/23/2019 11:17:26 PM Rack:Tube: 1:90

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001144	ppm	0.000047	4.11	-206.154000	Y 377.433
Al (394.401 nm)	0.003031	ppm	0.000652	21.50	409.460000	Y 377.433
Al H (396.152 nm)	-0.049998 u	ppm	0.005045	10.09	138.611000	Y_R 377.433
As (188.980 nm)	0.000521	ppm	0.000393	75.30	-0.489013	Y 242.219
B (249.678 nm)	0.261201	ppm	0.000104	0.04	1908.860000	Y 242.219
Ba (493.408 nm)	0.063112	ppm	0.000324	0.51	7546.180000	Y_R 488.368
Be (234.861 nm)	0.000049	ppm	0.000019	39.60	-2.974970	Y_R 488.368
Bi (223.061 nm)	0.002340	ppm	0.000489	20.92	-10.046300	Y 377.433
Ca (315.887 nm)	119.672799	ppm	0.161469	0.13	96554.546723	Y_R 377.433
Cd (214.439 nm)	0.000345	ppm	0.000089	25.70	6.246620	Y 377.433
Co (228.615 nm)	0.000319	ppm	0.000211	66.19	-14.274300	Y 242.219
Cr (205.560 nm)	-0.000185 u	ppm	0.000309	> 100.00	-14.390900	Y 377.433
Cu (324.754 nm)	0.000357	ppm	0.000413	> 100.00	377.078000	Y 377.433
Fe (238.204 nm)	0.497986	ppm	0.000145	0.03	1230.348032	Y_R 377.433
Fe H (259.940 nm)	0.446815 u	ppm	0.007626	1.71	715.508000	Y_R 377.433
K (766.491 nm)	18.380200	ppm	0.013317	0.07	20224.500000	Y_R2 488.368
Li (670.783 nm)	0.033163	ppm	0.002647	7.98	-2053.980000	Y_R2 488.368
Mg (279.078 nm)	39.006900	ppm	0.028440	0.07	138218.000000	Y 377.433
Mn (257.610 nm)	0.150228	ppm	0.000029	0.02	41531.200000	Y 377.433
Mo (202.032 nm)	1.439290	ppm	0.003384	0.24	18337.800000	Y 377.433
Na (589.592 nm)	275.793000 o	ppm	0.434867	0.16	204419.000000	Y_R2 488.368
Na H (589.593 nm)	296.288856	ppm	1.171647	0.40	147684.298139	Y_R4
Ni (231.604 nm)	0.000167 u	ppm	0.000256	> 100.00	-10.430500	Y 377.433
P (213.618 nm)	0.036975	ppm	0.001227	3.32	-1.516910	Y 242.219
Pb (220.353 nm)	-0.002791 u	ppm	0.001379	49.39	-0.661598	Y 242.219
S (181.972 nm)	119.036988 bo	ppm	0.154696	0.13	53486.958105	Y 377.433
Sb (206.834 nm)	0.002132	ppm	0.000938	44.00	-13.612500	Y 377.433
Se (196.026 nm)	-0.001883 u	ppm	0.001316	69.90	7.855500	Y 242.219
Si (288.158 nm)	8.485710	ppm	0.008704	0.10	56482.400000	Y 377.433
Sn (189.925 nm)	0.000248 u	ppm	0.000354	> 100.00	2.669020	Y 377.433
Sr (421.552 nm)	0.946372	ppm	0.002631	0.28	138454.501968	Y_R 488.368
Th (288.505 nm)	-0.004355 u	ppm	0.000538	12.35	7.001050	Y 377.433
Ti (336.122 nm)	-0.000002 u	ppm	0.000148	> 100.00	-95.394300	Y 377.433
Tl (190.794 nm)	0.007428	ppm	0.000105	1.42	4.897870	Y 377.433
U (409.013 nm)	0.031494	ppm	0.000300	0.95	41.620600	Y 377.433
V (292.401 nm)	0.002423	ppm	0.000141	5.80	-160.917000	Y 377.433
Zn (206.200 nm)	0.006014	ppm	0.000480	7.99	33.742500	Y 377.433
Zr (343.823 nm)	0.000540	ppm	0.000050	9.24	-143.411000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080323	24191.098518	0.001400	0.13
Y 377.433	1.085729	701517.864846	0.001553	0.14
Y_R 377.433	1.128700	62135.300000	0.006748	0.60
Y_R 488.368	1.123120	54277.200000	0.004402	0.39
Y_R2 488.368	1.116438	103476.448118	0.005439	0.49
Y_R4	1.136970	48684.500000	0.007849	0.69

Sample Name: CCVH-5713036

Date: 5/23/2019 11:21:03 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004557	ppm	0.000380	8.34	-96.286500	Y 377.433
Al (394.401 nm)	49.527000 o	ppm	0.033351	0.07	590684.000000	Y 377.433
Al H (396.152 nm)	49.165100	ppm	0.080290	0.16	101091.000000	Y_R 377.433
As (188.980 nm)	0.004161	ppm	0.002029	48.76	3.916750	Y 242.219
B (249.678 nm)	-0.000932 u	ppm	0.000261	28.06	1.895880	Y 242.219
Ba (493.408 nm)	0.000800	ppm	0.000168	21.01	1548.170000	Y_R 488.368
Be (234.861 nm)	0.001102	ppm	0.000060	5.48	-107.518000	Y_R 488.368
Bi (223.061 nm)	0.013348	ppm	0.001855	13.90	23.780000	Y 377.433
Ca (315.887 nm)	0.004149	ppm	0.001906	45.94	-46.175702	Y_R 377.433
Cd (214.439 nm)	0.001517	ppm	0.000165	10.85	74.529400	Y 377.433
Co (228.615 nm)	0.003480	ppm	0.000200	5.76	63.899400	Y 242.219
Cr (205.560 nm)	0.001653	ppm	0.000233	14.12	4.335640	Y 377.433
Cu (324.754 nm)	0.003426	ppm	0.000146	4.26	1502.500000	Y 377.433
Fe (238.204 nm)	48.811472 o	ppm	0.055642	0.11	120311.377249	Y_R 377.433
Fe H (259.940 nm)	49.130500	ppm	0.001702	0.00	68787.500000	Y_R 377.433
K (766.491 nm)	0.120238	ppm	0.096503	80.26	2100.930000	Y_R2 488.368
Li (670.783 nm)	0.020140	ppm	0.003954	19.63	-2280.760000	Y_R2 488.368
Mg (279.078 nm)	0.037117	ppm	0.003185	8.58	64.098300	Y 377.433
Mn (257.610 nm)	0.001035	ppm	0.000006	0.58	264.230000	Y 377.433
Mo (202.032 nm)	0.001097	ppm	0.000217	19.80	37.341000	Y 377.433
Na (589.592 nm)	238.195000 o	ppm	0.151224	0.06	176555.000000	Y_R2 488.368
Na H (589.593 nm)	251.541978	ppm	1.508212	0.60	125429.817873	Y_R4
Ni (231.604 nm)	0.002621	ppm	0.000515	19.63	3.281600	Y 377.433
P (213.618 nm)	4.853590	ppm	0.006171	0.13	7335.730000	Y 242.219
Pb (220.353 nm)	0.004333	ppm	0.001902	43.90	20.446600	Y 242.219
S (181.972 nm)	5.007306	ppm	0.016828	0.34	2257.111259	Y 377.433
Sb (206.834 nm)	0.010806	ppm	0.000557	5.16	15.866900	Y 377.433
Se (196.026 nm)	0.005686	ppm	0.000109	1.91	6.171590	Y 242.219
Si (288.158 nm)	0.019952	ppm	0.001485	7.44	639.653000	Y 377.433
Sn (189.925 nm)	-0.000257 u	ppm	0.000743	> 100.00	1.788830	Y 377.433
Sr (421.552 nm)	0.001107	ppm	0.000011	1.00	216.971399	Y_R 488.368
Th (288.505 nm)	4.920470	ppm	0.000118	0.00	8597.810000	Y 377.433
Ti (336.122 nm)	0.002248	ppm	0.000151	6.72	-213.397000	Y 377.433
Tl (190.794 nm)	0.000617 u	ppm	0.002137	> 100.00	-3.359340	Y 377.433
U (409.013 nm)	0.552077 Q	ppm	0.002270	0.41	1723.490000 Q	Y 377.433
V (292.401 nm)	0.001499	ppm	0.000073	4.84	395.891000	Y 377.433
Zn (206.200 nm)	0.003106	ppm	0.000027	0.88	26.786800	Y 377.433
Zr (343.823 nm)	0.001441	ppm	0.000028	1.97	-91.434300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113933	24943.707600	0.001076	0.10
Y 377.433	1.113249	719299.170020	0.000544	0.05
Y_R 377.433	1.154230	63540.700000	0.000925	0.08
Y_R 488.368	1.147880	55473.800000	0.002531	0.22
Y_R2 488.368	1.145945	106211.276355	0.005653	0.49
Y_R4	1.175520	50335.100000	0.008158	0.69

Sample Name: CCV-5717467

Date: 5/23/2019 11:24:44 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.490011	ppm	0.000641	0.13	16934.600000	Y 377.433
Al (394.401 nm)	0.505230	ppm	0.003905	0.77	6287.440000	Y 377.433
Al H (396.152 nm)	0.558129 u	ppm	0.003685	0.66	1157.040000	Y_R 377.433
As (188.980 nm)	0.490271	ppm	0.001351	0.28	779.814000	Y 242.219
B (249.678 nm)	0.483806	ppm	0.001923	0.40	3503.160000	Y 242.219
Ba (493.408 nm)	0.487441	ppm	0.000663	0.14	48649.400000	Y_R 488.368
Be (234.861 nm)	0.479335	ppm	0.000977	0.20	48314.000000	Y_R 488.368
Bi (223.061 nm)	0.958839	ppm	0.001013	0.11	2172.050000	Y 377.433
Ca (315.887 nm)	4.893556	ppm	0.013743	0.28	3888.919330	Y_R 377.433
Cd (214.439 nm)	0.492767	ppm	0.000995	0.20	19709.500000	Y 377.433
Co (228.615 nm)	0.490028	ppm	0.000686	0.14	12115.900000	Y 242.219
Cr (205.560 nm)	0.490786	ppm	0.002018	0.41	3468.240000	Y 377.433
Cu (324.754 nm)	0.486923	ppm	0.002566	0.53	23021.500000	Y 377.433
Fe (238.204 nm)	2.456239	ppm	0.009015	0.37	6056.966630	Y_R 377.433
Fe H (259.940 nm)	2.437480 u	ppm	0.002342	0.10	3498.950000	Y_R 377.433
K (766.491 nm)	48.880000	ppm	0.212357	0.43	50496.500000	Y_R2 488.368
Li (670.783 nm)	0.506866	ppm	0.002208	0.44	6194.910000	Y_R2 488.368
Mg (279.078 nm)	19.670500	ppm	0.023333	0.12	69704.100000	Y 377.433
Mn (257.610 nm)	0.490713	ppm	0.000746	0.15	135709.000000	Y 377.433
Mo (202.032 nm)	0.486684	ppm	0.000492	0.10	6216.260000	Y 377.433
Na (589.592 nm)	24.148600	ppm	0.062599	0.26	18097.900000	Y_R2 488.368
Na H (589.593 nm)	26.561631 u	ppm	0.136157	0.51	13537.749740	Y_R4
Ni (231.604 nm)	0.492740	ppm	0.000282	0.06	2742.910000	Y 377.433
P (213.618 nm)	0.056286	ppm	0.002776	4.93	-58.517400	Y 242.219
Pb (220.353 nm)	0.493182	ppm	0.000053	0.01	1704.780000	Y 242.219
S (181.972 nm)	0.006443	ppm	0.000905	14.05	12.393416	Y 377.433
Sb (206.834 nm)	0.493977	ppm	0.003283	0.66	861.792000	Y 377.433
Se (196.026 nm)	0.491423	ppm	0.007534	1.53	809.365000	Y 242.219
Si (288.158 nm)	4.808880	ppm	0.034321	0.71	32228.900000	Y 377.433
Sn (189.925 nm)	0.492095	ppm	0.002298	0.47	860.555000	Y 377.433
Sr (421.552 nm)	0.489286	ppm	0.000588	0.12	71606.216923	Y_R 488.368
Th (288.505 nm)	0.014563	ppm	0.003757	25.80	-10.019300	Y 377.433
Ti (336.122 nm)	0.486681	ppm	0.000050	0.01	62791.400000	Y 377.433
Tl (190.794 nm)	0.497778	ppm	0.001036	0.21	1202.620000	Y 377.433
U (409.013 nm)	0.017235	ppm	0.001935	11.23	-46.574200	Y 377.433
V (292.401 nm)	0.486486	ppm	0.000538	0.11	25475.100000	Y 377.433
Zn (206.200 nm)	0.493587	ppm	0.002292	0.46	2453.940000	Y 377.433
Zr (343.823 nm)	0.487296	ppm	0.000448	0.09	27923.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119477	25067.843921	0.002911	0.26
Y 377.433	1.119150	723112.250051	0.003438	0.31
Y_R 377.433	1.144330	62995.700000	0.005468	0.48
Y_R 488.368	1.140370	55110.900000	0.003603	0.32
Y_R2 488.368	1.127861	104535.149772	0.003738	0.33
Y_R4	1.163700	49829.100000	0.006670	0.57

Sample Name: CCB

Date: 5/23/2019 11:28:20 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000010 u	ppm	0.000345	> 100.00	-246.232000	Y 377.433
Al (394.401 nm)	-0.002233 u	ppm	0.000003	0.11	102.699000	Y 377.433
Al H (396.152 nm)	0.123795 Zu	ppm	0.002770	2.24	29.560800 Z	Y_R 377.433
As (188.980 nm)	-0.000698 u	ppm	0.001913	> 100.00	-2.418240	Y 242.219
B (249.678 nm)	-0.002629 u	ppm	0.000866	32.93	18.245700	Y 242.219
Ba (493.408 nm)	-0.001694 u	ppm	0.000032	1.92	1268.560000	Y_R 488.368
Be (234.861 nm)	0.000034	ppm	0.000003	7.34	-2.249140	Y_R 488.368
Bi (223.061 nm)	0.002975	ppm	0.000651	21.88	-8.729340	Y 377.433
Ca (315.887 nm)	0.002809	ppm	0.003466	> 100.00	-59.708558	Y_R 377.433
Cd (214.439 nm)	0.000130	ppm	0.000030	22.88	-2.589760	Y 377.433
Co (228.615 nm)	0.000083	ppm	0.000031	37.58	-20.110200	Y 242.219
Cr (205.560 nm)	-0.000260 u	ppm	0.000390	> 100.00	-7.807460	Y 377.433
Cu (324.754 nm)	0.000010 u	ppm	0.000116	> 100.00	412.353000	Y 377.433
Fe (238.204 nm)	0.000919	ppm	0.001176	> 100.00	5.200172	Y_R 377.433
Fe H (259.940 nm)	-0.057451 u	ppm	0.001651	2.87	10.418600	Y_R 377.433
K (766.491 nm)	-0.216338 u	ppm	0.071350	32.98	1766.870000	Y_R2 488.368
Li (670.783 nm)	0.013290 Z	ppm	0.002914	21.92	-2400.040000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000552 u	ppm	0.002109	> 100.00	9.949000	Y 377.433
Mn (257.610 nm)	0.000085	ppm	0.000019	22.49	1.581750	Y 377.433
Mo (202.032 nm)	-0.000121 u	ppm	0.000307	> 100.00	21.852900	Y 377.433
Na (589.592 nm)	0.160252	ppm	0.035753	22.31	228.734000	Y_R2 488.368
Na H (589.593 nm)	0.869119 u	ppm	0.004879	0.56	759.796823	Y_R4
Ni (231.604 nm)	-0.000867 u	ppm	0.000585	67.44	-16.211300	Y 377.433
P (213.618 nm)	-0.000944 u	ppm	0.000940	99.62	-5.896720	Y 242.219
Pb (220.353 nm)	-0.001091 u	ppm	0.000875	80.18	9.151230	Y 242.219
S (181.972 nm)	0.005360	ppm	0.000461	8.61	10.163118	Y 377.433
Sb (206.834 nm)	0.001598 u	ppm	0.006115	> 100.00	-4.720670	Y 377.433
Se (196.026 nm)	-0.002181 u	ppm	0.000969	44.43	7.030770	Y 242.219
Si (288.158 nm)	-0.003717 u	ppm	0.000666	17.93	483.526000	Y 377.433
Sn (189.925 nm)	0.000772	ppm	0.000454	58.81	3.583720	Y 377.433
Sr (421.552 nm)	0.000002 u	ppm	0.000005	> 100.00	48.149056	Y_R 488.368
Th (288.505 nm)	-0.000591 u	ppm	0.000563	95.16	13.478000	Y 377.433
Ti (336.122 nm)	0.000504	ppm	0.000035	6.92	-440.209000	Y 377.433
Tl (190.794 nm)	0.002618	ppm	0.000097	3.71	6.459540	Y 377.433
U (409.013 nm)	0.003459	ppm	0.003233	93.47	-30.923700	Y 377.433
V (292.401 nm)	0.000472	ppm	0.000376	79.62	-155.091000	Y 377.433
Zn (206.200 nm)	0.000558	ppm	0.000039	7.04	6.586400	Y 377.433
Zr (343.823 nm)	0.000482	ppm	0.000038	7.88	-146.740000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.135863	25434.783129	0.006124	0.54
Y 377.433	1.133918	732654.101572	0.007304	0.64
Y_R 377.433	1.147310	63160.100000	0.006635	0.58
Y_R 488.368	1.143840	55278.200000	0.006768	0.59
Y_R2 488.368	1.132668	104980.702032	0.000877	0.08
Y_R4	1.150160	49249.400000	0.007853	0.68

Sample Name: CCVL-5717307

Date: 5/23/2019 11:31:32 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008086	ppm	0.000085	1.06	36.672400	Y 377.433
Al (394.401 nm)	0.094099	ppm	0.001524	1.62	1263.250000	Y 377.433
Al H (396.152 nm)	0.221508 u	ppm	0.004753	2.15	236.024000	Y_R 377.433
As (188.980 nm)	0.015268	ppm	0.003682	24.12	23.019600	Y 242.219
B (249.678 nm)	0.091759	ppm	0.001065	1.16	694.679000	Y 242.219
Ba (493.408 nm)	0.007590	ppm	0.000096	1.27	2167.850000	Y_R 488.368
Be (234.861 nm)	0.000994	ppm	0.000032	3.20	94.058800	Y_R 488.368
Bi (223.061 nm)	0.091753	ppm	0.005779	6.30	193.788000	Y 377.433
Ca (315.887 nm)	0.209394	ppm	0.011635	5.56	107.097947	Y_R 377.433
Cd (214.439 nm)	0.005084	ppm	0.000157	3.09	195.667000	Y 377.433
Co (228.615 nm)	0.010449	ppm	0.000033	0.31	236.627000	Y 242.219
Cr (205.560 nm)	0.009313	ppm	0.000196	2.11	59.848700	Y 377.433
Cu (324.754 nm)	0.015175	ppm	0.000157	1.04	1114.520000	Y 377.433
Fe (238.204 nm)	0.100667	ppm	0.000306	0.30	251.054546	Y_R 377.433
Fe H (259.940 nm)	0.046077 u	ppm	0.000743	1.61	155.176000	Y_R 377.433
K (766.491 nm)	2.717010	ppm	0.022179	0.82	4678.300000	Y_R2 488.368
Li (670.783 nm)	0.040179 Q	ppm	0.001169	2.91	-1931.810000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200474	ppm	0.003087	1.54	720.802000	Y 377.433
Mn (257.610 nm)	0.010492	ppm	0.000001	0.01	2880.150000	Y 377.433
Mo (202.032 nm)	0.018527	ppm	0.000498	2.69	259.132000	Y 377.433
Na (589.592 nm)	1.202470	ppm	0.021836	1.82	1002.700000	Y_R2 488.368
Na H (589.593 nm)	1.669062 u	ppm	0.048972	2.93	1157.641546	Y_R4
Ni (231.604 nm)	0.041466	ppm	0.000445	1.07	220.381000	Y 377.433
P (213.618 nm)	2.742140	ppm	0.017587	0.64	4140.700000	Y 242.219
Pb (220.353 nm)	0.007983	ppm	0.000735	9.21	40.430800	Y 242.219
S (181.972 nm)	0.091118	ppm	0.002774	3.04	48.724490	Y 377.433
Sb (206.834 nm)	0.022810	ppm	0.001436	6.30	32.573900	Y 377.433
Se (196.026 nm)	0.015930	ppm	0.002534	15.91	36.455600	Y 242.219
Si (288.158 nm)	0.470950	ppm	0.000485	0.10	3614.570000	Y 377.433
Sn (189.925 nm)	0.096706	ppm	0.000493	0.51	170.912000	Y 377.433
Sr (421.552 nm)	0.009079	ppm	0.000048	0.53	1375.661354	Y_R 488.368
Th (288.505 nm)	0.011241	ppm	0.005308	47.22	33.661900	Y 377.433
Ti (336.122 nm)	0.010096	ppm	0.000066	0.65	807.649000	Y 377.433
Tl (190.794 nm)	0.016028	ppm	0.000916	5.72	38.828400	Y 377.433
U (409.013 nm)	0.067190	ppm	0.010124	15.07	167.515000	Y 377.433
V (292.401 nm)	0.010336	ppm	0.000202	1.95	361.822000	Y 377.433
Zn (206.200 nm)	0.020785	ppm	0.000473	2.28	106.991000	Y 377.433
Zr (343.823 nm)	0.010240	ppm	0.000104	1.02	415.924000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.142333	25579.664015	0.002670	0.23
Y 377.433	1.140077	736633.466772	0.003052	0.27
Y_R 377.433	1.157420	63716.300000	0.003386	0.29
Y_R 488.368	1.154940	55814.600000	0.002056	0.18
Y_R2 488.368	1.148748	106471.066252	0.003059	0.27
Y_R4	1.143200	48951.200000	0.010073	0.88

Sample Name: 280-123564-m-1-bSD@5

Date: 5/23/2019 11:35:00 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000929	ppm	0.000353	38.04	-213.359000	Y 377.433
Al (394.401 nm)	0.001344	ppm	0.000448	33.33	195.250000	Y 377.433
Al H (396.152 nm)	0.088940 u	ppm	0.004407	4.95	51.033700	Y_R 377.433
As (188.980 nm)	0.002172	ppm	0.002247	> 100.00	2.152420	Y 242.219
B (249.678 nm)	0.049178	ppm	0.000424	0.86	389.482000	Y 242.219
Ba (493.408 nm)	0.011091	ppm	0.000001	0.01	2506.960000	Y_R 488.368
Be (234.861 nm)	0.000023	ppm	0.000011	47.44	-3.963560	Y_R 488.368
Bi (223.061 nm)	0.001809	ppm	0.000727	40.19	-11.359200	Y 377.433
Ca (315.887 nm)	24.483507	ppm	0.005507	0.02	19704.515722	Y_R 377.433
Cd (214.439 nm)	0.000162	ppm	0.000024	14.82	-1.263230	Y 377.433
Co (228.615 nm)	0.000009 u	ppm	0.000100	> 100.00	-21.952500	Y 242.219
Cr (205.560 nm)	0.000510	ppm	0.000150	29.42	-3.776750	Y 377.433
Cu (324.754 nm)	-0.000316 u	ppm	0.000350	> 100.00	386.059000	Y 377.433
Fe (238.204 nm)	0.121609	ppm	0.001549	1.27	302.669717	Y_R 377.433
Fe H (259.940 nm)	0.061476 u	ppm	0.002853	4.64	176.708000	Y_R 377.433
K (766.491 nm)	3.352810	ppm	0.045020	1.34	5309.350000	Y_R2 488.368
Li (670.783 nm)	0.023496	ppm	0.000711	3.03	-2222.320000	Y_R2 488.368
Mg (279.078 nm)	7.965670	ppm	0.026680	0.33	28235.200000	Y 377.433
Mn (257.610 nm)	0.031072	ppm	0.000090	0.29	8572.540000	Y 377.433
Mo (202.032 nm)	0.288427	ppm	0.000979	0.34	3693.520000	Y 377.433
Na (589.592 nm)	57.436100 o	ppm	0.112091	0.20	42658.800000	Y_R2 488.368
Na H (589.593 nm)	59.565371	ppm	0.238356	0.40	29951.880047	Y_R4
Ni (231.604 nm)	-0.000124 u	ppm	0.000466	> 100.00	-12.061700	Y 377.433
P (213.618 nm)	0.006996	ppm	0.000375	5.36	-4.472850	Y 242.219
Pb (220.353 nm)	-0.000724 u	ppm	0.001276	> 100.00	9.626790	Y 242.219
S (181.972 nm)	23.626866	ppm	0.101434	0.43	10622.520942	Y 377.433
Sb (206.834 nm)	0.004119	ppm	0.002768	67.20	-2.239670	Y 377.433
Se (196.026 nm)	-0.005895 u	ppm	0.001996	33.86	1.059880	Y 242.219
Si (288.158 nm)	1.681770	ppm	0.005712	0.34	11601.600000	Y 377.433
Sn (189.925 nm)	-0.000179 u	ppm	0.000559	> 100.00	1.924360	Y 377.433
Sr (421.552 nm)	0.188869	ppm	0.000585	0.31	27669.910786	Y_R 488.368
Th (288.505 nm)	-0.004225 u	ppm	0.002927	69.27	7.160440	Y 377.433
Ti (336.122 nm)	0.000407	ppm	0.000068	16.82	-369.257000	Y 377.433
Tl (190.794 nm)	0.001157	ppm	0.001430	> 100.00	0.253540	Y 377.433
U (409.013 nm)	0.023844	ppm	0.008397	35.22	29.817600	Y 377.433
V (292.401 nm)	0.000955	ppm	0.000074	7.78	-151.875000	Y 377.433
Zn (206.200 nm)	0.005100	ppm	0.000074	1.46	29.149900	Y 377.433
Zr (343.823 nm)	0.000469	ppm	0.000058	12.28	-147.466000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124319	25176.283805	0.000475	0.04
Y 377.433	1.123113	725672.533030	0.001298	0.12
Y_R 377.433	1.150930	63359.000000	0.000446	0.04
Y_R 488.368	1.145250	55346.400000	0.002490	0.22
Y_R2 488.368	1.136193	105307.468510	0.000139	0.01
Y_R4	1.162930	49796.200000	0.007985	0.69

Sample Name: 280-123564-m-1-c ms

Date: 5/23/2019 11:38:28 PM Rack:Tube: 2:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052747	ppm	0.000129	0.24	1297.180000	Y 377.433
Al (394.401 nm)	9.855910 o	ppm	0.015781	0.16	118391.000000	Y 377.433
Al H (396.152 nm)	9.738820	ppm	0.031483	0.32	20787.900000	Y_R 377.433
As (188.980 nm)	2.052020	ppm	0.008732	0.43	3268.050000	Y 242.219
B (249.678 nm)	1.275450	ppm	0.001371	0.11	9172.320000	Y 242.219
Ba (493.408 nm)	2.062040	ppm	0.003611	0.18	201176.000000	Y_R 488.368
Be (234.861 nm)	0.990771	ppm	0.000659	0.07	99846.500000	Y_R 488.368
Bi (223.061 nm)	1.926430	ppm	0.000193	0.01	4380.500000	Y 377.433
Ca (315.887 nm)	169.080525	ppm	0.290680	0.17	136445.871623	Y_R 377.433
Cd (214.439 nm)	0.964662	ppm	0.000777	0.08	38594.100000	Y 377.433
Co (228.615 nm)	0.969920	ppm	0.000629	0.06	24004.600000	Y 242.219
Cr (205.560 nm)	0.982293	ppm	0.004346	0.44	6940.090000	Y 377.433
Cu (324.754 nm)	0.990140	ppm	0.003758	0.38	46396.100000	Y 377.433
Fe (238.204 nm)	10.400333 o	ppm	0.007375	0.07	25637.232959	Y_R 377.433
Fe H (259.940 nm)	10.446400	ppm	0.014812	0.14	14697.400000	Y_R 377.433
K (766.491 nm)	71.188200	ppm	0.202051	0.28	72637.900000	Y_R2 488.368
Li (670.783 nm)	1.057220	ppm	0.000659	0.06	15778.600000	Y_R2 488.368
Mg (279.078 nm)	88.285500	ppm	0.067951	0.08	312775.000000	Y 377.433
Mn (257.610 nm)	1.131410	ppm	0.001369	0.12	312925.000000	Y 377.433
Mo (202.032 nm)	2.437780	ppm	0.011812	0.48	31043.300000	Y 377.433
Na (589.592 nm)	323.430000 o	ppm	0.144305	0.04	240116.000000	Y_R2 488.368
Na H (589.593 nm)	352.308965	ppm	0.356336	0.10	175545.424288	Y_R4
Ni (231.604 nm)	0.964576	ppm	0.000383	0.04	5381.490000	Y 377.433
P (213.618 nm)	20.414800	ppm	0.015478	0.08	30552.700000	Y 242.219
Pb (220.353 nm)	0.970759	ppm	0.001280	0.13	3342.160000	Y 242.219
S (181.972 nm)	130.961329 bo	ppm	0.283641	0.22	58848.942561	Y 377.433
Sb (206.834 nm)	1.054430	ppm	0.000708	0.07	1839.280000	Y 377.433
Se (196.026 nm)	1.979590	ppm	0.003116	0.16	3227.010000	Y 242.219
Si (288.158 nm)	10.700400	ppm	0.032317	0.30	71091.500000	Y 377.433
Sn (189.925 nm)	1.957950	ppm	0.004518	0.23	3417.320000	Y 377.433
Sr (421.552 nm)	1.972197	ppm	0.004921	0.25	288482.566981	Y_R 488.368
Th (288.505 nm)	1.012630	ppm	0.000910	0.09	1687.280000	Y 377.433
Ti (336.122 nm)	1.000210	ppm	0.001309	0.13	130128.000000	Y 377.433
Tl (190.794 nm)	1.888790	ppm	0.002658	0.14	4553.350000	Y 377.433
U (409.013 nm)	2.010560	ppm	0.007902	0.39	6182.250000	Y 377.433
V (292.401 nm)	0.991183	ppm	0.002408	0.24	51993.900000	Y 377.433
Zn (206.200 nm)	0.482107	ppm	0.001618	0.34	2398.200000	Y 377.433
Zr (343.823 nm)	0.493397	ppm	0.000679	0.14	28275.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070609	23973.578716	0.000099	0.01
Y 377.433	1.083616	700152.550119	0.000134	0.01
Y_R 377.433	1.128030	62098.600000	0.000080	0.01
Y_R 488.368	1.119190	54086.900000	0.001103	0.10
Y_R2 488.368	1.111848	103051.046988	0.006794	0.61
Y_R4	1.143050	48944.800000	0.007794	0.68

Sample Name: 280-123564-m-1-d msd

Date: 5/23/2019 11:42:09 PM Rack:Tube: 2:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052372	ppm	0.000264	0.50	1283.900000	Y 377.433
Al (394.401 nm)	9.883110 o	ppm	0.007219	0.07	118712.000000	Y 377.433
Al H (396.152 nm)	9.759380	ppm	0.043313	0.44	20819.400000	Y_R 377.433
As (188.980 nm)	2.059390	ppm	0.000056	0.00	3279.790000	Y 242.219
B (249.678 nm)	1.273690	ppm	0.002312	0.18	9159.710000	Y 242.219
Ba (493.408 nm)	2.060510	ppm	0.005748	0.28	201028.000000	Y_R 488.368
Be (234.861 nm)	0.984201	ppm	0.005610	0.57	99183.800000	Y_R 488.368
Bi (223.061 nm)	1.934360	ppm	0.000288	0.01	4398.610000	Y 377.433
Ca (315.887 nm)	167.002826	ppm	0.488215	0.29	134768.470253	Y_R 377.433
Cd (214.439 nm)	0.966755	ppm	0.000676	0.07	38677.900000	Y 377.433
Co (228.615 nm)	0.973277	ppm	0.001257	0.13	24087.600000	Y 242.219
Cr (205.560 nm)	0.982389	ppm	0.001531	0.16	6940.910000	Y 377.433
Cu (324.754 nm)	0.994594	ppm	0.003114	0.31	46602.600000	Y 377.433
Fe (238.204 nm)	10.461308 o	ppm	0.042909	0.41	25787.522756	Y_R 377.433
Fe H (259.940 nm)	10.511500	ppm	0.043478	0.41	14788.400000	Y_R 377.433
K (766.491 nm)	71.060100	ppm	0.178029	0.25	72510.800000	Y_R2 488.368
Li (670.783 nm)	1.063930	ppm	0.000095	0.01	15895.500000	Y_R2 488.368
Mg (279.078 nm)	87.690000	ppm	0.033982	0.04	310665.000000	Y 377.433
Mn (257.610 nm)	1.132250	ppm	0.000116	0.01	313159.000000	Y 377.433
Mo (202.032 nm)	2.412070	ppm	0.008476	0.35	30716.000000	Y 377.433
Na (589.592 nm)	317.975000 o	ppm	1.274010	0.40	236074.000000	Y_R2 488.368
Na H (589.593 nm)	344.984760	ppm	0.906959	0.26	171902.793010	Y_R4
Ni (231.604 nm)	0.963999	ppm	0.001765	0.18	5378.270000	Y 377.433
P (213.618 nm)	20.495600	ppm	0.029822	0.15	30674.900000	Y 242.219
Pb (220.353 nm)	0.974759	ppm	0.000908	0.09	3355.990000	Y 242.219
S (181.972 nm)	128.972387 bo	ppm	0.295486	0.23	57955.367658	Y 377.433
Sb (206.834 nm)	1.059950	ppm	0.003164	0.30	1849.210000	Y 377.433
Se (196.026 nm)	1.989270	ppm	0.001405	0.07	3242.710000	Y 242.219
Si (288.158 nm)	10.547600	ppm	0.023893	0.23	70083.000000	Y 377.433
Sn (189.925 nm)	1.965540	ppm	0.000327	0.02	3430.570000	Y 377.433
Sr (421.552 nm)	1.951189	ppm	0.005999	0.31	285410.203587	Y_R 488.368
Th (288.505 nm)	1.014380	ppm	0.001282	0.13	1690.440000	Y 377.433
Ti (336.122 nm)	1.000560	ppm	0.000443	0.04	130165.000000	Y 377.433
Tl (190.794 nm)	1.896030	ppm	0.003060	0.16	4571.170000	Y 377.433
U (409.013 nm)	2.013240	ppm	0.002319	0.12	6190.970000	Y 377.433
V (292.401 nm)	0.991461	ppm	0.000079	0.01	52009.600000	Y 377.433
Zn (206.200 nm)	0.485232	ppm	0.000230	0.05	2413.720000	Y 377.433
Zr (343.823 nm)	0.493890	ppm	0.000766	0.16	28303.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071856	24001.493494	0.001242	0.12
Y 377.433	1.087295	702530.133586	0.002439	0.22
Y_R 377.433	1.138500	62674.900000	0.005157	0.45
Y_R 488.368	1.131140	54664.600000	0.004870	0.43
Y_R2 488.368	1.119459	103756.444361	0.005670	0.51
Y_R4	1.153220	49380.400000	0.000854	0.07

Sample Name: 280-123564-m-2-b

Date: 5/23/2019 11:45:47 PM Rack:Tube: 2:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000206	ppm	0.000130	63.03	-238.703000	Y 377.433
Al (394.401 nm)	0.002258	ppm	0.001400	61.99	157.023000	Y 377.433
Al H (396.152 nm)	0.131952 u	ppm	0.002031	1.54	46.415600	Y_R 377.433
As (188.980 nm)	-0.001686 u	ppm	0.000452	26.82	-3.991360	Y 242.219
B (249.678 nm)	0.000211	ppm	0.000087	41.00	38.592600	Y 242.219
Ba (493.408 nm)	-0.001814 u	ppm	0.000087	4.80	1256.890000	Y_R 488.368
Be (234.861 nm)	0.000066	ppm	0.000052	79.34	0.843836	Y_R 488.368
Bi (223.061 nm)	0.001437	ppm	0.001053	73.30	-12.235600	Y 377.433
Ca (315.887 nm)	0.086170	ppm	0.002351	2.73	7.592642	Y_R 377.433
Cd (214.439 nm)	0.000123	ppm	0.000016	12.71	-2.878320	Y 377.433
Co (228.615 nm)	-0.000077 u	ppm	0.000366	> 100.00	-24.055100	Y 242.219
Cr (205.560 nm)	0.000555	ppm	0.000063	11.37	-2.036270	Y 377.433
Cu (324.754 nm)	0.000101	ppm	0.000134	> 100.00	416.326000	Y 377.433
Fe (238.204 nm)	0.011593	ppm	0.002232	19.25	31.508072	Y_R 377.433
Fe H (259.940 nm)	-0.038727 u	ppm	0.000739	1.91	36.599500	Y_R 377.433
K (766.491 nm)	-0.126542 u	ppm	0.221761	> 100.00	1855.990000	Y_R2 488.368
Li (670.783 nm)	0.019449	ppm	0.003155	16.22	-2292.780000	Y_R2 488.368
Mg (279.078 nm)	0.015003	ppm	0.001845	12.30	64.967800	Y 377.433
Mn (257.610 nm)	0.000472	ppm	0.000029	6.25	108.428000	Y 377.433
Mo (202.032 nm)	-0.000036 u	ppm	0.000383	> 100.00	22.929700	Y 377.433
Na (589.592 nm)	0.210886	ppm	0.003511	1.67	266.172000	Y_R2 488.368
Na H (589.593 nm)	1.249232 u	ppm	0.010092	0.81	948.842805	Y_R4
Ni (231.604 nm)	0.000389	ppm	0.000267	68.81	-9.194470	Y 377.433
P (213.618 nm)	0.002557	ppm	0.002099	82.07	-0.642112	Y 242.219
Pb (220.353 nm)	-0.001492 u	ppm	0.001322	88.60	7.784260	Y 242.219
S (181.972 nm)	0.015183	ppm	0.005544	36.52	14.578114	Y 377.433
Sb (206.834 nm)	0.006803	ppm	0.002797	41.12	4.470500	Y 377.433
Se (196.026 nm)	-0.000385 u	ppm	0.003100	> 100.00	9.947830	Y 242.219
Si (288.158 nm)	0.040676	ppm	0.000105	0.26	776.357000	Y 377.433
Sn (189.925 nm)	-0.000578 u	ppm	0.000324	56.14	1.228920	Y 377.433
Sr (421.552 nm)	0.000028 u	ppm	0.000104	> 100.00	51.947046	Y_R 488.368
Th (288.505 nm)	-0.000196 u	ppm	0.003837	> 100.00	14.181600	Y 377.433
Ti (336.122 nm)	0.000757	ppm	0.000024	3.16	-407.171000	Y 377.433
Tl (190.794 nm)	0.002153	ppm	0.000301	13.96	5.328000	Y 377.433
U (409.013 nm)	0.002873	ppm	0.001822	63.44	-32.787700	Y 377.433
V (292.401 nm)	0.000602	ppm	0.000289	47.93	-148.657000	Y 377.433
Zn (206.200 nm)	0.006382	ppm	0.000126	1.98	35.492200	Y 377.433
Zr (343.823 nm)	0.000659	ppm	0.000011	1.70	-136.517000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148942	25727.647191	0.005954	0.52
Y 377.433	1.145523	740152.627346	0.005103	0.45
Y_R 377.433	1.167710	64282.800000	0.004282	0.37
Y_R 488.368	1.164520	56277.700000	0.006221	0.53
Y_R2 488.368	1.156796	107216.965487	0.003886	0.34
Y_R4	1.168020	50014.000000	0.005260	0.45

Sample Name: 280-123786-b-1-a

Date: 5/23/2019 11:48:57 PM Rack:Tube: 2:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000630	ppm	0.000034	5.33	-224.156000	Y 377.433
Al (394.401 nm)	0.010959	ppm	0.002672	24.38	279.758000	Y 377.433
Al H (396.152 nm)	0.124959 u	ppm	0.000147	0.12	52.106100	Y_R 377.433
As (188.980 nm)	-0.001274 u	ppm	0.001247	97.87	-3.340870	Y 242.219
B (249.678 nm)	0.002847	ppm	0.000390	13.70	57.378500	Y 242.219
Ba (493.408 nm)	0.011602	ppm	0.000332	2.86	2556.570000	Y_R 488.368
Be (234.861 nm)	0.000030	ppm	0.000031	> 100.00	-3.529080	Y_R 488.368
Bi (223.061 nm)	0.000622	ppm	0.000179	28.80	-14.060800	Y 377.433
Ca (315.887 nm)	9.631470	ppm	0.020320	0.21	7713.886740	Y_R 377.433
Cd (214.439 nm)	0.000037	ppm	0.000011	30.37	-6.241740	Y 377.433
Co (228.615 nm)	0.000107 u	ppm	0.000350	> 100.00	-19.505900	Y 242.219
Cr (205.560 nm)	0.000306	ppm	0.000413	> 100.00	-3.801940	Y 377.433
Cu (324.754 nm)	0.004541	ppm	0.000286	6.30	615.100000	Y 377.433
Fe (238.204 nm)	0.191016	ppm	0.000307	0.16	473.742985	Y_R 377.433
Fe H (259.940 nm)	0.142247 u	ppm	0.000151	0.11	289.647000	Y_R 377.433
K (766.491 nm)	0.476905	ppm	0.091237	19.13	2454.930000	Y_R2 488.368
Li (670.783 nm)	0.019512	ppm	0.005667	29.05	-2291.690000	Y_R2 488.368
Mg (279.078 nm)	1.761680	ppm	0.002446	0.14	6252.940000	Y 377.433
Mn (257.610 nm)	0.001377	ppm	0.000005	0.40	358.926000	Y 377.433
Mo (202.032 nm)	-0.000267 u	ppm	0.000466	> 100.00	19.995800	Y 377.433
Na (589.592 nm)	5.136940	ppm	0.004823	0.09	3917.930000	Y_R2 488.368
Na H (589.593 nm)	5.853103 u	ppm	0.045315	0.77	3238.538907	Y_R4
Ni (231.604 nm)	-0.000824 u	ppm	0.000714	86.72	-15.969000	Y 377.433
P (213.618 nm)	0.002620	ppm	0.001454	55.50	-1.689150	Y 242.219
Pb (220.353 nm)	-0.001043 u	ppm	0.000540	51.79	9.411320	Y 242.219
S (181.972 nm)	1.824495	ppm	0.008612	0.47	827.801829	Y 377.433
Sb (206.834 nm)	0.003578	ppm	0.000498	13.93	-1.207210	Y 377.433
Se (196.026 nm)	-0.000819 u	ppm	0.004449	> 100.00	9.194140	Y 242.219
Si (288.158 nm)	2.736190	ppm	0.003663	0.13	18556.800000	Y 377.433
Sn (189.925 nm)	0.000160 u	ppm	0.000593	> 100.00	2.514920	Y 377.433
Sr (421.552 nm)	0.056593	ppm	0.000262	0.46	8324.692542	Y_R 488.368
Th (288.505 nm)	-0.003567 u	ppm	0.004672	> 100.00	8.240910	Y 377.433
Ti (336.122 nm)	0.000652	ppm	0.000065	10.03	-388.345000	Y 377.433
Tl (190.794 nm)	0.001429	ppm	0.000058	4.08	3.155410	Y 377.433
U (409.013 nm)	0.021820	ppm	0.003731	17.10	25.473300	Y 377.433
V (292.401 nm)	0.000633	ppm	0.000081	12.85	-148.748000	Y 377.433
Zn (206.200 nm)	0.002311	ppm	0.000223	9.63	15.317200	Y 377.433
Zr (343.823 nm)	0.000479	ppm	0.000149	31.08	-146.918000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.156772	25902.985988	0.001604	0.14
Y 377.433	1.154860	746185.071364	0.001239	0.11
Y_R 377.433	1.173930	64625.600000	0.001512	0.13
Y_R 488.368	1.170740	56578.200000	0.000213	0.02
Y_R2 488.368	1.152735	106840.629308	0.002621	0.23
Y_R4	1.168930	50053.100000	0.004705	0.40

Sample Name: 280-123787-a-1-a

Date: 5/23/2019 11:52:25 PM Rack:Tube: 2:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002433	ppm	0.000125	5.12	-160.523000	Y 377.433
Al (394.401 nm)	-0.026885 u	ppm	0.000902	3.35	464.762000	Y 377.433
Al H (396.152 nm)	-0.368156 u	ppm	0.004416	1.20	21.108800	Y_R 377.433
As (188.980 nm)	-0.000407 u	ppm	0.003167	> 100.00	-1.955110	Y 242.219
B (249.678 nm)	0.151237	ppm	0.000580	0.38	1120.990000	Y 242.219
Ba (493.408 nm)	0.016118	ppm	0.000291	1.81	2993.870000	Y_R 488.368
Be (234.861 nm)	-0.000001 u	ppm	0.000039	> 100.00	-6.070670	Y_R 488.368
Bi (223.061 nm)	0.002842	ppm	0.001033	36.35	-8.974460	Y 377.433
Ca (315.887 nm)	107.602999	ppm	0.296403	0.28	86810.110606	Y_R 377.433
Cd (214.439 nm)	0.000311	ppm	0.000168	54.17	4.657410	Y 377.433
Co (228.615 nm)	0.000493	ppm	0.000145	29.47	-9.972360	Y 242.219
Cr (205.560 nm)	0.000393	ppm	0.000043	10.91	-3.199620	Y 377.433
Cu (324.754 nm)	-0.000897 u	ppm	0.000019	2.16	310.096000	Y 377.433
Fe (238.204 nm)	0.057046	ppm	0.003062	5.37	143.538316	Y_R 377.433
Fe H (259.940 nm)	-0.010420 u	ppm	0.002334	22.40	76.179000	Y_R 377.433
K (766.491 nm)	21.742000	ppm	0.115052	0.53	23561.100000	Y_R2 488.368
Li (670.783 nm)	0.307332	ppm	0.000507	0.17	2720.300000	Y_R2 488.368
Mg (279.078 nm)	115.133000	ppm	0.015150	0.01	407948.000000	Y 377.433
Mn (257.610 nm)	0.035067	ppm	0.000005	0.01	9677.460000	Y 377.433
Mo (202.032 nm)	0.000146 u	ppm	0.000303	> 100.00	25.241800	Y 377.433
Na (589.592 nm)	777.075000 o	ppm	2.249680	0.29	575738.000000	Y_R2 488.368
Na H (589.593 nm)	909.374922	ppm	4.486436	0.49	452597.453839	Y_R4
Ni (231.604 nm)	0.004230	ppm	0.000731	17.29	12.271500	Y 377.433
P (213.618 nm)	0.002218	ppm	0.000866	39.06	-1.690100	Y 242.219
Pb (220.353 nm)	-0.001816 u	ppm	0.000975	53.71	6.700720	Y 242.219
S (181.972 nm)	505.499919 bo	ppm	1.041484	0.21	227090.365569	Y 377.433
Sb (206.834 nm)	-0.002272 u	ppm	0.000201	8.85	-11.551400	Y 377.433
Se (196.026 nm)	0.000011 u	ppm	0.000093	> 100.00	10.630700	Y 242.219
Si (288.158 nm)	3.727390	ppm	0.015609	0.42	25095.100000	Y 377.433
Sn (189.925 nm)	0.000288	ppm	0.000376	> 100.00	2.738710	Y 377.433
Sr (421.552 nm)	2.613989	ppm	0.000134	0.01	382342.850450	Y_R 488.368
Th (288.505 nm)	0.003518	ppm	0.002154	61.24	18.598700	Y 377.433
Ti (336.122 nm)	0.000192	ppm	0.000266	> 100.00	-110.716000	Y 377.433
Tl (190.794 nm)	0.002583	ppm	0.000666	25.80	1.854900	Y 377.433
U (409.013 nm)	0.006052	ppm	0.002063	34.10	-36.941800	Y 377.433
V (292.401 nm)	0.001425	ppm	0.000300	21.07	-104.578000	Y 377.433
Zn (206.200 nm)	0.011881	ppm	0.000200	1.69	62.790500	Y 377.433
Zr (343.823 nm)	0.001168	ppm	0.000277	23.70	-107.195000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.056404	23655.483268	0.003965	0.38
Y 377.433	1.067605	689807.784269	0.004361	0.41
Y_R 377.433	1.146170	63096.900000	0.007920	0.69
Y_R 488.368	1.138790	55034.200000	0.006662	0.59
Y_R2 488.368	1.126719	104429.307263	0.002202	0.20
Y_R4	1.150980	49284.200000	0.006044	0.53

Sample Name: 280-123787-a-2-a

Date: 5/23/2019 11:56:01 PM Rack:Tube: 2:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001724	ppm	0.000170	9.87	-185.675000	Y 377.433
Al (394.401 nm)	-0.033569 u	ppm	0.000727	2.17	391.597000	Y 377.433
Al H (396.152 nm)	-0.381265 u	ppm	0.006328	1.66	5.789690	Y_R 377.433
As (188.980 nm)	0.003889	ppm	0.002169	55.78	4.889790	Y 242.219
B (249.678 nm)	0.176067	ppm	0.000186	0.11	1298.950000	Y 242.219
Ba (493.408 nm)	0.015164	ppm	0.000562	3.71	2901.500000	Y_R 488.368
Be (234.861 nm)	-0.000024 u	ppm	0.000039	> 100.00	-8.310250	Y_R 488.368
Bi (223.061 nm)	0.003478	ppm	0.001690	48.60	-7.522150	Y 377.433
Ca (315.887 nm)	99.987689	ppm	0.061685	0.06	80661.970649	Y_R 377.433
Cd (214.439 nm)	0.000444	ppm	0.000145	32.61	10.013500	Y 377.433
Co (228.615 nm)	-0.000121 u	ppm	0.000172	> 100.00	-25.145400	Y 242.219
Cr (205.560 nm)	0.000131	ppm	0.000082	62.44	-5.053330	Y 377.433
Cu (324.754 nm)	-0.000784 u	ppm	0.000022	2.81	319.591000	Y 377.433
Fe (238.204 nm)	0.047492	ppm	0.002535	5.34	119.990218	Y_R 377.433
Fe H (259.940 nm)	-0.022706 u	ppm	0.001827	8.05	59.001200	Y_R 377.433
K (766.491 nm)	22.564300	ppm	0.033239	0.15	24377.300000	Y_R2 488.368
Li (670.783 nm)	0.325035	ppm	0.002238	0.69	3028.570000	Y_R2 488.368
Mg (279.078 nm)	119.542000	ppm	0.149783	0.13	423570.000000	Y 377.433
Mn (257.610 nm)	0.000899	ppm	0.000027	2.99	226.734000	Y 377.433
Mo (202.032 nm)	0.000265 u	ppm	0.000719	> 100.00	26.763700	Y 377.433
Na (589.592 nm)	723.767000 o	ppm	0.433401	0.06	536249.000000	Y_R2 488.368
Na H (589.593 nm)	840.574641	ppm	6.652288	0.79	418380.217522	Y_R4
Ni (231.604 nm)	0.004319	ppm	0.000241	5.58	12.772700	Y 377.433
P (213.618 nm)	0.002838	ppm	0.001379	48.62	-0.667130	Y 242.219
Pb (220.353 nm)	-0.002621 u	ppm	0.000335	12.79	3.944250	Y 242.219
S (181.972 nm)	522.265706 bo	ppm	1.352297	0.26	234621.309680	Y 377.433
Sb (206.834 nm)	0.000418 u	ppm	0.000611	> 100.00	-6.799430	Y 377.433
Se (196.026 nm)	-0.001529 u	ppm	0.001047	68.50	8.079200	Y 242.219
Si (288.158 nm)	4.255130	ppm	0.009974	0.23	28576.200000	Y 377.433
Sn (189.925 nm)	-0.000060 u	ppm	0.001444	> 100.00	2.131490	Y 377.433
Sr (421.552 nm)	2.638257	ppm	0.003419	0.13	385892.100636	Y_R 488.368
Th (288.505 nm)	0.006504	ppm	0.003618	55.62	23.316500	Y 377.433
Ti (336.122 nm)	0.000168	ppm	0.000015	8.78	-140.066000	Y 377.433
Tl (190.794 nm)	0.003510	ppm	0.000919	26.20	4.418530	Y 377.433
U (409.013 nm)	0.007978	ppm	0.003233	40.52	-29.894800	Y 377.433
V (292.401 nm)	0.001711	ppm	0.000219	12.79	-89.642400	Y 377.433
Zn (206.200 nm)	0.006565	ppm	0.000310	4.73	36.406400	Y 377.433
Zr (343.823 nm)	0.001016	ppm	0.000198	19.49	-115.953000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.077167	24120.426811	0.002667	0.25
Y 377.433	1.088651	703406.032208	0.001894	0.17
Y_R 377.433	1.151510	63391.100000	0.003465	0.30
Y_R 488.368	1.144950	55332.200000	0.002022	0.18
Y_R2 488.368	1.146543	106266.745353	0.001273	0.11
Y_R4	1.149150	49205.900000	0.001009	0.09

Sample Name: 280-123787-a-3-a

Date: 5/23/2019 11:59:40 PM Rack:Tube: 2:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001847	ppm	0.000101	5.47	-181.422000	Y 377.433
Al (394.401 nm)	-0.031431 u	ppm	0.000691	2.20	410.253000	Y 377.433
Al H (396.152 nm)	-0.373597 u	ppm	0.006500	1.74	13.717100	Y_R 377.433
As (188.980 nm)	0.003236	ppm	0.003381	> 100.00	3.850690	Y 242.219
B (249.678 nm)	0.153646	ppm	0.000886	0.58	1138.270000	Y 242.219
Ba (493.408 nm)	0.013005	ppm	0.000169	1.30	2692.300000	Y_R 488.368
Be (234.861 nm)	-0.000036 u	ppm	0.000033	91.08	-9.499200	Y_R 488.368
Bi (223.061 nm)	0.000348 u	ppm	0.000703	> 100.00	-14.665400	Y 377.433
Ca (315.887 nm)	100.863981	ppm	0.083644	0.08	81369.442888	Y_R 377.433
Cd (214.439 nm)	0.000318	ppm	0.000061	19.14	4.961370	Y 377.433
Co (228.615 nm)	0.000361	ppm	0.000200	55.34	-13.226900	Y 242.219
Cr (205.560 nm)	0.000273	ppm	0.000281	> 100.00	-4.048390	Y 377.433
Cu (324.754 nm)	-0.000507 u	ppm	0.000182	35.96	333.480000	Y 377.433
Fe (238.204 nm)	0.032086	ppm	0.000423	1.32	82.017622	Y_R 377.433
Fe H (259.940 nm)	-0.037752 u	ppm	0.003203	8.48	37.963200	Y_R 377.433
K (766.491 nm)	22.278300	ppm	0.145420	0.65	24093.400000	Y_R2 488.368
Li (670.783 nm)	0.311076	ppm	0.001996	0.64	2785.490000	Y_R2 488.368
Mg (279.078 nm)	117.997000	ppm	0.067991	0.06	418093.000000	Y 377.433
Mn (257.610 nm)	0.003218	ppm	0.000017	0.52	868.108000	Y 377.433
Mo (202.032 nm)	0.000244 u	ppm	0.000407	> 100.00	26.496000	Y 377.433
Na (589.592 nm)	758.272000 o	ppm	0.255695	0.03	561808.000000	Y_R2 488.368
Na H (589.593 nm)	887.029258	ppm	4.748306	0.54	441484.027461	Y_R4
Ni (231.604 nm)	0.004031	ppm	0.001398	34.68	11.157900	Y 377.433
P (213.618 nm)	0.004309	ppm	0.003068	71.18	1.488430	Y 242.219
Pb (220.353 nm)	-0.001682 u	ppm	0.001045	62.14	7.167400	Y 242.219
S (181.972 nm)	517.896176 bo	ppm	1.093239	0.21	232658.511420	Y 377.433
Sb (206.834 nm)	-0.001624 u	ppm	0.003722	> 100.00	-10.404400	Y 377.433
Se (196.026 nm)	-0.002136 u	ppm	0.003808	> 100.00	7.101460	Y 242.219
Si (288.158 nm)	4.302020	ppm	0.005193	0.12	28885.500000	Y 377.433
Sn (189.925 nm)	0.000804	ppm	0.000100	12.50	3.638850	Y 377.433
Sr (421.552 nm)	2.617960	ppm	0.001493	0.06	382923.622118	Y_R 488.368
Th (288.505 nm)	0.009270	ppm	0.000954	10.29	28.139000	Y 377.433
Ti (336.122 nm)	0.000237	ppm	0.000000	0.05	-127.762000	Y 377.433
Tl (190.794 nm)	0.001561	ppm	0.001273	81.55	-0.338068	Y 377.433
U (409.013 nm)	0.005382	ppm	0.004289	79.70	-38.171200	Y 377.433
V (292.401 nm)	0.001540	ppm	0.000257	16.68	-97.984400	Y 377.433
Zn (206.200 nm)	0.009293	ppm	0.000148	1.59	49.943200	Y 377.433
Zr (343.823 nm)	0.001345	ppm	0.000181	13.43	-96.986700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.077589	24129.886107	0.001433	0.13
Y 377.433	1.090423	704551.103801	0.001306	0.12
Y_R 377.433	1.148300	63214.400000	0.003609	0.31
Y_R 488.368	1.141840	55181.600000	0.002971	0.26
Y_R2 488.368	1.123588	104139.174016	0.007666	0.68
Y_R4	1.143110	48947.500000	0.004085	0.36

Sample Name: 280-123787-a-4-a

Date: 5/24/2019 12:03:17 AM Rack:Tube: 2:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002083	ppm	0.000329	15.78	-173.189000	Y 377.433
Al (394.401 nm)	-0.029632 u	ppm	0.000931	3.14	432.045000	Y 377.433
Al H (396.152 nm)	-0.370867 u	ppm	0.000837	0.23	17.639500	Y_R 377.433
As (188.980 nm)	0.002439	ppm	0.002187	89.65	2.575930	Y 242.219
B (249.678 nm)	0.154898	ppm	0.001360	0.88	1147.150000	Y 242.219
Ba (493.408 nm)	0.015221	ppm	0.000061	0.40	2907.080000	Y_R 488.368
Be (234.861 nm)	-0.000018 u	ppm	0.000002	13.32	-8.431560	Y_R 488.368
Bi (223.061 nm)	0.000472 u	ppm	0.001754	> 100.00	-14.352700	Y 377.433
Ca (315.887 nm)	100.750618	ppm	0.058609	0.06	81277.910458	Y_R 377.433
Cd (214.439 nm)	0.000224	ppm	0.000047	20.80	1.259640	Y 377.433
Co (228.615 nm)	0.000381	ppm	0.000311	81.71	-12.745200	Y 242.219
Cr (205.560 nm)	0.001046	ppm	0.000082	7.88	1.425830	Y 377.433
Cu (324.754 nm)	-0.000471 u	ppm	0.000173	36.63	334.027000	Y 377.433
Fe (238.204 nm)	0.196153	ppm	0.001879	0.96	486.404741	Y_R 377.433
Fe H (259.940 nm)	0.133379 u	ppm	0.008015	6.01	277.247000	Y_R 377.433
K (766.491 nm)	22.193400	ppm	0.074402	0.34	24009.200000	Y_R2 488.368
Li (670.783 nm)	0.313051	ppm	0.001151	0.37	2819.890000	Y_R2 488.368
Mg (279.078 nm)	117.812000	ppm	0.290947	0.25	417438.000000	Y 377.433
Mn (257.610 nm)	0.005195	ppm	0.000007	0.14	1414.910000	Y 377.433
Mo (202.032 nm)	0.000276	ppm	0.000247	89.41	26.896400	Y 377.433
Na (589.592 nm)	775.226000 o	ppm	7.578500	0.98	574368.000000	Y_R2 488.368
Na H (589.593 nm)	913.054479	ppm	8.852818	0.97	454427.450610	Y_R4
Ni (231.604 nm)	0.004230	ppm	0.000236	5.59	12.274900	Y 377.433
P (213.618 nm)	0.006034	ppm	0.003600	59.65	4.180570	Y 242.219
Pb (220.353 nm)	-0.000703 u	ppm	0.000224	31.93	10.534900	Y 242.219
S (181.972 nm)	518.203632 bo	ppm	2.542008	0.49	232796.627969	Y 377.433
Sb (206.834 nm)	-0.000381 u	ppm	0.004642	> 100.00	-8.194570	Y 377.433
Se (196.026 nm)	0.001620	ppm	0.001852	> 100.00	13.161700	Y 242.219
Si (288.158 nm)	4.295780	ppm	0.003872	0.09	28844.300000	Y 377.433
Sn (189.925 nm)	0.001729	ppm	0.000846	48.95	5.252140	Y 377.433
Sr (421.552 nm)	2.613432	ppm	0.008572	0.33	382261.477239	Y_R 488.368
Th (288.505 nm)	0.008331	ppm	0.005309	63.73	26.485400	Y 377.433
Ti (336.122 nm)	0.000010 u	ppm	0.000034	> 100.00	-157.462000	Y 377.433
Tl (190.794 nm)	0.002829	ppm	0.000057	2.01	2.715800	Y 377.433
U (409.013 nm)	0.009839	ppm	0.005442	55.31	-24.091700	Y 377.433
V (292.401 nm)	0.001925	ppm	0.000084	4.35	-78.190600	Y 377.433
Zn (206.200 nm)	0.011607	ppm	0.001421	12.25	61.454400	Y 377.433
Zr (343.823 nm)	0.001283	ppm	0.000252	19.63	-100.529000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.078915	24159.567786	0.003925	0.36
Y 377.433	1.092337	705787.706505	0.004589	0.42
Y_R 377.433	1.149010	63253.600000	0.004773	0.42
Y_R 488.368	1.142010	55189.900000	0.004311	0.38
Y_R2 488.368	1.128983	104639.132336	0.013239	1.17
Y_R4	1.140020	48815.000000	0.002666	0.23

Sample Name: 280-123787-a-5-a

Date: 5/24/2019 12:06:57 AM Rack:Tube: 2:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001928	ppm	0.000101	5.22	-178.682000	Y 377.433
Al (394.401 nm)	-0.030372 u	ppm	0.000164	0.54	409.022000	Y 377.433
Al H (396.152 nm)	-0.353605 u	ppm	0.000627	0.18	30.251600	Y_R 377.433
As (188.980 nm)	-0.000352 u	ppm	0.001588	> 100.00	-1.867090	Y 242.219
B (249.678 nm)	0.150788	ppm	0.000739	0.49	1117.790000	Y 242.219
Ba (493.408 nm)	0.014018	ppm	0.000045	0.32	2790.400000	Y_R 488.368
Be (234.861 nm)	0.000000 u	ppm	0.000013	> 100.00	-5.798680	Y_R 488.368
Bi (223.061 nm)	0.004287	ppm	0.001638	38.20	-5.684080	Y 377.433
Ca (315.887 nm)	98.670952	ppm	0.129639	0.13	79598.920796	Y_R 377.433
Cd (214.439 nm)	0.000342	ppm	0.000010	2.88	5.896420	Y 377.433
Co (228.615 nm)	0.000335	ppm	0.000307	91.50	-13.859600	Y 242.219
Cr (205.560 nm)	0.000316	ppm	0.000059	18.63	-3.744840	Y 377.433
Cu (324.754 nm)	-0.000359 u	ppm	0.000195	54.34	340.100000	Y 377.433
Fe (238.204 nm)	0.021015	ppm	0.000942	4.48	54.731150	Y_R 377.433
Fe H (259.940 nm)	-0.041438 u	ppm	0.001010	2.44	32.808600	Y_R 377.433
K (766.491 nm)	21.737000	ppm	0.177197	0.82	23556.200000	Y_R2 488.368
Li (670.783 nm)	0.310089	ppm	0.002120	0.68	2768.310000	Y_R2 488.368
Mg (279.078 nm)	114.865000	ppm	0.091662	0.08	406996.000000	Y 377.433
Mn (257.610 nm)	0.004752	ppm	0.000012	0.24	1292.260000	Y 377.433
Mo (202.032 nm)	0.000145 u	ppm	0.000577	> 100.00	25.229700	Y 377.433
Na (589.592 nm)	752.128000 o	ppm	0.060583	0.01	557258.000000	Y_R2 488.368
Na H (589.593 nm)	885.896058	ppm	6.498155	0.73	440920.440379	Y_R4
Ni (231.604 nm)	0.004318	ppm	0.000165	3.83	12.764200	Y 377.433
P (213.618 nm)	0.003765	ppm	0.001403	37.27	0.709922	Y 242.219
Pb (220.353 nm)	-0.000930 u	ppm	0.000501	53.81	9.766410	Y 242.219
S (181.972 nm)	506.607448 bo	ppm	1.773266	0.35	227587.367232	Y 377.433
Sb (206.834 nm)	-0.000765 u	ppm	0.000116	15.12	-8.894780	Y 377.433
Se (196.026 nm)	-0.000821 u	ppm	0.003102	> 100.00	9.243670	Y 242.219
Si (288.158 nm)	4.205760	ppm	0.010614	0.25	28250.500000	Y 377.433
Sn (189.925 nm)	-0.000176 u	ppm	0.001208	> 100.00	1.929650	Y 377.433
Sr (421.552 nm)	2.554605	ppm	0.005201	0.20	373658.054487	Y_R 488.368
Th (288.505 nm)	0.008580	ppm	0.000947	11.04	27.028800	Y 377.433
Ti (336.122 nm)	0.000183	ppm	0.000021	11.39	-141.976000	Y 377.433
Tl (190.794 nm)	0.001270	ppm	0.000579	45.62	-0.952652	Y 377.433
U (409.013 nm)	0.011186	ppm	0.009385	83.90	-19.713800	Y 377.433
V (292.401 nm)	0.001980	ppm	0.000027	1.34	-75.050400	Y 377.433
Zn (206.200 nm)	0.011090	ppm	0.000511	4.61	58.858700	Y 377.433
Zr (343.823 nm)	0.001120	ppm	0.000114	10.17	-109.935000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.079895	24181.503799	0.001470	0.14
Y 377.433	1.093739	706693.493967	0.000326	0.03
Y_R 377.433	1.173210	64585.700000	0.003901	0.33
Y_R 488.368	1.168120	56451.900000	0.003080	0.26
Y_R2 488.368	1.147444	106350.212426	0.004208	0.37
Y_R4	1.166180	49935.300000	0.003355	0.29

Sample Name: CCVH-5713036

Date: 5/24/2019 12:10:37 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004179	ppm	0.000209	5.00	-109.573000	Y 377.433
Al (394.401 nm)	49.325300 o	ppm	0.015855	0.03	588274.000000	Y 377.433
Al H (396.152 nm)	49.136800	ppm	0.062553	0.13	101033.000000	Y_R 377.433
As (188.980 nm)	0.001998	ppm	0.002136	> 100.00	0.471408	Y 242.219
B (249.678 nm)	-0.003455 u	ppm	0.000921	26.66	-16.167800	Y 242.219
Ba (493.408 nm)	-0.000123 u	ppm	0.000597	> 100.00	1458.690000	Y_R 488.368
Be (234.861 nm)	0.001134	ppm	0.000057	5.07	-104.103000	Y_R 488.368
Bi (223.061 nm)	0.014670	ppm	0.002657	18.11	26.786800	Y 377.433
Ca (315.887 nm)	0.010757	ppm	0.003939	36.61	-40.847173	Y_R 377.433
Cd (214.439 nm)	0.001476	ppm	0.000136	9.18	72.882400	Y 377.433
Co (228.615 nm)	0.003384	ppm	0.000075	2.22	61.532700	Y 242.219
Cr (205.560 nm)	0.002067	ppm	0.000055	2.67	7.276320	Y 377.433
Cu (324.754 nm)	0.003274	ppm	0.000402	12.27	1494.310000	Y 377.433
Fe (238.204 nm)	48.728556 o	ppm	0.097775	0.20	120107.009950	Y_R 377.433
Fe H (259.940 nm)	49.203400	ppm	0.136739	0.28	68889.300000	Y_R 377.433
K (766.491 nm)	-0.036087 u	ppm	0.019696	54.58	1945.770000	Y_R2 488.368
Li (670.783 nm)	0.023545	ppm	0.006180	26.25	-2221.470000	Y_R2 488.368
Mg (279.078 nm)	0.039947	ppm	0.000632	1.58	74.265100	Y 377.433
Mn (257.610 nm)	0.001003	ppm	0.000050	5.00	255.309000	Y 377.433
Mo (202.032 nm)	0.000275 u	ppm	0.000840	> 100.00	26.883000	Y 377.433
Na (589.592 nm)	240.446000 o	ppm	0.122002	0.05	178222.000000	Y_R2 488.368
Na H (589.593 nm)	252.553495	ppm	1.320489	0.52	125932.887197	Y_R4
Ni (231.604 nm)	0.002513	ppm	0.000408	16.24	2.675590	Y 377.433
P (213.618 nm)	4.902190	ppm	0.004540	0.09	7409.420000	Y 242.219
Pb (220.353 nm)	0.003683	ppm	0.000238	6.47	18.205600	Y 242.219
S (181.972 nm)	5.100243	ppm	0.001670	0.03	2298.859334	Y 377.433
Sb (206.834 nm)	0.005143	ppm	0.003240	63.00	5.868880	Y 377.433
Se (196.026 nm)	0.006170	ppm	0.003780	61.26	6.968840	Y 242.219
Si (288.158 nm)	0.014561	ppm	0.001305	8.96	604.093000	Y 377.433
Sn (189.925 nm)	0.002112	ppm	0.000597	28.24	5.920230	Y 377.433
Sr (421.552 nm)	0.001215	ppm	0.000105	8.66	232.718690	Y_R 488.368
Th (288.505 nm)	4.903200	ppm	0.001450	0.03	8567.650000	Y 377.433
Ti (336.122 nm)	0.002464	ppm	0.000104	4.24	-185.220000	Y 377.433
Tl (190.794 nm)	-0.000178 u	ppm	0.001154	> 100.00	-5.278600	Y 377.433
U (409.013 nm)	0.552068 Q	ppm	0.007468	1.35	1723.430000 Q	Y 377.433
V (292.401 nm)	0.001619	ppm	0.000150	9.29	401.860000	Y 377.433
Zn (206.200 nm)	0.002892	ppm	0.000182	6.28	25.719200	Y 377.433
Zr (343.823 nm)	0.001667	ppm	0.000144	8.65	-78.427900	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.142133	25575.184653	0.002237	0.20
Y 377.433	1.146383	740708.465837	0.001552	0.14
Y_R 377.433	1.192070	65624.200000	0.002580	0.22
Y_R 488.368	1.185130	57273.700000	0.001210	0.10
Y_R2 488.368	1.179341	109306.607551	0.008078	0.68
Y_R4	1.218340	52168.800000	0.013220	1.09

Sample Name: CCV-5717467

Date: 5/24/2019 12:14:22 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.491972	ppm	0.000094	0.02	17003.600000	Y 377.433
Al (394.401 nm)	0.505032	ppm	0.002380	0.47	6287.190000	Y 377.433
Al H (396.152 nm)	0.547946 u	ppm	0.005802	1.06	1136.290000	Y_R 377.433
As (188.980 nm)	0.491250	ppm	0.000262	0.05	781.374000	Y 242.219
B (249.678 nm)	0.481626	ppm	0.000068	0.01	3487.530000	Y 242.219
Ba (493.408 nm)	0.486459	ppm	0.000523	0.11	48554.300000	Y_R 488.368
Be (234.861 nm)	0.479684	ppm	0.002416	0.50	48349.200000	Y_R 488.368
Bi (223.061 nm)	0.966818	ppm	0.001093	0.11	2190.250000	Y 377.433
Ca (315.887 nm)	4.881173	ppm	0.005211	0.11	3878.918514	Y_R 377.433
Cd (214.439 nm)	0.493615	ppm	0.000625	0.13	19743.400000	Y 377.433
Co (228.615 nm)	0.489114	ppm	0.000008	0.00	12093.300000	Y 242.219
Cr (205.560 nm)	0.488072	ppm	0.000633	0.13	3449.000000	Y 377.433
Cu (324.754 nm)	0.488848	ppm	0.004535	0.93	23109.700000	Y 377.433
Fe (238.204 nm)	2.459009	ppm	0.000197	0.01	6063.796145	Y_R 377.433
Fe H (259.940 nm)	2.427700 u	ppm	0.000622	0.03	3485.270000	Y_R 377.433
K (766.491 nm)	49.104500	ppm	0.224870	0.46	50719.200000	Y_R2 488.368
Li (670.783 nm)	0.513526	ppm	0.005705	1.11	6310.880000	Y_R2 488.368
Mg (279.078 nm)	19.648000	ppm	0.007617	0.04	69624.400000	Y 377.433
Mn (257.610 nm)	0.490223	ppm	0.000385	0.08	135574.000000	Y 377.433
Mo (202.032 nm)	0.486890	ppm	0.000471	0.10	6218.880000	Y 377.433
Na (589.592 nm)	24.314400	ppm	0.080803	0.33	18220.600000	Y_R2 488.368
Na H (589.593 nm)	27.661760 u	ppm	0.114233	0.41	14084.889547	Y_R4
Ni (231.604 nm)	0.492290	ppm	0.001400	0.28	2740.400000	Y 377.433
P (213.618 nm)	0.056185	ppm	0.004136	7.36	-59.180200	Y 242.219
Pb (220.353 nm)	0.492993	ppm	0.001496	0.30	1704.150000	Y 242.219
S (181.972 nm)	0.035380	ppm	0.002764	7.81	25.391918	Y 377.433
Sb (206.834 nm)	0.495213	ppm	0.004378	0.88	863.949000	Y 377.433
Se (196.026 nm)	0.495703	ppm	0.000700	0.14	816.321000	Y 242.219
Si (288.158 nm)	4.824850	ppm	0.017489	0.36	32334.300000	Y 377.433
Sn (189.925 nm)	0.493383	ppm	0.002527	0.51	862.802000	Y 377.433
Sr (421.552 nm)	0.489680	ppm	0.000459	0.09	71663.858654	Y_R 488.368
Th (288.505 nm)	0.016998	ppm	0.002376	13.98	-5.696490	Y 377.433
Ti (336.122 nm)	0.486984	ppm	0.000186	0.04	62830.900000	Y 377.433
Tl (190.794 nm)	0.500086	ppm	0.000128	0.03	1208.210000	Y 377.433
U (409.013 nm)	0.017834	ppm	0.000465	2.61	-44.617500	Y 377.433
V (292.401 nm)	0.486224	ppm	0.000105	0.02	25461.500000	Y 377.433
Zn (206.200 nm)	0.494262	ppm	0.000211	0.04	2457.290000	Y 377.433
Zr (343.823 nm)	0.486448	ppm	0.000280	0.06	27874.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155803	25881.286744	0.002708	0.23
Y 377.433	1.155862	746832.815875	0.001215	0.11
Y_R 377.433	1.183190	65135.100000	0.004831	0.41
Y_R 488.368	1.178180	56937.800000	0.004646	0.39
Y_R2 488.368	1.168160	108270.314113	0.000745	0.06
Y_R4	1.191750	51030.200000	0.005049	0.42

Sample Name: CCB

Date: 5/24/2019 12:17:57 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000740	ppm	0.000310	41.81	-219.750000	Y 377.433
Al (394.401 nm)	-0.002760 u	ppm	0.000157	5.70	97.109500	Y 377.433
Al H (396.152 nm)	0.126366 Zu	ppm	0.001148	0.91	34.765000 Z	Y_R 377.433
As (188.980 nm)	-0.001051 u	ppm	0.000404	38.42	-2.980360	Y 242.219
B (249.678 nm)	-0.003287 u	ppm	0.000690	20.99	13.524100	Y 242.219
Ba (493.408 nm)	-0.002608 Zu	ppm	0.000017	0.65	1180.010000 Z	Y_R 488.368
Be (234.861 nm)	0.000022 u	ppm	0.000087	> 100.00	-3.505110	Y_R 488.368
Bi (223.061 nm)	0.001336 u	ppm	0.003568	> 100.00	-12.467700	Y 377.433
Ca (315.887 nm)	0.009721	ppm	0.001820	18.72	-54.127441	Y_R 377.433
Cd (214.439 nm)	0.000063	ppm	0.000001	1.91	-5.276250	Y 377.433
Co (228.615 nm)	0.000049 u	ppm	0.000141	> 100.00	-20.969600	Y 242.219
Cr (205.560 nm)	-0.000088 u	ppm	0.000260	> 100.00	-6.585360	Y 377.433
Cu (324.754 nm)	-0.000182 u	ppm	0.000260	> 100.00	402.893000	Y 377.433
Fe (238.204 nm)	0.000619	ppm	0.000349	56.33	4.459264	Y_R 377.433
Fe H (259.940 nm)	-0.054805 u	ppm	0.002286	4.17	14.118800	Y_R 377.433
K (766.491 nm)	-0.212738 u	ppm	0.147680	69.42	1770.440000	Y_R2 488.368
Li (670.783 nm)	0.020657 Z	ppm	0.001243	6.02	-2271.750000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003197	ppm	0.000733	22.91	23.224100	Y 377.433
Mn (257.610 nm)	0.000098	ppm	0.000034	34.61	5.102670	Y 377.433
Mo (202.032 nm)	-0.000860 u	ppm	0.000036	4.17	12.443900	Y 377.433
Na (589.592 nm)	0.232593	ppm	0.003203	1.38	282.100000	Y_R2 488.368
Na H (589.593 nm)	1.706363 u	ppm	0.018810	1.10	1176.192943	Y_R4
Ni (231.604 nm)	-0.000800 u	ppm	0.000415	51.85	-15.838500	Y 377.433
P (213.618 nm)	0.001197	ppm	0.001617	> 100.00	-2.546480	Y 242.219
Pb (220.353 nm)	-0.001812 u	ppm	0.000341	18.79	6.678020	Y 242.219
S (181.972 nm)	0.012153	ppm	0.002822	23.22	13.214755	Y 377.433
Sb (206.834 nm)	0.003396	ppm	0.000881	25.94	-1.543060	Y 377.433
Se (196.026 nm)	-0.004000 u	ppm	0.001923	48.07	4.075050	Y 242.219
Si (288.158 nm)	-0.007384 u	ppm	0.000208	2.81	459.339000	Y 377.433
Sn (189.925 nm)	0.000222 u	ppm	0.000363	> 100.00	2.624400	Y 377.433
Sr (421.552 nm)	-0.000246 u	ppm	0.000050	20.26	11.917654	Y_R 488.368
Th (288.505 nm)	-0.001865 u	ppm	0.001048	56.21	11.269400	Y 377.433
Ti (336.122 nm)	0.000733	ppm	0.000142	19.32	-410.433000	Y 377.433
Tl (190.794 nm)	0.000254 u	ppm	0.000866	> 100.00	0.736015	Y 377.433
U (409.013 nm)	0.005814	ppm	0.006895	> 100.00	-23.561000	Y 377.433
V (292.401 nm)	0.000577	ppm	0.000247	42.87	-149.746000	Y 377.433
Zn (206.200 nm)	-0.000191 u	ppm	0.000214	> 100.00	2.866560	Y 377.433
Zr (343.823 nm)	0.000493	ppm	0.000114	23.23	-146.106000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.168068	26155.914690	0.002949	0.25
Y 377.433	1.167173	754141.395938	0.000981	0.08
Y_R 377.433	1.179310	64921.200000	0.002464	0.21
Y_R 488.368	1.174370	56753.800000	0.004935	0.42
Y_R2 488.368	1.164086	107892.671897	0.001501	0.13
Y_R4	1.187440	50845.500000	0.002781	0.23

Sample Name: CCVL-5717307

Date: 5/24/2019 12:21:10 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008201	ppm	0.000238	2.90	40.688400	Y 377.433
Al (394.401 nm)	0.094272	ppm	0.000261	0.28	1263.730000	Y 377.433
Al H (396.152 nm)	0.222340 u	ppm	0.001912	0.86	237.751000	Y_R 377.433
As (188.980 nm)	0.013961	ppm	0.000709	5.08	20.936300	Y 242.219
B (249.678 nm)	0.089645	ppm	0.000512	0.57	679.525000	Y 242.219
Ba (493.408 nm)	0.007601	ppm	0.000386	5.08	2168.960000	Y_R 488.368
Be (234.861 nm)	0.000985	ppm	0.000060	6.10	93.109300	Y_R 488.368
Bi (223.061 nm)	0.085241	ppm	0.001452	1.70	178.934000	Y 377.433
Ca (315.887 nm)	0.216121	ppm	0.001377	0.64	112.530663	Y_R 377.433
Cd (214.439 nm)	0.005088	ppm	0.000023	0.46	195.835000	Y 377.433
Co (228.615 nm)	0.010515	ppm	0.000181	1.72	238.258000	Y 242.219
Cr (205.560 nm)	0.009755	ppm	0.000096	0.98	62.982500	Y 377.433
Cu (324.754 nm)	0.015092	ppm	0.000056	0.37	1111.930000	Y 377.433
Fe (238.204 nm)	0.100747	ppm	0.000483	0.48	251.250832	Y_R 377.433
Fe H (259.940 nm)	0.046969 u	ppm	0.003859	8.22	156.423000	Y_R 377.433
K (766.491 nm)	2.736710	ppm	0.017433	0.64	4697.850000	Y_R2 488.368
Li (670.783 nm)	0.042521 Q	ppm	0.004799	11.29	-1891.030000 Q	Y_R2 488.368
Mg (279.078 nm)	0.201812	ppm	0.002315	1.15	725.531000	Y 377.433
Mn (257.610 nm)	0.010431	ppm	0.000036	0.34	2863.210000	Y 377.433
Mo (202.032 nm)	0.018635	ppm	0.000346	1.85	260.510000	Y 377.433
Na (589.592 nm)	1.249230	ppm	0.060392	4.83	1037.360000	Y_R2 488.368
Na H (589.593 nm)	2.340288 u	ppm	0.031792	1.36	1491.470266	Y_R4
Ni (231.604 nm)	0.041361	ppm	0.000637	1.54	219.792000	Y 377.433
P (213.618 nm)	2.759890	ppm	0.001576	0.06	4167.690000	Y 242.219
Pb (220.353 nm)	0.007893	ppm	0.002426	30.74	40.122900	Y 242.219
S (181.972 nm)	0.104441	ppm	0.003996	3.83	54.709232	Y 377.433
Sb (206.834 nm)	0.022681	ppm	0.000902	3.97	32.349600	Y 377.433
Se (196.026 nm)	0.016803	ppm	0.001270	7.56	37.874300	Y 242.219
Si (288.158 nm)	0.465852	ppm	0.001030	0.22	3580.950000	Y 377.433
Sn (189.925 nm)	0.096059	ppm	0.000884	0.92	169.783000	Y 377.433
Sr (421.552 nm)	0.009040	ppm	0.000100	1.11	1370.010434	Y_R 488.368
Th (288.505 nm)	0.016086	ppm	0.003971	24.69	42.115100	Y 377.433
Ti (336.122 nm)	0.010174	ppm	0.000135	1.32	817.844000	Y 377.433
Tl (190.794 nm)	0.015966	ppm	0.000295	1.85	38.676200	Y 377.433
U (409.013 nm)	0.062894	ppm	0.001597	2.54	154.057000	Y 377.433
V (292.401 nm)	0.010478	ppm	0.000070	0.67	369.810000	Y 377.433
Zn (206.200 nm)	0.020545	ppm	0.000546	2.66	105.798000	Y 377.433
Zr (343.823 nm)	0.010261	ppm	0.000131	1.28	417.125000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.174573	26301.584412	0.002789	0.24
Y 377.433	1.173827	758440.459198	0.003698	0.32
Y_R 377.433	1.188980	65453.600000	0.004182	0.35
Y_R 488.368	1.182920	57166.800000	0.004906	0.41
Y_R2 488.368	1.166582	108124.053391	0.002059	0.18
Y_R4	1.187630	50853.600000	0.004637	0.39

Sample Name: 280-123787-a-6-a

Date: 5/24/2019 12:24:37 AM Rack:Tube: 2:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001941	ppm	0.000519	26.76	-177.886000	Y 377.433
Al (394.401 nm)	-0.027326 u	ppm	0.000200	0.73	468.633000	Y 377.433
Al H (396.152 nm)	-0.376263 u	ppm	0.002187	0.58	22.260100	Y_R 377.433
As (188.980 nm)	0.002065	ppm	0.001301	63.02	1.982390	Y 242.219
B (249.678 nm)	0.159123	ppm	0.000092	0.06	1177.500000	Y 242.219
Ba (493.408 nm)	0.018228	ppm	0.000080	0.44	3198.290000	Y_R 488.368
Be (234.861 nm)	-0.000018 u	ppm	0.000056	> 100.00	-7.814770	Y_R 488.368
Bi (223.061 nm)	0.001725	ppm	0.002162	> 100.00	-11.516400	Y 377.433
Ca (315.887 nm)	104.991753	ppm	0.018252	0.02	84701.954095	Y_R 377.433
Cd (214.439 nm)	0.000210	ppm	0.000110	52.23	0.631895	Y 377.433
Co (228.615 nm)	0.000016 u	ppm	0.000264	> 100.00	-21.752500	Y 242.219
Cr (205.560 nm)	0.000590	ppm	0.000669	> 100.00	-1.803880	Y 377.433
Cu (324.754 nm)	-0.000938 u	ppm	0.000582	62.10	311.009000	Y 377.433
Fe (238.204 nm)	0.069969	ppm	0.002264	3.24	175.391844	Y_R 377.433
Fe H (259.940 nm)	-0.003376 u	ppm	0.002377	70.42	86.028800	Y_R 377.433
K (766.491 nm)	22.988200	ppm	0.039962	0.17	24798.100000	Y_R2 488.368
Li (670.783 nm)	0.322697	ppm	0.000616	0.19	2987.860000	Y_R2 488.368
Mg (279.078 nm)	118.895000	ppm	0.024389	0.02	421277.000000	Y 377.433
Mn (257.610 nm)	0.018068	ppm	0.000012	0.06	4975.490000	Y 377.433
Mo (202.032 nm)	0.000206	ppm	0.000198	96.07	26.009100	Y 377.433
Na (589.592 nm)	809.711000 o	ppm	1.769900	0.22	599913.000000	Y_R2 488.368
Na H (589.593 nm)	964.251189	ppm	2.567121	0.27	479889.699917	Y_R4
Ni (231.604 nm)	0.003771	ppm	0.000273	7.23	9.709190	Y 377.433
P (213.618 nm)	0.002461	ppm	0.003127	> 100.00	-1.272560	Y 242.219
Pb (220.353 nm)	-0.002026 u	ppm	0.000424	20.91	5.965990	Y 242.219
S (181.972 nm)	523.792158 bo	ppm	0.383420	0.07	235307.302978	Y 377.433
Sb (206.834 nm)	-0.000224 u	ppm	0.000402	> 100.00	-7.931670	Y 377.433
Se (196.026 nm)	-0.000568 u	ppm	0.000667	> 100.00	9.661050	Y 242.219
Si (288.158 nm)	4.300090	ppm	0.006520	0.15	28872.800000	Y 377.433
Sn (189.925 nm)	0.000347	ppm	0.000173	49.95	2.841430	Y 377.433
Sr (421.552 nm)	2.658915	ppm	0.003475	0.13	388913.336193	Y_R 488.368
Th (288.505 nm)	0.008059	ppm	0.004994	61.97	26.219100	Y 377.433
Ti (336.122 nm)	0.000090	ppm	0.000058	63.68	-133.115000	Y 377.433
Tl (190.794 nm)	0.003049	ppm	0.001976	64.80	3.094820	Y 377.433
U (409.013 nm)	0.003186	ppm	0.001654	51.91	-45.538200	Y 377.433
V (292.401 nm)	0.001625	ppm	0.000093	5.70	-93.251600	Y 377.433
Zn (206.200 nm)	0.014646	ppm	0.000737	5.03	76.517600	Y 377.433
Zr (343.823 nm)	0.001166	ppm	0.000324	27.78	-107.277000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.074471	24060.051266	0.005630	0.52
Y 377.433	1.086875	702258.641350	0.004921	0.45
Y_R 377.433	1.158850	63795.400000	0.007350	0.63
Y_R 488.368	1.153980	55768.500000	0.007430	0.64
Y_R2 488.368	1.134857	105183.645104	0.000395	0.03
Y_R4	1.152770	49360.900000	0.002263	0.20

Sample Name: mb 280-459078/1-a

Date: 5/24/2019 12:28:16 AM Rack:Tube: 2:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000229	ppm	0.000070	30.78	-237.739000	Y 377.433
Al (394.401 nm)	-0.002613 u	ppm	0.000495	18.94	98.430100	Y 377.433
Al H (396.152 nm)	0.125920 u	ppm	0.006582	5.23	33.947400	Y_R 377.433
As (188.980 nm)	-0.000830 u	ppm	0.001918	> 100.00	-2.627380	Y 242.219
B (249.678 nm)	-0.003307 u	ppm	0.000289	8.75	13.378200	Y 242.219
Ba (493.408 nm)	-0.003009 u	ppm	0.000206	6.84	1141.140000	Y_R 488.368
Be (234.861 nm)	-0.000002 u	ppm	0.000009	> 100.00	-5.948270	Y_R 488.368
Bi (223.061 nm)	0.001223	ppm	0.000021	1.70	-12.725800	Y 377.433
Ca (315.887 nm)	0.020081	ppm	0.002548	12.69	-45.763549	Y_R 377.433
Cd (214.439 nm)	0.000064	ppm	0.000025	38.73	-5.217180	Y 377.433
Co (228.615 nm)	0.000164	ppm	0.000006	3.61	-18.103800	Y 242.219
Cr (205.560 nm)	-0.000191 u	ppm	0.000290	> 100.00	-7.320450	Y 377.433
Cu (324.754 nm)	-0.000425 u	ppm	0.000187	44.04	392.016000	Y 377.433
Fe (238.204 nm)	0.006024	ppm	0.000197	3.27	17.782149	Y_R 377.433
Fe H (259.940 nm)	-0.046500 u	ppm	0.000681	1.46	25.731500	Y_R 377.433
K (766.491 nm)	-0.274196 u	ppm	0.018544	6.76	1709.440000	Y_R2 488.368
Li (670.783 nm)	0.025392	ppm	0.002118	8.34	-2189.300000	Y_R2 488.368
Mg (279.078 nm)	0.004761	ppm	0.001398	29.35	28.747600	Y 377.433
Mn (257.610 nm)	0.000127	ppm	0.000028	22.27	13.228100	Y 377.433
Mo (202.032 nm)	-0.000565 u	ppm	0.000060	10.59	16.194200	Y 377.433
Na (589.592 nm)	0.408024	ppm	0.038520	9.44	411.956000	Y_R2 488.368
Na H (589.593 nm)	2.204458 u	ppm	0.040029	1.82	1423.916443	Y_R4
Ni (231.604 nm)	0.000085 u	ppm	0.000282	> 100.00	-10.891600	Y 377.433
P (213.618 nm)	-0.002076 u	ppm	0.003382	> 100.00	-7.472380	Y 242.219
Pb (220.353 nm)	-0.001505 u	ppm	0.000991	65.85	7.731330	Y 242.219
S (181.972 nm)	0.026250	ppm	0.009077	34.58	19.547539	Y 377.433
Sb (206.834 nm)	0.001389	ppm	0.001100	79.19	-5.087350	Y 377.433
Se (196.026 nm)	-0.003266 u	ppm	0.001758	53.82	5.266090	Y 242.219
Si (288.158 nm)	-0.009498 u	ppm	0.000305	3.21	445.388000	Y 377.433
Sn (189.925 nm)	0.000782	ppm	0.000148	18.91	3.600650	Y 377.433
Sr (421.552 nm)	-0.000023 u	ppm	0.000026	> 100.00	44.486281	Y_R 488.368
Th (288.505 nm)	-0.000732 u	ppm	0.001303	> 100.00	13.252000	Y 377.433
Ti (336.122 nm)	0.000692	ppm	0.000114	16.53	-415.713000	Y 377.433
Tl (190.794 nm)	0.000437 u	ppm	0.000893	> 100.00	1.174040	Y 377.433
U (409.013 nm)	0.002350 u	ppm	0.003788	> 100.00	-34.434200	Y 377.433
V (292.401 nm)	0.000584	ppm	0.000167	28.68	-149.350000	Y 377.433
Zn (206.200 nm)	0.000522	ppm	0.000086	16.46	6.407680	Y 377.433
Zr (343.823 nm)	0.000687	ppm	0.000047	6.88	-134.891000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.193024	26714.756366	0.001584	0.13
Y 377.433	1.191738	770013.083460	0.003616	0.30
Y_R 377.433	1.212280	66736.300000	0.001607	0.13
Y_R 488.368	1.208360	58396.500000	0.001257	0.10
Y_R2 488.368	1.203094	111508.132704	0.003034	0.25
Y_R4	1.207680	51712.400000	0.004088	0.34

Sample Name: lcs 280-459078/2-a

Date: 5/24/2019 12:31:28 AM Rack:Tube: 2:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.053190	ppm	0.000089	0.17	1308.190000	Y 377.433
Al (394.401 nm)	10.092500 o	ppm	0.007492	0.07	120979.000000	Y 377.433
Al H (396.152 nm)	10.072400	ppm	0.023281	0.23	21005.600000	Y_R 377.433
As (188.980 nm)	2.041750	ppm	0.004023	0.20	3251.700000	Y 242.219
B (249.678 nm)	1.005610	ppm	0.002081	0.21	7238.530000	Y 242.219
Ba (493.408 nm)	2.029260	ppm	0.001677	0.08	198001.000000	Y_R 488.368
Be (234.861 nm)	1.000710	ppm	0.007242	0.72	100850.000000	Y_R 488.368
Bi (223.061 nm)	1.976110	ppm	0.002280	0.12	4493.730000	Y 377.433
Ca (315.887 nm)	49.978995	ppm	0.121942	0.24	40290.595356	Y_R 377.433
Cd (214.439 nm)	0.999000	ppm	0.000972	0.10	39967.900000	Y 377.433
Co (228.615 nm)	0.987478	ppm	0.001420	0.14	24439.400000	Y 242.219
Cr (205.560 nm)	1.002780	ppm	0.005726	0.57	7092.240000	Y 377.433
Cu (324.754 nm)	0.996933	ppm	0.001689	0.17	46761.600000	Y 377.433
Fe (238.204 nm)	10.149245 o	ppm	0.019489	0.19	25018.363433	Y_R 377.433
Fe H (259.940 nm)	10.201000	ppm	0.026701	0.26	14354.300000	Y_R 377.433
K (766.491 nm)	51.351700	ppm	0.086384	0.17	52949.600000	Y_R2 488.368
Li (670.783 nm)	1.045510	ppm	0.003101	0.30	15574.600000	Y_R2 488.368
Mg (279.078 nm)	50.619500	ppm	0.077428	0.15	179317.000000	Y 377.433
Mn (257.610 nm)	1.011160	ppm	0.000468	0.05	279665.000000	Y 377.433
Mo (202.032 nm)	1.015180	ppm	0.000004	0.00	12941.200000	Y 377.433
Na (589.592 nm)	49.548300	ppm	0.049891	0.10	37229.300000	Y_R2 488.368
Na H (589.593 nm)	54.346147	ppm	0.284267	0.52	27356.143218	Y_R4
Ni (231.604 nm)	0.989509	ppm	0.001696	0.17	5520.970000	Y 377.433
P (213.618 nm)	20.501900	ppm	0.039569	0.19	30735.400000	Y 242.219
Pb (220.353 nm)	1.005020	ppm	0.003573	0.36	3464.010000	Y 242.219
S (181.972 nm)	10.364351	ppm	0.023803	0.23	4669.072191	Y 377.433
Sb (206.834 nm)	1.081770	ppm	0.007994	0.74	1897.320000	Y 377.433
Se (196.026 nm)	2.019130	ppm	0.010789	0.53	3290.900000	Y 242.219
Si (288.158 nm)	2.051960	ppm	0.000656	0.03	14043.400000	Y 377.433
Sn (189.925 nm)	2.002500	ppm	0.006137	0.31	3495.020000	Y 377.433
Sr (421.552 nm)	1.016953	ppm	0.001043	0.10	148778.415948	Y_R 488.368
Th (288.505 nm)	1.032180	ppm	0.002745	0.27	1720.600000	Y 377.433
Ti (336.122 nm)	1.015010	ppm	0.001409	0.14	131642.000000	Y 377.433
Tl (190.794 nm)	2.001390	ppm	0.000788	0.04	4839.210000	Y 377.433
U (409.013 nm)	2.037910	ppm	0.004671	0.23	6282.090000	Y 377.433
V (292.401 nm)	1.003200	ppm	0.000250	0.02	52730.900000	Y 377.433
Zn (206.200 nm)	0.496778	ppm	0.001111	0.22	2470.970000	Y 377.433
Zr (343.823 nm)	0.503008	ppm	0.000468	0.09	28829.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148964	25728.137216	0.006301	0.55
Y 377.433	1.158002	748215.623253	0.006137	0.53
Y_R 377.433	1.197730	65935.700000	0.004136	0.35
Y_R 488.368	1.189820	57500.600000	0.003534	0.30
Y_R2 488.368	1.179691	109339.032541	0.003782	0.32
Y_R4	1.213360	51955.400000	0.003758	0.31

Sample Name: 280-123149-a-2-a

Date: 5/24/2019 12:35:07 AM Rack:Tube: 2:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001500	ppm	0.000020	1.36	-193.447000	Y 377.433
Al (394.401 nm)	-0.123180 u	ppm	0.000152	0.12	547.785000	Y 377.433
Al H (396.152 nm)	-1.320990 u	ppm	0.000165	0.01	-53.362800	Y_R 377.433
As (188.980 nm)	0.003460	ppm	0.001410	40.74	4.208020	Y 242.219
B (249.678 nm)	0.242817	ppm	0.001234	0.51	1777.380000	Y 242.219
Ba (493.408 nm)	0.039745	ppm	0.000381	0.96	5282.460000	Y_R 488.368
Be (234.861 nm)	0.000085	ppm	0.000063	74.37	2.786360	Y_R 488.368
Bi (223.061 nm)	0.001303	ppm	0.000097	7.47	-12.511900	Y 377.433
Ca (315.887 nm)	327.138136	ppm	0.180835	0.06	264049.362000	Y_R 377.433
Cd (214.439 nm)	0.000371	ppm	0.000151	40.66	7.039660	Y 377.433
Co (228.615 nm)	-0.000063 u	ppm	0.000163	> 100.00	-23.755000	Y 242.219
Cr (205.560 nm)	0.000557 u	ppm	0.001169	> 100.00	-2.266600	Y 377.433
Cu (324.754 nm)	-0.001801 u	ppm	0.000331	18.38	143.768000	Y 377.433
Fe (238.204 nm)	0.009033	ppm	0.001716	18.99	25.197341	Y_R 377.433
Fe H (259.940 nm)	-0.054958 u	ppm	0.000074	0.14	13.904600	Y_R 377.433
K (766.491 nm)	12.821400	ppm	0.212354	1.66	14707.200000	Y_R2 488.368
Li (670.783 nm)	0.451480	ppm	0.003252	0.72	5230.440000	Y_R2 488.368
Mg (279.078 nm)	21.791500	ppm	0.008947	0.04	77222.900000	Y 377.433
Mn (257.610 nm)	0.000934	ppm	0.000065	6.93	236.193000	Y 377.433
Mo (202.032 nm)	0.048656	ppm	0.000840	1.73	642.523000	Y 377.433
Na (589.592 nm)	1283.930000 o	ppm	4.226210	0.33	951195.000000	Y_R2 488.368
Na H (589.593 nm)	1879.858881	ppm	4.248903	0.23	935259.421735	Y_R4
Ni (231.604 nm)	-0.001715 u	ppm	0.000062	3.64	-20.952000	Y 377.433
P (213.618 nm)	0.015247	ppm	0.001356	8.90	16.409000	Y 242.219
Pb (220.353 nm)	-0.003758 u	ppm	0.000608	16.19	-0.152738	Y 242.219
S (181.972 nm)	855.090338 bo	ppm	1.385006	0.16	384141.477454	Y 377.433
Sb (206.834 nm)	-0.001019 u	ppm	0.003347	> 100.00	-9.674380	Y 377.433
Se (196.026 nm)	-0.002666 u	ppm	0.002982	> 100.00	6.251280	Y 242.219
Si (288.158 nm)	4.768390	ppm	0.045159	0.95	31961.900000	Y 377.433
Sn (189.925 nm)	0.000431	ppm	0.000079	18.25	2.988290	Y 377.433
Sr (421.552 nm)	7.536673	ppm	0.034036	0.45	1102283.804183	Y_R 488.368
Th (288.505 nm)	0.000491 u	ppm	0.005532	> 100.00	6.901220	Y 377.433
Ti (336.122 nm)	-0.000884 u	ppm	0.000139	15.69	503.022000	Y 377.433
Tl (190.794 nm)	0.006657	ppm	0.002384	35.81	2.277980	Y 377.433
U (409.013 nm)	-0.012545 u	ppm	0.004680	37.31	-123.866000	Y 377.433
V (292.401 nm)	0.002393	ppm	0.000007	0.30	-56.664000	Y 377.433
Zn (206.200 nm)	0.001629	ppm	0.001243	76.34	11.901700	Y 377.433
Zr (343.823 nm)	0.001071	ppm	0.000144	13.48	-112.792000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043670	23370.350930	0.007945	0.76
Y 377.433	1.064782	687983.847476	0.007952	0.75
Y_R 377.433	1.197070	65899.200000	0.000600	0.05
Y_R 488.368	1.186850	57357.100000	0.001712	0.14
Y_R2 488.368	1.186614	109980.657272	0.003434	0.29
Y_R4	1.179430	50502.400000	0.012161	1.03

Sample Name: 280-123149-a-3-a

Date: 5/24/2019 12:39:14 AM
Rack:Tube: 2:15

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000911	ppm	0.000292	32.06	-214.051000	Y 377.433
Al (394.401 nm)	-0.023480 u	ppm	0.001039	4.43	605.231000	Y 377.433
Al H (396.152 nm)	-0.417862 u	ppm	0.004023	0.96	95.812600	Y_R 377.433
As (188.980 nm)	0.001056	ppm	0.000676	64.02	0.376232	Y 242.219
B (249.678 nm)	0.247450	ppm	0.000297	0.12	1810.580000	Y 242.219
Ba (493.408 nm)	0.006743	ppm	0.000130	1.93	2085.780000	Y_R 488.368
Be (234.861 nm)	0.000033	ppm	0.000018	54.96	-2.512820	Y_R 488.368
Bi (223.061 nm)	0.001878	ppm	0.001415	75.34	-11.215500	Y 377.433
Ca (315.887 nm)	69.413409	ppm	0.024167	0.03	55978.178539	Y_R 377.433
Cd (214.439 nm)	0.000245	ppm	0.000169	68.96	2.004670	Y 377.433
Co (228.615 nm)	0.000184	ppm	0.000243	> 100.00	-17.618500	Y 242.219
Cr (205.560 nm)	0.000256	ppm	0.000032	12.48	-5.184670	Y 377.433
Cu (324.754 nm)	-0.000012 u	ppm	0.000451	> 100.00	372.618000	Y 377.433
Fe (238.204 nm)	0.020580	ppm	0.004112	19.98	53.659853	Y_R 377.433
Fe H (259.940 nm)	-0.036831 u	ppm	0.002645	7.18	39.250600	Y_R 377.433
K (766.491 nm)	6.037200	ppm	0.069314	1.15	7973.690000	Y_R2 488.368
Li (670.783 nm)	0.240802	ppm	0.001162	0.48	1561.770000	Y_R2 488.368
Mg (279.078 nm)	4.652220	ppm	0.000479	0.01	16495.400000	Y 377.433
Mn (257.610 nm)	0.304508	ppm	0.000033	0.01	84205.000000	Y 377.433
Mo (202.032 nm)	0.207831	ppm	0.000242	0.12	2667.960000	Y 377.433
Na (589.592 nm)	832.366000 o	ppm	1.406650	0.17	616693.000000	Y_R2 488.368
Na H (589.593 nm)	1020.384018	ppm	9.056063	0.89	507806.886839	Y_R4
Ni (231.604 nm)	-0.000809 u	ppm	0.000202	24.94	-15.889300	Y 377.433
P (213.618 nm)	0.022737	ppm	0.002380	10.47	22.265900	Y 242.219
Pb (220.353 nm)	-0.004238 u	ppm	0.000402	9.49	-2.249420	Y 242.219
S (181.972 nm)	468.685854 bo	ppm	0.248334	0.05	210551.981904	Y 377.433
Sb (206.834 nm)	0.001497	ppm	0.000336	22.47	-6.326330	Y 377.433
Se (196.026 nm)	-0.002116 u	ppm	0.001730	81.75	7.621830	Y 242.219
Si (288.158 nm)	4.361610	ppm	0.007962	0.18	29278.600000	Y 377.433
Sn (189.925 nm)	-0.001136 u	ppm	0.000042	3.73	0.254720	Y 377.433
Sr (421.552 nm)	3.002077	ppm	0.005036	0.17	439100.658455	Y_R 488.368
Th (288.505 nm)	-0.013393 u	ppm	0.002919	21.79	-4.649510	Y 377.433
Ti (336.122 nm)	0.000848	ppm	0.000003	0.31	-157.633000	Y 377.433
Tl (190.794 nm)	0.000888	ppm	0.000696	78.34	-1.808580	Y 377.433
U (409.013 nm)	-0.009487 u	ppm	0.001873	19.75	-80.559200	Y 377.433
V (292.401 nm)	0.001663	ppm	0.000016	0.97	-108.568000	Y 377.433
Zn (206.200 nm)	0.001720	ppm	0.000667	38.80	12.355100	Y 377.433
Zr (343.823 nm)	0.000718	ppm	0.000160	22.29	-133.133000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125746	25208.223143	0.005004	0.44
Y 377.433	1.136164	734105.370733	0.005857	0.52
Y_R 377.433	1.230000	67711.900000	0.000749	0.06
Y_R 488.368	1.223790	59142.100000	0.001056	0.09
Y_R2 488.368	1.209670	112117.586529	0.012611	1.04
Y_R4	1.232100	52757.900000	0.007007	0.57

Sample Name: 280-123149-a-3-aSD@5

Date: 5/24/2019 12:42:54 AM Rack:Tube: 2:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000449	ppm	0.000325	72.47	-230.285000	Y 377.433
Al (394.401 nm)	-0.005914 u	ppm	0.000611	10.33	214.042000	Y 377.433
Al H (396.152 nm)	0.009745 u	ppm	0.000819	8.40	32.703000	Y_R 377.433
As (188.980 nm)	-0.000359 u	ppm	0.001872	> 100.00	-1.879010	Y 242.219
B (249.678 nm)	0.046122	ppm	0.000397	0.86	367.613000	Y 242.219
Ba (493.408 nm)	-0.001039 u	ppm	0.000070	6.71	1332.040000	Y_R 488.368
Be (234.861 nm)	0.000057	ppm	0.000005	9.11	-0.242971	Y_R 488.368
Bi (223.061 nm)	0.002797	ppm	0.000188	6.74	-9.122060	Y 377.433
Ca (315.887 nm)	14.163345	ppm	0.055809	0.39	11372.644431	Y_R 377.433
Cd (214.439 nm)	0.000181	ppm	0.000135	74.64	-0.535279	Y 377.433
Co (228.615 nm)	0.000116	ppm	0.000072	61.86	-19.290800	Y 242.219
Cr (205.560 nm)	0.000452	ppm	0.000002	0.41	-2.971290	Y 377.433
Cu (324.754 nm)	-0.000464 u	ppm	0.000132	28.53	380.995000	Y 377.433
Fe (238.204 nm)	0.063796	ppm	0.001332	2.09	160.175866	Y_R 377.433
Fe H (259.940 nm)	0.010379 u	ppm	0.002892	27.86	105.262000	Y_R 377.433
K (766.491 nm)	0.990805	ppm	0.029973	3.03	2964.990000	Y_R2 488.368
Li (670.783 nm)	0.063872	ppm	0.000131	0.21	-1519.230000	Y_R2 488.368
Mg (279.078 nm)	0.959234	ppm	0.006180	0.64	3410.270000	Y 377.433
Mn (257.610 nm)	0.063022	ppm	0.000215	0.34	17409.700000	Y 377.433
Mo (202.032 nm)	0.041666	ppm	0.000113	0.27	553.572000	Y 377.433
Na (589.592 nm)	203.358000 o	ppm	0.532475	0.26	150749.000000	Y_R2 488.368
Na H (589.593 nm)	214.749659	ppm	1.892176	0.88	107131.469629	Y_R4
Ni (231.604 nm)	-0.000635 u	ppm	0.000085	13.32	-14.915400	Y 377.433
P (213.618 nm)	0.005151	ppm	0.000071	1.38	1.913390	Y 242.219
Pb (220.353 nm)	-0.002146 u	ppm	0.002073	96.60	5.448440	Y 242.219
S (181.972 nm)	94.257016	ppm	0.708558	0.75	42350.134681	Y 377.433
Sb (206.834 nm)	0.004051	ppm	0.003497	86.33	-0.672735	Y 377.433
Se (196.026 nm)	-0.002175 u	ppm	0.002400	> 100.00	7.125380	Y 242.219
Si (288.158 nm)	0.863816	ppm	0.004705	0.54	6206.040000	Y 377.433
Sn (189.925 nm)	0.000155	ppm	0.000206	> 100.00	2.505920	Y 377.433
Sr (421.552 nm)	0.604653	ppm	0.000701	0.12	88478.282085	Y_R 488.368
Th (288.505 nm)	-0.007184 u	ppm	0.000427	5.95	2.934820	Y 377.433
Ti (336.122 nm)	0.000840	ppm	0.000003	0.41	-348.451000	Y 377.433
Tl (190.794 nm)	0.001075	ppm	0.000155	14.43	1.888750	Y 377.433
U (409.013 nm)	0.010195	ppm	0.000854	8.37	-11.616000	Y 377.433
V (292.401 nm)	0.000815	ppm	0.000155	19.04	-141.489000	Y 377.433
Zn (206.200 nm)	0.003766	ppm	0.000205	5.43	22.518400	Y 377.433
Zr (343.823 nm)	0.000608	ppm	0.000056	9.23	-139.486000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.174527	26300.550926	0.000122	0.01
Y 377.433	1.176060	759883.382271	0.000629	0.05
Y_R 377.433	1.213390	66797.300000	0.007636	0.63
Y_R 488.368	1.203870	58179.600000	0.003935	0.33
Y_R2 488.368	1.195782	110830.380183	0.006545	0.55
Y_R4	1.235290	52894.500000	0.013398	1.08

Sample Name: 280-123149-a-3-b ms

Date: 5/24/2019 12:46:26 AM Rack:Tube: 2:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054333	ppm	0.000143	0.26	1377.680000	Y 377.433
Al (394.401 nm)	9.798740 o	ppm	0.032613	0.33	118184.000000	Y 377.433
Al H (396.152 nm)	9.511470	ppm	0.003071	0.03	20974.700000	Y_R 377.433
As (188.980 nm)	1.951180	ppm	0.014553	0.75	3107.380000	Y 242.219
B (249.678 nm)	1.271110	ppm	0.006905	0.54	9141.350000	Y 242.219
Ba (493.408 nm)	1.901330	ppm	0.000411	0.02	185609.000000	Y_R 488.368
Be (234.861 nm)	0.923034	ppm	0.015082	1.63	93017.500000	Y_R 488.368
Bi (223.061 nm)	1.999450	ppm	0.011601	0.58	4547.000000	Y 377.433
Ca (315.887 nm)	116.707312	ppm	0.155951	0.13	94162.960809	Y_R 377.433
Cd (214.439 nm)	0.922162	ppm	0.004726	0.51	36893.500000	Y 377.433
Co (228.615 nm)	0.935542	ppm	0.004601	0.49	23152.200000	Y 242.219
Cr (205.560 nm)	0.920058	ppm	0.015166	1.65	6505.570000	Y 377.433
Cu (324.754 nm)	0.965367	ppm	0.007833	0.81	45263.200000	Y 377.433
Fe (238.204 nm)	10.216669 o	ppm	0.010251	0.10	25184.546976	Y_R 377.433
Fe H (259.940 nm)	10.284100	ppm	0.011075	0.11	14470.500000	Y_R 377.433
K (766.491 nm)	63.038100	ppm	0.303309	0.48	64548.800000	Y_R2 488.368
Li (670.783 nm)	1.259290	ppm	0.007185	0.57	19297.400000	Y_R2 488.368
Mg (279.078 nm)	53.491300	ppm	0.245233	0.46	189493.000000	Y 377.433
Mn (257.610 nm)	1.226980	ppm	0.005379	0.44	339362.000000	Y 377.433
Mo (202.032 nm)	1.141130	ppm	0.004349	0.38	14543.900000	Y 377.433
Na (589.592 nm)	855.645000 o	ppm	0.006261	0.00	634325.000000	Y_R2 488.368
Na H (589.593 nm)	1067.699966	ppm	5.066430	0.47	531339.071962	Y_R4
Ni (231.604 nm)	0.935996	ppm	0.005148	0.55	5221.580000	Y 377.433
P (213.618 nm)	21.245300	ppm	0.137255	0.65	31863.200000	Y 242.219
Pb (220.353 nm)	0.916330	ppm	0.003481	0.38	3158.970000	Y 242.219
S (181.972 nm)	464.971742 bo	ppm	4.057111	0.87	208888.663494	Y 377.433
Sb (206.834 nm)	1.073870	ppm	0.008008	0.75	1882.310000	Y 377.433
Se (196.026 nm)	1.900460	ppm	0.018426	0.97	3098.370000	Y 242.219
Si (288.158 nm)	6.282640	ppm	0.016768	0.27	41950.300000	Y 377.433
Sn (189.925 nm)	1.848030	ppm	0.003001	0.16	3225.590000	Y 377.433
Sr (421.552 nm)	3.892226	ppm	0.001267	0.03	569286.150264	Y_R 488.368
Th (288.505 nm)	1.030070	ppm	0.004694	0.46	1727.970000	Y 377.433
Ti (336.122 nm)	0.950694	ppm	0.004718	0.50	123508.000000	Y 377.433
Tl (190.794 nm)	1.739150	ppm	0.002742	0.16	4200.530000	Y 377.433
U (409.013 nm)	2.022260	ppm	0.007163	0.35	6224.260000	Y 377.433
V (292.401 nm)	0.932335	ppm	0.003360	0.36	48985.200000	Y 377.433
Zn (206.200 nm)	0.509928	ppm	0.001773	0.35	2536.250000	Y 377.433
Zr (343.823 nm)	0.505133	ppm	0.002766	0.55	28951.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.095653	24534.377966	0.004628	0.42
Y 377.433	1.113105	719206.556272	0.005112	0.46
Y_R 377.433	1.181350	65034.000000	0.007804	0.66
Y_R 488.368	1.173720	56722.500000	0.007290	0.62
Y_R2 488.368	1.190725	110361.734926	0.004281	0.36
Y_R4	1.210980	51853.500000	0.006801	0.56

Sample Name: 280-123149-a-3-c msd

Date: 5/24/2019 12:50:05 AM Rack:Tube: 2:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054286	ppm	0.000293	0.54	1360.020000	Y 377.433
Al (394.401 nm)	9.764650 o	ppm	0.044187	0.45	117789.000000	Y 377.433
Al H (396.152 nm)	9.507030	ppm	0.028338	0.30	20988.700000	Y_R 377.433
As (188.980 nm)	2.036780	ppm	0.002505	0.12	3243.780000	Y 242.219
B (249.678 nm)	1.264360	ppm	0.008403	0.66	9093.000000	Y 242.219
Ba (493.408 nm)	1.990410	ppm	0.001864	0.09	194237.000000	Y_R 488.368
Be (234.861 nm)	0.956135	ppm	0.017541	1.83	96355.300000	Y_R 488.368
Bi (223.061 nm)	1.984250	ppm	0.005925	0.30	4512.330000	Y 377.433
Ca (315.887 nm)	116.990048	ppm	0.350505	0.30	94391.224845	Y_R 377.433
Cd (214.439 nm)	0.963592	ppm	0.003620	0.38	38551.200000	Y 377.433
Co (228.615 nm)	0.976131	ppm	0.005726	0.59	24157.600000	Y 242.219
Cr (205.560 nm)	0.957015	ppm	0.000245	0.03	6767.160000	Y 377.433
Cu (324.754 nm)	1.001400	ppm	0.001101	0.11	46935.300000	Y 377.433
Fe (238.204 nm)	10.178275 o	ppm	0.024772	0.24	25089.914027	Y_R 377.433
Fe H (259.940 nm)	10.227100	ppm	0.020448	0.20	14390.700000	Y_R 377.433
K (766.491 nm)	62.708400	ppm	0.172360	0.27	64221.600000	Y_R2 488.368
Li (670.783 nm)	1.287500	ppm	0.005284	0.41	19788.600000	Y_R2 488.368
Mg (279.078 nm)	53.413800	ppm	0.175207	0.33	189219.000000	Y 377.433
Mn (257.610 nm)	1.266870	ppm	0.005766	0.46	350395.000000	Y 377.433
Mo (202.032 nm)	1.181900	ppm	0.005020	0.42	15062.700000	Y 377.433
Na (589.592 nm)	863.928000 o	ppm	1.156240	0.13	640478.000000	Y_R2 488.368
Na H (589.593 nm)	1057.721838	ppm	7.740746	0.73	526376.534846	Y_R4
Ni (231.604 nm)	0.976015	ppm	0.002682	0.27	5445.330000	Y 377.433
P (213.618 nm)	21.114200	ppm	0.109394	0.52	31654.000000	Y 242.219
Pb (220.353 nm)	0.955522	ppm	0.007195	0.75	3293.350000	Y 242.219
S (181.972 nm)	465.761897 bo	ppm	2.138084	0.46	209243.739757	Y 377.433
Sb (206.834 nm)	1.059390	ppm	0.005297	0.50	1856.530000	Y 377.433
Se (196.026 nm)	1.984710	ppm	0.011209	0.56	3235.360000	Y 242.219
Si (288.158 nm)	6.358910	ppm	0.025653	0.40	42453.400000	Y 377.433
Sn (189.925 nm)	1.930000	ppm	0.002951	0.15	3368.560000	Y 377.433
Sr (421.552 nm)	3.944212	ppm	0.000240	0.01	576889.058065	Y_R 488.368
Th (288.505 nm)	1.011860	ppm	0.002184	0.22	1692.130000	Y 377.433
Ti (336.122 nm)	0.990266	ppm	0.005394	0.54	128654.000000	Y 377.433
Tl (190.794 nm)	1.817350	ppm	0.008906	0.49	4389.750000	Y 377.433
U (409.013 nm)	1.990860	ppm	0.011680	0.59	6126.370000	Y 377.433
V (292.401 nm)	0.971202	ppm	0.003797	0.39	51035.600000	Y 377.433
Zn (206.200 nm)	0.504080	ppm	0.000925	0.18	2507.220000	Y 377.433
Zr (343.823 nm)	0.501018	ppm	0.002403	0.48	28714.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.085833	24314.475332	0.007633	0.70
Y 377.433	1.103078	712727.530611	0.009761	0.88
Y_R 377.433	1.180700	64998.000000	0.004241	0.36
Y_R 488.368	1.171040	56592.600000	0.005332	0.46
Y_R2 488.368	1.157529	107284.955142	0.002033	0.18
Y_R4	1.193620	51110.000000	0.006899	0.58

Sample Name: 280-123149-a-3-aPDS

Date: 5/24/2019 12:53:46 AM Rack:Tube: 2:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050306	ppm	0.000637	1.27	1511.740000	Y 377.433
Al (394.401 nm)	0.946102	ppm	0.000021	0.00	12197.900000	Y 377.433
Al H (396.152 nm)	0.575430 u	ppm	0.003788	0.66	2134.290000	Y_R 377.433
As (188.980 nm)	0.208343	ppm	0.001825	0.88	330.636000	Y 242.219
B (249.678 nm)	0.342254	ppm	0.002512	0.73	2489.450000	Y 242.219
Ba (493.408 nm)	0.106574	ppm	0.000277	0.26	11756.400000	Y_R 488.368
Be (234.861 nm)	0.047420	ppm	0.000195	0.41	4770.940000	Y_R 488.368
Bi (223.061 nm)	0.002051	ppm	0.002419	> 100.00	-10.583800	Y 377.433
Ca (315.887 nm)	86.850309	ppm	0.112304	0.13	70055.917448	Y_R 377.433
Cd (214.439 nm)	0.050261	ppm	0.000281	0.56	2003.680000	Y 377.433
Co (228.615 nm)	0.048850	ppm	0.000362	0.74	1187.810000	Y 242.219
Cr (205.560 nm)	0.048189	ppm	0.000212	0.44	334.107000	Y 377.433
Cu (324.754 nm)	0.051267	ppm	0.000129	0.25	2755.390000	Y 377.433
Fe (238.204 nm)	1.049872	ppm	0.001639	0.16	2590.615255	Y_R 377.433
Fe H (259.940 nm)	1.002810 u	ppm	0.003057	0.30	1492.930000	Y_R 377.433
K (766.491 nm)	28.032400	ppm	0.073590	0.26	29804.600000	Y_R2 488.368
Li (670.783 nm)	0.321780	ppm	0.001731	0.54	2971.890000	Y_R2 488.368
Mg (279.078 nm)	23.689800	ppm	0.016594	0.07	83939.300000	Y 377.433
Mn (257.610 nm)	0.347176	ppm	0.000566	0.16	96006.900000	Y 377.433
Mo (202.032 nm)	0.254173	ppm	0.000415	0.16	3257.640000	Y 377.433
Na (589.592 nm)	854.621000 o	ppm	0.832420	0.10	633199.000000	Y_R2 488.368
Na H (589.593 nm)	1021.699534	ppm	3.358689	0.33	508461.147573	Y_R4
Ni (231.604 nm)	0.047956	ppm	0.001261	2.63	256.863000	Y 377.433
P (213.618 nm)	2.085030	ppm	0.008100	0.39	3128.060000	Y 242.219
Pb (220.353 nm)	0.094026	ppm	0.000502	0.53	336.193000	Y 242.219
S (181.972 nm)	453.597683 bo	ppm	1.695198	0.37	203775.132184	Y 377.433
Sb (206.834 nm)	0.106394	ppm	0.002136	2.01	178.649000	Y 377.433
Se (196.026 nm)	0.195218	ppm	0.004036	2.07	328.112000	Y 242.219
Si (288.158 nm)	9.011900	ppm	0.011881	0.13	59953.400000	Y 377.433
Sn (189.925 nm)	0.093697	ppm	0.001843	1.97	165.664000	Y 377.433
Sr (421.552 nm)	2.983285	ppm	0.002023	0.07	436352.526278	Y_R 488.368
Th (288.505 nm)	0.193519	ppm	0.000197	0.10	353.084000	Y 377.433
Ti (336.122 nm)	0.050235	ppm	0.000068	0.14	6323.260000	Y 377.433
Tl (190.794 nm)	0.187450	ppm	0.003583	1.91	449.035000	Y 377.433
U (409.013 nm)	0.484706	ppm	0.007754	1.60	1460.030000	Y 377.433
V (292.401 nm)	0.050848	ppm	0.000131	0.26	2482.500000	Y 377.433
Zn (206.200 nm)	0.207598	ppm	0.001258	0.61	1034.320000	Y 377.433
Zr (343.823 nm)	0.050657	ppm	0.000022	0.04	2746.390000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080566	24196.531964	0.001545	0.14
Y 377.433	1.088080	703036.972370	0.004296	0.39
Y_R 377.433	1.167000	64244.100000	0.000050	0.00
Y_R 488.368	1.159650	56042.200000	0.001064	0.09
Y_R2 488.368	1.124737	104245.621079	0.000507	0.05
Y_R4	1.140030	48815.600000	0.001533	0.13

Sample Name: mb 280-458934/1-a

Date: 5/24/2019 12:57:28 AM Rack:Tube: 2:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000339 u	ppm	0.000575	> 100.00	-233.681000	Y 377.433
Al (394.401 nm)	0.002254	ppm	0.000850	37.71	154.585000	Y 377.433
Al H (396.152 nm)	0.134149 u	ppm	0.008091	6.03	50.817000	Y_R 377.433
As (188.980 nm)	-0.001211 u	ppm	0.002535	> 100.00	-3.235230	Y 242.219
B (249.678 nm)	-0.001410 u	ppm	0.000297	21.09	26.973800	Y 242.219
Ba (493.408 nm)	-0.001742 u	ppm	0.000077	4.43	1263.850000	Y_R 488.368
Be (234.861 nm)	0.000005 u	ppm	0.000025	> 100.00	-5.296300	Y_R 488.368
Bi (223.061 nm)	0.000248 u	ppm	0.000860	> 100.00	-14.947100	Y 377.433
Ca (315.887 nm)	0.030626	ppm	0.000157	0.51	-37.249283	Y_R 377.433
Cd (214.439 nm)	0.000009 u	ppm	0.000062	> 100.00	-7.415400	Y 377.433
Co (228.615 nm)	0.000267	ppm	0.000047	17.45	-15.574000	Y 242.219
Cr (205.560 nm)	0.000117	ppm	0.000091	77.40	-5.135430	Y 377.433
Cu (324.754 nm)	-0.000558 u	ppm	0.000145	26.01	386.750000	Y 377.433
Fe (238.204 nm)	0.011011	ppm	0.002326	21.13	30.072927	Y_R 377.433
Fe H (259.940 nm)	-0.043918 u	ppm	0.001608	3.66	29.341700	Y_R 377.433
K (766.491 nm)	0.090676	ppm	0.000543	0.60	2071.590000	Y_R2 488.368
Li (670.783 nm)	0.009740	ppm	0.005305	54.47	-2461.860000	Y_R2 488.368
Mg (279.078 nm)	0.002650	ppm	0.000053	1.98	21.468100	Y 377.433
Mn (257.610 nm)	0.000819	ppm	0.000016	1.94	204.635000	Y 377.433
Mo (202.032 nm)	-0.001172 u	ppm	0.000258	22.01	8.480410	Y 377.433
Na (589.592 nm)	0.787212	ppm	0.045097	5.73	693.193000	Y_R2 488.368
Na H (589.593 nm)	4.759824 u	ppm	0.006363	0.13	2694.806207	Y_R4
Ni (231.604 nm)	-0.000432 u	ppm	0.000009	2.12	-13.780800	Y 377.433
P (213.618 nm)	0.001526	ppm	0.000458	30.03	-1.978820	Y 242.219
Pb (220.353 nm)	-0.001492 u	ppm	0.000057	3.81	7.745300	Y 242.219
S (181.972 nm)	0.042083	ppm	0.004928	11.71	26.662396	Y 377.433
Sb (206.834 nm)	0.003838	ppm	0.000404	10.53	-0.759888	Y 377.433
Se (196.026 nm)	0.000292 u	ppm	0.002532	> 100.00	11.048700	Y 242.219
Si (288.158 nm)	0.002842	ppm	0.002200	77.39	526.791000	Y 377.433
Sn (189.925 nm)	0.000419	ppm	0.000044	10.54	2.966500	Y 377.433
Sr (421.552 nm)	0.000024	ppm	0.000009	38.45	51.375669	Y_R 488.368
Th (288.505 nm)	-0.002262 u	ppm	0.002144	94.78	10.533700	Y 377.433
Ti (336.122 nm)	0.000623	ppm	0.000060	9.60	-424.658000	Y 377.433
Tl (190.794 nm)	0.000360 u	ppm	0.001568	> 100.00	0.989451	Y 377.433
U (409.013 nm)	0.000798 u	ppm	0.009096	> 100.00	-39.297600	Y 377.433
V (292.401 nm)	0.000517	ppm	0.000036	7.03	-152.112000	Y 377.433
Zn (206.200 nm)	0.001683	ppm	0.000090	5.34	12.173700	Y 377.433
Zr (343.823 nm)	0.000656	ppm	0.000031	4.71	-136.672000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.159900	25973.028123	0.004204	0.36
Y 377.433	1.157203	747699.096507	0.004016	0.35
Y_R 377.433	1.144930	63028.600000	0.004194	0.37
Y_R 488.368	1.141280	55154.500000	0.002230	0.20
Y_R2 488.368	1.106791	102582.281266	0.003317	0.30
Y_R4	1.105570	47339.800000	0.002334	0.21

Sample Name: CCVH-5713036

Date: 5/24/2019 1:00:39 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004178	ppm	0.000154	3.68	-109.438000	Y 377.433
Al (394.401 nm)	48.863300 o	ppm	0.027049	0.06	582776.000000	Y 377.433
Al H (396.152 nm)	48.519000	ppm	0.130933	0.27	99759.900000	Y_R 377.433
As (188.980 nm)	0.004935	ppm	0.000837	16.97	5.171560	Y 242.219
B (249.678 nm)	-0.001934 u	ppm	0.000715	36.99	-4.835860	Y 242.219
Ba (493.408 nm)	0.001557	ppm	0.000157	10.09	1620.900000	Y_R 488.368
Be (234.861 nm)	0.001040	ppm	0.000021	2.02	-110.437000	Y_R 488.368
Bi (223.061 nm)	0.011747	ppm	0.002139	18.21	19.989700	Y 377.433
Ca (315.887 nm)	0.006282	ppm	0.008742	> 100.00	-44.623641	Y_R 377.433
Cd (214.439 nm)	0.001376	ppm	0.000069	5.01	68.542400	Y 377.433
Co (228.615 nm)	0.002976	ppm	0.000394	13.26	51.446800	Y 242.219
Cr (205.560 nm)	0.001848	ppm	0.000214	11.59	5.739530	Y 377.433
Cu (324.754 nm)	0.002994	ppm	0.000063	2.10	1464.340000	Y 377.433
Fe (238.204 nm)	48.081927 o	ppm	0.112651	0.23	118513.225698	Y_R 377.433
Fe H (259.940 nm)	48.371900	ppm	0.101928	0.21	67726.700000	Y_R 377.433
K (766.491 nm)	0.222443	ppm	0.020148	9.06	2202.370000	Y_R2 488.368
Li (670.783 nm)	0.006826	ppm	0.000009	0.13	-2512.590000	Y_R2 488.368
Mg (279.078 nm)	0.036182	ppm	0.000276	0.76	62.110700	Y 377.433
Mn (257.610 nm)	0.000944	ppm	0.000017	1.83	239.062000	Y 377.433
Mo (202.032 nm)	0.000543	ppm	0.000386	71.13	30.291600	Y 377.433
Na (589.592 nm)	236.917000 o	ppm	0.515759	0.22	175609.000000	Y_R2 488.368
Na H (589.593 nm)	251.145829	ppm	2.576386	1.03	125232.796104	Y_R4
Ni (231.604 nm)	0.002872	ppm	0.000775	26.99	4.686850	Y 377.433
P (213.618 nm)	4.769150	ppm	0.000573	0.01	7208.060000	Y 242.219
Pb (220.353 nm)	0.005143	ppm	0.002079	40.42	23.316100	Y 242.219
S (181.972 nm)	4.889327	ppm	0.024217	0.50	2204.113432	Y 377.433
Sb (206.834 nm)	0.003693	ppm	0.002234	60.50	3.240910	Y 377.433
Se (196.026 nm)	0.004782	ppm	0.000136	2.85	4.916510	Y 242.219
Si (288.158 nm)	0.013326	ppm	0.000163	1.22	595.942000	Y 377.433
Sn (189.925 nm)	0.002002	ppm	0.001556	77.72	5.728580	Y 377.433
Sr (421.552 nm)	0.001064	ppm	0.000085	8.01	210.558555	Y_R 488.368
Th (288.505 nm)	4.834330	ppm	0.005085	0.11	8447.520000	Y 377.433
Ti (336.122 nm)	0.002163	ppm	0.000023	1.05	-224.348000	Y 377.433
Tl (190.794 nm)	-0.000038 u	ppm	0.001260	> 100.00	-4.865710	Y 377.433
U (409.013 nm)	0.534131 Q	ppm	0.003187	0.60	1666.710000 Q	Y 377.433
V (292.401 nm)	0.001395	ppm	0.000320	22.93	380.807000	Y 377.433
Zn (206.200 nm)	0.002758	ppm	0.000014	0.51	24.941600	Y 377.433
Zr (343.823 nm)	0.001518	ppm	0.000067	4.44	-87.009300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.069142	23940.717424	0.002985	0.28
Y 377.433	1.066780	689274.597050	0.001399	0.13
Y_R 377.433	1.085110	59735.500000	0.002360	0.22
Y_R 488.368	1.079090	52149.200000	0.002904	0.27
Y_R2 488.368	1.055270	97807.079484	0.002399	0.23
Y_R4	1.094430	46863.100000	0.012121	1.11

Sample Name: CCV-5717467

Date: 5/24/2019 1:04:24 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.480588	ppm	0.001500	0.31	16603.800000	Y 377.433
Al (394.401 nm)	0.503076	ppm	0.001835	0.36	6263.440000	Y 377.433
Al H (396.152 nm)	0.549737 u	ppm	0.001577	0.29	1136.630000	Y_R 377.433
As (188.980 nm)	0.480821	ppm	0.002086	0.43	764.757000	Y 242.219
B (249.678 nm)	0.471052	ppm	0.001643	0.35	3411.760000	Y 242.219
Ba (493.408 nm)	0.481498	ppm	0.000070	0.01	48073.800000	Y_R 488.368
Be (234.861 nm)	0.474709	ppm	0.003065	0.65	47847.700000	Y_R 488.368
Bi (223.061 nm)	0.936565	ppm	0.000786	0.08	2121.230000	Y 377.433
Ca (315.887 nm)	4.858025	ppm	0.004354	0.09	3860.231022	Y_R 377.433
Cd (214.439 nm)	0.486665	ppm	0.001027	0.21	19465.300000	Y 377.433
Co (228.615 nm)	0.481221	ppm	0.003094	0.64	11897.800000	Y 242.219
Cr (205.560 nm)	0.484379	ppm	0.001687	0.35	3422.880000	Y 377.433
Cu (324.754 nm)	0.478722	ppm	0.002553	0.53	22639.000000	Y 377.433
Fe (238.204 nm)	2.429616	ppm	0.006451	0.27	5991.347952	Y_R 377.433
Fe H (259.940 nm)	2.396230 u	ppm	0.000372	0.02	3441.270000	Y_R 377.433
K (766.491 nm)	48.504300	ppm	0.197801	0.41	50123.600000	Y_R2 488.368
Li (670.783 nm)	0.488083	ppm	0.001636	0.34	5867.830000	Y_R2 488.368
Mg (279.078 nm)	19.389200	ppm	0.032485	0.17	68707.300000	Y 377.433
Mn (257.610 nm)	0.483490	ppm	0.001190	0.25	133711.000000	Y 377.433
Mo (202.032 nm)	0.482160	ppm	0.001406	0.29	6158.690000	Y 377.433
Na (589.592 nm)	24.074400	ppm	0.116762	0.49	18041.900000	Y_R2 488.368
Na H (589.593 nm)	28.290925 u	ppm	0.083258	0.29	14397.799549	Y_R4
Ni (231.604 nm)	0.482852	ppm	0.001916	0.40	2687.640000	Y 377.433
P (213.618 nm)	0.052956	ppm	0.003670	6.93	-61.257800	Y 242.219
Pb (220.353 nm)	0.484733	ppm	0.001210	0.25	1675.830000	Y 242.219
S (181.972 nm)	0.026386	ppm	0.003937	14.92	21.322869	Y 377.433
Sb (206.834 nm)	0.484594	ppm	0.002553	0.53	845.267000	Y 377.433
Se (196.026 nm)	0.482103	ppm	0.003412	0.71	794.213000	Y 242.219
Si (288.158 nm)	4.740060	ppm	0.014308	0.30	31774.900000	Y 377.433
Sn (189.925 nm)	0.486079	ppm	0.001087	0.22	850.062000	Y 377.433
Sr (421.552 nm)	0.483558	ppm	0.001143	0.24	70768.431282	Y_R 488.368
Th (288.505 nm)	0.014960	ppm	0.001650	11.03	-8.461230	Y 377.433
Ti (336.122 nm)	0.478935	ppm	0.001731	0.36	61784.200000	Y 377.433
Tl (190.794 nm)	0.492749	ppm	0.004042	0.82	1190.470000	Y 377.433
U (409.013 nm)	0.028497	ppm	0.006616	23.22	-10.372800	Y 377.433
V (292.401 nm)	0.478909	ppm	0.001408	0.29	25073.400000	Y 377.433
Zn (206.200 nm)	0.487724	ppm	0.000220	0.05	2424.840000	Y 377.433
Zr (343.823 nm)	0.480168	ppm	0.001551	0.32	27512.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.069807	23955.620539	0.000088	0.01
Y 377.433	1.066310	688970.946212	0.002227	0.21
Y_R 377.433	1.081490	59536.200000	0.002284	0.21
Y_R 488.368	1.077710	52082.500000	0.002263	0.21
Y_R2 488.368	1.054383	97724.956286	0.004290	0.41
Y_R4	1.080530	46267.900000	0.003575	0.33

Sample Name: CCB

Date: 5/24/2019 1:07:59 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000380	ppm	0.000219	57.61	-232.372000	Y 377.433
Al (394.401 nm)	-0.001731 u	ppm	0.000204	11.78	106.171000	Y 377.433
Al H (396.152 nm)	0.125676 Zu	ppm	0.004798	3.82	33.446000 Z	Y_R 377.433
As (188.980 nm)	0.000191 u	ppm	0.000934	> 100.00	-1.001580	Y 242.219
B (249.678 nm)	-0.002925 u	ppm	0.000354	12.12	16.120900	Y 242.219
Ba (493.408 nm)	-0.000981 u	ppm	0.000001	0.15	1337.560000	Y_R 488.368
Be (234.861 nm)	0.000074	ppm	0.000009	12.73	1.752310	Y_R 488.368
Bi (223.061 nm)	0.004319	ppm	0.000213	4.92	-5.664840	Y 377.433
Ca (315.887 nm)	0.001650 u	ppm	0.012324	> 100.00	-60.643559	Y_R 377.433
Cd (214.439 nm)	0.000047 u	ppm	0.000191	> 100.00	-5.924180	Y 377.433
Co (228.615 nm)	0.000198	ppm	0.000151	76.51	-17.268300	Y 242.219
Cr (205.560 nm)	-0.000525 u	ppm	0.000901	> 100.00	-9.686730	Y 377.433
Cu (324.754 nm)	-0.000115 u	ppm	0.000109	95.17	408.060000	Y 377.433
Fe (238.204 nm)	0.000941	ppm	0.001258	> 100.00	5.253982	Y_R 377.433
Fe H (259.940 nm)	-0.052463 u	ppm	0.005486	10.46	17.392600	Y_R 377.433
K (766.491 nm)	-0.061047 u	ppm	0.151863	> 100.00	1921.000000	Y_R2 488.368
Li (670.783 nm)	0.006601	ppm	0.001726	26.14	-2516.520000	Y_R2 488.368
Mg (279.078 nm)	0.001781	ppm	0.000449	25.22	18.388200	Y 377.433
Mn (257.610 nm)	0.000045	ppm	0.000020	44.40	-9.657330	Y 377.433
Mo (202.032 nm)	-0.000897 u	ppm	0.000153	17.02	11.970400	Y 377.433
Na (589.592 nm)	0.359404 Z	ppm	0.005055	1.41	376.463000 Z	Y_R2 488.368
Na H (589.593 nm)	2.449793 u	ppm	0.049810	2.03	1545.931847	Y_R4
Ni (231.604 nm)	-0.000375 u	ppm	0.000224	59.77	-13.460400	Y 377.433
P (213.618 nm)	0.001237 u	ppm	0.002384	> 100.00	-2.709980	Y 242.219
Pb (220.353 nm)	-0.000609 u	ppm	0.001445	> 100.00	10.785200	Y 242.219
S (181.972 nm)	0.003850 u	ppm	0.010163	> 100.00	9.484659	Y 377.433
Sb (206.834 nm)	0.002770	ppm	0.000709	25.59	-2.653510	Y 377.433
Se (196.026 nm)	0.000876 u	ppm	0.001383	> 100.00	11.998800	Y 242.219
Si (288.158 nm)	-0.005613 u	ppm	0.001186	21.12	471.018000	Y 377.433
Sn (189.925 nm)	-0.000500 u	ppm	0.000009	1.86	1.364550	Y 377.433
Sr (421.552 nm)	0.000104	ppm	0.000079	75.63	63.158762	Y_R 488.368
Th (288.505 nm)	-0.000030 u	ppm	0.003889	> 100.00	14.392600	Y 377.433
Ti (336.122 nm)	0.000406	ppm	0.000291	71.71	-452.904000	Y 377.433
Tl (190.794 nm)	0.001524	ppm	0.000677	44.46	3.808020	Y 377.433
U (409.013 nm)	0.004012 u	ppm	0.007335	> 100.00	-29.206300	Y 377.433
V (292.401 nm)	0.000326	ppm	0.000227	69.60	-161.677000	Y 377.433
Zn (206.200 nm)	0.000111 u	ppm	0.000457	> 100.00	4.368220	Y 377.433
Zr (343.823 nm)	0.000169	ppm	0.000199	> 100.00	-164.768000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.078636	24153.311924	0.005695	0.53
Y 377.433	1.072041	692674.121520	0.005462	0.51
Y_R 377.433	1.073620	59103.200000	0.001364	0.13
Y_R 488.368	1.072030	51808.000000	0.001150	0.11
Y_R2 488.368	1.061231	98359.582565	0.002327	0.22
Y_R4	1.082100	46335.000000	0.001012	0.09

Sample Name: CCVL-5717307

Date: 5/24/2019 1:11:11 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007670	ppm	0.000291	3.80	21.963100	Y 377.433
Al (394.401 nm)	0.096867	ppm	0.001403	1.45	1295.350000	Y 377.433
Al H (396.152 nm)	0.227802 u	ppm	0.000068	0.03	248.978000	Y_R 377.433
As (188.980 nm)	0.013016	ppm	0.000139	1.07	19.431200	Y 242.219
B (249.678 nm)	0.089152	ppm	0.000093	0.10	675.993000	Y 242.219
Ba (493.408 nm)	0.008565	ppm	0.000085	0.99	2262.310000	Y_R 488.368
Be (234.861 nm)	0.000948	ppm	0.000008	0.81	89.430700	Y_R 488.368
Bi (223.061 nm)	0.088883	ppm	0.001139	1.28	187.242000	Y 377.433
Ca (315.887 nm)	0.214547	ppm	0.011962	5.58	111.262055	Y_R 377.433
Cd (214.439 nm)	0.005047	ppm	0.000083	1.64	194.185000	Y 377.433
Co (228.615 nm)	0.010220	ppm	0.000001	0.01	230.963000	Y 242.219
Cr (205.560 nm)	0.009365	ppm	0.000088	0.94	60.216300	Y 377.433
Cu (324.754 nm)	0.015234	ppm	0.000317	2.08	1117.740000	Y 377.433
Fe (238.204 nm)	0.098306	ppm	0.002578	2.62	245.234485	Y_R 377.433
Fe H (259.940 nm)	0.044332 u	ppm	0.002827	6.38	152.736000	Y_R 377.433
K (766.491 nm)	2.975310	ppm	0.049562	1.67	4934.670000	Y_R2 488.368
Li (670.783 nm)	0.024938	ppm	0.003167	12.70	-2197.210000	Y_R2 488.368
Mg (279.078 nm)	0.200138	ppm	0.002820	1.41	719.707000	Y 377.433
Mn (257.610 nm)	0.010359	ppm	0.000021	0.20	2843.380000	Y 377.433
Mo (202.032 nm)	0.018408	ppm	0.000010	0.05	257.620000	Y 377.433
Na (589.592 nm)	1.339070 Q	ppm	0.027146	2.03	1104.120000 Q	Y_R2 488.368
Na H (589.593 nm)	2.973511 u	ppm	0.030092	1.01	1806.398665	Y_R4
Ni (231.604 nm)	0.040627	ppm	0.000074	0.18	215.692000	Y 377.433
P (213.618 nm)	2.697130	ppm	0.012750	0.47	4072.580000	Y 242.219
Pb (220.353 nm)	0.007602	ppm	0.000214	2.81	39.105500	Y 242.219
S (181.972 nm)	0.095561	ppm	0.001084	1.13	50.719856	Y 377.433
Sb (206.834 nm)	0.023436	ppm	0.000019	0.08	33.682200	Y 377.433
Se (196.026 nm)	0.015645	ppm	0.002703	17.28	35.993600	Y 242.219
Si (288.158 nm)	0.463450	ppm	0.002023	0.44	3565.110000	Y 377.433
Sn (189.925 nm)	0.095006	ppm	0.001476	1.55	167.947000	Y 377.433
Sr (421.552 nm)	0.009022	ppm	0.000053	0.59	1367.379154	Y_R 488.368
Th (288.505 nm)	0.008276 Q	ppm	0.000649	7.85	28.447700 Q	Y 377.433
Ti (336.122 nm)	0.009743	ppm	0.000047	0.49	761.798000	Y 377.433
Tl (190.794 nm)	0.015390	ppm	0.002065	13.42	37.282100	Y 377.433
U (409.013 nm)	0.059196	ppm	0.004080	6.89	142.504000	Y 377.433
V (292.401 nm)	0.009915	ppm	0.000102	1.03	339.798000	Y 377.433
Zn (206.200 nm)	0.019752	ppm	0.000169	0.85	101.863000	Y 377.433
Zr (343.823 nm)	0.009915	ppm	0.000178	1.80	397.183000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.085215	24300.652374	0.002083	0.19
Y 377.433	1.080058	697853.975721	0.001894	0.18
Y_R 377.433	1.078620	59378.400000	0.000587	0.05
Y_R 488.368	1.075210	51961.500000	0.000034	0.00
Y_R2 488.368	1.062723	98497.892822	0.009758	0.92
Y_R4	1.080910	46284.100000	0.011933	1.10

Sample Name: lcs 280-458934/2-a

Date: 5/24/2019 1:14:40 AM
Rack:Tube: 2:21

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051291	ppm	0.000368	0.72	1247.460000	Y 377.433
Al (394.401 nm)	10.000900 o	ppm	0.004651	0.05	119878.000000	Y 377.433
Al H (396.152 nm)	10.036900	ppm	0.005933	0.06	20920.700000	Y_R 377.433
As (188.980 nm)	1.988080	ppm	0.001968	0.10	3166.170000	Y 242.219
B (249.678 nm)	0.981749	ppm	0.001709	0.17	7067.570000	Y 242.219
Ba (493.408 nm)	1.981700	ppm	0.005176	0.26	193394.000000	Y_R 488.368
Be (234.861 nm)	0.992694	ppm	0.002557	0.26	100042.000000	Y_R 488.368
Bi (223.061 nm)	1.915970	ppm	0.001245	0.06	4356.530000	Y 377.433
Ca (315.887 nm)	49.677023	ppm	0.118510	0.24	40046.792430	Y_R 377.433
Cd (214.439 nm)	0.983348	ppm	0.000019	0.00	39341.500000	Y 377.433
Co (228.615 nm)	0.965202	ppm	0.000514	0.05	23887.600000	Y 242.219
Cr (205.560 nm)	0.978307	ppm	0.000390	0.04	6918.920000	Y 377.433
Cu (324.754 nm)	0.960762	ppm	0.002922	0.30	45081.100000	Y 377.433
Fe (238.204 nm)	10.016047 o	ppm	0.004796	0.05	24690.060427	Y_R 377.433
Fe H (259.940 nm)	10.047600	ppm	0.009424	0.09	14139.800000	Y_R 377.433
K (766.491 nm)	50.289500	ppm	0.035782	0.07	51895.400000	Y_R2 488.368
Li (670.783 nm)	1.002630	ppm	0.002456	0.24	14828.000000	Y_R2 488.368
Mg (279.078 nm)	49.909000	ppm	0.014890	0.03	176801.000000	Y 377.433
Mn (257.610 nm)	0.994301	ppm	0.000654	0.07	275002.000000	Y 377.433
Mo (202.032 nm)	1.004300	ppm	0.000416	0.04	12802.800000	Y 377.433
Na (589.592 nm)	48.423700	ppm	0.169873	0.35	36386.400000	Y_R2 488.368
Na H (589.593 nm)	54.123380	ppm	0.345248	0.64	27245.352111	Y_R4
Ni (231.604 nm)	0.967106	ppm	0.000765	0.08	5395.720000	Y 377.433
P (213.618 nm)	19.884900	ppm	0.007508	0.04	29811.200000	Y 242.219
Pb (220.353 nm)	0.983145	ppm	0.000355	0.04	3388.850000	Y 242.219
S (181.972 nm)	9.965775	ppm	0.007507	0.08	4489.936902	Y 377.433
Sb (206.834 nm)	1.054570	ppm	0.001192	0.11	1849.370000	Y 377.433
Se (196.026 nm)	1.937210	ppm	0.002140	0.11	3157.770000	Y 242.219
Si (288.158 nm)	2.029120	ppm	0.004238	0.21	13892.800000	Y 377.433
Sn (189.925 nm)	1.966020	ppm	0.003158	0.16	3431.400000	Y 377.433
Sr (421.552 nm)	0.991908	ppm	0.004216	0.43	145115.580476	Y_R 488.368
Th (288.505 nm)	1.017240	ppm	0.001283	0.13	1696.160000	Y 377.433
Ti (336.122 nm)	0.993779	ppm	0.001293	0.13	128880.000000	Y 377.433
Tl (190.794 nm)	1.968930	ppm	0.002648	0.13	4760.660000	Y 377.433
U (409.013 nm)	1.993580	ppm	0.011246	0.56	6144.270000	Y 377.433
V (292.401 nm)	0.986123	ppm	0.000760	0.08	51831.100000	Y 377.433
Zn (206.200 nm)	0.492179	ppm	0.000605	0.12	2448.130000	Y 377.433
Zr (343.823 nm)	0.494845	ppm	0.000857	0.17	28358.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.056062	23647.828325	0.000605	0.06
Y 377.433	1.059376	684490.963148	0.000408	0.04
Y_R 377.433	1.072020	59015.400000	0.003376	0.31
Y_R 488.368	1.070140	51716.600000	0.000653	0.06
Y_R2 488.368	1.046488	96993.189892	0.003770	0.36
Y_R4	1.080810	46279.700000	0.002741	0.25

Sample Name: lcsd 280-458934/3-a

Date: 5/24/2019 1:18:17 AM Rack:Tube: 2:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050706	ppm	0.000223	0.44	1227.240000	Y 377.433
Al (394.401 nm)	9.861010 o	ppm	0.018199	0.18	118206.000000	Y 377.433
Al H (396.152 nm)	9.892480	ppm	0.030844	0.31	20622.700000	Y_R 377.433
As (188.980 nm)	1.978940	ppm	0.006650	0.34	3151.620000	Y 242.219
B (249.678 nm)	0.981189	ppm	0.000584	0.06	7063.640000	Y 242.219
Ba (493.408 nm)	1.978660	ppm	0.003746	0.19	193099.000000	Y_R 488.368
Be (234.861 nm)	1.002010	ppm	0.001585	0.16	100982.000000	Y_R 488.368
Bi (223.061 nm)	1.911420	ppm	0.001356	0.07	4346.120000	Y 377.433
Ca (315.887 nm)	48.905200	ppm	0.103123	0.21	39423.633155	Y_R 377.433
Cd (214.439 nm)	0.982555	ppm	0.003044	0.31	39309.700000	Y 377.433
Co (228.615 nm)	0.965410	ppm	0.000378	0.04	23892.700000	Y 242.219
Cr (205.560 nm)	0.975602	ppm	0.000286	0.03	6899.760000	Y 377.433
Cu (324.754 nm)	0.961648	ppm	0.003596	0.37	45121.800000	Y 377.433
Fe (238.204 nm)	9.862376 o	ppm	0.021212	0.22	24311.300692	Y_R 377.433
Fe H (259.940 nm)	9.872870	ppm	0.031131	0.32	13895.500000	Y_R 377.433
K (766.491 nm)	49.906200	ppm	0.002255	0.00	51514.900000	Y_R2 488.368
Li (670.783 nm)	0.998318	ppm	0.001801	0.18	14752.900000	Y_R2 488.368
Mg (279.078 nm)	49.234200	ppm	0.155240	0.32	174410.000000	Y 377.433
Mn (257.610 nm)	0.993224	ppm	0.002146	0.22	274704.000000	Y 377.433
Mo (202.032 nm)	1.002460	ppm	0.002182	0.22	12779.400000	Y 377.433
Na (589.592 nm)	47.655700	ppm	0.032295	0.07	35816.800000	Y_R2 488.368
Na H (589.593 nm)	53.403784	ppm	0.174947	0.33	26887.467040	Y_R4
Ni (231.604 nm)	0.963253	ppm	0.003201	0.33	5374.190000	Y 377.433
P (213.618 nm)	19.873900	ppm	0.015109	0.08	29794.200000	Y 242.219
Pb (220.353 nm)	0.985290	ppm	0.004500	0.46	3396.230000	Y 242.219
S (181.972 nm)	9.915221	ppm	0.037297	0.38	4467.188831	Y 377.433
Sb (206.834 nm)	1.044370	ppm	0.002754	0.26	1831.340000	Y 377.433
Se (196.026 nm)	1.937310	ppm	0.000981	0.05	3157.980000	Y 242.219
Si (288.158 nm)	2.033400	ppm	0.002631	0.13	13921.000000	Y 377.433
Sn (189.925 nm)	1.967620	ppm	0.002329	0.12	3434.190000	Y 377.433
Sr (421.552 nm)	0.990216	ppm	0.001313	0.13	144868.066235	Y_R 488.368
Th (288.505 nm)	1.018720	ppm	0.005688	0.56	1698.790000	Y 377.433
Ti (336.122 nm)	0.991803	ppm	0.001981	0.20	128620.000000	Y 377.433
Tl (190.794 nm)	1.972250	ppm	0.009717	0.49	4768.780000	Y 377.433
U (409.013 nm)	1.981740	ppm	0.015237	0.77	6107.450000	Y 377.433
V (292.401 nm)	0.984178	ppm	0.002398	0.24	51728.900000	Y 377.433
Zn (206.200 nm)	0.489856	ppm	0.000739	0.15	2436.580000	Y 377.433
Zr (343.823 nm)	0.492945	ppm	0.001338	0.27	28248.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.054451	23611.750599	0.000017	0.00
Y 377.433	1.058662	684029.019752	0.003658	0.35
Y_R 377.433	1.062120	58470.100000	0.002386	0.22
Y_R 488.368	1.057940	51127.200000	0.002290	0.22
Y_R2 488.368	1.035107	95938.307851	0.001754	0.17
Y_R4	1.060250	45399.600000	0.006998	0.66

Sample Name: 280-123573-a-1-d

Date: 5/24/2019 1:21:56 AM Rack:Tube: 2:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000370	ppm	0.000131	35.53	-233.354000	Y 377.433
Al (394.401 nm)	0.029460	ppm	0.000745	2.53	517.194000	Y 377.433
Al H (396.152 nm)	0.119152 u	ppm	0.000057	0.05	61.194300	Y_R 377.433
As (188.980 nm)	0.001539	ppm	0.000898	58.38	1.117500	Y 242.219
B (249.678 nm)	0.017811	ppm	0.000137	0.77	164.143000	Y 242.219
Ba (493.408 nm)	0.057491	ppm	0.000175	0.30	7002.150000	Y_R 488.368
Be (234.861 nm)	0.000055 u	ppm	0.000085	> 100.00	-4.623680	Y_R 488.368
Bi (223.061 nm)	0.001443	ppm	0.000033	2.32	-12.034600	Y 377.433
Ca (315.887 nm)	40.299679	ppm	0.024015	0.06	32473.521153	Y_R 377.433
Cd (214.439 nm)	0.000330	ppm	0.000013	3.92	5.874430	Y 377.433
Co (228.615 nm)	0.000486	ppm	0.000038	7.86	-10.050800	Y 242.219
Cr (205.560 nm)	0.169237	ppm	0.000022	0.01	1193.300000	Y 377.433
Cu (324.754 nm)	0.003510	ppm	0.000396	11.28	550.198000	Y 377.433
Fe (238.204 nm)	1.020304	ppm	0.000723	0.07	2517.735366	Y_R 377.433
Fe H (259.940 nm)	0.977357 u	ppm	0.004497	0.46	1457.340000	Y_R 377.433
K (766.491 nm)	1.929940	ppm	0.109630	5.68	3897.120000	Y_R2 488.368
Li (670.783 nm)	0.020861	ppm	0.001905	9.13	-2268.210000	Y_R2 488.368
Mg (279.078 nm)	18.872800	ppm	0.027779	0.15	66879.800000	Y 377.433
Mn (257.610 nm)	0.009915	ppm	0.000001	0.01	2720.330000	Y 377.433
Mo (202.032 nm)	0.003393	ppm	0.000231	6.80	66.561400	Y 377.433
Na (589.592 nm)	51.854200	ppm	0.096088	0.19	38533.500000	Y_R2 488.368
Na H (589.593 nm)	54.490981	ppm	0.287952	0.53	27428.175117	Y_R4
Ni (231.604 nm)	0.028789	ppm	0.001332	4.63	149.522000	Y 377.433
P (213.618 nm)	0.007199	ppm	0.000115	1.59	4.960770	Y 242.219
Pb (220.353 nm)	-0.002924 u	ppm	0.000066	2.26	2.603520	Y 242.219
S (181.972 nm)	44.220613	ppm	0.055819	0.13	19874.194099	Y 377.433
Sb (206.834 nm)	0.002372	ppm	0.000769	32.41	-1.985860	Y 377.433
Se (196.026 nm)	0.002432	ppm	0.000968	39.78	14.259700	Y 242.219
Si (288.158 nm)	12.007200	ppm	0.024220	0.20	79711.200000	Y 377.433
Sn (189.925 nm)	0.000818	ppm	0.000703	85.93	3.662610	Y 377.433
Sr (421.552 nm)	0.126551	ppm	0.000328	0.26	18556.180712	Y_R 488.368
Th (288.505 nm)	-0.006243 u	ppm	0.000517	8.27	2.758280	Y 377.433
Ti (336.122 nm)	0.000615	ppm	0.000039	6.27	-288.199000	Y 377.433
Tl (190.794 nm)	0.002717	ppm	0.000565	20.80	4.869140	Y 377.433
U (409.013 nm)	0.024243	ppm	0.003353	13.83	29.669500	Y 377.433
V (292.401 nm)	0.001086	ppm	0.000144	13.21	-188.207000	Y 377.433
Zn (206.200 nm)	0.009994	ppm	0.000439	4.40	53.576500	Y 377.433
Zr (343.823 nm)	0.000366	ppm	0.000072	19.74	-153.410000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.072359	24012.760836	0.005713	0.53
Y 377.433	1.071508	692329.745969	0.005548	0.52
Y_R 377.433	1.078890	59393.100000	0.000008	0.00
Y_R 488.368	1.077240	52059.900000	0.001066	0.10
Y_R2 488.368	1.055072	97788.814679	0.009768	0.93
Y_R4	1.069000	45774.000000	0.006256	0.59

Sample Name: 280-123573-a-1-dSD@5

Date: 5/24/2019 1:25:29 AM Rack:Tube: 2:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000176 u	ppm	0.000282	> 100.00	-239.824000	Y 377.433
Al (394.401 nm)	0.006608	ppm	0.002142	32.41	215.202000	Y 377.433
Al H (396.152 nm)	0.125723 u	ppm	0.005007	3.98	41.519000	Y_R 377.433
As (188.980 nm)	-0.000239 u	ppm	0.001156	> 100.00	-1.692920	Y 242.219
B (249.678 nm)	0.001099	ppm	0.000087	7.92	44.827000	Y 242.219
Ba (493.408 nm)	0.011121	ppm	0.000842	7.57	2510.010000	Y_R 488.368
Be (234.861 nm)	0.000037	ppm	0.000044	> 100.00	-3.000110	Y_R 488.368
Bi (223.061 nm)	0.001778	ppm	0.000819	46.07	-11.417500	Y 377.433
Ca (315.887 nm)	8.291020	ppm	0.042230	0.51	6631.687915	Y_R 377.433
Cd (214.439 nm)	-0.000002 u	ppm	0.000008	> 100.00	-7.774750	Y 377.433
Co (228.615 nm)	0.000233	ppm	0.000144	61.86	-16.378900	Y 242.219
Cr (205.560 nm)	0.034883	ppm	0.000396	1.14	241.224000	Y 377.433
Cu (324.754 nm)	0.000765	ppm	0.000030	3.92	442.515000	Y 377.433
Fe (238.204 nm)	0.229714	ppm	0.004815	2.10	569.123261	Y_R 377.433
Fe H (259.940 nm)	0.180251 u	ppm	0.004008	2.22	342.785000	Y_R 377.433
K (766.491 nm)	0.325522	ppm	0.001166	0.36	2304.680000	Y_R2 488.368
Li (670.783 nm)	0.010411	ppm	0.001768	16.98	-2450.170000	Y_R2 488.368
Mg (279.078 nm)	3.930260	ppm	0.007181	0.18	13937.100000	Y 377.433
Mn (257.610 nm)	0.002342	ppm	0.000002	0.07	625.781000	Y 377.433
Mo (202.032 nm)	0.000436	ppm	0.000045	10.21	28.941600	Y 377.433
Na (589.592 nm)	10.844500	ppm	0.033352	0.31	8145.830000	Y_R2 488.368
Na H (589.593 nm)	11.944892 u	ppm	0.017272	0.14	6268.238509	Y_R4
Ni (231.604 nm)	0.004874	ppm	0.000999	20.49	15.872100	Y 377.433
P (213.618 nm)	0.001012	ppm	0.001365	> 100.00	-3.384950	Y 242.219
Pb (220.353 nm)	-0.001511 u	ppm	0.000948	62.72	7.653990	Y 242.219
S (181.972 nm)	8.922089	ppm	0.030732	0.34	4016.073336	Y 377.433
Sb (206.834 nm)	0.002548	ppm	0.001162	45.59	-2.759720	Y 377.433
Se (196.026 nm)	-0.000309 u	ppm	0.000414	> 100.00	10.013600	Y 242.219
Si (288.158 nm)	2.408560	ppm	0.002196	0.09	16395.700000	Y 377.433
Sn (189.925 nm)	-0.000462 u	ppm	0.000070	15.15	1.430090	Y 377.433
Sr (421.552 nm)	0.024725	ppm	0.000217	0.88	3663.938927	Y_R 488.368
Th (288.505 nm)	-0.002233 u	ppm	0.000888	39.75	10.421100	Y 377.433
Ti (336.122 nm)	0.000499	ppm	0.000121	24.21	-412.855000	Y 377.433
Tl (190.794 nm)	0.002065	ppm	0.000904	43.80	4.743860	Y 377.433
U (409.013 nm)	0.006213 u	ppm	0.014281	> 100.00	-23.204000	Y 377.433
V (292.401 nm)	0.000553	ppm	0.000006	1.04	-164.348000	Y 377.433
Zn (206.200 nm)	0.005854	ppm	0.000605	10.33	32.907400	Y 377.433
Zr (343.823 nm)	0.000301	ppm	0.000205	68.14	-157.164000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084047	24274.478883	0.001682	0.16
Y 377.433	1.078685	696966.594437	0.000852	0.08
Y_R 377.433	1.074640	59159.400000	0.002180	0.20
Y_R 488.368	1.071980	51805.600000	0.002153	0.20
Y_R2 488.368	1.061680	98401.260985	0.002893	0.27
Y_R4	1.072530	45925.300000	0.005154	0.48

Sample Name: 280-123573-a-1-e ms

Date: 5/24/2019 1:28:58 AM Rack:Tube: 2:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050973	ppm	0.000410	0.81	1233.800000	Y 377.433
Al (394.401 nm)	10.009200 o	ppm	0.007744	0.08	120011.000000	Y 377.433
Al H (396.152 nm)	10.016800	ppm	0.005643	0.06	20923.300000	Y_R 377.433
As (188.980 nm)	2.013380	ppm	0.001860	0.09	3206.470000	Y 242.219
B (249.678 nm)	1.022190	ppm	0.000102	0.01	7356.830000	Y 242.219
Ba (493.408 nm)	2.046400	ppm	0.000556	0.03	199661.000000	Y_R 488.368
Be (234.861 nm)	1.005260	ppm	0.002057	0.20	101304.000000	Y_R 488.368
Bi (223.061 nm)	1.918190	ppm	0.001462	0.08	4361.770000	Y 377.433
Ca (315.887 nm)	89.350898	ppm	0.088950	0.10	72077.053232	Y_R 377.433
Cd (214.439 nm)	0.980413	ppm	0.000762	0.08	39224.500000	Y 377.433
Co (228.615 nm)	0.967264	ppm	0.000226	0.02	23938.900000	Y 242.219
Cr (205.560 nm)	1.143790	ppm	0.000850	0.07	8091.570000	Y 377.433
Cu (324.754 nm)	0.974899	ppm	0.006492	0.67	45714.100000	Y 377.433
Fe (238.204 nm)	11.033341 o	ppm	0.010969	0.10	27197.445241	Y_R 377.433
Fe H (259.940 nm)	11.057200	ppm	0.000185	0.00	15551.500000	Y_R 377.433
K (766.491 nm)	53.118600	ppm	0.049558	0.09	54703.400000	Y_R2 488.368
Li (670.783 nm)	1.024640	ppm	0.002613	0.26	15211.200000	Y_R2 488.368
Mg (279.078 nm)	68.552100	ppm	0.022830	0.03	242855.000000	Y 377.433
Mn (257.610 nm)	1.003300	ppm	0.000611	0.06	277492.000000	Y 377.433
Mo (202.032 nm)	1.010490	ppm	0.000222	0.02	12881.500000	Y 377.433
Na (589.592 nm)	98.093900 o	ppm	0.308587	0.31	73193.300000	Y_R2 488.368
Na H (589.593 nm)	107.187658	ppm	0.127797	0.12	53636.420911	Y_R4
Ni (231.604 nm)	0.990617	ppm	0.000414	0.04	5527.090000	Y 377.433
P (213.618 nm)	20.065900	ppm	0.000695	0.00	30081.200000	Y 242.219
Pb (220.353 nm)	0.983380	ppm	0.000291	0.03	3389.340000	Y 242.219
S (181.972 nm)	54.651350	ppm	0.025388	0.05	24565.216239	Y 377.433
Sb (206.834 nm)	1.059990	ppm	0.009229	0.87	1860.230000	Y 377.433
Se (196.026 nm)	1.954590	ppm	0.004446	0.23	3185.750000	Y 242.219
Si (288.158 nm)	14.078000	ppm	0.083467	0.59	93371.000000	Y 377.433
Sn (189.925 nm)	1.990130	ppm	0.000842	0.04	3473.440000	Y 377.433
Sr (421.552 nm)	1.124441	ppm	0.001077	0.10	164498.669470	Y_R 488.368
Th (288.505 nm)	1.020220	ppm	0.005533	0.54	1699.630000	Y 377.433
Ti (336.122 nm)	0.997998	ppm	0.000978	0.10	129564.000000	Y 377.433
Tl (190.794 nm)	1.953010	ppm	0.003776	0.19	4720.280000	Y 377.433
U (409.013 nm)	1.997000	ppm	0.006177	0.31	6150.600000	Y 377.433
V (292.401 nm)	0.991767	ppm	0.000287	0.03	52068.100000	Y 377.433
Zn (206.200 nm)	0.500684	ppm	0.000850	0.17	2490.490000	Y 377.433
Zr (343.823 nm)	0.494818	ppm	0.000555	0.11	28356.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.034746	23170.517214	0.003789	0.37
Y 377.433	1.041133	672703.270239	0.004061	0.39
Y_R 377.433	1.051900	57907.500000	0.003307	0.31
Y_R 488.368	1.047120	50604.300000	0.002341	0.22
Y_R2 488.368	1.024790	94982.107499	0.003894	0.38
Y_R4	1.057040	45261.800000	0.005072	0.48

Sample Name: 280-123573-a-1-f msd

Date: 5/24/2019 1:32:38 AM
Rack:Tube: 2:26

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051370	ppm	0.000132	0.26	1250.970000	Y 377.433
Al (394.401 nm)	10.007300 o	ppm	0.006792	0.07	119984.000000	Y 377.433
Al H (396.152 nm)	10.008500	ppm	0.007424	0.07	20901.800000	Y_R 377.433
As (188.980 nm)	1.994350	ppm	0.003515	0.18	3176.150000	Y 242.219
B (249.678 nm)	1.021990	ppm	0.002244	0.22	7355.430000	Y 242.219
Ba (493.408 nm)	2.029890	ppm	0.002067	0.10	198062.000000	Y_R 488.368
Be (234.861 nm)	0.982377	ppm	0.007908	0.80	98997.500000	Y_R 488.368
Bi (223.061 nm)	1.911530	ppm	0.007511	0.39	4346.580000	Y 377.433
Ca (315.887 nm)	89.283725	ppm	0.034191	0.04	72022.822062	Y_R 377.433
Cd (214.439 nm)	0.973591	ppm	0.001985	0.20	38951.600000	Y 377.433
Co (228.615 nm)	0.960574	ppm	0.001053	0.11	23773.100000	Y 242.219
Cr (205.560 nm)	1.143620	ppm	0.004335	0.38	8090.410000	Y 377.433
Cu (324.754 nm)	0.960649	ppm	0.002532	0.26	45053.400000	Y 377.433
Fe (238.204 nm)	11.014571 o	ppm	0.012667	0.12	27151.180753	Y_R 377.433
Fe H (259.940 nm)	11.045400	ppm	0.019352	0.18	15534.900000	Y_R 377.433
K (766.491 nm)	52.634400	ppm	0.202287	0.38	54222.800000	Y_R2 488.368
Li (670.783 nm)	1.009550	ppm	0.003520	0.35	14948.400000	Y_R2 488.368
Mg (279.078 nm)	68.484400	ppm	0.087409	0.13	242615.000000	Y 377.433
Mn (257.610 nm)	0.997421	ppm	0.000872	0.09	275865.000000	Y 377.433
Mo (202.032 nm)	1.005190	ppm	0.001147	0.11	12814.100000	Y 377.433
Na (589.592 nm)	97.603400 o	ppm	0.123680	0.13	72826.400000	Y_R2 488.368
Na H (589.593 nm)	106.775731	ppm	0.358017	0.34	53431.552476	Y_R4
Ni (231.604 nm)	0.985244	ppm	0.000494	0.05	5497.050000	Y 377.433
P (213.618 nm)	19.992900	ppm	0.033999	0.17	29974.100000	Y 242.219
Pb (220.353 nm)	0.978932	ppm	0.005922	0.60	3374.050000	Y 242.219
S (181.972 nm)	54.511684	ppm	0.153055	0.28	24502.450327	Y 377.433
Sb (206.834 nm)	1.060430	ppm	0.002761	0.26	1861.100000	Y 377.433
Se (196.026 nm)	1.934810	ppm	0.004568	0.24	3153.590000	Y 242.219
Si (288.158 nm)	14.046600	ppm	0.030587	0.22	93163.600000	Y 377.433
Sn (189.925 nm)	1.975480	ppm	0.001328	0.07	3447.890000	Y 377.433
Sr (421.552 nm)	1.115446	ppm	0.001630	0.15	163183.187221	Y_R 488.368
Th (288.505 nm)	1.020820	ppm	0.001022	0.10	1701.520000	Y 377.433
Ti (336.122 nm)	0.990785	ppm	0.000633	0.06	128626.000000	Y 377.433
Tl (190.794 nm)	1.940130	ppm	0.003983	0.21	4689.120000	Y 377.433
U (409.013 nm)	1.988300	ppm	0.005864	0.29	6123.220000	Y 377.433
V (292.401 nm)	0.985365	ppm	0.000470	0.05	51728.400000	Y 377.433
Zn (206.200 nm)	0.498221	ppm	0.000199	0.04	2478.270000	Y 377.433
Zr (343.823 nm)	0.494744	ppm	0.000011	0.00	28352.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.023326	22914.787306	0.005716	0.56
Y 377.433	1.029358	665095.521291	0.006454	0.63
Y_R 377.433	1.055370	58098.600000	0.000916	0.09
Y_R 488.368	1.051840	50832.400000	0.002019	0.19
Y_R2 488.368	1.026938	95181.225032	0.002102	0.20
Y_R4	1.053310	45102.200000	0.004645	0.44

Sample Name: 280-123573-a-1-dPDS

Date: 5/24/2019 1:36:17 AM Rack:Tube: 2:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049322	ppm	0.000746	1.51	1476.650000	Y 377.433
Al (394.401 nm)	1.006000	ppm	0.000969	0.10	12213.300000	Y 377.433
Al H (396.152 nm)	1.098280	ppm	0.012306	1.12	2096.390000	Y_R 377.433
As (188.980 nm)	0.200548	ppm	0.000023	0.01	318.187000	Y 242.219
B (249.678 nm)	0.115110	ppm	0.000605	0.53	860.933000	Y 242.219
Ba (493.408 nm)	0.154112	ppm	0.000539	0.35	16361.900000	Y_R 488.368
Be (234.861 nm)	0.049387	ppm	0.000574	1.16	4965.180000	Y_R 488.368
Bi (223.061 nm)	0.002757	ppm	0.002805	> 100.00	-8.818530	Y 377.433
Ca (315.887 nm)	58.463704	ppm	0.070970	0.12	47138.301529	Y_R 377.433
Cd (214.439 nm)	0.049529	ppm	0.000113	0.23	1974.800000	Y 377.433
Co (228.615 nm)	0.047573	ppm	0.000211	0.44	1156.300000	Y 242.219
Cr (205.560 nm)	0.215994	ppm	0.001043	0.48	1524.240000	Y 377.433
Cu (324.754 nm)	0.052021	ppm	0.000277	0.53	2801.680000	Y 377.433
Fe (238.204 nm)	1.981682	ppm	0.008297	0.42	4887.299749	Y_R 377.433
Fe H (259.940 nm)	1.933630 u	ppm	0.001629	0.08	2794.450000	Y_R 377.433
K (766.491 nm)	21.702600	ppm	0.110367	0.51	23522.000000	Y_R2 488.368
Li (670.783 nm)	0.117685	ppm	0.002540	2.16	-582.152000	Y_R2 488.368
Mg (279.078 nm)	37.819100	ppm	0.049889	0.13	134000.000000	Y 377.433
Mn (257.610 nm)	0.058895	ppm	0.000099	0.17	16268.400000	Y 377.433
Mo (202.032 nm)	0.052887	ppm	0.000075	0.14	696.356000	Y 377.433
Na (589.592 nm)	69.743100 o	ppm	0.175922	0.25	51804.600000	Y_R2 488.368
Na H (589.593 nm)	73.341799	ppm	0.022653	0.03	36803.469876	Y_R4
Ni (231.604 nm)	0.074892	ppm	0.000284	0.38	407.406000	Y 377.433
P (213.618 nm)	1.951300	ppm	0.016934	0.87	2932.780000	Y 242.219
Pb (220.353 nm)	0.095779	ppm	0.001695	1.77	342.579000	Y 242.219
S (181.972 nm)	43.547595	ppm	0.165555	0.38	19572.881172	Y 377.433
Sb (206.834 nm)	0.106264	ppm	0.002478	2.33	181.184000	Y 377.433
Se (196.026 nm)	0.195023	ppm	0.001610	0.83	327.069000	Y 242.219
Si (288.158 nm)	16.484600	ppm	0.069921	0.42	109245.000000	Y 377.433
Sn (189.925 nm)	0.097030	ppm	0.000297	0.31	171.477000	Y 377.433
Sr (421.552 nm)	0.170560	ppm	0.000335	0.20	24992.542418	Y_R 488.368
Th (288.505 nm)	0.195726	ppm	0.005866	3.00	352.045000	Y 377.433
Ti (336.122 nm)	0.049401	ppm	0.000022	0.05	6117.260000	Y 377.433
Tl (190.794 nm)	0.199608	ppm	0.001711	0.86	480.690000	Y 377.433
U (409.013 nm)	0.501265	ppm	0.002339	0.47	1516.370000	Y 377.433
V (292.401 nm)	0.049983	ppm	0.000289	0.58	2385.940000	Y 377.433
Zn (206.200 nm)	0.206181	ppm	0.001270	0.62	1027.430000	Y 377.433
Zr (343.823 nm)	0.049895	ppm	0.000029	0.06	2702.460000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043651	23369.913579	0.004637	0.44
Y 377.433	1.041924	673214.254733	0.003548	0.34
Y_R 377.433	1.050480	57829.300000	0.002302	0.22
Y_R 488.368	1.047450	50620.300000	0.004672	0.45
Y_R2 488.368	1.041850	96563.304397	0.008866	0.85
Y_R4	1.054600	45157.500000	0.001868	0.18

Sample Name: 280-123573-a-10-b

Date: 5/24/2019 1:39:52 AM Rack:Tube: 2:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000434	ppm	0.000214	49.33	-230.813000	Y 377.433
Al (394.401 nm)	0.006095	ppm	0.001642	26.93	221.284000	Y 377.433
Al H (396.152 nm)	0.116328 u	ppm	0.004308	3.70	38.015900	Y_R 377.433
As (188.980 nm)	-0.000338 u	ppm	0.000636	> 100.00	-2.106820	Y 242.219
B (249.678 nm)	0.008981	ppm	0.000766	8.53	96.143000	Y 242.219
Ba (493.408 nm)	0.020017	ppm	0.000205	1.02	3378.640000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000015	26.73	-51.010200	Y_R 488.368
Bi (223.061 nm)	0.000768 u	ppm	0.001380	> 100.00	-12.112600	Y 377.433
Ca (315.887 nm)	13.641294	ppm	0.008280	0.06	10951.171973	Y_R 377.433
Cd (214.439 nm)	0.000214	ppm	0.000057	26.45	4.791360	Y 377.433
Co (228.615 nm)	0.001842	ppm	0.000051	2.79	23.401700	Y 242.219
Cr (205.560 nm)	0.000068 u	ppm	0.000372	> 100.00	-5.498660	Y 377.433
Cu (324.754 nm)	0.000339	ppm	0.000166	48.99	419.013000	Y 377.433
Fe (238.204 nm)	9.113401 o	ppm	0.021569	0.24	22465.258946	Y_R 377.433
Fe H (259.940 nm)	9.111400	ppm	0.001264	0.01	12830.700000	Y_R 377.433
K (766.491 nm)	1.282840	ppm	0.028900	2.25	3254.850000	Y_R2 488.368
Li (670.783 nm)	0.028585	ppm	0.000580	2.03	-2133.700000	Y_R2 488.368
Mg (279.078 nm)	9.238430	ppm	0.018356	0.20	32732.100000	Y 377.433
Mn (257.610 nm)	0.789286	ppm	0.001280	0.16	218294.000000	Y 377.433
Mo (202.032 nm)	-0.000243 u	ppm	0.000664	> 100.00	20.300700	Y 377.433
Na (589.592 nm)	69.471600 o	ppm	0.149999	0.22	51576.200000	Y_R2 488.368
Na H (589.593 nm)	72.254160	ppm	0.157558	0.22	36262.541895	Y_R4
Ni (231.604 nm)	0.003589	ppm	0.000111	3.09	8.687860	Y 377.433
P (213.618 nm)	0.007265	ppm	0.005050	69.51	6.407290	Y 242.219
Pb (220.353 nm)	-0.001906 u	ppm	0.000213	11.19	6.363440	Y 242.219
S (181.972 nm)	51.717600	ppm	0.196548	0.38	23243.060607	Y 377.433
Sb (206.834 nm)	0.003746	ppm	0.000053	1.43	-0.124711	Y 377.433
Se (196.026 nm)	-0.000457 u	ppm	0.004061	> 100.00	8.460250	Y 242.219
Si (288.158 nm)	12.652900	ppm	0.018722	0.15	83970.800000	Y 377.433
Sn (189.925 nm)	0.000935	ppm	0.000928	99.27	3.867310	Y 377.433
Sr (421.552 nm)	0.069387	ppm	0.000096	0.14	10197.119644	Y_R 488.368
Th (288.505 nm)	-0.006463 u	ppm	0.003796	58.74	17.696100	Y 377.433
Ti (336.122 nm)	0.000335	ppm	0.000067	19.88	-416.019000	Y 377.433
Tl (190.794 nm)	0.001761	ppm	0.001238	70.33	2.650620	Y 377.433
U (409.013 nm)	0.008086	ppm	0.001687	20.87	-11.540200	Y 377.433
V (292.401 nm)	0.000532	ppm	0.000213	40.09	-152.574000	Y 377.433
Zn (206.200 nm)	0.012290	ppm	0.000496	4.04	66.222100	Y 377.433
Zr (343.823 nm)	0.000573	ppm	0.000066	11.50	-141.466000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.059267	23719.595296	0.002092	0.20
Y 377.433	1.054382	681263.785359	0.003001	0.28
Y_R 377.433	1.064630	58608.500000	0.000700	0.07
Y_R 488.368	1.062400	51342.400000	0.000388	0.04
Y_R2 488.368	1.057871	98048.212088	0.004314	0.41
Y_R4	1.076830	46109.200000	0.007092	0.66

Sample Name: 280-123573-a-18-b

Date: 5/24/2019 1:43:29 AM Rack:Tube: 2:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000495	ppm	0.000297	60.01	-228.290000	Y 377.433
Al (394.401 nm)	0.007274	ppm	0.001894	26.03	231.557000	Y 377.433
Al H (396.152 nm)	0.116261 u	ppm	0.001324	1.14	37.714800	Y_R 377.433
As (188.980 nm)	-0.000833 u	ppm	0.003865	> 100.00	-2.891760	Y 242.219
B (249.678 nm)	0.009433	ppm	0.000235	2.49	99.435500	Y 242.219
Ba (493.408 nm)	0.019680	ppm	0.000009	0.05	3345.850000	Y_R 488.368
Be (234.861 nm)	-0.000105 u	ppm	0.000086	82.52	-55.537300	Y_R 488.368
Bi (223.061 nm)	0.002308	ppm	0.001215	52.65	-8.617650	Y 377.433
Ca (315.887 nm)	13.487680	ppm	0.030261	0.22	10827.154215	Y_R 377.433
Cd (214.439 nm)	0.000212	ppm	0.000112	52.81	4.656420	Y 377.433
Co (228.615 nm)	0.002080	ppm	0.000076	3.67	29.274100	Y 242.219
Cr (205.560 nm)	-0.000006 u	ppm	0.000589	> 100.00	-6.021590	Y 377.433
Cu (324.754 nm)	-0.000188 u	ppm	0.000146	77.47	396.611000	Y 377.433
Fe (238.204 nm)	9.030034 o	ppm	0.036888	0.41	22259.778977	Y_R 377.433
Fe H (259.940 nm)	9.011930	ppm	0.026858	0.30	12691.700000	Y_R 377.433
K (766.491 nm)	1.285660	ppm	0.006833	0.53	3257.650000	Y_R2 488.368
Li (670.783 nm)	0.028826	ppm	0.000950	3.30	-2129.500000	Y_R2 488.368
Mg (279.078 nm)	9.126760	ppm	0.019006	0.21	32336.900000	Y 377.433
Mn (257.610 nm)	0.782305	ppm	0.001352	0.17	216364.000000	Y 377.433
Mo (202.032 nm)	-0.000045 u	ppm	0.000147	> 100.00	22.814000	Y 377.433
Na (589.592 nm)	68.550400 o	ppm	0.130030	0.19	50893.700000	Y_R2 488.368
Na H (589.593 nm)	70.872612	ppm	0.162831	0.23	35575.440746	Y_R4
Ni (231.604 nm)	0.003011	ppm	0.000710	23.59	5.462010	Y 377.433
P (213.618 nm)	0.008636	ppm	0.001458	16.88	8.634290	Y 242.219
Pb (220.353 nm)	-0.002083 u	ppm	0.002861	> 100.00	5.708740	Y 242.219
S (181.972 nm)	51.668476	ppm	0.240862	0.47	23220.965542	Y 377.433
Sb (206.834 nm)	0.000926	ppm	0.000366	39.54	-5.111210	Y 377.433
Se (196.026 nm)	0.000546	ppm	0.000692	> 100.00	10.106800	Y 242.219
Si (288.158 nm)	12.567200	ppm	0.112002	0.89	83405.300000	Y 377.433
Sn (189.925 nm)	0.000450 u	ppm	0.001669	> 100.00	3.021600	Y 377.433
Sr (421.552 nm)	0.068793	ppm	0.000391	0.57	10110.244012	Y_R 488.368
Th (288.505 nm)	-0.005628 u	ppm	0.002517	44.72	18.971700	Y 377.433
Ti (336.122 nm)	0.000413	ppm	0.000006	1.50	-406.439000	Y 377.433
Tl (190.794 nm)	0.002320	ppm	0.001920	82.77	4.025000	Y 377.433
U (409.013 nm)	0.004268 u	ppm	0.010041	> 100.00	-23.565600	Y 377.433
V (292.401 nm)	0.000258	ppm	0.000139	53.89	-165.771000	Y 377.433
Zn (206.200 nm)	0.011209	ppm	0.000239	2.13	60.841000	Y 377.433
Zr (343.823 nm)	0.000720	ppm	0.000025	3.53	-132.989000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.085393	24304.617453	0.004655	0.43
Y 377.433	1.081929	699063.048040	0.005587	0.52
Y_R 377.433	1.094010	60225.700000	0.002887	0.26
Y_R 488.368	1.091610	52754.100000	0.000242	0.02
Y_R2 488.368	1.078368	99947.966359	0.004603	0.43
Y_R4	1.094400	46861.700000	0.004156	0.38

Sample Name: mb 280-458924/1-a

Date: 5/24/2019 1:47:08 AM Rack:Tube: 2:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000349	ppm	0.000033	9.38	-233.662000	Y 377.433
Al (394.401 nm)	0.007448	ppm	0.001057	14.19	217.136000	Y 377.433
Al H (396.152 nm)	0.131753 u	ppm	0.006046	4.59	46.001900	Y_R 377.433
As (188.980 nm)	0.000100 u	ppm	0.001177	> 100.00	-1.147380	Y 242.219
B (249.678 nm)	0.007196	ppm	0.000394	5.47	88.637900	Y 242.219
Ba (493.408 nm)	-0.001540 u	ppm	0.000091	5.93	1283.500000	Y_R 488.368
Be (234.861 nm)	0.000005 u	ppm	0.000015	> 100.00	-5.444070	Y_R 488.368
Bi (223.061 nm)	0.001863	ppm	0.000551	29.55	-11.258100	Y 377.433
Ca (315.887 nm)	0.111444	ppm	0.003594	3.23	27.997924	Y_R 377.433
Cd (214.439 nm)	0.000053 u	ppm	0.000095	> 100.00	-5.669170	Y 377.433
Co (228.615 nm)	0.000255	ppm	0.000151	59.02	-15.843400	Y 242.219
Cr (205.560 nm)	0.000787	ppm	0.000372	47.26	-0.394098	Y 377.433
Cu (324.754 nm)	0.000909	ppm	0.000336	36.92	455.038000	Y 377.433
Fe (238.204 nm)	0.044489	ppm	0.002709	6.09	112.588853	Y_R 377.433
Fe H (259.940 nm)	-0.009524 u	ppm	0.002297	24.12	77.432100	Y_R 377.433
K (766.491 nm)	-0.008004 u	ppm	0.107028	> 100.00	1973.650000	Y_R2 488.368
Li (670.783 nm)	0.011577	ppm	0.000697	6.02	-2429.860000	Y_R2 488.368
Mg (279.078 nm)	0.026826	ppm	0.000984	3.67	106.899000	Y 377.433
Mn (257.610 nm)	0.000627	ppm	0.000014	2.26	151.280000	Y 377.433
Mo (202.032 nm)	-0.000562 u	ppm	0.000173	30.83	16.233500	Y 377.433
Na (589.592 nm)	0.267074	ppm	0.048804	18.27	307.908000	Y_R2 488.368
Na H (589.593 nm)	0.828226 u	ppm	0.025569	3.09	739.459321	Y_R4
Ni (231.604 nm)	-0.000458 u	ppm	0.001118	> 100.00	-13.926600	Y 377.433
P (213.618 nm)	0.011418	ppm	0.000968	8.48	12.493000	Y 242.219
Pb (220.353 nm)	0.000249 u	ppm	0.001007	> 100.00	13.753900	Y 242.219
S (181.972 nm)	0.014875	ppm	0.003743	25.16	14.441229	Y 377.433
Sb (206.834 nm)	0.003753	ppm	0.000754	20.10	-0.910005	Y 377.433
Se (196.026 nm)	0.000555	ppm	0.000303	54.59	11.465900	Y 242.219
Si (288.158 nm)	0.092609	ppm	0.000358	0.39	1118.920000	Y 377.433
Sn (189.925 nm)	0.010148	ppm	0.000641	6.31	19.936900	Y 377.433
Sr (421.552 nm)	0.000251	ppm	0.000031	12.19	84.641840	Y_R 488.368
Th (288.505 nm)	0.002583	ppm	0.000012	0.47	18.985300	Y 377.433
Ti (336.122 nm)	0.001027	ppm	0.000078	7.58	-371.948000	Y 377.433
Tl (190.794 nm)	0.001396	ppm	0.000125	8.97	3.492640	Y 377.433
U (409.013 nm)	0.000223 u	ppm	0.001460	> 100.00	-41.071500	Y 377.433
V (292.401 nm)	0.000556	ppm	0.000378	67.96	-150.318000	Y 377.433
Zn (206.200 nm)	0.002576	ppm	0.000520	20.18	16.606300	Y 377.433
Zr (343.823 nm)	0.000476	ppm	0.000188	39.50	-147.068000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120183	25083.654966	0.002844	0.25
Y 377.433	1.113962	719760.197394	0.000508	0.05
Y_R 377.433	1.126320	62004.400000	0.003437	0.31
Y_R 488.368	1.123620	54301.100000	0.001874	0.17
Y_R2 488.368	1.107684	102665.062803	0.003167	0.29
Y_R4	1.114680	47730.100000	0.010706	0.96

Sample Name: CCVH-5713036

Date: 5/24/2019 1:50:36 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004326	ppm	0.000328	7.58	-104.287000	Y 377.433
Al (394.401 nm)	49.448200 o	ppm	0.059322	0.12	589751.000000	Y 377.433
Al H (396.152 nm)	49.173600	ppm	0.143506	0.29	101109.000000	Y_R 377.433
As (188.980 nm)	0.001088 u	ppm	0.001600	> 100.00	-0.979359	Y 242.219
B (249.678 nm)	-0.002608 u	ppm	0.000935	35.83	-10.096900	Y 242.219
Ba (493.408 nm)	0.001381	ppm	0.000393	28.48	1604.370000	Y_R 488.368
Be (234.861 nm)	0.001133	ppm	0.000030	2.68	-104.286000	Y_R 488.368
Bi (223.061 nm)	0.000083 u	ppm	0.000872	> 100.00	-6.483460	Y 377.433
Ca (315.887 nm)	-0.003989 u	ppm	0.015287	> 100.00	-52.747392	Y_R 377.433
Cd (214.439 nm)	0.001374	ppm	0.000090	6.52	68.792600	Y 377.433
Co (228.615 nm)	0.003531	ppm	0.000152	4.30	65.175200	Y 242.219
Cr (205.560 nm)	0.001930	ppm	0.000119	6.16	6.305480	Y 377.433
Cu (324.754 nm)	0.002969	ppm	0.000138	4.65	1473.890000	Y 377.433
Fe (238.204 nm)	48.877730 o	ppm	0.123836	0.25	120474.687630	Y_R 377.433
Fe H (259.940 nm)	49.126600	ppm	0.173881	0.35	68781.900000	Y_R 377.433
K (766.491 nm)	0.231535	ppm	0.030353	13.11	2211.400000	Y_R2 488.368
Li (670.783 nm)	0.009283	ppm	0.001712	18.44	-2469.820000	Y_R2 488.368
Mg (279.078 nm)	0.034507	ppm	0.000595	1.72	55.021600	Y 377.433
Mn (257.610 nm)	0.001017	ppm	0.000026	2.56	259.286000	Y 377.433
Mo (202.032 nm)	0.000094 u	ppm	0.000317	> 100.00	24.588100	Y 377.433
Na (589.592 nm)	237.558000 o	ppm	0.277793	0.12	176084.000000	Y_R2 488.368
Na H (589.593 nm)	251.833001	ppm	3.276308	1.30	125574.555638	Y_R4
Ni (231.604 nm)	0.002591	ppm	0.000186	7.17	3.117960	Y 377.433
P (213.618 nm)	4.831280	ppm	0.018991	0.39	7302.060000	Y 242.219
Pb (220.353 nm)	0.003870	ppm	0.001061	27.42	18.839800	Y 242.219
S (181.972 nm)	4.939565	ppm	0.004461	0.09	2226.680912	Y 377.433
Sb (206.834 nm)	0.007506	ppm	0.003882	51.72	10.044800	Y 377.433
Se (196.026 nm)	0.006778	ppm	0.000596	8.79	7.956890	Y 242.219
Si (288.158 nm)	0.015856	ppm	0.002427	15.31	612.631000	Y 377.433
Sn (189.925 nm)	0.001244	ppm	0.000967	77.73	4.406120	Y 377.433
Sr (421.552 nm)	0.001041	ppm	0.000228	21.88	207.380152	Y_R 488.368
Th (288.505 nm)	4.896870	ppm	0.010866	0.22	8556.630000	Y 377.433
Ti (336.122 nm)	0.002134	ppm	0.000086	4.02	-228.183000	Y 377.433
Tl (190.794 nm)	0.000107 u	ppm	0.000975	> 100.00	-4.586410	Y 377.433
U (409.013 nm)	0.548671 Q	ppm	0.002621	0.48	1712.800000 Q	Y 377.433
V (292.401 nm)	0.001258	ppm	0.000125	9.91	379.207000	Y 377.433
Zn (206.200 nm)	0.003021	ppm	0.000050	1.66	26.361100	Y 377.433
Zr (343.823 nm)	0.001363	ppm	0.000010	0.74	-95.923700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070815	23978.198968	0.001998	0.19
Y 377.433	1.069649	691128.442200	0.001643	0.15
Y_R 377.433	1.094800	60269.400000	0.005720	0.52
Y_R 488.368	1.091340	52741.100000	0.006444	0.59
Y_R2 488.368	1.078761	99984.409033	0.005192	0.48
Y_R4	1.108200	47452.500000	0.015036	1.36

Sample Name: CCV-5717467

Date: 5/24/2019 1:54:20 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.484195	ppm	0.001674	0.35	16730.600000	Y 377.433
Al (394.401 nm)	0.506315	ppm	0.000401	0.08	6301.270000	Y 377.433
Al H (396.152 nm)	0.553818 u	ppm	0.001305	0.24	1145.920000	Y_R 377.433
As (188.980 nm)	0.486520	ppm	0.002734	0.56	773.838000	Y 242.219
B (249.678 nm)	0.475039	ppm	0.003267	0.69	3440.330000	Y 242.219
Ba (493.408 nm)	0.484042	ppm	0.000711	0.15	48320.100000	Y_R 488.368
Be (234.861 nm)	0.476781	ppm	0.001590	0.33	48056.500000	Y_R 488.368
Bi (223.061 nm)	0.947115	ppm	0.004483	0.47	2145.300000	Y 377.433
Ca (315.887 nm)	4.892947	ppm	0.009927	0.20	3888.425889	Y_R 377.433
Cd (214.439 nm)	0.490942	ppm	0.001690	0.34	19636.400000	Y 377.433
Co (228.615 nm)	0.486410	ppm	0.002098	0.43	12026.300000	Y 242.219
Cr (205.560 nm)	0.486480	ppm	0.000399	0.08	3437.750000	Y 377.433
Cu (324.754 nm)	0.481511	ppm	0.000508	0.11	22768.900000	Y 377.433
Fe (238.204 nm)	2.454755	ppm	0.004773	0.19	6053.309081	Y_R 377.433
Fe H (259.940 nm)	2.417080 u	ppm	0.007838	0.32	3470.430000	Y_R 377.433
K (766.491 nm)	48.608900	ppm	0.091768	0.19	50227.400000	Y_R2 488.368
Li (670.783 nm)	0.496474	ppm	0.001690	0.34	6013.950000	Y_R2 488.368
Mg (279.078 nm)	19.511700	ppm	0.055114	0.28	69141.400000	Y 377.433
Mn (257.610 nm)	0.487542	ppm	0.001494	0.31	134832.000000	Y 377.433
Mo (202.032 nm)	0.486559	ppm	0.001551	0.32	6214.670000	Y 377.433
Na (589.592 nm)	24.016100	ppm	0.017152	0.07	17999.300000	Y_R2 488.368
Na H (589.593 nm)	26.225351 u	ppm	0.010957	0.04	13370.504128	Y_R4
Ni (231.604 nm)	0.487164	ppm	0.001301	0.27	2711.750000	Y 377.433
P (213.618 nm)	0.050322	ppm	0.002469	4.91	-65.751300	Y 242.219
Pb (220.353 nm)	0.489088	ppm	0.002072	0.42	1690.760000	Y 242.219
S (181.972 nm)	0.011637	ppm	0.003161	27.16	14.706984	Y 377.433
Sb (206.834 nm)	0.489272	ppm	0.004495	0.92	853.485000	Y 377.433
Se (196.026 nm)	0.484404	ppm	0.000164	0.03	797.952000	Y 242.219
Si (288.158 nm)	4.763410	ppm	0.006009	0.13	31929.000000	Y 377.433
Sn (189.925 nm)	0.489408	ppm	0.000560	0.11	855.869000	Y 377.433
Sr (421.552 nm)	0.485907	ppm	0.000353	0.07	71112.073533	Y_R 488.368
Th (288.505 nm)	0.012588	ppm	0.000954	7.57	-12.963600	Y 377.433
Ti (336.122 nm)	0.482944	ppm	0.000954	0.20	62305.500000	Y 377.433
Tl (190.794 nm)	0.497242	ppm	0.005154	1.04	1201.330000	Y 377.433
U (409.013 nm)	0.021971	ppm	0.003726	16.96	-31.256700	Y 377.433
V (292.401 nm)	0.482554	ppm	0.001116	0.23	25267.500000	Y 377.433
Zn (206.200 nm)	0.492757	ppm	0.001793	0.36	2449.820000	Y 377.433
Zr (343.823 nm)	0.484114	ppm	0.000757	0.16	27739.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.072202	24009.251124	0.003962	0.37
Y 377.433	1.070015	691364.995078	0.003434	0.32
Y_R 377.433	1.085940	59781.200000	0.003725	0.34
Y_R 488.368	1.084360	52403.800000	0.004718	0.44
Y_R2 488.368	1.076877	99809.800411	0.001119	0.10
Y_R4	1.095870	46924.600000	0.002158	0.20

Sample Name: CCB

Date: 5/24/2019 1:57:55 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000091 u	ppm	0.000140	> 100.00	-249.114000	Y 377.433
Al (394.401 nm)	-0.001642 u	ppm	0.001020	62.15	109.180000	Y 377.433
Al H (396.152 nm)	0.127897 Zu	ppm	0.005308	4.15	37.995600 Z	Y_R 377.433
As (188.980 nm)	0.001142	ppm	0.000602	52.73	0.514907	Y 242.219
B (249.678 nm)	-0.003012 u	ppm	0.000691	22.95	15.498900	Y 242.219
Ba (493.408 nm)	-0.001646 u	ppm	0.000352	21.40	1273.220000	Y_R 488.368
Be (234.861 nm)	0.000084	ppm	0.000008	9.80	2.764060	Y_R 488.368
Bi (223.061 nm)	0.000727 u	ppm	0.002653	> 100.00	-13.856800	Y 377.433
Ca (315.887 nm)	0.009682	ppm	0.003952	40.82	-54.160298	Y_R 377.433
Cd (214.439 nm)	-0.000088 u	ppm	0.000000	0.07	-11.299600	Y 377.433
Co (228.615 nm)	0.000015 u	ppm	0.000057	> 100.00	-21.797800	Y 242.219
Cr (205.560 nm)	-0.000295 u	ppm	0.000403	> 100.00	-8.055690	Y 377.433
Cu (324.754 nm)	-0.000029 u	ppm	0.000038	> 100.00	411.041000	Y 377.433
Fe (238.204 nm)	-0.000493 u	ppm	0.000018	3.56	1.719892	Y_R 377.433
Fe H (259.940 nm)	-0.052736 u	ppm	0.002320	4.40	17.011500	Y_R 377.433
K (766.491 nm)	-0.035452 u	ppm	0.089621	> 100.00	1946.400000	Y_R2 488.368
Li (670.783 nm)	0.005922	ppm	0.000912	15.41	-2528.350000	Y_R2 488.368
Mg (279.078 nm)	0.002165	ppm	0.002221	> 100.00	19.556100	Y 377.433
Mn (257.610 nm)	0.000075	ppm	0.000029	38.36	-1.415900	Y 377.433
Mo (202.032 nm)	-0.000833 u	ppm	0.000043	5.15	12.789200	Y 377.433
Na (589.592 nm)	0.163557	ppm	0.047797	29.22	231.150000	Y_R2 488.368
Na H (589.593 nm)	0.715285 u	ppm	0.016561	2.32	683.288768	Y_R4
Ni (231.604 nm)	-0.000277 u	ppm	0.000014	5.21	-12.920500	Y 377.433
P (213.618 nm)	-0.004147 u	ppm	0.001560	37.62	-10.820000	Y 242.219
Pb (220.353 nm)	-0.001597 u	ppm	0.001292	80.89	7.417740	Y 242.219
S (181.972 nm)	0.006896	ppm	0.007418	> 100.00	10.853492	Y 377.433
Sb (206.834 nm)	0.002475	ppm	0.000254	10.28	-3.172090	Y 377.433
Se (196.026 nm)	-0.000742 u	ppm	0.001325	> 100.00	9.370060	Y 242.219
Si (288.158 nm)	-0.005642 u	ppm	0.001338	23.71	470.828000	Y 377.433
Sn (189.925 nm)	-0.000208 u	ppm	0.000805	> 100.00	1.874190	Y 377.433
Sr (421.552 nm)	-0.000099 u	ppm	0.000011	11.19	33.373720	Y_R 488.368
Th (288.505 nm)	-0.000725 u	ppm	0.000190	26.20	13.237000	Y 377.433
Ti (336.122 nm)	0.000462	ppm	0.000009	1.91	-445.607000	Y 377.433
Tl (190.794 nm)	-0.000386 u	ppm	0.000343	88.76	-0.817078	Y 377.433
U (409.013 nm)	0.004283	ppm	0.001345	31.40	-28.381400	Y 377.433
V (292.401 nm)	0.000464	ppm	0.000062	13.44	-155.240000	Y 377.433
Zn (206.200 nm)	-0.000870 u	ppm	0.000206	23.64	-0.503509	Y 377.433
Zr (343.823 nm)	0.000502	ppm	0.000007	1.38	-145.576000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.104526	24733.055496	0.006573	0.60
Y 377.433	1.099464	710392.391146	0.006880	0.63
Y_R 377.433	1.102890	60714.600000	0.002552	0.23
Y_R 488.368	1.099900	53154.800000	0.003380	0.31
Y_R2 488.368	1.081742	100260.634056	0.007432	0.69
Y_R4	1.104680	47301.700000	0.003867	0.35

Sample Name: CCVL-5717307

Date: 5/24/2019 2:01:07 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008059	ppm	0.000151	1.87	35.883700	Y 377.433
Al (394.401 nm)	0.096771	ppm	0.000274	0.28	1292.180000	Y 377.433
Al H (396.152 nm)	0.223911 u	ppm	0.002619	1.17	240.838000	Y_R 377.433
As (188.980 nm)	0.010962	ppm	0.000417	3.81	16.159000	Y 242.219
B (249.678 nm)	0.088449	ppm	0.000773	0.87	670.955000	Y 242.219
Ba (493.408 nm)	0.008206	ppm	0.000274	3.33	2227.530000	Y_R 488.368
Be (234.861 nm)	0.000989	ppm	0.000015	1.55	93.532200	Y_R 488.368
Bi (223.061 nm)	0.090667	ppm	0.001704	1.88	191.310000	Y 377.433
Ca (315.887 nm)	0.208601	ppm	0.004247	2.04	106.460780	Y_R 377.433
Cd (214.439 nm)	0.005073	ppm	0.000048	0.95	195.214000	Y 377.433
Co (228.615 nm)	0.010400	ppm	0.000025	0.24	235.398000	Y 242.219
Cr (205.560 nm)	0.010346	ppm	0.000183	1.77	67.167500	Y 377.433
Cu (324.754 nm)	0.015130	ppm	0.000578	3.82	1114.020000	Y 377.433
Fe (238.204 nm)	0.101009	ppm	0.000429	0.42	251.896534	Y_R 377.433
Fe H (259.940 nm)	0.048217 u	ppm	0.004504	9.34	158.168000	Y_R 377.433
K (766.491 nm)	2.852460	ppm	0.050992	1.79	4812.740000	Y_R2 488.368
Li (670.783 nm)	0.030809 Q	ppm	0.003507	11.38	-2094.980000 Q	Y_R2 488.368
Mg (279.078 nm)	0.201062	ppm	0.001949	0.97	723.105000	Y 377.433
Mn (257.610 nm)	0.010489	ppm	0.000019	0.19	2879.320000	Y 377.433
Mo (202.032 nm)	0.018649	ppm	0.000432	2.32	260.687000	Y 377.433
Na (589.592 nm)	1.181750	ppm	0.069127	5.85	987.547000	Y_R2 488.368
Na H (589.593 nm)	1.568664 u	ppm	0.019101	1.22	1107.709652	Y_R4
Ni (231.604 nm)	0.041352	ppm	0.000992	2.40	219.743000	Y 377.433
P (213.618 nm)	2.754270	ppm	0.011417	0.41	4158.990000	Y 242.219
Pb (220.353 nm)	0.008566	ppm	0.000245	2.86	42.399800	Y 242.219
S (181.972 nm)	0.102692	ppm	0.004449	4.33	53.923739	Y 377.433
Sb (206.834 nm)	0.026913 Q	ppm	0.000521	1.93	39.821900 Q	Y 377.433
Se (196.026 nm)	0.018571	ppm	0.002904	15.64	40.749100	Y 242.219
Si (288.158 nm)	0.468268	ppm	0.003297	0.70	3596.880000	Y 377.433
Sn (189.925 nm)	0.098165	ppm	0.000703	0.72	173.458000	Y 377.433
Sr (421.552 nm)	0.008760	ppm	0.000188	2.15	1329.018668	Y_R 488.368
Th (288.505 nm)	0.013857	ppm	0.003418	24.67	38.156700	Y 377.433
Ti (336.122 nm)	0.009938	ppm	0.000080	0.80	787.250000	Y 377.433
Tl (190.794 nm)	0.013697	ppm	0.002543	18.57	33.179400	Y 377.433
U (409.013 nm)	0.058284	ppm	0.004895	8.40	139.608000	Y 377.433
V (292.401 nm)	0.010179	ppm	0.000136	1.34	354.338000	Y 377.433
Zn (206.200 nm)	0.020810	ppm	0.000327	1.57	107.117000	Y 377.433
Zr (343.823 nm)	0.010419	ppm	0.000372	3.57	426.259000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115295	24974.198805	0.001731	0.16
Y 377.433	1.108983	716543.054133	0.000866	0.08
Y_R 377.433	1.112400	61237.900000	0.000419	0.04
Y_R 488.368	1.109430	53615.200000	0.000697	0.06
Y_R2 488.368	1.107041	102605.478005	0.003850	0.35
Y_R4	1.107930	47440.900000	0.002402	0.22

Sample Name: lcs 280-458924/2-a

Date: 5/24/2019 2:04:36 AM
Rack:Tube: 2:31

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049558	ppm	0.000012	0.03	1197.940000	Y 377.433
Al (394.401 nm)	9.579810 o	ppm	0.000024	0.00	114840.000000	Y 377.433
Al H (396.152 nm)	9.653370	ppm	0.019685	0.20	20116.300000	Y_R 377.433
As (188.980 nm)	1.925570	ppm	0.011891	0.62	3066.590000	Y 242.219
B (249.678 nm)	1.119420	ppm	0.001845	0.16	8054.500000	Y 242.219
Ba (493.408 nm)	1.923980	ppm	0.006549	0.34	187802.000000	Y_R 488.368
Be (234.861 nm)	0.963399	ppm	0.001735	0.18	97090.000000	Y_R 488.368
Bi (223.061 nm)	1.862750	ppm	0.003974	0.21	4235.070000	Y 377.433
Ca (315.887 nm)	47.379535	ppm	0.145402	0.31	38191.839286	Y_R 377.433
Cd (214.439 nm)	0.957300	ppm	0.002225	0.23	38299.200000	Y 377.433
Co (228.615 nm)	0.939370	ppm	0.002394	0.25	23247.600000	Y 242.219
Cr (205.560 nm)	0.958736	ppm	0.007306	0.76	6780.520000	Y 377.433
Cu (324.754 nm)	0.935939	ppm	0.002462	0.26	43926.200000	Y 377.433
Fe (238.204 nm)	9.647371 o	ppm	0.007017	0.07	23781.365196	Y_R 377.433
Fe H (259.940 nm)	9.664970	ppm	0.026167	0.27	13604.800000	Y_R 377.433
K (766.491 nm)	47.758800	ppm	0.019905	0.04	49383.600000	Y_R2 488.368
Li (670.783 nm)	0.976106	ppm	0.000269	0.03	14366.100000	Y_R2 488.368
Mg (279.078 nm)	47.426900	ppm	0.071983	0.15	168008.000000	Y 377.433
Mn (257.610 nm)	0.965610	ppm	0.000805	0.08	267066.000000	Y 377.433
Mo (202.032 nm)	0.964826	ppm	0.000301	0.03	12300.400000	Y 377.433
Na (589.592 nm)	46.038400	ppm	0.069336	0.15	34607.400000	Y_R2 488.368
Na H (589.593 nm)	50.163537 u	ppm	0.261256	0.52	25275.957821	Y_R4
Ni (231.604 nm)	0.940672	ppm	0.001084	0.12	5247.920000	Y 377.433
P (213.618 nm)	19.331000	ppm	0.066335	0.34	28980.900000	Y 242.219
Pb (220.353 nm)	0.957959	ppm	0.003806	0.40	3302.390000	Y 242.219
S (181.972 nm)	9.760502	ppm	0.025464	0.26	4397.517692	Y 377.433
Sb (206.834 nm)	1.023520	ppm	0.001669	0.16	1794.800000	Y 377.433
Se (196.026 nm)	1.880470	ppm	0.007738	0.41	3065.610000	Y 242.219
Si (288.158 nm)	1.690280	ppm	0.001455	0.09	11657.700000	Y 377.433
Sn (189.925 nm)	1.926150	ppm	0.001398	0.07	3361.850000	Y 377.433
Sr (421.552 nm)	0.964430	ppm	0.002690	0.28	141096.882699	Y_R 488.368
Th (288.505 nm)	0.981383	ppm	0.001698	0.17	1636.880000	Y 377.433
Ti (336.122 nm)	0.964223	ppm	0.000265	0.03	125029.000000	Y 377.433
Tl (190.794 nm)	1.912290	ppm	0.009117	0.48	4623.850000	Y 377.433
U (409.013 nm)	1.924400	ppm	0.003283	0.17	5929.310000	Y 377.433
V (292.401 nm)	0.952666	ppm	0.000104	0.01	50063.000000	Y 377.433
Zn (206.200 nm)	0.477632	ppm	0.002467	0.52	2375.860000	Y 377.433
Zr (343.823 nm)	0.480951	ppm	0.000063	0.01	27557.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.073126	24029.932399	0.000619	0.06
Y 377.433	1.075105	694653.344120	0.000528	0.05
Y_R 377.433	1.093440	60194.500000	0.000743	0.07
Y_R 488.368	1.091690	52758.200000	0.000553	0.05
Y_R2 488.368	1.073187	99467.749896	0.000614	0.06
Y_R4	1.096150	46936.500000	0.006510	0.59

Sample Name: lcsd 280-458924/3-a

Date: 5/24/2019 2:08:14 AM Rack:Tube: 2:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050478	ppm	0.000396	0.78	1223.360000	Y 377.433
Al (394.401 nm)	9.970650 o	ppm	0.002406	0.02	119515.000000	Y 377.433
Al H (396.152 nm)	10.012300	ppm	0.000503	0.01	20865.900000	Y_R 377.433
As (188.980 nm)	1.972380	ppm	0.001218	0.06	3141.160000	Y 242.219
B (249.678 nm)	1.113930	ppm	0.000627	0.06	8014.960000	Y 242.219
Ba (493.408 nm)	1.966340	ppm	0.001802	0.09	191905.000000	Y_R 488.368
Be (234.861 nm)	0.986059	ppm	0.005043	0.51	99373.400000	Y_R 488.368
Bi (223.061 nm)	1.904790	ppm	0.004455	0.23	4331.010000	Y 377.433
Ca (315.887 nm)	49.241575	ppm	0.005300	0.01	39695.229947	Y_R 377.433
Cd (214.439 nm)	0.979347	ppm	0.001647	0.17	39181.400000	Y 377.433
Co (228.615 nm)	0.963581	ppm	0.000212	0.02	23847.200000	Y 242.219
Cr (205.560 nm)	0.977058	ppm	0.005438	0.56	6910.170000	Y 377.433
Cu (324.754 nm)	0.957155	ppm	0.005257	0.55	44911.800000	Y 377.433
Fe (238.204 nm)	9.961597 o	ppm	0.016392	0.16	24555.856641	Y_R 377.433
Fe H (259.940 nm)	9.973860	ppm	0.009900	0.10	14036.700000	Y_R 377.433
K (766.491 nm)	49.769400	ppm	0.162506	0.33	51379.200000	Y_R2 488.368
Li (670.783 nm)	0.993557	ppm	0.000301	0.03	14670.000000	Y_R2 488.368
Mg (279.078 nm)	49.406200	ppm	0.019488	0.04	175020.000000	Y 377.433
Mn (257.610 nm)	0.988291	ppm	0.000600	0.06	273339.000000	Y 377.433
Mo (202.032 nm)	0.988374	ppm	0.000202	0.02	12600.100000	Y 377.433
Na (589.592 nm)	48.089300	ppm	0.227396	0.47	36135.400000	Y_R2 488.368
Na H (589.593 nm)	52.394318	ppm	0.153145	0.29	26385.417640	Y_R4
Ni (231.604 nm)	0.960212	ppm	0.000057	0.01	5357.180000	Y 377.433
P (213.618 nm)	19.853700	ppm	0.011082	0.06	29765.200000	Y 242.219
Pb (220.353 nm)	0.977317	ppm	0.004146	0.42	3368.800000	Y 242.219
S (181.972 nm)	9.973000	ppm	0.021795	0.22	4493.131299	Y 377.433
Sb (206.834 nm)	1.050100	ppm	0.003353	0.32	1841.600000	Y 377.433
Se (196.026 nm)	1.923510	ppm	0.000379	0.02	3135.510000	Y 242.219
Si (288.158 nm)	1.496040	ppm	0.001240	0.08	10376.400000	Y 377.433
Sn (189.925 nm)	1.968830	ppm	0.003953	0.20	3436.290000	Y 377.433
Sr (421.552 nm)	0.985885	ppm	0.001378	0.14	144234.793017	Y_R 488.368
Th (288.505 nm)	1.007050	ppm	0.002295	0.23	1679.410000	Y 377.433
Ti (336.122 nm)	0.986233	ppm	0.000345	0.03	127897.000000	Y 377.433
Tl (190.794 nm)	1.959740	ppm	0.003610	0.18	4738.570000	Y 377.433
U (409.013 nm)	1.957820	ppm	0.001219	0.06	6032.570000	Y 377.433
V (292.401 nm)	0.975284	ppm	0.000465	0.05	51256.600000	Y 377.433
Zn (206.200 nm)	0.490167	ppm	0.000584	0.12	2438.130000	Y 377.433
Zr (343.823 nm)	0.491688	ppm	0.000367	0.07	28176.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.061315	23765.467266	0.000445	0.04
Y 377.433	1.064988	688116.604760	0.001055	0.10
Y_R 377.433	1.084880	59722.800000	0.004473	0.41
Y_R 488.368	1.081320	52257.100000	0.005897	0.55
Y_R2 488.368	1.069924	99165.283926	0.001527	0.14
Y_R4	1.085710	46489.700000	0.001396	0.13

Sample Name: 280-123991-a-2-d

Date: 5/24/2019 2:11:51 AM Rack:Tube: 2:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000543 u	ppm	0.000097	17.85	-429.019000	Y 377.433
Al (394.401 nm)	266.707000 o	ppm	0.608043	0.23	3186640.000000	Y 377.433
Al H (396.152 nm)	261.581000	ppm	0.025549	0.01	538940.000000	Y_R 377.433
As (188.980 nm)	0.088359	ppm	0.000853	0.96	131.778000	Y 242.219
B (249.678 nm)	0.035764	ppm	0.000245	0.69	137.420000	Y 242.219
Ba (493.408 nm)	0.713959	ppm	0.000304	0.04	70796.800000	Y_R 488.368
Be (234.861 nm)	0.004456	ppm	0.000116	2.61	-721.372000	Y_R 488.368
Bi (223.061 nm)	0.001821	ppm	0.001738	95.47	37.082700	Y 377.433
Ca (315.887 nm)	7.920373	ppm	0.002200	0.03	6398.799127	Y_R 377.433
Cd (214.439 nm)	0.000962	ppm	0.000070	7.29	148.961000	Y 377.433
Co (228.615 nm)	0.057205	ppm	0.000315	0.55	1418.450000	Y 242.219
Cr (205.560 nm)	0.318495	ppm	0.000381	0.12	2243.300000	Y 377.433
Cu (324.754 nm)	0.093494	ppm	0.000345	0.37	4813.150000	Y 377.433
Fe (238.204 nm)	267.544567 o	ppm	0.124030	0.05	659435.425540	Y_R 377.433
Fe H (259.940 nm)	271.474000	ppm	0.063032	0.02	379679.000000	Y_R 377.433
K (766.491 nm)	12.540700	ppm	0.004612	0.04	14428.600000	Y_R2 488.368
Li (670.783 nm)	0.139678	ppm	0.001703	1.22	-199.159000	Y_R2 488.368
Mg (279.078 nm)	25.838800	ppm	0.022406	0.09	91180.600000	Y 377.433
Mn (257.610 nm)	0.322440	ppm	0.000413	0.13	89164.900000	Y 377.433
Mo (202.032 nm)	0.002631	ppm	0.000105	3.98	56.863900	Y 377.433
Na (589.592 nm)	1.259280	ppm	0.010456	0.83	1189.150000	Y_R2 488.368
Na H (589.593 nm)	2.301871 u	ppm	0.004698	0.20	1472.364083	Y_R4
Ni (231.604 nm)	0.192155	ppm	0.000724	0.38	1062.490000	Y 377.433
P (213.618 nm)	1.088760	ppm	0.010652	0.98	1622.830000	Y 242.219
Pb (220.353 nm)	0.122873	ppm	0.003448	2.81	387.156000	Y 242.219
S (181.972 nm)	0.358704	ppm	0.004138	1.15	170.255261	Y 377.433
Sb (206.834 nm)	0.004232	ppm	0.000282	6.67	23.322100	Y 377.433
Se (196.026 nm)	0.010634	ppm	0.001647	15.48	-46.336900	Y 242.219
Si (288.158 nm)	4.028660	ppm	0.024749	0.61	27082.300000	Y 377.433
Sn (189.925 nm)	0.017125	ppm	0.001917	11.19	32.105100	Y 377.433
Sr (421.552 nm)	0.301687	ppm	0.000262	0.09	44208.820082	Y_R 488.368
Th (288.505 nm)	0.086530	ppm	0.003162	3.65	98.322400	Y 377.433
Ti (336.122 nm)	0.559707	ppm	0.001230	0.22	72294.200000	Y 377.433
Tl (190.794 nm)	0.011256	ppm	0.000810	7.20	-2.955640	Y 377.433
U (409.013 nm)	-0.023350 u	ppm	0.005024	21.52	67.586000	Y 377.433
V (292.401 nm)	0.453681	ppm	0.000313	0.07	23838.900000	Y 377.433
Zn (206.200 nm)	0.406545	ppm	0.002039	0.50	2062.900000	Y 377.433
Zr (343.823 nm)	0.095088	ppm	0.000222	0.23	5308.280000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103526	24710.675189	0.001532	0.14
Y 377.433	1.092806	706090.402176	0.000444	0.04
Y_R 377.433	1.118690	61584.300000	0.006728	0.60
Y_R 488.368	1.115580	53912.700000	0.005395	0.48
Y_R2 488.368	1.100429	101992.619332	0.004869	0.44
Y_R4	1.129620	48369.700000	0.009119	0.81

Sample Name: 280-123991-a-2-dSD@5

Date: 5/24/2019 2:15:38 AM Rack:Tube: 2:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000066 u	ppm	0.000080	> 100.00	-281.541000	Y 377.433
Al (394.401 nm)	54.078900 o	ppm	0.042832	0.08	646246.000000	Y 377.433
Al H (396.152 nm)	54.826200	ppm	0.176256	0.32	112781.000000	Y_R 377.433
As (188.980 nm)	0.015954	ppm	0.001733	10.86	22.483800	Y 242.219
B (249.678 nm)	0.004214	ppm	0.000211	5.01	34.266200	Y 242.219
Ba (493.408 nm)	0.147281	ppm	0.000637	0.43	15742.700000	Y_R 488.368
Be (234.861 nm)	0.000849	ppm	0.000075	8.88	-166.728000	Y_R 488.368
Bi (223.061 nm)	0.005528	ppm	0.002011	36.39	7.349000	Y 377.433
Ca (315.887 nm)	1.676854	ppm	0.006884	0.41	1305.696796	Y_R 377.433
Cd (214.439 nm)	0.000137	ppm	0.000037	27.30	22.734500	Y 377.433
Co (228.615 nm)	0.012507	ppm	0.000483	3.86	292.410000	Y 242.219
Cr (205.560 nm)	0.066571	ppm	0.000216	0.32	464.167000	Y 377.433
Cu (324.754 nm)	0.018864	ppm	0.000007	0.04	1299.490000	Y 377.433
Fe (238.204 nm)	56.671793 o	ppm	0.188396	0.33	139685.163715	Y_R 377.433
Fe H (259.940 nm)	56.940700	ppm	0.204035	0.36	79708.000000	Y_R 377.433
K (766.491 nm)	2.606490	ppm	0.084681	3.25	4568.610000	Y_R2 488.368
Li (670.783 nm)	0.037898	ppm	0.000845	2.23	-1971.530000	Y_R2 488.368
Mg (279.078 nm)	5.390640	ppm	0.004218	0.08	19030.800000	Y 377.433
Mn (257.610 nm)	0.067867	ppm	0.000075	0.11	18749.900000	Y 377.433
Mo (202.032 nm)	-0.000327 u	ppm	0.000442	> 100.00	19.227500	Y 377.433
Na (589.592 nm)	0.207202	ppm	0.022807	11.01	293.840000	Y_R2 488.368
Na H (589.593 nm)	0.650448 u	ppm	0.017637	2.71	651.042790	Y_R4
Ni (231.604 nm)	0.039815	ppm	0.000499	1.25	211.137000	Y 377.433
P (213.618 nm)	0.225638	ppm	0.000426	0.19	333.361000	Y 242.219
Pb (220.353 nm)	0.023218	ppm	0.001012	4.36	82.666800	Y 242.219
S (181.972 nm)	0.078454	ppm	0.001596	2.03	43.281400	Y 377.433
Sb (206.834 nm)	0.006601	ppm	0.000275	4.17	9.077060	Y 377.433
Se (196.026 nm)	0.005287	ppm	0.000266	5.04	3.460110	Y 242.219
Si (288.158 nm)	0.837023	ppm	0.008067	0.96	6029.310000	Y 377.433
Sn (189.925 nm)	0.002820	ppm	0.001308	46.39	7.155800	Y 377.433
Sr (421.552 nm)	0.062380	ppm	0.000332	0.53	9179.331213	Y_R 488.368
Th (288.505 nm)	0.014838	ppm	0.006286	42.36	26.632400	Y 377.433
Ti (336.122 nm)	0.115763	ppm	0.000496	0.43	14551.200000	Y 377.433
Tl (190.794 nm)	0.003186	ppm	0.000567	17.79	1.423340	Y 377.433
U (409.013 nm)	0.000683 u	ppm	0.006428	> 100.00	-0.912995	Y 377.433
V (292.401 nm)	0.093474	ppm	0.000017	0.02	4767.940000	Y 377.433
Zn (206.200 nm)	0.086294	ppm	0.000417	0.48	440.859000	Y 377.433
Zr (343.823 nm)	0.019804	ppm	0.000139	0.70	967.408000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113718	24938.885127	0.002857	0.26
Y 377.433	1.110296	717391.214731	0.004043	0.36
Y_R 377.433	1.120570	61688.000000	0.006395	0.57
Y_R 488.368	1.116390	53951.600000	0.006273	0.56
Y_R2 488.368	1.092782	101283.884707	0.000419	0.04
Y_R4	1.120330	47971.800000	0.007100	0.63

Sample Name: 280-123991-a-2-e ms

Date: 5/24/2019 2:19:20 AM Rack:Tube: 2:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050456	ppm	0.000230	0.46	949.279000	Y 377.433
Al (394.401 nm)	418.293000 o	ppm	0.288098	0.07	4997960.000000	Y 377.433
Al H (396.152 nm)	415.341000	ppm	0.293380	0.07	856257.000000	Y_R 377.433
As (188.980 nm)	2.000430	ppm	0.000195	0.01	3177.140000	Y 242.219
B (249.678 nm)	0.848476	ppm	0.000639	0.08	5935.820000	Y 242.219
Ba (493.408 nm)	2.848410	ppm	0.006054	0.21	277581.000000	Y_R 488.368
Be (234.861 nm)	0.970446	ppm	0.006293	0.65	96480.200000	Y_R 488.368
Bi (223.061 nm)	1.910200	ppm	0.008780	0.46	4398.220000	Y 377.433
Ca (315.887 nm)	55.319230	ppm	0.058320	0.11	44704.804968	Y_R 377.433
Cd (214.439 nm)	0.955404	ppm	0.000449	0.05	38357.300000	Y 377.433
Co (228.615 nm)	1.004610	ppm	0.001322	0.13	24891.900000	Y 242.219
Cr (205.560 nm)	1.430090	ppm	0.000032	0.00	10109.200000	Y 377.433
Cu (324.754 nm)	1.080470	ppm	0.003734	0.35	50726.000000	Y 377.433
Fe (238.204 nm)	313.119989 o	ppm	0.746703	0.24	771767.792433	Y_R 377.433
Fe H (259.940 nm)	319.242000	ppm	0.372083	0.12	446471.000000	Y_R 377.433
K (766.491 nm)	72.506500	ppm	0.017416	0.02	73946.400000	Y_R2 488.368
Li (670.783 nm)	1.183800	ppm	0.001119	0.09	17982.700000	Y_R2 488.368
Mg (279.078 nm)	86.594400	ppm	0.119438	0.14	306351.000000	Y 377.433
Mn (257.610 nm)	1.336290	ppm	0.001849	0.14	369594.000000	Y 377.433
Mo (202.032 nm)	0.918096	ppm	0.001368	0.15	11705.800000	Y 377.433
Na (589.592 nm)	48.461400	ppm	0.010529	0.02	36591.800000	Y_R2 488.368
Na H (589.593 nm)	53.159493	ppm	0.150857	0.28	26765.971012	Y_R4
Ni (231.604 nm)	1.197840	ppm	0.000393	0.03	6685.020000	Y 377.433
P (213.618 nm)	20.123400	ppm	0.019844	0.10	30149.800000	Y 242.219
Pb (220.353 nm)	1.067480	ppm	0.000682	0.06	3604.650000	Y 242.219
S (181.972 nm)	10.241776	ppm	0.002949	0.03	4615.230881	Y 377.433
Sb (206.834 nm)	0.490578	ppm	0.008942	1.82	881.579000	Y 377.433
Se (196.026 nm)	1.875990	ppm	0.006435	0.34	2974.240000	Y 242.219
Si (288.158 nm)	7.435670	ppm	0.007301	0.10	49556.000000	Y 377.433
Sn (189.925 nm)	1.750280	ppm	0.003666	0.21	3055.100000	Y 377.433
Sr (421.552 nm)	1.287844	ppm	0.003366	0.26	188440.593795	Y_R 488.368
Th (288.505 nm)	1.069730	ppm	0.002407	0.23	1689.990000	Y 377.433
Ti (336.122 nm)	1.629530	ppm	0.001125	0.07	211559.000000	Y 377.433
Tl (190.794 nm)	1.876510	ppm	0.001431	0.08	4505.920000	Y 377.433
U (409.013 nm)	1.915220	ppm	0.003014	0.16	6109.690000	Y 377.433
V (292.401 nm)	1.693610	ppm	0.002475	0.15	89299.500000	Y 377.433
Zn (206.200 nm)	0.925495	ppm	0.000648	0.07	4645.530000	Y 377.433
Zr (343.823 nm)	0.568445	ppm	0.000449	0.08	32602.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075278	24078.129173	0.003608	0.34
Y 377.433	1.066791	689281.515729	0.003655	0.34
Y_R 377.433	1.112360	61236.100000	0.001133	0.10
Y_R 488.368	1.106170	53457.900000	0.002279	0.21
Y_R2 488.368	1.103954	102319.332832	0.004341	0.39
Y_R4	1.148270	49168.300000	0.000219	0.02

Sample Name: 280-123991-a-2-f msd

Date: 5/24/2019 2:23:06 AM Rack:Tube: 2:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051658	ppm	0.000138	0.27	1008.100000	Y 377.433
Al (394.401 nm)	396.033000 o	ppm	0.513736	0.13	4732030.000000	Y 377.433
Al H (396.152 nm)	393.702000	ppm	0.422485	0.11	811665.000000	Y_R 377.433
As (188.980 nm)	2.024960	ppm	0.001066	0.05	3217.370000	Y 242.219
B (249.678 nm)	0.884817	ppm	0.002848	0.32	6219.510000	Y 242.219
Ba (493.408 nm)	2.831780	ppm	0.003201	0.11	275939.000000	Y_R 488.368
Be (234.861 nm)	0.991764	ppm	0.001643	0.17	98803.100000	Y_R 488.368
Bi (223.061 nm)	1.946590	ppm	0.001079	0.06	4474.020000	Y 377.433
Ca (315.887 nm)	55.383584	ppm	0.075373	0.14	44751.249233	Y_R 377.433
Cd (214.439 nm)	0.975017	ppm	0.000412	0.04	39124.500000	Y 377.433
Co (228.615 nm)	1.017270	ppm	0.000463	0.05	25206.400000	Y 242.219
Cr (205.560 nm)	1.405910	ppm	0.002094	0.15	9938.310000	Y 377.433
Cu (324.754 nm)	1.088510	ppm	0.002643	0.24	51092.200000	Y 377.433
Fe (238.204 nm)	273.916537 o	ppm	0.687392	0.25	675140.786791	Y_R 377.433
Fe H (259.940 nm)	278.881000	ppm	0.598613	0.21	390035.000000	Y_R 377.433
K (766.491 nm)	72.484000	ppm	0.030248	0.04	73924.100000	Y_R2 488.368
Li (670.783 nm)	1.194020	ppm	0.000264	0.02	18160.700000	Y_R2 488.368
Mg (279.078 nm)	84.844300	ppm	0.011525	0.01	300207.000000	Y 377.433
Mn (257.610 nm)	1.321660	ppm	0.000511	0.04	365549.000000	Y 377.433
Mo (202.032 nm)	0.940547	ppm	0.001474	0.16	11991.500000	Y 377.433
Na (589.592 nm)	49.110000	ppm	0.013168	0.03	37071.900000	Y_R2 488.368
Na H (589.593 nm)	53.778674	ppm	0.071081	0.13	27073.915569	Y_R4
Ni (231.604 nm)	1.196680	ppm	0.000035	0.00	6678.580000	Y 377.433
P (213.618 nm)	20.427800	ppm	0.012590	0.06	30607.400000	Y 242.219
Pb (220.353 nm)	1.077530	ppm	0.003029	0.28	3643.110000	Y 242.219
S (181.972 nm)	10.477909	ppm	0.001086	0.01	4721.249222	Y 377.433
Sb (206.834 nm)	0.526072	ppm	0.001712	0.33	940.204000	Y 377.433
Se (196.026 nm)	1.919930	ppm	0.005003	0.26	3056.740000	Y 242.219
Si (288.158 nm)	7.426890	ppm	0.044283	0.60	49498.100000	Y 377.433
Sn (189.925 nm)	1.794520	ppm	0.000697	0.04	3132.260000	Y 377.433
Sr (421.552 nm)	1.282662	ppm	0.001106	0.09	187676.912231	Y_R 488.368
Th (288.505 nm)	1.077790	ppm	0.005583	0.52	1711.280000	Y 377.433
Ti (336.122 nm)	1.664610	ppm	0.000488	0.03	216120.000000	Y 377.433
Tl (190.794 nm)	1.915940	ppm	0.001550	0.08	4605.750000	Y 377.433
U (409.013 nm)	1.955330	ppm	0.002431	0.12	6205.500000	Y 377.433
V (292.401 nm)	1.657130	ppm	0.000156	0.01	87366.900000	Y 377.433
Zn (206.200 nm)	0.901302	ppm	0.002765	0.31	4519.310000	Y 377.433
Zr (343.823 nm)	0.576820	ppm	0.000792	0.14	33085.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.077625	24130.694000	0.000623	0.06
Y 377.433	1.070536	691701.530944	0.000487	0.05
Y_R 377.433	1.109520	61079.700000	0.003517	0.32
Y_R 488.368	1.104330	53369.000000	0.001558	0.14
Y_R2 488.368	1.098478	101811.860714	0.002123	0.19
Y_R4	1.149420	49217.700000	0.006274	0.55

Sample Name: 280-123991-a-2-dPDS

Date: 5/24/2019 2:26:54 AM Rack:Tube: 2:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049150	ppm	0.000452	0.92	1310.610000	Y 377.433
Al (394.401 nm)	261.541000 o	ppm	0.425073	0.16	3124960.000000	Y 377.433
Al H (396.152 nm)	256.587000	ppm	0.373220	0.15	528666.000000	Y_R 377.433
As (188.980 nm)	0.286741	ppm	0.000197	0.07	448.040000	Y 242.219
B (249.678 nm)	0.132136	ppm	0.001022	0.77	831.431000	Y 242.219
Ba (493.408 nm)	0.797801	ppm	0.000064	0.01	78913.700000	Y_R 488.368
Be (234.861 nm)	0.052709	ppm	0.000053	0.10	4168.450000	Y_R 488.368
Bi (223.061 nm)	0.003805	ppm	0.001501	39.44	40.630500	Y 377.433
Ca (315.887 nm)	27.117868	ppm	0.013369	0.05	21896.384894	Y_R 377.433
Cd (214.439 nm)	0.049521	ppm	0.000322	0.65	2089.360000	Y 377.433
Co (228.615 nm)	0.104243	ppm	0.000159	0.15	2583.170000	Y 242.219
Cr (205.560 nm)	0.358833	ppm	0.000994	0.28	2528.960000	Y 377.433
Cu (324.754 nm)	0.141233	ppm	0.000268	0.19	7025.770000	Y 377.433
Fe (238.204 nm)	262.910732 o	ppm	0.206216	0.08	648014.147828	Y_R 377.433
Fe H (259.940 nm)	267.243000	ppm	0.042543	0.02	373764.000000	Y_R 377.433
K (766.491 nm)	31.958000	ppm	0.121758	0.38	33700.800000	Y_R2 488.368
Li (670.783 nm)	0.247843	ppm	0.000606	0.24	1684.380000	Y_R2 488.368
Mg (279.078 nm)	45.018600	ppm	0.095494	0.21	159138.000000	Y 377.433
Mn (257.610 nm)	0.364078	ppm	0.000670	0.18	100682.000000	Y 377.433
Mo (202.032 nm)	0.050750	ppm	0.000078	0.15	669.168000	Y 377.433
Na (589.592 nm)	20.434600	ppm	0.024771	0.12	15410.700000	Y_R2 488.368
Na H (589.593 nm)	21.848325 u	ppm	0.117156	0.54	11193.627326	Y_R4
Ni (231.604 nm)	0.235811	ppm	0.000625	0.27	1306.690000	Y 377.433
P (213.618 nm)	3.008380	ppm	0.005935	0.20	4514.770000	Y 242.219
Pb (220.353 nm)	0.221663	ppm	0.001750	0.79	728.500000	Y 242.219
S (181.972 nm)	0.357320	ppm	0.002884	0.81	170.661688	Y 377.433
Sb (206.834 nm)	0.107392	ppm	0.005298	4.93	204.616000	Y 377.433
Se (196.026 nm)	0.202836	ppm	0.005293	2.61	267.673000	Y 242.219
Si (288.158 nm)	8.845300	ppm	0.059079	0.67	58854.400000	Y 377.433
Sn (189.925 nm)	0.108168	ppm	0.001627	1.50	190.905000	Y 377.433
Sr (421.552 nm)	0.346091	ppm	0.000492	0.14	50702.090187	Y_R 488.368
Th (288.505 nm)	0.284613	ppm	0.005536	1.95	442.342000	Y 377.433
Ti (336.122 nm)	0.598812	ppm	0.001834	0.31	77443.700000	Y 377.433
Tl (190.794 nm)	0.205435	ppm	0.000292	0.14	466.999000	Y 377.433
U (409.013 nm)	0.461577	ppm	0.003960	0.86	1574.540000	Y 377.433
V (292.401 nm)	0.493298	ppm	0.001098	0.22	25922.400000	Y 377.433
Zn (206.200 nm)	0.583412	ppm	0.001740	0.30	2939.850000	Y 377.433
Zr (343.823 nm)	0.141969	ppm	0.000176	0.12	8011.460000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114644	24959.636679	0.003662	0.33
Y 377.433	1.109448	716843.237262	0.004989	0.45
Y_R 377.433	1.152620	63452.200000	0.003110	0.27
Y_R 488.368	1.148920	55523.900000	0.001915	0.17
Y_R2 488.368	1.133985	105102.792628	0.000409	0.04
Y_R4	1.164480	49862.600000	0.001825	0.16

Sample Name: 280-123991-a-3-b

Date: 5/24/2019 2:30:43 AM Rack:Tube: 2:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000810 u	ppm	0.000047	5.81	-486.992000	Y 377.433
Al (394.401 nm)	324.835000 o	ppm	0.261234	0.08	3881130.000000	Y 377.433
Al H (396.152 nm)	319.492000	ppm	0.582455	0.18	658285.000000	Y_R 377.433
As (188.980 nm)	0.099963	ppm	0.000541	0.54	149.282000	Y 242.219
B (249.678 nm)	0.036669	ppm	0.000039	0.11	123.950000	Y 242.219
Ba (493.408 nm)	1.077310	ppm	0.001315	0.12	106018.000000	Y_R 488.368
Be (234.861 nm)	0.005373	ppm	0.000459	8.55	-777.999000	Y_R 488.368
Bi (223.061 nm)	0.001652	ppm	0.002096	> 100.00	42.891300	Y 377.433
Ca (315.887 nm)	5.394207	ppm	0.016778	0.31	4373.985229	Y_R 377.433
Cd (214.439 nm)	0.005225	ppm	0.000001	0.02	334.663000	Y 377.433
Co (228.615 nm)	0.060926	ppm	0.000683	1.12	1508.510000	Y 242.219
Cr (205.560 nm)	0.375034	ppm	0.001999	0.53	2642.320000	Y 377.433
Cu (324.754 nm)	0.113034	ppm	0.000146	0.13	5735.150000	Y 377.433
Fe (238.204 nm)	302.942461 o	ppm	1.272843	0.42	746682.653641	Y_R 377.433
Fe H (259.940 nm)	308.263000	ppm	1.108740	0.36	431119.000000	Y_R 377.433
K (766.491 nm)	12.271800	ppm	0.041033	0.33	14161.700000	Y_R2 488.368
Li (670.783 nm)	0.196556	ppm	0.000719	0.37	791.281000	Y_R2 488.368
Mg (279.078 nm)	26.684900	ppm	0.047531	0.18	94129.200000	Y 377.433
Mn (257.610 nm)	0.342697	ppm	0.000337	0.10	94768.000000	Y 377.433
Mo (202.032 nm)	0.003084	ppm	0.000183	5.93	62.628800	Y 377.433
Na (589.592 nm)	0.857024	ppm	0.001302	0.15	965.753000	Y_R2 488.368
Na H (589.593 nm)	2.073512 u	ppm	0.018575	0.90	1358.791700	Y_R4
Ni (231.604 nm)	0.202702	ppm	0.001377	0.68	1121.430000	Y 377.433
P (213.618 nm)	1.035150	ppm	0.004140	0.40	1537.250000	Y 242.219
Pb (220.353 nm)	0.142771	ppm	0.001593	1.12	445.193000	Y 242.219
S (181.972 nm)	0.545561	ppm	0.003795	0.70	254.130590	Y 377.433
Sb (206.834 nm)	0.007291	ppm	0.001757	24.10	32.354700	Y 377.433
Se (196.026 nm)	0.015099	ppm	0.002333	15.45	-48.608700	Y 242.219
Si (288.158 nm)	4.419420	ppm	0.034350	0.78	29659.900000	Y 377.433
Sn (189.925 nm)	0.017192	ppm	0.001173	6.83	32.223300	Y 377.433
Sr (421.552 nm)	0.313101	ppm	0.000317	0.10	45883.198152	Y_R 488.368
Th (288.505 nm)	0.093790	ppm	0.002141	2.28	94.579300	Y 377.433
Ti (336.122 nm)	0.518554	ppm	0.000637	0.12	66935.100000	Y 377.433
Tl (190.794 nm)	0.012218	ppm	0.000838	6.86	-3.137610	Y 377.433
U (409.013 nm)	-0.019706 u	ppm	0.010911	55.37	103.369000	Y 377.433
V (292.401 nm)	0.578971	ppm	0.000455	0.08	30475.800000	Y 377.433
Zn (206.200 nm)	0.468462	ppm	0.002864	0.61	2375.490000	Y 377.433
Zr (343.823 nm)	0.102920	ppm	0.000046	0.04	5759.880000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119908	25077.512922	0.001910	0.17
Y 377.433	1.109757	717042.908474	0.002823	0.25
Y_R 377.433	1.149780	63295.800000	0.011170	0.97
Y_R 488.368	1.144860	55327.600000	0.008737	0.76
Y_R2 488.368	1.134519	105152.251438	0.000878	0.08
Y_R4	1.162640	49783.500000	0.003938	0.34

Sample Name: 280-123991-a-4-b

Date: 5/24/2019 2:34:29 AM Rack:Tube: 2:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000623 u	ppm	0.000029	4.63	-452.965000	Y 377.433
Al (394.401 nm)	278.124000 o	ppm	0.289313	0.10	3323060.000000	Y 377.433
Al H (396.152 nm)	274.116000	ppm	0.208578	0.08	564787.000000	Y_R 377.433
As (188.980 nm)	0.089896	ppm	0.000306	0.34	133.820000	Y 242.219
B (249.678 nm)	0.035714	ppm	0.000671	1.88	128.835000	Y 242.219
Ba (493.408 nm)	0.933689	ppm	0.000124	0.01	92091.600000	Y_R 488.368
Be (234.861 nm)	0.005653	ppm	0.000056	1.00	-662.095000	Y_R 488.368
Bi (223.061 nm)	-0.002544 u	ppm	0.003351	> 100.00	29.679600	Y 377.433
Ca (315.887 nm)	9.473217	ppm	0.018381	0.19	7655.619650	Y_R 377.433
Cd (214.439 nm)	0.002330	ppm	0.000454	19.48	209.938000	Y 377.433
Co (228.615 nm)	0.063963	ppm	0.000116	0.18	1584.910000	Y 242.219
Cr (205.560 nm)	0.345565	ppm	0.004549	1.32	2434.750000	Y 377.433
Cu (324.754 nm)	0.092591	ppm	0.000289	0.31	4771.120000	Y 377.433
Fe (238.204 nm)	282.330641 o	ppm	0.393475	0.14	695879.513971	Y_R 377.433
Fe H (259.940 nm)	286.598000	ppm	0.389993	0.14	400826.000000	Y_R 377.433
K (766.491 nm)	12.657400	ppm	0.041547	0.33	14544.400000	Y_R2 488.368
Li (670.783 nm)	0.171035	ppm	0.003593	2.10	346.872000	Y_R2 488.368
Mg (279.078 nm)	25.782200	ppm	0.063046	0.24	90960.000000	Y 377.433
Mn (257.610 nm)	0.377349	ppm	0.000606	0.16	104353.000000	Y 377.433
Mo (202.032 nm)	0.003936	ppm	0.000332	8.43	73.468700	Y 377.433
Na (589.592 nm)	0.713844	ppm	0.012054	1.69	830.378000	Y_R2 488.368
Na H (589.593 nm)	1.684214 u	ppm	0.011368	0.67	1165.177695	Y_R4
Ni (231.604 nm)	0.208546	ppm	0.000809	0.39	1154.090000	Y 377.433
P (213.618 nm)	1.050400	ppm	0.007739	0.74	1565.110000	Y 242.219
Pb (220.353 nm)	0.121473	ppm	0.000282	0.23	380.078000	Y 242.219
S (181.972 nm)	0.371039	ppm	0.004987	1.34	176.029926	Y 377.433
Sb (206.834 nm)	0.007665	ppm	0.000836	10.91	30.891500	Y 377.433
Se (196.026 nm)	0.016749	ppm	0.006382	38.11	-40.258600	Y 242.219
Si (288.158 nm)	3.940350	ppm	0.002856	0.07	26499.800000	Y 377.433
Sn (189.925 nm)	0.015711	ppm	0.000183	1.17	29.639400	Y 377.433
Sr (421.552 nm)	0.341925	ppm	0.000180	0.05	50095.713034	Y_R 488.368
Th (288.505 nm)	0.076791	ppm	0.003245	4.23	75.042100	Y 377.433
Ti (336.122 nm)	0.546739	ppm	0.001228	0.22	70613.400000	Y 377.433
Tl (190.794 nm)	0.013098	ppm	0.000613	4.68	0.059029	Y 377.433
U (409.013 nm)	-0.028548 u	ppm	0.010766	37.71	61.110000	Y 377.433
V (292.401 nm)	0.508587	ppm	0.000452	0.09	26745.600000	Y 377.433
Zn (206.200 nm)	0.412194	ppm	0.001213	0.29	2093.120000	Y 377.433
Zr (343.823 nm)	0.097805	ppm	0.000109	0.11	5464.960000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131051	25327.013577	0.006589	0.58
Y 377.433	1.121674	724742.765795	0.006946	0.62
Y_R 377.433	1.163650	64059.300000	0.000055	0.00
Y_R 488.368	1.158040	55964.600000	0.001681	0.15
Y_R2 488.368	1.137352	105414.860849	0.004594	0.40
Y_R4	1.173300	50239.900000	0.009159	0.78

Sample Name: 280-123991-a-5-b

Date: 5/24/2019 2:38:14 AM
Rack:Tube: 2:40

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.001122 u	ppm	0.000062	5.52	-492.753000	Y 377.433
Al (394.401 nm)	313.337000 o	ppm	0.363527	0.12	3743770.000000	Y 377.433
Al H (396.152 nm)	308.673000	ppm	0.280210	0.09	636001.000000	Y_R 377.433
As (188.980 nm)	0.109548	ppm	0.004237	3.87	162.876000	Y 242.219
B (249.678 nm)	0.073156	ppm	0.000364	0.50	351.473000	Y 242.219
Ba (493.408 nm)	0.921358	ppm	0.001744	0.19	90958.100000	Y_R 488.368
Be (234.861 nm)	0.005542	ppm	0.000002	0.04	-1014.750000	Y_R 488.368
Bi (223.061 nm)	0.008671	ppm	0.002582	29.77	69.451400	Y 377.433
Ca (315.887 nm)	10.127686	ppm	0.008834	0.09	8192.775650	Y_R 377.433
Cd (214.439 nm)	0.001845	ppm	0.000170	9.22	225.164000	Y 377.433
Co (228.615 nm)	0.066587	ppm	0.000451	0.68	1651.170000	Y 242.219
Cr (205.560 nm)	0.386692	ppm	0.002827	0.73	2725.220000	Y 377.433
Cu (324.754 nm)	0.112787	ppm	0.000417	0.37	5714.720000	Y 377.433
Fe (238.204 nm)	361.033014 o	ppm	1.022293	0.28	889861.782237	Y_R 377.433
Fe H (259.940 nm)	364.609000	ppm	0.666229	0.18	509904.000000	Y_R 377.433
K (766.491 nm)	12.822200	ppm	0.047789	0.37	14708.000000	Y_R2 488.368
Li (670.783 nm)	0.171403	ppm	0.002002	1.17	353.277000	Y_R2 488.368
Mg (279.078 nm)	27.194900	ppm	0.043611	0.16	95853.100000	Y 377.433
Mn (257.610 nm)	0.476352	ppm	0.000498	0.10	131737.000000	Y 377.433
Mo (202.032 nm)	0.003504	ppm	0.000454	12.95	67.972800	Y 377.433
Na (589.592 nm)	1.201560	ppm	0.015844	1.32	1188.990000	Y_R2 488.368
Na H (589.593 nm)	2.158208 u	ppm	0.051420	2.38	1400.914244	Y_R4
Ni (231.604 nm)	0.214046	ppm	0.000549	0.26	1184.820000	Y 377.433
P (213.618 nm)	1.112490	ppm	0.020793	1.87	1655.010000	Y 242.219
Pb (220.353 nm)	0.142587	ppm	0.002995	2.10	446.414000	Y 242.219
S (181.972 nm)	0.516813	ppm	0.002660	0.51	241.849152	Y 377.433
Sb (206.834 nm)	0.004642	ppm	0.000829	17.85	32.669500	Y 377.433
Se (196.026 nm)	0.014117	ppm	0.001183	8.38	-66.274900	Y 242.219
Si (288.158 nm)	4.025690	ppm	0.023502	0.58	27062.800000	Y 377.433
Sn (189.925 nm)	0.017455	ppm	0.000052	0.30	32.681300	Y 377.433
Sr (421.552 nm)	0.349262	ppm	0.000960	0.27	51180.259241	Y_R 488.368
Th (288.505 nm)	0.087852	ppm	0.004302	4.90	83.345000	Y 377.433
Ti (336.122 nm)	0.576389	ppm	0.000697	0.12	74470.800000	Y 377.433
Tl (190.794 nm)	0.014459	ppm	0.000984	6.81	-5.983090	Y 377.433
U (409.013 nm)	-0.021426 u	ppm	0.005484	25.60	139.555000	Y 377.433
V (292.401 nm)	0.565556	ppm	0.000593	0.10	29758.000000	Y 377.433
Zn (206.200 nm)	0.455556	ppm	0.001083	0.24	2320.450000	Y 377.433
Zr (343.823 nm)	0.105435	ppm	0.000039	0.04	5904.920000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.113165	24926.511879	0.007407	0.67
Y 377.433	1.118700	722821.255060	0.007492	0.67
Y_R 377.433	1.161420	63936.800000	0.003202	0.28
Y_R 488.368	1.157170	55922.500000	0.003846	0.33
Y_R2 488.368	1.141384	105788.532763	0.006481	0.57
Y_R4	1.174240	50280.500000	0.001877	0.16

Sample Name: CCVH-5713036

Date: 5/24/2019 2:42:07 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004036	ppm	0.000537	13.32	-114.382000	Y 377.433
Al (394.401 nm)	49.527200 o	ppm	0.017536	0.04	590697.000000	Y 377.433
Al H (396.152 nm)	49.138100	ppm	0.102626	0.21	101036.000000	Y_R 377.433
As (188.980 nm)	0.003574	ppm	0.000036	1.01	2.980810	Y 242.219
B (249.678 nm)	-0.002577 u	ppm	0.000382	14.84	-9.888110	Y 242.219
Ba (493.408 nm)	0.000941	ppm	0.000230	24.41	1561.810000	Y_R 488.368
Be (234.861 nm)	0.001000	ppm	0.000034	3.41	-117.762000	Y_R 488.368
Bi (223.061 nm)	0.002493	ppm	0.001454	58.30	-0.981121	Y 377.433
Ca (315.887 nm)	-0.000940 u	ppm	0.007764	> 100.00	-50.303663	Y_R 377.433
Cd (214.439 nm)	0.001491	ppm	0.000141	9.43	73.479600	Y 377.433
Co (228.615 nm)	0.003500	ppm	0.000011	0.31	64.416500	Y 242.219
Cr (205.560 nm)	0.001723	ppm	0.000178	10.36	4.835590	Y 377.433
Cu (324.754 nm)	0.003210	ppm	0.000539	16.78	1483.270000	Y 377.433
Fe (238.204 nm)	49.039561 o	ppm	0.100535	0.21	120873.562797	Y_R 377.433
Fe H (259.940 nm)	49.235600	ppm	0.159992	0.32	68934.400000	Y_R 377.433
K (766.491 nm)	0.591116	ppm	0.080335	13.59	2568.290000	Y_R2 488.368
Li (670.783 nm)	0.006891	ppm	0.000469	6.81	-2511.470000	Y_R2 488.368
Mg (279.078 nm)	0.034591	ppm	0.000020	0.06	55.344900	Y 377.433
Mn (257.610 nm)	0.001054	ppm	0.000002	0.17	269.484000	Y 377.433
Mo (202.032 nm)	0.000482	ppm	0.000249	51.71	29.518200	Y 377.433
Na (589.592 nm)	236.653000 o	ppm	1.449960	0.61	175413.000000	Y_R2 488.368
Na H (589.593 nm)	250.621804	ppm	1.259438	0.50	124972.176971	Y_R4
Ni (231.604 nm)	0.003335	ppm	0.000149	4.47	7.272220	Y 377.433
P (213.618 nm)	4.874890	ppm	0.039159	0.80	7368.120000	Y 242.219
Pb (220.353 nm)	0.005693	ppm	0.001012	17.77	25.108500	Y 242.219
S (181.972 nm)	5.034669	ppm	0.001855	0.04	2269.403310	Y 377.433
Sb (206.834 nm)	0.004241	ppm	0.001812	42.72	4.276500	Y 377.433
Se (196.026 nm)	0.005627	ppm	0.000168	2.98	6.079410	Y 242.219
Si (288.158 nm)	0.015100	ppm	0.001128	7.47	607.649000	Y 377.433
Sn (189.925 nm)	-0.000287 u	ppm	0.000513	> 100.00	1.736090	Y 377.433
Sr (421.552 nm)	0.001022	ppm	0.000151	14.76	204.589651	Y_R 488.368
Th (288.505 nm)	4.909080	ppm	0.000485	0.01	8577.910000	Y 377.433
Ti (336.122 nm)	0.002174	ppm	0.000054	2.50	-222.876000	Y 377.433
Tl (190.794 nm)	-0.001041 u	ppm	0.000561	53.84	-7.377470	Y 377.433
U (409.013 nm)	0.545295 Q	ppm	0.011340	2.08	1702.200000 Q	Y 377.433
V (292.401 nm)	0.001356	ppm	0.000139	10.27	383.576000	Y 377.433
Zn (206.200 nm)	0.002823	ppm	0.000336	11.92	25.383600	Y 377.433
Zr (343.823 nm)	0.001590	ppm	0.000070	4.39	-82.865200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.089004	24385.477862	0.004792	0.44
Y 377.433	1.087509	702668.419479	0.005830	0.54
Y_R 377.433	1.116870	61484.100000	0.000246	0.02
Y_R 488.368	1.113290	53801.700000	0.000856	0.08
Y_R2 488.368	1.088922	100926.135684	0.005326	0.49
Y_R4	1.110530	47552.500000	0.007850	0.71

Sample Name: CCV-5717467

Date: 5/24/2019 2:45:50 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.486593	ppm	0.000010	0.00	16814.800000	Y 377.433
Al (394.401 nm)	0.503766	ppm	0.001763	0.35	6271.020000	Y 377.433
Al H (396.152 nm)	0.558659 u	ppm	0.002351	0.42	1156.130000	Y_R 377.433
As (188.980 nm)	0.488281	ppm	0.003075	0.63	776.643000	Y 242.219
B (249.678 nm)	0.478230	ppm	0.000363	0.08	3463.200000	Y 242.219
Ba (493.408 nm)	0.484522	ppm	0.002721	0.56	48366.700000	Y_R 488.368
Be (234.861 nm)	0.480031	ppm	0.000178	0.04	48384.200000	Y_R 488.368
Bi (223.061 nm)	0.951733	ppm	0.002495	0.26	2155.840000	Y 377.433
Ca (315.887 nm)	4.895769	ppm	0.009325	0.19	3890.705316	Y_R 377.433
Cd (214.439 nm)	0.493981	ppm	0.000488	0.10	19758.100000	Y 377.433
Co (228.615 nm)	0.488712	ppm	0.000770	0.16	12083.200000	Y 242.219
Cr (205.560 nm)	0.485630	ppm	0.002745	0.57	3431.710000	Y 377.433
Cu (324.754 nm)	0.482449	ppm	0.000515	0.11	22812.500000	Y 377.433
Fe (238.204 nm)	2.464679	ppm	0.009629	0.39	6077.770558	Y_R 377.433
Fe H (259.940 nm)	2.433180 u	ppm	0.010313	0.42	3492.940000	Y_R 377.433
K (766.491 nm)	48.337600	ppm	0.169612	0.35	49958.000000	Y_R2 488.368
Li (670.783 nm)	0.497587	ppm	0.006382	1.28	6033.320000	Y_R2 488.368
Mg (279.078 nm)	19.580700	ppm	0.027133	0.14	69385.800000	Y 377.433
Mn (257.610 nm)	0.489387	ppm	0.000343	0.07	135342.000000	Y 377.433
Mo (202.032 nm)	0.488143	ppm	0.000631	0.13	6234.820000	Y 377.433
Na (589.592 nm)	23.726000	ppm	0.034988	0.15	17784.500000	Y_R2 488.368
Na H (589.593 nm)	25.844772 u	ppm	0.203953	0.79	13181.226028	Y_R4
Ni (231.604 nm)	0.488473	ppm	0.001840	0.38	2719.060000	Y 377.433
P (213.618 nm)	0.051294	ppm	0.003740	7.29	-64.809500	Y 242.219
Pb (220.353 nm)	0.490008	ppm	0.000155	0.03	1693.920000	Y 242.219
S (181.972 nm)	0.015231	ppm	0.003582	23.52	16.323725	Y 377.433
Sb (206.834 nm)	0.491948	ppm	0.000334	0.07	858.216000	Y 377.433
Se (196.026 nm)	0.489403	ppm	0.002050	0.42	806.074000	Y 242.219
Si (288.158 nm)	4.767220	ppm	0.002350	0.05	31954.100000	Y 377.433
Sn (189.925 nm)	0.491315	ppm	0.003106	0.63	859.195000	Y 377.433
Sr (421.552 nm)	0.486950	ppm	0.002328	0.48	71264.519441	Y_R 488.368
Th (288.505 nm)	0.015080	ppm	0.002158	14.31	-8.753290	Y 377.433
Ti (336.122 nm)	0.484560	ppm	0.000314	0.06	62515.600000	Y 377.433
Tl (190.794 nm)	0.499028	ppm	0.003921	0.79	1205.650000	Y 377.433
U (409.013 nm)	0.018343	ppm	0.001110	6.05	-42.709300	Y 377.433
V (292.401 nm)	0.484029	ppm	0.000008	0.00	25344.800000	Y 377.433
Zn (206.200 nm)	0.494097	ppm	0.000303	0.06	2456.470000	Y 377.433
Zr (343.823 nm)	0.485164	ppm	0.000306	0.06	27800.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.109542	24845.375397	0.005810	0.52
Y 377.433	1.108511	716238.353299	0.005200	0.47
Y_R 377.433	1.123780	61864.300000	0.002143	0.19
Y_R 488.368	1.122540	54248.800000	0.003942	0.35
Y_R2 488.368	1.098274	101792.918556	0.005416	0.49
Y_R4	1.122800	48077.900000	0.010495	0.93

Sample Name: CCB

Date: 5/24/2019 2:49:27 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000213	ppm	0.000136	63.93	-238.224000	Y 377.433
Al (394.401 nm)	-0.000819 u	ppm	0.000293	35.73	117.232000	Y 377.433
Al H (396.152 nm)	0.123584 Zu	ppm	0.012427	10.06	29.137900 Z	Y_R 377.433
As (188.980 nm)	-0.001779 u	ppm	0.001521	85.51	-4.139930	Y 242.219
B (249.678 nm)	-0.003238 u	ppm	0.000571	17.62	13.875200	Y 242.219
Ba (493.408 nm)	-0.001625 u	ppm	0.000350	21.57	1275.230000	Y_R 488.368
Be (234.861 nm)	-0.000013 u	ppm	0.000011	81.06	-7.055520	Y_R 488.368
Bi (223.061 nm)	0.001459	ppm	0.001957	> 100.00	-12.187700	Y 377.433
Ca (315.887 nm)	0.011591	ppm	0.001162	10.02	-52.617456	Y_R 377.433
Cd (214.439 nm)	0.000081	ppm	0.000039	48.03	-4.551990	Y 377.433
Co (228.615 nm)	-0.000026 u	ppm	0.000095	> 100.00	-22.797400	Y 242.219
Cr (205.560 nm)	0.000242 u	ppm	0.000499	> 100.00	-4.257470	Y 377.433
Cu (324.754 nm)	-0.000253 u	ppm	0.000111	43.87	401.355000	Y 377.433
Fe (238.204 nm)	0.001313	ppm	0.000453	34.53	6.169720	Y_R 377.433
Fe H (259.940 nm)	-0.054601 u	ppm	0.001870	3.43	14.404200	Y_R 377.433
K (766.491 nm)	0.069164	ppm	0.031658	45.77	2050.240000	Y_R2 488.368
Li (670.783 nm)	0.009284	ppm	0.001870	20.14	-2469.790000	Y_R2 488.368
Mg (279.078 nm)	0.000857 u	ppm	0.002379	> 100.00	15.159500	Y 377.433
Mn (257.610 nm)	0.000080	ppm	0.000017	20.71	0.055420	Y 377.433
Mo (202.032 nm)	-0.000287 u	ppm	0.000111	38.64	19.734300	Y 377.433
Na (589.592 nm)	0.083642	ppm	0.038561	46.10	172.049000	Y_R2 488.368
Na H (589.593 nm)	0.391604 u	ppm	0.013914	3.55	522.309064	Y_R4
Ni (231.604 nm)	0.000455 u	ppm	0.001125	> 100.00	-8.822230	Y 377.433
P (213.618 nm)	-0.000846 u	ppm	0.000681	80.42	-5.792790	Y 242.219
Pb (220.353 nm)	-0.001958 u	ppm	0.000537	27.41	6.138610	Y 242.219
S (181.972 nm)	-0.003045 u	ppm	0.006268	> 100.00	6.387712	Y 377.433
Sb (206.834 nm)	0.004479	ppm	0.000953	21.27	0.365283	Y 377.433
Se (196.026 nm)	-0.001501 u	ppm	0.003105	> 100.00	8.136080	Y 242.219
Si (288.158 nm)	-0.005290 u	ppm	0.000031	0.59	473.146000	Y 377.433
Sn (189.925 nm)	0.000004 u	ppm	0.000195	> 100.00	2.242670	Y 377.433
Sr (421.552 nm)	0.000071	ppm	0.000064	90.73	58.245294	Y_R 488.368
Th (288.505 nm)	-0.001521 u	ppm	0.004522	> 100.00	11.783000	Y 377.433
Ti (336.122 nm)	0.000526	ppm	0.000174	33.11	-437.245000	Y 377.433
Tl (190.794 nm)	0.001636	ppm	0.000030	1.83	4.079360	Y 377.433
U (409.013 nm)	0.003812 u	ppm	0.007637	> 100.00	-29.828400	Y 377.433
V (292.401 nm)	0.000386	ppm	0.000130	33.58	-158.725000	Y 377.433
Zn (206.200 nm)	0.000000 u	ppm	0.000542	> 100.00	3.815150	Y 377.433
Zr (343.823 nm)	0.000324	ppm	0.000240	74.08	-155.820000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114527	24957.002549	0.003063	0.27
Y 377.433	1.109557	716914.033992	0.002819	0.25
Y_R 377.433	1.127920	62092.200000	0.002964	0.26
Y_R 488.368	1.124890	54362.700000	0.001732	0.15
Y_R2 488.368	1.102873	102219.194325	0.004174	0.38
Y_R4	1.114200	47709.600000	0.006871	0.62

Sample Name: CCVL-5717307

Date: 5/24/2019 2:52:39 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007732	ppm	0.000198	2.56	24.163800	Y 377.433
Al (394.401 nm)	0.096072	ppm	0.001688	1.76	1286.060000	Y 377.433
Al H (396.152 nm)	0.221656 u	ppm	0.007398	3.34	236.270000	Y_R 377.433
As (188.980 nm)	0.012513	ppm	0.000992	7.93	18.629800	Y 242.219
B (249.678 nm)	0.089381	ppm	0.000074	0.08	677.635000	Y 242.219
Ba (493.408 nm)	0.008036	ppm	0.000380	4.72	2211.050000	Y_R 488.368
Be (234.861 nm)	0.000949	ppm	0.000042	4.47	89.523000	Y_R 488.368
Bi (223.061 nm)	0.088570	ppm	0.001601	1.81	186.528000	Y 377.433
Ca (315.887 nm)	0.210367	ppm	0.008630	4.10	107.884053	Y_R 377.433
Cd (214.439 nm)	0.005167	ppm	0.000111	2.14	199.006000	Y 377.433
Co (228.615 nm)	0.010469	ppm	0.000319	3.05	237.105000	Y 242.219
Cr (205.560 nm)	0.010076	ppm	0.000433	4.30	65.255100	Y 377.433
Cu (324.754 nm)	0.014827	ppm	0.000120	0.81	1098.890000	Y 377.433
Fe (238.204 nm)	0.100454	ppm	0.000603	0.60	250.529217	Y_R 377.433
Fe H (259.940 nm)	0.048221 u	ppm	0.000438	0.91	158.175000	Y_R 377.433
K (766.491 nm)	2.937900	ppm	0.041887	1.43	4897.540000	Y_R2 488.368
Li (670.783 nm)	0.036124 Q	ppm	0.001585	4.39	-2002.420000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200576	ppm	0.000384	0.19	721.166000	Y 377.433
Mn (257.610 nm)	0.010471	ppm	0.000032	0.31	2874.350000	Y 377.433
Mo (202.032 nm)	0.018604	ppm	0.000243	1.31	260.119000	Y 377.433
Na (589.592 nm)	1.173180	ppm	0.015149	1.29	981.084000	Y_R2 488.368
Na H (589.593 nm)	1.275279 u	ppm	0.015391	1.21	961.797382	Y_R4
Ni (231.604 nm)	0.042445	ppm	0.000557	1.31	225.853000	Y 377.433
P (213.618 nm)	2.741570	ppm	0.006463	0.24	4140.040000	Y 242.219
Pb (220.353 nm)	0.007032	ppm	0.001507	21.44	37.161500	Y 242.219
S (181.972 nm)	0.090232	ppm	0.000527	0.58	48.326239	Y 377.433
Sb (206.834 nm)	0.025499	ppm	0.000754	2.96	37.326700	Y 377.433
Se (196.026 nm)	0.018485	ppm	0.001178	6.38	40.608900	Y 242.219
Si (288.158 nm)	0.465481	ppm	0.001715	0.37	3578.500000	Y 377.433
Sn (189.925 nm)	0.096327	ppm	0.001656	1.72	170.251000	Y 377.433
Sr (421.552 nm)	0.008910	ppm	0.000094	1.06	1351.066497	Y_R 488.368
Th (288.505 nm)	0.012465	ppm	0.001334	10.70	35.794000	Y 377.433
Ti (336.122 nm)	0.010034	ppm	0.000135	1.34	799.608000	Y 377.433
Tl (190.794 nm)	0.015408	ppm	0.000376	2.44	37.326300	Y 377.433
U (409.013 nm)	0.065346	ppm	0.001209	1.85	161.759000	Y 377.433
V (292.401 nm)	0.010102	ppm	0.000116	1.15	349.387000	Y 377.433
Zn (206.200 nm)	0.020285	ppm	0.000457	2.25	104.510000	Y 377.433
Zr (343.823 nm)	0.010171	ppm	0.000115	1.13	411.940000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.137304	25467.050837	0.000132	0.01
Y 377.433	1.132980	732048.225446	0.000933	0.08
Y_R 377.433	1.131190	62272.300000	0.003893	0.34
Y_R 488.368	1.129130	54567.400000	0.000248	0.02
Y_R2 488.368	1.124092	104185.865845	0.004059	0.36
Y_R4	1.133290	48526.700000	0.002133	0.19

Sample Name: 280-123991-a-6-b

Date: 5/24/2019 2:56:08 AM Rack:Tube: 2:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000159 u	ppm	0.000401	> 100.00	-421.267000	Y 377.433
Al (394.401 nm)	239.750000 o	ppm	0.050451	0.02	2864560.000000	Y 377.433
Al H (396.152 nm)	236.780000	ppm	0.634646	0.27	487832.000000	Y_R 377.433
As (188.980 nm)	0.097835	ppm	0.000999	1.02	145.826000	Y 242.219
B (249.678 nm)	0.060566	ppm	0.000651	1.08	293.899000	Y 242.219
Ba (493.408 nm)	2.354030	ppm	0.005282	0.22	229687.000000	Y_R 488.368
Be (234.861 nm)	0.005064	ppm	0.000253	5.00	-819.026000	Y_R 488.368
Bi (223.061 nm)	0.006829	ppm	0.001975	28.93	55.106400	Y 377.433
Ca (315.887 nm)	12.948418	ppm	0.008638	0.07	10451.824119	Y_R 377.433
Cd (214.439 nm)	0.009845	ppm	0.000085	0.87	520.526000	Y 377.433
Co (228.615 nm)	0.105544	ppm	0.000044	0.04	2613.390000	Y 242.219
Cr (205.560 nm)	0.320145	ppm	0.000513	0.16	2255.730000	Y 377.433
Cu (324.754 nm)	0.197300	ppm	0.000029	0.01	9637.430000	Y 377.433
Fe (238.204 nm)	304.415052 o	ppm	0.055114	0.02	750312.233719	Y_R 377.433
Fe H (259.940 nm)	309.519000	ppm	0.686660	0.22	432875.000000	Y_R 377.433
K (766.491 nm)	10.617500	ppm	0.009520	0.09	12519.800000	Y_R2 488.368
Li (670.783 nm)	0.138209	ppm	0.001022	0.74	-224.742000	Y_R2 488.368
Mg (279.078 nm)	23.082400	ppm	0.004186	0.02	81362.000000	Y 377.433
Mn (257.610 nm)	10.120100	ppm	0.012438	0.12	2799190.000000	Y 377.433
Mo (202.032 nm)	0.004814	ppm	0.000473	9.81	84.650300	Y 377.433
Na (589.592 nm)	-0.053111 u	ppm	0.013901	26.17	553.117000	Y_R2 488.368
Na H (589.593 nm)	2.331192 u	ppm	0.008992	0.39	1486.946619	Y_R4
Ni (231.604 nm)	0.174145	ppm	0.000929	0.53	961.856000	Y 377.433
P (213.618 nm)	1.066380	ppm	0.004719	0.44	1563.660000	Y 242.219
Pb (220.353 nm)	0.361783	ppm	0.000812	0.22	1212.640000	Y 242.219
S (181.972 nm)	0.501178	ppm	0.001177	0.23	264.544399	Y 377.433
Sb (206.834 nm)	0.009872	ppm	0.002218	22.47	36.501800	Y 377.433
Se (196.026 nm)	0.012486	ppm	0.003660	29.31	-39.017600	Y 242.219
Si (288.158 nm)	4.083900	ppm	0.044983	1.10	27446.700000	Y 377.433
Sn (189.925 nm)	0.014655	ppm	0.001090	7.44	27.797200	Y 377.433
Sr (421.552 nm)	0.313004	ppm	0.000117	0.04	45869.302826	Y_R 488.368
Th (288.505 nm)	0.026696	ppm	0.000624	2.34	178.749000	Y 377.433
Ti (336.122 nm)	0.559280	ppm	0.000464	0.08	72255.500000	Y 377.433
Tl (190.794 nm)	0.012637	ppm	0.002144	16.97	-4.969650	Y 377.433
U (409.013 nm)	-0.026294 u	ppm	0.011156	42.43	84.042000	Y 377.433
V (292.401 nm)	0.497185	ppm	0.000255	0.05	26158.300000	Y 377.433
Zn (206.200 nm)	0.528861	ppm	0.001017	0.19	2675.620000	Y 377.433
Zr (343.823 nm)	0.097159	ppm	0.000018	0.02	5427.730000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125203	25196.080334	0.000863	0.08
Y 377.433	1.119176	723129.124810	0.002108	0.19
Y_R 377.433	1.146240	63100.800000	0.001427	0.12
Y_R 488.368	1.144850	55327.100000	0.002774	0.24
Y_R2 488.368	1.124171	104193.204457	0.008854	0.79
Y_R4	1.159320	49641.600000	0.000283	0.02

Sample Name: 280-123991-a-7-b

Date: 5/24/2019 2:59:55 AM Rack:Tube: 2:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.001470 u	ppm	0.000024	1.64	-556.639000	Y 377.433
Al (394.401 nm)	353.190000 o	ppm	0.457389	0.13	4219910.000000	Y 377.433
Al H (396.152 nm)	349.974000	ppm	0.116578	0.03	721107.000000	Y_R 377.433
As (188.980 nm)	0.121843	ppm	0.000912	0.75	182.491000	Y 242.219
B (249.678 nm)	0.044583	ppm	0.000440	0.99	147.197000	Y 242.219
Ba (493.408 nm)	1.112260	ppm	0.001736	0.16	109449.000000	Y_R 488.368
Be (234.861 nm)	0.005579	ppm	0.000097	1.74	-1007.220000	Y_R 488.368
Bi (223.061 nm)	0.002015 u	ppm	0.002919	> 100.00	54.111900	Y 377.433
Ca (315.887 nm)	6.776335	ppm	0.004113	0.06	5497.578962	Y_R 377.433
Cd (214.439 nm)	0.006751	ppm	0.000018	0.27	421.110000	Y 377.433
Co (228.615 nm)	0.072638	ppm	0.000528	0.73	1799.640000	Y 242.219
Cr (205.560 nm)	0.435225	ppm	0.003112	0.72	3068.000000	Y 377.433
Cu (324.754 nm)	0.112491	ppm	0.000401	0.36	5711.330000	Y 377.433
Fe (238.204 nm)	359.683255 o	ppm	1.052619	0.29	886534.952824	Y_R 377.433
Fe H (259.940 nm)	362.997000	ppm	0.335680	0.09	507651.000000	Y_R 377.433
K (766.491 nm)	13.269500	ppm	0.040970	0.31	15152.000000	Y_R2 488.368
Li (670.783 nm)	0.258248	ppm	0.003446	1.33	1865.570000	Y_R2 488.368
Mg (279.078 nm)	25.904200	ppm	0.011442	0.04	91280.900000	Y 377.433
Mn (257.610 nm)	0.432999	ppm	0.000322	0.07	119745.000000	Y 377.433
Mo (202.032 nm)	0.005339	ppm	0.000009	0.16	91.321800	Y 377.433
Na (589.592 nm)	0.373204	ppm	0.015588	4.18	614.527000	Y_R2 488.368
Na H (589.593 nm)	1.531816 u	ppm	0.004083	0.27	1089.383638	Y_R4
Ni (231.604 nm)	0.204713	ppm	0.000420	0.21	1132.660000	Y 377.433
P (213.618 nm)	1.242260	ppm	0.006082	0.49	1851.320000	Y 242.219
Pb (220.353 nm)	0.141242	ppm	0.000908	0.64	434.360000	Y 242.219
S (181.972 nm)	0.654036	ppm	0.007135	1.09	303.204591	Y 377.433
Sb (206.834 nm)	0.004088	ppm	0.002634	64.45	32.040400	Y 377.433
Se (196.026 nm)	0.014401	ppm	0.005821	40.42	-65.632700	Y 242.219
Si (288.158 nm)	4.270620	ppm	0.020578	0.48	28678.400000	Y 377.433
Sn (189.925 nm)	0.019192	ppm	0.001161	6.05	35.711100	Y 377.433
Sr (421.552 nm)	0.330142	ppm	0.000978	0.30	48383.797658	Y_R 488.368
Th (288.505 nm)	0.080088	ppm	0.005085	6.35	53.518800	Y 377.433
Ti (336.122 nm)	0.552199	ppm	0.000095	0.02	71314.400000	Y 377.433
Tl (190.794 nm)	0.015642	ppm	0.000924	5.91	-1.606330	Y 377.433
U (409.013 nm)	-0.014186 u	ppm	0.000036	0.25	159.688000	Y 377.433
V (292.401 nm)	0.704528	ppm	0.000071	0.01	37124.900000	Y 377.433
Zn (206.200 nm)	0.419574	ppm	0.000485	0.12	2141.730000	Y 377.433
Zr (343.823 nm)	0.124043	ppm	0.000047	0.04	6977.840000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108463	24821.224320	0.003451	0.31
Y 377.433	1.112489	718808.577701	0.001796	0.16
Y_R 377.433	1.156930	63689.500000	0.000978	0.08
Y_R 488.368	1.152660	55704.400000	0.005637	0.49
Y_R2 488.368	1.127412	104493.545508	0.003055	0.27
Y_R4	1.173360	50242.600000	0.004876	0.42

Sample Name: 280-123991-a-8-b

Date: 5/24/2019 3:03:46 AM Rack:Tube: 2:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000988 u	ppm	0.000005	0.50	-492.821000	Y 377.433
Al (394.401 nm)	284.381000 o	ppm	0.711857	0.25	3397810.000000	Y 377.433
Al H (396.152 nm)	279.270000	ppm	0.362289	0.13	575385.000000	Y_R 377.433
As (188.980 nm)	0.108911	ppm	0.001010	0.93	163.032000	Y 242.219
B (249.678 nm)	0.044934	ppm	0.000218	0.49	172.906000	Y 242.219
Ba (493.408 nm)	0.838095	ppm	0.000812	0.10	82861.400000	Y_R 488.368
Be (234.861 nm)	0.004483	ppm	0.000118	2.62	-944.461000	Y_R 488.368
Bi (223.061 nm)	-0.002016 u	ppm	0.002219	> 100.00	37.715400	Y 377.433
Ca (315.887 nm)	6.012787	ppm	0.012393	0.21	4863.194031	Y_R 377.433
Cd (214.439 nm)	0.001984	ppm	0.000152	7.65	212.786000	Y 377.433
Co (228.615 nm)	0.054134	ppm	0.000506	0.93	1340.280000	Y 242.219
Cr (205.560 nm)	0.361295	ppm	0.000547	0.15	2546.180000	Y 377.433
Cu (324.754 nm)	0.095225	ppm	0.001050	1.10	4894.980000	Y 377.433
Fe (238.204 nm)	320.324454 o	ppm	0.318222	0.10	789525.051103	Y_R 377.433
Fe H (259.940 nm)	324.073000	ppm	1.425300	0.44	453225.000000	Y_R 377.433
K (766.491 nm)	11.458600	ppm	0.072519	0.63	13354.600000	Y_R2 488.368
Li (670.783 nm)	0.219546	ppm	0.003223	1.47	1191.620000	Y_R2 488.368
Mg (279.078 nm)	21.710500	ppm	0.080516	0.37	76479.000000	Y 377.433
Mn (257.610 nm)	0.336806	ppm	0.001081	0.32	93138.600000	Y 377.433
Mo (202.032 nm)	0.004286	ppm	0.000720	16.79	77.927800	Y 377.433
Na (589.592 nm)	0.861494	ppm	0.044386	5.15	920.035000	Y_R2 488.368
Na H (589.593 nm)	1.719123 u	ppm	0.030208	1.76	1182.539219	Y_R4
Ni (231.604 nm)	0.158864	ppm	0.002153	1.36	876.444000	Y 377.433
P (213.618 nm)	0.962421	ppm	0.017855	1.86	1431.800000	Y 242.219
Pb (220.353 nm)	0.128516	ppm	0.001040	0.81	403.434000	Y 242.219
S (181.972 nm)	0.437353	ppm	0.017969	4.11	205.535685	Y 377.433
Sb (206.834 nm)	0.002488 u	ppm	0.003757	> 100.00	25.319000	Y 377.433
Se (196.026 nm)	0.015629	ppm	0.007586	48.54	-52.676500	Y 242.219
Si (288.158 nm)	3.983700	ppm	0.018743	0.47	26785.800000	Y 377.433
Sn (189.925 nm)	0.014269	ppm	0.001658	11.62	27.124100	Y 377.433
Sr (421.552 nm)	0.285885	ppm	0.000082	0.03	41905.410683	Y_R 488.368
Th (288.505 nm)	0.075480	ppm	0.005558	7.36	60.521300	Y 377.433
Ti (336.122 nm)	0.513646	ppm	0.001047	0.20	66298.600000	Y 377.433
Tl (190.794 nm)	0.015464	ppm	0.000165	1.07	1.321950	Y 377.433
U (409.013 nm)	-0.014428 u	ppm	0.008672	60.10	131.195000	Y 377.433
V (292.401 nm)	0.583261	ppm	0.002479	0.43	30706.700000	Y 377.433
Zn (206.200 nm)	0.329991	ppm	0.002986	0.90	1690.970000	Y 377.433
Zr (343.823 nm)	0.114832	ppm	0.000117	0.10	6446.730000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124554	25181.536429	0.005412	0.48
Y 377.433	1.114190	719907.596371	0.007561	0.68
Y_R 377.433	1.152360	63438.100000	0.004909	0.43
Y_R 488.368	1.146200	55392.200000	0.004597	0.40
Y_R2 488.368	1.124766	104248.335554	0.003890	0.35
Y_R4	1.165960	49925.900000	0.004044	0.35

Sample Name: 280-123991-a-9-b

Date: 5/24/2019 3:07:36 AM Rack:Tube: 2:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000595 u	ppm	0.000060	10.09	-456.911000	Y 377.433
Al (394.401 nm)	242.133000 o	ppm	0.386680	0.16	2893040.000000	Y 377.433
Al H (396.152 nm)	239.013000	ppm	0.633138	0.26	492413.000000	Y_R 377.433
As (188.980 nm)	0.091595	ppm	0.000056	0.06	137.092000	Y 242.219
B (249.678 nm)	0.033821	ppm	0.000281	0.83	126.694000	Y 242.219
Ba (493.408 nm)	0.949881	ppm	0.001392	0.15	93644.600000	Y_R 488.368
Be (234.861 nm)	0.006014	ppm	0.000070	1.16	-540.433000	Y_R 488.368
Bi (223.061 nm)	0.000504 u	ppm	0.001142	> 100.00	33.083200	Y 377.433
Ca (315.887 nm)	7.150641	ppm	0.004406	0.06	5771.612134	Y_R 377.433
Cd (214.439 nm)	0.002088	ppm	0.000111	5.32	191.601000	Y 377.433
Co (228.615 nm)	0.060427	ppm	0.000131	0.22	1499.450000	Y 242.219
Cr (205.560 nm)	0.334219	ppm	0.004481	1.34	2355.420000	Y 377.433
Cu (324.754 nm)	0.099945	ppm	0.000175	0.17	5107.380000	Y 377.433
Fe (238.204 nm)	262.370448 o	ppm	0.088822	0.03	646682.477523	Y_R 377.433
Fe H (259.940 nm)	266.373000	ppm	0.513132	0.19	372547.000000	Y_R 377.433
K (766.491 nm)	10.715000	ppm	0.049280	0.46	12616.600000	Y_R2 488.368
Li (670.783 nm)	0.196990	ppm	0.002421	1.23	798.845000	Y_R2 488.368
Mg (279.078 nm)	19.381800	ppm	0.008571	0.04	68310.200000	Y 377.433
Mn (257.610 nm)	0.879829	ppm	0.001426	0.16	243339.000000	Y 377.433
Mo (202.032 nm)	0.003463	ppm	0.000193	5.57	67.457900	Y 377.433
Na (589.592 nm)	0.358825	ppm	0.008083	2.25	570.569000	Y_R2 488.368
Na H (589.593 nm)	1.251220 u	ppm	0.007719	0.62	949.831584	Y_R4
Ni (231.604 nm)	0.174030	ppm	0.001471	0.85	961.195000	Y 377.433
P (213.618 nm)	1.309440	ppm	0.001642	0.13	1955.200000	Y 242.219
Pb (220.353 nm)	0.122522	ppm	0.002900	2.37	389.898000	Y 242.219
S (181.972 nm)	0.523221	ppm	0.008747	1.67	245.827007	Y 377.433
Sb (206.834 nm)	0.008479	ppm	0.000456	5.38	30.297200	Y 377.433
Se (196.026 nm)	0.013664	ppm	0.001280	9.37	-39.059800	Y 242.219
Si (288.158 nm)	4.316910	ppm	0.035697	0.83	28983.800000	Y 377.433
Sn (189.925 nm)	0.014072	ppm	0.002521	17.91	26.780900	Y 377.433
Sr (421.552 nm)	0.248649	ppm	0.000551	0.22	36451.309667	Y_R 488.368
Th (288.505 nm)	0.074408	ppm	0.000125	0.17	80.887300	Y 377.433
Ti (336.122 nm)	0.590244	ppm	0.001770	0.30	76261.600000	Y 377.433
Tl (190.794 nm)	0.010562	ppm	0.002029	19.21	-4.655060	Y 377.433
U (409.013 nm)	-0.041490 u	ppm	0.000302	0.73	6.264450	Y 377.433
V (292.401 nm)	0.522209	ppm	0.000556	0.11	27477.100000	Y 377.433
Zn (206.200 nm)	0.388319	ppm	0.001502	0.39	1971.600000	Y 377.433
Zr (343.823 nm)	0.100185	ppm	0.000226	0.23	5602.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136930	25458.670207	0.002665	0.23
Y 377.433	1.128806	729351.236489	0.000758	0.07
Y_R 377.433	1.159240	63816.800000	0.001137	0.10
Y_R 488.368	1.156250	55878.300000	0.001821	0.16
Y_R2 488.368	1.141141	105766.065119	0.003762	0.33
Y_R4	1.166480	49948.200000	0.010291	0.88

Sample Name: 280-123991-a-10-b

Date: 5/24/2019 3:11:23 AM Rack:Tube: 2:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000775 u	ppm	0.000112	14.51	-391.937000	Y 377.433
Al (394.401 nm)	107.143000 o	ppm	0.065164	0.06	1280250.000000	Y 377.433
Al H (396.152 nm)	106.977000	ppm	0.159053	0.15	220294.000000	Y_R 377.433
As (188.980 nm)	0.065312	ppm	0.000392	0.60	95.495600	Y 242.219
B (249.678 nm)	0.026631	ppm	0.001450	5.45	80.871600	Y 242.219
Ba (493.408 nm)	1.050110	ppm	0.004242	0.40	103346.000000	Y_R 488.368
Be (234.861 nm)	0.004192	ppm	0.000105	2.50	-681.514000	Y_R 488.368
Bi (223.061 nm)	0.000588 u	ppm	0.004028	> 100.00	31.491300	Y 377.433
Ca (315.887 nm)	5.436896	ppm	0.045006	0.83	4354.554332	Y_R 377.433
Cd (214.439 nm)	0.013102	ppm	0.000009	0.07	627.942000	Y 377.433
Co (228.615 nm)	0.072218	ppm	0.000632	0.88	1784.260000	Y 242.219
Cr (205.560 nm)	0.255948	ppm	0.000315	0.12	1804.600000	Y 377.433
Cu (324.754 nm)	0.325721	ppm	0.000032	0.01	15561.700000	Y 377.433
Fe (238.204 nm)	252.894057 o	ppm	1.452033	0.57	623325.471133	Y_R 377.433
Fe H (259.940 nm)	256.404000	ppm	0.849916	0.33	358607.000000	Y_R 377.433
K (766.491 nm)	5.721530	ppm	0.017144	0.30	7660.370000	Y_R2 488.368
Li (670.783 nm)	0.087405	ppm	0.001051	1.20	-1109.430000	Y_R2 488.368
Mg (279.078 nm)	9.093230	ppm	0.014669	0.16	31870.000000	Y 377.433
Mn (257.610 nm)	3.304250	ppm	0.001607	0.05	913934.000000	Y 377.433
Mo (202.032 nm)	0.002685	ppm	0.000391	14.55	57.550100	Y 377.433
Na (589.592 nm)	-0.255369 u	ppm	0.053189	20.83	136.562000	Y_R2 488.368
Na H (589.593 nm)	0.758919 u	ppm	0.011600	1.53	704.990023	Y_R4
Ni (231.604 nm)	0.109051	ppm	0.001435	1.32	598.061000	Y 377.433
P (213.618 nm)	1.398260	ppm	0.003433	0.25	2034.020000	Y 242.219
Pb (220.353 nm)	0.228607	ppm	0.001365	0.60	778.449000	Y 242.219
S (181.972 nm)	0.787583	ppm	0.009425	1.20	371.934670	Y 377.433
Sb (206.834 nm)	0.010742	ppm	0.002834	26.39	33.565600	Y 377.433
Se (196.026 nm)	0.009973	ppm	0.000658	6.60	-38.736300	Y 242.219
Si (288.158 nm)	3.471800	ppm	0.018506	0.53	23409.100000	Y 377.433
Sn (189.925 nm)	0.013538	ppm	0.001154	8.52	25.849300	Y 377.433
Sr (421.552 nm)	0.191350	ppm	0.000360	0.19	28069.843996	Y_R 488.368
Th (288.505 nm)	0.028464	ppm	0.002340	8.22	72.475300	Y 377.433
Ti (336.122 nm)	0.449546	ppm	0.000512	0.11	57961.900000	Y 377.433
Tl (190.794 nm)	0.010967	ppm	0.001588	14.48	-5.130380	Y 377.433
U (409.013 nm)	-0.042104 u	ppm	0.001082	2.57	3.745660	Y 377.433
V (292.401 nm)	0.317023	ppm	0.000110	0.03	16594.600000	Y 377.433
Zn (206.200 nm)	0.566337	ppm	0.000156	0.03	2853.620000	Y 377.433
Zr (343.823 nm)	0.048522	ppm	0.000008	0.02	2623.290000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.133070	25372.241050	0.003681	0.32
Y 377.433	1.131474	731074.773853	0.003886	0.34
Y_R 377.433	1.158110	63754.700000	0.000724	0.06
Y_R 488.368	1.154210	55779.300000	0.000045	0.00
Y_R2 488.368	1.135231	105218.285868	0.003730	0.33
Y_R4	1.161680	49742.400000	0.000853	0.07

Sample Name: 280-123991-a-11-b

Date: 5/24/2019 3:15:11 AM
Rack:Tube: 2:46

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000658 u	ppm	0.000404	61.35	-427.142000	Y 377.433
Al (394.401 nm)	221.383000 o	ppm	0.032239	0.01	2645150.000000	Y 377.433
Al H (396.152 nm)	217.858000	ppm	0.040258	0.02	448823.000000	Y_R 377.433
As (188.980 nm)	0.077050	ppm	0.001373	1.78	112.923000	Y 242.219
B (249.678 nm)	0.037401	ppm	0.000118	0.31	132.229000	Y 242.219
Ba (493.408 nm)	1.020540	ppm	0.003361	0.33	100516.000000	Y_R 488.368
Be (234.861 nm)	0.004637	ppm	0.000268	5.79	-829.614000	Y_R 488.368
Bi (223.061 nm)	-0.001083 u	ppm	0.001075	99.32	35.708800	Y 377.433
Ca (315.887 nm)	6.537079	ppm	0.022234	0.34	5270.896646	Y_R 377.433
Cd (214.439 nm)	0.007563	ppm	0.000046	0.60	425.902000	Y 377.433
Co (228.615 nm)	0.051636	ppm	0.000055	0.11	1277.710000	Y 242.219
Cr (205.560 nm)	0.284321	ppm	0.000257	0.09	2002.420000	Y 377.433
Cu (324.754 nm)	0.117436	ppm	0.000152	0.13	5911.220000	Y 377.433
Fe (238.204 nm)	296.858116 o	ppm	0.958691	0.32	731686.217072	Y_R 377.433
Fe H (259.940 nm)	302.114000	ppm	0.852542	0.28	422522.000000	Y_R 377.433
K (766.491 nm)	9.752520	ppm	0.099149	1.02	11661.300000	Y_R2 488.368
Li (670.783 nm)	0.174762	ppm	0.003241	1.85	411.780000	Y_R2 488.368
Mg (279.078 nm)	18.448700	ppm	0.025353	0.14	64954.500000	Y 377.433
Mn (257.610 nm)	0.769398	ppm	0.000608	0.08	212793.000000	Y 377.433
Mo (202.032 nm)	0.003446	ppm	0.000098	2.84	67.233100	Y 377.433
Na (589.592 nm)	0.373137	ppm	0.016469	4.41	595.795000	Y_R2 488.368
Na H (589.593 nm)	1.330742 u	ppm	0.044625	3.35	989.381069	Y_R4
Ni (231.604 nm)	0.160049	ppm	0.000527	0.33	883.063000	Y 377.433
P (213.618 nm)	1.017680	ppm	0.014055	1.38	1509.770000	Y 242.219
Pb (220.353 nm)	0.112092	ppm	0.000077	0.07	358.110000	Y 242.219
S (181.972 nm)	0.581193	ppm	0.002896	0.50	271.499613	Y 377.433
Sb (206.834 nm)	0.004106	ppm	0.001284	31.29	25.682400	Y 377.433
Se (196.026 nm)	0.014811	ppm	0.004014	27.10	-46.993300	Y 242.219
Si (288.158 nm)	3.553720	ppm	0.044430	1.25	23949.500000	Y 377.433
Sn (189.925 nm)	0.013973	ppm	0.000649	4.64	26.607400	Y 377.433
Sr (421.552 nm)	0.265639	ppm	0.000539	0.20	38941.138504	Y_R 488.368
Th (288.505 nm)	0.059621	ppm	0.000115	0.19	59.339300	Y 377.433
Ti (336.122 nm)	0.495554	ppm	0.000261	0.05	63948.100000	Y 377.433
Tl (190.794 nm)	0.013186	ppm	0.000983	7.45	-2.854370	Y 377.433
U (409.013 nm)	-0.016447 u	ppm	0.007616	46.31	110.253000	Y 377.433
V (292.401 nm)	0.440118	ppm	0.000368	0.08	23126.300000	Y 377.433
Zn (206.200 nm)	0.444563	ppm	0.002494	0.56	2256.080000	Y 377.433
Zr (343.823 nm)	0.097626	ppm	0.000402	0.41	5454.650000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123176	25150.679465	0.001715	0.15
Y 377.433	1.115399	720688.520311	0.002398	0.21
Y_R 377.433	1.153140	63480.600000	0.000828	0.07
Y_R 488.368	1.147260	55443.700000	0.000666	0.06
Y_R2 488.368	1.127414	104493.755632	0.004646	0.41
Y_R4	1.168420	50031.300000	0.000704	0.06

Sample Name: 280-123991-a-12-b

Date: 5/24/2019 3:19:01 AM Rack:Tube: 2:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000604 u	ppm	0.000459	76.10	-414.974000	Y 377.433
Al (394.401 nm)	193.635000 o	ppm	0.245735	0.13	2313630.000000	Y 377.433
Al H (396.152 nm)	192.253000	ppm	0.045661	0.02	396060.000000	Y_R 377.433
As (188.980 nm)	0.069203	ppm	0.001955	2.82	101.679000	Y 242.219
B (249.678 nm)	0.033153	ppm	0.001251	3.77	127.297000	Y 242.219
Ba (493.408 nm)	0.926146	ppm	0.000858	0.09	91338.500000	Y_R 488.368
Be (234.861 nm)	0.003889	ppm	0.000080	2.05	-714.394000	Y_R 488.368
Bi (223.061 nm)	-0.001530 u	ppm	0.000636	41.57	26.763200	Y 377.433
Ca (315.887 nm)	5.612579	ppm	0.004109	0.07	4518.026408	Y_R 377.433
Cd (214.439 nm)	0.004876	ppm	0.000065	1.33	299.033000	Y 377.433
Co (228.615 nm)	0.043582	ppm	0.000027	0.06	1082.600000	Y 242.219
Cr (205.560 nm)	0.256740	ppm	0.001631	0.64	1807.770000	Y 377.433
Cu (324.754 nm)	0.184093	ppm	0.000001	0.00	9001.750000	Y 377.433
Fe (238.204 nm)	253.102666 o	ppm	0.032368	0.01	623839.641877	Y_R 377.433
Fe H (259.940 nm)	256.812000	ppm	0.096608	0.04	359178.000000	Y_R 377.433
K (766.491 nm)	8.530450	ppm	0.049934	0.59	10448.300000	Y_R2 488.368
Li (670.783 nm)	0.160921	ppm	0.000342	0.21	170.747000	Y_R2 488.368
Mg (279.078 nm)	15.112600	ppm	0.002706	0.02	53196.900000	Y 377.433
Mn (257.610 nm)	0.696133	ppm	0.000129	0.02	192528.000000	Y 377.433
Mo (202.032 nm)	0.003029	ppm	0.000251	8.30	61.936600	Y 377.433
Na (589.592 nm)	0.369359	ppm	0.011400	3.09	573.674000	Y_R2 488.368
Na H (589.593 nm)	1.151132 u	ppm	0.005654	0.49	900.053494	Y_R4
Ni (231.604 nm)	0.122694	ppm	0.000325	0.26	674.304000	Y 377.433
P (213.618 nm)	0.962691	ppm	0.006531	0.68	1409.690000	Y 242.219
Pb (220.353 nm)	0.095034	ppm	0.002332	2.45	303.933000	Y 242.219
S (181.972 nm)	0.474458	ppm	0.012277	2.59	223.283041	Y 377.433
Sb (206.834 nm)	0.004419	ppm	0.000512	11.59	21.749900	Y 377.433
Se (196.026 nm)	0.013239	ppm	0.007510	56.73	-37.440900	Y 242.219
Si (288.158 nm)	3.676810	ppm	0.037645	1.02	24761.400000	Y 377.433
Sn (189.925 nm)	0.013380	ppm	0.001766	13.20	25.574000	Y 377.433
Sr (421.552 nm)	0.272333	ppm	0.000196	0.07	39913.666827	Y_R 488.368
Th (288.505 nm)	0.063330	ppm	0.006222	9.82	70.758800	Y 377.433
Ti (336.122 nm)	0.583278	ppm	0.000622	0.11	75350.200000	Y 377.433
Tl (190.794 nm)	0.008960	ppm	0.001125	12.55	-8.587250	Y 377.433
U (409.013 nm)	-0.025686 u	ppm	0.004142	16.13	49.546000	Y 377.433
V (292.401 nm)	0.415747	ppm	0.000140	0.03	21845.500000	Y 377.433
Zn (206.200 nm)	0.457246	ppm	0.000159	0.03	2312.260000	Y 377.433
Zr (343.823 nm)	0.097399	ppm	0.000335	0.34	5441.530000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130063	25304.902559	0.001207	0.11
Y 377.433	1.122713	725414.130981	0.000296	0.03
Y_R 377.433	1.151520	63391.500000	0.009649	0.84
Y_R 488.368	1.148500	55503.500000	0.009256	0.81
Y_R2 488.368	1.118955	103709.771986	0.001512	0.14
Y_R4	1.166780	49961.100000	0.006424	0.55

Sample Name: 280-123991-a-13-b

Date: 5/24/2019 3:22:49 AM Rack:Tube: 2:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000505 u	ppm	0.000082	16.17	-479.441000	Y 377.433
Al (394.401 nm)	207.859000 o	ppm	0.498419	0.24	2483550.000000	Y 377.433
Al H (396.152 nm)	205.001000	ppm	0.511656	0.25	422301.000000	Y_R 377.433
As (188.980 nm)	0.108506	ppm	0.002448	2.26	161.872000	Y 242.219
B (249.678 nm)	0.034185	ppm	0.000178	0.52	85.439600	Y 242.219
Ba (493.408 nm)	0.830774	ppm	0.001387	0.17	82166.200000	Y_R 488.368
Be (234.861 nm)	0.003753	ppm	0.000330	8.79	-1095.980000	Y_R 488.368
Bi (223.061 nm)	0.005234	ppm	0.000022	0.41	57.481300	Y 377.433
Ca (315.887 nm)	4.635799	ppm	0.012801	0.28	3732.664157	Y_R 377.433
Cd (214.439 nm)	0.004599	ppm	0.000077	1.67	325.317000	Y 377.433
Co (228.615 nm)	0.053810	ppm	0.000486	0.90	1332.940000	Y 242.219
Cr (205.560 nm)	0.366655	ppm	0.001794	0.49	2586.340000	Y 377.433
Cu (324.754 nm)	0.235351	ppm	0.000905	0.38	11384.700000	Y 377.433
Fe (238.204 nm)	337.828282 o	ppm	0.698775	0.21	832667.745038	Y_R 377.433
Fe H (259.940 nm)	340.922000	ppm	0.085879	0.03	476784.000000	Y_R 377.433
K (766.491 nm)	8.794150	ppm	0.091895	1.04	10710.000000	Y_R2 488.368
Li (670.783 nm)	0.156795	ppm	0.001616	1.03	98.902300	Y_R2 488.368
Mg (279.078 nm)	15.904500	ppm	0.050957	0.32	55881.700000	Y 377.433
Mn (257.610 nm)	1.245800	ppm	0.003008	0.24	344568.000000	Y 377.433
Mo (202.032 nm)	0.004346	ppm	0.000126	2.91	78.688200	Y 377.433
Na (589.592 nm)	0.378198	ppm	0.027414	7.25	561.642000	Y_R2 488.368
Na H (589.593 nm)	1.141833 u	ppm	0.016467	1.44	895.429147	Y_R4
Ni (231.604 nm)	0.123807	ppm	0.000099	0.08	680.525000	Y 377.433
P (213.618 nm)	1.062350	ppm	0.005009	0.47	1548.720000	Y 242.219
Pb (220.353 nm)	0.155038	ppm	0.002027	1.31	507.853000	Y 242.219
S (181.972 nm)	0.374810	ppm	0.006567	1.75	180.155961	Y 377.433
Sb (206.834 nm)	0.010199	ppm	0.001293	12.67	40.497200	Y 377.433
Se (196.026 nm)	0.020095	ppm	0.003159	15.72	-49.066800	Y 242.219
Si (288.158 nm)	3.743230	ppm	0.056056	1.50	25199.500000	Y 377.433
Sn (189.925 nm)	0.013811	ppm	0.000500	3.62	26.326100	Y 377.433
Sr (421.552 nm)	0.203220	ppm	0.000494	0.24	29818.314937	Y_R 488.368
Th (288.505 nm)	0.066302	ppm	0.000211	0.32	60.382100	Y 377.433
Ti (336.122 nm)	0.529847	ppm	0.001516	0.29	68399.900000	Y 377.433
Tl (190.794 nm)	0.016028	ppm	0.002830	17.66	-1.655000	Y 377.433
U (409.013 nm)	-0.009089 u	ppm	0.007901	86.92	161.924000	Y 377.433
V (292.401 nm)	0.588771	ppm	0.001832	0.31	30997.900000	Y 377.433
Zn (206.200 nm)	0.466318	ppm	0.002504	0.54	2370.340000	Y 377.433
Zr (343.823 nm)	0.108340	ppm	0.000081	0.08	6072.420000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103147	24702.182481	0.008476	0.77
Y 377.433	1.112341	718712.993194	0.008296	0.75
Y_R 377.433	1.142760	62909.300000	0.003452	0.30
Y_R 488.368	1.140560	55119.800000	0.001501	0.13
Y_R2 488.368	1.112951	103153.219167	0.000155	0.01
Y_R4	1.149140	49205.600000	0.005065	0.44

Sample Name: 280-123991-a-14-b

Date: 5/24/2019 3:26:36 AM Rack:Tube: 2:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000528 u	ppm	0.000395	74.85	-464.283000	Y 377.433
Al (394.401 nm)	256.273000 o	ppm	0.282702	0.11	3061980.000000	Y 377.433
Al H (396.152 nm)	251.905000	ppm	0.706163	0.28	518984.000000	Y_R 377.433
As (188.980 nm)	0.084489	ppm	0.000909	1.08	125.017000	Y 242.219
B (249.678 nm)	0.029622	ppm	0.000835	2.82	81.388800	Y 242.219
Ba (493.408 nm)	1.019510	ppm	0.003366	0.33	100410.000000	Y_R 488.368
Be (234.861 nm)	0.004069	ppm	0.000025	0.61	-850.107000	Y_R 488.368
Bi (223.061 nm)	0.002991	ppm	0.000705	23.56	43.472700	Y 377.433
Ca (315.887 nm)	5.560886	ppm	0.005419	0.10	4491.417992	Y_R 377.433
Cd (214.439 nm)	0.005819	ppm	0.000037	0.64	352.420000	Y 377.433
Co (228.615 nm)	0.065026	ppm	0.000045	0.07	1603.590000	Y 242.219
Cr (205.560 nm)	0.324556	ppm	0.000595	0.18	2286.530000	Y 377.433
Cu (324.754 nm)	0.125928	ppm	0.000090	0.07	6317.300000	Y 377.433
Fe (238.204 nm)	288.981956 o	ppm	1.516520	0.52	712273.393763	Y_R 377.433
Fe H (259.940 nm)	293.311000	ppm	0.796555	0.27	410212.000000	Y_R 377.433
K (766.491 nm)	8.616610	ppm	0.135236	1.57	10533.800000	Y_R2 488.368
Li (670.783 nm)	0.199644	ppm	0.003462	1.73	845.068000	Y_R2 488.368
Mg (279.078 nm)	20.870600	ppm	0.055907	0.27	73548.100000	Y 377.433
Mn (257.610 nm)	0.307433	ppm	0.000447	0.15	85014.100000	Y 377.433
Mo (202.032 nm)	0.003064	ppm	0.000156	5.11	62.372400	Y 377.433
Na (589.592 nm)	0.697642	ppm	0.037433	5.37	835.906000	Y_R2 488.368
Na H (589.593 nm)	1.665121 u	ppm	0.010143	0.61	1155.681597	Y_R4
Ni (231.604 nm)	0.193337	ppm	0.001132	0.59	1069.090000	Y 377.433
P (213.618 nm)	0.867123	ppm	0.007262	0.84	1279.990000	Y 242.219
Pb (220.353 nm)	0.124784	ppm	0.001870	1.50	395.712000	Y 242.219
S (181.972 nm)	0.436171	ppm	0.011489	2.63	204.891526	Y 377.433
Sb (206.834 nm)	0.011859	ppm	0.001647	13.89	39.450700	Y 377.433
Se (196.026 nm)	0.013973	ppm	0.001754	12.55	-46.686000	Y 242.219
Si (288.158 nm)	3.461220	ppm	0.006473	0.19	23339.400000	Y 377.433
Sn (189.925 nm)	0.015740	ppm	0.000787	5.00	29.689700	Y 377.433
Sr (421.552 nm)	0.263280	ppm	0.000639	0.24	38594.790318	Y_R 488.368
Th (288.505 nm)	0.073481	ppm	0.001310	1.78	63.162900	Y 377.433
Ti (336.122 nm)	0.383768	ppm	0.000416	0.11	49411.100000	Y 377.433
Tl (190.794 nm)	0.011384	ppm	0.002467	21.67	-4.525890	Y 377.433
U (409.013 nm)	-0.022973 u	ppm	0.002204	9.59	83.348600	Y 377.433
V (292.401 nm)	0.546762	ppm	0.001080	0.20	28776.500000	Y 377.433
Zn (206.200 nm)	0.443633	ppm	0.001227	0.28	2250.160000	Y 377.433
Zr (343.823 nm)	0.100963	ppm	0.000381	0.38	5647.060000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.121998	25124.303291	0.006898	0.61
Y 377.433	1.112675	718928.715353	0.007717	0.69
Y_R 377.433	1.159430	63827.200000	0.002031	0.18
Y_R 488.368	1.155710	55852.100000	0.003153	0.27
Y_R2 488.368	1.129693	104704.953616	0.001878	0.17
Y_R4	1.166970	49969.200000	0.006260	0.54

Sample Name: 280-123991-a-15-b

Date: 5/24/2019 3:30:27 AM Rack:Tube: 2:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.001268 u	ppm	0.000623	49.16	-549.325000	Y 377.433
Al (394.401 nm)	292.859000 o	ppm	0.199219	0.07	3499110.000000	Y 377.433
Al H (396.152 nm)	287.533000	ppm	0.780747	0.27	592442.000000	Y_R 377.433
As (188.980 nm)	0.114629	ppm	0.001996	1.74	170.711000	Y 242.219
B (249.678 nm)	0.036127	ppm	0.000254	0.70	80.791900	Y 242.219
Ba (493.408 nm)	1.475810	ppm	0.006242	0.42	144671.000000	Y_R 488.368
Be (234.861 nm)	0.005001	ppm	0.000011	0.22	-1108.810000	Y_R 488.368
Bi (223.061 nm)	0.009349	ppm	0.000619	6.62	72.634400	Y 377.433
Ca (315.887 nm)	8.860098	ppm	0.016536	0.19	7164.048350	Y_R 377.433
Cd (214.439 nm)	0.011770	ppm	0.000162	1.38	626.311000	Y 377.433
Co (228.615 nm)	0.068200	ppm	0.000124	0.18	1690.590000	Y 242.219
Cr (205.560 nm)	0.410811	ppm	0.000695	0.17	2896.780000	Y 377.433
Cu (324.754 nm)	0.169600	ppm	0.000352	0.21	8349.690000	Y 377.433
Fe (238.204 nm)	369.543089 o	ppm	0.500407	0.14	910837.055232	Y_R 377.433
Fe H (259.940 nm)	373.458000	ppm	0.635013	0.17	522278.000000	Y_R 377.433
K (766.491 nm)	10.898400	ppm	0.048210	0.44	12798.600000	Y_R2 488.368
Li (670.783 nm)	0.249664	ppm	0.002170	0.87	1716.090000	Y_R2 488.368
Mg (279.078 nm)	21.852900	ppm	0.009918	0.05	76912.200000	Y 377.433
Mn (257.610 nm)	0.472625	ppm	0.000181	0.04	130706.000000	Y 377.433
Mo (202.032 nm)	0.004396	ppm	0.000369	8.40	79.329100	Y 377.433
Na (589.592 nm)	0.215778	ppm	0.000588	0.27	572.536000	Y_R2 488.368
Na H (589.593 nm)	1.558201 u	ppm	0.005128	0.33	1102.505974	Y_R4
Ni (231.604 nm)	0.192277	ppm	0.001639	0.85	1063.170000	Y 377.433
P (213.618 nm)	1.270640	ppm	0.001816	0.14	1880.360000	Y 242.219
Pb (220.353 nm)	0.162286	ppm	0.001031	0.64	517.865000	Y 242.219
S (181.972 nm)	0.598607	ppm	0.003035	0.51	278.523587	Y 377.433
Sb (206.834 nm)	0.010778	ppm	0.000756	7.01	44.452100	Y 377.433
Se (196.026 nm)	0.020182	ppm	0.000644	3.19	-58.953900	Y 242.219
Si (288.158 nm)	4.175440	ppm	0.033294	0.80	28050.500000	Y 377.433
Sn (189.925 nm)	0.018001	ppm	0.000596	3.31	33.633600	Y 377.433
Sr (421.552 nm)	0.367374	ppm	0.001728	0.47	53830.420782	Y_R 488.368
Th (288.505 nm)	0.092756	ppm	0.003154	3.40	74.820500	Y 377.433
Ti (336.122 nm)	0.567298	ppm	0.001005	0.18	73284.300000	Y 377.433
Tl (190.794 nm)	0.016789	ppm	0.000581	3.46	-1.979760	Y 377.433
U (409.013 nm)	-0.025047 u	ppm	0.005969	23.83	131.080000	Y 377.433
V (292.401 nm)	0.710354	ppm	0.000102	0.01	37446.000000	Y 377.433
Zn (206.200 nm)	0.711176	ppm	0.001174	0.17	3590.530000	Y 377.433
Zr (343.823 nm)	0.136956	ppm	0.000110	0.08	7722.430000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103700	24714.576369	0.003095	0.28
Y 377.433	1.109663	716982.355808	0.002798	0.25
Y_R 377.433	1.148410	63220.600000	0.003125	0.27
Y_R 488.368	1.142860	55231.100000	0.000423	0.04
Y_R2 488.368	1.122222	104012.544316	0.000710	0.06
Y_R4	1.161190	49721.500000	0.008732	0.75

Sample Name: CCVH-5713036

Date: 5/24/2019 3:34:15 AM
Rack:Tube: S1:1

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004178	ppm	0.000152	3.65	-109.436000	Y 377.433
Al (394.401 nm)	49.352100 o	ppm	0.068594	0.14	588609.000000	Y 377.433
Al H (396.152 nm)	48.872400	ppm	0.008805	0.02	100488.000000	Y_R 377.433
As (188.980 nm)	0.002665	ppm	0.000225	8.45	1.540190	Y 242.219
B (249.678 nm)	-0.002120 u	ppm	0.001716	80.94	-6.450870	Y 242.219
Ba (493.408 nm)	0.001317	ppm	0.000322	24.46	1597.970000	Y_R 488.368
Be (234.861 nm)	0.000994	ppm	0.000062	6.23	-117.130000	Y_R 488.368
Bi (223.061 nm)	0.003376	ppm	0.002810	83.23	0.984415	Y 377.433
Ca (315.887 nm)	0.004104 u	ppm	0.006507	> 100.00	-46.293944	Y_R 377.433
Cd (214.439 nm)	0.001388	ppm	0.000119	8.56	69.222700	Y 377.433
Co (228.615 nm)	0.003320	ppm	0.000011	0.32	59.968100	Y 242.219
Cr (205.560 nm)	0.001560	ppm	0.000093	5.96	3.692470	Y 377.433
Cu (324.754 nm)	0.003102	ppm	0.000263	8.47	1475.270000	Y 377.433
Fe (238.204 nm)	48.762424 o	ppm	0.010319	0.02	120190.487533	Y_R 377.433
Fe H (259.940 nm)	48.905000	ppm	0.018629	0.04	68472.100000	Y_R 377.433
K (766.491 nm)	0.693754	ppm	0.009382	1.35	2670.160000	Y_R2 488.368
Li (670.783 nm)	0.005690	ppm	0.004401	77.35	-2532.380000	Y_R2 488.368
Mg (279.078 nm)	0.035048	ppm	0.000517	1.47	57.392900	Y 377.433
Mn (257.610 nm)	0.001051	ppm	0.000008	0.75	268.765000	Y 377.433
Mo (202.032 nm)	0.000031 u	ppm	0.000499	> 100.00	23.787200	Y 377.433
Na (589.592 nm)	234.872000 o	ppm	0.743408	0.32	174094.000000	Y_R2 488.368
Na H (589.593 nm)	249.378092	ppm	2.932035	1.18	124353.627289	Y_R4
Ni (231.604 nm)	0.002173	ppm	0.001015	46.71	0.779237	Y 377.433
P (213.618 nm)	4.864850	ppm	0.013345	0.27	7352.840000	Y 242.219
Pb (220.353 nm)	0.004123	ppm	0.000104	2.51	19.751900	Y 242.219
S (181.972 nm)	4.987855	ppm	0.006539	0.13	2248.373878	Y 377.433
Sb (206.834 nm)	0.004101	ppm	0.001388	33.85	4.007390	Y 377.433
Se (196.026 nm)	0.001694	ppm	0.001639	96.75	-0.235019	Y 242.219
Si (288.158 nm)	0.014061	ppm	0.002271	16.15	600.795000	Y 377.433
Sn (189.925 nm)	0.001135 u	ppm	0.001666	> 100.00	4.216660	Y 377.433
Sr (421.552 nm)	0.001078	ppm	0.000128	11.84	212.738455	Y_R 488.368
Th (288.505 nm)	4.881190	ppm	0.005328	0.11	8529.250000	Y 377.433
Ti (336.122 nm)	0.002126	ppm	0.000027	1.27	-229.161000	Y 377.433
Tl (190.794 nm)	0.000522	ppm	0.000684	> 100.00	-3.559160	Y 377.433
U (409.013 nm)	0.538729 Q	ppm	0.001459	0.27	1681.440000 Q	Y 377.433
V (292.401 nm)	0.001555	ppm	0.000346	22.24	392.621000	Y 377.433
Zn (206.200 nm)	0.003096	ppm	0.000180	5.80	26.693700	Y 377.433
Zr (343.823 nm)	0.001597	ppm	0.000017	1.04	-82.431800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.082646	24243.122354	0.004323	0.40
Y 377.433	1.080997	698460.838010	0.005343	0.49
Y_R 377.433	1.105410	60853.500000	0.001134	0.10
Y_R 488.368	1.099290	53125.100000	0.002287	0.21
Y_R2 488.368	1.073191	99468.111231	0.001785	0.17
Y_R4	1.112920	47654.600000	0.014575	1.31

Sample Name: CCV-5717467

Date: 5/24/2019 3:37:59 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.483915	ppm	0.000346	0.07	16720.900000	Y 377.433
Al (394.401 nm)	0.504342	ppm	0.000542	0.11	6275.880000	Y 377.433
Al H (396.152 nm)	0.555629 u	ppm	0.004923	0.89	1148.560000	Y_R 377.433
As (188.980 nm)	0.483431	ppm	0.002639	0.55	768.916000	Y 242.219
B (249.678 nm)	0.475600	ppm	0.001547	0.33	3444.350000	Y 242.219
Ba (493.408 nm)	0.482196	ppm	0.000117	0.02	48141.400000	Y_R 488.368
Be (234.861 nm)	0.478211	ppm	0.003176	0.66	48200.800000	Y_R 488.368
Bi (223.061 nm)	0.946262	ppm	0.001358	0.14	2143.350000	Y 377.433
Ca (315.887 nm)	4.881587	ppm	0.022432	0.46	3879.254809	Y_R 377.433
Cd (214.439 nm)	0.492322	ppm	0.000081	0.02	19691.700000	Y 377.433
Co (228.615 nm)	0.486540	ppm	0.000946	0.19	12029.400000	Y 242.219
Cr (205.560 nm)	0.485909	ppm	0.004704	0.97	3433.700000	Y 377.433
Cu (324.754 nm)	0.481851	ppm	0.003401	0.71	22785.200000	Y 377.433
Fe (238.204 nm)	2.449366	ppm	0.006515	0.27	6040.028116	Y_R 377.433
Fe H (259.940 nm)	2.403660 u	ppm	0.004803	0.20	3451.670000	Y_R 377.433
K (766.491 nm)	47.575800	ppm	0.142821	0.30	49201.900000	Y_R2 488.368
Li (670.783 nm)	0.488652	ppm	0.001163	0.24	5877.740000	Y_R2 488.368
Mg (279.078 nm)	19.544800	ppm	0.003435	0.02	69259.000000	Y 377.433
Mn (257.610 nm)	0.488099	ppm	0.000580	0.12	134986.000000	Y 377.433
Mo (202.032 nm)	0.487170	ppm	0.000827	0.17	6222.450000	Y 377.433
Na (589.592 nm)	23.398100	ppm	0.047823	0.20	17541.100000	Y_R2 488.368
Na H (589.593 nm)	25.411710 u	ppm	0.131847	0.52	12965.846539	Y_R4
Ni (231.604 nm)	0.487953	ppm	0.000845	0.17	2716.150000	Y 377.433
P (213.618 nm)	0.054519	ppm	0.000628	1.15	-59.413000	Y 242.219
Pb (220.353 nm)	0.488607	ppm	0.005014	1.03	1689.080000	Y 242.219
S (181.972 nm)	0.012314	ppm	0.000721	5.85	15.006178	Y 377.433
Sb (206.834 nm)	0.491112	ppm	0.003889	0.79	856.760000	Y 377.433
Se (196.026 nm)	0.481556	ppm	0.001902	0.39	793.325000	Y 242.219
Si (288.158 nm)	4.747390	ppm	0.024067	0.51	31823.300000	Y 377.433
Sn (189.925 nm)	0.488176	ppm	0.001050	0.22	853.719000	Y 377.433
Sr (421.552 nm)	0.484193	ppm	0.000544	0.11	70861.343627	Y_R 488.368
Th (288.505 nm)	0.010440	ppm	0.000073	0.70	-16.673000	Y 377.433
Ti (336.122 nm)	0.482300	ppm	0.000781	0.16	62221.600000	Y 377.433
Tl (190.794 nm)	0.495323	ppm	0.001395	0.28	1196.690000	Y 377.433
U (409.013 nm)	0.021331	ppm	0.005832	27.34	-33.040500	Y 377.433
V (292.401 nm)	0.482318	ppm	0.000348	0.07	25254.800000	Y 377.433
Zn (206.200 nm)	0.491715	ppm	0.000163	0.03	2444.650000	Y 377.433
Zr (343.823 nm)	0.482769	ppm	0.001460	0.30	27662.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.100361	24639.791907	0.005467	0.50
Y 377.433	1.096449	708444.369535	0.003065	0.28
Y_R 377.433	1.114220	61338.200000	0.001700	0.15
Y_R 488.368	1.110480	53666.100000	0.003658	0.33
Y_R2 488.368	1.088624	100898.536382	0.003236	0.30
Y_R4	1.112560	47639.200000	0.005467	0.49

Sample Name: CCB

Date: 5/24/2019 3:41:35 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000401	ppm	0.000225	56.06	-231.809000	Y 377.433
Al (394.401 nm)	-0.000776 u	ppm	0.000541	69.70	119.609000	Y 377.433
Al H (396.152 nm)	0.124463 Zu	ppm	0.009442	7.59	30.967100 Z	Y_R 377.433
As (188.980 nm)	-0.000089 u	ppm	0.000550	> 100.00	-1.447150	Y 242.219
B (249.678 nm)	-0.002762 u	ppm	0.000070	2.55	17.287800	Y 242.219
Ba (493.408 nm)	-0.001812 u	ppm	0.000076	4.17	1257.130000	Y_R 488.368
Be (234.861 nm)	0.000030	ppm	0.000010	32.94	-2.711540	Y_R 488.368
Bi (223.061 nm)	0.001229	ppm	0.001368	> 100.00	-12.712300	Y 377.433
Ca (315.887 nm)	0.008964	ppm	0.006606	73.70	-54.738139	Y_R 377.433
Cd (214.439 nm)	-0.000058 u	ppm	0.000116	> 100.00	-10.131900	Y 377.433
Co (228.615 nm)	0.000032	ppm	0.000044	> 100.00	-21.375200	Y 242.219
Cr (205.560 nm)	0.000065	ppm	0.000043	66.86	-5.510080	Y 377.433
Cu (324.754 nm)	-0.000154 u	ppm	0.000069	44.45	405.357000	Y 377.433
Fe (238.204 nm)	-0.000346 u	ppm	0.000379	> 100.00	2.082332	Y_R 377.433
Fe H (259.940 nm)	-0.051603 u	ppm	0.000060	0.12	18.596000	Y_R 377.433
K (766.491 nm)	0.092823	ppm	0.079778	85.95	2073.720000	Y_R2 488.368
Li (670.783 nm)	0.011505 Z	ppm	0.001004	8.73	-2431.120000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002851	ppm	0.000246	8.63	21.922100	Y 377.433
Mn (257.610 nm)	0.000098	ppm	0.000023	23.56	4.967590	Y 377.433
Mo (202.032 nm)	-0.000289 u	ppm	0.000032	11.06	19.713600	Y 377.433
Na (589.592 nm)	0.144878	ppm	0.011058	7.63	217.329000	Y_R2 488.368
Na H (589.593 nm)	0.264785 u	ppm	0.019856	7.50	459.236419	Y_R4
Ni (231.604 nm)	-0.000781 u	ppm	0.000500	64.01	-15.730700	Y 377.433
P (213.618 nm)	0.000836	ppm	0.000603	72.19	-3.222540	Y 242.219
Pb (220.353 nm)	-0.001591 u	ppm	0.001585	99.57	7.443310	Y 242.219
S (181.972 nm)	-0.003516 u	ppm	0.000802	22.82	6.176054	Y 377.433
Sb (206.834 nm)	0.007705	ppm	0.000070	0.91	6.059710	Y 377.433
Se (196.026 nm)	-0.002576 u	ppm	0.002844	> 100.00	6.390320	Y 242.219
Si (288.158 nm)	-0.005760 u	ppm	0.001114	19.34	470.051000	Y 377.433
Sn (189.925 nm)	-0.000248 u	ppm	0.000780	> 100.00	1.803320	Y 377.433
Sr (421.552 nm)	-0.000002 u	ppm	0.000044	> 100.00	47.571157	Y_R 488.368
Th (288.505 nm)	0.001830	ppm	0.000384	21.00	17.709300	Y 377.433
Ti (336.122 nm)	0.000335	ppm	0.000044	13.18	-462.060000	Y 377.433
Tl (190.794 nm)	-0.000550 u	ppm	0.001045	> 100.00	-1.216120	Y 377.433
U (409.013 nm)	0.005282	ppm	0.005041	95.45	-25.262700	Y 377.433
V (292.401 nm)	0.000457	ppm	0.000111	24.29	-155.725000	Y 377.433
Zn (206.200 nm)	-0.000106 u	ppm	0.000656	> 100.00	3.290820	Y 377.433
Zr (343.823 nm)	0.000470	ppm	0.000305	65.04	-147.438000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.116946	25011.167666	0.000497	0.04
Y 377.433	1.109936	717159.015225	0.001012	0.09
Y_R 377.433	1.124020	61877.600000	0.002107	0.19
Y_R 488.368	1.121970	54221.300000	0.002355	0.21
Y_R2 488.368	1.107664	102663.260735	0.001665	0.15
Y_R4	1.127170	48264.900000	0.004643	0.41

Sample Name: CCVL-5717307

Date: 5/24/2019 3:44:47 AM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007846	ppm	0.000254	3.24	28.106300	Y 377.433
Al (394.401 nm)	0.097033	ppm	0.000513	0.53	1298.020000	Y 377.433
Al H (396.152 nm)	0.232202 u	ppm	0.002433	1.05	257.914000	Y_R 377.433
As (188.980 nm)	0.013122	ppm	0.001143	8.71	19.600800	Y 242.219
B (249.678 nm)	0.089138	ppm	0.000873	0.98	675.893000	Y 242.219
Ba (493.408 nm)	0.007916	ppm	0.000187	2.36	2199.480000	Y_R 488.368
Be (234.861 nm)	0.000990	ppm	0.000019	1.96	93.690300	Y_R 488.368
Bi (223.061 nm)	0.088711	ppm	0.000461	0.52	186.848000	Y 377.433
Ca (315.887 nm)	0.200626	ppm	0.002253	1.12	100.023064	Y_R 377.433
Cd (214.439 nm)	0.005038	ppm	0.000031	0.62	193.820000	Y 377.433
Co (228.615 nm)	0.010437	ppm	0.000183	1.75	236.311000	Y 242.219
Cr (205.560 nm)	0.009495	ppm	0.000550	5.80	61.141300	Y 377.433
Cu (324.754 nm)	0.014828	ppm	0.000181	1.22	1098.660000	Y 377.433
Fe (238.204 nm)	0.101643	ppm	0.003281	3.23	253.460216	Y_R 377.433
Fe H (259.940 nm)	0.046898 u	ppm	0.000533	1.14	156.324000	Y_R 377.433
K (766.491 nm)	2.894800	ppm	0.087360	3.02	4854.770000	Y_R2 488.368
Li (670.783 nm)	0.032634 Q	ppm	0.004851	14.86	-2063.190000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200854	ppm	0.002721	1.35	722.113000	Y 377.433
Mn (257.610 nm)	0.010436	ppm	0.000006	0.06	2864.680000	Y 377.433
Mo (202.032 nm)	0.018105	ppm	0.000126	0.69	253.769000	Y 377.433
Na (589.592 nm)	1.149470	ppm	0.005478	0.48	963.420000	Y_R2 488.368
Na H (589.593 nm)	1.088144 u	ppm	0.011105	1.02	868.727204	Y_R4
Ni (231.604 nm)	0.040812	ppm	0.000335	0.82	216.725000	Y 377.433
P (213.618 nm)	2.739400	ppm	0.006815	0.25	4136.780000	Y 242.219
Pb (220.353 nm)	0.008211	ppm	0.000894	10.88	41.218100	Y 242.219
S (181.972 nm)	0.094093	ppm	0.006898	7.33	50.059977	Y 377.433
Sb (206.834 nm)	0.023870	ppm	0.000879	3.68	34.450700	Y 377.433
Se (196.026 nm)	0.017519	ppm	0.001542	8.80	39.038700	Y 242.219
Si (288.158 nm)	0.459908	ppm	0.000810	0.18	3541.740000	Y 377.433
Sn (189.925 nm)	0.095867	ppm	0.000457	0.48	169.449000	Y 377.433
Sr (421.552 nm)	0.008809	ppm	0.000104	1.18	1336.201294	Y_R 488.368
Th (288.505 nm)	0.013012	ppm	0.002137	16.42	36.748500	Y 377.433
Ti (336.122 nm)	0.009956	ppm	0.000071	0.71	789.462000	Y 377.433
Tl (190.794 nm)	0.015454	ppm	0.001105	7.15	37.441100	Y 377.433
U (409.013 nm)	0.059678	ppm	0.008043	13.48	144.001000	Y 377.433
V (292.401 nm)	0.010226	ppm	0.000213	2.08	355.979000	Y 377.433
Zn (206.200 nm)	0.020422	ppm	0.000329	1.61	105.187000	Y 377.433
Zr (343.823 nm)	0.010122	ppm	0.000124	1.22	409.115000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.141207	25554.441693	0.002297	0.20
Y 377.433	1.136277	734178.560740	0.004241	0.37
Y_R 377.433	1.137570	62623.400000	0.001435	0.13
Y_R 488.368	1.135790	54889.100000	0.001005	0.09
Y_R2 488.368	1.100596	102008.173927	0.003069	0.28
Y_R4	1.129750	48375.200000	0.005755	0.51

Sample Name: mb 280-459144/1-a

Date: 5/24/2019 3:48:15 AM Rack:Tube: 2:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000224 u	ppm	0.000453	> 100.00	-237.998000	Y 377.433
Al (394.401 nm)	0.000754	ppm	0.000201	26.69	138.184000	Y 377.433
Al H (396.152 nm)	0.126360 u	ppm	0.001536	1.22	34.763400	Y_R 377.433
As (188.980 nm)	0.000408	ppm	0.000091	22.25	-0.657971	Y 242.219
B (249.678 nm)	-0.004509 u	ppm	0.000176	3.91	4.727960	Y 242.219
Ba (493.408 nm)	-0.001976 u	ppm	0.000441	22.33	1241.310000	Y_R 488.368
Be (234.861 nm)	-0.000022 u	ppm	0.000020	93.29	-8.229010	Y_R 488.368
Bi (223.061 nm)	0.002922	ppm	0.000330	11.30	-8.837440	Y 377.433
Ca (315.887 nm)	0.021804	ppm	0.008767	40.21	-44.372588	Y_R 377.433
Cd (214.439 nm)	0.000032 u	ppm	0.000076	> 100.00	-6.497260	Y 377.433
Co (228.615 nm)	0.000267	ppm	0.000136	50.92	-15.551500	Y 242.219
Cr (205.560 nm)	0.000017 u	ppm	0.000238	> 100.00	-5.845950	Y 377.433
Cu (324.754 nm)	-0.000052 u	ppm	0.000271	> 100.00	409.792000	Y 377.433
Fe (238.204 nm)	0.072648	ppm	0.002176	3.00	181.993651	Y_R 377.433
Fe H (259.940 nm)	0.018193 u	ppm	0.001746	9.60	116.187000	Y_R 377.433
K (766.491 nm)	-0.051443 u	ppm	0.064790	> 100.00	1930.530000	Y_R2 488.368
Li (670.783 nm)	0.015440	ppm	0.000606	3.93	-2362.600000	Y_R2 488.368
Mg (279.078 nm)	0.000090 u	ppm	0.001160	> 100.00	12.068000	Y 377.433
Mn (257.610 nm)	0.001113	ppm	0.000022	1.97	285.879000	Y 377.433
Mo (202.032 nm)	-0.001304 u	ppm	0.000080	6.12	6.790020	Y 377.433
Na (589.592 nm)	0.073452	ppm	0.021199	28.86	164.412000	Y_R2 488.368
Na H (589.593 nm)	-0.025519 u	ppm	0.024015	94.11	314.856170	Y_R4
Ni (231.604 nm)	-0.000680 u	ppm	0.000546	80.30	-15.171400	Y 377.433
P (213.618 nm)	0.000624 u	ppm	0.002038	> 100.00	-3.486890	Y 242.219
Pb (220.353 nm)	-0.001084 u	ppm	0.000570	52.61	9.187970	Y 242.219
S (181.972 nm)	-0.002572 u	ppm	0.003951	> 100.00	6.603656	Y 377.433
Sb (206.834 nm)	0.004458	ppm	0.001009	22.64	0.340353	Y 377.433
Se (196.026 nm)	-0.003310 u	ppm	0.000147	4.43	5.178840	Y 242.219
Si (288.158 nm)	-0.005210 u	ppm	0.000166	3.19	473.676000	Y 377.433
Sn (189.925 nm)	0.000167 u	ppm	0.000499	> 100.00	2.527950	Y 377.433
Sr (421.552 nm)	0.000048	ppm	0.000019	40.48	54.892391	Y_R 488.368
Th (288.505 nm)	0.001089	ppm	0.000687	63.04	16.443000	Y 377.433
Ti (336.122 nm)	0.000496	ppm	0.000006	1.20	-441.191000	Y 377.433
Tl (190.794 nm)	-0.000497 u	ppm	0.001408	> 100.00	-1.091170	Y 377.433
U (409.013 nm)	0.006324	ppm	0.002565	40.57	-21.922000	Y 377.433
V (292.401 nm)	0.000577	ppm	0.000110	19.11	-149.327000	Y 377.433
Zn (206.200 nm)	0.001645	ppm	0.000450	27.33	11.994000	Y 377.433
Zr (343.823 nm)	0.000439	ppm	0.000053	12.02	-149.209000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.134618	25406.897717	0.002324	0.20
Y 377.433	1.130998	730767.343466	0.004503	0.40
Y_R 377.433	1.143310	62939.600000	0.003947	0.35
Y_R 488.368	1.141120	55146.700000	0.004275	0.37
Y_R2 488.368	1.119890	103796.424950	0.003335	0.30
Y_R4	1.127140	48263.700000	0.002865	0.25

Sample Name: lcs 280-459144/2-a

Date: 5/24/2019 3:51:42 AM
Rack:Tube: 2:52

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000268 u	ppm	0.000476	> 100.00	-545.988000	Y 377.433
Al (394.401 nm)	9.734160 o	ppm	0.018992	0.20	116688.000000	Y 377.433
Al H (396.152 nm)	9.800740	ppm	0.010819	0.11	20428.100000	Y_R 377.433
As (188.980 nm)	1.966170	ppm	0.002213	0.11	3131.280000	Y 242.219
B (249.678 nm)	0.964526	ppm	0.000504	0.05	6944.250000	Y 242.219
Ba (493.408 nm)	1.961530	ppm	0.004201	0.21	191439.000000	Y_R 488.368
Be (234.861 nm)	0.979619	ppm	0.005114	0.52	98724.600000	Y_R 488.368
Bi (223.061 nm)	1.892710	ppm	0.010720	0.57	4303.430000	Y 377.433
Ca (315.887 nm)	48.676577	ppm	0.074351	0.15	39239.028902	Y_R 377.433
Cd (214.439 nm)	0.974853	ppm	0.002974	0.31	39001.600000	Y 377.433
Co (228.615 nm)	0.957827	ppm	0.000822	0.09	23704.700000	Y 242.219
Cr (205.560 nm)	0.971896	ppm	0.001899	0.20	6873.590000	Y 377.433
Cu (324.754 nm)	0.947859	ppm	0.005003	0.53	44479.900000	Y 377.433
Fe (238.204 nm)	9.858495 o	ppm	0.010222	0.10	24301.734892	Y_R 377.433
Fe H (259.940 nm)	9.844470	ppm	0.002853	0.03	13855.800000	Y_R 377.433
K (766.491 nm)	48.407000	ppm	0.161000	0.33	50026.900000	Y_R2 488.368
Li (670.783 nm)	0.980627	ppm	0.000862	0.09	14444.800000	Y_R2 488.368
Mg (279.078 nm)	48.791400	ppm	0.117362	0.24	172842.000000	Y 377.433
Mn (257.610 nm)	0.982551	ppm	0.002379	0.24	271752.000000	Y 377.433
Mo (202.032 nm)	0.994761	ppm	0.000515	0.05	12681.400000	Y 377.433
Na (589.592 nm)	46.085200	ppm	0.056928	0.12	34650.100000	Y_R2 488.368
Na H (589.593 nm)	50.426696	ppm	0.155776	0.31	25406.837412	Y_R4
Ni (231.604 nm)	0.957014	ppm	0.002840	0.30	5339.290000	Y 377.433
P (213.618 nm)	19.670700	ppm	0.024542	0.12	29490.500000	Y 242.219
Pb (220.353 nm)	0.975501	ppm	0.000335	0.03	3362.580000	Y 242.219
S (181.972 nm)	9.947964	ppm	0.068931	0.69	4481.821652	Y 377.433
Sb (206.834 nm)	0.005797	ppm	0.000348	6.01	-2.147460	Y 377.433
Se (196.026 nm)	1.924520	ppm	0.006024	0.31	3137.170000	Y 242.219
Si (288.158 nm)	1.932180	ppm	0.004958	0.26	13253.300000	Y 377.433
Sn (189.925 nm)	1.947150	ppm	0.007085	0.36	3398.490000	Y 377.433
Sr (421.552 nm)	0.982278	ppm	0.001088	0.11	143707.111626	Y_R 488.368
Th (288.505 nm)	0.993525	ppm	0.001766	0.18	1656.120000	Y 377.433
Ti (336.122 nm)	0.980839	ppm	0.001920	0.20	127193.000000	Y 377.433
Tl (190.794 nm)	1.950150	ppm	0.002250	0.12	4715.340000	Y 377.433
U (409.013 nm)	1.944410	ppm	0.011966	0.62	5991.370000	Y 377.433
V (292.401 nm)	0.972404	ppm	0.002218	0.23	51104.300000	Y 377.433
Zn (206.200 nm)	0.486222	ppm	0.000544	0.11	2418.530000	Y 377.433
Zr (343.823 nm)	0.486481	ppm	0.000957	0.20	27876.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.095970	24541.482510	0.001034	0.09
Y 377.433	1.100351	710965.770491	0.001472	0.13
Y_R 377.433	1.120960	61709.300000	0.003889	0.35
Y_R 488.368	1.116740	53968.500000	0.004975	0.45
Y_R2 488.368	1.104506	102370.527560	0.000708	0.06
Y_R4	1.130310	48399.400000	0.010076	0.89

Sample Name: 280-123846-a-10-a

Date: 5/24/2019 3:55:22 AM Rack:Tube: 2:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001419	ppm	0.000117	8.27	-196.847000	Y 377.433
Al (394.401 nm)	0.466652	ppm	0.003293	0.71	5762.780000	Y 377.433
Al H (396.152 nm)	0.553166 u	ppm	0.005647	1.02	985.427000	Y_R 377.433
As (188.980 nm)	0.011938	ppm	0.000987	8.27	17.098900	Y 242.219
B (249.678 nm)	0.002919	ppm	0.001051	35.99	45.495400	Y 242.219
Ba (493.408 nm)	0.016025	ppm	0.000029	0.18	3001.490000	Y_R 488.368
Be (234.861 nm)	0.000192	ppm	0.000025	12.97	-79.797800	Y_R 488.368
Bi (223.061 nm)	0.000597 u	ppm	0.002513	> 100.00	-10.265100	Y 377.433
Ca (315.887 nm)	45.513220	ppm	0.196172	0.43	36682.735024	Y_R 377.433
Cd (214.439 nm)	0.013451	ppm	0.000056	0.42	539.868000	Y 377.433
Co (228.615 nm)	0.025968	ppm	0.000513	1.97	619.838000	Y 242.219
Cr (205.560 nm)	-0.000442 u	ppm	0.000439	99.36	-9.190410	Y 377.433
Cu (324.754 nm)	0.365988	ppm	0.000615	0.17	17378.500000	Y 377.433
Fe (238.204 nm)	21.521614 o	ppm	0.065649	0.31	53048.494348	Y_R 377.433
Fe H (259.940 nm)	21.610300	ppm	0.092503	0.43	30307.400000	Y_R 377.433
K (766.491 nm)	1.999750	ppm	0.045791	2.29	3966.400000	Y_R2 488.368
Li (670.783 nm)	0.024862	ppm	0.000597	2.40	-2198.530000	Y_R2 488.368
Mg (279.078 nm)	12.144200	ppm	0.016430	0.14	43009.400000	Y 377.433
Mn (257.610 nm)	3.118270	ppm	0.001059	0.03	862490.000000	Y 377.433
Mo (202.032 nm)	0.009390	ppm	0.000131	1.39	142.877000	Y 377.433
Na (589.592 nm)	7.404050	ppm	0.001145	0.02	5598.260000	Y_R2 488.368
Na H (589.593 nm)	7.428016 u	ppm	0.069367	0.93	4021.808805	Y_R4
Ni (231.604 nm)	0.013149	ppm	0.000083	0.63	62.117800	Y 377.433
P (213.618 nm)	0.058398	ppm	0.003323	5.69	-7.382200	Y 242.219
Pb (220.353 nm)	0.112556	ppm	0.001068	0.95	399.735000	Y 242.219
S (181.972 nm)	63.581810	ppm	0.270154	0.42	28581.255924	Y 377.433
Sb (206.834 nm)	0.005624	ppm	0.000118	2.10	4.218630	Y 377.433
Se (196.026 nm)	0.000975 u	ppm	0.001941	> 100.00	10.779800	Y 242.219
Si (288.158 nm)	9.511240	ppm	0.066974	0.70	63247.100000	Y 377.433
Sn (189.925 nm)	0.000286 u	ppm	0.000639	> 100.00	2.735470	Y 377.433
Sr (421.552 nm)	0.207073	ppm	0.000813	0.39	30335.442270	Y_R 488.368
Th (288.505 nm)	-0.018634 u	ppm	0.001967	10.55	40.554000	Y 377.433
Ti (336.122 nm)	0.000517	ppm	0.000010	1.94	-284.249000	Y 377.433
Tl (190.794 nm)	0.003870	ppm	0.003532	91.26	4.929270	Y 377.433
U (409.013 nm)	0.042100	ppm	0.001342	3.19	99.920800	Y 377.433
V (292.401 nm)	0.001175	ppm	0.000093	7.90	-120.785000	Y 377.433
Zn (206.200 nm)	2.604460	ppm	0.003580	0.14	12933.500000	Y 377.433
Zr (343.823 nm)	0.000923	ppm	0.000095	10.29	-121.270000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.138678	25497.821990	0.000619	0.05
Y 377.433	1.139547	736291.522588	0.000260	0.02
Y_R 377.433	1.158260	63762.800000	0.004193	0.36
Y_R 488.368	1.156120	55871.700000	0.002923	0.25
Y_R2 488.368	1.142021	105847.629110	0.002139	0.19
Y_R4	1.158400	49602.200000	0.001951	0.17

Sample Name: 280-123846-a-11-a

Date: 5/24/2019 3:59:02 AM Rack:Tube: 2:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003741	ppm	0.000055	1.48	-115.579000	Y 377.433
Al (394.401 nm)	1.855400	ppm	0.002342	0.13	22353.500000	Y 377.433
Al H (396.152 nm)	2.036980	ppm	0.009256	0.45	4045.820000	Y_R 377.433
As (188.980 nm)	0.029933	ppm	0.003747	12.52	45.606700	Y 242.219
B (249.678 nm)	0.002730	ppm	0.000017	0.62	40.816200	Y 242.219
Ba (493.408 nm)	0.032408	ppm	0.000226	0.70	4592.830000	Y_R 488.368
Be (234.861 nm)	0.000269	ppm	0.000058	21.41	-96.911200	Y_R 488.368
Bi (223.061 nm)	0.011488	ppm	0.000295	2.57	15.610400	Y 377.433
Ca (315.887 nm)	42.203850	ppm	0.078069	0.18	34011.325851	Y_R 377.433
Cd (214.439 nm)	0.011397	ppm	0.000027	0.24	460.217000	Y 377.433
Co (228.615 nm)	0.022540	ppm	0.000120	0.53	535.699000	Y 242.219
Cr (205.560 nm)	0.000859	ppm	0.000100	11.68	-0.055947	Y 377.433
Cu (324.754 nm)	0.685764	ppm	0.002614	0.38	32231.300000	Y 377.433
Fe (238.204 nm)	27.251856 o	ppm	0.081685	0.30	67172.151425	Y_R 377.433
Fe H (259.940 nm)	27.365400	ppm	0.027522	0.10	38354.400000	Y_R 377.433
K (766.491 nm)	2.809690	ppm	0.049623	1.77	4770.290000	Y_R2 488.368
Li (670.783 nm)	0.022447	ppm	0.002131	9.49	-2240.590000	Y_R2 488.368
Mg (279.078 nm)	11.594900	ppm	0.040857	0.35	41054.900000	Y 377.433
Mn (257.610 nm)	2.828600	ppm	0.008047	0.28	782370.000000	Y 377.433
Mo (202.032 nm)	0.018338	ppm	0.000156	0.85	256.732000	Y 377.433
Na (589.592 nm)	7.213370	ppm	0.091947	1.27	5460.250000	Y_R2 488.368
Na H (589.593 nm)	7.165426 u	ppm	0.138313	1.93	3891.211954	Y_R4
Ni (231.604 nm)	0.010938	ppm	0.000739	6.75	49.764100	Y 377.433
P (213.618 nm)	0.167357	ppm	0.000035	0.02	78.101600	Y 242.219
Pb (220.353 nm)	0.634992	ppm	0.003893	0.61	2194.910000	Y 242.219
S (181.972 nm)	57.635800	ppm	0.268431	0.47	25909.190283	Y 377.433
Sb (206.834 nm)	0.008804	ppm	0.003309	37.58	10.223700	Y 377.433
Se (196.026 nm)	0.001686	ppm	0.001577	93.55	9.919070	Y 242.219
Si (288.158 nm)	10.804900	ppm	0.042535	0.39	71780.300000	Y 377.433
Sn (189.925 nm)	-0.000918 u	ppm	0.000245	26.68	0.635541	Y 377.433
Sr (421.552 nm)	0.210802	ppm	0.000418	0.20	30881.609769	Y_R 488.368
Th (288.505 nm)	-0.011632 u	ppm	0.002731	23.48	46.634700	Y 377.433
Ti (336.122 nm)	0.015157	ppm	0.000457	3.01	1608.010000	Y 377.433
Tl (190.794 nm)	0.002656	ppm	0.001548	58.30	1.293960	Y 377.433
U (409.013 nm)	0.055350	ppm	0.000106	0.19	145.953000	Y 377.433
V (292.401 nm)	0.002552	ppm	0.000119	4.65	-47.146800	Y 377.433
Zn (206.200 nm)	2.261200	ppm	0.002717	0.12	11230.700000	Y 377.433
Zr (343.823 nm)	0.001318	ppm	0.000341	25.92	-98.547600	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.142606	25585.760251	0.002914	0.26
Y 377.433	1.143483	738834.247668	0.002319	0.20
Y_R 377.433	1.157190	63703.900000	0.005366	0.46
Y_R 488.368	1.153220	55731.700000	0.003387	0.29
Y_R2 488.368	1.146076	106223.415949	0.002576	0.22
Y_R4	1.159250	49638.600000	0.008386	0.72

Sample Name: 280-123928-a-1-a

Date: 5/24/2019 4:02:42 AM Rack:Tube: 2:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000722	ppm	0.000583	80.81	-222.506000	Y 377.433
Al (394.401 nm)	0.416254	ppm	0.001468	0.35	5370.710000	Y 377.433
Al H (396.152 nm)	0.366353 u	ppm	0.008996	2.46	915.492000	Y_R 377.433
As (188.980 nm)	0.001945	ppm	0.001582	81.35	1.783830	Y 242.219
B (249.678 nm)	0.110589	ppm	0.000520	0.47	829.488000	Y 242.219
Ba (493.408 nm)	0.115143	ppm	0.000474	0.41	12586.000000	Y_R 488.368
Be (234.861 nm)	0.000027 u	ppm	0.000106	> 100.00	-4.575310	Y_R 488.368
Bi (223.061 nm)	0.000213 u	ppm	0.001812	> 100.00	-14.948300	Y 377.433
Ca (315.887 nm)	97.769148	ppm	0.016094	0.02	78870.971251	Y_R 377.433
Cd (214.439 nm)	0.000237	ppm	0.000058	24.28	1.840710	Y 377.433
Co (228.615 nm)	0.000285	ppm	0.000276	96.74	-14.720900	Y 242.219
Cr (205.560 nm)	0.000643	ppm	0.000032	5.00	-1.435540	Y 377.433
Cu (324.754 nm)	0.000786	ppm	0.000475	60.48	389.741000	Y 377.433
Fe (238.204 nm)	0.353460	ppm	0.000821	0.23	874.127638	Y_R 377.433
Fe H (259.940 nm)	0.298331 u	ppm	0.004457	1.49	507.891000	Y_R 377.433
K (766.491 nm)	7.639580	ppm	0.086351	1.13	9564.100000	Y_R2 488.368
Li (670.783 nm)	0.049551	ppm	0.005069	10.23	-1768.610000	Y_R2 488.368
Mg (279.078 nm)	19.062400	ppm	0.034608	0.18	67551.900000	Y 377.433
Mn (257.610 nm)	0.114226	ppm	0.000260	0.23	31573.000000	Y 377.433
Mo (202.032 nm)	0.001664	ppm	0.000194	11.64	44.565700	Y 377.433
Na (589.592 nm)	119.848000 o	ppm	0.126883	0.11	88912.100000	Y_R2 488.368
Na H (589.593 nm)	128.793667	ppm	0.346676	0.27	64381.986302	Y_R4
Ni (231.604 nm)	-0.000134 u	ppm	0.000203	> 100.00	-12.113500	Y 377.433
P (213.618 nm)	0.107306	ppm	0.003360	3.13	157.184000	Y 242.219
Pb (220.353 nm)	-0.000663 u	ppm	0.000823	> 100.00	10.663400	Y 242.219
S (181.972 nm)	55.587694	ppm	0.318166	0.57	24983.480388	Y 377.433
Sb (206.834 nm)	0.002972	ppm	0.002412	81.13	-2.313590	Y 377.433
Se (196.026 nm)	-0.000100 u	ppm	0.003829	> 100.00	10.484900	Y 242.219
Si (288.158 nm)	9.415160	ppm	0.012790	0.14	62613.400000	Y 377.433
Sn (189.925 nm)	-0.000195 u	ppm	0.000707	> 100.00	1.896060	Y 377.433
Sr (421.552 nm)	1.039542	ppm	0.003696	0.36	152080.664568	Y_R 488.368
Th (288.505 nm)	-0.008686 u	ppm	0.002492	28.69	-1.021200	Y 377.433
Ti (336.122 nm)	0.010055	ppm	0.000123	1.22	1133.970000	Y 377.433
Tl (190.794 nm)	0.001979	ppm	0.000753	38.04	0.774008	Y 377.433
U (409.013 nm)	0.042963	ppm	0.005049	11.75	80.371900	Y 377.433
V (292.401 nm)	0.004539	ppm	0.000102	2.26	57.738900	Y 377.433
Zn (206.200 nm)	0.004838	ppm	0.000126	2.61	27.885500	Y 377.433
Zr (343.823 nm)	0.001090	ppm	0.000042	3.89	-111.693000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092468	24463.060692	0.000801	0.07
Y 377.433	1.095735	707983.320877	0.001452	0.13
Y_R 377.433	1.122430	61790.200000	0.001143	0.10
Y_R 488.368	1.120720	54160.800000	0.005244	0.47
Y_R2 488.368	1.100915	102037.666357	0.006878	0.62
Y_R4	1.125150	48178.300000	0.004674	0.42

Sample Name: 280-123928-a-1-aSD@5

Date: 5/24/2019 4:06:12 AM Rack:Tube: 2:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000140 u	ppm	0.000506	> 100.00	-241.726000	Y 377.433
Al (394.401 nm)	0.101906	ppm	0.000032	0.03	1404.440000	Y 377.433
Al H (396.152 nm)	0.193601 u	ppm	0.003836	1.98	250.007000	Y_R 377.433
As (188.980 nm)	-0.000144 u	ppm	0.000449	> 100.00	-1.537300	Y 242.219
B (249.678 nm)	0.019814	ppm	0.000741	3.74	179.030000	Y 242.219
Ba (493.408 nm)	0.021075	ppm	0.000881	4.18	3474.040000	Y_R 488.368
Be (234.861 nm)	-0.000048 u	ppm	0.000005	10.81	-11.083500	Y_R 488.368
Bi (223.061 nm)	0.002547	ppm	0.002133	83.75	-9.681640	Y 377.433
Ca (315.887 nm)	19.818372	ppm	0.022299	0.11	15938.190537	Y_R 377.433
Cd (214.439 nm)	0.000060 u	ppm	0.000112	> 100.00	-5.321660	Y 377.433
Co (228.615 nm)	0.000122	ppm	0.000006	4.97	-19.040500	Y 242.219
Cr (205.560 nm)	0.000343	ppm	0.000350	> 100.00	-3.541650	Y 377.433
Cu (324.754 nm)	-0.000171 u	ppm	0.000132	77.03	390.069000	Y 377.433
Fe (238.204 nm)	0.114952	ppm	0.001714	1.49	286.263403	Y_R 377.433
Fe H (259.940 nm)	0.062081 u	ppm	0.001278	2.06	177.554000	Y_R 377.433
K (766.491 nm)	1.388600	ppm	0.023878	1.72	3359.820000	Y_R2 488.368
Li (670.783 nm)	0.022166	ppm	0.000914	4.12	-2245.480000	Y_R2 488.368
Mg (279.078 nm)	3.907090	ppm	0.000346	0.01	13854.600000	Y 377.433
Mn (257.610 nm)	0.023752	ppm	0.000022	0.09	6547.830000	Y 377.433
Mo (202.032 nm)	-0.000255 u	ppm	0.000085	33.39	20.142000	Y 377.433
Na (589.592 nm)	24.770300	ppm	0.027667	0.11	18463.400000	Y_R2 488.368
Na H (589.593 nm)	25.749737 u	ppm	0.121835	0.47	13133.961195	Y_R4
Ni (231.604 nm)	-0.000846 u	ppm	0.000593	70.10	-16.093100	Y 377.433
P (213.618 nm)	0.019980	ppm	0.003886	19.45	25.650500	Y 242.219
Pb (220.353 nm)	-0.000691 u	ppm	0.000764	> 100.00	10.597300	Y 242.219
S (181.972 nm)	11.052055	ppm	0.027742	0.25	4973.490640	Y 377.433
Sb (206.834 nm)	0.004468	ppm	0.005052	> 100.00	0.344453	Y 377.433
Se (196.026 nm)	0.002093	ppm	0.001700	81.25	13.980300	Y 242.219
Si (288.158 nm)	1.901870	ppm	0.001478	0.08	13053.400000	Y 377.433
Sn (189.925 nm)	0.000820	ppm	0.000469	57.22	3.667090	Y 377.433
Sr (421.552 nm)	0.206637	ppm	0.000492	0.24	30268.479508	Y_R 488.368
Th (288.505 nm)	-0.005112 u	ppm	0.001715	33.56	5.647730	Y 377.433
Ti (336.122 nm)	0.003417	ppm	0.000193	5.65	5.375160	Y 377.433
Tl (190.794 nm)	0.001176	ppm	0.001207	> 100.00	2.126980	Y 377.433
U (409.013 nm)	0.017994	ppm	0.006029	33.51	12.140500	Y 377.433
V (292.401 nm)	0.001548	ppm	0.000059	3.79	-100.244000	Y 377.433
Zn (206.200 nm)	0.003735	ppm	0.000086	2.29	22.373500	Y 377.433
Zr (343.823 nm)	0.000538	ppm	0.000178	33.06	-143.512000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131371	25334.185335	0.001201	0.11
Y 377.433	1.127096	728246.181654	0.001342	0.12
Y_R 377.433	1.142270	62882.100000	0.005525	0.48
Y_R 488.368	1.140120	55098.800000	0.006900	0.61
Y_R2 488.368	1.128795	104621.718544	0.004266	0.38
Y_R4	1.139330	48785.500000	0.010295	0.90

Sample Name: 280-123928-a-1-b ms

Date: 5/24/2019 4:09:42 AM Rack:Tube: 2:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000247	ppm	0.000086	34.93	-554.407000	Y 377.433
Al (394.401 nm)	10.399700 o	ppm	0.003674	0.04	124890.000000	Y 377.433
Al H (396.152 nm)	10.234500	ppm	0.013440	0.13	21692.600000	Y_R 377.433
As (188.980 nm)	2.006150	ppm	0.002714	0.14	3194.970000	Y 242.219
B (249.678 nm)	1.094610	ppm	0.000644	0.06	7876.380000	Y 242.219
Ba (493.408 nm)	2.059720	ppm	0.004007	0.19	200951.000000	Y_R 488.368
Be (234.861 nm)	0.984904	ppm	0.002097	0.21	99255.900000	Y_R 488.368
Bi (223.061 nm)	1.893220	ppm	0.003782	0.20	4304.690000	Y 377.433
Ca (315.887 nm)	141.494836	ppm	0.068617	0.05	114174.982760	Y_R 377.433
Cd (214.439 nm)	0.960138	ppm	0.000750	0.08	38413.000000	Y 377.433
Co (228.615 nm)	0.955545	ppm	0.000432	0.05	23648.700000	Y 242.219
Cr (205.560 nm)	0.967373	ppm	0.002477	0.26	6841.530000	Y 377.433
Cu (324.754 nm)	0.970592	ppm	0.001253	0.13	45482.500000	Y 377.433
Fe (238.204 nm)	10.212204 o	ppm	0.002177	0.02	25173.542104	Y_R 377.433
Fe H (259.940 nm)	10.207900	ppm	0.004110	0.04	14363.900000	Y_R 377.433
K (766.491 nm)	56.785100	ppm	0.010854	0.02	58342.500000	Y_R2 488.368
Li (670.783 nm)	1.022330	ppm	0.001205	0.12	15171.000000	Y_R2 488.368
Mg (279.078 nm)	66.443200	ppm	0.003337	0.01	235384.000000	Y 377.433
Mn (257.610 nm)	1.082020	ppm	0.000502	0.05	299264.000000	Y 377.433
Mo (202.032 nm)	0.993705	ppm	0.000221	0.02	12667.900000	Y 377.433
Na (589.592 nm)	159.517000 o	ppm	0.107855	0.07	118695.000000	Y_R2 488.368
Na H (589.593 nm)	173.372363	ppm	0.583386	0.34	86552.822291	Y_R4
Ni (231.604 nm)	0.948413	ppm	0.001827	0.19	5291.160000	Y 377.433
P (213.618 nm)	20.007100	ppm	0.049141	0.25	29993.700000	Y 242.219
Pb (220.353 nm)	0.964285	ppm	0.003078	0.32	3323.920000	Y 242.219
S (181.972 nm)	64.158341	ppm	0.091481	0.14	28838.572398	Y 377.433
Sb (206.834 nm)	0.005365	ppm	0.000247	4.60	-2.881450	Y 377.433
Se (196.026 nm)	1.937360	ppm	0.004833	0.25	3158.090000	Y 242.219
Si (288.158 nm)	11.442300	ppm	0.016185	0.14	75985.300000	Y 377.433
Sn (189.925 nm)	1.938590	ppm	0.003477	0.18	3383.550000	Y 377.433
Sr (421.552 nm)	1.980098	ppm	0.004068	0.21	289638.057254	Y_R 488.368
Th (288.505 nm)	0.997275	ppm	0.008063	0.81	1661.790000	Y 377.433
Ti (336.122 nm)	0.991228	ppm	0.000233	0.02	128860.000000	Y 377.433
Tl (190.794 nm)	1.893890	ppm	0.000188	0.01	4575.130000	Y 377.433
U (409.013 nm)	1.983260	ppm	0.004091	0.21	6104.780000	Y 377.433
V (292.401 nm)	0.975513	ppm	0.000475	0.05	51270.400000	Y 377.433
Zn (206.200 nm)	0.479903	ppm	0.000457	0.10	2387.220000	Y 377.433
Zr (343.823 nm)	0.458783	ppm	0.000091	0.02	26279.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076130	24097.212534	0.000990	0.09
Y 377.433	1.087165	702445.816032	0.000413	0.04
Y_R 377.433	1.107700	60979.200000	0.004965	0.45
Y_R 488.368	1.107010	53498.200000	0.001734	0.16
Y_R2 488.368	1.093513	101351.670452	0.002170	0.20
Y_R4	1.126200	48223.200000	0.007932	0.70

Sample Name: 280-123928-a-1-c msd

Date: 5/24/2019 4:13:21 AM Rack:Tube: 2:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000460	ppm	0.000061	13.17	-550.382000	Y 377.433
Al (394.401 nm)	10.454600 o	ppm	0.013530	0.13	125548.000000	Y 377.433
Al H (396.152 nm)	10.275300	ppm	0.014273	0.14	21781.500000	Y_R 377.433
As (188.980 nm)	2.018690	ppm	0.004038	0.20	3214.950000	Y 242.219
B (249.678 nm)	1.100310	ppm	0.003924	0.36	7917.190000	Y 242.219
Ba (493.408 nm)	2.076950	ppm	0.005718	0.28	202619.000000	Y_R 488.368
Be (234.861 nm)	0.993914	ppm	0.002295	0.23	100164.000000	Y_R 488.368
Bi (223.061 nm)	1.897190	ppm	0.002915	0.15	4313.740000	Y 377.433
Ca (315.887 nm)	141.986265	ppm	0.309850	0.22	114571.741192	Y_R 377.433
Cd (214.439 nm)	0.967800	ppm	0.001050	0.11	38719.500000	Y 377.433
Co (228.615 nm)	0.962910	ppm	0.003034	0.32	23831.200000	Y 242.219
Cr (205.560 nm)	0.975028	ppm	0.001060	0.11	6895.710000	Y 377.433
Cu (324.754 nm)	0.978535	ppm	0.000826	0.08	45852.200000	Y 377.433
Fe (238.204 nm)	10.255403 o	ppm	0.035066	0.34	25280.015259	Y_R 377.433
Fe H (259.940 nm)	10.245800	ppm	0.027726	0.27	14416.900000	Y_R 377.433
K (766.491 nm)	57.386000	ppm	0.010342	0.02	58938.800000	Y_R2 488.368
Li (670.783 nm)	1.026760	ppm	0.004337	0.42	15248.100000	Y_R2 488.368
Mg (279.078 nm)	66.920200	ppm	0.096709	0.14	237074.000000	Y 377.433
Mn (257.610 nm)	1.091420	ppm	0.002130	0.20	301864.000000	Y 377.433
Mo (202.032 nm)	1.003290	ppm	0.000070	0.01	12789.900000	Y 377.433
Na (589.592 nm)	160.326000 o	ppm	0.093777	0.06	119298.000000	Y_R2 488.368
Na H (589.593 nm)	174.393151	ppm	0.522450	0.30	87060.502835	Y_R4
Ni (231.604 nm)	0.956611	ppm	0.002188	0.23	5336.990000	Y 377.433
P (213.618 nm)	20.167400	ppm	0.066540	0.33	30233.800000	Y 242.219
Pb (220.353 nm)	0.971510	ppm	0.004072	0.42	3348.710000	Y 242.219
S (181.972 nm)	64.158818	ppm	0.270768	0.42	28838.837954	Y 377.433
Sb (206.834 nm)	-0.000282 u	ppm	0.000180	63.72	-12.910300	Y 377.433
Se (196.026 nm)	1.953410	ppm	0.005733	0.29	3184.190000	Y 242.219
Si (288.158 nm)	11.628000	ppm	0.031299	0.27	77210.000000	Y 377.433
Sn (189.925 nm)	1.952820	ppm	0.004311	0.22	3408.370000	Y 377.433
Sr (421.552 nm)	1.990592	ppm	0.004677	0.23	291172.874524	Y_R 488.368
Th (288.505 nm)	1.003720	ppm	0.003722	0.37	1672.210000	Y 377.433
Ti (336.122 nm)	1.000090	ppm	0.001622	0.16	130014.000000	Y 377.433
Tl (190.794 nm)	1.914060	ppm	0.007656	0.40	4623.900000	Y 377.433
U (409.013 nm)	1.995840	ppm	0.001921	0.10	6144.140000	Y 377.433
V (292.401 nm)	0.984143	ppm	0.002345	0.24	51726.500000	Y 377.433
Zn (206.200 nm)	0.481311	ppm	0.002483	0.52	2394.210000	Y 377.433
Zr (343.823 nm)	0.458401	ppm	0.000962	0.21	26257.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.073810	24045.258385	0.002185	0.20
Y 377.433	1.083936	700359.592973	0.001783	0.16
Y_R 377.433	1.106760	60927.800000	0.001711	0.15
Y_R 488.368	1.103630	53334.900000	0.002837	0.26
Y_R2 488.368	1.067393	98930.714127	0.008621	0.81
Y_R4	1.107820	47436.200000	0.004870	0.44

Sample Name: 280-123928-b-2-a

Date: 5/24/2019 4:17:00 AM Rack:Tube: 2:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000931	ppm	0.000347	37.24	-215.057000	Y 377.433
Al (394.401 nm)	0.507521	ppm	0.002500	0.49	6449.630000	Y 377.433
Al H (396.152 nm)	0.448306 u	ppm	0.005189	1.16	1067.650000	Y_R 377.433
As (188.980 nm)	0.001594	ppm	0.002072	> 100.00	1.220670	Y 242.219
B (249.678 nm)	0.107187	ppm	0.000529	0.49	805.017000	Y 242.219
Ba (493.408 nm)	0.109705	ppm	0.000669	0.61	12059.400000	Y_R 488.368
Be (234.861 nm)	0.000032	ppm	0.000003	10.90	-4.695510	Y_R 488.368
Bi (223.061 nm)	0.002248	ppm	0.000896	39.87	-10.282000	Y 377.433
Ca (315.887 nm)	96.657860	ppm	0.099278	0.10	77973.805671	Y_R 377.433
Cd (214.439 nm)	0.000282	ppm	0.000004	1.52	3.721720	Y 377.433
Co (228.615 nm)	0.000314 u	ppm	0.000530	> 100.00	-13.787800	Y 242.219
Cr (205.560 nm)	0.000328	ppm	0.000426	> 100.00	-3.674300	Y 377.433
Cu (324.754 nm)	0.000629	ppm	0.000235	37.27	383.195000	Y 377.433
Fe (238.204 nm)	0.497426	ppm	0.001436	0.29	1228.967951	Y_R 377.433
Fe H (259.940 nm)	0.442589 u	ppm	0.000672	0.15	709.599000	Y_R 377.433
K (766.491 nm)	7.194370	ppm	0.105100	1.46	9122.220000	Y_R2 488.368
Li (670.783 nm)	0.045226	ppm	0.003420	7.56	-1843.910000	Y_R2 488.368
Mg (279.078 nm)	18.358900	ppm	0.024376	0.13	65059.100000	Y 377.433
Mn (257.610 nm)	0.077956	ppm	0.000105	0.13	21540.700000	Y 377.433
Mo (202.032 nm)	0.002321	ppm	0.000038	1.65	52.925400	Y 377.433
Na (589.592 nm)	114.413000 o	ppm	0.211576	0.18	84884.600000	Y_R2 488.368
Na H (589.593 nm)	123.034911	ppm	0.507823	0.41	61517.917412	Y_R4
Ni (231.604 nm)	-0.000165 u	ppm	0.000289	> 100.00	-12.289100	Y 377.433
P (213.618 nm)	0.097033	ppm	0.000287	0.30	141.626000	Y 242.219
Pb (220.353 nm)	-0.002631 u	ppm	0.001151	43.73	3.860040	Y 242.219
S (181.972 nm)	55.607437	ppm	0.008662	0.02	24992.187250	Y 377.433
Sb (206.834 nm)	0.003209	ppm	0.000925	28.81	-1.909910	Y 377.433
Se (196.026 nm)	0.001276	ppm	0.000207	16.25	12.626700	Y 242.219
Si (288.158 nm)	8.782920	ppm	0.002633	0.03	58442.900000	Y 377.433
Sn (189.925 nm)	-0.000973 u	ppm	0.000820	84.24	0.539294	Y 377.433
Sr (421.552 nm)	0.996164	ppm	0.003671	0.37	145736.641686	Y_R 488.368
Th (288.505 nm)	-0.007819 u	ppm	0.002022	25.86	-0.261846	Y 377.433
Ti (336.122 nm)	0.014932	ppm	0.000059	0.39	1764.490000	Y 377.433
Tl (190.794 nm)	0.005924	ppm	0.001369	23.11	10.329800	Y 377.433
U (409.013 nm)	0.039438	ppm	0.002036	5.16	69.537800	Y 377.433
V (292.401 nm)	0.004676	ppm	0.000250	5.34	65.463600	Y 377.433
Zn (206.200 nm)	0.006484	ppm	0.000590	9.11	36.074000	Y 377.433
Zr (343.823 nm)	0.001294	ppm	0.000175	13.49	-99.884400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.104684	24736.610892	0.002865	0.26
Y 377.433	1.106393	714869.385823	0.000754	0.07
Y_R 377.433	1.122860	61813.700000	0.003359	0.30
Y_R 488.368	1.120320	54141.700000	0.001903	0.17
Y_R2 488.368	1.087827	100824.671113	0.008476	0.78
Y_R4	1.124180	48136.900000	0.003941	0.35

Sample Name: 280-123928-b-3-a

Date: 5/24/2019 4:20:31 AM Rack:Tube: 2:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000524	ppm	0.000004	0.82	-229.580000	Y 377.433
Al (394.401 nm)	0.501403	ppm	0.001738	0.35	6398.640000	Y 377.433
Al H (396.152 nm)	0.443954 u	ppm	0.001011	0.23	1089.010000	Y_R 377.433
As (188.980 nm)	0.001132 u	ppm	0.001792	> 100.00	0.464201	Y 242.219
B (249.678 nm)	0.117686	ppm	0.000471	0.40	879.872000	Y 242.219
Ba (493.408 nm)	0.112144	ppm	0.000136	0.12	12296.100000	Y_R 488.368
Be (234.861 nm)	0.000014 u	ppm	0.000045	> 100.00	-9.454180	Y_R 488.368
Bi (223.061 nm)	0.001578	ppm	0.000575	36.45	-11.687900	Y 377.433
Ca (315.887 nm)	106.673728	ppm	0.211897	0.20	86060.006219	Y_R 377.433
Cd (214.439 nm)	0.000280	ppm	0.000016	5.87	3.943640	Y 377.433
Co (228.615 nm)	0.000587	ppm	0.000118	20.13	-7.127830	Y 242.219
Cr (205.560 nm)	0.000924	ppm	0.000220	23.77	0.546772	Y 377.433
Cu (324.754 nm)	0.015557	ppm	0.000088	0.56	1070.260000	Y 377.433
Fe (238.204 nm)	1.172603	ppm	0.003780	0.32	2893.117328	Y_R 377.433
Fe H (259.940 nm)	1.132260 u	ppm	0.000438	0.04	1673.920000	Y_R 377.433
K (766.491 nm)	7.317900	ppm	0.164684	2.25	9244.820000	Y_R2 488.368
Li (670.783 nm)	0.050219	ppm	0.001763	3.51	-1756.980000	Y_R2 488.368
Mg (279.078 nm)	20.208900	ppm	0.085082	0.42	71612.900000	Y 377.433
Mn (257.610 nm)	0.076736	ppm	0.000295	0.38	21203.200000	Y 377.433
Mo (202.032 nm)	0.002155	ppm	0.000456	21.17	50.812100	Y 377.433
Na (589.592 nm)	127.151000 o	ppm	0.120448	0.09	94321.400000	Y_R2 488.368
Na H (589.593 nm)	136.324319	ppm	0.574139	0.42	68127.291857	Y_R4
Ni (231.604 nm)	-0.000125 u	ppm	0.000831	> 100.00	-12.064100	Y 377.433
P (213.618 nm)	0.099128	ppm	0.000725	0.73	141.047000	Y 242.219
Pb (220.353 nm)	-0.001113 u	ppm	0.002760	> 100.00	9.101940	Y 242.219
S (181.972 nm)	64.344016	ppm	0.197872	0.31	28917.237650	Y 377.433
Sb (206.834 nm)	-0.000058 u	ppm	0.000825	> 100.00	-7.605300	Y 377.433
Se (196.026 nm)	0.002606	ppm	0.000220	8.46	14.597500	Y 242.219
Si (288.158 nm)	9.093070	ppm	0.025212	0.28	60488.800000	Y 377.433
Sn (189.925 nm)	0.001406	ppm	0.001127	80.16	4.688320	Y 377.433
Sr (421.552 nm)	1.079798	ppm	0.001406	0.13	157968.152368	Y_R 488.368
Th (288.505 nm)	-0.008979 u	ppm	0.002477	27.58	-2.581320	Y 377.433
Ti (336.122 nm)	0.013512	ppm	0.000290	2.15	1613.240000	Y 377.433
Tl (190.794 nm)	0.002245	ppm	0.000832	37.08	0.933019	Y 377.433
U (409.013 nm)	0.047294	ppm	0.003020	6.39	93.376700	Y 377.433
V (292.401 nm)	0.004676	ppm	0.000213	4.56	64.556000	Y 377.433
Zn (206.200 nm)	0.008350	ppm	0.000447	5.36	45.440200	Y 377.433
Zr (343.823 nm)	0.001171	ppm	0.000031	2.68	-106.981000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092656	24467.254988	0.007168	0.66
Y 377.433	1.094692	707309.021378	0.010478	0.96
Y_R 377.433	1.128310	62113.700000	0.005191	0.46
Y_R 488.368	1.124990	54367.100000	0.005005	0.44
Y_R2 488.368	1.100915	102037.671235	0.005501	0.50
Y_R4	1.135660	48628.200000	0.006609	0.58

Sample Name: CCVH-5713036

Date: 5/24/2019 4:24:06 AM
Rack:Tube: S1:1

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004066	ppm	0.000143	3.52	-113.417000	Y 377.433
Al (394.401 nm)	49.173700 o	ppm	0.035159	0.07	586480.000000	Y 377.433
Al H (396.152 nm)	48.761800	ppm	0.013254	0.03	100260.000000	Y_R 377.433
As (188.980 nm)	0.002497	ppm	0.002490	99.71	1.275860	Y 242.219
B (249.678 nm)	-0.002472 u	ppm	0.000784	31.72	-8.929070	Y 242.219
Ba (493.408 nm)	0.001284	ppm	0.000454	35.35	1594.720000	Y_R 488.368
Be (234.861 nm)	0.001066	ppm	0.000010	0.91	-109.544000	Y_R 488.368
Bi (223.061 nm)	0.012744	ppm	0.000235	1.85	22.334400	Y 377.433
Ca (315.887 nm)	0.001445 u	ppm	0.002977	> 100.00	-48.469736	Y_R 377.433
Cd (214.439 nm)	0.001463	ppm	0.000134	9.15	72.184300	Y 377.433
Co (228.615 nm)	0.003706	ppm	0.000271	7.32	69.523100	Y 242.219
Cr (205.560 nm)	0.001581	ppm	0.000129	8.15	3.848090	Y 377.433
Cu (324.754 nm)	0.002891	ppm	0.000256	8.85	1463.730000	Y 377.433
Fe (238.204 nm)	48.618917 o	ppm	0.019903	0.04	119836.776800	Y_R 377.433
Fe H (259.940 nm)	48.786900	ppm	0.020964	0.04	68307.000000	Y_R 377.433
K (766.491 nm)	0.394355	ppm	0.031156	7.90	2373.000000	Y_R2 488.368
Li (670.783 nm)	0.016242	ppm	0.001614	9.94	-2348.630000	Y_R2 488.368
Mg (279.078 nm)	0.034810	ppm	0.001423	4.09	56.578300	Y 377.433
Mn (257.610 nm)	0.001015	ppm	0.000018	1.76	258.729000	Y 377.433
Mo (202.032 nm)	0.000509	ppm	0.000117	22.95	29.869600	Y 377.433
Na (589.592 nm)	232.874000 o	ppm	0.609101	0.26	172614.000000	Y_R2 488.368
Na H (589.593 nm)	249.069916	ppm	0.241758	0.10	124200.358770	Y_R4
Ni (231.604 nm)	0.002007	ppm	0.000446	22.23	-0.151541	Y 377.433
P (213.618 nm)	4.817990	ppm	0.012185	0.25	7282.010000	Y 242.219
Pb (220.353 nm)	0.004349	ppm	0.000112	2.58	20.560000	Y 242.219
S (181.972 nm)	4.993147	ppm	0.005644	0.11	2250.750752	Y 377.433
Sb (206.834 nm)	0.005845	ppm	0.001259	21.54	7.073600	Y 377.433
Se (196.026 nm)	0.005011	ppm	0.000889	17.74	5.178070	Y 242.219
Si (288.158 nm)	0.012513	ppm	0.000337	2.70	590.584000	Y 377.433
Sn (189.925 nm)	0.001540	ppm	0.000203	13.16	4.923260	Y 377.433
Sr (421.552 nm)	0.001129	ppm	0.000192	17.00	220.166024	Y_R 488.368
Th (288.505 nm)	4.877210	ppm	0.003958	0.08	8522.350000	Y 377.433
Ti (336.122 nm)	0.002142	ppm	0.000078	3.63	-227.073000	Y 377.433
Tl (190.794 nm)	0.001160	ppm	0.000989	85.31	-2.009770	Y 377.433
U (409.013 nm)	0.546616 Q	ppm	0.005544	1.01	1706.110000 Q	Y 377.433
V (292.401 nm)	0.001464	ppm	0.000083	5.65	386.711000	Y 377.433
Zn (206.200 nm)	0.003161	ppm	0.000603	19.08	27.004200	Y 377.433
Zr (343.823 nm)	0.001397	ppm	0.000350	25.03	-93.951700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.094112	24499.867449	0.004077	0.37
Y 377.433	1.093072	706262.739760	0.002196	0.20
Y_R 377.433	1.123900	61871.300000	0.004981	0.44
Y_R 488.368	1.118880	54072.200000	0.006277	0.56
Y_R2 488.368	1.099601	101915.928440	0.013192	1.20
Y_R4	1.127530	48280.400000	0.000842	0.07

Sample Name: CCV-5717467

Date: 5/24/2019 4:27:47 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.484657	ppm	0.001387	0.29	16746.800000	Y 377.433
Al (394.401 nm)	0.501437	ppm	0.003654	0.73	6243.440000	Y 377.433
Al H (396.152 nm)	0.557343 u	ppm	0.000949	0.17	1152.370000	Y_R 377.433
As (188.980 nm)	0.487316	ppm	0.003087	0.63	775.106000	Y 242.219
B (249.678 nm)	0.475674	ppm	0.000106	0.02	3444.880000	Y 242.219
Ba (493.408 nm)	0.482483	ppm	0.001974	0.41	48169.200000	Y_R 488.368
Be (234.861 nm)	0.478971	ppm	0.002457	0.51	48277.400000	Y_R 488.368
Bi (223.061 nm)	0.951447	ppm	0.003358	0.35	2155.180000	Y 377.433
Ca (315.887 nm)	4.885439	ppm	0.003070	0.06	3882.365956	Y_R 377.433
Cd (214.439 nm)	0.491597	ppm	0.001755	0.36	19662.700000	Y 377.433
Co (228.615 nm)	0.485855	ppm	0.000543	0.11	12012.500000	Y 242.219
Cr (205.560 nm)	0.488325	ppm	0.004305	0.88	3450.820000	Y 377.433
Cu (324.754 nm)	0.482076	ppm	0.000028	0.01	22794.900000	Y 377.433
Fe (238.204 nm)	2.448509	ppm	0.007659	0.31	6037.915369	Y_R 377.433
Fe H (259.940 nm)	2.405550 u	ppm	0.015142	0.63	3454.300000	Y_R 377.433
K (766.491 nm)	47.933700	ppm	0.332992	0.69	49557.200000	Y_R2 488.368
Li (670.783 nm)	0.490655	ppm	0.001927	0.39	5912.620000	Y_R2 488.368
Mg (279.078 nm)	19.509200	ppm	0.049462	0.25	69132.500000	Y 377.433
Mn (257.610 nm)	0.487581	ppm	0.001102	0.23	134843.000000	Y 377.433
Mo (202.032 nm)	0.486561	ppm	0.000953	0.20	6214.700000	Y 377.433
Na (589.592 nm)	23.543500	ppm	0.044894	0.19	17648.800000	Y_R2 488.368
Na H (589.593 nm)	26.000054 u	ppm	0.160340	0.62	13258.454265	Y_R4
Ni (231.604 nm)	0.488021	ppm	0.001422	0.29	2716.530000	Y 377.433
P (213.618 nm)	0.053320	ppm	0.005610	10.52	-61.337300	Y 242.219
Pb (220.353 nm)	0.490956	ppm	0.001542	0.31	1697.200000	Y 242.219
S (181.972 nm)	0.006851	ppm	0.001613	23.55	12.553455	Y 377.433
Sb (206.834 nm)	0.492816	ppm	0.003196	0.65	859.777000	Y 377.433
Se (196.026 nm)	0.483679	ppm	0.000487	0.10	796.773000	Y 242.219
Si (288.158 nm)	4.756840	ppm	0.000606	0.01	31885.600000	Y 377.433
Sn (189.925 nm)	0.488851	ppm	0.002322	0.47	854.897000	Y 377.433
Sr (421.552 nm)	0.484565	ppm	0.002313	0.48	70915.765694	Y_R 488.368
Th (288.505 nm)	0.015887	ppm	0.006815	42.90	-7.116250	Y 377.433
Ti (336.122 nm)	0.482723	ppm	0.000800	0.17	62276.600000	Y 377.433
Tl (190.794 nm)	0.497300	ppm	0.000623	0.13	1201.480000	Y 377.433
U (409.013 nm)	0.029428	ppm	0.001082	3.68	-7.733390	Y 377.433
V (292.401 nm)	0.482178	ppm	0.001375	0.29	25246.000000	Y 377.433
Zn (206.200 nm)	0.491964	ppm	0.003462	0.70	2445.880000	Y 377.433
Zr (343.823 nm)	0.483688	ppm	0.000549	0.11	27715.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119272	25063.261558	0.005937	0.53
Y 377.433	1.116701	721529.997369	0.006070	0.54
Y_R 377.433	1.131600	62295.100000	0.008582	0.76
Y_R 488.368	1.129150	54568.500000	0.009201	0.81
Y_R2 488.368	1.106979	102599.713919	0.010941	0.99
Y_R4	1.128390	48317.200000	0.005988	0.53

Sample Name: CCB

Date: 5/24/2019 4:31:22 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000014 u	ppm	0.000068	> 100.00	-245.292000	Y 377.433
Al (394.401 nm)	-0.001231 u	ppm	0.000093	7.53	114.119000	Y 377.433
Al H (396.152 nm)	0.121561 Zu	ppm	0.000099	0.08	24.917100 Z	Y_R 377.433
As (188.980 nm)	0.000417	ppm	0.000219	52.49	-0.641558	Y 242.219
B (249.678 nm)	-0.003315 u	ppm	0.000040	1.20	13.325900	Y 242.219
Ba (493.408 nm)	-0.002349 Zu	ppm	0.000341	14.51	1205.060000 Z	Y_R 488.368
Be (234.861 nm)	0.000017 u	ppm	0.000090	> 100.00	-3.985160	Y_R 488.368
Bi (223.061 nm)	0.002372	ppm	0.001586	66.86	-10.105300	Y 377.433
Ca (315.887 nm)	0.017583	ppm	0.003759	21.38	-47.781345	Y_R 377.433
Cd (214.439 nm)	0.000051 u	ppm	0.000202	> 100.00	-5.745880	Y 377.433
Co (228.615 nm)	0.000091 u	ppm	0.000164	> 100.00	-19.904800	Y 242.219
Cr (205.560 nm)	0.000168	ppm	0.000194	> 100.00	-4.778000	Y 377.433
Cu (324.754 nm)	-0.000152 u	ppm	0.000561	> 100.00	405.296000	Y 377.433
Fe (238.204 nm)	0.001487	ppm	0.000815	54.83	6.599173	Y_R 377.433
Fe H (259.940 nm)	-0.051697 u	ppm	0.002042	3.95	18.463600	Y_R 377.433
K (766.491 nm)	-0.067194 u	ppm	0.078197	> 100.00	1914.900000	Y_R2 488.368
Li (670.783 nm)	0.013748 Z	ppm	0.000939	6.83	-2392.060000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000477 u	ppm	0.000168	35.17	10.201300	Y 377.433
Mn (257.610 nm)	0.000049	ppm	0.000002	3.44	-8.506070	Y 377.433
Mo (202.032 nm)	-0.000565 u	ppm	0.000374	66.18	16.198900	Y 377.433
Na (589.592 nm)	0.144293	ppm	0.017381	12.05	216.780000	Y_R2 488.368
Na H (589.593 nm)	0.637272 u	ppm	0.007239	1.14	644.489612	Y_R4
Ni (231.604 nm)	0.000020 u	ppm	0.000534	> 100.00	-11.259800	Y 377.433
P (213.618 nm)	0.002142	ppm	0.000353	16.50	-1.198670	Y 242.219
Pb (220.353 nm)	-0.001229 u	ppm	0.000981	79.79	8.680830	Y 242.219
S (181.972 nm)	-0.001490 u	ppm	0.003710	> 100.00	7.086247	Y 377.433
Sb (206.834 nm)	0.004479	ppm	0.002089	46.64	0.362602	Y 377.433
Se (196.026 nm)	-0.001128 u	ppm	0.000119	10.52	8.742390	Y 242.219
Si (288.158 nm)	-0.005651 u	ppm	0.000501	8.86	470.767000	Y 377.433
Sn (189.925 nm)	-0.000045 u	ppm	0.000710	> 100.00	2.157750	Y 377.433
Sr (421.552 nm)	0.000004 u	ppm	0.000034	> 100.00	48.550219	Y_R 488.368
Th (288.505 nm)	-0.001097 u	ppm	0.002817	> 100.00	12.611500	Y 377.433
Ti (336.122 nm)	0.000475	ppm	0.000108	22.81	-443.915000	Y 377.433
Tl (190.794 nm)	-0.000943 u	ppm	0.000965	> 100.00	-2.168180	Y 377.433
U (409.013 nm)	0.008251	ppm	0.006681	80.97	-15.953200	Y 377.433
V (292.401 nm)	0.000517	ppm	0.000282	54.51	-152.337000	Y 377.433
Zn (206.200 nm)	-0.000275 u	ppm	0.000338	> 100.00	2.450720	Y 377.433
Zr (343.823 nm)	0.000405	ppm	0.000007	1.78	-151.190000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.132834	25366.945446	0.001929	0.17
Y 377.433	1.129727	729946.084445	0.001464	0.13
Y_R 377.433	1.147850	63189.800000	0.003451	0.30
Y_R 488.368	1.144430	55306.700000	0.005064	0.44
Y_R2 488.368	1.120936	103893.324181	0.004801	0.43
Y_R4	1.145000	49028.200000	0.000630	0.06

Sample Name: CCVL-5717307

Date: 5/24/2019 4:34:33 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007787	ppm	0.000015	0.19	26.111000	Y 377.433
Al (394.401 nm)	0.095106	ppm	0.000096	0.10	1274.000000	Y 377.433
Al H (396.152 nm)	0.215296 u	ppm	0.003745	1.74	223.173000	Y_R 377.433
As (188.980 nm)	0.014106	ppm	0.000938	6.65	21.168600	Y 242.219
B (249.678 nm)	0.090205	ppm	0.000048	0.05	683.540000	Y 242.219
Ba (493.408 nm)	0.007780	ppm	0.000130	1.67	2186.260000	Y_R 488.368
Be (234.861 nm)	0.000992	ppm	0.000021	2.08	93.824900	Y_R 488.368
Bi (223.061 nm)	0.089500	ppm	0.001897	2.12	188.647000	Y 377.433
Ca (315.887 nm)	0.218279	ppm	0.014538	6.66	114.270467	Y_R 377.433
Cd (214.439 nm)	0.005071	ppm	0.000090	1.78	195.166000	Y 377.433
Co (228.615 nm)	0.010365	ppm	0.000152	1.46	234.538000	Y 242.219
Cr (205.560 nm)	0.010274	ppm	0.000182	1.77	66.658700	Y 377.433
Cu (324.754 nm)	0.014825	ppm	0.000091	0.62	1098.820000	Y 377.433
Fe (238.204 nm)	0.101616	ppm	0.002716	2.67	253.393702	Y_R 377.433
Fe H (259.940 nm)	0.047900 u	ppm	0.001946	4.06	157.725000	Y_R 377.433
K (766.491 nm)	2.854190	ppm	0.042628	1.49	4814.460000	Y_R2 488.368
Li (670.783 nm)	0.038301 Q	ppm	0.001320	3.45	-1964.520000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200077	ppm	0.003099	1.55	719.531000	Y 377.433
Mn (257.610 nm)	0.010444	ppm	0.000007	0.06	2866.760000	Y 377.433
Mo (202.032 nm)	0.018407	ppm	0.000343	1.86	257.612000	Y 377.433
Na (589.592 nm)	1.121370	ppm	0.010052	0.90	942.553000	Y_R2 488.368
Na H (589.593 nm)	1.416540 u	ppm	0.002795	0.20	1032.052282	Y_R4
Ni (231.604 nm)	0.041089	ppm	0.000691	1.68	218.274000	Y 377.433
P (213.618 nm)	2.759120	ppm	0.019566	0.71	4166.500000	Y 242.219
Pb (220.353 nm)	0.007331	ppm	0.000906	12.36	38.168900	Y 242.219
S (181.972 nm)	0.091904	ppm	0.001865	2.03	49.077402	Y 377.433
Sb (206.834 nm)	0.023794	ppm	0.000302	1.27	34.313700	Y 377.433
Se (196.026 nm)	0.016715	ppm	0.000535	3.20	37.732400	Y 242.219
Si (288.158 nm)	0.465774	ppm	0.002821	0.61	3580.430000	Y 377.433
Sn (189.925 nm)	0.098335	ppm	0.002253	2.29	173.754000	Y 377.433
Sr (421.552 nm)	0.008986	ppm	0.000072	0.80	1362.188833	Y_R 488.368
Th (288.505 nm)	0.013338	ppm	0.001390	10.42	37.264400	Y 377.433
Ti (336.122 nm)	0.009997	ppm	0.000098	0.98	794.920000	Y 377.433
Tl (190.794 nm)	0.016579	ppm	0.001006	6.07	40.164300	Y 377.433
U (409.013 nm)	0.060164	ppm	0.007334	12.19	145.536000	Y 377.433
V (292.401 nm)	0.010245	ppm	0.000252	2.46	357.339000	Y 377.433
Zn (206.200 nm)	0.020496	ppm	0.000096	0.47	105.556000	Y 377.433
Zr (343.823 nm)	0.010091	ppm	0.000061	0.61	407.315000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.154950	25862.182708	0.001003	0.09
Y 377.433	1.153162	745088.445407	0.002255	0.20
Y_R 377.433	1.159160	63812.400000	0.002675	0.23
Y_R 488.368	1.157340	55930.900000	0.002944	0.25
Y_R2 488.368	1.142886	105927.749609	0.004917	0.43
Y_R4	1.164010	49842.200000	0.004900	0.42

Sample Name: 280-123928-b-4-a

Date: 5/24/2019 4:38:02 AM
Rack:Tube: 2:61

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000826	ppm	0.000556	67.30	-219.085000	Y 377.433
Al (394.401 nm)	0.581612	ppm	0.003416	0.59	7342.240000	Y 377.433
Al H (396.152 nm)	0.526049 u	ppm	0.005096	0.97	1235.610000	Y_R 377.433
As (188.980 nm)	0.003406	ppm	0.000571	16.77	4.104030	Y 242.219
B (249.678 nm)	0.123454	ppm	0.000696	0.56	921.552000	Y 242.219
Ba (493.408 nm)	0.111404	ppm	0.000007	0.01	12224.000000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000048	> 100.00	-10.284300	Y_R 488.368
Bi (223.061 nm)	0.001045	ppm	0.001285	> 100.00	-13.008100	Y 377.433
Ca (315.887 nm)	105.537460	ppm	0.287847	0.27	85142.673053	Y_R 377.433
Cd (214.439 nm)	0.000292	ppm	0.000001	0.29	4.153950	Y 377.433
Co (228.615 nm)	0.000452	ppm	0.000204	45.15	-10.249600	Y 242.219
Cr (205.560 nm)	0.000517	ppm	0.000371	71.68	-2.335010	Y 377.433
Cu (324.754 nm)	0.002677	ppm	0.000012	0.43	472.757000	Y 377.433
Fe (238.204 nm)	0.596419	ppm	0.000677	0.11	1472.963382	Y_R 377.433
Fe H (259.940 nm)	0.534241 u	ppm	0.006618	1.24	837.752000	Y_R 377.433
K (766.491 nm)	7.313390	ppm	0.073465	1.00	9240.350000	Y_R2 488.368
Li (670.783 nm)	0.044543	ppm	0.001360	3.05	-1855.810000	Y_R2 488.368
Mg (279.078 nm)	19.666900	ppm	0.034581	0.18	69693.400000	Y 377.433
Mn (257.610 nm)	0.060068	ppm	0.000099	0.16	16592.700000	Y 377.433
Mo (202.032 nm)	0.002241	ppm	0.000411	18.35	51.905500	Y 377.433
Na (589.592 nm)	122.092000 o	ppm	0.403016	0.33	90573.300000	Y_R2 488.368
Na H (589.593 nm)	130.208748	ppm	0.242403	0.19	65085.764646	Y_R4
Ni (231.604 nm)	0.000870	ppm	0.000782	89.84	-6.505340	Y 377.433
P (213.618 nm)	0.114231	ppm	0.000244	0.21	167.171000	Y 242.219
Pb (220.353 nm)	-0.000755 u	ppm	0.000819	> 100.00	10.310100	Y 242.219
S (181.972 nm)	61.516253	ppm	0.031279	0.05	27646.870901	Y 377.433
Sb (206.834 nm)	-0.000037 u	ppm	0.003143	> 100.00	-7.644780	Y 377.433
Se (196.026 nm)	-0.000196 u	ppm	0.000472	> 100.00	10.180700	Y 242.219
Si (288.158 nm)	9.220370	ppm	0.017280	0.19	61328.500000	Y 377.433
Sn (189.925 nm)	0.000214 u	ppm	0.000528	> 100.00	2.609160	Y 377.433
Sr (421.552 nm)	1.020699	ppm	0.004268	0.42	149324.839960	Y_R 488.368
Th (288.505 nm)	-0.008503 u	ppm	0.008395	98.74	-2.060900	Y 377.433
Ti (336.122 nm)	0.018203	ppm	0.000752	4.13	2219.850000	Y 377.433
Tl (190.794 nm)	0.002606	ppm	0.000668	25.61	1.900830	Y 377.433
U (409.013 nm)	0.040451	ppm	0.014996	37.07	71.628100	Y 377.433
V (292.401 nm)	0.005406	ppm	0.000076	1.41	103.812000	Y 377.433
Zn (206.200 nm)	0.009832	ppm	0.001399	14.23	52.705000	Y 377.433
Zr (343.823 nm)	0.001312	ppm	0.000204	15.55	-98.848900	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103064	24700.331604	0.003730	0.34
Y 377.433	1.102797	712546.403683	0.004857	0.44
Y_R 377.433	1.119770	61643.900000	0.004097	0.37
Y_R 488.368	1.114210	53846.500000	0.005526	0.50
Y_R2 488.368	1.087067	100754.250553	0.004077	0.38
Y_R4	1.119330	47929.200000	0.005289	0.47

Sample Name: mb 280-459145/1-a

Date: 5/24/2019 4:41:34 AM Rack:Tube: 2:62

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000129 u	ppm	0.000396	> 100.00	-250.662000	Y 377.433
Al (394.401 nm)	-0.000634 u	ppm	0.000260	40.97	123.659000	Y 377.433
Al H (396.152 nm)	0.118294 u	ppm	0.007912	6.69	18.236900	Y_R 377.433
As (188.980 nm)	-0.002337 u	ppm	0.003230	> 100.00	-5.030220	Y 242.219
B (249.678 nm)	-0.003326 u	ppm	0.000917	27.57	13.238200	Y 242.219
Ba (493.408 nm)	-0.002253 u	ppm	0.000378	16.80	1214.440000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000067	> 100.00	-6.071420	Y_R 488.368
Bi (223.061 nm)	0.002613	ppm	0.002304	88.15	-9.551430	Y 377.433
Ca (315.887 nm)	0.018132	ppm	0.003608	19.90	-47.338268	Y_R 377.433
Cd (214.439 nm)	-0.000071 u	ppm	0.000012	17.47	-10.603600	Y 377.433
Co (228.615 nm)	0.000233	ppm	0.000062	26.46	-16.392900	Y 242.219
Cr (205.560 nm)	-0.000318 u	ppm	0.000389	> 100.00	-8.224560	Y 377.433
Cu (324.754 nm)	-0.000231 u	ppm	0.000007	2.91	400.508000	Y 377.433
Fe (238.204 nm)	0.019805	ppm	0.000482	2.43	51.749314	Y_R 377.433
Fe H (259.940 nm)	-0.035489 u	ppm	0.001574	4.44	41.127200	Y_R 377.433
K (766.491 nm)	-0.127436 u	ppm	0.055954	43.91	1855.110000	Y_R2 488.368
Li (670.783 nm)	0.016711	ppm	0.000377	2.26	-2340.470000	Y_R2 488.368
Mg (279.078 nm)	0.001206 u	ppm	0.002875	> 100.00	15.875800	Y 377.433
Mn (257.610 nm)	0.000393	ppm	0.000000	0.01	86.802400	Y 377.433
Mo (202.032 nm)	-0.000727 u	ppm	0.000410	56.43	14.135300	Y 377.433
Na (589.592 nm)	0.129030	ppm	0.023382	18.12	205.442000	Y_R2 488.368
Na H (589.593 nm)	0.490350 u	ppm	0.014827	3.02	571.419565	Y_R4
Ni (231.604 nm)	0.000241 u	ppm	0.000343	> 100.00	-10.022600	Y 377.433
P (213.618 nm)	0.001376	ppm	0.001597	> 100.00	-2.452910	Y 242.219
Pb (220.353 nm)	-0.001136 u	ppm	0.000174	15.35	9.040540	Y 242.219
S (181.972 nm)	0.007836	ppm	0.008217	> 100.00	11.276594	Y 377.433
Sb (206.834 nm)	0.002824	ppm	0.002145	75.97	-2.555610	Y 377.433
Se (196.026 nm)	0.000349 u	ppm	0.001485	> 100.00	11.138800	Y 242.219
Si (288.158 nm)	-0.004329 u	ppm	0.000205	4.74	479.488000	Y 377.433
Sn (189.925 nm)	0.000425	ppm	0.000150	35.30	2.978350	Y 377.433
Sr (421.552 nm)	0.000114	ppm	0.000052	45.48	64.547336	Y_R 488.368
Th (288.505 nm)	0.000675 u	ppm	0.003040	> 100.00	15.773500	Y 377.433
Ti (336.122 nm)	0.000484	ppm	0.000057	11.75	-442.700000	Y 377.433
Tl (190.794 nm)	0.000008 u	ppm	0.000071	> 100.00	0.132928	Y 377.433
U (409.013 nm)	0.009078	ppm	0.003082	33.96	-13.300000	Y 377.433
V (292.401 nm)	0.000490	ppm	0.000022	4.42	-154.788000	Y 377.433
Zn (206.200 nm)	0.001247	ppm	0.000249	19.95	10.011000	Y 377.433
Zr (343.823 nm)	0.000364	ppm	0.000032	8.69	-153.516000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.138369	25490.881139	0.005222	0.46
Y 377.433	1.133146	732155.528037	0.004860	0.43
Y_R 377.433	1.146900	63137.400000	0.005060	0.44
Y_R 488.368	1.143200	55247.200000	0.003394	0.30
Y_R2 488.368	1.123417	104123.263885	0.002051	0.18
Y_R4	1.146520	49093.300000	0.005838	0.51

Sample Name: lcs 280-459145/2-a

Date: 5/24/2019 4:44:44 AM Rack:Tube: 2:63

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000315	ppm	0.000288	91.44	-535.220000	Y 377.433
Al (394.401 nm)	9.453940 o	ppm	0.013490	0.14	113330.000000	Y 377.433
Al H (396.152 nm)	9.492400	ppm	0.031515	0.33	19778.500000	Y_R 377.433
As (188.980 nm)	1.914390	ppm	0.005753	0.30	3048.780000	Y 242.219
B (249.678 nm)	0.937186	ppm	0.001764	0.19	6748.520000	Y 242.219
Ba (493.408 nm)	1.895350	ppm	0.002257	0.12	185029.000000	Y_R 488.368
Be (234.861 nm)	0.959800	ppm	0.003524	0.37	96727.900000	Y_R 488.368
Bi (223.061 nm)	1.841640	ppm	0.009181	0.50	4186.880000	Y 377.433
Ca (315.887 nm)	47.043084	ppm	0.136638	0.29	37920.167807	Y_R 377.433
Cd (214.439 nm)	0.946508	ppm	0.000690	0.07	37867.300000	Y 377.433
Co (228.615 nm)	0.930249	ppm	0.000148	0.02	23021.500000	Y 242.219
Cr (205.560 nm)	0.945506	ppm	0.003000	0.32	6686.810000	Y 377.433
Cu (324.754 nm)	0.925190	ppm	0.000442	0.05	43427.000000	Y 377.433
Fe (238.204 nm)	9.495772 o	ppm	0.045734	0.48	23407.709669	Y_R 377.433
Fe H (259.940 nm)	9.489700	ppm	0.026127	0.28	13359.700000	Y_R 377.433
K (766.491 nm)	47.076300	ppm	0.154431	0.33	48706.200000	Y_R2 488.368
Li (670.783 nm)	0.948450	ppm	0.002952	0.31	13884.500000	Y_R2 488.368
Mg (279.078 nm)	47.296900	ppm	0.025310	0.05	167548.000000	Y 377.433
Mn (257.610 nm)	0.954239	ppm	0.000659	0.07	263921.000000	Y 377.433
Mo (202.032 nm)	0.964272	ppm	0.000644	0.07	12293.400000	Y 377.433
Na (589.592 nm)	44.957400	ppm	0.190864	0.42	33801.500000	Y_R2 488.368
Na H (589.593 nm)	49.393296 u	ppm	0.196599	0.40	24892.885007	Y_R4
Ni (231.604 nm)	0.927894	ppm	0.001751	0.19	5176.480000	Y 377.433
P (213.618 nm)	19.107200	ppm	0.003606	0.02	28645.000000	Y 242.219
Pb (220.353 nm)	0.949474	ppm	0.005232	0.55	3273.210000	Y 242.219
S (181.972 nm)	9.651603	ppm	0.022682	0.24	4348.532793	Y 377.433
Sb (206.834 nm)	0.007388	ppm	0.000547	7.41	0.821866	Y 377.433
Se (196.026 nm)	1.870750	ppm	0.000121	0.01	3049.850000	Y 242.219
Si (288.158 nm)	1.905570	ppm	0.001828	0.10	13077.800000	Y 377.433
Sn (189.925 nm)	1.888180	ppm	0.003615	0.19	3295.620000	Y 377.433
Sr (421.552 nm)	0.950957	ppm	0.000179	0.02	139126.485986	Y_R 488.368
Th (288.505 nm)	0.974373	ppm	0.000348	0.04	1625.300000	Y 377.433
Ti (336.122 nm)	0.953107	ppm	0.000099	0.01	123581.000000	Y 377.433
Tl (190.794 nm)	1.893270	ppm	0.002488	0.13	4577.850000	Y 377.433
U (409.013 nm)	1.893500	ppm	0.006574	0.35	5833.440000	Y 377.433
V (292.401 nm)	0.944207	ppm	0.001515	0.16	49616.800000	Y 377.433
Zn (206.200 nm)	0.470684	ppm	0.000911	0.19	2341.360000	Y 377.433
Zr (343.823 nm)	0.473099	ppm	0.000845	0.18	27104.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.099579	24622.289281	0.001908	0.17
Y 377.433	1.105254	714133.772651	0.001710	0.15
Y_R 377.433	1.114070	61329.900000	0.006914	0.62
Y_R 488.368	1.110150	53650.100000	0.002519	0.23
Y_R2 488.368	1.095962	101578.686372	0.001463	0.13
Y_R4	1.124800	48163.500000	0.005688	0.51

Sample Name: 280-123846-a-1-a

Date: 5/24/2019 4:48:20 AM
Rack:Tube: 2:64

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000504	ppm	0.000176	34.92	-228.829000	Y 377.433
Al (394.401 nm)	0.005669	ppm	0.000069	1.21	262.332000	Y 377.433
Al H (396.152 nm)	0.076606 u	ppm	0.010329	13.48	15.250700	Y_R 377.433
As (188.980 nm)	0.001389	ppm	0.000934	67.22	0.829891	Y 242.219
B (249.678 nm)	0.002815	ppm	0.000863	30.64	55.689100	Y 242.219
Ba (493.408 nm)	0.173676	ppm	0.000003	0.00	18257.400000	Y_R 488.368
Be (234.861 nm)	-0.000005 u	ppm	0.000001	18.41	-18.000300	Y_R 488.368
Bi (223.061 nm)	0.000552	ppm	0.000018	3.25	-13.765000	Y 377.433
Ca (315.887 nm)	43.984104	ppm	0.144927	0.33	35448.102052	Y_R 377.433
Cd (214.439 nm)	0.000192	ppm	0.000026	13.35	1.104050	Y 377.433
Co (228.615 nm)	0.001622	ppm	0.000107	6.61	17.943500	Y 242.219
Cr (205.560 nm)	-0.000528 u	ppm	0.000398	75.35	-9.711130	Y 377.433
Cu (324.754 nm)	-0.000326 u	ppm	0.000121	37.02	369.257000	Y 377.433
Fe (238.204 nm)	2.708821	ppm	0.012234	0.45	6679.520072	Y_R 377.433
Fe H (259.940 nm)	2.658710 u	ppm	0.012038	0.45	3808.290000	Y_R 377.433
K (766.491 nm)	1.144730	ppm	0.087596	7.65	3117.770000	Y_R2 488.368
Li (670.783 nm)	0.014481	ppm	0.002999	20.71	-2379.310000	Y_R2 488.368
Mg (279.078 nm)	15.343800	ppm	0.027341	0.18	54373.000000	Y 377.433
Mn (257.610 nm)	0.780236	ppm	0.000969	0.12	215791.000000	Y 377.433
Mo (202.032 nm)	0.000293	ppm	0.000359	> 100.00	27.112400	Y 377.433
Na (589.592 nm)	13.511800	ppm	0.047785	0.35	10154.700000	Y_R2 488.368
Na H (589.593 nm)	14.264251 u	ppm	0.035640	0.25	7421.752006	Y_R4
Ni (231.604 nm)	-0.001820 u	ppm	0.000322	17.68	-21.541500	Y 377.433
P (213.618 nm)	0.026264	ppm	0.000763	2.90	35.157000	Y 242.219
Pb (220.353 nm)	-0.002611 u	ppm	0.000337	12.90	4.025030	Y 242.219
S (181.972 nm)	5.326745	ppm	0.004590	0.09	2405.069997	Y 377.433
Sb (206.834 nm)	0.001747 u	ppm	0.005193	> 100.00	-4.227000	Y 377.433
Se (196.026 nm)	-0.000239 u	ppm	0.004112	> 100.00	10.587400	Y 242.219
Si (288.158 nm)	7.113040	ppm	0.005731	0.08	47427.900000	Y 377.433
Sn (189.925 nm)	-0.000146 u	ppm	0.000497	> 100.00	1.981470	Y 377.433
Sr (421.552 nm)	0.236274	ppm	0.000367	0.16	34603.371958	Y_R 488.368
Th (288.505 nm)	-0.010456 u	ppm	0.006058	57.94	10.414700	Y 377.433
Ti (336.122 nm)	0.000406	ppm	0.000031	7.74	-303.930000	Y 377.433
Tl (190.794 nm)	0.002039	ppm	0.002483	> 100.00	2.892900	Y 377.433
U (409.013 nm)	0.023816	ppm	0.001576	6.62	29.130800	Y 377.433
V (292.401 nm)	0.001198	ppm	0.000093	7.75	-118.875000	Y 377.433
Zn (206.200 nm)	0.005201	ppm	0.000002	0.03	30.047500	Y 377.433
Zr (343.823 nm)	0.000574	ppm	0.000005	0.79	-141.442000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126179	25217.926603	0.003978	0.35
Y 377.433	1.123850	726149.102986	0.005069	0.45
Y_R 377.433	1.134560	62458.200000	0.002051	0.18
Y_R 488.368	1.132550	54732.600000	0.002396	0.21
Y_R2 488.368	1.100257	101976.749818	0.000128	0.01
Y_R4	1.127040	48259.500000	0.005364	0.48

Sample Name: 280-123846-a-1-aSD@5

Date: 5/24/2019 4:51:56 AM Rack:Tube: 2:65

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000231 u	ppm	0.000424	> 100.00	-237.794000	Y 377.433
Al (394.401 nm)	0.001158	ppm	0.000181	15.62	156.911000	Y 377.433
Al H (396.152 nm)	0.112051 u	ppm	0.000108	0.10	22.495600	Y_R 377.433
As (188.980 nm)	0.001499	ppm	0.001007	67.19	1.065940	Y 242.219
B (249.678 nm)	-0.001820 u	ppm	0.000180	9.87	23.686000	Y 242.219
Ba (493.408 nm)	0.034857	ppm	0.000084	0.24	4809.460000	Y_R 488.368
Be (234.861 nm)	0.000025 u	ppm	0.000051	> 100.00	-5.840950	Y_R 488.368
Bi (223.061 nm)	0.001591	ppm	0.000621	39.05	-11.775900	Y 377.433
Ca (315.887 nm)	9.261532	ppm	0.038482	0.42	7415.217986	Y_R 377.433
Cd (214.439 nm)	0.000066 u	ppm	0.000112	> 100.00	-4.875860	Y 377.433
Co (228.615 nm)	0.000415	ppm	0.000056	13.53	-11.902900	Y 242.219
Cr (205.560 nm)	-0.000154 u	ppm	0.000322	> 100.00	-7.058300	Y 377.433
Cu (324.754 nm)	0.000104 u	ppm	0.000461	> 100.00	410.822000	Y 377.433
Fe (238.204 nm)	0.610165	ppm	0.001241	0.20	1506.842771	Y_R 377.433
Fe H (259.940 nm)	0.561259 u	ppm	0.003207	0.57	875.530000	Y_R 377.433
K (766.491 nm)	0.232451	ppm	0.034099	14.67	2212.310000	Y_R2 488.368
Li (670.783 nm)	0.014545	ppm	0.000678	4.66	-2378.190000	Y_R2 488.368
Mg (279.078 nm)	3.270020	ppm	0.004152	0.13	11597.100000	Y 377.433
Mn (257.610 nm)	0.165624	ppm	0.000095	0.06	45789.600000	Y 377.433
Mo (202.032 nm)	-0.000584 u	ppm	0.000334	57.20	15.963100	Y 377.433
Na (589.592 nm)	2.945860	ppm	0.025272	0.86	2299.620000	Y_R2 488.368
Na H (589.593 nm)	3.212476 u	ppm	0.052778	1.64	1925.245572	Y_R4
Ni (231.604 nm)	-0.001180 u	ppm	0.000147	12.43	-17.959900	Y 377.433
P (213.618 nm)	0.005782	ppm	0.003935	68.06	4.322150	Y 242.219
Pb (220.353 nm)	-0.000534 u	ppm	0.003448	> 100.00	11.086400	Y 242.219
S (181.972 nm)	1.105603	ppm	0.006989	0.63	505.347076	Y 377.433
Sb (206.834 nm)	0.002376	ppm	0.001409	59.30	-3.295690	Y 377.433
Se (196.026 nm)	-0.002452 u	ppm	0.002251	91.82	6.665210	Y 242.219
Si (288.158 nm)	1.465310	ppm	0.000415	0.03	10173.700000	Y 377.433
Sn (189.925 nm)	0.000001 u	ppm	0.000242	> 100.00	2.238740	Y 377.433
Sr (421.552 nm)	0.048988	ppm	0.000020	0.04	7212.537525	Y_R 488.368
Th (288.505 nm)	-0.003896 u	ppm	0.004620	> 100.00	10.723700	Y 377.433
Ti (336.122 nm)	0.000446	ppm	0.000013	2.81	-416.711000	Y 377.433
Tl (190.794 nm)	0.003159	ppm	0.000391	12.36	7.311920	Y 377.433
U (409.013 nm)	0.010988	ppm	0.006727	61.22	-8.095890	Y 377.433
V (292.401 nm)	0.000766	ppm	0.000418	54.58	-139.946000	Y 377.433
Zn (206.200 nm)	0.006466	ppm	0.000418	6.46	36.001000	Y 377.433
Zr (343.823 nm)	0.000344	ppm	0.000135	39.24	-154.704000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136807	25455.925203	0.004693	0.41
Y 377.433	1.133851	732610.720032	0.005869	0.52
Y_R 377.433	1.140630	62792.200000	0.004404	0.39
Y_R 488.368	1.138440	55017.300000	0.004240	0.37
Y_R2 488.368	1.114858	103329.983209	0.004325	0.39
Y_R4	1.127720	48288.200000	0.002316	0.21

Sample Name: 280-123846-a-1-b ms

Date: 5/24/2019 4:55:26 AM
Rack:Tube: 2:66

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000401	ppm	0.000138	34.49	-545.478000	Y 377.433
Al (394.401 nm)	9.829600 o	ppm	0.004945	0.05	117893.000000	Y 377.433
Al H (396.152 nm)	9.827180	ppm	0.047375	0.48	20572.200000	Y_R 377.433
As (188.980 nm)	1.994560	ppm	0.006754	0.34	3176.430000	Y 242.219
B (249.678 nm)	0.985658	ppm	0.002524	0.26	7094.130000	Y 242.219
Ba (493.408 nm)	2.148510	ppm	0.012562	0.58	209553.000000	Y_R 488.368
Be (234.861 nm)	0.987084	ppm	0.007184	0.73	99465.500000	Y_R 488.368
Bi (223.061 nm)	1.892520	ppm	0.007836	0.41	4303.490000	Y 377.433
Ca (315.887 nm)	93.297242	ppm	0.379593	0.41	75263.050385	Y_R 377.433
Cd (214.439 nm)	0.974960	ppm	0.001286	0.13	39007.100000	Y 377.433
Co (228.615 nm)	0.956739	ppm	0.000752	0.08	23678.200000	Y 242.219
Cr (205.560 nm)	0.973775	ppm	0.002662	0.27	6886.870000	Y 377.433
Cu (324.754 nm)	0.960439	ppm	0.002388	0.25	45039.000000	Y 377.433
Fe (238.204 nm)	12.572935 o	ppm	0.043529	0.35	30992.171355	Y_R 377.433
Fe H (259.940 nm)	12.615500	ppm	0.036771	0.29	17730.300000	Y_R 377.433
K (766.491 nm)	50.508100	ppm	0.256891	0.51	52112.300000	Y_R2 488.368
Li (670.783 nm)	0.984410	ppm	0.003295	0.33	14510.700000	Y_R2 488.368
Mg (279.078 nm)	64.736400	ppm	0.057506	0.09	229333.000000	Y 377.433
Mn (257.610 nm)	1.761860	ppm	0.000602	0.03	487309.000000	Y 377.433
Mo (202.032 nm)	1.003160	ppm	0.001237	0.12	12788.200000	Y 377.433
Na (589.592 nm)	60.332900 o	ppm	0.227382	0.38	45242.300000	Y_R2 488.368
Na H (589.593 nm)	66.020891	ppm	0.336297	0.51	33162.478482	Y_R4
Ni (231.604 nm)	0.951110	ppm	0.001354	0.14	5306.290000	Y 377.433
P (213.618 nm)	19.915100	ppm	0.031402	0.16	29857.100000	Y 242.219
Pb (220.353 nm)	0.976247	ppm	0.004287	0.44	3365.160000	Y 242.219
S (181.972 nm)	15.594892	ppm	0.031723	0.20	7023.021144	Y 377.433
Sb (206.834 nm)	0.003085	ppm	0.000043	1.41	-6.796630	Y 377.433
Se (196.026 nm)	1.937800	ppm	0.007991	0.41	3159.160000	Y 242.219
Si (288.158 nm)	9.305410	ppm	0.023662	0.25	61889.400000	Y 377.433
Sn (189.925 nm)	1.957850	ppm	0.004088	0.21	3417.140000	Y 377.433
Sr (421.552 nm)	1.232946	ppm	0.006168	0.50	180367.650972	Y_R 488.368
Th (288.505 nm)	1.001430	ppm	0.006307	0.63	1682.830000	Y 377.433
Ti (336.122 nm)	0.990345	ppm	0.000247	0.02	128581.000000	Y 377.433
Tl (190.794 nm)	1.944210	ppm	0.000009	0.00	4698.650000	Y 377.433
U (409.013 nm)	1.978010	ppm	0.004280	0.22	6092.500000	Y 377.433
V (292.401 nm)	0.982595	ppm	0.000384	0.04	51644.200000	Y 377.433
Zn (206.200 nm)	0.483692	ppm	0.001292	0.27	2406.390000	Y 377.433
Zr (343.823 nm)	0.488912	ppm	0.000455	0.09	28016.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075324	24079.159793	0.001678	0.16
Y 377.433	1.081718	698926.469190	0.001646	0.15
Y_R 377.433	1.109030	61052.800000	0.005206	0.47
Y_R 488.368	1.103820	53344.400000	0.006751	0.61
Y_R2 488.368	1.071394	99301.540396	0.009055	0.85
Y_R4	1.099020	47059.300000	0.001504	0.14

Sample Name: 280-123846-a-1-c msd

Date: 5/24/2019 4:59:06 AM Rack:Tube: 2:67

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000856	ppm	0.000368	42.95	-531.071000	Y 377.433
Al (394.401 nm)	9.858350 o	ppm	0.012888	0.13	118237.000000	Y 377.433
Al H (396.152 nm)	9.910200	ppm	0.038500	0.39	20741.800000	Y_R 377.433
As (188.980 nm)	2.004600	ppm	0.000687	0.03	3192.430000	Y 242.219
B (249.678 nm)	0.988739	ppm	0.000578	0.06	7116.200000	Y 242.219
Ba (493.408 nm)	2.149860	ppm	0.007117	0.33	209684.000000	Y_R 488.368
Be (234.861 nm)	0.999970	ppm	0.001952	0.20	100765.000000	Y_R 488.368
Bi (223.061 nm)	1.904980	ppm	0.000486	0.03	4331.910000	Y 377.433
Ca (315.887 nm)	92.161720	ppm	0.447875	0.49	74346.318778	Y_R 377.433
Cd (214.439 nm)	0.978222	ppm	0.000595	0.06	39137.500000	Y 377.433
Co (228.615 nm)	0.961210	ppm	0.000251	0.03	23788.900000	Y 242.219
Cr (205.560 nm)	0.977060	ppm	0.000055	0.01	6910.110000	Y 377.433
Cu (324.754 nm)	0.966882	ppm	0.002599	0.27	45338.200000	Y 377.433
Fe (238.204 nm)	12.577897 o	ppm	0.054396	0.43	31004.401105	Y_R 377.433
Fe H (259.940 nm)	12.588600	ppm	0.068598	0.54	17692.800000	Y_R 377.433
K (766.491 nm)	50.472800	ppm	0.033810	0.07	52077.300000	Y_R2 488.368
Li (670.783 nm)	0.982554	ppm	0.000001	0.00	14478.400000	Y_R2 488.368
Mg (279.078 nm)	64.330300	ppm	0.008402	0.01	227894.000000	Y 377.433
Mn (257.610 nm)	1.740220	ppm	0.000415	0.02	481323.000000	Y 377.433
Mo (202.032 nm)	1.005090	ppm	0.001118	0.11	12812.800000	Y 377.433
Na (589.592 nm)	59.645300 o	ppm	0.039113	0.07	44733.000000	Y_R2 488.368
Na H (589.593 nm)	65.987021	ppm	0.430629	0.65	33145.633149	Y_R4
Ni (231.604 nm)	0.957234	ppm	0.001218	0.13	5340.540000	Y 377.433
P (213.618 nm)	19.947200	ppm	0.019983	0.10	29903.800000	Y 242.219
Pb (220.353 nm)	0.985371	ppm	0.004939	0.50	3396.500000	Y 242.219
S (181.972 nm)	15.361045	ppm	0.032300	0.21	6917.856791	Y 377.433
Sb (206.834 nm)	0.001693	ppm	0.000544	32.14	-9.266710	Y 377.433
Se (196.026 nm)	1.939170	ppm	0.003352	0.17	3161.350000	Y 242.219
Si (288.158 nm)	9.068560	ppm	0.012275	0.14	60327.100000	Y 377.433
Sn (189.925 nm)	1.966580	ppm	0.002130	0.11	3432.380000	Y 377.433
Sr (421.552 nm)	1.228389	ppm	0.004269	0.35	179701.231884	Y_R 488.368
Th (288.505 nm)	1.001900	ppm	0.008321	0.83	1682.700000	Y 377.433
Ti (336.122 nm)	0.993675	ppm	0.000368	0.04	129010.000000	Y 377.433
Tl (190.794 nm)	1.957590	ppm	0.001225	0.06	4731.090000	Y 377.433
U (409.013 nm)	1.978550	ppm	0.007898	0.40	6094.260000	Y 377.433
V (292.401 nm)	0.986745	ppm	0.001132	0.11	51862.900000	Y 377.433
Zn (206.200 nm)	0.485967	ppm	0.000590	0.12	2417.690000	Y 377.433
Zr (343.823 nm)	0.489394	ppm	0.000193	0.04	28044.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.063474	23813.815319	0.000943	0.09
Y 377.433	1.069923	691305.362136	0.001475	0.14
Y_R 377.433	1.084060	59677.900000	0.002722	0.25
Y_R 488.368	1.082510	52314.700000	0.000947	0.09
Y_R2 488.368	1.063574	98576.765037	0.003337	0.31
Y_R4	1.079690	46231.900000	0.005793	0.54

Sample Name: 280-123846-a-2-a

Date: 5/24/2019 5:02:46 AM Rack:Tube: 2:68

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003976	ppm	0.000286	7.18	-110.611000	Y 377.433
Al (394.401 nm)	16.830600 o	ppm	0.008528	0.05	201642.000000	Y 377.433
Al H (396.152 nm)	16.639600	ppm	0.051453	0.31	34680.500000	Y_R 377.433
As (188.980 nm)	0.003748	ppm	0.001438	38.36	0.257991	Y 242.219
B (249.678 nm)	0.009474	ppm	0.000219	2.32	15.748100	Y 242.219
Ba (493.408 nm)	0.012782	ppm	0.000006	0.05	2789.820000	Y_R 488.368
Be (234.861 nm)	0.008359	ppm	0.000024	0.29	170.672000	Y_R 488.368
Bi (223.061 nm)	0.002662	ppm	0.000967	36.31	18.261200	Y 377.433
Ca (315.887 nm)	213.339387	ppm	0.451990	0.21	172179.483668	Y_R 377.433
Cd (214.439 nm)	0.129692	ppm	0.000013	0.01	5248.990000	Y 377.433
Co (228.615 nm)	0.324889	ppm	0.000568	0.17	8010.190000	Y 242.219
Cr (205.560 nm)	0.002644	ppm	0.000372	14.08	11.823000	Y 377.433
Cu (324.754 nm)	10.820000	ppm	0.025984	0.24	502729.000000	Y 377.433
Fe (238.204 nm)	153.455082 o	ppm	0.238475	0.16	378232.507080	Y_R 377.433
Fe H (259.940 nm)	154.568000	ppm	0.320576	0.21	216215.000000	Y_R 377.433
K (766.491 nm)	2.974490	ppm	0.047213	1.59	4933.860000	Y_R2 488.368
Li (670.783 nm)	0.029403	ppm	0.000760	2.58	-2119.460000	Y_R2 488.368
Mg (279.078 nm)	86.314200	ppm	0.057852	0.07	305613.000000	Y 377.433
Mn (257.610 nm)	24.704800 bo	ppm	0.033151	0.13	6833310.000000	Y 377.433
Mo (202.032 nm)	-0.000737 u	ppm	0.000028	3.84	14.010000	Y 377.433
Na (589.592 nm)	10.106200	ppm	0.019649	0.19	7599.320000	Y_R2 488.368
Na H (589.593 nm)	10.199408 u	ppm	0.015753	0.15	5400.137129	Y_R4
Ni (231.604 nm)	0.228197	ppm	0.000218	0.10	1263.960000	Y 377.433
P (213.618 nm)	1.055480	ppm	0.015514	1.47	-1094.510000	Y 242.219
Pb (220.353 nm)	0.070447	ppm	0.001513	2.15	252.927000	Y 242.219
S (181.972 nm)	450.889075 bo	ppm	2.010837	0.45	202639.156674	Y 377.433
Sb (206.834 nm)	0.001660 u	ppm	0.005409	> 100.00	8.979700	Y 377.433
Se (196.026 nm)	0.004765 b	ppm	0.005241	> 100.00	12.192500	Y 242.219
Si (288.158 nm)	14.074100	ppm	0.024214	0.17	93345.200000	Y 377.433
Sn (189.925 nm)	-0.000744 u	ppm	0.000815	> 100.00	0.938264	Y 377.433
Sr (421.552 nm)	1.707419	ppm	0.000532	0.03	249779.869421	Y_R 488.368
Th (288.505 nm)	-0.049526 bu	ppm	0.002725	5.50	398.843000	Y 377.433
Ti (336.122 nm)	-0.000334 u	ppm	0.000026	7.91	179.461000	Y 377.433
Tl (190.794 nm)	0.011422	ppm	0.001212	10.61	1.243700	Y 377.433
U (409.013 nm)	0.360741	ppm	0.008200	2.27	1172.330000	Y 377.433
V (292.401 nm)	0.000397	ppm	0.000135	34.06	-160.221000	Y 377.433
Zn (206.200 nm)	20.987300	ppm	0.109338	0.52	104191.000000	Y 377.433
Zr (343.823 nm)	0.002392	ppm	0.000009	0.38	-36.583900	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108889	24830.752411	0.010594	0.96
Y 377.433	1.120810	724184.745763	0.011801	1.05
Y_R 377.433	1.137860	62639.700000	0.004652	0.41
Y_R 488.368	1.131740	54693.600000	0.007765	0.69
Y_R2 488.368	1.102867	102218.585327	0.005078	0.46
Y_R4	1.133270	48525.900000	0.006185	0.55

Sample Name: 280-123846-a-3-a

Date: 5/24/2019 5:06:32 AM Rack:Tube: 2:69

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001205	ppm	0.000367	30.45	-204.102000	Y 377.433
Al (394.401 nm)	0.000778	ppm	0.000623	80.08	492.660000	Y 377.433
Al H (396.152 nm)	-0.121707 u	ppm	0.006841	5.62	47.047800	Y_R 377.433
As (188.980 nm)	0.000898 u	ppm	0.001501	> 100.00	0.122616	Y 242.219
B (249.678 nm)	0.012169	ppm	0.001309	10.76	124.241000	Y 242.219
Ba (493.408 nm)	0.035482	ppm	0.000593	1.67	4869.610000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000010	33.91	-9.117960	Y_R 488.368
Bi (223.061 nm)	-0.000382 u	ppm	0.002131	> 100.00	-16.363800	Y 377.433
Ca (315.887 nm)	95.323897	ppm	0.075076	0.08	76896.714146	Y_R 377.433
Cd (214.439 nm)	0.000218	ppm	0.000128	58.70	0.982430	Y 377.433
Co (228.615 nm)	-0.000138 u	ppm	0.000148	> 100.00	-25.565300	Y 242.219
Cr (205.560 nm)	0.000281	ppm	0.000294	> 100.00	-3.973170	Y 377.433
Cu (324.754 nm)	0.000001 u	ppm	0.000283	> 100.00	355.228000	Y 377.433
Fe (238.204 nm)	0.104882	ppm	0.000271	0.26	261.443738	Y_R 377.433
Fe H (259.940 nm)	0.042950 u	ppm	0.001041	2.42	150.804000	Y_R 377.433
K (766.491 nm)	1.796710	ppm	0.015109	0.84	3764.880000	Y_R2 488.368
Li (670.783 nm)	0.017107	ppm	0.000763	4.46	-2333.570000	Y_R2 488.368
Mg (279.078 nm)	28.665300	ppm	0.286576	1.00	101577.000000	Y 377.433
Mn (257.610 nm)	0.645020	ppm	0.005722	0.89	178391.000000	Y 377.433
Mo (202.032 nm)	-0.000396 u	ppm	0.000143	36.09	18.353200	Y 377.433
Na (589.592 nm)	24.221900	ppm	0.006355	0.03	18060.000000	Y_R2 488.368
Na H (589.593 nm)	25.366299 u	ppm	0.061131	0.24	12943.261729	Y_R4
Ni (231.604 nm)	-0.002692 u	ppm	0.000273	10.14	-26.409400	Y 377.433
P (213.618 nm)	0.070102	ppm	0.000075	0.11	101.112000	Y 242.219
Pb (220.353 nm)	-0.001624 u	ppm	0.000467	28.74	7.422690	Y 242.219
S (181.972 nm)	86.763506	ppm	0.731092	0.84	38989.583145	Y 377.433
Sb (206.834 nm)	0.000950 u	ppm	0.003046	> 100.00	-5.858330	Y 377.433
Se (196.026 nm)	-0.000552 u	ppm	0.000936	> 100.00	10.604000	Y 242.219
Si (288.158 nm)	7.421770	ppm	0.052837	0.71	49464.300000	Y 377.433
Sn (189.925 nm)	0.001522	ppm	0.000158	10.37	4.890780	Y 377.433
Sr (421.552 nm)	1.389068	ppm	0.003710	0.27	203198.616956	Y_R 488.368
Th (288.505 nm)	-0.010990 u	ppm	0.004723	42.98	5.771740	Y 377.433
Ti (336.122 nm)	0.000106	ppm	0.000113	> 100.00	-167.900000	Y 377.433
Tl (190.794 nm)	0.003005	ppm	0.000486	16.16	3.433630	Y 377.433
U (409.013 nm)	0.039494	ppm	0.007289	18.46	69.675400	Y 377.433
V (292.401 nm)	0.001467	ppm	0.000138	9.40	-104.909000	Y 377.433
Zn (206.200 nm)	0.004977	ppm	0.000240	4.81	28.533100	Y 377.433
Zr (343.823 nm)	0.000581	ppm	0.000268	46.11	-141.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107242	24793.881240	0.014926	1.35
Y 377.433	1.108109	715978.169094	0.016751	1.51
Y_R 377.433	1.134300	62443.400000	0.004341	0.38
Y_R 488.368	1.131420	54677.900000	0.009123	0.81
Y_R2 488.368	1.117688	103592.343337	0.009146	0.82
Y_R4	1.149530	49222.400000	0.005329	0.46

Sample Name: 280-123846-a-4-a

Date: 5/24/2019 5:10:00 AM Rack:Tube: 2:70

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000557	ppm	0.000254	45.63	-241.283000	Y 377.433
Al (394.401 nm)	33.813900 o	ppm	0.085104	0.25	404127.000000	Y 377.433
Al H (396.152 nm)	34.406100	ppm	0.033988	0.10	70704.700000	Y_R 377.433
As (188.980 nm)	0.014993	ppm	0.003580	23.88	21.572000	Y 242.219
B (249.678 nm)	0.010311	ppm	0.000395	3.83	90.492700	Y 242.219
Ba (493.408 nm)	0.154010	ppm	0.000267	0.17	16377.800000	Y_R 488.368
Be (234.861 nm)	0.001616	ppm	0.000077	4.76	4.160110	Y_R 488.368
Bi (223.061 nm)	0.006264	ppm	0.001282	20.47	5.142050	Y 377.433
Ca (315.887 nm)	23.461679	ppm	0.024276	0.10	18888.250785	Y_R 377.433
Cd (214.439 nm)	0.000457	ppm	0.000083	18.06	26.033000	Y 377.433
Co (228.615 nm)	0.012345	ppm	0.000137	1.11	300.441000	Y 242.219
Cr (205.560 nm)	0.060077	ppm	0.000069	0.11	418.766000	Y 377.433
Cu (324.754 nm)	0.088590	ppm	0.000220	0.25	4525.230000	Y 377.433
Fe (238.204 nm)	35.250623 o	ppm	0.036065	0.10	86887.172641	Y_R 377.433
Fe H (259.940 nm)	35.428500	ppm	0.042841	0.12	49628.600000	Y_R 377.433
K (766.491 nm)	5.003710	ppm	0.023302	0.47	6947.920000	Y_R2 488.368
Li (670.783 nm)	0.035397	ppm	0.001249	3.53	-2015.070000	Y_R2 488.368
Mg (279.078 nm)	10.816000	ppm	0.030103	0.28	38284.700000	Y 377.433
Mn (257.610 nm)	1.105560	ppm	0.002155	0.19	305775.000000	Y 377.433
Mo (202.032 nm)	0.000971	ppm	0.000576	59.37	35.740400	Y 377.433
Na (589.592 nm)	3.053290	ppm	0.010550	0.35	2403.490000	Y_R2 488.368
Na H (589.593 nm)	3.331441 u	ppm	0.006182	0.19	1984.411963	Y_R4
Ni (231.604 nm)	0.016757	ppm	0.001086	6.48	82.276300	Y 377.433
P (213.618 nm)	0.784892	ppm	0.009709	1.24	1162.010000	Y 242.219
Pb (220.353 nm)	0.039661	ppm	0.000887	2.24	142.417000	Y 242.219
S (181.972 nm)	8.989294	ppm	0.016740	0.19	4050.356474	Y 377.433
Sb (206.834 nm)	0.006352	ppm	0.001621	25.52	5.487910	Y 377.433
Se (196.026 nm)	0.002159	ppm	0.003016	> 100.00	5.908980	Y 242.219
Si (288.158 nm)	45.172600	ppm	0.019183	0.04	298481.000000	Y 377.433
Sn (189.925 nm)	0.001534	ppm	0.000136	8.90	4.911520	Y 377.433
Sr (421.552 nm)	0.085096	ppm	0.000048	0.06	12498.312880	Y_R 488.368
Th (288.505 nm)	0.038015	ppm	0.000241	0.63	93.990100	Y 377.433
Ti (336.122 nm)	0.375330	ppm	0.001973	0.53	48372.700000	Y 377.433
Tl (190.794 nm)	0.002175	ppm	0.001043	47.96	-1.048530	Y 377.433
U (409.013 nm)	-0.028988 u	ppm	0.001379	4.76	-111.792000	Y 377.433
V (292.401 nm)	0.046003	ppm	0.000352	0.77	2261.260000	Y 377.433
Zn (206.200 nm)	0.187453	ppm	0.001313	0.70	939.606000	Y 377.433
Zr (343.823 nm)	0.015022	ppm	0.000348	2.32	691.635000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155298	25869.966288	0.005789	0.50
Y 377.433	1.154267	745802.321256	0.005988	0.52
Y_R 377.433	1.171570	64495.200000	0.001296	0.11
Y_R 488.368	1.168650	56477.400000	0.001615	0.14
Y_R2 488.368	1.147538	106358.929985	0.001317	0.11
Y_R4	1.178100	50445.400000	0.002857	0.24

Sample Name: CCVH-5713036

Date: 5/24/2019 5:13:42 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004164	ppm	0.000198	4.76	-109.667000	Y 377.433
Al (394.401 nm)	48.865300 o	ppm	0.025620	0.05	582800.000000	Y 377.433
Al H (396.152 nm)	48.619700	ppm	0.009685	0.02	99967.300000	Y_R 377.433
As (188.980 nm)	0.002917	ppm	0.000205	7.01	1.952050	Y 242.219
B (249.678 nm)	-0.002303 u	ppm	0.000692	30.03	-7.559770	Y 242.219
Ba (493.408 nm)	0.000962	ppm	0.000364	37.81	1563.360000	Y_R 488.368
Be (234.861 nm)	0.001078	ppm	0.000052	4.86	-107.145000	Y_R 488.368
Bi (223.061 nm)	0.012106	ppm	0.001006	8.31	20.830800	Y 377.433
Ca (315.887 nm)	0.003196	ppm	0.000738	23.09	-47.096341	Y_R 377.433
Cd (214.439 nm)	0.001401	ppm	0.000031	2.18	69.598200	Y 377.433
Co (228.615 nm)	0.003458	ppm	0.000030	0.86	63.365200	Y 242.219
Cr (205.560 nm)	0.001153	ppm	0.000441	38.27	0.811509	Y 377.433
Cu (324.754 nm)	0.003342	ppm	0.000059	1.77	1479.860000	Y 377.433
Fe (238.204 nm)	48.390173 o	ppm	0.007592	0.02	119272.978179	Y_R 377.433
Fe H (259.940 nm)	48.596800	ppm	0.054887	0.11	68041.200000	Y_R 377.433
K (766.491 nm)	0.410974	ppm	0.059994	14.60	2389.490000	Y_R2 488.368
Li (670.783 nm)	0.011901	ppm	0.000548	4.61	-2424.230000	Y_R2 488.368
Mg (279.078 nm)	0.034692	ppm	0.000846	2.44	56.749800	Y 377.433
Mn (257.610 nm)	0.001073	ppm	0.000060	5.56	274.876000	Y 377.433
Mo (202.032 nm)	0.000568	ppm	0.000165	29.00	30.613100	Y 377.433
Na (589.592 nm)	232.585000 o	ppm	0.988024	0.42	172400.000000	Y_R2 488.368
Na H (589.593 nm)	248.936856	ppm	1.329121	0.53	124134.182122	Y_R4
Ni (231.604 nm)	0.002816	ppm	0.000223	7.91	4.371270	Y 377.433
P (213.618 nm)	4.809890	ppm	0.023637	0.49	7269.670000	Y 242.219
Pb (220.353 nm)	0.003402	ppm	0.000956	28.09	17.305700	Y 242.219
S (181.972 nm)	4.931377	ppm	0.006264	0.13	2223.002597	Y 377.433
Sb (206.834 nm)	0.008324	ppm	0.000506	6.08	11.425400	Y 377.433
Se (196.026 nm)	0.006433	ppm	0.001124	17.47	7.563960	Y 242.219
Si (288.158 nm)	0.099778	ppm	0.002338	2.34	1166.210000	Y 377.433
Sn (189.925 nm)	0.002323	ppm	0.000432	18.58	6.288800	Y 377.433
Sr (421.552 nm)	0.001059	ppm	0.000198	18.72	209.832932	Y_R 488.368
Th (288.505 nm)	4.846050	ppm	0.001122	0.02	8467.970000	Y 377.433
Ti (336.122 nm)	0.002086	ppm	0.000063	3.02	-234.440000	Y 377.433
Tl (190.794 nm)	0.001093	ppm	0.000389	35.60	-2.137720	Y 377.433
U (409.013 nm)	0.535359 Q	ppm	0.000975	0.18	1670.630000 Q	Y 377.433
V (292.401 nm)	0.001420	ppm	0.000279	19.62	382.082000	Y 377.433
Zn (206.200 nm)	0.003055	ppm	0.000290	9.48	26.436200	Y 377.433
Zr (343.823 nm)	0.001568	ppm	0.000022	1.39	-84.115000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084937	24294.420079	0.001829	0.17
Y 377.433	1.085528	701388.218631	0.001724	0.16
Y_R 377.433	1.113080	61275.500000	0.000254	0.02
Y_R 488.368	1.107010	53498.300000	0.002667	0.24
Y_R2 488.368	1.081864	100272.014752	0.001903	0.18
Y_R4	1.113740	47689.700000	0.010861	0.98

Sample Name: CCV-5717467

Date: 5/24/2019 5:17:24 AM
Rack:Tube: S1:2

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.480976	ppm	0.000234	0.05	16618.300000	Y 377.433
Al (394.401 nm)	0.498172	ppm	0.001529	0.31	6203.370000	Y 377.433
Al H (396.152 nm)	0.552010 u	ppm	0.006510	1.18	1140.830000	Y_R 377.433
As (188.980 nm)	0.480640	ppm	0.001712	0.36	764.469000	Y 242.219
B (249.678 nm)	0.472325	ppm	0.000335	0.07	3420.880000	Y 242.219
Ba (493.408 nm)	0.482149	ppm	0.000990	0.21	48136.800000	Y_R 488.368
Be (234.861 nm)	0.476067	ppm	0.001408	0.30	47984.600000	Y_R 488.368
Bi (223.061 nm)	0.938681	ppm	0.005231	0.56	2126.060000	Y 377.433
Ca (315.887 nm)	4.886453	ppm	0.021956	0.45	3883.182633	Y_R 377.433
Cd (214.439 nm)	0.487356	ppm	0.000282	0.06	19493.000000	Y 377.433
Co (228.615 nm)	0.483236	ppm	0.000050	0.01	11947.600000	Y 242.219
Cr (205.560 nm)	0.482334	ppm	0.000789	0.16	3408.390000	Y 377.433
Cu (324.754 nm)	0.479316	ppm	0.000427	0.09	22666.700000	Y 377.433
Fe (238.204 nm)	2.441429	ppm	0.011252	0.46	6020.465493	Y_R 377.433
Fe H (259.940 nm)	2.405550 u	ppm	0.005401	0.22	3454.310000	Y_R 377.433
K (766.491 nm)	47.603300	ppm	0.032349	0.07	49229.300000	Y_R2 488.368
Li (670.783 nm)	0.484824	ppm	0.001072	0.22	5811.070000	Y_R2 488.368
Mg (279.078 nm)	19.334100	ppm	0.006187	0.03	68512.400000	Y 377.433
Mn (257.610 nm)	0.484644	ppm	0.000327	0.07	134031.000000	Y 377.433
Mo (202.032 nm)	0.483377	ppm	0.000346	0.07	6174.180000	Y 377.433
Na (589.592 nm)	23.377900	ppm	0.033256	0.14	17526.100000	Y_R2 488.368
Na H (589.593 nm)	25.618605 u	ppm	0.329830	1.29	13068.744096	Y_R4
Ni (231.604 nm)	0.482622	ppm	0.000348	0.07	2686.360000	Y 377.433
P (213.618 nm)	0.054256	ppm	0.001376	2.54	-59.009600	Y 242.219
Pb (220.353 nm)	0.487629	ppm	0.002013	0.41	1685.750000	Y 242.219
S (181.972 nm)	0.005787	ppm	0.001574	27.19	12.066558	Y 377.433
Sb (206.834 nm)	0.490616	ppm	0.002860	0.58	855.903000	Y 377.433
Se (196.026 nm)	0.480298	ppm	0.002732	0.57	791.276000	Y 242.219
Si (288.158 nm)	4.767570	ppm	0.014507	0.30	31956.500000	Y 377.433
Sn (189.925 nm)	0.483433	ppm	0.000236	0.05	845.447000	Y 377.433
Sr (421.552 nm)	0.483866	ppm	0.002096	0.43	70813.492885	Y_R 488.368
Th (288.505 nm)	0.013842	ppm	0.000962	6.95	-10.395600	Y 377.433
Ti (336.122 nm)	0.479736	ppm	0.000799	0.17	61888.300000	Y 377.433
Tl (190.794 nm)	0.494815	ppm	0.000099	0.02	1195.470000	Y 377.433
U (409.013 nm)	0.016807	ppm	0.001820	10.83	-47.066500	Y 377.433
V (292.401 nm)	0.478981	ppm	0.000613	0.13	25077.800000	Y 377.433
Zn (206.200 nm)	0.488388	ppm	0.002752	0.56	2428.140000	Y 377.433
Zr (343.823 nm)	0.481476	ppm	0.000688	0.14	27587.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108896	24830.913216	0.000817	0.07
Y 377.433	1.108351	716134.853280	0.000965	0.09
Y_R 377.433	1.124940	61928.400000	0.003747	0.33
Y_R 488.368	1.120360	54143.800000	0.004125	0.37
Y_R2 488.368	1.098919	101852.697971	0.003336	0.30
Y_R4	1.121140	48006.700000	0.012966	1.16

Sample Name: CCB

Date: 5/24/2019 5:21:00 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000454	ppm	0.000124	27.40	-229.950000	Y 377.433
Al (394.401 nm)	-0.001858 u	ppm	0.000528	28.43	108.173000	Y 377.433
Al H (396.152 nm)	0.129135 Zu	ppm	0.001287	1.00	40.556200 Z	Y_R 377.433
As (188.980 nm)	-0.000513 u	ppm	0.000666	> 100.00	-2.122440	Y 242.219
B (249.678 nm)	-0.003704 u	ppm	0.000260	7.03	10.539600	Y 242.219
Ba (493.408 nm)	-0.001389 u	ppm	0.000513	36.93	1298.040000	Y_R 488.368
Be (234.861 nm)	0.000041 u	ppm	0.000089	> 100.00	-1.592490	Y_R 488.368
Bi (223.061 nm)	0.002061	ppm	0.000797	38.68	-10.814300	Y 377.433
Ca (315.887 nm)	0.006554	ppm	0.004739	72.31	-56.683669	Y_R 377.433
Cd (214.439 nm)	0.000090	ppm	0.000082	90.65	-4.187130	Y 377.433
Co (228.615 nm)	-0.000020 u	ppm	0.000020	98.13	-22.663400	Y 242.219
Cr (205.560 nm)	0.000126 u	ppm	0.000313	> 100.00	-5.078600	Y 377.433
Cu (324.754 nm)	0.000119	ppm	0.000069	57.84	416.781000	Y 377.433
Fe (238.204 nm)	-0.000494 u	ppm	0.000885	> 100.00	1.716178	Y_R 377.433
Fe H (259.940 nm)	-0.055828 u	ppm	0.000259	0.46	12.688600	Y_R 377.433
K (766.491 nm)	0.064390	ppm	0.045250	70.28	2045.500000	Y_R2 488.368
Li (670.783 nm)	0.014635 Z	ppm	0.000077	0.53	-2376.610000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000247 u	ppm	0.000009	3.84	10.996000	Y 377.433
Mn (257.610 nm)	0.000102	ppm	0.000047	45.73	6.285990	Y 377.433
Mo (202.032 nm)	-0.000633 u	ppm	0.000348	55.06	15.339300	Y 377.433
Na (589.592 nm)	0.061164	ppm	0.011751	19.21	155.453000	Y_R2 488.368
Na H (589.593 nm)	0.376456 u	ppm	0.020832	5.53	514.775129	Y_R4
Ni (231.604 nm)	-0.000843 u	ppm	0.000741	87.89	-16.079800	Y 377.433
P (213.618 nm)	0.001094 u	ppm	0.004307	> 100.00	-2.779350	Y 242.219
Pb (220.353 nm)	-0.001844 u	ppm	0.000133	7.19	6.569550	Y 242.219
S (181.972 nm)	-0.005562 u	ppm	0.000622	11.18	5.256926	Y 377.433
Sb (206.834 nm)	0.004854	ppm	0.000035	0.73	1.028660	Y 377.433
Se (196.026 nm)	0.000342 u	ppm	0.002724	> 100.00	11.132600	Y 242.219
Si (288.158 nm)	0.005735	ppm	0.003816	66.54	545.873000	Y 377.433
Sn (189.925 nm)	0.000820 u	ppm	0.001972	> 100.00	3.666530	Y 377.433
Sr (421.552 nm)	0.000053	ppm	0.000008	15.12	55.649692	Y_R 488.368
Th (288.505 nm)	-0.002434 u	ppm	0.002617	> 100.00	10.256400	Y 377.433
Ti (336.122 nm)	0.000363	ppm	0.000003	0.82	-458.499000	Y 377.433
Tl (190.794 nm)	0.001650	ppm	0.002024	> 100.00	4.113890	Y 377.433
U (409.013 nm)	0.010821	ppm	0.001985	18.34	-7.887470	Y 377.433
V (292.401 nm)	0.000573	ppm	0.000104	18.17	-150.226000	Y 377.433
Zn (206.200 nm)	0.000368	ppm	0.000259	70.31	5.642870	Y 377.433
Zr (343.823 nm)	0.000503	ppm	0.000034	6.80	-145.536000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120435	25089.313732	0.000826	0.07
Y 377.433	1.116673	721511.698071	0.000871	0.08
Y_R 377.433	1.123070	61825.600000	0.010243	0.91
Y_R 488.368	1.119790	54116.100000	0.010354	0.92
Y_R2 488.368	1.100141	101965.951340	0.000026	0.00
Y_R4	1.116550	47810.300000	0.003730	0.33

Sample Name: CCVL-5717307

Date: 5/24/2019 5:24:12 AM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007926	ppm	0.000513	6.47	30.823100	Y 377.433
Al (394.401 nm)	0.094023	ppm	0.000365	0.39	1263.390000	Y 377.433
Al H (396.152 nm)	0.229049 u	ppm	0.007706	3.36	251.433000	Y_R 377.433
As (188.980 nm)	0.011977	ppm	0.000521	4.35	17.776300	Y 242.219
B (249.678 nm)	0.088848	ppm	0.000624	0.70	673.817000	Y 242.219
Ba (493.408 nm)	0.007937	ppm	0.000755	9.51	2201.510000	Y_R 488.368
Be (234.861 nm)	0.000953	ppm	0.000026	2.74	89.962500	Y_R 488.368
Bi (223.061 nm)	0.090610	ppm	0.001099	1.21	191.181000	Y 377.433
Ca (315.887 nm)	0.215593	ppm	0.004026	1.87	112.106148	Y_R 377.433
Cd (214.439 nm)	0.005029	ppm	0.000064	1.27	193.476000	Y 377.433
Co (228.615 nm)	0.010487	ppm	0.000057	0.54	237.539000	Y 242.219
Cr (205.560 nm)	0.009681	ppm	0.000492	5.08	62.458400	Y 377.433
Cu (324.754 nm)	0.015103	ppm	0.000115	0.76	1110.750000	Y 377.433
Fe (238.204 nm)	0.098059	ppm	0.000570	0.58	244.625754	Y_R 377.433
Fe H (259.940 nm)	0.048295 u	ppm	0.000305	0.63	158.277000	Y_R 377.433
K (766.491 nm)	2.906410	ppm	0.073852	2.54	4866.290000	Y_R2 488.368
Li (670.783 nm)	0.027906 Q	ppm	0.001875	6.72	-2145.530000 Q	Y_R2 488.368
Mg (279.078 nm)	0.197838	ppm	0.003051	1.54	711.307000	Y 377.433
Mn (257.610 nm)	0.010384	ppm	0.000007	0.07	2850.270000	Y 377.433
Mo (202.032 nm)	0.018380	ppm	0.000123	0.67	257.272000	Y 377.433
Na (589.592 nm)	1.110920	ppm	0.012037	1.08	934.863000	Y_R2 488.368
Na H (589.593 nm)	1.214296 u	ppm	0.022512	1.85	931.467816	Y_R4
Ni (231.604 nm)	0.040064	ppm	0.001344	3.35	212.543000	Y 377.433
P (213.618 nm)	2.687820	ppm	0.011888	0.44	4058.600000	Y 242.219
Pb (220.353 nm)	0.009045	ppm	0.000982	10.86	44.101000	Y 242.219
S (181.972 nm)	0.089705	ppm	0.005153	5.74	48.089184	Y 377.433
Sb (206.834 nm)	0.024091	ppm	0.001317	5.46	34.841600	Y 377.433
Se (196.026 nm)	0.014846	ppm	0.001038	6.99	34.695700	Y 242.219
Si (288.158 nm)	0.471902	ppm	0.002091	0.44	3620.850000	Y 377.433
Sn (189.925 nm)	0.095139	ppm	0.001581	1.66	168.179000	Y 377.433
Sr (421.552 nm)	0.008781	ppm	0.000117	1.34	1332.177660	Y_R 488.368
Th (288.505 nm)	0.012245	ppm	0.000492	4.02	35.452700	Y 377.433
Ti (336.122 nm)	0.009830	ppm	0.000012	0.13	773.084000	Y 377.433
Tl (190.794 nm)	0.014707	ppm	0.000426	2.90	35.630300	Y 377.433
U (409.013 nm)	0.061854	ppm	0.006264	10.13	150.817000	Y 377.433
V (292.401 nm)	0.010145	ppm	0.000052	0.52	351.012000	Y 377.433
Zn (206.200 nm)	0.020965	ppm	0.000610	2.91	107.885000	Y 377.433
Zr (343.823 nm)	0.009758	ppm	0.000195	2.00	388.136000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.132484	25359.115972	0.002902	0.26
Y 377.433	1.128683	729271.597116	0.002474	0.22
Y_R 377.433	1.136130	62544.500000	0.000946	0.08
Y_R 488.368	1.130980	54656.800000	0.000522	0.05
Y_R2 488.368	1.100662	102014.252054	0.005483	0.50
Y_R4	1.127830	48293.200000	0.006331	0.56

Sample Name: 280-123846-a-5-a

Date: 5/24/2019 5:27:42 AM Rack:Tube: 2:71

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000851	ppm	0.000145	17.07	-217.054000	Y 377.433
Al (394.401 nm)	0.481261	ppm	0.002832	0.59	5979.340000	Y 377.433
Al H (396.152 nm)	0.535121 u	ppm	0.000617	0.12	1005.160000	Y_R 377.433
As (188.980 nm)	0.001303	ppm	0.000253	19.39	0.655889	Y 242.219
B (249.678 nm)	0.002764	ppm	0.000172	6.21	54.582800	Y 242.219
Ba (493.408 nm)	0.021168	ppm	0.000359	1.69	3486.060000	Y_R 488.368
Be (234.861 nm)	0.000629	ppm	0.000077	12.18	40.432500	Y_R 488.368
Bi (223.061 nm)	0.000579	ppm	0.000635	> 100.00	-13.473500	Y 377.433
Ca (315.887 nm)	96.594759	ppm	0.012812	0.01	77922.852917	Y_R 377.433
Cd (214.439 nm)	0.015467	ppm	0.000031	0.20	612.813000	Y 377.433
Co (228.615 nm)	0.039127	ppm	0.000654	1.67	945.181000	Y 242.219
Cr (205.560 nm)	-0.000532 u	ppm	0.000619	> 100.00	-9.805540	Y 377.433
Cu (324.754 nm)	0.696166	ppm	0.002147	0.31	32683.000000	Y 377.433
Fe (238.204 nm)	3.973097	ppm	0.021193	0.53	9795.656131	Y_R 377.433
Fe H (259.940 nm)	3.929400 u	ppm	0.011041	0.28	5585.020000	Y_R 377.433
K (766.491 nm)	1.173610	ppm	0.015803	1.35	3146.430000	Y_R2 488.368
Li (670.783 nm)	0.017326	ppm	0.000598	3.45	-2329.760000	Y_R2 488.368
Mg (279.078 nm)	31.555000	ppm	0.010033	0.03	111810.000000	Y 377.433
Mn (257.610 nm)	3.499130	ppm	0.001573	0.04	967838.000000	Y 377.433
Mo (202.032 nm)	-0.000427 u	ppm	0.000113	26.52	17.960400	Y 377.433
Na (589.592 nm)	6.261720	ppm	0.005864	0.09	4753.110000	Y_R2 488.368
Na H (589.593 nm)	6.392216 u	ppm	0.056237	0.88	3506.662164	Y_R4
Ni (231.604 nm)	0.023938	ppm	0.000763	3.19	122.413000	Y 377.433
P (213.618 nm)	0.075635	ppm	0.004564	6.03	-63.473900	Y 242.219
Pb (220.353 nm)	0.000867 u	ppm	0.001498	> 100.00	15.971900	Y 242.219
S (181.972 nm)	118.314871 bo	ppm	0.260401	0.22	53171.705649	Y 377.433
Sb (206.834 nm)	-0.000530 u	ppm	0.002217	> 100.00	-8.127400	Y 377.433
Se (196.026 nm)	0.000343 u	ppm	0.001995	> 100.00	15.204600	Y 242.219
Si (288.158 nm)	5.155340	ppm	0.010575	0.21	34514.300000	Y 377.433
Sn (189.925 nm)	-0.000017 u	ppm	0.000947	> 100.00	2.206620	Y 377.433
Sr (421.552 nm)	0.380144	ppm	0.001007	0.27	55644.457541	Y_R 488.368
Th (288.505 nm)	-0.026956 u	ppm	0.007962	29.54	33.901200	Y 377.433
Ti (336.122 nm)	-0.000120 u	ppm	0.000172	> 100.00	-192.086000	Y 377.433
Tl (190.794 nm)	0.002609	ppm	0.000629	24.10	2.121150	Y 377.433
U (409.013 nm)	0.051695	ppm	0.001666	3.22	110.554000	Y 377.433
V (292.401 nm)	0.001004	ppm	0.000065	6.44	-128.547000	Y 377.433
Zn (206.200 nm)	2.622120	ppm	0.000810	0.03	13018.400000	Y 377.433
Zr (343.823 nm)	0.000621	ppm	0.000027	4.30	-138.723000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115122	24970.338646	0.004671	0.42
Y 377.433	1.116851	721626.655956	0.004748	0.43
Y_R 377.433	1.131180	62272.000000	0.000434	0.04
Y_R 488.368	1.126290	54430.100000	0.000474	0.04
Y_R2 488.368	1.102197	102156.570654	0.001106	0.10
Y_R4	1.124140	48135.300000	0.005648	0.50

Sample Name: 280-123846-a-6-o

Date: 5/24/2019 5:31:19 AM Rack:Tube: 2:72

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002657	ppm	0.000119	4.50	-154.644000	Y 377.433
Al (394.401 nm)	3.172120 o	ppm	0.001633	0.05	38226.000000	Y 377.433
Al H (396.152 nm)	3.186260	ppm	0.001577	0.05	6635.570000	Y_R 377.433
As (188.980 nm)	0.027320	ppm	0.001522	5.57	39.485300	Y 242.219
B (249.678 nm)	0.007758	ppm	0.000040	0.51	37.206700	Y 242.219
Ba (493.408 nm)	0.020553	ppm	0.000115	0.56	3497.460000	Y_R 488.368
Be (234.861 nm)	0.001182	ppm	0.000067	5.69	-300.830000	Y_R 488.368
Bi (223.061 nm)	0.002906	ppm	0.001979	68.09	8.338770	Y 377.433
Ca (315.887 nm)	152.498431	ppm	0.086856	0.06	123056.759352	Y_R 377.433
Cd (214.439 nm)	0.026399	ppm	0.000005	0.02	1090.530000	Y 377.433
Co (228.615 nm)	0.094263	ppm	0.000950	1.01	2309.180000	Y 242.219
Cr (205.560 nm)	0.004241	ppm	0.000007	0.16	23.841400	Y 377.433
Cu (324.754 nm)	1.519630	ppm	0.005713	0.38	70904.600000	Y 377.433
Fe (238.204 nm)	95.254922 o	ppm	0.065293	0.07	234783.223069	Y_R 377.433
Fe H (259.940 nm)	95.833600	ppm	0.053184	0.06	134090.000000	Y_R 377.433
K (766.491 nm)	2.313620	ppm	0.000551	0.02	4277.920000	Y_R2 488.368
Li (670.783 nm)	0.025543	ppm	0.000145	0.57	-2186.670000	Y_R2 488.368
Mg (279.078 nm)	49.042300	ppm	0.185855	0.38	173640.000000	Y 377.433
Mn (257.610 nm)	11.004400	ppm	0.005385	0.05	3043800.000000	Y 377.433
Mo (202.032 nm)	0.006925	ppm	0.000010	0.15	111.511000	Y 377.433
Na (589.592 nm)	7.799380	ppm	0.104304	1.34	5892.070000	Y_R2 488.368
Na H (589.593 nm)	7.854414 u	ppm	0.039629	0.50	4233.874329	Y_R4
Ni (231.604 nm)	0.055851	ppm	0.000247	0.44	300.771000	Y 377.433
P (213.618 nm)	0.279001	ppm	0.001153	0.41	41.083700	Y 242.219
Pb (220.353 nm)	0.107725	ppm	0.000711	0.66	382.717000	Y 242.219
S (181.972 nm)	231.264328 bo	ppm	0.332659	0.14	103935.800325	Y 377.433
Sb (206.834 nm)	0.003841	ppm	0.000566	14.74	7.572680	Y 377.433
Se (196.026 nm)	0.005258	ppm	0.001332	25.33	8.856620	Y 242.219
Si (288.158 nm)	10.268600	ppm	0.026089	0.25	68242.700000	Y 377.433
Sn (189.925 nm)	0.000583	ppm	0.000045	7.78	3.252420	Y 377.433
Sr (421.552 nm)	0.848134	ppm	0.000638	0.08	124101.210402	Y_R 488.368
Th (288.505 nm)	-0.040546 u	ppm	0.001794	4.42	149.041000	Y 377.433
Ti (336.122 nm)	0.020911	ppm	0.000805	3.85	2732.490000	Y 377.433
Tl (190.794 nm)	0.007226	ppm	0.001525	21.11	-0.562648	Y 377.433
U (409.013 nm)	0.087575	ppm	0.000083	0.09	282.332000	Y 377.433
V (292.401 nm)	0.003267	ppm	0.000124	3.79	-1.859030	Y 377.433
Zn (206.200 nm)	5.025470	ppm	0.014534	0.29	24960.700000	Y 377.433
Zr (343.823 nm)	0.002016	ppm	0.000095	4.69	-58.248800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093959	24496.445598	0.006359	0.58
Y 377.433	1.104836	713863.779269	0.010727	0.97
Y_R 377.433	1.131430	62285.500000	0.002495	0.22
Y_R 488.368	1.127600	54493.600000	0.000970	0.09
Y_R2 488.368	1.098246	101790.377243	0.005667	0.52
Y_R4	1.129720	48373.900000	0.002686	0.24

Sample Name: 280-123846-a-7-a

Date: 5/24/2019 5:35:01 AM Rack:Tube: 2:73

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000135 u	ppm	0.000128	95.25	-250.597000	Y 377.433
Al (394.401 nm)	0.001848	ppm	0.001156	62.56	150.864000	Y 377.433
Al H (396.152 nm)	0.132653 u	ppm	0.004296	3.24	47.735200	Y_R 377.433
As (188.980 nm)	0.000159 u	ppm	0.000877	> 100.00	-1.052740	Y 242.219
B (249.678 nm)	0.001205	ppm	0.001633	> 100.00	45.701900	Y 242.219
Ba (493.408 nm)	-0.001864 u	ppm	0.000461	24.73	1252.060000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000046	> 100.00	-6.170700	Y_R 488.368
Bi (223.061 nm)	0.001477	ppm	0.000222	15.02	-12.141900	Y 377.433
Ca (315.887 nm)	0.084961	ppm	0.003249	3.82	6.617282	Y_R 377.433
Cd (214.439 nm)	0.000017 u	ppm	0.000112	> 100.00	-7.114770	Y 377.433
Co (228.615 nm)	0.000173	ppm	0.000157	90.83	-17.876800	Y 242.219
Cr (205.560 nm)	0.000624	ppm	0.000410	65.64	-1.540940	Y 377.433
Cu (324.754 nm)	0.000133 u	ppm	0.000386	> 100.00	418.608000	Y 377.433
Fe (238.204 nm)	0.030181	ppm	0.001566	5.19	77.323777	Y_R 377.433
Fe H (259.940 nm)	-0.025133 u	ppm	0.004333	17.24	55.607700	Y_R 377.433
K (766.491 nm)	-0.155409 u	ppm	0.122292	78.69	1827.340000	Y_R2 488.368
Li (670.783 nm)	0.013763	ppm	0.003282	23.85	-2391.810000	Y_R2 488.368
Mg (279.078 nm)	0.009596	ppm	0.000196	2.04	45.830600	Y 377.433
Mn (257.610 nm)	0.000959	ppm	0.000146	15.20	243.243000	Y 377.433
Mo (202.032 nm)	-0.001426 u	ppm	0.000122	8.55	5.241930	Y 377.433
Na (589.592 nm)	0.057795	ppm	0.033015	57.13	152.829000	Y_R2 488.368
Na H (589.593 nm)	0.058675 u	ppm	0.025927	44.19	356.729356	Y_R4
Ni (231.604 nm)	-0.000116 u	ppm	0.000883	> 100.00	-12.014700	Y 377.433
P (213.618 nm)	0.001117	ppm	0.000500	44.78	-2.874340	Y 242.219
Pb (220.353 nm)	-0.001092 u	ppm	0.000207	19.00	9.155040	Y 242.219
S (181.972 nm)	0.022323	ppm	0.006394	28.64	17.787640	Y 377.433
Sb (206.834 nm)	0.002495	ppm	0.001804	72.30	-3.126080	Y 377.433
Se (196.026 nm)	-0.001084 u	ppm	0.002369	> 100.00	8.807570	Y 242.219
Si (288.158 nm)	0.006132	ppm	0.002493	40.66	548.489000	Y 377.433
Sn (189.925 nm)	-0.000154 u	ppm	0.000914	> 100.00	1.968160	Y 377.433
Sr (421.552 nm)	0.000027 u	ppm	0.000061	> 100.00	51.841539	Y_R 488.368
Th (288.505 nm)	0.002349 u	ppm	0.004762	> 100.00	18.639000	Y 377.433
Ti (336.122 nm)	0.000563	ppm	0.000186	32.96	-432.342000	Y 377.433
Tl (190.794 nm)	0.000714	ppm	0.000082	11.46	1.846940	Y 377.433
U (409.013 nm)	0.000713 u	ppm	0.003777	> 100.00	-39.546100	Y 377.433
V (292.401 nm)	0.000389	ppm	0.000217	55.76	-159.325000	Y 377.433
Zn (206.200 nm)	0.003675	ppm	0.000363	9.88	22.059600	Y 377.433
Zr (343.823 nm)	0.000418	ppm	0.000047	11.26	-150.396000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.123867	25166.149664	0.001673	0.15
Y 377.433	1.120646	724078.870392	0.000594	0.05
Y_R 377.433	1.123170	61831.000000	0.003454	0.31
Y_R 488.368	1.122190	54232.200000	0.004696	0.42
Y_R2 488.368	1.102340	102169.805431	0.004673	0.42
Y_R4	1.120270	47969.300000	0.007660	0.68

Sample Name: 280-123846-a-8-a

Date: 5/24/2019 5:38:11 AM Rack:Tube: 2:74

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000551	ppm	0.000233	42.24	-227.081000	Y 377.433
Al (394.401 nm)	0.009114	ppm	0.001253	13.74	303.148000	Y 377.433
Al H (396.152 nm)	0.089569 u	ppm	0.003302	3.69	42.560800	Y_R 377.433
As (188.980 nm)	-0.000889 u	ppm	0.001279	> 100.00	-2.799020	Y 242.219
B (249.678 nm)	0.002414	ppm	0.000427	17.68	52.818900	Y 242.219
Ba (493.408 nm)	0.173357	ppm	0.000592	0.34	18226.500000	Y_R 488.368
Be (234.861 nm)	0.000021 u	ppm	0.000043	> 100.00	-15.308700	Y_R 488.368
Bi (223.061 nm)	0.000997	ppm	0.000323	32.39	-12.752200	Y 377.433
Ca (315.887 nm)	44.060140	ppm	0.055923	0.13	35509.485338	Y_R 377.433
Cd (214.439 nm)	0.000160	ppm	0.000060	37.30	-0.195832	Y 377.433
Co (228.615 nm)	0.001352	ppm	0.000527	38.97	11.279900	Y 242.219
Cr (205.560 nm)	-0.000331 u	ppm	0.000593	> 100.00	-8.315270	Y 377.433
Cu (324.754 nm)	-0.000352 u	ppm	0.000314	89.29	368.232000	Y 377.433
Fe (238.204 nm)	2.697102	ppm	0.005839	0.22	6650.635958	Y_R 377.433
Fe H (259.940 nm)	2.653890 u	ppm	0.004431	0.17	3801.550000	Y_R 377.433
K (766.491 nm)	1.262380	ppm	0.002879	0.23	3234.540000	Y_R2 488.368
Li (670.783 nm)	0.013253	ppm	0.000372	2.81	-2400.690000	Y_R2 488.368
Mg (279.078 nm)	15.404700	ppm	0.018294	0.12	54588.900000	Y 377.433
Mn (257.610 nm)	0.786380	ppm	0.000315	0.04	217491.000000	Y 377.433
Mo (202.032 nm)	0.000248	ppm	0.000303	> 100.00	26.547300	Y 377.433
Na (589.592 nm)	13.548600	ppm	0.049522	0.37	10181.900000	Y_R2 488.368
Na H (589.593 nm)	14.099627 u	ppm	0.123593	0.88	7339.877671	Y_R4
Ni (231.604 nm)	-0.002179 u	ppm	0.000329	15.09	-23.540700	Y 377.433
P (213.618 nm)	0.025766	ppm	0.000052	0.20	34.372600	Y 242.219
Pb (220.353 nm)	-0.001704 u	ppm	0.002315	> 100.00	7.127600	Y 242.219
S (181.972 nm)	5.338794	ppm	0.008351	0.16	2410.509046	Y 377.433
Sb (206.834 nm)	0.001349 u	ppm	0.001991	> 100.00	-4.931350	Y 377.433
Se (196.026 nm)	-0.001385 u	ppm	0.001905	> 100.00	8.736810	Y 242.219
Si (288.158 nm)	7.120750	ppm	0.020112	0.28	47478.700000	Y 377.433
Sn (189.925 nm)	-0.001106 u	ppm	0.000314	28.40	0.307355	Y 377.433
Sr (421.552 nm)	0.237837	ppm	0.000261	0.11	34831.933749	Y_R 488.368
Th (288.505 nm)	-0.012865 u	ppm	0.000021	0.16	6.308010	Y 377.433
Ti (336.122 nm)	0.000317	ppm	0.000014	4.52	-315.075000	Y 377.433
Tl (190.794 nm)	0.002257	ppm	0.001315	58.27	3.413730	Y 377.433
U (409.013 nm)	0.022113	ppm	0.003087	13.96	23.757000	Y 377.433
V (292.401 nm)	0.001131	ppm	0.000069	6.11	-122.164000	Y 377.433
Zn (206.200 nm)	0.004203	ppm	0.000112	2.67	25.090700	Y 377.433
Zr (343.823 nm)	0.000566	ppm	0.000063	11.16	-141.896000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.111186	24882.202298	0.001550	0.14
Y 377.433	1.110538	717547.795985	0.001953	0.18
Y_R 377.433	1.128800	62140.700000	0.003089	0.27
Y_R 488.368	1.127520	54489.800000	0.004406	0.39
Y_R2 488.368	1.102569	102191.020666	0.002808	0.25
Y_R4	1.127690	48287.100000	0.005218	0.46

Sample Name: 280-123846-a-9-a

Date: 5/24/2019 5:41:47 AM Rack:Tube: 2:75

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004166	ppm	0.000240	5.76	-100.746000	Y 377.433
Al (394.401 nm)	1.715090	ppm	0.002280	0.13	20676.900000	Y 377.433
Al H (396.152 nm)	1.884790	ppm	0.011937	0.63	3731.910000	Y_R 377.433
As (188.980 nm)	0.027161	ppm	0.001963	7.23	41.190800	Y 242.219
B (249.678 nm)	0.001576	ppm	0.001928	> 100.00	32.556900	Y 242.219
Ba (493.408 nm)	0.032873	ppm	0.000330	1.00	4637.940000	Y_R 488.368
Be (234.861 nm)	0.000204	ppm	0.000052	25.50	-103.331000	Y_R 488.368
Bi (223.061 nm)	0.005293	ppm	0.002250	42.50	1.474420	Y 377.433
Ca (315.887 nm)	42.063769	ppm	0.118073	0.28	33898.194823	Y_R 377.433
Cd (214.439 nm)	0.011334	ppm	0.000037	0.33	457.696000	Y 377.433
Co (228.615 nm)	0.021583	ppm	0.000738	3.42	511.979000	Y 242.219
Cr (205.560 nm)	0.000679	ppm	0.000704	> 100.00	-1.325570	Y 377.433
Cu (324.754 nm)	0.682201	ppm	0.005718	0.84	32066.300000	Y 377.433
Fe (238.204 nm)	27.155842 o	ppm	0.047233	0.17	66935.501686	Y_R 377.433
Fe H (259.940 nm)	27.283000	ppm	0.035577	0.13	38239.100000	Y_R 377.433
K (766.491 nm)	2.854830	ppm	0.004089	0.14	4815.090000	Y_R2 488.368
Li (670.783 nm)	0.019955	ppm	0.004069	20.39	-2283.970000	Y_R2 488.368
Mg (279.078 nm)	11.519500	ppm	0.012970	0.11	40787.500000	Y 377.433
Mn (257.610 nm)	2.822190	ppm	0.001716	0.06	780597.000000	Y 377.433
Mo (202.032 nm)	0.018509	ppm	0.000140	0.76	258.910000	Y 377.433
Na (589.592 nm)	7.227640	ppm	0.082958	1.15	5470.940000	Y_R2 488.368
Na H (589.593 nm)	7.167876 u	ppm	0.000714	0.01	3892.430446	Y_R4
Ni (231.604 nm)	0.011279	ppm	0.000189	1.67	51.667100	Y 377.433
P (213.618 nm)	0.161131	ppm	0.005165	3.21	69.463000	Y 242.219
Pb (220.353 nm)	0.635541	ppm	0.002643	0.42	2196.840000	Y 242.219
S (181.972 nm)	57.228648	ppm	0.108517	0.19	25726.279049	Y 377.433
Sb (206.834 nm)	0.004969	ppm	0.000935	18.82	3.456020	Y 377.433
Se (196.026 nm)	-0.002544 u	ppm	0.000252	9.89	3.047820	Y 242.219
Si (288.158 nm)	10.997600	ppm	0.081456	0.74	73051.400000	Y 377.433
Sn (189.925 nm)	0.000516 u	ppm	0.001237	> 100.00	3.135890	Y 377.433
Sr (421.552 nm)	0.209528	ppm	0.000160	0.08	30695.321018	Y_R 488.368
Th (288.505 nm)	-0.012203 u	ppm	0.005021	41.15	45.620500	Y 377.433
Ti (336.122 nm)	0.013988	ppm	0.000091	0.65	1455.900000	Y 377.433
Tl (190.794 nm)	0.002632	ppm	0.000362	13.77	1.240030	Y 377.433
U (409.013 nm)	0.059931	ppm	0.006402	10.68	160.323000	Y 377.433
V (292.401 nm)	0.002338	ppm	0.000030	1.28	-58.577700	Y 377.433
Zn (206.200 nm)	2.246080	ppm	0.003130	0.14	11155.700000	Y 377.433
Zr (343.823 nm)	0.001185	ppm	0.000068	5.73	-106.204000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122839	25143.137713	0.001962	0.17
Y 377.433	1.127625	728587.875865	0.001656	0.15
Y_R 377.433	1.136580	62569.000000	0.003277	0.29
Y_R 488.368	1.131960	54704.100000	0.003077	0.27
Y_R2 488.368	1.115598	103398.589788	0.000950	0.09
Y_R4	1.130450	48405.200000	0.001952	0.17

Sample Name: mb 280-459138/1-a

Date: 5/24/2019 5:45:29 AM Rack:Tube: 2:76

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000297	ppm	0.000340	> 100.00	-235.577000	Y 377.433
Al (394.401 nm)	-0.002263 u	ppm	0.000701	31.00	105.083000	Y 377.433
Al H (396.152 nm)	0.135093 u	ppm	0.012276	9.09	52.814800	Y_R 377.433
As (188.980 nm)	-0.000743 u	ppm	0.000721	97.04	-2.490440	Y 242.219
B (249.678 nm)	-0.003248 u	ppm	0.000348	10.70	13.796500	Y 242.219
Ba (493.408 nm)	-0.001965 u	ppm	0.000183	9.30	1242.270000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000038	68.41	-11.416300	Y_R 488.368
Bi (223.061 nm)	0.001125	ppm	0.000736	65.38	-12.945700	Y 377.433
Ca (315.887 nm)	0.009830	ppm	0.000573	5.83	-54.035228	Y_R 377.433
Cd (214.439 nm)	0.000092	ppm	0.000013	14.53	-4.109070	Y 377.433
Co (228.615 nm)	0.000089	ppm	0.000035	39.52	-19.954300	Y 242.219
Cr (205.560 nm)	-0.000216 u	ppm	0.000467	> 100.00	-7.499120	Y 377.433
Cu (324.754 nm)	-0.000077 u	ppm	0.000088	> 100.00	407.234000	Y 377.433
Fe (238.204 nm)	0.018127	ppm	0.001955	10.78	47.611607	Y_R 377.433
Fe H (259.940 nm)	-0.033093 u	ppm	0.004635	14.00	44.477900	Y_R 377.433
K (766.491 nm)	-0.120807 u	ppm	0.075107	62.17	1861.690000	Y_R2 488.368
Li (670.783 nm)	0.013631	ppm	0.001199	8.80	-2394.110000	Y_R2 488.368
Mg (279.078 nm)	0.002783	ppm	0.001156	41.54	21.374500	Y 377.433
Mn (257.610 nm)	0.000417	ppm	0.000042	10.18	93.435900	Y 377.433
Mo (202.032 nm)	-0.000648 u	ppm	0.000004	0.60	15.138000	Y 377.433
Na (589.592 nm)	0.034694	ppm	0.002529	7.29	135.655000	Y_R2 488.368
Na H (589.593 nm)	-0.037463 u	ppm	0.006711	17.91	308.915997	Y_R4
Ni (231.604 nm)	-0.001103 u	ppm	0.000166	15.09	-17.532500	Y 377.433
P (213.618 nm)	-0.000786 u	ppm	0.002347	> 100.00	-5.666220	Y 242.219
Pb (220.353 nm)	-0.000886 u	ppm	0.002161	> 100.00	9.908420	Y 242.219
S (181.972 nm)	0.007760	ppm	0.002705	34.86	11.242171	Y 377.433
Sb (206.834 nm)	0.005910	ppm	0.002258	38.21	2.894660	Y 377.433
Se (196.026 nm)	0.000852 u	ppm	0.001239	> 100.00	11.956900	Y 242.219
Si (288.158 nm)	-0.002323 u	ppm	0.000007	0.32	492.721000	Y 377.433
Sn (189.925 nm)	-0.000310 u	ppm	0.000937	> 100.00	1.696400	Y 377.433
Sr (421.552 nm)	0.000003 u	ppm	0.000086	> 100.00	48.325761	Y_R 488.368
Th (288.505 nm)	0.000883	ppm	0.000999	> 100.00	16.187500	Y 377.433
Ti (336.122 nm)	0.000457	ppm	0.000057	12.42	-446.298000	Y 377.433
Tl (190.794 nm)	0.000451 u	ppm	0.001013	> 100.00	1.207080	Y 377.433
U (409.013 nm)	0.008113	ppm	0.000040	0.50	-16.361800	Y 377.433
V (292.401 nm)	0.000541	ppm	0.000001	0.13	-152.469000	Y 377.433
Zn (206.200 nm)	0.002005	ppm	0.000723	36.05	13.771300	Y 377.433
Zr (343.823 nm)	0.000474	ppm	0.000108	22.78	-147.189000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125892	25211.511740	0.002865	0.25
Y 377.433	1.123657	726024.199940	0.003387	0.30
Y_R 377.433	1.128600	62129.700000	0.002399	0.21
Y_R 488.368	1.126190	54425.500000	0.002992	0.27
Y_R2 488.368	1.108426	102733.903220	0.001952	0.18
Y_R4	1.121260	48011.700000	0.006574	0.59

Sample Name: lcs 280-459138/2-a

Date: 5/24/2019 5:48:38 AM Rack:Tube: 2:77

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000276	ppm	0.000045	16.44	-545.278000	Y 377.433
Al (394.401 nm)	9.731130 o	ppm	0.007845	0.08	116649.000000	Y 377.433
Al H (396.152 nm)	9.794290	ppm	0.025219	0.26	20413.700000	Y_R 377.433
As (188.980 nm)	1.952130	ppm	0.002056	0.11	3108.910000	Y 242.219
B (249.678 nm)	0.960050	ppm	0.000878	0.09	6912.190000	Y 242.219
Ba (493.408 nm)	1.949920	ppm	0.004582	0.23	190315.000000	Y_R 488.368
Be (234.861 nm)	0.968205	ppm	0.001118	0.12	97573.900000	Y_R 488.368
Bi (223.061 nm)	1.878420	ppm	0.007145	0.38	4270.820000	Y 377.433
Ca (315.887 nm)	48.458731	ppm	0.005068	0.01	39063.156110	Y_R 377.433
Cd (214.439 nm)	0.965652	ppm	0.002700	0.28	38633.400000	Y 377.433
Co (228.615 nm)	0.951444	ppm	0.001278	0.13	23546.800000	Y 242.219
Cr (205.560 nm)	0.963351	ppm	0.001997	0.21	6813.080000	Y 377.433
Cu (324.754 nm)	0.952311	ppm	0.002005	0.21	44688.300000	Y 377.433
Fe (238.204 nm)	9.789470 o	ppm	0.021851	0.22	24131.603215	Y_R 377.433
Fe H (259.940 nm)	9.812240	ppm	0.012010	0.12	13810.700000	Y_R 377.433
K (766.491 nm)	48.331500	ppm	0.030343	0.06	49952.100000	Y_R2 488.368
Li (670.783 nm)	0.974793	ppm	0.000624	0.06	14343.200000	Y_R2 488.368
Mg (279.078 nm)	48.520100	ppm	0.109227	0.23	171881.000000	Y 377.433
Mn (257.610 nm)	0.979346	ppm	0.001619	0.17	270865.000000	Y 377.433
Mo (202.032 nm)	0.989117	ppm	0.001231	0.12	12609.500000	Y 377.433
Na (589.592 nm)	46.307600	ppm	0.091637	0.20	34812.100000	Y_R2 488.368
Na H (589.593 nm)	50.933998	ppm	0.229037	0.45	25659.139791	Y_R4
Ni (231.604 nm)	0.946301	ppm	0.001861	0.20	5279.410000	Y 377.433
P (213.618 nm)	19.484700	ppm	0.014343	0.07	29208.300000	Y 242.219
Pb (220.353 nm)	0.970469	ppm	0.001513	0.16	3345.290000	Y 242.219
S (181.972 nm)	9.758691	ppm	0.007714	0.08	4396.800513	Y 377.433
Sb (206.834 nm)	0.005384	ppm	0.001448	26.89	-2.911560	Y 377.433
Se (196.026 nm)	1.911770	ppm	0.007117	0.37	3116.470000	Y 242.219
Si (288.158 nm)	1.973570	ppm	0.003102	0.16	13526.300000	Y 377.433
Sn (189.925 nm)	1.922350	ppm	0.001988	0.10	3355.220000	Y 377.433
Sr (421.552 nm)	0.977390	ppm	0.001308	0.13	142992.367879	Y_R 488.368
Th (288.505 nm)	0.998931	ppm	0.000686	0.07	1665.780000	Y 377.433
Ti (336.122 nm)	0.979773	ppm	0.000840	0.09	127054.000000	Y 377.433
Tl (190.794 nm)	1.934960	ppm	0.004366	0.23	4678.550000	Y 377.433
U (409.013 nm)	1.933700	ppm	0.003016	0.16	5957.840000	Y 377.433
V (292.401 nm)	0.970137	ppm	0.001760	0.18	50988.100000	Y 377.433
Zn (206.200 nm)	0.478587	ppm	0.001813	0.38	2380.630000	Y 377.433
Zr (343.823 nm)	0.485302	ppm	0.000428	0.09	27808.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.082182	24232.732648	0.002990	0.28
Y 377.433	1.088186	703105.439466	0.004555	0.42
Y_R 377.433	1.113280	61286.700000	0.001948	0.17
Y_R 488.368	1.110810	53682.000000	0.000804	0.07
Y_R2 488.368	1.091626	101176.718660	0.000100	0.01
Y_R4	1.109960	47527.900000	0.008099	0.73

Sample Name: 280-123862-a-1-a

Date: 5/24/2019 5:52:16 AM Rack:Tube: 2:78

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000029	ppm	0.000027	92.56	-245.659000	Y 377.433
Al (394.401 nm)	0.682825	ppm	0.003211	0.47	8308.240000	Y 377.433
Al H (396.152 nm)	0.826003 u	ppm	0.003330	0.40	1504.220000	Y_R 377.433
As (188.980 nm)	0.003009	ppm	0.000968	32.18	3.456980	Y 242.219
B (249.678 nm)	0.010586	ppm	0.000814	7.69	112.289000	Y 242.219
Ba (493.408 nm)	0.050972	ppm	0.000165	0.32	6370.830000	Y_R 488.368
Be (234.861 nm)	0.000037	ppm	0.000009	23.69	-6.948780	Y_R 488.368
Bi (223.061 nm)	0.002428	ppm	0.001574	64.84	-9.770600	Y 377.433
Ca (315.887 nm)	6.179378	ppm	0.013836	0.22	4927.054226	Y_R 377.433
Cd (214.439 nm)	0.000038 u	ppm	0.000060	> 100.00	-5.777100	Y 377.433
Co (228.615 nm)	0.000504	ppm	0.000339	67.20	-9.288360	Y 242.219
Cr (205.560 nm)	0.002046	ppm	0.000049	2.37	8.506320	Y 377.433
Cu (324.754 nm)	0.004440	ppm	0.000120	2.71	613.714000	Y 377.433
Fe (238.204 nm)	1.141340	ppm	0.006393	0.56	2816.060537	Y_R 377.433
Fe H (259.940 nm)	1.104200 u	ppm	0.014294	1.29	1634.690000	Y_R 377.433
K (766.491 nm)	0.852814	ppm	0.014574	1.71	2828.030000	Y_R2 488.368
Li (670.783 nm)	0.014997	ppm	0.002973	19.82	-2370.320000	Y_R2 488.368
Mg (279.078 nm)	1.491770	ppm	0.000737	0.05	5295.560000	Y 377.433
Mn (257.610 nm)	0.020592	ppm	0.000007	0.03	5673.790000	Y 377.433
Mo (202.032 nm)	-0.000254 u	ppm	0.000597	> 100.00	20.158300	Y 377.433
Na (589.592 nm)	4.550600	ppm	0.058554	1.29	3491.580000	Y_R2 488.368
Na H (589.593 nm)	4.715887 u	ppm	0.002835	0.06	2672.954172	Y_R4
Ni (231.604 nm)	0.001143	ppm	0.001150	> 100.00	-4.976110	Y 377.433
P (213.618 nm)	0.029866	ppm	0.002249	7.53	39.662800	Y 242.219
Pb (220.353 nm)	0.000416	ppm	0.000134	32.14	14.237500	Y 242.219
S (181.972 nm)	1.390381	ppm	0.003553	0.26	632.683265	Y 377.433
Sb (206.834 nm)	0.005825	ppm	0.002746	47.14	2.813310	Y 377.433
Se (196.026 nm)	-0.001408 u	ppm	0.000058	4.09	8.001050	Y 242.219
Si (288.158 nm)	3.956180	ppm	0.012728	0.32	26604.300000	Y 377.433
Sn (189.925 nm)	0.000569	ppm	0.000304	53.45	3.229680	Y 377.433
Sr (421.552 nm)	0.073870	ppm	0.000361	0.49	10851.509094	Y_R 488.368
Th (288.505 nm)	-0.001756 u	ppm	0.001537	87.51	11.499300	Y 377.433
Ti (336.122 nm)	0.011018	ppm	0.000104	0.94	947.436000	Y 377.433
Tl (190.794 nm)	0.002813	ppm	0.001259	44.76	6.504920	Y 377.433
U (409.013 nm)	0.013452	ppm	0.002978	22.14	0.342890	Y 377.433
V (292.401 nm)	0.002849	ppm	0.000151	5.29	-30.046600	Y 377.433
Zn (206.200 nm)	0.006440	ppm	0.000352	5.46	35.953900	Y 377.433
Zr (343.823 nm)	0.000966	ppm	0.000161	16.68	-118.848000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130923	25324.164221	0.001073	0.09
Y 377.433	1.127725	728652.762269	0.000187	0.02
Y_R 377.433	1.138290	62663.400000	0.003865	0.34
Y_R 488.368	1.137960	54994.100000	0.003283	0.29
Y_R2 488.368	1.116074	103442.708781	0.006148	0.55
Y_R4	1.126370	48230.500000	0.005367	0.48

Sample Name: 280-123862-a-1-aSD@5

Date: 5/24/2019 5:55:48 AM Rack:Tube: 2:79

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000291	ppm	0.000106	36.28	-235.856000	Y 377.433
Al (394.401 nm)	0.199409	ppm	0.000864	0.43	2516.950000	Y 377.433
Al H (396.152 nm)	0.331397 u	ppm	0.004690	1.42	462.575000	Y_R 377.433
As (188.980 nm)	0.000987	ppm	0.001088	> 100.00	0.258032	Y 242.219
B (249.678 nm)	-0.000970 u	ppm	0.000543	55.98	29.956500	Y 242.219
Ba (493.408 nm)	0.008783	ppm	0.000164	1.87	2283.550000	Y_R 488.368
Be (234.861 nm)	-0.000027 u	ppm	0.000005	19.23	-9.763780	Y_R 488.368
Bi (223.061 nm)	0.001210 u	ppm	0.001723	> 100.00	-12.701400	Y 377.433
Ca (315.887 nm)	1.282059	ppm	0.006157	0.48	973.129998	Y_R 377.433
Cd (214.439 nm)	0.000127	ppm	0.000008	6.40	-2.572160	Y 377.433
Co (228.615 nm)	0.000415	ppm	0.000008	1.88	-11.691500	Y 242.219
Cr (205.560 nm)	-0.000040 u	ppm	0.000031	77.84	-6.254890	Y 377.433
Cu (324.754 nm)	0.000832	ppm	0.000126	15.19	448.946000	Y 377.433
Fe (238.204 nm)	0.304424	ppm	0.000002	0.00	753.266225	Y_R 377.433
Fe H (259.940 nm)	0.255659 u	ppm	0.000887	0.35	448.224000	Y_R 377.433
K (766.491 nm)	0.078451	ppm	0.034129	43.50	2059.460000	Y_R2 488.368
Li (670.783 nm)	0.012714	ppm	0.000236	1.86	-2410.070000	Y_R2 488.368
Mg (279.078 nm)	0.309154	ppm	0.001234	0.40	1106.730000	Y 377.433
Mn (257.610 nm)	0.004713	ppm	0.000023	0.49	1281.460000	Y 377.433
Mo (202.032 nm)	-0.000706 u	ppm	0.000085	12.06	14.403400	Y 377.433
Na (589.592 nm)	1.012900	ppm	0.027590	2.72	862.535000	Y_R2 488.368
Na H (589.593 nm)	0.899100 u	ppm	0.045584	5.07	774.707633	Y_R4
Ni (231.604 nm)	-0.000249 u	ppm	0.000961	> 100.00	-12.761200	Y 377.433
P (213.618 nm)	0.005091	ppm	0.002244	44.09	2.911300	Y 242.219
Pb (220.353 nm)	-0.001066 u	ppm	0.000443	41.55	9.216620	Y 242.219
S (181.972 nm)	0.282154	ppm	0.007286	2.58	134.573239	Y 377.433
Sb (206.834 nm)	0.004949	ppm	0.001000	20.20	1.200530	Y 377.433
Se (196.026 nm)	-0.001665 u	ppm	0.000023	1.39	7.792130	Y 242.219
Si (288.158 nm)	0.925787	ppm	0.001855	0.20	6614.820000	Y 377.433
Sn (189.925 nm)	0.000633	ppm	0.000503	79.49	3.339750	Y 377.433
Sr (421.552 nm)	0.014048	ppm	0.000029	0.20	2102.411899	Y_R 488.368
Th (288.505 nm)	-0.001711 u	ppm	0.003504	> 100.00	11.550000	Y 377.433
Ti (336.122 nm)	0.006335	ppm	0.000193	3.05	321.973000	Y 377.433
Tl (190.794 nm)	0.000186 u	ppm	0.001186	> 100.00	0.462959	Y 377.433
U (409.013 nm)	0.001909	ppm	0.001403	73.50	-35.752900	Y 377.433
V (292.401 nm)	0.001007	ppm	0.000034	3.39	-127.113000	Y 377.433
Zn (206.200 nm)	0.004981	ppm	0.000185	3.71	28.583700	Y 377.433
Zr (343.823 nm)	0.000773	ppm	0.000059	7.62	-129.927000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131815	25344.141588	0.000975	0.09
Y 377.433	1.126322	727746.381145	0.000315	0.03
Y_R 377.433	1.142930	62919.000000	0.001637	0.14
Y_R 488.368	1.140790	55131.000000	0.004331	0.38
Y_R2 488.368	1.113532	103207.087977	0.000359	0.03
Y_R4	1.134850	48593.800000	0.010781	0.95

Sample Name: 280-123862-a-1-b ms

Date: 5/24/2019 5:59:18 AM
Rack:Tube: 2:80

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000134 u	ppm	0.000719	> 100.00	-562.692000	Y 377.433
Al (394.401 nm)	11.143900 o	ppm	0.008127	0.07	133553.000000	Y 377.433
Al H (396.152 nm)	11.154500	ppm	0.005256	0.05	23251.100000	Y_R 377.433
As (188.980 nm)	1.989510	ppm	0.008049	0.40	3168.430000	Y 242.219
B (249.678 nm)	0.996200	ppm	0.000449	0.05	7170.500000	Y 242.219
Ba (493.408 nm)	2.032830	ppm	0.000384	0.02	198347.000000	Y_R 488.368
Be (234.861 nm)	0.987472	ppm	0.002008	0.20	99510.700000	Y_R 488.368
Bi (223.061 nm)	1.905270	ppm	0.004577	0.24	4332.330000	Y 377.433
Ca (315.887 nm)	55.268046	ppm	0.035109	0.06	44560.928428	Y_R 377.433
Cd (214.439 nm)	0.977115	ppm	0.000802	0.08	39092.600000	Y 377.433
Co (228.615 nm)	0.970588	ppm	0.001527	0.16	24021.200000	Y 242.219
Cr (205.560 nm)	0.987266	ppm	0.005483	0.56	6982.410000	Y 377.433
Cu (324.754 nm)	0.974551	ppm	0.005772	0.59	45716.700000	Y 377.433
Fe (238.204 nm)	11.146521 o	ppm	0.009748	0.09	27476.405314	Y_R 377.433
Fe H (259.940 nm)	11.158000	ppm	0.011700	0.10	15692.400000	Y_R 377.433
K (766.491 nm)	50.023900	ppm	0.043533	0.09	51631.800000	Y_R2 488.368
Li (670.783 nm)	0.986639	ppm	0.001364	0.14	14549.500000	Y_R2 488.368
Mg (279.078 nm)	50.834200	ppm	0.080282	0.16	180077.000000	Y 377.433
Mn (257.610 nm)	1.011770	ppm	0.000720	0.07	279834.000000	Y 377.433
Mo (202.032 nm)	1.001760	ppm	0.001942	0.19	12770.400000	Y 377.433
Na (589.592 nm)	51.424300	ppm	0.005239	0.01	38619.400000	Y_R2 488.368
Na H (589.593 nm)	56.531949	ppm	0.088437	0.16	28443.233574	Y_R4
Ni (231.604 nm)	0.965613	ppm	0.002537	0.26	5387.350000	Y 377.433
P (213.618 nm)	19.829800	ppm	0.022097	0.11	29724.400000	Y 242.219
Pb (220.353 nm)	0.984227	ppm	0.001929	0.20	3392.300000	Y 242.219
S (181.972 nm)	11.420946	ppm	0.047051	0.41	5143.928753	Y 377.433
Sb (206.834 nm)	0.005791	ppm	0.002283	39.42	-2.052000	Y 377.433
Se (196.026 nm)	1.944090	ppm	0.010936	0.56	3168.670000	Y 242.219
Si (288.158 nm)	7.128320	ppm	0.036897	0.52	47528.700000	Y 377.433
Sn (189.925 nm)	1.955100	ppm	0.002827	0.14	3412.350000	Y 377.433
Sr (421.552 nm)	1.066923	ppm	0.000210	0.02	156086.707939	Y_R 488.368
Th (288.505 nm)	1.004940	ppm	0.001440	0.14	1674.840000	Y 377.433
Ti (336.122 nm)	1.002130	ppm	0.000293	0.03	129985.000000	Y 377.433
Tl (190.794 nm)	1.956480	ppm	0.001864	0.10	4730.180000	Y 377.433
U (409.013 nm)	1.968030	ppm	0.001806	0.09	6068.870000	Y 377.433
V (292.401 nm)	0.985418	ppm	0.000825	0.08	51791.100000	Y 377.433
Zn (206.200 nm)	0.489256	ppm	0.000964	0.20	2433.790000	Y 377.433
Zr (343.823 nm)	0.457714	ppm	0.000114	0.02	26217.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.084998	24295.783293	0.002553	0.24
Y 377.433	1.091938	705530.017188	0.002111	0.19
Y_R 377.433	1.115490	61408.300000	0.000084	0.01
Y_R 488.368	1.111800	53730.100000	0.000772	0.07
Y_R2 488.368	1.085740	100631.207062	0.007636	0.70
Y_R4	1.120450	47977.200000	0.001717	0.15

Sample Name: CCVH-5713036

Date: 5/24/2019 6:03:00 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003779	ppm	0.000645	17.06	-123.467000	Y 377.433
Al (394.401 nm)	48.991500 o	ppm	0.137213	0.28	584307.000000	Y 377.433
Al H (396.152 nm)	48.525400	ppm	0.038776	0.08	99773.200000	Y_R 377.433
As (188.980 nm)	0.004467	ppm	0.001937	43.37	4.423820	Y 242.219
B (249.678 nm)	-0.002575 u	ppm	0.000574	22.28	-9.464160	Y 242.219
Ba (493.408 nm)	0.001130	ppm	0.000236	20.91	1579.520000	Y_R 488.368
Be (234.861 nm)	0.001058	ppm	0.000062	5.85	-108.799000	Y_R 488.368
Bi (223.061 nm)	0.010598	ppm	0.001062	10.02	17.376900	Y 377.433
Ca (315.887 nm)	-0.001813 u	ppm	0.002540	> 100.00	-51.157127	Y_R 377.433
Cd (214.439 nm)	0.001507	ppm	0.000071	4.72	73.801200	Y 377.433
Co (228.615 nm)	0.003267	ppm	0.000179	5.46	58.672400	Y 242.219
Cr (205.560 nm)	0.001719	ppm	0.000031	1.81	4.831270	Y 377.433
Cu (324.754 nm)	0.003075	ppm	0.000269	8.73	1469.470000	Y 377.433
Fe (238.204 nm)	48.188001 o	ppm	0.019539	0.04	118774.672859	Y_R 377.433
Fe H (259.940 nm)	48.416100	ppm	0.058362	0.12	67788.400000	Y_R 377.433
K (766.491 nm)	0.498837	ppm	0.030665	6.15	2476.700000	Y_R2 488.368
Li (670.783 nm)	0.012734	ppm	0.003998	31.40	-2409.730000	Y_R2 488.368
Mg (279.078 nm)	0.035850	ppm	0.002247	6.27	60.853100	Y 377.433
Mn (257.610 nm)	0.001034	ppm	0.000028	2.72	264.026000	Y 377.433
Mo (202.032 nm)	0.000563	ppm	0.000421	74.80	30.552700	Y 377.433
Na (589.592 nm)	232.676000 o	ppm	0.684297	0.29	172467.000000	Y_R2 488.368
Na H (589.593 nm)	249.374833	ppm	0.105765	0.04	124352.006690	Y_R4
Ni (231.604 nm)	0.001805	ppm	0.000394	21.83	-1.275630	Y 377.433
P (213.618 nm)	4.835020	ppm	0.035544	0.74	7307.760000	Y 242.219
Pb (220.353 nm)	0.003954	ppm	0.000748	18.92	19.228700	Y 242.219
S (181.972 nm)	4.927867	ppm	0.011564	0.23	2221.426189	Y 377.433
Sb (206.834 nm)	0.003420	ppm	0.002225	65.06	2.762580	Y 377.433
Se (196.026 nm)	0.005503	ppm	0.002605	47.34	6.075470	Y 242.219
Si (288.158 nm)	0.016643	ppm	0.000432	2.60	617.827000	Y 377.433
Sn (189.925 nm)	0.000639 u	ppm	0.001394	> 100.00	3.350920	Y 377.433
Sr (421.552 nm)	0.001139	ppm	0.000066	5.78	221.568386	Y_R 488.368
Th (288.505 nm)	4.849360	ppm	0.013271	0.27	8473.770000	Y 377.433
Ti (336.122 nm)	0.002217	ppm	0.000080	3.61	-217.386000	Y 377.433
Tl (190.794 nm)	0.003957	ppm	0.000007	0.17	4.804260	Y 377.433
U (409.013 nm)	0.541333 Q	ppm	0.014445	2.67	1689.310000 Q	Y 377.433
V (292.401 nm)	0.001627	ppm	0.000325	19.97	393.901000	Y 377.433
Zn (206.200 nm)	0.002437	ppm	0.000033	1.37	23.358300	Y 377.433
Zr (343.823 nm)	0.001422	ppm	0.000093	6.51	-92.507000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.081787	24223.881708	0.000260	0.02
Y 377.433	1.081001	698462.982646	0.000669	0.06
Y_R 377.433	1.115160	61390.000000	0.007071	0.63
Y_R 488.368	1.109990	53642.500000	0.004856	0.44
Y_R2 488.368	1.087136	100760.591840	0.010993	1.01
Y_R4	1.119250	47925.800000	0.003634	0.32

Sample Name: CCV-5717467

Date: 5/24/2019 6:06:40 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.480996	ppm	0.001121	0.23	16618.500000	Y 377.433
Al (394.401 nm)	0.499658	ppm	0.002819	0.56	6220.960000	Y 377.433
Al H (396.152 nm)	0.559963 u	ppm	0.012029	2.15	1157.050000	Y_R 377.433
As (188.980 nm)	0.482146	ppm	0.003784	0.78	766.868000	Y 242.219
B (249.678 nm)	0.473055	ppm	0.000048	0.01	3426.120000	Y 242.219
Ba (493.408 nm)	0.480839	ppm	0.000958	0.20	48009.900000	Y_R 488.368
Be (234.861 nm)	0.476402	ppm	0.002323	0.49	48018.400000	Y_R 488.368
Bi (223.061 nm)	0.941766	ppm	0.007845	0.83	2133.100000	Y 377.433
Ca (315.887 nm)	4.860232	ppm	0.000001	0.00	3862.015118	Y_R 377.433
Cd (214.439 nm)	0.487715	ppm	0.001626	0.33	19507.300000	Y 377.433
Co (228.615 nm)	0.483273	ppm	0.000452	0.09	11948.600000	Y 242.219
Cr (205.560 nm)	0.481242	ppm	0.000970	0.20	3400.640000	Y 377.433
Cu (324.754 nm)	0.480410	ppm	0.000524	0.11	22718.000000	Y 377.433
Fe (238.204 nm)	2.435942	ppm	0.007453	0.31	6006.940370	Y_R 377.433
Fe H (259.940 nm)	2.399740 u	ppm	0.007141	0.30	3446.190000	Y_R 377.433
K (766.491 nm)	47.635600	ppm	0.302078	0.63	49261.300000	Y_R2 488.368
Li (670.783 nm)	0.484453	ppm	0.002976	0.61	5804.610000	Y_R2 488.368
Mg (279.078 nm)	19.361000	ppm	0.077869	0.40	68607.300000	Y 377.433
Mn (257.610 nm)	0.484172	ppm	0.001663	0.34	133900.000000	Y 377.433
Mo (202.032 nm)	0.483374	ppm	0.000454	0.09	6174.140000	Y 377.433
Na (589.592 nm)	23.360600	ppm	0.049145	0.21	17513.000000	Y_R2 488.368
Na H (589.593 nm)	25.476312 u	ppm	0.179400	0.70	12997.975636	Y_R4
Ni (231.604 nm)	0.485630	ppm	0.001701	0.35	2703.170000	Y 377.433
P (213.618 nm)	0.055082	ppm	0.001974	3.58	-58.314100	Y 242.219
Pb (220.353 nm)	0.485121	ppm	0.001208	0.25	1677.150000	Y 242.219
S (181.972 nm)	0.013904	ppm	0.006015	43.26	15.713244	Y 377.433
Sb (206.834 nm)	0.486119	ppm	0.005390	1.11	847.935000	Y 377.433
Se (196.026 nm)	0.484319	ppm	0.000067	0.01	797.813000	Y 242.219
Si (288.158 nm)	4.761870	ppm	0.009155	0.19	31918.900000	Y 377.433
Sn (189.925 nm)	0.487682	ppm	0.002362	0.48	852.858000	Y 377.433
Sr (421.552 nm)	0.482594	ppm	0.000780	0.16	70627.460323	Y_R 488.368
Th (288.505 nm)	0.013243	ppm	0.001060	8.00	-11.481300	Y 377.433
Ti (336.122 nm)	0.479843	ppm	0.001168	0.24	61902.100000	Y 377.433
Tl (190.794 nm)	0.491810	ppm	0.002686	0.55	1188.190000	Y 377.433
U (409.013 nm)	0.027124	ppm	0.010828	39.92	-14.738200	Y 377.433
V (292.401 nm)	0.479412	ppm	0.001404	0.29	25101.700000	Y 377.433
Zn (206.200 nm)	0.487968	ppm	0.003669	0.75	2426.050000	Y 377.433
Zr (343.823 nm)	0.481034	ppm	0.000901	0.19	27562.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.103773	24716.203013	0.002505	0.23
Y 377.433	1.102231	712180.237882	0.004455	0.40
Y_R 377.433	1.117680	61528.600000	0.004507	0.40
Y_R 488.368	1.114380	53854.700000	0.004437	0.40
Y_R2 488.368	1.088722	100907.597172	0.005648	0.52
Y_R4	1.122730	48074.800000	0.006597	0.59

Sample Name: CCB

Date: 5/24/2019 6:10:15 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000189	ppm	0.000119	62.93	-239.043000	Y 377.433
Al (394.401 nm)	-0.002668 u	ppm	0.000508	19.06	96.309700	Y 377.433
Al H (396.152 nm)	0.117754 Zu	ppm	0.003704	3.15	17.096100 Z	Y_R 377.433
As (188.980 nm)	-0.001254 u	ppm	0.000067	5.36	-3.302990	Y 242.219
B (249.678 nm)	-0.002576 u	ppm	0.000016	0.61	18.625700	Y 242.219
Ba (493.408 nm)	-0.001854 u	ppm	0.000380	20.49	1252.990000	Y_R 488.368
Be (234.861 nm)	0.000060	ppm	0.000014	23.04	0.363625	Y_R 488.368
Bi (223.061 nm)	0.001344 u	ppm	0.002951	> 100.00	-12.449800	Y 377.433
Ca (315.887 nm)	0.005504	ppm	0.000994	18.06	-57.534632	Y_R 377.433
Cd (214.439 nm)	0.000085	ppm	0.000066	77.89	-4.396740	Y 377.433
Co (228.615 nm)	0.000092 u	ppm	0.000221	> 100.00	-19.898900	Y 242.219
Cr (205.560 nm)	-0.000137 u	ppm	0.000362	> 100.00	-6.941460	Y 377.433
Cu (324.754 nm)	0.000115	ppm	0.000134	> 100.00	417.649000	Y 377.433
Fe (238.204 nm)	0.000651 u	ppm	0.002293	> 100.00	4.537937	Y_R 377.433
Fe H (259.940 nm)	-0.052753 u	ppm	0.001801	3.41	16.987400	Y_R 377.433
K (766.491 nm)	-0.032790 u	ppm	0.020952	63.90	1949.050000	Y_R2 488.368
Li (670.783 nm)	0.011281 Z	ppm	0.001934	17.15	-2435.020000 Z	Y_R2 488.368
Mg (279.078 nm)	0.000303 u	ppm	0.000642	> 100.00	13.154700	Y 377.433
Mn (257.610 nm)	0.000073	ppm	0.000004	5.82	-1.897650	Y 377.433
Mo (202.032 nm)	-0.000466 u	ppm	0.000407	87.37	17.462700	Y 377.433
Na (589.592 nm)	0.062938	ppm	0.021231	33.73	156.682000	Y_R2 488.368
Na H (589.593 nm)	0.288016 u	ppm	0.008831	3.07	470.790301	Y_R4
Ni (231.604 nm)	0.000357	ppm	0.000483	> 100.00	-9.374480	Y 377.433
P (213.618 nm)	0.003133	ppm	0.003363	> 100.00	0.275751	Y 242.219
Pb (220.353 nm)	-0.000468 u	ppm	0.001243	> 100.00	11.267300	Y 242.219
S (181.972 nm)	-0.005570 u	ppm	0.006727	> 100.00	5.253441	Y 377.433
Sb (206.834 nm)	0.001238 u	ppm	0.001929	> 100.00	-5.356260	Y 377.433
Se (196.026 nm)	-0.000898 u	ppm	0.001897	> 100.00	9.115940	Y 242.219
Si (288.158 nm)	-0.005469 u	ppm	0.001070	19.56	471.969000	Y 377.433
Sn (189.925 nm)	0.000162	ppm	0.000128	79.10	2.519530	Y 377.433
Sr (421.552 nm)	-0.000076 u	ppm	0.000009	11.76	36.792927	Y_R 488.368
Th (288.505 nm)	0.000794	ppm	0.000612	77.05	15.840500	Y 377.433
Ti (336.122 nm)	0.000362	ppm	0.000008	2.17	-458.559000	Y 377.433
Tl (190.794 nm)	-0.000398 u	ppm	0.001168	> 100.00	-0.849500	Y 377.433
U (409.013 nm)	-0.000046 u	ppm	0.003851	> 100.00	-41.938100	Y 377.433
V (292.401 nm)	0.000530	ppm	0.000062	11.69	-151.639000	Y 377.433
Zn (206.200 nm)	0.000427	ppm	0.000301	70.32	5.938310	Y 377.433
Zr (343.823 nm)	0.000236	ppm	0.000260	> 100.00	-160.931000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115827	24986.115496	0.005652	0.51
Y 377.433	1.110163	717305.803592	0.005270	0.47
Y_R 377.433	1.121330	61729.700000	0.004784	0.43
Y_R 488.368	1.118710	54064.100000	0.004058	0.36
Y_R2 488.368	1.098854	101846.651072	0.001308	0.12
Y_R4	1.114120	47706.100000	0.001994	0.18

Sample Name: CCVL-5717307

Date: 5/24/2019 6:13:27 AM
Rack:Tube: S1:3

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007771	ppm	0.000074	0.95	25.559600	Y 377.433
Al (394.401 nm)	0.095058	ppm	0.001419	1.49	1273.990000	Y 377.433
Al H (396.152 nm)	0.218078 u	ppm	0.002805	1.29	228.913000	Y_R 377.433
As (188.980 nm)	0.011554	ppm	0.000337	2.92	17.101300	Y 242.219
B (249.678 nm)	0.088950	ppm	0.000363	0.41	674.543000	Y 242.219
Ba (493.408 nm)	0.007973	ppm	0.000437	5.48	2205.000000	Y_R 488.368
Be (234.861 nm)	0.000989	ppm	0.000008	0.77	93.568700	Y_R 488.368
Bi (223.061 nm)	0.090495	ppm	0.000857	0.95	190.918000	Y 377.433
Ca (315.887 nm)	0.214958	ppm	0.000421	0.20	111.592021	Y_R 377.433
Cd (214.439 nm)	0.005066	ppm	0.000205	4.04	194.941000	Y 377.433
Co (228.615 nm)	0.010689	ppm	0.000081	0.76	242.546000	Y 242.219
Cr (205.560 nm)	0.009990	ppm	0.000073	0.73	64.647900	Y 377.433
Cu (324.754 nm)	0.014918	ppm	0.000442	2.96	1102.990000	Y 377.433
Fe (238.204 nm)	0.098514	ppm	0.001363	1.38	245.747995	Y_R 377.433
Fe H (259.940 nm)	0.048089 u	ppm	0.000380	0.79	157.990000	Y_R 377.433
K (766.491 nm)	2.872410	ppm	0.011779	0.41	4832.540000	Y_R2 488.368
Li (670.783 nm)	0.031918 Q	ppm	0.001466	4.59	-2075.660000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200680	ppm	0.000328	0.16	721.587000	Y 377.433
Mn (257.610 nm)	0.010375	ppm	0.000046	0.45	2847.790000	Y 377.433
Mo (202.032 nm)	0.018273	ppm	0.000090	0.49	255.900000	Y 377.433
Na (589.592 nm)	1.156940	ppm	0.008801	0.76	969.046000	Y_R2 488.368
Na H (589.593 nm)	1.162448 u	ppm	0.056263	4.84	905.681672	Y_R4
Ni (231.604 nm)	0.040378	ppm	0.000740	1.83	214.299000	Y 377.433
P (213.618 nm)	2.705640	ppm	0.014044	0.52	4085.710000	Y 242.219
Pb (220.353 nm)	0.007694	ppm	0.000098	1.27	39.429400	Y 242.219
S (181.972 nm)	0.094227	ppm	0.001958	2.08	50.120332	Y 377.433
Sb (206.834 nm)	0.020241	ppm	0.002943	14.54	28.042600	Y 377.433
Se (196.026 nm)	0.019404	ppm	0.002115	10.90	42.101900	Y 242.219
Si (288.158 nm)	0.467997	ppm	0.000980	0.21	3595.100000	Y 377.433
Sn (189.925 nm)	0.095765	ppm	0.001300	1.36	169.271000	Y 377.433
Sr (421.552 nm)	0.009037	ppm	0.000122	1.35	1369.547715	Y_R 488.368
Th (288.505 nm)	0.013365	ppm	0.002211	16.55	37.347400	Y 377.433
Ti (336.122 nm)	0.009782	ppm	0.000112	1.14	766.942000	Y 377.433
Tl (190.794 nm)	0.015420	ppm	0.000942	6.11	37.359600	Y 377.433
U (409.013 nm)	0.060281	ppm	0.005297	8.79	145.884000	Y 377.433
V (292.401 nm)	0.009960	ppm	0.000058	0.58	342.031000	Y 377.433
Zn (206.200 nm)	0.020264	ppm	0.000162	0.80	104.403000	Y 377.433
Zr (343.823 nm)	0.010035	ppm	0.000258	2.57	404.105000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.129650	25295.643013	0.001821	0.16
Y 377.433	1.125360	727124.768923	0.001303	0.12
Y_R 377.433	1.138180	62657.100000	0.000831	0.07
Y_R 488.368	1.134750	54839.200000	0.005315	0.47
Y_R2 488.368	1.105226	102437.307476	0.007345	0.66
Y_R4	1.126430	48232.900000	0.006846	0.61

Sample Name: 280-123862-a-1-c msd

Date: 5/24/2019 6:16:56 AM Rack:Tube: 2:81

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000049 u	ppm	0.000137	> 100.00	-563.718000	Y 377.433
Al (394.401 nm)	10.967200 o	ppm	0.008456	0.08	131439.000000	Y 377.433
Al H (396.152 nm)	10.966900	ppm	0.029978	0.27	22856.800000	Y_R 377.433
As (188.980 nm)	1.956940	ppm	0.001786	0.09	3116.530000	Y 242.219
B (249.678 nm)	0.976346	ppm	0.000109	0.01	7028.290000	Y 242.219
Ba (493.408 nm)	2.001720	ppm	0.003809	0.19	195333.000000	Y_R 488.368
Be (234.861 nm)	0.978848	ppm	0.000383	0.04	98641.900000	Y_R 488.368
Bi (223.061 nm)	1.869620	ppm	0.001916	0.10	4250.970000	Y 377.433
Ca (315.887 nm)	54.357218	ppm	0.125989	0.23	43825.532263	Y_R 377.433
Cd (214.439 nm)	0.962727	ppm	0.000650	0.07	38516.900000	Y 377.433
Co (228.615 nm)	0.954548	ppm	0.000594	0.06	23623.800000	Y 242.219
Cr (205.560 nm)	0.966573	ppm	0.000409	0.04	6835.880000	Y 377.433
Cu (324.754 nm)	0.959081	ppm	0.003517	0.37	44996.600000	Y 377.433
Fe (238.204 nm)	10.993415 o	ppm	0.033307	0.30	27099.037726	Y_R 377.433
Fe H (259.940 nm)	10.993700	ppm	0.027023	0.25	15462.700000	Y_R 377.433
K (766.491 nm)	49.287700	ppm	0.104373	0.21	50901.100000	Y_R2 488.368
Li (670.783 nm)	0.972232	ppm	0.000492	0.05	14298.600000	Y_R2 488.368
Mg (279.078 nm)	50.087000	ppm	0.025159	0.05	177431.000000	Y 377.433
Mn (257.610 nm)	0.995332	ppm	0.000123	0.01	275287.000000	Y 377.433
Mo (202.032 nm)	0.985720	ppm	0.000617	0.06	12566.300000	Y 377.433
Na (589.592 nm)	50.559600	ppm	0.193283	0.38	37972.600000	Y_R2 488.368
Na H (589.593 nm)	55.226258	ppm	0.060269	0.11	27793.859212	Y_R4
Ni (231.604 nm)	0.951347	ppm	0.000745	0.08	5307.600000	Y 377.433
P (213.618 nm)	19.455400	ppm	0.010999	0.06	29162.500000	Y 242.219
Pb (220.353 nm)	0.970885	ppm	0.000086	0.01	3346.490000	Y 242.219
S (181.972 nm)	11.216568	ppm	0.021400	0.19	5052.027399	Y 377.433
Sb (206.834 nm)	0.003940	ppm	0.001974	50.09	-5.260050	Y 377.433
Se (196.026 nm)	1.908390	ppm	0.003002	0.16	3110.660000	Y 242.219
Si (288.158 nm)	6.945230	ppm	0.024745	0.36	46320.900000	Y 377.433
Sn (189.925 nm)	1.923310	ppm	0.000144	0.01	3356.900000	Y 377.433
Sr (421.552 nm)	1.050075	ppm	0.003058	0.29	153622.695554	Y_R 488.368
Th (288.505 nm)	0.989245	ppm	0.003899	0.39	1648.930000	Y 377.433
Ti (336.122 nm)	0.985493	ppm	0.000771	0.08	127818.000000	Y 377.433
Tl (190.794 nm)	1.929130	ppm	0.001293	0.07	4664.070000	Y 377.433
U (409.013 nm)	1.940180	ppm	0.001564	0.08	5982.550000	Y 377.433
V (292.401 nm)	0.968927	ppm	0.000162	0.02	50921.500000	Y 377.433
Zn (206.200 nm)	0.482529	ppm	0.000505	0.10	2400.380000	Y 377.433
Zr (343.823 nm)	0.450418	ppm	0.000610	0.14	25796.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087100	24342.856664	0.001629	0.15
Y 377.433	1.093428	706492.560045	0.000150	0.01
Y_R 377.433	1.110130	61113.000000	0.000250	0.02
Y_R 488.368	1.105320	53416.900000	0.000317	0.03
Y_R2 488.368	1.089274	100958.784904	0.004926	0.45
Y_R4	1.127220	48266.900000	0.001716	0.15

Sample Name: 280-123862-a-1-aPDS

Date: 5/24/2019 6:20:36 AM
Rack:Tube: 2:82

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.048414	ppm	0.000019	0.04	1443.980000	Y 377.433
Al (394.401 nm)	2.154360	ppm	0.002674	0.12	25919.700000	Y 377.433
Al H (396.152 nm)	2.333550	ppm	0.016329	0.70	4630.840000	Y_R 377.433
As (188.980 nm)	0.195015	ppm	0.001234	0.63	309.359000	Y 242.219
B (249.678 nm)	0.109268	ppm	0.000876	0.80	818.814000	Y 242.219
Ba (493.408 nm)	0.151324	ppm	0.000227	0.15	16092.200000	Y_R 488.368
Be (234.861 nm)	0.049433	ppm	0.000031	0.06	4967.940000	Y_R 488.368
Bi (223.061 nm)	0.003341	ppm	0.001446	43.27	-7.410290	Y 377.433
Ca (315.887 nm)	25.795564	ppm	0.049530	0.19	20764.351800	Y_R 377.433
Cd (214.439 nm)	0.049757	ppm	0.000155	0.31	1984.100000	Y 377.433
Co (228.615 nm)	0.049719	ppm	0.001157	2.33	1211.030000	Y 242.219
Cr (205.560 nm)	0.051233	ppm	0.000078	0.15	356.650000	Y 377.433
Cu (324.754 nm)	0.053986	ppm	0.000059	0.11	2913.030000	Y 377.433
Fe (238.204 nm)	2.423919	ppm	0.005760	0.24	5977.305795	Y_R 377.433
Fe H (259.940 nm)	2.379090 u	ppm	0.003190	0.13	3417.310000	Y_R 377.433
K (766.491 nm)	20.193800	ppm	0.029133	0.14	22024.600000	Y_R2 488.368
Li (670.783 nm)	0.111705	ppm	0.002312	2.07	-686.273000	Y_R2 488.368
Mg (279.078 nm)	21.074600	ppm	0.063823	0.30	74670.600000	Y 377.433
Mn (257.610 nm)	0.071647	ppm	0.000214	0.30	19795.600000	Y 377.433
Mo (202.032 nm)	0.049415	ppm	0.000782	1.58	652.174000	Y 377.433
Na (589.592 nm)	23.730600	ppm	0.010990	0.05	17719.800000	Y_R2 488.368
Na H (589.593 nm)	24.827856 u	ppm	0.025177	0.10	12675.471733	Y_R4
Ni (231.604 nm)	0.050229	ppm	0.000844	1.68	269.580000	Y 377.433
P (213.618 nm)	1.960580	ppm	0.014721	0.75	2946.930000	Y 242.219
Pb (220.353 nm)	0.099185	ppm	0.000383	0.39	354.319000	Y 242.219
S (181.972 nm)	1.451050	ppm	0.007615	0.52	661.018726	Y 377.433
Sb (206.834 nm)	0.106108	ppm	0.003010	2.84	179.517000	Y 377.433
Se (196.026 nm)	0.190918	ppm	0.000492	0.26	320.295000	Y 242.219
Si (288.158 nm)	9.873020	ppm	0.068378	0.69	65633.600000	Y 377.433
Sn (189.925 nm)	0.095783	ppm	0.000125	0.13	169.303000	Y 377.433
Sr (421.552 nm)	0.124897	ppm	0.000312	0.25	18314.489206	Y_R 488.368
Th (288.505 nm)	0.198558	ppm	0.002336	1.18	357.807000	Y 377.433
Ti (336.122 nm)	0.086770	ppm	0.000784	0.90	10863.100000	Y 377.433
Tl (190.794 nm)	0.201531	ppm	0.001268	0.63	486.532000	Y 377.433
U (409.013 nm)	0.506504	ppm	0.003690	0.73	1537.230000	Y 377.433
V (292.401 nm)	0.052523	ppm	0.000067	0.13	2585.960000	Y 377.433
Zn (206.200 nm)	0.205715	ppm	0.000255	0.12	1025.180000	Y 377.433
Zr (343.823 nm)	0.051502	ppm	0.000075	0.15	2795.080000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120726	25095.830999	0.004382	0.39
Y 377.433	1.117862	722279.810609	0.003948	0.35
Y_R 377.433	1.132640	62352.000000	0.002807	0.25
Y_R 488.368	1.128660	54544.500000	0.002574	0.23
Y_R2 488.368	1.114779	103322.665894	0.013834	1.24
Y_R4	1.145690	49057.800000	0.000187	0.02

Sample Name: 280-123862-a-2-a

Date: 5/24/2019 6:24:11 AM Rack:Tube: 2:83

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000223 u	ppm	0.000390	> 100.00	-238.739000	Y 377.433
Al (394.401 nm)	0.481093	ppm	0.002284	0.47	5899.530000	Y 377.433
Al H (396.152 nm)	0.608564 u	ppm	0.004138	0.68	1057.510000	Y_R 377.433
As (188.980 nm)	0.002086	ppm	0.000338	16.21	1.990570	Y 242.219
B (249.678 nm)	0.011453	ppm	0.000157	1.37	118.607000	Y 242.219
Ba (493.408 nm)	0.052328	ppm	0.000123	0.24	6502.000000	Y_R 488.368
Be (234.861 nm)	-0.000002 u	ppm	0.000048	> 100.00	-10.153900	Y_R 488.368
Bi (223.061 nm)	0.002829	ppm	0.001064	37.62	-8.885570	Y 377.433
Ca (315.887 nm)	6.380275	ppm	0.012162	0.19	5089.192951	Y_R 377.433
Cd (214.439 nm)	0.000126	ppm	0.000008	5.95	-2.306950	Y 377.433
Co (228.615 nm)	0.000329	ppm	0.000318	96.50	-13.723400	Y 242.219
Cr (205.560 nm)	0.000981	ppm	0.000328	33.40	0.965314	Y 377.433
Cu (324.754 nm)	0.002833	ppm	0.000379	13.38	538.645000	Y 377.433
Fe (238.204 nm)	0.969497	ppm	0.004995	0.52	2392.508228	Y_R 377.433
Fe H (259.940 nm)	0.924572 u	ppm	0.005661	0.61	1383.530000	Y_R 377.433
K (766.491 nm)	0.813923	ppm	0.076386	9.38	2789.430000	Y_R2 488.368
Li (670.783 nm)	0.012382	ppm	0.000405	3.27	-2415.850000	Y_R2 488.368
Mg (279.078 nm)	1.544290	ppm	0.001924	0.12	5481.850000	Y 377.433
Mn (257.610 nm)	0.024137	ppm	0.000082	0.34	6654.120000	Y 377.433
Mo (202.032 nm)	-0.000471 u	ppm	0.000344	73.00	17.397500	Y 377.433
Na (589.592 nm)	4.679920	ppm	0.041684	0.89	3587.600000	Y_R2 488.368
Na H (589.593 nm)	4.858776 u	ppm	0.000973	0.02	2744.018959	Y_R4
Ni (231.604 nm)	0.001684	ppm	0.000429	25.48	-1.955020	Y 377.433
P (213.618 nm)	0.022498	ppm	0.003140	13.96	28.835400	Y 242.219
Pb (220.353 nm)	-0.001595 u	ppm	0.000079	4.96	7.371340	Y 242.219
S (181.972 nm)	1.413653	ppm	0.018701	1.32	643.158349	Y 377.433
Sb (206.834 nm)	0.006842	ppm	0.002130	31.14	4.599450	Y 377.433
Se (196.026 nm)	-0.000176 u	ppm	0.000161	91.54	10.055300	Y 242.219
Si (288.158 nm)	3.777590	ppm	0.031038	0.82	25426.200000	Y 377.433
Sn (189.925 nm)	0.000213 u	ppm	0.000348	> 100.00	2.607150	Y 377.433
Sr (421.552 nm)	0.077490	ppm	0.000019	0.02	11380.946465	Y_R 488.368
Th (288.505 nm)	-0.002939 u	ppm	0.001309	44.54	9.551910	Y 377.433
Ti (336.122 nm)	0.008192	ppm	0.000096	1.17	580.707000	Y 377.433
Tl (190.794 nm)	0.001601	ppm	0.000615	38.42	3.593350	Y 377.433
U (409.013 nm)	0.018741	ppm	0.000227	1.21	16.748000	Y 377.433
V (292.401 nm)	0.002327	ppm	0.000379	16.28	-57.748200	Y 377.433
Zn (206.200 nm)	0.005694	ppm	0.000869	15.26	32.228200	Y 377.433
Zr (343.823 nm)	0.000911	ppm	0.000253	27.79	-121.985000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136505	25449.160143	0.003522	0.31
Y 377.433	1.131669	731200.907808	0.004838	0.43
Y_R 377.433	1.138640	62682.400000	0.005973	0.52
Y_R 488.368	1.136990	54947.500000	0.003901	0.34
Y_R2 488.368	1.118193	103639.133707	0.003032	0.27
Y_R4	1.134100	48561.600000	0.001838	0.16

Sample Name: 280-123862-a-3-a

Date: 5/24/2019 6:27:43 AM Rack:Tube: 2:84

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000378 u	ppm	0.000412	> 100.00	-259.505000	Y 377.433
Al (394.401 nm)	0.706410	ppm	0.001059	0.15	8590.380000	Y 377.433
Al H (396.152 nm)	0.856034 u	ppm	0.011934	1.39	1566.770000	Y_R 377.433
As (188.980 nm)	0.000705	ppm	0.000019	2.67	-0.215640	Y 242.219
B (249.678 nm)	0.010818	ppm	0.000268	2.48	113.948000	Y 242.219
Ba (493.408 nm)	0.051872	ppm	0.000210	0.40	6457.960000	Y_R 488.368
Be (234.861 nm)	0.000004 u	ppm	0.000006	> 100.00	-10.389400	Y_R 488.368
Bi (223.061 nm)	0.000283	ppm	0.000061	21.52	-14.658300	Y 377.433
Ca (315.887 nm)	5.583682	ppm	0.007031	0.13	4446.136429	Y_R 377.433
Cd (214.439 nm)	0.000057 u	ppm	0.000087	> 100.00	-5.009970	Y 377.433
Co (228.615 nm)	0.000689	ppm	0.000187	27.17	-4.532090	Y 242.219
Cr (205.560 nm)	0.000884	ppm	0.000304	34.43	0.273534	Y 377.433
Cu (324.754 nm)	0.001802	ppm	0.000353	19.61	490.916000	Y 377.433
Fe (238.204 nm)	1.155657	ppm	0.004789	0.41	2851.347594	Y_R 377.433
Fe H (259.940 nm)	1.112890 u	ppm	0.002073	0.19	1646.850000	Y_R 377.433
K (766.491 nm)	0.904558	ppm	0.052938	5.85	2879.390000	Y_R2 488.368
Li (670.783 nm)	0.017288	ppm	0.001482	8.57	-2330.410000	Y_R2 488.368
Mg (279.078 nm)	1.540010	ppm	0.002341	0.15	5466.700000	Y 377.433
Mn (257.610 nm)	0.037050	ppm	0.000026	0.07	10225.900000	Y 377.433
Mo (202.032 nm)	-0.000854 u	ppm	0.000094	11.02	12.516800	Y 377.433
Na (589.592 nm)	4.582880	ppm	0.006706	0.15	3515.660000	Y_R2 488.368
Na H (589.593 nm)	4.731236 u	ppm	0.004912	0.10	2680.587834	Y_R4
Ni (231.604 nm)	0.001204	ppm	0.000060	4.99	-4.639630	Y 377.433
P (213.618 nm)	0.028151	ppm	0.001499	5.32	37.707600	Y 242.219
Pb (220.353 nm)	-0.001401 u	ppm	0.000625	44.61	7.946610	Y 242.219
S (181.972 nm)	1.503416	ppm	0.008860	0.59	683.483900	Y 377.433
Sb (206.834 nm)	0.003925	ppm	0.003909	99.60	-0.564276	Y 377.433
Se (196.026 nm)	0.000278 u	ppm	0.000643	> 100.00	10.760500	Y 242.219
Si (288.158 nm)	4.478270	ppm	0.008990	0.20	30048.100000	Y 377.433
Sn (189.925 nm)	0.000313	ppm	0.000290	92.65	2.782170	Y 377.433
Sr (421.552 nm)	0.075336	ppm	0.000208	0.28	11065.959075	Y_R 488.368
Th (288.505 nm)	-0.005444 u	ppm	0.001728	31.74	5.398910	Y 377.433
Ti (336.122 nm)	0.014923	ppm	0.000185	1.24	1453.300000	Y 377.433
Tl (190.794 nm)	0.000184 u	ppm	0.000478	> 100.00	0.143212	Y 377.433
U (409.013 nm)	0.013060	ppm	0.001883	14.42	-0.852303	Y 377.433
V (292.401 nm)	0.002268	ppm	0.000320	14.10	-60.454900	Y 377.433
Zn (206.200 nm)	0.005761	ppm	0.000942	16.35	32.588700	Y 377.433
Zr (343.823 nm)	0.001350	ppm	0.000007	0.50	-96.688300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.134365	25401.223800	0.003823	0.34
Y 377.433	1.130045	730152.024271	0.002660	0.24
Y_R 377.433	1.142360	62887.200000	0.005494	0.48
Y_R 488.368	1.139130	55050.800000	0.002898	0.25
Y_R2 488.368	1.110313	102908.740913	0.003902	0.35
Y_R4	1.126950	48255.400000	0.007771	0.69

Sample Name: 280-123862-a-4-a

Date: 5/24/2019 6:31:17 AM Rack:Tube: 2:85

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000031 u	ppm	0.000581	> 100.00	-247.670000	Y 377.433
Al (394.401 nm)	0.742957	ppm	0.001356	0.18	9027.970000	Y 377.433
Al H (396.152 nm)	0.905667 u	ppm	0.011841	1.31	1668.700000	Y_R 377.433
As (188.980 nm)	0.002893	ppm	0.003092	> 100.00	3.270010	Y 242.219
B (249.678 nm)	0.010605	ppm	0.000037	0.34	112.414000	Y 242.219
Ba (493.408 nm)	0.051004	ppm	0.000188	0.37	6373.870000	Y_R 488.368
Be (234.861 nm)	0.000022	ppm	0.000011	49.39	-8.638190	Y_R 488.368
Bi (223.061 nm)	0.002771	ppm	0.000191	6.88	-8.981690	Y 377.433
Ca (315.887 nm)	5.512116	ppm	0.004147	0.08	4388.367484	Y_R 377.433
Cd (214.439 nm)	0.000226	ppm	0.000193	85.32	1.759640	Y 377.433
Co (228.615 nm)	0.000332	ppm	0.000290	87.42	-13.290700	Y 242.219
Cr (205.560 nm)	0.001592	ppm	0.000221	13.87	5.287350	Y 377.433
Cu (324.754 nm)	0.001436	ppm	0.000060	4.15	473.822000	Y 377.433
Fe (238.204 nm)	1.167918	ppm	0.001821	0.16	2881.569211	Y_R 377.433
Fe H (259.940 nm)	1.120120 u	ppm	0.005481	0.49	1656.960000	Y_R 377.433
K (766.491 nm)	1.016120	ppm	0.034209	3.37	2990.120000	Y_R2 488.368
Li (670.783 nm)	0.014017	ppm	0.002979	21.25	-2387.380000	Y_R2 488.368
Mg (279.078 nm)	1.515650	ppm	0.001317	0.09	5380.090000	Y 377.433
Mn (257.610 nm)	0.036315	ppm	0.000024	0.07	10022.700000	Y 377.433
Mo (202.032 nm)	-0.000490 u	ppm	0.000095	19.36	17.156700	Y 377.433
Na (589.592 nm)	4.551980	ppm	0.044329	0.97	3492.570000	Y_R2 488.368
Na H (589.593 nm)	4.645077 u	ppm	0.013871	0.30	2637.737621	Y_R4
Ni (231.604 nm)	0.002039	ppm	0.000228	11.20	0.027585	Y 377.433
P (213.618 nm)	0.026575	ppm	0.002450	9.22	35.390400	Y 242.219
Pb (220.353 nm)	-0.001938 u	ppm	0.000670	34.55	6.134800	Y 242.219
S (181.972 nm)	1.469164	ppm	0.009627	0.66	668.091088	Y 377.433
Sb (206.834 nm)	0.002210	ppm	0.001461	66.14	-3.590610	Y 377.433
Se (196.026 nm)	-0.000294 u	ppm	0.000329	> 100.00	9.824620	Y 242.219
Si (288.158 nm)	4.484720	ppm	0.003556	0.08	30090.700000	Y 377.433
Sn (189.925 nm)	-0.000229 u	ppm	0.000040	17.55	1.837440	Y 377.433
Sr (421.552 nm)	0.074315	ppm	0.000215	0.29	10916.611003	Y_R 488.368
Th (288.505 nm)	-0.005380 u	ppm	0.001318	24.50	5.546190	Y 377.433
Ti (336.122 nm)	0.016236	ppm	0.000179	1.10	1623.660000	Y 377.433
Tl (190.794 nm)	0.000745	ppm	0.000589	79.11	1.496370	Y 377.433
U (409.013 nm)	0.018763	ppm	0.007947	42.36	17.057200	Y 377.433
V (292.401 nm)	0.002506	ppm	0.000340	13.56	-48.410800	Y 377.433
Zn (206.200 nm)	0.005854	ppm	0.000798	13.63	33.052800	Y 377.433
Zr (343.823 nm)	0.001432	ppm	0.000246	17.16	-91.964200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130179	25307.504447	0.003174	0.28
Y 377.433	1.126654	727961.011024	0.002166	0.19
Y_R 377.433	1.140310	62774.300000	0.001325	0.12
Y_R 488.368	1.138300	55010.400000	0.000141	0.01
Y_R2 488.368	1.118873	103702.166098	0.001172	0.10
Y_R4	1.139970	48812.900000	0.003623	0.32

Sample Name: mb 280-459137/1-a

Date: 5/24/2019 6:34:51 AM Rack:Tube: 2:86

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000013 u	ppm	0.000212	> 100.00	-246.520000	Y 377.433
Al (394.401 nm)	-0.000159 u	ppm	0.000114	71.84	128.740000	Y 377.433
Al H (396.152 nm)	0.126225 u	ppm	0.008708	6.90	34.520300	Y_R 377.433
As (188.980 nm)	0.000295	ppm	0.000304	> 100.00	-0.835820	Y 242.219
B (249.678 nm)	-0.003159 u	ppm	0.000385	12.20	14.440700	Y 242.219
Ba (493.408 nm)	-0.001128 u	ppm	0.000384	34.01	1323.390000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000049	85.33	-11.556700	Y_R 488.368
Bi (223.061 nm)	0.002811	ppm	0.001361	48.41	-9.101940	Y 377.433
Ca (315.887 nm)	0.035368	ppm	0.006805	19.24	-33.420729	Y_R 377.433
Cd (214.439 nm)	-0.000056 u	ppm	0.000136	> 100.00	-10.035400	Y 377.433
Co (228.615 nm)	0.000382	ppm	0.000249	65.18	-12.722600	Y 242.219
Cr (205.560 nm)	-0.000179 u	ppm	0.000315	> 100.00	-7.235430	Y 377.433
Cu (324.754 nm)	-0.000048 u	ppm	0.000457	> 100.00	409.252000	Y 377.433
Fe (238.204 nm)	0.007106	ppm	0.001507	21.20	20.449206	Y_R 377.433
Fe H (259.940 nm)	-0.046295 u	ppm	0.000297	0.64	26.017100	Y_R 377.433
K (766.491 nm)	-0.157134 u	ppm	0.024727	15.74	1825.630000	Y_R2 488.368
Li (670.783 nm)	0.014268	ppm	0.002235	15.67	-2383.010000	Y_R2 488.368
Mg (279.078 nm)	0.004315	ppm	0.002665	61.77	26.982700	Y 377.433
Mn (257.610 nm)	0.000159	ppm	0.000002	1.11	22.060100	Y 377.433
Mo (202.032 nm)	-0.000960 u	ppm	0.000109	11.31	11.178400	Y 377.433
Na (589.592 nm)	0.050645	ppm	0.003454	6.82	147.679000	Y_R2 488.368
Na H (589.593 nm)	-0.082527 u	ppm	0.002990	3.62	286.503759	Y_R4
Ni (231.604 nm)	-0.000447 u	ppm	0.000004	0.87	-13.865800	Y 377.433
P (213.618 nm)	-0.000630 u	ppm	0.000917	> 100.00	-5.382430	Y 242.219
Pb (220.353 nm)	-0.000505 u	ppm	0.001233	> 100.00	11.197100	Y 242.219
S (181.972 nm)	0.005771 u	ppm	0.014469	> 100.00	10.348686	Y 377.433
Sb (206.834 nm)	0.004141	ppm	0.001719	41.52	-0.229034	Y 377.433
Se (196.026 nm)	-0.001895 u	ppm	0.001499	79.13	7.494600	Y 242.219
Si (288.158 nm)	-0.001741 u	ppm	0.001208	69.40	496.560000	Y 377.433
Sn (189.925 nm)	-0.000382 u	ppm	0.000936	> 100.00	1.569380	Y 377.433
Sr (421.552 nm)	0.000055	ppm	0.000030	54.58	56.019767	Y_R 488.368
Th (288.505 nm)	-0.002260 u	ppm	0.000816	36.13	10.606400	Y 377.433
Ti (336.122 nm)	0.000363	ppm	0.000059	16.14	-458.433000	Y 377.433
Tl (190.794 nm)	0.000286	ppm	0.000396	> 100.00	0.809679	Y 377.433
U (409.013 nm)	0.006076	ppm	0.000823	13.54	-22.756000	Y 377.433
V (292.401 nm)	0.000779	ppm	0.000167	21.44	-139.081000	Y 377.433
Zn (206.200 nm)	0.002140	ppm	0.000227	10.61	14.437100	Y 377.433
Zr (343.823 nm)	0.000560	ppm	0.000291	51.87	-142.214000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.128188	25262.905353	0.003163	0.28
Y 377.433	1.126106	727606.469718	0.002515	0.22
Y_R 377.433	1.136510	62565.200000	0.002571	0.23
Y_R 488.368	1.134920	54847.400000	0.001035	0.09
Y_R2 488.368	1.113185	103174.955792	0.001482	0.13
Y_R4	1.130810	48420.800000	0.000938	0.08

Sample Name: lcs 280-459137/2-a

Date: 5/24/2019 6:38:03 AM Rack:Tube: 2:87

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.000147 u	ppm	0.000162	> 100.00	-561.147000	Y 377.433
Al (394.401 nm)	9.780680 o	ppm	0.006376	0.07	117243.000000	Y 377.433
Al H (396.152 nm)	9.845940	ppm	0.031859	0.32	20521.900000	Y_R 377.433
As (188.980 nm)	1.969670	ppm	0.006368	0.32	3136.860000	Y 242.219
B (249.678 nm)	0.965070	ppm	0.002742	0.28	6948.150000	Y 242.219
Ba (493.408 nm)	1.960010	ppm	0.004849	0.25	191292.000000	Y_R 488.368
Be (234.861 nm)	0.976279	ppm	0.001570	0.16	98387.900000	Y_R 488.368
Bi (223.061 nm)	1.881380	ppm	0.005018	0.27	4277.600000	Y 377.433
Ca (315.887 nm)	48.695219	ppm	0.084758	0.17	39254.093804	Y_R 377.433
Cd (214.439 nm)	0.969801	ppm	0.000879	0.09	38799.400000	Y 377.433
Co (228.615 nm)	0.956791	ppm	0.001798	0.19	23679.100000	Y 242.219
Cr (205.560 nm)	0.969491	ppm	0.005490	0.57	6856.560000	Y 377.433
Cu (324.754 nm)	0.954517	ppm	0.005560	0.58	44790.100000	Y 377.433
Fe (238.204 nm)	9.830882 o	ppm	0.035161	0.36	24233.673529	Y_R 377.433
Fe H (259.940 nm)	9.846930	ppm	0.035132	0.36	13859.200000	Y_R 377.433
K (766.491 nm)	48.621500	ppm	0.110269	0.23	50239.800000	Y_R2 488.368
Li (670.783 nm)	0.975789	ppm	0.001394	0.14	14360.600000	Y_R2 488.368
Mg (279.078 nm)	48.839400	ppm	0.073853	0.15	173012.000000	Y 377.433
Mn (257.610 nm)	0.981354	ppm	0.001003	0.10	271421.000000	Y 377.433
Mo (202.032 nm)	0.990952	ppm	0.000424	0.04	12632.900000	Y 377.433
Na (589.592 nm)	46.592900	ppm	0.054350	0.12	35025.500000	Y_R2 488.368
Na H (589.593 nm)	51.084355	ppm	0.117460	0.23	25733.918900	Y_R4
Ni (231.604 nm)	0.953175	ppm	0.003138	0.33	5317.840000	Y 377.433
P (213.618 nm)	19.614300	ppm	0.025106	0.13	29403.900000	Y 242.219
Pb (220.353 nm)	0.973156	ppm	0.003149	0.32	3354.500000	Y 242.219
S (181.972 nm)	9.845205	ppm	0.015800	0.16	4435.686931	Y 377.433
Sb (206.834 nm)	0.005547	ppm	0.000555	10.01	-2.639350	Y 377.433
Se (196.026 nm)	1.925540	ppm	0.003744	0.19	3138.850000	Y 242.219
Si (288.158 nm)	1.986870	ppm	0.003407	0.17	13614.100000	Y 377.433
Sn (189.925 nm)	1.933460	ppm	0.001029	0.05	3374.610000	Y 377.433
Sr (421.552 nm)	0.980924	ppm	0.001990	0.20	143509.097833	Y_R 488.368
Th (288.505 nm)	0.995742	ppm	0.000766	0.08	1659.860000	Y 377.433
Ti (336.122 nm)	0.982195	ppm	0.000589	0.06	127370.000000	Y 377.433
Tl (190.794 nm)	1.945400	ppm	0.002392	0.12	4703.820000	Y 377.433
U (409.013 nm)	1.943830	ppm	0.006381	0.33	5989.440000	Y 377.433
V (292.401 nm)	0.972640	ppm	0.001821	0.19	51119.600000	Y 377.433
Zn (206.200 nm)	0.481617	ppm	0.000418	0.09	2395.670000	Y 377.433
Zr (343.823 nm)	0.485776	ppm	0.000255	0.05	27835.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086337	24325.764440	0.003048	0.28
Y 377.433	1.093527	706556.565300	0.003355	0.31
Y_R 377.433	1.115480	61407.400000	0.000562	0.05
Y_R 488.368	1.111450	53712.900000	0.000363	0.03
Y_R2 488.368	1.090082	101033.651257	0.003319	0.30
Y_R4	1.124940	48169.300000	0.004036	0.36

Sample Name: lcsd 280-459137/3-a

Date: 5/24/2019 6:41:41 AM Rack:Tube: 2:88

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000291	ppm	0.000059	20.22	-552.728000	Y 377.433
Al (394.401 nm)	9.991720 o	ppm	0.005500	0.06	119769.000000	Y 377.433
Al H (396.152 nm)	10.066800	ppm	0.002119	0.02	20987.600000	Y_R 377.433
As (188.980 nm)	2.011810	ppm	0.001200	0.06	3204.000000	Y 242.219
B (249.678 nm)	0.986072	ppm	0.001737	0.18	7098.510000	Y 242.219
Ba (493.408 nm)	2.005790	ppm	0.001304	0.07	195727.000000	Y_R 488.368
Be (234.861 nm)	1.000160	ppm	0.003812	0.38	100795.000000	Y_R 488.368
Bi (223.061 nm)	1.935650	ppm	0.007323	0.38	4401.430000	Y 377.433
Ca (315.887 nm)	49.757664	ppm	0.019665	0.04	40111.903756	Y_R 377.433
Cd (214.439 nm)	0.993616	ppm	0.001633	0.16	39752.400000	Y 377.433
Co (228.615 nm)	0.976119	ppm	0.000255	0.03	24158.100000	Y 242.219
Cr (205.560 nm)	0.992574	ppm	0.007172	0.72	7019.960000	Y 377.433
Cu (324.754 nm)	0.974670	ppm	0.000606	0.06	45728.200000	Y 377.433
Fe (238.204 nm)	10.108110 o	ppm	0.000909	0.01	24916.974915	Y_R 377.433
Fe H (259.940 nm)	10.140800	ppm	0.003038	0.03	14270.200000	Y_R 377.433
K (766.491 nm)	49.865200	ppm	0.032626	0.07	51474.300000	Y_R2 488.368
Li (670.783 nm)	0.995424	ppm	0.002775	0.28	14702.500000	Y_R2 488.368
Mg (279.078 nm)	49.997300	ppm	0.056907	0.11	177113.000000	Y 377.433
Mn (257.610 nm)	1.004350	ppm	0.000444	0.04	277782.000000	Y 377.433
Mo (202.032 nm)	1.013550	ppm	0.001170	0.12	12920.400000	Y 377.433
Na (589.592 nm)	47.500200	ppm	0.050399	0.11	35708.500000	Y_R2 488.368
Na H (589.593 nm)	52.245023	ppm	0.068110	0.13	26311.166953	Y_R4
Ni (231.604 nm)	0.976900	ppm	0.000801	0.08	5450.480000	Y 377.433
P (213.618 nm)	20.058300	ppm	0.015930	0.08	30069.800000	Y 242.219
Pb (220.353 nm)	0.994962	ppm	0.000400	0.04	3429.400000	Y 242.219
S (181.972 nm)	10.090381	ppm	0.024569	0.24	4545.944089	Y 377.433
Sb (206.834 nm)	0.004814	ppm	0.000641	13.32	-4.027200	Y 377.433
Se (196.026 nm)	1.961640	ppm	0.005879	0.30	3197.480000	Y 242.219
Si (288.158 nm)	2.032620	ppm	0.002455	0.12	13915.800000	Y 377.433
Sn (189.925 nm)	1.988840	ppm	0.001600	0.08	3471.200000	Y 377.433
Sr (421.552 nm)	1.003750	ppm	0.000989	0.10	146847.453260	Y_R 488.368
Th (288.505 nm)	1.022020	ppm	0.000504	0.05	1703.590000	Y 377.433
Ti (336.122 nm)	1.004210	ppm	0.000224	0.02	130236.000000	Y 377.433
Tl (190.794 nm)	1.987690	ppm	0.002258	0.11	4806.070000	Y 377.433
U (409.013 nm)	1.993270	ppm	0.015025	0.75	6142.850000	Y 377.433
V (292.401 nm)	0.995064	ppm	0.000171	0.02	52302.200000	Y 377.433
Zn (206.200 nm)	0.493832	ppm	0.001679	0.34	2456.340000	Y 377.433
Zr (343.823 nm)	0.498549	ppm	0.000071	0.01	28572.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086650	24332.764462	0.002887	0.27
Y 377.433	1.090764	704771.385255	0.003000	0.28
Y_R 377.433	1.112300	61232.500000	0.002894	0.26
Y_R 488.368	1.108000	53546.400000	0.002308	0.21
Y_R2 488.368	1.084055	100475.011221	0.001699	0.16
Y_R4	1.117900	47868.000000	0.008429	0.75

Sample Name: 280-123814-f-1-a

Date: 5/24/2019 6:45:20 AM Rack:Tube: 2:89

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000664	ppm	0.000079	11.91	-223.698000	Y 377.433
Al (394.401 nm)	0.168674	ppm	0.001411	0.84	2234.920000	Y 377.433
Al H (396.152 nm)	0.217180 u	ppm	0.002184	1.01	311.465000	Y_R 377.433
As (188.980 nm)	0.004239	ppm	0.000465	10.98	5.443010	Y 242.219
B (249.678 nm)	0.220317	ppm	0.000484	0.22	1616.000000	Y 242.219
Ba (493.408 nm)	0.023702	ppm	0.000166	0.70	3728.590000	Y_R 488.368
Be (234.861 nm)	0.000094	ppm	0.000053	55.75	2.845580	Y_R 488.368
Bi (223.061 nm)	0.001555	ppm	0.001477	94.99	-11.928500	Y 377.433
Ca (315.887 nm)	169.581084	ppm	0.366844	0.22	136847.471632	Y_R 377.433
Cd (214.439 nm)	0.000348	ppm	0.000183	52.67	6.208850	Y 377.433
Co (228.615 nm)	0.000250	ppm	0.000322	> 100.00	-15.793300	Y 242.219
Cr (205.560 nm)	0.000317	ppm	0.000179	56.44	-3.818460	Y 377.433
Cu (324.754 nm)	0.008574	ppm	0.000292	3.41	709.552000	Y 377.433
Fe (238.204 nm)	0.216979	ppm	0.001890	0.87	537.734621	Y_R 377.433
Fe H (259.940 nm)	0.166737 u	ppm	0.000666	0.40	323.889000	Y_R 377.433
K (766.491 nm)	0.220247	ppm	0.032548	14.78	2200.190000	Y_R2 488.368
Li (670.783 nm)	0.016558	ppm	0.001823	11.01	-2343.130000	Y_R2 488.368
Mg (279.078 nm)	7.645380	ppm	0.009304	0.12	27099.400000	Y 377.433
Mn (257.610 nm)	0.042467	ppm	0.000095	0.22	11724.400000	Y 377.433
Mo (202.032 nm)	0.017699	ppm	0.000048	0.27	248.603000	Y 377.433
Na (589.592 nm)	1.444390	ppm	0.044401	3.07	1185.030000	Y_R2 488.368
Na H (589.593 nm)	1.503965 u	ppm	0.024711	1.64	1075.532311	Y_R4
Ni (231.604 nm)	-0.000423 u	ppm	0.001609	> 100.00	-13.728900	Y 377.433
P (213.618 nm)	0.010726	ppm	0.002753	25.67	8.337170	Y 242.219
Pb (220.353 nm)	-0.003957 u	ppm	0.000187	4.71	-0.627202	Y 242.219
S (181.972 nm)	81.986089	ppm	0.213730	0.26	36845.207121	Y 377.433
Sb (206.834 nm)	0.000606	ppm	0.000259	42.78	-6.596220	Y 377.433
Se (196.026 nm)	-0.000688 u	ppm	0.004107	> 100.00	9.463320	Y 242.219
Si (288.158 nm)	3.439270	ppm	0.002877	0.08	23194.500000	Y 377.433
Sn (189.925 nm)	-0.000243 u	ppm	0.001449	> 100.00	1.811850	Y 377.433
Sr (421.552 nm)	0.317905	ppm	0.000288	0.09	46541.397224	Y_R 488.368
Th (288.505 nm)	-0.010086 u	ppm	0.002187	21.68	-6.436570	Y 377.433
Ti (336.122 nm)	0.004595	ppm	0.000095	2.07	670.248000	Y 377.433
Tl (190.794 nm)	0.004296	ppm	0.000561	13.05	3.327810	Y 377.433
U (409.013 nm)	0.038732	ppm	0.014922	38.52	57.547400	Y 377.433
V (292.401 nm)	0.002824	ppm	0.000056	2.00	-35.649700	Y 377.433
Zn (206.200 nm)	0.003068	ppm	0.000133	4.35	19.079200	Y 377.433
Zr (343.823 nm)	0.001918	ppm	0.000147	7.66	-63.914000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115884	24987.400105	0.000459	0.04
Y 377.433	1.115942	721039.497289	0.000618	0.06
Y_R 377.433	1.131510	62289.900000	0.003921	0.35
Y_R 488.368	1.127460	54486.700000	0.002325	0.21
Y_R2 488.368	1.114631	103308.987071	0.002941	0.26
Y_R4	1.131060	48431.400000	0.011373	1.01

Sample Name: 280-123814-f-1-aSD@5

Date: 5/24/2019 6:48:52 AM Rack:Tube: 2:90

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000700	ppm	0.000634	90.59	-221.921000	Y 377.433
Al (394.401 nm)	0.038479	ppm	0.000201	0.52	612.636000	Y 377.433
Al H (396.152 nm)	0.143437 u	ppm	0.007908	5.51	87.725700	Y_R 377.433
As (188.980 nm)	0.000294 u	ppm	0.002257	> 100.00	-0.839269	Y 242.219
B (249.678 nm)	0.042021	ppm	0.000859	2.05	338.213000	Y 242.219
Ba (493.408 nm)	0.003299	ppm	0.000359	10.89	1752.200000	Y_R 488.368
Be (234.861 nm)	0.000013 u	ppm	0.000077	> 100.00	-4.662450	Y_R 488.368
Bi (223.061 nm)	0.002077	ppm	0.001288	62.00	-10.766400	Y 377.433
Ca (315.887 nm)	34.152216	ppm	0.063123	0.18	27510.443303	Y_R 377.433
Cd (214.439 nm)	0.000158	ppm	0.000134	85.09	-1.439990	Y 377.433
Co (228.615 nm)	-0.000018 u	ppm	0.000175	> 100.00	-22.565400	Y 242.219
Cr (205.560 nm)	-0.000299 u	ppm	0.000367	> 100.00	-8.102160	Y 377.433
Cu (324.754 nm)	0.001248	ppm	0.000318	25.48	446.561000	Y 377.433
Fe (238.204 nm)	0.068654	ppm	0.001724	2.51	172.149743	Y_R 377.433
Fe H (259.940 nm)	0.014211 u	ppm	0.002647	18.63	110.619000	Y_R 377.433
K (766.491 nm)	-0.039230 u	ppm	0.136439	> 100.00	1942.650000	Y_R2 488.368
Li (670.783 nm)	0.015942	ppm	0.001282	8.04	-2353.850000	Y_R2 488.368
Mg (279.078 nm)	1.559820	ppm	0.001295	0.08	5537.880000	Y 377.433
Mn (257.610 nm)	0.008968	ppm	0.000004	0.04	2458.540000	Y 377.433
Mo (202.032 nm)	0.002934	ppm	0.000044	1.49	60.720000	Y 377.433
Na (589.592 nm)	0.317231	ppm	0.000802	0.25	346.012000	Y_R2 488.368
Na H (589.593 nm)	0.234676 u	ppm	0.012014	5.12	444.262314	Y_R4
Ni (231.604 nm)	-0.000440 u	ppm	0.000006	1.36	-13.826000	Y 377.433
P (213.618 nm)	0.001180	ppm	0.000556	47.16	-3.318610	Y 242.219
Pb (220.353 nm)	-0.002134 u	ppm	0.000909	42.58	5.646330	Y 242.219
S (181.972 nm)	16.259991	ppm	0.038929	0.24	7313.610035	Y 377.433
Sb (206.834 nm)	0.001830	ppm	0.001260	68.86	-4.333400	Y 377.433
Se (196.026 nm)	-0.001224 u	ppm	0.001988	> 100.00	8.581680	Y 242.219
Si (288.158 nm)	0.681388	ppm	0.001980	0.29	5002.690000	Y 377.433
Sn (189.925 nm)	-0.000858 u	ppm	0.000474	55.30	0.740285	Y 377.433
Sr (421.552 nm)	0.063220	ppm	0.000101	0.16	9293.882274	Y_R 488.368
Th (288.505 nm)	-0.012875 u	ppm	0.001516	11.78	-8.538400	Y 377.433
Ti (336.122 nm)	0.001495	ppm	0.000069	4.60	-195.174000	Y 377.433
Tl (190.794 nm)	0.001650	ppm	0.000905	54.84	2.666120	Y 377.433
U (409.013 nm)	0.026763	ppm	0.007169	26.79	37.655200	Y 377.433
V (292.401 nm)	0.001533	ppm	0.000183	11.91	-101.993000	Y 377.433
Zn (206.200 nm)	0.003809	ppm	0.000021	0.56	22.733600	Y 377.433
Zr (343.823 nm)	0.000695	ppm	0.000340	48.92	-134.432000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126743	25230.554952	0.002390	0.21
Y 377.433	1.124231	726395.497296	0.003334	0.30
Y_R 377.433	1.139090	62707.300000	0.000534	0.05
Y_R 488.368	1.135980	54898.300000	0.001562	0.14
Y_R2 488.368	1.114416	103289.046915	0.011751	1.05
Y_R4	1.128150	48307.000000	0.009269	0.82

Sample Name: CCVH-5713036

Date: 5/24/2019 6:52:21 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004495	ppm	0.000369	8.21	-98.368400	Y 377.433
Al (394.401 nm)	49.015100 o	ppm	0.102123	0.21	584584.000000	Y 377.433
Al H (396.152 nm)	48.643600	ppm	0.094402	0.19	100017.000000	Y_R 377.433
As (188.980 nm)	-0.000203 u	ppm	0.001614	> 100.00	-3.018810	Y 242.219
B (249.678 nm)	-0.002762 u	ppm	0.001042	37.73	-10.848000	Y 242.219
Ba (493.408 nm)	0.001011	ppm	0.000644	63.77	1568.060000	Y_R 488.368
Be (234.861 nm)	0.001028	ppm	0.000009	0.90	-112.187000	Y_R 488.368
Bi (223.061 nm)	0.011962	ppm	0.000975	8.15	20.502800	Y 377.433
Ca (315.887 nm)	0.008199	ppm	0.001676	20.44	-43.043965	Y_R 377.433
Cd (214.439 nm)	0.001578	ppm	0.000016	1.03	76.674100	Y 377.433
Co (228.615 nm)	0.003378	ppm	0.000111	3.30	61.387600	Y 242.219
Cr (205.560 nm)	0.001547	ppm	0.000675	43.65	3.603140	Y 377.433
Cu (324.754 nm)	0.003052	ppm	0.000155	5.07	1471.540000	Y 377.433
Fe (238.204 nm)	48.248580 o	ppm	0.086200	0.18	118923.985169	Y_R 377.433
Fe H (259.940 nm)	48.520700	ppm	0.052187	0.11	67934.700000	Y_R 377.433
K (766.491 nm)	0.372207	ppm	0.151789	40.78	2351.020000	Y_R2 488.368
Li (670.783 nm)	0.011091	ppm	0.002267	20.44	-2438.340000	Y_R2 488.368
Mg (279.078 nm)	0.036031	ppm	0.001063	2.95	61.359800	Y 377.433
Mn (257.610 nm)	0.000980	ppm	0.000001	0.10	248.991000	Y 377.433
Mo (202.032 nm)	0.000668	ppm	0.000288	43.16	31.887500	Y 377.433
Na (589.592 nm)	231.851000 o	ppm	0.302585	0.13	171855.000000	Y_R2 488.368
Na H (589.593 nm)	249.064038	ppm	0.864575	0.35	124197.435309	Y_R4
Ni (231.604 nm)	0.003161	ppm	0.000470	14.88	6.298250	Y 377.433
P (213.618 nm)	4.769860	ppm	0.059819	1.25	7209.140000	Y 242.219
Pb (220.353 nm)	0.004591	ppm	0.001107	24.11	21.402600	Y 242.219
S (181.972 nm)	4.901202	ppm	0.005519	0.11	2209.447847	Y 377.433
Sb (206.834 nm)	0.003932	ppm	0.000696	17.69	3.670770	Y 377.433
Se (196.026 nm)	0.003746	ppm	0.003031	80.92	3.197210	Y 242.219
Si (288.158 nm)	0.014832	ppm	0.001564	10.54	605.877000	Y 377.433
Sn (189.925 nm)	0.000841	ppm	0.001013	> 100.00	3.702730	Y 377.433
Sr (421.552 nm)	0.000957	ppm	0.000118	12.33	194.900071	Y_R 488.368
Th (288.505 nm)	4.863090	ppm	0.011220	0.23	8497.700000	Y 377.433
Ti (336.122 nm)	0.002031	ppm	0.000250	12.33	-241.536000	Y 377.433
Tl (190.794 nm)	0.000809 u	ppm	0.001339	> 100.00	-2.828800	Y 377.433
U (409.013 nm)	0.545042 Q	ppm	0.004084	0.75	1700.980000 Q	Y 377.433
V (292.401 nm)	0.001483	ppm	0.000032	2.17	388.017000	Y 377.433
Zn (206.200 nm)	0.002917	ppm	0.000465	15.95	25.753700	Y 377.433
Zr (343.823 nm)	0.001464	ppm	0.000110	7.53	-90.128300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.083971	24272.777385	0.007956	0.73
Y 377.433	1.082900	699690.089813	0.008959	0.83
Y_R 377.433	1.116150	61444.600000	0.002876	0.26
Y_R 488.368	1.110750	53679.300000	0.004068	0.37
Y_R2 488.368	1.084208	100489.196931	0.001762	0.16
Y_R4	1.122900	48082.000000	0.008746	0.78

Sample Name: CCV-5717467

Date: 5/24/2019 6:56:05 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.482969	ppm	0.000363	0.08	16688.000000	Y 377.433
Al (394.401 nm)	0.500556	ppm	0.002432	0.49	6232.740000	Y 377.433
Al H (396.152 nm)	0.557974 u	ppm	0.005067	0.91	1153.060000	Y_R 377.433
As (188.980 nm)	0.484264	ppm	0.000505	0.10	770.243000	Y 242.219
B (249.678 nm)	0.473522	ppm	0.001943	0.41	3429.460000	Y 242.219
Ba (493.408 nm)	0.480177	ppm	0.000068	0.01	47945.800000	Y_R 488.368
Be (234.861 nm)	0.477760	ppm	0.002596	0.54	48155.300000	Y_R 488.368
Bi (223.061 nm)	0.946817	ppm	0.000757	0.08	2144.620000	Y 377.433
Ca (315.887 nm)	4.848372	ppm	0.014703	0.30	3852.437936	Y_R 377.433
Cd (214.439 nm)	0.487390	ppm	0.000252	0.05	19494.300000	Y 377.433
Co (228.615 nm)	0.483755	ppm	0.000487	0.10	11960.500000	Y 242.219
Cr (205.560 nm)	0.487316	ppm	0.002988	0.61	3443.690000	Y 377.433
Cu (324.754 nm)	0.479838	ppm	0.001193	0.25	22690.500000	Y 377.433
Fe (238.204 nm)	2.433548	ppm	0.009541	0.39	6001.040610	Y_R 377.433
Fe H (259.940 nm)	2.400730 u	ppm	0.011214	0.47	3447.560000	Y_R 377.433
K (766.491 nm)	47.600200	ppm	0.051917	0.11	49226.200000	Y_R2 488.368
Li (670.783 nm)	0.487708	ppm	0.002471	0.51	5861.310000	Y_R2 488.368
Mg (279.078 nm)	19.384200	ppm	0.004226	0.02	68689.800000	Y 377.433
Mn (257.610 nm)	0.484594	ppm	0.000182	0.04	134017.000000	Y 377.433
Mo (202.032 nm)	0.482877	ppm	0.000210	0.04	6167.810000	Y 377.433
Na (589.592 nm)	23.455800	ppm	0.093655	0.40	17583.400000	Y_R2 488.368
Na H (589.593 nm)	25.510495 u	ppm	0.221636	0.87	13014.976079	Y_R4
Ni (231.604 nm)	0.483630	ppm	0.000450	0.09	2691.990000	Y 377.433
P (213.618 nm)	0.053252	ppm	0.002759	5.18	-60.884500	Y 242.219
Pb (220.353 nm)	0.486125	ppm	0.001588	0.33	1680.580000	Y 242.219
S (181.972 nm)	0.006678	ppm	0.000450	6.73	12.471893	Y 377.433
Sb (206.834 nm)	0.488198	ppm	0.000811	0.17	851.633000	Y 377.433
Se (196.026 nm)	0.485209	ppm	0.002323	0.48	799.261000	Y 242.219
Si (288.158 nm)	4.734890	ppm	0.020884	0.44	31740.800000	Y 377.433
Sn (189.925 nm)	0.488027	ppm	0.000433	0.09	853.460000	Y 377.433
Sr (421.552 nm)	0.482264	ppm	0.000577	0.12	70579.150394	Y_R 488.368
Th (288.505 nm)	0.014010	ppm	0.000304	2.17	-10.245100	Y 377.433
Ti (336.122 nm)	0.480756	ppm	0.000625	0.13	62020.800000	Y 377.433
Tl (190.794 nm)	0.492949	ppm	0.001954	0.40	1190.950000	Y 377.433
U (409.013 nm)	0.021233	ppm	0.007170	33.77	-33.358000	Y 377.433
V (292.401 nm)	0.480023	ppm	0.000164	0.03	25131.900000	Y 377.433
Zn (206.200 nm)	0.486628	ppm	0.000648	0.13	2419.400000	Y 377.433
Zr (343.823 nm)	0.481782	ppm	0.000595	0.12	27605.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.112121	24903.129539	0.000580	0.05
Y 377.433	1.111176	717960.313084	0.001215	0.11
Y_R 377.433	1.122910	61816.500000	0.001323	0.12
Y_R 488.368	1.120820	54165.900000	0.003559	0.32
Y_R2 488.368	1.097363	101708.497550	0.003825	0.35
Y_R4	1.119380	47931.300000	0.001240	0.11

Sample Name: CCB

Date: 5/24/2019 6:59:41 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000362	ppm	0.000102	28.07	-233.182000	Y 377.433
Al (394.401 nm)	-0.002272 u	ppm	0.000206	9.06	102.602000	Y 377.433
Al H (396.152 nm)	0.119090 Zu	ppm	0.003630	3.05	19.890400 Z	Y_R 377.433
As (188.980 nm)	-0.001148 u	ppm	0.002116	> 100.00	-3.134960	Y 242.219
B (249.678 nm)	-0.003055 u	ppm	0.000404	13.21	15.192300	Y 242.219
Ba (493.408 nm)	-0.002122 Zu	ppm	0.001049	49.45	1227.070000 Z	Y_R 488.368
Be (234.861 nm)	0.000023	ppm	0.000007	28.70	-3.392490	Y_R 488.368
Bi (223.061 nm)	0.002124	ppm	0.002808	> 100.00	-10.671700	Y 377.433
Ca (315.887 nm)	0.012371	ppm	0.011068	89.47	-51.990272	Y_R 377.433
Cd (214.439 nm)	0.000113 u	ppm	0.000177	> 100.00	-3.285310	Y 377.433
Co (228.615 nm)	0.000248	ppm	0.000126	51.02	-16.051800	Y 242.219
Cr (205.560 nm)	-0.000250 u	ppm	0.000131	52.50	-7.739380	Y 377.433
Cu (324.754 nm)	0.000221	ppm	0.000105	47.58	422.206000	Y 377.433
Fe (238.204 nm)	0.001024 u	ppm	0.001882	> 100.00	5.457486	Y_R 377.433
Fe H (259.940 nm)	-0.055432 u	ppm	0.001217	2.19	13.242400	Y_R 377.433
K (766.491 nm)	0.028240	ppm	0.009893	35.03	2009.620000	Y_R2 488.368
Li (670.783 nm)	0.012467 Z	ppm	0.002813	22.56	-2414.360000 Z	Y_R2 488.368
Mg (279.078 nm)	-0.000233 u	ppm	0.001766	> 100.00	10.964700	Y 377.433
Mn (257.610 nm)	0.000069	ppm	0.000022	31.87	-2.862040	Y 377.433
Mo (202.032 nm)	-0.000098 u	ppm	0.000095	97.11	22.139900	Y 377.433
Na (589.592 nm)	0.086004	ppm	0.025366	29.49	173.730000	Y_R2 488.368
Na H (589.593 nm)	0.214787 u	ppm	0.015676	7.30	434.370439	Y_R4
Ni (231.604 nm)	0.000063 u	ppm	0.000286	> 100.00	-11.015800	Y 377.433
P (213.618 nm)	-0.000751 u	ppm	0.001230	> 100.00	-5.703320	Y 242.219
Pb (220.353 nm)	-0.001653 u	ppm	0.000938	56.71	7.237150	Y 242.219
S (181.972 nm)	-0.002626 u	ppm	0.009761	> 100.00	6.575716	Y 377.433
Sb (206.834 nm)	0.004732	ppm	0.001660	35.07	0.809748	Y 377.433
Se (196.026 nm)	-0.003001 u	ppm	0.001093	36.43	5.699450	Y 242.219
Si (288.158 nm)	-0.004609 u	ppm	0.001196	25.94	477.643000	Y 377.433
Sn (189.925 nm)	-0.001073 u	ppm	0.001004	93.60	0.365447	Y 377.433
Sr (421.552 nm)	0.000053	ppm	0.000032	59.15	55.712628	Y_R 488.368
Th (288.505 nm)	-0.001131 u	ppm	0.001604	> 100.00	12.560700	Y 377.433
Ti (336.122 nm)	0.000360	ppm	0.000091	25.30	-458.798000	Y 377.433
Tl (190.794 nm)	0.000805	ppm	0.000148	18.37	2.065220	Y 377.433
U (409.013 nm)	0.008715	ppm	0.006074	69.70	-14.494700	Y 377.433
V (292.401 nm)	0.000584	ppm	0.000034	5.81	-149.251000	Y 377.433
Zn (206.200 nm)	0.000441	ppm	0.000376	85.39	6.003860	Y 377.433
Zr (343.823 nm)	0.000428	ppm	0.000103	24.11	-149.820000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115869	24987.058391	0.005307	0.48
Y 377.433	1.112116	718567.097603	0.004244	0.38
Y_R 377.433	1.129040	62154.000000	0.000903	0.08
Y_R 488.368	1.125450	54389.500000	0.004715	0.42
Y_R2 488.368	1.100813	102028.248614	0.003406	0.31
Y_R4	1.125330	48186.100000	0.012517	1.11

Sample Name: CCVL-5717307

Date: 5/24/2019 7:02:53 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008025	ppm	0.000067	0.83	34.523200	Y 377.433
Al (394.401 nm)	0.095428	ppm	0.000905	0.95	1278.000000	Y 377.433
Al H (396.152 nm)	0.217628 u	ppm	0.003932	1.81	228.017000	Y_R 377.433
As (188.980 nm)	0.015015	ppm	0.000790	5.26	22.616300	Y 242.219
B (249.678 nm)	0.088467	ppm	0.000820	0.93	671.081000	Y 242.219
Ba (493.408 nm)	0.007948	ppm	0.000011	0.13	2202.550000	Y_R 488.368
Be (234.861 nm)	0.000982	ppm	0.000013	1.35	92.903900	Y_R 488.368
Bi (223.061 nm)	0.089277	ppm	0.000213	0.24	188.139000	Y 377.433
Ca (315.887 nm)	0.209540	ppm	0.008849	4.22	107.216000	Y_R 377.433
Cd (214.439 nm)	0.005039	ppm	0.000037	0.74	193.874000	Y 377.433
Co (228.615 nm)	0.010492	ppm	0.000163	1.55	237.691000	Y 242.219
Cr (205.560 nm)	0.010089	ppm	0.000278	2.75	65.346600	Y 377.433
Cu (324.754 nm)	0.015327	ppm	0.000085	0.56	1122.060000	Y 377.433
Fe (238.204 nm)	0.098084	ppm	0.002760	2.81	244.686664	Y_R 377.433
Fe H (259.940 nm)	0.047989 u	ppm	0.002273	4.74	157.850000	Y_R 377.433
K (766.491 nm)	2.842110	ppm	0.004087	0.14	4802.470000	Y_R2 488.368
Li (670.783 nm)	0.031316 Q	ppm	0.002983	9.53	-2086.140000 Q	Y_R2 488.368
Mg (279.078 nm)	0.199897	ppm	0.000339	0.17	718.890000	Y 377.433
Mn (257.610 nm)	0.010365	ppm	0.000022	0.21	2844.860000	Y 377.433
Mo (202.032 nm)	0.018492	ppm	0.000077	0.42	258.692000	Y 377.433
Na (589.592 nm)	1.103640	ppm	0.021778	1.97	929.591000	Y_R2 488.368
Na H (589.593 nm)	1.124758 u	ppm	0.002030	0.18	886.936568	Y_R4
Ni (231.604 nm)	0.040524	ppm	0.000188	0.46	215.117000	Y 377.433
P (213.618 nm)	2.722390	ppm	0.022664	0.83	4110.810000	Y 242.219
Pb (220.353 nm)	0.007745	ppm	0.001348	17.40	39.592100	Y 242.219
S (181.972 nm)	0.083399	ppm	0.006086	7.30	45.256758	Y 377.433
Sb (206.834 nm)	0.025005	ppm	0.002910	11.64	36.451600	Y 377.433
Se (196.026 nm)	0.017901	ppm	0.000204	1.14	39.660000	Y 242.219
Si (288.158 nm)	0.465298	ppm	0.003966	0.85	3577.290000	Y 377.433
Sn (189.925 nm)	0.095620	ppm	0.000974	1.02	169.018000	Y 377.433
Sr (421.552 nm)	0.009130	ppm	0.000226	2.48	1383.256389	Y_R 488.368
Th (288.505 nm)	0.010992	ppm	0.002399	21.83	33.183700	Y 377.433
Ti (336.122 nm)	0.009981	ppm	0.000163	1.64	792.807000	Y 377.433
Tl (190.794 nm)	0.017227	ppm	0.000846	4.91	41.733200	Y 377.433
U (409.013 nm)	0.060636	ppm	0.002126	3.51	147.024000	Y 377.433
V (292.401 nm)	0.010034	ppm	0.000002	0.02	346.135000	Y 377.433
Zn (206.200 nm)	0.020080	ppm	0.000364	1.81	103.491000	Y 377.433
Zr (343.823 nm)	0.009862	ppm	0.000223	2.26	394.143000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126563	25226.535448	0.000357	0.03
Y 377.433	1.122238	725107.225494	0.000152	0.01
Y_R 377.433	1.121210	61722.800000	0.008711	0.78
Y_R 488.368	1.119770	54115.000000	0.007110	0.63
Y_R2 488.368	1.110306	102908.071551	0.008472	0.76
Y_R4	1.131280	48440.800000	0.005163	0.46

Sample Name: 280-123814-f-1-b ms

Date: 5/24/2019 7:06:24 AM Rack:Tube: 4:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000470	ppm	0.000408	86.80	-556.792000	Y 377.433
Al (394.401 nm)	10.270200 o	ppm	0.001397	0.01	123187.000000	Y 377.433
Al H (396.152 nm)	10.199000	ppm	0.023859	0.23	21355.900000	Y_R 377.433
As (188.980 nm)	2.050140	ppm	0.003511	0.17	3265.060000	Y 242.219
B (249.678 nm)	1.255110	ppm	0.000163	0.01	9026.620000	Y 242.219
Ba (493.408 nm)	2.038740	ppm	0.008471	0.42	198919.000000	Y_R 488.368
Be (234.861 nm)	1.005850	ppm	0.006573	0.65	101368.000000	Y_R 488.368
Bi (223.061 nm)	1.946590	ppm	0.001093	0.06	4426.420000	Y 377.433
Ca (315.887 nm)	222.644140	ppm	0.112195	0.05	179689.935149	Y_R 377.433
Cd (214.439 nm)	0.979775	ppm	0.001125	0.11	39198.700000	Y 377.433
Co (228.615 nm)	0.973193	ppm	0.002903	0.30	24086.000000	Y 242.219
Cr (205.560 nm)	0.995761	ppm	0.003393	0.34	7042.440000	Y 377.433
Cu (324.754 nm)	0.997377	ppm	0.001997	0.20	46682.900000	Y 377.433
Fe (238.204 nm)	10.275271 o	ppm	0.000349	0.00	25328.985841	Y_R 377.433
Fe H (259.940 nm)	10.320600	ppm	0.023938	0.23	14521.600000	Y_R 377.433
K (766.491 nm)	50.984700	ppm	0.059551	0.12	52585.400000	Y_R2 488.368
Li (670.783 nm)	1.010330	ppm	0.006596	0.65	14962.000000	Y_R2 488.368
Mg (279.078 nm)	57.171900	ppm	0.025344	0.04	202533.000000	Y 377.433
Mn (257.610 nm)	1.042520	ppm	0.000227	0.02	288338.000000	Y 377.433
Mo (202.032 nm)	1.037820	ppm	0.000400	0.04	13229.300000	Y 377.433
Na (589.592 nm)	49.732900	ppm	0.068842	0.14	37368.800000	Y_R2 488.368
Na H (589.593 nm)	54.866733	ppm	0.101749	0.19	27615.052400	Y_R4
Ni (231.604 nm)	0.965318	ppm	0.001573	0.16	5385.720000	Y 377.433
P (213.618 nm)	20.388400	ppm	0.043076	0.21	30562.100000	Y 242.219
Pb (220.353 nm)	0.991892	ppm	0.000947	0.10	3418.830000	Y 242.219
S (181.972 nm)	96.099084	ppm	0.187024	0.19	43190.567760	Y 377.433
Sb (206.834 nm)	0.005966	ppm	0.000571	9.57	-2.080790	Y 377.433
Se (196.026 nm)	1.989670	ppm	0.001251	0.06	3243.030000	Y 242.219
Si (288.158 nm)	5.681260	ppm	0.001355	0.02	37983.400000	Y 377.433
Sn (189.925 nm)	1.983960	ppm	0.002739	0.14	3462.680000	Y 377.433
Sr (421.552 nm)	1.339022	ppm	0.004817	0.36	195880.926816	Y_R 488.368
Th (288.505 nm)	1.027950	ppm	0.005443	0.53	1709.730000	Y 377.433
Ti (336.122 nm)	1.012170	ppm	0.001415	0.14	131862.000000	Y 377.433
Tl (190.794 nm)	1.963470	ppm	0.001855	0.09	4739.980000	Y 377.433
U (409.013 nm)	2.027760	ppm	0.000851	0.04	6232.680000	Y 377.433
V (292.401 nm)	1.001880	ppm	0.000855	0.09	52659.600000	Y 377.433
Zn (206.200 nm)	0.493545	ppm	0.000642	0.13	2454.940000	Y 377.433
Zr (343.823 nm)	0.465381	ppm	0.000718	0.15	26659.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.060233	23741.227846	0.004894	0.46
Y 377.433	1.072902	693230.381921	0.004730	0.44
Y_R 377.433	1.100240	60568.500000	0.001902	0.17
Y_R 488.368	1.096030	52967.600000	0.002260	0.21
Y_R2 488.368	1.070244	99195.016702	0.004747	0.44
Y_R4	1.110130	47535.300000	0.007203	0.65

Sample Name: 280-123814-f-1-c msd

Date: 5/24/2019 7:10:03 AM Rack:Tube: 4:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000159 u	ppm	0.000357	> 100.00	-565.469000	Y 377.433
Al (394.401 nm)	10.141000 o	ppm	0.006504	0.06	121641.000000	Y 377.433
Al H (396.152 nm)	10.032600	ppm	0.022331	0.22	21007.800000	Y_R 377.433
As (188.980 nm)	2.042560	ppm	0.003583	0.18	3252.980000	Y 242.219
B (249.678 nm)	1.243360	ppm	0.000532	0.04	8942.540000	Y 242.219
Ba (493.408 nm)	2.018750	ppm	0.006474	0.32	196982.000000	Y_R 488.368
Be (234.861 nm)	0.999622	ppm	0.001448	0.14	100740.000000	Y_R 488.368
Bi (223.061 nm)	1.932570	ppm	0.002768	0.14	4394.400000	Y 377.433
Ca (315.887 nm)	218.955444	ppm	0.478251	0.22	176711.863900	Y_R 377.433
Cd (214.439 nm)	0.972119	ppm	0.002124	0.22	38892.300000	Y 377.433
Co (228.615 nm)	0.966332	ppm	0.001151	0.12	23916.100000	Y 242.219
Cr (205.560 nm)	0.991442	ppm	0.006218	0.63	7011.880000	Y 377.433
Cu (324.754 nm)	0.991073	ppm	0.003973	0.40	46390.100000	Y 377.433
Fe (238.204 nm)	10.114499 o	ppm	0.034468	0.34	24932.721426	Y_R 377.433
Fe H (259.940 nm)	10.128700	ppm	0.016531	0.16	14253.200000	Y_R 377.433
K (766.491 nm)	50.316600	ppm	0.263595	0.52	51922.300000	Y_R2 488.368
Li (670.783 nm)	0.997149	ppm	0.002016	0.20	14732.500000	Y_R2 488.368
Mg (279.078 nm)	56.410000	ppm	0.157502	0.28	199834.000000	Y 377.433
Mn (257.610 nm)	1.035720	ppm	0.001854	0.18	286458.000000	Y 377.433
Mo (202.032 nm)	1.030900	ppm	0.001392	0.13	13141.200000	Y 377.433
Na (589.592 nm)	48.925100	ppm	0.175375	0.36	36765.300000	Y_R2 488.368
Na H (589.593 nm)	54.039688	ppm	0.148539	0.27	27203.728669	Y_R4
Ni (231.604 nm)	0.958259	ppm	0.004763	0.50	5346.260000	Y 377.433
P (213.618 nm)	20.187600	ppm	0.028467	0.14	30259.700000	Y 242.219
Pb (220.353 nm)	0.983661	ppm	0.002033	0.21	3390.570000	Y 242.219
S (181.972 nm)	94.595651	ppm	0.263420	0.28	42515.031525	Y 377.433
Sb (206.834 nm)	0.005570	ppm	0.004321	77.58	-2.760200	Y 377.433
Se (196.026 nm)	1.973920	ppm	0.001956	0.10	3217.470000	Y 242.219
Si (288.158 nm)	5.614830	ppm	0.006857	0.12	37545.200000	Y 377.433
Sn (189.925 nm)	1.967160	ppm	0.000108	0.01	3433.390000	Y 377.433
Sr (421.552 nm)	1.324272	ppm	0.003362	0.25	193723.722675	Y_R 488.368
Th (288.505 nm)	1.019850	ppm	0.002026	0.20	1696.230000	Y 377.433
Ti (336.122 nm)	1.005710	ppm	0.001247	0.12	131011.000000	Y 377.433
Tl (190.794 nm)	1.955480	ppm	0.001875	0.10	4720.820000	Y 377.433
U (409.013 nm)	2.010520	ppm	0.000754	0.04	6179.180000	Y 377.433
V (292.401 nm)	0.995365	ppm	0.001611	0.16	52314.700000	Y 377.433
Zn (206.200 nm)	0.484701	ppm	0.000829	0.17	2411.030000	Y 377.433
Zr (343.823 nm)	0.463438	ppm	0.000133	0.03	26547.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.060115	23738.601313	0.001791	0.17
Y 377.433	1.072793	693159.530918	0.003430	0.32
Y_R 377.433	1.102100	60671.100000	0.002481	0.23
Y_R 488.368	1.096140	52973.100000	0.003262	0.30
Y_R2 488.368	1.073689	99514.278148	0.001858	0.17
Y_R4	1.103030	47231.300000	0.002484	0.23

Sample Name: 280-123814-f-1-aPDS

Date: 5/24/2019 7:13:44 AM Rack:Tube: 4:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051612	ppm	0.000061	0.12	1556.200000	Y 377.433
Al (394.401 nm)	1.182140	ppm	0.002142	0.18	14371.100000	Y 377.433
Al H (396.152 nm)	1.240960	ppm	0.004730	0.38	2439.660000	Y_R 377.433
As (188.980 nm)	0.205890	ppm	0.000331	0.16	326.720000	Y 242.219
B (249.678 nm)	0.324549	ppm	0.000190	0.06	2362.450000	Y 242.219
Ba (493.408 nm)	0.124978	ppm	0.000463	0.37	13539.300000	Y_R 488.368
Be (234.861 nm)	0.050531	ppm	0.000064	0.13	5083.850000	Y_R 488.368
Bi (223.061 nm)	0.003380	ppm	0.001878	55.55	-7.535650	Y 377.433
Ca (315.887 nm)	186.114603	ppm	0.668690	0.36	150195.886344	Y_R 377.433
Cd (214.439 nm)	0.049660	ppm	0.000106	0.21	1979.710000	Y 377.433
Co (228.615 nm)	0.049135	ppm	0.000675	1.37	1195.120000	Y 242.219
Cr (205.560 nm)	0.050315	ppm	0.000004	0.01	350.082000	Y 377.433
Cu (324.754 nm)	0.059587	ppm	0.000092	0.16	3079.650000	Y 377.433
Fe (238.204 nm)	1.236860	ppm	0.011831	0.96	3051.493936	Y_R 377.433
Fe H (259.940 nm)	1.195410 u	ppm	0.005727	0.48	1762.220000	Y_R 377.433
K (766.491 nm)	20.381700	ppm	0.063722	0.31	22211.000000	Y_R2 488.368
Li (670.783 nm)	0.110358	ppm	0.001487	1.35	-709.740000	Y_R2 488.368
Mg (279.078 nm)	27.041700	ppm	0.139864	0.52	95814.000000	Y 377.433
Mn (257.610 nm)	0.091979	ppm	0.000322	0.35	25419.300000	Y 377.433
Mo (202.032 nm)	0.068908	ppm	0.000091	0.13	900.214000	Y 377.433
Na (589.592 nm)	21.500800	ppm	0.055732	0.26	16062.600000	Y_R2 488.368
Na H (589.593 nm)	22.602682 u	ppm	0.036361	0.16	11568.800096	Y_R4
Ni (231.604 nm)	0.048624	ppm	0.000185	0.38	260.611000	Y 377.433
P (213.618 nm)	2.030760	ppm	0.004956	0.24	3050.350000	Y 242.219
Pb (220.353 nm)	0.097525	ppm	0.001081	1.11	348.915000	Y 242.219
S (181.972 nm)	80.798749	ppm	0.563114	0.70	36312.794947	Y 377.433
Sb (206.834 nm)	0.106797	ppm	0.003017	2.83	180.634000	Y 377.433
Se (196.026 nm)	0.196212	ppm	0.002532	1.29	329.263000	Y 242.219
Si (288.158 nm)	8.351290	ppm	0.065605	0.79	55595.800000	Y 377.433
Sn (189.925 nm)	0.096202	ppm	0.000153	0.16	170.034000	Y 377.433
Sr (421.552 nm)	0.363025	ppm	0.000675	0.19	53140.328442	Y_R 488.368
Th (288.505 nm)	0.200735	ppm	0.001209	0.60	358.248000	Y 377.433
Ti (336.122 nm)	0.055530	ppm	0.000062	0.11	7350.590000	Y 377.433
Tl (190.794 nm)	0.204300	ppm	0.003009	1.47	486.721000	Y 377.433
U (409.013 nm)	0.530336	ppm	0.010675	2.01	1590.000000	Y 377.433
V (292.401 nm)	0.053056	ppm	0.000196	0.37	2609.150000	Y 377.433
Zn (206.200 nm)	0.199932	ppm	0.001848	0.92	996.299000	Y 377.433
Zr (343.823 nm)	0.051969	ppm	0.000073	0.14	2822.020000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.077462	24127.038080	0.001459	0.14
Y 377.433	1.084110	700472.084955	0.002661	0.25
Y_R 377.433	1.103890	60769.600000	0.003084	0.28
Y_R 488.368	1.100330	53175.900000	0.002052	0.19
Y_R2 488.368	1.077169	99836.822131	0.007893	0.73
Y_R4	1.102180	47194.700000	0.000545	0.05

Sample Name: 280-123814-f-2-a

Date: 5/24/2019 7:17:23 AM Rack:Tube: 4:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000463	ppm	0.000105	22.71	-230.158000	Y 377.433
Al (394.401 nm)	1.500250	ppm	0.002606	0.17	18071.700000	Y 377.433
Al H (396.152 nm)	1.675180	ppm	0.003781	0.23	3247.240000	Y_R 377.433
As (188.980 nm)	0.000522 u	ppm	0.001793	> 100.00	-0.507808	Y 242.219
B (249.678 nm)	0.006314	ppm	0.000514	8.15	81.650100	Y 242.219
Ba (493.408 nm)	0.035080	ppm	0.000371	1.06	4831.440000	Y_R 488.368
Be (234.861 nm)	0.000097	ppm	0.000032	33.53	-1.094800	Y_R 488.368
Bi (223.061 nm)	0.000634 u	ppm	0.001456	> 100.00	-13.853700	Y 377.433
Ca (315.887 nm)	15.023380	ppm	0.034678	0.23	12067.377613	Y_R 377.433
Cd (214.439 nm)	0.000297	ppm	0.000045	15.00	4.616120	Y 377.433
Co (228.615 nm)	0.000844	ppm	0.000073	8.70	0.458323	Y 242.219
Cr (205.560 nm)	0.002169	ppm	0.000757	34.91	9.355970	Y 377.433
Cu (324.754 nm)	0.013730	ppm	0.000131	0.96	1039.250000	Y 377.433
Fe (238.204 nm)	1.181518	ppm	0.001572	0.13	2915.088850	Y_R 377.433
Fe H (259.940 nm)	1.141940 u	ppm	0.009559	0.84	1687.460000	Y_R 377.433
K (766.491 nm)	0.866733	ppm	0.056384	6.51	2841.850000	Y_R2 488.368
Li (670.783 nm)	0.018743	ppm	0.003893	20.77	-2305.080000	Y_R2 488.368
Mg (279.078 nm)	2.217900	ppm	0.000164	0.01	7868.430000	Y 377.433
Mn (257.610 nm)	0.017285	ppm	0.000049	0.28	4759.070000	Y 377.433
Mo (202.032 nm)	-0.000310 u	ppm	0.000171	55.21	19.445400	Y 377.433
Na (589.592 nm)	1.823990	ppm	0.045843	2.51	1468.590000	Y_R2 488.368
Na H (589.593 nm)	1.933716 u	ppm	0.015816	0.82	1289.265324	Y_R4
Ni (231.604 nm)	0.002091	ppm	0.000638	30.49	0.319778	Y 377.433
P (213.618 nm)	0.028786	ppm	0.000124	0.43	35.590300	Y 242.219
Pb (220.353 nm)	-0.000388 u	ppm	0.000162	41.64	11.256500	Y 242.219
S (181.972 nm)	2.166279	ppm	0.015598	0.72	981.636898	Y 377.433
Sb (206.834 nm)	0.002009	ppm	0.001165	57.99	-4.053710	Y 377.433
Se (196.026 nm)	-0.001462 u	ppm	0.003823	> 100.00	7.895040	Y 242.219
Si (288.158 nm)	5.625770	ppm	0.038919	0.69	37617.400000	Y 377.433
Sn (189.925 nm)	-0.000573 u	ppm	0.000726	> 100.00	1.237540	Y 377.433
Sr (421.552 nm)	0.060918	ppm	0.000108	0.18	8957.326420	Y_R 488.368
Th (288.505 nm)	-0.006169 u	ppm	0.002074	33.62	3.338690	Y 377.433
Ti (336.122 nm)	0.039776	ppm	0.000024	0.06	4716.540000	Y 377.433
Tl (190.794 nm)	0.001239	ppm	0.001155	93.19	2.198940	Y 377.433
U (409.013 nm)	0.004231 u	ppm	0.006205	> 100.00	-29.990200	Y 377.433
V (292.401 nm)	0.003890	ppm	0.000002	0.05	25.846700	Y 377.433
Zn (206.200 nm)	0.018644	ppm	0.000096	0.51	96.531400	Y 377.433
Zr (343.823 nm)	0.003532	ppm	0.000202	5.71	29.134300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.129865	25300.470761	0.001626	0.14
Y 377.433	1.126770	728035.560050	0.001117	0.10
Y_R 377.433	1.137000	62592.100000	0.007684	0.68
Y_R 488.368	1.133430	54775.100000	0.007525	0.66
Y_R2 488.368	1.118880	103702.789771	0.006063	0.54
Y_R4	1.141330	48871.100000	0.002018	0.18

Sample Name: 280-123814-f-3-a

Date: 5/24/2019 7:20:57 AM Rack:Tube: 4:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000729	ppm	0.000334	45.84	-220.884000	Y 377.433
Al (394.401 nm)	1.360590	ppm	0.003075	0.23	16403.300000	Y 377.433
Al H (396.152 nm)	1.533050	ppm	0.010888	0.71	2954.070000	Y_R 377.433
As (188.980 nm)	0.001236	ppm	0.001743	> 100.00	0.634513	Y 242.219
B (249.678 nm)	0.005758	ppm	0.000322	5.59	77.745200	Y 242.219
Ba (493.408 nm)	0.034267	ppm	0.000508	1.48	4752.600000	Y_R 488.368
Be (234.861 nm)	0.000099	ppm	0.000005	5.33	-0.298743	Y_R 488.368
Bi (223.061 nm)	-0.000742 u	ppm	0.001025	> 100.00	-17.015700	Y 377.433
Ca (315.887 nm)	15.155361	ppm	0.005220	0.03	12173.894354	Y_R 377.433
Cd (214.439 nm)	0.000248	ppm	0.000026	10.29	2.591130	Y 377.433
Co (228.615 nm)	0.000750	ppm	0.000188	25.06	-2.043950	Y 242.219
Cr (205.560 nm)	0.002335	ppm	0.000032	1.38	10.535200	Y 377.433
Cu (324.754 nm)	0.012009	ppm	0.000159	1.33	959.481000	Y 377.433
Fe (238.204 nm)	1.050501	ppm	0.001498	0.14	2592.164842	Y_R 377.433
Fe H (259.940 nm)	1.004490 u	ppm	0.004139	0.41	1495.280000	Y_R 377.433
K (766.491 nm)	0.803925	ppm	0.047017	5.85	2779.510000	Y_R2 488.368
Li (670.783 nm)	0.016851	ppm	0.000784	4.65	-2338.040000	Y_R2 488.368
Mg (279.078 nm)	2.262500	ppm	0.003814	0.17	8026.470000	Y 377.433
Mn (257.610 nm)	0.018350	ppm	0.000061	0.33	5053.670000	Y 377.433
Mo (202.032 nm)	-0.000791 u	ppm	0.000060	7.58	13.320700	Y 377.433
Na (589.592 nm)	1.757970	ppm	0.071520	4.07	1419.570000	Y_R2 488.368
Na H (589.593 nm)	1.796727 u	ppm	0.015318	0.85	1221.134955	Y_R4
Ni (231.604 nm)	0.002442	ppm	0.000606	24.81	2.280110	Y 377.433
P (213.618 nm)	0.030422	ppm	0.001406	4.62	38.654000	Y 242.219
Pb (220.353 nm)	-0.001100 u	ppm	0.001143	> 100.00	8.868400	Y 242.219
S (181.972 nm)	2.219251	ppm	0.029982	1.35	1005.441328	Y 377.433
Sb (206.834 nm)	0.001561 u	ppm	0.006734	> 100.00	-4.836920	Y 377.433
Se (196.026 nm)	-0.000723 u	ppm	0.002107	> 100.00	9.136290	Y 242.219
Si (288.158 nm)	5.322820	ppm	0.000880	0.02	35619.000000	Y 377.433
Sn (189.925 nm)	0.000078 u	ppm	0.000124	> 100.00	2.372370	Y 377.433
Sr (421.552 nm)	0.060469	ppm	0.000232	0.38	8891.613384	Y_R 488.368
Th (288.505 nm)	-0.000993 u	ppm	0.001418	> 100.00	12.463700	Y 377.433
Ti (336.122 nm)	0.035959	ppm	0.000204	0.57	4220.710000	Y 377.433
Tl (190.794 nm)	0.000290	ppm	0.000321	> 100.00	-0.070884	Y 377.433
U (409.013 nm)	0.018662	ppm	0.006398	34.28	15.133400	Y 377.433
V (292.401 nm)	0.003741	ppm	0.000028	0.74	17.818700	Y 377.433
Zn (206.200 nm)	0.018837	ppm	0.000449	2.39	97.470500	Y 377.433
Zr (343.823 nm)	0.003469	ppm	0.000037	1.06	25.480300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.134477	25403.744912	0.000288	0.03
Y 377.433	1.129775	729976.994508	0.000722	0.06
Y_R 377.433	1.141830	62858.000000	0.003174	0.28
Y_R 488.368	1.137590	54976.300000	0.003261	0.29
Y_R2 488.368	1.118623	103678.953711	0.002556	0.23
Y_R4	1.144780	49018.700000	0.000214	0.02

Sample Name: 280-123853-f-1-a

Date: 5/24/2019 7:24:31 AM Rack:Tube: 4:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000851	ppm	0.000132	15.52	-216.679000	Y 377.433
Al (394.401 nm)	0.106645	ppm	0.001930	1.81	1504.200000	Y 377.433
Al H (396.152 nm)	0.141644 u	ppm	0.010756	7.59	188.273000	Y_R 377.433
As (188.980 nm)	-0.000414 u	ppm	0.001367	> 100.00	-1.974150	Y 242.219
B (249.678 nm)	0.011566	ppm	0.000643	5.56	119.795000	Y 242.219
Ba (493.408 nm)	0.056229	ppm	0.000124	0.22	6879.390000	Y_R 488.368
Be (234.861 nm)	-0.000037 u	ppm	0.000042	> 100.00	-10.865800	Y_R 488.368
Bi (223.061 nm)	0.001885	ppm	0.001761	93.41	-11.152400	Y 377.433
Ca (315.887 nm)	123.226916	ppm	0.215054	0.17	99423.929311	Y_R 377.433
Cd (214.439 nm)	0.000542	ppm	0.000050	9.22	14.017400	Y 377.433
Co (228.615 nm)	0.001125	ppm	0.000116	10.29	5.758820	Y 242.219
Cr (205.560 nm)	0.032383	ppm	0.000083	0.25	223.475000	Y 377.433
Cu (324.754 nm)	0.011470	ppm	0.000036	0.32	872.183000	Y 377.433
Fe (238.204 nm)	0.316266	ppm	0.001775	0.56	782.453900	Y_R 377.433
Fe H (259.940 nm)	0.271386 u	ppm	0.002200	0.81	470.215000	Y_R 377.433
K (766.491 nm)	2.717400	ppm	0.148452	5.46	4678.690000	Y_R2 488.368
Li (670.783 nm)	0.018624	ppm	0.005538	29.74	-2307.160000	Y_R2 488.368
Mg (279.078 nm)	10.744300	ppm	0.033267	0.31	38079.700000	Y 377.433
Mn (257.610 nm)	0.039245	ppm	0.000097	0.25	10833.200000	Y 377.433
Mo (202.032 nm)	0.002606	ppm	0.000211	8.10	56.542900	Y 377.433
Na (589.592 nm)	400.408000 o	ppm	1.912330	0.48	296727.000000	Y_R2 488.368
Na H (589.593 nm)	446.529861	ppm	0.208825	0.05	222405.387906	Y_R4
Ni (231.604 nm)	0.015335	ppm	0.001312	8.55	74.330500	Y 377.433
P (213.618 nm)	0.011711	ppm	0.001260	10.76	9.626490	Y 242.219
Pb (220.353 nm)	-0.000593 u	ppm	0.003122	> 100.00	10.859600	Y 242.219
S (181.972 nm)	5.618978	ppm	0.036957	0.66	2537.852513	Y 377.433
Sb (206.834 nm)	0.003014	ppm	0.001082	35.91	-1.973360	Y 377.433
Se (196.026 nm)	0.002355	ppm	0.001462	62.10	14.373600	Y 242.219
Si (288.158 nm)	5.138740	ppm	0.036418	0.71	34404.800000	Y 377.433
Sn (189.925 nm)	-0.000618 u	ppm	0.000201	32.57	1.158000	Y 377.433
Sr (421.552 nm)	0.378478	ppm	0.001144	0.30	55400.276228	Y_R 488.368
Th (288.505 nm)	-0.010360 u	ppm	0.001082	10.44	-5.907420	Y 377.433
Ti (336.122 nm)	0.001417	ppm	0.000476	33.61	98.391400	Y 377.433
Tl (190.794 nm)	0.002881	ppm	0.000856	29.72	1.924190	Y 377.433
U (409.013 nm)	0.018438	ppm	0.008784	47.64	0.197560	Y 377.433
V (292.401 nm)	0.001666	ppm	0.000020	1.20	-106.334000	Y 377.433
Zn (206.200 nm)	0.003502	ppm	0.000526	15.01	21.246900	Y 377.433
Zr (343.823 nm)	0.000778	ppm	0.000227	29.23	-129.684000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.054708	23617.514057	0.001829	0.17
Y 377.433	1.058714	684062.699281	0.002460	0.23
Y_R 377.433	1.099580	60532.400000	0.001514	0.14
Y_R 488.368	1.096030	52968.000000	0.001490	0.14
Y_R2 488.368	1.076409	99766.354639	0.009778	0.91
Y_R4	1.098510	47037.500000	0.000683	0.06

Sample Name: 280-123853-f-2-a

Date: 5/24/2019 7:28:10 AM Rack:Tube: 4:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001293	ppm	0.000250	19.33	-201.953000	Y 377.433
Al (394.401 nm)	1.667900	ppm	0.004705	0.28	20152.800000	Y 377.433
Al H (396.152 nm)	1.771480	ppm	0.003636	0.21	3544.930000	Y_R 377.433
As (188.980 nm)	0.001625	ppm	0.000539	33.16	1.175360	Y 242.219
B (249.678 nm)	0.023444	ppm	0.001419	6.05	202.924000	Y 242.219
Ba (493.408 nm)	0.013379	ppm	0.000268	2.01	2731.430000	Y_R 488.368
Be (234.861 nm)	0.000042	ppm	0.000057	> 100.00	-17.837500	Y_R 488.368
Bi (223.061 nm)	0.003145	ppm	0.000268	8.53	-7.656420	Y 377.433
Ca (315.887 nm)	131.327107	ppm	0.459664	0.35	105963.944983	Y_R 377.433
Cd (214.439 nm)	0.000422	ppm	0.000006	1.41	10.757100	Y 377.433
Co (228.615 nm)	0.001929	ppm	0.000063	3.29	27.062600	Y 242.219
Cr (205.560 nm)	0.013961	ppm	0.001242	8.90	92.907500	Y 377.433
Cu (324.754 nm)	0.006975	ppm	0.000412	5.91	661.251000	Y 377.433
Fe (238.204 nm)	3.753681	ppm	0.011334	0.30	9254.848270	Y_R 377.433
Fe H (259.940 nm)	3.722520 u	ppm	0.009075	0.24	5295.750000	Y_R 377.433
K (766.491 nm)	3.163950	ppm	0.037764	1.19	5121.900000	Y_R2 488.368
Li (670.783 nm)	0.023309	ppm	0.002518	10.80	-2225.580000	Y_R2 488.368
Mg (279.078 nm)	39.759300	ppm	0.038471	0.10	140880.000000	Y 377.433
Mn (257.610 nm)	0.515618	ppm	0.000012	0.00	142598.000000	Y 377.433
Mo (202.032 nm)	-0.000534 u	ppm	0.000263	49.25	16.591600	Y 377.433
Na (589.592 nm)	306.929000 o	ppm	0.137502	0.04	227473.000000	Y_R2 488.368
Na H (589.593 nm)	337.981486	ppm	2.148616	0.64	168419.774193	Y_R4
Ni (231.604 nm)	0.004470	ppm	0.000990	22.15	13.608900	Y 377.433
P (213.618 nm)	0.056303	ppm	0.002257	4.01	78.382400	Y 242.219
Pb (220.353 nm)	-0.000147 u	ppm	0.000879	> 100.00	12.035100	Y 242.219
S (181.972 nm)	16.402150	ppm	0.031946	0.19	7383.651086	Y 377.433
Sb (206.834 nm)	-0.002475 u	ppm	0.002541	> 100.00	-11.627600	Y 377.433
Se (196.026 nm)	0.001741	ppm	0.001342	77.06	13.122200	Y 242.219
Si (288.158 nm)	9.115520	ppm	0.053004	0.58	60636.800000	Y 377.433
Sn (189.925 nm)	0.000923 u	ppm	0.001491	> 100.00	3.845640	Y 377.433
Sr (421.552 nm)	0.378552	ppm	0.000907	0.24	55411.574599	Y_R 488.368
Th (288.505 nm)	-0.005838 u	ppm	0.001551	26.58	10.412000	Y 377.433
Ti (336.122 nm)	0.034925	ppm	0.000950	2.72	4482.860000	Y 377.433
Tl (190.794 nm)	0.001300	ppm	0.000660	50.75	-2.785030	Y 377.433
U (409.013 nm)	0.025734	ppm	0.001399	5.43	24.393600	Y 377.433
V (292.401 nm)	0.004879	ppm	0.000091	1.87	74.543500	Y 377.433
Zn (206.200 nm)	0.012850	ppm	0.000609	4.74	68.171500	Y 377.433
Zr (343.823 nm)	0.001784	ppm	0.000073	4.12	-71.646100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.052132	23559.837201	0.003068	0.29
Y 377.433	1.058206	683734.444308	0.003342	0.32
Y_R 377.433	1.095140	60287.900000	0.001009	0.09
Y_R 488.368	1.091970	52771.500000	0.000056	0.01
Y_R2 488.368	1.073499	99496.651058	0.003990	0.37
Y_R4	1.113110	47662.900000	0.007610	0.68

Sample Name: 280-123853-f-3-a

Date: 5/24/2019 7:31:48 AM Rack:Tube: 4:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000614	ppm	0.000002	0.35	-225.741000	Y 377.433
Al (394.401 nm)	2.213630	ppm	0.000443	0.02	27050.500000	Y 377.433
Al H (396.152 nm)	2.125130	ppm	0.004901	0.23	4878.310000	Y_R 377.433
As (188.980 nm)	0.000294	ppm	0.000110	37.51	-0.937919	Y 242.219
B (249.678 nm)	0.014337	ppm	0.000534	3.72	137.790000	Y 242.219
Ba (493.408 nm)	0.225931	ppm	0.000264	0.12	23319.600000	Y_R 488.368
Be (234.861 nm)	0.000157	ppm	0.000047	30.31	-5.223510	Y_R 488.368
Bi (223.061 nm)	0.000667	ppm	0.000814	> 100.00	-13.356000	Y 377.433
Ca (315.887 nm)	47.551598	ppm	0.051579	0.11	38328.873146	Y_R 377.433
Cd (214.439 nm)	0.029667	ppm	0.000035	0.12	1180.770000	Y 377.433
Co (228.615 nm)	0.001277	ppm	0.000117	9.15	12.159100	Y 242.219
Cr (205.560 nm)	0.002549	ppm	0.000579	22.73	12.024800	Y 377.433
Cu (324.754 nm)	0.015795	ppm	0.000014	0.09	1115.870000	Y 377.433
Fe (238.204 nm)	3.515119	ppm	0.009185	0.26	8666.849349	Y_R 377.433
Fe H (259.940 nm)	3.469220 u	ppm	0.000602	0.02	4941.590000	Y_R 377.433
K (766.491 nm)	1.595000	ppm	0.097395	6.11	3564.680000	Y_R2 488.368
Li (670.783 nm)	0.052143	ppm	0.001361	2.61	-1723.480000	Y_R2 488.368
Mg (279.078 nm)	25.353700	ppm	0.002118	0.01	89838.900000	Y 377.433
Mn (257.610 nm)	0.156404	ppm	0.000082	0.05	43239.400000	Y 377.433
Mo (202.032 nm)	-0.000379 u	ppm	0.000473	> 100.00	18.567800	Y 377.433
Na (589.592 nm)	15.631500	ppm	0.000147	0.00	11735.600000	Y_R2 488.368
Na H (589.593 nm)	17.243664 u	ppm	0.029220	0.17	8903.537931	Y_R4
Ni (231.604 nm)	0.001079	ppm	0.000171	15.81	-5.336740	Y 377.433
P (213.618 nm)	0.155662	ppm	0.002092	1.34	226.947000	Y 242.219
Pb (220.353 nm)	0.001266	ppm	0.000765	60.39	16.802900	Y 242.219
S (181.972 nm)	9.387977	ppm	0.010455	0.11	4227.697546	Y 377.433
Sb (206.834 nm)	-0.000348 u	ppm	0.003328	> 100.00	-8.095100	Y 377.433
Se (196.026 nm)	-0.002358 u	ppm	0.003232	> 100.00	5.995800	Y 242.219
Si (288.158 nm)	7.015090	ppm	0.048959	0.70	46781.800000	Y 377.433
Sn (189.925 nm)	0.001010	ppm	0.000292	28.92	3.997730	Y 377.433
Sr (421.552 nm)	1.874077	ppm	0.000579	0.03	274131.550145	Y_R 488.368
Th (288.505 nm)	-0.005074 u	ppm	0.000245	4.83	6.926930	Y 377.433
Ti (336.122 nm)	0.061004	ppm	0.002870	4.70	7587.630000	Y 377.433
Tl (190.794 nm)	0.002458	ppm	0.002931	> 100.00	3.413600	Y 377.433
U (409.013 nm)	0.027236	ppm	0.013035	47.86	39.738700	Y 377.433
V (292.401 nm)	0.004802	ppm	0.000033	0.69	74.220700	Y 377.433
Zn (206.200 nm)	0.065936	ppm	0.000072	0.11	331.610000	Y 377.433
Zr (343.823 nm)	0.002169	ppm	0.000222	10.24	-49.465700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105914	24764.136709	0.000259	0.02
Y 377.433	1.108260	716075.762275	0.000590	0.05
Y_R 377.433	1.134890	62476.100000	0.004571	0.40
Y_R 488.368	1.129980	54608.300000	0.004503	0.40
Y_R2 488.368	1.103710	102296.754692	0.004947	0.45
Y_R4	1.123020	48087.000000	0.002831	0.25

Sample Name: 280-123853-f-4-a

Date: 5/24/2019 7:35:24 AM Rack:Tube: 4:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000617	ppm	0.000031	5.07	-225.056000	Y 377.433
Al (394.401 nm)	0.491253	ppm	0.003178	0.65	6032.140000	Y 377.433
Al H (396.152 nm)	0.606021 u	ppm	0.009411	1.55	1059.270000	Y_R 377.433
As (188.980 nm)	0.000749	ppm	0.000866	> 100.00	-0.191098	Y 242.219
B (249.678 nm)	0.006034	ppm	0.000433	7.18	78.718900	Y 242.219
Ba (493.408 nm)	0.007108	ppm	0.000090	1.27	2123.230000	Y_R 488.368
Be (234.861 nm)	-0.000032 u	ppm	0.000077	> 100.00	-21.021700	Y_R 488.368
Bi (223.061 nm)	0.000844 u	ppm	0.003240	> 100.00	-13.086700	Y 377.433
Ca (315.887 nm)	51.689136	ppm	0.060174	0.12	41668.801614	Y_R 377.433
Cd (214.439 nm)	0.000185	ppm	0.000068	36.64	0.833300	Y 377.433
Co (228.615 nm)	0.002242	ppm	0.000229	10.20	34.100900	Y 242.219
Cr (205.560 nm)	0.339917	ppm	0.000561	0.17	2402.490000	Y 377.433
Cu (324.754 nm)	0.006893	ppm	0.000236	3.43	701.365000	Y 377.433
Fe (238.204 nm)	2.771664	ppm	0.002166	0.08	6834.413604	Y_R 377.433
Fe H (259.940 nm)	2.714050 u	ppm	0.006559	0.24	3885.660000	Y_R 377.433
K (766.491 nm)	1.051390	ppm	0.073834	7.02	3025.120000	Y_R2 488.368
Li (670.783 nm)	0.015755	ppm	0.001879	11.93	-2357.120000	Y_R2 488.368
Mg (279.078 nm)	15.264700	ppm	0.027235	0.18	54093.100000	Y 377.433
Mn (257.610 nm)	0.087753	ppm	0.000257	0.29	24250.500000	Y 377.433
Mo (202.032 nm)	0.003421	ppm	0.000134	3.92	66.918100	Y 377.433
Na (589.592 nm)	35.663700	ppm	0.080844	0.23	26529.900000	Y_R2 488.368
Na H (589.593 nm)	37.862008 u	ppm	0.362090	0.96	19157.896455	Y_R4
Ni (231.604 nm)	0.208323	ppm	0.000929	0.45	1152.840000	Y 377.433
P (213.618 nm)	0.018895	ppm	0.004026	21.31	21.924100	Y 242.219
Pb (220.353 nm)	-0.001700 u	ppm	0.000516	30.35	6.407640	Y 242.219
S (181.972 nm)	2.448677	ppm	0.002955	0.12	1110.455850	Y 377.433
Sb (206.834 nm)	0.002859	ppm	0.002239	78.31	0.331236	Y 377.433
Se (196.026 nm)	-0.001607 u	ppm	0.000753	46.85	7.323400	Y 242.219
Si (288.158 nm)	4.991140	ppm	0.026242	0.53	33431.100000	Y 377.433
Sn (189.925 nm)	-0.000549 u	ppm	0.000013	2.39	1.278020	Y 377.433
Sr (421.552 nm)	0.119755	ppm	0.000514	0.43	17562.389218	Y_R 488.368
Th (288.505 nm)	-0.003267 u	ppm	0.003968	> 100.00	8.935700	Y 377.433
Ti (336.122 nm)	0.009264	ppm	0.000814	8.79	876.420000	Y 377.433
Tl (190.794 nm)	0.000621 u	ppm	0.001724	> 100.00	-0.912981	Y 377.433
U (409.013 nm)	0.022453	ppm	0.002367	10.54	23.861800	Y 377.433
V (292.401 nm)	0.003115	ppm	0.000282	9.07	-144.960000	Y 377.433
Zn (206.200 nm)	0.005836	ppm	0.000117	2.01	33.210800	Y 377.433
Zr (343.823 nm)	0.000813	ppm	0.000033	4.09	-127.651000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.105908	24763.998983	0.004837	0.44
Y 377.433	1.107691	715708.549580	0.005790	0.52
Y_R 377.433	1.126020	61987.600000	0.002566	0.23
Y_R 488.368	1.123290	54285.300000	0.000025	0.00
Y_R2 488.368	1.105233	102437.947476	0.000506	0.05
Y_R4	1.115720	47774.500000	0.004225	0.38

Sample Name: 280-123853-f-5-a

Date: 5/24/2019 7:39:02 AM Rack:Tube: 4:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000813	ppm	0.000042	5.19	-218.513000	Y 377.433
Al (394.401 nm)	0.401943	ppm	0.000078	0.02	4970.360000	Y 377.433
Al H (396.152 nm)	0.514807 u	ppm	0.006545	1.27	871.792000	Y_R 377.433
As (188.980 nm)	0.000462 u	ppm	0.002815	> 100.00	-0.641724	Y 242.219
B (249.678 nm)	0.006612	ppm	0.000102	1.54	83.018700	Y 242.219
Ba (493.408 nm)	0.006825	ppm	0.000111	1.62	2095.690000	Y_R 488.368
Be (234.861 nm)	-0.000015 u	ppm	0.000042	> 100.00	-18.149600	Y_R 488.368
Bi (223.061 nm)	0.001646	ppm	0.001510	91.72	-11.306300	Y 377.433
Ca (315.887 nm)	52.726408	ppm	0.054799	0.10	42506.207699	Y_R 377.433
Cd (214.439 nm)	0.000323	ppm	0.000103	32.01	6.231990	Y 377.433
Co (228.615 nm)	0.001852	ppm	0.000014	0.77	24.414800	Y 242.219
Cr (205.560 nm)	0.299057	ppm	0.001140	0.38	2112.910000	Y 377.433
Cu (324.754 nm)	0.006980	ppm	0.000067	0.96	702.458000	Y 377.433
Fe (238.204 nm)	2.496654	ppm	0.013876	0.56	6156.581153	Y_R 377.433
Fe H (259.940 nm)	2.460650 u	ppm	0.002154	0.09	3531.350000	Y_R 377.433
K (766.491 nm)	0.987811	ppm	0.032473	3.29	2962.020000	Y_R2 488.368
Li (670.783 nm)	0.017236	ppm	0.001783	10.34	-2331.330000	Y_R2 488.368
Mg (279.078 nm)	15.523800	ppm	0.014433	0.09	55011.000000	Y 377.433
Mn (257.610 nm)	0.088020	ppm	0.000076	0.09	24324.400000	Y 377.433
Mo (202.032 nm)	0.001974	ppm	0.000075	3.79	48.506100	Y 377.433
Na (589.592 nm)	36.062100	ppm	0.094454	0.26	26825.000000	Y_R2 488.368
Na H (589.593 nm)	38.058753 u	ppm	0.164859	0.43	19255.746044	Y_R4
Ni (231.604 nm)	0.218189	ppm	0.000958	0.44	1207.970000	Y 377.433
P (213.618 nm)	0.020383	ppm	0.000619	3.04	24.211400	Y 242.219
Pb (220.353 nm)	-0.001110 u	ppm	0.001658	> 100.00	8.602680	Y 242.219
S (181.972 nm)	2.478859	ppm	0.006784	0.27	1124.065187	Y 377.433
Sb (206.834 nm)	0.001910	ppm	0.000495	25.90	-1.676050	Y 377.433
Se (196.026 nm)	-0.000068 u	ppm	0.000113	> 100.00	9.898350	Y 242.219
Si (288.158 nm)	4.872290	ppm	0.037580	0.77	32647.200000	Y 377.433
Sn (189.925 nm)	0.001057	ppm	0.000426	40.30	4.079550	Y 377.433
Sr (421.552 nm)	0.121986	ppm	0.000111	0.09	17888.631624	Y_R 488.368
Th (288.505 nm)	-0.005873 u	ppm	0.005136	87.45	4.526950	Y 377.433
Ti (336.122 nm)	0.006868	ppm	0.000076	1.11	568.581000	Y 377.433
Tl (190.794 nm)	-0.000295 u	ppm	0.000043	14.64	-3.128720	Y 377.433
U (409.013 nm)	0.032046	ppm	0.001068	3.33	53.586000	Y 377.433
V (292.401 nm)	0.003163	ppm	0.000053	1.67	-128.472000	Y 377.433
Zn (206.200 nm)	0.004569	ppm	0.000041	0.89	26.878300	Y 377.433
Zr (343.823 nm)	0.000642	ppm	0.000446	69.51	-137.495000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.100667	24646.642553	0.001511	0.14
Y 377.433	1.101588	711764.889986	0.000408	0.04
Y_R 377.433	1.127230	62054.300000	0.003197	0.28
Y_R 488.368	1.123930	54316.200000	0.002013	0.18
Y_R2 488.368	1.095764	101560.261441	0.007205	0.66
Y_R4	1.123860	48123.300000	0.000705	0.06

Sample Name: CCVH-5713036

Date: 5/24/2019 7:42:38 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004143	ppm	0.000159	3.83	-110.600000	Y 377.433
Al (394.401 nm)	48.873600 o	ppm	0.024091	0.05	582901.000000	Y 377.433
Al H (396.152 nm)	48.580400	ppm	0.071669	0.15	99886.400000	Y_R 377.433
As (188.980 nm)	0.003780	ppm	0.002004	53.02	3.330940	Y 242.219
B (249.678 nm)	-0.003647 u	ppm	0.000313	8.59	-17.113400	Y 242.219
Ba (493.408 nm)	0.000631	ppm	0.000163	25.87	1531.240000	Y_R 488.368
Be (234.861 nm)	0.001057	ppm	0.000041	3.88	-108.694000	Y_R 488.368
Bi (223.061 nm)	0.009617	ppm	0.002596	26.99	15.130600	Y 377.433
Ca (315.887 nm)	0.003487 u	ppm	0.005955	> 100.00	-46.864748	Y_R 377.433
Cd (214.439 nm)	0.001349	ppm	0.000110	8.19	67.464300	Y 377.433
Co (228.615 nm)	0.003425	ppm	0.000046	1.34	62.563700	Y 242.219
Cr (205.560 nm)	0.001835	ppm	0.000189	10.29	5.644950	Y 377.433
Cu (324.754 nm)	0.003133	ppm	0.000389	12.43	1469.920000	Y 377.433
Fe (238.204 nm)	48.214563 o	ppm	0.057741	0.12	118840.141922	Y_R 377.433
Fe H (259.940 nm)	48.464200	ppm	0.021114	0.04	67855.800000	Y_R 377.433
K (766.491 nm)	0.257106	ppm	0.069231	26.93	2236.780000	Y_R2 488.368
Li (670.783 nm)	0.012192	ppm	0.000630	5.17	-2419.170000	Y_R2 488.368
Mg (279.078 nm)	0.036328	ppm	0.001990	5.48	62.557400	Y 377.433
Mn (257.610 nm)	0.001025	ppm	0.000003	0.29	261.589000	Y 377.433
Mo (202.032 nm)	0.000561	ppm	0.000461	82.16	30.524500	Y 377.433
Na (589.592 nm)	233.777000 o	ppm	0.250287	0.11	173282.000000	Y_R2 488.368
Na H (589.593 nm)	249.737682	ppm	1.655183	0.66	124532.466335	Y_R4
Ni (231.604 nm)	0.002584	ppm	0.000140	5.42	3.072010	Y 377.433
P (213.618 nm)	4.775130	ppm	0.030891	0.65	7217.250000	Y 242.219
Pb (220.353 nm)	0.006288	ppm	0.000482	7.67	27.248900	Y 242.219
S (181.972 nm)	4.894055	ppm	0.011274	0.23	2206.237181	Y 377.433
Sb (206.834 nm)	0.005473	ppm	0.001448	26.46	6.386600	Y 377.433
Se (196.026 nm)	0.007484	ppm	0.000121	1.61	9.308100	Y 242.219
Si (288.158 nm)	0.014986	ppm	0.001079	7.20	606.893000	Y 377.433
Sn (189.925 nm)	0.000410 u	ppm	0.000856	> 100.00	2.951050	Y 377.433
Sr (421.552 nm)	0.001037	ppm	0.000013	1.27	206.598078	Y_R 488.368
Th (288.505 nm)	4.840150	ppm	0.013354	0.28	8457.720000	Y 377.433
Ti (336.122 nm)	0.002079	ppm	0.000012	0.57	-235.267000	Y 377.433
Tl (190.794 nm)	-0.000805 u	ppm	0.001977	> 100.00	-6.721570	Y 377.433
U (409.013 nm)	0.544755 Q	ppm	0.004184	0.77	1699.980000 Q	Y 377.433
V (292.401 nm)	0.001560	ppm	0.000196	12.57	388.870000	Y 377.433
Zn (206.200 nm)	0.002362	ppm	0.000115	4.88	22.975500	Y 377.433
Zr (343.823 nm)	0.001456	ppm	0.000055	3.78	-90.567200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080772	24201.146377	0.005711	0.53
Y 377.433	1.082592	699491.192589	0.005590	0.52
Y_R 377.433	1.120180	61666.100000	0.000899	0.08
Y_R 488.368	1.114700	53870.100000	0.000737	0.07
Y_R2 488.368	1.082394	100321.109750	0.003293	0.30
Y_R4	1.119760	47947.600000	0.001585	0.14

Sample Name: CCV-5717467

Date: 5/24/2019 7:46:22 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.480768	ppm	0.002593	0.54	16610.700000	Y 377.433
Al (394.401 nm)	0.498269	ppm	0.001278	0.26	6205.750000	Y 377.433
Al H (396.152 nm)	0.558350 u	ppm	0.002347	0.42	1153.250000	Y_R 377.433
As (188.980 nm)	0.479797	ppm	0.001498	0.31	763.126000	Y 242.219
B (249.678 nm)	0.472833	ppm	0.001317	0.28	3424.530000	Y 242.219
Ba (493.408 nm)	0.479619	ppm	0.000574	0.12	47891.800000	Y_R 488.368
Be (234.861 nm)	0.470653	ppm	0.002940	0.62	47438.700000	Y_R 488.368
Bi (223.061 nm)	0.938878	ppm	0.006584	0.70	2126.510000	Y 377.433
Ca (315.887 nm)	4.847995	ppm	0.012138	0.25	3852.135058	Y_R 377.433
Cd (214.439 nm)	0.484954	ppm	0.001970	0.41	19396.800000	Y 377.433
Co (228.615 nm)	0.481766	ppm	0.001873	0.39	11911.300000	Y 242.219
Cr (205.560 nm)	0.481675	ppm	0.003293	0.68	3403.740000	Y 377.433
Cu (324.754 nm)	0.478705	ppm	0.005584	1.17	22637.700000	Y 377.433
Fe (238.204 nm)	2.431024	ppm	0.003050	0.13	5994.819761	Y_R 377.433
Fe H (259.940 nm)	2.396520 u	ppm	0.006419	0.27	3441.690000	Y_R 377.433
K (766.491 nm)	47.542500	ppm	0.150872	0.32	49168.900000	Y_R2 488.368
Li (670.783 nm)	0.485281	ppm	0.001815	0.37	5819.030000	Y_R2 488.368
Mg (279.078 nm)	19.288800	ppm	0.068129	0.35	68351.600000	Y 377.433
Mn (257.610 nm)	0.482617	ppm	0.001681	0.35	133470.000000	Y 377.433
Mo (202.032 nm)	0.481381	ppm	0.001315	0.27	6148.780000	Y 377.433
Na (589.592 nm)	23.360000	ppm	0.211965	0.91	17512.300000	Y_R2 488.368
Na H (589.593 nm)	25.835803 u	ppm	0.011718	0.05	13176.765500	Y_R4
Ni (231.604 nm)	0.482816	ppm	0.002206	0.46	2687.440000	Y 377.433
P (213.618 nm)	0.052965	ppm	0.006156	11.62	-61.076500	Y 242.219
Pb (220.353 nm)	0.485002	ppm	0.000147	0.03	1676.760000	Y 242.219
S (181.972 nm)	0.002178 u	ppm	0.005898	> 100.00	10.441843	Y 377.433
Sb (206.834 nm)	0.489060	ppm	0.005799	1.19	853.143000	Y 377.433
Se (196.026 nm)	0.485083	ppm	0.004339	0.89	799.053000	Y 242.219
Si (288.158 nm)	4.726900	ppm	0.006506	0.14	31688.200000	Y 377.433
Sn (189.925 nm)	0.486166	ppm	0.004632	0.95	850.214000	Y 377.433
Sr (421.552 nm)	0.481376	ppm	0.000493	0.10	70449.336884	Y_R 488.368
Th (288.505 nm)	0.013570	ppm	0.000479	3.53	-10.773100	Y 377.433
Ti (336.122 nm)	0.479313	ppm	0.001226	0.26	61833.200000	Y 377.433
Tl (190.794 nm)	0.488730	ppm	0.000733	0.15	1180.740000	Y 377.433
U (409.013 nm)	0.022550	ppm	0.012589	55.83	-29.067800	Y 377.433
V (292.401 nm)	0.478476	ppm	0.001612	0.34	25051.400000	Y 377.433
Zn (206.200 nm)	0.485900	ppm	0.002924	0.60	2415.790000	Y 377.433
Zr (343.823 nm)	0.480808	ppm	0.000983	0.20	27549.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107481	24799.236810	0.003916	0.35
Y 377.433	1.106696	715065.091955	0.004275	0.39
Y_R 377.433	1.128930	62148.100000	0.006181	0.55
Y_R 488.368	1.127070	54468.100000	0.005908	0.52
Y_R2 488.368	1.092549	101262.309620	0.003640	0.33
Y_R4	1.128300	48313.000000	0.008552	0.76

Sample Name: CCB

Date: 5/24/2019 7:49:58 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000535	ppm	0.000290	54.10	-227.312000	Y 377.433
Al (394.401 nm)	-0.002673 u	ppm	0.000047	1.76	98.801500	Y 377.433
Al H (396.152 nm)	0.115456 Zu	ppm	0.003159	2.74	12.271400 Z	Y_R 377.433
As (188.980 nm)	-0.000333 u	ppm	0.001655	> 100.00	-1.835420	Y 242.219
B (249.678 nm)	-0.003686 u	ppm	0.000053	1.44	10.665700	Y 242.219
Ba (493.408 nm)	-0.001672 u	ppm	0.000005	0.30	1270.690000	Y_R 488.368
Be (234.861 nm)	0.000039 u	ppm	0.000089	> 100.00	-1.738650	Y_R 488.368
Bi (223.061 nm)	0.002805	ppm	0.001359	48.43	-9.117000	Y 377.433
Ca (315.887 nm)	0.011305	ppm	0.003855	34.10	-52.851520	Y_R 377.433
Cd (214.439 nm)	0.000056	ppm	0.000019	34.41	-5.534630	Y 377.433
Co (228.615 nm)	0.000148	ppm	0.000094	63.58	-18.489000	Y 242.219
Cr (205.560 nm)	0.000001 u	ppm	0.000072	> 100.00	-5.958890	Y 377.433
Cu (324.754 nm)	0.000320	ppm	0.000089	27.84	426.213000	Y 377.433
Fe (238.204 nm)	0.000400	ppm	0.000466	> 100.00	3.920654	Y_R 377.433
Fe H (259.940 nm)	-0.053896 u	ppm	0.001515	2.81	15.390000	Y_R 377.433
K (766.491 nm)	0.055621	ppm	0.054159	97.37	2036.800000	Y_R2 488.368
Li (670.783 nm)	0.010880 Z	ppm	0.000479	4.41	-2442.000000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002481	ppm	0.000104	4.20	20.505800	Y 377.433
Mn (257.610 nm)	0.000128	ppm	0.000009	6.94	13.485600	Y 377.433
Mo (202.032 nm)	-0.000986 u	ppm	0.000263	26.70	10.839600	Y 377.433
Na (589.592 nm)	0.105566	ppm	0.022190	21.02	188.305000	Y_R2 488.368
Na H (589.593 nm)	0.599763 u	ppm	0.021639	3.61	625.834748	Y_R4
Ni (231.604 nm)	-0.000225 u	ppm	0.000377	> 100.00	-12.624100	Y 377.433
P (213.618 nm)	-0.000271 u	ppm	0.002580	> 100.00	-4.928880	Y 242.219
Pb (220.353 nm)	-0.001493 u	ppm	0.000266	17.78	7.803320	Y 242.219
S (181.972 nm)	-0.000854 u	ppm	0.006064	> 100.00	7.371958	Y 377.433
Sb (206.834 nm)	0.002506	ppm	0.001427	56.95	-3.111130	Y 377.433
Se (196.026 nm)	-0.002072 u	ppm	0.000860	41.51	7.209360	Y 242.219
Si (288.158 nm)	-0.005408 u	ppm	0.000174	3.22	472.367000	Y 377.433
Sn (189.925 nm)	0.000045 u	ppm	0.000945	> 100.00	2.314950	Y 377.433
Sr (421.552 nm)	0.000009 u	ppm	0.000132	> 100.00	49.226025	Y_R 488.368
Th (288.505 nm)	-0.002416 u	ppm	0.000503	20.82	10.315300	Y 377.433
Ti (336.122 nm)	0.000461	ppm	0.000046	9.89	-445.681000	Y 377.433
Tl (190.794 nm)	0.000944	ppm	0.000425	45.05	2.406780	Y 377.433
U (409.013 nm)	0.014728	ppm	0.002323	15.78	4.381510	Y 377.433
V (292.401 nm)	0.000503	ppm	0.000001	0.16	-153.919000	Y 377.433
Zn (206.200 nm)	-0.000116 u	ppm	0.000101	86.79	3.238670	Y 377.433
Zr (343.823 nm)	0.000290	ppm	0.000192	66.39	-157.812000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114573	24958.047686	0.000960	0.09
Y 377.433	1.111153	717945.396271	0.002190	0.20
Y_R 377.433	1.120160	61665.300000	0.000052	0.00
Y_R 488.368	1.119680	54110.900000	0.001023	0.09
Y_R2 488.368	1.091566	101171.235040	0.000589	0.05
Y_R4	1.110810	47564.200000	0.007997	0.72

Sample Name: CCVL-5717307

Date: 5/24/2019 7:53:10 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007950	ppm	0.000249	3.13	31.800800	Y 377.433
Al (394.401 nm)	0.095211	ppm	0.000709	0.74	1276.090000	Y 377.433
Al H (396.152 nm)	0.224380 u	ppm	0.012091	5.39	241.863000	Y_R 377.433
As (188.980 nm)	0.014229	ppm	0.001096	7.70	21.364100	Y 242.219
B (249.678 nm)	0.088348	ppm	0.000318	0.36	670.228000	Y 242.219
Ba (493.408 nm)	0.008116	ppm	0.000107	1.31	2218.840000	Y_R 488.368
Be (234.861 nm)	0.001023	ppm	0.000026	2.51	96.999400	Y_R 488.368
Bi (223.061 nm)	0.089243	ppm	0.002723	3.05	188.062000	Y 377.433
Ca (315.887 nm)	0.208691	ppm	0.007095	3.40	106.533795	Y_R 377.433
Cd (214.439 nm)	0.005020	ppm	0.000006	0.13	193.103000	Y 377.433
Co (228.615 nm)	0.010434	ppm	0.000291	2.79	236.248000	Y 242.219
Cr (205.560 nm)	0.009666	ppm	0.000524	5.42	62.349900	Y 377.433
Cu (324.754 nm)	0.015419	ppm	0.000251	1.63	1126.140000	Y 377.433
Fe (238.204 nm)	0.098895	ppm	0.001420	1.44	246.685551	Y_R 377.433
Fe H (259.940 nm)	0.043975 u	ppm	0.004051	9.21	152.237000	Y_R 377.433
K (766.491 nm)	2.881400	ppm	0.023918	0.83	4841.460000	Y_R2 488.368
Li (670.783 nm)	0.035318 Q	ppm	0.006969	19.73	-2016.460000 Q	Y_R2 488.368
Mg (279.078 nm)	0.196396	ppm	0.003610	1.84	706.351000	Y 377.433
Mn (257.610 nm)	0.010338	ppm	0.000003	0.03	2837.580000	Y 377.433
Mo (202.032 nm)	0.018333	ppm	0.000654	3.56	256.662000	Y 377.433
Na (589.592 nm)	1.150250	ppm	0.056013	4.87	964.116000	Y_R2 488.368
Na H (589.593 nm)	1.409025 u	ppm	0.052410	3.72	1028.314648	Y_R4
Ni (231.604 nm)	0.040815	ppm	0.000202	0.50	216.741000	Y 377.433
P (213.618 nm)	2.709870	ppm	0.024358	0.90	4091.950000	Y 242.219
Pb (220.353 nm)	0.008025	ppm	0.001963	24.45	40.576100	Y 242.219
S (181.972 nm)	0.089184	ppm	0.002508	2.81	47.854921	Y 377.433
Sb (206.834 nm)	0.022684	ppm	0.002113	9.32	32.356000	Y 377.433
Se (196.026 nm)	0.016475	ppm	0.002902	17.61	37.343000	Y 242.219
Si (288.158 nm)	0.467119	ppm	0.000603	0.13	3589.300000	Y 377.433
Sn (189.925 nm)	0.095778	ppm	0.000749	0.78	169.294000	Y 377.433
Sr (421.552 nm)	0.008886	ppm	0.000076	0.86	1347.476821	Y_R 488.368
Th (288.505 nm)	0.012650	ppm	0.001411	11.15	36.107000	Y 377.433
Ti (336.122 nm)	0.009799	ppm	0.000097	0.99	769.059000	Y 377.433
Tl (190.794 nm)	0.015670	ppm	0.000498	3.18	37.963700	Y 377.433
U (409.013 nm)	0.058434	ppm	0.002139	3.66	140.098000	Y 377.433
V (292.401 nm)	0.010194	ppm	0.000164	1.61	354.328000	Y 377.433
Zn (206.200 nm)	0.019856	ppm	0.000033	0.17	102.379000	Y 377.433
Zr (343.823 nm)	0.009987	ppm	0.000045	0.45	401.319000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125142	25194.706991	0.001365	0.12
Y 377.433	1.121784	724814.282565	0.002813	0.25
Y_R 377.433	1.128910	62146.800000	0.001810	0.16
Y_R 488.368	1.126490	54440.000000	0.001048	0.09
Y_R2 488.368	1.104261	102347.802315	0.004331	0.39
Y_R4	1.120360	47973.000000	0.000086	0.01

Sample Name: 280-123853-f-6-a

Date: 5/24/2019 7:56:40 AM Rack:Tube: 4:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000889	ppm	0.000410	46.18	-215.402000	Y 377.433
Al (394.401 nm)	0.088569	ppm	0.000160	0.18	1284.400000	Y 377.433
Al H (396.152 nm)	0.145285 u	ppm	0.003411	2.35	198.335000	Y_R 377.433
As (188.980 nm)	0.001777	ppm	0.000624	35.15	1.515940	Y 242.219
B (249.678 nm)	0.017018	ppm	0.000485	2.85	158.864000	Y 242.219
Ba (493.408 nm)	0.108843	ppm	0.000290	0.27	11975.700000	Y_R 488.368
Be (234.861 nm)	-0.000008 u	ppm	0.000052	> 100.00	-7.946900	Y_R 488.368
Bi (223.061 nm)	0.001515	ppm	0.001068	70.48	-11.995200	Y 377.433
Ca (315.887 nm)	77.582580	ppm	0.026593	0.03	62573.481503	Y_R 377.433
Cd (214.439 nm)	0.000208	ppm	0.000088	42.44	0.684082	Y 377.433
Co (228.615 nm)	-0.000313 u	ppm	0.000226	72.07	-29.850100	Y 242.219
Cr (205.560 nm)	0.001039	ppm	0.000459	44.17	1.391850	Y 377.433
Cu (324.754 nm)	0.000521	ppm	0.000284	54.59	388.990000	Y 377.433
Fe (238.204 nm)	0.327556	ppm	0.001952	0.60	810.280623	Y_R 377.433
Fe H (259.940 nm)	0.270863 u	ppm	0.001902	0.70	469.484000	Y_R 377.433
K (766.491 nm)	1.938260	ppm	0.067558	3.49	3905.370000	Y_R2 488.368
Li (670.783 nm)	0.028002	ppm	0.000131	0.47	-2143.850000	Y_R2 488.368
Mg (279.078 nm)	13.048800	ppm	0.017134	0.13	46245.100000	Y 377.433
Mn (257.610 nm)	0.081049	ppm	0.000117	0.14	22396.100000	Y 377.433
Mo (202.032 nm)	-0.000687 u	ppm	0.000182	26.52	14.646700	Y 377.433
Na (589.592 nm)	128.195000 o	ppm	0.048141	0.04	95093.800000	Y_R2 488.368
Na H (589.593 nm)	138.762952	ppm	0.796504	0.57	69340.125300	Y_R4
Ni (231.604 nm)	-0.001489 u	ppm	0.000306	20.52	-19.687400	Y 377.433
P (213.618 nm)	0.016541	ppm	0.000095	0.57	19.995100	Y 242.219
Pb (220.353 nm)	-0.000965 u	ppm	0.000350	36.26	9.655990	Y 242.219
S (181.972 nm)	8.672149	ppm	0.018528	0.21	3907.346563	Y 377.433
Sb (206.834 nm)	0.000683 u	ppm	0.001738	> 100.00	-6.306930	Y 377.433
Se (196.026 nm)	-0.000149 u	ppm	0.000613	> 100.00	10.363100	Y 242.219
Si (288.158 nm)	3.195130	ppm	0.001098	0.03	21584.100000	Y 377.433
Sn (189.925 nm)	0.001781	ppm	0.000179	10.03	5.341990	Y 377.433
Sr (421.552 nm)	0.359953	ppm	0.000639	0.18	52690.922336	Y_R 488.368
Th (288.505 nm)	-0.007542 u	ppm	0.002417	32.05	1.014740	Y 377.433
Ti (336.122 nm)	0.001588	ppm	0.000135	8.48	-34.367200	Y 377.433
Tl (190.794 nm)	0.003875	ppm	0.000339	8.75	6.232120	Y 377.433
U (409.013 nm)	0.029468	ppm	0.003131	10.63	40.669100	Y 377.433
V (292.401 nm)	0.001757	ppm	0.000211	12.02	-89.667200	Y 377.433
Zn (206.200 nm)	0.007122	ppm	0.000248	3.49	39.213500	Y 377.433
Zr (343.823 nm)	0.000590	ppm	0.000104	17.61	-140.472000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.086757	24335.161859	0.001723	0.16
Y 377.433	1.088512	703315.971253	0.000360	0.03
Y_R 377.433	1.111000	61160.900000	0.002313	0.21
Y_R 488.368	1.108330	53562.300000	0.000487	0.04
Y_R2 488.368	1.087822	100824.149432	0.008305	0.76
Y_R4	1.112950	47655.900000	0.011426	1.03

Sample Name: CCVH-5713036

Date: 5/24/2019 8:00:14 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004426	ppm	0.000059	1.33	-100.576000	Y 377.433
Al (394.401 nm)	48.926000 o	ppm	0.037312	0.08	583523.000000	Y 377.433
Al H (396.152 nm)	48.625800	ppm	0.078639	0.16	99980.000000	Y_R 377.433
As (188.980 nm)	0.000267 u	ppm	0.002496	> 100.00	-2.269370	Y 242.219
B (249.678 nm)	-0.002224 u	ppm	0.000421	18.93	-6.986750	Y 242.219
Ba (493.408 nm)	0.001439	ppm	0.000234	16.27	1609.560000	Y_R 488.368
Be (234.861 nm)	0.001028	ppm	0.000012	1.14	-112.187000	Y_R 488.368
Bi (223.061 nm)	0.014438	ppm	0.001104	7.65	26.148500	Y 377.433
Ca (315.887 nm)	0.002862	ppm	0.002160	75.47	-47.357190	Y_R 377.433
Cd (214.439 nm)	0.001374	ppm	0.000024	1.73	68.510600	Y 377.433
Co (228.615 nm)	0.003544	ppm	0.000209	5.89	65.496000	Y 242.219
Cr (205.560 nm)	0.001347	ppm	0.000247	18.35	2.194120	Y 377.433
Cu (324.754 nm)	0.003249	ppm	0.000314	9.65	1478.540000	Y 377.433
Fe (238.204 nm)	48.220445 o	ppm	0.124714	0.26	118854.640804	Y_R 377.433
Fe H (259.940 nm)	48.481000	ppm	0.126744	0.26	67879.200000	Y_R 377.433
K (766.491 nm)	0.198424	ppm	0.056614	28.53	2178.530000	Y_R2 488.368
Li (670.783 nm)	0.010952	ppm	0.001736	15.85	-2440.760000	Y_R2 488.368
Mg (279.078 nm)	0.038562	ppm	0.001710	4.43	70.426300	Y 377.433
Mn (257.610 nm)	0.000992	ppm	0.000017	1.68	252.330000	Y 377.433
Mo (202.032 nm)	0.000093	ppm	0.000054	58.04	24.570900	Y 377.433
Na (589.592 nm)	230.840000 o	ppm	0.505543	0.22	171107.000000	Y_R2 488.368
Na H (589.593 nm)	247.831712	ppm	2.214587	0.89	123584.548406	Y_R4
Ni (231.604 nm)	0.003039	ppm	0.001167	38.39	5.614500	Y 377.433
P (213.618 nm)	4.781650	ppm	0.064998	1.36	7226.920000	Y 242.219
Pb (220.353 nm)	0.003752	ppm	0.001724	45.94	18.511900	Y 242.219
S (181.972 nm)	4.877596	ppm	0.013810	0.28	2198.843873	Y 377.433
Sb (206.834 nm)	0.006244	ppm	0.002742	43.91	7.756940	Y 377.433
Se (196.026 nm)	0.004957	ppm	0.001069	21.56	5.167270	Y 242.219
Si (288.158 nm)	0.014024	ppm	0.000085	0.61	600.549000	Y 377.433
Sn (189.925 nm)	0.000817	ppm	0.000641	78.47	3.662020	Y 377.433
Sr (421.552 nm)	0.001138	ppm	0.000089	7.83	221.485862	Y_R 488.368
Th (288.505 nm)	4.844860	ppm	0.000664	0.01	8465.880000	Y 377.433
Ti (336.122 nm)	0.002110	ppm	0.000039	1.85	-231.240000	Y 377.433
Tl (190.794 nm)	0.000031 u	ppm	0.003453	> 100.00	-4.706740	Y 377.433
U (409.013 nm)	0.532956 Q	ppm	0.002101	0.39	1663.090000 Q	Y 377.433
V (292.401 nm)	0.001464	ppm	0.000358	24.45	386.022000	Y 377.433
Zn (206.200 nm)	0.003249	ppm	0.000031	0.97	27.395800	Y 377.433
Zr (343.823 nm)	0.001620	ppm	0.000205	12.63	-81.096700	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076353	24102.207681	0.005061	0.47
Y 377.433	1.075432	694865.083732	0.004229	0.39
Y_R 377.433	1.105920	60881.300000	0.006231	0.56
Y_R 488.368	1.102860	53297.700000	0.004893	0.44
Y_R2 488.368	1.082699	100349.378274	0.002595	0.24
Y_R4	1.120500	47979.200000	0.008878	0.79

Sample Name: CCV-5717467

Date: 5/24/2019 8:03:56 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.479820	ppm	0.000047	0.01	16577.100000	Y 377.433
Al (394.401 nm)	0.497850	ppm	0.002071	0.42	6198.940000	Y 377.433
Al H (396.152 nm)	0.562884 u	ppm	0.008175	1.45	1162.820000	Y_R 377.433
As (188.980 nm)	0.480871	ppm	0.003268	0.68	764.838000	Y 242.219
B (249.678 nm)	0.471860	ppm	0.000411	0.09	3417.560000	Y 242.219
Ba (493.408 nm)	0.479906	ppm	0.000720	0.15	47919.500000	Y_R 488.368
Be (234.861 nm)	0.471838	ppm	0.003046	0.65	47558.200000	Y_R 488.368
Bi (223.061 nm)	0.939218	ppm	0.002010	0.21	2127.280000	Y 377.433
Ca (315.887 nm)	4.858411	ppm	0.004247	0.09	3860.546030	Y_R 377.433
Cd (214.439 nm)	0.484375	ppm	0.000449	0.09	19373.700000	Y 377.433
Co (228.615 nm)	0.480426	ppm	0.000274	0.06	11878.100000	Y 242.219
Cr (205.560 nm)	0.477280	ppm	0.003719	0.78	3372.590000	Y 377.433
Cu (324.754 nm)	0.479454	ppm	0.001599	0.33	22674.000000	Y 377.433
Fe (238.204 nm)	2.427750	ppm	0.003960	0.16	5986.749111	Y_R 377.433
Fe H (259.940 nm)	2.393630 u	ppm	0.001760	0.07	3437.650000	Y_R 377.433
K (766.491 nm)	47.183500	ppm	0.027438	0.06	48812.600000	Y_R2 488.368
Li (670.783 nm)	0.485466	ppm	0.001873	0.39	5822.250000	Y_R2 488.368
Mg (279.078 nm)	19.266200	ppm	0.011044	0.06	68271.400000	Y 377.433
Mn (257.610 nm)	0.481883	ppm	0.000009	0.00	133267.000000	Y 377.433
Mo (202.032 nm)	0.480562	ppm	0.000418	0.09	6138.350000	Y 377.433
Na (589.592 nm)	23.225300	ppm	0.001843	0.01	17412.600000	Y_R2 488.368
Na H (589.593 nm)	25.906548 u	ppm	0.160581	0.62	13211.949872	Y_R4
Ni (231.604 nm)	0.480415	ppm	0.000128	0.03	2674.020000	Y 377.433
P (213.618 nm)	0.054203	ppm	0.002632	4.86	-59.443600	Y 242.219
Pb (220.353 nm)	0.482354	ppm	0.000286	0.06	1667.660000	Y 242.219
S (181.972 nm)	0.011703	ppm	0.003018	25.78	14.720922	Y 377.433
Sb (206.834 nm)	0.488115	ppm	0.005068	1.04	851.446000	Y 377.433
Se (196.026 nm)	0.480929	ppm	0.002819	0.59	792.303000	Y 242.219
Si (288.158 nm)	4.730950	ppm	0.025573	0.54	31714.900000	Y 377.433
Sn (189.925 nm)	0.484211	ppm	0.000335	0.07	846.803000	Y 377.433
Sr (421.552 nm)	0.481455	ppm	0.001292	0.27	70460.882739	Y_R 488.368
Th (288.505 nm)	0.015145	ppm	0.001242	8.20	-8.033370	Y 377.433
Ti (336.122 nm)	0.478612	ppm	0.000052	0.01	61742.000000	Y 377.433
Tl (190.794 nm)	0.489251	ppm	0.001243	0.25	1182.000000	Y 377.433
U (409.013 nm)	0.020725	ppm	0.007278	35.12	-34.684200	Y 377.433
V (292.401 nm)	0.478156	ppm	0.000519	0.11	25036.900000	Y 377.433
Zn (206.200 nm)	0.483896	ppm	0.000387	0.08	2405.840000	Y 377.433
Zr (343.823 nm)	0.479870	ppm	0.000165	0.03	27495.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107042	24789.403238	0.003754	0.34
Y 377.433	1.106138	714705.067142	0.003672	0.33
Y_R 377.433	1.124750	61917.800000	0.005874	0.52
Y_R 488.368	1.122600	54251.700000	0.003924	0.35
Y_R2 488.368	1.099268	101885.023637	0.000928	0.08
Y_R4	1.128340	48314.900000	0.001732	0.15

Sample Name: CCB

Date: 5/24/2019 8:07:32 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000078 u	ppm	0.000424	> 100.00	-243.534000	Y 377.433
Al (394.401 nm)	-0.003051 u	ppm	0.000545	17.85	96.475200	Y 377.433
Al H (396.152 nm)	0.117268 Zu	ppm	0.000449	0.38	16.134800 Z	Y_R 377.433
As (188.980 nm)	0.002347	ppm	0.000635	27.07	2.433740	Y 242.219
B (249.678 nm)	-0.002516 u	ppm	0.000229	9.12	19.054400	Y 242.219
Ba (493.408 nm)	-0.001736 u	ppm	0.000011	0.63	1264.500000	Y_R 488.368
Be (234.861 nm)	-0.000031 u	ppm	0.000066	> 100.00	-8.816250	Y_R 488.368
Bi (223.061 nm)	0.001415	ppm	0.000495	35.01	-12.287600	Y 377.433
Ca (315.887 nm)	0.013148	ppm	0.003964	30.15	-51.365596	Y_R 377.433
Cd (214.439 nm)	0.000077	ppm	0.000073	94.56	-4.715170	Y 377.433
Co (228.615 nm)	0.000192	ppm	0.000089	46.19	-17.411000	Y 242.219
Cr (205.560 nm)	-0.000109 u	ppm	0.000621	> 100.00	-6.737850	Y 377.433
Cu (324.754 nm)	0.000190	ppm	0.000101	53.25	419.184000	Y 377.433
Fe (238.204 nm)	0.000941	ppm	0.000852	90.56	5.254299	Y_R 377.433
Fe H (259.940 nm)	-0.056490 u	ppm	0.001726	3.06	11.762200	Y_R 377.433
K (766.491 nm)	-0.089154 u	ppm	0.091188	> 100.00	1893.100000	Y_R2 488.368
Li (670.783 nm)	0.010590 Z	ppm	0.001468	13.86	-2447.060000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001994	ppm	0.000678	33.99	18.543400	Y 377.433
Mn (257.610 nm)	0.000077	ppm	0.000034	43.68	-0.695824	Y 377.433
Mo (202.032 nm)	-0.000592 u	ppm	0.000379	63.90	15.849700	Y 377.433
Na (589.592 nm)	0.108352	ppm	0.017646	16.29	190.310000	Y_R2 488.368
Na H (589.593 nm)	0.599629 u	ppm	0.039277	6.55	625.768317	Y_R4
Ni (231.604 nm)	0.000272 u	ppm	0.000446	> 100.00	-9.845170	Y 377.433
P (213.618 nm)	-0.001013 u	ppm	0.001680	> 100.00	-6.083890	Y 242.219
Pb (220.353 nm)	-0.000752 u	ppm	0.000682	90.70	10.385700	Y 242.219
S (181.972 nm)	-0.002380 u	ppm	0.005594	> 100.00	6.686448	Y 377.433
Sb (206.834 nm)	0.003018	ppm	0.001414	46.86	-2.215970	Y 377.433
Se (196.026 nm)	-0.001724 u	ppm	0.001893	> 100.00	7.773480	Y 242.219
Si (288.158 nm)	-0.005693 u	ppm	0.001697	29.81	470.488000	Y 377.433
Sn (189.925 nm)	0.000341	ppm	0.000070	20.49	2.831480	Y 377.433
Sr (421.552 nm)	-0.000054 u	ppm	0.000058	> 100.00	40.080712	Y_R 488.368
Th (288.505 nm)	-0.001717 u	ppm	0.002663	> 100.00	11.621600	Y 377.433
Ti (336.122 nm)	0.000444	ppm	0.000001	0.18	-447.940000	Y 377.433
Tl (190.794 nm)	0.001350	ppm	0.000569	42.14	3.384900	Y 377.433
U (409.013 nm)	0.001887 u	ppm	0.005422	> 100.00	-35.858800	Y 377.433
V (292.401 nm)	0.000703	ppm	0.000092	13.08	-144.145000	Y 377.433
Zn (206.200 nm)	-0.000245 u	ppm	0.000049	20.06	2.599020	Y 377.433
Zr (343.823 nm)	0.000385	ppm	0.000014	3.67	-152.302000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120484	25090.397984	0.003593	0.32
Y 377.433	1.116916	721668.771013	0.002097	0.19
Y_R 377.433	1.127290	62057.800000	0.000667	0.06
Y_R 488.368	1.125600	54397.000000	0.001148	0.10
Y_R2 488.368	1.111176	102988.741977	0.002625	0.24
Y_R4	1.131850	48465.100000	0.005175	0.46

Sample Name: CCVL-5717307

Date: 5/24/2019 8:10:44 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007962	ppm	0.000120	1.51	32.465700	Y 377.433
Al (394.401 nm)	0.094402	ppm	0.000332	0.35	1263.750000	Y 377.433
Al H (396.152 nm)	0.223579 u	ppm	0.001875	0.84	240.190000	Y_R 377.433
As (188.980 nm)	0.013471	ppm	0.000345	2.56	20.156400	Y 242.219
B (249.678 nm)	0.088538	ppm	0.000623	0.70	671.596000	Y 242.219
Ba (493.408 nm)	0.007587	ppm	0.000451	5.94	2167.600000	Y_R 488.368
Be (234.861 nm)	0.000968	ppm	0.000052	5.33	91.422800	Y_R 488.368
Bi (223.061 nm)	0.086194	ppm	0.000044	0.05	181.107000	Y 377.433
Ca (315.887 nm)	0.205022	ppm	0.000795	0.39	103.570119	Y_R 377.433
Cd (214.439 nm)	0.005059	ppm	0.000013	0.26	194.680000	Y 377.433
Co (228.615 nm)	0.010451	ppm	0.000352	3.37	236.655000	Y 242.219
Cr (205.560 nm)	0.009635	ppm	0.000074	0.77	62.135400	Y 377.433
Cu (324.754 nm)	0.014626	ppm	0.000076	0.52	1090.850000	Y 377.433
Fe (238.204 nm)	0.098513	ppm	0.001025	1.04	245.743545	Y_R 377.433
Fe H (259.940 nm)	0.051052 u	ppm	0.000923	1.81	162.132000	Y_R 377.433
K (766.491 nm)	2.785070	ppm	0.017603	0.63	4745.860000	Y_R2 488.368
Li (670.783 nm)	0.034932 Q	ppm	0.001060	3.03	-2023.180000 Q	Y_R2 488.368
Mg (279.078 nm)	0.196918	ppm	0.000423	0.21	708.396000	Y 377.433
Mn (257.610 nm)	0.010351	ppm	0.000005	0.05	2841.040000	Y 377.433
Mo (202.032 nm)	0.018256	ppm	0.000232	1.27	255.692000	Y 377.433
Na (589.592 nm)	1.135400	ppm	0.010318	0.91	952.893000	Y_R2 488.368
Na H (589.593 nm)	1.388204 u	ppm	0.005636	0.41	1017.959506	Y_R4
Ni (231.604 nm)	0.039637	ppm	0.002134	5.38	210.162000	Y 377.433
P (213.618 nm)	2.717970	ppm	0.027126	1.00	4104.380000	Y 242.219
Pb (220.353 nm)	0.007888	ppm	0.001023	12.97	40.077200	Y 242.219
S (181.972 nm)	0.093550	ppm	0.006605	7.06	49.816201	Y 377.433
Sb (206.834 nm)	0.024886	ppm	0.001282	5.15	36.244600	Y 377.433
Se (196.026 nm)	0.017776	ppm	0.000031	0.17	39.456600	Y 242.219
Si (288.158 nm)	0.461599	ppm	0.000938	0.20	3552.900000	Y 377.433
Sn (189.925 nm)	0.096383	ppm	0.000950	0.99	170.349000	Y 377.433
Sr (421.552 nm)	0.008857	ppm	0.000026	0.29	1343.238240	Y_R 488.368
Th (288.505 nm)	0.017118	ppm	0.001200	7.01	43.877600	Y 377.433
Ti (336.122 nm)	0.009775	ppm	0.000054	0.55	765.956000	Y 377.433
Tl (190.794 nm)	0.016005	ppm	0.001044	6.52	38.776900	Y 377.433
U (409.013 nm)	0.057732	ppm	0.003217	5.57	137.902000	Y 377.433
V (292.401 nm)	0.010281	ppm	0.000148	1.44	360.061000	Y 377.433
Zn (206.200 nm)	0.020687	ppm	0.000416	2.01	106.502000	Y 377.433
Zr (343.823 nm)	0.009953	ppm	0.000072	0.73	399.401000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.135171	25419.287374	0.005570	0.49
Y 377.433	1.132807	731936.260990	0.007554	0.67
Y_R 377.433	1.147720	63182.300000	0.011689	1.02
Y_R 488.368	1.146410	55402.300000	0.010976	0.96
Y_R2 488.368	1.128715	104614.308807	0.000209	0.02
Y_R4	1.141320	48870.600000	0.007830	0.69

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG No.:

Project: Griffiss AFB, LF009 Landfill 6

Client Sample ID	Lab Sample ID
LF6MW-1_0519	280-123853-1
775VMW-18R_0519	280-123853-2
TMC-USGS-2_0519	280-123853-3
LF6VMW-21_0519	280-123853-4
LF6VMW-21_0519-a	280-123853-5
LF6/TMCSW-3_0519	280-123853-6

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6MW-1_0519 Lab Sample ID: 280-123853-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 14:15

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.020	0.020	0.020	0.0068	mg/L	U		1	9066
Color	15	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	360	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.78	0.50	0.10	0.042	mg/L			1	9056A
Chloride	680	60	60	20	mg/L		D	20	9056A
Orthophosphate as P	0.41	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.94	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.78	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	14	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	0.77	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	270	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	1700	40	40	19	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 775VMW-18R_0519 Lab Sample ID: 280-123853-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 14:18

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.0071	0.020	0.020	0.0068	mg/L	J		1	9066
Color	20	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	510	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	2.8	0.50	0.10	0.042	mg/L			1	9056A
Chloride	690	60	60	20	mg/L		D	20	9056A
Orthophosphate as P	0.27	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.90	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	2.8	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	45	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	0.80	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	150	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	1500	40	40	19	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: TMC-USGS-2_0519 Lab Sample ID: 280-123853-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 17:00

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.051	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.020	0.020	0.020	0.0068	mg/L	U		1	9066
Color	10	10	10	10	PCU		D	2	SM 2120B
Hardness	230	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.25	0.50	0.20	0.11	mg/L	J		1	9056A
Nitrate Nitrite as N	0.86	0.50	0.10	0.042	mg/L			1	9056A
Chloride	45	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.34	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.86	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	24	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	0.61	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	160	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	330	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6VMW-21_0519 Lab Sample ID: 280-123853-4

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 16:38

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.0091	0.020	0.020	0.0068	mg/L	J		1	9066
Color	20	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	190	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.62	0.50	0.10	0.042	mg/L			1	9056A
Chloride	150	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.62	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	6.5	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	0.37	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	70	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	350	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6VMW-21_0519-a
Lab Sample ID: 280-123853-5
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123853-1
SDG ID.:
Matrix: Water
Date Sampled: 05/15/2019 16:38
Reporting Basis: WET
Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.0076	0.020	0.020	0.0068	mg/L	J		1	9066
Color	30	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	190	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.62	0.50	0.10	0.042	mg/L			1	9056A
Chloride	150	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.19	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.62	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	6.4	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	0.32	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	71	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	360	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6/TMCSW-3_0519 Lab Sample ID: 280-123853-6

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2019 17:30

Reporting Basis: WET Date Received: 05/16/2019 08:55

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.033	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.020	0.020	0.020	0.0068	mg/L	U		1	9066
Color	40	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	250	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	1.1	0.50	0.20	0.11	mg/L			1	9056A
Nitrate Nitrite as N	0.59	0.50	0.10	0.042	mg/L			1	9056A
Chloride	220	15	15	5.1	mg/L		D	5	9056A
Orthophosphate as P	0.38	0.50	0.20	0.19	mg/L	J		1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.59	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	22	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	4.3	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	200	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	650	10	10	4.7	mg/L			1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: MJS Batch Start Date: 05/29/2019

Reporting Units: mg/L Analytical Batch No.: 459818

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	11:12	Ammonia	0.480	0.498	96	90-110		350.1 ICV_00350
15	ICV	11:14	Ammonia	2.51	2.49	101	90-110		350.1 ICV_00350
16	ICB	11:16	Ammonia	0.050				U	
32	CCVL	11:48	Ammonia	0.497	0.500	99	90-110		350.1 cal_00367
33	CCV	11:50	Ammonia	2.55	2.50	102	90-110		350.1 cal_00367
34	CCB	11:52	Ammonia	0.050				U	
48	CCVL	12:20	Ammonia	0.492	0.500	98	90-110		350.1 cal_00367
49	CCV	12:22	Ammonia	2.55	2.50	102	90-110		350.1 cal_00367
50	CCB	12:24	Ammonia	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: SVC Batch Start Date: 06/05/2019

Reporting Units: mg/L Analytical Batch No.: 460603

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:44	Nitrogen, Kjeldahl	5.30	5.00	106	90-110		TKN ICV 25_00078
14	ICB	17:45	Nitrogen, Kjeldahl	0.50				U	
31	CCV	18:07	Nitrogen, Kjeldahl	5.03	5.00	101	90-110		TKN 25ppm_00794
32	CCB	18:08	Nitrogen, Kjeldahl	0.50				U	
49	CCV	18:29	Nitrogen, Kjeldahl	5.10	5.00	102	90-110		TKN 25ppm_00794
50	CCB	18:30	Nitrogen, Kjeldahl	0.50				U	
65	CCV	18:49	Nitrogen, Kjeldahl	5.13	5.00	103	90-110		TKN 25ppm_00794
66	CCB	18:50	Nitrogen, Kjeldahl	0.50				U	
80	CCV	19:08	Nitrogen, Kjeldahl	5.05	5.00	101	90-110		TKN 25ppm_00794
81	CCB	19:09	Nitrogen, Kjeldahl	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/05/2019

Reporting Units: mg/L Analytical Batch No.: 460546

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	10:06	Chemical Oxygen Demand (COD)	70.5	75.4	94	90-110		COD icv std_00034
2	ICB	10:06	Chemical Oxygen Demand (COD)	20				U	
16	CCV	10:06	Chemical Oxygen Demand (COD)	96.0	100	96	90-110		COD cal std_00048
17	CCB	10:06	Chemical Oxygen Demand (COD)	20				U	
28	CCV	10:06	Chemical Oxygen Demand (COD)	96.3	100	96	90-110		COD cal std_00048
29	CCB	10:06	Chemical Oxygen Demand (COD)	20				U	
34	CCV	10:06	Chemical Oxygen Demand (COD)	94.6	100	95	90-110		COD cal std_00048
35	CCB	10:06	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: ARM Batch Start Date: 06/04/2019

Reporting Units: mg/L Analytical Batch No.: 460486

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	21:31	Phenols, Total	0.189	0.200	95	90-110		Phenol ICV 10_00605
14	ICVL	21:34	Phenols, Total	0.102	0.100	102	90-110		Phenol ICV 10_00605
15	ICB	21:37	Phenols, Total	0.020				U	
29	CCV	22:19	Phenols, Total	0.206	0.201	103	90-110		Phenol CAL 10_00730
30	CCVL	22:22	Phenols, Total	0.0984	0.101	98	90-110		Phenol CAL 10_00730
31	CCB	22:25	Phenols, Total	0.020				U	
45	CCV	23:07	Phenols, Total	0.206	0.201	102	90-110		Phenol CAL 10_00730
46	CCVL	23:10	Phenols, Total	0.0977	0.101	97	90-110		Phenol CAL 10_00730
47	CCB	23:13	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: ARM Batch Start Date: 06/06/2019

Reporting Units: mg/L Analytical Batch No.: 460772

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:23	Phenols, Total	0.196	0.200	98	90-110		Phenol ICV 10_00605
14	ICVL	18:53	Phenols, Total	0.110	0.100	110	90-110		Phenol ICV 10_00605
15	ICB	18:56	Phenols, Total	0.020				U	
29	CCV	19:38	Phenols, Total	0.204	0.201	101	90-110		Phenol CAL 10_00730
30	CCVL	19:41	Phenols, Total	0.102	0.101	102	90-110		Phenol CAL 10_00730
31	CCB	19:44	Phenols, Total	0.020				U	
45	CCV	20:26	Phenols, Total	0.217	0.201	108	90-110		Phenol CAL 10_00730
46	CCVL	20:29	Phenols, Total	0.109	0.101	108	90-110		Phenol CAL 10_00730
47	CCB	20:32	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458327

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Nitrate Nitrite as N	8.06	8.00	101	90-110		
			Orthophosphate as P	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrate	4.23	4.00	106	90-110		IC ICV 5_00233
			Nitrite	3.83	4.00	96	90-110		IC ICV 5_00233
9	ICB	19:27	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: TLP Batch Start Date: 05/15/2019

Reporting Units: mg/L Analytical Batch No.: 458328

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:11	Bromide	4.36	4.00	109	90-110		IC ICV 5_00233
			Chloride	76.8	80.0	96	90-110		IC CL ICV_00016
			Fluoride	4.12	4.00	103	90-110		IC ICV 5_00233
			Sulfate	75.6	80.0	94	90-110		IC SO4 ICV_00017
9	ICB	19:27	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: JAP Batch Start Date: 05/16/2019

Reporting Units: mg/L Analytical Batch No.: 458413

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:45	Nitrate Nitrite as N	9.89	10.0	99	90-110		
			Orthophosphate as P	5.03	5.00	101	90-110		IC LCS_01577
			Nitrate	4.97	5.00	99	90-110		IC LCS_01577
			Nitrite	4.92	5.00	98	90-110		IC LCS_01577
2	CCB	14:00	Nitrate Nitrite as N	0.0775				J	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.0775				J	
17	CCV	18:31	Nitrate Nitrite as N	9.88	10.0	99	90-110		
			Orthophosphate as P	5.20	5.00	104	90-110		IC LCS_01577
			Nitrate	4.98	5.00	100	90-110		IC LCS_01577
			Nitrite	4.90	5.00	98	90-110		IC LCS_01577
18	CCB	18:47	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
29	CCV	21:48	Nitrate Nitrite as N	9.86	10.0	99	90-110		
			Orthophosphate as P	5.45	5.00	109	90-110		IC LCS_01577
			Nitrate	4.96	5.00	99	90-110		IC LCS_01577
			Nitrite	4.90	5.00	98	90-110		IC LCS_01577
30	CCB	22:04	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
41	CCV	01:05	Nitrate Nitrite as N	9.84	10.0	98	90-110		
			Orthophosphate as P	5.12	5.00	102	90-110		IC LCS_01577
			Nitrate	4.95	5.00	99	90-110		IC LCS_01577
			Nitrite	4.89	5.00	98	90-110		IC LCS_01577
42	CCB	01:21	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: JAP Batch Start Date: 05/16/2019

Reporting Units: mg/L Analytical Batch No.: 458414

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:45	Bromide	5.21	5.00	104	90-110		IC LCS_01577
			Chloride	95.3	100	95	90-110		IC LCS_01577
			Fluoride	4.98	5.00	100	90-110		IC LCS_01577
			Sulfate	93.7	100	94	90-110		IC LCS_01577
2	CCB	14:00	Bromide	0.20				U	
			Chloride	1.06				J	
			Fluoride	0.447				J	
			Sulfate	2.5				U	
17	CCV	18:31	Bromide	5.21	5.00	104	90-110		IC LCS_01577
			Chloride	95.5	100	96	90-110		IC LCS_01577
			Fluoride	5.02	5.00	100	90-110		IC LCS_01577
			Sulfate	93.8	100	94	90-110		IC LCS_01577
18	CCB	18:47	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.412				J	
			Sulfate	2.5				U	
29	CCV	21:48	Bromide	5.21	5.00	104	90-110		IC LCS_01577
			Chloride	95.5	100	95	90-110		IC LCS_01577
			Fluoride	5.03	5.00	101	90-110		IC LCS_01577
			Sulfate	93.5	100	94	90-110		IC LCS_01577
30	CCB	22:04	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.312				J	
			Sulfate	2.5				U	
41	CCV	01:05	Bromide	5.23	5.00	105	90-110		IC LCS_01577
			Chloride	95.7	100	96	90-110		IC LCS_01577
			Fluoride	4.99	5.00	100	90-110		IC LCS_01577
			Sulfate	93.9	100	94	90-110		IC LCS_01577
42	CCB	01:21	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.324				J	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/07/2019

Reporting Units: mg/L Analytical Batch No.: 460997

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	15:47	Total Organic Carbon - Quad	20.6	20.0	103	90-110		TOC ICV Std_00037
2	ICB	16:02	Total Organic Carbon - Quad	0.50				U	
15	CCV	19:36	Total Organic Carbon - Quad	25.4	25.0	102	90-110		TOC ICV Std_00037
16	CCB	19:53	Total Organic Carbon - Quad	0.50				U	
27	CCV	22:51	Total Organic Carbon - Quad	27.0	25.0	108	90-110		TOC ICV Std_00037
28	CCB	23:06	Total Organic Carbon - Quad	0.50				U	
39	CCV	02:02	Total Organic Carbon - Quad	26.6	25.0	106	90-110		TOC ICV Std_00037
40	CCB	02:19	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Analyst: SGB Batch Start Date: 05/22/2019

Reporting Units: mg/L Analytical Batch No.: 459192

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
28	CCV	20:54	Alkalinity	197	200	98	90-110		Alk daily lcs 00821
29	CCB	20:59	Alkalinity	10				U	
42	CCV	22:30	Alkalinity	198	200	99	90-110		Alk daily lcs 00821
43	CCB	22:34	Alkalinity	10				U	
54	CCV	23:48	Alkalinity	201	200	101	90-110		Alk daily lcs 00821
55	CCB	23:53	Alkalinity	10				U	
66	CCV	01:01	Alkalinity	199	200	99	90-110		Alk daily lcs 00821
67	CCB	01:06	Alkalinity	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 459818 Date: 05/29/2019 11:22							
350.1	MB 280-459818/19	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 460603 Date: 06/05/2019 17:48 Prep Batch: 460465 Date: 06/04/2019 19:37							
351.2	MB 280-460465/2-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 460603 Date: 06/05/2019 18:39 Prep Batch: 460465 Date: 06/04/2019 19:37							
351.2	MB 280-460465/28-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 460546 Date: 06/05/2019 10:06							
410.4	MB 280-460546/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 458413 Date: 05/16/2019 15:06							
9056A	MB 280-458413/6	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458413/6	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-458413/6	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458413/6	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458414 Date: 05/16/2019 15:06							
9056A	MB 280-458414/6	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458414/6	Chloride	3.0	U	mg/L	3.0	1
9056A	MB 280-458414/6	Fluoride	0.389	J	mg/L	1.0	1
9056A	MB 280-458414/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 460997 Date: 06/07/2019 16:34							
9060A	MB 280-460997/4	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 460486 Date: 06/04/2019 21:46 Prep Batch: 460448 Date: 06/04/2019 16:52							
9066	MB 280-460448/2-A	Phenols, Total	0.020	U	mg/L	0.020	1
Batch ID: 460772 Date: 06/06/2019 19:05 Prep Batch: 460735 Date: 06/06/2019 15:30							
9066	MB 280-460735/2-A	Phenols, Total	0.020	U	mg/L	0.020	1
Batch ID: 458496 Date: 05/16/2019 18:11							
SM 2120B	MB 280-458496/1	Color	5.0	U	PCU	5.0	1
Batch ID: 459192 Date: 05/22/2019 21:10							
SM 2320B	MB 280-459192/31	Alkalinity	10	U	mg/L	10	1
Batch ID: 459401 Date: 05/24/2019 15:23							
SM 2340C	MB 280-459401/2	Hardness	0.81	U	mg/L	3.0	1
Batch ID: 458975 Date: 05/21/2019 20:04							
SM 2540C	MB 280-458975/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 458482 Date: 05/16/2019 16:27							
SM5210B	MB 280-458482/9	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
UNSEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458482 Date: 05/16/2019 16:27							
SM5210B	USB 280-458482/2	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
SEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458482 Date: 05/16/2019 16:27							
SM5210B	SCB 280-458482/1	Biochemical Oxygen Demand	0.719	J	mg/L	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459818 Date: 05/29/2019 12:02											
350.1	280-123853-5	Ammonia	0.050	U	mg/L						J1
350.1	280-123853-5 MS	Ammonia	1.11		mg/L	1.00	111	90-110			J1
Batch ID: 460603 Date: 06/05/2019 18:44 Prep Batch: 460465 Date: 06/04/2019 19:37											
351.2	280-123930-E-3-B	Nitrogen, Kjeldahl	0.50	U	mg/L						J1
351.2	280-123930-E-3-B MS	Nitrogen, Kjeldahl	2.48		mg/L	3.00	83	90-110			J1
Batch ID: 460546 Date: 06/05/2019 10:06											
410.4	280-123855-D-5	Chemical Oxygen Demand (COD)	40	U	mg/L						
410.4	280-123855-D-5 MS	Chemical Oxygen Demand (COD)	104		mg/L	100	104	90-110			D
Batch ID: 460997 Date: 06/07/2019 20:58											
9060A	280-123843-B-1	Total Organic Carbon - Quad	0.57	J	mg/L						
9060A	280-123843-B-1 MS	Total Organic Carbon - Quad	25.6		mg/L	25.0	100	88-112			
Batch ID: 460486 Date: 06/04/2019 21:52 Prep Batch: 460448 Date: 06/04/2019 16:52											
9066	280-123814-G-1-B	Phenols, Total	0.020	U	mg/L						
9066	280-123814-G-1-B MS	Phenols, Total	0.187		mg/L	0.201	93	72-118			
Batch ID: 460772 Date: 06/06/2019 19:50 Prep Batch: 460735 Date: 06/06/2019 15:30											
9066	280-123855-D-1-C	Phenols, Total	0.010	J	mg/L						
9066	280-123855-D-1-C MS	Phenols, Total	0.207		mg/L	0.201	98	72-118			
Batch ID: 459401 Date: 05/24/2019 15:23											
SM 2340C	280-123853-1	Hardness	360		mg/L						
SM 2340C	280-123853-1 MS	Hardness	764		mg/L	398	102	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459818 Date: 05/29/2019 12:04											
350.1	280-123853-5 MSD	Ammonia	1.13		mg/L	1.00	113	90-110	2	10	J1
Batch ID: 460603 Date: 06/05/2019 18:45			Prep Batch: 460465			Date: 06/04/2019 19:37					
351.2	280-123930-E-3-C MSD	Nitrogen, Kjeldahl	2.58		mg/L	3.00	86	90-110	4	25	J1
Batch ID: 460546 Date: 06/05/2019 10:06											
410.4	280-123855-D-5 MSD	Chemical Oxygen Demand (COD)	95.4		mg/L	100	95	90-110	9	11	D
Batch ID: 460997 Date: 06/07/2019 21:12											
9060A	280-123843-B-1 MSD	Total Organic Carbon - Quad	25.6		mg/L	25.0	100	88-112	0	15	
Batch ID: 460486 Date: 06/04/2019 21:55			Prep Batch: 460448			Date: 06/04/2019 16:52					
9066	280-123814-G-1-C MSD	Phenols, Total	0.189		mg/L	0.201	94	72-118	1	16	
Batch ID: 460772 Date: 06/06/2019 19:53			Prep Batch: 460735			Date: 06/06/2019 15:30					
9066	280-123855-D-1-D MSD	Phenols, Total	0.214		mg/L	0.201	101	72-118	3	16	
Batch ID: 459401 Date: 05/24/2019 15:23											
SM 2340C	280-123853-1 MSD	Hardness	766		mg/L	398	102	90-110	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 458413 Date: 05/16/2019 20:59								
9056A	TMC-USGS-2_0519	280-123853-3	Nitrate Nitrite as N	0.86	mg/L			
9056A	TMC-USGS-2_0519	280-123853-3 DU	Nitrate Nitrite as N	0.857	mg/L	0.3	10	
9056A	TMC-USGS-2_0519	280-123853-3	Orthophosphate as P	0.34	mg/L			J
9056A	TMC-USGS-2_0519	280-123853-3 DU	Orthophosphate as P	0.336	mg/L	1	10	J
9056A	TMC-USGS-2_0519	280-123853-3	Nitrate	0.86	mg/L			
9056A	TMC-USGS-2_0519	280-123853-3 DU	Nitrate	0.857	mg/L	0.09	10	
9056A	TMC-USGS-2_0519	280-123853-3	Nitrite	0.10	mg/L			U
9056A	TMC-USGS-2_0519	280-123853-3 DU	Nitrite	0.10	mg/L	NC	10	U
Batch ID: 458414 Date: 05/16/2019 20:59								
9056A	TMC-USGS-2_0519	280-123853-3	Bromide	0.25	mg/L			J
9056A	TMC-USGS-2_0519	280-123853-3 DU	Bromide	0.254	mg/L	0.3	10	J
9056A	TMC-USGS-2_0519	280-123853-3	Chloride	45	mg/L			
9056A	TMC-USGS-2_0519	280-123853-3 DU	Chloride	45.1	mg/L	0.07	10	
9056A	TMC-USGS-2_0519	280-123853-3	Fluoride	0.10	mg/L			U
9056A	TMC-USGS-2_0519	280-123853-3 DU	Fluoride	0.10	mg/L	NC	10	U
9056A	TMC-USGS-2_0519	280-123853-3	Sulfate	24	mg/L			
9056A	TMC-USGS-2_0519	280-123853-3 DU	Sulfate	24.4	mg/L	0.3	10	
Batch ID: 458496 Date: 05/16/2019 18:11								
SM 2120B	LF6MW-1_0519	280-123853-1	Color	15	PCU			
SM 2120B	LF6MW-1_0519	280-123853-1 DU	Color	15.0	PCU	0	20	
Batch ID: 459192 Date: 05/22/2019 21:28								
SM 2320B		280-123820-I-5	Alkalinity	680	mg/L			
SM 2320B		280-123820-I-5 DU	Alkalinity	709	mg/L	4	10	
Batch ID: 458975 Date: 05/21/2019 20:04								
SM 2540C	LF6MW-1_0519	280-123853-1	Total Dissolved Solids (TDS)	1700	mg/L			
SM 2540C	LF6MW-1_0519	280-123853-1 DU	Total Dissolved Solids (TDS)	1700	mg/L	3	10	
Batch ID: 458482 Date: 05/16/2019 16:27								
SM5210B	LF6MW-1_0519	280-123853-1	Biochemical Oxygen Demand	0.59	mg/L			U
SM5210B	LF6MW-1_0519	280-123853-1 DU	Biochemical Oxygen Demand	0.59	mg/L	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459818	Date: 05/29/2019 11:20										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-459818/18	Ammonia	2.57		mg/L	2.50	103	90-110			
Batch ID: 460603	Date: 06/05/2019 18:38	Prep Batch: 460465	Date: 06/04/2019 19:37								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460465/27-A	Nitrogen, Kjeldahl	6.11		mg/L	6.00	102	90-110			
Batch ID: 460603	Date: 06/05/2019 18:47	Prep Batch: 460465	Date: 06/04/2019 19:37								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460465/1-A	Nitrogen, Kjeldahl	6.25		mg/L	6.00	104	90-110			
Batch ID: 460546	Date: 06/05/2019 10:06										
						LCS Source: COD cal std_00048					
410.4	LCS 280-460546/3	Chemical Oxygen Demand (COD)	96.3		mg/L	100	96	90-110	1	11	
Batch ID: 458413	Date: 05/16/2019 14:33										
						LCS Source:					
9056A	LCS 280-458413/4	Nitrate Nitrite as N	9.86		mg/L	10.0	99	80-120	0	10	
						LCS Source: IC LCS_01577					
9056A	LCS 280-458413/4	Orthophosphate as P	5.02		mg/L	5.00	100	80-116	0	10	
9056A	LCS 280-458413/4	Nitrate	4.95		mg/L	5.00	99	88-111	0	10	
9056A	LCS 280-458413/4	Nitrite	4.91		mg/L	5.00	98	87-111	0	10	
Batch ID: 458414	Date: 05/16/2019 14:33										
						LCS Source: IC LCS_01577					
9056A	LCS 280-458414/4	Bromide	5.21		mg/L	5.00	104	91-110	0	10	
9056A	LCS 280-458414/4	Chloride	95.4		mg/L	100	95	87-111	0	10	
9056A	LCS 280-458414/4	Fluoride	4.98		mg/L	5.00	100	88-112	0	10	
9056A	LCS 280-458414/4	Sulfate	93.6		mg/L	100	94	87-112	0	10	
Batch ID: 460997	Date: 06/07/2019 16:19										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-460997/3	Total Organic Carbon - Quad	24.4		mg/L	25.0	98	88-112			
Batch ID: 460486	Date: 06/04/2019 21:43	Prep Batch: 460448	Date: 06/04/2019 16:52								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460448/1-A	Phenols, Total	0.181		mg/L	0.201	90	90-110			
Batch ID: 460772	Date: 06/06/2019 19:02	Prep Batch: 460735	Date: 06/06/2019 15:30								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460735/1-A	Phenols, Total	0.201		mg/L	0.201	100	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459192	Date: 05/22/2019 21:05										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459192/30	Alkalinity	198		mg/L	200	99	89-109			
Batch ID: 459401	Date: 05/24/2019 15:23										
						LCS Source: Hard lcs std_00050					
SM 2340C	LCS 280-459401/1	Hardness	398		mg/L	398	100	90-110			
Batch ID: 458975	Date: 05/21/2019 20:04										
						LCS Source: TDS LCS_00537_00054					
SM 2540C	LCS 280-458975/2	Total Dissolved Solids (TDS)	496		mg/L	500	99	93-110			
Batch ID: 458482	Date: 05/16/2019 16:27										
						LCS Source: BOD Std_00001_00046					
SM5210B	LCS 280-458482/8	Biochemical Oxygen Demand	202		mg/L	198	102	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 460546	Date: 06/05/2019 10:06										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-460546/4	Chemical Oxygen Demand (COD)	95.3		mg/L	100	95	90-110	1	11	
Batch ID: 458413	Date: 05/16/2019 14:50										
						LCSD Source:					
9056A	LCSD 280-458413/5	Nitrate Nitrite as N	9.89		mg/L	10.0	99	80-120	0	10	
						LCSD Source: IC LCS_01577					
9056A	LCSD 280-458413/5	Orthophosphate as P	5.04		mg/L	5.00	101	80-116	0	10	
9056A	LCSD 280-458413/5	Nitrate	4.96		mg/L	5.00	99	88-111	0	10	
9056A	LCSD 280-458413/5	Nitrite	4.93		mg/L	5.00	99	87-111	0	10	
Batch ID: 458414	Date: 05/16/2019 14:50										
						LCSD Source: IC LCS_01577					
9056A	LCSD 280-458414/5	Bromide	5.21		mg/L	5.00	104	91-110	0	10	
9056A	LCSD 280-458414/5	Chloride	95.7		mg/L	100	96	87-111	0	10	
9056A	LCSD 280-458414/5	Fluoride	4.99		mg/L	5.00	100	88-112	0	10	
9056A	LCSD 280-458414/5	Sulfate	93.6		mg/L	100	94	87-112	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458413	Date: 05/16/2019 14:17										
						LCS Source:					
9056A	MRL 280-458413/3	Nitrate Nitrite as N	0.442	J	mg/L	0.400	111	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458413/3	Orthophosphate as P	0.205	J	mg/L	0.200	102	50-150			
9056A	MRL 280-458413/3	Nitrate	0.228	J	mg/L	0.200	114	50-150			
9056A	MRL 280-458413/3	Nitrite	0.214	J	mg/L	0.200	107	50-150			
Batch ID: 458414	Date: 05/16/2019 14:17										
						LCS Source: IC CAL cl/so4_00256					
9056A	MRL 280-458414/3	Chloride	2.33	J	mg/L	2.50	93	50-150			M
9056A	MRL 280-458414/3	Sulfate	2.37	J	mg/L	2.50	95	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458414/3	Bromide	0.212	J	mg/L	0.200	106	50-150			
9056A	MRL 280-458414/3	Fluoride	0.152	J	mg/L	0.200	76	50-150			M

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 DL Date: 02/03/2019 00:00

Prep Method: Distill/Phenol

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (PCU)	
Color		5	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B XRL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (PCU)	
Color		5	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Hardness		3	0.3

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness		3	0.3

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.06
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.0597
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A DL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A XMDL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		10	3.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B DL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Biochemical Oxygen Demand		2	0.236

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123853-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B XMDL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Biochemical Oxygen Demand		2	0.236

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460448/1-A	06/04/2019 16:52	460448		50	50
MB 280-460448/2-A	06/04/2019 16:52	460448		50	50
280-123814-G-1-B MS	06/04/2019 16:52	460448		50	50
280-123814-G-1-C MSD	06/04/2019 16:52	460448		50	50
280-123853-1	06/04/2019 16:52	460448		50	50
280-123853-2	06/04/2019 16:52	460448		50	50
280-123853-3	06/04/2019 16:52	460448		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460465/1-A	06/04/2019 19:37	460465		25	25
MB 280-460465/2-A	06/04/2019 19:37	460465		25	25
LCS 280-460465/27-A	06/04/2019 19:37	460465		25	25
MB 280-460465/28-A	06/04/2019 19:37	460465		25	25
280-123930-E-3-B MS	06/04/2019 19:37	460465		25	25
280-123930-E-3-C MSD	06/04/2019 19:37	460465		25	25
280-123853-1	06/04/2019 19:37	460465		25	25
280-123853-2	06/04/2019 19:37	460465		25	25
280-123853-3	06/04/2019 19:37	460465		25	25
280-123853-4	06/04/2019 19:37	460465		25	25
280-123853-5	06/04/2019 19:37	460465		25	25
280-123853-6	06/04/2019 19:37	460465		25	25

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460735/1-A	06/06/2019 15:30	460735		50	50
MB 280-460735/2-A	06/06/2019 15:30	460735		50	50
280-123853-4	06/06/2019 15:30	460735		50	50
280-123853-5	06/06/2019 15:30	460735		50	50
280-123853-6	06/06/2019 15:30	460735		50	50
280-123855-D-1-C MS	06/06/2019 15:30	460735		50	50
280-123855-D-1-D MSD	06/06/2019 15:30	460735		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/29/2019 10:46 End Date: 05/29/2019 14:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			10:46																									
ZZZZZZ			10:48																									
ZZZZZZ			10:50																									
IC 280-459818/4			10:52	X																								
IC 280-459818/5			10:54	X																								
IC 280-459818/6			10:56	X																								
IC 280-459818/7			10:58	X																								
IC 280-459818/8			11:00	X																								
IC 280-459818/9			11:02	X																								
IC 280-459818/10			11:04	X																								
IC 280-459818/11			11:06	X																								
ZZZZZZ			11:08																									
ZZZZZZ			11:10																									
ICVL 280-459818/14	1		11:12	X																								
ICV 280-459818/15	1		11:14	X																								
ICB 280-459818/16	1		11:16	X																								
ZZZZZZ			11:18																									
LCS 280-459818/18	1	T	11:20	X																								
MB 280-459818/19	1	T	11:22	X																								
ZZZZZZ			11:24																									
ZZZZZZ			11:26																									
ZZZZZZ			11:28																									
ZZZZZZ			11:30																									
ZZZZZZ			11:32																									
ZZZZZZ			11:34																									
ZZZZZZ			11:36																									
ZZZZZZ			11:38																									
280-123853-1	1	T	11:40	X																								
280-123853-2	1	T	11:42	X																								
RINSE 280-459818/30			11:44																									
ZZZZZZ			11:46																									
CCVL 280-459818/32	1		11:48	X																								
CCV 280-459818/33	1		11:50	X																								
CCB 280-459818/34	1		11:52	X																								
ZZZZZZ			11:54																									
280-123853-3	1	T	11:56	X																								
280-123853-4	1	T	11:58	X																								
280-123853-5	1	T	12:00	X																								
280-123853-5 MS	1	T	12:02	X																								
280-123853-5 MSD	1	T	12:04	X																								
280-123853-6	1	T	12:06	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/29/2019 10:46 End Date: 05/29/2019 14:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			12:08																									
ZZZZZZ			12:10																									
ZZZZZZ			12:12																									
ZZZZZZ			12:14																									
RINSE 280-459818/46			12:16																									
ZZZZZZ			12:18																									
CCVL 280-459818/48	1		12:20	X																								
CCV 280-459818/49	1		12:22	X																								
CCB 280-459818/50	1		12:24	X																								
ZZZZZZ			12:26																									
ZZZZZZ			12:28																									
ZZZZZZ			12:30																									
ZZZZZZ			12:32																									
ZZZZZZ			12:34																									
RINSE 280-459818/56			12:36																									
ZZZZZZ			12:38																									
CCVL 280-459818/58			12:40																									
CCV 280-459818/59			12:42																									
CCB 280-459818/60			12:44																									
ZZZZZZ			12:46																									
ZZZZZZ			12:48																									
ZZZZZZ			12:50																									
ZZZZZZ			12:52																									
ZZZZZZ			12:54																									
ZZZZZZ			12:56																									
ZZZZZZ			12:58																									
ZZZZZZ			13:00																									
ZZZZZZ			13:02																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									
ZZZZZZ			13:08																									
ZZZZZZ			13:10																									
RINSE 280-459818/74			13:12																									
ZZZZZZ			13:14																									
CCVL 280-459818/76			13:16																									
CCV 280-459818/77			13:18																									
CCB 280-459818/78			13:20																									
ZZZZZZ			13:22																									
ZZZZZZ			13:24																									
ZZZZZZ			13:26																									
ZZZZZZ			13:28																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/29/2019 10:46 End Date: 05/29/2019 14:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			13:30																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
RINSE 280-459818/90			13:44																									
ZZZZZZ			13:46																									
CCVL 280-459818/92			13:48																									
CCV 280-459818/93			13:50																									
CCB 280-459818/94			13:52																									
ZZZZZZ			13:54																									
ZZZZZZ			13:56																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
RINSE 280-459818/100			14:04																									
ZZZZZZ			14:06																									
CCVL 280-459818/102			14:08																									
CCV 280-459818/103			14:10																									
CCB 280-459818/104			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:20																									
ZZZZZZ			14:22																									
ZZZZZZ			14:24																									
ZZZZZZ			14:26																									
RINSE 280-459818/110			14:28																									
ZZZZZZ			14:30																									
CCVL 280-459818/112			14:32																									
CCV 280-459818/113			14:34																									
CCB 280-459818/114			14:36																									
ZZZZZZ			14:38																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/05/2019 17:30 End Date: 06/05/2019 19:13

Lab Sample Id	D/F	Type	Time	Analytes
				TKN
ZZZZZZ			17:30	
ZZZZZZ			17:30	
ZZZZZZ			17:32	
ZZZZZZ			17:33	
IC 280-460066/36-A			17:34	X
IC 280-460066/37-A			17:35	X
IC 280-460066/38-A			17:37	X
IC 280-460066/39-A			17:38	X
IC 280-460066/40-A			17:39	X
IC 280-460066/41-A			17:40	X
ZZZZZZ			17:42	
ZZZZZZ			17:43	
ICV 280-460066/42-A	1		17:44	X
ICB 280-460066/43-A	1		17:45	X
ZZZZZZ			17:47	
MB 280-460465/2-A	1	T	17:48	X
ZZZZZZ			17:49	
ZZZZZZ			17:50	
ZZZZZZ			17:52	
ZZZZZZ			17:53	
ZZZZZZ			17:54	
ZZZZZZ			17:55	
ZZZZZZ			17:57	
ZZZZZZ			17:58	
ZZZZZZ			17:59	
ZZZZZZ			18:00	
ZZZZZZ			18:02	
ZZZZZZ			18:03	
ZZZZZZ			18:04	
ZZZZZZ			18:05	
CCV 280-460066/44-A	1		18:07	X
CCB 280-460066/45-A	1		18:08	X
ZZZZZZ			18:09	
ZZZZZZ			18:10	
ZZZZZZ			18:12	
ZZZZZZ			18:13	
ZZZZZZ			18:14	
ZZZZZZ			18:15	
ZZZZZZ			18:17	
ZZZZZZ			18:18	
ZZZZZZ			18:19	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/05/2019 17:30 End Date: 06/05/2019 19:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			18:20																									
ZZZZZZ			18:22																									
ZZZZZZ			18:23																									
ZZZZZZ			18:24																									
ZZZZZZ			18:25																									
ZZZZZZ			18:27																									
ZZZZZZ			18:28																									
CCV 280-460066/44-A	1		18:29	X																								
CCB 280-460066/45-A	1		18:30	X																								
ZZZZZZ			18:32																									
ZZZZZZ			18:33																									
ZZZZZZ			18:34																									
ZZZZZZ			18:35																									
ZZZZZZ			18:37																									
LCS 280-460465/27-A	1	T	18:38	X																								
MB 280-460465/28-A	1	T	18:39	X																								
ZZZZZZ			18:40																									
ZZZZZZ			18:42																									
ZZZZZZ			18:43																									
280-123930-E-3-B MS	1	T	18:44	X																								
280-123930-E-3-C MSD	1	T	18:45	X																								
LCS 280-460465/1-A	1	T	18:47	X																								
ZZZZZZ			18:48																									
CCV 280-460066/44-A	1		18:49	X																								
CCB 280-460066/45-A	1		18:50	X																								
ZZZZZZ			18:52																									
ZZZZZZ			18:53																									
280-123853-1	1	T	18:54	X																								
280-123853-2	1	T	18:55	X																								
ZZZZZZ			18:57																									
ZZZZZZ			18:58																									
280-123853-3	1	T	18:59	X																								
280-123853-4	1	T	19:00	X																								
280-123853-5	1	T	19:02	X																								
280-123853-6	1	T	19:03	X																								
ZZZZZZ			19:04																									
ZZZZZZ			19:05																									
ZZZZZZ			19:07																									
CCV 280-460066/44-A	1		19:08	X																								
CCB 280-460066/45-A	1		19:09	X																								
ZZZZZZ			19:10																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/05/2019 17:30 End Date: 06/05/2019 19:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			19:12																									
ZZZZZZ			19:13																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/05/2019 10:06 End Date: 06/05/2019 10:06

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-460546/1	1		10:06	X																								
ICB 280-460546/2	1		10:06	X																								
LCS 280-460546/3	1	T	10:06	X																								
LCSD 280-460546/4	1	T	10:06	X																								
MB 280-460546/5	1	T	10:06	X																								
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
CCV 280-460546/16	1		10:06	X																								
CCB 280-460546/17	1		10:06	X																								
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
ZZZZZZ			10:06																									
280-123855-D-5 MS	2	T	10:06	X																								
280-123855-D-5 MSD	2	T	10:06	X																								
ZZZZZZ			10:06																									
280-123853-1	2	T	10:06	X																								
280-123853-2	2	T	10:06	X																								
280-123853-3	1	T	10:06	X																								
CCV 280-460546/28	1		10:06	X																								
CCB 280-460546/29	1		10:06	X																								
280-123853-4	1	T	10:06	X																								
280-123853-5	1	T	10:06	X																								
280-123853-6	2	T	10:06	X																								
ZZZZZZ			10:06																									
CCV 280-460546/34	1		10:06	X																								
CCB 280-460546/35	1		10:06	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/04/2019 20:55 End Date: 06/05/2019 01:52

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			20:55	
ZZZZZZ			20:58	
ZZZZZZ			21:01	
ZZZZZZ			21:04	
IC 280-460486/5			21:07	X
IC 280-460486/6			21:10	X
IC 280-460486/7			21:13	X
IC 280-460486/8			21:16	X
IC 280-460486/9			21:19	X
IC 280-460486/10			21:22	X
ZZZZZZ			21:25	
ZZZZZZ			21:28	
ICV 280-460486/13	1		21:31	X
ICVL 280-460486/14	1		21:34	X
ICB 280-460486/15	1		21:37	X
ZZZZZZ			21:40	
LCS 280-460448/1-A	1	T	21:43	X
MB 280-460448/2-A	1	T	21:46	X
ZZZZZZ			21:49	
280-123814-G-1-B MS	1	T	21:52	X
280-123814-G-1-C MSD	1	T	21:55	X
ZZZZZZ			21:58	
ZZZZZZ			22:01	
ZZZZZZ			22:04	
ZZZZZZ			22:07	
ZZZZZZ			22:10	
ZZZZZZ			22:13	
ZZZZZZ			22:16	
CCV 280-460486/29	1		22:19	X
CCVL 280-460486/30	1		22:22	X
CCB 280-460486/31	1		22:25	X
ZZZZZZ			22:28	
ZZZZZZ			22:31	
ZZZZZZ			22:34	
280-123853-1	1	T	22:37	X
280-123853-2	1	T	22:40	X
280-123853-3	1	T	22:43	X
ZZZZZZ			22:46	
ZZZZZZ			22:49	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/04/2019 20:55 End Date: 06/05/2019 01:52

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			22:52																									
ZZZZZZ			22:55																									
ZZZZZZ			22:58																									
ZZZZZZ			23:01																									
ZZZZZZ			23:04																									
CCV 280-460486/45	1		23:07	X																								
CCVL 280-460486/46	1		23:10	X																								
CCB 280-460486/47	1		23:13	X																								
ZZZZZZ			23:16																									
ZZZZZZ			23:19																									
ZZZZZZ			23:22																									
ZZZZZZ			23:41																									
ZZZZZZ			23:44																									
ZZZZZZ			23:47																									
ZZZZZZ			23:50																									
ZZZZZZ			23:53																									
ZZZZZZ			23:56																									
ZZZZZZ			23:59																									
ZZZZZZ			00:02																									
ZZZZZZ			00:05																									
ZZZZZZ			00:08																									
CCV 280-460486/61			00:11																									
CCVL 280-460486/62			00:14																									
CCB 280-460486/63			00:17																									
ZZZZZZ			00:20																									
ZZZZZZ			00:23																									
ZZZZZZ			00:26																									
ZZZZZZ			00:29																									
ZZZZZZ			00:32																									
ZZZZZZ			00:35																									
ZZZZZZ			00:38																									
ZZZZZZ			00:41																									
ZZZZZZ			00:44																									
ZZZZZZ			00:47																									
ZZZZZZ			00:50																									
ZZZZZZ			00:53																									
ZZZZZZ			00:56																									
CCV 280-460486/77			00:59																									
CCVL 280-460486/78			01:02																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/04/2019 20:55 End Date: 06/05/2019 01:52

Lab Sample Id	D/F	Type	Time	Analytes																									
				PhenT																									
CCB 280-460486/79			01:05																										
ZZZZZZ			01:08																										
ZZZZZZ			01:11																										
ZZZZZZ			01:14																										
ZZZZZZ			01:17																										
ZZZZZZ			01:20																										
ZZZZZZ			01:23																										
ZZZZZZ			01:26																										
ZZZZZZ			01:31																										
ZZZZZZ			01:34																										
ZZZZZZ			01:37																										
ZZZZZZ			01:40																										
CCV 280-460486/91			01:43																										
CCVL 280-460486/92			01:46																										
CCB 280-460486/93			01:49																										
ZZZZZZ			01:52																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			16:47	
ZZZZZZ			16:50	
ZZZZZZ			16:53	
ZZZZZZ			16:56	
IC 280-460772/5			16:59	X
IC 280-460772/6			17:02	X
IC 280-460772/7			17:05	X
IC 280-460772/8			17:08	X
IC 280-460772/9			17:11	X
IC 280-460772/10			17:14	X
ZZZZZZ			17:17	
ZZZZZZ			17:20	
ICV 280-460772/13	1		17:23	X
ICVL 280-460772/14	1		18:53	X
ICB 280-460772/15	1		18:56	X
ZZZZZZ			18:59	
LCS 280-460735/1-A	1	T	19:02	X
MB 280-460735/2-A	1	T	19:05	X
ZZZZZZ			19:08	
ZZZZZZ			19:11	
ZZZZZZ			19:14	
ZZZZZZ			19:17	
280-123853-4	1	T	19:20	X
280-123853-5	1	T	19:23	X
280-123853-6	1	T	19:26	X
ZZZZZZ			19:29	
ZZZZZZ			19:32	
ZZZZZZ			19:35	
CCV 280-460772/29	1		19:38	X
CCVL 280-460772/30	1		19:41	X
CCB 280-460772/31	1		19:44	X
ZZZZZZ			19:47	
280-123855-D-1-C MS	1	T	19:50	X
280-123855-D-1-D MSD	1	T	19:53	X
ZZZZZZ			19:56	
ZZZZZZ			19:59	
ZZZZZZ			20:02	
ZZZZZZ			20:05	
ZZZZZZ			20:08	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			20:11																									
ZZZZZZ			20:14																									
ZZZZZZ			20:17																									
ZZZZZZ			20:20																									
ZZZZZZ			20:23																									
CCV 280-460772/45	1		20:26	X																								
CCVL 280-460772/46	1		20:29	X																								
CCB 280-460772/47	1		20:32	X																								
ZZZZZZ			20:35																									
ZZZZZZ			20:38																									
ZZZZZZ			20:41																									
ZZZZZZ			20:44																									
ZZZZZZ			20:47																									
ZZZZZZ			20:50																									
ZZZZZZ			20:53																									
ZZZZZZ			20:57																									
ZZZZZZ			21:00																									
ZZZZZZ			21:03																									
ZZZZZZ			21:06																									
ZZZZZZ			21:09																									
ZZZZZZ			21:12																									
CCV 280-460772/61			21:15																									
CCVL 280-460772/62			21:18																									
CCB 280-460772/63			21:21																									
ZZZZZZ			21:24																									
ZZZZZZ			21:27																									
ZZZZZZ			21:30																									
ZZZZZZ			21:33																									
ZZZZZZ			21:36																									
ZZZZZZ			21:39																									
ZZZZZZ			21:42																									
ZZZZZZ			21:45																									
ZZZZZZ			21:48																									
ZZZZZZ			22:53																									
ZZZZZZ			22:56																									
ZZZZZZ			22:59																									
ZZZZZZ			23:02																									
CCV 280-460772/77			23:05																									
CCVL 280-460772/78			23:08																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																									
				PhenT																									
CCB 280-460772/79			23:11																										
ZZZZZZ			23:14																										
ZZZZZZ			23:17																										
ZZZZZZ			23:20																										
ZZZZZZ			23:23																										
ZZZZZZ			23:26																										
ZZZZZZ			23:29																										
ZZZZZZ			23:32																										
ZZZZZZ			23:35																										
ZZZZZZ			23:38																										
ZZZZZZ			23:41																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ZZZZZZ			23:51																										
CCV 280-460772/93			23:54																										
CCVL 280-460772/94			23:57																										
CCB 280-460772/95			00:00																										
ZZZZZZ			00:03																										
ZZZZZZ			00:06																										
ZZZZZZ			00:09																										
ZZZZZZ			00:13																										
ZZZZZZ			00:16																										
ZZZZZZ			00:19																										
ZZZZZZ			00:22																										
ZZZZZZ			00:25																										
CCV 280-460772/104			00:28																										
CCVL 280-460772/105			00:31																										
CCB 280-460772/106			00:34																										
ZZZZZZ			00:37																										

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2120B

Start Date: 05/16/2019 18:11 End Date: 05/16/2019 18:11

Lab Sample Id	D/F	Type	Time	Analytes																									
				Color																									
MB 280-458496/1	1	T	18:11	X																									
280-123853-1	1	T	18:11	X																									
280-123853-1 DU	1	T	18:11	X																									
280-123853-2	1	T	18:11	X																									
280-123853-3	2	T	18:11	X																									
280-123853-4	1	T	18:11	X																									
280-123853-5	1	T	18:11	X																									
280-123853-6	1	T	18:11	X																									
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
ZZZZZZ			18:11																										
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ZZZZZZ			18:11																										
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ZZZZZZ			18:11																										

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340C

Start Date: 05/24/2019 15:23 End Date: 05/24/2019 15:23

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
LCS 280-459401/1	1	T	15:23	X																								
MB 280-459401/2	1	T	15:23	X																								
280-123853-1	1	T	15:23	X																								
280-123853-1 MS	1	T	15:23	X																								
280-123853-1 MSD	1	T	15:23	X																								
280-123853-2	1	T	15:23	X																								
280-123853-3	1	T	15:23	X																								
280-123853-4	1	T	15:23	X																								
280-123853-5	1	T	15:23	X																								
280-123853-6	1	T	15:23	X																								
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
ZZZZZZ			15:23																									
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Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
RTC 280-458327/1			17:16																											
STD 280-458327/2 IC	1		17:32	X	X	X	X																							
STD 280-458327/3 IC	1		17:49	X	X	X	X																							
STD 280-458327/4 IC	1		18:05	X	X	X	X																							
STD 280-458327/5 IC	1		18:21	X	X	X	X																							
STD 280-458327/6 IC	1		18:38	X	X	X	X																							
STD 280-458327/7 IC	1		18:54	X	X	X	X																							
ICV 280-458327/8	1		19:11	X	X	X	X																							
ICB 280-458327/9	1		19:27	X	X	X	X																							
ZZZZZZ			19:43																											
ZZZZZZ			20:00																											
ZZZZZZ			20:16																											
ZZZZZZ			20:33																											
ZZZZZZ			20:49																											
ZZZZZZ			21:06																											
ZZZZZZ			21:22																											
ZZZZZZ			21:38																											
ZZZZZZ			21:55																											
ZZZZZZ			22:11																											
ZZZZZZ			22:28																											
CCV 280-458327/21			22:44																											
CCB 280-458327/22			23:01																											
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:50																											
ZZZZZZ			00:06																											
ZZZZZZ			00:23																											
ZZZZZZ			00:39																											
ZZZZZZ			00:55																											
ZZZZZZ			01:12																											
ZZZZZZ			01:28																											
ZZZZZZ			01:45																											
CCV 280-458327/33			02:01																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCB 280-458327/34			02:17																											
ZZZZZZ			02:34																											
ZZZZZZ			02:50																											
ZZZZZZ			03:07																											
ZZZZZZ			03:23																											
ZZZZZZ			03:40																											
ZZZZZZ			03:56																											
ZZZZZZ			04:12																											
ZZZZZZ			04:29																											
ZZZZZZ			04:45																											
ZZZZZZ			05:02																											
CCV 280-458327/45			05:18																											
CCB 280-458327/46			05:34																											
ZZZZZZ			05:51																											
ZZZZZZ			06:07																											
ZZZZZZ			06:24																											
ZZZZZZ			08:25																											
ZZZZZZ			08:41																											
ZZZZZZ			08:57																											
ZZZZZZ			09:14																											
ZZZZZZ			09:30																											
ZZZZZZ			09:47																											
ZZZZZZ			10:03																											
CCV 280-458327/57			10:19																											
CCB 280-458327/58			10:36																											
ZZZZZZ			10:52																											
ZZZZZZ			11:09																											
ZZZZZZ			11:25																											
ZZZZZZ			11:42																											
ZZZZZZ			11:58																											
ZZZZZZ			12:14																											
ZZZZZZ			12:31																											
ZZZZZZ			12:47																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				NNO32	NO2-N	NO3	Orthophosasp																						
CCV 280-458327/67			13:04																										
CCB 280-458327/68			13:20																										

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-458328/1			17:16																										
STD 280-458328/2 IC	1		17:32	X	X	X	X																						
STD 280-458328/3 IC	1		17:49	X	X	X	X																						
STD 280-458328/4 IC	1		18:05	X	X	X	X																						
STD 280-458328/5 IC	1		18:21	X	X	X	X																						
STD 280-458328/6 IC	1		18:38	X	X	X	X																						
STD 280-458328/7 IC	1		18:54	X	X	X	X																						
ICV 280-458328/8	1		19:11	X	X	X	X																						
ICB 280-458328/9	1		19:27	X	X	X	X																						
ZZZZZZ			19:43																										
ZZZZZZ			20:00																										
ZZZZZZ			20:16																										
ZZZZZZ			20:33																										
ZZZZZZ			20:49																										
ZZZZZZ			21:06																										
ZZZZZZ			21:22																										
ZZZZZZ			21:38																										
ZZZZZZ			21:55																										
ZZZZZZ			22:11																										
ZZZZZZ			22:28																										
CCV 280-458328/21			22:44																										
CCB 280-458328/22			23:01																										
ZZZZZZ			23:17																										
ZZZZZZ			23:33																										
ZZZZZZ			23:50																										
ZZZZZZ			00:06																										
ZZZZZZ			00:23																										
ZZZZZZ			00:39																										
ZZZZZZ			00:55																										
ZZZZZZ			01:12																										
ZZZZZZ			01:28																										
ZZZZZZ			01:45																										
CCV 280-458328/33			02:01																										
CCB 280-458328/34			02:17																										
ZZZZZZ			02:34																										
ZZZZZZ			02:50																										
ZZZZZZ			03:56																										
ZZZZZZ			04:12																										
ZZZZZZ			04:29																										
ZZZZZZ			04:45																										
ZZZZZZ			05:02																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/15/2019 17:16 End Date: 05/16/2019 13:20

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																							
CCV 280-458328/45			05:18																										
CCB 280-458328/46			05:34																										
ZZZZZZ			05:51																										
ZZZZZZ			06:07																										
ZZZZZZ			06:24																										
ZZZZZZ			08:25																										
ZZZZZZ			08:41																										
ZZZZZZ			08:57																										
ZZZZZZ			09:14																										
ZZZZZZ			09:30																										
ZZZZZZ			09:47																										
ZZZZZZ			10:03																										
CCV 280-458328/57			10:19																										
CCB 280-458328/58			10:36																										
ZZZZZZ			10:52																										
ZZZZZZ			11:09																										
ZZZZZZ			11:25																										
ZZZZZZ			11:42																										
ZZZZZZ			11:58																										
ZZZZZZ			12:14																										
ZZZZZZ			12:31																										
ZZZZZZ			12:47																										
CCV 280-458328/67			13:04																										
CCB 280-458328/68			13:20																										

Prep Types:
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/16/2019 13:45 End Date: 05/17/2019 03:49

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCV 280-458413/1	1		13:45	X	X	X	X																							
CCB 280-458413/2	1		14:00	X	X	X	X																							
MRL 280-458413/3	1	T	14:17	X	X	X	X																							
LCS 280-458413/4	1	T	14:33	X	X	X	X																							
LCSD 280-458413/5	1	T	14:50	X	X	X	X																							
MB 280-458413/6	1	T	15:06	X	X	X	X																							
ZZZZZZ			15:47																											
ZZZZZZ			16:03																											
ZZZZZZ			16:20																											
ZZZZZZ			16:36																											
ZZZZZZ			16:52																											
ZZZZZZ			17:09																											
ZZZZZZ			17:25																											
ZZZZZZ			17:42																											
ZZZZZZ			17:58																											
ZZZZZZ			18:15																											
CCV 280-458413/17	1		18:31	X	X	X	X																							
CCB 280-458413/18	1		18:47	X	X	X	X																							
ZZZZZZ			19:04																											
ZZZZZZ			19:20																											
280-123853-1	1	T	19:37	X	X	X	X																							
ZZZZZZ			19:53																											
280-123853-2	1	T	20:09	X	X	X	X																							
ZZZZZZ			20:26																											
280-123853-3	1	T	20:42	X	X	X	X																							
280-123853-3 DU	1	T	20:59	X	X	X	X																							
280-123853-3 MS	1	T	21:15	X	X	X	X																							
280-123853-3 MSD	1	T	21:32	X	X	X	X																							
CCV 280-458413/29	1		21:48	X	X	X	X																							
CCB 280-458413/30	1		22:04	X	X	X	X																							
280-123853-4	1	T	22:21	X	X	X	X																							
ZZZZZZ			22:37																											
280-123853-5	1	T	22:54	X	X	X	X																							

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/16/2019 13:45 End Date: 05/17/2019 03:49

Lab Sample Id	D/F	Type	Time	Analytes																											
				NNO32	NO2-N	NO3	Orthophosasp																								
ZZZZZZ			23:10																												
280-123853-6	1	T	23:26	X	X	X	X																								
ZZZZZZ			23:43																												
ZZZZZZ			23:59																												
ZZZZZZ			00:16																												
ZZZZZZ			00:32																												
ZZZZZZ			00:49																												
CCV 280-458413/41	1		01:05	X	X	X	X																								
CCB 280-458413/42	1		01:21	X	X	X	X																								
ZZZZZZ			01:38																												
ZZZZZZ			01:54																												
ZZZZZZ			02:11																												
ZZZZZZ			02:27																												
ZZZZZZ			02:43																												
ZZZZZZ			03:00																												
ZZZZZZ			03:16																												
CCV 280-458413/50			03:33																												
CCB 280-458413/51			03:49																												

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/16/2019 13:45 End Date: 05/17/2019 03:49

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	F	SO4																							
CCV 280-458414/1	1		13:45	X	X	X	X																							
CCB 280-458414/2	1		14:00	X	X	X	X																							
MRL 280-458414/3	1	T	14:17	X	X	X	X																							
LCS 280-458414/4	1	T	14:33	X	X	X	X																							
LCSD 280-458414/5	1	T	14:50	X	X	X	X																							
MB 280-458414/6	1	T	15:06	X	X	X	X																							
ZZZZZZ			15:47																											
ZZZZZZ			16:03																											
ZZZZZZ			16:20																											
ZZZZZZ			16:36																											
ZZZZZZ			16:52																											
ZZZZZZ			17:09																											
ZZZZZZ			17:25																											
ZZZZZZ			17:42																											
ZZZZZZ			17:58																											
ZZZZZZ			18:15																											
CCV 280-458414/17	1		18:31	X	X	X	X																							
CCB 280-458414/18	1		18:47	X	X	X	X																							
ZZZZZZ			19:04																											
ZZZZZZ			19:20																											
280-123853-1	1	T	19:37	X		X	X																							
280-123853-1	20	T	19:53		X																									
280-123853-2	1	T	20:09	X		X	X																							
280-123853-2	20	T	20:26		X																									
280-123853-3	1	T	20:42	X	X	X	X																							
280-123853-3 DU	1	T	20:59	X	X	X	X																							
280-123853-3 MS	1	T	21:15	X	X	X	X																							
280-123853-3 MSD	1	T	21:32	X	X	X	X																							
CCV 280-458414/29	1		21:48	X	X	X	X																							
CCB 280-458414/30	1		22:04	X	X	X	X																							
280-123853-4	1	T	22:21	X	X	X	X																							
ZZZZZZ			22:37																											
280-123853-5	1	T	22:54	X	X	X	X																							
ZZZZZZ			23:10																											
280-123853-6	1	T	23:26	X		X	X																							
280-123853-6	5	T	23:43		X																									
ZZZZZZ			23:59																											
ZZZZZZ			00:16																											
ZZZZZZ			00:32																											
ZZZZZZ			00:49																											
CCV 280-458414/41	1		01:05	X	X	X	X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/16/2019 13:45 End Date: 05/17/2019 03:49

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
CCB 280-458414/42	1		01:21	X	X	X	X																						
ZZZZZZ			02:27																										
ZZZZZZ			02:43																										
ZZZZZZ			03:00																										
ZZZZZZ			03:16																										
CCV 280-458414/50			03:33																										
CCB 280-458414/51			03:49																										

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/07/2019 15:47 End Date: 06/08/2019 10:23

Lab Sample Id	D/F	Type	Time	Analytes
				TOCQ
ICV 280-460997/1	1		15:47	X
ICB 280-460997/2	1		16:02	X
LCS 280-460997/3	1	T	16:19	X
MB 280-460997/4	1	T	16:34	X
ZZZZZZ			16:53	
ZZZZZZ			17:07	
ZZZZZZ			17:22	
ZZZZZZ			17:41	
ZZZZZZ			17:57	
ZZZZZZ			18:14	
ZZZZZZ			18:31	
ZZZZZZ			18:48	
ZZZZZZ			19:05	
ZZZZZZ			19:21	
CCV 280-460997/15	1		19:36	X
CCB 280-460997/16	1		19:53	X
ZZZZZZ			20:10	
ZZZZZZ			20:28	
ZZZZZZ			20:43	
280-123843-B-1 MS	1	T	20:58	X
280-123843-B-1 MSD	1	T	21:12	X
ZZZZZZ			21:27	
ZZZZZZ			21:46	
ZZZZZZ			22:03	
ZZZZZZ			22:20	
280-123853-1	1	T	22:36	X
CCV 280-460997/27	1		22:51	X
CCB 280-460997/28	1		23:06	X
280-123853-2	1	T	23:21	X
280-123853-3	1	T	23:35	X
280-123853-4	1	T	23:54	X
280-123853-5	1	T	00:09	X
280-123853-6	1	T	00:26	X
ZZZZZZ			00:40	
ZZZZZZ			00:55	
ZZZZZZ			01:10	
ZZZZZZ			01:29	
ZZZZZZ			01:45	
CCV 280-460997/39	1		02:02	X
CCB 280-460997/40	1		02:19	X

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/07/2019 15:47 End Date: 06/08/2019 10:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ZZZZZZ			02:38																										
ZZZZZZ			02:55																										
ZZZZZZ			03:12																										
ZZZZZZ			03:30																										
ZZZZZZ			03:47																										
ZZZZZZ			04:04																										
ZZZZZZ			04:21																										
ZZZZZZ			04:39																										
ZZZZZZ			04:58																										
ZZZZZZ			05:19																										
CCV 280-460997/51			05:34																										
CCB 280-460997/52			05:51																										
ZZZZZZ			06:08																										
ZZZZZZ			06:25																										
ZZZZZZ			06:40																										
ZZZZZZ			06:57																										
ZZZZZZ			07:14																										
ZZZZZZ			07:31																										
ZZZZZZ			07:48																										
ZZZZZZ			08:07																										
ZZZZZZ			08:23																										
ZZZZZZ			08:40																										
CCV 280-460997/63			08:59																										
CCB 280-460997/64			09:16																										
ZZZZZZ			09:37																										
ZZZZZZ			09:54																										
CCV 280-460997/67			10:08																										
CCB 280-460997/68			10:23																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/22/2019 18:11 End Date: 05/23/2019 03:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-459192/1			18:11																									
ZZZZZZ			18:18																									
ZZZZZZ			18:19																									
ZZZZZZ			18:26																									
ZZZZZZ			18:31																									
ZZZZZZ			18:36																									
ZZZZZZ			18:42																									
ZZZZZZ			18:46																									
ZZZZZZ			18:52																									
ZZZZZZ			19:02																									
ZZZZZZ			19:06																									
ZZZZZZ			19:11																									
ZZZZZZ			19:17																									
ZZZZZZ			19:22																									
ZZZZZZ			19:31																									
CCV 280-459192/16			19:36																									
CCB 280-459192/17			19:41																									
ZZZZZZ			19:48																									
ZZZZZZ			19:54																									
ZZZZZZ			20:01																									
ZZZZZZ			20:07																									
ZZZZZZ			20:12																									
ZZZZZZ			20:18																									
ZZZZZZ			20:22																									
ZZZZZZ			20:30																									
ZZZZZZ			20:38																									
ZZZZZZ			20:48																									
CCV 280-459192/28	1		20:54	X																								
CCB 280-459192/29	1		20:59	X																								
LCS 280-459192/30	1	T	21:05	X																								
MB 280-459192/31	1	T	21:10	X																								
ZZZZZZ			21:18																									
280-123820-I-5 DU	1	T	21:28	X																								
ZZZZZZ			21:34																									
ZZZZZZ			21:42																									
ZZZZZZ			21:48																									
ZZZZZZ			21:55																									
ZZZZZZ			22:01																									
ZZZZZZ			22:08																									
ZZZZZZ			22:15																									
ZZZZZZ			22:23																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/22/2019 18:11 End Date: 05/23/2019 03:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
CCV 280-459192/42	1		22:30	X																								
CCB 280-459192/43	1		22:34	X																								
ZZZZZZ			22:42																									
ZZZZZZ			22:48																									
ZZZZZZ			22:56																									
ZZZZZZ			23:05																									
ZZZZZZ			23:13																									
ZZZZZZ			23:19																									
ZZZZZZ			23:26																									
ZZZZZZ			23:32																									
ZZZZZZ			23:35																									
280-123853-1	1	T	23:42	X																								
CCV 280-459192/54	1		23:48	X																								
CCB 280-459192/55	1		23:53	X																								
280-123853-2	1	T	23:58	X																								
280-123853-3	1	T	00:04	X																								
280-123853-4	1	T	00:10	X																								
280-123853-5	1	T	00:16	X																								
280-123853-6	1	T	00:22	X																								
ZZZZZZ			00:30																									
ZZZZZZ			00:36																									
ZZZZZZ			00:42																									
ZZZZZZ			00:47																									
ZZZZZZ			00:55																									
CCV 280-459192/66	1		01:01	X																								
CCB 280-459192/67	1		01:06	X																								
ZZZZZZ			01:11																									
ZZZZZZ			01:16																									
ZZZZZZ			01:22																									
ZZZZZZ			01:26																									
ZZZZZZ			01:33																									
ZZZZZZ			01:39																									
ZZZZZZ			01:45																									
ZZZZZZ			01:51																									
ZZZZZZ			01:56																									
ZZZZZZ			02:02																									
ZZZZZZ			02:08																									
ZZZZZZ			02:16																									
CCV 280-459192/80			02:21																									
CCB 280-459192/81			02:24																									
ZZZZZZ			02:30																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/22/2019 18:11 End Date: 05/23/2019 03:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			02:35																									
ZZZZZZ			02:39																									
ZZZZZZ			02:44																									
ZZZZZZ			02:52																									
ZZZZZZ			03:01																									
ZZZZZZ			03:08																									
ZZZZZZ			03:16																									
ZZZZZZ			03:22																									
ZZZZZZ			03:29																									
ZZZZZZ			03:37																									
ZZZZZZ			03:45																									
CCV 280-459192/94			03:51																									
CCB 280-459192/95			03:56																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/21/2019 20:04 End Date: 05/21/2019 20:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-458975/1	1	T	20:04	X																								
LCS 280-458975/2	1	T	20:04	X																								
280-123853-1	1	T	20:04	X																								
280-123853-1 DU	1	T	20:04	X																								
280-123853-2	1	T	20:04	X																								
280-123853-3	1	T	20:04	X																								
280-123853-4	1	T	20:04	X																								
280-123853-5	1	T	20:04	X																								
280-123853-6	1	T	20:04	X																								
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
ZZZZZZ			20:04																									
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ZZZZZZ			20:04																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM5210B

Start Date: 05/16/2019 16:27 End Date: 05/16/2019 16:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				BOD																								
SCB 280-458482/1	1	T	16:27	X																								
USB 280-458482/2	1	T	16:27	X																								
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
LCS 280-458482/8	1	T	16:27	X																								
MB 280-458482/9	1	T	16:27	X																								
280-123853-1	1	T	16:27	X																								
280-123853-1 DU	1	T	16:27	X																								
280-123853-2	1	T	16:27	X																								
280-123853-3	1	T	16:27	X																								
280-123853-4	1	T	16:27	X																								
280-123853-5	1	T	16:27	X																								
280-123853-6	1	T	16:27	X																								
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:27																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									
ZZZZZZ			16:32																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 459818 Batch Start Date: 05/29/19 10:46 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
ICVL 280-459818/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-459818/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-459818/16		350.1			10 mL	10 mL			
LCS 280-459818/18		350.1			100 mL	100 mL		2.5 mL	
MB 280-459818/19		350.1			10 mL	10 mL			
280-123853-D-5	LF6VMW-21_0519-a	350.1	T	N	10 mL	10 mL	<2 SU		
280-123853-D-1	LF6MW-1_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123853-D-2	775VMW-18R_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459818/32		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459818/33		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459818/34		350.1			10 mL	10 mL			
280-123853-D-3	TMC-USGS-2_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123853-D-4	LF6VMW-21_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123853-D-5	LF6VMW-21_0519-a	350.1	T	N	10 mL	10 mL	<2 SU		
280-123853-D-5 MS	LF6VMW-21_0519-a	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123853-D-5 MSD	LF6VMW-21_0519-a	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123853-D-6	LF6/TMCSW-3_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459818/48		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459818/49		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459818/50		350.1			10 mL	10 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 459818 Batch Start Date: 05/29/19 10:46 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Batch Notes	
Carrier Identification	350.1 complex_00424
Hypochlorite ID	350.1 bleach_01067
Sodium Nitroprusside ID	350.1 color_00152
Pipette/Syringe/Dispenser ID	JPX100, JPX1000, JPX5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460066 Batch Start Date: 05/31/19 16:12 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00794	TKN ICV 25 00078		
ICV 280-460066/42		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-460066/43		351.2, 351.2		25 mL	25 mL				
CCV 280-460066/44		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-460066/45		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	06/01/19 0400
Block Digestion Start time	05/31/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00126
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460465 Batch Start Date: 06/04/19 19:37 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00794		
LCS 280-460465/1		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460465/2		351.2, 351.2		<2	25 mL	25 mL			
LCS 280-460465/27		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460465/28		351.2, 351.2		<2	25 mL	25 mL			
280-123930-E-3 MS		351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123930-E-3 MSD		351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123853-C-1	LF6MW-1_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123853-C-2	775VMW-18R_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123853-C-3	TMC-USGS-2_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123853-C-4	LF6VMW-21_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123853-C-5	LF6VMW-21_0519-a	351.2, 351.2	T	<2	25 mL	25 mL			
280-123853-C-6	LF6/TMCSW-3_0519	351.2, 351.2	T	<2	25 mL	25 mL			

Batch Notes	
Block Digestion End time	06/05/19 0400
Block Digestion Start time	06/04/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00127
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460603 Batch Start Date: 06/05/19 17:30 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-460066/42-A		351.2		4 mL					
ICB 280-460066/43-A		351.2		4 mL					
MB 280-460465/2-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
LCS 280-460465/27-A		351.2		4 mL					
MB 280-460465/28-A		351.2		4 mL					
280-123930-E-3-B MS		351.2	T	4 mL					
280-123930-E-3-C MSD		351.2	T	4 mL					
LCS 280-460465/1-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123853-C-1-A	LF6MW-1_0519	351.2	T	4 mL					
280-123853-C-2-A	775VMW-18R_0519	351.2	T	4 mL					
280-123853-C-3-A	TMC-USGS-2_0519	351.2	T	4 mL					
280-123853-C-4-A	LF6VMW-21_0519	351.2	T	4 mL					
280-123853-C-5-A	LF6VMW-21_0519-a	351.2	T	4 mL					
280-123853-C-6-A	LF6/TMCSW-3_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460603 Batch Start Date: 06/05/19 17:30 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
CCB 280-460066/45-A		351.2		4 mL					

Batch Notes	
Buffer Reagent ID	TKN Buffer_00095
Hypochlorite ID	TKN hypo_00663
Sodium Nitroprusside ID	Sodium nitro_00118
Pipette/Syringe/Dispenser ID	5000NXN, 1000NXN

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 457887 Batch Start Date: 05/13/19 07:39 Batch Analyst: Loux, Lauren P

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	COD cal std 00048			
IC 280-457887/1		410.4		50 mL	50 mL	0.25 mL			
IC 280-457887/2		410.4		50 mL	50 mL	0.5 mL			
IC 280-457887/3		410.4		50 mL	50 mL	1 mL			
IC 280-457887/4		410.4		50 mL	50 mL	2.5 mL			
IC 280-457887/5		410.4		50 mL	50 mL	5 mL			
IC 280-457887/6		410.4		50 mL	50 mL	7.5 mL			

Batch Notes	
Block Digestor ID	Hach4AA, Hach4BB, Hach6AA
Chlorine ID	HC850274
Temperature - Corrected - End	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Temperature - Corrected - Start	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Digestion End Time	05/13/2019 11:27
Digestion Start Time	05/13/2019 09:27
Pipette/Syringe/Dispenser ID	5000LL, 1000LL
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Temperature - Uncorrected - Start	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460546 Batch Start Date: 06/05/19 10:06 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-460546/1		410.4		100 mL	100 mL				
ICB 280-460546/2		410.4		2 mL	2 mL				
LCS 280-460546/3		410.4		100 mL	100 mL				10 mL
LCSD 280-460546/4		410.4		100 mL	100 mL				10 mL
MB 280-460546/5		410.4		2 mL	2 mL				
CCV 280-460546/16		410.4		100 mL	100 mL				10 mL
CCB 280-460546/17		410.4		2 mL	2 mL				
280-123855-D-5 MS		410.4	T	100 mL	100 mL	>1000	<2 SU	<2 SU	
280-123855-D-5 MSD		410.4	T	100 mL	100 mL	>1000	<2 SU	<2 SU	
280-123853-C-1	LF6MW-1_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
280-123853-C-2	775VMW-18R_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
280-123853-C-3	TMC-USGS-2_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
CCV 280-460546/28		410.4		100 mL	100 mL				10 mL
CCB 280-460546/29		410.4		2 mL	2 mL				
280-123853-C-4	LF6VMW-21_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123853-C-5	LF6VMW-21_0519-a	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123853-C-6	LF6/TMCSW-3_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
CCV 280-460546/34		410.4		100 mL	100 mL				10 mL
CCB 280-460546/35		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
ICV 280-460546/1		410.4		7.5 mL					
ICB 280-460546/2		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460546 Batch Start Date: 06/05/19 10:06 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034	cod ms/msd 00022				
LCS 280-460546/3		410.4							
LCSD 280-460546/4		410.4							
MB 280-460546/5		410.4							
CCV 280-460546/16		410.4							
CCB 280-460546/17		410.4							
280-123855-D-5 MS		410.4	T		0.5 mL				
280-123855-D-5 MSD		410.4	T		0.5 mL				
280-123853-C-1	LF6MW-1_0519	410.4	T						
280-123853-C-2	775VMW-18R_0519	410.4	T						
280-123853-C-3	TMC-USGS-2_0519	410.4	T						
CCV 280-460546/28		410.4							
CCB 280-460546/29		410.4							
280-123853-C-4	LF6VMW-21_0519	410.4	T						
280-123853-C-5	LF6VMW-21_0519-a	410.4	T						
280-123853-C-6	LF6/TMCSW-3_0519	410.4	T						
CCV 280-460546/34		410.4							
CCB 280-460546/35		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460546 Batch Start Date: 06/05/19 10:06 Batch Analyst: Jewell, Connie C

Batch Method: 410.4 Batch End Date:

Batch Notes	
Block Digestor ID	hach4, hach6
Chlorine ID	hc850274
Temperature - Corrected - End	Hach 4 AA 149, Hach 4 BB 150, Hach 6 BB 150 Degrees C
Temperature - Corrected - Start	Hach 4 AA 149, Hach 4 BB 150, Hach 6 BB 150 Degrees C
Digestion End Time	06/05/2019 13:40
Digestion Start Time	06/05/2019 11:40
Pipette/Syringe/Dispenser ID	wc5000ccj, wc1000cj
Sufficient Volume for Batch QC	yes
Temperature - Uncorrected - End	Hach 4 AA 150, Hach 4 BB 150, Hach 6 BB 150 Degrees C
Temperature - Uncorrected - Start	Hach 4 AA 150, Hach 4 BB 150, Hach 6 BB 150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460448 Batch Start Date: 06/04/19 17:30 Batch Analyst: Moser, Angela R

Batch Method: Distill/Phenol Batch End Date: 06/04/19 21:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
LCS 280-460448/1		Distill/Phenol, 9066		50 mL	50 mL				1 mL
MB 280-460448/2		Distill/Phenol, 9066		50 mL	50 mL				
280-123814-G-1 MS		Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123814-G-1 MSD		Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123853-G-1	LF6MW-1_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123853-G-2	775VMW-18R_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123853-G-3	TMC-USGS-2_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460486 Batch Start Date: 06/04/19 20:55 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460486/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460486/14		9066		100 mL	100 mL		1 mL		
ICB 280-460486/15		9066		100 mL	100 mL				
LCS 280-460448/1-A		9066		100 mL	100 mL				
MB 280-460448/2-A		9066		100 mL	100 mL				
280-123814-G-1-B MS		9066	T	100 mL	100 mL				
280-123814-G-1-C MSD		9066	T	100 mL	100 mL				
CCV 280-460486/29		9066		100 mL	100 mL	2 mL			
CCVL 280-460486/30		9066		100 mL	100 mL	1 mL			
CCB 280-460486/31		9066		100 mL	100 mL				
280-123853-G-1-A	LF6MW-1_0519	9066	T	100 mL	100 mL				
280-123853-G-2-A	775VMW-18R_0519	9066	T	100 mL	100 mL				
280-123853-G-3-A	TMC-USGS-2_0519	9066	T	100 mL	100 mL				
CCV 280-460486/45		9066		100 mL	100 mL	2 mL			
CCVL 280-460486/46		9066		100 mL	100 mL	1 mL			
CCB 280-460486/47		9066		100 mL	100 mL				

Batch Notes	
Batch Comment	RK training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00408
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460486 Batch Start Date: 06/04/19 20:55 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460735 Batch Start Date: 06/06/19 15:30 Batch Analyst: Moser, Angela R

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
LCS 280-460735/1		Distill/Phenol, 9066		50 mL	50 mL				1 mL
MB 280-460735/2		Distill/Phenol, 9066		50 mL	50 mL				
280-123853-G-4	LF6VMW-21_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123853-G-5	LF6VMW-21_0519-a	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123853-G-6	LF6/TMCSW-3_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123855-D-1 MS		Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123855-D-1 MSD		Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460772/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460772/14		9066		100 mL	100 mL		1 mL		
ICB 280-460772/15		9066		100 mL	100 mL				
LCS 280-460735/1-A		9066		100 mL	100 mL				
MB 280-460735/2-A		9066		100 mL	100 mL				
280-123853-G-4-A	LF6VMW-21_0519	9066	T	100 mL	100 mL				
280-123853-G-5-A	LF6VMW-21_0519-a	9066	T	100 mL	100 mL				
280-123853-G-6-A	LF6/TMCSW-3_0519	9066	T	100 mL	100 mL				
CCV 280-460772/29		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/30		9066		100 mL	100 mL	1 mL			
CCB 280-460772/31		9066		100 mL	100 mL				
280-123855-D-1-C MS		9066	T	100 mL	100 mL				
280-123855-D-1-D MSD		9066	T	100 mL	100 mL				
CCV 280-460772/45		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/46		9066		100 mL	100 mL	1 mL			
CCB 280-460772/47		9066		100 mL	100 mL				

Batch Notes	
Batch Comment	RK Training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00409
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458496 Batch Start Date: 05/16/19 18:11 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2120B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	AdjustedpH	InitialAmount	FinalAmount		
MB 280-458496/1		SM 2120B		7 SU	7 SU	50 mL	50 mL		
280-123853-H-1	LF6MW-1_0519	SM 2120B	T	6 SU	6 SU	50 mL	50 mL		
280-123853-H-1 DU	LF6MW-1_0519	SM 2120B	T	6 SU	6 SU	50 mL	50 mL		
280-123853-J-2	775VMW-18R_0519	SM 2120B	T	7 SU	7 SU	50 mL	50 mL		
280-123853-H-3	TMC-USGS-2_0519	SM 2120B	T	7 SU	7 SU	25 mL	50 mL		
280-123853-H-4	LF6VMW-21_0519	SM 2120B	T	7 SU	7 SU	50 mL	50 mL		
280-123853-J-5	LF6VMW-21_0519-a	SM 2120B	T	7 SU	7 SU	50 mL	50 mL		
280-123853-J-6	LF6/TMCSW-3_0519	SM 2120B	T	7 SU	7 SU	50 mL	50 mL		

Batch Notes	
Batch Comment	KS trained by CKB
pH Meter ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 459401 Batch Start Date: 05/24/19 15:23 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
LCS 280-459401/1		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	10.13 mL
MB 280-459401/2		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	0.00 mL
280-123853-F-1	LF6MW-1_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	9.11 mL
280-123853-F-1 MS	LF6MW-1_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	19.44 mL
280-123853-F-1 MSD	LF6MW-1_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	19.47 mL
280-123853-F-2	775VMW-18R_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	12.91 mL
280-123853-F-3	TMC-USGS-2_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	5.88 mL
280-123853-F-4	LF6VMW-21_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	4.93 mL
280-123853-F-5	LF6VMW-21_0519-a	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	4.94 mL
280-123853-F-6	LF6/TMCSW-3_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	6.44 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00050				
LCS 280-459401/1		SM 2340C		10.13 mL	10 mL				
MB 280-459401/2		SM 2340C		0 mL					
280-123853-F-1	LF6MW-1_0519	SM 2340C	T	9.11 mL					
280-123853-F-1 MS	LF6MW-1_0519	SM 2340C	T	19.44 mL	10 mL				
280-123853-F-1 MSD	LF6MW-1_0519	SM 2340C	T	19.47 mL	10 mL				
280-123853-F-2	775VMW-18R_0519	SM 2340C	T	12.91 mL					
280-123853-F-3	TMC-USGS-2_0519	SM 2340C	T	5.88 mL					
280-123853-F-4	LF6VMW-21_0519	SM 2340C	T	4.93 mL					
280-123853-F-5	LF6VMW-21_0519-a	SM 2340C	T	4.94 mL					
280-123853-F-6	LF6/TMCSW-3_0519	SM 2340C	T	6.44 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 459401 Batch Start Date: 05/24/19 15:23 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Batch Notes	
Batch Comment	KS trained by DA
Buffer Reagent ID	Mg EDTA 00009
Indicator Reagent ID	Hardness ind 00008
Nominal Amount Used	25 mL
pH Strip ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000
Normality of First Titrant	0.01966 N
Titrant ID	EDTA Titrant 00090
Titrant Standardization Date	05/24/2019

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458327/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458327/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458327/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458327/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458327/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458327/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458327/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458327/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458327/2 IC		9056A							
STD 280-458327/3 IC		9056A							
STD 280-458327/4 IC		9056A							
STD 280-458327/5 IC		9056A							
STD 280-458327/6 IC		9056A							
STD 280-458327/7 IC		9056A							
ICV 280-458327/8		9056A		0.4 mL					
ICB 280-458327/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458	IC CL ICV 00016	IC ICV 5 00233
STD 280-458328/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458328/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458328/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458328/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458328/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458328/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458328/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458328/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458328/2 IC		9056A							
STD 280-458328/3 IC		9056A							
STD 280-458328/4 IC		9056A							
STD 280-458328/5 IC		9056A							
STD 280-458328/6 IC		9056A							
STD 280-458328/7 IC		9056A							
ICV 280-458328/8		9056A		0.4 mL					
ICB 280-458328/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458413 Batch Start Date: 05/16/19 13:45 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00459	IC LCS 01577	
CCV 280-458413/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458413/2		9056A		5 mL	5 mL				
MRL 280-458413/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458413/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458413/5		9056A		5 mL	5 mL			5 mL	
MB 280-458413/6		9056A		5 mL	5 mL				
CCV 280-458413/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458413/18		9056A		5 mL	5 mL				
280-123853-A-1	LF6MW-1_0519	9056A	T	5 mL	5 mL				
280-123853-A-1	LF6MW-1_0519	9056A	T	5 mL	5 mL				
280-123853-A-2	775VMW-18R_0519	9056A	T	5 mL	5 mL				
280-123853-A-2	775VMW-18R_0519	9056A	T	5 mL	5 mL				
280-123853-A-3	TMC-USGS-2_0519	9056A	T	5 mL	5 mL				
280-123853-A-3 DU	TMC-USGS-2_0519	9056A	T	5 mL	5 mL				
280-123853-A-3 MS	TMC-USGS-2_0519	9056A	T	5 mL	5 mL				
280-123853-A-3 MSD	TMC-USGS-2_0519	9056A	T	5 mL	5 mL				
CCV 280-458413/29		9056A		5 mL	5 mL			5 mL	
CCB 280-458413/30		9056A		5 mL	5 mL				
280-123853-B-4	LF6VMW-21_0519	9056A	T	5 mL	5 mL				
280-123853-B-4	LF6VMW-21_0519	9056A	T	5 mL	5 mL				
280-123853-B-5	LF6VMW-21_0519-9	9056A	T	5 mL	5 mL				
280-123853-B-5	LF6VMW-21_0519-9	9056A	T	5 mL	5 mL				
280-123853-B-6	LF6/TMCSW-3_0519	9056A	T	5 mL	5 mL				
280-123853-B-6	LF6/TMCSW-3_0519	9056A	T	5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458413 Batch Start Date: 05/16/19 13:45 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00459	IC LCS 01577	
CCV 280-458413/41		9056A		5 mL	5 mL			5 mL	
CCB 280-458413/42		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458414 Batch Start Date: 05/16/19 13:45 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00459	IC LCS 01577	
CCV 280-458414/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458414/2		9056A		5 mL	5 mL				
MRL 280-458414/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458414/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458414/5		9056A		5 mL	5 mL			5 mL	
MB 280-458414/6		9056A		5 mL	5 mL				
CCV 280-458414/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458414/18		9056A		5 mL	5 mL				
280-123853-A-1	LF6MW-1_0519	9056A	T	5 mL	5 mL				
280-123853-A-1	LF6MW-1_0519	9056A	T	5 mL	5 mL				
280-123853-A-2	775VMW-18R_0519	9056A	T	5 mL	5 mL				
280-123853-A-2	775VMW-18R_0519	9056A	T	5 mL	5 mL				
280-123853-A-3	TMC-USGS-2_0519	9056A	T	5 mL	5 mL				
280-123853-A-3 DU	TMC-USGS-2_0519	9056A	T	5 mL	5 mL				
280-123853-A-3 MS	TMC-USGS-2_0519	9056A	T	5 mL	5 mL				
280-123853-A-3 MSD	TMC-USGS-2_0519	9056A	T	5 mL	5 mL				
CCV 280-458414/29		9056A		5 mL	5 mL			5 mL	
CCB 280-458414/30		9056A		5 mL	5 mL				
280-123853-B-4	LF6VMW-21_0519	9056A	T	5 mL	5 mL				
280-123853-B-4	LF6VMW-21_0519	9056A	T	5 mL	5 mL				
280-123853-B-5	LF6VMW-21_0519-9	9056A	T	5 mL	5 mL				
280-123853-B-5	LF6VMW-21_0519-9	9056A	T	5 mL	5 mL				
280-123853-B-6	LF6/TMCSW-3_0519	9056A	T	5 mL	5 mL				
280-123853-B-6	LF6/TMCSW-3_0519	9056A	T	5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458414 Batch Start Date: 05/16/19 13:45 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00459	IC LCS 01577	
CCV 280-458414/41		9056A		5 mL	5 mL			5 mL	
CCB 280-458414/42		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460997 Batch Start Date: 06/07/19 15:47 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-460997/1		9060A		50 mL	50 mL	1 mL			
ICB 280-460997/2		9060A		20 mL	20 mL				
LCS 280-460997/3		9060A		200 mL	200 mL		5 mL		
MB 280-460997/4		9060A		20 mL	20 mL				
CCV 280-460997/15		9060A		200 mL	200 mL	5 mL			
CCB 280-460997/16		9060A		20 mL	20 mL				
280-123843-B-1 MS		9060A	T	50 mL	50 mL		1.25 mL		
280-123843-B-1 MSD		9060A	T	50 mL	50 mL		1.25 mL		
280-123853-C-1	LF6MW-1_0519	9060A	T	20 mL	20 mL				
CCV 280-460997/27		9060A		200 mL	200 mL	5 mL			
CCB 280-460997/28		9060A		20 mL	20 mL				
280-123853-C-2	775VMW-18R_0519	9060A	T	20 mL	20 mL				
280-123853-C-3	TMC-USGS-2_0519	9060A	T	20 mL	20 mL				
280-123853-C-4	LF6VMW-21_0519	9060A	T	20 mL	20 mL				
280-123853-C-5	LF6VMW-21_0519-a	9060A	T	20 mL	20 mL				
280-123853-C-6	LF6/TMCSW-3_0519	9060A	T	20 mL	20 mL				
CCV 280-460997/39		9060A		200 mL	200 mL	5 mL			
CCB 280-460997/40		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000AZ, WC1000LL, WC100LL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 460997 Batch Start Date: 06/07/19 15:47 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 461029 Batch Start Date: 06/07/19 15:47 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC LCS Std 00046			
LCS 280-461029/3		9060A		200 mL	200 mL	5 mL			
MB 280-461029/4		9060A		20 mL	20 mL				
280-123843-B-1 MS		9060A	T	50 mL	50 mL	1.25 mL			
280-123843-B-1 MSD		9060A	T	50 mL	50 mL	1.25 mL			
280-123853-C-1	LF6MW-1_0519	9060A	T	20 mL	20 mL				
280-123853-C-2	775VMW-18R_0519	9060A	T	20 mL	20 mL				
280-123853-C-3	TMC-USGS-2_0519	9060A	T	20 mL	20 mL				
280-123853-C-4	LF6VMW-21_0519	9060A	T	20 mL	20 mL				
280-123853-C-5	LF6VMW-21_0519-a	9060A	T	20 mL	20 mL				
280-123853-C-6	LF6/TMCSW-3_0519	9060A	T	20 mL	20 mL				

Batch Notes	
Acid ID	0.2%h2so4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000AZ, WC1000LL, WC100LL

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 459192 Batch Start Date: 05/22/19 18:11 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
CCV 280-459192/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/29		SM 2320B		InitialAmount is blank					
LCS 280-459192/30		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459192/31		SM 2320B		InitialAmount is blank					
280-123820-I-5 DU		SM 2320B	T	InitialAmount is blank					
CCV 280-459192/42		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/43		SM 2320B		InitialAmount is blank					
280-123853-H-1	LF6MW-1_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459192/54		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/55		SM 2320B		InitialAmount is blank					
280-123853-J-2	775VMW-18R_0519	SM 2320B	T	InitialAmount is blank					
280-123853-J-3	TMC-USGS-2_0519	SM 2320B	T	InitialAmount is blank					
280-123853-H-4	LF6VMW-21_0519	SM 2320B	T	InitialAmount is blank					
280-123853-H-5	LF6VMW-21_0519-a	SM 2320B	T	InitialAmount is blank					
280-123853-J-6	LF6/TMCSW-3_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459192/66		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/67		SM 2320B		InitialAmount is blank					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 459192 Batch Start Date: 05/22/19 18:11 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Acid ID	0.02 H2SO4_00258
pH Buffer 1 ID	pH 2.0 buffer_00079
pH Buffer 2 ID	pH 4.0 buffer_00178
pH Buffer 3 ID	pH 7.0 buffer_00258
pH Buffer 4 ID	pH 10 buffer_00142
pH Buffer 5 ID	pH 12 buffer_00148
pH Buffer 6 ID	pH 7.0 buffer_00147
Sodium Carbonate ID	Alk Stk Std_00016
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000 ADI
Probe ID	PCE 86 pH 1105 sep14
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458975 Batch Start Date: 05/21/19 20:04 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-458975/1		SM 2540C		0.69 umhos/cm	3.8301A0384025	3.8301 g	100 mL	3.8305 g	3.8305 g
LCS 280-458975/2		SM 2540C			3.7360A0384026	3.7360 g	100 mL	3.7860 g	3.7856 g
280-123853-A-1	LF6MW-1_0519	SM 2540C	T	2791 umhos/cm	3.8477A0384027	3.8477 g	25 mL	3.8927 g	3.8896 g
280-123853-A-1 DU	LF6MW-1_0519	SM 2540C	T	2791 umhos/cm	3.8638A0384028	3.8638 g	25 mL	3.9058 g	3.9064 g
280-123853-A-2	775VMW-18R_0519	SM 2540C	T	2656 umhos/cm	3.7754A0384029	3.7754 g	25 mL	3.8126 g	3.8128 g
280-123853-A-3	TMC-USGS-2_0519	SM 2540C	T	490 umhos/cm	3.8768A0384030	3.8768 g	100 mL	3.9050 g	3.9101 g
280-123853-B-4	LF6VMW-21_0519	SM 2540C	T	622 umhos/cm	3.7660A0384031	3.7660 g	100 mL	3.8012 g	3.8007 g
280-123853-B-5	LF6VMW-21_0519-a	SM 2540C	T	632 umhos/cm	3.8426A0384032	3.8426 g	100 mL	3.8800 g	3.8787 g
280-123853-B-6	LF6/TMCSW-3_0519	SM 2540C	T	1189 umhos/cm	3.7456A0384033	3.7456 g	100 mL	3.8115 g	3.8102 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight3	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2
MB 280-458975/1		SM 2540C			Pass No Unit	N/A No Unit	N/A	0.0004 g	0.0004 g
LCS 280-458975/2		SM 2540C			Pass No Unit	N/A No Unit	N/A	0.05 g	0.0496 g
280-123853-A-1	LF6MW-1_0519	SM 2540C	T	3.8892 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.045 g	0.0419 g
280-123853-A-1 DU	LF6MW-1_0519	SM 2540C	T	3.9064 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.042 g	0.0426 g
280-123853-A-2	775VMW-18R_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0372 g	0.0374 g
280-123853-A-3	TMC-USGS-2_0519	SM 2540C	T	3.9100 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0282 g	0.0333 g
280-123853-B-4	LF6VMW-21_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0352 g	0.0347 g
280-123853-B-5	LF6VMW-21_0519-a	SM 2540C	T	3.8787 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0374 g	0.0361 g
280-123853-B-6	LF6/TMCSW-3_0519	SM 2540C	T	3.8101 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0659 g	0.0646 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue3	Residue4	FinalAmount	CalcMsg	TDS LCS 00537 00054	
MB 280-458975/1		SM 2540C		N/A g	N/A g	100 mL	OK		
LCS 280-458975/2		SM 2540C		N/A g	N/A g	100 mL	OK	100 mL	
280-123853-A-1	LF6MW-1_0519	SM 2540C	T	0.0415 g	N/A g	100 mL	OK		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458975 Batch Start Date: 05/21/19 20:04 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue3	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00054	
280-123853-A-1 DU	LF6MW-1_0519	SM 2540C	T	0.0426 g	N/A g	100 mL	OK		
280-123853-A-2	775VMW-18R_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123853-A-3	TMC-USGS-2_0519	SM 2540C	T	0.0332 g	N/A g	100 mL	OK		
280-123853-B-4	LF6VMW-21_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123853-B-5	LF6VMW-21_0519-a	SM 2540C	T	0.0361 g	N/A g	100 mL	OK		
280-123853-B-6	LF6/TMCSW-3_0519	SM 2540C	T	0.0645 g	N/A g	100 mL	OK		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458975 Batch Start Date: 05/21/19 20:04 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/24/2019 20:30
Date/Time - Out - CW (WT2)	05/29/2019 10:06
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Date/Time - In - CW (WT3)	05/29/2019 17:13
Date/Time - Out - CW (WT3)	05/29/2019 19:16
Temperature - Start - CW (WT3) - Correct	180 Celsius
Temperature - End - CW (WT3) - Correct	180 Celsius
Temperature - Start-CW(WT3) -Uncorrected	180 Celsius
Temperature - End-CW(WT3) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/21/2019 22:00
Date/Time - Out	05/23/2019 11:30
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/23/2019 11:30 No Unit
Weight(WT1) Date/Time Out	05/24/2019 10:10

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458975 Batch Start Date: 05/21/19 20:04 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date:

Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	Initial_DO	InitialTemp	Final pH	Bot1Num
SCB 280-458482/1		SM5210B				7.17	21.30 Celsius		1
USB 280-458482/2		SM5210B				7.18	21.29 Celsius		5
LCS 280-458482/8		SM5210B				7.17	21.10 Celsius		21
MB 280-458482/9		SM5210B				7.14	21.20 Celsius		24
280-123853-B-1	LF6MW-1_0519	SM5210B	T	7.22 SU	no	7.14	21.16 Celsius	7.22 SU	25
280-123853-B-1 DU	LF6MW-1_0519	SM5210B	T	7.22 SU	no	7.19	21.02 Celsius	7.22 SU	28
280-123853-B-2	775VMW-18R_0519	SM5210B	T	7.61 SU	no	7.21	21.00 Celsius	7.61 SU	31
280-123853-B-3	TMC-USGS-2_0519	SM5210B	T	7.92 SU	no	7.17	21.00 Celsius	7.92 SU	34
280-123853-A-4	LF6VMW-21_0519	SM5210B	T	7.93 SU	no	7.16	21.00 Celsius	7.93 SU	37
280-123853-A-5	LF6VMW-21_0519-a	SM5210B	T	7.95 SU	no	7.19	20.81 Celsius	7.95 SU	40
280-123853-A-6	LF6/TMCSW-3_0519	SM5210B	T	7.76 SU	no	7.16	20.82 Celsius	7.76 SU	43

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
SCB 280-458482/1		SM5210B		21.59 Celsius	15 mL	7.12 mg/L	4.32 mg/L	2.8 mg/L	0.747 mg/L
USB 280-458482/2		SM5210B		21.53 Celsius	300 mL	7.14 mg/L	7.09 mg/L	0.05 mg/L	0.05 mg/L
LCS 280-458482/8		SM5210B		21.50 Celsius	6 mL	7.12 mg/L	2.47 mg/L	4.65 mg/L	196.55 mg/L
MB 280-458482/9		SM5210B		21.47 Celsius	60 mL	7.12 mg/L	6.57 mg/L	0.55 mg/L	-0.845 mg/L
280-123853-B-1	LF6MW-1_0519	SM5210B	T	21.28 Celsius	60 mL	7.29 mg/L	6.52 mg/L	0.77 mg/L	0.255 mg/L
280-123853-B-1 DU	LF6MW-1_0519	SM5210B	T	21.22 Celsius	60 mL	7.32 mg/L	6.65 mg/L	0.67 mg/L	-0.245 mg/L
280-123853-B-2	775VMW-18R_0519	SM5210B	T	21.21 Celsius	60 mL	7.31 mg/L	6.78 mg/L	0.53 mg/L	-0.945 mg/L
280-123853-B-3	TMC-USGS-2_0519	SM5210B	T	21.18 Celsius	60 mL	7.30 mg/L	6.76 mg/L	0.54 mg/L	-0.895 mg/L
280-123853-A-4	LF6VMW-21_0519	SM5210B	T	21.19 Celsius	60 mL	7.35 mg/L	6.74 mg/L	0.61 mg/L	-0.545 mg/L
280-123853-A-5	LF6VMW-21_0519-a	SM5210B	T	21.11 Celsius	60 mL	7.34 mg/L	6.71 mg/L	0.63 mg/L	-0.445 mg/L
280-123853-A-6	LF6/TMCSW-3_0519	SM5210B	T	21.20 Celsius	60 mL	7.33 mg/L	6.56 mg/L	0.77 mg/L	0.255 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
SCB 280-458482/1		SM5210B		No. % DO < 50%	39 %	2	21.59 Celsius	20 mL	7.12 mg/L
USB 280-458482/2		SM5210B		Yes. USB		6	21.53 Celsius	300 mL	7.13 mg/L
LCS 280-458482/8		SM5210B		YES. Pass		22	21.48 Celsius	6 mL	7.15 mg/L
MB 280-458482/9		SM5210B		No. DO Deplete Fail					
280-123853-B-1	LF6MW-1_0519	SM5210B	T	No. DO Deplete Fail		26	20.78 Celsius	120 mL	7.57 mg/L
280-123853-B-1 DU	LF6MW-1_0519	SM5210B	T	No. DO Deplete Fail		29	20.66 Celsius	120 mL	7.60 mg/L
280-123853-B-2	775VMW-18R_0519	SM5210B	T	No. DO Deplete Fail		32	20.80 Celsius	120 mL	7.62 mg/L
280-123853-B-3	TMC-USGS-2_0519	SM5210B	T	No. DO Deplete Fail		35	20.75 Celsius	120 mL	7.49 mg/L
280-123853-A-4	LF6VMW-21_0519	SM5210B	T	No. DO Deplete Fail		38	20.80 Celsius	120 mL	7.66 mg/L
280-123853-A-5	LF6VMW-21_0519-a	SM5210B	T	No. DO Deplete Fail		41	20.74 Celsius	120 mL	7.63 mg/L
280-123853-A-6	LF6/TMCSW-3_0519	SM5210B	T	No. DO Deplete Fail		44	20.88 Celsius	120 mL	7.69 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
SCB 280-458482/1		SM5210B		3.53 mg/L	50 %	3.59 mg/L	0.718 mg/L	YES. Pass	3
USB 280-458482/2		SM5210B		7.06 mg/L		0.07 mg/L	0.07 mg/L	Yes. Pass	7
LCS 280-458482/8		SM5210B		2.19 mg/L		4.96 mg/L	212.05 mg/L	YES. Pass	23
MB 280-458482/9		SM5210B							
280-123853-B-1	LF6MW-1_0519	SM5210B	T	6.69 mg/L		0.88 mg/L	0.403 mg/L	No. DO Deplete Fail	27
280-123853-B-1 DU	LF6MW-1_0519	SM5210B	T	6.68 mg/L		0.92 mg/L	0.503 mg/L	No. DO Deplete Fail	30
280-123853-B-2	775VMW-18R_0519	SM5210B	T	6.86 mg/L		0.76 mg/L	0.103 mg/L	No. DO Deplete Fail	33
280-123853-B-3	TMC-USGS-2_0519	SM5210B	T	6.73 mg/L		0.76 mg/L	0.103 mg/L	No. DO Deplete Fail	36
280-123853-A-4	LF6VMW-21_0519	SM5210B	T	6.87 mg/L		0.79 mg/L	0.178 mg/L	No. DO Deplete Fail	39

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
280-123853-A-5	LF6VMW-21_0519-a	SM5210B	T	6.95 mg/L		0.68 mg/L	-0.097 mg/L	No. DO Deplete Fail	42
280-123853-A-6	LF6/TMCSW-3_0519	SM5210B	T	6.66 mg/L		1.03 mg/L	0.778 mg/L	No. DO Deplete Fail	45

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
SCB 280-458482/1		SM5210B		21.61 Celsius	25 mL	7.11 mg/L	2.61 mg/L	4.5 mg/L	0.72 mg/L
USB 280-458482/2		SM5210B		21.44 Celsius	300 mL	7.12 mg/L	7.05 mg/L	0.07 mg/L	0.07 mg/L
LCS 280-458482/8		SM5210B		21.44 Celsius	6 mL	7.17 mg/L	2.50 mg/L	4.67 mg/L	197.55 mg/L
MB 280-458482/9		SM5210B			240 mL				
280-123853-B-1	LF6MW-1_0519	SM5210B	T	20.09 Celsius	240 mL	7.90 mg/L	6.98 mg/L	0.92 mg/L	0.251 mg/L
280-123853-B-1 DU	LF6MW-1_0519	SM5210B	T	20.07 Celsius	240 mL	7.82 mg/L	6.91 mg/L	0.91 mg/L	0.239 mg/L
280-123853-B-2	775VMW-18R_0519	SM5210B	T	20.25 Celsius	240 mL	7.88 mg/L	7.12 mg/L	0.76 mg/L	0.051 mg/L
280-123853-B-3	TMC-USGS-2_0519	SM5210B	T	20.16 Celsius	240 mL	7.92 mg/L	6.74 mg/L	1.18 mg/L	0.576 mg/L
280-123853-A-4	LF6VMW-21_0519	SM5210B	T	20.21 Celsius	240 mL	7.83 mg/L	6.98 mg/L	0.85 mg/L	0.164 mg/L
280-123853-A-5	LF6VMW-21_0519-a	SM5210B	T	20.35 Celsius	240 mL	7.83 mg/L	7.08 mg/L	0.75 mg/L	0.039 mg/L
280-123853-A-6	LF6/TMCSW-3_0519	SM5210B	T	20.46 Celsius	240 mL	7.79 mg/L	6.54 mg/L	1.25 mg/L	0.664 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
SCB 280-458482/1		SM5210B		63 %	YES. Pass	4	21.57 Celsius	30 mL	7.11 mg/L
USB 280-458482/2		SM5210B			Yes. Pass				
LCS 280-458482/8		SM5210B			YES. Pass				
MB 280-458482/9		SM5210B							
280-123853-B-1	LF6MW-1_0519	SM5210B	T		NO. Deplete Fail				
280-123853-B-1 DU	LF6MW-1_0519	SM5210B	T		NO. Deplete Fail				
280-123853-B-2	775VMW-18R_0519	SM5210B	T		NO. Deplete Fail				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
280-123853-B-3	TMC-USGS-2_0519	SM5210B	T		NO. Deplete Fail				
280-123853-A-4	LF6VMW-21_0519	SM5210B	T		NO. Deplete Fail				
280-123853-A-5	LF6VMW-21_0519-a	SM5210B	T		NO. Deplete Fail				
280-123853-A-6	LF6/TMCSW-3_0519	SM5210B	T		NO. Deplete Fail				

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
SCB 280-458482/1		SM5210B		1.61 mg/L	5.5 mg/L	0.733 mg/L	77 %	No	300 mL
USB 280-458482/2		SM5210B							300 mL
LCS 280-458482/8		SM5210B							300 mL
MB 280-458482/9		SM5210B							300 mL
280-123853-B-1	LF6MW-1_0519	SM5210B	T						300 mL
280-123853-B-1 DU	LF6MW-1_0519	SM5210B	T						300 mL
280-123853-B-2	775VMW-18R_0519	SM5210B	T						300 mL
280-123853-B-3	TMC-USGS-2_0519	SM5210B	T						300 mL
280-123853-A-4	LF6VMW-21_0519	SM5210B	T						300 mL
280-123853-A-5	LF6VMW-21_0519-a	SM5210B	T						300 mL
280-123853-A-6	LF6/TMCSW-3_0519	SM5210B	T						300 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
SCB 280-458482/1		SM5210B		7.06	21.80 Celsius				
USB 280-458482/2		SM5210B		7.07	21.75 Celsius				
LCS 280-458482/8		SM5210B		7.12	21.33 Celsius	6 mL			
MB 280-458482/9		SM5210B		7.10	21.28 Celsius				
280-123853-B-1	LF6MW-1_0519	SM5210B	T	7.10	21.28 Celsius		pH temp= 14.8, color= clear		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
280-123853-B-1 DU	LF6MW-1_0519	SM5210B	T	7.13	21.19 Celsius		pH temp= 14.8, color= clear		
280-123853-B-2	775VMW-18R_0519	SM5210B	T	7.14	21.12 Celsius		pH temp= 15.2, color= clear		
280-123853-B-3	TMC-USGS-2_0519	SM5210B	T	7.13	21.08 Celsius		pH temp= 14.5, color= clear		
280-123853-A-4	LF6VMW-21_0519	SM5210B	T	7.12	21.03 Celsius		pH temp= 14.7, color= clear		
280-123853-A-5	LF6VMW-21_0519-a	SM5210B	T	7.11	21.02 Celsius		pH temp= 14.8, color= clear		
280-123853-A-6	LF6/TMCSW-3_0519	SM5210B	T	7.12	20.96 Celsius		pH temp= 15.1, color= clear		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123853-1

SDG No.:

Batch Number: 458482 Batch Start Date: 05/16/19 16:27 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Batch Notes	
Barometer ID	YSI 5100 BOD Probe: 16H100313
Batch Comment	Room Temp= 21.54 EC trained by ckb
Calibration - Initial Date/Time	05/15/2019 17:30
Dilution Water ID	Elga water 18.2 micro ohms
Sulfuric Acid ID	1N H2SO4_00033
Incubator ID	BOD3
Sodium Hydroxide ID	1N NaOH_00047
Nitrification Inhibitor ID	Nitrogen inhibitor_00012
Nominal Amount Used	300 mL
Nutrient Buffer Pillow ID	BOD buffer_00038
pH Meter ID	SV-15261, QX1-15909
Pipette/Syringe/Dispenser ID	5000 BOD 1000BOD
Probe ID	YSI 5010 BOD Probe 15A100003
Residual Chlorine Pillow Lot #	free chlorine micro check lot: 111418
Amount of Seed added to each Sample	4 mL
Seed Correction	0.719 mg/L
Seed ID	Polyseed_00020 Seeded @ 17:55 EC Readback 16:40 EC
Thermometer ID	BOD log tag 3
Uncorrected Incubator Temp - Final	20.40 Celsius
Uncorrected Incubator Temp - Initial	20.10 Celsius
Barometric Pressure - Uncorrected	initial:624 final:616

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Table - 052919.tbl

File name: C:\FLOW_4\052919.TBL
Date: 29-May-19

Cup	Name	Type	R	Dil	Wt	Comment		
5	Sync	SYNC	1	1	1			
0	blk	CO	1	1	1			
0	Read Baseline	RB	1	1	1			
1	Cal 0.0 PPB	C	1	1	1			
3	Cal 25.0 ppb	C	1	1	1			
4	Cal 50.0 ppb	C	1	1	1			
5	Cal 100.0 ppb	C	1	1	1			
6	Cal 500.0 ppb	C	1	1	1			
7	Cal 1000.0 ppb	C	1	1	1			
8	Cal 2500.0 ppb	C	1	1	1			
9	Cal 5000.0 ppb	C	1	1	1			
0	blank	BLNK	1	1	1			
0	read baseline	RB	1	1	1	negative y intercept		
10	ICVL 500.0 ppb	U	1	1	1	Pantex cancelled		
11	ICV 2500.0 ppb	U	1	1	1			
1	ICB	U	1	1	1			
0	read baseline	RB	1	1	1		pH	Cl-
8	LCS	U	1	1	1			
12	MB	U	1	1	1			
13	280-124014-b-1	U	1	1	1		<2	N
14	MS 280-124014-b-1	U	1	1	1			
15	MSD 280-124014-b-1	U	1	1	1			
16	280-124014-b-2	U	1	1	1		<2	N
17	280-123676-d-2	U	1	100	1		<2	N
18	280-123590-a-1	U	1	500	1		Pantex	
19	280-123853-d-5	U	1	1	1		<2	N
20	280-123712-a-2	U	1	100	1		Pantex	
21	280-123853-d-1	U	1	1	1		<2	N
22	280-123853-d-2	U	1	1	1		<2	N
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			
23	280-123853-d-3	U	1	1	1		<2	N
24	280-123853-d-4	U	1	1	1		<2	N
25	~~280-123712-a-1~~	U	1	~~100~~ 1	1		<2	N
26	~~MS 280-123712-a-1~~	U	1	~~100~~ 1	1			
27	~~MSD 280-123712-a-1~~	U	1	~~100~~ 1	1			
28	280-123853-d-6	U	1	1	1		<2	N
29	280-123855-d-1	U	1	1	1		<2	N
30	280-123855-c-2	U	1	1	1		<2	N
31	280-123855-e-3	U	1	1	1		<2	N
32	280-123855-c-4	U	1	1	1		<2	N
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			
33	280-123855-d-5	U	1	1	1		<2	N
34	280-123855-c-6	U	1	1	1		<2	N
35	280-124041-e-1	U	1	1	1		<2	N
36	280-124042-f-1	U	1	1	1		<2	N
0	Rinse	U	1	1	1			

MS 123853-5 100 1 MS 5/29/19
MS 123853-5 100 1
MSD 123853-5 100 1
MS 5/29/19
MS 5/29/19
MSD 5/29/19

Cup	Name	Type	R	Dil	Wt	Comment		
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1	pH	Cl⁻	
0	Read Baseline	RB	1	1	1			
8	LCS	U	1	1	1			
12	MB	U	1	1	1			
37	280-124043-f-1	U	1	1	1	C2	N	
38	MS 280-124043-f-1	U	1	1	1			
39	MSD 280-124043-f-1	U	1	1	1			
40	280-123923-e-1	U	1	1	1	C2	N	
41	280-124175-b-1	U	1	1	1	C2	N	
42	280-124175-b-2	U	1	1	1	C2	N	
43	280-124088-c-1	U	1	1	1	C2	N	
44	280-124107-h-1	U	1	1	1	C2	N	
45	280-124070-c-1	U	1	1	1	C2	N	
46	280-124070-c-2	U	1	1	1	C2	N	
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			
47	280-124070-c-3	U	1	1	1	C2	N	
48	280-124070-b-4	U	1	1	1	C2	N	
49	280-124070-b-5	U	1	1	1	C2	N	
50	MS 280-124070-b-5	U	1	1	1			
51	MSD 280-124070-b-5	U	1	1	1			
52	280-124070-b-6	U	1	1	1	C2	N	
53	280-124106-d-1	U	1	1	1	C2	N	
54	280-124106-d-2	U	1	1	1	C2	N	
55	280-124106-d-3	U	1	1	1	C2	N	
56	280-124106-d-4	U	1	1	1	C2	N	
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			
57	280-124245-a-1	U	1	1	1	C2	N	
58	280-124225-j-1	U	1	1000	1	C2	N	
59	D 123955-8 MS 5/29/19		1	1	1	C2	N	
60	D 123832-10	U	1	1	1	C2	N	
0	Rinse	U	1	1	1			
0	Read Baseline	RB	1	1	1			
6	CCVL 500 ppb	U	1	1	1			
8	CCV 2500 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	Read Baseline	RB	1	1	1			

61 123855-2 50

62 123903-1 2

63 124106-3 50

Run Results Report

Facility Name
Facility Location
Department
Operator Name MJS
Operator ID MJS
Platform FS 3000
Software Rev Code 222
Data system ID 57

Result path C:\FLOW_4\052919.RST
Sample table path C:\FLOW_4\052919.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 29-May-19
Time acquired 14:44

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
29-May-19	10:46	5	Sync	11547	88.498	
29-May-19	10:48	0	blk	-443	-6.708	LO
29-May-19	10:50	0	Read Baseline	0	-3.191	BL
29-May-19	10:52	1	Cal 0.0 PPB	-356	-6.021	LO
29-May-19	10:54	3	Cal 25.0 ppb	2672	18.032	
29-May-19	10:56	4	Cal 50.0 ppb	5868	43.411	
29-May-19	10:58	5	Cal 100.0 ppb	12597	96.839	
29-May-19	11:00	6	Cal 500.0 ppb	65869	518.964	
29-May-19	11:02	7	Cal 1000.0 ppb	130049	1025.635	
29-May-19	11:04	8	Cal 2500.0 ppb	315367	2477.063	
29-May-19	11:06	9	Cal 5000.0 ppb	643426	5004.257	
29-May-19	11:08	0	blank	246	-1.240	LO
29-May-19	11:10	0	read baseline	0	-3.191	BL
29-May-19	11:12	10	ICVL 500.0 ppb	60913	479.754	
29-May-19	11:14	11	ICV 2500.0 ppb	319871	2512.121	
29-May-19	11:16	1	ICB	-336	-5.863	LO
29-May-19	11:18	0	read baseline	0	-3.191	BL
29-May-19	11:20	8	LCS	326852	2566.450	
29-May-19	11:22	12	MB	-55	-3.630	LO
29-May-19	11:24	13	280-124014-b-1	120650	951.567	
29-May-19	11:26	14	MS 280-124014-b-1	211420	1665.057	
29-May-19	11:28	15	MSD 280-124014-b-1	258307	2031.999	
29-May-19	11:30	16	280-124014-b-2	34806	272.996	
29-May-19	11:32	17	280-123676-d-2	171664	135306.422	
29-May-19	11:34	18	280-123590-a-1	44338	174262.688	
29-May-19	11:36	19	280-123853-d-5	-763	-9.251	LO
29-May-19	11:38	20	280-123712-a-2	79960	63038.387	
29-May-19	11:40	21	280-123853-d-1	-626	-8.161	LO
29-May-19	11:42	22	280-123853-d-2	-918	-10.487	LO
29-May-19	11:44	0	Rinse	-283	-5.436	LO
29-May-19	11:46	0	Read Baseline	0	-3.191	BL
29-May-19	11:48	6	CCVL 500 ppb	63113	497.156	
29-May-19	11:50	8	CCV 2500 ppb	325139	2553.118	
29-May-19	11:52	12	CCB	111	-2.307	LO
29-May-19	11:54	0	Read Baseline	0	-3.191	BL
29-May-19	11:56	23	280-123853-d-3	6818	50.958	
29-May-19	11:58	24	280-123853-d-4	386	-0.122	LO
29-May-19	12:00	25	280-123853-d-5	-669	-8.502	LO
29-May-19	12:02	26	MS 280-123853-d-5	140676	1109.336	
29-May-19	12:04	27	MSD 280-123853-d-5	143533	1131.822	
29-May-19	12:06	28	280-123853-d-6	4613	33.449	
29-May-19	12:08	29	280-123855-d-1	-512	-7.258	LO
29-May-19	12:10	30	280-123855-c-2	2145220	15884.976	HI
29-May-19	12:12	31	280-123855-e-3	4614	33.452	FL
29-May-19	12:14	32	280-123855-c-4	362	-0.312	LO
29-May-19	12:16	0	Rinse	-90	-3.904	LO

Result path C:\FLOW_4\052919.RST
Sample table path C:\FLOW_4\052919.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 29-May-19
Time acquired 14:44

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
29-May-19	12:18	0	Read Baseline	0	-3.191	BL
29-May-19	12:20	6	CCVL 500 ppb	62426	491.720	
29-May-19	12:22	8	CCV 2500 ppb	325006	2552.085	
29-May-19	12:24	12	CCB	-290	-5.492	LO
29-May-19	12:26	0	Read Baseline	0	-3.191	BL
29-May-19	12:28	33	280-123855-d-5	528	1.000	LO
29-May-19	12:30	34	280-123855-c-6	288	-0.900	LO
29-May-19	12:32	35	280-124041-e-1	-585	-7.840	LO
29-May-19	12:34	36	280-124042-f-1	-398	-6.355	LO
29-May-19	12:36	0	Rinse	-236	-5.064	LO
29-May-19	12:38	0	Read Baseline	0	-3.191	BL
29-May-19	12:40	6	CCVL 500 ppb	62191	489.860	
29-May-19	12:42	8	CCV 2500 ppb	336202	2639.169	
29-May-19	12:44	12	CCB	-218	-4.920	LO
29-May-19	12:46	0	Read Baseline	0	-3.191	BL
29-May-19	12:48	8	LCS	328990	2583.082	
29-May-19	12:50	12	MB	149	-2.006	LO
29-May-19	12:52	37	280-124043-f-1	-504	-7.191	LO
29-May-19	12:54	38	MS 280-124043-f-1	143765	1133.649	
29-May-19	12:56	39	MSD 280-124043-f-1	134828	1063.279	
29-May-19	12:58	40	280-123923-e-1	856739	6618.587	
29-May-19	13:00	41	280-124175-b-1	7565	56.885	
29-May-19	13:02	42	280-124175-b-2	11478	87.952	
29-May-19	13:04	43	280-124088-c-1	586	1.461	
29-May-19	13:06	44	280-124107-h-1	1553	9.146	
29-May-19	13:08	45	280-124070-c-1	164	-1.888	LO
29-May-19	13:10	46	280-124070-c-2	1416	8.053	
29-May-19	13:12	0	Rinse	25	-2.996	LO
29-May-19	13:14	0	Read Baseline	0	-3.191	BL
29-May-19	13:16	6	CCVL 500 ppb	65985	519.880	
29-May-19	13:18	8	CCV 2500 ppb	326817	2566.171	
29-May-19	13:20	12	CCB	99	-2.402	LO
29-May-19	13:22	0	Read Baseline	0	-3.191	BL
29-May-19	13:24	47	280-124070-c-3	2952	20.259	
29-May-19	13:26	48	280-124070-b-4	4044	28.933	
29-May-19	13:28	49	280-124070-b-5	5616	41.415	
29-May-19	13:30	50	MS 280-124070-b-5	135013	1064.736	
29-May-19	13:32	51	MSD 280-124070-b-5	148947	1174.433	
29-May-19	13:34	52	280-124070-b-6	7076	53.010	
29-May-19	13:36	53	280-124106-d-1	328494	2579.225	
29-May-19	13:38	54	280-124106-d-2	336983	2645.242	
29-May-19	13:40	55	280-124106-d-3	2439714	17886.117	HI
29-May-19	13:42	56	280-124106-d-4	42094	330.746	FL
29-May-19	13:44	0	Rinse	-191	-4.711	LO
29-May-19	13:46	0	Read Baseline	0	-3.191	BL
29-May-19	13:48	6	CCVL 500 ppb	65298	514.447	
29-May-19	13:50	8	CCV 2500 ppb	334093	2622.767	
29-May-19	13:52	12	CCB	-215	-4.903	LO
29-May-19	13:54	0	Read Baseline	0	-3.191	BL
29-May-19	13:56	57	280-124245-a-1	350847	2752.986	
29-May-19	13:58	58	280-124225-j-1	145738	1149178.125	
29-May-19	14:00	59	280-123955-b-8	318440	2500.988	
29-May-19	14:02	60	280-123832-c-10	4670	33.902	
29-May-19	14:04	0	Rinse	-26	-3.397	LO
29-May-19	14:06	0	Read Baseline	0	-3.191	BL
29-May-19	14:08	6	CCVL 500 ppb	66632	524.995	
29-May-19	14:10	8	CCV 2500 ppb	337030	2645.609	

Result path C:\FLOW_4\052919.RST
Sample table path C:\FLOW_4\052919.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 29-May-19
Time acquired 14:44

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
29-May-19	14:12	12	CCB	-143	-4.328	LO
29-May-19	14:14	0	Read Baseline	0	-3.191	BL
29-May-19	14:20	61	280-123855-c-2	45999	18083.967	
29-May-19	14:22	62	280-123923-e-1	436618	6834.799	
29-May-19	14:24	63	280-124106-d-3	63743	25107.316	
29-May-19	14:26	56	280-124106-d-4	40428	317.543	
29-May-19	14:28	0	Rinse	59	-2.722	LO
29-May-19	14:30	0	Read Baseline	0	-3.191	BL
29-May-19	14:32	6	CCVL 500 ppb	68419	539.136	
29-May-19	14:34	8	CCV 2500 ppb	342325	2686.766	
29-May-19	14:36	12	CCB	13	-3.086	LO
29-May-19	14:38	0	Read Baseline	0	-3.191	BL

Peak Table:Ammonia

File name: C:\FLOW_4\052919.RST
Date: 29-May-19
Operator: MJS

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	11547	88.498329	
2	0	blk	1	CO	1	1	-443	-6.708152	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
4	1	Cal 0.0 PPB	1	C	1	1	-356	-6.020555	LO
5	3	Cal 25.0 ppb	1	C	1	1	2672	18.031824	
6	4	Cal 50.0 ppb	1	C	1	1	5868	43.411438	
7	5	Cal 100.0 ppb	1	C	1	1	12597	96.838631	
8	6	Cal 500.0 ppb	1	C	1	1	65869	518.963745	
9	7	Cal 1000.0 ppb	1	C	1	1	130049	1025.634888	
10	8	Cal 2500.0 ppb	1	C	1	1	315367	2477.062744	
11	9	Cal 5000.0 ppb	1	C	1	1	643426	5004.257324	
12	0	blank	1	BLNK	1	1	246	-1.239502	LO
B	0	read baseline	1	RB	1	1	0	-3.190870	BL
14	10	ICVL 500.0 ppb	1	U	1	1	60913	479.754395	
15	11	ICV 2500.0 ppb	1	U	1	1	319871	2512.121094	
16	1	ICB	1	U	1	1	-336	-5.863373	LO
B	0	read baseline	1	RB	1	1	0	-3.190870	BL
18	8	LCS	1	U	1	1	326852	2566.450439	
19	12	MB	1	U	1	1	-55	-3.629551	LO
20	13	280-124014-b-1	1	U	1	1	120650	951.566833	
21	14	MS 280-124014-b-1	1	U	1	1	211420	1665.056519	
22	15	MSD 280-124014-b-1	1	U	1	1	258307	2031.998657	
23	16	280-124014-b-2	1	U	1	1	34806	272.996002	
24	17	280-123676-d-2	1	U	100	1	171664	135306.421875	
25	18	280-123590-a-1	1	U	500	1	44338	174262.687500	
26	19	280-123853-d-5	1	U	1	1	-763	-9.251243	LO
27	20	280-123712-a-2	1	U	100	1	79960	63038.386719	
28	21	280-123853-d-1	1	U	1	1	-626	-8.161288	LO
29	22	280-123853-d-2	1	U	1	1	-918	-10.486878	LO
30	0	Rinse	1	U	1	1	-283	-5.436073	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
32	6	CCVL 500 ppb	1	U	1	1	63113	497.155701	
33	8	CCV 2500 ppb	1	U	1	1	325139	2553.117920	
34	12	CCB	1	U	1	1	111	-2.307113	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
36	23	280-123853-d-3	1	U	1	1	6818	50.958202	
37	24	280-123853-d-4	1	U	1	1	386	-0.121589	LO
38	25	280-123853-d-5	1	U	1	1	-669	-8.501881	LO
39	26	MS 280-123853-d-5	1	U	1	1	140676	1109.335938	
40	27	MSD 280-123853-d-5	1	U	1	1	143533	1131.821655	
41	28	280-123853-d-6	1	U	1	1	4613	33.449284	
42	29	280-123855-d-1	1	U	1	1	-512	-7.257688	LO
43	30	280-123855-c-2	1	U	1	1	2145220	15884.975586	HI
44	31	280-123855-e-3	1	U	1	1	4614	33.452351	FL
45	32	280-123855-c-4	1	U	1	1	362	-0.312037	LO
46	0	Rinse	1	U	1	1	-90	-3.904106	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
48	6	CCVL 500 ppb	1	U	1	1	62426	491.720337	
49	8	CCV 2500 ppb	1	U	1	1	325006	2552.084717	
50	12	CCB	1	U	1	1	-290	-5.491902	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
52	33	280-123855-d-5	1	U	1	1	528	0.999604	LO
53	34	280-123855-c-6	1	U	1	1	288	-0.899728	LO
54	35	280-124041-e-1	1	U	1	1	-585	-7.839583	LO
55	36	280-124042-f-1	1	U	1	1	-398	-6.355006	LO
56	0	Rinse	1	U	1	1	-236	-5.064034	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
58	6	CCVL 500 ppb	1	U	1	1	62191	489.860077	
59	8	CCV 2500 ppb	1	U	1	1	336202	2639.168701	
60	12	CCB	1	U	1	1	-218	-4.919694	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
62	8	LCS	1	U	1	1	328990	2583.082275	
63	12	MB	1	U	1	1	149	-2.006460	LO
64	37	280-124043-f-1	1	U	1	1	-504	-7.190752	LO
65	38	MS 280-124043-f-1	1	U	1	1	143765	1133.649048	
66	39	MSD 280-124043-f-1	1	U	1	1	134828	1063.279419	
67	40	280-123923-e-1	1	U	1	1	856739	6618.586914	
68	41	280-124175-b-1	1	U	1	1	7565	56.884640	
69	42	280-124175-b-2	1	U	1	1	11478	87.952477	
70	43	280-124088-c-1	1	U	1	1	586	1.460512	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	44	280-124107-h-1	1	U	1	1	1553	9.145669	
72	45	280-124070-c-1	1	U	1	1	164	-1.888089	LO
73	46	280-124070-c-2	1	U	1	1	1416	8.053090	
74	0	Rinse	1	U	1	1	25	-2.996036	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
76	6	CCVL 500 ppb	1	U	1	1	65985	519.880371	
77	8	CCV 2500 ppb	1	U	1	1	326817	2566.171387	
78	12	CCB	1	U	1	1	99	-2.402388	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
80	47	280-124070-c-3	1	U	1	1	2952	20.258722	
81	48	280-124070-b-4	1	U	1	1	4044	28.932644	
82	49	280-124070-b-5	1	U	1	1	5616	41.414948	
83	50	MS 280-124070-b-5	1	U	1	1	135013	1064.736084	
84	51	MSD 280-124070-b-5	1	U	1	1	148947	1174.433105	
85	52	280-124070-b-6	1	U	1	1	7076	53.009624	
86	53	280-124106-d-1	1	U	1	1	328494	2579.224854	
87	54	280-124106-d-2	1	U	1	1	336983	2645.241699	
88	55	280-124106-d-3	1	U	1	1	2439714	17886.117188	HI
89	56	280-124106-d-4	1	U	1	1	42094	330.745636	FL
90	0	Rinse	1	U	1	1	-191	-4.711273	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
92	6	CCVL 500 ppb	1	U	1	1	65298	514.446960	
93	8	CCV 2500 ppb	1	U	1	1	334093	2622.767334	
94	12	CCB	1	U	1	1	-215	-4.902517	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
96	57	280-124245-a-1	1	U	1	1	350847	2752.985596	
97	58	280-124225-j-1	1	U	1000	1	145738	1149178.125000	
98	59	280-123955-b-8	1	U	1	1	318440	2500.988037	
99	60	280-123832-c-10	1	U	1	1	4670	33.901588	
100	0	Rinse	1	U	1	1	-26	-3.397300	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
102	6	CCVL 500 ppb	1	U	1	1	66632	524.995178	
103	8	CCV 2500 ppb	1	U	1	1	337030	2645.608887	
104	12	CCB	1	U	1	1	-143	-4.327542	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
106	61	280-123855-c-2	1	U	50	1	45999	18083.966797	
107	62	280-123923-e-1	1	U	2	1	436618	6834.799316	
108	63	280-124106-d-3	1	U	50	1	63743	25107.316406	
109	56	280-124106-d-4	1	U	1	1	40428	317.543091	
110	0	Rinse	1	U	1	1	59	-2.721701	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL
112	6	CCVL 500 ppb	1	U	1	1	68419	539.136353	
113	8	CCV 2500 ppb	1	U	1	1	342325	2686.766113	
114	12	CCB	1	U	1	1	13	-3.086404	LO
B	0	Read Baseline	1	RB	1	1	0	-3.190870	BL

Ammonia:Calibration 1: Peak 4-115

File name: C:\FLOW_4\052919.RST
Date: 29-May-19
Operator: MJS

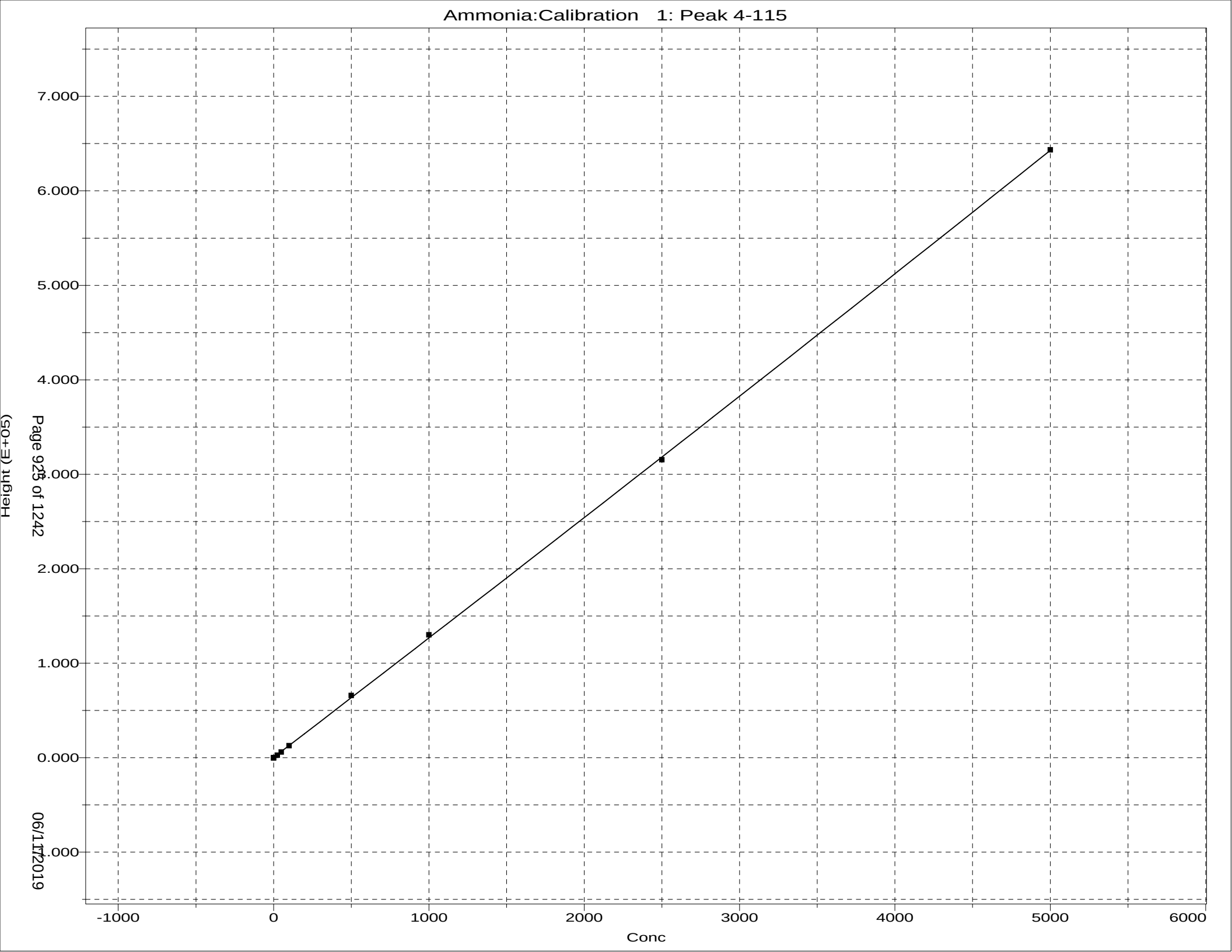
*	Name	Conc	Height
*	Cal 0.0 PPB	0.000000	-356.215759
*	Cal 25.0 ppb	25.000000	2671.880859
*	Cal 50.0 ppb	50.000000	5867.697754
*	Cal 100.0 ppb	100.000000	12597.390625
*	Cal 500.0 ppb	500.000000	65869.148438
*	Cal 1000.0 ppb	1000.000000	130048.804688
*	Cal 2500.0 ppb	2500.000000	315367.093750
*	Cal 5000.0 ppb	5000.000000	643425.562500

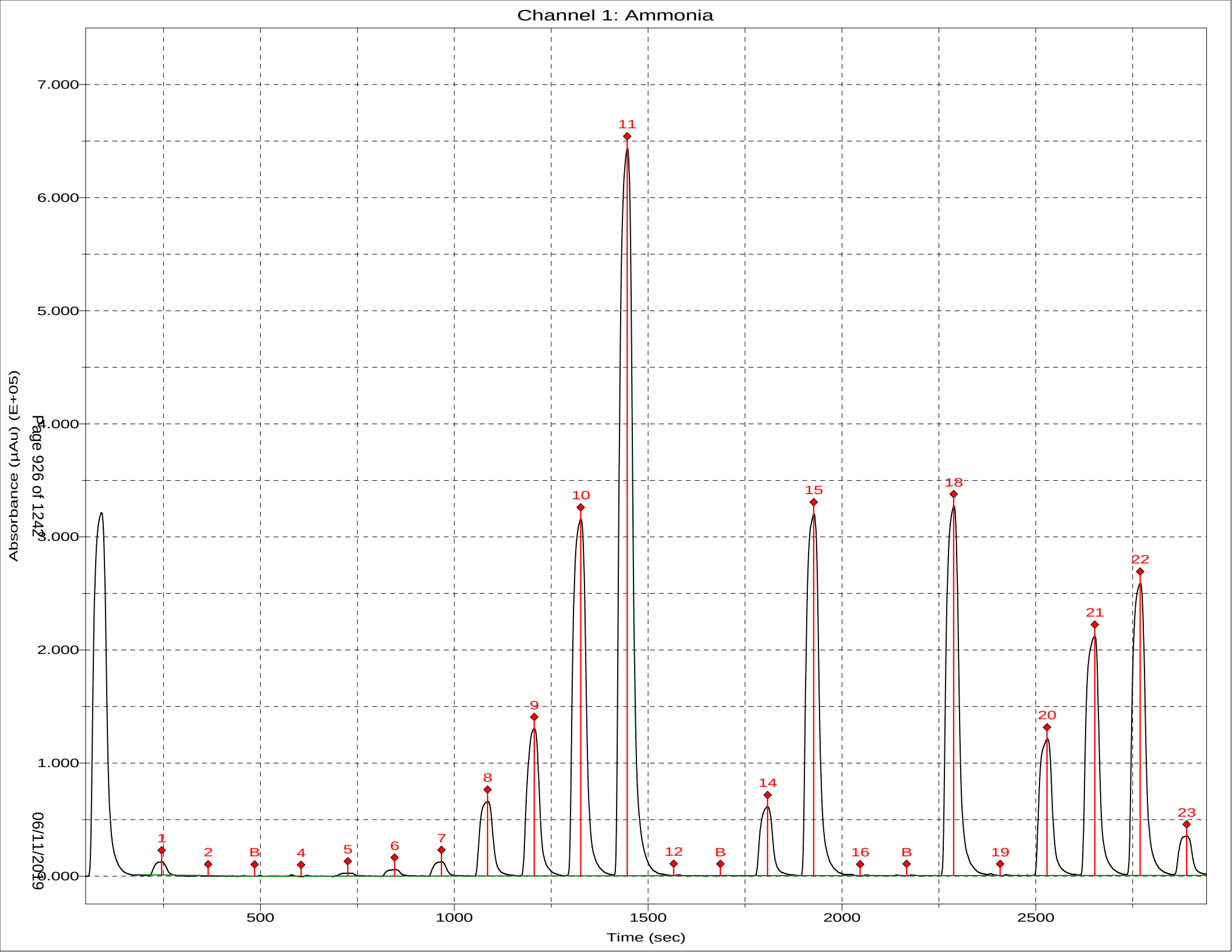
Calib Coef:
x=cyy+by+a
a: (intercept) -3.1909e+00
b: 7.9436e-03
c: -2.5048e-10

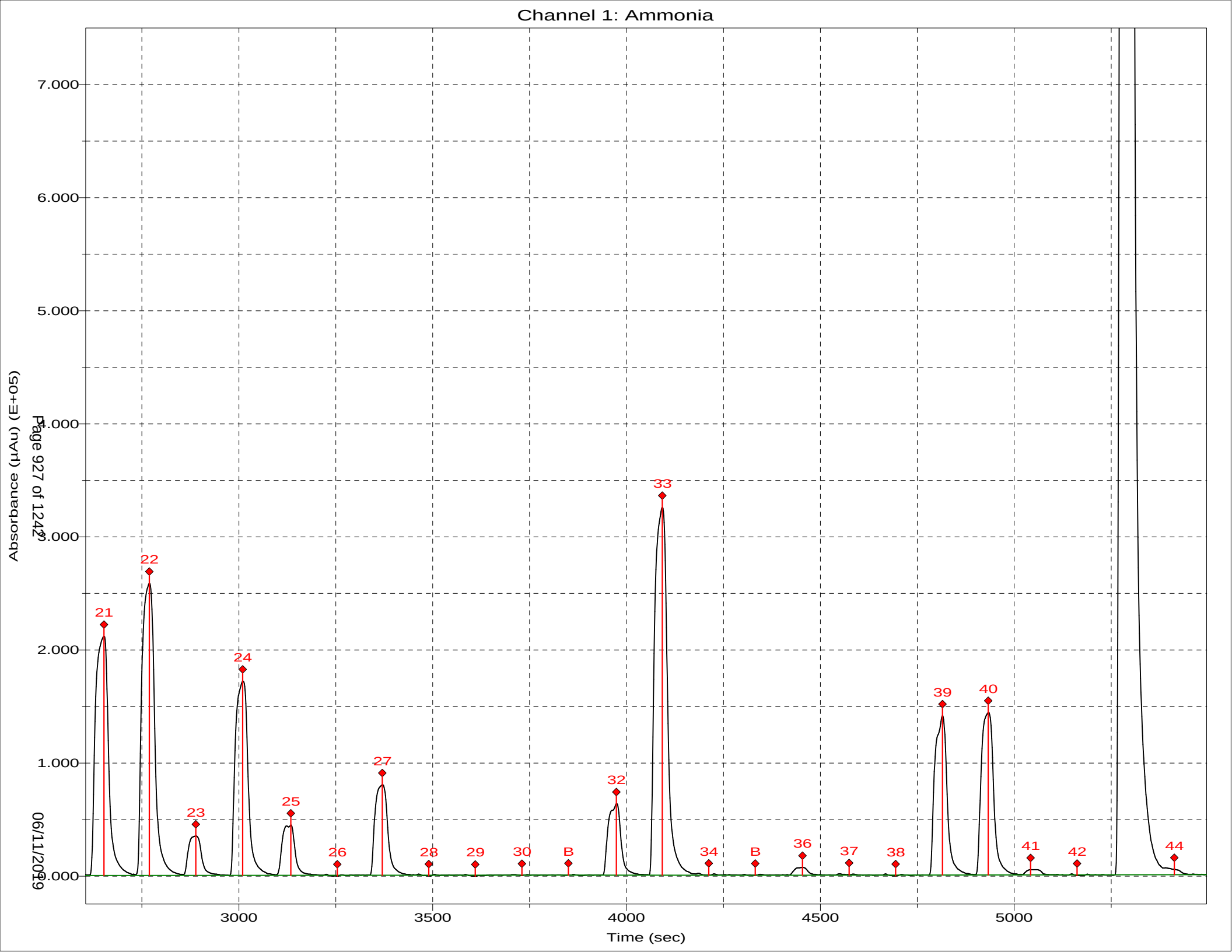
Corr Coef: 0.999963

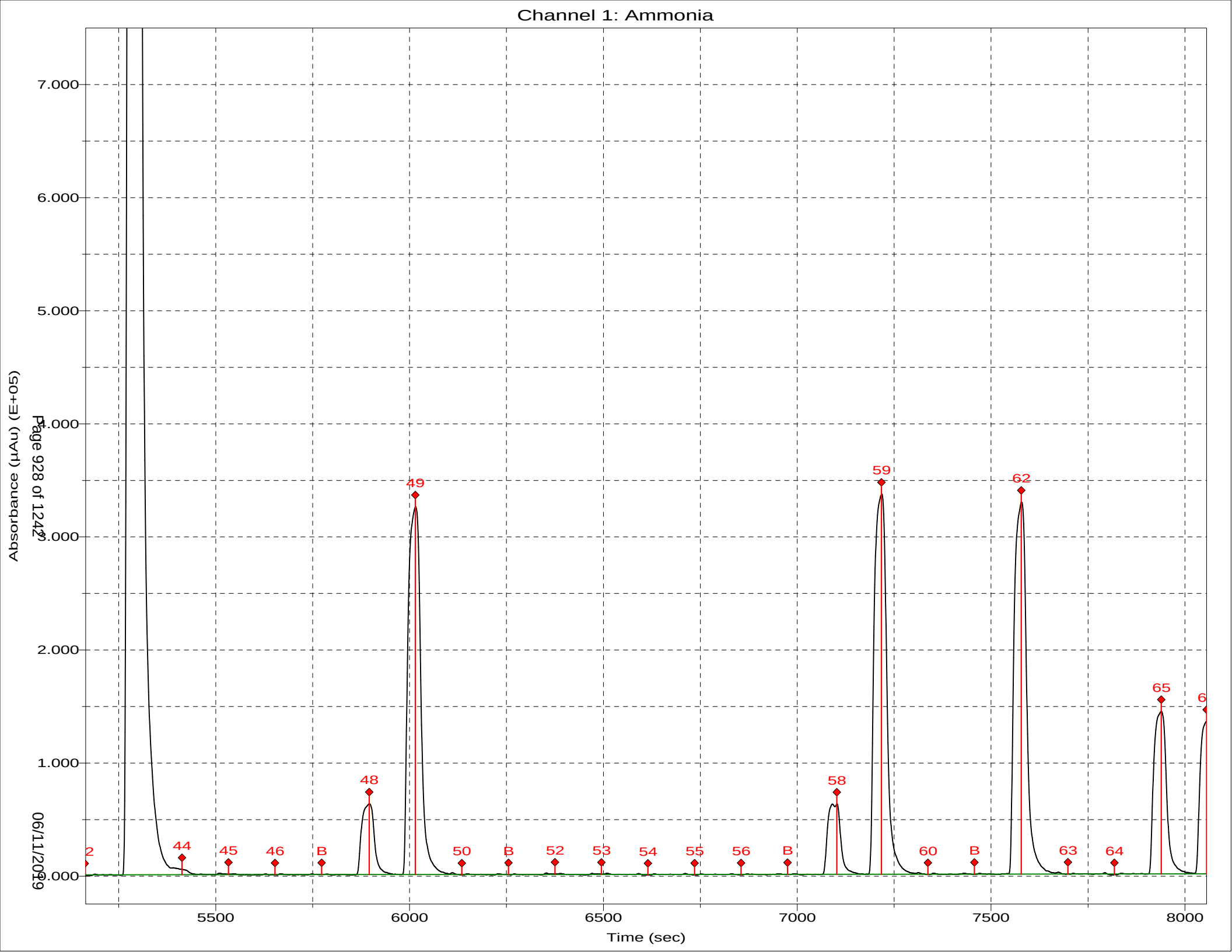
Carryover: 0%

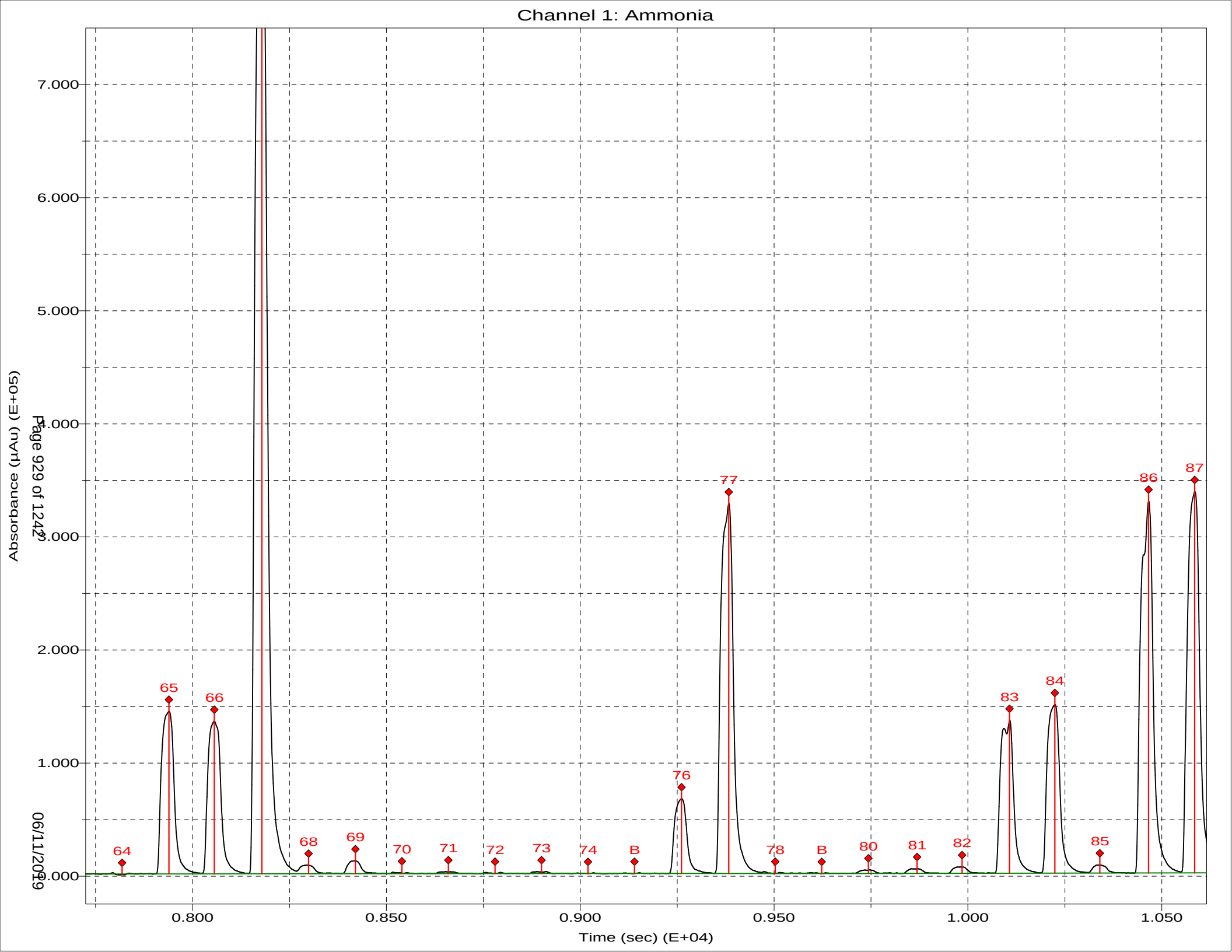
No Drift Peaks

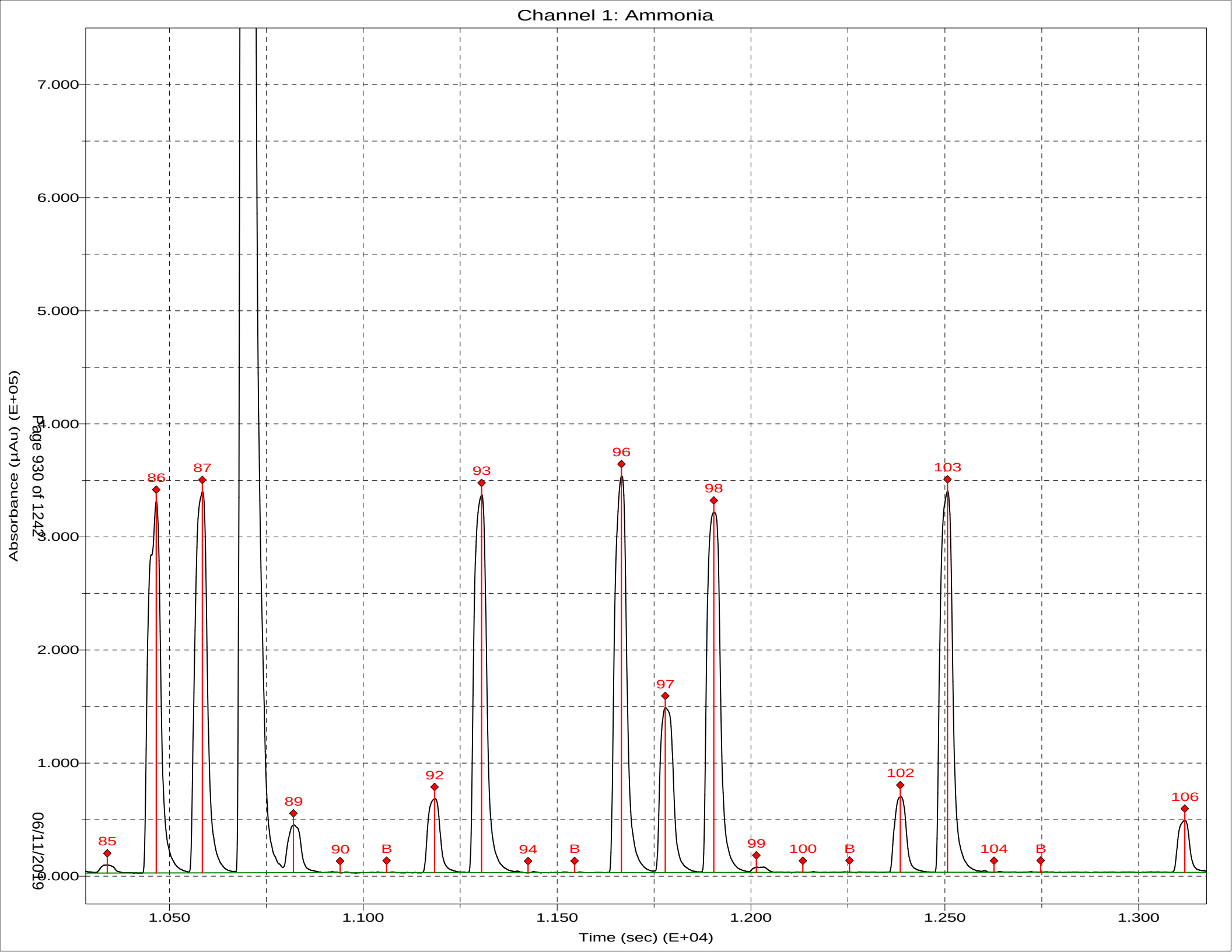

Ammonia:Calibration 1: Peak 4-115
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Height (E+05)
-1000
0
1000
2000
3000
4000
5000
6000
Conc

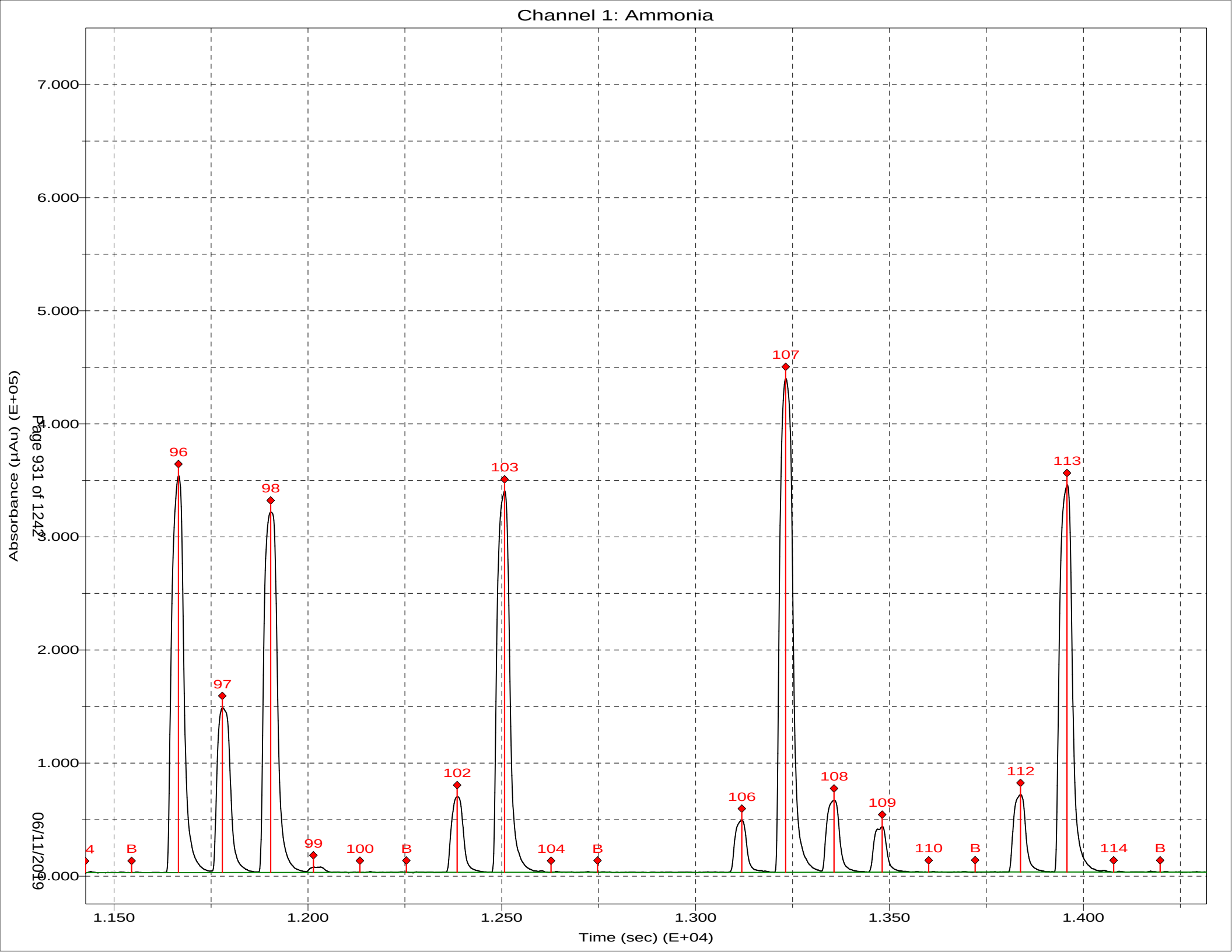

Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
500
1000
1500
2000
2500
Time (sec)
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
21
22
23


Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Time (sec)
3000
3500
4000
4500
5000
21
22
23
24
25
26
27
28
29
30
B
32
33
34
B
36
37
38
39
40
41
42
44
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06/11/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
5500
6000
6500
7000
7500
8000
Time (sec)
Page 928 of 1242
06/11/2019
2
44
45
46
B
48
49
50
B
52
53
54
55
56
B
58
59
60
B
62
63
64
65


Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Time (sec) (E+04)
0.800
0.850
0.900
0.950
1.000
1.050
64
65
66
68
69
70
71
72
73
74
B
76
77
78
B
80
81
82
83
84
85
86
87


Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
1.050
1.100
1.150
1.200
1.250
1.300
Time (sec) (E+04)
85
86
87
89
90
B
92
93
94
B
96
97
98
99
100
B
102
103
104
B
106


Channel 1: Ammonia
Absorbance (µAu) (E+05)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
1.150
1.200
1.250
1.300
1.350
1.400
Time (sec) (E+04)
4
B
96
97
98
99
100
B
102
103
104
B
106
107
108
109
110
B
112
113
114
B
Page 931 of 1242
06/11/2019

Sample Table for 060519

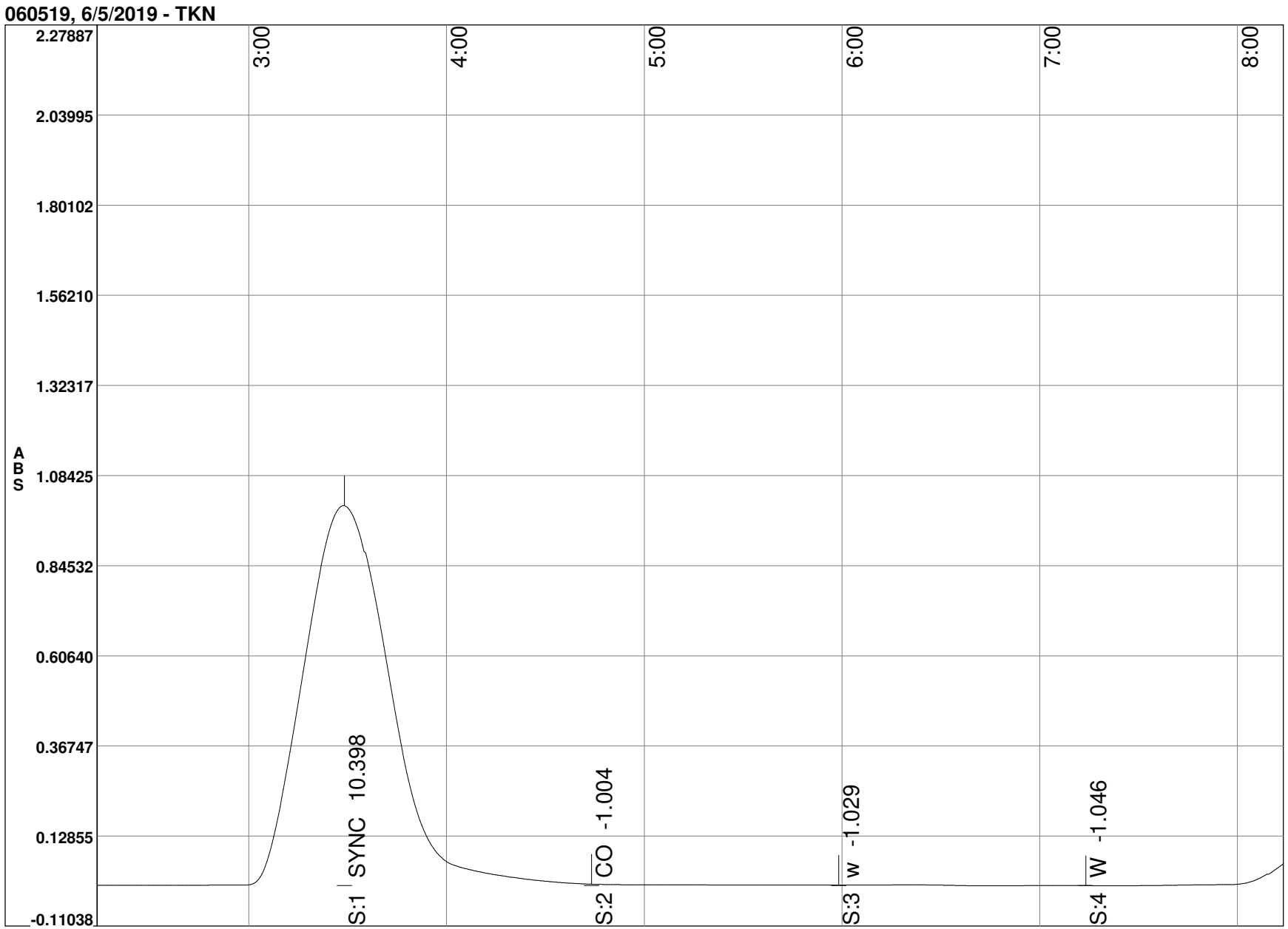
	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-460066/42-A	Unknown	4 ml
14	1:16	ICB 280-460066/43-A	Unknown	4 ml
15	1:17	xLCS 280-460465/1-A	Unknown	4 ml
16	1:18	MB 280-460465/2-A	Unknown	4 ml
17	1:19	280-123941-K-2-A	Unknown	4 ml
18	1:20	280-123941-K-2-B MS	Unknown	4 ml
19	1:21	280-123941-K-2-C MS	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	280-123941-K-4-A	Unknown	4 ml
22	1:24	280-123941-J-5-A	Unknown	4 ml
23	1:25	280-123941-K-6-A	Unknown	4 ml
24	1:26	280-123941-J-7-A	Unknown	4 ml
25	1:27	280-123941-J-9-A	Unknown	4 ml
26	1:28	280-123941-K-10-A	Unknown	4 ml
27	1:29	280-123941-J-11-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-460066/44-A	Unknown	4 ml
30	1:32	CCB 280-460066/45-A	Unknown	4 ml
31	1:33	280-123855-D-1-A	Unknown	4 ml
32	1:34	280-123855-C-2-A	Unknown	4 ml
33	1:35	280-123855-E-3-A	Unknown	4 ml
34	1:36	280-123855-E-3-B MS	Unknown	4 ml
35	1:37	280-123855-E-3-C MS	Unknown	4 ml
36	1:38	w	Blank	4 ml
37	1:39	280-123855-E-4-A	Unknown	4 ml
38	1:40	280-123855-C-5-A	Unknown	4 ml
39	1:41	280-123855-E-6-A	Unknown	4 ml
40	1:42	280-124106-D-1-A	Unknown	4 ml
41	1:43	280-124106-E-2-A	Unknown	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-460066/44-A	Unknown	4 ml
44	1:46	CCB 280-460066/45-A	Unknown	4 ml

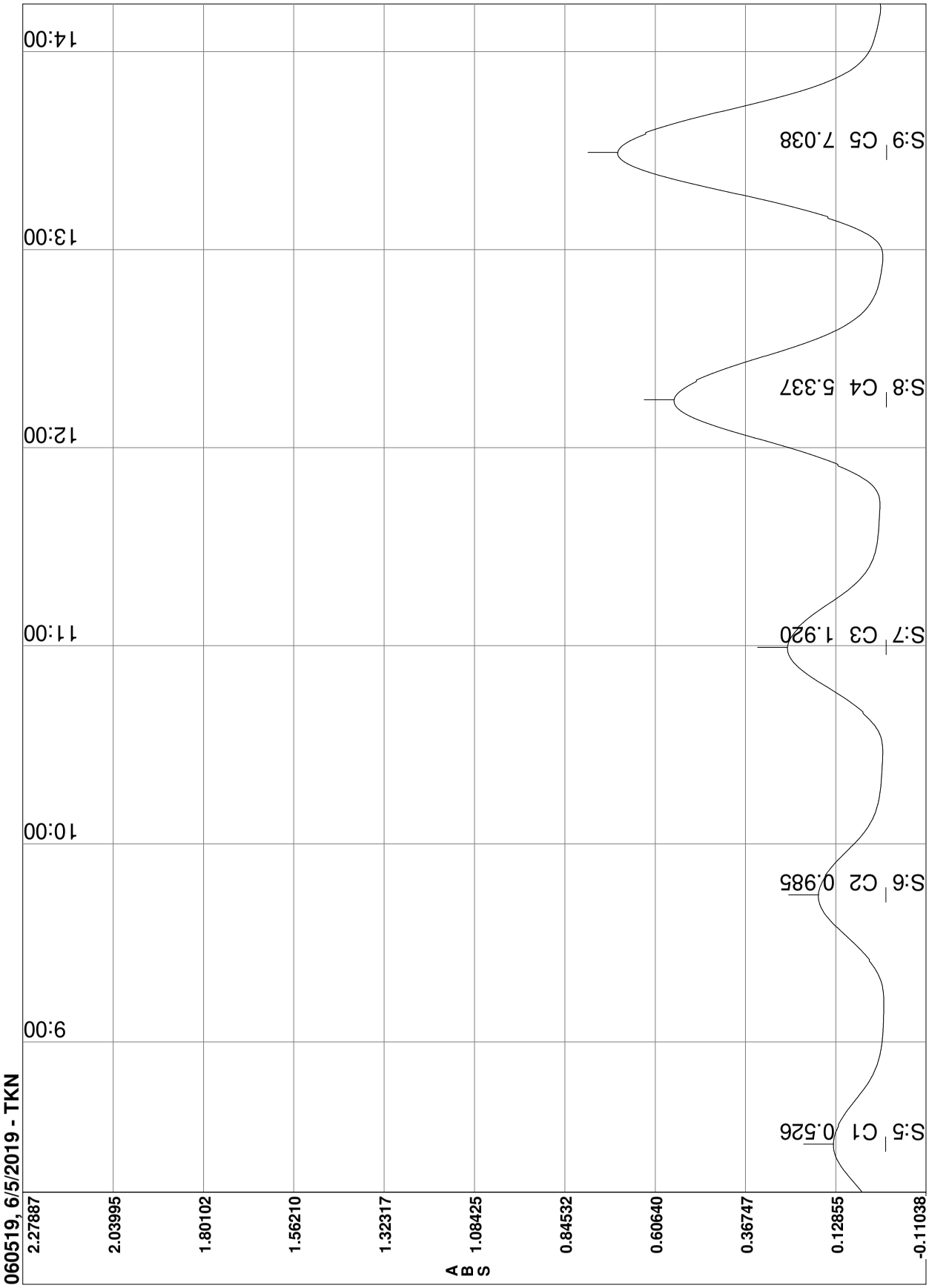
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45	1:47	280-124106-D-3-A	Unknown	4 ml
46	1:48	280-124106-E-4-A	Unknown	4 ml
47	1:49	280-123930-E-1-A	Unknown	4 ml
48	1:50	280-123930-C-2-A	Unknown	4 ml
49	1:51	w	Blank	4 ml
50	1:52	LCS 280-460465/27-A	Unknown	4 ml
51	1:53	MB 280-460465/28-A	Unknown	4 ml
52	1:54	280-123930-E-3-A	Unknown	4 ml
53	1:55	280-123930-E-3-B MS	Unknown	4 ml
54	1:56	280-123930-E-3-C MS	Unknown	4 ml
55	1:57	LCS 280-460465/1-A	Unknown	4 ml
56	1:58	w	Blank	4 ml
57	1:59	CCV 280-460066/44-A	Unknown	4 ml
58	1:60	CCB 280-460066/45-A	Unknown	4 ml
59	2:1	280-123930-C-4-A	Unknown	4 ml
60	2:2	280-123930-C-5-A	Unknown	4 ml
61	2:3	280-123853-C-1-A	Unknown	4 ml
62	2:4	280-123853-C-2-A	Unknown	4 ml
63	2:5	280-123853-C-3-A	Unknown	4 ml
64	2:6	280-123853-C-4-A	Unknown	4 ml
65	2:7	280-123853-C-5-A	Unknown	4 ml
66	2:8	280-123853-C-6-A	Unknown	4 ml
67	2:9	280-123855-C-2-A	Unknown	4 ml
68	2:10	280-124106-D-3-A	Unknown	4 ml
69	2:11	w	Blank	4 ml
70	2:12	CCV 280-460066/44-A	Unknown	4 ml
71	2:13	CCB 280-460066/45-A	Unknown	4 ml
72	2:14	w	Blank	4 ml

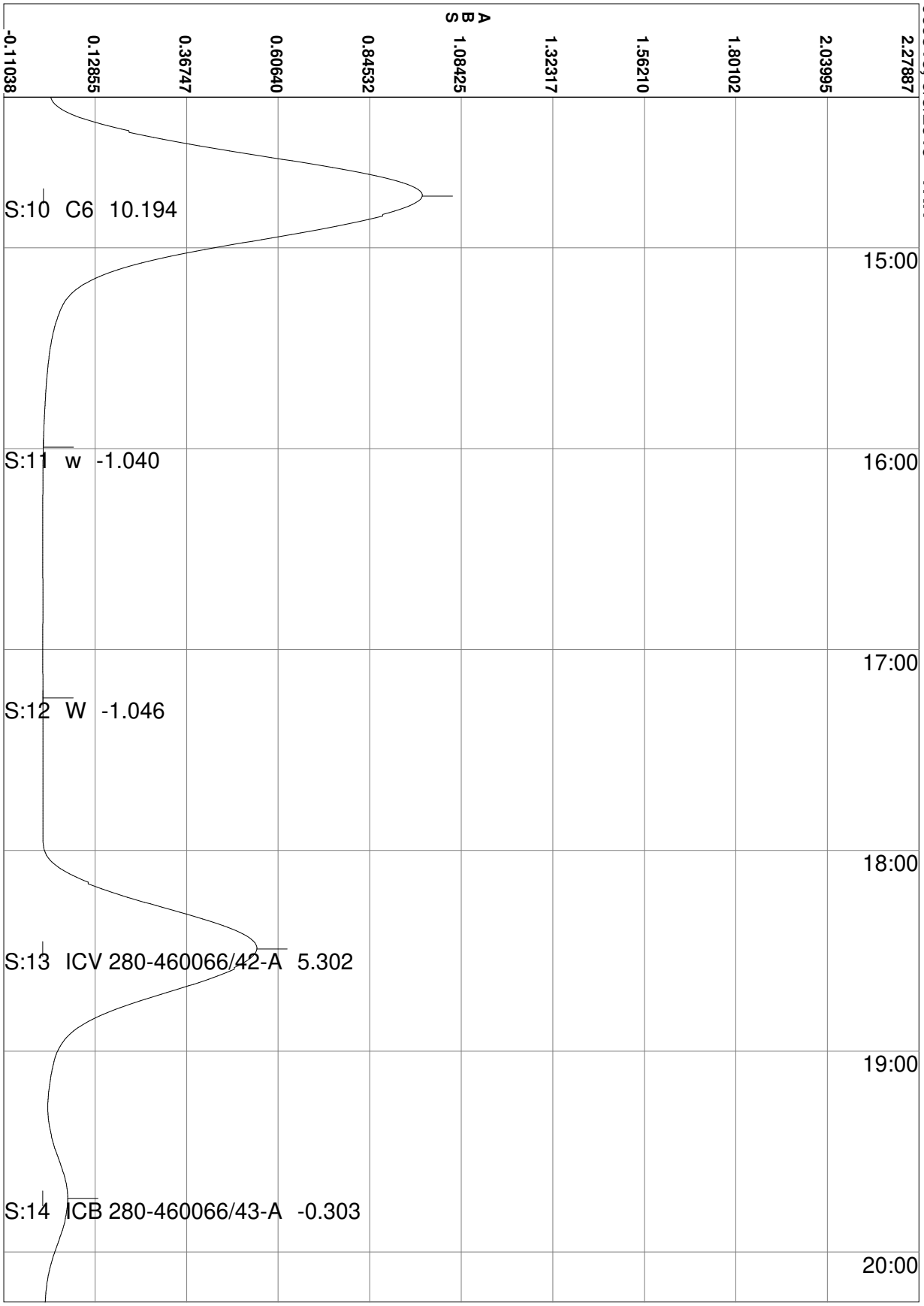
Run Name: 060519
Configuration: TKN
Run date: 6/5/2019

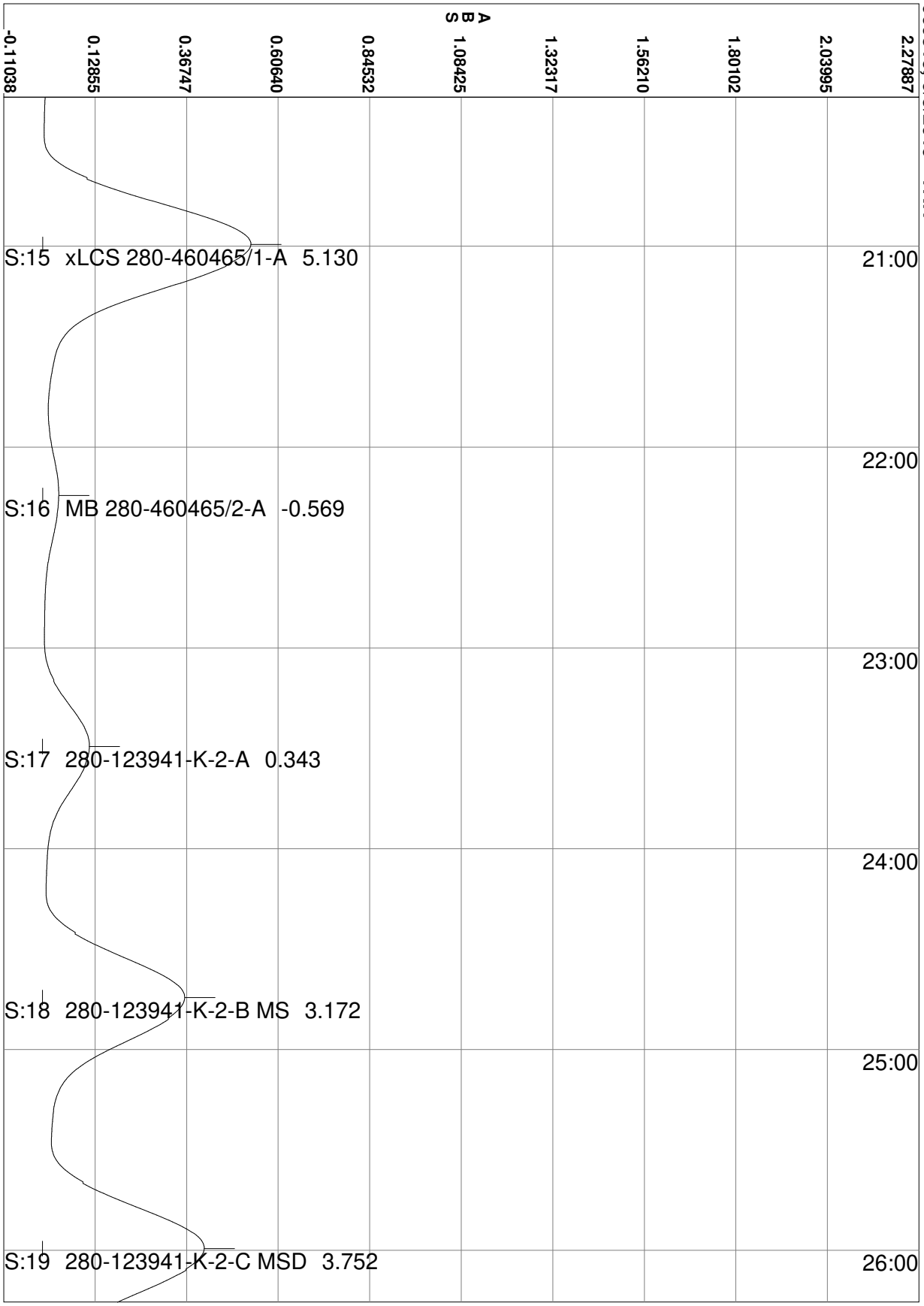
	Position	Identifier	Type	Comme	Date	Time	otal	TKN Cor Ht	mg/l
1	1:1	SYNC	SYNC	50;351.2	6/5/2019	5:30:29 PM	1	1.00520	10.398
2	1:2	CO	Carry over		6/5/2019	5:30:59 PM	1	0.00368	-1.004
3	1:3	w	Blank		6/5/2019	5:32:14 PM	1	0.00146	-1.029
4	1:4	W	Wash		6/5/2019	5:33:29 PM	1	0.00000	-1.046
5	1:5	C1	Calibrant		6/5/2019	5:34:44 PM	1	0.13805	0.526
6	1:6	C2	Calibrant		6/5/2019	5:35:59 PM	1	0.17838	0.985
7	1:7	C3	Calibrant		6/5/2019	5:37:14 PM	1	0.26048	1.920
8	1:8	C4	Calibrant		6/5/2019	5:38:30 PM	1	0.56067	5.337
9	1:9	C5	Calibrant		6/5/2019	5:39:45 PM	1	0.71009	7.038
10	1:10	C6	Calibrant		6/5/2019	5:40:59 PM	1	0.98734	10.194
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99749
		Intercept:							0.091847
		Linear coef:							0.087843
11	1:13	w	Blank		6/5/2019	5:42:14 PM	1	0.00049	-1.040
12	1:14	W	Wash		6/5/2019	5:43:29 PM	1	0.00000	-1.046
13	1:15	ICV 280-460066/42-A	Unknown		6/5/2019	5:44:44 PM	1	0.55757	5.302
14	1:16	ICB 280-460066/43-A	Unknown		6/5/2019	5:45:59 PM	1	0.06522	-0.303
15	1:17	xLCS 280-460465/1-A	Unknown		6/5/2019	5:47:14 PM	1	0.54253	5.130
16	1:18	MB 280-460465/2-A	Unknown		6/5/2019	5:48:29 PM	1	0.04191	-0.569
17	1:19	280-123941-K-2-A	Unknown		6/5/2019	5:49:44 PM	1	0.12201	0.343
18	1:20	280-123941-K-2-B MS	Unknown		6/5/2019	5:50:59 PM	1	0.37049	3.172
19	1:21	280-123941-K-2-C MSD	Unknown		6/5/2019	5:52:14 PM	1	0.42144	3.752
20	1:22	w	Blank		6/5/2019	5:53:29 PM	1	-0.00106	-1.058
21	1:23	280-123941-K-4-A	Unknown		6/5/2019	5:54:44 PM	1	0.12033	0.324
22	1:24	280-123941-J-5-A	Unknown		6/5/2019	5:55:59 PM	1	0.14577	0.614
23	0	AutoWash	AutoWash		6/5/2019	5:57:14 PM	1	-0.00018	-1.048
24	0	AutoWash	AutoWash		6/5/2019	5:58:29 PM	1	0.00000	-1.046
25	1:25	280-123941-K-6-A	Unknown		6/5/2019	5:59:44 PM	1	0.10928	0.198
26	1:26	280-123941-J-7-A	Unknown		6/5/2019	6:00:59 PM	1	0.06149	-0.346
27	1:27	280-123941-J-9-A	Unknown		6/5/2019	6:02:14 PM	1	0.05736	-0.393
28	1:28	280-123941-K-10-A	Unknown		6/5/2019	6:03:29 PM	1	0.03230	-0.678
29	1:29	280-123941-J-11-A	Unknown		6/5/2019	6:04:44 PM	1	0.04101	-0.579
30	1:30	w	Blank		6/5/2019	6:05:59 PM	1	0.53160	5.006
31	1:31	CCV 280-460066/44-A	Unknown		6/5/2019	6:07:14 PM	1	0.53351	5.028
32	1:32	CCB 280-460066/45-A	Unknown		6/5/2019	6:08:29 PM	1	0.05324	-0.439
33	1:33	280-123855-D-1-A	Unknown		6/5/2019	6:09:44 PM	1	0.05685	-0.398
34	1:34	280-123855-C-2-A	Unknown		6/5/2019	6:10:59 PM	1	1.80542	19.507
35	0	AutoWash	AutoWash		6/5/2019	6:12:15 PM	1	0.00416	-0.998
36	0	AutoWash	AutoWash		6/5/2019	6:13:30 PM	1	0.00000	-1.046
37	1:35	280-123855-E-3-A	Unknown		6/5/2019	6:14:45 PM	1	0.05408	-0.430
38	1:36	280-123855-E-3-B MS	Unknown		6/5/2019	6:15:59 PM	1	0.31382	2.527

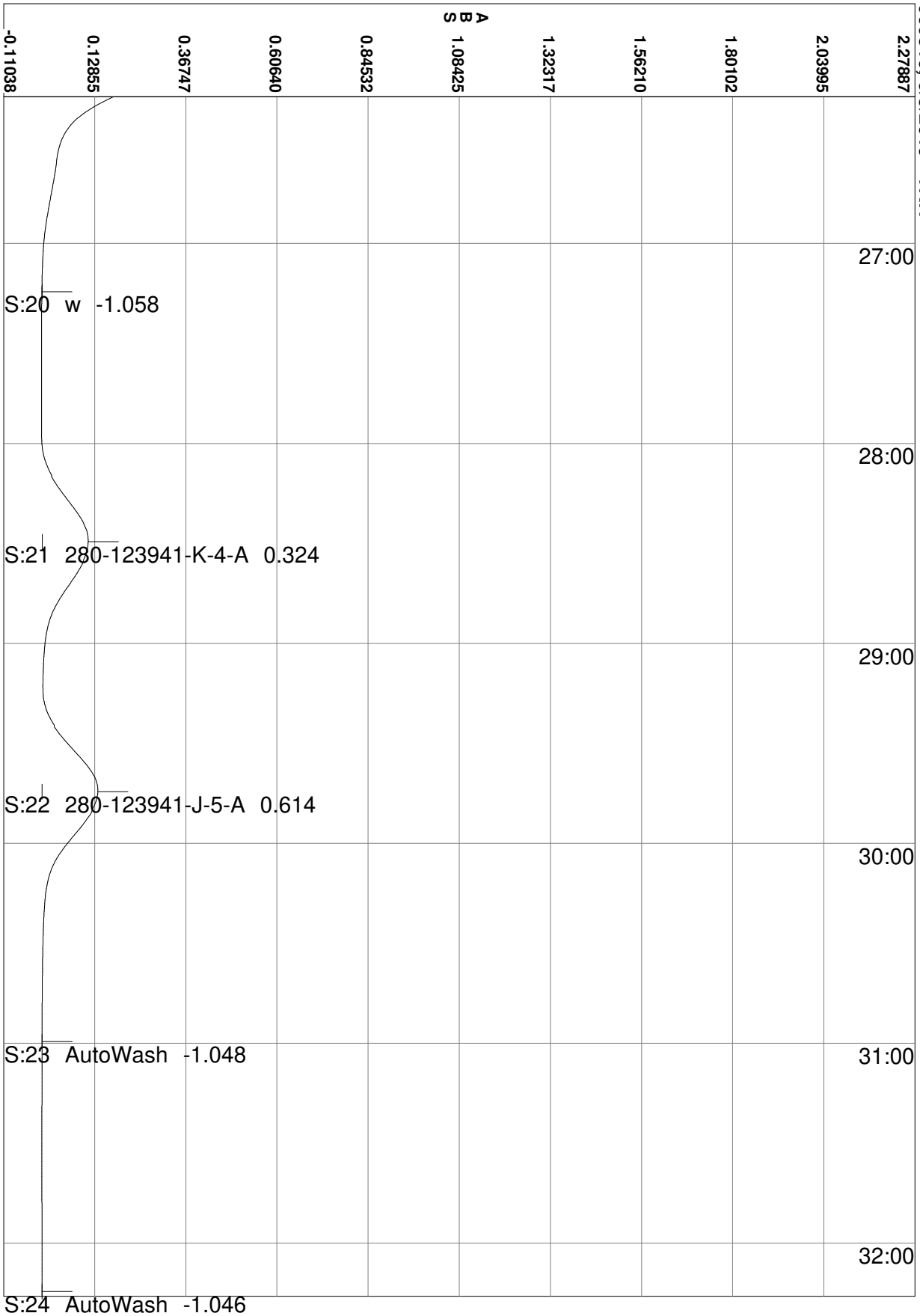
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39	1:37	280-123855-E-3-C MSD	Unknown		6/5/2019	6:17:14 PM	1	0.29663	2.331
40	1:38	w	Blank		6/5/2019	6:18:29 PM	1	-0.00008	-1.046
41	1:39	280-123855-E-4-A	Unknown		6/5/2019	6:19:44 PM	1	0.05821	-0.383
42	1:40	280-123855-C-5-A	Unknown		6/5/2019	6:20:59 PM	1	0.07059	-0.242
43	1:41	280-123855-E-6-A	Unknown		6/5/2019	6:22:14 PM	1	0.05737	-0.392
44	1:42	280-124106-D-1-A	Unknown		6/5/2019	6:23:29 PM	1	0.29587	2.323
45	1:43	280-124106-E-2-A	Unknown		6/5/2019	6:24:44 PM	1	0.30181	2.390
46	1:44	w	Blank		6/5/2019	6:25:59 PM	1	0.00100	-1.034
47	0	AutoWash	AutoWash		6/5/2019	6:27:14 PM	1	0.00038	-1.041
48	0	AutoWash	AutoWash		6/5/2019	6:28:29 PM	1	0.00000	-1.046
49	1:45	CCV 280-460066/44-A	Unknown		6/5/2019	6:29:44 PM	1	0.53983	5.100
50	1:46	CCB 280-460066/45-A	Unknown		6/5/2019	6:30:59 PM	1	0.06710	-0.282
51	1:47	280-124106-D-3-A	Unknown		6/5/2019	6:32:14 PM	1	2.16763	23.631
52	1:48	280-124106-E-4-A	Unknown		6/5/2019	6:33:29 PM	1	0.10234	0.119
53	1:49	280-123930-E-1-A	Unknown		6/5/2019	6:34:44 PM	1	0.09826	0.073
54	1:50	280-123930-C-2-A	Unknown		6/5/2019	6:35:59 PM	1	0.07860	-0.151
55	1:51	w	Blank		6/5/2019	6:37:14 PM	1	-0.00136	-1.061
56	1:52	LCS 280-460465/27-A	Unknown		6/5/2019	6:38:29 PM	1	0.62892	6.114
57	1:53	MB 280-460465/28-A	Unknown		6/5/2019	6:39:44 PM	1	0.03475	-0.650
58	1:54	280-123930-E-3-A	Unknown		6/5/2019	6:40:59 PM	1	0.07280	-0.217
59	0	AutoWash	AutoWash		6/5/2019	6:42:14 PM	1	-0.00070	-1.054
60	0	AutoWash	AutoWash		6/5/2019	6:43:29 PM	1	0.00000	-1.046
61	1:55	280-123930-E-3-B MS	Unknown		6/5/2019	6:44:44 PM	1	0.30987	2.482
62	1:56	280-123930-E-3-C MSD	Unknown		6/5/2019	6:45:59 PM	1	0.31837	2.579
63	1:57	LCS 280-460465/1-A	Unknown		6/5/2019	6:47:14 PM	1	0.64100	6.251
64	1:58	w	Blank		6/5/2019	6:48:30 PM	1	0.00134	-1.030
65	1:59	CCV 280-460066/44-A	Unknown		6/5/2019	6:49:45 PM	1	0.54230	5.128
66	1:60	CCB 280-460066/45-A	Unknown		6/5/2019	6:50:59 PM	1	0.05353	-0.436
67	2:1	280-123930-C-4-A	Unknown		6/5/2019	6:52:14 PM	1	0.10624	0.164
68	2:2	280-123930-C-5-A	Unknown		6/5/2019	6:53:29 PM	1	0.56471	5.383
69	2:3	280-123853-C-1-A	Unknown		6/5/2019	6:54:44 PM	1	0.04731	-0.507
70	2:4	280-123853-C-2-A	Unknown		6/5/2019	6:55:59 PM	1	0.02639	-0.745
71	0	AutoWash	AutoWash		6/5/2019	6:57:14 PM	1	0.00006	-1.045
72	0	AutoWash	AutoWash		6/5/2019	6:58:29 PM	1	0.00000	-1.046
73	2:5	280-123853-C-3-A	Unknown		6/5/2019	6:59:44 PM	1	0.05868	-0.378
74	2:6	280-123853-C-4-A	Unknown		6/5/2019	7:00:59 PM	1	0.05340	-0.438
75	2:7	280-123853-C-5-A	Unknown		6/5/2019	7:02:14 PM	1	0.06098	-0.351
76	2:8	280-123853-C-6-A	Unknown		6/5/2019	7:03:29 PM	1	0.09323	0.016
77	2:9	280-123855-C-2-A	Unknown		6/5/2019	7:04:44 PM	5	0.43584	19.580
78	2:10	280-124106-D-3-A	Unknown		6/5/2019	7:05:59 PM	5	0.61600	29.835
79	2:11	w	Blank		6/5/2019	7:07:14 PM	1	-0.00250	-1.074
80	2:12	CCV 280-460066/44-A	Unknown		6/5/2019	7:08:29 PM	1	0.53521	5.047
81	2:13	CCB 280-460066/45-A	Unknown		6/5/2019	7:09:44 PM	1	0.04924	-0.485
82	2:14	w	Blank		6/5/2019	7:10:59 PM	1	-0.00230	-1.072
83	0	AutoWash	AutoWash		6/5/2019	7:12:14 PM	1	-0.00112	-1.058
84	0	AutoWash	AutoWash		6/5/2019	7:13:29 PM	1	0.00000	-1.046


060519, 6/5/2019 - TKN
2.27887
2.03995
1.80102
1.56210
1.32317
ABS
1.08425
0.84532
0.60640
0.36747
0.12855
-0.11038
3:00
4:00
5:00
6:00
7:00
8:00
S:1 SYNC 10.398
S:2 CO -1.004
S:3 w -1.029
S:4 W -1.046


060519, 6/5/2019 - TKN
ABS
2.27887
2.03995
1.80102
1.56210
1.32317
1.08425
0.84532
0.60640
0.36747
0.12855
-0.11038
9:00
10:00
11:00
12:00
13:00
14:00
S:5 C1 0.526
S:6 C2 0.985
S:7 C3 1.920
S:8 C4 5.337
S:9 C5 7.038


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:10 C6 10.194
15:00
S:11 w -1.040
16:00
17:00
S:12 W -1.046
18:00
S:13 ICV 280-460066/42-A 5.302
19:00
S:14 ICB 280-460066/43-A -0.303
20:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:15 xLCS 280-460465/1-A 5.130
21:00
S:16 MB 280-460465/2-A -0.569
22:00
S:17 280-123941-K-2-A 0.343
23:00
S:18 280-123941-K-2-B MS 3.172
24:00
S:19 280-123941-K-2-C MSD 3.752
25:00
26:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
27:00
28:00
29:00
30:00
31:00
32:00
S:20 w -1.058
S:21 280-123941-K-4-A 0.324
S:22 280-123941-J-5-A 0.614
S:23 AutoWash -1.048
S:24 AutoWash -1.046

060519, 6/5/2019 - TKN

-0.11038 0.12855 0.36747 0.60640 0.84532 ABS 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

33:00

S:25 280-123941-K-6-A 0.198

34:00

S:26 280-123941-J-7-A -0.346

35:00

S:27 280-123941-J-9-A -0.393

36:00

37:00

S:28 280-123941-K-10-A -0.678

38:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:29 280-123941-J-11-A -0.579

39:00

S:30 w 5.006

40:00

S:31 CCV 280-460066/44-A 5.028

41:00

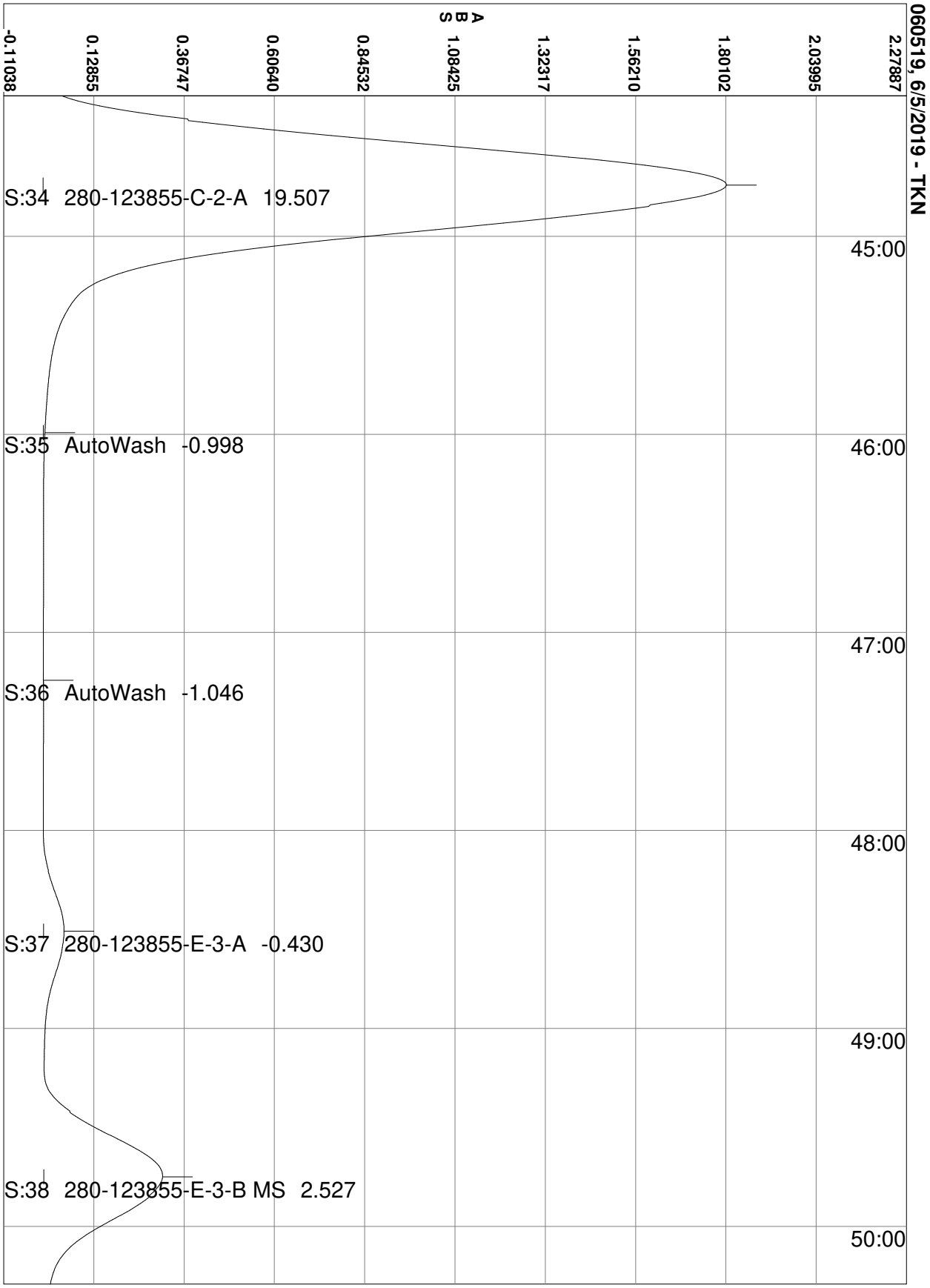
42:00

S:32 CCB 280-460066/45-A -0.439

43:00

S:33 280-123855-D-1-A -0.398

44:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:34 280-123855-C-2-A 19.507
45:00
S:35 AutoWash -0.998
46:00
S:36 AutoWash -1.046
47:00
S:37 280-123855-E-3-A -0.430
48:00
S:38 280-123855-E-3-B MS 2.527
49:00
50:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:39 280-123855-E-3-C MSD 2.331 51:00

S:40 w -1.046 52:00

S:41 280-123855-E-4-A -0.383 53:00

S:42 280-123855-C-5-A -0.242 54:00

55:00

S:43 280-123855-E-6-A -0.392 56:00

060519, 6/5/2019 - TKN

ABS

-0.11038 | 0.12855 | 0.36747 | 0.60640 | 0.84532 | 1.08425 | 1.32317 | 1.56210 | 1.80102 | 2.03995 | 2.27887

57:00

S:44 280-124106-D-1-A 2.323

58:00

S:45 280-124106-E-2-A 2.390

59:00

S:46 w -1.034

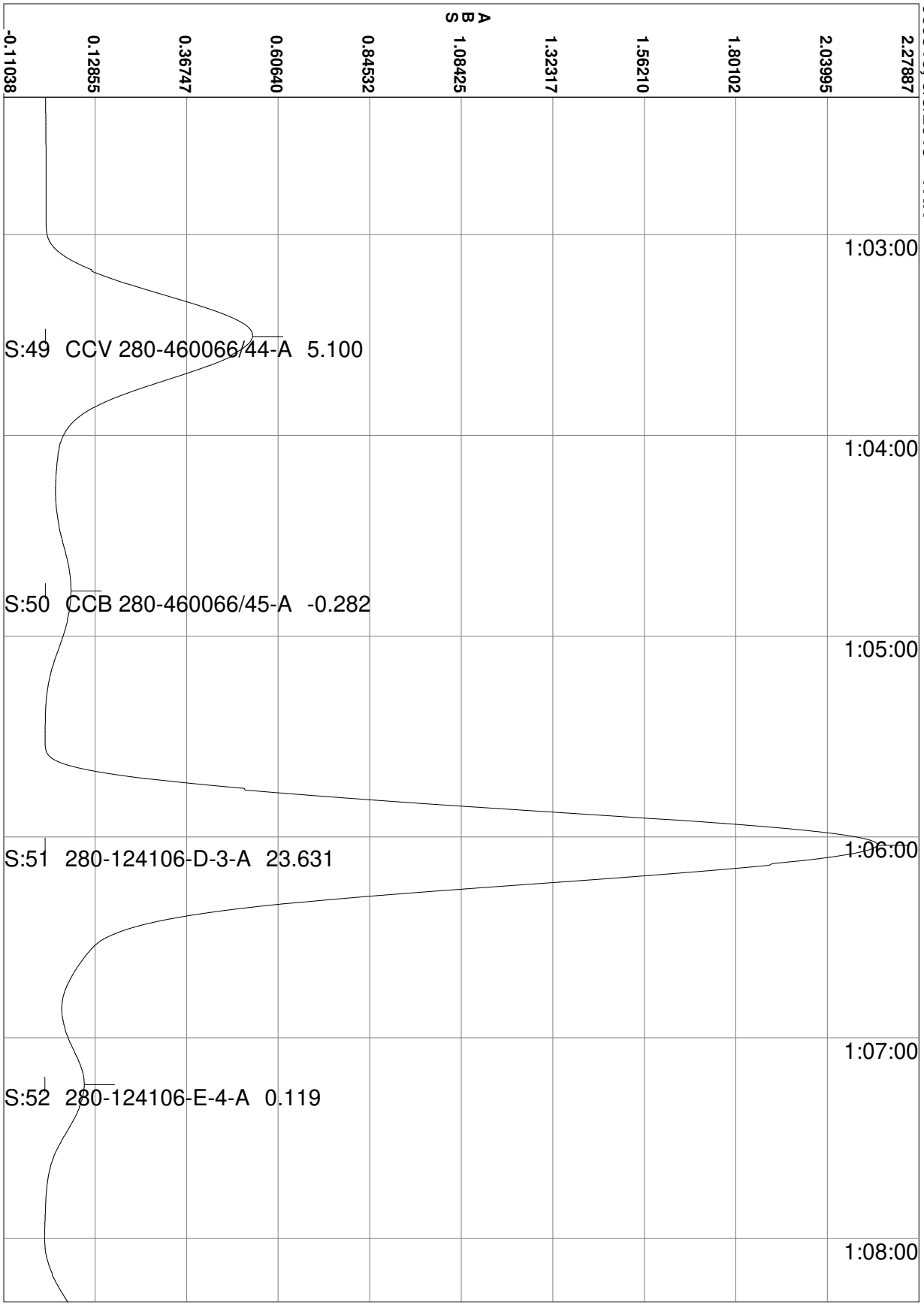
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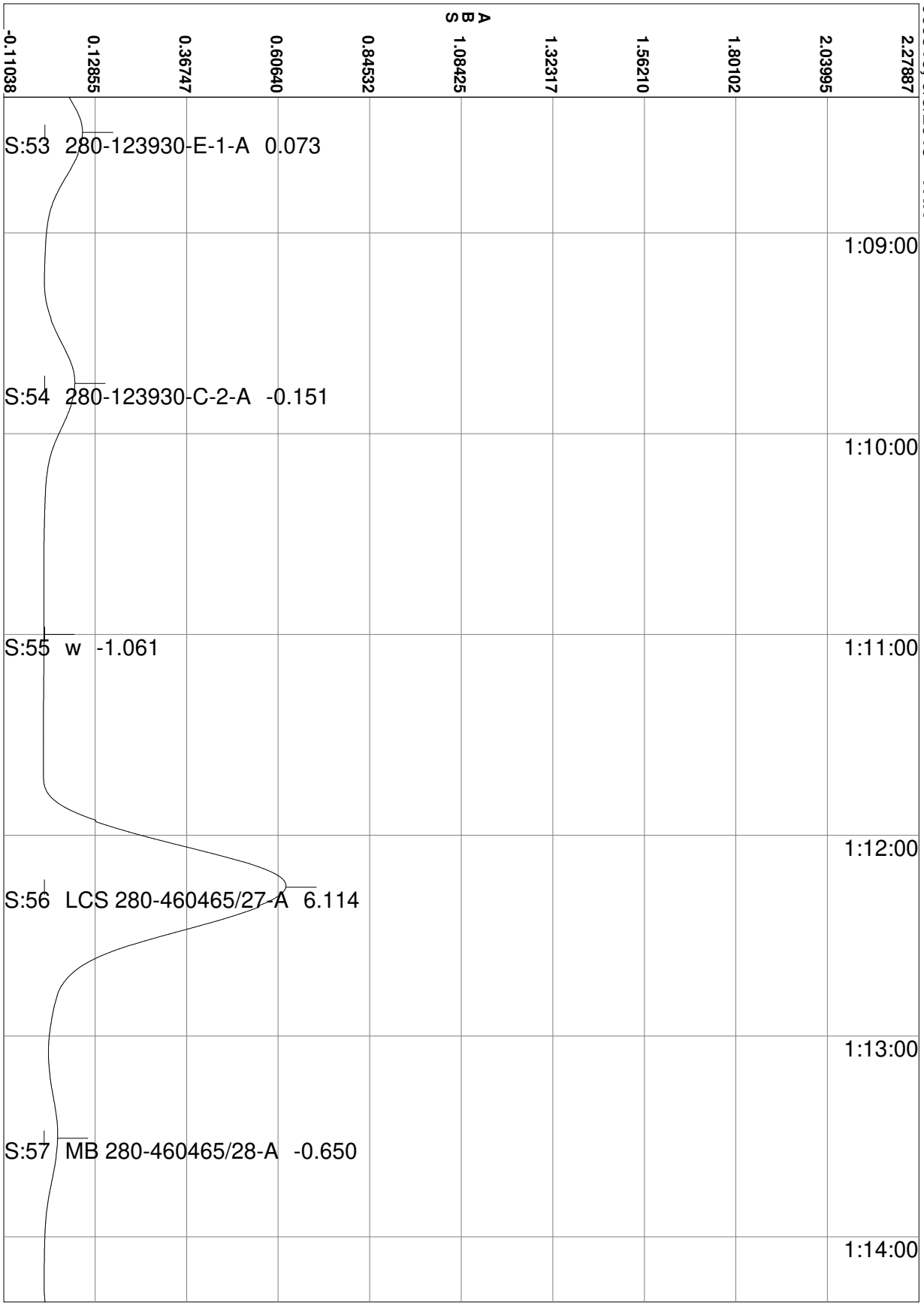
S:47 AutoWash -1.041

1:01:00

1:02:00

S:48 AutoWash -1.046


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
1:03:00
1:04:00
1:05:00
1:06:00
1:07:00
1:08:00
S:49 CCV 280-460066/44-A 5.100
S:50 CCB 280-460066/45-A -0.282
S:51 280-124106-D-3-A 23.631
S:52 280-124106-E-4-A 0.119


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:53 280-123930-E-1-A 0.073
S:54 280-123930-C-2-A -0.151
S:55 w -1.061
S:56 LCS 280-460465/27-A 6.114
S:57 MB 280-460465/28-A -0.650
1:09:00
1:10:00
1:11:00
1:12:00
1:13:00
1:14:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:58 280-123930-E-3-A -0.217

1:15:00

S:59 AutoWash -1.054

1:16:00

S:60 AutoWash -1.046

1:17:00

S:61 280-123930-E-3-B MS 2.482

1:18:00

S:62 280-123930-E-3-C MSD 2.579

1:19:00

1:20:00

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

S:63 LCS 280-460465/1-A 6.251 1:21:00

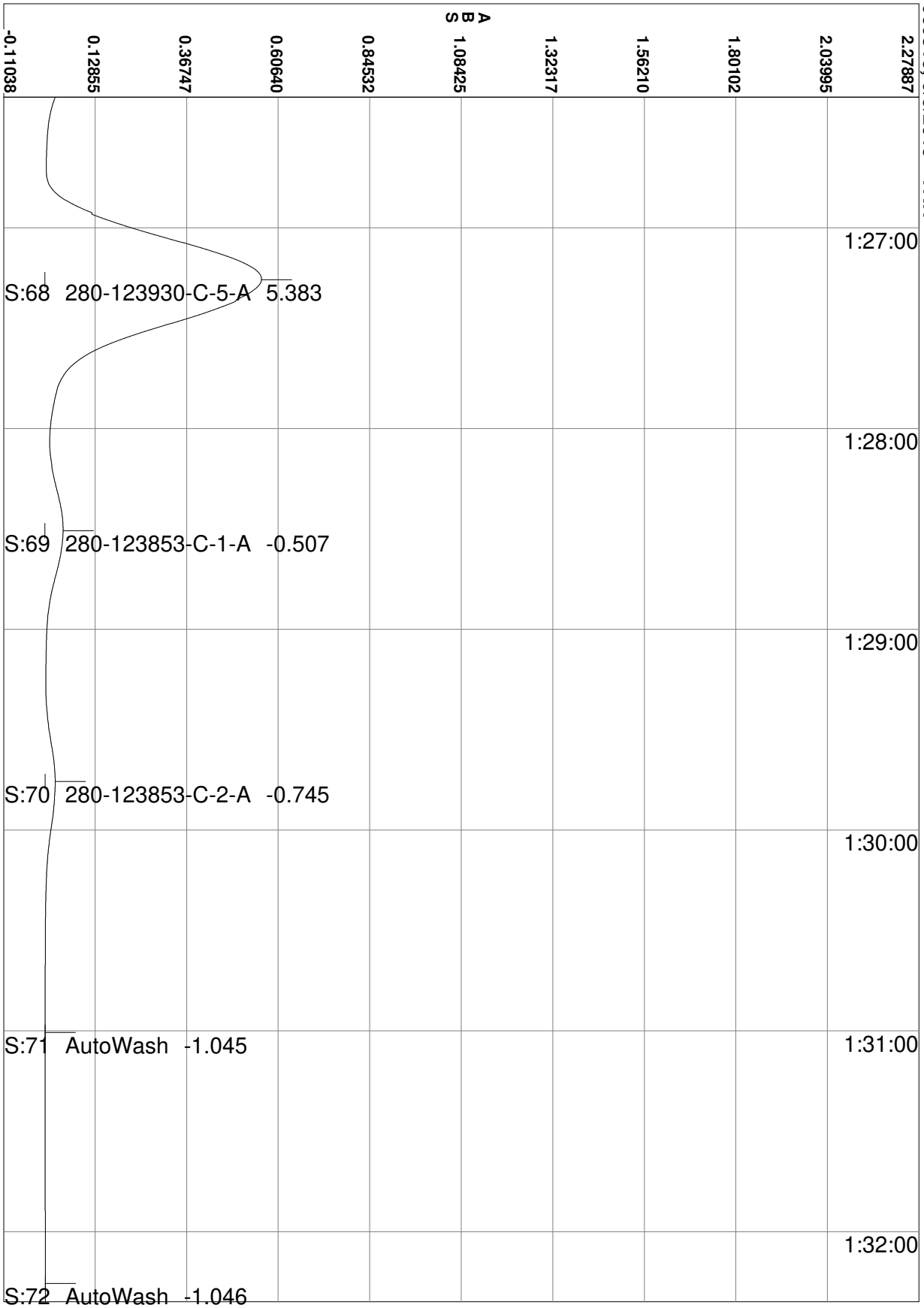
S:64 w -1.030 1:22:00

S:65 CCV 280-460066/44-A 5.128 1:23:00

S:66 CCB 280-460066/45-A -0.436 1:24:00

S:67 280-123930-C-4-A 0.164 1:25:00

1:26:00


060519, 6/5/2019 - TKN
ABS
-0.11038
0.12855
0.36747
0.60640
0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
1:27:00
S:68 280-123930-C-5-A 5.383
1:28:00
S:69 280-123853-C-1-A -0.507
1:29:00
S:70 280-123853-C-2-A -0.745
1:30:00
S:71 AutoWash -1.045
1:31:00
1:32:00
S:72 AutoWash -1.046

060519, 6/5/2019 - TKN

ABS

-0.11038 0.12855 0.36747 0.60640 0.84532 1.08425 1.32317 1.56210 1.80102 2.03995 2.27887

1:33:00

S:73 280-123853-C-3-A -0.378

1:34:00

S:74 280-123853-C-4-A -0.438

1:35:00

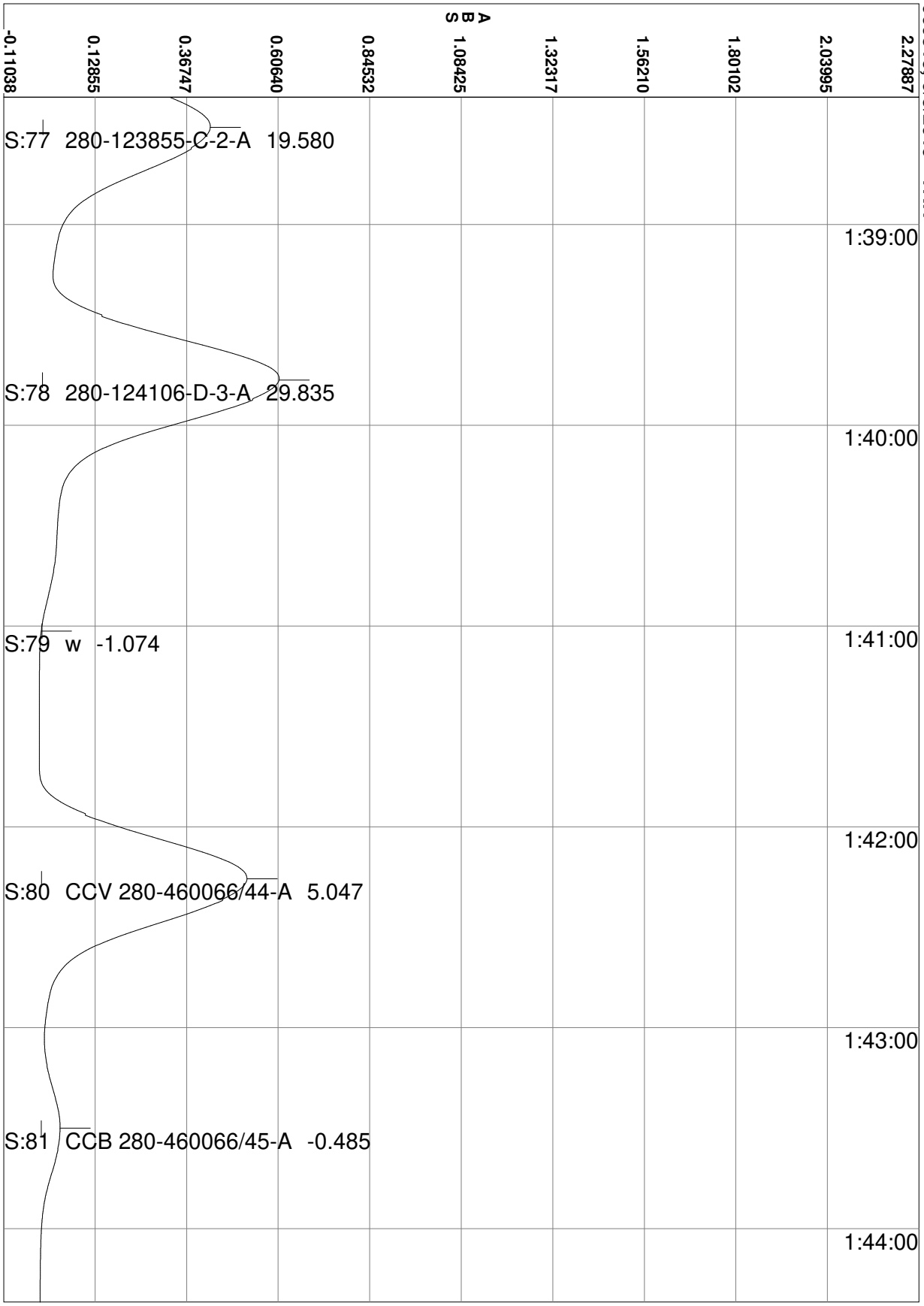
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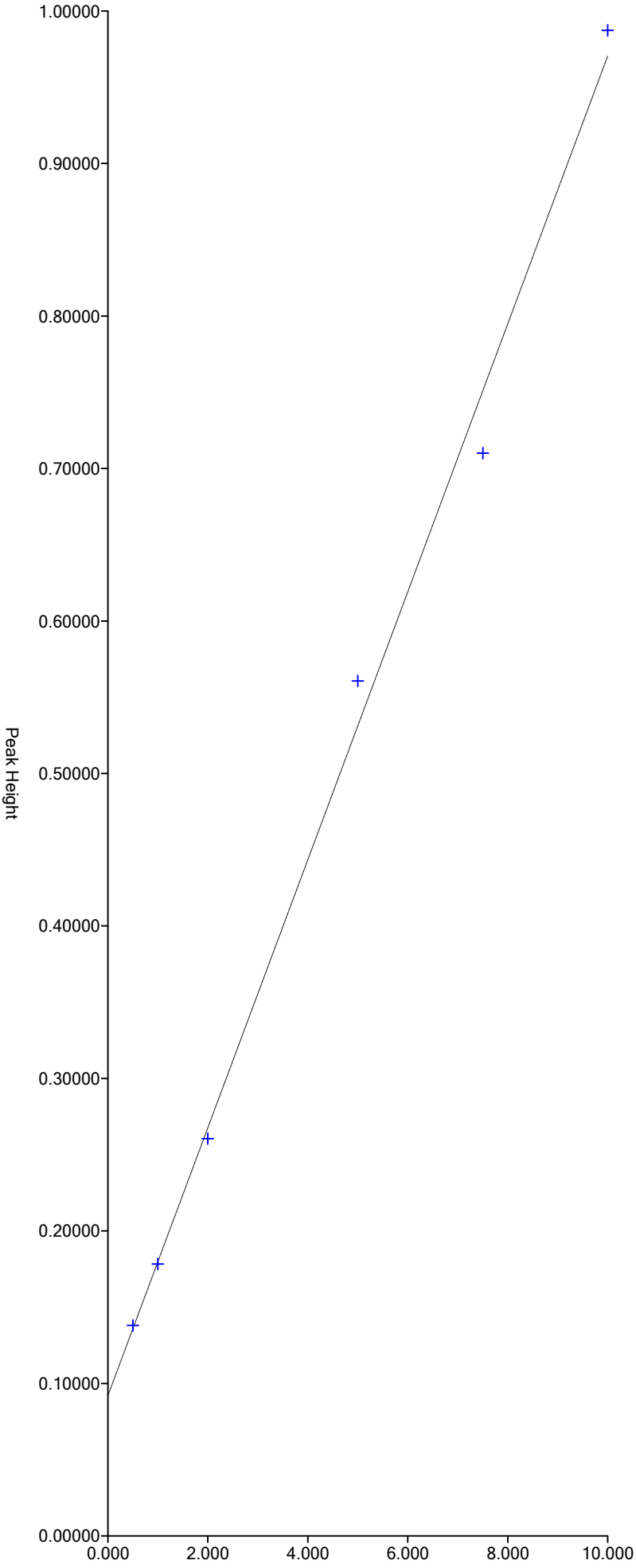
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060519, 6/5/2019 - TKN
ABS
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0.12855
0.36747
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0.84532
1.08425
1.32317
1.56210
1.80102
2.03995
2.27887
S:77 280-123855-C-2-A 19.580
1:39:00
S:78 280-124106-D-3-A 29.835
1:40:00
S:79 w -1.074
1:41:00
1:42:00
S:80 CCV 280-460066/44-A 5.047
1:43:00
S:81 CCB 280-460066/45-A -0.485
1:44:00

060519, 6/5/2019 - TKN

Calibration for TKN



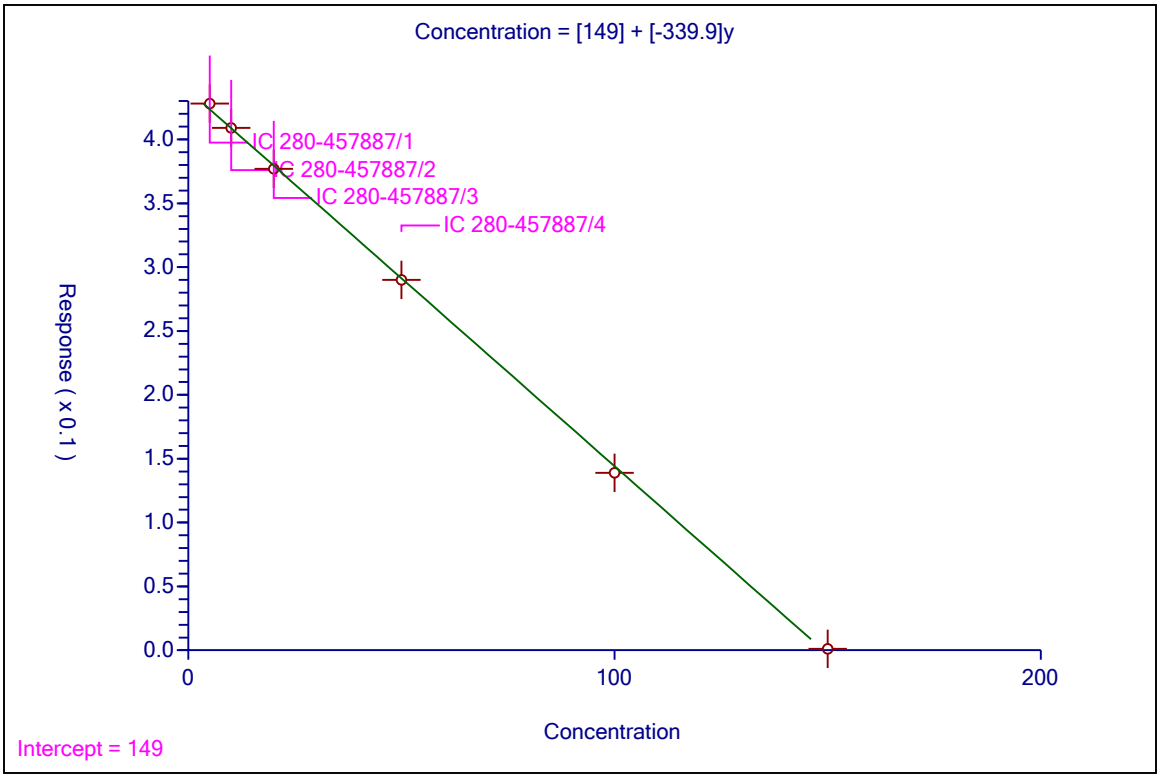
Segment 1: Equation: y = 0.08784x + 0.09185
Correlation: 0.9975
X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-457887/1	5.0	0.428			0.0856	Y
2	IC 280-457887/2	10.0	0.409			0.0409	Y
3	IC 280-457887/3	20.0	0.377			0.01885	Y
4	IC 280-457887/4	50.0	0.29			0.0058	Y
5	IC 280-457887/5	100.0	0.139			0.00139	Y
6	IC 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123027-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 16 Lab ID: **280-123027-K-1** Inj Date: 5/13/2019 7:39:00AM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.374	21.87740 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123112-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123113-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 17 Lab ID: **280-123113-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	11 J mg/L				

RS# 18 Lab ID: **280-123113-A-2** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.227	71.84270 mg/L	mg/L				

RS# 19 Lab ID: **280-123113-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 20 Lab ID: **280-123113-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.394	15.07940 mg/L	15 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90	110	

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123114-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 21 Lab ID: **280-123114-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.404	11.68040 mg/L	12 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123115-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

RS# 24 Lab ID: **280-123115-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 25 Lab ID: **280-123115-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.359	26.97590 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.148	98.69480	mg/L	mg/L	99	90	110

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	20 U mg/L				

Job Number: 280-123267-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 29 Lab ID: **280-123267-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 30 Lab ID: **280-123267-E-2** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.381	19.49810 mg/L	39 J mg/L				

RS# 31 Lab ID: **280-123267-E-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.340	33.43400 mg/L	mg/L				

RS# 32 Lab ID: **280-123267-E-4** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.061	128.2661 mg/L	mg/L				

RS# 33 Lab ID: **280-123267-B-5** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.428	3.522800 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	mg/L				

RS# 36 Lab ID: **280-123267-B-6** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	mg/L				

RS# 37 Lab ID: **280-123267-C-7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.464	-8.713600 mg/L	mg/L				

RS# 38 Lab ID: **280-123267-B-8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 39 Lab ID: **280-123267-D-9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.292	49.74920 mg/L	mg/L				

RS# 40 Lab ID: **CCV 280-457887/40** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 41 Lab ID: **CCB 280-457887/41** Inj Date: 5/13/2019 7:39:49AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123444-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 15 Lab ID: **280-123444-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

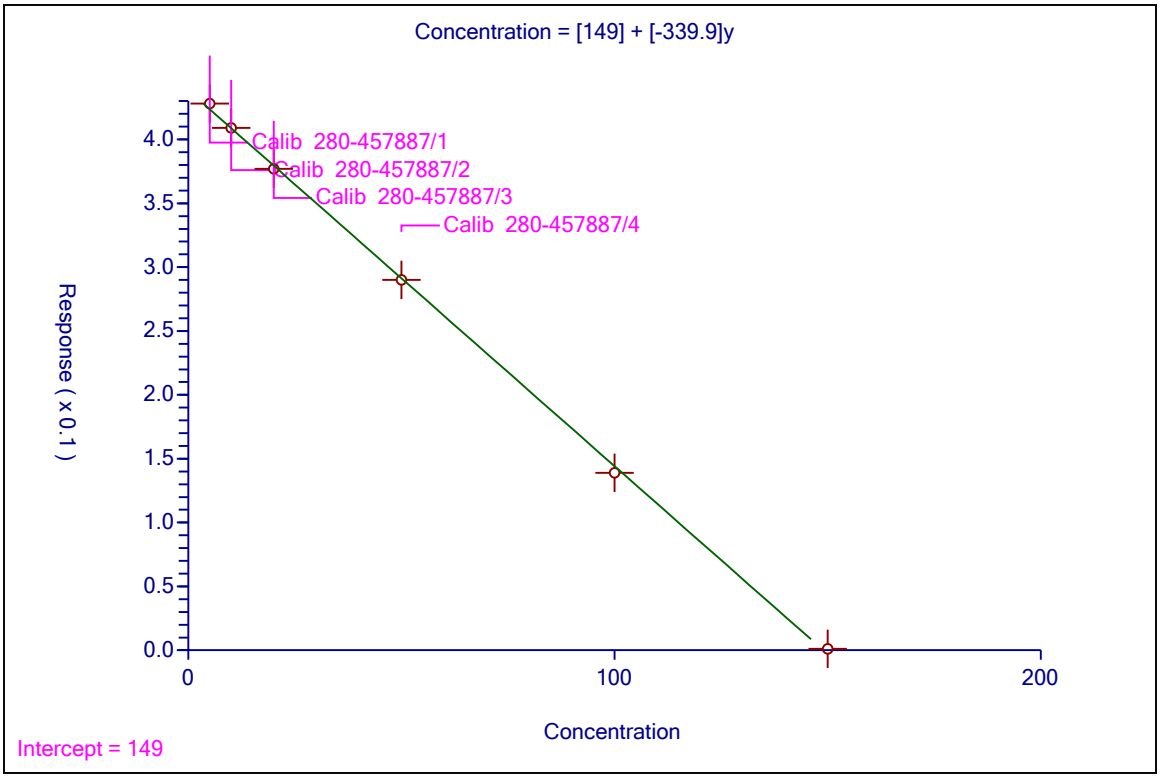
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 6 Lab ID: **280-123955-B-2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	mg/L				

RS# 7 Lab ID: **280-123955-B-2 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.293	49.40930 mg/L	mg/L	99	90 110		

RS# 8 Lab ID: **280-123955-B-2 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.306	44.99060 mg/L	mg/L	90	90 110	9	11

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	mg/L				

RS# 20 Lab ID: **280-123822-H-1** Inj Date: 6/5/2019 10:06:00AM Dil: 10 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	<-0.100	mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123853-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	20 U mg/L				

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 21 Lab ID: **280-123855-D-5** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	40 U mg/L				

RS# 22 Lab ID: **280-123855-D-5 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90 110		

RS# 23 Lab ID: **280-123855-D-5 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.298	47.70980 mg/L	mg/L	95	90 110	9	11

RS# 25 Lab ID: **280-123853-C-1** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	40 U mg/L				

RS# 26 Lab ID: **280-123853-C-2** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	40 U mg/L				

RS# 27 Lab ID: **280-123853-C-3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.471	-11.09290	mg/L	20 U	mg/L		

RS# 28 Lab ID: **CCV 280-460546/28** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460546/29** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 30 Lab ID: **280-123853-C-4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	20 U mg/L				

RS# 31 Lab ID: **280-123853-C-5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	20 U mg/L				

RS# 32 Lab ID: **280-123853-C-6** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	40 U mg/L				

RS# 34 Lab ID: **CCV 280-460546/34** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110		

RS# 35 Lab ID: **CCB 280-460546/35** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.458	-6.674200 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123855-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123955-B-2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 7 Lab ID: **280-123955-B-2 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.293	49.40930 mg/L	mg/L	99	90 110		

RS# 8 Lab ID: **280-123955-B-2 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.306	44.99060 mg/L	mg/L	90	90 110	9	11

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 21 Lab ID: **280-123855-D-5** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	40 U mg/L				

RS# 22 Lab ID: **280-123855-D-5 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90 110		

RS# 23 Lab ID: **280-123855-D-5 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.298	47.70980 mg/L	mg/L	95	90 110	9	11

RS# 24 Lab ID: **280-123855-D-6** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	40 U mg/L				

RS# 28 Lab ID: **CCV 280-460546/28** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460546/29** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123955-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	mg/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 6 Lab ID: **280-123955-B-2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	mg/L				

RS# 7 Lab ID: **280-123955-B-2 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.293	49.40930 mg/L	mg/L	99	90 110		

RS# 8 Lab ID: **280-123955-B-2 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.306	44.99060 mg/L	mg/L	90	90 110	9	11

RS# 9 Lab ID: **280-123955-B-3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.373	22.21730 mg/L	mg/L				

RS# 10 Lab ID: **280-123955-B-4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.383	18.81830 mg/L	mg/L				

RS# 11 Lab ID: **280-123955-B-5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.406	11.00060 mg/L	mg/L				

RS# 12 Lab ID: **280-123955-B-6** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.417	7.261700 mg/L	mg/L				

RS# 13 Lab ID: **280-123955-B-7** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.433	1.823300 mg/L	mg/L				

RS# 14 Lab ID: **280-123955-B-8** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 15 Lab ID: **280-123955-B-9** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.395	14.73950 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	mg/L				

RS# 18 Lab ID: **280-123955-B-10** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.412	8.961200 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-460546/28** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460546/29** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123959-1
LIMS Batch: 460546
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460546/1** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.231	70.48310 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460546/2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460546/3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	ug/L	96	90 110		

RS# 4 Lab ID: **LCSD 280-460546/4** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.158	95.29580 mg/L	ug/L	95	90 110	1	11

RS# 5 Lab ID: **MB 280-460546/5** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	0000 U ug/L				

RS# 6 Lab ID: **280-123955-B-2** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	0000 U ug/L				

RS# 7 Lab ID: **280-123955-B-2 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.293	49.40930 mg/L	ug/L	99	90 110		

RS# 8 Lab ID: **280-123955-B-2 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.306	44.99060 mg/L	ug/L	90	90 110	9	11

RS# 16 Lab ID: **CCV 280-460546/16** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460546/17** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.445	-2.255500 mg/L	20 U mg/L				

RS# 19 Lab ID: **280-123959-A-3** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.318	40.91180 mg/L	ug/L				

RS# 21 Lab ID: **280-123855-D-5** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	0000 U ug/L				

RS# 22 Lab ID: **280-123855-D-5 MS** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	ug/L	104	90 110		

RS# 23 Lab ID: **280-123855-D-5 MSD** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.298	47.70980 mg/L	ug/L	95	90 110	9	11

RS# 28 Lab ID: **CCV 280-460546/28** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460546/29** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 33 Lab ID: **280-123959-D-4** Inj Date: 6/5/2019 10:06:00AM Dil: 2 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.396	14.39960 mg/L	29000 J ug/L				

RS# 34 Lab ID: **CCV 280-460546/34** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110		

RS# 35 Lab ID: **CCB 280-460546/35** Inj Date: 6/5/2019 10:06:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.458	-6.674200 mg/L	20 U mg/L				

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060419.RST
Sample table path	C:\FLOW_4\p060419.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	05-Jun-19
Time acquired	01:56

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
04-Jun-19	20:55	106	Sync	1245806	513.563	HI
04-Jun-19	20:58	0	Carryover	11709	3.931	
04-Jun-19	21:01	0	Carryover	2187	0.401	
04-Jun-19	21:04	0	Read Baseline	-184	-0.477	BL
04-Jun-19	21:07	101	Cal 10.0 ppb	37447	13.503	
04-Jun-19	21:10	102	Cal 20.0 ppb	55485	20.238	
04-Jun-19	21:13	103	Cal 50.0 ppb	130348	48.427	
04-Jun-19	21:16	104	Cal 100 ppb	252879	95.388	
04-Jun-19	21:19	105	Cal 200 ppb	524789	203.242	
04-Jun-19	21:22	106	Cal 500 ppb	1215058	499.608	
04-Jun-19	21:25	0	Blank	12730	4.310	
04-Jun-19	21:28	0	Read Baseline	6640	2.051	BL UM
04-Jun-19	21:31	107	ICV 200 ppb	489929	189.134	
04-Jun-19	21:34	109	ICVL 100 ppb	268865	101.590	
04-Jun-19	21:37	0	ICB	6656	2.057	
04-Jun-19	21:40	0	Read Baseline	9338	3.051	BL UM
04-Jun-19	21:43	113	LCS 280-460448/1-A	470469	181.294	
04-Jun-19	21:46	114	MB 280-460448/2-A	16382	5.665	
04-Jun-19	21:49	115	280-123814-G-1-A	16630	5.758	
04-Jun-19	21:52	116	280-123814-G-1-B MS	485758	187.452	
04-Jun-19	21:55	117	280-123814-G-1-C MSD	488626	188.608	
04-Jun-19	21:58	118	280-123814-G-2-A	22080	7.783	
04-Jun-19	22:01	119	280-123814-G-3-A	25790	9.162	
04-Jun-19	22:04	120	280-123817-C-1-A	91729	33.838	
04-Jun-19	22:07	121	280-123817-C-2-A	714730	281.564	
04-Jun-19	22:10	122	280-123817-C-3-A	58576	21.394	
04-Jun-19	22:13	0	Blank	2941	0.680	
04-Jun-19	22:16	0	Read Baseline	23	-0.400	BL
04-Jun-19	22:19	108	CCV 200 ppb	532789	206.492	
04-Jun-19	22:22	104	CCVL 100 ppb	260712	98.425	
04-Jun-19	22:25	0	CCB	5019	1.450	
04-Jun-19	22:28	0	Read Baseline	2939	0.680	BL
04-Jun-19	22:31	123	280-123817-D-5-A	178861	66.898	
04-Jun-19	22:34	124	280-123834-I-1-A	34322	12.339	
04-Jun-19	22:37	125	280-123853-G-1-A	16399	5.672	
04-Jun-19	22:40	126	280-123853-G-2-A	20366	7.145	
04-Jun-19	22:43	127	280-123853-G-3-A	16693	5.781	
04-Jun-19	22:46	128	280-123855-C-6-A	14872	5.105	
04-Jun-19	22:49	129	280-123855-C-6-B MS	489651	189.022	
04-Jun-19	22:52	130	280-123855-C-6-C MSD	484875	187.096	
04-Jun-19	22:55	131	280-123887-A-2-A	20680	7.262	
04-Jun-19	22:58	132	280-123887-A-4-A	26252	9.334	

Result path C:\FLOW_4\P060419.RST
Sample table path C:\FLOW_4\p060419.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 05-Jun-19
Time acquired 01:56

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
04-Jun-19	23:01	0	Blank	3308	0.816	
04-Jun-19	23:04	0	Read Baseline	1677	0.212	BL
04-Jun-19	23:07	108	CCV 200 ppb	532123	206.221	
04-Jun-19	23:10	104	CCVL 100 ppb	258967	97.748	
04-Jun-19	23:13	0	CCB	7182	2.252	
04-Jun-19	23:16	0	Read Baseline	711	-0.145	BL
04-Jun-19	23:19	133	280-123887-A-5-A	35885	12.921	
04-Jun-19	23:22	134	280-123904-C-1-A	119219	44.213	
04-Jun-19	23:41	135	280-123904-B-2-A	1184694	485.891	
04-Jun-19	23:44	136	280-123904-C-3-A	64392	23.572	
04-Jun-19	23:47	137	x280-123904-C-4-A	1243092	512.329	HI
04-Jun-19	23:50	138	280-123904-D-5-A	731207	288.474	FL
04-Jun-19	23:53	139	LCS 280-460449/1-A	498815	192.723	FL
04-Jun-19	23:56	140	MB 280-460449/2-A	65170	23.864	
04-Jun-19	23:59	141	280-123993-A-1-A	36602	13.188	
05-Jun-19	00:02	142	280-123993-A-1-B MS	519057	200.917	
05-Jun-19	00:05	0	Blank	-6309	-2.743	LO
05-Jun-19	00:08	0	Read Baseline	-11354	-4.608	BL UM
05-Jun-19	00:11	108	CCV 200 ppb	530455	205.544	
05-Jun-19	00:14	104	CCVL 100 ppb	259057	97.783	
05-Jun-19	00:17	0	CCB	-13235	-5.303	LO
05-Jun-19	00:20	0	Read Baseline	-11215	-4.557	BL
05-Jun-19	00:23	143	280-123993-A-1-C MSD	536866	208.150	
05-Jun-19	00:26	144	280-123993-B-2-A	145271	54.092	
05-Jun-19	00:29	145	280-123993-A-3-A	41721	15.097	
05-Jun-19	00:32	146	x280-123993-B-4-A	9823	3.231	
05-Jun-19	00:35	147	440-241295-O-19-A	17809	6.195	
05-Jun-19	00:38	148	440-241295-O-20-A	19458	6.808	
05-Jun-19	00:41	149	440-241295-O-21-A	13576	4.624	
05-Jun-19	00:44	150	440-241433-O-17-A	6274	1.915	
05-Jun-19	00:47	151	440-241657-S-1-A	25285	8.974	
05-Jun-19	00:50	152	280-123889-A-2-A	72957	26.783	
05-Jun-19	00:53	0	Blank	-2395	-1.295	LO
05-Jun-19	00:56	0	Read Baseline	-5522	-2.452	BL
05-Jun-19	00:59	108	CCV 200 ppb	514178	198.939	
05-Jun-19	01:02	104	CCVL 100 ppb	260487	98.337	
05-Jun-19	01:05	0	CCB	5890	1.773	
05-Jun-19	01:08	0	Read Baseline	7751	2.463	BL
05-Jun-19	01:11	153	LCS 280-459050/1-A	455746	175.380	
05-Jun-19	01:14	154	MB 280-459050/2-A	30330	10.852	
05-Jun-19	01:17	155	280-123273-G-19-A	10086	3.329	
05-Jun-19	01:20	156	280-123273-G-1-A	15535	5.351	
05-Jun-19	01:23	157	280-123273-G-1-B MS	12750	4.317	
05-Jun-19	01:26	158	280-123273-G-1-C MSD	404918	155.076	
05-Jun-19	01:31	140	MB 280-460449/2-A	54167	19.745	
05-Jun-19	01:34	159	280-123904-C-4-A	587397	457.576	
05-Jun-19	01:37	0	Blank	-8892	-3.698	LO
05-Jun-19	01:40	0	Read Baseline	-14767	-5.868	BL UM
05-Jun-19	01:43	108	CCV 200 ppb	526713	204.024	
05-Jun-19	01:46	104	CCVL 100 ppb	250154	94.332	
05-Jun-19	01:49	0	CCB	5684	1.697	
05-Jun-19	01:52	0	Read Baseline	3047	0.720	BL UM

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060419.RST
Date: 05-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1245806	513.563293	HI
2	0	Carryover	1	CO	1	1	11709	3.930784	
3	0	Carryover	2	CO	1	1	2187	0.401123	
B	0	Read Baseline	1	RB	1	1	-184	-0.476786	BL
5	101	Cal 10.0 ppb	1	C	1	1	37447	13.503100	
6	102	Cal 20.0 ppb	1	C	1	1	55485	20.238047	
7	103	Cal 50.0 ppb	1	C	1	1	130348	48.427494	
8	104	Cal 100 ppb	1	C	1	1	252879	95.388077	
9	105	Cal 200 ppb	1	C	1	1	524789	203.242371	
10	106	Cal 500 ppb	1	C	1	1	1215058	499.608337	
11	0	Blank	1	BLNK	1	1	12730	4.309968	
B	0	Read Baseline	1	RB	1	1	6640	2.051156	BL UM
13	107	ICV 200 ppb	1	U	1	1	489929	189.134323	
14	109	ICVL 100 ppb	1	U	1	1	268865	101.589760	
15	0	ICB	1	U	1	1	6656	2.057112	
B	0	Read Baseline	1	RB	1	1	9338	3.051449	BL UM
17	113	LCS 280-460448/1-A 1	U		1	1	470469	181.294434	
18	114	MB 280-460448/2-A 1	U		1	1	16382	5.665353	
19	115	280-123814-G-1-A 1	U		1	1	16630	5.757562	
20	116	280-123814-G-1-B MS 1	U		1	1	485758	187.452057	
21	117	280-123814-G-1-C MSD 1	U		1	1	488626	188.608490	
22	118	280-123814-G-2-A 1	U		1	1	22080	7.782601	
23	119	280-123814-G-3-A 1	U		1	1	25790	9.162048	
24	120	280-123817-C-1-A 1	U		1	1	91729	33.838299	
25	121	280-123817-C-2-A 1	U		1	1	714730	281.564362	
26	122	280-123817-C-3-A 1	U		1	1	58576	21.394379	
27	0	Blank	1	BLNK	1	1	2941	0.680357	
B	0	Read Baseline	1	RB	1	1	23	-0.400348	BL
29	108	CCV 200 ppb	1	CCV	1	1	532789	206.491699	
30	104	CCVL 100 ppb	1	U	1	1	260712	98.424728	
31	0	CCB	1	U	1	1	5019	1.450441	
B	0	Read Baseline	1	RB	1	1	2939	0.679620	BL
33	123	280-123817-D-5-A 1	U		1	1	178861	66.898262	
34	124	280-123834-I-1-A 1	U		1	1	34322	12.338527	
35	125	280-123853-G-1-A 1	U		1	1	16399	5.671928	
36	126	280-123853-G-2-A 1	U		1	1	20366	7.145356	
37	127	280-123853-G-3-A 1	U		1	1	16693	5.781096	
38	128	280-123855-C-6-A 1	U		1	1	14872	5.104850	
39	129	280-123855-C-6-B MS 1	U		1	1	489651	189.021988	
40	130	280-123855-C-6-C MSD 1	U		1	1	484875	187.095642	
41	131	280-123887-A-2-A 1	U		1	1	20680	7.262039	
42	132	280-123887-A-4-A 1	U		1	1	26252	9.333813	
43	0	Blank	1	BLNK	1	1	3308	0.816421	
B	0	Read Baseline	1	RB	1	1	1677	0.212232	BL
45	108	CCV 200 ppb	1	CCV	1	1	532123	206.221161	
46	104	CCVL 100 ppb	1	U	1	1	258967	97.747696	
47	0	CCB	1	U	1	1	7182	2.251869	
B	0	Read Baseline	1	RB	1	1	711	-0.145337	BL
49	133	280-123887-A-5-A 1	U		1	1	35885	12.920652	
50	134	280-123904-C-1-A 1	U		1	1	119219	44.212780	
51	135	280-123904-B-2-A 1	U		1	1	1184694	485.890900	
52	136	280-123904-C-3-A 1	U		1	1	64392	23.571949	
53	137	x280-123904-C-4-A 1	U		1	1	1243092	512.328674	HI
54	138	280-123904-D-5-A 1	U		1	1	731207	288.474121	FL
55	139	LCS 280-460449/1-A 1	U		1	1	498815	192.722839	FL
56	140	MB 280-460449/2-A 1	U		1	1	65170	23.863546	
57	141	280-123993-A-1-A 1	U		1	1	36602	13.187839	
58	142	280-123993-A-1-B MS 1	U		1	1	519057	200.917053	
59	0	Blank	1	BLNK	1	1	-6309	-2.743356	LO
B	0	Read Baseline	1	RB	1	1	-11354	-4.607881	BL UM
61	108	CCV 200 ppb	1	CCV	1	1	530455	205.543549	
62	104	CCVL 100 ppb	1	U	1	1	259057	97.782692	
63	0	CCB	1	U	1	1	-13235	-5.302634	LO
B	0	Read Baseline	1	RB	1	1	-11215	-4.556714	BL
65	143	280-123993-A-1-C MSD 1	U		1	1	536866	208.149582	
66	144	280-123993-B-2-A 1	U		1	1	145271	54.092243	
67	145	280-123993-A-3-A 1	U		1	1	41721	15.096875	
68	146	x280-123993-B-4-A 1	U		1	1	9823	3.231411	
69	147	440-241295-O-19-A 1	U		1	1	17809	6.195350	
70	148	440-241295-O-20-A 1	U		1	1	19458	6.808082	

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
71	149	440-241295-O-21-A 1 U			1	1	13576	4.623711	
72	150	440-241433-O-17-A 1 U			1	1	6274	1.915482	
73	151	440-241657-S-1-A 1 U			1	1	25285	8.974460	
74	152	280-123889-A-2-A 1 U			1	1	72957	26.783182	
75	0	Blank	1	BLNK	1	1	-2395	-1.295310	LO
B	0	Read Baseline	1	RB	1	1	-5522	-2.452140	BL
77	108	CCV 200 ppb	1	CCV	1	1	514178	198.939468	
78	104	CCVL 100 ppb	1	U	1	1	260487	98.337265	
79	0	CCB	1	U	1	1	5890	1.773003	
B	0	Read Baseline	1	RB	1	1	7751	2.463106	BL
81	153	LCS 280-459050/1-A 1 U			1	1	455746	175.380310	
82	154	MB 280-459050/2-A 1 U			1	1	30330	10.851812	
83	155	280-123273-G-19-A 1 U			1	1	10086	3.328903	
84	156	280-123273-G-1-A 1 U			1	1	15535	5.350996	
85	157	280-123273-G-1-B MS 1 U			1	1	12750	4.317285	
86	158	280-123273-G-1-C MSD 1 U			1	1	404918	155.075897	
87	140	MB 280-460449/2-A 1 U			1	1	54167	19.745157	
88	159	280-123904-C-4-A 1 U			2	1	587397	457.576080	
89	0	Blank	1	BLNK	1	1	-8892	-3.698333	LO
B	0	Read Baseline	1	RB	1	1	-14767	-5.868441	BL UM
91	108	CCV 200 ppb	1	CCV	1	1	526713	204.023712	
92	104	CCVL 100 ppb	1	U	1	1	250154	94.332497	
93	0	CCB	1	U	1	1	5684	1.696897	
B	0	Read Baseline	1	RB	1	1	3047	0.719803	BL UM

Phenols, Total:Calibration 1: Peak 5-94

File name: C:\FLOW_4\P060419.RST
Date: 05-Jun-19
Operator: AM

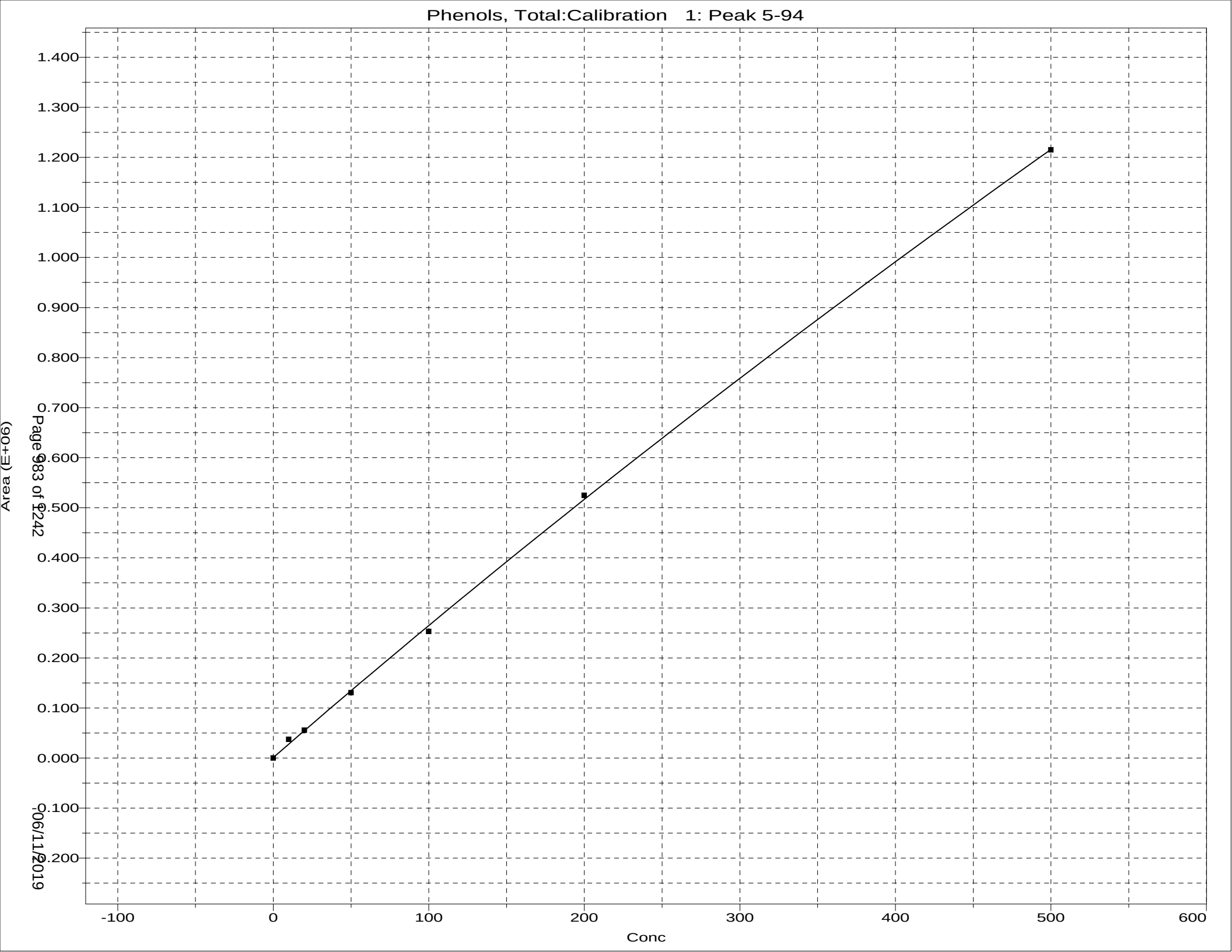
*	Name	Conc	Area
*	Cal 10.0 ppb	10.000000	37447.335938
*	Cal 20.0 ppb	20.000000	55484.652344
*	Cal 50.0 ppb	50.000000	130347.851562
*	Cal 100 ppb	100.000000	252879.328125
*	Cal 200 ppb	200.000000	524788.562500
*	Cal 500 ppb	500.000000	1215058.125000

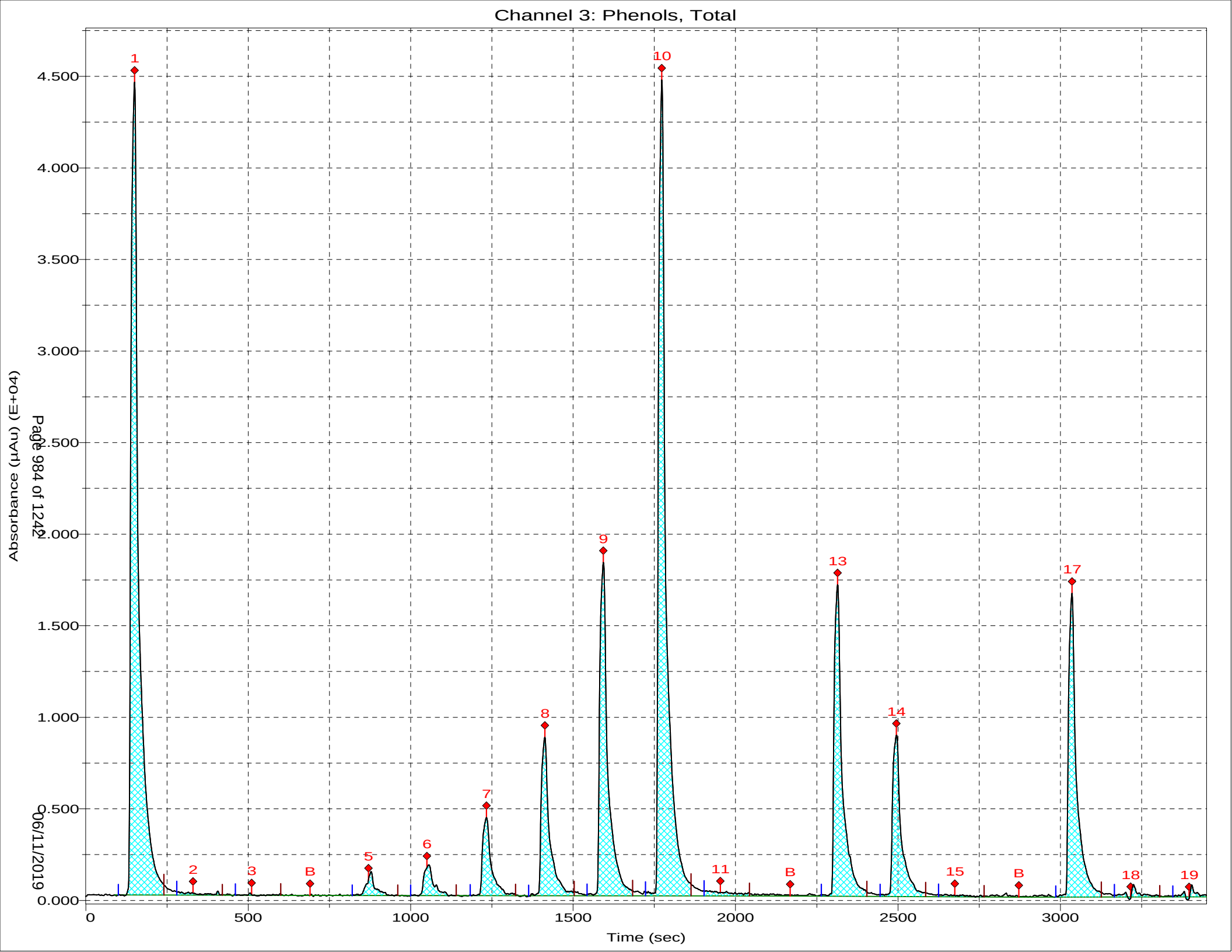
Calib Coef:
x=cyy+by+a
a: (intercept) -4.0875e-01
b: 3.7023e-04
c: 3.3978e-11

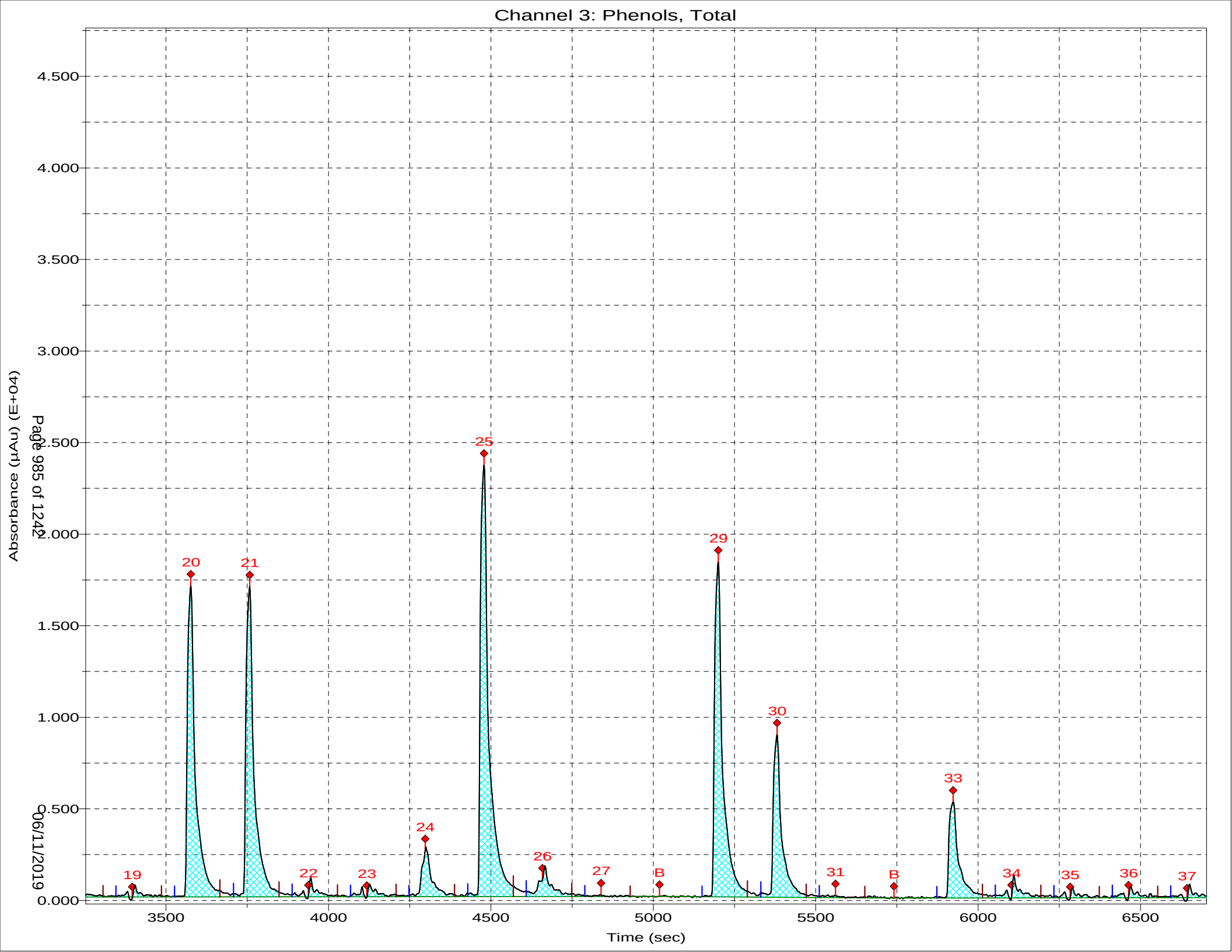
Corr Coef: 0.999878

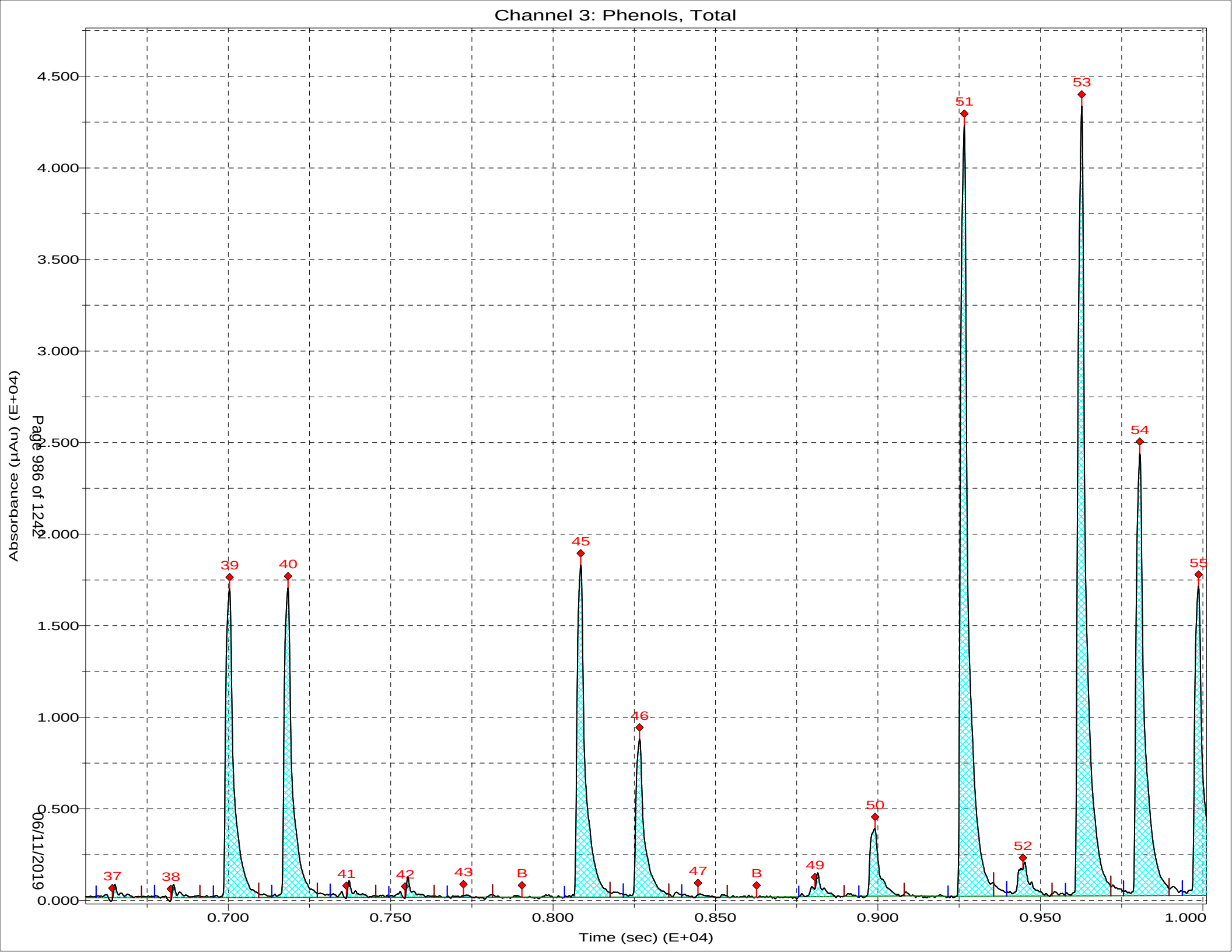
Carryover: 0.94%

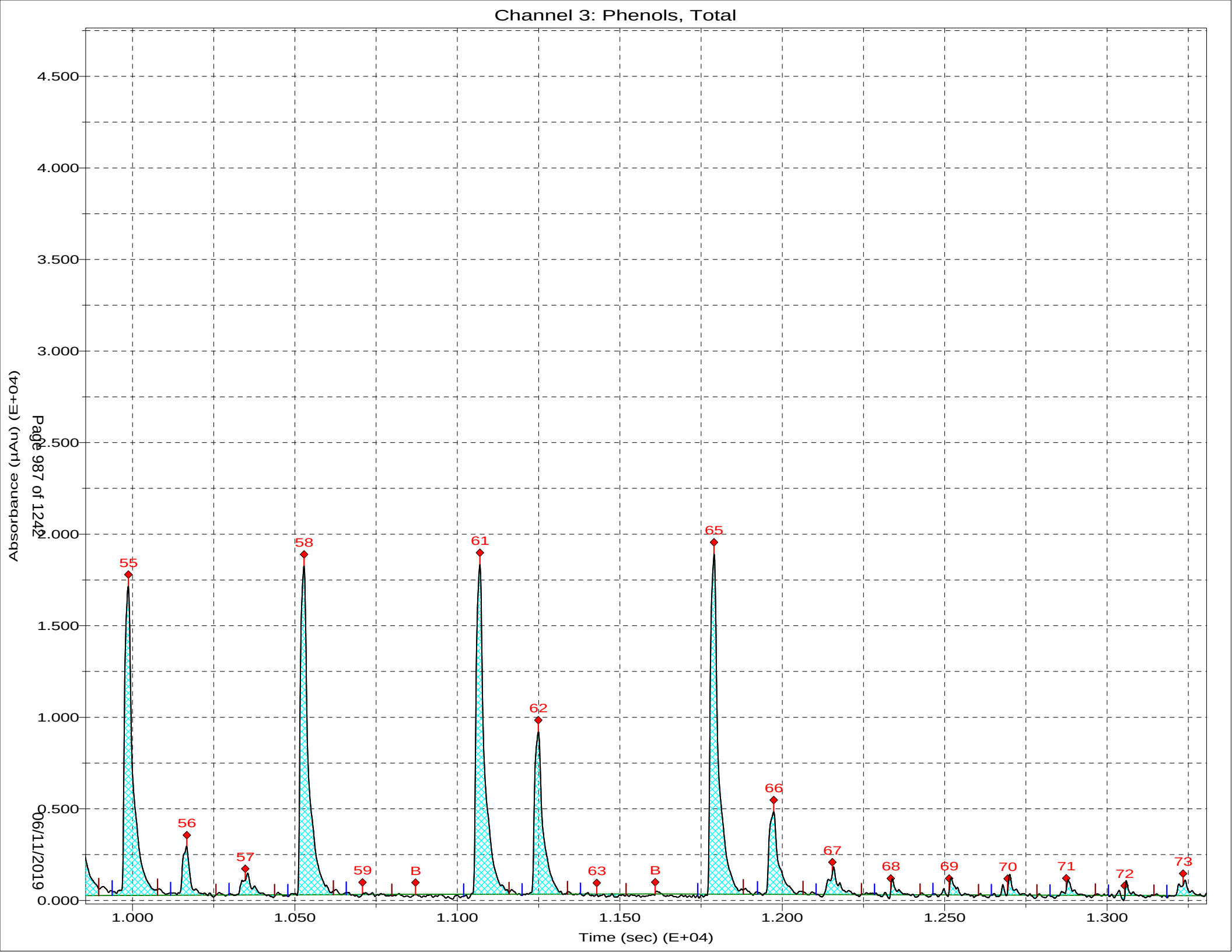
No Drift Peaks

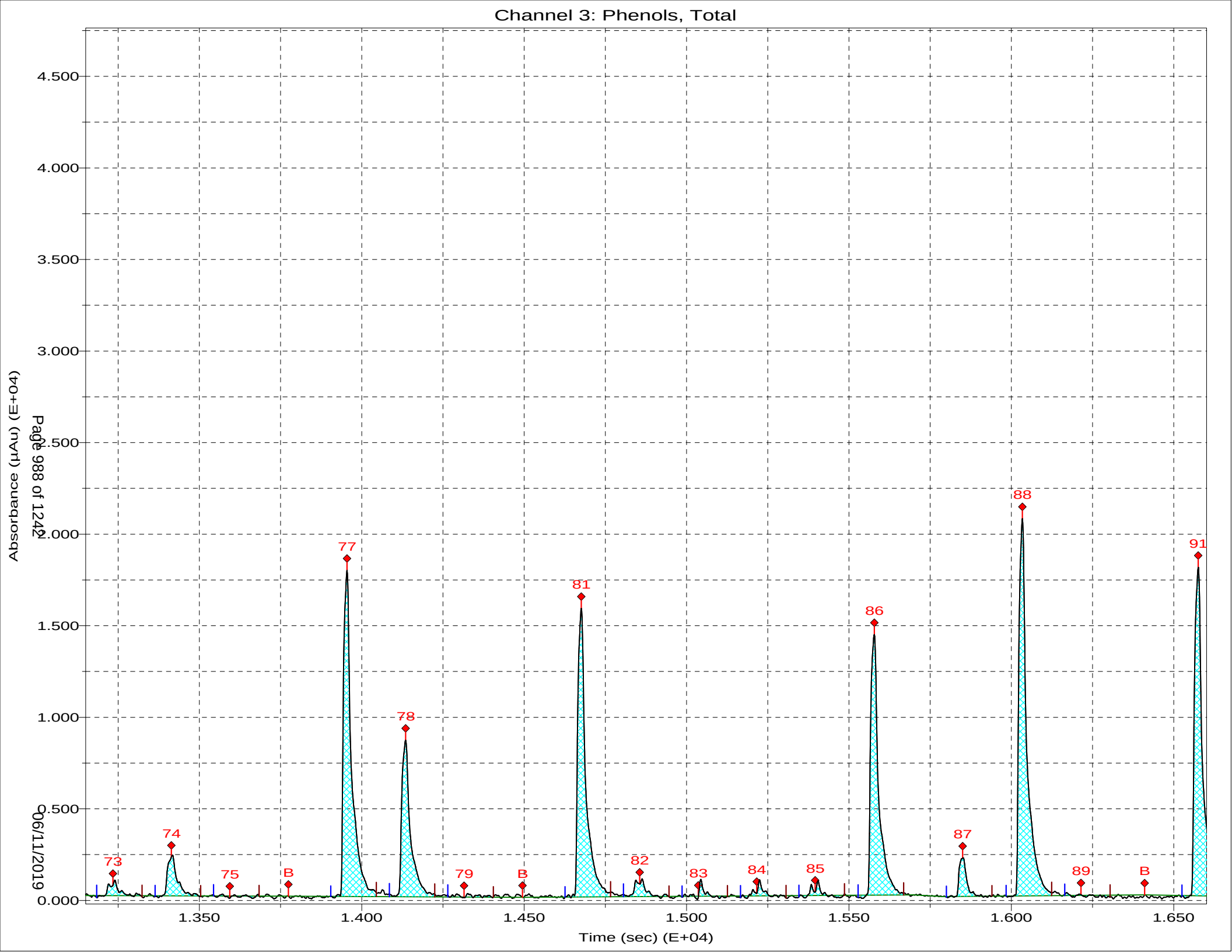

Phenols, Total:Calibration 1: Peak 5-94
Area (E+06)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-100
0
100
200
300
400
500
600
Conc

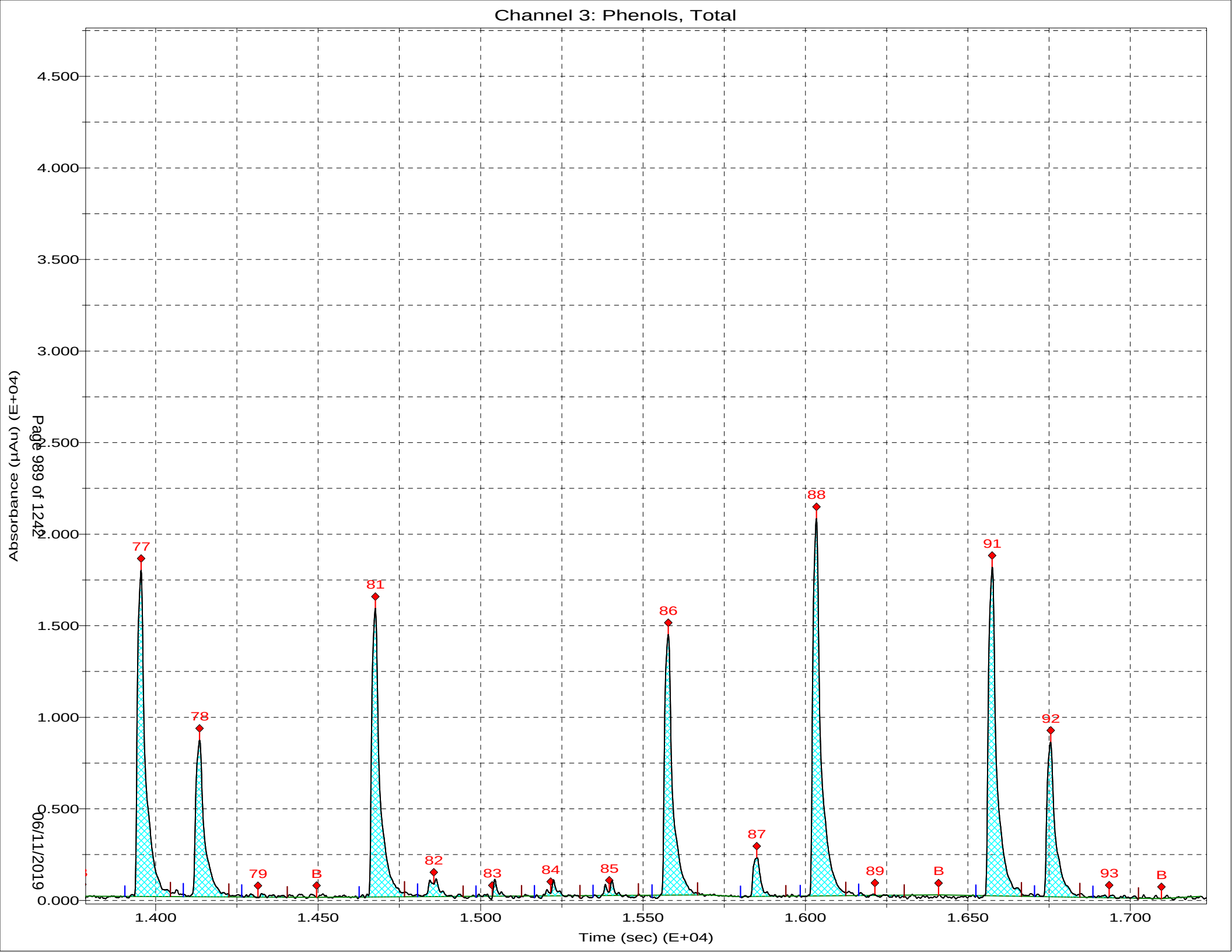

Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0
500
1000
1500
2000
2500
3000
Time (sec)
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
Page 984 of 1242
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Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
3500
4000
4500
5000
5500
6000
6500
Time (sec)
19
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.700
0.750
0.800
0.850
0.900
0.950
1.000
Time (sec) (E+04)
37
38
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.000
1.050
1.100
1.150
1.200
1.250
1.300
Time (sec) (E+04)
55
56
57
58
59
B
61
62
63
B
65
66
67
68
69
70
71
72
73
Page 987 of 1242
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Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.350
1.400
1.450
1.500
1.550
1.600
1.650
Time (sec) (E+04)
73
74
75
B
77
78
79
B
81
82
83
84
85
86
87
88
89
B
91


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.400
1.450
1.500
1.550
1.600
1.650
1.700
77
78
79
B
81
82
83
84
85
86
87
88
89
B
91
92
93
B

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060619.RST
Sample table path	C:\FLOW_4\p060619.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	07-Jun-19
Time acquired	00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	16:47	106	Sync	1284746	532.010	HI
06-Jun-19	16:50	0	Carryover	11761	2.861	
06-Jun-19	16:53	0	Carryover	1222	-1.624	LO
06-Jun-19	16:56	0	Read Baseline	-538	-2.373	BL
06-Jun-19	16:59	101	Cal 10.0 ppb	33132	11.950	
06-Jun-19	17:02	102	Cal 20.0 ppb	57468	22.291	
06-Jun-19	17:05	103	Cal 50.0 ppb	116843	47.484	
06-Jun-19	17:08	104	Cal 100 ppb	242088	100.447	
06-Jun-19	17:11	105	Cal 200 ppb	478988	199.968	
06-Jun-19	17:14	106	Cal 500 ppb	1206011	500.004	
06-Jun-19	17:17	0	Blank	-4565	-4.087	LO
06-Jun-19	17:20	0	Read Baseline	876	-1.771	BL
06-Jun-19	17:23	107	ICV 200 ppb	470022	196.217	
06-Jun-19	18:53	109	ICVL 100 ppb	264459	109.882	
06-Jun-19	18:56	0	ICB	-2784	-3.329	LO
06-Jun-19	18:59	0	Read Baseline	-7211	-5.213	BL UM
06-Jun-19	19:02	113	LCS 280-460735/1-A	481696	201.101	
06-Jun-19	19:05	114	MB 280-460735/2-A	7136	0.893	
06-Jun-19	19:08	115	280-123273-G-19-B	7689	1.129	
06-Jun-19	19:11	116	280-123889-A-2-B	35443	12.932	
06-Jun-19	19:14	117	280-123993-B-2-B	48783	18.601	
06-Jun-19	19:17	118	280-123993-B-4-B	130790	53.394	
06-Jun-19	19:20	119	280-123853-G-4-A	26462	9.114	
06-Jun-19	19:23	120	280-123853-G-5-A	22970	7.629	
06-Jun-19	19:26	121	280-123853-G-6-A	20406	6.538	
06-Jun-19	19:29	122	280-123855-D-1-B	28502	9.981	
06-Jun-19	19:32	0	blank	-10935	-6.799	LO
06-Jun-19	19:35	0	read baseline	-15155	-8.596	BL
06-Jun-19	19:38	108	CCV 200 ppb	487488	203.523	
06-Jun-19	19:41	104	CCVL 100 ppb	246780	102.427	
06-Jun-19	19:44	0	CCB	6	-2.142	LO
06-Jun-19	19:47	0	read baseline	3191	-0.786	BL
06-Jun-19	19:50	123	280-123855-D-1-C MS	496482	207.283	
06-Jun-19	19:53	124	280-123855-D-1-D MSD	511992	213.764	
06-Jun-19	19:56	125	280-123855-C-2-B	21738	7.105	
06-Jun-19	19:59	126	280-123855-E-3-D	39628	14.711	
06-Jun-19	20:02	127	280-123855-E-4-B	20998	6.790	
06-Jun-19	20:05	128	280-123855-C-5-B	26770	9.245	
06-Jun-19	20:08	129	280-123972-B-1-A	737659	307.650	
06-Jun-19	20:11	130	280-123972-A-2-A	54507	21.033	
06-Jun-19	20:14	131	280-123981-G-1-A	472837	197.395	
06-Jun-19	20:17	132	280-123981-G-2-A	36575	13.413	

Result path	C:\FLOW_4\P060619.RST
Sample table path	C:\FLOW_4\p060619.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	07-Jun-19
Time acquired	00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	20:20	0	blank	7303	0.964	
06-Jun-19	20:23	0	read baseline	3039	-0.851	BL
06-Jun-19	20:26	108	CCV 200 ppb	518804	216.610	
06-Jun-19	20:29	104	CCVL 100 ppb	261180	108.500	
06-Jun-19	20:32	0	CCB	9128	1.741	
06-Jun-19	20:35	0	read baseline	3064	-0.840	BL
06-Jun-19	20:38	133	280-123981-G-3-A	31116	11.093	
06-Jun-19	20:41	134	280-123981-G-4-A	32959	11.876	
06-Jun-19	20:44	135	280-123981-G-5-A	28330	9.908	
06-Jun-19	20:47	136	280-123981-G-6-A	28401	9.938	
06-Jun-19	20:50	137	280-123981-G-6-B MS	493108	205.873	
06-Jun-19	20:53	138	280-123981-G-6-C MSD	496776	207.406	
06-Jun-19	20:57	139	LCS 280-460749/1-A	498298	208.042	
06-Jun-19	21:00	140	MB 280-460749/2-A	24545	8.299	
06-Jun-19	21:03	141	280-123981-G-7-A	31197	11.127	
06-Jun-19	21:06	142	280-123981-G-8-B	29210	10.282	
06-Jun-19	21:09	0	blank	4725	-0.133	LO
06-Jun-19	21:12	0	read baseline	3560	-0.629	BL
06-Jun-19	21:15	108	CCV 200 ppb	507874	212.044	
06-Jun-19	21:18	104	CCVL 100 ppb	245911	102.060	
06-Jun-19	21:21	0	CCB	-4681	-4.136	LO
06-Jun-19	21:24	0	read baseline	-5973	-4.686	BL
06-Jun-19	21:27	143	280-123981-G-9-B	23801	7.982	
06-Jun-19	21:30	144	280-123983-G-1-B	69644	27.462	
06-Jun-19	21:33	145	280-123983-G-2-B	34350	12.468	
06-Jun-19	21:36	146	280-123983-G-3-B	35107	12.789	
06-Jun-19	21:39	147	280-124270-D-1-B	41354	15.444	
06-Jun-19	21:42	148	280-124270-D-2-B	40819	15.217	
06-Jun-19	21:45	149	280-124270-D-3-B	29994	10.615	
06-Jun-19	21:48	150	x280-124270-D-3-C MS	26693	9.212	
06-Jun-19	22:53	151	x280-124270-D-3-D MS	436947	182.370	
06-Jun-19	22:56	152	x280-124038-I-4-A	23051	7.663	
06-Jun-19	22:59	0	blank	-14444	-8.293	LO
06-Jun-19	23:02	0	read baseline	18979	5.932	BL UM
06-Jun-19	23:05	108	CCV 200 ppb	517632	216.121	
06-Jun-19	23:08	104	CCVL 100 ppb	260517	108.220	
06-Jun-19	23:11	0	CCB	7489	1.043	
06-Jun-19	23:14	0	read baseline	6427	0.591	BL
06-Jun-19	23:17	153	280-123924-G-1-A	22649	7.492	
06-Jun-19	23:20	154	280-123924-G-2-A	27403	9.514	
06-Jun-19	23:23	155	280-123924-G-3-A	65091	25.529	
06-Jun-19	23:26	156	280-123924-G-4-A	54052	20.840	
06-Jun-19	23:29	157	280-123924-G-5-A	39673	14.730	
06-Jun-19	23:32	158	280-123924-G-6-A	39776	14.774	
06-Jun-19	23:35	159	280-123924-G-7-A	32623	11.733	
06-Jun-19	23:38	160	280-123924-G-8-A	39618	14.707	
06-Jun-19	23:41	201	280-123924-G-9-A	28542	9.998	
06-Jun-19	23:44	202	280-123924-G-10-A	32243	11.572	
06-Jun-19	23:48	0	blank	3165	-0.797	LO
06-Jun-19	23:51	0	read baseline	-768	-2.471	BL
06-Jun-19	23:54	108	CCV 200 ppb	512574	214.008	
06-Jun-19	23:57	104	CCVL 100 ppb	263342	109.411	
07-Jun-19	00:00	0	CCB	-5430	-4.456	LO
07-Jun-19	00:03	0	read baseline	-6178	-4.774	BL
07-Jun-19	00:06	203	280-123924-G-10-B MS	517054	215.879	
07-Jun-19	00:09	204	280-123924-G-10-C MS	507160	211.746	
07-Jun-19	00:13	150	280-124270-D-3-C MS	447375	186.738	

Result path C:\FLOW_4\P060619.RST
Sample table path C:\FLOW_4\p060619.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 07-Jun-19
Time acquired 00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
07-Jun-19	00:16	151	280-124270-D-3-D MSD	450311	187.967	
07-Jun-19	00:19	152	280-124038-I-4-A	67100	26.382	
07-Jun-19	00:22	0	blank	-433	-2.328	LO
07-Jun-19	00:25	0	read baseline	-8549	-5.783	BL
07-Jun-19	00:28	108	CCV 200 ppb	504486	210.628	
07-Jun-19	00:31	104	CCVL 100 ppb	261085	108.460	
07-Jun-19	00:34	0	CCB	5987	0.404	
07-Jun-19	00:37	0	read baseline	6920	0.801	BL

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060619.RST
Date: 07-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1284746	532.009644	HI
2	0	Carryover	1	CO	1	1	11761	2.860792	
3	0	Carryover	2	CO	1	1	1222	-1.623995	LO
B	0	Read Baseline	1	RB	1	1	-538	-2.372981	BL
5	101	Cal 10.0 ppb	1	C	1	1	33132	11.949753	
6	102	Cal 20.0 ppb	1	C	1	1	57468	22.291309	
7	103	Cal 50.0 ppb	1	C	1	1	116843	47.483776	
8	104	Cal 100 ppb	1	C	1	1	242088	100.447174	
9	105	Cal 200 ppb	1	C	1	1	478988	199.968140	
10	106	Cal 500 ppb	1	C	1	1	1206011	500.004059	
11	0	Blank	1	BLNK	1	1	-4565	-4.087067	LO
B	0	Read Baseline	1	RB	1	1	876	-1.771070	BL
13	107	ICV 200 ppb	1	U	1	1	470022	196.217255	
14	109	ICVL 100 ppb	1	U	1	1	264459	109.881981	
15	0	ICB	1	U	1	1	-2784	-3.328888	LO
B	0	Read Baseline	1	RB	1	1	-7211	-5.213415	BL UM
17	113	LCS 280-460735/1-A 1	U		1	1	481696	201.100876	
18	114	MB 280-460735/2-A 1	U		1	1	7136	0.892920	
19	115	280-123273-G-19-B 1	U		1	1	7689	1.128525	
20	116	280-123889-A-2-B 1	U		1	1	35443	12.932266	
21	117	280-123993-B-2-B 1	U		1	1	48783	18.601410	
22	118	280-123993-B-4-B 1	U		1	1	130790	53.393574	
23	119	280-123853-G-4-A 1	U		1	1	26462	9.113688	
24	120	280-123853-G-5-A 1	U		1	1	22970	7.628785	
25	121	280-123853-G-6-A 1	U		1	1	20406	6.538361	
26	122	280-123855-D-1-B 1	U		1	1	28502	9.981392	
27	0	blank	1	BLNK	1	1	-10935	-6.799056	LO
B	0	read baseline	1	RB	1	1	-15155	-8.596418	BL
29	108	CCV 200 ppb	1	CCV	1	1	487488	203.522873	
30	104	CCVL 100 ppb	1	U	1	1	246780	102.426888	
31	0	CCB	1	U	1	1	6	-2.141597	LO
B	0	read baseline	1	RB	1	1	3191	-0.785660	BL
33	123	280-123855-D-1-C MS 1	U		1	1	496482	207.283142	
34	124	280-123855-D-1-D MSD 1	U		1	1	511992	213.764450	
35	125	280-123855-C-2-B 1	U		1	1	21738	7.105095	
36	126	280-123855-E-3-D 1	U		1	1	39628	14.711295	
37	127	280-123855-E-4-B 1	U		1	1	20998	6.790325	
38	128	280-123855-C-5-B 1	U		1	1	26770	9.244663	
39	129	280-123972-B-1-A 1	U		1	1	737659	307.650177	
40	130	280-123972-A-2-A 1	U		1	1	54507	21.033207	
41	131	280-123981-G-1-A 1	U		1	1	472837	197.394958	
42	132	280-123981-G-2-A 1	U		1	1	36575	13.413217	
43	0	blank	1	BLNK	1	1	7303	0.964045	
B	0	read baseline	1	RB	1	1	3039	-0.850566	BL
45	108	CCV 200 ppb	1	CCV	1	1	518804	216.610123	
46	104	CCVL 100 ppb	1	U	1	1	261180	108.499573	
47	0	CCB	1	U	1	1	9128	1.740731	
B	0	read baseline	1	RB	1	1	3064	-0.840003	BL
49	133	280-123981-G-3-A 1	U		1	1	31116	11.092682	
50	134	280-123981-G-4-A 1	U		1	1	32959	11.876139	
51	135	280-123981-G-5-A 1	U		1	1	28330	9.908121	
52	136	280-123981-G-6-A 1	U		1	1	28401	9.938361	
53	137	280-123981-G-6-B MS 1	U		1	1	493108	205.872604	
54	138	280-123981-G-6-C MSD 1	U		1	1	496776	207.406219	
55	139	LCS 280-460749/1-A 1	U		1	1	498298	208.042267	
56	140	MB 280-460749/2-A 1	U		1	1	24545	8.298662	
57	141	280-123981-G-7-A 1	U		1	1	31197	11.127326	
58	142	280-123981-G-8-B 1	U		1	1	29210	10.282269	
59	0	blank	1	BLNK	1	1	4725	-0.132839	LO
B	0	read baseline	1	RB	1	1	3560	-0.628626	BL
61	108	CCV 200 ppb	1	CCV	1	1	507874	212.044113	
62	104	CCVL 100 ppb	1	U	1	1	245911	102.059959	
63	0	CCB	1	U	1	1	-4681	-4.136443	LO
B	0	read baseline	1	RB	1	1	-5973	-4.686414	BL
65	143	280-123981-G-9-B 1	U		1	1	23801	7.982085	
66	144	280-123983-G-1-B 1	U		1	1	69644	27.461996	
67	145	280-123983-G-2-B 1	U		1	1	34350	12.467785	
68	146	280-123983-G-3-B 1	U		1	1	35107	12.789383	
69	147	280-124270-D-1-B 1	U		1	1	41354	15.444472	
70	148	280-124270-D-2-B 1	U		1	1	40819	15.217384	

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
71	149	280-124270-D-3-B 1 U			1	1	29994	10.615470	
72	150	x280-124270-D-3-C MS 1 U			1	1	26693	9.211935	
73	151	x280-124270-D-3-D MS 1 U			1	1	436947	182.369995	
74	152	x280-124038-I-4-A 1 U			1	1	23051	7.663148	
75	0	blank	1	BLNK	1	1	-14444	-8.293395	LO
B	0	read baseline	1	RB	1	1	18979	5.931530	BL UM
77	108	CCV 200 ppb	1	CCV	1	1	517632	216.120605	
78	104	CCVL 100 ppb	1	U	1	1	260517	108.220367	
79	0	CCB	1	U	1	1	7489	1.043040	
B	0	read baseline	1	RB	1	1	6427	0.591272	BL
81	153	280-123924-G-1-A 1 U			1	1	22649	7.492246	
82	154	280-123924-G-2-A 1 U			1	1	27403	9.513841	
83	155	280-123924-G-3-A 1 U			1	1	65091	25.528692	
84	156	280-123924-G-4-A 1 U			1	1	54052	20.840273	
85	157	280-123924-G-5-A 1 U			1	1	39673	14.730239	
86	158	280-123924-G-6-A 1 U			1	1	39776	14.774037	
87	159	280-123924-G-7-A 1 U			1	1	32623	11.733281	
88	160	280-123924-G-8-A 1 U			1	1	39618	14.706872	
89	201	280-123924-G-9-A 1 U			1	1	28542	9.998407	
90	202	280-123924-G-10-A 1 U			1	1	32243	11.571870	
91	0	blank	1	BLNK	1	1	3165	-0.796679	LO
B	0	read baseline	1	RB	1	1	-768	-2.470809	BL
93	108	CCV 200 ppb	1	CCV	1	1	512574	214.007736	
94	104	CCVL 100 ppb	1	U	1	1	263342	109.411003	
95	0	CCB	1	U	1	1	-5430	-4.455504	LO
B	0	read baseline	1	RB	1	1	-6178	-4.773701	BL
97	203	280-123924-G-10-B MS 1 U			1	1	517054	215.879105	
98	204	280-123924-G-10-C MS 1 U			1	1	507160	211.745743	
99	150	280-124270-D-3-C MS 1 U			1	1	447375	186.737579	
100	151	280-124270-D-3-D MSD 1 U			1	1	450311	187.966812	
101	152	280-124038-I-4-A 1 U			1	1	67100	26.381832	
102	0	blank	1	BLNK	1	1	-433	-2.328184	LO
B	0	read baseline	1	RB	1	1	-8549	-5.783080	BL
104	108	CCV 200 ppb	1	CCV	1	1	504486	210.628342	
105	104	CCVL 100 ppb	1	U	1	1	261085	108.459816	
106	0	CCB	1	U	1	1	5987	0.404209	
B	0	read baseline	1	RB	1	1	6920	0.801121	BL

Phenols, Total:Calibration 1: Peak 5-107

File name: C:\FLOW_4\P060619.RST
Date: 07-Jun-19
Operator: AM

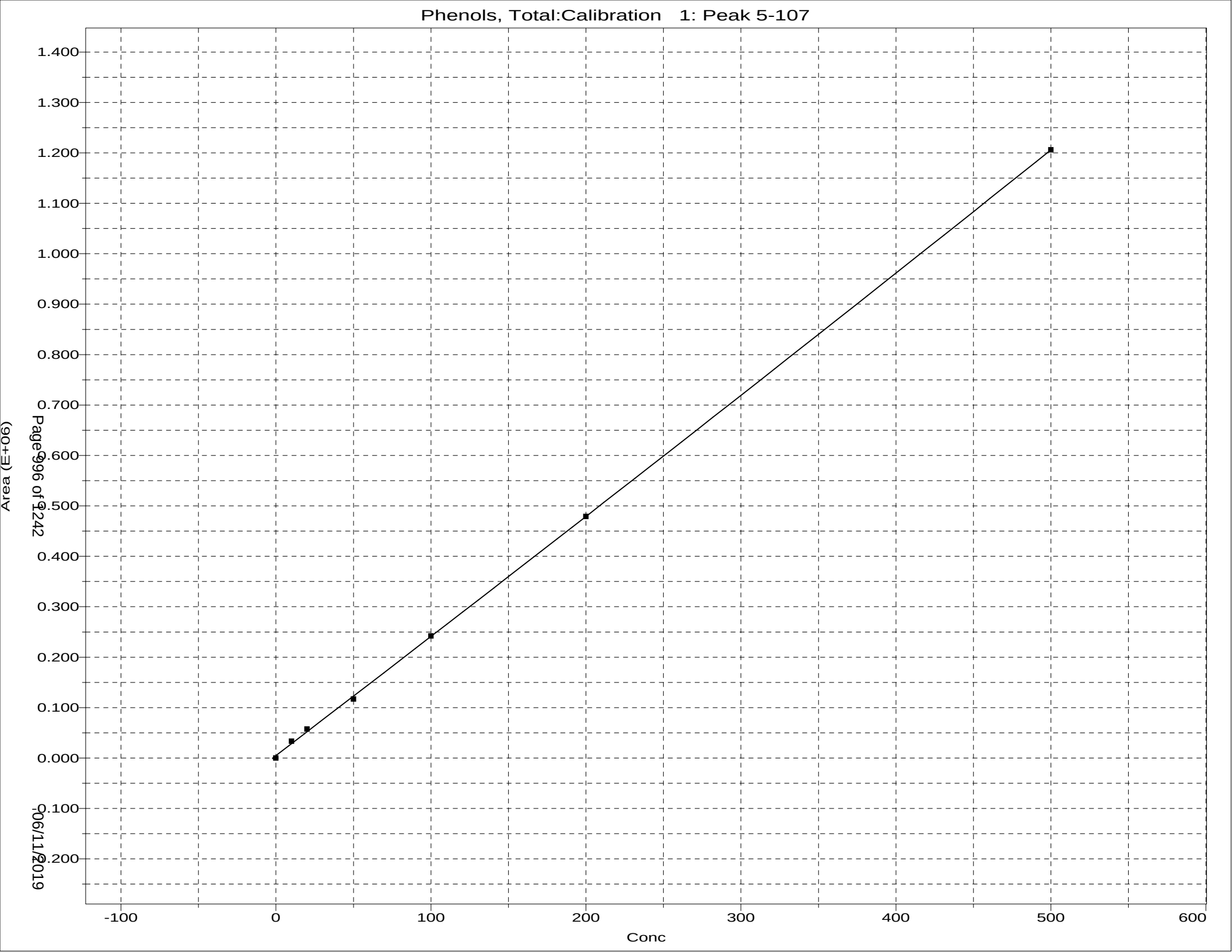
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*	Cal 10.0 ppb	10.000000	33131.878906
*	Cal 20.0 ppb	20.000000	57468.367188
*	Cal 50.0 ppb	50.000000	116842.929688
*	Cal 100 ppb	100.000000	242087.781250
*	Cal 200 ppb	200.000000	478987.968750
*	Cal 500 ppb	500.000000	1206011.125000

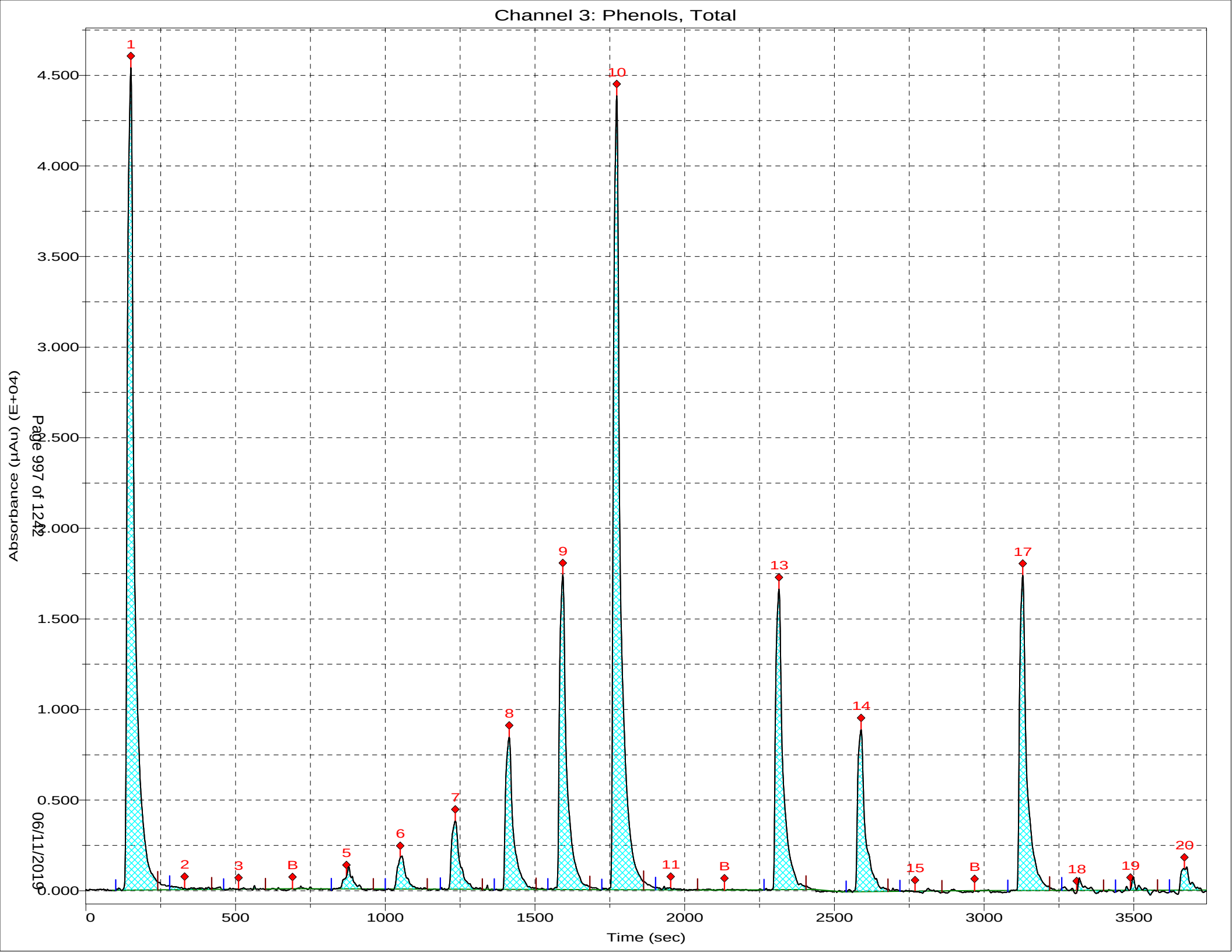
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a: (intercept) -2.1439e+00
b: 4.2564e-04
c: -7.6828e-12

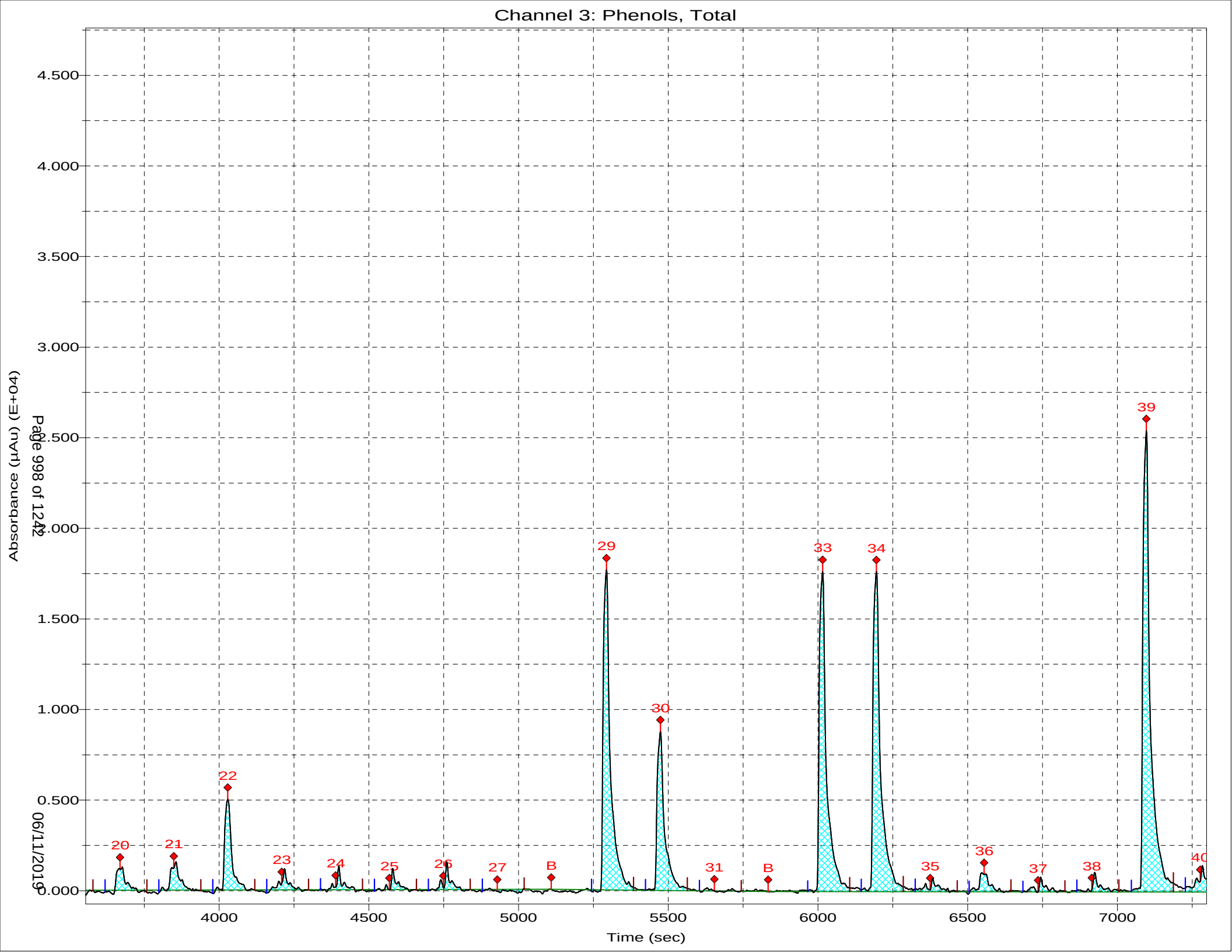
Corr Coef: 0.999948

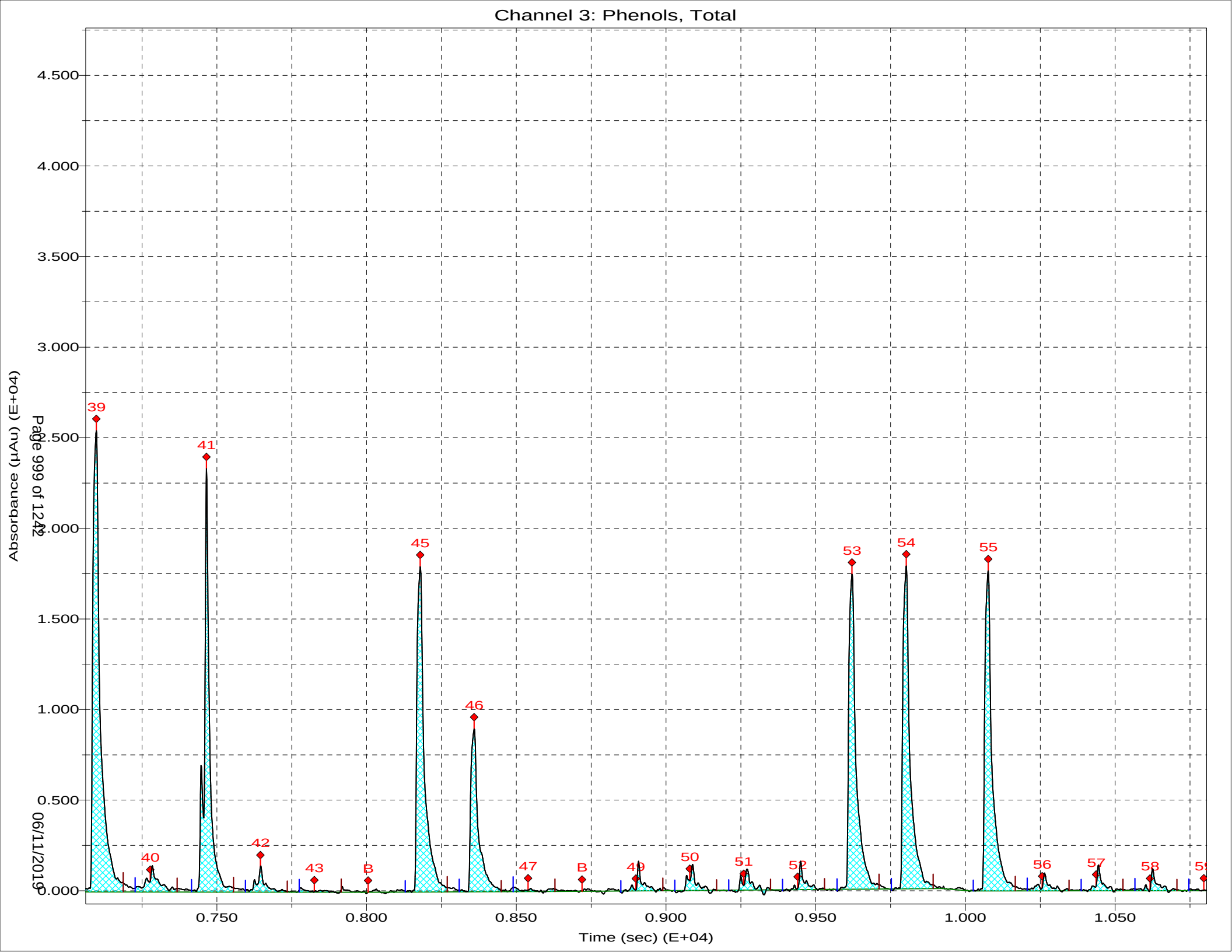
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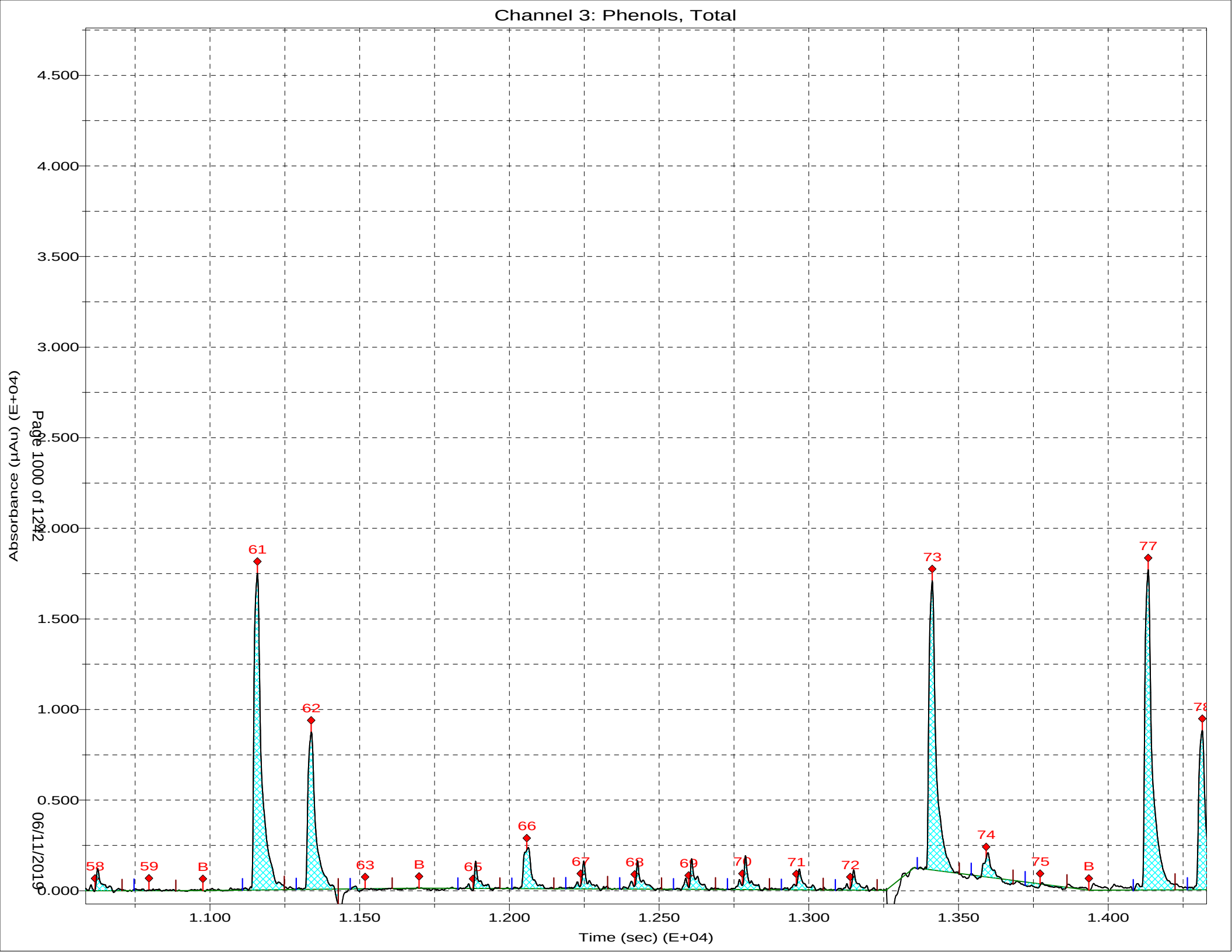
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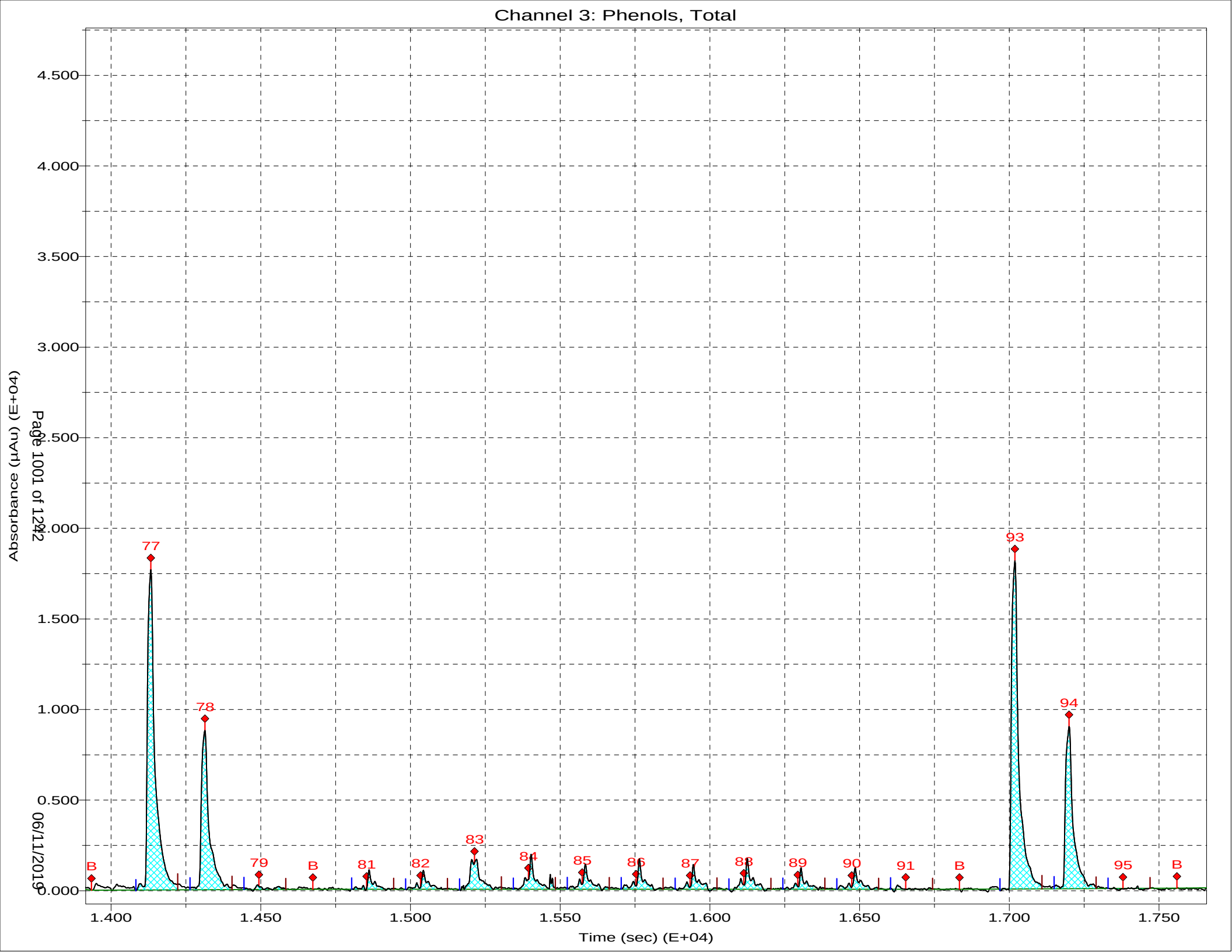

Phenols, Total:Calibration 1: Peak 5-107
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
Area (E+06)
-100
0
100
200
300
400
500
600
Conc

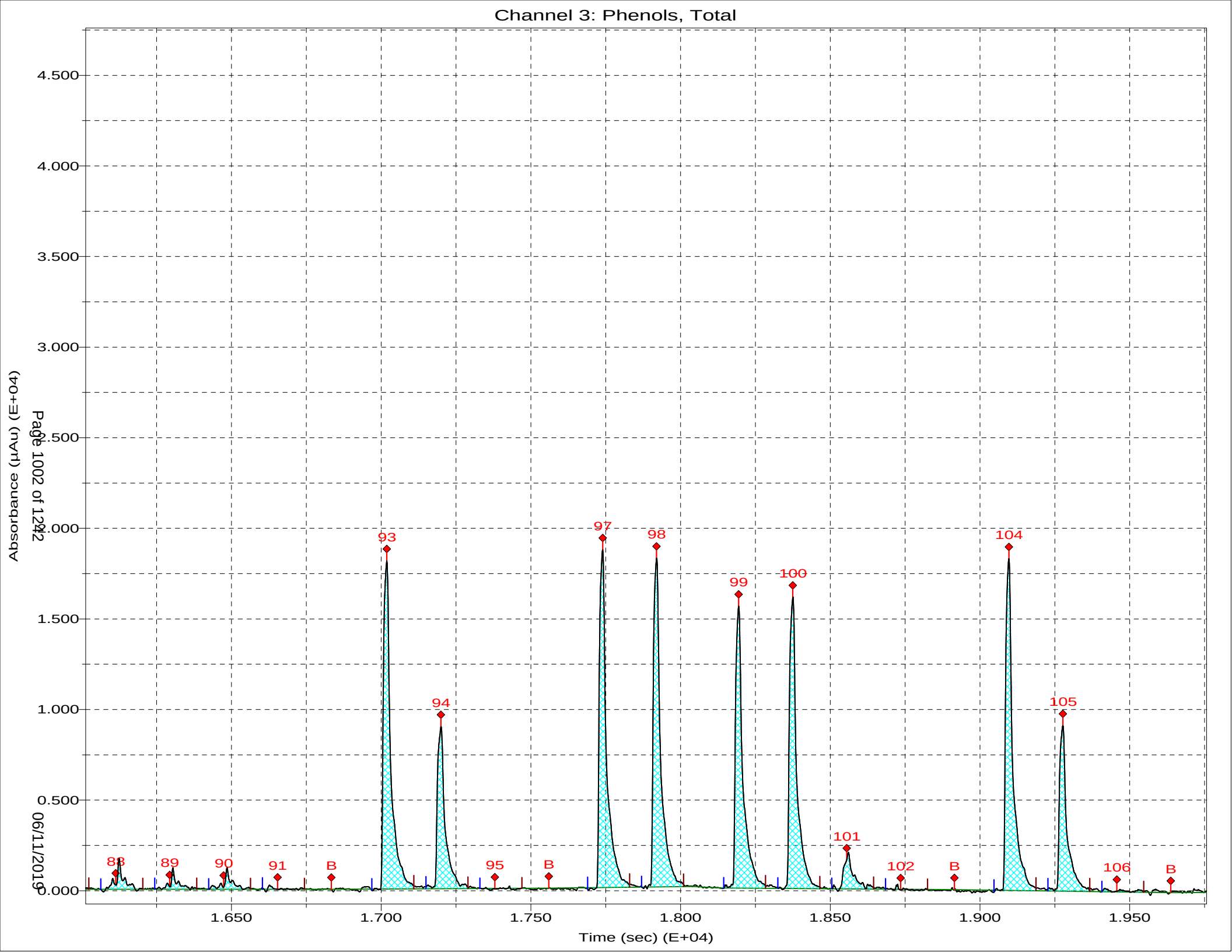

Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0
500
1000
1500
2000
2500
3000
3500
Time (sec)
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
20
Page 997 of 1242
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Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
4000
4500
5000
5500
6000
6500
7000
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37
38
39
40


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
Page 999 of 1242
06/11/2019
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.750
0.800
0.850
0.900
0.950
1.000
1.050
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55
56
57
58


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.100
1.150
1.200
1.250
1.300
1.350
1.400
58
59
B
61
62
63
B
65
66
67
68
69
70
71
72
73
74
75
B
77
78


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Time (sec) (E+04)
1.400
1.450
1.500
1.550
1.600
1.650
1.700
1.750
77
78
79
81
82
83
84
85
86
87
88
89
90
91
93
94
95
B
Page 1001 of 1242
06/11/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Time (sec) (E+04)
1.650
1.700
1.750
1.800
1.850
1.900
1.950
88
89
90
91
B
93
94
95
B
97
98
99
100
101
102
B
104
105
106
B
Page 1002 of 1242
06/11/2019

Color Bench Sheet

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Analyst: Kelly Sonnier	Batch #: 458496	SOP: DV-WC-0058 SM 2120B
Date: 5-16-19		

Calibration Standard TALS ID: COLOR STD_00018 1.0 N HCl TALS ID: N/A

1.0 N NaOH TALS ID: N/A

Sample ID	pH	Observed Color	Dilution Factor	Sample Centrifuged?	Final Color
Method Blank	7	0	1X	Yes (No)	0
280-123853-H-1	6	15	1X	Yes (No)	15
" " DU	6	15	1X	Yes (No)	15
280-123853-J-2	7	20	1X	Yes (No)	20
280-123853-H-3	7	5	2X	Yes (No)	10
280-123853-H-4	7	20	1X	Yes (No)	20
280-123853-J-5	7	30	1X	Yes (No)	30
280-123853-J-6	7	40	1X	Yes (No)	40
280-123853-J-1	7	5	1X	Yes (No)	5
280-123855-H-2	9	5	1X	Yes (No)	5
280-123855-H-3	8	25	2X	Yes (No)	50
280-123855-I-4	7	5	1X	Yes (No)	5
280-123855-J-5	7	25	1X	Yes (No)	25
" " DU	7	25	1X	Yes (No)	25
280-123855-I-6	7	20	1X	Yes (No)	20
				Yes No	
				Yes No	
				Yes No	
KES				Yes No	
5/16/19				Yes No	
				Yes No	
				Yes No	

Comments: N/A

HARDNESS BY TITRATION -- Method 2340C

Analyst:	KS	**Titration Solutions**		**SOP Information:**	**Rep. / Detection Limits**
Date:	5/24/2019	Solution 1:	EDTA	Number: DV-WC-0060	MDL (mg/L) 1.3
Time:	15:29	ID #	_00090	Revision: 4	RL (mg/L) 5
Batch No.:	459401	Source:	RICCA	**Calibration Information**	Spike Concentrations:
		Normality:	0.01966	Std# Hard 00051	LCS Spike Vol (mL) 10
Pipette Verification				Made By: LabChem	MS Spike Vol (mL) 10
at 5 mL:	4.93 g			Concentration (mg/L): 1000	LCS conc. (mg/L) 1000.0
Brinkmann bottletop				Exp: 6/13/20	MS conc (mg/L) 1000.0
Buret 50					

Sample ID	Sample pH	Sample Volume	Buret Start	Buret Stop	Flags	Final mL	Sample Conc mg/L	Prep D.F.	Analyt. D.F.	Final Conc mg/L	Titrant TV
titrant stdz	7	10	0.00	10.27		10.27	1009.425	1	1	1009.42	0.01947
titrant stdz	7	10	0.00	10.08		10.08	990.750	1	1	990.75	0.01984

Buffer:	Hardness Buffer 00009	Exp:	7 15 2019
Calmagite Indicator:	0289-11_00008	Exp:	12 31 2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	NC	NC	M
2 Chloride	3.234	3.242	-0.008	4716909	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	1976056	0.2000	0.2135	a
4 Bromide	4.642	4.642	0.000	382484	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	2120855	0.2000	0.2208	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	0.2000	0.2189	a
6 Sulfate	6.409	6.434	-0.025	3612640	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

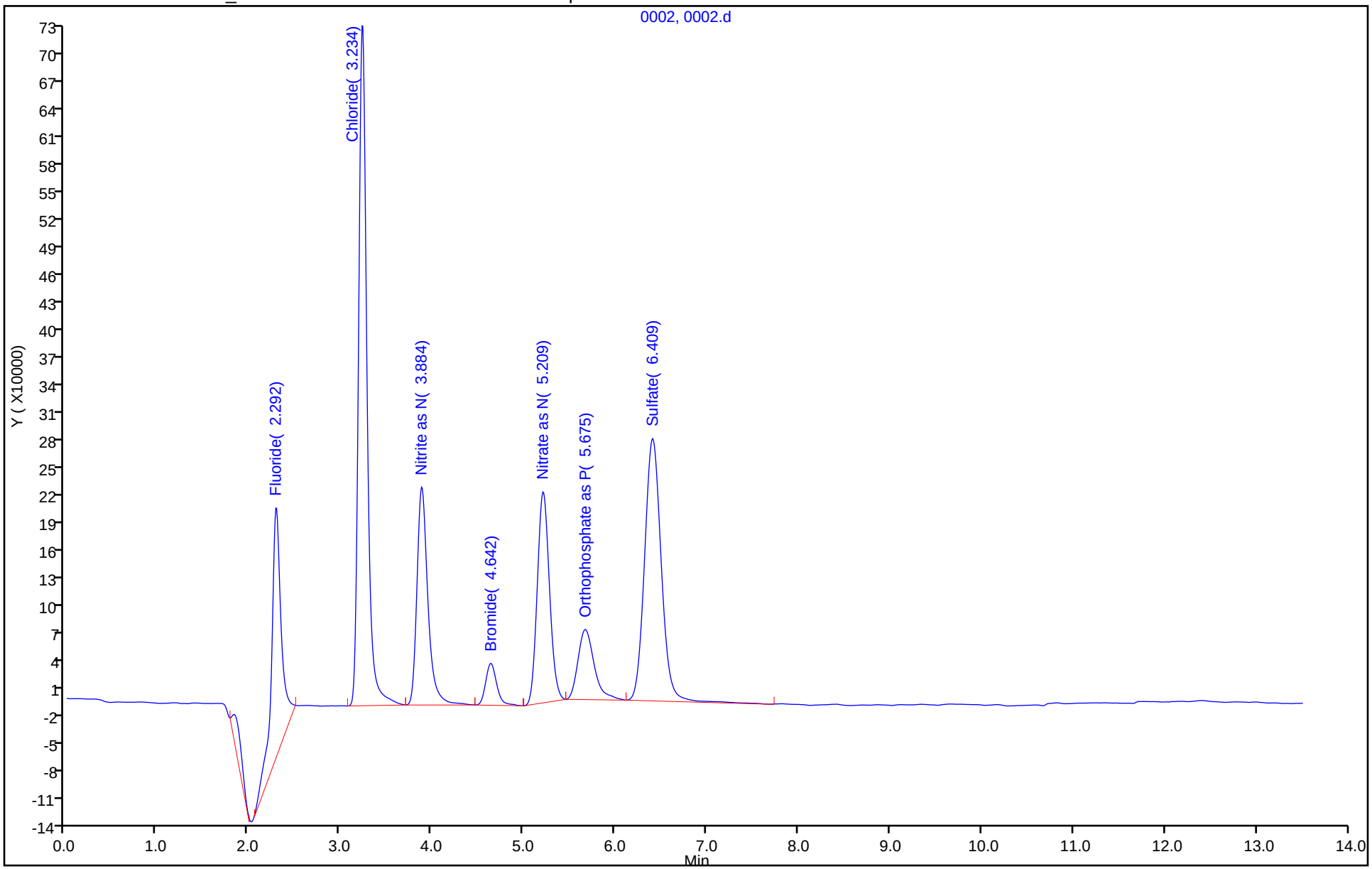
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

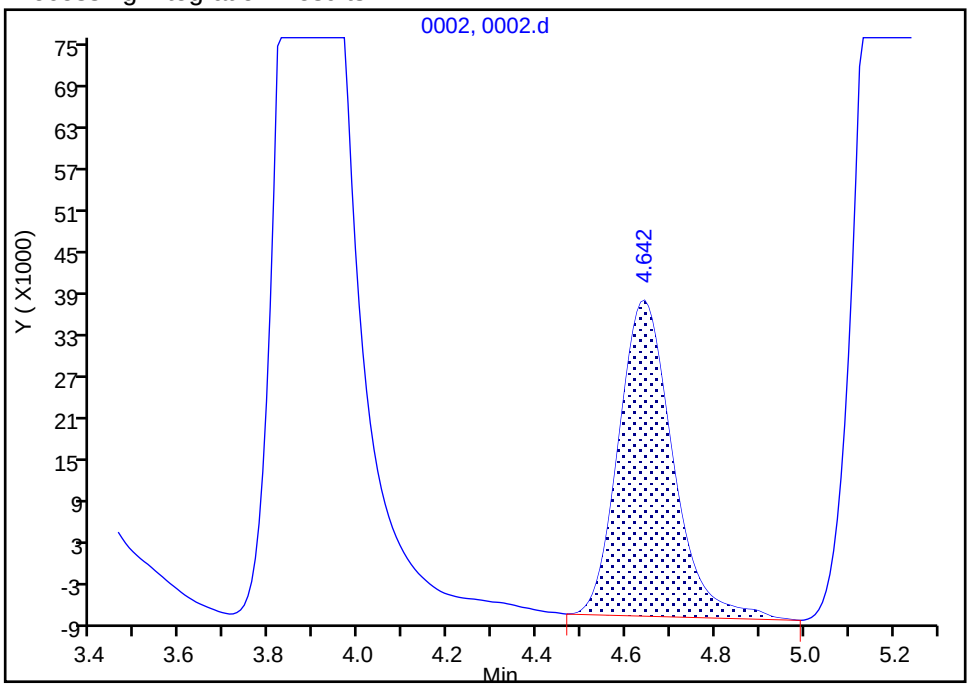
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

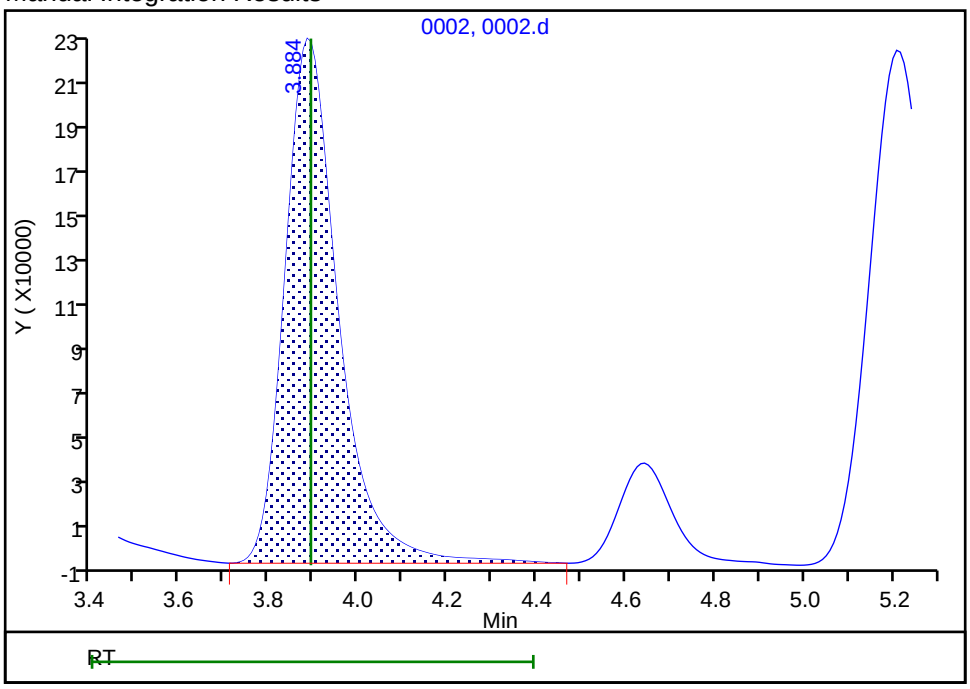
Processing Integration Results

RT: 4.64
Area: 382484
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 1976056
Amount: 0.213513
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:40
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

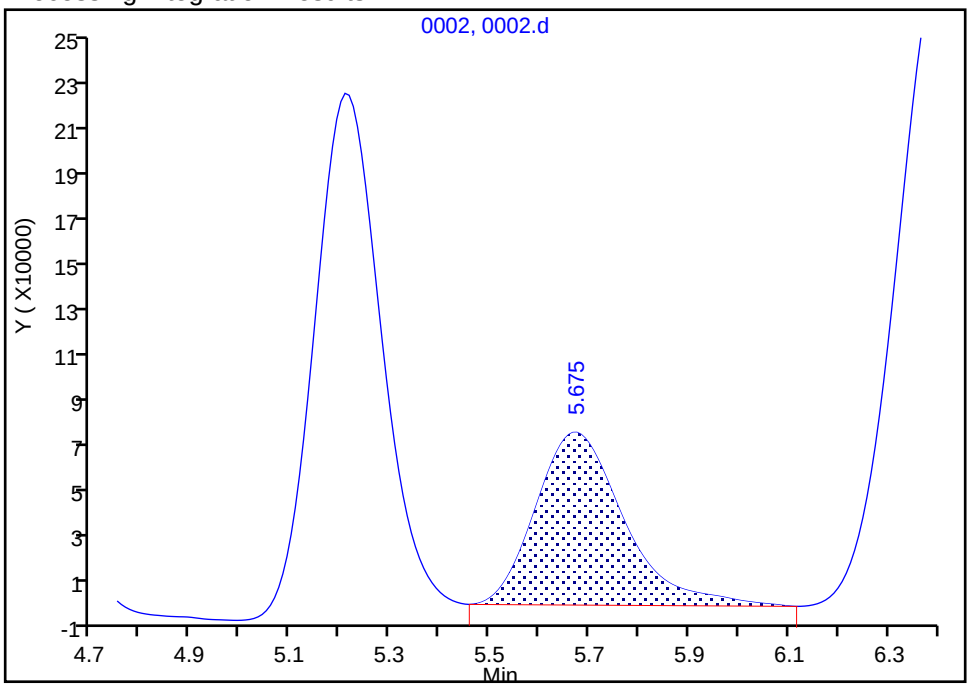
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

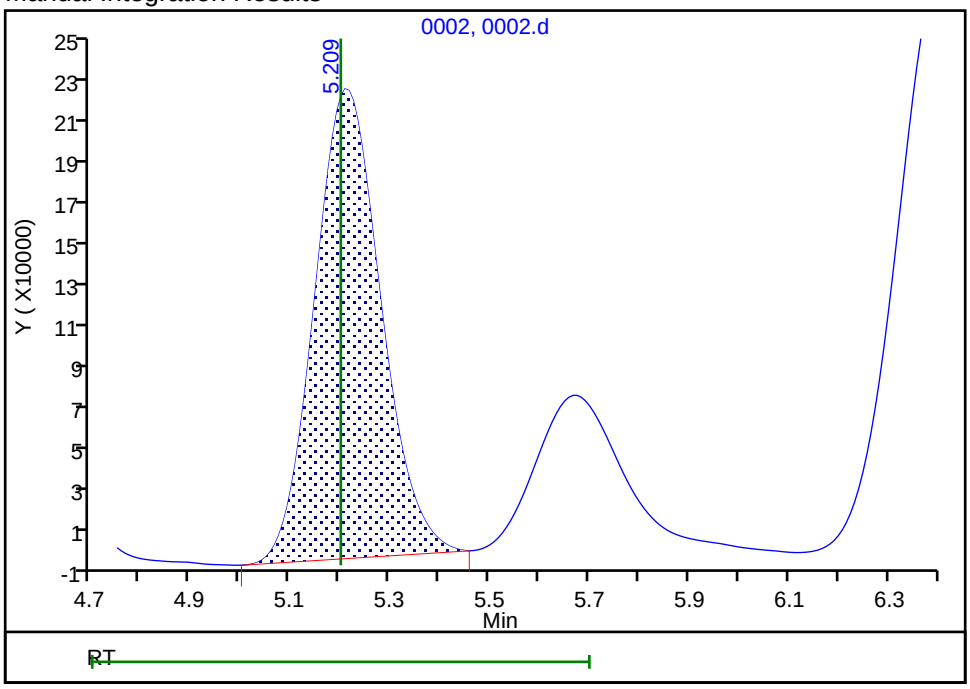
Processing Integration Results

RT: 5.68
Area: 939373
Amount: 0.215245
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 2120855
Amount: 0.220835
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

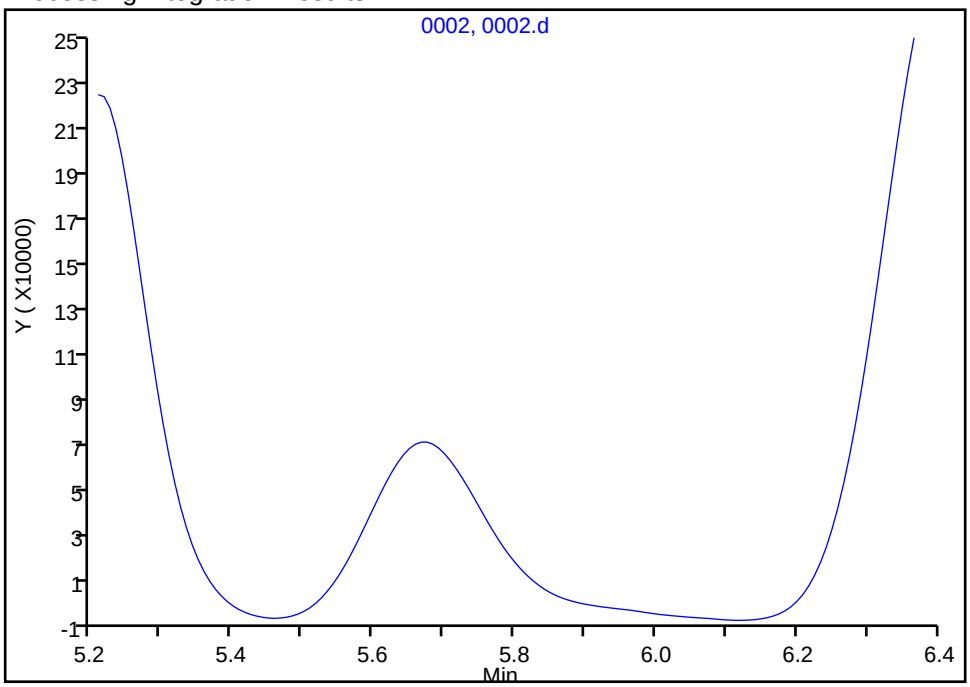
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

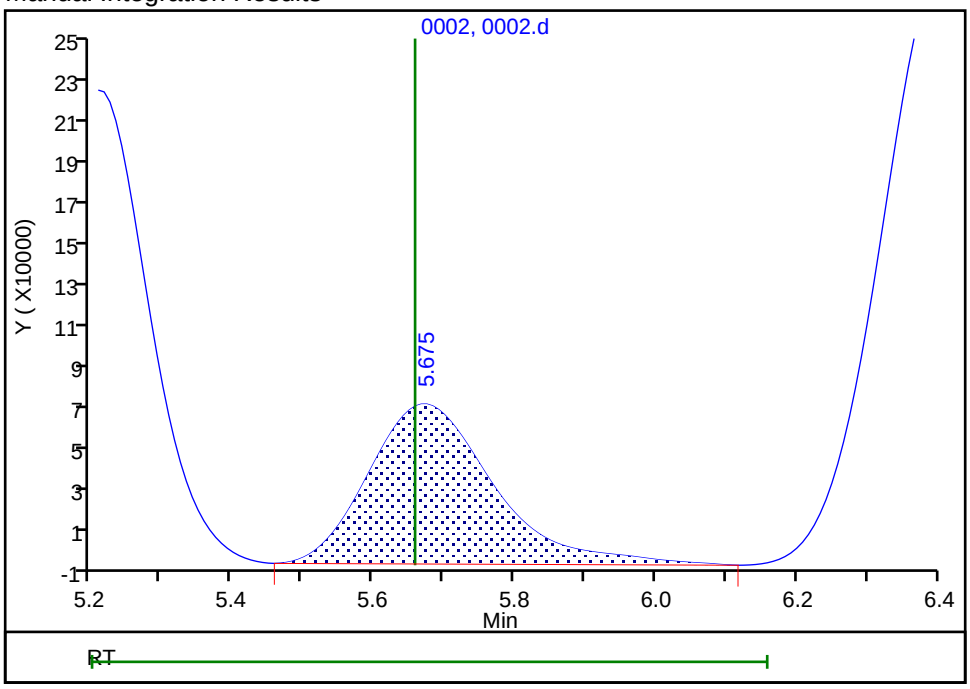
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.68
Area: 939373
Amount: 0.218915
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	0.2000	0.1247	M
2 Chloride	3.234	3.242	-0.008	4716909	1.00	1.32	
3 Nitrite as N	3.884	3.892	-0.008	1976056	NC	NC	a
4 Bromide	4.642	4.642	0.000	382484	0.2000	0.2043	a
5 Nitrate as N	5.209	5.200	0.009	2120855	NC	NC	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	3612640	1.00	1.25	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

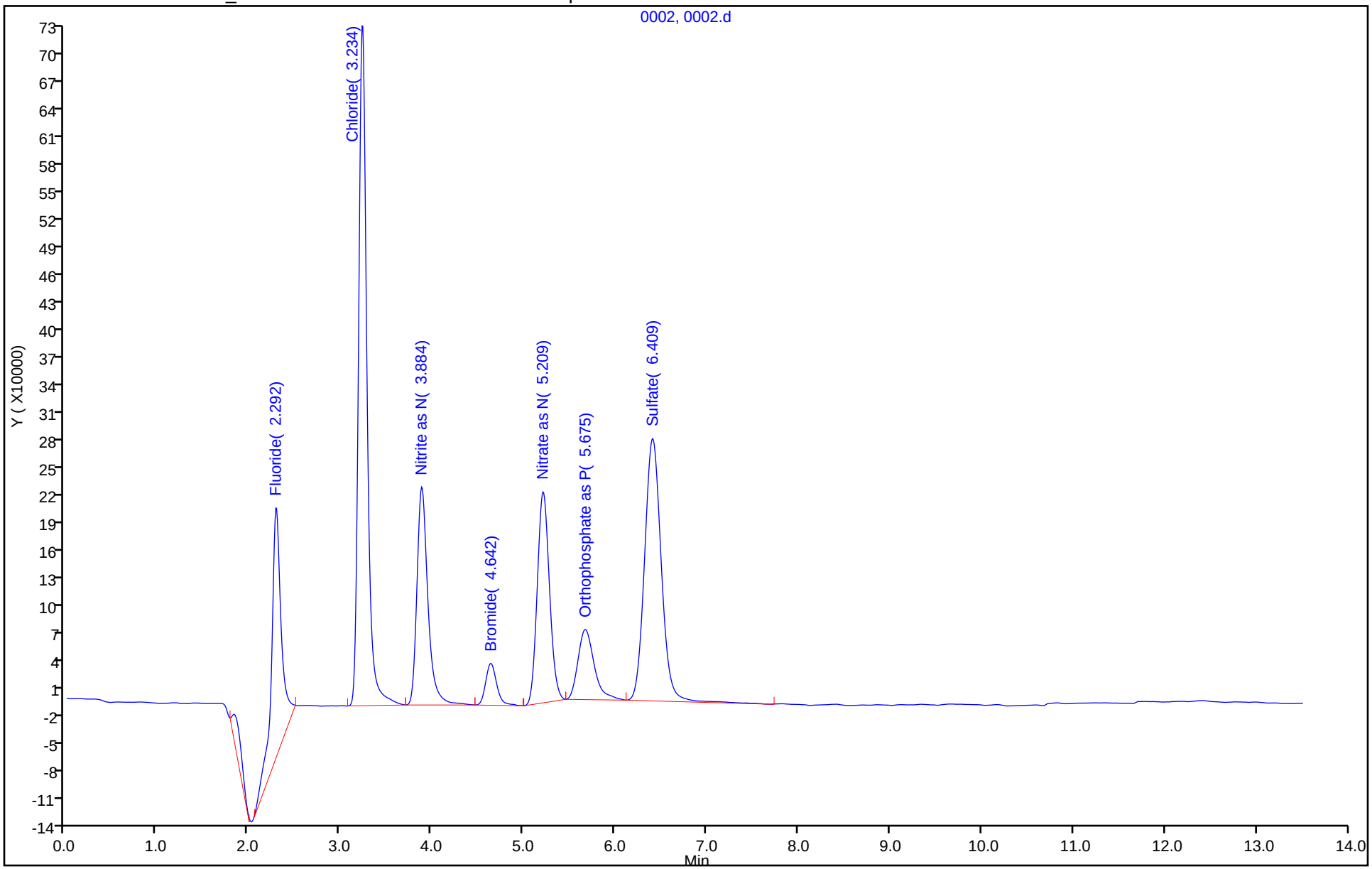
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

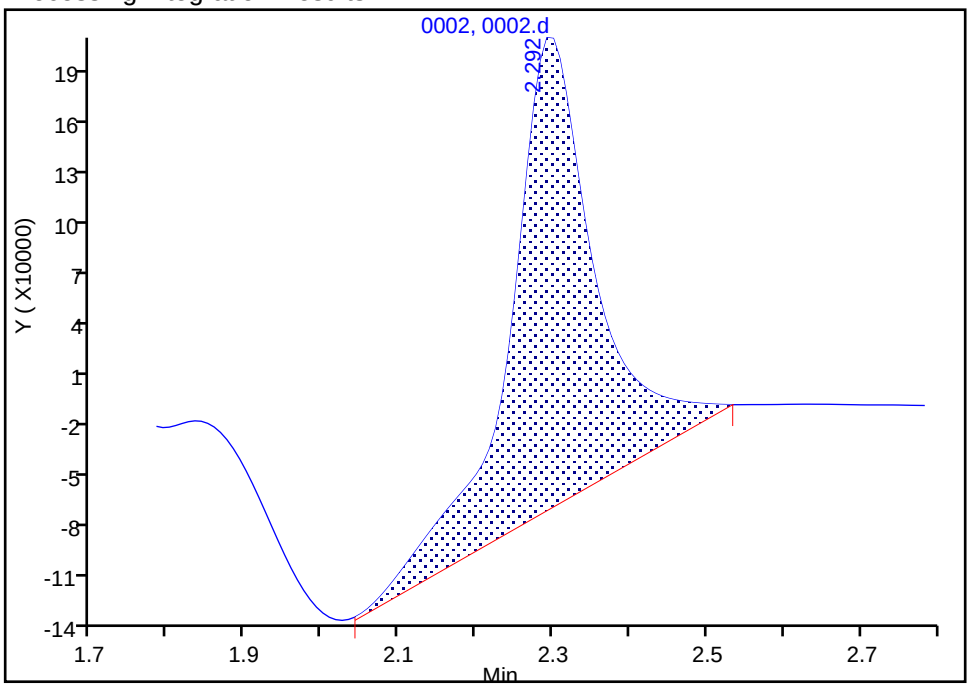
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

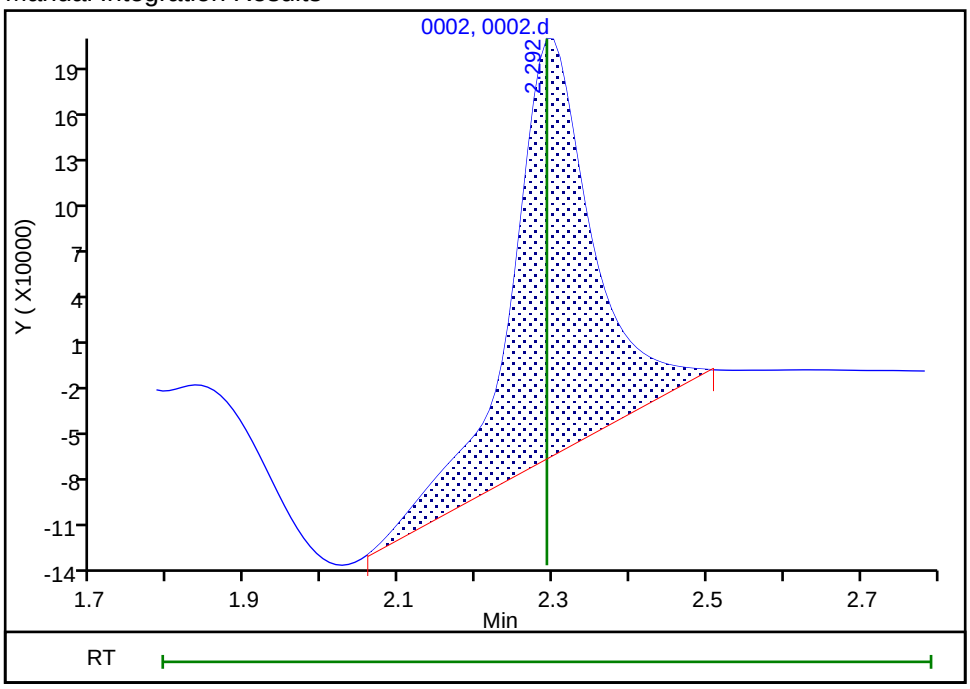
Processing Integration Results

RT: 2.29
Area: 2156044
Amount: 0.130825
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2026299
Amount: 0.124737
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:10:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

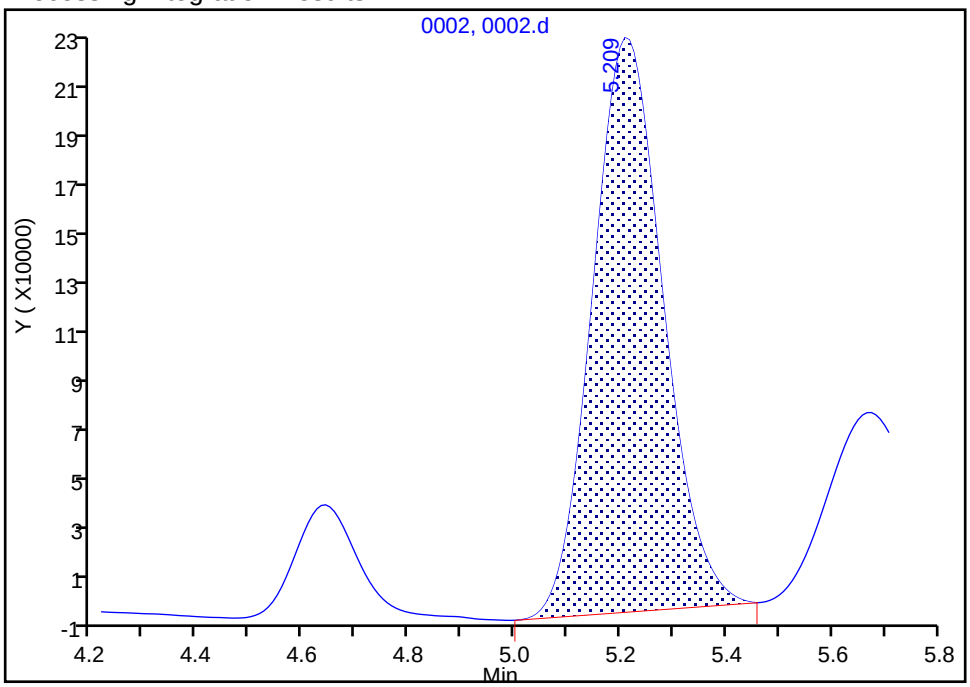
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

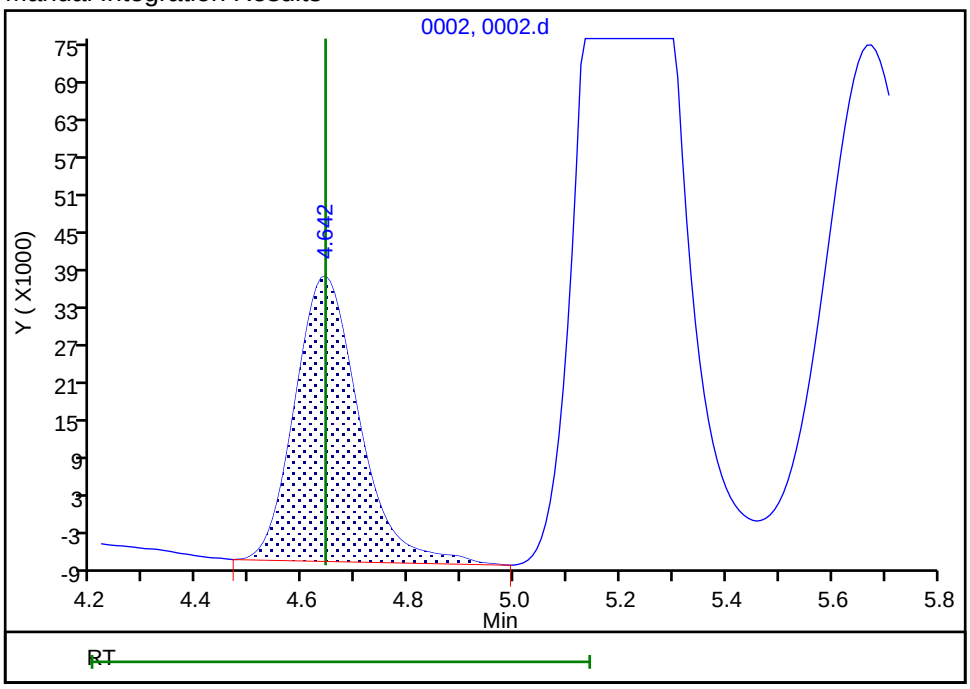
Processing Integration Results

RT: 5.21
Area: 2120855
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 382484
Amount: 0.204318
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

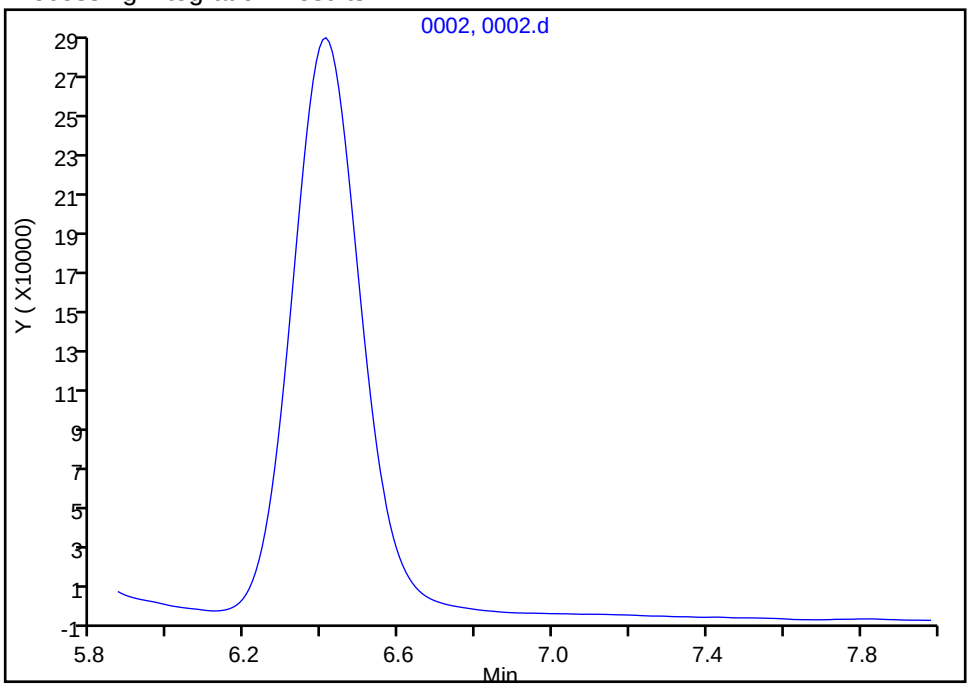
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

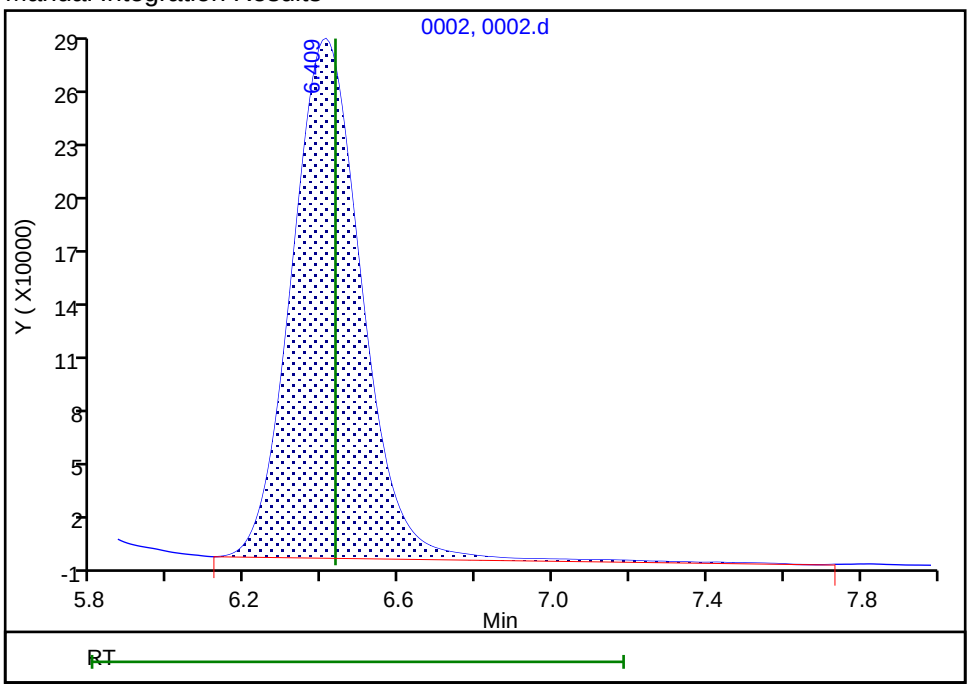
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 3612640
Amount: 1.245045
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:12
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	NC	NC	
2 Chloride	3.234	3.242	-0.008	11441790	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	4889442	0.5000	0.4912	a
4 Bromide	4.634	4.642	-0.008	953603	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	5219434	0.5000	0.4876	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	0.5000	0.4793	a
6 Sulfate	6.409	6.434	-0.025	8699908	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

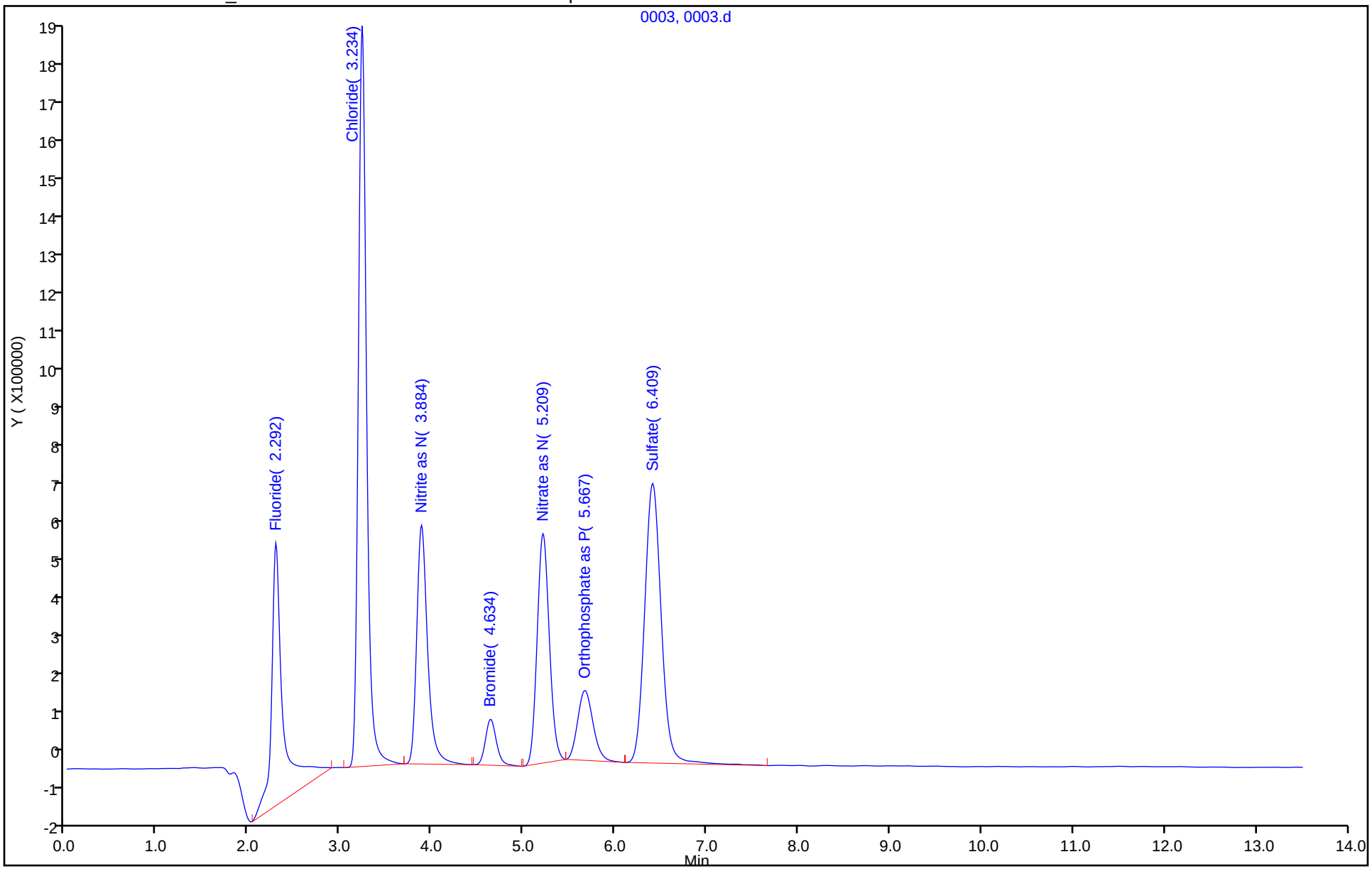
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

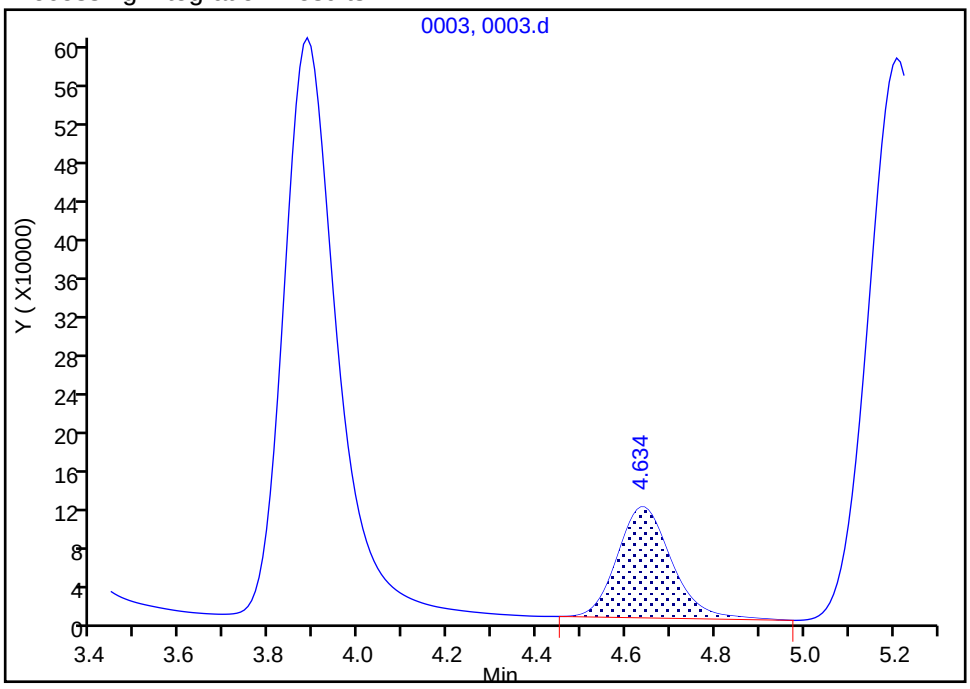
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

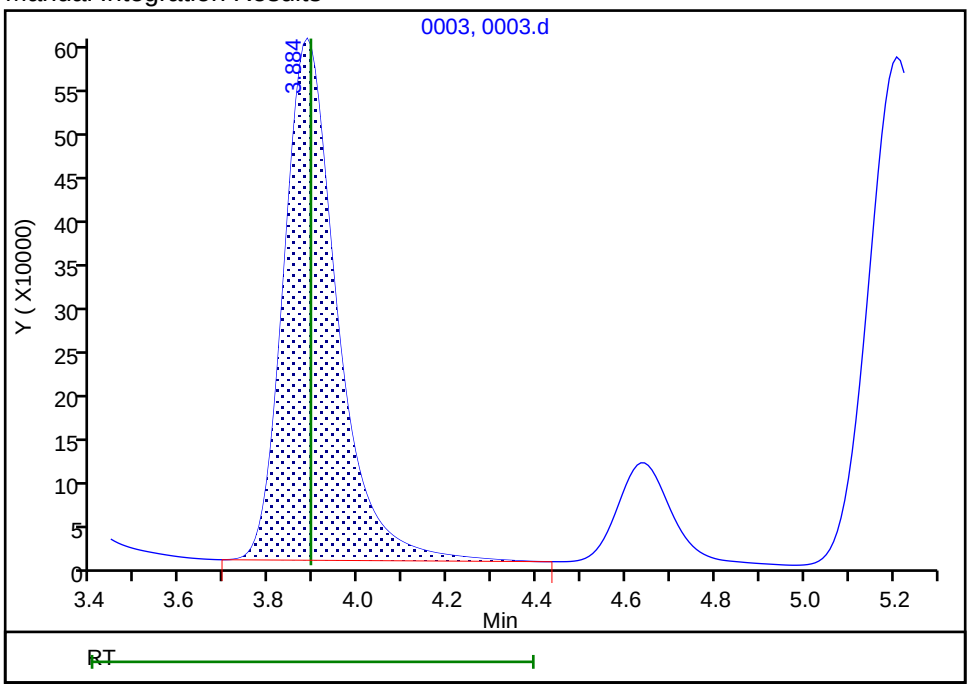
Processing Integration Results

RT: 4.63
Area: 953603
Amount: -0.100903
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 4889442
Amount: 0.491191
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

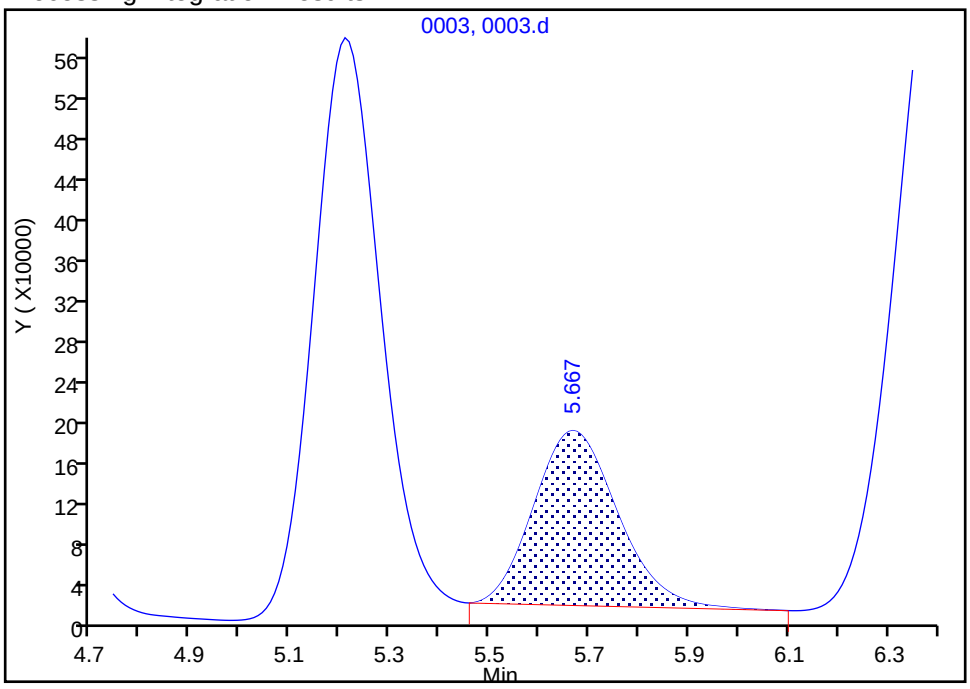
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

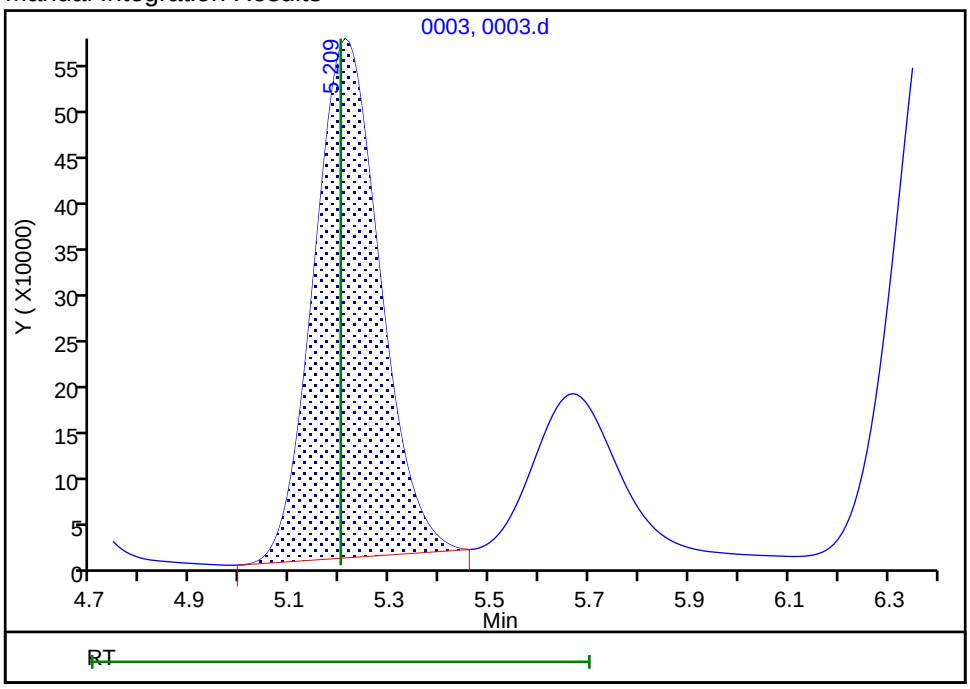
Processing Integration Results

RT: 5.67
Area: 2017876
Amount: 0.290238
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 5219434
Amount: 0.487631
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

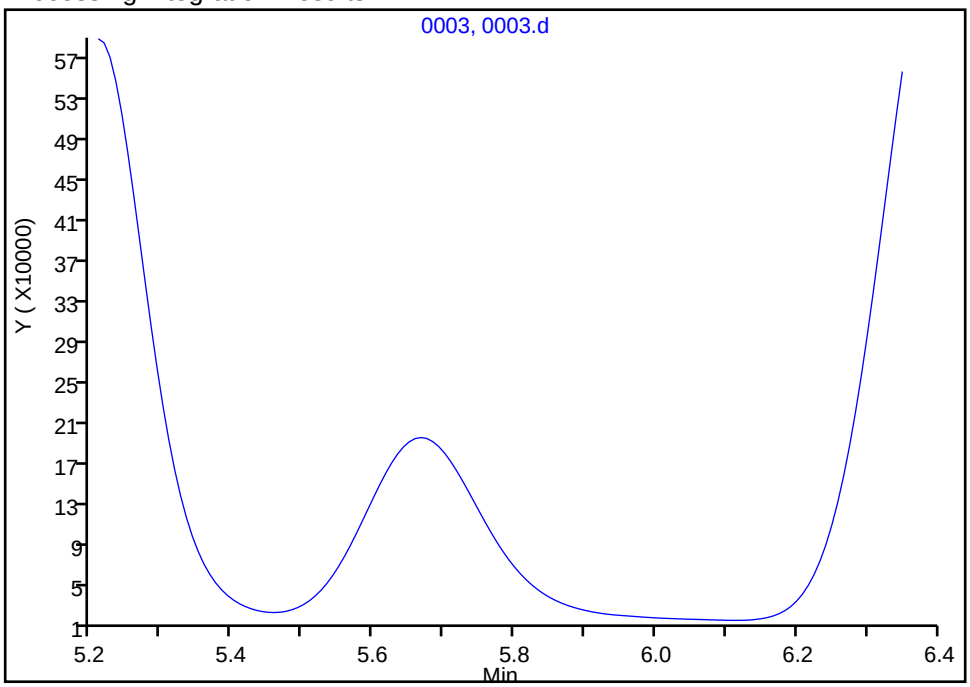
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

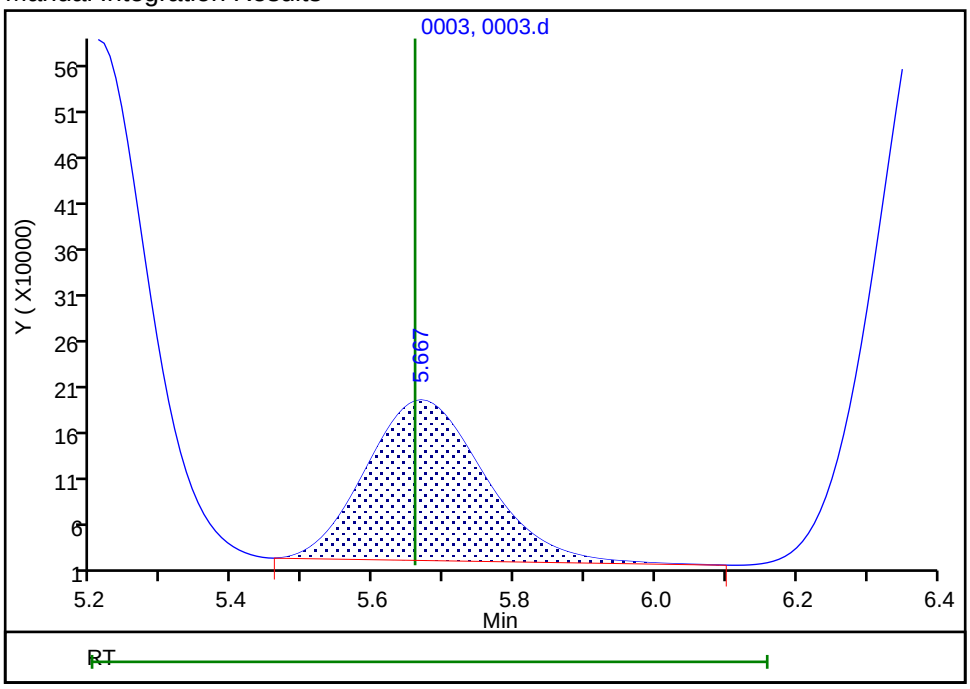
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 2017876
Amount: 0.479288
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	0.5000	0.6311	
2 Chloride	3.234	3.242	-0.008	11441790	2.50	2.32	
3 Nitrite as N	3.884	3.892	-0.008	4889442	NC	NC	a
4 Bromide	4.634	4.642	-0.008	953603	0.5000	0.4980	a
5 Nitrate as N	5.209	5.200	0.009	5219434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	8699908	2.50	2.38	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

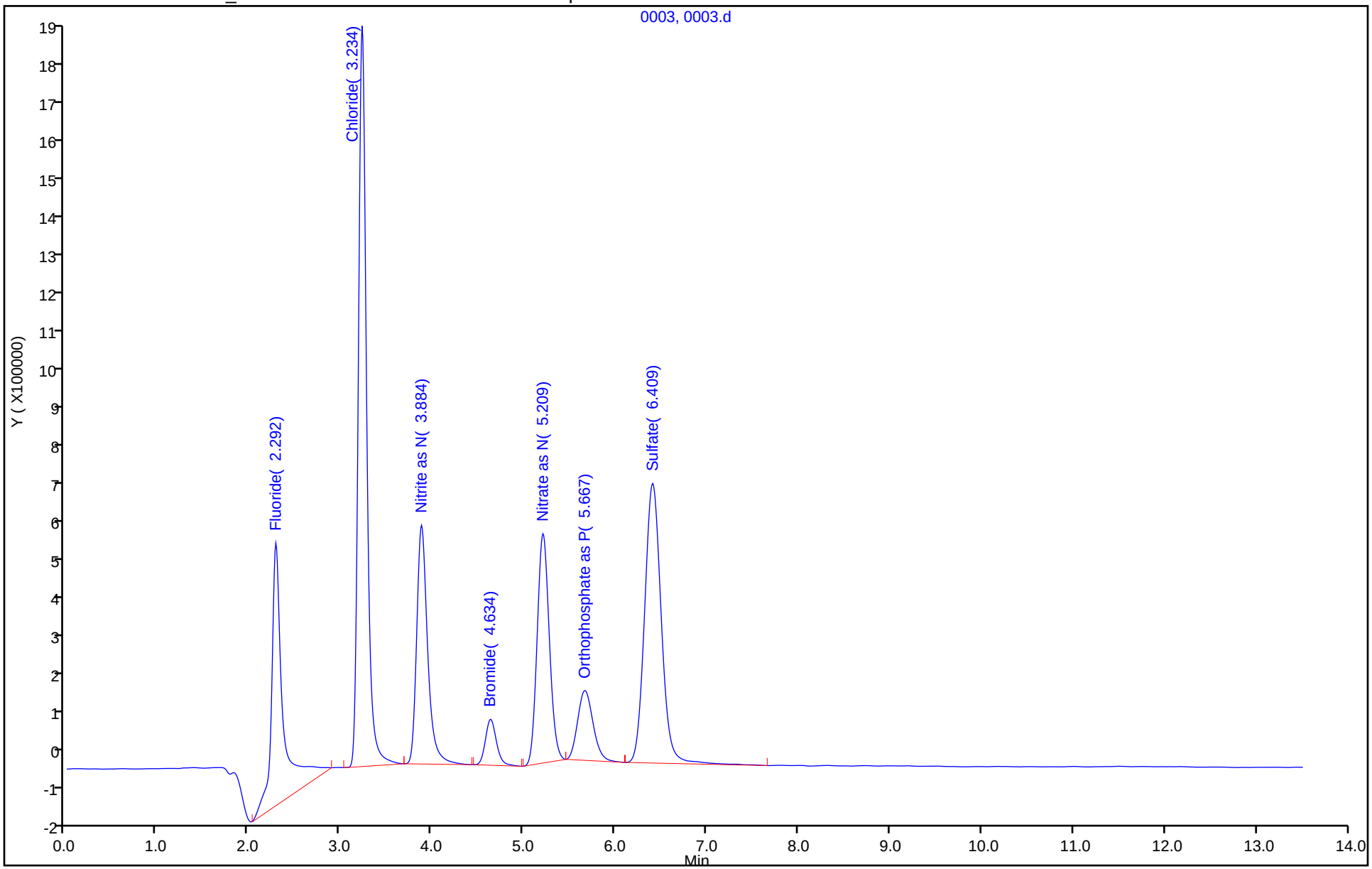
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

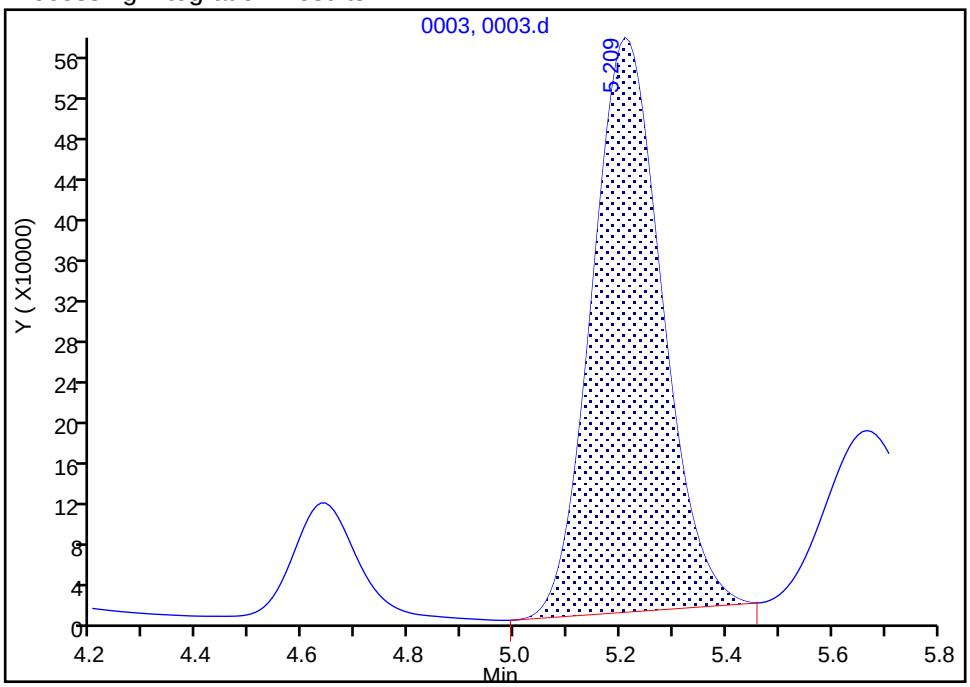
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

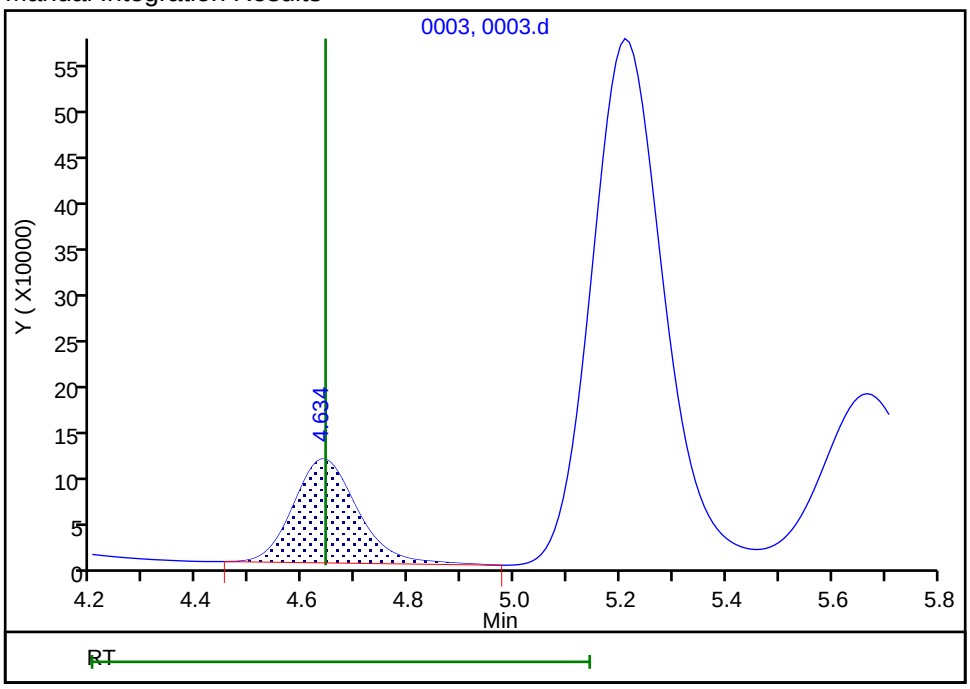
Processing Integration Results

RT: 5.21
Area: 5219434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 953603
Amount: 0.497971
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

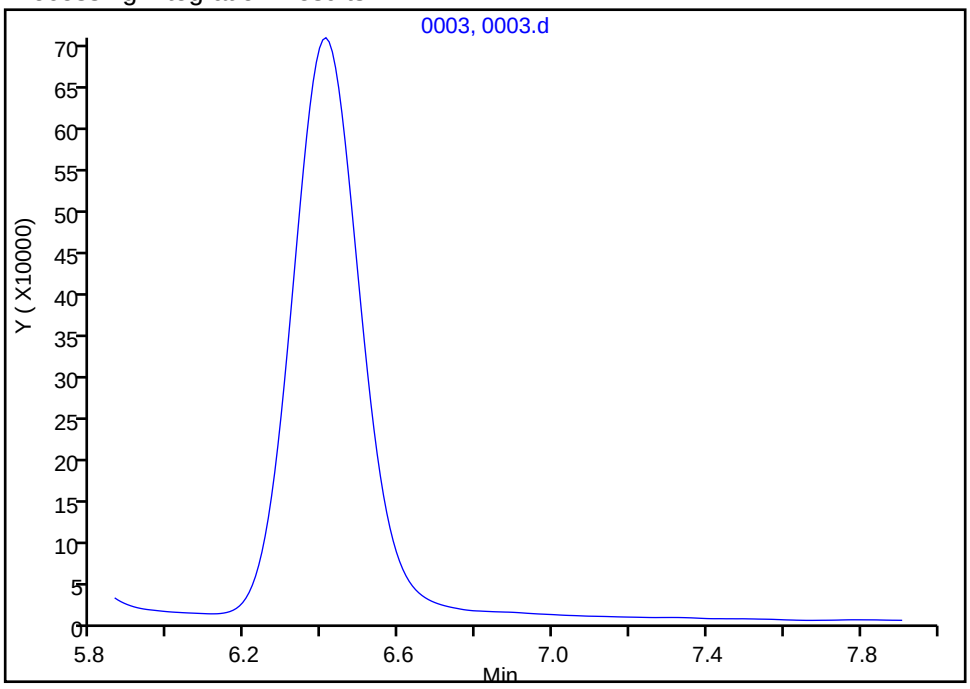
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

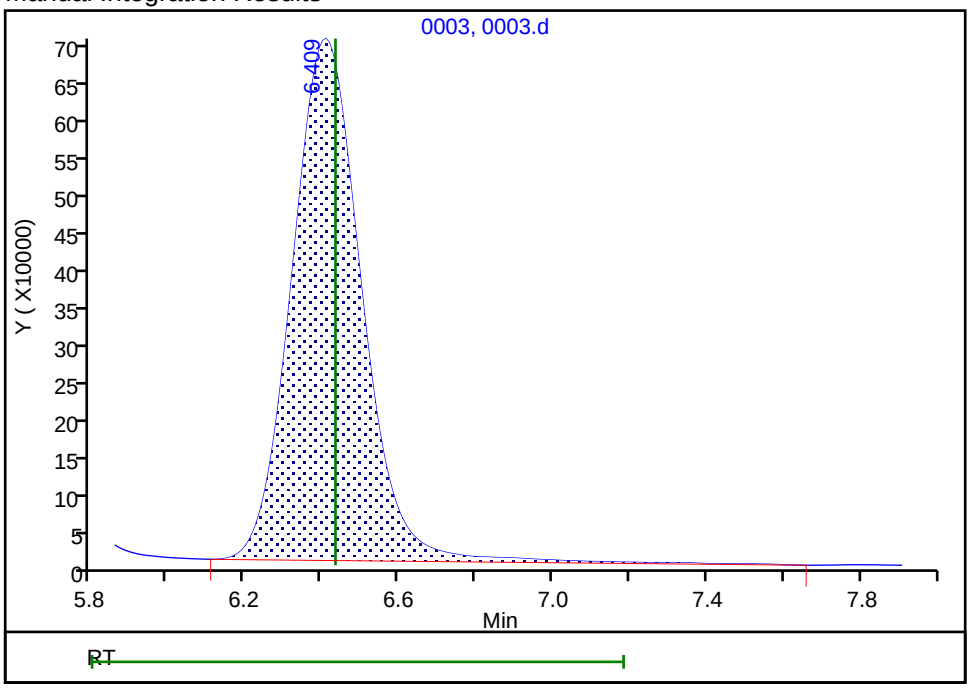
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 8699908
Amount: 2.382508
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:24
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	NC	NC	
2 Chloride	3.234	3.242	-0.008	23461594	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	9866046	1.00	0.9655	a
4 Bromide	4.642	4.642	0.000	1893846	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	10516434	1.00	0.9437	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	1.00	0.9615	a
6 Sulfate	6.409	6.434	-0.025	17587626	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

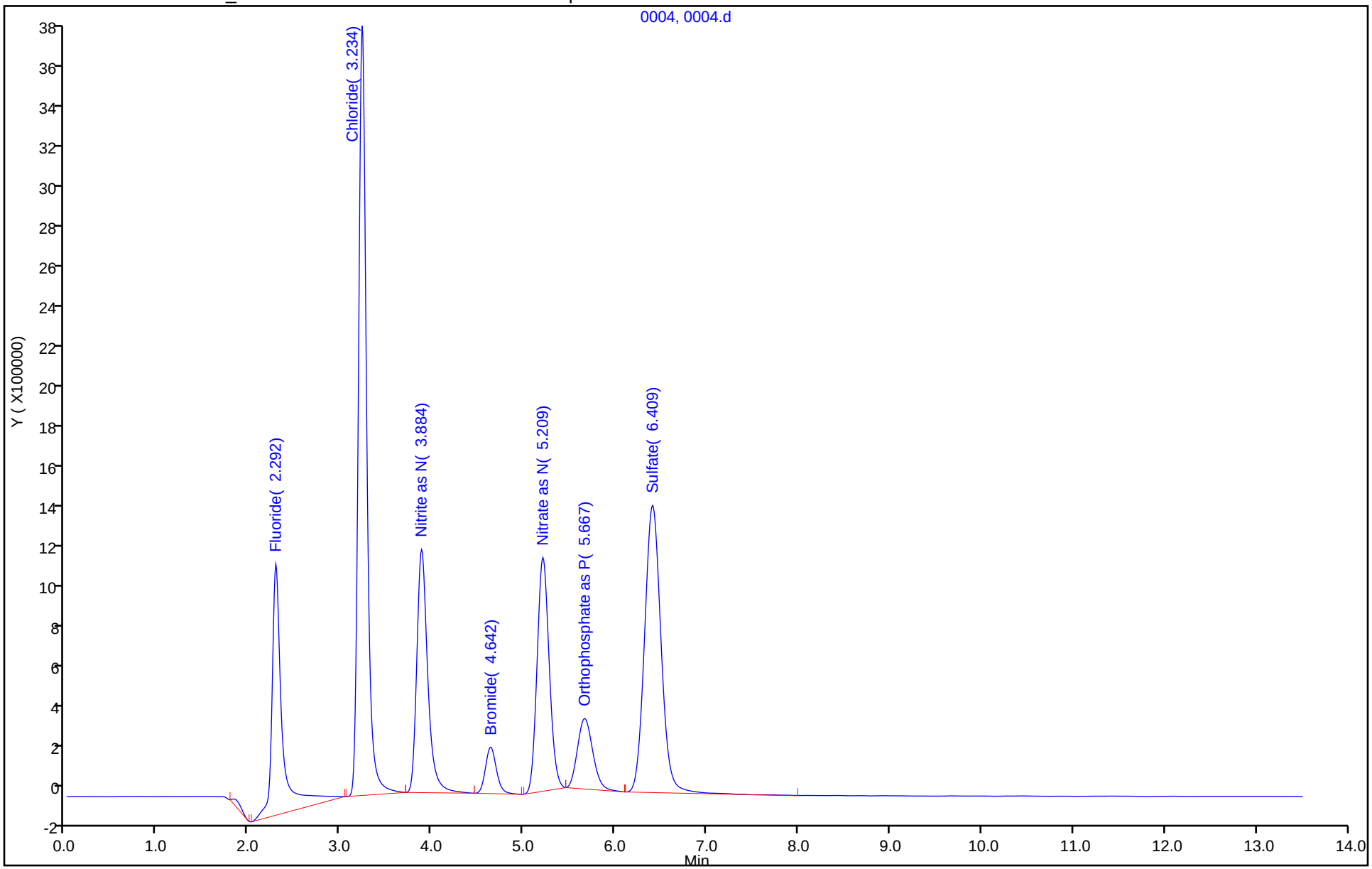
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

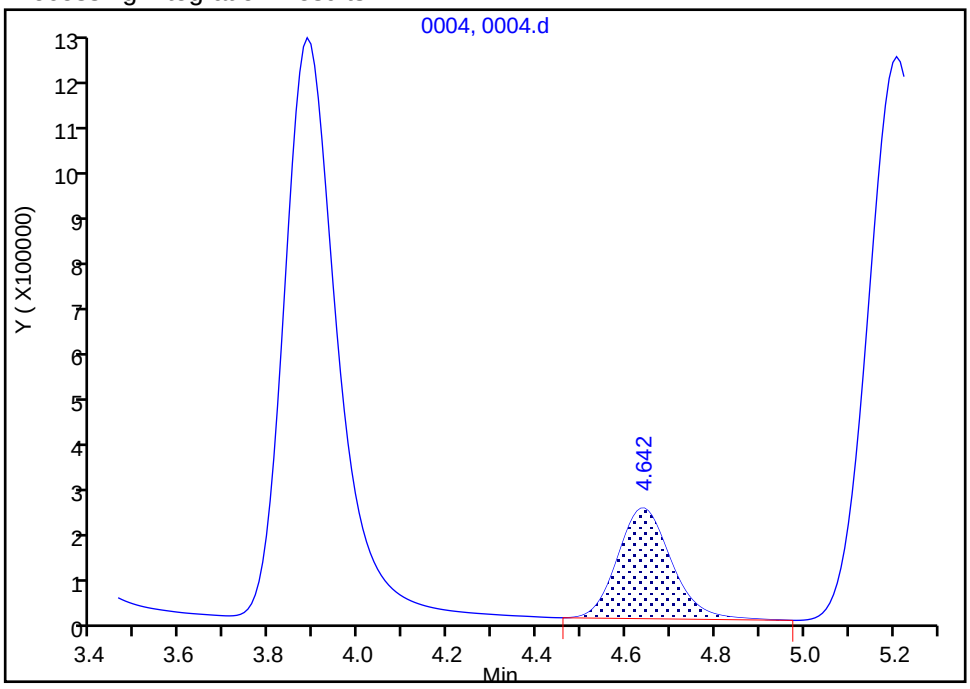
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

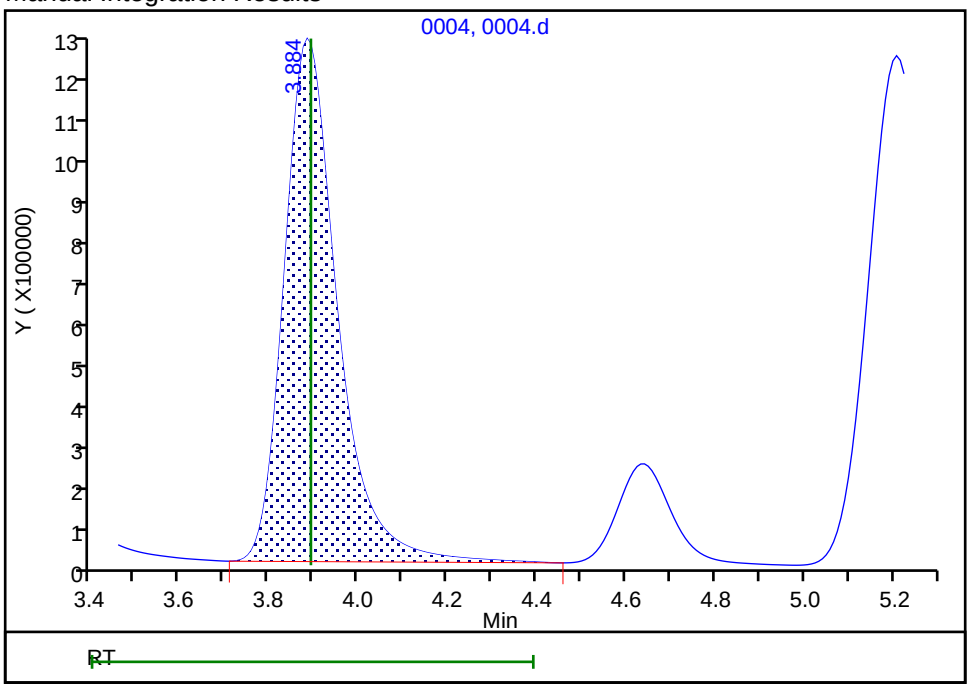
Processing Integration Results

RT: 4.64
Area: 1893846
Amount: -0.132556
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 9866046
Amount: 0.965516
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:43
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

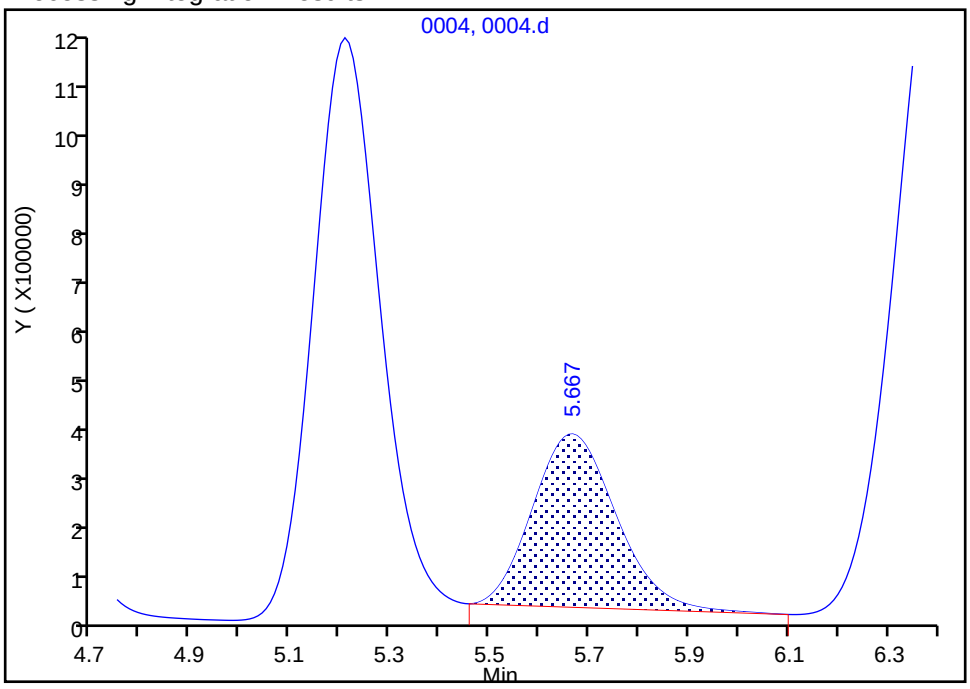
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

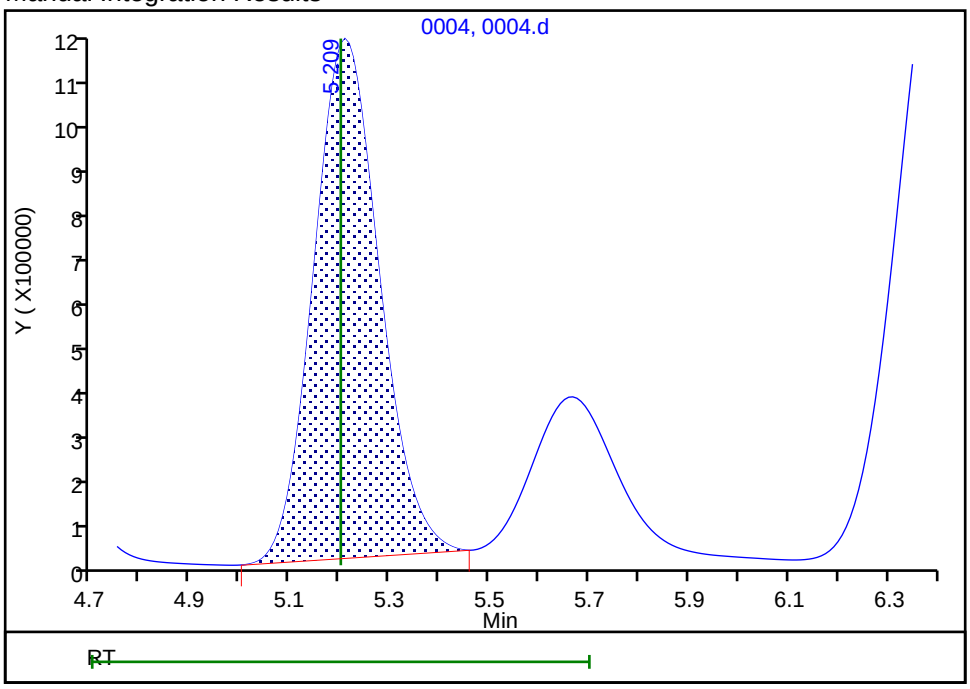
Processing Integration Results

RT: 5.67
Area: 4015320
Amount: 0.609716
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 10516434
Amount: 0.943717
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:47
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

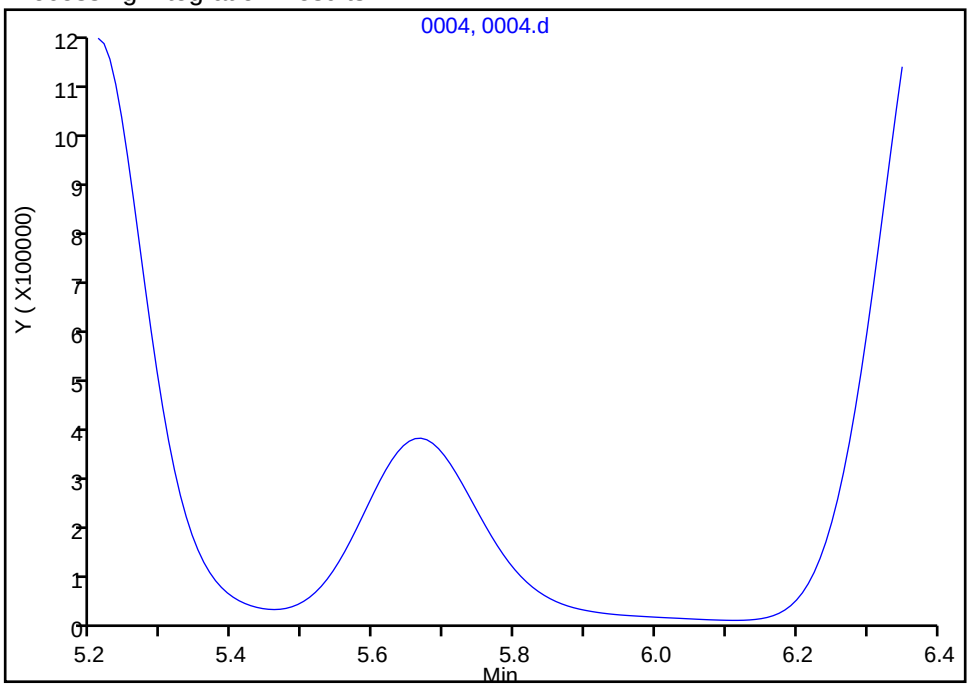
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

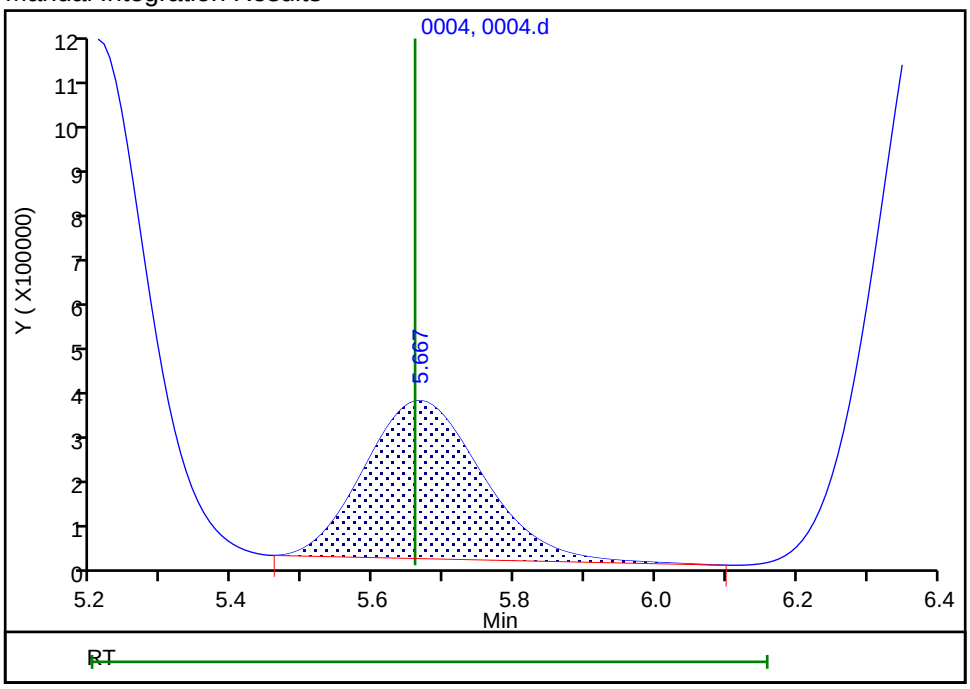
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 4015320
Amount: 0.961514
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	1.00	1.16	
2 Chloride	3.234	3.242	-0.008	23461594	5.00	4.11	
3 Nitrite as N	3.884	3.892	-0.008	9866046	NC	NC	a
4 Bromide	4.642	4.642	0.000	1893846	1.00	0.9814	a
5 Nitrate as N	5.209	5.200	0.009	10516434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	17587626	5.00	4.37	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

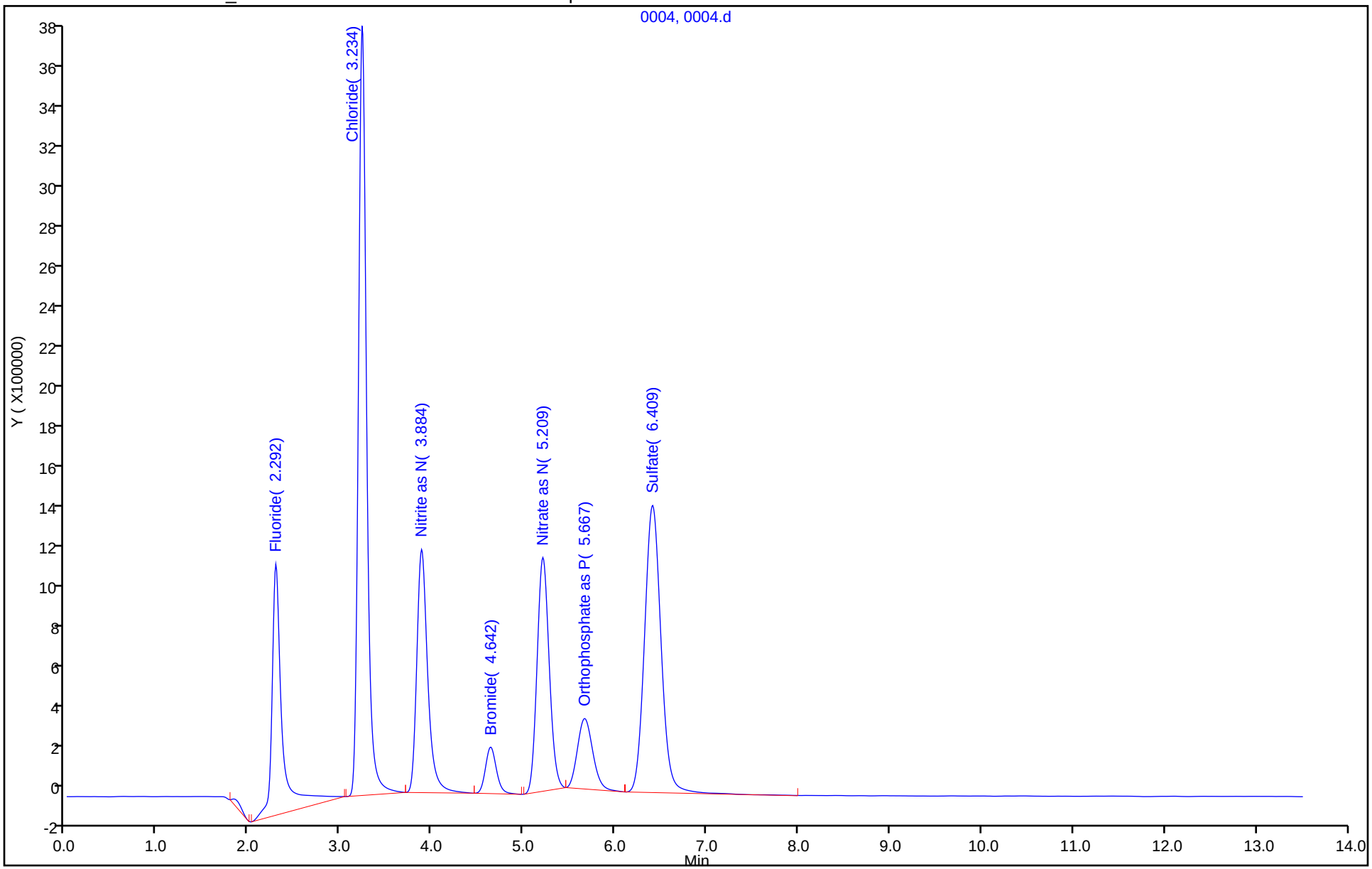
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

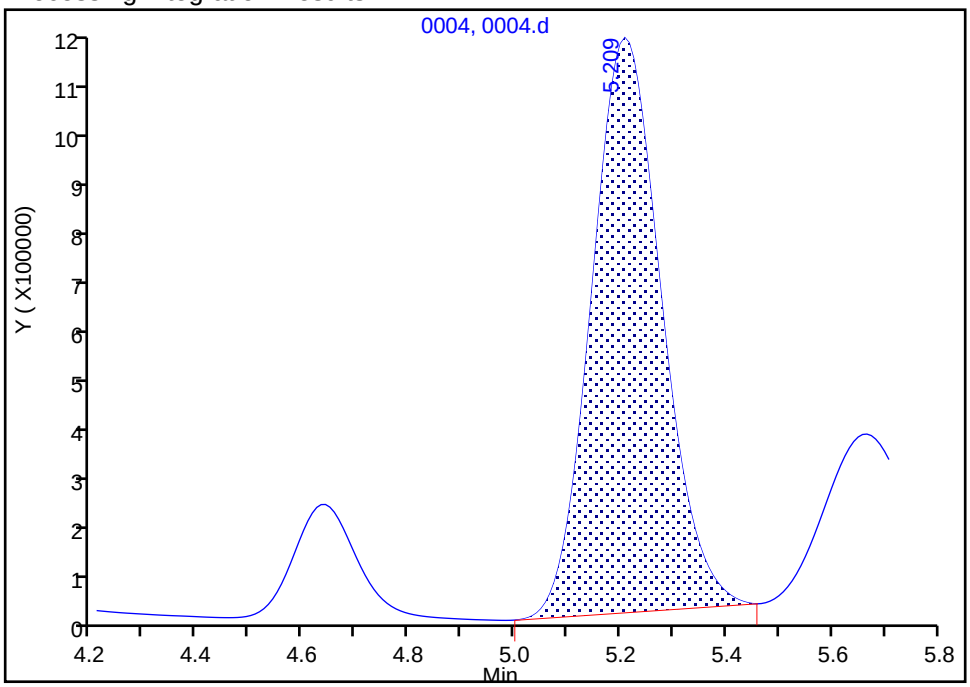
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

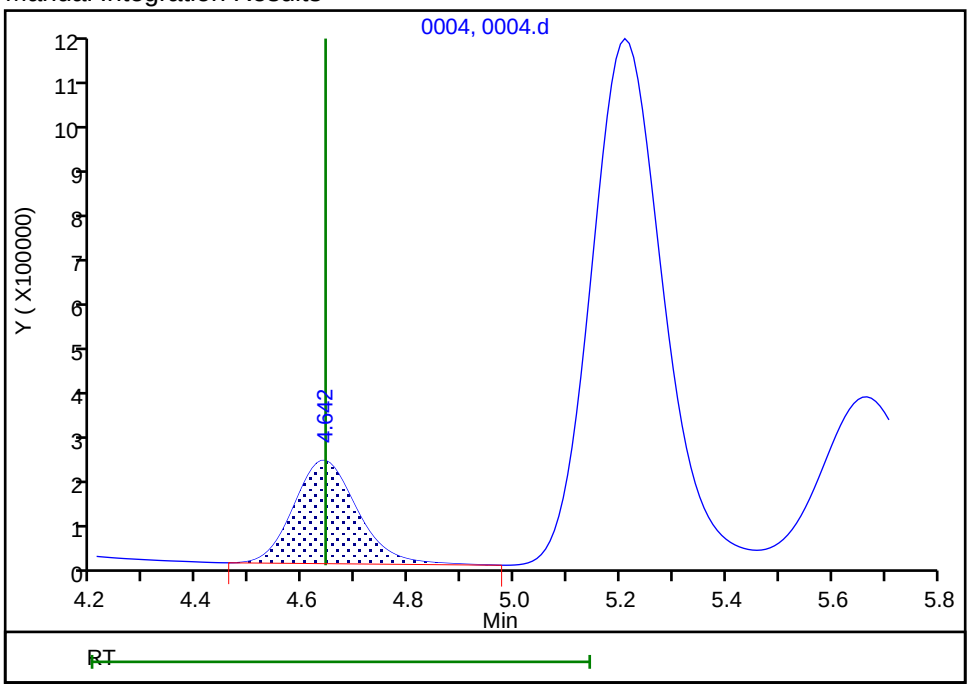
Processing Integration Results

RT: 5.21
Area: 10516434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 1893846
Amount: 0.981416
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:15
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

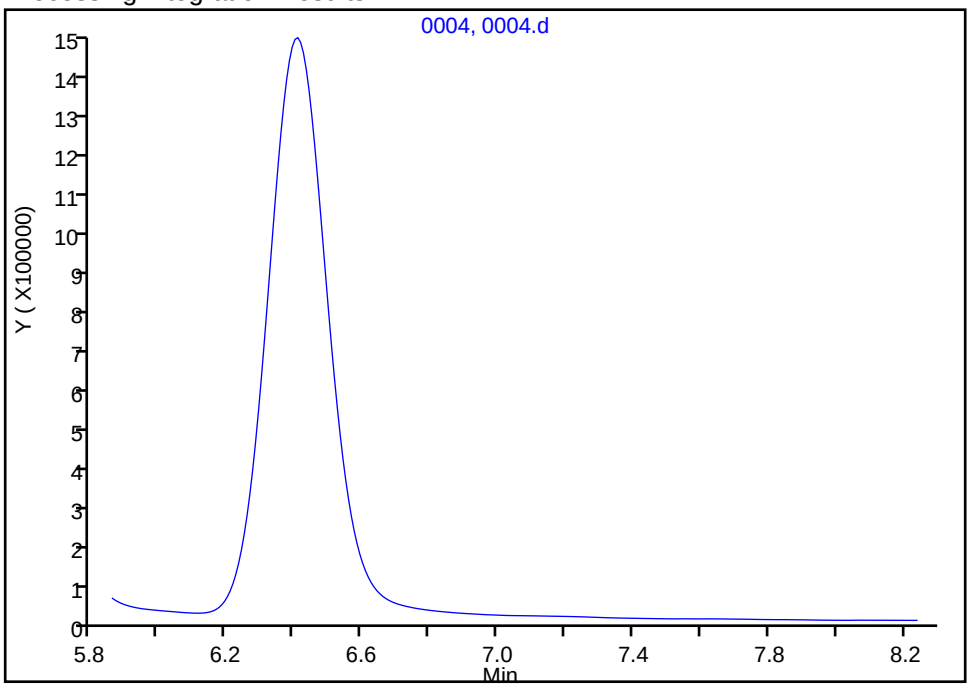
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

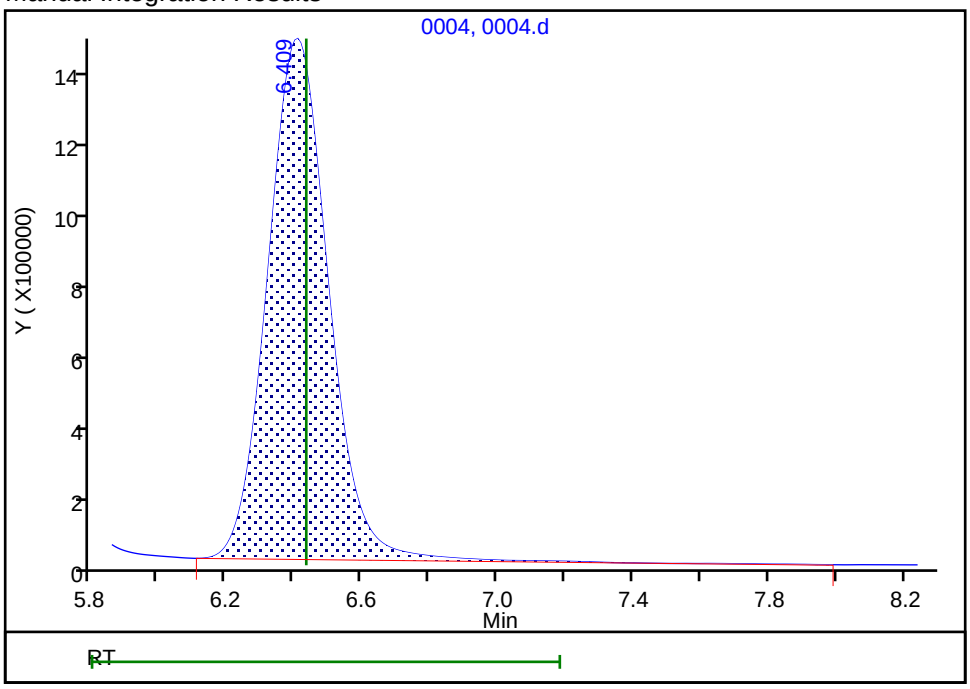
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 17587626
Amount: 4.369714
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:10
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	NC	NC	
2 Chloride	3.242	3.242	0.000	361228288	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	40367514	4.00	3.87	a
4 Bromide	4.634	4.634	0.000	7626440	NC	NC	a
5 Nitrate as N	5.200	5.200	0.000	43835884	4.00	3.81	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	4.00	3.88	a
6 Sulfate	6.434	6.434	0.000	241149184	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

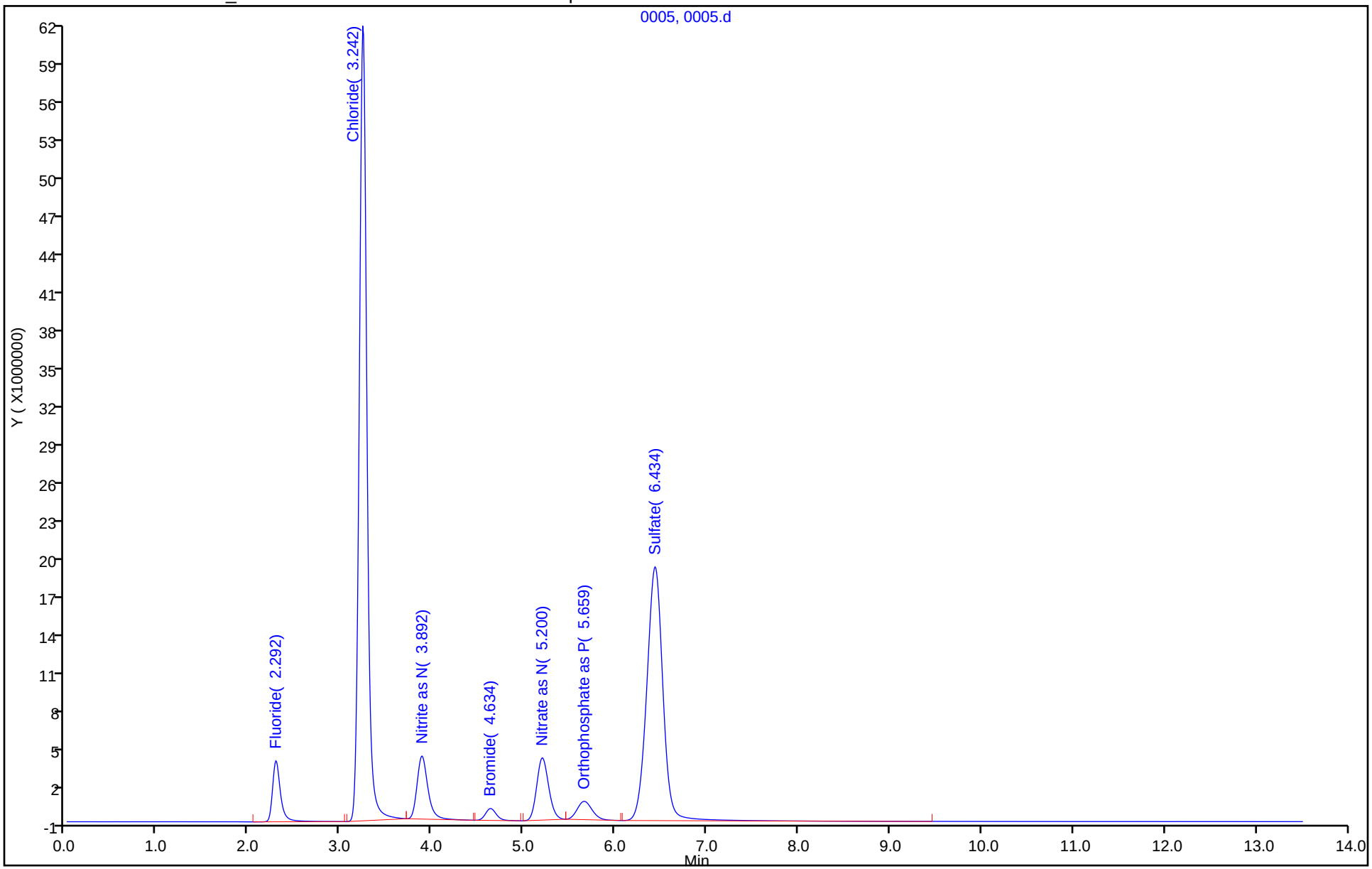
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

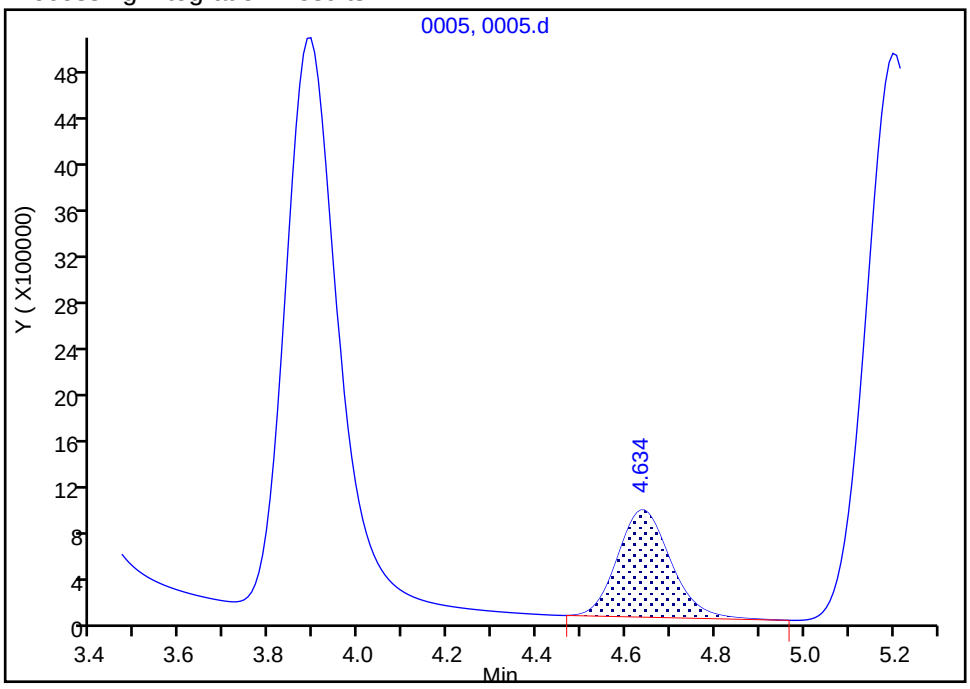
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

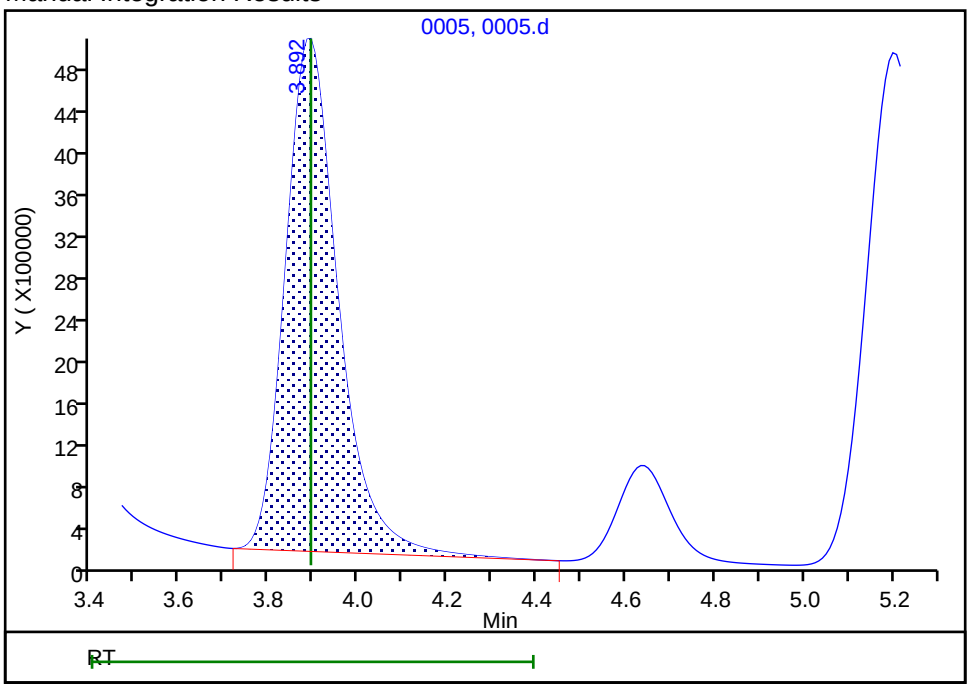
Processing Integration Results

RT: 4.63
Area: 7626440
Amount: 2.554556
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 40367514
Amount: 3.872644
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:32
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

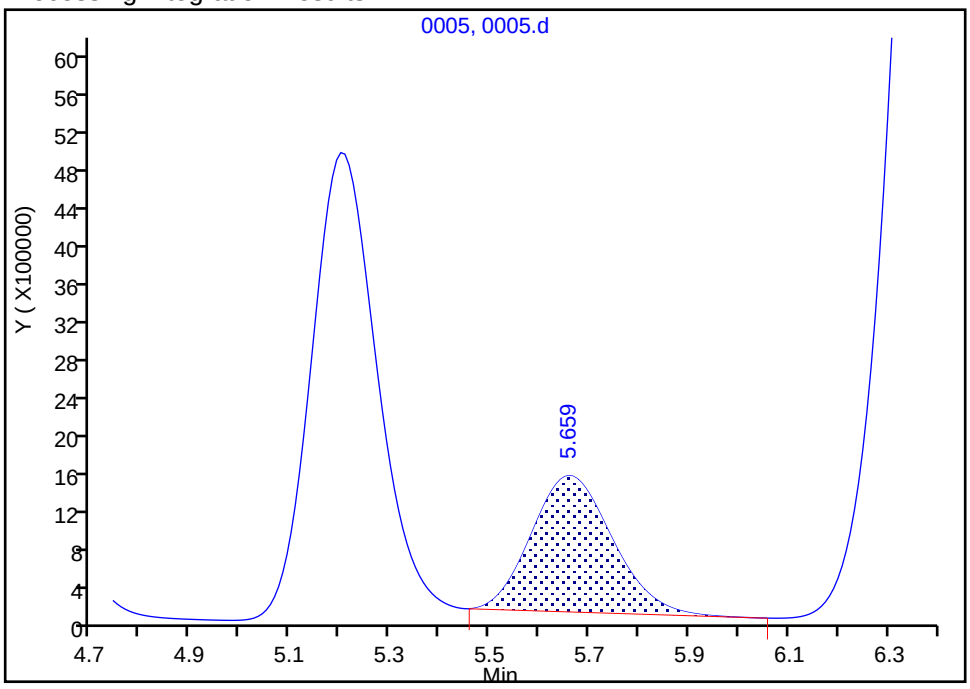
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

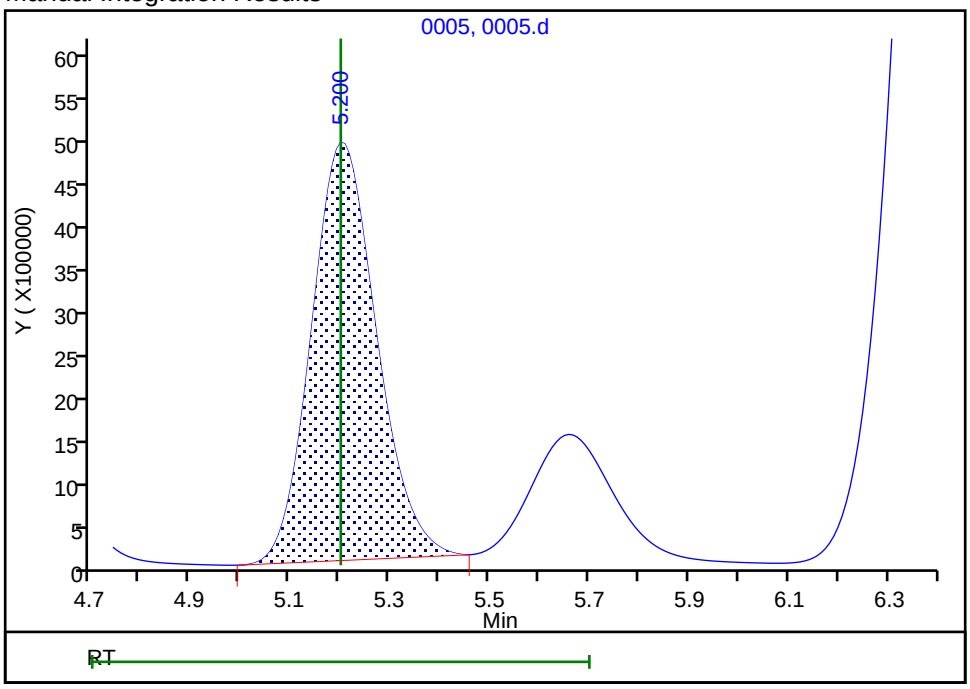
Processing Integration Results

RT: 5.66
Area: 16089342
Amount: 3.399959
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 43835884
Amount: 3.812608
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:36
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

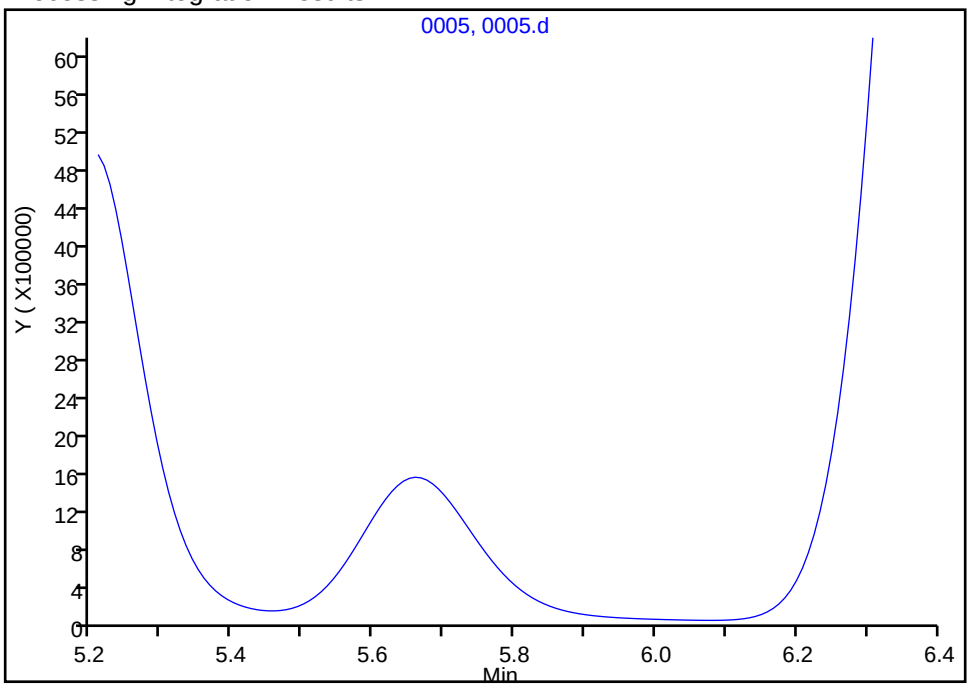
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

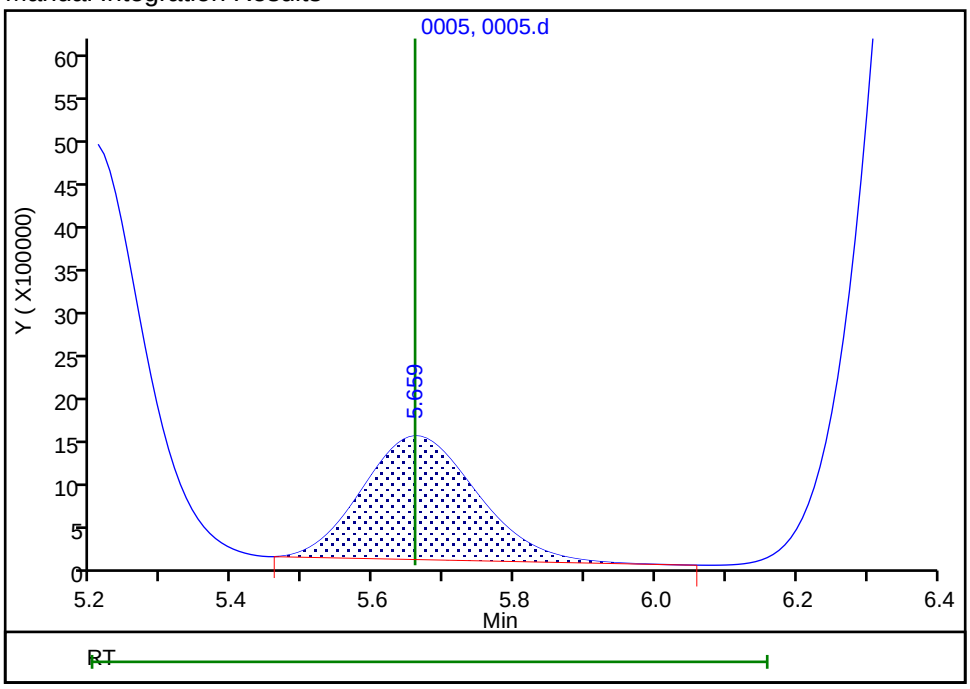
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 16089342
Amount: 3.876438
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	4.00	3.86	
2 Chloride	3.242	3.242	0.000	361228288	60.0	54.3	
3 Nitrite as N	3.892	3.892	0.000	40367514	NC	NC	a
4 Bromide	4.634	4.634	0.000	7626440	4.00	3.94	a
5 Nitrate as N	5.200	5.200	0.000	43835884	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	NC	NC	a
6 Sulfate	6.434	6.434	0.000	241149184	60.0	54.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

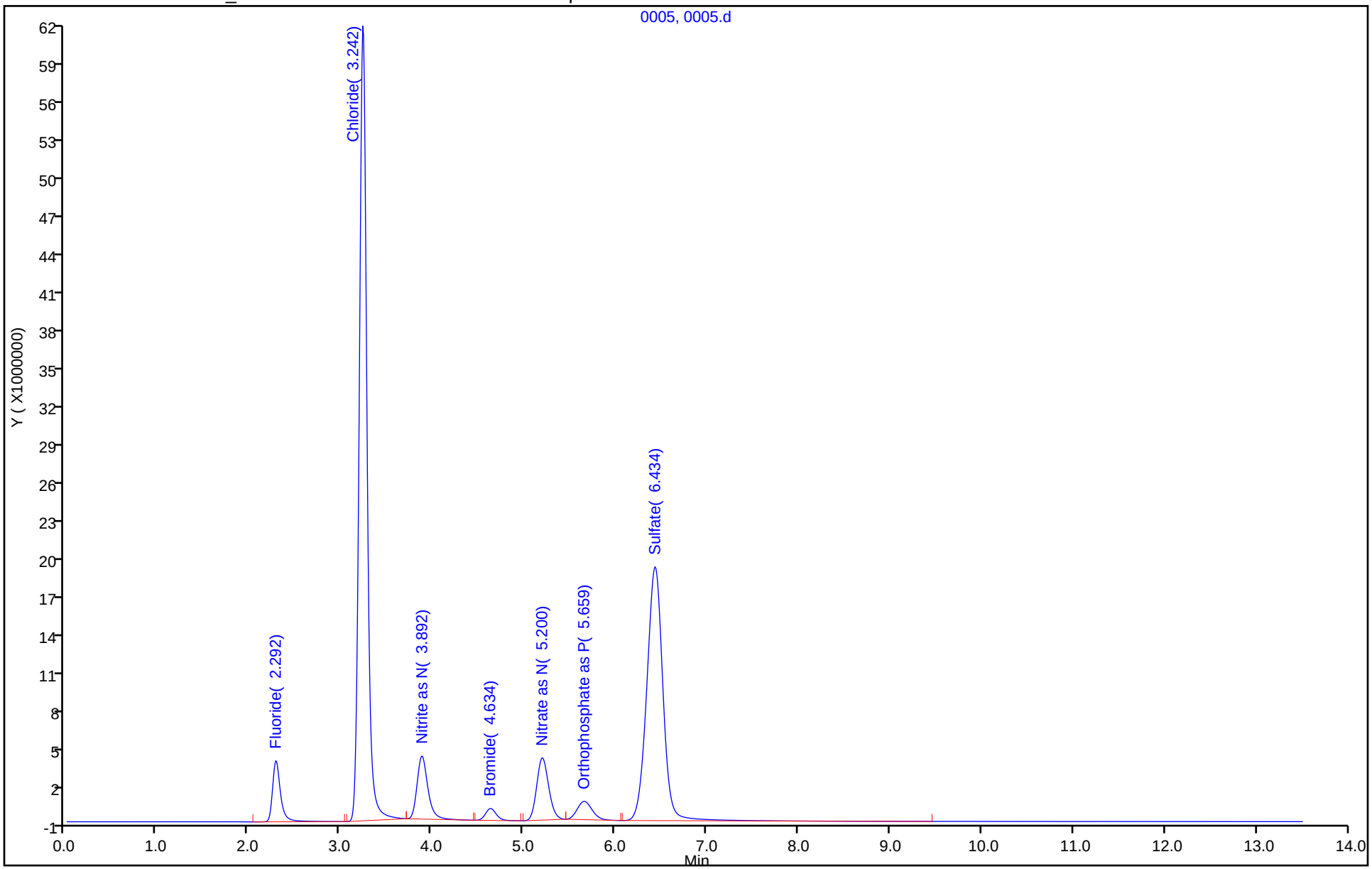
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

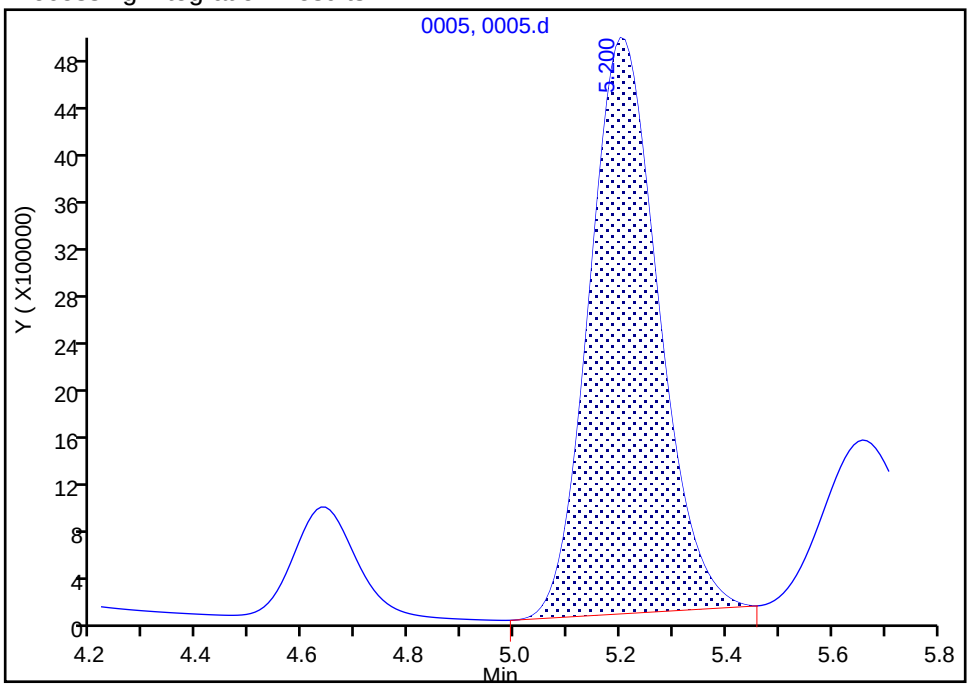
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

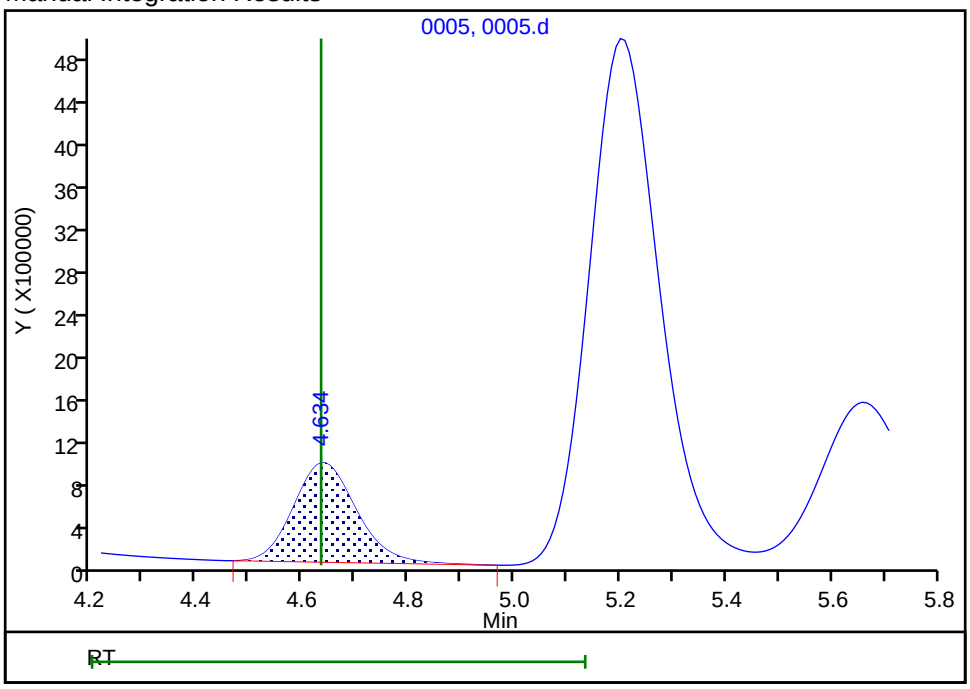
Processing Integration Results

RT: 5.20
Area: 43835884
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 7626440
Amount: 3.940762
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 08:31:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

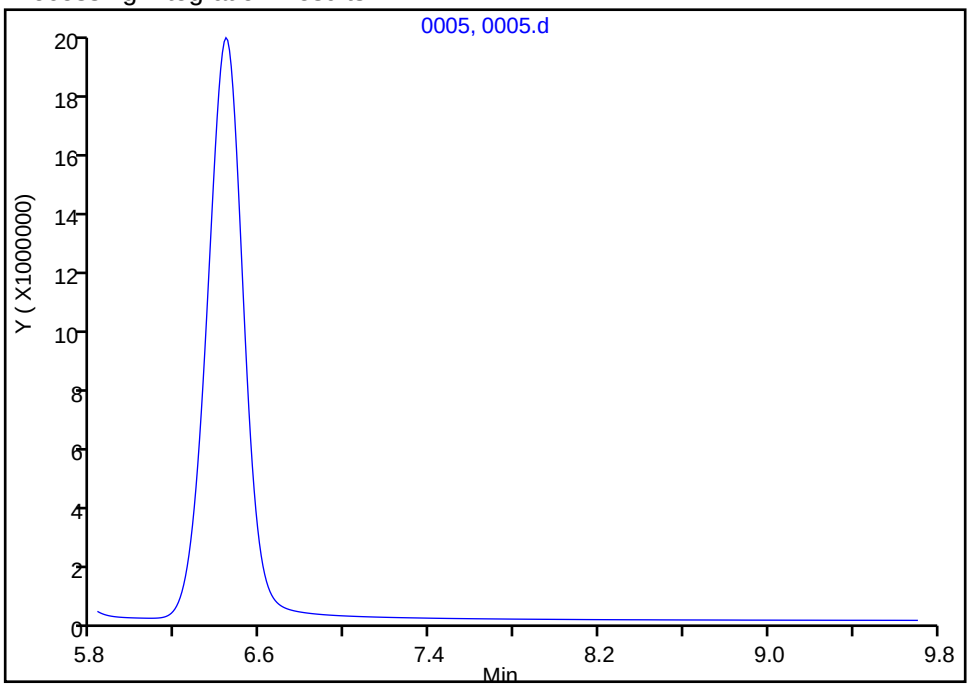
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

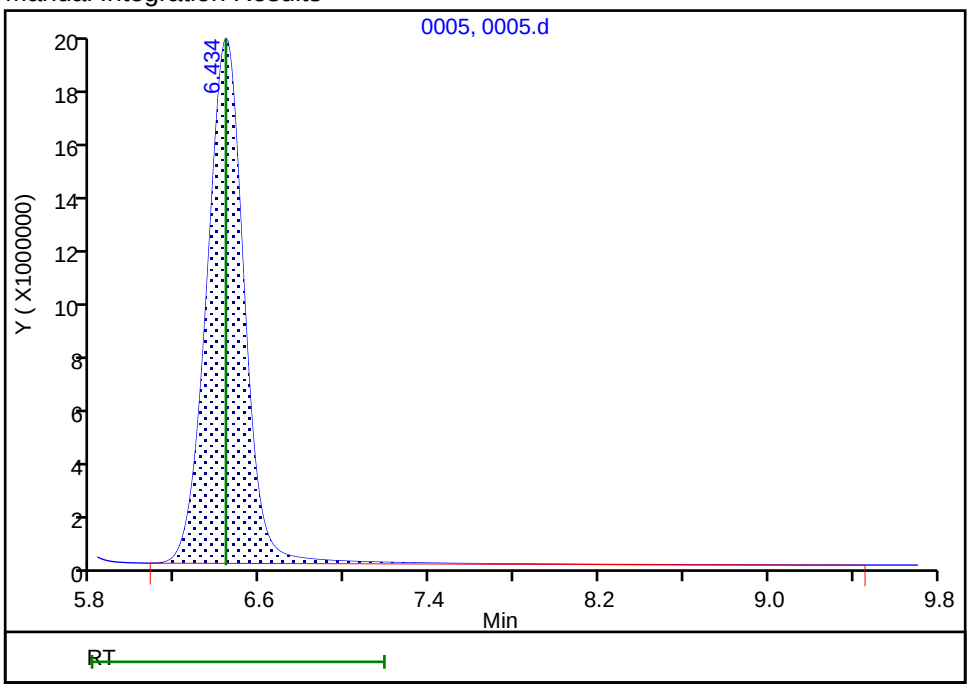
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.43
Area: 241149184
Amount: 54.355882
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:52
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	NC	NC	
2 Chloride	3.251	3.250	0.001	792237933	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	83950148	8.00	8.03	a
4 Bromide	4.634	4.642	-0.008	15499336	NC	NC	a
5 Nitrate as N	5.201	5.200	0.001	92548386	8.00	8.01	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	8.00	7.99	a
6 Sulfate	6.459	6.442	0.017	523125792	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

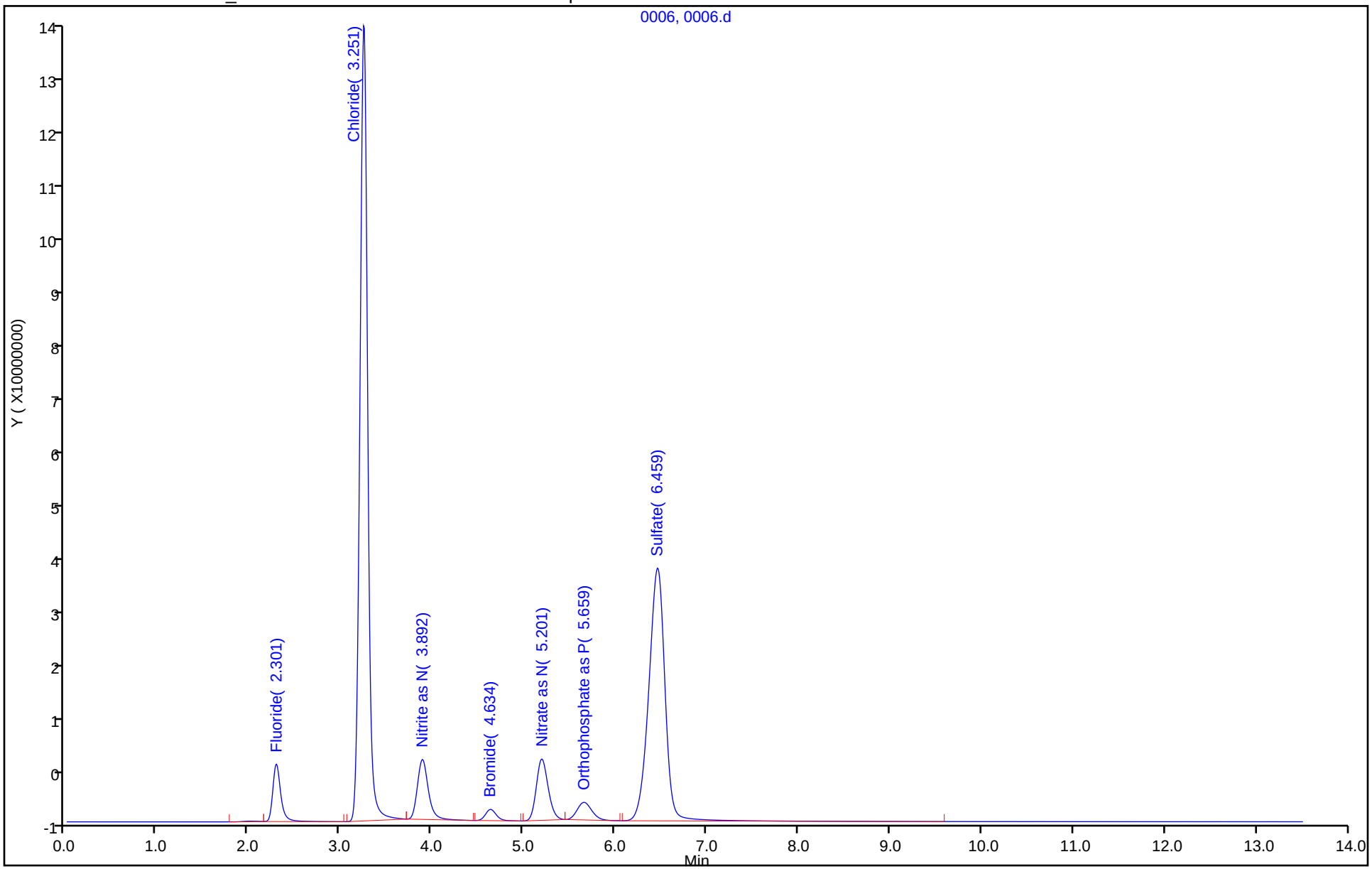
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

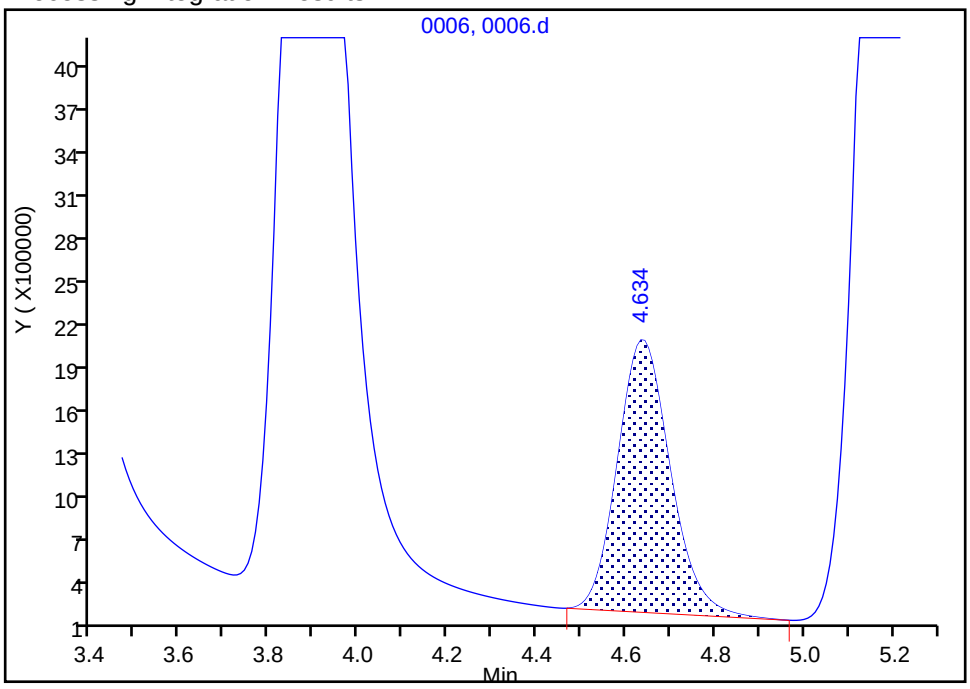
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

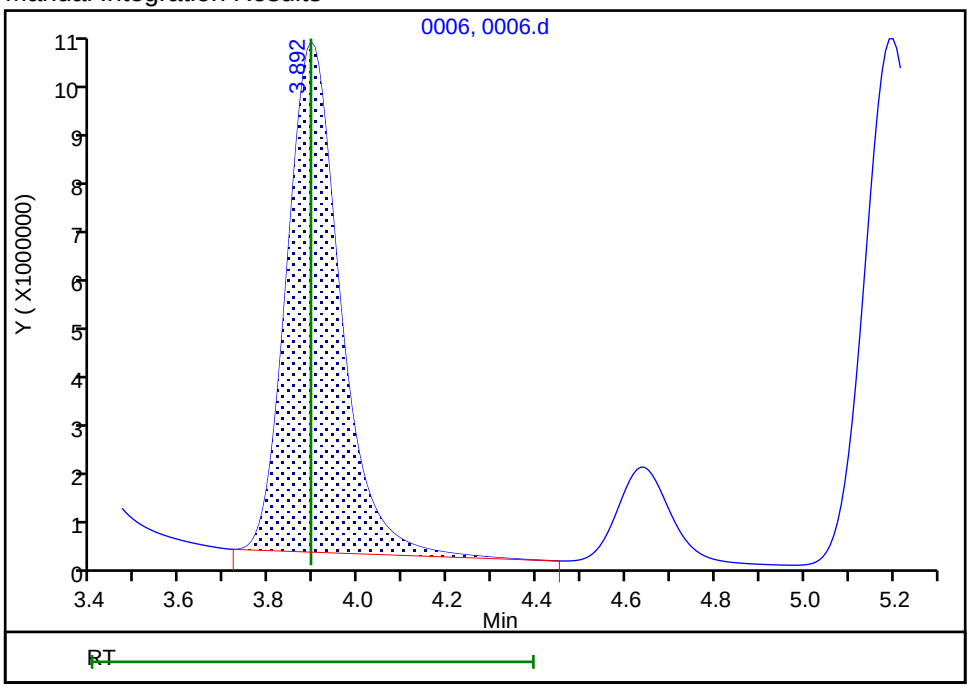
Processing Integration Results

RT: 4.63
Area: 15499336
Amount: 2.959649
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 83950148
Amount: 8.026551
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:18
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

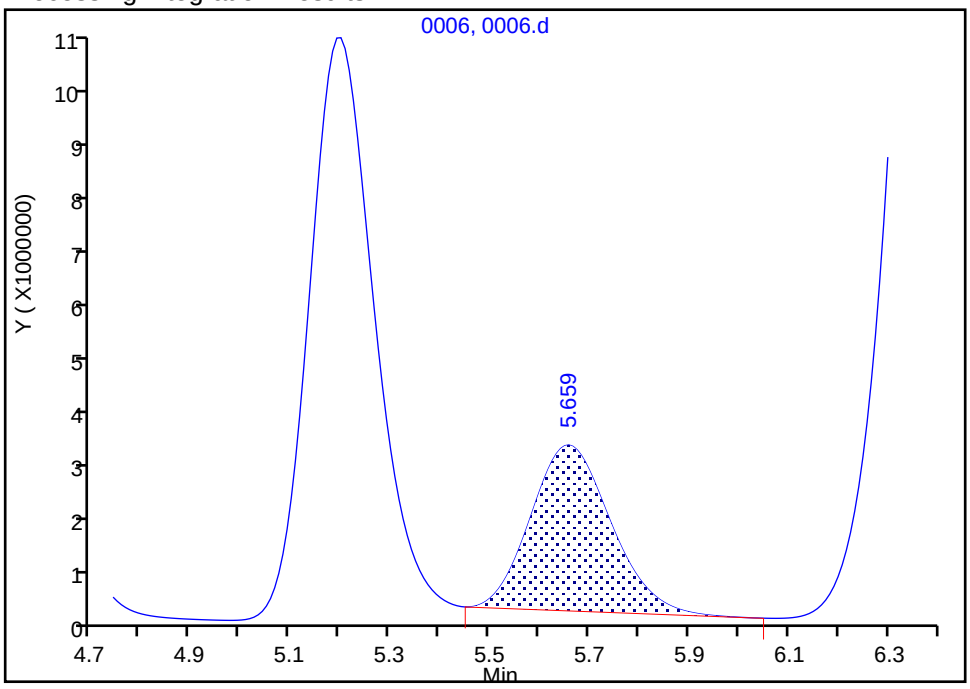
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

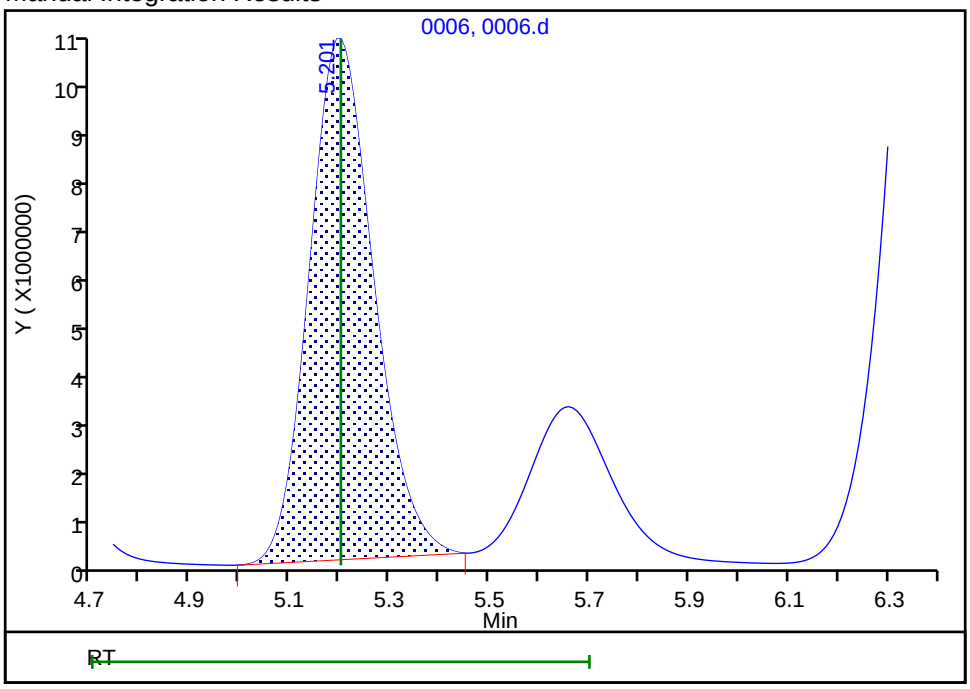
Processing Integration Results

RT: 5.66
Area: 33143352
Amount: 5.007844
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 92548386
Amount: 8.006881
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:22
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

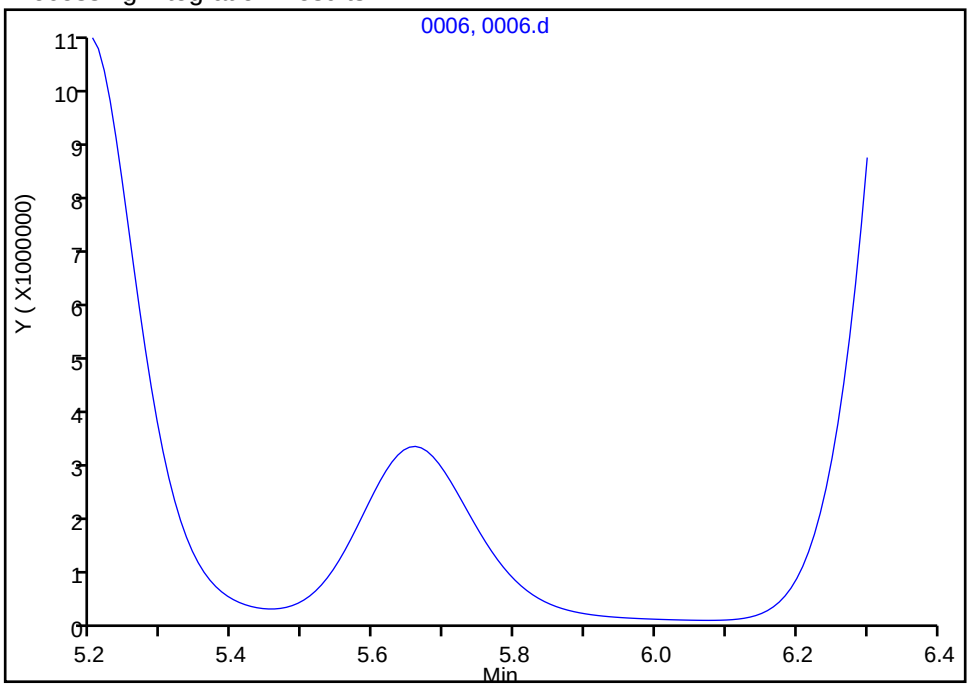
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

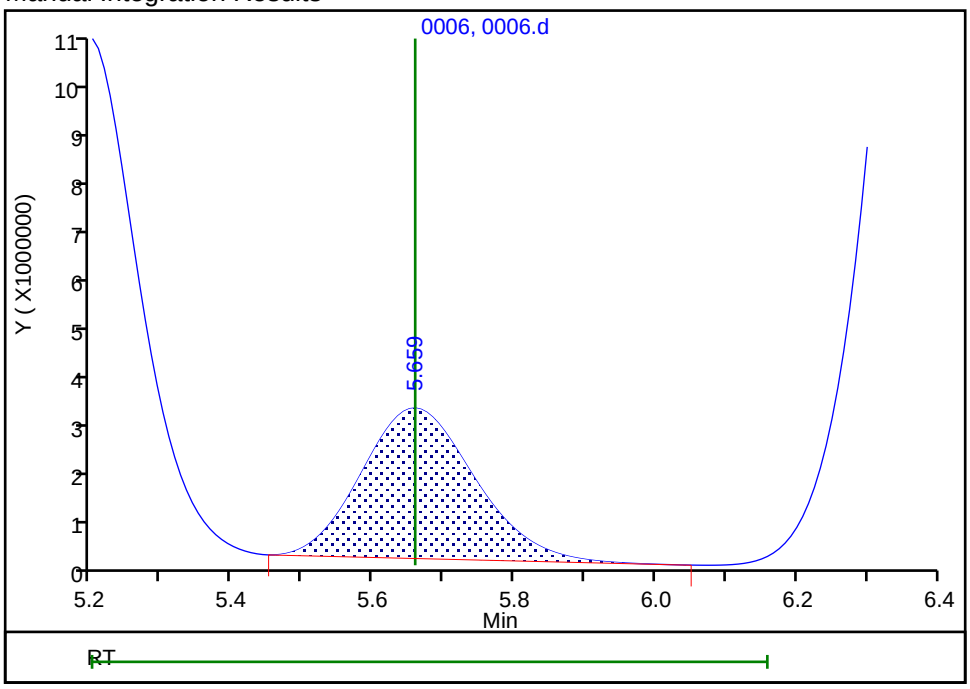
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 33143352
Amount: 7.993638
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:27
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	8.00	7.94	
2 Chloride	3.251	3.250	0.001	792237933	120.0	118.4	
3 Nitrite as N	3.892	3.892	0.000	83950148	NC	NC	a
4 Bromide	4.634	4.642	-0.008	15499336	8.00	7.98	a
5 Nitrate as N	5.201	5.200	0.001	92548386	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	NC	NC	a
6 Sulfate	6.459	6.442	0.017	523125792	120.0	117.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

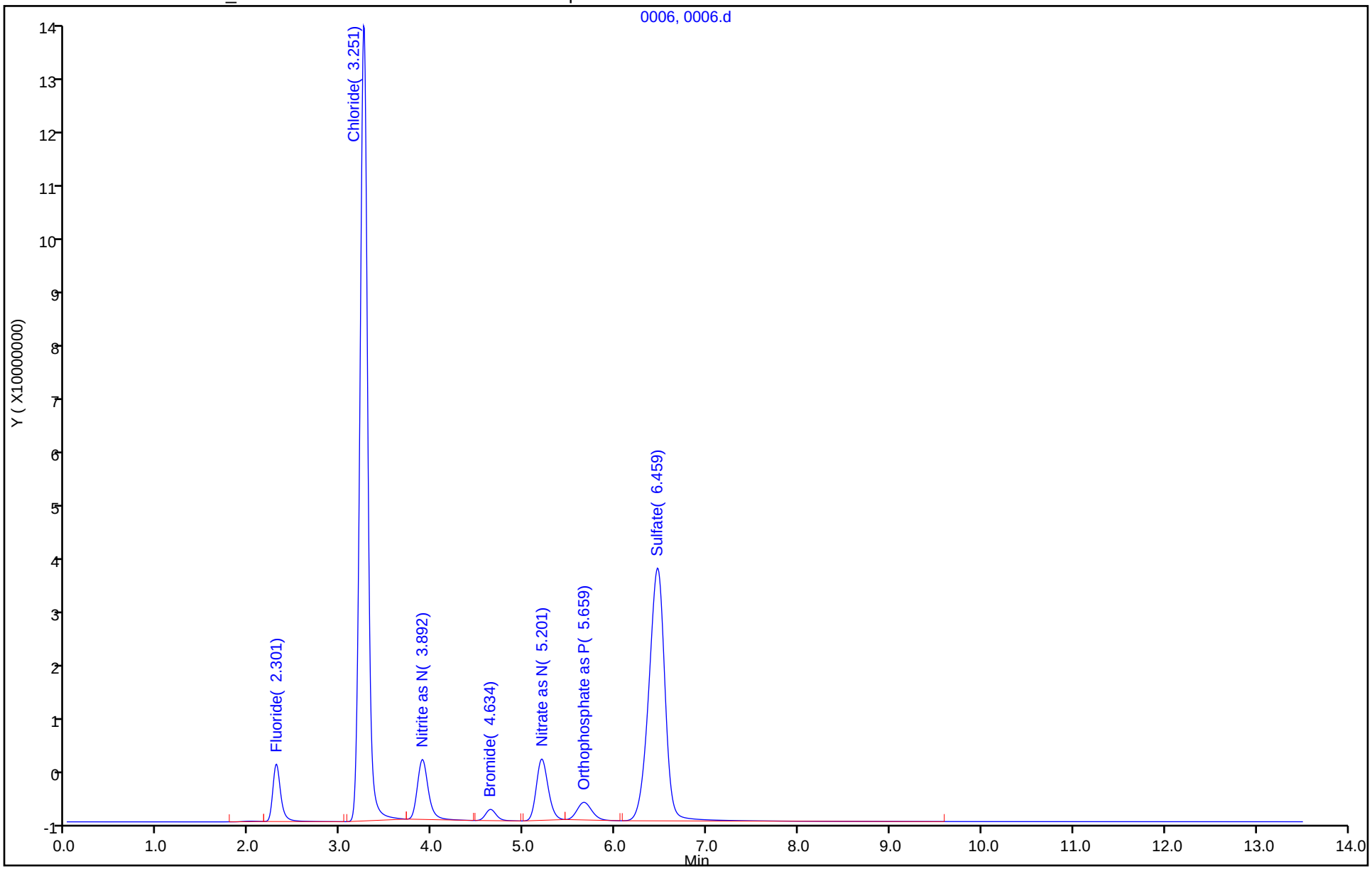
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

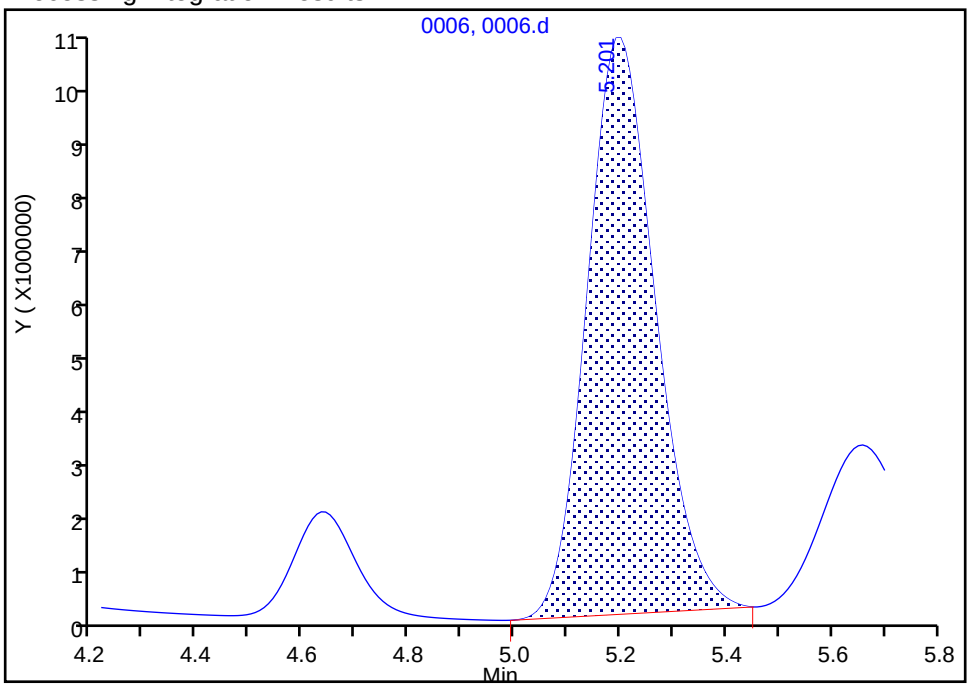
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

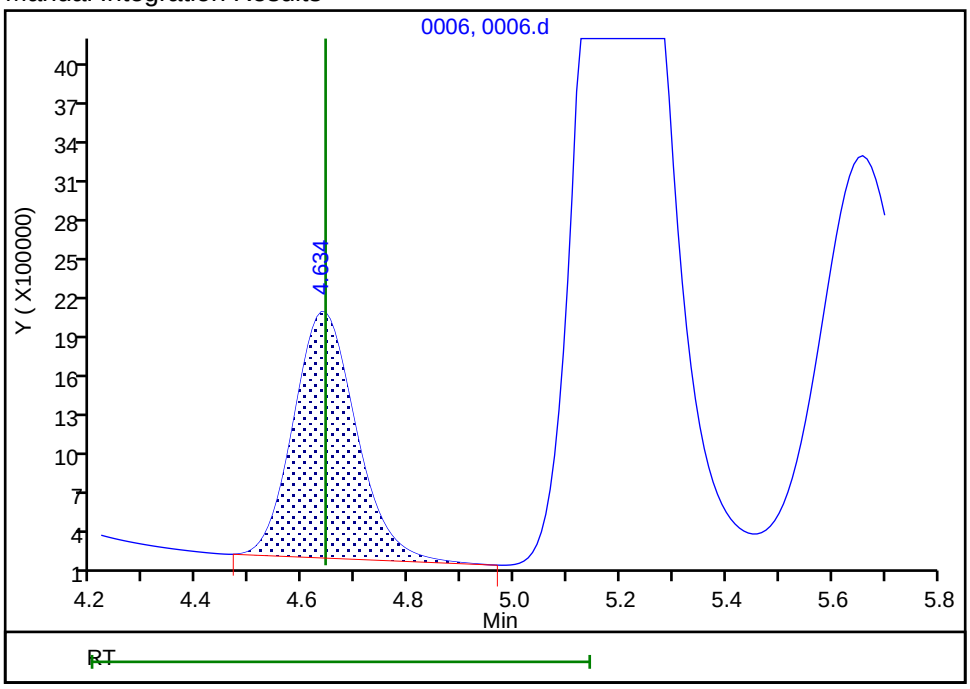
Processing Integration Results

RT: 5.20
Area: 92548386
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 15499336
Amount: 7.976961
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:37
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

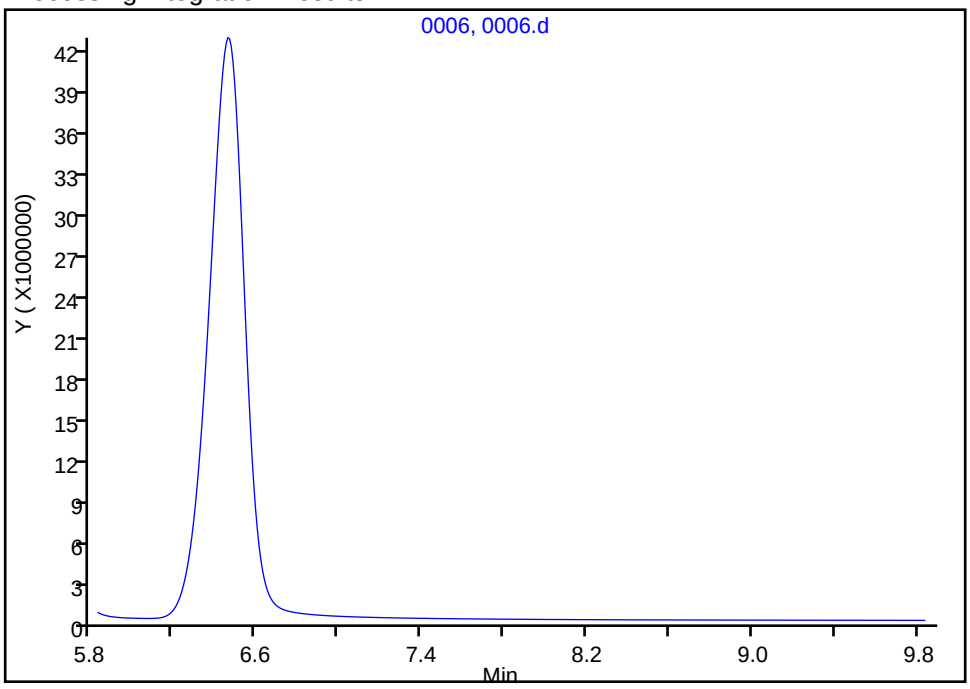
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

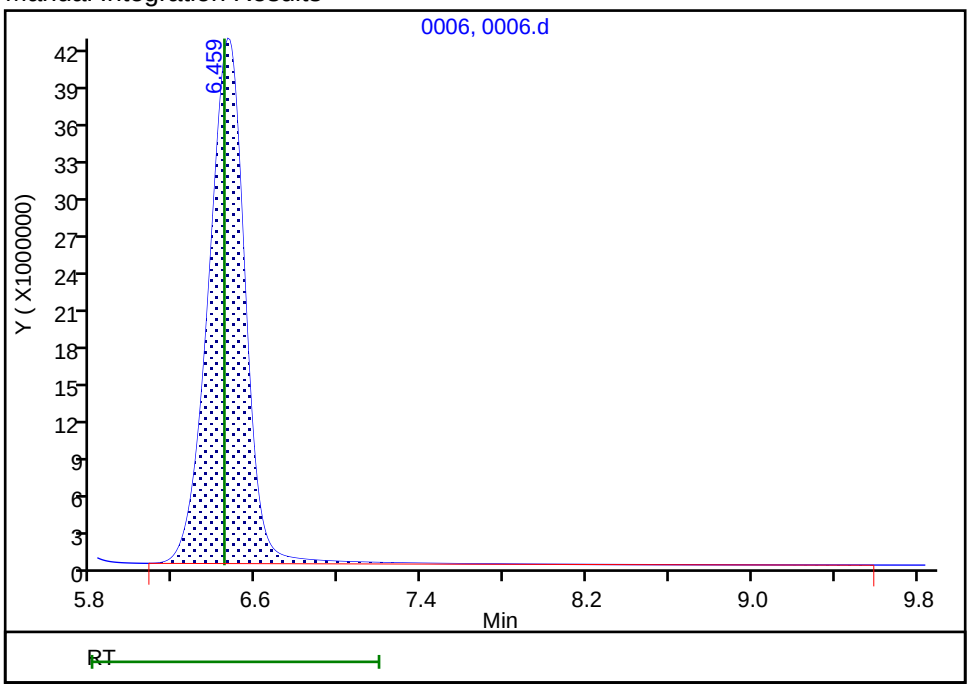
Not Detected
Expected RT: 6.44

Processing Integration Results



Manual Integration Results

RT: 6.46
Area: 523125792
Amount: 117.4031
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	NC	NC	
2 Chloride	3.267	3.250	0.017	1394323073	NC	NC	
3 Nitrite as N	3.901	3.892	0.009	106025591	10.0	10.1	
4 Bromide	4.642	4.642	0.000	19510403	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	118348380	10.0	10.2	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	10.0	10.2	
6 Sulfate	6.484	6.442	0.042	931644146	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

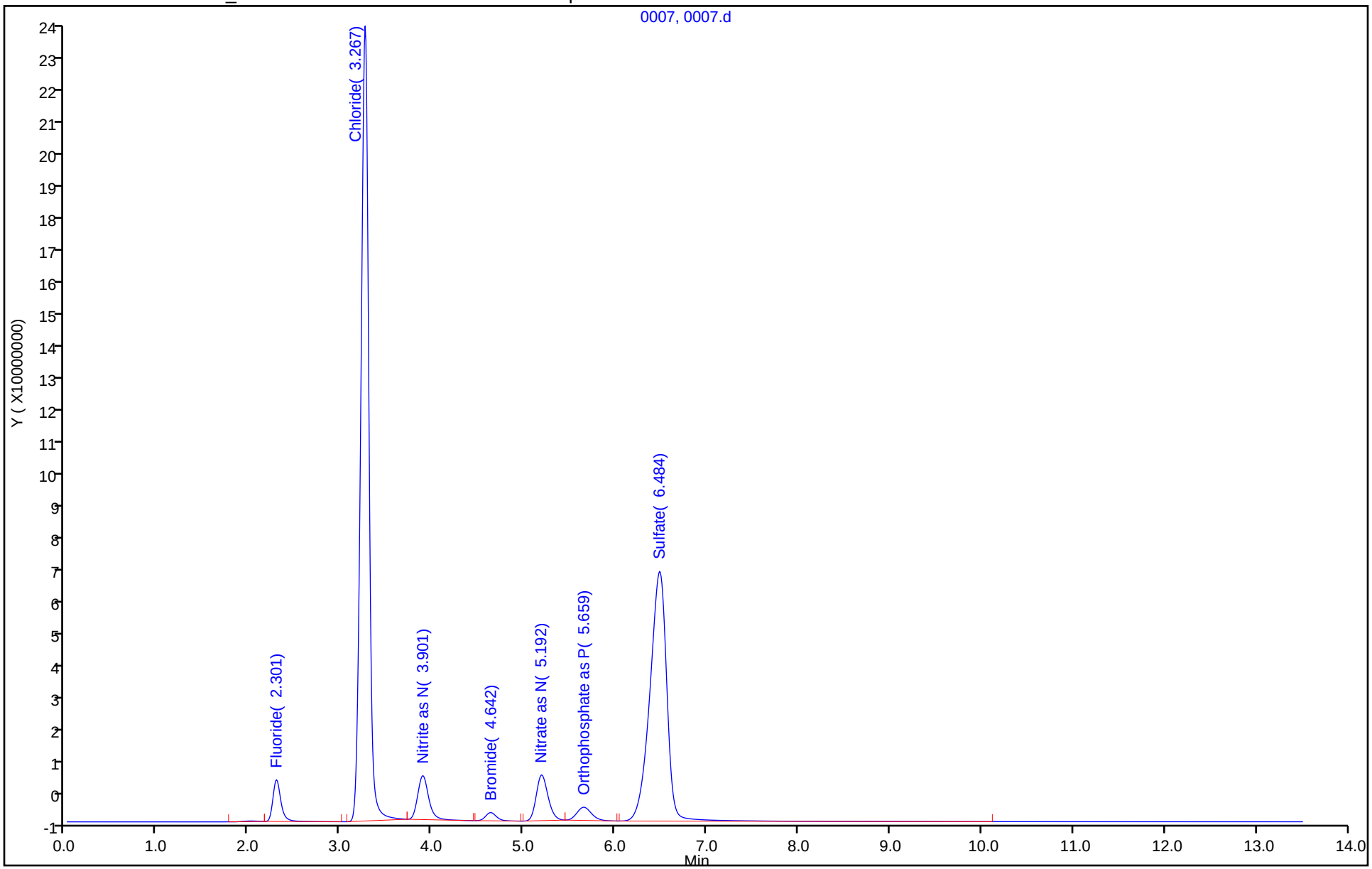
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	10.0	9.99	
2 Chloride	3.267	3.250	0.017	1394323073	200.0	208.0	
3 Nitrite as N	3.901	3.892	0.009	106025591	NC	NC	
4 Bromide	4.642	4.642	0.000	19510403	10.0	10.0	
5 Nitrate as N	5.192	5.200	-0.008	118348380	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	NC	NC	
6 Sulfate	6.484	6.442	0.042	931644146	200.0	208.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

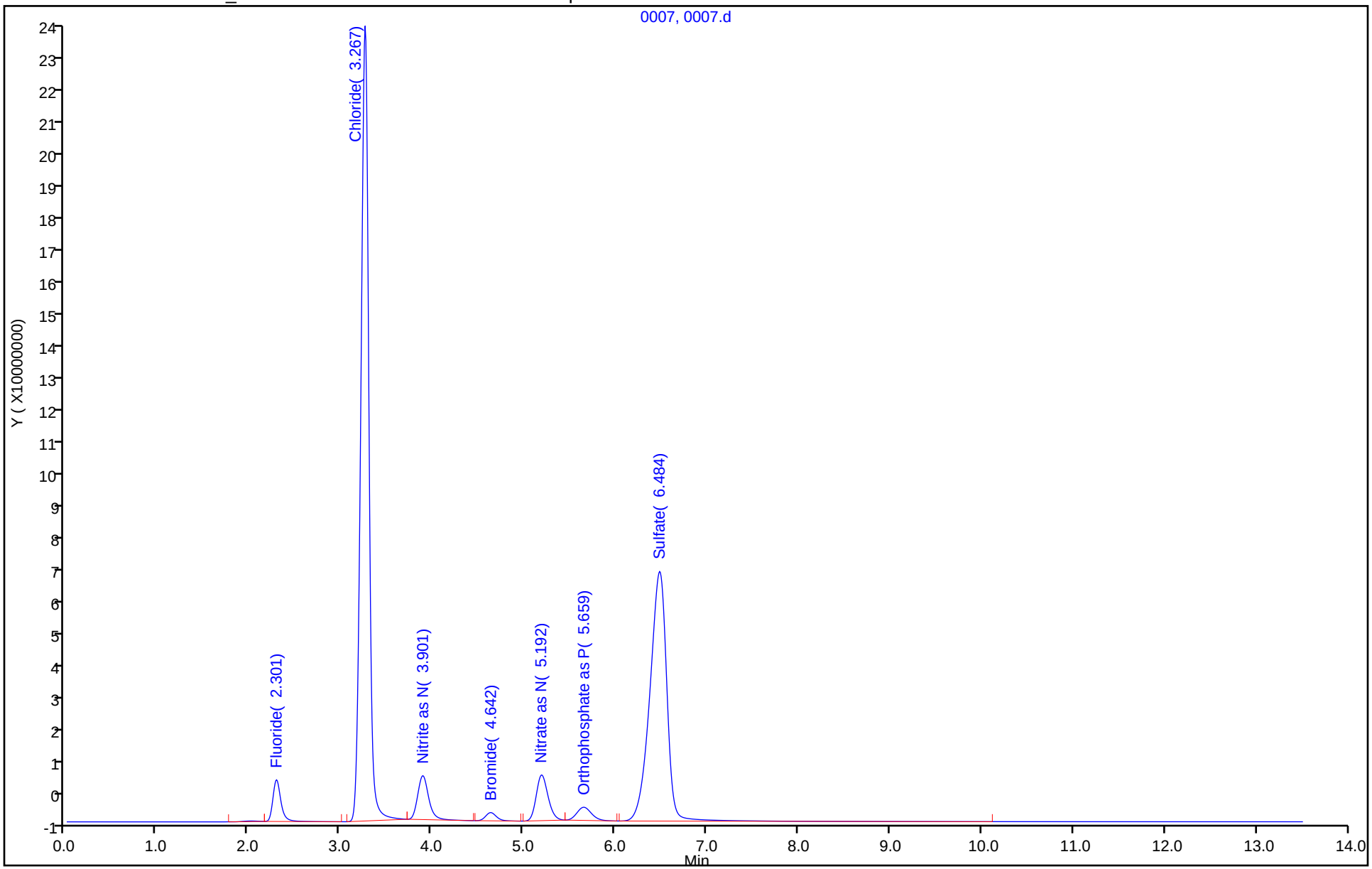
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	15-May-2019 19:11:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-008				
Misc. Info.:	24520				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:06	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	NC	NC	
2 Chloride	3.250	3.250	0.000	511999139	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	39889751	4.00	3.83	
4 Bromide	4.642	4.642	0.000	8464974	NC	NC	
5 Nitrate as N	5.200	5.200	0.000	48666748	4.00	4.23	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	4.00	4.23	
6 Sulfate	6.442	6.442	0.000	336075353	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

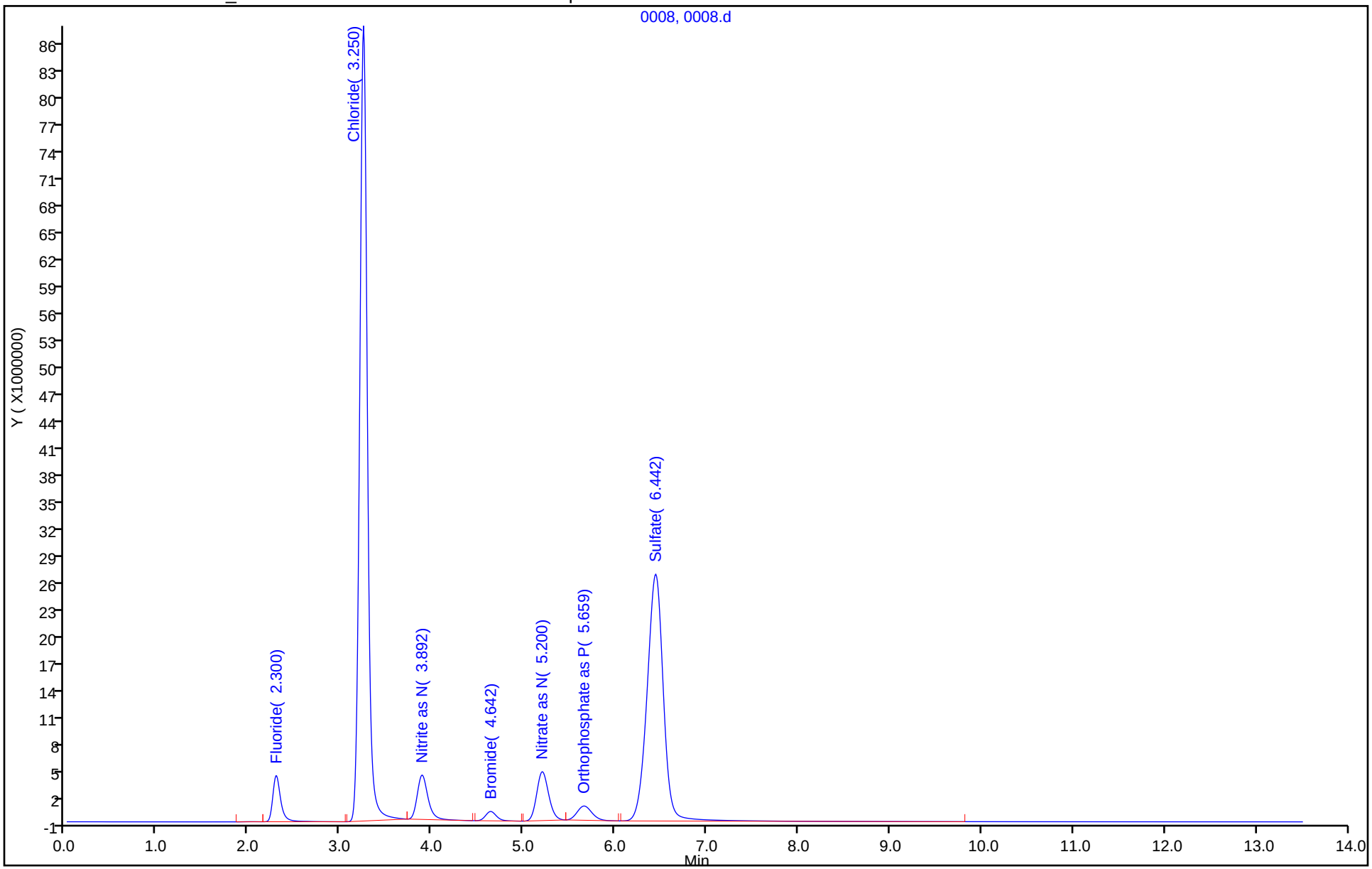
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d

Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

	Rush	Job No.	Samples	Anions	QC Req	HT Exp
	☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
	☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
	☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved	☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
	☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	15-May-2019 19:11:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-008				
Misc. Info.:	24520				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 07:56:06	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.300	0.000	31035566	4.00	4.12	
2 Chloride	3.250	3.250	0.000	511999139	80.0	76.8	
3 Nitrite as N	3.892	3.892	0.000	39889751	NC	NC	
4 Bromide	4.642	4.642	0.000	8464974	4.00	4.36	
5 Nitrate as N	5.200	5.200	0.000	48666748	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	17556210	NC	NC	
6 Sulfate	6.442	6.442	0.000	336075353	80.0	75.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

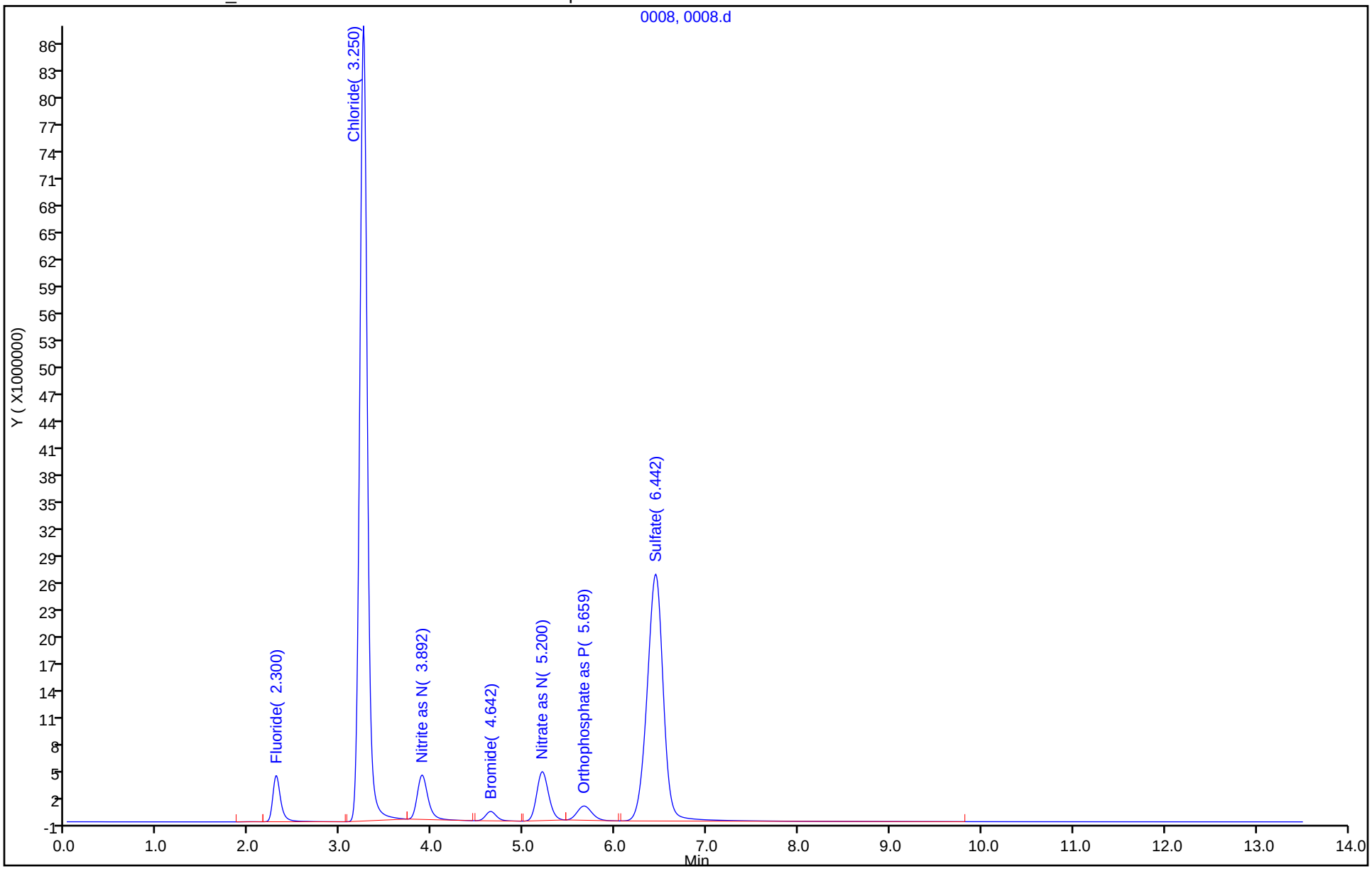
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00233	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0008.d

Injection Date:	15-May-2019 19:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		NC	M
2 Chloride	3.234	3.250	-0.016	71906		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		0.0412	
6 Sulfate	6.409	6.442	-0.033	254965		NC	

QC Flag Legend

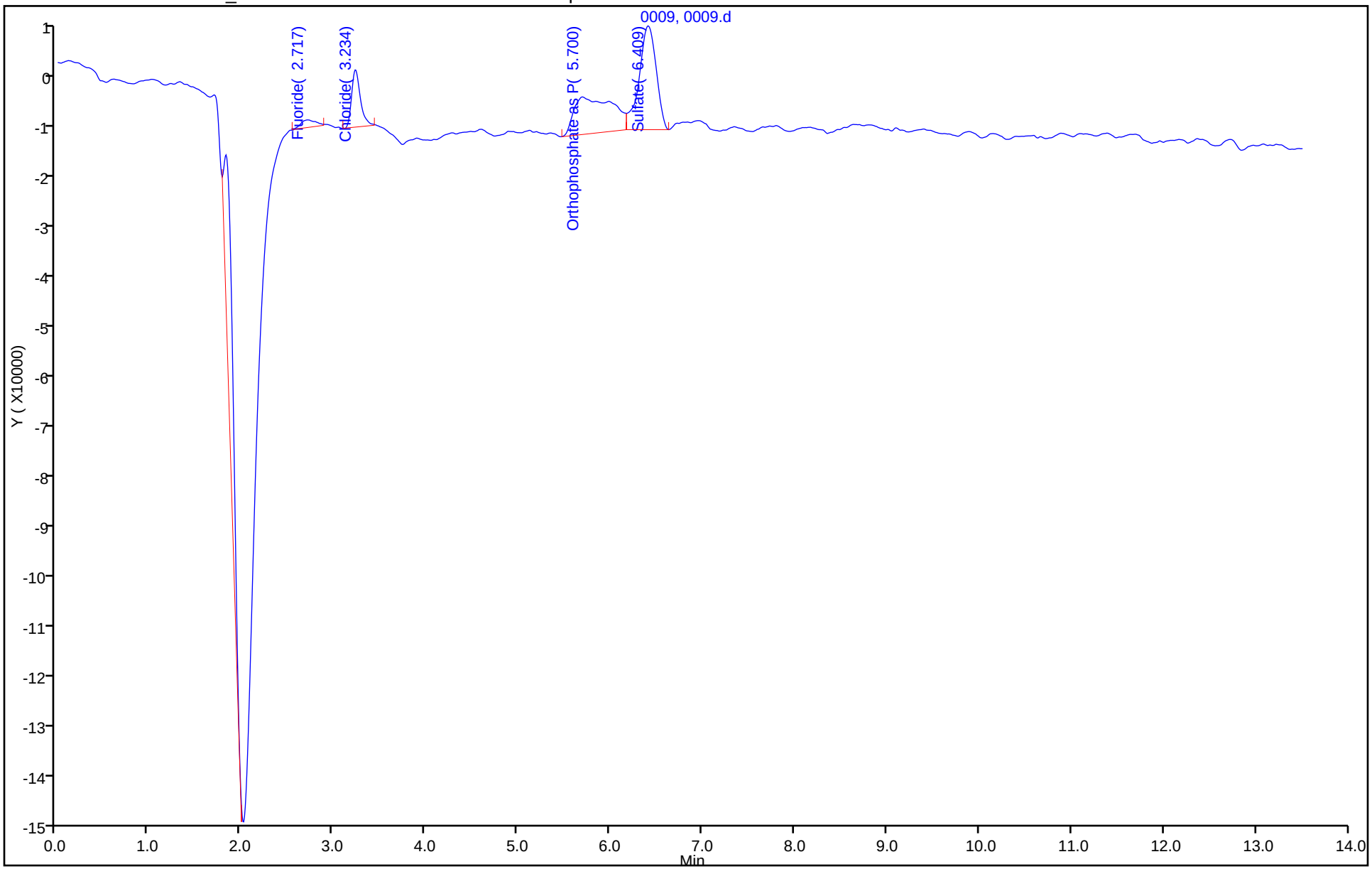
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 15-May-2019 19:27:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-009
Misc. Info.: 19795
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:55:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: pedrickj Date: 16-May-2019 07:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.300	0.417	15994		-0.1524	M
2 Chloride	3.234	3.250	-0.016	71906		0.6279	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.642				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.700	5.659	0.041	203314		NC	
6 Sulfate	6.409	6.442	-0.033	254965		0.4943	

QC Flag Legend

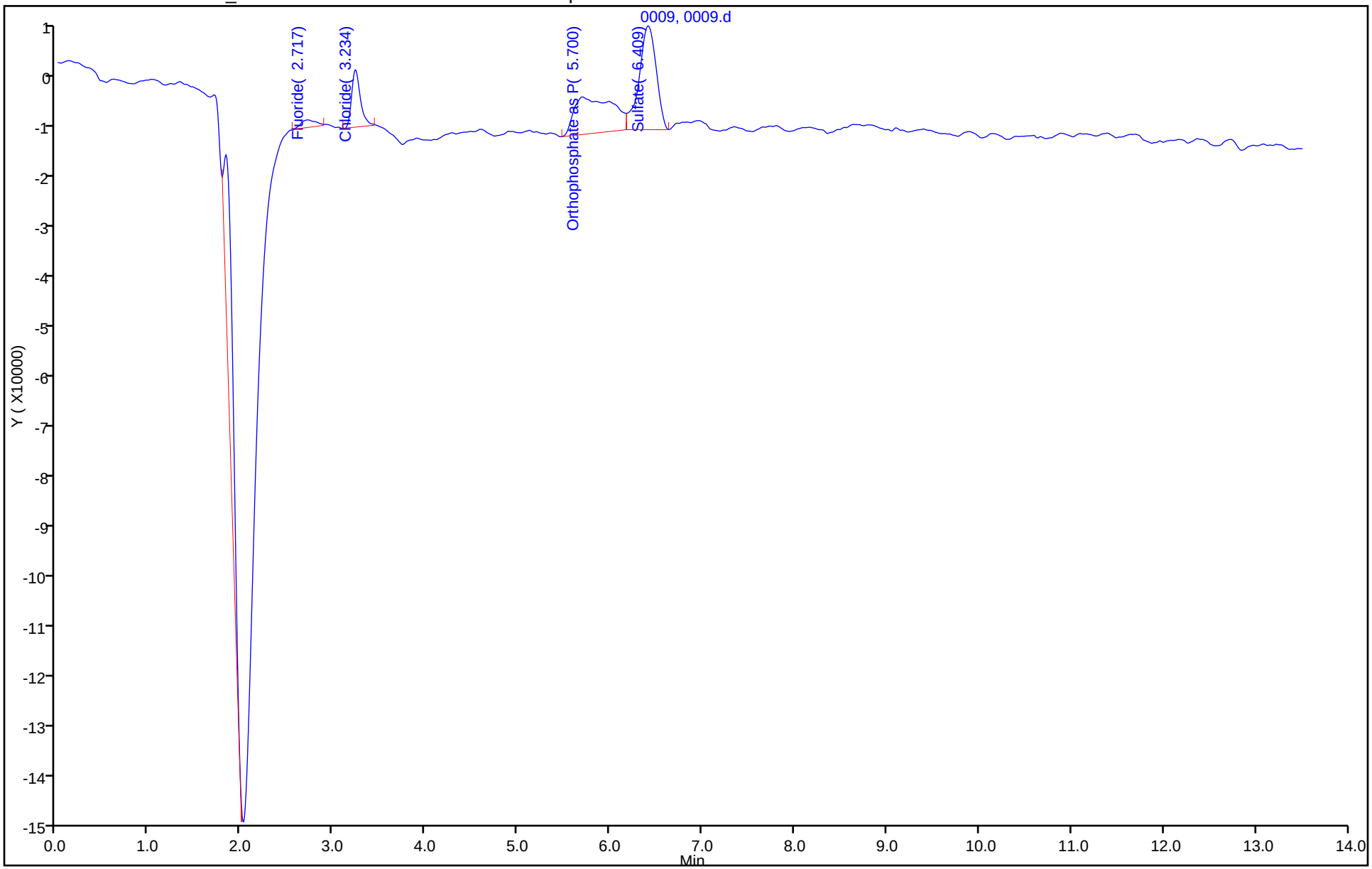
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 16-May-2019 07:56:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d

Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

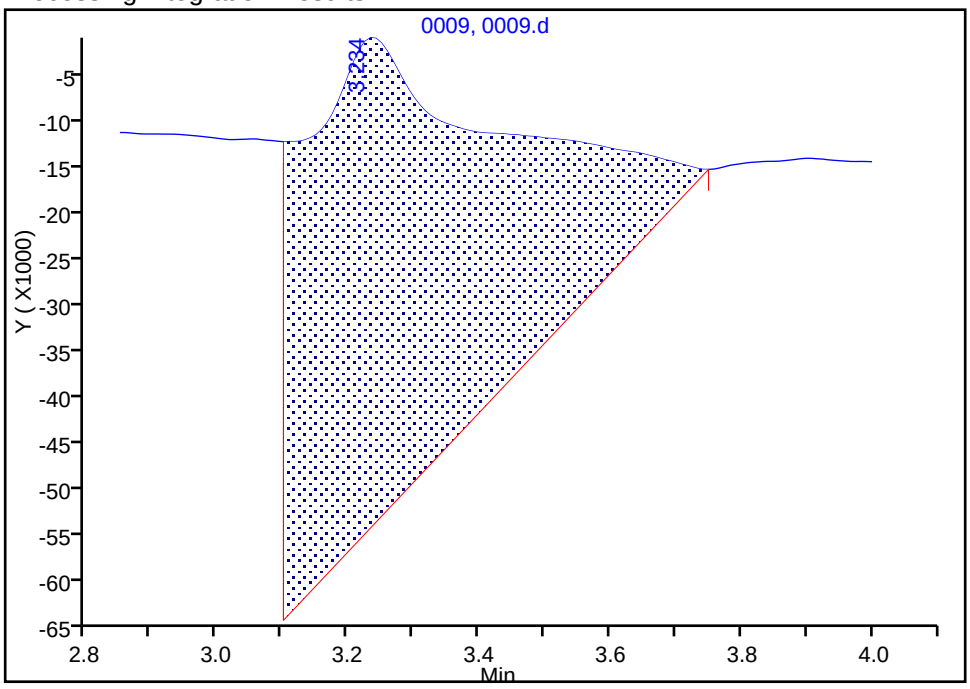
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d
Injection Date: 15-May-2019 19:27:00 Instrument ID: WC_IonChrom11
Lims ID: ICB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

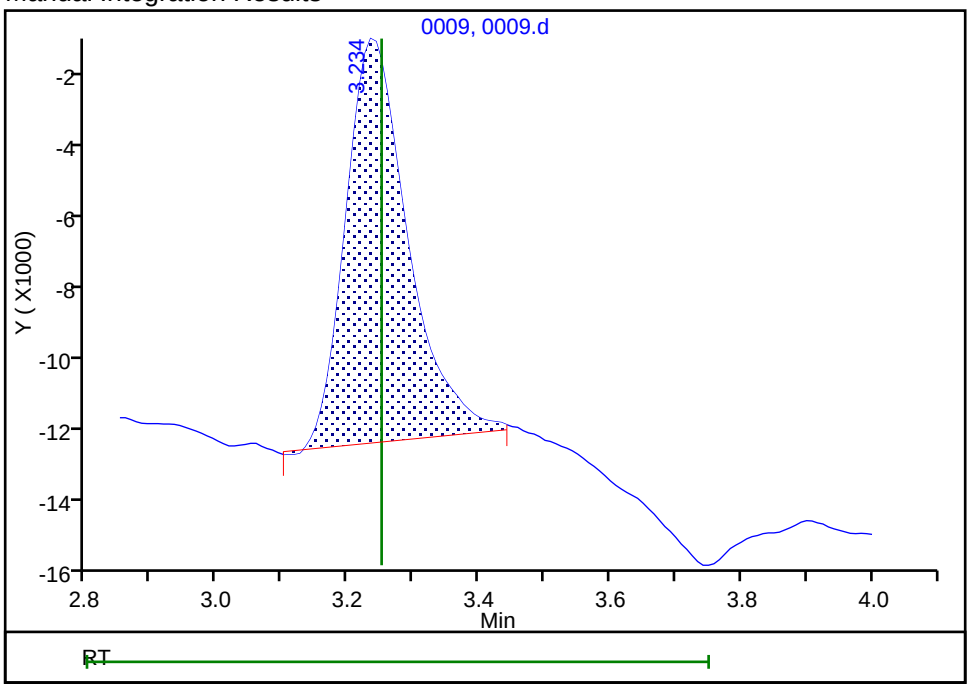
Processing Integration Results

RT: 3.23
Area: 1127161
Amount: 0.784817
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 71906
Amount: 0.627881
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

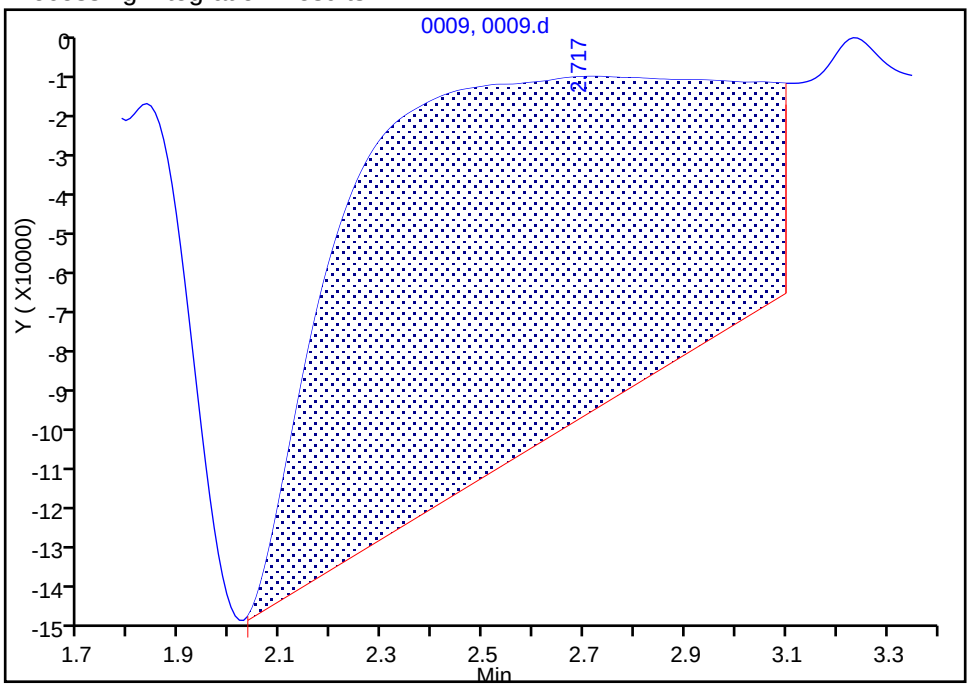
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0009.d		
Injection Date:	15-May-2019 19:27:00	Instrument ID:	WC_IonChrom11
Lims ID:	ICB		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

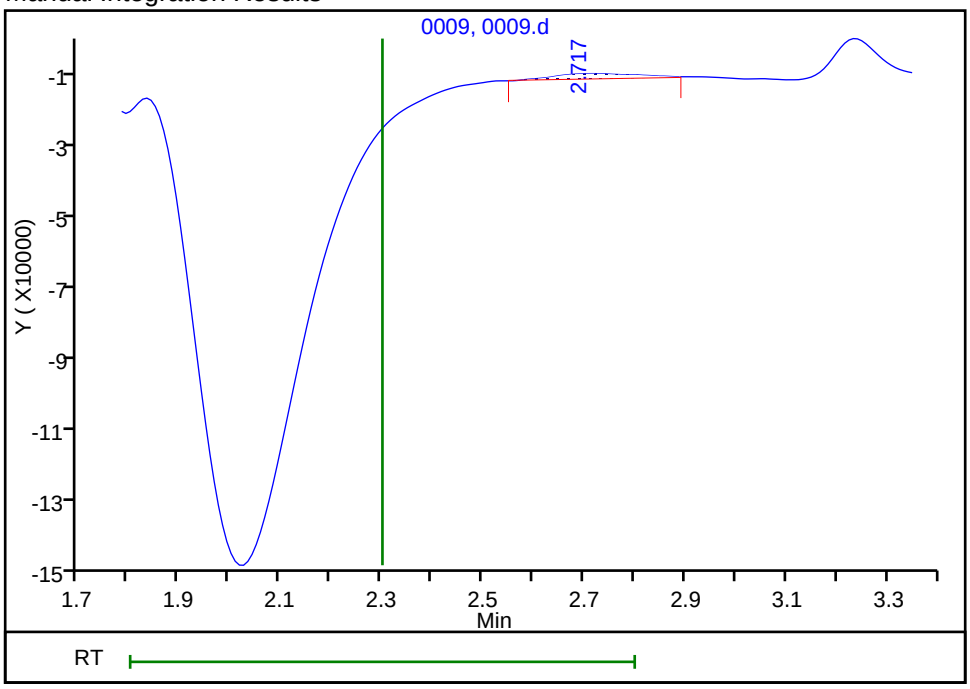
Processing Integration Results

RT: 2.72
Area: 4799643
Amount: 0.507035
Amount Units: ug/ml



Manual Integration Results

RT: 2.72
Area: 15994
Amount: -0.152378
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 07:51:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

D58413/458414

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81959 Inst ID: 11 Analysis Date: 05/16/19 Analyst: TF

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123656	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	confirm per Thu
☐	121440	1	F Cl NO2 Br NO3 PO4 SO4	MS/D 4	confirm per Connie
☐	123855	6	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123853	6	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123862	4	F Cl NO2 Br NO3 PO4 SO4	MS/D 1	client
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123855	2	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123855	1,4	F Cl NO2 Br NO3 PO4 SO4	5x	Higher
123855	5,6	F Cl NO2 Br NO3 PO4 SO4	5x	Higher
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

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IC Instrument Information

WL: 81959 **Inst ID:** 11 **Analysis Date:** 05/16/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123656	1	F Cl NO2 Br (NO3) PO4 SO4	MS/D	confirm per Thu
☐	121440	1	F Cl NO2 Br (NO3) PO4 SO4	(MS/D) 4	confirm per Commie
☐	123855	6	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123853	6	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 3	
☐	123862	4	F Cl (NO2) Br (NO3) PO4 SO4	(MS/D) 1	client
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123855	2	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123855	1,4	F Cl NO2 Br NO3 PO4 SO4	5x	high
123855	5,4	F Cl NO2 Br NO3 PO4 SO4	5x	high
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

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TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2019 13:45:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37281238	NC	NC	
2 Chloride	3.242	3.242	0.000	636604564	NC	NC	
3 Nitrite as N	3.875	3.892	-0.017	51312081	5.00	4.92	
4 Bromide	4.617	4.634	-0.017	10081759	NC	NC	
5 Nitrate as N	5.175	5.200	-0.025	57284731	5.00	4.97	
7 Orthophosphate as P	5.634	5.659	-0.025	20851269	5.00	5.03	
6 Sulfate	6.434	6.434	0.000	417305468	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

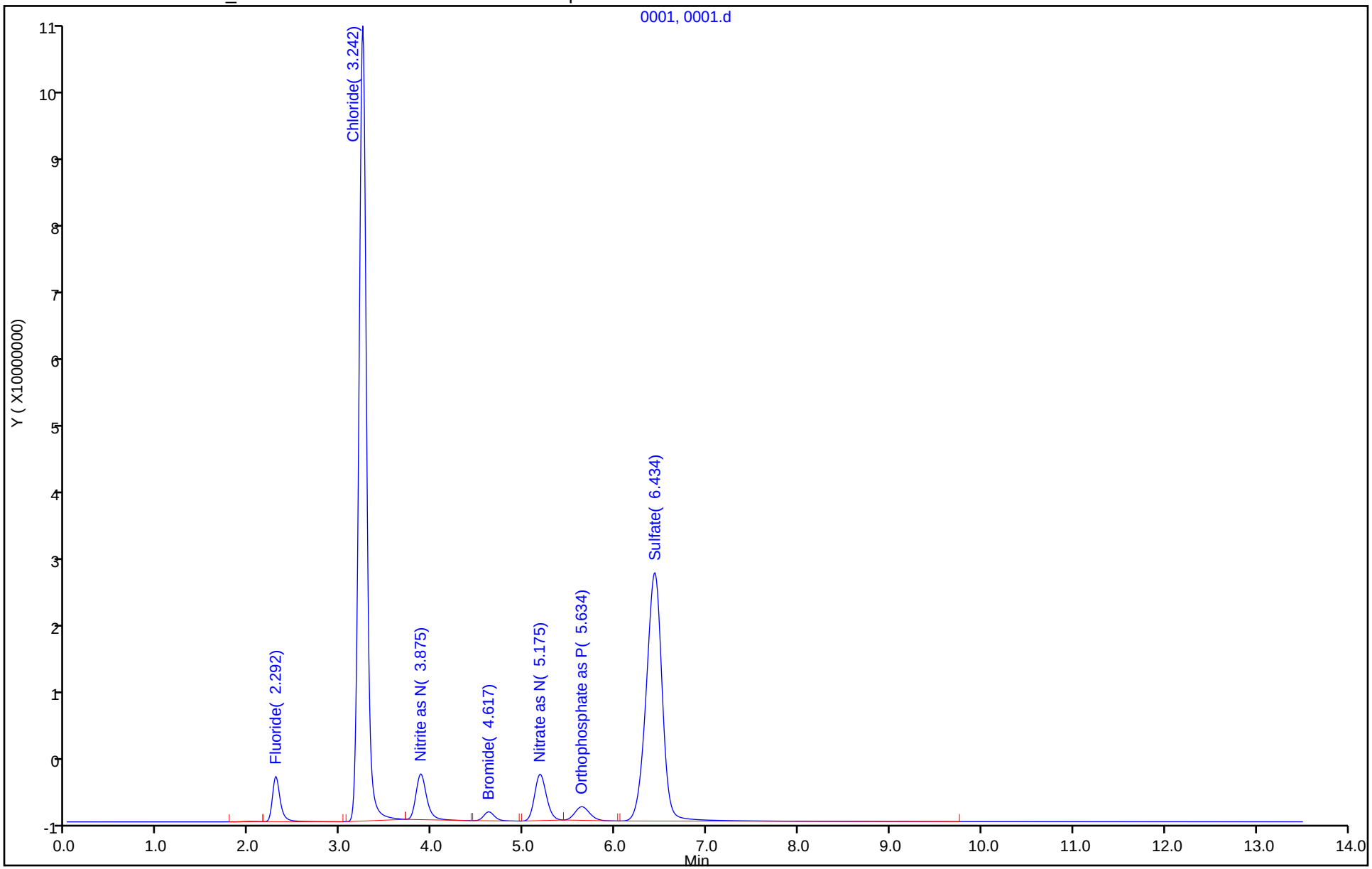
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0001.d

Injection Date:	16-May-2019 13:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



D58413/458414

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81959 Inst ID: 11 Analysis Date: 05/16/19 Analyst: TF

Rush	Job No.	Samples	Anions	QC Req		HT Exp
☐	123656	1	F Cl NO2 Br (NO3) PO4 SO4	MS/D		confirm per Thu
☐	121440	1	F Cl NO2 Br (NO3) PO4 SO4	(MS/D)	4	confirm per Connie
☐	123855	6	(F Cl NO2 Br NO3 PO4 SO4)	MS/D		
☐	123853	6	(F Cl NO2 Br NO3 PO4 SO4)	(MS/D)	3	
☐	123862	4	F Cl (NO2) Br (NO3) PO4 SO4	(MS/D)	1	client
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D		

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123855	2	(F Cl NO2 Br NO3 PO4 SO4)	5x	Cond.
123855	1,4	F (Cl) NO2 Br NO3 PO4 SO4	5x	Higher
123855	5,6	F (Cl) NO2 Br NO3 PO4 SO4	5x	Higher
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

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IC Instrument Information

WL: 81959 Inst ID: 11 Analysis Date: 05/16/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123656	1	F Cl NO2 Br (NO3) PO4 SO4	MS/D	confirm per Thu
☐	121440	1	F Cl NO2 Br (NO3) PO4 SO4	(MS/D) 4	confirm per Commie
☐	123855	6	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123853	6	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 3	
☐	123862	4	F Cl (NO2) Br (NO3) PO4 SO4	(MS/D) 1	client
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123855	2	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123855	1,4	F Cl NO2 Br NO3 PO4 SO4	5x	high
123855	5,4	F Cl NO2 Br NO3 PO4 SO4	5x	high
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

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5/21/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2019 13:45:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37281238	5.00	4.98	
2 Chloride	3.242	3.242	0.000	636604564	100.0	95.3	
3 Nitrite as N	3.875	3.892	-0.017	51312081	NC	NC	
4 Bromide	4.617	4.634	-0.017	10081759	5.00	5.21	
5 Nitrate as N	5.175	5.200	-0.025	57284731	NC	NC	
7 Orthophosphate as P	5.634	5.659	-0.025	20851269	NC	NC	
6 Sulfate	6.434	6.434	0.000	417305468	100.0	93.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

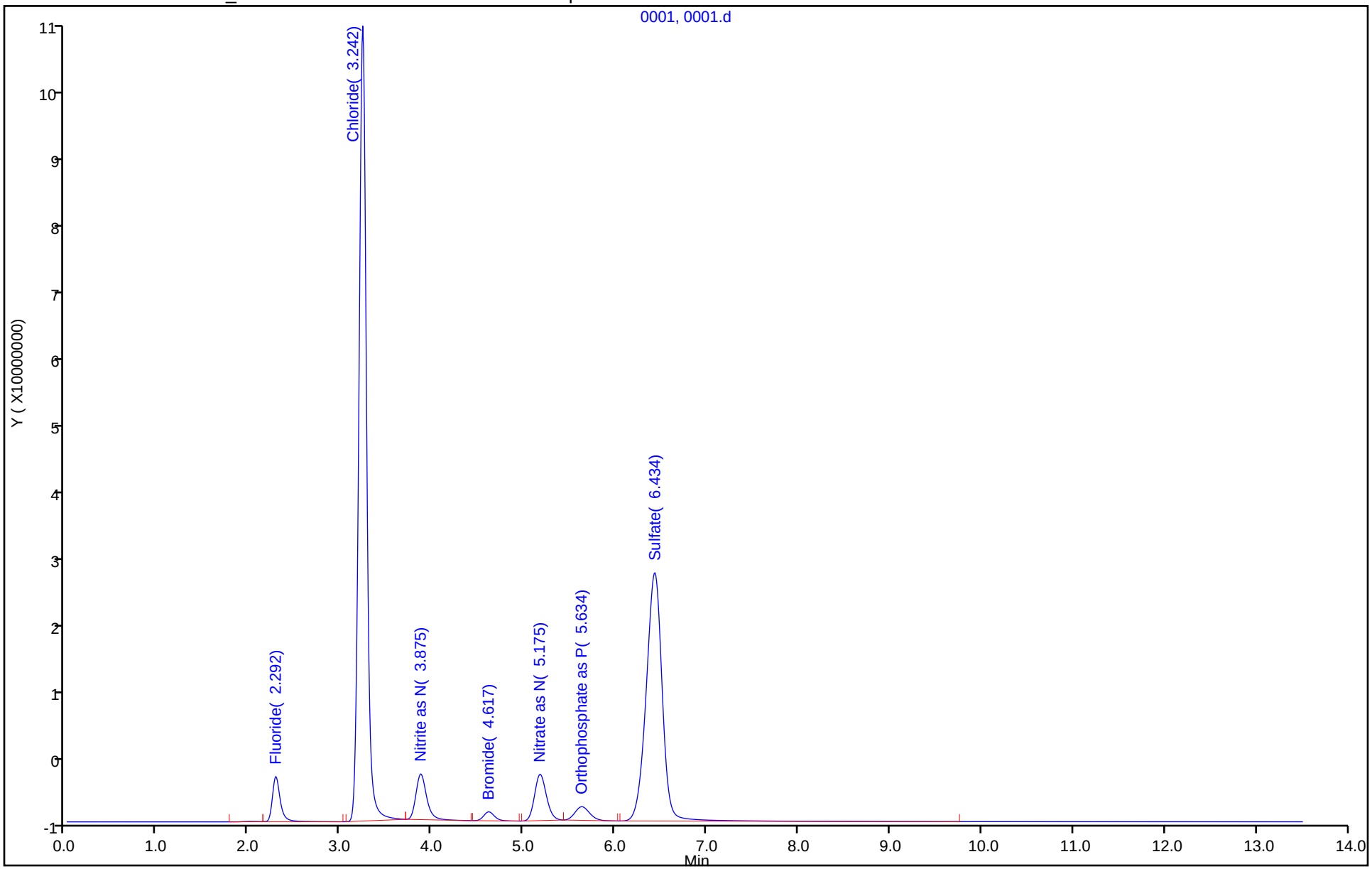
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0001.d

Injection Date:	16-May-2019 13:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 16-May-2019 14:00:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.676	2.292	0.384	4362496		NC	
2 Chloride	3.234	3.242	-0.008	2959174		NC	
3 Nitrite as N	4.009	3.892	0.117	548671		0.0775	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P		5.659				ND	
6 Sulfate		6.434				ND	

QC Flag Legend

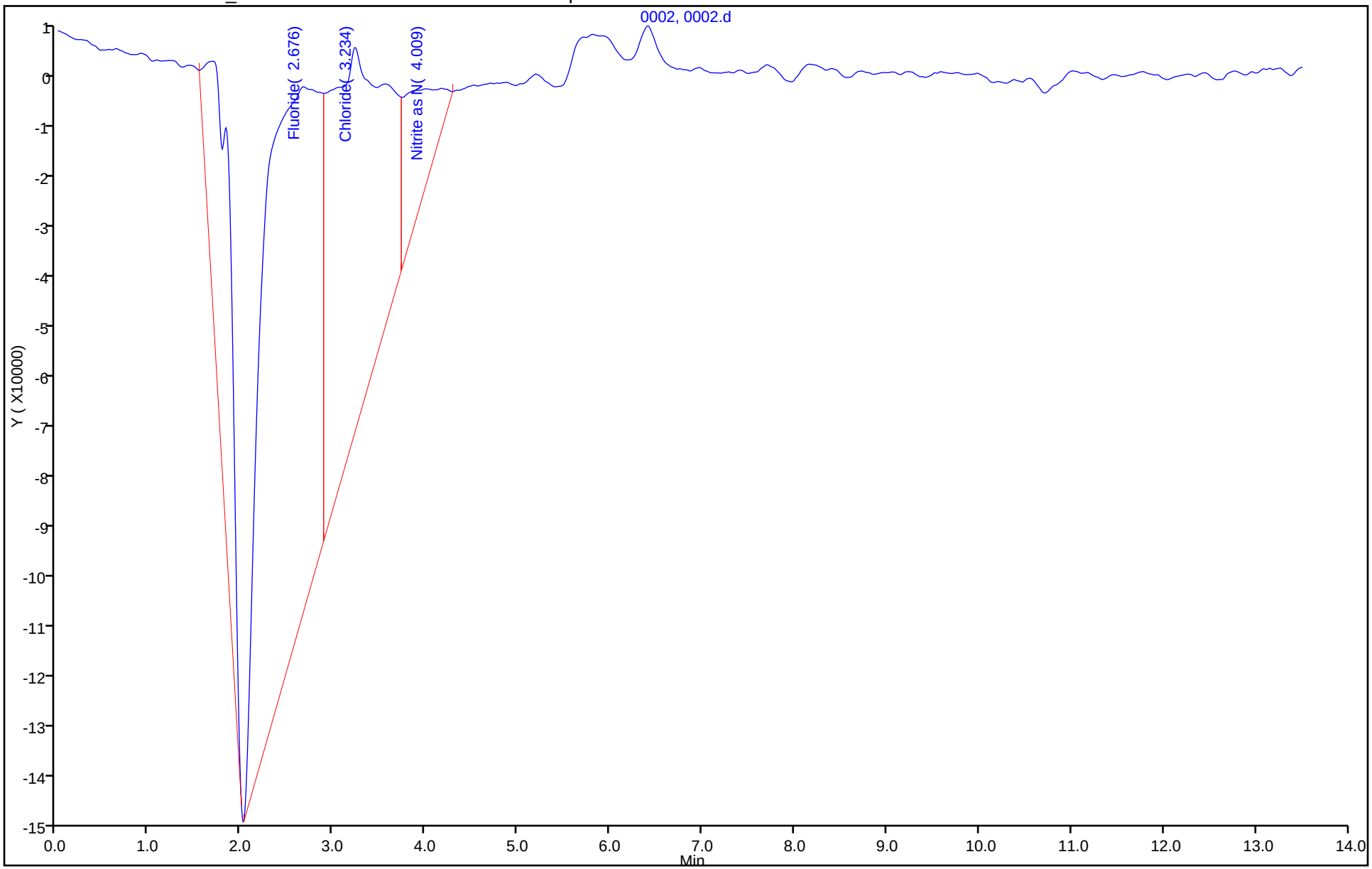
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0002.d

Injection Date:	16-May-2019 14:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 16-May-2019 14:00:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.676	2.292	0.384	4362496		0.4468	
2 Chloride	3.234	3.242	-0.008	2959174		1.06	
3 Nitrite as N	4.009	3.892	0.117	548671		NC	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P		5.659				ND	
6 Sulfate		6.434				ND	

QC Flag Legend

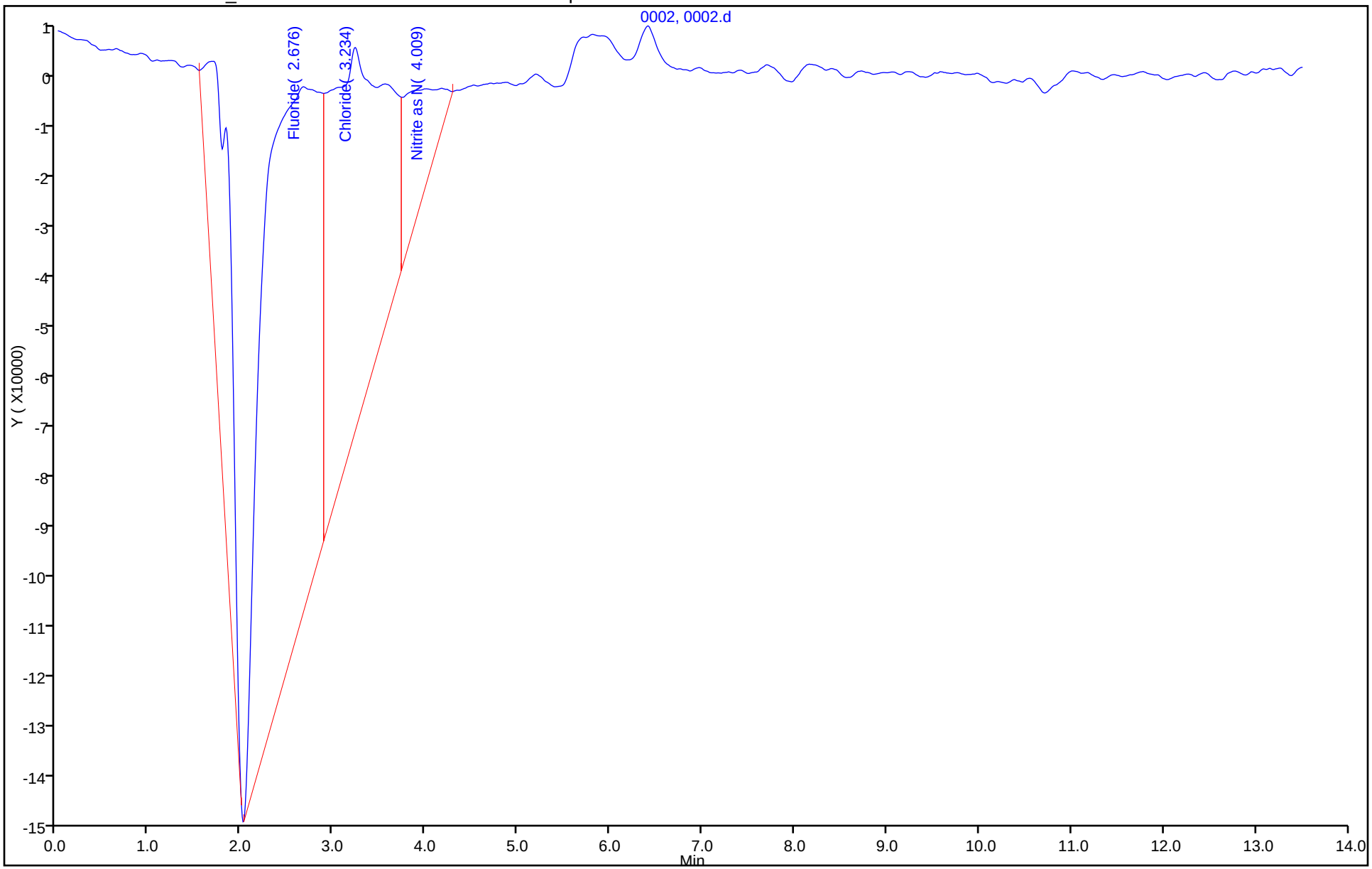
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:47 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0002.d

Injection Date:	16-May-2019 14:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 16-May-2019 14:17:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 15:19:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2222979	NC	NC	M
2 Chloride	3.234	3.242	-0.008	11496232	NC	NC	M
3 Nitrite as N	3.875	3.892	-0.017	1976935	0.2000	0.2136	
4 Bromide	4.625	4.634	-0.009	395349	NC	NC	
5 Nitrate as N	5.200	5.200	0.000	2206937	0.2000	0.2282	
7 Orthophosphate as P	5.650	5.659	-0.009	880301	0.2000	0.2047	
6 Sulfate	6.392	6.434	-0.042	8641162	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

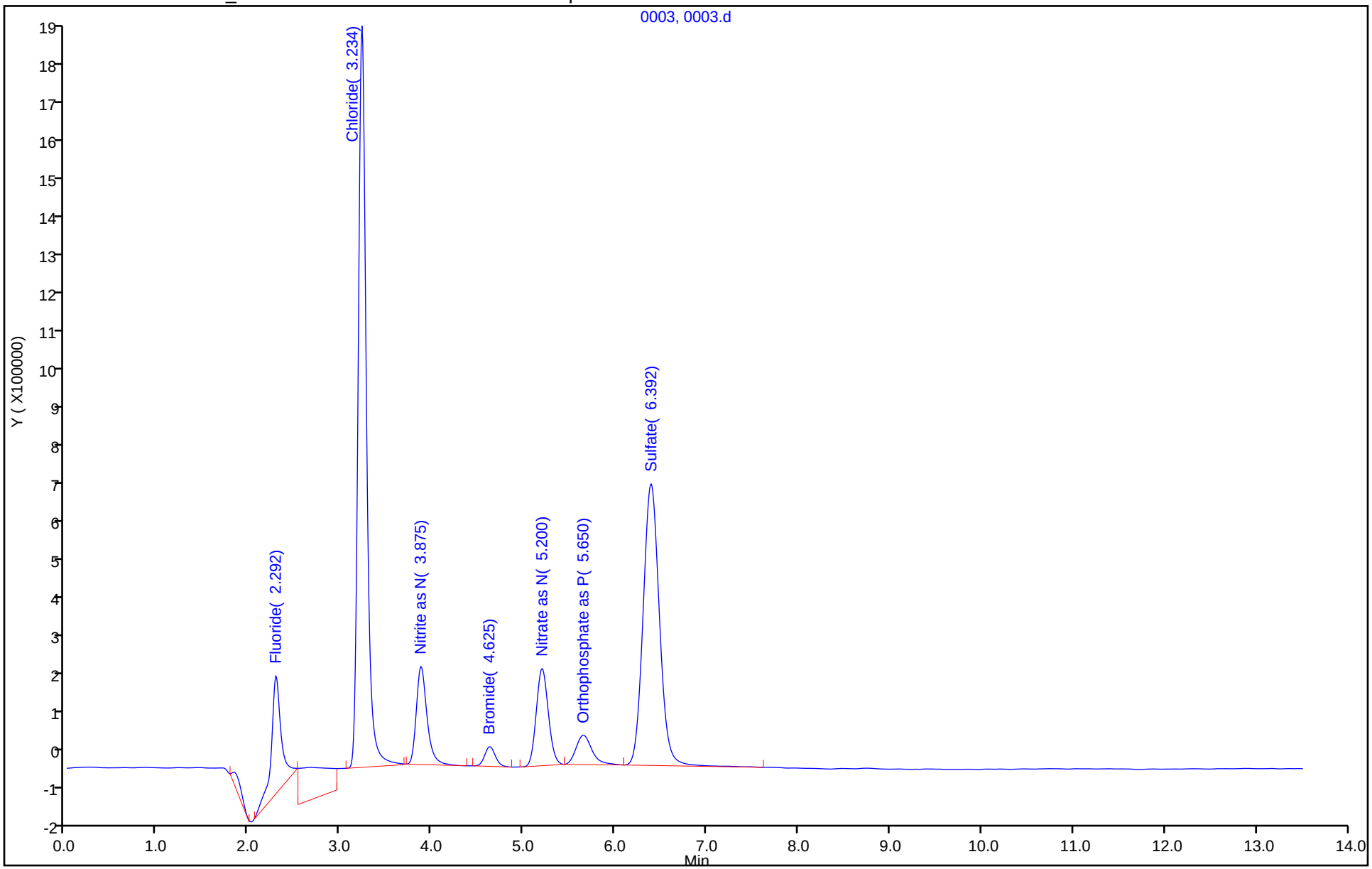
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 23:40:47 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d

Injection Date:	16-May-2019 14:17:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 16-May-2019 14:17:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 15:19:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2222979	0.2000	0.1518	M
2 Chloride	3.234	3.242	-0.008	11496232	2.50	2.33	M
3 Nitrite as N	3.875	3.892	-0.017	1976935	NC	NC	
4 Bromide	4.625	4.634	-0.009	395349	0.2000	0.2115	
5 Nitrate as N	5.200	5.200	0.000	2206937	NC	NC	
7 Orthophosphate as P	5.650	5.659	-0.009	880301	NC	NC	
6 Sulfate	6.392	6.434	-0.042	8641162	2.50	2.37	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

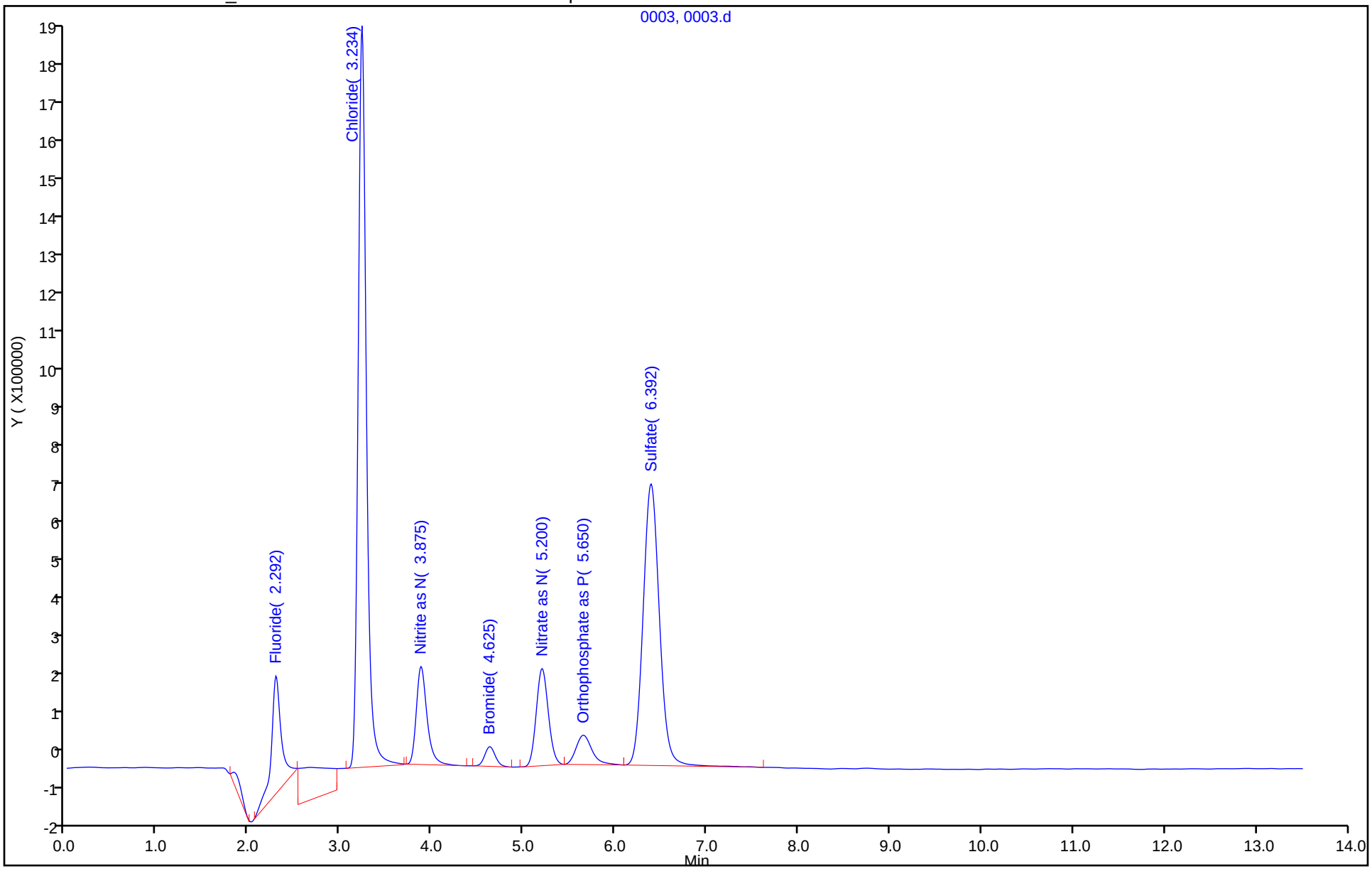
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 23:40:47 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d

Injection Date:	16-May-2019 14:17:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

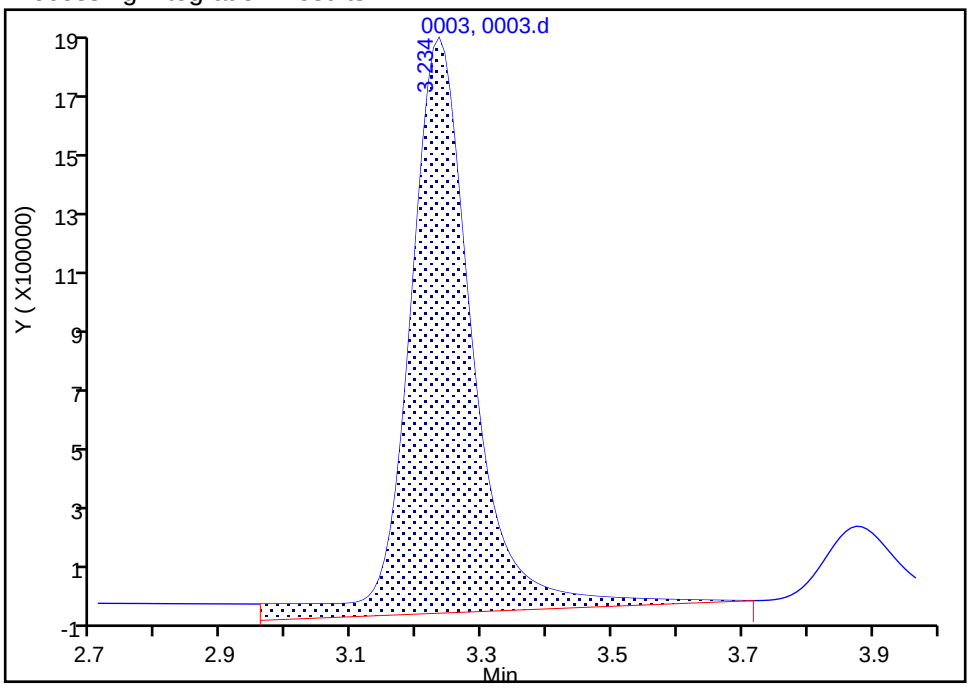
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d
Injection Date: 16-May-2019 14:17:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

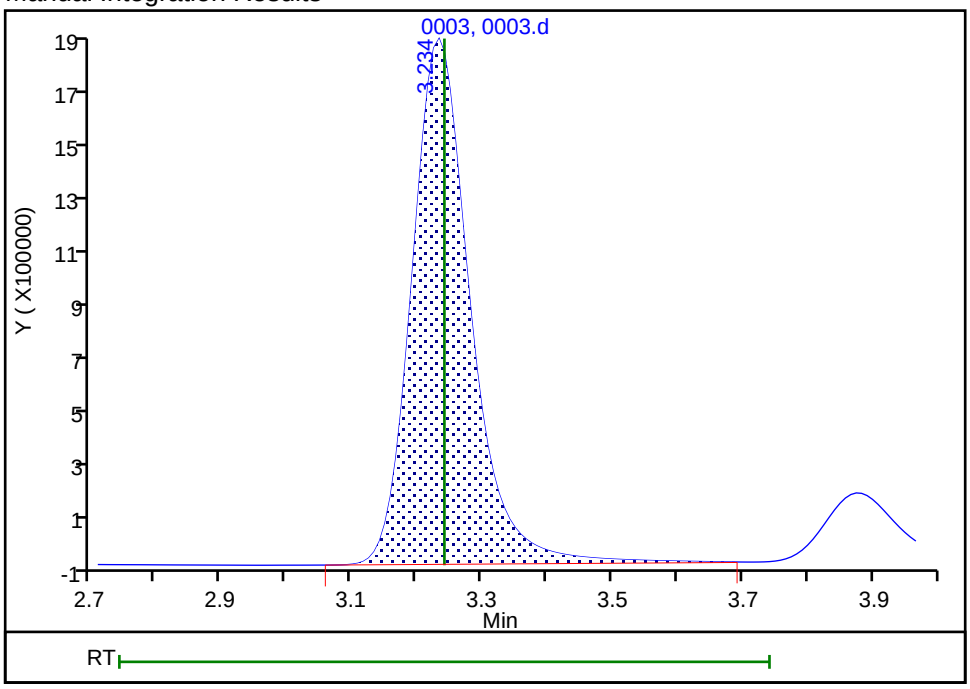
Processing Integration Results

RT: 3.23
Area: 12662610
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 11496232
Amount: 2.326895
Amount Units: ug/ml



Reviewer: phantl, 16-May-2019 15:18:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

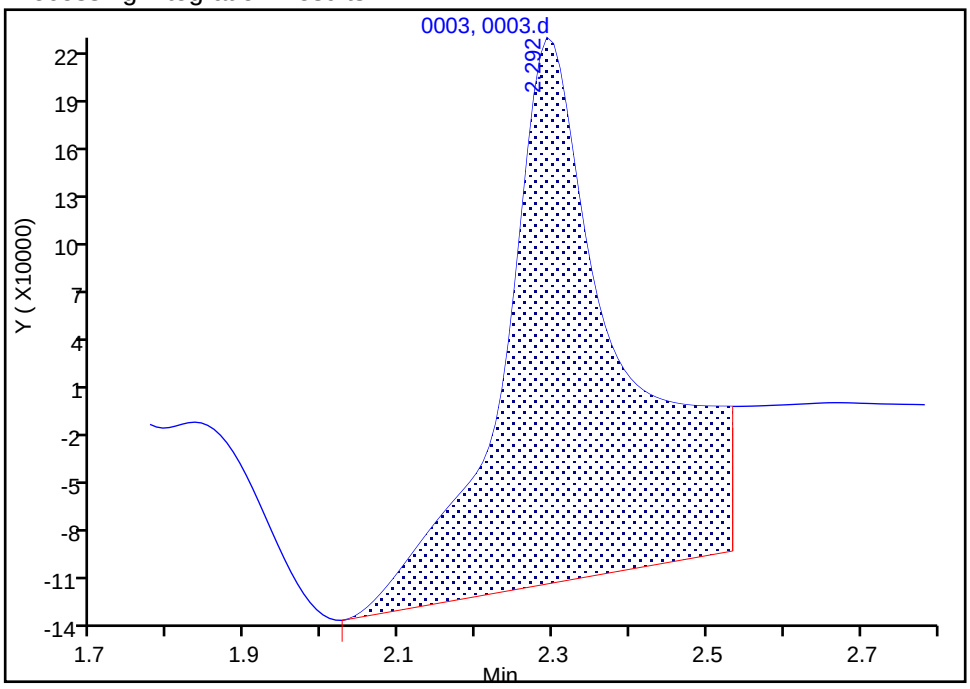
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0003.d
Injection Date: 16-May-2019 14:17:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

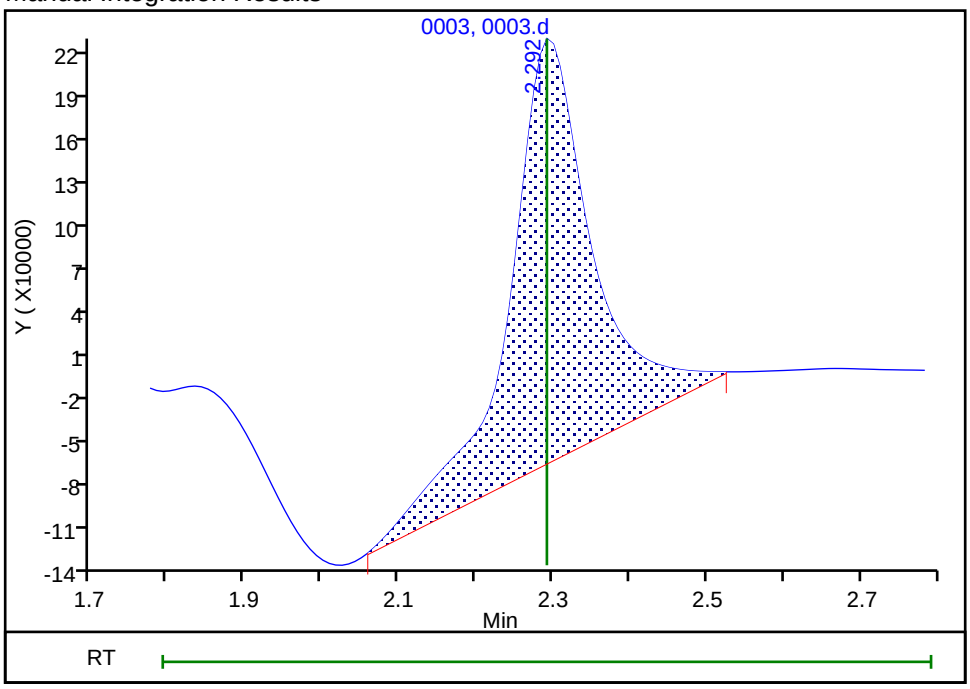
Processing Integration Results

RT: 2.29
Area: 3582076
Amount: 0.339196
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2222979
Amount: 0.151849
Amount Units: ug/ml



Reviewer: phantl, 16-May-2019 15:17:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 16-May-2019 14:33:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-004
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37280012	NC	NC	
2 Chloride	3.242	3.242	0.000	637369500	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	51283920	5.00	4.91	
4 Bromide	4.626	4.634	-0.008	10087842	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	57084913	5.00	4.95	
7 Orthophosphate as P	5.634	5.659	-0.025	20846450	5.00	5.02	
6 Sulfate	6.434	6.434	0.000	416771912	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

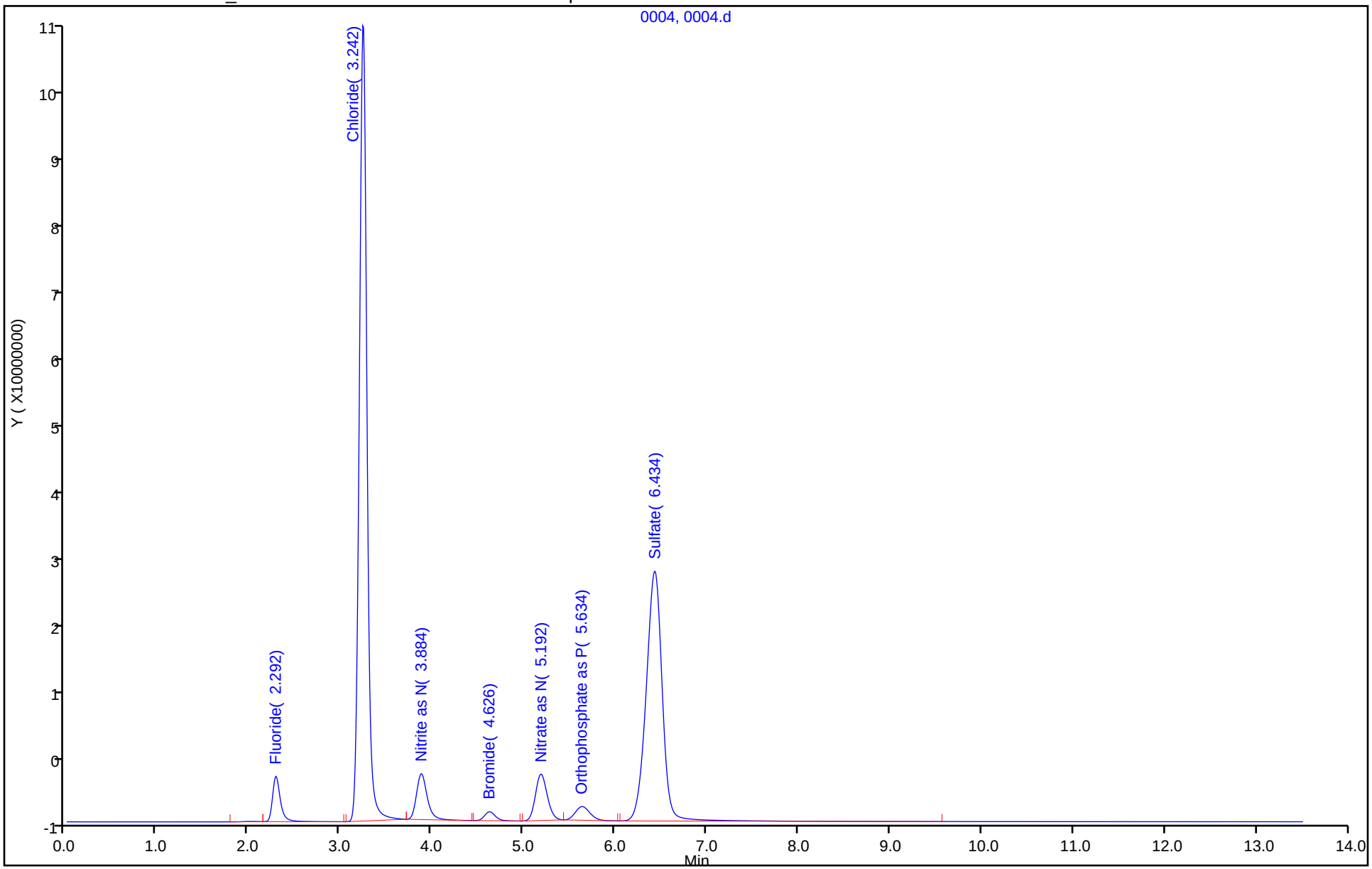
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0004.d

Injection Date:	16-May-2019 14:33:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 16-May-2019 14:33:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-004
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37280012	5.00	4.98	
2 Chloride	3.242	3.242	0.000	637369500	100.0	95.4	
3 Nitrite as N	3.884	3.892	-0.008	51283920	NC	NC	
4 Bromide	4.626	4.634	-0.008	10087842	5.00	5.21	
5 Nitrate as N	5.192	5.200	-0.008	57084913	NC	NC	
7 Orthophosphate as P	5.634	5.659	-0.025	20846450	NC	NC	
6 Sulfate	6.434	6.434	0.000	416771912	100.0	93.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

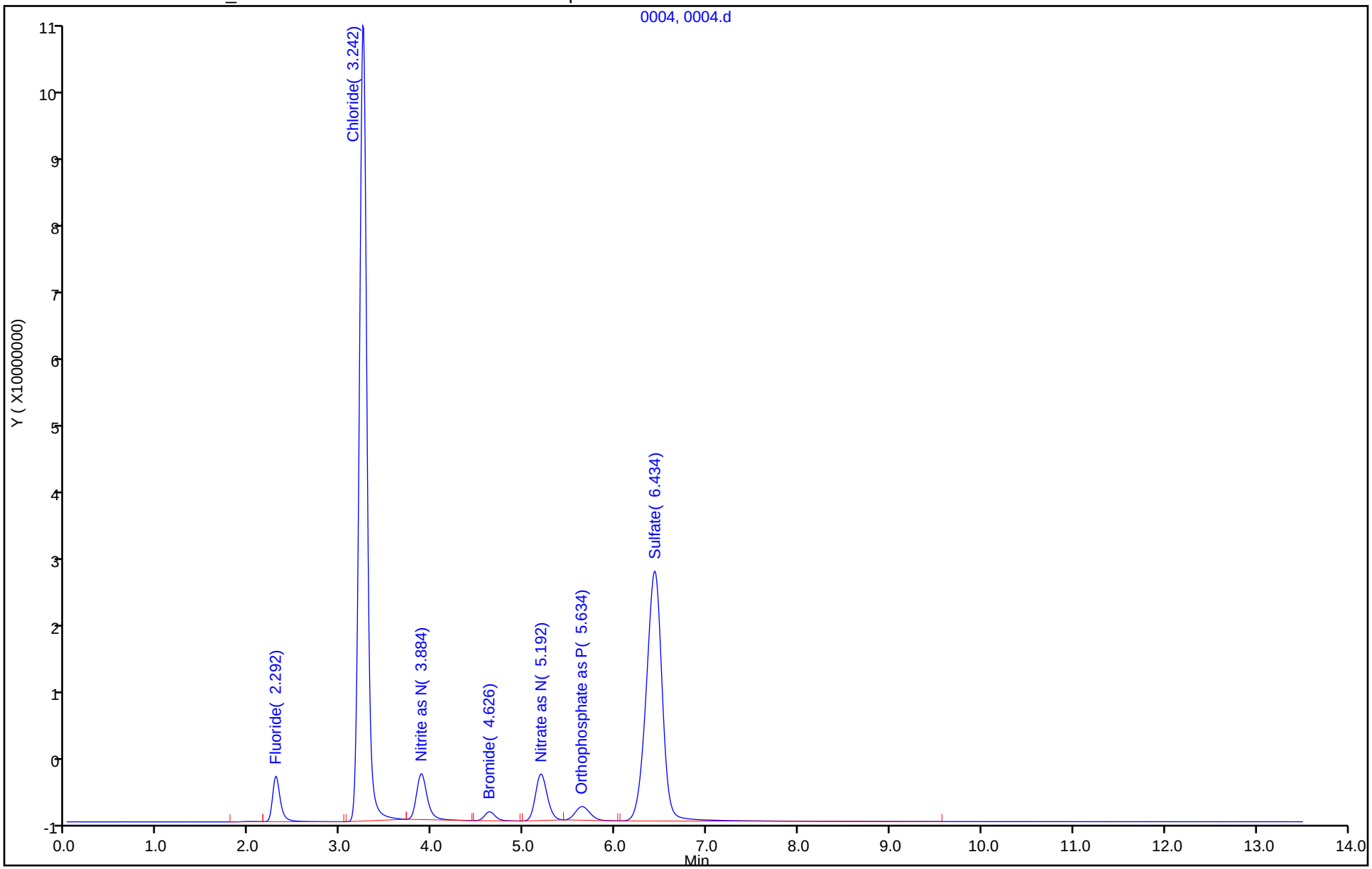
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0004.d

Injection Date:	16-May-2019 14:33:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 16-May-2019 14:50:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-005
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37337520	NC	NC	
2 Chloride	3.251	3.242	0.009	639250751	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	51437540	5.00	4.93	
4 Bromide	4.626	4.634	-0.008	10082489	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	57146865	5.00	4.96	
7 Orthophosphate as P	5.642	5.659	-0.017	20898063	5.00	5.04	
6 Sulfate	6.434	6.434	0.000	416474091	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

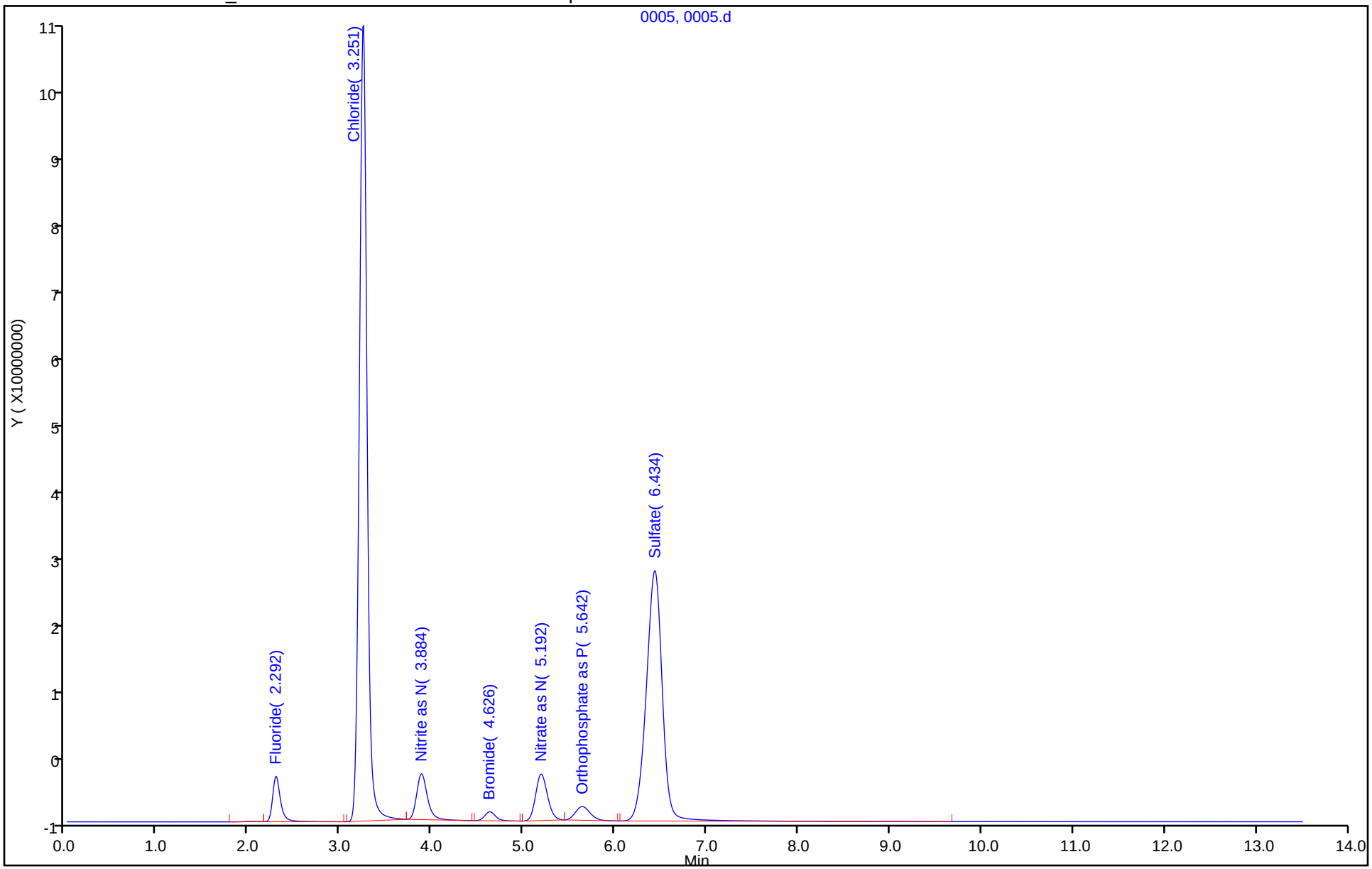
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0005.d

Injection Date:	16-May-2019 14:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 16-May-2019 14:50:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-005
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37337520	5.00	4.99	
2 Chloride	3.251	3.242	0.009	639250751	100.0	95.7	
3 Nitrite as N	3.884	3.892	-0.008	51437540	NC	NC	
4 Bromide	4.626	4.634	-0.008	10082489	5.00	5.21	
5 Nitrate as N	5.192	5.200	-0.008	57146865	NC	NC	
7 Orthophosphate as P	5.642	5.659	-0.017	20898063	NC	NC	
6 Sulfate	6.434	6.434	0.000	416474091	100.0	93.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

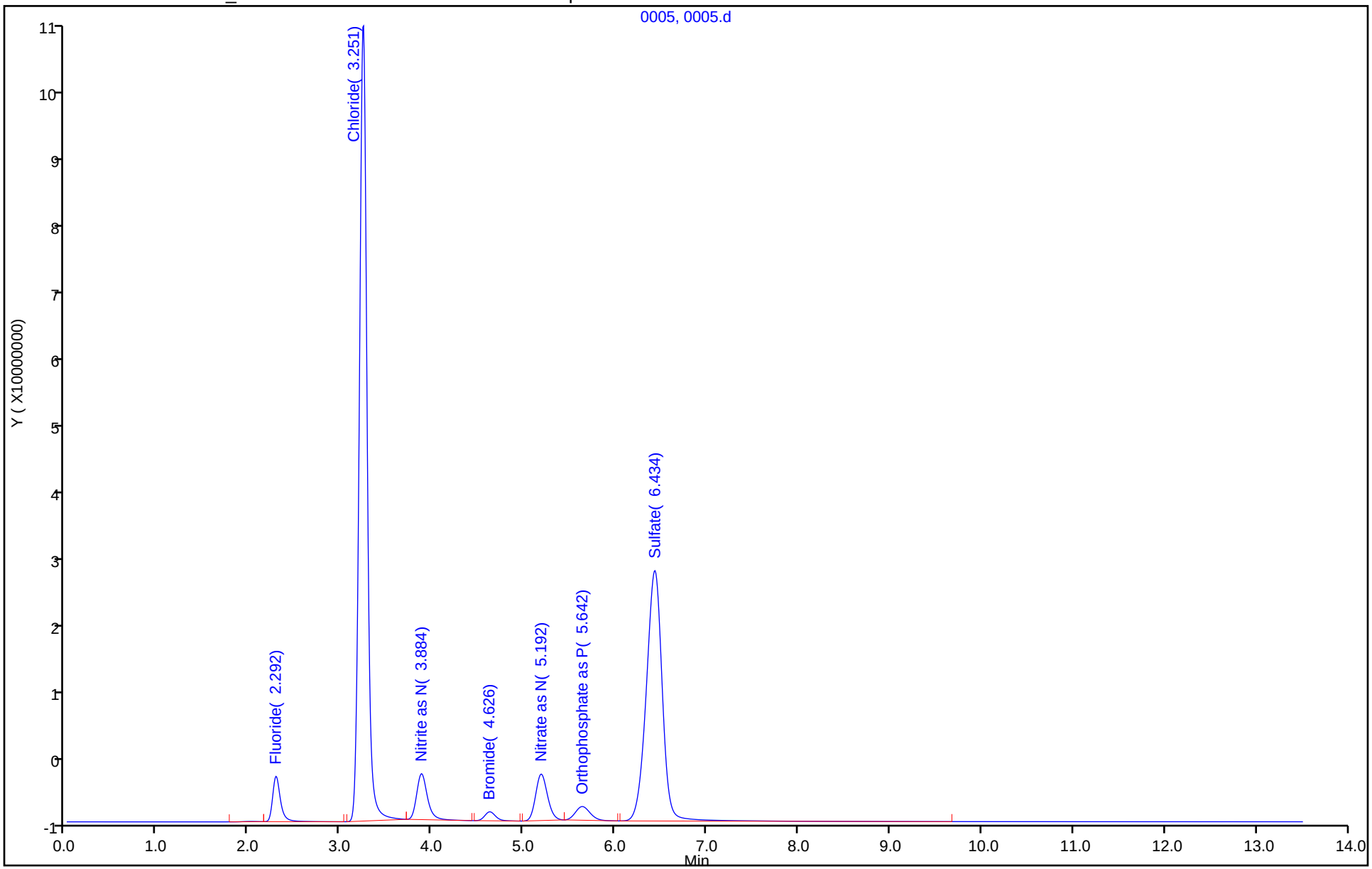
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0005.d

Injection Date:	16-May-2019 14:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 16-May-2019 15:06:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-006
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.659	2.292	0.367	3940147		NC	
2 Chloride	3.234	3.242	-0.008	726180		NC	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.934	5.659	0.275	331992		0.0723	
6 Sulfate	6.409	6.434	-0.025	190834		NC	

QC Flag Legend

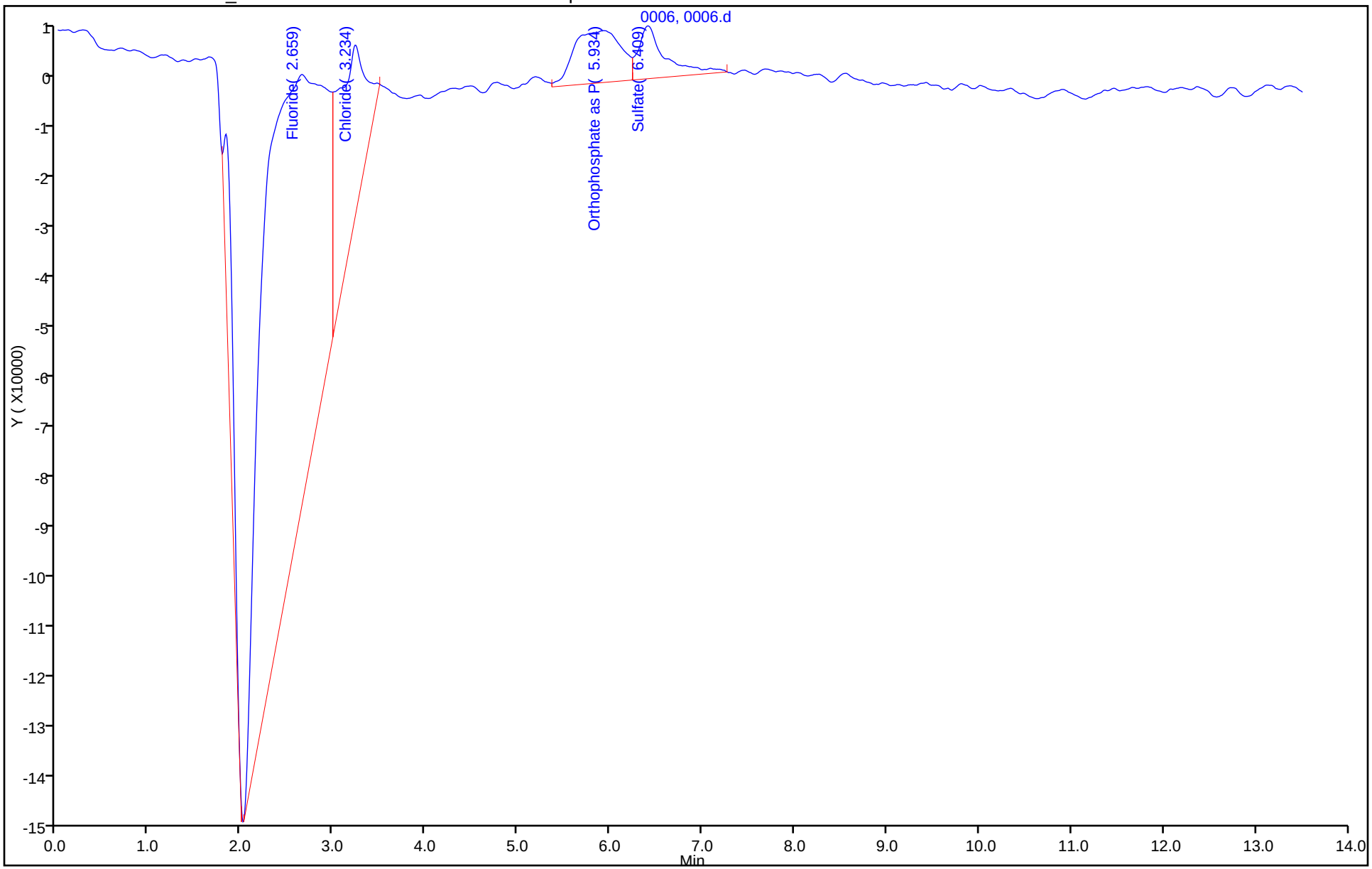
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0006.d

Injection Date:	16-May-2019 15:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 16-May-2019 15:06:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-006
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:44 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.659	2.292	0.367	3940147		0.3886	
2 Chloride	3.234	3.242	-0.008	726180		0.7252	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.934	5.659	0.275	331992		NC	
6 Sulfate	6.409	6.434	-0.025	190834		0.4800	

QC Flag Legend

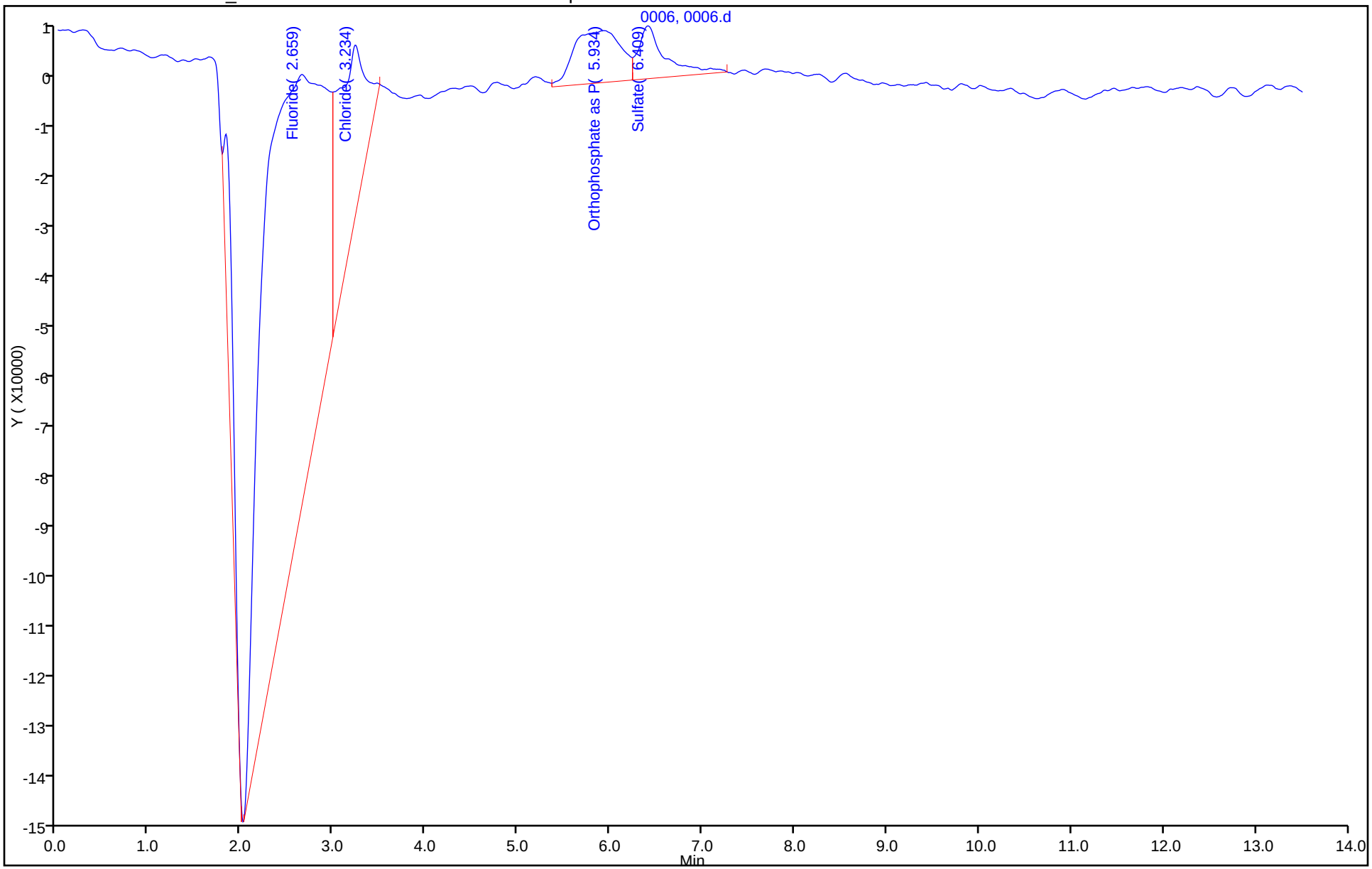
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0006.d

Injection Date:	16-May-2019 15:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0017.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	16-May-2019 18:31:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-017				
Misc. Info.:	17380				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 23:40:57	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0301				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37506151	NC	NC	
2 Chloride	3.242	3.242	0.000	638254625	NC	NC	
3 Nitrite as N	3.875	3.892	-0.017	51123044	5.00	4.90	
4 Bromide	4.617	4.634	-0.017	10081789	NC	NC	
5 Nitrate as N	5.175	5.200	-0.025	57371357	5.00	4.98	
7 Orthophosphate as P	5.634	5.659	-0.025	21571536	5.00	5.20	
6 Sulfate	6.425	6.434	-0.009	417672288	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

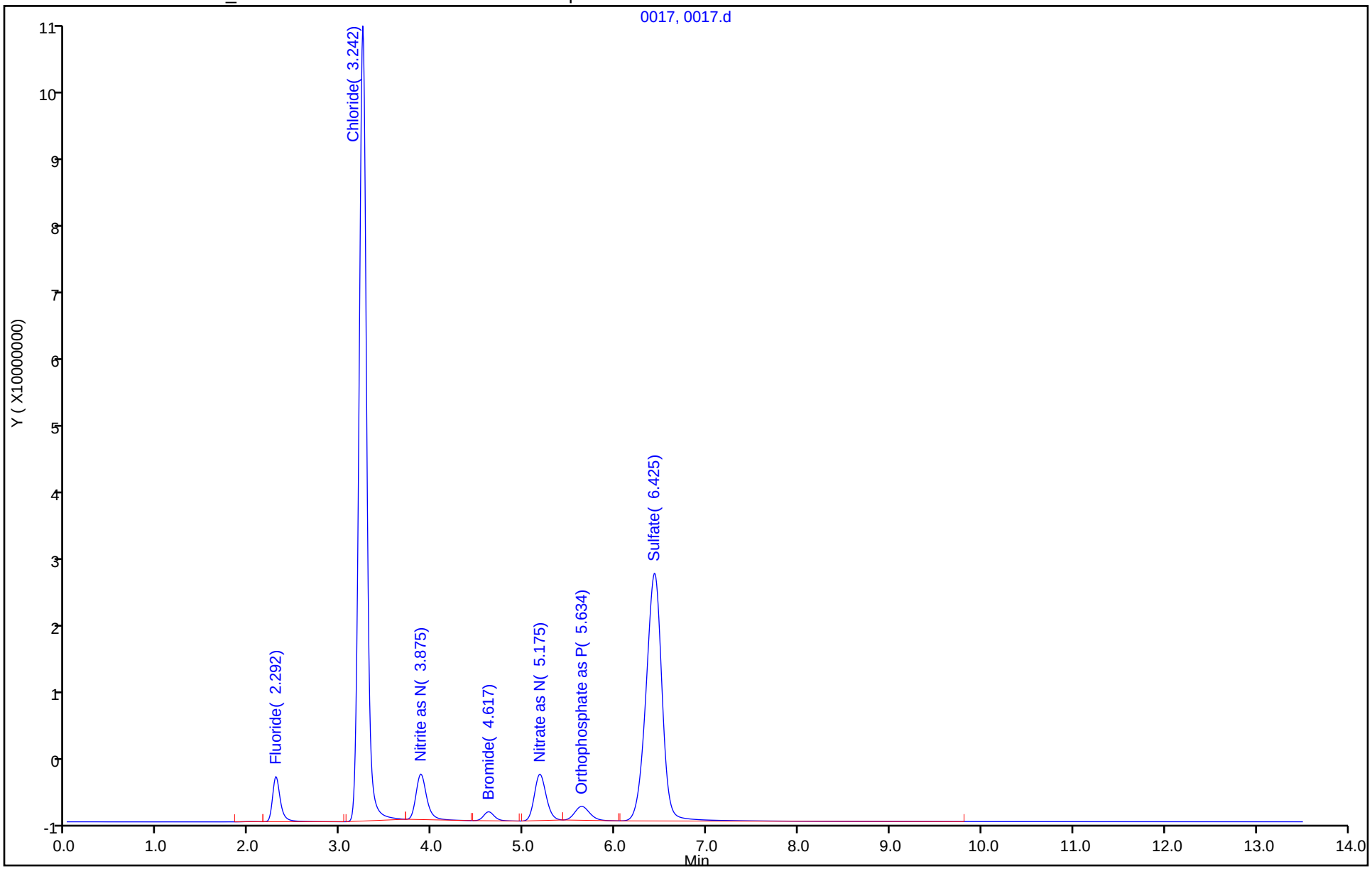
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0017.d

Injection Date:	16-May-2019 18:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0017.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	16-May-2019 18:31:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-017				
Misc. Info.:	17380				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 23:40:57	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0301				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37506151	5.00	5.02	
2 Chloride	3.242	3.242	0.000	638254625	100.0	95.5	
3 Nitrite as N	3.875	3.892	-0.017	51123044	NC	NC	
4 Bromide	4.617	4.634	-0.017	10081789	5.00	5.21	
5 Nitrate as N	5.175	5.200	-0.025	57371357	NC	NC	
7 Orthophosphate as P	5.634	5.659	-0.025	21571536	NC	NC	
6 Sulfate	6.425	6.434	-0.009	417672288	100.0	93.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

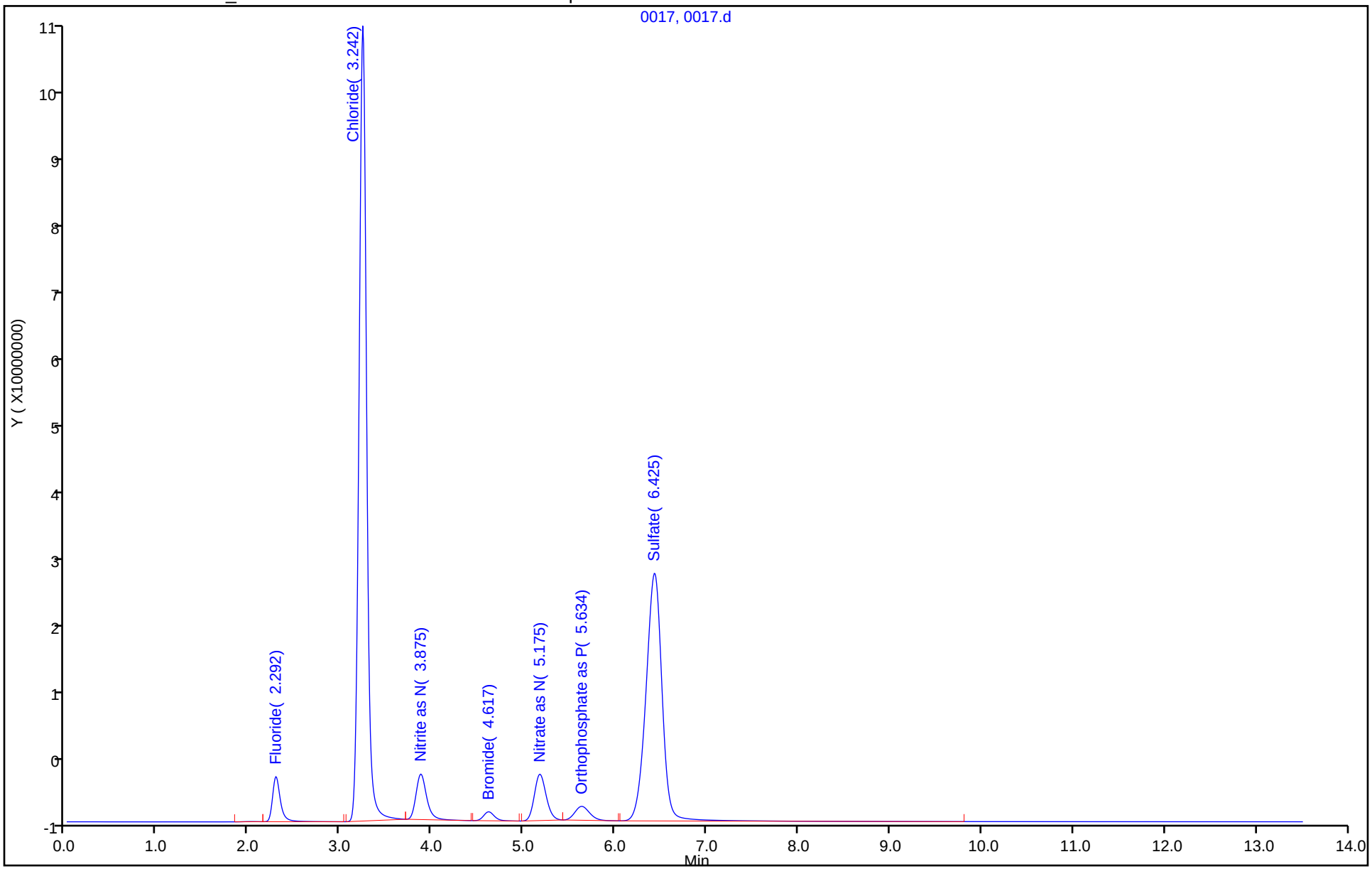
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:40:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0017.d

Injection Date:	16-May-2019 18:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 16-May-2019 18:47:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-018
Misc. Info.: 27098
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	4111585		NC	
2 Chloride	3.225	3.242	-0.017	103727		NC	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.750	5.659	0.091	454688		0.1019	
6 Sulfate	6.392	6.434	-0.042	125469		NC	

QC Flag Legend

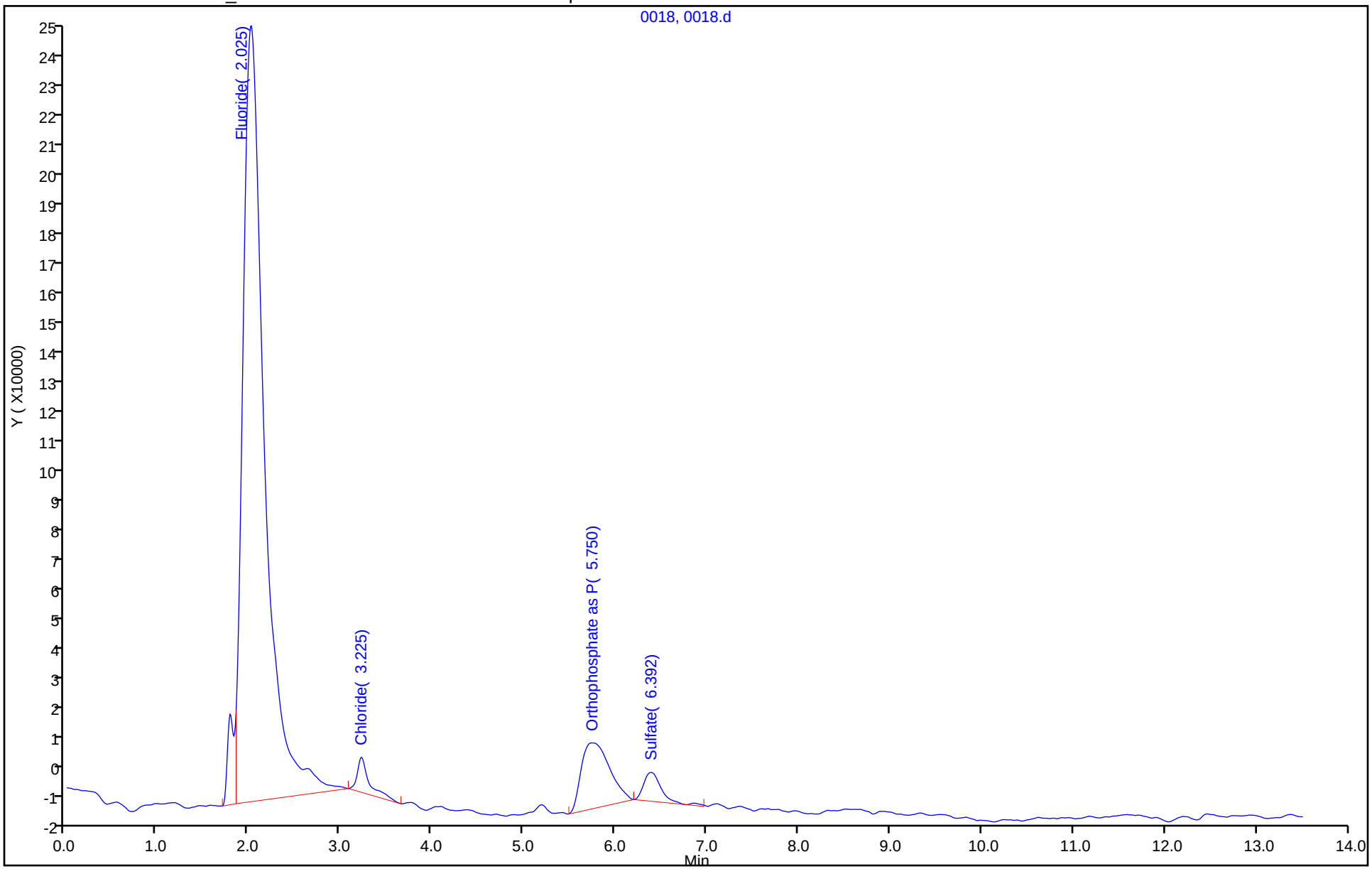
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0018.d

Injection Date:	16-May-2019 18:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 16-May-2019 18:47:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-018
Misc. Info.: 27098
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	4111585		0.4122	
2 Chloride	3.225	3.242	-0.017	103727		0.6326	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.750	5.659	0.091	454688		NC	
6 Sulfate	6.392	6.434	-0.042	125469		0.4653	

QC Flag Legend

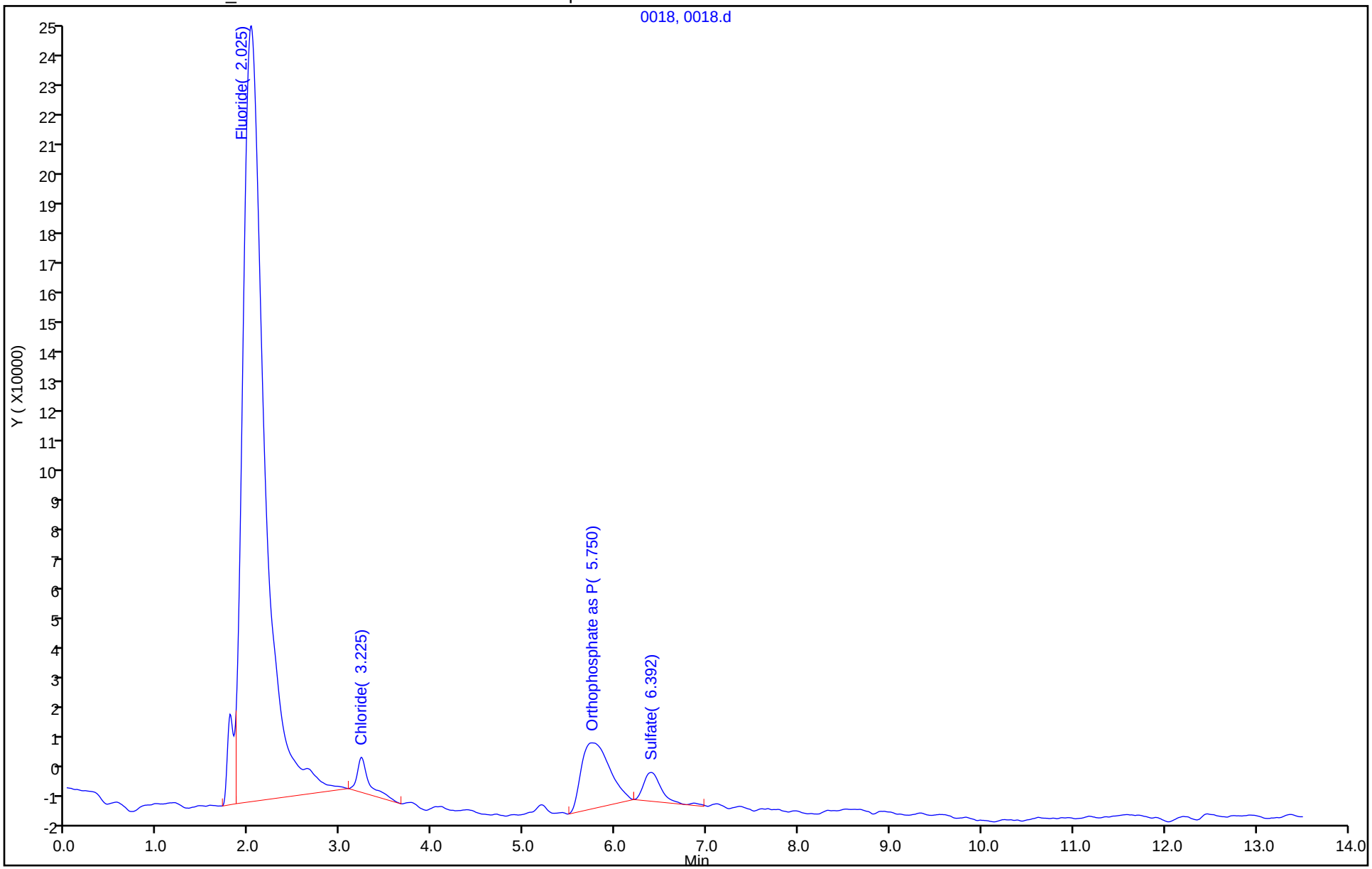
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0018.d

Injection Date:	16-May-2019 18:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0021.d
Lims ID: 280-123853-A-1
Client ID: LF6MW-1_0519
Sample Type: Client
Inject. Date: 16-May-2019 19:37:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-021
Misc. Info.: 23401 2621
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 23:39:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	7933402	NC	
2 Chloride	3.334	3.242	0.092	5926564194	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.284	5.200	0.084	8614502	0.7800	
7 Orthophosphate as P	5.617	5.659	-0.042	1720961	0.4076	
6 Sulfate	6.425	6.434	-0.009	62281444	NC	

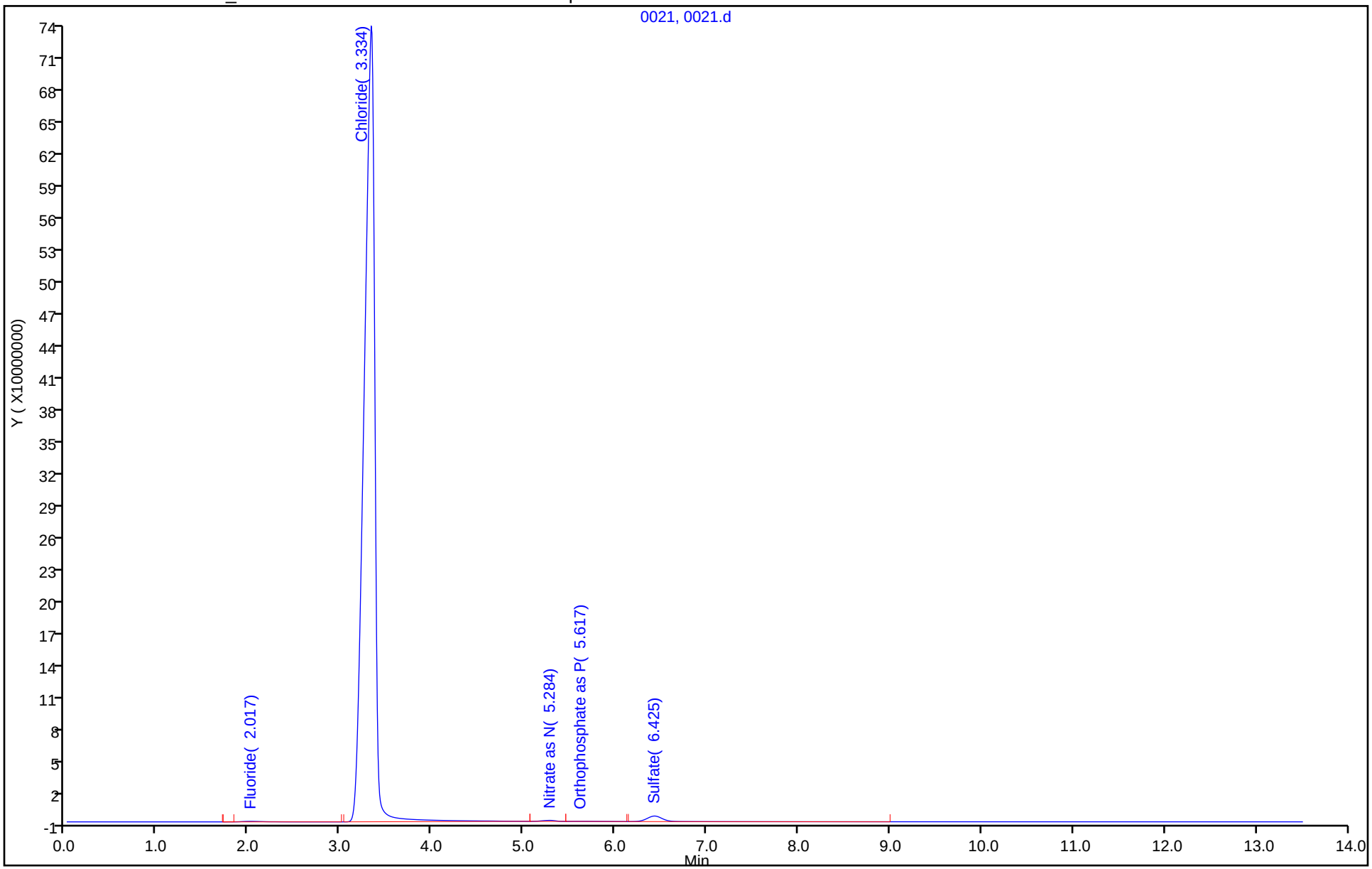
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0021.d				
Injection Date:	16-May-2019 19:37:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-1	Lab Sample ID:	280-123853-1	Worklist Smp#:	21
Client ID:	LF6MW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0021.d
Lims ID: 280-123853-A-1
Client ID: LF6MW-1_0519
Sample Type: Client
Inject. Date: 16-May-2019 19:37:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-021
Misc. Info.: 23401 2621
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 23:39:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	7933402	0.9390	
2 Chloride	3.334	3.242	0.092	5926564194	882.0	E
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.284	5.200	0.084	8614502	NC	
7 Orthophosphate as P	5.617	5.659	-0.042	1720961	NC	
6 Sulfate	6.425	6.434	-0.009	62281444	14.4	

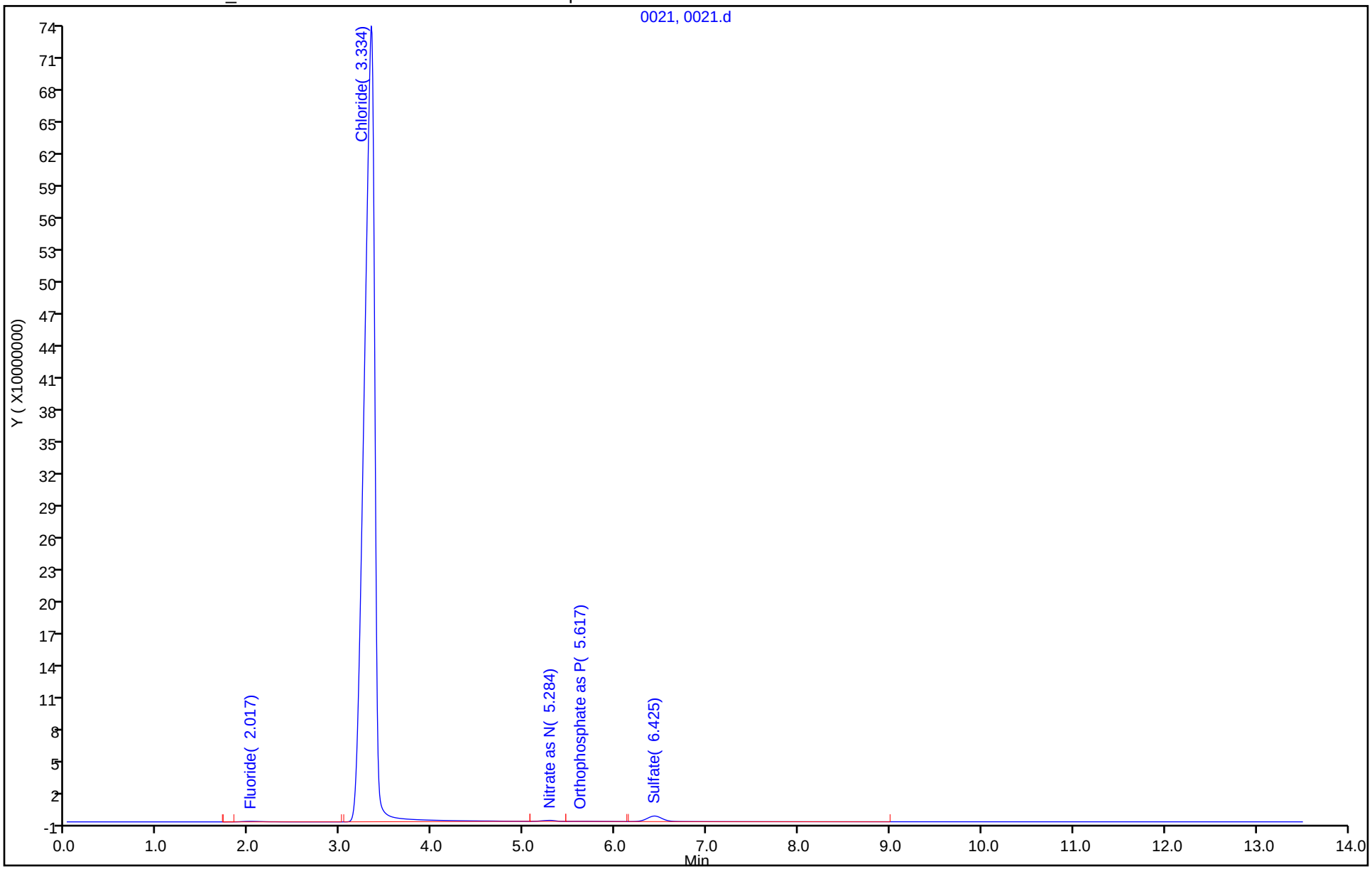
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 16-May-2019 23:40:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0021.d				
Injection Date:	16-May-2019 19:37:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-1	Lab Sample ID:	280-123853-1	Worklist Smp#:	21
Client ID:	LF6MW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0022.d
Lims ID: 280-123853-A-1
Client ID: LF6MW-1_0519
Sample Type: Client
Inject. Date: 16-May-2019 19:53:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 20.0000
Sample Info: 280-0081959-022
Misc. Info.: 22805
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.659	2.292	0.367	2371756	0.1724	
2 Chloride	3.234	3.242	-0.008	223700587	33.9	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.192	5.200	-0.008	534213	NC	
7 Orthophosphate as P	5.834	5.659	0.175	190003	NC	
6 Sulfate	6.384	6.434	-0.050	2966402	1.10	

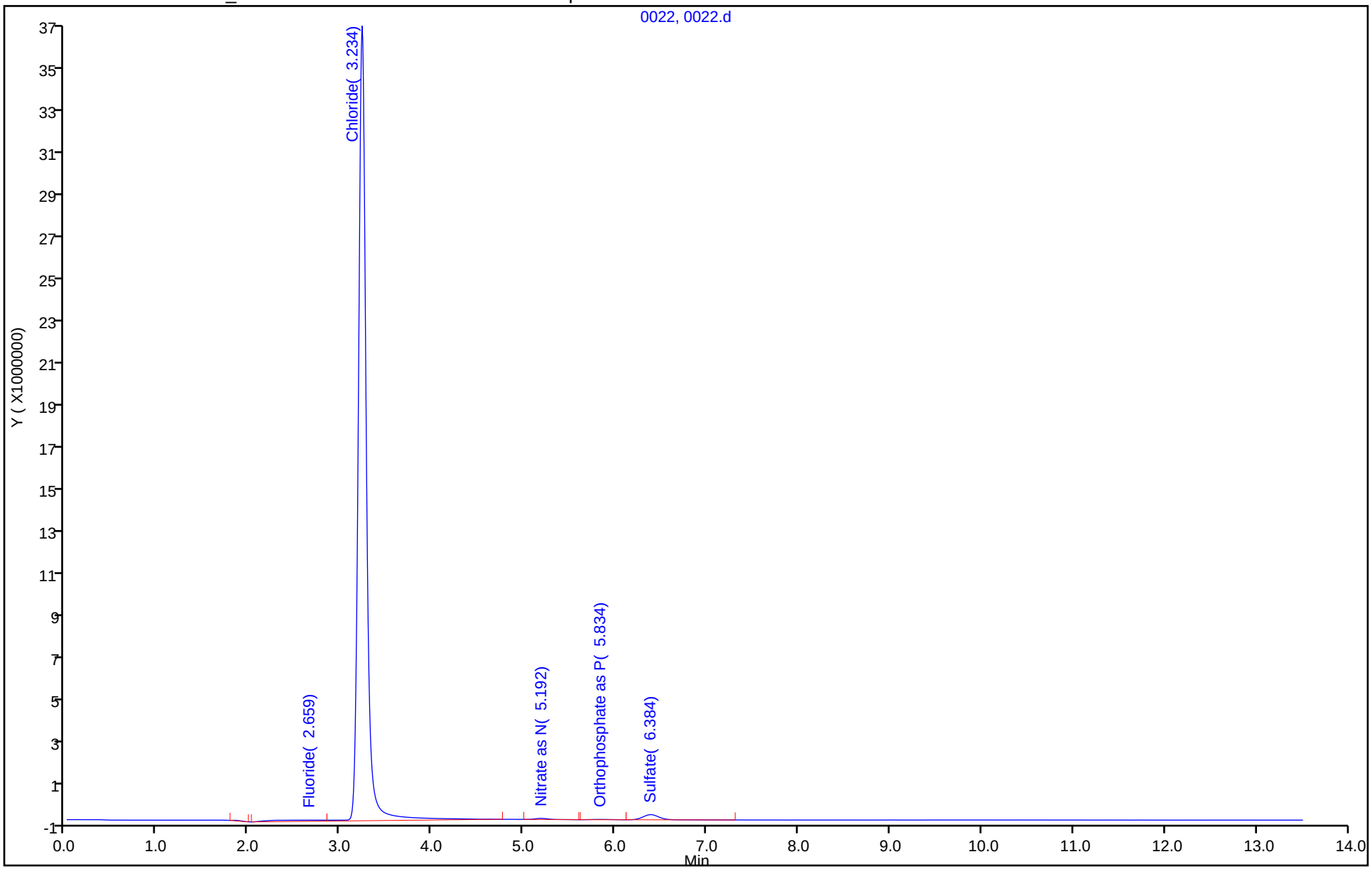
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:40:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0022.d				
Injection Date:	16-May-2019 19:53:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-1	Lab Sample ID:	280-123853-1	Worklist Smp#:	22
Client ID:	LF6MW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	20.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0023.d
Lims ID: 280-123853-A-2
Client ID: 775VMW-18R_0519
Sample Type: Client
Inject. Date: 16-May-2019 20:09:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-023
Misc. Info.: 20506 2587
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 23:39:47

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	7627522	NC	
2 Chloride	3.334	3.242	0.092	5965218820	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.225	5.200	0.025	31918921	2.79	
7 Orthophosphate as P	5.659	5.659	0.000	1143265	0.2681	
6 Sulfate	6.434	6.434	0.000	198838067	NC	

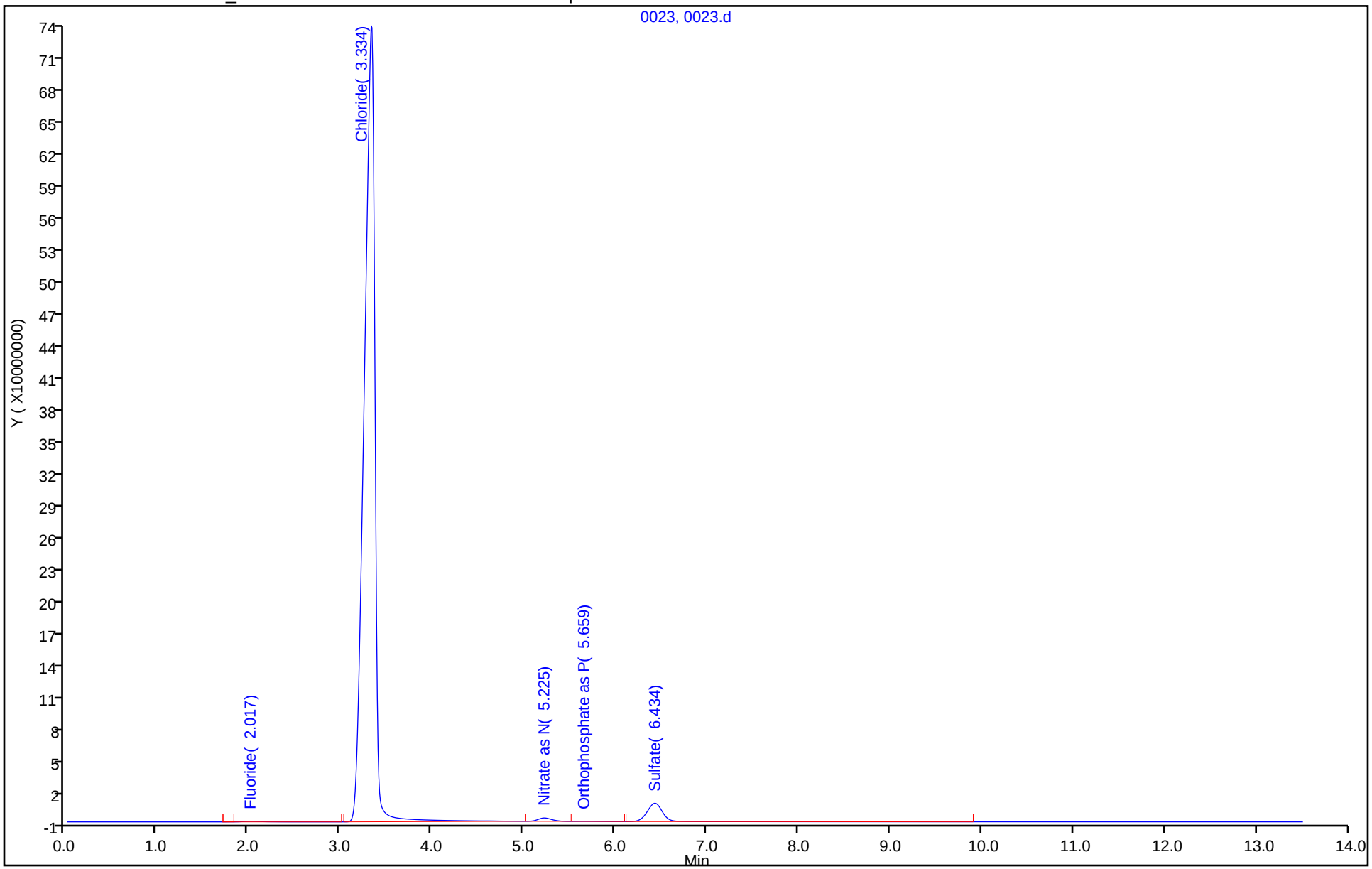
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0023.d				
Injection Date:	16-May-2019 20:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-2	Lab Sample ID:	280-123853-2	Worklist Smp#:	23
Client ID:	775VMW-18R_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0023.d
Lims ID: 280-123853-A-2
Client ID: 775VMW-18R_0519
Sample Type: Client
Inject. Date: 16-May-2019 20:09:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-023
Misc. Info.: 20506 2587
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

First Level Reviewer: phantl Date: 16-May-2019 23:39:47

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	7627522	0.8968	
2 Chloride	3.334	3.242	0.092	5965218820	887.8	E
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.225	5.200	0.025	31918921	NC	
7 Orthophosphate as P	5.659	5.659	0.000	1143265	NC	
6 Sulfate	6.434	6.434	0.000	198838067	44.9	

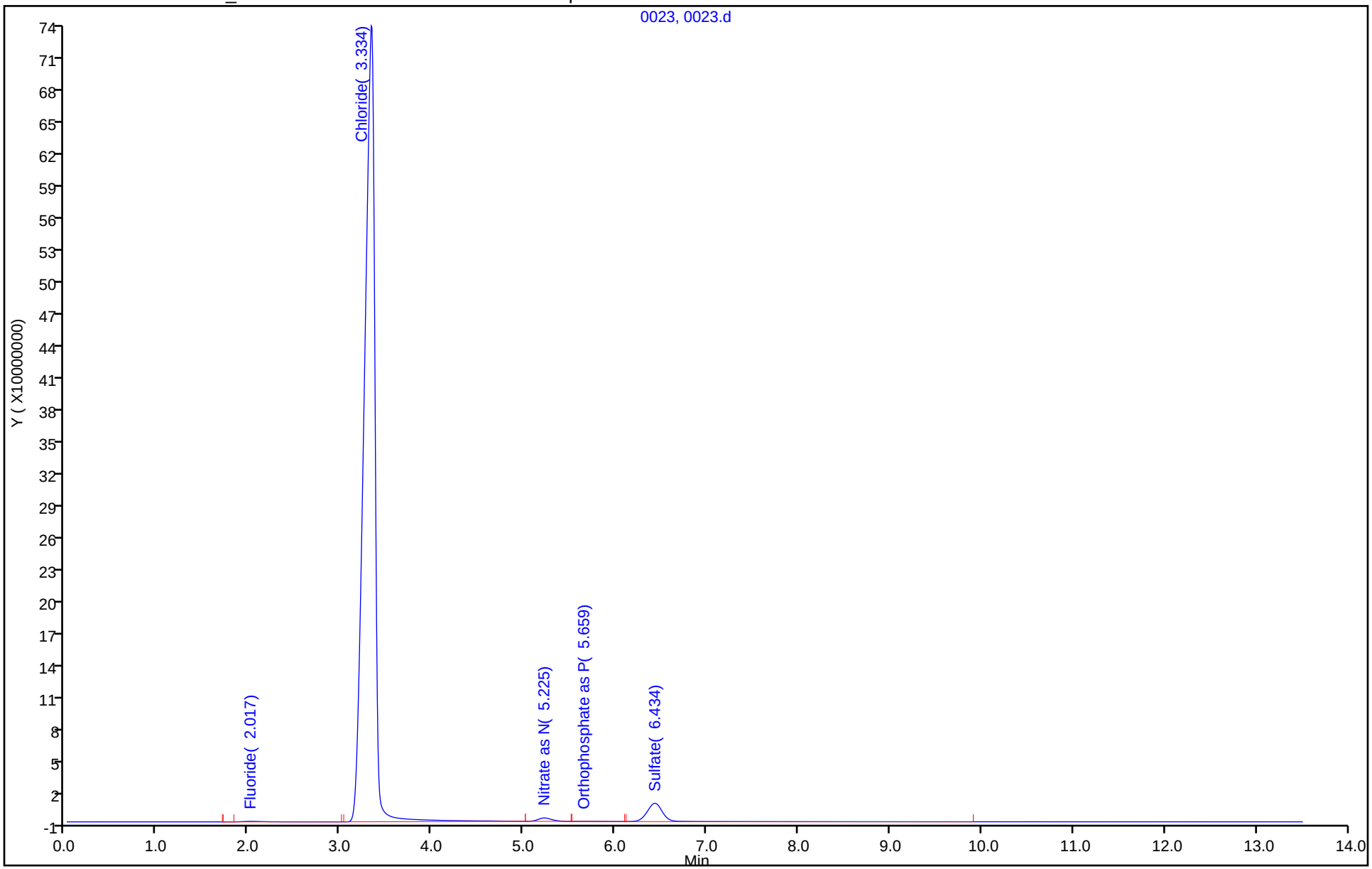
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 16-May-2019 23:41:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0023.d				
Injection Date:	16-May-2019 20:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-2	Lab Sample ID:	280-123853-2	Worklist Smp#:	23
Client ID:	775VMW-18R_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0024.d
Lims ID: 280-123853-A-2
Client ID: 775VMW-18R_0519
Sample Type: Client
Inject. Date: 16-May-2019 20:26:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 20.0000
Sample Info: 280-0081959-024
Misc. Info.: 3100
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.709	2.292	0.417	2989305	0.2575	
2 Chloride	3.234	3.242	-0.008	227656067	34.5	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.184	5.200	-0.016	1647064	NC	
7 Orthophosphate as P		5.659			ND	
6 Sulfate	6.384	6.434	-0.050	8742577	2.39	

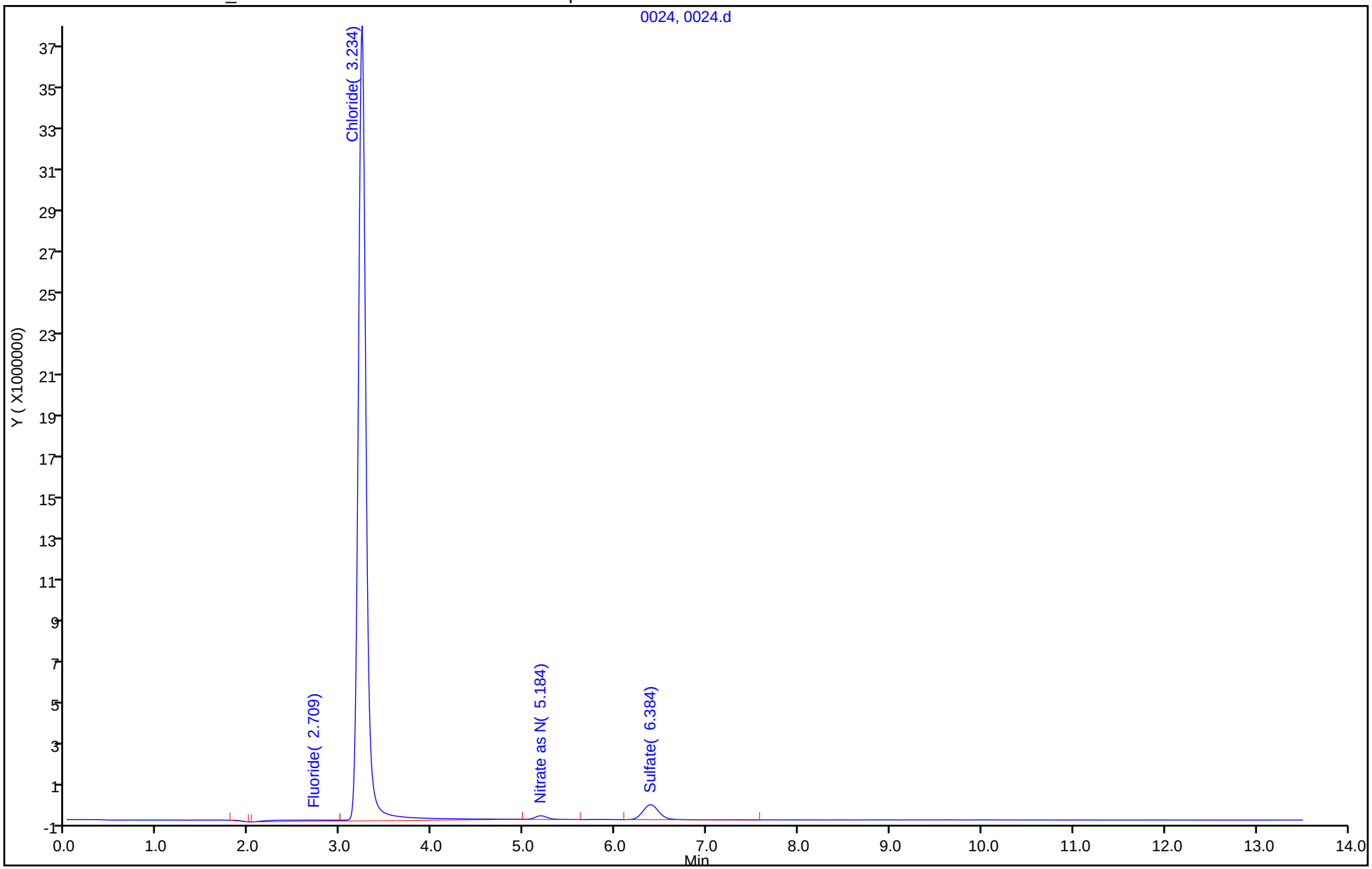
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0024.d				
Injection Date:	16-May-2019 20:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-2	Lab Sample ID:	280-123853-2	Worklist Smp#:	24
Client ID:	775VMW-18R_0519				
Injection Vol:	10.0 ul	Dil. Factor:	20.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0025.d
Lims ID: 280-123853-A-3
Client ID: TMC-USGS-2_0519
Sample Type: Client
Inject. Date: 16-May-2019 20:42:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-025
Misc. Info.: 24918 470F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	449496	NC	
2 Chloride	3.242	3.242	0.000	299100454	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.609	4.634	-0.025	479158	NC	
5 Nitrate as N	5.209	5.200	0.009	9495205	0.8558	
7 Orthophosphate as P	5.742	5.659	0.083	1443639	0.3407	
6 Sulfate	6.417	6.434	-0.017	107301713	NC	

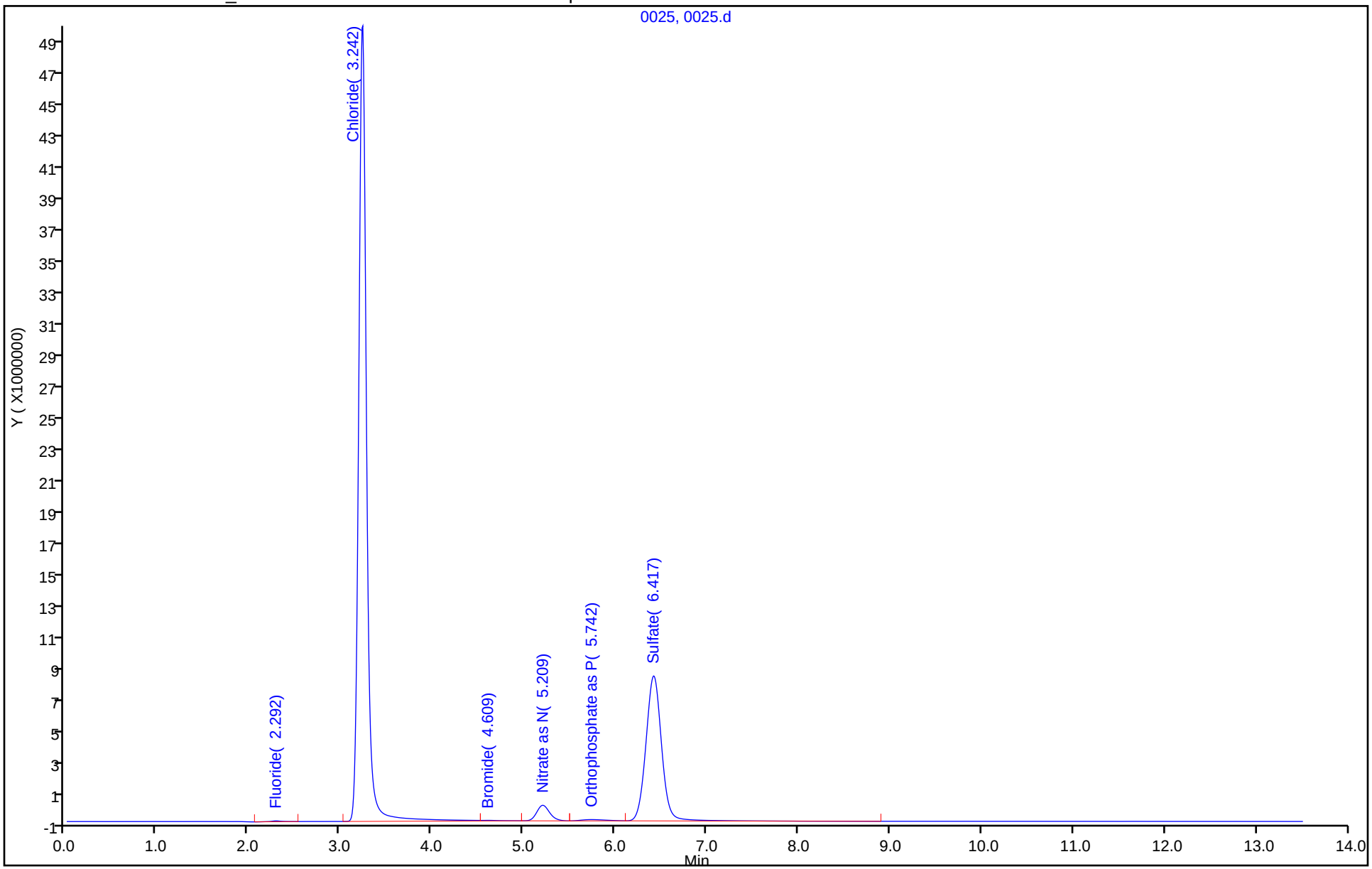
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0025.d				
Injection Date:	16-May-2019 20:42:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3	Lab Sample ID:	280-123853-3	Worklist Smp#:	25
Client ID:	TMC-USGS-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0025.d				
Lims ID:	280-123853-A-3				
Client ID:	TMC-USGS-2_0519				
Sample Type:	Client				
Inject. Date:	16-May-2019 20:42:00	ALS Bottle#:	0	Worklist Smp#:	25
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-025				
Misc. Info.:	24918 470F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 23:40:57	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0301				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	449496	-0.0926	
2 Chloride	3.242	3.242	0.000	299100454	45.1	
3 Nitrite as N		3.892			ND	
4 Bromide	4.609	4.634	-0.025	479158	0.2548	
5 Nitrate as N	5.209	5.200	0.009	9495205	NC	
7 Orthophosphate as P	5.742	5.659	0.083	1443639	NC	
6 Sulfate	6.417	6.434	-0.017	107301713	24.4	

QC Flag Legend

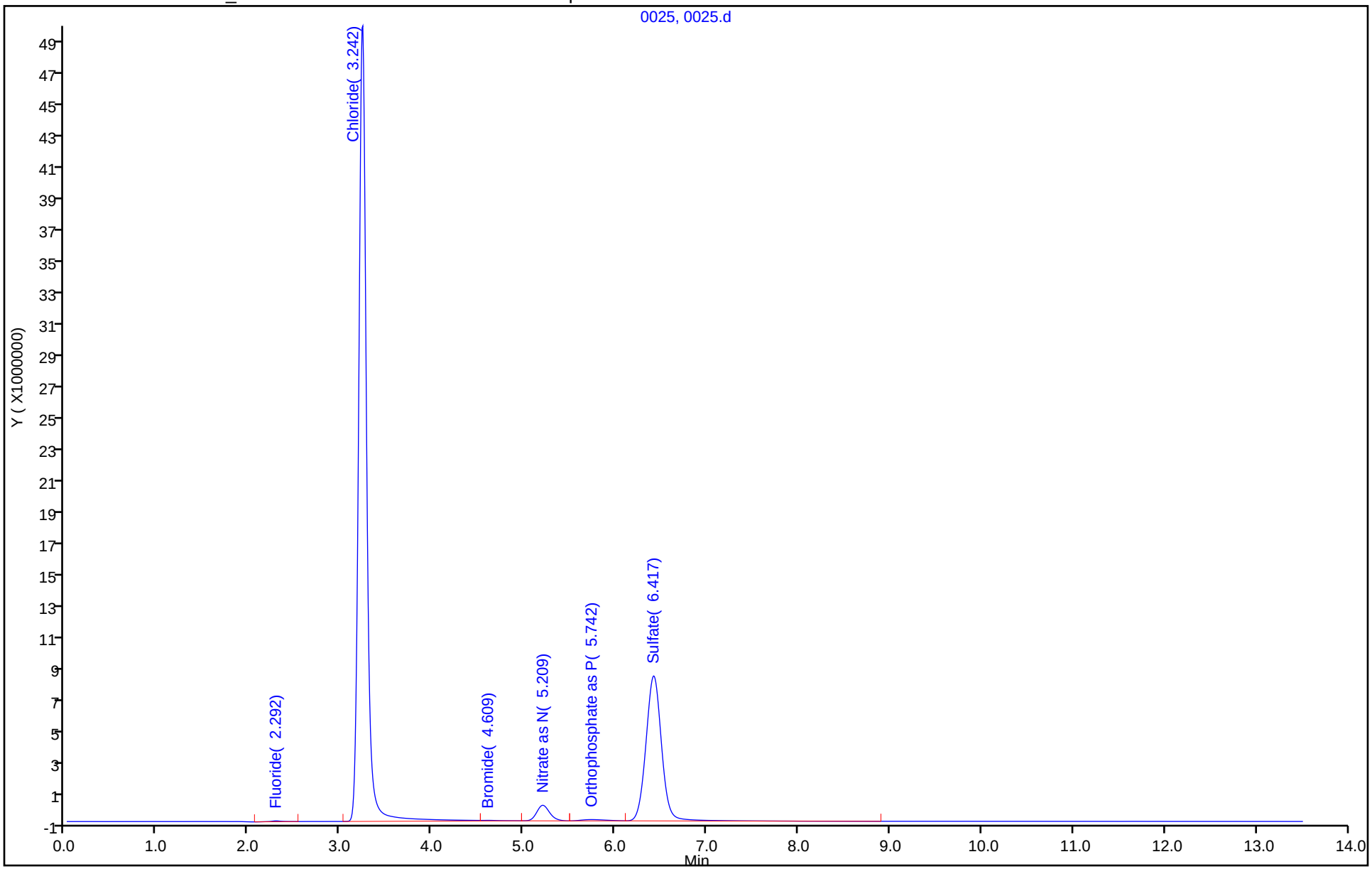
Processing Flags

NC - Not Calibrated

Report Date: 16-May-2019 23:41:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0025.d				
Injection Date:	16-May-2019 20:42:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3	Lab Sample ID:	280-123853-3	Worklist Smp#:	25
Client ID:	TMC-USGS-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0026.d
Lims ID: 280-123853-A-3 DU
Client ID:
Sample Type: DU
Inject. Date: 16-May-2019 20:59:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-026
Misc. Info.: 16538 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	451087		NC	
2 Chloride	3.234	3.242	-0.008	298884418		NC	
3 Nitrite as N		3.892				ND	
4 Bromide	4.617	4.634	-0.017	477657		NC	
5 Nitrate as N	5.200	5.200	0.000	9504022		0.8565	
7 Orthophosphate as P	5.742	5.659	0.083	1422701		0.3356	
6 Sulfate	6.409	6.434	-0.025	107027326		NC	

QC Flag Legend

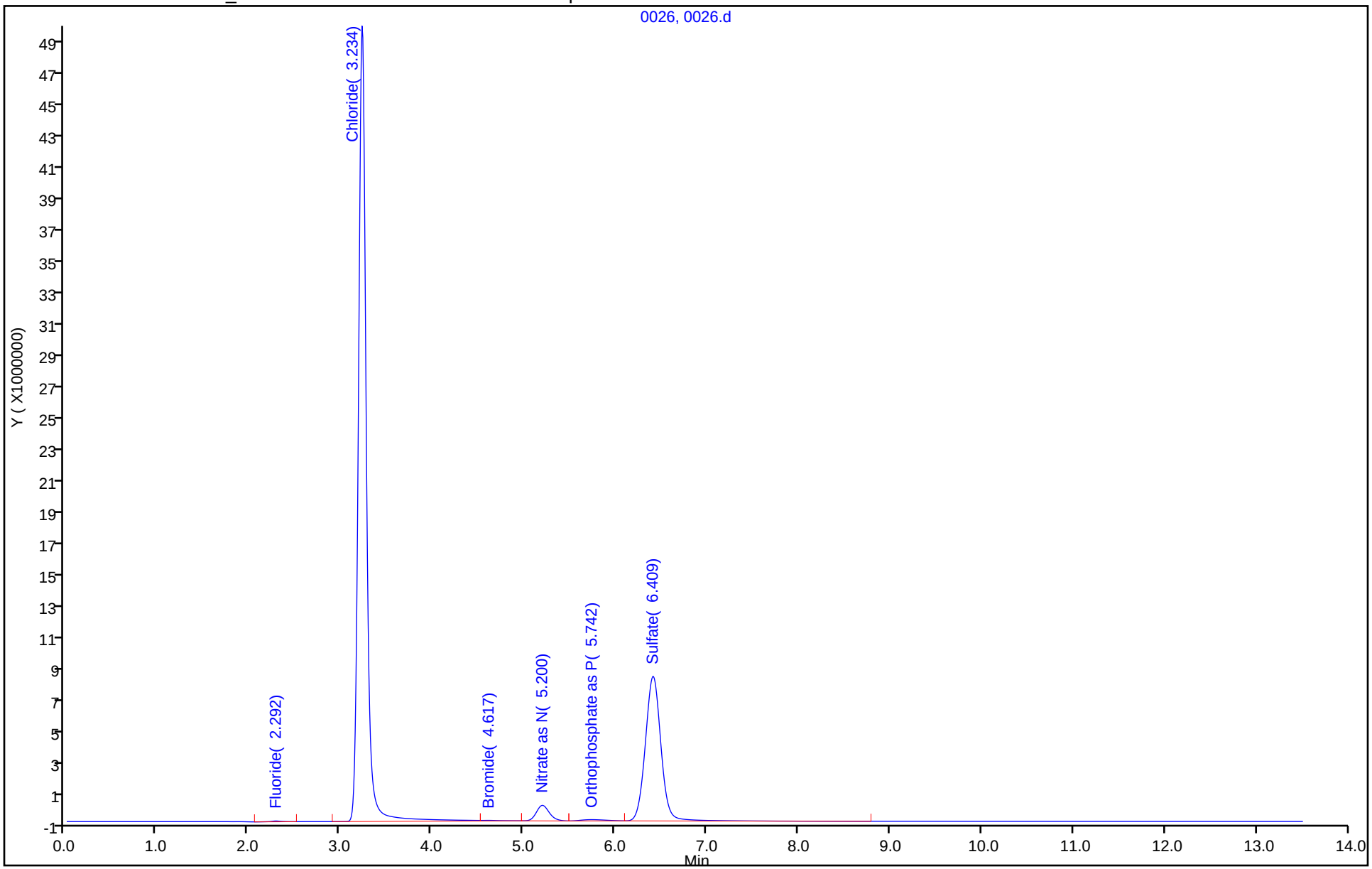
Processing Flags
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Report Date: 16-May-2019 23:41:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0026.d

Injection Date:	16-May-2019 20:59:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 DU			Worklist Smp#:	26
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0026.d
Lims ID: 280-123853-A-3 DU
Client ID:
Sample Type: DU
Inject. Date: 16-May-2019 20:59:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-026
Misc. Info.: 16538 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	451087		-0.0924	
2 Chloride	3.234	3.242	-0.008	298884418		45.1	
3 Nitrite as N		3.892				ND	
4 Bromide	4.617	4.634	-0.017	477657		0.2540	
5 Nitrate as N	5.200	5.200	0.000	9504022		NC	
7 Orthophosphate as P	5.742	5.659	0.083	1422701		NC	
6 Sulfate	6.409	6.434	-0.025	107027326		24.4	

QC Flag Legend

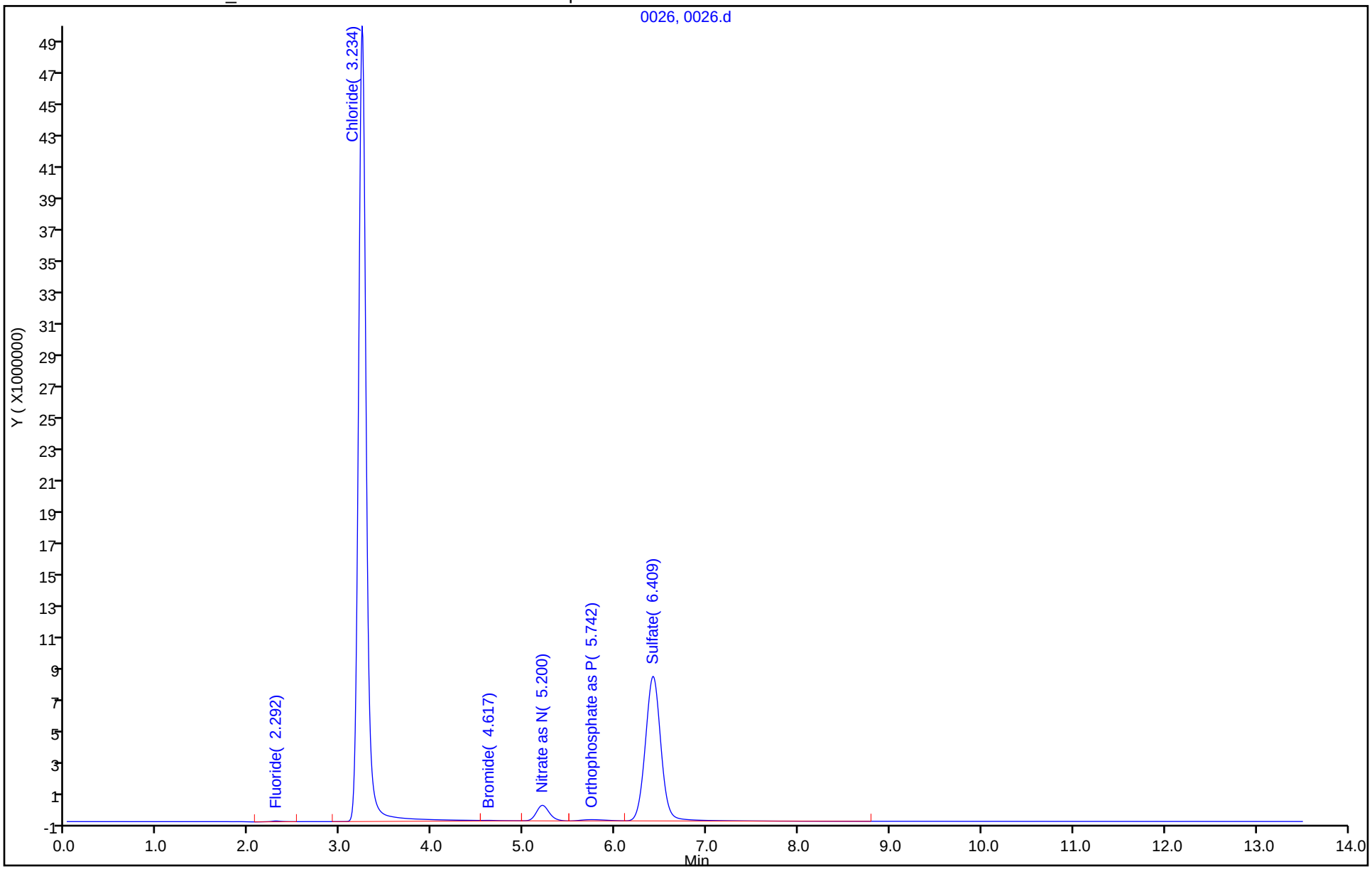
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0026.d

Injection Date:	16-May-2019 20:59:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 DU			Worklist Smp#:	26
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0027.d
Lims ID: 280-123853-A-3 MS
Client ID:
Sample Type: MS
Inject. Date: 16-May-2019 21:15:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-027
Misc. Info.: 21988 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39308882		NC	
2 Chloride	3.242	3.242	0.000	472822844		NC	
3 Nitrite as N	3.884	3.892	-0.008	51428326		4.93	
4 Bromide	4.626	4.634	-0.008	10454688		NC	
5 Nitrate as N	5.201	5.200	0.001	70363838		6.10	
7 Orthophosphate as P	5.859	5.659	0.200	26024994		6.28	
6 Sulfate	6.426	6.434	-0.008	216646715		NC	

QC Flag Legend

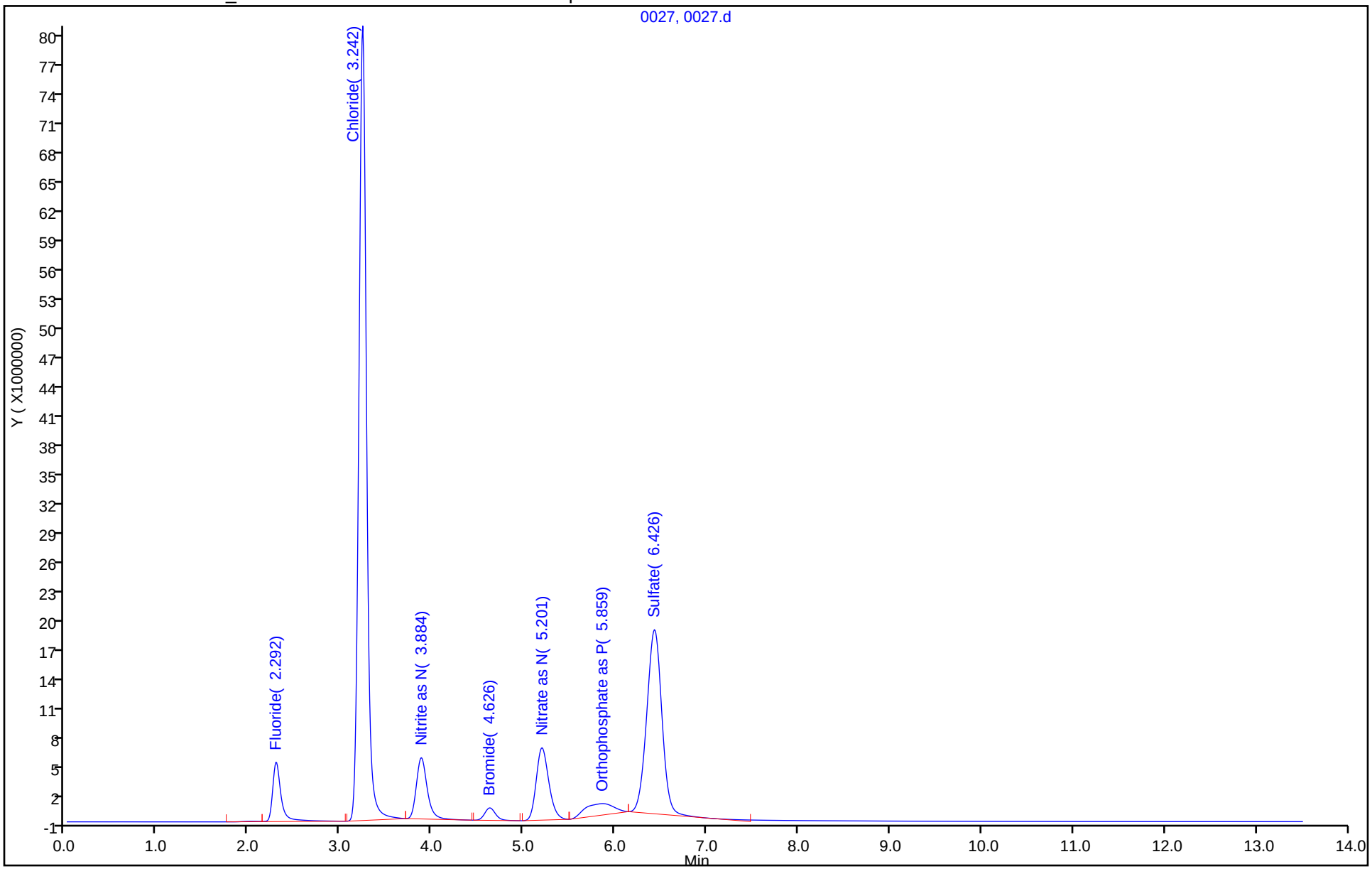
Processing Flags
NC - Not Calibrated

Report Date: 16-May-2019 23:41:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0027.d

Injection Date:	16-May-2019 21:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 MS			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0027.d
Lims ID: 280-123853-A-3 MS
Client ID:
Sample Type: MS
Inject. Date: 16-May-2019 21:15:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-027
Misc. Info.: 21988 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39308882		5.26	
2 Chloride	3.242	3.242	0.000	472822844		70.9	
3 Nitrite as N	3.884	3.892	-0.008	51428326		NC	
4 Bromide	4.626	4.634	-0.008	10454688		5.40	
5 Nitrate as N	5.201	5.200	0.001	70363838		NC	
7 Orthophosphate as P	5.859	5.659	0.200	26024994		NC	
6 Sulfate	6.426	6.434	-0.008	216646715		48.9	

QC Flag Legend

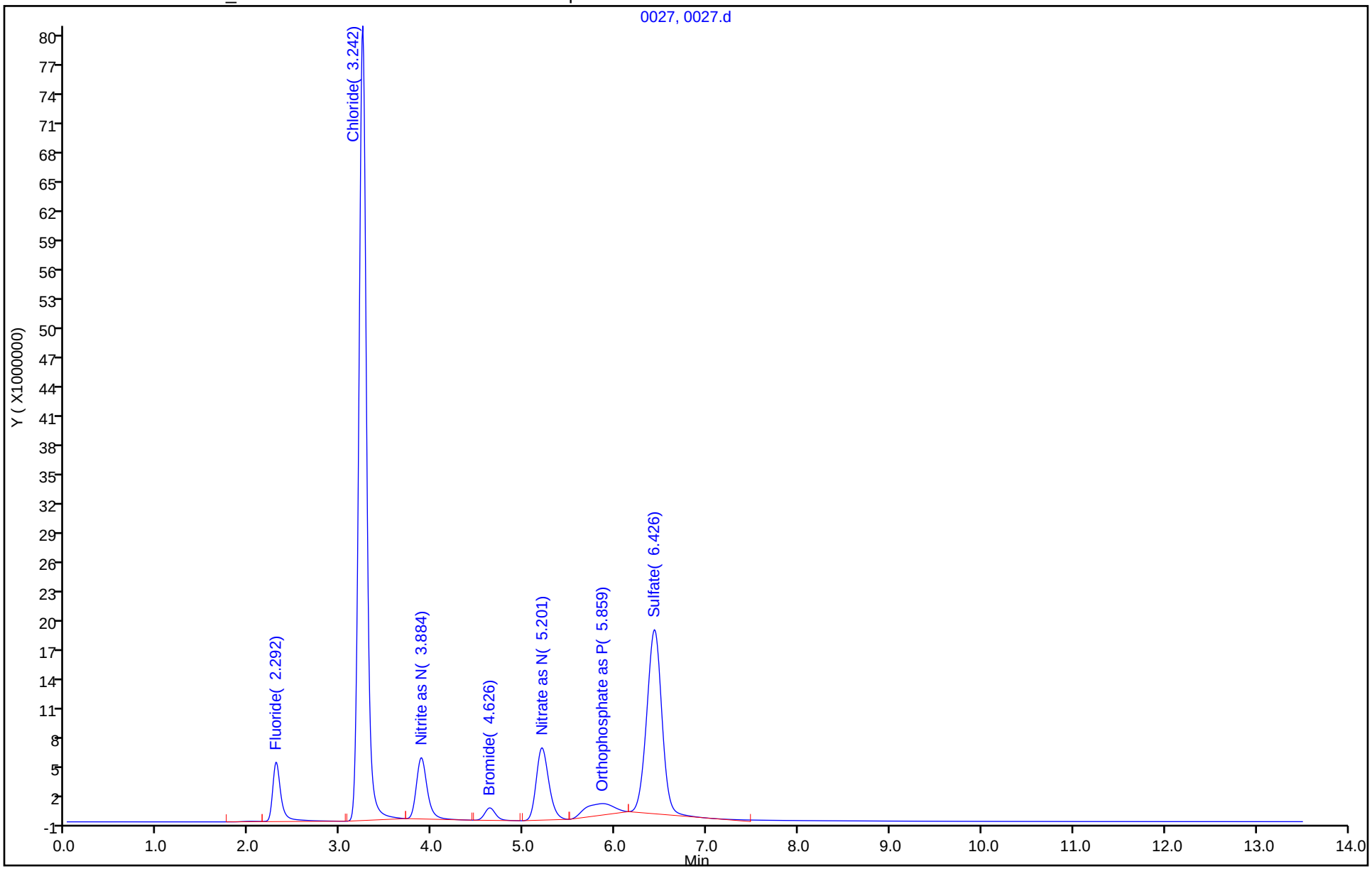
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Report Date: 16-May-2019 23:41:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0027.d

Injection Date:	16-May-2019 21:15:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 MS			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0028.d
Lims ID: 280-123853-A-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 16-May-2019 21:32:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-028
Misc. Info.: 19701 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39186495		NC	
2 Chloride	3.242	3.242	0.000	476352614		NC	
3 Nitrite as N	3.884	3.892	-0.008	52427688		5.02	
4 Bromide	4.625	4.634	-0.009	10630247		NC	
5 Nitrate as N	5.200	5.200	0.000	71598195		6.20	
7 Orthophosphate as P	5.850	5.659	0.191	24736837		5.96	
6 Sulfate	6.425	6.434	-0.009	217945882		NC	

QC Flag Legend

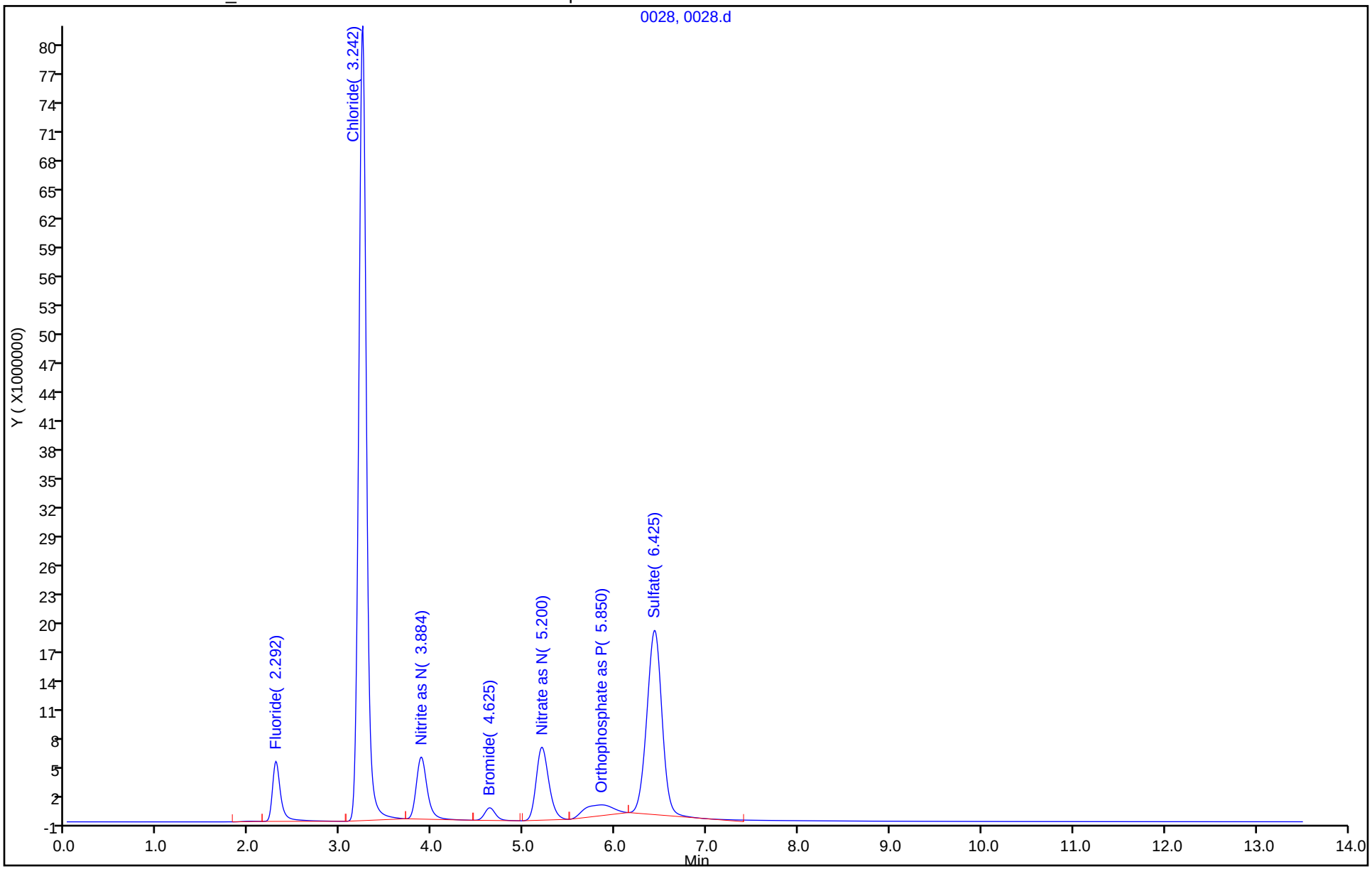
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Report Date: 16-May-2019 23:41:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0028.d

Injection Date:	16-May-2019 21:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 MSD			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0028.d
Lims ID: 280-123853-A-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 16-May-2019 21:32:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-028
Misc. Info.: 19701 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:40:57 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	39186495		5.25	
2 Chloride	3.242	3.242	0.000	476352614		71.5	
3 Nitrite as N	3.884	3.892	-0.008	52427688		NC	
4 Bromide	4.625	4.634	-0.009	10630247		5.49	
5 Nitrate as N	5.200	5.200	0.000	71598195		NC	
7 Orthophosphate as P	5.850	5.659	0.191	24736837		NC	
6 Sulfate	6.425	6.434	-0.009	217945882		49.2	

QC Flag Legend

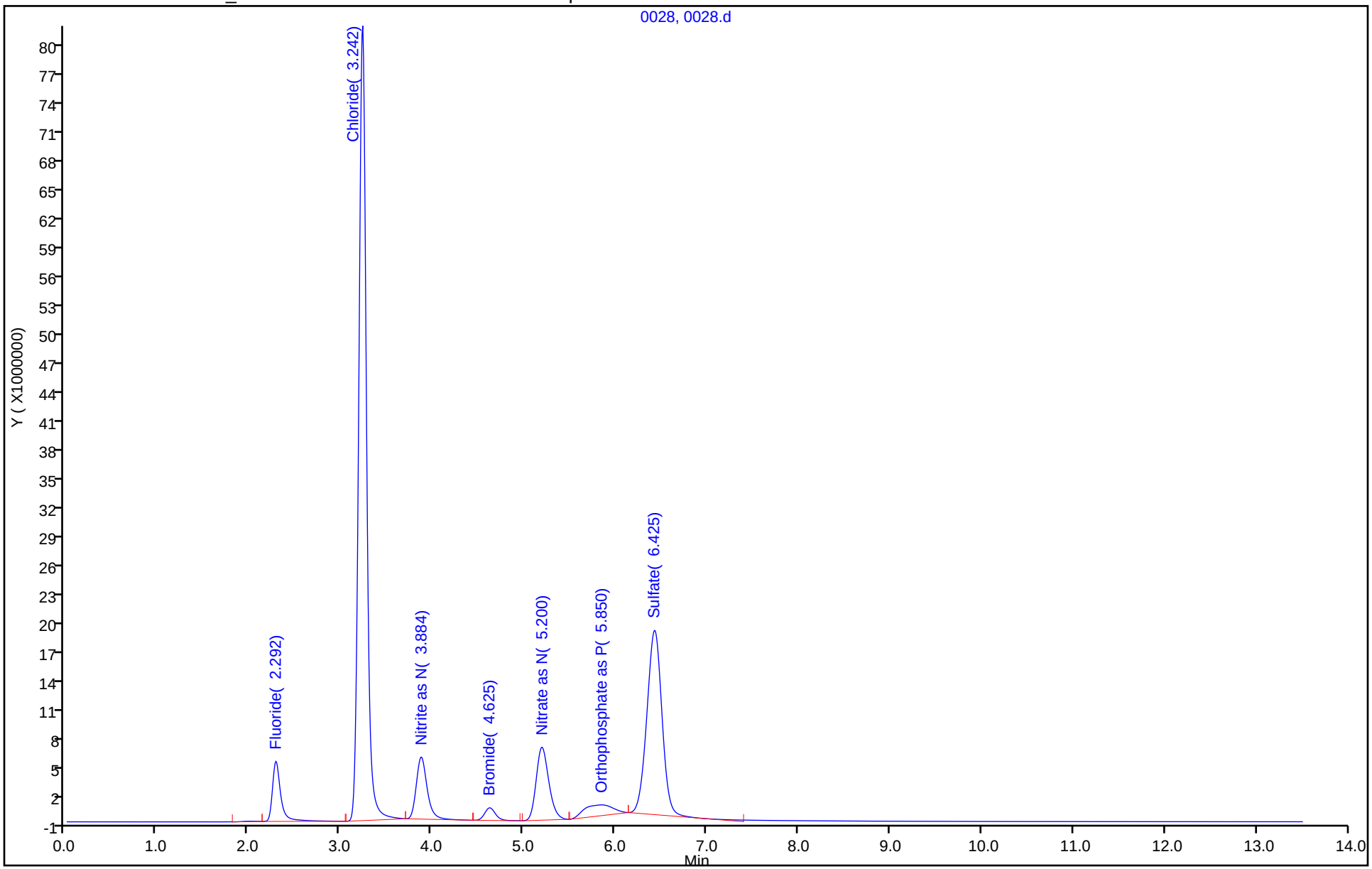
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Report Date: 16-May-2019 23:41:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0028.d

Injection Date:	16-May-2019 21:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-A-3 MSD			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0029.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2019 21:48:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-029
Misc. Info.: 4714
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 23:41:07 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37586763	NC	NC	
2 Chloride	3.242	3.242	0.000	637998689	NC	NC	
3 Nitrite as N	3.876	3.892	-0.016	51124221	5.00	4.90	
4 Bromide	4.626	4.634	-0.008	10083957	NC	NC	
5 Nitrate as N	5.184	5.200	-0.016	57141904	5.00	4.96	
7 Orthophosphate as P	5.634	5.659	-0.025	22612940	5.00	5.45	
6 Sulfate	6.434	6.434	0.000	416272263	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

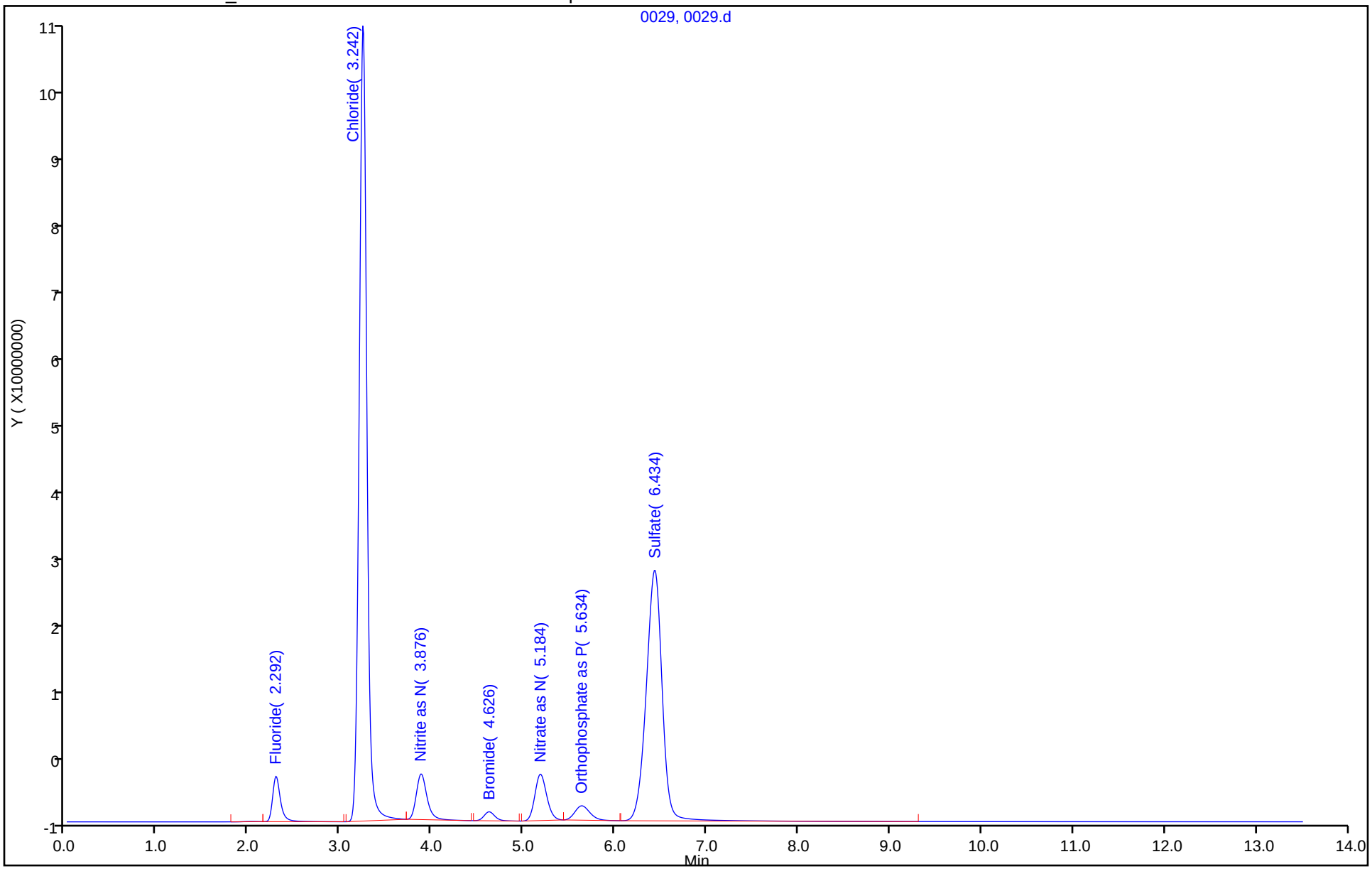
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:41:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0029.d

Injection Date:	16-May-2019 21:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0029.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2019 21:48:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-029
Misc. Info.: 4714
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 23:41:07 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0301

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37586763	5.00	5.03	
2 Chloride	3.242	3.242	0.000	637998689	100.0	95.5	
3 Nitrite as N	3.876	3.892	-0.016	51124221	NC	NC	
4 Bromide	4.626	4.634	-0.008	10083957	5.00	5.21	
5 Nitrate as N	5.184	5.200	-0.016	57141904	NC	NC	
7 Orthophosphate as P	5.634	5.659	-0.025	22612940	NC	NC	
6 Sulfate	6.434	6.434	0.000	416272263	100.0	93.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

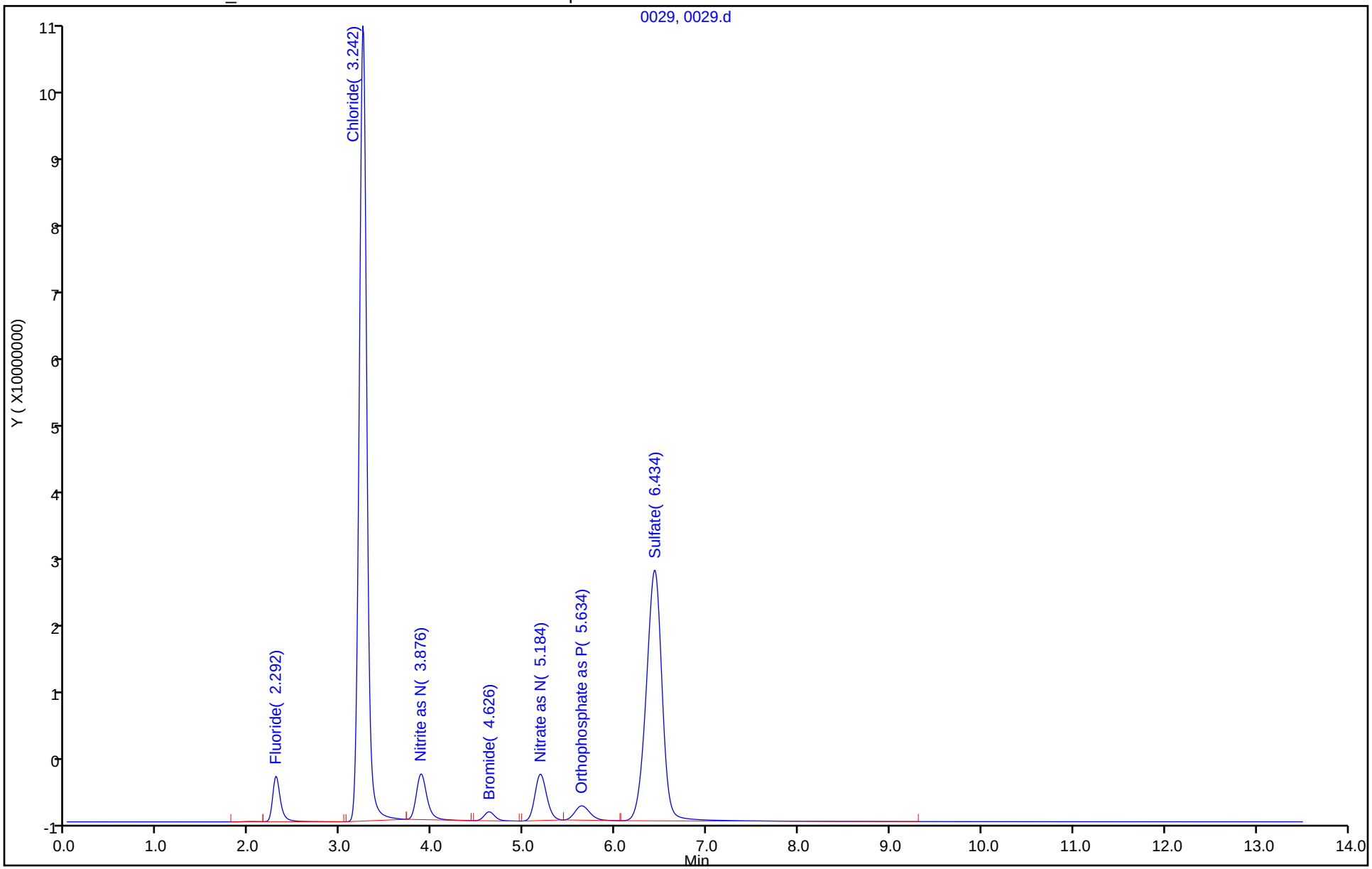
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 16-May-2019 23:41:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0029.d

Injection Date:	16-May-2019 21:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0030.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-May-2019 22:04:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-030				
Misc. Info.:	5058				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 23:41:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0301				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	3387175		NC	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.825	5.659	0.166	456347		0.1023	
6 Sulfate		6.434				ND	

QC Flag Legend

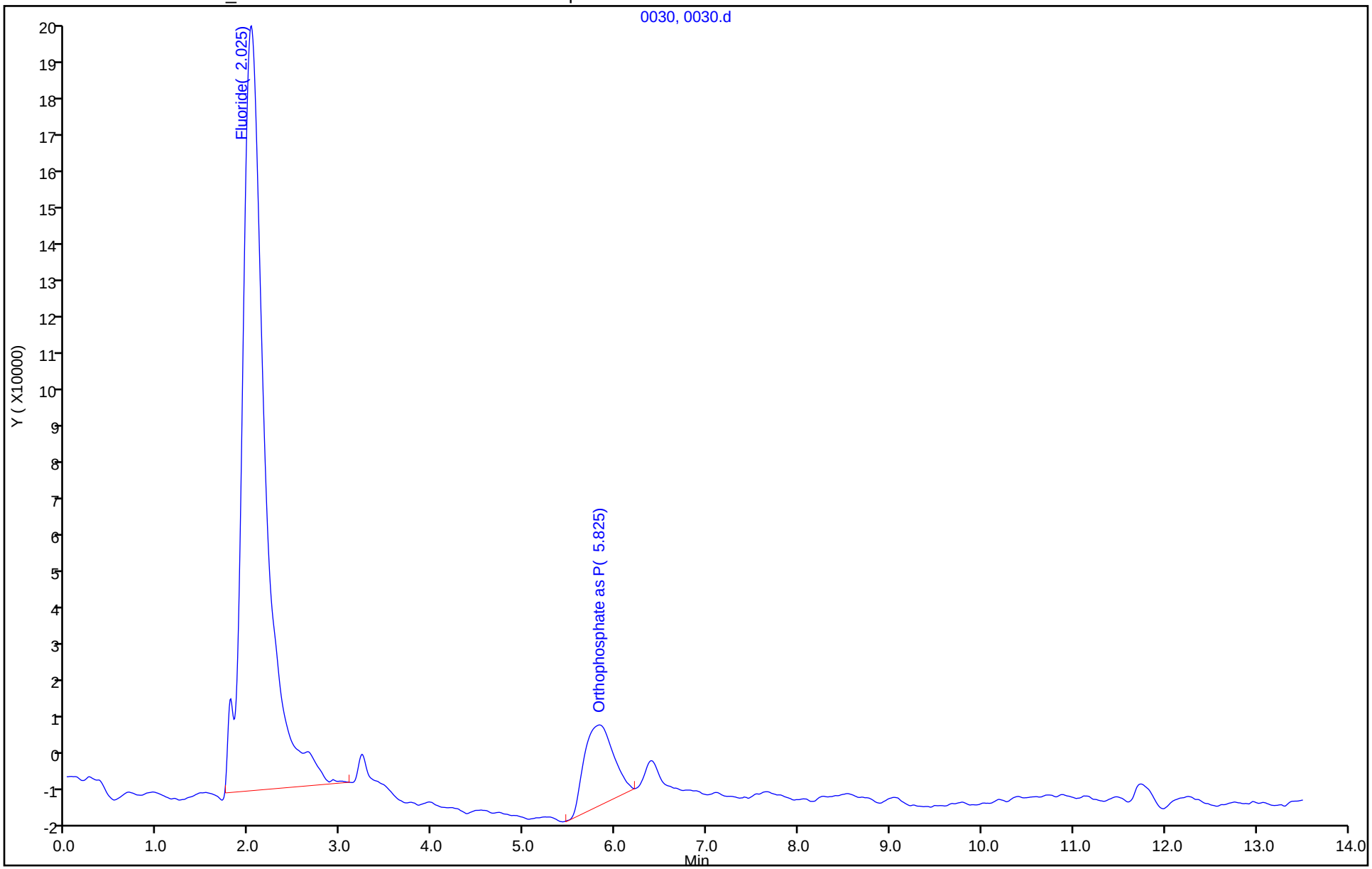
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Report Date: 16-May-2019 23:41:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0030.d

Injection Date:	16-May-2019 22:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	30
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0030.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-May-2019 22:04:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-030				
Misc. Info.:	5058				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-May-2019 23:41:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0301				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	3387175		0.3123	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.825	5.659	0.166	456347		NC	
6 Sulfate		6.434				ND	

QC Flag Legend

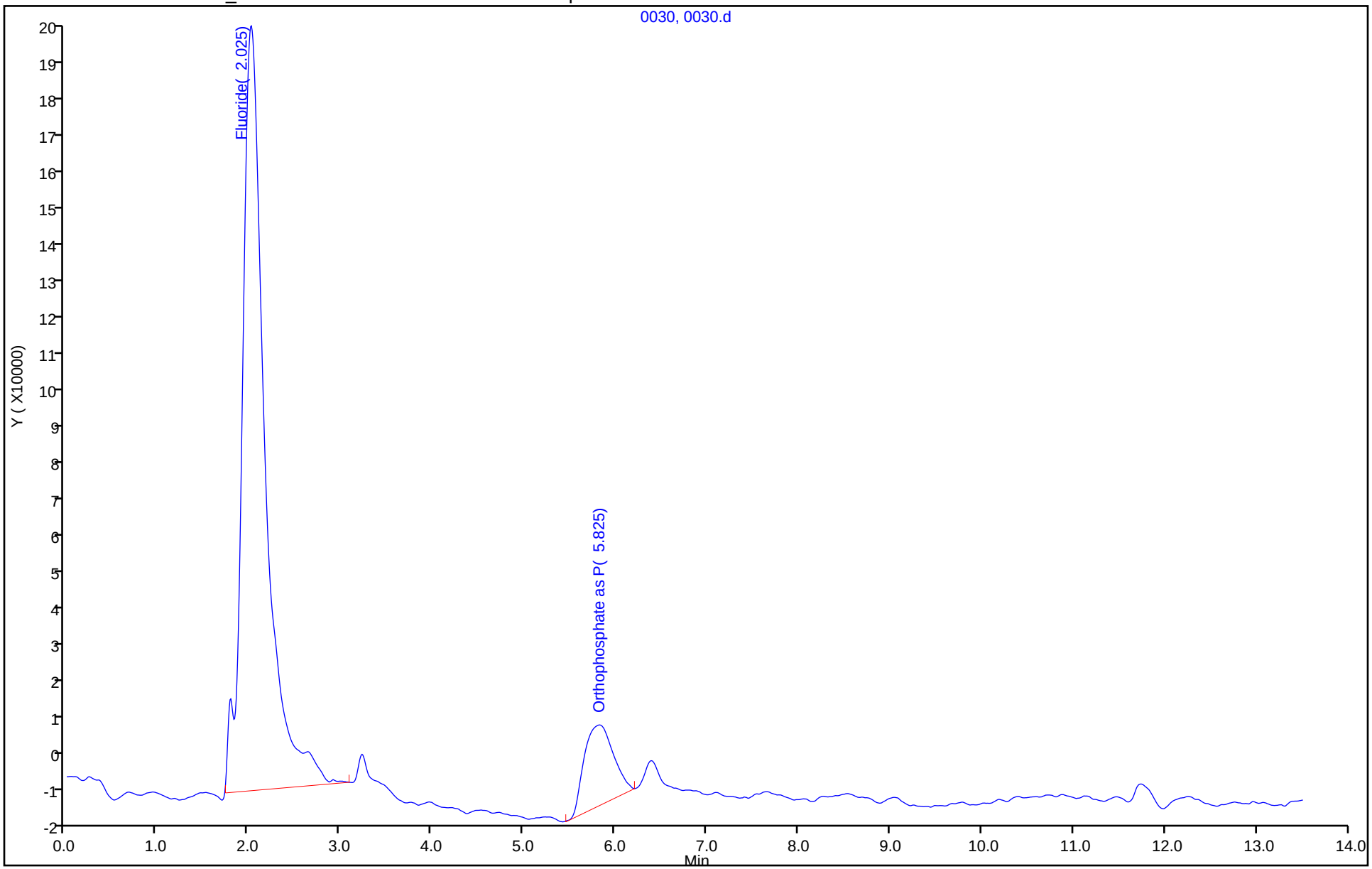
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Report Date: 16-May-2019 23:41:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0030.d

Injection Date:	16-May-2019 22:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	30
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0031.d
Lims ID: 280-123853-B-4
Client ID: LF6VMW-21_0519
Sample Type: Client
Inject. Date: 16-May-2019 22:21:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-031
Misc. Info.: 25991 603
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	694809	NC	
2 Chloride	3.250	3.242	0.008	1015647435	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.200	5.200	0.000	6769582	0.6211	
7 Orthophosphate as P	5.784	5.659	0.125	878559	0.2042	
6 Sulfate	6.400	6.434	-0.034	26936895	NC	

QC Flag Legend

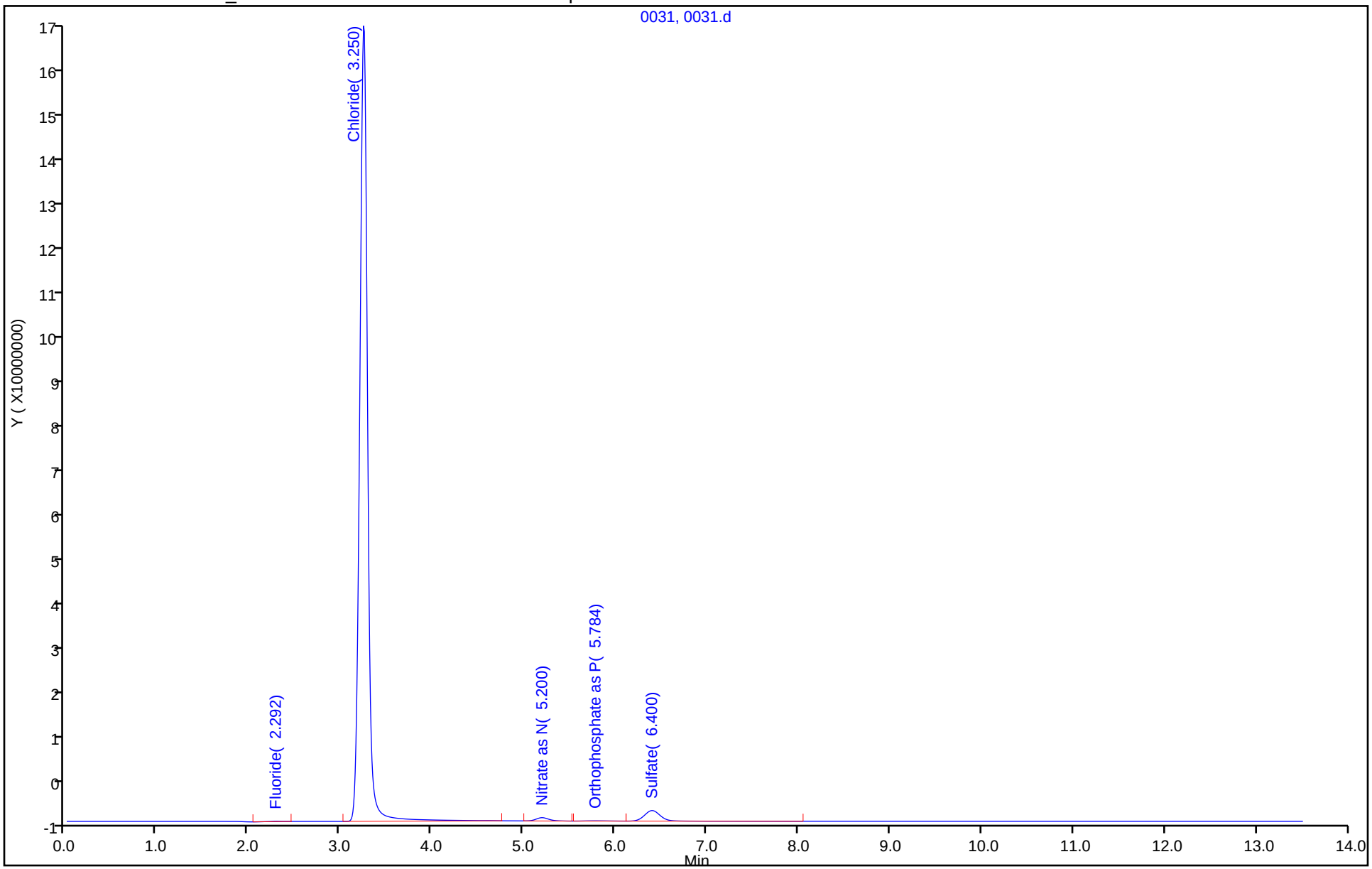
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Report Date: 17-May-2019 08:41:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0031.d

Injection Date:	16-May-2019 22:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-B-4	Lab Sample ID:	280-123853-4	Worklist Smp#:	31
Client ID:	LF6VMW-21_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0031.d
Lims ID: 280-123853-B-4
Client ID: LF6VMW-21_0519
Sample Type: Client
Inject. Date: 16-May-2019 22:21:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-031
Misc. Info.: 25991 603
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	694809	-0.0588	
2 Chloride	3.250	3.242	0.008	1015647435	151.7	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.200	5.200	0.000	6769582	NC	
7 Orthophosphate as P	5.784	5.659	0.125	878559	NC	
6 Sulfate	6.400	6.434	-0.034	26936895	6.46	

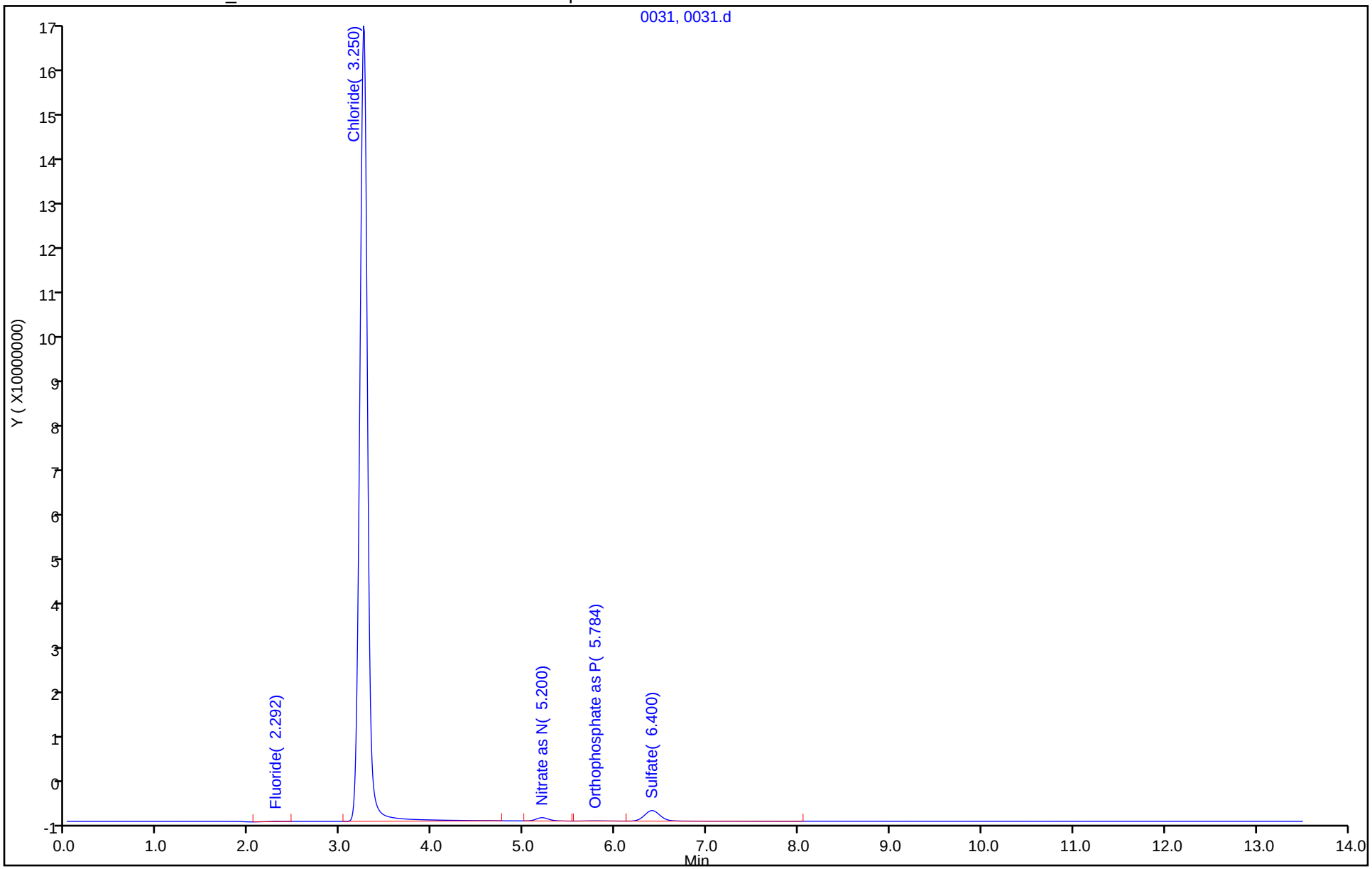
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0031.d				
Injection Date:	16-May-2019 22:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-B-4	Lab Sample ID:	280-123853-4	Worklist Smp#:	31
Client ID:	LF6VMW-21_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0033.d
Lims ID: 280-123853-B-5
Client ID: LF6VMW-21_0519-9
Sample Type: Client
Inject. Date: 16-May-2019 22:54:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-033
Misc. Info.: 7612
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	726236	NC	
2 Chloride	3.259	3.242	0.017	1025304985	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.209	5.200	0.009	6768946	0.6210	
7 Orthophosphate as P	5.784	5.659	0.125	812775	0.1884	
6 Sulfate	6.409	6.434	-0.025	26805498	NC	

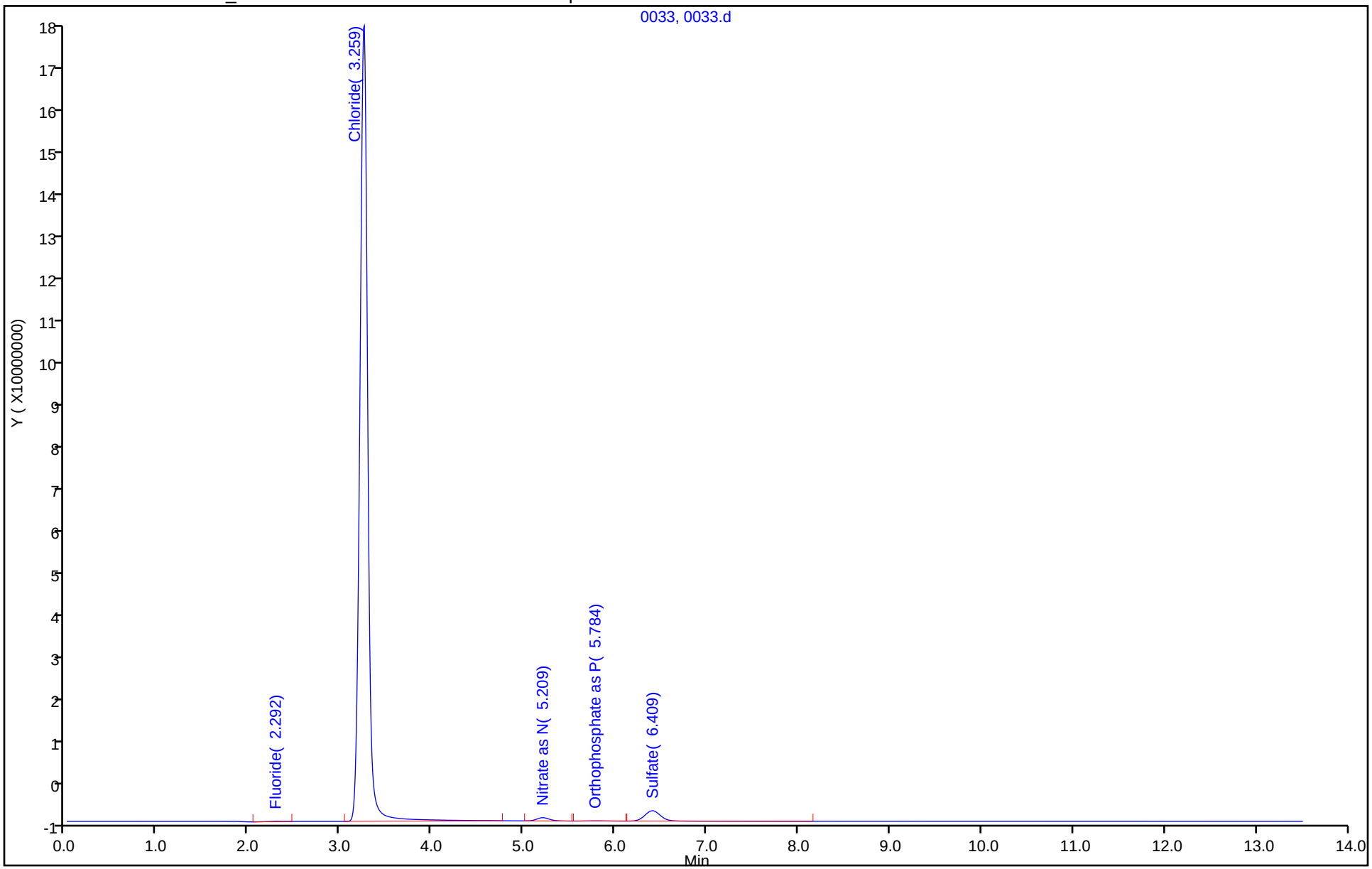
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0033.d				
Injection Date:	16-May-2019 22:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-B-5	Lab Sample ID:	280-123853-5	Worklist Smp#:	33
Client ID:	LF6VMW-21_0519-9				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0033.d
Lims ID: 280-123853-B-5
Client ID: LF6VMW-21_0519-9
Sample Type: Client
Inject. Date: 16-May-2019 22:54:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-033
Misc. Info.: 7612
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	726236	-0.0545	
2 Chloride	3.259	3.242	0.017	1025304985	153.1	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.209	5.200	0.009	6768946	NC	
7 Orthophosphate as P	5.784	5.659	0.125	812775	NC	
6 Sulfate	6.409	6.434	-0.025	26805498	6.43	

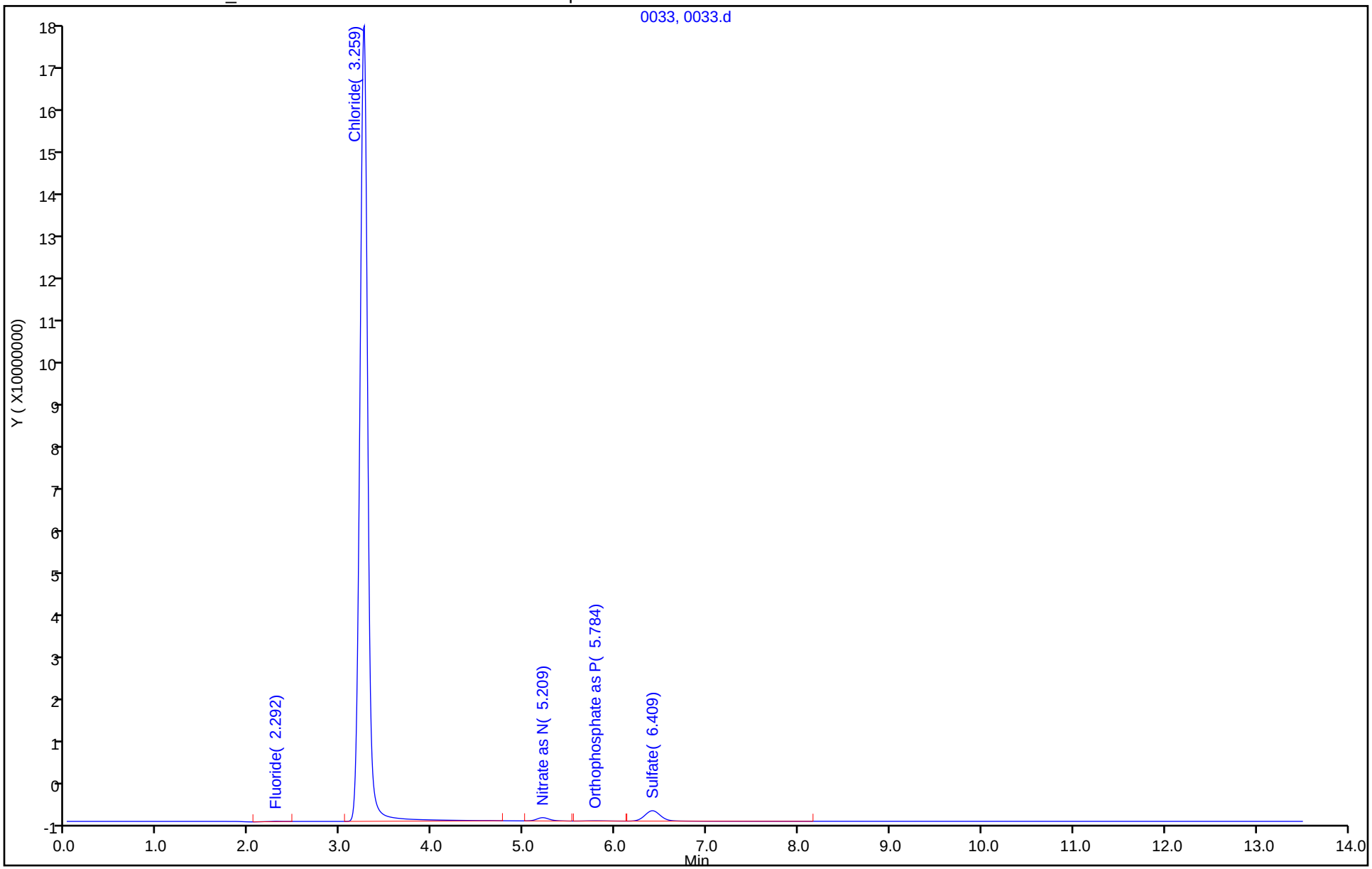
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Processing Flags
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Report Date: 17-May-2019 08:41:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0033.d				
Injection Date:	16-May-2019 22:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-B-5	Lab Sample ID:	280-123853-5	Worklist Smp#:	33
Client ID:	LF6VMW-21_0519-9				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0035.d
Lims ID: 280-123853-B-6
Client ID: LF6/TMCSW-3_0519
Sample Type: Client
Inject. Date: 16-May-2019 23:26:00 ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-035
Misc. Info.: 32641 1133
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	370936	NC	
2 Chloride	3.267	3.242	0.025	1779010246	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.626	4.634	-0.008	2181286	NC	
5 Nitrate as N	5.234	5.200	0.034	6403892	0.5896	
7 Orthophosphate as P	5.709	5.659	0.050	1595275	0.3773	
6 Sulfate	6.417	6.434	-0.017	98156934	NC	

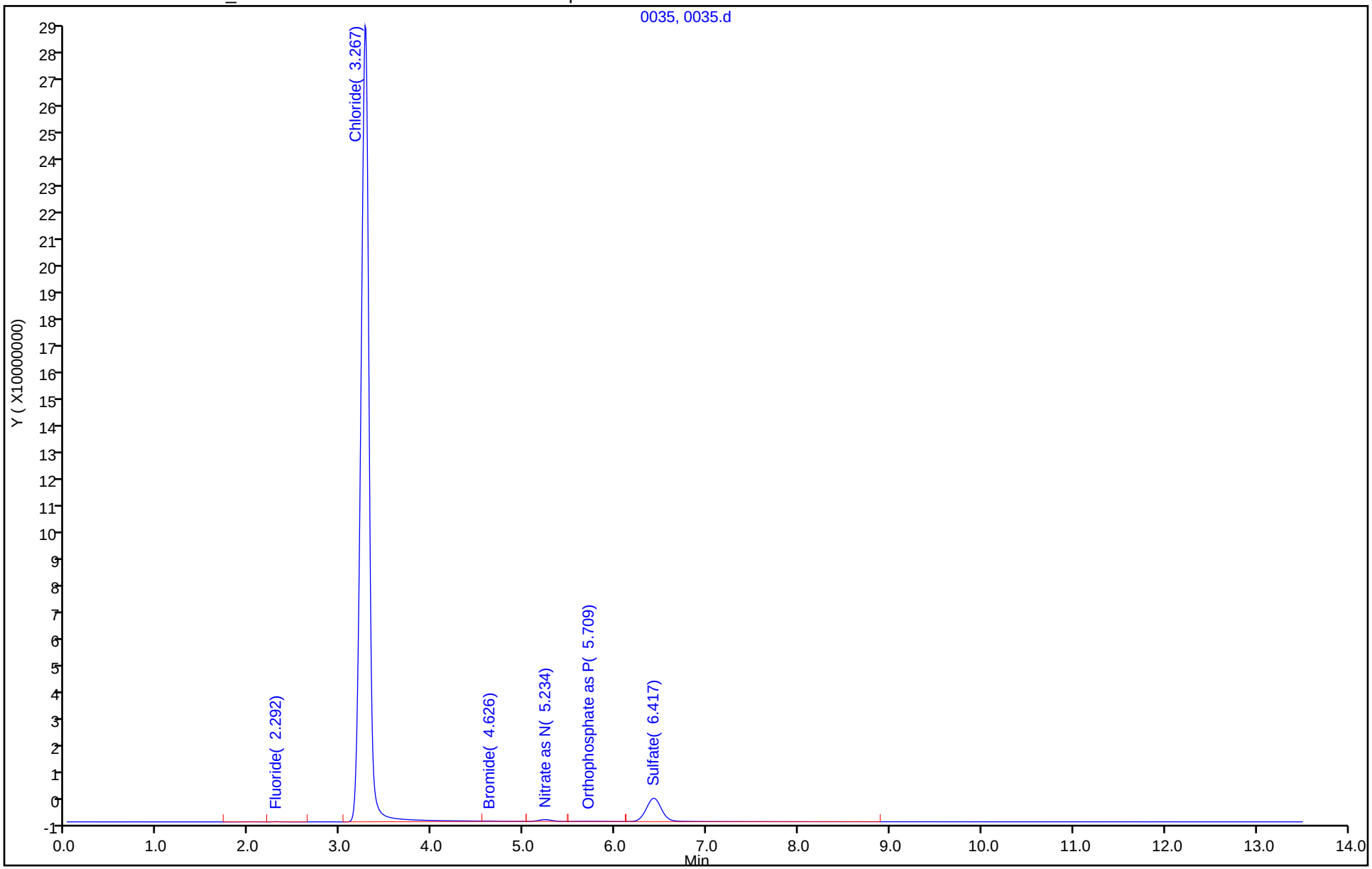
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0035.d				
Injection Date:	16-May-2019 23:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-B-6	Lab Sample ID:	280-123853-6	Worklist Smp#:	35
Client ID:	LF6/TMCSW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0035.d
Lims ID: 280-123853-B-6
Client ID: LF6/TMCSW-3_0519
Sample Type: Client
Inject. Date: 16-May-2019 23:26:00 ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-035
Misc. Info.: 32641 1133
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	370936	-0.1035	
2 Chloride	3.267	3.242	0.025	1779010246	265.2	E
3 Nitrite as N		3.892			ND	
4 Bromide	4.626	4.634	-0.008	2181286	1.13	
5 Nitrate as N	5.234	5.200	0.034	6403892	NC	
7 Orthophosphate as P	5.709	5.659	0.050	1595275	NC	
6 Sulfate	6.417	6.434	-0.017	98156934	22.4	

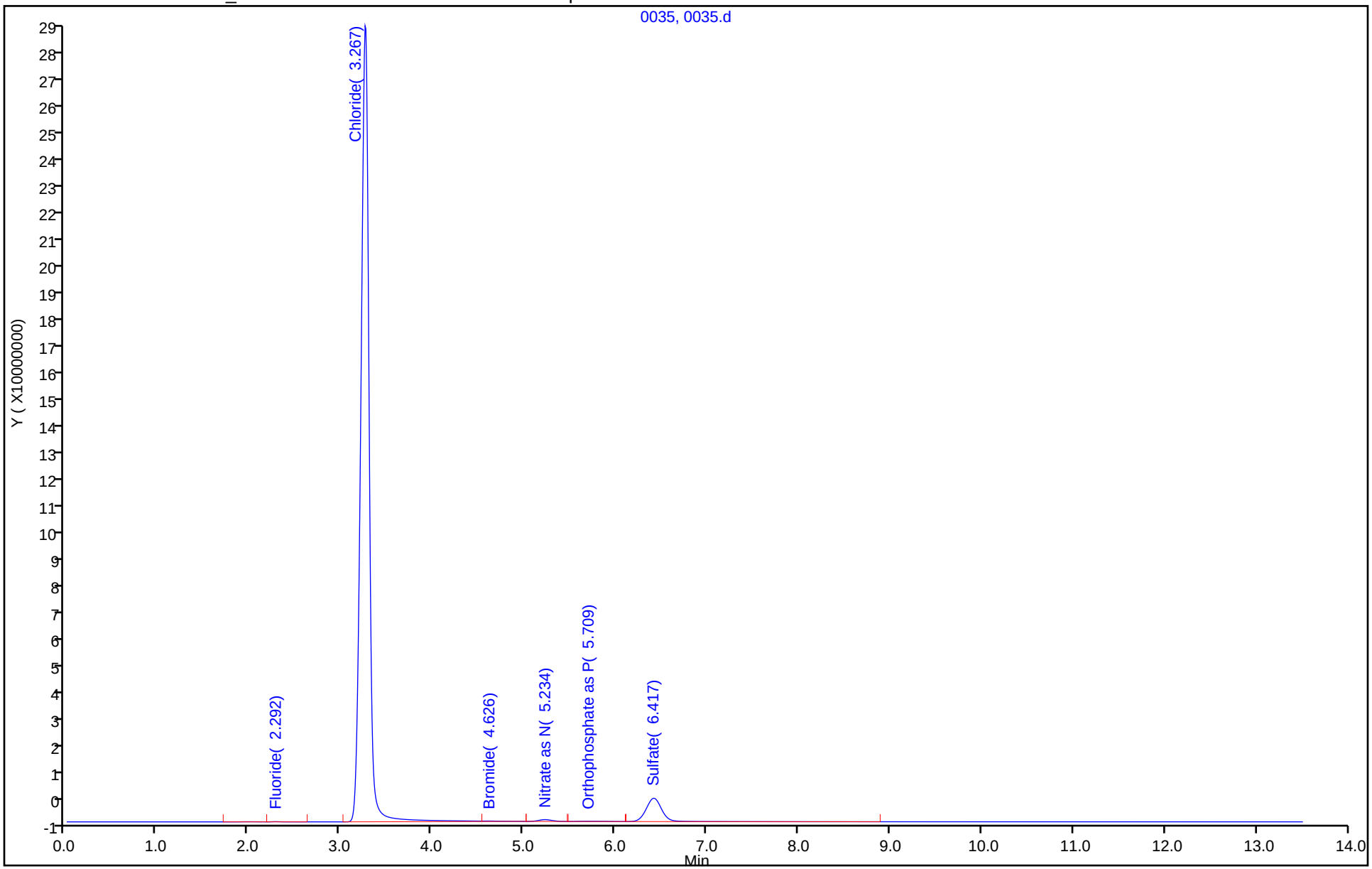
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 17-May-2019 08:41:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0035.d				
Injection Date:	16-May-2019 23:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-B-6	Lab Sample ID:	280-123853-6	Worklist Smp#:	35
Client ID:	LF6/TMCSW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0036.d
Lims ID: 280-123853-B-6
Client ID: LF6/TMCSW-3_0519
Sample Type: Client
Inject. Date: 16-May-2019 23:43:00 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0081959-036
Misc. Info.: 26831
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:40:51 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	276614	-0.1165	
2 Chloride	3.242	3.242	0.000	288436006	43.5	
3 Nitrite as N		3.892			ND	
4 Bromide	4.617	4.634	-0.017	456290	0.2430	
5 Nitrate as N	5.200	5.200	0.000	1375037	NC	
7 Orthophosphate as P	5.817	5.659	0.158	469691	NC	
6 Sulfate	6.392	6.434	-0.042	18373503	4.55	

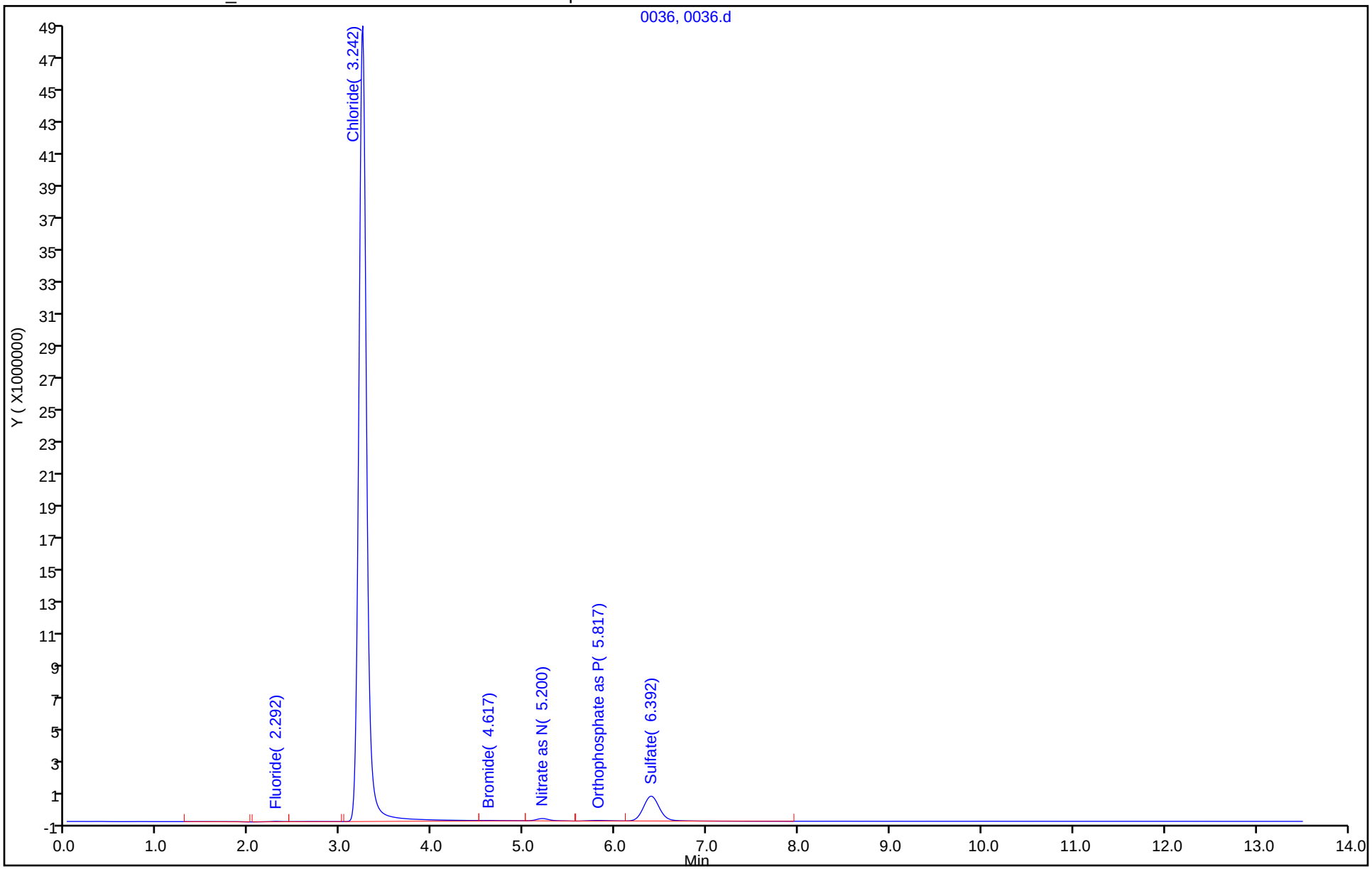
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 17-May-2019 08:41:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0036.d				
Injection Date:	16-May-2019 23:43:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123853-B-6	Lab Sample ID:	280-123853-6	Worklist Smp#:	36
Client ID:	LF6/TMCSW-3_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0041.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	17-May-2019 01:05:00	ALS Bottle#:	0	Worklist Smp#:	41
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-041				
Misc. Info.:	10142				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	17-May-2019 08:41:16	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0334				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37309775	NC	NC	
2 Chloride	3.242	3.242	0.000	639608817	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	51033853	5.00	4.89	
4 Bromide	4.626	4.634	-0.008	10122569	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	57097158	5.00	4.95	
7 Orthophosphate as P	5.626	5.659	-0.033	21225303	5.00	5.12	
6 Sulfate	6.426	6.434	-0.008	418013762	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

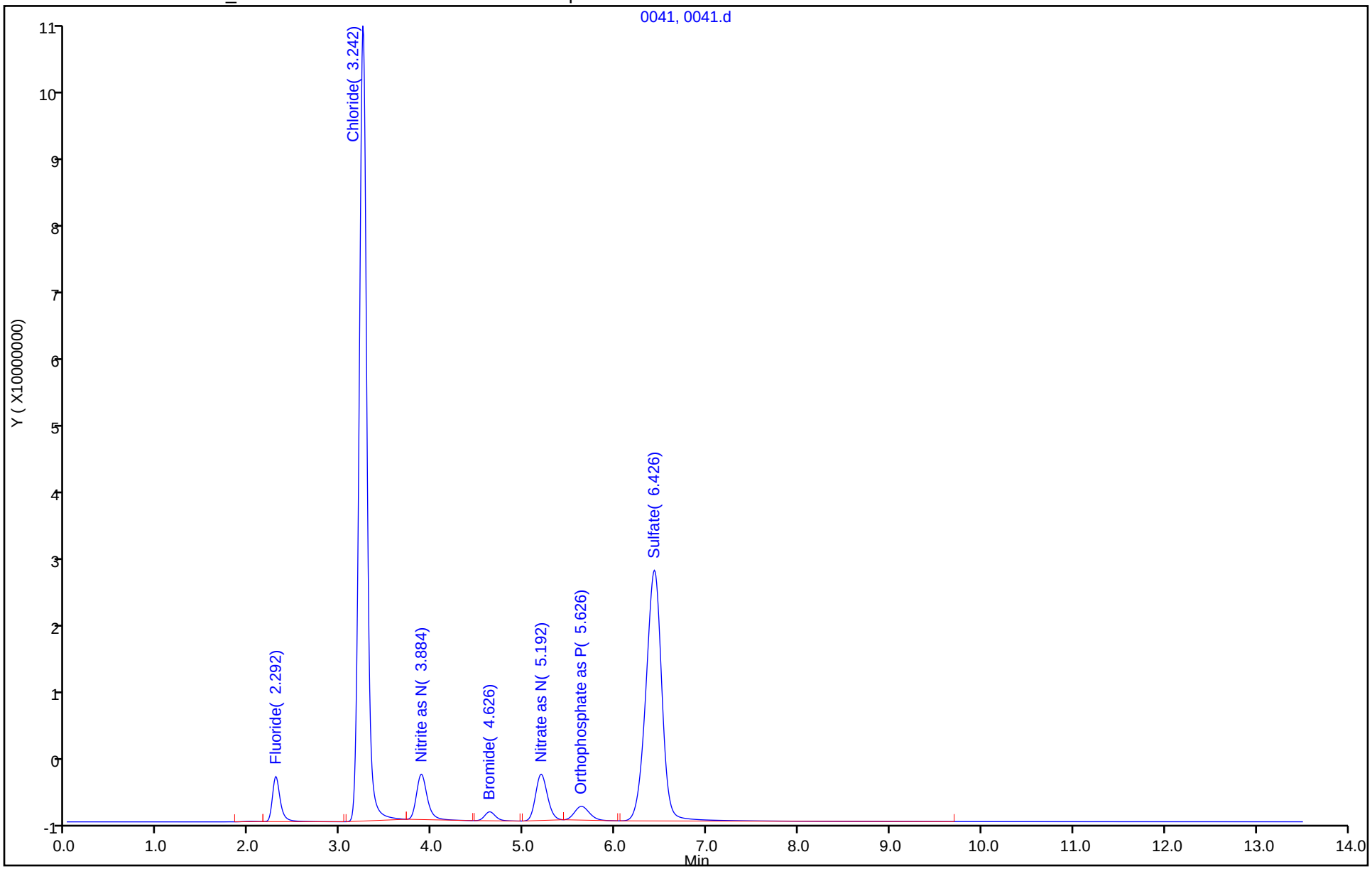
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 17-May-2019 08:41:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0041.d

Injection Date:	17-May-2019 01:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0041.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 01:05:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081959-041
Misc. Info.: 10142
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2019 08:41:16 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0334

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37309775	5.00	4.99	
2 Chloride	3.242	3.242	0.000	639608817	100.0	95.7	
3 Nitrite as N	3.884	3.892	-0.008	51033853	NC	NC	
4 Bromide	4.626	4.634	-0.008	10122569	5.00	5.23	
5 Nitrate as N	5.192	5.200	-0.008	57097158	NC	NC	
7 Orthophosphate as P	5.626	5.659	-0.033	21225303	NC	NC	
6 Sulfate	6.426	6.434	-0.008	418013762	100.0	93.9	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

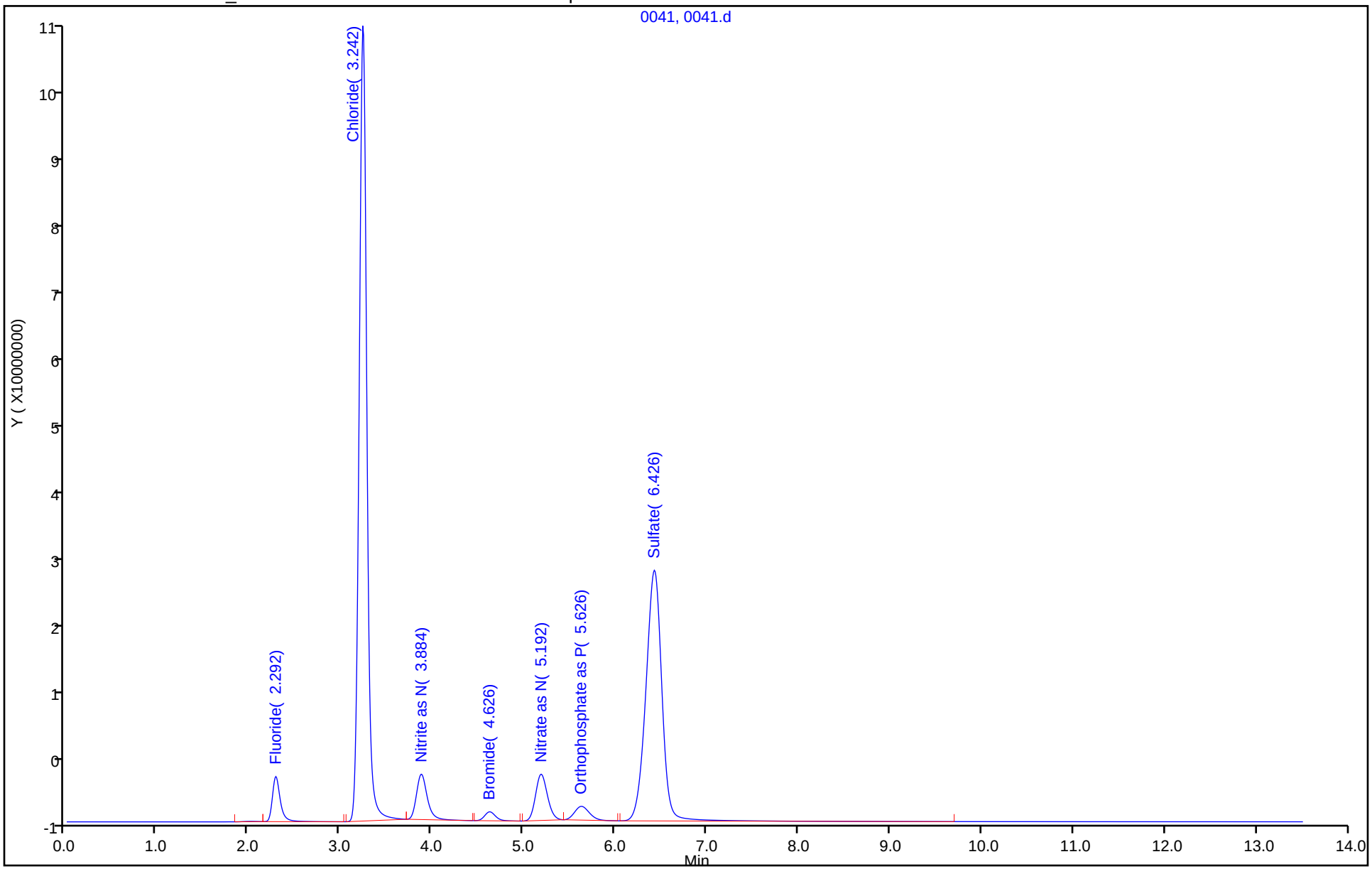
IC LCS_01577 Amount Added: 5.00 Units: mL

Report Date: 17-May-2019 08:41:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0041.d

Injection Date:	17-May-2019 01:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0042.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-May-2019 01:21:00	ALS Bottle#:	0	Worklist Smp#:	42
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-042				
Misc. Info.:	26729				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	17-May-2019 08:41:16	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0334				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	3468520		NC	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.809	5.659	0.150	411624		0.0915	
6 Sulfate		6.434				ND	

QC Flag Legend

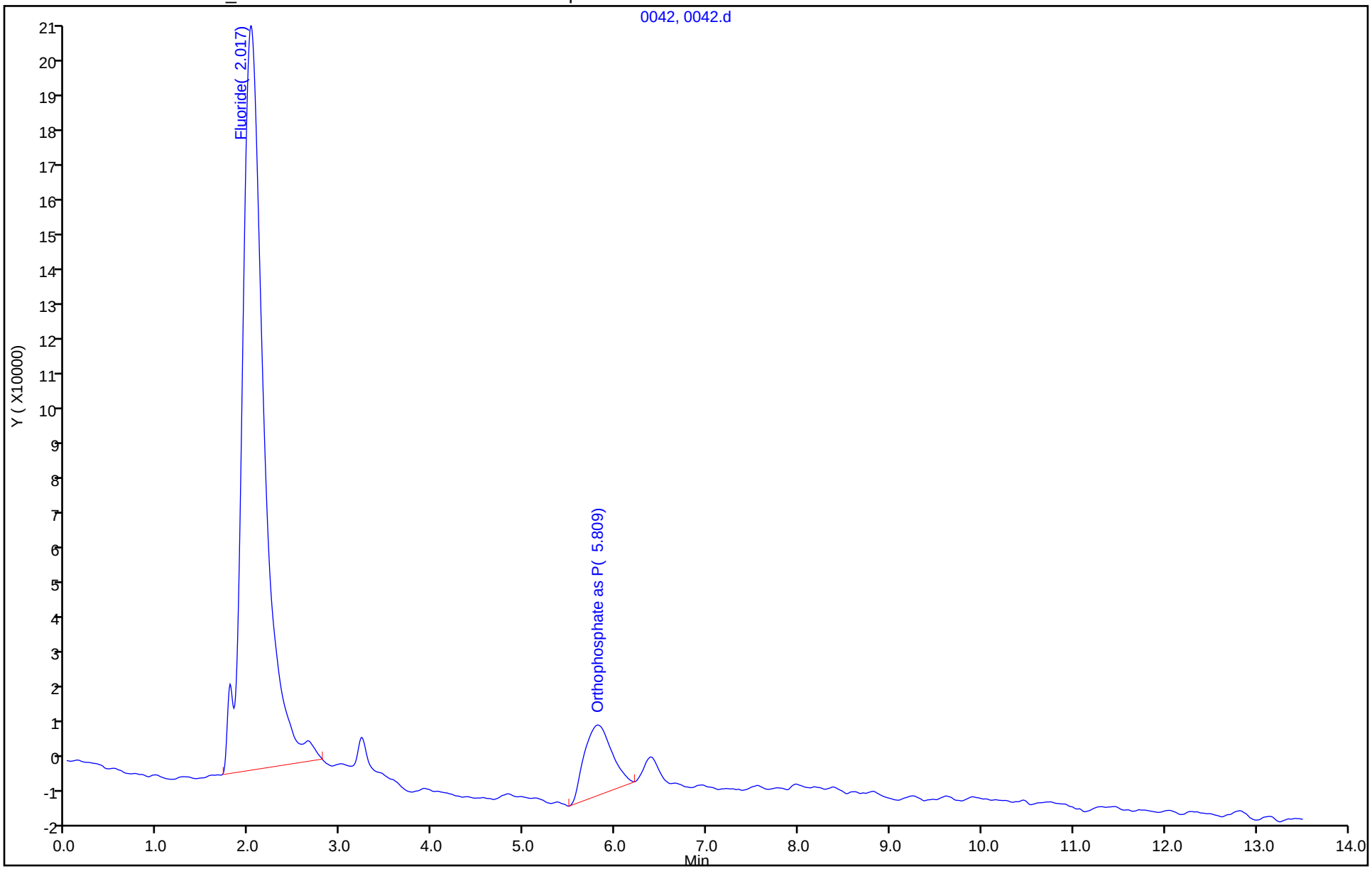
Processing Flags
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Report Date: 17-May-2019 08:41:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0042.d

Injection Date:	17-May-2019 01:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	42
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0042.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-May-2019 01:21:00	ALS Bottle#:	0	Worklist Smp#:	42
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081959-042				
Misc. Info.:	26729				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	17-May-2019 08:41:16	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0334				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	3468520		0.3235	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.809	5.659	0.150	411624		NC	
6 Sulfate		6.434				ND	

QC Flag Legend

Processing Flags

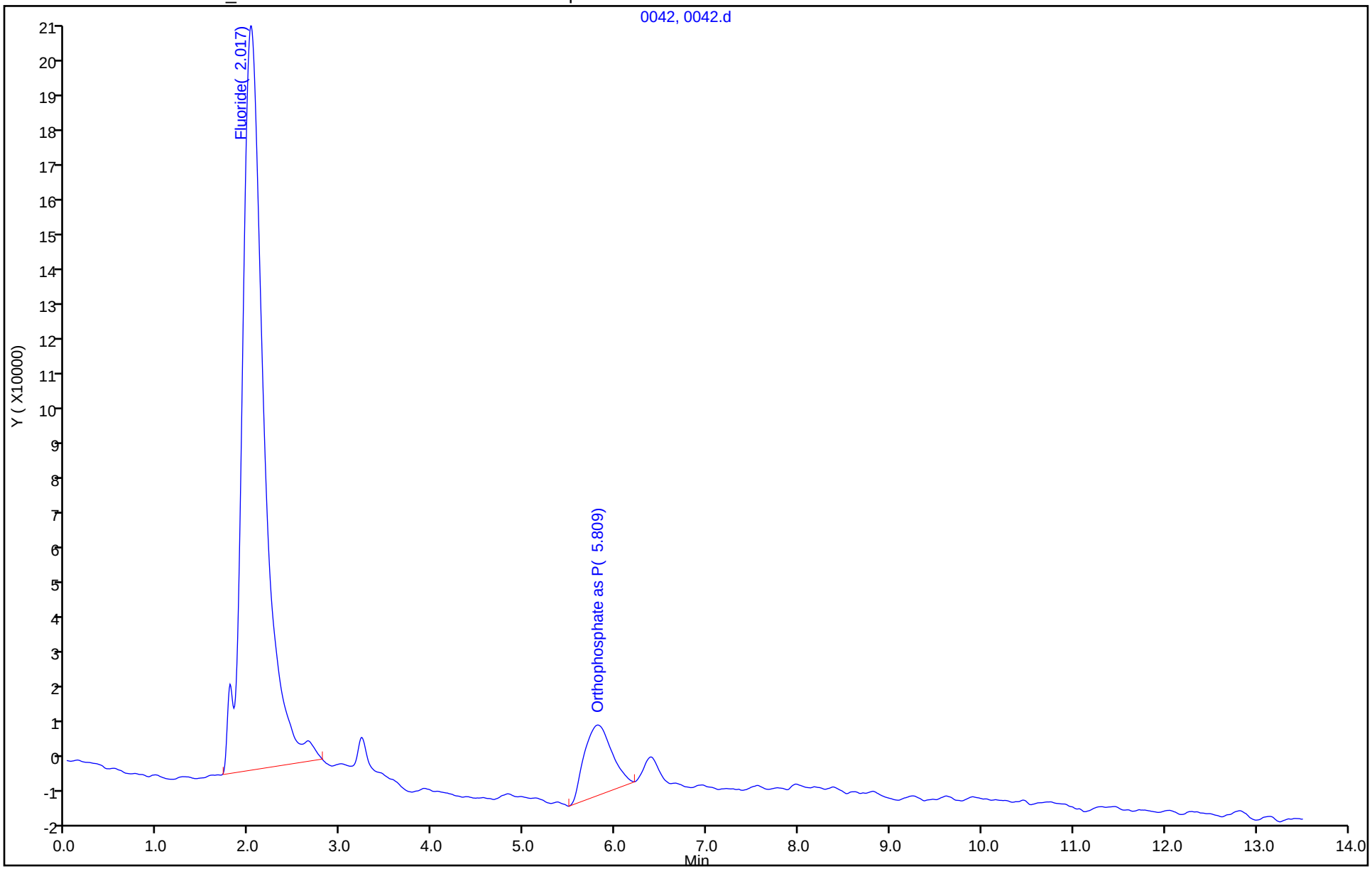
NC - Not Calibrated

Report Date: 17-May-2019 08:41:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190516-81959.b\0042.d

Injection Date:	17-May-2019 01:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	42
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



pH 6/7/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	cl			1
2*	NPOC	ICB	1.000	cl			2
3*	NPOC	LCS	1.000	cl			3
4*	NPOC	MB	1.000	cl			4
5*	NPOC	TIC	1.000	cl			5
6*	NPOC	280-123691-c-1	2.000	cl	RERUN		6
7*	NPOC	280-123829-b-5	1.000	cl			7
8*	NPOC	280-123838-a-8	1.000	cl			8
9*	NPOC	MS 280-123838-a-8	1.000	cl			9
10*	NPOC	MSD 280-123838-a-8	1.000	cl			10
11*	NPOC	280-123838-a-10	1.000	cl			11
12*	NPOC	280-123842-d-1	1.000	cl			12
13*	NPOC	280-123844-d-1	1.000	cl			13
14*	NPOC	280-123845-a-2	1.000	cl			14
15*	NPOC	CCV	1.000	cl			15
16*	NPOC	CCB	1.000	cl			16
17*	NPOC	280-123855-d-1	1.000	cl			17
18*	NPOC	280-123855-c-2	1.000	cl			18
19*	NPOC	280-123843-b-1	1.000	cl			19
20*	NPOC	MS 280-123843-b-1	1.000	cl			20
21*	NPOC	MSD 280-123843-b-1	1.000	cl			21
22*	NPOC	280-123843-b-2	1.000	cl			22
23*	NPOC	280-123843-b-3	1.000	cl			23
24*	NPOC	280-123843-c-4	1.000	cl			24
25*	NPOC	280-123843-b-5	1.000	cl			25
26*	NPOC	280-123853-c-1	1.000	cl			26
27*	NPOC	CCV	1.000	cl			27
28*	NPOC	CCB	1.000	cl			28
29*	NPOC	280-123853-c-2	1.000	cl			29
30*	NPOC	280-123853-c-3	1.000	cl			30
31*	NPOC	280-123853-c-4	1.000	cl			31
32*	NPOC	280-123853-c-5	1.000	cl			32
33*	NPOC	280-123853-c-6	1.000	cl			33
34*	NPOC	LCS	1.000	cl			34
35*	NPOC	MB	1.000	cl			35
36*	NPOC	TIC	1.000	cl			36
37*	NPOC	280-123919-b-2	1.000	cl			37
38*	NPOC	280-123919-b-4	1.000	cl			38
39*	NPOC	CCV	1.000	cl			39
40*	NPOC	CCB	1.000	cl			40
41*	NPOC	280-123919-b-6	1.000	cl			41
42*	NPOC	MS 280-123919-b-6	1.000	cl			42
43*	NPOC	MSD 280-123919-b-6	1.000	cl			43
44*	NPOC	280-123919-b-5	1.000	cl			44
45*	NPOC	280-123706-d-1	2x ~~1.000~~	cl	RERUN		45
46*	NPOC	280-123820-k-4	1.000	cl			46
47*	NPOC	280-123820-k-5	1.000	cl			47
48*	NPOC	280-123822-h-1	Dx ~~1.000~~	cl			48
49*	NPOC	280-123832-d-7	1.000	cl			49
50*	NPOC	280-123832-d-8	2x ~~1.000~~	cl	milky		50
51*	NPOC	CCV	1.000	cl			51

pH 6/7/19

	Analysis	Sample Name	Manual Diluti	Result	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	"			52
53*	NPOC	280-123832-c-10	1.000	"			53
54*	NPOC	MS 280-123832-c-10	1.000	"			54
55*	NPOC	MSD 280-123832-c-10	1.000	"			55
56*	NPOC	280-123832-c-11	1.000	"			56
57*	NPOC	280-123863-d-2	1.000	"			57
58*	NPOC	280-123863-d-3	200 x ~~1.000~~	10			58
59*	NPOC	280-123863-d-4	1.000	"			59
60*	NPOC	280-123941-k-2	1.000	"			60
61*	NPOC	280-123941-k-4	1.000	"			61
62*	NPOC	280-123941-k-5	1.000	"			62
63*	NPOC	CCV	1.000	"			63
64*	NPOC	CCB	1.000	"			64
65*	NPOC	280-123941-j-6	1.000	"			65
66*	NPOC	280-123941-k-7	1.000	"			66
67*	NPOC	CCV	1.000	"			67
68*	NPOC	CCB	1.000	"			68

Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	ICV
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

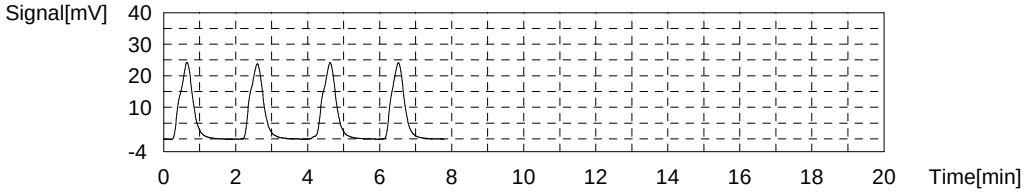
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.70	20.82mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 3:47:40 PM
2	61.04	20.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 3:49:51 PM
3	61.97	20.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 3:51:55 PM
4	59.46	20.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 3:53:59 PM

Mean Area 61.04
Mean Conc. 20.60mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

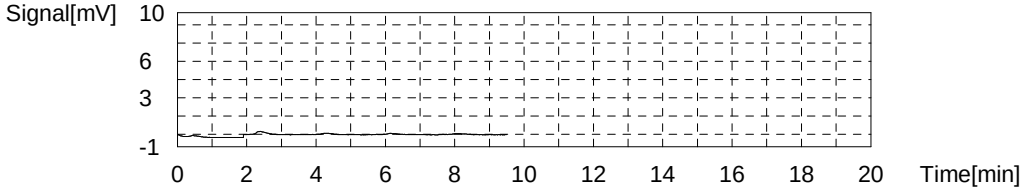
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.04377mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1450	-0.03278mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:02:30 PM
2	0.4671	0.07634mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:04:34 PM
3	0.1753	-0.02252mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:06:38 PM
4	0.1300	-0.03786mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:08:42 PM
5	0.000	-0.08190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:10:46 PM

Mean Area 0.1126
Mean Conc. -0.04377mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

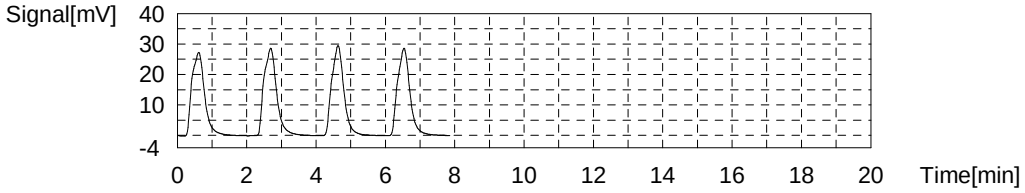
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	71.19	24.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:19:26 PM
2	73.72	24.89mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:21:32 PM
3	72.71	24.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:23:36 PM
4	71.59	24.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:25:43 PM

Mean Area 72.30
Mean Conc. 24.41mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

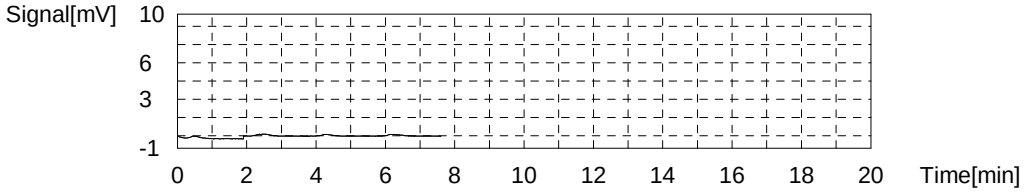
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01190mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2493	0.00255mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:34:14 PM
2	0.3871	0.04924mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:36:18 PM
3	0.1993	-0.01439mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:38:22 PM
4	0.2719	0.01021mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:40:26 PM

Mean Area 0.2769
Mean Conc. 0.01190mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

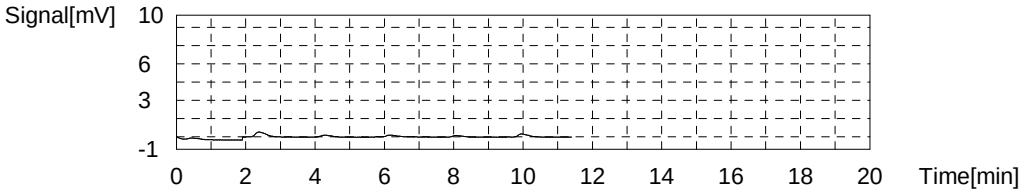
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02782mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:48:58 PM
2	0.8319	0.1999mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:51:02 PM
3	0.2999	0.01970mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:53:05 PM
4	0.2668	0.00848mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:55:09 PM
5	0.2593	0.00594mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:57:13 PM
6	0.4695	0.07715mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 4:59:17 PM

Mean Area 0.3239
Mean Conc. 0.02782mg/L



Sample

Sample Name: 280-123691-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

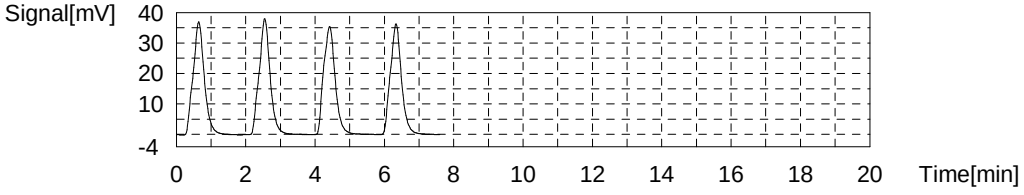
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:56.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.66	57.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:07:42 PM
2	84.57	57.14mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:09:46 PM
3	82.86	55.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:11:50 PM
4	81.98	55.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:13:54 PM

Mean Area 83.52
Mean Conc. 56.42mg/L



Sample

Sample Name: 280-123829-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

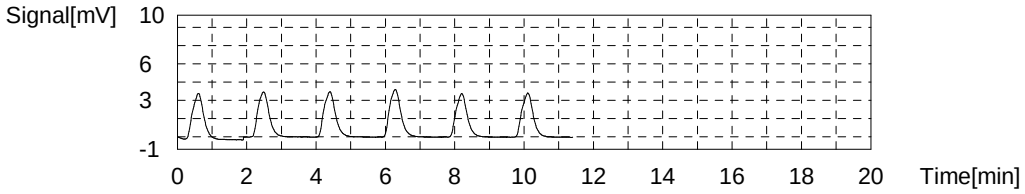
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.734mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.348	2.746mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:22:26 PM
2	8.263	2.717mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:24:30 PM
3	8.503	2.799mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:26:34 PM
4	8.855	2.918mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:28:38 PM
5	7.887	2.590mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:30:42 PM
6	8.130	2.672mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:32:46 PM

Mean Area 8.311
Mean Conc. 2.734mg/L



Sample

Sample Name: 280-123838-a-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

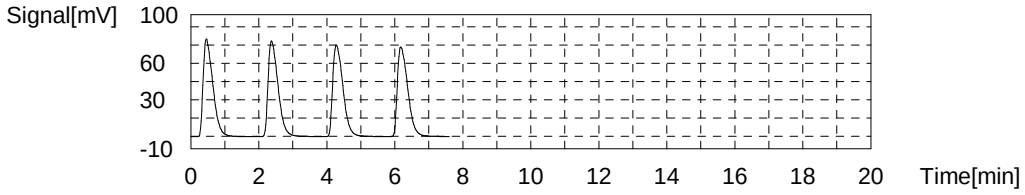
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:53.94mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	160.6	54.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:41:11 PM
2	161.1	54.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:43:15 PM
3	158.6	53.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:45:19 PM
4	157.5	53.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:47:23 PM

Mean Area 159.4
Mean Conc. 53.94mg/L



Sample

Sample Name: MS 280-123838-a-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

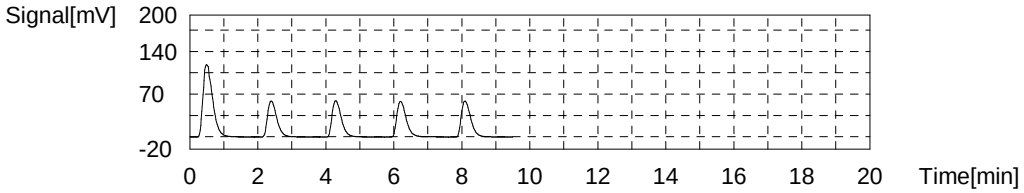
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:77.01mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	236.3	79.97mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:55:54 PM
2	113.3	76.69mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 5:57:58 PM
3	113.5	76.82mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:00:02 PM
4	113.5	76.82mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:02:05 PM
5	114.8	77.70mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:04:09 PM

Mean Area 113.8
Mean Conc. 77.01mg/L



Sample

Sample Name: MSD 280-123838-a-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

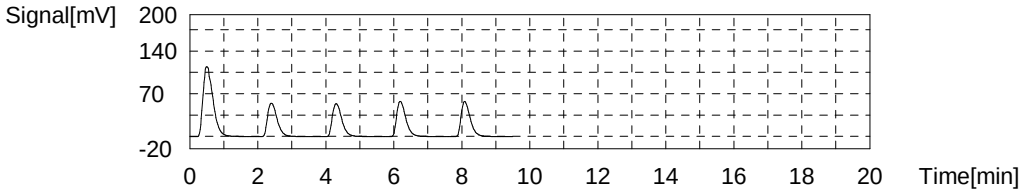
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:76.30mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	237.1	80.24mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:12:40 PM
2	108.5	76.50mg/L	24uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:14:44 PM
3	106.0	74.73mg/L	24uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:16:48 PM
4	109.9	77.48mg/L	24uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:18:51 PM
5	108.5	76.50mg/L	24uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:20:55 PM

Mean Area 108.2
Mean Conc. 76.30mg/L



Sample

Sample Name: 280-123838-a-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

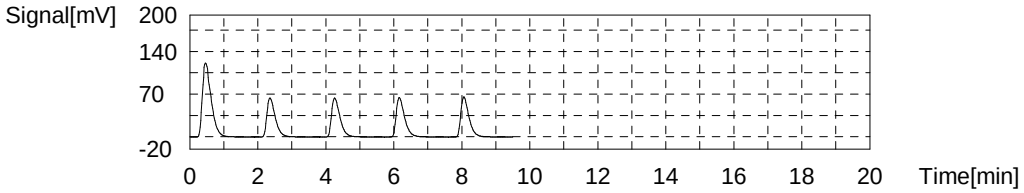
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:72.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	220.7	74.69mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:29:26 PM
2	111.0	72.23mg/L	26uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:31:30 PM
3	110.8	72.10mg/L	26uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:33:34 PM
4	112.2	73.02mg/L	26uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:35:38 PM
5	110.8	72.10mg/L	26uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:37:41 PM

Mean Area 111.2
Mean Conc. 72.36mg/L



Sample

Sample Name: 280-123842-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

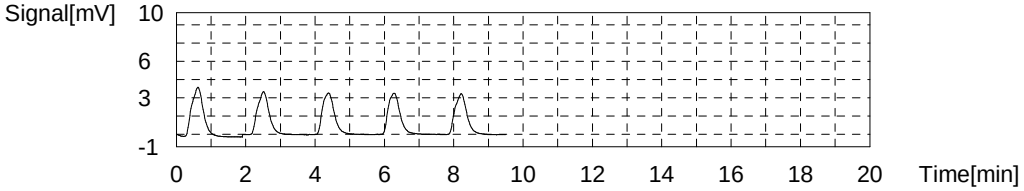
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.665mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.548	3.153mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:46:12 PM
2	8.247	2.712mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:48:16 PM
3	8.077	2.654mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:50:20 PM
4	8.043	2.643mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:52:24 PM
5	8.061	2.649mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 6:54:28 PM

Mean Area 8.107
Mean Conc. 2.665mg/L



Sample

Sample Name: 280-123844-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

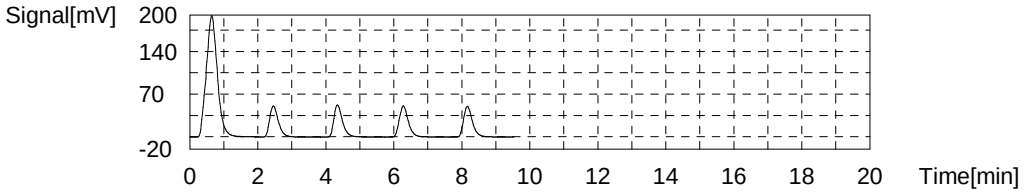
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:131.1mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	455.0	154.1mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:03:00 PM
2	92.28	130.2mg/L	12uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:05:04 PM
3	92.53	130.5mg/L	12uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:07:08 PM
4	94.81	133.7mg/L	12uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:09:12 PM
5	91.97	129.7mg/L	12uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:11:15 PM

Mean Area 92.90
Mean Conc. 131.1mg/L



Sample

Sample Name: 280-123845-a-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

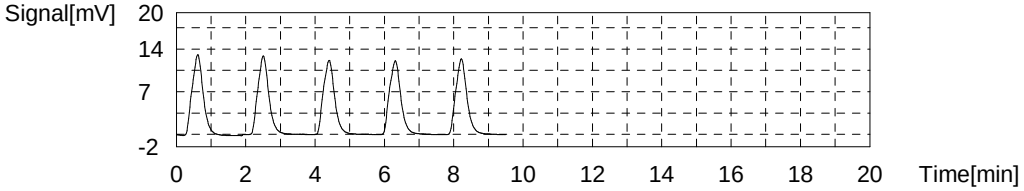
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.409mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.82	10.02mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:19:46 PM
2	28.56	9.594mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:21:50 PM
3	27.64	9.282mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:23:54 PM
4	27.91	9.373mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:25:58 PM
5	27.95	9.387mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:28:02 PM

Mean Area 28.02
Mean Conc. 9.409mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

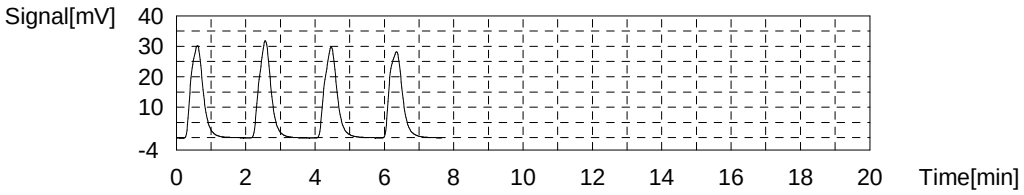
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.46	25.48mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:36:34 PM
2	76.71	25.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:38:38 PM
3	74.60	25.19mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:40:42 PM
4	73.95	24.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:42:47 PM

Mean Area 75.18
Mean Conc. 25.39mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

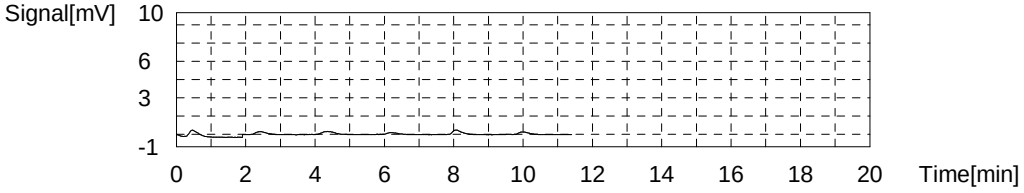
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06704mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9324	0.2340mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:51:18 PM
2	0.4757	0.07925mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:53:22 PM
3	0.5871	0.1170mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:55:26 PM
4	0.3115	0.02363mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:57:30 PM
5	0.6732	0.1462mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 7:59:34 PM
6	0.3843	0.04829mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:01:38 PM

Mean Area 0.4397
Mean Conc. 0.06704mg/L



Sample

Sample Name: 280-123855-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

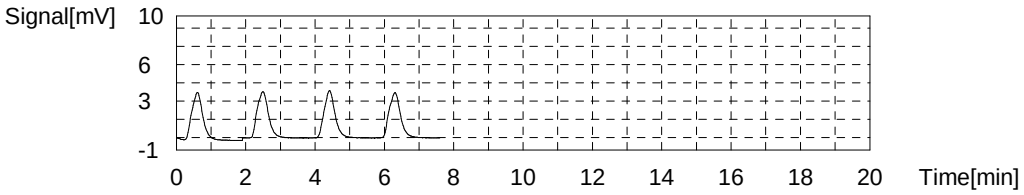
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.799mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.529	2.808mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:10:03 PM
2	8.647	2.848mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:12:07 PM
3	8.369	2.753mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:14:11 PM
4	8.466	2.786mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:16:15 PM

Mean Area 8.503
Mean Conc. 2.799mg/L



Sample

Sample Name: 280-123855-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

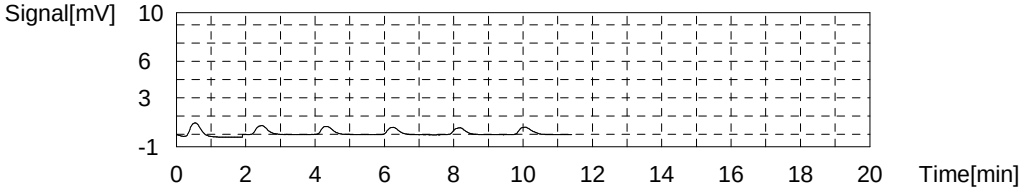
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3862mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.368	0.7203mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:24:46 PM
2	1.681	0.4876mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:26:50 PM
3	1.462	0.4134mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:28:54 PM
4	1.312	0.3626mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:30:58 PM
5	1.250	0.3416mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:33:02 PM
6	1.503	0.4273mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:35:05 PM

Mean Area 1.382
Mean Conc. 0.3862mg/L



Sample

Sample Name: 280-123843-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

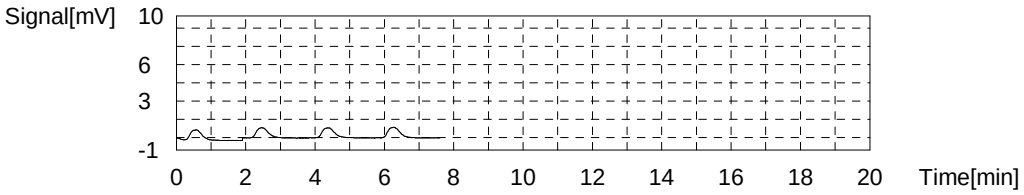
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5687mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.838	0.5408mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:43:31 PM
2	1.931	0.5723mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:45:35 PM
3	1.927	0.5709mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:47:39 PM
4	1.986	0.5909mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:49:43 PM

Mean Area 1.920
Mean Conc. 0.5687mg/L



Sample

Sample Name: MS 280-123843-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

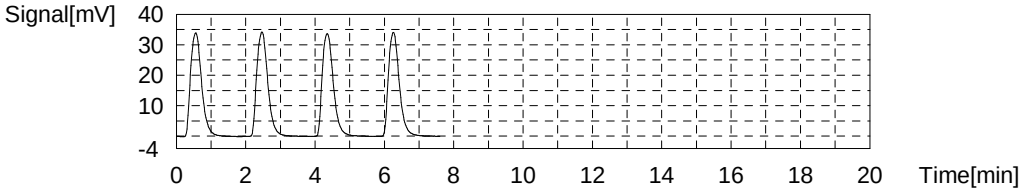
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.62mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.47	25.82mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 8:58:14 PM
2	76.56	25.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:00:18 PM
3	75.52	25.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:02:22 PM
4	74.97	25.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:04:26 PM

Mean Area 75.88
Mean Conc. 25.62mg/L



Sample

Sample Name: MSD 280-123843-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

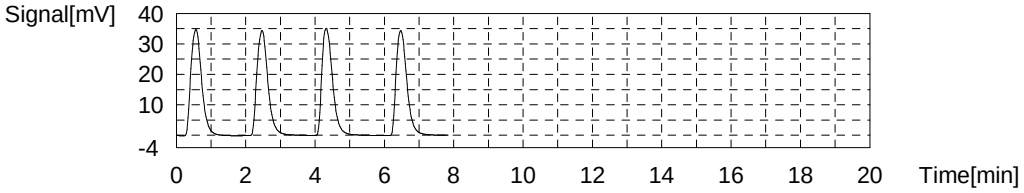
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.62	25.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:12:57 PM
2	76.31	25.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:15:01 PM
3	75.90	25.63mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:17:19 PM
4	74.38	25.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:19:23 PM

Mean Area 75.80
Mean Conc. 25.60mg/L



Sample

Sample Name: 280-123843-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

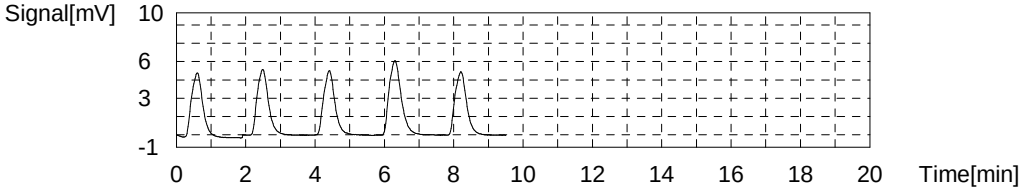
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.983mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.93	3.960mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:27:55 PM
2	12.16	4.038mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:29:59 PM
3	11.87	3.939mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:32:03 PM
4	14.96	4.986mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:34:07 PM
5	12.04	3.997mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:36:11 PM

Mean Area 12.00
Mean Conc. 3.983mg/L



Sample

Sample Name: 280-123843-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

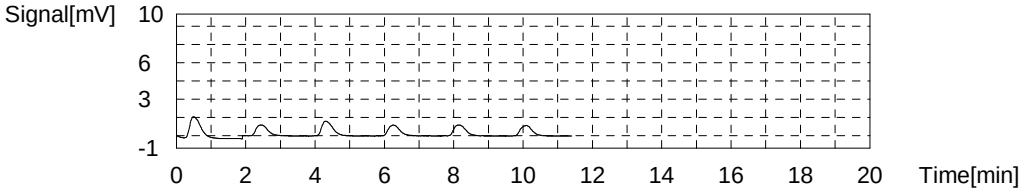
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6110mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.782	1.199mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:44:41 PM
2	2.038	0.6085mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:46:45 PM
3	2.636	0.8111mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:48:49 PM
4	2.049	0.6123mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:50:53 PM
5	2.113	0.6339mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:52:57 PM
6	1.981	0.5892mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 9:55:01 PM

Mean Area 2.045
Mean Conc. 0.6110mg/L



Sample

Sample Name: 280-123843-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

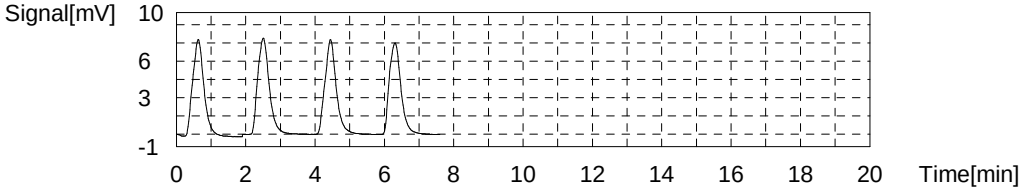
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.008mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.10	6.050mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:03:26 PM
2	18.35	6.135mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:05:30 PM
3	17.73	5.925mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:07:34 PM
4	17.73	5.925mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:09:38 PM

Mean Area 17.98
Mean Conc. 6.008mg/L



Sample

Sample Name: 280-123843-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

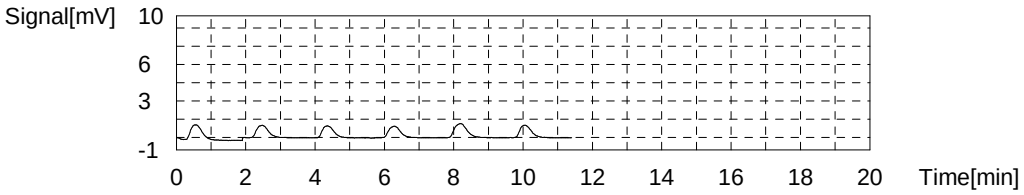
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6877mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.787	0.8623mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:18:09 PM
2	2.364	0.7190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:20:13 PM
3	2.254	0.6817mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:22:17 PM
4	2.164	0.6512mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:24:21 PM
5	2.909	0.9036mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:26:25 PM
6	2.305	0.6990mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:28:28 PM

Mean Area 2.272
Mean Conc. 0.6877mg/L



Sample

Sample Name: 280-123853-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

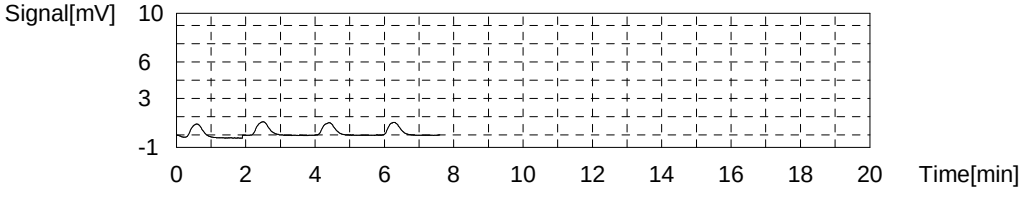
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7709mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.511	0.7688mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:36:54 PM
2	2.656	0.8179mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:38:58 PM
3	2.464	0.7528mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:41:02 PM
4	2.438	0.7440mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:43:06 PM

Mean Area 2.517
Mean Conc. 0.7709mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

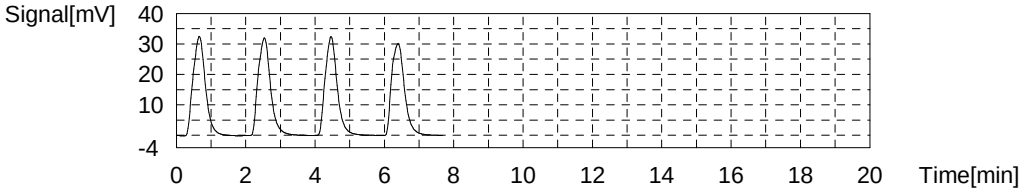
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.00mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.86	27.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:51:37 PM
2	80.57	27.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:53:42 PM
3	78.73	26.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:55:49 PM
4	78.64	26.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 10:57:53 PM

Mean Area 79.95
Mean Conc. 27.00mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

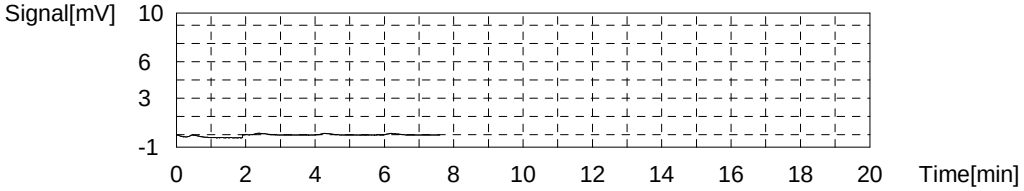
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00184mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2764	0.01173mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:06:24 PM
2	0.2501	0.00282mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:08:28 PM
3	0.2187	-0.00781mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:10:32 PM
4	0.2436	0.00062mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:12:36 PM

Mean Area 0.2472
Mean Conc. 0.00184mg/L



Sample

Sample Name: 280-123853-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

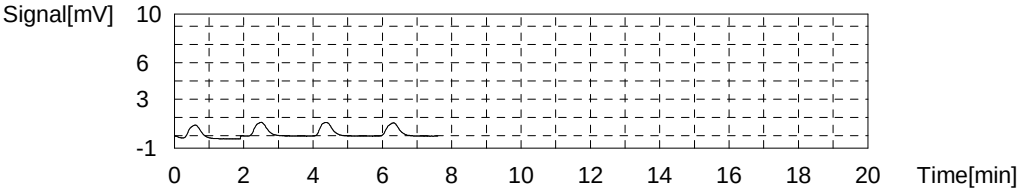
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7986mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.514	0.7698mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:21:07 PM
2	2.658	0.8186mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:23:11 PM
3	2.631	0.8094mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:25:15 PM
4	2.593	0.7965mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:27:19 PM

Mean Area 2.599
Mean Conc. 0.7986mg/L



Sample

Sample Name: 280-123853-c-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

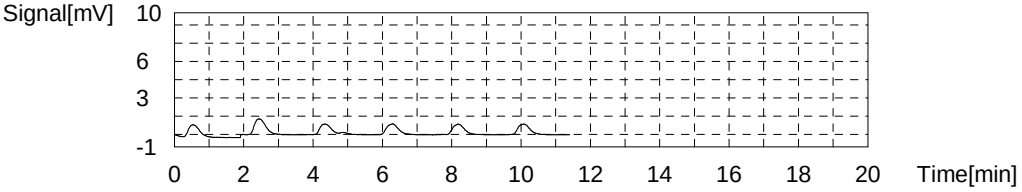
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6143mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.157	0.6488mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:35:50 PM
2	2.951	0.9178mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:37:54 PM
3	2.236	0.6756mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:39:58 PM
4	2.097	0.6285mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:42:02 PM
5	1.947	0.5777mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:44:06 PM
6	2.019	0.6021mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:46:09 PM

Mean Area 2.055
Mean Conc. 0.6143mg/L



Sample

Sample Name: 280-123853-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

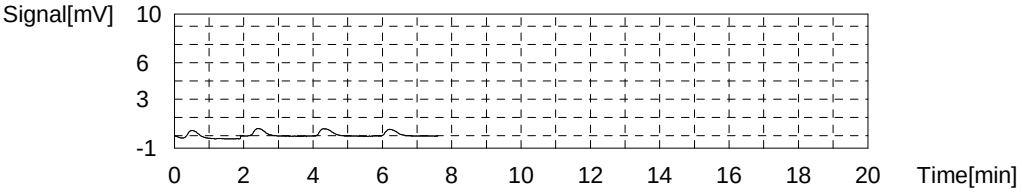
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3666mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.291	0.3555mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:54:35 PM
2	1.317	0.3643mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:56:39 PM
3	1.443	0.4070mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/7/2019 11:58:43 PM
4	1.245	0.3399mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:00:47 AM

Mean Area 1.324
Mean Conc. 0.3666mg/L



Sample

Sample Name: 280-123853-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

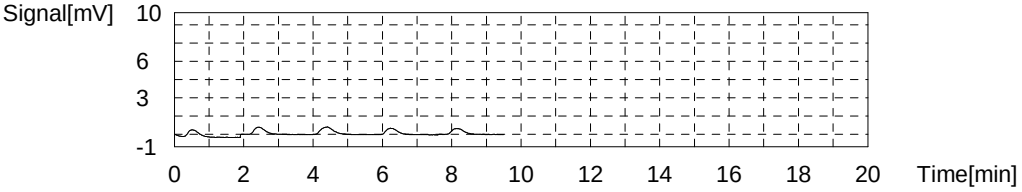
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3152mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.169	0.3141mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:09:19 AM
2	1.250	0.3416mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:11:23 AM
3	1.547	0.4422mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:13:27 AM
4	1.155	0.3094mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:15:31 AM
5	1.115	0.2958mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:17:35 AM

Mean Area 1.172
Mean Conc. 0.3152mg/L



Sample

Sample Name: 280-123853-c-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

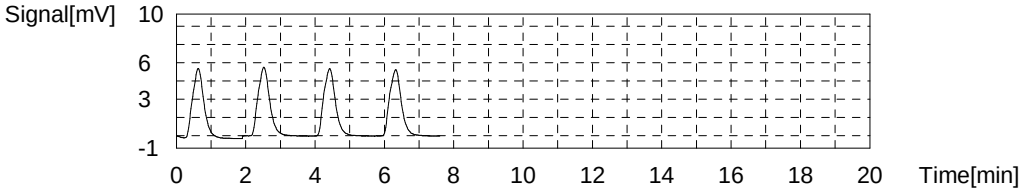
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.289mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.96	4.309mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:26:06 AM
2	13.13	4.366mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:28:10 AM
3	12.81	4.258mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:30:14 AM
4	12.71	4.224mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:32:18 AM

Mean Area 12.90
Mean Conc. 4.289mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

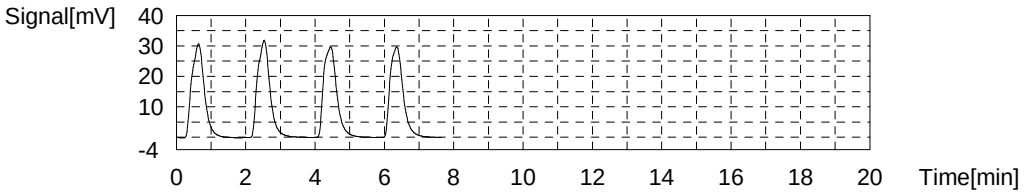
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.97	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:40:50 AM
2	79.81	26.96mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:42:56 AM
3	78.58	26.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:45:00 AM
4	78.08	26.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:47:04 AM

Mean Area 78.86
Mean Conc. 26.63mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

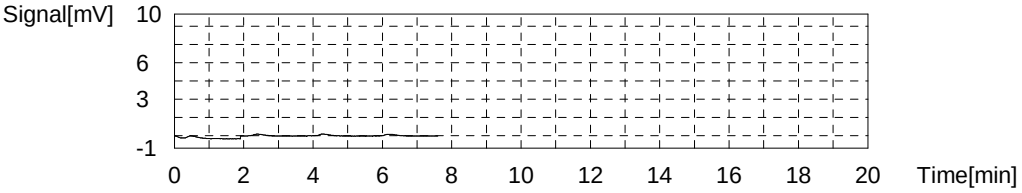
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00853mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3251	0.02823mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:55:36 AM
2	0.2741	0.01095mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:57:40 AM
3	0.2257	-0.00544mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 12:59:44 AM
4	0.2429	0.00038mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:01:48 AM

Mean Area 0.2670
Mean Conc. 0.00853mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

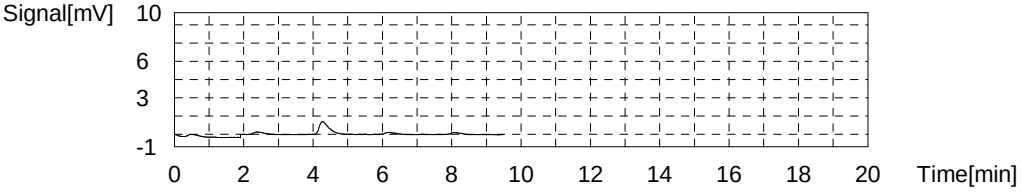
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03169mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3438	0.03457mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:10:20 AM
2	0.3467	0.03555mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:12:24 AM
3	2.052	0.6133mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:14:28 AM
4	0.3443	0.03474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:16:32 AM
5	0.3064	0.02190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:18:36 AM

Mean Area 0.3353
Mean Conc. 0.03169mg/L



Sample

Sample Name: 280-123919-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

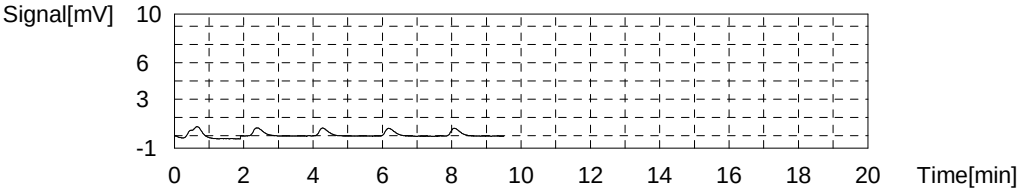
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3295mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.245	0.6787mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:27:07 AM
2	1.304	0.3599mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:29:11 AM
3	1.163	0.3121mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:31:15 AM
4	1.214	0.3294mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:33:19 AM
5	1.177	0.3168mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:35:23 AM

Mean Area 1.215
Mean Conc. 0.3295mg/L



Sample

Sample Name: 280-123919-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

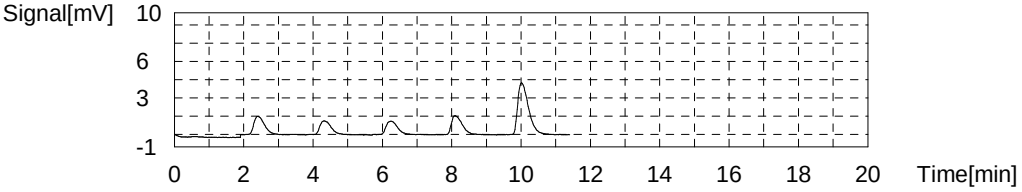
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8905mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:43:54 AM
2	3.172	0.9927mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:45:58 AM
3	2.505	0.7667mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:48:02 AM
4	2.499	0.7647mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:50:06 AM
5	3.305	1.038mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:52:10 AM
6	9.223	3.043mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 1:54:13 AM

Mean Area 2.870
Mean Conc. 0.8905mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

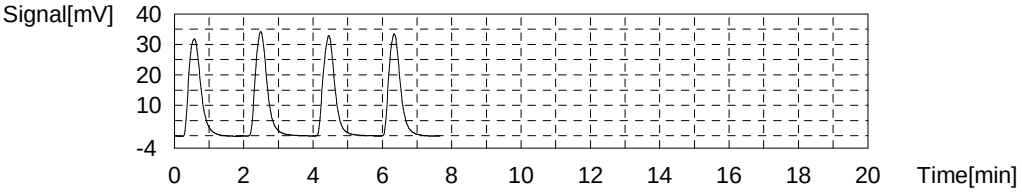
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.58mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.31	26.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:02:39 AM
2	80.70	27.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:04:46 AM
3	77.41	26.14mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:06:50 AM
4	78.36	26.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:08:54 AM

Mean Area 78.70
Mean Conc. 26.58mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

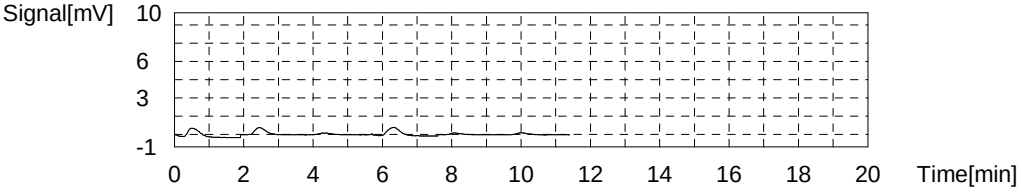
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08776mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.560	0.4466mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:17:26 AM
2	1.230	0.3348mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:19:30 AM
3	0.2441	0.00079mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:21:34 AM
4	1.699	0.4937mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:23:45 AM
5	0.2497	0.00269mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:25:49 AM
6	0.2795	0.01278mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:27:53 AM

Mean Area 0.5008
Mean Conc. 0.08776mg/L



Sample

Sample Name: 280-123919-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

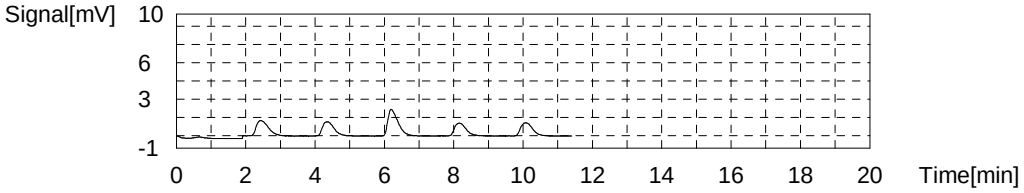
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8353mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1701	-0.02428mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:36:19 AM
2	3.058	0.9541mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:38:23 AM
3	2.693	0.8304mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:40:27 AM
4	4.466	1.431mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:42:31 AM
5	2.475	0.7566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:44:34 AM
6	2.604	0.8003mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:46:38 AM

Mean Area 2.708
Mean Conc. 0.8353mg/L



Sample

Sample Name: MS 280-123919-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

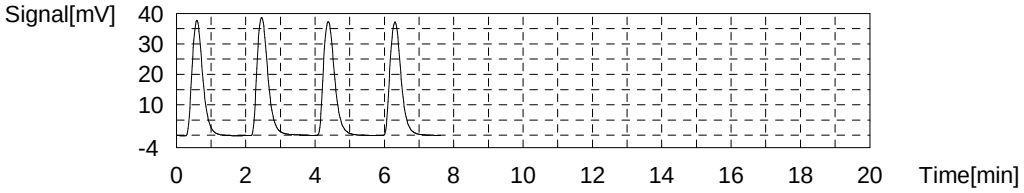
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.48mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.44	27.85mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:55:04 AM
2	85.68	28.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:57:09 AM
3	84.85	28.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 2:59:13 AM
4	84.26	28.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:01:17 AM

Mean Area 84.31
Mean Conc. 28.48mg/L



Sample

Sample Name: MSD 280-123919-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

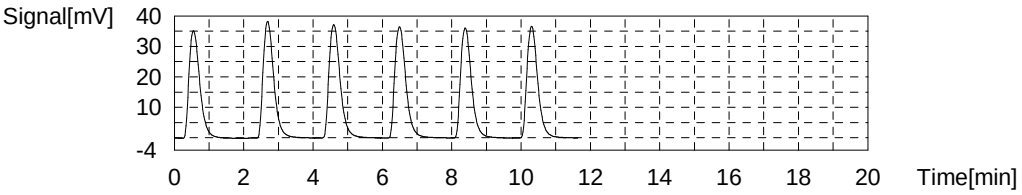
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.23mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.35	26.12mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:10:03 AM
2	82.06	27.72mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:12:07 AM
3	83.84	28.32mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:14:11 AM
4	81.52	27.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:16:15 AM
5	78.69	26.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:18:19 AM
6	80.19	27.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:20:22 AM

Mean Area 80.62
Mean Conc. 27.23mg/L



Sample

Sample Name: 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

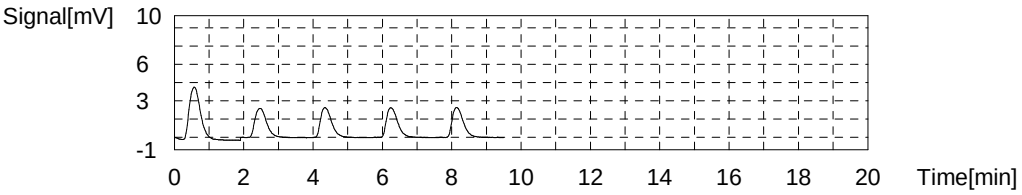
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.769mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.714	3.209mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:28:49 AM
2	5.526	1.790mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:30:53 AM
3	5.407	1.750mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:32:57 AM
4	5.452	1.765mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:35:01 AM
5	5.474	1.773mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:37:05 AM

Mean Area 5.465
Mean Conc. 1.769mg/L



Sample

Sample Name: 280-123706-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

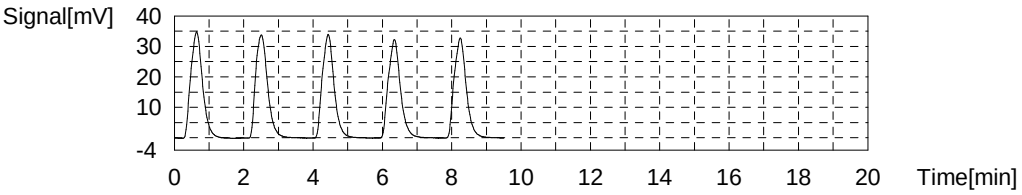
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:54.22mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.04	56.78mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:45:36 AM
2	81.44	55.02mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:47:40 AM
3	80.51	54.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:49:44 AM
4	79.20	53.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:51:48 AM
5	79.89	53.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 3:53:51 AM

Mean Area 80.26
Mean Conc. 54.22mg/L



Sample

Sample Name: 280-123820-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

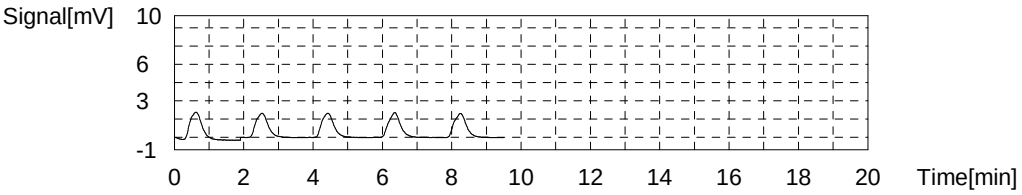
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.559mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.381	1.741mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:02:23 AM
2	4.848	1.560mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:04:27 AM
3	4.819	1.551mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:06:31 AM
4	4.859	1.564mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:08:35 AM
5	4.845	1.559mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:10:39 AM

Mean Area 4.843
Mean Conc. 1.559mg/L



Sample

Sample Name: 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

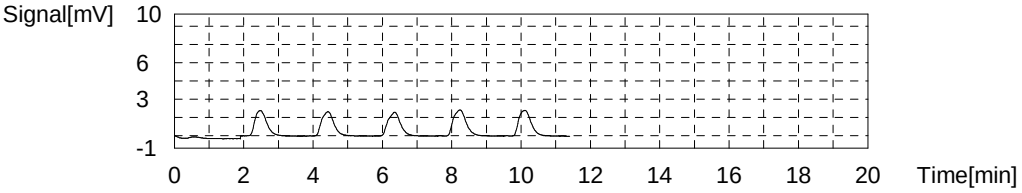
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.600mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2228	-0.00642mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:19:10 AM
2	4.913	1.583mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:21:14 AM
3	4.851	1.562mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:23:18 AM
4	4.908	1.581mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:25:22 AM
5	5.488	1.777mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:27:25 AM
6	5.182	1.674mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:29:29 AM

Mean Area 4.963
Mean Conc. 1.600mg/L



Sample

Sample Name: 280-123822-h-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

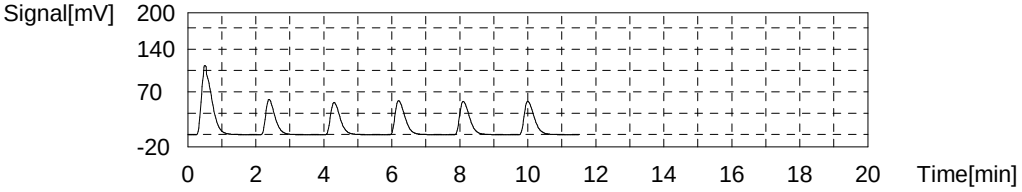
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:759.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	235.8	798.0mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:37:55 AM
2	110.8	749.9mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:39:59 AM
3	105.1	711.3mg/L	25uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:42:03 AM
4	113.6	768.9mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:44:06 AM
5	111.2	752.6mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:46:10 AM
6	113.4	767.5mg/L	25uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:48:20 AM

Mean Area 112.3
Mean Conc. 759.7mg/L



Sample

Sample Name: 280-123832-d-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

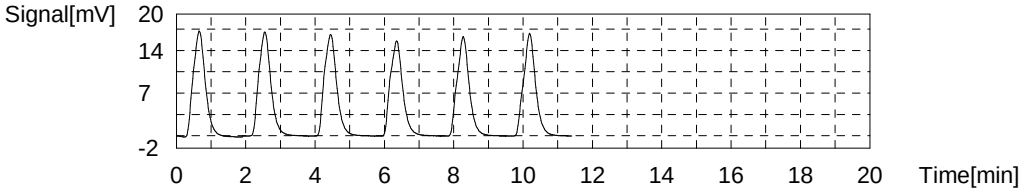
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.79mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	42.83	14.43mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:56:46 AM
2	41.58	14.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 4:58:50 AM
3	41.43	13.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:00:54 AM
4	39.20	13.20mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:02:58 AM
5	39.83	13.41mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:05:02 AM
6	40.89	13.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:07:05 AM

Mean Area 40.93
Mean Conc. 13.79mg/L



Sample

Sample Name: 280-123832-d-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

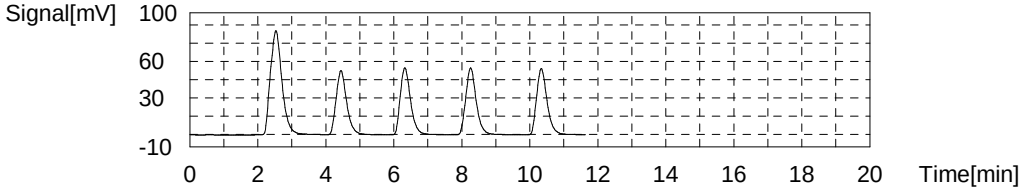
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:136.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1638mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:15:32 AM
2	203.6	137.8mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:17:38 AM
3	114.2	133.2mg/L	29uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:19:42 AM
4	116.6	136.0mg/L	29uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:21:45 AM
5	118.3	138.0mg/L	29uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:24:01 AM
6	117.2	136.7mg/L	29uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:26:05 AM

Mean Area 116.6
Mean Conc. 136.0mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

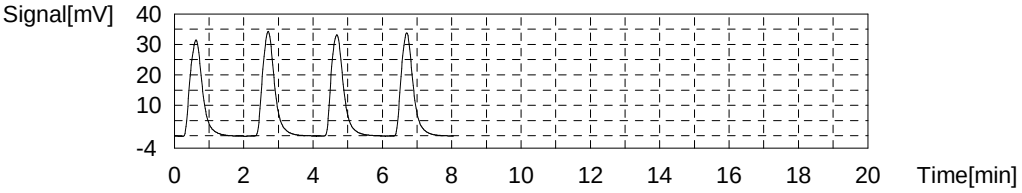
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.70mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.08	27.05mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:34:42 AM
2	83.57	28.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:36:52 AM
3	82.49	27.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:39:02 AM
4	81.90	27.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:41:10 AM

Mean Area 82.01
Mean Conc. 27.70mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

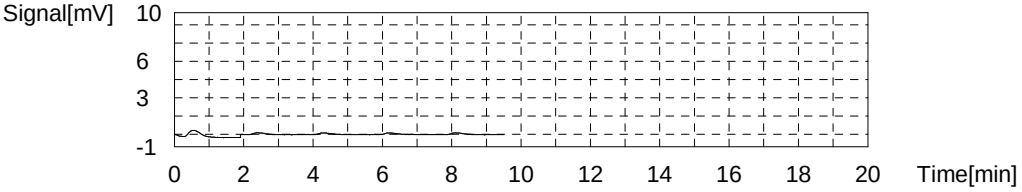
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01286mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.149	0.3074mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:49:42 AM
2	0.2974	0.01885mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:51:46 AM
3	0.2923	0.01712mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:53:50 AM
4	0.2319	-0.00334mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:55:54 AM
5	0.2973	0.01881mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 5:57:58 AM

Mean Area 0.2797
Mean Conc. 0.01286mg/L



Sample

Sample Name: 280-123832-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

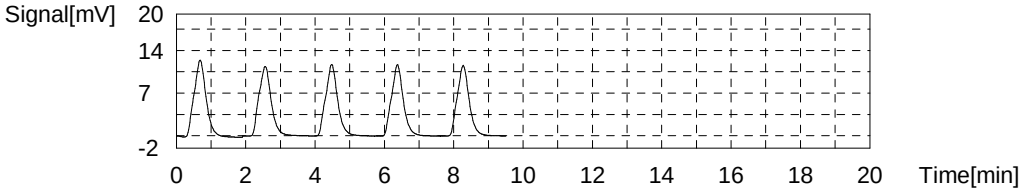
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.418mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.76	10.34mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:06:29 AM
2	28.08	9.431mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:08:33 AM
3	28.41	9.543mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:10:37 AM
4	27.94	9.384mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:12:40 AM
5	27.74	9.316mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:14:44 AM

Mean Area 28.04
Mean Conc. 9.418mg/L



Sample

Sample Name: MS 280-123832-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

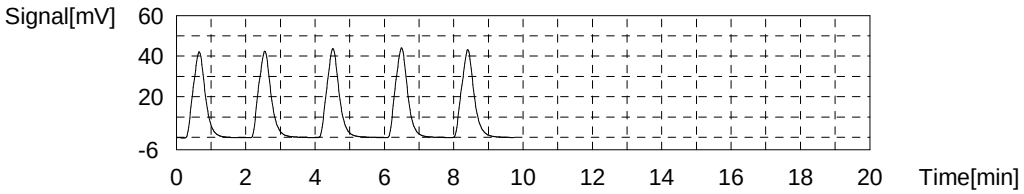
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:36.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	103.9	35.12mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:23:16 AM
2	106.4	35.96mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:25:23 AM
3	108.7	36.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:27:32 AM
4	108.7	36.74mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:29:36 AM
5	108.6	36.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:31:45 AM

Mean Area 108.1
Mean Conc. 36.54mg/L



Sample

Sample Name: MSD 280-123832-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

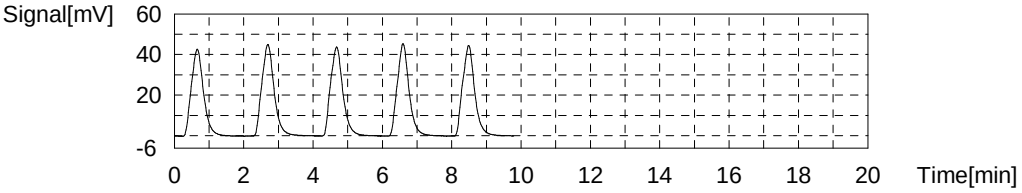
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:36.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	106.1	35.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:40:25 AM
2	111.7	37.76mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:42:35 AM
3	109.3	36.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:44:39 AM
4	108.1	36.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:46:43 AM
5	108.8	36.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:48:50 AM

Mean Area 108.1
Mean Conc. 36.53mg/L



Sample

Sample Name: 280-123832-c-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

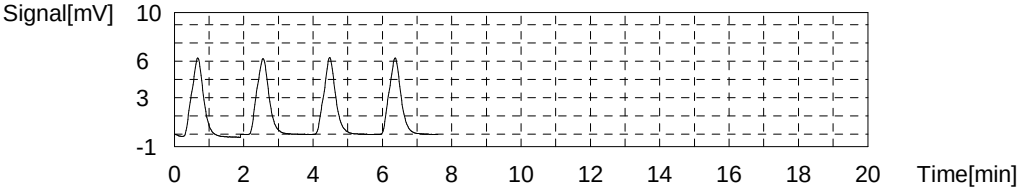
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.036mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.39	5.132mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:57:22 AM
2	15.23	5.078mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 6:59:26 AM
3	14.88	4.959mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:01:30 AM
4	14.93	4.976mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:03:34 AM

Mean Area 15.11
Mean Conc. 5.036mg/L



Sample

Sample Name: 280-123863-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

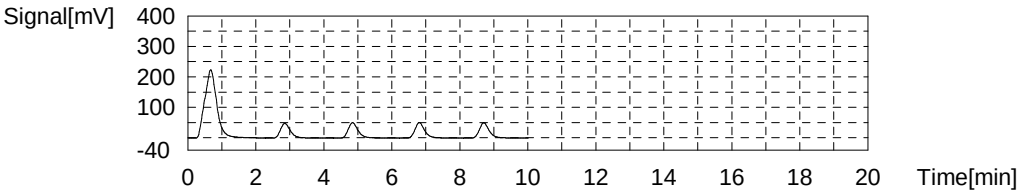
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:167.6mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	555.2	188.0mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:12:30 AM
2	96.55	163.5mg/L	10uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:14:39 AM
3	101.2	171.3mg/L	10uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:16:46 AM
4	99.32	168.2mg/L	10uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:18:49 AM
5	99.01	167.6mg/L	10uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:20:53 AM

Mean Area 99.02
Mean Conc. 167.6mg/L



Sample

Sample Name: 280-123863-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

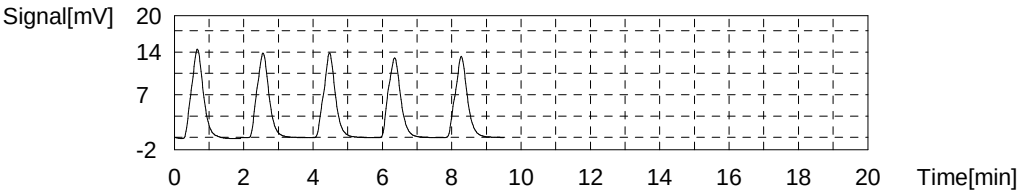
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	200.0	NPOC:2203mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.43	2384mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:29:26 AM
2	33.38	2245mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:31:30 AM
3	32.71	2200mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:33:34 AM
4	32.59	2192mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:35:37 AM
5	32.35	2176mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:37:41 AM

Mean Area 32.76
Mean Conc. 2203mg/L



Sample

Sample Name: 280-123863-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

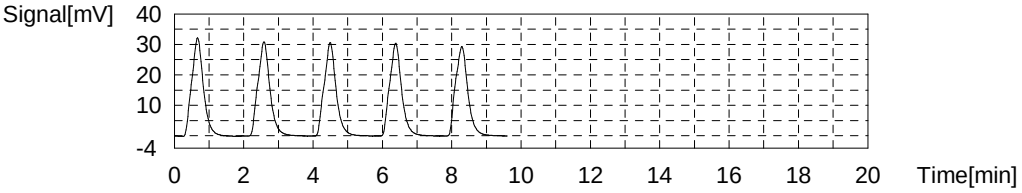
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.96mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.02	26.01mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:46:15 AM
2	75.06	25.35mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:48:19 AM
3	73.86	24.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:50:23 AM
4	73.66	24.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:52:28 AM
5	73.15	24.70mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 7:54:35 AM

Mean Area 73.93
Mean Conc. 24.96mg/L



Sample

Sample Name: 280-123941-k-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

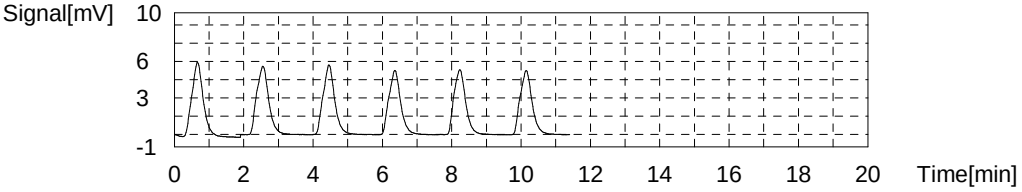
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.230mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.01	4.664mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:03:08 AM
2	13.54	4.505mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:05:12 AM
3	13.35	4.441mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:07:16 AM
4	12.48	4.146mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:09:20 AM
5	12.45	4.136mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:11:24 AM
6	12.63	4.197mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:13:27 AM

Mean Area 12.73
Mean Conc. 4.230mg/L



Sample

Sample Name: 280-123941-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

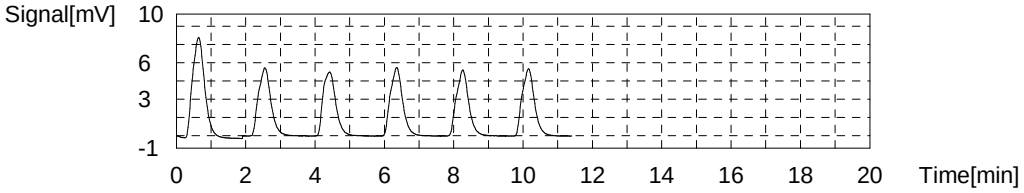
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.577mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.30	6.795mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:21:54 AM
2	13.94	4.641mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:23:58 AM
3	13.42	4.465mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:26:02 AM
4	13.92	4.634mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:28:06 AM
5	13.42	4.465mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:30:10 AM
6	13.73	4.570mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:32:13 AM

Mean Area 13.75
Mean Conc. 4.577mg/L



Sample

Sample Name: 280-123941-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

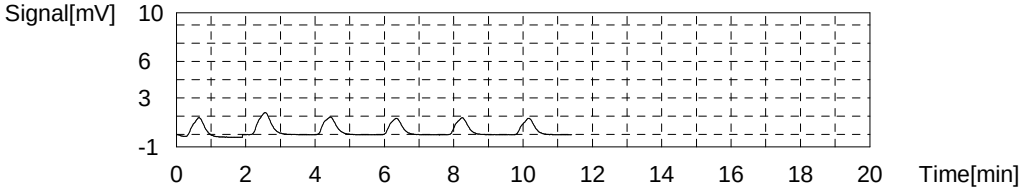
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.064mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.649	1.154mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:40:40 AM
2	4.600	1.476mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:42:44 AM
3	3.701	1.172mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:44:48 AM
4	3.273	1.027mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:46:51 AM
5	3.334	1.048mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:48:55 AM
6	3.271	1.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:50:59 AM

Mean Area 3.382
Mean Conc. 1.064mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

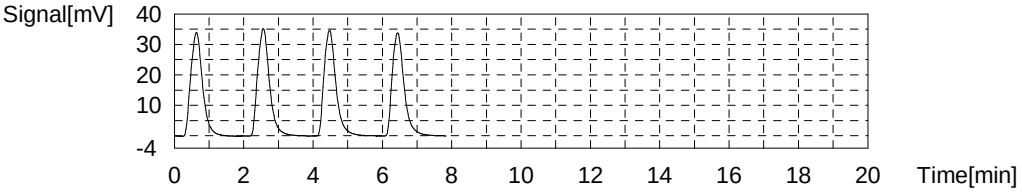
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.86mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.47	27.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 8:59:28 AM
2	84.29	28.47mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:01:34 AM
3	83.02	28.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:03:42 AM
4	81.19	27.42mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:05:52 AM

Mean Area 82.49
Mean Conc. 27.86mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

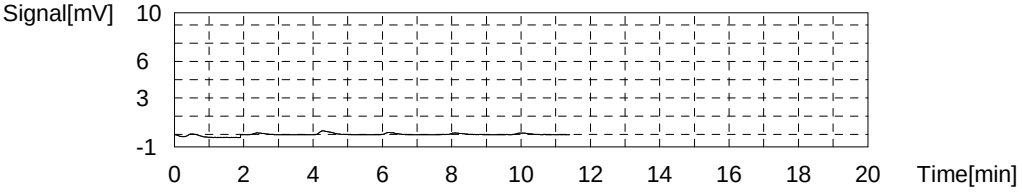
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01151mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4841	0.08210mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:14:25 AM
2	0.2574	0.00530mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:16:29 AM
3	0.7016	0.1558mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:18:33 AM
4	0.3368	0.03220mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:20:37 AM
5	0.2345	-0.00246mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:22:40 AM
6	0.2742	0.01099mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:24:44 AM

Mean Area 0.2757
Mean Conc. 0.01151mg/L



Sample

Sample Name: 280-123941-j-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

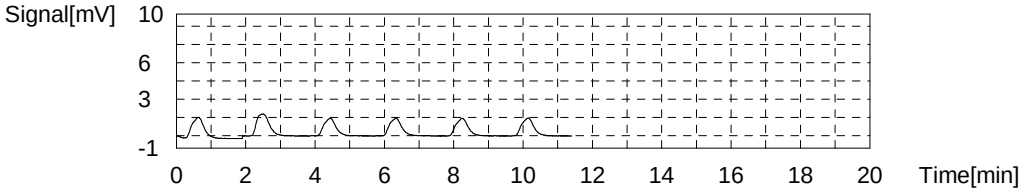
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.105mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.118	1.313mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:33:11 AM
2	4.537	1.455mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:35:15 AM
3	3.429	1.080mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:37:19 AM
4	3.512	1.108mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:39:23 AM
5	3.525	1.112mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:41:26 AM
6	3.545	1.119mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:43:30 AM

Mean Area 3.503
Mean Conc. 1.105mg/L



Sample

Sample Name: 280-123941-k-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

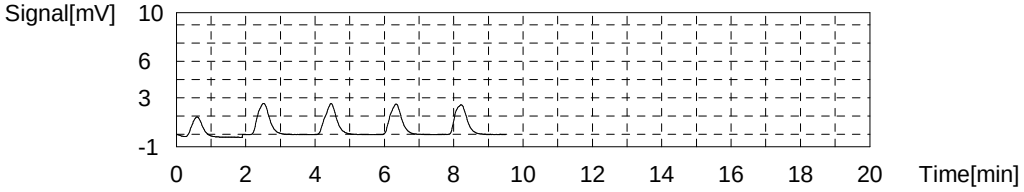
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.930mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.442	1.084mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:51:57 AM
2	6.076	1.977mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:54:01 AM
3	5.901	1.917mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:56:05 AM
4	5.860	1.903mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 9:58:09 AM
5	5.915	1.922mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:00:12 AM

Mean Area 5.938
Mean Conc. 1.930mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

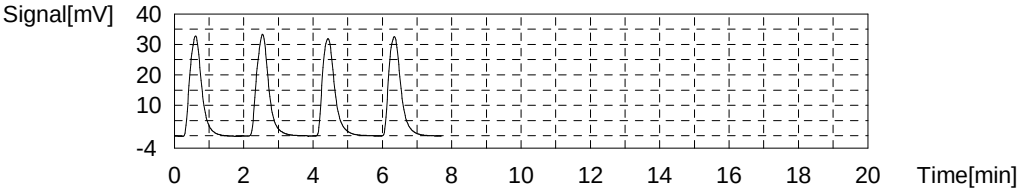
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.03mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.48	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:08:46 AM
2	81.28	27.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:10:52 AM
3	78.97	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:12:56 AM
4	80.33	27.13mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:15:03 AM

Mean Area 80.02
Mean Conc. 27.03mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

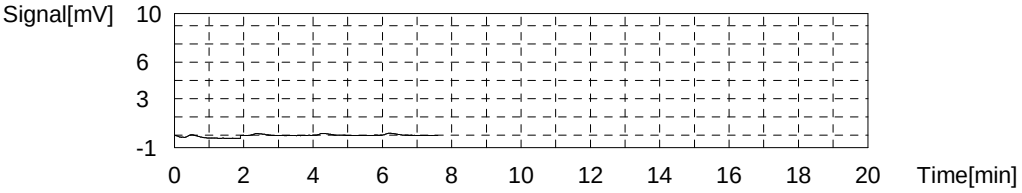
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02905mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3477	0.03589mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:23:36 AM
2	0.3134	0.02427mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:25:40 AM
3	0.2864	0.01512mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:27:44 AM
4	0.3626	0.04094mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/8/2019 10:29:48 AM

Mean Area 0.3275
Mean Conc. 0.02905mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

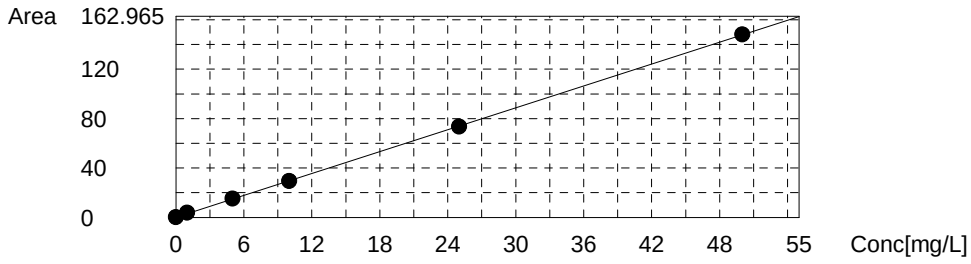
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



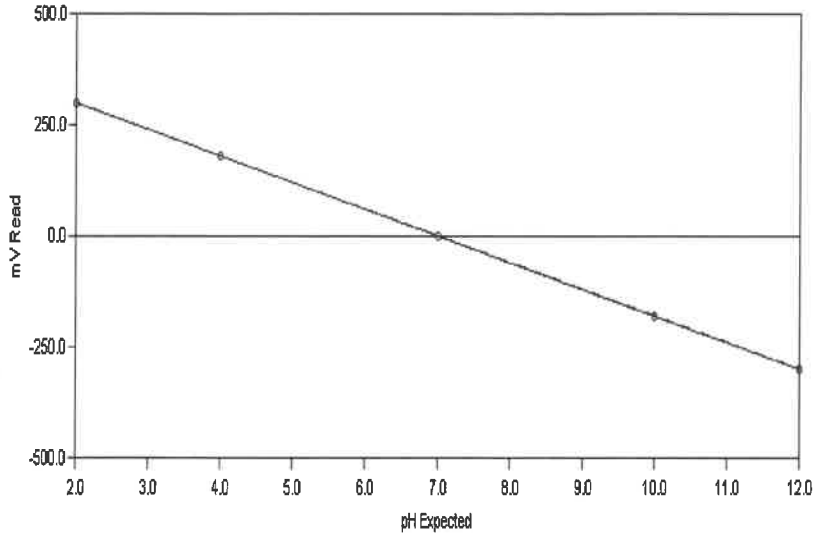
MANTECH

MANTECH INC.

Calibration Report

Report Date: 5/23/2019 : 9:43 AM

Calibration Record # 458



Calibration Settings

Calibration ID	PH	Date	5/22/2019
Channel	1	Time	9:42 AM
Probe Type	pH	Temperature	295.49 K 22.34 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.839	CorrCoeff	1.0000
Intercept	-0.050	Equation: Y = (-59.839) X + (-0.050)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.839	-65.00	-54.00
Intercept	-0.050	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	298.58
	4.00	180.05
	7.00	0.48
	10.00	-180.41
	12.00	-298.95

Test America
Water Analysis Report

Analyst: S&B

Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
rinse	5/22/2019	6:11 PM	23.15	-1.00	5.79	-1.00	-1.00	-1.00	.00	1.17	1.17	.00	.00	.00	.03	.05	.02
check	5/22/2019	6:18 PM	22.57	-1.00	10.48	-1.00	-1.00	-1.00	95.61	194.75	3.53	191.23	.00	.96	1.95	-1.00	.02
b7	5/22/2019	6:19 PM	22.08	-1.00	7.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
lcs	5/22/2019	6:26 PM	22.02	-1.00	10.50	-1.00	-1.00	-1.00	96.23	195.53	3.06	192.46	.00	.96	1.96	-1.00	.02
mb	5/22/2019	6:31 PM	22.13	-1.00	7.64	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-123715-B-4	5/22/2019	6:36 PM	21.85	-1.00	7.87	-1.00	-1.00	-1.00	.00	95.91	95.91	.00	.00	.00	.96	-1.00	.02
280-123715-B-4	5/22/2019	6:42 PM	21.74	-1.00	7.95	-1.00	-1.00	-1.00	.00	97.45	97.45	.00	.00	.00	.97	-1.00	.02
280-123715-B-5	5/22/2019	6:46 PM	21.74	-1.00	6.24	-1.00	-1.00	-1.00	.00	.75	.75	.00	.00	.00	.02	.04	.02
280-123692-B-1	5/22/2019	6:52 PM	21.82	-1.00	7.42	-1.00	-1.00	-1.00	.00	201.76	201.76	.00	.00	.00	2.02	-1.00	.02
280-123692-B-2	5/22/2019	7:02 PM	22.66	-1.00	7.79	-1.00	-1.00	-1.00	.00	132.96	132.96	.00	.00	.00	1.33	-1.00	.02
280-123693-B-4	5/22/2019	7:06 PM	22.42	-1.00	6.19	-1.00	-1.00	-1.00	.00	1.11	1.11	.00	.00	.00	.03	.04	.02
280-123693-A-1	5/22/2019	7:11 PM	21.86	-1.00	7.84	-1.00	-1.00	-1.00	.00	173.75	173.75	.00	.00	.00	1.74	-1.00	.02
280-123693-A-2	5/22/2019	7:17 PM	21.63	-1.00	7.92	-1.00	-1.00	-1.00	.00	173.47	173.47	.00	.00	.00	1.73	-1.00	.02
280-123693-A-3	5/22/2019	7:22 PM	21.51	-1.00	7.00	-1.00	-1.00	-1.00	.00	98.75	98.75	.00	.00	.00	.99	-1.00	.02
280-123706-A-1	5/22/2019	7:31 PM	21.41	-1.00	7.73	-1.00	-1.00	-1.00	.00	650.29	650.29	.00	.00	.00	6.50	-1.00	.02
ccv	5/22/2019	7:36 PM	21.48	-1.00	10.52	-1.00	-1.00	-1.00	96.16	196.14	3.82	192.32	.00	.96	1.96	-1.00	.02
ccb	5/22/2019	7:41 PM	21.60	-1.00	6.56	-1.00	-1.00	-1.00	.00	.77	.77	.00	.00	.00	.02	.04	.02
280-123714-A-1	5/22/2019	7:48 PM	21.54	-1.00	7.48	-1.00	-1.00	-1.00	.00	314.39	314.39	.00	.00	.00	3.14	-1.00	.02
280-123761-H-3	5/22/2019	7:54 PM	21.89	-1.00	7.98	-1.00	-1.00	-1.00	.00	344.27	344.27	.00	.00	.00	3.44	-1.00	.02
280-123761-I-4	5/22/2019	8:01 PM	22.17	-1.00	7.92	-1.00	-1.00	-1.00	.00	372.63	372.63	.00	.00	.00	3.73	-1.00	.02
280-123761-I-2	5/22/2019	8:07 PM	22.23	-1.00	7.95	-1.00	-1.00	-1.00	.00	343.86	343.86	.00	.00	.00	3.44	-1.00	.02
280-123814-B-3	5/22/2019	8:12 PM	22.05	-1.00	6.51	-1.00	-1.00	-1.00	.00	41.08	41.08	.00	.00	.00	.41	-1.00	.02
280-123814-B-1	5/22/2019	8:18 PM	21.77	-1.00	7.15	-1.00	-1.00	-1.00	.00	205.07	205.07	.00	.00	.00	2.05	-1.00	.02
280-123814-B-2	5/22/2019	8:22 PM	21.69	-1.00	6.54	-1.00	-1.00	-1.00	.00	38.89	38.89	.00	.00	.00	.39	-1.00	.02
280-123820-I-2	5/22/2019	8:30 PM	21.66	-1.00	7.80	-1.00	-1.00	-1.00	.00	560.22	560.22	.00	.00	.00	5.60	-1.00	.02
280-123820-I-3	5/22/2019	8:38 PM	21.89	-1.00	8.04	-1.00	-1.00	-1.00	.00	470.66	470.66	.00	.00	.00	4.71	-1.00	.02
280-123820-I-4	5/22/2019	8:48 PM	22.00	-1.00	8.04	-1.00	-1.00	-1.00	.00	777.04	777.04	.00	.00	.00	7.77	-1.00	.02

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Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
ccv	5/22/2019	8:54 PM	22.20	-1.00	10.45	-1.00	-1.00	-1.00	94.65	196.93	7.63	189.30	.00	.95	1.97	-1.00	.02
ccb	5/22/2019	8:59 PM	22.23	-1.00	6.50	-1.00	-1.00	-1.00	.00	1.24	1.24	.00	.00	.00	.03	.04	.02
lcs	5/22/2019	9:05 PM	22.37	-1.00	10.44	-1.00	-1.00	-1.00	94.96	197.74	7.83	189.91	.00	.95	1.98	-1.00	.02
mb	5/22/2019	9:10 PM	22.57	-1.00	6.67	-1.00	-1.00	-1.00	.00	1.25	1.25	.00	.00	.00	.03	.04	.02
280-123820-I-5	5/22/2019	9:18 PM	22.37	-1.00	7.75	-1.00	-1.00	-1.00	.00	682.57	682.57	.00	.00	.00	6.83	-1.00	.02
du	5/22/2019	9:28 PM	22.40	-1.00	7.77	-1.00	-1.00	-1.00	.00	708.79	708.79	.00	.00	.00	7.09	-1.00	.02
280-123843-A-1	5/22/2019	9:34 PM	22.42	-1.00	7.89	-1.00	-1.00	-1.00	.00	302.34	302.34	.00	.00	.00	3.02	-1.00	.02
280-123843-A-2	5/22/2019	9:42 PM	22.25	-1.00	7.44	-1.00	-1.00	-1.00	.00	569.30	569.30	.00	.00	.00	5.69	-1.00	.02
280-123843-A-3 Leak	5/22/2019	9:48 PM	22.35	-1.00	7.93	-1.00	-1.00	-1.00	.00	286.08	286.08	.00	.00	.00	2.86	-1.00	.02
280-123843-A-4	5/22/2019	9:55 PM	22.35	-1.00	7.95	-1.00	-1.00	-1.00	.00	352.28	352.28	.00	.00	.00	3.52	-1.00	.02
280-123843-A-5	5/22/2019	10:01 PM	22.43	-1.00	7.96	-1.00	-1.00	-1.00	.00	300.76	300.76	.00	.00	.00	3.01	-1.00	.02
280-123844-A-1	5/22/2019	10:08 PM	22.54	-1.00	8.38	-1.00	-1.00	-1.00	4.60	325.16	315.96	9.19	.00	.05	3.25	-1.00	.02
280-123845-D-2	5/22/2019	10:15 PM	22.70	-1.00	7.55	-1.00	-1.00	-1.00	.00	424.55	424.55	.00	.00	.00	4.25	-1.00	.02
280-123845-C-6	5/22/2019	10:23 PM	22.99	-1.00	7.56	-1.00	-1.00	-1.00	.00	585.11	585.11	.00	.00	.00	5.85	-1.00	.02
ccv	5/22/2019	10:30 PM	22.87	-1.00	10.41	-1.00	-1.00	-1.00	92.22	198.25	13.80	184.45	.00	.92	1.98	-1.00	.02
ccb	5/22/2019	10:34 PM	22.69	-1.00	6.42	-1.00	-1.00	-1.00	.00	1.09	1.09	.00	.00	.00	.03	.04	.02
280-123845-C-8	5/22/2019	10:42 PM	22.52	-1.00	7.76	-1.00	-1.00	-1.00	.00	454.07	454.07	.00	.00	.00	4.54	-1.00	.02
280-123845-C-10	5/22/2019	10:48 PM	22.58	-1.00	7.81	-1.00	-1.00	-1.00	.00	357.65	357.65	.00	.00	.00	3.58	-1.00	.02
280-123845-A-11	5/22/2019	10:56 PM	22.57	-1.00	7.72	-1.00	-1.00	-1.00	.00	526.16	526.16	.00	.00	.00	5.26	-1.00	.02
280-123845-C-13	5/22/2019	11:05 PM	22.70	-1.00	7.59	-1.00	-1.00	-1.00	.00	623.65	623.65	.00	.00	.00	6.24	-1.00	.02
280-123845-C-14	5/22/2019	11:13 PM	22.78	-1.00	7.64	-1.00	-1.00	-1.00	.00	621.85	621.85	.00	.00	.00	6.22	-1.00	.02
280-123845-C-15	5/22/2019	11:19 PM	22.89	-1.00	7.85	-1.00	-1.00	-1.00	.00	360.91	360.91	.00	.00	.00	3.61	-1.00	.02
280-123845-A-21	5/22/2019	11:26 PM	22.89	-1.00	7.89	-1.00	-1.00	-1.00	.00	304.50	304.50	.00	.00	.00	3.05	-1.00	.02
280-123845-A-24	5/22/2019	11:32 PM	22.95	-1.00	7.88	-1.00	-1.00	-1.00	.00	348.47	348.47	.00	.00	.00	3.48	-1.00	.02
280-123846-D-2	5/22/2019	11:35 PM	23.17	-1.00	3.29	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-123853-H-1	5/22/2019	11:42 PM	22.95	-1.00	7.94	-1.00	-1.00	-1.00	.00	270.00	270.00	.00	.00	.00	2.70	-1.00	.02
ccv	5/22/2019	11:48 PM	22.95	-1.00	10.37	-1.00	-1.00	-1.00	89.33	201.11	22.45	178.66	.00	.89	2.01	-1.00	.02
ccb	5/22/2019	11:53 PM	22.90	-1.00	6.55	-1.00	-1.00	-1.00	.00	1.07	1.07	.00	.00	.00	.03	.04	.02
280-123853-J-2	5/22/2019	11:58 PM	22.75	-1.00	7.95	-1.00	-1.00	-1.00	.00	149.89	149.89	.00	.00	.00	1.50	-1.00	.02
280-123853-J-3	5/23/2019	12:04 AM	22.75	-1.00	8.10	-1.00	-1.00	-1.00	.00	160.57	160.57	.00	.00	.00	1.61	-1.00	.02

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Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123853-H-4	5/23/2019	12:10 AM	22.75	-1.00	7.99	-1.00	-1.00	-1.00	.00	70.20	70.20	.00	.00	.00	.70	-1.00	.02
280-123853-H-5	5/23/2019	12:16 AM	22.84	-1.00	8.00	-1.00	-1.00	-1.00	.00	70.76	70.76	.00	.00	.00	.71	-1.00	.02
280-123853-J-6	5/23/2019	12:22 AM	22.87	-1.00	8.11	-1.00	-1.00	-1.00	.00	199.68	199.68	.00	.00	.00	2.00	-1.00	.02
280-123863-B-4	5/23/2019	12:30 AM	22.90	-1.00	8.12	-1.00	-1.00	-1.00	.00	639.93	639.93	.00	.00	.00	6.40	-1.00	.02
280-123924-B-1	5/23/2019	12:36 AM	23.04	-1.00	8.11	-1.00	-1.00	-1.00	.00	157.18	157.18	.00	.00	.00	1.57	-1.00	.02
280-123924-B-2	5/23/2019	12:42 AM	23.31	-1.00	8.16	-1.00	-1.00	-1.00	.00	112.35	112.35	.00	.00	.00	1.12	-1.00	.02
280-123924-A-3	5/23/2019	12:47 AM	23.25	-1.00	8.12	-1.00	-1.00	-1.00	.00	215.31	215.31	.00	.00	.00	2.15	-1.00	.02
280-123924-A-4	5/23/2019	12:55 AM	23.17	-1.00	7.52	-1.00	-1.00	-1.00	.00	374.00	374.00	.00	.00	.00	3.74	-1.00	.02
ccv	5/23/2019	1:01 AM	23.12	-1.00	10.36	-1.00	-1.00	-1.00	88.82	198.65	21.01	177.64	.00	.89	1.99	-1.00	.02
ccb	5/23/2019	1:06 AM	23.11	-1.00	6.37	-1.00	-1.00	-1.00	.00	1.03	1.03	.00	.00	.00	.03	.04	.02
lcs	5/23/2019	1:11 AM	22.86	-1.00	10.37	-1.00	-1.00	-1.00	90.45	198.58	17.68	180.91	.00	.90	1.99	-1.00	.02
mb	5/23/2019	1:16 AM	22.96	-1.00	6.46	-1.00	-1.00	-1.00	.00	1.21	1.21	.00	.00	.00	.03	.04	.02
280-123924-A-5	5/23/2019	1:22 AM	22.90	-1.00	8.15	-1.00	-1.00	-1.00	.00	161.43	161.43	.00	.00	.00	1.61	-1.00	.02
du	5/23/2019	1:26 AM	23.12	-1.00	6.63	-1.00	-1.00	-1.00	.00	10.35	10.35	.00	.00	.00	.12	.13	.02
280-123924-B-6	5/23/2019	1:33 AM	23.01	-1.00	7.97	-1.00	-1.00	-1.00	.00	407.87	407.87	.00	.00	.00	4.08	-1.00	.02
280-123924-B-7	5/23/2019	1:39 AM	23.07	-1.00	8.17	-1.00	-1.00	-1.00	.00	214.31	214.31	.00	.00	.00	2.14	-1.00	.02
280-123924-B-8	5/23/2019	1:45 AM	23.11	-1.00	8.18	-1.00	-1.00	-1.00	.00	209.97	209.97	.00	.00	.00	2.10	-1.00	.02
280-123924-B-9	5/23/2019	1:51 AM	23.35	-1.00	8.18	-1.00	-1.00	-1.00	.00	210.20	210.20	.00	.00	.00	2.10	-1.00	.02
280-123924-A-10	5/23/2019	1:56 AM	23.25	-1.00	7.48	-1.00	-1.00	-1.00	.00	85.80	85.80	.00	.00	.00	.86	-1.00	.02
280-123924-A-11	5/23/2019	2:02 AM	23.17	-1.00	7.85	-1.00	-1.00	-1.00	.00	88.82	88.82	.00	.00	.00	.89	-1.00	.02
280-123924-B-12	5/23/2019	2:08 AM	23.15	-1.00	8.09	-1.00	-1.00	-1.00	.00	209.29	209.29	.00	.00	.00	2.09	-1.00	.02
280-123955-A-1	5/23/2019	2:16 AM	23.14	-1.00	7.81	-1.00	-1.00	-1.00	.00	436.20	436.20	.00	.00	.00	4.36	-1.00	.02
ccv	5/23/2019	2:21 AM	23.09	-1.00	10.35	-1.00	-1.00	-1.00	88.99	200.53	22.56	177.97	.00	.89	2.01	-1.00	.02
ccb	5/23/2019	2:24 AM	23.01	-1.00	3.73	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
lcs	5/23/2019	2:30 AM	22.86	-1.00	10.30	-1.00	-1.00	-1.00	85.04	196.74	26.65	170.09	.00	.85	1.97	-1.00	.02
mb	5/23/2019	2:35 AM	23.04	-1.00	7.04	-1.00	-1.00	-1.00	.00	1.25	1.25	.00	.00	.00	.03	.05	.02
280-123955-A-2	5/23/2019	2:39 AM	23.03	-1.00	6.65	-1.00	-1.00	-1.00	.00	1.51	1.51	.00	.00	.00	.03	.05	.02
du	5/23/2019	2:44 AM	23.06	-1.00	6.58	-1.00	-1.00	-1.00	.00	1.34	1.34	.00	.00	.00	.03	.05	.02
280-123955-A-3	5/23/2019	2:52 AM	23.38	-1.00	7.76	-1.00	-1.00	-1.00	.00	615.92	615.92	.00	.00	.00	6.16	-1.00	.02
280-123955-A-4	5/23/2019	3:01 AM	23.43	-1.00	7.73	-1.00	-1.00	-1.00	.00	650.48	650.48	.00	.00	.00	6.50	-1.00	.02

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Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123955-A-5	5/23/2019	3:08 AM	23.44	-1.00	7.86	-1.00	-1.00	-1.00	.00	511.51	511.51	.00	.00	.00	5.12	-1.00	.02
280-123955-A-6	5/23/2019	3:16 AM	23.39	-1.00	7.89	-1.00	-1.00	-1.00	.00	380.89	380.89	.00	.00	.00	3.81	-1.00	.02
280-123955-A-7	5/23/2019	3:22 AM	23.33	-1.00	7.98	-1.00	-1.00	-1.00	.00	342.38	342.38	.00	.00	.00	3.42	-1.00	.02
280-123955-A-8	5/23/2019	3:29 AM	23.30	-1.00	7.86	-1.00	-1.00	-1.00	.00	480.25	480.25	.00	.00	.00	4.80	-1.00	.02
280-123955-A-9	5/23/2019	3:37 AM	23.25	-1.00	7.91	-1.00	-1.00	-1.00	.00	453.90	453.90	.00	.00	.00	4.54	-1.00	.02
280-123955-A-10	5/23/2019	3:45 AM	23.23	-1.00	7.72	-1.00	-1.00	-1.00	.00	629.93	629.93	.00	.00	.00	6.30	-1.00	.02
ccv	5/23/2019	3:51 AM	23.28	-1.00	10.28	-1.00	-1.00	-1.00	84.05	200.32	32.22	168.09	.00	.84	2.00	-1.00	.02
ccb	5/23/2019	3:56 AM	23.27	-1.00	5.44	-1.00	-1.00	-1.00	.00	.30	.30	.00	.00	.00	.02	.04	.02

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2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

06/11/2019

Batch Number: 280-458975

Analyst: Cherry, Scott V

Batch Open: 5/21/2019 8:04:00PM

Batch End:

Solids, Total Dissolved (TDS)

Conductivity

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~280-458975/1 N/A	N/A		0.69	100	N/A	N/A	N/A		
2	LCS~280-458975/2 N/A	N/A		—	100	N/A	N/A	N/A		
3	280-123853-A-1 (2540C_Calcd)	N/A (280-123853-1)	Water	2791	25	6/4/19	12_Days	4		
4	280-123853-A-1 (2540C_Calcd)	N/A (280-123853-1)	Water	2791	25	6/4/19	12_Days	4		
5	280-123853-A-2 (2540C_Calcd)	N/A (280-123853-1)	Water	2656	25	6/4/19	12_Days	4		
6	280-123853-A-3 (2540C_Calcd)	N/A (280-123853-1)	Water	490	100	6/4/19	12_Days	4		
7	280-123853-B-4 (2540C_Calcd)	N/A (280-123853-1)	Water	622	100	6/4/19	12_Days	4		
8	280-123853-B-5 (2540C_Calcd)	N/A (280-123853-1)	Water	632	100	6/4/19	12_Days	4		
9	280-123853-B-6 (2540C_Calcd)	N/A (280-123853-1)	Water	1189	100	6/4/19	12_Days	4		
10	280-123941-I-2 (2540C_Calcd)	N/A (280-123941-1)	Water	Hist	50	6/5/19	12_Day_Rush	2		
11	280-123941-I-4 (2540C_Calcd)	N/A (280-123941-1)	Water		50	6/5/19	12_Day_Rush	2		
12	280-123941-I-5 (2540C_Calcd)	N/A (280-123941-1)	Water		25	6/5/19	12_Day_Rush	2		
13	280-123941-I-6 (2540C_Calcd)	N/A (280-123941-1)	Water		100	6/5/19	12_Day_Rush	2		
14	280-123941-I-7 (2540C_Calcd)	N/A (280-123941-1)	Water		100	6/5/19	12_Day_Rush	2		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-458975

Analyst: Cherry, Scott V

Batch Open: 5/21/2019 8:04:00PM

Batch End:

15	280-123854-A-1 (2540C_Calcd)	N/A (280-123854-1)	Water	3460	25	5/29/19	8_Day_Rush	2	
16	280-123854-A-2 (2540C_Calcd)	N/A (280-123854-1)	Water	9860	5	5/29/19	8_Day_Rush	2	
17	280-123854-A-3 (2540C_Calcd)	N/A (280-123854-1)	Water	3750	25	5/29/19	8_Day_Rush	2	
18	280-123854-A-4 (2540C_Calcd)	N/A (280-123854-1)	Water	4760	25	5/29/19	8_Day_Rush	2	
19	280-123854-A-5 (2540C_Calcd)	N/A (280-123854-1)	Water	4380	25	5/29/19	8_Day_Rush	2	
20	280-123854-A-6 (2540C_Calcd)	N/A (280-123854-1)	Water	5860	10	5/29/19	8_Day_Rush	2	
21	280-123854-A-7 (2540C_Calcd)	N/A (280-123854-1)	Water	3250	25	5/29/19	8_Day_Rush	2	
22	280-123854-A-8 (2540C_Calcd)	N/A (280-123854-1)	Water	2995	25	5/29/19	8_Day_Rush	2	
23	280-123854-A-9 (2540C_Calcd)	N/A (280-123854-1)	Water	1149	50	5/29/19	8_Day_Rush	2	
24	280-123854-A-9 (2540C_Calcd)	N/A (280-123854-1)	Water	1149	50	5/29/19	8_Day_Rush	2	

06/11/2019

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COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.428	149.1	-0.1864	-0.11184

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.447	149.1	-6.8136	-4.08816

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.488	149.1	-21.1144	-12.66864

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.495	149.1	-23.556	-14.1336

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.476	149.1	-16.9288	-10.15728

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.474	149.1	-16.2312	-9.73872

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.478	149.1	-17.6264	-10.57584

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.385	149.1	14.812	8.8872

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.457	149.1	-10.3016	-6.18096

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.483	149.1	-19.3704	-11.62224

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.474	149.1	-16.2312	-9.73872

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.465	149.1	-13.092	-7.8552

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.420	149.1	2.604	1.5624

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.408	149.1	6.7896	4.07376

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.055	149.1	129.916	77.9496

TALS Raw Data Report

Job Number: 280-123853-1
LIMS Batch: 458482
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458482/1** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		0.719 mg/L	0.719 J mg/L	90	75 125		

RS# 2 Lab ID: **USB 280-458482/2** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		333333333 mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458482/3** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		333333334 mg/L	mg/L	102	58 128		
Biochemical Oxygen		mg/L	mg/L	NaN	85 115		

RS# 4 Lab ID: **MB 280-458482/4** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 5 Lab ID: **280-123867-A-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		1.531 mg/L	mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 6 Lab ID: **280-123867-A-1 DU** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				20
Biochemical Oxygen		mg/L	mg/L				20

RS# 8 Lab ID: **LCS 280-458482/8** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		4.041 mg/L	mg/L	102	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 9 Lab ID: **MB 280-458482/9** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 10 Lab ID: **280-123853-B-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 11 Lab ID: **280-123853-B-1 DU** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

RS# 12 Lab ID: **280-123853-B-2** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 13 Lab ID: **280-123853-B-3** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 14 Lab ID: **280-123853-A-4** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 15 Lab ID: **280-123853-A-5** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 16 Lab ID: **280-123853-A-6** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 23 Lab ID: **280-123867-B-1** Inj Date: 5/16/2019 4:32:45PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123855-1
LIMS Batch: 458482
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458482/1** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		0.719 mg/L	0.719 J mg/L	90	75 125		

RS# 2 Lab ID: **USB 280-458482/2** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		333333333 mg/L	0.59 U mg/L				

RS# 8 Lab ID: **LCS 280-458482/8** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		4.041 mg/L	mg/L	102	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 9 Lab ID: **MB 280-458482/9** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 10 Lab ID: **280-123853-B-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 11 Lab ID: **280-123853-B-1 DU** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

RS# 17 Lab ID: **280-123855-A-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 18 Lab ID: **280-123855-B-2** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 19 Lab ID: **280-123855-B-3** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 20 Lab ID: **280-123855-B-4** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 21 Lab ID: **280-123855-A-5** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 22 Lab ID: **280-123855-A-6** Inj Date: 5/16/2019 4:32:45PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123867-1
LIMS Batch: 458482
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458482/1** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		0.719 mg/L	0.719 J mg/L	90	75 125		

RS# 2 Lab ID: **USB 280-458482/2** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		333333333 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458482/3** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		333333334 mg/L	202 J mg/L	102	58 128		
Biochemical Oxygen		mg/L	mg/L	NaN	85 115		

RS# 4 Lab ID: **MB 280-458482/4** Inj Date: 5/16/2019 4:27:52PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 5 Lab ID: **280-123867-A-1** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		1.531 mg/L	1.9 J mg/L				
Biochemical Oxygen		mg/L	mg/L				

RS# 6 Lab ID: **280-123867-A-1 DU** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		ND mg/L	mg/L				20
Biochemical Oxygen		mg/L	mg/L				20

RS# 7 Lab ID: **280-123867-A-2** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		mg/L	mg/L				
Carbonaceous Bioch		ND mg/L	mg/L				

RS# 8 Lab ID: **LCS 280-458482/8** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		4.041 mg/L	mg/L	102	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 9 Lab ID: **MB 280-458482/9** Inj Date: 5/16/2019 4:27:59PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 23 Lab ID: **280-123867-B-1** Inj Date: 5/16/2019 4:32:45PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

RS# 24 Lab ID: **280-123867-B-2** Inj Date: 5/16/2019 4:32:45PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

Shipping and Receiving Documents

Chain of Custody Record 299607

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Marcia Oliva	Site Contact:	Date: 5/15/19	COC No:
Company Name: Bhate Environmental	Tel/Fax: 303-725-7631	Lab Contact:	Carrier:	___ of ___ COCs
Address: 445 Union Blvd. #129	Analysis Turnaround Time			Sampler: G. Carmichael, H. Carraugh
City/State/Zip: Lakewood, CO 80228	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 303-725-7631	TAT if different from Below ____			Walk-in Client:
Fax: EMAIL: moliva@bhate.com	☐ 2 weeks			Lab Sampling:
Project Name: GRIFFIS	☐ 1 week			
Site: LF009 Landfill 6	☐ 2 days			Job / SDG No.:
P O # 3342	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Alkalinity [2320B]	Color [2120B]	Anions [9056A_28D_DOD5]	Anions [9056A_48H_DOD5]	Hardness [2340C]	Total Metal-Boron [6010C_DOD5]	Ammonia [350.1]	TKN [351.2]	COD [410.4]	TOC [9060A]	Phenolics [9066]	BOD [SM5210B_BODpak]	TDS [2540C (calc)]	Sample Specific Notes:
LF6MW-1_0519	5/15/19	14:15		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
775YMW-18R_0519		14:18		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
TMC-USGS-2_0519		17:00		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF6VMW-21_0519		16:38		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF6VMW-21_0519-9		16:38		GW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	
LF6/TMCSW-3_0519	↓	17:30		SW	10	N		X	X	X	X	X	X	X	X	X	X	X	X	X	

280-123853 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

ROP 5-16-19 2.9, 1.3, 0.8 2.9, 1.3, 0.8

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: ~~2.8~~	Corr'd:	Therm ID No.: IR9

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
H. Carraugh	ECC	5/15/19 18:10		TH-DEN	5-16-19 0855
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

06/11/2019

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Login Sample Receipt Checklist

Client: Bhate Environmental

Job Number: 280-123853-1

Login Number: 123853
List Number: 1
Creator: Paul, Ryan D

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 280-123924-1

Job Description: Griffiss AFB, LF009 Landfill 6

For:
Bhate Environmental
445 Union Blvd Ste.129
Lakewood, CO 80226

Attention: Marcia Olive



Approved for release.
Kayse 1 Zalmai
Project Manager I
6/25/2019 1:14 PM

Kayse 1 Zalmai, Project Manager I
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
kayse.zalmai@testamericainc.com
06/25/2019
Revision: 1

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Qualifiers

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
D	The reported value is from a dilution.
H	Sample was prepped or analyzed beyond the specified holding time
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE
Client: Bhate Environmental
Project: Griffiss AFB, LF009 Landfill 6
Report Number: 280-123924-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interfererences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/17/2019; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 3.2º C, 3.4º C, 4.3º C, 4.7º C, 4.8º C and 5.1º C.

RECEIPT EXCEPTIONS

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): LF6/TMCSW-2_0519-a (280-123924-9). Multiple container labels do not list a collection time. The samples were logged per the COC.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for total metals (ICP) in accordance with 6010C. The samples were prepared on 05/24/2019 and analyzed on 05/24/2019 and 05/25/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/30/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL KJELDAHL NITROGEN

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 06/06/2019 and analyzed on 06/07/2019.

The matrix spike /matrix spike duplicate (MS/MSD) recoveries for method 351.2 preparation batch 280-460760 and analytical batch

280-460878 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The samples were analyzed on 06/07/2019 and 06/08/2019.

Samples LF6VMW-22_0519 (280-123924-1)[2X], LF6VMW-26_0519 (280-123924-3)[2X], LF6VMW-24_0519 (280-123924-5)[2X], TMCMW-9_0519 (280-123924-6)[2X], LF6/TMCSW-1_0519 (280-123924-7)[2X], LF6/TMCSW-2_0519-a (280-123924-9)[2X] and LF6LH-2_0519 (280-123924-12)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AND ORTHOPHOSPHATE AS P

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for nitrate-nitrite and orthophosphate as P in accordance with 9056A_48H_DOD5. The samples were analyzed on 05/18/2019, 06/03/2019 and 06/04/2019.

Nitrate and Orthophosphate as P failed the recovery criteria high for the MS and MSD of sample LF6VMW-22_0519MS/MSD (280-123924-1) in batch 280-460231.Orthophosphate as P failed the recovery criteria high for the MSD of sample LF6VMW-10R2_0519MSD (280-123924-2) in batch 280-458552.Orthophosphate as P exceeded the RPD limit. Sample matrix interference is suspected.

Samples LF6VMW-24_0519 (280-123924-5)[5X], LF6/TMCSW-1_0519 (280-123924-7)[5X], LF6/TMCSW-2_0519 (280-123924-8)[5X], LF6/TMCSW-2_0519-a (280-123924-9)[5X] and LF6LH-2_0519 (280-123924-12)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Reanalysis of the following samples were performed outside of the analytical holding time for orthophosphate due to CCV failure during initial analysis: LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), TMCMW-9_0519 (280-123924-6) and LF6W-1_0519 (280-123924-10).

The following sample(s) was received with less than 2 days remain on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12).

The continuing calibration verification (CCV) associated with batch 280-458552 recovered above the upper control limit for orthophosphate, method 9056A_48HR. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-24_0519 (280-123924-5), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFATE

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for sulfate in accordance with 9056A. The samples were analyzed on 05/18/2019, 06/03/2019 and 06/04/2019.

Fluoride was detected in method blank MB 280-460232/6 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

Chloride failed the recovery criteria low for the MS and MSD of sample LF6VMW-10R2_0519MS/MSD (280-123924-2) in batch 280-458553. Sample matrix interference is suspected.

Sample LF6VMW-24_0519 (280-123924-5)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 06/11/2019 and 06/12/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PHENOLICS, TOTAL RECOVERABLE

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for phenolics, total recoverable in accordance with EPA SW-846 Method 9066. The samples were prepared on 06/06/2019 and 06/07/2019 and analyzed on 06/06/2019 and 06/09/2019.

Phenols,Total was detected in method blank MB 280-460749/2-A at a level that was above the detection limit but below half the limit of quantitation (½ LOQ); therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

COLOR

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for color in accordance with SM20 2120B - Colorimetric. The samples were analyzed on 05/17/2019.

Sample LF6VMW-12_0519 (280-123924-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for alkalinity in accordance with SM20 2320B. The samples were analyzed on 05/23/2019 and 05/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HARDNESS

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for hardness in accordance with SM20 2340C. The samples were analyzed on 05/24/2019.

Reanalysis of the following samples were performed outside of the analytical holding time due to QC failure during initial analysis: LF6VMW-10R2_0519 (280-123924-2), LF6W-1_0519 (280-123924-10) and LF6LH-1_0519 (280-123924-11).

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 05/22/2019 and 06/10/2019.

The method blank for analytical batch 280-459057 contained TDS above the limit of quantitation (LOQ). Associated sample(s) were not re-extracted and/or re-analyzed because sample results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND

Samples LF6VMW-22_0519 (280-123924-1), LF6VMW-10R2_0519 (280-123924-2), LF6VMW-26_0519 (280-123924-3), LF6VMW-12_0519 (280-123924-4), LF6VMW-24_0519 (280-123924-5), TMCMW-9_0519 (280-123924-6), LF6/TMCSW-1_0519 (280-123924-7), LF6/TMCSW-2_0519 (280-123924-8), LF6/TMCSW-2_0519-a (280-123924-9), LF6W-1_0519 (280-123924-10), LF6LH-1_0519 (280-123924-11) and LF6LH-2_0519 (280-123924-12) were analyzed for Biochemical Oxygen Demand in accordance with SM20 5210B. The samples were analyzed on 05/17/2019.

Biochemical Oxygen Demand was detected in method blank SCB 280-458606/1 at a level that was above the detection limit but below half the limit of quantitation (1/2 LOQ); therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Bhate Environmental
Job ID: 280-123924-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Client Sample ID: LF6VMW-22_0519 — Lab Sample ID: 280-123924-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	8.3	J	100	4.4	ug/L	1		6010C	Total/NA
Nitrogen, Kjeldahl	0.81	J	1.0	0.69	mg/L	1		351.2	Total/NA
Nitrate Nitrite as N	0.64		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	4.7		3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.32	J Q	0.50	0.19	mg/L	1		9056A	Total/NA
Nitrate	0.64		0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	8.3		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	0.66	J	1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0075	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	15		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	160		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	180	B	10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6VMW-10R2_0519 — Lab Sample ID: 280-123924-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	6.1	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.077	J	0.10	0.022	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.65		0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	4.0	M J1	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.26	J J1 Q	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.066	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.65	M	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	10	J1	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	0.53	J	1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0095	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	5.0		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	110		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	130		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	160	H	10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6VMW-26_0519 — Lab Sample ID: 280-123924-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	53	J	100	4.4	ug/L	1		6010C	Total/NA
Bromide	2.1		0.50	0.11	mg/L	1		9056A	Total/NA
Chloride	170		3.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	0.67	J	1.0	0.060	mg/L	1		9056A	Total/NA
Sulfate	24		5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	0.63	J	1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.026		0.020	0.0068	mg/L	1		9066	Total/NA
Color	10		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	220		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	300		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	490	B	10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6MW-12_0519 — Lab Sample ID: 280-123924-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	37	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.29		0.10	0.022	mg/L	1		350.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF6MW-12_0519 (Continued) — Lab Sample ID: 280-123924-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Chemical Oxygen Demand (COD)	50		20	8.7	mg/L	1		410.4	Total/NA
Bromide	1.7		0.50	0.11	mg/L	1		9056A	Total/NA
Chloride	120		3.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	0.59	J	1.0	0.060	mg/L	1		9056A	Total/NA
Sulfate	13	M	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	4.6		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.021		0.020	0.0068	mg/L	1		9066	Total/NA
Color	75	D	25	25	PCU	5		SM 2120B	Total/NA
Alkalinity	370		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	460		6.0	0.60	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	580	B	10	4.7	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	57		24	2.8	mg/L	1		SM5210B	Total/NA

Client Sample ID: LF6VMW-24_0519 — Lab Sample ID: 280-123924-5

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	15	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.15		0.10	0.022	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	3.4		1.0	0.69	mg/L	1		351.2	Total/NA
Nitrate Nitrite as N	0.92	H	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	290	D	15	5.1	mg/L	5		9056A	Total/NA
Orthophosphate as P	1.2	J H D Q M	2.5	0.94	mg/L	5		9056A	Total/NA
Fluoride	0.98	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.92	H	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	18	M	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	0.64	J	1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.015	J	0.020	0.0068	mg/L	1		9066	Total/NA
Alkalinity	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	240		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	660	B	20	9.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: TMCMW-9_0519 — Lab Sample ID: 280-123924-6

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	110		100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.60		0.10	0.022	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.77	H	0.50	0.042	mg/L	1		9056A	Total/NA
Chloride	34		3.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	0.46	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.77	H M	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	44	M	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	2.5		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.015	J	0.020	0.0068	mg/L	1		9066	Total/NA
Alkalinity	410		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	420		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	520	B	10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6/TMCSW-1_0519 — Lab Sample ID: 280-123924-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	15	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.030	J	0.10	0.022	mg/L	1		350.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF6/TMCSW-1_0519 (Continued) — Lab Sample ID: 280-123924-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Nitrate Nitrite as N	200	H	0.50	0.042	mg/L	1		9056A	Total/NA
Fluoride	0.061	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.23	J H	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	24	M	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	3.1		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.012	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	25		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	220		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	270		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	730	B	20	9.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6/TMCSW-2_0519 — Lab Sample ID: 280-123924-8

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	15	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.032	J	0.10	0.022	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand (COD)	9.3	J	20	8.7	mg/L	1		410.4	Total/NA
Nitrate Nitrite as N	190	H	0.50	0.042	mg/L	1		9056A	Total/NA
Fluoride	0.064	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.71	H M	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	23	M	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	3.6		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.015	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	30		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	210		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	270		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	670	B	20	9.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6/TMCSW-2_0519-a — Lab Sample ID: 280-123924-9

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	15	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.032	J	0.10	0.022	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	190	H	0.50	0.042	mg/L	1		9056A	Total/NA
Fluoride	0.86	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.71	H M	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	23	M	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	3.6		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.010	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	30		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	210		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	260		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	700	B	20	9.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6W-1_0519 — Lab Sample ID: 280-123924-10

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	4.7	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.025	J	0.10	0.022	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand (COD)	68		20	8.7	mg/L	1		410.4	Total/NA
Chloride	1.1	J	3.0	1.0	mg/L	1		9056A	Total/NA
Fluoride	0.088	J	1.0	0.060	mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF6W-1_0519 (Continued)
Lab Sample ID: 280-123924-10

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1.2	J M	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	9.5		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.012	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	50		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	87		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	72		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	100	H	10	4.7	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	2.8		2.5	0.30	mg/L	1		SM5210B	Total/NA

Client Sample ID: LF6LH-1_0519
Lab Sample ID: 280-123924-11

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	8.4	J	100	4.4	ug/L	1		6010C	Total/NA
Chemical Oxygen Demand (COD)	40		20	8.7	mg/L	1		410.4	Total/NA
Chloride	1.7	J	3.0	1.0	mg/L	1		9056A	Total/NA
Orthophosphate as P	0.38	J H Q M	0.50	0.19	mg/L	1		9056A	Total/NA
Fluoride	0.085	J	1.0	0.060	mg/L	1		9056A	Total/NA
Sulfate	6.7	M	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	11		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0071	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	40		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	90		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	110		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	120	H	10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: LF6LH-2_0519
Lab Sample ID: 280-123924-12

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Boron	14	J	100	4.4	ug/L	1		6010C	Total/NA
Ammonia	0.035	J	0.10	0.022	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	190	H	0.50	0.042	mg/L	1		9056A	Total/NA
Fluoride	0.066	J	1.0	0.060	mg/L	1		9056A	Total/NA
Nitrate	0.71	H M	0.50	0.042	mg/L	1		9056A	Total/NA
Sulfate	24	M	5.0	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Quad	3.5		1.0	0.16	mg/L	1		9060A	Total/NA
Phenols, Total	0.0094	J	0.020	0.0068	mg/L	1		9066	Total/NA
Color	30		5.0	5.0	PCU	1		SM 2120B	Total/NA
Alkalinity	210		10	3.1	mg/L	1		SM 2320B	Total/NA
Hardness	270		3.0	0.30	mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids (TDS)	670	B	20	9.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: LF6VMW-22_0519
Lab Sample ID: 280-123924-1

Date Collected: 05/16/19 09:15
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**8.3**	**J**	100	4.4	ug/L		05/24/19 06:00	05/24/19 23:56	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 12:16	1
Nitrogen, Kjeldahl	**0.81**	**J**	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:31	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/07/19 09:42	2
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 05:43	1
Nitrate Nitrite as N	**0.64**		0.50	0.042	mg/L			05/18/19 05:43	1
Chloride	**4.7**		3.0	1.0	mg/L			05/18/19 05:43	1
Orthophosphate as P	**0.32**	**J Q**	0.50	0.19	mg/L			05/18/19 05:43	1
Fluoride	0.10	U	1.0	0.060	mg/L			06/03/19 21:01	1
Nitrate	**0.64**		0.50	0.042	mg/L			05/18/19 05:43	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 05:43	1
Sulfate	**8.3**		5.0	1.0	mg/L			05/18/19 05:43	1
Total Organic Carbon - Quad	**0.66**	**J**	1.0	0.16	mg/L			06/11/19 10:53	1
Phenols, Total	**0.0075**	**J**	0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:17	1
Color	**15**		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**160**		10	3.1	mg/L			05/23/19 00:36	1
Hardness	**160**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**180**	**B**	10	4.7	mg/L			05/22/19 12:03	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF6VMW-10R2_0519
Lab Sample ID: 280-123924-2

Date Collected: 05/16/19 10:28
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.1**	**J**	100	4.4	ug/L		05/24/19 06:00	05/25/19 00:14	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.077**	**J**	0.10	0.022	mg/L			05/30/19 12:30	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:32	1
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/07/19 09:42	1
Bromide	0.20	U M	0.50	0.11	mg/L			05/18/19 06:32	1
Nitrate Nitrite as N	**0.65**		0.50	0.042	mg/L			05/18/19 06:32	1
Chloride	**4.0**	**M J1**	3.0	1.0	mg/L			05/18/19 06:32	1
Orthophosphate as P	**0.26**	**J J1 Q**	0.50	0.19	mg/L			05/18/19 06:32	1
Fluoride	**0.066**	**J**	1.0	0.060	mg/L			06/03/19 22:39	1
Nitrate	**0.65**	**M**	0.50	0.042	mg/L			05/18/19 06:32	1
Nitrite	0.10	U M	0.50	0.049	mg/L			05/18/19 06:32	1
Sulfate	**10**	**J1**	5.0	1.0	mg/L			05/18/19 06:32	1
Total Organic Carbon - Quad	**0.53**	**J**	1.0	0.16	mg/L			06/11/19 11:10	1
Phenols, Total	**0.0095**	**J**	0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:20	1
Color	**5.0**		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**110**		10	3.1	mg/L			05/23/19 00:42	1
Hardness	**130**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**160**	**H**	10	4.7	mg/L			06/10/19 13:59	1

Client Sample ID: LF6VMW-10R2_0519
Lab Sample ID: 280-123924-2
Date Collected: 05/16/19 10:28
Matrix: Water
Date Received: 05/17/19 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF6VMW-26_0519
Lab Sample ID: 280-123924-3
Date Collected: 05/16/19 09:25
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**53**	**J**	100	4.4	ug/L		05/24/19 06:00	05/25/19 00:17	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 12:32	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:33	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/07/19 09:42	2
Bromide	**2.1**		0.50	0.11	mg/L			05/18/19 05:59	1
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/18/19 05:59	1
Chloride	**170**		3.0	1.0	mg/L			05/18/19 05:59	1
Orthophosphate as P	0.20	U H	0.50	0.19	mg/L			06/03/19 22:56	1
Fluoride	**0.67**	**J**	1.0	0.060	mg/L			06/03/19 22:56	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/18/19 05:59	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/18/19 05:59	1
Sulfate	**24**		5.0	1.0	mg/L			05/18/19 05:59	1
Total Organic Carbon - Quad	**0.63**	**J**	1.0	0.16	mg/L			06/11/19 11:27	1
Phenols, Total	**0.026**		0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:23	1
Color	**10**		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**220**		10	3.1	mg/L			05/23/19 00:47	1
Hardness	**300**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**490**	**B**	10	4.7	mg/L			05/22/19 12:03	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF6MW-12_0519
Lab Sample ID: 280-123924-4
Date Collected: 05/16/19 10:35
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**37**	**J**	100	4.4	ug/L		05/24/19 06:00	05/25/19 00:35	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.29**		0.10	0.022	mg/L			05/30/19 12:34	1
Nitrogen, Kjeldahl	0.50	U J1	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:35	1
Chemical Oxygen Demand (COD)	**50**		20	8.7	mg/L			06/07/19 09:42	1
Bromide	**1.7**		0.50	0.11	mg/L			05/18/19 13:29	1
Nitrate Nitrite as N	0.10	U H	0.50	0.042	mg/L			05/18/19 13:29	1
Chloride	**120**		3.0	1.0	mg/L			05/18/19 13:29	1
Orthophosphate as P	0.20	U H	0.50	0.19	mg/L			06/03/19 23:12	1
Fluoride	**0.59**	**J**	1.0	0.060	mg/L			06/03/19 23:12	1
Nitrate	0.10	U H	0.50	0.042	mg/L			05/18/19 13:29	1
Nitrite	0.10	U H	0.50	0.049	mg/L			05/18/19 13:29	1

Client Sample ID: LF6MW-12_0519
Lab Sample ID: 280-123924-4
Date Collected: 05/16/19 10:35
Matrix: Water
Date Received: 05/17/19 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	13	M	5.0	1.0	mg/L			05/18/19 13:29	1
Total Organic Carbon - Quad	4.6		1.0	0.16	mg/L			06/11/19 11:46	1
Phenols, Total	0.021		0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:26	1
Color	75	D	25	25	PCU			05/17/19 23:18	5
Alkalinity	370		10	3.1	mg/L			05/23/19 00:55	1
Hardness	460		6.0	0.60	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	580	B	10	4.7	mg/L			05/22/19 12:03	1
Biochemical Oxygen Demand	57		24	2.8	mg/L			05/17/19 15:43	1

Client Sample ID: LF6VMW-24_0519
Lab Sample ID: 280-123924-5
Date Collected: 05/16/19 11:50
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15	J	100	4.4	ug/L		05/24/19 06:00	05/25/19 00:38	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.15		0.10	0.022	mg/L			05/30/19 12:40	1
Nitrogen, Kjeldahl	3.4		1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:46	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/07/19 09:50	2
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 14:01	1
Nitrate Nitrite as N	0.92	H	0.50	0.042	mg/L			05/18/19 14:01	1
Chloride	290	D	15	5.1	mg/L			05/18/19 14:18	5
Orthophosphate as P	1.2	J H D Q M	2.5	0.94	mg/L			05/18/19 14:18	5
Fluoride	0.98	J	1.0	0.060	mg/L			06/03/19 23:28	1
Nitrate	0.92	H	0.50	0.042	mg/L			05/18/19 14:01	1
Nitrite	0.10	U H	0.50	0.049	mg/L			05/18/19 14:01	1
Sulfate	18	M	5.0	1.0	mg/L			05/18/19 14:01	1
Total Organic Carbon - Quad	0.64	J	1.0	0.16	mg/L			06/11/19 12:00	1
Phenols, Total	0.015	J	0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:29	1
Color	5.0	U	5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	160		10	3.1	mg/L			05/24/19 21:48	1
Hardness	240		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	660	B	20	9.4	mg/L			05/22/19 12:03	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: TMCMW-9_0519
Lab Sample ID: 280-123924-6
Date Collected: 05/16/19 12:58
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	110		100	4.4	ug/L		05/24/19 06:00	05/25/19 00:42	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.60		0.10	0.022	mg/L			05/30/19 12:42	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:47	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/07/19 09:50	2

Client Sample ID: TMCMW-9_0519
Lab Sample ID: 280-123924-6
Date Collected: 05/16/19 12:58
Matrix: Water
Date Received: 05/17/19 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 14:34	1
Nitrate Nitrite as N	**0.77**	**H**	0.50	0.042	mg/L			05/18/19 14:34	1
Chloride	**34**		3.0	1.0	mg/L			05/18/19 14:34	1
Orthophosphate as P	0.20	U H	0.50	0.19	mg/L			06/03/19 23:45	1
Fluoride	**0.46**	**J**	1.0	0.060	mg/L			06/03/19 23:45	1
Nitrate	**0.77**	**H M**	0.50	0.042	mg/L			05/18/19 14:34	1
Nitrite	0.10	U H	0.50	0.049	mg/L			05/18/19 14:34	1
Sulfate	**44**	**M**	5.0	1.0	mg/L			05/18/19 14:34	1
Total Organic Carbon - Quad	**2.5**		1.0	0.16	mg/L			06/12/19 03:32	1
Phenols, Total	**0.015**	**J**	0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:32	1
Color	5.0	U	5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**410**		10	3.1	mg/L			05/24/19 22:06	1
Hardness	**420**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**520**	**B**	10	4.7	mg/L			05/22/19 12:03	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF6/TMCSW-1_0519
Lab Sample ID: 280-123924-7
Date Collected: 05/16/19 11:15
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**15**	**J**	100	4.4	ug/L		05/24/19 06:00	05/25/19 00:45	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.030**	**J**	0.10	0.022	mg/L			05/30/19 12:44	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:48	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/07/19 09:50	2
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 15:07	1
Nitrate Nitrite as N	**200**	**H**	0.50	0.042	mg/L			05/18/19 15:07	1
Chloride	3.0	U	3.0	1.0	mg/L			05/18/19 15:07	1
Orthophosphate as P	1.0	U H Q	2.5	0.94	mg/L			05/18/19 15:56	5
Fluoride	**0.061**	**J**	1.0	0.060	mg/L			06/04/19 00:01	1
Nitrate	**0.23**	**J H**	0.50	0.042	mg/L			05/18/19 15:07	1
Nitrite	0.50	U H	2.5	0.25	mg/L			05/18/19 15:56	5
Sulfate	**24**	**M**	5.0	1.0	mg/L			05/18/19 15:07	1
Total Organic Carbon - Quad	**3.1**		1.0	0.16	mg/L			06/12/19 03:47	1
Phenols, Total	**0.012**	**J**	0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:35	1
Color	**25**		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**220**		10	3.1	mg/L			05/24/19 22:13	1
Hardness	**270**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**730**	**B**	20	9.4	mg/L			05/22/19 12:03	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF6/TMCSW-2_0519
Lab Sample ID: 280-123924-8

Date Collected: 05/16/19 11:45
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**15**	**J**	100	4.4	ug/L		05/24/19 06:00	05/25/19 00:49	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.032**	**J**	0.10	0.022	mg/L			05/30/19 12:46	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:50	1
Chemical Oxygen Demand (COD)	**9.3**	**J**	20	8.7	mg/L			06/08/19 12:45	1
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 16:13	1
Nitrate Nitrite as N	**190**	**H**	0.50	0.042	mg/L			05/18/19 16:13	1
Chloride	3.0	U	3.0	1.0	mg/L			05/18/19 16:13	1
Orthophosphate as P	0.20	U H Q	0.50	0.19	mg/L			05/18/19 16:13	1
Fluoride	**0.064**	**J**	1.0	0.060	mg/L			06/04/19 00:18	1
Nitrate	**0.71**	**H M**	0.50	0.042	mg/L			05/18/19 16:13	1
Nitrite	0.50	U H	2.5	0.25	mg/L			05/18/19 16:29	5
Sulfate	**23**	**M**	5.0	1.0	mg/L			05/18/19 16:13	1
Total Organic Carbon - Quad	**3.6**		1.0	0.16	mg/L			06/12/19 04:37	1
Phenols, Total	**0.015**	**J**	0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:38	1
Color	**30**		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**210**		10	3.1	mg/L			05/24/19 22:18	1
Hardness	**270**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**670**	**B**	20	9.4	mg/L			05/22/19 12:03	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF6/TMCSW-2_0519-a
Lab Sample ID: 280-123924-9

Date Collected: 05/16/19 11:45
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**15**	**J**	100	4.4	ug/L		05/24/19 06:00	05/25/19 00:52	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.032**	**J**	0.10	0.022	mg/L			05/30/19 12:48	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:51	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/08/19 12:45	2
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 16:46	1
Nitrate Nitrite as N	**190**	**H**	0.50	0.042	mg/L			05/18/19 16:46	1
Chloride	3.0	U	3.0	1.0	mg/L			05/18/19 16:46	1
Orthophosphate as P	0.20	U H Q	0.50	0.19	mg/L			05/18/19 16:46	1
Fluoride	**0.86**	**J**	1.0	0.060	mg/L			06/04/19 00:34	1
Nitrate	**0.71**	**H M**	0.50	0.042	mg/L			05/18/19 16:46	1
Nitrite	0.50	U H	2.5	0.25	mg/L			05/18/19 17:02	5
Sulfate	**23**	**M**	5.0	1.0	mg/L			05/18/19 16:46	1
Total Organic Carbon - Quad	**3.6**		1.0	0.16	mg/L			06/12/19 05:28	1
Phenols, Total	**0.010**	**J**	0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:41	1
Color	**30**		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**210**		10	3.1	mg/L			05/24/19 22:24	1
Hardness	**260**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**700**	**B**	20	9.4	mg/L			05/22/19 12:03	1

Client Sample ID: LF6/TMCSW-2_0519-a
Lab Sample ID: 280-123924-9
Date Collected: 05/16/19 11:45
Matrix: Water
Date Received: 05/17/19 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF6W-1_0519
Lab Sample ID: 280-123924-10
Date Collected: 05/16/19 13:20
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.7**	**J**	100	4.4	ug/L		05/24/19 06:00	05/25/19 00:56	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.025**	**J**	0.10	0.022	mg/L			05/30/19 13:02	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:52	1
Chemical Oxygen Demand (COD)	**68**		20	8.7	mg/L			06/08/19 12:45	1
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 17:18	1
Nitrate Nitrite as N	0.10	U H	0.50	0.042	mg/L			05/18/19 17:18	1
Chloride	**1.1**	**J**	3.0	1.0	mg/L			05/18/19 17:18	1
Orthophosphate as P	0.20	U H	0.50	0.19	mg/L			06/04/19 00:50	1
Fluoride	**0.088**	**J**	1.0	0.060	mg/L			06/04/19 00:50	1
Nitrate	0.10	U H	0.50	0.042	mg/L			05/18/19 17:18	1
Nitrite	0.10	U H	0.50	0.049	mg/L			05/18/19 17:18	1
Sulfate	**1.2**	**J M**	5.0	1.0	mg/L			05/18/19 17:18	1
Total Organic Carbon - Quad	**9.5**		1.0	0.16	mg/L			06/12/19 05:43	1
Phenols, Total	**0.012**	**J**	0.020	0.0068	mg/L		06/06/19 21:01	06/06/19 23:44	1
Color	**50**		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**87**		10	3.1	mg/L			05/24/19 22:30	1
Hardness	**72**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**100**	**H**	10	4.7	mg/L			06/10/19 13:59	1
Biochemical Oxygen Demand	**2.8**		2.5	0.30	mg/L			05/17/19 15:43	1

Client Sample ID: LF6LH-1_0519
Lab Sample ID: 280-123924-11
Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**8.4**	**J**	100	4.4	ug/L		05/24/19 06:00	05/25/19 01:00	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 13:04	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:53	1
Chemical Oxygen Demand (COD)	**40**		20	8.7	mg/L			06/08/19 12:45	1
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 17:35	1
Nitrate Nitrite as N	0.10	U H	0.50	0.042	mg/L			05/18/19 17:35	1
Chloride	**1.7**	**J**	3.0	1.0	mg/L			05/18/19 17:35	1
Orthophosphate as P	**0.38**	**J H Q M**	0.50	0.19	mg/L			05/18/19 17:35	1
Fluoride	**0.085**	**J**	1.0	0.060	mg/L			06/04/19 01:40	1
Nitrate	0.10	U H	0.50	0.042	mg/L			05/18/19 17:35	1
Nitrite	0.10	U H	0.50	0.049	mg/L			05/18/19 17:35	1

Client Sample ID: LF6LH-1_0519
Lab Sample ID: 280-123924-11
Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**6.7**	**M**	5.0	1.0	mg/L			05/18/19 17:35	1
Total Organic Carbon - Quad	**11**		1.0	0.16	mg/L			06/12/19 05:59	1
Phenols, Total	**0.0071**	**J**	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 15:37	1
Color	**40**		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**90**		10	3.1	mg/L			05/24/19 22:35	1
Hardness	**110**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**120**	**H**	10	4.7	mg/L			06/10/19 13:59	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Client Sample ID: LF6LH-2_0519
Lab Sample ID: 280-123924-12
Date Collected: 05/16/19 12:20
Matrix: Water
Date Received: 05/17/19 08:50

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**14**	**J**	100	4.4	ug/L		05/24/19 06:00	05/25/19 01:03	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.035**	**J**	0.10	0.022	mg/L			05/30/19 13:06	1
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:55	1
Chemical Oxygen Demand (COD)	40	U	40	17	mg/L			06/08/19 12:45	2
Bromide	0.20	U	0.50	0.11	mg/L			05/18/19 17:51	1
Nitrate Nitrite as N	**190**	**H**	0.50	0.042	mg/L			05/18/19 17:51	1
Chloride	3.0	U	3.0	1.0	mg/L			05/18/19 17:51	1
Orthophosphate as P	0.20	U H Q	0.50	0.19	mg/L			05/18/19 17:51	1
Fluoride	**0.066**	**J**	1.0	0.060	mg/L			06/04/19 01:56	1
Nitrate	**0.71**	**H M**	0.50	0.042	mg/L			05/18/19 17:51	1
Nitrite	0.50	U H	2.5	0.25	mg/L			05/18/19 18:08	5
Sulfate	**24**	**M**	5.0	1.0	mg/L			05/18/19 17:51	1
Total Organic Carbon - Quad	**3.5**		1.0	0.16	mg/L			06/12/19 06:18	1
Phenols, Total	**0.0094**	**J**	0.020	0.0068	mg/L		06/07/19 12:22	06/09/19 15:40	1
Color	**30**		5.0	5.0	PCU			05/17/19 23:18	1
Alkalinity	**210**		10	3.1	mg/L			05/24/19 22:41	1
Hardness	**270**		3.0	0.30	mg/L			05/24/19 16:44	1
Total Dissolved Solids (TDS)	**670**	**B**	20	9.4	mg/L			05/22/19 12:03	1
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Default Detection Limits

Client: Bhate Environmental
Job ID: 280-123924-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Method: 6010C - Metals (ICP)

Prep: 3010A

Analyte	LOQ	DL	Units
Boron	100	4.4	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Chemical Oxygen Demand (COD)	20	8.7	mg/L
Bromide	0.50	0.11	mg/L
Chloride	3.0	1.0	mg/L
Fluoride	1.0	0.060	mg/L
Nitrate	0.50	0.042	mg/L
Nitrate Nitrite as N	0.50	0.042	mg/L
Nitrite	0.50	0.049	mg/L
Orthophosphate as P	0.50	0.19	mg/L
Sulfate	5.0	1.0	mg/L
Total Organic Carbon - Quad	1.0	0.16	mg/L
Color	5.0	5.0	PCU
Alkalinity	10	3.1	mg/L
Hardness	3.0	0.30	mg/L
Total Dissolved Solids (TDS)	10	4.7	mg/L
Biochemical Oxygen Demand	2.0	0.24	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: Distill/Phenol

Analyte	LOQ	DL	Units
Phenols, Total	0.020	0.0068	mg/L

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-459135/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459135

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15	U	100	4.4	ug/L		05/24/19 06:00	05/24/19 23:45	1

Lab Sample ID: LCS 280-459135/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	935		ug/L		93	85 - 113

Lab Sample ID: LCSD 280-459135/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459135

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	941		ug/L		94	85 - 113	1	20

Lab Sample ID: 280-123924-1 MS
Client Sample ID: LF6VMW-22_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459135

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	8.3	J	1000	974		ug/L		97	85 - 113

Lab Sample ID: 280-123924-1 MSD
Client Sample ID: LF6VMW-22_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459449
Prep Batch: 459135

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	8.3	J	1000	965		ug/L		96	85 - 113	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-459963/27
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.022	mg/L			05/30/19 11:56	1

Lab Sample ID: LCS 280-459963/25
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.55		mg/L		102	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCSD 280-459963/26
Matrix: Water
Analysis Batch: 459963

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia			2.50	2.54		mg/L		102	90 - 110	0	10

Lab Sample ID: 280-123924-4 MS
Matrix: Water
Analysis Batch: 459963

Client Sample ID: LF6MW-12_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	0.29		1.00	1.25		mg/L		97	90 - 110		

Lab Sample ID: 280-123924-4 MSD
Matrix: Water
Analysis Batch: 459963

Client Sample ID: LF6MW-12_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.29		1.00	1.32		mg/L		103	90 - 110	5	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-460760/28-A
Matrix: Water
Analysis Batch: 460878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460760

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.50	U	1.0	0.69	mg/L		06/06/19 19:57	06/07/19 18:08	1

Lab Sample ID: LCS 280-460760/27-A
Matrix: Water
Analysis Batch: 460878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460760

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Kjeldahl			6.00	5.92		mg/L		99	90 - 110		

Lab Sample ID: 280-123924-4 MS
Matrix: Water
Analysis Batch: 460878

Client Sample ID: LF6MW-12_0519
Prep Type: Total/NA
Prep Batch: 460760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Kjeldahl	0.50	U J1	3.00	0.50	U J1	mg/L		0	90 - 110		

Lab Sample ID: 280-123924-4 MSD
Matrix: Water
Analysis Batch: 460878

Client Sample ID: LF6MW-12_0519
Prep Type: Total/NA
Prep Batch: 460760

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	0.50	U J1	3.00	0.50	U J1	mg/L		0	90 - 110	NC	25

Method: 410.4 - COD

Lab Sample ID: MB 280-460807/5
Matrix: Water
Analysis Batch: 460807
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/07/19 09:42	1

Lab Sample ID: LCS 280-460807/3
Matrix: Water
Analysis Batch: 460807
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	99.0		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-460807/4
Matrix: Water
Analysis Batch: 460807
Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	100	98.4		mg/L		98	90 - 110	1	11

Lab Sample ID: MB 280-460943/5
Matrix: Water
Analysis Batch: 460943
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	20	U	20	8.7	mg/L			06/08/19 12:45	1

Lab Sample ID: LCS 280-460943/3
Matrix: Water
Analysis Batch: 460943
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	99.0		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-460943/4
Matrix: Water
Analysis Batch: 460943
Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	100	101		mg/L		101	90 - 110	2	11

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-458552/6
Matrix: Water
Analysis Batch: 458552
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			05/17/19 11:08	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			05/17/19 11:08	1
Nitrate	0.10	U	0.50	0.042	mg/L			05/17/19 11:08	1
Nitrite	0.10	U	0.50	0.049	mg/L			05/17/19 11:08	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 280-458552/4
Matrix: Water
Analysis Batch: 458552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	10.0	9.95		mg/L		100	80 - 120
Orthophosphate as P	5.00	5.10		mg/L		102	80 - 116
Nitrate	5.00	5.00		mg/L		100	88 - 111
Nitrite	5.00	4.95		mg/L		99	87 - 111

Lab Sample ID: LCSD 280-458552/5
Matrix: Water
Analysis Batch: 458552

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	10.0		mg/L		100	80 - 120	1	10
Orthophosphate as P	5.00	5.17		mg/L		103	80 - 116	1	10
Nitrate	5.00	5.04		mg/L		101	88 - 111	1	10
Nitrite	5.00	4.99		mg/L		100	87 - 111	1	10

Lab Sample ID: MRL 280-458552/3
Matrix: Water
Analysis Batch: 458552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.445	J	mg/L		111	50 - 150
Orthophosphate as P	0.200	0.204	J	mg/L		102	50 - 150
Nitrate	0.200	0.229	J	mg/L		115	50 - 150
Nitrite	0.200	0.216	J	mg/L		108	50 - 150

Lab Sample ID: 280-123924-2 MS
Matrix: Water
Analysis Batch: 458552

Client Sample ID: LF6VMW-10R2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.65		10.0	10.5		mg/L		98	80 - 120
Orthophosphate as P	0.26	J1 Q	5.00	5.30	Q	mg/L		101	80 - 116
Nitrate	0.65	M	5.00	5.61		mg/L		99	88 - 111
Nitrite	0.10	U M	5.00	4.85		mg/L		97	87 - 111

Lab Sample ID: 280-123924-2 MSD
Matrix: Water
Analysis Batch: 458552

Client Sample ID: LF6VMW-10R2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.65		10.0	10.5		mg/L		98	80 - 120	0	10
Orthophosphate as P	0.26	J1 Q	5.00	6.51	J1 Q	mg/L		125	80 - 116	20	10
Nitrate	0.65	M	5.00	5.61		mg/L		99	88 - 111	0	10
Nitrite	0.10	U M	5.00	4.88		mg/L		98	87 - 111	0	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123924-2 DU
Matrix: Water
Analysis Batch: 458552

Client Sample ID: LF6VMW-10R2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.65		0.619		mg/L		5	10
Orthophosphate as P	0.26	J1 Q	0.269	J Q	mg/L		4	10
Nitrate	0.65	M	0.619		mg/L		5	10
Nitrite	0.10	U M	0.10	U	mg/L		NC	10

Lab Sample ID: MB 280-458553/6
Matrix: Water
Analysis Batch: 458553

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.20	U	0.50	0.11	mg/L			05/17/19 11:08	1
Chloride	3.0	U M	3.0	1.0	mg/L			05/17/19 11:08	1
Sulfate	3.0	U	5.0	1.0	mg/L			05/17/19 11:08	1

Lab Sample ID: LCS 280-458553/4
Matrix: Water
Analysis Batch: 458553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.25		mg/L		105	91 - 110
Chloride	100	95.5		mg/L		95	87 - 111
Sulfate	100	93.6		mg/L		94	87 - 112

Lab Sample ID: LCSD 280-458553/5
Matrix: Water
Analysis Batch: 458553

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.29		mg/L		106	91 - 110	1	10
Chloride	100	96.2		mg/L		96	87 - 111	1	10
Sulfate	100	94.3		mg/L		94	87 - 112	1	10

Lab Sample ID: MRL 280-458553/3
Matrix: Water
Analysis Batch: 458553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.216	J	mg/L		108	50 - 150
Chloride	2.50	2.28	J	mg/L		91	50 - 150
Sulfate	2.50	2.31	J	mg/L		92	50 - 150

Lab Sample ID: 280-123924-2 MS
Matrix: Water
Analysis Batch: 458553

Client Sample ID: LF6VMW-10R2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.20	U M	5.00	5.17		mg/L		103	91 - 110
Chloride	4.0	M J1	25.0	24.8	J1	mg/L		83	87 - 111
Sulfate	10	J1	25.0	31.7		mg/L		87	87 - 112

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-123924-2 MSD
Client Sample ID: LF6VMW-10R2_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458553

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.20	U M	5.00	5.18		mg/L		104	91 - 110	0	10
Chloride	4.0	M J1	25.0	24.8	J1	mg/L		83	87 - 111	0	10
Sulfate	10	J1	25.0	31.4	J1	mg/L		85	87 - 112	1	10

Lab Sample ID: 280-123924-2 DU
Client Sample ID: LF6VMW-10R2_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458553

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.20	U M	0.20	U	mg/L		NC	10
Chloride	4.0	M J1	3.83		mg/L		4	10
Sulfate	10	J1	9.56		mg/L		5	10

Lab Sample ID: MB 280-460231/6
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460231

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.042	mg/L			06/03/19 18:26	1
Orthophosphate as P	0.20	U	0.50	0.19	mg/L			06/03/19 18:26	1
Nitrate	0.10	U	0.50	0.042	mg/L			06/03/19 18:26	1
Nitrite	0.10	U	0.50	0.049	mg/L			06/03/19 18:26	1

Lab Sample ID: LCS 280-460231/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	10.0	10.7		mg/L		107	80 - 120
Orthophosphate as P	5.00	5.15		mg/L		103	80 - 116
Nitrate	5.00	5.36		mg/L		107	88 - 111
Nitrite	5.00	5.29		mg/L		106	87 - 111

Lab Sample ID: LCSD 280-460231/5
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	10.7		mg/L		107	80 - 120	0	10
Orthophosphate as P	5.00	5.19		mg/L		104	80 - 116	1	10
Nitrate	5.00	5.39		mg/L		108	88 - 111	1	10
Nitrite	5.00	5.31		mg/L		106	87 - 111	0	10

Lab Sample ID: MRL 280-460231/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460231

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.400	0.503		mg/L		126	50 - 150
Orthophosphate as P	0.200	0.20	U	mg/L		86	50 - 150

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 280-460231/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460231

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate			0.200	0.255	J	mg/L		127	50 - 150		
Nitrite			0.200	0.248	J	mg/L		124	50 - 150		

Lab Sample ID: 280-123924-1 MS
Client Sample ID: LF6VMW-22_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N	0.69	H	10.0	11.9		mg/L		112	80 - 120		
Orthophosphate as P	0.20	U H J1	5.00	5.85	J1	mg/L		117	80 - 116		
Nitrate	0.69	H J1	5.00	6.33	J1	mg/L		113	88 - 111		
Nitrite	0.10	U H	5.00	5.54		mg/L		111	87 - 111		

Lab Sample ID: 280-123924-1 MSD
Client Sample ID: LF6VMW-22_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460231

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.69	H	10.0	11.9		mg/L		112	80 - 120	0	10
Orthophosphate as P	0.20	U H J1	5.00	5.93	J1	mg/L		119	80 - 116	1	10
Nitrate	0.69	H J1	5.00	6.34	J1	mg/L		113	88 - 111	0	10
Nitrite	0.10	U H	5.00	5.56		mg/L		111	87 - 111	0	10

Lab Sample ID: 280-123924-1 DU
Client Sample ID: LF6VMW-22_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460231

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.69	H	0.683		mg/L		1	10
Orthophosphate as P	0.20	U H J1	0.20	U	mg/L		NC	10
Nitrate	0.69	H J1	0.683		mg/L		0.4	10
Nitrite	0.10	U H	0.10	U	mg/L		NC	10

Lab Sample ID: MB 280-460232/6
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460232

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.264	J	1.0	0.060	mg/L			06/03/19 18:26	1

Lab Sample ID: LCS 280-460232/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460232

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			5.00	4.55		mg/L		91	88 - 112		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-460232/5
Matrix: Water
Analysis Batch: 460232

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			5.00	4.64		mg/L		93	88 - 112	2	10

Lab Sample ID: MRL 280-460232/3
Matrix: Water
Analysis Batch: 460232

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			0.200	0.246	J	mg/L		123	50 - 150		

Lab Sample ID: 280-123924-1 MS
Matrix: Water
Analysis Batch: 460232

Client Sample ID: LF6VMW-22_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.10	U	5.00	5.34		mg/L		107	88 - 112		

Lab Sample ID: 280-123924-1 MSD
Matrix: Water
Analysis Batch: 460232

Client Sample ID: LF6VMW-22_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.10	U	5.00	5.37		mg/L		107	88 - 112	1	10

Lab Sample ID: 280-123924-1 DU
Matrix: Water
Analysis Batch: 460232

Client Sample ID: LF6VMW-22_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.10	U	0.10	U	mg/L		NC	10

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-461179/42
Matrix: Water
Analysis Batch: 461179

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/11/19 04:03	1

Lab Sample ID: LCS 280-461179/41
Matrix: Water
Analysis Batch: 461179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Quad			25.0	25.4		mg/L		102	88 - 112		

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MB 280-461295/35
Matrix: Water
Analysis Batch: 461295
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.50	U	1.0	0.16	mg/L			06/12/19 02:56	1

Lab Sample ID: LCS 280-461295/34
Matrix: Water
Analysis Batch: 461295
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	25.4		mg/L		102	88 - 112

Lab Sample ID: 280-123924-8 MS
Matrix: Water
Analysis Batch: 461295
Client Sample ID: LF6/TMCSW-2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	3.6		25.0	29.1		mg/L		102	88 - 112

Lab Sample ID: 280-123924-8 MSD
Matrix: Water
Analysis Batch: 461295
Client Sample ID: LF6/TMCSW-2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	3.6		25.0	29.1		mg/L		102	88 - 112	0	15

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 280-460749/2-A
Matrix: Water
Analysis Batch: 460772
Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460749

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.00830	J	0.020	0.0068	mg/L		06/06/19 17:53	06/06/19 21:00	1

Lab Sample ID: LCS 280-460749/1-A
Matrix: Water
Analysis Batch: 460772
Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.208		mg/L		103	90 - 110

Lab Sample ID: 280-123924-10 MS
Matrix: Water
Analysis Batch: 460772
Client Sample ID: LF6W-1_0519
Prep Type: Total/NA
Prep Batch: 460749

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.012	J	0.201	0.216		mg/L		101	72 - 118

Method: 9066 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: 280-123924-10 MSD
Client Sample ID: LF6W-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460772
Prep Batch: 460749

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenols, Total	0.012	J	0.201	0.212		mg/L		99	72 - 118	2	16

Lab Sample ID: MB 280-460948/2-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460979
Prep Batch: 460948

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	0.020	U	0.020	0.0068	mg/L		06/08/19 14:11	06/09/19 15:22	1

Lab Sample ID: LCS 280-460948/1-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 460979
Prep Batch: 460948

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenols, Total	0.201	0.195		mg/L		97	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-458642/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458642

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0	U	5.0	5.0	PCU			05/17/19 23:18	1

Lab Sample ID: 280-123924-1 DU
Client Sample ID: LF6VMW-22_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458642

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	15		15.0		PCU		0	20

Lab Sample ID: 280-123924-11 DU
Client Sample ID: LF6LH-1_0519
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 458642

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	40		40.0		PCU		0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-459192/31
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 459192

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/22/19 21:10	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 280-459192/30
Matrix: Water
Analysis Batch: 459192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			200	198		mg/L		99	89 - 109		

Lab Sample ID: MB 280-459576/31
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	10	U	10	3.1	mg/L			05/24/19 20:47	1

Lab Sample ID: LCS 280-459576/30
Matrix: Water
Analysis Batch: 459576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			200	199		mg/L		99	89 - 109		

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 280-459417/2
Matrix: Water
Analysis Batch: 459417

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness	0.81	U	3.0	0.30	mg/L			05/24/19 16:44	1

Lab Sample ID: LCS 280-459417/1
Matrix: Water
Analysis Batch: 459417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness			398	397		mg/L		100	90 - 110		

Lab Sample ID: 280-123924-1 MS
Matrix: Water
Analysis Batch: 459417

Client Sample ID: LF6VMW-22_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness	160		398	567		mg/L		102	90 - 110		

Lab Sample ID: 280-123924-1 MSD
Matrix: Water
Analysis Batch: 459417

Client Sample ID: LF6VMW-22_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hardness	160		398	564		mg/L		101	90 - 110	1	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-459057/1
Matrix: Water
Analysis Batch: 459057

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	17.0		10	4.7	mg/L			05/22/19 12:03	1

Lab Sample ID: LCS 280-459057/2
Matrix: Water
Analysis Batch: 459057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	500	492		mg/L		98	93 - 110

Lab Sample ID: 280-123924-1 DU
Matrix: Water
Analysis Batch: 459057

Client Sample ID: LF6VMW-22_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	180	B	183		mg/L		2	10

Lab Sample ID: 280-123924-12 DU
Matrix: Water
Analysis Batch: 459057

Client Sample ID: LF6LH-2_0519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	670	B	732		mg/L		8	10

Lab Sample ID: MB 280-461044/1
Matrix: Water
Analysis Batch: 461044

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	10	U	10	4.7	mg/L			06/10/19 13:59	1

Lab Sample ID: LCS 280-461044/2
Matrix: Water
Analysis Batch: 461044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	500	513		mg/L		103	93 - 110

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-458606/4
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: SCB 280-458606/1
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.611	J	2.0	0.24	mg/L			05/17/19 15:43	1

Lab Sample ID: USB 280-458606/2
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.59	U	2.0	0.24	mg/L			05/17/19 15:43	1

Lab Sample ID: LCS 280-458606/3
Matrix: Water
Analysis Batch: 458606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	202		mg/L		102	85 - 115

Metals

Prep Batch: 459135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	3010A	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	3010A	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	3010A	
280-123924-4	LF6MW-12_0519	Total/NA	Water	3010A	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	3010A	
280-123924-6	TMCMW-9_0519	Total/NA	Water	3010A	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	3010A	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	3010A	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	3010A	
280-123924-10	LF6W-1_0519	Total/NA	Water	3010A	
280-123924-11	LF6LH-1_0519	Total/NA	Water	3010A	
280-123924-12	LF6LH-2_0519	Total/NA	Water	3010A	
MB 280-459135/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-459135/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-459135/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-123924-1 MS	LF6VMW-22_0519	Total/NA	Water	3010A	
280-123924-1 MSD	LF6VMW-22_0519	Total/NA	Water	3010A	

Analysis Batch: 459449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	6010C	459135
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	6010C	459135
280-123924-3	LF6VMW-26_0519	Total/NA	Water	6010C	459135
280-123924-4	LF6MW-12_0519	Total/NA	Water	6010C	459135
280-123924-5	LF6VMW-24_0519	Total/NA	Water	6010C	459135
280-123924-6	TMCMW-9_0519	Total/NA	Water	6010C	459135
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	6010C	459135
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	6010C	459135
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	6010C	459135
280-123924-10	LF6W-1_0519	Total/NA	Water	6010C	459135
280-123924-11	LF6LH-1_0519	Total/NA	Water	6010C	459135
280-123924-12	LF6LH-2_0519	Total/NA	Water	6010C	459135
MB 280-459135/1-A	Method Blank	Total/NA	Water	6010C	459135
LCS 280-459135/2-A	Lab Control Sample	Total/NA	Water	6010C	459135
LCSD 280-459135/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	459135
280-123924-1 MS	LF6VMW-22_0519	Total/NA	Water	6010C	459135
280-123924-1 MSD	LF6VMW-22_0519	Total/NA	Water	6010C	459135

General Chemistry

Analysis Batch: 458552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	9056A	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	9056A	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	9056A	
280-123924-4	LF6MW-12_0519	Total/NA	Water	9056A	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	9056A	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	9056A	
280-123924-6	TMCMW-9_0519	Total/NA	Water	9056A	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	9056A	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 458552 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	9056A	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	9056A	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	9056A	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	9056A	
280-123924-10	LF6W-1_0519	Total/NA	Water	9056A	
280-123924-11	LF6LH-1_0519	Total/NA	Water	9056A	
280-123924-12	LF6LH-2_0519	Total/NA	Water	9056A	
280-123924-12	LF6LH-2_0519	Total/NA	Water	9056A	
MB 280-458552/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458552/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458552/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458552/3	Lab Control Sample	Total/NA	Water	9056A	
280-123924-2 MS	LF6VMW-10R2_0519	Total/NA	Water	9056A	
280-123924-2 MSD	LF6VMW-10R2_0519	Total/NA	Water	9056A	
280-123924-2 DU	LF6VMW-10R2_0519	Total/NA	Water	9056A	

Analysis Batch: 458553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	9056A	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	9056A	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	9056A	
280-123924-4	LF6MW-12_0519	Total/NA	Water	9056A	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	9056A	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	9056A	
280-123924-6	TMCMW-9_0519	Total/NA	Water	9056A	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	9056A	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	9056A	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	9056A	
280-123924-10	LF6W-1_0519	Total/NA	Water	9056A	
280-123924-11	LF6LH-1_0519	Total/NA	Water	9056A	
280-123924-12	LF6LH-2_0519	Total/NA	Water	9056A	
MB 280-458553/6	Method Blank	Total/NA	Water	9056A	
LCS 280-458553/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-458553/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-458553/3	Lab Control Sample	Total/NA	Water	9056A	
280-123924-2 MS	LF6VMW-10R2_0519	Total/NA	Water	9056A	
280-123924-2 MSD	LF6VMW-10R2_0519	Total/NA	Water	9056A	
280-123924-2 DU	LF6VMW-10R2_0519	Total/NA	Water	9056A	

Analysis Batch: 458606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	SM5210B	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	SM5210B	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	SM5210B	
280-123924-4	LF6MW-12_0519	Total/NA	Water	SM5210B	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	SM5210B	
280-123924-6	TMCMW-9_0519	Total/NA	Water	SM5210B	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	SM5210B	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	SM5210B	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	SM5210B	
280-123924-10	LF6W-1_0519	Total/NA	Water	SM5210B	

General Chemistry (Continued)

Analysis Batch: 458606 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-11	LF6LH-1_0519	Total/NA	Water	SM5210B	
280-123924-12	LF6LH-2_0519	Total/NA	Water	SM5210B	
MB 280-458606/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-458606/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-458606/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-458606/3	Lab Control Sample	Total/NA	Water	SM5210B	

Analysis Batch: 458642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	SM 2120B	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	SM 2120B	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	SM 2120B	
280-123924-4	LF6MW-12_0519	Total/NA	Water	SM 2120B	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	SM 2120B	
280-123924-6	TMCMW-9_0519	Total/NA	Water	SM 2120B	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	SM 2120B	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	SM 2120B	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	SM 2120B	
280-123924-10	LF6W-1_0519	Total/NA	Water	SM 2120B	
280-123924-11	LF6LH-1_0519	Total/NA	Water	SM 2120B	
280-123924-12	LF6LH-2_0519	Total/NA	Water	SM 2120B	
MB 280-458642/1	Method Blank	Total/NA	Water	SM 2120B	
280-123924-1 DU	LF6VMW-22_0519	Total/NA	Water	SM 2120B	
280-123924-11 DU	LF6LH-1_0519	Total/NA	Water	SM 2120B	

Analysis Batch: 459057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	SM 2540C	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	SM 2540C	
280-123924-4	LF6MW-12_0519	Total/NA	Water	SM 2540C	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	SM 2540C	
280-123924-6	TMCMW-9_0519	Total/NA	Water	SM 2540C	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	SM 2540C	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	SM 2540C	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	SM 2540C	
280-123924-12	LF6LH-2_0519	Total/NA	Water	SM 2540C	
MB 280-459057/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-459057/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-123924-1 DU	LF6VMW-22_0519	Total/NA	Water	SM 2540C	
280-123924-12 DU	LF6LH-2_0519	Total/NA	Water	SM 2540C	

Analysis Batch: 459192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	SM 2320B	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	SM 2320B	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	SM 2320B	
280-123924-4	LF6MW-12_0519	Total/NA	Water	SM 2320B	
MB 280-459192/31	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-459192/30	Lab Control Sample	Total/NA	Water	SM 2320B	

General Chemistry

Analysis Batch: 459417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	SM 2340C	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	SM 2340C	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	SM 2340C	
280-123924-4	LF6MW-12_0519	Total/NA	Water	SM 2340C	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	SM 2340C	
280-123924-6	TMCMW-9_0519	Total/NA	Water	SM 2340C	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	SM 2340C	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	SM 2340C	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	SM 2340C	
280-123924-10	LF6W-1_0519	Total/NA	Water	SM 2340C	
280-123924-11	LF6LH-1_0519	Total/NA	Water	SM 2340C	
280-123924-12	LF6LH-2_0519	Total/NA	Water	SM 2340C	
MB 280-459417/2	Method Blank	Total/NA	Water	SM 2340C	
LCS 280-459417/1	Lab Control Sample	Total/NA	Water	SM 2340C	
280-123924-1 MS	LF6VMW-22_0519	Total/NA	Water	SM 2340C	
280-123924-1 MSD	LF6VMW-22_0519	Total/NA	Water	SM 2340C	

Analysis Batch: 459576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-5	LF6VMW-24_0519	Total/NA	Water	SM 2320B	
280-123924-6	TMCMW-9_0519	Total/NA	Water	SM 2320B	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	SM 2320B	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	SM 2320B	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	SM 2320B	
280-123924-10	LF6W-1_0519	Total/NA	Water	SM 2320B	
280-123924-11	LF6LH-1_0519	Total/NA	Water	SM 2320B	
280-123924-12	LF6LH-2_0519	Total/NA	Water	SM 2320B	
MB 280-459576/31	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-459576/30	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 459963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	350.1	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	350.1	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	350.1	
280-123924-4	LF6MW-12_0519	Total/NA	Water	350.1	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	350.1	
280-123924-6	TMCMW-9_0519	Total/NA	Water	350.1	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	350.1	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	350.1	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	350.1	
280-123924-10	LF6W-1_0519	Total/NA	Water	350.1	
280-123924-11	LF6LH-1_0519	Total/NA	Water	350.1	
280-123924-12	LF6LH-2_0519	Total/NA	Water	350.1	
MB 280-459963/27	Method Blank	Total/NA	Water	350.1	
LCS 280-459963/25	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-459963/26	Lab Control Sample Dup	Total/NA	Water	350.1	
280-123924-4 MS	LF6MW-12_0519	Total/NA	Water	350.1	
280-123924-4 MSD	LF6MW-12_0519	Total/NA	Water	350.1	

General Chemistry

Analysis Batch: 460231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-3	LF6VMW-26_0519	Total/NA	Water	9056A	
280-123924-4	LF6MW-12_0519	Total/NA	Water	9056A	
280-123924-6	TMCMW-9_0519	Total/NA	Water	9056A	
280-123924-10	LF6W-1_0519	Total/NA	Water	9056A	
MB 280-460231/6	Method Blank	Total/NA	Water	9056A	
LCS 280-460231/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-460231/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-460231/3	Lab Control Sample	Total/NA	Water	9056A	
280-123924-1 MS	LF6VMW-22_0519	Total/NA	Water	9056A	
280-123924-1 MSD	LF6VMW-22_0519	Total/NA	Water	9056A	
280-123924-1 DU	LF6VMW-22_0519	Total/NA	Water	9056A	

Analysis Batch: 460232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	9056A	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	9056A	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	9056A	
280-123924-4	LF6MW-12_0519	Total/NA	Water	9056A	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	9056A	
280-123924-6	TMCMW-9_0519	Total/NA	Water	9056A	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	9056A	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	9056A	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	9056A	
280-123924-10	LF6W-1_0519	Total/NA	Water	9056A	
280-123924-11	LF6LH-1_0519	Total/NA	Water	9056A	
280-123924-12	LF6LH-2_0519	Total/NA	Water	9056A	
MB 280-460232/6	Method Blank	Total/NA	Water	9056A	
LCS 280-460232/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-460232/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-460232/3	Lab Control Sample	Total/NA	Water	9056A	
280-123924-1 MS	LF6VMW-22_0519	Total/NA	Water	9056A	
280-123924-1 MSD	LF6VMW-22_0519	Total/NA	Water	9056A	
280-123924-1 DU	LF6VMW-22_0519	Total/NA	Water	9056A	

Prep Batch: 460749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	Distill/Phenol	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	Distill/Phenol	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	Distill/Phenol	
280-123924-4	LF6MW-12_0519	Total/NA	Water	Distill/Phenol	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	Distill/Phenol	
280-123924-6	TMCMW-9_0519	Total/NA	Water	Distill/Phenol	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	Distill/Phenol	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	Distill/Phenol	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	Distill/Phenol	
280-123924-10	LF6W-1_0519	Total/NA	Water	Distill/Phenol	
MB 280-460749/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460749/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
280-123924-10 MS	LF6W-1_0519	Total/NA	Water	Distill/Phenol	
280-123924-10 MSD	LF6W-1_0519	Total/NA	Water	Distill/Phenol	

General Chemistry

Prep Batch: 460760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	351.2	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	351.2	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	351.2	
280-123924-4	LF6MW-12_0519	Total/NA	Water	351.2	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	351.2	
280-123924-6	TMCMW-9_0519	Total/NA	Water	351.2	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	351.2	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	351.2	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	351.2	
280-123924-10	LF6W-1_0519	Total/NA	Water	351.2	
280-123924-11	LF6LH-1_0519	Total/NA	Water	351.2	
280-123924-12	LF6LH-2_0519	Total/NA	Water	351.2	
MB 280-460760/28-A	Method Blank	Total/NA	Water	351.2	
LCS 280-460760/27-A	Lab Control Sample	Total/NA	Water	351.2	
280-123924-4 MS	LF6MW-12_0519	Total/NA	Water	351.2	
280-123924-4 MSD	LF6MW-12_0519	Total/NA	Water	351.2	

Analysis Batch: 460772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	9066	460749
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	9066	460749
280-123924-3	LF6VMW-26_0519	Total/NA	Water	9066	460749
280-123924-4	LF6MW-12_0519	Total/NA	Water	9066	460749
280-123924-5	LF6VMW-24_0519	Total/NA	Water	9066	460749
280-123924-6	TMCMW-9_0519	Total/NA	Water	9066	460749
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	9066	460749
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	9066	460749
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	9066	460749
280-123924-10	LF6W-1_0519	Total/NA	Water	9066	460749
MB 280-460749/2-A	Method Blank	Total/NA	Water	9066	460749
LCS 280-460749/1-A	Lab Control Sample	Total/NA	Water	9066	460749
280-123924-10 MS	LF6W-1_0519	Total/NA	Water	9066	460749
280-123924-10 MSD	LF6W-1_0519	Total/NA	Water	9066	460749

Analysis Batch: 460807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	410.4	
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	410.4	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	410.4	
280-123924-4	LF6MW-12_0519	Total/NA	Water	410.4	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	410.4	
280-123924-6	TMCMW-9_0519	Total/NA	Water	410.4	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	410.4	
MB 280-460807/5	Method Blank	Total/NA	Water	410.4	
LCS 280-460807/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-460807/4	Lab Control Sample Dup	Total/NA	Water	410.4	

Prep Batch: 460843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-11	LF6LH-1_0519	Total/NA	Water	Distill/Phenol	
280-123924-12	LF6LH-2_0519	Total/NA	Water	Distill/Phenol	

General Chemistry

Analysis Batch: 460878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	351.2	460760
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	351.2	460760
280-123924-3	LF6VMW-26_0519	Total/NA	Water	351.2	460760
280-123924-4	LF6MW-12_0519	Total/NA	Water	351.2	460760
280-123924-5	LF6VMW-24_0519	Total/NA	Water	351.2	460760
280-123924-6	TMCMW-9_0519	Total/NA	Water	351.2	460760
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	351.2	460760
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	351.2	460760
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	351.2	460760
280-123924-10	LF6W-1_0519	Total/NA	Water	351.2	460760
280-123924-11	LF6LH-1_0519	Total/NA	Water	351.2	460760
280-123924-12	LF6LH-2_0519	Total/NA	Water	351.2	460760
MB 280-460760/28-A	Method Blank	Total/NA	Water	351.2	460760
LCS 280-460760/27-A	Lab Control Sample	Total/NA	Water	351.2	460760
280-123924-4 MS	LF6MW-12_0519	Total/NA	Water	351.2	460760
280-123924-4 MSD	LF6MW-12_0519	Total/NA	Water	351.2	460760

Analysis Batch: 460943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	410.4	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	410.4	
280-123924-10	LF6W-1_0519	Total/NA	Water	410.4	
280-123924-11	LF6LH-1_0519	Total/NA	Water	410.4	
280-123924-12	LF6LH-2_0519	Total/NA	Water	410.4	
MB 280-460943/5	Method Blank	Total/NA	Water	410.4	
LCS 280-460943/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-460943/4	Lab Control Sample Dup	Total/NA	Water	410.4	

Prep Batch: 460948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-460948/2-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 280-460948/1-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 460979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-11	LF6LH-1_0519	Total/NA	Water	9066	460843
280-123924-12	LF6LH-2_0519	Total/NA	Water	9066	460843
MB 280-460948/2-A	Method Blank	Total/NA	Water	9066	460948
LCS 280-460948/1-A	Lab Control Sample	Total/NA	Water	9066	460948

Analysis Batch: 461044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	SM 2540C	
280-123924-10	LF6W-1_0519	Total/NA	Water	SM 2540C	
280-123924-11	LF6LH-1_0519	Total/NA	Water	SM 2540C	
MB 280-461044/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-461044/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 461179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-1	LF6VMW-22_0519	Total/NA	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 461179 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-2	LF6VMW-10R2_0519	Total/NA	Water	9060A	
280-123924-3	LF6VMW-26_0519	Total/NA	Water	9060A	
280-123924-4	LF6MW-12_0519	Total/NA	Water	9060A	
280-123924-5	LF6VMW-24_0519	Total/NA	Water	9060A	
MB 280-461179/42	Method Blank	Total/NA	Water	9060A	
LCS 280-461179/41	Lab Control Sample	Total/NA	Water	9060A	

Analysis Batch: 461295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-123924-6	TMCMW-9_0519	Total/NA	Water	9060A	
280-123924-7	LF6/TMCSW-1_0519	Total/NA	Water	9060A	
280-123924-8	LF6/TMCSW-2_0519	Total/NA	Water	9060A	
280-123924-9	LF6/TMCSW-2_0519-a	Total/NA	Water	9060A	
280-123924-10	LF6W-1_0519	Total/NA	Water	9060A	
280-123924-11	LF6LH-1_0519	Total/NA	Water	9060A	
280-123924-12	LF6LH-2_0519	Total/NA	Water	9060A	
MB 280-461295/35	Method Blank	Total/NA	Water	9060A	
LCS 280-461295/34	Lab Control Sample	Total/NA	Water	9060A	
280-123924-8 MS	LF6/TMCSW-2_0519	Total/NA	Water	9060A	
280-123924-8 MSD	LF6/TMCSW-2_0519	Total/NA	Water	9060A	

Client Sample ID: LF6VMW-22_0519
Lab Sample ID: 280-123924-1

Date Collected: 05/16/19 09:15
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/24/19 23:56	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:16	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:31	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460807	06/07/19 09:42	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 05:43	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 05:43	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 21:01	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 10:53	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:17	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/23/19 00:36	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459057	05/22/19 12:03	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6VMW-10R2_0519
Lab Sample ID: 280-123924-2

Date Collected: 05/16/19 10:28
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 00:14	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:30	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:32	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460807	06/07/19 09:42	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 06:32	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 06:32	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 22:39	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 11:10	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:20	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/23/19 00:42	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	461044	06/10/19 13:59	ECL	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6VMW-26_0519
Lab Sample ID: 280-123924-3

Date Collected: 05/16/19 09:25
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 00:17	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:32	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:33	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460807	06/07/19 09:42	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 05:59	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 05:59	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460231	06/03/19 22:56	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 22:56	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 11:27	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:23	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/23/19 00:47	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459057	05/22/19 12:03	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6MW-12_0519
Lab Sample ID: 280-123924-4

Date Collected: 05/16/19 10:35
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 00:35	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:34	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:35	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460807	06/07/19 09:42	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 13:29	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 13:29	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460231	06/03/19 23:12	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 23:12	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 11:46	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:26	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		5	10 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459192	05/23/19 00:55	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	12.5 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459057	05/22/19 12:03	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6VMW-24_0519
Lab Sample ID: 280-123924-5

Date Collected: 05/16/19 11:50
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 00:38	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:40	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:46	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460807	06/07/19 09:50	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 14:01	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 14:01	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458552	05/18/19 14:18	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458553	05/18/19 14:18	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 23:28	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461179	06/11/19 12:00	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:29	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 21:48	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	459057	05/22/19 12:03	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: TMCMW-9_0519
Lab Sample ID: 280-123924-6

Date Collected: 05/16/19 12:58
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 00:42	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:42	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:47	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460807	06/07/19 09:50	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 14:34	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 14:34	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460231	06/03/19 23:45	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/03/19 23:45	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 03:32	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:32	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 22:06	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	459057	05/22/19 12:03	MJS	TAL DEN

Client Sample ID: TMCMW-9_0519
Lab Sample ID: 280-123924-6
Date Collected: 05/16/19 12:58
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6/TMCSW-1_0519
Lab Sample ID: 280-123924-7
Date Collected: 05/16/19 11:15
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 00:45	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:44	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:48	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460807	06/07/19 09:50	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 15:07	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 15:07	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458552	05/18/19 15:56	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/04/19 00:01	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 03:47	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:35	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 22:13	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	459057	05/22/19 12:03	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6/TMCSW-2_0519
Lab Sample ID: 280-123924-8
Date Collected: 05/16/19 11:45
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 00:49	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:46	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:50	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 16:13	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 16:13	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458552	05/18/19 16:29	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/04/19 00:18	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 04:37	CCJ	TAL DEN

Client Sample ID: LF6/TMCSW-2_0519
Lab Sample ID: 280-123924-8
Date Collected: 05/16/19 11:45
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:38	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 22:18	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	459057	05/22/19 12:03	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6/TMCSW-2_0519-a
Lab Sample ID: 280-123924-9
Date Collected: 05/16/19 11:45
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 00:52	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 12:48	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:51	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 16:46	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 16:46	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458552	05/18/19 17:02	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/04/19 00:34	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 05:28	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:41	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 22:24	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	459057	05/22/19 12:03	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6W-1_0519
Lab Sample ID: 280-123924-10
Date Collected: 05/16/19 13:20
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 00:56	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:02	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:52	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN

Client Sample ID: LF6W-1_0519
Lab Sample ID: 280-123924-10
Date Collected: 05/16/19 13:20
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 17:18	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 17:18	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460231	06/04/19 00:50	TLP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/04/19 00:50	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 05:43	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460749	06/06/19 21:01	ARM	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460772	06/06/19 23:44	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 22:30	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	461044	06/10/19 13:59	ECL	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6LH-1_0519
Lab Sample ID: 280-123924-11
Date Collected: 05/16/19 12:50
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 01:00	SJS	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:04	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:53	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 17:35	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 17:35	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/04/19 01:40	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 05:59	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 15:37	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 22:35	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	461044	06/10/19 13:59	ECL	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Client Sample ID: LF6LH-2_0519
Lab Sample ID: 280-123924-12
Date Collected: 05/16/19 12:20
Matrix: Water
Date Received: 05/17/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	459135	05/24/19 06:00	CRR	TAL DEN
Total/NA	Analysis	6010C		1			459449	05/25/19 01:03	SJS	TAL DEN

Lab Chronicle

Client: Bhate Environmental
Job ID: 280-123924-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Client Sample ID: LF6LH-2_0519
Date Collected: 05/16/19 12:20
Date Received: 05/17/19 08:50

Lab Sample ID: 280-123924-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	459963	05/30/19 13:06	MJS	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	460760	06/06/19 19:57	SVC	TAL DEN
Total/NA	Analysis	351.2		1			460878	06/07/19 18:55	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	460943	06/08/19 12:45	KES	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458552	05/18/19 17:51	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	458553	05/18/19 17:51	JAP	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	458552	05/18/19 18:08	JAP	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	460232	06/04/19 01:56	TLP	TAL DEN
Total/NA	Analysis	9060A		1	20 mL	20 mL	461295	06/12/19 06:18	CCJ	TAL DEN
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	460843	06/07/19 12:22	JLA	TAL DEN
Total/NA	Analysis	9066		1	100 mL	100 mL	460979	06/09/19 15:40	ARM	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	458642	05/17/19 23:18	CKB	TAL DEN
Total/NA	Analysis	SM 2320B		1			459576	05/24/19 22:41	SGB	TAL DEN
Total/NA	Analysis	SM 2340C		1	25 mL	25 mL	459417	05/24/19 16:44	KES	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	459057	05/22/19 12:03	MJS	TAL DEN
Total/NA	Analysis	SM5210B		1			458606	05/17/19 15:43	EC	TAL DEN

Laboratory References:
TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Bhate Environmental
Job ID: 280-123924-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Laboratory: Eurofins TestAmerica, Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD		2907.01	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2120B		Water	Color
SM 2340C		Water	Hardness

New York	NELAP	2	11964	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3010A	Water	Boron
9056A		Water	Bromide
9056A		Water	Chloride
9056A		Water	Fluoride
9056A		Water	Nitrate
9056A		Water	Nitrate Nitrite as N
9056A		Water	Nitrite
9056A		Water	Orthophosphate as P
9056A		Water	Sulfate
9060A		Water	Total Organic Carbon - Quad

Method Summary

Client: Bhate Environmental
Job ID: 280-123924-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
9066	Phenolics, Total Recoverable	SW846	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
Distill/Phenol	Distillation, Phenolics	None	TAL DEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Bhate Environmental
Job ID: 280-123924-1
Project/Site: Griffiss AFB, LF009 Landfill 6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-123924-1	LF6VMW-22_0519	Water	05/16/19 09:15	05/17/19 08:50	
280-123924-2	LF6VMW-10R2_0519	Water	05/16/19 10:28	05/17/19 08:50	
280-123924-3	LF6VMW-26_0519	Water	05/16/19 09:25	05/17/19 08:50	
280-123924-4	LF6MW-12_0519	Water	05/16/19 10:35	05/17/19 08:50	
280-123924-5	LF6VMW-24_0519	Water	05/16/19 11:50	05/17/19 08:50	
280-123924-6	TMCMW-9_0519	Water	05/16/19 12:58	05/17/19 08:50	
280-123924-7	LF6/TMCSW-1_0519	Water	05/16/19 11:15	05/17/19 08:50	
280-123924-8	LF6/TMCSW-2_0519	Water	05/16/19 11:45	05/17/19 08:50	
280-123924-9	LF6/TMCSW-2_0519-a	Water	05/16/19 11:45	05/17/19 08:50	
280-123924-10	LF6W-1_0519	Water	05/16/19 13:20	05/17/19 08:50	
280-123924-11	LF6LH-1_0519	Water	05/16/19 12:50	05/17/19 08:50	
280-123924-12	LF6LH-2_0519	Water	05/16/19 12:20	05/17/19 08:50	

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:04
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:04
Orthophosphate as P	5.68	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458327/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:05
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.88	Peak assignment corrected	phantl	05/15/19 19:06
Nitrate	5.21	Peak assignment corrected	phantl	05/15/19 19:06
Orthophosphate as P	5.67	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458327/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:07
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:07
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458327

Lab Sample ID: STD 280-458327/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	3.89	Peak assignment corrected	phantl	05/15/19 19:08
Nitrate	5.20	Peak assignment corrected	phantl	05/15/19 19:08
Orthophosphate as P	5.66	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/2 IC Client Sample ID:

Date Analyzed: 05/15/19 17:32 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.29	Incomplete Integration	phantl	05/15/19 19:10
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:05

Lab Sample ID: STD 280-458328/3 IC Client Sample ID:

Date Analyzed: 05/15/19 17:49 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:05
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:06

Lab Sample ID: STD 280-458328/4 IC Client Sample ID:

Date Analyzed: 05/15/19 18:05 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.64	Peak assignment corrected	phantl	05/15/19 19:07
Sulfate	6.41	Peak assignment corrected	phantl	05/15/19 19:07

Lab Sample ID: STD 280-458328/5 IC Client Sample ID:

Date Analyzed: 05/15/19 18:21 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	pedrickj	05/16/19 08:31
Sulfate	6.43	Peak assignment corrected	phantl	05/15/19 19:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458328

Lab Sample ID: STD 280-458328/6 IC Client Sample ID:

Date Analyzed: 05/15/19 18:38 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.63	Peak assignment corrected	phantl	05/15/19 19:08
Sulfate	6.46	Peak assignment corrected	phantl	05/15/19 19:08

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458552

Lab Sample ID: 280-123924-2 Client Sample ID: LF6VMW-10R2_0519

Date Analyzed: 05/18/19 06:32 Lab File ID: 0051.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate	5.17	Incomplete Integration	pedrickj	05/20/19 08:03
Nitrite		Unspecified		

Lab Sample ID: 280-123924-5 Client Sample ID: LF6VMW-24_0519

Date Analyzed: 05/18/19 14:18 Lab File ID: 0060.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Orthophosphate as P	7.02	Peak assignment corrected	pedrickj	05/20/19 08:05

Lab Sample ID: 280-123924-6 Client Sample ID: TMCMW-9_0519

Date Analyzed: 05/18/19 14:34 Lab File ID: 0061.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate	5.89	Peak assignment corrected	pedrickj	05/20/19 08:06

Lab Sample ID: CCV 280-458552/64 Client Sample ID:

Date Analyzed: 05/18/19 15:23 Lab File ID: 0064.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.27	Peak assignment corrected	pedrickj	05/20/19 08:06
Nitrate	5.82	Peak assignment corrected	pedrickj	05/20/19 08:06
Orthophosphate as P	7.58	Peak assignment corrected	pedrickj	05/20/19 08:06

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458552

Lab Sample ID: 280-123924-8 Client Sample ID: LF6/TMCSW-2_0519

Date Analyzed: 05/18/19 16:13 Lab File ID: 0067.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate	5.85	Peak assignment corrected	pedrickj	05/20/19 08:07

Lab Sample ID: 280-123924-9 Client Sample ID: LF6/TMCSW-2_0519-a

Date Analyzed: 05/18/19 16:46 Lab File ID: 0069.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate	5.86	Peak assignment corrected	pedrickj	05/20/19 08:07

Lab Sample ID: 280-123924-11 Client Sample ID: LF6LH-1_0519

Date Analyzed: 05/18/19 17:35 Lab File ID: 0072.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Orthophosphate as P	7.01	Peak assignment corrected	pedrickj	05/20/19 08:08

Lab Sample ID: 280-123924-12 Client Sample ID: LF6LH-2_0519

Date Analyzed: 05/18/19 17:51 Lab File ID: 0073.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate	5.86	Peak assignment corrected	pedrickj	05/20/19 08:08

Lab Sample ID: CCV 280-458552/75 Client Sample ID:

Date Analyzed: 05/18/19 18:24 Lab File ID: 0075.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite	4.27	Peak assignment corrected	pedrickj	05/20/19 08:08
Nitrate	5.83	Peak assignment corrected	pedrickj	05/20/19 08:08
Orthophosphate as P	7.59	Peak assignment corrected	pedrickj	05/20/19 08:08

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458553

Lab Sample ID: CCB 280-458553/2 Client Sample ID:

Date Analyzed: 05/17/19 10:03 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Peak not integrated	pedrickj	05/20/19 07:53

Lab Sample ID: MB 280-458553/6 Client Sample ID:

Date Analyzed: 05/17/19 11:08 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Peak not integrated	pedrickj	05/20/19 07:54

Lab Sample ID: CCB 280-458553/18 Client Sample ID:

Date Analyzed: 05/17/19 21:30 Lab File ID: 0018.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.23	Incomplete Integration	pedrickj	05/20/19 07:56

Lab Sample ID: 280-123924-2 Client Sample ID: LF6VMW-10R2_0519

Date Analyzed: 05/18/19 06:32 Lab File ID: 0051.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.22	Incomplete Integration	pedrickj	05/20/19 08:03
Bromide		Unspecified		

Lab Sample ID: 280-123924-4 Client Sample ID: LF6MW-12_0519

Date Analyzed: 05/18/19 13:29 Lab File ID: 0057.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	6.38	Incomplete Integration	pedrickj	05/20/19 08:04

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458553

Lab Sample ID: 280-123924-5 Client Sample ID: LF6VMW-24_0519

Date Analyzed: 05/18/19 14:01 Lab File ID: 0059.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	8.49	Peak assignment corrected	pedrickj	05/20/19 08:05

Lab Sample ID: 280-123924-6 Client Sample ID: TMCMW-9_0519

Date Analyzed: 05/18/19 14:34 Lab File ID: 0061.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	8.51	Peak assignment corrected	pedrickj	05/20/19 08:05

Lab Sample ID: 280-123924-7 Client Sample ID: LF6/TMCSW-1_0519

Date Analyzed: 05/18/19 15:07 Lab File ID: 0063.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	8.48	Peak assignment corrected	pedrickj	05/20/19 08:06

Lab Sample ID: CCV 280-458553/64 Client Sample ID:

Date Analyzed: 05/18/19 15:23 Lab File ID: 0064.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.15	Peak assignment corrected	pedrickj	05/20/19 08:06
Sulfate	8.51	Peak assignment corrected	pedrickj	05/20/19 08:06

Lab Sample ID: 280-123924-8 Client Sample ID: LF6/TMCSW-2_0519

Date Analyzed: 05/18/19 16:13 Lab File ID: 0067.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	8.48	Peak assignment corrected	pedrickj	05/20/19 08:07

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 458553

Lab Sample ID: 280-123924-9 Client Sample ID: LF6/TMCSW-2_0519-a

Date Analyzed: 05/18/19 16:46 Lab File ID: 0069.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	8.49	Peak assignment corrected	pedrickj	05/20/19 08:07

Lab Sample ID: 280-123924-10 Client Sample ID: LF6W-1_0519

Date Analyzed: 05/18/19 17:18 Lab File ID: 0071.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	8.48	Peak assignment corrected	pedrickj	05/20/19 08:07

Lab Sample ID: 280-123924-11 Client Sample ID: LF6LH-1_0519

Date Analyzed: 05/18/19 17:35 Lab File ID: 0072.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	8.47	Peak assignment corrected	pedrickj	05/20/19 08:08

Lab Sample ID: 280-123924-12 Client Sample ID: LF6LH-2_0519

Date Analyzed: 05/18/19 17:51 Lab File ID: 0073.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	8.49	Peak assignment corrected	pedrickj	05/20/19 08:08

Lab Sample ID: CCV 280-458553/75 Client Sample ID:

Date Analyzed: 05/18/19 18:24 Lab File ID: 0075.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	5.15	Peak assignment corrected	pedrickj	05/20/19 08:08
Sulfate	8.51	Peak assignment corrected	pedrickj	05/20/19 08:08

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00367	06/04/19	05/28/19	Di Water, Lot na	100 mL	NH3 CAL STD_00030	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00030	02/28/20		Ricca, Lot 1808L28		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00350	06/04/19	05/28/19	na, Lot na	100 mL	NH3 ICV STD_00026	10 mL	Ammonia	99.6 mg/L
.NH3 ICV STD_00026	04/01/20		Inorganic Ventures, Lot M2-NH662533		(Purchased Reagent)		Ammonia	996 mg/L
Alk daily lcs_00821	05/27/19	05/20/19	Di Water, Lot na	1000 mL	Alk stk std_00016	4 mL	Alkalinity	200 mg/L
.Alk stk std_00016	06/30/20		Fischer, Lot 182564		(Purchased Reagent)		Alkalinity	50 g/L
BOD Std_00001_00046	02/15/24		HACH, Lot A9046		(Purchased Reagent)		Biochemical Oxygen Demand	198 mg/L
COD cal std_00048	09/01/20		Ricca, Lot 1904987		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1000 mg/L
COD icv std_00034	02/01/20		HACH, Lot A9057		(Purchased Reagent)		Chemical Oxygen Demand (COD)	1005 mg/L
Hard lcs std_00052	04/12/21		Lab Chem, Lot H159-16		(Purchased Reagent)		Hardness	0.996 mg/mL
IC CAL cl/so4_00254	05/03/19	04/26/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00256	05/17/19	05/10/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00257	05/24/19	05/17/19	Di Water, Lot na	100 mL	IC CL cal_00055	25 mL	Chloride	250 mg/L
					IC sulfatecal_00053	25 mL	Sulfate	250 mg/L
.IC CL cal_00055	11/30/19		SPEX CertiPrep, Lot 4-101CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00053	08/30/19		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00455	05/03/19	04/26/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
IC Cal low_00458	05/18/19	05/11/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00462	06/05/19	05/29/19	Di Water, Lot NA	100 mL	IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
.IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
.IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
.IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC CL ICV_00016	10/31/19		ERA, Lot 091017		(Purchased Reagent)		Chloride	1000 mg/L
IC ICV 5_00232	05/09/19	05/02/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
IC ICV 5_00234	05/27/19	05/20/19	Di Water, Lot na	10 mL	IC BR ICV_00014	0.5 mL	Bromide	50 mg/L
					IC F ICV_00012	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00016	0.5 mL	Nitrite	50 mg/L
					IC NO3 ICV_00014	0.5 mL	Nitrate	50 mg/L
					IC PO4 ICV_00015	0.5 mL	Orthophosphate as P	50 mg/L
.IC BR ICV_00014	08/31/19		ERA, Lot 450817		(Purchased Reagent)		Bromide	1000 mg/L
.IC F ICV_00012	09/30/20		ERA, Lot 230918		(Purchased Reagent)		Fluoride	1000 mg/L
.IC NO2 ICV_00016	05/31/20		ERA, Lot 020518		(Purchased Reagent)		Nitrite	1000 mg/L
.IC NO3 ICV_00014	12/31/19		ERA, Lot 031217		(Purchased Reagent)		Nitrate	1000 mg/L
.IC PO4 ICV_00015	06/30/19		ERA, Lot 060617		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC LCS_01578	05/18/19	05/17/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC LCS_01579	05/19/19	05/18/19	Di Water, Lot 27	200 mL	IC Cal low_00459	20 mL	Bromide	5 mg/L
							Nitrite	5 mg/L
							Nitrate	5 mg/L
							Orthophosphate as P	5 mg/L
					IC CL cal_00058	20 mL	Chloride	100 mg/L
					IC sulfatecal_00055	20 mL	Sulfate	100 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC Cal low_00459	05/23/19	05/16/19	Di Water, Lot NA	100 mL	IC BR ICV_00012	5 mL	Bromide	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC BR ICV_00012	09/30/19		ricca, Lot 1804F11		(Purchased Reagent)		Bromide	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC CL cal_00058	04/30/20		SPEX CertiPrep, Lot 4-154CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00055	02/28/20		SPEX CertiPrep, Lot 4-131SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC LCS_01593	06/04/19	06/03/19	Di Water, Lot 27	200 mL	IC Cal low_00462	20 mL	Fluoride	5 mg/L as N
							Nitrite	5 mg/L as N
							Nitrate	5 mg/L as N
							Orthophosphate as P	5 mg/L as N
.IC Cal low_00462	06/05/19	05/29/19	Di Water, Lot NA	100 mL	IC FL cal_00013	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00045	5 mL	Nitrite	50 mg/L
					IC N03 cal_00019	5 mL	Nitrate	50 mg/L
					IC P04 cal_00019	5 mL	Orthophosphate as P	50 mg/L
..IC FL cal_00013	10/31/19		Ricca, Lot 4805C89		(Purchased Reagent)		Fluoride	1000 mg/L
..IC N02 CAL_00045	07/31/19		RICCA, Lot 1902672		(Purchased Reagent)		Nitrite	1000 ppm
..IC N03 cal_00019	01/31/20		Ricca, Lot 2807e96		(Purchased Reagent)		Nitrate	1000 mg/L
..IC P04 cal_00019	01/31/21		RICCA, Lot 4902D52		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC SO4 ICV_00017	06/30/19		ERA, Lot 210617		(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00592	05/21/19	05/14/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Bromide	499.924 mg/L
							Chloride	2499.92 mg/L
							Nitrate	500.003 mg/L
							Orthophosphate as P	500.058 mg/L
							Sulfate	2500.26 mg/L
					IC SPK N02SOL_00013	5 mL	Nitrite	499.973 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD Br_00003	1.2876 g	Bromide	999.847 mg/L
					IC MS/MSD CL_00002	8.2424 g	Chloride	4999.84 mg/L
					IC MS/MSD N03_00005	6.068 g	Nitrate	1000.01 mg/L
					IC MS/MSD P04_00002	4.3936 g	Orthophosphate as P	1000.12 mg/L
					IC MS/MSD S04_00005	9.0704 g	Sulfate	5000.51 mg/L
..IC MS/MSD Br_00003	09/29/21		FISHER, Lot 110569		(Purchased Reagent)		Bromide	0.77652 g/g
..IC MS/MSD CL_00002	01/13/21		FISHER, Lot 091363		(Purchased Reagent)		Chloride	0.6066 g/g
..IC MS/MSD N03_00005	09/27/28		FISHER, Lot 176192		(Purchased Reagent)		Nitrate	0.1648 g/g
..IC MS/MSD P04_00002	09/06/22		FISHER, Lot 112841		(Purchased Reagent)		Orthophosphate as P	0.22763 g/g
..IC MS/MSD S04_00005	09/29/20		FISHER, Lot 147276		(Purchased Reagent)		Sulfate	0.5513 g/g
.IC SPK N02SOL_00013	06/05/19	06/05/18	Di Water, Lot na	500 mL	IC MS/MSD N02_00002	2.4628 g	Nitrite	999.946 mg/L
..IC MS/MSD N02_00002	01/12/27		fisher, Lot 164254		(Purchased Reagent)		Nitrite	0.20301 g/g
ICMS/MSD WEEK_00595	06/05/19	05/29/19	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00021	5 mL	Fluoride	499.957 mg/L
							Nitrate	500.003 mg/L
							Orthophosphate as P	500.058 mg/L
					IC SPK N02SOL_00013	5 mL	Nitrite	499.973 mg/L
.IC SPK 6 ANIO_00021	10/01/19	10/01/18	Di Water, Lot NA	1000 mL	IC MS/MSD F_00002	2.21 g	Fluoride	999.914 mg/L

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					IC MS/MSD N03_00005	6.068 g	Nitrate	1000.01 mg/L
					IC MS/MSD P04_00002	4.3936 g	Orthophosphate as P	1000.12 mg/L
..IC MS/MSD F_00002	09/29/21		FISHER, Lot 110901		(Purchased Reagent)		Fluoride	0.45245 g/g
..IC MS/MSD N03_00005	09/27/28		FISHER, Lot 176192		(Purchased Reagent)		Nitrate	0.1648 g/g
..IC MS/MSD P04_00002	09/06/22		FISHER, Lot 112841		(Purchased Reagent)		Orthophosphate as P	0.22763 g/g
.IC SPK N02SOL_00013	06/05/19	06/05/18	Di Water, Lot na	500 mL	IC MS/MSD N02_00002	2.4628 g	Nitrite	999.946 mg/L
..IC MS/MSD N02_00002	01/12/27		fisher, Lot 164254		(Purchased Reagent)		Nitrite	0.20301 g/g
ICP CCV_00382	06/25/20	05/21/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00843	250 mL	Boron	0.5 mg/L
.ICP ICAL1A_00843	06/25/20	05/23/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	1000 mL	ICP CAL STD 4_00003	10 mL	Boron	1 mg/L
..ICP CAL STD 4_00003	09/22/20		CPI, Lot 10094465-3		(Purchased Reagent)		Boron	100 mg/L
ICP ICSA_00186	03/18/20	05/22/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.Icp stk ICSA_00029	03/18/20		CPI, Lot 982821-1		(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICSAB_00213	06/03/19	05/17/19	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Li_00040	0.25 mL	Li	1 mg/L
					ICP ICSAB 1_00001	2.5 mL	Mo	1 mg/L
							Sb	1 mg/L
							Si	10 mg/L
							Sn	1 mg/L
							Ti	1 mg/L
					ICP ICSAB 2_00001	2.5 mL	Ag	1 mg/L
							As	1 mg/L
							Ba	1 mg/L
							Be	0.5 mg/L
							Boron	10 mg/L
							Cd	1 mg/L
							Co	1 mg/L
							Cr	1 mg/L
							Cu	1 mg/L
							K	10 mg/L
							Mn	1 mg/L
							Na	10 mg/L
							Ni	1 mg/L
							P	10 mg/L
							Pb	1 mg/L
							Se	1 mg/L
							Sr	1 mg/L
							Tl	1 mg/L
							V	1 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zn	1 mg/L
					Icp stk ICSA_00029	25 mL	Al	500 mg/L
							Ca	500 mg/L
							Fe	200 mg/L
							Mg	500 mg/L
.1000 Li_00040	05/16/20	CPI, Lot 751942-43			(Purchased Reagent)		Li	1000 mg/L
.ICP ICSAB 1_00001	06/03/19	CPI, Lot 990624-2			(Purchased Reagent)		Mo	100 mg/L
							Sb	100 mg/L
							Si	1000 mg/L
							Sn	100 mg/L
							Ti	100 mg/L
.ICP ICSAB 2_00001	06/03/19	CPI, Lot 990626-2			(Purchased Reagent)		Ag	100 mg/L
							As	100 mg/L
							Ba	100 mg/L
							Be	50 mg/L
							Boron	1000 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							K	1000 mg/L
							Mn	100 mg/L
							Na	1000 mg/L
							Ni	100 mg/L
							P	1000 mg/L
							Pb	100 mg/L
							Se	100 mg/L
							Sr	100 mg/L
							Tl	100 mg/L
							V	100 mg/L
							Zn	100 mg/L
.Icp stk ICSA_00029	03/18/20	CPI, Lot 982821-1			(Purchased Reagent)		Al	5000 mg/L
							Ca	5000 mg/L
							Fe	2000 mg/L
							Mg	5000 mg/L
ICP ICV_00822	10/16/19	05/24/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP CAL STD 4_00002	0.25 mL	Boron	0.25 ppm
.ICP CAL STD 4_00002	09/22/20	CPI, Lot 10094465-2			(Purchased Reagent)		Boron	100 mg/L
ICP LLCCV_02550	05/25/19	05/24/19	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV-2a_00010	1 mL	Boron	100 ppb
.ICP LLCCV-2a_00010	06/18/19	CPI, Lot 10090185-1			(Purchased Reagent)		Boron	10 mg/L
ICP PDS 2_00021	05/13/20	Inorganic Ventures, Lot M2-MEB659765			(Purchased Reagent)		Boron	10 mg/L
Phenol CAL 10_00730	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol CAL_00012	1 mL	Phenolics, Total Recoverable	10.07 mg/L
							Phenols, Total	10.07 mg/L
.Phenol CAL_00012	12/07/19	Lab Chem, Lot G341-02			(Purchased Reagent)		Phenolics, Total Recoverable	1007 mg/L
							Phenols, Total	1007 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Phenol ICV 10_00605	06/11/19	06/04/19	Di Water, Lot N/A	100 mL	Phenol ICV_00013	1 mL	Phenols, Total	10 mg/L
.Phenol ICV_00013	02/29/20		ERA, Lot 090817		(Purchased Reagent)		Phenols, Total	1000 mg/L
PREP SPK 1_00008	05/13/20		CPI, Lot 993218-1		(Purchased Reagent)		As	200 mg/L
							Ba	200 mg/L
							Be	100 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							Li	100 mg/L
							Mn	100 mg/L
							Mo	100 mg/L
							Ni	100 mg/L
							Pb	100 mg/L
							Se	200 mg/L
							Si	200 mg/L
							SiO2	428 mg/L
							Sn	200 mg/L
							Sr	100 mg/L
							Ti	100 mg/L
							Tl	200 mg/L
							V	100 mg/L
PREP SPK 2_00004	05/13/20		CPI, Lot 992745-2		(Purchased Reagent)		Al	1000 mg/L
							Ca	5000 mg/L
							Fe	1000 mg/L
							K	5000 mg/L
							Mg	5000 mg/L
							Na	5000 mg/L
PREP SPK 3_00004	05/13/20		CPI, Lot 992746-1		(Purchased Reagent)		P	2000 mg/L
							Sulfur	1000 mg/L
							U	200 mg/L
							W	100 mg/L
PREP SPK 4_00004	05/08/20		CPI, Lot 10094085-3		(Purchased Reagent)		Bi	200 mg/L
							Boron	100 mg/L
							Th	100 mg/L
							Zn	50 mg/L
							Zr	50 mg/L
TDS LCS_00537_00055	08/22/19	05/22/19	Di Water, Lot na	1000 mL	NaCl f_00004	0.5 g	Total Dissolved Solids (TDS)	500 mg/L
.NaCl f_00004	04/14/21		JT Baker, Lot J48622		(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g
TDS LCS_00537_00057	09/04/19	06/04/19	Di Water, Lot na	1000 mL	NaCl f_00004	0.5 g	Total Dissolved Solids (TDS)	500 mg/L
.NaCl f_00004	04/14/21		JT Baker, Lot J48622		(Purchased Reagent)		Total Dissolved Solids (TDS)	1 g/g
TKN 25ppm_00794	07/01/19	05/31/19	Di Water, Lot 1	100 mL	TKN 100PPM_00108	25 mL	Nitrogen, Kjeldahl	25 mg/L
.TKN 100PPM_00108	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21		nsi lab solutions, Lot 010617		(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TKN ICV 25_00078	07/01/19	05/31/19	DI water, Lot 1	100 mL	TKN ICV 100_00070	25 mL	Nitrogen, Kjeldahl	25 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.TKN ICV 100_00070	07/01/19	05/31/19	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20	ERA, Lot 281018			(Purchased Reagent)		Nitrogen, Kjeldahl	1000 mg/L
TOC ICV Std_00037	01/31/20	Ricca, Lot 1807G06			(Purchased Reagent)		TOC Result 1	1000 ppm
							TOC Result 2	1000 ppm
							TOC Result 3	1000 ppm
							TOC Result 4	1000 ppm
							Total Organic Carbon - Quad	1000 ppm
TOC LCS Std_00046	03/31/21	Ultra Scientific, Lot CT-0920			(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm

Reagent

1000 Li_00040

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000291

SE Std Lithium (Li) – 1000 µg/mL

Lot #: 751942-43

Matrix: 5% HNO_3

5658289
ID: 1000 Li_00040
Exp:05/16/20 Prpd:CRR Opn:03/26/19
1000 Li CPI

Element	Certified Concentration & Uncertainty
Li	1002 ± 3 µg/mL (w/v)
	993 ± 3 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	35	Co	<1	Ge	<0.5	Mg	<5	Pd	<0.5	Si	<100	V	<1
Al	9	Cs	7	Hf	<0.2	Mn	<1	Pr	<0.2	Sm	<0.2	W	<0.5
As	<2	Cr	<0.5	Hg	30	Mo	<0.5	Pt	<0.5	Sn	<0.5	Y	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Na	<25	Rb	2	Sr	<1	Yb	<0.2
B	<5	Dy	<0.2	In	nd	Nb	<0.5	Re	<0.2	Ta	<0.5	Zn	<2
Ba	2	Er	<0.2	Ir	<0.2	Nd	<0.2	Rh	<0.5	Tb	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Ni	<2	Ru	<0.5	Te	<1		
Ca	<25	Fe	<10	La	<0.5	Os	<0.5	Sb	<0.5	Ti	<2		
Cd	<0.5	Ga	<0.5	Li	MAJOR	P	<100	Sc	<5	Tl	<0.5		
Ce	<0.2	Gd	<0.2	Lu	<0.2	Pb	<1	Se	<2	Tm	<0.2		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

November 16, 2018
Certification Date

Chuck Goudreau, Certifying Officer

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

Reagent

Alk stk std_00016

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Quality Test / Release Date	06/05/2018
Lot Number	182564	Expiration Date	Jun/2020
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
COLOR	APHA	<= 5	<5
NORMALITY		Inclusive Between 0.995 - 1.000	1.000
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

BOD Std_00001_00046

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY: **ez GGA for BOD Test**
COMMODITY NUMBER: **2514420**
LOT NUMBER: **A9046**

MANUFACTURE DATE: **2/25/2019**

DATE OF ANALYSIS: **2/28/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
Confirmation test to ensure glutamic acid has been added.	To Pass	Passed
COD Concentration used to confirm the total concentration of Glucose-Glutamic Acid is correct.	884 to 956 mg/l	911.0 mg/l

The expiration date is Feb 2024

After preparation following the instruction sheet the BOD concentration is 198 mg/L.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

COD cal std_00048

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Potassium Acid Phthalate Standard, 1000 ppm Chemical Oxygen Demand (COD)

Lot Number: 1904987 **Product Number:** 5868

Manufacture Date: APR 05, 2019
Expiration Date: SEP 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is estimated based upon the volumetric method of preparation. It is certified that a COD of 500 mg/L should be obtained on a 25.0 mL aliquot of this standard solution diluted to 50 mL. The manufacturing specification for this product is Chemical Oxygen Demand (COD) = 1.000 ± 0.005 mg per mL at 20°C. This is the equivalent quantity of Oxygen that this standard solution will consume, based on the reduction of a Potassium Dichromate Standard Solution under the specified conditions in the ASTM D 1252-95 test methods.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Chemical Oxygen Demand (COD)	995-1005 ppm	1000 ppm

Specification	Reference
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg COD)	ASTM (D 1252 A)
Potassium Acid Phthalate Solution, Standard (1 mL = 1 mg/L)	ASTM (D 1252 B)
Stock Potassium Acid Phthalate	EPA (410.4)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5868-16	500 mL natural poly	18 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (04/05/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

COD icv std_00034

Certificate of Analysis List

For request number 1116752

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
2253929	9057	N/A	N/A	Chemical Oxygen Demand Standard Solution 1000 mg/l COD

Total Enclosures: 1

HACH COMPANY

P.O.Box 389
Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY:**Chemical Oxygen Demand Standard Solution 1000 mg/l COD**

COMMODITY NUMBER: **2253929**	MANUFACTURE DATE:	DATE OF ANALYSIS:
LOT NUMBER: **A9057**	**3/2/2019**	**3/3/2019**

TEST	*SPECIFICATIONS*	*RESULTS*
COD Concentration	950 to 1050 ppm	986.0 ppm

The expiration date is Feb 2020

The item 2253929 is traceable to NIST standards SRM 84L Potassium Hydrogen Phthalate LOT N/A.

Certified by Scott Als

Scott Als
Analytical Services Chemist

Reagent

Hard lcs std_00052

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: CALCIUM CARBONATE STANDARD 1mL = 1mg CaCO3 (0.01M)

Catalog Number: LC12700
Lot Number: J086-18

Mfg Date: 03/28/2019
Expiration Date: 03/28/2021

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Molarity	0.0100M +/- 0.0001M	0.0099M
Concentration mg CaCO3/mL	1.000 +/- 0.010mg CaCO3/mL	0.995 mg CaCO3/mL
Traceable to NIST	Calcium Carbonate	915b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted By: Greg Albright, Chemist Supervisor

An ISO9001:2008 certified company. Registration # 0306.01

Reagent

IC BR ICV_00012

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 1804F11 **Product Number:** 1180

Manufacture Date: APR 06, 2018
Expiration Date: SEP 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (04/06/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC BR ICV_00014

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Bromide
CATALOG NUMBER:	046 -125 mL; 987 - 500 mL
LOT NUMBER:	450817
ISSUE DATE:	September 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Bromide (KBr)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	1.2%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3184 Bromide
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 8/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC CL cal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-101CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018 Certifying Officer: Kathleen Cullin

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Reagent

IC CL cal_00058

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-154CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 997 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 996 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: APR - - 2019

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials -- Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c=combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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Phone: 1-800-LAB-SPEX Fax: 732-603-9647

Reagent

IC CL ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Chloride
CATALOG NUMBER:	047 -125 mL; 988 - 500 mL
LOT NUMBER:	091017
ISSUE DATE:	October 17, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Chloride (NaCl)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9984 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3182 Chloride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC F ICV_00012

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Fluoride
CATALOG NUMBER:	050 -125 mL; 989 - 500 mL
LOT NUMBER:	230918
ISSUE DATE:	October 11, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Fluoride (KF)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9995 ± 0.0008 g/mL at 20.6°C and 752 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	3183 Fluoride
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 9/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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Reagent

IC FL cal_00013

RICCA CHEMICAL COMPANY®

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Batesville, IN 47006
http://www.riccachemical.com
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customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F-

Lot Number: 4805C89 **Product Number:** 3173

Manufacture Date: MAY 07, 2018
Expiration Date: OCT 2019

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1000 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC MS/MSD Br_00003

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S255	Mfg. Date	3/3/2011
Lot Number	110569		
Description	SODIUM BROMIDE, A.C.S.		
Country of Origin	China	Recommended Retest Date	Mar-2016
Chemical Origin	Inorganic-non animal		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE GRANULATING POWDER
ASSAY	%	>= 99	99.5
BARIUM (Ba)	%	<= 0.002	<0.0020
BROMATE	%	<= 0.001	<0.0010
CALCIUM	%	<= 0.002	<0.0020
CHLORIDE	%	<= 0.2	0.09
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.001	<0.0010
PH 5% SOLN @ 25 DEG C		Inclusive Between 5.0 8.8	7.1
POTASSIUM (K)	%	<= 0.1	<0.10
SULFATE (SO4)	%	<= 0.002	<0.0020



Edgar E. Hans

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD F_00002

Fisher Scientific
1 Reagent Lane Fairlawn, NJ
07410 201.796.7100
tel 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB.

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S299**	**Mfg. Date**	**3/18/2011**
Lot Number	**110901**		
Description	**SODIUM FLUORIDE, A.C.S.**		
Country of Origin	**India**	**Recommended Retest Date**	**Mar-2016**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE POWDER
ASSAY	%	>= 99	99.2
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.003	<0.0030
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.02	0.010
IRON (Fe)	%	<= 0.003	<0.0030
LOSS ON DRYING @ 105 C	%	<= 0.3	0.30
POTASSIUM (K)	%	<= 0.02	0.003
SODIUM FLUOSILICATE	%	<= 0.1	0.01
SULFATE (SO4)	%	<= 0.03	<0.030
SULFITE	%	<= 0.005	0.003
TITRATABLE ACID	mEq/g	<= 0.03	0.020
TITRATABLE BASE	mEq/g	<= 0.01	0.001



Edgar E. Hau

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD N02_00002

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

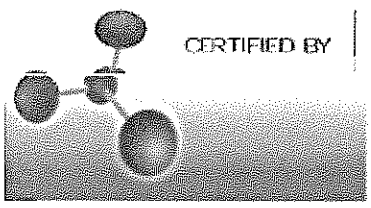
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S347**	**Quality Test / Release Date**	**9/9/2016**
Lot Number	**164254**		
Description	**SODIUM NITRITE, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Sep-2021**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	yELLOW-WHITE CRYSTALS
ASSAY	%	>= 97	98.6
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.001	<0.0010
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	%	<= 0.001	<0.0010
POTASSIUM (K)	%	<= 0.005	<0.0010
SULFATE (SO4)	%	<= 0.01	<0.010



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC MS/MSD N03_00005

Scientific

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ıir Lawn, NJ 07410
)1.796.7100 tel
)1.796.1329 fax

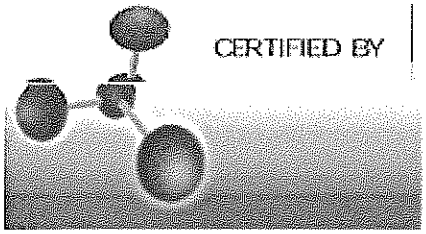
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

s is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been plied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability l fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. ıer does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

ıtalog Number	**S343**	**Quality Test / Release Date**	**8/23/2017**
)t Number	**176192**		
escription	**SODIUM NITRATE, A.C.S.**		
)untry of Origin	**Mexico**	*** Suggested Retest Date**	**Aug-2022**
ıemical Origin	**Inorganic-non animal**		
SE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

sult name	Units	Specifications	Test Value
PEARANCE		REPORT	Clear to white crystals.
SAY	%	>= 99	99.7
LCIUM	%	<= 0.005	0.001
LORIDE	%	<= 0.001	<0.0010
AVY METALS (as Pb)	ppm	<= 5	<5.0
ENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
SOLUBLE MATTER	%	<= 0.005	<0.005
)ATE	ppm	<= 5	<5.0
)N (Fe)	ppm	<= 3	<3.0
.GNESIUM	%	<= 0.002	0.0002
TRITE (NO2)	%	<= 0.001	<0.0010
5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.3	6.7
OSPHATE (PO4)	ppm	<= 5	<5.0
LFATE (SO4)	%	<= 0.003	<0.0030



CERTIFIED BY

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Reagent

IC MS/MSD P04_00002

Fisher Scientific

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Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P386**	**Mfg. Date**	**9/19/2011**
Lot Number	**112841**		
Description	**POTASSIUM PHOSPHATE MONOBASIC NF/FCC/EP/BP**		
Country of Origin	**United States**		
Chemical Origin	**Inorganic**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

FCC Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	MG/KG	<= 3	<3
ASSAY	%	>= 98.0	99.7
FLUORIDES	MG/KG	<= 10	<5
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD (Pb)	MG/KG	<= 2	<2.0
LOSS ON DRYING PER FCC	%	<= 1	<1.0

NF Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ARSENIC	ppm	<= 3	<3
ASSAY	%	Inclusive Between 98.0 100.5	99.7
ENDOTOXINS	EU/Mg	<= 1	<0.02000
FLUORIDES	%	<= 0.001	<0.0005
HEAVY METALS (as PB)	%	<= 0.002	<0.002
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.2	<0.20
LEAD	ppm	<= 5	<5
LOSS ON DRYING	%	<= 1.0	<1.0
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS

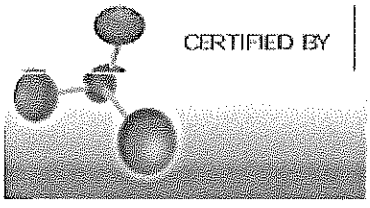
EP Grade

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS

ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
BACTERIAL ENDOTOXINS	EU/Mg	<= 1	<0.02000
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER EP	%	<= 2.0	<1.0
PH (5 % SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

British Pharmacopela Grade Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
APPEARANCE OF SOLN.	PASS/FAIL	= CLEAR AND COLORLESS	CLEAR AND COLORLESS
ARSENIC	ppm	<= 2	<2
ASSAY	%	Inclusive Between 98.0 100.5	99.8
CHLORIDES	ppm	<= 200	<200
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
IRON	ppm	<= 10	<10
LOSS ON DRYING PER BP	%	<= 2.0	<1.0
PH (5% SOLUTION)		Inclusive Between 4.2 4.5	4.3
REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
SODIUM	%	<= 0.1	0.03
SULFATES	ppm	<= 300	<300

Residual Solvents	No Class 1, Class 2, or Class 3 solvents, or any other solvents, are used in the manufacturing, handling, or storage of this storage, or in any cleaning process.



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.

Reagent

IC MS/MSD S04_00005

Fisher Scientific

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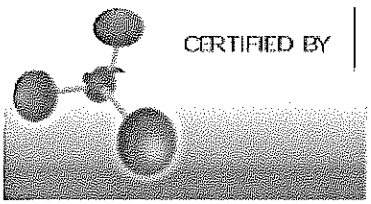
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

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Catalog Number	**P304**	**Quality Test / Release Date**	**3/2/2015**
Lot Number	**147276**		
Description	**POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Feb-2020**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99	99.4
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.005	<0.0050
NITROGEN COMPOUNDS	ppm	<= 5	<5
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.5	5.5
SODIUM (Na)	%	<= 0.02	<0.020



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC N02 CAL_00045

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Arlington, TX 76012
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Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2)

Lot Number: 1902672 **Product Number:** R5444900

Manufacture Date: FEB 04, 2019
Expiration Date: JUL 2019

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	995 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Israel Alamudun (02/04/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC N03 cal_00019

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Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2807E96 **Product Number:** 5459

Manufacture Date: JUL 24, 2018
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Andy Baumgartner (07/24/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC NO2 ICV_00016

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO_2-N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	020518
ISSUE DATE:	May 16, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite ($NaNO_2$)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	4.7%
MATRIX:	18 megohm deionized water
DENSITY:	1.0004 ± 0.0008 g/mL at 19.2°C and 752 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	-
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 5/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

IC P04 cal_00019

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Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H_2O

Lot Number: 4902D52 **Product Number:** AP1KW

Manufacture Date: FEB 08, 2019
Expiration Date: JAN 2021

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jim Gibbs (02/08/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC PO4 ICV_00015

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Phosphate as P (PO_4-P)
CATALOG NUMBER:	061 -125 mL; 993 - 500 mL
LOT NUMBER:	060617
ISSUE DATE:	June 20, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Dihydrogen Phosphate (KH_2PO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9996 ± 0.0008 g/mL at 23.5°C and 622 mm Hg
TRACEABILITY[3]:	103%
NIST/SRM:	3186 Phosphate
VERIFICATION METHOD:	Ion Chromatography
STORAGE: THIS	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009
ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005
ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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Reagent

IC SO4 ICV_00017

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	210617
ISSUE DATE:	June 27, 2017
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9987 ± 0.0008 g/mL at 22.5°C and 757 mm Hg
TRACEABILITY[3]:	99.5%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 6/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
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CERTIFICATE NO. 1539.02

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Reagent

IC sulfatecal_00053

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: AUG - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC sulfatecal_00055

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-131SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1003 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# 0713D. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as $BaSO_4$.

Instrumental Analysis by Ion Chromatography: 1004 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.04	NO_2^-	<0.03
Cl^-	<0.5	NO_3^-	<0.03
F^-	<0.006	$PO4^{-3}$	<0.06

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2018

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

ICP CAL STD 4_00002

CPI INTERNATIONAL

5617886
ID: ICP CAL STD 4_00002
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 SECONDARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-SS

Custom ISO G34 Second Source Standard

Lot #: 10094465-2

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 µg/mL	Ca	999.9 ± 5.0 µg/mL	Na	5000 ± 25 µg/mL
Al	99.98 ± 0.50 µg/mL	Fe	500.1 ± 2.5 µg/mL	Zn	100.0 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	10,000 ± 50 µg/mL	Zr	100.0 ± 0.5 µg/mL
Bi	200.0 ± 1.0 µg/mL	Mg	4000 ± 20 µg/mL		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

Europe
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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP CAL STD 4_00003

CPI INTERNATIONAL

5617860
ID: ICP CAL STD 4_00001
Exp: 09/22/19 Prpd: SJS
ICP CAL STD 4 PRIMARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-FEB19-DEN1-500

Custom ISO G34 Standard

Lot #: 10094465-3

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.1 ± 0.5 µg/mL	Ca	1000 ± 5 µg/mL	Na	5000 ± 25 µg/mL
Al	100.1 ± 0.5 µg/mL	Fe	500.3 ± 2.5 µg/mL	Zn	100.1 ± 0.5 µg/mL
B	100.0 ± 0.5 µg/mL	K	9999 ± 50 µg/mL	Zr	99.98 ± 0.50 µg/mL
Bi	200.2 ± 1.0 µg/mL	Mg	4001 ± 20 µg/mL		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

March 22, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP ICSAB 1_00001

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

5471540
ID: ICP ICSAB 1_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 1 CPI

Lot #: 990624-2

Matrix: 5% HNO_3/0.5% HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.0 ± 0.5 mg/L
Sb	100.0 ± 0.5 mg/L	Sn	100.0 ± 0.5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-1		
Vendor	CPI		
Lot number	990624-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICPICSAB1_00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CR	Instrument ID	MT-025
Verification Date	1/30/19	Method Reference	U010B
ID of Standard Used for Verification	5528932/5528182	Batch # / Chrom Work List #	445975

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:

Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	N/A

1st Level Review CL Date: 1/31/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



Reagent ID: ICP ICSAB 1_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 1 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990624-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-1
Open Date:	01/29/2019		
Container(s):	5471540		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Mo					100.00000	mg/L
Sb					100.00000	mg/L
Si					1000.00000	mg/L
Sn					100.00000	mg/L
Ti					100.00000	mg/L

Sample Name: xICSAB sol 1 100x Acquired: 1/30/2019 11:16:24 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: reagent bottle check

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.02433**	**.01266**	**.01718**	**.01887**	**.00044**	**.02174**	**.47181**	**.00071**
Stddev	.00004	.00024	.00489	.00084	.00010	.00012	.00685	.00076	.00006
%RSD	7.0663	.98064	38.631	4.8888	.52301	27.840	31.508	.16192	8.4479
#1	.00053	.02450	.01612	.01658	.01880	.00035	.02659	.47235	.00067
#2	.00058	.02416	.00920	.01777	.01894	.00052	.01690	.47127	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00410**	**.00242**	**.00153**	**.02006**	**.56757**	**.01037**	**.47512**	**.00496**	**1.0133**
Stddev	.00010	.00025	.00005	.00110	.03642	.00435	.00725	.00001	.0039
%RSD	2.5510	10.211	3.1263	5.4797	6.4175	42.012	1.5261	.23393	.38063
#1	.00417	.00225	.00150	.02084	.54181	.00729	.47000	.00497	1.0160
#2	.00403	.00260	.00157	.01928	.59333	.01345	.48025	.00496	1.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49431**	**.00430**	**.08410**	**.01084**	**.03507**	**.99570**	**.01580**	**9.9173**	**21.223**
Stddev	.00501	.00053	.00063	.00088	.00283	.00482	.00254	.0370	.079
%RSD	1.0130	12.416	.75155	8.1609	8.0821	.48413	16.067	.37264	.37264
#1	.49077	.00468	.08455	.01146	.03707	.99230	.01760	9.8912	21.167
#2	.49785	.00392	.08365	.01021	.03306	.99911	.01401	9.9434	21.279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0648**	**.00964**	**.01036**	**1.0237**	**.01971**	**.02237**	**.00551**	**.00635**	**.00546**
Stddev	.0013	.00014	.00233	.0003	.00077	.01226	.00033	.00030	.00002
%RSD	.12116	1.4717	22.449	.02853	3.9220	54.809	6.0687	4.7932	.32279
#1	1.0658	.00954	.00871	1.0239	.02026	.03104	.00575	.00656	.00548
#2	1.0639	.00974	.01200	1.0235	.01916	.01370	.00527	.00613	.00545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**4001.5**	**55629.**	**4846.2**
Stddev	8.9	65.	20.9
%RSD	.22316	.11631	.43220
#1	3995.2	55583.	4861.0
#2	4007.8	55674.	4831.4

Reagent

ICP ICSAB 2_00001

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-ICP-ICSAB-2		
Vendor	CPI		
Lot number	990626-2		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID	ICP ICSAB 2-00001
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	CL/CR	Instrument ID	MT_052 MT_025
Verification Date	1/21/19 1/29/19	Method Reference	L0103
ID of Standard Used for Verification	Calibration STDS	Batch # / Chrom Work List #	4449758/4455894

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	

1st Level Review: CL Date: 1/31/19

2nd Level Review: DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICP ICSAB 2 _ 00001

Reagent ID: ICP ICSAB 2_00001

Type:	ASTD	Expiration Date:	06/03/2019
Description:	ICP ICSAB 2 CPI	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Scott, Samantha J
Storage Location:	ICP	Vendor:	CPI
Reagent Volume:	250.000 mL	Vendor Lot #:	990626-2
Creation Date:	12/21/2017	Vendor Cat #:	TA-ICP-ICSAB-2
Open Date:	01/29/2019		
Container(s):	5471537		
Comment:			

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
As					100.00000	mg/L
B					1000.00000	mg/L
Ba					100.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					100.00000	mg/L
Cr					100.00000	mg/L
Cu					100.00000	mg/L
K					1000.00000	mg/L
Mn					100.00000	mg/L
Na					1000.00000	mg/L
Ni					100.00000	mg/L
P					1000.00000	mg/L
Pb					100.00000	mg/L
Se					100.00000	mg/L
Sr					100.00000	mg/L
Tl					100.00000	mg/L
V					100.00000	mg/L
Zn					100.00000	mg/L

52A012119.esws

Tuesday, January 22, 2019 7:50 AM

User: denmet

Workstation: DENPC507

Sample Name: ICSAB 2 100X

Date: 1/21/2019 2:07:16 PM

Rack:Tube: 1:90

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.966867	ppm	0.002732	0.28	27113.200000	Y 377.433
Al (394.401 nm)	-0.018589 u	ppm	0.000377	2.03	120.753000	Y 377.433
Al H (396.152 nm)	-0.080631 u	ppm	0.000855	1.06	12.478800	Y_R 377.433
As (188.980 nm)	0.937518	ppm	0.002548	0.27	1229.410000	Y 242.219
B (249.678 nm)	9.446880	ppm	0.011734	0.12	33938.900000	Y 242.219
Ba (493.408 nm)	0.969569	ppm	0.001606	0.17	87740.300000	Y_R 488.368
Be (234.861 nm)	0.466384	ppm	0.000072	0.02	26151.800000	Y_R 488.368
Bi (223.061 nm)	0.001837	ppm	0.002483	> 100.00	44.091400	Y 377.433
Ca (315.887 nm)	-0.003106 u	ppm	0.007441	> 100.00	18.818785	Y_R 377.433
Cd (214.439 nm)	0.974802	ppm	0.002985	0.31	25402.900000	Y 377.433
Co (228.615 nm)	0.978758	ppm	0.004920	0.50	20392.400000	Y 242.219
Cr (205.560 nm)	0.948655	ppm	0.001917	0.20	3826.770000	Y 377.433
Cu (324.754 nm)	0.971137	ppm	0.002614	0.27	45503.100000	Y 377.433
Fe (238.204 nm)	-0.000041 u	ppm	0.005163	> 100.00	10.116548	Y_R 377.433
Fe H (259.940 nm)	-0.222218 u	ppm	0.000618	0.28	1.482800	Y_R 377.433
K (766.491 nm)	9.955440	ppm	0.046489	0.47	11734.600000	Y_R2 488.368
Li (670.783 nm)	0.002338	ppm	0.002398	> 100.00	-636.367000	Y_R2 488.368
Mg (279.078 nm)	-0.004893 u	ppm	0.001386	28.33	1.042300	Y 377.433
Mn (257.610 nm)	0.984512	ppm	0.002227	0.23	189159.000000	Y 377.433
Mo (202.032 nm)	0.000102 u	ppm	0.000717	> 100.00	21.118500	Y 377.433
Na (589.592 nm)	9.389940	ppm	0.127054	1.35	4480.750000	Y_R2 488.368
Na H (589.593 nm)	7.370639 u	ppm	0.011086	0.15	3061.539033	Y_R4
Ni (231.604 nm)	0.972725	ppm	0.002305	0.24	3493.420000	Y 377.433
P (213.618 nm)	9.363070	ppm	0.023289	0.25	9381.970000	Y 242.219
Pb (220.353 nm)	0.994713	ppm	0.002048	0.21	2187.470000	Y 242.219
S (181.972 nm)	-0.017508 u	ppm	0.000015	0.09	2.280092	Y 377.433
Sb (206.834 nm)	0.001746 u	ppm	0.003005	> 100.00	29.044800	Y 377.433
Se (196.026 nm)	0.894485	ppm	0.006733	0.75	1281.770000	Y 242.219
Si (288.158 nm)	-0.001748 u	ppm	0.000507	29.01	377.617000	Y 377.433
Sn (189.925 nm)	-0.004588 u	ppm	0.000168	3.65	-1.654320	Y 377.433
Sr (421.552 nm)	0.967161	ppm	0.001611	0.17	106421.982008	Y_R 488.368
Th (288.505 nm)	-0.048933 u	ppm	0.005261	10.75	-112.903000	Y 377.433
Ti (336.122 nm)	0.000456	ppm	0.000097	21.34	-304.249000	Y 377.433
Tl (190.794 nm)	0.993837	ppm	0.000436	0.04	568.452000	Y 377.433
U (409.013 nm)	0.002082 u	ppm	0.006736	> 100.00	238.011000	Y 377.433
V (292.401 nm)	0.964201	ppm	0.002968	0.31	41257.400000	Y 377.433
Zn (206.200 nm)	0.992230	ppm	0.004980	0.50	3092.660000	Y 377.433
Zr (343.823 nm)	0.000098 u	ppm	0.000260	> 100.00	-51.254600	Y 377.433

Sample Name: ICSAB Sol 2 Acquired: 1/29/2019 15:38:12 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment: 100x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .96906	-.00340	1.0112	9.4842	1.0100	.49999	.00175	-.06604	.95028
Stddev	.00070	.00005	.0084	.0140	.0002	.00072	.00805	.00493	.00089
%RSD	.07261	1.5359	.83124	.14767	.02300	.14445	460.44	7.4694	.09328
#1	.96857	-.00336	1.0053	9.4941	1.0102	.50051	.00744	-.06255	.95091
#2	.96956	-.00344	1.0172	9.4743	1.0099	.49948	-.00394	-.06953	.94966
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.02000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97510	.98255	1.0095	-.00152	10.088	.00379	-.00580	.91712	.00092
Stddev	.00391	.00157	.0019	.00267	.030	.00092	.00435	.00154	.00057
%RSD	.40132	.16023	.18807	175.43	.29831	24.241	75.007	.16823	61.615
#1	.97787	.98367	1.0108	-.00342	10.109	.00443	-.00887	.91821	.00052
#2	.97233	.98144	1.0081	.00037	10.067	.00314	-.00272	.91603	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.062	W 10.363	.97101	9.3122	.99342	.01022	-.00250	1.0041	-.01800
Stddev	.003	.128	.00214	.0214	.00289	.00320	.00030	.0007	.00696
%RSD	.02670	1.2361	.22005	.22968	.29093	31.312	12.156	.06617	38.635
#1	10.060	10.273	.97252	9.3273	.99546	.01248	-.00271	1.0037	-.02292
#2	10.064	10.454	.96950	9.2970	.99137	.00795	-.00228	1.0046	-.01309
Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03853	-.00056	1.0257	.00369	.00020	1.0532	.01005	.92759	.89480
Stddev	.01489	.00053	.0020	.00219	.00018	.0029	.01643	.00224	.00413
%RSD	38.635	93.658	.19274	59.457	90.526	.27479	163.59	.24111	.46200
#1	-.04905	-.00019	1.0271	.00524	.00032	1.0552	-.00157	.92917	.89772
#2	-.02800	-.00094	1.0243	.00214	.00007	1.0511	.02166	.92601	.89188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.00366
Stddev	.00163
%RSD	44.615
#1	.00251
#2	.00482
Check ?	Chk Pass
High Limit	
Low Limit	

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

5471537
ID: ICP ICSAB 2_00001
Exp: 06/03/19 Prpd: SJS
ICP ICSAB 2 CPI

Lot #: 990626-2

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	99.98 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L
As	100.0 ± 0.5 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	100.1 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.1 ± 0.5 mg/L	Zn	100.1 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 3, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP LLCCV-2a_00010

Standard Verification Form TA-CM-OCT18-DENSR-500

Standard Information			
Vendor Standard Name	ICP LLCCV-2A		
Vendor	CPI International		
Lot number	# 10090185-1		
Initial Verification	☒	Re-Verification	☐

TALS "Reagent" Information	
TALS Standard ID ICP LLCCV-4-00010	
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	SS/CR	Instrument ID	MT-25/MT51
Verification Date	1/30/19	Method Reference	6010C
ID of Standard Used for Verification	ICP LLCCV4-00010	Batch # / Chrom Work List #	446036 446039

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:

Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	5/19/19

1st Level Review SS Date: 1/30/19

2nd Level Review DG Date: 1/31/19

QA Review (Re-verification only)		Date:

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00255**	**.00036**	**1.0047**	**.00032**
Stddev	.00007	.00061	.00058	.0085	.00017
%RSD	22.249	24.069	160.98	.84480	52.650
#1	.00038	.00212	-.00005	1.0107	.00020
#2	.00028	.00298	.00077	.99868	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00000**	**-.00048**	**-.00028**	**-.00042**
Stddev	.00001	.00553	.00256	.00005	.00010
%RSD	17.443	748150.	537.38	16.632	24.554
#1	.00003	-.00391	-.00229	-.00024	-.00035
#2	.00004	.00391	.00134	-.00031	-.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00130**	**.00088**	**.04958**	**.00161**
Stddev	.00008	.00040	.00450	.00732	.00228
%RSD	36.641	30.925	510.71	14.755	141.15
#1	.00028	-.00102	.00406	.05476	.00322
#2	.00017	-.00159	-.00230	.04441	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00017**	**.20636**	**.06243**	**-.00068**
Stddev	.00621	.00002	.00144	.00668	.00007
%RSD	704.64	12.859	.69592	10.708	10.347
#1	.00527	.00016	.20737	.06715	-.00073
#2	-.00351	.00019	.20534	.05770	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W **28.602**	**.00941**	**.93219**	**.20441**	**-.00477**
Stddev	.231	.00080	.00830	.00111	.00057
%RSD	.80679	8.5162	.89068	.54438	11.917
#1	28.765	.00998	.93806	.20519	-.00518
#2	28.439	.00885	.92632	.20362	-.00437
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	20.000				
Low Limit	-6.0000				

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837
Line	288.158 {117}	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**6.9653**	**14.906**	**1.0635**	**.00005**	**.00074**
Stddev	.5657	1.211	.0080	.00010	.00128
%RSD	8.1224	8.1224	.75098	204.33	172.19
#1	6.5652	14.050	1.0691	.00012	-.00016
#2	7.3653	15.762	1.0578	-.00002	.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LLCCV-2A Acquired: 1/30/2019 16:32:06 Type: Unk
Method: 6500_025(v9) Mode: CONC Corr. Factor: 1.000000
User: rhoadesc Prep Date: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.10301**	**-.00165**	**-.01130**	**.00045**	**.00148**
Stddev	.00039	.00056	.00796	.00022	.00019
%RSD	.37486	34.177	70.407	49.618	12.553
#1	.10274	-.00125	-.00568	.00060	.00161
#2	.10328	-.00205	-.01693	.00029	.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	**.10737**
Stddev	.00304
%RSD	2.8315
#1	.10952
#2	.10522
Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	**3890.6**	**54764.**	**4797.3**
Stddev	19.3	21.	3.8
%RSD	.49699	.03853	.07876
#1	3904.3	54779.	4794.6
#2	3876.9	54749.	4799.9

Sample Name: lccv 2a

Date: 1/30/2019 2:27:53 PM

Rack:Tube: 3:12

Weight (g): 1

Volume (mL): 1

Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000048	3.81	-339.440000	Y 377.433
Al (167.019 nm)	0.001696	ppm	0.000845	49.83	1.871810	Y_R 377.433
Al H (396.152 nm)	-0.020587 u	ppm	0.002888	14.03	32.631734	Y_R 377.433
As (188.980 nm)	0.000723 u	ppm	0.002356	> 100.00	-0.970725	Y 242.219
B (249.678 nm)	0.813216	ppm	0.047006	5.78	21874.000000	Y 242.219
Ba (493.408 nm)	-0.000896 u	ppm	0.000024	2.69	598.598000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000016	> 100.00	-47.571600	Y_R 488.368
Bi (223.061 nm)	-0.004182 u	ppm	0.000579	13.85	11.245000	Y 377.433
Ca (315.887 nm)	0.022497	ppm	0.007400	32.89	-56.854280	Y_R 377.433
Cd (214.439 nm)	-0.000023 u	ppm	0.000024	> 100.00	5.258060	Y 377.433
Co (228.615 nm)	0.000071	ppm	0.000056	78.59	-38.009000	Y 242.219
Cr (205.560 nm)	0.000045	ppm	0.000039	86.68	-3.139690	Y 377.433
Cu (324.754 nm)	0.001245	ppm	0.000109	8.79	622.379000	Y 377.433
Fe (238.204 nm)	0.000681	ppm	0.000210	30.84	21.007438	Y_R 377.433
Fe H (259.940 nm)	-0.161781 u	ppm	0.002169	1.34	15.721500	Y_R 377.433
K (766.491 nm)	0.111372	ppm	0.057292	51.44	-830.133000	Y_R2 488.368
Li (670.783 nm)	0.009646	ppm	0.000473	4.90	-1348.180000	Y_R2 488.368
Mg (279.078 nm)	0.000264	ppm	0.000066	24.84	60.535800	Y 377.433
Mn (257.610 nm)	-0.000023 u	ppm	0.000008	35.49	70.205200	Y 377.433
Mo (202.032 nm)	0.169223	ppm	0.010445	6.17	1702.140000	Y 377.433
Na (589.592 nm)	-0.029006 u	ppm	0.010864	37.45	385.781000	Y_R2 488.368
Na H (589.593 nm)	-0.896086 u	ppm	0.020122	2.25	2225.768499	Y_R 488.368
Ni (231.604 nm)	0.000372 u	ppm	0.000677	> 100.00	0.134162	Y 377.433
P (213.618 nm)	23.045500 o	ppm	1.330770	5.77	58100.800000	Y 242.219
Pb (220.353 nm)	-0.001310 u	ppm	0.000331	25.30	-1.855490	Y 242.219
S (181.972 nm)	0.728365	ppm	0.040987	5.63	417.926408	Y 377.433
Sb (206.834 nm)	0.165059	ppm	0.009553	5.79	476.065000	Y 377.433
Se (196.026 nm)	-0.002999 u	ppm	0.001270	42.36	11.827200	Y 242.219
Si (288.158 nm)	5.208390	ppm	0.502562	9.65	48419.800000	Y 377.433
Sn (189.925 nm)	0.837532	ppm	0.048034	5.74	2234.630000	Y 377.433
Sr (421.552 nm)	0.000133	ppm	0.000061	46.11	158.521803	Y_R 488.368
Th (288.505 nm)	0.003026	ppm	0.000486	16.08	69.191200	Y 377.433
Ti (336.122 nm)	0.083021	ppm	0.004935	5.94	12374.600000	Y 377.433
Tl (190.794 nm)	0.000337	ppm	0.000105	31.25	-9.290920	Y 377.433
U (409.013 nm)	0.001927	ppm	0.000273	14.16	-152.923000	Y 377.433
V (292.401 nm)	-0.000419 u	ppm	0.000023	5.46	15.573700	Y 377.433
Zn (206.200 nm)	0.000466	ppm	0.000052	11.15	2.238410	Y 377.433
Zr (343.823 nm)	0.085063	ppm	0.005356	6.30	12032.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.937661	19025.790936	0.001064	0.11
Y 377.433	0.960036	985122.681103	0.000581	0.06
Y_R 377.433	1.006470	69104.000000	0.004101	0.41
Y_R 488.368	1.019670	40383.200000	0.014164	1.39
Y_R2 488.368	1.053637	81193.558986	0.004178	0.40

5500073
ID: ICP LLCCV-2a_00010
Exp: 05/18/18 Prpd: SJS
ICP LLCCV-2A CPI

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CM-OCT18-DEN5R-500

Custom ISO Guide 34 ICP LLCCV-2A

Lot #: 10090185-1

Matrix: 2% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
B	10.01 ± 0.05 µg/mL	S	10.01 ± 0.05 µg/mL	Sn	10.01 ± 0.05 µg/mL
Mo	2.01 ± 0.01 µg/mL	Sb	2.02 ± 0.01 µg/mL	Ti	1.00 ± 0.01 µg/mL
P	300.0 ± 1.5 µg/mL	Si	49.19 ± 0.25 µg/mL	Zr	1.01 ± 0.01 µg/mL

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 18, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
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Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

ICP PDS 2_00021

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

tel: 800.669.6799 - 540.585.3030
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CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	STLDEN-PDS-2A
Lot Number:	M2-MEB659765
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	500 µg/mL ea: Silicon, 10 µg/mL ea: Tin, Boron, Antimony, 5 µg/mL ea: Molybdenum, Titanium, Zirconium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.07 µg/mL	Boron, B	10.00 ± 0.07 µg/mL
Molybdenum, Mo	5.002 ± 0.030 µg/mL	Silicon, Si	500.0 ± 3.2 µg/mL
Tin, Sn	10.00 ± 0.08 µg/mL	Titanium, Ti	5.002 ± 0.030 µg/mL
Zirconium, Zr	5.001 ± 0.030 µg/mL		

Density: 1.016 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
B	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	130920
Zr	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods **Characterization of CRM by one method**

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 07, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 07, 2020**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Reagent

Icp stk ICSA_00029

CPI INTERNATIONAL

5514208
ID: lcp stk ICSA_00027
Exp: 07/08/19 Prpd: SJS
ICP stock ICSA solution

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 982821-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 8, 2019
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

NaCl f_00004

Sodium Chloride, Crystal

`BAKER ANALYZED´® A.C.S. Reagent

Product No. 3624
Lot No. J48622
Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO_3)	0.003 % max.	0.002 %
Phosphate (PO_4)	5 ppm max.	< 3 ppm
Sulfate (SO_4)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %
For Laboratory, Research or Manufacturing Use		
Country of Origin: USA		

ISO
Phillipsburg, NJ 9001.2008, 14001.2004
Paris, KY 9001.2008
Mexico City, Mexico 9001.2008
Deventer, The Netherlands 9001.2008, 14001.2004, 13485.2003
Selangor, Malaysia 9001.2008
Panoli, India 9001.2008
Gliwice, Poland 9001.2008, 17025.2005

Marcy M. Matlosz
Director of QA & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151
Avantor ™ Performance Materials. Inc. (formerly Mallinckrodt Baker, Inc.)
222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Reagent

NH3 CAL STD_00030

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 1808L28 **Product Number:** 5455

Manufacture Date: AUG 29, 2018
Expiration Date: FEB 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (08/29/2018)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00026

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	M2-NH662533
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium Chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 996 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **993 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **997 ± 2 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2\ (u_{char\ a})^2 + (w_b)^2\ (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

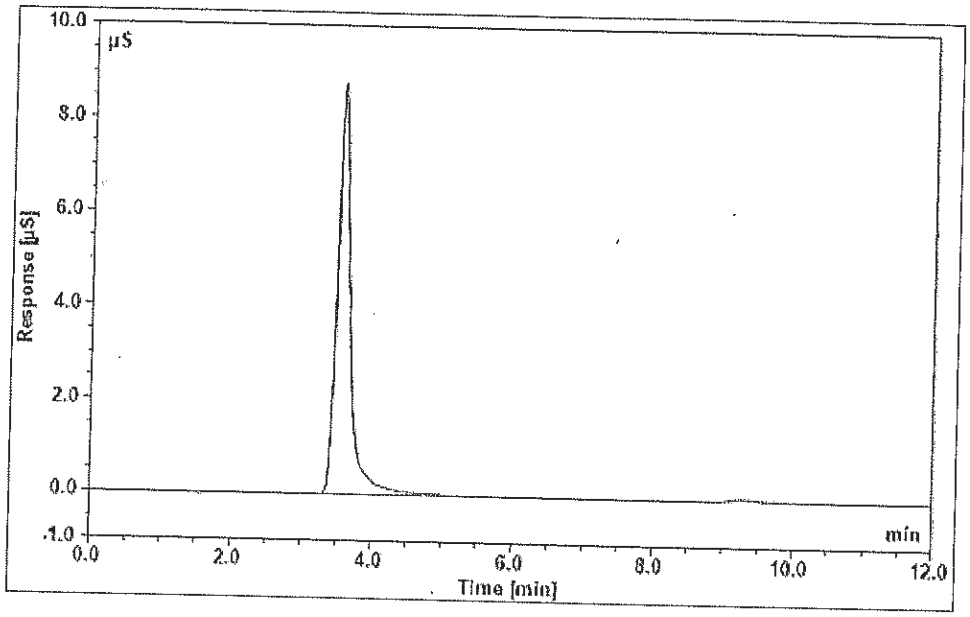
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS12A-5µm 3x150mm	**Eluent:**	20 mM MSA
Guard Column:	IonPac CG12A-5µm 3x30mm	**Eluent Flow Rate:**	0.50 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35° C
		Cell Temp:	35° C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	10 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	30 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 03, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- November 03, 2021

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

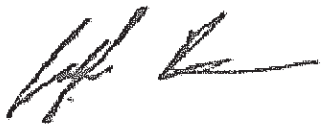
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

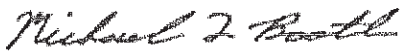
Certificate Prepared By:

Joseph Burns
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

Phenol CAL_00012

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: PHENOL STANDARD, 1000ppm (1mL = 1mg)

Mfg. Date: 12/07/2017

Catalog Number: LC18330

Exp. Date: 12/07/2019

Lot Number: G341-02

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm Phenol	1000ppm +/- 10ppm	1007 ppm
Concentration mg Phenol / L	1.000 + / - 0.010 mg/mL	1.007 mg/mL
Traceable to NIST	Potassium Dichromate	136f

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless otherwise noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

Submitted by: Greg Albright, Chemist Supervisor

Greg Albright

An ISO9001:2008 certified company. Registration # 0306-01

03/23/2018 5:05 PM

Form #17.13 07/28/2016

Reagent

Phenol ICV_00013

ERA

A Waters Company

Distributed by
SPEX CertiPrep
1-800-LAB-SPEX
www.spexcsp.com

Certificate of Analysis

PRODUCT:	1000 mg/L Phenol
CATALOG NUMBER:	982
LOT NUMBER:	090817
ISSUE DATE:	August 18, 2017
REVISION DATE:	August 2, 2018
STARTING MATERIAL:	Phenol (C_6H_5OH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.8%
MATRIX:	18 megohm deionized water and 1% (v/v) H_2SO_4
DENSITY:	1.0085 ± 0.0008 g/mL at 20.5°C and 761 mm Hg
TRACEABILITY[3]:	See Footnote 3
NIST/SRM:	NA
VERIFICATION METHOD:	Spectrophotometry
STORAGE:	Store at 4 ± 2°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009 ACCREDITED
REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED
CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

PREP SPK 1_00008

CPI INTERNATIONAL

5643174
ID: PREP SPK 1_00008
Exp: 05/21/20 Prpd: MRJ
Metals Prep Spike Mix 1 C

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 993218-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.1 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.1 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

November 21, 2018
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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F: 707.545.7901

Europe
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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO Guide 34 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 5, 03/01/2013

Further Information: Please contact CPI International for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is registered/accredited to the following:

- ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. No. 44 100 16560231)
- ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- ISO Guide 34 – General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO Guide 34 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	1077a		Hf	3122	—		S	3154	2770
Al	3101a	1075a		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	—		Sc	3148a	3148a
Au	3121	—		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	1066a
Ba	3104a	1051b		La	3127a	3127a		Sm	3147a	—
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	1057b
Bi	3106	3106		Lu	3130a	—		SO_4^{-2}	3181	—
Br^-	3184	—		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	—
Cd	3108	1053a		Mo	3134	3134		Tb	3157a	—
Ce	3110	3110		Na	3152a	3152a		Te	3156	—
Cl^-	3182	1818a		Nb	3137	—		Th	3159	—
Co	3113	3113		Nd	3135a	—		Ti	3162a	3162a
Cr	3112a	1078b		Ni	3136	1065b		Tl	3158	3158
Cs	3111a	—		NO_3^-	3185	—		Tm	3160a	—
Cu	3114	1080a		P	3139a	3139a		U	3164	—
Dy	3115a	—		Pb	3128	3128		V	3165	1052b
Er	3116a	—		Pd	3138	—		W	3163	3163
Eu	3117a	—		PO_4^{-3}	3186	—		Y	3167a	3167a
F^-	3183	—		Pr	3142a	—		Yb	3166a	—
Fe	3126a	1079b		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	—		Rb	3145a	—		Zr	3169	3169
Gd	3118a	—		Re	3143	—				
Ge	3120a	—		Rh	3144	3144				

Reagent

TKN CAL STD_00017

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Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

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Catalog Number: IS-009, IS-009-500
Lot Number: 010617

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00011

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 10/2020**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00037

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
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customerservice@riccachemical.com

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 4901G09 **Product Number:** 1847

Manufacture Date: JAN 22, 2019
Expiration Date: JAN 2020

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-32	1 L amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jim Gibbs (01/22/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00046

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1000 ± 5 µg/mL	NAA00089; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No.
AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: CT-0920

Lot Issue Date: 28 -Feb 2019
Expiration Date: 31-Mar 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG No.:

Project: Griffiss AFB, LF009 Landfill 6

Client Sample ID	Lab Sample ID
LF6VMW-22_0519	280-123924-1
LF6VMW-10R2_0519	280-123924-2
LF6VMW-26_0519	280-123924-3
LF6MW-12_0519	280-123924-4
LF6VMW-24_0519	280-123924-5
TMCMW-9_0519	280-123924-6
LF6/TMCSW-1_0519	280-123924-7
LF6/TMCSW-2_0519	280-123924-8
LF6/TMCSW-2_0519-a	280-123924-9
LF6W-1_0519	280-123924-10
LF6LH-1_0519	280-123924-11
LF6LH-2_0519	280-123924-12

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6VMW-22_0519 Lab Sample ID: 280-123924-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 09:15

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	8.3	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6VMW-10R2_0519 Lab Sample ID: 280-123924-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 10:28

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	6.1	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6VMW-26_0519 Lab Sample ID: 280-123924-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 09:25

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	53	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6MW-12_0519 Lab Sample ID: 280-123924-4

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 10:35

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	37	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6VMW-24_0519 Lab Sample ID: 280-123924-5

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 11:50

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	15	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TMCMW-9_0519 Lab Sample ID: 280-123924-6

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 12:58

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	110	100	15	4.4	ug/L			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6/TMCSW-1_0519 Lab Sample ID: 280-123924-7

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 11:15

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	15	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6/TMCSW-2_0519 Lab Sample ID: 280-123924-8

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 11:45

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	15	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6/TMCSW-2_0519-a
Lab Sample ID: 280-123924-9
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123924-1
SDG ID.:
Matrix: Water
Date Sampled: 05/16/2019 11:45
Reporting Basis: WET
Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	15	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6W-1_0519 Lab Sample ID: 280-123924-10

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 13:20

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	4.7	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6LH-1_0519 Lab Sample ID: 280-123924-11

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 12:50

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	8.4	100	15	4.4	ug/L	J		1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LF6LH-2_0519 Lab Sample ID: 280-123924-12

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 12:20

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Boron	14	100	15	4.4	ug/L	J		1	6010C

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

ICV Source: ICP ICV_00822 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	ICV 280-459449/10 05/24/2019 14:26				ICV 280-459449/11 05/24/2019 14:31				CCV 280-459449/160 05/24/2019 23:35			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	238		250	95	239		250	95	466		500	93

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

ICV Source: ICP ICV_00822 Concentration Units: ug/L

CCV Source: ICP CCV_00382

Analyte	CCV 280-459449/174 05/25/2019 00:24				CCV 280-459449/187 05/25/2019 01:10							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	465		500	93	462		500	92				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

ICV Source: ICP LLCCV_02550 Concentration Units: ug/L

CCV Source: ICP LLCCV_02550

Analyte	ICVL 280-459449/12 05/24/2019 14:47				CCVL 280-459449/162 05/24/2019 23:42				CCVL 280-459449/176 05/25/2019 00:31			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	92.7	J	100	93	87.9	J	100	88	87.2	J	100	87

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

ICV Source: ICP LLCCV_02550 Concentration Units: ug/L

CCV Source: ICP LLCCV_02550

Analyte	CCVL 280-459449/189 05/25/2019 01:17											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Boron	87.4	J	100	87								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Method: 6010C Instrument ID: MT_052

Lab Sample ID: CRI 280-459449/16 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_02550

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Boron	100	93.5	J	93	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-459449/15 05/24/2019 14:58		CCB 280-459449/161 05/24/2019 23:38		CCB 280-459449/175 05/25/2019 00:28		CCB 280-459449/188 05/25/2019 01:14	
		Found	C	Found	C	Found	C	Found	C
Boron	100	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-459135/1-A

Instrument Code: MT_052 Batch No.: 459449

CAS No.	Analyte	Concentration	C	Q	Method
7440-42-8	Boron	15	U		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Lab Sample ID: ICSA 280-459449/17 Instrument ID: MT_052

Lab File ID: 52A052419aa.csv ICS Source: ICP ICSA_00186

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		**13.5**	
Aluminum	*500000*	*523128*	*105*
Antimony		*-6.61*	
Arsenic		*3.03*	
Barium		*1.87*	
Cadmium		*0.530*	
Calcium	*500000*	*495011*	*99*
Cobalt		*-0.585*	
Copper		*-2.03*	
Iron	*200000*	*197337*	*99*
Lead		*7.45*	
Lithium		*-11.5*	
Magnesium	*500000*	*521121*	*104*
Manganese		*0.584*	
Molybdenum		*0.750*	
Nickel		*-4.40*	
Phosphorus		*13.8*	
Potassium		*275*	
Selenium		*11.5*	
Silicon		*43.4*	
Silver		*2.40*	
Thallium		*11.0*	
Tin		*-3.23*	
Titanium		*-2.01*	
Vanadium		*1.14*	
Zinc		*-3.41*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Lab Sample ID: ICSAB 280-459449/18 Instrument ID: MT_052

Lab File ID: 52A052419aa.csv ICS Source: ICP ICSAB_00213

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Boron	**10000**	**10886**	**109**
Aluminum	*500000*	*535785*	*107*
Antimony	*1000*	*1080*	*108*
Arsenic	*1000*	*1106*	*111*
Barium	*1000*	*1075*	*108*
Beryllium	*500*	*529*	*106*
Cadmium	*1000*	*1051*	*105*
Calcium	*500000*	*506038*	*101*
Chromium	*1000*	*1084*	*108*
Cobalt	*1000*	*998*	*100*
Copper	*1000*	*1103*	*110*
Iron	*200000*	*202386*	*101*
Lead	*1000*	*1038*	*104*
Lithium	*1000*	*1108*	*111*
Magnesium	*500000*	*536563*	*107*
Manganese	*1000*	*1043*	*104*
Molybdenum	*1000*	*1040*	*104*
Nickel	*1000*	*1010*	*101*
Phosphorus	*10000*	*10925*	*109*
Potassium	*10000*	*11643*	*116*
Selenium	*1000*	*1082*	*108*
Silicon	*10000*	*10679*	*107*
Silver	*1000*	*1172*	*117*
Sodium	*10000*	*11466*	*115*
Strontium	*1000*	*1050*	*105*
Thallium	*1000*	*1036*	*104*
Tin	*1000*	*1041*	*104*
Titanium	*1000*	*1044*	*104*
Vanadium	*1000*	*1051*	*105*
Zinc	*1000*	*1032*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: LF6VMW-22_0519 MS
Lab ID: 280-123924-1 MS
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123924-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	974		8.3	J	1000	97	85-113		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: LF6VMW-22_0519 MSD
Lab ID: 280-123924-1 MSD
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123924-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	965		1000	96	85-113	1	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: LF6VMW-22_0519 PDS
Lab ID: 280-123924-1 PDS
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123924-1
SDG No.:
Matrix: Water
Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Boron	104		8.3	J	100	96	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-459135/2-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Boron	1000	935		93	85	113		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-459135/3-A

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

Sample Matrix: Water LCS Source: PREP SPK 4_00004

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Boron	941		1000	94	85-113	1	20		6010C

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-123924-1

SDG No:

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123924-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Boron	8.3	J	75	U	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C DL Date: 02/03/2019 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Boron	208.9	100	4.37

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Boron		100	4.37

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	394.401														
Aluminum	396.152								-0.000104					-0.000023	
Antimony	206.834											0.004372		0.00005	
Arsenic	188.980													-0.000018	
Barium	493.408													0.000008	
Beryllium	234.861													-0.000043	
Bismuth	223.061													0.000079	0.000001
Boron	249.678													-0.000081	
Cadmium	214.439													0.000011	
Calcium	315.887		0.000314												
Chromium	205.560		-0.000004				-0.00014								
Cobalt	228.615													0	
Copper	324.754		0.000005						-0.000012						
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.000052									-0.00051			
Lithium	670.783														
Magnesium	279.078													-0.000401	
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604								0					0	
Phosphorus	213.618												-0.16455		
Potassium	766.491														
Selenium	196.026													-0.000171	
Silicon	288.158													0	
Silver	328.068														
Sodium	589.592					-0.030677	-								
Sodium	589.593					-0.275847									
Strontium	421.552													0.000001	
Sulfur	181.972								0.000105					-	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.794		0.00001118						-0.000017		0.00204			-0.000053	
Thorium	288.505						-0.00596		-0.000014					-0.000047	
Tin	189.925														
Titanium	336.122								0.000026					-	
Uranium	409.013								-0.000041					0.000232	
Vanadium	292.401											-0.00709			
Zinc	206.200													0.000031	
Zirconium	343.823													0	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Aluminum	396.152				0.040824										0.190657
Aluminum	394.401														0.02099
Antimony	206.834				-0.00389									-0.00029	
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560				-0.0007		-0.00029								
Cobalt	228.615						0.0001								
Copper	324.754				0.000286										
Iron	238.204														
Iron	259.940														
Lead	220.353				-0.000822										
Lithium	670.783														
Magnesium	279.078														
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618				-0.023999										
Potassium	766.491														
Selenium	196.026			0.000916	0.000109										
Silicon	288.158														
Silver	328.068														
Sodium	589.593														
Sodium	589.592														
Strontium	421.552														
Sulfur	181.972			0.006869											

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Thallium	190.794				-0.00234										
Thorium	288.505			0.011354											
Tin	189.925														
Titanium	336.122						0.000067								
Uranium	409.013														
Vanadium	292.401				-0.0014										
Zinc	206.200														
Zirconium	343.823														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	394.401	-0.021133			0.011488										
Aluminum	396.152														
Antimony	206.834		0.00261					-0.00114							
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560														
Cobalt	228.615		0.001881												
Copper	324.754	0.004174	-0.000232		-0.00125										
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.00043		0.000755										
Lithium	670.783														
Magnesium	279.078				-0.00486										
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604			0.000222											
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026														
Silicon	288.158														
Silver	328.068				-0.000389	-0.011329		0.0060693							
Sodium	589.592														
Sodium	589.593														
Strontium	421.552														
Sulfur	181.972														

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 03/22/2019

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.794		-0.00212												
Thorium	288.505		-		0.002914	-0.06422									
Tin	189.925														
Titanium	336.122														
Uranium	409.013							-0.039324							
Vanadium	292.401	0.002016	0.000703		-0.0001										
Zinc	206.200														
Zirconium	343.823														

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Denver Job No: 280-123924-1

SDG No.:

Instrument ID: MT_052 Date: 04/09/2019 07:05

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Boron		50	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-459135/1-A	05/24/2019 06:00	459135		50	50
LCS 280-459135/2-A	05/24/2019 06:00	459135		50	50
LCSD 280-459135/3-A	05/24/2019 06:00	459135		50	50
280-123924-1	05/24/2019 06:00	459135		50	50
280-123924-1 MS	05/24/2019 06:00	459135		50	50
280-123924-1 MSD	05/24/2019 06:00	459135		50	50
280-123924-2	05/24/2019 06:00	459135		50	50
280-123924-3	05/24/2019 06:00	459135		50	50
280-123924-4	05/24/2019 06:00	459135		50	50
280-123924-5	05/24/2019 06:00	459135		50	50
280-123924-6	05/24/2019 06:00	459135		50	50
280-123924-7	05/24/2019 06:00	459135		50	50
280-123924-8	05/24/2019 06:00	459135		50	50
280-123924-9	05/24/2019 06:00	459135		50	50
280-123924-10	05/24/2019 06:00	459135		50	50
280-123924-11	05/24/2019 06:00	459135		50	50
280-123924-12	05/24/2019 06:00	459135		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				B																								
ICIS 280-459449/1	1		13:50	X																								
IC 280-459449/2			13:53	X																								
IC 280-459449/3			13:57	X																								
IC 280-459449/4			14:01	X																								
ZZZZZZ			14:05																									
ZZZZZZ			14:09																									
ZZZZZZ			14:12																									
ICVH 280-459449/8	1		14:17	X																								
ICVH 280-459449/9	1		14:21	X																								
ICV 280-459449/10	1		14:26	X																								
ICV 280-459449/11	1		14:31	X																								
ICVL 280-459449/12	1		14:47	X																								
CCVH 280-459449/13			14:51																									
CCV 280-459449/14			14:55																									
ICB 280-459449/15	1		14:58	X																								
CRI 280-459449/16	1		15:01	X																								
ICSA 280-459449/17	1		15:05	X																								
ICSAB 280-459449/18	1		15:09	X																								
LRA 280-459449/19			15:12																									
CCVH 280-459449/20			15:16																									
CCV 280-459449/21			15:20																									
CCB 280-459449/22			15:24																									
CCVL 280-459449/23			15:27																									
ZZZZZZ			15:31																									
ZZZZZZ			15:35																									
ZZZZZZ			15:38																									
ZZZZZZ			15:42																									
ZZZZZZ			15:45																									
ZZZZZZ			15:49																									
ZZZZZZ			15:52																									
ZZZZZZ			15:56																									
ZZZZZZ			16:00																									
ZZZZZZ			16:03																									
CCVH 280-459449/34			16:07																									
CCV 280-459449/35			16:11																									
CCB 280-459449/36			16:14																									
CCVL 280-459449/37			16:18																									
ZZZZZZ			16:21																									
ZZZZZZ			16:25																									
ZZZZZZ			16:28																									
ZZZZZZ			16:32																									
ZZZZZZ			16:36																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				B																								
ZZZZZZ			16:39																									
ZZZZZZ			16:43																									
ZZZZZZ			16:46																									
ZZZZZZ			16:50																									
ZZZZZZ			16:54																									
CCVH 280-459449/48			16:57																									
CCV 280-459449/49			17:01																									
CCB 280-459449/50			17:05																									
CCVL 280-459449/51			17:08																									
ZZZZZZ			17:12																									
ZZZZZZ			17:15																									
ZZZZZZ			17:19																									
ZZZZZZ			17:22																									
ZZZZZZ			17:26																									
ZZZZZZ			17:29																									
ZZZZZZ			17:33																									
ZZZZZZ			17:36																									
ZZZZZZ			17:40																									
ZZZZZZ			17:44																									
CCVH 280-459449/62			17:47																									
CCV 280-459449/63			17:51																									
CCB 280-459449/64			17:54																									
CCVL 280-459449/65			17:58																									
ZZZZZZ			18:01																									
ZZZZZZ			18:04																									
ZZZZZZ			18:08																									
ZZZZZZ			18:11																									
ZZZZZZ			18:15																									
ZZZZZZ			18:19																									
ZZZZZZ			18:23																									
ZZZZZZ			18:27																									
ZZZZZZ			18:30																									
ZZZZZZ			18:34																									
CCVH 280-459449/76			18:37																									
CCV 280-459449/77			18:41																									
CCB 280-459449/78			18:45																									
CCVL 280-459449/79			18:48																									
ZZZZZZ			18:51																									
ZZZZZZ			18:55																									
ZZZZZZ			18:58																									
ZZZZZZ			19:02																									
ZZZZZZ			19:06																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			19:09	
ZZZZZZ			19:13	
ZZZZZZ			19:16	
ZZZZZZ			19:20	
ZZZZZZ			19:23	
CCVH 280-459449/90			19:27	
CCV 280-459449/91			19:31	
CCB 280-459449/92			19:34	
CCVL 280-459449/93			19:38	
ZZZZZZ			19:41	
ZZZZZZ			19:45	
ZZZZZZ			19:48	
ZZZZZZ			19:51	
ZZZZZZ			19:55	
ZZZZZZ			19:59	
ZZZZZZ			20:02	
ZZZZZZ			20:06	
ZZZZZZ			20:10	
ZZZZZZ			20:13	
CCVH 280-459449/104			20:16	
CCV 280-459449/105			20:20	
CCB 280-459449/106			20:24	
CCVL 280-459449/107			20:27	
ZZZZZZ			20:30	
ZZZZZZ			20:34	
ZZZZZZ			20:37	
ZZZZZZ			20:41	
ZZZZZZ			20:44	
ZZZZZZ			20:48	
ZZZZZZ			20:51	
ZZZZZZ			20:55	
ZZZZZZ			20:58	
ZZZZZZ			21:02	
CCVH 280-459449/118			21:05	
CCV 280-459449/119			21:09	
CCB 280-459449/120			21:13	
CCVL 280-459449/121			21:16	
ZZZZZZ			21:19	
ZZZZZZ			21:23	
ZZZZZZ			21:27	
ZZZZZZ			21:30	
ZZZZZZ			21:34	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
ZZZZZZ			21:37	
ZZZZZZ			21:41	
ZZZZZZ			21:44	
ZZZZZZ			21:48	
ZZZZZZ			21:51	
CCVH 280-459449/132			21:55	
CCV 280-459449/133			21:58	
CCB 280-459449/134			22:02	
CCVL 280-459449/135			22:05	
ZZZZZZ			22:09	
ZZZZZZ			22:12	
ZZZZZZ			22:16	
ZZZZZZ			22:20	
ZZZZZZ			22:23	
ZZZZZZ			22:26	
ZZZZZZ			22:30	
ZZZZZZ			22:34	
ZZZZZZ			22:37	
ZZZZZZ			22:41	
CCVH 280-459449/146			22:45	
CCV 280-459449/147			22:48	
CCB 280-459449/148			22:52	
CCVL 280-459449/149			22:55	
ZZZZZZ			22:58	
ZZZZZZ			23:02	
ZZZZZZ			23:06	
ZZZZZZ			23:09	
ZZZZZZ			23:13	
ZZZZZZ			23:16	
ZZZZZZ			23:20	
ZZZZZZ			23:24	
ZZZZZZ			23:27	
CCVH 280-459449/159	1		23:31	X
CCV 280-459449/160	1		23:35	X
CCB 280-459449/161	1		23:38	X
CCVL 280-459449/162	1		23:42	X
MB 280-459135/1-A	1	T	23:45	X
LCS 280-459135/2-A	1	T	23:48	X
LCSD 280-459135/3-A	1	T	23:52	X
280-123924-1	1	T	23:56	X
280-123924-1 SD	5	T	23:59	X
280-123924-1 MS	1	T	00:03	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010C

Start Date: 05/24/2019 13:50 End Date: 05/25/2019 09:04

Lab Sample Id	D/F	Type	Time	Analytes
				B
280-123924-1 MSD	1	T	00:06	X
280-123924-1 PDS	1	T	00:10	X
280-123924-2	1	T	00:14	X
280-123924-3	1	T	00:17	X
CCVH 280-459449/173	1		00:21	X
CCV 280-459449/174	1		00:24	X
CCB 280-459449/175	1		00:28	X
CCVL 280-459449/176	1		00:31	X
280-123924-4	1	T	00:35	X
280-123924-5	1	T	00:38	X
280-123924-6	1	T	00:42	X
280-123924-7	1	T	00:45	X
280-123924-8	1	T	00:49	X
280-123924-9	1	T	00:52	X
280-123924-10	1	T	00:56	X
280-123924-11	1	T	01:00	X
280-123924-12	1	T	01:03	X
CCVH 280-459449/186	1		01:07	X
CCV 280-459449/187	1		01:10	X
CCB 280-459449/188	1		01:14	X
CCVL 280-459449/189	1		01:17	X
ZZZZZZ			01:21	
ZZZZZZ			01:24	
ZZZZZZ			01:28	
ZZZZZZ			01:31	
ZZZZZZ			01:35	
ZZZZZZ			01:39	
ZZZZZZ			01:43	
CCVH 280-459449/197			01:47	
CCV 280-459449/198			01:50	
CCB 280-459449/199			01:54	
CCVL 280-459449/200			01:57	
ZZZZZZ			09:04	

Prep Types:
T = Total/NA

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

ICP Instrument ID: MT_052 Start Date: 05/24/2019 End Date: 05/25/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 242.219	Q	Element Y 377.433	Q	Element Y 488.368	Q	Element	Q	Element	Q
ICIS 280-459449/1	13:50										
ICVH 280-459449/8	14:17	95		95		96					
ICVH 280-459449/9	14:21	94		94		96					
ICV 280-459449/10	14:26	95		94		94					
ICV 280-459449/11	14:31	95		95		97					
ICVL 280-459449/12	14:47	97		96		96					
ICB 280-459449/15	14:58	97		96		96					
CRI 280-459449/16	15:01	99		98		99					
ICSA 280-459449/17	15:05	84		83		89					
ICSAB 280-459449/18	15:09	86		85		91					
CCVH 280-459449/159	23:31	113		110		119					
CCV 280-459449/160	23:35	117		115		121					
CCB 280-459449/161	23:38	118		116		123					
CCVL 280-459449/162	23:42	120		117		124					
MB 280-459135/1-A	23:45	119		117		124					
LCS 280-459135/2-A	23:48	114		113		121					
LCSD 280-459135/3-A	23:52	113		112		119					
280-123924-1	23:56	116		114		122					
280-123924-1 SD	23:59	117		115		121					
280-123924-1 MS	00:03	111		110		118					
280-123924-1 MSD	00:06	111		109		118					
280-123924-1 PDS	00:10	113		111		118					
280-123924-2	00:14	114		112		118					
280-123924-3	00:17	112		110		119					
CCVH 280-459449/173	00:21	112		109		119					
CCV 280-459449/174	00:24	114		112		119					
CCB 280-459449/175	00:28	116		114		120					
CCVL 280-459449/176	00:31	119		116		122					
280-123924-4	00:35	113		112		120					
280-123924-5	00:38	113		111		120					
280-123924-6	00:42	113		112		120					
280-123924-7	00:45	113		111		120					
280-123924-8	00:49	112		111		120					
280-123924-9	00:52	114		112		121					
280-123924-10	00:56	118		116		124					
280-123924-11	01:00	117		115		121					
280-123924-12	01:03	113		111		118					
CCVH 280-459449/186	01:07	114		112		122					
CCV 280-459449/187	01:10	116		114		120					
CCB 280-459449/188	01:14	117		115		122					
CCVL 280-459449/189	01:17	119		117		123					

FORM XV - IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

ICP Instrument ID: MT_052 Start Date: 05/24/2019 End Date: 05/25/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 242.219	Q	Element Y 377.433	Q	Element Y 488.368	Q	Element	Q	Element	Q

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459135 Batch Start Date: 05/24/19 06:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/24/19 12:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	PREP SPK 1 00008	PREP SPK 2 00004	PREP SPK 3 00004
MB 280-459135/1		3010A, 6010C			50 mL	50 mL			
LCS 280-459135/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
LCSD 280-459135/3		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123924-F-1	LF6VMW-22_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-1 MS	LF6VMW-22_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123924-F-1 MSD	LF6VMW-22_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL
280-123924-F-2	LF6VMW-10R2_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-3	LF6VMW-26_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-4	LF6MW-12_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-5	LF6VMW-24_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-6	TMCMW-9_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-7	LF6/TMCSW-1_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-8	LF6/TMCSW-2_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-9	LF6/TMCSW-2_0519 -a	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-10	LF6W-1_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-11	LF6LH-1_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			
280-123924-F-12	LF6LH-2_0519	3010A, 6010C	T	<2 SU	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PREP SPK 4 00004					
MB 280-459135/1		3010A, 6010C							
LCS 280-459135/2		3010A, 6010C		0.5 mL					
LCSD 280-459135/3		3010A, 6010C		0.5 mL					
280-123924-F-1	LF6VMW-22_0519	3010A, 6010C	T						
280-123924-F-1 MS	LF6VMW-22_0519	3010A, 6010C	T	0.5 mL					
280-123924-F-1 MSD	LF6VMW-22_0519	3010A, 6010C	T	0.5 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459135 Batch Start Date: 05/24/19 06:00 Batch Analyst: Rhoades, Chris R

Batch Method: 3010A Batch End Date: 05/24/19 12:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	PREP SPK 4 00004					
280-123924-F-2	LF6VMW-10R2_0519	3010A, 6010C	T						
280-123924-F-3	LF6VMW-26_0519	3010A, 6010C	T						
280-123924-F-4	LF6MW-12_0519	3010A, 6010C	T						
280-123924-F-5	LF6VMW-24_0519	3010A, 6010C	T						
280-123924-F-6	TMCMW-9_0519	3010A, 6010C	T						
280-123924-F-7	LF6/TMCSW-1_0519	3010A, 6010C	T						
280-123924-F-8	LF6/TMCSW-2_0519	3010A, 6010C	T						
280-123924-F-9	LF6/TMCSW-2_0519 -a	3010A, 6010C	T						
280-123924-F-10	LF6W-1_0519	3010A, 6010C	T						
280-123924-F-11	LF6LH-1_0519	3010A, 6010C	T						
280-123924-F-12	LF6LH-2_0519	3010A, 6010C	T						

Batch Notes	
Temperature - Corrected - End	93 Degrees C
Temperature - Corrected - Start	91 Degrees C
Digestion End Time	05/24/2019 12:00
Digestion Start Time	05/24/2019 06:00
Digestion Unit ID	02
Hydrochloric Acid ID	0000217157-05/03
Nitric Acid ID	0000216908-05/03
Pipette/Syringe/Dispenser ID	MET-116
Thermometer ID	QA-22
Digestion Tube/Cup ID	1812114
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	91 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Path: D:\My Results\52A052419.esws

Date created: 5/24/2019 12:17:42 PM

Instrument used: MY18171010

Software Version : 7.4.2.10790

Firmware Version : 3784

Notes:

Sample Name: icis

Date: 5/24/2019 1:50:34 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000000 !	ppm	N/A	N/A	-267.045000 !	Y 377.433
Al (394.401 nm)	0.000000 !	ppm	N/A	N/A	90.444400 !	Y 377.433
Al H (396.152 nm)	0.000000 !	ppm	N/A	N/A	51.855400 !	Y_R 377.433
As (188.980 nm)	0.000000 !	ppm	N/A	N/A	-1.575970 !	Y 242.219
B (249.678 nm)	0.000000 !	ppm	N/A	N/A	46.671100 !	Y 242.219
Ba (493.408 nm)	0.000000 !	ppm	N/A	N/A	1399.460000 !	Y_R 488.368
Be (234.861 nm)	0.000000 !	ppm	N/A	N/A	-1.978600 !	Y_R 488.368
Bi (223.061 nm)	0.000000 !	ppm	N/A	N/A	-10.611700 !	Y 377.433
Ca (315.887 nm)	0.000000 !	ppm	N/A	N/A	-69.038458 !	Y_R 377.433
Cd (214.439 nm)	0.000000 !	ppm	N/A	N/A	-5.179760 !	Y 377.433
Co (228.615 nm)	0.000000 !	ppm	N/A	N/A	-15.131600 !	Y 242.219
Cr (205.560 nm)	0.000000 !	ppm	N/A	N/A	-6.753520 !	Y 377.433
Cu (324.754 nm)	0.000000 !	ppm	N/A	N/A	317.963000 !	Y 377.433
Fe (238.204 nm)	0.000000 !	ppm	N/A	N/A	7.139494 !	Y_R 377.433
Fe H (259.940 nm)	0.000000 !	ppm	N/A	N/A	13.492100 !	Y_R 377.433
K (766.491 nm)	0.000000 !	ppm	N/A	N/A	1937.380000 !	Y_R2 488.368
Li (670.783 nm)	0.000000 !	ppm	N/A	N/A	-2545.770000 !	Y_R2 488.368
Mg (279.078 nm)	0.000000 !	ppm	N/A	N/A	8.407430 !	Y 377.433
Mn (257.610 nm)	0.000000 !	ppm	N/A	N/A	-11.057100 !	Y 377.433
Mo (202.032 nm)	0.000000 !	ppm	N/A	N/A	11.132500 !	Y 377.433
Na (589.592 nm)	0.000000 !	ppm	N/A	N/A	150.393000 !	Y_R2 488.368
Na H (589.593 nm)	0.000000 !	ppm	N/A	N/A	52.579926 !	Y_R4
Ni (231.604 nm)	0.000000 !	ppm	N/A	N/A	-8.621800 !	Y 377.433
P (213.618 nm)	0.000000 !	ppm	N/A	N/A	-4.070530 !	Y 242.219
Pb (220.353 nm)	0.000000 !	ppm	N/A	N/A	8.254170 !	Y 242.219
S (181.972 nm)	0.000000 !	ppm	N/A	N/A	12.698613 !	Y 377.433
Sb (206.834 nm)	0.000000 !	ppm	N/A	N/A	1.776990 !	Y 377.433
Se (196.026 nm)	0.000000 !	ppm	N/A	N/A	8.857090 !	Y 242.219
Si (288.158 nm)	0.000000 !	ppm	N/A	N/A	488.546000 !	Y 377.433
Sn (189.925 nm)	0.000000 !	ppm	N/A	N/A	2.090400 !	Y 377.433
Sr (421.552 nm)	0.000000 !	ppm	N/A	N/A	23.169446 !	Y_R 488.368
Th (288.505 nm)	0.000000 !	ppm	N/A	N/A	12.700100 !	Y 377.433
Ti (336.122 nm)	0.000000 !	ppm	N/A	N/A	-433.882000 !	Y 377.433
Tl (190.794 nm)	0.000000 !	ppm	N/A	N/A	1.816620 !	Y 377.433
U (409.013 nm)	0.000000 !	ppm	N/A	N/A	-24.762300 !	Y 377.433
V (292.401 nm)	0.000000 !	ppm	N/A	N/A	-145.643000 !	Y 377.433
Zn (206.200 nm)	0.000000 !	ppm	N/A	N/A	4.064370 !	Y 377.433
Zr (343.823 nm)	0.000000 !	ppm	N/A	N/A	-161.615000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.000000 !	23115.465534 !	0.000000	0.00
Y 377.433	1.000000 !	699431.216509 !	0.000000	0.00
Y_R 377.433	1.000000 !	60628.700000 !	0.000000	0.00
Y_R 488.368	1.000000 !	52827.700000 !	0.000000	0.00
Y_R2 488.368	1.000000 !	106005.291079 !	0.000000	0.00
Y_R4	1.000000 !	45000.000000 !	0.000000	0.00

Sample Name: ic1

Date: 5/24/2019 1:53:46 PM Rack:Tube: 3:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.000000 !	ppm	N/A	N/A	34420.100000 !	Y 377.433
Al (394.401 nm)	1.000000 !	ppm	N/A	N/A	12295.500000 !	Y 377.433
Al H (396.152 nm)	1.000000 !	ppm	N/A	N/A	1927.770000 !	Y_R 377.433
As (188.980 nm)	1.000000 !	ppm	N/A	N/A	1505.320000 !	Y 242.219
B (249.678 nm)	1.000000 !	ppm	N/A	N/A	7188.330000 !	Y 242.219
Ba (493.408 nm)	1.000000 !	ppm	N/A	N/A	101093.000000 !	Y_R 488.368
Be (234.861 nm)	1.000000 !	ppm	N/A	N/A	98480.800000 !	Y_R 488.368
Bi (223.061 nm)	2.000000 !	ppm	N/A	N/A	4369.640000 !	Y 377.433
Ca (315.887 nm)	10.000000 !	ppm	N/A	N/A	7873.018724 !	Y_R 377.433
Cd (214.439 nm)	1.000000 !	ppm	N/A	N/A	36974.900000 !	Y 377.433
Co (228.615 nm)	1.000000 !	ppm	N/A	N/A	23484.900000 !	Y 242.219
Cr (205.560 nm)	1.000000 !	ppm	N/A	N/A	6662.940000 !	Y 377.433
Cu (324.754 nm)	1.000000 !	ppm	N/A	N/A	46959.100000 !	Y 377.433
Fe (238.204 nm)	5.000000 !	ppm	N/A	N/A	12043.012362 !	Y_R 377.433
Fe H (259.940 nm)	5.000000 !	ppm	N/A	N/A	6926.340000 !	Y_R 377.433
K (766.491 nm)	100.000000 !	ppm	N/A	N/A	98496.100000 !	Y_R2 488.368
Li (670.783 nm)	1.000000 !	ppm	N/A	N/A	14624.500000 !	Y_R2 488.368
Mg (279.078 nm)	40.000000 !	ppm	N/A	N/A	130903.000000 !	Y 377.433
Mn (257.610 nm)	1.000000 !	ppm	N/A	N/A	272649.000000 !	Y 377.433
Mo (202.032 nm)	1.000000 !	ppm	N/A	N/A	12615.400000 !	Y 377.433
Na (589.592 nm)		ppm	N/A	N/A	40893.200000 !	Y_R2 488.368
Na H (589.593 nm)		ppm	N/A	N/A	26976.026888 !	Y_R4
Ni (231.604 nm)	1.000000 !	ppm	N/A	N/A	5165.430000 !	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	-153.150000 !	Y 242.219
Pb (220.353 nm)	1.000000 !	ppm	N/A	N/A	3186.400000 !	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	24.996043 !	Y 377.433
Sb (206.834 nm)	1.000000 !	ppm	N/A	N/A	1690.430000 !	Y 377.433
Se (196.026 nm)	1.000000 !	ppm	N/A	N/A	1517.040000 !	Y 242.219
Si (288.158 nm)	10.000000 !	ppm	N/A	N/A	64864.200000 !	Y 377.433
Sn (189.925 nm)	1.000000 !	ppm	N/A	N/A	1611.150000 !	Y 377.433
Sr (421.552 nm)	1.000000 !	ppm	N/A	N/A	150624.251629 !	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	-39.509800 !	Y 377.433
Ti (336.122 nm)	1.000000 !	ppm	N/A	N/A	127522.000000 !	Y 377.433
Tl (190.794 nm)	1.000000 !	ppm	N/A	N/A	2288.810000 !	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	-45.760300 !	Y 377.433
V (292.401 nm)	1.000000 !	ppm	N/A	N/A	51838.700000 !	Y 377.433
Zn (206.200 nm)	1.000000 !	ppm	N/A	N/A	4500.800000 !	Y 377.433
Zr (343.823 nm)	1.000000 !	ppm	N/A	N/A	56450.100000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.976917 !	22581.901479 !	0.002168	0.22
Y 377.433	0.977143 !	683444.354027 !	0.001557	0.16
Y_R 377.433	0.974987 !	59112.300000 !	0.004848	0.50
Y_R 488.368	0.972359 !	51367.500000 !	0.005236	0.54
Y_R2 488.368	0.961482 !	101922.155595 !	0.005878	0.61
Y_R4	0.983579 !	44261.000000 !	0.000675	0.07

Sample Name: ic3

Date: 5/24/2019 1:57:54 PM Rack:Tube: 3:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-258.673000 !	Y 377.433
Al (394.401 nm)		ppm	N/A	N/A	573.984000 !	Y 377.433
Al H (396.152 nm)		ppm	N/A	N/A	113.364000 !	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	0.234095 !	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	49.041000 !	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1451.400000 !	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	3.201450 !	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	-11.419900 !	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-66.058745 !	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	-2.059940 !	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	-20.835400 !	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-6.914490 !	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	343.102000 !	Y 377.433
Fe (238.204 nm)		ppm	N/A	N/A	92.333631 !	Y_R 377.433
Fe H (259.940 nm)		ppm	N/A	N/A	66.619500 !	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	1949.230000 !	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2528.360000 !	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	17.829500 !	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	8.470240 !	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	18.620000 !	Y 377.433
Na (589.592 nm)	50.000000 !	ppm	N/A	N/A	41195.600000 !	Y_R2 488.368
Na H (589.593 nm)	50.000000 !	ppm	N/A	N/A	27010.309459 !	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	-6.559380 !	Y 377.433
P (213.618 nm)		ppm	N/A	N/A	1.110720 !	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	8.317920 !	Y 242.219
S (181.972 nm)		ppm	N/A	N/A	14.043954 !	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	3.096320 !	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	7.752380 !	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	535.204000 !	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	2.711680 !	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	72.045476 !	Y_R 488.368
Th (288.505 nm)		ppm	N/A	N/A	20.292100 !	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-428.640000 !	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	-0.538019 !	Y 377.433
U (409.013 nm)		ppm	N/A	N/A	14.639600 !	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	-156.729000 !	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	10.011300 !	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-154.110000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993758 !	22971.185603 !	0.001288	0.13
Y 377.433	0.989537 !	692113.294317 !	0.001254	0.13
Y_R 377.433	0.988362 !	59923.200000 !	0.004887	0.49
Y_R 488.368	0.990897 !	52346.800000 !	0.007672	0.77
Y_R2 488.368	0.989459 !	104887.911584 !	0.000969	0.10
Y_R4	0.993930 !	44726.800000 !	0.003535	0.36

Sample Name: ic2

Date: 5/24/2019 2:01:32 PM Rack:Tube: 3:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)		ppm	N/A	N/A	-114.811000 !	Y 377.433
Al (394.401 nm)	100.000000 !	ppm	N/A	N/A	1249990.000000 !	Y 377.433
Al H (396.152 nm)	100.000000 !	ppm	N/A	N/A	218339.000000 !	Y_R 377.433
As (188.980 nm)		ppm	N/A	N/A	2.086190 !	Y 242.219
B (249.678 nm)		ppm	N/A	N/A	-17.642200 !	Y 242.219
Ba (493.408 nm)		ppm	N/A	N/A	1807.270000 !	Y_R 488.368
Be (234.861 nm)		ppm	N/A	N/A	-489.683000 !	Y_R 488.368
Bi (223.061 nm)		ppm	N/A	N/A	-17.310500 !	Y 377.433
Ca (315.887 nm)		ppm	N/A	N/A	-87.155681 !	Y_R 377.433
Cd (214.439 nm)		ppm	N/A	N/A	28.610700 !	Y 377.433
Co (228.615 nm)		ppm	N/A	N/A	70.366700 !	Y 242.219
Cr (205.560 nm)		ppm	N/A	N/A	-3.113460 !	Y 377.433
Cu (324.754 nm)		ppm	N/A	N/A	2389.680000 !	Y 377.433
Fe (238.204 nm)	100.000000 !	ppm	N/A	N/A	241018.534258 !	Y_R 377.433
Fe H (259.940 nm)	100.000000 !	ppm	N/A	N/A	138310.000000 !	Y_R 377.433
K (766.491 nm)		ppm	N/A	N/A	2231.750000 !	Y_R2 488.368
Li (670.783 nm)		ppm	N/A	N/A	-2630.170000 !	Y_R2 488.368
Mg (279.078 nm)		ppm	N/A	N/A	-290.722000 !	Y 377.433
Mn (257.610 nm)		ppm	N/A	N/A	-289.546000 !	Y 377.433
Mo (202.032 nm)		ppm	N/A	N/A	11.190000 !	Y 377.433
Na (589.592 nm)	500.000000 !	ppm	N/A	N/A	390776.000000 !	Y_R2 488.368
Na H (589.593 nm)	500.000000 !	ppm	N/A	N/A	271160.576082 !	Y_R4
Ni (231.604 nm)		ppm	N/A	N/A	7.070090 !	Y 377.433
P (213.618 nm)	10.000000 !	ppm	N/A	N/A	14296.000000 !	Y 242.219
Pb (220.353 nm)		ppm	N/A	N/A	36.346300 !	Y 242.219
S (181.972 nm)	10.000000 !	ppm	N/A	N/A	4592.241667 !	Y 377.433
Sb (206.834 nm)		ppm	N/A	N/A	15.038600 !	Y 377.433
Se (196.026 nm)		ppm	N/A	N/A	1.904680 !	Y 242.219
Si (288.158 nm)		ppm	N/A	N/A	736.662000 !	Y 377.433
Sn (189.925 nm)		ppm	N/A	N/A	-0.047550 !	Y 377.433
Sr (421.552 nm)		ppm	N/A	N/A	128.820066 !	Y_R 488.368
Th (288.505 nm)	10.000000 !	ppm	N/A	N/A	17262.000000 !	Y 377.433
Ti (336.122 nm)		ppm	N/A	N/A	-357.628000 !	Y 377.433
Tl (190.794 nm)		ppm	N/A	N/A	-18.749500 !	Y 377.433
U (409.013 nm)	1.000000 !	ppm	N/A	N/A	3147.670000 !	Y 377.433
V (292.401 nm)		ppm	N/A	N/A	770.401000 !	Y 377.433
Zn (206.200 nm)		ppm	N/A	N/A	22.659000 !	Y 377.433
Zr (343.823 nm)		ppm	N/A	N/A	-183.342000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.960821 !	22209.833629 !	0.005664	0.59
Y 377.433	0.955642 !	668405.696055 !	0.005373	0.56
Y_R 377.433	0.981604 !	59513.400000 !	0.003023	0.31
Y_R 488.368	0.970727 !	51281.300000 !	0.012094	1.25
Y_R2 488.368	0.959598 !	101722.455148 !	0.003536	0.37
Y_R4	0.984535 !	44304.000000 !	0.000369	0.04

Sample Name: S1-5717466

Date: 5/24/2019 2:05:41 PM Rack:Tube: 3:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.006330 !	ppm	0.001529	0.15	34454.700000 !	Y 377.433
Al (394.401 nm)	1.015630 !	ppm	0.001570	0.15	12744.900000 !	Y 377.433
Al H (396.152 nm)	0.982419 !	ppm	0.001177	0.12	2395.060000 !	Y_R 377.433
As (188.980 nm)	1.008150 !	ppm	0.001295	0.13	1517.470000 !	Y 242.219
B (249.678 nm)	1.005060 !	ppm	0.001491	0.15	7221.550000 !	Y 242.219
Ba (493.408 nm)	1.003580 !	ppm	0.000649	0.06	101454.000000 !	Y_R 488.368
Be (234.861 nm)	1.001190 !	ppm	0.000902	0.09	98576.300000 !	Y_R 488.368
Bi (223.061 nm)	2.009760 !	ppm	0.002910	0.14	4392.120000 !	Y 377.433
Ca (315.887 nm)	10.060009 !	ppm	0.009638	0.10	7920.946505 !	Y_R 377.433
Cd (214.439 nm)	1.013990 !	ppm	0.001505	0.15	37494.200000 !	Y 377.433
Co (228.615 nm)	1.006690 !	ppm	0.001476	0.15	23689.000000 !	Y 242.219
Cr (205.560 nm)	1.007340 !	ppm	0.002850	0.28	6704.330000 !	Y 377.433
Cu (324.754 nm)	1.004500 !	ppm	0.002594	0.26	47165.200000 !	Y 377.433
Fe (238.204 nm)	5.027064 !	ppm	0.000017	0.00	12108.160491 !	Y_R 377.433
Fe H (259.940 nm)	5.030520 !	ppm	0.007204	0.14	6968.550000 !	Y_R 377.433
K (766.491 nm)	100.264000 !	ppm	0.799322	0.80	98750.700000 !	Y_R2 488.368
Li (670.783 nm)	0.994589 !	ppm	0.002971	0.30	14531.600000 !	Y_R2 488.368
Mg (279.078 nm)	40.536600 !	ppm	0.002576	0.01	132652.000000 !	Y 377.433
Mn (257.610 nm)	1.008870 !	ppm	0.000117	0.01	275068.000000 !	Y 377.433
Mo (202.032 nm)	1.009120 !	ppm	0.002080	0.21	12730.300000 !	Y 377.433
Na (589.592 nm)	49.495500 !	ppm	0.010914	0.02	41008.900000 !	Y_R2 488.368
Na H (589.593 nm)	50.602736 !	ppm	0.509916	1.01	27337.327468 !	Y_R4
Ni (231.604 nm)	1.010350 !	ppm	0.000788	0.08	5220.150000 !	Y 377.433
P (213.618 nm)	0.084764 !	ppm	0.000757	0.89	-153.862000 !	Y 242.219
Pb (220.353 nm)	1.007180 !	ppm	0.002005	0.20	3203.410000 !	Y 242.219
S (181.972 nm)	0.015704 !	ppm	0.007487	47.67	23.546002 !	Y 377.433
Sb (206.834 nm)	1.007980 !	ppm	0.004563	0.45	1698.290000 !	Y 377.433
Se (196.026 nm)	1.004290 !	ppm	0.001681	0.17	1523.780000 !	Y 242.219
Si (288.158 nm)	10.094100 !	ppm	0.016284	0.16	65470.300000 !	Y 377.433
Sn (189.925 nm)	1.013890 !	ppm	0.000971	0.10	1633.500000 !	Y 377.433
Sr (421.552 nm)	1.003361 !	ppm	0.000589	0.06	151131.247626 !	Y_R 488.368
Th (288.505 nm)	0.024475 !	ppm	0.002982	12.18	-47.951600 !	Y 377.433
Ti (336.122 nm)	1.005790 !	ppm	0.000157	0.02	128305.000000 !	Y 377.433
Tl (190.794 nm)	1.008240 !	ppm	0.001073	0.11	2301.120000 !	Y 377.433
U (409.013 nm)	0.023997 !	ppm	0.007716	32.15	-71.591600 !	Y 377.433
V (292.401 nm)	1.008220 !	ppm	0.000613	0.06	51857.200000 !	Y 377.433
Zn (206.200 nm)	1.014810 !	ppm	0.002292	0.23	4568.090000 !	Y 377.433
Zr (343.823 nm)	1.005170 !	ppm	0.000816	0.08	56742.600000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.955568 !	22088.393115 !	0.001030	0.11
Y 377.433	0.951611 !	665586.277647 !	0.000440	0.05
Y_R 377.433	0.956907 !	58016.100000 !	0.000712	0.07
Y_R 488.368	0.954524 !	50425.300000 !	0.000419	0.04
Y_R2 488.368	0.955664 !	101305.409979 !	0.000693	0.07
Y_R4	0.980210 !	44109.400000 !	0.000601	0.06

Sample Name: S3-5617381

Date: 5/24/2019 2:09:18 PM Rack:Tube: 3:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000278 !u	ppm	0.000708	> 100.00	-257.922000 !	Y 377.433
Al (394.401 nm)	0.039080 !	ppm	0.000652	1.67	571.243000 !	Y 377.433
Al H (396.152 nm)	0.172662 !u	ppm	0.004232	2.45	119.348000 !	Y_R 377.433
As (188.980 nm)	-0.002553 !u	ppm	0.003077	> 100.00	-5.424310 !	Y 242.219
B (249.678 nm)	0.000776 !	ppm	0.000056	7.15	52.192000 !	Y 242.219
Ba (493.408 nm)	0.000686 !	ppm	0.000136	19.85	1467.840000 !	Y_R 488.368
Be (234.861 nm)	0.000126 !	ppm	0.000002	1.83	10.216900 !	Y_R 488.368
Bi (223.061 nm)	0.001861 !	ppm	0.001935	> 100.00	-6.528150 !	Y 377.433
Ca (315.887 nm)	0.005635 !	ppm	0.006192	> 100.00	-64.552485 !	Y_R 377.433
Cd (214.439 nm)	-0.000006 !u	ppm	0.000113	> 100.00	-5.402420 !	Y 377.433
Co (228.615 nm)	0.000019 !u	ppm	0.000383	> 100.00	-14.670700 !	Y 242.219
Cr (205.560 nm)	0.000598 !	ppm	0.000164	27.45	-2.773590 !	Y 377.433
Cu (324.754 nm)	0.000326 !	ppm	0.000133	40.93	331.893000 !	Y 377.433
Fe (238.204 nm)	0.041957 !	ppm	0.000403	0.96	108.138190 !	Y_R 377.433
Fe H (259.940 nm)	0.044842 !u	ppm	0.001039	2.32	73.428700 !	Y_R 377.433
K (766.491 nm)	-0.040785 !u	ppm	0.497043	> 100.00	1898.000000 !	Y_R2 488.368
Li (670.783 nm)	-0.002744 !u	ppm	0.003571	> 100.00	-2592.880000 !	Y_R2 488.368
Mg (279.078 nm)	0.006749 !	ppm	0.001799	26.66	29.910200 !	Y 377.433
Mn (257.610 nm)	0.000244 !	ppm	0.000049	20.25	55.420800 !	Y 377.433
Mo (202.032 nm)	0.000787 !	ppm	0.000069	8.73	21.045800 !	Y 377.433
Na (589.592 nm)	49.792800 !	ppm	0.154071	0.31	41025.600000 !	Y_R2 488.368
Na H (589.593 nm)	49.760807 !u	ppm	0.065688	0.13	26880.533702 !	Y_R4
Ni (231.604 nm)	0.000472 !	ppm	0.000570	> 100.00	-6.174600 !	Y 377.433
P (213.618 nm)	-0.000178 !u	ppm	0.003501	> 100.00	-4.510970 !	Y 242.219
Pb (220.353 nm)	0.001673 !	ppm	0.000404	24.13	13.641400 !	Y 242.219
S (181.972 nm)	0.009398 !	ppm	0.001080	11.50	17.003992 !	Y 377.433
Sb (206.834 nm)	-0.001231 !u	ppm	0.004657	> 100.00	-0.298904 !	Y 377.433
Se (196.026 nm)	0.003170 !	ppm	0.002378	75.01	13.627200 !	Y 242.219
Si (288.158 nm)	0.008169 !	ppm	0.000280	3.43	541.133000 !	Y 377.433
Sn (189.925 nm)	0.001503 !	ppm	0.000476	31.70	4.508840 !	Y 377.433
Sr (421.552 nm)	0.000400 !	ppm	0.000078	19.55	83.473270 !	Y_R 488.368
Th (288.505 nm)	0.005909 !	ppm	0.001353	22.90	23.026700 !	Y 377.433
Ti (336.122 nm)	0.000108 !	ppm	0.000077	71.18	-420.018000 !	Y 377.433
Tl (190.794 nm)	0.001299 !	ppm	0.000424	32.67	4.777590 !	Y 377.433
U (409.013 nm)	0.014769 !	ppm	0.000396	2.68	22.096100 !	Y 377.433
V (292.401 nm)	-0.000330 !u	ppm	0.000102	30.84	-164.442000 !	Y 377.433
Zn (206.200 nm)	0.001423 !	ppm	0.000291	20.47	10.466800 !	Y 377.433
Zr (343.823 nm)	0.000356 !	ppm	0.000099	27.73	-141.450000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.980701 !	22669.364029 !	0.006892	0.70
Y 377.433	0.975682 !	682422.659191 !	0.005691	0.58
Y_R 377.433	0.967716 !	58671.400000 !	0.001656	0.17
Y_R 488.368	0.968599 !	51168.900000 !	0.002594	0.27
Y_R2 488.368	0.976851 !	103551.368582 !	0.000651	0.07
Y_R4	0.976217 !	43929.700000 !	0.005080	0.52

Sample Name: S2-5713035

Date: 5/24/2019 2:12:53 PM Rack:Tube: 3:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005115 !	ppm	0.000074	1.45	-109.669000 !	Y 377.433
Al (394.401 nm)	102.814000 !o	ppm	0.021713	0.02	1252500.000000 !	Y 377.433
Al H (396.152 nm)	100.205000 !	ppm	0.237277	0.24	218783.000000 !	Y_R 377.433
As (188.980 nm)	0.003244 !	ppm	0.000544	16.78	0.593429 !	Y 242.219
B (249.678 nm)	-0.002530 !u	ppm	0.000488	19.28	-29.385700 !	Y 242.219
Ba (493.408 nm)	0.004213 !	ppm	0.000172	4.08	1899.440000 !	Y_R 488.368
Be (234.861 nm)	-0.000472 !u	ppm	0.000017	3.64	-472.971000 !	Y_R 488.368
Bi (223.061 nm)	0.011488 !	ppm	0.001124	9.78	31.892400 !	Y 377.433
Ca (315.887 nm)	-0.013233 !u	ppm	0.006583	49.75	-54.552316 !	Y_R 377.433
Cd (214.439 nm)	-0.000257 !u	ppm	0.000176	68.21	26.081300 !	Y 377.433
Co (228.615 nm)	0.003462 !	ppm	0.000074	2.13	66.227700 !	Y 242.219
Cr (205.560 nm)	0.001393 !	ppm	0.000455	32.67	-0.138616 !	Y 377.433
Cu (324.754 nm)	0.003206 !	ppm	0.000326	10.17	2385.040000 !	Y 377.433
Fe (238.204 nm)	100.365903 !o	ppm	0.111531	0.11	241605.389750 !	Y_R 377.433
Fe H (259.940 nm)	100.031000 !	ppm	0.237179	0.24	138352.000000 !	Y_R 377.433
K (766.491 nm)	0.205238 !u	ppm	0.380136	> 100.00	2135.560000 !	Y_R2 488.368
Li (670.783 nm)	-0.003821 !u	ppm	0.000584	15.29	-2611.370000 !	Y_R2 488.368
Mg (279.078 nm)	-0.041589 !u	ppm	0.002542	6.11	-275.084000 !	Y 377.433
Mn (257.610 nm)	-0.000285 !u	ppm	0.000007	2.42	-88.638400 !	Y 377.433
Mo (202.032 nm)	-0.000081 !u	ppm	0.000237	> 100.00	10.117400 !	Y 377.433
Na (589.592 nm)	474.701000 !o	ppm	0.268687	0.06	389835.000000 !	Y_R2 488.368
Na H (589.593 nm)	502.219994 !	ppm	1.683124	0.34	272365.047247 !	Y_R4
Ni (231.604 nm)	0.003026 !	ppm	0.000071	2.33	7.036050 !	Y 377.433
P (213.618 nm)	10.014000 !	ppm	0.025174	0.25	14307.900000 !	Y 242.219
Pb (220.353 nm)	0.011619 !	ppm	0.000737	6.34	31.010100 !	Y 242.219
S (181.972 nm)	9.912057 !	ppm	0.029707	0.30	4551.975914 !	Y 377.433
Sb (206.834 nm)	-0.000096 !u	ppm	0.001428	> 100.00	10.085800 !	Y 377.433
Se (196.026 nm)	0.013324 !	ppm	0.001662	12.47	3.101390 !	Y 242.219
Si (288.158 nm)	0.039082 !	ppm	0.000541	1.39	740.140000 !	Y 377.433
Sn (189.925 nm)	0.001646 !	ppm	0.000505	30.72	4.738160 !	Y 377.433
Sr (421.552 nm)	0.000711 !	ppm	0.000089	12.45	145.341162 !	Y_R 488.368
Th (288.505 nm)	10.000700 !	ppm	0.007182	0.07	17258.200000 !	Y 377.433
Ti (336.122 nm)	0.000714 !	ppm	0.000080	11.26	-342.389000 !	Y 377.433
Tl (190.794 nm)	-0.003364 !u	ppm	0.001137	33.80	-15.443400 !	Y 377.433
U (409.013 nm)	0.997626 !	ppm	0.004228	0.42	3213.990000 !	Y 377.433
V (292.401 nm)	-0.001643 !u	ppm	0.000009	0.54	767.910000 !	Y 377.433
Zn (206.200 nm)	0.009003 !	ppm	0.000456	5.07	58.522200 !	Y 377.433
Zr (343.823 nm)	-0.000685 !u	ppm	0.000116	16.97	-200.412000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.929477 !	21485.292234 !	0.000904	0.10
Y 377.433	0.920676 !	643949.784134 !	0.000017	0.00
Y_R 377.433	0.948199 !	57488.100000 !	0.012700	1.34
Y_R 488.368	0.948617 !	50113.200000 !	0.013792	1.45
Y_R2 488.368	0.962677 !	102048.905126 !	0.011259	1.17
Y_R4	0.971773 !	43729.800000 !	0.001066	0.11

Sample Name: ICVH-5719883

Date: 5/24/2019 2:17:00 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001529 !	ppm	0.000208	13.63	-221.293000 !	Y 377.433
Al (394.401 nm)	40.577900 !o	ppm	0.032523	0.08	494648.000000 !	Y 377.433
Al H (396.152 nm)	40.079700 !	ppm	0.091676	0.23	87351.000000 !	Y_R 377.433
As (188.980 nm)	0.001356 !	ppm	0.001471	> 100.00	-1.724240 !	Y 242.219
B (249.678 nm)	0.000710 !	ppm	0.000071	9.98	4.989470 !	Y 242.219
Ba (493.408 nm)	0.001279 !	ppm	0.000296	23.13	1591.420000 !	Y_R 488.368
Be (234.861 nm)	-0.000550 !u	ppm	0.000025	4.59	-398.430000 !	Y_R 488.368
Bi (223.061 nm)	0.006126 !	ppm	0.003733	60.95	16.788300 !	Y 377.433
Ca (315.887 nm)	-0.014615 !u	ppm	0.003678	25.17	-70.658832 !	Y_R 377.433
Cd (214.439 nm)	-0.000142 !u	ppm	0.000045	31.49	22.452300 !	Y 377.433
Co (228.615 nm)	-0.000416 !u	ppm	0.000073	17.50	-24.901500 !	Y 242.219
Cr (205.560 nm)	-0.000010 !u	ppm	0.000081	> 100.00	-7.892410 !	Y 377.433
Cu (324.754 nm)	0.001116 !	ppm	0.000120	10.75	928.091000 !	Y 377.433
Fe (238.204 nm)	80.920191 !o	ppm	0.277968	0.34	194796.165850 !	Y_R 377.433
Fe H (259.940 nm)	80.618200 !	ppm	0.235159	0.29	111505.000000 !	Y_R 377.433
K (766.491 nm)	0.054981 !u	ppm	0.359235	> 100.00	1990.470000 !	Y_R2 488.368
Li (670.783 nm)	-0.003245 !u	ppm	0.005001	> 100.00	-2601.490000 !	Y_R2 488.368
Mg (279.078 nm)	-0.012820 !u	ppm	0.001058	8.25	-146.476000 !	Y 377.433
Mn (257.610 nm)	0.000052 !	ppm	0.000015	28.35	3.097440 !	Y 377.433
Mo (202.032 nm)	-0.000101 !u	ppm	0.000417	> 100.00	9.864300 !	Y 377.433
Na (589.592 nm)	78.821300 !o	ppm	0.082171	0.10	64855.400000 !	Y_R2 488.368
Na H (589.593 nm)	78.687742 !	ppm	0.007608	0.01	42575.020281 !	Y_R4
Ni (231.604 nm)	0.000320 !	ppm	0.000047	14.53	-6.963240 !	Y 377.433
P (213.618 nm)	3.874420 !	ppm	0.007516	0.19	5534.670000 !	Y 242.219
Pb (220.353 nm)	0.002217 !	ppm	0.001064	47.97	9.721160 !	Y 242.219
S (181.972 nm)	3.959902 !	ppm	0.005933	0.15	1826.156310 !	Y 377.433
Sb (206.834 nm)	0.000246 !u	ppm	0.001206	> 100.00	9.015370 !	Y 377.433
Se (196.026 nm)	0.005652 !	ppm	0.003752	66.38	-3.460740 !	Y 242.219
Si (288.158 nm)	0.005184 !	ppm	0.002698	52.04	521.920000 !	Y 377.433
Sn (189.925 nm)	0.001486 !	ppm	0.000010	0.71	4.481500 !	Y 377.433
Sr (421.552 nm)	0.000255 !	ppm	0.000058	22.54	73.794311 !	Y_R 488.368
Th (288.505 nm)	2.960560 !	ppm	0.010325	0.35	5114.700000 !	Y 377.433
Ti (336.122 nm)	0.000133 !	ppm	0.000072	53.76	-416.780000 !	Y 377.433
Tl (190.794 nm)	0.001720 !	ppm	0.000454	26.37	-3.022820 !	Y 377.433
U (409.013 nm)	0.402842 !	ppm	0.009299	2.31	1312.720000 !	Y 377.433
V (292.401 nm)	-0.000740 !u	ppm	0.000287	38.81	102.360000 !	Y 377.433
Zn (206.200 nm)	-0.002751 !u	ppm	0.000670	24.35	2.961050 !	Y 377.433
Zr (343.823 nm)	0.001102 !	ppm	0.000128	11.63	-99.245100 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.954168 !	22056.047679 !	0.001215	0.13
Y 377.433	0.952119 !	665942.077663 !	0.000686	0.07
Y_R 377.433	0.959975 !	58202.100000 !	0.003946	0.41
Y_R 488.368	0.964265 !	50939.900000 !	0.006732	0.70
Y_R2 488.368	0.963229 !	102107.390097 !	0.004483	0.47
Y_R4	0.986416 !	44388.700000 !	0.000443	0.04

Sample Name: ICVH-5719883

Date: 5/24/2019 2:21:29 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002171 !	ppm	0.000368	16.93	-199.147000 !	Y 377.433
Al (394.401 nm)	40.743100 !o	ppm	0.109011	0.27	496660.000000 !	Y 377.433
Al H (396.152 nm)	40.111200 !	ppm	0.275315	0.69	87419.700000 !	Y_R 377.433
As (188.980 nm)	0.002864 !	ppm	0.002621	91.50	0.546592 !	Y 242.219
B (249.678 nm)	0.000516 !u	ppm	0.000916	> 100.00	3.570770 !	Y 242.219
Ba (493.408 nm)	0.001174 !	ppm	0.000378	32.24	1581.000000 !	Y_R 488.368
Be (234.861 nm)	-0.000517 !u	ppm	0.000010	1.97	-395.417000 !	Y_R 488.368
Bi (223.061 nm)	0.004595 !	ppm	0.005964	> 100.00	13.445200 !	Y 377.433
Ca (315.887 nm)	-0.014476 !u	ppm	0.006250	43.18	-70.530048 !	Y_R 377.433
Cd (214.439 nm)	-0.000053 !u	ppm	0.000168	> 100.00	25.775800 !	Y 377.433
Co (228.615 nm)	-0.000416 !u	ppm	0.000304	72.98	-24.929300 !	Y 242.219
Cr (205.560 nm)	0.000231 !	ppm	0.000199	86.17	-6.284520 !	Y 377.433
Cu (324.754 nm)	0.001066 !	ppm	0.000188	17.65	929.325000 !	Y 377.433
Fe (238.204 nm)	80.970748 !o	ppm	0.450146	0.56	194917.865604 !	Y_R 377.433
Fe H (259.940 nm)	80.750900 !	ppm	0.508941	0.63	111689.000000 !	Y_R 377.433
K (766.491 nm)	0.144096 !	ppm	0.004589	3.18	2076.520000 !	Y_R2 488.368
Li (670.783 nm)	-0.002873 !u	ppm	0.000832	28.96	-2595.100000 !	Y_R2 488.368
Mg (279.078 nm)	-0.013153 !u	ppm	0.000996	7.57	-147.653000 !	Y 377.433
Mn (257.610 nm)	0.000094 !	ppm	0.000018	19.33	14.696800 !	Y 377.433
Mo (202.032 nm)	-0.000376 !u	ppm	0.000132	34.98	6.389310 !	Y 377.433
Na (589.592 nm)	77.970800 !o	ppm	0.167281	0.21	64157.200000 !	Y_R2 488.368
Na H (589.593 nm)	77.573510 !	ppm	0.048620	0.06	41970.487019 !	Y_R4
Ni (231.604 nm)	-0.000630 !u	ppm	0.000402	63.88	-11.878000 !	Y 377.433
P (213.618 nm)	3.875140 !	ppm	0.033256	0.86	5535.650000 !	Y 242.219
Pb (220.353 nm)	0.001403 !u	ppm	0.002614	> 100.00	7.127140 !	Y 242.219
S (181.972 nm)	3.944610 !	ppm	0.005476	0.14	1819.153227 !	Y 377.433
Sb (206.834 nm)	0.002169 !u	ppm	0.003570	> 100.00	12.269200 !	Y 377.433
Se (196.026 nm)	0.012352 !	ppm	0.003610	29.22	6.631010 !	Y 242.219
Si (288.158 nm)	0.005719 !	ppm	0.002577	45.06	525.360000 !	Y 377.433
Sn (189.925 nm)	0.002084 !	ppm	0.002694	> 100.00	5.443930 !	Y 377.433
Sr (421.552 nm)	0.000252 !	ppm	0.000019	7.51	73.319492 !	Y_R 488.368
Th (288.505 nm)	2.965710 !	ppm	0.006628	0.22	5123.570000 !	Y 377.433
Ti (336.122 nm)	-0.000048 !u	ppm	0.000030	62.81	-440.043000 !	Y 377.433
Tl (190.794 nm)	0.000396 !u	ppm	0.001175	> 100.00	-6.050450 !	Y 377.433
U (409.013 nm)	0.398019 !	ppm	0.009214	2.31	1297.500000 !	Y 377.433
V (292.401 nm)	-0.000978 !u	ppm	0.000321	32.83	91.992300 !	Y 377.433
Zn (206.200 nm)	-0.001999 !u	ppm	0.000716	35.83	6.350020 !	Y 377.433
Zr (343.823 nm)	0.000831 !	ppm	0.000030	3.67	-114.546000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.941205 !	21756.388753 !	0.002499	0.27
Y 377.433	0.935965 !	654643.417507 !	0.003399	0.36
Y_R 377.433	0.960620 !	58241.200000 !	0.002841	0.30
Y_R 488.368	0.958957 !	50659.500000 !	0.000711	0.07
Y_R2 488.368	0.960057 !	101771.073557 !	0.002904	0.30
Y_R4	0.975579 !	43901.000000 !	0.002480	0.25

Sample Name: ICV-5717304

Date: 5/24/2019 2:26:48 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.248461 !	ppm	0.000172	0.07	8307.440000 !	Y 377.433
Al (394.401 nm)	0.248861 !	ppm	0.000498	0.20	3192.700000 !	Y 377.433
Al H (396.152 nm)	0.342179 !u	ppm	0.001313	0.38	611.792000 !	Y_R 377.433
As (188.980 nm)	0.240953 !	ppm	0.000069	0.03	361.481000 !	Y 242.219
B (249.678 nm)	0.238247 !	ppm	0.000190	0.08	1747.430000 !	Y 242.219
Ba (493.408 nm)	0.246116 !	ppm	0.000584	0.24	25936.700000 !	Y_R 488.368
Be (234.861 nm)	0.249187 !	ppm	0.001095	0.44	24533.400000 !	Y_R 488.368
Bi (223.061 nm)	0.468769 !	ppm	0.000163	0.03	1016.320000 !	Y 377.433
Ca (315.887 nm)	2.503014 !	ppm	0.016243	0.65	1918.933159 !	Y_R 377.433
Cd (214.439 nm)	0.250960 !	ppm	0.000288	0.11	9275.870000 !	Y 377.433
Co (228.615 nm)	0.246181 !	ppm	0.001790	0.73	5781.340000 !	Y 242.219
Cr (205.560 nm)	0.250310 !	ppm	0.000234	0.09	1660.880000 !	Y 377.433
Cu (324.754 nm)	0.245798 !	ppm	0.000042	0.02	11780.100000 !	Y 377.433
Fe (238.204 nm)	1.244175 !	ppm	0.005315	0.43	3002.085515 !	Y_R 377.433
Fe H (259.940 nm)	1.249890 !u	ppm	0.004409	0.35	1739.990000 !	Y_R 377.433
K (766.491 nm)	24.943700 !	ppm	0.513866	2.06	26022.700000 !	Y_R2 488.368
Li (670.783 nm)	0.235718 Q!	ppm	0.001342	0.57	1501.560000 Q!	Y_R2 488.368
Mg (279.078 nm)	10.010600 !	ppm	0.002562	0.03	32764.700000 !	Y 377.433
Mn (257.610 nm)	0.250853 !	ppm	0.000007	0.00	68386.400000 !	Y 377.433
Mo (202.032 nm)	0.246758 !	ppm	0.000021	0.01	3121.330000 !	Y 377.433
Na (589.592 nm)	12.031200 !	ppm	0.041851	0.35	10082.300000 !	Y_R2 488.368
Na H (589.593 nm)	12.456415 !u	ppm	0.125856	1.01	6640.806435 !	Y_R4
Ni (231.604 nm)	0.251713 !	ppm	0.000326	0.13	1294.040000 !	Y 377.433
P (213.618 nm)	0.022253 Q!	ppm	0.002819	12.67	-38.918000 Q!	Y 242.219
Pb (220.353 nm)	0.249108 !	ppm	0.002054	0.82	798.580000 !	Y 242.219
S (181.972 nm)	0.006209 !	ppm	0.004763	76.72	16.453242 !	Y 377.433
Sb (206.834 nm)	0.251701 !	ppm	0.001385	0.55	425.466000 !	Y 377.433
Se (196.026 nm)	0.237821 !	ppm	0.001605	0.68	367.603000 !	Y 242.219
Si (288.158 nm)	2.403650 !	ppm	0.006927	0.29	15962.200000 !	Y 377.433
Sn (189.925 nm)	0.246705 !	ppm	0.001057	0.43	399.052000 !	Y 377.433
Sr (421.552 nm)	0.240584 !	ppm	0.000161	0.07	36255.598354 !	Y_R 488.368
Th (288.505 nm)	0.008137 !	ppm	0.000660	8.11	1.964030 !	Y 377.433
Ti (336.122 nm)	0.240935 !	ppm	0.000116	0.05	30405.600000 !	Y 377.433
Tl (190.794 nm)	0.251549 !	ppm	0.001523	0.61	575.529000 !	Y 377.433
U (409.013 nm)	0.009895 !	ppm	0.005249	53.05	-23.792000 !	Y 377.433
V (292.401 nm)	0.243905 !	ppm	0.000055	0.02	12431.900000 !	Y 377.433
Zn (206.200 nm)	0.251278 !	ppm	0.000938	0.37	1134.170000 !	Y 377.433
Zr (343.823 nm)	0.247060 !	ppm	0.000232	0.09	13824.900000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.952332 !	22013.599443 !	0.002548	0.27
Y 377.433	0.944378 !	660527.446021 !	0.002474	0.26
Y_R 377.433	0.934665 !	56667.600000 !	0.005564	0.60
Y_R 488.368	0.938454 !	49576.400000 !	0.006044	0.64
Y_R2 488.368	0.926673 !	98232.191454 !	0.001675	0.18
Y_R4	0.959479 !	43176.500000 !	0.003479	0.36

Sample Name: ICV-5717304

Date: 5/24/2019 2:31:33 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.248613 !	ppm	0.000206	0.08	8312.810000 !	Y 377.433
Al (394.401 nm)	0.250158 !	ppm	0.000168	0.07	3207.620000 !	Y 377.433
Al H (396.152 nm)	0.347435 !u	ppm	0.003672	1.06	623.168000 !	Y_R 377.433
As (188.980 nm)	0.239693 !	ppm	0.002180	0.91	359.583000 !	Y 242.219
B (249.678 nm)	0.238626 !	ppm	0.001087	0.46	1750.140000 !	Y 242.219
Ba (493.408 nm)	0.244968 !	ppm	0.000522	0.21	25822.200000 !	Y_R 488.368
Be (234.861 nm)	0.243127 !	ppm	0.001330	0.55	23936.600000 !	Y_R 488.368
Bi (223.061 nm)	0.469837 !	ppm	0.004788	1.02	1018.660000 !	Y 377.433
Ca (315.887 nm)	2.499004 !	ppm	0.008195	0.33	1915.750994 !	Y_R 377.433
Cd (214.439 nm)	0.251998 !	ppm	0.000659	0.26	9314.240000 !	Y 377.433
Co (228.615 nm)	0.246485 !	ppm	0.000695	0.28	5788.470000 !	Y 242.219
Cr (205.560 nm)	0.251346 !	ppm	0.000454	0.18	1667.780000 !	Y 377.433
Cu (324.754 nm)	0.245488 !	ppm	0.000997	0.41	11766.100000 !	Y 377.433
Fe (238.204 nm)	1.239956 !	ppm	0.003512	0.28	2991.928981 !	Y_R 377.433
Fe H (259.940 nm)	1.246210 !u	ppm	0.001464	0.12	1734.900000 !	Y_R 377.433
K (766.491 nm)	24.766700 !	ppm	0.511859	2.07	25851.800000 !	Y_R2 488.368
Li (670.783 nm)	0.239702 !	ppm	0.000034	0.01	1569.960000 !	Y_R2 488.368
Mg (279.078 nm)	10.017600 !	ppm	0.022179	0.22	32787.800000 !	Y 377.433
Mn (257.610 nm)	0.250825 !	ppm	0.000619	0.25	68378.800000 !	Y 377.433
Mo (202.032 nm)	0.247668 !	ppm	0.001353	0.55	3132.800000 !	Y 377.433
Na (589.592 nm)	11.922100 !	ppm	0.073551	0.62	9992.570000 !	Y_R2 488.368
Na H (589.593 nm)	12.306073 !u	ppm	0.121817	0.99	6559.237656 !	Y_R4
Ni (231.604 nm)	0.251595 !	ppm	0.000751	0.30	1293.430000 !	Y 377.433
P (213.618 nm)	0.019175 Q!	ppm	0.000598	3.12	-43.264700 Q!	Y 242.219
Pb (220.353 nm)	0.249754 !	ppm	0.000595	0.24	800.617000 !	Y 242.219
S (181.972 nm)	0.001637 !	ppm	0.000116	7.06	14.358697 !	Y 377.433
Sb (206.834 nm)	0.252993 !	ppm	0.000176	0.07	427.649000 !	Y 377.433
Se (196.026 nm)	0.238134 !	ppm	0.000773	0.32	368.076000 !	Y 242.219
Si (288.158 nm)	2.407320 !	ppm	0.012456	0.52	15985.800000 !	Y 377.433
Sn (189.925 nm)	0.248904 !	ppm	0.001269	0.51	402.592000 !	Y 377.433
Sr (421.552 nm)	0.240224 !	ppm	0.000896	0.37	36201.385706 !	Y_R 488.368
Th (288.505 nm)	0.007108 !	ppm	0.003575	50.29	0.247399 !	Y 377.433
Ti (336.122 nm)	0.241234 !	ppm	0.000770	0.32	30443.700000 !	Y 377.433
Tl (190.794 nm)	0.253761 !	ppm	0.001698	0.67	580.591000 !	Y 377.433
U (409.013 nm)	0.004849 !	ppm	0.001559	32.16	-39.793000 !	Y 377.433
V (292.401 nm)	0.243593 !	ppm	0.000437	0.18	12415.500000 !	Y 377.433
Zn (206.200 nm)	0.252300 !	ppm	0.001139	0.45	1138.770000 !	Y 377.433
Zr (343.823 nm)	0.247184 !	ppm	0.001238	0.50	13831.900000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.954003 !	22052.219564 !	0.000470	0.05
Y 377.433	0.946009 !	661667.969683 !	0.000208	0.02
Y_R 377.433	0.959912 !	58198.300000 !	0.002195	0.23
Y_R 488.368	0.965164 !	50987.400000 !	0.001631	0.17
Y_R2 488.368	0.957958 !	101548.586339 !	0.001325	0.14
Y_R4	0.962764 !	43324.300000 !	0.008609	0.89

Sample Name: ICVL-5719884

Date: 5/24/2019 2:47:51 PM Rack:Tube: 3:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008209 !	ppm	0.000402	4.90	15.082500 !	Y 377.433
Al (394.401 nm)	0.103965 !	ppm	0.000340	0.33	1369.620000 !	Y 377.433
Al H (396.152 nm)	0.229930 !u	ppm	0.007617	3.31	250.009000 !	Y_R 377.433
As (188.980 nm)	0.015056 !	ppm	0.001861	12.36	21.109000 !	Y 242.219
B (249.678 nm)	0.092671 !	ppm	0.000216	0.23	708.433000 !	Y 242.219
Ba (493.408 nm)	0.011029 !	ppm	0.000418	3.79	2499.030000 !	Y_R 488.368
Be (234.861 nm)	0.001033 !	ppm	0.000037	3.54	99.270700 !	Y_R 488.368
Bi (223.061 nm)	0.095280 !	ppm	0.004189	4.40	198.090000 !	Y 377.433
Ca (315.887 nm)	0.218595 !	ppm	0.005046	2.31	104.594724 !	Y_R 377.433
Cd (214.439 nm)	0.005259 !	ppm	0.000073	1.38	189.325000 !	Y 377.433
Co (228.615 nm)	0.010837 !	ppm	0.000020	0.19	240.009000 !	Y 242.219
Cr (205.560 nm)	0.011039 !	ppm	0.000379	3.43	66.686900 !	Y 377.433
Cu (324.754 nm)	0.016678 !	ppm	0.000299	1.79	1093.720000 !	Y 377.433
Fe (238.204 nm)	0.110723 !	ppm	0.005242	4.73	273.668052 !	Y_R 377.433
Fe H (259.940 nm)	0.117423 !u	ppm	0.001420	1.21	173.807000 !	Y_R 377.433
K (766.491 nm)	3.134540 !	ppm	0.368741	11.76	4964.060000 !	Y_R2 488.368
Li (670.783 nm)	0.017620 !	ppm	0.001928	10.94	-2243.220000 !	Y_R2 488.368
Mg (279.078 nm)	0.208158 !	ppm	0.002456	1.18	688.184000 !	Y 377.433
Mn (257.610 nm)	0.011135 !	ppm	0.000027	0.24	3024.950000 !	Y 377.433
Mo (202.032 nm)	0.020214 !	ppm	0.000512	2.53	265.920000 !	Y 377.433
Na (589.592 nm)	1.056380 !	ppm	0.029214	2.77	1020.000000 !	Y_R2 488.368
Na H (589.593 nm)	1.399465 !u	ppm	0.005166	0.37	641.790452 !	Y_R4
Ni (231.604 nm)	0.044314 !	ppm	0.001601	3.61	220.681000 !	Y 377.433
P (213.618 nm)	2.863300 !	ppm	0.008097	0.28	4085.680000 !	Y 242.219
Pb (220.353 nm)	0.011269 !	ppm	0.001151	10.21	44.160200 !	Y 242.219
S (181.972 nm)	0.098653 !	ppm	0.002497	2.53	57.919057 !	Y 377.433
Sb (206.834 nm)	0.018476 !	ppm	0.001432	7.75	32.822100 !	Y 377.433
Se (196.026 nm)	0.019121 !	ppm	0.002071	10.83	37.684900 !	Y 242.219
Si (288.158 nm)	0.486914 !	ppm	0.000835	0.17	3623.090000 !	Y 377.433
Sn (189.925 nm)	0.103946 !	ppm	0.000433	0.42	169.346000 !	Y 377.433
Sr (421.552 nm)	0.009427 !	ppm	0.000186	1.97	1442.897340 !	Y_R 488.368
Th (288.505 nm)	0.016079 !	ppm	0.003006	18.70	39.971800 !	Y 377.433
Ti (336.122 nm)	0.009721 !	ppm	0.000030	0.31	810.799000 !	Y 377.433
Tl (190.794 nm)	0.015053 !	ppm	0.002424	16.10	36.126600 !	Y 377.433
U (409.013 nm)	0.051932 !	ppm	0.006925	13.33	138.760000 !	Y 377.433
V (292.401 nm)	0.009602 !	ppm	0.000090	0.94	345.644000 !	Y 377.433
Zn (206.200 nm)	0.023201 !	ppm	0.000072	0.31	108.406000 !	Y 377.433
Zr (343.823 nm)	0.009765 Q!	ppm	0.000002	0.02	391.179000 Q!	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.973911 !	22512.400571 !	0.002197	0.23
Y 377.433	0.961378 !	672418.098260 !	0.003485	0.36
Y_R 377.433	0.957323 !	58041.300000 !	0.002451	0.26
Y_R 488.368	0.959690 !	50698.200000 !	0.001322	0.14
Y_R2 488.368	0.964289 !	102219.744886 !	0.000195	0.02
Y_R4	0.960691 !	43231.100000 !	0.002082	0.22

Sample Name: CCVH-5713036

Date: 5/24/2019 2:51:20 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004595 !	ppm	0.000403	8.78	-118.444000 !	Y 377.433
Al (394.401 nm)	51.400000 !o	ppm	0.016402	0.03	626212.000000 !	Y 377.433
Al H (396.152 nm)	50.019300 !	ppm	0.221750	0.44	109081.000000 !	Y_R 377.433
As (188.980 nm)	0.000459 !u	ppm	0.001697	> 100.00	-2.245120 !	Y 242.219
B (249.678 nm)	-0.001937 !u	ppm	0.000299	15.46	3.798430 !	Y 242.219
Ba (493.408 nm)	0.003457 !	ppm	0.000654	18.90	1784.160000 !	Y_R 488.368
Be (234.861 nm)	0.001103 !	ppm	0.000039	3.54	-105.953000 !	Y_R 488.368
Bi (223.061 nm)	0.011556 !	ppm	0.002514	21.76	23.382700 !	Y 377.433
Ca (315.887 nm)	-0.018856 !u	ppm	0.003165	16.79	-71.502892 !	Y_R 377.433
Cd (214.439 nm)	0.001294 !	ppm	0.000254	19.63	63.088300 !	Y 377.433
Co (228.615 nm)	0.002977 !	ppm	0.000096	3.21	54.872700 !	Y 242.219
Cr (205.560 nm)	0.001178 !	ppm	0.000056	4.71	-0.245591 !	Y 377.433
Cu (324.754 nm)	0.003181 !	ppm	0.000313	9.84	1426.030000 !	Y 377.433
Fe (238.204 nm)	50.257577 !o	ppm	0.226217	0.45	120985.900875 !	Y_R 377.433
Fe H (259.940 nm)	50.167900 !	ppm	0.213242	0.43	69392.900000 !	Y_R 377.433
K (766.491 nm)	0.302430 !	ppm	0.296265	97.96	2229.410000 !	Y_R2 488.368
Li (670.783 nm)	-0.004930 !u	ppm	0.000356	7.21	-2630.410000 !	Y_R2 488.368
Mg (279.078 nm)	0.035158 !	ppm	0.000780	2.22	48.796200 !	Y 377.433
Mn (257.610 nm)	0.000969 !	ppm	0.000005	0.50	253.215000 !	Y 377.433
Mo (202.032 nm)	0.001283 !	ppm	0.000268	20.90	27.309500 !	Y 377.433
Na (589.592 nm)	235.940000 !o	ppm	0.858847	0.36	193835.000000 !	Y_R2 488.368
Na H (589.593 nm)	241.502573 !	ppm	0.991290	0.41	130911.207827 !	Y_R4
Ni (231.604 nm)	0.002866 !	ppm	0.000161	5.61	6.209260 !	Y 377.433
P (213.618 nm)	5.015700 !	ppm	0.008116	0.16	7163.730000 !	Y 242.219
Pb (220.353 nm)	0.005069 !	ppm	0.000442	8.73	17.395200 !	Y 242.219
S (181.972 nm)	4.959723 !	ppm	0.011034	0.22	2284.032382 !	Y 377.433
Sb (206.834 nm)	-0.000441 !u	ppm	0.003971	> 100.00	5.262430 !	Y 377.433
Se (196.026 nm)	0.008729 !	ppm	0.000644	7.37	9.079020 !	Y 242.219
Si (288.158 nm)	0.018016 !	ppm	0.001862	10.34	604.524000 !	Y 377.433
Sn (189.925 nm)	0.004084 !	ppm	0.001576	38.60	8.661320 !	Y 377.433
Sr (421.552 nm)	0.001513 !	ppm	0.000005	0.30	258.601796 !	Y_R 488.368
Th (288.505 nm)	4.968620 !	ppm	0.000463	0.01	8580.980000 !	Y 377.433
Ti (336.122 nm)	0.001459 !	ppm	0.000076	5.21	-247.106000 !	Y 377.433
Tl (190.794 nm)	-0.000134 !u	ppm	0.000486	> 100.00	-3.287730 !	Y 377.433
U (409.013 nm)	0.542030 Q!	ppm	0.001460	0.27	1731.620000 Q!	Y 377.433
V (292.401 nm)	0.000192 !	ppm	0.000174	90.34	362.854000 !	Y 377.433
Zn (206.200 nm)	0.002566 !	ppm	0.000668	26.04	22.600300 !	Y 377.433
Zr (343.823 nm)	0.001084 !	ppm	0.000043	3.94	-100.245000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.918470 !	21230.855930 !	0.003257	0.35
Y 377.433	0.907907 !	635018.671536 !	0.002912	0.32
Y_R 377.433	0.931007 !	56445.800000 !	0.004635	0.50
Y_R 488.368	0.938400 !	49573.500000 !	0.010778	1.15
Y_R2 488.368	0.941066 !	99757.982210 !	0.006279	0.67
Y_R4	0.954830 !	42967.300000 !	0.004048	0.42

Sample Name: CCV-5717467

Date: 5/24/2019 2:55:03 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.503275 !	ppm	0.001134	0.23	17096.500000 !	Y 377.433
Al (394.401 nm)	0.521895 !	ppm	0.002993	0.57	6589.530000 !	Y 377.433
Al H (396.152 nm)	0.564758 !u	ppm	0.016655	2.95	1226.820000 !	Y_R 377.433
As (188.980 nm)	0.503249 !	ppm	0.001146	0.23	756.697000 !	Y 242.219
B (249.678 nm)	0.491318 !	ppm	0.001054	0.21	3554.030000 !	Y 242.219
Ba (493.408 nm)	0.503285 !	ppm	0.001330	0.26	51575.800000 !	Y_R 488.368
Be (234.861 nm)	0.499322 !	ppm	0.006971	1.40	49161.900000 !	Y_R 488.368
Bi (223.061 nm)	1.000640 !	ppm	0.007160	0.72	2181.470000 !	Y 377.433
Ca (315.887 nm)	5.044375 !	ppm	0.009716	0.19	3937.367110 !	Y_R 377.433
Cd (214.439 nm)	0.523488 !	ppm	0.001150	0.22	19354.500000 !	Y 377.433
Co (228.615 nm)	0.509358 !	ppm	0.000257	0.05	11978.100000 !	Y 242.219
Cr (205.560 nm)	0.522296 !	ppm	0.001929	0.37	3472.960000 !	Y 377.433
Cu (324.754 nm)	0.508497 !	ppm	0.003521	0.69	24032.700000 !	Y 377.433
Fe (238.204 nm)	2.541967 !	ppm	0.000081	0.00	6126.098126 !	Y_R 377.433
Fe H (259.940 nm)	2.547770 !u	ppm	0.005375	0.21	3534.940000 !	Y_R 377.433
K (766.491 nm)	49.963800 !	ppm	0.451443	0.90	50181.800000 !	Y_R2 488.368
Li (670.783 nm)	0.492253 !	ppm	0.001111	0.23	5906.330000 !	Y_R2 488.368
Mg (279.078 nm)	20.288700 !	ppm	0.036087	0.18	66396.700000 !	Y 377.433
Mn (257.610 nm)	0.506005 !	ppm	0.000612	0.12	137956.000000 !	Y 377.433
Mo (202.032 nm)	0.510223 !	ppm	0.002174	0.43	6442.100000 !	Y 377.433
Na (589.592 nm)	24.237000 !	ppm	0.004779	0.02	20160.500000 !	Y_R2 488.368
Na H (589.593 nm)	24.862230 !u	ppm	0.235152	0.95	13371.657665 !	Y_R4
Ni (231.604 nm)	0.518400 !	ppm	0.001266	0.24	2674.210000 !	Y 377.433
P (213.618 nm)	0.050943 !	ppm	0.000759	1.49	-69.161900 !	Y 242.219
Pb (220.353 nm)	0.515561 !	ppm	0.002291	0.44	1643.890000 !	Y 242.219
S (181.972 nm)	0.009977 !	ppm	0.004833	48.44	19.115066 !	Y 377.433
Sb (206.834 nm)	0.513058 !	ppm	0.004688	0.91	865.399000 !	Y 377.433
Se (196.026 nm)	0.502116 !	ppm	0.000731	0.15	766.274000 !	Y 242.219
Si (288.158 nm)	4.997900 !	ppm	0.016291	0.33	32662.800000 !	Y 377.433
Sn (189.925 nm)	0.522132 !	ppm	0.001487	0.28	842.231000 !	Y 377.433
Sr (421.552 nm)	0.491740 !	ppm	0.000683	0.14	74080.070681 !	Y_R 488.368
Th (288.505 nm)	0.020627 !	ppm	0.003862	18.72	-3.256010 !	Y 377.433
Ti (336.122 nm)	0.498424 !	ppm	0.001494	0.30	63363.700000 !	Y 377.433
Tl (190.794 nm)	0.522963 !	ppm	0.001410	0.27	1194.570000 !	Y 377.433
U (409.013 nm)	0.014865 !	ppm	0.002048	13.78	-39.196300 !	Y 377.433
V (292.401 nm)	0.505207 !	ppm	0.000926	0.18	25906.800000 !	Y 377.433
Zn (206.200 nm)	0.523405 !	ppm	0.001521	0.29	2358.030000 !	Y 377.433
Zr (343.823 nm)	0.501256 !	ppm	0.001308	0.26	28215.400000 !	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.948206 !	21918.220930 !	0.005173	0.55
Y 377.433	0.936007 !	654672.194997 !	0.004405	0.47
Y_R 377.433	0.939042 !	56933.000000 !	0.006696	0.71
Y_R 488.368	0.949540 !	50162.000000 !	0.007416	0.78
Y_R2 488.368	0.932042 !	98801.344815 !	0.001728	0.19
Y_R4	0.943754 !	42468.900000 !	0.005449	0.58

Sample Name: ICB

Date: 5/24/2019 2:58:37 PM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000143	ppm	0.000099	69.37	-262.259000	Y 377.433
Al (394.401 nm)	-0.000540 u	ppm	0.001010	> 100.00	85.520200	Y 377.433
Al H (396.152 nm)	0.140396 Zu	ppm	0.000543	0.39	48.814200 Z	Y_R 377.433
As (188.980 nm)	-0.000399 u	ppm	0.004266	> 100.00	-2.177390	Y 242.219
B (249.678 nm)	-0.000951 u	ppm	0.001206	> 100.00	39.882400	Y 242.219
Ba (493.408 nm)	0.000116 u	ppm	0.000373	> 100.00	1410.990000	Y_R 488.368
Be (234.861 nm)	-0.000085 u	ppm	0.000004	4.62	-10.322400	Y_R 488.368
Bi (223.061 nm)	0.000167	ppm	0.000004	2.35	-10.246500	Y 377.433
Ca (315.887 nm)	0.005839	ppm	0.001125	19.27	-64.399362	Y_R 377.433
Cd (214.439 nm)	-0.000056 u	ppm	0.000059	> 100.00	-7.247190	Y 377.433
Co (228.615 nm)	-0.000333 u	ppm	0.000202	60.49	-22.967100	Y 242.219
Cr (205.560 nm)	0.000733	ppm	0.000376	51.23	-1.863220	Y 377.433
Cu (324.754 nm)	0.000506	ppm	0.000213	42.11	340.992000	Y 377.433
Fe (238.204 nm)	-0.000100 u	ppm	0.000054	54.34	6.898996	Y_R 377.433
Fe H (259.940 nm)	0.005575 u	ppm	0.004814	86.35	19.122800	Y_R 377.433
K (766.491 nm)	0.131894 u	ppm	0.409036	> 100.00	2064.740000	Y_R2 488.368
Li (670.783 nm)	-0.001431 u	ppm	0.000864	60.37	-2570.330000	Y_R2 488.368
Mg (279.078 nm)	-0.001410 u	ppm	0.002988	> 100.00	3.570750	Y 377.433
Mn (257.610 nm)	0.000033	ppm	0.000038	> 100.00	-1.949720	Y 377.433
Mo (202.032 nm)	0.000619	ppm	0.000115	18.51	18.934000	Y 377.433
Na (589.592 nm)	-0.024890 u	ppm	0.002768	11.12	129.987000	Y_R2 488.368
Na H (589.593 nm)	0.478903 u	ppm	0.010554	2.20	142.333969	Y_R4
Ni (231.604 nm)	-0.000008 u	ppm	0.000006	75.77	-8.661750	Y 377.433
P (213.618 nm)	-0.001306 u	ppm	0.000659	50.46	-6.086420	Y 242.219
Pb (220.353 nm)	0.000904	ppm	0.000798	88.34	11.155900	Y 242.219
S (181.972 nm)	0.007648	ppm	0.003876	50.68	16.201916	Y 377.433
Sb (206.834 nm)	0.001052 u	ppm	0.002600	> 100.00	3.556330	Y 377.433
Se (196.026 nm)	-0.000574 u	ppm	0.002612	> 100.00	7.991750	Y 242.219
Si (288.158 nm)	-0.000197 u	ppm	0.001977	> 100.00	487.280000	Y 377.433
Sn (189.925 nm)	0.000354 u	ppm	0.002437	> 100.00	2.659630	Y 377.433
Sr (421.552 nm)	0.000445	ppm	0.000062	13.93	90.247294	Y_R 488.368
Th (288.505 nm)	0.004397	ppm	0.000798	18.16	20.365700	Y 377.433
Ti (336.122 nm)	-0.000074 u	ppm	0.000040	53.98	-443.336000	Y 377.433
Tl (190.794 nm)	0.001330	ppm	0.001599	> 100.00	4.856420	Y 377.433
U (409.013 nm)	-0.004628 u	ppm	0.014092	> 100.00	-39.425700	Y 377.433
V (292.401 nm)	-0.000351 u	ppm	0.000129	36.75	-164.814000	Y 377.433
Zn (206.200 nm)	-0.000870 u	ppm	0.000041	4.69	0.151118	Y 377.433
Zr (343.823 nm)	-0.000254 u	ppm	0.000025	9.73	-176.004000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.970833	22441.262855	0.001433	0.15
Y 377.433	0.956801	669216.679562	0.002960	0.31
Y_R 377.433	0.957934	58078.400000	0.001499	0.16
Y_R 488.368	0.962470	50845.100000	0.008563	0.89
Y_R2 488.368	0.969935	102818.254566	0.001625	0.17
Y_R4	0.970257	43661.500000	0.003936	0.41

Sample Name: CRI-5719884

Date: 5/24/2019 3:01:48 PM Rack:Tube: 3:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008683	ppm	0.000075	0.86	31.521200	Y 377.433
Al (394.401 nm)	0.103789	ppm	0.000875	0.84	1367.140000	Y 377.433
Al H (396.152 nm)	0.233905 u	ppm	0.011558	4.94	258.742000	Y_R 377.433
As (188.980 nm)	0.014609	ppm	0.005339	36.54	20.435000	Y 242.219
B (249.678 nm)	0.093460	ppm	0.000836	0.89	714.066000	Y 242.219
Ba (493.408 nm)	0.010387	ppm	0.000363	3.50	2435.050000	Y_R 488.368
Be (234.861 nm)	0.000906	ppm	0.000090	9.93	86.719200	Y_R 488.368
Bi (223.061 nm)	0.095407	ppm	0.003926	4.11	198.367000	Y 377.433
Ca (315.887 nm)	0.204297	ppm	0.010112	4.95	93.237046	Y_R 377.433
Cd (214.439 nm)	0.005374	ppm	0.000085	1.58	193.607000	Y 377.433
Co (228.615 nm)	0.010581	ppm	0.000152	1.44	233.989000	Y 242.219
Cr (205.560 nm)	0.010827	ppm	0.000706	6.52	65.275400	Y 377.433
Cu (324.754 nm)	0.016755	ppm	0.000115	0.69	1097.460000	Y 377.433
Fe (238.204 nm)	0.115134	ppm	0.000988	0.86	284.288167	Y_R 377.433
Fe H (259.940 nm)	0.118722 u	ppm	0.005241	4.41	175.604000	Y_R 377.433
K (766.491 nm)	3.048910	ppm	0.410021	13.45	4881.370000	Y_R2 488.368
Li (670.783 nm)	0.023102	ppm	0.000914	3.96	-2149.100000	Y_R2 488.368
Mg (279.078 nm)	0.209297	ppm	0.001932	0.92	691.951000	Y 377.433
Mn (257.610 nm)	0.011130	ppm	0.000014	0.12	3023.550000	Y 377.433
Mo (202.032 nm)	0.020071	ppm	0.000156	0.78	264.112000	Y 377.433
Na (589.592 nm)	1.043100	ppm	0.020018	1.92	1008.990000	Y_R2 488.368
Na H (589.593 nm)	1.442298 u	ppm	0.020801	1.44	665.029667	Y_R4
Ni (231.604 nm)	0.044760	ppm	0.000318	0.71	222.984000	Y 377.433
P (213.618 nm)	2.883980	ppm	0.018128	0.63	4115.350000	Y 242.219
Pb (220.353 nm)	0.012956 Q	ppm	0.000243	1.87	49.516300 Q	Y 242.219
S (181.972 nm)	0.095554	ppm	0.002927	3.06	56.499386	Y 377.433
Sb (206.834 nm)	0.022226	ppm	0.001905	8.57	39.154200	Y 377.433
Se (196.026 nm)	0.020653	ppm	0.003068	14.85	39.995200	Y 242.219
Si (288.158 nm)	0.494912	ppm	0.002290	0.46	3674.570000	Y 377.433
Sn (189.925 nm)	0.104179	ppm	0.000847	0.81	169.721000	Y 377.433
Sr (421.552 nm)	0.009565	ppm	0.000041	0.43	1463.695933	Y_R 488.368
Th (288.505 nm)	0.018399 Q	ppm	0.008262	44.90	43.936700 Q	Y 377.433
Ti (336.122 nm)	0.009794	ppm	0.000103	1.05	820.139000	Y 377.433
Tl (190.794 nm)	0.015874	ppm	0.002284	14.39	38.003200	Y 377.433
U (409.013 nm)	0.053822	ppm	0.009812	18.23	144.740000	Y 377.433
V (292.401 nm)	0.009758	ppm	0.000298	3.05	354.015000	Y 377.433
Zn (206.200 nm)	0.023233	ppm	0.000306	1.32	108.552000	Y 377.433
Zr (343.823 nm)	0.009975 Q	ppm	0.000090	0.90	403.112000 Q	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.992963	22952.804175	0.002725	0.27
Y 377.433	0.976638	683090.976786	0.003426	0.35
Y_R 377.433	0.983955	59656.000000	0.004513	0.46
Y_R 488.368	0.993117	52464.100000	0.010296	1.04
Y_R2 488.368	0.992961	105259.115724	0.004718	0.48
Y_R4	0.976524	43943.500000	0.004717	0.48

Sample Name: ICSA-5714842

Date: 5/24/2019 3:05:17 PM Rack:Tube: 3:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002401	ppm	0.000057	2.37	-186.190000	Y 377.433
Al (394.401 nm)	530.358000 o	ppm	2.136820	0.40	6473180.000000	Y 377.433
Al H (396.152 nm)	523.128000	ppm	3.398080	0.65	1143160.000000	Y_R 377.433
As (188.980 nm)	0.003031	ppm	0.002611	86.12	-2.335990	Y 242.219
B (249.678 nm)	0.013502	ppm	0.000149	1.10	29.465300	Y 242.219
Ba (493.408 nm)	0.001873	ppm	0.000934	49.89	1742.840000	Y_R 488.368
Be (234.861 nm)	-0.000879 Ku	ppm	0.000012	1.35	-920.376000 K	Y_R 488.368
Bi (223.061 nm)	0.000118 u	ppm	0.000305	> 100.00	23.635100	Y 377.433
Ca (315.887 nm)	495.010652	ppm	2.848799	0.58	393202.673998	Y_R 377.433
Cd (214.439 nm)	0.000530	ppm	0.000393	74.08	94.335200	Y 377.433
Co (228.615 nm)	-0.000585 u	ppm	0.001492	> 100.00	-28.840600	Y 242.219
Cr (205.560 nm)	0.006145 K	ppm	0.000138	2.25	20.168500 K	Y 377.433
Cu (324.754 nm)	-0.002034 u	ppm	0.000238	11.71	56.156100	Y 377.433
Fe (238.204 nm)	196.673079 o	ppm	1.091917	0.56	473433.574737	Y_R 377.433
Fe H (259.940 nm)	197.337000	ppm	1.121020	0.57	272925.000000	Y_R 377.433
K (766.491 nm)	0.274999 u	ppm	0.478662	> 100.00	2202.920000	Y_R2 488.368
Li (670.783 nm)	-0.011531 Ku	ppm	0.003501	30.36	-2743.760000 K	Y_R2 488.368
Mg (279.078 nm)	521.121000	ppm	1.329980	0.26	1705040.000000	Y 377.433
Mn (257.610 nm)	0.000584	ppm	0.000004	0.76	148.041000	Y 377.433
Mo (202.032 nm)	0.000750	ppm	0.000687	91.51	20.591600	Y 377.433
Na (589.592 nm)	0.297495	ppm	0.019241	6.47	395.197000	Y_R2 488.368
Na H (589.593 nm)	2.628357 u	ppm	0.079337	3.02	1308.533292	Y_R4
Ni (231.604 nm)	-0.004400 u	ppm	0.000992	22.55	-31.384300	Y 377.433
P (213.618 nm)	0.013829 u	ppm	0.025036	> 100.00	17.613500	Y 242.219
Pb (220.353 nm)	0.007454 K	ppm	0.001213	16.27	-54.789800 K	Y 242.219
S (181.972 nm)	0.003884 u	ppm	0.007754	> 100.00	38.916978	Y 377.433
Sb (206.834 nm)	-0.006606 u	ppm	0.004873	73.77	7.235880	Y 377.433
Se (196.026 nm)	0.011462 K	ppm	0.002727	23.79	-24.513500 K	Y 242.219
Si (288.158 nm)	0.043417	ppm	0.001880	4.33	768.045000	Y 377.433
Sn (189.925 nm)	-0.003233 u	ppm	0.001173	36.29	-3.110950	Y 377.433
Sr (421.552 nm)	0.007827 K	ppm	0.000118	1.51	1231.492690 K	Y_R 488.368
Th (288.505 nm)	0.020434 K	ppm	0.000564	2.76	20.077300 K	Y 377.433
Ti (336.122 nm)	-0.002014 u	ppm	0.000074	3.68	999.062000	Y 377.433
Tl (190.794 nm)	0.010950 K	ppm	0.003170	28.95	-3.227670 K	Y 377.433
U (409.013 nm)	0.048784	ppm	0.008897	18.24	208.254000	Y 377.433
V (292.401 nm)	0.001139	ppm	0.000049	4.28	-94.135900	Y 377.433
Zn (206.200 nm)	-0.003406 u	ppm	0.000743	21.81	16.130300	Y 377.433
Zr (343.823 nm)	0.003332	ppm	0.000005	0.14	27.012000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.838918	19391.979314	0.000134	0.02
Y 377.433	0.832757	582456.166581	0.001681	0.20
Y_R 377.433	0.879545	53325.700000	0.005955	0.68
Y_R 488.368	0.890491	47042.600000	0.013426	1.51
Y_R2 488.368	0.887361	94064.988440	0.003841	0.43
Y_R4	0.923672	41565.200000	0.000613	0.07

Sample Name: ICSAB-5707812

Date: 5/24/2019 3:09:05 PM
Rack:Tube: 3:12

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	1.171700	ppm	0.001121	0.10	40166.500000	Y 377.433
Al (394.401 nm)	542.970000 o	ppm	0.362419	0.07	6626860.000000	Y 377.433
Al H (396.152 nm)	535.785000	ppm	1.258190	0.23	1171360.000000	Y_R 377.433
As (188.980 nm)	1.105710	ppm	0.004172	0.38	1659.150000	Y 242.219
B (249.678 nm)	10.885900	ppm	0.007900	0.07	77673.400000	Y 242.219
Ba (493.408 nm)	1.075000	ppm	0.004373	0.41	108731.000000	Y_R 488.368
Be (234.861 nm)	0.529318	ppm	0.003058	0.58	51273.900000	Y_R 488.368
Bi (223.061 nm)	1.038170	ppm	0.004132	0.40	2297.980000	Y 377.433
Ca (315.887 nm)	506.037671	ppm	1.830165	0.36	401963.667512	Y_R 377.433
Cd (214.439 nm)	1.050610	ppm	0.003940	0.38	38928.300000	Y 377.433
Co (228.615 nm)	0.998172	ppm	0.000003	0.00	23490.300000	Y 242.219
Cr (205.560 nm)	1.083940	ppm	0.000181	0.02	7201.140000	Y 377.433
Cu (324.754 nm)	1.103290	ppm	0.000326	0.03	52000.900000	Y 377.433
Fe (238.204 nm)	201.642088 o	ppm	0.817463	0.41	485394.845987	Y_R 377.433
Fe H (259.940 nm)	202.386000	ppm	0.809003	0.40	279909.000000	Y_R 377.433
K (766.491 nm)	11.642800	ppm	0.236544	2.03	13179.500000	Y_R2 488.368
Li (670.783 nm)	1.108230	ppm	0.011314	1.02	16482.800000	Y_R2 488.368
Mg (279.078 nm)	536.563000	ppm	0.461994	0.09	1755570.000000	Y 377.433
Mn (257.610 nm)	1.042510	ppm	0.000616	0.06	284240.000000	Y 377.433
Mo (202.032 nm)	1.040440	ppm	0.000263	0.03	13125.100000	Y 377.433
Na (589.592 nm)	11.466300	ppm	0.137846	1.20	9806.930000	Y_R2 488.368
Na H (589.593 nm)	13.811659 Gu	ppm	0.132650	0.96	7376.102832 G	Y_R4
Ni (231.604 nm)	1.010250	ppm	0.000048	0.00	5219.640000	Y 377.433
P (213.618 nm)	10.925400	ppm	0.022488	0.21	15322.500000	Y 242.219
Pb (220.353 nm)	1.038090	ppm	0.000764	0.07	3212.680000	Y 242.219
S (181.972 nm)	10.930733 G	ppm	0.031165	0.29	5046.772991 G	Y 377.433
Sb (206.834 nm)	1.079930	ppm	0.000706	0.07	1836.410000	Y 377.433
Se (196.026 nm)	1.082090	ppm	0.009188	0.85	1590.530000	Y 242.219
Si (288.158 nm)	10.678800	ppm	0.023733	0.22	69234.300000	Y 377.433
Sn (189.925 nm)	1.040500	ppm	0.000045	0.00	1676.320000	Y 377.433
Sr (421.552 nm)	1.050373	ppm	0.004667	0.44	158240.845861	Y_R 488.368
Th (288.505 nm)	2.116180	ppm	0.005320	0.25	3532.300000	Y 377.433
Ti (336.122 nm)	1.043780	ppm	0.000930	0.09	134862.000000	Y 377.433
Tl (190.794 nm)	1.035800	ppm	0.005268	0.51	2333.960000	Y 377.433
U (409.013 nm)	0.068024	ppm	0.002808	4.13	146.651000	Y 377.433
V (292.401 nm)	1.051340	ppm	0.000331	0.03	54280.800000	Y 377.433
Zn (206.200 nm)	1.032090	ppm	0.001401	0.14	4673.190000	Y 377.433
Zr (343.823 nm)	0.995599	ppm	0.001610	0.16	56201.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.855676	19779.346600	0.001576	0.18
Y 377.433	0.848450	593432.556518	0.001919	0.23
Y_R 377.433	0.904775	54855.400000	0.005231	0.58
Y_R 488.368	0.909961	48071.100000	0.004760	0.52
Y_R2 488.368	0.900612	95469.609644	0.004888	0.54
Y_R4	0.931292	41908.100000	0.009804	1.05

Sample Name: LRA-5681702

Date: 5/24/2019 3:12:53 PM Rack:Tube: 3:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	-0.011689 u	ppm	0.000080	0.69	-4676.050000	Y 377.433
Al (394.401 nm)	-0.165366 u	ppm	0.004853	2.93	692.950000	Y 377.433
Al H (396.152 nm)	-1.792040 u	ppm	0.005802	0.32	536.371000	Y_R 377.433
As (188.980 nm)	10.311000	ppm	0.023248	0.23	15522.500000	Y 242.219
B (249.678 nm)	10.303700	ppm	0.010155	0.10	73344.000000	Y 242.219
Ba (493.408 nm)	12.615100	ppm	0.073209	0.58	1259450.000000	Y_R 488.368
Be (234.861 nm)	-0.002265 u	ppm	0.000082	3.63	-2335.100000	Y_R 488.368
Bi (223.061 nm)	-0.028173 u	ppm	0.001400	4.97	13.896700	Y 377.433
Ca (315.887 nm)	0.039231	ppm	0.011739	29.92	-37.821785	Y_R 377.433
Cd (214.439 nm)	2.128930	ppm	0.003373	0.16	78925.700000	Y 377.433
Co (228.615 nm)	5.351610	ppm	0.002039	0.04	126215.000000	Y 242.219
Cr (205.560 nm)	10.665600	ppm	0.009518	0.09	71085.100000	Y 377.433
Cu (324.754 nm)	10.890000	ppm	0.013370	0.12	508213.000000	Y 377.433
Fe (238.204 nm)	498.877644 o	ppm	0.522367	0.10	1200892.720181	Y_R 377.433
Fe H (259.940 nm)	499.137000	ppm	0.153969	0.03	690310.000000	Y_R 377.433
K (766.491 nm)	-0.087254 u	ppm	0.236544	> 100.00	1853.130000	Y_R2 488.368
Li (670.783 nm)	0.004208	ppm	0.004783	> 100.00	-2473.510000	Y_R2 488.368
Mg (279.078 nm)	0.011832	ppm	0.003494	29.53	-608.431000	Y 377.433
Mn (257.610 nm)	10.136700	ppm	0.006293	0.06	2763870.000000	Y 377.433
Mo (202.032 nm)	5.150110	ppm	0.002018	0.04	64924.300000	Y 377.433
Na (589.592 nm)	6.331210	ppm	0.034799	0.55	8215.020000	Y_R2 488.368
Na H (589.593 nm)	8.746202 u	ppm	0.120546	1.38	4627.807970	Y_R4
Ni (231.604 nm)	10.750000	ppm	0.013085	0.12	55618.800000	Y 377.433
P (213.618 nm)	0.964899	ppm	0.001991	0.21	-1361.680000	Y 242.219
Pb (220.353 nm)	10.800700	ppm	0.009637	0.09	34290.400000	Y 242.219
S (181.972 nm)	-0.018863 u	ppm	0.010789	57.20	36.300005	Y 377.433
Sb (206.834 nm)	0.029616	ppm	0.001407	4.75	93.597400	Y 377.433
Se (196.026 nm)	5.076870	ppm	0.008562	0.17	7552.200000	Y 242.219
Si (288.158 nm)	50.394400	ppm	0.054424	0.11	324906.000000	Y 377.433
Sn (189.925 nm)	0.000631	ppm	0.000015	2.34	3.106010	Y 377.433
Sr (421.552 nm)	10.172829	ppm	0.038028	0.37	1532137.194356	Y_R 488.368
Th (288.505 nm)	0.287625	ppm	0.003240	1.13	-459.371000	Y 377.433
Ti (336.122 nm)	9.950910	ppm	0.010939	0.11	1272940.000000	Y 377.433
Tl (190.794 nm)	5.412360	ppm	0.002153	0.04	12268.700000	Y 377.433
U (409.013 nm)	-0.035204 u	ppm	0.002951	8.38	228.311000	Y 377.433
V (292.401 nm)	10.080300	ppm	0.015666	0.16	519978.000000	Y 377.433
Zn (206.200 nm)	10.218300	ppm	0.019249	0.19	46022.400000	Y 377.433
Zr (343.823 nm)	0.015403	ppm	0.000677	4.40	710.361000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.939604	21719.390480	0.002960	0.32
Y 377.433	0.948043	663090.840783	0.002026	0.21
Y_R 377.433	0.953912	57834.500000	0.003547	0.37
Y_R 488.368	0.961347	50785.800000	0.002258	0.23
Y_R2 488.368	0.957094	101457.056447	0.023123	2.42
Y_R4	0.965933	43466.900000	0.001092	0.11

Sample Name: CCVH-5713036

Date: 5/24/2019 3:16:45 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005344	ppm	0.000032	0.61	-92.870600	Y 377.433
Al (394.401 nm)	51.579900 o	ppm	0.041891	0.08	628397.000000	Y 377.433
Al H (396.152 nm)	50.138200	ppm	0.024517	0.05	109341.000000	Y_R 377.433
As (188.980 nm)	0.005676	ppm	0.000836	14.72	5.602080	Y 242.219
B (249.678 nm)	0.010482	ppm	0.000230	2.20	92.206400	Y 242.219
Ba (493.408 nm)	0.003617	ppm	0.000160	4.42	1800.500000	Y_R 488.368
Be (234.861 nm)	0.001202	ppm	0.000003	0.28	-98.233100	Y_R 488.368
Bi (223.061 nm)	0.009097	ppm	0.000212	2.33	18.083000	Y 377.433
Ca (315.887 nm)	-0.002064 u	ppm	0.000604	29.27	-58.104762	Y_R 377.433
Cd (214.439 nm)	0.001434	ppm	0.000130	9.04	68.461200	Y 377.433
Co (228.615 nm)	0.003321	ppm	0.000225	6.77	62.991600	Y 242.219
Cr (205.560 nm)	0.001585	ppm	0.000062	3.90	2.453430	Y 377.433
Cu (324.754 nm)	0.004148	ppm	0.000114	2.74	1479.210000	Y 377.433
Fe (238.204 nm)	50.753654 o	ppm	0.024749	0.05	122180.044879	Y_R 377.433
Fe H (259.940 nm)	50.519500	ppm	0.007892	0.02	69879.100000	Y_R 377.433
K (766.491 nm)	0.338683	ppm	0.272947	80.59	2264.410000	Y_R2 488.368
Li (670.783 nm)	-0.004055 u	ppm	0.003749	92.47	-2615.390000	Y_R2 488.368
Mg (279.078 nm)	0.042672	ppm	0.001307	3.06	72.652800	Y 377.433
Mn (257.610 nm)	0.001427	ppm	0.000042	2.97	378.135000	Y 377.433
Mo (202.032 nm)	0.002100	ppm	0.000531	25.27	37.601400	Y 377.433
Na (589.592 nm)	236.030000 o	ppm	0.344324	0.15	193909.000000	Y_R2 488.368
Na H (589.593 nm)	244.257877	ppm	1.847899	0.76	132406.114795	Y_R4
Ni (231.604 nm)	0.003912	ppm	0.000026	0.67	11.623300	Y 377.433
P (213.618 nm)	4.985860	ppm	0.014555	0.29	7120.850000	Y 242.219
Pb (220.353 nm)	0.008677	ppm	0.000380	4.37	28.826900	Y 242.219
S (181.972 nm)	5.009718	ppm	0.005789	0.12	2306.928856	Y 377.433
Sb (206.834 nm)	-0.002363 u	ppm	0.001788	75.65	2.057140	Y 377.433
Se (196.026 nm)	0.008029	ppm	0.004210	52.43	7.896590	Y 242.219
Si (288.158 nm)	0.032659	ppm	0.001646	5.04	698.790000	Y 377.433
Sn (189.925 nm)	0.003279	ppm	0.000268	8.18	7.365980	Y 377.433
Sr (421.552 nm)	0.001888	ppm	0.000085	4.52	315.109092	Y_R 488.368
Th (288.505 nm)	4.977960	ppm	0.000103	0.00	8597.020000	Y 377.433
Ti (336.122 nm)	0.002051	ppm	0.000125	6.12	-171.399000	Y 377.433
Tl (190.794 nm)	0.001663	ppm	0.000769	46.25	0.764010	Y 377.433
U (409.013 nm)	0.549697 Q	ppm	0.005933	1.08	1756.350000 Q	Y 377.433
V (292.401 nm)	0.000766	ppm	0.000265	34.56	396.658000	Y 377.433
Zn (206.200 nm)	0.003483	ppm	0.000074	2.13	26.791300	Y 377.433
Zr (343.823 nm)	0.001026	ppm	0.000153	14.95	-103.534000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.929503	21485.886983	0.002162	0.23
Y 377.433	0.915674	640450.858375	0.001917	0.21
Y_R 377.433	0.939295	56948.300000	0.005381	0.57
Y_R 488.368	0.954261	50411.400000	0.002707	0.28
Y_R2 488.368	0.937494	99379.347172	0.001711	0.18
Y_R4	0.945189	42533.500000	0.004097	0.43

Sample Name: CCV-5717467

Date: 5/24/2019 3:20:53 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.506164	ppm	0.000352	0.07	17196.200000	Y 377.433
Al (394.401 nm)	0.521312	ppm	0.002233	0.43	6582.030000	Y 377.433
Al H (396.152 nm)	0.575292 u	ppm	0.006235	1.08	1251.010000	Y_R 377.433
As (188.980 nm)	0.506619	ppm	0.001995	0.39	761.775000	Y 242.219
B (249.678 nm)	0.501500	ppm	0.000685	0.14	3626.730000	Y 242.219
Ba (493.408 nm)	0.505904	ppm	0.002075	0.41	51836.900000	Y_R 488.368
Be (234.861 nm)	0.497987	ppm	0.000416	0.08	49030.300000	Y_R 488.368
Bi (223.061 nm)	1.007800	ppm	0.006895	0.68	2197.150000	Y 377.433
Ca (315.887 nm)	5.065932	ppm	0.011109	0.22	3954.493594	Y_R 377.433
Cd (214.439 nm)	0.527390	ppm	0.000218	0.04	19498.800000	Y 377.433
Co (228.615 nm)	0.511227	ppm	0.000181	0.04	12022.100000	Y 242.219
Cr (205.560 nm)	0.532125	ppm	0.001212	0.23	3538.490000	Y 377.433
Cu (324.754 nm)	0.505538	ppm	0.000941	0.19	23894.900000	Y 377.433
Fe (238.204 nm)	2.562431	ppm	0.004510	0.18	6175.359103	Y_R 377.433
Fe H (259.940 nm)	2.559290 u	ppm	0.003632	0.14	3550.870000	Y_R 377.433
K (766.491 nm)	50.121600	ppm	0.505015	1.01	50334.200000	Y_R2 488.368
Li (670.783 nm)	0.496385	ppm	0.008098	1.63	5977.290000	Y_R2 488.368
Mg (279.078 nm)	20.432800	ppm	0.000479	0.00	66868.500000	Y 377.433
Mn (257.610 nm)	0.508749	ppm	0.000414	0.08	138704.000000	Y 377.433
Mo (202.032 nm)	0.512924	ppm	0.001158	0.23	6476.150000	Y 377.433
Na (589.592 nm)	24.147500	ppm	0.060593	0.25	20087.800000	Y_R2 488.368
Na H (589.593 nm)	26.345114 u	ppm	0.163892	0.62	14176.205450	Y_R4
Ni (231.604 nm)	0.521758	ppm	0.000643	0.12	2691.590000	Y 377.433
P (213.618 nm)	0.050261	ppm	0.002134	4.25	-69.731000	Y 242.219
Pb (220.353 nm)	0.518176	ppm	0.000077	0.01	1652.150000	Y 242.219
S (181.972 nm)	0.008323	ppm	0.010082	> 100.00	18.375439	Y 377.433
Sb (206.834 nm)	0.515627	ppm	0.003775	0.73	869.749000	Y 377.433
Se (196.026 nm)	0.505944	ppm	0.002741	0.54	772.049000	Y 242.219
Si (288.158 nm)	5.049320	ppm	0.018703	0.37	32993.900000	Y 377.433
Sn (189.925 nm)	0.525151	ppm	0.001871	0.36	847.089000	Y 377.433
Sr (421.552 nm)	0.492557	ppm	0.000768	0.16	74203.140652	Y_R 488.368
Th (288.505 nm)	0.021525	ppm	0.003347	15.55	-2.026960	Y 377.433
Ti (336.122 nm)	0.500329	ppm	0.000502	0.10	63607.700000	Y 377.433
Tl (190.794 nm)	0.525439	ppm	0.000107	0.02	1200.220000	Y 377.433
U (409.013 nm)	0.010698	ppm	0.001573	14.70	-52.829400	Y 377.433
V (292.401 nm)	0.507389	ppm	0.000221	0.04	26017.600000	Y 377.433
Zn (206.200 nm)	0.528291	ppm	0.002316	0.44	2380.010000	Y 377.433
Zr (343.823 nm)	0.502939	ppm	0.000173	0.03	28310.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.953220	22034.134161	0.002396	0.25
Y 377.433	0.940016	657476.628682	0.002094	0.22
Y_R 377.433	0.952678	57759.700000	0.002774	0.29
Y_R 488.368	0.963976	50924.600000	0.003273	0.34
Y_R2 488.368	0.951438	100857.449627	0.001773	0.19
Y_R4	0.962609	43317.400000	0.002820	0.29

Sample Name: CCB

Date: 5/24/2019 3:24:27 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000342	ppm	0.000165	48.21	-255.293000	Y 377.433
Al (394.401 nm)	-0.000319 u	ppm	0.000390	> 100.00	86.787300	Y 377.433
Al H (396.152 nm)	0.137586 Zu	ppm	0.000958	0.70	42.580400 Z	Y_R 377.433
As (188.980 nm)	-0.000387 u	ppm	0.001767	> 100.00	-2.159090	Y 242.219
B (249.678 nm)	0.001850	ppm	0.000004	0.24	59.887100	Y 242.219
Ba (493.408 nm)	-0.000691 u	ppm	0.000124	17.98	1330.550000	Y_R 488.368
Be (234.861 nm)	0.000006 u	ppm	0.000034	> 100.00	-1.409390	Y_R 488.368
Bi (223.061 nm)	0.000214 u	ppm	0.002880	> 100.00	-10.143400	Y 377.433
Ca (315.887 nm)	0.011762	ppm	0.001199	10.19	-59.693449	Y_R 377.433
Cd (214.439 nm)	0.000130	ppm	0.000018	13.58	-0.370161	Y 377.433
Co (228.615 nm)	-0.000186 u	ppm	0.000170	91.35	-19.495200	Y 242.219
Cr (205.560 nm)	0.000423 u	ppm	0.000902	> 100.00	-3.934740	Y 377.433
Cu (324.754 nm)	0.000917	ppm	0.000067	7.25	360.333000	Y 377.433
Fe (238.204 nm)	-0.001115 u	ppm	0.000591	53.02	4.455782	Y_R 377.433
Fe H (259.940 nm)	0.000766 u	ppm	0.000728	95.11	12.472200	Y_R 377.433
K (766.491 nm)	0.115709	ppm	0.102489	88.57	2049.110000	Y_R2 488.368
Li (670.783 nm)	0.001169	ppm	0.000551	47.15	-2525.690000	Y_R2 488.368
Mg (279.078 nm)	0.003272	ppm	0.001389	42.45	19.194300	Y 377.433
Mn (257.610 nm)	0.000062	ppm	0.000013	21.85	5.759690	Y 377.433
Mo (202.032 nm)	0.000281	ppm	0.000183	65.09	14.669900	Y 377.433
Na (589.592 nm)	0.031342	ppm	0.011251	35.90	175.900000	Y_R2 488.368
Na H (589.593 nm)	1.415258 u	ppm	0.035770	2.53	650.359065	Y_R4
Ni (231.604 nm)	0.001550	ppm	0.000636	41.03	-0.600591	Y 377.433
P (213.618 nm)	0.001331 u	ppm	0.004091	> 100.00	-2.478760	Y 242.219
Pb (220.353 nm)	0.000846	ppm	0.000073	8.58	10.928400	Y 242.219
S (181.972 nm)	0.001695 u	ppm	0.003865	> 100.00	13.475988	Y 377.433
Sb (206.834 nm)	-0.000706 u	ppm	0.005111	> 100.00	0.587549	Y 377.433
Se (196.026 nm)	-0.002296 u	ppm	0.001151	50.16	5.395170	Y 242.219
Si (288.158 nm)	0.001040	ppm	0.000126	12.09	495.241000	Y 377.433
Sn (189.925 nm)	0.000224 u	ppm	0.000924	> 100.00	2.450130	Y 377.433
Sr (421.552 nm)	0.000342	ppm	0.000041	12.03	74.738723	Y_R 488.368
Th (288.505 nm)	0.002869 u	ppm	0.004333	> 100.00	17.588500	Y 377.433
Ti (336.122 nm)	0.000119	ppm	0.000059	49.99	-418.608000	Y 377.433
Tl (190.794 nm)	-0.000106 u	ppm	0.000816	> 100.00	1.573150	Y 377.433
U (409.013 nm)	-0.010643 u	ppm	0.003286	30.87	-58.497500	Y 377.433
V (292.401 nm)	-0.000306 u	ppm	0.000051	16.69	-161.906000	Y 377.433
Zn (206.200 nm)	-0.000236 u	ppm	0.000027	11.29	3.004500	Y 377.433
Zr (343.823 nm)	-0.000161 u	ppm	0.000036	22.49	-170.706000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984152	22749.142139	0.001225	0.12
Y 377.433	0.968698	677537.444328	0.001033	0.11
Y_R 377.433	0.977896	59288.600000	0.000849	0.09
Y_R 488.368	0.986997	52140.800000	0.001464	0.15
Y_R2 488.368	0.980877	103978.105431	0.006778	0.69
Y_R4	0.988038	44461.700000	0.003594	0.36

Sample Name: CCVL-5719884

Date: 5/24/2019 3:27:39 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008377	ppm	0.000086	1.03	20.988100	Y 377.433
Al (394.401 nm)	0.101957	ppm	0.000900	0.88	1343.160000	Y 377.433
Al H (396.152 nm)	0.240419 u	ppm	0.002452	1.02	272.920000	Y_R 377.433
As (188.980 nm)	0.016495	ppm	0.001179	7.14	23.278000	Y 242.219
B (249.678 nm)	0.096736	ppm	0.000914	0.94	737.463000	Y 242.219
Ba (493.408 nm)	0.009598	ppm	0.000014	0.14	2356.430000	Y_R 488.368
Be (234.861 nm)	0.000934	ppm	0.000068	7.23	89.570900	Y_R 488.368
Bi (223.061 nm)	0.092707	ppm	0.001522	1.64	192.454000	Y 377.433
Ca (315.887 nm)	0.208966	ppm	0.014070	6.73	96.948909	Y_R 377.433
Cd (214.439 nm)	0.005204	ppm	0.000114	2.18	187.320000	Y 377.433
Co (228.615 nm)	0.010951	ppm	0.000298	2.72	242.681000	Y 242.219
Cr (205.560 nm)	0.010739	ppm	0.000235	2.19	64.692400	Y 377.433
Cu (324.754 nm)	0.016741	ppm	0.000102	0.61	1097.920000	Y 377.433
Fe (238.204 nm)	0.105225	ppm	0.005053	4.80	260.435201	Y_R 377.433
Fe H (259.940 nm)	0.107427 u	ppm	0.001545	1.44	159.983000	Y_R 377.433
K (766.491 nm)	3.193990	ppm	0.185003	5.79	5021.460000	Y_R2 488.368
Li (670.783 nm)	0.021678	ppm	0.000038	0.17	-2173.550000	Y_R2 488.368
Mg (279.078 nm)	0.209333	ppm	0.001315	0.63	692.110000	Y 377.433
Mn (257.610 nm)	0.010832	ppm	0.000010	0.09	2942.490000	Y 377.433
Mo (202.032 nm)	0.020210	ppm	0.000452	2.24	265.868000	Y 377.433
Na (589.592 nm)	1.104950	ppm	0.014966	1.35	1059.560000	Y_R2 488.368
Na H (589.593 nm)	2.257384 u	ppm	0.012562	0.56	1107.259756	Y_R4
Ni (231.604 nm)	0.043996	ppm	0.000138	0.31	219.038000	Y 377.433
P (213.618 nm)	2.896190	ppm	0.027106	0.94	4132.800000	Y 242.219
Pb (220.353 nm)	0.009403	ppm	0.001689	17.97	38.216300	Y 242.219
S (181.972 nm)	0.092998	ppm	0.004671	5.02	55.327609	Y 377.433
Sb (206.834 nm)	0.015673	ppm	0.002638	16.83	28.085700	Y 377.433
Se (196.026 nm)	0.020538	ppm	0.004926	23.98	39.823400	Y 242.219
Si (288.158 nm)	0.500526	ppm	0.002573	0.51	3710.720000	Y 377.433
Sn (189.925 nm)	0.106627	ppm	0.000588	0.55	173.659000	Y 377.433
Sr (421.552 nm)	0.009362	ppm	0.000265	2.83	1433.123790	Y_R 488.368
Th (288.505 nm)	0.017549	ppm	0.000152	0.87	42.474800	Y 377.433
Ti (336.122 nm)	0.009884	ppm	0.000094	0.95	831.574000	Y 377.433
Tl (190.794 nm)	0.017371	ppm	0.001697	9.77	41.429800	Y 377.433
U (409.013 nm)	0.062153	ppm	0.000065	0.10	171.152000	Y 377.433
V (292.401 nm)	0.009577	ppm	0.000115	1.20	345.214000	Y 377.433
Zn (206.200 nm)	0.021534	ppm	0.000750	3.48	100.914000	Y 377.433
Zr (343.823 nm)	0.010001	ppm	0.000063	0.63	404.536000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.997314	23053.374763	0.001667	0.17
Y 377.433	0.980236	685607.789700	0.000741	0.08
Y_R 377.433	0.978924	59350.900000	0.002241	0.23
Y_R 488.368	0.991307	52368.500000	0.004419	0.45
Y_R2 488.368	0.992487	105208.912881	0.007791	0.79
Y_R4	0.982377	44206.900000	0.006283	0.64

Sample Name: 280-123501-a-8-a@5

Date: 5/24/2019 3:31:07 PM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002394	ppm	0.000319	13.31	-185.822000	Y 377.433
Al (394.401 nm)	0.076429	ppm	0.003061	4.00	1401.210000	Y 377.433
Al H (396.152 nm)	-0.054093 u	ppm	0.003386	6.26	211.545000	Y_R 377.433
As (188.980 nm)	-0.000302 u	ppm	0.001046	> 100.00	-2.034960	Y 242.219
B (249.678 nm)	0.424479	ppm	0.001260	0.30	3078.080000	Y 242.219
Ba (493.408 nm)	0.001966	ppm	0.000479	24.34	1595.590000	Y_R 488.368
Be (234.861 nm)	-0.000006 u	ppm	0.000070	> 100.00	-3.053170	Y_R 488.368
Bi (223.061 nm)	0.000062 u	ppm	0.000203	> 100.00	-10.453200	Y 377.433
Ca (315.887 nm)	83.847789	ppm	0.220500	0.26	66523.380077	Y_R 377.433
Cd (214.439 nm)	0.000243	ppm	0.000115	47.24	3.867860	Y 377.433
Co (228.615 nm)	0.000600	ppm	0.000348	58.04	-0.928181	Y 242.219
Cr (205.560 nm)	0.000182 u	ppm	0.000665	> 100.00	-5.672920	Y 377.433
Cu (324.754 nm)	0.002367	ppm	0.000050	2.13	379.563000	Y 377.433
Fe (238.204 nm)	0.122894	ppm	0.002000	1.63	302.966018	Y_R 377.433
Fe H (259.940 nm)	0.111953 u	ppm	0.000170	0.15	166.242000	Y_R 377.433
K (766.491 nm)	0.951001	ppm	0.287290	30.21	2855.660000	Y_R2 488.368
Li (670.783 nm)	0.190682	ppm	0.006342	3.33	728.286000	Y_R2 488.368
Mg (279.078 nm)	180.974000	ppm	0.400292	0.22	592221.000000	Y 377.433
Mn (257.610 nm)	0.099467	ppm	0.000002	0.00	27109.500000	Y 377.433
Mo (202.032 nm)	0.025843	ppm	0.000311	1.20	336.862000	Y 377.433
Na (589.592 nm)	607.048000 o	ppm	0.314889	0.05	498479.000000	Y_R2 488.368
Na H (589.593 nm)	656.052601	ppm	3.868969	0.59	355827.873916	Y_R4
Ni (231.604 nm)	0.002373	ppm	0.001374	57.90	3.655180	Y 377.433
P (213.618 nm)	0.010385	ppm	0.002521	24.27	8.640070	Y 242.219
Pb (220.353 nm)	-0.000932 u	ppm	0.002813	> 100.00	5.377330	Y 242.219
S (181.972 nm)	635.564447 bo	ppm	0.851744	0.13	291076.625952	Y 377.433
Sb (206.834 nm)	-0.005785 u	ppm	0.003292	56.90	-8.155580	Y 377.433
Se (196.026 nm)	1.277790	ppm	0.000251	0.02	1936.110000	Y 242.219
Si (288.158 nm)	1.879280	ppm	0.008752	0.47	12586.600000	Y 377.433
Sn (189.925 nm)	0.000126 u	ppm	0.001713	> 100.00	2.292980	Y 377.433
Sr (421.552 nm)	1.441337	ppm	0.011947	0.83	217090.040525	Y_R 488.368
Th (288.505 nm)	0.013493	ppm	0.001755	13.00	35.885000	Y 377.433
Ti (336.122 nm)	0.001956	ppm	0.000235	12.00	102.547000	Y 377.433
Tl (190.794 nm)	0.000382 u	ppm	0.002731	> 100.00	-0.815898	Y 377.433
U (409.013 nm)	0.053341	ppm	0.006280	11.77	133.250000	Y 377.433
V (292.401 nm)	0.001485	ppm	0.000311	20.92	-72.673100	Y 377.433
Zn (206.200 nm)	0.006133	ppm	0.000065	1.06	31.661000	Y 377.433
Zr (343.823 nm)	0.000683	ppm	0.000214	31.30	-122.971000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.910194	21039.561355	0.000843	0.09
Y 377.433	0.901889	630809.588243	0.001459	0.16
Y_R 377.433	0.940672	57031.800000	0.004138	0.44
Y_R 488.368	0.957648	50590.400000	0.010325	1.08
Y_R2 488.368	0.929911	98575.455902	0.004263	0.46
Y_R4	0.960699	43231.400000	0.010482	1.09

Sample Name: mb 280-459145/1-a

Date: 5/24/2019 3:35:14 PM Rack:Tube: 1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000490	ppm	0.000319	65.19	-250.369000	Y 377.433
Al (394.401 nm)	0.000648	ppm	0.000245	37.77	100.475000	Y 377.433
Al H (396.152 nm)	0.142484 u	ppm	0.012678	8.90	53.218200	Y_R 377.433
As (188.980 nm)	-0.002766 u	ppm	0.000201	7.27	-5.744160	Y 242.219
B (249.678 nm)	-0.000289 u	ppm	0.000041	14.04	44.600600	Y 242.219
Ba (493.408 nm)	0.000028 u	ppm	0.000332	> 100.00	1402.300000	Y_R 488.368
Be (234.861 nm)	-0.000091 u	ppm	0.000034	37.06	-10.942100	Y_R 488.368
Bi (223.061 nm)	0.000465	ppm	0.000390	83.89	-9.592430	Y 377.433
Ca (315.887 nm)	0.006399	ppm	0.001425	22.27	-63.952754	Y_R 377.433
Cd (214.439 nm)	-0.000139 u	ppm	0.000061	44.02	-10.314900	Y 377.433
Co (228.615 nm)	-0.000536 u	ppm	0.000320	59.63	-27.723200	Y 242.219
Cr (205.560 nm)	0.000138 u	ppm	0.000598	> 100.00	-5.833130	Y 377.433
Cu (324.754 nm)	0.001100	ppm	0.000359	32.64	368.499000	Y 377.433
Fe (238.204 nm)	0.009988	ppm	0.000525	5.26	31.182414	Y_R 377.433
Fe H (259.940 nm)	0.015261 u	ppm	0.003402	22.29	32.519500	Y_R 377.433
K (766.491 nm)	0.059202 u	ppm	0.242848	> 100.00	1994.550000	Y_R2 488.368
Li (670.783 nm)	0.002257	ppm	0.001337	59.24	-2507.020000	Y_R2 488.368
Mg (279.078 nm)	0.010992	ppm	0.001507	13.71	44.078600	Y 377.433
Mn (257.610 nm)	0.000324	ppm	0.000022	6.70	77.249700	Y 377.433
Mo (202.032 nm)	-0.000048 u	ppm	0.000054	> 100.00	10.526900	Y 377.433
Na (589.592 nm)	0.086851	ppm	0.019082	21.97	221.760000	Y_R2 488.368
Na H (589.593 nm)	2.217233 u	ppm	0.074072	3.34	1085.475185	Y_R4
Ni (231.604 nm)	0.000585	ppm	0.000567	96.79	-5.591600	Y 377.433
P (213.618 nm)	0.000982	ppm	0.000102	10.35	-3.020320	Y 242.219
Pb (220.353 nm)	0.000379	ppm	0.000131	34.60	9.499140	Y 242.219
S (181.972 nm)	0.028735	ppm	0.011328	39.42	25.859681	Y 377.433
Sb (206.834 nm)	-0.001601 u	ppm	0.000657	41.04	-0.924960	Y 377.433
Se (196.026 nm)	-0.001414 u	ppm	0.000878	62.04	6.721860	Y 242.219
Si (288.158 nm)	0.000441 u	ppm	0.000934	> 100.00	491.384000	Y 377.433
Sn (189.925 nm)	0.001164	ppm	0.000731	62.74	3.964040	Y 377.433
Sr (421.552 nm)	0.000246	ppm	0.000079	32.17	60.227009	Y_R 488.368
Th (288.505 nm)	0.002897 u	ppm	0.006002	> 100.00	17.761100	Y 377.433
Ti (336.122 nm)	0.000010 u	ppm	0.000092	> 100.00	-432.583000	Y 377.433
Tl (190.794 nm)	-0.001418 u	ppm	0.000894	63.07	-1.428930	Y 377.433
U (409.013 nm)	0.010219	ppm	0.001018	9.97	7.635640	Y 377.433
V (292.401 nm)	-0.000598 u	ppm	0.000108	18.07	-177.519000	Y 377.433
Zn (206.200 nm)	0.002121	ppm	0.000740	34.89	13.604700	Y 377.433
Zr (343.823 nm)	-0.000166 u	ppm	0.000248	> 100.00	-171.011000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.986587	22805.417838	0.000039	0.00
Y 377.433	0.971921	679791.585839	0.000439	0.05
Y_R 377.433	0.965741	58551.700000	0.000849	0.09
Y_R 488.368	0.968106	51142.800000	0.000634	0.07
Y_R2 488.368	0.958925	101651.121330	0.000933	0.10
Y_R4	0.975881	43914.600000	0.001197	0.12

Sample Name: lcs 280-459145/2-a

Date: 5/24/2019 3:38:25 PM Rack:Tube: 1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000857	ppm	0.001015	> 100.00	-560.221000	Y 377.433
Al (394.401 nm)	10.328300 o	ppm	0.017138	0.17	126418.000000	Y 377.433
Al H (396.152 nm)	10.230000	ppm	0.047547	0.46	22603.800000	Y_R 377.433
As (188.980 nm)	2.056700	ppm	0.016838	0.82	3097.370000	Y 242.219
B (249.678 nm)	1.005060	ppm	0.003267	0.33	7218.450000	Y 242.219
Ba (493.408 nm)	2.047640	ppm	0.006026	0.29	205545.000000	Y_R 488.368
Be (234.861 nm)	1.026030	ppm	0.000260	0.03	101001.000000	Y_R 488.368
Bi (223.061 nm)	2.012660	ppm	0.003901	0.19	4399.270000	Y 377.433
Ca (315.887 nm)	50.414466	ppm	0.130603	0.26	39973.018346	Y_R 377.433
Cd (214.439 nm)	1.046710	ppm	0.003744	0.36	38706.300000	Y 377.433
Co (228.615 nm)	1.006520	ppm	0.002159	0.21	23685.600000	Y 242.219
Cr (205.560 nm)	1.058730	ppm	0.007486	0.71	7046.570000	Y 377.433
Cu (324.754 nm)	1.001980	ppm	0.002368	0.24	47112.200000	Y 377.433
Fe (238.204 nm)	10.352190 o	ppm	0.040890	0.39	24926.668158	Y_R 377.433
Fe H (259.940 nm)	10.334200	ppm	0.038679	0.37	14303.500000	Y_R 377.433
K (766.491 nm)	50.603000	ppm	0.662384	1.31	50799.000000	Y_R2 488.368
Li (670.783 nm)	1.014900	ppm	0.002317	0.23	14880.400000	Y_R2 488.368
Mg (279.078 nm)	50.965400	ppm	0.122852	0.24	166741.000000	Y 377.433
Mn (257.610 nm)	1.025210	ppm	0.001546	0.15	279524.000000	Y 377.433
Mo (202.032 nm)	1.046380	ppm	0.002200	0.21	13199.900000	Y 377.433
Na (589.592 nm)	49.434100	ppm	0.213244	0.43	41196.100000	Y_R2 488.368
Na H (589.593 nm)	52.679595	ppm	0.079819	0.15	28464.140426	Y_R4
Ni (231.604 nm)	1.022000	ppm	0.004682	0.46	5281.650000	Y 377.433
P (213.618 nm)	20.710800	ppm	0.089705	0.43	29338.500000	Y 242.219
Pb (220.353 nm)	1.021620	ppm	0.004620	0.45	3252.300000	Y 242.219
S (181.972 nm)	10.022080	ppm	0.035510	0.35	4608.102367	Y 377.433
Sb (206.834 nm)	-0.002131 u	ppm	0.006262	> 100.00	-6.671160	Y 377.433
Se (196.026 nm)	2.008880	ppm	0.007495	0.37	3037.550000	Y 242.219
Si (288.158 nm)	2.082350	ppm	0.001737	0.08	13893.800000	Y 377.433
Sn (189.925 nm)	2.096040	ppm	0.007272	0.35	3374.740000	Y 377.433
Sr (421.552 nm)	0.993695	ppm	0.002805	0.28	149676.286759	Y_R 488.368
Th (288.505 nm)	1.042000	ppm	0.000165	0.02	1713.890000	Y 377.433
Ti (336.122 nm)	1.020300	ppm	0.001918	0.19	130300.000000	Y 377.433
Tl (190.794 nm)	2.058000	ppm	0.000220	0.01	4699.630000	Y 377.433
U (409.013 nm)	2.033760	ppm	0.002265	0.11	6364.320000	Y 377.433
V (292.401 nm)	1.019430	ppm	0.001222	0.12	52429.800000	Y 377.433
Zn (206.200 nm)	0.521344	ppm	0.001789	0.34	2349.850000	Y 377.433
Zr (343.823 nm)	0.508077	ppm	0.001381	0.27	28601.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.938695	21698.380905	0.002369	0.25
Y 377.433	0.932578	652274.209223	0.002900	0.31
Y_R 377.433	0.945087	57299.500000	0.001269	0.13
Y_R 488.368	0.956279	50518.000000	0.000031	0.00
Y_R2 488.368	0.944795	100153.313934	0.002455	0.26
Y_R4	0.967175	43522.800000	0.000157	0.02

Sample Name: 280-123846-a-1-a

Date: 5/24/2019 3:42:04 PM Rack:Tube: 1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001095	ppm	0.000150	13.73	-229.879000	Y 377.433
Al (394.401 nm)	0.008695	ppm	0.000004	0.05	267.035000	Y 377.433
Al H (396.152 nm)	0.089404 u	ppm	0.001278	1.43	28.195300	Y_R 377.433
As (188.980 nm)	0.000617 u	ppm	0.001146	> 100.00	-0.724318	Y 242.219
B (249.678 nm)	0.005053	ppm	0.000420	8.31	81.090500	Y 242.219
Ba (493.408 nm)	0.183942	ppm	0.000528	0.29	19739.600000	Y_R 488.368
Be (234.861 nm)	0.000014 u	ppm	0.000066	> 100.00	-12.820200	Y_R 488.368
Bi (223.061 nm)	-0.001164 u	ppm	0.001219	> 100.00	-12.660500	Y 377.433
Ca (315.887 nm)	45.802337	ppm	0.204583	0.45	36307.440806	Y_R 377.433
Cd (214.439 nm)	0.000198	ppm	0.000099	50.23	3.300870	Y 377.433
Co (228.615 nm)	0.001226	ppm	0.000170	13.87	13.678500	Y 242.219
Cr (205.560 nm)	0.000341	ppm	0.000332	97.34	-4.484570	Y 377.433
Cu (324.754 nm)	0.000569	ppm	0.000492	86.50	314.235000	Y 377.433
Fe (238.204 nm)	2.885306	ppm	0.013580	0.47	6952.575702	Y_R 377.433
Fe H (259.940 nm)	2.870510 u	ppm	0.009721	0.34	3981.280000	Y_R 377.433
K (766.491 nm)	1.294990	ppm	0.170113	13.14	3187.810000	Y_R2 488.368
Li (670.783 nm)	0.005834	ppm	0.000089	1.53	-2445.600000	Y_R2 488.368
Mg (279.078 nm)	16.248000	ppm	0.005191	0.03	53173.300000	Y 377.433
Mn (257.610 nm)	0.824175	ppm	0.000934	0.11	224708.000000	Y 377.433
Mo (202.032 nm)	0.000954	ppm	0.000125	13.11	23.157300	Y 377.433
Na (589.592 nm)	13.885400	ppm	0.155299	1.12	11590.500000	Y_R2 488.368
Na H (589.593 nm)	15.805033 u	ppm	0.164111	1.04	8457.619765	Y_R4
Ni (231.604 nm)	-0.000593 u	ppm	0.000721	> 100.00	-11.684900	Y 377.433
P (213.618 nm)	0.025936	ppm	0.003503	13.51	32.608900	Y 242.219
Pb (220.353 nm)	0.000294 u	ppm	0.000929	> 100.00	9.283890	Y 242.219
S (181.972 nm)	5.450476	ppm	0.016840	0.31	2513.648616	Y 377.433
Sb (206.834 nm)	-0.003283 u	ppm	0.000390	11.87	-3.528400	Y 377.433
Se (196.026 nm)	0.000856	ppm	0.000963	> 100.00	10.557800	Y 242.219
Si (288.158 nm)	7.565790	ppm	0.022273	0.29	49193.800000	Y 377.433
Sn (189.925 nm)	0.002686	ppm	0.000528	19.64	6.412630	Y 377.433
Sr (421.552 nm)	0.242262	ppm	0.001460	0.60	36508.505339	Y_R 488.368
Th (288.505 nm)	-0.004877 u	ppm	0.003863	79.20	19.375700	Y 377.433
Ti (336.122 nm)	-0.000237 u	ppm	0.000153	64.63	-308.111000	Y 377.433
Tl (190.794 nm)	0.002876	ppm	0.003722	> 100.00	6.218460	Y 377.433
U (409.013 nm)	0.025366	ppm	0.001853	7.31	51.736000	Y 377.433
V (292.401 nm)	0.000132	ppm	0.000181	> 100.00	-142.020000	Y 377.433
Zn (206.200 nm)	0.006173	ppm	0.000184	2.98	32.222300	Y 377.433
Zr (343.823 nm)	-0.000055 u	ppm	0.000021	38.61	-164.721000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.968268	22381.957287	0.004260	0.44
Y 377.433	0.956282	668853.558796	0.004812	0.50
Y_R 377.433	0.959876	58196.100000	0.003459	0.36
Y_R 488.368	0.971070	51299.400000	0.004929	0.51
Y_R2 488.368	0.969705	102793.835235	0.007447	0.77
Y_R4	0.972466	43760.900000	0.001353	0.14

Sample Name: 280-123846-a-1-aSD@5

Date: 5/24/2019 3:45:40 PM Rack:Tube: 1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000572	ppm	0.000147	25.65	-247.495000	Y 377.433
Al (394.401 nm)	0.002833	ppm	0.001334	47.08	141.210000	Y 377.433
Al H (396.152 nm)	0.126714 u	ppm	0.002389	1.89	37.258000	Y_R 377.433
As (188.980 nm)	0.001477 u	ppm	0.002409	> 100.00	0.631730	Y 242.219
B (249.678 nm)	-0.000395 u	ppm	0.001132	> 100.00	43.482000	Y 242.219
Ba (493.408 nm)	0.037072	ppm	0.000157	0.42	5095.810000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000046	79.41	-10.428900	Y_R 488.368
Bi (223.061 nm)	-0.001425 u	ppm	0.001446	> 100.00	-13.621500	Y 377.433
Ca (315.887 nm)	9.532084	ppm	0.044412	0.47	7501.396998	Y_R 377.433
Cd (214.439 nm)	0.000036	ppm	0.000022	60.92	-3.581990	Y 377.433
Co (228.615 nm)	0.000180 u	ppm	0.000267	> 100.00	-10.904400	Y 242.219
Cr (205.560 nm)	-0.000164 u	ppm	0.000089	54.34	-7.846640	Y 377.433
Cu (324.754 nm)	0.000672	ppm	0.000202	30.03	341.937000	Y 377.433
Fe (238.204 nm)	0.636008	ppm	0.000235	0.04	1538.122402	Y_R 377.433
Fe H (259.940 nm)	0.641073 u	ppm	0.002819	0.44	898.007000	Y_R 377.433
K (766.491 nm)	0.331335	ppm	0.255157	77.01	2257.320000	Y_R2 488.368
Li (670.783 nm)	0.001384 u	ppm	0.007891	> 100.00	-2522.010000	Y_R2 488.368
Mg (279.078 nm)	3.386870	ppm	0.001327	0.04	11090.400000	Y 377.433
Mn (257.610 nm)	0.171708	ppm	0.000119	0.07	46806.700000	Y 377.433
Mo (202.032 nm)	0.000417	ppm	0.000347	83.16	16.392900	Y 377.433
Na (589.592 nm)	2.978070	ppm	0.068490	2.30	2603.370000	Y_R2 488.368
Na H (589.593 nm)	4.424638 u	ppm	0.073310	1.66	2283.116759	Y_R4
Ni (231.604 nm)	0.000449 u	ppm	0.000909	> 100.00	-6.298800	Y 377.433
P (213.618 nm)	0.004351	ppm	0.004407	> 100.00	1.883910	Y 242.219
Pb (220.353 nm)	0.000010 u	ppm	0.000626	> 100.00	8.320130	Y 242.219
S (181.972 nm)	1.114416	ppm	0.006641	0.60	524.061388	Y 377.433
Sb (206.834 nm)	-0.003132 u	ppm	0.003664	> 100.00	-3.463110	Y 377.433
Se (196.026 nm)	0.001578	ppm	0.000791	50.13	11.312800	Y 242.219
Si (288.158 nm)	1.538170	ppm	0.002807	0.18	10390.600000	Y 377.433
Sn (189.925 nm)	0.002184	ppm	0.000315	14.43	5.604350	Y 377.433
Sr (421.552 nm)	0.049530	ppm	0.000304	0.61	7482.482904	Y_R 488.368
Th (288.505 nm)	-0.001628 u	ppm	0.001109	68.15	13.046300	Y 377.433
Ti (336.122 nm)	0.000002 u	ppm	0.000141	> 100.00	-401.543000	Y 377.433
Tl (190.794 nm)	-0.001179 u	ppm	0.000425	36.05	-1.333410	Y 377.433
U (409.013 nm)	0.014062	ppm	0.001814	12.90	19.044800	Y 377.433
V (292.401 nm)	-0.000228 u	ppm	0.000011	4.80	-158.812000	Y 377.433
Zn (206.200 nm)	0.005683	ppm	0.000739	13.01	29.705900	Y 377.433
Zr (343.823 nm)	-0.000375 u	ppm	0.000103	27.39	-182.847000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984038	22746.504940	0.001179	0.12
Y 377.433	0.970023	678464.034459	0.001001	0.10
Y_R 377.433	0.968628	58726.700000	0.005230	0.54
Y_R 488.368	0.981027	51825.400000	0.005238	0.53
Y_R2 488.368	0.959691	101732.278263	0.001678	0.17
Y_R4	0.973915	43826.100000	0.009160	0.94

Sample Name: 280-123846-a-1-b ms

Date: 5/24/2019 3:49:12 PM Rack:Tube: 1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001328	ppm	0.000000	0.01	-548.974000	Y 377.433
Al (394.401 nm)	10.444900 o	ppm	0.007880	0.08	127911.000000	Y 377.433
Al H (396.152 nm)	10.292300	ppm	0.014418	0.14	22838.400000	Y_R 377.433
As (188.980 nm)	2.096590	ppm	0.004107	0.20	3157.390000	Y 242.219
B (249.678 nm)	1.027210	ppm	0.000409	0.04	7374.940000	Y 242.219
Ba (493.408 nm)	2.254660	ppm	0.006796	0.30	226186.000000	Y_R 488.368
Be (234.861 nm)	1.031180	ppm	0.000550	0.05	101495.000000	Y_R 488.368
Bi (223.061 nm)	2.027750	ppm	0.004045	0.20	4432.840000	Y 377.433
Ca (315.887 nm)	97.129444	ppm	0.208017	0.21	77074.347146	Y_R 377.433
Cd (214.439 nm)	1.049910	ppm	0.000454	0.04	38826.100000	Y 377.433
Co (228.615 nm)	1.009150	ppm	0.001502	0.15	23748.100000	Y 242.219
Cr (205.560 nm)	1.070840	ppm	0.011968	1.12	7127.300000	Y 377.433
Cu (324.754 nm)	1.014750	ppm	0.003074	0.30	47680.100000	Y 377.433
Fe (238.204 nm)	13.392716 o	ppm	0.009419	0.07	32245.746075	Y_R 377.433
Fe H (259.940 nm)	13.348500	ppm	0.028354	0.21	18472.200000	Y_R 377.433
K (766.491 nm)	52.623900	ppm	0.936229	1.78	52750.400000	Y_R2 488.368
Li (670.783 nm)	1.029690	ppm	0.003914	0.38	15134.300000	Y_R2 488.368
Mg (279.078 nm)	67.932900	ppm	0.132270	0.19	222260.000000	Y 377.433
Mn (257.610 nm)	1.856720	ppm	0.001332	0.07	506241.000000	Y 377.433
Mo (202.032 nm)	1.059940	ppm	0.000430	0.04	13370.800000	Y 377.433
Na (589.592 nm)	64.169500 o	ppm	0.182904	0.29	53339.200000	Y_R2 488.368
Na H (589.593 nm)	68.006111	ppm	0.398484	0.59	36779.635705	Y_R4
Ni (231.604 nm)	1.023390	ppm	0.002250	0.22	5288.830000	Y 377.433
P (213.618 nm)	21.170100	ppm	0.051091	0.24	29991.300000	Y 242.219
Pb (220.353 nm)	1.031140	ppm	0.003196	0.31	3282.550000	Y 242.219
S (181.972 nm)	15.850614	ppm	0.073340	0.46	7282.260533	Y 377.433
Sb (206.834 nm)	-0.000260 u	ppm	0.001106	> 100.00	-3.327390	Y 377.433
Se (196.026 nm)	2.041940	ppm	0.015781	0.77	3087.800000	Y 242.219
Si (288.158 nm)	9.905850	ppm	0.005876	0.06	64258.100000	Y 377.433
Sn (189.925 nm)	2.115120	ppm	0.009276	0.44	3405.440000	Y 377.433
Sr (421.552 nm)	1.252131	ppm	0.003095	0.25	188597.433821	Y_R 488.368
Th (288.505 nm)	1.044860	ppm	0.005656	0.54	1732.610000	Y 377.433
Ti (336.122 nm)	1.031570	ppm	0.001097	0.11	131902.000000	Y 377.433
Tl (190.794 nm)	2.061150	ppm	0.003113	0.15	4704.490000	Y 377.433
U (409.013 nm)	2.072120	ppm	0.000566	0.03	6481.690000	Y 377.433
V (292.401 nm)	1.031720	ppm	0.000895	0.09	53062.700000	Y 377.433
Zn (206.200 nm)	0.523448	ppm	0.000664	0.13	2359.740000	Y 377.433
Zr (343.823 nm)	0.510939	ppm	0.000493	0.10	28763.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.928952	21473.153574	0.002208	0.24
Y 377.433	0.923533	645947.483022	0.001412	0.15
Y_R 377.433	0.949320	57556.100000	0.001163	0.12
Y_R 488.368	0.960306	50730.800000	0.000396	0.04
Y_R2 488.368	0.949404	100641.819980	0.001710	0.18
Y_R4	0.968838	43597.700000	0.006423	0.66

Sample Name: 280-123846-a-1-c msd

Date: 5/24/2019 3:52:52 PM Rack:Tube: 1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001215	ppm	0.000190	15.68	-551.094000	Y 377.433
Al (394.401 nm)	10.372300 o	ppm	0.020397	0.20	127019.000000	Y 377.433
Al H (396.152 nm)	10.200900	ppm	0.031237	0.31	22630.500000	Y_R 377.433
As (188.980 nm)	2.084720	ppm	0.002000	0.10	3139.510000	Y 242.219
B (249.678 nm)	1.023120	ppm	0.000522	0.05	7345.840000	Y 242.219
Ba (493.408 nm)	2.228020	ppm	0.003131	0.14	223529.000000	Y_R 488.368
Be (234.861 nm)	1.030240	ppm	0.003341	0.32	101403.000000	Y_R 488.368
Bi (223.061 nm)	2.016850	ppm	0.001547	0.08	4408.940000	Y 377.433
Ca (315.887 nm)	94.484731	ppm	0.165673	0.18	74973.881020	Y_R 377.433
Cd (214.439 nm)	1.047130	ppm	0.000424	0.04	38723.200000	Y 377.433
Co (228.615 nm)	1.003410	ppm	0.000414	0.04	23612.800000	Y 242.219
Cr (205.560 nm)	1.056240	ppm	0.005471	0.52	7029.940000	Y 377.433
Cu (324.754 nm)	1.011060	ppm	0.002410	0.24	47510.000000	Y 377.433
Fe (238.204 nm)	13.134807 o	ppm	0.020255	0.15	31624.913682	Y_R 377.433
Fe H (259.940 nm)	13.085500	ppm	0.017269	0.13	18108.400000	Y_R 377.433
K (766.491 nm)	52.075900	ppm	0.534000	1.03	52221.200000	Y_R2 488.368
Li (670.783 nm)	1.022820	ppm	0.001118	0.11	15016.400000	Y_R2 488.368
Mg (279.078 nm)	66.808500	ppm	0.057171	0.09	218581.000000	Y 377.433
Mn (257.610 nm)	1.813710	ppm	0.001696	0.09	494515.000000	Y 377.433
Mo (202.032 nm)	1.053830	ppm	0.000665	0.06	13293.900000	Y 377.433
Na (589.592 nm)	62.925000 o	ppm	0.302372	0.48	52311.900000	Y_R2 488.368
Na H (589.593 nm)	67.157651	ppm	0.434965	0.65	36319.298423	Y_R4
Ni (231.604 nm)	1.015520	ppm	0.000721	0.07	5248.120000	Y 377.433
P (213.618 nm)	21.003700	ppm	0.027241	0.13	29754.600000	Y 242.219
Pb (220.353 nm)	1.023920	ppm	0.000165	0.02	3259.650000	Y 242.219
S (181.972 nm)	15.553886	ppm	0.045062	0.29	7146.106596	Y 377.433
Sb (206.834 nm)	-0.002611 u	ppm	0.002728	> 100.00	-7.330430	Y 377.433
Se (196.026 nm)	2.029700	ppm	0.001740	0.09	3069.340000	Y 242.219
Si (288.158 nm)	9.544080	ppm	0.031980	0.34	61929.200000	Y 377.433
Sn (189.925 nm)	2.105280	ppm	0.002825	0.13	3389.610000	Y 377.433
Sr (421.552 nm)	1.232915	ppm	0.002453	0.20	185703.461638	Y_R 488.368
Th (288.505 nm)	1.041490	ppm	0.002533	0.24	1726.650000	Y 377.433
Ti (336.122 nm)	1.025800	ppm	0.001674	0.16	131155.000000	Y 377.433
Tl (190.794 nm)	2.054940	ppm	0.001142	0.06	4690.460000	Y 377.433
U (409.013 nm)	2.061440	ppm	0.002096	0.10	6448.390000	Y 377.433
V (292.401 nm)	1.025830	ppm	0.002193	0.21	52761.900000	Y 377.433
Zn (206.200 nm)	0.521034	ppm	0.000809	0.16	2348.850000	Y 377.433
Zr (343.823 nm)	0.507023	ppm	0.000372	0.07	28541.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.936261	21642.112133	0.000571	0.06
Y 377.433	0.930321	650695.572494	0.000031	0.00
Y_R 377.433	0.952185	57729.800000	0.003172	0.33
Y_R 488.368	0.963913	50921.300000	0.003448	0.36
Y_R2 488.368	0.952039	100921.183310	0.000019	0.00
Y_R4	0.976178	43928.000000	0.007289	0.75

Sample Name: 280-123846-a-2-a

Date: 5/24/2019 3:56:32 PM Rack:Tube: 1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004485	ppm	0.000132	2.94	-116.876000	Y 377.433
Al (394.401 nm)	17.907500 o	ppm	0.019290	0.11	219080.000000	Y 377.433
Al H (396.152 nm)	17.518500	ppm	0.016527	0.09	38710.300000	Y_R 377.433
As (188.980 nm)	0.005365	ppm	0.000187	3.48	2.073830	Y 242.219
B (249.678 nm)	0.011919	ppm	0.000111	0.93	37.202800	Y 242.219
Ba (493.408 nm)	0.014728	ppm	0.000158	1.07	2998.140000	Y_R 488.368
Be (234.861 nm)	0.009116	ppm	0.000238	2.61	203.336000	Y_R 488.368
Bi (223.061 nm)	0.001448	ppm	0.000936	64.66	20.857700	Y 377.433
Ca (315.887 nm)	223.052912	ppm	0.089096	0.04	177085.320514	Y_R 377.433
Cd (214.439 nm)	0.139870	ppm	0.000082	0.06	5233.740000	Y 377.433
Co (228.615 nm)	0.341503	ppm	0.002611	0.76	8010.800000	Y 242.219
Cr (205.560 nm)	0.004018	ppm	0.001311	32.64	19.084800	Y 377.433
Cu (324.754 nm)	11.435400	ppm	0.063949	0.56	533591.000000	Y 377.433
Fe (238.204 nm)	163.714794 o	ppm	0.016676	0.01	394097.228533	Y_R 377.433
Fe H (259.940 nm)	163.418000	ppm	0.039495	0.02	226015.000000	Y_R 377.433
K (766.491 nm)	3.200880	ppm	0.443206	13.85	5028.120000	Y_R2 488.368
Li (670.783 nm)	0.024600	ppm	0.000762	3.10	-2123.380000	Y_R2 488.368
Mg (279.078 nm)	90.710100	ppm	0.021277	0.02	296624.000000	Y 377.433
Mn (257.610 nm)	25.940700 bo	ppm	0.052842	0.20	7072970.000000	Y 377.433
Mo (202.032 nm)	0.000496	ppm	0.000300	60.49	17.389800	Y 377.433
Na (589.592 nm)	10.201300	ppm	0.034721	0.34	8528.120000	Y_R2 488.368
Na H (589.593 nm)	12.063099 u	ppm	0.141568	1.17	6427.410440	Y_R4
Ni (231.604 nm)	0.248013	ppm	0.001896	0.76	1274.660000	Y 377.433
P (213.618 nm)	1.074440	ppm	0.004268	0.40	-1167.240000	Y 242.219
Pb (220.353 nm)	0.073015	ppm	0.004262	5.84	238.246000	Y 242.219
S (181.972 nm)	463.693021 bo	ppm	0.283462	0.06	212456.587813	Y 377.433
Sb (206.834 nm)	-0.008734 u	ppm	0.001575	18.04	0.854668	Y 377.433
Se (196.026 nm)	0.006280 b	ppm	0.002348	37.39	12.463100	Y 242.219
Si (288.158 nm)	14.866500	ppm	0.120503	0.81	96192.400000	Y 377.433
Sn (189.925 nm)	0.002202	ppm	0.002150	97.63	5.633950	Y 377.433
Sr (421.552 nm)	1.750509	ppm	0.011566	0.66	263676.367751	Y_R 488.368
Th (288.505 nm)	0.035597 b	ppm	0.003953	11.11	571.558000	Y 377.433
Ti (336.122 nm)	-0.000919 u	ppm	0.000030	3.25	212.110000	Y 377.433
Tl (190.794 nm)	0.013543	ppm	0.001174	8.67	6.140970	Y 377.433
U (409.013 nm)	0.366556	ppm	0.007245	1.98	1228.460000	Y 377.433
V (292.401 nm)	-0.000770 u	ppm	0.000405	52.67	-175.416000	Y 377.433
Zn (206.200 nm)	22.971600	ppm	0.276630	1.20	103324.000000	Y 377.433
Zr (343.823 nm)	0.002626	ppm	0.000166	6.33	-12.932800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.964718	22299.907868	0.000787	0.08
Y 377.433	0.963776	674094.960119	0.000030	0.00
Y_R 377.433	1.001220	60702.500000	0.000743	0.07
Y_R 488.368	1.010310	53372.300000	0.005332	0.53
Y_R2 488.368	1.007330	106782.347458	0.001987	0.20
Y_R4	1.032130	46445.900000	0.006838	0.66

Sample Name: 280-123846-a-3-a

Date: 5/24/2019 4:00:20 PM Rack:Tube: 1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001468	ppm	0.000185	12.60	-216.936000	Y 377.433
Al (394.401 nm)	0.000733 u	ppm	0.001679	> 100.00	466.669000	Y 377.433
Al H (396.152 nm)	-0.125502 u	ppm	0.005664	4.51	30.873200	Y_R 377.433
As (188.980 nm)	0.000630	ppm	0.000824	> 100.00	-0.630299	Y 242.219
B (249.678 nm)	0.013656	ppm	0.000464	3.40	144.129000	Y 242.219
Ba (493.408 nm)	0.037742	ppm	0.000198	0.53	5162.170000	Y_R 488.368
Be (234.861 nm)	-0.000018 u	ppm	0.000003	18.75	-4.227550	Y_R 488.368
Bi (223.061 nm)	-0.000172 u	ppm	0.000527	> 100.00	-10.964300	Y 377.433
Ca (315.887 nm)	97.876948	ppm	0.162088	0.17	77665.397742	Y_R 377.433
Cd (214.439 nm)	0.000234	ppm	0.000047	19.97	3.516410	Y 377.433
Co (228.615 nm)	-0.000708 u	ppm	0.000144	20.35	-31.758500	Y 242.219
Cr (205.560 nm)	0.000310 u	ppm	0.000482	> 100.00	-4.689120	Y 377.433
Cu (324.754 nm)	0.001259	ppm	0.000303	24.03	317.380000	Y 377.433
Fe (238.204 nm)	0.113773	ppm	0.000192	0.17	281.010841	Y_R 377.433
Fe H (259.940 nm)	0.110472 u	ppm	0.001806	1.64	164.194000	Y_R 377.433
K (766.491 nm)	1.938410	ppm	0.246901	12.74	3809.090000	Y_R2 488.368
Li (670.783 nm)	0.011415	ppm	0.003079	26.97	-2349.770000	Y_R2 488.368
Mg (279.078 nm)	29.593400	ppm	0.085578	0.29	96848.000000	Y 377.433
Mn (257.610 nm)	0.667304	ppm	0.001602	0.24	181936.000000	Y 377.433
Mo (202.032 nm)	0.000225	ppm	0.000253	> 100.00	13.971700	Y 377.433
Na (589.592 nm)	24.487300	ppm	0.081551	0.33	20260.500000	Y_R2 488.368
Na H (589.593 nm)	26.398701 u	ppm	0.127941	0.48	14205.279631	Y_R4
Ni (231.604 nm)	-0.002809 u	ppm	0.000554	19.70	-23.155500	Y 377.433
P (213.618 nm)	0.072570	ppm	0.003969	5.47	98.995100	Y 242.219
Pb (220.353 nm)	0.000656 u	ppm	0.002082	> 100.00	10.436600	Y 242.219
S (181.972 nm)	88.229608	ppm	0.330350	0.37	40424.772208	Y 377.433
Sb (206.834 nm)	-0.007155 u	ppm	0.002018	28.20	-10.298100	Y 377.433
Se (196.026 nm)	0.000604 u	ppm	0.002462	> 100.00	10.671100	Y 242.219
Si (288.158 nm)	7.733400	ppm	0.039313	0.51	50272.900000	Y 377.433
Sn (189.925 nm)	0.001792	ppm	0.000365	20.36	4.974170	Y 377.433
Sr (421.552 nm)	1.396385	ppm	0.004412	0.32	210320.276467	Y_R 488.368
Th (288.505 nm)	-0.003598 u	ppm	0.000733	20.36	17.390800	Y 377.433
Ti (336.122 nm)	-0.000133 u	ppm	0.000076	57.29	-117.323000	Y 377.433
Tl (190.794 nm)	0.002341	ppm	0.002394	> 100.00	3.253530	Y 377.433
U (409.013 nm)	0.031265	ppm	0.012010	38.41	61.486800	Y 377.433
V (292.401 nm)	0.000509	ppm	0.000121	23.69	-121.887000	Y 377.433
Zn (206.200 nm)	0.006237	ppm	0.000356	5.70	32.127200	Y 377.433
Zr (343.823 nm)	-0.000134 u	ppm	0.000133	98.73	-169.221000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993183	22957.878655	0.001222	0.12
Y 377.433	0.985883	689557.565948	0.000566	0.06
Y_R 377.433	0.987442	59867.400000	0.000949	0.10
Y_R 488.368	0.998594	52753.400000	0.002385	0.24
Y_R2 488.368	0.979203	103800.655113	0.005526	0.56
Y_R4	0.985400	44342.900000	0.005455	0.55

Sample Name: 280-123846-a-4-a

Date: 5/24/2019 4:03:49 PM Rack:Tube: 1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000672	ppm	0.000089	13.20	-259.043000	Y 377.433
Al (394.401 nm)	37.615300 o	ppm	0.141623	0.38	459199.000000	Y 377.433
Al H (396.152 nm)	37.560600	ppm	0.171429	0.46	81877.600000	Y_R 377.433
As (188.980 nm)	0.015547	ppm	0.000116	0.74	20.840800	Y 242.219
B (249.678 nm)	0.013125	ppm	0.000217	1.65	118.832000	Y 242.219
Ba (493.408 nm)	0.169718	ppm	0.000258	0.15	18349.000000	Y_R 488.368
Be (234.861 nm)	0.001774	ppm	0.000102	5.74	14.810700	Y_R 488.368
Bi (223.061 nm)	0.004028	ppm	0.001481	36.76	4.675110	Y 377.433
Ca (315.887 nm)	24.170629	ppm	0.048237	0.20	19136.824774	Y_R 377.433
Cd (214.439 nm)	0.000538	ppm	0.000017	3.12	29.874900	Y 377.433
Co (228.615 nm)	0.012849	ppm	0.000251	1.96	308.528000	Y 242.219
Cr (205.560 nm)	0.066124	ppm	0.000120	0.18	433.223000	Y 377.433
Cu (324.754 nm)	0.095051	ppm	0.000196	0.21	4750.990000	Y 377.433
Fe (238.204 nm)	37.339520 o	ppm	0.080489	0.22	89889.883643	Y_R 377.433
Fe H (259.940 nm)	37.215200	ppm	0.103511	0.28	51479.500000	Y_R 377.433
K (766.491 nm)	5.563330	ppm	0.210957	3.79	7309.260000	Y_R2 488.368
Li (670.783 nm)	0.030651	ppm	0.002750	8.97	-2019.480000	Y_R2 488.368
Mg (279.078 nm)	11.354700	ppm	0.006808	0.06	37115.900000	Y 377.433
Mn (257.610 nm)	1.150080	ppm	0.000506	0.04	313569.000000	Y 377.433
Mo (202.032 nm)	0.001829	ppm	0.000014	0.76	34.184700	Y 377.433
Na (589.592 nm)	3.330910	ppm	0.000682	0.02	2923.100000	Y_R2 488.368
Na H (589.593 nm)	4.562117 u	ppm	0.055011	1.21	2357.706706	Y_R4
Ni (231.604 nm)	0.019656	ppm	0.001757	8.94	93.081400	Y 377.433
P (213.618 nm)	0.833976	ppm	0.000816	0.10	1166.760000	Y 242.219
Pb (220.353 nm)	0.045203	ppm	0.003493	7.73	144.935000	Y 242.219
S (181.972 nm)	9.140641	ppm	0.016455	0.18	4203.538159	Y 377.433
Sb (206.834 nm)	0.001042 u	ppm	0.004909	> 100.00	4.954000	Y 377.433
Se (196.026 nm)	0.003735	ppm	0.002321	62.13	6.478990	Y 242.219
Si (288.158 nm)	53.393800	ppm	0.425537	0.80	344215.000000	Y 377.433
Sn (189.925 nm)	0.000207 u	ppm	0.001093	> 100.00	2.424190	Y 377.433
Sr (421.552 nm)	0.087838	ppm	0.000205	0.23	13257.241817	Y_R 488.368
Th (288.505 nm)	0.051944	ppm	0.001920	3.70	116.007000	Y 377.433
Ti (336.122 nm)	0.489149	ppm	0.005235	1.07	62237.800000	Y 377.433
Tl (190.794 nm)	0.000933	ppm	0.000429	45.99	-2.887450	Y 377.433
U (409.013 nm)	-0.027716 u	ppm	0.002337	8.43	-91.032600	Y 377.433
V (292.401 nm)	0.048532	ppm	0.000132	0.27	2376.310000	Y 377.433
Zn (206.200 nm)	0.204107	ppm	0.000153	0.08	927.080000	Y 377.433
Zr (343.823 nm)	0.020238	ppm	0.000203	1.00	984.072000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.023063	23648.588075	0.000155	0.02
Y 377.433	1.011199	707263.910667	0.001478	0.15
Y_R 377.433	1.029820	62436.700000	0.002558	0.25
Y_R 488.368	1.041360	55012.600000	0.000150	0.01
Y_R2 488.368	1.031307	109323.951371	0.000923	0.09
Y_R4	1.052540	47364.200000	0.005511	0.52

Sample Name: CCVH-5713036

Date: 5/24/2019 4:07:34 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004824	ppm	0.000016	0.34	-110.803000	Y 377.433
Al (394.401 nm)	51.176500 o	ppm	0.078142	0.15	623481.000000	Y 377.433
Al H (396.152 nm)	49.896000	ppm	0.045982	0.09	108811.000000	Y_R 377.433
As (188.980 nm)	0.002231	ppm	0.001279	57.32	0.419548	Y 242.219
B (249.678 nm)	-0.002181 u	ppm	0.000548	25.11	1.941520	Y 242.219
Ba (493.408 nm)	0.002154	ppm	0.001067	49.52	1654.390000	Y_R 488.368
Be (234.861 nm)	0.001205	ppm	0.000098	8.11	-96.736000	Y_R 488.368
Bi (223.061 nm)	0.011474	ppm	0.003806	33.17	23.239100	Y 377.433
Ca (315.887 nm)	-0.009192 u	ppm	0.003550	38.62	-63.832507	Y_R 377.433
Cd (214.439 nm)	0.001351	ppm	0.000099	7.36	65.276800	Y 377.433
Co (228.615 nm)	0.003228	ppm	0.000151	4.68	60.770600	Y 242.219
Cr (205.560 nm)	0.001577	ppm	0.000237	15.01	2.410950	Y 377.433
Cu (324.754 nm)	0.004247	ppm	0.000211	4.96	1478.090000	Y 377.433
Fe (238.204 nm)	50.459657 o	ppm	0.056053	0.11	121472.343176	Y_R 377.433
Fe H (259.940 nm)	50.158800	ppm	0.027893	0.06	69380.300000	Y_R 377.433
K (766.491 nm)	0.257416	ppm	0.337163	> 100.00	2185.940000	Y_R2 488.368
Li (670.783 nm)	0.005467	ppm	0.002806	51.33	-2451.910000	Y_R2 488.368
Mg (279.078 nm)	0.040567	ppm	0.000473	1.17	66.049800	Y 377.433
Mn (257.610 nm)	0.001123	ppm	0.000026	2.33	295.110000	Y 377.433
Mo (202.032 nm)	0.001222	ppm	0.000507	41.45	26.536800	Y 377.433
Na (589.592 nm)	234.306000 o	ppm	0.212351	0.09	192494.000000	Y_R2 488.368
Na H (589.593 nm)	246.925321	ppm	0.817850	0.33	133853.353159	Y_R4
Ni (231.604 nm)	0.003780	ppm	0.000861	22.78	10.936200	Y 377.433
P (213.618 nm)	5.055800	ppm	0.007871	0.16	7220.870000	Y 242.219
Pb (220.353 nm)	0.006672	ppm	0.000098	1.47	22.518400	Y 242.219
S (181.972 nm)	5.024649	ppm	0.023323	0.46	2313.766550	Y 377.433
Sb (206.834 nm)	-0.001699 u	ppm	0.004236	> 100.00	3.161460	Y 377.433
Se (196.026 nm)	0.008919	ppm	0.001604	17.98	9.314140	Y 242.219
Si (288.158 nm)	0.108577	ppm	0.002787	2.57	1187.520000	Y 377.433
Sn (189.925 nm)	0.002386	ppm	0.000927	38.88	5.928880	Y 377.433
Sr (421.552 nm)	0.001454	ppm	0.000115	7.94	249.707734	Y_R 488.368
Th (288.505 nm)	4.950770	ppm	0.008996	0.18	8550.210000	Y 377.433
Ti (336.122 nm)	0.001768	ppm	0.000210	11.88	-207.524000	Y 377.433
Tl (190.794 nm)	-0.001416 u	ppm	0.001746	> 100.00	-6.242800	Y 377.433
U (409.013 nm)	0.550074 Q	ppm	0.002107	0.38	1757.300000 Q	Y 377.433
V (292.401 nm)	0.000367	ppm	0.000149	40.66	372.747000	Y 377.433
Zn (206.200 nm)	0.003110	ppm	0.001074	34.54	25.075400	Y 377.433
Zr (343.823 nm)	0.001305	ppm	0.000300	23.00	-87.743800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.966092	22331.662435	0.006248	0.65
Y 377.433	0.953693	667042.625242	0.006797	0.71
Y_R 377.433	0.975277	59129.800000	0.002445	0.25
Y_R 488.368	0.990066	52302.900000	0.008002	0.81
Y_R2 488.368	0.964768	102270.547482	0.000702	0.07
Y_R4	0.989556	44530.000000	0.002392	0.24

Sample Name: CCV-5717467

Date: 5/24/2019 4:11:16 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.502924	ppm	0.000434	0.09	17085.000000	Y 377.433
Al (394.401 nm)	0.517701	ppm	0.000674	0.13	6536.400000	Y 377.433
Al H (396.152 nm)	0.562858 u	ppm	0.000840	0.15	1221.510000	Y_R 377.433
As (188.980 nm)	0.506861	ppm	0.000660	0.13	762.141000	Y 242.219
B (249.678 nm)	0.490446	ppm	0.000807	0.16	3547.800000	Y 242.219
Ba (493.408 nm)	0.501906	ppm	0.001859	0.37	51438.400000	Y_R 488.368
Be (234.861 nm)	0.495760	ppm	0.001372	0.28	48811.100000	Y_R 488.368
Bi (223.061 nm)	1.009170	ppm	0.006504	0.64	2200.150000	Y 377.433
Ca (315.887 nm)	5.027003	ppm	0.016379	0.33	3923.571557	Y_R 377.433
Cd (214.439 nm)	0.523988	ppm	0.000248	0.05	19373.000000	Y 377.433
Co (228.615 nm)	0.508084	ppm	0.001529	0.30	11948.100000	Y 242.219
Cr (205.560 nm)	0.521061	ppm	0.002712	0.52	3464.720000	Y 377.433
Cu (324.754 nm)	0.506339	ppm	0.001379	0.27	23932.600000	Y 377.433
Fe (238.204 nm)	2.538741	ppm	0.000038	0.00	6118.333156	Y_R 377.433
Fe H (259.940 nm)	2.549270 u	ppm	0.003418	0.13	3537.010000	Y_R 377.433
K (766.491 nm)	49.722700	ppm	0.406285	0.82	49949.000000	Y_R2 488.368
Li (670.783 nm)	0.501873	ppm	0.001238	0.25	6071.520000	Y_R2 488.368
Mg (279.078 nm)	20.205800	ppm	0.019458	0.10	66125.600000	Y 377.433
Mn (257.610 nm)	0.504242	ppm	0.000278	0.06	137475.000000	Y 377.433
Mo (202.032 nm)	0.509973	ppm	0.000221	0.04	6438.950000	Y 377.433
Na (589.592 nm)	24.119100	ppm	0.109109	0.45	20063.500000	Y_R2 488.368
Na H (589.593 nm)	26.668760 u	ppm	0.187250	0.70	14351.801756	Y_R4
Ni (231.604 nm)	0.520500	ppm	0.000465	0.09	2685.080000	Y 377.433
P (213.618 nm)	0.049732	ppm	0.000044	0.09	-70.613800	Y 242.219
Pb (220.353 nm)	0.515384	ppm	0.000705	0.14	1643.320000	Y 242.219
S (181.972 nm)	0.013025	ppm	0.006965	53.48	20.509658	Y 377.433
Sb (206.834 nm)	0.516401	ppm	0.003525	0.68	871.026000	Y 377.433
Se (196.026 nm)	0.503847	ppm	0.002582	0.51	768.886000	Y 242.219
Si (288.158 nm)	5.017660	ppm	0.003831	0.08	32790.100000	Y 377.433
Sn (189.925 nm)	0.520208	ppm	0.001686	0.32	839.135000	Y 377.433
Sr (421.552 nm)	0.488223	ppm	0.001780	0.36	73550.451063	Y_R 488.368
Th (288.505 nm)	0.023422	ppm	0.000473	2.02	1.751330	Y 377.433
Ti (336.122 nm)	0.497258	ppm	0.000412	0.08	63214.500000	Y 377.433
Tl (190.794 nm)	0.521339	ppm	0.002789	0.53	1190.860000	Y 377.433
U (409.013 nm)	0.008528	ppm	0.000946	11.09	-59.273900	Y 377.433
V (292.401 nm)	0.502834	ppm	0.000127	0.03	25784.600000	Y 377.433
Zn (206.200 nm)	0.524911	ppm	0.002204	0.42	2364.800000	Y 377.433
Zr (343.823 nm)	0.499662	ppm	0.000592	0.12	28125.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.986973	22814.342911	0.001061	0.11
Y 377.433	0.973698	681034.719848	0.000217	0.02
Y_R 377.433	0.987610	59877.600000	0.002127	0.22
Y_R 488.368	0.999335	52792.600000	0.001155	0.12
Y_R2 488.368	0.981167	104008.858325	0.004898	0.50
Y_R4	0.997717	44897.200000	0.002273	0.23

Sample Name: CCB

Date: 5/24/2019 4:14:52 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000212	ppm	0.000205	96.87	-259.611000	Y 377.433
Al (394.401 nm)	0.000135 u	ppm	0.002654	> 100.00	91.036600	Y 377.433
Al H (396.152 nm)	0.131432 Zu	ppm	0.006925	5.27	29.077400 Z	Y_R 377.433
As (188.980 nm)	-0.000298 u	ppm	0.000590	> 100.00	-2.024880	Y 242.219
B (249.678 nm)	-0.002781 u	ppm	0.001059	38.08	26.809300	Y 242.219
Ba (493.408 nm)	-0.000505 u	ppm	0.000353	69.83	1349.090000	Y_R 488.368
Be (234.861 nm)	0.000006 u	ppm	0.000024	> 100.00	-1.373880	Y_R 488.368
Bi (223.061 nm)	0.001771	ppm	0.000562	31.71	-6.733210	Y 377.433
Ca (315.887 nm)	0.005535 u	ppm	0.013637	> 100.00	-64.642696	Y_R 377.433
Cd (214.439 nm)	0.000061	ppm	0.000022	35.83	-2.918730	Y 377.433
Co (228.615 nm)	0.000098	ppm	0.000097	99.06	-12.836100	Y 242.219
Cr (205.560 nm)	0.000139 u	ppm	0.000274	> 100.00	-5.826180	Y 377.433
Cu (324.754 nm)	0.000863	ppm	0.000196	22.69	358.524000	Y 377.433
Fe (238.204 nm)	-0.000690 u	ppm	0.000630	91.32	5.478470	Y_R 377.433
Fe H (259.940 nm)	0.004617 u	ppm	0.000964	20.88	17.798000	Y_R 377.433
K (766.491 nm)	-0.147946 u	ppm	0.085423	57.74	1794.530000	Y_R2 488.368
Li (670.783 nm)	0.009187	ppm	0.007553	82.21	-2388.020000	Y_R2 488.368
Mg (279.078 nm)	-0.000083 u	ppm	0.000211	> 100.00	8.287930	Y 377.433
Mn (257.610 nm)	0.000075	ppm	0.000021	28.48	9.385630	Y 377.433
Mo (202.032 nm)	0.000376	ppm	0.000201	53.38	15.869500	Y 377.433
Na (589.592 nm)	0.042131	ppm	0.038610	91.64	184.847000	Y_R2 488.368
Na H (589.593 nm)	1.372533 u	ppm	0.048128	3.51	627.178272	Y_R4
Ni (231.604 nm)	-0.000060 u	ppm	0.000169	> 100.00	-8.931800	Y 377.433
P (213.618 nm)	-0.000004 u	ppm	0.001054	> 100.00	-4.333780	Y 242.219
Pb (220.353 nm)	0.001063	ppm	0.000947	89.08	11.609300	Y 242.219
S (181.972 nm)	0.002604 u	ppm	0.006629	> 100.00	13.891481	Y 377.433
Sb (206.834 nm)	-0.002251 u	ppm	0.001586	70.45	-2.026490	Y 377.433
Se (196.026 nm)	-0.002948 u	ppm	0.001546	52.45	4.411790	Y 242.219
Si (288.158 nm)	0.010868	ppm	0.001158	10.66	558.512000	Y 377.433
Sn (189.925 nm)	0.000151	ppm	0.000180	> 100.00	2.332690	Y 377.433
Sr (421.552 nm)	0.000210	ppm	0.000058	27.61	54.781271	Y_R 488.368
Th (288.505 nm)	0.001966	ppm	0.001722	87.59	16.041900	Y 377.433
Ti (336.122 nm)	0.000102	ppm	0.000008	7.79	-420.789000	Y 377.433
Tl (190.794 nm)	-0.000292 u	ppm	0.000531	> 100.00	1.147810	Y 377.433
U (409.013 nm)	-0.007273 u	ppm	0.002940	40.43	-47.821500	Y 377.433
V (292.401 nm)	-0.000500 u	ppm	0.000022	4.39	-171.240000	Y 377.433
Zn (206.200 nm)	-0.000688 u	ppm	0.000249	36.25	0.970138	Y 377.433
Zr (343.823 nm)	-0.000155 u	ppm	0.000139	89.62	-170.391000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.004080	23209.775309	0.001572	0.16
Y 377.433	0.989852	692333.166173	0.001901	0.19
Y_R 377.433	0.996619	60423.700000	0.000312	0.03
Y_R 488.368	0.999884	52821.500000	0.007003	0.70
Y_R2 488.368	1.007943	106847.342153	0.004678	0.46
Y_R4	1.006670	45299.900000	0.007132	0.71

Sample Name: CCVL-5719884

Date: 5/24/2019 4:18:05 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008791	ppm	0.000191	2.18	35.221400	Y 377.433
Al (394.401 nm)	0.103111	ppm	0.000105	0.10	1360.730000	Y 377.433
Al H (396.152 nm)	0.237222 u	ppm	0.010267	4.33	265.984000	Y_R 377.433
As (188.980 nm)	0.016429	ppm	0.002342	14.25	23.178300	Y 242.219
B (249.678 nm)	0.093113	ppm	0.000349	0.38	711.594000	Y 242.219
Ba (493.408 nm)	0.009295	ppm	0.000440	4.74	2326.160000	Y_R 488.368
Be (234.861 nm)	0.000958	ppm	0.000051	5.28	91.887900	Y_R 488.368
Bi (223.061 nm)	0.095211	ppm	0.005464	5.74	197.936000	Y 377.433
Ca (315.887 nm)	0.207236	ppm	0.012195	5.88	95.573994	Y_R 377.433
Cd (214.439 nm)	0.005452	ppm	0.000031	0.56	196.462000	Y 377.433
Co (228.615 nm)	0.010624	ppm	0.000009	0.08	235.000000	Y 242.219
Cr (205.560 nm)	0.011073	ppm	0.000063	0.57	66.916300	Y 377.433
Cu (324.754 nm)	0.016722	ppm	0.000159	0.95	1095.120000	Y 377.433
Fe (238.204 nm)	0.103788	ppm	0.000714	0.69	256.976420	Y_R 377.433
Fe H (259.940 nm)	0.107316 u	ppm	0.006623	6.17	159.830000	Y_R 377.433
K (766.491 nm)	3.069070	ppm	0.061745	2.01	4900.840000	Y_R2 488.368
Li (670.783 nm)	0.030488 Q	ppm	0.005350	17.55	-2022.280000 Q	Y_R2 488.368
Mg (279.078 nm)	0.208988	ppm	0.001280	0.61	690.754000	Y 377.433
Mn (257.610 nm)	0.010808	ppm	0.000033	0.31	2935.920000	Y 377.433
Mo (202.032 nm)	0.020404	ppm	0.000382	1.87	268.309000	Y 377.433
Na (589.592 nm)	1.036070	ppm	0.026569	2.56	1002.950000	Y_R2 488.368
Na H (589.593 nm)	2.093390 u	ppm	0.060738	2.90	1018.283852	Y_R4
Ni (231.604 nm)	0.044263	ppm	0.000037	0.08	220.419000	Y 377.433
P (213.618 nm)	2.885800	ppm	0.013175	0.46	4117.960000	Y 242.219
Pb (220.353 nm)	0.009857	ppm	0.000935	9.48	39.693600	Y 242.219
S (181.972 nm)	0.090288	ppm	0.006414	7.10	54.086541	Y 377.433
Sb (206.834 nm)	0.021591	ppm	0.000059	0.27	38.082000	Y 377.433
Se (196.026 nm)	0.020456	ppm	0.000351	1.71	39.700700	Y 242.219
Si (288.158 nm)	0.504747	ppm	0.003842	0.76	3737.890000	Y 377.433
Sn (189.925 nm)	0.105021	ppm	0.001872	1.78	171.075000	Y 377.433
Sr (421.552 nm)	0.009460	ppm	0.000278	2.94	1447.895797	Y_R 488.368
Th (288.505 nm)	0.014187	ppm	0.000728	5.13	36.780600	Y 377.433
Ti (336.122 nm)	0.009924	ppm	0.000115	1.16	836.678000	Y 377.433
Tl (190.794 nm)	0.018145	ppm	0.002450	13.50	43.197700	Y 377.433
U (409.013 nm)	0.061255	ppm	0.010754	17.56	168.342000	Y 377.433
V (292.401 nm)	0.009542	ppm	0.000044	0.46	341.835000	Y 377.433
Zn (206.200 nm)	0.022380	ppm	0.000020	0.09	104.718000	Y 377.433
Zr (343.823 nm)	0.009774	ppm	0.000106	1.08	391.719000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.020465	23588.523572	0.000237	0.02
Y 377.433	1.003994	702224.587947	0.000471	0.05
Y_R 377.433	1.015860	61590.400000	0.004153	0.41
Y_R 488.368	1.028680	54342.700000	0.008270	0.80
Y_R2 488.368	1.017443	107854.372340	0.001631	0.16
Y_R4	1.018610	45837.300000	0.001763	0.17

Sample Name: 280-123846-a-5-a

Date: 5/24/2019 4:21:34 PM Rack:Tube: 1:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001592	ppm	0.000487	30.62	-213.144000	Y 377.433
Al (394.401 nm)	0.644100	ppm	0.000392	0.06	8080.990000	Y 377.433
Al H (396.152 nm)	0.670733 u	ppm	0.003904	0.58	1382.690000	Y_R 377.433
As (188.980 nm)	0.000419	ppm	0.000480	> 100.00	-1.089120	Y 242.219
B (249.678 nm)	0.006090	ppm	0.001422	23.35	87.090600	Y 242.219
Ba (493.408 nm)	0.030112	ppm	0.000298	0.99	4405.680000	Y_R 488.368
Be (234.861 nm)	0.000826	ppm	0.000012	1.51	56.903000	Y_R 488.368
Bi (223.061 nm)	0.000653	ppm	0.000707	> 100.00	-8.257790	Y 377.433
Ca (315.887 nm)	126.584757	ppm	0.372927	0.29	100465.461750	Y_R 377.433
Cd (214.439 nm)	0.020932	ppm	0.000055	0.26	771.052000	Y 377.433
Co (228.615 nm)	0.051311	ppm	0.000559	1.09	1190.760000	Y 242.219
Cr (205.560 nm)	0.000461	ppm	0.000088	19.18	-3.763440	Y 377.433
Cu (324.754 nm)	0.942333	ppm	0.000048	0.01	44197.900000	Y 377.433
Fe (238.204 nm)	5.317608	ppm	0.005004	0.09	12807.549953	Y_R 377.433
Fe H (259.940 nm)	5.293550	ppm	0.005204	0.10	7332.310000	Y_R 377.433
K (766.491 nm)	1.894150	ppm	0.454348	23.99	3766.350000	Y_R2 488.368
Li (670.783 nm)	0.010437	ppm	0.000818	7.84	-2366.560000	Y_R2 488.368
Mg (279.078 nm)	41.808700	ppm	0.019733	0.05	136814.000000	Y 377.433
Mn (257.610 nm)	4.610750	ppm	0.008387	0.18	1257160.000000	Y 377.433
Mo (202.032 nm)	0.000483	ppm	0.000317	65.65	17.223200	Y 377.433
Na (589.592 nm)	8.044790	ppm	0.091916	1.14	6761.120000	Y_R2 488.368
Na H (589.593 nm)	9.183115 u	ppm	0.072024	0.78	4864.857462	Y_R4
Ni (231.604 nm)	0.034248	ppm	0.000135	0.39	168.589000	Y 377.433
P (213.618 nm)	0.084653	ppm	0.005542	6.55	-106.115000	Y 242.219
Pb (220.353 nm)	0.000651	ppm	0.000727	> 100.00	10.385500	Y 242.219
S (181.972 nm)	153.715193 bo	ppm	0.332982	0.22	70428.108621	Y 377.433
Sb (206.834 nm)	-0.005261 u	ppm	0.000035	0.66	-6.657160	Y 377.433
Se (196.026 nm)	0.000283 u	ppm	0.001780	> 100.00	14.349300	Y 242.219
Si (288.158 nm)	6.902190	ppm	0.006316	0.09	44921.900000	Y 377.433
Sn (189.925 nm)	0.002746	ppm	0.000347	12.62	6.508220	Y 377.433
Sr (421.552 nm)	0.487549	ppm	0.000232	0.05	73449.408899	Y_R 488.368
Th (288.505 nm)	-0.014110 u	ppm	0.002064	14.63	76.228700	Y 377.433
Ti (336.122 nm)	-0.000778 u	ppm	0.000046	5.93	-102.753000	Y 377.433
Tl (190.794 nm)	0.002005	ppm	0.000848	42.30	0.986158	Y 377.433
U (409.013 nm)	0.050886	ppm	0.013840	27.20	123.742000	Y 377.433
V (292.401 nm)	0.000406	ppm	0.000169	41.71	-125.936000	Y 377.433
Zn (206.200 nm)	3.584740	ppm	0.000179	0.00	16124.400000	Y 377.433
Zr (343.823 nm)	-0.000030 u	ppm	0.000253	> 100.00	-163.321000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.983865	22742.497327	0.000993	0.10
Y 377.433	0.975777	682489.124320	0.000259	0.03
Y_R 377.433	0.992999	60204.300000	0.001665	0.17
Y_R 488.368	1.005000	53091.900000	0.002189	0.22
Y_R2 488.368	0.978564	103732.922088	0.008981	0.92
Y_R4	0.987971	44458.700000	0.006299	0.64

Sample Name: 280-123846-a-6-a

Date: 5/24/2019 4:25:12 PM Rack:Tube: 1:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003287	ppm	0.000073	2.21	-155.553000	Y 377.433
Al (394.401 nm)	3.512690 o	ppm	0.000729	0.02	43182.100000	Y 377.433
Al H (396.152 nm)	3.451910	ppm	0.006881	0.20	7618.650000	Y_R 377.433
As (188.980 nm)	0.030833	ppm	0.000624	2.02	42.039700	Y 242.219
B (249.678 nm)	0.009782	ppm	0.001638	16.75	55.826700	Y 242.219
Ba (493.408 nm)	0.023830	ppm	0.000131	0.55	3858.800000	Y_R 488.368
Be (234.861 nm)	0.001493	ppm	0.000000	0.02	-299.324000	Y_R 488.368
Bi (223.061 nm)	0.001666	ppm	0.001496	89.78	11.200000	Y 377.433
Ca (315.887 nm)	165.043619	ppm	0.225947	0.14	131010.425641	Y_R 377.433
Cd (214.439 nm)	0.029926	ppm	0.000268	0.89	1144.170000	Y 377.433
Co (228.615 nm)	0.103972	ppm	0.000282	0.27	2429.240000	Y 242.219
Cr (205.560 nm)	0.005604	ppm	0.000274	4.89	30.363500	Y 377.433
Cu (324.754 nm)	1.694620	ppm	0.003630	0.21	79276.100000	Y 377.433
Fe (238.204 nm)	105.065283 o	ppm	0.180401	0.17	252917.617265	Y_R 377.433
Fe H (259.940 nm)	104.924000	ppm	0.108029	0.10	145120.000000	Y_R 377.433
K (766.491 nm)	2.608630	ppm	0.417087	15.99	4456.250000	Y_R2 488.368
Li (670.783 nm)	0.011083	ppm	0.000891	8.04	-2355.480000	Y_R2 488.368
Mg (279.078 nm)	53.800900	ppm	0.085349	0.16	175925.000000	Y 377.433
Mn (257.610 nm)	12.031900	ppm	0.008817	0.07	3280600.000000	Y 377.433
Mo (202.032 nm)	0.008205	ppm	0.000368	4.48	114.545000	Y 377.433
Na (589.592 nm)	8.275290	ppm	0.056797	0.69	6948.970000	Y_R2 488.368
Na H (589.593 nm)	9.326577 u	ppm	0.106595	1.14	4942.693840	Y_R4
Ni (231.604 nm)	0.066574	ppm	0.000685	1.03	335.857000	Y 377.433
P (213.618 nm)	0.301778	ppm	0.006761	2.24	28.577300	Y 242.219
Pb (220.353 nm)	0.121064	ppm	0.000259	0.21	392.610000	Y 242.219
S (181.972 nm)	252.523897 bo	ppm	1.161482	0.46	115703.470971	Y 377.433
Sb (206.834 nm)	-0.002700 u	ppm	0.001627	60.25	5.977450	Y 377.433
Se (196.026 nm)	0.000923 u	ppm	0.002290	> 100.00	-0.014301	Y 242.219
Si (288.158 nm)	11.396600	ppm	0.014585	0.13	73854.900000	Y 377.433
Sn (189.925 nm)	0.001476	ppm	0.000672	45.57	4.464640	Y 377.433
Sr (421.552 nm)	0.892266	ppm	0.001711	0.19	134415.150250	Y_R 488.368
Th (288.505 nm)	-0.013504 u	ppm	0.004397	32.56	215.027000	Y 377.433
Ti (336.122 nm)	0.021771	ppm	0.000206	0.95	2914.040000	Y 377.433
Tl (190.794 nm)	0.008094	ppm	0.002448	30.25	1.482440	Y 377.433
U (409.013 nm)	0.084285	ppm	0.000529	0.63	297.856000	Y 377.433
V (292.401 nm)	0.002812	ppm	0.000218	7.77	3.498700	Y 377.433
Zn (206.200 nm)	5.692840	ppm	0.004102	0.07	25617.900000	Y 377.433
Zr (343.823 nm)	0.002225	ppm	0.000254	11.39	-35.641100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.970895	22442.694327	0.000918	0.09
Y 377.433	0.969656	678207.503162	0.000628	0.06
Y_R 377.433	0.980227	59429.900000	0.000652	0.07
Y_R 488.368	0.994041	52512.900000	0.002203	0.22
Y_R2 488.368	0.979825	103866.657743	0.004295	0.44
Y_R4	0.981990	44189.500000	0.004429	0.45

Sample Name: 280-123846-a-7-a

Date: 5/24/2019 4:28:57 PM Rack:Tube: 1:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000107	ppm	0.000149	> 100.00	-263.430000	Y 377.433
Al (394.401 nm)	0.002480	ppm	0.001275	51.40	121.694000	Y 377.433
Al H (396.152 nm)	0.130443 u	ppm	0.000784	0.60	26.951700	Y_R 377.433
As (188.980 nm)	0.001879	ppm	0.001427	75.93	1.253260	Y 242.219
B (249.678 nm)	0.000239	ppm	0.000276	> 100.00	48.321300	Y 242.219
Ba (493.408 nm)	-0.000790 u	ppm	0.000502	63.48	1320.750000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000034	60.35	-7.959800	Y_R 488.368
Bi (223.061 nm)	-0.001664 u	ppm	0.001322	79.48	-14.238700	Y 377.433
Ca (315.887 nm)	0.048630	ppm	0.005051	10.39	-30.415909	Y_R 377.433
Cd (214.439 nm)	-0.000096 u	ppm	0.000149	> 100.00	-8.691150	Y 377.433
Co (228.615 nm)	-0.000264 u	ppm	0.000134	50.59	-21.334800	Y 242.219
Cr (205.560 nm)	0.000448	ppm	0.000328	73.10	-3.763510	Y 377.433
Cu (324.754 nm)	0.001449	ppm	0.000200	13.77	384.776000	Y 377.433
Fe (238.204 nm)	0.099273	ppm	0.000019	0.02	246.107994	Y_R 377.433
Fe H (259.940 nm)	0.105474 u	ppm	0.001731	1.64	157.282000	Y_R 377.433
K (766.491 nm)	-0.155821 u	ppm	0.396901	> 100.00	1786.930000	Y_R2 488.368
Li (670.783 nm)	0.011383	ppm	0.002735	24.03	-2350.320000	Y_R2 488.368
Mg (279.078 nm)	0.009683	ppm	0.000624	6.44	39.970000	Y 377.433
Mn (257.610 nm)	0.001656	ppm	0.000039	2.33	440.567000	Y 377.433
Mo (202.032 nm)	-0.000135 u	ppm	0.000346	> 100.00	9.432410	Y 377.433
Na (589.592 nm)	-0.006961 u	ppm	0.004815	69.17	144.507000	Y_R2 488.368
Na H (589.593 nm)	1.051729 u	ppm	0.055451	5.27	453.124019	Y_R4
Ni (231.604 nm)	0.001050	ppm	0.000674	64.17	-3.189250	Y 377.433
P (213.618 nm)	-0.003141 u	ppm	0.000876	27.89	-8.820160	Y 242.219
Pb (220.353 nm)	0.000006 u	ppm	0.000294	> 100.00	8.272240	Y 242.219
S (181.972 nm)	0.022835	ppm	0.003120	13.67	23.162623	Y 377.433
Sb (206.834 nm)	-0.005367 u	ppm	0.001099	20.48	-7.278590	Y 377.433
Se (196.026 nm)	-0.002372 u	ppm	0.001251	52.71	5.256070	Y 242.219
Si (288.158 nm)	0.008150	ppm	0.001996	24.49	541.012000	Y 377.433
Sn (189.925 nm)	0.001683	ppm	0.000223	13.23	4.798320	Y 377.433
Sr (421.552 nm)	0.000392	ppm	0.000060	15.38	82.182649	Y_R 488.368
Th (288.505 nm)	0.002430	ppm	0.000719	29.60	16.890000	Y 377.433
Ti (336.122 nm)	0.000176	ppm	0.000142	80.33	-411.213000	Y 377.433
Tl (190.794 nm)	-0.001144 u	ppm	0.000412	36.00	-0.813746	Y 377.433
U (409.013 nm)	0.001907 u	ppm	0.003115	> 100.00	-18.644900	Y 377.433
V (292.401 nm)	-0.000229 u	ppm	0.000160	69.86	-158.071000	Y 377.433
Zn (206.200 nm)	0.006748	ppm	0.000761	11.27	34.421200	Y 377.433
Zr (343.823 nm)	0.000046	ppm	0.000011	24.61	-159.023000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.007897	23297.998793	0.000400	0.04
Y 377.433	0.993103	694606.985693	0.000920	0.09
Y_R 377.433	1.004870	60924.200000	0.003054	0.30
Y_R 488.368	1.014530	53595.400000	0.000618	0.06
Y_R2 488.368	1.020983	108229.598710	0.001512	0.15
Y_R4	1.013370	45601.600000	0.002062	0.20

Sample Name: 280-123846-a-8-a

Date: 5/24/2019 4:32:28 PM Rack:Tube: 1:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001016	ppm	0.000054	5.27	-232.499000	Y 377.433
Al (394.401 nm)	0.007700	ppm	0.001678	21.79	254.187000	Y 377.433
Al H (396.152 nm)	0.096857 u	ppm	0.009637	9.95	43.795500	Y_R 377.433
As (188.980 nm)	0.001728	ppm	0.001638	94.81	0.950545	Y 242.219
B (249.678 nm)	0.002189	ppm	0.000565	25.82	60.659700	Y 242.219
Ba (493.408 nm)	0.182303	ppm	0.000746	0.41	19576.200000	Y_R 488.368
Be (234.861 nm)	-0.000050 u	ppm	0.000002	3.66	-18.985300	Y_R 488.368
Bi (223.061 nm)	0.000834 u	ppm	0.002993	> 100.00	-8.290450	Y 377.433
Ca (315.887 nm)	45.611523	ppm	0.143703	0.32	36155.898695	Y_R 377.433
Cd (214.439 nm)	0.000036	ppm	0.000010	28.93	-2.683720	Y 377.433
Co (228.615 nm)	0.000952	ppm	0.000053	5.53	7.257220	Y 242.219
Cr (205.560 nm)	0.000183 u	ppm	0.000832	> 100.00	-5.540510	Y 377.433
Cu (324.754 nm)	0.000200	ppm	0.000113	56.73	297.192000	Y 377.433
Fe (238.204 nm)	2.850758	ppm	0.007169	0.25	6869.412081	Y_R 377.433
Fe H (259.940 nm)	2.849080 u	ppm	0.009042	0.32	3951.640000	Y_R 377.433
K (766.491 nm)	1.028120	ppm	0.060382	5.87	2930.120000	Y_R2 488.368
Li (670.783 nm)	0.008206	ppm	0.003927	47.85	-2404.870000	Y_R2 488.368
Mg (279.078 nm)	16.064500	ppm	0.020118	0.13	52573.100000	Y 377.433
Mn (257.610 nm)	0.819413	ppm	0.000351	0.04	223410.000000	Y 377.433
Mo (202.032 nm)	0.000791	ppm	0.000331	41.85	21.100200	Y 377.433
Na (589.592 nm)	13.878200	ppm	0.061941	0.45	11584.100000	Y_R2 488.368
Na H (589.593 nm)	14.905658 u	ppm	0.120764	0.81	7969.658301	Y_R4
Ni (231.604 nm)	-0.000532 u	ppm	0.000391	73.53	-11.374500	Y 377.433
P (213.618 nm)	0.024204	ppm	0.003319	13.71	30.294800	Y 242.219
Pb (220.353 nm)	0.000593 u	ppm	0.001738	> 100.00	10.221400	Y 242.219
S (181.972 nm)	5.486028	ppm	0.000647	0.01	2529.888407	Y 377.433
Sb (206.834 nm)	-0.004438 u	ppm	0.002925	65.91	-5.484490	Y 377.433
Se (196.026 nm)	-0.000290 u	ppm	0.002542	> 100.00	8.829580	Y 242.219
Si (288.158 nm)	7.494590	ppm	0.010002	0.13	48735.500000	Y 377.433
Sn (189.925 nm)	0.002893	ppm	0.000961	33.21	6.744920	Y 377.433
Sr (421.552 nm)	0.241304	ppm	0.000925	0.38	36364.201544	Y_R 488.368
Th (288.505 nm)	-0.008224 u	ppm	0.003575	43.47	13.472900	Y 377.433
Ti (336.122 nm)	-0.000009 u	ppm	0.000174	> 100.00	-280.412000	Y 377.433
Tl (190.794 nm)	-0.001063 u	ppm	0.000112	10.57	-2.768880	Y 377.433
U (409.013 nm)	0.027625	ppm	0.007279	26.35	58.902200	Y 377.433
V (292.401 nm)	-0.000040 u	ppm	0.000225	> 100.00	-150.718000	Y 377.433
Zn (206.200 nm)	0.003176	ppm	0.000112	3.53	18.742400	Y 377.433
Zr (343.823 nm)	0.000174	ppm	0.000050	28.83	-151.744000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.999868	23112.405310	0.000071	0.01
Y 377.433	0.990018	692449.677252	0.001576	0.16
Y_R 377.433	1.009820	61224.200000	0.000843	0.08
Y_R 488.368	1.022240	54002.500000	0.000304	0.03
Y_R2 488.368	1.015908	107691.587008	0.002207	0.22
Y_R4	1.013210	45594.600000	0.007582	0.75

Sample Name: 280-123846-a-9-a

Date: 5/24/2019 4:36:04 PM Rack:Tube: 1:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004521	ppm	0.000348	7.69	-111.896000	Y 377.433
Al (394.401 nm)	1.677230	ppm	0.004897	0.29	20618.300000	Y 377.433
Al H (396.152 nm)	1.789520	ppm	0.006951	0.39	3731.240000	Y_R 377.433
As (188.980 nm)	0.028839	ppm	0.001136	3.94	41.113000	Y 242.219
B (249.678 nm)	0.003337	ppm	0.000986	29.56	54.121900	Y 242.219
Ba (493.408 nm)	0.034608	ppm	0.000377	1.09	4872.290000	Y_R 488.368
Be (234.861 nm)	0.000215	ppm	0.000003	1.29	-100.689000	Y_R 488.368
Bi (223.061 nm)	0.004815	ppm	0.001667	34.62	4.839300	Y 377.433
Ca (315.887 nm)	43.107749	ppm	0.036875	0.09	34167.805300	Y_R 377.433
Cd (214.439 nm)	0.011972	ppm	0.000042	0.35	449.048000	Y 377.433
Co (228.615 nm)	0.022578	ppm	0.000120	0.53	515.937000	Y 242.219
Cr (205.560 nm)	0.000690	ppm	0.000839	> 100.00	-2.316160	Y 377.433
Cu (324.754 nm)	0.714707	ppm	0.001725	0.24	33629.000000	Y 377.433
Fe (238.204 nm)	28.355511 o	ppm	0.016699	0.06	68263.805562	Y_R 377.433
Fe H (259.940 nm)	28.270700	ppm	0.005491	0.02	39109.300000	Y_R 377.433
K (766.491 nm)	2.805700	ppm	0.231715	8.26	4646.530000	Y_R2 488.368
Li (670.783 nm)	0.013402	ppm	0.000963	7.18	-2315.660000	Y_R2 488.368
Mg (279.078 nm)	11.888900	ppm	0.037524	0.32	38875.100000	Y 377.433
Mn (257.610 nm)	2.914690	ppm	0.004676	0.16	794708.000000	Y 377.433
Mo (202.032 nm)	0.020671	ppm	0.000322	1.56	271.673000	Y 377.433
Na (589.592 nm)	7.222310	ppm	0.007638	0.11	6086.870000	Y_R2 488.368
Na H (589.593 nm)	7.986082 u	ppm	0.066570	0.83	4215.399894	Y_R4
Ni (231.604 nm)	0.012589	ppm	0.000989	7.85	56.516100	Y 377.433
P (213.618 nm)	0.165996	ppm	0.011141	6.71	64.752800	Y 242.219
Pb (220.353 nm)	0.657191	ppm	0.000935	0.14	2096.700000	Y 242.219
S (181.972 nm)	58.778740	ppm	0.278099	0.47	26942.050801	Y 377.433
Sb (206.834 nm)	0.000423 u	ppm	0.001285	> 100.00	4.703920	Y 377.433
Se (196.026 nm)	0.000806	ppm	0.000790	98.03	6.839680	Y 242.219
Si (288.158 nm)	11.192200	ppm	0.017184	0.15	72538.800000	Y 377.433
Sn (189.925 nm)	0.001839	ppm	0.000612	33.25	5.049700	Y 377.433
Sr (421.552 nm)	0.208590	ppm	0.000029	0.01	31441.279029	Y_R 488.368
Th (288.505 nm)	-0.001044 u	ppm	0.000364	34.91	65.251200	Y 377.433
Ti (336.122 nm)	0.012015	ppm	0.000163	1.36	1249.800000	Y 377.433
Tl (190.794 nm)	0.000026 u	ppm	0.000911	> 100.00	-3.280720	Y 377.433
U (409.013 nm)	0.043930	ppm	0.003099	7.05	129.704000	Y 377.433
V (292.401 nm)	0.001699	ppm	0.000368	21.69	-59.767900	Y 377.433
Zn (206.200 nm)	2.405600	ppm	0.014077	0.59	10825.400000	Y 377.433
Zr (343.823 nm)	0.000799	ppm	0.000025	3.09	-116.388000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.014082	23440.987937	0.003884	0.38
Y 377.433	1.005959	703599.379407	0.005360	0.53
Y_R 377.433	1.027690	62307.500000	0.000818	0.08
Y_R 488.368	1.039640	54921.700000	0.000547	0.05
Y_R2 488.368	1.024416	108593.489515	0.002417	0.24
Y_R4	1.027980	46259.200000	0.000547	0.05

Sample Name: 280-123846-a-2-o@5

Date: 5/24/2019 4:39:45 PM Rack:Tube: 1:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001197	ppm	0.000155	12.97	-227.529000	Y 377.433
Al (394.401 nm)	3.606350 o	ppm	0.002867	0.08	44202.200000	Y 377.433
Al H (396.152 nm)	3.656930	ppm	0.000450	0.01	7870.060000	Y_R 377.433
As (188.980 nm)	-0.000899 u	ppm	0.001057	> 100.00	-3.842720	Y 242.219
B (249.678 nm)	0.000422 u	ppm	0.001078	> 100.00	30.224700	Y 242.219
Ba (493.408 nm)	0.001965	ppm	0.000037	1.89	1622.190000	Y_R 488.368
Be (234.861 nm)	0.001785	ppm	0.000064	3.57	31.337300	Y_R 488.368
Bi (223.061 nm)	-0.003747 u	ppm	0.001352	36.08	-12.998000	Y 377.433
Ca (315.887 nm)	45.639089	ppm	0.000487	0.00	36178.686980	Y_R 377.433
Cd (214.439 nm)	0.029171	ppm	0.000032	0.11	1087.230000	Y 377.433
Co (228.615 nm)	0.070580	ppm	0.001040	1.47	1643.600000	Y 242.219
Cr (205.560 nm)	0.000246 u	ppm	0.000589	> 100.00	-5.305120	Y 377.433
Cu (324.754 nm)	2.307480	ppm	0.009646	0.42	107917.000000	Y 377.433
Fe (238.204 nm)	33.676922 o	ppm	0.032308	0.10	81073.368841	Y_R 377.433
Fe H (259.940 nm)	33.518800	ppm	0.011406	0.03	46367.500000	Y_R 377.433
K (766.491 nm)	0.486682	ppm	0.215737	44.33	2407.320000	Y_R2 488.368
Li (670.783 nm)	0.012167	ppm	0.001244	10.23	-2336.870000	Y_R2 488.368
Mg (279.078 nm)	18.384700	ppm	0.004968	0.03	60123.900000	Y 377.433
Mn (257.610 nm)	5.692560	ppm	0.001880	0.03	1552120.000000	Y 377.433
Mo (202.032 nm)	0.000260	ppm	0.000042	16.03	14.412200	Y 377.433
Na (589.592 nm)	2.078230	ppm	0.089156	4.29	1856.820000	Y_R2 488.368
Na H (589.593 nm)	2.890224 u	ppm	0.030363	1.05	1450.611023	Y_R4
Ni (231.604 nm)	0.050368	ppm	0.000019	0.04	251.991000	Y 377.433
P (213.618 nm)	0.212294	ppm	0.003175	1.50	-244.341000	Y 242.219
Pb (220.353 nm)	0.014809	ppm	0.001705	11.51	54.995700	Y 242.219
S (181.972 nm)	95.698044	ppm	0.151863	0.16	43858.351694	Y 377.433
Sb (206.834 nm)	-0.004410 u	ppm	0.000179	4.06	-2.829470	Y 377.433
Se (196.026 nm)	-0.000498 u	ppm	0.000813	> 100.00	7.373760	Y 242.219
Si (288.158 nm)	2.995550	ppm	0.002771	0.09	19772.600000	Y 377.433
Sn (189.925 nm)	0.000800 u	ppm	0.001228	> 100.00	3.378360	Y 377.433
Sr (421.552 nm)	0.350067	ppm	0.004988	1.42	52748.745151	Y_R 488.368
Th (288.505 nm)	-0.002295 u	ppm	0.000019	0.81	117.898000	Y 377.433
Ti (336.122 nm)	-0.000127 u	ppm	0.000025	19.95	-294.993000	Y 377.433
Tl (190.794 nm)	0.001042	ppm	0.001442	> 100.00	-1.260140	Y 377.433
U (409.013 nm)	0.095493	ppm	0.010408	10.90	296.874000	Y 377.433
V (292.401 nm)	-0.000026 u	ppm	0.000008	31.50	-148.912000	Y 377.433
Zn (206.200 nm)	4.917800	ppm	0.000810	0.02	22122.800000	Y 377.433
Zr (343.823 nm)	0.000774	ppm	0.000303	39.07	-117.778000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.011396	23378.882002	0.003661	0.36
Y 377.433	1.001979	700815.621683	0.004001	0.40
Y_R 377.433	1.027490	62295.200000	0.000173	0.02
Y_R 488.368	1.037860	54827.900000	0.014165	1.36
Y_R2 488.368	1.018618	107978.857770	0.002105	0.21
Y_R4	1.026830	46207.400000	0.004966	0.48

Sample Name: MB 280-459144/1-A

Date: 5/24/2019 4:43:28 PM Rack:Tube: 1:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000190	ppm	0.000024	12.35	-260.734000	Y 377.433
Al (394.401 nm)	0.001969	ppm	0.000972	49.34	116.429000	Y 377.433
Al H (396.152 nm)	0.138108 u	ppm	0.006644	4.81	43.663800	Y_R 377.433
As (188.980 nm)	0.000772 u	ppm	0.001166	> 100.00	-0.413993	Y 242.219
B (249.678 nm)	-0.003151 u	ppm	0.000657	20.86	24.129100	Y 242.219
Ba (493.408 nm)	-0.001099 u	ppm	0.000010	0.91	1289.960000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000031	> 100.00	-5.085130	Y_R 488.368
Bi (223.061 nm)	-0.000822 u	ppm	0.000897	> 100.00	-12.401900	Y 377.433
Ca (315.887 nm)	0.018740	ppm	0.000572	3.05	-54.154915	Y_R 377.433
Cd (214.439 nm)	-0.000007 u	ppm	0.000011	> 100.00	-5.419850	Y 377.433
Co (228.615 nm)	-0.000133 u	ppm	0.000134	> 100.00	-18.263100	Y 242.219
Cr (205.560 nm)	0.000255	ppm	0.000175	68.71	-5.052840	Y 377.433
Cu (324.754 nm)	0.001429	ppm	0.000234	16.34	383.762000	Y 377.433
Fe (238.204 nm)	0.065594	ppm	0.002111	3.22	165.035201	Y_R 377.433
Fe H (259.940 nm)	0.069582 u	ppm	0.002689	3.86	107.644000	Y_R 377.433
K (766.491 nm)	-0.129907 u	ppm	0.259043	> 100.00	1811.950000	Y_R2 488.368
Li (670.783 nm)	0.009346	ppm	0.000114	1.22	-2385.300000	Y_R2 488.368
Mg (279.078 nm)	0.003704	ppm	0.000158	4.27	20.237600	Y 377.433
Mn (257.610 nm)	0.001438	ppm	0.000145	10.05	381.149000	Y 377.433
Mo (202.032 nm)	-0.000395 u	ppm	0.000207	52.42	6.150900	Y 377.433
Na (589.592 nm)	-0.017591 u	ppm	0.021591	> 100.00	135.559000	Y_R2 488.368
Na H (589.593 nm)	0.834138 u	ppm	0.009275	1.11	335.068984	Y_R4
Ni (231.604 nm)	0.000076 u	ppm	0.000946	> 100.00	-8.227030	Y 377.433
P (213.618 nm)	-0.000165 u	ppm	0.003507	> 100.00	-4.573150	Y 242.219
Pb (220.353 nm)	-0.000064 u	ppm	0.001421	> 100.00	8.081000	Y 242.219
S (181.972 nm)	0.009454	ppm	0.007571	80.08	17.033400	Y 377.433
Sb (206.834 nm)	-0.002710 u	ppm	0.003773	> 100.00	-2.790800	Y 377.433
Se (196.026 nm)	0.000048	ppm	0.000003	6.34	8.915140	Y 242.219
Si (288.158 nm)	0.000462 u	ppm	0.001591	> 100.00	491.521000	Y 377.433
Sn (189.925 nm)	0.000566 u	ppm	0.000951	> 100.00	3.001340	Y 377.433
Sr (421.552 nm)	0.000381	ppm	0.000075	19.65	80.538035	Y_R 488.368
Th (288.505 nm)	0.001943	ppm	0.001763	90.76	16.111400	Y 377.433
Ti (336.122 nm)	0.000110	ppm	0.000042	37.96	-419.735000	Y 377.433
Tl (190.794 nm)	-0.001445 u	ppm	0.001296	89.69	-1.494950	Y 377.433
U (409.013 nm)	-0.001618 u	ppm	0.009124	> 100.00	-29.838900	Y 377.433
V (292.401 nm)	-0.000293 u	ppm	0.000246	84.16	-161.598000	Y 377.433
Zn (206.200 nm)	0.001748	ppm	0.000079	4.52	11.934400	Y 377.433
Zr (343.823 nm)	-0.000159 u	ppm	0.000188	> 100.00	-170.598000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.009081	23325.372530	0.004077	0.40
Y 377.433	0.994302	695445.789948	0.005240	0.53
Y_R 377.433	1.014250	61492.900000	0.000193	0.02
Y_R 488.368	1.027670	54289.200000	0.008855	0.86
Y_R2 488.368	1.023657	108513.020729	0.003148	0.31
Y_R4	1.021790	45980.500000	0.001723	0.17

Sample Name: LCS 280-459144/2-A

Date: 5/24/2019 4:46:56 PM Rack:Tube: 1:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000550	ppm	0.000135	24.63	-567.027000	Y 377.433
Al (394.401 nm)	10.239900 o	ppm	0.019816	0.19	125335.000000	Y 377.433
Al H (396.152 nm)	10.101600	ppm	0.046325	0.46	22318.100000	Y_R 377.433
As (188.980 nm)	2.053770	ppm	0.008232	0.40	3092.960000	Y 242.219
B (249.678 nm)	0.996340	ppm	0.003380	0.34	7156.270000	Y 242.219
Ba (493.408 nm)	2.033980	ppm	0.009371	0.46	204183.000000	Y_R 488.368
Be (234.861 nm)	1.010280	ppm	0.001350	0.13	99449.900000	Y_R 488.368
Bi (223.061 nm)	2.009910	ppm	0.002404	0.12	4393.230000	Y 377.433
Ca (315.887 nm)	49.866651	ppm	0.204743	0.41	39537.902970	Y_R 377.433
Cd (214.439 nm)	1.035680	ppm	0.002784	0.27	38298.600000	Y 377.433
Co (228.615 nm)	0.999799	ppm	0.003052	0.31	23527.200000	Y 242.219
Cr (205.560 nm)	1.046380	ppm	0.003016	0.29	6964.310000	Y 377.433
Cu (324.754 nm)	0.994122	ppm	0.007418	0.75	46746.100000	Y 377.433
Fe (238.204 nm)	10.252079 o	ppm	0.039869	0.39	24685.682920	Y_R 377.433
Fe H (259.940 nm)	10.226000	ppm	0.054842	0.54	14153.900000	Y_R 377.433
K (766.491 nm)	49.778100	ppm	0.769889	1.55	50002.400000	Y_R2 488.368
Li (670.783 nm)	1.019450	ppm	0.003627	0.36	14958.500000	Y_R2 488.368
Mg (279.078 nm)	50.327600	ppm	0.110725	0.22	164654.000000	Y 377.433
Mn (257.610 nm)	1.015970	ppm	0.001605	0.16	277004.000000	Y 377.433
Mo (202.032 nm)	1.037870	ppm	0.001875	0.18	13092.800000	Y 377.433
Na (589.592 nm)	48.933500	ppm	0.059771	0.12	40781.700000	Y_R2 488.368
Na H (589.593 nm)	51.369625	ppm	0.411104	0.80	27753.408054	Y_R4
Ni (231.604 nm)	1.016460	ppm	0.002957	0.29	5252.960000	Y 377.433
P (213.618 nm)	20.633700	ppm	0.076498	0.37	29230.600000	Y 242.219
Pb (220.353 nm)	1.014990	ppm	0.001894	0.19	3231.250000	Y 242.219
S (181.972 nm)	10.109532	ppm	0.041762	0.41	4648.073738	Y 377.433
Sb (206.834 nm)	-0.003355 u	ppm	0.002796	83.35	-8.688350	Y 377.433
Se (196.026 nm)	2.008970	ppm	0.004631	0.23	3037.700000	Y 242.219
Si (288.158 nm)	2.028590	ppm	0.002232	0.11	13547.700000	Y 377.433
Sn (189.925 nm)	2.081400	ppm	0.011133	0.53	3351.180000	Y 377.433
Sr (421.552 nm)	0.987051	ppm	0.004645	0.47	148675.695596	Y_R 488.368
Th (288.505 nm)	1.035610	ppm	0.002197	0.21	1704.110000	Y 377.433
Ti (336.122 nm)	1.010770	ppm	0.001651	0.16	129079.000000	Y 377.433
Tl (190.794 nm)	2.037730	ppm	0.003055	0.15	4653.380000	Y 377.433
U (409.013 nm)	2.023310	ppm	0.003817	0.19	6331.900000	Y 377.433
V (292.401 nm)	1.007950	ppm	0.000722	0.07	51837.300000	Y 377.433
Zn (206.200 nm)	0.514867	ppm	0.000618	0.12	2320.710000	Y 377.433
Zr (343.823 nm)	0.503914	ppm	0.000215	0.04	28365.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.984535	22757.987328	0.000648	0.07
Y 377.433	0.979537	685118.629452	0.000712	0.07
Y_R 377.433	1.005880	60985.400000	0.002569	0.26
Y_R 488.368	1.016590	53704.100000	0.003166	0.31
Y_R2 488.368	1.014512	107543.677907	0.001765	0.17
Y_R4	1.028740	46293.400000	0.004703	0.46

Sample Name: 280-123846-A-10-A

Date: 5/24/2019 4:50:35 PM Rack:Tube: 1:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001880	ppm	0.000220	11.70	-202.964000	Y 377.433
Al (394.401 nm)	0.511417	ppm	0.002601	0.51	6393.650000	Y 377.433
Al H (396.152 nm)	0.593338 u	ppm	0.006627	1.12	1115.340000	Y_R 377.433
As (188.980 nm)	0.015556	ppm	0.002817	18.11	21.255700	Y 242.219
B (249.678 nm)	0.003949	ppm	0.000545	13.80	61.869000	Y 242.219
Ba (493.408 nm)	0.017731	ppm	0.000253	1.43	3185.080000	Y_R 488.368
Be (234.861 nm)	0.000246	ppm	0.000162	65.79	-72.904800	Y_R 488.368
Bi (223.061 nm)	0.000668 u	ppm	0.002348	> 100.00	-5.254040	Y 377.433
Ca (315.887 nm)	46.721456	ppm	0.030883	0.07	37037.533523	Y_R 377.433
Cd (214.439 nm)	0.014076	ppm	0.000014	0.10	524.485000	Y 377.433
Co (228.615 nm)	0.027523	ppm	0.000294	1.07	631.700000	Y 242.219
Cr (205.560 nm)	-0.000012 u	ppm	0.000007	60.10	-6.922320	Y 377.433
Cu (324.754 nm)	0.391221	ppm	0.000378	0.10	18535.500000	Y 377.433
Fe (238.204 nm)	22.506674 o	ppm	0.039999	0.18	54184.633508	Y_R 377.433
Fe H (259.940 nm)	22.585400	ppm	0.047523	0.21	31246.700000	Y_R 377.433
K (766.491 nm)	1.968500	ppm	0.170043	8.64	3838.150000	Y_R2 488.368
Li (670.783 nm)	0.016434	ppm	0.002317	14.10	-2263.590000	Y_R2 488.368
Mg (279.078 nm)	12.507500	ppm	0.008601	0.07	40907.100000	Y 377.433
Mn (257.610 nm)	3.223730	ppm	0.004991	0.15	878972.000000	Y 377.433
Mo (202.032 nm)	0.010479	ppm	0.000234	2.23	143.206000	Y 377.433
Na (589.592 nm)	7.389810	ppm	0.060454	0.82	6220.690000	Y_R2 488.368
Na H (589.593 nm)	8.228926 u	ppm	0.006366	0.08	4347.156639	Y_R4
Ni (231.604 nm)	0.014999	ppm	0.000454	3.03	68.988200	Y 377.433
P (213.618 nm)	0.064808	ppm	0.007341	11.33	-3.666280	Y 242.219
Pb (220.353 nm)	0.119904	ppm	0.000450	0.38	389.342000	Y 242.219
S (181.972 nm)	64.776600	ppm	0.206048	0.32	29689.944048	Y 377.433
Sb (206.834 nm)	0.000207 u	ppm	0.001326	> 100.00	3.952790	Y 377.433
Se (196.026 nm)	0.001534	ppm	0.000935	60.93	9.870230	Y 242.219
Si (288.158 nm)	10.001200	ppm	0.009317	0.09	64871.600000	Y 377.433
Sn (189.925 nm)	0.002084	ppm	0.001814	87.04	5.443960	Y 377.433
Sr (421.552 nm)	0.209365	ppm	0.000177	0.08	31557.204444	Y_R 488.368
Th (288.505 nm)	-0.014512 u	ppm	0.000302	2.08	48.538700	Y 377.433
Ti (336.122 nm)	0.000330	ppm	0.000027	8.31	-233.320000	Y 377.433
Tl (190.794 nm)	0.003980	ppm	0.000749	18.83	6.424630	Y 377.433
U (409.013 nm)	0.029945	ppm	0.001460	4.88	80.573400	Y 377.433
V (292.401 nm)	0.000473	ppm	0.000419	88.73	-124.620000	Y 377.433
Zn (206.200 nm)	2.780200	ppm	0.007126	0.26	12509.000000	Y 377.433
Zr (343.823 nm)	0.000698	ppm	0.000007	0.96	-122.082000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.022615	23638.223794	0.001614	0.16
Y 377.433	1.015952	710588.264151	0.002849	0.28
Y_R 377.433	1.033050	62632.600000	0.004706	0.46
Y_R 488.368	1.041200	55004.400000	0.006973	0.67
Y_R2 488.368	1.029669	109150.406867	0.000394	0.04
Y_R4	1.029500	46327.300000	0.009079	0.88

Sample Name: 280-123846-A-11-A

Date: 5/24/2019 4:54:17 PM Rack:Tube: 1:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004380	ppm	0.000233	5.33	-116.974000	Y 377.433
Al (394.401 nm)	2.144210	ppm	0.006882	0.32	26320.700000	Y 377.433
Al H (396.152 nm)	2.343770	ppm	0.009288	0.40	4945.010000	Y_R 377.433
As (188.980 nm)	0.031819	ppm	0.000361	1.14	45.606300	Y 242.219
B (249.678 nm)	0.003380	ppm	0.001081	31.98	54.489000	Y 242.219
Ba (493.408 nm)	0.034351	ppm	0.000480	1.40	4846.570000	Y_R 488.368
Be (234.861 nm)	0.000249	ppm	0.000014	5.64	-96.953000	Y_R 488.368
Bi (223.061 nm)	0.007486	ppm	0.001444	19.29	10.672600	Y 377.433
Ca (315.887 nm)	42.983868	ppm	0.140887	0.33	34069.557595	Y_R 377.433
Cd (214.439 nm)	0.011934	ppm	0.000027	0.23	447.608000	Y 377.433
Co (228.615 nm)	0.022135	ppm	0.000025	0.11	505.742000	Y 242.219
Cr (205.560 nm)	0.000312 u	ppm	0.000944	> 100.00	-4.851790	Y 377.433
Cu (324.754 nm)	0.713749	ppm	0.002299	0.32	33583.700000	Y 377.433
Fe (238.204 nm)	28.250286 o	ppm	0.082107	0.29	68010.509128	Y_R 377.433
Fe H (259.940 nm)	28.139100	ppm	0.084213	0.30	38927.400000	Y_R 377.433
K (766.491 nm)	3.009870	ppm	0.222695	7.40	4843.680000	Y_R2 488.368
Li (670.783 nm)	0.020615	ppm	0.001413	6.85	-2191.810000	Y_R2 488.368
Mg (279.078 nm)	11.849000	ppm	0.005254	0.04	38744.700000	Y 377.433
Mn (257.610 nm)	2.896550	ppm	0.002838	0.10	789762.000000	Y 377.433
Mo (202.032 nm)	0.020468	ppm	0.000307	1.50	269.121000	Y 377.433
Na (589.592 nm)	7.203800	ppm	0.016655	0.23	6071.600000	Y_R2 488.368
Na H (589.593 nm)	7.823139 u	ppm	0.015565	0.20	4126.994003	Y_R4
Ni (231.604 nm)	0.013272	ppm	0.001411	10.63	60.055800	Y 377.433
P (213.618 nm)	0.184716	ppm	0.021997	11.91	91.336800	Y 242.219
Pb (220.353 nm)	0.663543	ppm	0.001388	0.21	2116.810000	Y 242.219
S (181.972 nm)	58.612732	ppm	0.049445	0.08	26865.946809	Y 377.433
Sb (206.834 nm)	0.005342	ppm	0.000462	8.65	12.978300	Y 377.433
Se (196.026 nm)	0.002045	ppm	0.000735	35.94	8.704990	Y 242.219
Si (288.158 nm)	11.747700	ppm	0.048214	0.41	76115.400000	Y 377.433
Sn (189.925 nm)	0.000045 u	ppm	0.001553	> 100.00	2.162940	Y 377.433
Sr (421.552 nm)	0.213563	ppm	0.002408	1.13	32190.274136	Y_R 488.368
Th (288.505 nm)	-0.004414 u	ppm	0.004958	> 100.00	58.993300	Y 377.433
Ti (336.122 nm)	0.016953	ppm	0.001216	7.17	1880.900000	Y 377.433
Tl (190.794 nm)	0.003232	ppm	0.000708	21.90	4.065860	Y 377.433
U (409.013 nm)	0.050739	ppm	0.000883	1.74	151.171000	Y 377.433
V (292.401 nm)	0.002106	ppm	0.000139	6.60	-38.869000	Y 377.433
Zn (206.200 nm)	2.406180	ppm	0.006268	0.26	10828.000000	Y 377.433
Zr (343.823 nm)	0.001241	ppm	0.000980	78.92	-91.344000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.024471	23681.116286	0.002327	0.23
Y 377.433	1.015481	710258.955955	0.003189	0.31
Y_R 377.433	1.040820	63103.900000	0.000868	0.08
Y_R 488.368	1.052310	55591.100000	0.003168	0.30
Y_R2 488.368	1.049647	111268.133565	0.001216	0.12
Y_R4	1.042370	46906.800000	0.000915	0.09

Sample Name: CCVH-5713036

Date: 5/24/2019 4:57:59 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004929	ppm	0.000129	2.61	-106.912000	Y 377.433
Al (394.401 nm)	50.923200 o	ppm	0.000475	0.00	620395.000000	Y 377.433
Al H (396.152 nm)	49.586100	ppm	0.214082	0.43	108134.000000	Y_R 377.433
As (188.980 nm)	0.004622	ppm	0.001091	23.59	4.033140	Y 242.219
B (249.678 nm)	-0.001823 u	ppm	0.000682	37.39	4.725660	Y 242.219
Ba (493.408 nm)	0.001975	ppm	0.000124	6.26	1636.230000	Y_R 488.368
Be (234.861 nm)	0.001177	ppm	0.000033	2.82	-97.862800	Y_R 488.368
Bi (223.061 nm)	0.011766	ppm	0.003243	27.56	23.808800	Y 377.433
Ca (315.887 nm)	0.002632	ppm	0.000377	14.33	-54.527421	Y_R 377.433
Cd (214.439 nm)	0.001372	ppm	0.000193	14.09	65.888100	Y 377.433
Co (228.615 nm)	0.003019	ppm	0.000363	12.03	55.873100	Y 242.219
Cr (205.560 nm)	0.001641	ppm	0.000337	20.57	2.849760	Y 377.433
Cu (324.754 nm)	0.004359	ppm	0.000414	9.50	1478.100000	Y 377.433
Fe (238.204 nm)	50.064179 o	ppm	0.258239	0.52	120520.358383	Y_R 377.433
Fe H (259.940 nm)	49.891100	ppm	0.236378	0.47	69010.000000	Y_R 377.433
K (766.491 nm)	0.196712	ppm	0.165861	84.32	2127.330000	Y_R2 488.368
Li (670.783 nm)	0.012261	ppm	0.002282	18.61	-2335.240000	Y_R2 488.368
Mg (279.078 nm)	0.038669	ppm	0.000372	0.96	60.579000	Y 377.433
Mn (257.610 nm)	0.001191	ppm	0.000074	6.21	313.588000	Y 377.433
Mo (202.032 nm)	0.001296	ppm	0.000320	24.66	27.464500	Y 377.433
Na (589.592 nm)	232.296000 o	ppm	2.880500	1.24	190843.000000	Y_R2 488.368
Na H (589.593 nm)	244.564769	ppm	1.820283	0.74	132572.621330	Y_R4
Ni (231.604 nm)	0.003635	ppm	0.000205	5.65	10.193100	Y 377.433
P (213.618 nm)	5.034590	ppm	0.007987	0.16	7190.590000	Y 242.219
Pb (220.353 nm)	0.007065	ppm	0.000225	3.19	23.790900	Y 242.219
S (181.972 nm)	5.059961	ppm	0.021228	0.42	2329.937477	Y 377.433
Sb (206.834 nm)	-0.001616 u	ppm	0.000630	38.95	3.262700	Y 377.433
Se (196.026 nm)	0.007466	ppm	0.000661	8.85	7.224860	Y 242.219
Si (288.158 nm)	0.026951	ppm	0.000220	0.82	662.042000	Y 377.433
Sn (189.925 nm)	0.002563	ppm	0.000230	8.96	6.213880	Y 377.433
Sr (421.552 nm)	0.001494	ppm	0.000131	8.74	255.636002	Y_R 488.368
Th (288.505 nm)	4.935260	ppm	0.010616	0.22	8523.440000	Y 377.433
Ti (336.122 nm)	0.001963	ppm	0.000006	0.28	-182.591000	Y 377.433
Tl (190.794 nm)	0.000005 u	ppm	0.001038	> 100.00	-2.956780	Y 377.433
U (409.013 nm)	0.542092 Q	ppm	0.002409	0.44	1731.720000 Q	Y 377.433
V (292.401 nm)	0.000511	ppm	0.000126	24.68	378.002000	Y 377.433
Zn (206.200 nm)	0.002544	ppm	0.000550	21.61	22.473800	Y 377.433
Zr (343.823 nm)	0.001175	ppm	0.000002	0.19	-95.082300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.981687	22692.163485	0.002613	0.27
Y 377.433	0.968488	677390.990954	0.003644	0.38
Y_R 377.433	0.999011	60568.800000	0.001715	0.17
Y_R 488.368	1.015600	53651.600000	0.002469	0.24
Y_R2 488.368	1.010572	107125.971647	0.009093	0.90
Y_R4	1.025000	46124.800000	0.002333	0.23

Sample Name: CCV-5717467

Date: 5/24/2019 5:01:45 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.500413	ppm	0.000422	0.08	16998.800000	Y 377.433
Al (394.401 nm)	0.512396	ppm	0.003777	0.74	6471.920000	Y 377.433
Al H (396.152 nm)	0.566249 u	ppm	0.001718	0.30	1226.840000	Y_R 377.433
As (188.980 nm)	0.503705	ppm	0.001288	0.26	757.385000	Y 242.219
B (249.678 nm)	0.488756	ppm	0.002145	0.44	3535.740000	Y 242.219
Ba (493.408 nm)	0.498254	ppm	0.000546	0.11	51074.200000	Y_R 488.368
Be (234.861 nm)	0.485030	ppm	0.000975	0.20	47754.500000	Y_R 488.368
Bi (223.061 nm)	1.006380	ppm	0.000143	0.01	2194.020000	Y 377.433
Ca (315.887 nm)	4.974457	ppm	0.012873	0.26	3881.837221	Y_R 377.433
Cd (214.439 nm)	0.520006	ppm	0.000653	0.13	19225.700000	Y 377.433
Co (228.615 nm)	0.505157	ppm	0.000912	0.18	11879.100000	Y 242.219
Cr (205.560 nm)	0.520997	ppm	0.003939	0.76	3464.330000	Y 377.433
Cu (324.754 nm)	0.506304	ppm	0.000641	0.13	23929.900000	Y 377.433
Fe (238.204 nm)	2.517522	ppm	0.008669	0.34	6067.254617	Y_R 377.433
Fe H (259.940 nm)	2.521360 u	ppm	0.001474	0.06	3498.410000	Y_R 377.433
K (766.491 nm)	49.030200	ppm	0.704856	1.44	49280.300000	Y_R2 488.368
Li (670.783 nm)	0.509932	ppm	0.000926	0.18	6209.880000	Y_R2 488.368
Mg (279.078 nm)	19.968400	ppm	0.001800	0.01	65348.900000	Y 377.433
Mn (257.610 nm)	0.499777	ppm	0.000139	0.03	136258.000000	Y 377.433
Mo (202.032 nm)	0.505454	ppm	0.000297	0.06	6382.000000	Y 377.433
Na (589.592 nm)	23.884100	ppm	0.212307	0.89	19870.300000	Y_R2 488.368
Na H (589.593 nm)	25.921073 u	ppm	0.091803	0.35	13946.139589	Y_R4
Ni (231.604 nm)	0.516198	ppm	0.000994	0.19	2662.810000	Y 377.433
P (213.618 nm)	0.051109	ppm	0.001096	2.14	-67.924400	Y 242.219
Pb (220.353 nm)	0.508526	ppm	0.000051	0.01	1621.540000	Y 242.219
S (181.972 nm)	-0.005127 u	ppm	0.001408	27.47	12.176703	Y 377.433
Sb (206.834 nm)	0.512949	ppm	0.001054	0.21	865.249000	Y 377.433
Se (196.026 nm)	0.502273	ppm	0.003699	0.74	766.509000	Y 242.219
Si (288.158 nm)	4.962260	ppm	0.008614	0.17	32433.500000	Y 377.433
Sn (189.925 nm)	0.517488	ppm	0.000590	0.11	834.757000	Y 377.433
Sr (421.552 nm)	0.485473	ppm	0.001010	0.21	73136.262414	Y_R 488.368
Th (288.505 nm)	0.021431	ppm	0.000377	1.76	-1.181740	Y 377.433
Ti (336.122 nm)	0.493539	ppm	0.000623	0.13	62738.400000	Y 377.433
Tl (190.794 nm)	0.518463	ppm	0.002522	0.49	1184.320000	Y 377.433
U (409.013 nm)	0.007002	ppm	0.001066	15.23	-63.563900	Y 377.433
V (292.401 nm)	0.499047	ppm	0.000248	0.05	25587.800000	Y 377.433
Zn (206.200 nm)	0.519393	ppm	0.002151	0.41	2339.990000	Y 377.433
Zr (343.823 nm)	0.496027	ppm	0.000354	0.07	27919.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.013957	23438.082814	0.000108	0.01
Y 377.433	1.001271	700320.477595	0.002121	0.21
Y_R 377.433	1.032670	62609.500000	0.003730	0.36
Y_R 488.368	1.043750	55138.700000	0.003898	0.37
Y_R2 488.368	1.037676	109999.132923	0.003202	0.31
Y_R4	1.045160	47032.100000	0.005027	0.48

Sample Name: CCB

Date: 5/24/2019 5:05:20 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000497	ppm	0.000105	21.06	-250.171000	Y 377.433
Al (394.401 nm)	-0.000738 u	ppm	0.000397	53.89	84.669100	Y 377.433
Al H (396.152 nm)	0.128365 Zu	ppm	0.012743	9.93	22.332100 Z	Y_R 377.433
As (188.980 nm)	0.000610 u	ppm	0.001391	> 100.00	-0.656747	Y 242.219
B (249.678 nm)	-0.001537 u	ppm	0.000342	22.24	35.692500	Y 242.219
Ba (493.408 nm)	-0.001244 u	ppm	0.000316	25.36	1275.420000	Y_R 488.368
Be (234.861 nm)	0.000089	ppm	0.000004	4.10	6.787080	Y_R 488.368
Bi (223.061 nm)	0.000689	ppm	0.000206	29.85	-9.101980	Y 377.433
Ca (315.887 nm)	0.012222	ppm	0.002157	17.65	-59.331025	Y_R 377.433
Cd (214.439 nm)	-0.000031 u	ppm	0.000171	> 100.00	-6.307740	Y 377.433
Co (228.615 nm)	-0.000294 u	ppm	0.000030	10.27	-22.038800	Y 242.219
Cr (205.560 nm)	0.000288	ppm	0.000110	38.24	-4.833320	Y 377.433
Cu (324.754 nm)	0.001206	ppm	0.000044	3.61	372.725000	Y 377.433
Fe (238.204 nm)	-0.000102 u	ppm	0.002418	> 100.00	6.893660	Y_R 377.433
Fe H (259.940 nm)	0.000781 u	ppm	0.001665	> 100.00	12.493900	Y_R 377.433
K (766.491 nm)	-0.082468 u	ppm	0.164183	> 100.00	1857.750000	Y_R2 488.368
Li (670.783 nm)	0.013012 Z	ppm	0.001963	15.08	-2322.350000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003420	ppm	0.001102	32.22	19.283000	Y 377.433
Mn (257.610 nm)	0.000056	ppm	0.000028	50.71	4.165610	Y 377.433
Mo (202.032 nm)	-0.000206 u	ppm	0.000480	> 100.00	8.533340	Y 377.433
Na (589.592 nm)	0.008131 u	ppm	0.016352	> 100.00	156.764000	Y_R2 488.368
Na H (589.593 nm)	1.080032 u	ppm	0.047549	4.40	468.480118	Y_R4
Ni (231.604 nm)	0.000294 u	ppm	0.000460	> 100.00	-7.098820	Y 377.433
P (213.618 nm)	-0.000560 u	ppm	0.000544	97.20	-5.033850	Y 242.219
Pb (220.353 nm)	0.001008	ppm	0.000046	4.55	11.506500	Y 242.219
S (181.972 nm)	0.000353 u	ppm	0.002018	> 100.00	12.860880	Y 377.433
Sb (206.834 nm)	-0.003301 u	ppm	0.001915	58.01	-3.792370	Y 377.433
Se (196.026 nm)	0.000526 u	ppm	0.000954	> 100.00	9.650420	Y 242.219
Si (288.158 nm)	-0.002427 u	ppm	0.000370	15.24	472.924000	Y 377.433
Sn (189.925 nm)	0.001666	ppm	0.001671	> 100.00	4.770670	Y 377.433
Sr (421.552 nm)	0.000264	ppm	0.000068	25.86	62.879410	Y_R 488.368
Th (288.505 nm)	0.003861	ppm	0.000139	3.61	19.429500	Y 377.433
Ti (336.122 nm)	0.000251	ppm	0.000009	3.60	-401.710000	Y 377.433
Tl (190.794 nm)	-0.000902 u	ppm	0.000528	58.57	-0.244486	Y 377.433
U (409.013 nm)	0.002477 u	ppm	0.003926	> 100.00	-16.907200	Y 377.433
V (292.401 nm)	-0.000076 u	ppm	0.000416	> 100.00	-150.898000	Y 377.433
Zn (206.200 nm)	-0.000224 u	ppm	0.000205	91.48	3.057850	Y 377.433
Zr (343.823 nm)	-0.000123 u	ppm	0.000042	34.45	-168.593000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.032546	23867.777763	0.003026	0.29
Y 377.433	1.018226	712178.900969	0.002652	0.26
Y_R 377.433	1.031620	62545.900000	0.003132	0.30
Y_R 488.368	1.042370	55065.900000	0.001503	0.14
Y_R2 488.368	1.048355	111131.208851	0.005126	0.49
Y_R4	1.043480	46956.600000	0.006393	0.61

Sample Name: CCVL-5719884

Date: 5/24/2019 5:08:32 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008223	ppm	0.000009	0.11	15.586500	Y 377.433
Al (394.401 nm)	0.101340	ppm	0.000811	0.80	1338.810000	Y 377.433
Al H (396.152 nm)	0.237886 u	ppm	0.011403	4.79	267.387000	Y_R 377.433
As (188.980 nm)	0.013148	ppm	0.000822	6.25	18.233700	Y 242.219
B (249.678 nm)	0.092051	ppm	0.000878	0.95	704.010000	Y 242.219
Ba (493.408 nm)	0.008404	ppm	0.000607	7.23	2237.390000	Y_R 488.368
Be (234.861 nm)	0.000926	ppm	0.000003	0.29	88.767000	Y_R 488.368
Bi (223.061 nm)	0.091509	ppm	0.001428	1.56	189.828000	Y 377.433
Ca (315.887 nm)	0.208768	ppm	0.001515	0.73	96.791098	Y_R 377.433
Cd (214.439 nm)	0.005306	ppm	0.000049	0.92	191.089000	Y 377.433
Co (228.615 nm)	0.010657	ppm	0.000245	2.30	235.777000	Y 242.219
Cr (205.560 nm)	0.010312	ppm	0.000299	2.90	61.847000	Y 377.433
Cu (324.754 nm)	0.016874	ppm	0.000085	0.50	1102.180000	Y 377.433
Fe (238.204 nm)	0.102003	ppm	0.003932	3.85	252.678213	Y_R 377.433
Fe H (259.940 nm)	0.104928 u	ppm	0.001516	1.44	156.527000	Y_R 377.433
K (766.491 nm)	2.951630	ppm	0.310650	10.52	4787.440000	Y_R2 488.368
Li (670.783 nm)	0.033225 Q	ppm	0.004295	12.93	-1975.290000 Q	Y_R2 488.368
Mg (279.078 nm)	0.205198	ppm	0.002110	1.03	678.436000	Y 377.433
Mn (257.610 nm)	0.010726	ppm	0.000009	0.08	2913.490000	Y 377.433
Mo (202.032 nm)	0.020065	ppm	0.000003	0.01	264.041000	Y 377.433
Na (589.592 nm)	1.039350	ppm	0.024046	2.31	1005.400000	Y_R2 488.368
Na H (589.593 nm)	1.852938 u	ppm	0.010858	0.59	887.825021	Y_R4
Ni (231.604 nm)	0.044608	ppm	0.000236	0.53	222.202000	Y 377.433
P (213.618 nm)	2.880230	ppm	0.009157	0.32	4110.120000	Y 242.219
Pb (220.353 nm)	0.009081	ppm	0.000781	8.61	37.218200	Y 242.219
S (181.972 nm)	0.088388	ppm	0.003527	3.99	53.216266	Y 377.433
Sb (206.834 nm)	0.019030	ppm	0.001502	7.89	33.757900	Y 377.433
Se (196.026 nm)	0.017585	ppm	0.001334	7.59	35.370500	Y 242.219
Si (288.158 nm)	0.489691	ppm	0.000215	0.04	3640.970000	Y 377.433
Sn (189.925 nm)	0.105084	ppm	0.001358	1.29	171.177000	Y 377.433
Sr (421.552 nm)	0.009469	ppm	0.000019	0.20	1449.161950	Y_R 488.368
Th (288.505 nm)	0.015187	ppm	0.000059	0.39	38.454100	Y 377.433
Ti (336.122 nm)	0.009960	ppm	0.000005	0.05	841.274000	Y 377.433
Tl (190.794 nm)	0.016092	ppm	0.004471	27.79	38.505700	Y 377.433
U (409.013 nm)	0.058930	ppm	0.008012	13.59	160.917000	Y 377.433
V (292.401 nm)	0.009668	ppm	0.000179	1.85	348.656000	Y 377.433
Zn (206.200 nm)	0.021645	ppm	0.000535	2.47	101.410000	Y 377.433
Zr (343.823 nm)	0.009927	ppm	0.000186	1.88	400.385000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047081	24203.767399	0.004757	0.45
Y 377.433	1.030889	721035.999841	0.005047	0.49
Y_R 377.433	1.040770	63100.800000	0.002030	0.20
Y_R 488.368	1.052530	55602.600000	0.005984	0.57
Y_R2 488.368	1.059536	112316.375987	0.013312	1.26
Y_R4	1.049180	47213.200000	0.014797	1.41

Sample Name: 280-123928-A-1-A

Date: 5/24/2019 5:12:00 PM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001748	ppm	0.000157	8.98	-208.543000	Y 377.433
Al (394.401 nm)	0.523125	ppm	0.002201	0.42	6750.650000	Y 377.433
Al H (396.152 nm)	0.474834 u	ppm	0.003488	0.73	1186.750000	Y_R 377.433
As (188.980 nm)	0.003140	ppm	0.001418	45.16	3.144560	Y 242.219
B (249.678 nm)	0.113556	ppm	0.000217	0.19	857.413000	Y 242.219
Ba (493.408 nm)	0.118599	ppm	0.000092	0.08	13223.400000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000020	43.09	-8.327910	Y_R 488.368
Bi (223.061 nm)	-0.000391 u	ppm	0.000305	78.13	-11.381500	Y 377.433
Ca (315.887 nm)	98.510190	ppm	0.241790	0.25	78168.451739	Y_R 377.433
Cd (214.439 nm)	0.000147	ppm	0.000035	23.82	0.432701	Y 377.433
Co (228.615 nm)	0.000188	ppm	0.000237	> 100.00	-10.096500	Y 242.219
Cr (205.560 nm)	0.000398 u	ppm	0.000808	> 100.00	-4.127490	Y 377.433
Cu (324.754 nm)	0.002447	ppm	0.000341	13.92	369.979000	Y 377.433
Fe (238.204 nm)	0.405062	ppm	0.002016	0.50	982.195104	Y_R 377.433
Fe H (259.940 nm)	0.403499 u	ppm	0.001968	0.49	569.446000	Y_R 377.433
K (766.491 nm)	7.499310	ppm	0.305519	4.07	9178.630000	Y_R2 488.368
Li (670.783 nm)	0.045226	ppm	0.003399	7.52	-1769.230000	Y_R2 488.368
Mg (279.078 nm)	19.415700	ppm	0.041828	0.22	63542.100000	Y 377.433
Mn (257.610 nm)	0.116710	ppm	0.000412	0.35	31811.000000	Y 377.433
Mo (202.032 nm)	0.002411	ppm	0.000241	10.01	41.524200	Y 377.433
Na (589.592 nm)	118.792000 o	ppm	1.479990	1.25	97693.600000	Y_R2 488.368
Na H (589.593 nm)	126.772046	ppm	0.771912	0.61	68663.455076	Y_R4
Ni (231.604 nm)	0.001019	ppm	0.000162	15.94	-3.350730	Y 377.433
P (213.618 nm)	0.110026	ppm	0.000042	0.04	152.267000	Y 242.219
Pb (220.353 nm)	0.000292 u	ppm	0.000562	> 100.00	9.205640	Y 242.219
S (181.972 nm)	56.125712	ppm	0.214144	0.38	25720.921760	Y 377.433
Sb (206.834 nm)	-0.004337 u	ppm	0.001649	38.02	-5.585970	Y 377.433
Se (196.026 nm)	0.001383	ppm	0.000494	35.71	11.001900	Y 242.219
Si (288.158 nm)	9.945740	ppm	0.018644	0.19	64514.900000	Y 377.433
Sn (189.925 nm)	0.000708	ppm	0.000494	69.68	3.230190	Y 377.433
Sr (421.552 nm)	1.025845	ppm	0.001417	0.14	154516.662200	Y_R 488.368
Th (288.505 nm)	-0.010629 u	ppm	0.002316	21.79	-5.984890	Y 377.433
Ti (336.122 nm)	0.015445	ppm	0.000293	1.90	1877.260000	Y 377.433
Tl (190.794 nm)	0.002658	ppm	0.000076	2.86	3.867190	Y 377.433
U (409.013 nm)	0.047634	ppm	0.002307	4.84	113.447000	Y 377.433
V (292.401 nm)	0.003867	ppm	0.000130	3.36	51.172700	Y 377.433
Zn (206.200 nm)	0.005153	ppm	0.000252	4.89	27.290500	Y 377.433
Zr (343.823 nm)	0.000829	ppm	0.000094	11.39	-114.663000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.981008	22676.465484	0.005686	0.58
Y 377.433	0.970897	679075.448067	0.005933	0.61
Y_R 377.433	0.998292	60525.200000	0.003366	0.34
Y_R 488.368	1.009690	53339.900000	0.000134	0.01
Y_R2 488.368	1.005666	106605.948458	0.005520	0.55
Y_R4	1.010190	45458.300000	0.005974	0.59

Sample Name: 280-123928-A-1-Asd@5

Date: 5/24/2019 5:15:33 PM Rack:Tube: 1:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000550	ppm	0.000359	65.32	-248.446000	Y 377.433
Al (394.401 nm)	0.111945	ppm	0.001622	1.45	1512.990000	Y 377.433
Al H (396.152 nm)	0.208267 u	ppm	0.002621	1.26	277.697000	Y_R 377.433
As (188.980 nm)	0.002955	ppm	0.001888	63.90	2.874370	Y 242.219
B (249.678 nm)	0.020772	ppm	0.000377	1.81	194.951000	Y 242.219
Ba (493.408 nm)	0.023112	ppm	0.000636	2.75	3703.710000	Y_R 488.368
Be (234.861 nm)	-0.000008 u	ppm	0.000034	> 100.00	-3.324900	Y_R 488.368
Bi (223.061 nm)	0.000795	ppm	0.000931	> 100.00	-8.846460	Y 377.433
Ca (315.887 nm)	19.870042	ppm	0.028225	0.14	15711.889717	Y_R 377.433
Cd (214.439 nm)	0.000103	ppm	0.000001	0.89	-1.334360	Y 377.433
Co (228.615 nm)	-0.000267 u	ppm	0.000236	88.56	-21.275600	Y 242.219
Cr (205.560 nm)	-0.000296 u	ppm	0.000375	> 100.00	-8.735110	Y 377.433
Cu (324.754 nm)	0.001463	ppm	0.000120	8.22	372.742000	Y 377.433
Fe (238.204 nm)	0.120505	ppm	0.001552	1.29	297.215610	Y_R 377.433
Fe H (259.940 nm)	0.129784 u	ppm	0.003080	2.37	190.902000	Y_R 377.433
K (766.491 nm)	1.373630	ppm	0.042213	3.07	3263.740000	Y_R2 488.368
Li (670.783 nm)	0.022840	ppm	0.003611	15.81	-2153.600000	Y_R2 488.368
Mg (279.078 nm)	3.943400	ppm	0.001958	0.05	12912.200000	Y 377.433
Mn (257.610 nm)	0.023905	ppm	0.000017	0.07	6506.940000	Y 377.433
Mo (202.032 nm)	0.000720	ppm	0.000557	77.40	20.208000	Y 377.433
Na (589.592 nm)	24.567800	ppm	0.120787	0.49	20323.200000	Y_R2 488.368
Na H (589.593 nm)	25.692543 u	ppm	0.093975	0.37	13822.149178	Y_R4
Ni (231.604 nm)	0.000511	ppm	0.000522	> 100.00	-5.973620	Y 377.433
P (213.618 nm)	0.020602	ppm	0.000053	0.26	25.042100	Y 242.219
Pb (220.353 nm)	-0.000068 u	ppm	0.001240	> 100.00	8.052460	Y 242.219
S (181.972 nm)	11.031796	ppm	0.035003	0.32	5065.801720	Y 377.433
Sb (206.834 nm)	-0.003704 u	ppm	0.001302	35.15	-4.483190	Y 377.433
Se (196.026 nm)	-0.000941 u	ppm	0.000130	13.79	7.439900	Y 242.219
Si (288.158 nm)	1.973380	ppm	0.001827	0.09	13192.300000	Y 377.433
Sn (189.925 nm)	-0.000002 u	ppm	0.000642	> 100.00	2.086610	Y 377.433
Sr (421.552 nm)	0.203739	ppm	0.000381	0.19	30706.571086	Y_R 488.368
Th (288.505 nm)	-0.005112 u	ppm	0.006324	> 100.00	3.844580	Y 377.433
Ti (336.122 nm)	0.003471	ppm	0.000132	3.79	77.274000	Y 377.433
Tl (190.794 nm)	0.001280	ppm	0.001455	> 100.00	3.932160	Y 377.433
U (409.013 nm)	0.006460	ppm	0.005998	92.85	-6.818340	Y 377.433
V (292.401 nm)	0.000662	ppm	0.000040	6.12	-112.672000	Y 377.433
Zn (206.200 nm)	0.004219	ppm	0.000919	21.77	23.053300	Y 377.433
Zr (343.823 nm)	0.000269	ppm	0.000064	23.71	-146.392000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.026261	23722.502561	0.000062	0.01
Y 377.433	1.013051	708559.454117	0.000699	0.07
Y_R 377.433	1.039530	63025.600000	0.001652	0.16
Y_R 488.368	1.052330	55592.000000	0.000402	0.04
Y_R2 488.368	1.044686	110742.200517	0.002046	0.20
Y_R4	1.053430	47404.100000	0.013814	1.31

Sample Name: 280-123928-A-1-B MS

Date: 5/24/2019 5:19:02 PM Rack:Tube: 1:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001039	ppm	0.000034	3.30	-559.867000	Y 377.433
Al (394.401 nm)	11.057000 o	ppm	0.009798	0.09	135572.000000	Y 377.433
Al H (396.152 nm)	10.628000	ppm	0.033582	0.32	23875.400000	Y_R 377.433
As (188.980 nm)	2.114480	ppm	0.005921	0.28	3184.430000	Y 242.219
B (249.678 nm)	1.143980	ppm	0.003331	0.29	8210.430000	Y 242.219
Ba (493.408 nm)	2.155240	ppm	0.002362	0.11	216272.000000	Y_R 488.368
Be (234.861 nm)	1.008440	ppm	0.004530	0.45	99266.500000	Y_R 488.368
Bi (223.061 nm)	2.025530	ppm	0.004737	0.23	4427.540000	Y 377.433
Ca (315.887 nm)	145.717017	ppm	0.143451	0.10	115662.996907	Y_R 377.433
Cd (214.439 nm)	1.028500	ppm	0.001555	0.15	38033.200000	Y 377.433
Co (228.615 nm)	1.003670	ppm	0.000152	0.02	23619.300000	Y 242.219
Cr (205.560 nm)	1.052180	ppm	0.000675	0.06	7002.940000	Y 377.433
Cu (324.754 nm)	1.024680	ppm	0.001046	0.10	48116.500000	Y 377.433
Fe (238.204 nm)	10.672771 o	ppm	0.021845	0.20	25698.363676	Y_R 377.433
Fe H (259.940 nm)	10.663400	ppm	0.021181	0.20	14758.700000	Y_R 377.433
K (766.491 nm)	58.148500	ppm	0.370677	0.64	58084.800000	Y_R2 488.368
Li (670.783 nm)	1.066470	ppm	0.001871	0.18	15765.700000	Y_R2 488.368
Mg (279.078 nm)	69.213700	ppm	0.107729	0.16	226455.000000	Y 377.433
Mn (257.610 nm)	1.126020	ppm	0.000570	0.05	307008.000000	Y 377.433
Mo (202.032 nm)	1.049120	ppm	0.001038	0.10	13234.500000	Y 377.433
Na (589.592 nm)	165.102000 o	ppm	0.407584	0.25	136172.000000	Y_R2 488.368
Na H (589.593 nm)	175.513047	ppm	0.313297	0.18	95108.184975	Y_R4
Ni (231.604 nm)	1.016250	ppm	0.001019	0.10	5251.850000	Y 377.433
P (213.618 nm)	21.154500	ppm	0.008367	0.04	29967.600000	Y 242.219
Pb (220.353 nm)	1.006990	ppm	0.002476	0.25	3205.660000	Y 242.219
S (181.972 nm)	66.013842	ppm	0.162272	0.25	30254.742699	Y 377.433
Sb (206.834 nm)	0.000388 u	ppm	0.001475	> 100.00	-2.420530	Y 377.433
Se (196.026 nm)	2.043510	ppm	0.005798	0.28	3089.840000	Y 242.219
Si (288.158 nm)	12.151800	ppm	0.026054	0.21	78716.500000	Y 377.433
Sn (189.925 nm)	2.097940	ppm	0.003758	0.18	3377.790000	Y 377.433
Sr (421.552 nm)	2.010656	ppm	0.003781	0.19	302831.706403	Y_R 488.368
Th (288.505 nm)	1.036730	ppm	0.001179	0.11	1704.480000	Y 377.433
Ti (336.122 nm)	1.035960	ppm	0.000153	0.01	132626.000000	Y 377.433
Tl (190.794 nm)	2.001690	ppm	0.001714	0.09	4566.970000	Y 377.433
U (409.013 nm)	2.068350	ppm	0.001347	0.07	6465.320000	Y 377.433
V (292.401 nm)	1.020220	ppm	0.000827	0.08	52472.100000	Y 377.433
Zn (206.200 nm)	0.515515	ppm	0.000500	0.10	2323.690000	Y 377.433
Zr (343.823 nm)	0.480610	ppm	0.000448	0.09	27046.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.974343	22522.384729	0.003399	0.35
Y 377.433	0.972119	679930.536622	0.004295	0.44
Y_R 377.433	1.022660	62002.700000	0.000068	0.01
Y_R 488.368	1.031240	54478.100000	0.000339	0.03
Y_R2 488.368	1.026494	108813.783145	0.006647	0.65
Y_R4	1.046400	47088.100000	0.002155	0.21

Sample Name: 280-123928-A-1-C MSD

Date: 5/24/2019 5:22:42 PM Rack:Tube: 1:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000710	ppm	0.000334	47.00	-576.927000	Y 377.433
Al (394.401 nm)	11.021900 o	ppm	0.016637	0.15	135140.000000	Y 377.433
Al H (396.152 nm)	10.603000	ppm	0.001710	0.02	23816.000000	Y_R 377.433
As (188.980 nm)	2.132010	ppm	0.008231	0.39	3210.830000	Y 242.219
B (249.678 nm)	1.143030	ppm	0.001061	0.09	8203.430000	Y 242.219
Ba (493.408 nm)	2.142440	ppm	0.003925	0.18	214996.000000	Y_R 488.368
Be (234.861 nm)	1.018870	ppm	0.005353	0.53	100292.000000	Y_R 488.368
Bi (223.061 nm)	2.035730	ppm	0.005337	0.26	4449.930000	Y 377.433
Ca (315.887 nm)	149.906199	ppm	0.186507	0.12	118990.065297	Y_R 377.433
Cd (214.439 nm)	1.055180	ppm	0.001669	0.16	39019.900000	Y 377.433
Co (228.615 nm)	1.014160	ppm	0.002199	0.22	23866.100000	Y 242.219
Cr (205.560 nm)	1.069690	ppm	0.022057	2.06	7119.600000	Y 377.433
Cu (324.754 nm)	1.023490	ppm	0.002734	0.27	48059.100000	Y 377.433
Fe (238.204 nm)	11.018092 o	ppm	0.012558	0.11	26529.609618	Y_R 377.433
Fe H (259.940 nm)	10.960900	ppm	0.009380	0.09	15170.100000	Y_R 377.433
K (766.491 nm)	58.685900	ppm	0.610045	1.04	58603.700000	Y_R2 488.368
Li (670.783 nm)	1.067160	ppm	0.005994	0.56	15777.600000	Y_R2 488.368
Mg (279.078 nm)	70.814400	ppm	0.159915	0.23	231693.000000	Y 377.433
Mn (257.610 nm)	1.140350	ppm	0.002377	0.21	310918.000000	Y 377.433
Mo (202.032 nm)	1.065320	ppm	0.002075	0.19	13438.700000	Y 377.433
Na (589.592 nm)	165.092000 o	ppm	0.528397	0.32	136162.000000	Y_R2 488.368
Na H (589.593 nm)	173.689331	ppm	1.211300	0.70	94118.716455	Y_R4
Ni (231.604 nm)	1.035270	ppm	0.001455	0.14	5350.300000	Y 377.433
P (213.618 nm)	21.389200	ppm	0.037525	0.18	30302.700000	Y 242.219
Pb (220.353 nm)	1.023260	ppm	0.003042	0.30	3257.310000	Y 242.219
S (181.972 nm)	66.582272	ppm	0.082213	0.12	30515.315850	Y 377.433
Sb (206.834 nm)	0.000989 u	ppm	0.002553	> 100.00	-1.420370	Y 377.433
Se (196.026 nm)	2.064380	ppm	0.010524	0.51	3121.250000	Y 242.219
Si (288.158 nm)	12.285000	ppm	0.037734	0.31	79574.000000	Y 377.433
Sn (189.925 nm)	2.139690	ppm	0.003306	0.15	3444.980000	Y 377.433
Sr (421.552 nm)	1.996167	ppm	0.003176	0.16	300649.680347	Y_R 488.368
Th (288.505 nm)	1.040250	ppm	0.001132	0.11	1709.090000	Y 377.433
Ti (336.122 nm)	1.043640	ppm	0.002442	0.23	133624.000000	Y 377.433
Tl (190.794 nm)	2.045620	ppm	0.002157	0.11	4667.150000	Y 377.433
U (409.013 nm)	2.071060	ppm	0.001737	0.08	6473.720000	Y 377.433
V (292.401 nm)	1.033430	ppm	0.002374	0.23	53152.200000	Y 377.433
Zn (206.200 nm)	0.527229	ppm	0.000223	0.04	2376.410000	Y 377.433
Zr (343.823 nm)	0.479768	ppm	0.001419	0.30	26998.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.992810	22949.254643	0.003150	0.32
Y 377.433	0.982695	687327.362477	0.002142	0.22
Y_R 377.433	1.031420	62533.600000	0.004354	0.42
Y_R 488.368	1.043960	55149.800000	0.005594	0.54
Y_R2 488.368	1.023040	108447.675472	0.009366	0.92
Y_R4	1.048900	47200.400000	0.010116	0.96

Sample Name: MB 280-458933/1-A

Date: 5/24/2019 5:26:20 PM Rack:Tube: 1:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000006 u	ppm	0.000365	> 100.00	-267.097000	Y 377.433
Al (394.401 nm)	0.003588	ppm	0.000136	3.78	136.725000	Y 377.433
Al H (396.152 nm)	0.130321 u	ppm	0.010750	8.25	26.716200	Y_R 377.433
As (188.980 nm)	-0.000138 u	ppm	0.004512	> 100.00	-1.785770	Y 242.219
B (249.678 nm)	-0.001092 u	ppm	0.000196	17.99	38.847700	Y 242.219
Ba (493.408 nm)	-0.001540 u	ppm	0.000219	14.21	1245.980000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000005	25.35	-4.128780	Y_R 488.368
Bi (223.061 nm)	-0.001303 u	ppm	0.002923	> 100.00	-13.458600	Y 377.433
Ca (315.887 nm)	0.035478	ppm	0.001094	3.08	-40.863339	Y_R 377.433
Cd (214.439 nm)	0.000063	ppm	0.000054	85.55	-2.825810	Y 377.433
Co (228.615 nm)	0.000020 u	ppm	0.000086	> 100.00	-14.655500	Y 242.219
Cr (205.560 nm)	0.000274	ppm	0.000107	39.00	-4.928870	Y 377.433
Cu (324.754 nm)	0.001329	ppm	0.000430	32.33	378.675000	Y 377.433
Fe (238.204 nm)	0.043105	ppm	0.000045	0.10	110.900971	Y_R 377.433
Fe H (259.940 nm)	0.046922 u	ppm	0.000040	0.08	76.305700	Y_R 377.433
K (766.491 nm)	-0.078049 u	ppm	0.271259	> 100.00	1862.020000	Y_R2 488.368
Li (670.783 nm)	0.014902	ppm	0.004723	31.70	-2289.890000	Y_R2 488.368
Mg (279.078 nm)	0.008382	ppm	0.001143	13.64	35.578900	Y 377.433
Mn (257.610 nm)	0.000429	ppm	0.000008	1.77	105.826000	Y 377.433
Mo (202.032 nm)	0.000439	ppm	0.000278	63.27	16.670300	Y 377.433
Na (589.592 nm)	0.007598	ppm	0.001229	16.17	156.111000	Y_R2 488.368
Na H (589.593 nm)	1.357685 u	ppm	0.049215	3.62	619.122550	Y_R4
Ni (231.604 nm)	0.000635	ppm	0.000116	18.35	-5.334000	Y 377.433
P (213.618 nm)	0.001134 u	ppm	0.003133	> 100.00	-2.753260	Y 242.219
Pb (220.353 nm)	0.000626	ppm	0.000148	23.74	10.272500	Y 242.219
S (181.972 nm)	0.005542	ppm	0.007331	> 100.00	15.238551	Y 377.433
Sb (206.834 nm)	0.000093 u	ppm	0.002227	> 100.00	1.933090	Y 377.433
Se (196.026 nm)	0.003966	ppm	0.001641	41.37	14.828500	Y 242.219
Si (288.158 nm)	0.007614	ppm	0.000963	12.65	537.560000	Y 377.433
Sn (189.925 nm)	0.001476	ppm	0.001436	97.27	4.465090	Y 377.433
Sr (421.552 nm)	0.000336	ppm	0.000001	0.42	73.750925	Y_R 488.368
Th (288.505 nm)	0.001252 u	ppm	0.002312	> 100.00	14.897700	Y 377.433
Ti (336.122 nm)	0.000309	ppm	0.000004	1.41	-394.314000	Y 377.433
Tl (190.794 nm)	0.002082	ppm	0.001233	59.21	6.569580	Y 377.433
U (409.013 nm)	0.007206	ppm	0.003145	43.65	-1.882820	Y 377.433
V (292.401 nm)	0.000055	ppm	0.000014	25.00	-143.735000	Y 377.433
Zn (206.200 nm)	0.002469	ppm	0.000461	18.66	15.172700	Y 377.433
Zr (343.823 nm)	0.000120	ppm	0.000124	> 100.00	-154.809000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.043582	24122.876482	0.001821	0.17
Y 377.433	1.031294	721319.013235	0.000773	0.07
Y_R 377.433	1.045290	63374.500000	0.002723	0.26
Y_R 488.368	1.061810	56092.800000	0.001576	0.15
Y_R2 488.368	1.060502	112418.783410	0.002723	0.26
Y_R4	1.037450	46685.100000	0.009067	0.87

Sample Name: LCS 280-458933/2-A

Date: 5/24/2019 5:29:35 PM Rack:Tube: 1:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052850	ppm	0.000586	1.11	1246.450000	Y 377.433
Al (394.401 nm)	10.253300 o	ppm	0.014367	0.14	125498.000000	Y 377.433
Al H (396.152 nm)	10.156300	ppm	0.026674	0.26	22437.300000	Y_R 377.433
As (188.980 nm)	2.056730	ppm	0.004609	0.22	3097.410000	Y 242.219
B (249.678 nm)	0.999192	ppm	0.000956	0.10	7176.580000	Y 242.219
Ba (493.408 nm)	2.034540	ppm	0.006589	0.32	204238.000000	Y_R 488.368
Be (234.861 nm)	1.010540	ppm	0.000017	0.00	99474.900000	Y_R 488.368
Bi (223.061 nm)	2.004590	ppm	0.002535	0.13	4381.580000	Y 377.433
Ca (315.887 nm)	50.008726	ppm	0.079076	0.16	39650.755399	Y_R 377.433
Cd (214.439 nm)	1.037520	ppm	0.002605	0.25	38366.600000	Y 377.433
Co (228.615 nm)	1.000210	ppm	0.001198	0.12	23536.900000	Y 242.219
Cr (205.560 nm)	1.049660	ppm	0.001299	0.12	6986.130000	Y 377.433
Cu (324.754 nm)	0.998347	ppm	0.003459	0.35	46943.200000	Y 377.433
Fe (238.204 nm)	10.342966 o	ppm	0.005836	0.06	24904.464802	Y_R 377.433
Fe H (259.940 nm)	10.302500	ppm	0.037862	0.37	14259.600000	Y_R 377.433
K (766.491 nm)	50.108100	ppm	0.368672	0.74	50321.200000	Y_R2 488.368
Li (670.783 nm)	1.019660	ppm	0.001783	0.17	14962.100000	Y_R2 488.368
Mg (279.078 nm)	50.387100	ppm	0.054911	0.11	164849.000000	Y 377.433
Mn (257.610 nm)	1.016110	ppm	0.001809	0.18	277041.000000	Y 377.433
Mo (202.032 nm)	1.041350	ppm	0.003161	0.30	13136.600000	Y 377.433
Na (589.592 nm)	49.058000	ppm	0.397055	0.81	40884.300000	Y_R2 488.368
Na H (589.593 nm)	51.639846	ppm	0.023391	0.05	27900.017860	Y_R4
Ni (231.604 nm)	1.016400	ppm	0.003037	0.30	5252.670000	Y 377.433
P (213.618 nm)	20.572300	ppm	0.013511	0.07	29141.500000	Y 242.219
Pb (220.353 nm)	1.015410	ppm	0.002137	0.21	3232.550000	Y 242.219
S (181.972 nm)	10.084515	ppm	0.020054	0.20	4636.624096	Y 377.433
Sb (206.834 nm)	1.097090	ppm	0.006217	0.57	1849.580000	Y 377.433
Se (196.026 nm)	2.007210	ppm	0.003173	0.16	3035.020000	Y 242.219
Si (288.158 nm)	2.100920	ppm	0.006270	0.30	14013.400000	Y 377.433
Sn (189.925 nm)	2.081520	ppm	0.005237	0.25	3351.370000	Y 377.433
Sr (421.552 nm)	0.985923	ppm	0.002477	0.25	148505.856687	Y_R 488.368
Th (288.505 nm)	1.037790	ppm	0.000472	0.05	1707.600000	Y 377.433
Ti (336.122 nm)	1.012250	ppm	0.000692	0.07	129267.000000	Y 377.433
Tl (190.794 nm)	2.048920	ppm	0.001996	0.10	4678.920000	Y 377.433
U (409.013 nm)	2.014020	ppm	0.000201	0.01	6302.470000	Y 377.433
V (292.401 nm)	1.010450	ppm	0.001897	0.19	51966.100000	Y 377.433
Zn (206.200 nm)	0.515697	ppm	0.000235	0.05	2324.460000	Y 377.433
Zr (343.823 nm)	0.503438	ppm	0.000965	0.19	28338.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.985571	22781.938337	0.000986	0.10
Y 377.433	0.979938	685399.117473	0.001865	0.19
Y_R 377.433	1.004600	60907.500000	0.000749	0.07
Y_R 488.368	1.017640	53759.700000	0.000017	0.00
Y_R2 488.368	1.002629	106284.009593	0.006915	0.69
Y_R4	1.041200	46854.100000	0.000677	0.07

Sample Name: 280-123564-M-1-B

Date: 5/24/2019 5:33:14 PM Rack:Tube: 1:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001184	ppm	0.000405	34.17	-226.753000	Y 377.433
Al (394.401 nm)	0.005803	ppm	0.001208	20.81	405.493000	Y 377.433
Al H (396.152 nm)	-0.043952 u	ppm	0.005190	11.81	139.021000	Y_R 377.433
As (188.980 nm)	0.004248	ppm	0.000010	0.24	4.811960	Y 242.219
B (249.678 nm)	0.260905	ppm	0.001395	0.53	1909.700000	Y 242.219
Ba (493.408 nm)	0.064682	ppm	0.000010	0.01	7848.200000	Y_R 488.368
Be (234.861 nm)	0.000122	ppm	0.000033	26.94	8.050310	Y_R 488.368
Bi (223.061 nm)	-0.000214 u	ppm	0.000540	> 100.00	-10.961400	Y 377.433
Ca (315.887 nm)	120.808531	ppm	0.249863	0.21	95877.798281	Y_R 377.433
Cd (214.439 nm)	0.000373	ppm	0.000027	7.35	8.816260	Y 377.433
Co (228.615 nm)	0.000134	ppm	0.000111	82.63	-11.971500	Y 242.219
Cr (205.560 nm)	0.000859	ppm	0.000179	20.90	-7.972840	Y 377.433
Cu (324.754 nm)	0.001044	ppm	0.000304	29.13	314.810000	Y 377.433
Fe (238.204 nm)	0.465407	ppm	0.001059	0.23	1127.454757	Y_R 377.433
Fe H (259.940 nm)	0.456792 u	ppm	0.005077	1.11	643.149000	Y_R 377.433
K (766.491 nm)	17.843900	ppm	0.011223	0.06	19167.200000	Y_R2 488.368
Li (670.783 nm)	0.033165	ppm	0.001150	3.47	-1976.320000	Y_R2 488.368
Mg (279.078 nm)	39.479600	ppm	0.016218	0.04	129199.000000	Y 377.433
Mn (257.610 nm)	0.151850	ppm	0.000077	0.05	41392.200000	Y 377.433
Mo (202.032 nm)	1.486560	ppm	0.001772	0.12	18748.100000	Y 377.433
Na (589.592 nm)	268.309000 o	ppm	0.035286	0.01	220420.000000	Y_R2 488.368
Na H (589.593 nm)	284.738870	ppm	1.146877	0.40	154369.326491	Y_R4
Ni (231.604 nm)	0.001795	ppm	0.000153	8.54	0.665567	Y 377.433
P (213.618 nm)	0.035889	ppm	0.000722	2.01	-4.890670	Y 242.219
Pb (220.353 nm)	0.000144 u	ppm	0.000614	> 100.00	4.878630	Y 242.219
S (181.972 nm)	120.810218 bo	ppm	0.091335	0.08	55344.677977	Y 377.433
Sb (206.834 nm)	-0.006700 u	ppm	0.001812	27.05	-19.310800	Y 377.433
Se (196.026 nm)	0.001487 u	ppm	0.002503	> 100.00	11.437600	Y 242.219
Si (288.158 nm)	8.706400	ppm	0.026840	0.31	56536.600000	Y 377.433
Sn (189.925 nm)	0.000574	ppm	0.000170	29.67	3.014320	Y 377.433
Sr (421.552 nm)	0.926463	ppm	0.001138	0.12	139549.622670	Y_R 488.368
Th (288.505 nm)	-0.001815 u	ppm	0.000327	17.99	9.562480	Y 377.433
Ti (336.122 nm)	-0.000315 u	ppm	0.000013	4.25	-63.447200	Y 377.433
Tl (190.794 nm)	0.005082	ppm	0.000551	10.85	0.589403	Y 377.433
U (409.013 nm)	0.020024	ppm	0.005058	25.26	23.026800	Y 377.433
V (292.401 nm)	0.002060	ppm	0.000243	11.80	-149.637000	Y 377.433
Zn (206.200 nm)	0.009387	ppm	0.000541	5.76	46.339500	Y 377.433
Zr (343.823 nm)	0.000041 u	ppm	0.000134	> 100.00	-159.308000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.972993	22491.186046	0.007022	0.72
Y 377.433	0.963619	673984.932071	0.008078	0.84
Y_R 377.433	1.021360	61923.900000	0.004866	0.48
Y_R 488.368	1.033910	54619.200000	0.000984	0.10
Y_R2 488.368	1.018102	107924.157576	0.004380	0.43
Y_R4	1.047910	47155.900000	0.006797	0.65

Sample Name: 280-123564-M-1-Bsd@5

Date: 5/24/2019 5:36:48 PM Rack:Tube: 1:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000844	ppm	0.000237	28.11	-238.133000	Y 377.433
Al (394.401 nm)	0.001567	ppm	0.000612	39.09	159.441000	Y 377.433
Al H (396.152 nm)	0.104511 u	ppm	0.005382	5.15	66.188400	Y_R 377.433
As (188.980 nm)	0.000014 u	ppm	0.001339	> 100.00	-1.593700	Y 242.219
B (249.678 nm)	0.050399	ppm	0.000579	1.15	405.764000	Y 242.219
Ba (493.408 nm)	0.011558	ppm	0.000250	2.16	2552.870000	Y_R 488.368
Be (234.861 nm)	0.000045	ppm	0.000026	58.14	-3.724890	Y_R 488.368
Bi (223.061 nm)	0.001361	ppm	0.000920	67.60	-7.371860	Y 377.433
Ca (315.887 nm)	24.962926	ppm	0.045764	0.18	19756.664696	Y_R 377.433
Cd (214.439 nm)	0.000062	ppm	0.000027	43.45	-2.276540	Y 377.433
Co (228.615 nm)	0.000221	ppm	0.000095	42.95	-9.946510	Y 242.219
Cr (205.560 nm)	0.001152	ppm	0.000141	12.21	-0.447237	Y 377.433
Cu (324.754 nm)	0.001406	ppm	0.000035	2.48	370.964000	Y 377.433
Fe (238.204 nm)	1.458723	ppm	0.020675	1.42	3518.541485	Y_R 377.433
Fe H (259.940 nm)	1.456240 u	ppm	0.033171	2.28	2025.370000	Y_R 377.433
K (766.491 nm)	3.252950	ppm	0.180362	5.54	5078.400000	Y_R2 488.368
Li (670.783 nm)	0.022264	ppm	0.004039	18.14	-2163.500000	Y_R2 488.368
Mg (279.078 nm)	7.965060	ppm	0.042395	0.53	26071.000000	Y 377.433
Mn (257.610 nm)	0.044321	ppm	0.000084	0.19	12073.500000	Y 377.433
Mo (202.032 nm)	0.294281	ppm	0.001090	0.37	3720.320000	Y 377.433
Na (589.592 nm)	54.635800	ppm	0.192064	0.35	45003.500000	Y_R2 488.368
Na H (589.593 nm)	56.273700	ppm	0.394523	0.70	30414.144092	Y_R4
Ni (231.604 nm)	0.000781	ppm	0.000353	45.15	-4.576650	Y 377.433
P (213.618 nm)	0.004193	ppm	0.004208	> 100.00	-8.563770	Y 242.219
Pb (220.353 nm)	0.001265	ppm	0.000461	36.46	11.514700	Y 242.219
S (181.972 nm)	23.826157	ppm	0.066569	0.28	10925.348734	Y 377.433
Sb (206.834 nm)	-0.004720 u	ppm	0.001698	35.97	-8.009410	Y 377.433
Se (196.026 nm)	-0.000081 u	ppm	0.001119	> 100.00	8.469200	Y 242.219
Si (288.158 nm)	1.718500	ppm	0.002773	0.16	11551.500000	Y 377.433
Sn (189.925 nm)	0.001508	ppm	0.001672	> 100.00	4.516830	Y 377.433
Sr (421.552 nm)	0.180206	ppm	0.001473	0.82	27162.573253	Y_R 488.368
Th (288.505 nm)	-0.006339 u	ppm	0.001165	18.38	1.870400	Y 377.433
Ti (336.122 nm)	0.000209	ppm	0.000040	18.93	-322.853000	Y 377.433
Tl (190.794 nm)	0.003508	ppm	0.001039	29.62	7.096060	Y 377.433
U (409.013 nm)	0.009581	ppm	0.001155	12.05	3.423220	Y 377.433
V (292.401 nm)	0.000713	ppm	0.000280	39.27	-131.673000	Y 377.433
Zn (206.200 nm)	0.005760	ppm	0.000352	6.11	30.167900	Y 377.433
Zr (343.823 nm)	0.000006 u	ppm	0.000158	> 100.00	-161.292000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.058416	24465.770187	0.012363	1.17
Y 377.433	1.044664	730670.953421	0.009361	0.90
Y_R 377.433	1.116890	67715.600000	0.002853	0.26
Y_R 488.368	1.137020	60066.200000	0.006081	0.53
Y_R2 488.368	1.125452	119303.902198	0.015418	1.37
Y_R4	1.115520	50198.200000	0.008591	0.77

Sample Name: 280-123564-M-1-C MS

Date: 5/24/2019 5:40:23 PM Rack:Tube: 1:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.053719	ppm	0.000029	0.05	1278.130000	Y 377.433
Al (394.401 nm)	10.087500 o	ppm	0.012119	0.12	123708.000000	Y 377.433
Al H (396.152 nm)	9.707660	ppm	0.019997	0.21	21945.100000	Y_R 377.433
As (188.980 nm)	2.109960	ppm	0.002950	0.14	3177.610000	Y 242.219
B (249.678 nm)	1.273800	ppm	0.002604	0.20	9137.470000	Y 242.219
Ba (493.408 nm)	2.044420	ppm	0.007102	0.35	205224.000000	Y_R 488.368
Be (234.861 nm)	0.993468	ppm	0.018659	1.88	97791.700000	Y_R 488.368
Bi (223.061 nm)	2.007090	ppm	0.000206	0.01	4387.190000	Y 377.433
Ca (315.887 nm)	174.385000	ppm	0.155441	0.09	138431.051559	Y_R 377.433
Cd (214.439 nm)	1.028760	ppm	0.001588	0.15	38042.900000	Y 377.433
Co (228.615 nm)	0.994127	ppm	0.002153	0.22	23393.700000	Y 242.219
Cr (205.560 nm)	1.032760	ppm	0.002257	0.22	6866.470000	Y 377.433
Cu (324.754 nm)	1.006370	ppm	0.003426	0.34	47266.000000	Y 377.433
Fe (238.204 nm)	10.812025 o	ppm	0.011820	0.11	26033.572032	Y_R 377.433
Fe H (259.940 nm)	10.757200	ppm	0.007428	0.07	14888.500000	Y_R 377.433
K (766.491 nm)	68.202800	ppm	0.929536	1.36	67793.100000	Y_R2 488.368
Li (670.783 nm)	1.034640	ppm	0.002188	0.21	15219.300000	Y_R2 488.368
Mg (279.078 nm)	90.981700	ppm	0.149860	0.16	297689.000000	Y 377.433
Mn (257.610 nm)	1.149400	ppm	0.002076	0.18	313385.000000	Y 377.433
Mo (202.032 nm)	2.537450	ppm	0.005736	0.23	31993.700000	Y 377.433
Na (589.592 nm)	313.292000 o	ppm	2.695290	0.86	257798.000000	Y_R2 488.368
Na H (589.593 nm)	336.329956	ppm	2.564974	0.76	182360.387230	Y_R4
Ni (231.604 nm)	1.017230	ppm	0.000164	0.02	5256.830000	Y 377.433
P (213.618 nm)	21.149000	ppm	0.049273	0.23	29912.000000	Y 242.219
Pb (220.353 nm)	0.994928	ppm	0.000082	0.01	3163.480000	Y 242.219
S (181.972 nm)	135.148406 bo	ppm	0.071623	0.05	61916.714692	Y 377.433
Sb (206.834 nm)	1.106420	ppm	0.001904	0.17	1855.420000	Y 377.433
Se (196.026 nm)	2.037190	ppm	0.003132	0.15	3080.540000	Y 242.219
Si (288.158 nm)	10.946700	ppm	0.013782	0.13	70958.500000	Y 377.433
Sn (189.925 nm)	2.089380	ppm	0.004997	0.24	3364.010000	Y 377.433
Sr (421.552 nm)	1.900161	ppm	0.005741	0.30	286191.152073	Y_R 488.368
Th (288.505 nm)	1.018500	ppm	0.000992	0.10	1674.360000	Y 377.433
Ti (336.122 nm)	1.007400	ppm	0.001739	0.17	129070.000000	Y 377.433
Tl (190.794 nm)	1.958350	ppm	0.001989	0.10	4458.750000	Y 377.433
U (409.013 nm)	2.012310	ppm	0.000776	0.04	6281.610000	Y 377.433
V (292.401 nm)	1.006980	ppm	0.002030	0.20	51681.700000	Y 377.433
Zn (206.200 nm)	0.517613	ppm	0.000024	0.00	2333.140000	Y 377.433
Zr (343.823 nm)	0.498573	ppm	0.000709	0.14	28063.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.026569	23729.612553	0.004146	0.40
Y 377.433	1.018587	712431.437561	0.003657	0.36
Y_R 377.433	1.074990	65175.200000	0.016982	1.58
Y_R 488.368	1.089940	57578.900000	0.014852	1.36
Y_R2 488.368	1.060362	112403.991178	0.003730	0.35
Y_R4	1.081820	48681.800000	0.007775	0.72

Sample Name: 280-123564-M-1-D MSD

Date: 5/24/2019 5:44:02 PM Rack:Tube: 1:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054278	ppm	0.000296	0.54	1296.080000	Y 377.433
Al (394.401 nm)	10.141400 o	ppm	0.001532	0.02	124364.000000	Y 377.433
Al H (396.152 nm)	9.839090	ppm	0.050330	0.51	22228.000000	Y_R 377.433
As (188.980 nm)	2.115180	ppm	0.006564	0.31	3185.470000	Y 242.219
B (249.678 nm)	1.275730	ppm	0.001119	0.09	9151.180000	Y 242.219
Ba (493.408 nm)	2.058540	ppm	0.009419	0.46	206632.000000	Y_R 488.368
Be (234.861 nm)	0.996210	ppm	0.004149	0.42	98061.500000	Y_R 488.368
Bi (223.061 nm)	2.006710	ppm	0.001277	0.06	4386.360000	Y 377.433
Ca (315.887 nm)	173.300864	ppm	0.606130	0.35	137570.059428	Y_R 377.433
Cd (214.439 nm)	1.034450	ppm	0.002177	0.21	38253.200000	Y 377.433
Co (228.615 nm)	0.998926	ppm	0.000402	0.04	23506.700000	Y 242.219
Cr (205.560 nm)	1.042350	ppm	0.009663	0.93	6930.520000	Y 377.433
Cu (324.754 nm)	1.006260	ppm	0.007349	0.73	47261.300000	Y 377.433
Fe (238.204 nm)	10.897581 o	ppm	0.023398	0.21	26239.520376	Y_R 377.433
Fe H (259.940 nm)	10.842300	ppm	0.031898	0.29	15006.100000	Y_R 377.433
K (766.491 nm)	68.361300	ppm	0.258589	0.38	67946.200000	Y_R2 488.368
Li (670.783 nm)	1.042490	ppm	0.007335	0.70	15354.000000	Y_R2 488.368
Mg (279.078 nm)	90.766300	ppm	0.098594	0.11	296984.000000	Y 377.433
Mn (257.610 nm)	1.154200	ppm	0.001155	0.10	314692.000000	Y 377.433
Mo (202.032 nm)	2.522230	ppm	0.000291	0.01	31802.000000	Y 377.433
Na (589.592 nm)	311.162000 o	ppm	1.021910	0.33	256055.000000	Y_R2 488.368
Na H (589.593 nm)	331.041411	ppm	0.347510	0.10	179491.054659	Y_R4
Ni (231.604 nm)	1.022000	ppm	0.000318	0.03	5281.520000	Y 377.433
P (213.618 nm)	21.187700	ppm	0.025023	0.12	29968.200000	Y 242.219
Pb (220.353 nm)	0.998633	ppm	0.003219	0.32	3175.270000	Y 242.219
S (181.972 nm)	132.175133 bo	ppm	0.441651	0.33	60555.056019	Y 377.433
Sb (206.834 nm)	1.111800	ppm	0.003689	0.33	1864.650000	Y 377.433
Se (196.026 nm)	2.049820	ppm	0.003739	0.18	3099.570000	Y 242.219
Si (288.158 nm)	10.778900	ppm	0.041664	0.39	69878.400000	Y 377.433
Sn (189.925 nm)	2.098820	ppm	0.000360	0.02	3379.210000	Y 377.433
Sr (421.552 nm)	1.891406	ppm	0.007927	0.42	284872.527105	Y_R 488.368
Th (288.505 nm)	1.027860	ppm	0.006934	0.67	1690.120000	Y 377.433
Ti (336.122 nm)	1.010990	ppm	0.000558	0.06	129527.000000	Y 377.433
Tl (190.794 nm)	1.975710	ppm	0.002890	0.15	4498.560000	Y 377.433
U (409.013 nm)	2.013370	ppm	0.004692	0.23	6284.880000	Y 377.433
V (292.401 nm)	1.011200	ppm	0.000730	0.07	51899.600000	Y 377.433
Zn (206.200 nm)	0.521480	ppm	0.000539	0.10	2350.540000	Y 377.433
Zr (343.823 nm)	0.500266	ppm	0.000419	0.08	28159.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.007121	23280.077629	0.002460	0.24
Y 377.433	0.998752	698558.323330	0.003319	0.33
Y_R 377.433	1.053730	63886.000000	0.001862	0.18
Y_R 488.368	1.068660	56455.000000	0.001969	0.18
Y_R2 488.368	1.052210	111539.802115	0.001617	0.15
Y_R4	1.092790	49175.700000	0.005595	0.51

Sample Name: CCVH-5713036

Date: 5/24/2019 5:47:41 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004366	ppm	0.000845	19.35	-126.449000	Y 377.433
Al (394.401 nm)	50.141800 o	ppm	0.119899	0.24	610866.000000	Y 377.433
Al H (396.152 nm)	48.773400	ppm	0.108019	0.22	106357.000000	Y_R 377.433
As (188.980 nm)	0.001570	ppm	0.000344	21.89	-0.587395	Y 242.219
B (249.678 nm)	-0.000717 u	ppm	0.000274	38.23	12.177200	Y 242.219
Ba (493.408 nm)	0.001558	ppm	0.000375	24.08	1595.260000	Y_R 488.368
Be (234.861 nm)	0.001250	ppm	0.000018	1.46	-93.914000	Y_R 488.368
Bi (223.061 nm)	0.010623	ppm	0.000253	2.38	21.441900	Y 377.433
Ca (315.887 nm)	0.007731	ppm	0.002842	36.76	-50.678077	Y_R 377.433
Cd (214.439 nm)	0.001496	ppm	0.000134	8.96	70.810400	Y 377.433
Co (228.615 nm)	0.003277	ppm	0.000188	5.74	61.924900	Y 242.219
Cr (205.560 nm)	0.001874	ppm	0.000083	4.42	4.423500	Y 377.433
Cu (324.754 nm)	0.003781	ppm	0.000293	7.75	1445.290000	Y 377.433
Fe (238.204 nm)	50.844207 o	ppm	0.099263	0.20	122398.021328	Y_R 377.433
Fe H (259.940 nm)	50.274200	ppm	0.063437	0.13	69539.900000	Y_R 377.433
K (766.491 nm)	0.295665	ppm	0.067948	22.98	2222.870000	Y_R2 488.368
Li (670.783 nm)	0.011271	ppm	0.003492	30.98	-2352.240000	Y_R2 488.368
Mg (279.078 nm)	0.040814	ppm	0.000848	2.08	66.699800	Y 377.433
Mn (257.610 nm)	0.001089	ppm	0.000031	2.80	285.808000	Y 377.433
Mo (202.032 nm)	0.002056	ppm	0.000329	16.00	37.044800	Y 377.433
Na (589.592 nm)	229.488000 o	ppm	0.619172	0.27	188538.000000	Y_R2 488.368
Na H (589.593 nm)	238.900235	ppm	1.797332	0.75	129499.293113	Y_R4
Ni (231.604 nm)	0.003435	ppm	0.000513	14.93	9.152150	Y 377.433
P (213.618 nm)	4.979870	ppm	0.001591	0.03	7112.550000	Y 242.219
Pb (220.353 nm)	0.006442	ppm	0.000351	5.45	21.922300	Y 242.219
S (181.972 nm)	5.066101	ppm	0.031114	0.61	2332.749215	Y 377.433
Sb (206.834 nm)	-0.000709 u	ppm	0.001150	> 100.00	4.858220	Y 377.433
Se (196.026 nm)	0.007607	ppm	0.004366	57.39	7.236830	Y 242.219
Si (288.158 nm)	0.019482	ppm	0.000234	1.20	613.960000	Y 377.433
Sn (189.925 nm)	0.001717	ppm	0.000272	15.85	4.853370	Y 377.433
Sr (421.552 nm)	0.001522	ppm	0.000160	10.48	260.027460	Y_R 488.368
Th (288.505 nm)	4.900080	ppm	0.011160	0.23	8462.630000	Y 377.433
Ti (336.122 nm)	0.001930	ppm	0.000032	1.63	-186.830000	Y 377.433
Tl (190.794 nm)	-0.000508 u	ppm	0.000063	12.49	-4.247580	Y 377.433
U (409.013 nm)	0.537553 Q	ppm	0.000592	0.11	1717.890000 Q	Y 377.433
V (292.401 nm)	0.000561	ppm	0.000122	21.80	377.502000	Y 377.433
Zn (206.200 nm)	0.002944	ppm	0.000053	1.81	24.383200	Y 377.433
Zr (343.823 nm)	0.001147	ppm	0.000283	24.65	-96.708200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.053651	24355.639580	0.005899	0.56
Y 377.433	1.031070	721162.865379	0.007052	0.68
Y_R 377.433	1.066690	64672.300000	0.001419	0.13
Y_R 488.368	1.075460	56814.200000	0.002333	0.22
Y_R2 488.368	1.062692	112650.960671	0.004949	0.47
Y_R4	1.084190	48788.300000	0.003314	0.31

Sample Name: CCV-5717467

Date: 5/24/2019 5:51:22 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.498537	ppm	0.001352	0.27	16934.100000	Y 377.433
Al (394.401 nm)	0.510726	ppm	0.002719	0.53	6450.660000	Y 377.433
Al H (396.152 nm)	0.557486 u	ppm	0.000185	0.03	1206.260000	Y_R 377.433
As (188.980 nm)	0.500984	ppm	0.000358	0.07	753.285000	Y 242.219
B (249.678 nm)	0.485722	ppm	0.003008	0.62	3514.080000	Y 242.219
Ba (493.408 nm)	0.495398	ppm	0.000921	0.19	50789.500000	Y_R 488.368
Be (234.861 nm)	0.484547	ppm	0.001096	0.23	47707.000000	Y_R 488.368
Bi (223.061 nm)	1.002780	ppm	0.002550	0.25	2186.150000	Y 377.433
Ca (315.887 nm)	4.947085	ppm	0.002302	0.05	3860.097518	Y_R 377.433
Cd (214.439 nm)	0.518235	ppm	0.001415	0.27	19160.200000	Y 377.433
Co (228.615 nm)	0.501719	ppm	0.001080	0.22	11798.200000	Y 242.219
Cr (205.560 nm)	0.517817	ppm	0.001773	0.34	3443.140000	Y 377.433
Cu (324.754 nm)	0.501981	ppm	0.000928	0.18	23728.600000	Y 377.433
Fe (238.204 nm)	2.510262	ppm	0.007638	0.30	6049.777157	Y_R 377.433
Fe H (259.940 nm)	2.505310 u	ppm	0.001456	0.06	3476.220000	Y_R 377.433
K (766.491 nm)	48.854700	ppm	0.516083	1.06	49110.900000	Y_R2 488.368
Li (670.783 nm)	0.509833	ppm	0.000025	0.01	6208.190000	Y_R2 488.368
Mg (279.078 nm)	19.897100	ppm	0.027386	0.14	65115.300000	Y 377.433
Mn (257.610 nm)	0.496588	ppm	0.000419	0.08	135389.000000	Y 377.433
Mo (202.032 nm)	0.503022	ppm	0.000452	0.09	6351.340000	Y 377.433
Na (589.592 nm)	23.852500	ppm	0.096063	0.40	19843.200000	Y_R2 488.368
Na H (589.593 nm)	26.159094 u	ppm	0.126407	0.48	14075.279110	Y_R4
Ni (231.604 nm)	0.513312	ppm	0.000358	0.07	2647.880000	Y 377.433
P (213.618 nm)	0.047669	ppm	0.000011	0.02	-71.716400	Y 242.219
Pb (220.353 nm)	0.505103	ppm	0.002012	0.40	1610.680000	Y 242.219
S (181.972 nm)	0.003302 u	ppm	0.008156	> 100.00	16.027331	Y 377.433
Sb (206.834 nm)	0.511856	ppm	0.002350	0.46	863.420000	Y 377.433
Se (196.026 nm)	0.500540	ppm	0.001325	0.26	763.893000	Y 242.219
Si (288.158 nm)	4.941940	ppm	0.028213	0.57	32302.600000	Y 377.433
Sn (189.925 nm)	0.518294	ppm	0.000294	0.06	836.055000	Y 377.433
Sr (421.552 nm)	0.482106	ppm	0.000953	0.20	72629.238064	Y_R 488.368
Th (288.505 nm)	0.019873	ppm	0.001259	6.34	-3.596690	Y 377.433
Ti (336.122 nm)	0.491157	ppm	0.000480	0.10	62433.400000	Y 377.433
Tl (190.794 nm)	0.514206	ppm	0.000727	0.14	1174.590000	Y 377.433
U (409.013 nm)	0.014731	ppm	0.011811	80.18	-38.719300	Y 377.433
V (292.401 nm)	0.495969	ppm	0.000254	0.05	25428.500000	Y 377.433
Zn (206.200 nm)	0.516473	ppm	0.000240	0.05	2326.850000	Y 377.433
Zr (343.823 nm)	0.493430	ppm	0.000544	0.11	27772.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.034499	23912.915212	0.004448	0.43
Y 377.433	1.022329	715048.723172	0.003357	0.33
Y_R 377.433	1.048450	63566.200000	0.000018	0.00
Y_R 488.368	1.061790	56091.900000	0.000036	0.00
Y_R2 488.368	1.048727	111170.611381	0.003991	0.38
Y_R4	1.055140	47481.400000	0.010265	0.97

Sample Name: CCB

Date: 5/24/2019 5:54:59 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000537	ppm	0.000608	> 100.00	-248.592000	Y 377.433
Al (394.401 nm)	-0.002014 u	ppm	0.000894	44.40	68.683400	Y 377.433
Al H (396.152 nm)	0.128355 Zu	ppm	0.000493	0.38	22.349900 Z	Y_R 377.433
As (188.980 nm)	-0.001664 u	ppm	0.002793	> 100.00	-4.083050	Y 242.219
B (249.678 nm)	-0.002671 u	ppm	0.000264	9.90	27.596600	Y 242.219
Ba (493.408 nm)	-0.001843 u	ppm	0.000328	17.82	1215.740000	Y_R 488.368
Be (234.861 nm)	0.000026 u	ppm	0.000048	> 100.00	0.573056	Y_R 488.368
Bi (223.061 nm)	0.000586 u	ppm	0.002093	> 100.00	-9.328010	Y 377.433
Ca (315.887 nm)	0.001100 u	ppm	0.007840	> 100.00	-68.164540	Y_R 377.433
Cd (214.439 nm)	-0.000021 u	ppm	0.000081	> 100.00	-5.961640	Y 377.433
Co (228.615 nm)	-0.000170 u	ppm	0.000126	74.39	-19.123100	Y 242.219
Cr (205.560 nm)	0.000578	ppm	0.000029	4.99	-2.894770	Y 377.433
Cu (324.754 nm)	0.001206	ppm	0.000010	0.81	372.778000	Y 377.433
Fe (238.204 nm)	-0.000938 u	ppm	0.001106	> 100.00	4.881296	Y_R 377.433
Fe H (259.940 nm)	0.001887 u	ppm	0.002010	> 100.00	14.022300	Y_R 377.433
K (766.491 nm)	-0.201771 u	ppm	0.336001	> 100.00	1742.560000	Y_R2 488.368
Li (670.783 nm)	0.020857 Z	ppm	0.002227	10.68	-2187.650000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003398	ppm	0.001196	35.20	19.296400	Y 377.433
Mn (257.610 nm)	0.000051	ppm	0.000023	44.61	2.839860	Y 377.433
Mo (202.032 nm)	0.000133	ppm	0.000084	62.99	12.806900	Y 377.433
Na (589.592 nm)	0.049142	ppm	0.017917	36.46	190.188000	Y_R2 488.368
Na H (589.593 nm)	1.207642 u	ppm	0.019870	1.65	537.715591	Y_R4
Ni (231.604 nm)	-0.000340 u	ppm	0.000917	> 100.00	-10.377400	Y 377.433
P (213.618 nm)	-0.000915 u	ppm	0.000138	15.04	-5.536340	Y 242.219
Pb (220.353 nm)	0.000056 u	ppm	0.001877	> 100.00	8.466190	Y 242.219
S (181.972 nm)	0.002200 u	ppm	0.004657	> 100.00	13.706227	Y 377.433
Sb (206.834 nm)	0.000077 u	ppm	0.000366	> 100.00	1.911940	Y 377.433
Se (196.026 nm)	-0.001512 u	ppm	0.000730	48.29	6.577670	Y 242.219
Si (288.158 nm)	-0.005031 u	ppm	0.000259	5.16	456.159000	Y 377.433
Sn (189.925 nm)	-0.000801 u	ppm	0.000101	12.63	0.801786	Y 377.433
Sr (421.552 nm)	0.000256	ppm	0.000073	28.49	61.658990	Y_R 488.368
Th (288.505 nm)	-0.000247 u	ppm	0.004537	> 100.00	12.353000	Y 377.433
Ti (336.122 nm)	0.000255	ppm	0.000016	6.33	-401.305000	Y 377.433
Tl (190.794 nm)	0.001139	ppm	0.000174	15.25	4.421730	Y 377.433
U (409.013 nm)	0.003208	ppm	0.001420	44.27	-14.583500	Y 377.433
V (292.401 nm)	0.000079 u	ppm	0.000182	> 100.00	-142.816000	Y 377.433
Zn (206.200 nm)	-0.000239 u	ppm	0.000077	32.10	2.991020	Y 377.433
Zr (343.823 nm)	0.000046	ppm	0.000003	7.14	-159.001000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.055339	24394.642901	0.000665	0.06
Y 377.433	1.041542	728486.721068	0.000027	0.00
Y_R 377.433	1.062710	64430.700000	0.008839	0.83
Y_R 488.368	1.075770	56830.500000	0.010577	0.98
Y_R2 488.368	1.075658	114025.490785	0.002797	0.26
Y_R4	1.055620	47502.800000	0.002187	0.21

Sample Name: CCVL-5719884

Date: 5/24/2019 5:58:10 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007837	ppm	0.000124	1.59	2.170630	Y 377.433
Al (394.401 nm)	0.100020	ppm	0.000985	0.99	1320.070000	Y 377.433
Al H (396.152 nm)	0.229356 u	ppm	0.002890	1.26	248.649000	Y_R 377.433
As (188.980 nm)	0.013486	ppm	0.000214	1.59	18.742600	Y 242.219
B (249.678 nm)	0.092162	ppm	0.000703	0.76	704.801000	Y 242.219
Ba (493.408 nm)	0.008061	ppm	0.000119	1.48	2203.140000	Y_R 488.368
Be (234.861 nm)	0.000963	ppm	0.000043	4.46	92.411300	Y_R 488.368
Bi (223.061 nm)	0.094802	ppm	0.002758	2.91	197.041000	Y 377.433
Ca (315.887 nm)	0.218801	ppm	0.001572	0.72	104.757637	Y_R 377.433
Cd (214.439 nm)	0.005451	ppm	0.000036	0.66	196.430000	Y 377.433
Co (228.615 nm)	0.010538	ppm	0.000223	2.11	232.976000	Y 242.219
Cr (205.560 nm)	0.010888	ppm	0.000486	4.46	65.686800	Y 377.433
Cu (324.754 nm)	0.016987	ppm	0.000162	0.96	1109.030000	Y 377.433
Fe (238.204 nm)	0.101019	ppm	0.002042	2.02	250.309035	Y_R 377.433
Fe H (259.940 nm)	0.106631 u	ppm	0.000902	0.85	158.883000	Y_R 377.433
K (766.491 nm)	2.838530	ppm	0.117323	4.13	4678.230000	Y_R2 488.368
Li (670.783 nm)	0.038429 Q	ppm	0.000818	2.13	-1885.930000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204726	ppm	0.000381	0.19	677.009000	Y 377.433
Mn (257.610 nm)	0.010632	ppm	0.000018	0.17	2887.750000	Y 377.433
Mo (202.032 nm)	0.019965	ppm	0.000160	0.80	262.782000	Y 377.433
Na (589.592 nm)	1.005820	ppm	0.009101	0.90	977.794000	Y_R2 488.368
Na H (589.593 nm)	1.894986 u	ppm	0.018592	0.98	910.638591	Y_R4
Ni (231.604 nm)	0.045042	ppm	0.001201	2.67	224.445000	Y 377.433
P (213.618 nm)	2.871720	ppm	0.037252	1.30	4097.920000	Y 242.219
Pb (220.353 nm)	0.009621	ppm	0.001675	17.41	38.917600	Y 242.219
S (181.972 nm)	0.094910	ppm	0.002234	2.35	56.203196	Y 377.433
Sb (206.834 nm)	0.018676	ppm	0.000604	3.24	33.158900	Y 377.433
Se (196.026 nm)	0.017964	ppm	0.000115	0.64	35.941900	Y 242.219
Si (288.158 nm)	0.488480	ppm	0.001712	0.35	3633.170000	Y 377.433
Sn (189.925 nm)	0.103354	ppm	0.000640	0.62	168.393000	Y 377.433
Sr (421.552 nm)	0.009258	ppm	0.000062	0.67	1417.449453	Y_R 488.368
Th (288.505 nm)	0.019897 Q	ppm	0.002091	10.51	46.518200 Q	Y 377.433
Ti (336.122 nm)	0.010065	ppm	0.000087	0.87	854.795000	Y 377.433
Tl (190.794 nm)	0.015299	ppm	0.003088	20.18	36.691700	Y 377.433
U (409.013 nm)	0.052867	ppm	0.007375	13.95	141.702000	Y 377.433
V (292.401 nm)	0.009837	ppm	0.000084	0.85	358.490000	Y 377.433
Zn (206.200 nm)	0.021578	ppm	0.000345	1.60	101.111000	Y 377.433
Zr (343.823 nm)	0.009936	ppm	0.000121	1.22	400.901000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.062822	24567.619459	0.002670	0.25
Y 377.433	1.047575	732706.500198	0.003527	0.34
Y_R 377.433	1.069300	64830.600000	0.000253	0.02
Y_R 488.368	1.084290	57280.500000	0.002856	0.26
Y_R2 488.368	1.078201	114294.977787	0.002834	0.26
Y_R4	1.077560	48490.400000	0.005422	0.50

Sample Name: 280-123564-M-2-B

Date: 5/24/2019 6:01:39 PM Rack:Tube: 1:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000234	ppm	0.000044	18.74	-258.886000	Y 377.433
Al (394.401 nm)	0.005243	ppm	0.000120	2.29	154.251000	Y 377.433
Al H (396.152 nm)	0.144376 u	ppm	0.007096	4.92	57.404100	Y_R 377.433
As (188.980 nm)	-0.000029 u	ppm	0.002175	> 100.00	-1.620590	Y 242.219
B (249.678 nm)	-0.000772 u	ppm	0.000540	69.94	41.152500	Y 242.219
Ba (493.408 nm)	-0.001270 u	ppm	0.000592	46.65	1272.870000	Y_R 488.368
Be (234.861 nm)	-0.000040 u	ppm	0.000009	21.56	-5.976310	Y_R 488.368
Bi (223.061 nm)	0.001325	ppm	0.001053	79.47	-7.708010	Y 377.433
Ca (315.887 nm)	0.086997	ppm	0.002928	3.37	0.056376	Y_R 377.433
Cd (214.439 nm)	0.000014 u	ppm	0.000041	> 100.00	-4.656110	Y 377.433
Co (228.615 nm)	-0.000197 u	ppm	0.000066	33.37	-19.752700	Y 242.219
Cr (205.560 nm)	0.000445 u	ppm	0.000771	> 100.00	-3.787450	Y 377.433
Cu (324.754 nm)	0.001218	ppm	0.000256	21.00	374.667000	Y 377.433
Fe (238.204 nm)	0.013968	ppm	0.000884	6.33	40.762153	Y_R 377.433
Fe H (259.940 nm)	0.014567 u	ppm	0.000557	3.82	31.559100	Y_R 377.433
K (766.491 nm)	-0.170224 u	ppm	0.246808	> 100.00	1773.020000	Y_R2 488.368
Li (670.783 nm)	0.014388	ppm	0.000204	1.42	-2298.730000	Y_R2 488.368
Mg (279.078 nm)	0.010698	ppm	0.000430	4.02	43.472700	Y 377.433
Mn (257.610 nm)	0.000421	ppm	0.000002	0.55	103.679000	Y 377.433
Mo (202.032 nm)	0.000364	ppm	0.000034	9.29	15.714800	Y 377.433
Na (589.592 nm)	0.024758 u	ppm	0.059411	> 100.00	170.276000	Y_R2 488.368
Na H (589.593 nm)	0.962563 u	ppm	0.029697	3.09	404.746706	Y_R4
Ni (231.604 nm)	0.001066	ppm	0.000035	3.29	-3.103800	Y 377.433
P (213.618 nm)	-0.004016 u	ppm	0.000724	18.02	-10.026900	Y 242.219
Pb (220.353 nm)	0.000990	ppm	0.000150	15.20	11.385500	Y 242.219
S (181.972 nm)	0.013736	ppm	0.002751	20.02	18.991544	Y 377.433
Sb (206.834 nm)	-0.002513 u	ppm	0.000619	24.63	-2.467280	Y 377.433
Se (196.026 nm)	-0.001609 u	ppm	0.000667	41.48	6.428000	Y 242.219
Si (288.158 nm)	0.042816	ppm	0.000724	1.69	764.177000	Y 377.433
Sn (189.925 nm)	0.001281 u	ppm	0.002255	> 100.00	4.151800	Y 377.433
Sr (421.552 nm)	0.000298	ppm	0.000020	6.58	67.979432	Y_R 488.368
Th (288.505 nm)	0.000627	ppm	0.000181	28.92	13.757000	Y 377.433
Ti (336.122 nm)	0.000397	ppm	0.000015	3.90	-382.974000	Y 377.433
Tl (190.794 nm)	-0.001257 u	ppm	0.000332	26.37	-1.065350	Y 377.433
U (409.013 nm)	-0.006419 u	ppm	0.008399	> 100.00	-45.120200	Y 377.433
V (292.401 nm)	-0.000303 u	ppm	0.000009	3.01	-161.405000	Y 377.433
Zn (206.200 nm)	0.006872	ppm	0.000762	11.09	34.969400	Y 377.433
Zr (343.823 nm)	0.000041	ppm	0.000056	> 100.00	-159.313000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047390	24210.898934	0.002682	0.26
Y 377.433	1.033988	723203.240937	0.003402	0.33
Y_R 377.433	1.050540	63692.900000	0.001460	0.14
Y_R 488.368	1.058490	55917.400000	0.002350	0.22
Y_R2 488.368	1.069548	113377.716365	0.007166	0.67
Y_R4	1.041410	46863.400000	0.002986	0.29

Sample Name: 280-123786-B-1-A

Date: 5/24/2019 6:04:49 PM Rack:Tube: 1:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000268	ppm	0.000104	38.79	-258.634000	Y 377.433
Al (394.401 nm)	0.014931	ppm	0.000078	0.52	295.271000	Y 377.433
Al H (396.152 nm)	0.134942 u	ppm	0.002870	2.13	57.906600	Y_R 377.433
As (188.980 nm)	-0.000197 u	ppm	0.002333	> 100.00	-1.872960	Y 242.219
B (249.678 nm)	0.002583	ppm	0.000256	9.91	65.105100	Y 242.219
Ba (493.408 nm)	0.012648	ppm	0.000618	4.89	2660.440000	Y_R 488.368
Be (234.861 nm)	-0.000116 u	ppm	0.000004	3.15	-13.492600	Y_R 488.368
Bi (223.061 nm)	0.000430 u	ppm	0.001023	> 100.00	-9.664710	Y 377.433
Ca (315.887 nm)	9.760426	ppm	0.054448	0.56	7682.749969	Y_R 377.433
Cd (214.439 nm)	-0.000032 u	ppm	0.000003	9.86	-6.340000	Y 377.433
Co (228.615 nm)	-0.000246 u	ppm	0.000105	42.85	-20.904700	Y 242.219
Cr (205.560 nm)	0.000579	ppm	0.000039	6.69	-2.892790	Y 377.433
Cu (324.754 nm)	0.005599	ppm	0.000084	1.50	569.689000	Y 377.433
Fe (238.204 nm)	0.022545	ppm	0.002336	10.36	61.409284	Y_R 377.433
Fe H (259.940 nm)	0.026034 u	ppm	0.003843	14.76	47.418300	Y_R 377.433
K (766.491 nm)	0.645544	ppm	0.195150	30.23	2560.710000	Y_R2 488.368
Li (670.783 nm)	0.013959	ppm	0.001101	7.89	-2306.090000	Y_R2 488.368
Mg (279.078 nm)	1.776030	ppm	0.006383	0.36	5819.440000	Y 377.433
Mn (257.610 nm)	0.000360	ppm	0.000020	5.63	87.178400	Y 377.433
Mo (202.032 nm)	0.000396	ppm	0.000452	> 100.00	16.126100	Y 377.433
Na (589.592 nm)	4.940490	ppm	0.006671	0.14	4208.850000	Y_R2 488.368
Na H (589.593 nm)	5.715142 u	ppm	0.011594	0.20	2983.287367	Y_R4
Ni (231.604 nm)	-0.000341 u	ppm	0.000131	38.59	-10.385000	Y 377.433
P (213.618 nm)	0.003347	ppm	0.004218	> 100.00	-0.554686	Y 242.219
Pb (220.353 nm)	-0.000418 u	ppm	0.000142	33.87	7.036040	Y 242.219
S (181.972 nm)	1.820334	ppm	0.004620	0.25	846.801731	Y 377.433
Sb (206.834 nm)	-0.003865 u	ppm	0.001767	45.72	-4.746710	Y 377.433
Se (196.026 nm)	0.000770	ppm	0.000980	> 100.00	10.013600	Y 242.219
Si (288.158 nm)	2.796860	ppm	0.009400	0.34	18493.500000	Y 377.433
Sn (189.925 nm)	0.001273	ppm	0.000034	2.67	4.138600	Y 377.433
Sr (421.552 nm)	0.056162	ppm	0.000865	1.54	8481.264922	Y_R 488.368
Th (288.505 nm)	-0.004246 u	ppm	0.001879	44.25	5.325630	Y 377.433
Ti (336.122 nm)	0.000230	ppm	0.000053	23.03	-371.774000	Y 377.433
Tl (190.794 nm)	-0.001793 u	ppm	0.001172	65.35	-2.672710	Y 377.433
U (409.013 nm)	0.008560	ppm	0.002595	30.32	1.151080	Y 377.433
V (292.401 nm)	0.000165	ppm	0.000034	20.78	-140.441000	Y 377.433
Zn (206.200 nm)	0.005548	ppm	0.001017	18.34	29.014400	Y 377.433
Zr (343.823 nm)	-0.000051 u	ppm	0.000332	> 100.00	-164.478000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045324	24163.144605	0.006363	0.61
Y 377.433	1.032117	721895.014458	0.006291	0.61
Y_R 377.433	1.056220	64037.600000	0.001699	0.16
Y_R 488.368	1.074200	56747.400000	0.012444	1.16
Y_R2 488.368	1.053000	111623.556680	0.005172	0.49
Y_R4	1.064070	47883.100000	0.002409	0.23

Sample Name: 280-123787-A-1-A

Date: 5/24/2019 6:08:00 PM Rack:Tube: 1:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002318	ppm	0.000272	11.74	-187.527000	Y 377.433
Al (394.401 nm)	-0.021207 u	ppm	0.002230	10.51	492.491000	Y 377.433
Al H (396.152 nm)	-0.341605 u	ppm	0.004102	1.20	42.313700	Y_R 377.433
As (188.980 nm)	0.002181	ppm	0.000360	16.50	1.709520	Y 242.219
B (249.678 nm)	0.152687	ppm	0.000338	0.22	1137.080000	Y 242.219
Ba (493.408 nm)	0.017502	ppm	0.000138	0.79	3144.380000	Y_R 488.368
Be (234.861 nm)	-0.000080 u	ppm	0.000046	57.99	-10.108200	Y_R 488.368
Bi (223.061 nm)	-0.000151 u	ppm	0.000447	> 100.00	-10.888500	Y 377.433
Ca (315.887 nm)	109.199532	ppm	0.583084	0.53	86657.858097	Y_R 377.433
Cd (214.439 nm)	0.000337	ppm	0.000090	26.77	7.303560	Y 377.433
Co (228.615 nm)	-0.000005 u	ppm	0.000284	> 100.00	-15.234400	Y 242.219
Cr (205.560 nm)	0.000963	ppm	0.000496	51.49	-0.347669	Y 377.433
Cu (324.754 nm)	0.000780	ppm	0.000160	20.52	291.819000	Y 377.433
Fe (238.204 nm)	0.057277	ppm	0.002205	3.85	145.015871	Y_R 377.433
Fe H (259.940 nm)	0.046974 u	ppm	0.002752	5.86	76.377300	Y_R 377.433
K (766.491 nm)	20.601900	ppm	0.399153	1.94	21830.300000	Y_R2 488.368
Li (670.783 nm)	0.289740	ppm	0.002540	0.88	2429.140000	Y_R2 488.368
Mg (279.078 nm)	117.066000	ppm	0.141880	0.12	383091.000000	Y 377.433
Mn (257.610 nm)	0.035557	ppm	0.000004	0.01	9683.930000	Y 377.433
Mo (202.032 nm)	0.001003	ppm	0.000250	24.93	23.780600	Y 377.433
Na (589.592 nm)	803.012000 o	ppm	3.128600	0.39	659350.000000	Y_R2 488.368
Na H (589.593 nm)	906.961152	ppm	3.235260	0.36	491959.851061	Y_R4
Ni (231.604 nm)	0.004631	ppm	0.001256	27.12	15.338900	Y 377.433
P (213.618 nm)	0.002417	ppm	0.002539	> 100.00	-1.467790	Y 242.219
Pb (220.353 nm)	-0.000955 u	ppm	0.000646	67.72	5.268650	Y 242.219
S (181.972 nm)	514.765494 bo	ppm	1.008184	0.20	235757.250091	Y 377.433
Sb (206.834 nm)	-0.007196 u	ppm	0.003385	47.04	-10.369700	Y 377.433
Se (196.026 nm)	-0.001338 u	ppm	0.001346	> 100.00	6.874250	Y 242.219
Si (288.158 nm)	4.029460	ppm	0.001593	0.04	26428.500000	Y 377.433
Sn (189.925 nm)	0.000897 u	ppm	0.001685	> 100.00	3.533900	Y 377.433
Sr (421.552 nm)	2.561542	ppm	0.003000	0.12	385794.147969	Y_R 488.368
Th (288.505 nm)	0.003544	ppm	0.002225	62.78	16.688300	Y 377.433
Ti (336.122 nm)	-0.000215 u	ppm	0.000222	> 100.00	-90.287200	Y 377.433
Tl (190.794 nm)	0.000817 u	ppm	0.001936	> 100.00	-0.666097	Y 377.433
U (409.013 nm)	-0.003373 u	ppm	0.006669	> 100.00	-50.000300	Y 377.433
V (292.401 nm)	0.001062	ppm	0.000042	3.96	-91.434700	Y 377.433
Zn (206.200 nm)	0.015459	ppm	0.001101	7.12	73.589200	Y 377.433
Zr (343.823 nm)	0.000500	ppm	0.000182	36.33	-133.289000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.931918	21541.710313	0.005706	0.61
Y 377.433	0.925557	647363.680787	0.005591	0.60
Y_R 377.433	0.977574	59269.100000	0.006882	0.70
Y_R 488.368	0.985820	52078.600000	0.000763	0.08
Y_R2 488.368	0.997398	105729.417968	0.002448	0.25
Y_R4	1.008130	45366.000000	0.009432	0.94

Sample Name: 280-123787-A-2-A

Date: 5/24/2019 6:11:49 PM Rack:Tube: 1:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002091	ppm	0.000152	7.28	-195.546000	Y 377.433
Al (394.401 nm)	-0.027920 u	ppm	0.000549	1.97	414.615000	Y 377.433
Al H (396.152 nm)	-0.358980 u	ppm	0.010838	3.02	11.545700	Y_R 377.433
As (188.980 nm)	0.003904	ppm	0.002555	65.46	4.306010	Y 242.219
B (249.678 nm)	0.176826	ppm	0.000322	0.18	1309.490000	Y 242.219
Ba (493.408 nm)	0.016938	ppm	0.000191	1.13	3088.060000	Y_R 488.368
Be (234.861 nm)	-0.000069 u	ppm	0.000033	48.75	-8.806600	Y_R 488.368
Bi (223.061 nm)	-0.000243 u	ppm	0.000094	38.50	-11.095300	Y 377.433
Ca (315.887 nm)	104.070044	ppm	0.400940	0.39	82583.988080	Y_R 377.433
Cd (214.439 nm)	0.000242	ppm	0.000017	7.18	3.760120	Y 377.433
Co (228.615 nm)	-0.000297 u	ppm	0.000077	25.73	-22.104300	Y 242.219
Cr (205.560 nm)	0.000479 u	ppm	0.001065	> 100.00	-3.571760	Y 377.433
Cu (324.754 nm)	0.000656	ppm	0.000199	30.25	288.891000	Y 377.433
Fe (238.204 nm)	0.018334	ppm	0.004934	26.91	51.272516	Y_R 377.433
Fe H (259.940 nm)	0.003489 u	ppm	0.001382	39.61	16.237900	Y_R 377.433
K (766.491 nm)	20.930700	ppm	0.364348	1.74	22147.800000	Y_R2 488.368
Li (670.783 nm)	0.299170	ppm	0.005230	1.75	2591.060000	Y_R2 488.368
Mg (279.078 nm)	124.499000	ppm	0.116694	0.09	407414.000000	Y 377.433
Mn (257.610 nm)	0.000698	ppm	0.000036	5.16	179.149000	Y 377.433
Mo (202.032 nm)	0.001176	ppm	0.000035	2.94	25.952100	Y 377.433
Na (589.592 nm)	740.878000 o	ppm	1.576900	0.21	608344.000000	Y_R2 488.368
Na H (589.593 nm)	821.420510	ppm	3.711667	0.45	445549.249885	Y_R4
Ni (231.604 nm)	0.004223	ppm	0.000508	12.03	13.228100	Y 377.433
P (213.618 nm)	0.007275	ppm	0.003130	43.03	5.571830	Y 242.219
Pb (220.353 nm)	0.002473	ppm	0.002382	96.33	16.168500	Y 242.219
S (181.972 nm)	539.144561 bo	ppm	0.719836	0.13	246921.377398	Y 377.433
Sb (206.834 nm)	-0.005005 u	ppm	0.002888	57.70	-6.673860	Y 377.433
Se (196.026 nm)	0.002585	ppm	0.002920	> 100.00	12.751900	Y 242.219
Si (288.158 nm)	4.357140	ppm	0.000644	0.01	28537.900000	Y 377.433
Sn (189.925 nm)	0.001217	ppm	0.000981	80.55	4.049000	Y 377.433
Sr (421.552 nm)	2.576198	ppm	0.000699	0.03	388001.428647	Y_R 488.368
Th (288.505 nm)	0.005542	ppm	0.003277	59.13	19.570800	Y 377.433
Ti (336.122 nm)	-0.000689 u	ppm	0.000005	0.72	-168.920000	Y 377.433
Tl (190.794 nm)	0.001219 u	ppm	0.002245	> 100.00	0.467403	Y 377.433
U (409.013 nm)	0.000241 u	ppm	0.000597	> 100.00	-37.825600	Y 377.433
V (292.401 nm)	0.001194	ppm	0.000360	30.15	-84.728500	Y 377.433
Zn (206.200 nm)	0.010590	ppm	0.000925	8.74	51.685000	Y 377.433
Zr (343.823 nm)	0.000205 u	ppm	0.000409	> 100.00	-149.992000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.962597	22250.868574	0.003619	0.38
Y 377.433	0.947916	663001.700652	0.002718	0.29
Y_R 377.433	1.018190	61731.800000	0.003347	0.33
Y_R 488.368	1.024830	54139.600000	0.002041	0.20
Y_R2 488.368	1.017070	107814.751003	0.000523	0.05
Y_R4	1.058490	47631.800000	0.000863	0.08

Sample Name: 280-123787-A-3-A

Date: 5/24/2019 6:15:36 PM Rack:Tube: 1:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001711	ppm	0.000236	13.79	-208.295000	Y 377.433
Al (394.401 nm)	-0.029607 u	ppm	0.000204	0.69	384.628000	Y 377.433
Al H (396.152 nm)	-0.350827 u	ppm	0.004378	1.25	17.297100	Y_R 377.433
As (188.980 nm)	0.001845	ppm	0.000395	21.39	1.203220	Y 242.219
B (249.678 nm)	0.153205	ppm	0.000111	0.07	1140.800000	Y 242.219
Ba (493.408 nm)	0.013958	ppm	0.000070	0.50	2790.960000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000039	67.32	-7.794740	Y_R 488.368
Bi (223.061 nm)	-0.000451 u	ppm	0.001669	> 100.00	-11.552900	Y 377.433
Ca (315.887 nm)	104.252603	ppm	0.149400	0.14	82728.978439	Y_R 377.433
Cd (214.439 nm)	0.000172	ppm	0.000091	53.30	1.170270	Y 377.433
Co (228.615 nm)	-0.000438 u	ppm	0.000131	29.85	-25.403600	Y 242.219
Cr (205.560 nm)	0.000619	ppm	0.000079	12.70	-2.635580	Y 377.433
Cu (324.754 nm)	0.000525	ppm	0.000016	2.97	284.058000	Y 377.433
Fe (238.204 nm)	0.015179	ppm	0.003611	23.79	43.678114	Y_R 377.433
Fe H (259.940 nm)	0.010701 u	ppm	0.003745	35.00	26.212500	Y_R 377.433
K (766.491 nm)	20.628700	ppm	0.368987	1.79	21856.200000	Y_R2 488.368
Li (670.783 nm)	0.295633	ppm	0.002400	0.81	2530.320000	Y_R2 488.368
Mg (279.078 nm)	121.990000	ppm	0.124451	0.10	399202.000000	Y 377.433
Mn (257.610 nm)	0.003149	ppm	0.000006	0.20	847.539000	Y 377.433
Mo (202.032 nm)	0.000495	ppm	0.000374	75.58	17.373200	Y 377.433
Na (589.592 nm)	775.469000 o	ppm	2.690650	0.35	636739.000000	Y_R2 488.368
Na H (589.593 nm)	866.258357	ppm	1.704528	0.20	469876.299647	Y_R4
Ni (231.604 nm)	0.004342	ppm	0.000927	21.35	13.844100	Y 377.433
P (213.618 nm)	0.004411	ppm	0.003070	69.61	1.523210	Y 242.219
Pb (220.353 nm)	-0.000539 u	ppm	0.000970	> 100.00	6.590880	Y 242.219
S (181.972 nm)	534.144610 bo	ppm	0.006074	0.00	244631.649237	Y 377.433
Sb (206.834 nm)	-0.004814 u	ppm	0.001478	30.70	-6.345060	Y 377.433
Se (196.026 nm)	-0.003019 u	ppm	0.001404	46.50	4.303960	Y 242.219
Si (288.158 nm)	4.347810	ppm	0.009411	0.22	28477.900000	Y 377.433
Sn (189.925 nm)	0.000495 u	ppm	0.001725	> 100.00	2.886690	Y 377.433
Sr (421.552 nm)	2.547177	ppm	0.025150	0.99	383630.751830	Y_R 488.368
Th (288.505 nm)	0.008088	ppm	0.002520	31.16	24.077700	Y 377.433
Ti (336.122 nm)	-0.000564 u	ppm	0.000031	5.41	-152.001000	Y 377.433
Tl (190.794 nm)	0.001577	ppm	0.000554	35.13	1.280320	Y 377.433
U (409.013 nm)	0.004973	ppm	0.005120	> 100.00	-22.911000	Y 377.433
V (292.401 nm)	0.000760	ppm	0.000243	31.97	-106.502000	Y 377.433
Zn (206.200 nm)	0.011208	ppm	0.001053	9.39	54.464700	Y 377.433
Zr (343.823 nm)	0.000504	ppm	0.000180	35.66	-133.066000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.996414	23032.570544	0.007316	0.73
Y 377.433	0.983906	688174.786696	0.005028	0.51
Y_R 377.433	1.048720	63582.500000	0.007621	0.73
Y_R 488.368	1.055050	55735.700000	0.000450	0.04
Y_R2 488.368	1.019854	108109.907880	0.004270	0.42
Y_R4	1.028860	46298.700000	0.000520	0.05

Sample Name: 280-123787-A-4-A

Date: 5/24/2019 6:19:25 PM Rack:Tube: 1:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001403	ppm	0.000447	31.89	-219.168000	Y 377.433
Al (394.401 nm)	-0.027599 u	ppm	0.001510	5.47	412.165000	Y 377.433
Al H (396.152 nm)	-0.347176 u	ppm	0.002943	0.85	26.793600	Y_R 377.433
As (188.980 nm)	0.003680	ppm	0.000695	18.89	3.969170	Y 242.219
B (249.678 nm)	0.154121	ppm	0.000394	0.26	1147.340000	Y 242.219
Ba (493.408 nm)	0.016254	ppm	0.000151	0.93	3019.850000	Y_R 488.368
Be (234.861 nm)	-0.000038 u	ppm	0.000040	> 100.00	-5.737030	Y_R 488.368
Bi (223.061 nm)	0.001808	ppm	0.001118	61.85	-6.605110	Y 377.433
Ca (315.887 nm)	105.220119	ppm	0.162195	0.15	83497.386466	Y_R 377.433
Cd (214.439 nm)	0.000261	ppm	0.000155	59.31	4.481980	Y 377.433
Co (228.615 nm)	0.000089 u	ppm	0.000271	> 100.00	-13.010600	Y 242.219
Cr (205.560 nm)	0.000819	ppm	0.000093	11.36	-1.309480	Y 377.433
Cu (324.754 nm)	0.001210	ppm	0.000609	50.37	313.936000	Y 377.433
Fe (238.204 nm)	0.014166	ppm	0.003238	22.86	41.239159	Y_R 377.433
Fe H (259.940 nm)	0.000514 u	ppm	0.001541	> 100.00	12.123800	Y_R 377.433
K (766.491 nm)	20.832200	ppm	0.058193	0.28	22052.700000	Y_R2 488.368
Li (670.783 nm)	0.301519	ppm	0.005053	1.68	2631.380000	Y_R2 488.368
Mg (279.078 nm)	122.288000	ppm	0.221016	0.18	400180.000000	Y 377.433
Mn (257.610 nm)	0.003775	ppm	0.000012	0.31	1018.280000	Y 377.433
Mo (202.032 nm)	0.000931	ppm	0.000394	42.36	22.864200	Y 377.433
Na (589.592 nm)	805.524000 o	ppm	0.193828	0.02	661411.000000	Y_R2 488.368
Na H (589.593 nm)	891.050932	ppm	4.354756	0.49	483327.663385	Y_R4
Ni (231.604 nm)	0.005334	ppm	0.000005	0.10	18.979100	Y 377.433
P (213.618 nm)	0.006425	ppm	0.003491	54.33	4.291560	Y 242.219
Pb (220.353 nm)	-0.000917 u	ppm	0.002268	> 100.00	5.384610	Y 242.219
S (181.972 nm)	534.448172 bo	ppm	1.993846	0.37	244770.710612	Y 377.433
Sb (206.834 nm)	-0.007465 u	ppm	0.001379	18.47	-10.828900	Y 377.433
Se (196.026 nm)	-0.000164 u	ppm	0.000965	> 100.00	8.611600	Y 242.219
Si (288.158 nm)	4.369020	ppm	0.008152	0.19	28614.400000	Y 377.433
Sn (189.925 nm)	0.002443	ppm	0.000419	17.16	6.022060	Y 377.433
Sr (421.552 nm)	2.552477	ppm	0.014142	0.55	384428.941170	Y_R 488.368
Th (288.505 nm)	0.006520	ppm	0.006209	95.23	21.317400	Y 377.433
Ti (336.122 nm)	-0.000477 u	ppm	0.000093	19.47	-137.919000	Y 377.433
Tl (190.794 nm)	0.001867	ppm	0.000822	44.01	1.910260	Y 377.433
U (409.013 nm)	0.000235 u	ppm	0.003892	> 100.00	-38.027500	Y 377.433
V (292.401 nm)	0.000914	ppm	0.000148	16.22	-99.174100	Y 377.433
Zn (206.200 nm)	0.012590	ppm	0.000834	6.62	60.680400	Y 377.433
Zr (343.823 nm)	0.000471	ppm	0.000037	7.86	-134.962000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.986327	22799.396690	0.003588	0.36
Y 377.433	0.973662	681009.771360	0.004369	0.45
Y_R 377.433	1.058490	64175.200000	0.009246	0.87
Y_R 488.368	1.072150	56639.000000	0.015181	1.42
Y_R2 488.368	1.050683	111378.003983	0.001665	0.16
Y_R4	1.089620	49032.700000	0.002291	0.21

Sample Name: 280-123787-A-5-A

Date: 5/24/2019 6:23:18 PM Rack:Tube: 1:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001472	ppm	0.000118	8.04	-216.664000	Y 377.433
Al (394.401 nm)	-0.025967 u	ppm	0.000181	0.70	416.530000	Y 377.433
Al H (396.152 nm)	-0.339238 u	ppm	0.006334	1.87	20.228800	Y_R 377.433
As (188.980 nm)	0.000736 u	ppm	0.003034	> 100.00	-0.467141	Y 242.219
B (249.678 nm)	0.150876	ppm	0.000797	0.53	1124.160000	Y 242.219
Ba (493.408 nm)	0.015023	ppm	0.000003	0.02	2897.190000	Y_R 488.368
Be (234.861 nm)	-0.000048 u	ppm	0.000067	> 100.00	-6.758850	Y_R 488.368
Bi (223.061 nm)	-0.000793 u	ppm	0.001508	> 100.00	-12.301100	Y 377.433
Ca (315.887 nm)	102.376819	ppm	0.086210	0.08	81239.216391	Y_R 377.433
Cd (214.439 nm)	0.000299	ppm	0.000198	66.38	5.874240	Y 377.433
Co (228.615 nm)	-0.000415 u	ppm	0.000208	50.18	-24.878900	Y 242.219
Cr (205.560 nm)	0.000345	ppm	0.000319	92.33	-4.464550	Y 377.433
Cu (324.754 nm)	0.000499	ppm	0.000276	55.25	283.025000	Y 377.433
Fe (238.204 nm)	0.017021	ppm	0.000363	2.13	48.112363	Y_R 377.433
Fe H (259.940 nm)	0.005482 u	ppm	0.004352	79.39	18.995300	Y_R 377.433
K (766.491 nm)	20.207100	ppm	0.388449	1.92	21449.100000	Y_R2 488.368
Li (670.783 nm)	0.296875	ppm	0.008671	2.92	2551.650000	Y_R2 488.368
Mg (279.078 nm)	118.781000	ppm	0.178392	0.15	388703.000000	Y 377.433
Mn (257.610 nm)	0.004767	ppm	0.000031	0.64	1288.690000	Y 377.433
Mo (202.032 nm)	0.000663	ppm	0.000131	19.68	19.491900	Y 377.433
Na (589.592 nm)	776.131000 o	ppm	4.189250	0.54	637283.000000	Y_R2 488.368
Na H (589.593 nm)	868.410935	ppm	0.490324	0.06	471044.194004	Y_R4
Ni (231.604 nm)	0.005580	ppm	0.001410	25.27	20.247700	Y 377.433
P (213.618 nm)	0.002059	ppm	0.000947	45.98	-1.664820	Y 242.219
Pb (220.353 nm)	-0.000279 u	ppm	0.003890	> 100.00	7.430090	Y 242.219
S (181.972 nm)	525.305195 bo	ppm	1.174594	0.22	240583.507340	Y 377.433
Sb (206.834 nm)	-0.009396 u	ppm	0.004918	52.34	-14.090500	Y 377.433
Se (196.026 nm)	0.000478 u	ppm	0.000781	> 100.00	9.580020	Y 242.219
Si (288.158 nm)	4.276010	ppm	0.010354	0.24	28015.700000	Y 377.433
Sn (189.925 nm)	0.000090 u	ppm	0.000210	> 100.00	2.235020	Y 377.433
Sr (421.552 nm)	2.494274	ppm	0.020509	0.82	375663.569548	Y_R 488.368
Th (288.505 nm)	0.010283	ppm	0.002257	21.95	27.974800	Y 377.433
Ti (336.122 nm)	-0.000494 u	ppm	0.000025	5.10	-149.912000	Y 377.433
Tl (190.794 nm)	0.001790	ppm	0.000145	8.10	1.847600	Y 377.433
U (409.013 nm)	0.007014 u	ppm	0.012808	> 100.00	-16.140500	Y 377.433
V (292.401 nm)	0.000952	ppm	0.000249	26.18	-96.791900	Y 377.433
Zn (206.200 nm)	0.011997	ppm	0.000381	3.18	58.014000	Y 377.433
Zr (343.823 nm)	0.000697	ppm	0.000090	12.87	-122.167000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.023019	23647.557881	0.000866	0.08
Y 377.433	1.012726	708332.038075	0.001831	0.18
Y_R 377.433	1.094030	66329.900000	0.002529	0.23
Y_R 488.368	1.102840	58260.400000	0.005577	0.51
Y_R2 488.368	1.082693	114771.180442	0.002195	0.20
Y_R4	1.094140	49236.100000	0.005874	0.54

Sample Name: 280-123787-A-6-A

Date: 5/24/2019 6:27:07 PM Rack:Tube: 1:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002197	ppm	0.000331	15.06	-191.686000	Y 377.433
Al (394.401 nm)	-0.025164 u	ppm	0.000729	2.90	448.180000	Y 377.433
Al H (396.152 nm)	-0.347195 u	ppm	0.003018	0.87	33.958700	Y_R 377.433
As (188.980 nm)	0.001536	ppm	0.000636	41.44	0.736646	Y 242.219
B (249.678 nm)	0.157820	ppm	0.000853	0.54	1173.740000	Y 242.219
Ba (493.408 nm)	0.019535	ppm	0.000671	3.44	3347.000000	Y_R 488.368
Be (234.861 nm)	-0.000068 u	ppm	0.000067	98.78	-8.890310	Y_R 488.368
Bi (223.061 nm)	0.002056	ppm	0.000467	22.72	-6.053470	Y 377.433
Ca (315.887 nm)	108.130956	ppm	0.166178	0.15	85809.187692	Y_R 377.433
Cd (214.439 nm)	0.000233	ppm	0.000009	3.83	3.468790	Y 377.433
Co (228.615 nm)	-0.000178 u	ppm	0.000487	> 100.00	-19.291600	Y 242.219
Cr (205.560 nm)	0.001047	ppm	0.000730	69.75	0.212371	Y 377.433
Cu (324.754 nm)	0.000253	ppm	0.000209	82.71	266.998000	Y 377.433
Fe (238.204 nm)	0.055191	ppm	0.001289	2.33	139.992913	Y_R 377.433
Fe H (259.940 nm)	0.039011 u	ppm	0.002094	5.37	65.365100	Y_R 377.433
K (766.491 nm)	20.947000	ppm	0.128438	0.61	22163.500000	Y_R2 488.368
Li (670.783 nm)	0.307477	ppm	0.000349	0.11	2733.680000	Y_R2 488.368
Mg (279.078 nm)	122.082000	ppm	0.193797	0.16	399506.000000	Y 377.433
Mn (257.610 nm)	0.018122	ppm	0.000068	0.38	4930.180000	Y 377.433
Mo (202.032 nm)	0.000620	ppm	0.000013	2.15	18.951000	Y 377.433
Na (589.592 nm)	834.656000 o	ppm	1.339950	0.16	685327.000000	Y_R2 488.368
Na H (589.593 nm)	933.415134	ppm	1.998732	0.21	506312.621844	Y_R4
Ni (231.604 nm)	0.005887	ppm	0.000187	3.18	21.836100	Y 377.433
P (213.618 nm)	0.002897	ppm	0.001019	35.16	-0.482344	Y 242.219
Pb (220.353 nm)	-0.002944 u	ppm	0.002523	85.71	-1.030550	Y 242.219
S (181.972 nm)	540.559317 bo	ppm	1.820474	0.34	247569.526707	Y 377.433
Sb (206.834 nm)	-0.009166 u	ppm	0.000363	3.96	-13.691500	Y 377.433
Se (196.026 nm)	0.002083	ppm	0.001211	58.13	12.010200	Y 242.219
Si (288.158 nm)	4.354320	ppm	0.020072	0.46	28519.800000	Y 377.433
Sn (189.925 nm)	0.001020 u	ppm	0.002111	> 100.00	3.731010	Y 377.433
Sr (421.552 nm)	2.571650	ppm	0.018223	0.71	387316.496731	Y_R 488.368
Th (288.505 nm)	0.004038	ppm	0.005636	> 100.00	17.303800	Y 377.433
Ti (336.122 nm)	-0.000338 u	ppm	0.000045	13.19	-110.110000	Y 377.433
Tl (190.794 nm)	0.000189 u	ppm	0.002416	> 100.00	-2.051350	Y 377.433
U (409.013 nm)	0.011394	ppm	0.004807	42.19	-2.996790	Y 377.433
V (292.401 nm)	0.001036	ppm	0.000122	11.73	-93.546900	Y 377.433
Zn (206.200 nm)	0.015406	ppm	0.001012	6.57	73.349700	Y 377.433
Zr (343.823 nm)	0.000692	ppm	0.000226	32.59	-122.439000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.025329	23700.951966	0.005795	0.57
Y 377.433	1.015526	710290.462165	0.006295	0.62
Y_R 377.433	1.087980	65962.900000	0.002790	0.26
Y_R 488.368	1.100750	58150.200000	0.006621	0.60
Y_R2 488.368	1.072716	113713.574117	0.004558	0.42
Y_R4	1.082260	48701.600000	0.004649	0.43

Sample Name: MB 280-459219/1-A

Date: 5/24/2019 6:30:56 PM Rack:Tube: 1:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000224	ppm	0.000272	> 100.00	-259.313000	Y 377.433
Al (394.401 nm)	-0.000704 u	ppm	0.000377	53.65	83.708400	Y 377.433
Al H (396.152 nm)	0.144648 u	ppm	0.006605	4.57	57.988900	Y_R 377.433
As (188.980 nm)	0.000096 u	ppm	0.000250	> 100.00	-1.432030	Y 242.219
B (249.678 nm)	-0.004738 u	ppm	0.000065	1.37	12.829700	Y 242.219
Ba (493.408 nm)	-0.002212 u	ppm	0.000181	8.19	1178.990000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000004	8.21	-6.629080	Y_R 488.368
Bi (223.061 nm)	0.000503 u	ppm	0.001341	> 100.00	-9.510520	Y 377.433
Ca (315.887 nm)	0.020005	ppm	0.001030	5.15	-53.149577	Y_R 377.433
Cd (214.439 nm)	-0.000137 u	ppm	0.000050	36.75	-10.251900	Y 377.433
Co (228.615 nm)	-0.000365 u	ppm	0.000178	48.83	-23.701600	Y 242.219
Cr (205.560 nm)	0.000612	ppm	0.000159	25.99	-2.675250	Y 377.433
Cu (324.754 nm)	0.001067	ppm	0.000191	17.87	366.403000	Y 377.433
Fe (238.204 nm)	0.004046	ppm	0.000414	10.23	16.879589	Y_R 377.433
Fe H (259.940 nm)	0.007633 u	ppm	0.000368	4.82	21.969200	Y_R 377.433
K (766.491 nm)	-0.237477 u	ppm	0.044034	18.54	1708.080000	Y_R2 488.368
Li (670.783 nm)	0.017502	ppm	0.002766	15.81	-2245.260000	Y_R2 488.368
Mg (279.078 nm)	0.009399	ppm	0.000224	2.38	39.128000	Y 377.433
Mn (257.610 nm)	0.000107	ppm	0.000016	14.54	18.164300	Y 377.433
Mo (202.032 nm)	0.000396	ppm	0.000238	60.08	16.128600	Y 377.433
Na (589.592 nm)	0.162939	ppm	0.009459	5.81	283.567000	Y_R2 488.368
Na H (589.593 nm)	2.648948 u	ppm	0.028185	1.06	1319.705273	Y_R4
Ni (231.604 nm)	0.000641	ppm	0.000073	11.36	-5.305780	Y 377.433
P (213.618 nm)	-0.003315 u	ppm	0.001905	57.47	-8.792930	Y 242.219
Pb (220.353 nm)	-0.000726 u	ppm	0.000496	68.41	5.951000	Y 242.219
S (181.972 nm)	0.047685	ppm	0.005941	12.46	34.536865	Y 377.433
Sb (206.834 nm)	-0.002468 u	ppm	0.000563	22.81	-2.390220	Y 377.433
Se (196.026 nm)	-0.001122 u	ppm	0.000432	38.46	7.163840	Y 242.219
Si (288.158 nm)	-0.004563 u	ppm	0.000341	7.47	459.170000	Y 377.433
Sn (189.925 nm)	0.000069 u	ppm	0.000505	> 100.00	2.201720	Y 377.433
Sr (421.552 nm)	0.000249	ppm	0.000060	24.28	60.690855	Y_R 488.368
Th (288.505 nm)	-0.000237 u	ppm	0.005135	> 100.00	12.305600	Y 377.433
Ti (336.122 nm)	0.000318	ppm	0.000152	47.73	-393.127000	Y 377.433
Tl (190.794 nm)	-0.000175 u	ppm	0.001959	> 100.00	1.413860	Y 377.433
U (409.013 nm)	0.003506	ppm	0.003814	> 100.00	-13.634400	Y 377.433
V (292.401 nm)	-0.000169 u	ppm	0.000087	51.40	-155.335000	Y 377.433
Zn (206.200 nm)	0.001440	ppm	0.000279	19.40	10.541600	Y 377.433
Zr (343.823 nm)	0.000053 u	ppm	0.000086	> 100.00	-158.599000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122435	25945.607231	0.002058	0.18
Y 377.433	1.103360	771724.609454	0.002593	0.24
Y_R 377.433	1.134640	68792.100000	0.000461	0.04
Y_R 488.368	1.152740	60896.500000	0.001330	0.12
Y_R2 488.368	1.127614	119533.067245	0.005037	0.45
Y_R4	1.110050	49952.100000	0.003966	0.36

Sample Name: LCS 280-459219/2-A

Date: 5/24/2019 6:34:07 PM Rack:Tube: 1:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051573	ppm	0.000357	0.69	1203.070000	Y 377.433
Al (394.401 nm)	9.977600 o	ppm	0.023683	0.24	122129.000000	Y 377.433
Al H (396.152 nm)	9.804980	ppm	0.031361	0.32	21663.600000	Y_R 377.433
As (188.980 nm)	2.053860	ppm	0.000377	0.02	3093.090000	Y 242.219
B (249.678 nm)	0.968869	ppm	0.001295	0.13	6960.080000	Y 242.219
Ba (493.408 nm)	1.996070	ppm	0.007725	0.39	200403.000000	Y_R 488.368
Be (234.861 nm)	0.987691	ppm	0.000690	0.07	97225.200000	Y_R 488.368
Bi (223.061 nm)	1.972640	ppm	0.006968	0.35	4311.590000	Y 377.433
Ca (315.887 nm)	50.099053	ppm	0.160945	0.32	39722.402631	Y_R 377.433
Cd (214.439 nm)	1.043020	ppm	0.001784	0.17	38569.900000	Y 377.433
Co (228.615 nm)	0.993781	ppm	0.001278	0.13	23385.600000	Y 242.219
Cr (205.560 nm)	1.045450	ppm	0.007070	0.68	6958.100000	Y 377.433
Cu (324.754 nm)	0.993831	ppm	0.005659	0.57	46731.400000	Y 377.433
Fe (238.204 nm)	10.242775 o	ppm	0.031886	0.31	24663.285919	Y_R 377.433
Fe H (259.940 nm)	10.173100	ppm	0.033262	0.33	14080.700000	Y_R 377.433
K (766.491 nm)	48.952900	ppm	0.073868	0.15	49205.700000	Y_R2 488.368
Li (670.783 nm)	1.023110	ppm	0.002753	0.27	15021.300000	Y_R2 488.368
Mg (279.078 nm)	50.010500	ppm	0.099069	0.20	163617.000000	Y 377.433
Mn (257.610 nm)	1.010850	ppm	0.002818	0.28	275607.000000	Y 377.433
Mo (202.032 nm)	1.039990	ppm	0.000527	0.05	13119.400000	Y 377.433
Na (589.592 nm)	48.055100	ppm	0.042101	0.09	40054.400000	Y_R2 488.368
Na H (589.593 nm)	50.853891	ppm	0.280829	0.55	27473.593178	Y_R4
Ni (231.604 nm)	1.020550	ppm	0.002759	0.27	5274.100000	Y 377.433
P (213.618 nm)	20.392500	ppm	0.009835	0.05	28885.700000	Y 242.219
Pb (220.353 nm)	1.011700	ppm	0.000570	0.06	3220.750000	Y 242.219
S (181.972 nm)	10.212127	ppm	0.001258	0.01	4695.045023	Y 377.433
Sb (206.834 nm)	-0.001778 u	ppm	0.001572	88.43	-5.979030	Y 377.433
Se (196.026 nm)	2.014700	ppm	0.004841	0.24	3046.340000	Y 242.219
Si (288.158 nm)	2.058360	ppm	0.007380	0.36	13739.400000	Y 377.433
Sn (189.925 nm)	2.078120	ppm	0.002704	0.13	3345.900000	Y 377.433
Sr (421.552 nm)	0.973090	ppm	0.004029	0.41	146573.131458	Y_R 488.368
Th (288.505 nm)	1.011290	ppm	0.007067	0.70	1662.590000	Y 377.433
Ti (336.122 nm)	1.005170	ppm	0.002290	0.23	128362.000000	Y 377.433
Tl (190.794 nm)	2.042470	ppm	0.005619	0.28	4664.200000	Y 377.433
U (409.013 nm)	1.985270	ppm	0.002138	0.11	6212.600000	Y 377.433
V (292.401 nm)	1.003690	ppm	0.002638	0.26	51615.500000	Y 377.433
Zn (206.200 nm)	0.514043	ppm	0.002334	0.45	2317.000000	Y 377.433
Zr (343.823 nm)	0.492814	ppm	0.000858	0.17	27737.500000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080778	24982.686906	0.002580	0.24
Y 377.433	1.067559	746684.026833	0.003677	0.34
Y_R 377.433	1.112150	67428.000000	0.002795	0.25
Y_R 488.368	1.126950	59534.200000	0.002801	0.25
Y_R2 488.368	1.097790	116371.541804	0.000811	0.07
Y_R4	1.110780	49985.200000	0.003315	0.30

Sample Name: CCVH-5713036

Date: 5/24/2019 6:37:48 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003911	ppm	0.000142	3.62	-142.185000	Y 377.433
Al (394.401 nm)	50.022700 o	ppm	0.066890	0.13	609421.000000	Y 377.433
Al H (396.152 nm)	48.489000	ppm	0.148435	0.31	105736.000000	Y_R 377.433
As (188.980 nm)	0.005786	ppm	0.003856	66.64	5.774820	Y 242.219
B (249.678 nm)	-0.000968 u	ppm	0.000535	55.27	10.593700	Y 242.219
Ba (493.408 nm)	0.001498	ppm	0.000087	5.80	1588.970000	Y_R 488.368
Be (234.861 nm)	0.001088	ppm	0.000055	5.08	-108.386000	Y_R 488.368
Bi (223.061 nm)	0.011599	ppm	0.002283	19.69	23.515100	Y 377.433
Ca (315.887 nm)	0.001603 u	ppm	0.007076	> 100.00	-55.624710	Y_R 377.433
Cd (214.439 nm)	0.001425	ppm	0.000080	5.59	68.026100	Y 377.433
Co (228.615 nm)	0.003001	ppm	0.000109	3.62	55.456000	Y 242.219
Cr (205.560 nm)	0.002199	ppm	0.000835	37.99	6.602950	Y 377.433
Cu (324.754 nm)	0.004084	ppm	0.000128	3.14	1452.930000	Y 377.433
Fe (238.204 nm)	50.481674 o	ppm	0.070945	0.14	121525.342504	Y_R 377.433
Fe H (259.940 nm)	49.980200	ppm	0.109235	0.22	69133.200000	Y_R 377.433
K (766.491 nm)	0.243697	ppm	0.130678	53.62	2172.700000	Y_R2 488.368
Li (670.783 nm)	0.015121	ppm	0.001862	12.31	-2286.130000	Y_R2 488.368
Mg (279.078 nm)	0.040521	ppm	0.000891	2.20	66.192200	Y 377.433
Mn (257.610 nm)	0.001056	ppm	0.000015	1.41	277.005000	Y 377.433
Mo (202.032 nm)	0.001517	ppm	0.000409	26.98	30.247600	Y 377.433
Na (589.592 nm)	232.187000 o	ppm	0.020310	0.01	190754.000000	Y_R2 488.368
Na H (589.593 nm)	239.467705	ppm	0.802672	0.34	129807.177866	Y_R4
Ni (231.604 nm)	0.003647	ppm	0.001164	31.92	10.251600	Y 377.433
P (213.618 nm)	4.974370	ppm	0.003670	0.07	7104.700000	Y 242.219
Pb (220.353 nm)	0.006155	ppm	0.000163	2.66	21.067900	Y 242.219
S (181.972 nm)	5.092026	ppm	0.020069	0.39	2344.621254	Y 377.433
Sb (206.834 nm)	-0.000619 u	ppm	0.000068	10.98	4.986110	Y 377.433
Se (196.026 nm)	0.010165	ppm	0.000668	6.57	11.187500	Y 242.219
Si (288.158 nm)	0.013219	ppm	0.001150	8.70	573.648000	Y 377.433
Sn (189.925 nm)	0.001633	ppm	0.000419	25.65	4.718460	Y 377.433
Sr (421.552 nm)	0.001440	ppm	0.000062	4.32	247.640876	Y_R 488.368
Th (288.505 nm)	4.882710	ppm	0.004085	0.08	8432.730000	Y 377.433
Ti (336.122 nm)	0.002159	ppm	0.000080	3.70	-157.516000	Y 377.433
Tl (190.794 nm)	0.000710	ppm	0.000703	99.13	-1.426110	Y 377.433
U (409.013 nm)	0.539360 Q	ppm	0.004625	0.86	1723.370000 Q	Y 377.433
V (292.401 nm)	0.000731	ppm	0.000046	6.32	382.676000	Y 377.433
Zn (206.200 nm)	0.003206	ppm	0.000383	11.94	25.508600	Y 377.433
Zr (343.823 nm)	0.001224	ppm	0.000007	0.60	-92.338100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.069447	24720.755944	0.001954	0.18
Y 377.433	1.048066	733049.802056	0.001366	0.13
Y_R 377.433	1.091180	66157.000000	0.009827	0.90
Y_R 488.368	1.098390	58025.300000	0.013640	1.24
Y_R2 488.368	1.074035	113853.424170	0.005744	0.53
Y_R4	1.090640	49078.600000	0.002562	0.23

Sample Name: CCV-5717467

Date: 5/24/2019 6:41:29 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.493700	ppm	0.001465	0.30	16767.900000	Y 377.433
Al (394.401 nm)	0.503621	ppm	0.001426	0.28	6362.630000	Y 377.433
Al H (396.152 nm)	0.551221 u	ppm	0.010558	1.92	1189.330000	Y_R 377.433
As (188.980 nm)	0.496755	ppm	0.000135	0.03	746.912000	Y 242.219
B (249.678 nm)	0.480291	ppm	0.000097	0.02	3475.270000	Y 242.219
Ba (493.408 nm)	0.485591	ppm	0.001230	0.25	49811.900000	Y_R 488.368
Be (234.861 nm)	0.483193	ppm	0.002926	0.61	47573.500000	Y_R 488.368
Bi (223.061 nm)	0.997449	ppm	0.000583	0.06	2174.470000	Y 377.433
Ca (315.887 nm)	5.027210	ppm	0.028239	0.56	3923.731051	Y_R 377.433
Cd (214.439 nm)	0.521041	ppm	0.001099	0.21	19264.000000	Y 377.433
Co (228.615 nm)	0.499743	ppm	0.000509	0.10	11751.600000	Y 242.219
Cr (205.560 nm)	0.517890	ppm	0.004242	0.82	3443.630000	Y 377.433
Cu (324.754 nm)	0.496170	ppm	0.001747	0.35	23457.100000	Y 377.433
Fe (238.204 nm)	2.542465	ppm	0.007320	0.29	6127.295675	Y_R 377.433
Fe H (259.940 nm)	2.529260 u	ppm	0.005691	0.23	3509.340000	Y_R 377.433
K (766.491 nm)	48.628100	ppm	0.150522	0.31	48892.100000	Y_R2 488.368
Li (670.783 nm)	0.509857	ppm	0.006731	1.32	6208.590000	Y_R2 488.368
Mg (279.078 nm)	20.019200	ppm	0.038060	0.19	65515.000000	Y 377.433
Mn (257.610 nm)	0.494907	ppm	0.001007	0.20	134930.000000	Y 377.433
Mo (202.032 nm)	0.502535	ppm	0.002626	0.52	6345.200000	Y 377.433
Na (589.592 nm)	23.660400	ppm	0.144382	0.61	19683.300000	Y_R2 488.368
Na H (589.593 nm)	25.889794 u	ppm	0.225125	0.87	13929.169059	Y_R4
Ni (231.604 nm)	0.514145	ppm	0.001652	0.32	2652.170000	Y 377.433
P (213.618 nm)	0.047522	ppm	0.000547	1.15	-70.614700	Y 242.219
Pb (220.353 nm)	0.500622	ppm	0.000106	0.02	1596.450000	Y 242.219
S (181.972 nm)	0.026393	ppm	0.010078	38.18	26.597090	Y 377.433
Sb (206.834 nm)	0.509507	ppm	0.001975	0.39	859.479000	Y 377.433
Se (196.026 nm)	0.505145	ppm	0.001385	0.27	770.826000	Y 242.219
Si (288.158 nm)	4.877220	ppm	0.002577	0.05	31886.000000	Y 377.433
Sn (189.925 nm)	0.519215	ppm	0.002431	0.47	837.537000	Y 377.433
Sr (421.552 nm)	0.475017	ppm	0.001620	0.34	71561.598604	Y_R 488.368
Th (288.505 nm)	0.019693	ppm	0.002586	13.13	-3.242940	Y 377.433
Ti (336.122 nm)	0.487405	ppm	0.000717	0.15	61953.600000	Y 377.433
Tl (190.794 nm)	0.514378	ppm	0.001944	0.38	1174.990000	Y 377.433
U (409.013 nm)	0.016727	ppm	0.012498	74.72	-31.790100	Y 377.433
V (292.401 nm)	0.490176	ppm	0.000945	0.19	25127.600000	Y 377.433
Zn (206.200 nm)	0.521056	ppm	0.000672	0.13	2347.470000	Y 377.433
Zr (343.823 nm)	0.489753	ppm	0.001306	0.27	27564.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093769	25282.971283	0.002071	0.19
Y 377.433	1.075018	751900.871386	0.003817	0.36
Y_R 377.433	1.098880	66623.700000	0.003325	0.30
Y_R 488.368	1.113920	58845.700000	0.005464	0.49
Y_R2 488.368	1.119608	118684.377848	0.008332	0.74
Y_R4	1.121670	50474.900000	0.010423	0.93

Sample Name: CCB

Date: 5/24/2019 6:45:05 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000436	ppm	0.000145	33.21	-251.763000	Y 377.433
Al (394.401 nm)	-0.000667 u	ppm	0.000813	> 100.00	81.896600	Y 377.433
Al H (396.152 nm)	0.130367 Zu	ppm	0.003154	2.42	26.753100 Z	Y_R 377.433
As (188.980 nm)	-0.001067 u	ppm	0.000315	29.51	-3.183440	Y 242.219
B (249.678 nm)	-0.003023 u	ppm	0.000700	23.14	25.079900	Y 242.219
Ba (493.408 nm)	-0.001851 u	ppm	0.000292	15.77	1214.940000	Y_R 488.368
Be (234.861 nm)	0.000034	ppm	0.000002	6.04	1.326360	Y_R 488.368
Bi (223.061 nm)	0.000181 u	ppm	0.001643	> 100.00	-10.216300	Y 377.433
Ca (315.887 nm)	0.009254 u	ppm	0.014114	> 100.00	-61.690586	Y_R 377.433
Cd (214.439 nm)	0.000002 u	ppm	0.000006	> 100.00	-5.111430	Y 377.433
Co (228.615 nm)	-0.000210 u	ppm	0.000148	70.55	-20.084600	Y 242.219
Cr (205.560 nm)	0.000329	ppm	0.000398	> 100.00	-4.559090	Y 377.433
Cu (324.754 nm)	0.000933	ppm	0.000189	20.27	361.609000	Y 377.433
Fe (238.204 nm)	0.000327 u	ppm	0.000541	> 100.00	7.927369	Y_R 377.433
Fe H (259.940 nm)	0.001868 u	ppm	0.000434	23.24	13.996200	Y_R 377.433
K (766.491 nm)	-0.248267 u	ppm	0.096271	38.78	1697.660000	Y_R2 488.368
Li (670.783 nm)	0.022162 Z	ppm	0.000027	0.12	-2165.250000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002718	ppm	0.000552	20.32	17.359200	Y 377.433
Mn (257.610 nm)	0.000086	ppm	0.000004	4.52	12.406000	Y 377.433
Mo (202.032 nm)	0.000215 u	ppm	0.000402	> 100.00	13.836400	Y 377.433
Na (589.592 nm)	0.005313	ppm	0.000009	0.17	154.185000	Y_R2 488.368
Na H (589.593 nm)	1.436787 u	ppm	0.025047	1.74	662.039840	Y_R4
Ni (231.604 nm)	0.000362	ppm	0.000146	40.18	-6.746050	Y 377.433
P (213.618 nm)	-0.000738 u	ppm	0.002635	> 100.00	-5.179980	Y 242.219
Pb (220.353 nm)	-0.000653 u	ppm	0.000382	58.55	6.172590	Y 242.219
S (181.972 nm)	0.011045	ppm	0.002101	19.03	17.757006	Y 377.433
Sb (206.834 nm)	-0.001674 u	ppm	0.001470	87.81	-1.049420	Y 377.433
Se (196.026 nm)	-0.002956 u	ppm	0.000669	22.64	4.398240	Y 242.219
Si (288.158 nm)	-0.006105 u	ppm	0.001660	27.19	449.248000	Y 377.433
Sn (189.925 nm)	0.002137	ppm	0.001549	72.49	5.528170	Y 377.433
Sr (421.552 nm)	0.000285	ppm	0.000073	25.80	66.025268	Y_R 488.368
Th (288.505 nm)	0.002574 u	ppm	0.003708	> 100.00	17.154900	Y 377.433
Ti (336.122 nm)	0.000321	ppm	0.000132	41.31	-392.851000	Y 377.433
Tl (190.794 nm)	-0.000107 u	ppm	0.001145	> 100.00	1.569990	Y 377.433
U (409.013 nm)	-0.000296 u	ppm	0.008484	> 100.00	-25.701100	Y 377.433
V (292.401 nm)	-0.000246 u	ppm	0.000044	18.09	-158.267000	Y 377.433
Zn (206.200 nm)	-0.000442 u	ppm	0.000667	> 100.00	2.077620	Y 377.433
Zr (343.823 nm)	0.000221	ppm	0.000167	75.66	-149.119000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.118709	25859.488479	0.002671	0.24
Y 377.433	1.097166	767391.921951	0.003085	0.28
Y_R 377.433	1.128890	68443.300000	0.000868	0.08
Y_R 488.368	1.144900	60482.300000	0.012685	1.11
Y_R2 488.368	1.129987	119784.635956	0.001362	0.12
Y_R4	1.113530	50108.800000	0.002216	0.20

Sample Name: CCVL-5719884

Date: 5/24/2019 6:48:17 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.007835	ppm	0.000465	5.94	2.038040	Y 377.433
Al (394.401 nm)	0.099871	ppm	0.000082	0.08	1320.340000	Y 377.433
Al H (396.152 nm)	0.226848 u	ppm	0.004607	2.03	243.073000	Y_R 377.433
As (188.980 nm)	0.013749	ppm	0.002575	18.73	19.139700	Y 242.219
B (249.678 nm)	0.091453	ppm	0.001092	1.19	699.736000	Y 242.219
Ba (493.408 nm)	0.007969	ppm	0.000048	0.60	2193.980000	Y_R 488.368
Be (234.861 nm)	0.000941	ppm	0.000033	3.51	90.299500	Y_R 488.368
Bi (223.061 nm)	0.098763	ppm	0.003273	3.31	205.716000	Y 377.433
Ca (315.887 nm)	0.215922	ppm	0.013137	6.08	102.469725	Y_R 377.433
Cd (214.439 nm)	0.005235	ppm	0.000130	2.48	188.456000	Y 377.433
Co (228.615 nm)	0.010516	ppm	0.000111	1.05	232.464000	Y 242.219
Cr (205.560 nm)	0.009925	ppm	0.000087	0.88	59.262200	Y 377.433
Cu (324.754 nm)	0.016812	ppm	0.000067	0.40	1099.440000	Y 377.433
Fe (238.204 nm)	0.101148	ppm	0.000390	0.39	250.621042	Y_R 377.433
Fe H (259.940 nm)	0.106594 u	ppm	0.003044	2.86	158.830000	Y_R 377.433
K (766.491 nm)	2.878080	ppm	0.267654	9.30	4716.420000	Y_R2 488.368
Li (670.783 nm)	0.042451 Q	ppm	0.002867	6.75	-1816.880000 Q	Y_R2 488.368
Mg (279.078 nm)	0.210770	ppm	0.000908	0.43	696.724000	Y 377.433
Mn (257.610 nm)	0.010623	ppm	0.000005	0.04	2885.450000	Y 377.433
Mo (202.032 nm)	0.019854	ppm	0.000527	2.65	261.375000	Y 377.433
Na (589.592 nm)	1.033580	ppm	0.040265	3.90	1000.540000	Y_R2 488.368
Na H (589.593 nm)	2.129970 u	ppm	0.032310	1.52	1038.130172	Y_R4
Ni (231.604 nm)	0.044625	ppm	0.000868	1.94	222.289000	Y 377.433
P (213.618 nm)	2.872730	ppm	0.001663	0.06	4099.510000	Y 242.219
Pb (220.353 nm)	0.010053	ppm	0.000262	2.61	40.302500	Y 242.219
S (181.972 nm)	0.103099	ppm	0.000430	0.42	59.952902	Y 377.433
Sb (206.834 nm)	0.020283	ppm	0.003729	18.39	35.869100	Y 377.433
Se (196.026 nm)	0.019051	ppm	0.000166	0.87	37.581000	Y 242.219
Si (288.158 nm)	0.481138	ppm	0.002429	0.50	3585.900000	Y 377.433
Sn (189.925 nm)	0.105102	ppm	0.000199	0.19	171.205000	Y 377.433
Sr (421.552 nm)	0.009127	ppm	0.000019	0.21	1397.770776	Y_R 488.368
Th (288.505 nm)	0.017342	ppm	0.002799	16.14	42.137500	Y 377.433
Ti (336.122 nm)	0.010108	ppm	0.000039	0.39	860.266000	Y 377.433
Tl (190.794 nm)	0.016076	ppm	0.000143	0.89	38.469200	Y 377.433
U (409.013 nm)	0.065922	ppm	0.007617	11.56	183.134000	Y 377.433
V (292.401 nm)	0.009863	ppm	0.000058	0.59	359.330000	Y 377.433
Zn (206.200 nm)	0.021852	ppm	0.000049	0.22	102.341000	Y 377.433
Zr (343.823 nm)	0.009991	ppm	0.000203	2.03	403.996000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131695	26159.654987	0.000545	0.05
Y 377.433	1.107736	774785.398294	0.001124	0.10
Y_R 377.433	1.138550	69028.900000	0.004587	0.40
Y_R 488.368	1.156490	61094.800000	0.002817	0.24
Y_R2 488.368	1.134723	120286.664669	0.002671	0.24
Y_R4	1.135650	51104.100000	0.006686	0.59

Sample Name: 280-123508-D-2-B

Date: 5/24/2019 6:51:47 PM Rack:Tube: 1:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001052	ppm	0.000446	42.39	-237.014000	Y 377.433
Al (394.401 nm)	-0.005768 u	ppm	0.000416	7.21	289.647000	Y 377.433
Al H (396.152 nm)	-0.070401 u	ppm	0.001364	1.94	6.588490	Y_R 377.433
As (188.980 nm)	0.004909	ppm	0.001113	22.67	5.819390	Y 242.219
B (249.678 nm)	0.520973	ppm	0.000704	0.14	3767.250000	Y 242.219
Ba (493.408 nm)	0.032336	ppm	0.000253	0.78	4623.230000	Y_R 488.368
Be (234.861 nm)	-0.000088 u	ppm	0.000027	30.60	-10.800300	Y_R 488.368
Bi (223.061 nm)	-0.000437 u	ppm	0.001977	> 100.00	-11.549700	Y 377.433
Ca (315.887 nm)	63.888233	ppm	0.095123	0.15	50671.361389	Y_R 377.433
Cd (214.439 nm)	0.000096	ppm	0.000079	82.74	-1.624330	Y 377.433
Co (228.615 nm)	-0.000442 u	ppm	0.000043	9.76	-25.503600	Y 242.219
Cr (205.560 nm)	0.006499	ppm	0.000224	3.45	36.583900	Y 377.433
Cu (324.754 nm)	0.000604	ppm	0.000100	16.61	307.778000	Y 377.433
Fe (238.204 nm)	0.048151	ppm	0.001297	2.69	123.048448	Y_R 377.433
Fe H (259.940 nm)	0.043497 u	ppm	0.001509	3.47	71.568600	Y_R 377.433
K (766.491 nm)	4.791830	ppm	0.013650	0.28	6564.320000	Y_R2 488.368
Li (670.783 nm)	0.123121	ppm	0.003500	2.84	-431.747000	Y_R2 488.368
Mg (279.078 nm)	20.442400	ppm	0.031331	0.15	66903.200000	Y 377.433
Mn (257.610 nm)	0.000765	ppm	0.000022	2.91	197.398000	Y 377.433
Mo (202.032 nm)	0.002234	ppm	0.000067	2.98	39.285900	Y 377.433
Na (589.592 nm)	173.080000 o	ppm	0.076785	0.04	142239.000000	Y_R2 488.368
Na H (589.593 nm)	179.767943	ppm	0.013004	0.01	97416.705021	Y_R4
Ni (231.604 nm)	-0.000196 u	ppm	0.000249	> 100.00	-9.637270	Y 377.433
P (213.618 nm)	0.004703	ppm	0.002696	57.31	2.214140	Y 242.219
Pb (220.353 nm)	-0.000101 u	ppm	0.000555	> 100.00	7.942410	Y 242.219
S (181.972 nm)	70.956847	ppm	0.039172	0.06	32510.822241	Y 377.433
Sb (206.834 nm)	-0.003614 u	ppm	0.000173	4.78	-4.287450	Y 377.433
Se (196.026 nm)	0.002484	ppm	0.000030	1.22	12.593100	Y 242.219
Si (288.158 nm)	13.235200	ppm	0.037012	0.28	85691.300000	Y 377.433
Sn (189.925 nm)	0.001373 u	ppm	0.002227	> 100.00	4.300420	Y 377.433
Sr (421.552 nm)	1.035434	ppm	0.000069	0.01	155960.642514	Y_R 488.368
Th (288.505 nm)	-0.003747 u	ppm	0.004439	> 100.00	2.899920	Y 377.433
Ti (336.122 nm)	0.000014 u	ppm	0.000255	> 100.00	-215.652000	Y 377.433
Tl (190.794 nm)	-0.000265 u	ppm	0.000898	> 100.00	-1.337360	Y 377.433
U (409.013 nm)	0.021078	ppm	0.001495	7.09	33.642300	Y 377.433
V (292.401 nm)	0.016179	ppm	0.000140	0.86	691.445000	Y 377.433
Zn (206.200 nm)	0.004629	ppm	0.000220	4.75	24.887800	Y 377.433
Zr (343.823 nm)	0.000214	ppm	0.000207	96.72	-149.494000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075439	24859.284026	0.005999	0.56
Y 377.433	1.057170	739417.610169	0.007598	0.72
Y_R 377.433	1.111310	67377.100000	0.003150	0.28
Y_R 488.368	1.126610	59516.100000	0.001197	0.11
Y_R2 488.368	1.098352	116431.080206	0.006697	0.61
Y_R4	1.105630	49753.100000	0.002390	0.22

Sample Name: 280-123508-D-3-B

Date: 5/24/2019 6:55:22 PM Rack:Tube: 1:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000745	ppm	0.000429	57.65	-247.638000	Y 377.433
Al (394.401 nm)	0.015397	ppm	0.001739	11.29	475.976000	Y 377.433
Al H (396.152 nm)	0.009018 u	ppm	0.007906	87.67	54.890800	Y_R 377.433
As (188.980 nm)	0.003815	ppm	0.002847	74.62	4.170790	Y 242.219
B (249.678 nm)	0.537417	ppm	0.000419	0.08	3884.670000	Y 242.219
Ba (493.408 nm)	0.039788	ppm	0.000302	0.76	5366.140000	Y_R 488.368
Be (234.861 nm)	-0.000028 u	ppm	0.000012	44.44	-5.066980	Y_R 488.368
Bi (223.061 nm)	0.000963	ppm	0.000143	14.83	-8.476550	Y 377.433
Ca (315.887 nm)	68.302942	ppm	0.015409	0.02	54177.553788	Y_R 377.433
Cd (214.439 nm)	0.000211	ppm	0.000052	24.50	2.666200	Y 377.433
Co (228.615 nm)	-0.000286 u	ppm	0.000059	20.48	-21.854500	Y 242.219
Cr (205.560 nm)	0.007870	ppm	0.000294	3.74	45.730700	Y 377.433
Cu (324.754 nm)	0.001446	ppm	0.000471	32.58	342.593000	Y 377.433
Fe (238.204 nm)	0.089835	ppm	0.001550	1.73	223.387370	Y_R 377.433
Fe H (259.940 nm)	0.088372 u	ppm	0.003704	4.19	133.631000	Y_R 377.433
K (766.491 nm)	4.973020	ppm	0.003027	0.06	6739.270000	Y_R2 488.368
Li (670.783 nm)	0.131424	ppm	0.000249	0.19	-289.196000	Y_R2 488.368
Mg (279.078 nm)	19.313400	ppm	0.013457	0.07	63208.100000	Y 377.433
Mn (257.610 nm)	0.005073	ppm	0.000000	0.00	1372.170000	Y 377.433
Mo (202.032 nm)	0.001508	ppm	0.000322	21.33	30.139300	Y 377.433
Na (589.592 nm)	175.517000 o	ppm	1.813990	1.03	144242.000000	Y_R2 488.368
Na H (589.593 nm)	181.021440	ppm	1.255135	0.69	98096.797008	Y_R4
Ni (231.604 nm)	0.000349 u	ppm	0.001402	> 100.00	-6.814970	Y 377.433
P (213.618 nm)	0.001653	ppm	0.001630	98.59	-2.249650	Y 242.219
Pb (220.353 nm)	-0.000863 u	ppm	0.001302	> 100.00	5.585750	Y 242.219
S (181.972 nm)	72.757618	ppm	0.283461	0.39	33335.722611	Y 377.433
Sb (206.834 nm)	-0.004097 u	ppm	0.000132	3.22	-5.088030	Y 377.433
Se (196.026 nm)	0.001244 u	ppm	0.006936	> 100.00	10.717700	Y 242.219
Si (288.158 nm)	13.163000	ppm	0.035464	0.27	85226.100000	Y 377.433
Sn (189.925 nm)	0.000812	ppm	0.000284	34.99	3.397530	Y 377.433
Sr (421.552 nm)	0.738897	ppm	0.001959	0.27	111301.926329	Y_R 488.368
Th (288.505 nm)	-0.004533 u	ppm	0.004150	91.56	1.765920	Y 377.433
Ti (336.122 nm)	-0.000056 u	ppm	0.000063	> 100.00	-209.793000	Y 377.433
Tl (190.794 nm)	0.000711	ppm	0.000354	49.78	0.718845	Y 377.433
U (409.013 nm)	0.025758	ppm	0.001921	7.46	47.925100	Y 377.433
V (292.401 nm)	0.015223	ppm	0.000200	1.32	639.792000	Y 377.433
Zn (206.200 nm)	0.007608	ppm	0.000796	10.46	38.290100	Y 377.433
Zr (343.823 nm)	0.000168	ppm	0.000046	27.59	-152.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.067116	24666.882263	0.009079	0.85
Y 377.433	1.048284	733202.409738	0.009195	0.88
Y_R 377.433	1.086010	65843.400000	0.009435	0.87
Y_R 488.368	1.098330	58022.300000	0.010314	0.94
Y_R2 488.368	1.091547	115709.741430	0.012640	1.16
Y_R4	1.117650	50294.000000	0.004105	0.37

Sample Name: 280-123508-D-4-B

Date: 5/24/2019 6:58:56 PM Rack:Tube: 1:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000806	ppm	0.000513	63.65	-245.915000	Y 377.433
Al (394.401 nm)	-0.006699 u	ppm	0.000010	0.15	283.290000	Y 377.433
Al H (396.152 nm)	-0.067452 u	ppm	0.001878	2.78	15.875300	Y_R 377.433
As (188.980 nm)	0.003465	ppm	0.000589	17.00	3.644390	Y 242.219
B (249.678 nm)	0.524773	ppm	0.000572	0.11	3794.420000	Y 242.219
Ba (493.408 nm)	0.032138	ppm	0.000160	0.50	4603.470000	Y_R 488.368
Be (234.861 nm)	-0.000046 u	ppm	0.000083	> 100.00	-6.595370	Y_R 488.368
Bi (223.061 nm)	0.000843 u	ppm	0.001748	> 100.00	-8.752690	Y 377.433
Ca (315.887 nm)	64.229099	ppm	0.068845	0.11	50942.077491	Y_R 377.433
Cd (214.439 nm)	0.000232	ppm	0.000047	20.40	3.390860	Y 377.433
Co (228.615 nm)	-0.000723 u	ppm	0.000002	0.26	-32.129600	Y 242.219
Cr (205.560 nm)	0.007088	ppm	0.000239	3.38	40.519100	Y 377.433
Cu (324.754 nm)	0.000505	ppm	0.000218	43.03	301.819000	Y 377.433
Fe (238.204 nm)	0.010431	ppm	0.001492	14.30	32.248236	Y_R 377.433
Fe H (259.940 nm)	0.004839 u	ppm	0.002982	61.62	18.105600	Y_R 377.433
K (766.491 nm)	4.735190	ppm	0.100825	2.13	6509.620000	Y_R2 488.368
Li (670.783 nm)	0.127487	ppm	0.000004	0.00	-356.780000	Y_R2 488.368
Mg (279.078 nm)	20.514100	ppm	0.023830	0.12	67137.500000	Y 377.433
Mn (257.610 nm)	0.000484	ppm	0.000034	6.97	121.040000	Y 377.433
Mo (202.032 nm)	0.001815	ppm	0.000057	3.15	34.003300	Y 377.433
Na (589.592 nm)	174.549000 o	ppm	0.571855	0.33	143445.000000	Y_R2 488.368
Na H (589.593 nm)	180.439584	ppm	0.760178	0.42	97781.107911	Y_R4
Ni (231.604 nm)	-0.001900 u	ppm	0.000477	25.10	-18.454900	Y 377.433
P (213.618 nm)	0.002491	ppm	0.000065	2.60	-0.774279	Y 242.219
Pb (220.353 nm)	-0.001904 u	ppm	0.000117	6.14	2.274790	Y 242.219
S (181.972 nm)	71.709981	ppm	0.277662	0.39	32855.739027	Y 377.433
Sb (206.834 nm)	-0.005492 u	ppm	0.000334	6.09	-7.456930	Y 377.433
Se (196.026 nm)	-0.002096 u	ppm	0.000315	15.03	5.694070	Y 242.219
Si (288.158 nm)	13.346200	ppm	0.054028	0.40	86405.800000	Y 377.433
Sn (189.925 nm)	0.001070 u	ppm	0.001625	> 100.00	3.811680	Y 377.433
Sr (421.552 nm)	1.042496	ppm	0.000028	0.00	157024.123665	Y_R 488.368
Th (288.505 nm)	-0.003409 u	ppm	0.005619	> 100.00	3.599170	Y 377.433
Ti (336.122 nm)	-0.000027 u	ppm	0.000070	> 100.00	-219.834000	Y 377.433
Tl (190.794 nm)	-0.000803 u	ppm	0.000478	59.49	-2.575260	Y 377.433
U (409.013 nm)	0.023765	ppm	0.002193	9.23	42.108600	Y 377.433
V (292.401 nm)	0.016412	ppm	0.000082	0.50	702.343000	Y 377.433
Zn (206.200 nm)	0.004178	ppm	0.000362	8.65	22.855300	Y 377.433
Zr (343.823 nm)	0.000212	ppm	0.000048	22.75	-149.606000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092753	25259.497737	0.000380	0.03
Y 377.433	1.075875	752500.798709	0.000522	0.05
Y_R 377.433	1.129850	68501.500000	0.001327	0.12
Y_R 488.368	1.144130	60441.600000	0.000972	0.08
Y_R2 488.368	1.117963	118510.020944	0.003250	0.29
Y_R4	1.135340	51090.100000	0.003248	0.29

Sample Name: 280-123508-D-5-D

Date: 5/24/2019 7:02:29 PM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000723	ppm	0.000196	27.12	-248.270000	Y 377.433
Al (394.401 nm)	0.001533	ppm	0.000314	20.46	305.275000	Y 377.433
Al H (396.152 nm)	-0.005263 u	ppm	0.005161	98.05	22.021500	Y_R 377.433
As (188.980 nm)	0.005055	ppm	0.000663	13.12	6.029310	Y 242.219
B (249.678 nm)	0.389394	ppm	0.000295	0.08	2827.340000	Y 242.219
Ba (493.408 nm)	0.060756	ppm	0.000053	0.09	7456.810000	Y_R 488.368
Be (234.861 nm)	-0.000012 u	ppm	0.000012	> 100.00	-4.952850	Y_R 488.368
Bi (223.061 nm)	0.001623	ppm	0.001109	68.29	-6.972910	Y 377.433
Ca (315.887 nm)	67.644011	ppm	0.041647	0.06	53654.219415	Y_R 377.433
Cd (214.439 nm)	0.000217	ppm	0.000001	0.52	3.001180	Y 377.433
Co (228.615 nm)	-0.000389 u	ppm	0.000130	33.28	-24.280500	Y 242.219
Cr (205.560 nm)	0.006446	ppm	0.000191	2.96	36.231800	Y 377.433
Cu (324.754 nm)	0.000784	ppm	0.000344	43.87	312.384000	Y 377.433
Fe (238.204 nm)	0.426178	ppm	0.003881	0.91	1033.025152	Y_R 377.433
Fe H (259.940 nm)	0.425204 u	ppm	0.007756	1.82	599.464000	Y_R 377.433
K (766.491 nm)	4.553690	ppm	0.059109	1.30	6334.370000	Y_R2 488.368
Li (670.783 nm)	0.100383	ppm	0.002679	2.67	-822.174000	Y_R2 488.368
Mg (279.078 nm)	19.101800	ppm	0.000177	0.00	62515.400000	Y 377.433
Mn (257.610 nm)	0.002577	ppm	0.000037	1.42	691.474000	Y 377.433
Mo (202.032 nm)	0.002161	ppm	0.000205	9.50	38.367700	Y 377.433
Na (589.592 nm)	156.057000 o	ppm	0.133192	0.09	128272.000000	Y_R2 488.368
Na H (589.593 nm)	161.357582	ppm	0.740389	0.46	87428.050368	Y_R4
Ni (231.604 nm)	-0.000916 u	ppm	0.000916	> 100.00	-13.357300	Y 377.433
P (213.618 nm)	-0.003899 u	ppm	0.003785	97.08	-10.023500	Y 242.219
Pb (220.353 nm)	-0.002810 u	ppm	0.000100	3.56	-0.593987	Y 242.219
S (181.972 nm)	67.672368	ppm	0.129061	0.19	31006.870135	Y 377.433
Sb (206.834 nm)	-0.006880 u	ppm	0.002108	30.63	-9.775150	Y 377.433
Se (196.026 nm)	0.002067	ppm	0.002048	99.09	11.868100	Y 242.219
Si (288.158 nm)	14.090600	ppm	0.009612	0.07	91197.700000	Y 377.433
Sn (189.925 nm)	0.000291	ppm	0.000267	91.57	2.558790	Y 377.433
Sr (421.552 nm)	0.734304	ppm	0.000861	0.12	110610.186424	Y_R 488.368
Th (288.505 nm)	-0.004597 u	ppm	0.004044	87.98	1.640130	Y 377.433
Ti (336.122 nm)	-0.000009 u	ppm	0.000024	> 100.00	-205.971000	Y 377.433
Tl (190.794 nm)	0.001834	ppm	0.001604	87.45	3.269750	Y 377.433
U (409.013 nm)	0.021995	ppm	0.013009	59.14	36.325400	Y 377.433
V (292.401 nm)	0.014862	ppm	0.000155	1.05	621.831000	Y 377.433
Zn (206.200 nm)	0.001072	ppm	0.000628	58.58	8.944670	Y 377.433
Zr (343.823 nm)	0.000475	ppm	0.000073	15.28	-134.714000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.088949	25171.566251	0.000142	0.01
Y 377.433	1.071855	749688.863850	0.000188	0.02
Y_R 377.433	1.130300	68528.800000	0.002320	0.21
Y_R 488.368	1.145410	60509.200000	0.001216	0.11
Y_R2 488.368	1.124596	119213.114122	0.003666	0.33
Y_R4	1.145990	51569.600000	0.015148	1.32

Sample Name: 280-123508-D-5-Dsd@5

Date: 5/24/2019 7:06:03 PM Rack:Tube: 1:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000693	ppm	0.000314	45.33	-244.101000	Y 377.433
Al (394.401 nm)	0.000319 u	ppm	0.001263	> 100.00	135.354000	Y 377.433
Al H (396.152 nm)	0.100888 u	ppm	0.002616	2.59	21.435200	Y_R 377.433
As (188.980 nm)	0.001777	ppm	0.000083	4.68	1.099650	Y 242.219
B (249.678 nm)	0.074148	ppm	0.000471	0.64	576.171000	Y 242.219
Ba (493.408 nm)	0.011303	ppm	0.000394	3.49	2526.340000	Y_R 488.368
Be (234.861 nm)	-0.000071 u	ppm	0.000004	5.10	-9.276660	Y_R 488.368
Bi (223.061 nm)	-0.000036 u	ppm	0.000381	> 100.00	-10.677500	Y 377.433
Ca (315.887 nm)	13.873007	ppm	0.075946	0.55	10948.980640	Y_R 377.433
Cd (214.439 nm)	0.000134	ppm	0.000097	72.66	-0.193171	Y 377.433
Co (228.615 nm)	-0.000166 u	ppm	0.000052	31.27	-19.040700	Y 242.219
Cr (205.560 nm)	0.001286	ppm	0.000149	11.56	1.818770	Y 377.433
Cu (324.754 nm)	0.001378	ppm	0.000277	20.12	372.492000	Y 377.433
Fe (238.204 nm)	0.071012	ppm	0.001668	2.35	178.077645	Y_R 377.433
Fe H (259.940 nm)	0.072089 u	ppm	0.001251	1.74	111.110000	Y_R 377.433
K (766.491 nm)	0.807964	ppm	0.044711	5.53	2717.540000	Y_R2 488.368
Li (670.783 nm)	0.031515	ppm	0.000390	1.24	-2004.660000	Y_R2 488.368
Mg (279.078 nm)	3.924320	ppm	0.000970	0.02	12850.100000	Y 377.433
Mn (257.610 nm)	0.000872	ppm	0.000044	5.00	226.745000	Y 377.433
Mo (202.032 nm)	0.000495	ppm	0.000346	69.88	17.376400	Y 377.433
Na (589.592 nm)	32.553200	ppm	0.244993	0.75	26875.900000	Y_R2 488.368
Na H (589.593 nm)	33.836637 u	ppm	0.216820	0.64	18240.777475	Y_R4
Ni (231.604 nm)	-0.000156 u	ppm	0.000695	> 100.00	-9.424930	Y 377.433
P (213.618 nm)	-0.001037 u	ppm	0.002522	> 100.00	-5.737190	Y 242.219
Pb (220.353 nm)	-0.000692 u	ppm	0.000323	46.70	6.063060	Y 242.219
S (181.972 nm)	13.435450	ppm	0.020825	0.15	6166.197158	Y 377.433
Sb (206.834 nm)	-0.000187 u	ppm	0.004108	> 100.00	1.473070	Y 377.433
Se (196.026 nm)	0.000020 u	ppm	0.001510	> 100.00	8.869720	Y 242.219
Si (288.158 nm)	2.800980	ppm	0.000903	0.03	18520.000000	Y 377.433
Sn (189.925 nm)	0.001015	ppm	0.001133	> 100.00	3.722950	Y 377.433
Sr (421.552 nm)	0.149132	ppm	0.001201	0.81	22482.681335	Y_R 488.368
Th (288.505 nm)	-0.002844 u	ppm	0.000616	21.67	7.191790	Y 377.433
Ti (336.122 nm)	0.000477	ppm	0.000067	14.03	-326.259000	Y 377.433
Tl (190.794 nm)	0.000210 u	ppm	0.001698	> 100.00	1.740050	Y 377.433
U (409.013 nm)	0.008607 u	ppm	0.013077	> 100.00	0.784331	Y 377.433
V (292.401 nm)	0.002951	ppm	0.000008	0.26	6.149450	Y 377.433
Zn (206.200 nm)	0.007634	ppm	0.000591	7.74	38.400700	Y 377.433
Zr (343.823 nm)	0.000088	ppm	0.000082	92.27	-156.612000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110312	25665.389863	0.004191	0.38
Y 377.433	1.090365	762635.119948	0.003582	0.33
Y_R 377.433	1.103070	66877.900000	0.018821	1.71
Y_R 488.368	1.114490	58875.900000	0.007646	0.69
Y_R2 488.368	1.092537	115814.688237	0.006242	0.57
Y_R4	1.102850	49628.100000	0.000846	0.08

Sample Name: 280-123508-D-5-E MS

Date: 5/24/2019 7:09:31 PM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051912	ppm	0.000076	0.15	1216.570000	Y 377.433
Al (394.401 nm)	9.909300 o	ppm	0.009207	0.09	121485.000000	Y 377.433
Al H (396.152 nm)	9.642340	ppm	0.018817	0.20	21595.900000	Y_R 377.433
As (188.980 nm)	2.046160	ppm	0.006700	0.33	3081.510000	Y 242.219
B (249.678 nm)	1.379690	ppm	0.001035	0.08	9894.230000	Y 242.219
Ba (493.408 nm)	2.035610	ppm	0.000653	0.03	204345.000000	Y_R 488.368
Be (234.861 nm)	0.976862	ppm	0.006084	0.62	96160.200000	Y_R 488.368
Bi (223.061 nm)	1.940790	ppm	0.006666	0.34	4241.800000	Y 377.433
Ca (315.887 nm)	113.653925	ppm	0.259472	0.23	90198.041979	Y_R 377.433
Cd (214.439 nm)	0.999093	ppm	0.000501	0.05	36945.400000	Y 377.433
Co (228.615 nm)	0.974678	ppm	0.001921	0.20	22935.600000	Y 242.219
Cr (205.560 nm)	1.018890	ppm	0.001474	0.14	6781.170000	Y 377.433
Cu (324.754 nm)	0.980273	ppm	0.006176	0.63	46059.100000	Y 377.433
Fe (238.204 nm)	9.924962 o	ppm	0.029689	0.30	23898.256127	Y_R 377.433
Fe H (259.940 nm)	9.895870	ppm	0.007643	0.08	13697.300000	Y_R 377.433
K (766.491 nm)	53.793900	ppm	0.347336	0.65	53880.100000	Y_R2 488.368
Li (670.783 nm)	1.083160	ppm	0.003193	0.29	16052.400000	Y_R2 488.368
Mg (279.078 nm)	67.295400	ppm	0.030370	0.05	220180.000000	Y 377.433
Mn (257.610 nm)	0.980027	ppm	0.000619	0.06	267203.000000	Y 377.433
Mo (202.032 nm)	1.012420	ppm	0.000027	0.00	12772.000000	Y 377.433
Na (589.592 nm)	203.811000 o	ppm	0.169247	0.08	167922.000000	Y_R2 488.368
Na H (589.593 nm)	214.130708	ppm	0.450697	0.21	116060.434156	Y_R4
Ni (231.604 nm)	0.989804	ppm	0.001004	0.10	5114.920000	Y 377.433
P (213.618 nm)	20.323100	ppm	0.036422	0.18	28790.100000	Y 242.219
Pb (220.353 nm)	0.973931	ppm	0.003970	0.41	3100.770000	Y 242.219
S (181.972 nm)	76.352316	ppm	0.182683	0.24	34987.257330	Y 377.433
Sb (206.834 nm)	-0.003155 u	ppm	0.001470	46.59	-8.221400	Y 377.433
Se (196.026 nm)	1.975390	ppm	0.002252	0.11	2987.080000	Y 242.219
Si (288.158 nm)	16.165800	ppm	0.079444	0.49	104557.000000	Y 377.433
Sn (189.925 nm)	2.035410	ppm	0.000618	0.03	3277.190000	Y 377.433
Sr (421.552 nm)	1.701506	ppm	0.000874	0.05	256273.304246	Y_R 488.368
Th (288.505 nm)	0.993490	ppm	0.010594	1.07	1630.480000	Y 377.433
Ti (336.122 nm)	0.985097	ppm	0.000539	0.05	126009.000000	Y 377.433
Tl (190.794 nm)	1.935630	ppm	0.000213	0.01	4417.520000	Y 377.433
U (409.013 nm)	1.986820	ppm	0.004805	0.24	6209.880000	Y 377.433
V (292.401 nm)	0.995563	ppm	0.001030	0.10	51203.200000	Y 377.433
Zn (206.200 nm)	0.496285	ppm	0.001275	0.26	2237.110000	Y 377.433
Zr (343.823 nm)	0.484603	ppm	0.000272	0.06	27272.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	0.993905	22974.579807	0.001734	0.17
Y 377.433	0.990613	692865.311983	0.003487	0.35
Y_R 377.433	1.033650	62669.100000	0.004287	0.41
Y_R 488.368	1.044250	55165.200000	0.002488	0.24
Y_R2 488.368	1.035173	109733.762406	0.000922	0.09
Y_R4	1.056600	47547.000000	0.001951	0.18

Sample Name: 280-123508-D-5-F MSD

Date: 5/24/2019 7:13:12 PM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052536	ppm	0.000443	0.84	1233.510000	Y 377.433
Al (394.401 nm)	9.921930 o	ppm	0.002687	0.03	121632.000000	Y 377.433
Al H (396.152 nm)	9.602020	ppm	0.024590	0.26	21505.700000	Y_R 377.433
As (188.980 nm)	2.063210	ppm	0.008173	0.40	3107.180000	Y 242.219
B (249.678 nm)	1.382700	ppm	0.001486	0.11	9915.570000	Y 242.219
Ba (493.408 nm)	2.022710	ppm	0.000964	0.05	203060.000000	Y_R 488.368
Be (234.861 nm)	0.976291	ppm	0.000355	0.04	96102.900000	Y_R 488.368
Bi (223.061 nm)	1.965210	ppm	0.002505	0.13	4295.320000	Y 377.433
Ca (315.887 nm)	116.687987	ppm	0.026790	0.02	92607.699844	Y_R 377.433
Cd (214.439 nm)	1.026820	ppm	0.000898	0.09	37970.700000	Y 377.433
Co (228.615 nm)	0.987001	ppm	0.001020	0.10	23225.800000	Y 242.219
Cr (205.560 nm)	1.037570	ppm	0.003382	0.33	6905.650000	Y 377.433
Cu (324.754 nm)	0.991279	ppm	0.003902	0.39	46574.100000	Y 377.433
Fe (238.204 nm)	10.165534 o	ppm	0.010871	0.11	24477.354008	Y_R 377.433
Fe H (259.940 nm)	10.120900	ppm	0.019975	0.20	14008.500000	Y_R 377.433
K (766.491 nm)	53.910200	ppm	0.520297	0.97	53992.400000	Y_R2 488.368
Li (670.783 nm)	1.078520	ppm	0.005362	0.50	15972.700000	Y_R2 488.368
Mg (279.078 nm)	68.991600	ppm	0.077423	0.11	225731.000000	Y 377.433
Mn (257.610 nm)	0.996820	ppm	0.000647	0.06	271782.000000	Y 377.433
Mo (202.032 nm)	1.028720	ppm	0.000215	0.02	12977.300000	Y 377.433
Na (589.592 nm)	202.710000 o	ppm	0.134292	0.07	167015.000000	Y_R2 488.368
Na H (589.593 nm)	212.152905	ppm	1.340064	0.63	114987.365050	Y_R4
Ni (231.604 nm)	1.008120	ppm	0.000113	0.01	5209.730000	Y 377.433
P (213.618 nm)	20.493500	ppm	0.001740	0.01	29031.100000	Y 242.219
Pb (220.353 nm)	0.990514	ppm	0.000038	0.00	3153.350000	Y 242.219
S (181.972 nm)	77.414010	ppm	0.319180	0.41	35473.666672	Y 377.433
Sb (206.834 nm)	0.001608 u	ppm	0.002537	> 100.00	-0.214172	Y 377.433
Se (196.026 nm)	2.012850	ppm	0.000004	0.00	3043.540000	Y 242.219
Si (288.158 nm)	16.367900	ppm	0.036571	0.22	105858.000000	Y 377.433
Sn (189.925 nm)	2.093230	ppm	0.002460	0.12	3370.210000	Y 377.433
Sr (421.552 nm)	1.694541	ppm	0.000421	0.02	255224.383699	Y_R 488.368
Th (288.505 nm)	1.004600	ppm	0.001600	0.16	1648.080000	Y 377.433
Ti (336.122 nm)	0.996132	ppm	0.000397	0.04	127432.000000	Y 377.433
Tl (190.794 nm)	1.975940	ppm	0.005471	0.28	4509.480000	Y 377.433
U (409.013 nm)	1.966610	ppm	0.002909	0.15	6144.850000	Y 377.433
V (292.401 nm)	1.011190	ppm	0.000345	0.03	52009.700000	Y 377.433
Zn (206.200 nm)	0.510785	ppm	0.000637	0.12	2302.350000	Y 377.433
Zr (343.823 nm)	0.490398	ppm	0.000622	0.13	27600.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.017602	23522.342450	0.000610	0.06
Y 377.433	1.005577	703332.008836	0.001096	0.11
Y_R 377.433	1.064160	64518.700000	0.001011	0.10
Y_R 488.368	1.076770	56883.300000	0.000252	0.02
Y_R2 488.368	1.055283	111865.614269	0.006904	0.65
Y_R4	1.079010	48555.300000	0.007000	0.65

Sample Name: 280-123508-D-5-Dpds

Date: 5/24/2019 7:16:51 PM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049665	ppm	0.000011	0.02	1433.360000	Y 377.433
Al (394.401 nm)	1.020930	ppm	0.003566	0.35	12770.800000	Y 377.433
Al H (396.152 nm)	0.988335	ppm	0.004740	0.48	2209.860000	Y_R 377.433
As (188.980 nm)	0.217371	ppm	0.000249	0.11	325.948000	Y 242.219
B (249.678 nm)	0.485275	ppm	0.000338	0.07	3511.700000	Y 242.219
Ba (493.408 nm)	0.162836	ppm	0.000513	0.31	17634.100000	Y_R 488.368
Be (234.861 nm)	0.050892	ppm	0.000218	0.43	5005.310000	Y_R 488.368
Bi (223.061 nm)	0.000781 u	ppm	0.001422	> 100.00	-8.655480	Y 377.433
Ca (315.887 nm)	86.939521	ppm	0.141920	0.16	68979.079049	Y_R 377.433
Cd (214.439 nm)	0.053734	ppm	0.000117	0.22	1982.370000	Y 377.433
Co (228.615 nm)	0.049552	ppm	0.001112	2.24	1151.560000	Y 242.219
Cr (205.560 nm)	0.059190	ppm	0.000051	0.09	387.607000	Y 377.433
Cu (324.754 nm)	0.053329	ppm	0.000064	0.12	2764.740000	Y 377.433
Fe (238.204 nm)	1.107875	ppm	0.000107	0.01	2673.988846	Y_R 377.433
Fe H (259.940 nm)	1.103060 u	ppm	0.005093	0.46	1536.930000	Y_R 377.433
K (766.491 nm)	25.047000	ppm	0.419529	1.67	26122.400000	Y_R2 488.368
Li (670.783 nm)	0.189207	ppm	0.000603	0.32	702.952000	Y_R2 488.368
Mg (279.078 nm)	39.351000	ppm	0.053855	0.14	128770.000000	Y 377.433
Mn (257.610 nm)	0.052100	ppm	0.000017	0.03	14194.600000	Y 377.433
Mo (202.032 nm)	0.054182	ppm	0.000142	0.26	694.055000	Y 377.433
Na (589.592 nm)	173.186000 o	ppm	0.334192	0.19	142356.000000	Y_R2 488.368
Na H (589.593 nm)	179.088138	ppm	0.522131	0.29	97047.872373	Y_R4
Ni (231.604 nm)	0.051016	ppm	0.000335	0.66	255.579000	Y 377.433
P (213.618 nm)	2.114720	ppm	0.004592	0.22	3004.880000	Y 242.219
Pb (220.353 nm)	0.102301	ppm	0.001119	1.09	334.155000	Y 242.219
S (181.972 nm)	66.436334	ppm	0.309898	0.47	30441.930535	Y 377.433
Sb (206.834 nm)	0.107860	ppm	0.000624	0.58	183.723000	Y 377.433
Se (196.026 nm)	0.207722	ppm	0.000828	0.40	321.936000	Y 242.219
Si (288.158 nm)	18.781500	ppm	0.032380	0.17	121396.000000	Y 377.433
Sn (189.925 nm)	0.104895	ppm	0.000962	0.92	170.872000	Y 377.433
Sr (421.552 nm)	0.771659	ppm	0.000038	0.00	116236.008525	Y_R 488.368
Th (288.505 nm)	0.207195	ppm	0.008745	4.22	363.556000	Y 377.433
Ti (336.122 nm)	0.049667	ppm	0.000122	0.25	6216.570000	Y 377.433
Tl (190.794 nm)	0.207573	ppm	0.000235	0.11	472.692000	Y 377.433
U (409.013 nm)	0.528074	ppm	0.001613	0.31	1633.380000	Y 377.433
V (292.401 nm)	0.066111	ppm	0.000481	0.73	3261.300000	Y 377.433
Zn (206.200 nm)	0.224707	ppm	0.002472	1.10	1014.660000	Y 377.433
Zr (343.823 nm)	0.050642	ppm	0.000167	0.33	2705.290000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.045980	24178.305537	0.000117	0.01
Y 377.433	1.027397	718593.210620	0.000528	0.05
Y_R 377.433	1.066070	64634.600000	0.006998	0.66
Y_R 488.368	1.080670	57089.400000	0.007271	0.67
Y_R2 488.368	1.054621	111795.420409	0.006358	0.60
Y_R4	1.088720	48992.500000	0.004755	0.44

Sample Name: 280-123638-D-1-C

Date: 5/24/2019 7:20:23 PM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001565	ppm	0.000021	1.37	-216.327000	Y 377.433
Al (394.401 nm)	-0.014867 u	ppm	0.000918	6.17	384.025000	Y 377.433
Al H (396.152 nm)	-0.224334 u	ppm	0.012236	5.45	-34.337900	Y_R 377.433
As (188.980 nm)	0.002767	ppm	0.001606	58.02	2.592430	Y 242.219
B (249.678 nm)	0.177773	ppm	0.001055	0.59	1316.240000	Y 242.219
Ba (493.408 nm)	0.125391	ppm	0.000392	0.31	13900.200000	Y_R 488.368
Be (234.861 nm)	0.000005 u	ppm	0.000022	> 100.00	-1.699910	Y_R 488.368
Bi (223.061 nm)	0.001344	ppm	0.001492	> 100.00	-7.640840	Y 377.433
Ca (315.887 nm)	207.248715	ppm	0.092372	0.04	164529.078633	Y_R 377.433
Cd (214.439 nm)	0.000228	ppm	0.000063	27.50	3.281990	Y 377.433
Co (228.615 nm)	-0.000561 u	ppm	0.000133	23.77	-28.331600	Y 242.219
Cr (205.560 nm)	0.001325	ppm	0.000162	12.24	2.079800	Y 377.433
Cu (324.754 nm)	0.000284	ppm	0.000176	61.91	210.204000	Y 377.433
Fe (238.204 nm)	0.046819	ppm	0.001333	2.85	119.841985	Y_R 377.433
Fe H (259.940 nm)	0.033860 u	ppm	0.001255	3.71	58.241300	Y_R 377.433
K (766.491 nm)	8.902580	ppm	0.275950	3.10	10533.600000	Y_R2 488.368
Li (670.783 nm)	0.183019	ppm	0.001148	0.63	596.714000	Y_R2 488.368
Mg (279.078 nm)	45.875400	ppm	0.034759	0.08	150129.000000	Y 377.433
Mn (257.610 nm)	0.000418	ppm	0.000024	5.73	103.050000	Y 377.433
Mo (202.032 nm)	0.001256	ppm	0.000441	35.08	26.962200	Y 377.433
Na (589.592 nm)	188.730000 o	ppm	0.969952	0.51	155108.000000	Y_R2 488.368
Na H (589.593 nm)	196.132474	ppm	0.956667	0.49	106295.381910	Y_R4
Ni (231.604 nm)	-0.002243 u	ppm	0.000290	12.91	-20.223700	Y 377.433
P (213.618 nm)	0.002084	ppm	0.000651	31.24	-1.760010	Y 242.219
Pb (220.353 nm)	0.000058 u	ppm	0.000688	> 100.00	8.547360	Y 242.219
S (181.972 nm)	70.361236	ppm	0.034449	0.05	32245.104718	Y 377.433
Sb (206.834 nm)	-0.007481 u	ppm	0.002658	35.53	-10.848300	Y 377.433
Se (196.026 nm)	0.000594 u	ppm	0.001635	> 100.00	9.741930	Y 242.219
Si (288.158 nm)	16.327700	ppm	0.068068	0.42	105599.000000	Y 377.433
Sn (189.925 nm)	0.000463	ppm	0.000040	8.60	2.835180	Y 377.433
Sr (421.552 nm)	1.820517	ppm	0.001638	0.09	274195.071676	Y_R 488.368
Th (288.505 nm)	0.005489	ppm	0.007215	> 100.00	16.352300	Y 377.433
Ti (336.122 nm)	-0.001400 u	ppm	0.000075	5.34	90.884600	Y 377.433
Tl (190.794 nm)	0.005259	ppm	0.000523	9.94	5.606540	Y 377.433
U (409.013 nm)	0.032748	ppm	0.000283	0.87	51.602600	Y 377.433
V (292.401 nm)	0.007345	ppm	0.000170	2.32	233.125000	Y 377.433
Zn (206.200 nm)	0.003762	ppm	0.000941	25.00	20.986700	Y 377.433
Zr (343.823 nm)	0.000327	ppm	0.000105	32.18	-143.130000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.032603	23869.090275	0.005455	0.53
Y 377.433	1.020515	713780.024329	0.005492	0.54
Y_R 377.433	1.096760	66494.900000	0.000883	0.08
Y_R 488.368	1.109250	58599.100000	0.000075	0.01
Y_R2 488.368	1.090866	115637.573315	0.002063	0.19
Y_R4	1.092240	49150.700000	0.000599	0.05

Sample Name: 280-123638-D-2-E

Date: 5/24/2019 7:23:55 PM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001632	ppm	0.000154	9.42	-213.865000	Y 377.433
Al (394.401 nm)	-0.011106 u	ppm	0.000786	7.08	410.367000	Y 377.433
Al H (396.152 nm)	-0.205265 u	ppm	0.003311	1.61	-26.679600	Y_R 377.433
As (188.980 nm)	0.000740	ppm	0.000109	14.77	-0.460832	Y 242.219
B (249.678 nm)	0.169044	ppm	0.000143	0.08	1253.920000	Y 242.219
Ba (493.408 nm)	0.118771	ppm	0.000456	0.38	13240.200000	Y_R 488.368
Be (234.861 nm)	-0.000045 u	ppm	0.000019	42.61	-6.460090	Y_R 488.368
Bi (223.061 nm)	0.000037 u	ppm	0.001179	> 100.00	-10.511700	Y 377.433
Ca (315.887 nm)	197.493132	ppm	0.193206	0.10	156781.137937	Y_R 377.433
Cd (214.439 nm)	0.000234	ppm	0.000068	29.07	3.486240	Y 377.433
Co (228.615 nm)	-0.000535 u	ppm	0.000097	18.16	-27.723600	Y 242.219
Cr (205.560 nm)	0.001741	ppm	0.000907	52.11	4.857040	Y 377.433
Cu (324.754 nm)	0.000055 u	ppm	0.000351	> 100.00	203.398000	Y 377.433
Fe (238.204 nm)	0.011491	ppm	0.002380	20.71	34.799934	Y_R 377.433
Fe H (259.940 nm)	0.009757 u	ppm	0.000941	9.64	24.907600	Y_R 377.433
K (766.491 nm)	8.288540	ppm	0.262937	3.17	9940.700000	Y_R2 488.368
Li (670.783 nm)	0.179252	ppm	0.003602	2.01	532.028000	Y_R2 488.368
Mg (279.078 nm)	43.718200	ppm	0.042534	0.10	143069.000000	Y 377.433
Mn (257.610 nm)	0.000219	ppm	0.000024	10.92	48.579500	Y 377.433
Mo (202.032 nm)	0.001078	ppm	0.000010	0.90	24.719100	Y 377.433
Na (589.592 nm)	179.298000 o	ppm	0.153029	0.09	147363.000000	Y_R2 488.368
Na H (589.593 nm)	185.909697	ppm	0.618969	0.33	100748.951323	Y_R4
Ni (231.604 nm)	-0.002044 u	ppm	0.000829	40.57	-19.196100	Y 377.433
P (213.618 nm)	0.000718	ppm	0.000852	> 100.00	-3.547400	Y 242.219
Pb (220.353 nm)	-0.001604 u	ppm	0.000118	7.34	3.284680	Y 242.219
S (181.972 nm)	67.622258	ppm	0.195956	0.29	30990.301061	Y 377.433
Sb (206.834 nm)	-0.005549 u	ppm	0.001812	32.66	-7.585940	Y 377.433
Se (196.026 nm)	-0.000936 u	ppm	0.001520	> 100.00	7.442200	Y 242.219
Si (288.158 nm)	15.558300	ppm	0.018892	0.12	100646.000000	Y 377.433
Sn (189.925 nm)	0.000613	ppm	0.000758	> 100.00	3.076370	Y 377.433
Sr (421.552 nm)	1.733415	ppm	0.003609	0.21	261077.322445	Y_R 488.368
Th (288.505 nm)	-0.003530 u	ppm	0.002524	71.50	1.154800	Y 377.433
Ti (336.122 nm)	-0.001233 u	ppm	0.000021	1.71	79.271500	Y 377.433
Tl (190.794 nm)	0.002299	ppm	0.000010	0.46	-0.773000	Y 377.433
U (409.013 nm)	0.035954	ppm	0.003217	8.95	63.051400	Y 377.433
V (292.401 nm)	0.007169	ppm	0.000220	3.07	222.923000	Y 377.433
Zn (206.200 nm)	0.002587	ppm	0.000197	7.63	15.700600	Y 377.433
Zr (343.823 nm)	0.000167	ppm	0.000044	26.29	-152.173000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.070190	24737.936195	0.004822	0.45
Y 377.433	1.057852	739894.364248	0.004751	0.45
Y_R 377.433	1.104560	66968.300000	0.004393	0.40
Y_R 488.368	1.117090	59013.400000	0.007118	0.64
Y_R2 488.368	1.107506	117401.477796	0.007719	0.70
Y_R4	1.105630	49753.500000	0.004410	0.40

Sample Name: CCVH-5713036

Date: 5/24/2019 7:27:31 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004357	ppm	0.000216	4.97	-126.648000	Y 377.433
Al (394.401 nm)	49.910200 o	ppm	0.107435	0.22	608047.000000	Y 377.433
Al H (396.152 nm)	48.384600	ppm	0.102592	0.21	105507.000000	Y_R 377.433
As (188.980 nm)	0.002668	ppm	0.002437	91.34	1.077050	Y 242.219
B (249.678 nm)	-0.001943 u	ppm	0.000505	26.01	3.635760	Y 242.219
Ba (493.408 nm)	0.000410	ppm	0.000180	43.97	1480.550000	Y_R 488.368
Be (234.861 nm)	0.001153	ppm	0.000012	1.02	-101.880000	Y_R 488.368
Bi (223.061 nm)	-0.005282 u	ppm	0.000274	5.20	-13.459500	Y 377.433
Ca (315.887 nm)	0.016998	ppm	0.003601	21.19	-43.420977	Y_R 377.433
Cd (214.439 nm)	0.001442	ppm	0.000018	1.22	68.633700	Y 377.433
Co (228.615 nm)	0.003341	ppm	0.000175	5.24	63.444400	Y 242.219
Cr (205.560 nm)	0.001756	ppm	0.000047	2.65	3.646900	Y 377.433
Cu (324.754 nm)	0.004156	ppm	0.000314	7.55	1456.610000	Y 377.433
Fe (238.204 nm)	50.464533 o	ppm	0.125877	0.25	121484.079688	Y_R 377.433
Fe H (259.940 nm)	49.984900	ppm	0.119794	0.24	69139.800000	Y_R 377.433
K (766.491 nm)	0.006591 u	ppm	0.173748	> 100.00	1943.750000	Y_R2 488.368
Li (670.783 nm)	0.023950	ppm	0.007303	30.49	-2134.540000	Y_R2 488.368
Mg (279.078 nm)	0.040361	ppm	0.000026	0.06	65.748600	Y 377.433
Mn (257.610 nm)	0.001013	ppm	0.000012	1.21	265.098000	Y 377.433
Mo (202.032 nm)	0.001326	ppm	0.000249	18.73	27.851800	Y 377.433
Na (589.592 nm)	230.833000 o	ppm	2.214290	0.96	189642.000000	Y_R2 488.368
Na H (589.593 nm)	237.199695	ppm	1.093087	0.46	128576.654820	Y_R4
Ni (231.604 nm)	0.004099	ppm	0.000060	1.47	12.590700	Y 377.433
P (213.618 nm)	5.001870	ppm	0.027667	0.55	7144.080000	Y 242.219
Pb (220.353 nm)	0.006810	ppm	0.001596	23.43	23.157800	Y 242.219
S (181.972 nm)	5.078522	ppm	0.004174	0.08	2338.437318	Y 377.433
Sb (206.834 nm)	0.000704	ppm	0.000301	42.71	7.216410	Y 377.433
Se (196.026 nm)	0.007493	ppm	0.000508	6.79	7.162700	Y 242.219
Si (288.158 nm)	0.016584	ppm	0.001063	6.41	595.309000	Y 377.433
Sn (189.925 nm)	0.003725	ppm	0.001943	52.15	8.084130	Y 377.433
Sr (421.552 nm)	0.001503	ppm	0.000169	11.24	257.067433	Y_R 488.368
Th (288.505 nm)	4.871320	ppm	0.006004	0.12	8413.060000	Y 377.433
Ti (336.122 nm)	0.002214	ppm	0.000252	11.39	-150.454000	Y 377.433
Tl (190.794 nm)	-0.000707 u	ppm	0.002633	> 100.00	-4.664460	Y 377.433
U (409.013 nm)	0.535784 Q	ppm	0.003075	0.57	1712.000000 Q	Y 377.433
V (292.401 nm)	0.000830	ppm	0.000009	1.05	388.291000	Y 377.433
Zn (206.200 nm)	0.002887	ppm	0.000329	11.41	24.074800	Y 377.433
Zr (343.823 nm)	0.001251	ppm	0.000190	15.18	-90.767300	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.088053	25150.854156	0.004860	0.45
Y 377.433	1.068374	747254.134079	0.003990	0.37
Y_R 377.433	1.129050	68453.100000	0.005716	0.51
Y_R 488.368	1.146140	60548.000000	0.013548	1.18
Y_R2 488.368	1.134795	120294.287374	0.004435	0.39
Y_R4	1.152130	51845.700000	0.010134	0.88

Sample Name: CCV-5717467

Date: 5/24/2019 7:31:15 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.495988	ppm	0.000132	0.03	16846.900000	Y 377.433
Al (394.401 nm)	0.503588	ppm	0.001026	0.20	6360.550000	Y 377.433
Al H (396.152 nm)	0.546297 u	ppm	0.003446	0.63	1179.040000	Y_R 377.433
As (188.980 nm)	0.502798	ppm	0.004409	0.88	756.018000	Y 242.219
B (249.678 nm)	0.482717	ppm	0.000631	0.13	3492.600000	Y 242.219
Ba (493.408 nm)	0.485237	ppm	0.002427	0.50	49776.500000	Y_R 488.368
Be (234.861 nm)	0.475426	ppm	0.003708	0.78	46808.600000	Y_R 488.368
Bi (223.061 nm)	1.000660	ppm	0.000196	0.02	2181.510000	Y 377.433
Ca (315.887 nm)	5.046753	ppm	0.007091	0.14	3939.251238	Y_R 377.433
Cd (214.439 nm)	0.521708	ppm	0.000110	0.02	19288.700000	Y 377.433
Co (228.615 nm)	0.501076	ppm	0.000584	0.12	11783.000000	Y 242.219
Cr (205.560 nm)	0.517305	ppm	0.004643	0.90	3439.730000	Y 377.433
Cu (324.754 nm)	0.500496	ppm	0.002120	0.42	23659.700000	Y 377.433
Fe (238.204 nm)	2.543244	ppm	0.013627	0.54	6129.172681	Y_R 377.433
Fe H (259.940 nm)	2.530920 u	ppm	0.006168	0.24	3511.640000	Y_R 377.433
K (766.491 nm)	48.731900	ppm	0.125998	0.26	48992.300000	Y_R2 488.368
Li (670.783 nm)	0.520769	ppm	0.001922	0.37	6395.950000	Y_R2 488.368
Mg (279.078 nm)	20.056800	ppm	0.009453	0.05	65638.100000	Y 377.433
Mn (257.610 nm)	0.496413	ppm	0.000543	0.11	135341.000000	Y 377.433
Mo (202.032 nm)	0.502474	ppm	0.000042	0.01	6344.440000	Y 377.433
Na (589.592 nm)	23.659400	ppm	0.126142	0.53	19682.400000	Y_R2 488.368
Na H (589.593 nm)	25.375233 u	ppm	0.218646	0.86	13649.990651	Y_R4
Ni (231.604 nm)	0.515033	ppm	0.000346	0.07	2656.780000	Y 377.433
P (213.618 nm)	0.046933	ppm	0.007359	15.68	-72.659100	Y 242.219
Pb (220.353 nm)	0.503556	ppm	0.002415	0.48	1605.740000	Y 242.219
S (181.972 nm)	0.009563	ppm	0.004888	51.12	18.899101	Y 377.433
Sb (206.834 nm)	0.510971	ppm	0.002474	0.48	861.941000	Y 377.433
Se (196.026 nm)	0.507082	ppm	0.001426	0.28	773.751000	Y 242.219
Si (288.158 nm)	4.932320	ppm	0.004879	0.10	32240.700000	Y 377.433
Sn (189.925 nm)	0.518824	ppm	0.000764	0.15	836.907000	Y 377.433
Sr (421.552 nm)	0.475220	ppm	0.002653	0.56	71592.133603	Y_R 488.368
Th (288.505 nm)	0.019600	ppm	0.000558	2.85	-3.581390	Y 377.433
Ti (336.122 nm)	0.489143	ppm	0.000797	0.16	62176.100000	Y 377.433
Tl (190.794 nm)	0.517013	ppm	0.002936	0.57	1181.020000	Y 377.433
U (409.013 nm)	0.014079	ppm	0.005935	42.16	-40.427600	Y 377.433
V (292.401 nm)	0.491974	ppm	0.000080	0.02	25221.500000	Y 377.433
Zn (206.200 nm)	0.520552	ppm	0.003762	0.72	2345.200000	Y 377.433
Zr (343.823 nm)	0.490468	ppm	0.000776	0.16	27604.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119763	25883.834934	0.002367	0.21
Y 377.433	1.100093	769439.170745	0.002677	0.24
Y_R 377.433	1.148310	69620.700000	0.005549	0.48
Y_R 488.368	1.165280	61559.300000	0.005859	0.50
Y_R2 488.368	1.164104	123401.164712	0.001444	0.12
Y_R4	1.168000	52560.100000	0.003671	0.31

Sample Name: CCB

Date: 5/24/2019 7:34:50 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000612	ppm	0.000121	19.69	-245.768000	Y 377.433
Al (394.401 nm)	-0.001856 u	ppm	0.000826	44.50	70.121200	Y 377.433
Al H (396.152 nm)	0.133385 Zu	ppm	0.004039	3.03	33.297900 Z	Y_R 377.433
As (188.980 nm)	-0.000076 u	ppm	0.001366	> 100.00	-1.690650	Y 242.219
B (249.678 nm)	-0.002738 u	ppm	0.000400	14.59	27.119900	Y 242.219
Ba (493.408 nm)	-0.002156 Zu	ppm	0.000446	20.70	1184.470000 Z	Y_R 488.368
Be (234.861 nm)	-0.000024 u	ppm	0.000029	> 100.00	-4.319380	Y_R 488.368
Bi (223.061 nm)	0.000795	ppm	0.000623	78.36	-8.871530	Y 377.433
Ca (315.887 nm)	0.013340	ppm	0.000573	4.30	-58.445010	Y_R 377.433
Cd (214.439 nm)	0.000037 u	ppm	0.000133	> 100.00	-3.821420	Y 377.433
Co (228.615 nm)	-0.000236 u	ppm	0.000294	> 100.00	-20.687700	Y 242.219
Cr (205.560 nm)	0.000068	ppm	0.000011	15.42	-6.296990	Y 377.433
Cu (324.754 nm)	0.001044	ppm	0.000109	10.46	364.774000	Y 377.433
Fe (238.204 nm)	-0.001236 u	ppm	0.000883	71.46	4.165332	Y_R 377.433
Fe H (259.940 nm)	0.002669 u	ppm	0.001241	46.52	15.104000	Y_R 377.433
K (766.491 nm)	-0.144016 u	ppm	0.154360	> 100.00	1798.320000	Y_R2 488.368
Li (670.783 nm)	0.025323 Z	ppm	0.004383	17.31	-2110.970000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001907	ppm	0.000475	24.93	14.681500	Y 377.433
Mn (257.610 nm)	0.000077	ppm	0.000002	2.33	9.965160	Y 377.433
Mo (202.032 nm)	0.000051 u	ppm	0.000330	> 100.00	11.776300	Y 377.433
Na (589.592 nm)	0.015271	ppm	0.006561	42.96	162.228000	Y_R2 488.368
Na H (589.593 nm)	1.161752 u	ppm	0.010555	0.91	512.817784	Y_R4
Ni (231.604 nm)	0.000466	ppm	0.000173	37.19	-6.210220	Y 377.433
P (213.618 nm)	0.000361 u	ppm	0.001090	> 100.00	-3.531630	Y 242.219
Pb (220.353 nm)	-0.000544 u	ppm	0.000199	36.53	6.520630	Y 242.219
S (181.972 nm)	-0.000590 u	ppm	0.002316	> 100.00	12.428531	Y 377.433
Sb (206.834 nm)	0.000255	ppm	0.000283	> 100.00	2.210040	Y 377.433
Se (196.026 nm)	0.001188 u	ppm	0.002385	> 100.00	10.649900	Y 242.219
Si (288.158 nm)	-0.008861 u	ppm	0.000209	2.36	431.505000	Y 377.433
Sn (189.925 nm)	0.001086	ppm	0.000767	70.56	3.838630	Y 377.433
Sr (421.552 nm)	0.000215	ppm	0.000032	14.74	55.533387	Y_R 488.368
Th (288.505 nm)	-0.003943 u	ppm	0.002906	73.71	5.897010	Y 377.433
Ti (336.122 nm)	0.000509	ppm	0.000055	10.74	-368.688000	Y 377.433
Tl (190.794 nm)	0.000119 u	ppm	0.000480	> 100.00	2.089300	Y 377.433
U (409.013 nm)	0.002085	ppm	0.002825	> 100.00	-18.136000	Y 377.433
V (292.401 nm)	0.000173	ppm	0.000213	> 100.00	-137.684000	Y 377.433
Zn (206.200 nm)	-0.000711 u	ppm	0.000314	44.12	0.867723	Y 377.433
Zr (343.823 nm)	0.000138	ppm	0.000066	47.63	-153.799000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155936	26719.992636	0.004100	0.35
Y 377.433	1.134793	793709.995440	0.003703	0.33
Y_R 377.433	1.171830	71046.800000	0.007728	0.66
Y_R 488.368	1.189320	62829.000000	0.011232	0.94
Y_R2 488.368	1.170241	124051.704230	0.001097	0.09
Y_R4	1.173680	52815.700000	0.002444	0.21

Sample Name: CCVL-5719884

Date: 5/24/2019 7:38:01 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008519	ppm	0.000768	9.01	25.872200	Y 377.433
Al (394.401 nm)	0.096139	ppm	0.000673	0.70	1274.130000	Y 377.433
Al H (396.152 nm)	0.230965 u	ppm	0.007461	3.23	252.125000	Y_R 377.433
As (188.980 nm)	0.014414	ppm	0.000053	0.37	20.141100	Y 242.219
B (249.678 nm)	0.091228	ppm	0.000717	0.79	698.133000	Y 242.219
Ba (493.408 nm)	0.007420	ppm	0.000079	1.07	2139.230000	Y_R 488.368
Be (234.861 nm)	0.000968	ppm	0.000006	0.62	92.948400	Y_R 488.368
Bi (223.061 nm)	0.089687	ppm	0.001552	1.73	185.837000	Y 377.433
Ca (315.887 nm)	0.222647	ppm	0.003610	1.62	107.810415	Y_R 377.433
Cd (214.439 nm)	0.005386	ppm	0.000045	0.84	194.019000	Y 377.433
Co (228.615 nm)	0.010519	ppm	0.000162	1.54	232.514000	Y 242.219
Cr (205.560 nm)	0.010560	ppm	0.000924	8.75	63.500300	Y 377.433
Cu (324.754 nm)	0.016641	ppm	0.000169	1.01	1091.810000	Y 377.433
Fe (238.204 nm)	0.103796	ppm	0.003534	3.40	256.995142	Y_R 377.433
Fe H (259.940 nm)	0.105675 u	ppm	0.000783	0.74	157.560000	Y_R 377.433
K (766.491 nm)	2.739340	ppm	0.395562	14.44	4582.460000	Y_R2 488.368
Li (670.783 nm)	0.047933 Q	ppm	0.001334	2.78	-1722.760000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204601	ppm	0.001527	0.75	676.592000	Y 377.433
Mn (257.610 nm)	0.010610	ppm	0.000003	0.03	2881.720000	Y 377.433
Mo (202.032 nm)	0.019766	ppm	0.000130	0.66	260.267000	Y 377.433
Na (589.592 nm)	1.035520	ppm	0.005495	0.53	1001.960000	Y_R2 488.368
Na H (589.593 nm)	1.926472 u	ppm	0.013932	0.72	927.721125	Y_R4
Ni (231.604 nm)	0.043673	ppm	0.000733	1.68	217.365000	Y 377.433
P (213.618 nm)	2.893890	ppm	0.011448	0.40	4129.960000	Y 242.219
Pb (220.353 nm)	0.009474	ppm	0.000567	5.98	38.452600	Y 242.219
S (181.972 nm)	0.101626	ppm	0.000364	0.36	59.278897	Y 377.433
Sb (206.834 nm)	0.019252	ppm	0.002113	10.97	34.136800	Y 377.433
Se (196.026 nm)	0.018699	ppm	0.002720	14.55	37.050400	Y 242.219
Si (288.158 nm)	0.480111	ppm	0.001691	0.35	3579.300000	Y 377.433
Sn (189.925 nm)	0.102444	ppm	0.000602	0.59	166.928000	Y 377.433
Sr (421.552 nm)	0.009238	ppm	0.000039	0.43	1414.407518	Y_R 488.368
Th (288.505 nm)	0.018597	ppm	0.001412	7.59	44.301100	Y 377.433
Ti (336.122 nm)	0.010092	ppm	0.000061	0.60	858.263000	Y 377.433
Tl (190.794 nm)	0.016817	ppm	0.000135	0.80	40.162900	Y 377.433
U (409.013 nm)	0.063514	ppm	0.003793	5.97	175.507000	Y 377.433
V (292.401 nm)	0.010099	ppm	0.000104	1.03	371.482000	Y 377.433
Zn (206.200 nm)	0.021990	ppm	0.000293	1.33	102.963000	Y 377.433
Zr (343.823 nm)	0.010006	ppm	0.000079	0.79	404.838000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.183238	27351.108019	0.000684	0.06
Y 377.433	1.161331	812270.878333	0.001609	0.14
Y_R 377.433	1.201600	72851.400000	0.002103	0.17
Y_R 488.368	1.218750	64383.800000	0.005858	0.48
Y_R2 488.368	1.181082	125200.983379	0.000010	0.00
Y_R4	1.185170	53332.700000	0.001399	0.12

Sample Name: 280-123638-D-3-C

Date: 5/24/2019 7:41:32 PM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001497	ppm	0.000027	1.82	-218.426000	Y 377.433
Al (394.401 nm)	-0.006982 u	ppm	0.000579	8.29	379.637000	Y 377.433
Al H (396.152 nm)	-0.143854 u	ppm	0.000395	0.27	-10.450600	Y_R 377.433
As (188.980 nm)	0.003344	ppm	0.001201	35.92	3.462130	Y 242.219
B (249.678 nm)	0.142980	ppm	0.000796	0.56	1067.770000	Y 242.219
Ba (493.408 nm)	0.086148	ppm	0.000073	0.09	9987.930000	Y_R 488.368
Be (234.861 nm)	-0.000081 u	ppm	0.000042	51.66	-10.095400	Y_R 488.368
Bi (223.061 nm)	0.000806	ppm	0.000078	9.73	-8.827200	Y 377.433
Ca (315.887 nm)	160.955923	ppm	0.170298	0.11	127763.077330	Y_R 377.433
Cd (214.439 nm)	0.000160	ppm	0.000024	15.19	0.738094	Y 377.433
Co (228.615 nm)	-0.000779 u	ppm	0.000224	28.78	-33.455900	Y 242.219
Cr (205.560 nm)	0.001201	ppm	0.000273	22.73	1.256550	Y 377.433
Cu (324.754 nm)	0.002766	ppm	0.000248	8.97	352.221000	Y 377.433
Fe (238.204 nm)	0.026728	ppm	0.001308	4.89	71.477858	Y_R 377.433
Fe H (259.940 nm)	0.020903 u	ppm	0.000961	4.60	40.321800	Y_R 377.433
K (766.491 nm)	7.315860	ppm	0.219970	3.01	9001.480000	Y_R2 488.368
Li (670.783 nm)	0.155508	ppm	0.000620	0.40	124.341000	Y_R2 488.368
Mg (279.078 nm)	36.128900	ppm	0.022272	0.06	118235.000000	Y 377.433
Mn (257.610 nm)	0.000329	ppm	0.000004	1.08	78.767800	Y 377.433
Mo (202.032 nm)	0.001188	ppm	0.000252	21.22	26.105700	Y 377.433
Na (589.592 nm)	149.890000 o	ppm	0.484974	0.32	123215.000000	Y_R2 488.368
Na H (589.593 nm)	154.383662	ppm	1.377991	0.89	83644.307204	Y_R4
Ni (231.604 nm)	-0.001487 u	ppm	0.001001	67.34	-16.316000	Y 377.433
P (213.618 nm)	-0.001080 u	ppm	0.003134	> 100.00	-6.642920	Y 242.219
Pb (220.353 nm)	-0.000352 u	ppm	0.000915	> 100.00	7.218840	Y 242.219
S (181.972 nm)	57.650307	ppm	0.108098	0.19	26421.820265	Y 377.433
Sb (206.834 nm)	-0.006752 u	ppm	0.001422	21.06	-9.617460	Y 377.433
Se (196.026 nm)	0.001490	ppm	0.000195	13.08	11.098700	Y 242.219
Si (288.158 nm)	14.963700	ppm	0.004890	0.03	96818.500000	Y 377.433
Sn (189.925 nm)	0.000235	ppm	0.000188	80.09	2.468540	Y 377.433
Sr (421.552 nm)	1.430374	ppm	0.001226	0.09	215439.016476	Y_R 488.368
Th (288.505 nm)	-0.000610 u	ppm	0.002305	> 100.00	6.975610	Y 377.433
Ti (336.122 nm)	-0.000848 u	ppm	0.000011	1.26	5.186930	Y 377.433
Tl (190.794 nm)	0.002166	ppm	0.000533	24.59	0.362402	Y 377.433
U (409.013 nm)	0.027779	ppm	0.009250	33.30	41.950000	Y 377.433
V (292.401 nm)	0.007360	ppm	0.000188	2.56	234.158000	Y 377.433
Zn (206.200 nm)	0.002505	ppm	0.000460	18.35	15.332300	Y 377.433
Zr (343.823 nm)	0.000130 u	ppm	0.000188	> 100.00	-154.251000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.079864	24961.562879	0.003632	0.34
Y 377.433	1.067146	746394.921723	0.001471	0.14
Y_R 377.433	1.138190	69007.300000	0.004225	0.37
Y_R 488.368	1.152170	60866.600000	0.002888	0.25
Y_R2 488.368	1.127246	119494.011580	0.003091	0.27
Y_R4	1.140560	51325.200000	0.011214	0.98

Sample Name: 280-123638-D-4-C

Date: 5/24/2019 7:45:05 PM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001641	ppm	0.000031	1.88	-213.277000	Y 377.433
Al (394.401 nm)	-0.017333 u	ppm	0.002480	14.31	406.671000	Y 377.433
Al H (396.152 nm)	-0.257472 u	ppm	0.004396	1.71	-22.975100	Y_R 377.433
As (188.980 nm)	0.000513 u	ppm	0.001070	> 100.00	-0.803397	Y 242.219
B (249.678 nm)	0.239790	ppm	0.001211	0.50	1759.160000	Y 242.219
Ba (493.408 nm)	0.118444	ppm	0.000348	0.29	13207.600000	Y_R 488.368
Be (234.861 nm)	-0.000065 u	ppm	0.000067	> 100.00	-8.419650	Y_R 488.368
Bi (223.061 nm)	0.000426 u	ppm	0.001563	> 100.00	-9.658470	Y 377.433
Ca (315.887 nm)	220.371064	ppm	1.084718	0.49	174950.924648	Y_R 377.433
Cd (214.439 nm)	0.000231	ppm	0.000074	31.88	3.367190	Y 377.433
Co (228.615 nm)	-0.000439 u	ppm	0.000118	26.77	-25.457300	Y 242.219
Cr (205.560 nm)	0.001267	ppm	0.000472	37.29	1.693720	Y 377.433
Cu (324.754 nm)	-0.000169 u	ppm	0.000212	> 100.00	181.655000	Y 377.433
Fe (238.204 nm)	0.012427	ppm	0.000755	6.08	37.052265	Y_R 377.433
Fe H (259.940 nm)	0.004135 u	ppm	0.000583	14.09	17.131900	Y_R 377.433
K (766.491 nm)	8.171640	ppm	0.210356	2.57	9827.820000	Y_R2 488.368
Li (670.783 nm)	0.169225	ppm	0.000676	0.40	359.862000	Y_R2 488.368
Mg (279.078 nm)	49.361300	ppm	0.079719	0.16	161536.000000	Y 377.433
Mn (257.610 nm)	0.000178	ppm	0.000015	8.57	37.504300	Y 377.433
Mo (202.032 nm)	0.000500	ppm	0.000376	75.12	17.433900	Y 377.433
Na (589.592 nm)	156.981000 o	ppm	0.054210	0.03	129043.000000	Y_R2 488.368
Na H (589.593 nm)	162.487660	ppm	0.610586	0.38	88041.180845	Y_R4
Ni (231.604 nm)	-0.001483 u	ppm	0.000749	50.47	-16.294700	Y 377.433
P (213.618 nm)	0.003745	ppm	0.002888	77.10	0.927955	Y 242.219
Pb (220.353 nm)	0.000332 u	ppm	0.002451	> 100.00	9.403750	Y 242.219
S (181.972 nm)	92.777864	ppm	0.298601	0.32	42511.554160	Y 377.433
Sb (206.834 nm)	-0.007593 u	ppm	0.000221	2.91	-11.036400	Y 377.433
Se (196.026 nm)	0.001342	ppm	0.001773	> 100.00	10.878600	Y 242.219
Si (288.158 nm)	15.423600	ppm	0.031742	0.21	99778.700000	Y 377.433
Sn (189.925 nm)	0.000550	ppm	0.000189	34.42	2.974610	Y 377.433
Sr (421.552 nm)	2.026707	ppm	0.009390	0.46	305247.463060	Y_R 488.368
Th (288.505 nm)	0.002540 u	ppm	0.005799	> 100.00	11.005800	Y 377.433
Ti (336.122 nm)	-0.001190 u	ppm	0.000151	12.68	163.249000	Y 377.433
Tl (190.794 nm)	0.003560	ppm	0.000885	24.86	1.196090	Y 377.433
U (409.013 nm)	0.034148	ppm	0.004902	14.35	54.254500	Y 377.433
V (292.401 nm)	0.006928	ppm	0.000032	0.46	211.879000	Y 377.433
Zn (206.200 nm)	0.002269	ppm	0.000464	20.46	14.267800	Y 377.433
Zr (343.823 nm)	0.000253	ppm	0.000045	17.77	-147.317000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.083517	25046.002364	0.003313	0.31
Y 377.433	1.074091	751252.631944	0.004766	0.44
Y_R 377.433	1.125480	68236.400000	0.012463	1.11
Y_R 488.368	1.139320	60187.400000	0.011615	1.02
Y_R2 488.368	1.141191	120972.278380	0.002137	0.19
Y_R4	1.142260	51401.700000	0.000505	0.04

Sample Name: MB 280-459218/1-A

Date: 5/24/2019 7:48:37 PM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000112 u	ppm	0.000365	> 100.00	-263.172000	Y 377.433
Al (394.401 nm)	0.000185 u	ppm	0.000283	> 100.00	91.923000	Y 377.433
Al H (396.152 nm)	0.131240 u	ppm	0.009875	7.52	28.638700	Y_R 377.433
As (188.980 nm)	0.001211 u	ppm	0.002623	> 100.00	0.247723	Y 242.219
B (249.678 nm)	-0.003771 u	ppm	0.001344	35.64	19.729600	Y 242.219
Ba (493.408 nm)	-0.002244 u	ppm	0.000124	5.53	1175.790000	Y_R 488.368
Be (234.861 nm)	-0.000022 u	ppm	0.000017	77.12	-4.194680	Y_R 488.368
Bi (223.061 nm)	0.000366 u	ppm	0.000725	> 100.00	-9.808620	Y 377.433
Ca (315.887 nm)	0.032943	ppm	0.000744	2.26	-42.875704	Y_R 377.433
Cd (214.439 nm)	0.000039 u	ppm	0.000110	> 100.00	-3.722340	Y 377.433
Co (228.615 nm)	0.000002 u	ppm	0.000212	> 100.00	-15.080000	Y 242.219
Cr (205.560 nm)	0.000140 u	ppm	0.000374	> 100.00	-5.816130	Y 377.433
Cu (324.754 nm)	0.001299	ppm	0.000221	17.02	378.805000	Y 377.433
Fe (238.204 nm)	0.015859	ppm	0.003308	20.86	45.314630	Y_R 377.433
Fe H (259.940 nm)	0.017458 u	ppm	0.001248	7.15	35.558000	Y_R 377.433
K (766.491 nm)	-0.206693 u	ppm	0.237980	> 100.00	1737.800000	Y_R2 488.368
Li (670.783 nm)	0.021648	ppm	0.002398	11.08	-2174.070000	Y_R2 488.368
Mg (279.078 nm)	0.005537	ppm	0.000312	5.64	26.603300	Y 377.433
Mn (257.610 nm)	0.000242	ppm	0.000008	3.15	54.813500	Y 377.433
Mo (202.032 nm)	-0.000097 u	ppm	0.000402	> 100.00	9.908480	Y 377.433
Na (589.592 nm)	0.019624	ppm	0.019197	97.83	165.826000	Y_R2 488.368
Na H (589.593 nm)	1.263860 u	ppm	0.044447	3.52	568.216898	Y_R4
Ni (231.604 nm)	0.000396	ppm	0.000181	45.58	-6.570320	Y 377.433
P (213.618 nm)	-0.003137 u	ppm	0.002731	87.06	-8.608900	Y 242.219
Pb (220.353 nm)	-0.000426 u	ppm	0.000789	> 100.00	6.887520	Y 242.219
S (181.972 nm)	0.003858	ppm	0.002406	62.35	14.466947	Y 377.433
Sb (206.834 nm)	-0.000799 u	ppm	0.000214	26.73	0.428985	Y 377.433
Se (196.026 nm)	-0.001027 u	ppm	0.000406	39.50	7.303800	Y 242.219
Si (288.158 nm)	-0.003361 u	ppm	0.000292	8.69	466.913000	Y 377.433
Sn (189.925 nm)	0.000855	ppm	0.001125	> 100.00	3.466320	Y 377.433
Sr (421.552 nm)	0.000239	ppm	0.000056	23.28	59.167770	Y_R 488.368
Th (288.505 nm)	0.001974	ppm	0.000879	44.52	16.058700	Y 377.433
Ti (336.122 nm)	0.000335	ppm	0.000005	1.41	-390.966000	Y 377.433
Tl (190.794 nm)	-0.000005 u	ppm	0.000395	> 100.00	1.801110	Y 377.433
U (409.013 nm)	0.000016 u	ppm	0.009267	> 100.00	-24.688400	Y 377.433
V (292.401 nm)	0.000126	ppm	0.000071	56.28	-138.827000	Y 377.433
Zn (206.200 nm)	0.001660	ppm	0.000257	15.46	11.532600	Y 377.433
Zr (343.823 nm)	0.000118	ppm	0.000111	93.80	-154.930000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148191	26540.971477	0.002785	0.24
Y 377.433	1.127718	788761.180593	0.001888	0.17
Y_R 377.433	1.155240	70040.700000	0.004225	0.37
Y_R 488.368	1.169070	61759.400000	0.007738	0.66
Y_R2 488.368	1.156012	122543.431112	0.003831	0.33
Y_R4	1.147350	51630.700000	0.004904	0.43

Sample Name: LCS 280-459218/2-A

Date: 5/24/2019 7:51:48 PM Rack:Tube: 1:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.050999	ppm	0.000058	0.11	1189.010000	Y 377.433
Al (394.401 nm)	9.856720 o	ppm	0.002341	0.02	120652.000000	Y 377.433
Al H (396.152 nm)	9.645930	ppm	0.022171	0.23	21308.700000	Y_R 377.433
As (188.980 nm)	2.027890	ppm	0.003051	0.15	3053.970000	Y 242.219
B (249.678 nm)	0.966227	ppm	0.000254	0.03	6941.250000	Y 242.219
Ba (493.408 nm)	1.966980	ppm	0.008408	0.43	197503.000000	Y_R 488.368
Be (234.861 nm)	0.964119	ppm	0.006604	0.68	94904.000000	Y_R 488.368
Bi (223.061 nm)	1.968160	ppm	0.002534	0.13	4301.780000	Y 377.433
Ca (315.887 nm)	49.638898	ppm	0.160295	0.32	39356.904820	Y_R 377.433
Cd (214.439 nm)	1.025470	ppm	0.000004	0.00	37921.000000	Y 377.433
Co (228.615 nm)	0.979617	ppm	0.000285	0.03	23052.000000	Y 242.219
Cr (205.560 nm)	1.023080	ppm	0.004275	0.42	6809.060000	Y 377.433
Cu (324.754 nm)	0.988708	ppm	0.003320	0.34	46490.700000	Y 377.433
Fe (238.204 nm)	10.185058 o	ppm	0.022977	0.23	24524.351484	Y_R 377.433
Fe H (259.940 nm)	10.103700	ppm	0.029508	0.29	13984.700000	Y_R 377.433
K (766.491 nm)	48.707500	ppm	0.348553	0.72	48968.700000	Y_R2 488.368
Li (670.783 nm)	1.017250	ppm	0.002835	0.28	14920.600000	Y_R2 488.368
Mg (279.078 nm)	49.609500	ppm	0.024227	0.05	162305.000000	Y 377.433
Mn (257.610 nm)	0.993507	ppm	0.000244	0.02	270878.000000	Y 377.433
Mo (202.032 nm)	1.021020	ppm	0.001292	0.13	12880.300000	Y 377.433
Na (589.592 nm)	47.630500	ppm	0.145219	0.30	39696.600000	Y_R2 488.368
Na H (589.593 nm)	49.413144 u	ppm	0.328199	0.66	26691.906913	Y_R4
Ni (231.604 nm)	1.003620	ppm	0.000985	0.10	5186.460000	Y 377.433
P (213.618 nm)	20.413100	ppm	0.020572	0.10	28917.000000	Y 242.219
Pb (220.353 nm)	0.996631	ppm	0.002025	0.20	3172.980000	Y 242.219
S (181.972 nm)	10.176016	ppm	0.020750	0.20	4678.442888	Y 377.433
Sb (206.834 nm)	-0.000368 u	ppm	0.003724	> 100.00	-3.558620	Y 377.433
Se (196.026 nm)	1.997150	ppm	0.004648	0.23	3019.860000	Y 242.219
Si (288.158 nm)	2.030340	ppm	0.002581	0.13	13559.000000	Y 377.433
Sn (189.925 nm)	2.045060	ppm	0.003510	0.17	3292.710000	Y 377.433
Sr (421.552 nm)	0.957725	ppm	0.003828	0.40	144259.109158	Y_R 488.368
Th (288.505 nm)	1.002940	ppm	0.004268	0.43	1649.930000	Y 377.433
Ti (336.122 nm)	0.988947	ppm	0.000304	0.03	126285.000000	Y 377.433
Tl (190.794 nm)	2.005930	ppm	0.002974	0.15	4580.770000	Y 377.433
U (409.013 nm)	1.973920	ppm	0.000278	0.01	6177.030000	Y 377.433
V (292.401 nm)	0.986872	ppm	0.000169	0.02	50749.400000	Y 377.433
Zn (206.200 nm)	0.509378	ppm	0.002150	0.42	2296.020000	Y 377.433
Zr (343.823 nm)	0.488666	ppm	0.000118	0.02	27502.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.108961	25634.149759	0.000092	0.01
Y 377.433	1.098554	768362.756334	0.000416	0.04
Y_R 377.433	1.157780	70195.000000	0.005317	0.46
Y_R 488.368	1.171240	61873.700000	0.007604	0.65
Y_R2 488.368	1.160764	123047.133724	0.005822	0.50
Y_R4	1.156590	52046.300000	0.005557	0.48

Sample Name: 280-123691-E-2-C

Date: 5/24/2019 7:55:26 PM Rack:Tube: 1:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002127	ppm	0.000014	0.67	-195.684000	Y 377.433
Al (394.401 nm)	-0.019906 u	ppm	0.000772	3.88	708.704000	Y 377.433
Al H (396.152 nm)	-0.497739 u	ppm	0.000521	0.10	1.243060	Y_R 377.433
As (188.980 nm)	0.004314	ppm	0.001984	45.98	4.848080	Y 242.219
B (249.678 nm)	12.700500	ppm	0.022291	0.18	90747.700000	Y 242.219
Ba (493.408 nm)	0.424821	ppm	0.001938	0.46	43753.800000	Y_R 488.368
Be (234.861 nm)	-0.000064 u	ppm	0.000007	11.41	-20.317500	Y_R 488.368
Bi (223.061 nm)	-0.002354 u	ppm	0.001008	42.82	-15.009600	Y 377.433
Ca (315.887 nm)	230.322134	ppm	0.136361	0.06	182854.122027	Y_R 377.433
Cd (214.439 nm)	0.000774	ppm	0.000019	2.41	24.591500	Y 377.433
Co (228.615 nm)	0.010448	ppm	0.000161	1.54	230.885000	Y 242.219
Cr (205.560 nm)	0.014096	ppm	0.000146	1.04	87.177500	Y 377.433
Cu (324.754 nm)	0.010652	ppm	0.000142	1.33	683.677000	Y 377.433
Fe (238.204 nm)	2.844974	ppm	0.003044	0.11	6855.488442	Y_R 377.433
Fe H (259.940 nm)	2.806550 u	ppm	0.007371	0.26	3892.830000	Y_R 377.433
K (766.491 nm)	123.312000	ppm	0.578268	0.47	121006.000000	Y_R2 488.368
Li (670.783 nm)	0.047986	ppm	0.008146	16.98	-1721.840000	Y_R2 488.368
Mg (279.078 nm)	120.162000	ppm	0.468423	0.39	393219.000000	Y 377.433
Mn (257.610 nm)	1.301310	ppm	0.004305	0.33	354803.000000	Y 377.433
Mo (202.032 nm)	0.005148	ppm	0.000211	4.10	76.018800	Y 377.433
Na (589.592 nm)	821.616000 o	ppm	3.685720	0.45	674714.000000	Y_R2 488.368
Na H (589.593 nm)	949.966280	ppm	4.276483	0.45	515292.547888	Y_R4
Ni (231.604 nm)	0.032864	ppm	0.001632	4.97	161.418000	Y 377.433
P (213.618 nm)	0.776813	ppm	0.006731	0.87	1103.460000	Y 242.219
Pb (220.353 nm)	-0.000931 u	ppm	0.000755	81.04	5.302610	Y 242.219
S (181.972 nm)	56.772718	ppm	0.010504	0.02	26027.506702	Y 377.433
Sb (206.834 nm)	-0.004699 u	ppm	0.002774	59.05	-5.923760	Y 377.433
Se (196.026 nm)	-0.001795 u	ppm	0.000838	46.67	7.237990	Y 242.219
Si (288.158 nm)	21.439300	ppm	0.041166	0.19	138505.000000	Y 377.433
Sn (189.925 nm)	0.000835 u	ppm	0.002104	> 100.00	3.433320	Y 377.433
Sr (421.552 nm)	3.339287	ppm	0.005940	0.18	502923.878096	Y_R 488.368
Th (288.505 nm)	0.003478	ppm	0.000840	24.16	36.894400	Y 377.433
Ti (336.122 nm)	0.010999	ppm	0.000041	0.37	1759.310000	Y 377.433
Tl (190.794 nm)	0.004006	ppm	0.000134	3.36	1.427530	Y 377.433
U (409.013 nm)	0.012348	ppm	0.000412	3.34	-16.513300	Y 377.433
V (292.401 nm)	0.014633	ppm	0.000100	0.68	609.856000	Y 377.433
Zn (206.200 nm)	0.008492	ppm	0.000579	6.81	42.646000	Y 377.433
Zr (343.823 nm)	0.018203	ppm	0.000042	0.23	868.910000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.035324	23931.991894	0.004248	0.41
Y 377.433	1.033082	722569.718455	0.004935	0.48
Y_R 377.433	1.142250	69253.200000	0.002294	0.20
Y_R 488.368	1.155550	61044.900000	0.005187	0.45
Y_R2 488.368	1.151847	122101.889352	0.011073	0.96
Y_R4	1.158240	52120.700000	0.006944	0.60

Sample Name: 280-123691-E-2-Csd@5

Date: 5/24/2019 7:59:05 PM Rack:Tube: 1:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001158	ppm	0.000027	2.33	-227.831000	Y 377.433
Al (394.401 nm)	-0.000695 u	ppm	0.002680	> 100.00	258.044000	Y 377.433
Al H (396.152 nm)	0.011069 u	ppm	0.000719	6.50	32.468100	Y_R 377.433
As (188.980 nm)	-0.000357 u	ppm	0.000431	> 100.00	-2.132710	Y 242.219
B (249.678 nm)	2.456560	ppm	0.006760	0.28	17590.200000	Y 242.219
Ba (493.408 nm)	0.081164	ppm	0.000086	0.11	9491.540000	Y_R 488.368
Be (234.861 nm)	-0.000041 u	ppm	0.000050	> 100.00	-8.832190	Y_R 488.368
Bi (223.061 nm)	0.001577	ppm	0.000458	29.06	-6.990940	Y 377.433
Ca (315.887 nm)	46.507811	ppm	0.049596	0.11	36867.732528	Y_R 377.433
Cd (214.439 nm)	0.000229	ppm	0.000085	36.92	3.580400	Y 377.433
Co (228.615 nm)	0.001879	ppm	0.000118	6.29	29.122300	Y 242.219
Cr (205.560 nm)	0.002569	ppm	0.001102	42.89	10.364600	Y 377.433
Cu (324.754 nm)	0.002737	ppm	0.000151	5.51	416.380000	Y 377.433
Fe (238.204 nm)	0.675109	ppm	0.002972	0.44	1632.245213	Y_R 377.433
Fe H (259.940 nm)	0.673252 u	ppm	0.000791	0.12	942.510000	Y_R 377.433
K (766.491 nm)	23.387400	ppm	0.189320	0.81	24519.900000	Y_R2 488.368
Li (670.783 nm)	0.032436	ppm	0.002978	9.18	-1988.830000	Y_R2 488.368
Mg (279.078 nm)	24.042400	ppm	0.001359	0.01	78682.500000	Y 377.433
Mn (257.610 nm)	0.263687	ppm	0.000233	0.09	71885.900000	Y 377.433
Mo (202.032 nm)	0.001055	ppm	0.000610	57.84	24.426600	Y 377.433
Na (589.592 nm)	178.757000 o	ppm	0.102216	0.06	146911.000000	Y_R2 488.368
Na H (589.593 nm)	185.181443	ppm	1.388151	0.75	100353.832324	Y_R4
Ni (231.604 nm)	0.005694	ppm	0.000341	6.00	20.840400	Y 377.433
P (213.618 nm)	0.150686	ppm	0.002955	1.96	210.743000	Y 242.219
Pb (220.353 nm)	-0.000639 u	ppm	0.000598	93.44	6.293530	Y 242.219
S (181.972 nm)	10.938474	ppm	0.041135	0.38	5025.141902	Y 377.433
Sb (206.834 nm)	-0.002401 u	ppm	0.001887	78.63	-2.221370	Y 377.433
Se (196.026 nm)	-0.002310 u	ppm	0.000356	15.43	5.568410	Y 242.219
Si (288.158 nm)	4.161320	ppm	0.014370	0.35	27277.300000	Y 377.433
Sn (189.925 nm)	0.000150	ppm	0.000173	> 100.00	2.331720	Y 377.433
Sr (421.552 nm)	0.661035	ppm	0.000455	0.07	99575.911760	Y_R 488.368
Th (288.505 nm)	-0.003112 u	ppm	0.000233	7.49	11.168200	Y 377.433
Ti (336.122 nm)	0.002507	ppm	0.000036	1.45	44.833200	Y 377.433
Tl (190.794 nm)	0.002142	ppm	0.000966	45.08	4.783190	Y 377.433
U (409.013 nm)	0.019685	ppm	0.007529	38.25	31.592800	Y 377.433
V (292.401 nm)	0.003205	ppm	0.000180	5.62	17.847800	Y 377.433
Zn (206.200 nm)	0.005350	ppm	0.000365	6.83	28.217100	Y 377.433
Zr (343.823 nm)	0.003644	ppm	0.000054	1.47	44.688100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.128441	26084.447949	0.006829	0.61
Y 377.433	1.111111	777145.515890	0.006441	0.58
Y_R 377.433	1.195740	72496.100000	0.001683	0.14
Y_R 488.368	1.211020	63975.400000	0.000420	0.03
Y_R2 488.368	1.195729	126753.645586	0.003616	0.30
Y_R4	1.180780	53135.200000	0.008215	0.70

Sample Name: 280-123691-E-2-D MS

Date: 5/24/2019 8:02:38 PM Rack:Tube: 1:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.056310	ppm	0.000373	0.66	1362.720000	Y 377.433
Al (394.401 nm)	9.801490 o	ppm	0.019510	0.20	120842.000000	Y 377.433
Al H (396.152 nm)	9.127540	ppm	0.013519	0.15	21531.300000	Y_R 377.433
As (188.980 nm)	2.132590	ppm	0.000882	0.04	3211.660000	Y 242.219
B (249.678 nm)	13.872200	ppm	0.005420	0.04	99109.700000	Y 242.219
Ba (493.408 nm)	2.404460	ppm	0.000246	0.01	241119.000000	Y_R 488.368
Be (234.861 nm)	0.954544	ppm	0.003248	0.34	93950.200000	Y_R 488.368
Bi (223.061 nm)	1.988360	ppm	0.007472	0.38	4346.740000	Y 377.433
Ca (315.887 nm)	277.387785	ppm	0.499180	0.18	220236.411844	Y_R 377.433
Cd (214.439 nm)	0.990146	ppm	0.001713	0.17	36615.700000	Y 377.433
Co (228.615 nm)	0.987212	ppm	0.000142	0.01	23231.400000	Y 242.219
Cr (205.560 nm)	1.037570	ppm	0.001376	0.13	6905.680000	Y 377.433
Cu (324.754 nm)	1.044750	ppm	0.002390	0.23	48974.700000	Y 377.433
Fe (238.204 nm)	12.755881 o	ppm	0.029822	0.23	30712.771325	Y_R 377.433
Fe H (259.940 nm)	12.797600	ppm	0.043621	0.34	17710.400000	Y_R 377.433
K (766.491 nm)	175.241000	ppm	0.268936	0.15	171148.000000	Y_R2 488.368
Li (670.783 nm)	1.060750	ppm	0.002201	0.21	15667.600000	Y_R2 488.368
Mg (279.078 nm)	168.138000	ppm	0.289712	0.17	550170.000000	Y 377.433
Mn (257.610 nm)	2.250390	ppm	0.002458	0.11	613579.000000	Y 377.433
Mo (202.032 nm)	1.013340	ppm	0.001401	0.14	12783.600000	Y 377.433
Na (589.592 nm)	852.465000 o	ppm	1.373230	0.16	700488.000000	Y_R2 488.368
Na H (589.593 nm)	1002.975454	ppm	7.108298	0.71	544053.001080	Y_R4
Ni (231.604 nm)	1.023280	ppm	0.001082	0.11	5288.010000	Y 377.433
P (213.618 nm)	22.083600	ppm	0.016591	0.08	31291.700000	Y 242.219
Pb (220.353 nm)	0.962910	ppm	0.001682	0.17	3065.720000	Y 242.219
S (181.972 nm)	67.550804	ppm	0.218888	0.32	30968.730223	Y 377.433
Sb (206.834 nm)	-0.001628 u	ppm	0.001994	> 100.00	-5.333220	Y 377.433
Se (196.026 nm)	2.063290	ppm	0.006827	0.33	3120.710000	Y 242.219
Si (288.158 nm)	23.074500	ppm	0.020201	0.09	149032.000000	Y 377.433
Sn (189.925 nm)	1.976940	ppm	0.002638	0.13	3183.100000	Y 377.433
Sr (421.552 nm)	4.318157	ppm	0.000875	0.02	650344.218961	Y_R 488.368
Th (288.505 nm)	1.007980	ppm	0.000043	0.00	1676.280000	Y 377.433
Ti (336.122 nm)	1.011370	ppm	0.002202	0.22	129933.000000	Y 377.433
Tl (190.794 nm)	1.846540	ppm	0.000413	0.02	4206.830000	Y 377.433
U (409.013 nm)	1.999460	ppm	0.005915	0.30	6232.910000	Y 377.433
V (292.401 nm)	0.996871	ppm	0.000784	0.08	51266.900000	Y 377.433
Zn (206.200 nm)	0.497759	ppm	0.002567	0.52	2244.130000	Y 377.433
Zr (343.823 nm)	0.462460	ppm	0.000798	0.17	26019.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.040928	24061.534189	0.000656	0.06
Y 377.433	1.047005	732307.890933	0.000657	0.06
Y_R 377.433	1.174450	71205.200000	0.001676	0.14
Y_R 488.368	1.184050	62550.500000	0.005609	0.47
Y_R2 488.368	1.151784	122095.188226	0.002978	0.26
Y_R4	1.133120	50990.300000	0.014335	1.27

Sample Name: 280-123691-E-2-E MSD

Date: 5/24/2019 8:06:22 PM Rack:Tube: 1:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.055242	ppm	0.000555	1.00	1327.450000	Y 377.433
Al (394.401 nm)	9.742360 o	ppm	0.001212	0.01	120114.000000	Y 377.433
Al H (396.152 nm)	9.078200	ppm	0.002784	0.03	21414.200000	Y_R 377.433
As (188.980 nm)	2.120320	ppm	0.002552	0.12	3193.180000	Y 242.219
B (249.678 nm)	13.773200	ppm	0.010194	0.07	98402.800000	Y 242.219
Ba (493.408 nm)	2.391080	ppm	0.001286	0.05	239786.000000	Y_R 488.368
Be (234.861 nm)	0.947105	ppm	0.000641	0.07	93217.700000	Y_R 488.368
Bi (223.061 nm)	1.987280	ppm	0.002035	0.10	4344.370000	Y 377.433
Ca (315.887 nm)	275.869957	ppm	0.134220	0.05	219030.933947	Y_R 377.433
Cd (214.439 nm)	0.986134	ppm	0.001189	0.12	36467.300000	Y 377.433
Co (228.615 nm)	0.983813	ppm	0.000407	0.04	23151.200000	Y 242.219
Cr (205.560 nm)	1.026010	ppm	0.000871	0.08	6828.610000	Y 377.433
Cu (324.754 nm)	1.040280	ppm	0.001187	0.11	48766.600000	Y 377.433
Fe (238.204 nm)	12.743663 o	ppm	0.022600	0.18	30683.360072	Y_R 377.433
Fe H (259.940 nm)	12.776300	ppm	0.030375	0.24	17680.900000	Y_R 377.433
K (766.491 nm)	173.952000	ppm	1.085510	0.62	169903.000000	Y_R2 488.368
Li (670.783 nm)	1.054830	ppm	0.001180	0.11	15565.900000	Y_R2 488.368
Mg (279.078 nm)	167.186000	ppm	0.107213	0.06	547056.000000	Y 377.433
Mn (257.610 nm)	2.240060	ppm	0.000038	0.00	610765.000000	Y 377.433
Mo (202.032 nm)	1.009180	ppm	0.000772	0.08	12731.100000	Y 377.433
Na (589.592 nm)	849.309000 o	ppm	4.342150	0.51	697894.000000	Y_R2 488.368
Na H (589.593 nm)	990.825607	ppm	7.437821	0.75	537461.027018	Y_R4
Ni (231.604 nm)	1.016630	ppm	0.001484	0.15	5253.630000	Y 377.433
P (213.618 nm)	21.928700	ppm	0.039965	0.18	31071.600000	Y 242.219
Pb (220.353 nm)	0.959947	ppm	0.000451	0.05	3056.300000	Y 242.219
S (181.972 nm)	66.873493	ppm	0.138695	0.21	30658.441914	Y 377.433
Sb (206.834 nm)	-0.005750 u	ppm	0.000923	16.05	-12.303300	Y 377.433
Se (196.026 nm)	2.053160	ppm	0.007660	0.37	3105.410000	Y 242.219
Si (288.158 nm)	22.950800	ppm	0.026458	0.12	148236.000000	Y 377.433
Sn (189.925 nm)	1.973750	ppm	0.002353	0.12	3177.960000	Y 377.433
Sr (421.552 nm)	4.296208	ppm	0.005974	0.14	647038.590543	Y_R 488.368
Th (288.505 nm)	1.000180	ppm	0.001874	0.19	1663.150000	Y 377.433
Ti (336.122 nm)	1.005220	ppm	0.000965	0.10	129140.000000	Y 377.433
Tl (190.794 nm)	1.839750	ppm	0.001513	0.08	4191.400000	Y 377.433
U (409.013 nm)	1.979740	ppm	0.002514	0.13	6170.710000	Y 377.433
V (292.401 nm)	0.992838	ppm	0.000799	0.08	51060.700000	Y 377.433
Zn (206.200 nm)	0.505083	ppm	0.000383	0.08	2277.060000	Y 377.433
Zr (343.823 nm)	0.461563	ppm	0.000019	0.00	25968.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.032478	23866.200246	0.001096	0.11
Y 377.433	1.039051	726744.495441	0.001632	0.16
Y_R 377.433	1.168020	70815.700000	0.000592	0.05
Y_R 488.368	1.176390	62146.000000	0.000723	0.06
Y_R2 488.368	1.156089	122551.564423	0.000748	0.06
Y_R4	1.133590	51011.600000	0.004767	0.42

Sample Name: 280-123691-E-2-Cpds

Date: 5/24/2019 8:10:06 PM Rack:Tube: 1:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001373	ppm	0.000258	18.80	-221.602000	Y 377.433
Al (394.401 nm)	0.057207	ppm	0.001370	2.39	1077.540000	Y 377.433
Al H (396.152 nm)	-0.023300 u	ppm	0.005929	25.45	127.491000	Y_R 377.433
As (188.980 nm)	0.004539	ppm	0.002776	61.17	5.259290	Y 242.219
B (249.678 nm)	3.626100	ppm	0.001889	0.05	25942.900000	Y 242.219
Ba (493.408 nm)	0.073176	ppm	0.000664	0.91	8694.810000	Y_R 488.368
Be (234.861 nm)	0.000017 u	ppm	0.000047	> 100.00	-0.943627	Y_R 488.368
Bi (223.061 nm)	0.000675	ppm	0.000941	> 100.00	-8.945960	Y 377.433
Ca (315.887 nm)	115.281528	ppm	0.091093	0.08	91488.222451	Y_R 377.433
Cd (214.439 nm)	0.000442	ppm	0.000182	41.17	11.223600	Y 377.433
Co (228.615 nm)	0.007428	ppm	0.000285	3.84	159.618000	Y 242.219
Cr (205.560 nm)	0.005046	ppm	0.000077	1.53	26.758400	Y 377.433
Cu (324.754 nm)	0.012184	ppm	0.000090	0.74	818.614000	Y 377.433
Fe (238.204 nm)	0.157439	ppm	0.001130	0.72	386.123757	Y_R 377.433
Fe H (259.940 nm)	0.149385 u	ppm	0.001225	0.82	218.010000	Y_R 377.433
K (766.491 nm)	73.989600	ppm	0.966633	1.31	73380.800000	Y_R2 488.368
Li (670.783 nm)	0.035185	ppm	0.001472	4.18	-1941.640000	Y_R2 488.368
Mg (279.078 nm)	62.317200	ppm	0.036168	0.06	203932.000000	Y 377.433
Mn (257.610 nm)	0.646998	ppm	0.000435	0.07	176399.000000	Y 377.433
Mo (202.032 nm)	0.002843	ppm	0.000112	3.93	46.969000	Y 377.433
Na (589.592 nm)	446.935000 o	ppm	2.320710	0.52	367057.000000	Y_R2 488.368
Na H (589.593 nm)	481.388063	ppm	3.824457	0.79	261062.555304	Y_R4
Ni (231.604 nm)	0.068033	ppm	0.001362	2.00	343.390000	Y 377.433
P (213.618 nm)	0.261479	ppm	0.000072	0.03	366.600000	Y 242.219
Pb (220.353 nm)	-0.000519 u	ppm	0.000246	47.28	6.656510	Y 242.219
S (181.972 nm)	92.410590	ppm	0.183251	0.20	42340.264006	Y 377.433
Sb (206.834 nm)	-0.000541 u	ppm	0.000676	> 100.00	0.883580	Y 377.433
Se (196.026 nm)	0.000707 u	ppm	0.002174	> 100.00	10.789300	Y 242.219
Si (288.158 nm)	10.961800	ppm	0.016756	0.15	71056.000000	Y 377.433
Sn (189.925 nm)	0.001033	ppm	0.000279	27.05	3.751830	Y 377.433
Sr (421.552 nm)	1.104576	ppm	0.001962	0.18	166373.490869	Y_R 488.368
Th (288.505 nm)	0.000246 u	ppm	0.001534	> 100.00	22.617800	Y 377.433
Ti (336.122 nm)	0.001062	ppm	0.000099	9.34	95.344800	Y 377.433
Tl (190.794 nm)	0.003984	ppm	0.002797	70.20	6.331610	Y 377.433
U (409.013 nm)	0.014339	ppm	0.002062	14.38	5.301530	Y 377.433
V (292.401 nm)	0.005193	ppm	0.000236	4.54	120.928000	Y 377.433
Zn (206.200 nm)	0.025382	ppm	0.000696	2.74	118.223000	Y 377.433
Zr (343.823 nm)	0.001654	ppm	0.000201	12.18	-67.960800	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.097221	25362.773983	0.000357	0.03
Y 377.433	1.088500	761330.703813	0.001142	0.10
Y_R 377.433	1.190410	72173.100000	0.006868	0.58
Y_R 488.368	1.202960	63549.400000	0.008711	0.72
Y_R2 488.368	1.184466	125559.642207	0.004420	0.37
Y_R4	1.168060	52562.700000	0.010411	0.89

Sample Name: 280-123706-E-1-A

Date: 5/24/2019 8:13:44 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000177 u	ppm	0.000388	> 100.00	-260.984000	Y 377.433
Al (394.401 nm)	0.000122 u	ppm	0.001323	> 100.00	92.132200	Y 377.433
Al H (396.152 nm)	0.141826 u	ppm	0.004120	2.90	51.722300	Y_R 377.433
As (188.980 nm)	-0.001300 u	ppm	0.002453	> 100.00	-3.535430	Y 242.219
B (249.678 nm)	0.007559	ppm	0.000298	3.94	100.645000	Y 242.219
Ba (493.408 nm)	-0.003041 u	ppm	0.000029	0.95	1096.280000	Y_R 488.368
Be (234.861 nm)	-0.000081 u	ppm	0.000002	2.10	-10.063600	Y_R 488.368
Bi (223.061 nm)	0.002300 u	ppm	0.004181	> 100.00	-5.571930	Y 377.433
Ca (315.887 nm)	0.048464	ppm	0.000600	1.24	-30.550375	Y_R 377.433
Cd (214.439 nm)	-0.000022 u	ppm	0.000048	> 100.00	-5.998120	Y 377.433
Co (228.615 nm)	-0.000260 u	ppm	0.000041	15.65	-21.254500	Y 242.219
Cr (205.560 nm)	0.000331 u	ppm	0.000750	> 100.00	-4.544650	Y 377.433
Cu (324.754 nm)	0.000994	ppm	0.000054	5.43	364.059000	Y 377.433
Fe (238.204 nm)	0.015768	ppm	0.002039	12.93	45.095753	Y_R 377.433
Fe H (259.940 nm)	0.019397 u	ppm	0.001309	6.75	38.238500	Y_R 377.433
K (766.491 nm)	-0.350999 u	ppm	0.359048	> 100.00	1598.460000	Y_R2 488.368
Li (670.783 nm)	0.032289	ppm	0.002028	6.28	-1991.370000	Y_R2 488.368
Mg (279.078 nm)	0.008492	ppm	0.000444	5.23	36.203900	Y 377.433
Mn (257.610 nm)	0.000384	ppm	0.000013	3.37	93.765800	Y 377.433
Mo (202.032 nm)	0.000059	ppm	0.000021	34.98	11.875700	Y 377.433
Na (589.592 nm)	0.104613	ppm	0.012336	11.79	235.380000	Y_R2 488.368
Na H (589.593 nm)	1.905357 u	ppm	0.050052	2.63	916.265376	Y_R4
Ni (231.604 nm)	0.000274	ppm	0.000061	22.27	-7.204260	Y 377.433
P (213.618 nm)	0.000757 u	ppm	0.007360	> 100.00	-2.929910	Y 242.219
Pb (220.353 nm)	0.000304	ppm	0.000266	87.57	9.217950	Y 242.219
S (181.972 nm)	0.002825 u	ppm	0.004388	> 100.00	13.994131	Y 377.433
Sb (206.834 nm)	-0.001360 u	ppm	0.001020	74.95	-0.518297	Y 377.433
Se (196.026 nm)	-0.000273 u	ppm	0.001968	> 100.00	8.441310	Y 242.219
Si (288.158 nm)	0.026250	ppm	0.003668	13.97	657.533000	Y 377.433
Sn (189.925 nm)	0.001288	ppm	0.000621	48.25	4.162240	Y 377.433
Sr (421.552 nm)	0.000203	ppm	0.000037	18.22	53.743983	Y_R 488.368
Th (288.505 nm)	0.003428	ppm	0.000660	19.24	18.596500	Y 377.433
Ti (336.122 nm)	0.000483	ppm	0.000011	2.34	-372.078000	Y 377.433
Tl (190.794 nm)	0.000236 u	ppm	0.002395	> 100.00	2.353860	Y 377.433
U (409.013 nm)	0.005287 u	ppm	0.009885	> 100.00	-7.954590	Y 377.433
V (292.401 nm)	0.000248	ppm	0.000157	63.47	-132.807000	Y 377.433
Zn (206.200 nm)	0.001662	ppm	0.000189	11.37	11.538900	Y 377.433
Zr (343.823 nm)	0.000013 u	ppm	0.000065	> 100.00	-160.885000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.186480	27426.039872	0.002051	0.17
Y 377.433	1.167445	816547.353870	0.001190	0.10
Y_R 377.433	1.214660	73643.100000	0.002806	0.23
Y_R 488.368	1.231520	65058.100000	0.003218	0.26
Y_R2 488.368	1.223059	129650.711250	0.002275	0.19
Y_R4	1.198830	53947.400000	0.000962	0.08

Sample Name: CCVH-5713036

Date: 5/24/2019 8:16:57 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.004288	ppm	0.000368	8.57	-128.838000	Y 377.433
Al (394.401 nm)	49.577100 o	ppm	0.037885	0.08	603983.000000	Y 377.433
Al H (396.152 nm)	48.034700	ppm	0.063528	0.13	104743.000000	Y_R 377.433
As (188.980 nm)	0.005075	ppm	0.003719	73.28	4.712260	Y 242.219
B (249.678 nm)	0.002952	ppm	0.000621	21.05	38.770200	Y 242.219
Ba (493.408 nm)	0.000497	ppm	0.000029	5.74	1488.970000	Y_R 488.368
Be (234.861 nm)	0.001146	ppm	0.000021	1.81	-101.273000	Y_R 488.368
Bi (223.061 nm)	0.011485	ppm	0.001164	10.14	23.209900	Y 377.433
Ca (315.887 nm)	0.005251	ppm	0.004610	87.80	-52.826293	Y_R 377.433
Cd (214.439 nm)	0.001419	ppm	0.000004	0.30	67.683100	Y 377.433
Co (228.615 nm)	0.003008	ppm	0.000240	7.97	55.599800	Y 242.219
Cr (205.560 nm)	0.001935	ppm	0.000411	21.26	4.853140	Y 377.433
Cu (324.754 nm)	0.003977	ppm	0.000147	3.69	1446.990000	Y 377.433
Fe (238.204 nm)	50.158861 o	ppm	0.083204	0.17	120748.274192	Y_R 377.433
Fe H (259.940 nm)	49.686900	ppm	0.089321	0.18	68727.700000	Y_R 377.433
K (766.491 nm)	0.088308	ppm	0.074875	84.79	2022.650000	Y_R2 488.368
Li (670.783 nm)	0.027020	ppm	0.001830	6.77	-2081.830000	Y_R2 488.368
Mg (279.078 nm)	0.035848	ppm	0.002108	5.88	51.574700	Y 377.433
Mn (257.610 nm)	0.001027	ppm	0.000003	0.25	268.981000	Y 377.433
Mo (202.032 nm)	0.001352	ppm	0.000074	5.45	28.174500	Y 377.433
Na (589.592 nm)	228.763000 o	ppm	0.994585	0.43	187942.000000	Y_R2 488.368
Na H (589.593 nm)	235.423555	ppm	1.146530	0.49	127612.999289	Y_R4
Ni (231.604 nm)	0.003462	ppm	0.000197	5.70	9.294170	Y 377.433
P (213.618 nm)	4.938900	ppm	0.005941	0.12	7054.180000	Y 242.219
Pb (220.353 nm)	0.006273	ppm	0.002059	32.81	21.472800	Y 242.219
S (181.972 nm)	5.061702	ppm	0.005953	0.12	2330.734212	Y 377.433
Sb (206.834 nm)	-0.001084 u	ppm	0.000872	80.41	4.172030	Y 377.433
Se (196.026 nm)	0.003846	ppm	0.002614	67.96	1.740930	Y 242.219
Si (288.158 nm)	0.026378	ppm	0.000255	0.97	658.358000	Y 377.433
Sn (189.925 nm)	0.002031	ppm	0.002046	> 100.00	5.358880	Y 377.433
Sr (421.552 nm)	0.001568	ppm	0.000137	8.71	266.845282	Y_R 488.368
Th (288.505 nm)	4.843260	ppm	0.000504	0.01	8364.620000	Y 377.433
Ti (336.122 nm)	0.002130	ppm	0.000133	6.23	-161.217000	Y 377.433
Tl (190.794 nm)	0.000183 u	ppm	0.001461	> 100.00	-2.599290	Y 377.433
U (409.013 nm)	0.528184 Q	ppm	0.001220	0.23	1687.670000 Q	Y 377.433
V (292.401 nm)	0.000867	ppm	0.000237	27.32	389.791000	Y 377.433
Zn (206.200 nm)	0.002915	ppm	0.000371	12.73	24.156800	Y 377.433
Zr (343.823 nm)	0.001375	ppm	0.000064	4.62	-83.780200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.131333	26151.289659	0.001296	0.11
Y 377.433	1.112143	777867.407170	0.001936	0.17
Y_R 377.433	1.170270	70952.300000	0.008341	0.71
Y_R 488.368	1.178130	62238.100000	0.004942	0.42
Y_R2 488.368	1.171793	124216.275690	0.007213	0.62
Y_R4	1.177950	53007.800000	0.005703	0.48

Sample Name: CCV-5717467

Date: 5/24/2019 8:20:40 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.494413	ppm	0.001152	0.23	16792.900000	Y 377.433
Al (394.401 nm)	0.498926	ppm	0.001565	0.31	6303.470000	Y 377.433
Al H (396.152 nm)	0.542231 u	ppm	0.002723	0.50	1170.580000	Y_R 377.433
As (188.980 nm)	0.498001	ppm	0.003601	0.72	748.790000	Y 242.219
B (249.678 nm)	0.484188	ppm	0.002556	0.53	3503.110000	Y 242.219
Ba (493.408 nm)	0.485519	ppm	0.000574	0.12	49804.700000	Y_R 488.368
Be (234.861 nm)	0.471643	ppm	0.000435	0.09	46436.000000	Y_R 488.368
Bi (223.061 nm)	1.001420	ppm	0.007549	0.75	2183.160000	Y 377.433
Ca (315.887 nm)	5.014680	ppm	0.015155	0.30	3913.776472	Y_R 377.433
Cd (214.439 nm)	0.518029	ppm	0.000665	0.13	19152.600000	Y 377.433
Co (228.615 nm)	0.497141	ppm	0.002209	0.44	11690.400000	Y 242.219
Cr (205.560 nm)	0.513749	ppm	0.002834	0.55	3416.040000	Y 377.433
Cu (324.754 nm)	0.499878	ppm	0.003004	0.60	23631.500000	Y 377.433
Fe (238.204 nm)	2.537593	ppm	0.003624	0.14	6115.568865	Y_R 377.433
Fe H (259.940 nm)	2.521460 u	ppm	0.009007	0.36	3498.550000	Y_R 377.433
K (766.491 nm)	48.727300	ppm	0.401176	0.82	48987.900000	Y_R2 488.368
Li (670.783 nm)	0.519826	ppm	0.007866	1.51	6379.770000	Y_R2 488.368
Mg (279.078 nm)	19.880300	ppm	0.039817	0.20	65060.500000	Y 377.433
Mn (257.610 nm)	0.492824	ppm	0.001224	0.25	134362.000000	Y 377.433
Mo (202.032 nm)	0.499531	ppm	0.000805	0.16	6307.340000	Y 377.433
Na (589.592 nm)	23.696400	ppm	0.129185	0.55	19712.800000	Y_R2 488.368
Na H (589.593 nm)	25.165963 u	ppm	0.012915	0.05	13536.450049	Y_R4
Ni (231.604 nm)	0.512248	ppm	0.000192	0.04	2642.360000	Y 377.433
P (213.618 nm)	0.050637	ppm	0.003012	5.95	-66.831200	Y 242.219
Pb (220.353 nm)	0.499593	ppm	0.004251	0.85	1593.180000	Y 242.219
S (181.972 nm)	0.008648	ppm	0.000243	2.81	18.469729	Y 377.433
Sb (206.834 nm)	0.507242	ppm	0.003640	0.72	855.644000	Y 377.433
Se (196.026 nm)	0.505035	ppm	0.003797	0.75	770.660000	Y 242.219
Si (288.158 nm)	4.924150	ppm	0.046047	0.94	32188.100000	Y 377.433
Sn (189.925 nm)	0.515712	ppm	0.000390	0.08	831.901000	Y 377.433
Sr (421.552 nm)	0.476512	ppm	0.000154	0.03	71786.710579	Y_R 488.368
Th (288.505 nm)	0.024480	ppm	0.004524	18.48	5.181750	Y 377.433
Ti (336.122 nm)	0.486596	ppm	0.000672	0.14	61850.100000	Y 377.433
Tl (190.794 nm)	0.507975	ppm	0.000304	0.06	1160.360000	Y 377.433
U (409.013 nm)	0.012711	ppm	0.008939	70.33	-44.463700	Y 377.433
V (292.401 nm)	0.488596	ppm	0.000883	0.18	25048.000000	Y 377.433
Zn (206.200 nm)	0.518069	ppm	0.000832	0.16	2334.040000	Y 377.433
Zr (343.823 nm)	0.487696	ppm	0.000252	0.05	27447.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.151520	26617.916736	0.002486	0.22
Y 377.433	1.133475	792787.974556	0.000494	0.04
Y_R 377.433	1.188690	72068.600000	0.002437	0.20
Y_R 488.368	1.201790	63487.500000	0.001104	0.09
Y_R2 488.368	1.163824	123371.552911	0.000537	0.05
Y_R4	1.171510	52717.900000	0.005367	0.46

Sample Name: CCB

Date: 5/24/2019 8:24:15 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000397 u	ppm	0.000764	> 100.00	-253.188000	Y 377.433
Al (394.401 nm)	-0.002573 u	ppm	0.000370	14.36	59.665600	Y 377.433
Al H (396.152 nm)	0.123141 Zu	ppm	0.004283	3.48	10.955700 Z	Y_R 377.433
As (188.980 nm)	0.000050 u	ppm	0.000715	> 100.00	-1.501170	Y 242.219
B (249.678 nm)	0.000293 u	ppm	0.001314	> 100.00	48.764400	Y 242.219
Ba (493.408 nm)	-0.002440 Zu	ppm	0.000329	13.49	1156.190000 Z	Y_R 488.368
Be (234.861 nm)	0.000033	ppm	0.000012	37.91	1.233010	Y_R 488.368
Bi (223.061 nm)	-0.000169 u	ppm	0.000722	> 100.00	-10.981400	Y 377.433
Ca (315.887 nm)	0.016302	ppm	0.002322	14.25	-56.094244	Y_R 377.433
Cd (214.439 nm)	0.000078	ppm	0.000092	> 100.00	-2.292450	Y 377.433
Co (228.615 nm)	0.000070 u	ppm	0.000161	> 100.00	-13.498000	Y 242.219
Cr (205.560 nm)	-0.000057 u	ppm	0.000302	> 100.00	-7.135470	Y 377.433
Cu (324.754 nm)	0.001243	ppm	0.000145	11.63	375.241000	Y 377.433
Fe (238.204 nm)	-0.000799 u	ppm	0.001054	> 100.00	5.217343	Y_R 377.433
Fe H (259.940 nm)	0.001771 u	ppm	0.001460	82.42	13.862700	Y_R 377.433
K (766.491 nm)	-0.257566 u	ppm	0.332970	> 100.00	1688.680000	Y_R2 488.368
Li (670.783 nm)	0.025915 Z	ppm	0.000174	0.67	-2100.800000 Z	Y_R2 488.368
Mg (279.078 nm)	0.002730	ppm	0.003217	> 100.00	17.406300	Y 377.433
Mn (257.610 nm)	0.000086	ppm	0.000052	60.56	12.384700	Y 377.433
Mo (202.032 nm)	0.000219	ppm	0.000037	16.85	13.898500	Y 377.433
Na (589.592 nm)	0.018884 u	ppm	0.047583	> 100.00	165.136000	Y_R2 488.368
Na H (589.593 nm)	1.097921 u	ppm	0.026202	2.39	478.185686	Y_R4
Ni (231.604 nm)	0.000148 u	ppm	0.000538	> 100.00	-7.853000	Y 377.433
P (213.618 nm)	0.000114 u	ppm	0.003516	> 100.00	-3.897820	Y 242.219
Pb (220.353 nm)	0.000982	ppm	0.000813	82.83	11.367000	Y 242.219
S (181.972 nm)	-0.003597 u	ppm	0.002845	79.09	11.052153	Y 377.433
Sb (206.834 nm)	-0.003324 u	ppm	0.000349	10.48	-3.839990	Y 377.433
Se (196.026 nm)	-0.002453 u	ppm	0.001160	47.27	5.158180	Y 242.219
Si (288.158 nm)	-0.001680 u	ppm	0.000380	22.61	477.729000	Y 377.433
Sn (189.925 nm)	0.000046 u	ppm	0.001189	> 100.00	2.163640	Y 377.433
Sr (421.552 nm)	0.000227	ppm	0.000071	31.45	57.355131	Y_R 488.368
Th (288.505 nm)	0.000507	ppm	0.000610	> 100.00	13.561900	Y 377.433
Ti (336.122 nm)	0.000596	ppm	0.000071	11.99	-357.590000	Y 377.433
Tl (190.794 nm)	0.000906 u	ppm	0.001594	> 100.00	3.886030	Y 377.433
U (409.013 nm)	0.000983 u	ppm	0.003072	> 100.00	-21.648300	Y 377.433
V (292.401 nm)	0.000021 u	ppm	0.000126	> 100.00	-144.800000	Y 377.433
Zn (206.200 nm)	-0.000202 u	ppm	0.000453	> 100.00	3.153970	Y 377.433
Zr (343.823 nm)	0.000293	ppm	0.000037	12.66	-145.019000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.143189	26425.345158	0.001680	0.15
Y 377.433	1.121065	784108.003363	0.001419	0.13
Y_R 377.433	1.167150	70763.100000	0.003219	0.28
Y_R 488.368	1.179940	62333.700000	0.004204	0.36
Y_R2 488.368	1.168077	123822.347571	0.005394	0.46
Y_R4	1.149060	51707.400000	0.007333	0.64

Sample Name: CCVL-5719884

Date: 5/24/2019 8:27:26 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008368	ppm	0.000256	3.06	20.768600	Y 377.433
Al (394.401 nm)	0.096986	ppm	0.000941	0.97	1282.580000	Y 377.433
Al H (396.152 nm)	0.233166 u	ppm	0.003251	1.39	256.861000	Y_R 377.433
As (188.980 nm)	0.013653	ppm	0.001223	8.96	18.994100	Y 242.219
B (249.678 nm)	0.092914	ppm	0.000762	0.82	710.169000	Y 242.219
Ba (493.408 nm)	0.007341	ppm	0.000225	3.07	2131.380000	Y_R 488.368
Be (234.861 nm)	0.000918	ppm	0.000020	2.17	87.969200	Y_R 488.368
Bi (223.061 nm)	0.091768	ppm	0.001533	1.67	190.395000	Y 377.433
Ca (315.887 nm)	0.221802	ppm	0.001882	0.85	107.140544	Y_R 377.433
Cd (214.439 nm)	0.005444	ppm	0.000041	0.75	196.185000	Y 377.433
Co (228.615 nm)	0.010421	ppm	0.000055	0.53	230.222000	Y 242.219
Cr (205.560 nm)	0.010718	ppm	0.000559	5.21	64.553100	Y 377.433
Cu (324.754 nm)	0.016637	ppm	0.000216	1.30	1092.270000	Y 377.433
Fe (238.204 nm)	0.102631	ppm	0.000129	0.13	254.189095	Y_R 377.433
Fe H (259.940 nm)	0.106874 u	ppm	0.000376	0.35	159.219000	Y_R 377.433
K (766.491 nm)	2.842510	ppm	0.210521	7.41	4682.080000	Y_R2 488.368
Li (670.783 nm)	0.044432 Q	ppm	0.005966	13.43	-1782.860000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204511	ppm	0.001757	0.86	676.546000	Y 377.433
Mn (257.610 nm)	0.010539	ppm	0.000043	0.41	2862.360000	Y 377.433
Mo (202.032 nm)	0.019611	ppm	0.000520	2.65	258.317000	Y 377.433
Na (589.592 nm)	1.008350	ppm	0.008370	0.83	979.635000	Y_R2 488.368
Na H (589.593 nm)	1.901404 u	ppm	0.006683	0.35	914.120325	Y_R4
Ni (231.604 nm)	0.043824	ppm	0.000776	1.77	218.145000	Y 377.433
P (213.618 nm)	2.858810	ppm	0.021954	0.77	4079.580000	Y 242.219
Pb (220.353 nm)	0.010599	ppm	0.000455	4.30	41.990900	Y 242.219
S (181.972 nm)	0.096288	ppm	0.002967	3.08	56.834147	Y 377.433
Sb (206.834 nm)	0.019853	ppm	0.001922	9.68	35.149400	Y 377.433
Se (196.026 nm)	0.017389	ppm	0.002782	16.00	35.073600	Y 242.219
Si (288.158 nm)	0.484393	ppm	0.000976	0.20	3606.860000	Y 377.433
Sn (189.925 nm)	0.102679	ppm	0.000781	0.76	167.307000	Y 377.433
Sr (421.552 nm)	0.009043	ppm	0.000139	1.53	1385.086457	Y_R 488.368
Th (288.505 nm)	0.016266	ppm	0.005260	32.34	40.200000	Y 377.433
Ti (336.122 nm)	0.010028	ppm	0.000083	0.83	850.027000	Y 377.433
Tl (190.794 nm)	0.016509	ppm	0.001137	6.89	39.459200	Y 377.433
U (409.013 nm)	0.054215	ppm	0.007129	13.15	146.037000	Y 377.433
V (292.401 nm)	0.010005	ppm	0.000188	1.88	367.392000	Y 377.433
Zn (206.200 nm)	0.021705	ppm	0.000473	2.18	101.681000	Y 377.433
Zr (343.823 nm)	0.009772	ppm	0.000122	1.25	391.577000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155530	26710.622556	0.001314	0.11
Y 377.433	1.132393	792031.187628	0.000862	0.08
Y_R 377.433	1.161700	70432.400000	0.002153	0.19
Y_R 488.368	1.178510	62257.900000	0.003125	0.27
Y_R2 488.368	1.157154	122664.419050	0.009785	0.85
Y_R4	1.157080	52068.500000	0.005068	0.44

Sample Name: 280-123676-E-10-D

Date: 5/24/2019 8:30:54 PM Rack:Tube: 1:61

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.054076	ppm	0.000022	0.04	1590.140000	Y 377.433
Al (394.401 nm)	0.994792	ppm	0.000035	0.00	13116.900000	Y 377.433
Al H (396.152 nm)	0.518150 u	ppm	0.013110	2.53	2233.400000	Y_R 377.433
As (188.980 nm)	0.219763	ppm	0.001224	0.56	329.477000	Y 242.219
B (249.678 nm)	12.741100	ppm	0.004276	0.03	91036.800000	Y 242.219
Ba (493.408 nm)	0.523006	ppm	0.001705	0.33	53543.000000	Y_R 488.368
Be (234.861 nm)	0.049478	ppm	0.000163	0.33	4854.200000	Y_R 488.368
Bi (223.061 nm)	0.001810	ppm	0.000128	7.10	-5.660290	Y 377.433
Ca (315.887 nm)	248.206948	ppm	1.203343	0.48	197058.601768	Y_R 377.433
Cd (214.439 nm)	0.052374	ppm	0.000023	0.04	1933.220000	Y 377.433
Co (228.615 nm)	0.060308	ppm	0.000084	0.14	1404.840000	Y 242.219
Cr (205.560 nm)	0.066715	ppm	0.000454	0.68	437.723000	Y 377.433
Cu (324.754 nm)	0.065177	ppm	0.000089	0.14	3227.240000	Y 377.433
Fe (238.204 nm)	3.914990	ppm	0.008222	0.21	9431.204618	Y_R 377.433
Fe H (259.940 nm)	3.884620 u	ppm	0.026183	0.67	5383.790000	Y_R 377.433
K (766.491 nm)	143.157000	ppm	0.456744	0.32	140168.000000	Y_R2 488.368
Li (670.783 nm)	0.141199	ppm	0.001761	1.25	-121.350000	Y_R2 488.368
Mg (279.078 nm)	139.761000	ppm	0.092328	0.07	457344.000000	Y 377.433
Mn (257.610 nm)	1.341120	ppm	0.001114	0.08	365657.000000	Y 377.433
Mo (202.032 nm)	0.056036	ppm	0.000053	0.09	717.420000	Y 377.433
Na (589.592 nm)	839.787000 o	ppm	2.255570	0.27	689653.000000	Y_R2 488.368
Na H (589.593 nm)	968.705474	ppm	6.983637	0.72	525459.612839	Y_R4
Ni (231.604 nm)	0.084721	ppm	0.000942	1.11	429.951000	Y 377.433
P (213.618 nm)	2.926940	ppm	0.004126	0.14	4163.250000	Y 242.219
Pb (220.353 nm)	0.098154	ppm	0.003451	3.52	320.911000	Y 242.219
S (181.972 nm)	56.047393	ppm	0.065148	0.12	25696.344567	Y 377.433
Sb (206.834 nm)	0.104842	ppm	0.002426	2.31	178.826000	Y 377.433
Se (196.026 nm)	0.211827	ppm	0.000889	0.42	329.209000	Y 242.219
Si (288.158 nm)	28.198700	ppm	0.014246	0.05	182019.000000	Y 377.433
Sn (189.925 nm)	0.096878	ppm	0.000875	0.90	157.972000	Y 377.433
Sr (421.552 nm)	3.366879	ppm	0.013037	0.39	507079.446959	Y_R 488.368
Th (288.505 nm)	0.209448	ppm	0.000590	0.28	388.679000	Y 377.433
Ti (336.122 nm)	0.060632	ppm	0.000256	0.42	8170.900000	Y 377.433
Tl (190.794 nm)	0.196383	ppm	0.004456	2.27	440.314000	Y 377.433
U (409.013 nm)	0.519357	ppm	0.000738	0.14	1584.090000	Y 377.433
V (292.401 nm)	0.065468	ppm	0.000029	0.04	3227.370000	Y 377.433
Zn (206.200 nm)	0.217758	ppm	0.002025	0.93	983.808000	Y 377.433
Zr (343.823 nm)	0.068208	ppm	0.000148	0.22	3699.770000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.019331	23562.316230	0.000200	0.02
Y 377.433	1.016821	711196.267275	0.000913	0.09
Y_R 377.433	1.113880	67533.200000	0.000262	0.02
Y_R 488.368	1.125540	59459.600000	0.002382	0.21
Y_R2 488.368	1.096344	116218.284022	0.007670	0.70
Y_R4	1.103780	49670.300000	0.003883	0.35

Sample Name: MB 280-459139/1-A

Date: 5/24/2019 8:34:34 PM Rack:Tube: 1:62

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000461	ppm	0.000251	54.50	-250.911000	Y 377.433
Al (394.401 nm)	0.001070	ppm	0.001247	> 100.00	102.354000	Y 377.433
Al H (396.152 nm)	0.133178 u	ppm	0.004109	3.09	32.869400	Y_R 377.433
As (188.980 nm)	0.000769 u	ppm	0.003019	> 100.00	-0.417209	Y 242.219
B (249.678 nm)	0.008359	ppm	0.000699	8.36	106.350000	Y 242.219
Ba (493.408 nm)	-0.002306 u	ppm	0.000419	18.19	1169.610000	Y_R 488.368
Be (234.861 nm)	-0.000036 u	ppm	0.000066	> 100.00	-5.636430	Y_R 488.368
Bi (223.061 nm)	0.000078 u	ppm	0.000352	> 100.00	-10.435700	Y 377.433
Ca (315.887 nm)	0.035277	ppm	0.007101	20.13	-41.022641	Y_R 377.433
Cd (214.439 nm)	-0.000022 u	ppm	0.000022	99.65	-5.976630	Y 377.433
Co (228.615 nm)	-0.000258 u	ppm	0.000198	76.80	-21.198000	Y 242.219
Cr (205.560 nm)	0.000265	ppm	0.000087	32.89	-4.987230	Y 377.433
Cu (324.754 nm)	0.001112	ppm	0.000236	21.22	370.333000	Y 377.433
Fe (238.204 nm)	0.028042	ppm	0.000915	3.26	74.641364	Y_R 377.433
Fe H (259.940 nm)	0.029082 u	ppm	0.000110	0.38	51.633700	Y_R 377.433
K (766.491 nm)	-0.174505 u	ppm	0.045806	26.25	1768.880000	Y_R2 488.368
Li (670.783 nm)	0.026922	ppm	0.000351	1.30	-2083.510000	Y_R2 488.368
Mg (279.078 nm)	0.008686	ppm	0.002792	32.15	36.901500	Y 377.433
Mn (257.610 nm)	0.000562	ppm	0.000032	5.71	142.241000	Y 377.433
Mo (202.032 nm)	-0.000090 u	ppm	0.000203	> 100.00	10.000900	Y 377.433
Na (589.592 nm)	0.064304	ppm	0.055795	86.77	202.492000	Y_R2 488.368
Na H (589.593 nm)	1.763628 u	ppm	0.003605	0.20	839.369365	Y_R4
Ni (231.604 nm)	-0.000222 u	ppm	0.000435	> 100.00	-9.771290	Y 377.433
P (213.618 nm)	-0.001959 u	ppm	0.002060	> 100.00	-6.870260	Y 242.219
Pb (220.353 nm)	0.000466 u	ppm	0.000765	> 100.00	9.720710	Y 242.219
S (181.972 nm)	0.009541	ppm	0.002433	25.51	17.070163	Y 377.433
Sb (206.834 nm)	0.001830	ppm	0.000582	31.82	4.871450	Y 377.433
Se (196.026 nm)	-0.001167 u	ppm	0.001413	> 100.00	7.090920	Y 242.219
Si (288.158 nm)	0.019039	ppm	0.004418	23.21	611.111000	Y 377.433
Sn (189.925 nm)	0.001387 u	ppm	0.001972	> 100.00	4.321980	Y 377.433
Sr (421.552 nm)	0.000283	ppm	0.000162	57.17	65.811118	Y_R 488.368
Th (288.505 nm)	0.003996	ppm	0.002664	66.66	19.580200	Y 377.433
Ti (336.122 nm)	0.000498	ppm	0.000017	3.42	-370.089000	Y 377.433
Tl (190.794 nm)	-0.001151 u	ppm	0.000774	67.23	-0.818647	Y 377.433
U (409.013 nm)	0.001549 u	ppm	0.005689	> 100.00	-19.828100	Y 377.433
V (292.401 nm)	-0.000001 u	ppm	0.000077	> 100.00	-145.316000	Y 377.433
Zn (206.200 nm)	0.004224	ppm	0.000525	12.43	23.063600	Y 377.433
Zr (343.823 nm)	0.000225	ppm	0.000004	1.58	-148.885000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.152038	26629.887442	0.003207	0.28
Y 377.433	1.132153	791863.307620	0.002787	0.25
Y_R 377.433	1.169350	70896.400000	0.008986	0.77
Y_R 488.368	1.187300	62722.100000	0.008867	0.75
Y_R2 488.368	1.173077	124352.417316	0.006090	0.52
Y_R4	1.156840	52057.600000	0.006040	0.52

Sample Name: LCS 280-459139/2-A

Date: 5/24/2019 8:37:46 PM Rack:Tube: 1:63

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052404	ppm	0.000138	0.26	1233.240000	Y 377.433
Al (394.401 nm)	9.884080 o	ppm	0.022603	0.23	120997.000000	Y 377.433
Al H (396.152 nm)	9.714050	ppm	0.078559	0.81	21461.700000	Y_R 377.433
As (188.980 nm)	2.046290	ppm	0.000713	0.03	3081.680000	Y 242.219
B (249.678 nm)	0.976585	ppm	0.001253	0.13	7015.210000	Y 242.219
Ba (493.408 nm)	1.982860	ppm	0.008283	0.42	199086.000000	Y_R 488.368
Be (234.861 nm)	0.974801	ppm	0.000293	0.03	95955.900000	Y_R 488.368
Bi (223.061 nm)	1.977650	ppm	0.005077	0.26	4322.560000	Y 377.433
Ca (315.887 nm)	49.735520	ppm	0.105811	0.21	39433.661989	Y_R 377.433
Cd (214.439 nm)	1.036940	ppm	0.000033	0.00	38344.900000	Y 377.433
Co (228.615 nm)	0.989360	ppm	0.002640	0.27	23281.400000	Y 242.219
Cr (205.560 nm)	1.036070	ppm	0.007023	0.68	6895.640000	Y 377.433
Cu (324.754 nm)	0.986018	ppm	0.002533	0.26	46361.900000	Y 377.433
Fe (238.204 nm)	10.212622 o	ppm	0.043857	0.43	24590.703592	Y_R 377.433
Fe H (259.940 nm)	10.135300	ppm	0.030699	0.30	14028.400000	Y_R 377.433
K (766.491 nm)	48.968900	ppm	0.744482	1.52	49221.100000	Y_R2 488.368
Li (670.783 nm)	1.023030	ppm	0.000891	0.09	15019.800000	Y_R2 488.368
Mg (279.078 nm)	49.813300	ppm	0.092063	0.18	162971.000000	Y 377.433
Mn (257.610 nm)	1.003930	ppm	0.001812	0.18	273720.000000	Y 377.433
Mo (202.032 nm)	1.029910	ppm	0.002310	0.22	12992.400000	Y 377.433
Na (589.592 nm)	47.925800	ppm	0.158300	0.33	39942.900000	Y_R2 488.368
Na H (589.593 nm)	49.511855 u	ppm	0.110396	0.22	26745.463455	Y_R4
Ni (231.604 nm)	1.015790	ppm	0.002038	0.20	5249.470000	Y 377.433
P (213.618 nm)	21.197600	ppm	0.036099	0.17	30038.800000	Y 242.219
Pb (220.353 nm)	1.006120	ppm	0.002256	0.22	3203.250000	Y 242.219
S (181.972 nm)	10.516019	ppm	0.006994	0.07	4834.193835	Y 377.433
Sb (206.834 nm)	1.084670	ppm	0.006343	0.58	1828.640000	Y 377.433
Se (196.026 nm)	2.010010	ppm	0.005333	0.27	3039.260000	Y 242.219
Si (288.158 nm)	2.077980	ppm	0.005599	0.27	13865.700000	Y 377.433
Sn (189.925 nm)	2.073860	ppm	0.002782	0.13	3339.040000	Y 377.433
Sr (421.552 nm)	0.966729	ppm	0.003981	0.41	145615.152174	Y_R 488.368
Th (288.505 nm)	1.007840	ppm	0.002678	0.27	1657.700000	Y 377.433
Ti (336.122 nm)	0.998777	ppm	0.001418	0.14	127543.000000	Y 377.433
Tl (190.794 nm)	2.020480	ppm	0.001166	0.06	4613.980000	Y 377.433
U (409.013 nm)	2.052000	ppm	0.015575	0.76	6424.220000	Y 377.433
V (292.401 nm)	0.996886	ppm	0.001464	0.15	51262.200000	Y 377.433
Zn (206.200 nm)	0.513917	ppm	0.000770	0.15	2316.430000	Y 377.433
Zr (343.823 nm)	0.492146	ppm	0.001028	0.21	27699.600000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.098888	25401.301804	0.001492	0.14
Y 377.433	1.086634	760025.440777	0.001467	0.13
Y_R 377.433	1.143240	69313.000000	0.000667	0.06
Y_R 488.368	1.158330	61192.100000	0.000418	0.04
Y_R2 488.368	1.130549	119844.172180	0.009834	0.87
Y_R4	1.130640	50878.600000	0.002155	0.19

Sample Name: 280-123483-A-3-A

Date: 5/24/2019 8:41:25 PM Rack:Tube: 1:64

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000631	ppm	0.000003	0.49	-252.560000	Y 377.433
Al (394.401 nm)	0.005320	ppm	0.000783	14.71	216.174000	Y 377.433
Al H (396.152 nm)	0.094770 u	ppm	0.003591	3.79	28.337400	Y_R 377.433
As (188.980 nm)	0.005259	ppm	0.002386	45.37	6.346510	Y 242.219
B (249.678 nm)	0.041333	ppm	0.000602	1.46	341.793000	Y 242.219
Ba (493.408 nm)	0.043847	ppm	0.000102	0.23	5770.840000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000036	> 100.00	-2.740430	Y_R 488.368
Bi (223.061 nm)	0.000525	ppm	0.000627	> 100.00	-9.430420	Y 377.433
Ca (315.887 nm)	43.134064	ppm	0.007552	0.02	34188.279851	Y_R 377.433
Cd (214.439 nm)	0.000172	ppm	0.000008	4.51	1.239470	Y 377.433
Co (228.615 nm)	0.000042 u	ppm	0.000080	> 100.00	-14.147600	Y 242.219
Cr (205.560 nm)	0.004911	ppm	0.000661	13.47	25.968500	Y 377.433
Cu (324.754 nm)	0.001318	ppm	0.000111	8.43	351.356000	Y 377.433
Fe (238.204 nm)	0.107587	ppm	0.000932	0.87	266.120052	Y_R 377.433
Fe H (259.940 nm)	0.108446 u	ppm	0.001781	1.64	161.392000	Y_R 377.433
K (766.491 nm)	6.282050	ppm	0.310570	4.94	8003.250000	Y_R2 488.368
Li (670.783 nm)	0.030639	ppm	0.003336	10.89	-2019.700000	Y_R2 488.368
Mg (279.078 nm)	13.127600	ppm	0.022841	0.17	42966.200000	Y 377.433
Mn (257.610 nm)	0.001218	ppm	0.000020	1.66	321.112000	Y 377.433
Mo (202.032 nm)	0.006994	ppm	0.000130	1.86	99.283700	Y 377.433
Na (589.592 nm)	22.587200	ppm	0.007874	0.03	18702.000000	Y_R2 488.368
Na H (589.593 nm)	23.516674 u	ppm	0.243064	1.03	12641.618361	Y_R4
Ni (231.604 nm)	0.000650	ppm	0.000354	54.49	-5.257470	Y 377.433
P (213.618 nm)	0.021874	ppm	0.003284	15.01	26.661100	Y 242.219
Pb (220.353 nm)	-0.000911 u	ppm	0.001605	> 100.00	5.393380	Y 242.219
S (181.972 nm)	17.248110	ppm	0.012431	0.07	7913.667199	Y 377.433
Sb (206.834 nm)	-0.003624 u	ppm	0.000294	8.11	-4.347570	Y 377.433
Se (196.026 nm)	0.004357	ppm	0.003077	70.61	15.403400	Y 242.219
Si (288.158 nm)	17.783000	ppm	0.036999	0.21	114968.000000	Y 377.433
Sn (189.925 nm)	0.002065	ppm	0.000447	21.62	5.413120	Y 377.433
Sr (421.552 nm)	0.211800	ppm	0.000083	0.04	31920.471244	Y_R 488.368
Th (288.505 nm)	-0.007823 u	ppm	0.000596	7.63	-3.743470	Y 377.433
Ti (336.122 nm)	0.000142	ppm	0.000022	15.70	-269.158000	Y 377.433
Tl (190.794 nm)	0.002657	ppm	0.000569	21.41	6.128200	Y 377.433
U (409.013 nm)	0.027521	ppm	0.005842	21.23	56.872100	Y 377.433
V (292.401 nm)	0.018280	ppm	0.000228	1.25	800.006000	Y 377.433
Zn (206.200 nm)	0.002959	ppm	0.000374	12.65	17.387300	Y 377.433
Zr (343.823 nm)	0.000333	ppm	0.000063	18.95	-142.781000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114007	25750.794657	0.004322	0.39
Y 377.433	1.094963	765851.585905	0.004732	0.43
Y_R 377.433	1.144610	69396.200000	0.006789	0.59
Y_R 488.368	1.159500	61253.500000	0.007689	0.66
Y_R2 488.368	1.149784	121883.189711	0.007778	0.68
Y_R4	1.141640	51373.800000	0.009283	0.81

Sample Name: 280-123483-A-4-A

Date: 5/24/2019 8:44:55 PM Rack:Tube: 1:65

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000874	ppm	0.000037	4.23	-244.305000	Y 377.433
Al (394.401 nm)	0.010567	ppm	0.001288	12.19	280.404000	Y 377.433
Al H (396.152 nm)	0.100393 u	ppm	0.006104	6.08	42.921500	Y_R 377.433
As (188.980 nm)	0.006955	ppm	0.001016	14.62	8.902950	Y 242.219
B (249.678 nm)	0.039997	ppm	0.000542	1.35	332.290000	Y 242.219
Ba (493.408 nm)	0.045037	ppm	0.000686	1.52	5889.360000	Y_R 488.368
Be (234.861 nm)	-0.000054 u	ppm	0.000026	47.87	-7.447930	Y_R 488.368
Bi (223.061 nm)	-0.000155 u	ppm	0.001983	> 100.00	-10.929500	Y 377.433
Ca (315.887 nm)	44.400175	ppm	0.040318	0.09	35193.836337	Y_R 377.433
Cd (214.439 nm)	0.000189	ppm	0.000079	41.86	1.823340	Y 377.433
Co (228.615 nm)	-0.000404 u	ppm	0.000053	13.04	-24.632700	Y 242.219
Cr (205.560 nm)	0.007595	ppm	0.000385	5.07	43.870000	Y 377.433
Cu (324.754 nm)	0.001675	ppm	0.000002	0.10	368.228000	Y 377.433
Fe (238.204 nm)	0.046987	ppm	0.000777	1.65	120.246410	Y_R 377.433
Fe H (259.940 nm)	0.044859 u	ppm	0.000758	1.69	73.452100	Y_R 377.433
K (766.491 nm)	6.621740	ppm	0.158384	2.39	8331.260000	Y_R2 488.368
Li (670.783 nm)	0.026392	ppm	0.001519	5.76	-2092.620000	Y_R2 488.368
Mg (279.078 nm)	13.461000	ppm	0.022195	0.16	44057.400000	Y 377.433
Mn (257.610 nm)	0.001208	ppm	0.000016	1.33	318.192000	Y 377.433
Mo (202.032 nm)	0.006720	ppm	0.000157	2.33	95.832100	Y 377.433
Na (589.592 nm)	23.242300	ppm	0.002925	0.01	19240.000000	Y_R2 488.368
Na H (589.593 nm)	24.006413 u	ppm	0.013073	0.05	12907.328987	Y_R4
Ni (231.604 nm)	0.001304	ppm	0.000247	18.97	-1.876940	Y 377.433
P (213.618 nm)	0.020263	ppm	0.000372	1.84	24.214400	Y 242.219
Pb (220.353 nm)	-0.001085 u	ppm	0.000449	41.43	4.830740	Y 242.219
S (181.972 nm)	17.747322	ppm	0.002481	0.01	8142.346870	Y 377.433
Sb (206.834 nm)	-0.005606 u	ppm	0.002153	38.41	-7.675780	Y 377.433
Se (196.026 nm)	0.003396	ppm	0.002410	70.96	13.969400	Y 242.219
Si (288.158 nm)	18.264400	ppm	0.068496	0.38	118067.000000	Y 377.433
Sn (189.925 nm)	0.001400	ppm	0.000092	6.58	4.342670	Y 377.433
Sr (421.552 nm)	0.218043	ppm	0.000137	0.06	32860.755602	Y_R 488.368
Th (288.505 nm)	-0.001372 u	ppm	0.004102	> 100.00	7.314930	Y 377.433
Ti (336.122 nm)	0.000151	ppm	0.000043	28.54	-263.561000	Y 377.433
Tl (190.794 nm)	-0.001107 u	ppm	0.000137	12.41	-2.521240	Y 377.433
U (409.013 nm)	0.027882	ppm	0.009189	32.96	57.856000	Y 377.433
V (292.401 nm)	0.018561	ppm	0.000035	0.19	814.263000	Y 377.433
Zn (206.200 nm)	0.005215	ppm	0.000415	7.96	27.522800	Y 377.433
Zr (343.823 nm)	-0.000034 u	ppm	0.000114	> 100.00	-163.559000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120932	25910.854172	0.005076	0.45
Y 377.433	1.102824	771349.616060	0.003938	0.36
Y_R 377.433	1.148280	69619.000000	0.005003	0.44
Y_R 488.368	1.162120	61392.200000	0.003576	0.31
Y_R2 488.368	1.138335	120669.579878	0.004794	0.42
Y_R4	1.127330	50729.700000	0.001432	0.13

Sample Name: 280-123483-A-5-A

Date: 5/24/2019 8:48:24 PM Rack:Tube: 1:66

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001223	ppm	0.000013	1.10	-232.628000	Y 377.433
Al (394.401 nm)	0.004714	ppm	0.002114	44.84	214.835000	Y 377.433
Al H (396.152 nm)	0.091665 u	ppm	0.002212	2.41	25.578500	Y_R 377.433
As (188.980 nm)	0.007444	ppm	0.000842	11.31	9.641510	Y 242.219
B (249.678 nm)	0.040980	ppm	0.000156	0.38	339.334000	Y 242.219
Ba (493.408 nm)	0.042958	ppm	0.000325	0.76	5682.110000	Y_R 488.368
Be (234.861 nm)	-0.000051 u	ppm	0.000000	0.05	-7.051400	Y_R 488.368
Bi (223.061 nm)	-0.000482 u	ppm	0.001492	> 100.00	-11.651800	Y 377.433
Ca (315.887 nm)	45.722579	ppm	0.197099	0.43	36244.095924	Y_R 377.433
Cd (214.439 nm)	0.000067 u	ppm	0.000106	> 100.00	-2.681120	Y 377.433
Co (228.615 nm)	-0.000363 u	ppm	0.000151	41.71	-23.668700	Y 242.219
Cr (205.560 nm)	0.003812	ppm	0.000030	0.79	18.638700	Y 377.433
Cu (324.754 nm)	0.004322	ppm	0.000017	0.38	488.944000	Y 377.433
Fe (238.204 nm)	0.008487	ppm	0.000915	10.78	27.568262	Y_R 377.433
Fe H (259.940 nm)	0.010154 u	ppm	0.000350	3.45	25.456000	Y_R 377.433
K (766.491 nm)	6.555810	ppm	0.032447	0.49	8267.590000	Y_R2 488.368
Li (670.783 nm)	0.030301	ppm	0.002553	8.42	-2025.490000	Y_R2 488.368
Mg (279.078 nm)	13.743500	ppm	0.002635	0.02	44981.200000	Y 377.433
Mn (257.610 nm)	0.000375	ppm	0.000033	8.69	91.275600	Y 377.433
Mo (202.032 nm)	0.006741	ppm	0.000526	7.80	96.099000	Y 377.433
Na (589.592 nm)	23.858600	ppm	0.113362	0.48	19745.400000	Y_R2 488.368
Na H (589.593 nm)	24.671183 u	ppm	0.039400	0.16	13268.003975	Y_R4
Ni (231.604 nm)	-0.001232 u	ppm	0.000554	44.95	-14.991900	Y 377.433
P (213.618 nm)	0.025056	ppm	0.004839	19.31	30.513000	Y 242.219
Pb (220.353 nm)	-0.000969 u	ppm	0.001223	> 100.00	5.280760	Y 242.219
S (181.972 nm)	18.706955	ppm	0.037746	0.20	8581.879979	Y 377.433
Sb (206.834 nm)	-0.005950 u	ppm	0.003837	64.48	-8.288340	Y 377.433
Se (196.026 nm)	0.004102	ppm	0.002981	72.67	15.043000	Y 242.219
Si (288.158 nm)	18.390300	ppm	0.133565	0.73	118878.000000	Y 377.433
Sn (189.925 nm)	0.000766	ppm	0.000728	95.11	3.322490	Y 377.433
Sr (421.552 nm)	0.222917	ppm	0.001419	0.64	33594.657374	Y_R 488.368
Th (288.505 nm)	-0.002490 u	ppm	0.001261	50.63	5.477210	Y 377.433
Ti (336.122 nm)	0.000033 u	ppm	0.000086	> 100.00	-273.996000	Y 377.433
Tl (190.794 nm)	0.002950	ppm	0.000217	7.34	6.708920	Y 377.433
U (409.013 nm)	0.033865	ppm	0.007653	22.60	76.593600	Y 377.433
V (292.401 nm)	0.018871	ppm	0.000159	0.84	830.016000	Y 377.433
Zn (206.200 nm)	0.002940	ppm	0.000822	27.96	17.286900	Y 377.433
Zr (343.823 nm)	0.000204	ppm	0.000092	44.81	-150.040000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.115746	25790.997860	0.003828	0.34
Y 377.433	1.096871	767185.893256	0.002449	0.22
Y_R 377.433	1.139420	69081.600000	0.002978	0.26
Y_R 488.368	1.157740	61160.900000	0.004737	0.41
Y_R2 488.368	1.134501	120263.128141	0.004662	0.41
Y_R4	1.133810	51021.500000	0.005894	0.52

Sample Name: 280-123483-A-6-A

Date: 5/24/2019 8:51:54 PM Rack:Tube: 1:67

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001171	ppm	0.000197	16.82	-234.314000	Y 377.433
Al (394.401 nm)	0.005490	ppm	0.002149	39.14	223.348000	Y 377.433
Al H (396.152 nm)	0.098242 u	ppm	0.005466	5.56	37.447800	Y_R 377.433
As (188.980 nm)	0.010008	ppm	0.000763	7.62	13.504500	Y 242.219
B (249.678 nm)	0.037930	ppm	0.000673	1.77	317.545000	Y 242.219
Ba (493.408 nm)	0.041971	ppm	0.000003	0.01	5583.710000	Y_R 488.368
Be (234.861 nm)	-0.000073 u	ppm	0.000023	31.05	-9.268310	Y_R 488.368
Bi (223.061 nm)	-0.000264 u	ppm	0.000006	2.40	-11.172600	Y 377.433
Ca (315.887 nm)	44.267603	ppm	0.070905	0.16	35088.545793	Y_R 377.433
Cd (214.439 nm)	0.000159	ppm	0.000108	67.99	0.701305	Y 377.433
Co (228.615 nm)	-0.000324 u	ppm	0.000218	67.32	-22.743700	Y 242.219
Cr (205.560 nm)	0.003680	ppm	0.000455	12.37	17.762000	Y 377.433
Cu (324.754 nm)	0.002113	ppm	0.000484	22.90	386.182000	Y 377.433
Fe (238.204 nm)	0.015340	ppm	0.001394	9.09	44.065946	Y_R 377.433
Fe H (259.940 nm)	0.014439 u	ppm	0.001143	7.91	31.382200	Y_R 377.433
K (766.491 nm)	6.403270	ppm	0.167695	2.62	8120.300000	Y_R2 488.368
Li (670.783 nm)	0.027008	ppm	0.005159	19.10	-2082.040000	Y_R2 488.368
Mg (279.078 nm)	13.346600	ppm	0.006347	0.05	43682.600000	Y 377.433
Mn (257.610 nm)	0.000312	ppm	0.000033	10.44	73.959000	Y 377.433
Mo (202.032 nm)	0.006413	ppm	0.000049	0.77	91.960400	Y 377.433
Na (589.592 nm)	23.190300	ppm	0.119559	0.52	19196.600000	Y_R2 488.368
Na H (589.593 nm)	23.902644 u	ppm	0.263189	1.10	12851.028719	Y_R4
Ni (231.604 nm)	-0.000721 u	ppm	0.000287	39.84	-12.352100	Y 377.433
P (213.618 nm)	0.022350	ppm	0.002939	13.15	27.090800	Y 242.219
Pb (220.353 nm)	-0.000069 u	ppm	0.000498	> 100.00	8.143030	Y 242.219
S (181.972 nm)	18.097823	ppm	0.052121	0.29	8302.853387	Y 377.433
Sb (206.834 nm)	-0.001121 u	ppm	0.003060	> 100.00	-0.132587	Y 377.433
Se (196.026 nm)	0.003564	ppm	0.001011	28.35	14.230000	Y 242.219
Si (288.158 nm)	17.824700	ppm	0.031503	0.18	115236.000000	Y 377.433
Sn (189.925 nm)	0.001493	ppm	0.001305	87.43	4.492600	Y 377.433
Sr (421.552 nm)	0.215954	ppm	0.000123	0.06	32546.017126	Y_R 488.368
Th (288.505 nm)	-0.004230 u	ppm	0.000770	18.20	2.550200	Y 377.433
Ti (336.122 nm)	-0.000077 u	ppm	0.000083	> 100.00	-293.079000	Y 377.433
Tl (190.794 nm)	-0.000333 u	ppm	0.001154	> 100.00	-0.741876	Y 377.433
U (409.013 nm)	0.030915	ppm	0.009045	29.26	67.426600	Y 377.433
V (292.401 nm)	0.017874	ppm	0.000056	0.31	777.993000	Y 377.433
Zn (206.200 nm)	0.003661	ppm	0.000091	2.50	20.529700	Y 377.433
Zr (343.823 nm)	0.000119	ppm	0.000022	18.78	-154.901000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.101292	25456.877385	0.002564	0.23
Y 377.433	1.081587	756495.578520	0.001137	0.11
Y_R 377.433	1.127010	68329.000000	0.003059	0.27
Y_R 488.368	1.142280	60344.100000	0.004681	0.41
Y_R2 488.368	1.126356	119399.656538	0.007442	0.66
Y_R4	1.125050	50627.300000	0.012051	1.07

Sample Name: 280-123483-A-11-A

Date: 5/24/2019 8:55:23 PM Rack:Tube: 1:68

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001120	ppm	0.000178	15.90	-235.803000	Y 377.433
Al (394.401 nm)	0.006441	ppm	0.001889	29.32	230.434000	Y 377.433
Al H (396.152 nm)	0.097668 u	ppm	0.003807	3.90	32.209600	Y_R 377.433
As (188.980 nm)	0.006087	ppm	0.004229	69.48	7.591220	Y 242.219
B (249.678 nm)	0.035598	ppm	0.000209	0.59	300.784000	Y 242.219
Ba (493.408 nm)	0.038882	ppm	0.000061	0.16	5275.860000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000055	> 100.00	-5.657680	Y_R 488.368
Bi (223.061 nm)	-0.000878 u	ppm	0.001873	> 100.00	-12.486700	Y 377.433
Ca (315.887 nm)	42.668965	ppm	0.029048	0.07	33818.899934	Y_R 377.433
Cd (214.439 nm)	0.000064 u	ppm	0.000123	> 100.00	-2.729160	Y 377.433
Co (228.615 nm)	-0.000408 u	ppm	0.000113	27.71	-24.711700	Y 242.219
Cr (205.560 nm)	0.011501	ppm	0.000538	4.68	69.914500	Y 377.433
Cu (324.754 nm)	0.001365	ppm	0.000316	23.14	352.568000	Y 377.433
Fe (238.204 nm)	0.201496	ppm	0.002472	1.23	492.174920	Y_R 377.433
Fe H (259.940 nm)	0.201338 u	ppm	0.000135	0.07	289.861000	Y_R 377.433
K (766.491 nm)	6.408480	ppm	0.189596	2.96	8125.330000	Y_R2 488.368
Li (670.783 nm)	0.024772	ppm	0.006228	25.14	-2120.440000	Y_R2 488.368
Mg (279.078 nm)	12.628300	ppm	0.030386	0.24	41332.100000	Y 377.433
Mn (257.610 nm)	0.002312	ppm	0.000001	0.05	619.440000	Y 377.433
Mo (202.032 nm)	0.006399	ppm	0.000085	1.32	91.792100	Y 377.433
Na (589.592 nm)	22.378400	ppm	0.146845	0.66	18529.500000	Y_R2 488.368
Na H (589.593 nm)	22.796880 u	ppm	0.136327	0.60	12251.089543	Y_R4
Ni (231.604 nm)	0.004041	ppm	0.000284	7.03	12.288300	Y 377.433
P (213.618 nm)	0.022278	ppm	0.003182	14.28	27.231600	Y 242.219
Pb (220.353 nm)	-0.000051 u	ppm	0.002195	> 100.00	8.130560	Y 242.219
S (181.972 nm)	16.478277	ppm	0.075749	0.46	7561.099979	Y 377.433
Sb (206.834 nm)	-0.003287 u	ppm	0.000148	4.49	-3.717500	Y 377.433
Se (196.026 nm)	0.003255	ppm	0.001768	54.30	13.718900	Y 242.219
Si (288.158 nm)	17.652700	ppm	0.040279	0.23	114129.000000	Y 377.433
Sn (189.925 nm)	0.002524	ppm	0.001394	55.22	6.152060	Y 377.433
Sr (421.552 nm)	0.205843	ppm	0.000284	0.14	31023.351737	Y_R 488.368
Th (288.505 nm)	-0.007710 u	ppm	0.000241	3.12	-3.522910	Y 377.433
Ti (336.122 nm)	0.000164	ppm	0.000020	12.08	-267.806000	Y 377.433
Tl (190.794 nm)	0.001318 u	ppm	0.001919	> 100.00	3.076520	Y 377.433
U (409.013 nm)	0.032567	ppm	0.005622	17.26	73.003600	Y 377.433
V (292.401 nm)	0.018754	ppm	0.000048	0.26	821.388000	Y 377.433
Zn (206.200 nm)	0.002750	ppm	0.000384	13.98	16.459500	Y 377.433
Zr (343.823 nm)	0.000225	ppm	0.000306	> 100.00	-148.882000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107665	25604.200611	0.002884	0.26
Y 377.433	1.087505	760634.903174	0.002441	0.22
Y_R 377.433	1.124090	68152.200000	0.001419	0.13
Y_R 488.368	1.139000	60170.700000	0.002740	0.24
Y_R2 488.368	1.108379	117493.994823	0.000127	0.01
Y_R4	1.130410	50868.600000	0.000033	0.00

Sample Name: 280-123483-A-12-A

Date: 5/24/2019 8:58:54 PM Rack:Tube: 1:69

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001092	ppm	0.000286	26.24	-236.845000	Y 377.433
Al (394.401 nm)	0.006502	ppm	0.000173	2.66	229.639000	Y 377.433
Al H (396.152 nm)	0.099336 u	ppm	0.005323	5.36	36.791500	Y_R 377.433
As (188.980 nm)	0.005984	ppm	0.001027	17.16	7.439950	Y 242.219
B (249.678 nm)	0.034891	ppm	0.000817	2.34	295.837000	Y 242.219
Ba (493.408 nm)	0.039224	ppm	0.000010	0.03	5309.860000	Y_R 488.368
Be (234.861 nm)	-0.000086 u	ppm	0.000015	18.09	-10.513200	Y_R 488.368
Bi (223.061 nm)	0.000236	ppm	0.000247	> 100.00	-10.076000	Y 377.433
Ca (315.887 nm)	43.081405	ppm	0.123768	0.29	34146.462327	Y_R 377.433
Cd (214.439 nm)	0.000184	ppm	0.000037	20.09	1.651520	Y 377.433
Co (228.615 nm)	-0.000012 u	ppm	0.000214	> 100.00	-15.413700	Y 242.219
Cr (205.560 nm)	0.004994	ppm	0.000343	6.87	26.525500	Y 377.433
Cu (324.754 nm)	0.000599	ppm	0.000217	36.25	318.038000	Y 377.433
Fe (238.204 nm)	0.024385	ppm	0.000326	1.34	65.839339	Y_R 377.433
Fe H (259.940 nm)	0.024380 u	ppm	0.000100	0.41	45.130700	Y_R 377.433
K (766.491 nm)	6.386370	ppm	0.009997	0.16	8103.980000	Y_R2 488.368
Li (670.783 nm)	0.024700	ppm	0.004525	18.32	-2121.660000	Y_R2 488.368
Mg (279.078 nm)	12.736900	ppm	0.040761	0.32	41687.700000	Y 377.433
Mn (257.610 nm)	0.001323	ppm	0.000034	2.60	349.569000	Y 377.433
Mo (202.032 nm)	0.006507	ppm	0.000056	0.86	93.151800	Y 377.433
Na (589.592 nm)	22.416900	ppm	0.004838	0.02	18561.100000	Y_R2 488.368
Na H (589.593 nm)	22.983268 u	ppm	0.158833	0.69	12352.215517	Y_R4
Ni (231.604 nm)	0.001464	ppm	0.000473	32.28	-1.045050	Y 377.433
P (213.618 nm)	0.021818	ppm	0.004042	18.53	26.727400	Y 242.219
Pb (220.353 nm)	-0.000416 u	ppm	0.000036	8.78	6.977980	Y 242.219
S (181.972 nm)	16.614689	ppm	0.089447	0.54	7623.592708	Y 377.433
Sb (206.834 nm)	-0.004331 u	ppm	0.003518	81.23	-5.543500	Y 377.433
Se (196.026 nm)	0.003725	ppm	0.000223	6.00	14.472100	Y 242.219
Si (288.158 nm)	17.707300	ppm	0.057474	0.32	114480.000000	Y 377.433
Sn (189.925 nm)	0.000832	ppm	0.000546	65.60	3.429850	Y 377.433
Sr (421.552 nm)	0.208011	ppm	0.000691	0.33	31349.895448	Y_R 488.368
Th (288.505 nm)	-0.006288 u	ppm	0.000379	6.03	-1.101910	Y 377.433
Ti (336.122 nm)	0.000068 u	ppm	0.000118	> 100.00	-278.319000	Y 377.433
Tl (190.794 nm)	-0.000862 u	ppm	0.000629	73.00	-1.908340	Y 377.433
U (409.013 nm)	0.024593	ppm	0.000821	3.34	47.550000	Y 377.433
V (292.401 nm)	0.018660	ppm	0.000076	0.41	819.841000	Y 377.433
Zn (206.200 nm)	0.002165	ppm	0.000184	8.51	13.801500	Y 377.433
Zr (343.823 nm)	0.000074	ppm	0.000089	> 100.00	-157.398000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110195	25662.674293	0.002203	0.20
Y 377.433	1.088982	761668.076481	0.002594	0.24
Y_R 377.433	1.122550	68058.800000	0.004236	0.38
Y_R 488.368	1.138530	60146.200000	0.004467	0.39
Y_R2 488.368	1.120033	118729.462157	0.001593	0.14
Y_R4	1.129240	50815.900000	0.012758	1.13

Sample Name: 280-123483-A-13-A

Date: 5/24/2019 9:02:24 PM Rack:Tube: 1:70

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000937	ppm	0.000286	30.50	-246.840000	Y 377.433
Al (394.401 nm)	0.008302	ppm	0.001231	14.83	226.243000	Y 377.433
Al H (396.152 nm)	0.117081 u	ppm	0.004055	3.46	38.888800	Y_R 377.433
As (188.980 nm)	0.003653	ppm	0.001316	36.04	3.927620	Y 242.219
B (249.678 nm)	0.016225	ppm	0.000081	0.50	162.538000	Y 242.219
Ba (493.408 nm)	0.025123	ppm	0.000439	1.75	3904.070000	Y_R 488.368
Be (234.861 nm)	-0.000067 u	ppm	0.000055	81.22	-8.655360	Y_R 488.368
Bi (223.061 nm)	0.000076 u	ppm	0.002519	> 100.00	-10.436100	Y 377.433
Ca (315.887 nm)	30.541040	ppm	0.030300	0.10	24186.830389	Y_R 377.433
Cd (214.439 nm)	0.000017 u	ppm	0.000141	> 100.00	-4.540010	Y 377.433
Co (228.615 nm)	-0.000566 u	ppm	0.000020	3.58	-28.422400	Y 242.219
Cr (205.560 nm)	0.020115	ppm	0.000044	0.22	127.374000	Y 377.433
Cu (324.754 nm)	0.000979	ppm	0.000081	8.24	343.372000	Y 377.433
Fe (238.204 nm)	0.015574	ppm	0.001290	8.28	44.628409	Y_R 377.433
Fe H (259.940 nm)	0.015220 u	ppm	0.002063	13.56	32.461600	Y_R 377.433
K (766.491 nm)	3.095310	ppm	0.088951	2.87	4926.180000	Y_R2 488.368
Li (670.783 nm)	0.027404	ppm	0.004398	16.05	-2075.230000	Y_R2 488.368
Mg (279.078 nm)	10.182600	ppm	0.004171	0.04	33329.200000	Y 377.433
Mn (257.610 nm)	0.000339	ppm	0.000012	3.55	81.442300	Y 377.433
Mo (202.032 nm)	0.007483	ppm	0.000516	6.89	105.448000	Y 377.433
Na (589.592 nm)	14.796100	ppm	0.065325	0.44	12302.000000	Y_R2 488.368
Na H (589.593 nm)	15.320102 u	ppm	0.065526	0.43	8194.517745	Y_R4
Ni (231.604 nm)	-0.000908 u	ppm	0.000481	53.00	-13.317400	Y 377.433
P (213.618 nm)	0.037343	ppm	0.001034	2.77	48.840300	Y 242.219
Pb (220.353 nm)	-0.001535 u	ppm	0.000614	40.00	3.378260	Y 242.219
S (181.972 nm)	7.342768	ppm	0.036557	0.50	3376.853087	Y 377.433
Sb (206.834 nm)	-0.004709 u	ppm	0.003253	69.09	-6.080080	Y 377.433
Se (196.026 nm)	0.001340	ppm	0.000530	39.53	10.875200	Y 242.219
Si (288.158 nm)	20.840700	ppm	0.077092	0.37	134652.000000	Y 377.433
Sn (189.925 nm)	-0.000342 u	ppm	0.001155	> 100.00	1.540430	Y 377.433
Sr (421.552 nm)	0.113605	ppm	0.000453	0.40	17132.142336	Y_R 488.368
Th (288.505 nm)	-0.000689 u	ppm	0.001953	> 100.00	7.478550	Y 377.433
Ti (336.122 nm)	0.000302	ppm	0.000012	3.99	-291.393000	Y 377.433
Tl (190.794 nm)	0.000105 u	ppm	0.002619	> 100.00	0.798303	Y 377.433
U (409.013 nm)	0.011799	ppm	0.002409	20.41	8.623290	Y 377.433
V (292.401 nm)	0.030633	ppm	0.000264	0.86	1437.070000	Y 377.433
Zn (206.200 nm)	0.002578	ppm	0.000121	4.71	15.659300	Y 377.433
Zr (343.823 nm)	0.000012 u	ppm	0.000036	> 100.00	-160.924000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122475	25946.529722	0.000106	0.01
Y 377.433	1.101071	770123.197653	0.001951	0.18
Y_R 377.433	1.139500	69086.500000	0.002506	0.22
Y_R 488.368	1.154810	61005.900000	0.001555	0.13
Y_R2 488.368	1.134987	120314.665364	0.004034	0.36
Y_R4	1.129460	50825.700000	0.019830	1.76

Sample Name: CCVH-5713036

Date: 5/24/2019 9:05:54 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005055	ppm	0.000070	1.38	-102.389000	Y 377.433
Al (394.401 nm)	49.329000 o	ppm	0.089106	0.18	600960.000000	Y 377.433
Al H (396.152 nm)	47.731400	ppm	0.095916	0.20	104080.000000	Y_R 377.433
As (188.980 nm)	0.002041	ppm	0.002283	> 100.00	0.148390	Y 242.219
B (249.678 nm)	-0.002291 u	ppm	0.001050	45.81	1.500020	Y 242.219
Ba (493.408 nm)	0.000544	ppm	0.000099	18.12	1493.440000	Y_R 488.368
Be (234.861 nm)	0.001168	ppm	0.000008	0.69	-97.881700	Y_R 488.368
Bi (223.061 nm)	0.011137	ppm	0.002665	23.93	22.395600	Y 377.433
Ca (315.887 nm)	0.001323 u	ppm	0.006501	> 100.00	-56.008649	Y_R 377.433
Cd (214.439 nm)	0.001420	ppm	0.000014	1.02	67.589400	Y 377.433
Co (228.615 nm)	0.002966	ppm	0.000250	8.43	54.600000	Y 242.219
Cr (205.560 nm)	0.001713	ppm	0.000131	7.66	3.377630	Y 377.433
Cu (324.754 nm)	0.004260	ppm	0.000302	7.08	1455.640000	Y 377.433
Fe (238.204 nm)	49.862035 o	ppm	0.085028	0.17	120033.762347	Y_R 377.433
Fe H (259.940 nm)	49.355600	ppm	0.066564	0.13	68269.400000	Y_R 377.433
K (766.491 nm)	0.162614 u	ppm	0.248933	> 100.00	2094.400000	Y_R2 488.368
Li (670.783 nm)	0.022755	ppm	0.002568	11.28	-2155.060000	Y_R2 488.368
Mg (279.078 nm)	0.038199	ppm	0.000642	1.68	59.510200	Y 377.433
Mn (257.610 nm)	0.000983	ppm	0.000015	1.49	257.020000	Y 377.433
Mo (202.032 nm)	0.001205	ppm	0.000012	0.96	26.320700	Y 377.433
Na (589.592 nm)	225.130000 o	ppm	0.181859	0.08	184960.000000	Y_R2 488.368
Na H (589.593 nm)	232.921647	ppm	1.308568	0.56	126255.573388	Y_R4
Ni (231.604 nm)	0.002423	ppm	0.000791	32.66	3.915070	Y 377.433
P (213.618 nm)	4.898030	ppm	0.041801	0.85	6995.600000	Y 242.219
Pb (220.353 nm)	0.005391	ppm	0.002568	47.63	18.734100	Y 242.219
S (181.972 nm)	4.939296	ppm	0.005699	0.12	2274.677285	Y 377.433
Sb (206.834 nm)	0.003407	ppm	0.002828	83.01	11.734300	Y 377.433
Se (196.026 nm)	0.008445	ppm	0.002521	29.85	8.753720	Y 242.219
Si (288.158 nm)	0.014444	ppm	0.000008	0.05	581.529000	Y 377.433
Sn (189.925 nm)	0.001768	ppm	0.000340	19.24	4.934530	Y 377.433
Sr (421.552 nm)	0.001546	ppm	0.000260	16.83	263.536661	Y_R 488.368
Th (288.505 nm)	4.806540	ppm	0.000106	0.00	8301.350000	Y 377.433
Ti (336.122 nm)	0.001876	ppm	0.000036	1.92	-193.820000	Y 377.433
Tl (190.794 nm)	-0.000134 u	ppm	0.000242	> 100.00	-3.292040	Y 377.433
U (409.013 nm)	0.530260 Q	ppm	0.002188	0.41	1694.050000 Q	Y 377.433
V (292.401 nm)	0.000757	ppm	0.000015	2.00	381.487000	Y 377.433
Zn (206.200 nm)	0.002478	ppm	0.000313	12.62	22.148400	Y 377.433
Zr (343.823 nm)	0.001154	ppm	0.000013	1.14	-96.310500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.080520	24976.716330	0.005726	0.53
Y 377.433	1.058670	740466.734455	0.004186	0.40
Y_R 377.433	1.100820	66741.500000	0.000832	0.08
Y_R 488.368	1.105210	58385.800000	0.002760	0.25
Y_R2 488.368	1.116106	118313.108717	0.001804	0.16
Y_R4	1.114310	50144.000000	0.016075	1.44

Sample Name: CCV-5717467

Date: 5/24/2019 9:09:39 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.490118	ppm	0.000386	0.08	16644.100000	Y 377.433
Al (394.401 nm)	0.495793	ppm	0.001286	0.26	6264.520000	Y 377.433
Al H (396.152 nm)	0.549962 u	ppm	0.001900	0.35	1184.460000	Y_R 377.433
As (188.980 nm)	0.491797	ppm	0.001573	0.32	739.441000	Y 242.219
B (249.678 nm)	0.474074	ppm	0.000983	0.21	3430.890000	Y 242.219
Ba (493.408 nm)	0.479987	ppm	0.000787	0.16	49253.100000	Y_R 488.368
Be (234.861 nm)	0.473658	ppm	0.000992	0.21	46634.600000	Y_R 488.368
Bi (223.061 nm)	0.982909	ppm	0.003819	0.39	2142.620000	Y 377.433
Ca (315.887 nm)	4.960898	ppm	0.015938	0.32	3871.064278	Y_R 377.433
Cd (214.439 nm)	0.516156	ppm	0.000584	0.11	19083.300000	Y 377.433
Co (228.615 nm)	0.492633	ppm	0.000821	0.17	11584.300000	Y 242.219
Cr (205.560 nm)	0.510710	ppm	0.005031	0.99	3395.780000	Y 377.433
Cu (324.754 nm)	0.494147	ppm	0.002255	0.46	23363.700000	Y 377.433
Fe (238.204 nm)	2.513507	ppm	0.012011	0.48	6057.589822	Y_R 377.433
Fe H (259.940 nm)	2.495930 u	ppm	0.005701	0.23	3463.250000	Y_R 377.433
K (766.491 nm)	48.059800	ppm	0.087825	0.18	48343.300000	Y_R2 488.368
Li (670.783 nm)	0.505386	ppm	0.006182	1.22	6131.830000	Y_R2 488.368
Mg (279.078 nm)	19.820500	ppm	0.026096	0.13	64864.800000	Y 377.433
Mn (257.610 nm)	0.489654	ppm	0.000474	0.10	133498.000000	Y 377.433
Mo (202.032 nm)	0.497339	ppm	0.001159	0.23	6279.710000	Y 377.433
Na (589.592 nm)	23.196300	ppm	0.106099	0.46	19300.900000	Y_R2 488.368
Na H (589.593 nm)	24.783791 u	ppm	0.287072	1.16	13329.100235	Y_R4
Ni (231.604 nm)	0.507989	ppm	0.002203	0.43	2620.330000	Y 377.433
P (213.618 nm)	0.046912	ppm	0.001174	2.50	-71.110300	Y 242.219
Pb (220.353 nm)	0.496467	ppm	0.000117	0.02	1583.260000	Y 242.219
S (181.972 nm)	-0.002846 u	ppm	0.003691	> 100.00	13.198295	Y 377.433
Sb (206.834 nm)	0.506142	ppm	0.002257	0.45	853.792000	Y 377.433
Se (196.026 nm)	0.497621	ppm	0.002029	0.41	759.481000	Y 242.219
Si (288.158 nm)	4.856450	ppm	0.011946	0.25	31752.300000	Y 377.433
Sn (189.925 nm)	0.511155	ppm	0.001627	0.32	824.568000	Y 377.433
Sr (421.552 nm)	0.468414	ppm	0.000982	0.21	70567.174760	Y_R 488.368
Th (288.505 nm)	0.019790	ppm	0.000792	4.00	-2.737970	Y 377.433
Ti (336.122 nm)	0.482876	ppm	0.000198	0.04	61374.000000	Y 377.433
Tl (190.794 nm)	0.507827	ppm	0.003253	0.64	1160.040000	Y 377.433
U (409.013 nm)	0.010696	ppm	0.004697	43.91	-50.579300	Y 377.433
V (292.401 nm)	0.485981	ppm	0.000031	0.01	24912.800000	Y 377.433
Zn (206.200 nm)	0.516549	ppm	0.000748	0.14	2327.200000	Y 377.433
Zr (343.823 nm)	0.484382	ppm	0.000246	0.05	27260.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110226	25663.399673	0.003311	0.30
Y 377.433	1.087431	760583.179321	0.003446	0.32
Y_R 377.433	1.124420	68172.200000	0.003554	0.32
Y_R 488.368	1.141010	60277.100000	0.004298	0.38
Y_R2 488.368	1.113495	118036.401449	0.005241	0.47
Y_R4	1.114010	50130.400000	0.012190	1.09

Sample Name: CCB

Date: 5/24/2019 9:13:14 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000531	ppm	0.000353	66.54	-248.958000	Y 377.433
Al (394.401 nm)	-0.001888 u	ppm	0.000400	21.17	70.891100	Y 377.433
Al H (396.152 nm)	0.131908 Zu	ppm	0.002572	1.95	30.119200 Z	Y_R 377.433
As (188.980 nm)	0.001907	ppm	0.001237	64.89	1.297350	Y 242.219
B (249.678 nm)	-0.002138 u	ppm	0.000175	8.19	31.405500	Y 242.219
Ba (493.408 nm)	-0.002785 Zu	ppm	0.000424	15.22	1121.830000 Z	Y_R 488.368
Be (234.861 nm)	0.000015	ppm	0.000005	33.06	-0.513454	Y_R 488.368
Bi (223.061 nm)	0.001659	ppm	0.000386	23.27	-6.978990	Y 377.433
Ca (315.887 nm)	0.014086	ppm	0.012065	85.65	-57.852566	Y_R 377.433
Cd (214.439 nm)	0.000048	ppm	0.000029	61.60	-3.420210	Y 377.433
Co (228.615 nm)	-0.000233 u	ppm	0.000227	97.48	-20.611000	Y 242.219
Cr (205.560 nm)	0.000675	ppm	0.000433	64.16	-2.252990	Y 377.433
Cu (324.754 nm)	0.001191	ppm	0.000457	38.36	371.821000	Y 377.433
Fe (238.204 nm)	-0.000071 u	ppm	0.001400	> 100.00	6.969104	Y_R 377.433
Fe H (259.940 nm)	-0.001275 u	ppm	0.002708	> 100.00	9.650000	Y_R 377.433
K (766.491 nm)	-0.181411 u	ppm	0.386781	> 100.00	1762.220000	Y_R2 488.368
Li (670.783 nm)	0.022116 Z	ppm	0.001473	6.66	-2166.030000 Z	Y_R2 488.368
Mg (279.078 nm)	0.005094	ppm	0.001329	26.09	24.755100	Y 377.433
Mn (257.610 nm)	0.000089	ppm	0.000031	34.54	13.301200	Y 377.433
Mo (202.032 nm)	0.000000 u	ppm	0.000352	> 100.00	11.137800	Y 377.433
Na (589.592 nm)	-0.014882 u	ppm	0.030183	> 100.00	137.331000	Y_R2 488.368
Na H (589.593 nm)	0.730207 u	ppm	0.021935	3.00	278.680480	Y_R4
Ni (231.604 nm)	0.000808	ppm	0.000476	58.88	-4.437520	Y 377.433
P (213.618 nm)	-0.004995 u	ppm	0.002601	52.07	-11.225300	Y 242.219
Pb (220.353 nm)	0.001810	ppm	0.001724	95.28	14.054900	Y 242.219
S (181.972 nm)	-0.005704 u	ppm	0.004751	83.30	10.086873	Y 377.433
Sb (206.834 nm)	-0.002076 u	ppm	0.000089	4.28	-1.727990	Y 377.433
Se (196.026 nm)	0.000716	ppm	0.000531	74.20	9.937480	Y 242.219
Si (288.158 nm)	-0.006607 u	ppm	0.000869	13.15	446.013000	Y 377.433
Sn (189.925 nm)	0.000929	ppm	0.000167	18.01	3.585090	Y 377.433
Sr (421.552 nm)	0.000304	ppm	0.000042	13.80	68.946791	Y_R 488.368
Th (288.505 nm)	-0.000155 u	ppm	0.002664	> 100.00	12.531600	Y 377.433
Ti (336.122 nm)	0.000496	ppm	0.000044	8.78	-370.470000	Y 377.433
Tl (190.794 nm)	0.001369	ppm	0.000539	39.41	4.946980	Y 377.433
U (409.013 nm)	0.011430	ppm	0.003464	30.30	11.512700	Y 377.433
V (292.401 nm)	0.000014 u	ppm	0.000199	> 100.00	-146.283000	Y 377.433
Zn (206.200 nm)	-0.000734 u	ppm	0.000082	11.18	0.765441	Y 377.433
Zr (343.823 nm)	0.000009 u	ppm	0.000060	> 100.00	-161.108000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.089212	25177.641891	0.000080	0.01
Y 377.433	1.075763	752421.996441	0.001228	0.11
Y_R 377.433	1.118100	67789.000000	0.003922	0.35
Y_R 488.368	1.131480	59773.600000	0.002117	0.19
Y_R2 488.368	1.117164	118425.267071	0.001023	0.09
Y_R4	1.094050	49232.300000	0.007805	0.71

Sample Name: CCVL-5719884

Date: 5/24/2019 9:16:26 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008137	ppm	0.000200	2.45	12.775600	Y 377.433
Al (394.401 nm)	0.096674	ppm	0.001521	1.57	1280.320000	Y 377.433
Al H (396.152 nm)	0.226800 u	ppm	0.004301	1.90	243.008000	Y_R 377.433
As (188.980 nm)	0.015877	ppm	0.002649	16.69	22.346300	Y 242.219
B (249.678 nm)	0.089796	ppm	0.000370	0.41	687.904000	Y 242.219
Ba (493.408 nm)	0.007648	ppm	0.000456	5.96	2161.970000	Y_R 488.368
Be (234.861 nm)	0.000885	ppm	0.000081	9.12	84.717900	Y_R 488.368
Bi (223.061 nm)	0.091412	ppm	0.002302	2.52	189.616000	Y 377.433
Ca (315.887 nm)	0.216775	ppm	0.008654	3.99	103.147452	Y_R 377.433
Cd (214.439 nm)	0.005234	ppm	0.000029	0.55	188.417000	Y 377.433
Co (228.615 nm)	0.010458	ppm	0.000140	1.34	231.090000	Y 242.219
Cr (205.560 nm)	0.010531	ppm	0.000255	2.42	63.304200	Y 377.433
Cu (324.754 nm)	0.016326	ppm	0.000010	0.06	1077.360000	Y 377.433
Fe (238.204 nm)	0.102549	ppm	0.000384	0.37	253.992095	Y_R 377.433
Fe H (259.940 nm)	0.109025 u	ppm	0.001442	1.32	162.193000	Y_R 377.433
K (766.491 nm)	2.839050	ppm	0.411144	14.48	4678.740000	Y_R2 488.368
Li (670.783 nm)	0.039958 Q	ppm	0.000205	0.51	-1859.690000 Q	Y_R2 488.368
Mg (279.078 nm)	0.204607	ppm	0.001332	0.65	676.623000	Y 377.433
Mn (257.610 nm)	0.010477	ppm	0.000007	0.07	2845.600000	Y 377.433
Mo (202.032 nm)	0.019752	ppm	0.000043	0.22	260.087000	Y 377.433
Na (589.592 nm)	1.028670	ppm	0.015997	1.56	996.392000	Y_R2 488.368
Na H (589.593 nm)	1.663543 u	ppm	0.022769	1.37	785.067654	Y_R4
Ni (231.604 nm)	0.043471	ppm	0.000052	0.12	216.321000	Y 377.433
P (213.618 nm)	2.843860	ppm	0.008300	0.29	4058.320000	Y 242.219
Pb (220.353 nm)	0.010552	ppm	0.000290	2.75	41.878400	Y 242.219
S (181.972 nm)	0.089368	ppm	0.004964	5.55	53.664618	Y 377.433
Sb (206.834 nm)	0.018641	ppm	0.000213	1.14	33.101400	Y 377.433
Se (196.026 nm)	0.019590	ppm	0.001322	6.75	38.394500	Y 242.219
Si (288.158 nm)	0.476274	ppm	0.002560	0.54	3554.590000	Y 377.433
Sn (189.925 nm)	0.103994	ppm	0.001121	1.08	169.423000	Y 377.433
Sr (421.552 nm)	0.009167	ppm	0.000212	2.31	1403.808414	Y_R 488.368
Th (288.505 nm)	0.014508	ppm	0.000056	0.39	37.285700	Y 377.433
Ti (336.122 nm)	0.009900	ppm	0.000056	0.57	833.684000	Y 377.433
Tl (190.794 nm)	0.015919	ppm	0.001173	7.37	38.111200	Y 377.433
U (409.013 nm)	0.055076	ppm	0.013804	25.06	148.748000	Y 377.433
V (292.401 nm)	0.009501	ppm	0.000053	0.56	340.720000	Y 377.433
Zn (206.200 nm)	0.021497	ppm	0.000259	1.20	100.746000	Y 377.433
Zr (343.823 nm)	0.009841	ppm	0.000027	0.27	395.488000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126356	26036.233010	0.005623	0.50
Y 377.433	1.102923	771418.663594	0.003259	0.30
Y_R 377.433	1.137480	68964.000000	0.001567	0.14
Y_R 488.368	1.150620	60784.700000	0.003972	0.35
Y_R2 488.368	1.132342	120034.284257	0.002476	0.22
Y_R4	1.128140	50766.200000	0.005804	0.51

Sample Name: 280-123483-A-13-Asd@5

Date: 5/24/2019 9:19:54 PM Rack:Tube: 1:71

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000598	ppm	0.000337	56.27	-248.565000	Y 377.433
Al (394.401 nm)	0.000794	ppm	0.000501	63.11	107.345000	Y 377.433
Al H (396.152 nm)	0.128515 u	ppm	0.006820	5.31	30.692100	Y_R 377.433
As (188.980 nm)	0.001308 u	ppm	0.002423	> 100.00	0.391218	Y 242.219
B (249.678 nm)	0.000228 u	ppm	0.000466	> 100.00	48.220500	Y 242.219
Ba (493.408 nm)	0.003445	ppm	0.000202	5.87	1743.040000	Y_R 488.368
Be (234.861 nm)	-0.000056 u	ppm	0.000005	8.36	-8.046650	Y_R 488.368
Bi (223.061 nm)	-0.000053 u	ppm	0.002110	> 100.00	-10.703200	Y 377.433
Ca (315.887 nm)	6.133371	ppm	0.031240	0.51	4802.118527	Y_R 377.433
Cd (214.439 nm)	0.000066 u	ppm	0.000113	> 100.00	-2.678270	Y 377.433
Co (228.615 nm)	-0.000243 u	ppm	0.000014	5.79	-20.857000	Y 242.219
Cr (205.560 nm)	0.004196	ppm	0.000119	2.84	21.226600	Y 377.433
Cu (324.754 nm)	0.001139	ppm	0.000176	15.46	366.420000	Y 377.433
Fe (238.204 nm)	0.139187	ppm	0.001999	1.44	342.185778	Y_R 377.433
Fe H (259.940 nm)	0.143584 u	ppm	0.000447	0.31	209.987000	Y_R 377.433
K (766.491 nm)	0.586946	ppm	0.010583	1.80	2504.130000	Y_R2 488.368
Li (670.783 nm)	0.020114	ppm	0.000402	2.00	-2200.400000	Y_R2 488.368
Mg (279.078 nm)	2.072910	ppm	0.007397	0.36	6791.570000	Y 377.433
Mn (257.610 nm)	0.001096	ppm	0.000008	0.71	287.714000	Y 377.433
Mo (202.032 nm)	0.001663	ppm	0.000135	8.10	32.094200	Y 377.433
Na (589.592 nm)	2.996380	ppm	0.053929	1.80	2610.750000	Y_R2 488.368
Na H (589.593 nm)	3.586135 u	ppm	0.002318	0.06	1828.181450	Y_R4
Ni (231.604 nm)	0.000483	ppm	0.000021	4.27	-6.119590	Y 377.433
P (213.618 nm)	0.009018	ppm	0.001388	15.39	8.614400	Y 242.219
Pb (220.353 nm)	0.000382 u	ppm	0.001598	> 100.00	9.455740	Y 242.219
S (181.972 nm)	1.466500	ppm	0.010385	0.71	684.590071	Y 377.433
Sb (206.834 nm)	-0.002830 u	ppm	0.001147	40.53	-2.971270	Y 377.433
Se (196.026 nm)	0.001248	ppm	0.000185	14.81	10.704600	Y 242.219
Si (288.158 nm)	4.147800	ppm	0.040136	0.97	27190.300000	Y 377.433
Sn (189.925 nm)	0.001016 u	ppm	0.002574	> 100.00	3.724870	Y 377.433
Sr (421.552 nm)	0.022328	ppm	0.000021	0.09	3385.851705	Y_R 488.368
Th (288.505 nm)	0.000007 u	ppm	0.001549	> 100.00	11.918900	Y 377.433
Ti (336.122 nm)	0.000340	ppm	0.000110	32.44	-369.769000	Y 377.433
Tl (190.794 nm)	-0.000156 u	ppm	0.001396	> 100.00	1.192660	Y 377.433
U (409.013 nm)	0.007319	ppm	0.006476	88.48	-2.244980	Y 377.433
V (292.401 nm)	0.005993	ppm	0.000114	1.89	163.669000	Y 377.433
Zn (206.200 nm)	0.005027	ppm	0.000191	3.80	26.687500	Y 377.433
Zr (343.823 nm)	0.000068 u	ppm	0.000273	> 100.00	-157.760000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124386	25990.704418	0.005429	0.48
Y 377.433	1.100541	769752.817229	0.005284	0.48
Y_R 377.433	1.136660	68914.400000	0.008962	0.79
Y_R 488.368	1.146860	60586.200000	0.002039	0.18
Y_R2 488.368	1.125672	119327.226116	0.004297	0.38
Y_R4	1.135470	51095.900000	0.006347	0.56

Sample Name: 280-123483-A-13-B MS

Date: 5/24/2019 9:23:22 PM Rack:Tube: 1:72

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051919	ppm	0.000488	0.94	1208.840000	Y 377.433
Al (394.401 nm)	9.794190 o	ppm	0.014477	0.15	119918.000000	Y 377.433
Al H (396.152 nm)	9.594690	ppm	0.001284	0.01	21234.900000	Y_R 377.433
As (188.980 nm)	2.011880	ppm	0.005944	0.30	3029.840000	Y 242.219
B (249.678 nm)	0.993957	ppm	0.002401	0.24	7139.360000	Y 242.219
Ba (493.408 nm)	1.973480	ppm	0.000324	0.02	198151.000000	Y_R 488.368
Be (234.861 nm)	0.966925	ppm	0.002347	0.24	95180.900000	Y_R 488.368
Bi (223.061 nm)	1.954250	ppm	0.005016	0.26	4271.290000	Y 377.433
Ca (315.887 nm)	78.764560	ppm	0.003478	0.00	62488.672712	Y_R 377.433
Cd (214.439 nm)	1.017370	ppm	0.000954	0.09	37621.400000	Y 377.433
Co (228.615 nm)	0.965648	ppm	0.000096	0.01	22723.500000	Y 242.219
Cr (205.560 nm)	1.054020	ppm	0.000407	0.04	7015.460000	Y 377.433
Cu (324.754 nm)	0.969074	ppm	0.004586	0.47	45557.400000	Y 377.433
Fe (238.204 nm)	10.064009 o	ppm	0.018797	0.19	24232.967044	Y_R 377.433
Fe H (259.940 nm)	9.982660	ppm	0.015211	0.15	13817.300000	Y_R 377.433
K (766.491 nm)	51.868000	ppm	0.722361	1.39	52020.400000	Y_R2 488.368
Li (670.783 nm)	1.008540	ppm	0.005997	0.59	14771.100000	Y_R2 488.368
Mg (279.078 nm)	59.425900	ppm	0.089890	0.15	194428.000000	Y 377.433
Mn (257.610 nm)	0.983906	ppm	0.002118	0.22	268260.000000	Y 377.433
Mo (202.032 nm)	1.017920	ppm	0.001257	0.12	12841.300000	Y 377.433
Na (589.592 nm)	62.029800 o	ppm	0.219502	0.35	51519.000000	Y_R2 488.368
Na H (589.593 nm)	63.497476	ppm	0.156990	0.25	34333.447894	Y_R4
Ni (231.604 nm)	0.988996	ppm	0.001420	0.14	5110.800000	Y 377.433
P (213.618 nm)	20.317000	ppm	0.008216	0.04	28783.900000	Y 242.219
Pb (220.353 nm)	0.985413	ppm	0.001325	0.13	3137.300000	Y 242.219
S (181.972 nm)	17.428131	ppm	0.057327	0.33	8001.030245	Y 377.433
Sb (206.834 nm)	1.077650	ppm	0.001695	0.16	1817.010000	Y 377.433
Se (196.026 nm)	1.969270	ppm	0.001525	0.08	2977.840000	Y 242.219
Si (288.158 nm)	23.240800	ppm	0.042715	0.18	150103.000000	Y 377.433
Sn (189.925 nm)	2.063040	ppm	0.007706	0.37	3321.640000	Y 377.433
Sr (421.552 nm)	1.060653	ppm	0.000040	0.00	159760.215980	Y_R 488.368
Th (288.505 nm)	0.999305	ppm	0.002764	0.28	1639.470000	Y 377.433
Ti (336.122 nm)	0.982977	ppm	0.001093	0.11	125622.000000	Y 377.433
Tl (190.794 nm)	1.981150	ppm	0.005684	0.29	4522.900000	Y 377.433
U (409.013 nm)	1.970260	ppm	0.002725	0.14	6161.430000	Y 377.433
V (292.401 nm)	1.013480	ppm	0.001981	0.20	52122.500000	Y 377.433
Zn (206.200 nm)	0.509789	ppm	0.001298	0.25	2297.850000	Y 377.433
Zr (343.823 nm)	0.486865	ppm	0.000736	0.15	27400.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.071380	24765.451830	0.001533	0.14
Y 377.433	1.057559	739690.036103	0.000664	0.06
Y_R 377.433	1.111180	67369.600000	0.000100	0.01
Y_R 488.368	1.125100	59436.500000	0.000005	0.00
Y_R2 488.368	1.093208	115885.837132	0.003910	0.36
Y_R4	1.116960	50263.000000	0.000126	0.01

Sample Name: 280-123483-A-13-C MSD

Date: 5/24/2019 9:27:01 PM Rack:Tube: 1:73

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051566	ppm	0.000232	0.45	1198.770000	Y 377.433
Al (394.401 nm)	9.730200 o	ppm	0.018209	0.19	119134.000000	Y 377.433
Al H (396.152 nm)	9.543630	ppm	0.007082	0.07	21119.700000	Y_R 377.433
As (188.980 nm)	1.991650	ppm	0.005265	0.26	2999.350000	Y 242.219
B (249.678 nm)	0.989844	ppm	0.001199	0.12	7110.020000	Y 242.219
Ba (493.408 nm)	1.957530	ppm	0.001591	0.08	196561.000000	Y_R 488.368
Be (234.861 nm)	0.969503	ppm	0.001503	0.16	95435.100000	Y_R 488.368
Bi (223.061 nm)	1.942190	ppm	0.004458	0.23	4244.880000	Y 377.433
Ca (315.887 nm)	78.808529	ppm	0.025442	0.03	62523.579505	Y_R 377.433
Cd (214.439 nm)	1.010620	ppm	0.003657	0.36	37371.600000	Y 377.433
Co (228.615 nm)	0.958851	ppm	0.002501	0.26	22563.500000	Y 242.219
Cr (205.560 nm)	1.045350	ppm	0.003681	0.35	6957.630000	Y 377.433
Cu (324.754 nm)	0.966505	ppm	0.002801	0.29	45437.600000	Y 377.433
Fe (238.204 nm)	10.005832 o	ppm	0.003587	0.04	24092.924135	Y_R 377.433
Fe H (259.940 nm)	9.917040	ppm	0.032618	0.33	13726.500000	Y_R 377.433
K (766.491 nm)	51.424900	ppm	0.600793	1.17	51592.700000	Y_R2 488.368
Li (670.783 nm)	1.001950	ppm	0.002234	0.22	14658.000000	Y_R2 488.368
Mg (279.078 nm)	59.380500	ppm	0.177062	0.30	194280.000000	Y 377.433
Mn (257.610 nm)	0.978717	ppm	0.003044	0.31	266846.000000	Y 377.433
Mo (202.032 nm)	1.012500	ppm	0.001313	0.13	12772.900000	Y 377.433
Na (589.592 nm)	61.765900 o	ppm	0.006081	0.01	51298.500000	Y_R2 488.368
Na H (589.593 nm)	63.438071	ppm	0.039552	0.06	34301.217695	Y_R4
Ni (231.604 nm)	0.982030	ppm	0.005021	0.51	5074.740000	Y 377.433
P (213.618 nm)	20.171300	ppm	0.066674	0.33	28575.900000	Y 242.219
Pb (220.353 nm)	0.980890	ppm	0.000729	0.07	3122.940000	Y 242.219
S (181.972 nm)	17.430579	ppm	0.065954	0.38	8002.140372	Y 377.433
Sb (206.834 nm)	1.062050	ppm	0.002007	0.19	1790.670000	Y 377.433
Se (196.026 nm)	1.951380	ppm	0.005582	0.29	2950.850000	Y 242.219
Si (288.158 nm)	23.696500	ppm	0.005118	0.02	153037.000000	Y 377.433
Sn (189.925 nm)	2.043400	ppm	0.002394	0.12	3290.030000	Y 377.433
Sr (421.552 nm)	1.053046	ppm	0.001386	0.13	158614.479535	Y_R 488.368
Th (288.505 nm)	0.989349	ppm	0.001620	0.16	1622.800000	Y 377.433
Ti (336.122 nm)	0.977634	ppm	0.002051	0.21	124939.000000	Y 377.433
Tl (190.794 nm)	1.964500	ppm	0.009854	0.50	4484.860000	Y 377.433
U (409.013 nm)	1.965980	ppm	0.001890	0.10	6148.090000	Y 377.433
V (292.401 nm)	1.007160	ppm	0.003485	0.35	51797.900000	Y 377.433
Zn (206.200 nm)	0.505347	ppm	0.001504	0.30	2277.870000	Y 377.433
Zr (343.823 nm)	0.483918	ppm	0.001049	0.22	27233.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.065796	24636.369196	0.001549	0.15
Y 377.433	1.052791	736354.870475	0.002461	0.23
Y_R 377.433	1.095180	66399.200000	0.001551	0.14
Y_R 488.368	1.110020	58639.900000	0.000327	0.03
Y_R2 488.368	1.097886	116381.737318	0.000294	0.03
Y_R4	1.104890	49720.000000	0.000365	0.03

Sample Name: 280-123483-A-13-Apds

Date: 5/24/2019 9:30:41 PM Rack:Tube: 1:74

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.048035	ppm	0.000238	0.50	1371.230000	Y 377.433
Al (394.401 nm)	0.999728	ppm	0.002627	0.26	12354.800000	Y 377.433
Al H (396.152 nm)	1.095380	ppm	0.001281	0.12	2195.980000	Y_R 377.433
As (188.980 nm)	0.205601	ppm	0.001599	0.78	308.214000	Y 242.219
B (249.678 nm)	0.115367	ppm	0.000753	0.65	869.970000	Y 242.219
Ba (493.408 nm)	0.123583	ppm	0.000023	0.02	13720.800000	Y_R 488.368
Be (234.861 nm)	0.048870	ppm	0.000159	0.33	4806.430000	Y_R 488.368
Bi (223.061 nm)	0.003191	ppm	0.001460	45.77	-3.391760	Y 377.433
Ca (315.887 nm)	49.197629	ppm	0.123399	0.25	39004.247392	Y_R 377.433
Cd (214.439 nm)	0.052693	ppm	0.000058	0.11	1943.830000	Y 377.433
Co (228.615 nm)	0.048680	ppm	0.000701	1.44	1131.040000	Y 242.219
Cr (205.560 nm)	0.071250	ppm	0.000665	0.93	468.027000	Y 377.433
Cu (324.754 nm)	0.051219	ppm	0.000038	0.07	2686.990000	Y 377.433
Fe (238.204 nm)	1.058662	ppm	0.001124	0.11	2555.524171	Y_R 377.433
Fe H (259.940 nm)	1.055520 u	ppm	0.001651	0.16	1471.180000	Y_R 377.433
K (766.491 nm)	22.760000	ppm	0.110883	0.49	23914.100000	Y_R2 488.368
Li (670.783 nm)	0.123192	ppm	0.003593	2.92	-430.538000	Y_R2 488.368
Mg (279.078 nm)	29.864500	ppm	0.109305	0.37	97726.300000	Y 377.433
Mn (257.610 nm)	0.050508	ppm	0.000190	0.38	13760.300000	Y 377.433
Mo (202.032 nm)	0.058436	ppm	0.000518	0.89	747.676000	Y 377.433
Na (589.592 nm)	33.276400	ppm	0.150629	0.45	27494.900000	Y_R2 488.368
Na H (589.593 nm)	34.150209 u	ppm	0.062626	0.18	18410.908046	Y_R4
Ni (231.604 nm)	0.049922	ppm	0.000249	0.50	249.915000	Y 377.433
P (213.618 nm)	2.033210	ppm	0.009146	0.45	2888.850000	Y 242.219
Pb (220.353 nm)	0.100597	ppm	0.000754	0.75	328.704000	Y 242.219
S (181.972 nm)	7.185344	ppm	0.034236	0.48	3305.849998	Y 377.433
Sb (206.834 nm)	0.101562	ppm	0.003467	3.41	173.140000	Y 377.433
Se (196.026 nm)	0.200227	ppm	0.005164	2.58	310.643000	Y 242.219
Si (288.158 nm)	25.471500	ppm	0.237451	0.93	164463.000000	Y 377.433
Sn (189.925 nm)	0.104739	ppm	0.000230	0.22	170.621000	Y 377.433
Sr (421.552 nm)	0.157191	ppm	0.000280	0.18	23696.458830	Y_R 488.368
Th (288.505 nm)	0.202799	ppm	0.006429	3.17	355.360000	Y 377.433
Ti (336.122 nm)	0.049207	ppm	0.000172	0.35	6031.030000	Y 377.433
Tl (190.794 nm)	0.205361	ppm	0.000137	0.07	469.096000	Y 377.433
U (409.013 nm)	0.513994	ppm	0.002095	0.41	1593.730000	Y 377.433
V (292.401 nm)	0.079731	ppm	0.000212	0.27	3964.550000	Y 377.433
Zn (206.200 nm)	0.212588	ppm	0.000087	0.04	960.162000	Y 377.433
Zr (343.823 nm)	0.049472	ppm	0.000218	0.44	2639.080000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.092613	25256.251269	0.003212	0.29
Y 377.433	1.074669	751657.091478	0.004263	0.40
Y_R 377.433	1.120150	67913.500000	0.007586	0.68
Y_R 488.368	1.134580	59937.000000	0.005106	0.45
Y_R2 488.368	1.111883	117865.496370	0.002666	0.24
Y_R4	1.105690	49756.200000	0.003117	0.28

Sample Name: 280-123483-A-14-A

Date: 5/24/2019 9:34:14 PM Rack:Tube: 1:75

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001066	ppm	0.000324	30.42	-242.112000	Y 377.433
Al (394.401 nm)	0.003155	ppm	0.000854	27.06	164.582000	Y 377.433
Al H (396.152 nm)	0.110453 u	ppm	0.004851	4.39	23.996200	Y_R 377.433
As (188.980 nm)	0.004090	ppm	0.000470	11.50	4.586340	Y 242.219
B (249.678 nm)	0.015605	ppm	0.000580	3.72	158.116000	Y 242.219
Ba (493.408 nm)	0.024854	ppm	0.000248	1.00	3877.300000	Y_R 488.368
Be (234.861 nm)	-0.000058 u	ppm	0.000020	34.42	-7.690220	Y_R 488.368
Bi (223.061 nm)	0.000287 u	ppm	0.001079	> 100.00	-9.975680	Y 377.433
Ca (315.887 nm)	29.091394	ppm	0.155710	0.54	23035.512801	Y_R 377.433
Cd (214.439 nm)	0.000116	ppm	0.000064	54.93	-0.873252	Y 377.433
Co (228.615 nm)	-0.000193 u	ppm	0.000213	> 100.00	-19.658800	Y 242.219
Cr (205.560 nm)	0.019752	ppm	0.000631	3.20	124.952000	Y 377.433
Cu (324.754 nm)	0.001289	ppm	0.000166	12.84	357.713000	Y 377.433
Fe (238.204 nm)	0.005518	ppm	0.003879	70.29	20.422230	Y_R 377.433
Fe H (259.940 nm)	0.005092 u	ppm	0.000398	7.81	18.455400	Y_R 377.433
K (766.491 nm)	2.976040	ppm	0.517300	17.38	4811.010000	Y_R2 488.368
Li (670.783 nm)	0.024768	ppm	0.000125	0.50	-2120.490000	Y_R2 488.368
Mg (279.078 nm)	9.761620	ppm	0.005334	0.05	31951.500000	Y 377.433
Mn (257.610 nm)	0.000492	ppm	0.000011	2.16	123.221000	Y 377.433
Mo (202.032 nm)	0.007653	ppm	0.000044	0.57	107.590000	Y 377.433
Na (589.592 nm)	14.559300	ppm	0.021092	0.14	12107.600000	Y_R2 488.368
Na H (589.593 nm)	15.013806 u	ppm	0.007004	0.05	8028.334734	Y_R4
Ni (231.604 nm)	-0.000564 u	ppm	0.000568	> 100.00	-11.540000	Y 377.433
P (213.618 nm)	0.034990	ppm	0.003542	10.12	45.405700	Y 242.219
Pb (220.353 nm)	0.000735	ppm	0.000471	64.07	10.608400	Y 242.219
S (181.972 nm)	6.991214	ppm	0.023318	0.33	3215.790121	Y 377.433
Sb (206.834 nm)	-0.005158 u	ppm	0.000468	9.08	-6.843380	Y 377.433
Se (196.026 nm)	0.001715	ppm	0.000620	36.15	11.444100	Y 242.219
Si (288.158 nm)	20.396900	ppm	0.048877	0.24	131795.000000	Y 377.433
Sn (189.925 nm)	0.001648	ppm	0.000058	3.50	4.742070	Y 377.433
Sr (421.552 nm)	0.111681	ppm	0.000057	0.05	16842.503551	Y_R 488.368
Th (288.505 nm)	-0.005736 u	ppm	0.000325	5.67	-1.061150	Y 377.433
Ti (336.122 nm)	0.000107	ppm	0.000058	54.43	-321.075000	Y 377.433
Tl (190.794 nm)	-0.000057 u	ppm	0.001152	> 100.00	0.484323	Y 377.433
U (409.013 nm)	0.019056	ppm	0.001381	7.25	31.832100	Y 377.433
V (292.401 nm)	0.029636	ppm	0.000127	0.43	1384.760000	Y 377.433
Zn (206.200 nm)	0.002651	ppm	0.000264	9.96	15.984400	Y 377.433
Zr (343.823 nm)	0.000125 u	ppm	0.000262	> 100.00	-154.519000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.075272	24855.404190	0.001970	0.18
Y 377.433	1.065376	745157.259861	0.001688	0.16
Y_R 377.433	1.085770	65828.900000	0.005384	0.50
Y_R 488.368	1.098370	58024.300000	0.002101	0.19
Y_R2 488.368	1.091324	115686.159433	0.008999	0.82
Y_R4	1.080380	48616.900000	0.003823	0.35

Sample Name: 280-123483-A-20-A

Date: 5/24/2019 9:37:43 PM Rack:Tube: 1:76

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001058	ppm	0.000012	1.11	-242.427000	Y 377.433
Al (394.401 nm)	0.005497	ppm	0.000207	3.77	189.901000	Y 377.433
Al H (396.152 nm)	0.116975 u	ppm	0.009608	8.21	38.718700	Y_R 377.433
As (188.980 nm)	0.005195	ppm	0.000332	6.39	6.229460	Y 242.219
B (249.678 nm)	0.015676	ppm	0.000848	5.41	158.131000	Y 242.219
Ba (493.408 nm)	0.025330	ppm	0.000167	0.66	3925.400000	Y_R 488.368
Be (234.861 nm)	-0.000052 u	ppm	0.000040	76.38	-10.668300	Y_R 488.368
Bi (223.061 nm)	0.001420	ppm	0.000812	57.22	-7.349740	Y 377.433
Ca (315.887 nm)	29.285458	ppm	0.092707	0.32	23189.641111	Y_R 377.433
Cd (214.439 nm)	0.000189	ppm	0.000104	54.85	2.145740	Y 377.433
Co (228.615 nm)	-0.000233 u	ppm	0.000516	> 100.00	-20.612900	Y 242.219
Cr (205.560 nm)	0.021092	ppm	0.000610	2.89	133.885000	Y 377.433
Cu (324.754 nm)	0.000859	ppm	0.000249	28.96	339.770000	Y 377.433
Fe (238.204 nm)	0.845953	ppm	0.002710	0.32	2043.497214	Y_R 377.433
Fe H (259.940 nm)	0.847412 u	ppm	0.000882	0.10	1183.370000	Y_R 377.433
K (766.491 nm)	2.841060	ppm	0.432996	15.24	4680.680000	Y_R2 488.368
Li (670.783 nm)	0.025169	ppm	0.001954	7.76	-2113.610000	Y_R2 488.368
Mg (279.078 nm)	9.839010	ppm	0.033199	0.34	32203.800000	Y 377.433
Mn (257.610 nm)	0.004507	ppm	0.000014	0.31	1217.720000	Y 377.433
Mo (202.032 nm)	0.008206	ppm	0.000379	4.62	114.562000	Y 377.433
Na (589.592 nm)	14.563500	ppm	0.092809	0.64	12111.200000	Y_R2 488.368
Na H (589.593 nm)	15.177992 u	ppm	0.073629	0.49	8117.414840	Y_R4
Ni (231.604 nm)	0.000145	ppm	0.000041	27.94	-7.869320	Y 377.433
P (213.618 nm)	0.036525	ppm	0.000241	0.66	47.687800	Y 242.219
Pb (220.353 nm)	0.000603 u	ppm	0.001697	> 100.00	10.161900	Y 242.219
S (181.972 nm)	7.070215	ppm	0.023033	0.33	3251.991871	Y 377.433
Sb (206.834 nm)	-0.003522 u	ppm	0.002164	61.44	-4.004840	Y 377.433
Se (196.026 nm)	0.003227	ppm	0.001511	46.83	13.513900	Y 242.219
Si (288.158 nm)	20.582000	ppm	0.011061	0.05	132986.000000	Y 377.433
Sn (189.925 nm)	0.001583	ppm	0.000634	40.04	4.636760	Y 377.433
Sr (421.552 nm)	0.113068	ppm	0.000024	0.02	17051.486611	Y_R 488.368
Th (288.505 nm)	0.003933	ppm	0.003522	89.56	15.536600	Y 377.433
Ti (336.122 nm)	0.000364	ppm	0.000000	0.03	-287.498000	Y 377.433
Tl (190.794 nm)	-0.000018 u	ppm	0.000311	> 100.00	0.459937	Y 377.433
U (409.013 nm)	0.010899	ppm	0.011456	> 100.00	6.539540	Y 377.433
V (292.401 nm)	0.029968	ppm	0.000171	0.57	1402.930000	Y 377.433
Zn (206.200 nm)	0.019951	ppm	0.000017	0.09	93.896400	Y 377.433
Zr (343.823 nm)	0.000215	ppm	0.000104	48.30	-149.427000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.078424	24928.283564	0.004593	0.43
Y 377.433	1.069988	748382.759548	0.005376	0.50
Y_R 377.433	1.085430	65808.500000	0.006645	0.61
Y_R 488.368	1.095030	57847.900000	0.005467	0.50
Y_R2 488.368	1.098020	116395.904328	0.003670	0.33
Y_R4	1.088630	48988.400000	0.010096	0.93

Sample Name: 280-123483-A-22-A

Date: 5/24/2019 9:41:16 PM Rack:Tube: 1:77

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000800	ppm	0.000083	10.32	-251.739000	Y 377.433
Al (394.401 nm)	0.004513	ppm	0.000226	5.00	182.710000	Y 377.433
Al H (396.152 nm)	0.111266 u	ppm	0.000320	0.29	27.164300	Y_R 377.433
As (188.980 nm)	0.003709	ppm	0.001127	30.39	4.013420	Y 242.219
B (249.678 nm)	0.016146	ppm	0.001174	7.27	161.971000	Y 242.219
Ba (493.408 nm)	0.025640	ppm	0.000103	0.40	3955.570000	Y_R 488.368
Be (234.861 nm)	-0.000044 u	ppm	0.000030	67.82	-6.380110	Y_R 488.368
Bi (223.061 nm)	0.000379 u	ppm	0.000766	> 100.00	-9.774260	Y 377.433
Ca (315.887 nm)	29.952044	ppm	0.137012	0.46	23719.045446	Y_R 377.433
Cd (214.439 nm)	0.000117	ppm	0.000104	88.78	-0.842939	Y 377.433
Co (228.615 nm)	-0.000401 u	ppm	0.000053	13.14	-24.549600	Y 242.219
Cr (205.560 nm)	0.019366	ppm	0.000541	2.79	122.374000	Y 377.433
Cu (324.754 nm)	0.000453	ppm	0.000347	76.62	318.123000	Y 377.433
Fe (238.204 nm)	0.010551	ppm	0.000716	6.79	32.538038	Y_R 377.433
Fe H (259.940 nm)	0.012903 u	ppm	0.000075	0.58	29.258000	Y_R 377.433
K (766.491 nm)	3.076620	ppm	0.259455	8.43	4908.130000	Y_R2 488.368
Li (670.783 nm)	0.022907	ppm	0.000516	2.25	-2152.450000	Y_R2 488.368
Mg (279.078 nm)	10.071200	ppm	0.019589	0.19	32964.400000	Y 377.433
Mn (257.610 nm)	0.000262	ppm	0.000012	4.62	60.439900	Y 377.433
Mo (202.032 nm)	0.008104	ppm	0.000205	2.53	113.275000	Y 377.433
Na (589.592 nm)	14.970800	ppm	0.096424	0.64	12445.500000	Y_R2 488.368
Na H (589.593 nm)	15.371156 u	ppm	0.091239	0.59	8222.217228	Y_R4
Ni (231.604 nm)	-0.000683 u	ppm	0.000263	38.43	-12.154000	Y 377.433
P (213.618 nm)	0.038704	ppm	0.002552	6.59	50.853700	Y 242.219
Pb (220.353 nm)	-0.000869 u	ppm	0.001459	> 100.00	5.527260	Y 242.219
S (181.972 nm)	7.245108	ppm	0.017057	0.24	3332.106163	Y 377.433
Sb (206.834 nm)	-0.001851 u	ppm	0.000032	1.71	-1.260520	Y 377.433
Se (196.026 nm)	0.002288	ppm	0.000287	12.53	12.306900	Y 242.219
Si (288.158 nm)	21.037200	ppm	0.030426	0.14	135917.000000	Y 377.433
Sn (189.925 nm)	0.000347 u	ppm	0.001319	> 100.00	2.648610	Y 377.433
Sr (421.552 nm)	0.115583	ppm	0.000495	0.43	17430.118958	Y_R 488.368
Th (288.505 nm)	-0.002493 u	ppm	0.001556	62.43	4.456590	Y 377.433
Ti (336.122 nm)	0.000158	ppm	0.000073	46.15	-311.363000	Y 377.433
Tl (190.794 nm)	0.001115	ppm	0.000950	85.18	3.126030	Y 377.433
U (409.013 nm)	0.014256	ppm	0.001002	7.03	16.471000	Y 377.433
V (292.401 nm)	0.030554	ppm	0.000275	0.90	1432.240000	Y 377.433
Zn (206.200 nm)	0.002117	ppm	0.000445	21.00	13.586200	Y 377.433
Zr (343.823 nm)	0.000130	ppm	0.000160	> 100.00	-154.263000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076908	24893.237839	0.001910	0.18
Y 377.433	1.067042	746322.824252	0.001906	0.18
Y_R 377.433	1.103680	66914.500000	0.004742	0.43
Y_R 488.368	1.115400	58924.100000	0.002895	0.26
Y_R2 488.368	1.108589	117516.257977	0.003333	0.30
Y_R4	1.098060	49412.600000	0.003807	0.35

Sample Name: 280-123533-A-2-A

Date: 5/24/2019 9:44:45 PM Rack:Tube: 1:78

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001109	ppm	0.000409	36.87	-235.988000	Y 377.433
Al (394.401 nm)	0.012423	ppm	0.000561	4.52	345.282000	Y 377.433
Al H (396.152 nm)	0.076408 u	ppm	0.003796	4.97	45.506100	Y_R 377.433
As (188.980 nm)	0.007808	ppm	0.002814	36.04	10.187900	Y 242.219
B (249.678 nm)	0.012451	ppm	0.000408	3.27	135.537000	Y 242.219
Ba (493.408 nm)	0.058082	ppm	0.000247	0.42	7189.980000	Y_R 488.368
Be (234.861 nm)	-0.000125 u	ppm	0.000012	9.63	-14.659000	Y_R 488.368
Bi (223.061 nm)	-0.001256 u	ppm	0.001592	> 100.00	-13.329000	Y 377.433
Ca (315.887 nm)	74.912828	ppm	0.046094	0.06	59427.156410	Y_R 377.433
Cd (214.439 nm)	0.000163	ppm	0.000023	13.98	0.897507	Y 377.433
Co (228.615 nm)	-0.000335 u	ppm	0.000183	54.53	-22.993400	Y 242.219
Cr (205.560 nm)	0.018839	ppm	0.000097	0.52	118.862000	Y 377.433
Cu (324.754 nm)	0.000983	ppm	0.000084	8.52	316.189000	Y 377.433
Fe (238.204 nm)	0.090849	ppm	0.001634	1.80	225.828064	Y_R 377.433
Fe H (259.940 nm)	0.091067 u	ppm	0.000537	0.59	137.358000	Y_R 377.433
K (766.491 nm)	8.524570	ppm	0.115973	1.36	10168.600000	Y_R2 488.368
Li (670.783 nm)	0.024953	ppm	0.002224	8.91	-2117.320000	Y_R2 488.368
Mg (279.078 nm)	19.681100	ppm	0.037020	0.19	64411.300000	Y 377.433
Mn (257.610 nm)	0.001979	ppm	0.000013	0.67	528.590000	Y 377.433
Mo (202.032 nm)	0.006520	ppm	0.000369	5.66	93.307200	Y 377.433
Na (589.592 nm)	26.208300	ppm	0.028347	0.11	21677.800000	Y_R2 488.368
Na H (589.593 nm)	26.675732 u	ppm	0.125367	0.47	14355.584662	Y_R4
Ni (231.604 nm)	0.001807	ppm	0.000068	3.76	0.730471	Y 377.433
P (213.618 nm)	0.018146	ppm	0.001443	7.95	21.286700	Y 242.219
Pb (220.353 nm)	-0.002084 u	ppm	0.001193	57.24	1.685850	Y 242.219
S (181.972 nm)	40.100010	ppm	0.131006	0.33	18380.382127	Y 377.433
Sb (206.834 nm)	-0.003880 u	ppm	0.000011	0.28	-4.678600	Y 377.433
Se (196.026 nm)	0.006926	ppm	0.001909	27.56	19.283000	Y 242.219
Si (288.158 nm)	18.133000	ppm	0.013923	0.08	117221.000000	Y 377.433
Sn (189.925 nm)	0.001141	ppm	0.001586	> 100.00	3.927050	Y 377.433
Sr (421.552 nm)	0.364934	ppm	0.000514	0.14	54982.689558	Y_R 488.368
Th (288.505 nm)	-0.006158 u	ppm	0.002920	47.42	-1.497750	Y 377.433
Ti (336.122 nm)	0.000152	ppm	0.000165	> 100.00	-158.127000	Y 377.433
Tl (190.794 nm)	0.000619	ppm	0.000683	> 100.00	0.187166	Y 377.433
U (409.013 nm)	0.033956	ppm	0.002529	7.45	73.004300	Y 377.433
V (292.401 nm)	0.017353	ppm	0.000191	1.10	745.863000	Y 377.433
Zn (206.200 nm)	0.001972	ppm	0.000081	4.09	12.946400	Y 377.433
Zr (343.823 nm)	0.000167	ppm	0.000011	6.51	-152.189000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087731	25143.407691	0.006435	0.59
Y 377.433	1.070186	748521.173788	0.005634	0.53
Y_R 377.433	1.109160	67247.300000	0.002912	0.26
Y_R 488.368	1.121690	59256.400000	0.000407	0.04
Y_R2 488.368	1.100490	116657.812816	0.001761	0.16
Y_R4	1.101800	49580.800000	0.010123	0.92

Sample Name: 280-123533-A-3-A

Date: 5/24/2019 9:48:13 PM Rack:Tube: 1:79

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001525	ppm	0.000190	12.43	-221.540000	Y 377.433
Al (394.401 nm)	0.010677	ppm	0.001101	10.31	322.798000	Y 377.433
Al H (396.152 nm)	0.064675 u	ppm	0.000212	0.33	19.379200	Y_R 377.433
As (188.980 nm)	0.007804	ppm	0.001884	24.14	10.183300	Y 242.219
B (249.678 nm)	0.012322	ppm	0.000500	4.06	134.653000	Y 242.219
Ba (493.408 nm)	0.056905	ppm	0.000116	0.20	7072.580000	Y_R 488.368
Be (234.861 nm)	-0.000031 u	ppm	0.000013	42.87	-5.114200	Y_R 488.368
Bi (223.061 nm)	0.000374 u	ppm	0.001104	> 100.00	-9.769060	Y 377.433
Ca (315.887 nm)	71.663335	ppm	0.127712	0.18	56846.390577	Y_R 377.433
Cd (214.439 nm)	0.000149	ppm	0.000045	30.19	0.333525	Y 377.433
Co (228.615 nm)	-0.000107 u	ppm	0.000219	> 100.00	-17.646700	Y 242.219
Cr (205.560 nm)	0.014182	ppm	0.000041	0.29	87.801000	Y 377.433
Cu (324.754 nm)	0.000352	ppm	0.000035	9.83	289.029000	Y 377.433
Fe (238.204 nm)	0.027686	ppm	0.000313	1.13	73.785537	Y_R 377.433
Fe H (259.940 nm)	0.024980 u	ppm	0.001963	7.86	45.959900	Y_R 377.433
K (766.491 nm)	8.359360	ppm	0.414704	4.96	10009.100000	Y_R2 488.368
Li (670.783 nm)	0.029311	ppm	0.003321	11.33	-2042.490000	Y_R2 488.368
Mg (279.078 nm)	19.017600	ppm	0.021288	0.11	62240.000000	Y 377.433
Mn (257.610 nm)	0.001362	ppm	0.000007	0.51	360.424000	Y 377.433
Mo (202.032 nm)	0.006600	ppm	0.000134	2.02	94.315400	Y 377.433
Na (589.592 nm)	25.826800	ppm	0.102948	0.40	21364.300000	Y_R2 488.368
Na H (589.593 nm)	26.722078 u	ppm	0.222266	0.83	14380.729723	Y_R4
Ni (231.604 nm)	0.001090	ppm	0.001169	> 100.00	-2.982380	Y 377.433
P (213.618 nm)	0.017354	ppm	0.002341	13.49	20.286800	Y 242.219
Pb (220.353 nm)	-0.001864 u	ppm	0.000546	29.28	2.398910	Y 242.219
S (181.972 nm)	39.155356	ppm	0.000676	0.00	17947.615207	Y 377.433
Sb (206.834 nm)	-0.004817 u	ppm	0.002379	49.39	-6.292210	Y 377.433
Se (196.026 nm)	0.008682	ppm	0.004295	49.47	21.947300	Y 242.219
Si (288.158 nm)	17.672800	ppm	0.045623	0.26	114258.000000	Y 377.433
Sn (189.925 nm)	0.001878	ppm	0.000487	25.96	5.111560	Y 377.433
Sr (421.552 nm)	0.361966	ppm	0.000085	0.02	54535.592290	Y_R 488.368
Th (288.505 nm)	-0.004453 u	ppm	0.004405	98.90	1.541450	Y 377.433
Ti (336.122 nm)	-0.000230 u	ppm	0.000018	7.95	-217.760000	Y 377.433
Tl (190.794 nm)	-0.000606 u	ppm	0.000377	62.14	-2.477920	Y 377.433
U (409.013 nm)	0.031013	ppm	0.001600	5.16	64.059800	Y 377.433
V (292.401 nm)	0.017279	ppm	0.000010	0.06	743.643000	Y 377.433
Zn (206.200 nm)	0.002559	ppm	0.000483	18.87	15.576000	Y 377.433
Zr (343.823 nm)	0.000135	ppm	0.000171	> 100.00	-154.000000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.067507	24675.911474	0.007843	0.73
Y 377.433	1.060674	741868.357756	0.007922	0.75
Y_R 377.433	1.107870	67168.600000	0.005620	0.51
Y_R 488.368	1.118510	59088.600000	0.004435	0.40
Y_R2 488.368	1.111826	117859.462439	0.003371	0.30
Y_R4	1.093990	49229.300000	0.007601	0.69

Sample Name: 280-123533-A-9-A

Date: 5/24/2019 9:51:43 PM Rack:Tube: 1:80

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001694	ppm	0.000370	21.83	-214.702000	Y 377.433
Al (394.401 nm)	0.019959	ppm	0.000729	3.65	543.437000	Y 377.433
Al H (396.152 nm)	-0.009725 u	ppm	0.006340	65.19	10.898000	Y_R 377.433
As (188.980 nm)	0.007130	ppm	0.005406	75.82	9.162620	Y 242.219
B (249.678 nm)	0.015302	ppm	0.000030	0.19	155.841000	Y 242.219
Ba (493.408 nm)	0.126536	ppm	0.000178	0.14	14014.500000	Y_R 488.368
Be (234.861 nm)	-0.000046 u	ppm	0.000038	81.06	-7.393620	Y_R 488.368
Bi (223.061 nm)	-0.000442 u	ppm	0.001175	> 100.00	-11.518600	Y 377.433
Ca (315.887 nm)	162.071188	ppm	0.676089	0.42	128648.827829	Y_R 377.433
Cd (214.439 nm)	0.000220	ppm	0.000100	45.59	3.043620	Y 377.433
Co (228.615 nm)	-0.000120 u	ppm	0.000351	> 100.00	-17.909000	Y 242.219
Cr (205.560 nm)	0.009132	ppm	0.000077	0.85	54.122800	Y 377.433
Cu (324.754 nm)	0.000614	ppm	0.000144	23.46	249.719000	Y 377.433
Fe (238.204 nm)	0.198000	ppm	0.001679	0.85	483.759956	Y_R 377.433
Fe H (259.940 nm)	0.189080 u	ppm	0.003341	1.77	272.909000	Y_R 377.433
K (766.491 nm)	12.888700	ppm	0.066817	0.52	14382.500000	Y_R2 488.368
Li (670.783 nm)	0.033644	ppm	0.001759	5.23	-1968.090000	Y_R2 488.368
Mg (279.078 nm)	44.613900	ppm	0.054303	0.12	146000.000000	Y 377.433
Mn (257.610 nm)	0.001550	ppm	0.000018	1.19	411.529000	Y 377.433
Mo (202.032 nm)	0.005906	ppm	0.000414	7.01	85.566900	Y 377.433
Na (589.592 nm)	47.235900	ppm	0.249732	0.53	38955.000000	Y_R2 488.368
Na H (589.593 nm)	47.893878 u	ppm	0.131039	0.27	25867.620039	Y_R4
Ni (231.604 nm)	0.000077 u	ppm	0.000643	> 100.00	-8.219070	Y 377.433
P (213.618 nm)	0.017688	ppm	0.005241	29.63	20.554100	Y 242.219
Pb (220.353 nm)	0.000431	ppm	0.000555	> 100.00	9.720210	Y 242.219
S (181.972 nm)	119.935293 bo	ppm	0.327223	0.27	54945.626821	Y 377.433
Sb (206.834 nm)	-0.007689 u	ppm	0.002334	30.35	-11.172400	Y 377.433
Se (196.026 nm)	0.023510	ppm	0.000397	1.69	44.266200	Y 242.219
Si (288.158 nm)	19.792600	ppm	0.010022	0.05	127904.000000	Y 377.433
Sn (189.925 nm)	0.002530	ppm	0.000686	27.10	6.161110	Y 377.433
Sr (421.552 nm)	0.778247	ppm	0.002136	0.27	117228.112580	Y_R 488.368
Th (288.505 nm)	0.003091 u	ppm	0.004577	> 100.00	12.578900	Y 377.433
Ti (336.122 nm)	0.000721	ppm	0.000143	19.85	214.603000	Y 377.433
Tl (190.794 nm)	0.003147	ppm	0.000976	31.01	2.453120	Y 377.433
U (409.013 nm)	0.028857	ppm	0.003350	11.61	45.163500	Y 377.433
V (292.401 nm)	0.014237	ppm	0.000094	0.66	587.988000	Y 377.433
Zn (206.200 nm)	0.004776	ppm	0.000269	5.63	25.570500	Y 377.433
Zr (343.823 nm)	0.000160	ppm	0.000092	57.37	-152.561000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.093335	25272.954241	0.016029	1.47
Y 377.433	1.078406	754271.086101	0.015610	1.45
Y_R 377.433	1.131950	68628.800000	0.013836	1.22
Y_R 488.368	1.145150	60495.700000	0.014940	1.30
Y_R2 488.368	1.131556	119950.960556	0.013498	1.19
Y_R4	1.146600	51596.800000	0.005029	0.44

Sample Name: CCVH-5713036

Date: 5/24/2019 9:55:14 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005212	ppm	0.000054	1.04	-96.884900	Y 377.433
Al (394.401 nm)	48.964400 o	ppm	0.039318	0.08	596516.000000	Y 377.433
Al H (396.152 nm)	47.289700	ppm	0.071989	0.15	103114.000000	Y_R 377.433
As (188.980 nm)	0.003535	ppm	0.001685	47.66	2.415060	Y 242.219
B (249.678 nm)	-0.003358 u	ppm	0.000521	15.53	-5.810390	Y 242.219
Ba (493.408 nm)	-0.000156 u	ppm	0.000208	> 100.00	1423.200000	Y_R 488.368
Be (234.861 nm)	0.001129	ppm	0.000016	1.42	-99.397600	Y_R 488.368
Bi (223.061 nm)	0.008761	ppm	0.000873	9.96	17.100600	Y 377.433
Ca (315.887 nm)	0.014770	ppm	0.007808	52.86	-45.419520	Y_R 377.433
Cd (214.439 nm)	0.001336	ppm	0.000020	1.52	64.277100	Y 377.433
Co (228.615 nm)	0.003384	ppm	0.000166	4.91	64.433200	Y 242.219
Cr (205.560 nm)	0.001611	ppm	0.000495	30.70	2.711700	Y 377.433
Cu (324.754 nm)	0.003882	ppm	0.000474	12.22	1433.480000	Y 377.433
Fe (238.204 nm)	49.327702 o	ppm	0.007475	0.02	118747.528522	Y_R 377.433
Fe H (259.940 nm)	48.871600	ppm	0.049236	0.10	67600.100000	Y_R 377.433
K (766.491 nm)	0.055436 u	ppm	0.144934	> 100.00	1990.910000	Y_R2 488.368
Li (670.783 nm)	0.028833	ppm	0.003003	10.41	-2050.710000	Y_R2 488.368
Mg (279.078 nm)	0.039277	ppm	0.001480	3.77	63.713400	Y 377.433
Mn (257.610 nm)	0.000958	ppm	0.000017	1.76	250.155000	Y 377.433
Mo (202.032 nm)	0.000737	ppm	0.000273	37.07	20.418400	Y 377.433
Na (589.592 nm)	224.624000 o	ppm	1.053580	0.47	184545.000000	Y_R2 488.368
Na H (589.593 nm)	231.403491	ppm	1.303796	0.56	125431.889030	Y_R4
Ni (231.604 nm)	0.004185	ppm	0.000427	10.21	13.036600	Y 377.433
P (213.618 nm)	4.922960	ppm	0.016080	0.33	7031.460000	Y 242.219
Pb (220.353 nm)	0.005369	ppm	0.000485	9.04	18.726700	Y 242.219
S (181.972 nm)	4.909358	ppm	0.024841	0.51	2260.967293	Y 377.433
Sb (206.834 nm)	-0.001407 u	ppm	0.003331	> 100.00	3.561320	Y 377.433
Se (196.026 nm)	0.005890	ppm	0.000330	5.60	5.036650	Y 242.219
Si (288.158 nm)	0.013797	ppm	0.001162	8.42	577.367000	Y 377.433
Sn (189.925 nm)	0.000968 u	ppm	0.001996	> 100.00	3.647540	Y 377.433
Sr (421.552 nm)	0.001505	ppm	0.000002	0.13	257.231874	Y_R 488.368
Th (288.505 nm)	4.757380	ppm	0.010828	0.23	8216.640000	Y 377.433
Ti (336.122 nm)	0.002109	ppm	0.000086	4.08	-164.005000	Y 377.433
Tl (190.794 nm)	-0.000008 u	ppm	0.000293	> 100.00	-2.944900	Y 377.433
U (409.013 nm)	0.532220 Q	ppm	0.005807	1.09	1699.880000 Q	Y 377.433
V (292.401 nm)	0.001025	ppm	0.000013	1.30	393.076000	Y 377.433
Zn (206.200 nm)	0.002556	ppm	0.000569	22.26	22.427000	Y 377.433
Zr (343.823 nm)	0.001249	ppm	0.000114	9.11	-90.929000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.120163	25893.081787	0.000684	0.06
Y 377.433	1.100355	769622.674633	0.001849	0.17
Y_R 377.433	1.173700	71159.700000	0.001940	0.17
Y_R 488.368	1.182170	62451.200000	0.001404	0.12
Y_R2 488.368	1.172232	124262.792528	0.010109	0.86
Y_R4	1.173740	52818.100000	0.009180	0.78

Sample Name: CCV-5717467

Date: 5/24/2019 9:58:56 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.487512	ppm	0.001497	0.31	16554.700000	Y 377.433
Al (394.401 nm)	0.491738	ppm	0.000468	0.10	6214.540000	Y 377.433
Al H (396.152 nm)	0.540927 u	ppm	0.003678	0.68	1163.110000	Y_R 377.433
As (188.980 nm)	0.488788	ppm	0.004750	0.97	734.908000	Y 242.219
B (249.678 nm)	0.469881	ppm	0.001648	0.35	3400.960000	Y 242.219
Ba (493.408 nm)	0.474213	ppm	0.000967	0.20	48677.500000	Y_R 488.368
Be (234.861 nm)	0.460665	ppm	0.003745	0.81	45355.100000	Y_R 488.368
Bi (223.061 nm)	0.979059	ppm	0.003265	0.33	2134.180000	Y 377.433
Ca (315.887 nm)	4.901523	ppm	0.007807	0.16	3823.906479	Y_R 377.433
Cd (214.439 nm)	0.510207	ppm	0.001012	0.20	18863.300000	Y 377.433
Co (228.615 nm)	0.488262	ppm	0.001057	0.22	11481.500000	Y 242.219
Cr (205.560 nm)	0.508373	ppm	0.003519	0.69	3380.240000	Y 377.433
Cu (324.754 nm)	0.491292	ppm	0.001615	0.33	23230.200000	Y 377.433
Fe (238.204 nm)	2.482742	ppm	0.004850	0.20	5983.533322	Y_R 377.433
Fe H (259.940 nm)	2.467690 u	ppm	0.000388	0.02	3424.190000	Y_R 377.433
K (766.491 nm)	47.962500	ppm	0.025165	0.05	48249.300000	Y_R2 488.368
Li (670.783 nm)	0.512111	ppm	0.003580	0.70	6247.310000	Y_R2 488.368
Mg (279.078 nm)	19.612400	ppm	0.044246	0.23	64183.800000	Y 377.433
Mn (257.610 nm)	0.485216	ppm	0.001191	0.25	132288.000000	Y 377.433
Mo (202.032 nm)	0.489708	ppm	0.001019	0.21	6183.530000	Y 377.433
Na (589.592 nm)	23.164500	ppm	0.091468	0.39	19274.100000	Y_R2 488.368
Na H (589.593 nm)	24.269828 u	ppm	0.150222	0.62	13050.246199	Y_R4
Ni (231.604 nm)	0.503312	ppm	0.002240	0.45	2596.120000	Y 377.433
P (213.618 nm)	0.047353	ppm	0.003176	6.71	-69.500700	Y 242.219
Pb (220.353 nm)	0.493215	ppm	0.000332	0.07	1572.950000	Y 242.219
S (181.972 nm)	0.002796	ppm	0.002341	83.73	15.768771	Y 377.433
Sb (206.834 nm)	0.499237	ppm	0.005169	1.04	842.155000	Y 377.433
Se (196.026 nm)	0.489670	ppm	0.002955	0.60	747.492000	Y 242.219
Si (288.158 nm)	4.825620	ppm	0.021555	0.45	31553.800000	Y 377.433
Sn (189.925 nm)	0.507943	ppm	0.006697	1.32	819.399000	Y 377.433
Sr (421.552 nm)	0.464872	ppm	0.001620	0.35	70033.829739	Y_R 488.368
Th (288.505 nm)	0.020427	ppm	0.003445	16.86	-1.134770	Y 377.433
Ti (336.122 nm)	0.479641	ppm	0.000892	0.19	60959.800000	Y 377.433
Tl (190.794 nm)	0.501148	ppm	0.000452	0.09	1144.810000	Y 377.433
U (409.013 nm)	0.010860	ppm	0.003721	34.27	-49.678200	Y 377.433
V (292.401 nm)	0.481452	ppm	0.001241	0.26	24679.700000	Y 377.433
Zn (206.200 nm)	0.511425	ppm	0.002371	0.46	2304.150000	Y 377.433
Zr (343.823 nm)	0.480650	ppm	0.000512	0.11	27048.800000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.148036	26537.391993	0.001734	0.15
Y 377.433	1.129174	789779.602682	0.002068	0.18
Y_R 377.433	1.191700	72251.200000	0.005179	0.43
Y_R 488.368	1.206830	63753.900000	0.008205	0.68
Y_R2 488.368	1.184088	125519.581389	0.008789	0.74
Y_R4	1.182430	53209.400000	0.004934	0.42

Sample Name: CCB

Date: 5/24/2019 10:02:33 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000958	ppm	0.000044	4.64	-233.802000	Y 377.433
Al (394.401 nm)	-0.002989 u	ppm	0.000383	12.83	55.420500	Y 377.433
Al H (396.152 nm)	0.133419 Zu	ppm	0.004364	3.27	33.424100 Z	Y_R 377.433
As (188.980 nm)	-0.002008 u	ppm	0.000827	41.16	-4.602120	Y 242.219
B (249.678 nm)	-0.003627 u	ppm	0.000345	9.51	20.770100	Y 242.219
Ba (493.408 nm)	-0.002506 Zu	ppm	0.000117	4.65	1149.620000 Z	Y_R 488.368
Be (234.861 nm)	-0.000045 u	ppm	0.000048	> 100.00	-6.404320	Y_R 488.368
Bi (223.061 nm)	0.000886 u	ppm	0.002560	> 100.00	-8.672310	Y 377.433
Ca (315.887 nm)	0.013939	ppm	0.012721	91.26	-57.969644	Y_R 377.433
Cd (214.439 nm)	0.000066	ppm	0.000020	30.94	-2.748020	Y 377.433
Co (228.615 nm)	-0.000127 u	ppm	0.000091	71.20	-18.138300	Y 242.219
Cr (205.560 nm)	0.000699	ppm	0.000273	39.10	-2.092520	Y 377.433
Cu (324.754 nm)	0.001088	ppm	0.000431	39.59	367.630000	Y 377.433
Fe (238.204 nm)	-0.000917 u	ppm	0.002061	> 100.00	4.931284	Y_R 377.433
Fe H (259.940 nm)	-0.000154 u	ppm	0.000204	> 100.00	11.200600	Y_R 377.433
K (766.491 nm)	-0.260652 u	ppm	0.052183	20.02	1685.700000	Y_R2 488.368
Li (670.783 nm)	0.028603 Z	ppm	0.002417	8.45	-2054.650000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001473	ppm	0.000919	62.43	13.210800	Y 377.433
Mn (257.610 nm)	0.000088	ppm	0.000013	15.17	12.866600	Y 377.433
Mo (202.032 nm)	0.000281 u	ppm	0.000489	> 100.00	14.668600	Y 377.433
Na (589.592 nm)	-0.029902 u	ppm	0.019100	63.87	125.120000	Y_R2 488.368
Na H (589.593 nm)	0.741295 u	ppm	0.041195	5.56	284.696452	Y_R4
Ni (231.604 nm)	0.000835	ppm	0.000563	67.39	-4.300780	Y 377.433
P (213.618 nm)	-0.000203 u	ppm	0.002431	> 100.00	-4.354400	Y 242.219
Pb (220.353 nm)	0.000042 u	ppm	0.000587	> 100.00	8.389980	Y 242.219
S (181.972 nm)	-0.005595 u	ppm	0.010309	> 100.00	10.136412	Y 377.433
Sb (206.834 nm)	-0.001812 u	ppm	0.001769	97.64	-1.280670	Y 377.433
Se (196.026 nm)	-0.000473 u	ppm	0.000579	> 100.00	8.144700	Y 242.219
Si (288.158 nm)	-0.008116 u	ppm	0.000323	3.98	436.301000	Y 377.433
Sn (189.925 nm)	0.000869 u	ppm	0.001341	> 100.00	3.488420	Y 377.433
Sr (421.552 nm)	0.000254	ppm	0.000012	4.57	61.356198	Y_R 488.368
Th (288.505 nm)	0.002381	ppm	0.001175	49.35	16.818300	Y 377.433
Ti (336.122 nm)	0.000493	ppm	0.000096	19.52	-370.818000	Y 377.433
Tl (190.794 nm)	-0.000084 u	ppm	0.000772	> 100.00	1.622640	Y 377.433
U (409.013 nm)	0.007074	ppm	0.001702	24.06	-2.321070	Y 377.433
V (292.401 nm)	0.000134	ppm	0.000061	45.57	-139.403000	Y 377.433
Zn (206.200 nm)	0.000197 u	ppm	0.000947	> 100.00	4.949170	Y 377.433
Zr (343.823 nm)	0.000115	ppm	0.000066	57.20	-155.095000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.168345	27006.836879	0.000017	0.00
Y 377.433	1.147009	802253.637588	0.000138	0.01
Y_R 377.433	1.194380	72413.900000	0.004199	0.35
Y_R 488.368	1.201500	63472.500000	0.000132	0.01
Y_R2 488.368	1.185314	125649.583811	0.003280	0.28
Y_R4	1.173270	52797.100000	0.011441	0.98

Sample Name: CCVL-5719884

Date: 5/24/2019 10:05:47 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008504	ppm	0.000195	2.29	25.406000	Y 377.433
Al (394.401 nm)	0.095334	ppm	0.001428	1.50	1264.430000	Y 377.433
Al H (396.152 nm)	0.226197 u	ppm	0.000332	0.15	241.626000	Y_R 377.433
As (188.980 nm)	0.014580	ppm	0.000880	6.04	20.392000	Y 242.219
B (249.678 nm)	0.088182	ppm	0.000698	0.79	676.376000	Y 242.219
Ba (493.408 nm)	0.006820 Q	ppm	0.000032	0.47	2079.470000 Q	Y_R 488.368
Be (234.861 nm)	0.000927	ppm	0.000017	1.82	88.845900	Y_R 488.368
Bi (223.061 nm)	0.087065	ppm	0.003918	4.50	180.096000	Y 377.433
Ca (315.887 nm)	0.217174	ppm	0.001618	0.74	103.463893	Y_R 377.433
Cd (214.439 nm)	0.005236	ppm	0.000043	0.82	188.495000	Y 377.433
Co (228.615 nm)	0.010432	ppm	0.000084	0.81	230.476000	Y 242.219
Cr (205.560 nm)	0.010697	ppm	0.000749	7.00	64.415800	Y 377.433
Cu (324.754 nm)	0.016356	ppm	0.000009	0.06	1078.210000	Y 377.433
Fe (238.204 nm)	0.101960	ppm	0.001111	1.09	252.575203	Y_R 377.433
Fe H (259.940 nm)	0.106652 u	ppm	0.003298	3.09	158.911000	Y_R 377.433
K (766.491 nm)	2.658630	ppm	0.282830	10.64	4504.530000	Y_R2 488.368
Li (670.783 nm)	0.050032 Q	ppm	0.004407	8.81	-1686.710000 Q	Y_R2 488.368
Mg (279.078 nm)	0.203100	ppm	0.000628	0.31	671.740000	Y 377.433
Mn (257.610 nm)	0.010412	ppm	0.000027	0.26	2827.790000	Y 377.433
Mo (202.032 nm)	0.019343	ppm	0.000049	0.26	254.933000	Y 377.433
Na (589.592 nm)	0.986493	ppm	0.022405	2.27	961.597000	Y_R2 488.368
Na H (589.593 nm)	1.588049 u	ppm	0.036433	2.29	744.107583	Y_R4
Ni (231.604 nm)	0.043597	ppm	0.000072	0.17	216.971000	Y 377.433
P (213.618 nm)	2.837500	ppm	0.010767	0.38	4049.330000	Y 242.219
Pb (220.353 nm)	0.009484	ppm	0.000081	0.85	38.476200	Y 242.219
S (181.972 nm)	0.086059	ppm	0.003213	3.73	52.148987	Y 377.433
Sb (206.834 nm)	0.019061	ppm	0.001126	5.91	33.814800	Y 377.433
Se (196.026 nm)	0.016833	ppm	0.000333	1.98	34.236200	Y 242.219
Si (288.158 nm)	0.471976	ppm	0.002162	0.46	3526.930000	Y 377.433
Sn (189.925 nm)	0.102053	ppm	0.000565	0.55	166.300000	Y 377.433
Sr (421.552 nm)	0.009034	ppm	0.000043	0.47	1383.767723	Y_R 488.368
Th (288.505 nm)	0.015805	ppm	0.001733	10.96	39.482700	Y 377.433
Ti (336.122 nm)	0.009988	ppm	0.000101	1.01	844.885000	Y 377.433
Tl (190.794 nm)	0.016197	ppm	0.000235	1.45	38.748200	Y 377.433
U (409.013 nm)	0.055540	ppm	0.004707	8.47	150.248000	Y 377.433
V (292.401 nm)	0.009753	ppm	0.000015	0.15	353.600000	Y 377.433
Zn (206.200 nm)	0.021332	ppm	0.000147	0.69	100.005000	Y 377.433
Zr (343.823 nm)	0.009678	ppm	0.000252	2.61	386.245000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.187442	27448.268211	0.003334	0.28
Y 377.433	1.164466	814464.089041	0.004559	0.39
Y_R 377.433	1.205840	73108.400000	0.001773	0.15
Y_R 488.368	1.221650	64537.000000	0.003809	0.31
Y_R2 488.368	1.192292	126389.296492	0.002636	0.22
Y_R4	1.185650	53354.200000	0.013270	1.12

Sample Name: 280-123533-A-9-B MS

Date: 5/24/2019 10:09:14 PM Rack:Tube: 1:81

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052475	ppm	0.000531	1.01	1238.100000	Y 377.433
Al (394.401 nm)	9.760190 o	ppm	0.015723	0.16	119673.000000	Y 377.433
Al H (396.152 nm)	9.306140	ppm	0.013046	0.14	20843.800000	Y_R 377.433
As (188.980 nm)	2.030700	ppm	0.000393	0.02	3058.190000	Y 242.219
B (249.678 nm)	1.002030	ppm	0.001873	0.19	7197.050000	Y 242.219
Ba (493.408 nm)	2.042730	ppm	0.005851	0.29	205055.000000	Y_R 488.368
Be (234.861 nm)	0.949280	ppm	0.004937	0.52	93443.400000	Y_R 488.368
Bi (223.061 nm)	1.942530	ppm	0.004839	0.25	4245.630000	Y 377.433
Ca (315.887 nm)	204.900824	ppm	0.565957	0.28	162666.777098	Y_R 377.433
Cd (214.439 nm)	0.989639	ppm	0.000002	0.00	36595.800000	Y 377.433
Co (228.615 nm)	0.941818	ppm	0.001324	0.14	22162.900000	Y 242.219
Cr (205.560 nm)	1.015520	ppm	0.004105	0.40	6758.820000	Y 377.433
Cu (324.754 nm)	0.970790	ppm	0.006215	0.64	45561.200000	Y 377.433
Fe (238.204 nm)	10.015362 o	ppm	0.033685	0.34	24115.863756	Y_R 377.433
Fe H (259.940 nm)	9.961930	ppm	0.031545	0.32	13788.600000	Y_R 377.433
K (766.491 nm)	61.431700	ppm	0.724125	1.18	61255.100000	Y_R2 488.368
Li (670.783 nm)	1.022980	ppm	0.000611	0.06	15019.100000	Y_R2 488.368
Mg (279.078 nm)	92.110700	ppm	0.073186	0.08	301385.000000	Y 377.433
Mn (257.610 nm)	0.964391	ppm	0.000446	0.05	262940.000000	Y 377.433
Mo (202.032 nm)	1.000010	ppm	0.000880	0.09	12615.500000	Y 377.433
Na (589.592 nm)	92.056600 o	ppm	0.235431	0.26	76183.400000	Y_R2 488.368
Na H (589.593 nm)	95.017109	ppm	0.692021	0.73	51434.618542	Y_R4
Ni (231.604 nm)	0.960686	ppm	0.000154	0.02	4964.260000	Y 377.433
P (213.618 nm)	20.444900	ppm	0.040520	0.20	28966.500000	Y 242.219
Pb (220.353 nm)	0.965862	ppm	0.002176	0.23	3075.300000	Y 242.219
S (181.972 nm)	129.147728 bo	ppm	0.097631	0.08	59169.745648	Y 377.433
Sb (206.834 nm)	1.069830	ppm	0.000791	0.07	1803.720000	Y 377.433
Se (196.026 nm)	1.993700	ppm	0.000818	0.04	3014.670000	Y 242.219
Si (288.158 nm)	21.491600	ppm	0.152456	0.71	138842.000000	Y 377.433
Sn (189.925 nm)	2.014830	ppm	0.001637	0.08	3244.060000	Y 377.433
Sr (421.552 nm)	1.700430	ppm	0.004217	0.25	256111.304971	Y_R 488.368
Th (288.505 nm)	0.981898	ppm	0.002476	0.25	1609.180000	Y 377.433
Ti (336.122 nm)	0.972208	ppm	0.000823	0.08	124680.000000	Y 377.433
Tl (190.794 nm)	1.916430	ppm	0.001514	0.08	4369.850000	Y 377.433
U (409.013 nm)	1.967250	ppm	0.009423	0.48	6135.610000	Y 377.433
V (292.401 nm)	0.983711	ppm	0.000609	0.06	50588.800000	Y 377.433
Zn (206.200 nm)	0.493939	ppm	0.000486	0.10	2226.570000	Y 377.433
Zr (343.823 nm)	0.479773	ppm	0.000914	0.19	26999.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.091221	25224.069988	0.004445	0.41
Y 377.433	1.086925	760229.317433	0.005883	0.54
Y_R 377.433	1.154740	70010.300000	0.001793	0.16
Y_R 488.368	1.167860	61695.400000	0.000548	0.05
Y_R2 488.368	1.163478	123334.876707	0.004424	0.38
Y_R4	1.162390	52307.600000	0.004116	0.35

Sample Name: 280-123533-A-9-C MSD

Date: 5/24/2019 10:12:55 PM Rack:Tube: 1:82

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.052459	ppm	0.000054	0.10	1238.660000	Y 377.433
Al (394.401 nm)	9.778680 o	ppm	0.020763	0.21	119896.000000	Y 377.433
Al H (396.152 nm)	9.340550	ppm	0.050626	0.54	20914.500000	Y_R 377.433
As (188.980 nm)	2.027200	ppm	0.003897	0.19	3052.930000	Y 242.219
B (249.678 nm)	0.999071	ppm	0.000673	0.07	7175.860000	Y 242.219
Ba (493.408 nm)	2.047710	ppm	0.008241	0.40	205551.000000	Y_R 488.368
Be (234.861 nm)	0.927069	ppm	0.003020	0.33	91255.600000	Y_R 488.368
Bi (223.061 nm)	1.947740	ppm	0.005095	0.26	4257.060000	Y 377.433
Ca (315.887 nm)	201.678278	ppm	0.867265	0.43	160107.422234	Y_R 377.433
Cd (214.439 nm)	0.986689	ppm	0.001339	0.14	36486.800000	Y 377.433
Co (228.615 nm)	0.938162	ppm	0.000094	0.01	22076.900000	Y 242.219
Cr (205.560 nm)	1.015930	ppm	0.010214	1.01	6761.570000	Y 377.433
Cu (324.754 nm)	0.968897	ppm	0.001694	0.17	45474.200000	Y 377.433
Fe (238.204 nm)	10.101079 o	ppm	0.069354	0.69	24322.199713	Y_R 377.433
Fe H (259.940 nm)	10.017600	ppm	0.049200	0.49	13865.600000	Y_R 377.433
K (766.491 nm)	61.269600	ppm	0.172537	0.28	61098.500000	Y_R2 488.368
Li (670.783 nm)	1.026940	ppm	0.004784	0.47	15087.100000	Y_R2 488.368
Mg (279.078 nm)	91.022400	ppm	0.241505	0.27	297823.000000	Y 377.433
Mn (257.610 nm)	0.962326	ppm	0.001914	0.20	262377.000000	Y 377.433
Mo (202.032 nm)	0.997211	ppm	0.001806	0.18	12580.200000	Y 377.433
Na (589.592 nm)	90.724000 o	ppm	0.226721	0.25	75090.700000	Y_R2 488.368
Na H (589.593 nm)	94.045414	ppm	0.887510	0.94	50907.419381	Y_R4
Ni (231.604 nm)	0.960231	ppm	0.000293	0.03	4961.890000	Y 377.433
P (213.618 nm)	20.375600	ppm	0.017372	0.09	28868.100000	Y 242.219
Pb (220.353 nm)	0.964887	ppm	0.002427	0.25	3072.200000	Y 242.219
S (181.972 nm)	126.228154 bo	ppm	0.100244	0.08	57832.514393	Y 377.433
Sb (206.834 nm)	1.066240	ppm	0.001517	0.14	1797.690000	Y 377.433
Se (196.026 nm)	1.993320	ppm	0.006650	0.33	3014.060000	Y 242.219
Si (288.158 nm)	20.987500	ppm	0.062095	0.30	135597.000000	Y 377.433
Sn (189.925 nm)	2.007590	ppm	0.003978	0.20	3232.420000	Y 377.433
Sr (421.552 nm)	1.687653	ppm	0.003862	0.23	254187.130394	Y_R 488.368
Th (288.505 nm)	0.983444	ppm	0.005990	0.61	1612.440000	Y 377.433
Ti (336.122 nm)	0.971099	ppm	0.001977	0.20	124525.000000	Y 377.433
Tl (190.794 nm)	1.907610	ppm	0.003181	0.17	4349.840000	Y 377.433
U (409.013 nm)	1.970700	ppm	0.004284	0.22	6147.150000	Y 377.433
V (292.401 nm)	0.981165	ppm	0.002202	0.22	50457.100000	Y 377.433
Zn (206.200 nm)	0.490837	ppm	0.002009	0.41	2212.630000	Y 377.433
Zr (343.823 nm)	0.479694	ppm	0.000498	0.10	26994.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.112848	25724.007259	0.005060	0.45
Y 377.433	1.108400	775249.656374	0.003672	0.33
Y_R 377.433	1.202090	72881.000000	0.003798	0.32
Y_R 488.368	1.215260	64199.200000	0.001918	0.16
Y_R2 488.368	1.198374	127033.996823	0.009828	0.82
Y_R4	1.165310	52438.700000	0.004168	0.36

Sample Name: 280-123533-A-11-A

Date: 5/24/2019 10:16:34 PM Rack:Tube: 1:83

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001949	ppm	0.000330	16.92	-205.422000	Y 377.433
Al (394.401 nm)	0.004448	ppm	0.000146	3.28	347.844000	Y 377.433
Al H (396.152 nm)	-0.015692 u	ppm	0.000938	5.97	-9.970190	Y_R 377.433
As (188.980 nm)	0.004935	ppm	0.000046	0.94	5.857250	Y 242.219
B (249.678 nm)	0.015847	ppm	0.000589	3.71	159.783000	Y 242.219
Ba (493.408 nm)	0.121832	ppm	0.000400	0.33	13545.400000	Y_R 488.368
Be (234.861 nm)	-0.000006 u	ppm	0.000002	29.19	-3.013020	Y_R 488.368
Bi (223.061 nm)	0.001156	ppm	0.000986	85.25	-8.034320	Y 377.433
Ca (315.887 nm)	156.623113	ppm	0.226178	0.14	124321.933441	Y_R 377.433
Cd (214.439 nm)	0.000276	ppm	0.000080	29.19	5.058030	Y 377.433
Co (228.615 nm)	-0.000156 u	ppm	0.000395	> 100.00	-18.800800	Y 242.219
Cr (205.560 nm)	0.006126	ppm	0.000067	1.09	34.072400	Y 377.433
Cu (324.754 nm)	-0.000136 u	ppm	0.000328	> 100.00	217.610000	Y 377.433
Fe (238.204 nm)	0.108826	ppm	0.001177	1.08	269.103064	Y_R 377.433
Fe H (259.940 nm)	0.098399 u	ppm	0.000421	0.43	147.498000	Y_R 377.433
K (766.491 nm)	12.474500	ppm	0.037296	0.30	13982.600000	Y_R2 488.368
Li (670.783 nm)	0.046256	ppm	0.002495	5.39	-1751.540000	Y_R2 488.368
Mg (279.078 nm)	43.257800	ppm	0.047495	0.11	141563.000000	Y 377.433
Mn (257.610 nm)	0.000614	ppm	0.000001	0.24	156.416000	Y 377.433
Mo (202.032 nm)	0.006342	ppm	0.000181	2.86	91.065200	Y 377.433
Na (589.592 nm)	45.717900	ppm	0.244055	0.53	37707.700000	Y_R2 488.368
Na H (589.593 nm)	46.419944 u	ppm	0.101478	0.22	25067.928232	Y_R4
Ni (231.604 nm)	-0.000161 u	ppm	0.000265	> 100.00	-9.450730	Y 377.433
P (213.618 nm)	0.018266	ppm	0.000303	1.66	21.533300	Y 242.219
Pb (220.353 nm)	-0.000875 u	ppm	0.001190	> 100.00	5.551330	Y 242.219
S (181.972 nm)	117.105181 bo	ppm	0.082429	0.07	53649.321115	Y 377.433
Sb (206.834 nm)	-0.006167 u	ppm	0.001820	29.51	-8.625170	Y 377.433
Se (196.026 nm)	0.023745	ppm	0.000371	1.56	44.643300	Y 242.219
Si (288.158 nm)	19.191100	ppm	0.021930	0.11	124033.000000	Y 377.433
Sn (189.925 nm)	0.002113	ppm	0.000351	16.60	5.490920	Y 377.433
Sr (421.552 nm)	0.755356	ppm	0.001337	0.18	113780.592123	Y_R 488.368
Th (288.505 nm)	-0.002060 u	ppm	0.003858	> 100.00	3.834530	Y 377.433
Ti (336.122 nm)	-0.000658 u	ppm	0.000053	8.02	21.489200	Y 377.433
Tl (190.794 nm)	0.005002	ppm	0.000597	11.93	6.904120	Y 377.433
U (409.013 nm)	0.030922	ppm	0.004296	13.89	52.313400	Y 377.433
V (292.401 nm)	0.014159	ppm	0.000060	0.42	585.112000	Y 377.433
Zn (206.200 nm)	0.002132	ppm	0.000253	11.87	13.667700	Y 377.433
Zr (343.823 nm)	0.000306	ppm	0.000097	31.69	-144.285000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.141450	26385.148029	0.008377	0.73
Y 377.433	1.130206	790501.328387	0.007733	0.68
Y_R 377.433	1.201460	72842.900000	0.004951	0.41
Y_R 488.368	1.214420	64155.000000	0.004080	0.34
Y_R2 488.368	1.199893	127194.999616	0.002953	0.25
Y_R4	1.167130	52520.700000	0.002111	0.18

Sample Name: MB 280-459136/1-A

Date: 5/24/2019 10:20:04 PM Rack:Tube: 1:84

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000612 u	ppm	0.000890	> 100.00	-245.705000	Y 377.433
Al (394.401 nm)	-0.000176 u	ppm	0.000866	> 100.00	88.092700	Y 377.433
Al H (396.152 nm)	0.130946 u	ppm	0.000939	0.72	27.999400	Y_R 377.433
As (188.980 nm)	0.000255 u	ppm	0.004164	> 100.00	-1.192420	Y 242.219
B (249.678 nm)	-0.002895 u	ppm	0.000613	21.18	25.988700	Y 242.219
Ba (493.408 nm)	-0.002066 u	ppm	0.000287	13.91	1193.460000	Y_R 488.368
Be (234.861 nm)	-0.000019 u	ppm	0.000027	> 100.00	-3.905390	Y_R 488.368
Bi (223.061 nm)	0.000457 u	ppm	0.000886	> 100.00	-9.609920	Y 377.433
Ca (315.887 nm)	0.025505	ppm	0.008492	33.30	-48.783492	Y_R 377.433
Cd (214.439 nm)	-0.000111 u	ppm	0.000074	66.39	-9.294880	Y 377.433
Co (228.615 nm)	-0.000299 u	ppm	0.000005	1.62	-22.166900	Y 242.219
Cr (205.560 nm)	0.000499	ppm	0.000406	81.26	-3.423090	Y 377.433
Cu (324.754 nm)	0.000839	ppm	0.000201	24.01	356.789000	Y 377.433
Fe (238.204 nm)	0.010015	ppm	0.000275	2.74	31.246718	Y_R 377.433
Fe H (259.940 nm)	0.014013 u	ppm	0.002886	20.59	30.792900	Y_R 377.433
K (766.491 nm)	-0.253445 u	ppm	0.095453	37.66	1692.660000	Y_R2 488.368
Li (670.783 nm)	0.018099	ppm	0.000961	5.31	-2235.000000	Y_R2 488.368
Mg (279.078 nm)	0.005597	ppm	0.000057	1.01	26.848200	Y 377.433
Mn (257.610 nm)	0.000368	ppm	0.000005	1.47	89.229300	Y 377.433
Mo (202.032 nm)	-0.000011 u	ppm	0.000018	> 100.00	10.995300	Y 377.433
Na (589.592 nm)	0.060771	ppm	0.044265	72.84	199.735000	Y_R2 488.368
Na H (589.593 nm)	0.704579 u	ppm	0.021112	3.00	264.775841	Y_R4
Ni (231.604 nm)	-0.000178 u	ppm	0.000168	94.10	-9.542370	Y 377.433
P (213.618 nm)	-0.002246 u	ppm	0.001706	75.97	-7.307480	Y 242.219
Pb (220.353 nm)	0.000367 u	ppm	0.001370	> 100.00	9.400330	Y 242.219
S (181.972 nm)	0.008157	ppm	0.002021	24.78	16.435343	Y 377.433
Sb (206.834 nm)	-0.002097 u	ppm	0.002997	> 100.00	-1.762000	Y 377.433
Se (196.026 nm)	-0.003695 u	ppm	0.000849	22.97	3.282770	Y 242.219
Si (288.158 nm)	-0.002678 u	ppm	0.000236	8.83	471.304000	Y 377.433
Sn (189.925 nm)	-0.000393 u	ppm	0.000363	92.34	1.457920	Y 377.433
Sr (421.552 nm)	0.000256	ppm	0.000009	3.63	61.661305	Y_R 488.368
Th (288.505 nm)	0.000762 u	ppm	0.006342	> 100.00	13.991700	Y 377.433
Ti (336.122 nm)	0.000354	ppm	0.000107	30.11	-388.504000	Y 377.433
Tl (190.794 nm)	0.000496 u	ppm	0.001026	> 100.00	2.947880	Y 377.433
U (409.013 nm)	-0.002833 u	ppm	0.008578	> 100.00	-33.701700	Y 377.433
V (292.401 nm)	-0.000029 u	ppm	0.000167	> 100.00	-147.120000	Y 377.433
Zn (206.200 nm)	0.002854	ppm	0.000793	27.81	16.897500	Y 377.433
Zr (343.823 nm)	-0.000064 u	ppm	0.000115	> 100.00	-165.247000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130767	26138.194535	0.000954	0.08
Y 377.433	1.110353	776615.337064	0.000751	0.07
Y_R 377.433	1.122620	68063.000000	0.000028	0.00
Y_R 488.368	1.143520	60409.600000	0.004756	0.42
Y_R2 488.368	1.123674	119115.367827	0.004212	0.37
Y_R4	1.126090	50674.000000	0.005559	0.49

Sample Name: LCS 280-459136/2-A

Date: 5/24/2019 10:23:14 PM Rack:Tube: 1:85

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001321	ppm	0.000260	19.69	-528.948000	Y 377.433
Al (394.401 nm)	9.812770 o	ppm	0.010696	0.11	120114.000000	Y 377.433
Al H (396.152 nm)	9.630360	ppm	0.051249	0.53	21270.200000	Y_R 377.433
As (188.980 nm)	1.968840	ppm	0.002451	0.12	2964.990000	Y 242.219
B (249.678 nm)	0.949804	ppm	0.001225	0.13	6824.180000	Y 242.219
Ba (493.408 nm)	1.945990	ppm	0.004232	0.22	195410.000000	Y_R 488.368
Be (234.861 nm)	0.956982	ppm	0.004525	0.47	94202.800000	Y_R 488.368
Bi (223.061 nm)	1.924840	ppm	0.002118	0.11	4206.840000	Y 377.433
Ca (315.887 nm)	47.306107	ppm	0.179614	0.38	37504.195547	Y_R 377.433
Cd (214.439 nm)	0.992643	ppm	0.001295	0.13	36706.800000	Y 377.433
Co (228.615 nm)	0.955805	ppm	0.000592	0.06	22491.600000	Y 242.219
Cr (205.560 nm)	1.002540	ppm	0.000093	0.01	6672.250000	Y 377.433
Cu (324.754 nm)	0.958902	ppm	0.000055	0.01	45100.800000	Y 377.433
Fe (238.204 nm)	9.803149 o	ppm	0.044618	0.46	23605.029360	Y_R 377.433
Fe H (259.940 nm)	9.760870	ppm	0.032429	0.33	13510.500000	Y_R 377.433
K (766.491 nm)	48.526900	ppm	0.021433	0.04	48794.400000	Y_R2 488.368
Li (670.783 nm)	1.004200	ppm	0.003029	0.30	14696.500000	Y_R2 488.368
Mg (279.078 nm)	48.242100	ppm	0.066483	0.14	157831.000000	Y 377.433
Mn (257.610 nm)	0.971186	ppm	0.001048	0.11	264792.000000	Y 377.433
Mo (202.032 nm)	0.990299	ppm	0.000640	0.06	12493.100000	Y 377.433
Na (589.592 nm)	47.468300	ppm	0.224628	0.47	39559.000000	Y_R2 488.368
Na H (589.593 nm)	48.912168 u	ppm	0.039874	0.08	26420.099261	Y_R4
Ni (231.604 nm)	0.969319	ppm	0.002610	0.27	5008.960000	Y 377.433
P (213.618 nm)	19.897400	ppm	0.029110	0.15	28187.000000	Y 242.219
Pb (220.353 nm)	0.970147	ppm	0.000948	0.10	3088.910000	Y 242.219
S (181.972 nm)	9.581999	ppm	0.009259	0.10	4406.281862	Y 377.433
Sb (206.834 nm)	-0.000965 u	ppm	0.001239	> 100.00	-4.531750	Y 377.433
Se (196.026 nm)	1.928290	ppm	0.000718	0.04	2916.080000	Y 242.219
Si (288.158 nm)	1.993860	ppm	0.006053	0.30	13324.200000	Y 377.433
Sn (189.925 nm)	1.981850	ppm	0.006554	0.33	3190.990000	Y 377.433
Sr (421.552 nm)	0.944535	ppm	0.001486	0.16	142272.591809	Y_R 488.368
Th (288.505 nm)	0.983751	ppm	0.001891	0.19	1618.330000	Y 377.433
Ti (336.122 nm)	0.970421	ppm	0.001579	0.16	123908.000000	Y 377.433
Tl (190.794 nm)	1.945360	ppm	0.000764	0.04	4442.500000	Y 377.433
U (409.013 nm)	1.950000	ppm	0.003413	0.18	6101.640000	Y 377.433
V (292.401 nm)	0.967465	ppm	0.001394	0.14	49752.200000	Y 377.433
Zn (206.200 nm)	0.494770	ppm	0.000978	0.20	2230.280000	Y 377.433
Zr (343.823 nm)	0.481234	ppm	0.001345	0.28	27081.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.047295	24208.707890	0.000348	0.03
Y 377.433	1.043272	729696.882560	0.001240	0.12
Y_R 377.433	1.083990	65721.100000	0.005850	0.54
Y_R 488.368	1.095680	57882.500000	0.004285	0.39
Y_R2 488.368	1.080810	114571.604877	0.006324	0.59
Y_R4	1.089040	49006.800000	0.004169	0.38

Sample Name: LCSD 280-459136/3-A

Date: 5/24/2019 10:26:55 PM Rack:Tube: 1:86

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000990	ppm	0.000071	7.13	-547.800000	Y 377.433
Al (394.401 nm)	9.836230 o	ppm	0.015749	0.16	120402.000000	Y 377.433
Al H (396.152 nm)	9.623610	ppm	0.062696	0.65	21259.600000	Y_R 377.433
As (188.980 nm)	1.998520	ppm	0.001452	0.07	3009.700000	Y 242.219
B (249.678 nm)	0.955554	ppm	0.002881	0.30	6865.090000	Y 242.219
Ba (493.408 nm)	1.951430	ppm	0.015666	0.80	195953.000000	Y_R 488.368
Be (234.861 nm)	0.968333	ppm	0.008382	0.87	95319.500000	Y_R 488.368
Bi (223.061 nm)	1.948250	ppm	0.000292	0.01	4258.160000	Y 377.433
Ca (315.887 nm)	48.948628	ppm	0.267590	0.55	38808.692548	Y_R 377.433
Cd (214.439 nm)	1.025970	ppm	0.003583	0.35	37939.400000	Y 377.433
Co (228.615 nm)	0.971913	ppm	0.002448	0.25	22871.000000	Y 242.219
Cr (205.560 nm)	1.031740	ppm	0.002585	0.25	6866.820000	Y 377.433
Cu (324.754 nm)	0.977630	ppm	0.000838	0.09	45974.500000	Y 377.433
Fe (238.204 nm)	10.084564 o	ppm	0.054209	0.54	24282.445743	Y_R 377.433
Fe H (259.940 nm)	9.996650	ppm	0.073196	0.73	13836.600000	Y_R 377.433
K (766.491 nm)	48.769500	ppm	0.385150	0.79	49028.600000	Y_R2 488.368
Li (670.783 nm)	1.007890	ppm	0.008123	0.81	14759.900000	Y_R2 488.368
Mg (279.078 nm)	49.532400	ppm	0.109370	0.22	162053.000000	Y 377.433
Mn (257.610 nm)	0.994248	ppm	0.001447	0.15	271081.000000	Y 377.433
Mo (202.032 nm)	1.014320	ppm	0.001558	0.15	12795.800000	Y 377.433
Na (589.592 nm)	47.466100	ppm	0.170666	0.36	39558.400000	Y_R2 488.368
Na H (589.593 nm)	48.645855 u	ppm	0.308027	0.63	26275.609700	Y_R4
Ni (231.604 nm)	0.997943	ppm	0.001917	0.19	5157.130000	Y 377.433
P (213.618 nm)	20.231500	ppm	0.065446	0.32	28659.400000	Y 242.219
Pb (220.353 nm)	0.995362	ppm	0.002000	0.20	3168.970000	Y 242.219
S (181.972 nm)	9.845299	ppm	0.046310	0.47	4527.016365	Y 377.433
Sb (206.834 nm)	-0.001386 u	ppm	0.002098	> 100.00	-5.294160	Y 377.433
Se (196.026 nm)	1.968820	ppm	0.003644	0.19	2977.160000	Y 242.219
Si (288.158 nm)	2.038120	ppm	0.001956	0.10	13609.100000	Y 377.433
Sn (189.925 nm)	2.046450	ppm	0.008500	0.42	3294.940000	Y 377.433
Sr (421.552 nm)	0.950019	ppm	0.007185	0.76	143098.602771	Y_R 488.368
Th (288.505 nm)	0.997942	ppm	0.002703	0.27	1640.800000	Y 377.433
Ti (336.122 nm)	0.987683	ppm	0.001883	0.19	126123.000000	Y 377.433
Tl (190.794 nm)	2.004230	ppm	0.003647	0.18	4576.900000	Y 377.433
U (409.013 nm)	1.974730	ppm	0.005901	0.30	6179.240000	Y 377.433
V (292.401 nm)	0.988773	ppm	0.002282	0.23	50848.600000	Y 377.433
Zn (206.200 nm)	0.510942	ppm	0.003199	0.63	2303.040000	Y 377.433
Zr (343.823 nm)	0.488075	ppm	0.000687	0.14	27469.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.067395	24673.332532	0.001831	0.17
Y 377.433	1.052094	735867.440269	0.001877	0.18
Y_R 377.433	1.101830	66802.700000	0.006289	0.57
Y_R 488.368	1.115910	58951.100000	0.009143	0.82
Y_R2 488.368	1.083231	114828.256830	0.006138	0.57
Y_R4	1.105320	49739.400000	0.003459	0.31

Sample Name: 280-123855-F-1-A

Date: 5/24/2019 10:30:34 PM Rack:Tube: 1:87

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001389	ppm	0.000091	6.58	-219.324000	Y 377.433
Al (394.401 nm)	0.010171	ppm	0.000098	0.97	244.703000	Y 377.433
Al H (396.152 nm)	0.102079 u	ppm	0.005127	5.02	-5.052240	Y_R 377.433
As (188.980 nm)	0.000203 u	ppm	0.001840	> 100.00	-1.287980	Y 242.219
B (249.678 nm)	0.006620	ppm	0.000000	0.00	93.574600	Y 242.219
Ba (493.408 nm)	0.027185	ppm	0.000293	1.08	4110.160000	Y_R 488.368
Be (234.861 nm)	-0.000012 u	ppm	0.000040	> 100.00	-5.870930	Y_R 488.368
Bi (223.061 nm)	-0.000280 u	ppm	0.002153	> 100.00	-11.112300	Y 377.433
Ca (315.887 nm)	62.595827	ppm	0.010866	0.02	49644.919966	Y_R 377.433
Cd (214.439 nm)	0.000184	ppm	0.000022	11.87	1.884850	Y 377.433
Co (228.615 nm)	0.000537	ppm	0.000018	3.26	-2.497040	Y 242.219
Cr (205.560 nm)	0.000700	ppm	0.000891	> 100.00	-2.101760	Y 377.433
Cu (324.754 nm)	0.000972	ppm	0.000021	2.16	325.274000	Y 377.433
Fe (238.204 nm)	0.642581	ppm	0.000333	0.05	1553.943306	Y_R 377.433
Fe H (259.940 nm)	0.640423 u	ppm	0.004482	0.70	897.108000	Y_R 377.433
K (766.491 nm)	0.843837	ppm	0.210854	24.99	2752.180000	Y_R2 488.368
Li (670.783 nm)	0.019723	ppm	0.000960	4.87	-2207.130000	Y_R2 488.368
Mg (279.078 nm)	2.940220	ppm	0.002863	0.10	9628.970000	Y 377.433
Mn (257.610 nm)	0.706083	ppm	0.000364	0.05	192509.000000	Y 377.433
Mo (202.032 nm)	0.000583	ppm	0.000277	47.48	18.481400	Y 377.433
Na (589.592 nm)	142.375000 o	ppm	0.039354	0.03	117033.000000	Y_R2 488.368
Na H (589.593 nm)	146.785958	ppm	0.716322	0.49	79522.126019	Y_R4
Ni (231.604 nm)	0.009001	ppm	0.000236	2.63	37.953800	Y 377.433
P (213.618 nm)	0.020928	ppm	0.000207	0.99	25.541300	Y 242.219
Pb (220.353 nm)	-0.001807 u	ppm	0.000004	0.20	2.523000	Y 242.219
S (181.972 nm)	3.604568	ppm	0.003011	0.08	1668.804079	Y 377.433
Sb (206.834 nm)	-0.003704 u	ppm	0.000869	23.46	-4.422230	Y 377.433
Se (196.026 nm)	0.001997	ppm	0.002518	> 100.00	12.698300	Y 242.219
Si (288.158 nm)	2.253200	ppm	0.000046	0.00	14993.700000	Y 377.433
Sn (189.925 nm)	0.002181	ppm	0.001691	77.51	5.599930	Y 377.433
Sr (421.552 nm)	0.106199	ppm	0.000279	0.26	16016.995379	Y_R 488.368
Th (288.505 nm)	-0.008811 u	ppm	0.001808	20.52	9.872960	Y 377.433
Ti (336.122 nm)	-0.000211 u	ppm	0.000037	17.60	-245.468000	Y 377.433
Tl (190.794 nm)	0.003636	ppm	0.000098	2.69	7.536640	Y 377.433
U (409.013 nm)	0.019398	ppm	0.002559	13.19	28.845000	Y 377.433
V (292.401 nm)	0.000786	ppm	0.000568	72.22	-106.102000	Y 377.433
Zn (206.200 nm)	0.003515	ppm	0.000334	9.49	19.961200	Y 377.433
Zr (343.823 nm)	-0.000114 u	ppm	0.000195	> 100.00	-168.055000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.076793	24890.570258	0.001235	0.11
Y 377.433	1.055975	738582.092902	0.001448	0.14
Y_R 377.433	1.113690	67521.700000	0.001897	0.17
Y_R 488.368	1.129610	59674.700000	0.004476	0.40
Y_R2 488.368	1.107966	117450.284227	0.001488	0.13
Y_R4	1.122590	50516.700000	0.002173	0.19

Sample Name: 280-123855-F-1-Asd@5

Date: 5/24/2019 10:34:08 PM Rack:Tube: 1:88

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000841	ppm	0.000067	8.00	-238.001000	Y 377.433
Al (394.401 nm)	0.000567	ppm	0.000428	75.60	103.950000	Y 377.433
Al H (396.152 nm)	0.125088 u	ppm	0.000910	0.73	20.961700	Y_R 377.433
As (188.980 nm)	0.001552	ppm	0.000146	9.44	0.758224	Y 242.219
B (249.678 nm)	-0.001215 u	ppm	0.000355	29.20	37.896100	Y 242.219
Ba (493.408 nm)	0.004145	ppm	0.000244	5.88	1812.790000	Y_R 488.368
Be (234.861 nm)	-0.000048 u	ppm	0.000047	97.72	-7.378370	Y_R 488.368
Bi (223.061 nm)	0.000554	ppm	0.000780	> 100.00	-9.370270	Y 377.433
Ca (315.887 nm)	12.659210	ppm	0.025755	0.20	9984.979715	Y_R 377.433
Cd (214.439 nm)	0.000062	ppm	0.000006	9.07	-2.831460	Y 377.433
Co (228.615 nm)	0.000341	ppm	0.000325	95.22	-7.112380	Y 242.219
Cr (205.560 nm)	0.000543	ppm	0.000149	27.47	-3.135150	Y 377.433
Cu (324.754 nm)	0.001090	ppm	0.000332	30.48	360.693000	Y 377.433
Fe (238.204 nm)	0.167647	ppm	0.000124	0.07	410.695731	Y_R 377.433
Fe H (259.940 nm)	0.170657 u	ppm	0.003115	1.83	247.429000	Y_R 377.433
K (766.491 nm)	-0.014175 u	ppm	0.162922	> 100.00	1923.700000	Y_R2 488.368
Li (670.783 nm)	0.023606	ppm	0.001561	6.61	-2140.440000	Y_R2 488.368
Mg (279.078 nm)	0.600004	ppm	0.002382	0.40	1971.590000	Y 377.433
Mn (257.610 nm)	0.143555	ppm	0.000142	0.10	39130.700000	Y 377.433
Mo (202.032 nm)	0.000273	ppm	0.000154	56.17	14.577500	Y 377.433
Na (589.592 nm)	29.096000	ppm	0.088082	0.30	24036.200000	Y_R2 488.368
Na H (589.593 nm)	29.905057 u	ppm	0.181567	0.61	16107.674394	Y_R4
Ni (231.604 nm)	0.001458	ppm	0.000109	7.45	-1.077720	Y 377.433
P (213.618 nm)	0.000565	ppm	0.000330	58.37	-3.405960	Y 242.219
Pb (220.353 nm)	-0.000279 u	ppm	0.001792	> 100.00	7.370590	Y 242.219
S (181.972 nm)	0.708331	ppm	0.006056	0.85	338.166396	Y 377.433
Sb (206.834 nm)	-0.001879 u	ppm	0.003459	> 100.00	-1.379700	Y 377.433
Se (196.026 nm)	-0.001314 u	ppm	0.000631	48.02	7.035010	Y 242.219
Si (288.158 nm)	0.442422	ppm	0.000827	0.19	3336.670000	Y 377.433
Sn (189.925 nm)	0.001106	ppm	0.001025	92.73	3.869730	Y 377.433
Sr (421.552 nm)	0.021003	ppm	0.000055	0.26	3186.238945	Y_R 488.368
Th (288.505 nm)	-0.003493 u	ppm	0.001652	47.28	9.206530	Y 377.433
Ti (336.122 nm)	0.000164	ppm	0.000012	7.03	-369.747000	Y 377.433
Tl (190.794 nm)	0.000438 u	ppm	0.001661	> 100.00	2.292760	Y 377.433
U (409.013 nm)	0.010493	ppm	0.011207	> 100.00	6.990480	Y 377.433
V (292.401 nm)	-0.000087 u	ppm	0.000093	> 100.00	-150.867000	Y 377.433
Zn (206.200 nm)	0.004805	ppm	0.000110	2.29	25.696600	Y 377.433
Zr (343.823 nm)	-0.000121 u	ppm	0.000247	> 100.00	-168.466000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.114589	25764.251337	0.002075	0.19
Y 377.433	1.090803	762941.446187	0.003019	0.28
Y_R 377.433	1.124220	68160.000000	0.004153	0.37
Y_R 488.368	1.135240	59971.900000	0.001111	0.10
Y_R2 488.368	1.126497	119414.653358	0.006604	0.59
Y_R4	1.130380	50866.900000	0.007677	0.68

Sample Name: 280-123855-F-1-B MS

Date: 5/24/2019 10:37:39 PM Rack:Tube: 1:89

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001593	ppm	0.000268	16.80	-532.538000	Y 377.433
Al (394.401 nm)	9.989500 o	ppm	0.014802	0.15	122297.000000	Y 377.433
Al H (396.152 nm)	9.670150	ppm	0.032145	0.33	21395.400000	Y_R 377.433
As (188.980 nm)	2.054450	ppm	0.002680	0.13	3093.970000	Y 242.219
B (249.678 nm)	0.978071	ppm	0.000525	0.05	7025.480000	Y 242.219
Ba (493.408 nm)	1.985970	ppm	0.012114	0.61	199397.000000	Y_R 488.368
Be (234.861 nm)	0.975428	ppm	0.002041	0.21	96015.200000	Y_R 488.368
Bi (223.061 nm)	1.983360	ppm	0.000227	0.01	4335.160000	Y 377.433
Ca (315.887 nm)	111.073901	ppm	0.626359	0.56	88148.961896	Y_R 377.433
Cd (214.439 nm)	1.033070	ppm	0.001191	0.12	38202.400000	Y 377.433
Co (228.615 nm)	0.990401	ppm	0.000269	0.03	23306.200000	Y 242.219
Cr (205.560 nm)	1.045540	ppm	0.002117	0.20	6958.750000	Y 377.433
Cu (324.754 nm)	1.005620	ppm	0.002539	0.25	47246.800000	Y 377.433
Fe (238.204 nm)	10.795818 o	ppm	0.048824	0.45	25994.557234	Y_R 377.433
Fe H (259.940 nm)	10.712000	ppm	0.047922	0.45	14826.000000	Y_R 377.433
K (766.491 nm)	50.376300	ppm	0.913036	1.81	50580.100000	Y_R2 488.368
Li (670.783 nm)	1.015700	ppm	0.011767	1.16	14894.000000	Y_R2 488.368
Mg (279.078 nm)	52.585700	ppm	0.046755	0.09	172043.000000	Y 377.433
Mn (257.610 nm)	1.703770	ppm	0.002978	0.17	464539.000000	Y 377.433
Mo (202.032 nm)	1.028640	ppm	0.000649	0.06	12976.300000	Y 377.433
Na (589.592 nm)	187.915000 o	ppm	1.887840	1.00	154863.000000	Y_R2 488.368
Na H (589.593 nm)	195.392569	ppm	2.404396	1.23	105893.941773	Y_R4
Ni (231.604 nm)	1.023490	ppm	0.002162	0.21	5289.310000	Y 377.433
P (213.618 nm)	20.845800	ppm	0.018181	0.09	29530.100000	Y 242.219
Pb (220.353 nm)	0.997208	ppm	0.000284	0.03	3174.720000	Y 242.219
S (181.972 nm)	13.792910	ppm	0.004948	0.04	6340.230421	Y 377.433
Sb (206.834 nm)	-0.000881 u	ppm	0.001470	> 100.00	-4.461120	Y 377.433
Se (196.026 nm)	2.011750	ppm	0.002611	0.13	3042.730000	Y 242.219
Si (288.158 nm)	4.327220	ppm	0.000982	0.02	28345.300000	Y 377.433
Sn (189.925 nm)	2.075370	ppm	0.000756	0.04	3341.480000	Y 377.433
Sr (421.552 nm)	1.061583	ppm	0.006729	0.63	159900.308225	Y_R 488.368
Th (288.505 nm)	1.003330	ppm	0.000909	0.09	1660.600000	Y 377.433
Ti (336.122 nm)	1.003270	ppm	0.002056	0.20	128332.000000	Y 377.433
Tl (190.794 nm)	1.981130	ppm	0.006530	0.33	4521.420000	Y 377.433
U (409.013 nm)	2.003980	ppm	0.002735	0.14	6263.510000	Y 377.433
V (292.401 nm)	1.004620	ppm	0.001323	0.13	51668.000000	Y 377.433
Zn (206.200 nm)	0.514005	ppm	0.000763	0.15	2316.910000	Y 377.433
Zr (343.823 nm)	0.493076	ppm	0.000869	0.18	27752.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.062493	24560.012140	0.001563	0.15
Y 377.433	1.049543	734082.898404	0.000607	0.06
Y_R 377.433	1.121840	68015.800000	0.003323	0.30
Y_R 488.368	1.136650	60046.800000	0.004933	0.43
Y_R2 488.368	1.108747	117533.078626	0.009259	0.84
Y_R4	1.116170	50227.500000	0.013044	1.17

Sample Name: 280-123855-F-1-C MSD

Date: 5/24/2019 10:41:19 PM Rack:Tube: 1:90

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001179	ppm	0.000111	9.38	-543.169000	Y 377.433
Al (394.401 nm)	9.897070 o	ppm	0.013472	0.14	121167.000000	Y 377.433
Al H (396.152 nm)	9.659840	ppm	0.006490	0.07	21372.600000	Y_R 377.433
As (188.980 nm)	2.033620	ppm	0.006201	0.30	3062.580000	Y 242.219
B (249.678 nm)	0.977790	ppm	0.002180	0.22	7023.490000	Y 242.219
Ba (493.408 nm)	1.977820	ppm	0.001501	0.08	198584.000000	Y_R 488.368
Be (234.861 nm)	0.984255	ppm	0.001542	0.16	96884.700000	Y_R 488.368
Bi (223.061 nm)	1.972660	ppm	0.005330	0.27	4311.730000	Y 377.433
Ca (315.887 nm)	112.666293	ppm	0.061928	0.05	89413.645699	Y_R 377.433
Cd (214.439 nm)	1.022230	ppm	0.002614	0.26	37801.300000	Y 377.433
Co (228.615 nm)	0.980584	ppm	0.001321	0.13	23075.000000	Y 242.219
Cr (205.560 nm)	1.029000	ppm	0.003554	0.35	6848.490000	Y 377.433
Cu (324.754 nm)	0.992137	ppm	0.005077	0.51	46617.900000	Y 377.433
Fe (238.204 nm)	10.771025 o	ppm	0.006627	0.06	25934.876874	Y_R 377.433
Fe H (259.940 nm)	10.681100	ppm	0.000993	0.01	14783.200000	Y_R 377.433
K (766.491 nm)	50.477700	ppm	0.543272	1.08	50678.000000	Y_R2 488.368
Li (670.783 nm)	1.011120	ppm	0.000089	0.01	14815.500000	Y_R2 488.368
Mg (279.078 nm)	52.252300	ppm	0.103563	0.20	170953.000000	Y 377.433
Mn (257.610 nm)	1.710860	ppm	0.002278	0.13	466471.000000	Y 377.433
Mo (202.032 nm)	1.018870	ppm	0.000984	0.10	12853.200000	Y 377.433
Na (589.592 nm)	191.895000 o	ppm	0.331536	0.17	158127.000000	Y_R2 488.368
Na H (589.593 nm)	197.347868	ppm	0.130687	0.07	106954.801338	Y_R4
Ni (231.604 nm)	1.012130	ppm	0.000198	0.02	5230.510000	Y 377.433
P (213.618 nm)	20.681300	ppm	0.065529	0.32	29298.600000	Y 242.219
Pb (220.353 nm)	0.989845	ppm	0.003793	0.38	3151.350000	Y 242.219
S (181.972 nm)	13.781892	ppm	0.065607	0.48	6335.293019	Y 377.433
Sb (206.834 nm)	0.000309 u	ppm	0.001085	> 100.00	-2.446570	Y 377.433
Se (196.026 nm)	1.994040	ppm	0.001243	0.06	3016.040000	Y 242.219
Si (288.158 nm)	4.396560	ppm	0.019478	0.44	28791.700000	Y 377.433
Sn (189.925 nm)	2.049400	ppm	0.004376	0.21	3299.690000	Y 377.433
Sr (421.552 nm)	1.061305	ppm	0.000042	0.00	159858.509162	Y_R 488.368
Th (288.505 nm)	1.000750	ppm	0.004014	0.40	1657.240000	Y 377.433
Ti (336.122 nm)	0.992942	ppm	0.001025	0.10	127017.000000	Y 377.433
Tl (190.794 nm)	1.961210	ppm	0.002849	0.15	4475.860000	Y 377.433
U (409.013 nm)	1.986730	ppm	0.009608	0.48	6208.830000	Y 377.433
V (292.401 nm)	0.994462	ppm	0.001476	0.15	51147.200000	Y 377.433
Zn (206.200 nm)	0.512682	ppm	0.002284	0.45	2310.960000	Y 377.433
Zr (343.823 nm)	0.490283	ppm	0.000832	0.17	27594.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.056012	24410.206975	0.002927	0.28
Y 377.433	1.043919	730149.564309	0.003343	0.32
Y_R 377.433	1.096460	66476.800000	0.000619	0.06
Y_R 488.368	1.108980	58584.900000	0.000520	0.05
Y_R2 488.368	1.084958	115011.286243	0.001023	0.09
Y_R4	1.108450	49880.400000	0.001451	0.13

Sample Name: CCVH-5713036

Date: 5/24/2019 10:45:00 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005474	ppm	0.000040	0.73	-87.815900	Y 377.433
Al (394.401 nm)	48.848500 o	ppm	0.143134	0.29	595101.000000	Y 377.433
Al H (396.152 nm)	47.275200	ppm	0.113396	0.24	103082.000000	Y_R 377.433
As (188.980 nm)	0.004349	ppm	0.001013	23.29	3.638470	Y 242.219
B (249.678 nm)	-0.000904 u	ppm	0.001217	> 100.00	11.671100	Y 242.219
Ba (493.408 nm)	0.000714	ppm	0.000272	38.14	1509.960000	Y_R 488.368
Be (234.861 nm)	0.001273	ppm	0.000011	0.89	-85.545500	Y_R 488.368
Bi (223.061 nm)	0.009099	ppm	0.003138	34.49	17.853700	Y 377.433
Ca (315.887 nm)	0.004280 u	ppm	0.013272	> 100.00	-53.739080	Y_R 377.433
Cd (214.439 nm)	0.001443	ppm	0.000098	6.82	68.247700	Y 377.433
Co (228.615 nm)	0.003006	ppm	0.000052	1.73	55.535000	Y 242.219
Cr (205.560 nm)	0.001927	ppm	0.000783	40.65	4.816180	Y 377.433
Cu (324.754 nm)	0.004297	ppm	0.000026	0.60	1453.140000	Y 377.433
Fe (238.204 nm)	49.402415 o	ppm	0.117838	0.24	118927.376412	Y_R 377.433
Fe H (259.940 nm)	48.971500	ppm	0.085408	0.17	67738.300000	Y_R 377.433
K (766.491 nm)	0.238193	ppm	0.273989	> 100.00	2167.380000	Y_R2 488.368
Li (670.783 nm)	0.021191	ppm	0.000113	0.53	-2181.920000	Y_R2 488.368
Mg (279.078 nm)	0.042489	ppm	0.002414	5.68	74.256400	Y 377.433
Mn (257.610 nm)	0.001055	ppm	0.000000	0.01	276.474000	Y 377.433
Mo (202.032 nm)	0.001361	ppm	0.000227	16.65	28.291400	Y 377.433
Na (589.592 nm)	223.972000 o	ppm	0.744428	0.33	184010.000000	Y_R2 488.368
Na H (589.593 nm)	229.031288	ppm	2.114989	0.92	124144.835668	Y_R4
Ni (231.604 nm)	0.003410	ppm	0.000610	17.88	9.023910	Y 377.433
P (213.618 nm)	4.877180	ppm	0.000006	0.00	6965.780000	Y 242.219
Pb (220.353 nm)	0.006263	ppm	0.001890	30.18	21.543200	Y 242.219
S (181.972 nm)	4.836787	ppm	0.014825	0.31	2227.733577	Y 377.433
Sb (206.834 nm)	-0.000418 u	ppm	0.002845	> 100.00	5.230520	Y 377.433
Se (196.026 nm)	0.006054	ppm	0.001258	20.77	5.265590	Y 242.219
Si (288.158 nm)	0.013243	ppm	0.000871	6.58	573.802000	Y 377.433
Sn (189.925 nm)	0.002244	ppm	0.000025	1.10	5.701530	Y 377.433
Sr (421.552 nm)	0.001554	ppm	0.000055	3.56	264.568872	Y_R 488.368
Th (288.505 nm)	4.737450	ppm	0.017129	0.36	8182.180000	Y 377.433
Ti (336.122 nm)	0.001932	ppm	0.000089	4.58	-186.602000	Y 377.433
Tl (190.794 nm)	0.001869	ppm	0.002011	> 100.00	1.335130	Y 377.433
U (409.013 nm)	0.525351 Q	ppm	0.003269	0.62	1678.120000 Q	Y 377.433
V (292.401 nm)	0.001070	ppm	0.000041	3.82	395.788000	Y 377.433
Zn (206.200 nm)	0.002866	ppm	0.000242	8.43	23.830900	Y 377.433
Zr (343.823 nm)	0.001288	ppm	0.000354	27.46	-88.697200	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.087581	25139.934201	0.000724	0.07
Y 377.433	1.063951	744160.368155	0.001553	0.15
Y_R 377.433	1.124690	68188.700000	0.001506	0.13
Y_R 488.368	1.139800	60213.100000	0.001939	0.17
Y_R2 488.368	1.093766	115944.967548	0.001918	0.18
Y_R4	1.123890	50575.100000	0.012337	1.10

Sample Name: CCV-5717467

Date: 5/24/2019 10:48:43 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.485844	ppm	0.001066	0.22	16496.000000	Y 377.433
Al (394.401 nm)	0.492356	ppm	0.001959	0.40	6223.430000	Y 377.433
Al H (396.152 nm)	0.536039 u	ppm	0.006037	1.13	1153.210000	Y_R 377.433
As (188.980 nm)	0.485029	ppm	0.001998	0.41	729.243000	Y 242.219
B (249.678 nm)	0.469166	ppm	0.001101	0.23	3395.850000	Y 242.219
Ba (493.408 nm)	0.476472	ppm	0.001459	0.31	48902.800000	Y_R 488.368
Be (234.861 nm)	0.463826	ppm	0.002222	0.48	45666.300000	Y_R 488.368
Bi (223.061 nm)	0.976670	ppm	0.003060	0.31	2128.960000	Y 377.433
Ca (315.887 nm)	4.906256	ppm	0.001752	0.04	3827.665279	Y_R 377.433
Cd (214.439 nm)	0.511535	ppm	0.001361	0.27	18912.500000	Y 377.433
Co (228.615 nm)	0.487508	ppm	0.000473	0.10	11463.700000	Y 242.219
Cr (205.560 nm)	0.511666	ppm	0.000476	0.09	3402.200000	Y 377.433
Cu (324.754 nm)	0.488672	ppm	0.001573	0.32	23107.700000	Y 377.433
Fe (238.204 nm)	2.503589	ppm	0.005601	0.22	6033.715477	Y_R 377.433
Fe H (259.940 nm)	2.481020 u	ppm	0.002567	0.10	3442.620000	Y_R 377.433
K (766.491 nm)	48.036200	ppm	0.050998	0.11	48320.600000	Y_R2 488.368
Li (670.783 nm)	0.506402	ppm	0.002803	0.55	6149.280000	Y_R2 488.368
Mg (279.078 nm)	19.707800	ppm	0.041638	0.21	64495.800000	Y 377.433
Mn (257.610 nm)	0.485802	ppm	0.000806	0.17	132448.000000	Y 377.433
Mo (202.032 nm)	0.489574	ppm	0.000382	0.08	6181.840000	Y 377.433
Na (589.592 nm)	22.998100	ppm	0.036863	0.16	19137.400000	Y_R2 488.368
Na H (589.593 nm)	24.356149 u	ppm	0.004103	0.02	13097.080408	Y_R4
Ni (231.604 nm)	0.501498	ppm	0.002630	0.52	2586.740000	Y 377.433
P (213.618 nm)	0.050387	ppm	0.003750	7.44	-65.092400	Y 242.219
Pb (220.353 nm)	0.493079	ppm	0.003292	0.67	1572.530000	Y 242.219
S (181.972 nm)	-0.007428 u	ppm	0.001076	14.49	11.095072	Y 377.433
Sb (206.834 nm)	0.496017	ppm	0.001392	0.28	836.739000	Y 377.433
Se (196.026 nm)	0.489987	ppm	0.002803	0.57	747.969000	Y 242.219
Si (288.158 nm)	4.814600	ppm	0.012845	0.27	31482.800000	Y 377.433
Sn (189.925 nm)	0.507486	ppm	0.001502	0.30	818.665000	Y 377.433
Sr (421.552 nm)	0.465086	ppm	0.001478	0.32	70066.026230	Y_R 488.368
Th (288.505 nm)	0.022848	ppm	0.001564	6.84	2.842160	Y 377.433
Ti (336.122 nm)	0.478755	ppm	0.000061	0.01	60846.500000	Y 377.433
Tl (190.794 nm)	0.502625	ppm	0.001630	0.32	1148.180000	Y 377.433
U (409.013 nm)	0.016284	ppm	0.001516	9.31	-32.492900	Y 377.433
V (292.401 nm)	0.482691	ppm	0.001059	0.22	24742.500000	Y 377.433
Zn (206.200 nm)	0.512900	ppm	0.000886	0.17	2310.790000	Y 377.433
Zr (343.823 nm)	0.479454	ppm	0.000256	0.05	26981.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110837	25677.516510	0.005782	0.52
Y 377.433	1.090614	762809.221734	0.005910	0.54
Y_R 377.433	1.141890	69231.200000	0.004445	0.39
Y_R 488.368	1.157360	61140.500000	0.002830	0.24
Y_R2 488.368	1.137014	120529.460291	0.003244	0.29
Y_R4	1.128070	50763.200000	0.003571	0.32

Sample Name: CCB

Date: 5/24/2019 10:52:18 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001087	ppm	0.000277	25.49	-229.364000	Y 377.433
Al (394.401 nm)	-0.002865 u	ppm	0.002470	86.20	56.061900	Y 377.433
Al H (396.152 nm)	0.129444 Zu	ppm	0.004939	3.82	24.701000 Z	Y_R 377.433
As (188.980 nm)	0.002595	ppm	0.001818	70.08	2.333930	Y 242.219
B (249.678 nm)	-0.003267 u	ppm	0.000816	24.98	23.337200	Y 242.219
Ba (493.408 nm)	-0.002172 Zu	ppm	0.000063	2.89	1182.900000 Z	Y_R 488.368
Be (234.861 nm)	0.000000 u	ppm	0.000064	> 100.00	-1.946900	Y_R 488.368
Bi (223.061 nm)	0.000217 u	ppm	0.000465	> 100.00	-10.135900	Y 377.433
Ca (315.887 nm)	0.019000	ppm	0.002964	15.60	-53.950497	Y_R 377.433
Cd (214.439 nm)	-0.000001 u	ppm	0.000049	> 100.00	-5.209800	Y 377.433
Co (228.615 nm)	-0.000186 u	ppm	0.000082	43.89	-19.516800	Y 242.219
Cr (205.560 nm)	0.000313	ppm	0.000142	45.40	-4.665670	Y 377.433
Cu (324.754 nm)	0.001212	ppm	0.000188	15.51	373.782000	Y 377.433
Fe (238.204 nm)	0.000320	ppm	0.000206	64.24	7.910795	Y_R 377.433
Fe H (259.940 nm)	0.002007 u	ppm	0.001793	89.36	14.188200	Y_R 377.433
K (766.491 nm)	-0.162920 u	ppm	0.223873	> 100.00	1780.070000	Y_R2 488.368
Li (670.783 nm)	0.023327 Z	ppm	0.004054	17.38	-2145.240000 Z	Y_R2 488.368
Mg (279.078 nm)	0.005084	ppm	0.001513	29.77	25.127500	Y 377.433
Mn (257.610 nm)	0.000089	ppm	0.000020	22.27	13.264000	Y 377.433
Mo (202.032 nm)	-0.000027 u	ppm	0.000165	> 100.00	10.787200	Y 377.433
Na (589.592 nm)	-0.021245 u	ppm	0.040179	> 100.00	132.359000	Y_R2 488.368
Na H (589.593 nm)	0.775501 u	ppm	0.025514	3.29	303.255069	Y_R4
Ni (231.604 nm)	0.000289 u	ppm	0.000825	> 100.00	-7.125610	Y 377.433
P (213.618 nm)	-0.000782 u	ppm	0.005638	> 100.00	-5.296550	Y 242.219
Pb (220.353 nm)	-0.000043 u	ppm	0.001631	> 100.00	8.105760	Y 242.219
S (181.972 nm)	-0.014650 u	ppm	0.008204	56.00	5.989689	Y 377.433
Sb (206.834 nm)	-0.001358 u	ppm	0.001010	74.36	-0.513777	Y 377.433
Se (196.026 nm)	-0.001035 u	ppm	0.000142	13.71	7.296640	Y 242.219
Si (288.158 nm)	-0.006703 u	ppm	0.002393	35.70	445.396000	Y 377.433
Sn (189.925 nm)	0.000695	ppm	0.000260	37.48	3.208150	Y 377.433
Sr (421.552 nm)	0.000191	ppm	0.000030	15.82	51.913012	Y_R 488.368
Th (288.505 nm)	0.001360	ppm	0.001207	88.72	14.993800	Y 377.433
Ti (336.122 nm)	0.000364	ppm	0.000029	7.95	-387.318000	Y 377.433
Tl (190.794 nm)	0.000500 u	ppm	0.000884	> 100.00	2.959970	Y 377.433
U (409.013 nm)	-0.003465 u	ppm	0.001439	41.54	-35.748200	Y 377.433
V (292.401 nm)	0.000288	ppm	0.000231	80.18	-131.011000	Y 377.433
Zn (206.200 nm)	-0.000632 u	ppm	0.000031	4.87	1.222180	Y 377.433
Zr (343.823 nm)	-0.000003 u	ppm	0.000172	> 100.00	-161.786000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136128	26262.117419	0.006999	0.62
Y 377.433	1.113631	778908.068802	0.007367	0.66
Y_R 377.433	1.157610	70184.200000	0.005216	0.45
Y_R 488.368	1.173940	62016.300000	0.005788	0.49
Y_R2 488.368	1.156436	122588.310744	0.012317	1.07
Y_R4	1.161670	52275.100000	0.001831	0.16

Sample Name: CCVL-5719884

Date: 5/24/2019 10:55:31 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008543	ppm	0.000014	0.17	26.616200	Y 377.433
Al (394.401 nm)	0.092870	ppm	0.000699	0.75	1233.920000	Y 377.433
Al H (396.152 nm)	0.223118 u	ppm	0.005623	2.52	234.859000	Y_R 377.433
As (188.980 nm)	0.016657	ppm	0.000382	2.29	23.521600	Y 242.219
B (249.678 nm)	0.088483	ppm	0.000393	0.44	678.530000	Y 242.219
Ba (493.408 nm)	0.006869 Q	ppm	0.000547	7.96	2084.300000 Q	Y_R 488.368
Be (234.861 nm)	0.000912	ppm	0.000021	2.28	87.442700	Y_R 488.368
Bi (223.061 nm)	0.085847	ppm	0.004034	4.70	177.427000	Y 377.433
Ca (315.887 nm)	0.222244	ppm	0.011757	5.29	107.490242	Y_R 377.433
Cd (214.439 nm)	0.005287	ppm	0.000065	1.24	190.383000	Y 377.433
Co (228.615 nm)	0.010290	ppm	0.000026	0.25	227.136000	Y 242.219
Cr (205.560 nm)	0.010714	ppm	0.000230	2.15	64.527200	Y 377.433
Cu (324.754 nm)	0.016527	ppm	0.000025	0.15	1086.740000	Y 377.433
Fe (238.204 nm)	0.099824	ppm	0.000997	1.00	247.434073	Y_R 377.433
Fe H (259.940 nm)	0.103122 u	ppm	0.002534	2.46	154.029000	Y_R 377.433
K (766.491 nm)	2.783540	ppm	0.064341	2.31	4625.140000	Y_R2 488.368
Li (670.783 nm)	0.053147 Q	ppm	0.000016	0.03	-1633.220000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200388	ppm	0.002917	1.46	662.785000	Y 377.433
Mn (257.610 nm)	0.010435	ppm	0.000036	0.35	2834.180000	Y 377.433
Mo (202.032 nm)	0.019293	ppm	0.000285	1.48	254.302000	Y 377.433
Na (589.592 nm)	0.993088	ppm	0.021442	2.16	966.992000	Y_R2 488.368
Na H (589.593 nm)	1.560915 u	ppm	0.040782	2.61	729.385874	Y_R4
Ni (231.604 nm)	0.043449	ppm	0.000379	0.87	216.206000	Y 377.433
P (213.618 nm)	2.807470	ppm	0.009786	0.35	4006.260000	Y 242.219
Pb (220.353 nm)	0.009275	ppm	0.000139	1.50	37.823600	Y 242.219
S (181.972 nm)	0.082758	ppm	0.006970	8.42	50.638379	Y 377.433
Sb (206.834 nm)	0.016170	ppm	0.002379	14.71	28.935400	Y 377.433
Se (196.026 nm)	0.018035	ppm	0.001896	10.51	36.048600	Y 242.219
Si (288.158 nm)	0.469926	ppm	0.002388	0.51	3513.720000	Y 377.433
Sn (189.925 nm)	0.103304	ppm	0.000208	0.20	168.312000	Y 377.433
Sr (421.552 nm)	0.008960	ppm	0.000096	1.07	1372.622834	Y_R 488.368
Th (288.505 nm)	0.019142	ppm	0.001318	6.88	45.253700	Y 377.433
Ti (336.122 nm)	0.009902	ppm	0.000037	0.37	833.936000	Y 377.433
Tl (190.794 nm)	0.016934	ppm	0.001599	9.44	40.432600	Y 377.433
U (409.013 nm)	0.062071	ppm	0.011920	19.20	170.972000	Y 377.433
V (292.401 nm)	0.009835	ppm	0.000134	1.36	357.918000	Y 377.433
Zn (206.200 nm)	0.021350	ppm	0.000451	2.11	100.084000	Y 377.433
Zr (343.823 nm)	0.009549	ppm	0.000244	2.56	378.992000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.170926	27066.496323	0.003371	0.29
Y 377.433	1.146290	801751.041260	0.001785	0.16
Y_R 377.433	1.187740	72011.300000	0.000932	0.08
Y_R 488.368	1.200210	63404.600000	0.009227	0.77
Y_R2 488.368	1.178107	124885.574394	0.005257	0.45
Y_R4	1.170170	52657.400000	0.011566	0.99

Sample Name: 280-123855-F-1-Apds

Date: 5/24/2019 10:58:59 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.045268	ppm	0.000274	0.60	1287.040000	Y 377.433
Al (394.401 nm)	1.002310	ppm	0.000968	0.10	12382.600000	Y 377.433
Al H (396.152 nm)	1.073660	ppm	0.006530	0.61	2137.730000	Y_R 377.433
As (188.980 nm)	0.204098	ppm	0.000140	0.07	305.930000	Y 242.219
B (249.678 nm)	0.102163	ppm	0.000888	0.87	775.276000	Y 242.219
Ba (493.408 nm)	0.122289	ppm	0.000670	0.55	13592.300000	Y_R 488.368
Be (234.861 nm)	0.048602	ppm	0.000343	0.71	4777.050000	Y_R 488.368
Bi (223.061 nm)	0.002410 u	ppm	0.004042	> 100.00	-4.986890	Y 377.433
Ca (315.887 nm)	80.130328	ppm	0.175207	0.22	63571.170684	Y_R 377.433
Cd (214.439 nm)	0.052326	ppm	0.000113	0.22	1930.570000	Y 377.433
Co (228.615 nm)	0.050863	ppm	0.000797	1.57	1182.360000	Y 242.219
Cr (205.560 nm)	0.053036	ppm	0.001051	1.98	346.563000	Y 377.433
Cu (324.754 nm)	0.052299	ppm	0.000342	0.65	2719.870000	Y 377.433
Fe (238.204 nm)	1.751334	ppm	0.005143	0.29	4222.906541	Y_R 377.433
Fe H (259.940 nm)	1.740390 u	ppm	0.007148	0.41	2418.350000	Y_R 377.433
K (766.491 nm)	20.582400	ppm	0.107914	0.52	21811.500000	Y_R2 488.368
Li (670.783 nm)	0.121298	ppm	0.003137	2.59	-463.051000	Y_R2 488.368
Mg (279.078 nm)	22.474000	ppm	0.005380	0.02	73541.200000	Y 377.433
Mn (257.610 nm)	0.738707	ppm	0.000168	0.02	201405.000000	Y 377.433
Mo (202.032 nm)	0.050570	ppm	0.000481	0.95	648.530000	Y 377.433
Na (589.592 nm)	156.324000 o	ppm	0.331777	0.21	128505.000000	Y_R2 488.368
Na H (589.593 nm)	161.491097	ppm	2.225431	1.38	87500.489391	Y_R4
Ni (231.604 nm)	0.059245	ppm	0.000429	0.72	298.145000	Y 377.433
P (213.618 nm)	2.082240	ppm	0.021854	1.05	2959.040000	Y 242.219
Pb (220.353 nm)	0.099144	ppm	0.000161	0.16	324.108000	Y 242.219
S (181.972 nm)	3.570736	ppm	0.001620	0.05	1654.302650	Y 377.433
Sb (206.834 nm)	0.099701	ppm	0.002509	2.52	169.972000	Y 377.433
Se (196.026 nm)	0.199387	ppm	0.003340	1.68	310.168000	Y 242.219
Si (288.158 nm)	7.124050	ppm	0.015088	0.21	46350.100000	Y 377.433
Sn (189.925 nm)	0.101808	ppm	0.000832	0.82	165.906000	Y 377.433
Sr (421.552 nm)	0.150330	ppm	0.000082	0.05	22663.367249	Y_R 488.368
Th (288.505 nm)	0.197463	ppm	0.005432	2.75	362.267000	Y 377.433
Ti (336.122 nm)	0.048967	ppm	0.000365	0.75	6108.790000	Y 377.433
Tl (190.794 nm)	0.200838	ppm	0.000727	0.36	457.453000	Y 377.433
U (409.013 nm)	0.511950	ppm	0.001100	0.21	1583.520000	Y 377.433
V (292.401 nm)	0.050677	ppm	0.000101	0.20	2462.310000	Y 377.433
Zn (206.200 nm)	0.214899	ppm	0.000328	0.15	970.654000	Y 377.433
Zr (343.823 nm)	0.049622	ppm	0.000056	0.11	2647.550000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.111493	25692.669633	0.000422	0.04
Y 377.433	1.093950	765142.454918	0.000276	0.03
Y_R 377.433	1.153380	69927.900000	0.008167	0.71
Y_R 488.368	1.169580	61786.000000	0.006906	0.59
Y_R2 488.368	1.139953	120841.052138	0.012381	1.09
Y_R4	1.134730	51062.700000	0.014125	1.24

Sample Name: 280-123855-F-2-A

Date: 5/24/2019 11:02:33 PM Rack:Tube: 2:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002516	ppm	0.000105	4.18	-180.969000	Y 377.433
Al (394.401 nm)	-0.023378 bu	ppm	0.000087	0.37	3410.120000	Y 377.433
Al H (396.152 nm)	-2.319660 bu	ppm	0.007284	0.31	481.390000	Y_R 377.433
As (188.980 nm)	0.001202	ppm	0.001212	> 100.00	0.231311	Y 242.219
B (249.678 nm)	0.160773	ppm	0.000679	0.42	1194.760000	Y 242.219
Ba (493.408 nm)	2.642530	ppm	0.000646	0.02	264843.000000	Y_R 488.368
Be (234.861 nm)	-0.000043 u	ppm	0.000027	62.31	-6.953060	Y_R 488.368
Bi (223.061 nm)	0.001727	ppm	0.002000	> 100.00	-6.745170	Y 377.433
Ca (315.887 nm)	203.970721	ppm	0.333825	0.16	161925.736592	Y_R 377.433
Cd (214.439 nm)	0.000372	ppm	0.000042	11.16	8.646020	Y 377.433
Co (228.615 nm)	0.000793	ppm	0.000226	28.53	3.518510	Y 242.219
Cr (205.560 nm)	0.031618	ppm	0.000232	0.73	204.076000	Y 377.433
Cu (324.754 nm)	0.016423	ppm	0.000400	2.44	962.894000	Y 377.433
Fe (238.204 nm)	0.169867	ppm	0.000360	0.21	416.040086	Y_R 377.433
Fe H (259.940 nm)	0.169816 u	ppm	0.004671	2.75	246.267000	Y_R 377.433
K (766.491 nm)	25.910300	ppm	0.269451	1.04	26956.000000	Y_R2 488.368
Li (670.783 nm)	4.407960	ppm	0.008915	0.20	73140.000000	Y_R2 488.368
Mg (279.078 nm)	5.557840	ppm	0.005107	0.09	18195.200000	Y 377.433
Mn (257.610 nm)	0.015627	ppm	0.000079	0.51	4249.810000	Y 377.433
Mo (202.032 nm)	0.005719	ppm	0.000079	1.37	83.220700	Y 377.433
Na (589.592 nm)	1023.090000 o	ppm	4.325190	0.42	840611.000000	Y_R2 488.368
Na H (589.593 nm)	1209.535490	ppm	9.374698	0.78	656123.418565	Y_R4
Ni (231.604 nm)	0.009209	ppm	0.000756	8.21	39.025800	Y 377.433
P (213.618 nm)	0.003176	ppm	0.002216	69.78	-3.979490	Y 242.219
Pb (220.353 nm)	-0.000726 u	ppm	0.000685	94.41	5.876100	Y 242.219
S (181.972 nm)	1.150749	ppm	0.008375	0.73	549.941596	Y 377.433
Sb (206.834 nm)	-0.004500 u	ppm	0.000771	17.14	-5.620970	Y 377.433
Se (196.026 nm)	-0.002388 u	ppm	0.001199	50.21	5.234890	Y 242.219
Si (288.158 nm)	5.076570	ppm	0.025767	0.51	33169.300000	Y 377.433
Sn (189.925 nm)	0.001120	ppm	0.001042	93.07	3.891750	Y 377.433
Sr (421.552 nm)	13.841945 bo	ppm	0.004819	0.03	2084635.111392	Y_R 488.368
Th (288.505 nm)	-0.008655 u	ppm	0.003172	36.66	-7.365410	Y 377.433
Ti (336.122 nm)	-0.000113 u	ppm	0.000183	> 100.00	257.552000	Y 377.433
Tl (190.794 nm)	0.002645	ppm	0.001815	68.61	-0.426633	Y 377.433
U (409.013 nm)	-0.010910 u	ppm	0.002229	20.43	-86.813800	Y 377.433
V (292.401 nm)	0.002433	ppm	0.000016	0.66	-32.424900	Y 377.433
Zn (206.200 nm)	0.002765	ppm	0.000314	11.36	16.523100	Y 377.433
Zr (343.823 nm)	-0.000256 u	ppm	0.000162	63.08	-176.120000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.030643	23823.782127	0.010625	1.03
Y 377.433	1.021096	714186.148597	0.010885	1.07
Y_R 377.433	1.115230	67615.200000	0.000665	0.06
Y_R 488.368	1.129710	59680.200000	0.002494	0.22
Y_R2 488.368	1.078185	114293.345524	0.010388	0.96
Y_R4	1.105350	49740.800000	0.011859	1.07

Sample Name: 280-123855-F-3-A

Date: 5/24/2019 11:06:15 PM Rack:Tube: 2:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001417	ppm	0.000388	27.40	-218.989000	Y 377.433
Al (394.401 nm)	0.008246	ppm	0.000226	2.74	279.317000	Y 377.433
Al H (396.152 nm)	0.071110 u	ppm	0.001249	1.76	-4.278220	Y_R 377.433
As (188.980 nm)	0.001554 u	ppm	0.004063	> 100.00	0.648083	Y 242.219
B (249.678 nm)	0.029515	ppm	0.001577	5.34	254.949000	Y 242.219
Ba (493.408 nm)	0.290916	ppm	0.000248	0.09	30405.400000	Y_R 488.368
Be (234.861 nm)	-0.000028 u	ppm	0.000024	85.05	-23.082800	Y_R 488.368
Bi (223.061 nm)	-0.000805 u	ppm	0.000488	60.63	-11.622500	Y 377.433
Ca (315.887 nm)	110.894475	ppm	0.151574	0.14	88003.983785	Y_R 377.433
Cd (214.439 nm)	0.000241	ppm	0.000079	32.79	5.497120	Y 377.433
Co (228.615 nm)	-0.000141 u	ppm	0.000040	28.42	-18.462900	Y 242.219
Cr (205.560 nm)	0.000515	ppm	0.000048	9.39	-3.315240	Y 377.433
Cu (324.754 nm)	-0.000214 u	ppm	0.000044	20.65	237.725000	Y 377.433
Fe (238.204 nm)	4.338148	ppm	0.005651	0.13	10449.818431	Y_R 377.433
Fe H (259.940 nm)	4.303820 u	ppm	0.007312	0.17	5963.520000	Y_R 377.433
K (766.491 nm)	1.289600	ppm	0.245590	19.04	3182.600000	Y_R2 488.368
Li (670.783 nm)	0.042211	ppm	0.002035	4.82	-1820.990000	Y_R2 488.368
Mg (279.078 nm)	25.300800	ppm	0.026701	0.11	82795.100000	Y 377.433
Mn (257.610 nm)	0.456008	ppm	0.000389	0.09	124324.000000	Y 377.433
Mo (202.032 nm)	0.000208	ppm	0.000081	38.96	13.751400	Y 377.433
Na (589.592 nm)	14.197600	ppm	0.011086	0.08	11870.900000	Y_R2 488.368
Na H (589.593 nm)	15.965671 u	ppm	0.195368	1.22	8544.774753	Y_R4
Ni (231.604 nm)	-0.001077 u	ppm	0.000071	6.59	-14.194900	Y 377.433
P (213.618 nm)	0.010003	ppm	0.001801	18.00	10.240500	Y 242.219
Pb (220.353 nm)	-0.000019 u	ppm	0.000090	> 100.00	8.343030	Y 242.219
S (181.972 nm)	3.636981	ppm	0.000722	0.02	1685.278403	Y 377.433
Sb (206.834 nm)	-0.001929 u	ppm	0.004224	> 100.00	-1.111090	Y 377.433
Se (196.026 nm)	-0.002141 u	ppm	0.002912	> 100.00	5.154740	Y 242.219
Si (288.158 nm)	6.404440	ppm	0.025585	0.40	41717.500000	Y 377.433
Sn (189.925 nm)	-0.000269 u	ppm	0.001387	> 100.00	1.657150	Y 377.433
Sr (421.552 nm)	0.295460	ppm	0.000431	0.15	44520.432994	Y_R 488.368
Th (288.505 nm)	-0.004793 u	ppm	0.002258	47.11	10.565800	Y 377.433
Ti (336.122 nm)	-0.000502 u	ppm	0.000038	7.67	-114.570000	Y 377.433
Tl (190.794 nm)	0.001408	ppm	0.001567	> 100.00	0.027513	Y 377.433
U (409.013 nm)	0.033372	ppm	0.001855	5.56	69.234700	Y 377.433
V (292.401 nm)	0.001250	ppm	0.000287	22.93	-85.203100	Y 377.433
Zn (206.200 nm)	0.002349	ppm	0.000127	5.42	15.231000	Y 377.433
Zr (343.823 nm)	0.000708	ppm	0.000188	26.51	-121.526000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.133753	26207.223620	0.004048	0.36
Y 377.433	1.121572	784462.441862	0.005006	0.45
Y_R 377.433	1.185850	71896.400000	0.005930	0.50
Y_R 488.368	1.201790	63487.600000	0.008115	0.68
Y_R2 488.368	1.181145	125207.666230	0.001130	0.10
Y_R4	1.173060	52787.500000	0.008726	0.74

Sample Name: 280-123855-F-4-A

Date: 5/24/2019 11:09:51 PM Rack:Tube: 2:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001547	ppm	0.000454	29.36	-214.287000	Y 377.433
Al (394.401 nm)	0.016654	ppm	0.001067	6.41	358.037000	Y 377.433
Al H (396.152 nm)	0.096992 u	ppm	0.001888	1.95	25.789200	Y_R 377.433
As (188.980 nm)	0.000187	ppm	0.000081	43.24	-1.299070	Y 242.219
B (249.678 nm)	0.014738	ppm	0.000256	1.74	151.832000	Y 242.219
Ba (493.408 nm)	0.042267	ppm	0.000300	0.71	5613.310000	Y_R 488.368
Be (234.861 nm)	-0.000021 u	ppm	0.000017	80.84	-4.789060	Y_R 488.368
Bi (223.061 nm)	-0.000294 u	ppm	0.003062	> 100.00	-11.222700	Y 377.433
Ca (315.887 nm)	94.049693	ppm	0.221866	0.24	74625.763819	Y_R 377.433
Cd (214.439 nm)	0.000160	ppm	0.000128	79.94	0.817816	Y 377.433
Co (228.615 nm)	-0.000144 u	ppm	0.000533	> 100.00	-18.532000	Y 242.219
Cr (205.560 nm)	0.000431	ppm	0.000191	44.31	-3.882750	Y 377.433
Cu (324.754 nm)	0.001066	ppm	0.000207	19.40	309.526000	Y 377.433
Fe (238.204 nm)	0.166423	ppm	0.001626	0.98	407.749809	Y_R 377.433
Fe H (259.940 nm)	0.160287 u	ppm	0.000106	0.07	233.088000	Y_R 377.433
K (766.491 nm)	1.955250	ppm	0.046120	2.36	3825.350000	Y_R2 488.368
Li (670.783 nm)	0.035814	ppm	0.001625	4.54	-1930.840000	Y_R2 488.368
Mg (279.078 nm)	12.363600	ppm	0.024753	0.20	40465.800000	Y 377.433
Mn (257.610 nm)	0.069652	ppm	0.000079	0.11	18980.200000	Y 377.433
Mo (202.032 nm)	0.000447	ppm	0.000021	4.62	16.767700	Y 377.433
Na (589.592 nm)	168.147000 o	ppm	1.113480	0.66	138192.000000	Y_R2 488.368
Na H (589.593 nm)	174.645898	ppm	1.731982	0.99	94637.707606	Y_R4
Ni (231.604 nm)	-0.000603 u	ppm	0.000721	> 100.00	-11.741700	Y 377.433
P (213.618 nm)	0.003200 u	ppm	0.006356	> 100.00	0.149483	Y 242.219
Pb (220.353 nm)	-0.001360 u	ppm	0.002406	> 100.00	4.002330	Y 242.219
S (181.972 nm)	10.091979	ppm	0.004559	0.05	4639.286587	Y 377.433
Sb (206.834 nm)	-0.003922 u	ppm	0.000261	6.64	-4.831470	Y 377.433
Se (196.026 nm)	-0.000279 u	ppm	0.002490	> 100.00	8.492600	Y 242.219
Si (288.158 nm)	3.410140	ppm	0.000539	0.02	22441.600000	Y 377.433
Sn (189.925 nm)	0.000485	ppm	0.000351	72.41	2.871180	Y 377.433
Sr (421.552 nm)	0.222799	ppm	0.000114	0.05	33576.905725	Y_R 488.368
Th (288.505 nm)	-0.006729 u	ppm	0.003079	45.77	0.083196	Y 377.433
Ti (336.122 nm)	-0.000189 u	ppm	0.000190	> 100.00	-133.017000	Y 377.433
Tl (190.794 nm)	0.001639	ppm	0.000880	53.70	1.744150	Y 377.433
U (409.013 nm)	0.018880	ppm	0.004670	24.74	22.565500	Y 377.433
V (292.401 nm)	0.001077	ppm	0.000086	8.02	-92.259900	Y 377.433
Zn (206.200 nm)	0.007001	ppm	0.000257	3.68	35.567700	Y 377.433
Zr (343.823 nm)	0.000029 u	ppm	0.000125	> 100.00	-159.978000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125294	26011.691317	0.000523	0.05
Y 377.433	1.110794	776924.020377	0.000616	0.06
Y_R 377.433	1.179880	71534.700000	0.007433	0.63
Y_R 488.368	1.197570	63264.600000	0.005445	0.45
Y_R2 488.368	1.160024	122968.705188	0.002573	0.22
Y_R4	1.154250	51941.200000	0.005887	0.51

Sample Name: 280-123855-F-5-A

Date: 5/24/2019 11:13:25 PM Rack:Tube: 2:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001338	ppm	0.000486	36.36	-221.515000	Y 377.433
Al (394.401 nm)	0.022576	ppm	0.000344	1.52	428.901000	Y 377.433
Al H (396.152 nm)	0.094375 u	ppm	0.001920	2.03	16.818000	Y_R 377.433
As (188.980 nm)	0.000253 u	ppm	0.002038	> 100.00	-1.198250	Y 242.219
B (249.678 nm)	0.015816	ppm	0.001654	10.46	159.541000	Y 242.219
Ba (493.408 nm)	0.041856	ppm	0.000333	0.80	5572.320000	Y_R 488.368
Be (234.861 nm)	-0.000007 u	ppm	0.000007	90.15	-3.309130	Y_R 488.368
Bi (223.061 nm)	0.001211	ppm	0.001220	> 100.00	-7.930320	Y 377.433
Ca (315.887 nm)	89.165555	ppm	0.317284	0.36	70746.755673	Y_R 377.433
Cd (214.439 nm)	0.000182	ppm	0.000212	> 100.00	1.619650	Y 377.433
Co (228.615 nm)	-0.000326 u	ppm	0.000057	17.55	-22.793700	Y 242.219
Cr (205.560 nm)	0.000630	ppm	0.000031	4.85	-2.551020	Y 377.433
Cu (324.754 nm)	0.001762	ppm	0.000065	3.67	344.086000	Y 377.433
Fe (238.204 nm)	0.143981	ppm	0.001286	0.89	353.727126	Y_R 377.433
Fe H (259.940 nm)	0.146063 u	ppm	0.000451	0.31	213.416000	Y_R 377.433
K (766.491 nm)	1.776040	ppm	0.030548	1.72	3652.310000	Y_R2 488.368
Li (670.783 nm)	0.036902	ppm	0.001054	2.86	-1912.160000	Y_R2 488.368
Mg (279.078 nm)	11.626600	ppm	0.002752	0.02	38054.200000	Y 377.433
Mn (257.610 nm)	0.053273	ppm	0.000008	0.01	14514.200000	Y 377.433
Mo (202.032 nm)	-0.000025 u	ppm	0.000132	> 100.00	10.820100	Y 377.433
Na (589.592 nm)	152.808000 o	ppm	0.499032	0.33	125600.000000	Y_R2 488.368
Na H (589.593 nm)	156.632614	ppm	0.410036	0.26	84864.489505	Y_R4
Ni (231.604 nm)	-0.000950 u	ppm	0.000346	36.46	-13.537300	Y 377.433
P (213.618 nm)	0.007691	ppm	0.001045	13.58	6.463460	Y 242.219
Pb (220.353 nm)	-0.000989 u	ppm	0.000607	61.40	5.193020	Y 242.219
S (181.972 nm)	10.113903	ppm	0.018137	0.18	4649.032368	Y 377.433
Sb (206.834 nm)	-0.002965 u	ppm	0.001804	60.86	-3.212800	Y 377.433
Se (196.026 nm)	0.000361 u	ppm	0.000720	> 100.00	9.440270	Y 242.219
Si (288.158 nm)	3.189730	ppm	0.001075	0.03	21022.600000	Y 377.433
Sn (189.925 nm)	0.001453	ppm	0.001078	74.17	4.428970	Y 377.433
Sr (421.552 nm)	0.212363	ppm	0.000063	0.03	32005.358528	Y_R 488.368
Th (288.505 nm)	-0.007348 u	ppm	0.002065	28.10	-1.161630	Y 377.433
Ti (336.122 nm)	-0.000009 u	ppm	0.000081	> 100.00	-126.698000	Y 377.433
Tl (190.794 nm)	0.001508	ppm	0.001776	> 100.00	1.643300	Y 377.433
U (409.013 nm)	0.021836	ppm	0.000526	2.41	32.530700	Y 377.433
V (292.401 nm)	0.001273	ppm	0.000095	7.44	-82.627300	Y 377.433
Zn (206.200 nm)	0.006151	ppm	0.000478	7.77	31.745200	Y 377.433
Zr (343.823 nm)	0.000262	ppm	0.000100	38.09	-146.804000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126904	26048.911589	0.000678	0.06
Y 377.433	1.110593	776783.599694	0.000736	0.07
Y_R 377.433	1.177540	71392.800000	0.000142	0.01
Y_R 488.368	1.194680	63112.300000	0.000035	0.00
Y_R2 488.368	1.172002	124238.381948	0.004590	0.39
Y_R4	1.179190	53063.700000	0.003479	0.30

Sample Name: 280-123855-F-6-A

Date: 5/24/2019 11:16:57 PM Rack:Tube: 2:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001487	ppm	0.000032	2.17	-216.315000	Y 377.433
Al (394.401 nm)	0.026793	ppm	0.000908	3.39	482.331000	Y 377.433
Al H (396.152 nm)	0.104782 u	ppm	0.000491	0.47	42.366600	Y_R 377.433
As (188.980 nm)	0.003158	ppm	0.000388	12.30	3.178890	Y 242.219
B (249.678 nm)	0.015140	ppm	0.000680	4.49	154.711000	Y 242.219
Ba (493.408 nm)	0.042680	ppm	0.000184	0.43	5654.460000	Y_R 488.368
Be (234.861 nm)	-0.000087 u	ppm	0.000032	36.87	-11.150600	Y_R 488.368
Bi (223.061 nm)	0.000380 u	ppm	0.001687	> 100.00	-9.750400	Y 377.433
Ca (315.887 nm)	89.755023	ppm	0.294693	0.33	71214.912191	Y_R 377.433
Cd (214.439 nm)	0.000193	ppm	0.000037	19.00	2.016580	Y 377.433
Co (228.615 nm)	-0.000326 u	ppm	0.000021	6.52	-22.789700	Y 242.219
Cr (205.560 nm)	0.000345	ppm	0.000478	> 100.00	-4.450970	Y 377.433
Cu (324.754 nm)	0.001351	ppm	0.000029	2.17	324.496000	Y 377.433
Fe (238.204 nm)	0.150932	ppm	0.001391	0.92	370.459664	Y_R 377.433
Fe H (259.940 nm)	0.149402 u	ppm	0.001097	0.73	218.034000	Y_R 377.433
K (766.491 nm)	1.882430	ppm	0.023417	1.24	3755.040000	Y_R2 488.368
Li (670.783 nm)	0.033964	ppm	0.003266	9.62	-1962.590000	Y_R2 488.368
Mg (279.078 nm)	12.017900	ppm	0.001451	0.01	39334.500000	Y 377.433
Mn (257.610 nm)	0.050045	ppm	0.000044	0.09	13634.200000	Y 377.433
Mo (202.032 nm)	0.000469	ppm	0.000144	30.72	17.041100	Y 377.433
Na (589.592 nm)	158.259000 o	ppm	0.267203	0.17	130075.000000	Y_R2 488.368
Na H (589.593 nm)	163.486963	ppm	0.787056	0.48	88583.358876	Y_R4
Ni (231.604 nm)	-0.000740 u	ppm	0.000654	88.44	-12.449200	Y 377.433
P (213.618 nm)	0.004707	ppm	0.002783	59.14	2.263910	Y 242.219
Pb (220.353 nm)	-0.000455 u	ppm	0.000082	18.09	6.893760	Y 242.219
S (181.972 nm)	9.874962	ppm	0.002930	0.03	4539.624255	Y 377.433
Sb (206.834 nm)	-0.002950 u	ppm	0.005731	> 100.00	-3.191880	Y 377.433
Se (196.026 nm)	0.000276 u	ppm	0.002397	> 100.00	9.305550	Y 242.219
Si (288.158 nm)	3.267030	ppm	0.001916	0.06	21520.200000	Y 377.433
Sn (189.925 nm)	0.000099 u	ppm	0.000298	> 100.00	2.250020	Y 377.433
Sr (421.552 nm)	0.219722	ppm	0.001126	0.51	33113.525268	Y_R 488.368
Th (288.505 nm)	-0.010606 u	ppm	0.001412	13.31	-6.834540	Y 377.433
Ti (336.122 nm)	0.000146	ppm	0.000009	5.95	-105.020000	Y 377.433
Tl (190.794 nm)	0.001290 u	ppm	0.003131	> 100.00	1.121180	Y 377.433
U (409.013 nm)	0.022821	ppm	0.005094	22.32	35.607000	Y 377.433
V (292.401 nm)	0.001288	ppm	0.000317	24.63	-81.888100	Y 377.433
Zn (206.200 nm)	0.006954	ppm	0.000055	0.79	35.356600	Y 377.433
Zr (343.823 nm)	0.000083	ppm	0.000056	67.45	-156.941000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.125019	26005.342609	0.000990	0.09
Y 377.433	1.108711	775467.140294	0.000070	0.01
Y_R 377.433	1.175580	71274.200000	0.003794	0.32
Y_R 488.368	1.190480	62890.400000	0.006953	0.58
Y_R2 488.368	1.170208	124048.247271	0.002757	0.24
Y_R4	1.170310	52664.000000	0.005090	0.43

Sample Name: 280-123922-F-1-A

Date: 5/24/2019 11:20:31 PM Rack:Tube: 2:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002115	ppm	0.000012	0.56	-194.509000	Y 377.433
Al (394.401 nm)	0.004879	ppm	0.000586	12.02	282.978000	Y 377.433
Al H (396.152 nm)	0.036443 u	ppm	0.001013	2.78	-4.547340	Y_R 377.433
As (188.980 nm)	0.006666	ppm	0.001650	24.76	8.126330	Y 242.219
B (249.678 nm)	0.058048	ppm	0.000030	0.05	453.935000	Y 242.219
Ba (493.408 nm)	0.052673	ppm	0.000211	0.40	6660.650000	Y_R 488.368
Be (234.861 nm)	-0.000067 u	ppm	0.000037	54.57	-61.989600	Y_R 488.368
Bi (223.061 nm)	-0.001099 u	ppm	0.000943	85.88	-10.828300	Y 377.433
Ca (315.887 nm)	132.912804	ppm	0.376727	0.28	105491.071631	Y_R 377.433
Cd (214.439 nm)	0.000262	ppm	0.000016	6.07	9.630680	Y 377.433
Co (228.615 nm)	0.003321	ppm	0.000122	3.69	62.894000	Y 242.219
Cr (205.560 nm)	0.000538	ppm	0.000403	74.84	-3.165680	Y 377.433
Cu (324.754 nm)	0.000002 u	ppm	0.000255	> 100.00	237.589000	Y 377.433
Fe (238.204 nm)	12.626130 o	ppm	0.024459	0.19	30400.438550	Y_R 377.433
Fe H (259.940 nm)	12.575100	ppm	0.032333	0.26	17402.600000	Y_R 377.433
K (766.491 nm)	3.489260	ppm	0.229193	6.57	5306.570000	Y_R2 488.368
Li (670.783 nm)	0.068250	ppm	0.000068	0.10	-1373.900000	Y_R2 488.368
Mg (279.078 nm)	11.278200	ppm	0.014458	0.13	36897.700000	Y 377.433
Mn (257.610 nm)	4.163860	ppm	0.000885	0.02	1135310.000000	Y 377.433
Mo (202.032 nm)	0.000347	ppm	0.000162	46.74	15.510100	Y 377.433
Na (589.592 nm)	11.133100	ppm	0.011432	0.10	9301.190000	Y_R2 488.368
Na H (589.593 nm)	11.988430 u	ppm	0.025969	0.22	6386.898258	Y_R4
Ni (231.604 nm)	-0.000005 u	ppm	0.000087	> 100.00	-8.641530	Y 377.433
P (213.618 nm)	0.000388 u	ppm	0.002154	> 100.00	-3.240380	Y 242.219
Pb (220.353 nm)	-0.000796 u	ppm	0.002645	> 100.00	5.810550	Y 242.219
S (181.972 nm)	0.008137	ppm	0.006377	78.37	36.470312	Y 377.433
Sb (206.834 nm)	-0.005027 u	ppm	0.002029	40.36	-5.647020	Y 377.433
Se (196.026 nm)	0.002610	ppm	0.000354	13.57	15.421200	Y 242.219
Si (288.158 nm)	8.037910	ppm	0.011070	0.14	52233.200000	Y 377.433
Sn (189.925 nm)	0.000462	ppm	0.000057	12.39	2.833550	Y 377.433
Sr (421.552 nm)	0.486873	ppm	0.001731	0.36	73348.706996	Y_R 488.368
Th (288.505 nm)	-0.010551 u	ppm	0.000146	1.39	73.512800	Y 377.433
Ti (336.122 nm)	-0.000470 u	ppm	0.000126	26.80	-33.654600	Y 377.433
Tl (190.794 nm)	0.002199	ppm	0.000915	41.64	-0.048263	Y 377.433
U (409.013 nm)	0.026876	ppm	0.000504	1.87	51.760800	Y 377.433
V (292.401 nm)	0.001036	ppm	0.000111	10.76	-94.157900	Y 377.433
Zn (206.200 nm)	0.003409	ppm	0.000755	22.16	21.149700	Y 377.433
Zr (343.823 nm)	0.000599	ppm	0.000141	23.50	-127.708000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.160184	26818.183747	0.005577	0.48
Y 377.433	1.148527	803315.888326	0.005474	0.48
Y_R 377.433	1.209720	73344.100000	0.002242	0.19
Y_R 488.368	1.226120	64772.900000	0.001322	0.11
Y_R2 488.368	1.201997	127418.093708	0.003545	0.29
Y_R4	1.192360	53656.100000	0.009852	0.83

Sample Name: 280-123922-F-2-A

Date: 5/24/2019 11:24:10 PM Rack:Tube: 2:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002172	ppm	0.000084	3.85	-192.556000	Y 377.433
Al (394.401 nm)	0.005798	ppm	0.000242	4.18	285.118000	Y 377.433
Al H (396.152 nm)	0.031316 u	ppm	0.002367	7.56	-24.665800	Y_R 377.433
As (188.980 nm)	0.008830	ppm	0.000278	3.15	11.406300	Y 242.219
B (249.678 nm)	0.055760	ppm	0.000587	1.05	437.973000	Y 242.219
Ba (493.408 nm)	0.049821	ppm	0.000149	0.30	6375.860000	Y_R 488.368
Be (234.861 nm)	-0.000010 u	ppm	0.000006	56.65	-53.621100	Y_R 488.368
Bi (223.061 nm)	-0.001070 u	ppm	0.001717	> 100.00	-10.880700	Y 377.433
Ca (315.887 nm)	126.251653	ppm	0.438515	0.35	100200.744922	Y_R 377.433
Cd (214.439 nm)	0.000279	ppm	0.000099	35.45	10.009100	Y 377.433
Co (228.615 nm)	0.003196	ppm	0.000018	0.57	59.963400	Y 242.219
Cr (205.560 nm)	0.000785 u	ppm	0.001159	> 100.00	-1.517980	Y 377.433
Cu (324.754 nm)	0.000083 u	ppm	0.000329	> 100.00	247.315000	Y 377.433
Fe (238.204 nm)	11.968125 o	ppm	0.025040	0.21	28816.504700	Y_R 377.433
Fe H (259.940 nm)	11.910700	ppm	0.020596	0.17	16483.700000	Y_R 377.433
K (766.491 nm)	3.379420	ppm	0.010437	0.31	5200.510000	Y_R2 488.368
Li (670.783 nm)	0.064766	ppm	0.003232	4.99	-1433.720000	Y_R2 488.368
Mg (279.078 nm)	10.743800	ppm	0.030267	0.28	35149.700000	Y 377.433
Mn (257.610 nm)	3.966730	ppm	0.010311	0.26	1081560.000000	Y 377.433
Mo (202.032 nm)	0.000244 u	ppm	0.000377	> 100.00	14.212000	Y 377.433
Na (589.592 nm)	10.529800	ppm	0.044769	0.43	8805.320000	Y_R2 488.368
Na H (589.593 nm)	11.166132 u	ppm	0.083553	0.75	5940.755663	Y_R4
Ni (231.604 nm)	-0.000025 u	ppm	0.000705	> 100.00	-8.746440	Y 377.433
P (213.618 nm)	0.002201 u	ppm	0.006271	> 100.00	-0.706124	Y 242.219
Pb (220.353 nm)	0.000565	ppm	0.000058	10.35	10.138900	Y 242.219
S (181.972 nm)	0.005261	ppm	0.004472	85.00	34.177458	Y 377.433
Sb (206.834 nm)	-0.004688 u	ppm	0.001333	28.43	-5.128250	Y 377.433
Se (196.026 nm)	-0.001168 u	ppm	0.001266	> 100.00	9.614340	Y 242.219
Si (288.158 nm)	7.652980	ppm	0.015710	0.21	49755.100000	Y 377.433
Sn (189.925 nm)	0.000813	ppm	0.000984	> 100.00	3.398040	Y 377.433
Sr (421.552 nm)	0.462018	ppm	0.000880	0.19	69605.354370	Y_R 488.368
Th (288.505 nm)	-0.008646 u	ppm	0.004743	54.85	73.071900	Y 377.433
Ti (336.122 nm)	-0.000416 u	ppm	0.000078	18.80	-50.206100	Y 377.433
Tl (190.794 nm)	0.002672	ppm	0.002199	82.29	1.386720	Y 377.433
U (409.013 nm)	0.029696	ppm	0.001699	5.72	61.153900	Y 377.433
V (292.401 nm)	0.000873	ppm	0.000406	46.55	-101.722000	Y 377.433
Zn (206.200 nm)	0.003060	ppm	0.000600	19.61	19.491300	Y 377.433
Zr (343.823 nm)	0.000357	ppm	0.000042	11.73	-141.428000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.154710	26691.647833	0.000911	0.08
Y 377.433	1.141432	798353.506062	0.001820	0.16
Y_R 377.433	1.206520	73149.900000	0.002382	0.20
Y_R 488.368	1.222850	64600.500000	0.002684	0.22
Y_R2 488.368	1.189822	126127.473966	0.002731	0.23
Y_R4	1.187520	53438.500000	0.005882	0.50

Sample Name: 280-123922-F-3-A

Date: 5/24/2019 11:27:50 PM Rack:Tube: 2:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001874	ppm	0.000047	2.50	-203.258000	Y 377.433
Al (394.401 nm)	0.011894	ppm	0.000982	8.26	324.120000	Y 377.433
Al H (396.152 nm)	0.078472 u	ppm	0.011187	14.26	15.199700	Y_R 377.433
As (188.980 nm)	0.002519	ppm	0.002813	> 100.00	1.663560	Y 242.219
B (249.678 nm)	0.024425	ppm	0.001234	5.05	209.257000	Y 242.219
Ba (493.408 nm)	0.049268	ppm	0.000483	0.98	6327.490000	Y_R 488.368
Be (234.861 nm)	-0.000047 u	ppm	0.000013	28.63	-93.328900	Y_R 488.368
Bi (223.061 nm)	-0.001517 u	ppm	0.000674	44.44	-10.386800	Y 377.433
Ca (315.887 nm)	112.822586	ppm	0.400155	0.35	89535.305419	Y_R 377.433
Cd (214.439 nm)	0.000333	ppm	0.000076	22.84	15.451000	Y 377.433
Co (228.615 nm)	-0.000350 u	ppm	0.000133	38.06	-23.378200	Y 242.219
Cr (205.560 nm)	0.000080	ppm	0.000054	67.52	-6.217600	Y 377.433
Cu (324.754 nm)	0.000631	ppm	0.000188	29.85	277.728000	Y 377.433
Fe (238.204 nm)	20.508558 o	ppm	0.077951	0.38	49374.818247	Y_R 377.433
Fe H (259.940 nm)	20.496300	ppm	0.054354	0.27	28357.400000	Y_R 377.433
K (766.491 nm)	1.357600	ppm	0.174056	12.82	3248.260000	Y_R2 488.368
Li (670.783 nm)	0.050076	ppm	0.000300	0.60	-1685.950000	Y_R2 488.368
Mg (279.078 nm)	15.178300	ppm	0.020423	0.13	49649.400000	Y 377.433
Mn (257.610 nm)	1.121290	ppm	0.001585	0.14	305719.000000	Y 377.433
Mo (202.032 nm)	0.000175 u	ppm	0.000289	> 100.00	13.340700	Y 377.433
Na (589.592 nm)	8.464180	ppm	0.019101	0.23	7109.470000	Y_R2 488.368
Na H (589.593 nm)	9.002393 u	ppm	0.024745	0.27	4766.805624	Y_R4
Ni (231.604 nm)	-0.001419 u	ppm	0.000096	6.73	-15.965400	Y 377.433
P (213.618 nm)	0.011387	ppm	0.003098	27.20	12.599000	Y 242.219
Pb (220.353 nm)	-0.000445 u	ppm	0.000528	> 100.00	6.975610	Y 242.219
S (181.972 nm)	0.033330	ppm	0.002296	6.89	37.212092	Y 377.433
Sb (206.834 nm)	-0.003079 u	ppm	0.003867	> 100.00	-1.694290	Y 377.433
Se (196.026 nm)	0.001811 u	ppm	0.002708	> 100.00	7.888600	Y 242.219
Si (288.158 nm)	6.585000	ppm	0.038022	0.58	42879.900000	Y 377.433
Sn (189.925 nm)	0.000948	ppm	0.000978	> 100.00	3.615330	Y 377.433
Sr (421.552 nm)	0.306223	ppm	0.001325	0.43	46143.807384	Y_R 488.368
Th (288.505 nm)	-0.007390 u	ppm	0.001693	22.91	17.997400	Y 377.433
Ti (336.122 nm)	-0.000307 u	ppm	0.000032	10.49	-82.602500	Y 377.433
Tl (190.794 nm)	0.002076	ppm	0.000993	47.84	-0.482735	Y 377.433
U (409.013 nm)	0.036917	ppm	0.002167	5.87	92.151500	Y 377.433
V (292.401 nm)	0.001137	ppm	0.000124	10.90	-89.799100	Y 377.433
Zn (206.200 nm)	0.002984	ppm	0.000541	18.14	20.338700	Y 377.433
Zr (343.823 nm)	0.000751	ppm	0.000286	38.04	-119.113000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.156418	26731.148907	0.000083	0.01
Y 377.433	1.143635	799894.288192	0.001365	0.12
Y_R 377.433	1.205710	73100.500000	0.004115	0.34
Y_R 488.368	1.219960	64447.800000	0.004866	0.40
Y_R2 488.368	1.184862	125601.692413	0.013498	1.14
Y_R4	1.183340	53250.200000	0.008898	0.75

Sample Name: CCVH-5713036

Date: 5/24/2019 11:31:29 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005562	ppm	0.000028	0.50	-84.822900	Y 377.433
Al (394.401 nm)	48.752200 o	ppm	0.119635	0.25	593927.000000	Y 377.433
Al H (396.152 nm)	47.062600	ppm	0.004247	0.01	102618.000000	Y_R 377.433
As (188.980 nm)	0.005098	ppm	0.000138	2.70	4.770800	Y 242.219
B (249.678 nm)	-0.002992 u	ppm	0.000590	19.70	-3.168160	Y 242.219
Ba (493.408 nm)	0.000036 u	ppm	0.000556	> 100.00	1442.330000	Y_R 488.368
Be (234.861 nm)	0.001144	ppm	0.000024	2.07	-97.763000	Y_R 488.368
Bi (223.061 nm)	0.010838	ppm	0.001263	11.65	21.640500	Y 377.433
Ca (315.887 nm)	0.013225	ppm	0.003498	26.45	-46.681416	Y_R 377.433
Cd (214.439 nm)	0.001414	ppm	0.000078	5.50	67.117900	Y 377.433
Co (228.615 nm)	0.003098	ppm	0.000010	0.33	57.711800	Y 242.219
Cr (205.560 nm)	0.001919	ppm	0.000289	15.07	4.768030	Y 377.433
Cu (324.754 nm)	0.004336	ppm	0.000339	7.81	1454.680000	Y 377.433
Fe (238.204 nm)	49.277426 o	ppm	0.014566	0.03	118626.505831	Y_R 377.433
Fe H (259.940 nm)	48.863800	ppm	0.037409	0.08	67589.300000	Y_R 377.433
K (766.491 nm)	-0.010603 u	ppm	0.386729	> 100.00	1927.150000	Y_R2 488.368
Li (670.783 nm)	0.034108	ppm	0.002806	8.23	-1960.130000	Y_R2 488.368
Mg (279.078 nm)	0.042544	ppm	0.001594	3.75	74.539900	Y 377.433
Mn (257.610 nm)	0.001128	ppm	0.000034	3.01	296.626000	Y 377.433
Mo (202.032 nm)	0.000893	ppm	0.000159	17.82	22.386700	Y 377.433
Na (589.592 nm)	223.292000 o	ppm	1.309210	0.59	183452.000000	Y_R2 488.368
Na H (589.593 nm)	226.909164	ppm	1.978780	0.87	122993.463995	Y_R4
Ni (231.604 nm)	0.003774	ppm	0.000387	10.25	10.908900	Y 377.433
P (213.618 nm)	4.885200	ppm	0.025889	0.53	6977.370000	Y 242.219
Pb (220.353 nm)	0.006168	ppm	0.000027	0.44	21.279200	Y 242.219
S (181.972 nm)	4.861365	ppm	0.008192	0.17	2238.989126	Y 377.433
Sb (206.834 nm)	0.002238	ppm	0.002195	98.08	9.709910	Y 377.433
Se (196.026 nm)	0.005895	ppm	0.000327	5.55	5.057560	Y 242.219
Si (288.158 nm)	0.011642	ppm	0.000348	2.99	563.493000	Y 377.433
Sn (189.925 nm)	0.002193	ppm	0.001473	67.15	5.619560	Y 377.433
Sr (421.552 nm)	0.001395	ppm	0.000213	15.29	240.725792	Y_R 488.368
Th (288.505 nm)	4.710170	ppm	0.011575	0.25	8135.140000	Y 377.433
Ti (336.122 nm)	0.002134	ppm	0.000060	2.80	-160.810000	Y 377.433
Tl (190.794 nm)	0.001279	ppm	0.001693	> 100.00	-0.001284	Y 377.433
U (409.013 nm)	0.522615 Q	ppm	0.010748	2.06	1669.340000 Q	Y 377.433
V (292.401 nm)	0.001176	ppm	0.000277	23.58	401.121000	Y 377.433
Zn (206.200 nm)	0.003124	ppm	0.000010	0.31	24.975000	Y 377.433
Zr (343.823 nm)	0.001369	ppm	0.000286	20.86	-84.140500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126045	26029.050117	0.005993	0.53
Y 377.433	1.104526	772539.975056	0.005709	0.52
Y_R 377.433	1.178780	71468.100000	0.001835	0.16
Y_R 488.368	1.187270	62720.700000	0.009869	0.83
Y_R2 488.368	1.172086	124247.290536	0.006851	0.58
Y_R4	1.188490	53482.100000	0.001725	0.15

Sample Name: CCV-5717467

Date: 5/24/2019 11:35:14 PM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.486191	ppm	0.001823	0.37	16508.600000	Y 377.433
Al (394.401 nm)	0.489801	ppm	0.002901	0.59	6189.200000	Y 377.433
Al H (396.152 nm)	0.537113 u	ppm	0.001825	0.34	1154.150000	Y_R 377.433
As (188.980 nm)	0.488633	ppm	0.002596	0.53	734.675000	Y 242.219
B (249.678 nm)	0.465737	ppm	0.001898	0.41	3371.370000	Y 242.219
Ba (493.408 nm)	0.471743	ppm	0.001298	0.28	48431.300000	Y_R 488.368
Be (234.861 nm)	0.465282	ppm	0.002833	0.61	45809.700000	Y_R 488.368
Bi (223.061 nm)	0.977760	ppm	0.001033	0.11	2131.340000	Y 377.433
Ca (315.887 nm)	4.856845	ppm	0.008833	0.18	3788.421606	Y_R 377.433
Cd (214.439 nm)	0.507620	ppm	0.001364	0.27	18767.700000	Y 377.433
Co (228.615 nm)	0.485295	ppm	0.001340	0.28	11411.600000	Y 242.219
Cr (205.560 nm)	0.509990	ppm	0.000130	0.03	3391.040000	Y 377.433
Cu (324.754 nm)	0.486690	ppm	0.000456	0.09	23016.500000	Y 377.433
Fe (238.204 nm)	2.483905	ppm	0.011659	0.47	5986.332259	Y_R 377.433
Fe H (259.940 nm)	2.461160 u	ppm	0.000888	0.04	3415.160000	Y_R 377.433
K (766.491 nm)	47.964900	ppm	0.129621	0.27	48251.700000	Y_R2 488.368
Li (670.783 nm)	0.511826	ppm	0.006190	1.21	6242.410000	Y_R2 488.368
Mg (279.078 nm)	19.542500	ppm	0.066006	0.34	63955.200000	Y 377.433
Mn (257.610 nm)	0.483337	ppm	0.001607	0.33	131776.000000	Y 377.433
Mo (202.032 nm)	0.487257	ppm	0.001525	0.31	6152.640000	Y 377.433
Na (589.592 nm)	22.951100	ppm	0.026190	0.11	19097.900000	Y_R2 488.368
Na H (589.593 nm)	23.876559 u	ppm	0.178357	0.75	12836.875966	Y_R4
Ni (231.604 nm)	0.499921	ppm	0.001462	0.29	2578.570000	Y 377.433
P (213.618 nm)	0.048416	ppm	0.000079	0.16	-67.033100	Y 242.219
Pb (220.353 nm)	0.490711	ppm	0.004179	0.85	1564.990000	Y 242.219
S (181.972 nm)	-0.004256 u	ppm	0.003521	82.74	12.540465	Y 377.433
Sb (206.834 nm)	0.495492	ppm	0.003244	0.65	835.858000	Y 377.433
Se (196.026 nm)	0.489739	ppm	0.006346	1.30	747.596000	Y 242.219
Si (288.158 nm)	4.799720	ppm	0.017259	0.36	31387.100000	Y 377.433
Sn (189.925 nm)	0.507508	ppm	0.001319	0.26	818.700000	Y 377.433
Sr (421.552 nm)	0.461723	ppm	0.000660	0.14	69559.594830	Y_R 488.368
Th (288.505 nm)	0.023887	ppm	0.003463	14.50	4.802450	Y 377.433
Ti (336.122 nm)	0.476763	ppm	0.001282	0.27	60591.500000	Y 377.433
Tl (190.794 nm)	0.496940	ppm	0.002086	0.42	1135.200000	Y 377.433
U (409.013 nm)	0.007387	ppm	0.002461	33.31	-60.459000	Y 377.433
V (292.401 nm)	0.480068	ppm	0.001743	0.36	24608.100000	Y 377.433
Zn (206.200 nm)	0.508084	ppm	0.001997	0.39	2289.130000	Y 377.433
Zr (343.823 nm)	0.477151	ppm	0.001415	0.30	26850.700000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.169887	27042.491200	0.003063	0.26
Y 377.433	1.149968	804323.851455	0.002393	0.21
Y_R 377.433	1.193060	72333.600000	0.008484	0.71
Y_R 488.368	1.210900	63969.200000	0.009225	0.76
Y_R2 488.368	1.189709	126115.435246	0.007855	0.66
Y_R4	1.191190	53603.700000	0.015481	1.30

Sample Name: CCB

Date: 5/24/2019 11:38:50 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000523	ppm	0.000311	59.58	-249.066000	Y 377.433
Al (394.401 nm)	-0.002954 u	ppm	0.000339	11.49	55.570400	Y 377.433
Al H (396.152 nm)	0.125149 Zu	ppm	0.000171	0.14	15.355200 Z	Y_R 377.433
As (188.980 nm)	0.001220 u	ppm	0.002338	> 100.00	0.261903	Y 242.219
B (249.678 nm)	-0.003867 u	ppm	0.000098	2.54	19.055200	Y 242.219
Ba (493.408 nm)	-0.003045 Zu	ppm	0.000316	10.39	1095.950000 Z	Y_R 488.368
Be (234.861 nm)	0.000079	ppm	0.000015	18.67	5.808700	Y_R 488.368
Bi (223.061 nm)	0.000743 u	ppm	0.001083	> 100.00	-8.984730	Y 377.433
Ca (315.887 nm)	0.018616	ppm	0.000362	1.94	-54.255848	Y_R 377.433
Cd (214.439 nm)	0.000141	ppm	0.000197	> 100.00	0.023417	Y 377.433
Co (228.615 nm)	-0.000028 u	ppm	0.000442	> 100.00	-15.792000	Y 242.219
Cr (205.560 nm)	0.000154 u	ppm	0.000384	> 100.00	-5.727090	Y 377.433
Cu (324.754 nm)	0.000991	ppm	0.000083	8.35	363.172000	Y 377.433
Fe (238.204 nm)	0.000338 u	ppm	0.001181	> 100.00	7.952352	Y_R 377.433
Fe H (259.940 nm)	-0.000638 u	ppm	0.000946	> 100.00	10.531300	Y_R 377.433
K (766.491 nm)	-0.366554 u	ppm	0.182715	49.85	1583.440000	Y_R2 488.368
Li (670.783 nm)	0.030878 Z	ppm	0.001055	3.42	-2015.580000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003566	ppm	0.001667	46.74	20.115900	Y 377.433
Mn (257.610 nm)	0.000068	ppm	0.000034	50.76	7.430830	Y 377.433
Mo (202.032 nm)	0.000072	ppm	0.000090	> 100.00	12.040800	Y 377.433
Na (589.592 nm)	-0.024339 u	ppm	0.013801	56.70	129.515000	Y_R2 488.368
Na H (589.593 nm)	0.766139 u	ppm	0.013947	1.82	298.175222	Y_R4
Ni (231.604 nm)	0.000456	ppm	0.000071	15.57	-6.259110	Y 377.433
P (213.618 nm)	-0.000730 u	ppm	0.002433	> 100.00	-5.025940	Y 242.219
Pb (220.353 nm)	-0.000115 u	ppm	0.000580	> 100.00	7.884230	Y 242.219
S (181.972 nm)	-0.003804 u	ppm	0.001911	50.24	10.956809	Y 377.433
Sb (206.834 nm)	0.001033	ppm	0.001328	> 100.00	3.521670	Y 377.433
Se (196.026 nm)	-0.001976 u	ppm	0.000188	9.52	5.876290	Y 242.219
Si (288.158 nm)	-0.007989 u	ppm	0.001324	16.58	437.117000	Y 377.433
Sn (189.925 nm)	0.000170 u	ppm	0.000723	> 100.00	2.364140	Y 377.433
Sr (421.552 nm)	0.000299	ppm	0.000081	27.04	68.136448	Y_R 488.368
Th (288.505 nm)	0.000702 u	ppm	0.002488	> 100.00	13.866500	Y 377.433
Ti (336.122 nm)	0.000574	ppm	0.000020	3.55	-360.438000	Y 377.433
Tl (190.794 nm)	0.000331 u	ppm	0.000523	> 100.00	2.573460	Y 377.433
U (409.013 nm)	0.004514	ppm	0.005411	> 100.00	-10.407300	Y 377.433
V (292.401 nm)	0.000297	ppm	0.000042	14.06	-130.759000	Y 377.433
Zn (206.200 nm)	-0.000511 u	ppm	0.000174	34.09	1.765540	Y 377.433
Zr (343.823 nm)	0.000085 u	ppm	0.000255	> 100.00	-156.808000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.182700	27338.657606	0.001183	0.10
Y 377.433	1.159646	811092.630521	0.000186	0.02
Y_R 377.433	1.210350	73382.100000	0.002437	0.20
Y_R 488.368	1.232300	65099.700000	0.009776	0.79
Y_R2 488.368	1.194628	126636.873496	0.005653	0.47
Y_R4	1.180160	53107.000000	0.002198	0.19

Sample Name: CCVL-5719884

Date: 5/24/2019 11:42:02 PM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008755	ppm	0.000095	1.08	34.113700	Y 377.433
Al (394.401 nm)	0.094047	ppm	0.000510	0.54	1247.860000	Y 377.433
Al H (396.152 nm)	0.222913 u	ppm	0.003729	1.67	234.432000	Y_R 377.433
As (188.980 nm)	0.014413	ppm	0.000871	6.04	20.140600	Y 242.219
B (249.678 nm)	0.087938	ppm	0.000282	0.32	674.634000	Y 242.219
Ba (493.408 nm)	0.006628 Q	ppm	0.000265	4.00	2060.330000 Q	Y_R 488.368
Be (234.861 nm)	0.000844	ppm	0.000052	6.16	80.681000	Y_R 488.368
Bi (223.061 nm)	0.087943	ppm	0.001010	1.15	182.018000	Y 377.433
Ca (315.887 nm)	0.220930	ppm	0.007291	3.30	106.445063	Y_R 377.433
Cd (214.439 nm)	0.005161	ppm	0.000051	0.98	185.728000	Y 377.433
Co (228.615 nm)	0.010284	ppm	0.000077	0.75	226.992000	Y 242.219
Cr (205.560 nm)	0.010967	ppm	0.000144	1.31	66.221100	Y 377.433
Cu (324.754 nm)	0.016297	ppm	0.000069	0.42	1076.270000	Y 377.433
Fe (238.204 nm)	0.100375	ppm	0.000981	0.98	248.760003	Y_R 377.433
Fe H (259.940 nm)	0.106919 u	ppm	0.005444	5.09	159.280000	Y_R 377.433
K (766.491 nm)	2.694880	ppm	0.043403	1.61	4539.520000	Y_R2 488.368
Li (670.783 nm)	0.053988 Q	ppm	0.003248	6.02	-1618.780000 Q	Y_R2 488.368
Mg (279.078 nm)	0.200246	ppm	0.000400	0.20	662.354000	Y 377.433
Mn (257.610 nm)	0.010415	ppm	0.000030	0.29	2828.570000	Y 377.433
Mo (202.032 nm)	0.019248	ppm	0.000010	0.05	253.742000	Y 377.433
Na (589.592 nm)	1.029610	ppm	0.070729	6.87	996.803000	Y_R2 488.368
Na H (589.593 nm)	1.527916 u	ppm	0.018512	1.21	711.482430	Y_R4
Ni (231.604 nm)	0.043035	ppm	0.001107	2.57	214.063000	Y 377.433
P (213.618 nm)	2.805360	ppm	0.004957	0.18	4003.450000	Y 242.219
Pb (220.353 nm)	0.009045	ppm	0.000258	2.86	37.091300	Y 242.219
S (181.972 nm)	0.081749	ppm	0.002228	2.73	50.175483	Y 377.433
Sb (206.834 nm)	0.017000	ppm	0.000580	3.41	30.338300	Y 377.433
Se (196.026 nm)	0.017763	ppm	0.000716	4.03	35.639600	Y 242.219
Si (288.158 nm)	0.467053	ppm	0.001365	0.29	3495.230000	Y 377.433
Sn (189.925 nm)	0.100295	ppm	0.000494	0.49	163.471000	Y 377.433
Sr (421.552 nm)	0.008971	ppm	0.000069	0.77	1374.199342	Y_R 488.368
Th (288.505 nm)	0.017725	ppm	0.000788	4.44	42.815300	Y 377.433
Ti (336.122 nm)	0.009937	ppm	0.000023	0.23	838.345000	Y 377.433
Tl (190.794 nm)	0.016109	ppm	0.001798	11.16	38.546900	Y 377.433
U (409.013 nm)	0.065617	ppm	0.000457	0.70	182.197000	Y 377.433
V (292.401 nm)	0.009733	ppm	0.000112	1.15	352.702000	Y 377.433
Zn (206.200 nm)	0.021187	ppm	0.000279	1.32	99.350500	Y 377.433
Zr (343.823 nm)	0.009790	ppm	0.000075	0.76	392.629000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.197654	27684.339001	0.001341	0.11
Y 377.433	1.174431	821433.375890	0.001770	0.15
Y_R 377.433	1.219150	73915.500000	0.002161	0.18
Y_R 488.368	1.242230	65624.400000	0.000254	0.02
Y_R2 488.368	1.217394	129050.247600	0.007015	0.58
Y_R4	1.193510	53707.800000	0.004449	0.37

Sample Name: MB 280-459135/1-A

Date: 5/24/2019 11:45:31 PM Rack:Tube: 2:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000634	ppm	0.000510	80.36	-245.040000	Y 377.433
Al (394.401 nm)	-0.000113 u	ppm	0.001697	> 100.00	89.206400	Y 377.433
Al H (396.152 nm)	0.134997 u	ppm	0.005700	4.22	36.787700	Y_R 377.433
As (188.980 nm)	0.000550 u	ppm	0.002478	> 100.00	-0.747642	Y 242.219
B (249.678 nm)	-0.003193 u	ppm	0.001081	33.85	23.866500	Y 242.219
Ba (493.408 nm)	-0.003001 u	ppm	0.000187	6.22	1100.250000	Y_R 488.368
Be (234.861 nm)	-0.000019 u	ppm	0.000032	> 100.00	-3.891480	Y_R 488.368
Bi (223.061 nm)	0.003922	ppm	0.002234	56.95	-2.021520	Y 377.433
Ca (315.887 nm)	0.036664	ppm	0.002359	6.43	-39.920980	Y_R 377.433
Cd (214.439 nm)	-0.000025 u	ppm	0.000107	> 100.00	-6.118880	Y 377.433
Co (228.615 nm)	-0.000070 u	ppm	0.000028	40.36	-16.788700	Y 242.219
Cr (205.560 nm)	0.000377	ppm	0.000165	43.73	-4.240390	Y 377.433
Cu (324.754 nm)	0.001178	ppm	0.000335	28.48	372.625000	Y 377.433
Fe (238.204 nm)	0.007209	ppm	0.001037	14.38	24.491996	Y_R 377.433
Fe H (259.940 nm)	0.012903 u	ppm	0.002301	17.84	29.257800	Y_R 377.433
K (766.491 nm)	-0.303714 u	ppm	0.054371	17.90	1644.120000	Y_R2 488.368
Li (670.783 nm)	0.028263	ppm	0.002703	9.56	-2060.480000	Y_R2 488.368
Mg (279.078 nm)	0.004657	ppm	0.000195	4.19	23.674200	Y 377.433
Mn (257.610 nm)	0.000234	ppm	0.000052	22.16	52.644900	Y 377.433
Mo (202.032 nm)	-0.000059 u	ppm	0.000227	> 100.00	10.389300	Y 377.433
Na (589.592 nm)	-0.001246 u	ppm	0.012547	> 100.00	148.486000	Y_R2 488.368
Na H (589.593 nm)	0.566363 u	ppm	0.000287	0.05	189.785672	Y_R4
Ni (231.604 nm)	0.000210 u	ppm	0.000973	> 100.00	-7.533770	Y 377.433
P (213.618 nm)	0.002013	ppm	0.001274	63.28	-1.100290	Y 242.219
Pb (220.353 nm)	-0.000355 u	ppm	0.001240	> 100.00	7.122690	Y 242.219
S (181.972 nm)	-0.015545 u	ppm	0.000915	5.88	5.580570	Y 377.433
Sb (206.834 nm)	-0.000891 u	ppm	0.004314	> 100.00	0.272505	Y 377.433
Se (196.026 nm)	0.001143 u	ppm	0.002022	> 100.00	10.579800	Y 242.219
Si (288.158 nm)	-0.007429 u	ppm	0.001190	16.02	440.722000	Y 377.433
Sn (189.925 nm)	0.000540	ppm	0.000511	94.78	2.958550	Y 377.433
Sr (421.552 nm)	0.000149	ppm	0.000085	56.80	45.667238	Y_R 488.368
Th (288.505 nm)	0.004332	ppm	0.002448	56.50	20.169600	Y 377.433
Ti (336.122 nm)	0.000557	ppm	0.000031	5.48	-362.594000	Y 377.433
Tl (190.794 nm)	0.000971 u	ppm	0.001597	> 100.00	4.035080	Y 377.433
U (409.013 nm)	-0.001871 u	ppm	0.003864	> 100.00	-30.666300	Y 377.433
V (292.401 nm)	0.000123	ppm	0.000172	> 100.00	-139.292000	Y 377.433
Zn (206.200 nm)	0.003091	ppm	0.000159	5.13	17.965000	Y 377.433
Zr (343.823 nm)	-0.000054 u	ppm	0.000144	> 100.00	-164.649000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.191260	27536.518228	0.004356	0.37
Y 377.433	1.168864	817540.167183	0.004637	0.40
Y_R 377.433	1.219860	73958.400000	0.002078	0.17
Y_R 488.368	1.237290	65363.200000	0.011604	0.94
Y_R2 488.368	1.200722	127282.904693	0.007071	0.59
Y_R4	1.193200	53693.700000	0.001859	0.16

Sample Name: LCS 280-459135/2-A

Date: 5/24/2019 11:48:44 PM Rack:Tube: 2:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000954	ppm	0.000286	29.98	-541.296000	Y 377.433
Al (394.401 nm)	9.620220 o	ppm	0.003629	0.04	117758.000000	Y 377.433
Al H (396.152 nm)	9.345540	ppm	0.024014	0.26	20640.400000	Y_R 377.433
As (188.980 nm)	1.960080	ppm	0.004365	0.22	2951.780000	Y 242.219
B (249.678 nm)	0.934772	ppm	0.001406	0.15	6716.800000	Y 242.219
Ba (493.408 nm)	1.905450	ppm	0.005394	0.28	191369.000000	Y_R 488.368
Be (234.861 nm)	0.934211	ppm	0.001134	0.12	91960.000000	Y_R 488.368
Bi (223.061 nm)	1.922080	ppm	0.004051	0.21	4200.800000	Y 377.433
Ca (315.887 nm)	47.686330	ppm	0.156853	0.33	37806.099940	Y_R 377.433
Cd (214.439 nm)	0.998929	ppm	0.000009	0.00	36939.300000	Y 377.433
Co (228.615 nm)	0.950014	ppm	0.000165	0.02	22355.300000	Y 242.219
Cr (205.560 nm)	1.009600	ppm	0.000820	0.08	6719.350000	Y 377.433
Cu (324.754 nm)	0.957610	ppm	0.000833	0.09	45040.300000	Y 377.433
Fe (238.204 nm)	9.856572 o	ppm	0.034338	0.35	23733.628017	Y_R 377.433
Fe H (259.940 nm)	9.781840	ppm	0.048138	0.49	13539.500000	Y_R 377.433
K (766.491 nm)	47.817700	ppm	0.351667	0.74	48109.500000	Y_R2 488.368
Li (670.783 nm)	1.002880	ppm	0.002346	0.23	14673.900000	Y_R2 488.368
Mg (279.078 nm)	48.294200	ppm	0.002993	0.01	158002.000000	Y 377.433
Mn (257.610 nm)	0.968199	ppm	0.000282	0.03	263978.000000	Y 377.433
Mo (202.032 nm)	0.988347	ppm	0.000427	0.04	12468.500000	Y 377.433
Na (589.592 nm)	46.546900	ppm	0.170394	0.37	38795.100000	Y_R2 488.368
Na H (589.593 nm)	47.617505 u	ppm	0.317540	0.67	25717.672099	Y_R4
Ni (231.604 nm)	0.972378	ppm	0.000330	0.03	5024.790000	Y 377.433
P (213.618 nm)	19.807500	ppm	0.026841	0.14	28058.500000	Y 242.219
Pb (220.353 nm)	0.968864	ppm	0.000985	0.10	3084.830000	Y 242.219
S (181.972 nm)	9.679340	ppm	0.003377	0.03	4450.889380	Y 377.433
Sb (206.834 nm)	-0.002115 u	ppm	0.002527	> 100.00	-6.418550	Y 377.433
Se (196.026 nm)	1.927740	ppm	0.000593	0.03	2915.240000	Y 242.219
Si (288.158 nm)	1.982430	ppm	0.003566	0.18	13250.600000	Y 377.433
Sn (189.925 nm)	1.998160	ppm	0.000614	0.03	3217.250000	Y 377.433
Sr (421.552 nm)	0.925725	ppm	0.002209	0.24	139439.836380	Y_R 488.368
Th (288.505 nm)	0.979358	ppm	0.005755	0.59	1611.060000	Y 377.433
Ti (336.122 nm)	0.965514	ppm	0.000074	0.01	123283.000000	Y 377.433
Tl (190.794 nm)	1.942680	ppm	0.000495	0.03	4436.350000	Y 377.433
U (409.013 nm)	1.929680	ppm	0.005457	0.28	6037.490000	Y 377.433
V (292.401 nm)	0.964008	ppm	0.000663	0.07	49571.000000	Y 377.433
Zn (206.200 nm)	0.497916	ppm	0.000754	0.15	2244.430000	Y 377.433
Zr (343.823 nm)	0.477616	ppm	0.000174	0.04	26877.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.137895	26302.967932	0.001749	0.15
Y 377.433	1.125114	786939.566486	0.002851	0.25
Y_R 377.433	1.189730	72132.100000	0.003514	0.30
Y_R 488.368	1.207040	63765.400000	0.002203	0.18
Y_R2 488.368	1.168537	123871.065104	0.010530	0.90
Y_R4	1.175460	52895.600000	0.008398	0.71

Sample Name: LCSD 280-459135/3-A

Date: 5/24/2019 11:52:21 PM Rack:Tube: 2:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000967	ppm	0.000659	68.08	-542.287000	Y 377.433
Al (394.401 nm)	9.672440 o	ppm	0.000058	0.00	118397.000000	Y 377.433
Al H (396.152 nm)	9.415380	ppm	0.009196	0.10	20795.500000	Y_R 377.433
As (188.980 nm)	1.972330	ppm	0.001359	0.07	2970.250000	Y 242.219
B (249.678 nm)	0.941104	ppm	0.000293	0.03	6761.960000	Y 242.219
Ba (493.408 nm)	1.915570	ppm	0.004365	0.23	192378.000000	Y_R 488.368
Be (234.861 nm)	0.945408	ppm	0.002292	0.24	93062.300000	Y_R 488.368
Bi (223.061 nm)	1.935380	ppm	0.003845	0.20	4229.950000	Y 377.433
Ca (315.887 nm)	48.025731	ppm	0.132237	0.28	38075.671243	Y_R 377.433
Cd (214.439 nm)	1.003220	ppm	0.000089	0.01	37098.200000	Y 377.433
Co (228.615 nm)	0.954860	ppm	0.001251	0.13	22469.400000	Y 242.219
Cr (205.560 nm)	1.017190	ppm	0.007816	0.77	6769.950000	Y 377.433
Cu (324.754 nm)	0.958897	ppm	0.006587	0.69	45100.400000	Y 377.433
Fe (238.204 nm)	9.949736 o	ppm	0.033640	0.34	23957.891654	Y_R 377.433
Fe H (259.940 nm)	9.848960	ppm	0.010073	0.10	13632.400000	Y_R 377.433
K (766.491 nm)	48.199700	ppm	0.436365	0.91	48478.400000	Y_R2 488.368
Li (670.783 nm)	1.006250	ppm	0.003981	0.40	14731.700000	Y_R2 488.368
Mg (279.078 nm)	48.645000	ppm	0.008925	0.02	159150.000000	Y 377.433
Mn (257.610 nm)	0.973011	ppm	0.000096	0.01	265290.000000	Y 377.433
Mo (202.032 nm)	0.992715	ppm	0.001437	0.14	12523.600000	Y 377.433
Na (589.592 nm)	46.842300	ppm	0.233788	0.50	39040.000000	Y_R2 488.368
Na H (589.593 nm)	47.968589 u	ppm	0.293710	0.61	25908.155056	Y_R4
Ni (231.604 nm)	0.979684	ppm	0.000696	0.07	5062.610000	Y 377.433
P (213.618 nm)	19.979400	ppm	0.052224	0.26	28303.900000	Y 242.219
Pb (220.353 nm)	0.977445	ppm	0.001837	0.19	3112.090000	Y 242.219
S (181.972 nm)	9.744528	ppm	0.045716	0.47	4480.775984	Y 377.433
Sb (206.834 nm)	0.003126	ppm	0.002280	72.93	2.426670	Y 377.433
Se (196.026 nm)	1.940920	ppm	0.008086	0.42	2935.090000	Y 242.219
Si (288.158 nm)	1.987070	ppm	0.001432	0.07	13280.500000	Y 377.433
Sn (189.925 nm)	2.010680	ppm	0.005203	0.26	3237.400000	Y 377.433
Sr (421.552 nm)	0.930520	ppm	0.002536	0.27	140162.042693	Y_R 488.368
Th (288.505 nm)	0.977997	ppm	0.002310	0.24	1608.210000	Y 377.433
Ti (336.122 nm)	0.969305	ppm	0.000009	0.00	123769.000000	Y 377.433
Tl (190.794 nm)	1.959900	ppm	0.000477	0.02	4475.690000	Y 377.433
U (409.013 nm)	1.945640	ppm	0.009442	0.49	6087.870000	Y 377.433
V (292.401 nm)	0.968483	ppm	0.000295	0.03	49801.400000	Y 377.433
Zn (206.200 nm)	0.500153	ppm	0.001383	0.28	2254.510000	Y 377.433
Zr (343.823 nm)	0.479776	ppm	0.000135	0.03	26999.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130519	26132.472073	0.000473	0.04
Y 377.433	1.118982	782651.070220	0.001678	0.15
Y_R 377.433	1.175680	71279.800000	0.000869	0.07
Y_R 488.368	1.192720	63008.800000	0.001137	0.10
Y_R2 488.368	1.163738	123362.340565	0.005099	0.44
Y_R4	1.158460	52130.500000	0.003131	0.27

Sample Name: 280-123924-F-1-A

Date: 5/24/2019 11:56:01 PM Rack:Tube: 2:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.000961	ppm	0.000561	58.43	-235.239000	Y 377.433
Al (394.401 nm)	1.508800	ppm	0.002079	0.14	18535.600000	Y 377.433
Al H (396.152 nm)	1.676070	ppm	0.001513	0.09	3435.780000	Y_R 377.433
As (188.980 nm)	0.001943	ppm	0.001305	67.17	1.289550	Y 242.219
B (249.678 nm)	0.008294	ppm	0.000701	8.45	104.585000	Y 242.219
Ba (493.408 nm)	0.005690	ppm	0.000148	2.60	1968.580000	Y_R 488.368
Be (234.861 nm)	0.000098	ppm	0.000022	22.20	-2.032520	Y_R 488.368
Bi (223.061 nm)	0.001233	ppm	0.001013	82.18	-7.514400	Y 377.433
Ca (315.887 nm)	40.465020	ppm	0.023768	0.06	32068.903657	Y_R 377.433
Cd (214.439 nm)	0.000185	ppm	0.000037	19.82	2.592120	Y 377.433
Co (228.615 nm)	0.000900	ppm	0.000052	5.74	7.521390	Y 242.219
Cr (205.560 nm)	0.055633	ppm	0.000544	0.98	364.244000	Y 377.433
Cu (324.754 nm)	0.013127	ppm	0.000185	1.41	904.114000	Y 377.433
Fe (238.204 nm)	2.283137	ppm	0.006993	0.31	5503.049310	Y_R 377.433
Fe H (259.940 nm)	2.263490 u	ppm	0.005003	0.22	3141.790000	Y_R 377.433
K (766.491 nm)	0.913943	ppm	0.033003	3.61	2819.880000	Y_R2 488.368
Li (670.783 nm)	0.034876	ppm	0.000134	0.38	-1946.940000	Y_R2 488.368
Mg (279.078 nm)	14.249600	ppm	0.011630	0.08	46634.700000	Y 377.433
Mn (257.610 nm)	0.097884	ppm	0.000639	0.65	26678.000000	Y 377.433
Mo (202.032 nm)	0.000470	ppm	0.000116	24.67	17.052000	Y 377.433
Na (589.592 nm)	4.635230	ppm	0.057118	1.23	3956.540000	Y_R2 488.368
Na H (589.593 nm)	5.128281 u	ppm	0.037110	0.72	2664.882633	Y_R4
Ni (231.604 nm)	0.009055	ppm	0.001014	11.20	38.232000	Y 377.433
P (213.618 nm)	0.031971	ppm	0.001197	3.74	38.568200	Y 242.219
Pb (220.353 nm)	-0.000135 u	ppm	0.001208	> 100.00	7.512960	Y 242.219
S (181.972 nm)	3.069439	ppm	0.002283	0.07	1420.691591	Y 377.433
Sb (206.834 nm)	-0.004303 u	ppm	0.001622	37.68	-5.054390	Y 377.433
Se (196.026 nm)	-0.002503 u	ppm	0.000703	28.08	4.631610	Y 242.219
Si (288.158 nm)	7.018480	ppm	0.052864	0.75	45670.500000	Y 377.433
Sn (189.925 nm)	0.001163	ppm	0.001223	> 100.00	3.961950	Y 377.433
Sr (421.552 nm)	0.094300	ppm	0.000226	0.24	14225.264570	Y_R 488.368
Th (288.505 nm)	-0.000143 u	ppm	0.002820	> 100.00	12.989500	Y 377.433
Ti (336.122 nm)	0.035511	ppm	0.002430	6.84	4249.520000	Y 377.433
Tl (190.794 nm)	0.002346	ppm	0.000229	9.75	5.153520	Y 377.433
U (409.013 nm)	0.018911	ppm	0.005373	28.41	31.289000	Y 377.433
V (292.401 nm)	0.003868	ppm	0.000127	3.29	34.616200	Y 377.433
Zn (206.200 nm)	0.021532	ppm	0.000614	2.85	101.204000	Y 377.433
Zr (343.823 nm)	0.001442	ppm	0.000199	13.81	-79.961400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.159290	26797.534525	0.001412	0.12
Y 377.433	1.140480	797687.440680	0.001182	0.10
Y_R 377.433	1.199940	72750.800000	0.000838	0.07
Y_R 488.368	1.221080	64506.900000	0.002472	0.20
Y_R2 488.368	1.188983	126038.454240	0.009928	0.84
Y_R4	1.183720	53267.400000	0.009004	0.76

Sample Name: 280-123924-F-1-Asd@5

Date: 5/24/2019 11:59:37 PM Rack:Tube: 2:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001136	ppm	0.000224	19.68	-227.926000	Y 377.433
Al (394.401 nm)	0.314765	ppm	0.000104	0.03	3939.650000	Y 377.433
Al H (396.152 nm)	0.451804 u	ppm	0.004564	1.01	735.161000	Y_R 377.433
As (188.980 nm)	0.001071	ppm	0.000565	52.80	0.023222	Y 242.219
B (249.678 nm)	-0.001111 u	ppm	0.000164	14.72	38.434800	Y 242.219
Ba (493.408 nm)	-0.000890 u	ppm	0.000068	7.68	1311.170000	Y_R 488.368
Be (234.861 nm)	-0.000045 u	ppm	0.000056	> 100.00	-8.632170	Y_R 488.368
Bi (223.061 nm)	0.000476 u	ppm	0.003022	> 100.00	-9.479000	Y 377.433
Ca (315.887 nm)	8.214216	ppm	0.010532	0.13	6454.817684	Y_R 377.433
Cd (214.439 nm)	0.000049 u	ppm	0.000075	> 100.00	-3.140320	Y 377.433
Co (228.615 nm)	0.000285	ppm	0.000116	40.56	-8.148240	Y 242.219
Cr (205.560 nm)	0.011556	ppm	0.000350	3.03	70.307500	Y 377.433
Cu (324.754 nm)	0.003371	ppm	0.000459	13.61	468.999000	Y 377.433
Fe (238.204 nm)	0.522336	ppm	0.002929	0.56	1264.493975	Y_R 377.433
Fe H (259.940 nm)	0.517174 u	ppm	0.003575	0.69	726.657000	Y_R 377.433
K (766.491 nm)	-0.010100 u	ppm	0.040550	> 100.00	1927.630000	Y_R2 488.368
Li (670.783 nm)	0.029714	ppm	0.002487	8.37	-2035.580000	Y_R2 488.368
Mg (279.078 nm)	2.899080	ppm	0.000301	0.01	9494.370000	Y 377.433
Mn (257.610 nm)	0.020252	ppm	0.000029	0.14	5510.790000	Y 377.433
Mo (202.032 nm)	0.000223	ppm	0.000231	> 100.00	13.945500	Y 377.433
Na (589.592 nm)	0.933490	ppm	0.018806	2.01	916.308000	Y_R2 488.368
Na H (589.593 nm)	1.441362 u	ppm	0.005860	0.41	664.521729	Y_R4
Ni (231.604 nm)	0.001931	ppm	0.000461	23.87	1.366700	Y 377.433
P (213.618 nm)	0.005992	ppm	0.000318	5.31	3.937700	Y 242.219
Pb (220.353 nm)	-0.000586 u	ppm	0.000446	76.15	6.342010	Y 242.219
S (181.972 nm)	0.597585	ppm	0.004206	0.70	286.835208	Y 377.433
Sb (206.834 nm)	-0.001663 u	ppm	0.002137	> 100.00	-0.938342	Y 377.433
Se (196.026 nm)	0.000415 u	ppm	0.001183	> 100.00	9.377440	Y 242.219
Si (288.158 nm)	1.422770	ppm	0.001068	0.08	9647.720000	Y 377.433
Sn (189.925 nm)	-0.000157 u	ppm	0.001158	> 100.00	1.838480	Y 377.433
Sr (421.552 nm)	0.018497	ppm	0.000034	0.18	2808.867545	Y_R 488.368
Th (288.505 nm)	0.000866	ppm	0.000662	76.50	14.383300	Y 377.433
Ti (336.122 nm)	0.008112	ppm	0.000567	6.99	632.130000	Y 377.433
Tl (190.794 nm)	-0.001098 u	ppm	0.000404	36.80	-1.107150	Y 377.433
U (409.013 nm)	0.003805 u	ppm	0.008352	> 100.00	-13.380900	Y 377.433
V (292.401 nm)	0.000806	ppm	0.000045	5.57	-108.390000	Y 377.433
Zn (206.200 nm)	0.009487	ppm	0.000094	0.99	46.799400	Y 377.433
Zr (343.823 nm)	0.000357	ppm	0.000016	4.47	-141.391000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.172019	27091.768121	0.000328	0.03
Y 377.433	1.148455	803265.002692	0.000370	0.03
Y_R 377.433	1.191280	72225.600000	0.000447	0.04
Y_R 488.368	1.205210	63668.400000	0.003365	0.28
Y_R2 488.368	1.189352	126077.609341	0.005941	0.50
Y_R4	1.183520	53258.500000	0.011177	0.94

Sample Name: 280-123924-F-1-B MS

Date: 5/25/2019 12:03:07 AM Rack:Tube: 2:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001458	ppm	0.000062	4.24	-532.818000	Y 377.433
Al (394.401 nm)	11.772800 o	ppm	0.021402	0.18	144069.000000	Y 377.433
Al H (396.152 nm)	11.475100	ppm	0.003670	0.03	25338.200000	Y_R 377.433
As (188.980 nm)	2.015820	ppm	0.008809	0.44	3035.710000	Y 242.219
B (249.678 nm)	0.974205	ppm	0.001861	0.19	6996.960000	Y 242.219
Ba (493.408 nm)	1.958600	ppm	0.000311	0.02	196669.000000	Y_R 488.368
Be (234.861 nm)	0.955837	ppm	0.002005	0.21	94079.100000	Y_R 488.368
Bi (223.061 nm)	1.956120	ppm	0.002499	0.13	4275.780000	Y 377.433
Ca (315.887 nm)	90.200494	ppm	0.195182	0.22	71571.639078	Y_R 377.433
Cd (214.439 nm)	1.014570	ppm	0.002444	0.24	37518.800000	Y 377.433
Co (228.615 nm)	0.961259	ppm	0.003518	0.37	22622.300000	Y 242.219
Cr (205.560 nm)	1.078360	ppm	0.001162	0.11	7177.780000	Y 377.433
Cu (324.754 nm)	0.990251	ppm	0.001995	0.20	46536.000000	Y 377.433
Fe (238.204 nm)	12.386853 o	ppm	0.036572	0.30	29824.456277	Y_R 377.433
Fe H (259.940 nm)	12.379000	ppm	0.040857	0.33	17131.400000	Y_R 377.433
K (766.491 nm)	50.291200	ppm	0.425488	0.85	50498.000000	Y_R2 488.368
Li (670.783 nm)	1.026510	ppm	0.002344	0.23	15079.600000	Y_R2 488.368
Mg (279.078 nm)	64.102500	ppm	0.167380	0.26	209728.000000	Y 377.433
Mn (257.610 nm)	1.083510	ppm	0.002704	0.25	295418.000000	Y 377.433
Mo (202.032 nm)	1.008410	ppm	0.002787	0.28	12721.400000	Y 377.433
Na (589.592 nm)	52.205600	ppm	0.011811	0.02	43450.800000	Y_R2 488.368
Na H (589.593 nm)	53.440247	ppm	0.587138	1.10	28876.836749	Y_R4
Ni (231.604 nm)	0.993529	ppm	0.003533	0.36	5134.270000	Y 377.433
P (213.618 nm)	20.377800	ppm	0.034404	0.17	28865.300000	Y 242.219
Pb (220.353 nm)	0.990255	ppm	0.000862	0.09	3152.360000	Y 242.219
S (181.972 nm)	13.209829	ppm	0.014415	0.11	6070.197378	Y 377.433
Sb (206.834 nm)	0.003526	ppm	0.001578	44.76	3.373600	Y 377.433
Se (196.026 nm)	1.975120	ppm	0.002098	0.11	2986.210000	Y 242.219
Si (288.158 nm)	9.960880	ppm	0.038270	0.38	64612.400000	Y 377.433
Sn (189.925 nm)	2.045700	ppm	0.006649	0.33	3293.730000	Y 377.433
Sr (421.552 nm)	1.045833	ppm	0.000047	0.00	157528.617253	Y_R 488.368
Th (288.505 nm)	0.991862	ppm	0.001647	0.17	1630.980000	Y 377.433
Ti (336.122 nm)	1.025120	ppm	0.001547	0.15	131057.000000	Y 377.433
Tl (190.794 nm)	1.974600	ppm	0.007221	0.37	4507.030000	Y 377.433
U (409.013 nm)	1.987350	ppm	0.016244	0.82	6215.590000	Y 377.433
V (292.401 nm)	0.988552	ppm	0.002201	0.22	50821.000000	Y 377.433
Zn (206.200 nm)	0.521732	ppm	0.000836	0.16	2351.880000	Y 377.433
Zr (343.823 nm)	0.485108	ppm	0.001918	0.40	27301.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.110049	25659.298647	0.000566	0.05
Y 377.433	1.098881	768591.464509	0.000078	0.01
Y_R 377.433	1.168690	70856.300000	0.000276	0.02
Y_R 488.368	1.184420	62570.300000	0.000366	0.03
Y_R2 488.368	1.144982	121374.134732	0.006181	0.54
Y_R4	1.154840	51967.800000	0.012097	1.05

Sample Name: 280-123924-F-1-C MSD

Date: 5/25/2019 12:06:48 AM Rack:Tube: 2:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001276	ppm	0.000165	12.90	-534.887000	Y 377.433
Al (394.401 nm)	11.571800 o	ppm	0.010661	0.09	141602.000000	Y 377.433
Al H (396.152 nm)	11.247500	ppm	0.002782	0.02	24833.300000	Y_R 377.433
As (188.980 nm)	1.992830	ppm	0.013991	0.70	3001.070000	Y 242.219
B (249.678 nm)	0.965283	ppm	0.003683	0.38	6933.320000	Y 242.219
Ba (493.408 nm)	1.929150	ppm	0.001401	0.07	193734.000000	Y_R 488.368
Be (234.861 nm)	0.950053	ppm	0.001796	0.19	93510.100000	Y_R 488.368
Bi (223.061 nm)	1.943720	ppm	0.008415	0.43	4248.610000	Y 377.433
Ca (315.887 nm)	88.728331	ppm	0.036971	0.04	70402.381447	Y_R 377.433
Cd (214.439 nm)	1.006210	ppm	0.000714	0.07	37209.700000	Y 377.433
Co (228.615 nm)	0.950640	ppm	0.001712	0.18	22372.300000	Y 242.219
Cr (205.560 nm)	1.068070	ppm	0.004723	0.44	7109.200000	Y 377.433
Cu (324.754 nm)	0.981278	ppm	0.003932	0.40	46122.000000	Y 377.433
Fe (238.204 nm)	12.248386 o	ppm	0.016342	0.13	29491.143151	Y_R 377.433
Fe H (259.940 nm)	12.237000	ppm	0.016457	0.13	16935.000000	Y_R 377.433
K (766.491 nm)	50.204300	ppm	0.759039	1.51	50414.000000	Y_R2 488.368
Li (670.783 nm)	1.019600	ppm	0.005074	0.50	14960.900000	Y_R2 488.368
Mg (279.078 nm)	63.461500	ppm	0.097170	0.15	207632.000000	Y 377.433
Mn (257.610 nm)	1.071680	ppm	0.001096	0.10	292194.000000	Y 377.433
Mo (202.032 nm)	0.997378	ppm	0.000646	0.06	12582.300000	Y 377.433
Na (589.592 nm)	52.051400	ppm	0.212289	0.41	43317.500000	Y_R2 488.368
Na H (589.593 nm)	53.023078	ppm	0.210344	0.40	28650.499258	Y_R4
Ni (231.604 nm)	0.985362	ppm	0.001165	0.12	5091.990000	Y 377.433
P (213.618 nm)	19.572200	ppm	0.053052	0.27	27715.900000	Y 242.219
Pb (220.353 nm)	0.977734	ppm	0.002087	0.21	3112.460000	Y 242.219
S (181.972 nm)	12.737214	ppm	0.036244	0.28	5853.651223	Y 377.433
Sb (206.834 nm)	-0.001854 u	ppm	0.004578	> 100.00	-5.646130	Y 377.433
Se (196.026 nm)	1.961070	ppm	0.008737	0.45	2965.030000	Y 242.219
Si (288.158 nm)	9.788730	ppm	0.062809	0.64	63504.100000	Y 377.433
Sn (189.925 nm)	2.023570	ppm	0.000390	0.02	3258.140000	Y 377.433
Sr (421.552 nm)	1.029550	ppm	0.001090	0.11	155076.359707	Y_R 488.368
Th (288.505 nm)	0.980427	ppm	0.002214	0.23	1611.920000	Y 377.433
Ti (336.122 nm)	1.014350	ppm	0.002861	0.28	129674.000000	Y 377.433
Tl (190.794 nm)	1.961030	ppm	0.000605	0.03	4476.130000	Y 377.433
U (409.013 nm)	1.907180	ppm	0.011460	0.60	5962.070000	Y 377.433
V (292.401 nm)	0.977929	ppm	0.000482	0.05	50276.300000	Y 377.433
Zn (206.200 nm)	0.519429	ppm	0.002358	0.45	2341.500000	Y 377.433
Zr (343.823 nm)	0.479422	ppm	0.000297	0.06	26979.300000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.107639	25603.596539	0.003013	0.27
Y 377.433	1.094305	765391.329867	0.001713	0.16
Y_R 377.433	1.158090	70213.600000	0.003604	0.31
Y_R 488.368	1.175330	62090.100000	0.002630	0.22
Y_R2 488.368	1.141109	120963.581886	0.003894	0.34
Y_R4	1.149890	51745.000000	0.003039	0.26

Sample Name: 280-123924-F-1-Apds

Date: 5/25/2019 12:10:25 AM Rack:Tube: 2:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.046764	ppm	0.000014	0.03	1337.840000	Y 377.433
Al (394.401 nm)	2.526280	ppm	0.000830	0.03	30983.400000	Y 377.433
Al H (396.152 nm)	2.626570	ppm	0.004708	0.18	5533.240000	Y_R 377.433
As (188.980 nm)	0.201850	ppm	0.000408	0.20	302.501000	Y 242.219
B (249.678 nm)	0.104262	ppm	0.001643	1.58	789.387000	Y 242.219
Ba (493.408 nm)	0.103011	ppm	0.000413	0.40	11671.600000	Y_R 488.368
Be (234.861 nm)	0.048439	ppm	0.000323	0.67	4754.630000	Y_R 488.368
Bi (223.061 nm)	0.005348	ppm	0.003952	73.91	1.710280	Y 377.433
Ca (315.887 nm)	59.109373	ppm	0.163340	0.28	46876.599355	Y_R 377.433
Cd (214.439 nm)	0.051986	ppm	0.000100	0.19	1918.610000	Y 377.433
Co (228.615 nm)	0.048375	ppm	0.000260	0.54	1125.670000	Y 242.219
Cr (205.560 nm)	0.106545	ppm	0.000254	0.24	703.408000	Y 377.433
Cu (324.754 nm)	0.062718	ppm	0.000060	0.10	3216.370000	Y 377.433
Fe (238.204 nm)	3.267897	ppm	0.010447	0.32	7873.538563	Y_R 377.433
Fe H (259.940 nm)	3.243220 u	ppm	0.013436	0.41	4496.740000	Y_R 377.433
K (766.491 nm)	21.002500	ppm	0.096107	0.46	22217.100000	Y_R2 488.368
Li (670.783 nm)	0.135699	ppm	0.005127	3.78	-215.793000	Y_R2 488.368
Mg (279.078 nm)	33.755800	ppm	0.045621	0.14	110457.000000	Y 377.433
Mn (257.610 nm)	0.144003	ppm	0.000112	0.08	39252.900000	Y 377.433
Mo (202.032 nm)	0.050886	ppm	0.000236	0.46	652.514000	Y 377.433
Na (589.592 nm)	23.211900	ppm	0.090902	0.39	19228.100000	Y_R2 488.368
Na H (589.593 nm)	23.678800 u	ppm	0.148639	0.63	12729.580589	Y_R4
Ni (231.604 nm)	0.058429	ppm	0.000404	0.69	293.934000	Y 377.433
P (213.618 nm)	2.033670	ppm	0.006457	0.32	2887.250000	Y 242.219
Pb (220.353 nm)	0.100484	ppm	0.002033	2.02	328.005000	Y 242.219
S (181.972 nm)	3.051816	ppm	0.002397	0.08	1413.711036	Y 377.433
Sb (206.834 nm)	0.102088	ppm	0.001620	1.59	174.338000	Y 377.433
Se (196.026 nm)	0.200116	ppm	0.000887	0.44	310.039000	Y 242.219
Si (288.158 nm)	12.006800	ppm	0.069359	0.58	77783.300000	Y 377.433
Sn (189.925 nm)	0.099392	ppm	0.001615	1.62	162.017000	Y 377.433
Sr (421.552 nm)	0.140620	ppm	0.000153	0.11	21201.218267	Y_R 488.368
Th (288.505 nm)	0.196957	ppm	0.001480	0.75	349.683000	Y 377.433
Ti (336.122 nm)	0.088530	ppm	0.002911	3.29	11099.100000	Y 377.433
Tl (190.794 nm)	0.206269	ppm	0.000151	0.07	470.368000	Y 377.433
U (409.013 nm)	0.514044	ppm	0.001119	0.22	1593.940000	Y 377.433
V (292.401 nm)	0.053784	ppm	0.000054	0.10	2604.850000	Y 377.433
Zn (206.200 nm)	0.228800	ppm	0.000404	0.18	1033.370000	Y 377.433
Zr (343.823 nm)	0.050779	ppm	0.000461	0.91	2713.060000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.132375	26175.378659	0.002293	0.20
Y 377.433	1.113946	779128.328990	0.001929	0.17
Y_R 377.433	1.167490	70783.600000	0.002283	0.20
Y_R 488.368	1.184270	62562.000000	0.002260	0.19
Y_R2 488.368	1.161308	123104.791299	0.012553	1.08
Y_R4	1.162990	52334.600000	0.009956	0.86

Sample Name: 280-123924-F-2-A

Date: 5/25/2019 12:14:00 AM Rack:Tube: 2:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001126	ppm	0.000040	3.55	-229.063000	Y 377.433
Al (394.401 nm)	0.588491	ppm	0.003440	0.58	7294.530000	Y 377.433
Al H (396.152 nm)	0.715714 u	ppm	0.001288	0.18	1321.610000	Y_R 377.433
As (188.980 nm)	0.000665 u	ppm	0.000964	> 100.00	-0.601684	Y 242.219
B (249.678 nm)	0.006132	ppm	0.000312	5.08	89.886000	Y 242.219
Ba (493.408 nm)	0.003041	ppm	0.000231	7.58	1703.410000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000005	> 100.00	-6.541690	Y_R 488.368
Bi (223.061 nm)	0.000243 u	ppm	0.002973	> 100.00	-9.905040	Y 377.433
Ca (315.887 nm)	31.983167	ppm	0.017931	0.06	25332.321193	Y_R 377.433
Cd (214.439 nm)	0.000214	ppm	0.000064	29.90	3.132230	Y 377.433
Co (228.615 nm)	0.000137	ppm	0.000046	33.56	-11.302900	Y 242.219
Cr (205.560 nm)	0.002059	ppm	0.000269	13.05	6.965000	Y 377.433
Cu (324.754 nm)	0.004741	ppm	0.000175	3.68	516.861000	Y 377.433
Fe (238.204 nm)	1.004135	ppm	0.001894	0.19	2424.266872	Y_R 377.433
Fe H (259.940 nm)	0.995260 u	ppm	0.003597	0.36	1387.840000	Y_R 377.433
K (766.491 nm)	0.659084	ppm	0.037778	5.73	2573.790000	Y_R2 488.368
Li (670.783 nm)	0.031861	ppm	0.002918	9.16	-1998.710000	Y_R2 488.368
Mg (279.078 nm)	10.313100	ppm	0.045938	0.45	33754.600000	Y 377.433
Mn (257.610 nm)	0.072732	ppm	0.000205	0.28	19820.100000	Y 377.433
Mo (202.032 nm)	0.000358	ppm	0.000301	83.96	15.644100	Y 377.433
Na (589.592 nm)	2.560300	ppm	0.005371	0.21	2252.610000	Y_R2 488.368
Na H (589.593 nm)	3.049932 u	ppm	0.012437	0.41	1537.261532	Y_R4
Ni (231.604 nm)	0.000316	ppm	0.000003	0.85	-6.985660	Y 377.433
P (213.618 nm)	0.027351	ppm	0.000102	0.37	34.034700	Y 242.219
Pb (220.353 nm)	-0.000702 u	ppm	0.000206	29.40	6.006050	Y 242.219
S (181.972 nm)	3.767360	ppm	0.023511	0.62	1739.809013	Y 377.433
Sb (206.834 nm)	-0.002589 u	ppm	0.003249	> 100.00	-2.560690	Y 377.433
Se (196.026 nm)	0.001057	ppm	0.000038	3.57	10.296100	Y 242.219
Si (288.158 nm)	5.435260	ppm	0.055976	1.03	35478.400000	Y 377.433
Sn (189.925 nm)	0.001876	ppm	0.000028	1.50	5.108670	Y 377.433
Sr (421.552 nm)	0.054252	ppm	0.000424	0.78	8193.721905	Y_R 488.368
Th (288.505 nm)	-0.004077 u	ppm	0.000231	5.68	6.286910	Y 377.433
Ti (336.122 nm)	0.015475	ppm	0.000258	1.67	1656.700000	Y 377.433
Tl (190.794 nm)	0.000000 u	ppm	0.001322	> 100.00	0.349370	Y 377.433
U (409.013 nm)	0.010331	ppm	0.006989	67.65	4.405450	Y 377.433
V (292.401 nm)	0.001782	ppm	0.000452	25.34	-55.990000	Y 377.433
Zn (206.200 nm)	0.010436	ppm	0.000353	3.38	51.132700	Y 377.433
Zr (343.823 nm)	0.000507	ppm	0.000334	65.86	-132.902000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.144970	26466.523005	0.003993	0.35
Y 377.433	1.124439	786467.696089	0.005011	0.45
Y_R 377.433	1.171600	71032.800000	0.001260	0.11
Y_R 488.368	1.183500	62521.600000	0.005113	0.43
Y_R2 488.368	1.155472	122486.151217	0.000057	0.00
Y_R4	1.144340	51495.400000	0.007867	0.69

Sample Name: 280-123924-F-3-A

Date: 5/25/2019 12:17:34 AM Rack:Tube: 2:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001818	ppm	0.000180	9.89	-204.979000	Y 377.433
Al (394.401 nm)	0.735941	ppm	0.001575	0.21	9175.880000	Y 377.433
Al H (396.152 nm)	0.790780 u	ppm	0.006325	0.80	1614.840000	Y_R 377.433
As (188.980 nm)	-0.001347 u	ppm	0.001458	> 100.00	-3.662740	Y 242.219
B (249.678 nm)	0.052632	ppm	0.000178	0.34	421.329000	Y 242.219
Ba (493.408 nm)	0.189787	ppm	0.000170	0.09	20321.700000	Y_R 488.368
Be (234.861 nm)	-0.000005 u	ppm	0.000014	> 100.00	-11.427500	Y_R 488.368
Bi (223.061 nm)	0.000699 u	ppm	0.002800	> 100.00	-8.712250	Y 377.433
Ca (315.887 nm)	61.855854	ppm	0.091574	0.15	49057.417312	Y_R 377.433
Cd (214.439 nm)	0.000453	ppm	0.000136	30.10	12.437800	Y 377.433
Co (228.615 nm)	0.000466	ppm	0.000247	52.97	-3.761100	Y 242.219
Cr (205.560 nm)	0.021094	ppm	0.000410	1.95	133.898000	Y 377.433
Cu (324.754 nm)	0.008096	ppm	0.000039	0.48	657.181000	Y 377.433
Fe (238.204 nm)	2.110079	ppm	0.000206	0.01	5086.468908	Y_R 377.433
Fe H (259.940 nm)	2.087540 u	ppm	0.007360	0.35	2898.450000	Y_R 377.433
K (766.491 nm)	1.743600	ppm	0.043384	2.49	3620.990000	Y_R2 488.368
Li (670.783 nm)	0.057006	ppm	0.000907	1.59	-1566.970000	Y_R2 488.368
Mg (279.078 nm)	31.390900	ppm	0.060489	0.19	102728.000000	Y 377.433
Mn (257.610 nm)	0.245697	ppm	0.000323	0.13	66980.500000	Y 377.433
Mo (202.032 nm)	0.000152 u	ppm	0.000853	> 100.00	13.048200	Y 377.433
Na (589.592 nm)	70.923300 o	ppm	0.056177	0.08	58414.300000	Y_R2 488.368
Na H (589.593 nm)	71.801816	ppm	0.281032	0.39	38839.018737	Y_R4
Ni (231.604 nm)	0.008480	ppm	0.000014	0.17	35.257700	Y 377.433
P (213.618 nm)	0.096143	ppm	0.003282	3.41	131.344000	Y 242.219
Pb (220.353 nm)	0.002035 u	ppm	0.003070	> 100.00	14.638800	Y 242.219
S (181.972 nm)	8.978001	ppm	0.022465	0.25	4128.105012	Y 377.433
Sb (206.834 nm)	-0.002506 u	ppm	0.000967	38.58	-2.173420	Y 377.433
Se (196.026 nm)	0.001204	ppm	0.001281	> 100.00	10.477100	Y 242.219
Si (288.158 nm)	4.683630	ppm	0.005792	0.12	30639.700000	Y 377.433
Sn (189.925 nm)	0.000522 u	ppm	0.000967	> 100.00	2.930010	Y 377.433
Sr (421.552 nm)	0.375214	ppm	0.000475	0.13	56531.135611	Y_R 488.368
Th (288.505 nm)	-0.002389 u	ppm	0.002394	> 100.00	11.733800	Y 377.433
Ti (336.122 nm)	0.011137	ppm	0.000006	0.06	1205.730000	Y 377.433
Tl (190.794 nm)	0.001584	ppm	0.001152	72.76	2.648440	Y 377.433
U (409.013 nm)	0.025764	ppm	0.009776	37.94	50.036900	Y 377.433
V (292.401 nm)	0.002112	ppm	0.000086	4.09	-44.924000	Y 377.433
Zn (206.200 nm)	0.009002	ppm	0.000381	4.23	44.837800	Y 377.433
Zr (343.823 nm)	0.000826	ppm	0.000219	26.54	-114.826000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119998	25889.274858	0.001065	0.10
Y 377.433	1.102761	771305.207157	0.002034	0.18
Y_R 377.433	1.169190	70886.500000	0.003868	0.33
Y_R 488.368	1.186300	62669.600000	0.002526	0.21
Y_R2 488.368	1.144352	121307.376533	0.003907	0.34
Y_R4	1.142290	51403.000000	0.000131	0.01

Sample Name: CCVH-5713036

Date: 5/25/2019 12:21:12 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005574	ppm	0.000410	7.36	-84.352200	Y 377.433
Al (394.401 nm)	48.706800 o	ppm	0.029812	0.06	593367.000000	Y 377.433
Al H (396.152 nm)	46.882300	ppm	0.090933	0.19	102223.000000	Y_R 377.433
As (188.980 nm)	0.003107	ppm	0.000141	4.54	1.778920	Y 242.219
B (249.678 nm)	-0.002039 u	ppm	0.000025	1.23	3.796290	Y 242.219
Ba (493.408 nm)	0.000117 u	ppm	0.000299	> 100.00	1450.220000	Y_R 488.368
Be (234.861 nm)	0.001234	ppm	0.000039	3.15	-87.781500	Y_R 488.368
Bi (223.061 nm)	0.008974	ppm	0.005029	56.03	17.513000	Y 377.433
Ca (315.887 nm)	0.009597	ppm	0.002469	25.73	-49.591276	Y_R 377.433
Cd (214.439 nm)	0.001362	ppm	0.000004	0.27	65.105400	Y 377.433
Co (228.615 nm)	0.003059	ppm	0.000215	7.02	56.799000	Y 242.219
Cr (205.560 nm)	0.002309	ppm	0.000145	6.30	7.366990	Y 377.433
Cu (324.754 nm)	0.004192	ppm	0.000079	1.89	1451.550000	Y 377.433
Fe (238.204 nm)	49.010095 o	ppm	0.114973	0.23	117982.993641	Y_R 377.433
Fe H (259.940 nm)	48.633700	ppm	0.050504	0.10	67271.100000	Y_R 377.433
K (766.491 nm)	0.019007 u	ppm	0.120828	> 100.00	1955.740000	Y_R2 488.368
Li (670.783 nm)	0.026572	ppm	0.006531	24.58	-2089.530000	Y_R2 488.368
Mg (279.078 nm)	0.041124	ppm	0.000127	0.31	70.265400	Y 377.433
Mn (257.610 nm)	0.000989	ppm	0.000036	3.62	258.586000	Y 377.433
Mo (202.032 nm)	0.001149	ppm	0.000281	24.42	25.615800	Y 377.433
Na (589.592 nm)	222.164000 o	ppm	0.088297	0.04	182525.000000	Y_R2 488.368
Na H (589.593 nm)	226.713469	ppm	1.774783	0.78	122887.288644	Y_R4
Ni (231.604 nm)	0.003117	ppm	0.000901	28.91	7.508830	Y 377.433
P (213.618 nm)	4.873570	ppm	0.003463	0.07	6960.720000	Y 242.219
Pb (220.353 nm)	0.003869	ppm	0.001125	29.08	13.988100	Y 242.219
S (181.972 nm)	4.823168	ppm	0.033331	0.69	2221.496171	Y 377.433
Sb (206.834 nm)	0.001018 u	ppm	0.001656	> 100.00	7.629450	Y 377.433
Se (196.026 nm)	0.006738	ppm	0.001495	22.19	6.397590	Y 242.219
Si (288.158 nm)	0.013848	ppm	0.000435	3.14	577.693000	Y 377.433
Sn (189.925 nm)	0.001182	ppm	0.001562	> 100.00	3.992470	Y 377.433
Sr (421.552 nm)	0.001384	ppm	0.000152	10.98	238.932480	Y_R 488.368
Th (288.505 nm)	4.702840	ppm	0.000929	0.02	8122.510000	Y 377.433
Ti (336.122 nm)	0.002014	ppm	0.000041	2.02	-176.137000	Y 377.433
Tl (190.794 nm)	-0.000266 u	ppm	0.000566	> 100.00	-3.508030	Y 377.433
U (409.013 nm)	0.531174 Q	ppm	0.004132	0.78	1696.310000 Q	Y 377.433
V (292.401 nm)	0.001155	ppm	0.000017	1.50	401.801000	Y 377.433
Zn (206.200 nm)	0.001971	ppm	0.000220	11.14	19.749700	Y 377.433
Zr (343.823 nm)	0.001337	ppm	0.000067	5.04	-85.901100	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.116824	25815.914143	0.005444	0.49
Y 377.433	1.092820	764352.599398	0.004419	0.40
Y_R 377.433	1.174410	71203.200000	0.003585	0.31
Y_R 488.368	1.188980	62811.100000	0.002297	0.19
Y_R2 488.368	1.145669	121446.931002	0.007197	0.63
Y_R4	1.168960	52603.100000	0.001491	0.13

Sample Name: CCV-5717467

Date: 5/25/2019 12:24:56 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.485015	ppm	0.000320	0.07	16467.800000	Y 377.433
Al (394.401 nm)	0.490468	ppm	0.000503	0.10	6198.520000	Y 377.433
Al H (396.152 nm)	0.536260 u	ppm	0.015143	2.82	1151.830000	Y_R 377.433
As (188.980 nm)	0.486694	ppm	0.000535	0.11	731.753000	Y 242.219
B (249.678 nm)	0.464587	ppm	0.001354	0.29	3363.160000	Y 242.219
Ba (493.408 nm)	0.470100	ppm	0.000885	0.19	48267.500000	Y_R 488.368
Be (234.861 nm)	0.458542	ppm	0.003016	0.66	45146.100000	Y_R 488.368
Bi (223.061 nm)	0.973086	ppm	0.001261	0.13	2121.100000	Y 377.433
Ca (315.887 nm)	4.857128	ppm	0.014722	0.30	3788.647160	Y_R 377.433
Cd (214.439 nm)	0.507151	ppm	0.000973	0.19	18750.300000	Y 377.433
Co (228.615 nm)	0.483985	ppm	0.000416	0.09	11380.800000	Y 242.219
Cr (205.560 nm)	0.509836	ppm	0.004764	0.93	3390.030000	Y 377.433
Cu (324.754 nm)	0.486668	ppm	0.001195	0.25	23014.600000	Y 377.433
Fe (238.204 nm)	2.476463	ppm	0.017652	0.71	5968.417441	Y_R 377.433
Fe H (259.940 nm)	2.451550 u	ppm	0.012204	0.50	3401.870000	Y_R 377.433
K (766.491 nm)	48.178100	ppm	0.114127	0.24	48457.500000	Y_R2 488.368
Li (670.783 nm)	0.512697	ppm	0.000315	0.06	6257.370000	Y_R2 488.368
Mg (279.078 nm)	19.536900	ppm	0.021522	0.11	63936.800000	Y 377.433
Mn (257.610 nm)	0.481892	ppm	0.000163	0.03	131382.000000	Y 377.433
Mo (202.032 nm)	0.484360	ppm	0.000342	0.07	6116.130000	Y 377.433
Na (589.592 nm)	22.872700	ppm	0.009329	0.04	19033.500000	Y_R2 488.368
Na H (589.593 nm)	23.793868 u	ppm	0.087982	0.37	12792.011456	Y_R4
Ni (231.604 nm)	0.498054	ppm	0.000325	0.07	2568.920000	Y 377.433
P (213.618 nm)	0.052569	ppm	0.004243	8.07	-61.264000	Y 242.219
Pb (220.353 nm)	0.489342	ppm	0.002920	0.60	1560.660000	Y 242.219
S (181.972 nm)	-0.004742 u	ppm	0.004718	99.51	12.318962	Y 377.433
Sb (206.834 nm)	0.493952	ppm	0.001467	0.30	833.264000	Y 377.433
Se (196.026 nm)	0.486541	ppm	0.001043	0.21	742.775000	Y 242.219
Si (288.158 nm)	4.788120	ppm	0.013078	0.27	31312.400000	Y 377.433
Sn (189.925 nm)	0.501597	ppm	0.000881	0.18	809.188000	Y 377.433
Sr (421.552 nm)	0.459688	ppm	0.000816	0.18	69253.103046	Y_R 488.368
Th (288.505 nm)	0.021469	ppm	0.001826	8.50	0.711225	Y 377.433
Ti (336.122 nm)	0.476129	ppm	0.000190	0.04	60510.400000	Y 377.433
Tl (190.794 nm)	0.495712	ppm	0.001690	0.34	1132.410000	Y 377.433
U (409.013 nm)	0.014122	ppm	0.000222	1.57	-39.142100	Y 377.433
V (292.401 nm)	0.479254	ppm	0.000190	0.04	24565.700000	Y 377.433
Zn (206.200 nm)	0.508572	ppm	0.001540	0.30	2291.330000	Y 377.433
Zr (343.823 nm)	0.476364	ppm	0.000099	0.02	26806.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.138884	26325.840322	0.004074	0.36
Y 377.433	1.118040	781991.879402	0.004868	0.44
Y_R 377.433	1.173440	71144.200000	0.004666	0.40
Y_R 488.368	1.191410	62939.700000	0.003400	0.29
Y_R2 488.368	1.144112	121281.936781	0.002607	0.23
Y_R4	1.165810	52461.300000	0.002225	0.19

Sample Name: CCB

Date: 5/25/2019 12:28:31 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001217	ppm	0.000234	19.22	-225.065000	Y 377.433
Al (394.401 nm)	-0.002915 u	ppm	0.000165	5.67	57.885900	Y 377.433
Al H (396.152 nm)	0.136008 Zu	ppm	0.001624	1.19	39.135200 Z	Y_R 377.433
As (188.980 nm)	0.001288	ppm	0.001327	> 100.00	0.364647	Y 242.219
B (249.678 nm)	-0.003177 u	ppm	0.000326	10.27	23.979300	Y 242.219
Ba (493.408 nm)	-0.002523 Zu	ppm	0.000328	13.00	1147.940000 Z	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000049	> 100.00	-2.259800	Y_R 488.368
Bi (223.061 nm)	0.001276	ppm	0.000962	75.40	-7.818650	Y 377.433
Ca (315.887 nm)	0.016778	ppm	0.002696	16.07	-55.714105	Y_R 377.433
Cd (214.439 nm)	0.000033	ppm	0.000004	13.34	-3.950670	Y 377.433
Co (228.615 nm)	0.000116	ppm	0.000125	> 100.00	-12.408900	Y 242.219
Cr (205.560 nm)	0.000049 u	ppm	0.000229	> 100.00	-6.427720	Y 377.433
Cu (324.754 nm)	0.001544	ppm	0.000130	8.45	388.449000	Y 377.433
Fe (238.204 nm)	-0.001064 u	ppm	0.000885	83.20	4.578415	Y_R 377.433
Fe H (259.940 nm)	0.003377 u	ppm	0.001336	39.56	16.083000	Y_R 377.433
K (766.491 nm)	-0.247162 u	ppm	0.012793	5.18	1698.730000	Y_R2 488.368
Li (670.783 nm)	0.025681 Z	ppm	0.003555	13.84	-2104.820000 Z	Y_R2 488.368
Mg (279.078 nm)	0.003264	ppm	0.002245	68.78	18.839700	Y 377.433
Mn (257.610 nm)	0.000076	ppm	0.000007	9.67	9.756590	Y 377.433
Mo (202.032 nm)	0.000551	ppm	0.000078	14.11	18.079200	Y 377.433
Na (589.592 nm)	-0.003595 u	ppm	0.008711	> 100.00	146.702000	Y_R2 488.368
Na H (589.593 nm)	0.663320 u	ppm	0.000468	0.07	242.390261	Y_R4
Ni (231.604 nm)	0.000676	ppm	0.000291	43.02	-5.120060	Y 377.433
P (213.618 nm)	-0.000207 u	ppm	0.003046	> 100.00	-4.492120	Y 242.219
Pb (220.353 nm)	0.000088 u	ppm	0.000913	> 100.00	8.570690	Y 242.219
S (181.972 nm)	-0.010619 u	ppm	0.000619	5.83	7.835786	Y 377.433
Sb (206.834 nm)	-0.002835 u	ppm	0.001841	64.95	-3.013170	Y 377.433
Se (196.026 nm)	-0.002744 u	ppm	0.000886	32.28	4.718440	Y 242.219
Si (288.158 nm)	-0.007602 u	ppm	0.000091	1.19	439.608000	Y 377.433
Sn (189.925 nm)	0.000937	ppm	0.000275	29.30	3.598740	Y 377.433
Sr (421.552 nm)	0.000297	ppm	0.000046	15.61	67.954595	Y_R 488.368
Th (288.505 nm)	0.001236	ppm	0.000516	41.73	14.914900	Y 377.433
Ti (336.122 nm)	0.000457	ppm	0.000085	18.51	-375.466000	Y 377.433
Tl (190.794 nm)	0.001193	ppm	0.000567	47.52	4.542570	Y 377.433
U (409.013 nm)	0.010220	ppm	0.010471	> 100.00	7.676410	Y 377.433
V (292.401 nm)	0.000172	ppm	0.000195	> 100.00	-137.824000	Y 377.433
Zn (206.200 nm)	0.000046	ppm	0.000003	5.59	4.269980	Y 377.433
Zr (343.823 nm)	0.000150 u	ppm	0.000334	> 100.00	-153.099000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.163796	26901.688589	0.001227	0.11
Y 377.433	1.142541	799128.932866	0.002814	0.25
Y_R 377.433	1.186050	71908.600000	0.002211	0.19
Y_R 488.368	1.196460	63206.100000	0.005508	0.46
Y_R2 488.368	1.160801	123051.099926	0.005762	0.50
Y_R4	1.159740	52188.300000	0.006032	0.52

Sample Name: CCVL-5719884

Date: 5/25/2019 12:31:43 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008720	ppm	0.000045	0.52	32.912500	Y 377.433
Al (394.401 nm)	0.094608	ppm	0.000342	0.36	1253.600000	Y 377.433
Al H (396.152 nm)	0.228501 u	ppm	0.000786	0.34	246.724000	Y_R 377.433
As (188.980 nm)	0.015581	ppm	0.001307	8.39	21.900100	Y 242.219
B (249.678 nm)	0.087158	ppm	0.000578	0.66	669.067000	Y 242.219
Ba (493.408 nm)	0.007051	ppm	0.000507	7.18	2102.530000	Y_R 488.368
Be (234.861 nm)	0.000879	ppm	0.000041	4.62	84.180700	Y_R 488.368
Bi (223.061 nm)	0.085398	ppm	0.000666	0.78	176.443000	Y 377.433
Ca (315.887 nm)	0.217964	ppm	0.002064	0.95	104.092218	Y_R 377.433
Cd (214.439 nm)	0.005277	ppm	0.000005	0.09	190.001000	Y 377.433
Co (228.615 nm)	0.010188	ppm	0.000026	0.26	224.727000	Y 242.219
Cr (205.560 nm)	0.010361	ppm	0.000294	2.84	62.173800	Y 377.433
Cu (324.754 nm)	0.016476	ppm	0.000017	0.10	1085.060000	Y 377.433
Fe (238.204 nm)	0.100721	ppm	0.001371	1.36	249.593574	Y_R 377.433
Fe H (259.940 nm)	0.104244 u	ppm	0.000866	0.83	155.581000	Y_R 377.433
K (766.491 nm)	2.717740	ppm	0.096735	3.56	4561.600000	Y_R2 488.368
Li (670.783 nm)	0.050383 Q	ppm	0.003002	5.96	-1680.680000 Q	Y_R2 488.368
Mg (279.078 nm)	0.202380	ppm	0.001247	0.62	669.470000	Y 377.433
Mn (257.610 nm)	0.010343	ppm	0.000025	0.25	2808.920000	Y 377.433
Mo (202.032 nm)	0.019598	ppm	0.000014	0.07	258.152000	Y 377.433
Na (589.592 nm)	0.955155	ppm	0.009383	0.98	935.896000	Y_R2 488.368
Na H (589.593 nm)	1.456252 u	ppm	0.001350	0.09	672.600420	Y_R4
Ni (231.604 nm)	0.043447	ppm	0.000477	1.10	216.193000	Y 377.433
P (213.618 nm)	2.803350	ppm	0.007861	0.28	4000.470000	Y 242.219
Pb (220.353 nm)	0.007918	ppm	0.000838	10.59	33.485500	Y 242.219
S (181.972 nm)	0.084682	ppm	0.002263	2.67	51.518065	Y 377.433
Sb (206.834 nm)	0.017540	ppm	0.000807	4.60	31.238700	Y 377.433
Se (196.026 nm)	0.018792	ppm	0.001471	7.83	37.190100	Y 242.219
Si (288.158 nm)	0.471036	ppm	0.000297	0.06	3520.880000	Y 377.433
Sn (189.925 nm)	0.101380	ppm	0.001301	1.28	165.216000	Y 377.433
Sr (421.552 nm)	0.009045	ppm	0.000001	0.01	1385.312122	Y_R 488.368
Th (288.505 nm)	0.020126 Q	ppm	0.003280	16.30	46.897000 Q	Y 377.433
Ti (336.122 nm)	0.009804	ppm	0.000020	0.21	821.322000	Y 377.433
Tl (190.794 nm)	0.014595	ppm	0.000281	1.93	35.081600	Y 377.433
U (409.013 nm)	0.055920	ppm	0.003255	5.82	151.448000	Y 377.433
V (292.401 nm)	0.010095	ppm	0.000171	1.70	372.302000	Y 377.433
Zn (206.200 nm)	0.021421	ppm	0.000020	0.09	100.401000	Y 377.433
Zr (343.823 nm)	0.009629	ppm	0.000080	0.83	383.512000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.186071	27416.585166	0.005148	0.43
Y 377.433	1.162299	812948.431283	0.005085	0.44
Y_R 377.433	1.206100	73124.300000	0.003122	0.26
Y_R 488.368	1.218350	64362.700000	0.009285	0.76
Y_R2 488.368	1.185091	125625.951992	0.000917	0.08
Y_R4	1.177170	52972.600000	0.007808	0.66

Sample Name: 280-123924-F-4-A

Date: 5/25/2019 12:35:13 AM Rack:Tube: 2:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.002448	ppm	0.000548	22.41	-183.868000	Y 377.433
Al (394.401 nm)	0.273093	ppm	0.001821	0.67	3575.180000	Y 377.433
Al H (396.152 nm)	0.278132 u	ppm	0.003136	1.13	565.988000	Y_R 377.433
As (188.980 nm)	0.004406	ppm	0.000316	7.17	4.879200	Y 242.219
B (249.678 nm)	0.036886	ppm	0.000781	2.12	306.163000	Y 242.219
Ba (493.408 nm)	0.024589	ppm	0.000048	0.20	3856.250000	Y_R 488.368
Be (234.861 nm)	-0.000029 u	ppm	0.000053	> 100.00	-33.650200	Y_R 488.368
Bi (223.061 nm)	-0.000593 u	ppm	0.000713	> 100.00	-10.726000	Y 377.433
Ca (315.887 nm)	136.716423	ppm	0.689477	0.50	108511.992304	Y_R 377.433
Cd (214.439 nm)	0.001725	ppm	0.000054	3.11	61.362600	Y 377.433
Co (228.615 nm)	0.000491	ppm	0.000144	29.35	-3.479540	Y 242.219
Cr (205.560 nm)	0.003259	ppm	0.000385	11.82	14.955200	Y 377.433
Cu (324.754 nm)	0.566816	ppm	0.001399	0.25	26677.200000	Y 377.433
Fe (238.204 nm)	6.807313 o	ppm	0.035724	0.52	16393.529973	Y_R 377.433
Fe H (259.940 nm)	6.740210	ppm	0.032925	0.49	9333.020000	Y_R 377.433
K (766.491 nm)	3.337330	ppm	0.247306	7.41	5159.870000	Y_R2 488.368
Li (670.783 nm)	0.056527	ppm	0.002953	5.22	-1575.190000	Y_R2 488.368
Mg (279.078 nm)	24.875600	ppm	0.045869	0.18	81401.200000	Y 377.433
Mn (257.610 nm)	3.970490	ppm	0.012193	0.31	1082580.000000	Y 377.433
Mo (202.032 nm)	0.003389	ppm	0.000163	4.82	53.854200	Y 377.433
Na (589.592 nm)	49.060500	ppm	0.222448	0.45	40429.600000	Y_R2 488.368
Na H (589.593 nm)	49.488306 u	ppm	0.645505	1.30	26732.686834	Y_R4
Ni (231.604 nm)	0.004372	ppm	0.000604	13.82	14.009200	Y 377.433
P (213.618 nm)	0.213195	ppm	0.004438	2.08	166.041000	Y 242.219
Pb (220.353 nm)	0.017025	ppm	0.000579	3.40	62.364600	Y 242.219
S (181.972 nm)	6.701000	ppm	0.004885	0.07	3101.140657	Y 377.433
Sb (206.834 nm)	-0.004929 u	ppm	0.001276	25.89	-5.981360	Y 377.433
Se (196.026 nm)	-0.001365 u	ppm	0.003804	> 100.00	10.670600	Y 242.219
Si (288.158 nm)	8.785740	ppm	0.036287	0.41	57047.300000	Y 377.433
Sn (189.925 nm)	0.000174 u	ppm	0.001224	> 100.00	2.370490	Y 377.433
Sr (421.552 nm)	0.585717	ppm	0.003482	0.59	88233.745784	Y_R 488.368
Th (288.505 nm)	-0.002613 u	ppm	0.003231	> 100.00	83.593100	Y 377.433
Ti (336.122 nm)	0.002475	ppm	0.000407	16.44	358.918000	Y 377.433
Tl (190.794 nm)	0.003595	ppm	0.001909	53.10	3.631100	Y 377.433
U (409.013 nm)	0.039087	ppm	0.002051	5.25	85.584500	Y 377.433
V (292.401 nm)	0.003889	ppm	0.000006	0.16	55.831900	Y 377.433
Zn (206.200 nm)	1.670290	ppm	0.001723	0.10	7515.880000	Y 377.433
Zr (343.823 nm)	0.000703	ppm	0.000066	9.45	-121.828000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130434	26130.508283	0.005194	0.46
Y 377.433	1.117736	781779.216956	0.005699	0.51
Y_R 377.433	1.176740	71344.200000	0.002784	0.24
Y_R 488.368	1.195480	63154.200000	0.004552	0.38
Y_R2 488.368	1.156353	122579.534682	0.009352	0.81
Y_R4	1.163760	52368.900000	0.018654	1.60

Sample Name: 280-123924-F-5-A

Date: 5/25/2019 12:38:50 AM Rack:Tube: 2:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001636	ppm	0.000015	0.93	-211.052000	Y 377.433
Al (394.401 nm)	0.017561	ppm	0.001118	6.37	556.988000	Y 377.433
Al H (396.152 nm)	-0.022977 u	ppm	0.001885	8.21	82.401800	Y_R 377.433
As (188.980 nm)	0.002331	ppm	0.000897	38.49	1.880600	Y 242.219
B (249.678 nm)	0.015095	ppm	0.000265	1.75	153.267000	Y 242.219
Ba (493.408 nm)	0.250088	ppm	0.000331	0.13	26333.300000	Y_R 488.368
Be (234.861 nm)	-0.000010 u	ppm	0.000001	12.52	-11.777700	Y_R 488.368
Bi (223.061 nm)	-0.001072 u	ppm	0.000351	32.72	-12.595700	Y 377.433
Ca (315.887 nm)	47.830134	ppm	0.065621	0.14	37917.933224	Y_R 377.433
Cd (214.439 nm)	0.000233	ppm	0.000181	77.59	4.297000	Y 377.433
Co (228.615 nm)	0.001543	ppm	0.000127	8.25	21.500300	Y 242.219
Cr (205.560 nm)	0.339532	ppm	0.003334	0.98	2257.530000	Y 377.433
Cu (324.754 nm)	0.006424	ppm	0.000333	5.19	587.355000	Y 377.433
Fe (238.204 nm)	2.084162	ppm	0.001725	0.08	5024.080311	Y_R 377.433
Fe H (259.940 nm)	2.059050 u	ppm	0.002447	0.12	2859.050000	Y_R 377.433
K (766.491 nm)	1.487280	ppm	0.373707	25.13	3373.480000	Y_R2 488.368
Li (670.783 nm)	0.099805	ppm	0.000457	0.46	-832.090000	Y_R2 488.368
Mg (279.078 nm)	27.109900	ppm	0.036836	0.14	88718.800000	Y 377.433
Mn (257.610 nm)	0.226201	ppm	0.000384	0.17	61664.900000	Y 377.433
Mo (202.032 nm)	0.001200	ppm	0.000044	3.67	26.253600	Y 377.433
Na (589.592 nm)	151.899000 o	ppm	0.246010	0.16	124901.000000	Y_R2 488.368
Na H (589.593 nm)	155.050989	ppm	0.621867	0.40	84006.369245	Y_R4
Ni (231.604 nm)	0.152418	ppm	0.000408	0.27	779.993000	Y 377.433
P (213.618 nm)	0.005374	ppm	0.006367	> 100.00	2.023210	Y 242.219
Pb (220.353 nm)	0.000473	ppm	0.000636	> 100.00	9.283730	Y 242.219
S (181.972 nm)	7.372866	ppm	0.034735	0.47	3392.262186	Y 377.433
Sb (206.834 nm)	-0.003056 u	ppm	0.001732	56.67	-0.759902	Y 377.433
Se (196.026 nm)	-0.001629 u	ppm	0.000356	21.85	6.184290	Y 242.219
Si (288.158 nm)	3.718190	ppm	0.007337	0.20	24424.700000	Y 377.433
Sn (189.925 nm)	0.001514	ppm	0.000394	26.04	4.527210	Y 377.433
Sr (421.552 nm)	0.946656	ppm	0.000486	0.05	142590.837584	Y_R 488.368
Th (288.505 nm)	0.001071	ppm	0.000055	5.10	17.757700	Y 377.433
Ti (336.122 nm)	0.000488	ppm	0.000022	4.46	-204.320000	Y 377.433
Tl (190.794 nm)	-0.000546 u	ppm	0.000151	27.64	-1.624270	Y 377.433
U (409.013 nm)	0.020631	ppm	0.001681	8.15	35.748500	Y 377.433
V (292.401 nm)	0.001636	ppm	0.000061	3.75	-185.201000	Y 377.433
Zn (206.200 nm)	0.006553	ppm	0.000378	5.76	33.822500	Y 377.433
Zr (343.823 nm)	0.000184 u	ppm	0.000407	> 100.00	-151.188000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126972	26050.485853	0.005107	0.45
Y 377.433	1.109793	776224.140446	0.006425	0.58
Y_R 377.433	1.189170	72098.000000	0.000566	0.05
Y_R 488.368	1.201360	63465.200000	0.000377	0.03
Y_R2 488.368	1.154772	122411.977258	0.000992	0.09
Y_R4	1.166700	52501.600000	0.003746	0.32

Sample Name: 280-123924-F-6-A

Date: 5/25/2019 12:42:23 AM Rack:Tube: 2:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001933	ppm	0.000218	11.28	-200.699000	Y 377.433
Al (394.401 nm)	0.023076	ppm	0.001411	6.12	547.001000	Y 377.433
Al H (396.152 nm)	0.018211 u	ppm	0.007139	39.20	31.216000	Y_R 377.433
As (188.980 nm)	0.001629	ppm	0.000059	3.60	0.872478	Y 242.219
B (249.678 nm)	0.114548	ppm	0.000840	0.73	864.615000	Y 242.219
Ba (493.408 nm)	0.013097	ppm	0.000828	6.32	2705.280000	Y_R 488.368
Be (234.861 nm)	-0.000062 u	ppm	0.000004	5.72	-8.956690	Y_R 488.368
Bi (223.061 nm)	0.000367 u	ppm	0.001563	> 100.00	-9.758070	Y 377.433
Ca (315.887 nm)	126.341069	ppm	0.459785	0.36	100271.764509	Y_R 377.433
Cd (214.439 nm)	0.000265	ppm	0.000076	28.59	4.701230	Y 377.433
Co (228.615 nm)	0.000178	ppm	0.000120	67.38	-10.938000	Y 242.219
Cr (205.560 nm)	0.001218	ppm	0.000364	29.88	1.365980	Y 377.433
Cu (324.754 nm)	0.000906	ppm	0.000462	50.94	285.149000	Y 377.433
Fe (238.204 nm)	0.205456	ppm	0.000543	0.26	501.707212	Y_R 377.433
Fe H (259.940 nm)	0.203597 u	ppm	0.000129	0.06	292.985000	Y_R 377.433
K (766.491 nm)	6.930740	ppm	0.172922	2.50	8629.620000	Y_R2 488.368
Li (670.783 nm)	0.048039	ppm	0.001482	3.08	-1720.920000	Y_R2 488.368
Mg (279.078 nm)	23.543700	ppm	0.105421	0.45	77051.400000	Y 377.433
Mn (257.610 nm)	1.345290	ppm	0.005050	0.38	366796.000000	Y 377.433
Mo (202.032 nm)	0.000047 u	ppm	0.000350	> 100.00	11.719500	Y 377.433
Na (589.592 nm)	32.752600	ppm	0.004126	0.01	27039.900000	Y_R2 488.368
Na H (589.593 nm)	33.131297 u	ppm	0.172914	0.52	17858.090669	Y_R4
Ni (231.604 nm)	0.000810	ppm	0.000673	83.09	-4.426260	Y 377.433
P (213.618 nm)	0.001928 u	ppm	0.006613	> 100.00	-1.760070	Y 242.219
Pb (220.353 nm)	-0.000527 u	ppm	0.001274	> 100.00	6.632460	Y 242.219
S (181.972 nm)	16.189639	ppm	0.118809	0.73	7437.509341	Y 377.433
Sb (206.834 nm)	-0.007534 u	ppm	0.003299	43.79	-10.916000	Y 377.433
Se (196.026 nm)	0.002001	ppm	0.000507	25.35	13.728000	Y 242.219
Si (288.158 nm)	6.979820	ppm	0.017553	0.25	45421.600000	Y 377.433
Sn (189.925 nm)	0.000534	ppm	0.000291	54.40	2.950250	Y 377.433
Sr (421.552 nm)	0.658368	ppm	0.001111	0.17	99174.168631	Y_R 488.368
Th (288.505 nm)	-0.002138 u	ppm	0.000548	25.62	32.795700	Y 377.433
Ti (336.122 nm)	0.000262	ppm	0.000129	49.27	39.364700	Y 377.433
Tl (190.794 nm)	0.004025	ppm	0.002428	60.33	5.856550	Y 377.433
U (409.013 nm)	0.029471	ppm	0.008287	28.12	51.744500	Y 377.433
V (292.401 nm)	0.001136	ppm	0.000132	11.61	-88.322500	Y 377.433
Zn (206.200 nm)	0.007127	ppm	0.000375	5.26	36.139600	Y 377.433
Zr (343.823 nm)	-0.000136 u	ppm	0.000015	10.66	-169.331000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.130281	26126.961460	0.005378	0.48
Y 377.433	1.116296	780772.419238	0.004965	0.44
Y_R 377.433	1.178740	71465.800000	0.000866	0.07
Y_R 488.368	1.199050	63343.200000	0.007701	0.64
Y_R2 488.368	1.165437	123542.525524	0.008807	0.76
Y_R4	1.171120	52700.300000	0.005139	0.44

Sample Name: 280-123924-F-7-A

Date: 5/25/2019 12:45:54 AM Rack:Tube: 2:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001629	ppm	0.000278	17.06	-211.269000	Y 377.433
Al (394.401 nm)	0.030921	ppm	0.001013	3.28	558.720000	Y 377.433
Al H (396.152 nm)	0.086917 u	ppm	0.003265	3.76	52.118900	Y_R 377.433
As (188.980 nm)	0.000752 u	ppm	0.002067	> 100.00	-0.449145	Y 242.219
B (249.678 nm)	0.015189	ppm	0.000658	4.33	155.026000	Y 242.219
Ba (493.408 nm)	0.093616	ppm	0.000735	0.79	10732.600000	Y_R 488.368
Be (234.861 nm)	-0.000046 u	ppm	0.000007	15.93	-7.399320	Y_R 488.368
Bi (223.061 nm)	0.001770	ppm	0.001062	60.01	-6.695290	Y 377.433
Ca (315.887 nm)	85.372000	ppm	0.199985	0.23	67733.897231	Y_R 377.433
Cd (214.439 nm)	0.000099	ppm	0.000136	> 100.00	-1.429000	Y 377.433
Co (228.615 nm)	-0.000351 u	ppm	0.000119	33.90	-23.367900	Y 242.219
Cr (205.560 nm)	0.000635	ppm	0.000226	35.64	-2.520600	Y 377.433
Cu (324.754 nm)	0.001528	ppm	0.000001	0.06	336.540000	Y 377.433
Fe (238.204 nm)	0.212285	ppm	0.004146	1.95	518.146859	Y_R 377.433
Fe H (259.940 nm)	0.220050 u	ppm	0.001283	0.58	315.739000	Y_R 377.433
K (766.491 nm)	1.760700	ppm	0.315906	17.94	3637.500000	Y_R2 488.368
Li (670.783 nm)	0.040773	ppm	0.002040	5.00	-1845.690000	Y_R2 488.368
Mg (279.078 nm)	13.509800	ppm	0.016397	0.12	44216.900000	Y 377.433
Mn (257.610 nm)	0.078373	ppm	0.000053	0.07	21358.200000	Y 377.433
Mo (202.032 nm)	0.000061 u	ppm	0.000259	> 100.00	11.898500	Y 377.433
Na (589.592 nm)	143.988000 o	ppm	0.263245	0.18	118371.000000	Y_R2 488.368
Na H (589.593 nm)	147.589034	ppm	1.430744	0.97	79957.839587	Y_R4
Ni (231.604 nm)	-0.000315 u	ppm	0.000929	> 100.00	-10.249400	Y 377.433
P (213.618 nm)	0.010370	ppm	0.002497	24.08	10.364100	Y 242.219
Pb (220.353 nm)	-0.001063 u	ppm	0.000228	21.43	4.902180	Y 242.219
S (181.972 nm)	9.047139	ppm	0.047749	0.53	4160.418818	Y 377.433
Sb (206.834 nm)	-0.004968 u	ppm	0.000516	10.39	-6.592670	Y 377.433
Se (196.026 nm)	0.000326 u	ppm	0.002785	> 100.00	9.404930	Y 242.219
Si (288.158 nm)	3.183230	ppm	0.001152	0.04	20980.800000	Y 377.433
Sn (189.925 nm)	-0.000030 u	ppm	0.000541	> 100.00	2.042750	Y 377.433
Sr (421.552 nm)	0.331351	ppm	0.000853	0.26	49925.060316	Y_R 488.368
Th (288.505 nm)	-0.008153 u	ppm	0.004059	49.79	-2.086890	Y 377.433
Ti (336.122 nm)	0.000156	ppm	0.000117	74.95	-117.110000	Y 377.433
Tl (190.794 nm)	0.000376	ppm	0.000304	80.85	-0.819734	Y 377.433
U (409.013 nm)	0.025766	ppm	0.002662	10.33	45.559900	Y 377.433
V (292.401 nm)	0.001403	ppm	0.000095	6.80	-74.587500	Y 377.433
Zn (206.200 nm)	0.006498	ppm	0.000768	11.82	33.314200	Y 377.433
Zr (343.823 nm)	0.000022 u	ppm	0.000297	> 100.00	-160.370000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.126512	26039.860314	0.002960	0.26
Y 377.433	1.111904	777700.300573	0.003106	0.28
Y_R 377.433	1.183690	71765.500000	0.007299	0.62
Y_R 488.368	1.195640	63163.000000	0.006260	0.52
Y_R2 488.368	1.154474	122380.403638	0.002767	0.24
Y_R4	1.156040	52021.900000	0.003969	0.34

Sample Name: 280-123924-F-8-A

Date: 5/25/2019 12:49:26 AM Rack:Tube: 2:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001770	ppm	0.000368	20.78	-206.636000	Y 377.433
Al (394.401 nm)	0.036275	ppm	0.001524	4.20	627.072000	Y 377.433
Al H (396.152 nm)	0.100369 u	ppm	0.004589	4.57	82.270300	Y_R 377.433
As (188.980 nm)	0.001992	ppm	0.002806	> 100.00	1.419410	Y 242.219
B (249.678 nm)	0.015234	ppm	0.000481	3.16	155.327000	Y 242.219
Ba (493.408 nm)	0.096144	ppm	0.000633	0.66	10984.600000	Y_R 488.368
Be (234.861 nm)	-0.000057 u	ppm	0.000019	32.94	-8.609570	Y_R 488.368
Bi (223.061 nm)	0.000604 u	ppm	0.001055	> 100.00	-9.243110	Y 377.433
Ca (315.887 nm)	83.540230	ppm	0.461750	0.55	66279.097862	Y_R 377.433
Cd (214.439 nm)	0.000238	ppm	0.000008	3.23	3.728240	Y 377.433
Co (228.615 nm)	-0.000249 u	ppm	0.000083	33.33	-20.975800	Y 242.219
Cr (205.560 nm)	0.000539	ppm	0.000035	6.43	-3.158670	Y 377.433
Cu (324.754 nm)	0.001652	ppm	0.000069	4.19	342.364000	Y 377.433
Fe (238.204 nm)	0.241572	ppm	0.001052	0.44	588.645205	Y_R 377.433
Fe H (259.940 nm)	0.241987 u	ppm	0.001497	0.62	346.077000	Y_R 377.433
K (766.491 nm)	1.695760	ppm	0.189499	11.17	3574.780000	Y_R2 488.368
Li (670.783 nm)	0.041113	ppm	0.003730	9.07	-1839.850000	Y_R2 488.368
Mg (279.078 nm)	13.321600	ppm	0.023013	0.17	43600.700000	Y 377.433
Mn (257.610 nm)	0.078488	ppm	0.000092	0.12	21389.600000	Y 377.433
Mo (202.032 nm)	0.000488	ppm	0.000096	19.68	17.283200	Y 377.433
Na (589.592 nm)	138.534000 o	ppm	0.052226	0.04	113895.000000	Y_R2 488.368
Na H (589.593 nm)	143.199107	ppm	0.556966	0.39	77576.058062	Y_R4
Ni (231.604 nm)	-0.000932 u	ppm	0.000342	36.65	-13.445700	Y 377.433
P (213.618 nm)	0.009986	ppm	0.001001	10.03	9.748600	Y 242.219
Pb (220.353 nm)	0.000115	ppm	0.000050	43.31	8.697730	Y 242.219
S (181.972 nm)	8.885204	ppm	0.027381	0.31	4086.165303	Y 377.433
Sb (206.834 nm)	-0.004473 u	ppm	0.004209	94.11	-5.752640	Y 377.433
Se (196.026 nm)	-0.000394 u	ppm	0.004847	> 100.00	8.311580	Y 242.219
Si (288.158 nm)	3.156410	ppm	0.003540	0.11	20808.200000	Y 377.433
Sn (189.925 nm)	0.002400	ppm	0.002192	91.32	5.952370	Y 377.433
Sr (421.552 nm)	0.331894	ppm	0.001130	0.34	50006.864844	Y_R 488.368
Th (288.505 nm)	-0.005452 u	ppm	0.003877	71.12	2.753750	Y 377.433
Ti (336.122 nm)	0.000285	ppm	0.000046	16.03	-107.106000	Y 377.433
Tl (190.794 nm)	0.001698 u	ppm	0.003012	> 100.00	2.275210	Y 377.433
U (409.013 nm)	0.026858	ppm	0.000660	2.46	49.304000	Y 377.433
V (292.401 nm)	0.001329	ppm	0.000007	0.51	-79.665300	Y 377.433
Zn (206.200 nm)	0.007225	ppm	0.000330	4.57	36.588100	Y 377.433
Zr (343.823 nm)	0.000029	ppm	0.000036	> 100.00	-159.995000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124082	25983.673048	0.001644	0.15
Y 377.433	1.109022	775684.659982	0.003006	0.27
Y_R 377.433	1.181290	71620.100000	0.009978	0.84
Y_R 488.368	1.195950	63179.200000	0.009558	0.80
Y_R2 488.368	1.158190	122774.218305	0.003284	0.28
Y_R4	1.169190	52613.400000	0.002445	0.21

Sample Name: 280-123924-F-9-A

Date: 5/25/2019 12:52:58 AM Rack:Tube: 2:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001632	ppm	0.000786	48.15	-211.291000	Y 377.433
Al (394.401 nm)	0.041435	ppm	0.000065	0.16	688.671000	Y 377.433
Al H (396.152 nm)	0.105167 u	ppm	0.001265	1.20	93.556700	Y_R 377.433
As (188.980 nm)	-0.001542 u	ppm	0.000516	33.45	-3.905760	Y 242.219
B (249.678 nm)	0.014873	ppm	0.000187	1.26	152.742000	Y 242.219
Ba (493.408 nm)	0.097591	ppm	0.000102	0.10	11128.900000	Y_R 488.368
Be (234.861 nm)	-0.000053 u	ppm	0.000034	64.51	-8.221910	Y_R 488.368
Bi (223.061 nm)	0.000867 u	ppm	0.001245	> 100.00	-8.666350	Y 377.433
Ca (315.887 nm)	83.585050	ppm	0.110408	0.13	66314.693309	Y_R 377.433
Cd (214.439 nm)	0.000275	ppm	0.000009	3.19	5.072990	Y 377.433
Co (228.615 nm)	-0.000136 u	ppm	0.000250	> 100.00	-18.326500	Y 242.219
Cr (205.560 nm)	0.000670	ppm	0.000259	38.62	-2.285900	Y 377.433
Cu (324.754 nm)	0.001636	ppm	0.000388	23.69	342.592000	Y 377.433
Fe (238.204 nm)	0.248573	ppm	0.001431	0.58	605.498559	Y_R 377.433
Fe H (259.940 nm)	0.244741 u	ppm	0.004371	1.79	349.886000	Y_R 377.433
K (766.491 nm)	1.711630	ppm	0.388364	22.69	3590.110000	Y_R2 488.368
Li (670.783 nm)	0.043956	ppm	0.001229	2.80	-1791.040000	Y_R2 488.368
Mg (279.078 nm)	13.424200	ppm	0.000133	0.00	43936.700000	Y 377.433
Mn (257.610 nm)	0.079857	ppm	0.000136	0.17	21762.600000	Y 377.433
Mo (202.032 nm)	0.000176	ppm	0.000034	19.55	13.349800	Y 377.433
Na (589.592 nm)	138.044000 o	ppm	0.419432	0.30	113493.000000	Y_R2 488.368
Na H (589.593 nm)	142.963190	ppm	1.735994	1.21	77448.059779	Y_R4
Ni (231.604 nm)	-0.001017 u	ppm	0.000301	29.63	-13.882600	Y 377.433
P (213.618 nm)	0.005590	ppm	0.005516	98.69	3.455530	Y 242.219
Pb (220.353 nm)	-0.000269 u	ppm	0.000803	> 100.00	7.457440	Y 242.219
S (181.972 nm)	8.944271	ppm	0.025668	0.29	4113.226914	Y 377.433
Sb (206.834 nm)	-0.002303 u	ppm	0.001211	52.60	-2.087600	Y 377.433
Se (196.026 nm)	0.002517	ppm	0.000661	26.28	12.703000	Y 242.219
Si (288.158 nm)	3.197120	ppm	0.003836	0.12	21070.300000	Y 377.433
Sn (189.925 nm)	0.000572 u	ppm	0.002925	> 100.00	3.010250	Y 377.433
Sr (421.552 nm)	0.333928	ppm	0.000815	0.24	50313.165454	Y_R 488.368
Th (288.505 nm)	-0.006973 u	ppm	0.000923	13.23	0.098033	Y 377.433
Ti (336.122 nm)	0.000451	ppm	0.000021	4.73	-85.336200	Y 377.433
Tl (190.794 nm)	0.001762	ppm	0.000313	17.75	2.414820	Y 377.433
U (409.013 nm)	0.020401	ppm	0.004633	22.71	28.767100	Y 377.433
V (292.401 nm)	0.001499	ppm	0.000209	13.96	-69.940800	Y 377.433
Zn (206.200 nm)	0.007957	ppm	0.000365	4.59	39.878200	Y 377.433
Zr (343.823 nm)	0.000158	ppm	0.000084	53.05	-152.697000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.135720	26252.701519	0.000707	0.06
Y 377.433	1.120886	783982.493169	0.001259	0.11
Y_R 377.433	1.192330	72289.400000	0.001694	0.14
Y_R 488.368	1.208310	63832.200000	0.002634	0.22
Y_R2 488.368	1.173536	124400.977233	0.000582	0.05
Y_R4	1.178710	53041.800000	0.005636	0.48

Sample Name: 280-123924-F-10-A

Date: 5/25/2019 12:56:30 AM Rack:Tube: 2:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001251	ppm	0.000602	48.17	-224.246000	Y 377.433
Al (394.401 nm)	0.254858	ppm	0.000420	0.16	3225.770000	Y 377.433
Al H (396.152 nm)	0.368969 u	ppm	0.009085	2.46	574.540000	Y_R 377.433
As (188.980 nm)	-0.000320 u	ppm	0.000134	41.69	-2.064840	Y 242.219
B (249.678 nm)	0.004689	ppm	0.000644	13.73	80.023100	Y 242.219
Ba (493.408 nm)	0.017808	ppm	0.000158	0.89	3175.020000	Y_R 488.368
Be (234.861 nm)	-0.000020 u	ppm	0.000006	32.67	-4.878440	Y_R 488.368
Bi (223.061 nm)	0.000017 u	ppm	0.001949	> 100.00	-10.534000	Y 377.433
Ca (315.887 nm)	25.726179	ppm	0.015537	0.06	20362.899546	Y_R 377.433
Cd (214.439 nm)	0.000112	ppm	0.000150	> 100.00	-0.938249	Y 377.433
Co (228.615 nm)	0.000191	ppm	0.000023	12.06	-10.473800	Y 242.219
Cr (205.560 nm)	0.000805	ppm	0.000310	38.50	-1.396890	Y 377.433
Cu (324.754 nm)	0.003822	ppm	0.000308	8.06	478.117000	Y 377.433
Fe (238.204 nm)	0.227852	ppm	0.000403	0.18	555.619950	Y_R 377.433
Fe H (259.940 nm)	0.231290 u	ppm	0.003164	1.37	331.283000	Y_R 377.433
K (766.491 nm)	0.619063	ppm	0.065386	10.56	2535.140000	Y_R2 488.368
Li (670.783 nm)	0.030750	ppm	0.007462	24.27	-2017.790000	Y_R2 488.368
Mg (279.078 nm)	2.940840	ppm	0.009741	0.33	9631.400000	Y 377.433
Mn (257.610 nm)	0.306341	ppm	0.000755	0.25	83515.800000	Y 377.433
Mo (202.032 nm)	0.001458	ppm	0.000006	0.40	29.503700	Y 377.433
Na (589.592 nm)	0.851335	ppm	0.061249	7.19	853.005000	Y_R2 488.368
Na H (589.593 nm)	1.619651 u	ppm	0.014119	0.87	761.253718	Y_R4
Ni (231.604 nm)	0.001366	ppm	0.000257	18.78	-1.552120	Y 377.433
P (213.618 nm)	0.142311	ppm	0.001824	1.28	198.696000	Y 242.219
Pb (220.353 nm)	-0.000949 u	ppm	0.000780	82.20	5.217730	Y 242.219
S (181.972 nm)	0.384170	ppm	0.009444	2.46	190.903196	Y 377.433
Sb (206.834 nm)	-0.004816 u	ppm	0.001270	26.38	-6.362330	Y 377.433
Se (196.026 nm)	-0.001457 u	ppm	0.004680	> 100.00	7.035460	Y 242.219
Si (288.158 nm)	2.543400	ppm	0.012201	0.48	16861.800000	Y 377.433
Sn (189.925 nm)	0.000964	ppm	0.000006	0.58	3.641510	Y 377.433
Sr (421.552 nm)	0.076078	ppm	0.000324	0.43	11480.602067	Y_R 488.368
Th (288.505 nm)	-0.004944 u	ppm	0.002058	41.63	9.575360	Y 377.433
Ti (336.122 nm)	0.005271	ppm	0.000259	4.91	329.444000	Y 377.433
Tl (190.794 nm)	0.000977	ppm	0.000967	98.98	2.963660	Y 377.433
U (409.013 nm)	0.017439	ppm	0.003214	18.43	27.227600	Y 377.433
V (292.401 nm)	0.001668	ppm	0.000001	0.07	-60.927000	Y 377.433
Zn (206.200 nm)	0.008281	ppm	0.000074	0.90	41.335600	Y 377.433
Zr (343.823 nm)	0.000338	ppm	0.000111	32.86	-142.467000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.180234	27281.647885	0.004149	0.35
Y 377.433	1.162312	812957.222490	0.004539	0.39
Y_R 377.433	1.222140	74097.100000	0.004200	0.34
Y_R 488.368	1.238960	65451.500000	0.003903	0.32
Y_R2 488.368	1.187455	125876.535185	0.008083	0.68
Y_R4	1.197350	53880.600000	0.002638	0.22

Sample Name: 280-123924-F-11-A

Date: 5/25/2019 1:00:01 AM Rack:Tube: 2:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001431	ppm	0.000034	2.34	-219.861000	Y 377.433
Al (394.401 nm)	1.334860	ppm	0.000332	0.02	16410.400000	Y 377.433
Al H (396.152 nm)	1.455920	ppm	0.006122	0.42	2953.960000	Y_R 377.433
As (188.980 nm)	0.011347	ppm	0.001027	9.05	15.230300	Y 242.219
B (249.678 nm)	0.008354	ppm	0.000230	2.75	100.102000	Y 242.219
Ba (493.408 nm)	0.060981	ppm	0.000161	0.26	7487.460000	Y_R 488.368
Be (234.861 nm)	0.000093	ppm	0.000000	0.10	-38.402800	Y_R 488.368
Bi (223.061 nm)	-0.000290 u	ppm	0.000968	> 100.00	-9.381790	Y 377.433
Ca (315.887 nm)	28.399721	ppm	0.116803	0.41	22486.518606	Y_R 377.433
Cd (214.439 nm)	0.003463	ppm	0.000005	0.15	127.262000	Y 377.433
Co (228.615 nm)	0.001825	ppm	0.000456	24.98	29.072900	Y 242.219
Cr (205.560 nm)	0.003880	ppm	0.000162	4.19	19.080200	Y 377.433
Cu (324.754 nm)	0.011655	ppm	0.000059	0.51	842.433000	Y 377.433
Fe (238.204 nm)	10.788020 o	ppm	0.021820	0.20	25975.787539	Y_R 377.433
Fe H (259.940 nm)	10.669400	ppm	0.031097	0.29	14767.000000	Y_R 377.433
K (766.491 nm)	0.559254	ppm	0.206094	36.85	2477.390000	Y_R2 488.368
Li (670.783 nm)	0.034027	ppm	0.000169	0.50	-1961.520000	Y_R2 488.368
Mg (279.078 nm)	7.193090	ppm	0.014491	0.20	23532.200000	Y 377.433
Mn (257.610 nm)	0.678384	ppm	0.001110	0.16	184957.000000	Y 377.433
Mo (202.032 nm)	0.000359	ppm	0.000055	15.38	15.661700	Y 377.433
Na (589.592 nm)	1.716570	ppm	0.000482	0.03	1572.990000	Y_R2 488.368
Na H (589.593 nm)	2.329912 u	ppm	0.012199	0.52	1146.609925	Y_R4
Ni (231.604 nm)	0.003151	ppm	0.000232	7.37	7.682320	Y 377.433
P (213.618 nm)	0.258189	ppm	0.000861	0.33	362.747000	Y 242.219
Pb (220.353 nm)	0.006286	ppm	0.000520	8.27	28.030200	Y 242.219
S (181.972 nm)	2.804974	ppm	0.007938	0.28	1300.856644	Y 377.433
Sb (206.834 nm)	-0.005253 u	ppm	0.000555	10.57	-6.291710	Y 377.433
Se (196.026 nm)	0.000314 u	ppm	0.001758	> 100.00	7.512750	Y 242.219
Si (288.158 nm)	5.005630	ppm	0.017255	0.34	32712.600000	Y 377.433
Sn (189.925 nm)	0.001508	ppm	0.001170	77.60	4.517040	Y 377.433
Sr (421.552 nm)	0.087041	ppm	0.000117	0.13	13133.237807	Y_R 488.368
Th (288.505 nm)	-0.002941 u	ppm	0.000482	16.40	19.170900	Y 377.433
Ti (336.122 nm)	0.031279	ppm	0.000963	3.08	3666.840000	Y 377.433
Tl (190.794 nm)	0.001025	ppm	0.001264	> 100.00	1.600780	Y 377.433
U (409.013 nm)	0.018402	ppm	0.006171	33.54	37.638100	Y 377.433
V (292.401 nm)	0.005814	ppm	0.000091	1.56	154.359000	Y 377.433
Zn (206.200 nm)	0.058243	ppm	0.000284	0.49	267.472000	Y 377.433
Zr (343.823 nm)	0.000986	ppm	0.000005	0.46	-105.771000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.169654	27037.088102	0.001549	0.13
Y 377.433	1.151231	805207.155493	0.002177	0.19
Y_R 377.433	1.191640	72247.800000	0.005118	0.43
Y_R 488.368	1.208400	63837.200000	0.005911	0.49
Y_R2 488.368	1.190591	126208.951401	0.005721	0.48
Y_R4	1.196540	53844.300000	0.016526	1.38

Sample Name: 280-123924-F-12-A

Date: 5/25/2019 1:03:42 AM Rack:Tube: 2:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001408	ppm	0.000192	13.66	-219.088000	Y 377.433
Al (394.401 nm)	0.052717	ppm	0.000840	1.59	827.232000	Y 377.433
Al H (396.152 nm)	0.110112 u	ppm	0.005967	5.42	103.558000	Y_R 377.433
As (188.980 nm)	0.001452 u	ppm	0.003421	> 100.00	0.602821	Y 242.219
B (249.678 nm)	0.013888	ppm	0.000520	3.74	145.664000	Y 242.219
Ba (493.408 nm)	0.097344	ppm	0.000516	0.53	11104.300000	Y_R 488.368
Be (234.861 nm)	-0.000042 u	ppm	0.000017	41.18	-7.550420	Y_R 488.368
Bi (223.061 nm)	0.001138 u	ppm	0.001635	> 100.00	-8.057140	Y 377.433
Ca (315.887 nm)	80.336549	ppm	0.341835	0.43	63734.714061	Y_R 377.433
Cd (214.439 nm)	0.000211	ppm	0.000077	36.71	2.756860	Y 377.433
Co (228.615 nm)	-0.000385 u	ppm	0.000083	21.49	-24.172400	Y 242.219
Cr (205.560 nm)	0.000640 u	ppm	0.001168	> 100.00	-2.485460	Y 377.433
Cu (324.754 nm)	0.001538	ppm	0.000175	11.39	338.726000	Y 377.433
Fe (238.204 nm)	0.332465	ppm	0.001001	0.30	807.440587	Y_R 377.433
Fe H (259.940 nm)	0.330446 u	ppm	0.001642	0.50	468.415000	Y_R 377.433
K (766.491 nm)	1.724330	ppm	0.195766	11.35	3602.380000	Y_R2 488.368
Li (670.783 nm)	0.040224	ppm	0.003319	8.25	-1855.110000	Y_R2 488.368
Mg (279.078 nm)	13.113800	ppm	0.030686	0.23	42920.700000	Y 377.433
Mn (257.610 nm)	0.078146	ppm	0.000176	0.22	21296.100000	Y 377.433
Mo (202.032 nm)	0.000369	ppm	0.000359	97.11	15.788400	Y 377.433
Na (589.592 nm)	132.518000 o	ppm	0.469290	0.35	108957.000000	Y_R2 488.368
Na H (589.593 nm)	136.512291	ppm	1.030354	0.75	73948.085040	Y_R4
Ni (231.604 nm)	-0.001488 u	ppm	0.000681	45.76	-16.323000	Y 377.433
P (213.618 nm)	0.011313	ppm	0.000958	8.46	11.626700	Y 242.219
Pb (220.353 nm)	0.000667	ppm	0.000026	3.83	10.440600	Y 242.219
S (181.972 nm)	8.727401	ppm	0.064511	0.74	4013.736844	Y 377.433
Sb (206.834 nm)	-0.002118 u	ppm	0.000472	22.27	-1.770190	Y 377.433
Se (196.026 nm)	0.001180	ppm	0.000711	60.22	10.661900	Y 242.219
Si (288.158 nm)	3.092560	ppm	0.011459	0.37	20397.100000	Y 377.433
Sn (189.925 nm)	-0.000457 u	ppm	0.000565	> 100.00	1.354820	Y 377.433
Sr (421.552 nm)	0.330161	ppm	0.000542	0.16	49745.811962	Y_R 488.368
Th (288.505 nm)	-0.007179 u	ppm	0.001547	21.54	-0.183406	Y 377.433
Ti (336.122 nm)	0.000605	ppm	0.000011	1.79	-77.357900	Y 377.433
Tl (190.794 nm)	0.000105 u	ppm	0.000247	> 100.00	-1.250060	Y 377.433
U (409.013 nm)	0.022658	ppm	0.004986	22.01	36.447900	Y 377.433
V (292.401 nm)	0.001476	ppm	0.000070	4.78	-72.001400	Y 377.433
Zn (206.200 nm)	0.007936	ppm	0.000282	3.55	39.798300	Y 377.433
Zr (343.823 nm)	0.000088 u	ppm	0.000219	> 100.00	-156.647000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.127288	26057.776022	0.000907	0.08
Y 377.433	1.111362	777321.222336	0.000700	0.06
Y_R 377.433	1.167610	70790.700000	0.003667	0.31
Y_R 488.368	1.178710	62268.500000	0.001030	0.09
Y_R2 488.368	1.133349	120140.998367	0.003870	0.34
Y_R4	1.144610	51507.200000	0.006302	0.55

Sample Name: CCVH-5713036

Date: 5/25/2019 1:07:14 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005750	ppm	0.000584	10.16	-78.164300	Y 377.433
Al (394.401 nm)	48.591400 o	ppm	0.215221	0.44	591965.000000	Y 377.433
Al H (396.152 nm)	46.763400	ppm	0.064321	0.14	101963.000000	Y_R 377.433
As (188.980 nm)	0.002380	ppm	0.001805	75.84	0.685071	Y 242.219
B (249.678 nm)	-0.002282 u	ppm	0.000193	8.47	2.104150	Y 242.219
Ba (493.408 nm)	-0.000291 u	ppm	0.000393	> 100.00	1409.420000	Y_R 488.368
Be (234.861 nm)	0.001210	ppm	0.000117	9.69	-89.751800	Y_R 488.368
Bi (223.061 nm)	0.009391	ppm	0.001295	13.79	18.411600	Y 377.433
Ca (315.887 nm)	0.023838	ppm	0.002125	8.92	-38.308171	Y_R 377.433
Cd (214.439 nm)	0.001482	ppm	0.000032	2.19	69.506600	Y 377.433
Co (228.615 nm)	0.003163	ppm	0.000096	3.05	59.216700	Y 242.219
Cr (205.560 nm)	0.001688	ppm	0.000369	21.84	3.232380	Y 377.433
Cu (324.754 nm)	0.004258	ppm	0.000272	6.40	1450.640000	Y 377.433
Fe (238.204 nm)	48.932573 o	ppm	0.050159	0.10	117796.385101	Y_R 377.433
Fe H (259.940 nm)	48.486500	ppm	0.046691	0.10	67067.500000	Y_R 377.433
K (766.491 nm)	-0.100532 u	ppm	0.126685	> 100.00	1840.310000	Y_R2 488.368
Li (670.783 nm)	0.030793	ppm	0.000311	1.01	-2017.060000	Y_R2 488.368
Mg (279.078 nm)	0.040265	ppm	0.003132	7.78	67.476100	Y 377.433
Mn (257.610 nm)	0.000983	ppm	0.000008	0.79	257.069000	Y 377.433
Mo (202.032 nm)	0.000983	ppm	0.000144	14.64	23.524800	Y 377.433
Na (589.592 nm)	221.146000 o	ppm	0.156613	0.07	181690.000000	Y_R2 488.368
Na H (589.593 nm)	225.469294	ppm	0.991663	0.44	122212.253952	Y_R4
Ni (231.604 nm)	0.003371	ppm	0.000356	10.56	8.821090	Y 377.433
P (213.618 nm)	4.862720	ppm	0.017520	0.36	6945.160000	Y 242.219
Pb (220.353 nm)	0.005399	ppm	0.001696	31.40	18.882200	Y 242.219
S (181.972 nm)	4.782783	ppm	0.012963	0.27	2203.001909	Y 377.433
Sb (206.834 nm)	0.001107	ppm	0.001258	> 100.00	7.774120	Y 377.433
Se (196.026 nm)	0.004972	ppm	0.001827	36.74	3.754960	Y 242.219
Si (288.158 nm)	0.011428	ppm	0.000331	2.90	562.118000	Y 377.433
Sn (189.925 nm)	0.000871	ppm	0.001225	> 100.00	3.491810	Y 377.433
Sr (421.552 nm)	0.001411	ppm	0.000217	15.37	243.026533	Y_R 488.368
Th (288.505 nm)	4.674290	ppm	0.011200	0.24	8073.340000	Y 377.433
Ti (336.122 nm)	0.002067	ppm	0.000019	0.92	-169.255000	Y 377.433
Tl (190.794 nm)	0.001730	ppm	0.002203	> 100.00	1.066710	Y 377.433
U (409.013 nm)	0.529586 Q	ppm	0.006154	1.16	1691.220000 Q	Y 377.433
V (292.401 nm)	0.001128	ppm	0.000005	0.43	398.213000	Y 377.433
Zn (206.200 nm)	0.003434	ppm	0.000203	5.90	26.318300	Y 377.433
Zr (343.823 nm)	0.001344	ppm	0.000034	2.50	-85.550400	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.136931	26280.695340	0.001960	0.17
Y 377.433	1.117124	781351.448484	0.002083	0.19
Y_R 377.433	1.193650	72369.500000	0.002873	0.24
Y_R 488.368	1.215760	64226.000000	0.006674	0.55
Y_R2 488.368	1.188541	125991.624351	0.000601	0.05
Y_R4	1.193160	53692.000000	0.010164	0.85

Sample Name: CCV-5717467

Date: 5/25/2019 1:10:59 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.483343	ppm	0.000551	0.11	16410.100000	Y 377.433
Al (394.401 nm)	0.488555	ppm	0.003582	0.73	6175.180000	Y 377.433
Al H (396.152 nm)	0.533505 u	ppm	0.000172	0.03	1146.060000	Y_R 377.433
As (188.980 nm)	0.484302	ppm	0.002327	0.48	728.148000	Y 242.219
B (249.678 nm)	0.462246	ppm	0.001552	0.34	3346.440000	Y 242.219
Ba (493.408 nm)	0.469857	ppm	0.000593	0.13	48243.200000	Y_R 488.368
Be (234.861 nm)	0.460935	ppm	0.002321	0.50	45381.700000	Y_R 488.368
Bi (223.061 nm)	0.965010	ppm	0.000298	0.03	2103.420000	Y 377.433
Ca (315.887 nm)	4.847930	ppm	0.013247	0.27	3781.339747	Y_R 377.433
Cd (214.439 nm)	0.503491	ppm	0.000907	0.18	18615.000000	Y 377.433
Co (228.615 nm)	0.481472	ppm	0.001059	0.22	11321.700000	Y 242.219
Cr (205.560 nm)	0.505730	ppm	0.002032	0.40	3362.660000	Y 377.433
Cu (324.754 nm)	0.486352	ppm	0.001185	0.24	23000.000000	Y 377.433
Fe (238.204 nm)	2.476119	ppm	0.003861	0.16	5967.589472	Y_R 377.433
Fe H (259.940 nm)	2.456620 u	ppm	0.001703	0.07	3408.880000	Y_R 377.433
K (766.491 nm)	48.076300	ppm	0.433549	0.90	48359.300000	Y_R2 488.368
Li (670.783 nm)	0.509461	ppm	0.005866	1.15	6201.800000	Y_R2 488.368
Mg (279.078 nm)	19.452200	ppm	0.018008	0.09	63659.700000	Y 377.433
Mn (257.610 nm)	0.480125	ppm	0.000211	0.04	130900.000000	Y 377.433
Mo (202.032 nm)	0.481575	ppm	0.000626	0.13	6081.020000	Y 377.433
Na (589.592 nm)	22.859800	ppm	0.046570	0.20	19022.400000	Y_R2 488.368
Na H (589.593 nm)	23.783505 u	ppm	0.038716	0.16	12786.388785	Y_R4
Ni (231.604 nm)	0.495762	ppm	0.000741	0.15	2557.050000	Y 377.433
P (213.618 nm)	0.053548	ppm	0.000142	0.26	-59.597400	Y 242.219
Pb (220.353 nm)	0.487583	ppm	0.001539	0.32	1555.080000	Y 242.219
S (181.972 nm)	0.007010	ppm	0.001584	22.59	17.695924	Y 377.433
Sb (206.834 nm)	0.488149	ppm	0.003838	0.79	823.464000	Y 377.433
Se (196.026 nm)	0.484416	ppm	0.001404	0.29	739.567000	Y 242.219
Si (288.158 nm)	4.774490	ppm	0.022182	0.46	31224.600000	Y 377.433
Sn (189.925 nm)	0.499821	ppm	0.000197	0.04	806.331000	Y 377.433
Sr (421.552 nm)	0.460367	ppm	0.000801	0.17	69355.326684	Y_R 488.368
Th (288.505 nm)	0.020423	ppm	0.001601	7.84	-0.979441	Y 377.433
Ti (336.122 nm)	0.474263	ppm	0.000164	0.03	60271.700000	Y 377.433
Tl (190.794 nm)	0.493066	ppm	0.002807	0.57	1126.370000	Y 377.433
U (409.013 nm)	0.016336	ppm	0.000045	0.27	-31.890200	Y 377.433
V (292.401 nm)	0.477612	ppm	0.000019	0.00	24482.300000	Y 377.433
Zn (206.200 nm)	0.505068	ppm	0.000037	0.01	2275.570000	Y 377.433
Zr (343.823 nm)	0.473977	ppm	0.000270	0.06	26671.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.155331	26706.009907	0.003584	0.31
Y 377.433	1.136946	795215.774100	0.001563	0.14
Y_R 377.433	1.182140	71671.400000	0.006318	0.53
Y_R 488.368	1.196580	63212.700000	0.004735	0.40
Y_R2 488.368	1.174336	124485.805737	0.012711	1.08
Y_R4	1.178930	53052.000000	0.002072	0.18

Sample Name: CCB

Date: 5/25/2019 1:14:34 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001038	ppm	0.000622	59.95	-231.280000	Y 377.433
Al (394.401 nm)	-0.001596 u	ppm	0.000052	3.26	73.177700	Y 377.433
Al H (396.152 nm)	0.132756 Zu	ppm	0.001154	0.87	31.920900 Z	Y_R 377.433
As (188.980 nm)	0.000769 u	ppm	0.002807	> 100.00	-0.417625	Y 242.219
B (249.678 nm)	-0.004508 u	ppm	0.000319	7.07	14.478700	Y 242.219
Ba (493.408 nm)	-0.002891 Zu	ppm	0.000376	13.01	1111.200000 Z	Y_R 488.368
Be (234.861 nm)	0.000013 u	ppm	0.000024	> 100.00	-0.683374	Y_R 488.368
Bi (223.061 nm)	0.000908	ppm	0.000954	> 100.00	-8.624150	Y 377.433
Ca (315.887 nm)	0.024603	ppm	0.000614	2.50	-49.499247	Y_R 377.433
Cd (214.439 nm)	0.000104	ppm	0.000049	47.11	-1.334500	Y 377.433
Co (228.615 nm)	-0.000274 u	ppm	0.000188	68.59	-21.587800	Y 242.219
Cr (205.560 nm)	0.000303	ppm	0.000002	0.66	-4.734200	Y 377.433
Cu (324.754 nm)	0.001450	ppm	0.000098	6.77	384.583000	Y 377.433
Fe (238.204 nm)	-0.001593 u	ppm	0.001286	80.70	3.303888	Y_R 377.433
Fe H (259.940 nm)	0.001933 u	ppm	0.000064	3.29	14.087100	Y_R 377.433
K (766.491 nm)	-0.244138 u	ppm	0.059751	24.47	1701.650000	Y_R2 488.368
Li (670.783 nm)	0.031418 Z	ppm	0.002057	6.55	-2006.320000 Z	Y_R2 488.368
Mg (279.078 nm)	0.001742 u	ppm	0.002975	> 100.00	13.879400	Y 377.433
Mn (257.610 nm)	0.000093	ppm	0.000016	17.05	14.390500	Y 377.433
Mo (202.032 nm)	0.000189	ppm	0.000095	50.24	13.518700	Y 377.433
Na (589.592 nm)	-0.016391 u	ppm	0.004359	26.59	136.170000	Y_R2 488.368
Na H (589.593 nm)	0.659476 u	ppm	0.005464	0.83	240.304959	Y_R4
Ni (231.604 nm)	0.001301	ppm	0.000868	66.73	-1.887880	Y 377.433
P (213.618 nm)	-0.001071 u	ppm	0.001011	94.41	-5.607370	Y 242.219
Pb (220.353 nm)	0.000629	ppm	0.000026	4.12	10.286800	Y 242.219
S (181.972 nm)	-0.013068 u	ppm	0.003958	30.29	6.714241	Y 377.433
Sb (206.834 nm)	-0.000553 u	ppm	0.000315	56.96	0.842603	Y 377.433
Se (196.026 nm)	-0.002592 u	ppm	0.001921	74.12	4.948780	Y 242.219
Si (288.158 nm)	-0.008136 u	ppm	0.000490	6.02	436.169000	Y 377.433
Sn (189.925 nm)	0.001420	ppm	0.000574	40.39	4.375660	Y 377.433
Sr (421.552 nm)	0.000142	ppm	0.000046	32.54	44.503914	Y_R 488.368
Th (288.505 nm)	0.000724	ppm	0.000153	21.19	14.010500	Y 377.433
Ti (336.122 nm)	0.000466	ppm	0.000026	5.55	-374.311000	Y 377.433
Tl (190.794 nm)	0.001294 u	ppm	0.001837	> 100.00	4.776820	Y 377.433
U (409.013 nm)	0.008572	ppm	0.003259	38.02	2.433190	Y 377.433
V (292.401 nm)	0.000326	ppm	0.000225	69.03	-129.586000	Y 377.433
Zn (206.200 nm)	0.000043 u	ppm	0.000371	> 100.00	4.259670	Y 377.433
Zr (343.823 nm)	0.000093 u	ppm	0.000237	> 100.00	-156.336000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.174567	27150.654621	0.003480	0.30
Y 377.433	1.154650	807598.056843	0.003485	0.30
Y_R 377.433	1.195830	72501.400000	0.010468	0.88
Y_R 488.368	1.217260	64304.900000	0.005600	0.46
Y_R2 488.368	1.177338	124804.106598	0.004808	0.41
Y_R4	1.174680	52860.500000	0.007775	0.66

Sample Name: CCVL-5719884

Date: 5/25/2019 1:17:46 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008810	ppm	0.000423	4.80	35.952900	Y 377.433
Al (394.401 nm)	0.093355	ppm	0.001263	1.35	1239.630000	Y 377.433
Al H (396.152 nm)	0.233783 u	ppm	0.006882	2.94	258.068000	Y_R 377.433
As (188.980 nm)	0.013124	ppm	0.000307	2.34	18.198000	Y 242.219
B (249.678 nm)	0.087437	ppm	0.000375	0.43	671.057000	Y 242.219
Ba (493.408 nm)	0.007011	ppm	0.000138	1.97	2098.500000	Y_R 488.368
Be (234.861 nm)	0.000885	ppm	0.000004	0.42	84.740900	Y_R 488.368
Bi (223.061 nm)	0.085930	ppm	0.006166	7.18	177.610000	Y 377.433
Ca (315.887 nm)	0.214658	ppm	0.000509	0.24	101.466814	Y_R 377.433
Cd (214.439 nm)	0.005157	ppm	0.000073	1.41	185.564000	Y 377.433
Co (228.615 nm)	0.010225	ppm	0.000066	0.65	225.609000	Y 242.219
Cr (205.560 nm)	0.010609	ppm	0.000401	3.78	63.832800	Y 377.433
Cu (324.754 nm)	0.016134	ppm	0.000305	1.89	1068.660000	Y 377.433
Fe (238.204 nm)	0.100441	ppm	0.002055	2.05	248.917464	Y_R 377.433
Fe H (259.940 nm)	0.103730 u	ppm	0.000802	0.77	154.870000	Y_R 377.433
K (766.491 nm)	2.737630	ppm	0.057123	2.09	4580.810000	Y_R2 488.368
Li (670.783 nm)	0.048131 Q	ppm	0.003162	6.57	-1719.350000 Q	Y_R2 488.368
Mg (279.078 nm)	0.199271	ppm	0.001849	0.93	659.090000	Y 377.433
Mn (257.610 nm)	0.010307	ppm	0.000073	0.71	2799.260000	Y 377.433
Mo (202.032 nm)	0.018960	ppm	0.000234	1.23	250.102000	Y 377.433
Na (589.592 nm)	0.976863	ppm	0.037269	3.82	953.664000	Y_R2 488.368
Na H (589.593 nm)	1.504194 u	ppm	0.004979	0.33	698.611843	Y_R4
Ni (231.604 nm)	0.042313	ppm	0.000730	1.73	210.326000	Y 377.433
P (213.618 nm)	2.798110	ppm	0.011873	0.42	3993.130000	Y 242.219
Pb (220.353 nm)	0.010190	ppm	0.000304	2.98	40.740800	Y 242.219
S (181.972 nm)	0.078309	ppm	0.001953	2.49	48.599601	Y 377.433
Sb (206.834 nm)	0.020154	ppm	0.000930	4.61	35.660500	Y 377.433
Se (196.026 nm)	0.017008	ppm	0.000800	4.71	34.500000	Y 242.219
Si (288.158 nm)	0.465019	ppm	0.004394	0.94	3482.140000	Y 377.433
Sn (189.925 nm)	0.100933	ppm	0.000941	0.93	164.497000	Y 377.433
Sr (421.552 nm)	0.008703	ppm	0.000118	1.36	1333.912466	Y_R 488.368
Th (288.505 nm)	0.017359	ppm	0.002655	15.30	42.213800	Y 377.433
Ti (336.122 nm)	0.009814	ppm	0.000067	0.68	822.626000	Y 377.433
Tl (190.794 nm)	0.014675	ppm	0.000896	6.11	35.268000	Y 377.433
U (409.013 nm)	0.060940	ppm	0.002976	4.88	167.381000	Y 377.433
V (292.401 nm)	0.009620	ppm	0.000138	1.44	347.062000	Y 377.433
Zn (206.200 nm)	0.020706	ppm	0.000303	1.47	97.185300	Y 377.433
Zr (343.823 nm)	0.009531	ppm	0.000150	1.57	377.973000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.187066	27439.588467	0.003904	0.33
Y 377.433	1.167243	816406.283788	0.003806	0.33
Y_R 377.433	1.203140	72945.000000	0.000458	0.04
Y_R 488.368	1.226760	64807.200000	0.008226	0.67
Y_R2 488.368	1.185333	125651.561835	0.001020	0.09
Y_R4	1.180890	53139.900000	0.002506	0.21

Sample Name: MB 280-459258/1-A

Date: 5/25/2019 1:21:16 AM Rack:Tube: 2:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001408	ppm	0.000107	7.60	-218.363000	Y 377.433
Al (394.401 nm)	0.001066	ppm	0.000778	73.01	104.475000	Y 377.433
Al H (396.152 nm)	0.132563 u	ppm	0.011198	8.45	31.629400	Y_R 377.433
As (188.980 nm)	-0.001134 u	ppm	0.001809	> 100.00	-3.286000	Y 242.219
B (249.678 nm)	-0.004047 u	ppm	0.000374	9.24	17.749700	Y 242.219
Ba (493.408 nm)	-0.002058 u	ppm	0.000016	0.79	1194.290000	Y_R 488.368
Be (234.861 nm)	-0.000003 u	ppm	0.000029	> 100.00	-2.371600	Y_R 488.368
Bi (223.061 nm)	-0.000480 u	ppm	0.000052	10.86	-11.658600	Y 377.433
Ca (315.887 nm)	0.107957	ppm	0.005280	4.89	16.700285	Y_R 377.433
Cd (214.439 nm)	0.000019 u	ppm	0.000105	> 100.00	-4.469780	Y 377.433
Co (228.615 nm)	-0.000085 u	ppm	0.000038	44.98	-17.137000	Y 242.219
Cr (205.560 nm)	0.001458	ppm	0.000197	13.49	2.973070	Y 377.433
Cu (324.754 nm)	0.002541	ppm	0.000117	4.59	435.894000	Y 377.433
Fe (238.204 nm)	0.027114	ppm	0.002990	11.03	72.407728	Y_R 377.433
Fe H (259.940 nm)	0.029600 u	ppm	0.000447	1.51	52.349500	Y_R 377.433
K (766.491 nm)	-0.279273 u	ppm	0.239850	85.88	1667.720000	Y_R2 488.368
Li (670.783 nm)	0.029212	ppm	0.003347	11.46	-2044.190000	Y_R2 488.368
Mg (279.078 nm)	0.020135	ppm	0.001504	7.47	74.210800	Y 377.433
Mn (257.610 nm)	0.000440	ppm	0.000007	1.59	108.840000	Y 377.433
Mo (202.032 nm)	0.000154	ppm	0.000132	85.52	13.075000	Y 377.433
Na (589.592 nm)	0.027995	ppm	0.014455	51.63	172.710000	Y_R2 488.368
Na H (589.593 nm)	0.590692 u	ppm	0.021575	3.65	202.985593	Y_R4
Ni (231.604 nm)	0.001397	ppm	0.000631	45.17	-1.394420	Y 377.433
P (213.618 nm)	0.008844	ppm	0.000917	10.36	8.267120	Y 242.219
Pb (220.353 nm)	-0.000187 u	ppm	0.001469	> 100.00	7.665400	Y 242.219
S (181.972 nm)	-0.000922 u	ppm	0.000025	2.67	12.279008	Y 377.433
Sb (206.834 nm)	-0.001336 u	ppm	0.000871	65.21	-0.470727	Y 377.433
Se (196.026 nm)	-0.001358 u	ppm	0.000078	5.71	6.803220	Y 242.219
Si (288.158 nm)	0.003918	ppm	0.000552	14.09	513.769000	Y 377.433
Sn (189.925 nm)	0.010632	ppm	0.001355	12.74	19.197600	Y 377.433
Sr (421.552 nm)	0.000410	ppm	0.000120	29.33	84.959475	Y_R 488.368
Th (288.505 nm)	0.003345	ppm	0.000376	11.24	18.478900	Y 377.433
Ti (336.122 nm)	0.000611	ppm	0.000072	11.75	-355.606000	Y 377.433
Tl (190.794 nm)	-0.000446 u	ppm	0.000156	35.06	0.792211	Y 377.433
U (409.013 nm)	0.002955	ppm	0.003537	> 100.00	-15.342800	Y 377.433
V (292.401 nm)	0.000379	ppm	0.000090	23.64	-126.908000	Y 377.433
Zn (206.200 nm)	0.006511	ppm	0.000004	0.06	33.348300	Y 377.433
Zr (343.823 nm)	0.000016 u	ppm	0.000058	> 100.00	-160.731000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.184043	27369.714815	0.002638	0.22
Y 377.433	1.166087	815597.945832	0.002831	0.24
Y_R 377.433	1.208790	73287.400000	0.001186	0.10
Y_R 488.368	1.231930	65079.800000	0.002176	0.18
Y_R2 488.368	1.189271	126069.029129	0.016042	1.35
Y_R4	1.169440	52624.700000	0.012843	1.10

Sample Name: LCS 280-459258/2-A

Date: 5/25/2019 1:24:28 AM Rack:Tube: 2:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.049356	ppm	0.000272	0.55	1147.060000	Y 377.433
Al (394.401 nm)	9.343770 o	ppm	0.002505	0.03	114377.000000	Y 377.433
Al H (396.152 nm)	9.216240	ppm	0.010891	0.12	20344.900000	Y_R 377.433
As (188.980 nm)	1.876620	ppm	0.002913	0.16	2826.020000	Y 242.219
B (249.678 nm)	0.898569	ppm	0.001930	0.21	6458.360000	Y 242.219
Ba (493.408 nm)	1.846040	ppm	0.001719	0.09	185446.000000	Y_R 488.368
Be (234.861 nm)	0.910233	ppm	0.003307	0.36	89599.400000	Y_R 488.368
Bi (223.061 nm)	1.855130	ppm	0.008016	0.43	4054.140000	Y 377.433
Ca (315.887 nm)	46.846665	ppm	0.111809	0.24	37139.201069	Y_R 377.433
Cd (214.439 nm)	0.962085	ppm	0.001217	0.13	35576.700000	Y 377.433
Co (228.615 nm)	0.918515	ppm	0.002006	0.22	21613.700000	Y 242.219
Cr (205.560 nm)	0.971561	ppm	0.000956	0.10	6465.900000	Y 377.433
Cu (324.754 nm)	0.924445	ppm	0.001734	0.19	43492.200000	Y 377.433
Fe (238.204 nm)	9.676138 o	ppm	0.014089	0.15	23299.292236	Y_R 377.433
Fe H (259.940 nm)	9.601080	ppm	0.015649	0.16	13289.600000	Y_R 377.433
K (766.491 nm)	47.144600	ppm	0.472877	1.00	47459.600000	Y_R2 488.368
Li (670.783 nm)	0.967333	ppm	0.009125	0.94	14063.600000	Y_R2 488.368
Mg (279.078 nm)	47.171900	ppm	0.048997	0.10	154330.000000	Y 377.433
Mn (257.610 nm)	0.938782	ppm	0.000612	0.07	255957.000000	Y 377.433
Mo (202.032 nm)	0.949274	ppm	0.000329	0.03	11976.000000	Y 377.433
Na (589.592 nm)	45.556700	ppm	0.010254	0.02	37967.000000	Y_R2 488.368
Na H (589.593 nm)	46.572934 u	ppm	0.401710	0.86	25150.933548	Y_R4
Ni (231.604 nm)	0.938159	ppm	0.000102	0.01	4847.670000	Y 377.433
P (213.618 nm)	18.964200	ppm	0.030410	0.16	26861.500000	Y 242.219
Pb (220.353 nm)	0.938463	ppm	0.002138	0.23	2988.310000	Y 242.219
S (181.972 nm)	9.106931	ppm	0.009106	0.10	4188.639437	Y 377.433
Sb (206.834 nm)	0.991151	ppm	0.000694	0.07	1670.990000	Y 377.433
Se (196.026 nm)	1.842710	ppm	0.003603	0.20	2787.000000	Y 242.219
Si (288.158 nm)	1.038040	ppm	0.003187	0.31	7170.970000	Y 377.433
Sn (189.925 nm)	1.926470	ppm	0.001971	0.10	3101.890000	Y 377.433
Sr (421.552 nm)	0.899035	ppm	0.000854	0.10	135420.322864	Y_R 488.368
Th (288.505 nm)	0.949042	ppm	0.005345	0.56	1561.350000	Y 377.433
Ti (336.122 nm)	0.934947	ppm	0.000513	0.05	119369.000000	Y 377.433
Tl (190.794 nm)	1.870460	ppm	0.002167	0.12	4271.440000	Y 377.433
U (409.013 nm)	1.870550	ppm	0.006681	0.36	5851.170000	Y 377.433
V (292.401 nm)	0.934596	ppm	0.000290	0.03	48058.400000	Y 377.433
Zn (206.200 nm)	0.484433	ppm	0.000011	0.00	2183.780000	Y 377.433
Zr (343.823 nm)	0.465392	ppm	0.000149	0.03	26185.100000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.118392	25852.153817	0.001057	0.09
Y 377.433	1.107592	774684.179592	0.000428	0.04
Y_R 377.433	1.151120	69790.800000	0.001646	0.14
Y_R 488.368	1.168660	61737.500000	0.003215	0.28
Y_R2 488.368	1.128919	119671.379734	0.000388	0.03
Y_R4	1.148170	51667.400000	0.009456	0.82

Sample Name: 280-123406-A-5-M

Date: 5/25/2019 1:28:08 AM Rack:Tube: 2:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.003442	ppm	0.000205	5.96	-276.228000	Y 377.433
Al (394.401 nm)	94.925700 o	ppm	0.161247	0.17	1158740.000000	Y 377.433
Al H (396.152 nm)	91.935200	ppm	0.134650	0.15	200814.000000	Y_R 377.433
As (188.980 nm)	0.047860	ppm	0.002866	5.99	65.722300	Y 242.219
B (249.678 nm)	0.077265	ppm	0.000758	0.98	495.640000	Y 242.219
Ba (493.408 nm)	0.836634	ppm	0.001403	0.17	84948.400000	Y_R 488.368
Be (234.861 nm)	0.002598	ppm	0.000059	2.26	-498.919000	Y_R 488.368
Bi (223.061 nm)	-0.001272 u	ppm	0.000445	35.01	17.387100	Y 377.433
Ca (315.887 nm)	67.304063	ppm	0.099015	0.15	53407.482436	Y_R 377.433
Cd (214.439 nm)	0.004597	ppm	0.000044	0.96	237.127000	Y 377.433
Co (228.615 nm)	0.105040	ppm	0.000506	0.48	2669.320000	Y 242.219
Cr (205.560 nm)	0.999840	ppm	0.000139	0.01	6657.380000	Y 377.433
Cu (324.754 nm)	1.089080	ppm	0.001462	0.13	51050.100000	Y 377.433
Fe (238.204 nm)	177.983715 o	ppm	0.086091	0.05	428445.012797	Y_R 377.433
Fe H (259.940 nm)	176.946000	ppm	0.129663	0.07	244725.000000	Y_R 377.433
K (766.491 nm)	12.859700	ppm	0.120014	0.93	14354.500000	Y_R2 488.368
Li (670.783 nm)	0.132372	ppm	0.002258	1.71	-272.912000	Y_R2 488.368
Mg (279.078 nm)	74.673900	ppm	0.098140	0.13	244134.000000	Y 377.433
Mn (257.610 nm)	2.635830	ppm	0.002998	0.11	718675.000000	Y 377.433
Mo (202.032 nm)	0.004658	ppm	0.000496	10.64	69.841700	Y 377.433
Na (589.592 nm)	7.823210	ppm	0.011966	0.15	6762.370000	Y_R2 488.368
Na H (589.593 nm)	8.221549 u	ppm	0.091781	1.12	4343.153858	Y_R4
Ni (231.604 nm)	1.026720	ppm	0.000218	0.02	5303.690000	Y 377.433
P (213.618 nm)	2.694840	ppm	0.023835	0.88	3594.450000	Y 242.219
Pb (220.353 nm)	1.118380	ppm	0.001217	0.11	3539.250000	Y 242.219
S (181.972 nm)	14.147462	ppm	0.009153	0.06	6503.484149	Y 377.433
Sb (206.834 nm)	0.004975	ppm	0.000844	16.97	10.952500	Y 377.433
Se (196.026 nm)	0.008829	ppm	0.000878	9.95	-19.935000	Y 242.219
Si (288.158 nm)	4.197800	ppm	0.024459	0.58	27512.200000	Y 377.433
Sn (189.925 nm)	0.032229	ppm	0.000785	2.44	53.949000	Y 377.433
Sr (421.552 nm)	0.304011	ppm	0.000364	0.12	45834.360715	Y_R 488.368
Th (288.505 nm)	0.053763	ppm	0.001032	1.92	103.178000	Y 377.433
Ti (336.122 nm)	4.784840	ppm	0.001166	0.02	612058.000000	Y 377.433
Tl (190.794 nm)	0.009972	ppm	0.000280	2.81	-20.189200	Y 377.433
U (409.013 nm)	0.011163	ppm	0.002944	26.38	124.950000	Y 377.433
V (292.401 nm)	0.343619	ppm	0.000426	0.12	17535.300000	Y 377.433
Zn (206.200 nm)	1.340620	ppm	0.001680	0.13	6057.260000	Y 377.433
Zr (343.823 nm)	0.058794	ppm	0.000197	0.34	3166.830000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.122488	25946.837931	0.001146	0.10
Y 377.433	1.108385	775238.761179	0.001099	0.10
Y_R 377.433	1.172550	71090.200000	0.000593	0.05
Y_R 488.368	1.186910	62701.900000	0.000606	0.05
Y_R2 488.368	1.152350	122155.204462	0.023334	2.02
Y_R4	1.187750	53448.500000	0.014121	1.19

Sample Name: 280-123406-A-5-Msd@5

Date: 5/25/2019 1:31:56 AM Rack:Tube: 2:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001609	ppm	0.000351	21.79	-237.222000	Y 377.433
Al (394.401 nm)	19.180700 o	ppm	0.027821	0.15	234215.000000	Y 377.433
Al H (396.152 nm)	18.885900	ppm	0.037404	0.20	41047.000000	Y_R 377.433
As (188.980 nm)	0.010734	ppm	0.001899	17.69	13.600400	Y 242.219
B (249.678 nm)	0.012780	ppm	0.000717	5.61	116.642000	Y 242.219
Ba (493.408 nm)	0.167925	ppm	0.000365	0.22	18169.900000	Y_R 488.368
Be (234.861 nm)	0.000421	ppm	0.000004	0.89	-116.435000	Y_R 488.368
Bi (223.061 nm)	0.005199	ppm	0.001696	32.62	7.150000	Y 377.433
Ca (315.887 nm)	13.937554	ppm	0.030643	0.22	11004.993376	Y_R 377.433
Cd (214.439 nm)	0.000893	ppm	0.000007	0.76	42.834400	Y 377.433
Co (228.615 nm)	0.021674	ppm	0.000145	0.67	538.174000	Y 242.219
Cr (205.560 nm)	0.206972	ppm	0.000498	0.24	1372.760000	Y 377.433
Cu (324.754 nm)	0.220516	ppm	0.000141	0.06	10585.400000	Y 377.433
Fe (238.204 nm)	36.862313 o	ppm	0.069594	0.19	88741.161884	Y_R 377.433
Fe H (259.940 nm)	36.514400	ppm	0.014240	0.04	50510.200000	Y_R 377.433
K (766.491 nm)	2.534950	ppm	0.321757	12.69	4385.100000	Y_R2 488.368
Li (670.783 nm)	0.047349	ppm	0.004590	9.69	-1732.780000	Y_R2 488.368
Mg (279.078 nm)	15.207900	ppm	0.002840	0.02	49725.500000	Y 377.433
Mn (257.610 nm)	0.550386	ppm	0.000493	0.09	150057.000000	Y 377.433
Mo (202.032 nm)	0.000909	ppm	0.000186	20.50	22.589000	Y 377.433
Na (589.592 nm)	1.591570	ppm	0.011110	0.70	1494.650000	Y_R2 488.368
Na H (589.593 nm)	2.017420 u	ppm	0.002719	0.13	977.065528	Y_R4
Ni (231.604 nm)	0.214236	ppm	0.000280	0.13	1099.840000	Y 377.433
P (213.618 nm)	0.552542	ppm	0.004879	0.88	734.733000	Y 242.219
Pb (220.353 nm)	0.235470	ppm	0.001161	0.49	751.864000	Y 242.219
S (181.972 nm)	2.854380	ppm	0.005611	0.20	1322.343859	Y 377.433
Sb (206.834 nm)	-0.000647 u	ppm	0.000996	> 100.00	0.915317	Y 377.433
Se (196.026 nm)	0.001540	ppm	0.000649	42.15	2.464800	Y 242.219
Si (288.158 nm)	0.873227	ppm	0.008786	1.01	6110.010000	Y 377.433
Sn (189.925 nm)	0.007057	ppm	0.000459	6.50	13.445700	Y 377.433
Sr (421.552 nm)	0.061823	ppm	0.000054	0.09	9339.376261	Y_R 488.368
Th (288.505 nm)	0.009555	ppm	0.002133	22.32	29.090200	Y 377.433
Ti (336.122 nm)	0.975622	ppm	0.000669	0.07	124453.000000	Y 377.433
Tl (190.794 nm)	0.002108	ppm	0.000606	28.74	-2.562330	Y 377.433
U (409.013 nm)	0.008049	ppm	0.002763	34.32	24.496900	Y 377.433
V (292.401 nm)	0.069852	ppm	0.000220	0.31	3444.920000	Y 377.433
Zn (206.200 nm)	0.281497	ppm	0.000268	0.10	1275.020000	Y 377.433
Zr (343.823 nm)	0.011857	ppm	0.000090	0.76	509.616000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.144189	26448.465877	0.003093	0.27
Y 377.433	1.126060	787601.694317	0.001220	0.11
Y_R 377.433	1.168660	70854.500000	0.007768	0.66
Y_R 488.368	1.184790	62590.000000	0.009276	0.78
Y_R2 488.368	1.155349	122473.067115	0.004133	0.36
Y_R4	1.166750	52503.800000	0.008898	0.76

Sample Name: 280-123406-A-5-N MS

Date: 5/25/2019 1:35:38 AM Rack:Tube: 2:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051955	ppm	0.000468	0.90	1052.380000	Y 377.433
Al (394.401 nm)	168.749000 o	ppm	0.019412	0.01	2060050.000000	Y 377.433
Al H (396.152 nm)	163.569000	ppm	0.259505	0.16	357918.000000	Y_R 377.433
As (188.980 nm)	1.917810	ppm	0.002993	0.16	2882.040000	Y 242.219
B (249.678 nm)	1.028010	ppm	0.001450	0.14	7253.630000	Y 242.219
Ba (493.408 nm)	3.042740	ppm	0.000200	0.01	304927.000000	Y_R 488.368
Be (234.861 nm)	0.896020	ppm	0.006942	0.77	87254.400000	Y_R 488.368
Bi (223.061 nm)	1.816630	ppm	0.012548	0.69	4008.470000	Y 377.433
Ca (315.887 nm)	146.695599	ppm	0.186093	0.13	116478.878117	Y_R 377.433
Cd (214.439 nm)	0.934372	ppm	0.002882	0.31	34642.700000	Y 377.433
Co (228.615 nm)	1.025650	ppm	0.000634	0.06	24467.900000	Y 242.219
Cr (205.560 nm)	2.101270	ppm	0.007562	0.36	13994.600000	Y 377.433
Cu (324.754 nm)	2.191430	ppm	0.001710	0.08	102483.000000	Y 377.433
Fe (238.204 nm)	233.167158 o	ppm	0.001483	0.00	561281.194771	Y_R 377.433
Fe H (259.940 nm)	234.452000	ppm	0.165993	0.07	324255.000000	Y_R 377.433
K (766.491 nm)	65.998600	ppm	0.334319	0.51	65664.800000	Y_R2 488.368
Li (670.783 nm)	1.122820	ppm	0.005707	0.51	16733.300000	Y_R2 488.368
Mg (279.078 nm)	142.790000	ppm	0.457336	0.32	466933.000000	Y 377.433
Mn (257.610 nm)	4.551950	ppm	0.006017	0.13	1241120.000000	Y 377.433
Mo (202.032 nm)	0.906761	ppm	0.001927	0.21	11440.200000	Y 377.433
Na (589.592 nm)	56.091600 o	ppm	0.095877	0.17	46887.100000	Y_R2 488.368
Na H (589.593 nm)	56.995409	ppm	0.249344	0.44	30805.711680	Y_R4
Ni (231.604 nm)	2.062710	ppm	0.003987	0.19	10666.000000	Y 377.433
P (213.618 nm)	21.922200	ppm	0.006163	0.03	30796.300000	Y 242.219
Pb (220.353 nm)	2.124120	ppm	0.005647	0.27	6718.680000	Y 242.219
S (181.972 nm)	24.031750	ppm	0.030779	0.13	11040.223128	Y 377.433
Sb (206.834 nm)	0.518864	ppm	0.002681	0.52	867.433000	Y 377.433
Se (196.026 nm)	1.831290	ppm	0.003383	0.18	2717.320000	Y 242.219
Si (288.158 nm)	8.916240	ppm	0.016455	0.18	57887.400000	Y 377.433
Sn (189.925 nm)	1.823190	ppm	0.007674	0.42	2935.710000	Y 377.433
Sr (421.552 nm)	1.372229	ppm	0.000854	0.06	206717.451947	Y_R 488.368
Th (288.505 nm)	0.978156	ppm	0.001387	0.14	1609.320000	Y 377.433
Ti (336.122 nm)	8.413350	ppm	0.007859	0.09	1076630.000000	Y 377.433
Tl (190.794 nm)	1.800570	ppm	0.004229	0.23	4048.670000	Y 377.433
U (409.013 nm)	1.833500	ppm	0.001742	0.10	5878.590000	Y 377.433
V (292.401 nm)	1.412540	ppm	0.001876	0.13	72778.400000	Y 377.433
Zn (206.200 nm)	2.003010	ppm	0.005787	0.29	9043.540000	Y 377.433
Zr (343.823 nm)	0.509921	ppm	0.000891	0.17	28705.900000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.097653	25372.756066	0.004151	0.38
Y 377.433	1.090341	762618.534092	0.005517	0.51
Y_R 377.433	1.164880	70625.200000	0.004315	0.37
Y_R 488.368	1.176590	62156.700000	0.003959	0.34
Y_R2 488.368	1.121193	118852.414707	0.005130	0.46
Y_R4	1.176080	52923.500000	0.006628	0.56

Sample Name: 280-123406-A-5-O MSD

Date: 5/25/2019 1:39:33 AM Rack:Tube: 2:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.051111	ppm	0.000187	0.36	1049.240000	Y 377.433
Al (394.401 nm)	154.209000 o	ppm	0.151635	0.10	1882560.000000	Y 377.433
Al H (396.152 nm)	149.870000	ppm	1.077370	0.72	327929.000000	Y_R 377.433
As (188.980 nm)	1.886360	ppm	0.001216	0.06	2835.370000	Y 242.219
B (249.678 nm)	0.998362	ppm	0.000022	0.00	7057.160000	Y 242.219
Ba (493.408 nm)	3.021260	ppm	0.020573	0.68	302765.000000	Y_R 488.368
Be (234.861 nm)	0.889049	ppm	0.005596	0.63	86679.500000	Y_R 488.368
Bi (223.061 nm)	1.796670	ppm	0.006391	0.36	3960.190000	Y 377.433
Ca (315.887 nm)	128.735032	ppm	0.879818	0.68	102211.020724	Y_R 377.433
Cd (214.439 nm)	0.926315	ppm	0.000590	0.06	34334.100000	Y 377.433
Co (228.615 nm)	1.002300	ppm	0.000566	0.06	23866.500000	Y 242.219
Cr (205.560 nm)	1.886710	ppm	0.000258	0.01	12564.400000	Y 377.433
Cu (324.754 nm)	2.054020	ppm	0.006313	0.31	96096.300000	Y 377.433
Fe (238.204 nm)	206.772882 o	ppm	1.058216	0.51	497745.563371	Y_R 377.433
Fe H (259.940 nm)	207.118000	ppm	1.416420	0.68	286453.000000	Y_R 377.433
K (766.491 nm)	64.708500	ppm	0.299751	0.46	64419.100000	Y_R2 488.368
Li (670.783 nm)	1.104820	ppm	0.001076	0.10	16424.200000	Y_R2 488.368
Mg (279.078 nm)	128.881000	ppm	0.062095	0.05	421455.000000	Y 377.433
Mn (257.610 nm)	4.370650	ppm	0.007942	0.18	1191690.000000	Y 377.433
Mo (202.032 nm)	0.897812	ppm	0.000343	0.04	11327.400000	Y 377.433
Na (589.592 nm)	54.315300	ppm	0.100577	0.19	45424.200000	Y_R2 488.368
Na H (589.593 nm)	55.175658	ppm	0.354940	0.64	29818.394703	Y_R4
Ni (231.604 nm)	1.879410	ppm	0.002082	0.11	9717.630000	Y 377.433
P (213.618 nm)	21.524800	ppm	0.017250	0.08	30260.600000	Y 242.219
Pb (220.353 nm)	2.267310	ppm	0.003435	0.15	7177.990000	Y 242.219
S (181.972 nm)	20.946542	ppm	0.034616	0.17	9625.852127	Y 377.433
Sb (206.834 nm)	0.524058	ppm	0.000792	0.15	877.726000	Y 377.433
Se (196.026 nm)	1.808680	ppm	0.001883	0.10	2689.760000	Y 242.219
Si (288.158 nm)	8.954540	ppm	0.045949	0.51	58134.000000	Y 377.433
Sn (189.925 nm)	1.814970	ppm	0.000542	0.03	2922.470000	Y 377.433
Sr (421.552 nm)	1.256179	ppm	0.009105	0.72	189236.212974	Y_R 488.368
Th (288.505 nm)	0.987345	ppm	0.000966	0.10	1632.140000	Y 377.433
Ti (336.122 nm)	7.242320	ppm	0.012439	0.17	926730.000000	Y 377.433
Tl (190.794 nm)	1.791290	ppm	0.001661	0.09	4036.670000	Y 377.433
U (409.013 nm)	1.817960	ppm	0.005531	0.30	5813.990000	Y 377.433
V (292.401 nm)	1.342150	ppm	0.001451	0.11	69155.100000	Y 377.433
Zn (206.200 nm)	1.820590	ppm	0.000007	0.00	8219.560000	Y 377.433
Zr (343.823 nm)	0.496770	ppm	0.000103	0.02	27961.400000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.098178	25384.891525	0.001592	0.14
Y 377.433	1.088527	761349.464317	0.002322	0.21
Y_R 377.433	1.156960	70144.800000	0.004981	0.43
Y_R 488.368	1.169330	61772.800000	0.004983	0.43
Y_R2 488.368	1.131935	119991.063742	0.003562	0.31
Y_R4	1.170700	52681.500000	0.003636	0.31

Sample Name: 280-123406-A-5-Mpds

Date: 5/25/2019 1:43:20 AM Rack:Tube: 2:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.046957	ppm	0.000128	0.27	1221.350000	Y 377.433
Al (394.401 nm)	93.682200 o	ppm	0.214454	0.23	1143590.000000	Y 377.433
Al H (396.152 nm)	90.661100	ppm	0.164676	0.18	198046.000000	Y_R 377.433
As (188.980 nm)	0.239753	ppm	0.000294	0.12	354.961000	Y 242.219
B (249.678 nm)	0.170153	ppm	0.000770	0.45	1160.640000	Y 242.219
Ba (493.408 nm)	0.909117	ppm	0.002436	0.27	92172.300000	Y_R 488.368
Be (234.861 nm)	0.048495	ppm	0.000500	1.03	4033.030000	Y_R 488.368
Bi (223.061 nm)	-0.008513 u	ppm	0.002061	24.21	1.083540	Y 377.433
Ca (315.887 nm)	84.291946	ppm	0.172672	0.20	66899.037358	Y_R 377.433
Cd (214.439 nm)	0.053046	ppm	0.000003	0.01	2027.650000	Y 377.433
Co (228.615 nm)	0.148829	ppm	0.000784	0.53	3696.040000	Y 242.219
Cr (205.560 nm)	1.021320	ppm	0.002141	0.21	6800.380000	Y 377.433
Cu (324.754 nm)	1.110260	ppm	0.001083	0.10	52038.200000	Y 377.433
Fe (238.204 nm)	175.168773 o	ppm	0.171002	0.10	421668.956386	Y_R 377.433
Fe H (259.940 nm)	173.900000	ppm	0.194159	0.11	240512.000000	Y_R 377.433
K (766.491 nm)	31.799100	ppm	0.032857	0.10	32642.200000	Y_R2 488.368
Li (670.783 nm)	0.229809	ppm	0.002534	1.10	1400.110000	Y_R2 488.368
Mg (279.078 nm)	92.356300	ppm	0.048425	0.05	301994.000000	Y 377.433
Mn (257.610 nm)	2.620760	ppm	0.003330	0.13	714564.000000	Y 377.433
Mo (202.032 nm)	0.052535	ppm	0.000009	0.02	673.298000	Y 377.433
Na (589.592 nm)	25.971500	ppm	0.049279	0.19	21676.700000	Y_R2 488.368
Na H (589.593 nm)	26.260671 u	ppm	0.024413	0.09	14130.390458	Y_R4
Ni (231.604 nm)	1.047010	ppm	0.002654	0.25	5408.860000	Y 377.433
P (213.618 nm)	4.576570	ppm	0.012057	0.26	6278.100000	Y 242.219
Pb (220.353 nm)	1.181560	ppm	0.003678	0.31	3741.260000	Y 242.219
S (181.972 nm)	13.964904	ppm	0.008385	0.06	6420.687730	Y 377.433
Sb (206.834 nm)	0.107941	ppm	0.001900	1.76	184.518000	Y 377.433
Se (196.026 nm)	0.199714	ppm	0.000765	0.38	268.665000	Y 242.219
Si (288.158 nm)	9.048660	ppm	0.042033	0.46	58739.900000	Y 377.433
Sn (189.925 nm)	0.131430	ppm	0.000201	0.15	213.568000	Y 377.433
Sr (421.552 nm)	0.343158	ppm	0.000947	0.28	51729.417987	Y_R 488.368
Th (288.505 nm)	0.242619	ppm	0.003018	1.24	425.878000	Y 377.433
Ti (336.122 nm)	4.733730	ppm	0.008869	0.19	605577.000000	Y 377.433
Tl (190.794 nm)	0.198981	ppm	0.000989	0.50	411.899000	Y 377.433
U (409.013 nm)	0.480014	ppm	0.004718	0.98	1602.050000	Y 377.433
V (292.401 nm)	0.384008	ppm	0.000049	0.01	19617.900000	Y 377.433
Zn (206.200 nm)	1.505130	ppm	0.002557	0.17	6796.640000	Y 377.433
Zr (343.823 nm)	0.105258	ppm	0.000073	0.07	5797.230000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.117585	25833.505985	0.003563	0.32
Y 377.433	1.105044	772902.006036	0.003335	0.30
Y_R 377.433	1.168470	70843.100000	0.006930	0.59
Y_R 488.368	1.182790	62484.000000	0.009077	0.77
Y_R2 488.368	1.140774	120928.115723	0.002278	0.20
Y_R4	1.174330	52844.900000	0.000775	0.07

Sample Name: CCVH-5713036

Date: 5/25/2019 1:47:10 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.005089	ppm	0.000058	1.14	-101.165000	Y 377.433
Al (394.401 nm)	48.225800 o	ppm	0.080371	0.17	587506.000000	Y 377.433
Al H (396.152 nm)	46.521400	ppm	0.028074	0.06	101435.000000	Y_R 377.433
As (188.980 nm)	0.002212	ppm	0.002125	96.09	0.436696	Y 242.219
B (249.678 nm)	-0.003029 u	ppm	0.000464	15.32	-3.116090	Y 242.219
Ba (493.408 nm)	0.000760	ppm	0.000128	16.85	1514.070000	Y_R 488.368
Be (234.861 nm)	0.001183	ppm	0.000114	9.61	-91.607600	Y_R 488.368
Bi (223.061 nm)	0.008907	ppm	0.000076	0.85	17.316600	Y 377.433
Ca (315.887 nm)	0.016876	ppm	0.002401	14.23	-43.895089	Y_R 377.433
Cd (214.439 nm)	0.001330	ppm	0.000055	4.15	63.790100	Y 377.433
Co (228.615 nm)	0.002971	ppm	0.000117	3.95	54.739500	Y 242.219
Cr (205.560 nm)	0.002360	ppm	0.000662	28.03	7.721050	Y 377.433
Cu (324.754 nm)	0.004155	ppm	0.000194	4.66	1442.440000	Y 377.433
Fe (238.204 nm)	48.729940 o	ppm	0.036529	0.07	117308.612440	Y_R 377.433
Fe H (259.940 nm)	48.257200	ppm	0.040680	0.08	66750.400000	Y_R 377.433
K (766.491 nm)	0.019848 u	ppm	0.074852	> 100.00	1956.550000	Y_R2 488.368
Li (670.783 nm)	0.028219	ppm	0.001162	4.12	-2061.250000	Y_R2 488.368
Mg (279.078 nm)	0.045759	ppm	0.001397	3.05	85.887800	Y 377.433
Mn (257.610 nm)	0.001101	ppm	0.000018	1.65	289.085000	Y 377.433
Mo (202.032 nm)	0.000959	ppm	0.000081	8.45	23.221500	Y 377.433
Na (589.592 nm)	220.875000 o	ppm	0.427024	0.19	181468.000000	Y_R2 488.368
Na H (589.593 nm)	226.730027	ppm	0.568137	0.25	122896.272024	Y_R4
Ni (231.604 nm)	0.002887	ppm	0.000470	16.28	6.317440	Y 377.433
P (213.618 nm)	4.802770	ppm	0.002243	0.05	6859.440000	Y 242.219
Pb (220.353 nm)	0.004207	ppm	0.000183	4.36	15.105600	Y 242.219
S (181.972 nm)	4.714924	ppm	0.021051	0.45	2171.925696	Y 377.433
Sb (206.834 nm)	0.001668	ppm	0.002018	> 100.00	8.706690	Y 377.433
Se (196.026 nm)	0.010267	ppm	0.000903	8.79	11.792500	Y 242.219
Si (288.158 nm)	0.018090	ppm	0.000457	2.53	605.003000	Y 377.433
Sn (189.925 nm)	0.000728	ppm	0.000171	23.43	3.261620	Y 377.433
Sr (421.552 nm)	0.001568	ppm	0.000136	8.66	266.578896	Y_R 488.368
Th (288.505 nm)	4.653950	ppm	0.007190	0.15	8038.160000	Y 377.433
Ti (336.122 nm)	0.002316	ppm	0.000017	0.75	-137.411000	Y 377.433
Tl (190.794 nm)	-0.000624 u	ppm	0.002092	> 100.00	-4.299830	Y 377.433
U (409.013 nm)	0.525180 Q	ppm	0.005153	0.98	1677.090000 Q	Y 377.433
V (292.401 nm)	0.001278	ppm	0.000018	1.40	404.295000	Y 377.433
Zn (206.200 nm)	0.002977	ppm	0.000024	0.81	24.235100	Y 377.433
Zr (343.823 nm)	0.001207	ppm	0.000248	20.53	-93.296500	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.116648	25811.832718	0.003472	0.31
Y 377.433	1.096232	766738.669559	0.004005	0.37
Y_R 377.433	1.150310	69741.900000	0.000339	0.03
Y_R 488.368	1.158650	61208.600000	0.001931	0.17
Y_R2 488.368	1.125871	119348.243988	0.009313	0.83
Y_R4	1.163630	52363.400000	0.005261	0.45

Sample Name: CCV-5717467

Date: 5/25/2019 1:50:55 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.478173	ppm	0.000329	0.07	16231.100000	Y 377.433
Al (394.401 nm)	0.487150	ppm	0.001910	0.39	6157.580000	Y 377.433
Al H (396.152 nm)	0.531589 u	ppm	0.005877	1.11	1140.110000	Y_R 377.433
As (188.980 nm)	0.475741	ppm	0.002009	0.42	715.248000	Y 242.219
B (249.678 nm)	0.457403	ppm	0.001580	0.35	3311.870000	Y 242.219
Ba (493.408 nm)	0.466589	ppm	0.001913	0.41	47917.400000	Y_R 488.368
Be (234.861 nm)	0.460171	ppm	0.002692	0.58	45306.600000	Y_R 488.368
Bi (223.061 nm)	0.955322	ppm	0.006550	0.69	2082.190000	Y 377.433
Ca (315.887 nm)	4.817276	ppm	0.030872	0.64	3756.996112	Y_R 377.433
Cd (214.439 nm)	0.499326	ppm	0.000056	0.01	18460.900000	Y 377.433
Co (228.615 nm)	0.477833	ppm	0.000059	0.01	11236.000000	Y 242.219
Cr (205.560 nm)	0.498624	ppm	0.003798	0.76	3315.290000	Y 377.433
Cu (324.754 nm)	0.483783	ppm	0.000633	0.13	22880.300000	Y 377.433
Fe (238.204 nm)	2.453357	ppm	0.010172	0.41	5912.797531	Y_R 377.433
Fe H (259.940 nm)	2.447800 u	ppm	0.011413	0.47	3396.690000	Y_R 377.433
K (766.491 nm)	47.626700	ppm	0.102788	0.22	47925.100000	Y_R2 488.368
Li (670.783 nm)	0.504626	ppm	0.002753	0.55	6118.780000	Y_R2 488.368
Mg (279.078 nm)	19.370300	ppm	0.014748	0.08	63391.600000	Y 377.433
Mn (257.610 nm)	0.477857	ppm	0.000260	0.05	130281.000000	Y 377.433
Mo (202.032 nm)	0.477702	ppm	0.000058	0.01	6032.200000	Y 377.433
Na (589.592 nm)	22.823200	ppm	0.027093	0.12	18991.600000	Y_R2 488.368
Na H (589.593 nm)	23.754730 u	ppm	0.112749	0.47	12770.776918	Y_R4
Ni (231.604 nm)	0.489895	ppm	0.001433	0.29	2526.690000	Y 377.433
P (213.618 nm)	0.049491	ppm	0.003918	7.92	-64.407900	Y 242.219
Pb (220.353 nm)	0.483195	ppm	0.000368	0.08	1541.180000	Y 242.219
S (181.972 nm)	-0.005595 u	ppm	0.009177	> 100.00	11.915473	Y 377.433
Sb (206.834 nm)	0.480658	ppm	0.000877	0.18	810.823000	Y 377.433
Se (196.026 nm)	0.476386	ppm	0.002103	0.44	727.459000	Y 242.219
Si (288.158 nm)	4.748460	ppm	0.008677	0.18	31057.100000	Y 377.433
Sn (189.925 nm)	0.494453	ppm	0.001488	0.30	797.693000	Y 377.433
Sr (421.552 nm)	0.456870	ppm	0.002295	0.50	68828.671231	Y_R 488.368
Th (288.505 nm)	0.025085	ppm	0.004189	16.70	7.372560	Y 377.433
Ti (336.122 nm)	0.471235	ppm	0.000112	0.02	59884.100000	Y 377.433
Tl (190.794 nm)	0.489222	ppm	0.000025	0.01	1117.600000	Y 377.433
U (409.013 nm)	0.015295	ppm	0.006522	42.64	-34.851600	Y 377.433
V (292.401 nm)	0.474753	ppm	0.000000	0.00	24335.500000	Y 377.433
Zn (206.200 nm)	0.500943	ppm	0.000523	0.10	2257.010000	Y 377.433
Zr (343.823 nm)	0.471401	ppm	0.000251	0.05	26525.200000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.119589	25879.815609	0.000789	0.07
Y 377.433	1.101536	770448.864875	0.000942	0.09
Y_R 377.433	1.133530	68724.700000	0.008515	0.75
Y_R 488.368	1.150040	60753.800000	0.007927	0.69
Y_R2 488.368	1.120177	118744.687649	0.010323	0.92
Y_R4	1.150090	51754.200000	0.009779	0.85

Sample Name: CCB

Date: 5/25/2019 1:54:32 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001128	ppm	0.000252	22.36	-228.020000	Y 377.433
Al (394.401 nm)	-0.002416 u	ppm	0.001793	74.19	63.121300	Y 377.433
Al H (396.152 nm)	0.132740 Zu	ppm	0.000417	0.31	31.944300 Z	Y_R 377.433
As (188.980 nm)	0.002261	ppm	0.002607	> 100.00	1.831000	Y 242.219
B (249.678 nm)	-0.004088 u	ppm	0.000042	1.02	17.479900	Y 242.219
Ba (493.408 nm)	-0.002377 Zu	ppm	0.000100	4.19	1162.530000 Z	Y_R 488.368
Be (234.861 nm)	0.000022 u	ppm	0.000094	> 100.00	0.186696	Y_R 488.368
Bi (223.061 nm)	0.000405 u	ppm	0.003086	> 100.00	-9.724100	Y 377.433
Ca (315.887 nm)	0.020945	ppm	0.001621	7.74	-52.405571	Y_R 377.433
Cd (214.439 nm)	0.000019 u	ppm	0.000079	> 100.00	-4.484500	Y 377.433
Co (228.615 nm)	-0.000001 u	ppm	0.000156	> 100.00	-15.174300	Y 242.219
Cr (205.560 nm)	0.000164	ppm	0.000195	> 100.00	-5.658290	Y 377.433
Cu (324.754 nm)	0.001290	ppm	0.000139	10.77	377.064000	Y 377.433
Fe (238.204 nm)	-0.001083 u	ppm	0.001151	> 100.00	4.532704	Y_R 377.433
Fe H (259.940 nm)	0.002144 u	ppm	0.001869	87.18	14.378400	Y_R 377.433
K (766.491 nm)	-0.082227 u	ppm	0.252073	> 100.00	1857.990000	Y_R2 488.368
Li (670.783 nm)	0.023844 Z	ppm	0.003049	12.79	-2136.360000 Z	Y_R2 488.368
Mg (279.078 nm)	0.004489	ppm	0.000044	0.99	22.895600	Y 377.433
Mn (257.610 nm)	0.000092	ppm	0.000026	28.15	13.942200	Y 377.433
Mo (202.032 nm)	0.000544	ppm	0.000274	50.31	17.988100	Y 377.433
Na (589.592 nm)	-0.008498 u	ppm	0.012431	> 100.00	142.717000	Y_R2 488.368
Na H (589.593 nm)	0.615576 u	ppm	0.005246	0.85	216.486829	Y_R4
Ni (231.604 nm)	0.000055 u	ppm	0.000402	> 100.00	-8.337350	Y 377.433
P (213.618 nm)	-0.000613 u	ppm	0.001150	> 100.00	-5.039130	Y 242.219
Pb (220.353 nm)	-0.000808 u	ppm	0.001590	> 100.00	5.715700	Y 242.219
S (181.972 nm)	-0.012440 u	ppm	0.001427	11.47	7.002070	Y 377.433
Sb (206.834 nm)	-0.001603 u	ppm	0.005967	> 100.00	-0.930728	Y 377.433
Se (196.026 nm)	0.001754	ppm	0.001392	79.40	11.502400	Y 242.219
Si (288.158 nm)	-0.005186 u	ppm	0.001676	32.32	455.160000	Y 377.433
Sn (189.925 nm)	0.000673	ppm	0.000192	28.46	3.173790	Y 377.433
Sr (421.552 nm)	0.000218	ppm	0.000002	1.06	55.998153	Y_R 488.368
Th (288.505 nm)	0.002045	ppm	0.001255	61.38	16.324000	Y 377.433
Ti (336.122 nm)	0.000313	ppm	0.000068	21.62	-393.777000	Y 377.433
Tl (190.794 nm)	0.001306 u	ppm	0.002436	> 100.00	4.800870	Y 377.433
U (409.013 nm)	0.012042	ppm	0.003548	29.47	13.458800	Y 377.433
V (292.401 nm)	0.000229	ppm	0.000205	89.55	-134.676000	Y 377.433
Zn (206.200 nm)	-0.000505 u	ppm	0.000073	14.44	1.793510	Y 377.433
Zr (343.823 nm)	-0.000087 u	ppm	0.000073	83.35	-166.556000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.139575	26341.800478	0.004592	0.40
Y 377.433	1.119116	782744.642209	0.004667	0.42
Y_R 377.433	1.164290	70589.700000	0.006571	0.56
Y_R 488.368	1.178910	62279.200000	0.003825	0.32
Y_R2 488.368	1.132858	120088.965145	0.000660	0.06
Y_R4	1.141340	51360.200000	0.006056	0.53

Sample Name: CCVL-5719884

Date: 5/25/2019 1:57:45 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.008630	ppm	0.000223	2.58	29.818700	Y 377.433
Al (394.401 nm)	0.094487	ppm	0.001240	1.31	1253.890000	Y 377.433
Al H (396.152 nm)	0.225787 u	ppm	0.007618	3.37	240.667000	Y_R 377.433
As (188.980 nm)	0.016219	ppm	0.000602	3.71	22.861500	Y 242.219
B (249.678 nm)	0.087384	ppm	0.000163	0.19	670.681000	Y 242.219
Ba (493.408 nm)	0.007143	ppm	0.000580	8.12	2111.700000	Y_R 488.368
Be (234.861 nm)	0.000904	ppm	0.000087	9.63	86.687100	Y_R 488.368
Bi (223.061 nm)	0.083983	ppm	0.001180	1.41	173.344000	Y 377.433
Ca (315.887 nm)	0.218646	ppm	0.014350	6.56	104.632086	Y_R 377.433
Cd (214.439 nm)	0.005001	ppm	0.000091	1.83	179.781000	Y 377.433
Co (228.615 nm)	0.009951	ppm	0.000112	1.13	219.160000	Y 242.219
Cr (205.560 nm)	0.010200	ppm	0.000062	0.61	61.107800	Y 377.433
Cu (324.754 nm)	0.016340	ppm	0.000161	0.99	1077.850000	Y 377.433
Fe (238.204 nm)	0.097284	ppm	0.001794	1.84	241.318380	Y_R 377.433
Fe H (259.940 nm)	0.103402 u	ppm	0.001702	1.65	154.416000	Y_R 377.433
K (766.491 nm)	2.751270	ppm	0.175139	6.37	4593.980000	Y_R2 488.368
Li (670.783 nm)	0.048289 Q	ppm	0.000292	0.60	-1716.640000 Q	Y_R2 488.368
Mg (279.078 nm)	0.198032	ppm	0.001094	0.55	655.093000	Y 377.433
Mn (257.610 nm)	0.010258	ppm	0.000001	0.01	2785.960000	Y 377.433
Mo (202.032 nm)	0.019046	ppm	0.000182	0.96	251.188000	Y 377.433
Na (589.592 nm)	0.977145	ppm	0.013377	1.37	953.871000	Y_R2 488.368
Na H (589.593 nm)	1.346975 u	ppm	0.006720	0.50	613.311750	Y_R4
Ni (231.604 nm)	0.041411	ppm	0.000182	0.44	205.661000	Y 377.433
P (213.618 nm)	2.786300	ppm	0.018856	0.68	3976.040000	Y 242.219
Pb (220.353 nm)	0.008884	ppm	0.000422	4.75	36.584000	Y 242.219
S (181.972 nm)	0.078448	ppm	0.001291	1.65	48.662793	Y 377.433
Sb (206.834 nm)	0.018703	ppm	0.002844	15.21	33.210900	Y 377.433
Se (196.026 nm)	0.015128	ppm	0.000396	2.62	31.664900	Y 242.219
Si (288.158 nm)	0.465160	ppm	0.001263	0.27	3483.040000	Y 377.433
Sn (189.925 nm)	0.099311	ppm	0.000073	0.07	161.888000	Y 377.433
Sr (421.552 nm)	0.008870	ppm	0.000040	0.45	1358.993591	Y_R 488.368
Th (288.505 nm)	0.017758	ppm	0.000055	0.31	42.897600	Y 377.433
Ti (336.122 nm)	0.009833	ppm	0.000076	0.78	825.105000	Y 377.433
Tl (190.794 nm)	0.015752	ppm	0.000416	2.64	37.731900	Y 377.433
U (409.013 nm)	0.062696	ppm	0.013133	20.95	172.940000	Y 377.433
V (292.401 nm)	0.009636	ppm	0.000315	3.27	347.708000	Y 377.433
Zn (206.200 nm)	0.020630	ppm	0.000263	1.28	96.845700	Y 377.433
Zr (343.823 nm)	0.009638	ppm	0.000107	1.12	384.014000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.133245	26195.487191	0.002364	0.21
Y 377.433	1.122919	785404.599708	0.003219	0.29
Y_R 377.433	1.155260	70042.000000	0.003602	0.31
Y_R 488.368	1.172010	61914.700000	0.014434	1.23
Y_R2 488.368	1.136447	120469.440053	0.003951	0.35
Y_R4	1.127810	50751.400000	0.012899	1.14

Sample Name: bottle 123601-5

Date: 5/25/2019 9:04:35 AM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

Label	Solution Concentration	Unit	SD	%RSD	Intensity	Internal Standard
Ag (328.068 nm)	0.001680	ppm	0.000227	13.54	-214.441000	Y 377.433
Al (394.401 nm)	0.015009	ppm	0.002216	14.77	374.139000	Y 377.433
Al H (396.152 nm)	0.079748 u	ppm	0.002174	2.73	69.319700	Y_R 377.433
As (188.980 nm)	0.010983	ppm	0.000789	7.19	14.973700	Y 242.219
B (249.678 nm)	0.075634	ppm	0.000191	0.25	586.818000	Y 242.219
Ba (493.408 nm)	0.062801	ppm	0.002375	3.78	7660.350000	Y_R 488.368
Be (234.861 nm)	-0.000028 u	ppm	0.000013	46.54	-4.803230	Y_R 488.368
Bi (223.061 nm)	0.001675	ppm	0.001949	> 100.00	-6.931070	Y 377.433
Ca (315.887 nm)	23.482343	ppm	0.696808	2.97	18580.777929	Y_R 377.433
Cd (214.439 nm)	0.000173	ppm	0.000125	72.46	1.205800	Y 377.433
Co (228.615 nm)	-0.000244 u	ppm	0.000281	> 100.00	-20.858000	Y 242.219
Cr (205.560 nm)	0.000452	ppm	0.000213	47.07	-3.755360	Y 377.433
Cu (324.754 nm)	0.000956	ppm	0.000182	19.05	346.744000	Y 377.433
Fe (238.204 nm)	0.008812	ppm	0.003662	41.56	28.350895	Y_R 377.433
Fe H (259.940 nm)	0.009036 u	ppm	0.001130	12.50	23.909300	Y_R 377.433
K (766.491 nm)	5.110920	ppm	0.002879	0.06	6872.420000	Y_R2 488.368
Li (670.783 nm)	0.041812	ppm	0.001168	2.79	-1827.850000	Y_R2 488.368
Mg (279.078 nm)	4.734890	ppm	0.143531	3.03	15502.600000	Y 377.433
Mn (257.610 nm)	0.000232	ppm	0.000004	1.57	52.288500	Y 377.433
Mo (202.032 nm)	0.003081	ppm	0.000367	11.91	49.969300	Y 377.433
Na (589.592 nm)	40.711800	ppm	0.108666	0.27	33584.800000	Y_R2 488.368
Na H (589.593 nm)	41.739108 u	ppm	0.148223	0.36	22528.311920	Y_R4
Ni (231.604 nm)	-0.000088 u	ppm	0.000261	> 100.00	-9.079130	Y 377.433
P (213.618 nm)	0.009270	ppm	0.001955	21.09	8.956010	Y 242.219
Pb (220.353 nm)	0.000432 u	ppm	0.000651	> 100.00	9.627220	Y 242.219
S (181.972 nm)	7.651799	ppm	0.044413	0.58	3518.058667	Y 377.433
Sb (206.834 nm)	-0.004980 u	ppm	0.001889	37.93	-6.648870	Y 377.433
Se (196.026 nm)	0.000108 u	ppm	0.002678	> 100.00	9.018770	Y 242.219
Si (288.158 nm)	26.699600	ppm	0.036117	0.14	172369.000000	Y 377.433
Sn (189.925 nm)	0.000884	ppm	0.000909	> 100.00	3.512200	Y 377.433
Sr (421.552 nm)	0.371008	ppm	0.010250	2.76	55897.439231	Y_R 488.368
Th (288.505 nm)	-0.002634 u	ppm	0.000643	24.42	6.021660	Y 377.433
Ti (336.122 nm)	0.001534	ppm	0.000206	13.42	-155.603000	Y 377.433
Tl (190.794 nm)	-0.001586 u	ppm	0.001545	97.44	-2.786620	Y 377.433
U (409.013 nm)	0.005513 u	ppm	0.012743	> 100.00	-10.430400	Y 377.433
V (292.401 nm)	0.014550	ppm	0.000508	3.49	609.080000	Y 377.433
Zn (206.200 nm)	0.001137	ppm	0.000940	82.67	9.178270	Y 377.433
Zr (343.823 nm)	0.000020 u	ppm	0.000134	> 100.00	-160.488000	Y 377.433

Internal Standards Results

Label	Ratio	Intensity	SD	%RSD
Y 242.219	1.124664	25997.143274	0.002608	0.23
Y 377.433	1.115275	780058.110390	0.001033	0.09
Y_R 377.433	1.140640	69155.400000	0.001349	0.12
Y_R 488.368	1.151440	60827.900000	0.000626	0.05
Y_R2 488.368	1.110323	117700.078365	0.007004	0.63
Y_R4	1.159770	52189.400000	0.005036	0.43

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG No.:

Project: Griffiss AFB, LF009 Landfill 6

Client Sample ID	Lab Sample ID
LF6VMW-22_0519	280-123924-1
LF6VMW-10R2_0519	280-123924-2
LF6VMW-26_0519	280-123924-3
LF6MW-12_0519	280-123924-4
LF6VMW-24_0519	280-123924-5
TMCMW-9_0519	280-123924-6
LF6/TMCSW-1_0519	280-123924-7
LF6/TMCSW-2_0519	280-123924-8
LF6/TMCSW-2_0519-a	280-123924-9
LF6W-1_0519	280-123924-10
LF6LH-1_0519	280-123924-11
LF6LH-2_0519	280-123924-12

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6VMW-22_0519 Lab Sample ID: 280-123924-1

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 09:15

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.81	1.0	0.50	0.69	mg/L	J		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.0075	0.020	0.020	0.0068	mg/L	J		1	9066
Color	15	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	160	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.64	0.50	0.10	0.042	mg/L			1	9056A
Chloride	4.7	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.32	0.50	0.20	0.19	mg/L	J	Q	1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate	0.64	0.50	0.10	0.042	mg/L			1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	8.3	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	0.66	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	160	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	180	10	10	4.7	mg/L		B	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6VMW-10R2_0519 Lab Sample ID: 280-123924-2

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 10:28

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.077	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	20	20	20	8.7	mg/L	U		1	410.4
Phenols, Total	0.0095	0.020	0.020	0.0068	mg/L	J		1	9066
Color	5.0	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	130	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U	M	1	9056A
Nitrate Nitrite as N	0.65	0.50	0.10	0.042	mg/L			1	9056A
Chloride	4.0	3.0	3.0	1.0	mg/L		M J1	1	9056A
Orthophosphate as P	0.26	0.50	0.20	0.19	mg/L	J	J1 Q	1	9056A
Fluoride	0.066	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.65	0.50	0.10	0.042	mg/L		M	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	M	1	9056A
Sulfate	10	5.0	3.0	1.0	mg/L		J1	1	9056A
Total Organic Carbon - Quad	0.53	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	110	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	160	10	10	4.7	mg/L		H	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6VMW-26_0519 Lab Sample ID: 280-123924-3

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 09:25

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.026	0.020	0.020	0.0068	mg/L			1	9066
Color	10	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	300	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	2.1	0.50	0.20	0.11	mg/L			1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Chloride	170	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	H	1	9056A
Fluoride	0.67	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Sulfate	24	5.0	3.0	1.0	mg/L			1	9056A
Total Organic Carbon - Quad	0.63	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	220	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	490	10	10	4.7	mg/L		B	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6MW-12_0519 Lab Sample ID: 280-123924-4

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 10:35

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.29	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U	J1	1	351.2
Chemical Oxygen Demand (COD)	50	20	20	8.7	mg/L			1	410.4
Phenols, Total	0.021	0.020	0.020	0.0068	mg/L			1	9066
Color	75	25	25	25	PCU		D	5	SM 2120B
Hardness	460	6.0	1.6	0.60	mg/L			1	SM 2340C
Bromide	1.7	0.50	0.20	0.11	mg/L			1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U	H	1	9056A
Chloride	120	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	H	1	9056A
Fluoride	0.59	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U	H	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	H	1	9056A
Sulfate	13	5.0	3.0	1.0	mg/L		M	1	9056A
Total Organic Carbon - Quad	4.6	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	370	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	580	10	10	4.7	mg/L		B	1	SM 2540C
Biochemical Oxygen Demand	57	24	7.1	2.8	mg/L			1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6VMW-24_0519 Lab Sample ID: 280-123924-5

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 11:50

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.15	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	3.4	1.0	0.50	0.69	mg/L			1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.015	0.020	0.020	0.0068	mg/L	J		1	9066
Color	5.0	5.0	5.0	5.0	PCU	U		1	SM 2120B
Hardness	240	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.92	0.50	0.10	0.042	mg/L		H	1	9056A
Chloride	290	15	15	5.1	mg/L		D	5	9056A
Orthophosphate as P	1.2	2.5	1.0	0.94	mg/L	J	H D Q M	5	9056A
Fluoride	0.98	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.92	0.50	0.10	0.042	mg/L		H	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	H	1	9056A
Sulfate	18	5.0	3.0	1.0	mg/L		M	1	9056A
Total Organic Carbon - Quad	0.64	1.0	0.50	0.16	mg/L	J		1	9060A
Alkalinity	160	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	660	20	20	9.4	mg/L		B	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: TMCMW-9_0519 Lab Sample ID: 280-123924-6

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 12:58

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.60	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.015	0.020	0.020	0.0068	mg/L	J		1	9066
Color	5.0	5.0	5.0	5.0	PCU	U		1	SM 2120B
Hardness	420	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.77	0.50	0.10	0.042	mg/L		H	1	9056A
Chloride	34	3.0	3.0	1.0	mg/L			1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	H	1	9056A
Fluoride	0.46	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.77	0.50	0.10	0.042	mg/L		H M	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	H	1	9056A
Sulfate	44	5.0	3.0	1.0	mg/L		M	1	9056A
Total Organic Carbon - Quad	2.5	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	410	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	520	10	10	4.7	mg/L		B	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6/TMCSW-1_0519 Lab Sample ID: 280-123924-7

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 11:15

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.030	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.012	0.020	0.020	0.0068	mg/L	J		1	9066
Color	25	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	270	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	200	0.50	0.10	0.042	mg/L		H	1	9056A
Chloride	3.0	3.0	3.0	1.0	mg/L	U		1	9056A
Orthophosphate as P	1.0	2.5	1.0	0.94	mg/L	U	H Q	5	9056A
Fluoride	0.061	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.23	0.50	0.10	0.042	mg/L	J	H	1	9056A
Nitrite	0.50	2.5	0.50	0.25	mg/L	U	H	5	9056A
Sulfate	24	5.0	3.0	1.0	mg/L		M	1	9056A
Total Organic Carbon - Quad	3.1	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	220	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	730	20	20	9.4	mg/L		B	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6/TMCSW-2_0519 Lab Sample ID: 280-123924-8

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 11:45

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.032	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	9.3	20	20	8.7	mg/L	J		1	410.4
Phenols, Total	0.015	0.020	0.020	0.0068	mg/L	J		1	9066
Color	30	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	270	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	190	0.50	0.10	0.042	mg/L		H	1	9056A
Chloride	3.0	3.0	3.0	1.0	mg/L	U		1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	H Q	1	9056A
Fluoride	0.064	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.71	0.50	0.10	0.042	mg/L		H M	1	9056A
Nitrite	0.50	2.5	0.50	0.25	mg/L	U	H	5	9056A
Sulfate	23	5.0	3.0	1.0	mg/L		M	1	9056A
Total Organic Carbon - Quad	3.6	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	210	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	670	20	20	9.4	mg/L		B	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6/TMCSW-2_0519-a
Lab Sample ID: 280-123924-9
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-123924-1
SDG ID.:
Matrix: Water
Date Sampled: 05/16/2019 11:45
Reporting Basis: WET
Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.032	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.010	0.020	0.020	0.0068	mg/L	J		1	9066
Color	30	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	260	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	190	0.50	0.10	0.042	mg/L		H	1	9056A
Chloride	3.0	3.0	3.0	1.0	mg/L	U		1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	H Q	1	9056A
Fluoride	0.86	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.71	0.50	0.10	0.042	mg/L		H M	1	9056A
Nitrite	0.50	2.5	0.50	0.25	mg/L	U	H	5	9056A
Sulfate	23	5.0	3.0	1.0	mg/L		M	1	9056A
Total Organic Carbon - Quad	3.6	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	210	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	700	20	20	9.4	mg/L		B	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6W-1_0519 Lab Sample ID: 280-123924-10

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 13:20

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.025	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	68	20	20	8.7	mg/L			1	410.4
Phenols, Total	0.012	0.020	0.020	0.0068	mg/L	J		1	9066
Color	50	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	72	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U	H	1	9056A
Chloride	1.1	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	H	1	9056A
Fluoride	0.088	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U	H	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	H	1	9056A
Sulfate	1.2	5.0	3.0	1.0	mg/L	J	M	1	9056A
Total Organic Carbon - Quad	9.5	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	87	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	100	10	10	4.7	mg/L		H	1	SM 2540C
Biochemical Oxygen Demand	2.8	2.5	0.74	0.30	mg/L			1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6LH-1_0519 Lab Sample ID: 280-123924-11

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 12:50

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.022	mg/L	U		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	20	20	8.7	mg/L			1	410.4
Phenols, Total	0.0071	0.020	0.020	0.0068	mg/L	J		1	9066
Color	40	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	110	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U	H	1	9056A
Chloride	1.7	3.0	3.0	1.0	mg/L	J		1	9056A
Orthophosphate as P	0.38	0.50	0.20	0.19	mg/L	J	H Q M	1	9056A
Fluoride	0.085	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.10	0.50	0.10	0.042	mg/L	U	H	1	9056A
Nitrite	0.10	0.50	0.10	0.049	mg/L	U	H	1	9056A
Sulfate	6.7	5.0	3.0	1.0	mg/L		M	1	9056A
Total Organic Carbon - Quad	11	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	90	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	120	10	10	4.7	mg/L		H	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LF6LH-2_0519 Lab Sample ID: 280-123924-12

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2019 12:20

Reporting Basis: WET Date Received: 05/17/2019 08:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.035	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Kjeldahl	0.50	1.0	0.50	0.69	mg/L	U		1	351.2
Chemical Oxygen Demand (COD)	40	40	40	17	mg/L	U		2	410.4
Phenols, Total	0.0094	0.020	0.020	0.0068	mg/L	J		1	9066
Color	30	5.0	5.0	5.0	PCU			1	SM 2120B
Hardness	270	3.0	0.81	0.30	mg/L			1	SM 2340C
Bromide	0.20	0.50	0.20	0.11	mg/L	U		1	9056A
Nitrate Nitrite as N	190	0.50	0.10	0.042	mg/L		H	1	9056A
Chloride	3.0	3.0	3.0	1.0	mg/L	U		1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U	H Q	1	9056A
Fluoride	0.066	1.0	0.10	0.060	mg/L	J		1	9056A
Nitrate	0.71	0.50	0.10	0.042	mg/L		H M	1	9056A
Nitrite	0.50	2.5	0.50	0.25	mg/L	U	H	5	9056A
Sulfate	24	5.0	3.0	1.0	mg/L		M	1	9056A
Total Organic Carbon - Quad	3.5	1.0	0.50	0.16	mg/L			1	9060A
Alkalinity	210	10	10	3.1	mg/L			1	SM 2320B
Total Dissolved Solids (TDS)	670	20	20	9.4	mg/L		B	1	SM 2540C
Biochemical Oxygen Demand	0.59	2.0	0.59	0.24	mg/L	U		1	SM5210B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: MJS Batch Start Date: 05/30/2019

Reporting Units: mg/L Analytical Batch No.: 459963

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	11:25	Ammonia	0.462	0.498	93	90-110		350.1 ICV_00350
15	ICV	11:27	Ammonia	2.46	2.49	99	90-110		350.1 ICV_00350
16	ICB	11:29	Ammonia	0.050				U	
40	CCVL	12:22	Ammonia	0.454	0.500	91	90-110		350.1 cal_00367
41	CCV	12:24	Ammonia	2.44	2.50	97	90-110		350.1 cal_00367
42	CCB	12:26	Ammonia	0.050				U	
56	CCVL	12:54	Ammonia	0.454	0.500	91	90-110		350.1 cal_00367
57	CCV	12:56	Ammonia	2.43	2.50	97	90-110		350.1 cal_00367
58	CCB	12:58	Ammonia	0.050				U	
66	CCVL	13:14	Ammonia	0.464	0.500	93	90-110		350.1 cal_00367
67	CCV	13:16	Ammonia	2.49	2.50	100	90-110		350.1 cal_00367
68	CCB	13:18	Ammonia	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: SVC Batch Start Date: 06/07/2019

Reporting Units: mg/L Analytical Batch No.: 460878

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:13	Nitrogen, Kjeldahl	5.02	5.00	100	90-110		TKN ICV 25_00078
14	ICB	17:15	Nitrogen, Kjeldahl	0.50				U	
49	CCV	17:58	Nitrogen, Kjeldahl	5.02	5.00	100	90-110		TKN 25ppm_00794
50	CCB	18:00	Nitrogen, Kjeldahl	0.50				U	
65	CCV	18:18	Nitrogen, Kjeldahl	4.97	5.00	99	90-110		TKN 25ppm_00794
66	CCB	18:20	Nitrogen, Kjeldahl	0.50				U	
80	CCV	18:37	Nitrogen, Kjeldahl	5.05	5.00	101	90-110		TKN 25ppm_00794
81	CCB	18:38	Nitrogen, Kjeldahl	0.50				U	
98	CCV	19:00	Nitrogen, Kjeldahl	5.03	5.00	101	90-110		TKN 25ppm_00794
99	CCB	19:01	Nitrogen, Kjeldahl	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: KES Batch Start Date: 06/07/2019

Reporting Units: mg/L Analytical Batch No.: 460807

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:42	Chemical Oxygen Demand (COD)	74.9	75.4	99	90-110		COD icv std_00034
2	ICB	09:42	Chemical Oxygen Demand (COD)	20				U	
16	CCV	09:42	Chemical Oxygen Demand (COD)	96.0	100	96	90-110		COD cal std_00048
17	CCB	09:42	Chemical Oxygen Demand (COD)	20				U	
28	CCV	09:42	Chemical Oxygen Demand (COD)	101	100	101	90-110		COD cal std_00048
29	CCB	09:42	Chemical Oxygen Demand (COD)	20				U	
34	CCV	09:50	Chemical Oxygen Demand (COD)	100	100	100	90-110		COD cal std_00048
35	CCB	09:50	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: KES Batch Start Date: 06/08/2019

Reporting Units: mg/L Analytical Batch No.: 460943

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	12:45	Chemical Oxygen Demand (COD)	71.2	75.4	94	90-110		COD icv std_00034
2	ICB	12:45	Chemical Oxygen Demand (COD)	20				U	
16	CCV	12:45	Chemical Oxygen Demand (COD)	91.9	100	92	90-110		COD cal std_00048
17	CCB	12:45	Chemical Oxygen Demand (COD)	20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: ARM Batch Start Date: 06/06/2019

Reporting Units: mg/L Analytical Batch No.: 460772

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:23	Phenols, Total	0.196	0.200	98	90-110		Phenol ICV 10_00605
14	ICVL	18:53	Phenols, Total	0.110	0.100	110	90-110		Phenol ICV 10_00605
15	ICB	18:56	Phenols, Total	0.020				U	
45	CCV	20:26	Phenols, Total	0.217	0.201	108	90-110		Phenol CAL 10_00730
47	CCB	20:32	Phenols, Total	0.020				U	
61	CCV	21:15	Phenols, Total	0.212	0.201	105	90-110		Phenol CAL 10_00730
63	CCB	21:21	Phenols, Total	0.020				U	
77	CCV	23:05	Phenols, Total	0.216	0.201	107	90-110		Phenol CAL 10_00730
78	CCVL	23:08	Phenols, Total	0.108	0.101	107	90-110		Phenol CAL 10_00730
79	CCB	23:11	Phenols, Total	0.020				U	
93	CCV	23:54	Phenols, Total	0.214	0.201	106	90-110		Phenol CAL 10_00730
94	CCVL	23:57	Phenols, Total	0.109	0.101	109	90-110		Phenol CAL 10_00730
95	CCB	00:00	Phenols, Total	0.020				U	
104	CCV	00:28	Phenols, Total	0.211	0.201	105	90-110		Phenol CAL 10_00730
105	CCVL	00:31	Phenols, Total	0.108	0.101	108	90-110		Phenol CAL 10_00730
106	CCB	00:34	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: ARM Batch Start Date: 06/09/2019

Reporting Units: mg/L Analytical Batch No.: 460979

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	15:07	Phenols, Total	0.205	0.200	102	90-110		Phenol ICV 10_00605
14	ICVL	15:10	Phenols, Total	0.105	0.100	105	90-110		Phenol ICV 10_00605
15	ICB	15:13	Phenols, Total	0.020				U	
29	CCV	15:55	Phenols, Total	0.197	0.201	98	90-110		Phenol CAL 10_00730
30	CCVL	15:58	Phenols, Total	0.102	0.101	102	90-110		Phenol CAL 10_00730
31	CCB	16:01	Phenols, Total	0.020				U	
45	CCV	16:43	Phenols, Total	0.208	0.201	103	90-110		Phenol CAL 10_00730
46	CCVL	16:46	Phenols, Total	0.102	0.101	101	90-110		Phenol CAL 10_00730
47	CCB	16:49	Phenols, Total	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: TLP Batch Start Date: 05/02/2019

Reporting Units: mg/L Analytical Batch No.: 456732

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	12:00	Bromide	3.95	4.00	99	90-110		IC ICV 5_00232
			Chloride	78.0	80.0	98	90-110		IC CL ICV_00016
			Sulfate	78.6	80.0	98	90-110		IC SO4 ICV_00017
9	ICB	12:16	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.10				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: JAP Batch Start Date: 05/17/2019

Reporting Units: mg/L Analytical Batch No.: 458552

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	09:47	Nitrate Nitrite as N	9.95	10.0	100	90-110		
			Orthophosphate as P	5.05	5.00	101	90-110		IC LCS_01578
			Nitrate	5.00	5.00	100	90-110		IC LCS_01578
			Nitrite	4.95	5.00	99	90-110		IC LCS_01578
2	CCB	10:03	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
17	CCV	21:14	Nitrate Nitrite as N	10.1	10.0	101	90-110		
			Orthophosphate as P	5.26	5.00	105	90-110		IC LCS_01578
			Nitrate	5.10	5.00	102	90-110		IC LCS_01578
			Nitrite	4.98	5.00	100	90-110		IC LCS_01578
18	CCB	21:30	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
40	CCV	03:31	Nitrate Nitrite as N	9.54	10.0	95	90-110		
			Orthophosphate as P	5.52	5.00	110	90-110		IC LCS_01579
			Nitrate	4.80	5.00	96	90-110		IC LCS_01579
			Nitrite	4.74	5.00	95	90-110		IC LCS_01579
41	CCB	03:48	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
52	CCV	06:48	Nitrate Nitrite as N	9.86	10.0	99	90-110		
			Orthophosphate as P	5.58	5.00	112	90-110		IC LCS_01579
			Nitrate	4.96	5.00	99	90-110		IC LCS_01579
			Nitrite	4.90	5.00	98	90-110		IC LCS_01579
53	CCB	07:05	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
64	CCV	15:23	Nitrate Nitrite as N	10.4	10.0	104	90-110		
			Orthophosphate as P	6.08	5.00	122	90-110		IC LCS_01579
			Nitrate	5.30	5.00	106	90-110		IC LCS_01579
			Nitrite	5.09	5.00	102	90-110		IC LCS_01579
65	CCB	15:40	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	
75	CCV	18:24	Nitrate Nitrite as N	10.4	10.0	104	90-110		
			Orthophosphate as P	5.94	5.00	119	90-110		IC LCS_01579

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: JAP Batch Start Date: 05/18/2019

Reporting Units: mg/L Analytical Batch No.: 458552

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
75	CCV	18:24	Nitrate	5.31	5.00	106	90-110		IC LCS_01579
			Nitrite	5.08	5.00	102	90-110		IC LCS_01579
76	CCB	18:40	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate	0.10				U	
			Nitrite	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: JAP Batch Start Date: 05/17/2019

Reporting Units: mg/L Analytical Batch No.: 458553

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	09:47	Bromide	5.26	5.00	105	90-110		IC LCS_01578
			Chloride	95.2	100	95	90-110		IC LCS_01578
			Sulfate	93.4	100	93	90-110		IC LCS_01578
2	CCB	10:03	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
17	CCV	21:14	Bromide	5.31	5.00	106	90-110		IC LCS_01578
			Chloride	96.5	100	97	90-110		IC LCS_01578
			Sulfate	94.8	100	95	90-110		IC LCS_01578
18	CCB	21:30	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
40	CCV	03:31	Bromide	5.06	5.00	101	90-110		IC LCS_01579
			Chloride	94.4	100	94	90-110		IC LCS_01579
			Sulfate	92.6	100	93	90-110		IC LCS_01579
41	CCB	03:48	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
52	CCV	06:48	Bromide	5.22	5.00	104	90-110		IC LCS_01579
			Chloride	97.8	100	98	90-110		IC LCS_01579
			Sulfate	95.5	100	96	90-110		IC LCS_01579
53	CCB	07:05	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
64	CCV	15:23	Bromide	5.28	5.00	106	90-110		IC LCS_01579
			Chloride	100	100	100	90-110		IC LCS_01579
			Sulfate	95.3	100	95	90-110		IC LCS_01579
65	CCB	15:40	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	
75	CCV	18:24	Bromide	5.27	5.00	105	90-110		IC LCS_01579
			Chloride	99.9	100	100	90-110		IC LCS_01579
			Sulfate	95.3	100	95	90-110		IC LCS_01579
76	CCB	18:40	Bromide	0.20				U	
			Chloride	2.5				U	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: JAP Batch Start Date: 05/20/2019

Reporting Units: mg/L Analytical Batch No.: 458776

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	17:09	Nitrate Nitrite as N	7.94	8.00	99	90-110		
			Orthophosphate as P	4.11	4.00	103	90-110		IC ICV 5_00234
			Nitrate as N	4.12	4.00	103	90-110		IC ICV 5_00234
			Nitrite as N	3.82	4.00	95	90-110		IC ICV 5_00234
9	ICB	17:25	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: JAP Batch Start Date: 05/20/2019

Reporting Units: mg/L Analytical Batch No.: 458777

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	17:09	Bromide	4.19	4.00	105	90-110		IC ICV 5_00234
			Chloride	79.5	80.0	99	90-110		IC CL ICV_00016
			Fluoride	4.01	4.00	100	90-110		IC ICV 5_00234
			Sulfate	79.0	80.0	99	90-110		IC SO4 ICV_00017
9	ICB	17:25	Bromide	0.20				U	
			Chloride	2.5				U	
			Fluoride	0.205				J	
			Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: TLP Batch Start Date: 06/03/2019

Reporting Units: mg/L Analytical Batch No.: 460231

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	17:04	Nitrate Nitrite as N	10.7	10.0	107	90-110		
			Orthophosphate as P	5.17	5.00	103	90-110		IC LCS_01593
			Nitrate as N	5.40	5.00	108	90-110		IC LCS_01593
			Nitrite as N	5.29	5.00	106	90-110		IC LCS_01593
2	CCB	17:20	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
17	CCV	21:50	Nitrate Nitrite as N	10.7	10.0	107	90-110		
			Orthophosphate as P	5.37	5.00	107	90-110		IC LCS_01593
			Nitrate as N	5.38	5.00	108	90-110		IC LCS_01593
			Nitrite as N	5.29	5.00	106	90-110		IC LCS_01593
18	CCB	22:06	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
29	CCV	01:07	Nitrate Nitrite as N	10.7	10.0	107	90-110		
			Orthophosphate as P	5.14	5.00	103	90-110		IC LCS_01593
			Nitrate as N	5.37	5.00	107	90-110		IC LCS_01593
			Nitrite as N	5.30	5.00	106	90-110		IC LCS_01593
30	CCB	01:23	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
33	CCV	02:13	Nitrate Nitrite as N	10.7	10.0	107	90-110		
			Orthophosphate as P	5.17	5.00	103	90-110		IC LCS_01593
			Nitrate as N	5.39	5.00	108	90-110		IC LCS_01593
			Nitrite as N	5.32	5.00	106	90-110		IC LCS_01593
34	CCB	02:29	Nitrate Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
			Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: TLP Batch Start Date: 06/03/2019

Reporting Units: mg/L Analytical Batch No.: 460232

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	17:04	Fluoride	4.64	5.00	93	90-110		IC LCS_01593
2	CCB	17:20	Fluoride	0.276				J	
17	CCV	21:50	Fluoride	4.60	5.00	92	90-110		IC LCS_01593
18	CCB	22:06	Fluoride	0.190				J	
29	CCV	01:07	Fluoride	4.57	5.00	91	90-110		IC LCS_01593
30	CCB	01:23	Fluoride	0.376				J	
33	CCV	02:13	Fluoride	4.64	5.00	93	90-110		IC LCS_01593
34	CCB	02:29	Fluoride	0.266				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/10/2019

Reporting Units: mg/L Analytical Batch No.: 461179

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	17:09	Total Organic Carbon - Quad	21.2	20.0	106	90-110		TOC ICV Std_00037
2	ICB	17:24	Total Organic Carbon - Quad	0.50				U	
39	CCV	03:15	Total Organic Carbon - Quad	26.1	25.0	105	90-110		TOC ICV Std_00037
40	CCB	03:31	Total Organic Carbon - Quad	0.50				U	
51	CCV	06:31	Total Organic Carbon - Quad	26.2	25.0	105	90-110		TOC ICV Std_00037
52	CCB	06:46	Total Organic Carbon - Quad	0.50				U	
63	CCV	09:52	Total Organic Carbon - Quad	26.4	25.0	106	90-110		TOC ICV Std_00037
64	CCB	10:07	Total Organic Carbon - Quad	0.50				U	
72	CCV	12:17	Total Organic Carbon - Quad	27.0	25.0	108	90-110		TOC ICV Std_00037
73	CCB	12:34	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: CCJ Batch Start Date: 06/11/2019

Reporting Units: mg/L Analytical Batch No.: 461295

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	17:26	Total Organic Carbon - Quad	20.9	20.0	105	90-110		TOC ICV Std_00037
2	ICB	17:41	Total Organic Carbon - Quad	0.50				U	
27	CCV	00:38	Total Organic Carbon - Quad	26.7	25.0	107	90-110		TOC ICV Std_00037
28	CCB	00:57	Total Organic Carbon - Quad	0.50				U	
39	CCV	04:03	Total Organic Carbon - Quad	27.2	25.0	109	90-110		TOC ICV Std_00037
40	CCB	04:21	Total Organic Carbon - Quad	0.50				U	
51	CCV	07:27	Total Organic Carbon - Quad	26.9	25.0	107	90-110		TOC ICV Std_00037
52	CCB	07:44	Total Organic Carbon - Quad	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: SGB Batch Start Date: 05/22/2019

Reporting Units: mg/L Analytical Batch No.: 459192

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
28	CCV	20:54	Alkalinity	197	200	98	90-110		Alk daily lcs 00821
29	CCB	20:59	Alkalinity	10				U	
42	CCV	22:30	Alkalinity	198	200	99	90-110		Alk daily lcs 00821
43	CCB	22:34	Alkalinity	10				U	
54	CCV	23:48	Alkalinity	201	200	101	90-110		Alk daily lcs 00821
55	CCB	23:53	Alkalinity	10				U	
66	CCV	01:01	Alkalinity	199	200	99	90-110		Alk daily lcs 00821
67	CCB	01:06	Alkalinity	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Analyst: SGB Batch Start Date: 05/24/2019

Reporting Units: mg/L Analytical Batch No.: 459576

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
28	CCV	20:31	Alkalinity	196	200	98	90-110		Alk daily lcs 00821
29	CCB	20:36	Alkalinity	10				U	
42	CCV	21:55	Alkalinity	200	200	100	90-110		Alk daily lcs 00821
43	CCB	21:59	Alkalinity	10				U	
54	CCV	23:07	Alkalinity	198	200	99	90-110		Alk daily lcs 00821
55	CCB	23:12	Alkalinity	10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 459963 Date: 05/30/2019 11:56							
350.1	MB 280-459963/27	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 460878 Date: 06/07/2019 18:08 Prep Batch: 460760 Date: 06/06/2019 19:57							
351.2	MB 280-460760/28-A	Nitrogen, Kjeldahl	0.50	U	mg/L	1.0	1
Batch ID: 460807 Date: 06/07/2019 09:42							
410.4	MB 280-460807/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 460943 Date: 06/08/2019 12:45							
410.4	MB 280-460943/5	Chemical Oxygen Demand (COD)	20	U	mg/L	20	1
Batch ID: 458552 Date: 05/17/2019 11:08							
9056A	MB 280-458552/6	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-458552/6	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-458552/6	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-458552/6	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 458553 Date: 05/17/2019 11:08							
9056A	MB 280-458553/6	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-458553/6	Chloride	3.0	U M	mg/L	3.0	1
9056A	MB 280-458553/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 460231 Date: 06/03/2019 18:26							
9056A	MB 280-460231/6	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-460231/6	Orthophosphate as P	0.20	U	mg/L	0.50	1
9056A	MB 280-460231/6	Nitrate	0.10	U	mg/L	0.50	1
9056A	MB 280-460231/6	Nitrite	0.10	U	mg/L	0.50	1
Batch ID: 460232 Date: 06/03/2019 18:26							
9056A	MB 280-460232/6	Fluoride	0.264	J	mg/L	1.0	1
Batch ID: 461179 Date: 06/11/2019 04:03							
9060A	MB 280-461179/42	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 461295 Date: 06/12/2019 02:56							
9060A	MB 280-461295/35	Total Organic Carbon - Quad	0.50	U	mg/L	1.0	1
Batch ID: 460772 Date: 06/06/2019 21:00 Prep Batch: 460749 Date: 06/06/2019 17:53							
9066	MB 280-460749/2-A	Phenols, Total	0.00830	J	mg/L	0.020	1
Batch ID: 460979 Date: 06/09/2019 15:22 Prep Batch: 460948 Date: 06/08/2019 14:11							
9066	MB 280-460948/2-A	Phenols, Total	0.020	U	mg/L	0.020	1
Batch ID: 458642 Date: 05/17/2019 23:18							
SM 2120B	MB 280-458642/1	Color	5.0	U	PCU	5.0	1
Batch ID: 459192 Date: 05/22/2019 21:10							
SM 2320B	MB 280-459192/31	Alkalinity	10	U	mg/L	10	1
Batch ID: 459576 Date: 05/24/2019 20:47							
SM 2320B	MB 280-459576/31	Alkalinity	10	U	mg/L	10	1
Batch ID: 459417 Date: 05/24/2019 16:44							
SM 2340C	MB 280-459417/2	Hardness	0.81	U	mg/L	3.0	1
Batch ID: 459057 Date: 05/22/2019 12:03							
SM 2540C	MB 280-459057/1	Total Dissolved Solids (TDS)	17.0		mg/L	10	1

FORM III-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 461044	Date: 06/10/2019 13:59						
SM 2540C	MB 280-461044/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1
Batch ID: 458606	Date: 05/17/2019 15:43						
SM5210B	MB 280-458606/4	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

3-IN
UNSEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458606 Date: 05/17/2019 15:43							
SM5210B	USB 280-458606/2	Biochemical Oxygen Demand	0.59	U	mg/L	2.0	1

FORM III-IN

3-IN
SEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 458606 Date: 05/17/2019 15:43							
SM5210B	SCB 280-458606/1	Biochemical Oxygen Demand	0.611	J	mg/L	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963 Date: 05/30/2019 12:36											
350.1	280-123924-4	Ammonia	0.29		mg/L						
350.1	280-123924-4 MS	Ammonia	1.25		mg/L	1.00	97	90-110			
Batch ID: 460878 Date: 06/07/2019 18:40 Prep Batch: 460760 Date: 06/06/2019 19:57											
351.2	280-123924-4	Nitrogen, Kjeldahl	0.50	U	mg/L						J1
351.2	280-123924-4 MS	Nitrogen, Kjeldahl	0.50	U	mg/L	3.00	0	90-110			J1
Batch ID: 458552 Date: 05/18/2019 07:38											
9056A	280-123924-2	Nitrate Nitrite as N	0.65		mg/L						
9056A	280-123924-2 MS	Nitrate Nitrite as N	10.5		mg/L	10.0	98	80-120			
9056A	280-123924-2	Orthophosphate as P	0.26	J	mg/L						J1 Q
9056A	280-123924-2 MS	Orthophosphate as P	5.30		mg/L	5.00	101	80-116			Q
9056A	280-123924-2	Nitrate	0.65		mg/L						M
9056A	280-123924-2 MS	Nitrate	5.61		mg/L	5.00	99	88-111			
9056A	280-123924-2	Nitrite	0.10	U	mg/L						M
9056A	280-123924-2 MS	Nitrite	4.85		mg/L	5.00	97	87-111			
Batch ID: 458553 Date: 05/18/2019 07:38											
9056A	280-123924-2	Bromide	0.20	U	mg/L						M
9056A	280-123924-2 MS	Bromide	5.17		mg/L	5.00	103	91-110			
9056A	280-123924-2	Chloride	4.0		mg/L						M J1
9056A	280-123924-2 MS	Chloride	24.8		mg/L	25.0	83	87-111			J1
9056A	280-123924-2	Sulfate	10		mg/L						J1
9056A	280-123924-2 MS	Sulfate	31.7		mg/L	25.0	87	87-112			
Batch ID: 460231 Date: 06/03/2019 21:34											
9056A	280-123924-1	Nitrate Nitrite as N	0.69		mg/L						H
9056A	280-123924-1 MS	Nitrate Nitrite as N	11.9		mg/L	10.0	112	80-120			
9056A	280-123924-1	Orthophosphate as P	0.20	U	mg/L						H J1
9056A	280-123924-1 MS	Orthophosphate as P	5.85		mg/L	5.00	117	80-116			J1
9056A	280-123924-1	Nitrate	0.69		mg/L						H J1
9056A	280-123924-1 MS	Nitrate	6.33		mg/L	5.00	113	88-111			J1
9056A	280-123924-1	Nitrite	0.10	U	mg/L						H
9056A	280-123924-1 MS	Nitrite	5.54		mg/L	5.00	111	87-111			
Batch ID: 460232 Date: 06/03/2019 21:34											
9056A	280-123924-1	Fluoride	0.10	U	mg/L						
9056A	280-123924-1 MS	Fluoride	5.34		mg/L	5.00	107	88-112			
Batch ID: 461295 Date: 06/12/2019 04:56											
9060A	280-123924-8	Total Organic Carbon - Quad	3.6		mg/L						

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
9060A	280-123924-8 MS	Total Organic Carbon - Quad	29.1		mg/L	25.0	102	88-112			
Batch ID: 460772 Date: 06/07/2019 00:06			Prep Batch: 460749		Date: 06/06/2019 21:01						
9066	280-123924-10	Phenols, Total	0.012	J	mg/L						
9066	280-123924-10 MS	Phenols, Total	0.216		mg/L	0.201	101	72-118			
Batch ID: 459417 Date: 05/24/2019 16:44											
SM 2340C	280-123924-1	Hardness	160		mg/L						
SM 2340C	280-123924-1 MS	Hardness	567		mg/L	398	102	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963 Date: 05/30/2019 12:38											
350.1	280-123924-4 MSD	Ammonia	1.32		mg/L	1.00	103	90-110	5	10	
Batch ID: 460878 Date: 06/07/2019 18:43 Prep Batch: 460760 Date: 06/06/2019 19:57											
351.2	280-123924-4 MSD	Nitrogen, Kjeldahl	0.50	U	mg/L	3.00	0	90-110	NC	25	J1
Batch ID: 458552 Date: 05/18/2019 07:54											
9056A	280-123924-2 MSD	Nitrate Nitrite as N	10.5		mg/L	10.0	98	80-120	0	10	
9056A	280-123924-2 MSD	Orthophosphate as P	6.51		mg/L	5.00	125	80-116	20	10	J1 Q
9056A	280-123924-2 MSD	Nitrate	5.61		mg/L	5.00	99	88-111	0	10	
9056A	280-123924-2 MSD	Nitrite	4.88		mg/L	5.00	98	87-111	0	10	
Batch ID: 458553 Date: 05/18/2019 07:54											
9056A	280-123924-2 MSD	Bromide	5.18		mg/L	5.00	104	91-110	0	10	
9056A	280-123924-2 MSD	Chloride	24.8		mg/L	25.0	83	87-111	0	10	J1
9056A	280-123924-2 MSD	Sulfate	31.4		mg/L	25.0	85	87-112	1	10	J1
Batch ID: 460231 Date: 06/03/2019 22:23											
9056A	280-123924-1 MSD	Nitrate Nitrite as N	11.9		mg/L	10.0	112	80-120	0	10	
9056A	280-123924-1 MSD	Orthophosphate as P	5.93		mg/L	5.00	119	80-116	1	10	J1
9056A	280-123924-1 MSD	Nitrate	6.34		mg/L	5.00	113	88-111	0	10	J1
9056A	280-123924-1 MSD	Nitrite	5.56		mg/L	5.00	111	87-111	0	10	
Batch ID: 460232 Date: 06/03/2019 22:23											
9056A	280-123924-1 MSD	Fluoride	5.37		mg/L	5.00	107	88-112	1	10	
Batch ID: 461295 Date: 06/12/2019 05:11											
9060A	280-123924-8 MSD	Total Organic Carbon - Quad	29.1		mg/L	25.0	102	88-112	0	15	
Batch ID: 460772 Date: 06/07/2019 00:09 Prep Batch: 460749 Date: 06/06/2019 21:01											
9066	280-123924-10 MSD	Phenols, Total	0.212		mg/L	0.201	99	72-118	2	16	
Batch ID: 459417 Date: 05/24/2019 16:44											
SM 2340C	280-123924-1 MSD	Hardness	564		mg/L	398	101	90-110	1	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 458552 Date: 05/18/2019 07:21								
9056A	LF6VMW-10R2_0519	280-123924-2	Nitrate Nitrite as N	0.65	mg/L			
9056A	LF6VMW-10R2_0519	280-123924-2 DU	Nitrate Nitrite as N	0.619	mg/L	5	10	
9056A	LF6VMW-10R2_0519	280-123924-2	Orthophosphate as P	0.26	mg/L			J
9056A	LF6VMW-10R2_0519	280-123924-2 DU	Orthophosphate as P	0.269	mg/L	4	10	J Q
9056A	LF6VMW-10R2_0519	280-123924-2	Nitrate	0.65	mg/L			
9056A	LF6VMW-10R2_0519	280-123924-2 DU	Nitrate	0.619	mg/L	5	10	
9056A	LF6VMW-10R2_0519	280-123924-2	Nitrite	0.10	mg/L			U
9056A	LF6VMW-10R2_0519	280-123924-2 DU	Nitrite	0.10	mg/L	NC	10	U
Batch ID: 458553 Date: 05/18/2019 07:21								
9056A	LF6VMW-10R2_0519	280-123924-2	Bromide	0.20	mg/L			U
9056A	LF6VMW-10R2_0519	280-123924-2 DU	Bromide	0.20	mg/L	NC	10	U
9056A	LF6VMW-10R2_0519	280-123924-2	Chloride	4.0	mg/L			
9056A	LF6VMW-10R2_0519	280-123924-2 DU	Chloride	3.83	mg/L	4	10	
9056A	LF6VMW-10R2_0519	280-123924-2	Sulfate	10	mg/L			
9056A	LF6VMW-10R2_0519	280-123924-2 DU	Sulfate	9.56	mg/L	5	10	
Batch ID: 460231 Date: 06/03/2019 21:17								
9056A	LF6VMW-22_0519	280-123924-1	Nitrate Nitrite as N	0.69	mg/L			
9056A	LF6VMW-22_0519	280-123924-1 DU	Nitrate Nitrite as N	0.683	mg/L	1	10	
9056A	LF6VMW-22_0519	280-123924-1	Orthophosphate as P	0.20	mg/L			U
9056A	LF6VMW-22_0519	280-123924-1 DU	Orthophosphate as P	0.20	mg/L	NC	10	U
9056A	LF6VMW-22_0519	280-123924-1	Nitrate	0.69	mg/L			
9056A	LF6VMW-22_0519	280-123924-1 DU	Nitrate	0.683	mg/L	0.4	10	
9056A	LF6VMW-22_0519	280-123924-1	Nitrite	0.10	mg/L			U
9056A	LF6VMW-22_0519	280-123924-1 DU	Nitrite	0.10	mg/L	NC	10	U
Batch ID: 460232 Date: 06/03/2019 21:17								
9056A	LF6VMW-22_0519	280-123924-1	Fluoride	0.10	mg/L			U
9056A	LF6VMW-22_0519	280-123924-1 DU	Fluoride	0.10	mg/L	NC	10	U
Batch ID: 458642 Date: 05/17/2019 23:18								
SM 2120B	LF6VMW-22_0519	280-123924-1	Color	15	PCU			
SM 2120B	LF6VMW-22_0519	280-123924-1 DU	Color	15.0	PCU	0	20	
Batch ID: 458642 Date: 05/17/2019 23:18								
SM 2120B	LF6LH-1_0519	280-123924-11	Color	40	PCU			
SM 2120B	LF6LH-1_0519	280-123924-11 DU	Color	40.0	PCU	0	20	
Batch ID: 459057 Date: 05/22/2019 12:03								
SM 2540C	LF6VMW-22_0519	280-123924-1	Total Dissolved Solids (TDS)	180	mg/L			
SM 2540C	LF6VMW-22_0519	280-123924-1 DU	Total Dissolved Solids (TDS)	183	mg/L	2	10	
Batch ID: 459057 Date: 05/22/2019 12:03								
SM 2540C	LF6LH-2_0519	280-123924-12	Total Dissolved Solids (TDS)	670	mg/L			
SM 2540C	LF6LH-2_0519	280-123924-12 DU	Total Dissolved Solids (TDS)	732	mg/L	8	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963	Date: 05/30/2019 11:52										
						LCS Source: 350.1 cal_00367					
350.1	LCS 280-459963/25	Ammonia	2.55		mg/L	2.50	102	90-110	0	10	
Batch ID: 460878	Date: 06/07/2019 18:07	Prep Batch: 460760	Date: 06/06/2019 19:57								
						LCS Source: TKN 25ppm_00794					
351.2	LCS 280-460760/27-A	Nitrogen, Kjeldahl	5.92		mg/L	6.00	99	90-110			
Batch ID: 460807	Date: 06/07/2019 09:42										
						LCS Source: COD cal std_00048					
410.4	LCS 280-460807/3	Chemical Oxygen Demand (COD)	99.0		mg/L	100	99	90-110	1	11	
Batch ID: 460943	Date: 06/08/2019 12:45										
						LCS Source: COD cal std_00048					
410.4	LCS 280-460943/3	Chemical Oxygen Demand (COD)	99.0		mg/L	100	99	90-110	2	11	
Batch ID: 458552	Date: 05/17/2019 10:36										
						LCS Source:					
9056A	LCS 280-458552/4	Nitrate Nitrite as N	9.95		mg/L	10.0	100	80-120	1	10	
						LCS Source: IC LCS_01578					
9056A	LCS 280-458552/4	Orthophosphate as P	5.10		mg/L	5.00	102	80-116	1	10	
9056A	LCS 280-458552/4	Nitrate	5.00		mg/L	5.00	100	88-111	1	10	
9056A	LCS 280-458552/4	Nitrite	4.95		mg/L	5.00	99	87-111	1	10	
Batch ID: 458553	Date: 05/17/2019 10:36										
						LCS Source: IC LCS_01578					
9056A	LCS 280-458553/4	Bromide	5.25		mg/L	5.00	105	91-110	1	10	
9056A	LCS 280-458553/4	Chloride	95.5		mg/L	100	95	87-111	1	10	
9056A	LCS 280-458553/4	Sulfate	93.6		mg/L	100	94	87-112	1	10	
Batch ID: 460231	Date: 06/03/2019 17:53										
						LCS Source:					
9056A	LCS 280-460231/4	Nitrate Nitrite as N	10.7		mg/L	10.0	107	80-120	0	10	
						LCS Source: IC LCS_01593					
9056A	LCS 280-460231/4	Orthophosphate as P	5.15		mg/L	5.00	103	80-116	1	10	
9056A	LCS 280-460231/4	Nitrate	5.36		mg/L	5.00	107	88-111	1	10	
9056A	LCS 280-460231/4	Nitrite	5.29		mg/L	5.00	106	87-111	0	10	
Batch ID: 460232	Date: 06/03/2019 17:53										
						LCS Source: IC LCS_01593					
9056A	LCS 280-460232/4	Fluoride	4.55		mg/L	5.00	91	88-112	2	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 461179	Date: 06/11/2019 03:46										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-461179/41	Total Organic Carbon - Quad	25.4		mg/L	25.0	102	88-112			
Batch ID: 461295	Date: 06/12/2019 02:42										
						LCS Source: TOC LCS Std_00046					
9060A	LCS 280-461295/34	Total Organic Carbon - Quad	25.4		mg/L	25.0	102	88-112			
Batch ID: 460772	Date: 06/06/2019 20:57	Prep Batch: 460749	Date: 06/06/2019 17:53								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460749/1-A	Phenols, Total	0.208		mg/L	0.201	103	90-110			
Batch ID: 460979	Date: 06/09/2019 15:19	Prep Batch: 460948	Date: 06/08/2019 14:11								
						LCS Source: Phenol CAL 10_00730					
9066	LCS 280-460948/1-A	Phenols, Total	0.195		mg/L	0.201	97	90-110			
Batch ID: 459192	Date: 05/22/2019 21:05										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459192/30	Alkalinity	198		mg/L	200	99	89-109			
Batch ID: 459576	Date: 05/24/2019 20:42										
						LCS Source: Alk daily lcs_00821					
SM 2320B	LCS 280-459576/30	Alkalinity	199		mg/L	200	99	89-109			
Batch ID: 459417	Date: 05/24/2019 16:44										
						LCS Source: Hard lcs std_00052					
SM 2340C	LCS 280-459417/1	Hardness	397		mg/L	398	100	90-110			
Batch ID: 459057	Date: 05/22/2019 12:03										
						LCS Source: TDS LCS_00537_00055					
SM 2540C	LCS 280-459057/2	Total Dissolved Solids (TDS)	492		mg/L	500	98	93-110			
Batch ID: 461044	Date: 06/10/2019 13:59										
						LCS Source: TDS LCS_00537_00057					
SM 2540C	LCS 280-461044/2	Total Dissolved Solids (TDS)	513		mg/L	500	103	93-110			
Batch ID: 458606	Date: 05/17/2019 15:43										
						LCS Source: BOD Std_00001_00046					
SM5210B	LCS 280-458606/3	Biochemical Oxygen Demand	202		mg/L	198	102	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 459963	Date: 05/30/2019 11:54										
						LCSD Source: 350.1 cal_00367					
350.1	LCSD 280-459963/26	Ammonia	2.54		mg/L	2.50	102	90-110	0	10	
Batch ID: 460807	Date: 06/07/2019 09:42										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-460807/4	Chemical Oxygen Demand (COD)	98.4		mg/L	100	98	90-110	1	11	
Batch ID: 460943	Date: 06/08/2019 12:45										
						LCSD Source: COD cal std_00048					
410.4	LCSD 280-460943/4	Chemical Oxygen Demand (COD)	101		mg/L	100	101	90-110	2	11	
Batch ID: 458552	Date: 05/17/2019 10:52										
						LCSD Source:					
9056A	LCSD 280-458552/5	Nitrate Nitrite as N	10.0		mg/L	10.0	100	80-120	1	10	
						LCSD Source: IC LCS_01578					
9056A	LCSD 280-458552/5	Orthophosphate as P	5.17		mg/L	5.00	103	80-116	1	10	
9056A	LCSD 280-458552/5	Nitrate	5.04		mg/L	5.00	101	88-111	1	10	
9056A	LCSD 280-458552/5	Nitrite	4.99		mg/L	5.00	100	87-111	1	10	
Batch ID: 458553	Date: 05/17/2019 10:52										
						LCSD Source: IC LCS_01578					
9056A	LCSD 280-458553/5	Bromide	5.29		mg/L	5.00	106	91-110	1	10	
9056A	LCSD 280-458553/5	Chloride	96.2		mg/L	100	96	87-111	1	10	
9056A	LCSD 280-458553/5	Sulfate	94.3		mg/L	100	94	87-112	1	10	
Batch ID: 460231	Date: 06/03/2019 18:09										
						LCSD Source:					
9056A	LCSD 280-460231/5	Nitrate Nitrite as N	10.7		mg/L	10.0	107	80-120	0	10	
						LCSD Source: IC LCS_01593					
9056A	LCSD 280-460231/5	Orthophosphate as P	5.19		mg/L	5.00	104	80-116	1	10	
9056A	LCSD 280-460231/5	Nitrate	5.39		mg/L	5.00	108	88-111	1	10	
9056A	LCSD 280-460231/5	Nitrite	5.31		mg/L	5.00	106	87-111	0	10	
Batch ID: 460232	Date: 06/03/2019 18:09										
						LCSD Source: IC LCS_01593					
9056A	LCSD 280-460232/5	Fluoride	4.64		mg/L	5.00	93	88-112	2	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 458552	Date: 05/17/2019 10:19										
						LCS Source:					
9056A	MRL 280-458552/3	Nitrate Nitrite as N	0.445	J	mg/L	0.400	111	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458552/3	Orthophosphate as P	0.204	J	mg/L	0.200	102	50-150			
9056A	MRL 280-458552/3	Nitrate	0.229	J	mg/L	0.200	115	50-150			
9056A	MRL 280-458552/3	Nitrite	0.216	J	mg/L	0.200	108	50-150			
Batch ID: 458553	Date: 05/17/2019 10:19										
						LCS Source: IC CAL cl/so4_00257					
9056A	MRL 280-458553/3	Chloride	2.28	J	mg/L	2.50	91	50-150			
9056A	MRL 280-458553/3	Sulfate	2.31	J	mg/L	2.50	92	50-150			
						LCS Source: IC Cal low_00459					
9056A	MRL 280-458553/3	Bromide	0.216	J	mg/L	0.200	108	50-150			
Batch ID: 460231	Date: 06/03/2019 17:36										
						LCS Source:					
9056A	MRL 280-460231/3	Nitrate Nitrite as N	0.503		mg/L	0.400	126	50-150			
						LCS Source: IC Cal low_00462					
9056A	MRL 280-460231/3	Orthophosphate as P	0.20	U	mg/L	0.200	86	50-150			
9056A	MRL 280-460231/3	Nitrate	0.255	J	mg/L	0.200	127	50-150			
9056A	MRL 280-460231/3	Nitrite	0.248	J	mg/L	0.200	124	50-150			
Batch ID: 460232	Date: 06/03/2019 17:36										
						LCS Source: IC Cal low_00462					
9056A	MRL 280-460232/3	Fluoride	0.246	J	mg/L	0.200	123	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_Genesys20

Method: 410.4 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chemical Oxygen Demand (COD)		20	8.68

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 DL Date: 02/03/2019 00:00

Prep Method: Distill/Phenol

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 1

Method: 9066 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Phenols, Total		0.02	0.0068

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (PCU)	
Color		5	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B XRL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (PCU)	
Color		5	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Hardness		3	0.3

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness		3	0.3

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.06
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.5	0.113
Chloride		3	1.02
Fluoride		1	0.0597
Nitrate		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A DL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

Method: 9060A XMDL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		10	3.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B DL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Biochemical Oxygen Demand		2	0.236

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-123924-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM5210B XMDL Date: 03/28/2011 12:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Biochemical Oxygen Demand		2	0.236

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460749/1-A	06/06/2019 17:53	460749		50	50
MB 280-460749/2-A	06/06/2019 17:53	460749		50	50
280-123924-1	06/06/2019 21:01	460749		50	50
280-123924-2	06/06/2019 21:01	460749		50	50
280-123924-3	06/06/2019 21:01	460749		50	50
280-123924-4	06/06/2019 21:01	460749		50	50
280-123924-5	06/06/2019 21:01	460749		50	50
280-123924-6	06/06/2019 21:01	460749		50	50
280-123924-7	06/06/2019 21:01	460749		50	50
280-123924-8	06/06/2019 21:01	460749		50	50
280-123924-9	06/06/2019 21:01	460749		50	50
280-123924-10	06/06/2019 21:01	460749		50	50
280-123924-10 MS	06/06/2019 21:01	460749		50	50
280-123924-10 MSD	06/06/2019 21:01	460749		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460760/27-A	06/06/2019 19:57	460760		25	25
MB 280-460760/28-A	06/06/2019 19:57	460760		25	25
280-123924-1	06/06/2019 19:57	460760		25	25
280-123924-2	06/06/2019 19:57	460760		25	25
280-123924-3	06/06/2019 19:57	460760		25	25
280-123924-4	06/06/2019 19:57	460760		25	25
280-123924-4 MS	06/06/2019 19:57	460760		25	25
280-123924-4 MSD	06/06/2019 19:57	460760		25	25
280-123924-5	06/06/2019 19:57	460760		25	25
280-123924-6	06/06/2019 19:57	460760		25	25
280-123924-7	06/06/2019 19:57	460760		25	25
280-123924-8	06/06/2019 19:57	460760		25	25
280-123924-9	06/06/2019 19:57	460760		25	25
280-123924-10	06/06/2019 19:57	460760		25	25
280-123924-11	06/06/2019 19:57	460760		25	25
280-123924-12	06/06/2019 19:57	460760		25	25

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
280-123924-11	06/07/2019 12:22	460843		50	50
280-123924-12	06/07/2019 12:22	460843		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Prep Method: Distill/Phenol

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-460948/1-A	06/08/2019 14:11	460948		50	50
MB 280-460948/2-A	06/08/2019 14:11	460948		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:03																									
IC 280-459963/4			11:05	X																								
IC 280-459963/5			11:07	X																								
IC 280-459963/6			11:09	X																								
IC 280-459963/7			11:11	X																								
IC 280-459963/8			11:13	X																								
IC 280-459963/9			11:15	X																								
IC 280-459963/10			11:17	X																								
IC 280-459963/11			11:19	X																								
ZZZZZZ			11:21																									
ZZZZZZ			11:23																									
ICVL 280-459963/14	1		11:25	X																								
ICV 280-459963/15	1		11:27	X																								
ICB 280-459963/16	1		11:29	X																								
ZZZZZZ			11:31																									
ZZZZZZ			11:33																									
ZZZZZZ			11:35																									
ZZZZZZ			11:37																									
ZZZZZZ			11:39																									
ZZZZZZ			11:41																									
ZZZZZZ			11:43																									
ZZZZZZ			11:50																									
LCS 280-459963/25	1	T	11:52	X																								
LCSD 280-459963/26	1	T	11:54	X																								
MB 280-459963/27	1	T	11:56	X																								
ZZZZZZ			11:58																									
ZZZZZZ			12:00																									
ZZZZZZ			12:02																									
ZZZZZZ			12:04																									
ZZZZZZ			12:06																									
ZZZZZZ			12:08																									
ZZZZZZ			12:10																									
ZZZZZZ			12:12																									
ZZZZZZ			12:14																									
280-123924-1	1	T	12:16	X																								
RINSE 280-459963/38			12:18																									
ZZZZZZ			12:20																									
CCVL 280-459963/40	1		12:22	X																								
CCV 280-459963/41	1		12:24	X																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
CCB 280-459963/42	1		12:26	X																								
ZZZZZZ			12:28																									
280-123924-2	1	T	12:30	X																								
280-123924-3	1	T	12:32	X																								
280-123924-4	1	T	12:34	X																								
280-123924-4 MS	1	T	12:36	X																								
280-123924-4 MSD	1	T	12:38	X																								
280-123924-5	1	T	12:40	X																								
280-123924-6	1	T	12:42	X																								
280-123924-7	1	T	12:44	X																								
280-123924-8	1	T	12:46	X																								
280-123924-9	1	T	12:48	X																								
RINSE 280-459963/54			12:50																									
ZZZZZZ			12:52																									
CCVL 280-459963/56	1		12:54	X																								
CCV 280-459963/57	1		12:56	X																								
CCB 280-459963/58	1		12:58	X																								
ZZZZZZ			13:00																									
280-123924-10	1	T	13:02	X																								
280-123924-11	1	T	13:04	X																								
280-123924-12	1	T	13:06	X																								
ZZZZZZ			13:08																									
RINSE 280-459963/64			13:10																									
ZZZZZZ			13:12																									
CCVL 280-459963/66	1		13:14	X																								
CCV 280-459963/67	1		13:16	X																								
CCB 280-459963/68	1		13:18	X																								
ZZZZZZ			13:20																									
ZZZZZZ			13:22																									
ZZZZZZ			13:24																									
ZZZZZZ			13:26																									
ZZZZZZ			13:28																									
ZZZZZZ			13:30																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
ZZZZZZ			13:44																									
ZZZZZZ			13:46																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
RINSE 280-459963/83			13:48																									
ZZZZZZ			13:50																									
CCVL 280-459963/85			13:52																									
CCV 280-459963/86			13:54																									
CCB 280-459963/87			13:56																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:08																									
ZZZZZZ			14:10																									
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
RINSE 280-459963/99			14:20																									
ZZZZZZ			14:22																									
CCVL 280-459963/101			14:24																									
CCV 280-459963/102			14:26																									
CCB 280-459963/103			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
RINSE 280-459963/109			14:40																									
ZZZZZZ			14:42																									
CCVL 280-459963/111			14:44																									
CCV 280-459963/112			14:46																									
CCB 280-459963/113			14:48																									
ZZZZZZ			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
RINSE 280-459963/123			15:08																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 05/30/2019 10:59 End Date: 05/30/2019 15:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			15:10																									
CCVL 280-459963/125			15:12																									
CCV 280-459963/126			15:14																									
CCB 280-459963/127			15:16																									
ZZZZZZ			15:18																									

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			16:59																									
ZZZZZZ			17:00																									
ZZZZZZ			17:01																									
ZZZZZZ			17:02																									
IC 280-460066/36-A			17:03	X																								
IC 280-460066/37-A			17:05	X																								
IC 280-460066/38-A			17:06	X																								
IC 280-460066/39-A			17:07	X																								
IC 280-460066/40-A			17:08	X																								
IC 280-460066/41-A			17:10	X																								
ZZZZZZ			17:11																									
ZZZZZZ			17:12																									
ICV 280-460066/42-A	1		17:13	X																								
ICB 280-460066/43-A	1		17:15	X																								
ZZZZZZ			17:16																									
ZZZZZZ			17:17																									
ZZZZZZ			17:18																									
ZZZZZZ			17:20																									
ZZZZZZ			17:21																									
ZZZZZZ			17:22																									
ZZZZZZ			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:26																									
ZZZZZZ			17:27																									
ZZZZZZ			17:28																									
ZZZZZZ			17:30																									
ZZZZZZ			17:31																									
ZZZZZZ			17:32																									
ZZZZZZ			17:33																									
ZZZZZZ			17:35																									
CCV 280-460066/44-A			17:36																									
CCB 280-460066/45-A			17:37																									
ZZZZZZ			17:38																									
ZZZZZZ			17:40																									
ZZZZZZ			17:41																									
ZZZZZZ			17:42																									
ZZZZZZ			17:43																									
ZZZZZZ			17:45																									
ZZZZZZ			17:46																									
ZZZZZZ			17:47																									
ZZZZZZ			17:48																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			17:50																									
ZZZZZZ			17:51																									
ZZZZZZ			17:52																									
ZZZZZZ			17:53																									
ZZZZZZ			17:55																									
ZZZZZZ			17:56																									
ZZZZZZ			17:57																									
CCV 280-460066/44-A	1		17:58	X																								
CCB 280-460066/45-A	1		18:00	X																								
ZZZZZZ			18:01																									
ZZZZZZ			18:02																									
ZZZZZZ			18:03																									
ZZZZZZ			18:05																									
ZZZZZZ			18:06																									
LCS 280-460760/27-A	1	T	18:07	X																								
MB 280-460760/28-A	1	T	18:08	X																								
ZZZZZZ			18:10																									
ZZZZZZ			18:11																									
ZZZZZZ			18:12																									
ZZZZZZ			18:13																									
ZZZZZZ			18:15																									
ZZZZZZ			18:16																									
ZZZZZZ			18:17																									
CCV 280-460066/44-A	1		18:18	X																								
CCB 280-460066/45-A	1		18:20	X																								
ZZZZZZ			18:21																									
ZZZZZZ			18:22																									
ZZZZZZ			18:23																									
ZZZZZZ			18:25																									
ZZZZZZ			18:26																									
ZZZZZZ			18:27																									
ZZZZZZ			18:28																									
ZZZZZZ			18:30																									
280-123924-1	1	T	18:31	X																								
280-123924-2	1	T	18:32	X																								
280-123924-3	1	T	18:33	X																								
280-123924-4	1	T	18:35	X																								
ZZZZZZ			18:36																									
CCV 280-460066/44-A	1		18:37	X																								
CCB 280-460066/45-A	1		18:38	X																								
280-123924-4 MS	1	T	18:40	X																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/07/2019 16:59 End Date: 06/07/2019 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			18:41																									
ZZZZZZ			18:42																									
280-123924-4 MSD	1	T	18:43	X																								
ZZZZZZ			18:45																									
280-123924-5	1	T	18:46	X																								
280-123924-6	1	T	18:47	X																								
280-123924-7	1	T	18:48	X																								
280-123924-8	1	T	18:50	X																								
280-123924-9	1	T	18:51	X																								
280-123924-10	1	T	18:52	X																								
280-123924-11	1	T	18:53	X																								
280-123924-12	1	T	18:55	X																								
ZZZZZZ			18:56																									
ZZZZZZ			18:57																									
ZZZZZZ			18:58																									
CCV 280-460066/44-A	1		19:00	X																								
CCB 280-460066/45-A	1		19:01	X																								
ZZZZZZ			19:02																									
ZZZZZZ			19:03																									
CCV 280-460066/44-A			19:05																									
CCB 280-460066/45-A			19:06																									
ZZZZZZ			19:07																									
ZZZZZZ			19:08																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/07/2019 09:42 End Date: 06/07/2019 09:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-460807/1	1		09:42	X																								
ICB 280-460807/2	1		09:42	X																								
LCS 280-460807/3	1	T	09:42	X																								
LCSD 280-460807/4	1	T	09:42	X																								
MB 280-460807/5	1	T	09:42	X																								
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
CCV 280-460807/16	1		09:42	X																								
CCB 280-460807/17	1		09:42	X																								
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
ZZZZZZ			09:42																									
280-123924-1	2	T	09:42	X																								
280-123924-2	1	T	09:42	X																								
280-123924-3	2	T	09:42	X																								
CCV 280-460807/28	1		09:42	X																								
CCB 280-460807/29	1		09:42	X																								
280-123924-4	1	T	09:42	X																								
280-123924-5	2	T	09:50	X																								
280-123924-6	2	T	09:50	X																								
280-123924-7	2	T	09:50	X																								
CCV 280-460807/34	1		09:50	X																								
CCB 280-460807/35	1		09:50	X																								
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/07/2019 09:42 End Date: 06/07/2019 09:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				COD																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/08/2019 12:45 End Date: 06/08/2019 12:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				COD																								
ICV 280-460943/1	1		12:45	X																								
ICB 280-460943/2	1		12:45	X																								
LCS 280-460943/3	1	T	12:45	X																								
LCSD 280-460943/4	1	T	12:45	X																								
MB 280-460943/5	1	T	12:45	X																								
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
280-123924-8	1	T	12:45	X																								
280-123924-9	2	T	12:45	X																								
280-123924-10	1	T	12:45	X																								
280-123924-11	1	T	12:45	X																								
280-123924-12	2	T	12:45	X																								
CCV 280-460943/16	1		12:45	X																								
CCB 280-460943/17	1		12:45	X																								
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:45																									
CCV 280-460943/28			12:45																									
CCB 280-460943/29			12:45																									
ZZZZZZ			12:45																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
CCV 280-460943/34			12:50																									
CCB 280-460943/35			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Genesys20 Analysis Method: 410.4

Start Date: 06/08/2019 12:45 End Date: 06/08/2019 12:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				COD																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																								
				PhenT																								
ZZZZZZ			16:47																									
ZZZZZZ			16:50																									
ZZZZZZ			16:53																									
ZZZZZZ			16:56																									
IC 280-460772/5			16:59	X																								
IC 280-460772/6			17:02	X																								
IC 280-460772/7			17:05	X																								
IC 280-460772/8			17:08	X																								
IC 280-460772/9			17:11	X																								
IC 280-460772/10			17:14	X																								
ZZZZZZ			17:17																									
ZZZZZZ			17:20																									
ICV 280-460772/13	1		17:23	X																								
ICVL 280-460772/14	1		18:53	X																								
ICB 280-460772/15	1		18:56	X																								
ZZZZZZ			18:59																									
ZZZZZZ			19:02																									
ZZZZZZ			19:05																									
ZZZZZZ			19:08																									
ZZZZZZ			19:11																									
ZZZZZZ			19:14																									
ZZZZZZ			19:17																									
ZZZZZZ			19:20																									
ZZZZZZ			19:23																									
ZZZZZZ			19:26																									
ZZZZZZ			19:29																									
ZZZZZZ			19:32																									
ZZZZZZ			19:35																									
CCV 280-460772/29			19:38																									
CCVL 280-460772/30			19:41																									
CCB 280-460772/31			19:44																									
ZZZZZZ			19:47																									
ZZZZZZ			19:50																									
ZZZZZZ			19:53																									
ZZZZZZ			19:56																									
ZZZZZZ			19:59																									
ZZZZZZ			20:02																									
ZZZZZZ			20:05																									
ZZZZZZ			20:08																									

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			20:11	
ZZZZZZ			20:14	
ZZZZZZ			20:17	
ZZZZZZ			20:20	
ZZZZZZ			20:23	
CCV 280-460772/45	1		20:26	X
CCVL 280-460772/46			20:29	
CCB 280-460772/47	1		20:32	X
ZZZZZZ			20:35	
ZZZZZZ			20:38	
ZZZZZZ			20:41	
ZZZZZZ			20:44	
ZZZZZZ			20:47	
ZZZZZZ			20:50	
ZZZZZZ			20:53	
LCS 280-460749/1-A	1	T	20:57	X
MB 280-460749/2-A	1	T	21:00	X
ZZZZZZ			21:03	
ZZZZZZ			21:06	
ZZZZZZ			21:09	
ZZZZZZ			21:12	
CCV 280-460772/61	1		21:15	X
CCVL 280-460772/62			21:18	
CCB 280-460772/63	1		21:21	X
ZZZZZZ			21:24	
ZZZZZZ			21:27	
ZZZZZZ			21:30	
ZZZZZZ			21:33	
ZZZZZZ			21:36	
ZZZZZZ			21:39	
ZZZZZZ			21:42	
ZZZZZZ			21:45	
ZZZZZZ			21:48	
ZZZZZZ			22:53	
ZZZZZZ			22:56	
ZZZZZZ			22:59	
ZZZZZZ			23:02	
CCV 280-460772/77	1		23:05	X
CCVL 280-460772/78	1		23:08	X

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/06/2019 16:47 End Date: 06/07/2019 00:37

Lab Sample Id	D/F	Type	Time	Analytes																									
				PhenT																									
CCB 280-460772/79	1		23:11	X																									
ZZZZZZ			23:14																										
280-123924-1	1	T	23:17	X																									
280-123924-2	1	T	23:20	X																									
280-123924-3	1	T	23:23	X																									
280-123924-4	1	T	23:26	X																									
280-123924-5	1	T	23:29	X																									
280-123924-6	1	T	23:32	X																									
280-123924-7	1	T	23:35	X																									
280-123924-8	1	T	23:38	X																									
280-123924-9	1	T	23:41	X																									
280-123924-10	1	T	23:44	X																									
ZZZZZZ			23:48																										
ZZZZZZ			23:51																										
CCV 280-460772/93	1		23:54	X																									
CCVL 280-460772/94	1		23:57	X																									
CCB 280-460772/95	1		00:00	X																									
ZZZZZZ			00:03																										
280-123924-10 MS	1	T	00:06	X																									
280-123924-10 MSD	1	T	00:09	X																									
ZZZZZZ			00:13																										
ZZZZZZ			00:16																										
ZZZZZZ			00:19																										
ZZZZZZ			00:22																										
ZZZZZZ			00:25																										
CCV 280-460772/104	1		00:28	X																									
CCVL 280-460772/105	1		00:31	X																									
CCB 280-460772/106	1		00:34	X																									
ZZZZZZ			00:37																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/09/2019 14:31 End Date: 06/09/2019 18:03

Lab Sample Id	D/F	Type	Time	Analytes
				PhenT
ZZZZZZ			14:31	
ZZZZZZ			14:34	
ZZZZZZ			14:37	
ZZZZZZ			14:40	
IC 280-460979/5			14:43	X
IC 280-460979/6			14:46	X
IC 280-460979/7			14:49	X
IC 280-460979/8			14:52	X
IC 280-460979/9			14:55	X
IC 280-460979/10			14:58	X
ZZZZZZ			15:01	
ZZZZZZ			15:04	
ICV 280-460979/13	1		15:07	X
ICVL 280-460979/14	1		15:10	X
ICB 280-460979/15	1		15:13	X
ZZZZZZ			15:16	
LCS 280-460948/1-A	1	T	15:19	X
MB 280-460948/2-A	1	T	15:22	X
ZZZZZZ			15:25	
ZZZZZZ			15:28	
ZZZZZZ			15:31	
ZZZZZZ			15:34	
280-123924-11	1	T	15:37	X
280-123924-12	1	T	15:40	X
ZZZZZZ			15:43	
ZZZZZZ			15:46	
ZZZZZZ			15:49	
ZZZZZZ			15:52	
CCV 280-460979/29	1		15:55	X
CCVL 280-460979/30	1		15:58	X
CCB 280-460979/31	1		16:01	X
ZZZZZZ			16:04	
ZZZZZZ			16:07	
ZZZZZZ			16:10	
ZZZZZZ			16:13	
ZZZZZZ			16:16	
ZZZZZZ			16:19	
ZZZZZZ			16:22	
ZZZZZZ			16:25	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_Alp 1 Analysis Method: 9066

Start Date: 06/09/2019 14:31 End Date: 06/09/2019 18:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				PhenT																									
ZZZZZZ			16:28																										
ZZZZZZ			16:31																										
ZZZZZZ			16:34																										
ZZZZZZ			16:37																										
ZZZZZZ			16:40																										
CCV 280-460979/45	1		16:43	X																									
CCVL 280-460979/46	1		16:46	X																									
CCB 280-460979/47	1		16:49	X																									
ZZZZZZ			16:52																										
ZZZZZZ			16:55																										
ZZZZZZ			16:58																										
ZZZZZZ			17:01																										
ZZZZZZ			17:04																										
ZZZZZZ			17:07																										
ZZZZZZ			17:10																										
ZZZZZZ			17:13																										
ZZZZZZ			17:16																										
ZZZZZZ			17:19																										
ZZZZZZ			17:22																										
ZZZZZZ			17:25																										
ZZZZZZ			17:28																										
CCV 280-460979/61			17:31																										
CCVL 280-460979/62			17:34																										
CCB 280-460979/63			17:37																										
ZZZZZZ			17:40																										
ZZZZZZ			17:43																										
ZZZZZZ			17:46																										
ZZZZZZ			17:49																										
ZZZZZZ			17:52																										
ZZZZZZ			17:57																										
ZZZZZZ			18:00																										
ZZZZZZ			18:03																										

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2120B

Start Date: 05/17/2019 23:18 End Date: 05/17/2019 23:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Color																								
MB 280-458642/1	1	T	23:18	X																								
280-123924-1	1	T	23:18	X																								
280-123924-1 DU	1	T	23:18	X																								
280-123924-2	1	T	23:18	X																								
280-123924-3	1	T	23:18	X																								
280-123924-4	5	T	23:18	X																								
280-123924-5	1	T	23:18	X																								
280-123924-6	1	T	23:18	X																								
280-123924-7	1	T	23:18	X																								
280-123924-8	1	T	23:18	X																								
280-123924-9	1	T	23:18	X																								
280-123924-10	1	T	23:18	X																								
280-123924-11	1	T	23:18	X																								
280-123924-11 DU	1	T	23:18	X																								
280-123924-12	1	T	23:18	X																								
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:18																									
ZZZZZZ			23:20																									
ZZZZZZ			23:20																									
ZZZZZZ			23:20																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2340C

Start Date: 05/24/2019 16:44 End Date: 05/24/2019 16:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				HardCC																								
LCS 280-459417/1	1	T	16:44	X																								
MB 280-459417/2	1	T	16:44	X																								
280-123924-1	1	T	16:44	X																								
280-123924-1 MS	1	T	16:44	X																								
280-123924-1 MSD	1	T	16:44	X																								
280-123924-2	1	T	16:44	X																								
280-123924-3	1	T	16:44	X																								
280-123924-4	1	T	16:44	X																								
280-123924-5	1	T	16:44	X																								
280-123924-6	1	T	16:44	X																								
280-123924-7	1	T	16:44	X																								
280-123924-8	1	T	16:44	X																								
280-123924-9	1	T	16:44	X																								
280-123924-10	1	T	16:44	X																								
280-123924-11	1	T	16:44	X																								
280-123924-12	1	T	16:44	X																								
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
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ZZZZZZ			16:44																									
ZZZZZZ			16:44																									
ZZZZZZ			16:44																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/02/2019 10:05 End Date: 05/03/2019 05:53

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-456732/1			10:05																										
STD 280-456732/2 IC	1		10:21	X	X	X	X																						
STD 280-456732/3 IC	1		10:38	X	X	X	X																						
STD 280-456732/4 IC	1		10:54	X	X	X	X																						
STD 280-456732/5 IC	1		11:11	X	X	X	X																						
STD 280-456732/6 IC	1		11:27	X	X	X	X																						
STD 280-456732/7 IC	1		11:43	X	X	X	X																						
ICV 280-456732/8	1		12:00	X	X		X																						
ICB 280-456732/9	1		12:16	X	X	X	X																						
ZZZZZZ			12:33																										
ZZZZZZ			12:49																										
ZZZZZZ			13:05																										
ZZZZZZ			13:22																										
ZZZZZZ			23:52																										
ZZZZZZ			00:08																										
ZZZZZZ			00:24																										
ZZZZZZ			00:41																										
ZZZZZZ			00:57																										
ZZZZZZ			01:14																										
ZZZZZZ			01:30																										
ZZZZZZ			01:46																										
ZZZZZZ			02:03																										
ZZZZZZ			02:19																										
CCV 280-456732/24			02:36																										
CCB 280-456732/25			02:52																										
ZZZZZZ			03:09																										
ZZZZZZ			03:25																										
ZZZZZZ			03:41																										
ZZZZZZ			03:58																										
ZZZZZZ			04:14																										
ZZZZZZ			04:31																										
ZZZZZZ			04:47																										
ZZZZZZ			05:03																										
ZZZZZZ			05:20																										
CCV 280-456732/35			05:36																										
CCB 280-456732/36			05:53																										

Prep Types:
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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCV 280-458552/1	1		09:47	X	X	X	X																							
CCB 280-458552/2	1		10:03	X	X	X	X																							
MRL 280-458552/3	1	T	10:19	X	X	X	X																							
LCS 280-458552/4	1	T	10:36	X	X	X	X																							
LCSD 280-458552/5	1	T	10:52	X	X	X	X																							
MB 280-458552/6	1	T	11:08	X	X	X	X																							
ZZZZZZ			18:30																											
ZZZZZZ			18:46																											
ZZZZZZ			19:02																											
ZZZZZZ			19:19																											
ZZZZZZ			19:35																											
ZZZZZZ			19:52																											
ZZZZZZ			20:08																											
ZZZZZZ			20:24																											
ZZZZZZ			20:41																											
ZZZZZZ			20:57																											
CCV 280-458552/17	1		21:14	X	X	X	X																							
CCB 280-458552/18	1		21:30	X	X	X	X																							
ZZZZZZ			21:47																											
ZZZZZZ			22:03																											
ZZZZZZ			22:19																											
ZZZZZZ			22:36																											
ZZZZZZ			22:52																											
ZZZZZZ			23:09																											
ZZZZZZ			23:25																											
ZZZZZZ			23:41																											
ZZZZZZ			23:58																											
CCV 280-458552/28			00:14																											
CCB 280-458552/29			00:31																											
ZZZZZZ			00:47																											
ZZZZZZ			01:04																											
ZZZZZZ			01:20																											
ZZZZZZ			01:36																											

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
ZZZZZZ			01:53																											
ZZZZZZ			02:09																											
ZZZZZZ			02:26																											
ZZZZZZ			02:42																											
ZZZZZZ			02:58																											
ZZZZZZ			03:15																											
CCV 280-458552/40	1		03:31	X	X	X	X																							
CCB 280-458552/41	1		03:48	X	X	X	X																							
ZZZZZZ			04:04																											
ZZZZZZ			04:21																											
ZZZZZZ			04:37																											
ZZZZZZ			04:53																											
ZZZZZZ			05:10																											
ZZZZZZ			05:26																											
280-123924-1	1	T	05:43	X	X	X	X																							
280-123924-3	1	T	05:59	X	X	X																								
ZZZZZZ			06:15																											
280-123924-2	1	T	06:32	X	X	X	X																							
CCV 280-458552/52	1		06:48	X	X	X	X																							
CCB 280-458552/53	1		07:05	X	X	X	X																							
280-123924-2 DU	1	T	07:21	X	X	X	X																							
280-123924-2 MS	1	T	07:38	X	X	X	X																							
280-123924-2 MSD	1	T	07:54	X	X	X	X																							
280-123924-4	1	T	13:29	X	X	X																								
ZZZZZZ			13:45																											
280-123924-5	1	T	14:01	X	X	X																								
280-123924-5	5	T	14:18				X																							
280-123924-6	1	T	14:34	X	X	X																								
ZZZZZZ			14:51																											
280-123924-7	1	T	15:07	X		X																								
CCV 280-458552/64	1		15:23	X	X	X	X																							
CCB 280-458552/65	1		15:40	X	X	X	X																							
280-123924-7	5	T	15:56		X		X																							

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
280-123924-8	1	T	16:13	X		X	X																							
280-123924-8	5	T	16:29		X																									
280-123924-9	1	T	16:46	X		X	X																							
280-123924-9	5	T	17:02		X																									
280-123924-10	1	T	17:18	X	X	X																								
280-123924-11	1	T	17:35	X	X	X	X																							
280-123924-12	1	T	17:51	X		X	X																							
280-123924-12	5	T	18:08		X																									
CCV 280-458552/75	1		18:24	X	X	X	X																							
CCB 280-458552/76	1		18:40	X	X	X	X																							

Prep Types:
T = Total/NA

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	SO4																								
CCV 280-458553/1	1		09:47	X	X	X																								
CCB 280-458553/2	1		10:03	X	X	X																								
MRL 280-458553/3	1	T	10:19	X	X	X																								
LCS 280-458553/4	1	T	10:36	X	X	X																								
LCSD 280-458553/5	1	T	10:52	X	X	X																								
MB 280-458553/6	1	T	11:08	X	X	X																								
ZZZZZZ			18:30																											
ZZZZZZ			18:46																											
ZZZZZZ			19:02																											
ZZZZZZ			19:19																											
ZZZZZZ			19:35																											
ZZZZZZ			19:52																											
ZZZZZZ			20:08																											
ZZZZZZ			20:24																											
ZZZZZZ			20:41																											
ZZZZZZ			20:57																											
CCV 280-458553/17	1		21:14	X	X	X																								
CCB 280-458553/18	1		21:30	X	X	X																								
ZZZZZZ			21:47																											
ZZZZZZ			22:03																											
ZZZZZZ			22:19																											
ZZZZZZ			22:36																											
ZZZZZZ			22:52																											
ZZZZZZ			23:09																											
ZZZZZZ			23:25																											
ZZZZZZ			23:41																											
ZZZZZZ			23:58																											
CCV 280-458553/28			00:14																											
CCB 280-458553/29			00:31																											
ZZZZZZ			00:47																											
ZZZZZZ			01:04																											
ZZZZZZ			01:20																											
ZZZZZZ			01:36																											
ZZZZZZ			01:53																											
ZZZZZZ			02:09																											
ZZZZZZ			02:26																											
ZZZZZZ			02:42																											
ZZZZZZ			02:58																											
ZZZZZZ			03:15																											
CCV 280-458553/40	1		03:31	X	X	X																								
CCB 280-458553/41	1		03:48	X	X	X																								

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/17/2019 09:47 End Date: 05/18/2019 18:40

Lab Sample Id	D/F	Type	Time	Analytes																										
				Br	Cl-	SO4																								
ZZZZZZ			04:04																											
ZZZZZZ			04:21																											
ZZZZZZ			04:37																											
ZZZZZZ			04:53																											
ZZZZZZ			05:10																											
ZZZZZZ			05:26																											
280-123924-1	1	T	05:43	X	X	X																								
280-123924-3	1	T	05:59	X	X	X																								
ZZZZZZ			06:15																											
280-123924-2	1	T	06:32	X	X	X																								
CCV 280-458553/52	1		06:48	X	X	X																								
CCB 280-458553/53	1		07:05	X	X	X																								
280-123924-2 DU	1	T	07:21	X	X	X																								
280-123924-2 MS	1	T	07:38	X	X	X																								
280-123924-2 MSD	1	T	07:54	X	X	X																								
280-123924-4	1	T	13:29	X	X	X																								
ZZZZZZ			13:45																											
280-123924-5	1	T	14:01	X		X																								
280-123924-5	5	T	14:18		X																									
280-123924-6	1	T	14:34	X	X	X																								
ZZZZZZ			14:51																											
280-123924-7	1	T	15:07	X	X	X																								
CCV 280-458553/64	1		15:23	X	X	X																								
CCB 280-458553/65	1		15:40	X	X	X																								
ZZZZZZ			15:56																											
280-123924-8	1	T	16:13	X	X	X																								
ZZZZZZ			16:29																											
280-123924-9	1	T	16:46	X	X	X																								
ZZZZZZ			17:02																											
280-123924-10	1	T	17:18	X	X	X																								
280-123924-11	1	T	17:35	X	X	X																								
280-123924-12	1	T	17:51	X	X	X																								
ZZZZZZ			18:08																											
CCV 280-458553/75	1		18:24	X	X	X																								
CCB 280-458553/76	1		18:40	X	X	X																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
RTC 280-458776/1			15:15																											
STD 280-458776/2 IC	1		15:30	X	X	X	X																							
STD 280-458776/3 IC	1		15:47	X	X	X	X																							
STD 280-458776/4 IC	1		16:03	X	X	X	X																							
STD 280-458776/5 IC	1		16:20	X	X	X	X																							
STD 280-458776/6 IC	1		16:36	X	X	X	X																							
STD 280-458776/7 IC	1		16:52	X	X	X	X																							
ICV 280-458776/8	1		17:09	X	X	X	X																							
ICB 280-458776/9	1		17:25	X	X	X	X																							
ZZZZZZ			17:42																											
ZZZZZZ			17:58																											
ZZZZZZ			18:15																											
ZZZZZZ			18:31																											
ZZZZZZ			20:12																											
ZZZZZZ			20:28																											
ZZZZZZ			20:45																											
ZZZZZZ			21:01																											
ZZZZZZ			21:18																											
ZZZZZZ			21:34																											
ZZZZZZ			21:50																											
ZZZZZZ			22:07																											
ZZZZZZ			22:23																											
ZZZZZZ			22:40																											
CCV 280-458776/24			22:56																											
CCB 280-458776/25			23:12																											
ZZZZZZ			23:29																											
ZZZZZZ			23:45																											
ZZZZZZ			14:24																											
ZZZZZZ			14:40																											
ZZZZZZ			14:56																											
ZZZZZZ			15:12																											
ZZZZZZ			15:29																											
ZZZZZZ			15:45																											

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
ZZZZZZ			16:02																											
ZZZZZZ			16:18																											
CCV 280-458776/36			16:35																											
CCB 280-458776/37			16:51																											
ZZZZZZ			17:07																											
ZZZZZZ			17:24																											
ZZZZZZ			17:40																											
ZZZZZZ			17:57																											
ZZZZZZ			18:13																											
ZZZZZZ			18:29																											
CCV 280-458776/44			18:46																											
CCB 280-458776/45			19:02																											
CCV 280-458776/46			19:19																											
CCB 280-458776/47			19:35																											
ZZZZZZ			19:51																											
ZZZZZZ			20:08																											
ZZZZZZ			21:06																											
ZZZZZZ			21:22																											
ZZZZZZ			21:38																											
ZZZZZZ			21:54																											
ZZZZZZ			22:11																											
ZZZZZZ			22:27																											
ZZZZZZ			22:44																											
ZZZZZZ			23:00																											
ZZZZZZ			23:17																											
ZZZZZZ			23:33																											
ZZZZZZ			23:49																											
CCV 280-458776/61			00:06																											
CCB 280-458776/62			00:22																											

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	Cl-	F	SO4																						
RTC 280-458777/1			15:15																										
STD 280-458777/2 IC	1		15:30	X	X	X	X																						
STD 280-458777/3 IC	1		15:47	X	X	X	X																						
STD 280-458777/4 IC	1		16:03	X	X	X	X																						
STD 280-458777/5 IC	1		16:20	X	X	X	X																						
STD 280-458777/6 IC	1		16:36	X	X	X	X																						
STD 280-458777/7 IC	1		16:52	X	X	X	X																						
ICV 280-458777/8	1		17:09	X	X	X	X																						
ICB 280-458777/9	1		17:25	X	X	X	X																						
ZZZZZZ			17:42																										
ZZZZZZ			17:58																										
ZZZZZZ			18:15																										
ZZZZZZ			18:31																										
ZZZZZZ			20:12																										
ZZZZZZ			20:28																										
ZZZZZZ			20:45																										
ZZZZZZ			21:01																										
ZZZZZZ			21:18																										
ZZZZZZ			21:34																										
ZZZZZZ			21:50																										
ZZZZZZ			22:07																										
ZZZZZZ			22:23																										
ZZZZZZ			22:40																										
CCV 280-458777/24			22:56																										
CCB 280-458777/25			23:12																										
ZZZZZZ			23:29																										
ZZZZZZ			23:45																										
ZZZZZZ			14:24																										
ZZZZZZ			14:40																										
ZZZZZZ			14:56																										
ZZZZZZ			15:12																										
ZZZZZZ			15:29																										
ZZZZZZ			15:45																										
ZZZZZZ			16:02																										
ZZZZZZ			16:18																										
CCV 280-458777/36			16:35																										
CCB 280-458777/37			16:51																										
ZZZZZZ			17:07																										
ZZZZZZ			17:24																										
ZZZZZZ			17:40																										
ZZZZZZ			17:57																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/20/2019 15:15 End Date: 05/22/2019 00:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Br	CL-	F	SO4																							
ZZZZZZ			18:13																										
ZZZZZZ			18:29																										
CCV 280-458777/44			18:46																										
CCB 280-458777/45			19:02																										
CCV 280-458777/46			19:19																										
CCB 280-458777/47			19:35																										
ZZZZZZ			19:51																										
ZZZZZZ			20:08																										
ZZZZZZ			21:06																										
ZZZZZZ			21:22																										
ZZZZZZ			21:38																										
ZZZZZZ			21:54																										
ZZZZZZ			22:11																										
ZZZZZZ			22:27																										
ZZZZZZ			22:44																										
ZZZZZZ			23:00																										
ZZZZZZ			23:17																										
ZZZZZZ			23:33																										
ZZZZZZ			23:49																										
CCV 280-458777/61			00:06																										
CCB 280-458777/62			00:22																										

Prep Types:
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/03/2019 17:04 End Date: 06/04/2019 05:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCV 280-460231/1	1		17:04	X	X	X	X																							
CCB 280-460231/2	1		17:20	X	X	X	X																							
MRL 280-460231/3	1	T	17:36	X	X	X	X																							
LCS 280-460231/4	1	T	17:53	X	X	X	X																							
LCSD 280-460231/5	1	T	18:09	X	X	X	X																							
MB 280-460231/6	1	T	18:26	X	X	X	X																							
ZZZZZZ			19:06																											
ZZZZZZ			19:22																											
ZZZZZZ			19:39																											
ZZZZZZ			19:55																											
ZZZZZZ			20:11																											
ZZZZZZ			20:28																											
ZZZZZZ			20:44																											
ZZZZZZ			21:01																											
280-123924-1 DU	1	T	21:17	X	X	X	X																							
280-123924-1 MS	1	T	21:34	X	X	X	X																							
CCV 280-460231/17	1		21:50	X	X	X	X																							
CCB 280-460231/18	1		22:06	X	X	X	X																							
280-123924-1 MSD	1	T	22:23	X	X	X	X																							
ZZZZZZ			22:39																											
280-123924-3	1	T	22:56				X																							
280-123924-4	1	T	23:12				X																							
ZZZZZZ			23:28																											
280-123924-6	1	T	23:45				X																							
ZZZZZZ			00:01																											
ZZZZZZ			00:18																											
ZZZZZZ			00:34																											
280-123924-10	1	T	00:50				X																							
CCV 280-460231/29	1		01:07	X	X	X	X																							
CCB 280-460231/30	1		01:23	X	X	X	X																							
ZZZZZZ			01:40																											
ZZZZZZ			01:56																											
CCV 280-460231/33	1		02:13	X	X	X	X																							

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/03/2019 17:04 End Date: 06/04/2019 05:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				NNO32	NO2-N	NO3	Orthophosasp																							
CCB 280-460231/34	1		02:29	X	X	X	X																							
CCV 280-460231/43			04:57																											
CCB 280-460231/44			05:13																											

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/03/2019 17:04 End Date: 06/04/2019 05:13

Lab Sample Id	D/F	Type	Time	Analytes
				F
CCV 280-460232/1	1		17:04	X
CCB 280-460232/2	1		17:20	X
MRL 280-460232/3	1	T	17:36	X
LCS 280-460232/4	1	T	17:53	X
LCSD 280-460232/5	1	T	18:09	X
MB 280-460232/6	1	T	18:26	X
ZZZZZZ			19:06	
ZZZZZZ			19:22	
ZZZZZZ			19:39	
ZZZZZZ			19:55	
ZZZZZZ			20:11	
ZZZZZZ			20:28	
ZZZZZZ			20:44	
280-123924-1	1	T	21:01	X
280-123924-1 DU	1	T	21:17	X
280-123924-1 MS	1	T	21:34	X
CCV 280-460232/17	1		21:50	X
CCB 280-460232/18	1		22:06	X
280-123924-1 MSD	1	T	22:23	X
280-123924-2	1	T	22:39	X
280-123924-3	1	T	22:56	X
280-123924-4	1	T	23:12	X
280-123924-5	1	T	23:28	X
280-123924-6	1	T	23:45	X
280-123924-7	1	T	00:01	X
280-123924-8	1	T	00:18	X
280-123924-9	1	T	00:34	X
280-123924-10	1	T	00:50	X
CCV 280-460232/29	1		01:07	X
CCB 280-460232/30	1		01:23	X
280-123924-11	1	T	01:40	X
280-123924-12	1	T	01:56	X
CCV 280-460232/33	1		02:13	X
CCB 280-460232/34	1		02:29	X
ZZZZZZ			02:45	
ZZZZZZ			03:02	
ZZZZZZ			03:18	
ZZZZZZ			03:35	
ZZZZZZ			03:51	
ZZZZZZ			04:07	
ZZZZZZ			04:24	
ZZZZZZ			04:40	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/03/2019 17:04 End Date: 06/04/2019 05:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				F																								
CCV 280-460232/43			04:57																									
CCB 280-460232/44			05:13																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/10/2019 17:09 End Date: 06/11/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes
				TOCQ
ICV 280-461179/1	1		17:09	X
ICB 280-461179/2	1		17:24	X
ZZZZZZ			17:43	
ZZZZZZ			18:00	
ZZZZZZ			18:17	
ZZZZZZ			18:32	
ZZZZZZ			18:46	
ZZZZZZ			19:01	
ZZZZZZ			19:18	
ZZZZZZ			19:33	
ZZZZZZ			19:48	
ZZZZZZ			20:06	
ZZZZZZ			20:21	
ZZZZZZ			20:36	
CCV 280-461179/15			20:51	
CCB 280-461179/16			21:07	
ZZZZZZ			21:24	
ZZZZZZ			21:39	
ZZZZZZ			21:54	
ZZZZZZ			22:08	
ZZZZZZ			22:23	
ZZZZZZ			22:40	
ZZZZZZ			22:55	
ZZZZZZ			23:09	
ZZZZZZ			23:26	
ZZZZZZ			23:43	
CCV 280-461179/27			23:58	
CCB 280-461179/28			00:12	
ZZZZZZ			00:31	
ZZZZZZ			00:50	
ZZZZZZ			01:05	
ZZZZZZ			01:19	
ZZZZZZ			01:38	
ZZZZZZ			01:53	
ZZZZZZ			02:12	
ZZZZZZ			02:30	
ZZZZZZ			02:45	
ZZZZZZ			03:00	
CCV 280-461179/39	1		03:15	X
CCB 280-461179/40	1		03:31	X

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/10/2019 17:09 End Date: 06/11/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
LCS 280-461179/41	1	T	03:46	X																									
MB 280-461179/42	1	T	04:03	X																									
ZZZZZZ			04:20																										
ZZZZZZ			04:34																										
ZZZZZZ			04:49																										
ZZZZZZ			05:04																										
ZZZZZZ			05:19																										
ZZZZZZ			05:42																										
ZZZZZZ			05:57																										
ZZZZZZ			06:13																										
CCV 280-461179/51	1		06:31	X																									
CCB 280-461179/52	1		06:46	X																									
ZZZZZZ			07:06																										
ZZZZZZ			07:23																										
ZZZZZZ			07:38																										
ZZZZZZ			07:55																										
ZZZZZZ			08:13																										
ZZZZZZ			08:30																										
ZZZZZZ			08:47																										
ZZZZZZ			09:06																										
ZZZZZZ			09:21																										
ZZZZZZ			09:37																										
CCV 280-461179/63	1		09:52	X																									
CCB 280-461179/64	1		10:07	X																									
ZZZZZZ			10:24																										
ZZZZZZ			10:38																										
280-123924-1	1	T	10:53	X																									
280-123924-2	1	T	11:10	X																									
280-123924-3	1	T	11:27	X																									
280-123924-4	1	T	11:46	X																									
280-123924-5	1	T	12:00	X																									
CCV 280-461179/72	1		12:17	X																									
CCB 280-461179/73	1		12:34	X																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/11/2019 17:26 End Date: 06/12/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCQ																									
ICV 280-461295/1	1		17:26	X																									
ICB 280-461295/2	1		17:41	X																									
ZZZZZZ			17:57																										
ZZZZZZ			18:14																										
ZZZZZZ			18:31																										
ZZZZZZ			18:48																										
ZZZZZZ			19:02																										
ZZZZZZ			19:17																										
ZZZZZZ			19:32																										
ZZZZZZ			19:49																										
ZZZZZZ			20:05																										
ZZZZZZ			20:24																										
ZZZZZZ			20:41																										
ZZZZZZ			20:56																										
CCV 280-461295/15			21:11																										
CCB 280-461295/16			21:27																										
ZZZZZZ			21:42																										
ZZZZZZ			21:57																										
ZZZZZZ			22:11																										
ZZZZZZ			22:28																										
ZZZZZZ			22:47																										
ZZZZZZ			23:11																										
ZZZZZZ			23:29																										
ZZZZZZ			23:44																										
ZZZZZZ			00:03																										
ZZZZZZ			00:24																										
CCV 280-461295/27	1		00:38	X																									
CCB 280-461295/28	1		00:57	X																									
ZZZZZZ			01:12																										
ZZZZZZ			01:35																										
ZZZZZZ			01:49																										
ZZZZZZ			02:08																										
ZZZZZZ			02:27																										
LCS 280-461295/34	1	T	02:42	X																									
MB 280-461295/35	1	T	02:56	X																									
ZZZZZZ			03:13																										
280-123924-6	1	T	03:32	X																									
280-123924-7	1	T	03:47	X																									
CCV 280-461295/39	1		04:03	X																									
CCB 280-461295/40	1		04:21	X																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/11/2019 17:26 End Date: 06/12/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																								
				TOCQ																								
280-123924-8	1	T	04:37	X																								
280-123924-8 MS	1	T	04:56	X																								
280-123924-8 MSD	1	T	05:11	X																								
280-123924-9	1	T	05:28	X																								
280-123924-10	1	T	05:43	X																								
280-123924-11	1	T	05:59	X																								
280-123924-12	1	T	06:18	X																								
ZZZZZZ			06:37																									
ZZZZZZ			06:56																									
ZZZZZZ			07:12																									
CCV 280-461295/51	1		07:27	X																								
CCB 280-461295/52	1		07:44	X																								
ZZZZZZ			08:03																									
ZZZZZZ			08:20																									
ZZZZZZ			08:37																									
ZZZZZZ			08:56																									
ZZZZZZ			09:11																									
ZZZZZZ			09:26																									
ZZZZZZ			09:48																									
ZZZZZZ			10:05																									
ZZZZZZ			10:24																									
ZZZZZZ			10:43																									
CCV 280-461295/63			11:04																									
CCB 280-461295/64			11:23																									
ZZZZZZ			11:40																									
ZZZZZZ			11:57																									
CCV 280-461295/67			12:15																									
CCB 280-461295/68			12:34																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/22/2019 18:11 End Date: 05/23/2019 03:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-459192/1			18:11																									
ZZZZZZ			18:18																									
ZZZZZZ			18:19																									
ZZZZZZ			18:26																									
ZZZZZZ			18:31																									
ZZZZZZ			18:36																									
ZZZZZZ			18:42																									
ZZZZZZ			18:46																									
ZZZZZZ			18:52																									
ZZZZZZ			19:02																									
ZZZZZZ			19:06																									
ZZZZZZ			19:11																									
ZZZZZZ			19:17																									
ZZZZZZ			19:22																									
ZZZZZZ			19:31																									
CCV 280-459192/16			19:36																									
CCB 280-459192/17			19:41																									
ZZZZZZ			19:48																									
ZZZZZZ			19:54																									
ZZZZZZ			20:01																									
ZZZZZZ			20:07																									
ZZZZZZ			20:12																									
ZZZZZZ			20:18																									
ZZZZZZ			20:22																									
ZZZZZZ			20:30																									
ZZZZZZ			20:38																									
ZZZZZZ			20:48																									
CCV 280-459192/28	1		20:54	X																								
CCB 280-459192/29	1		20:59	X																								
LCS 280-459192/30	1	T	21:05	X																								
MB 280-459192/31	1	T	21:10	X																								
ZZZZZZ			21:18																									
ZZZZZZ			21:28																									
ZZZZZZ			21:34																									
ZZZZZZ			21:42																									
ZZZZZZ			21:48																									
ZZZZZZ			21:55																									
ZZZZZZ			22:01																									
ZZZZZZ			22:08																									
ZZZZZZ			22:15																									
ZZZZZZ			22:23																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/22/2019 18:11 End Date: 05/23/2019 03:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
CCV 280-459192/42	1		22:30	X																								
CCB 280-459192/43	1		22:34	X																								
ZZZZZZ			22:42																									
ZZZZZZ			22:48																									
ZZZZZZ			22:56																									
ZZZZZZ			23:05																									
ZZZZZZ			23:13																									
ZZZZZZ			23:19																									
ZZZZZZ			23:26																									
ZZZZZZ			23:32																									
ZZZZZZ			23:35																									
ZZZZZZ			23:42																									
CCV 280-459192/54	1		23:48	X																								
CCB 280-459192/55	1		23:53	X																								
ZZZZZZ			23:58																									
ZZZZZZ			00:04																									
ZZZZZZ			00:10																									
ZZZZZZ			00:16																									
ZZZZZZ			00:22																									
ZZZZZZ			00:30																									
280-123924-1	1	T	00:36	X																								
280-123924-2	1	T	00:42	X																								
280-123924-3	1	T	00:47	X																								
280-123924-4	1	T	00:55	X																								
CCV 280-459192/66	1		01:01	X																								
CCB 280-459192/67	1		01:06	X																								
ZZZZZZ			01:11																									
ZZZZZZ			01:16																									
ZZZZZZ			01:22																									
ZZZZZZ			01:26																									
ZZZZZZ			01:33																									
ZZZZZZ			01:39																									
ZZZZZZ			01:45																									
ZZZZZZ			01:51																									
ZZZZZZ			01:56																									
ZZZZZZ			02:02																									
ZZZZZZ			02:08																									
ZZZZZZ			02:16																									
CCV 280-459192/80			02:21																									
CCB 280-459192/81			02:24																									
ZZZZZZ			02:30																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/22/2019 18:11 End Date: 05/23/2019 03:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			02:35																									
ZZZZZZ			02:39																									
ZZZZZZ			02:44																									
ZZZZZZ			02:52																									
ZZZZZZ			03:01																									
ZZZZZZ			03:08																									
ZZZZZZ			03:16																									
ZZZZZZ			03:22																									
ZZZZZZ			03:29																									
ZZZZZZ			03:37																									
ZZZZZZ			03:45																									
CCV 280-459192/94			03:51																									
CCB 280-459192/95			03:56																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-459576/1			17:32																									
ZZZZZZ			17:40																									
ZZZZZZ			17:42																									
ZZZZZZ			17:48																									
ZZZZZZ			18:12																									
ZZZZZZ			18:18																									
ZZZZZZ			18:23																									
ZZZZZZ			18:29																									
ZZZZZZ			18:34																									
ZZZZZZ			18:39																									
ZZZZZZ			18:45																									
ZZZZZZ			18:52																									
ZZZZZZ			19:01																									
ZZZZZZ			19:07																									
ZZZZZZ			19:16																									
CCV 280-459576/16			19:22																									
CCB 280-459576/17			19:27																									
ZZZZZZ			19:35																									
ZZZZZZ			19:40																									
ZZZZZZ			19:46																									
ZZZZZZ			19:52																									
ZZZZZZ			19:59																									
ZZZZZZ			20:04																									
ZZZZZZ			20:10																									
ZZZZZZ			20:16																									
ZZZZZZ			20:22																									
ZZZZZZ			20:25																									
CCV 280-459576/28	1		20:31	X																								
CCB 280-459576/29	1		20:36	X																								
LCS 280-459576/30	1	T	20:42	X																								
MB 280-459576/31	1	T	20:47	X																								
ZZZZZZ			20:52																									
ZZZZZZ			20:58																									
ZZZZZZ			21:03																									
ZZZZZZ			21:08																									
ZZZZZZ			21:17																									
ZZZZZZ			21:22																									
ZZZZZZ			21:29																									
ZZZZZZ			21:36																									
ZZZZZZ			21:43																									
280-123924-5	1	T	21:48	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
CCV 280-459576/42	1		21:55	X																								
CCB 280-459576/43	1		21:59	X																								
280-123924-6	1	T	22:06	X																								
280-123924-7	1	T	22:13	X																								
280-123924-8	1	T	22:18	X																								
280-123924-9	1	T	22:24	X																								
280-123924-10	1	T	22:30	X																								
280-123924-11	1	T	22:35	X																								
280-123924-12	1	T	22:41	X																								
ZZZZZZ			22:47																									
ZZZZZZ			22:54																									
ZZZZZZ			23:01																									
CCV 280-459576/54	1		23:07	X																								
CCB 280-459576/55	1		23:12	X																								
ZZZZZZ			23:18																									
ZZZZZZ			23:23																									
ZZZZZZ			23:30																									
ZZZZZZ			23:38																									
ZZZZZZ			23:43																									
ZZZZZZ			23:50																									
ZZZZZZ			23:57																									
ZZZZZZ			00:05																									
ZZZZZZ			00:13																									
ZZZZZZ			00:21																									
ZZZZZZ			00:27																									
ZZZZZZ			00:34																									
CCV 280-459576/68			00:40																									
CCB 280-459576/69			00:44																									
ZZZZZZ			00:53																									
ZZZZZZ			00:58																									
ZZZZZZ			01:08																									
ZZZZZZ			01:15																									
ZZZZZZ			01:21																									
ZZZZZZ			01:32																									
ZZZZZZ			01:40																									
ZZZZZZ			01:47																									
ZZZZZZ			01:53																									
ZZZZZZ			01:59																									
CCV 280-459576/80			02:04																									
CCB 280-459576/81			02:09																									
ZZZZZZ			02:15																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			02:19																									
ZZZZZZ			02:26																									
ZZZZZZ			02:33																									
ZZZZZZ			02:39																									
ZZZZZZ			02:45																									
ZZZZZZ			02:50																									
ZZZZZZ			02:57																									
ZZZZZZ			03:04																									
ZZZZZZ			03:10																									
ZZZZZZ			03:15																									
ZZZZZZ			03:21																									
CCV 280-459576/94			03:27																									
CCB 280-459576/95			03:31																									
ZZZZZZ			03:37																									
ZZZZZZ			03:43																									
ZZZZZZ			03:49																									
ZZZZZZ			03:55																									
ZZZZZZ			04:02																									
ZZZZZZ			04:16																									
ZZZZZZ			04:34																									
ZZZZZZ			04:56																									
ZZZZZZ			05:12																									
ZZZZZZ			05:23																									
CCV 280-459576/106			05:28																									
CCB 280-459576/107			05:33																									
ZZZZZZ			05:40																									
ZZZZZZ			05:45																									
ZZZZZZ			05:55																									
ZZZZZZ			06:06																									
ZZZZZZ			06:18																									
ZZZZZZ			06:23																									
ZZZZZZ			06:44																									
ZZZZZZ			06:51																									
ZZZZZZ			06:57																									
ZZZZZZ			07:04																									
ZZZZZZ			07:10																									
ZZZZZZ			07:16																									
CCV 280-459576/120			07:23																									
CCB 280-459576/121			07:27																									
ZZZZZZ			07:33																									
ZZZZZZ			07:40																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2019 17:32 End Date: 05/25/2019 09:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			07:46																									
ZZZZZZ			07:57																									
ZZZZZZ			08:02																									
ZZZZZZ			08:07																									
ZZZZZZ			08:12																									
ZZZZZZ			08:17																									
ZZZZZZ			08:23																									
ZZZZZZ			08:26																									
CCV 280-459576/132			08:32																									
CCB 280-459576/133			08:37																									
ZZZZZZ			08:43																									
ZZZZZZ			08:48																									
ZZZZZZ			08:53																									
ZZZZZZ			08:56																									
ZZZZZZ			09:01																									
CCV 280-459576/139			09:07																									
CCB 280-459576/140			09:12																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 05/22/2019 12:03 End Date: 05/22/2019 12:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-459057/1	1	T	12:03	X																								
LCS 280-459057/2	1	T	12:03	X																								
280-123924-1	1	T	12:03	X																								
280-123924-1 DU	1	T	12:03	X																								
ZZZZZZ			12:03																									
280-123924-3	1	T	12:03	X																								
280-123924-4	1	T	12:03	X																								
280-123924-5	1	T	12:03	X																								
280-123924-6	1	T	12:03	X																								
280-123924-7	1	T	12:03	X																								
280-123924-8	1	T	12:03	X																								
280-123924-9	1	T	12:03	X																								
ZZZZZZ			12:03																									
ZZZZZZ			12:03																									
ZZZZZZ			12:03																									
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ZZZZZZ			12:03																									
ZZZZZZ			12:03																									
280-123924-12	1	T	12:03	X																								
280-123924-12 DU	1	T	12:03	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 06/10/2019 13:59 End Date: 06/10/2019 13:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 280-461044/1	1	T	13:59	X																								
LCS 280-461044/2	1	T	13:59	X																								
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
280-123924-2	1	T	13:59	X																								
280-123924-10	1	T	13:59	X																								
280-123924-11	1	T	13:59	X																								
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
ZZZZZZ			13:59																									
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ZZZZZZ			13:59																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM5210B

Start Date: 05/17/2019 15:43 End Date: 05/17/2019 18:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				BOD																								
SCB 280-458606/1	1	T	15:43	X																								
USB 280-458606/2	1	T	15:43	X																								
LCS 280-458606/3	1	T	15:43	X																								
MB 280-458606/4	1	T	15:43	X																								
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
280-123924-1	1	T	15:43	X																								
280-123924-2	1	T	15:43	X																								
280-123924-3	1	T	15:43	X																								
280-123924-4	1	T	15:43	X																								
280-123924-5	1	T	15:43	X																								
280-123924-6	1	T	15:43	X																								
280-123924-7	1	T	15:43	X																								
280-123924-8	1	T	15:43	X																								
280-123924-9	1	T	15:43	X																								
280-123924-10	1	T	15:43	X																								
280-123924-11	1	T	15:43	X																								
280-123924-12	1	T	15:43	X																								
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
ZZZZZZ			15:43																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459963 Batch Start Date: 05/30/19 10:59 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
ICVL 280-459963/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-459963/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-459963/16		350.1			10 mL	10 mL			
LCS 280-459963/25		350.1			100 mL	100 mL		2.5 mL	
LCSD 280-459963/26		350.1			100 mL	100 mL		2.5 mL	
MB 280-459963/27		350.1			10 mL	10 mL			
280-123924-E-1	LF6VMW-22_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459963/40		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459963/41		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/42		350.1			10 mL	10 mL			
280-123924-D-2	LF6VMW-10R2_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123924-C-3	LF6VMW-26_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123924-C-4	LF6MW-12_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123924-C-4 MS	LF6MW-12_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123924-C-4 MSD	LF6MW-12_0519	350.1	T	N	10 mL	10 mL	<2 SU	0.1 mL	
280-123924-E-5	LF6VMW-24_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123924-C-6	TMCMW-9_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123924-C-7	LF6/TMCSW-1_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123924-C-8	LF6/TMCSW-2_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123924-C-9	LF6/TMCSW-2_0519 -a	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459963/56		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459963/57		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/58		350.1			10 mL	10 mL			
280-123924-C-10	LF6W-1_0519	350.1	T	N	10 mL	10 mL	<2 SU		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459963 Batch Start Date: 05/30/19 10:59 Batch Analyst: Setjoadi, Mayori J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00367	350.1 ICV 00350
280-123924-C-11	LF6LH-1_0519	350.1	T	N	10 mL	10 mL	<2 SU		
280-123924-C-12	LF6LH-2_0519	350.1	T	N	10 mL	10 mL	<2 SU		
CCVL 280-459963/66		350.1			100 mL	100 mL		0.5 mL	
CCV 280-459963/67		350.1			100 mL	100 mL		2.5 mL	
CCB 280-459963/68		350.1			10 mL	10 mL			

Batch Notes	
Carrier Identification	350.1 complex_00424
Hypochlorite ID	350.1 bleach_01068
Sodium Nitroprusside ID	350.1 color_00152
Pipette/Syringe/Dispenser ID	JPX100, JPX1000, JPX5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460066 Batch Start Date: 05/31/19 16:12 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00794	TKN ICV 25 00078		
ICV 280-460066/42		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-460066/43		351.2, 351.2		25 mL	25 mL				
CCV 280-460066/44		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-460066/45		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	06/01/19 0400
Block Digestion Start time	05/31/19 2100
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00126
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460760 Batch Start Date: 06/06/19 19:57 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00794		
LCS 280-460760/27		351.2, 351.2		<2	25 mL	25 mL	6 mL		
MB 280-460760/28		351.2, 351.2		<2	25 mL	25 mL			
280-123924-E-1	LF6VMW-22_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-D-2	LF6VMW-10R2_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-E-3	LF6VMW-26_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-D-4	LF6MW-12_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-D-4 MS	LF6MW-12_0519	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123924-D-4 MSD	LF6MW-12_0519	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-123924-D-5	LF6VMW-24_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-C-6	TMCMW-9_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-C-7	LF6/TMCSW-1_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-E-8	LF6/TMCSW-2_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-D-9	LF6/TMCSW-2_0519 -a	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-C-10	LF6W-1_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-C-11	LF6LH-1_0519	351.2, 351.2	T	<2	25 mL	25 mL			
280-123924-D-12	LF6LH-2_0519	351.2, 351.2	T	<2	25 mL	25 mL			

Batch Notes	
Block Digestion End time	06/06/19 0430
Block Digestion Start time	06/06/19 2130
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00127
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460878 Batch Start Date: 06/07/19 16:59 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-460066/42-A		351.2		4 mL					
ICB 280-460066/43-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
LCS 280-460760/27-A		351.2		4 mL					
MB 280-460760/28-A		351.2		4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123924-E-1-A	LF6VMW-22_0519	351.2	T	4 mL					
280-123924-D-2-A	LF6VMW-10R2_0519	351.2	T	4 mL					
280-123924-E-3-A	LF6VMW-26_0519	351.2	T	4 mL					
280-123924-D-4-A	LF6MW-12_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					
280-123924-D-4-B MS	LF6MW-12_0519	351.2	T	4 mL					
280-123924-D-4-C MSD	LF6MW-12_0519	351.2	T	4 mL					
280-123924-D-5-A	LF6VMW-24_0519	351.2	T	4 mL					
280-123924-C-6-A	TMCMW-9_0519	351.2	T	4 mL					
280-123924-C-7-A	LF6/TMCSW-1_0519	351.2	T	4 mL					
280-123924-E-8-A	LF6/TMCSW-2_0519	351.2	T	4 mL					
280-123924-D-9-A	LF6/TMCSW-2_0519-a	351.2	T	4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460878 Batch Start Date: 06/07/19 16:59 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
280-123924-C-10-A	LF6W-1_0519	351.2	T	4 mL					
280-123924-C-11-A	LF6LH-1_0519	351.2	T	4 mL					
280-123924-D-12-A	LF6LH-2_0519	351.2	T	4 mL					
CCV 280-460066/44-A		351.2		4 mL					
CCB 280-460066/45-A		351.2		4 mL					

Batch Notes	
Buffer Reagent ID	TKN Buffer_00118
Hypochlorite ID	TKN hypo_00663
Sodium Nitroprusside ID	Sodium Nitro_00095
Pipette/Syringe/Dispenser ID	5000AD, 1000AD

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 457887 Batch Start Date: 05/13/19 07:39 Batch Analyst: Loux, Lauren P

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	COD cal std 00048			
IC 280-457887/1		410.4		50 mL	50 mL	0.25 mL			
IC 280-457887/2		410.4		50 mL	50 mL	0.5 mL			
IC 280-457887/3		410.4		50 mL	50 mL	1 mL			
IC 280-457887/4		410.4		50 mL	50 mL	2.5 mL			
IC 280-457887/5		410.4		50 mL	50 mL	5 mL			
IC 280-457887/6		410.4		50 mL	50 mL	7.5 mL			

Batch Notes	
Block Digestor ID	Hach4AA, Hach4BB, Hach6AA
Chlorine ID	HC850274
Temperature - Corrected - End	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Temperature - Corrected - Start	Hach4AA149, Hach4BB150, Hach6AA149 Degrees C
Digestion End Time	05/13/2019 11:27
Digestion Start Time	05/13/2019 09:27
Pipette/Syringe/Dispenser ID	5000LL, 1000LL
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Temperature - Uncorrected - Start	Hach4AA150, Hach4BB150, Hach6AA150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460807 Batch Start Date: 06/07/19 09:42 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-460807/1		410.4		100 mL	100 mL				
ICB 280-460807/2		410.4		2 mL	2 mL				
LCS 280-460807/3		410.4		100 mL	100 mL				10 mL
LCSD 280-460807/4		410.4		100 mL	100 mL				10 mL
MB 280-460807/5		410.4		2 mL	2 mL				
CCV 280-460807/16		410.4		100 mL	100 mL				10 mL
CCB 280-460807/17		410.4		2 mL	2 mL				
280-123924-E-1	LF6VMW-22_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
280-123924-D-2	LF6VMW-10R2_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123924-C-3	LF6VMW-26_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
CCV 280-460807/28		410.4		100 mL	100 mL				10 mL
CCB 280-460807/29		410.4		2 mL	2 mL				
280-123924-C-4	LF6MW-12_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123924-G-5	LF6VMW-24_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
280-123924-G-6	TMCMW-9_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
280-123924-C-7	LF6/TMCSW-1_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
CCV 280-460807/34		410.4		100 mL	100 mL				10 mL
CCB 280-460807/35		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034					
ICV 280-460807/1		410.4		7.5 mL					
ICB 280-460807/2		410.4							
LCS 280-460807/3		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460807 Batch Start Date: 06/07/19 09:42 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034					
LCSD 280-460807/4		410.4							
MB 280-460807/5		410.4							
CCV 280-460807/16		410.4							
CCB 280-460807/17		410.4							
280-123924-E-1	LF6VMW-22_0519	410.4	T						
280-123924-D-2	LF6VMW-10R2_0519	410.4	T						
280-123924-C-3	LF6VMW-26_0519	410.4	T						
CCV 280-460807/28		410.4							
CCB 280-460807/29		410.4							
280-123924-C-4	LF6MW-12_0519	410.4	T						
280-123924-G-5	LF6VMW-24_0519	410.4	T						
280-123924-G-6	TMCMW-9_0519	410.4	T						
280-123924-C-7	LF6/TMCSW-1_0519	410.4	T						
CCV 280-460807/34		410.4							
CCB 280-460807/35		410.4							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460807 Batch Start Date: 06/07/19 09:42 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Batch Notes	
Batch Comment	KS trained by CJ
Block Digestor ID	Hach 2, Hach 4
Chlorine ID	HC850274
Temperature - Corrected - End	Hach 2 AA 150, Hach 2 BB 151, Hach 4 AA 149 Degrees C
Temperature - Corrected - Start	Hach 2 AA 150, Hach 2 BB 151, Hach 4 AA 149 Degrees C
Digestion End Time	06/07/2019 02:51
Digestion Start Time	06/07/2019 12:51
Pipette/Syringe/Dispenser ID	1000LL, AZ5000
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150 Degrees C
Temperature - Uncorrected - Start	Hach 2 AA 150, Hach 2 BB 150, Hach 4 AA 150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460943 Batch Start Date: 06/08/19 12:45 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorideScrn	Initial pH	Final pH	COD cal std 00048
ICV 280-460943/1		410.4		100 mL	100 mL				
ICB 280-460943/2		410.4		2 mL	2 mL				
LCS 280-460943/3		410.4		100 mL	100 mL				10 mL
LCSD 280-460943/4		410.4		100 mL	100 mL				10 mL
MB 280-460943/5		410.4		2 mL	2 mL				
280-123924-D-8	LF6/TMCSW-2_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123924-E-9	LF6/TMCSW-2_0519 -a	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
280-123924-C-10	LF6W-1_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123924-E-11	LF6LH-1_0519	410.4	T	2 mL	2 mL	<1000	<2 SU	<2 SU	
280-123924-E-12	LF6LH-2_0519	410.4	T	2 mL	2 mL	>1000	<2 SU	<2 SU	
CCV 280-460943/16		410.4		100 mL	100 mL				10 mL
CCB 280-460943/17		410.4		2 mL	2 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034					
ICV 280-460943/1		410.4		7.5 mL					
ICB 280-460943/2		410.4							
LCS 280-460943/3		410.4							
LCSD 280-460943/4		410.4							
MB 280-460943/5		410.4							
280-123924-D-8	LF6/TMCSW-2_0519	410.4	T						
280-123924-E-9	LF6/TMCSW-2_0519 -a	410.4	T						
280-123924-C-10	LF6W-1_0519	410.4	T						
280-123924-E-11	LF6LH-1_0519	410.4	T						
280-123924-E-12	LF6LH-2_0519	410.4	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460943 Batch Start Date: 06/08/19 12:45 Batch Analyst: Sonnier, Kelly E

Batch Method: 410.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	COD icv std 00034					
CCV 280-460943/16		410.4							
CCB 280-460943/17		410.4							

Batch Notes	
Batch Comment	KS trained by CJ
Block Digestor ID	Hach 2, Hach 4
Chlorine ID	HC850274
Temperature - Corrected - End	Hach 2 AA 150, Hach 2 BB 151, Hach 4 BB 150 Degrees C
Temperature - Corrected - Start	Hach 2 AA 150, Hach 2 BB 151, Hach 4 BB 150 Degrees C
Digestion End Time	06/08/2019 05:14
Digestion Start Time	06/08/2019 03:14
Pipette/Syringe/Dispenser ID	1000LL, AZ5000
Sufficient Volume for Batch QC	Yes
Temperature - Uncorrected - End	Hach 2 AA 150, Hach 2 BB 150, Hach 4 BB 150 Degrees C
Temperature - Uncorrected - Start	Hach 2 AA 150, Hach 2 BB 150, Hach 4 BB 150 Degrees C
Vial Lot Number	A9112A

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460749 Batch Start Date: 06/06/19 17:53 Batch Analyst: Moser, Angela R

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	Phenol CAL 10 00730
LCS 280-460749/1		Distill/Phenol, 9066		50 mL	50 mL				1 mL
MB 280-460749/2		Distill/Phenol, 9066		50 mL	50 mL				
280-123924-G-1	LF6VMW-22_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-2	LF6VMW-10R2_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-3	LF6VMW-26_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-4	LF6MW-12_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-5	LF6VMW-24_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-6	TMCMW-9_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-7	LF6/TMCSW-1_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-8	LF6/TMCSW-2_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-9	LF6/TMCSW-2_0519-a	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-10	LF6W-1_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	
280-123924-G-10 MS	LF6W-1_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL
280-123924-G-10 MSD	LF6W-1_0519	Distill/Phenol, 9066	T	50 mL	50 mL	n	<2 SU	4 SU	1 mL

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460772/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460772/14		9066		100 mL	100 mL		1 mL		
ICB 280-460772/15		9066		100 mL	100 mL				
CCV 280-460772/45		9066		100 mL	100 mL	2 mL			
CCB 280-460772/47		9066		100 mL	100 mL				
LCS 280-460749/1-A		9066		100 mL	100 mL				
MB 280-460749/2-A		9066		100 mL	100 mL				
CCV 280-460772/61		9066		100 mL	100 mL	2 mL			
CCB 280-460772/63		9066		100 mL	100 mL				
CCV 280-460772/77		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/78		9066		100 mL	100 mL	1 mL			
CCB 280-460772/79		9066		100 mL	100 mL				
280-123924-G-1-A	LF6VMW-22_0519	9066	T	100 mL	100 mL				
280-123924-G-2-A	LF6VMW-10R2_0519	9066	T	100 mL	100 mL				
280-123924-G-3-A	LF6VMW-26_0519	9066	T	100 mL	100 mL				
280-123924-G-4-A	LF6MW-12_0519	9066	T	100 mL	100 mL				
280-123924-G-5-A	LF6VMW-24_0519	9066	T	100 mL	100 mL				
280-123924-G-6-A	TMCMW-9_0519	9066	T	100 mL	100 mL				
280-123924-G-7-A	LF6/TMCSW-1_0519	9066	T	100 mL	100 mL				
280-123924-G-8-A	LF6/TMCSW-2_0519	9066	T	100 mL	100 mL				
280-123924-G-9-A	LF6/TMCSW-2_0519-a	9066	T	100 mL	100 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460772 Batch Start Date: 06/06/19 16:47 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
280-123924-G-10 -A	LF6W-1_0519	9066	T	100 mL	100 mL				
CCV 280-460772/93		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/94		9066		100 mL	100 mL	1 mL			
CCB 280-460772/95		9066		100 mL	100 mL				
280-123924-G-10 -B MS	LF6W-1_0519	9066	T	100 mL	100 mL				
280-123924-G-10 -C MSD	LF6W-1_0519	9066	T	100 mL	100 mL				
CCV 280-460772/104		9066		100 mL	100 mL	2 mL			
CCVL 280-460772/105		9066		100 mL	100 mL	1 mL			
CCB 280-460772/106		9066		100 mL	100 mL				

Batch Notes	
Batch Comment	RK Training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00409
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460843 Batch Start Date: 06/07/19 12:22 Batch Analyst: Abeyta, Joseph L

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ChlorineCheck	Initial pH	Final pH	
280-123924-C-11	LF6LH-1_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	
280-123924-D-12	LF6LH-2_0519	Distill/Phenol, 9066	T	50 mL	50 mL	NEG	<2 SU	4 SU	

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460948 Batch Start Date: 06/08/19 14:11 Batch Analyst: Abeyta, Joseph L

Batch Method: Distill/Phenol Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730			
LCS 280-460948/1		Distill/Phenol, 9066		50 mL	50 mL	1 mL			
MB 280-460948/2		Distill/Phenol, 9066		50 mL	50 mL				

Batch Notes	
Acid used for pH adjustment	1 N H2SO4_00031
Base Used to Adjust pH ID	2.5N NaOH_00010
Batch Comment	Meth Org_0009 RK training AM
Dechlorination Agent ID	FE Ammonium_00005
Pipette/Syringe/Dispenser ID	jpx1000

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460979 Batch Start Date: 06/09/19 14:31 Batch Analyst: Moser, Angela R

Batch Method: 9066 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Phenol CAL 10 00730	Phenol ICV 10 00605		
ICV 280-460979/13		9066		100 mL	100 mL		2 mL		
ICVL 280-460979/14		9066		100 mL	100 mL		1 mL		
ICB 280-460979/15		9066		100 mL	100 mL				
LCS 280-460948/1-A		9066		100 mL	100 mL				
MB 280-460948/2-A		9066		100 mL	100 mL				
280-123924-C-11 -B	LF6LH-1_0519	9066	T	100 mL	100 mL				
280-123924-D-12 -B	LF6LH-2_0519	9066	T	100 mL	100 mL				
CCV 280-460979/29		9066		100 mL	100 mL	2 mL			
CCVL 280-460979/30		9066		100 mL	100 mL	1 mL			
CCB 280-460979/31		9066		100 mL	100 mL				
CCV 280-460979/45		9066		100 mL	100 mL	2 mL			
CCVL 280-460979/46		9066		100 mL	100 mL	1 mL			
CCB 280-460979/47		9066		100 mL	100 mL				

Batch Notes	
Batch Comment	RK training AM
Buffer Reagent ID	Phenol Buffer_00139
Color Reagent 1 ID	Phenol 4AAP_00409
Pipette/Syringe/Dispenser ID	jpx1000, jpx5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458642 Batch Start Date: 05/17/19 23:17 Batch Analyst: Bryant, Chase K

Batch Method: SM 2120B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount			
MB 280-458642/1		SM 2120B		7 SU	50 mL	50 mL			
280-123924-I-1	LF6VMW-22_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-I-1 DU	LF6VMW-22_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-I-2	LF6VMW-10R2_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-I-3	LF6VMW-26_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-J-4	LF6MW-12_0519	SM 2120B	T	7 SU	10 mL	50 mL			
280-123924-J-5	LF6VMW-24_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-H-6	TMCMW-9_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-H-7	LF6/TMCSW-1_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-J-8	LF6/TMCSW-2_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-J-9	LF6/TMCSW-2_0519 -a	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-H-10	LF6W-1_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-J-11	LF6LH-1_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-J-11 DU	LF6LH-1_0519	SM 2120B	T	7 SU	50 mL	50 mL			
280-123924-I-12	LF6LH-2_0519	SM 2120B	T	7 SU	50 mL	50 mL			

Batch Notes	
Batch Comment	KS trained by CKB
pH Meter ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459417 Batch Start Date: 05/24/19 16:44 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	FirstAdjustpH	BuretStart1	BuretStop1
LCS 280-459417/1		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	10.10 mL
MB 280-459417/2		SM 2340C		25 mL	25 mL	7 SU	7 SU	0.00 mL	0.00 mL
280-123924-F-1	LF6VMW-22_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	4.13 mL
280-123924-F-1 MS	LF6VMW-22_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	14.43 mL
280-123924-F-1 MSD	LF6VMW-22_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	14.35 mL
280-123924-F-2	LF6VMW-10R2_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	3.21 mL
280-123924-F-3	LF6VMW-26_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	7.57 mL
280-123924-F-4	LF6MW-12_0519	SM 2340C	T	12.5 mL	25 mL	<2 SU	<2 SU	0.00 mL	5.87 mL
280-123924-F-5	LF6VMW-24_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	6.02 mL
280-123924-F-6	TMCMW-9_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	10.81 mL
280-123924-F-7	LF6/TMCSW-1_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	6.96 mL
280-123924-F-8	LF6/TMCSW-2_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	6.81 mL
280-123924-F-9	LF6/TMCSW-2_0519 -a	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	6.69 mL
280-123924-F-10	LF6W-1_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	1.83 mL
280-123924-F-11	LF6LH-1_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	2.81 mL
280-123924-F-12	LF6LH-2_0519	SM 2340C	T	25 mL	25 mL	<2 SU	<2 SU	0.00 mL	6.79 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00052				
LCS 280-459417/1		SM 2340C		10.1 mL	10 mL				
MB 280-459417/2		SM 2340C		0 mL					
280-123924-F-1	LF6VMW-22_0519	SM 2340C	T	4.13 mL					
280-123924-F-1 MS	LF6VMW-22_0519	SM 2340C	T	14.43 mL	10 mL				
280-123924-F-1 MSD	LF6VMW-22_0519	SM 2340C	T	14.35 mL	10 mL				
280-123924-F-2	LF6VMW-10R2_0519	SM 2340C	T	3.21 mL					
280-123924-F-3	LF6VMW-26_0519	SM 2340C	T	7.57 mL					
280-123924-F-4	LF6MW-12_0519	SM 2340C	T	5.87 mL					
280-123924-F-5	LF6VMW-24_0519	SM 2340C	T	6.02 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459417 Batch Start Date: 05/24/19 16:44 Batch Analyst: Sonnier, Kelly E

Batch Method: SM 2340C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	TitrantVolume1	Hard lcs std 00052				
280-123924-F-6	TMCMW-9_0519	SM 2340C	T	10.81 mL					
280-123924-F-7	LF6/TMCSW-1_0519	SM 2340C	T	6.96 mL					
280-123924-F-8	LF6/TMCSW-2_0519	SM 2340C	T	6.81 mL					
280-123924-F-9	LF6/TMCSW-2_0519 -a	SM 2340C	T	6.69 mL					
280-123924-F-10	LF6W-1_0519	SM 2340C	T	1.83 mL					
280-123924-F-11	LF6LH-1_0519	SM 2340C	T	2.81 mL					
280-123924-F-12	LF6LH-2_0519	SM 2340C	T	6.79 mL					

Batch Notes	
Batch Comment	KS trained by DA
Buffer Reagent ID	Mg EDTA 00011
Indicator Reagent ID	Hardness ind 00008
Nominal Amount Used	25 mL
pH Strip ID	HC869997
Pipette/Syringe/Dispenser ID	AZ 5000
Normality of First Titrant	0.01964 N
Titrant ID	EDTA Titrant 00090
Titrant Standardization Date	05/24/2019

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 456732 Batch Start Date: 05/02/19 10:05 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00254	IC Cal low 00455	IC CL ICV 00016	IC ICV 5 00232
STD 280-456732/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-456732/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-456732/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-456732/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-456732/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-456732/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-456732/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-456732/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-456732/2 IC		9056A							
STD 280-456732/3 IC		9056A							
STD 280-456732/4 IC		9056A							
STD 280-456732/5 IC		9056A							
STD 280-456732/6 IC		9056A							
STD 280-456732/7 IC		9056A							
ICV 280-456732/8		9056A		0.4 mL					
ICB 280-456732/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 456732 Batch Start Date: 05/02/19 10:05 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11 eluent_00566
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458327 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458		
STD 280-458327/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458327/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458327/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458327/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458327/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458327/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458328 Batch Start Date: 05/15/19 17:16 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00256	IC Cal low 00458		
STD 280-458328/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458328/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458328/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458328/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458328/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458328/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		

Batch Notes	
Eluent 1 ID	ic11 eluent_00568
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458552 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01578	IC LCS 01579
CCV 280-458552/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458552/2		9056A		5 mL	5 mL				
MRL 280-458552/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458552/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458552/5		9056A		5 mL	5 mL			5 mL	
MB 280-458552/6		9056A		5 mL	5 mL				
CCV 280-458552/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458552/18		9056A		5 mL	5 mL				
CCV 280-458552/40		9056A		5 mL	5 mL				5 mL
CCB 280-458552/41		9056A		5 mL	5 mL				
280-123924-H-1	LF6VMW-22_0519	9056A	T	5 mL	5 mL				
280-123924-J-3	LF6VMW-26_0519	9056A	T	5 mL	5 mL				
280-123924-J-3	LF6VMW-26_0519	9056A	T	5 mL	5 mL				
280-123924-J-2	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
CCV 280-458552/52		9056A		5 mL	5 mL				5 mL
CCB 280-458552/53		9056A		5 mL	5 mL				
280-123924-J-2 DU	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
280-123924-J-2 MS	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
280-123924-J-2 MSD	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
280-123924-H-4	LF6VMW-12_0519	9056A	T	5 mL	5 mL				
280-123924-H-4	LF6VMW-12_0519	9056A	T	5 mL	5 mL				
280-123924-I-5	LF6VMW-24_0519	9056A	T	5 mL	5 mL				
280-123924-I-5	LF6VMW-24_0519	9056A	T	5 mL	5 mL				
280-123924-I-6	TMCMW-9_0519	9056A	T	5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458552 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01578	IC LCS 01579
280-123924-I-6	TMCMW-9_0519	9056A	T	5 mL	5 mL				
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T	5 mL	5 mL				
CCV 280-458552/64		9056A		5 mL	5 mL				5 mL
CCB 280-458552/65		9056A		5 mL	5 mL				
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T	5 mL	5 mL				
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T	5 mL	5 mL				
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T	5 mL	5 mL				
280-123924-H-9	LF6/TMCSW-2_0519 -9	9056A	T	5 mL	5 mL				
280-123924-H-9	LF6/TMCSW-2_0519 -9	9056A	T	5 mL	5 mL				
280-123924-I-10	LF6W-1_0519	9056A	T	5 mL	5 mL				
280-123924-H-11	LF6H-1_0519	9056A	T	5 mL	5 mL				
280-123924-J-12	LF6H-2_0519	9056A	T	5 mL	5 mL				
280-123924-J-12	LF6H-2_0519	9056A	T	5 mL	5 mL				
CCV 280-458552/75		9056A		5 mL	5 mL				5 mL
CCB 280-458552/76		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
CCV 280-458552/1		9056A							
CCB 280-458552/2		9056A							
MRL 280-458552/3		9056A							
LCS 280-458552/4		9056A							
LCSD 280-458552/5		9056A							
MB 280-458552/6		9056A							
CCV 280-458552/17		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458552 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
CCB 280-458552/18		9056A							
CCV 280-458552/40		9056A							
CCB 280-458552/41		9056A							
280-123924-H-1	LF6VMW-22_0519	9056A	T						
280-123924-J-3	LF6VMW-26_0519	9056A	T						
280-123924-J-3	LF6VMW-26_0519	9056A	T						
280-123924-J-2	LF6VMW-10R2_0519	9056A	T						
CCV 280-458552/52		9056A							
CCB 280-458552/53		9056A							
280-123924-J-2 DU	LF6VMW-10R2_0519	9056A	T						
280-123924-J-2 MS	LF6VMW-10R2_0519	9056A	T	0.05 mL					
280-123924-J-2 MSD	LF6VMW-10R2_0519	9056A	T	0.05 mL					
280-123924-H-4	LF6VMW-12_0519	9056A	T						
280-123924-H-4	LF6VMW-12_0519	9056A	T						
280-123924-I-5	LF6VMW-24_0519	9056A	T						
280-123924-I-5	LF6VMW-24_0519	9056A	T						
280-123924-I-6	TMCMW-9_0519	9056A	T						
280-123924-I-6	TMCMW-9_0519	9056A	T						
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T						
CCV 280-458552/64		9056A							
CCB 280-458552/65		9056A							
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T						
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T						
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T						
280-123924-H-9	LF6/TMCSW-2_0519-9	9056A	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458552 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
280-123924-H-9	LF6/TMCSW-2_0519-9	9056A	T						
280-123924-I-10	LF6W-1_0519	9056A	T						
280-123924-H-11	LF6H-1_0519	9056A	T						
280-123924-J-12	LF6H-2_0519	9056A	T						
280-123924-J-12	LF6H-2_0519	9056A	T						
CCV 280-458552/75		9056A							
CCB 280-458552/76		9056A							

Batch Notes	
Eluent 1 ID	ic11 eluent_0570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458553 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01578	IC LCS 01579
CCV 280-458553/1		9056A		5 mL	5 mL			5 mL	
CCB 280-458553/2		9056A		5 mL	5 mL				
MRL 280-458553/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-458553/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-458553/5		9056A		5 mL	5 mL			5 mL	
MB 280-458553/6		9056A		5 mL	5 mL				
CCV 280-458553/17		9056A		5 mL	5 mL			5 mL	
CCB 280-458553/18		9056A		5 mL	5 mL				
CCV 280-458553/40		9056A		5 mL	5 mL				5 mL
CCB 280-458553/41		9056A		5 mL	5 mL				
280-123924-H-1	LF6VMW-22_0519	9056A	T	5 mL	5 mL				
280-123924-J-3	LF6VMW-26_0519	9056A	T	5 mL	5 mL				
280-123924-J-3	LF6VMW-26_0519	9056A	T	5 mL	5 mL				
280-123924-J-2	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
CCV 280-458553/52		9056A		5 mL	5 mL				5 mL
CCB 280-458553/53		9056A		5 mL	5 mL				
280-123924-J-2 DU	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
280-123924-J-2 MS	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
280-123924-J-2 MSD	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
280-123924-H-4	LF6VMW-12_0519	9056A	T	5 mL	5 mL				
280-123924-H-4	LF6VMW-12_0519	9056A	T	5 mL	5 mL				
280-123924-I-5	LF6VMW-24_0519	9056A	T	5 mL	5 mL				
280-123924-I-5	LF6VMW-24_0519	9056A	T	5 mL	5 mL				
280-123924-I-6	TMCMW-9_0519	9056A	T	5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458553 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC LCS 01578	IC LCS 01579
280-123924-I-6	TMCMW-9_0519	9056A	T	5 mL	5 mL				
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T	5 mL	5 mL				
CCV 280-458553/64		9056A		5 mL	5 mL				5 mL
CCB 280-458553/65		9056A		5 mL	5 mL				
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T	5 mL	5 mL				
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T	5 mL	5 mL				
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T	5 mL	5 mL				
280-123924-H-9	LF6/TMCSW-2_0519 -9	9056A	T	5 mL	5 mL				
280-123924-H-9	LF6/TMCSW-2_0519 -9	9056A	T	5 mL	5 mL				
280-123924-I-10	LF6W-1_0519	9056A	T	5 mL	5 mL				
280-123924-H-11	LF6H-1_0519	9056A	T	5 mL	5 mL				
280-123924-J-12	LF6H-2_0519	9056A	T	5 mL	5 mL				
280-123924-J-12	LF6H-2_0519	9056A	T	5 mL	5 mL				
CCV 280-458553/75		9056A		5 mL	5 mL				5 mL
CCB 280-458553/76		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
CCV 280-458553/1		9056A							
CCB 280-458553/2		9056A							
MRL 280-458553/3		9056A							
LCS 280-458553/4		9056A							
LCSD 280-458553/5		9056A							
MB 280-458553/6		9056A							
CCV 280-458553/17		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458553 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
CCB 280-458553/18		9056A							
CCV 280-458553/40		9056A							
CCB 280-458553/41		9056A							
280-123924-H-1	LF6VMW-22_0519	9056A	T						
280-123924-J-3	LF6VMW-26_0519	9056A	T						
280-123924-J-3	LF6VMW-26_0519	9056A	T						
280-123924-J-2	LF6VMW-10R2_0519	9056A	T						
CCV 280-458553/52		9056A							
CCB 280-458553/53		9056A							
280-123924-J-2 DU	LF6VMW-10R2_0519	9056A	T						
280-123924-J-2 MS	LF6VMW-10R2_0519	9056A	T	0.05 mL					
280-123924-J-2 MSD	LF6VMW-10R2_0519	9056A	T	0.05 mL					
280-123924-H-4	LF6VMW-12_0519	9056A	T						
280-123924-H-4	LF6VMW-12_0519	9056A	T						
280-123924-I-5	LF6VMW-24_0519	9056A	T						
280-123924-I-5	LF6VMW-24_0519	9056A	T						
280-123924-I-6	TMCMW-9_0519	9056A	T						
280-123924-I-6	TMCMW-9_0519	9056A	T						
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T						
CCV 280-458553/64		9056A							
CCB 280-458553/65		9056A							
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T						
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T						
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T						
280-123924-H-9	LF6/TMCSW-2_0519-9	9056A	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458553 Batch Start Date: 05/17/19 09:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICMS/MSD WEEK 00592					
280-123924-H-9	LF6/TMCSW-2_0519-9	9056A	T						
280-123924-I-10	LF6W-1_0519	9056A	T						
280-123924-H-11	LF6H-1_0519	9056A	T						
280-123924-J-12	LF6H-2_0519	9056A	T						
280-123924-J-12	LF6H-2_0519	9056A	T						
CCV 280-458553/75		9056A							
CCB 280-458553/76		9056A							

Batch Notes	
Eluent 1 ID	ic11 eluent_00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
STD 280-458776/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458776/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458776/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458776/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458776/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458776/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458776/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458776/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458776/2 IC		9056A							
STD 280-458776/3 IC		9056A							
STD 280-458776/4 IC		9056A							
STD 280-458776/5 IC		9056A							
STD 280-458776/6 IC		9056A							
STD 280-458776/7 IC		9056A							
ICV 280-458776/8		9056A		0.4 mL					
ICB 280-458776/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458776 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11_eluent00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00257	IC Cal low 00459	IC CL ICV 00016	IC ICV 5 00234
STD 280-458777/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-458777/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-458777/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-458777/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-458777/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-458777/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-458777/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-458777/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00017					
STD 280-458777/2 IC		9056A							
STD 280-458777/3 IC		9056A							
STD 280-458777/4 IC		9056A							
STD 280-458777/5 IC		9056A							
STD 280-458777/6 IC		9056A							
STD 280-458777/7 IC		9056A							
ICV 280-458777/8		9056A		0.4 mL					
ICB 280-458777/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458777 Batch Start Date: 05/20/19 15:15 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	ic11_eluent00570
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Sufficient Volume for Batch QC	Yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460231 Batch Start Date: 06/03/19 17:04 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00259	IC Cal low 00462	IC LCS 01593	ICMS/MSD WEEK 00595
CCV 280-460231/1		9056A		5 mL	5 mL			5 mL	
CCB 280-460231/2		9056A		5 mL	5 mL				
MRL 280-460231/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-460231/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-460231/5		9056A		5 mL	5 mL			5 mL	
MB 280-460231/6		9056A		5 mL	5 mL				
280-123924-H-1	LF6VMW-22_0519	9056A	T	5 mL	5 mL				
280-123924-H-1 DU	LF6VMW-22_0519	9056A	T	5 mL	5 mL				
280-123924-H-1 MS	LF6VMW-22_0519	9056A	T	5 mL	5 mL				0.05 mL
CCV 280-460231/17		9056A		5 mL	5 mL			5 mL	
CCB 280-460231/18		9056A		5 mL	5 mL				
280-123924-H-1 MSD	LF6VMW-22_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123924-J-2	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
280-123924-J-3	LF6VMW-26_0519	9056A	T	5 mL	5 mL				
280-123924-H-4	LF6VMW-12_0519	9056A	T	5 mL	5 mL				
280-123924-I-5	LF6VMW-24_0519	9056A	T	5 mL	5 mL				
280-123924-H-6	TMCMW-9_0519	9056A	T	5 mL	5 mL				
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T	5 mL	5 mL				
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T	5 mL	5 mL				
280-123924-H-9	LF6/TMCSW-2_0519 -a	9056A	T	5 mL	5 mL				
280-123924-I-10	LF6W-1_0519	9056A	T	5 mL	5 mL				
CCV 280-460231/29		9056A		5 mL	5 mL			5 mL	
CCB 280-460231/30		9056A		5 mL	5 mL				
280-123924-H-11	LF6LH-1_0519	9056A	T	5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460231 Batch Start Date: 06/03/19 17:04 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00259	IC Cal low 00462	IC LCS 01593	ICMS/MSD WEEK 00595
280-123924-J-12	LF6LH-2_0519	9056A	T	5 mL	5 mL				
CCV 280-460231/33		9056A		5 mL	5 mL			5 mL	
CCB 280-460231/34		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00575
Filter ID	r7ma6119
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460232 Batch Start Date: 06/03/19 17:04 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00259	IC Cal low 00462	IC LCS 01593	ICMS/MSD WEEK 00595
CCV 280-460232/1		9056A		5 mL	5 mL			5 mL	
CCB 280-460232/2		9056A		5 mL	5 mL				
MRL 280-460232/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-460232/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-460232/5		9056A		5 mL	5 mL			5 mL	
MB 280-460232/6		9056A		5 mL	5 mL				
280-123924-H-1	LF6VMW-22_0519	9056A	T	5 mL	5 mL				
280-123924-H-1 DU	LF6VMW-22_0519	9056A	T	5 mL	5 mL				
280-123924-H-1 MS	LF6VMW-22_0519	9056A	T	5 mL	5 mL				0.05 mL
CCV 280-460232/17		9056A		5 mL	5 mL			5 mL	
CCB 280-460232/18		9056A		5 mL	5 mL				
280-123924-H-1 MSD	LF6VMW-22_0519	9056A	T	5 mL	5 mL				0.05 mL
280-123924-J-2	LF6VMW-10R2_0519	9056A	T	5 mL	5 mL				
280-123924-J-3	LF6VMW-26_0519	9056A	T	5 mL	5 mL				
280-123924-H-4	LF6VMW-12_0519	9056A	T	5 mL	5 mL				
280-123924-I-5	LF6VMW-24_0519	9056A	T	5 mL	5 mL				
280-123924-H-6	TMCMW-9_0519	9056A	T	5 mL	5 mL				
280-123924-I-7	LF6/TMCSW-1_0519	9056A	T	5 mL	5 mL				
280-123924-H-8	LF6/TMCSW-2_0519	9056A	T	5 mL	5 mL				
280-123924-H-9	LF6/TMCSW-2_0519 -a	9056A	T	5 mL	5 mL				
280-123924-I-10	LF6W-1_0519	9056A	T	5 mL	5 mL				
CCV 280-460232/29		9056A		5 mL	5 mL			5 mL	
CCB 280-460232/30		9056A		5 mL	5 mL				
280-123924-H-11	LF6LH-1_0519	9056A	T	5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 460232 Batch Start Date: 06/03/19 17:04 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00259	IC Cal low 00462	IC LCS 01593	ICMS/MSD WEEK 00595
280-123924-J-12	LF6LH-2_0519	9056A	T	5 mL	5 mL				
CCV 280-460232/33		9056A		5 mL	5 mL			5 mL	
CCB 280-460232/34		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00575
Filter ID	r7ma61819
Pipette/Syringe/Dispenser ID	5000ics, 1000d, ic100
Sufficient Volume for Batch QC	yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 461179 Batch Start Date: 06/10/19 17:09 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-461179/1		9060A		50 mL	50 mL	1 mL			
ICB 280-461179/2		9060A		20 mL	20 mL				
CCV 280-461179/39		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/40		9060A		20 mL	20 mL				
LCS 280-461179/41		9060A		200 mL	200 mL		5 mL		
MB 280-461179/42		9060A		20 mL	20 mL				
CCV 280-461179/51		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/52		9060A		20 mL	20 mL				
CCV 280-461179/63		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/64		9060A		20 mL	20 mL				
280-123924-G-1	LF6VMW-22_0519	9060A	T	20 mL	20 mL				
280-123924-G-2	LF6VMW-10R2_0519	9060A	T	20 mL	20 mL				
280-123924-G-3	LF6VMW-26_0519	9060A	T	20 mL	20 mL				
280-123924-G-4	LF6MW-12_0519	9060A	T	20 mL	20 mL				
280-123924-G-5	LF6VMW-24_0519	9060A	T	20 mL	20 mL				
CCV 280-461179/72		9060A		200 mL	200 mL	5 mL			
CCB 280-461179/73		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 461179 Batch Start Date: 06/10/19 17:09 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 461180 Batch Start Date: 06/10/19 17:09 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC LCS Std 00046			
LCS 280-461180/41		9060A		200 mL	200 mL	5 mL			
MB 280-461180/42		9060A		20 mL	20 mL				
280-123924-G-1	LF6VMW-22_0519	9060A	T	20 mL	20 mL				
280-123924-G-2	LF6VMW-10R2_0519	9060A	T	20 mL	20 mL				
280-123924-G-3	LF6VMW-26_0519	9060A	T	20 mL	20 mL				
280-123924-G-4	LF6MW-12_0519	9060A	T	20 mL	20 mL				
280-123924-G-5	LF6VMW-24_0519	9060A	T	20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000CCJ, WC1000CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 461295 Batch Start Date: 06/11/19 17:26 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC ICV Std 00037	TOC LCS Std 00046		
ICV 280-461295/1		9060A		50 mL	50 mL	1 mL			
ICB 280-461295/2		9060A		20 mL	20 mL				
CCV 280-461295/27		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/28		9060A		20 mL	20 mL				
LCS 280-461295/34		9060A		200 mL	200 mL		5 mL		
MB 280-461295/35		9060A		20 mL	20 mL				
280-123924-G-6	TMCMW-9_0519	9060A	T	20 mL	20 mL				
280-123924-E-7	LF6/TMCSW-1_0519	9060A	T	20 mL	20 mL				
CCV 280-461295/39		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/40		9060A		20 mL	20 mL				
280-123924-E-8	LF6/TMCSW-2_0519	9060A	T	20 mL	20 mL				
280-123924-E-8 MS	LF6/TMCSW-2_0519	9060A	T	50 mL	50 mL		1.25 mL		
280-123924-E-8 MSD	LF6/TMCSW-2_0519	9060A	T	50 mL	50 mL		1.25 mL		
280-123924-D-9	LF6/TMCSW-2_0519 -a	9060A	T	20 mL	20 mL				
280-123924-D-10	LF6W-1_0519	9060A	T	20 mL	20 mL				
280-123924-C-11	LF6LH-1_0519	9060A	T	20 mL	20 mL				
280-123924-D-12	LF6LH-2_0519	9060A	T	20 mL	20 mL				
CCV 280-461295/51		9060A		200 mL	200 mL	5 mL			
CCB 280-461295/52		9060A		20 mL	20 mL				

Batch Notes	
Acid ID	0.2%H2SO4)_00318, H2SO4_00199
Combustion Catylyst ID	17007D-01
Pipette/Syringe/Dispenser ID	WC5000AZ, WC1000LL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 461295 Batch Start Date: 06/11/19 17:26 Batch Analyst: Jewell, Connie C

Batch Method: 9060A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459192 Batch Start Date: 05/22/19 18:11 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
CCV 280-459192/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/29		SM 2320B		InitialAmount is blank					
LCS 280-459192/30		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459192/31		SM 2320B		InitialAmount is blank					
CCV 280-459192/42		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/43		SM 2320B		InitialAmount is blank					
CCV 280-459192/54		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/55		SM 2320B		InitialAmount is blank					
280-123924-B-1	LF6VMW-22_0519	SM 2320B	T	InitialAmount is blank					
280-123924-B-2	LF6VMW-10R2_0519	SM 2320B	T	InitialAmount is blank					
280-123924-A-3	LF6VMW-26_0519	SM 2320B	T	InitialAmount is blank					
280-123924-A-4	LF6MW-12_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459192/66		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459192/67		SM 2320B		InitialAmount is blank					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459192 Batch Start Date: 05/22/19 18:11 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Acid ID	0.02 H2SO4_00258
pH Buffer 1 ID	pH 2.0 buffer_00079
pH Buffer 2 ID	pH 4.0 buffer_00178
pH Buffer 3 ID	pH 7.0 buffer_00258
pH Buffer 4 ID	pH 10 buffer_00142
pH Buffer 5 ID	pH 12 buffer_00148
pH Buffer 6 ID	pH 7.0 buffer_00147
Sodium Carbonate ID	Alk Stk Std_00016
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000 ADI
Probe ID	PCE 86 pH 1105 sep14
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00821				
CCV 280-459576/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/29		SM 2320B		InitialAmount is blank					
LCS 280-459576/30		SM 2320B		InitialAmount is blank	10 mL				
MB 280-459576/31		SM 2320B		InitialAmount is blank					
280-123924-A-5	LF6VMW-24_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/42		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/43		SM 2320B		InitialAmount is blank					
280-123924-B-6	TMCMW-9_0519	SM 2320B	T	InitialAmount is blank					
280-123924-B-7	LF6/TMCSW-1_0519	SM 2320B	T	InitialAmount is blank					
280-123924-B-8	LF6/TMCSW-2_0519	SM 2320B	T	InitialAmount is blank					
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM 2320B	T	InitialAmount is blank					
280-123924-A-10	LF6W-1_0519	SM 2320B	T	InitialAmount is blank					
280-123924-A-11	LF6LH-1_0519	SM 2320B	T	InitialAmount is blank					
280-123924-B-12	LF6LH-2_0519	SM 2320B	T	InitialAmount is blank					
CCV 280-459576/54		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-459576/55		SM 2320B		InitialAmount is blank					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459576 Batch Start Date: 05/24/19 17:32 Batch Analyst: Barker, Scott G

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Acid ID	0.02 H2SO4_00260
pH Buffer 1 ID	pH 2.0 buffer_00079
pH Buffer 2 ID	pH 4. 0 buffer_00178
pH Buffer 3 ID	pH 7.0 buffer_00258
pH Buffer 4 ID	pH 10 buffer_00142
pH Buffer 5 ID	pH 12 buffer_00148
pH Buffer 6 ID	pH 7.0 buffer_00257
Sodium Carbonate ID	Alk Stk Std_00016
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000 ADI
Probe ID	PCE 86 pH 1105 sep14
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459057 Batch Start Date: 05/22/19 12:03 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-459057/1		SM 2540C		0.41 umhos/cm	3.6966A0384007	3.6966 g	100 mL	3.6988 g	3.6983 g
LCS 280-459057/2		SM 2540C			3.8209A0383175	3.8209 g	100 mL	3.8706 g	3.8701 g
280-123924-B-1	LF6VMW-22_0519	SM 2540C	T	315 umhos/cm	3.9623A0383176	3.9623 g	100 mL	3.9805 g	3.9802 g
280-123924-B-1 DU	LF6VMW-22_0519	SM 2540C	T	315 umhos/cm	3.9688A0383177	3.9688 g	100 mL	3.9893 g	3.9872 g
280-123924-A-3	LF6VMW-26_0519	SM 2540C	T	922 umhos/cm	3.9827A0383179	3.9827 g	100 mL	4.0319 g	4.0315 g
280-123924-A-4	LF6MW-12_0519	SM 2540C	T	1025 umhos/cm	3.8926A0383180	3.8926 g	100 mL	3.9504 g	3.9501 g
280-123924-A-5	LF6VMW-24_0519	SM 2540C	T	1259 umhos/cm	3.5119A0383181	3.5119 g	50 mL	3.5456 g	3.5451 g
280-123924-B-6	TMCMW-9_0519	SM 2540C	T	890 umhos/cm	3.4527A0383182	3.4527 g	100 mL	3.5051 g	3.5043 g
280-123924-B-7	LF6/TMCSW-1_0519	SM 2540C	T	1210 umhos/cm	3.4919A0383183	3.4919 g	50 mL	3.5291 g	3.5286 g
280-123924-B-8	LF6/TMCSW-2_0519	SM 2540C	T	1283 umhos/cm	3.5433A0383184	3.5433 g	50 mL	3.5770 g	3.5769 g
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM 2540C	T	1272 umhos/cm	3.9693A0383185	3.9693 g	50 mL	4.0048 g	4.0044 g
280-123924-B-12	LF6LH-2_0519	SM 2540C	T	1269 umhos/cm	4.0101A0383196	4.0101 g	50 mL	4.0438 g	4.0438 g
280-123924-B-12 DU	LF6LH-2_0519	SM 2540C	T	1269 umhos/cm	3.9905A0383197	3.9905 g	50 mL	4.0275 g	4.0271 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight3	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2
MB 280-459057/1		SM 2540C			Pass No Unit	N/A No Unit	N/A	0.0022 g	0.0017 g
LCS 280-459057/2		SM 2540C			Pass No Unit	N/A No Unit	N/A	0.0497 g	0.0492 g
280-123924-B-1	LF6VMW-22_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0182 g	0.0179 g
280-123924-B-1 DU	LF6VMW-22_0519	SM 2540C	T	3.9871 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0205 g	0.0184 g
280-123924-A-3	LF6VMW-26_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0492 g	0.0488 g
280-123924-A-4	LF6MW-12_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0578 g	0.0575 g
280-123924-A-5	LF6VMW-24_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0337 g	0.0332 g
280-123924-B-6	TMCMW-9_0519	SM 2540C	T	3.5046 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0524 g	0.0516 g
280-123924-B-7	LF6/TMCSW-1_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0372 g	0.0367 g
280-123924-B-8	LF6/TMCSW-2_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0337 g	0.0336 g
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0355 g	0.0351 g
280-123924-B-12	LF6LH-2_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.0337 g	0.0337 g

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459057 Batch Start Date: 05/22/19 12:03 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight3	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2
280-123924-B-12 DU	LF6LH-2_0519	SM 2540C	T		Pass No Unit	N/A No Unit	N/A	0.037 g	0.0366 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue3	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00055	
MB 280-459057/1		SM 2540C		N/A g	N/A g	100 mL	OK		
LCS 280-459057/2		SM 2540C		N/A g	N/A g	100 mL	OK	100 mL	
280-123924-B-1	LF6VMW-22_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123924-B-1 DU	LF6VMW-22_0519	SM 2540C	T	0.0183 g	N/A g	100 mL	OK		
280-123924-A-3	LF6VMW-26_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123924-A-4	LF6MW-12_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123924-A-5	LF6VMW-24_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123924-B-6	TMCMW-9_0519	SM 2540C	T	0.0519 g	N/A g	100 mL	OK		
280-123924-B-7	LF6/TMCSW-1_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123924-B-8	LF6/TMCSW-2_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123924-B-12	LF6LH-2_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		
280-123924-B-12 DU	LF6LH-2_0519	SM 2540C	T	N/A g	N/A g	100 mL	OK		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459057 Batch Start Date: 05/22/19 12:03 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	05/29/2019 20:39
Date/Time - Out - CW (WT2)	05/29/2019 21:42
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Date/Time - In - CW (WT3)	05/29/2019 22:26
Date/Time - Out - CW (WT3)	05/30/2019 17:55
Temperature - Start - CW (WT3) - Correct	180 Celsius
Temperature - End - CW (WT3) - Correct	180 Celsius
Temperature - Start-CW(WT3) -Uncorrected	180 Celsius
Temperature - End-CW(WT3) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	05/22/2019 14:54
Date/Time - Out	05/23/2019 10:00
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	05/23/2019 10:00 No Unit
Weight(WT1) Date/Time Out	05/29/2019 20:25

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 459057 Batch Start Date: 05/22/19 12:03 Batch Analyst: Setjoadi, Mayori J

Batch Method: SM 2540C Batch End Date:

Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	180 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 461044 Batch Start Date: 06/10/19 13:58 Batch Analyst: Larson, Eric C

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 280-461044/1		SM 2540C		100 umhos/cm	3.4619A0383399	3.4619 g	100 mL	3.4623 g	3.4623 g
LCS 280-461044/2		SM 2540C		100 umhos/cm	3.4924A0383398	3.4924 g	100 mL	3.5441 g	3.5437 g
280-123924-B-2	LF6VMW-10R2_0519	SM 2540C	T	100 umhos/cm	3.6182A0383248	3.6182 g	100 mL	3.6334 g	3.6338 g
280-123924-A-10	LF6W-1_0519	SM 2540C	T	100 umhos/cm	3.6743A0383249	3.6743 g	100 mL	3.6848 g	3.6843 g
280-123924-A-11	LF6LH-1_0519	SM 2540C	T	100 umhos/cm	3.2290A0383474	3.2290 g	100 mL	3.2411 g	3.2407 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 280-461044/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0004 g	0.0004 g	N/A g
LCS 280-461044/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0517 g	0.0513 g	N/A g
280-123924-B-2	LF6VMW-10R2_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0152 g	0.0156 g	N/A g
280-123924-A-10	LF6W-1_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0105 g	0.01 g	N/A g
280-123924-A-11	LF6LH-1_0519	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0121 g	0.0117 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS_00537 00057		
MB 280-461044/1		SM 2540C		N/A g	100 mL	OK			
LCS 280-461044/2		SM 2540C		N/A g	100 mL	OK	100 mL		
280-123924-B-2	LF6VMW-10R2_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123924-A-10	LF6W-1_0519	SM 2540C	T	N/A g	100 mL	OK			
280-123924-A-11	LF6LH-1_0519	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 461044 Batch Start Date: 06/10/19 13:58 Batch Analyst: Larson, Eric C

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	19350788
Conductivity Meter ID	Orion Star A112
Date/Time - In - CW (WT2)	06/13/2019 12:37
Date/Time - Out - CW (WT2)	06/13/2019 13:50
Temperature - Start - CW (WT2) - Correct	180 Celsius
Temperature - End - CW (WT2) - Correct	180 Celsius
Temperature - Start-CW(WT2) -Uncorrected	180 Celsius
Temperature - End-CW(WT2) -Uncorrected	180 Celsius
Date/Time - In - CW (WT3)	06/13/2019 15:15
Temperature - Start - CW (WT3) - Correct	180 Celsius
Temperature - Start-CW(WT3) -Uncorrected	180 Celsius
Temperature - Start - Corrected	95 Celsius
Temperature - End - Corrected	95 Celsius
Date/Time - In	06/11/2019 04:18
Date/Time - Out	06/12/2019 10:18
Filter ID	600018-8039-AM
Nominal Amount Used	100 mL
Oven ID	F, C
Oven ID - Low Temperature	B
Pipette/Syringe/Dispenser ID	5 mL MAS
Thermometer ID - Low Temperature	Oven B
Thermometer ID	2616, 14-983-176
Temperature - Start - Uncorrected	95 Celsius
Temperature - End - Uncorrected	95 Celsius
Vessel Lot ID	RW0004801-9126-AZ
Weight(WT1) Start Date/Time	06/12/2019 10:18 No Unit
Weight(WT1) Date/Time Out	06/13/2019 08:00
Weight(WT1) Start Temp	180 Celsius
Weight(WT1) Temp Out	180 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 461044 Batch Start Date: 06/10/19 13:58 Batch Analyst: Larson, Eric C

Batch Method: SM 2540C Batch End Date:

Uncorrected Weight(WT1) Temp Out	180 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	Initial_DO	InitialTemp	Final pH	Bot1Num
SCB 280-458606/1		SM5210B				7.08	22.14 Celsius		1
USB 280-458606/2		SM5210B				7.07	22.14 Celsius		5
LCS 280-458606/3		SM5210B				7.09	22.12 Celsius		8
MB 280-458606/4		SM5210B				7.09	22.02 Celsius		11
280-123924-A-1	LF6VMW-22_0519	SM5210B	T	7.70 SU	no	7.12	21.72 Celsius	7.70 SU	27
280-123924-A-2	LF6VMW-10R2_0519	SM5210B	T	8.02 SU	no	7.11	21.75 Celsius	7.42 SU	30
280-123924-B-3	LF6VMW-26_0519	SM5210B	T	7.74 SU	no	7.12	21.69 Celsius	7.74 SU	33
280-123924-A-4	LF6MW-12_0519	SM5210B	T	6.70 SU	no	7.10	21.71 Celsius	6.70 SU	36
280-123924-A-5	LF6VMW-24_0519	SM5210B	T	7.93 SU	no	7.13	21.63 Celsius	7.93 SU	39
280-123924-B-6	TMCMW-9_0519	SM5210B	T	7.09 SU	no	7.14	21.60 Celsius	7.09 SU	42
280-123924-B-7	LF6/TMCSW-1_0519	SM5210B	T	7.10 SU	no	7.14	21.56 Celsius	7.10 SU	45
280-123924-B-8	LF6/TMCSW-2_0519	SM5210B	T	7.74 SU	no	7.13	21.56 Celsius	7.74 SU	48
280-123924-B-9	LF6/TMCSW-2_0519-a	SM5210B	T	7.71 SU	no	7.12	21.52 Celsius	7.71 SU	51
280-123924-B-10	LF6W-1_0519	SM5210B	T	6.82 SU	no	7.11	21.51 Celsius	6.82 SU	54
280-123924-B-11	LF6LH-1_0519	SM5210B	T	7.32 SU	no	7.12	21.48 Celsius	7.32 SU	57
280-123924-A-12	LF6LH-2_0519	SM5210B	T	7.72 SU	no	7.12	21.45 Celsius	7.72 SU	60

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
SCB 280-458606/1		SM5210B		22.15 Celsius	15 mL	6.94 mg/L	4.38 mg/L	2.56 mg/L	0.683 mg/L
USB 280-458606/2		SM5210B		22.24 Celsius	300 mL	6.82 mg/L	6.63 mg/L	0.19 mg/L	0.19 mg/L
LCS 280-458606/3		SM5210B		22.10 Celsius	6 mL	6.98 mg/L	2.24 mg/L	4.74 mg/L	206.47 mg/L
MB 280-458606/4		SM5210B		22.04 Celsius	300 mL	6.90 mg/L	6.13 mg/L	0.77 mg/L	0.159 mg/L
280-123924-A-1	LF6VMW-22_0519	SM5210B	T	21.74 Celsius	60 mL	7.12 mg/L	6.39 mg/L	0.73 mg/L	0.597 mg/L
280-123924-A-2	LF6VMW-10R2_0519	SM5210B	T	21.72 Celsius	60 mL	7.13 mg/L	6.40 mg/L	0.73 mg/L	0.597 mg/L
280-123924-B-3	LF6VMW-26_0519	SM5210B	T	21.77 Celsius	60 mL	6.98 mg/L	6.21 mg/L	0.77 mg/L	0.797 mg/L
280-123924-A-4	LF6MW-12_0519	SM5210B	T	21.85 Celsius	10 mL	6.92 mg/L	4.31 mg/L	2.61 mg/L	59.982 mg/L
280-123924-A-5	LF6VMW-24_0519	SM5210B	T	21.59 Celsius	60 mL	6.87 mg/L	6.10 mg/L	0.77 mg/L	0.797 mg/L

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Temp	Bot1Amt	Bot1IDO	Bot1FDO	Bot1Dep	Bot1BOD
280-123924-B-6	TMCMW-9_0519	SM5210B	T	21.56 Celsius	60 mL	7.03 mg/L	6.16 mg/L	0.87 mg/L	1.297 mg/L
280-123924-B-7	LF6/TMCSW-1_0519	SM5210B	T	21.58 Celsius	60 mL	7.28 mg/L	6.34 mg/L	0.94 mg/L	1.647 mg/L
280-123924-B-8	LF6/TMCSW-2_0519	SM5210B	T	21.57 Celsius	60 mL	7.27 mg/L	6.33 mg/L	0.94 mg/L	1.647 mg/L
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM5210B	T	21.55 Celsius	60 mL	7.30 mg/L	6.35 mg/L	0.95 mg/L	1.697 mg/L
280-123924-B-10	LF6W-1_0519	SM5210B	T	21.61 Celsius	10 mL	7.00 mg/L	6.07 mg/L	0.93 mg/L	9.582 mg/L
280-123924-B-11	LF6LH-1_0519	SM5210B	T	21.37 Celsius	60 mL	7.31 mg/L	6.32 mg/L	0.99 mg/L	1.897 mg/L
280-123924-A-12	LF6LH-2_0519	SM5210B	T	21.57 Celsius	60 mL	7.30 mg/L	6.28 mg/L	1.02 mg/L	2.047 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
SCB 280-458606/1		SM5210B		No. % DO < 50%	37 %	2	22.10 Celsius	20 mL	6.96 mg/L
USB 280-458606/2		SM5210B		Yes. USB		6	22.22 Celsius	300 mL	6.80 mg/L
LCS 280-458606/3		SM5210B		YES. Pass		9	21.99 Celsius	6 mL	6.99 mg/L
MB 280-458606/4		SM5210B		No. DO Deplete Fail					
280-123924-A-1	LF6VMW-22_0519	SM5210B	T	No. DO Deplete Fail		28	21.21 Celsius	120 mL	7.36 mg/L
280-123924-A-2	LF6VMW-10R2_0519	SM5210B	T	No. DO Deplete Fail		31	21.25 Celsius	120 mL	7.38 mg/L
280-123924-B-3	LF6VMW-26_0519	SM5210B	T	No. DO Deplete Fail		34	21.24 Celsius	120 mL	6.95 mg/L
280-123924-A-4	LF6MW-12_0519	SM5210B	T	YES. Pass		37	21.50 Celsius	25 mL	6.82 mg/L
280-123924-A-5	LF6VMW-24_0519	SM5210B	T	No. DO Deplete Fail		40	21.07 Celsius	120 mL	6.76 mg/L
280-123924-B-6	TMCMW-9_0519	SM5210B	T	No. DO Deplete Fail		43	21.06 Celsius	120 mL	7.03 mg/L
280-123924-B-7	LF6/TMCSW-1_0519	SM5210B	T	No. DO Deplete Fail		46	21.06 Celsius	120 mL	7.72 mg/L
280-123924-B-8	LF6/TMCSW-2_0519	SM5210B	T	No. DO Deplete Fail		49	21.08 Celsius	120 mL	7.77 mg/L
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM5210B	T	No. DO Deplete Fail		52	21.13 Celsius	120 mL	7.79 mg/L
280-123924-B-10	LF6W-1_0519	SM5210B	T	No. DO Deplete Fail		55	21.31 Celsius	25 mL	7.03 mg/L
280-123924-B-11	LF6LH-1_0519	SM5210B	T	No. DO Deplete Fail		58	21.06 Celsius	120 mL	7.65 mg/L

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GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot1Use	Bot1%DO	Bot2Num	Bot2Temp	Bot2Amt	Bot2IDO
280-123924-A-12	LF6LH-2_0519	SM5210B	T	No. DO Deplete Fail		61	21.08 Celsius	120 mL	7.78 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot2FDO	Bot2%DO	Bot2Dep	Bot2BOD	Bot2Use	Bot3Num
SCB 280-458606/1		SM5210B		3.92 mg/L	44 %	3.04 mg/L	0.608 mg/L	Yes	3
USB 280-458606/2		SM5210B		6.67 mg/L		0.13 mg/L	0.13 mg/L	Yes. Pass	7
LCS 280-458606/3		SM5210B		2.42 mg/L		4.57 mg/L	197.97 mg/L	YES. Pass	10
MB 280-458606/4		SM5210B							
280-123924-A-1	LF6VMW-22_0519	SM5210B	T	6.67 mg/L		0.69 mg/L	0.199 mg/L	No. DO Deplete Fail	29
280-123924-A-2	LF6VMW-10R2_0519	SM5210B	T	6.63 mg/L		0.75 mg/L	0.349 mg/L	No. DO Deplete Fail	32
280-123924-B-3	LF6VMW-26_0519	SM5210B	T	6.15 mg/L		0.8 mg/L	0.474 mg/L	No. DO Deplete Fail	35
280-123924-A-4	LF6MW-12_0519	SM5210B	T	1.68 mg/L		5.14 mg/L	54.353 mg/L	YES. Pass	38
280-123924-A-5	LF6VMW-24_0519	SM5210B	T	5.92 mg/L		0.84 mg/L	0.574 mg/L	No. DO Deplete Fail	41
280-123924-B-6	TMCMW-9_0519	SM5210B	T	6.01 mg/L		1.02 mg/L	1.024 mg/L	No. DO Deplete Fail	44
280-123924-B-7	LF6/TMCSW-1_0519	SM5210B	T	6.59 mg/L		1.13 mg/L	1.299 mg/L	No. DO Deplete Fail	47
280-123924-B-8	LF6/TMCSW-2_0519	SM5210B	T	6.74 mg/L		1.03 mg/L	1.049 mg/L	No. DO Deplete Fail	50
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM5210B	T	6.65 mg/L		1.14 mg/L	1.324 mg/L	No. DO Deplete Fail	53
280-123924-B-10	LF6W-1_0519	SM5210B	T	6.01 mg/L		1.02 mg/L	4.913 mg/L	No. DO Deplete Fail	56
280-123924-B-11	LF6LH-1_0519	SM5210B	T	6.38 mg/L		1.27 mg/L	1.649 mg/L	No. DO Deplete Fail	59
280-123924-A-12	LF6LH-2_0519	SM5210B	T	6.61 mg/L		1.17 mg/L	1.399 mg/L	No. DO Deplete Fail	62

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
SCB 280-458606/1		SM5210B		22.10 Celsius	25 mL	6.99 mg/L	3.20 mg/L	3.79 mg/L	0.606 mg/L
USB 280-458606/2		SM5210B		22.20 Celsius	300 mL	6.82 mg/L	6.67 mg/L	0.15 mg/L	0.15 mg/L

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3Temp	Bot3Amt	Bot3IDO	Bot3FDO	Bot3Dep	Bot3BOD
LCS 280-458606/3		SM5210B		21.96 Celsius	6 mL	7.02 mg/L	2.39 mg/L	4.63 mg/L	200.97 mg/L
MB 280-458606/4		SM5210B							
280-123924-A-1	LF6VMW-22_0519	SM5210B	T	20.64 Celsius	240 mL	7.84 mg/L	6.63 mg/L	1.21 mg/L	0.749 mg/L
280-123924-A-2	LF6VMW-10R2_0519	SM5210B	T	20.58 Celsius	240 mL	7.92 mg/L	6.79 mg/L	1.13 mg/L	0.649 mg/L
280-123924-B-3	LF6VMW-26_0519	SM5210B	T	20.54 Celsius	240 mL	6.91 mg/L	5.90 mg/L	1.01 mg/L	0.499 mg/L
280-123924-A-4	LF6MW-12_0519	SM5210B	T	20.76 Celsius	240 mL	6.97 mg/L	0.09 mg/L	6.88 mg/L	7.837 mg/L
280-123924-A-5	LF6VMW-24_0519	SM5210B	T	20.62 Celsius	240 mL	7.28 mg/L	6.43 mg/L	0.85 mg/L	0.299 mg/L
280-123924-B-6	TMCMW-9_0519	SM5210B	T	20.60 Celsius	240 mL	7.02 mg/L	5.74 mg/L	1.28 mg/L	0.837 mg/L
280-123924-B-7	LF6/TMCSW-1_0519	SM5210B	T	20.68 Celsius	240 mL	7.87 mg/L	6.75 mg/L	1.12 mg/L	0.637 mg/L
280-123924-B-8	LF6/TMCSW-2_0519	SM5210B	T	20.68 Celsius	240 mL	7.83 mg/L	6.73 mg/L	1.1 mg/L	0.612 mg/L
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM5210B	T	20.83 Celsius	240 mL	7.89 mg/L	6.73 mg/L	1.16 mg/L	0.687 mg/L
280-123924-B-10	LF6W-1_0519	SM5210B	T	20.85 Celsius	240 mL	7.60 mg/L	4.78 mg/L	2.82 mg/L	2.762 mg/L
280-123924-B-11	LF6LH-1_0519	SM5210B	T	20.85 Celsius	240 mL	7.75 mg/L	6.31 mg/L	1.44 mg/L	1.037 mg/L
280-123924-A-12	LF6LH-2_0519	SM5210B	T	20.83 Celsius	240 mL	7.79 mg/L	6.62 mg/L	1.17 mg/L	0.699 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
SCB 280-458606/1		SM5210B		54 %	YES. Pass	4	22.11 Celsius	30 mL	6.98 mg/L
USB 280-458606/2		SM5210B			Yes. Pass				
LCS 280-458606/3		SM5210B			YES. Pass				
MB 280-458606/4		SM5210B							
280-123924-A-1	LF6VMW-22_0519	SM5210B	T		NO. Deplete Fail				
280-123924-A-2	LF6VMW-10R2_0519	SM5210B	T		NO. Deplete Fail				
280-123924-B-3	LF6VMW-26_0519	SM5210B	T		NO. Deplete Fail				
280-123924-A-4	LF6MW-12_0519	SM5210B	T		NO. Final DO Fail				
280-123924-A-5	LF6VMW-24_0519	SM5210B	T		NO. Deplete Fail				

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GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot3%DO	Bot3Use	Bot4Num	Bot4Temp	Bot4Amt	Bot4IDO
280-123924-B-6	TMCMW-9_0519	SM5210B	T		NO. Deplete Fail				
280-123924-B-7	LF6/TMCSW-1_0519	SM5210B	T		NO. Deplete Fail				
280-123924-B-8	LF6/TMCSW-2_0519	SM5210B	T		NO. Deplete Fail				
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM5210B	T		NO. Deplete Fail				
280-123924-B-10	LF6W-1_0519	SM5210B	T		YES. Pass				
280-123924-B-11	LF6LH-1_0519	SM5210B	T		NO. Deplete Fail				
280-123924-A-12	LF6LH-2_0519	SM5210B	T		NO. Deplete Fail				

Lab Sample ID	Client Sample ID	Method Chain	Basis	Bot4FDO	Bot4Dep	Bot4BOD	Bot4%DO	Bot4Use	FinalAmount
SCB 280-458606/1		SM5210B		2.35 mg/L	4.63 mg/L	0.617 mg/L	66 %	YES. Pass	300 mL
USB 280-458606/2		SM5210B							300 mL
LCS 280-458606/3		SM5210B							300 mL
MB 280-458606/4		SM5210B							300 mL
280-123924-A-1	LF6VMW-22_0519	SM5210B	T						300 mL
280-123924-A-2	LF6VMW-10R2_0519	SM5210B	T						300 mL
280-123924-B-3	LF6VMW-26_0519	SM5210B	T						300 mL
280-123924-A-4	LF6MW-12_0519	SM5210B	T						300 mL
280-123924-A-5	LF6VMW-24_0519	SM5210B	T						300 mL
280-123924-B-6	TMCMW-9_0519	SM5210B	T						300 mL
280-123924-B-7	LF6/TMCSW-1_0519	SM5210B	T						300 mL
280-123924-B-8	LF6/TMCSW-2_0519	SM5210B	T						300 mL
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM5210B	T						300 mL
280-123924-B-10	LF6W-1_0519	SM5210B	T						300 mL
280-123924-B-11	LF6LH-1_0519	SM5210B	T						300 mL
280-123924-A-12	LF6LH-2_0519	SM5210B	T						300 mL

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GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
SCB 280-458606/1		SM5210B		7.13	21.61 Celsius				
USB 280-458606/2		SM5210B		7.18	21.33 Celsius				
LCS 280-458606/3		SM5210B		7.18	21.30 Celsius	6 mL			
MB 280-458606/4		SM5210B		7.14	21.26 Celsius				
280-123924-A-1	LF6VMW-22_0519	SM5210B	T	7.11	20.97 Celsius		pH temp=14.0, color= clear/slightly turbid		
280-123924-A-2	LF6VMW-10R2_0519	SM5210B	T	7.16	20.94 Celsius		pH temp= 14.5, color= clear/ slightly turbid		
280-123924-B-3	LF6VMW-26_0519	SM5210B	T	7.19	20.87 Celsius		pH temp= 14.6, color= clear/slightly turbid		
280-123924-A-4	LF6MW-12_0519	SM5210B	T	7.14	20.81 Celsius		pH temp= 14.3, color= blackish/gray/turbid/suspended solid black flakes		
280-123924-A-5	LF6VMW-24_0519	SM5210B	T	7.08	20.81 Celsius		pH temp= 15.1, color= clear		
280-123924-B-6	TMCMW-9_0519	SM5210B	T	7.14	20.71 Celsius		pH temp= 15.2, color= clear		
280-123924-B-7	LF6/TMCSW-1_0519	SM5210B	T	7.12	20.69 Celsius		pH temp= 15.5, color=clear/slightly turbid		
280-123924-B-8	LF6/TMCSW-2_0519	SM5210B	T	7.14	20.57 Celsius		pH temp 15.7, color= clear/slightly turbid		
280-123924-B-9	LF6/TMCSW-2_0519 -a	SM5210B	T	7.10	20.59 Celsius		pH temp= 14.7, color= clear		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final_DO	FinTemp	BOD Std_00001 00046	AnalysisComment		
280-123924-B-10	LF6W-1_0519	SM5210B	T	7.10	20.54 Celsius		pH temp= 13.7, color= light brown/turbid/suspended dirt/solids (brown)		
280-123924-B-11	LF6LH-1_0519	SM5210B	T	7.07	20.56 Celsius		pH temp= 13.7, color= light borwon/turbid/suspended solids/dirt (brown)		
280-123924-A-12	LF6LH-2_0519	SM5210B	T	7.09	20.51 Celsius		pH temp= 14.9, color= clear/slightly turbid		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-123924-1

SDG No.:

Batch Number: 458606 Batch Start Date: 05/17/19 15:43 Batch Analyst: Citrone, Elias

Batch Method: SM5210B Batch End Date:

Batch Notes	
Barometer ID	YSI 5100 BOD Probe: 16H100313
Batch Comment	Room Temp= 22.51 EC trained by ckb
Calibration - Final Date/Time	05/21/2019 15:45
Calibration - Initial Date/Time	05/17/2019 17:30
Dilution Water ID	Elga water 18.2 micro ohms
Sulfuric Acid ID	1N H2SO4_00033
Incubator ID	BOD10
Sodium Hydroxide ID	1N NaOH_00047
Nitrification Inhibitor ID	Nitrogen inhibitor_00012
Nominal Amount Used	300 mL
Nutrient Buffer Pillow ID	BOD buffer_00038
pH Meter ID	SV-15261, QX1-15909
Pipette/Syringe/Dispenser ID	5000 BOD 1000BOD
Probe ID	YSI 5010 BOD Probe 15A100003
Residual Chlorine Pillow Lot #	free chlorine micro check lot: 111418
Amount of Seed added to each Sample	4 mL
Seed Correction	0.6106 mg/L
Seed ID	Polyseed_00020 Seeded @ 17:30 EC Readback 16:30 EC
Thermometer ID	BOD log tag 10
Uncorrected Incubator Temp - Final	19.70 Celsius
Uncorrected Incubator Temp - Initial	19.70 Celsius
Barometric Pressure - Uncorrected	initial:620 final:624

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Table - 053019.tbl

File name: C:\FLOW_4\053019.TBL
Date: 30-May-19

Cup	Name	Type	R	Dil	Wt	Comment
5	Sync	SYNC	1	1	1	
0	blk	CO	1	1	1	
0	Read Baseline	RB	1	1	1	
1	Cal 0.0 PPB	C	1	1	1	
3	Cal 25.0 ppb	C	1	1	1	
4	Cal 50.0 ppb	C	1	1	1	
5	Cal 100.0 ppb	C	1	1	1	
6	Cal 500.0 ppb	C	1	1	1	
7	Cal 1000.0 ppb	C	1	1	1	
8	Cal 2500.0 ppb	C	1	1	1	
9	Cal 5000.0 ppb	C	1	1	1	
0	blank	BLNK	1	1	1	
0	read baseline	RB	1	1	1	
10	ICVL 500.0 ppb	U	1	1	1	pH Cl-
11	ICV 2500.0 ppb	U	1	1	1	
1	ICB	U	1	1	1	
0	read baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	2
13	280-124168-c-1	U	1	1	1	22
14	MS 280-124168-c-1	U	1	1	1	
15	MSD 280-124168-c-1	U	1	1	1	
16	280-124168-c-2	U	1	1	1	7 2
17	280-124168-c-3	U	1	1	1	22 2
18	280-123922-e-1	U	1	1	1	22 2
19	280-123922-d-2	U	1	1	1	22 2
20	280-123922-c-3	U	1	1	1	22 2
21	280-123947-b-2	U	1	20	1	22 2
22	280-123924-e-1	U	1	1	1	22 2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
23	280-123924-d-2	U	1	1	1	22 2 2
24	280-123924-c-3	U	1	1	1	22 2 2
25	280-123924-c-4	U	1	1	1	22 2 2
26	MS 280-123924-c-4	U	1	1	1	
27	MSD 280-123924-c-4	U	1	1	1	
28	280-123924-e-5	U	1	1	1	22 2 2 2
29	280-123924-c-6	U	1	1	1	22 2 2 2
30	280-123924-c-7	U	1	1	1	22 2 2 2
31	280-123924-c-8	U	1	1	1	22 2 2 2
32	280-123924-c-9	U	1	1	1	22 2 2 2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
33	280-123924-c-10	U	1	1	1	22 2 2 2
34	280-123924-c-11	U	1	1	1	22 2 2 2
35	280-123924-c-12	U	1	1	1	22 2 2 2
36	280-123930-e-1	U	1	1	1	22 2 2 2

Cup	Name	Type	R	Dil	Wt	Comment
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	
37	280-123930-c-2	U	1	1	1	L2 N
38	MS 280-123930-c-2	U	1	1	1	
39	MSD 280-123930-c-2	U	1	1	1	N
40	280-123930-e-3	U	1	1	1	L2
41	280-123930-c-4	U	1	1	1	L2
42	280-123930-c-5	U	1	1	1	L2
43	280-123981-d-1	U	1	1	1	L2
44	280-123981-e-2	U	1	1	1	L2
45	280-123981-c-3	U	1	1	1	L2
46	280-123981-e-4	U	1	1	1	L2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
47	280-123981-e-5	U	1	1	1	L2
48	280-123981-d-6	U	1	1	1	L2
49	280-123981-e-7	U	1	1	1	L2
50	MS 280-123981-e-7	U	1	1	1	
51	MSD 280-123981-e-7	U	1	1	1	L2
52	280-123981-c-8	U	1	1	1	L2
53	280-123981-e-9	U	1	1	1	L2
54	280-124244-a-1	U	1	1	1	L2
55	280-124229-b-1	U	1	1	1	L2
56	280-124229-b-2	U	1	1	1	L2
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
57	280-124229-b-3	U	1	1	1	L2 N
58	280-124229-b-4	U	1	1	1	L2 N
59	280-124229-b-5	U	1	1	1	L2 N unpreserved
60	280-123760-e-1	U	1	~~1~~ 500	1	7 N
0	Rinse	U	1	1	1	
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	
8	LCS	U	1	1	1	
8	LCSD	U	1	1	1	
12	MB	U	1	1	1	
61	280-123712-a-1	U	1	100	1	L2 N
62	MS 280-123712-a-1	U	1	100	1	
63	MSD 280-123712-a-1	U	1	100	1	
64	280-123712-a-2	U	1	100	1	L2 N
65	280-123590-a-1	U	1	500	1	L2 N
0	Rinse	U	1	1	1	

Cup	Name	Type	R	Dil	Wt	Comment
0	Read Baseline	RB	1	1	1	
6	CCVL 500 ppb	U	1	1	1	
8	CCV 2500 ppb	U	1	1	1	
12	CCB	U	1	1	1	
0	Read Baseline	RB	1	1	1	

Run Results Report

Facility Name
Facility Location
Department
Operator Name MJS
Operator ID MJS
Platform FS 3000
Software Rev Code 222
Data system ID 57

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	10:59	5	Sync	12533	102.820	
30-May-19	11:01	0	blk	-101	7.426	
30-May-19	11:03	0	Read Baseline	0	8.188	BL
30-May-19	11:05	1	Cal 0.0 PPB	351	10.830	
30-May-19	11:07	3	Cal 25.0 ppb	3030	31.004	
30-May-19	11:09	4	Cal 50.0 ppb	6203	54.940	
30-May-19	11:11	5	Cal 100.0 ppb	12605	103.366	
30-May-19	11:13	6	Cal 500.0 ppb	61020	475.195	
30-May-19	11:15	7	Cal 1000.0 ppb	123276	967.943	
30-May-19	11:17	8	Cal 2500.0 ppb	308445	2530.731	
30-May-19	11:19	9	Cal 5000.0 ppb	570676	4992.791	
30-May-19	11:21	0	blank	228	9.900	
30-May-19	11:23	0	read baseline	0	8.188	BL
30-May-19	11:25	10	ICVL 500.0 ppb	59361	462.292	
30-May-19	11:27	11	ICV 2500.0 ppb	300443	2460.194	
30-May-19	11:29	1	ICB	89	8.859	
30-May-19	11:31	0	read baseline	0	8.188	BL UM
30-May-19	11:33	8	LCS	303744	2489.255	
30-May-19	11:35	8	LCSD	301427	2468.847	
30-May-19	11:37	12	.MB	4364	41.063	UM
30-May-19	11:39	13	.280-124168-c-1	-7737	-49.901	LO
30-May-19	11:41	14	MS 280-124168-c-1	-9671	-64.381	LO
30-May-19	11:43	15	MSD 280-124168-c-1	-13204	-90.792	LO
30-May-19	11:50	0	read baseline	0	8.188	BL
30-May-19	11:52	8	LCS	310485	2548.762	
30-May-19	11:54	8	LCSD	309471	2539.796	
30-May-19	11:56	12	MB	90	8.865	
30-May-19	11:58	13	280-124168-c-1	146	9.286	
30-May-19	12:00	14	MS 280-124168-c-1	131075	1030.835	
30-May-19	12:02	15	MSD 280-124168-c-1	133295	1048.785	
30-May-19	12:04	16	280-124168-c-2	186	9.585	
30-May-19	12:06	17	280-124168-c-3	311	10.529	
30-May-19	12:08	18	280-123922-e-1	186011	1481.124	
30-May-19	12:10	19	280-123922-d-2	211025	1690.397	
30-May-19	12:12	20	280-123922-c-3	107517	841.664	
30-May-19	12:14	21	280-123947-b-2	98077	15330.447	
30-May-19	12:16	22	280-123924-e-1	67	8.694	
30-May-19	12:18	0	Rinse	100	8.937	
30-May-19	12:20	0	Read Baseline	0	8.188	BL
30-May-19	12:22	6	CCVL 500 ppb	58335	454.312	
30-May-19	12:24	8	CCV 2500 ppb	297861	2437.484	
30-May-19	12:26	12	CCB	485	11.841	
30-May-19	12:28	0	Read Baseline	0	8.188	BL
30-May-19	12:30	23	280-123924-d-2	9179	77.426	
30-May-19	12:32	24	280-123924-c-3	307	10.499	
30-May-19	12:34	25	280-123924-c-4	36798	287.930	

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	12:36	26	MS 280-123924-c-4	158618	1254.990	
30-May-19	12:38	27	MSD 280-123924-c-4	166484	1319.605	
30-May-19	12:40	28	280-123924-e-5	18381	147.199	
30-May-19	12:42	29	280-123924-c-6	77531	604.279	
30-May-19	12:44	30	280-123924-c-7	2933	30.271	
30-May-19	12:46	31	280-123924-c-8	3185	32.172	
30-May-19	12:48	32	280-123924-c-9	3096	31.503	
30-May-19	12:50	0	Rinse	-236	6.415	
30-May-19	12:52	0	Read Baseline	0	8.188	BL
30-May-19	12:54	6	CCVL 500 ppb	58342	454.370	
30-May-19	12:56	8	CCV 2500 ppb	296742	2427.652	
30-May-19	12:58	12	CCB	603	12.725	
30-May-19	13:00	0	Read Baseline	0	8.188	BL
30-May-19	13:02	33	280-123924-c-10	2218	24.887	
30-May-19	13:04	34	280-123924-c-11	1753	21.383	
30-May-19	13:06	35	280-123924-c-12	3497	34.523	
30-May-19	13:08	36	280-123930-e-1	82256	641.432	
30-May-19	13:10	0	Rinse	345	10.784	
30-May-19	13:12	0	Read Baseline	0	8.188	BL
30-May-19	13:14	6	CCVL 500 ppb	59538	463.670	
30-May-19	13:16	8	CCV 2500 ppb	303993	2491.456	
30-May-19	13:18	12	CCB	398	11.186	
30-May-19	13:20	0	Read Baseline	0	8.188	BL
30-May-19	13:22	8	LCS	301638	2470.708	
30-May-19	13:24	8	LCSD	301428	2468.860	
30-May-19	13:26	12	MB	370	10.970	
30-May-19	13:28	37	280-123930-c-2	15354	124.213	
30-May-19	13:30	38	MS 280-123930-c-2	142208	1121.052	
30-May-19	13:32	39	MSD 280-123930-c-2	144106	1136.489	
30-May-19	13:34	40	280-123930-e-3	15971	128.895	
30-May-19	13:36	41	280-123930-c-4	23150	183.504	
30-May-19	13:38	42	280-123930-c-5	6642	58.253	
30-May-19	13:40	43	280-123981-d-1	78481	611.740	
30-May-19	13:42	44	280-123981-e-2	27694	218.186	
30-May-19	13:44	45	280-123981-c-3	-274	6.129	
30-May-19	13:46	46	280-123981-e-4	319	10.589	
30-May-19	13:48	0	Rinse	226	9.886	
30-May-19	13:50	0	Read Baseline	0	8.188	BL
30-May-19	13:52	6	CCVL 500 ppb	58773	457.718	
30-May-19	13:54	8	CCV 2500 ppb	303896	2490.598	
30-May-19	13:56	12	CCB	319	10.590	
30-May-19	13:58	0	Read Baseline	0	8.188	BL
30-May-19	14:00	47	280-123981-e-5	-70	7.663	
30-May-19	14:02	48	280-123981-d-6	3100	31.536	
30-May-19	14:04	49	280-123981-e-7	-248	6.325	
30-May-19	14:06	50	MS 280-123981-e-7	120358	944.480	
30-May-19	14:08	51	MSD 280-123981-e-7	128907	1013.326	
30-May-19	14:10	52	280-123981-c-8	477	11.779	
30-May-19	14:12	53	280-123981-e-9	161	9.397	
30-May-19	14:14	54	280-124244-a-1	55458	431.976	
30-May-19	14:16	55	280-124229-b-1	2030	23.469	
30-May-19	14:18	56	280-124229-b-2	-138	7.149	
30-May-19	14:20	0	Rinse	-263	6.210	
30-May-19	14:22	0	Read Baseline	0	8.188	BL
30-May-19	14:24	6	CCVL 500 ppb	59416	462.718	
30-May-19	14:26	8	CCV 2500 ppb	301106	2466.028	
30-May-19	14:28	12	CCB	377	11.027	

Result path C:\FLOW_4\053019.RST
Sample table path C:\FLOW_4\053019.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 30-May-19
Time acquired 15:24

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
30-May-19	14:30	0	Read Baseline	0	8.188	BL
30-May-19	14:32	57	280-124229-b-3	591	12.637	
30-May-19	14:34	58	280-124229-b-4	10957	90.884	
30-May-19	14:36	59	280-124229-b-5	-95	7.476	
30-May-19	14:38	60	280-123760-e-1	272349	221467.359	
30-May-19	14:40	0	Rinse	181	9.548	
30-May-19	14:42	0	Read Baseline	0	8.188	BL
30-May-19	14:44	6	CCVL 500 ppb	61769	481.031	
30-May-19	14:46	8	CCV 2500 ppb	309865	2543.281	
30-May-19	14:48	12	CCB	520	12.100	
30-May-19	14:50	0	Read Baseline	0	8.188	BL
30-May-19	14:52	8	LCS	288419	2354.700	
30-May-19	14:54	8	LCSD	313714	2577.327	
30-May-19	14:56	12	MB	264	10.176	
30-May-19	14:58	61	280-123712-a-1	75216	58611.250	
30-May-19	15:00	62	MS 280-123712-a-1	213348	170996.875	
30-May-19	15:02	63	MSD 280-123712-a-1	211956	169823.797	
30-May-19	15:04	64	280-123712-a-2	72113	56179.426	
30-May-19	15:06	65	280-123590-a-1	44423	173305.375	
30-May-19	15:08	0	Rinse	62	8.651	
30-May-19	15:10	0	Read Baseline	0	8.188	BL
30-May-19	15:12	6	CCVL 500 ppb	58293	453.988	
30-May-19	15:14	8	CCV 2500 ppb	313425	2574.775	
30-May-19	15:16	12	CCB	201	9.697	
30-May-19	15:18	0	Read Baseline	0	8.188	BL

Peak Table:Ammonia

File name: C:\FLOW_4\053019.RST
Date: 30-May-19
Operator: MJS

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	12533	102.819733	
2	0	blk	1	CO	1	1	-101	7.426366	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
4	1	Cal 0.0 PPB	1	C	1	1	351	10.830211	
5	3	Cal 25.0 ppb	1	C	1	1	3030	31.003801	
6	4	Cal 50.0 ppb	1	C	1	1	6203	54.940498	
7	5	Cal 100.0 ppb	1	C	1	1	12605	103.365593	
8	6	Cal 500.0 ppb	1	C	1	1	61020	475.194672	
9	7	Cal 1000.0 ppb	1	C	1	1	123276	967.943176	
10	8	Cal 2500.0 ppb	1	C	1	1	308445	2530.731201	
11	9	Cal 5000.0 ppb	1	C	1	1	570676	4992.790527	
12	0	blank	1	BLNK	1	1	228	9.900016	
B	0	read baseline	1	RB	1	1	0	8.187531	BL
14	10	ICVL 500.0 ppb	1	U	1	1	59361	462.292480	
15	11	ICV 2500.0 ppb	1	U	1	1	300443	2460.193604	
16	1	ICB	1	U	1	1	89	8.859468	
B	0	read baseline	1	RB	1	1	0	8.187531	BL UM
18	8	LCS	1	U	1	1	303744	2489.255371	
19	8	LCSD	1	U	1	1	301427	2468.846924	
20	12	.MB	1	U	1	1	4364	41.062794	UM
21	13	.280-124168-c-1	1	U	1	1	-7737	-49.900867	LO
22	14	MS 280-124168-c-1	1	U	1	1	-9671	-64.381126	LO
23	15	MSD 280-124168-c-1	1	U	1	1	-13204	-90.791763	LO
B	0	read baseline	1	RB	1	1	0	8.187531	BL
25	8	LCS	1	U	1	1	310485	2548.761719	
26	8	LCSD	1	U	1	1	309471	2539.795898	
27	12	MB	1	U	1	1	90	8.865420	
28	13	280-124168-c-1	1	U	1	1	146	9.286325	
29	14	MS 280-124168-c-1	1	U	1	1	131075	1030.835327	
30	15	MSD 280-124168-c-1	1	U	1	1	133295	1048.784912	
31	16	280-124168-c-2	1	U	1	1	186	9.585053	
32	17	280-124168-c-3	1	U	1	1	311	10.529251	
33	18	280-123922-e-1	1	U	1	1	186011	1481.124268	
34	19	280-123922-d-2	1	U	1	1	211025	1690.396729	
35	20	280-123922-c-3	1	U	1	1	107517	841.663757	
36	21	280-123947-b-2	1	U	20	1	98077	15330.447266	
37	22	280-123924-e-1	1	U	1	1	67	8.694414	
38	0	Rinse	1	U	1	1	100	8.937119	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
40	6	CCVL 500 ppb	1	U	1	1	58335	454.312469	
41	8	CCV 2500 ppb	1	U	1	1	297861	2437.484375	
42	12	CCB	1	U	1	1	485	11.840541	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
44	23	280-123924-d-2	1	U	1	1	9179	77.425850	
45	24	280-123924-c-3	1	U	1	1	307	10.499029	
46	25	280-123924-c-4	1	U	1	1	36798	287.929779	
47	26	MS 280-123924-c-4	1	U	1	1	158618	1254.989624	
48	27	MSD 280-123924-c-4	1	U	1	1	166484	1319.604614	
49	28	280-123924-e-5	1	U	1	1	18381	147.198837	
50	29	280-123924-c-6	1	U	1	1	77531	604.278931	
51	30	280-123924-c-7	1	U	1	1	2933	30.271387	
52	31	280-123924-c-8	1	U	1	1	3185	32.171955	
53	32	280-123924-c-9	1	U	1	1	3096	31.503464	
54	0	Rinse	1	U	1	1	-236	6.414662	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
56	6	CCVL 500 ppb	1	U	1	1	58342	454.370270	
57	8	CCV 2500 ppb	1	U	1	1	296742	2427.651855	
58	12	CCB	1	U	1	1	603	12.725226	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
60	33	280-123924-c-10	1	U	1	1	2218	24.886900	
61	34	280-123924-c-11	1	U	1	1	1753	21.382565	
62	35	280-123924-c-12	1	U	1	1	3497	34.523472	
63	36	280-123930-e-1	1	U	1	1	82256	641.432190	
64	0	Rinse	1	U	1	1	345	10.784194	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
66	6	CCVL 500 ppb	1	U	1	1	59538	463.670349	
67	8	CCV 2500 ppb	1	U	1	1	303993	2491.456055	
68	12	CCB	1	U	1	1	398	11.185896	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
70	8	LCS	1	U	1	1	301638	2470.708252	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	8	LCSD	1	U	1	1	301428	2468.860107	
72	12	MB	1	U	1	1	370	10.970116	
73	37	280-123930-c-2	1	U	1	1	15354	124.213051	
74	38	MS 280-123930-c-2	1	U	1	1	142208	1121.051636	
75	39	MSD 280-123930-c-2	1	U	1	1	144106	1136.489258	
76	40	280-123930-e-3	1	U	1	1	15971	128.894516	
77	41	280-123930-c-4	1	U	1	1	23150	183.503891	
78	42	280-123930-c-5	1	U	1	1	6642	58.253437	
79	43	280-123981-d-1	1	U	1	1	78481	611.739990	
80	44	280-123981-e-2	1	U	1	1	27694	218.186264	
81	45	280-123981-c-3	1	U	1	1	-274	6.128890	
82	46	280-123981-e-4	1	U	1	1	319	10.588769	
83	0	Rinse	1	U	1	1	226	9.885809	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
85	6	CCVL 500 ppb	1	U	1	1	58773	457.717712	
86	8	CCV 2500 ppb	1	U	1	1	303896	2490.597656	
87	12	CCB	1	U	1	1	319	10.589765	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
89	47	280-123981-e-5	1	U	1	1	-70	7.663309	
90	48	280-123981-d-6	1	U	1	1	3100	31.535744	
91	49	280-123981-e-7	1	U	1	1	-248	6.324844	
92	50	MS 280-123981-e-7	1	U	1	1	120358	944.480103	
93	51	MSD 280-123981-e-7	1	U	1	1	128907	1013.326233	
94	52	280-123981-c-8	1	U	1	1	477	11.778512	
95	53	280-123981-e-9	1	U	1	1	161	9.396813	
96	54	280-124244-a-1	1	U	1	1	55458	431.976318	
97	55	280-124229-b-1	1	U	1	1	2030	23.469158	
98	56	280-124229-b-2	1	U	1	1	-138	7.149239	
99	0	Rinse	1	U	1	1	-263	6.209613	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
101	6	CCVL 500 ppb	1	U	1	1	59416	462.718384	
102	8	CCV 2500 ppb	1	U	1	1	301106	2466.027832	
103	12	CCB	1	U	1	1	377	11.026817	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
105	57	280-124229-b-3	1	U	1	1	591	12.636806	
106	58	280-124229-b-4	1	U	1	1	10957	90.884277	
107	59	280-124229-b-5	1	U	1	1	-95	7.475824	
108	60	280-123760-e-1	1	U	100	1	272349	221467.359375	
109	0	Rinse	1	U	1	1	181	9.547703	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
111	6	CCVL 500 ppb	1	U	1	1	61769	481.031189	
112	8	CCV 2500 ppb	1	U	1	1	309865	2543.281494	
113	12	CCB	1	U	1	1	520	12.099533	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
115	8	LCS	1	U	1	1	288419	2354.699951	
116	8	LCSD	1	U	1	1	313714	2577.327393	
117	12	MB	1	U	1	1	264	10.175629	
118	61	280-123712-a-1	1	U	100	1	75216	58611.250000	
119	62	MS 280-123712-a-1	1	U	100	1	213348	170996.875000	
120	63	MSD 280-123712-a-1	1	U	100	1	211956	169823.796875	
121	64	280-123712-a-2	1	U	100	1	72113	56179.425781	
122	65	280-123590-a-1	1	U	500	1	44423	173305.375000	
123	0	Rinse	1	U	1	1	62	8.651432	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL
125	6	CCVL 500 ppb	1	U	1	1	58293	453.987793	
126	8	CCV 2500 ppb	1	U	1	1	313425	2574.775391	
127	12	CCB	1	U	1	1	201	9.697403	
B	0	Read Baseline	1	RB	1	1	0	8.187531	BL

Ammonia:Calibration   1: Peak 4-128

File name: C:\FLOW_4\053019.RST
Date: 30-May-19
Operator: MJS

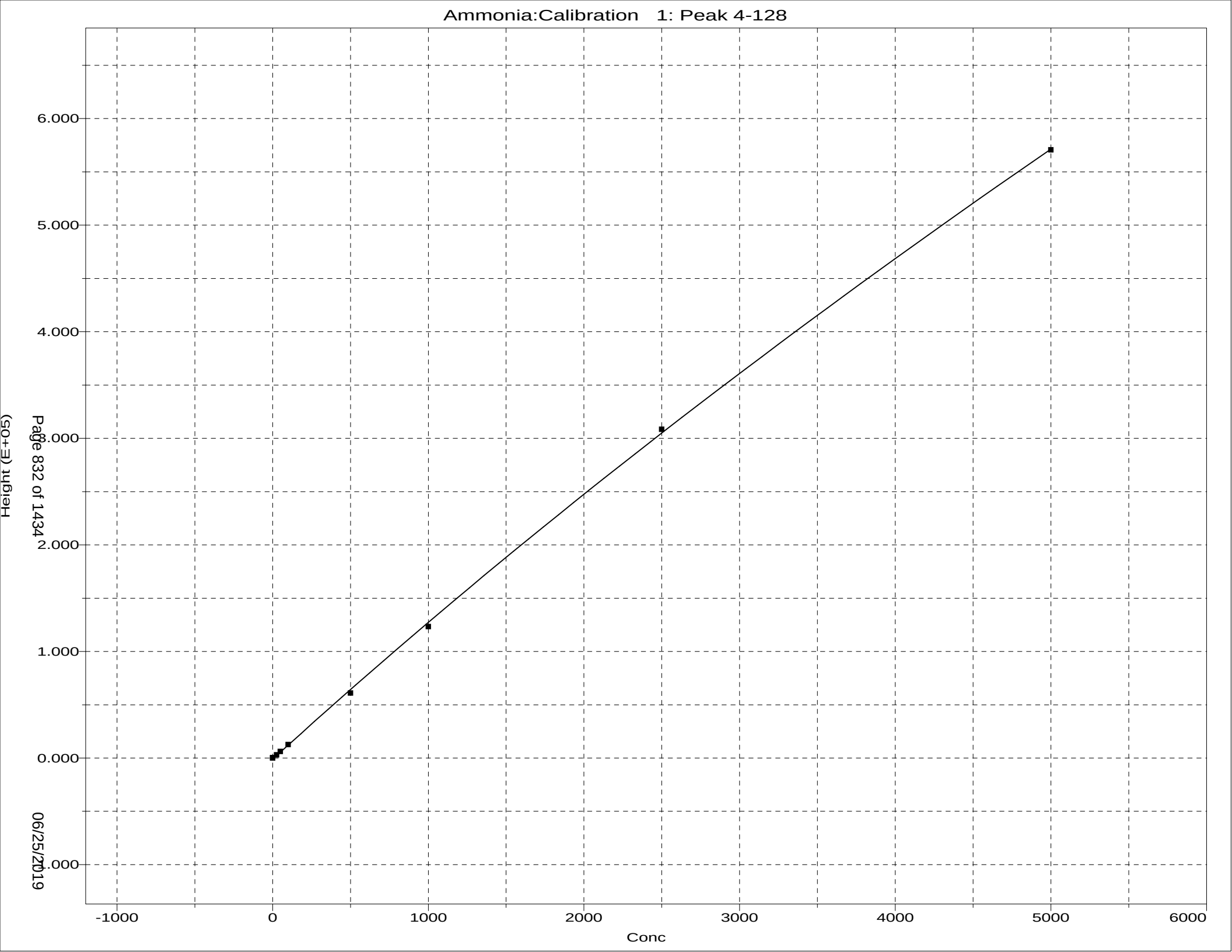
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*	Cal 0.0 PPB	0.000000	351.201447
*	Cal 25.0 ppb	25.000000	3029.902344
*	Cal 50.0 ppb	50.000000	6203.047363
*	Cal 100.0 ppb	100.000000	12605.233398
*	Cal 500.0 ppb	500.000000	61019.695312
*	Cal 1000.0 ppb	1000.000000	123275.507812
*	Cal 2500.0 ppb	2500.000000	308444.718750
*	Cal 5000.0 ppb	5000.000000	570675.750000

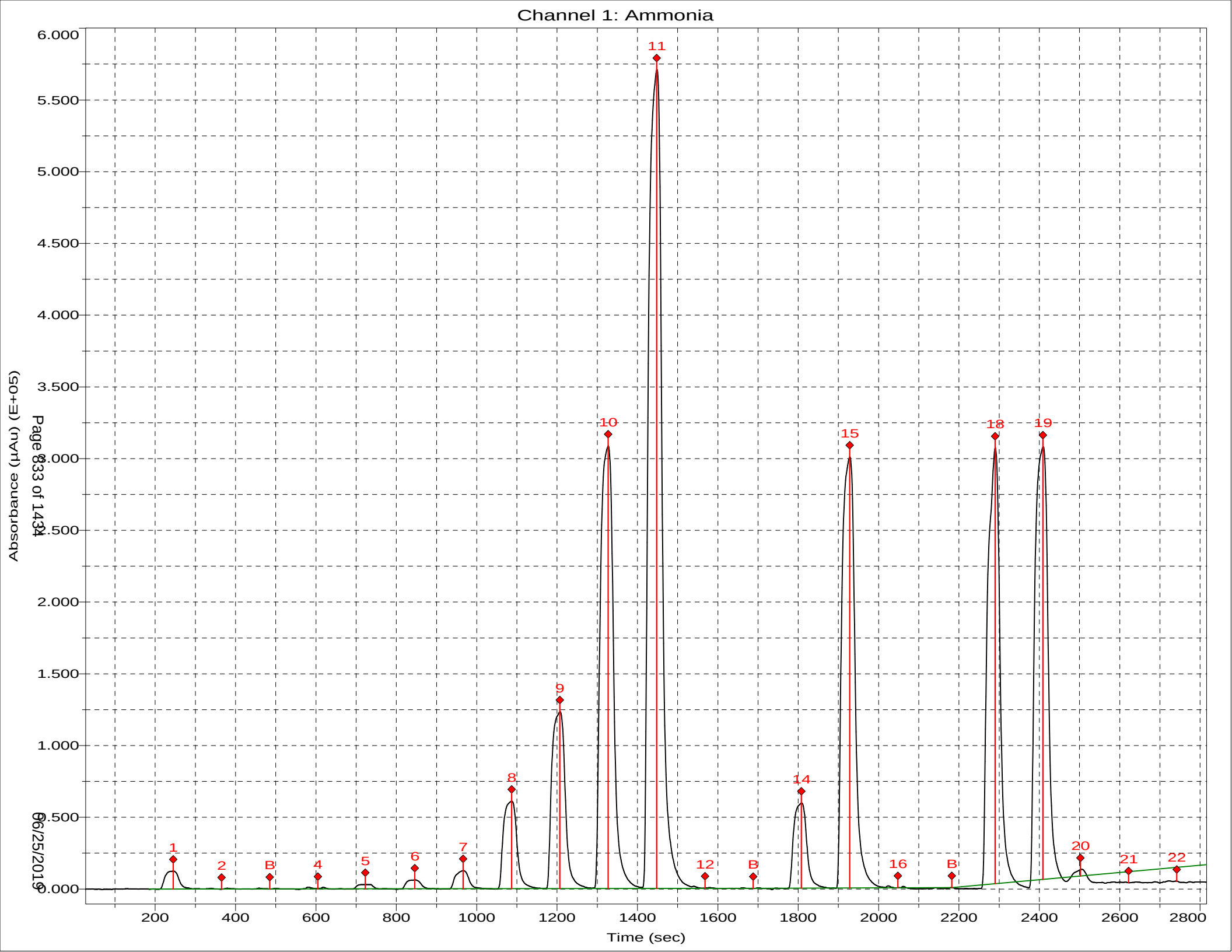
Calib Coef:
x=cyy+by+a
a: (intercept) 8.1875e+00
b: 7.5239e-03
c: 2.1214e-09

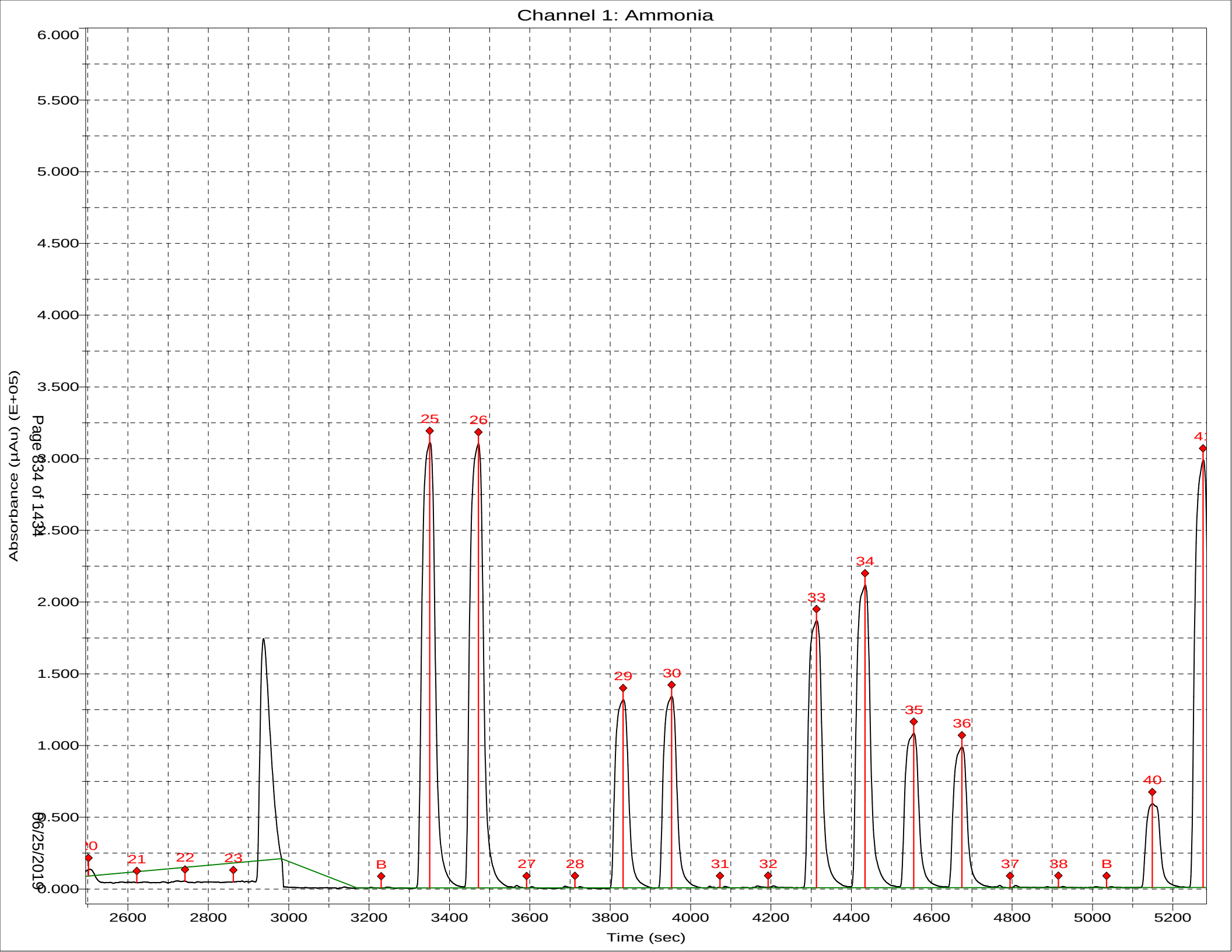
Corr Coef: 0.999938

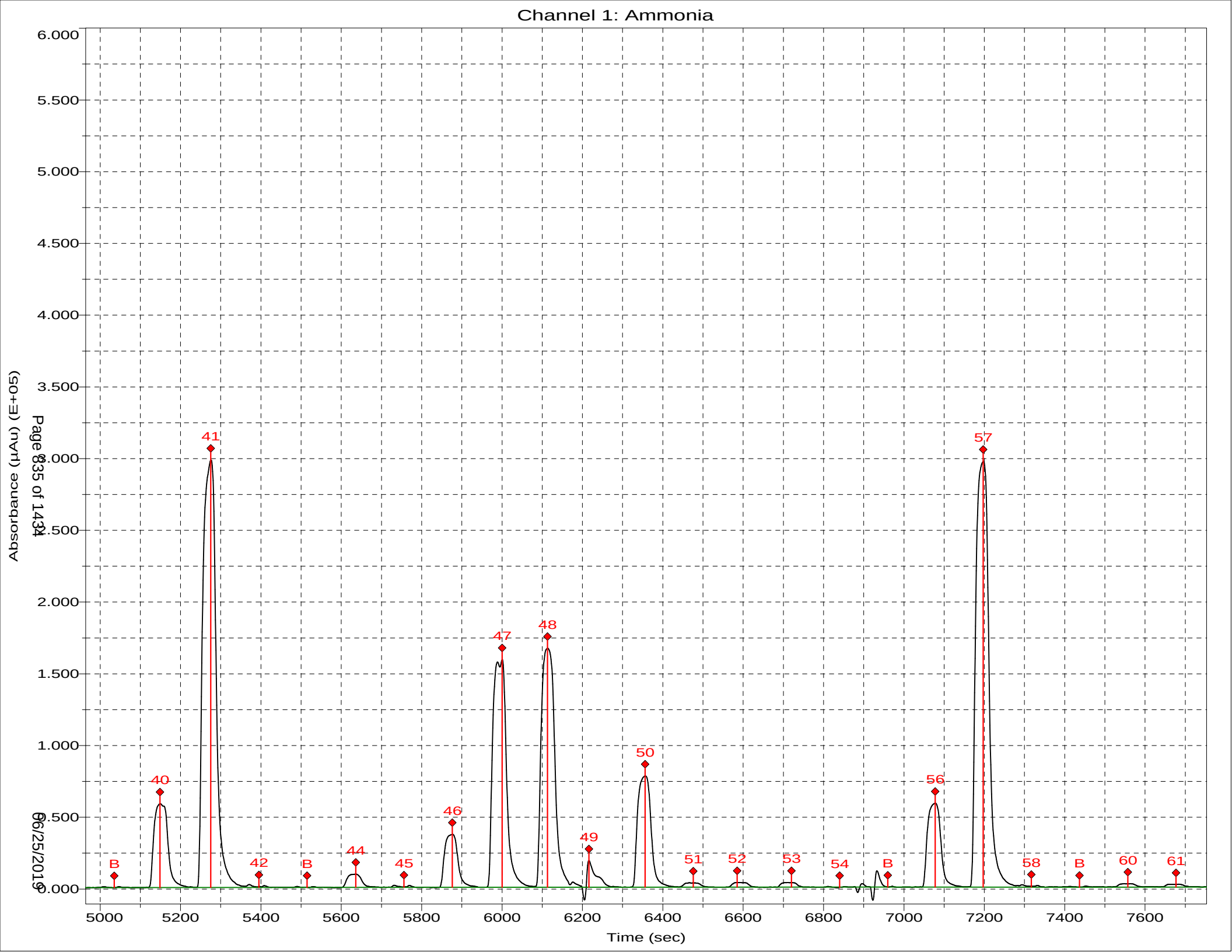
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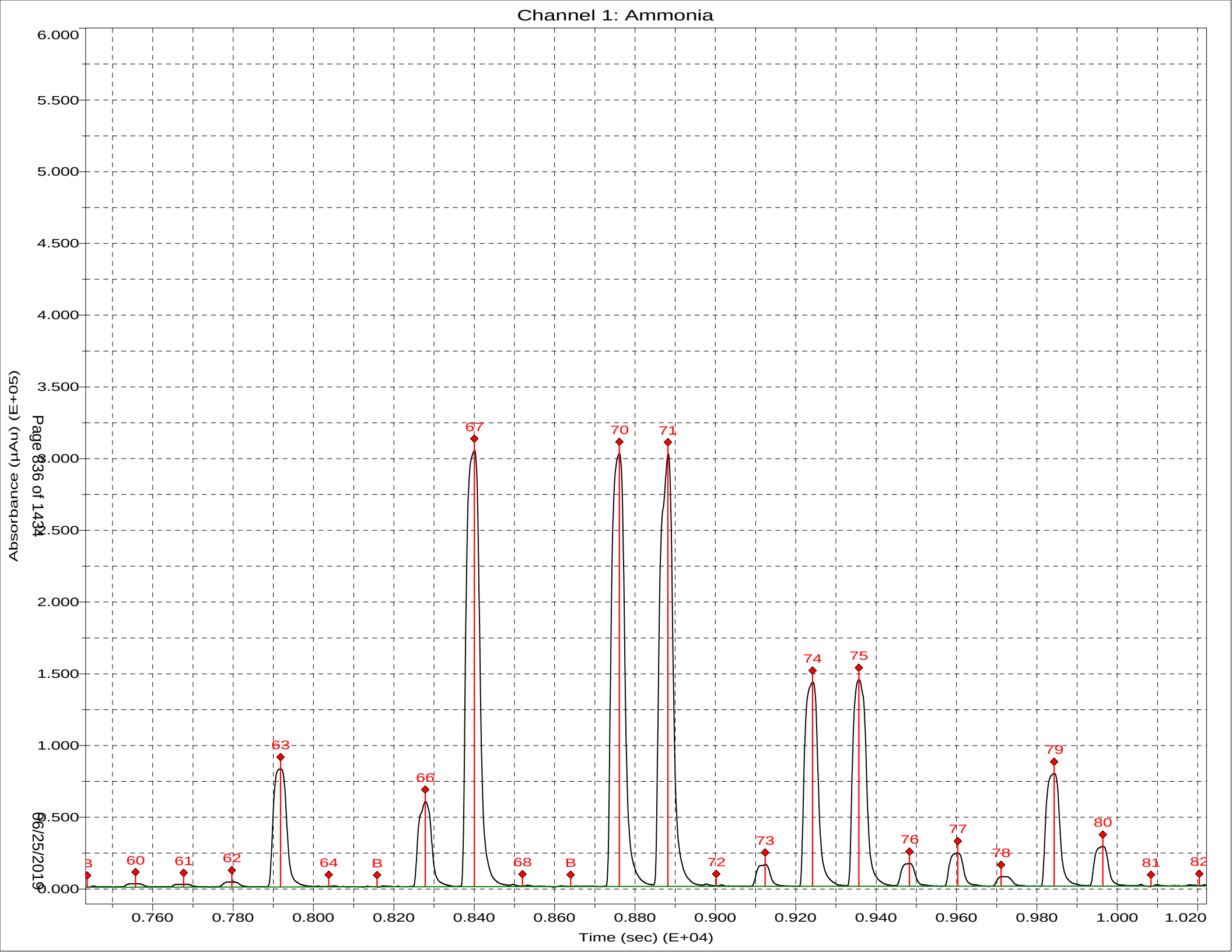
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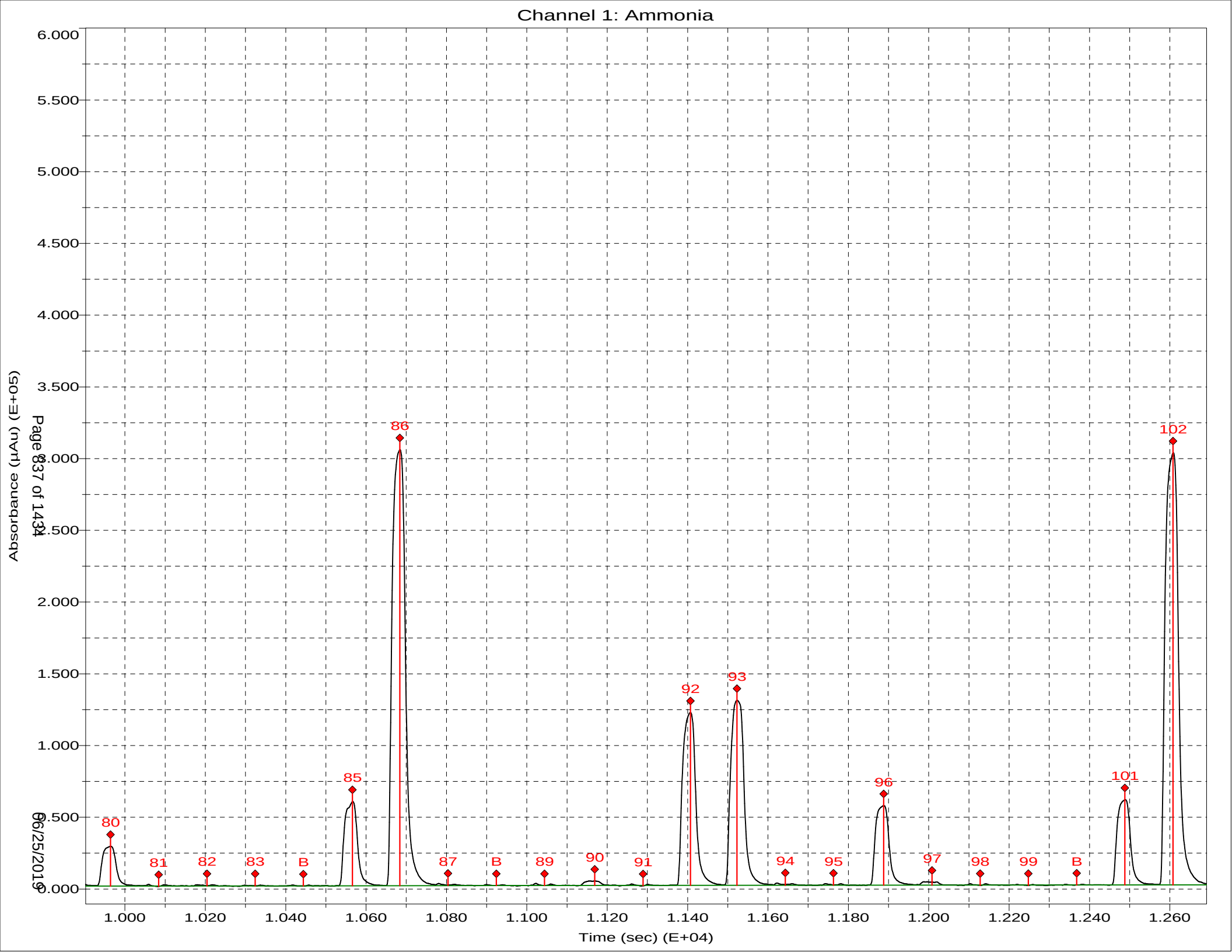

Ammonia:Calibration 1: Peak 4-128
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
-1000
0
1000
2000
3000
4000
5000
6000
Conc
Height (50+E)
Page 832 of 1434
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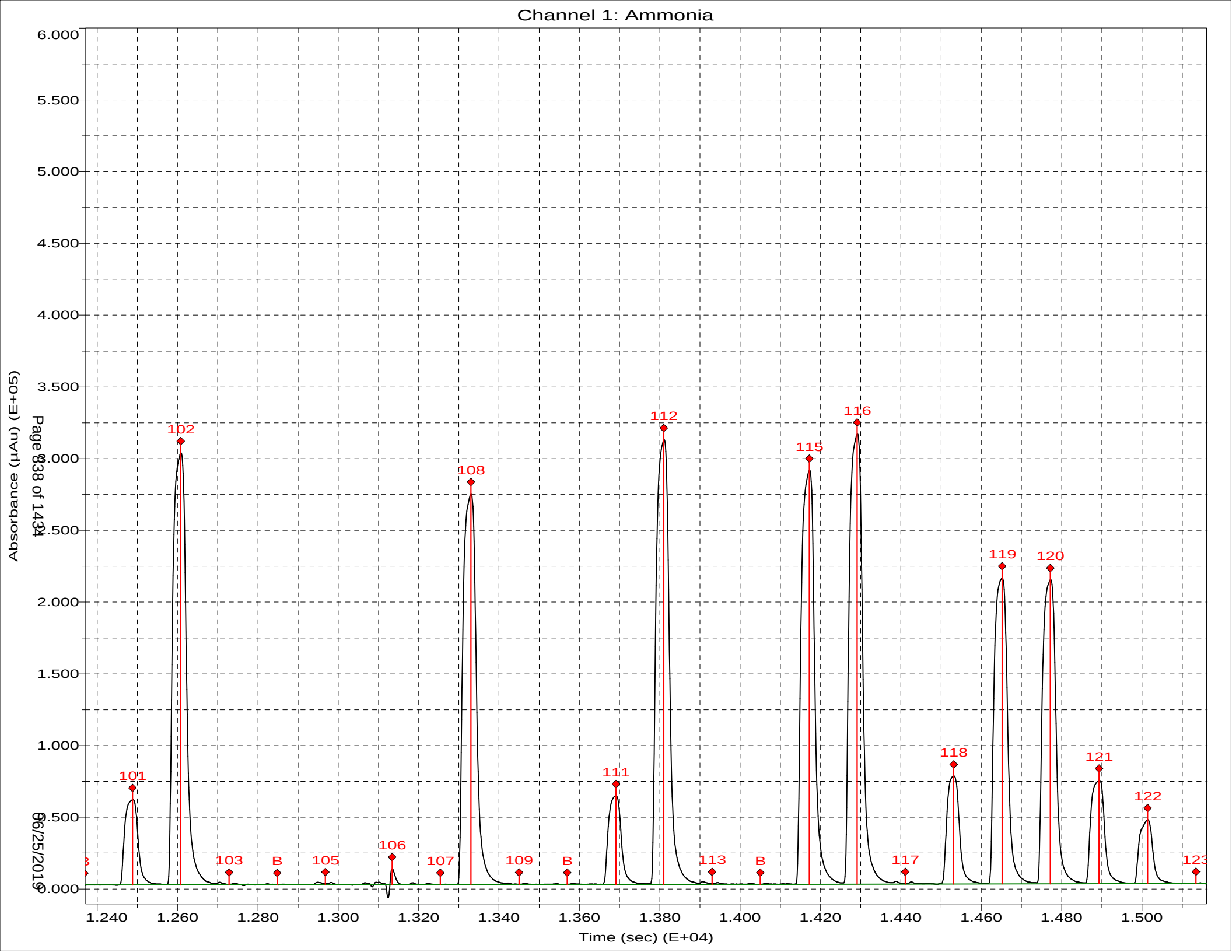

Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
Page 833 of 1434
06/25/2019
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
21
22

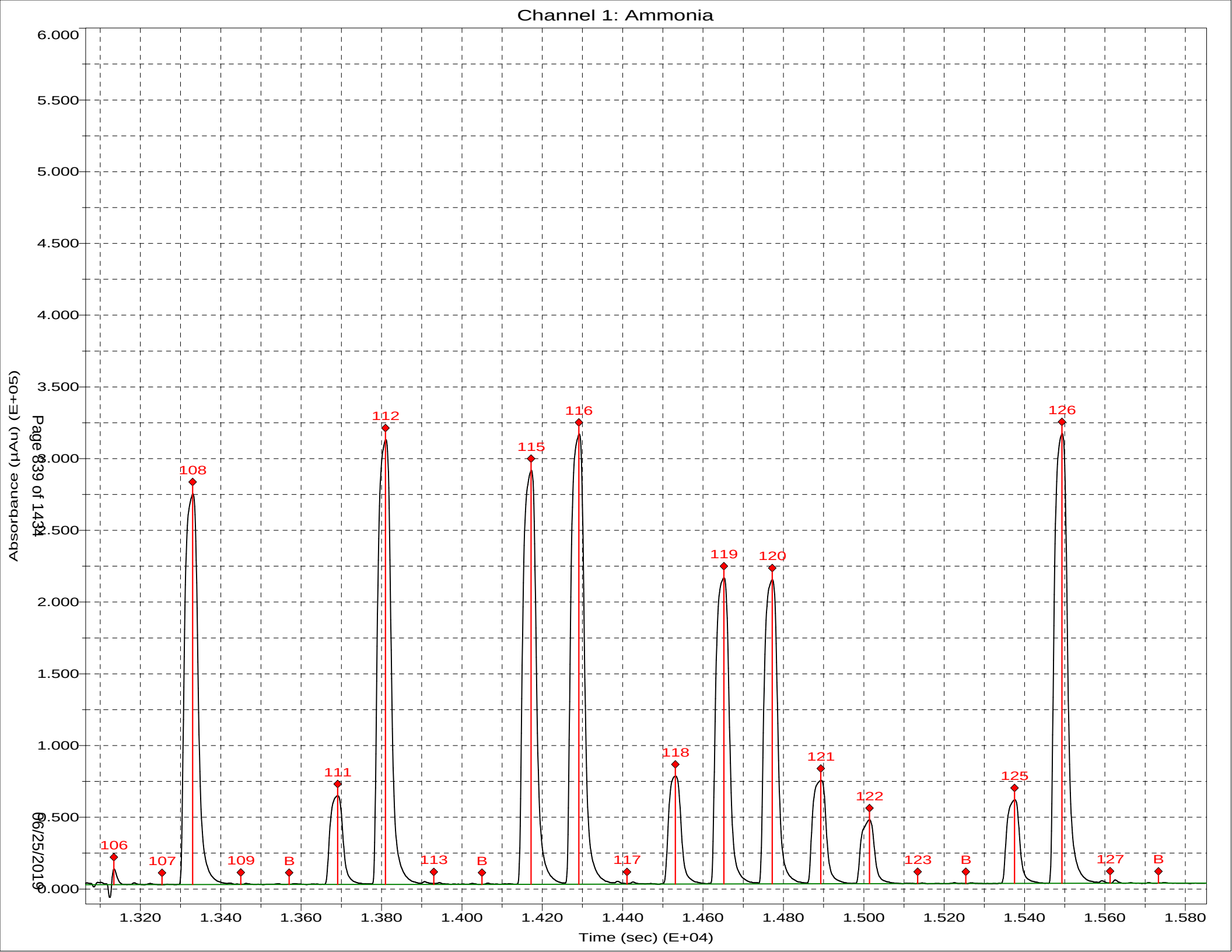

Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Time (sec)
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
20
21
22
23
B
25
26
27
28
29
30
31
32
33
34
35
36
37
38
B
40
41


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
Time (sec)
B
40
41
42
B
44
45
46
47
48
49
50
51
52
53
54
B
56
57
58
B
60
61


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.760
0.780
0.800
0.820
0.840
0.860
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
60
61
62
63
64
B
66
67
68
B
70
71
72
73
74
75
76
77
78
79
80
81
82


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Time (sec) (E+04)
1.000
1.020
1.040
1.060
1.080
1.100
1.120
1.140
1.160
1.180
1.200
1.220
1.240
1.260
80
81
82
83
B
85
86
87
B
89
90
91
92
93
94
95
96
97
98
99
B
101
102


Channel 1: Ammonia
Absorbance (µAu) (E+05)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.240
1.260
1.280
1.300
1.320
1.340
1.360
1.380
1.400
1.420
1.440
1.460
1.480
1.500
Time (sec) (E+04)
101
102
103
B
105
106
107
108
109
B
111
112
113
B
115
116
117
118
119
120
121
122
123
Page 838 of 1434
06/25/2019


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
6.000
5.500
5.000
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.320
1.340
1.360
1.380
1.400
1.420
1.440
1.460
1.480
1.500
1.520
1.540
1.560
1.580
106
107
108
109
B
111
112
113
B
115
116
117
118
119
120
121
122
123
B
125
126
127
B

Sample Table for 060719

	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-460066/42-A	Unknown	4 ml
14	1:16	ICB 280-460066/43-A	Unknown	4 ml
15	1:17	LCS 280-460760/1-A	Unknown	4 ml
16	1:18	MB 280-460760/2-A	Unknown	4 ml
17	1:19	280-124223-A-1-B	Unknown	4 ml
18	1:20	280-124223-A-1-C MS	Unknown	4 ml
19	1:21	280-124223-A-1-D MS	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	280-124223-A-2-B	Unknown	4 ml
22	1:24	280-124223-A-3-B	Unknown	4 ml
23	1:25	280-124223-A-4-B	Unknown	4 ml
24	1:26	280-124223-A-5-B	Unknown	4 ml
25	1:27	280-124321-A-1-A	Unknown	4 ml
26	1:28	280-124073-F-1-A	Unknown	4 ml
27	1:29	280-124073-E-2-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-460066/44-A	Unknown	4 ml
30	1:32	CCB 280-460066/45-A	Unknown	4 ml
31	1:33	280-123981-E-1-A	Unknown	4 ml
32	1:34	280-123981-C-3-A	Unknown	4 ml
33	1:35	280-123981-D-2-B	Unknown	4 ml
34	1:36	280-123981-D-2-C MS	Unknown	4 ml
35	1:37	280-123981-D-2-D MS	Unknown	4 ml
36	1:38	w	Blank	4 ml
37	1:39	280-123981-E-4-A	Unknown	4 ml
38	1:40	280-123981-D-5-A	Unknown	4 ml
39	1:41	280-123981-D-6-A	Unknown	4 ml
40	1:42	280-123981-D-7-A	Unknown	4 ml
41	1:43	280-123981-E-8-A	Unknown	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-460066/44-A	Unknown	4 ml
44	1:46	CCB 280-460066/45-A	Unknown	4 ml

	Position	Identifier	Type	Cup Type
45	1:47	280-123981-C-9-A	Unknown	4 ml
46	1:48	280-123983-E-1-A	Unknown	4 ml
47	1:49	280-123983-C-2-A	Unknown	4 ml
48	1:50	280-123983-D-3-A	Unknown	4 ml
49	1:51	w	Blank	4 ml
50	1:52	LCS 280-460760/27-A	Unknown	4 ml
51	1:53	MB 280-460760/28-A	Unknown	4 ml
52	1:54	280-123969-C-2-A	Unknown	4 ml
53	1:55	280-123969-C-2-B MS	Unknown	4 ml
54	1:56	280-123969-C-2-C MS	Unknown	4 ml
55	1:57	280-124073-F-1-A	Unknown	4 ml
56	1:58	w	Blank	4 ml
57	1:59	CCV 280-460066/44-A	Unknown	4 ml
58	1:60	CCB 280-460066/45-A	Unknown	4 ml
59	2:1	280-123969-C-3-A	Unknown	4 ml
60	2:2	280-123969-D-4-A	Unknown	4 ml
61	2:3	280-123969-D-5-A	Unknown	4 ml
62	2:4	280-123922-C-1-A	Unknown	4 ml
63	2:5	280-123922-E-2-A	Unknown	4 ml
64	2:6	280-123922-C-3-A	Unknown	4 ml
65	2:7	280-123924-E-1-A	Unknown	4 ml
66	2:8	280-123924-D-2-A	Unknown	4 ml
67	2:9	280-123924-E-3-A	Unknown	4 ml
68	2:10	280-123924-D-4-A	Unknown	4 ml
69	2:11	w	Blank	4 ml
70	2:12	CCV 280-460066/44-A	Unknown	4 ml
71	2:13	CCB 280-460066/45-A	Unknown	4 ml
72	2:14	280-123924-D-4-B MS	Unknown	4 ml
73	2:15	280-123924-D-4-C MS	Unknown	4 ml
74	2:16	w	Blank	4 ml
75	2:17	280-123924-D-5-A	Unknown	4 ml
76	2:18	280-123924-C-6-A	Unknown	4 ml
77	2:19	280-123924-C-7-A	Unknown	4 ml
78	2:20	280-123924-E-8-A	Unknown	4 ml
79	2:21	280-123924-D-9-A	Unknown	4 ml
80	2:22	280-123924-C-10-A	Unknown	4 ml
81	2:23	280-123924-C-11-A	Unknown	4 ml
82	2:24	280-123924-D-12-A	Unknown	4 ml
83	2:25	w	Blank	4 ml
84	2:26	CCV 280-460066/44-A	Unknown	4 ml
85	2:27	CCB 280-460066/45-A	Unknown	4 ml
86	2:28	280-124073-E-2-A	Unknown	4 ml
87	2:29	w	Blank	4 ml
88	2:30	CCV 280-460066/44-A	Unknown	4 ml

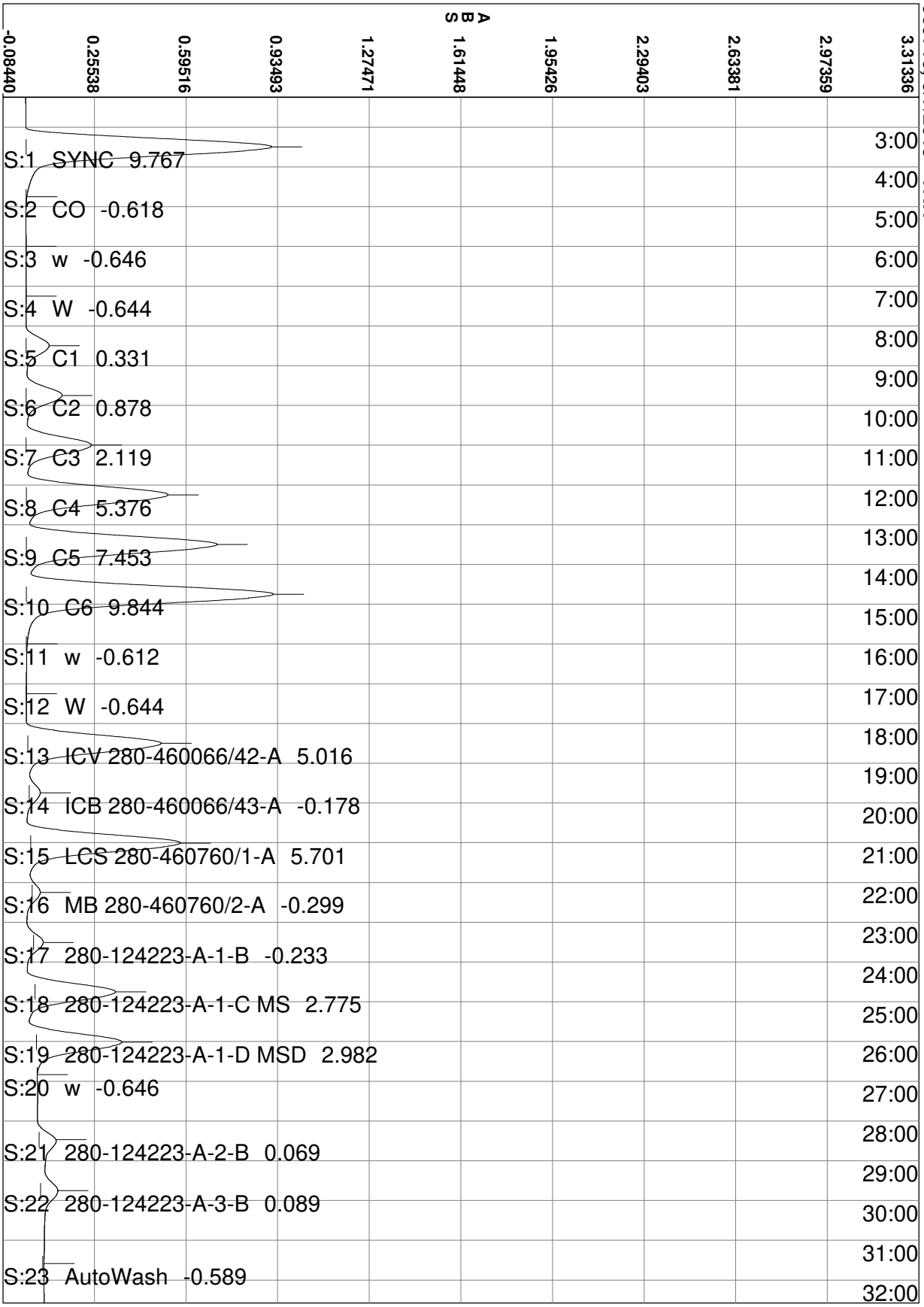
	Position	Identifier	Type	Cup Type
89	2:31	CCB 280-460066/45-A	Unknown	4 ml

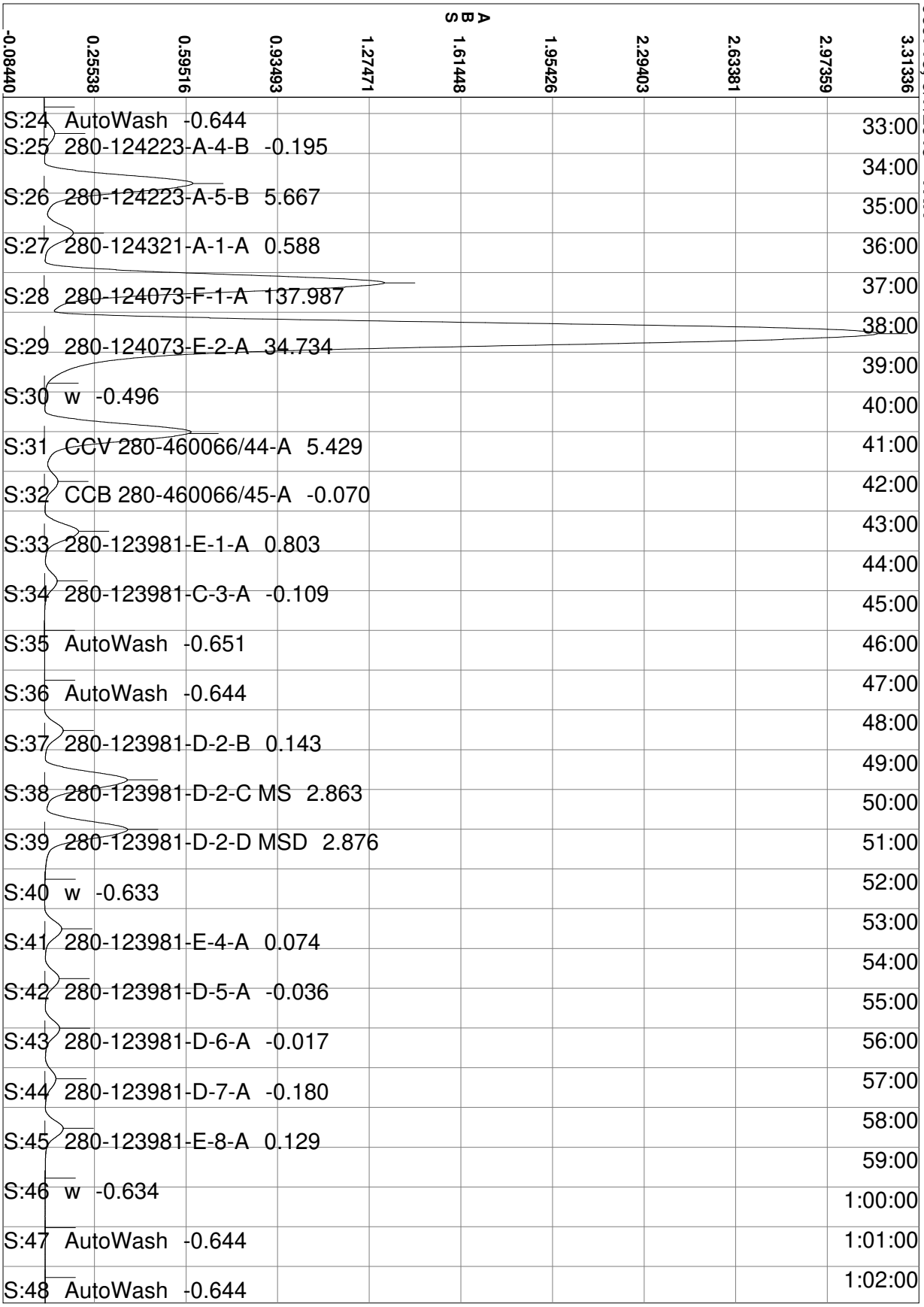
Run Name: 060719
Configuration: TKN
Run date: 6/7/2019

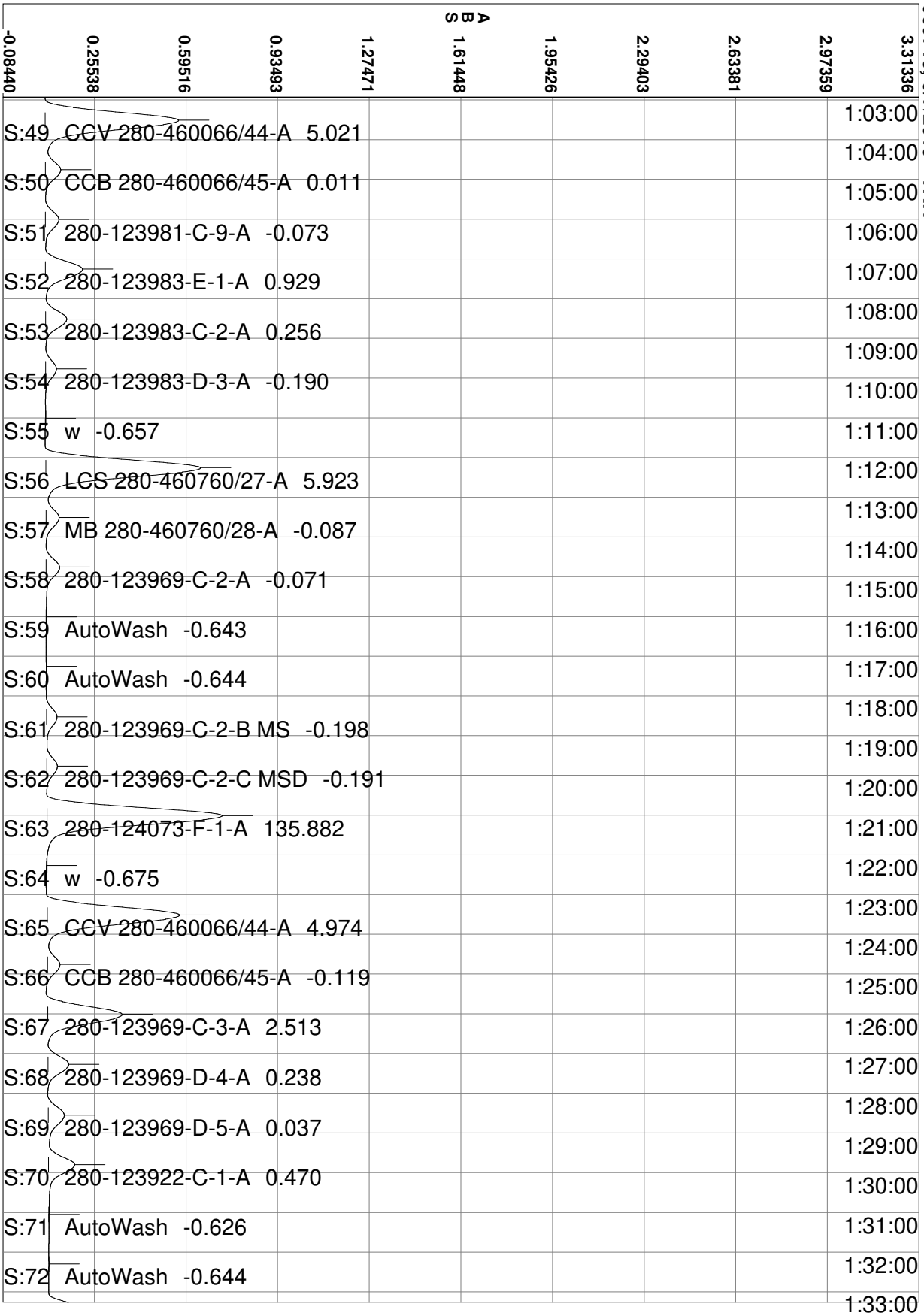
	Position	Identifier	Type	Comme	Date	Time	otal	TKN Cor Ht	TKN mg/l
1	1:1	SYNC	SYNC	50;351.2	6/7/2019	4:59:37 PM	1	0.90855	9.767
2	1:2	CO	Carry over		6/7/2019	5:00:07 PM	1	0.00233	-0.618
3	1:3	w	Blank		6/7/2019	5:01:22 PM	1	-0.00018	-0.646
4	1:4	W	Wash		6/7/2019	5:02:37 PM	1	0.00000	-0.644
5	1:5	C1	Calibrant		6/7/2019	5:03:52 PM	1	0.08507	0.331
6	1:6	C2	Calibrant		6/7/2019	5:05:07 PM	1	0.13281	0.878
7	1:7	C3	Calibrant		6/7/2019	5:06:22 PM	1	0.24110	2.119
8	1:8	C4	Calibrant		6/7/2019	5:07:37 PM	1	0.52538	5.376
9	1:9	C5	Calibrant		6/7/2019	5:08:52 PM	1	0.70662	7.453
10	1:10	C6	Calibrant		6/7/2019	5:10:07 PM	1	0.91529	9.844
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99847
		Intercept:							0.056224
		Linear coef:							0.087266
11	1:13	w	Blank		6/7/2019	5:11:22 PM	1	0.00283	-0.612
12	1:14	W	Wash		6/7/2019	5:12:37 PM	1	0.00000	-0.644
13	1:15	ICV 280-460066/42-A	Unknown		6/7/2019	5:13:52 PM	1	0.49392	5.016
14	1:16	ICB 280-460066/43-A	Unknown		6/7/2019	5:15:07 PM	1	0.04069	-0.178
15	1:17	LCS 280-460760/1-A	Unknown		6/7/2019	5:16:22 PM	1	0.55368	5.701
16	1:18	MB 280-460760/2-A	Unknown		6/7/2019	5:17:37 PM	1	0.03012	-0.299
17	1:19	280-124223-A-1-B	Unknown		6/7/2019	5:18:52 PM	1	0.03593	-0.233
18	1:20	280-124223-A-1-C MS	Unknown		6/7/2019	5:20:07 PM	1	0.29842	2.775
19	1:21	280-124223-A-1-D MSD	Unknown		6/7/2019	5:21:22 PM	1	0.31642	2.982
20	1:22	w	Blank		6/7/2019	5:22:37 PM	1	-0.00018	-0.646
21	1:23	280-124223-A-2-B	Unknown		6/7/2019	5:23:52 PM	1	0.06225	0.069
22	1:24	280-124223-A-3-B	Unknown		6/7/2019	5:25:07 PM	1	0.06401	0.089
23	0	AutoWash	AutoWash		6/7/2019	5:26:21 PM	1	0.00483	-0.589
24	0	AutoWash	AutoWash		6/7/2019	5:27:36 PM	1	0.00000	-0.644
25	1:25	280-124223-A-4-B	Unknown		6/7/2019	5:28:51 PM	1	0.03923	-0.195
26	1:26	280-124223-A-5-B	Unknown		6/7/2019	5:30:06 PM	1	0.55078	5.667
27	1:27	280-124321-A-1-A	Unknown		6/7/2019	5:31:21 PM	1	0.10751	0.588
28	1:28	280-124073-F-1-A	Unknown		6/7/2019	5:32:36 PM	10	1.26038	137.987
29	1:29	280-124073-E-2-A	Unknown		6/7/2019	5:33:52 PM	1	3.08733	34.734
30	1:30	w	Blank		6/7/2019	5:35:07 PM	1	0.01291	-0.496
31	1:31	CCV 280-460066/44-A	Unknown		6/7/2019	5:36:22 PM	1	0.53003	5.429
32	1:32	CCB 280-460066/45-A	Unknown		6/7/2019	5:37:37 PM	1	0.05011	-0.070
33	1:33	280-123981-E-1-A	Unknown		6/7/2019	5:38:52 PM	1	0.12627	0.803
34	1:34	280-123981-C-3-A	Unknown		6/7/2019	5:40:07 PM	1	0.04668	-0.109
35	0	AutoWash	AutoWash		6/7/2019	5:41:22 PM	1	-0.00056	-0.651
36	0	AutoWash	AutoWash		6/7/2019	5:42:37 PM	1	0.00000	-0.644
37	1:35	280-123981-D-2-B	Unknown		6/7/2019	5:43:52 PM	1	0.06866	0.143
38	1:36	280-123981-D-2-C MS	Unknown		6/7/2019	5:45:07 PM	1	0.30605	2.863

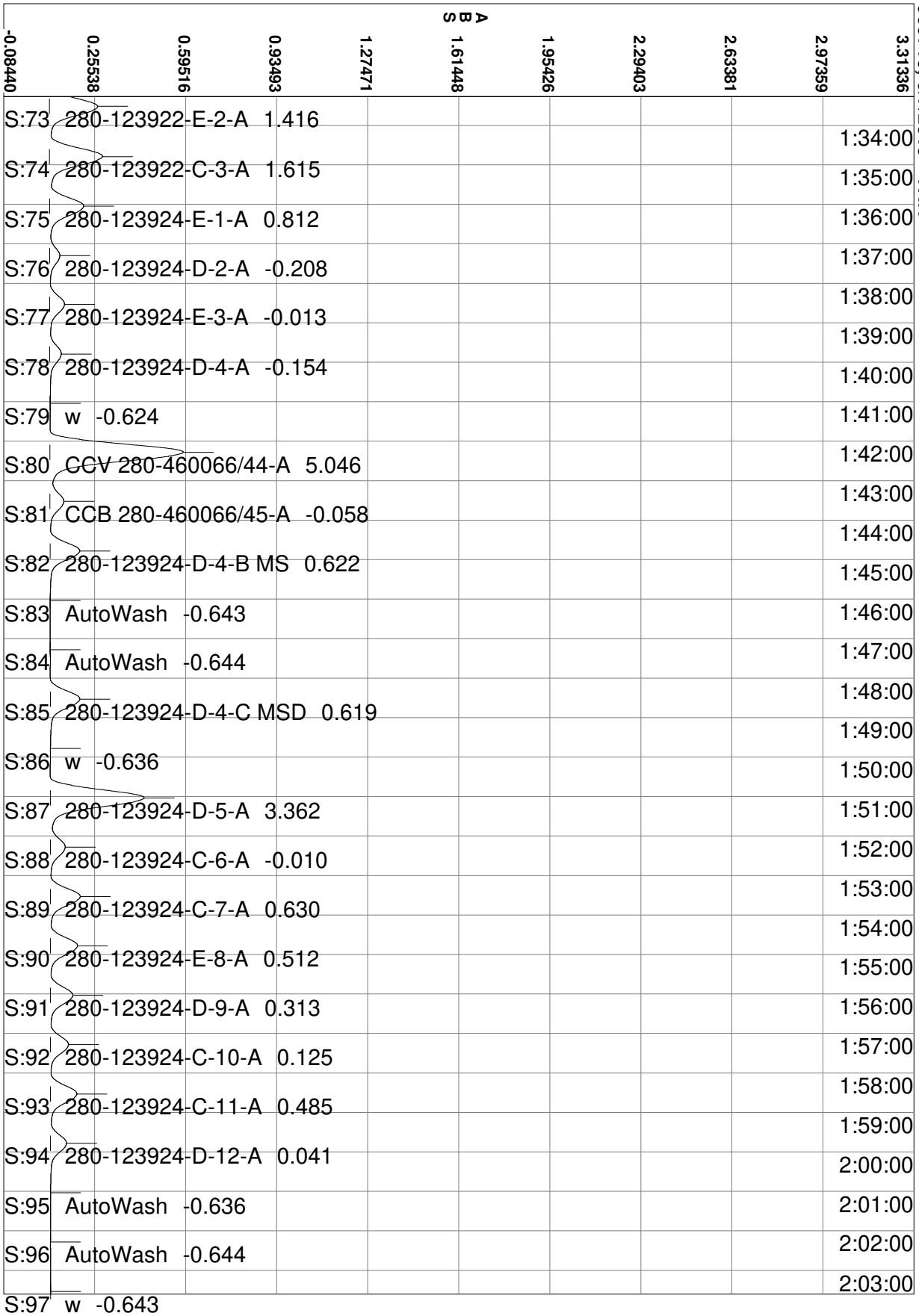
	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
39	1:37	280-123981-D-2-D MSD	Unknown		6/7/2019	5:46:22 PM	1	0.30718	2.876
40	1:38	w	Blank		6/7/2019	5:47:37 PM	1	0.00094	-0.633
41	1:39	280-123981-E-4-A	Unknown		6/7/2019	5:48:52 PM	1	0.06270	0.074
42	1:40	280-123981-D-5-A	Unknown		6/7/2019	5:50:07 PM	1	0.05308	-0.036
43	1:41	280-123981-D-6-A	Unknown		6/7/2019	5:51:22 PM	1	0.05477	-0.017
44	1:42	280-123981-D-7-A	Unknown		6/7/2019	5:52:37 PM	1	0.04053	-0.180
45	1:43	280-123981-E-8-A	Unknown		6/7/2019	5:53:52 PM	1	0.06745	0.129
46	1:44	w	Blank		6/7/2019	5:55:07 PM	1	0.00086	-0.634
47	0	AutoWash	AutoWash		6/7/2019	5:56:22 PM	1	0.00007	-0.644
48	0	AutoWash	AutoWash		6/7/2019	5:57:37 PM	1	0.00000	-0.644
49	1:45	CCV 280-460066/44-A	Unknown		6/7/2019	5:58:52 PM	1	0.49441	5.021
50	1:46	CCB 280-460066/45-A	Unknown		6/7/2019	6:00:07 PM	1	0.05721	0.011
51	1:47	280-123981-C-9-A	Unknown		6/7/2019	6:01:21 PM	1	0.04987	-0.073
52	1:48	280-123983-E-1-A	Unknown		6/7/2019	6:02:36 PM	1	0.13727	0.929
53	1:49	280-123983-C-2-A	Unknown		6/7/2019	6:03:51 PM	1	0.07852	0.256
54	1:50	280-123983-D-3-A	Unknown		6/7/2019	6:05:06 PM	1	0.03961	-0.190
55	1:51	w	Blank		6/7/2019	6:06:21 PM	1	-0.00114	-0.657
56	1:52	LCS 280-460760/27-A	Unknown		6/7/2019	6:07:36 PM	1	0.57313	5.923
57	1:53	MB 280-460760/28-A	Unknown		6/7/2019	6:08:52 PM	1	0.04866	-0.087
58	1:54	280-123969-C-2-A	Unknown		6/7/2019	6:10:07 PM	1	0.05005	-0.071
59	0	AutoWash	AutoWash		6/7/2019	6:11:22 PM	1	0.00009	-0.643
60	0	AutoWash	AutoWash		6/7/2019	6:12:37 PM	1	0.00000	-0.644
61	1:55	280-123969-C-2-B MS	Unknown		6/7/2019	6:13:52 PM	1	0.03892	-0.198
62	1:56	280-123969-C-2-C MSD	Unknown		6/7/2019	6:15:07 PM	1	0.03955	-0.191
63	1:57	280-124073-F-1-A	Unknown		6/7/2019	6:16:22 PM	20	0.64912	135.882
64	1:58	w	Blank		6/7/2019	6:17:37 PM	1	-0.00266	-0.675
65	1:59	CCV 280-460066/44-A	Unknown		6/7/2019	6:18:52 PM	1	0.49031	4.974
66	1:60	CCB 280-460066/45-A	Unknown		6/7/2019	6:20:07 PM	1	0.04584	-0.119
67	2:1	280-123969-C-3-A	Unknown		6/7/2019	6:21:22 PM	1	0.27554	2.513
68	2:2	280-123969-D-4-A	Unknown		6/7/2019	6:22:37 PM	1	0.07696	0.238
69	2:3	280-123969-D-5-A	Unknown		6/7/2019	6:23:52 PM	1	0.05949	0.037
70	2:4	280-123922-C-1-A	Unknown		6/7/2019	6:25:07 PM	1	0.09728	0.470
71	0	AutoWash	AutoWash		6/7/2019	6:26:22 PM	1	0.00162	-0.626
72	0	AutoWash	AutoWash		6/7/2019	6:27:37 PM	1	0.00000	-0.644
73	2:5	280-123922-E-2-A	Unknown		6/7/2019	6:28:52 PM	1	0.17979	1.416
74	2:6	280-123922-C-3-A	Unknown		6/7/2019	6:30:07 PM	1	0.19714	1.615
75	2:7	280-123924-E-1-A	Unknown		6/7/2019	6:31:22 PM	1	0.12708	0.812
76	2:8	280-123924-D-2-A	Unknown		6/7/2019	6:32:37 PM	1	0.03805	-0.208
77	2:9	280-123924-E-3-A	Unknown		6/7/2019	6:33:52 PM	1	0.05510	-0.013
78	2:10	280-123924-D-4-A	Unknown		6/7/2019	6:35:06 PM	1	0.04278	-0.154
79	2:11	w	Blank		6/7/2019	6:36:21 PM	1	0.00176	-0.624
80	2:12	CCV 280-460066/44-A	Unknown		6/7/2019	6:37:36 PM	1	0.49652	5.046
81	2:13	CCB 280-460066/45-A	Unknown		6/7/2019	6:38:51 PM	1	0.05118	-0.058
82	2:14	280-123924-D-4-B MS	Unknown		6/7/2019	6:40:06 PM	1	0.11047	0.622
83	0	AutoWash	AutoWash		6/7/2019	6:41:21 PM	1	0.00010	-0.643
84	0	AutoWash	AutoWash		6/7/2019	6:42:36 PM	1	0.00000	-0.644
85	2:15	280-123924-D-4-C MSD	Unknown		6/7/2019	6:43:52 PM	1	0.11023	0.619
86	2:16	w	Blank		6/7/2019	6:45:07 PM	1	0.00071	-0.636

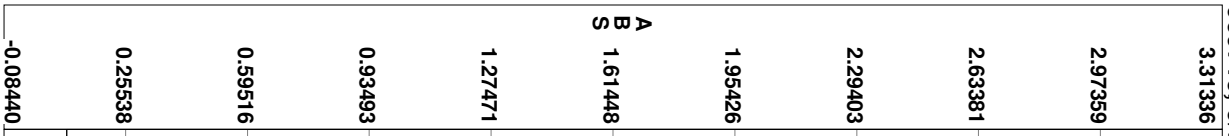
	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
87	2:17	280-123924-D-5-A	Unknown		6/7/2019	6:46:22 PM	1	0.34959	3.362
88	2:18	280-123924-C-6-A	Unknown		6/7/2019	6:47:37 PM	1	0.05535	-0.010
89	2:19	280-123924-C-7-A	Unknown		6/7/2019	6:48:52 PM	1	0.11124	0.630
90	2:20	280-123924-E-8-A	Unknown		6/7/2019	6:50:07 PM	1	0.10092	0.512
91	2:21	280-123924-D-9-A	Unknown		6/7/2019	6:51:22 PM	1	0.08357	0.313
92	2:22	280-123924-C-10-A	Unknown		6/7/2019	6:52:37 PM	1	0.06717	0.125
93	2:23	280-123924-C-11-A	Unknown		6/7/2019	6:53:52 PM	1	0.09851	0.485
94	2:24	280-123924-D-12-A	Unknown		6/7/2019	6:55:07 PM	1	0.05984	0.041
95	0	AutoWash	AutoWash		6/7/2019	6:56:22 PM	1	0.00073	-0.636
96	0	AutoWash	AutoWash		6/7/2019	6:57:37 PM	1	0.00000	-0.644
97	2:25	w	Blank		6/7/2019	6:58:52 PM	1	0.00011	-0.643
98	2:26	CCV 280-460066/44-A	Unknown		6/7/2019	7:00:07 PM	1	0.49477	5.025
99	2:27	CCB 280-460066/45-A	Unknown		6/7/2019	7:01:22 PM	1	0.05077	-0.063
100	2:28	280-124073-E-2-A	Unknown		6/7/2019	7:02:37 PM	10	0.87412	93.724
101	2:29	w	Blank		6/7/2019	7:03:52 PM	1	0.00172	-0.625
102	2:30	CCV 280-460066/44-A	Unknown		6/7/2019	7:05:07 PM	1	0.48876	4.956
103	2:31	CCB 280-460066/45-A	Unknown		6/7/2019	7:06:22 PM	1	0.05025	-0.068
104	0	AutoWash	AutoWash		6/7/2019	7:07:37 PM	1	-0.00094	-0.655
105	0	AutoWash	AutoWash		6/7/2019	7:08:52 PM	1	0.00000	-0.644


060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:1 SYNC 9.767
S:2 CO -0.618
S:3 w -0.646
S:4 W -0.644
S:5 C1 0.331
S:6 C2 0.878
S:7 C3 2.119
S:8 C4 5.376
S:9 C5 7.453
S:10 C6 9.844
S:11 w -0.612
S:12 W -0.644
S:13 ICV 280-460066/42-A 5.016
S:14 ICB 280-460066/43-A -0.178
S:15 LCS 280-460760/1-A 5.701
S:16 MB 280-460760/2-A -0.299
S:17 280-124223-A-1-B -0.233
S:18 280-124223-A-1-C MS 2.775
S:19 280-124223-A-1-D MSD 2.982
S:20 w -0.646
S:21 280-124223-A-2-B 0.069
S:22 280-124223-A-3-B 0.089
S:23 AutoWash -0.589
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060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:24 AutoWash -0.644
S:25 280-124223-A-4-B -0.195
S:26 280-124223-A-5-B 5.667
S:27 280-124321-A-1-A 0.588
S:28 280-124073-F-1-A 137.987
S:29 280-124073-E-2-A 34.734
S:30 w -0.496
S:31 CCV 280-460066/44-A 5.429
S:32 CCB 280-460066/45-A -0.070
S:33 280-123981-E-1-A 0.803
S:34 280-123981-C-3-A -0.109
S:35 AutoWash -0.651
S:36 AutoWash -0.644
S:37 280-123981-D-2-B 0.143
S:38 280-123981-D-2-C MS 2.863
S:39 280-123981-D-2-D MSD 2.876
S:40 w -0.633
S:41 280-123981-E-4-A 0.074
S:42 280-123981-D-5-A -0.036
S:43 280-123981-D-6-A -0.017
S:44 280-123981-D-7-A -0.180
S:45 280-123981-E-8-A 0.129
S:46 w -0.634
S:47 AutoWash -0.644
S:48 AutoWash -0.644
33:00
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58:00
59:00
1:00:00
1:01:00
1:02:00


060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:49 CCV 280-460066/44-A 5.021
S:50 CCB 280-460066/45-A 0.011
S:51 280-123981-C-9-A -0.073
S:52 280-123983-E-1-A 0.929
S:53 280-123983-C-2-A 0.256
S:54 280-123983-D-3-A -0.190
S:55 w -0.657
S:56 LCS 280-460760/27-A 5.923
S:57 MB 280-460760/28-A -0.087
S:58 280-123969-C-2-A -0.071
S:59 AutoWash -0.643
S:60 AutoWash -0.644
S:61 280-123969-C-2-B MS -0.198
S:62 280-123969-C-2-C MSD -0.191
S:63 280-124073-F-1-A 135.882
S:64 w -0.675
S:65 CCV 280-460066/44-A 4.974
S:66 CCB 280-460066/45-A -0.119
S:67 280-123969-C-3-A 2.513
S:68 280-123969-D-4-A 0.238
S:69 280-123969-D-5-A 0.037
S:70 280-123922-C-1-A 0.470
S:71 AutoWash -0.626
S:72 AutoWash -0.644
1:03:00
1:04:00
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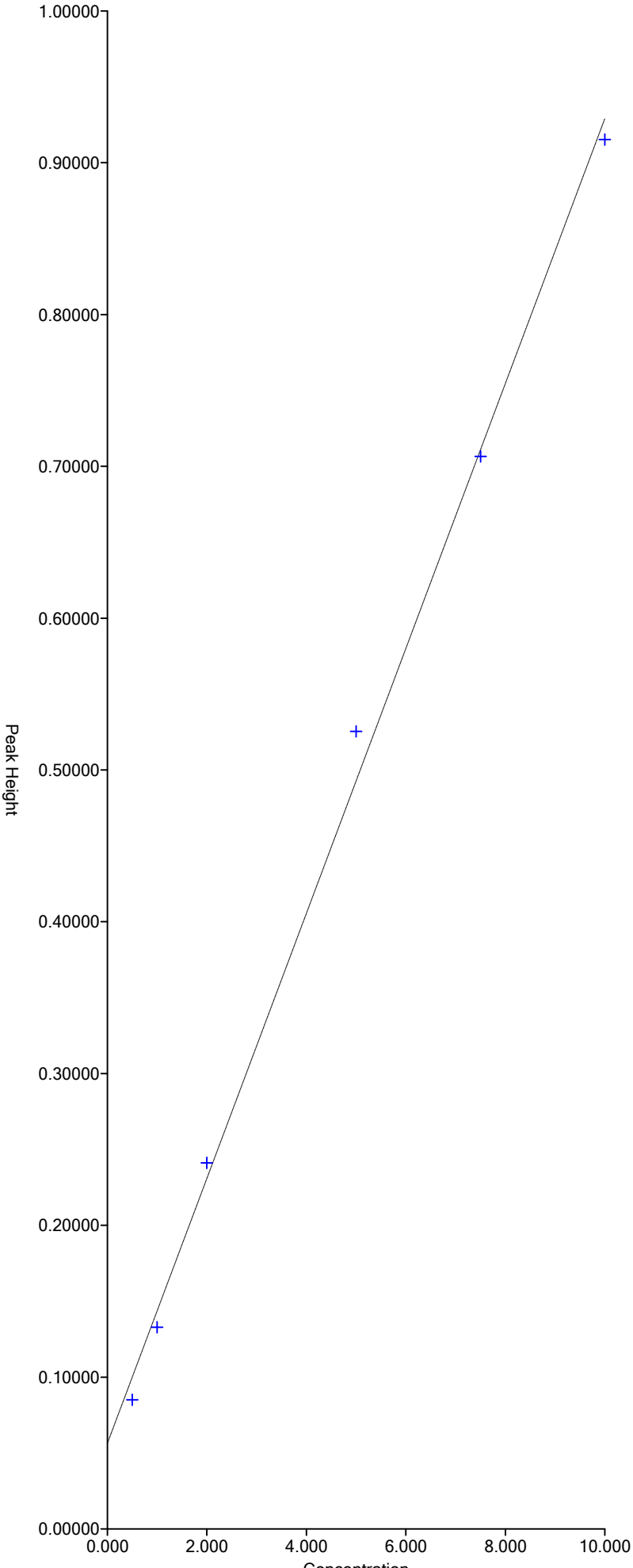

060719, 6/7/2019 - TKN
ABS
-0.08440
0.25538
0.59516
0.93493
1.27471
1.61448
1.95426
2.29403
2.63381
2.97359
3.31336
S:73 280-123922-E-2-A 1.416
S:74 280-123922-C-3-A 1.615
S:75 280-123924-E-1-A 0.812
S:76 280-123924-D-2-A -0.208
S:77 280-123924-E-3-A -0.013
S:78 280-123924-D-4-A -0.154
S:79 w -0.624
S:80 CCV 280-460066/44-A 5.046
S:81 CCB 280-460066/45-A -0.058
S:82 280-123924-D-4-B MS 0.622
S:83 AutoWash -0.643
S:84 AutoWash -0.644
S:85 280-123924-D-4-C MSD 0.619
S:86 w -0.636
S:87 280-123924-D-5-A 3.362
S:88 280-123924-C-6-A -0.010
S:89 280-123924-C-7-A 0.630
S:90 280-123924-E-8-A 0.512
S:91 280-123924-D-9-A 0.313
S:92 280-123924-C-10-A 0.125
S:93 280-123924-C-11-A 0.485
S:94 280-123924-D-12-A 0.041
S:95 AutoWash -0.636
S:96 AutoWash -0.644
S:97 w -0.643
1:34:00
1:35:00
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2:02:00
2:03:00



060719, 6/7/2019 - TKN

	2:04:00
S:98 CCV 280-460066/44-A 5.025	2:05:00
S:99 CCB 280-460066/45-A -0.063	2:06:00
S:100 280-124073-E-2-A 93.724	2:07:00
S:101 w -0.625	2:08:00
S:102 CCV 280-460066/44-A 4.956	2:09:00
S:103 CCB 280-460066/45-A -0.068	2:10:00
S:104 AutoWash -0.655	2:11:00
S:105 AutoWash -0.644	2:12:00
	2:13:00
	2:14:00
	2:15:00
	2:16:00
	2:17:00
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	2:19:00
	2:20:00
	2:21:00
	2:22:00
	2:23:00
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	2:27:00
	2:28:00
	2:29:00
	2:30:00
	2:31:00
	2:32:00
	2:33:00

Calibration for TKN



Segment 1: Equation: y = 0.08727x + 0.05622
Correlation: 0.9985

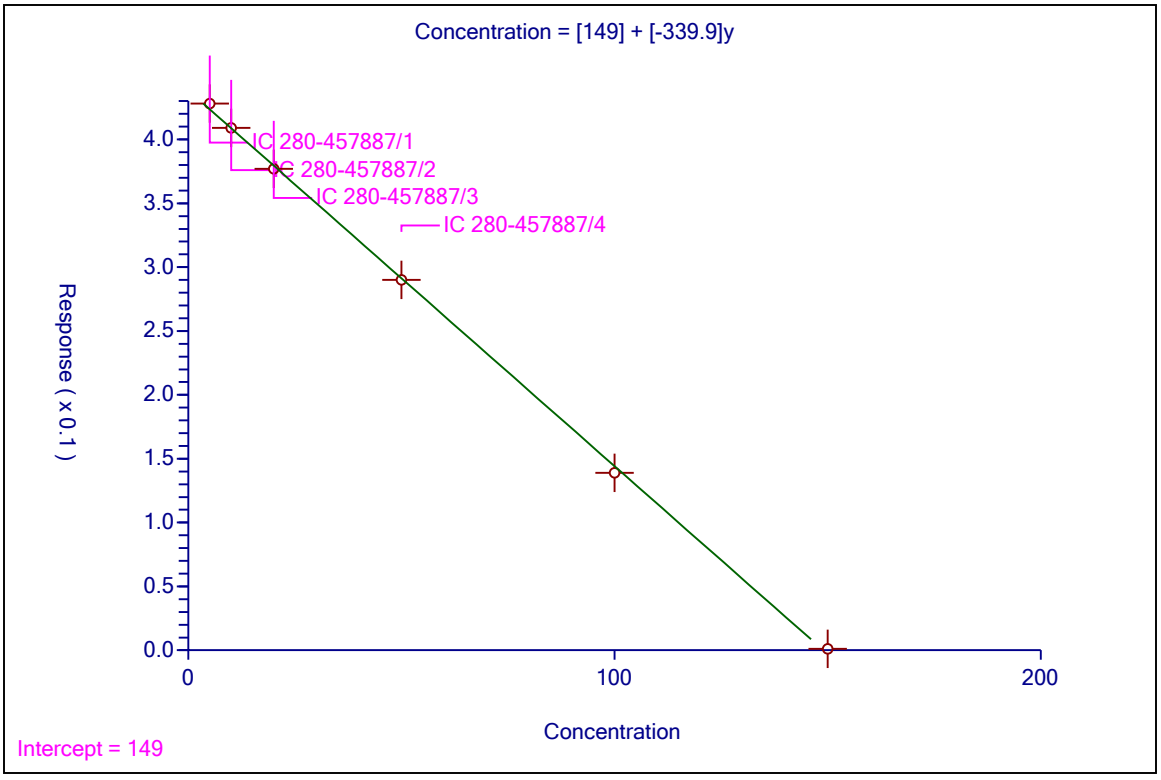
X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-457887/1	5.0	0.428			0.0856	Y
2	IC 280-457887/2	10.0	0.409			0.0409	Y
3	IC 280-457887/3	20.0	0.377			0.01885	Y
4	IC 280-457887/4	50.0	0.29			0.0058	Y
5	IC 280-457887/5	100.0	0.139			0.00139	Y
6	IC 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123027-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 16 Lab ID: **280-123027-K-1** Inj Date: 5/13/2019 7:39:00AM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.374	21.87740 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123112-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123113-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 17 Lab ID: **280-123113-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	11 J mg/L				

RS# 18 Lab ID: **280-123113-A-2** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.227	71.84270 mg/L	mg/L				

RS# 19 Lab ID: **280-123113-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 20 Lab ID: **280-123113-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.394	15.07940 mg/L	15 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.150	98.01500	mg/L	mg/L	98	90	110	

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123114-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	12 J mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 21 Lab ID: **280-123114-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.404	11.68040 mg/L	12 J mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

Job Number: 280-123115-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	20 U mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	20 U mg/L				

RS# 24 Lab ID: **280-123115-A-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.361	26.29610 mg/L	mg/L				

RS# 25 Lab ID: **280-123115-A-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.359	26.97590 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Chemical Oxygen De	0.148	98.69480	mg/L	mg/L	99	90	110

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	20 U mg/L				

Job Number: 280-123267-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

RS# 26 Lab ID: **280-123115-A-4** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.317	41.25170 mg/L	mg/L				

RS# 27 Lab ID: **280-123115-A-4 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.167	92.23670 mg/L	mg/L	102	90 110		

RS# 28 Lab ID: **280-123115-A-4 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.190	84.41900 mg/L	mg/L	86	90 110	9	11

RS# 29 Lab ID: **280-123267-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	mg/L				

RS# 30 Lab ID: **280-123267-E-2** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.381	19.49810 mg/L	39 J mg/L				

RS# 31 Lab ID: **280-123267-E-3** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.340	33.43400 mg/L	mg/L				

RS# 32 Lab ID: **280-123267-E-4** Inj Date: 5/13/2019 7:39:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.061	128.2661 mg/L	mg/L				

RS# 33 Lab ID: **280-123267-B-5** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.428	3.522800 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-457887/34** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.148	98.69480 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-457887/35** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.455	-5.654500 mg/L	mg/L				

RS# 36 Lab ID: **280-123267-B-6** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.420	6.242000 mg/L	mg/L				

RS# 37 Lab ID: **280-123267-C-7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.464	-8.713600 mg/L	mg/L				

RS# 38 Lab ID: **280-123267-B-8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 39 Lab ID: **280-123267-D-9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.292	49.74920 mg/L	mg/L				

RS# 40 Lab ID: **CCV 280-457887/40** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 41 Lab ID: **CCB 280-457887/41** Inj Date: 5/13/2019 7:39:49AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123444-1
LIMS Batch: 457887
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 7 Lab ID: **ICV 280-457887/7** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.230	70.82300 mg/L	mg/L	94	90 110		

RS# 8 Lab ID: **ICB 280-457887/8** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 9 Lab ID: **LCS 280-457887/9** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.153	96.99530 mg/L	mg/L	97	90 110		

RS# 10 Lab ID: **LCSD 280-457887/10** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.160	94.61600 mg/L	mg/L	95	90 110	2	11

RS# 11 Lab ID: **MB 280-457887/11** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.452	-4.634800 mg/L	mg/L				

RS# 12 Lab ID: **280-123112-C-1** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.402	12.36020 mg/L	mg/L				

RS# 13 Lab ID: **280-123112-C-1 MS** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.269	57.56690 mg/L	mg/L	90	90 110		

RS# 14 Lab ID: **280-123112-C-1 MSD** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.271	56.88710 mg/L	mg/L	89	90 110	1	11

RS# 15 Lab ID: **280-123444-E-1** Inj Date: 5/13/2019 7:39:00AM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.256	61.98560 mg/L	mg/L				

RS# 22 Lab ID: **CCV 280-457887/22** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.150	98.01500 mg/L	mg/L	98	90 110		

RS# 23 Lab ID: **CCB 280-457887/23** Inj Date: 5/13/2019 7:39:00AM Dil: 1.0 Meth: 410.4

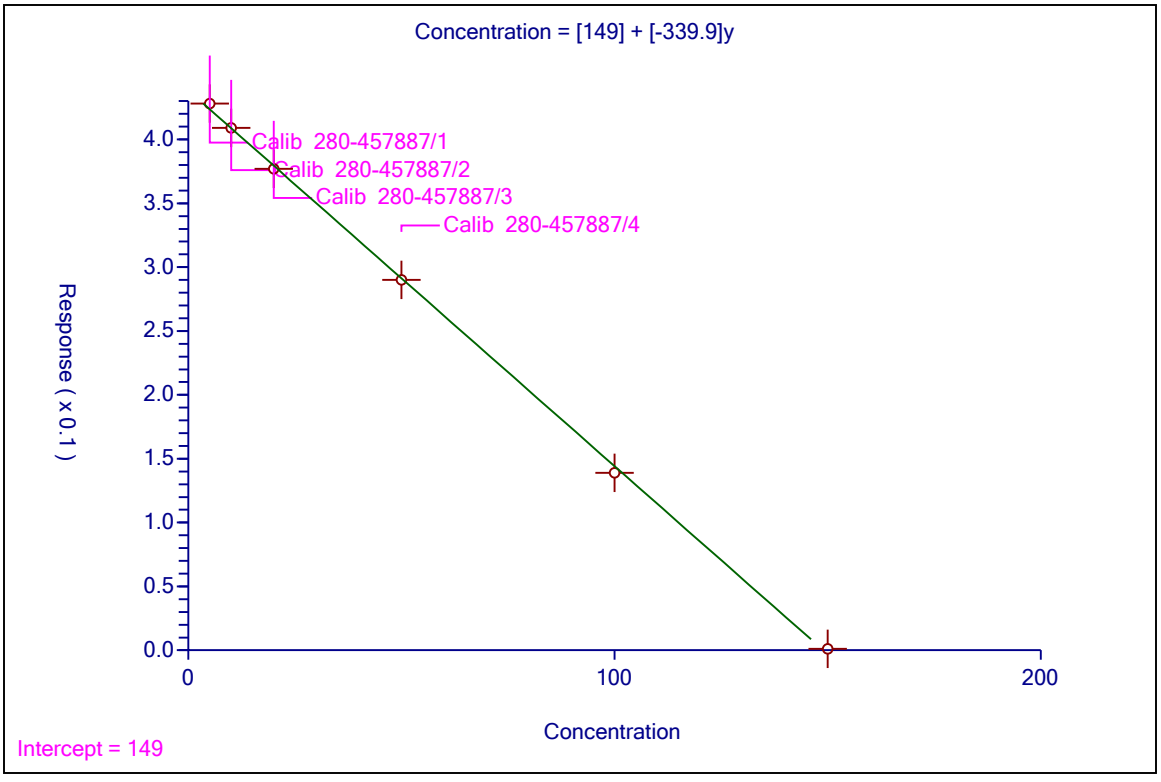
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.453	-4.974700 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123922-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	20 U mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	20 U mg/L					

RS# 6 Lab ID: **280-124070-C-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	21 J mg/L					

RS# 7 Lab ID: **280-124070-C-1 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.272	56.54720 mg/L	mg/L	92	90	110		

RS# 8 Lab ID: **280-124070-C-1 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	82	90	110	9	11

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90	110		

TALS Raw Data Report

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

RS# 19 Lab ID: **280-123922-E-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.431	2.503100 mg/L	40 U mg/L				

RS# 20 Lab ID: **280-123922-E-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	40 U mg/L				

RS# 21 Lab ID: **280-123922-E-2 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90 110		

RS# 22 Lab ID: **280-123922-E-2 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L	97	90 110	7	11

RS# 23 Lab ID: **280-123922-C-3** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	40 U mg/L				

RS# 28 Lab ID: **CCV 280-460807/28** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 29 Lab ID: **CCB 280-460807/29** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123923-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	mg/L					

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90	110		

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L					

RS# 20 Lab ID: **280-123922-E-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L					

RS# 21 Lab ID: **280-123922-E-2 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90	110		

TALS Raw Data Report

RS# 22 Lab ID: **280-123922-E-2 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L	97	90	110	7	11

RS# 24 Lab ID: **280-123923-E-1** Inj Date: 6/7/2019 9:42:00AM Dil: 10.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.430	2.843000 mg/L	mg/L					

RS# 28 Lab ID: **CCV 280-460807/28** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90	110		

RS# 29 Lab ID: **CCB 280-460807/29** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	mg/L					

TALS Raw Data Report

Job Number: 280-123924-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	20 U mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	20 U mg/L					

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90	110		

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L					

RS# 20 Lab ID: **280-123922-E-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	40 U mg/L					

RS# 21 Lab ID: **280-123922-E-2 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90	110		

TALS Raw Data Report

RS# 22 Lab ID: **280-123922-E-2 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L	97	90 110	7	11

RS# 25 Lab ID: **280-123924-E-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	40 U mg/L				

RS# 26 Lab ID: **280-123924-D-2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.434	1.483400 mg/L	20 U mg/L				

RS# 27 Lab ID: **280-123924-C-3** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.429	3.182900 mg/L	40 U mg/L				

RS# 28 Lab ID: **CCV 280-460807/28** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 29 Lab ID: **CCB 280-460807/29** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	20 U mg/L				

RS# 30 Lab ID: **280-123924-C-4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.290	50.42900 mg/L	mg/L				

RS# 31 Lab ID: **280-123924-G-5** Inj Date: 6/7/2019 9:50:29AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.427	3.862700 mg/L	40 U mg/L				

RS# 32 Lab ID: **280-123924-G-6** Inj Date: 6/7/2019 9:50:29AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	40 U mg/L				

RS# 33 Lab ID: **280-123924-C-7** Inj Date: 6/7/2019 9:50:29AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.419	6.581900 mg/L	40 U mg/L				

TALS Raw Data Report

RS# 34 Lab ID: **CCV 280-460807/34** Inj Date: 6/7/2019 9:50:29AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.144	100.0544 mg/L	mg/L	100	90 110		

RS# 35 Lab ID: **CCB 280-460807/35** Inj Date: 6/7/2019 9:50:29AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123941-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	mg/L					

RS# 6 Lab ID: **280-124070-C-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	mg/L					

RS# 7 Lab ID: **280-124070-C-1 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.272	56.54720 mg/L	mg/L	92	90	110		

RS# 8 Lab ID: **280-124070-C-1 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	82	90	110	9	11

RS# 14 Lab ID: **280-123941-J-5** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.424	4.882400 mg/L	mg/L					

TALS Raw Data Report

RS# 15 Lab ID: **280-123941-K-6** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.443	-1.575700 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 18 Lab ID: **280-123941-J-7** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 20 Lab ID: **280-123922-E-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.438	0.1238000 mg/L	mg/L				

RS# 21 Lab ID: **280-123922-E-2 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.285	52.12850 mg/L	mg/L	104	90 110		

RS# 22 Lab ID: **280-123922-E-2 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.295	48.72950 mg/L	mg/L	97	90 110	7	11

RS# 28 Lab ID: **CCV 280-460807/28** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.142	100.7342 mg/L	mg/L	101	90 110		

RS# 29 Lab ID: **CCB 280-460807/29** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-124070-1
LIMS Batch: 460807
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460807/1** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.218	74.90180 mg/L	mg/L	99	90	110		

RS# 2 Lab ID: **ICB 280-460807/2** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.441	0.8959000 mg/L	mg/L					

RS# 3 Lab ID: **LCS 280-460807/3** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90	110		

RS# 4 Lab ID: **LCSD 280-460807/4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.149	98.35490 mg/L	mg/L	98	90	110	1	11

RS# 5 Lab ID: **MB 280-460807/5** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.447	-2.935300 mg/L	mg/L					

RS# 6 Lab ID: **280-124070-C-1** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.407	10.66070 mg/L	21 J mg/L					

RS# 7 Lab ID: **280-124070-C-1 MS** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.272	56.54720 mg/L	mg/L	92	90	110		

RS# 8 Lab ID: **280-124070-C-1 MSD** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.287	51.44870 mg/L	mg/L	82	90	110	9	11

RS# 9 Lab ID: **280-124070-C-2** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Chemical Oxygen De	0.435	1.143500 mg/L	mg/L					

TALS Raw Data Report

RS# 10 Lab ID: **280-124070-C-3** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	mg/L				

RS# 11 Lab ID: **280-124070-B-4** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.399	13.37990 mg/L	13 J mg/L				

RS# 12 Lab ID: **280-124070-B-5** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.461	-7.693900 mg/L	mg/L				

RS# 13 Lab ID: **280-124070-B-6** Inj Date: 6/7/2019 9:42:00AM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.437	0.4637000 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460807/16** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.156	95.97560 mg/L	mg/L	96	90 110		

RS# 17 Lab ID: **CCB 280-460807/17** Inj Date: 6/7/2019 9:42:00AM Dil: 1.0 Meth: 410.4

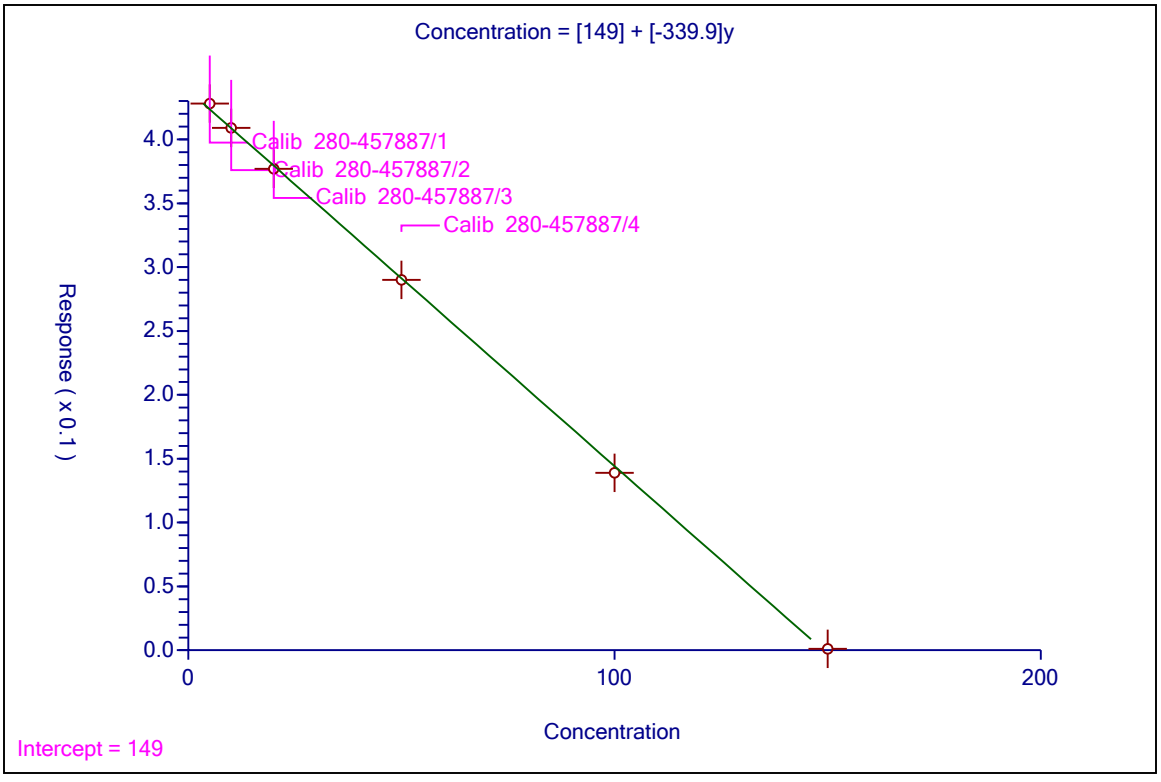
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

Curve Coefficients	
Intercept:	149
Slope:	-339.9

Error Coefficients	
Standard Error:	1.41
Relative Standard Error:	15.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 280-457887/1	5.0	0.428			0.0856	Y
2	Calib 280-457887/2	10.0	0.409			0.0409	Y
3	Calib 280-457887/3	20.0	0.377			0.01885	Y
4	Calib 280-457887/4	50.0	0.29			0.0058	Y
5	Calib 280-457887/5	100.0	0.139			0.00139	Y
6	Calib 280-457887/6	150.0	0.001			0.000007	Y



TALS Raw Data Report

Job Number: 280-123822-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 18 Lab ID: **280-123822-H-1** Inj Date: 6/8/2019 12:45:28PM Dil: 100.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.390	16.43900 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123904-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 19 Lab ID: **280-123904-C-4** Inj Date: 6/8/2019 12:45:28PM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.371	22.89710 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

TALS Raw Data Report

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123924-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	20 U mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 11 Lab ID: **280-123924-D-8** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.411	9.301100 mg/L	9.3 J mg/L				

RS# 12 Lab ID: **280-123924-E-9** Inj Date: 6/8/2019 12:45:28PM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.425	4.542500 mg/L	40 U mg/L				

RS# 13 Lab ID: **280-123924-C-10** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.237	68.44370 mg/L	mg/L				

RS# 14 Lab ID: **280-123924-E-11** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.321	39.89210 mg/L	mg/L				

RS# 15 Lab ID: **280-123924-E-12** Inj Date: 6/8/2019 12:45:28PM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.416	7.601600 mg/L	40 U mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123930-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	20 U mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	20 U mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	20 U mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	20 U mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 23 Lab ID: **280-123930-D-2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.401	12.70010 mg/L	13 J mg/L				

RS# 24 Lab ID: **280-123930-C-3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.399	13.37990 mg/L	13 J mg/L				

RS# 25 Lab ID: **280-123930-D-4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.376	21.19760 mg/L	mg/L				

RS# 26 Lab ID: **280-123930-E-5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.390	16.43900 mg/L	16 J mg/L				

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	20 U mg/L				

TALS Raw Data Report

Job Number: 280-123941-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 6 Lab ID: **280-123941-J-9** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.432	2.163200 mg/L	mg/L				

RS# 7 Lab ID: **280-123941-J-9 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.288	51.10880 mg/L	mg/L	102	90 110		

RS# 8 Lab ID: **280-123941-J-9 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.294	49.06940 mg/L	mg/L	98	90 110	4	11

RS# 9 Lab ID: **280-123941-K-10** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	mg/L				

RS# 10 Lab ID: **280-123941-J-11** Inj Date: 6/8/2019 12:45:28PM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.436	0.8036000 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123945-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 27 Lab ID: **280-123945-G-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.350	30.03500 mg/L	mg/L				

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

TALS Raw Data Report

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123947-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 30 Lab ID: **280-123947-B-2** Inj Date: 6/8/2019 12:45:28PM Dil: 2.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.248	64.70480 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-460943/34** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-460943/35** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.451	-4.294900 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123972-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 32 Lab ID: **280-123972-B-1** Inj Date: 6/8/2019 12:50:52PM Dil: 50.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	<-0.100	mg/L	mg/L				

RS# 33 Lab ID: **280-123972-B-2** Inj Date: 6/8/2019 12:50:52PM Dil: 10.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	<-0.100	mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-460943/34** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-460943/35** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.451	-4.294900 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-124097-1
LIMS Batch: 460943
Equipment: WC_Genesys20

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **ICV 280-460943/1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.229	71.16290 mg/L	mg/L	94	90 110		

RS# 2 Lab ID: **ICB 280-460943/2** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.444	-1.915600 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-460943/3** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 4 Lab ID: **LCSD 280-460943/4** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.141	101.0741 mg/L	mg/L	101	90 110	2	11

RS# 5 Lab ID: **MB 280-460943/5** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.448	-3.275200 mg/L	mg/L				

RS# 16 Lab ID: **CCV 280-460943/16** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.168	91.89680 mg/L	mg/L	92	90 110		

RS# 17 Lab ID: **CCB 280-460943/17** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.442	-1.235800 mg/L	mg/L				

RS# 20 Lab ID: **280-123930-C-1** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.362	25.95620 mg/L	mg/L				

RS# 21 Lab ID: **280-123930-C-1 MS** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.280	53.82800 mg/L	mg/L	56	90 110		

RS# 22 Lab ID: **280-123930-C-1 MSD** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.297	48.04970 mg/L	mg/L	44	90 110	11	11

RS# 28 Lab ID: **CCV 280-460943/28** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.155	96.31550 mg/L	mg/L	96	90 110		

RS# 29 Lab ID: **CCB 280-460943/29** Inj Date: 6/8/2019 12:45:28PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.446	-2.595400 mg/L	mg/L				

RS# 31 Lab ID: **280-124097-B-1** Inj Date: 6/8/2019 12:50:52PM Dil: 5.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.423	5.222300 mg/L	mg/L				

RS# 34 Lab ID: **CCV 280-460943/34** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.147	99.03470 mg/L	mg/L	99	90 110		

RS# 35 Lab ID: **CCB 280-460943/35** Inj Date: 6/8/2019 12:50:52PM Dil: 1.0 Meth: 410.4

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Chemical Oxygen De	0.451	-4.294900 mg/L	mg/L				

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060619.RST
Sample table path	C:\FLOW_4\p060619.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	07-Jun-19
Time acquired	00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	16:47	106	Sync	1284746	532.010	HI
06-Jun-19	16:50	0	Carryover	11761	2.861	
06-Jun-19	16:53	0	Carryover	1222	-1.624	LO
06-Jun-19	16:56	0	Read Baseline	-538	-2.373	BL
06-Jun-19	16:59	101	Cal 10.0 ppb	33132	11.950	
06-Jun-19	17:02	102	Cal 20.0 ppb	57468	22.291	
06-Jun-19	17:05	103	Cal 50.0 ppb	116843	47.484	
06-Jun-19	17:08	104	Cal 100 ppb	242088	100.447	
06-Jun-19	17:11	105	Cal 200 ppb	478988	199.968	
06-Jun-19	17:14	106	Cal 500 ppb	1206011	500.004	
06-Jun-19	17:17	0	Blank	-4565	-4.087	LO
06-Jun-19	17:20	0	Read Baseline	876	-1.771	BL
06-Jun-19	17:23	107	ICV 200 ppb	470022	196.217	
06-Jun-19	18:53	109	ICVL 100 ppb	264459	109.882	
06-Jun-19	18:56	0	ICB	-2784	-3.329	LO
06-Jun-19	18:59	0	Read Baseline	-7211	-5.213	BL UM
06-Jun-19	19:02	113	LCS 280-460735/1-A	481696	201.101	
06-Jun-19	19:05	114	MB 280-460735/2-A	7136	0.893	
06-Jun-19	19:08	115	280-123273-G-19-B	7689	1.129	
06-Jun-19	19:11	116	280-123889-A-2-B	35443	12.932	
06-Jun-19	19:14	117	280-123993-B-2-B	48783	18.601	
06-Jun-19	19:17	118	280-123993-B-4-B	130790	53.394	
06-Jun-19	19:20	119	280-123853-G-4-A	26462	9.114	
06-Jun-19	19:23	120	280-123853-G-5-A	22970	7.629	
06-Jun-19	19:26	121	280-123853-G-6-A	20406	6.538	
06-Jun-19	19:29	122	280-123855-D-1-B	28502	9.981	
06-Jun-19	19:32	0	blank	-10935	-6.799	LO
06-Jun-19	19:35	0	read baseline	-15155	-8.596	BL
06-Jun-19	19:38	108	CCV 200 ppb	487488	203.523	
06-Jun-19	19:41	104	CCVL 100 ppb	246780	102.427	
06-Jun-19	19:44	0	CCB	6	-2.142	LO
06-Jun-19	19:47	0	read baseline	3191	-0.786	BL
06-Jun-19	19:50	123	280-123855-D-1-C MS	496482	207.283	
06-Jun-19	19:53	124	280-123855-D-1-D MSD	511992	213.764	
06-Jun-19	19:56	125	280-123855-C-2-B	21738	7.105	
06-Jun-19	19:59	126	280-123855-E-3-D	39628	14.711	
06-Jun-19	20:02	127	280-123855-E-4-B	20998	6.790	
06-Jun-19	20:05	128	280-123855-C-5-B	26770	9.245	
06-Jun-19	20:08	129	280-123972-B-1-A	737659	307.650	
06-Jun-19	20:11	130	280-123972-A-2-A	54507	21.033	
06-Jun-19	20:14	131	280-123981-G-1-A	472837	197.395	
06-Jun-19	20:17	132	280-123981-G-2-A	36575	13.413	

Result path C:\FLOW_4\P060619.RST
Sample table path C:\FLOW_4\p060619.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 07-Jun-19
Time acquired 00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
06-Jun-19	20:20	0	blank	7303	0.964	
06-Jun-19	20:23	0	read baseline	3039	-0.851	BL
06-Jun-19	20:26	108	CCV 200 ppb	518804	216.610	
06-Jun-19	20:29	104	CCVL 100 ppb	261180	108.500	
06-Jun-19	20:32	0	CCB	9128	1.741	
06-Jun-19	20:35	0	read baseline	3064	-0.840	BL
06-Jun-19	20:38	133	280-123981-G-3-A	31116	11.093	
06-Jun-19	20:41	134	280-123981-G-4-A	32959	11.876	
06-Jun-19	20:44	135	280-123981-G-5-A	28330	9.908	
06-Jun-19	20:47	136	280-123981-G-6-A	28401	9.938	
06-Jun-19	20:50	137	280-123981-G-6-B MS	493108	205.873	
06-Jun-19	20:53	138	280-123981-G-6-C MSD	496776	207.406	
06-Jun-19	20:57	139	LCS 280-460749/1-A	498298	208.042	
06-Jun-19	21:00	140	MB 280-460749/2-A	24545	8.299	
06-Jun-19	21:03	141	280-123981-G-7-A	31197	11.127	
06-Jun-19	21:06	142	280-123981-G-8-B	29210	10.282	
06-Jun-19	21:09	0	blank	4725	-0.133	LO
06-Jun-19	21:12	0	read baseline	3560	-0.629	BL
06-Jun-19	21:15	108	CCV 200 ppb	507874	212.044	
06-Jun-19	21:18	104	CCVL 100 ppb	245911	102.060	
06-Jun-19	21:21	0	CCB	-4681	-4.136	LO
06-Jun-19	21:24	0	read baseline	-5973	-4.686	BL
06-Jun-19	21:27	143	280-123981-G-9-B	23801	7.982	
06-Jun-19	21:30	144	280-123983-G-1-B	69644	27.462	
06-Jun-19	21:33	145	280-123983-G-2-B	34350	12.468	
06-Jun-19	21:36	146	280-123983-G-3-B	35107	12.789	
06-Jun-19	21:39	147	280-124270-D-1-B	41354	15.444	
06-Jun-19	21:42	148	280-124270-D-2-B	40819	15.217	
06-Jun-19	21:45	149	280-124270-D-3-B	29994	10.615	
06-Jun-19	21:48	150	x280-124270-D-3-C MS	26693	9.212	
06-Jun-19	22:53	151	x280-124270-D-3-D MS	436947	182.370	
06-Jun-19	22:56	152	x280-124038-I-4-A	23051	7.663	
06-Jun-19	22:59	0	blank	-14444	-8.293	LO
06-Jun-19	23:02	0	read baseline	18979	5.932	BL UM
06-Jun-19	23:05	108	CCV 200 ppb	517632	216.121	
06-Jun-19	23:08	104	CCVL 100 ppb	260517	108.220	
06-Jun-19	23:11	0	CCB	7489	1.043	
06-Jun-19	23:14	0	read baseline	6427	0.591	BL
06-Jun-19	23:17	153	280-123924-G-1-A	22649	7.492	
06-Jun-19	23:20	154	280-123924-G-2-A	27403	9.514	
06-Jun-19	23:23	155	280-123924-G-3-A	65091	25.529	
06-Jun-19	23:26	156	280-123924-G-4-A	54052	20.840	
06-Jun-19	23:29	157	280-123924-G-5-A	39673	14.730	
06-Jun-19	23:32	158	280-123924-G-6-A	39776	14.774	
06-Jun-19	23:35	159	280-123924-G-7-A	32623	11.733	
06-Jun-19	23:38	160	280-123924-G-8-A	39618	14.707	
06-Jun-19	23:41	201	280-123924-G-9-A	28542	9.998	
06-Jun-19	23:44	202	280-123924-G-10-A	32243	11.572	
06-Jun-19	23:48	0	blank	3165	-0.797	LO
06-Jun-19	23:51	0	read baseline	-768	-2.471	BL
06-Jun-19	23:54	108	CCV 200 ppb	512574	214.008	
06-Jun-19	23:57	104	CCVL 100 ppb	263342	109.411	
07-Jun-19	00:00	0	CCB	-5430	-4.456	LO
07-Jun-19	00:03	0	read baseline	-6178	-4.774	BL
07-Jun-19	00:06	203	280-123924-G-10-B MS	517054	215.879	
07-Jun-19	00:09	204	280-123924-G-10-C MS	507160	211.746	
07-Jun-19	00:13	150	280-124270-D-3-C MS	447375	186.738	

Result path C:\FLOW_4\P060619.RST
Sample table path C:\FLOW_4\p060619.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 07-Jun-19
Time acquired 00:42

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
07-Jun-19	00:16	151	280-124270-D-3-D MSD	450311	187.967	
07-Jun-19	00:19	152	280-124038-I-4-A	67100	26.382	
07-Jun-19	00:22	0	blank	-433	-2.328	LO
07-Jun-19	00:25	0	read baseline	-8549	-5.783	BL
07-Jun-19	00:28	108	CCV 200 ppb	504486	210.628	
07-Jun-19	00:31	104	CCVL 100 ppb	261085	108.460	
07-Jun-19	00:34	0	CCB	5987	0.404	
07-Jun-19	00:37	0	read baseline	6920	0.801	BL

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060619.RST
Date: 07-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1284746	532.009644	HI
2	0	Carryover	1	CO	1	1	11761	2.860792	
3	0	Carryover	2	CO	1	1	1222	-1.623995	LO
B	0	Read Baseline	1	RB	1	1	-538	-2.372981	BL
5	101	Cal 10.0 ppb	1	C	1	1	33132	11.949753	
6	102	Cal 20.0 ppb	1	C	1	1	57468	22.291309	
7	103	Cal 50.0 ppb	1	C	1	1	116843	47.483776	
8	104	Cal 100 ppb	1	C	1	1	242088	100.447174	
9	105	Cal 200 ppb	1	C	1	1	478988	199.968140	
10	106	Cal 500 ppb	1	C	1	1	1206011	500.004059	
11	0	Blank	1	BLNK	1	1	-4565	-4.087067	LO
B	0	Read Baseline	1	RB	1	1	876	-1.771070	BL
13	107	ICV 200 ppb	1	U	1	1	470022	196.217255	
14	109	ICVL 100 ppb	1	U	1	1	264459	109.881981	
15	0	ICB	1	U	1	1	-2784	-3.328888	LO
B	0	Read Baseline	1	RB	1	1	-7211	-5.213415	BL UM
17	113	LCS 280-460735/1-A 1	U		1	1	481696	201.100876	
18	114	MB 280-460735/2-A 1	U		1	1	7136	0.892920	
19	115	280-123273-G-19-B 1	U		1	1	7689	1.128525	
20	116	280-123889-A-2-B 1	U		1	1	35443	12.932266	
21	117	280-123993-B-2-B 1	U		1	1	48783	18.601410	
22	118	280-123993-B-4-B 1	U		1	1	130790	53.393574	
23	119	280-123853-G-4-A 1	U		1	1	26462	9.113688	
24	120	280-123853-G-5-A 1	U		1	1	22970	7.628785	
25	121	280-123853-G-6-A 1	U		1	1	20406	6.538361	
26	122	280-123855-D-1-B 1	U		1	1	28502	9.981392	
27	0	blank	1	BLNK	1	1	-10935	-6.799056	LO
B	0	read baseline	1	RB	1	1	-15155	-8.596418	BL
29	108	CCV 200 ppb	1	CCV	1	1	487488	203.522873	
30	104	CCVL 100 ppb	1	U	1	1	246780	102.426888	
31	0	CCB	1	U	1	1	6	-2.141597	LO
B	0	read baseline	1	RB	1	1	3191	-0.785660	BL
33	123	280-123855-D-1-C MS 1	U		1	1	496482	207.283142	
34	124	280-123855-D-1-D MSD 1	U		1	1	511992	213.764450	
35	125	280-123855-C-2-B 1	U		1	1	21738	7.105095	
36	126	280-123855-E-3-D 1	U		1	1	39628	14.711295	
37	127	280-123855-E-4-B 1	U		1	1	20998	6.790325	
38	128	280-123855-C-5-B 1	U		1	1	26770	9.244663	
39	129	280-123972-B-1-A 1	U		1	1	737659	307.650177	
40	130	280-123972-A-2-A 1	U		1	1	54507	21.033207	
41	131	280-123981-G-1-A 1	U		1	1	472837	197.394958	
42	132	280-123981-G-2-A 1	U		1	1	36575	13.413217	
43	0	blank	1	BLNK	1	1	7303	0.964045	
B	0	read baseline	1	RB	1	1	3039	-0.850566	BL
45	108	CCV 200 ppb	1	CCV	1	1	518804	216.610123	
46	104	CCVL 100 ppb	1	U	1	1	261180	108.499573	
47	0	CCB	1	U	1	1	9128	1.740731	
B	0	read baseline	1	RB	1	1	3064	-0.840003	BL
49	133	280-123981-G-3-A 1	U		1	1	31116	11.092682	
50	134	280-123981-G-4-A 1	U		1	1	32959	11.876139	
51	135	280-123981-G-5-A 1	U		1	1	28330	9.908121	
52	136	280-123981-G-6-A 1	U		1	1	28401	9.938361	
53	137	280-123981-G-6-B MS 1	U		1	1	493108	205.872604	
54	138	280-123981-G-6-C MSD 1	U		1	1	496776	207.406219	
55	139	LCS 280-460749/1-A 1	U		1	1	498298	208.042267	
56	140	MB 280-460749/2-A 1	U		1	1	24545	8.298662	
57	141	280-123981-G-7-A 1	U		1	1	31197	11.127326	
58	142	280-123981-G-8-B 1	U		1	1	29210	10.282269	
59	0	blank	1	BLNK	1	1	4725	-0.132839	LO
B	0	read baseline	1	RB	1	1	3560	-0.628626	BL
61	108	CCV 200 ppb	1	CCV	1	1	507874	212.044113	
62	104	CCVL 100 ppb	1	U	1	1	245911	102.059959	
63	0	CCB	1	U	1	1	-4681	-4.136443	LO
B	0	read baseline	1	RB	1	1	-5973	-4.686414	BL
65	143	280-123981-G-9-B 1	U		1	1	23801	7.982085	
66	144	280-123983-G-1-B 1	U		1	1	69644	27.461996	
67	145	280-123983-G-2-B 1	U		1	1	34350	12.467785	
68	146	280-123983-G-3-B 1	U		1	1	35107	12.789383	
69	147	280-124270-D-1-B 1	U		1	1	41354	15.444472	
70	148	280-124270-D-2-B 1	U		1	1	40819	15.217384	

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
71	149	280-124270-D-3-B 1 U			1	1	29994	10.615470	
72	150	x280-124270-D-3-C MS 1 U			1	1	26693	9.211935	
73	151	x280-124270-D-3-D MS 1 U			1	1	436947	182.369995	
74	152	x280-124038-I-4-A 1 U			1	1	23051	7.663148	
75	0	blank	1	BLNK	1	1	-14444	-8.293395	LO
B	0	read baseline	1	RB	1	1	18979	5.931530	BL UM
77	108	CCV 200 ppb	1	CCV	1	1	517632	216.120605	
78	104	CCVL 100 ppb	1	U	1	1	260517	108.220367	
79	0	CCB	1	U	1	1	7489	1.043040	
B	0	read baseline	1	RB	1	1	6427	0.591272	BL
81	153	280-123924-G-1-A 1 U			1	1	22649	7.492246	
82	154	280-123924-G-2-A 1 U			1	1	27403	9.513841	
83	155	280-123924-G-3-A 1 U			1	1	65091	25.528692	
84	156	280-123924-G-4-A 1 U			1	1	54052	20.840273	
85	157	280-123924-G-5-A 1 U			1	1	39673	14.730239	
86	158	280-123924-G-6-A 1 U			1	1	39776	14.774037	
87	159	280-123924-G-7-A 1 U			1	1	32623	11.733281	
88	160	280-123924-G-8-A 1 U			1	1	39618	14.706872	
89	201	280-123924-G-9-A 1 U			1	1	28542	9.998407	
90	202	280-123924-G-10-A 1 U			1	1	32243	11.571870	
91	0	blank	1	BLNK	1	1	3165	-0.796679	LO
B	0	read baseline	1	RB	1	1	-768	-2.470809	BL
93	108	CCV 200 ppb	1	CCV	1	1	512574	214.007736	
94	104	CCVL 100 ppb	1	U	1	1	263342	109.411003	
95	0	CCB	1	U	1	1	-5430	-4.455504	LO
B	0	read baseline	1	RB	1	1	-6178	-4.773701	BL
97	203	280-123924-G-10-B MS 1 U			1	1	517054	215.879105	
98	204	280-123924-G-10-C MS 1 U			1	1	507160	211.745743	
99	150	280-124270-D-3-C MS 1 U			1	1	447375	186.737579	
100	151	280-124270-D-3-D MSD 1 U			1	1	450311	187.966812	
101	152	280-124038-I-4-A 1 U			1	1	67100	26.381832	
102	0	blank	1	BLNK	1	1	-433	-2.328184	LO
B	0	read baseline	1	RB	1	1	-8549	-5.783080	BL
104	108	CCV 200 ppb	1	CCV	1	1	504486	210.628342	
105	104	CCVL 100 ppb	1	U	1	1	261085	108.459816	
106	0	CCB	1	U	1	1	5987	0.404209	
B	0	read baseline	1	RB	1	1	6920	0.801121	BL

Phenols, Total:Calibration 1: Peak 5-107

File name: C:\FLOW_4\P060619.RST
Date: 07-Jun-19
Operator: AM

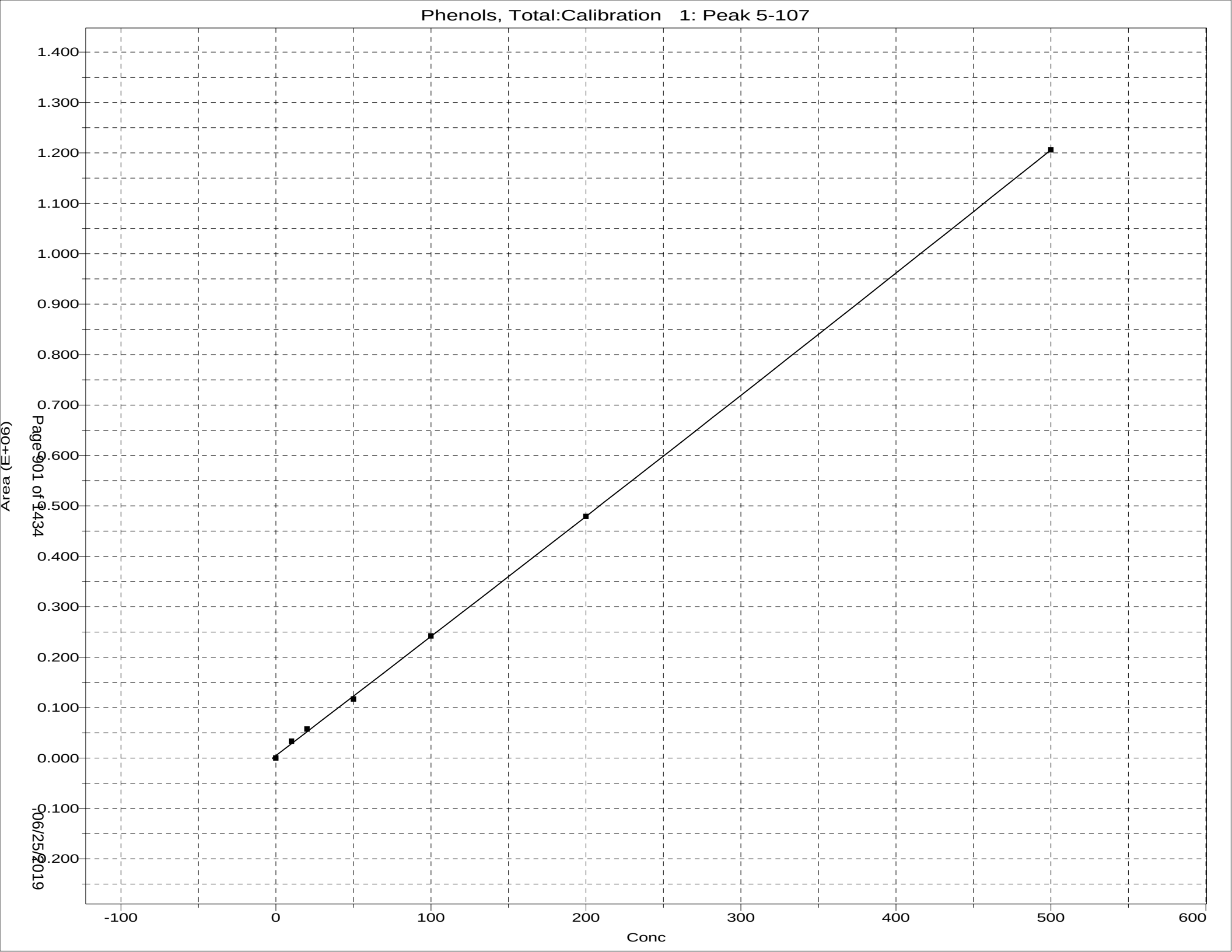
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*	Cal 10.0 ppb	10.000000	33131.878906
*	Cal 20.0 ppb	20.000000	57468.367188
*	Cal 50.0 ppb	50.000000	116842.929688
*	Cal 100 ppb	100.000000	242087.781250
*	Cal 200 ppb	200.000000	478987.968750
*	Cal 500 ppb	500.000000	1206011.125000

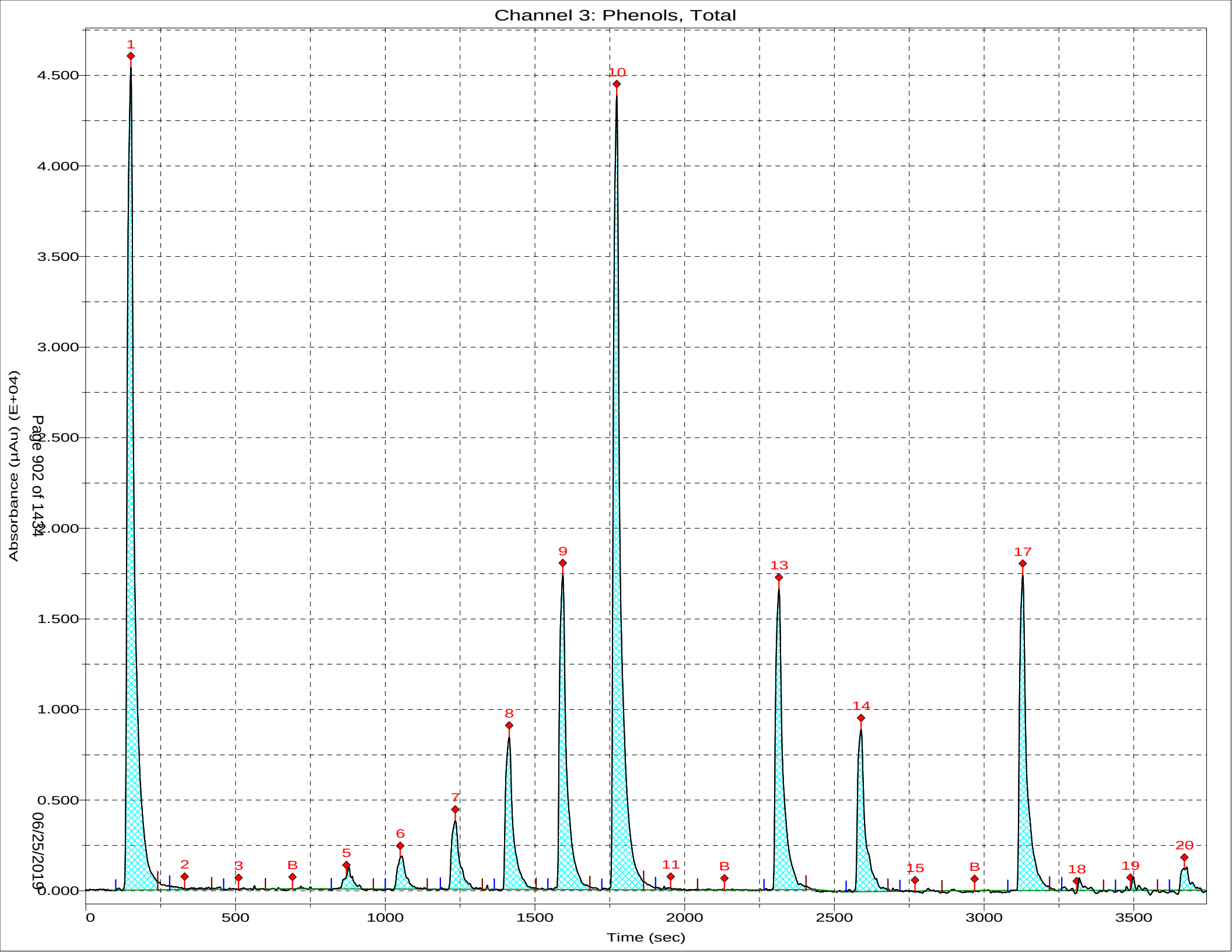
Calib Coef:
x=cyy+by+a
a: (intercept) -2.1439e+00
b: 4.2564e-04
c: -7.6828e-12

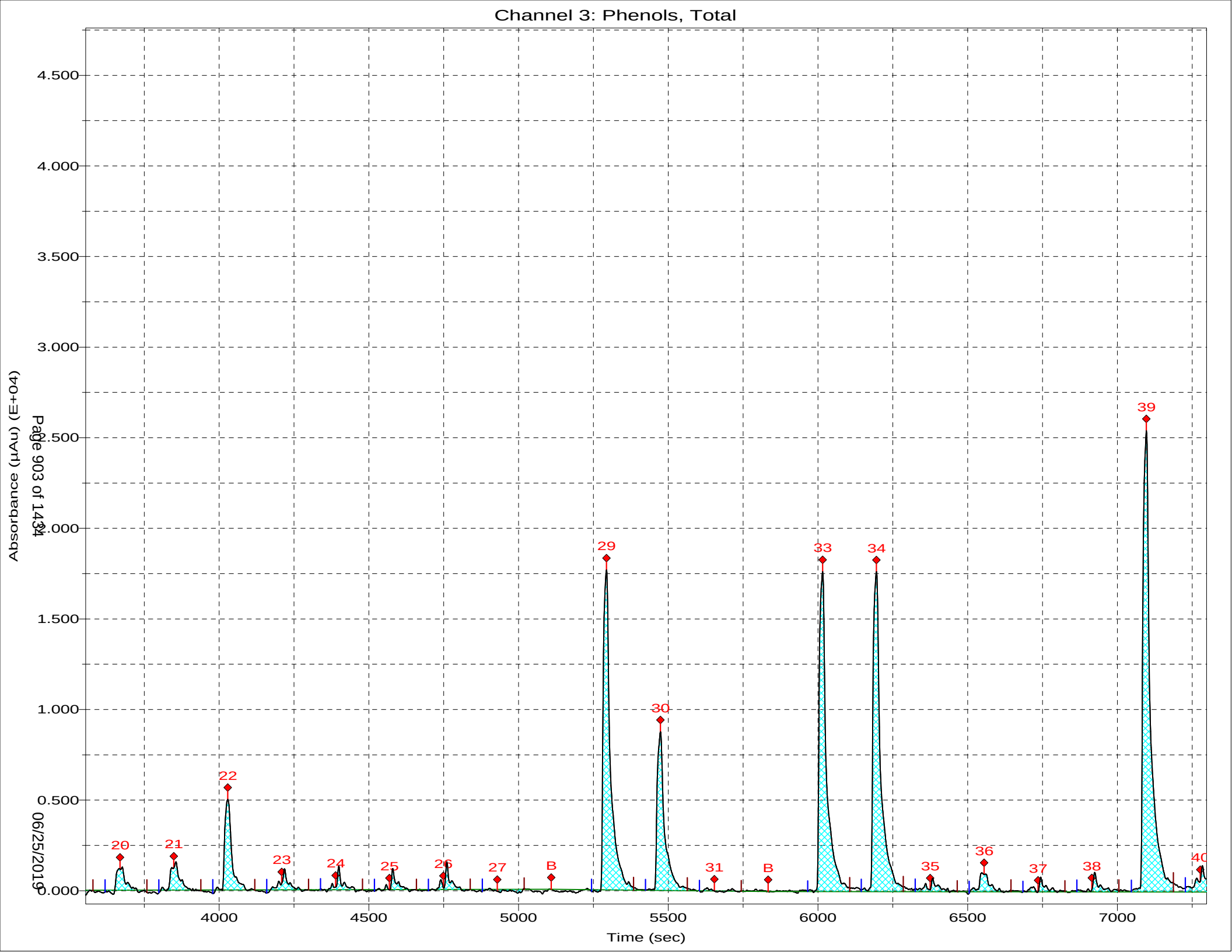
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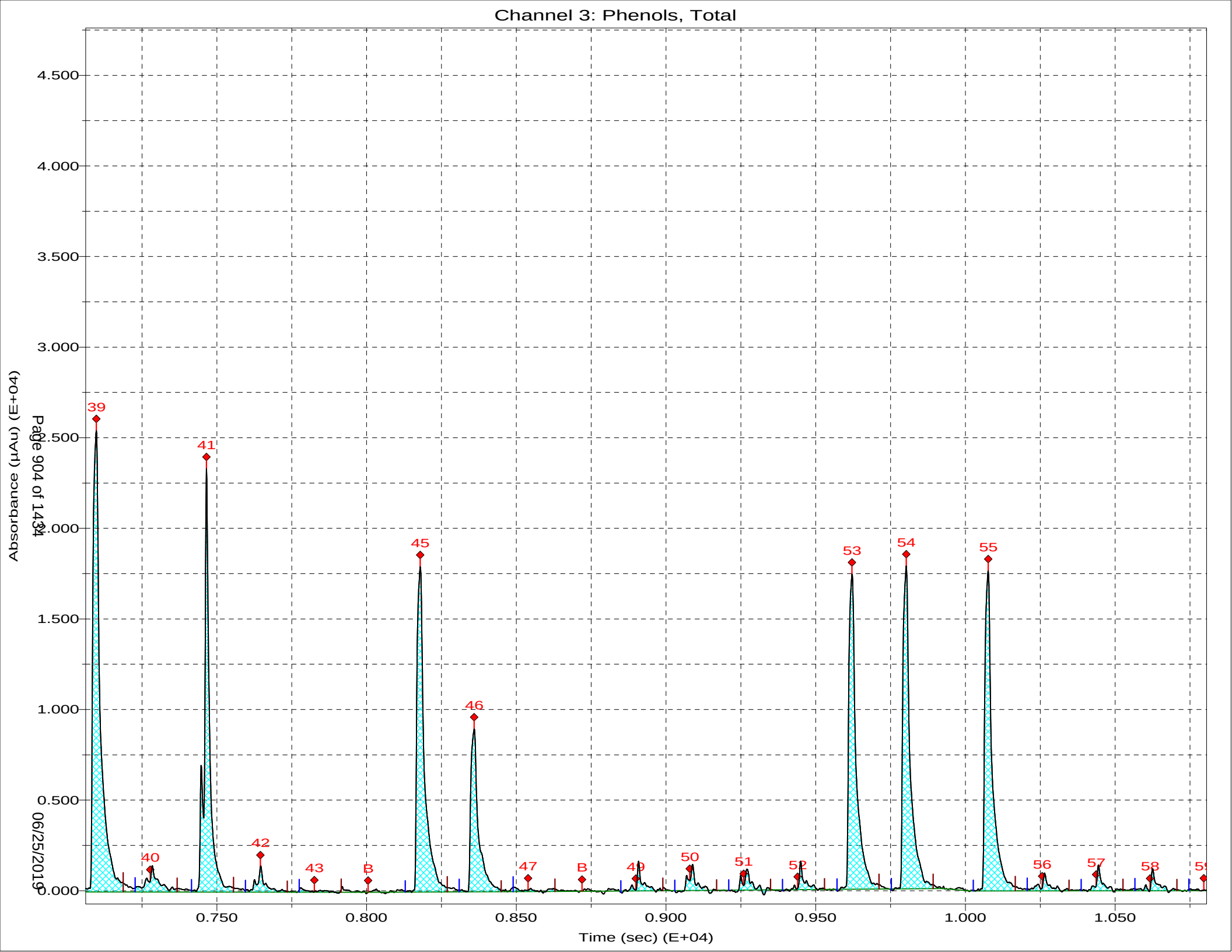
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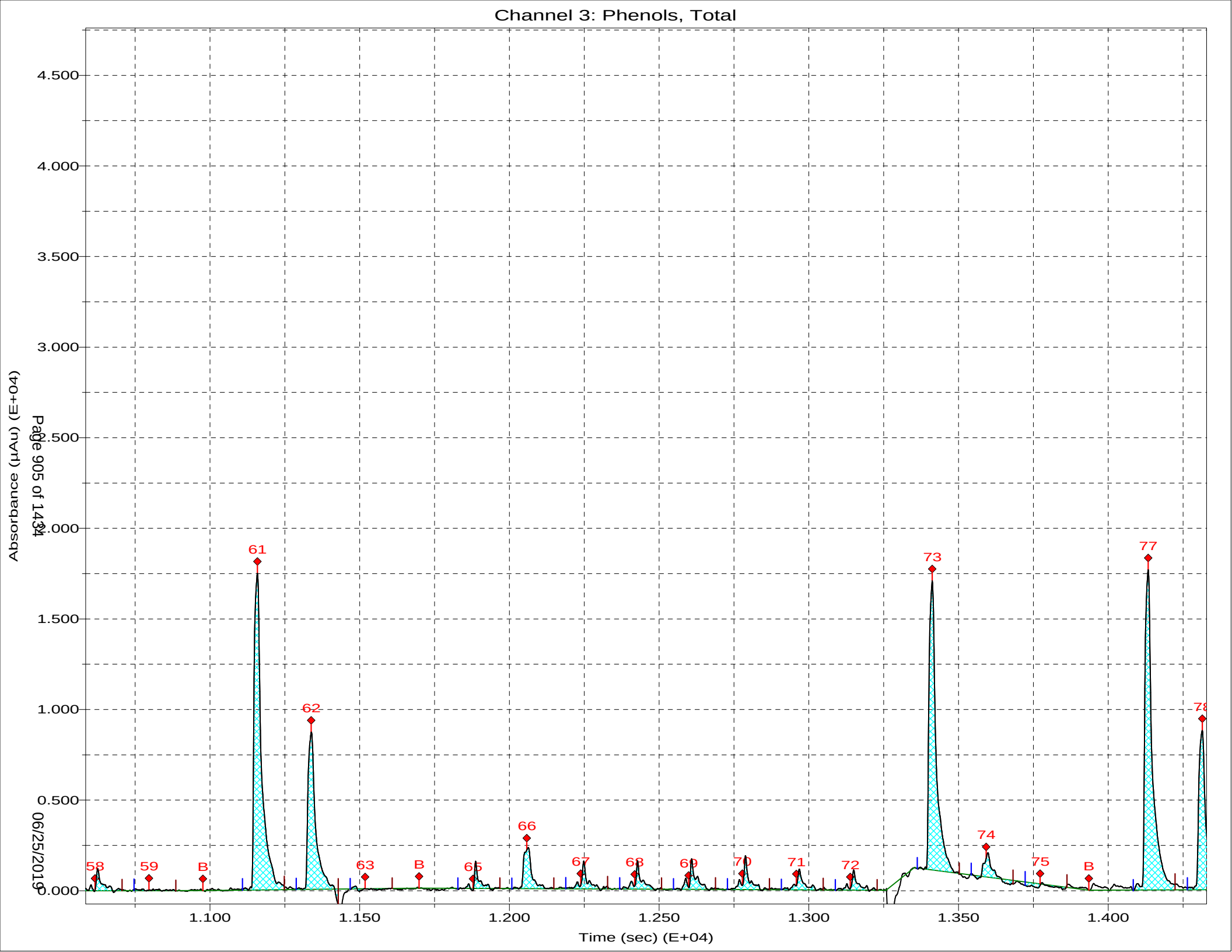
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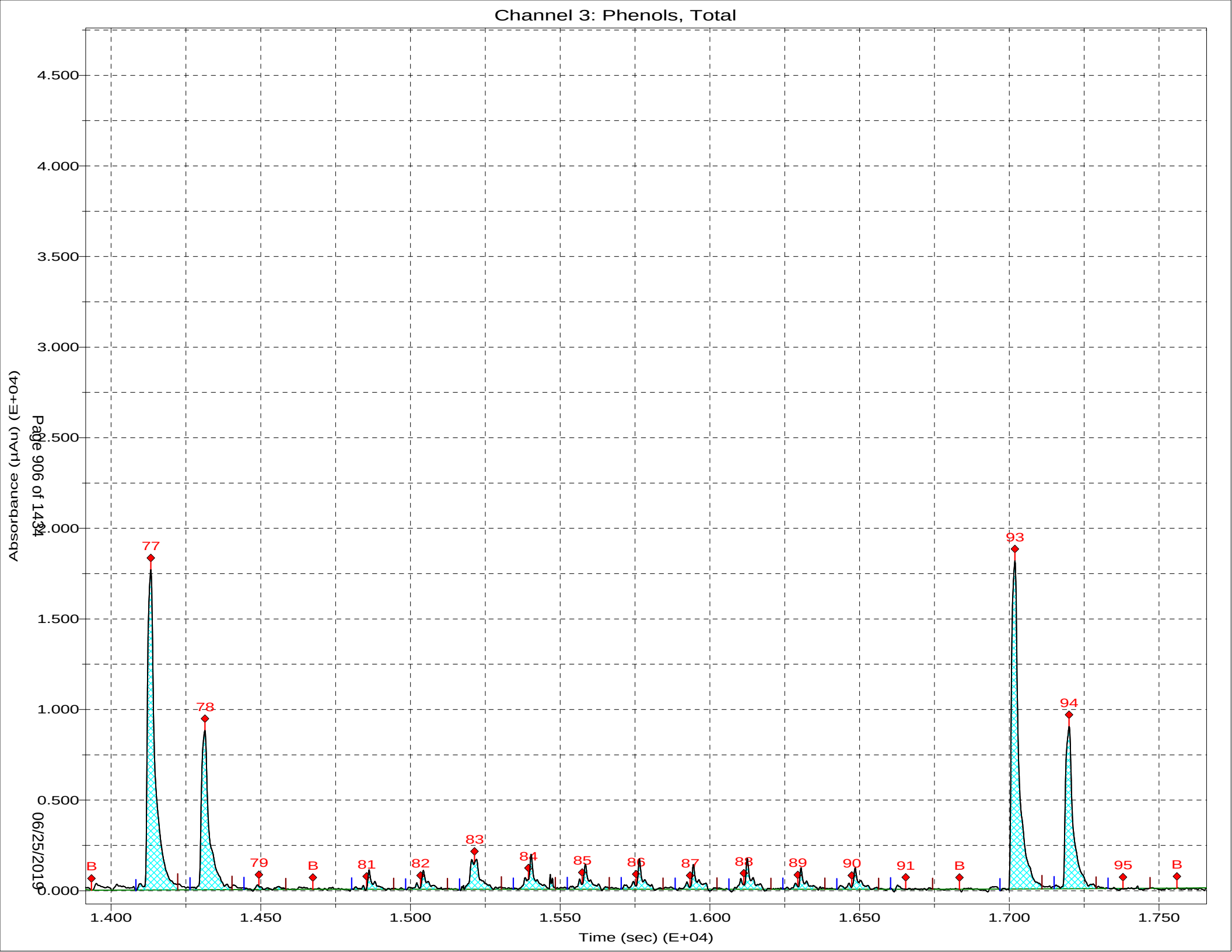

Phenols, Total:Calibration 1: Peak 5-107
Area (E+06)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-100
0
100
200
300
400
500
600
Conc

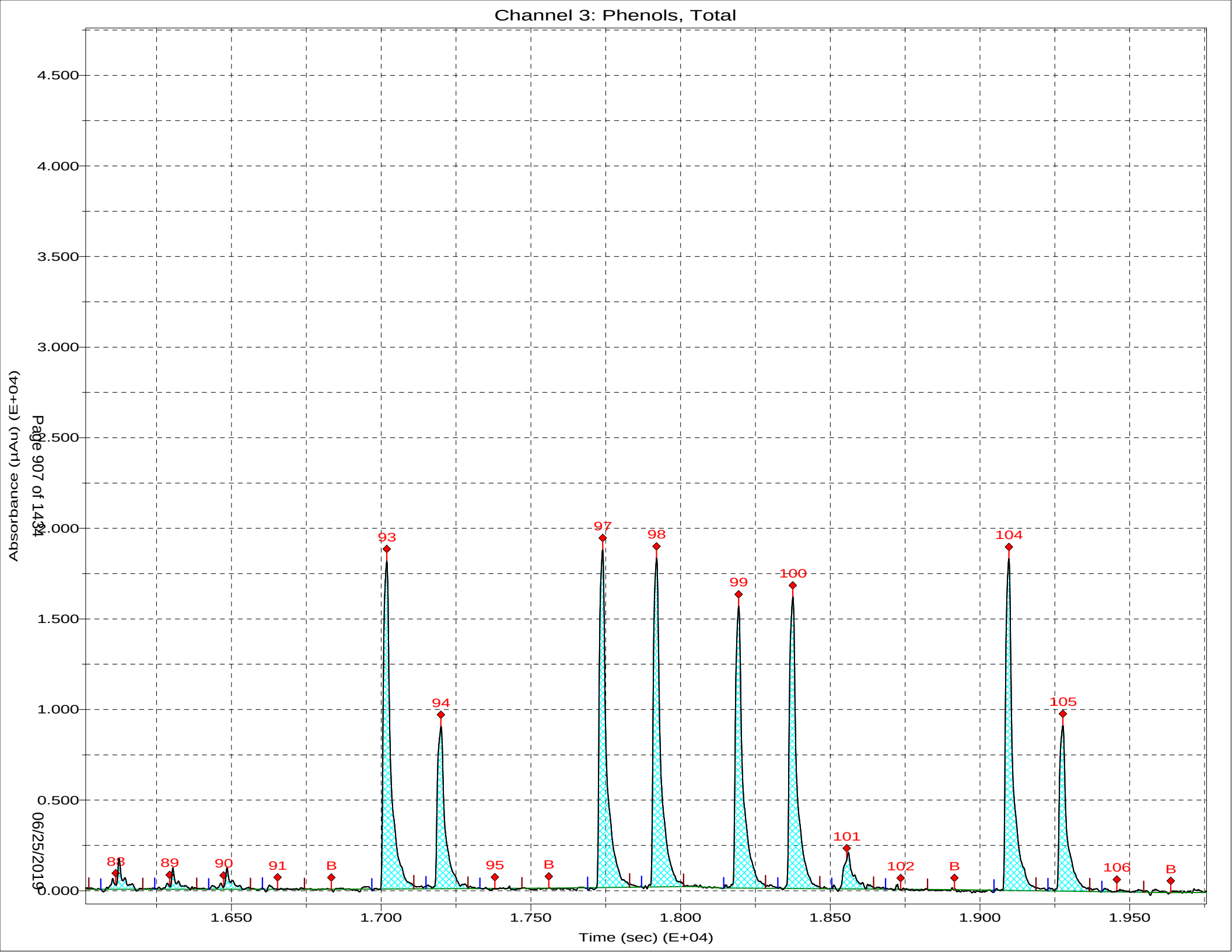

Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec)
Page 902 of 1434
06/25/2019
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0
500
1000
1500
2000
2500
3000
3500
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
20


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
4000
4500
5000
5500
6000
6500
7000
Time (sec)
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37
38
39
40


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
Page 904 of 1434
06/25/2019
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
0.750
0.800
0.850
0.900
0.950
1.000
1.050
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55
56
57
58


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
58
59
B
61
62
63
B
65
66
67
68
69
70
71
72
73
74
75
B
77
78
1.100
1.150
1.200
1.250
1.300
1.350
1.400
Time (sec) (E+04)
Page 905 of 1434
06/25/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1.400
1.450
1.500
1.550
1.600
1.650
1.700
1.750
77
78
79
81
82
83
84
85
86
87
88
89
90
91
93
94
95
B
Page 906 of 1434
06/25/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Page 907 of 1434
06/25/2019
88
89
90
91
B
93
94
95
B
97
98
99
100
101
102
B
104
105
106
B
1.650
1.700
1.750
1.800
1.850
1.900
1.950
Time (sec) (E+04)

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	AM
Operator ID	AM
Platform	FS III/IV/3100
Software Rev Code	222
Data system ID	57
Channel	3
Analysis	Phenols, Total
CAS Number	64743-03-9
Methodology	
Result path	C:\FLOW_4\P060919.RST
Sample table path	C:\FLOW_4\p060919.tbl
Method path	C:\FLOW_4\phenol.mth
Date acquired	09-Jun-19
Time acquired	18:03

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
09-Jun-19	14:31	106	Sync	1286675	495.238	
09-Jun-19	14:34	0	Carryover	11097	0.792	
09-Jun-19	14:37	0	Carryover	2488	-2.651	LO
09-Jun-19	14:40	0	Read Baseline	-60	-3.671	BL
09-Jun-19	14:43	101	Cal 10.0 ppb	35673	10.614	
09-Jun-19	14:46	102	Cal 20.0 ppb	66664	22.983	
09-Jun-19	14:49	103	Cal 50.0 ppb	139083	51.814	
09-Jun-19	14:52	104	Cal 100 ppb	257194	98.619	
09-Jun-19	14:55	105	Cal 200 ppb	514138	199.516	
09-Jun-19	14:58	106	Cal 500 ppb	1299636	500.102	
09-Jun-19	15:01	0	Blank	-4059	-5.270	LO
09-Jun-19	15:04	0	Read Baseline	-1486	-4.241	BL
09-Jun-19	15:07	107	ICV 200 ppb	527062	204.558	
09-Jun-19	15:10	109	ICVL 100 ppb	273931	105.230	
09-Jun-19	15:13	0	ICB	-7526	-6.658	LO
09-Jun-19	15:16	0	Read Baseline	-9964	-7.634	BL
09-Jun-19	15:19	113	LCS 280-460948/1-A	503270	195.274	
09-Jun-19	15:22	114	MB 280-460948/2-A	23187	5.625	
09-Jun-19	15:25	115	580-86264-A-1-A	126009	46.616	
09-Jun-19	15:28	116	280-123922-G-1-A	19122	4.001	
09-Jun-19	15:31	117	280-123922-G-2-A	22395	5.309	
09-Jun-19	15:34	118	280-123922-G-3-A	26468	6.936	
09-Jun-19	15:37	119	280-123924-C-11-B	26906	7.112	
09-Jun-19	15:40	120	280-123924-D-12-B	32525	9.356	
09-Jun-19	15:43	121	280-123930-E-1-B	32281	9.259	
09-Jun-19	15:46	122	280-123930-C-2-B	36952	11.125	
09-Jun-19	15:49	0	Blank	1032	-3.233	LO
09-Jun-19	15:52	0	Read Baseline	1257	-3.144	BL
09-Jun-19	15:55	108	CCV 200 ppb	507380	196.879	
09-Jun-19	15:58	104	CCVL 100 ppb	266960	102.477	
09-Jun-19	16:01	0	CCB	978	-3.255	LO
09-Jun-19	16:04	0	Read Baseline	-1565	-4.272	BL
09-Jun-19	16:07	123	280-123930-E-3-D	40305	12.464	
09-Jun-19	16:10	124	280-123930-C-4-B	45657	14.601	
09-Jun-19	16:13	125	280-123930-C-4-C MS	504321	195.685	
09-Jun-19	16:16	126	280-123930-C-4-D MSD	578971	224.775	
09-Jun-19	16:19	127	280-123930-C-5-B	28732	7.841	
09-Jun-19	16:22	128	280-124038-J-1-A	3136935	1156.889	HI
09-Jun-19	16:25	129	280-124038-H-2-A	2881047	1069.303	HI
09-Jun-19	16:28	130	280-124038-I-3-A	205172	78.037	FL
09-Jun-19	16:31	131	280-124038-H-4-A	2466305	924.672	HI
09-Jun-19	16:34	132	280-124270-D-4-A	84415	30.059	FL

Result path C:\FLOW_4\P060919.RST
Sample table path C:\FLOW_4\p060919.tbl
Method path C:\FLOW_4\phenol.mth
Date acquired 09-Jun-19
Time acquired 18:03

				Phenols, Total		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
09-Jun-19	16:37	0	Blank	8885	-0.092	LO
09-Jun-19	16:40	0	Read Baseline	-3067	-4.874	BL
09-Jun-19	16:43	108	CCV 200 ppb	535374	207.799	
09-Jun-19	16:46	104	CCVL 100 ppb	265862	102.044	
09-Jun-19	16:49	0	CCB	-7354	-6.589	LO
09-Jun-19	16:52	0	Read Baseline	-3460	-5.031	BL
09-Jun-19	16:55	133	280-124270-D-5-A	31369	8.895	
09-Jun-19	16:58	134	280-124270-D-6-A	24051	5.971	
09-Jun-19	17:01	135	280-124270-D-7-A	16361	2.897	
09-Jun-19	17:04	136	280-124270-D-7-B MS	455013	176.412	
09-Jun-19	17:07	137	280-124270-D-7-C MSD	474218	183.924	
09-Jun-19	17:10	138	280-124151-D-1-D	1671891	638.412	HI
09-Jun-19	17:13	139	LCS 280-460949/1-A	624498	242.463	FL
09-Jun-19	17:16	140	MB 280-460949/2-A	41960	13.124	FL
09-Jun-19	17:19	141	280-124151-C-2-A	4839752	1707.698	HI
09-Jun-19	17:22	142	280-124151-C-2-B MS	4693343	1662.528	HI
09-Jun-19	17:25	0	Blank	143187	53.445	
09-Jun-19	17:28	0	Read Baseline	642	-3.389	BL
09-Jun-19	17:31	108	CCV 200 ppb	506469	196.524	
09-Jun-19	17:34	104	CCVL 100 ppb	256793	98.461	
09-Jun-19	17:37	0	CCB	-12183	-8.522	LO
09-Jun-19	17:40	0	Read Baseline	-23526	-13.064	BL
09-Jun-19	17:43	143	280-124151-C-2-C MSD	4712803	1668.555	HI
09-Jun-19	17:46	144	280-124151-D-3-A	407321	157.725	FL
09-Jun-19	17:49	145	280-124151-D-4-A	4072925	1466.547	HI
09-Jun-19	17:52	146	280-124151-D-6-A	4293156	1536.962	HI
09-Jun-19	17:57	147	280-124038-J-1-A	925282	1791.633	
09-Jun-19	18:00	148	280-124038-H-2-A	n/m	n/m	n/m
09-Jun-19	18:03	149	280-124038-I-3-A	n/m	n/m	n/m

Peak Table:Phenols, Total

File name: C:\FLOW_4\P060919.RST
Date: 09-Jun-19
Operator: AM

Peak	Cup	Name	R	Type	Dil	Wt	Area	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	1286675	495.238159	
2	0	Carryover	1	CO	1	1	11097	0.792235	
3	0	Carryover	2	CO	1	1	2488	-2.650863	LO
B	0	Read Baseline	1	RB	1	1	-60	-3.670604	BL
5	101	Cal 10.0 ppb	1	C	1	1	35673	10.613757	
6	102	Cal 20.0 ppb	1	C	1	1	66664	22.982763	
7	103	Cal 50.0 ppb	1	C	1	1	139083	51.813549	
8	104	Cal 100 ppb	1	C	1	1	257194	98.619263	
9	105	Cal 200 ppb	1	C	1	1	514138	199.516449	
10	106	Cal 500 ppb	1	C	1	1	1299636	500.101685	
11	0	Blank	1	BLNK	1	1	-4059	-5.270422	LO
B	0	Read Baseline	1	RB	1	1	-1486	-4.240927	BL
13	107	ICV 200 ppb	1	U	1	1	527062	204.558014	
14	109	ICVL 100 ppb	1	U	1	1	273931	105.230148	
15	0	ICB	1	U	1	1	-7526	-6.657990	LO
B	0	Read Baseline	1	RB	1	1	-9964	-7.633920	BL
17	113	LCS 280-460948/1-A 1	U		1	1	503270	195.274353	
18	114	MB 280-460948/2-A 1	U		1	1	23187	5.625281	
19	115	580-86264-A-1-A 1	U		1	1	126009	46.616154	
20	116	280-123922-G-1-A 1	U		1	1	19122	4.000751	
21	117	280-123922-G-2-A 1	U		1	1	22395	5.308970	
22	118	280-123922-G-3-A 1	U		1	1	26468	6.936482	
23	119	280-123924-C-11-B 1	U		1	1	26906	7.111565	
24	120	280-123924-D-12-B 1	U		1	1	32525	9.356362	
25	121	280-123930-E-1-B 1	U		1	1	32281	9.258766	
26	122	280-123930-C-2-B 1	U		1	1	36952	11.124533	
27	0	Blank	1	BLNK	1	1	1032	-3.233443	LO
B	0	Read Baseline	1	RB	1	1	1257	-3.143666	BL
29	108	CCV 200 ppb	1	CCV	1	1	507380	196.879089	
30	104	CCVL 100 ppb	1	U	1	1	266960	102.477127	
31	0	CCB	1	U	1	1	978	-3.255191	LO
B	0	Read Baseline	1	RB	1	1	-1565	-4.272460	BL
33	123	280-123930-E-3-D 1	U		1	1	40305	12.463752	
34	124	280-123930-C-4-B 1	U		1	1	45657	14.600732	
35	125	280-123930-C-4-C MS 1	U		1	1	504321	195.684738	
36	126	280-123930-C-4-D MSD 1	U		1	1	578971	224.774826	
37	127	280-123930-C-5-B 1	U		1	1	28732	7.840890	
38	128	280-124038-J-1-A 1	U		1	1	3136935	1156.889160	HI
39	129	280-124038-H-2-A 1	U		1	1	2881047	1069.302734	HI
40	130	280-124038-I-3-A 1	U		1	1	205172	78.036606	FL
41	131	280-124038-H-4-A 1	U		1	1	2466305	924.671631	HI
42	132	280-124270-D-4-A 1	U		1	1	84415	30.058987	FL
43	0	Blank	1	BLNK	1	1	8885	-0.092288	LO
B	0	Read Baseline	1	RB	1	1	-3067	-4.873619	BL
45	108	CCV 200 ppb	1	CCV	1	1	535374	207.798599	
46	104	CCVL 100 ppb	1	U	1	1	265862	102.043587	
47	0	CCB	1	U	1	1	-7354	-6.589145	LO
B	0	Read Baseline	1	RB	1	1	-3460	-5.030814	BL
49	133	280-124270-D-5-A 1	U		1	1	31369	8.894743	
50	134	280-124270-D-6-A 1	U		1	1	24051	5.970714	
51	135	280-124270-D-7-A 1	U		1	1	16361	2.896896	
52	136	280-124270-D-7-B MS 1	U		1	1	455013	176.411545	
53	137	280-124270-D-7-C MSD 1	U		1	1	474218	183.923676	
54	138	280-124151-D-1-D 1	U		1	1	1671891	638.411926	HI
55	139	LCS 280-460949/1-A 1	U		1	1	624498	242.463379	FL
56	140	MB 280-460949/2-A 1	U		1	1	41960	13.124446	FL
57	141	280-124151-C-2-A 1	U		1	1	4839752	1707.697876	HI
58	142	280-124151-C-2-B MS 1	U		1	1	4693343	1662.527832	HI
59	0	Blank	1	BLNK	1	1	143187	53.444538	
B	0	Read Baseline	1	RB	1	1	642	-3.389388	BL
61	108	CCV 200 ppb	1	CCV	1	1	506469	196.523514	
62	104	CCVL 100 ppb	1	U	1	1	256793	98.460831	
63	0	CCB	1	U	1	1	-12183	-8.522326	LO
B	0	Read Baseline	1	RB	1	1	-23526	-13.064279	BL
65	143	280-124151-C-2-C MSD 1	U		1	1	4712803	1668.555298	HI
66	144	280-124151-D-3-A 1	U		1	1	407321	157.725357	FL
67	145	280-124151-D-4-A 1	U		1	1	4072925	1466.547241	HI
68	146	280-124151-D-6-A 1	U		1	1	4293156	1536.961670	HI
69	147	280-124038-J-1-A 1	U		5	1	925282	1791.633179	

Phenols, Total:Calibration 1: Peak 5-71

File name: C:\FLOW_4\P060919.RST
Date: 09-Jun-19
Operator: AM

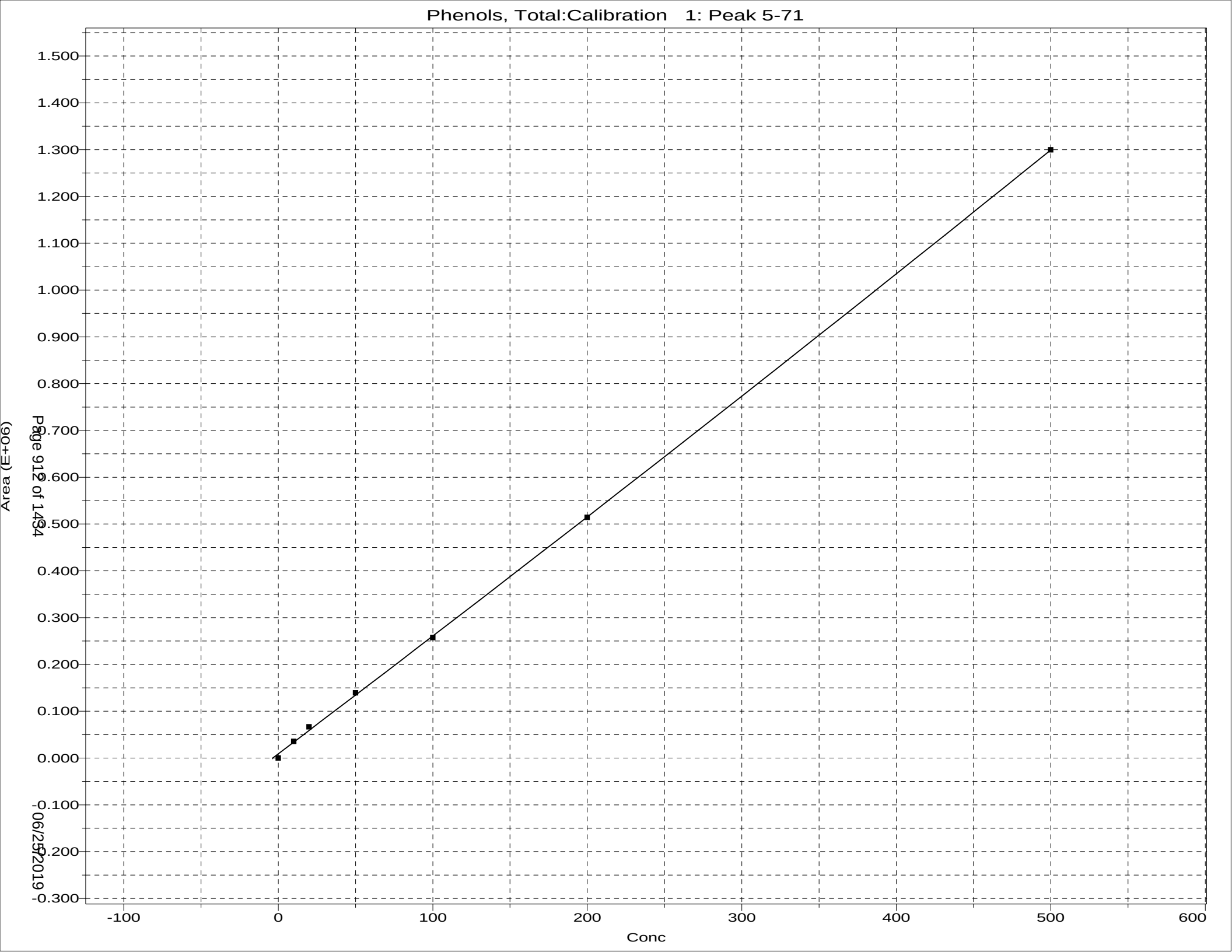
*	Name	Conc	Area
*	Cal 10.0 ppb	10.000000	35672.828125
*	Cal 20.0 ppb	20.000000	66664.453125
*	Cal 50.0 ppb	50.000000	139082.750000
*	Cal 100 ppb	100.000000	257194.125000
*	Cal 200 ppb	200.000000	514138.000000
*	Cal 500 ppb	500.000000	1299635.875000

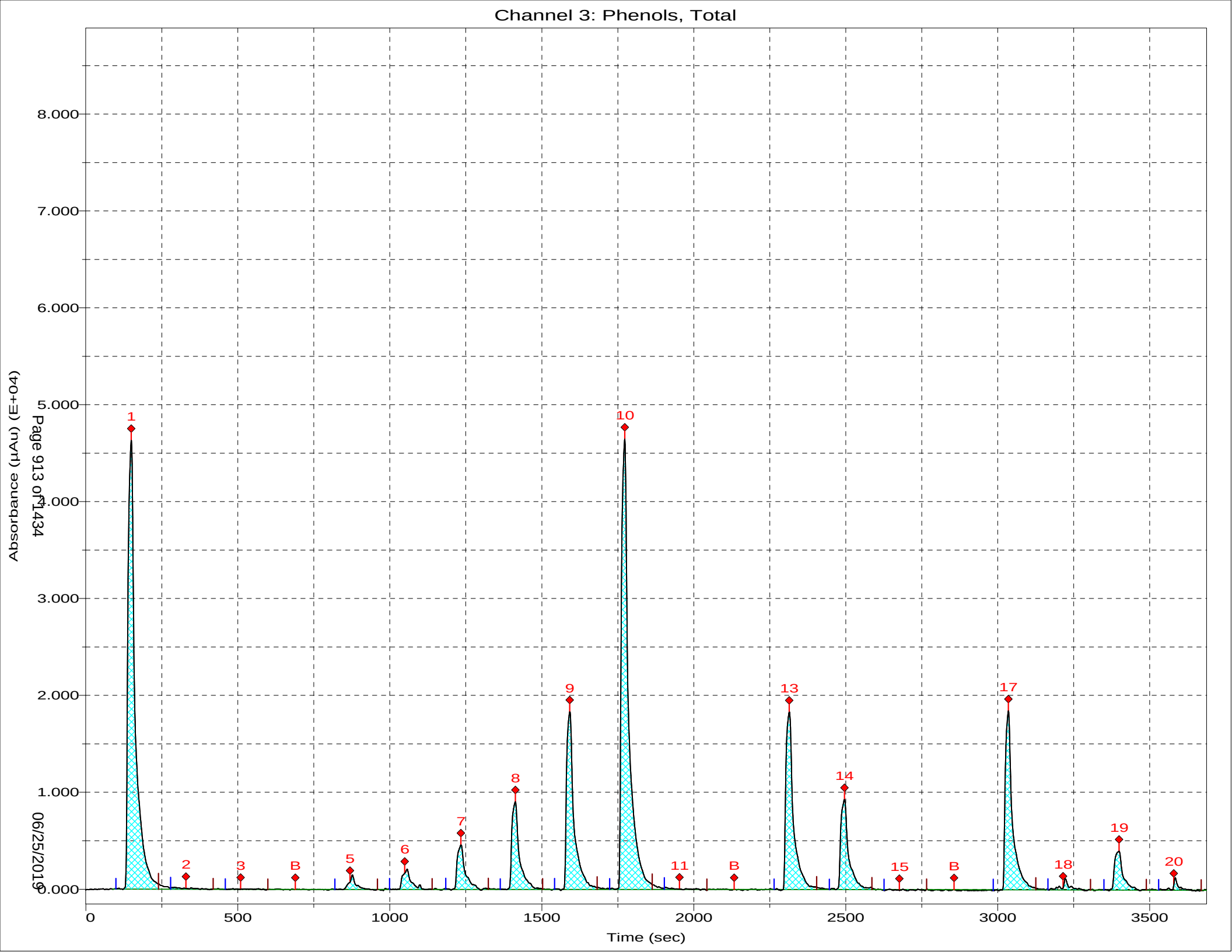
Calib Coef:
x=cyy+by+a
a: (intercept) -3.6464e+00
b: 4.0009e-04
c: -9.6058e-12

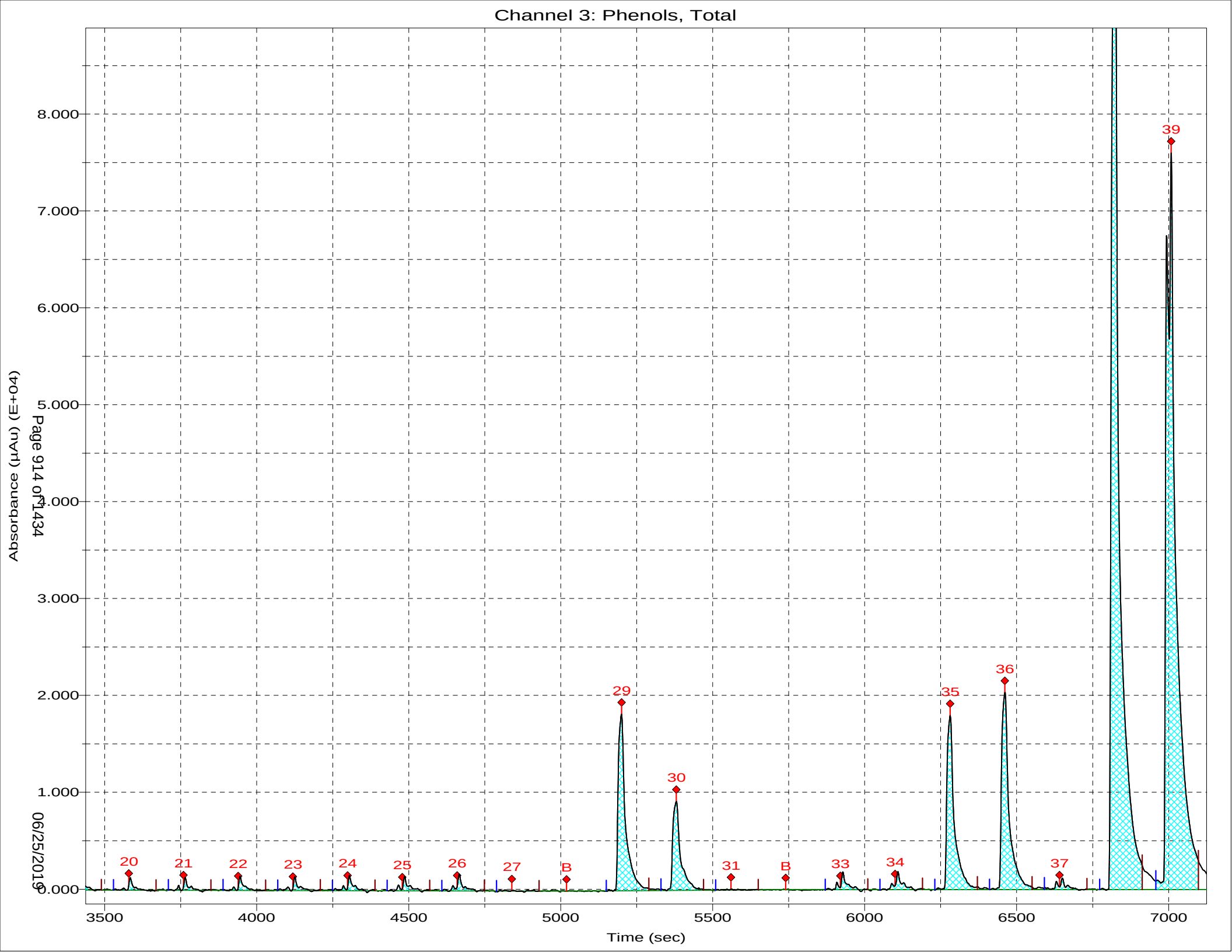
Corr Coef: 0.999927

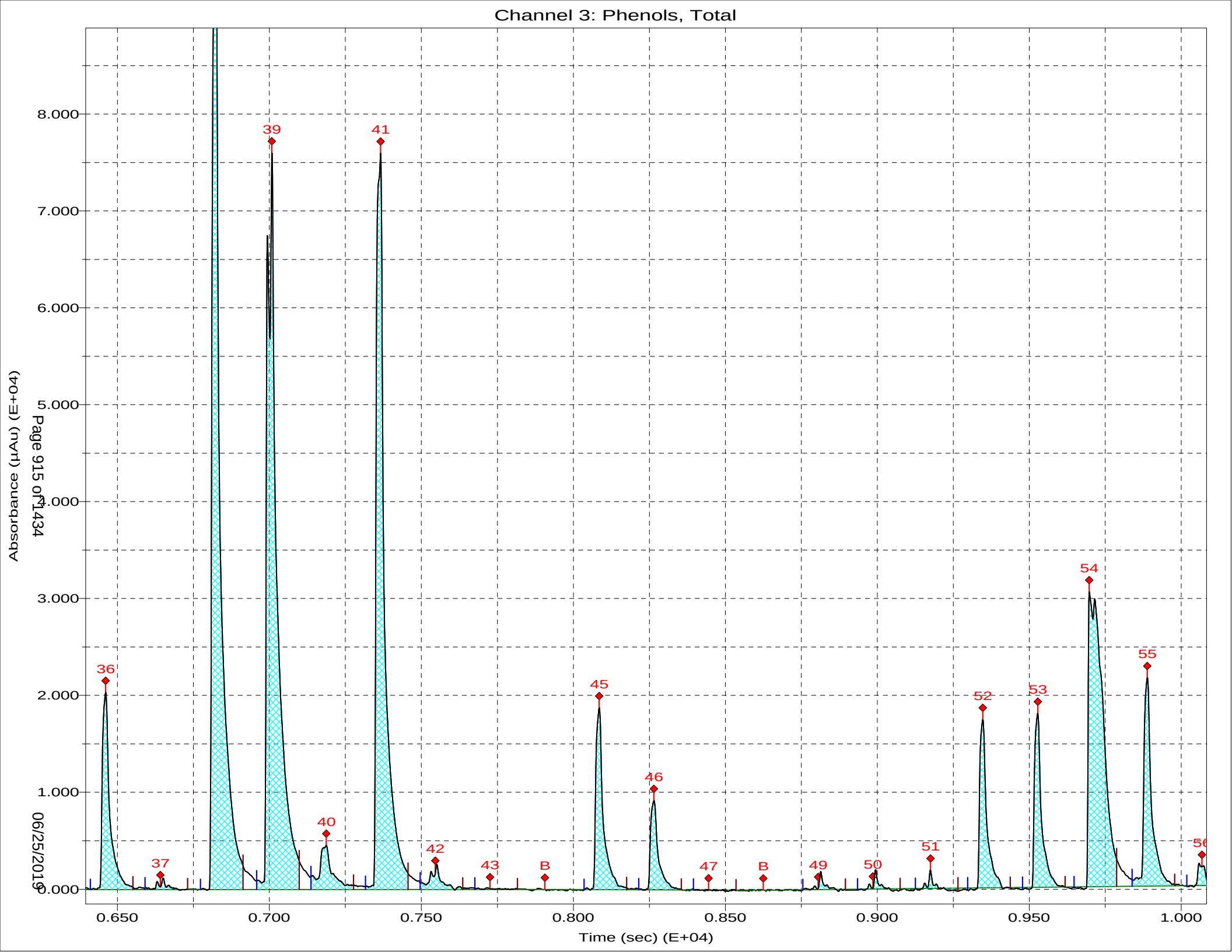
Carryover: 0.862%

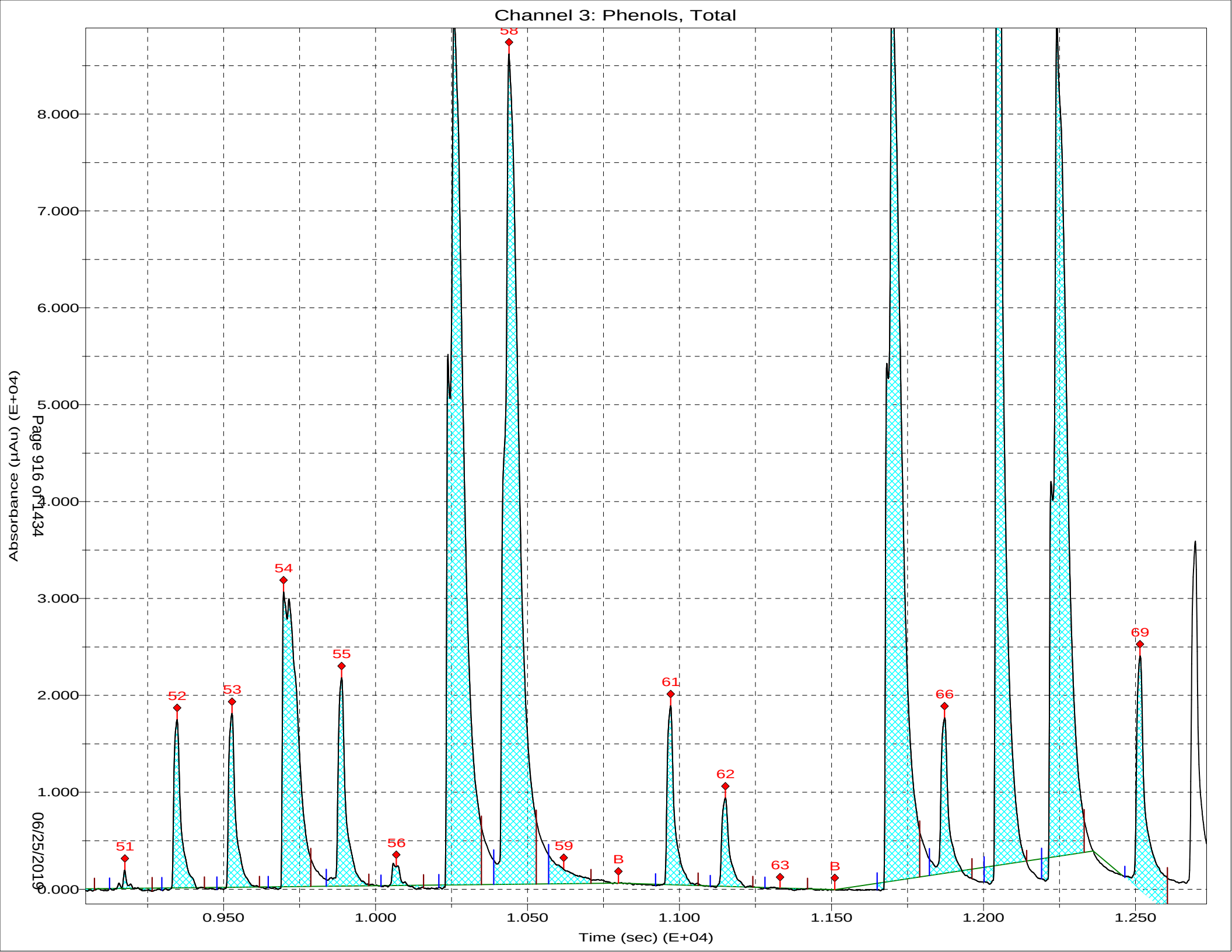
No Drift Peaks


Phenols, Total:Calibration 1: Peak 5-71
Area (E+06)
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-0.300
-100
0
100
200
300
400
500
600
Conc


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec)
Page 913 of 1434
06/25/2019
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
0
500
1000
1500
2000
2500
3000
3500
1
2
3
B
5
6
7
8
9
10
11
B
13
14
15
B
17
18
19
20


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Page 914 of 1434
06/25/2019
20
21
22
23
24
25
26
27
B
29
30
31
B
33
34
35
36
37
39
3500
4000
4500
5000
5500
6000
6500
7000
Time (sec)


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Time (sec) (E+04)
0.650
0.700
0.750
0.800
0.850
0.900
0.950
1.000
36
37
39
40
41
42
43
B
45
46
47
B
49
50
51
52
53
54
55
56
Page 915 of 1434
06/25/2019


Channel 3: Phenols, Total
Absorbance (µAu) (E+04)
Time (sec) (E+04)
Page 916 of 1434
06/25/2019
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
0.950
1.000
1.050
1.100
1.150
1.200
1.250
51
52
53
54
55
56
58
59
B
61
62
63
B
66
69

Color Bench Sheet

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Analyst: CKB	Batch #: 458642	SOP: DV-WC-0058 SM 2120B
Date: 5/17/19		

Calibration Standard TALS ID: COLOR STD_00018 1.0 N HCl TALS ID: N/A

1.0 N NaOH TALS ID: N/A

Sample ID	pH	Observed Color	Dilution Factor	Sample Centrifuged?	Final Color
Method Blank	7	<5	N/A	Yes (No)	ND
280-123924-I-1	7	15	N/A	Yes (No)	15
DU " " " "	7	15	N/A	Yes (No)	15
280-123924-I-2	7	5	N/A	Yes (No)	5
280-123924-I-3	7	10	N/A	Yes (No)	10
280-123924-J-4	7	15	5X	Yes (No)	75
280-123924-J-5	7	<5	N/A	Yes (No)	ND
280-123924-H-6	7	<5	N/A	Yes (No)	ND
280-123924-H-7	7	25	N/A	Yes (No)	25
280-123924-J-8	7	30	N/A	Yes (No)	30
280-123924-J-9	7	30	N/A	Yes (No)	30
280-123924-H-10	7	50	N/A	Yes (No)	50
280-123924-J-11	7	40	N/A	Yes (No)	40
DU " " " "	7	40	N/A	Yes (No)	40
280-123924-I-12	7	30	N/A	Yes (No)	30
280-123922-J-1	7	10	10X	Yes (No)	100
280-123922-H-2	7	15	10X	Yes (No)	150
280-123922-J-3	7	20	10X	Yes (No)	200
280-123930-H-1	7	5	10X	Yes (No)	50
280-123930-J-2	7	20	N/A	Yes (No)	20
280-123930-H-3	7	20	N/A	Yes (No)	20
280-123930-J-4	7	20	10X	Yes (No)	200
280-123930-I-5	7	25	N/A		25

Comments: _____

HARDNESS BY TITRATION -- Method 2340C

Analyst:	KS	**Titration Solutions**		**SOP Information:**	**Rep. / Detection Limits**
Date:	5/24/2019	Solution 1:	EDTA	Number: DV-WC-0060	MDL (mg/L) 1.3
Time:	17:12	ID #	_00090	Revision: 4	RL (mg/L) 5
Batch No.:	459417	Source:	RICCA	**Calibration Information**	Spike Concentrations:
		Normality:	0.01964	Std# Hard 00051	LCS Spike Vol (mL) 10
Pipette Verification				Made By: LabChem	MS Spike Vol (mL) 10
at 5 mL:	4.93 g			Concentration (mg/L): 1000	LCS conc. (mg/L) 1000.0
Brinkmann bottletop				Exp: 6/13/20	MS conc (mg/L) 1000.0
Buret 50					

Sample ID	Sample pH	Sample Volume	Buret Start	Buret Stop	Flags	Final mL	Sample Conc mg/L	Prep D.F.	Analyt. D.F.	Final Conc mg/L	Titrant TV
titrant stdz	7	10	0.00	10.21		10.21	1002.461	1	1	1002.46	0.01959
titrant stdz	7	10	0.00	10.16		10.16	997.551	1	1	997.55	0.01969

Buffer:	Hardness Buffer 00011	Exp:	11 01 2019
Calmagite Indicator:	0289-11_00008	Exp:	12 31 2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 02-May-2019 10:21:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:57 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.067	-0.025	366785	0.2000	0.3377	
2 Chloride	3.609	3.634	-0.025	2749324	1.00	1.24	
3 Nitrite as N	4.384	4.392	-0.008	1221417	NC	NC	
4 Bromide	5.300	5.300	0.000	261279	0.2000	0.2109	
5 Nitrate as N	6.009	5.992	0.017	1512184	NC	NC	
7 Orthophosphate as P	7.867	7.825	0.042	525912	NC	NC	
6 Sulfate	8.925	8.950	-0.025	2110627	1.00	1.15	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

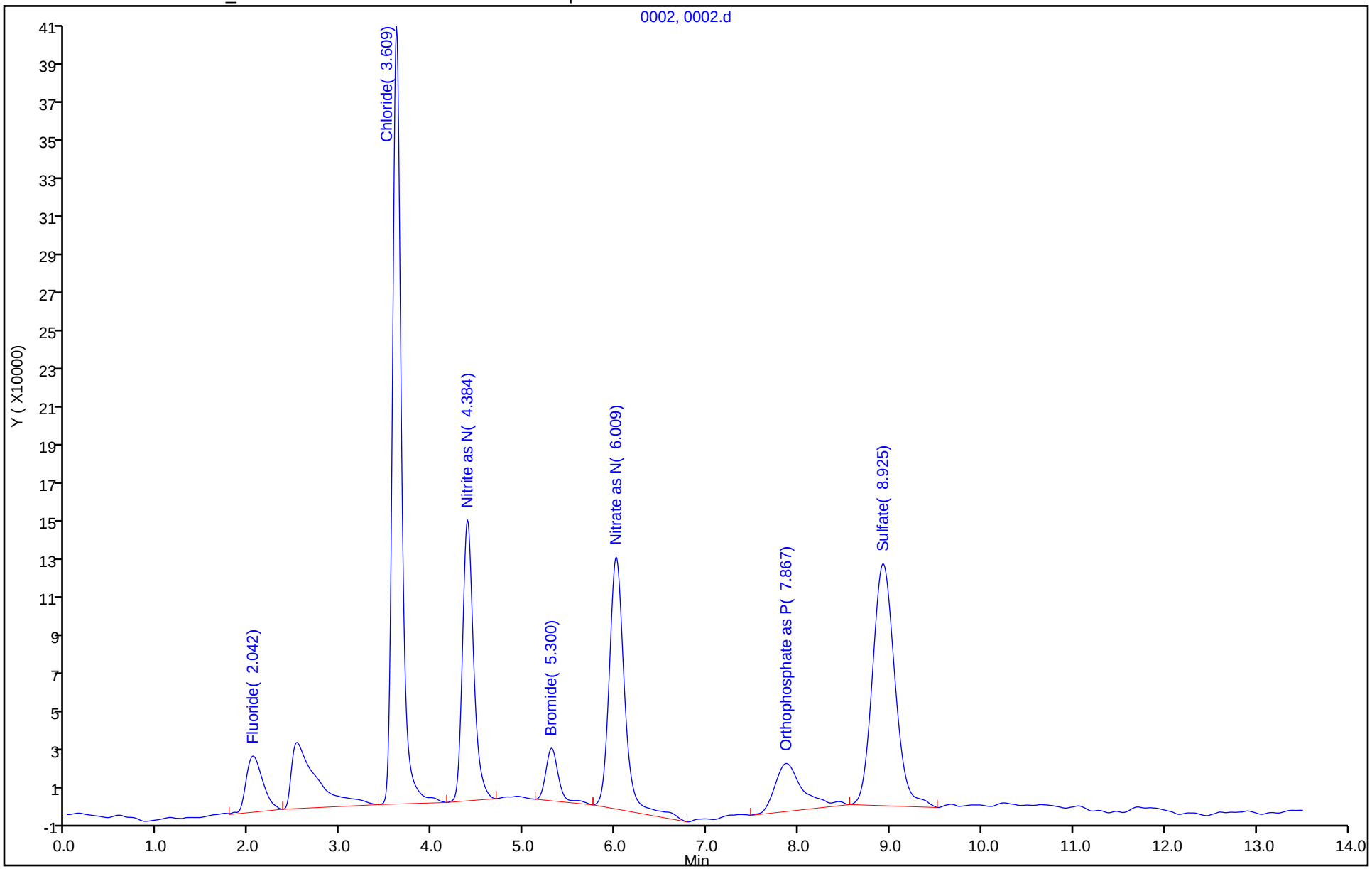
IC Cal low_00455 Amount Added: 0.02 Units: mL
IC CAL cl/so4_00254 Amount Added: 0.02 Units: mL

Report Date: 03-May-2019 07:54:57 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0002.d

Injection Date:	02-May-2019 10:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 02-May-2019 10:38:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:58 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.067	-0.033	372666	0.5000	0.3503	
2 Chloride	3.617	3.634	-0.017	6899153	2.50	2.37	
3 Nitrite as N	4.392	4.392	0.000	3131988	NC	NC	
4 Bromide	5.309	5.300	0.009	625822	0.5000	0.4928	
5 Nitrate as N	6.017	5.992	0.025	3555588	NC	NC	
7 Orthophosphate as P	7.859	7.825	0.034	1108069	NC	NC	
6 Sulfate	8.934	8.950	-0.016	5251435	2.50	2.41	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

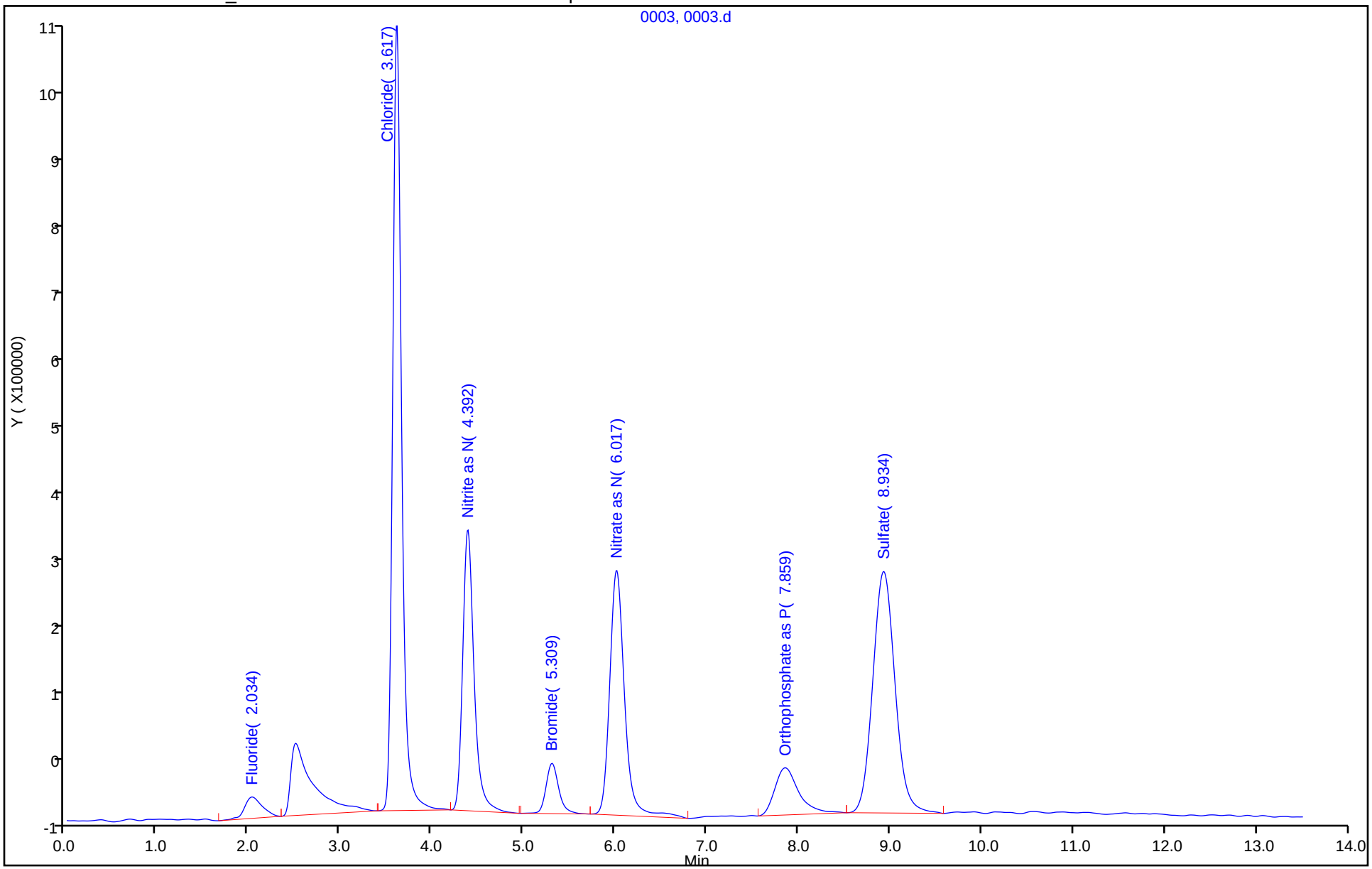
IC Cal low_00455 Amount Added: 0.05 Units: mL
IC CAL cl/so4_00254 Amount Added: 0.05 Units: mL

Report Date: 03-May-2019 07:54:58 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0003.d

Injection Date:	02-May-2019 10:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 02-May-2019 10:54:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:58 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.067	-0.050	495441	1.00	0.6135	
2 Chloride	3.617	3.634	-0.017	14033483	5.00	4.30	
3 Nitrite as N	4.392	4.392	0.000	6441564	NC	NC	
4 Bromide	5.309	5.300	0.009	1248307	1.00	0.9743	
5 Nitrate as N	6.009	5.992	0.017	7095802	NC	NC	
7 Orthophosphate as P	7.850	7.825	0.025	2292647	NC	NC	
6 Sulfate	8.934	8.950	-0.016	10751965	5.00	4.62	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

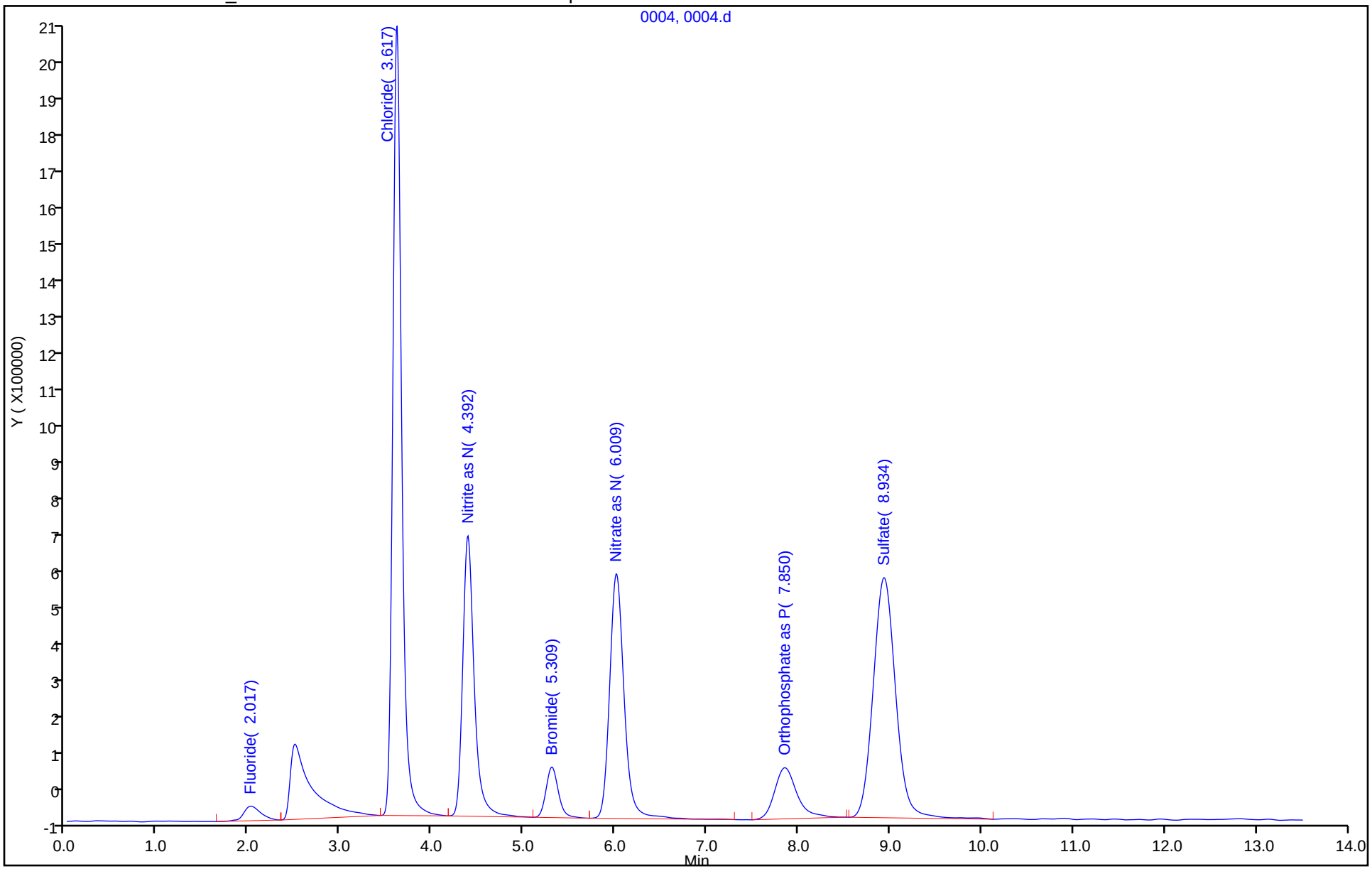
IC Cal low_00455 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00254 Amount Added: 0.10 Units: mL

Report Date: 03-May-2019 07:54:59 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0004.d

Injection Date:	02-May-2019 10:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 02-May-2019 11:11:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:54:59 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	2020138	4.00	3.88	
2 Chloride	3.634	3.634	0.000	203689540	60.0	55.7	
3 Nitrite as N	4.392	4.392	0.000	26199019	NC	NC	
4 Bromide	5.300	5.300	0.000	5053207	4.00	3.92	
5 Nitrate as N	6.000	6.000	0.000	29041817	NC	NC	
7 Orthophosphate as P	7.842	7.842	0.000	9583357	NC	NC	
6 Sulfate	8.959	8.959	0.000	142005890	60.0	57.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

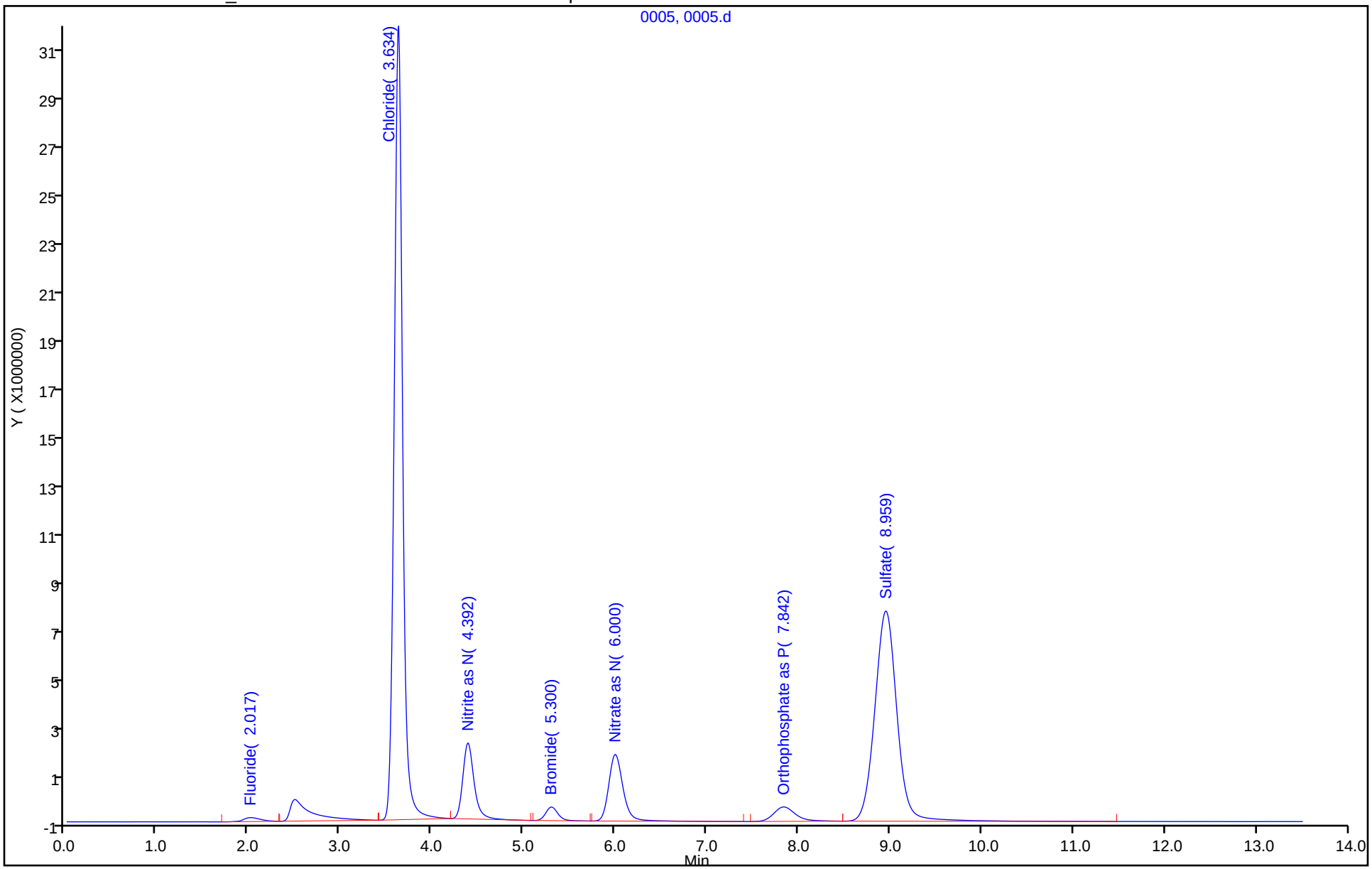
IC Cal low_00455 Amount Added: 0.40 Units: mL
IC CAL cl/so4_00254 Amount Added: 1.20 Units: mL

Report Date: 03-May-2019 07:54:59 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0005.d

Injection Date:	02-May-2019 11:11:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 02-May-2019 11:27:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:00 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	3480139	8.00	7.01	
2 Chloride	3.650	3.634	0.016	434615430	120.0	118.4	
3 Nitrite as N	4.392	4.392	0.000	53247138	NC	NC	
4 Bromide	5.300	5.300	0.000	10123490	8.00	7.84	
5 Nitrate as N	5.992	6.000	-0.008	59270420	NC	NC	
7 Orthophosphate as P	7.834	7.842	-0.008	19166572	NC	NC	
6 Sulfate	8.975	8.959	0.016	292630668	120.0	117.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

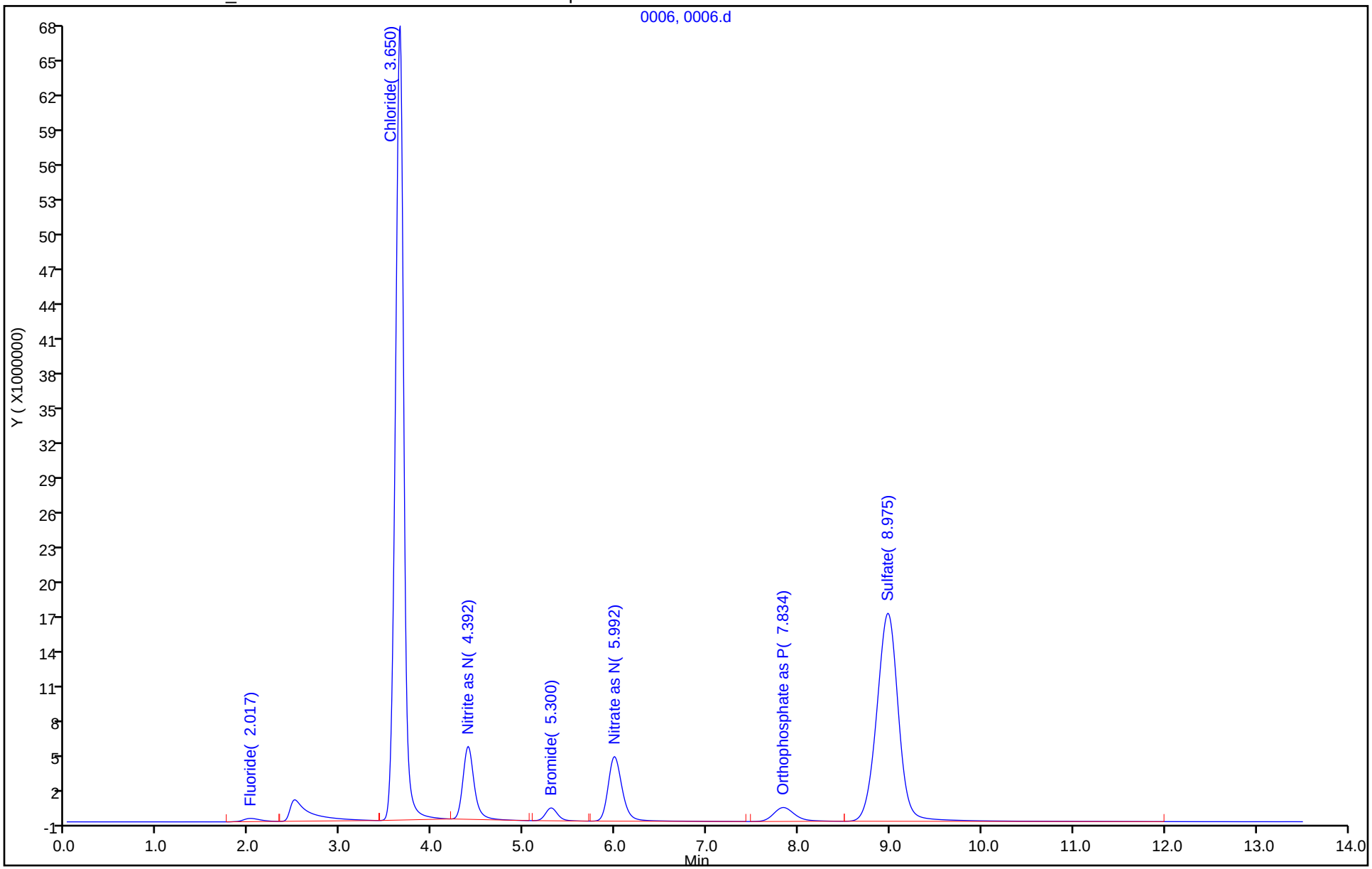
IC Cal low_00455 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00254 Amount Added: 2.40 Units: mL

Report Date: 03-May-2019 07:55:00 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0006.d

Injection Date:	02-May-2019 11:27:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 02-May-2019 11:43:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-007
Misc. Info.: 7 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:01 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	5578154	10.0	11.5	
2 Chloride	3.667	3.634	0.033	759596501	200.0	206.5	
3 Nitrite as N	4.392	4.392	0.000	70984538	NC	NC	
4 Bromide	5.292	5.300	-0.008	13261367	10.0	10.3	
5 Nitrate as N	5.984	6.000	-0.016	79286235	NC	NC	
7 Orthophosphate as P	7.825	7.842	-0.017	25804274	NC	NC	
6 Sulfate	9.000	8.959	0.041	511344409	200.0	205.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

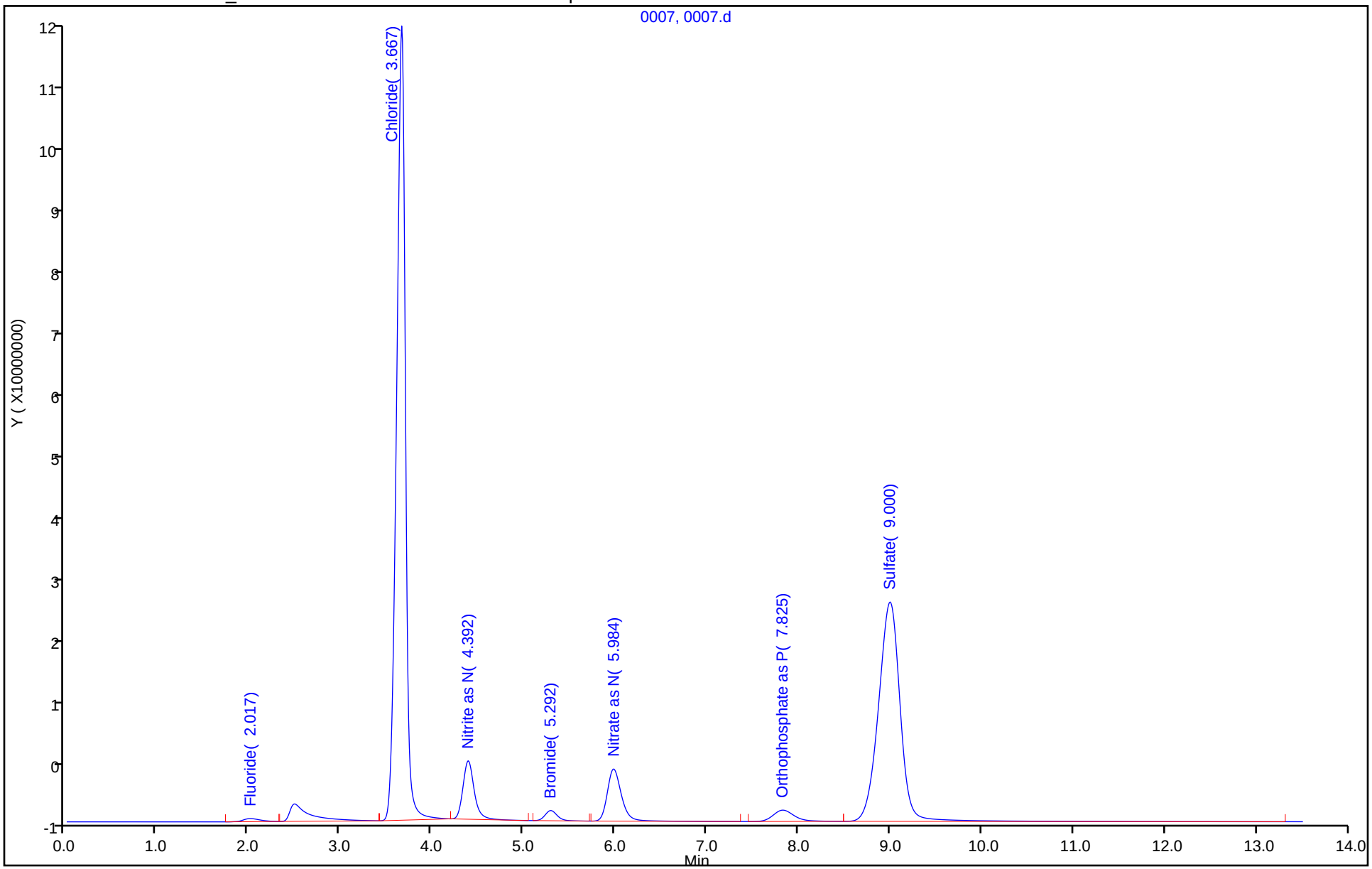
IC Cal low_00455 Amount Added: 1.00 Units: mL
IC CAL cl/so4_00254 Amount Added: 4.00 Units: mL

Report Date: 03-May-2019 07:55:02 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Injection Date:	02-May-2019 11:43:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



456731/32

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81509 Inst ID: 11 Analysis Date: 05/02/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
Dissolved	122281	12	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D)	1 & 8
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
122281	1,2,4,5,6,7	F (Cl) NO2 Br NO3 PO4 (SO4)	5x, 10x, 20x	limit.
	8,10,11	F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya
5/6/19

456731/32

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81509 Inst ID: 11 Analysis Date: 05/02/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
Dissolved →	122281	12	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D)	1 & 8
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
122281	1,2,4,5,6,7	F (Cl) NO2 Br NO3 PO4 (SO4)	5x, 10x, 20x	limit.
	8, 10, 11	F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 03-May-2019 07:55:18
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b
Inj Date : 02-May-2019 10:21:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					209210	486585	R1, R4	).968*
2 Chloride					-183738	3887536		0.998
3 Nitrite as N	-244378	6864639		0.999				
4 Bromide					-11343	1292891		0.999
5 Nitrate as N	-164405	7626518		0.998				
7 Orthophosphate as P	-42386	2478276		0.998				
6 Sulfate					-758343	2493295		0.999

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit

Phaniya
5/6/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	03-May-2019 07:55:18

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b
Inj Date : 02-May-2019 10:21:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					209210	466585	R1, R4	).968*
2 Chloride					-183738	368753(		0.998
3 Nitrite as N	-244378	6864639		0.999				
4 Bromide					-11343	1292891		0.999
5 Nitrate as N	-164405	7626518		0.998				
7 Orthophosphate as P	-42386	2478276		0.998				
6 Sulfate					-758343	2493295		0.999

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 02-May-2019 12:00:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-008
Misc. Info.: 8 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:02 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	2447396	4.00	4.80	
2 Chloride	3.642	3.642	0.000	285894932	80.0	78.0	
3 Nitrite as N	4.392	4.392	0.000	25388265	NC	NC	
4 Bromide	5.309	5.309	0.000	5092734	4.00	3.95	
5 Nitrate as N	6.000	6.000	0.000	29556367	NC	NC	
7 Orthophosphate as P	7.842	7.842	0.000	9842771	NC	NC	
6 Sulfate	8.967	8.967	0.000	195183824	80.0	78.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

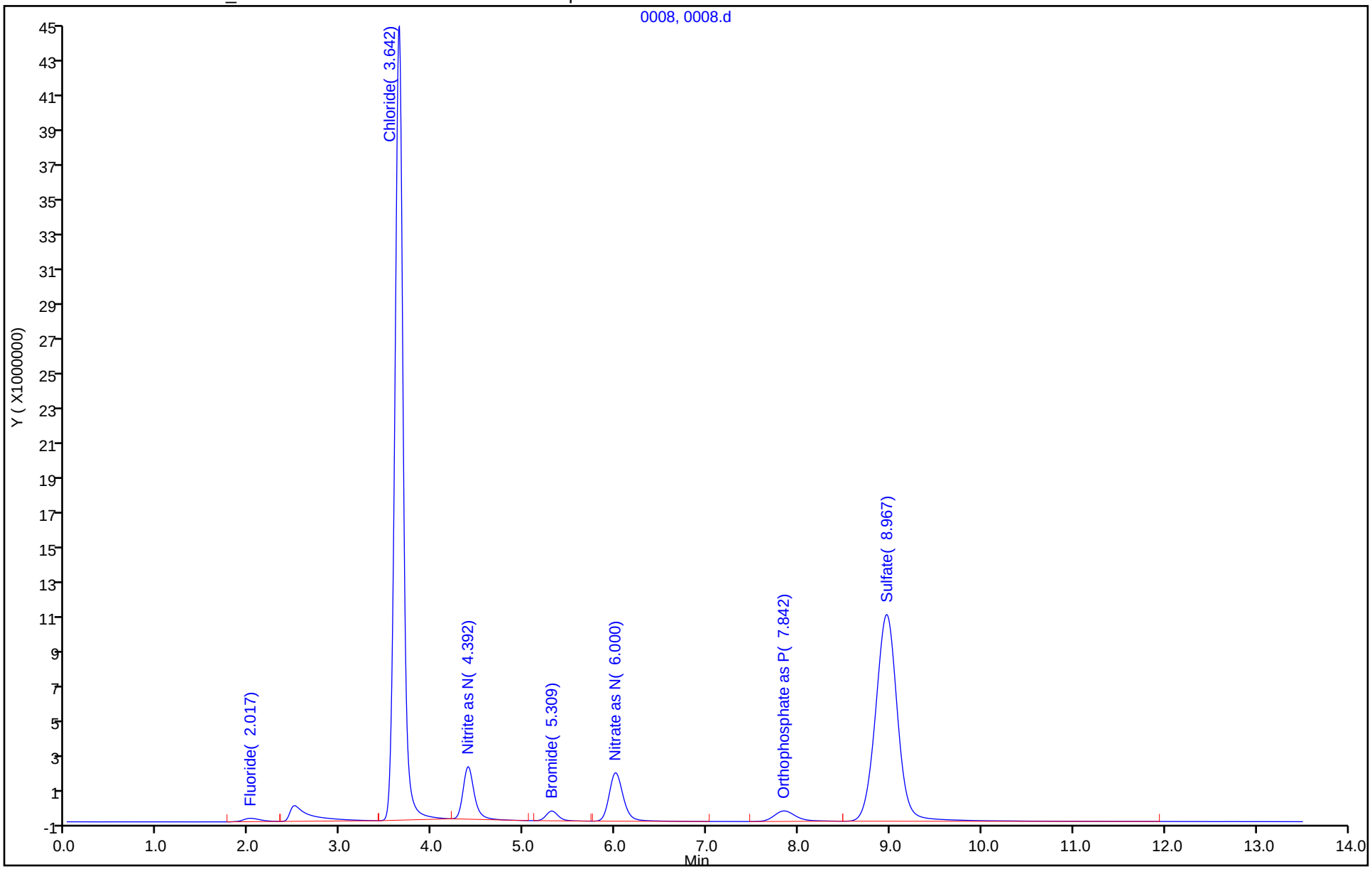
IC CL ICV_00016	Amount Added:	0.40	Units: mL
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00232	Amount Added:	0.40	Units: mL

Report Date: 03-May-2019 07:55:02 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0008.d

Injection Date:	02-May-2019 12:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0009.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 02-May-2019 12:16:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081509-009
Misc. Info.: 9 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 03-May-2019 07:55:02 Calib Date: 02-May-2019 11:43:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0322

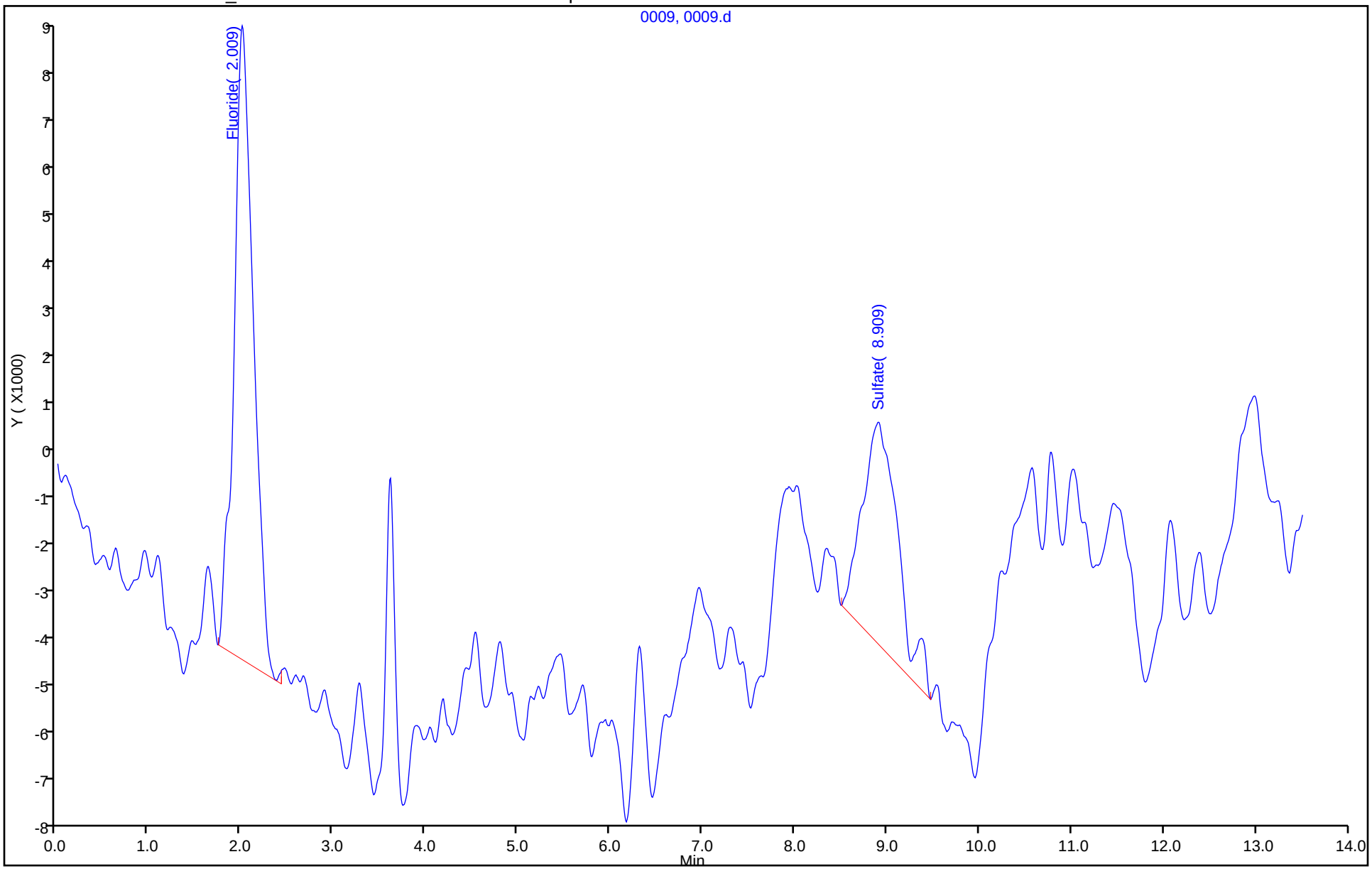
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.017	-0.008	184261		-0.0535	
2 Chloride		3.634				ND	
3 Nitrite as N		4.392				ND	
4 Bromide		5.300				ND	
5 Nitrate as N		6.000				ND	
7 Orthophosphate as P		7.842				ND	
6 Sulfate	8.909	8.959	-0.050	119116		0.3519	

Report Date: 03-May-2019 07:55:03 Chrom Revision: 2.3 10-Apr-2019 17:48:54

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190502-81509.b\0009.d

Injection Date:	02-May-2019 12:16:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
6 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	NC	NC	M
2 Chloride	3.234	3.242	-0.008	4716909	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	1976056	0.2000	0.2135	a
4 Bromide	4.642	4.642	0.000	382484	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	2120855	0.2000	0.2208	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	0.2000	0.2189	a
6 Sulfate	6.409	6.434	-0.025	3612640	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

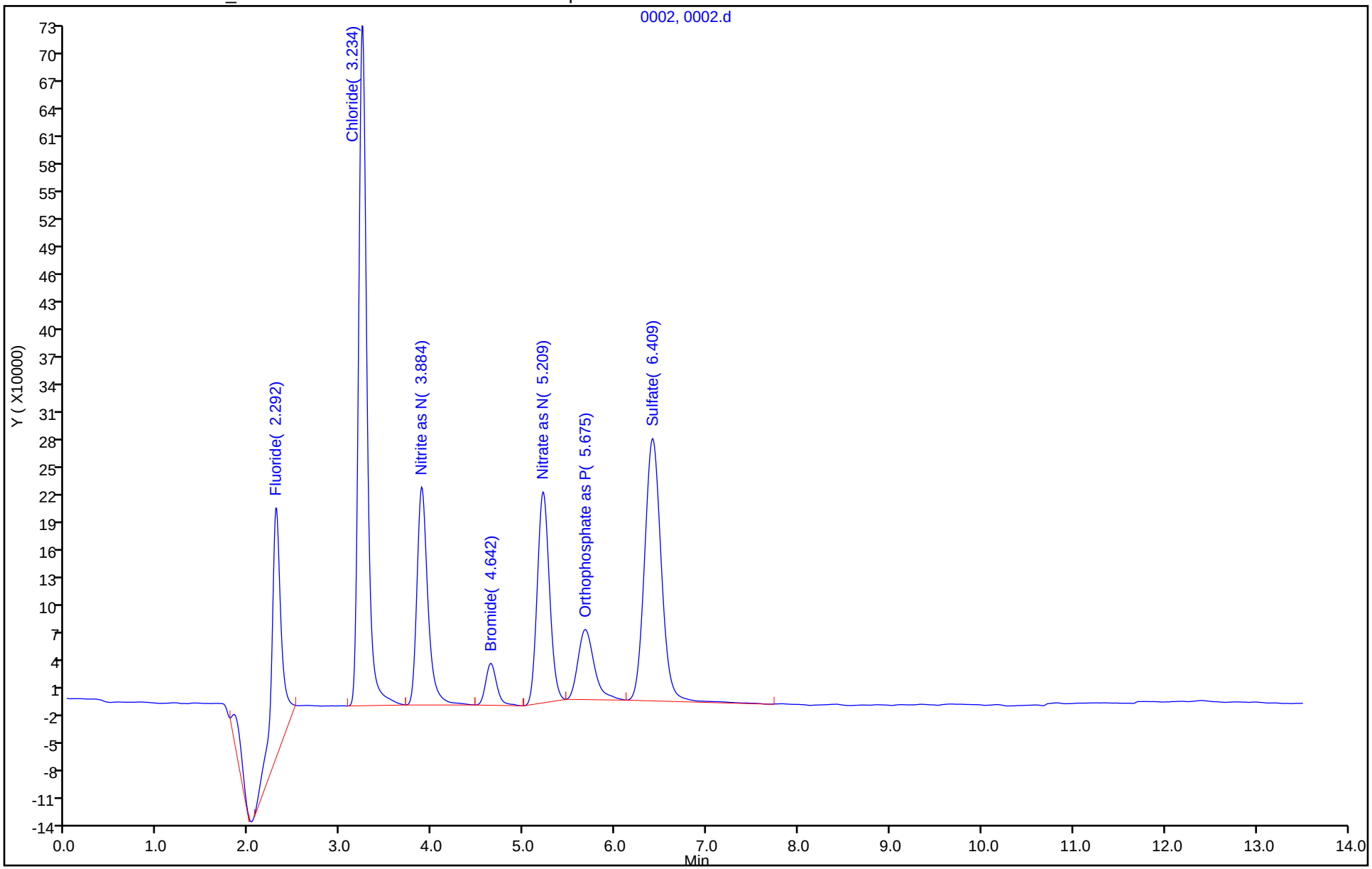
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

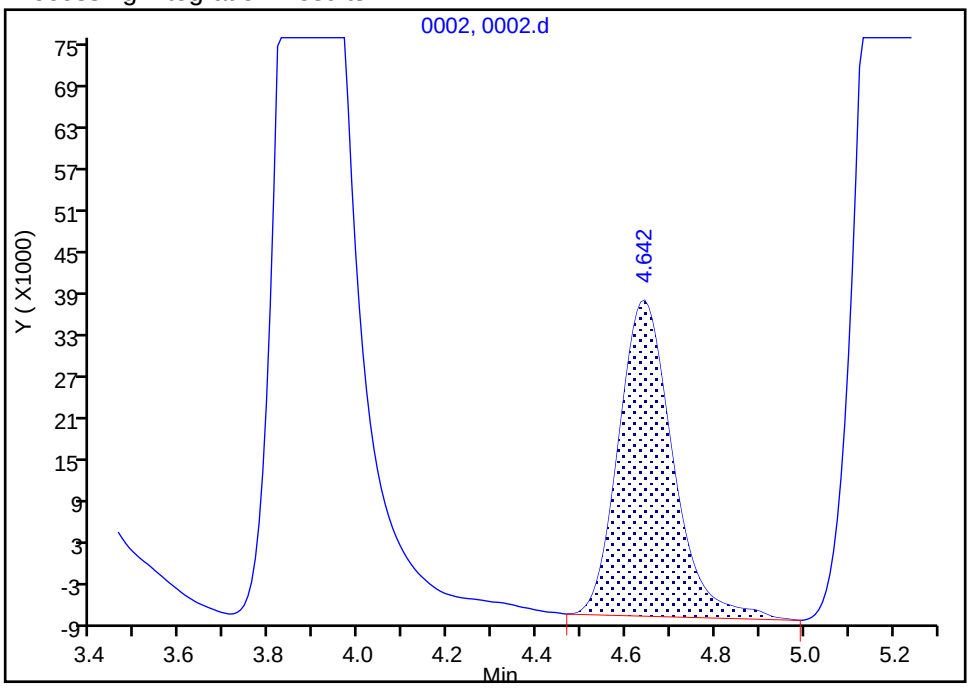
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

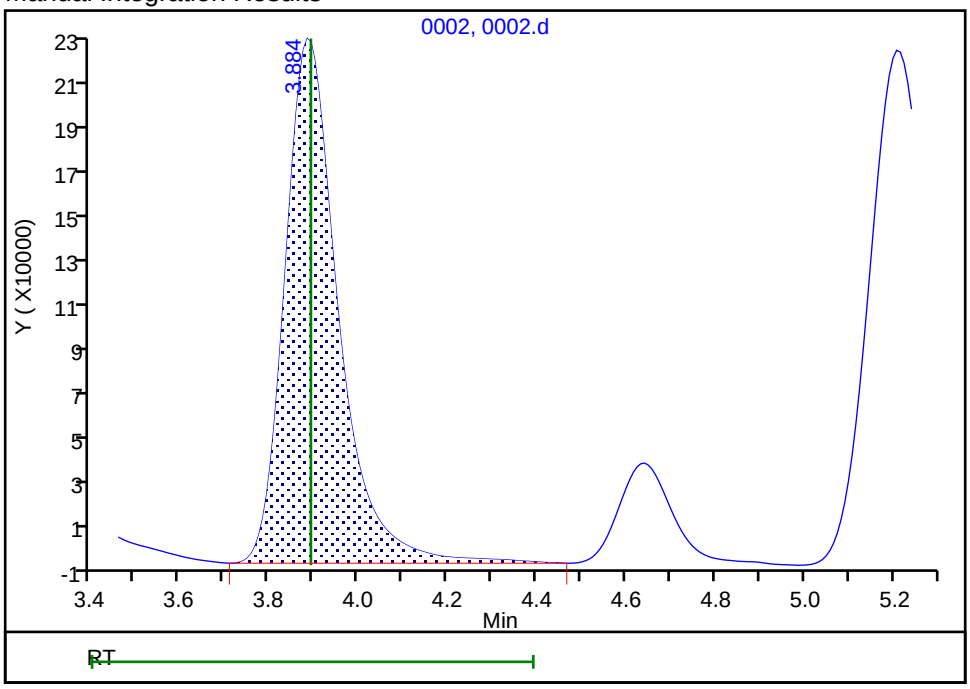
Processing Integration Results

RT: 4.64
Area: 382484
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 1976056
Amount: 0.213513
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:40
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

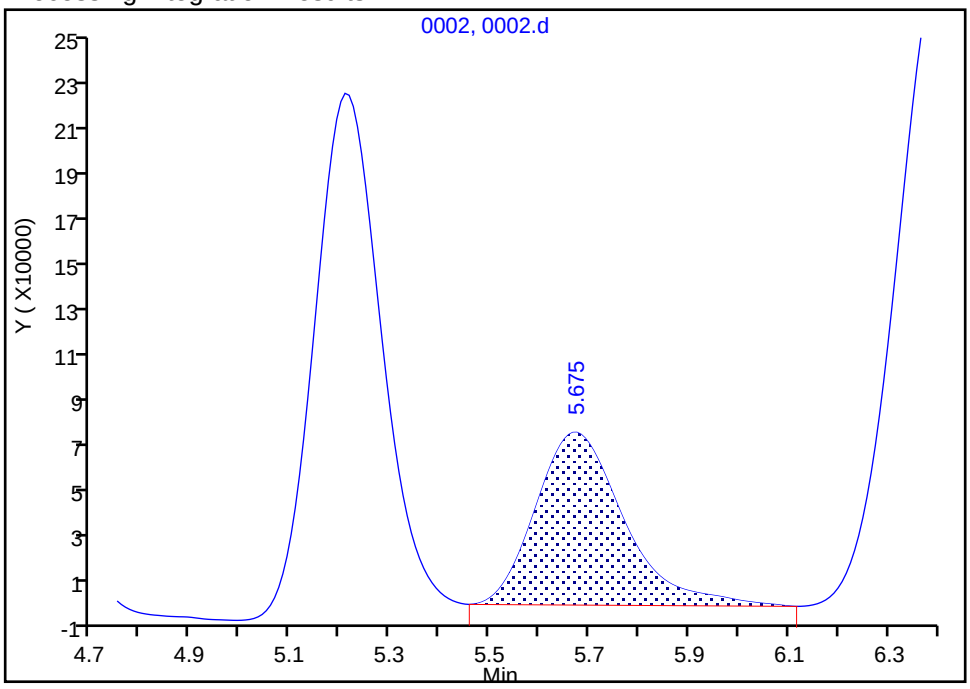
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

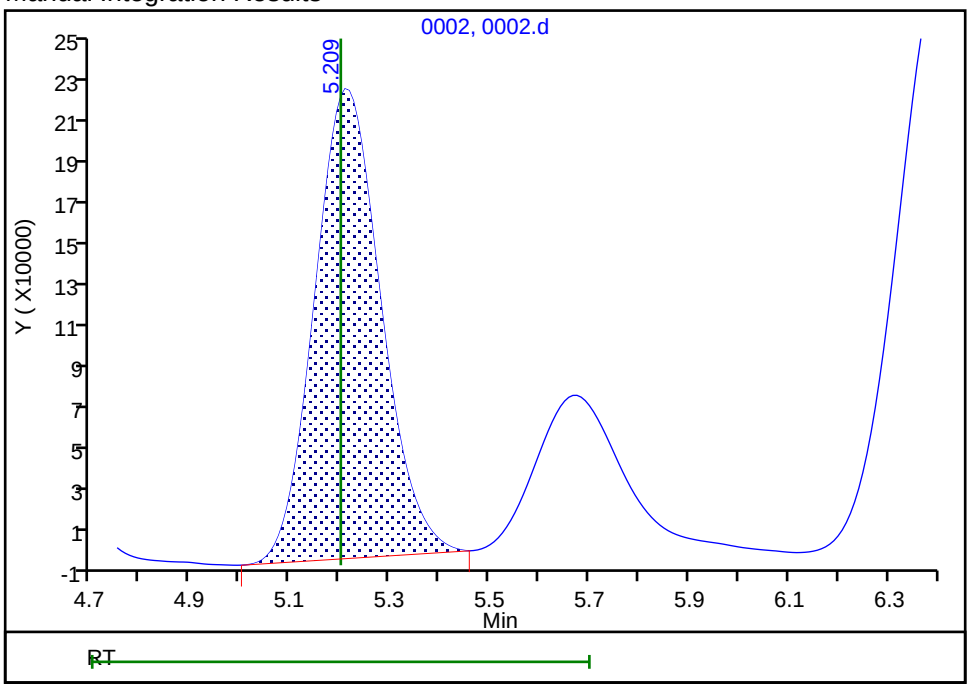
Processing Integration Results

RT: 5.68
Area: 939373
Amount: 0.215245
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 2120855
Amount: 0.220835
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:04:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

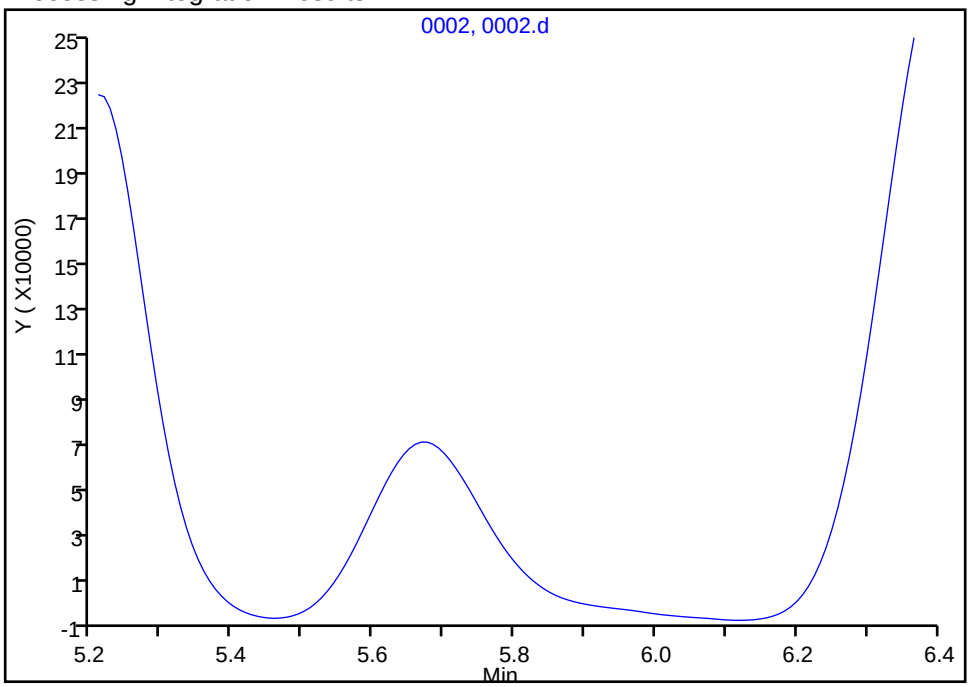
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

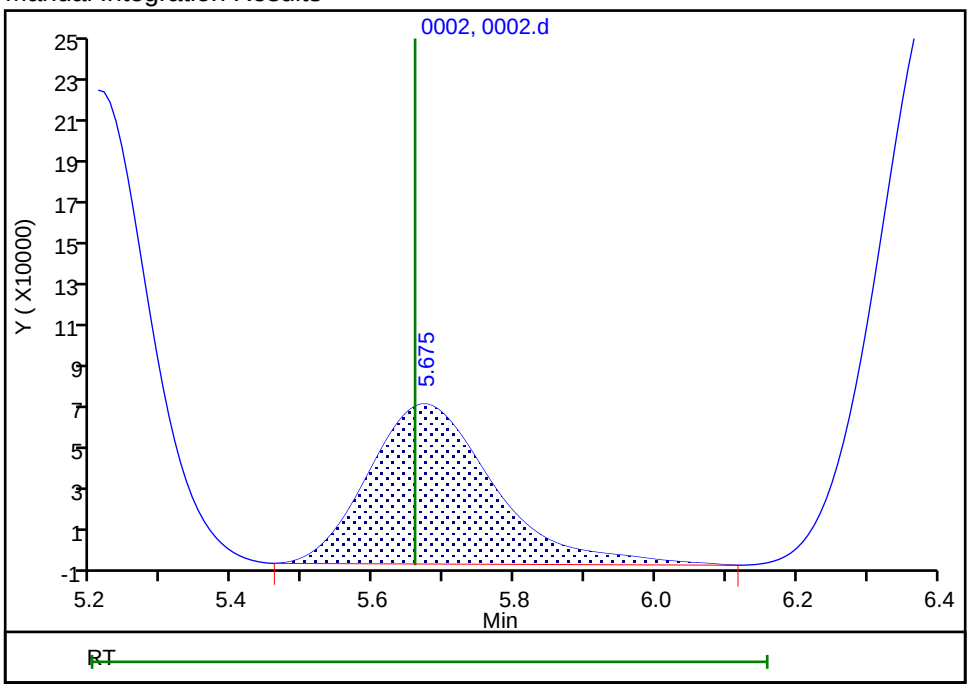
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.68
Area: 939373
Amount: 0.218915
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:07
Audit Action: Assigned Compound ID Audit Reason:

458391 / 458398

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123873	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phuriya 5/17/19

New Cal

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 81929 **Inst ID:** 11 **Analysis Date:** 05/15/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123814	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	123838	9	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	client
☐	123834	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved ☐	123815	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123845	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123833	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939039		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142136		0.999				
8 Sulfate					-195578	4472468		0.997

Phuriya
5/17/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 16-May-2019 15:58:09
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-May-2019 17:32:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:12 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:02:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	2026299	0.2000	0.1247	M
2 Chloride	3.234	3.242	-0.008	4716909	1.00	1.32	
3 Nitrite as N	3.884	3.892	-0.008	1976056	NC	NC	a
4 Bromide	4.642	4.642	0.000	382484	0.2000	0.2043	a
5 Nitrate as N	5.209	5.200	0.009	2120855	NC	NC	a
7 Orthophosphate as P	5.675	5.659	0.016	939373	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	3612640	1.00	1.25	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

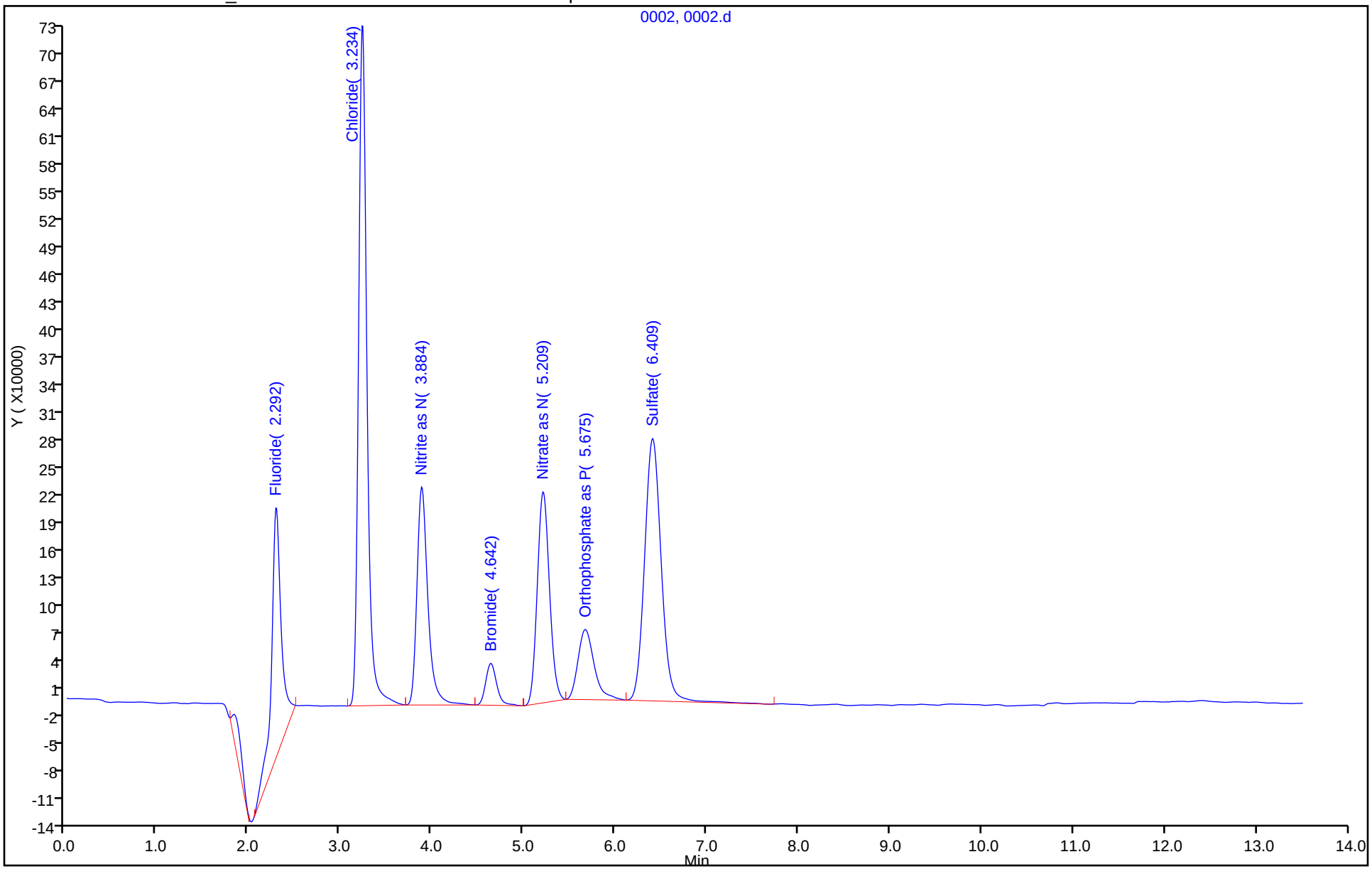
IC CAL cl/so4_00256 Amount Added: 0.02 Units: mL
IC Cal low_00458 Amount Added: 0.02 Units: mL

Report Date: 16-May-2019 07:56:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d

Injection Date:	15-May-2019 17:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

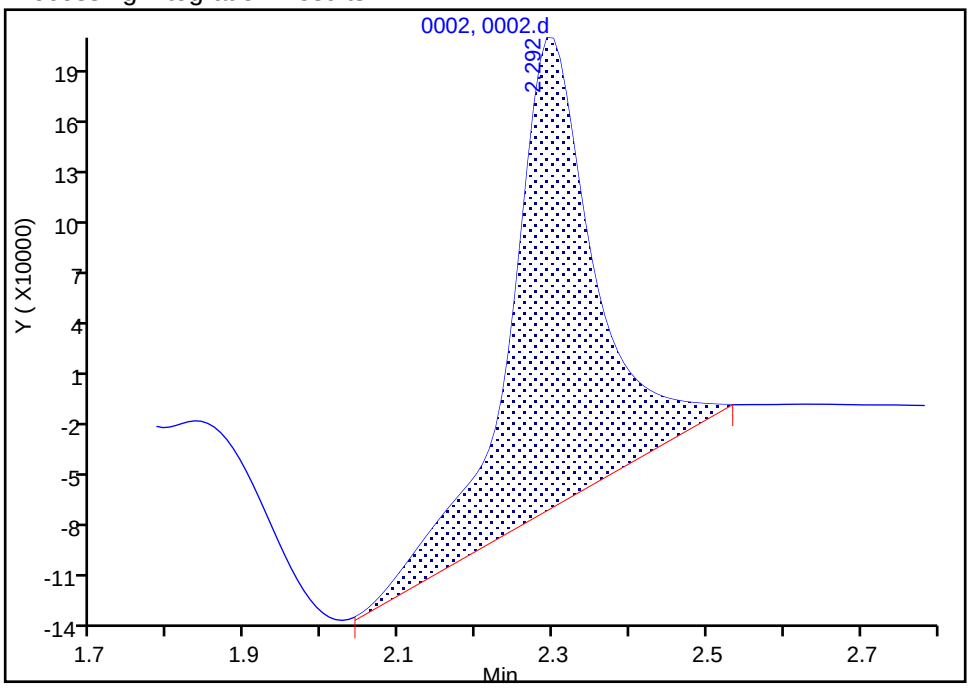
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

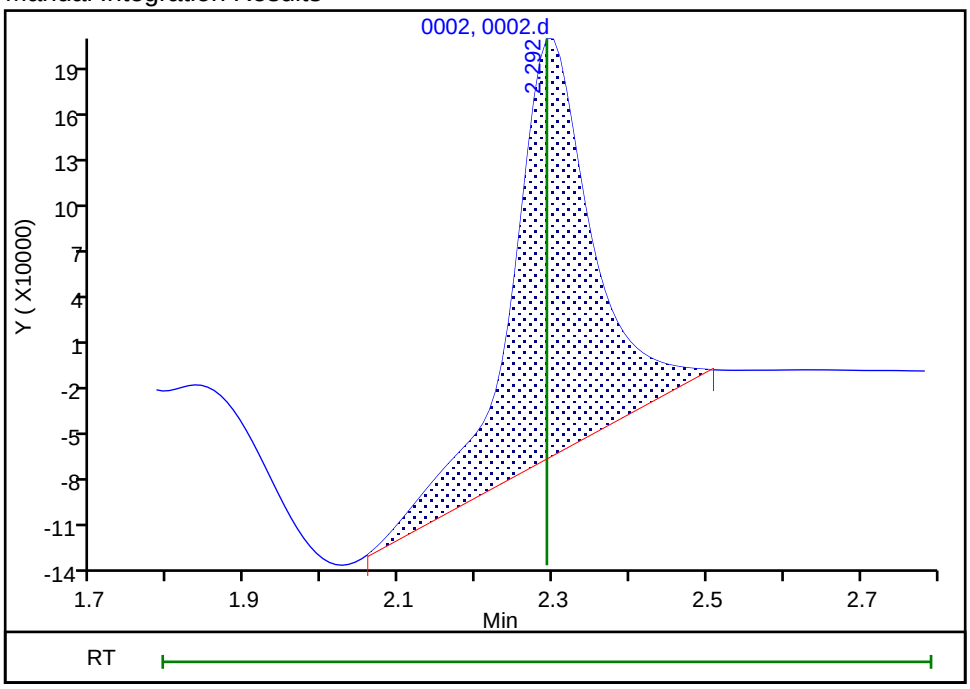
Processing Integration Results

RT: 2.29
Area: 2156044
Amount: 0.130825
Amount Units: ug/ml



Manual Integration Results

RT: 2.29
Area: 2026299
Amount: 0.124737
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:10:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

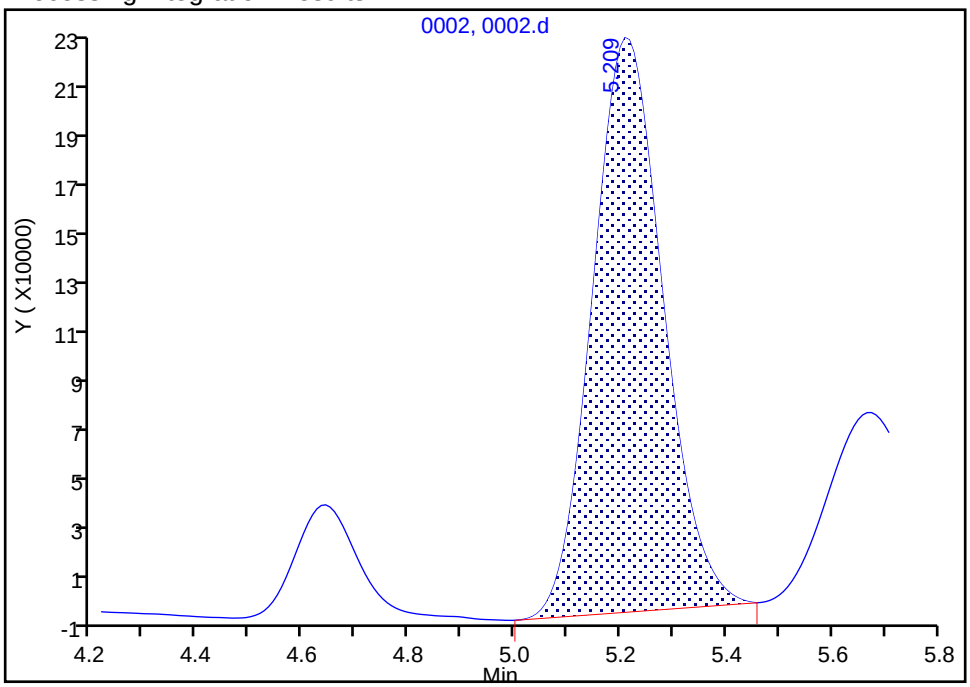
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

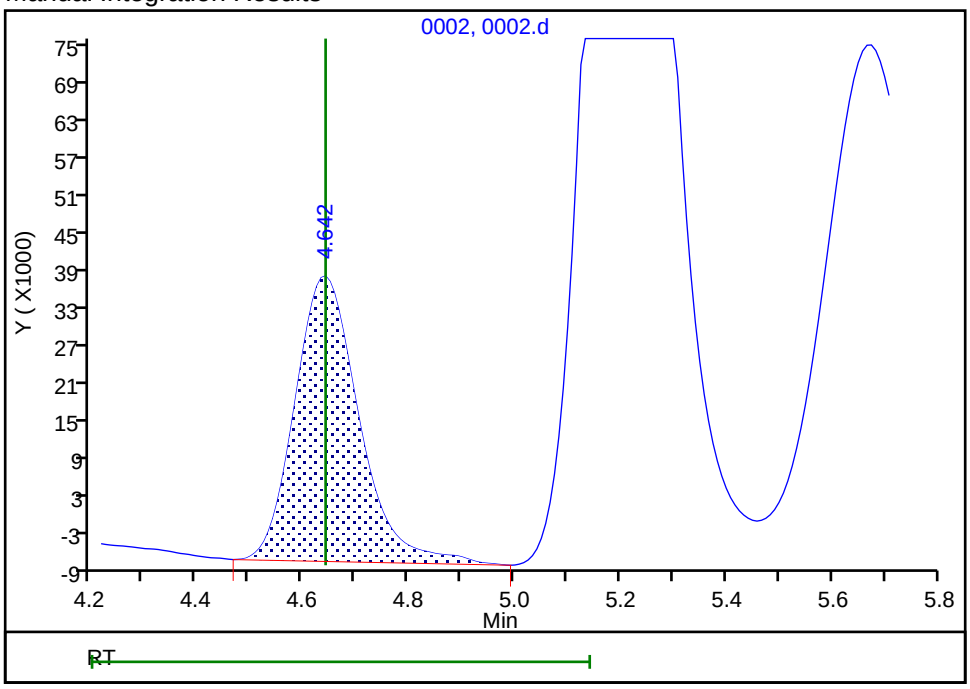
Processing Integration Results

RT: 5.21
Area: 2120855
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 382484
Amount: 0.204318
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

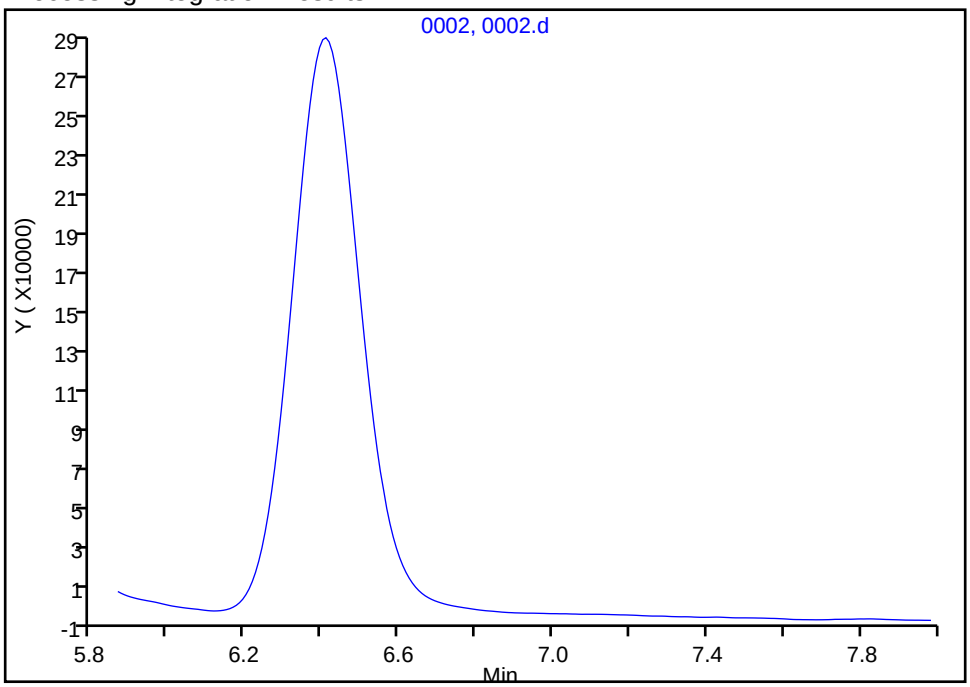
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0002.d
Injection Date: 15-May-2019 17:32:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

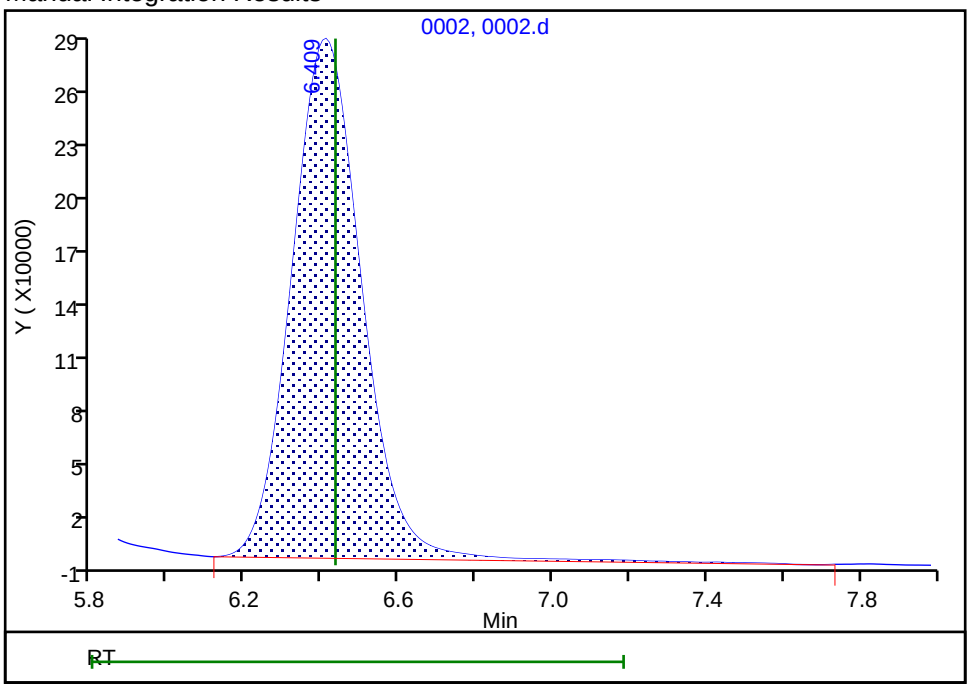
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 3612640
Amount: 1.245045
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:12
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	NC	NC	
2 Chloride	3.234	3.242	-0.008	11441790	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	4889442	0.5000	0.4912	a
4 Bromide	4.634	4.642	-0.008	953603	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	5219434	0.5000	0.4876	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	0.5000	0.4793	a
6 Sulfate	6.409	6.434	-0.025	8699908	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

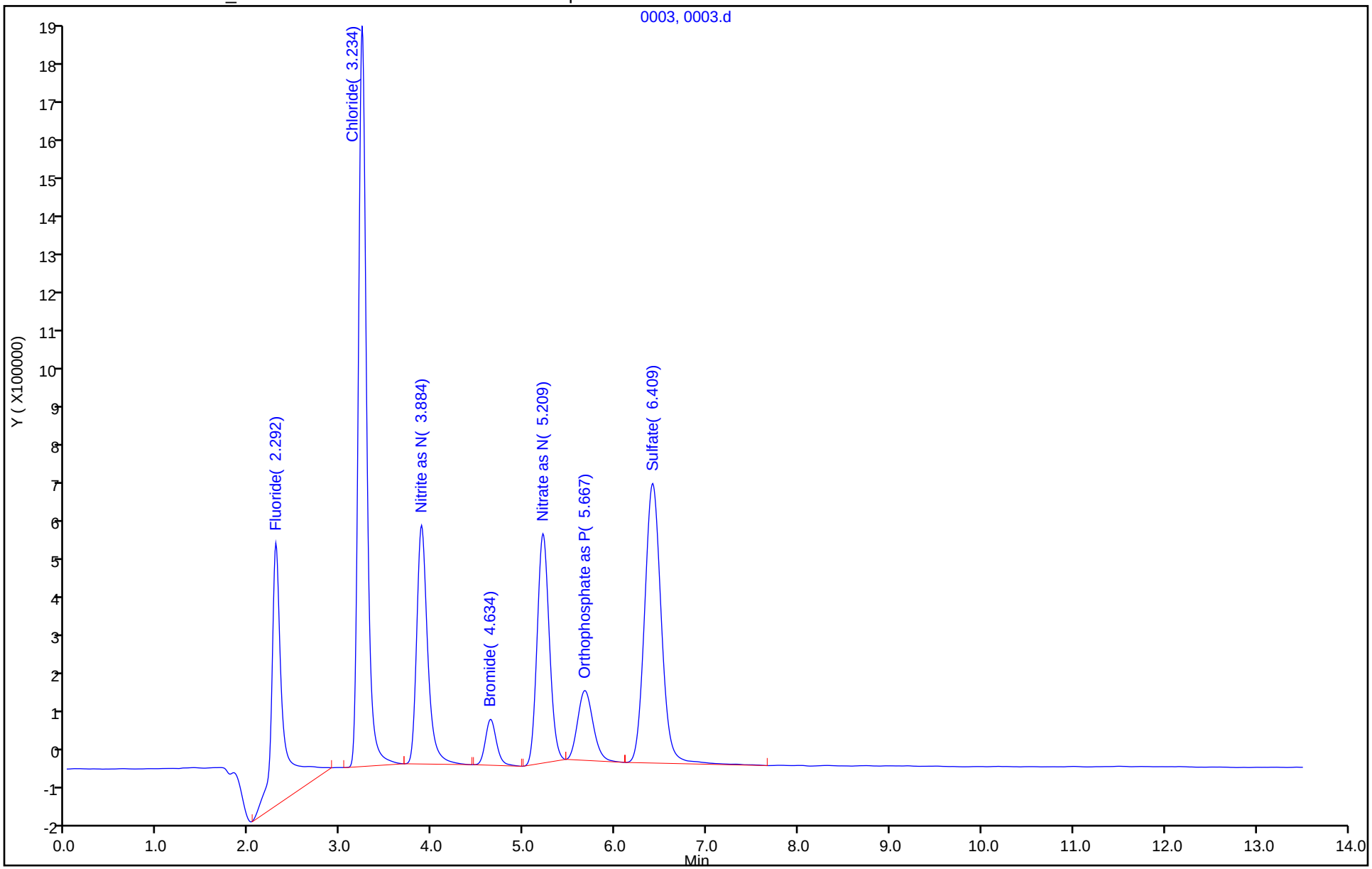
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

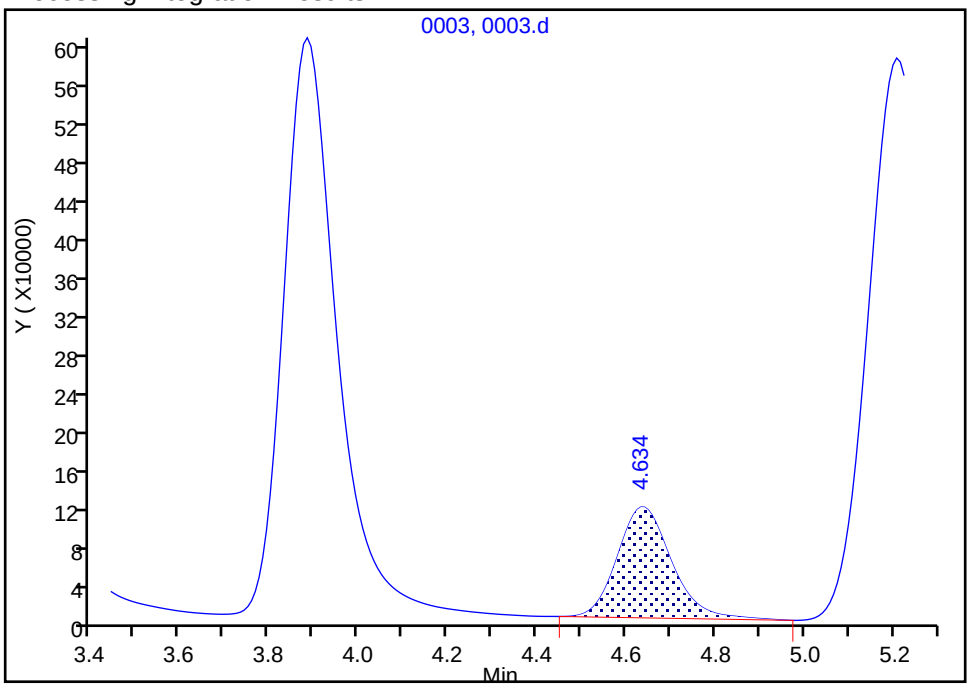
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

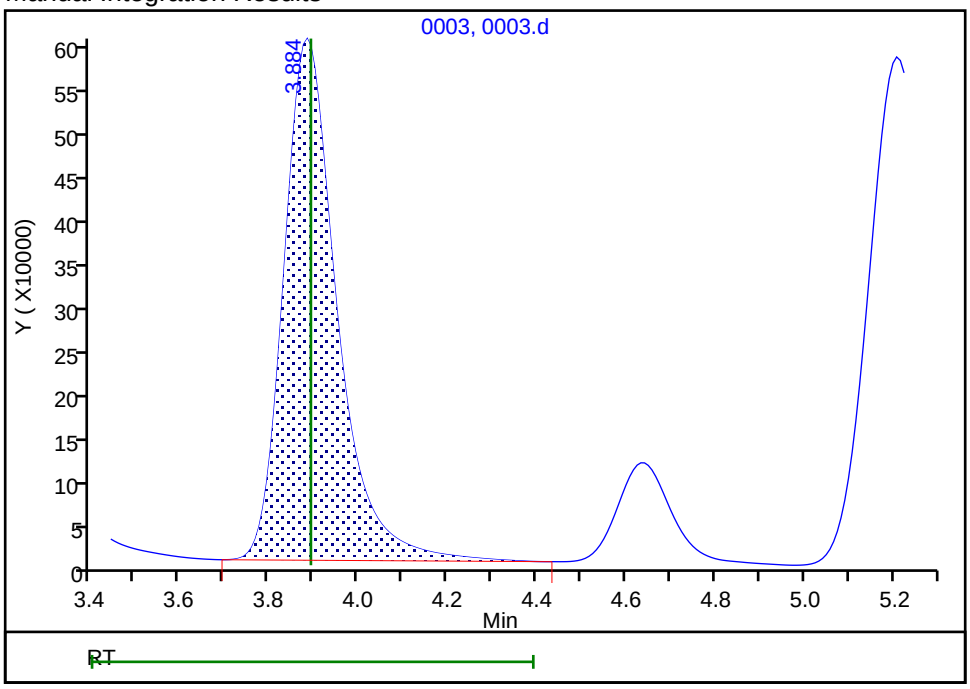
Processing Integration Results

RT: 4.63
Area: 953603
Amount: -0.100903
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 4889442
Amount: 0.491191
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

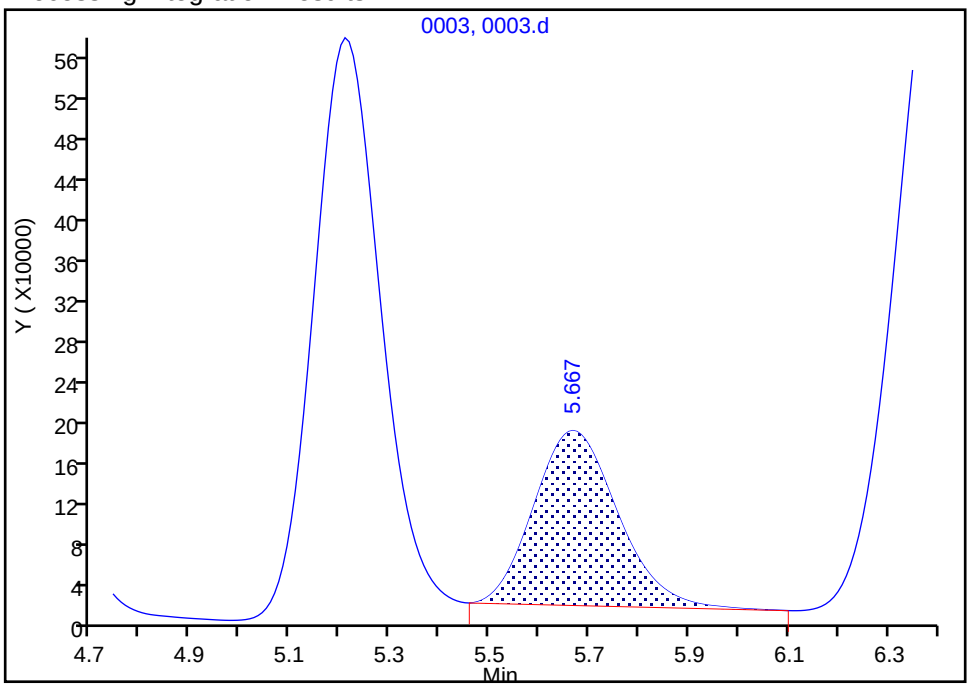
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

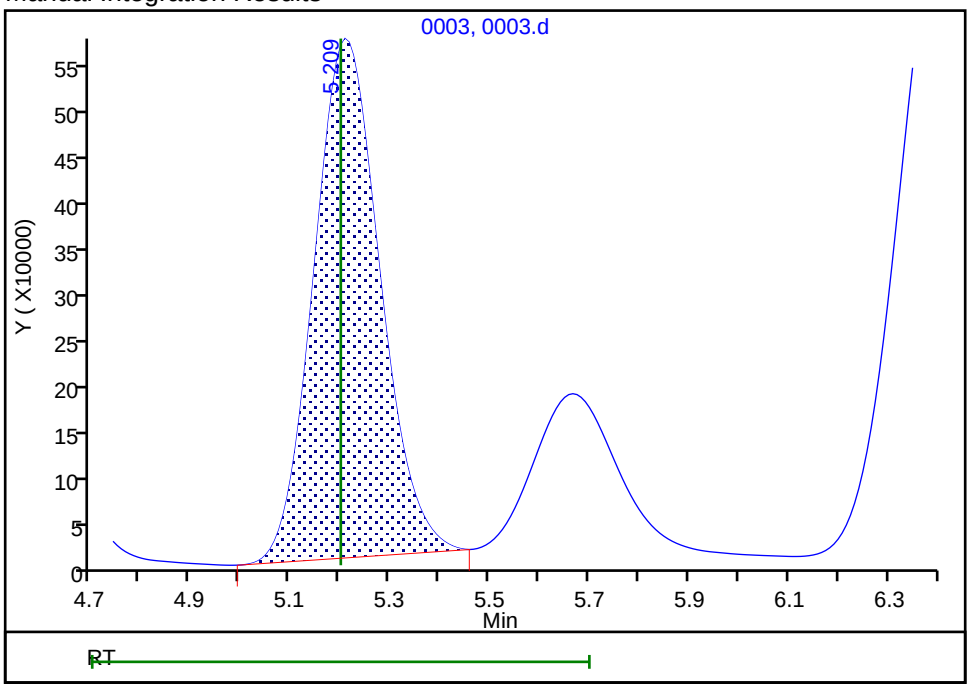
Processing Integration Results

RT: 5.67
Area: 2017876
Amount: 0.290238
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 5219434
Amount: 0.487631
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:02
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

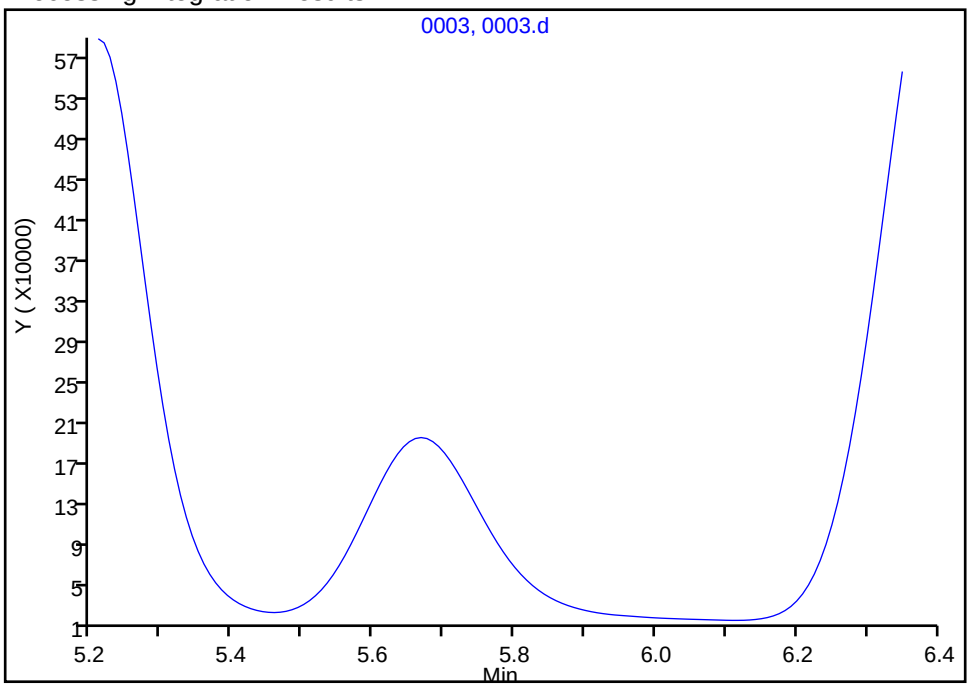
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

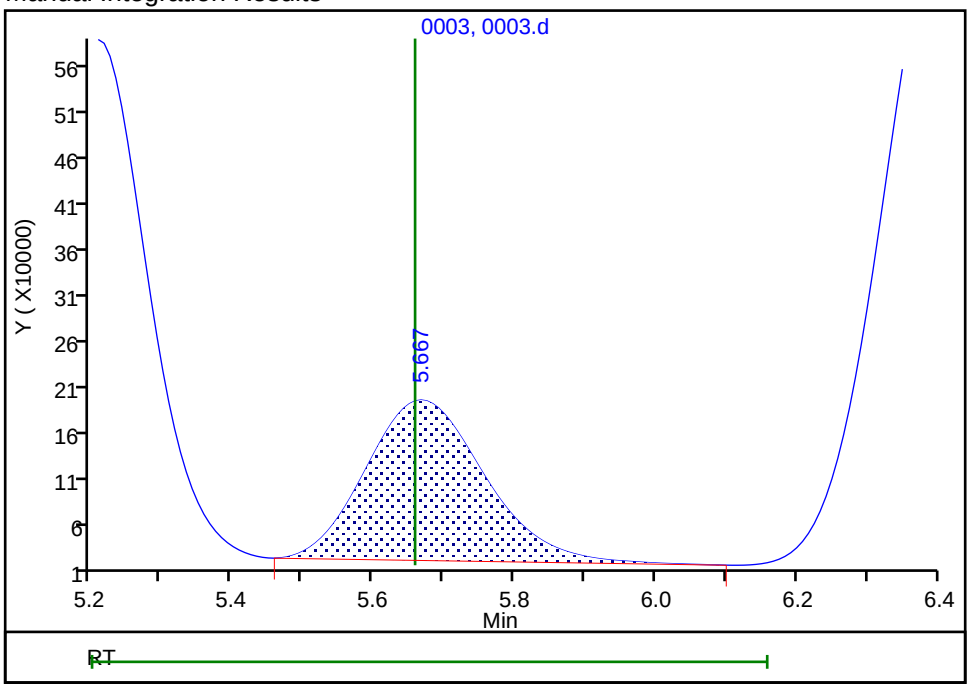
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 2017876
Amount: 0.479288
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:14
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-May-2019 17:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:11 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:06:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	5699884	0.5000	0.6311	
2 Chloride	3.234	3.242	-0.008	11441790	2.50	2.32	
3 Nitrite as N	3.884	3.892	-0.008	4889442	NC	NC	a
4 Bromide	4.634	4.642	-0.008	953603	0.5000	0.4980	a
5 Nitrate as N	5.209	5.200	0.009	5219434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	2017876	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	8699908	2.50	2.38	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

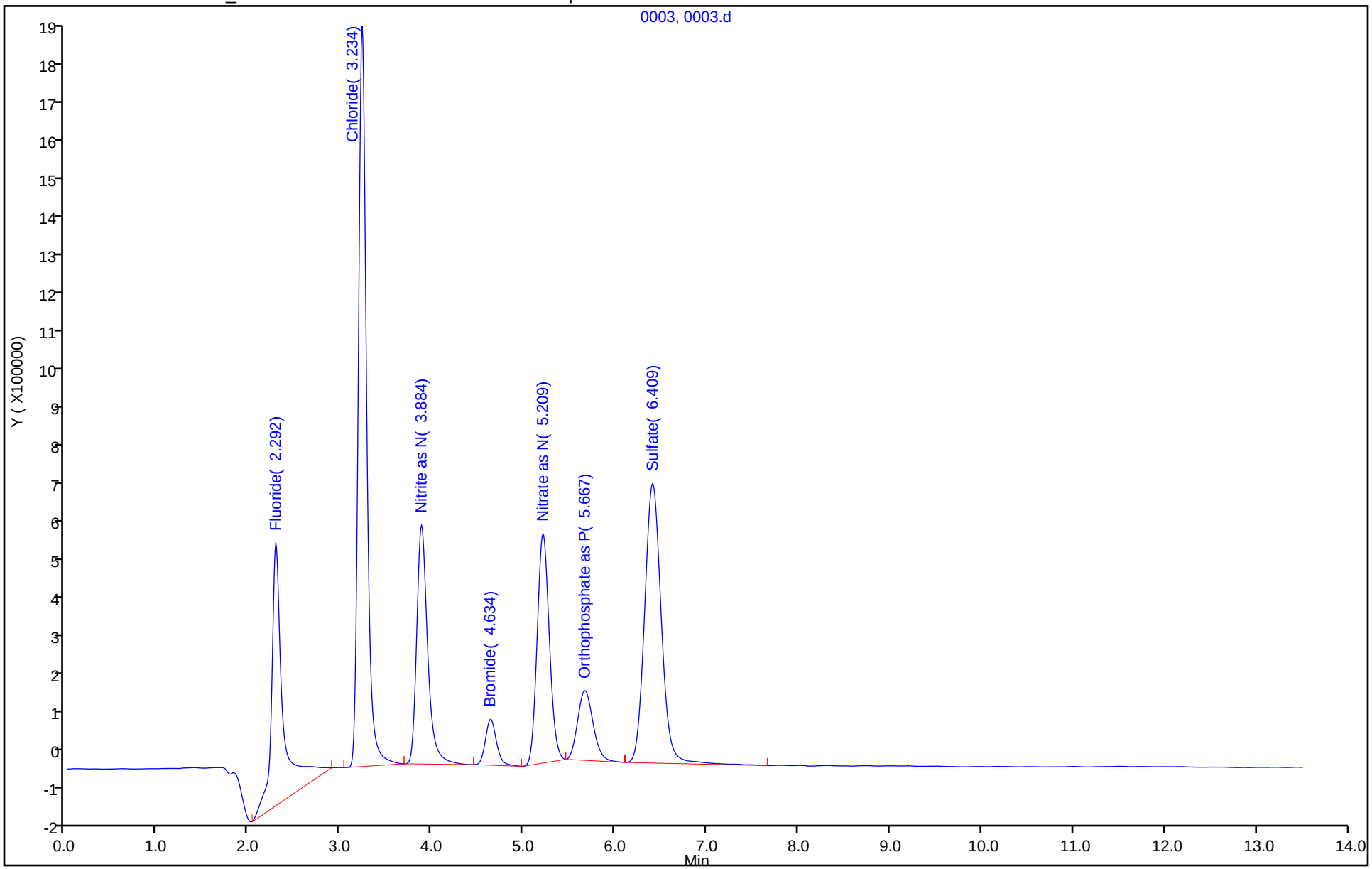
IC CAL cl/so4_00256 Amount Added: 0.05 Units: mL
IC Cal low_00458 Amount Added: 0.05 Units: mL

Report Date: 16-May-2019 07:56:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d

Injection Date:	15-May-2019 17:49:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

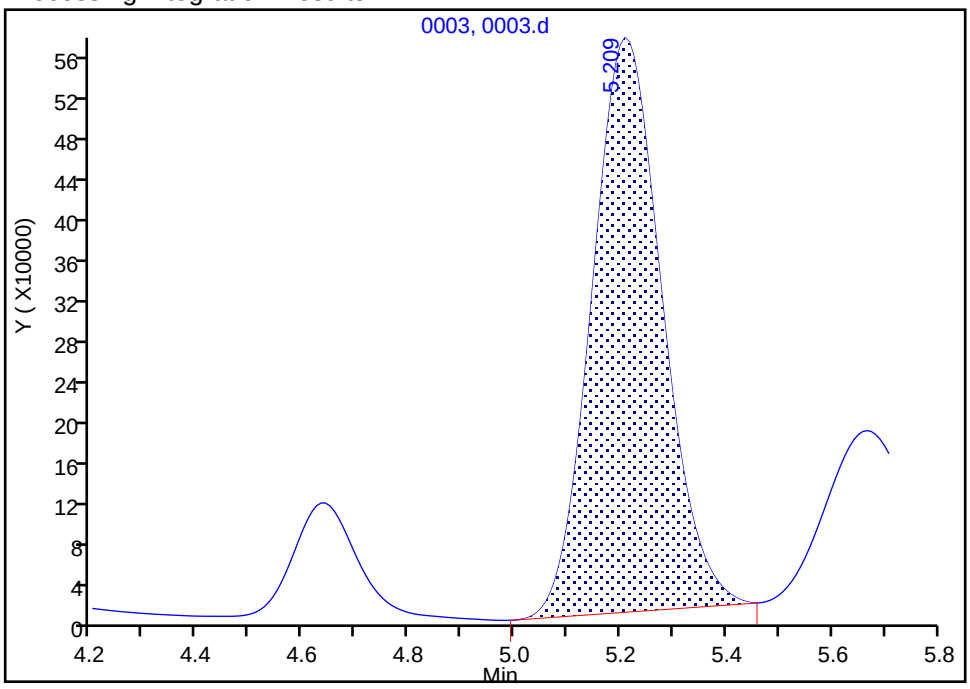
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

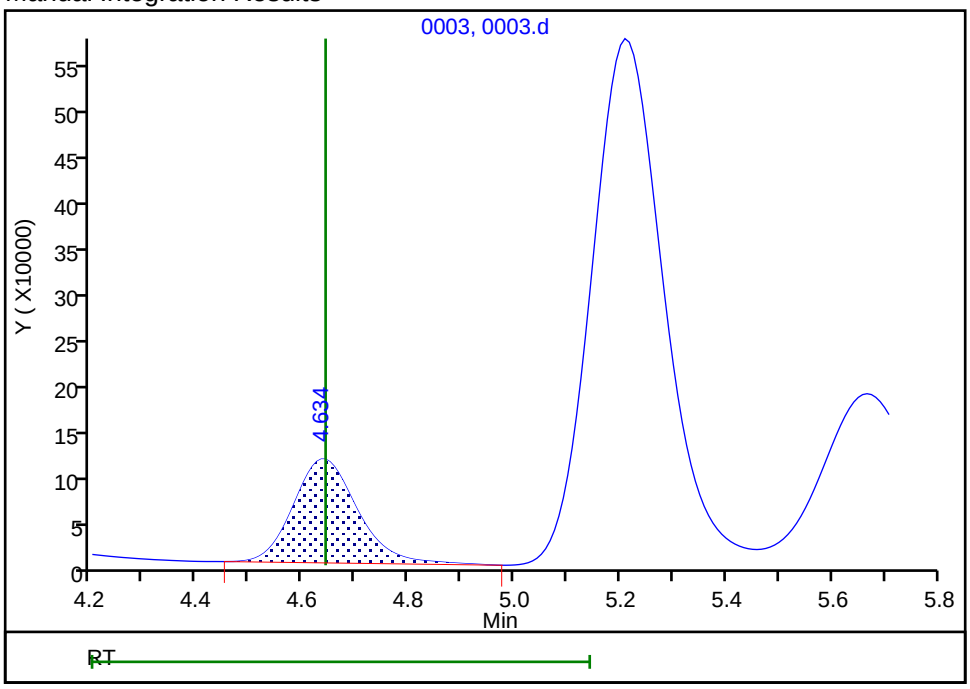
Processing Integration Results

RT: 5.21
Area: 5219434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 953603
Amount: 0.497971
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:05:57
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

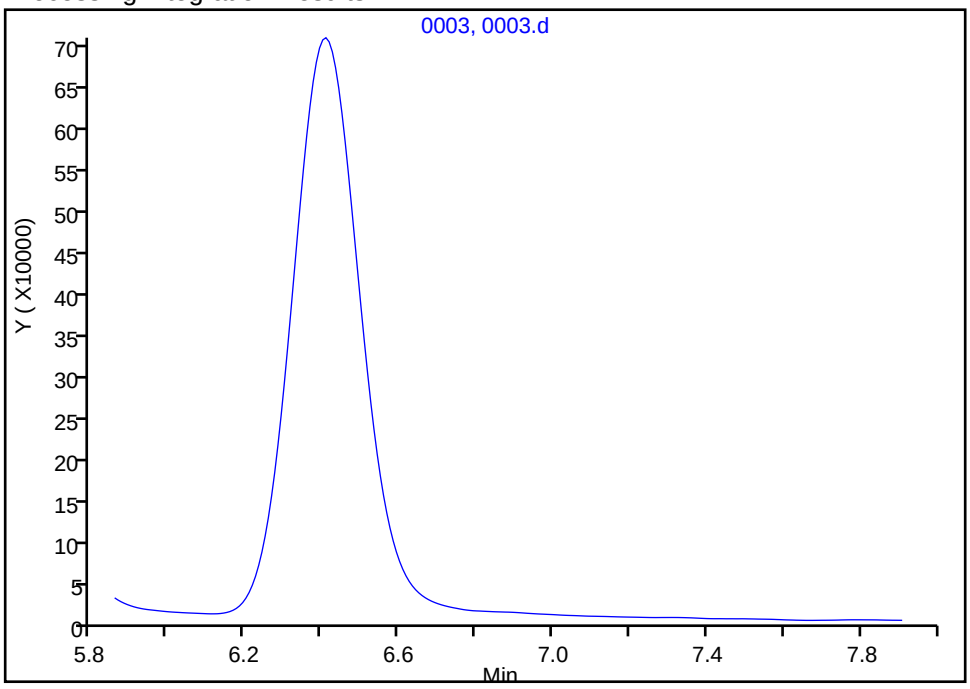
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0003.d
Injection Date: 15-May-2019 17:49:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

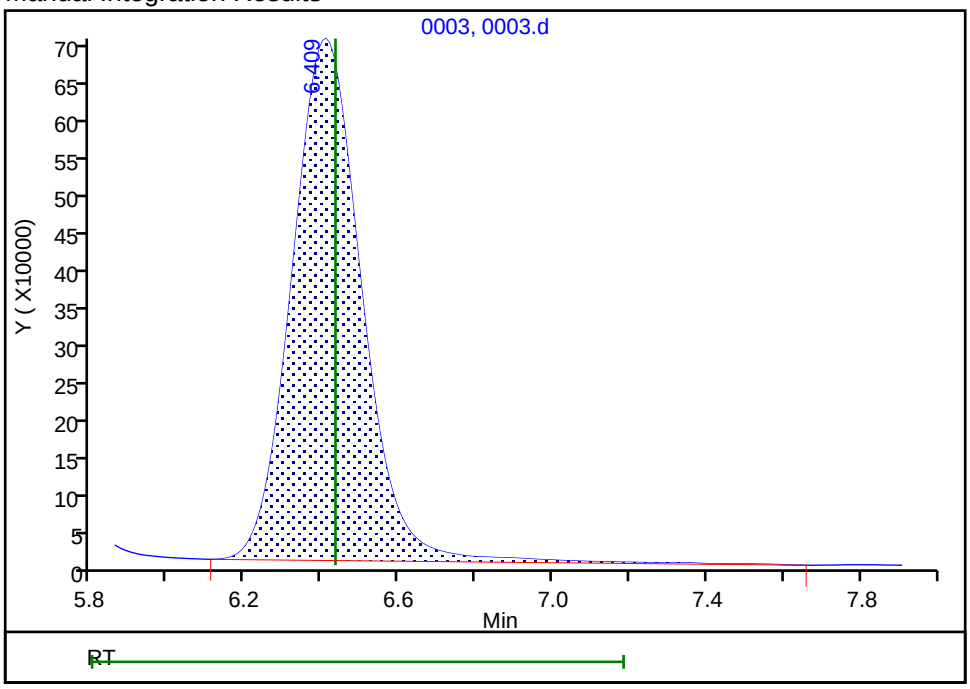
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 8699908
Amount: 2.382508
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:24
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	NC	NC	
2 Chloride	3.234	3.242	-0.008	23461594	NC	NC	
3 Nitrite as N	3.884	3.892	-0.008	9866046	1.00	0.9655	a
4 Bromide	4.642	4.642	0.000	1893846	NC	NC	a
5 Nitrate as N	5.209	5.200	0.009	10516434	1.00	0.9437	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	1.00	0.9615	a
6 Sulfate	6.409	6.434	-0.025	17587626	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

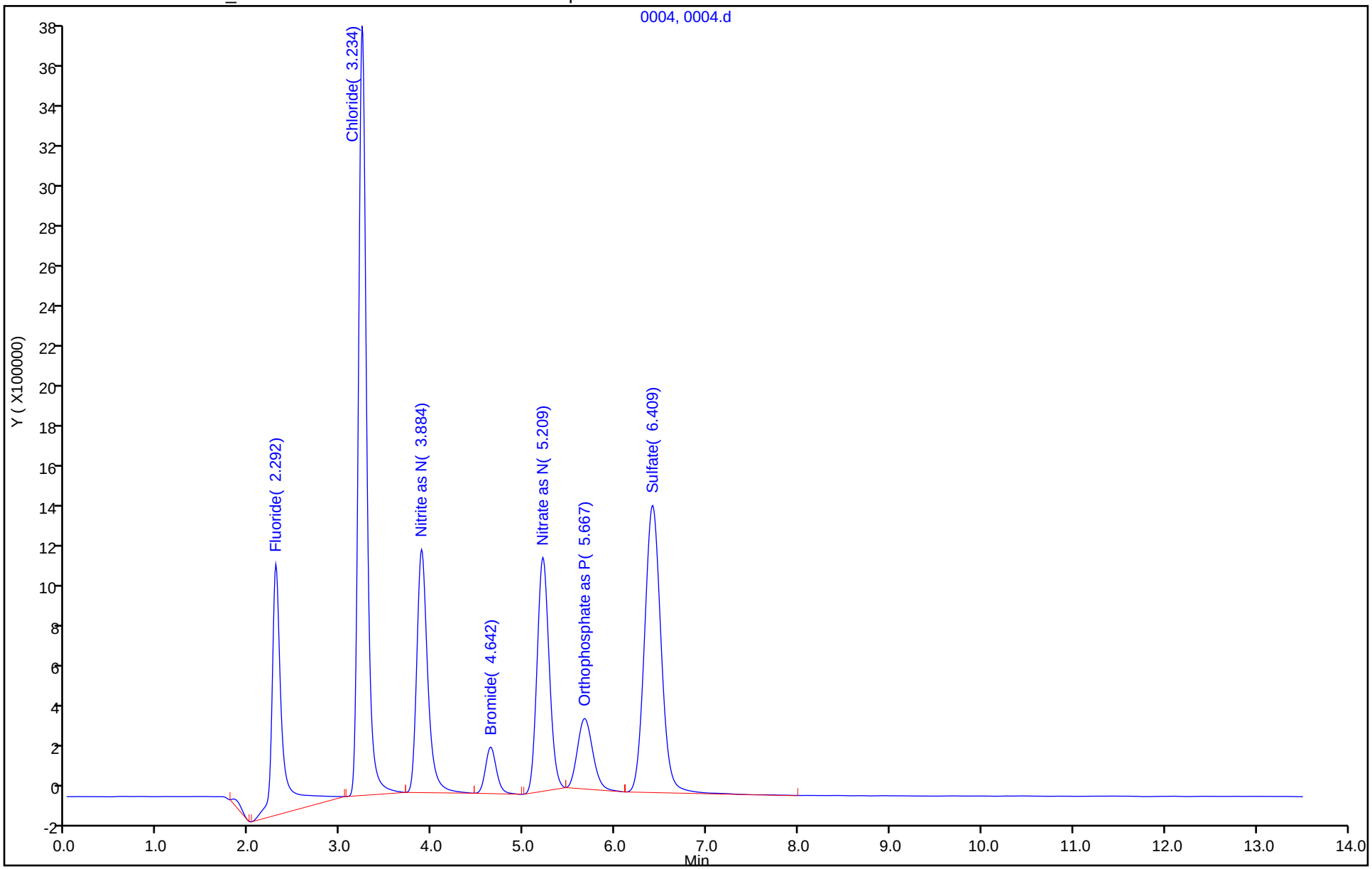
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

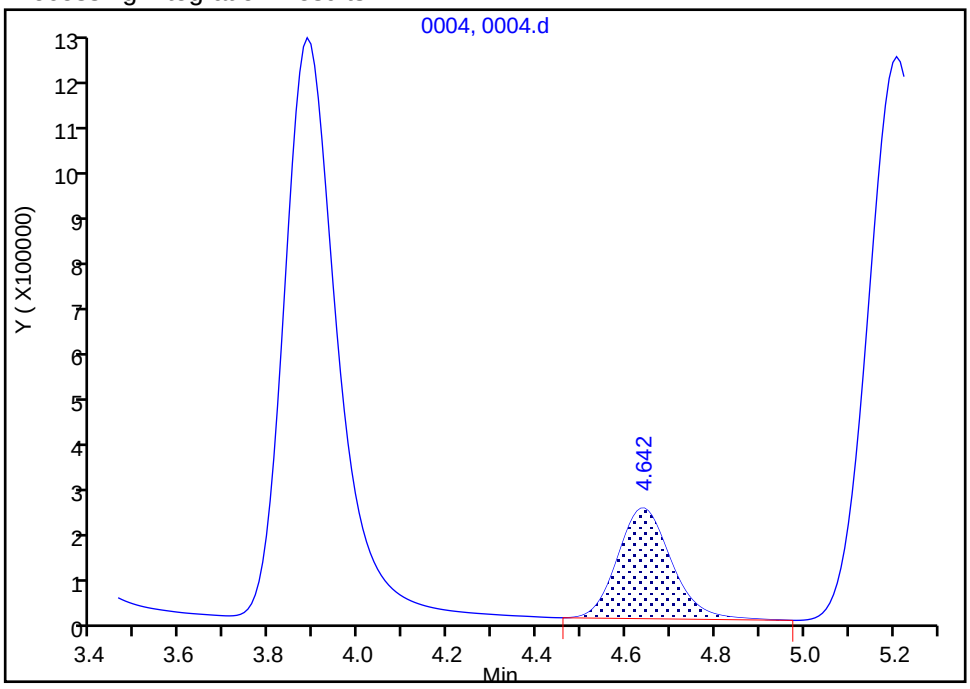
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

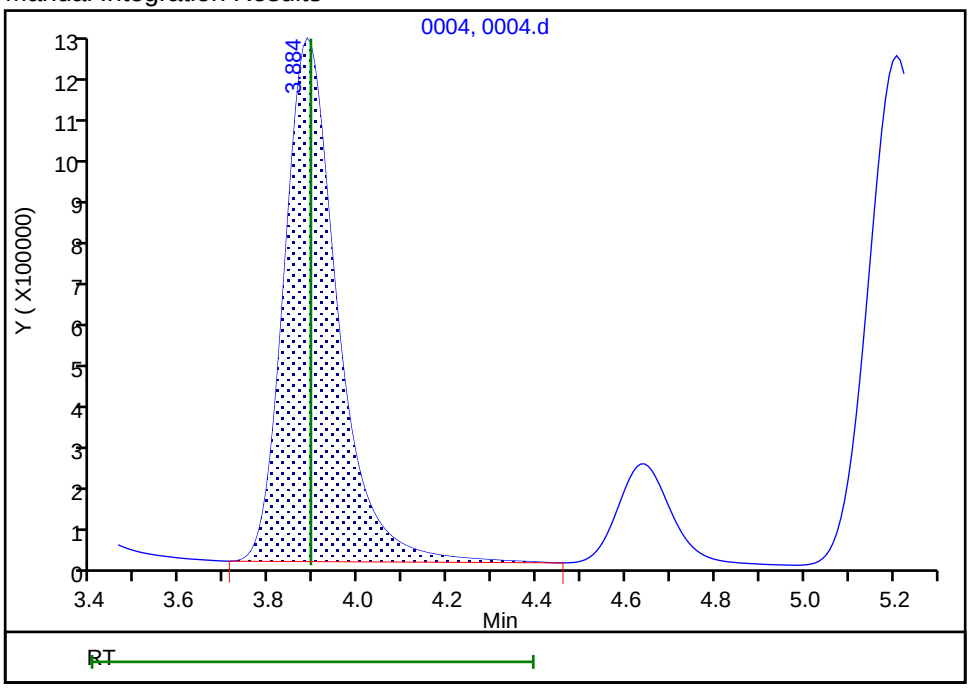
Processing Integration Results

RT: 4.64
Area: 1893846
Amount: -0.132556
Amount Units: ug/ml



Manual Integration Results

RT: 3.88
Area: 9866046
Amount: 0.965516
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:43
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

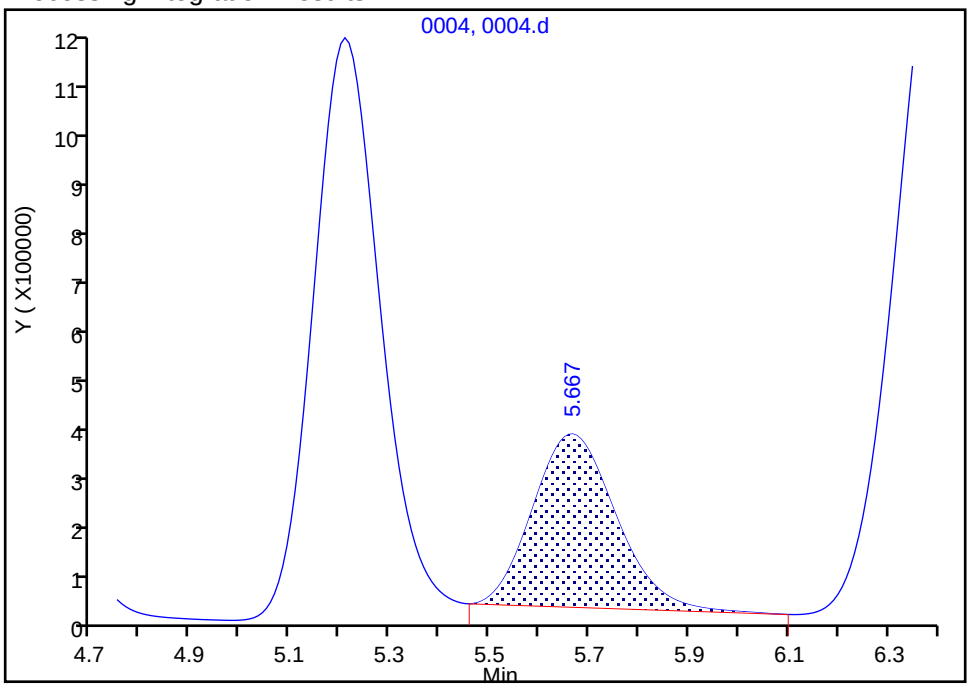
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d				
Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

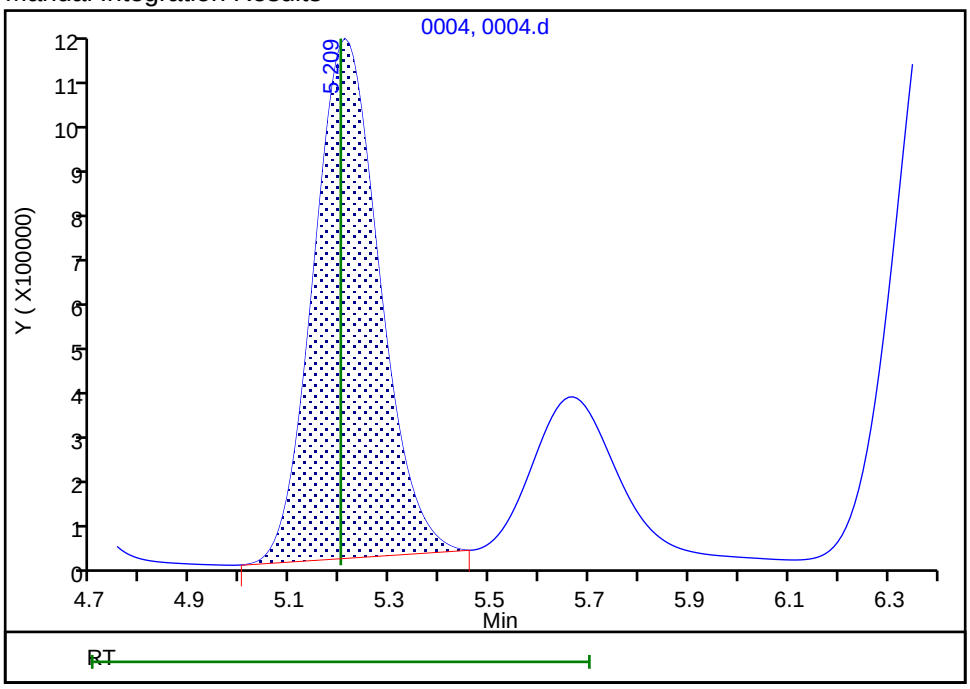
Processing Integration Results

RT: 5.67
Area: 4015320
Amount: 0.609716
Amount Units: ug/ml



Manual Integration Results

RT: 5.21
Area: 10516434
Amount: 0.943717
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:47
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

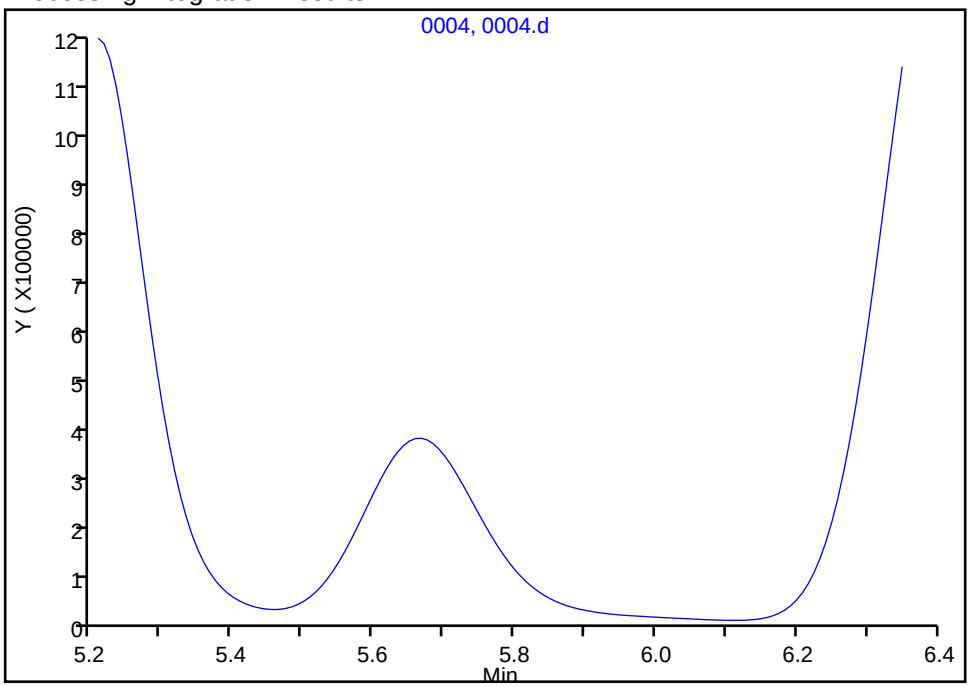
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d				
Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

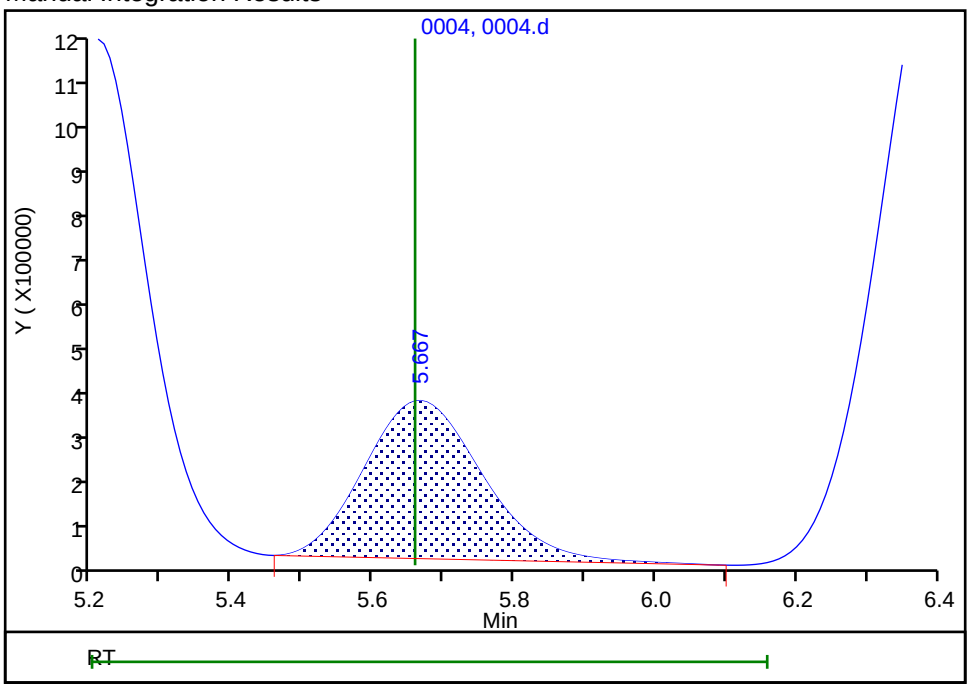
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 4015320
Amount: 0.961514
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:06:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-May-2019 18:05:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:10 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	9525896	1.00	1.16	
2 Chloride	3.234	3.242	-0.008	23461594	5.00	4.11	
3 Nitrite as N	3.884	3.892	-0.008	9866046	NC	NC	a
4 Bromide	4.642	4.642	0.000	1893846	1.00	0.9814	a
5 Nitrate as N	5.209	5.200	0.009	10516434	NC	NC	a
7 Orthophosphate as P	5.667	5.659	0.008	4015320	NC	NC	a
6 Sulfate	6.409	6.434	-0.025	17587626	5.00	4.37	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

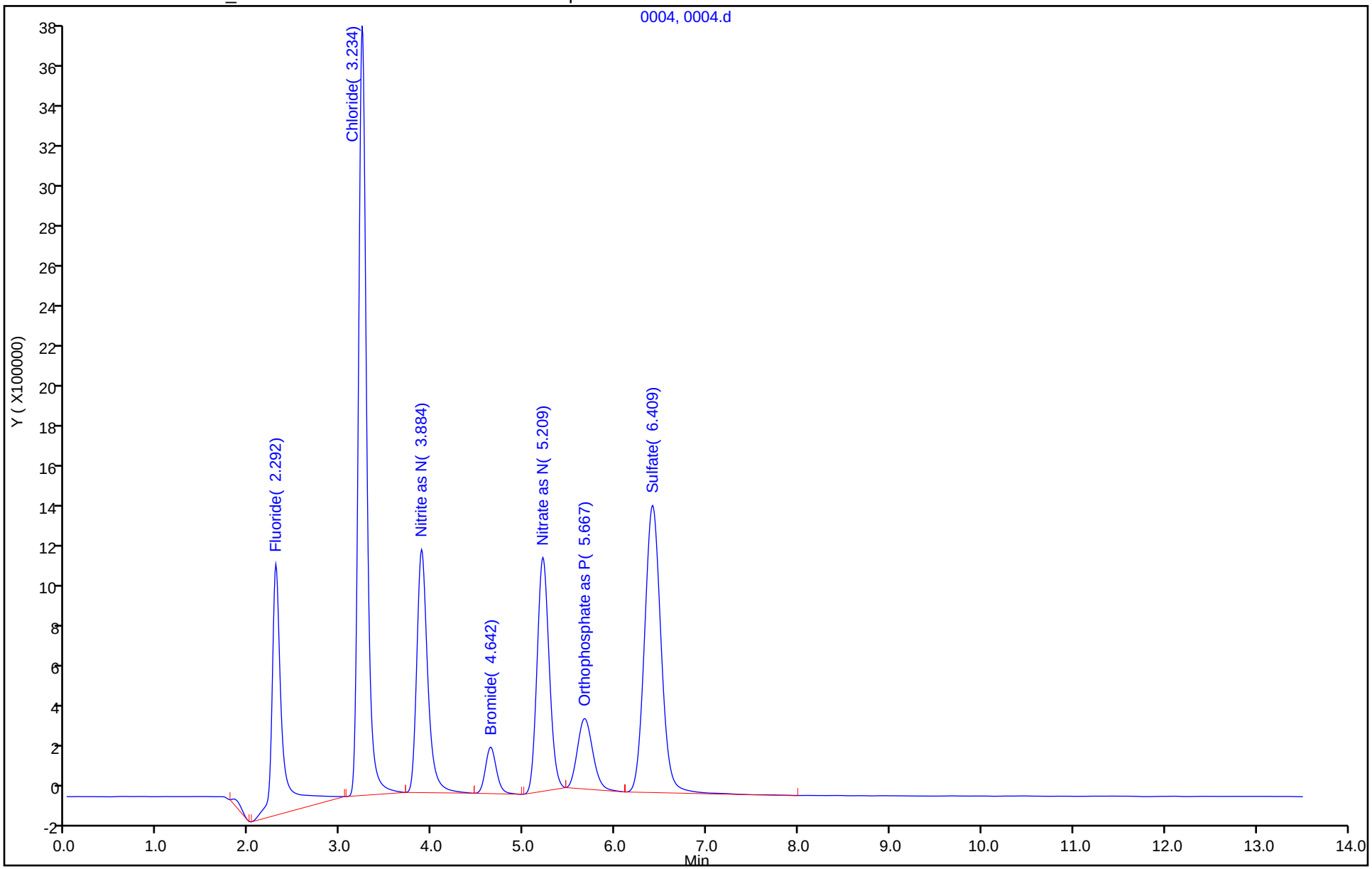
IC CAL cl/so4_00256 Amount Added: 0.10 Units: mL
IC Cal low_00458 Amount Added: 0.10 Units: mL

Report Date: 16-May-2019 07:56:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d

Injection Date:	15-May-2019 18:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

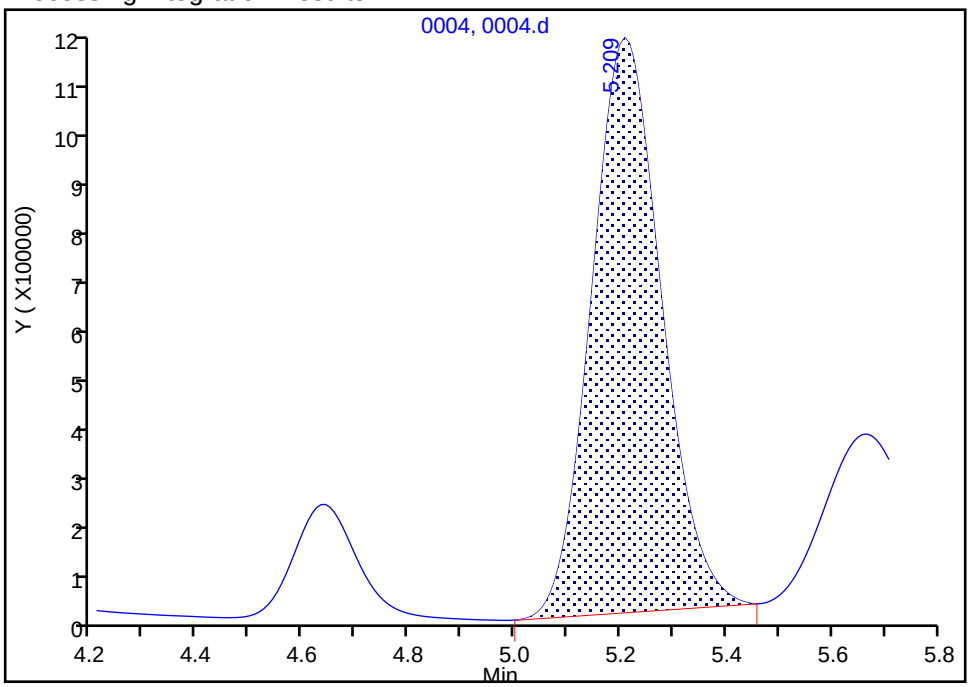
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

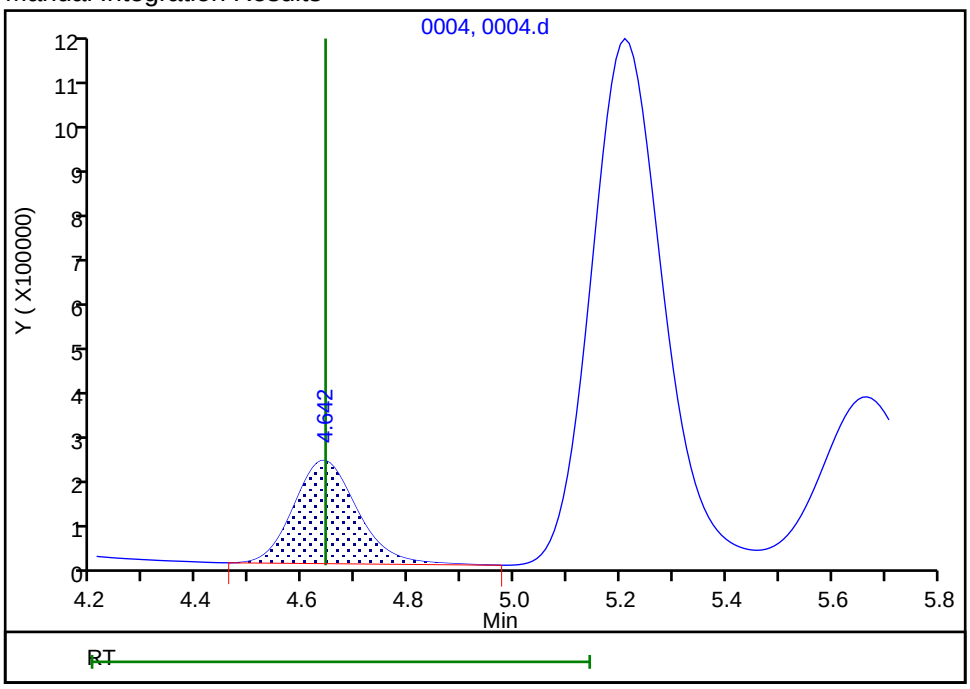
Processing Integration Results

RT: 5.21
Area: 10516434
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.64
Area: 1893846
Amount: 0.981416
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:15
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

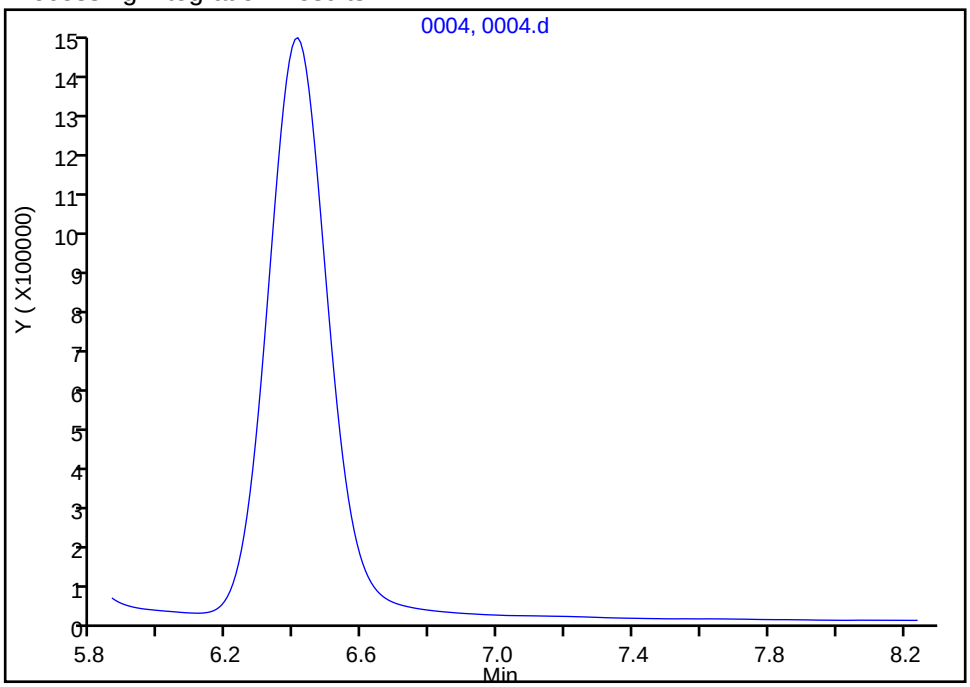
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0004.d
Injection Date: 15-May-2019 18:05:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

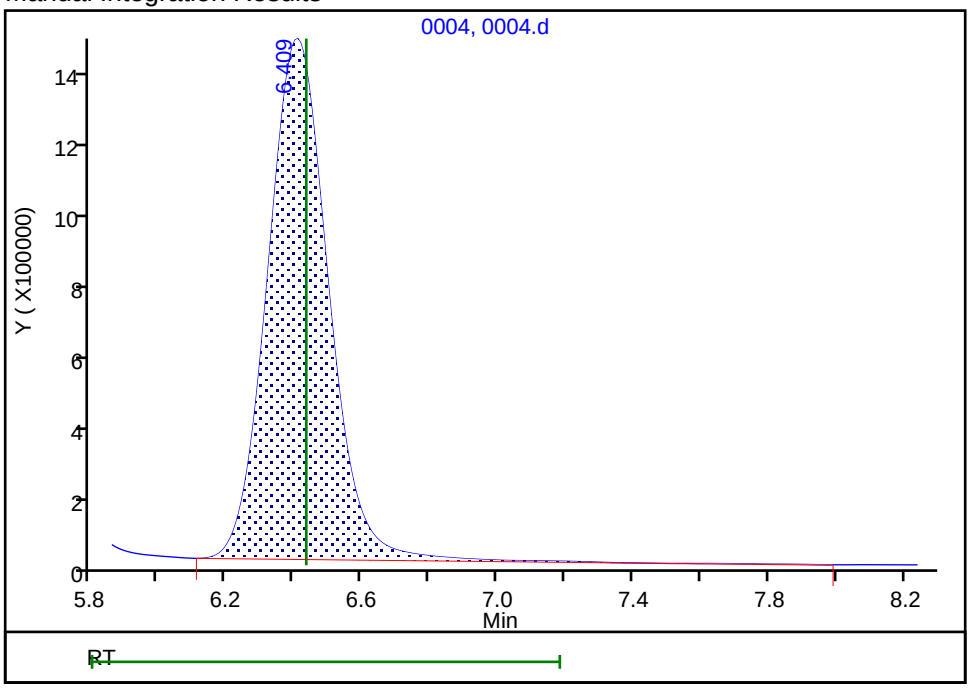
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.41
Area: 17587626
Amount: 4.369714
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:10
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	NC	NC	
2 Chloride	3.242	3.242	0.000	361228288	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	40367514	4.00	3.87	a
4 Bromide	4.634	4.634	0.000	7626440	NC	NC	a
5 Nitrate as N	5.200	5.200	0.000	43835884	4.00	3.81	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	4.00	3.88	a
6 Sulfate	6.434	6.434	0.000	241149184	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

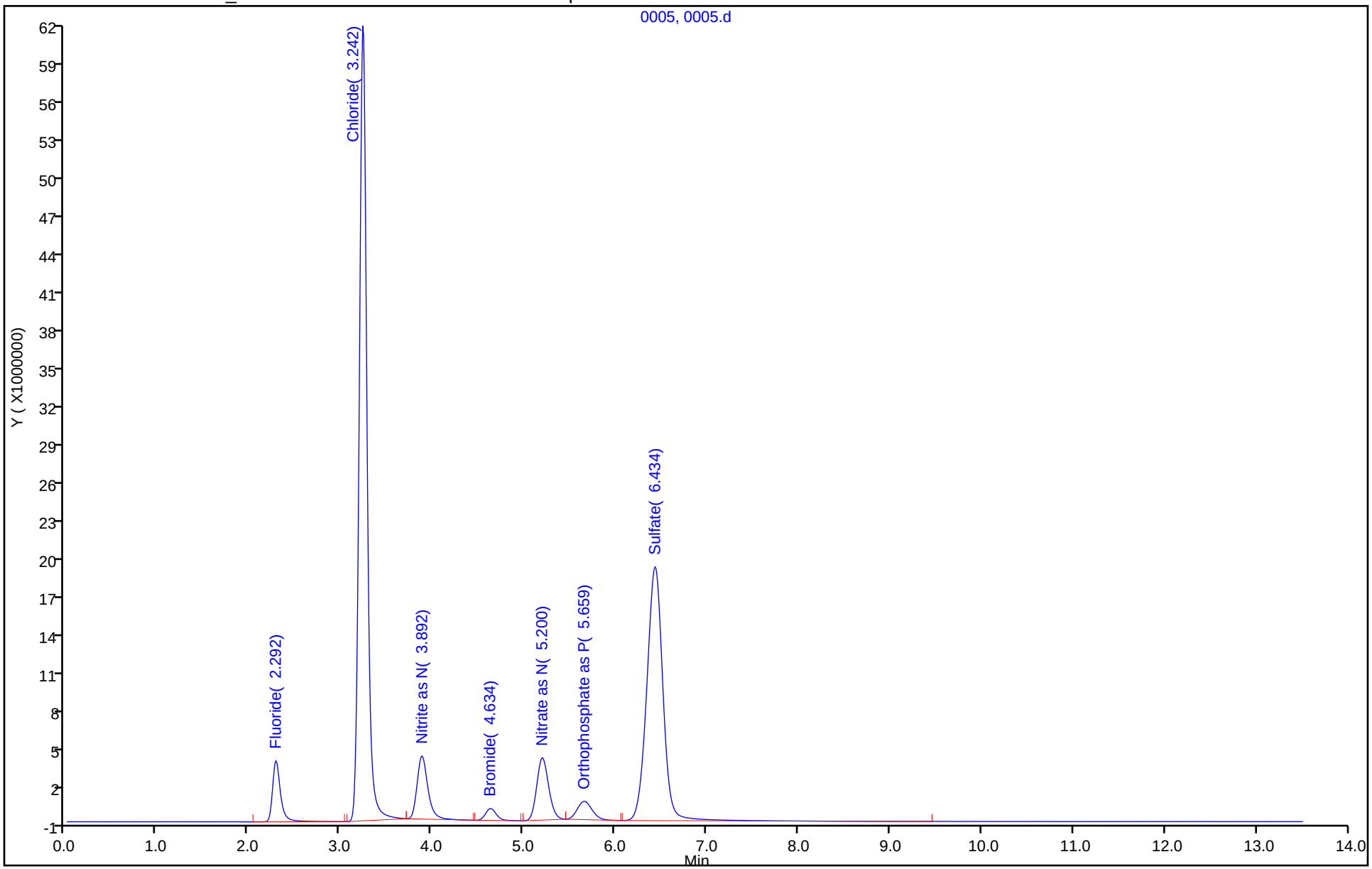
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

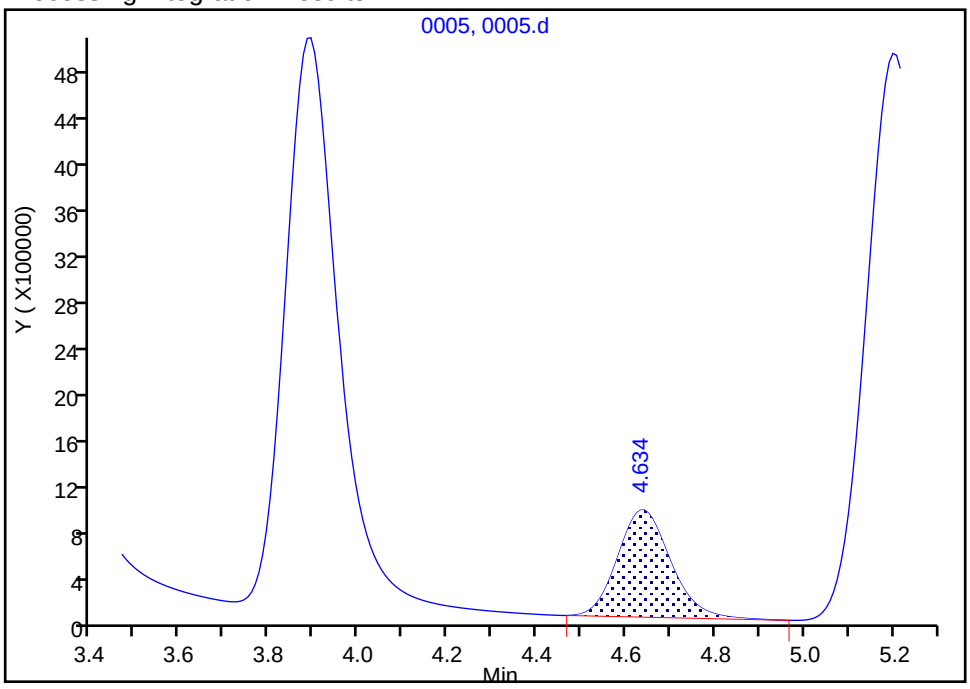
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

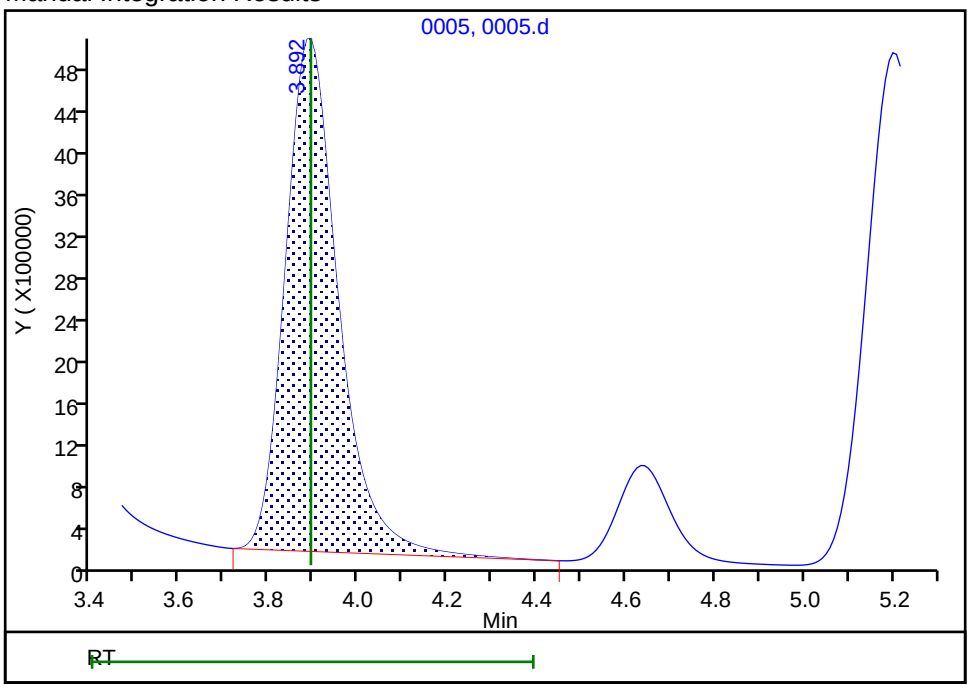
Processing Integration Results

RT: 4.63
Area: 7626440
Amount: 2.554556
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 40367514
Amount: 3.872644
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:32
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

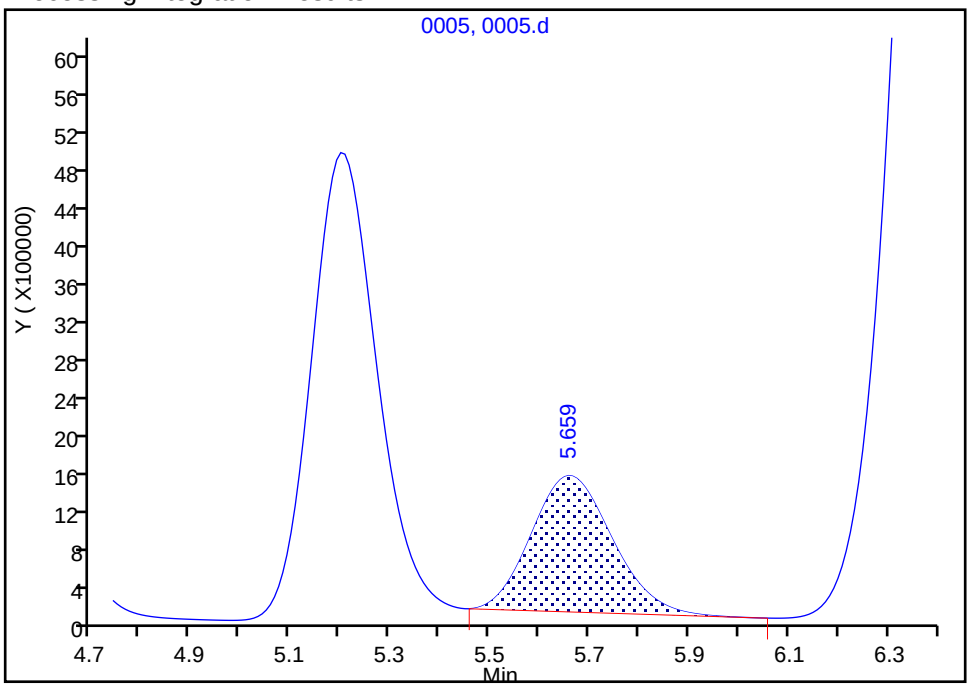
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

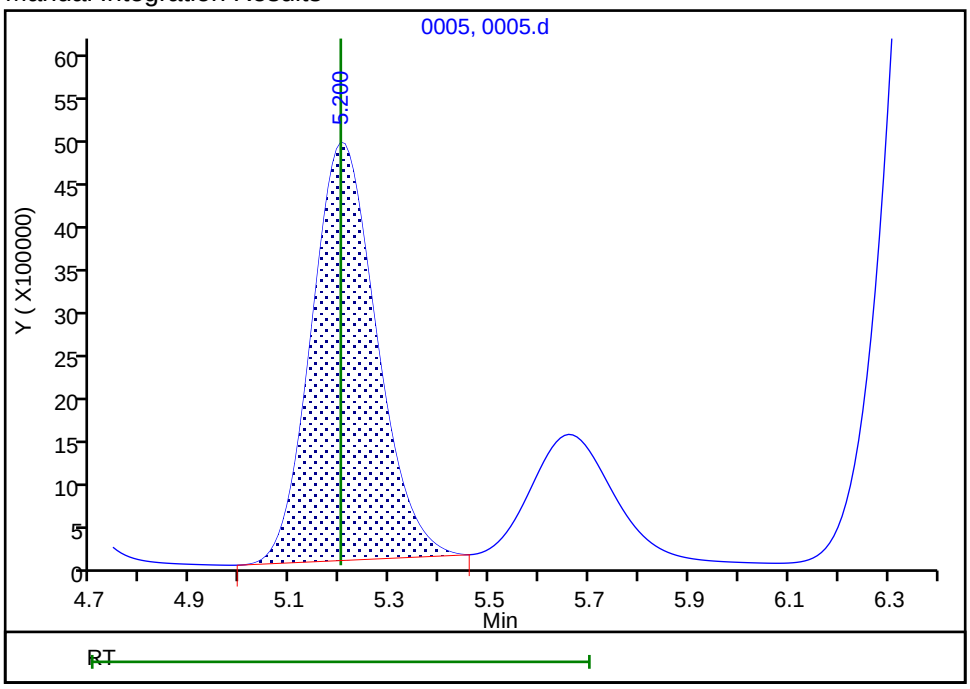
Processing Integration Results

RT: 5.66
Area: 16089342
Amount: 3.399959
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 43835884
Amount: 3.812608
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:36
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

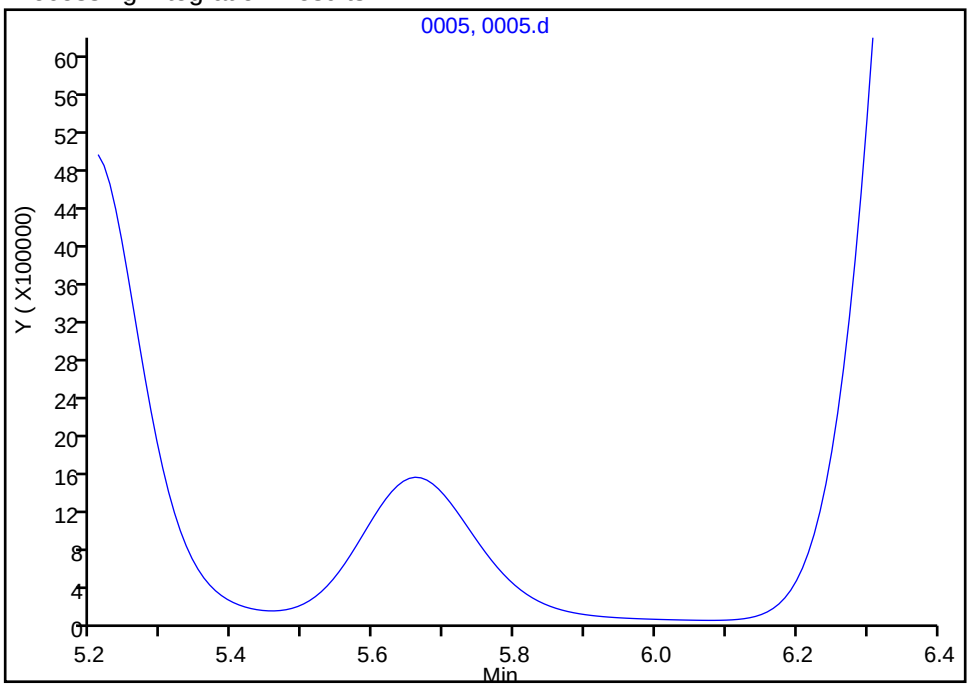
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

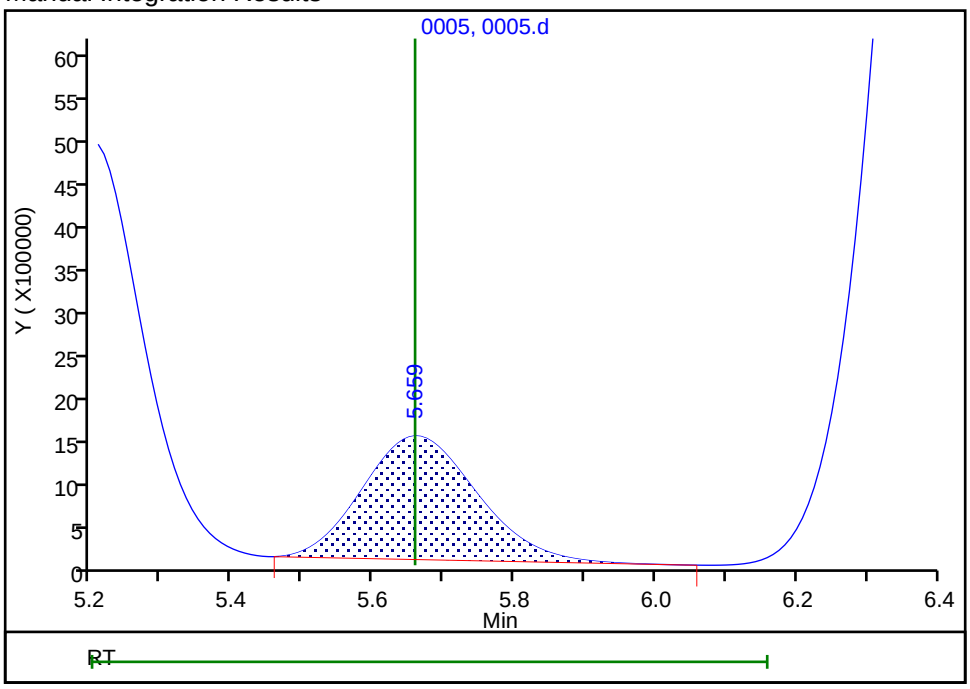
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 16089342
Amount: 3.876438
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-May-2019 18:21:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 08:31:09 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:07:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29091673	4.00	3.86	
2 Chloride	3.242	3.242	0.000	361228288	60.0	54.3	
3 Nitrite as N	3.892	3.892	0.000	40367514	NC	NC	a
4 Bromide	4.634	4.634	0.000	7626440	4.00	3.94	a
5 Nitrate as N	5.200	5.200	0.000	43835884	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	16089342	NC	NC	a
6 Sulfate	6.434	6.434	0.000	241149184	60.0	54.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

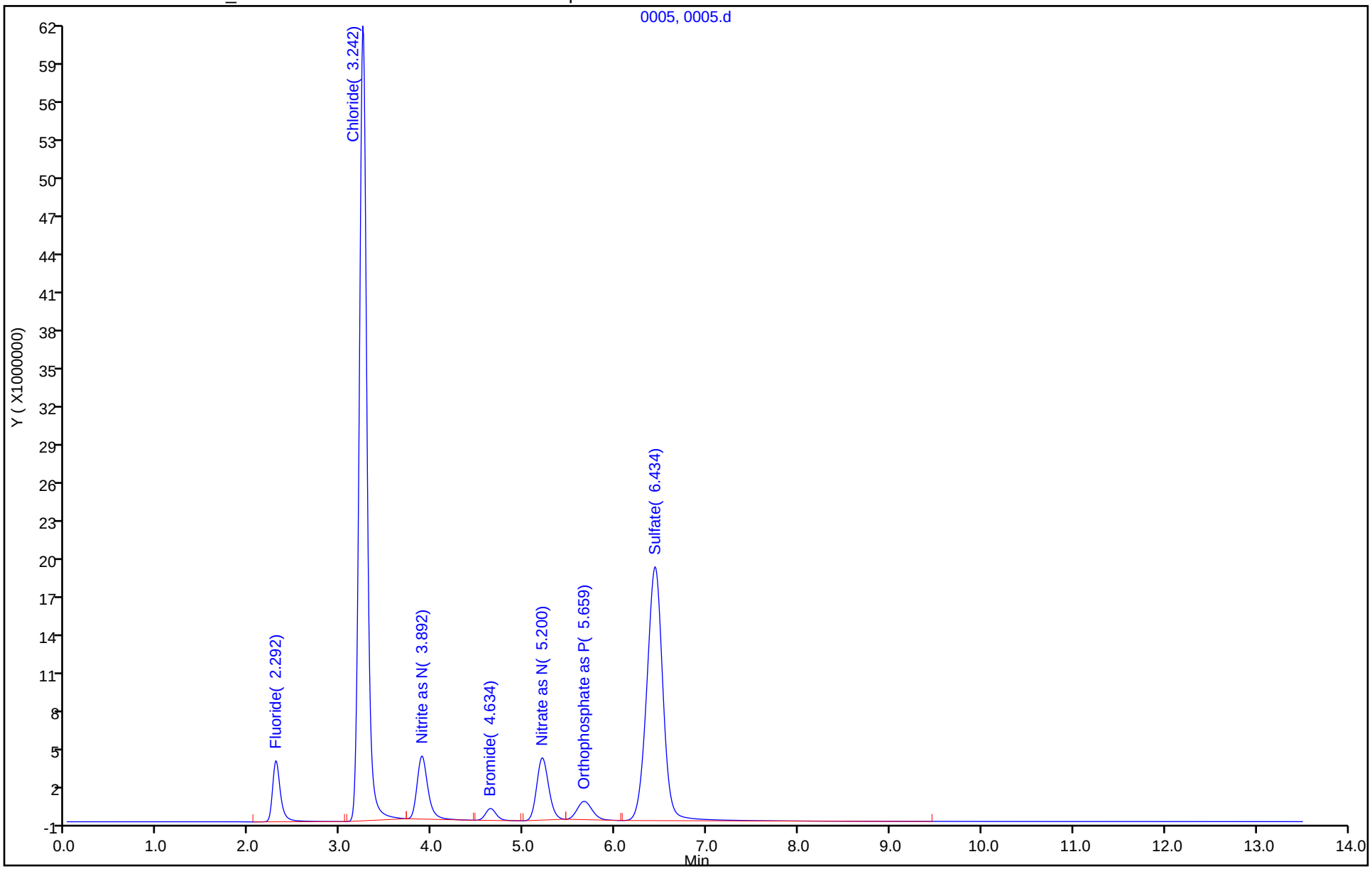
IC CAL cl/so4_00256 Amount Added: 1.20 Units: mL
IC Cal low_00458 Amount Added: 0.40 Units: mL

Report Date: 16-May-2019 08:31:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d

Injection Date:	15-May-2019 18:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

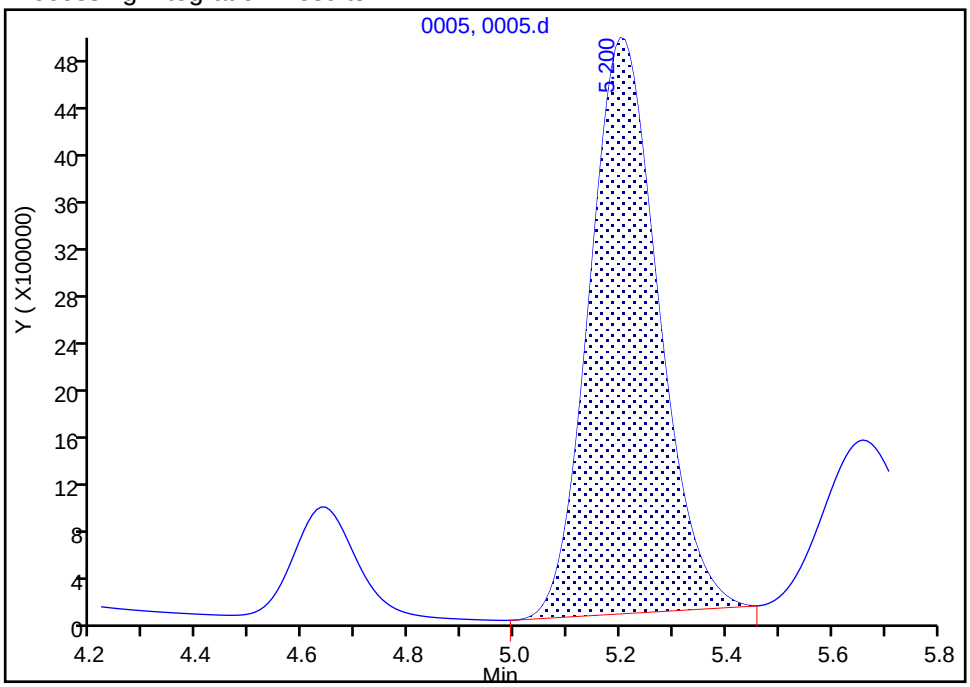
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

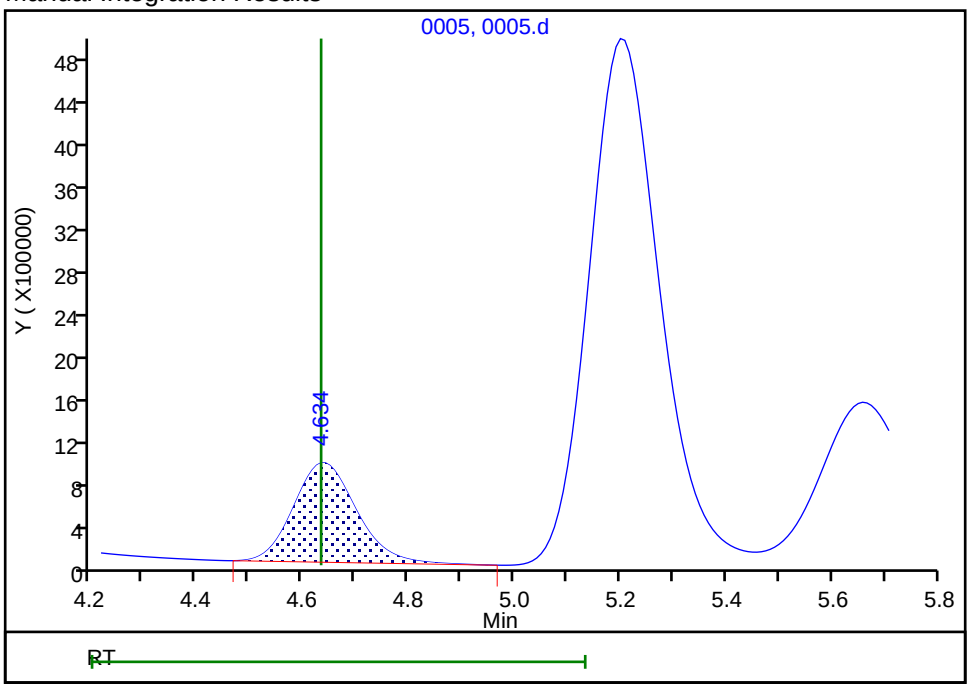
Processing Integration Results

RT: 5.20
Area: 43835884
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 7626440
Amount: 3.940762
Amount Units: ug/ml



Reviewer: pedrickj, 16-May-2019 08:31:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

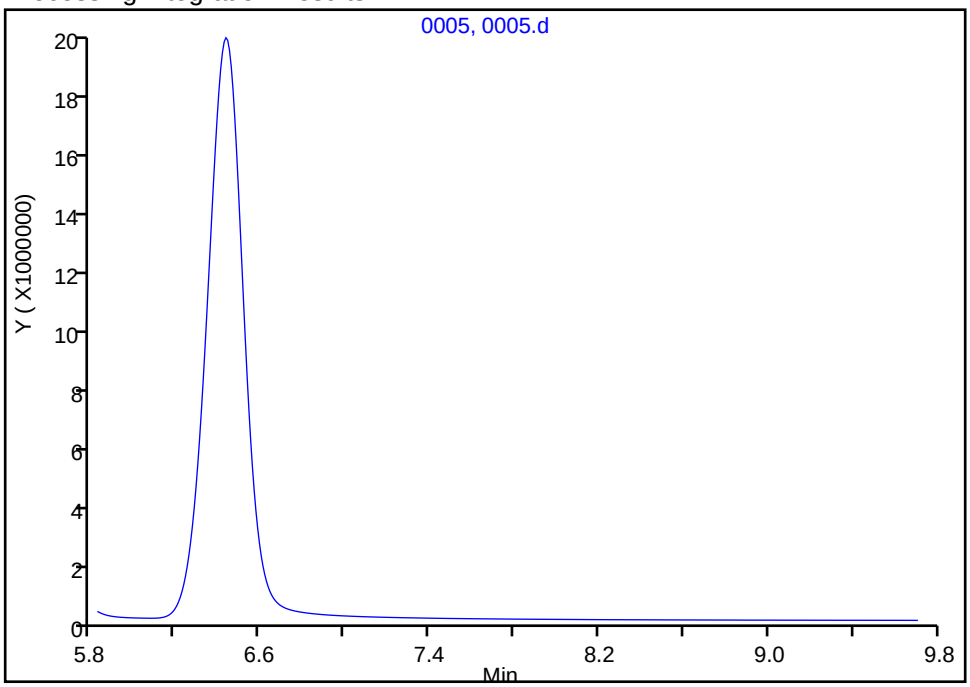
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0005.d
Injection Date: 15-May-2019 18:21:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

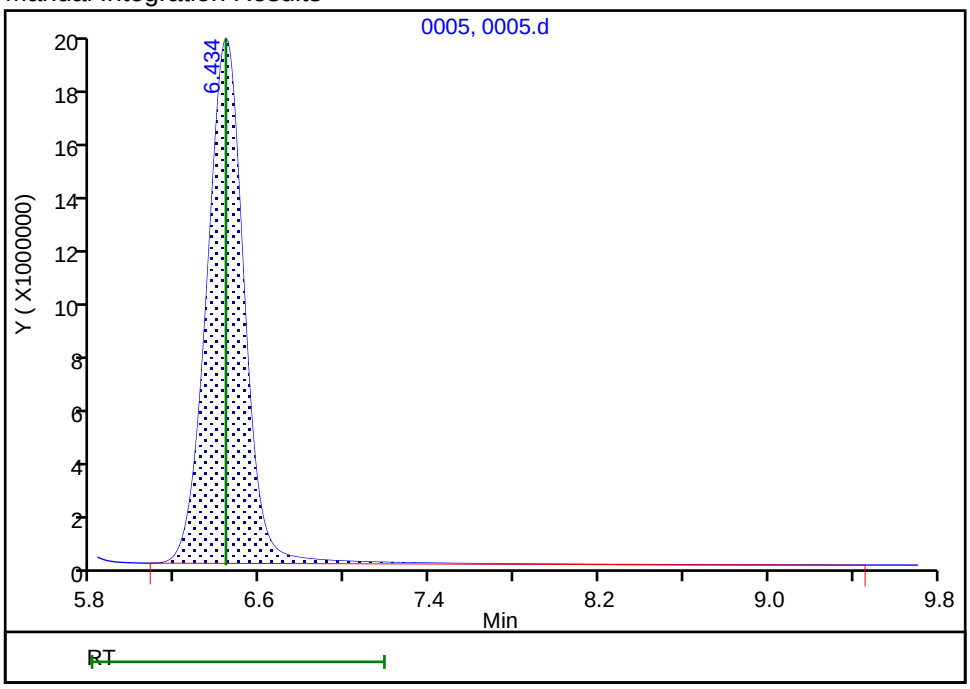
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.43
Area: 241149184
Amount: 54.355882
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:07:52
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	NC	NC	
2 Chloride	3.251	3.250	0.001	792237933	NC	NC	
3 Nitrite as N	3.892	3.892	0.000	83950148	8.00	8.03	a
4 Bromide	4.634	4.642	-0.008	15499336	NC	NC	a
5 Nitrate as N	5.201	5.200	0.001	92548386	8.00	8.01	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	8.00	7.99	a
6 Sulfate	6.459	6.442	0.017	523125792	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

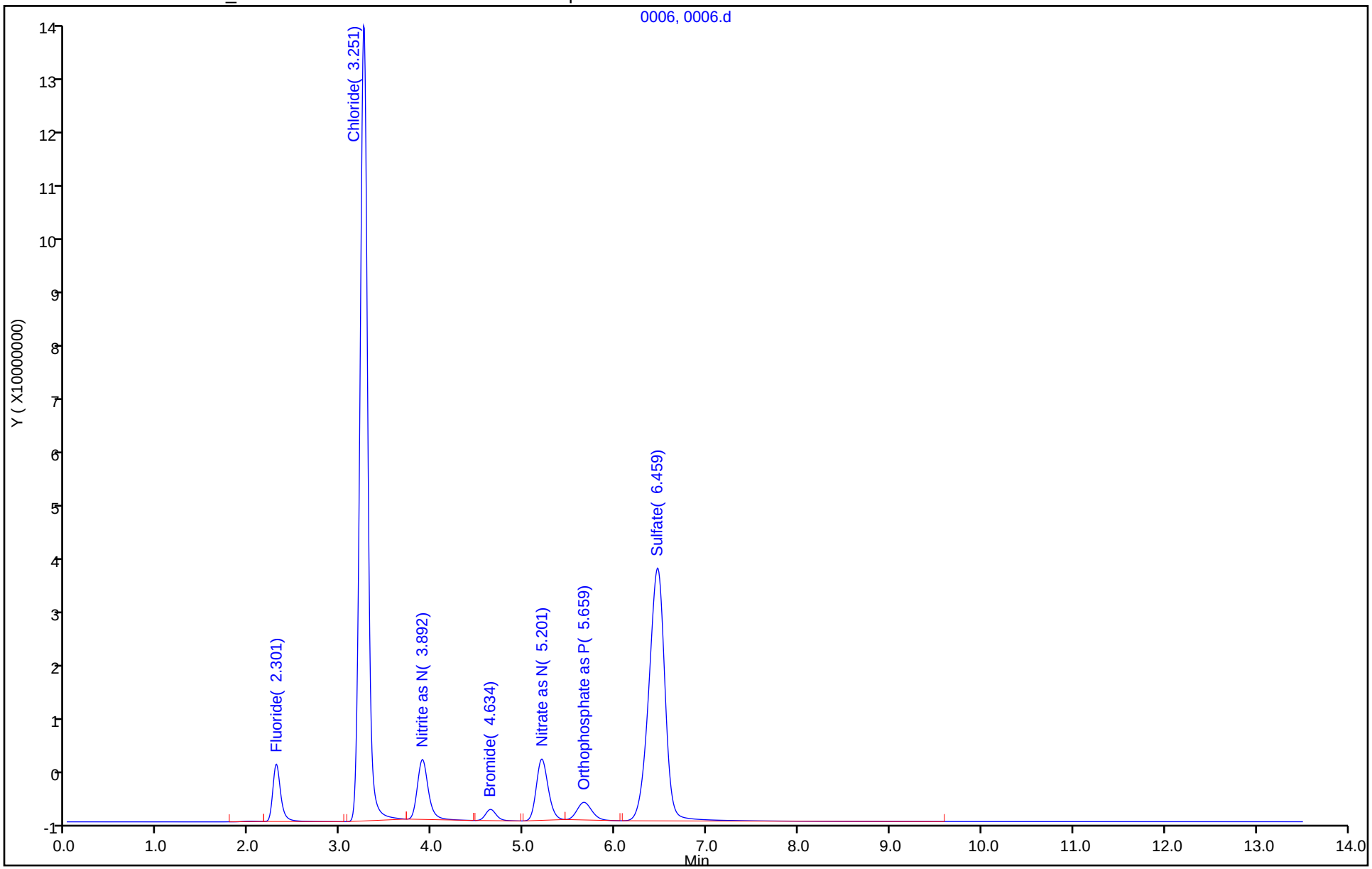
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

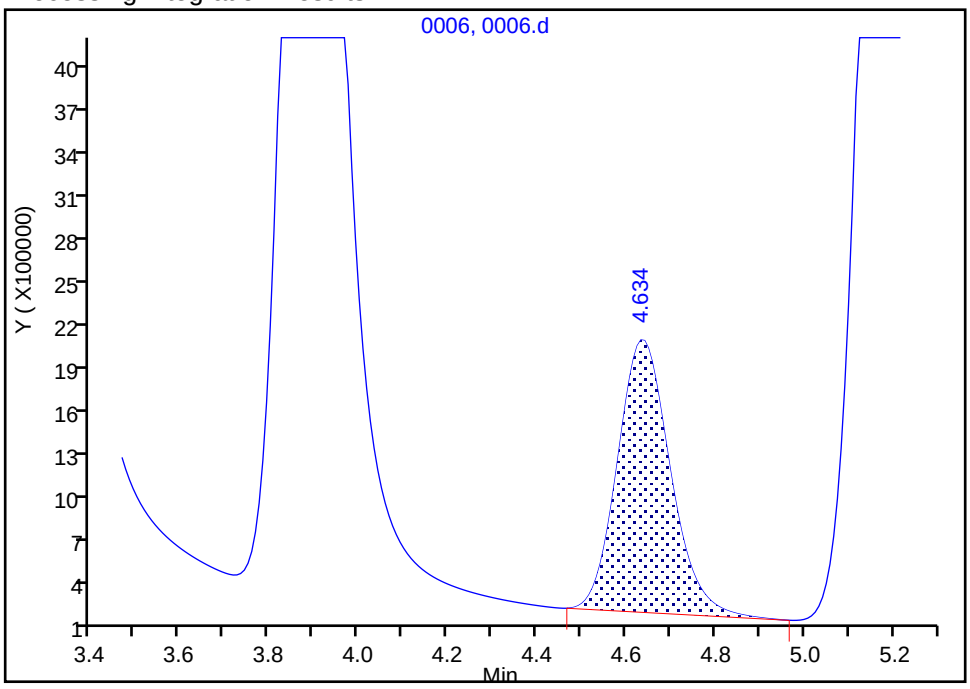
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

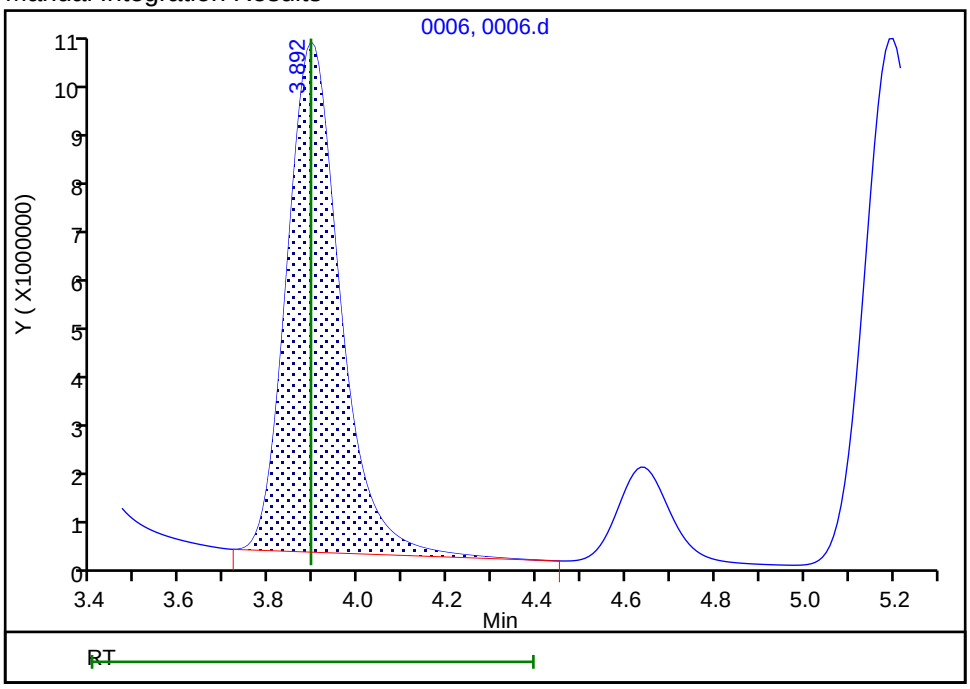
Processing Integration Results

RT: 4.63
Area: 15499336
Amount: 2.959649
Amount Units: ug/ml



Manual Integration Results

RT: 3.89
Area: 83950148
Amount: 8.026551
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:18
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

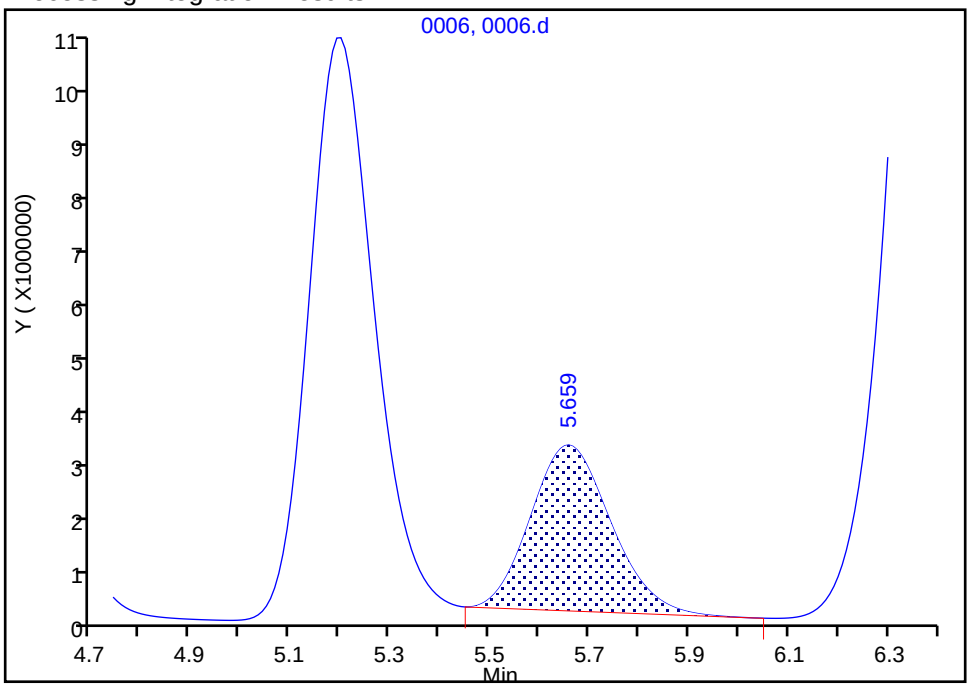
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

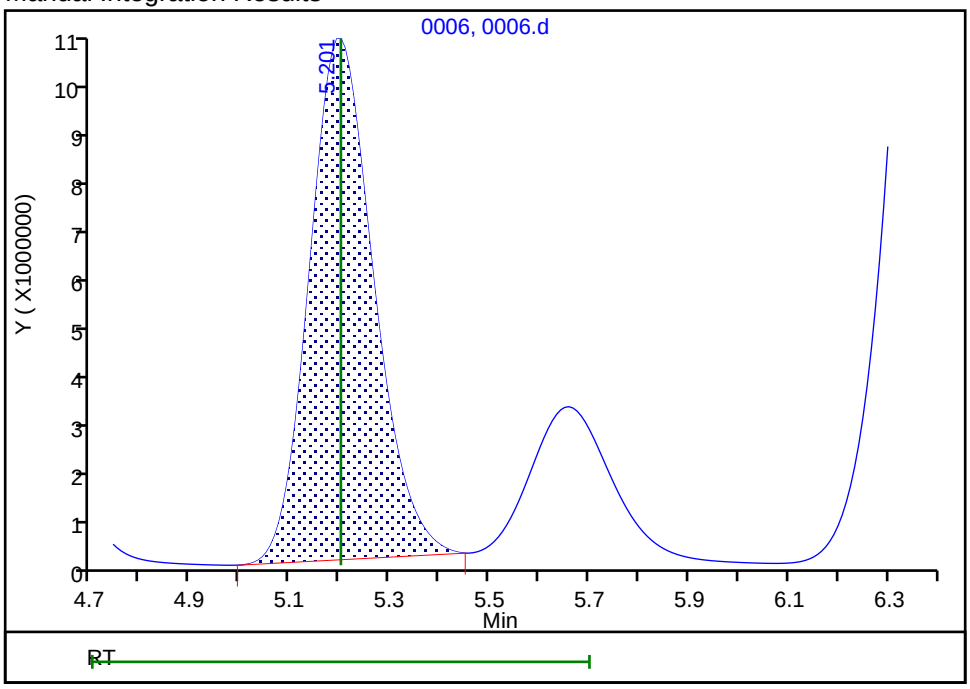
Processing Integration Results

RT: 5.66
Area: 33143352
Amount: 5.007844
Amount Units: ug/ml



Manual Integration Results

RT: 5.20
Area: 92548386
Amount: 8.006881
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:22
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

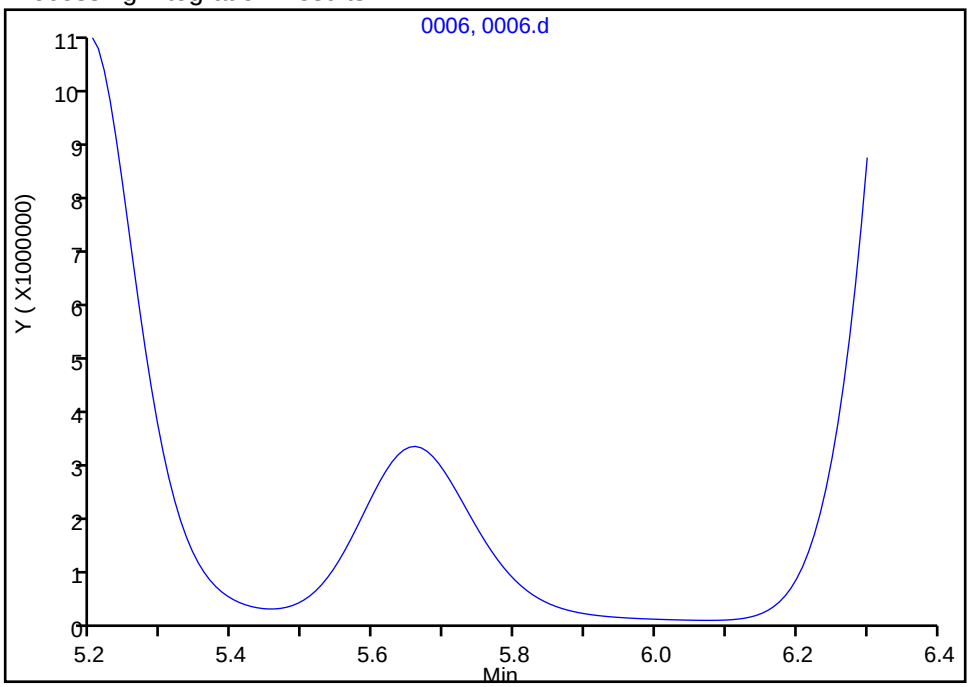
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

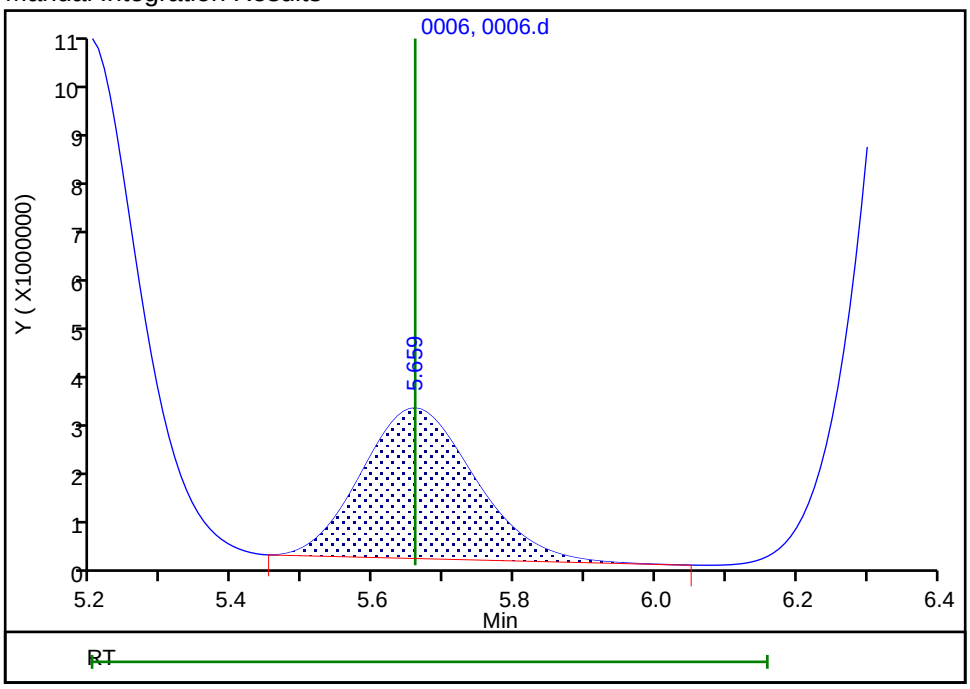
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 5.66
Area: 33143352
Amount: 7.993638
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:27
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-May-2019 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:08 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

First Level Reviewer: phantl Date: 15-May-2019 19:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	58755298	8.00	7.94	
2 Chloride	3.251	3.250	0.001	792237933	120.0	118.4	
3 Nitrite as N	3.892	3.892	0.000	83950148	NC	NC	a
4 Bromide	4.634	4.642	-0.008	15499336	8.00	7.98	a
5 Nitrate as N	5.201	5.200	0.001	92548386	NC	NC	a
7 Orthophosphate as P	5.659	5.659	0.000	33143352	NC	NC	a
6 Sulfate	6.459	6.442	0.017	523125792	120.0	117.4	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

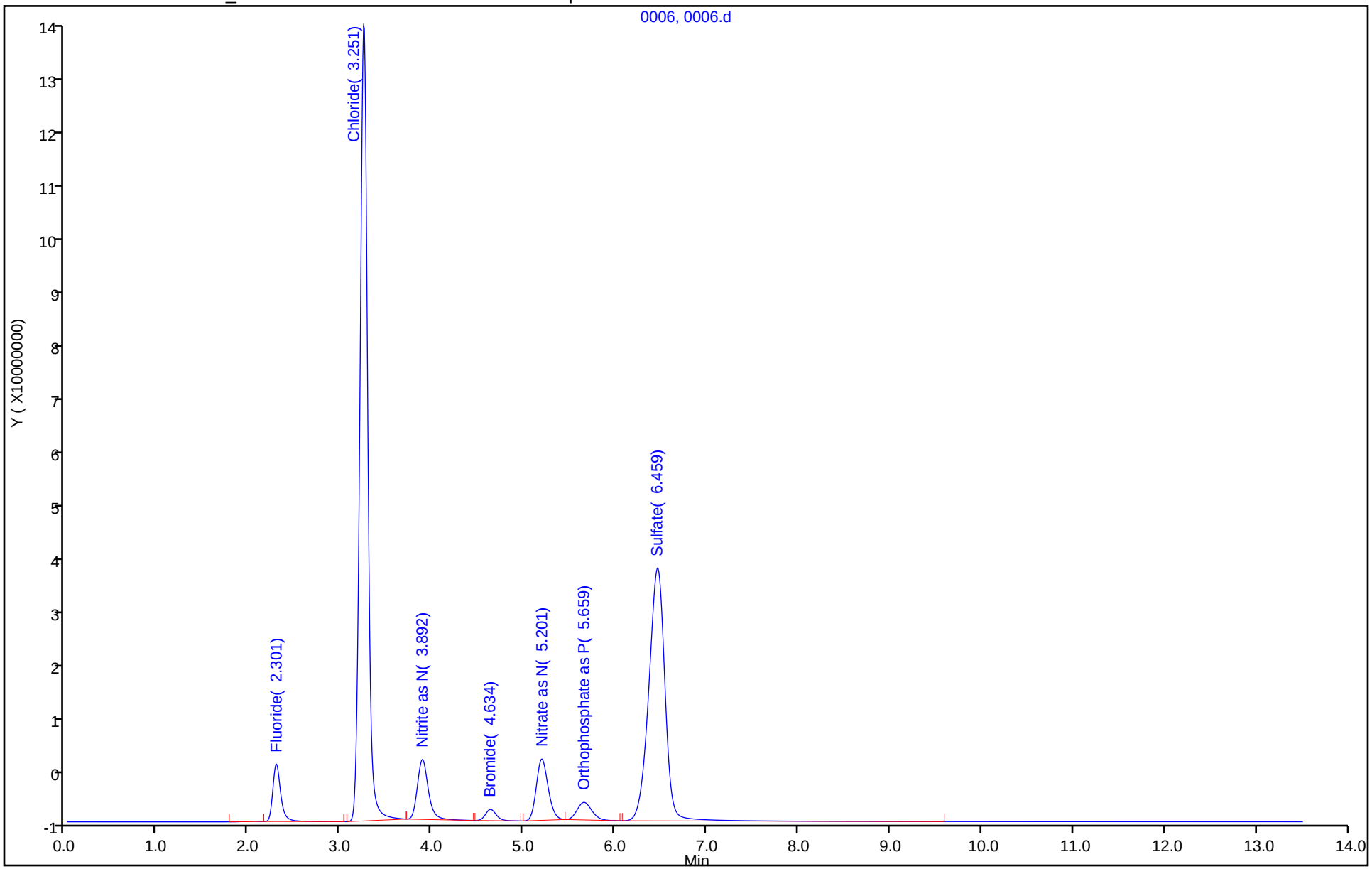
IC CAL cl/so4_00256 Amount Added: 2.40 Units: mL
IC Cal low_00458 Amount Added: 0.80 Units: mL

Report Date: 16-May-2019 07:56:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d

Injection Date:	15-May-2019 18:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

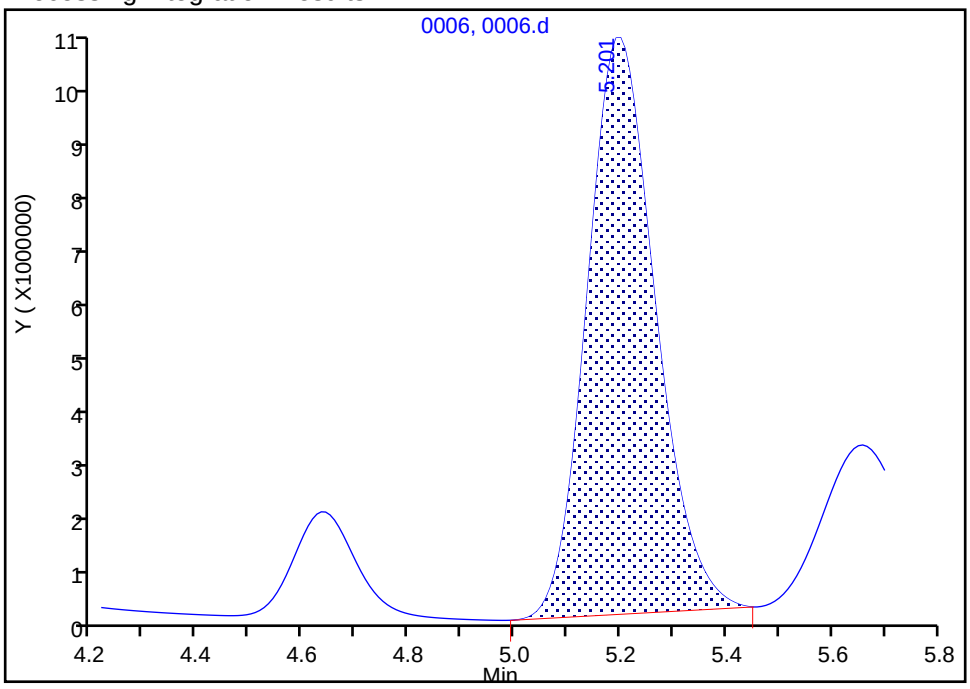
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

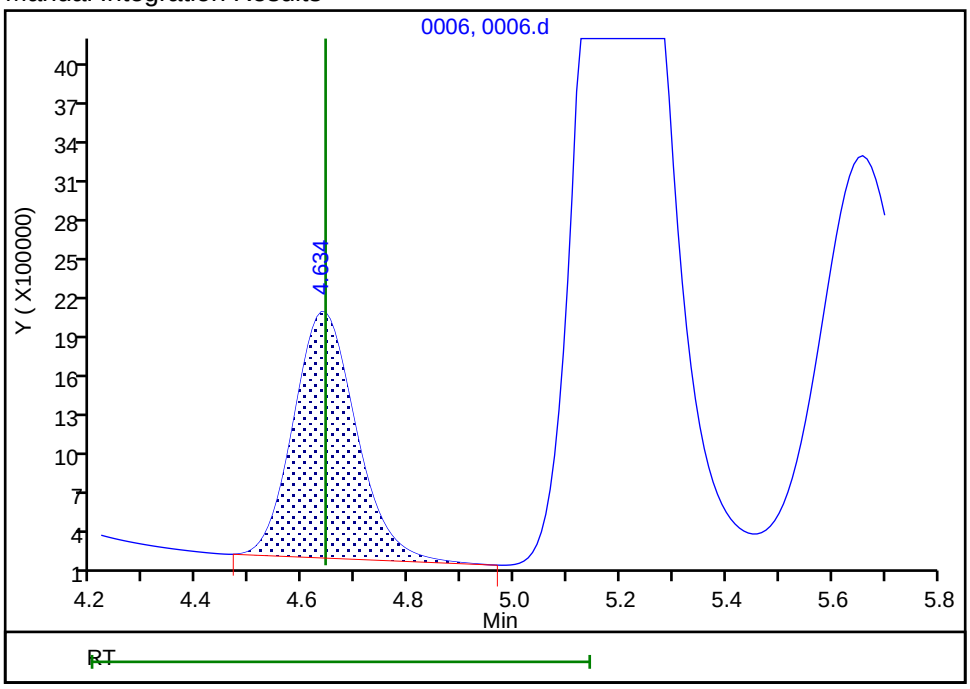
Processing Integration Results

RT: 5.20
Area: 92548386
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.63
Area: 15499336
Amount: 7.976961
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:37
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

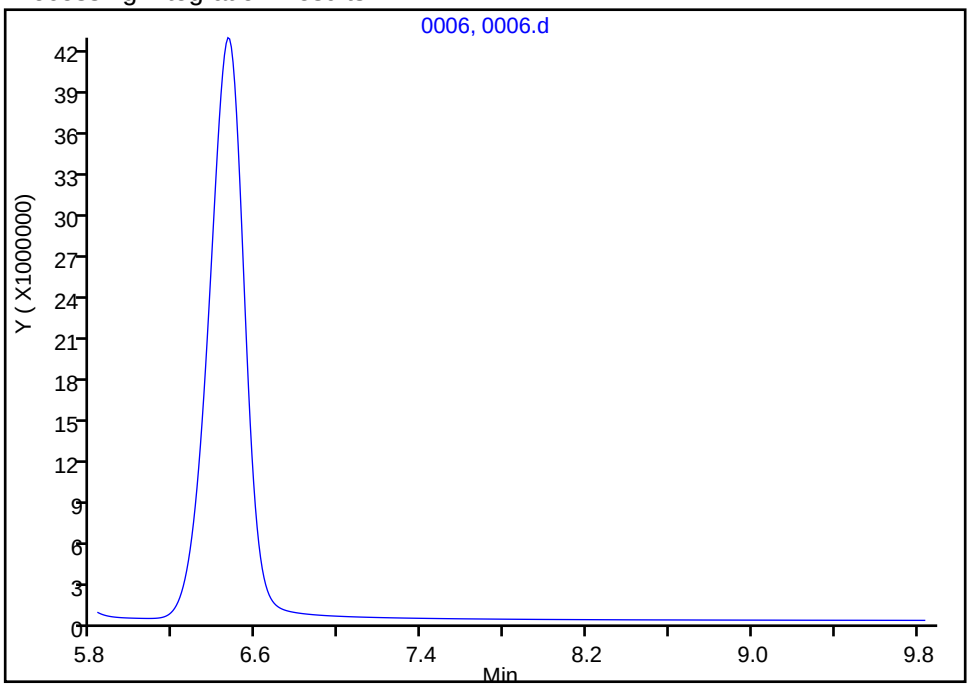
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0006.d
Injection Date: 15-May-2019 18:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

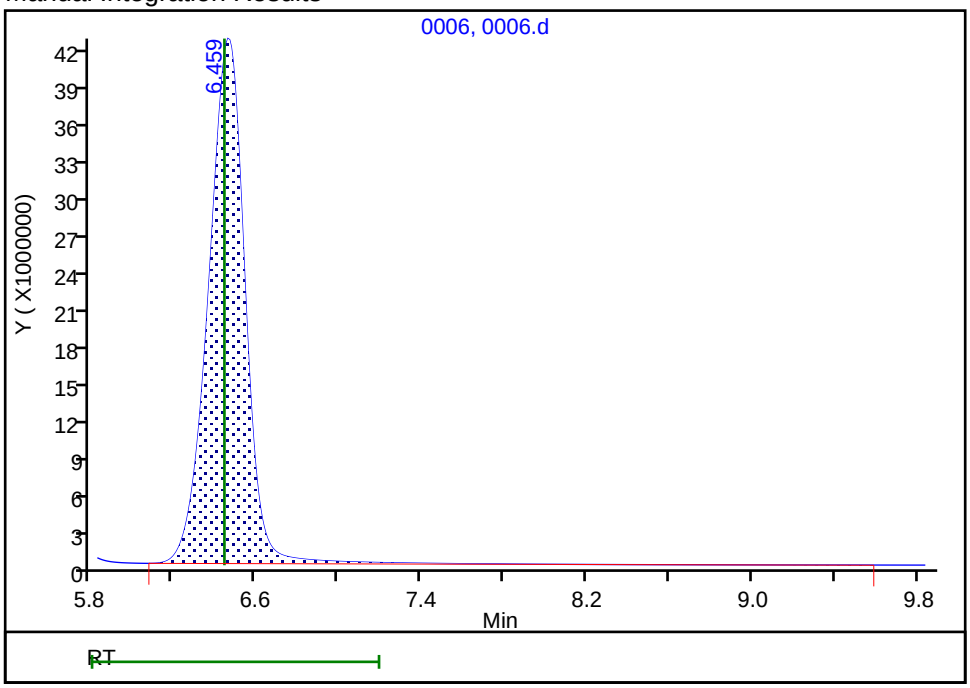
Not Detected
Expected RT: 6.44

Processing Integration Results



Manual Integration Results

RT: 6.46
Area: 523125792
Amount: 117.4031
Amount Units: ug/ml



Reviewer: phantl, 15-May-2019 19:08:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	15-May-2019 18:54:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0081929-007				
Misc. Info.:	21691				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	16-May-2019 07:56:07	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0340				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	NC	NC	
2 Chloride	3.267	3.250	0.017	1394323073	NC	NC	
3 Nitrite as N	3.901	3.892	0.009	106025591	10.0	10.1	
4 Bromide	4.642	4.642	0.000	19510403	NC	NC	
5 Nitrate as N	5.192	5.200	-0.008	118348380	10.0	10.2	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	10.0	10.2	
6 Sulfate	6.484	6.442	0.042	931644146	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

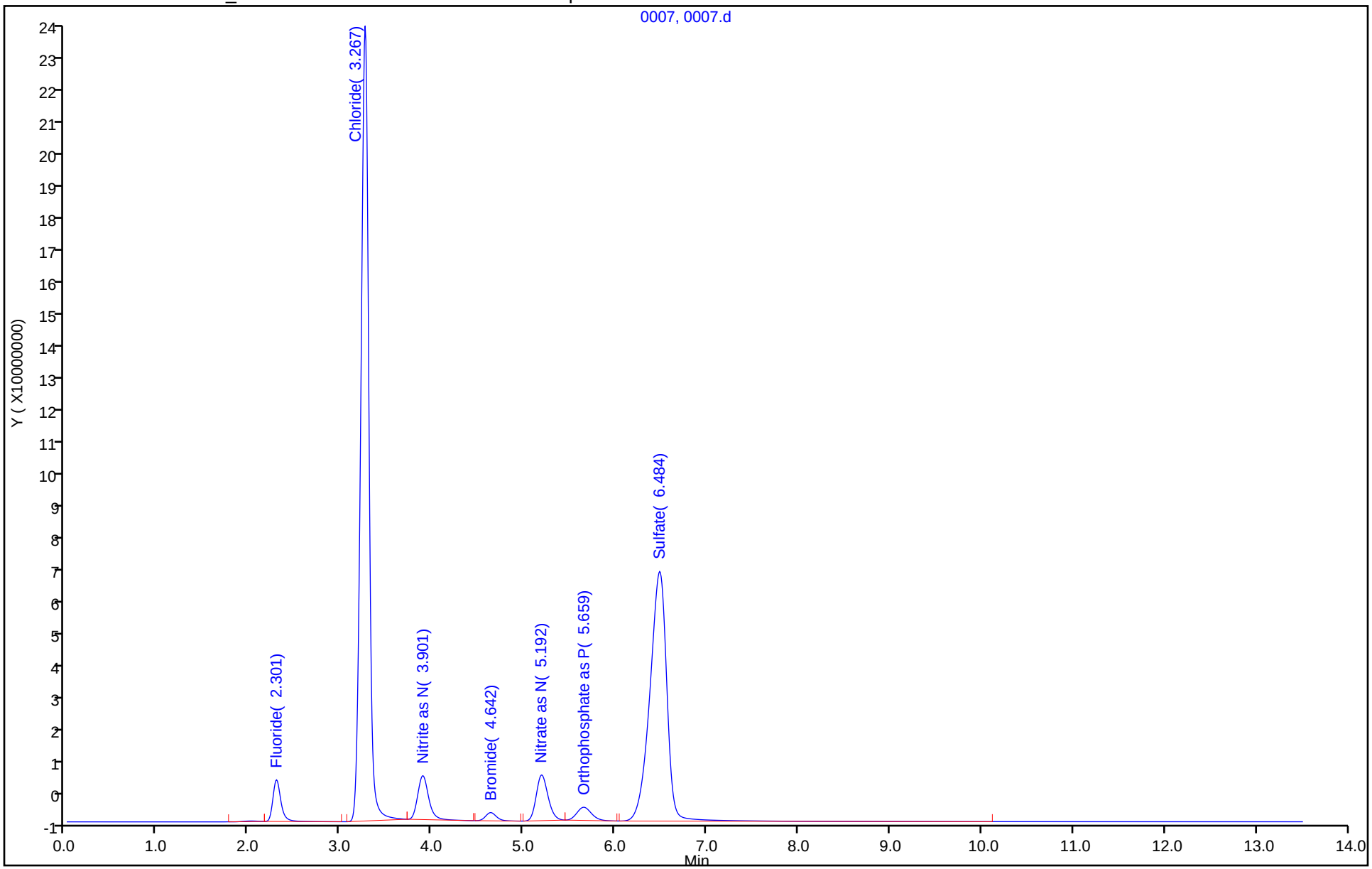
IC CAL cl/so4_00256	Amount Added:	4.00	Units: mL
IC Cal low_00458	Amount Added:	1.00	Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



06/25/2019

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-May-2019 18:54:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0081929-007
Misc. Info.: 21691
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 16-May-2019 07:56:07 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0340

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.300	0.001	73558855	10.0	9.99	
2 Chloride	3.267	3.250	0.017	1394323073	200.0	208.0	
3 Nitrite as N	3.901	3.892	0.009	106025591	NC	NC	
4 Bromide	4.642	4.642	0.000	19510403	10.0	10.0	
5 Nitrate as N	5.192	5.200	-0.008	118348380	NC	NC	
7 Orthophosphate as P	5.659	5.659	0.000	42159004	NC	NC	
6 Sulfate	6.484	6.442	0.042	931644146	200.0	208.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

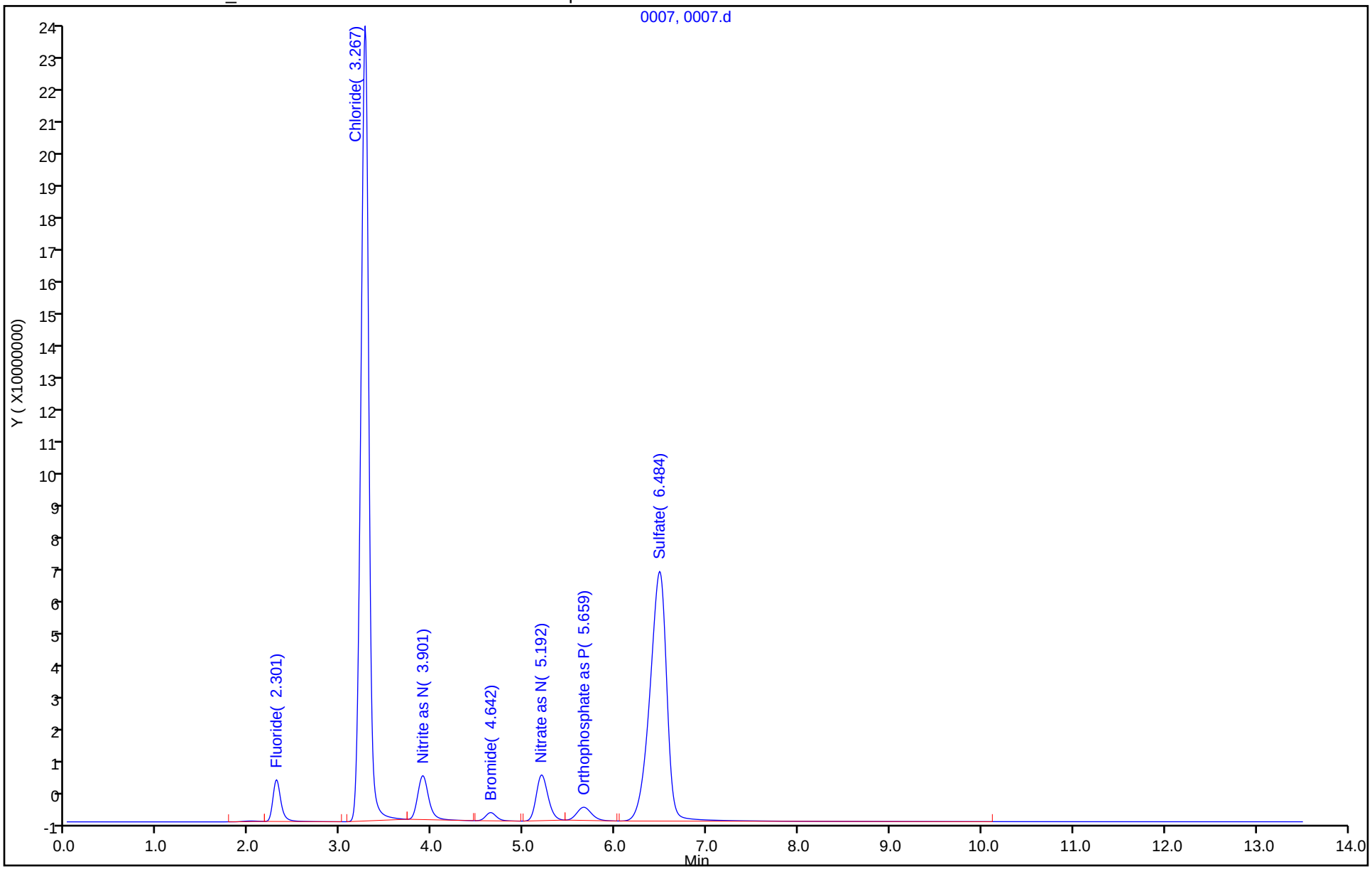
IC CAL cl/so4_00256 Amount Added: 4.00 Units: mL
IC Cal low_00458 Amount Added: 1.00 Units: mL

Report Date: 16-May-2019 07:56:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Injection Date:	15-May-2019 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 82000 Inst ID: 11 Analysis Date: 05-17-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123875	4 1 KES 5-17-19	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 1	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123899	4	F Cl NO2 Br NO3 (PO4) SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123875	1	F Cl NO2 Br NO3 PO4 SO4	100x, 1000x	dirt
123899	4	F Cl NO2 Br NO3 (PO4) SO4	100x, 1000x	dirt
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 20-May-2019 17:55:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 09:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37534254	NC	NC	
2 Chloride	3.242	3.242	0.000	636211327	NC	NC	
3 Nitrite as N	3.876	3.892	-0.016	51655603	5.00	4.95	
4 Bromide	4.609	4.634	-0.025	10186924	NC	NC	
5 Nitrate as N	5.167	5.200	-0.033	57599604	5.00	5.00	
7 Orthophosphate as P	5.617	5.659	-0.042	20945835	5.00	5.05	
6 Sulfate	6.392	6.434	-0.042	415954032	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

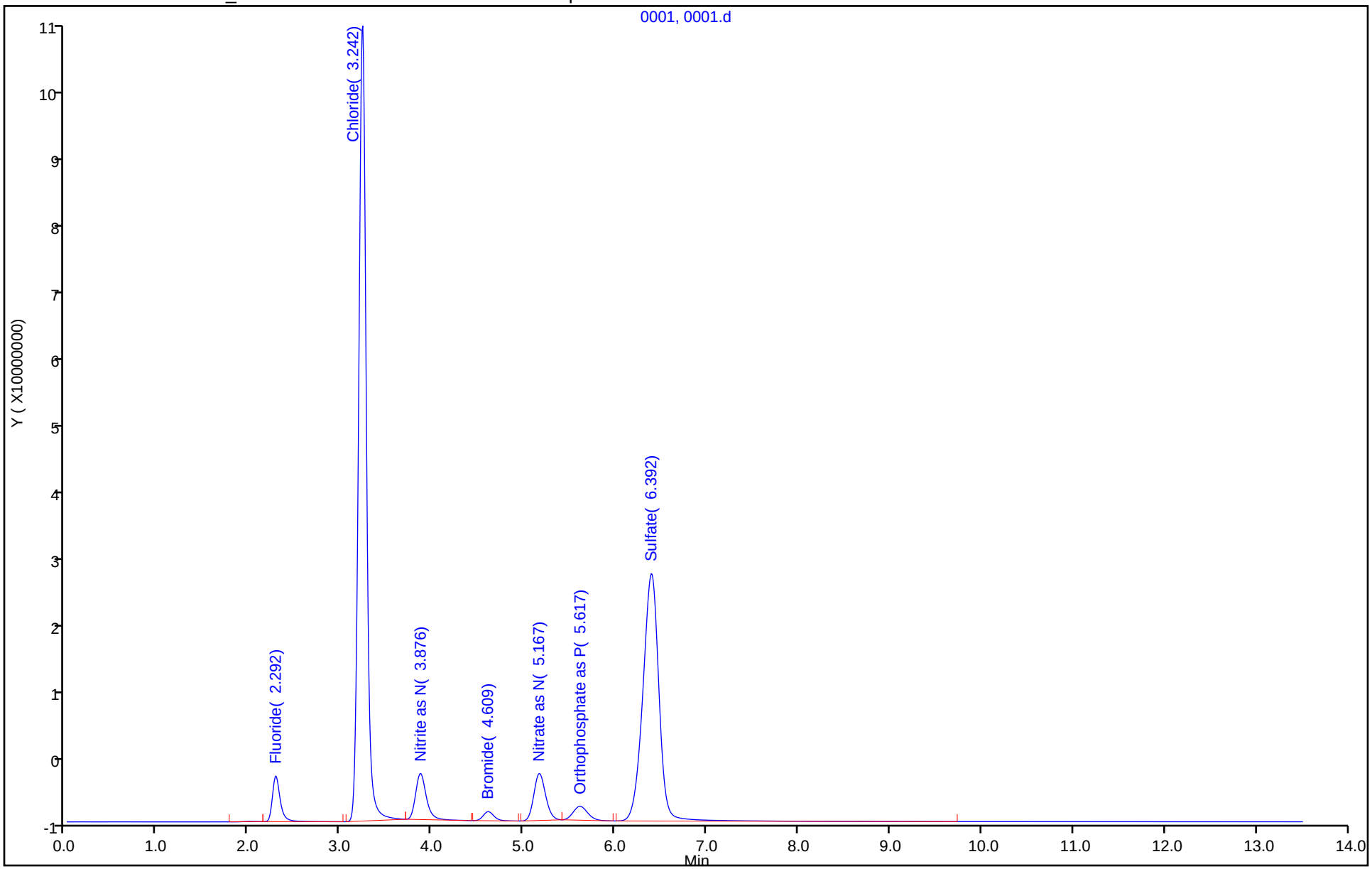
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:26 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d

Injection Date:	17-May-2019 09:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



IC Instrument Information

WL: 82000 Inst ID: 11 Analysis Date: 05-17-19 Analyst: KES

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123875	4 1 KES 5-17-19	F Cl NO2 Br NO3 PO4 SO4	(MS/D) 1	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	123899	4	F Cl NO2 Br NO3 (PO4) SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123875	1	F Cl NO2 Br NO3 PO4 SO4	100X, 1000X	dirt
123899	4	F Cl NO2 Br NO3 (PO4) SO4	100X, 1000X	dirt
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190518-82040.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 20-May-2019 17:55:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b
Inj Date : 15-May-2019 17:32:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					1121408	7254408		0.995
2 Chloride					-415002	6724092		0.997
3 Nitrite as N	-264112	1049196		1.000				
4 Bromide					-14827	1939033		1.000
5 Nitrate as N	-443937	1161405		0.999				
7 Orthophosphate as P	32597	4142139		0.999				
6 Sulfate					-195578	4472468		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 09:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37534254	5.00	5.02	
2 Chloride	3.242	3.242	0.000	636211327	100.0	95.2	
3 Nitrite as N	3.876	3.892	-0.016	51655603	NC	NC	
4 Bromide	4.609	4.634	-0.025	10186924	5.00	5.26	
5 Nitrate as N	5.167	5.200	-0.033	57599604	NC	NC	
7 Orthophosphate as P	5.617	5.659	-0.042	20945835	NC	NC	
6 Sulfate	6.392	6.434	-0.042	415954032	100.0	93.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

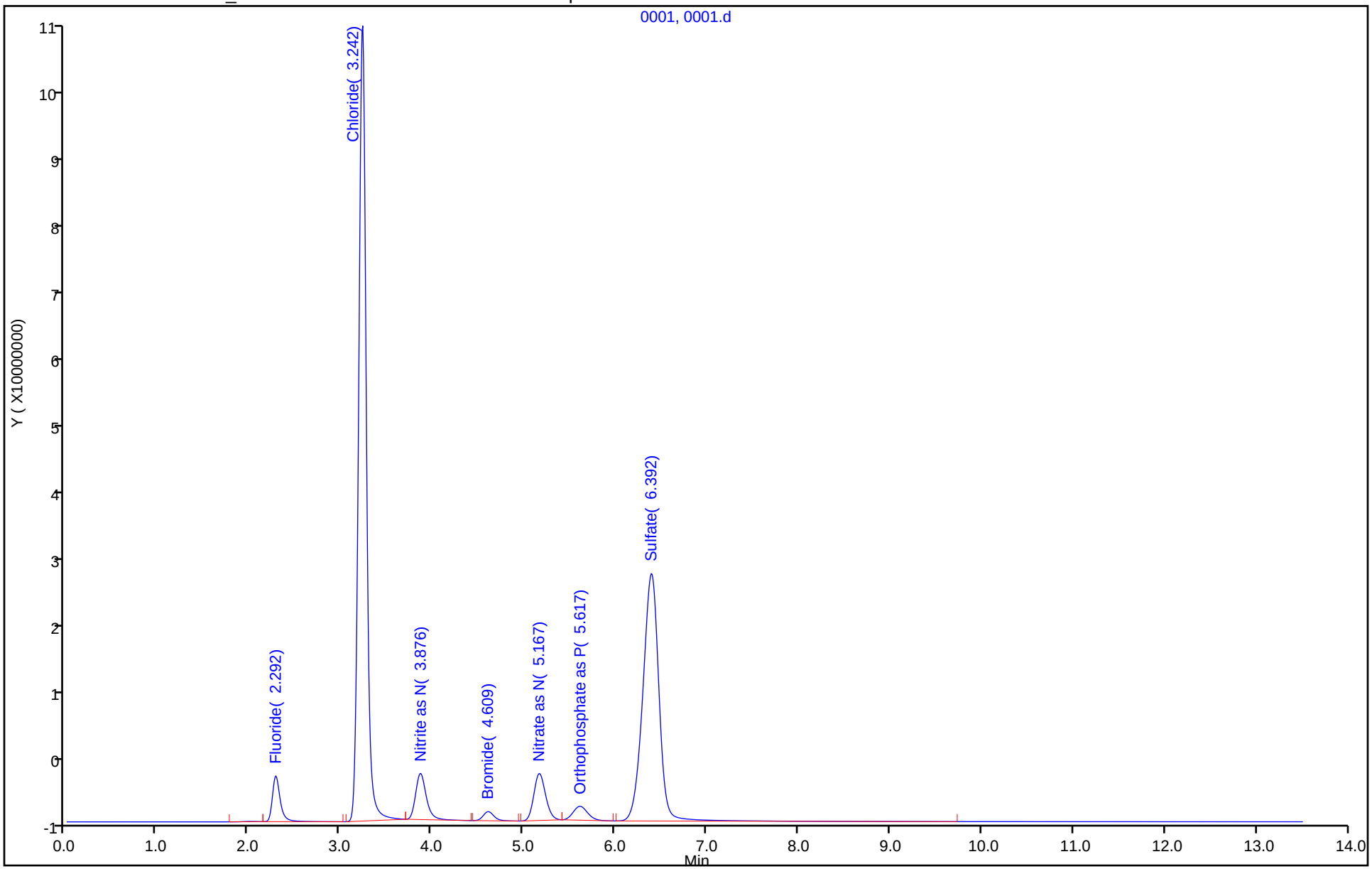
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:26 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0001.d

Injection Date:	17-May-2019 09:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 10:03:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:53:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.292	0.425	25831		NC	M
2 Chloride	3.226	3.242	-0.016	63275		NC	M
3 Nitrite as N		3.892			ND		
4 Bromide		4.634			ND		
5 Nitrate as N		5.200			ND		
7 Orthophosphate as P		5.659			ND		
6 Sulfate		6.434			ND		

QC Flag Legend

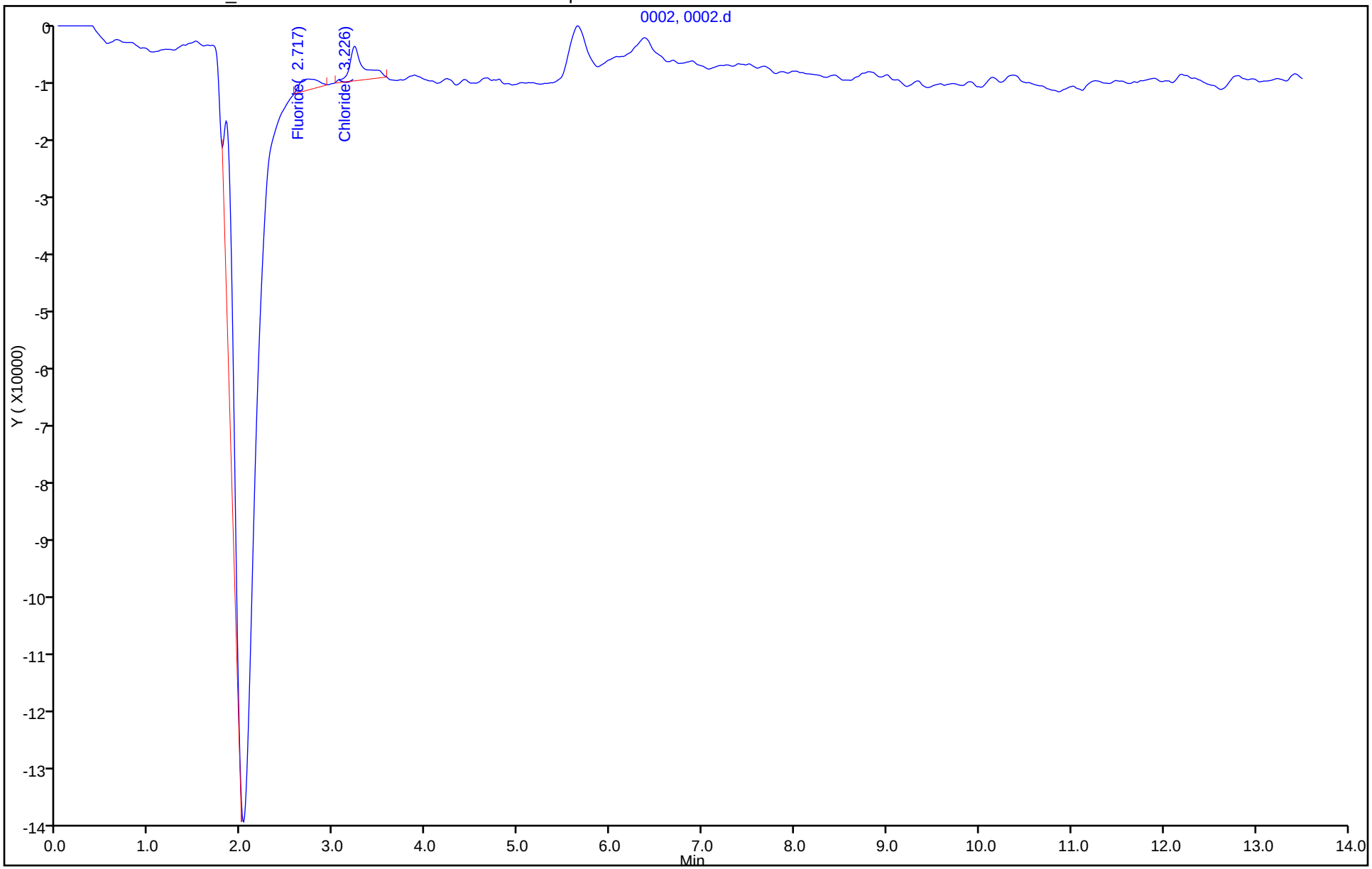
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:27 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d

Injection Date:	17-May-2019 10:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 10:03:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:53:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.717	2.292	0.425	25831		-0.1510	M
2 Chloride	3.226	3.242	-0.016	63275		0.6266	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P		5.659				ND	
6 Sulfate		6.434				ND	

QC Flag Legend

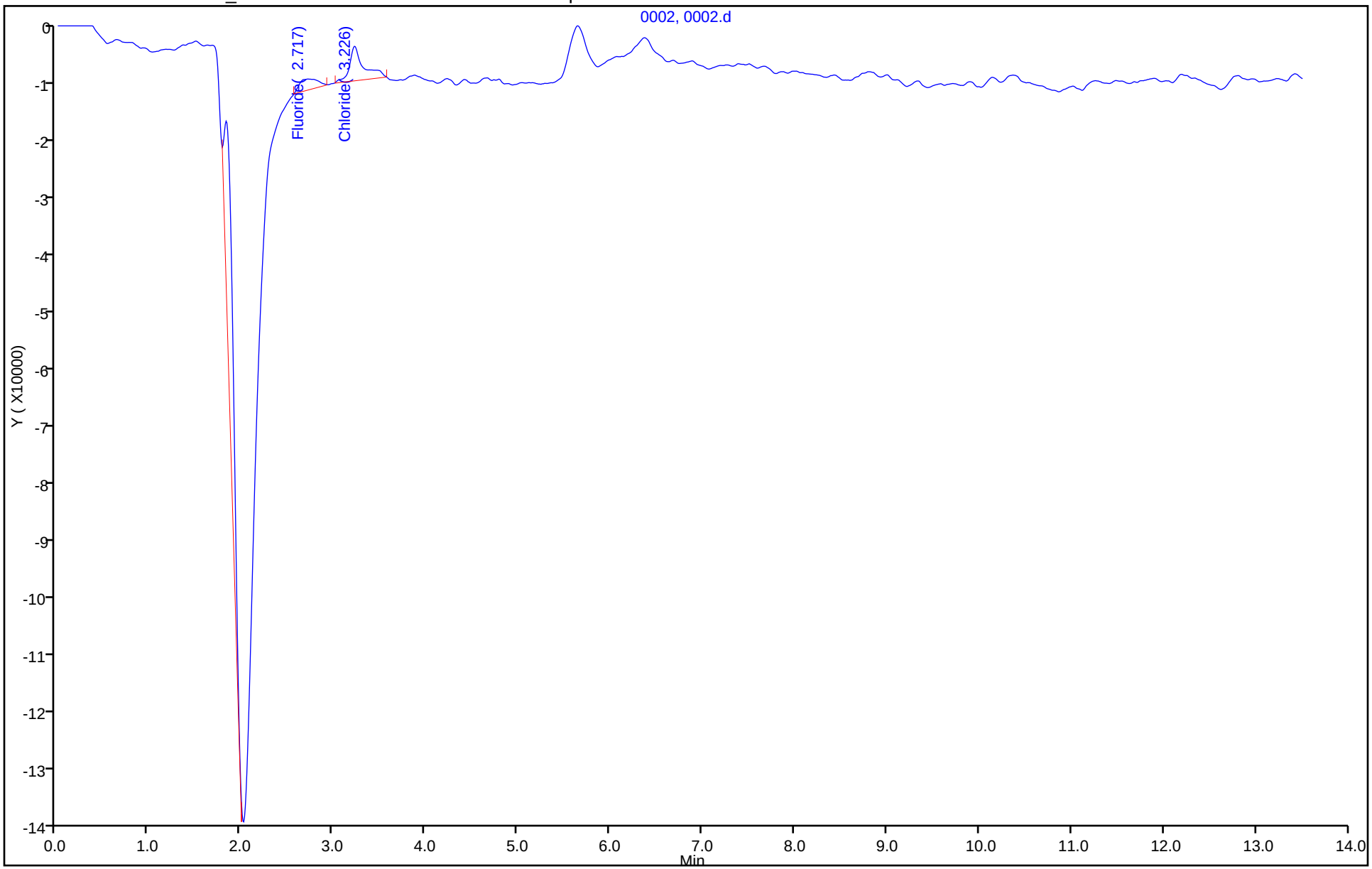
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:27 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d

Injection Date:	17-May-2019 10:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

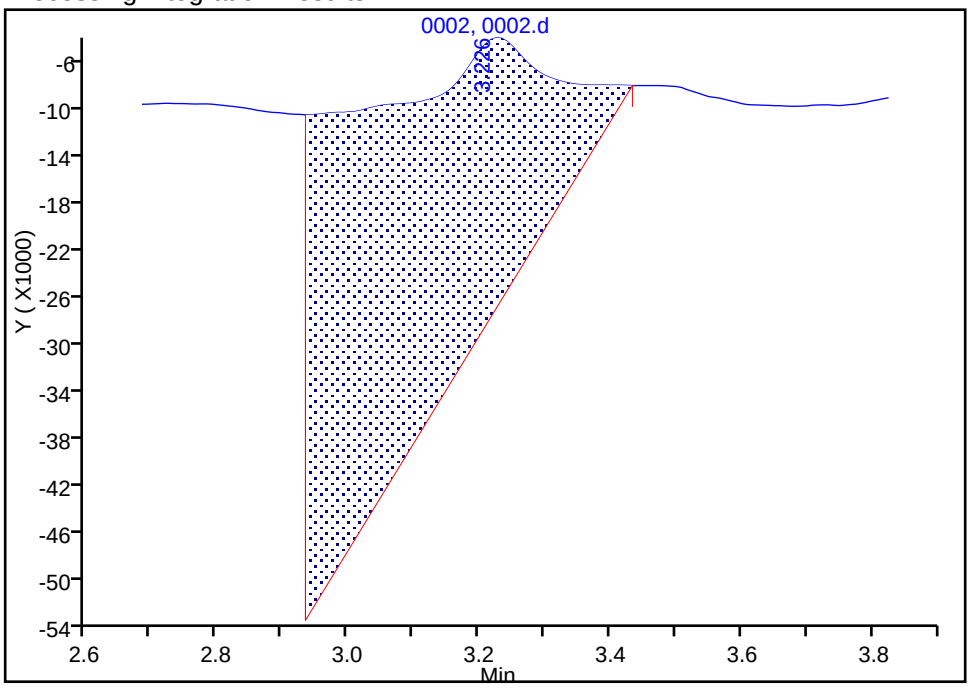
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0002.d
Injection Date: 17-May-2019 10:03:00 Instrument ID: WC_IonChrom11
Lims ID: CCB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

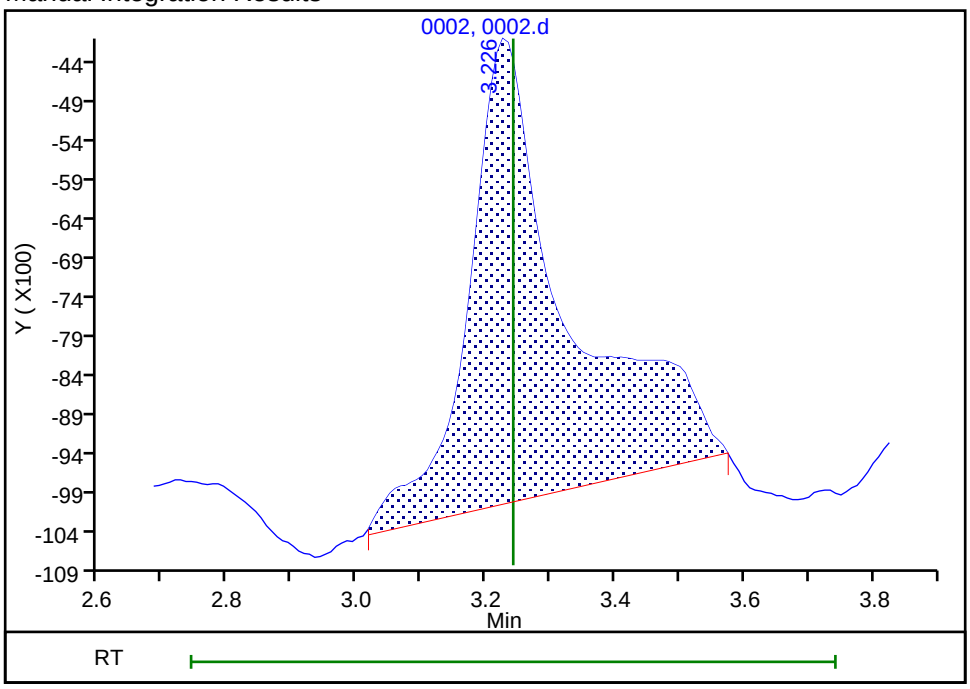
Processing Integration Results

RT: 3.23
Area: 680412
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 63275
Amount: 0.626597
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 07:53:52
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 17-May-2019 10:19:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3370541	NC	NC	
2 Chloride	3.225	3.242	-0.017	11162382	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	2000895	0.2000	0.2159	
4 Bromide	4.617	4.634	-0.017	404188	NC	NC	
5 Nitrate as N	5.184	5.200	-0.016	2220587	0.2000	0.2294	
7 Orthophosphate as P	5.625	5.659	-0.034	875786	0.2000	0.2036	
6 Sulfate	6.350	6.434	-0.084	8371770	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

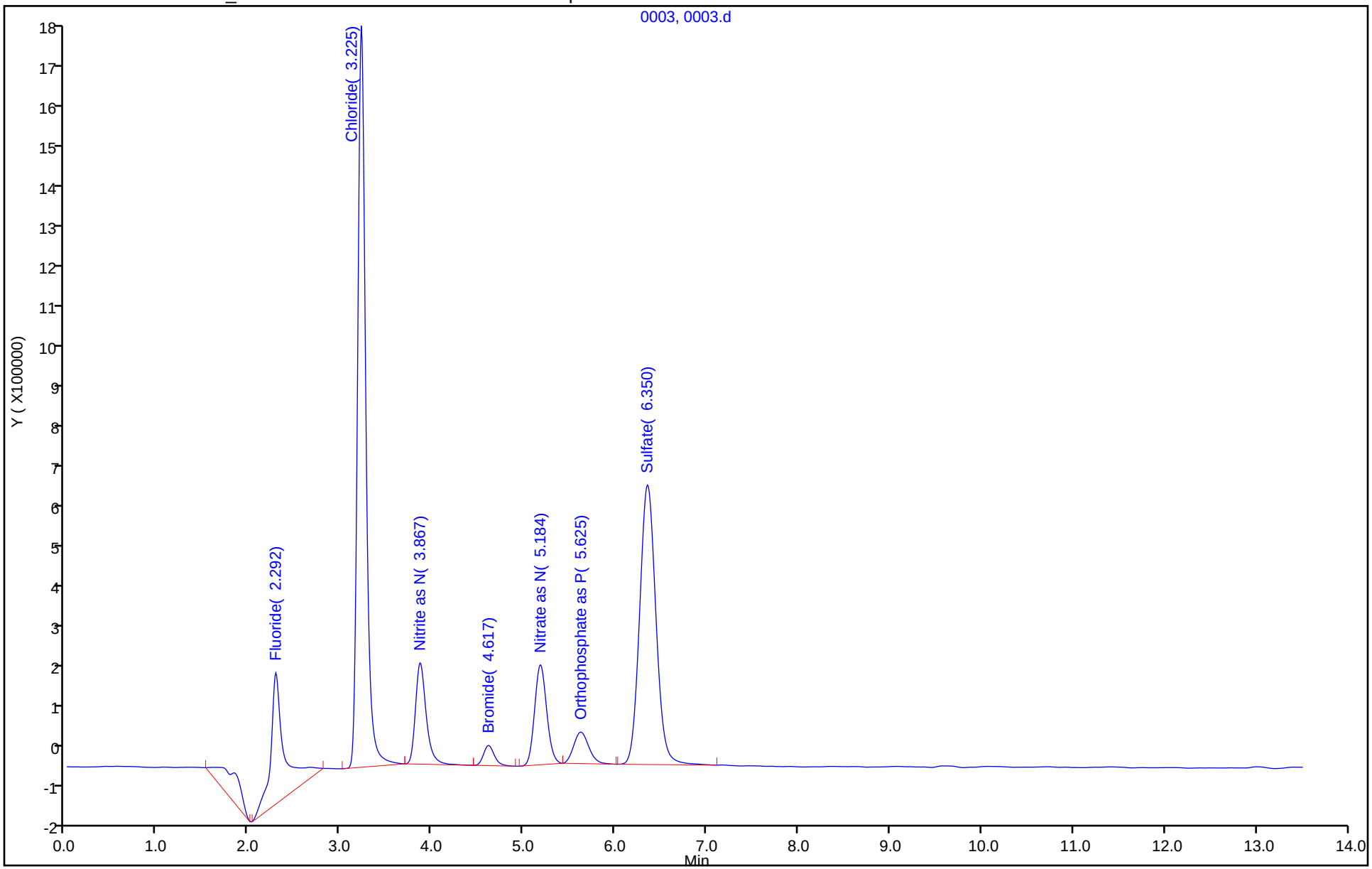
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d

Injection Date:	17-May-2019 10:19:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 17-May-2019 10:19:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3370541	0.2000	0.3100	
2 Chloride	3.225	3.242	-0.017	11162382	2.50	2.28	
3 Nitrite as N	3.867	3.892	-0.025	2000895	NC	NC	
4 Bromide	4.617	4.634	-0.017	404188	0.2000	0.2161	
5 Nitrate as N	5.184	5.200	-0.016	2220587	NC	NC	
7 Orthophosphate as P	5.625	5.659	-0.034	875786	NC	NC	
6 Sulfate	6.350	6.434	-0.084	8371770	2.50	2.31	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

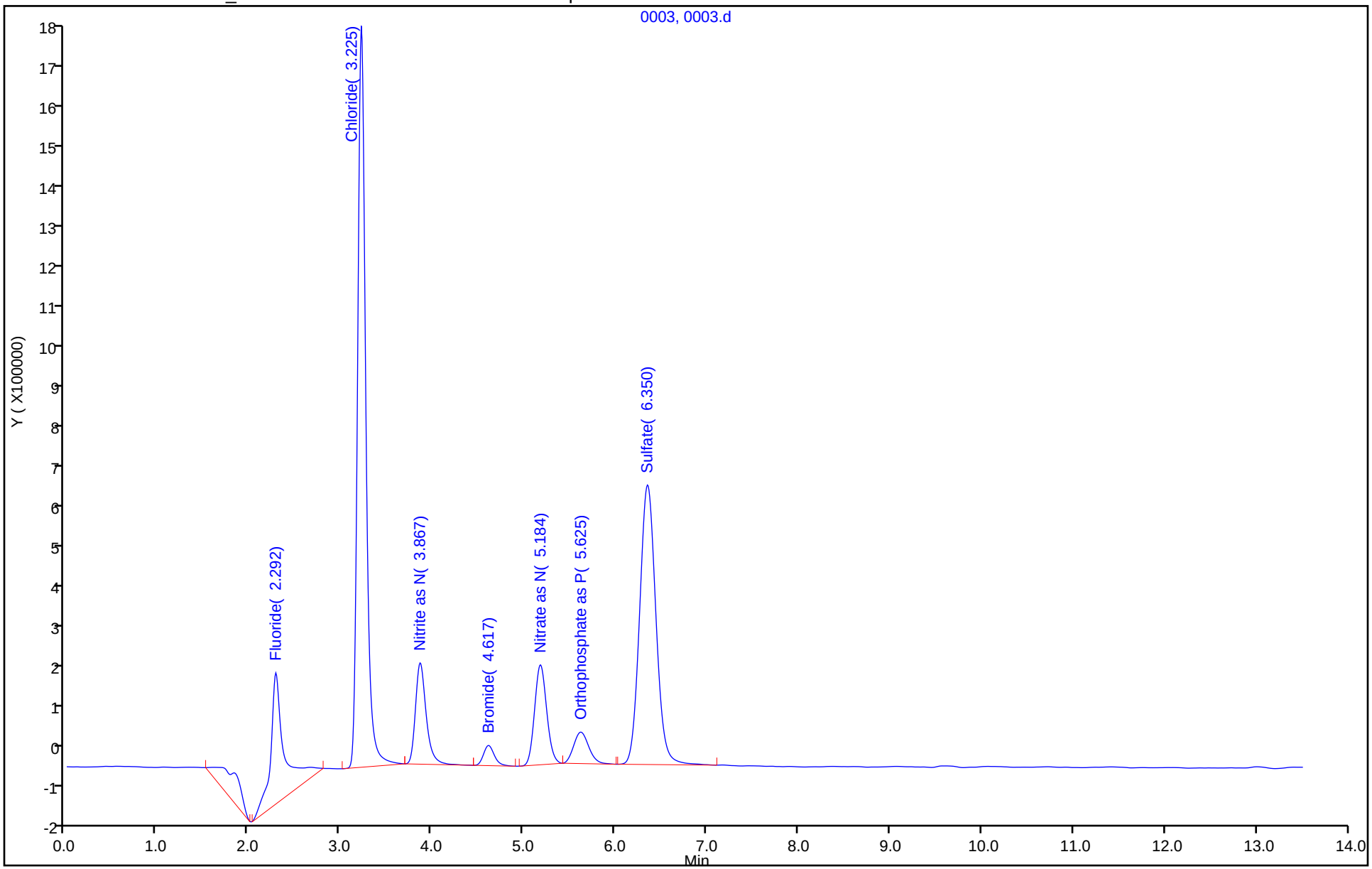
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0003.d

Injection Date:	17-May-2019 10:19:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-May-2019 10:36:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37519209	NC	NC	
2 Chloride	3.242	3.242	0.000	637771422	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	51681403	5.00	4.95	
4 Bromide	4.609	4.634	-0.025	10158715	NC	NC	
5 Nitrate as N	5.167	5.200	-0.033	57678326	5.00	5.00	
7 Orthophosphate as P	5.617	5.659	-0.042	21167317	5.00	5.10	
6 Sulfate	6.400	6.434	-0.034	416705232	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

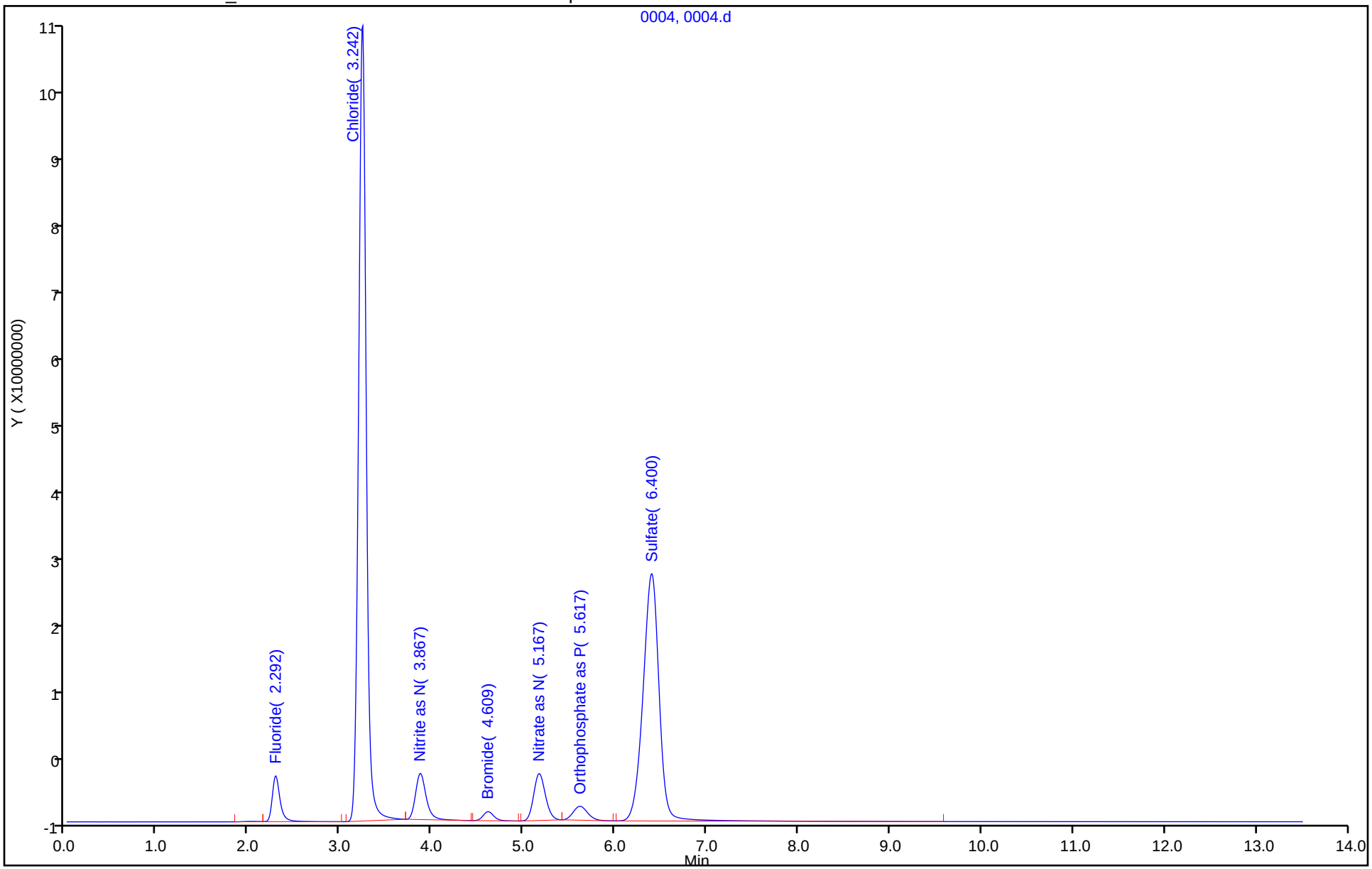
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d

Injection Date:	17-May-2019 10:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-May-2019 10:36:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37519209	5.00	5.02	
2 Chloride	3.242	3.242	0.000	637771422	100.0	95.5	
3 Nitrite as N	3.867	3.892	-0.025	51681403	NC	NC	
4 Bromide	4.609	4.634	-0.025	10158715	5.00	5.25	
5 Nitrate as N	5.167	5.200	-0.033	57678326	NC	NC	
7 Orthophosphate as P	5.617	5.659	-0.042	21167317	NC	NC	
6 Sulfate	6.400	6.434	-0.034	416705232	100.0	93.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

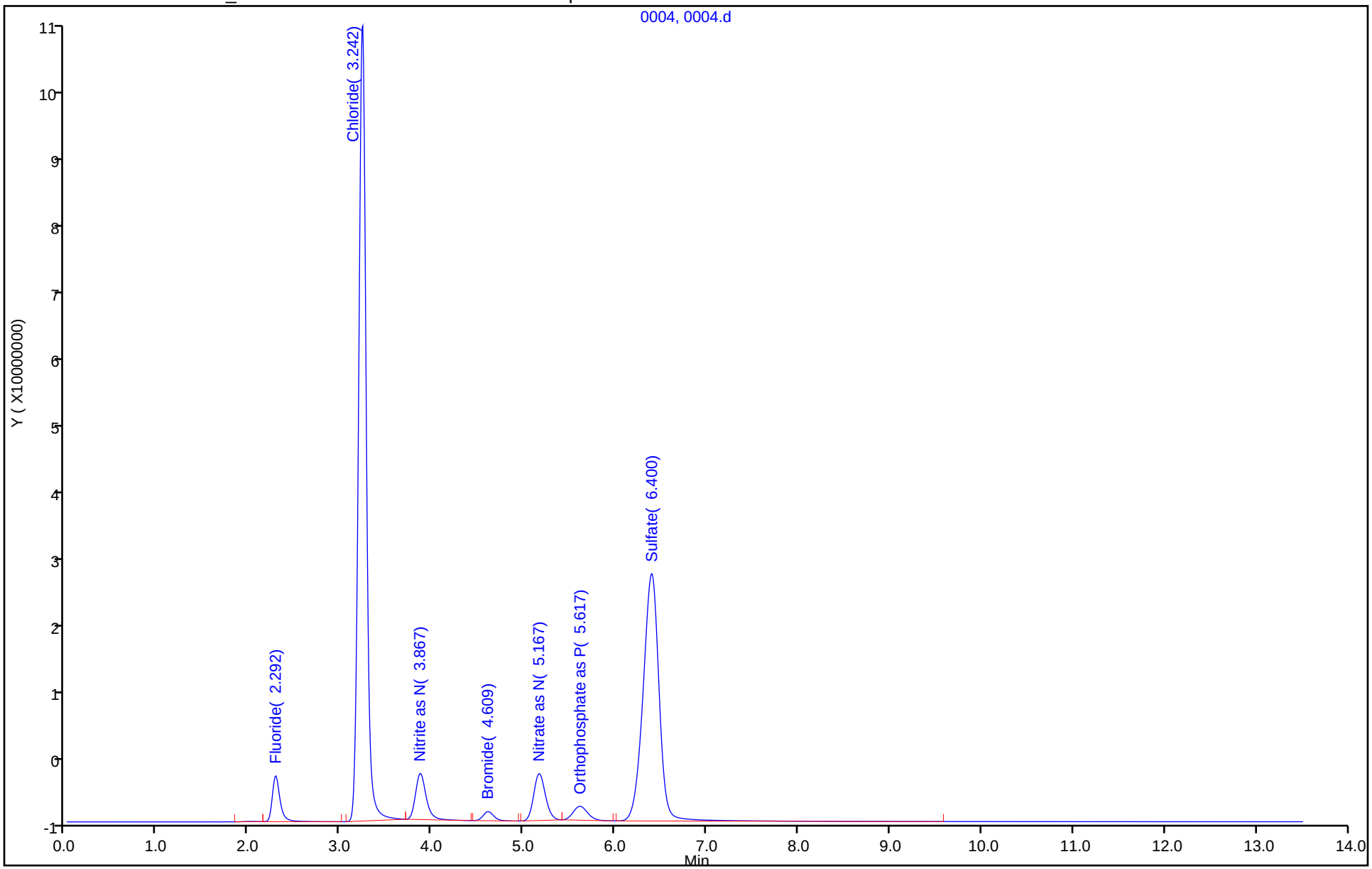
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:28 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0004.d

Injection Date:	17-May-2019 10:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 17-May-2019 10:52:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37761341	NC	NC	
2 Chloride	3.242	3.242	0.000	642425114	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	52090587	5.00	4.99	
4 Bromide	4.609	4.634	-0.025	10244896	NC	NC	
5 Nitrate as N	5.167	5.200	-0.033	58061081	5.00	5.04	
7 Orthophosphate as P	5.609	5.659	-0.050	21441125	5.00	5.17	
6 Sulfate	6.392	6.434	-0.042	419646386	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

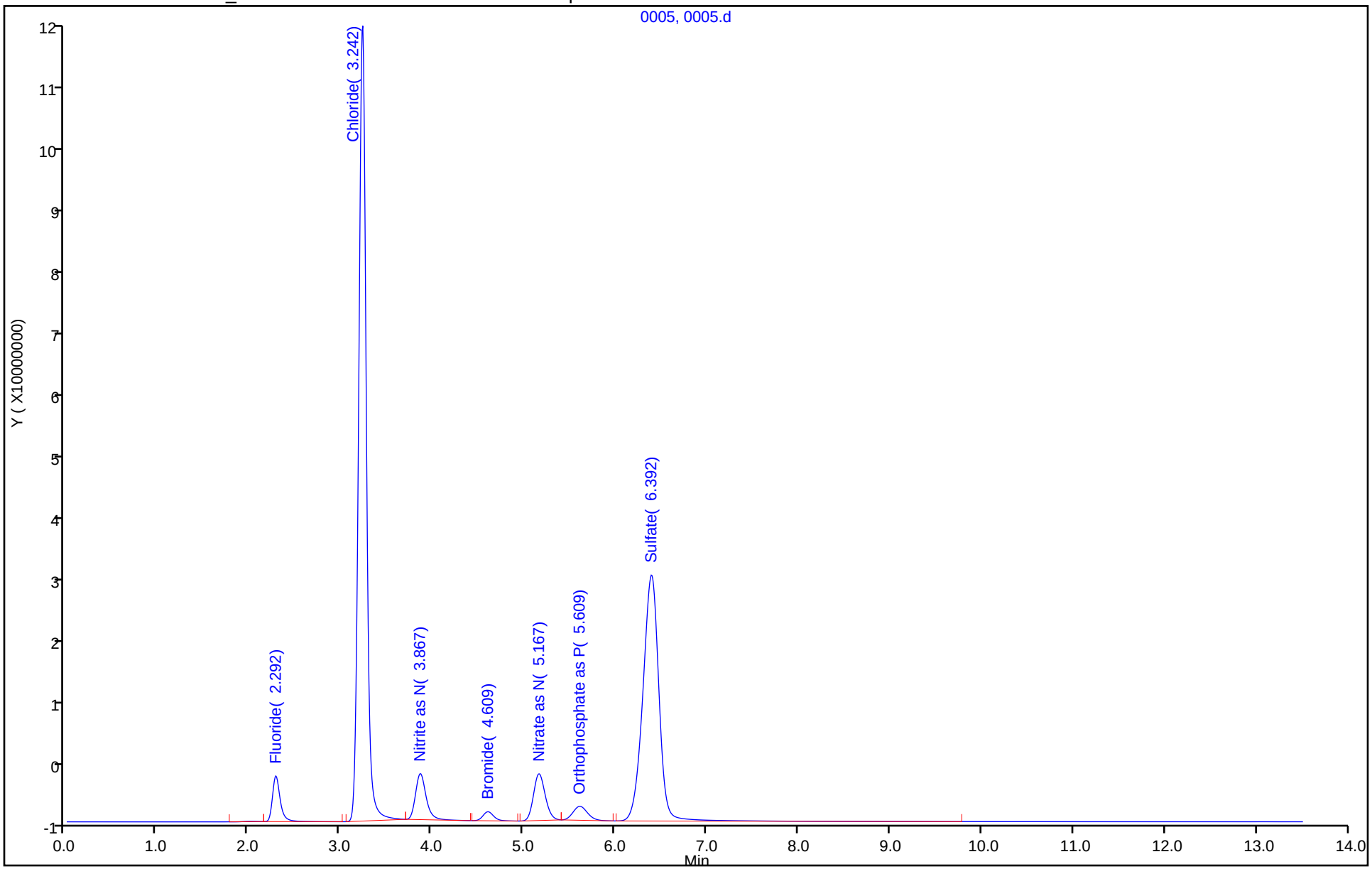
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d

Injection Date:	17-May-2019 10:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 17-May-2019 10:52:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37761341	5.00	5.05	
2 Chloride	3.242	3.242	0.000	642425114	100.0	96.2	
3 Nitrite as N	3.867	3.892	-0.025	52090587	NC	NC	
4 Bromide	4.609	4.634	-0.025	10244896	5.00	5.29	
5 Nitrate as N	5.167	5.200	-0.033	58061081	NC	NC	
7 Orthophosphate as P	5.609	5.659	-0.050	21441125	NC	NC	
6 Sulfate	6.392	6.434	-0.042	419646386	100.0	94.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

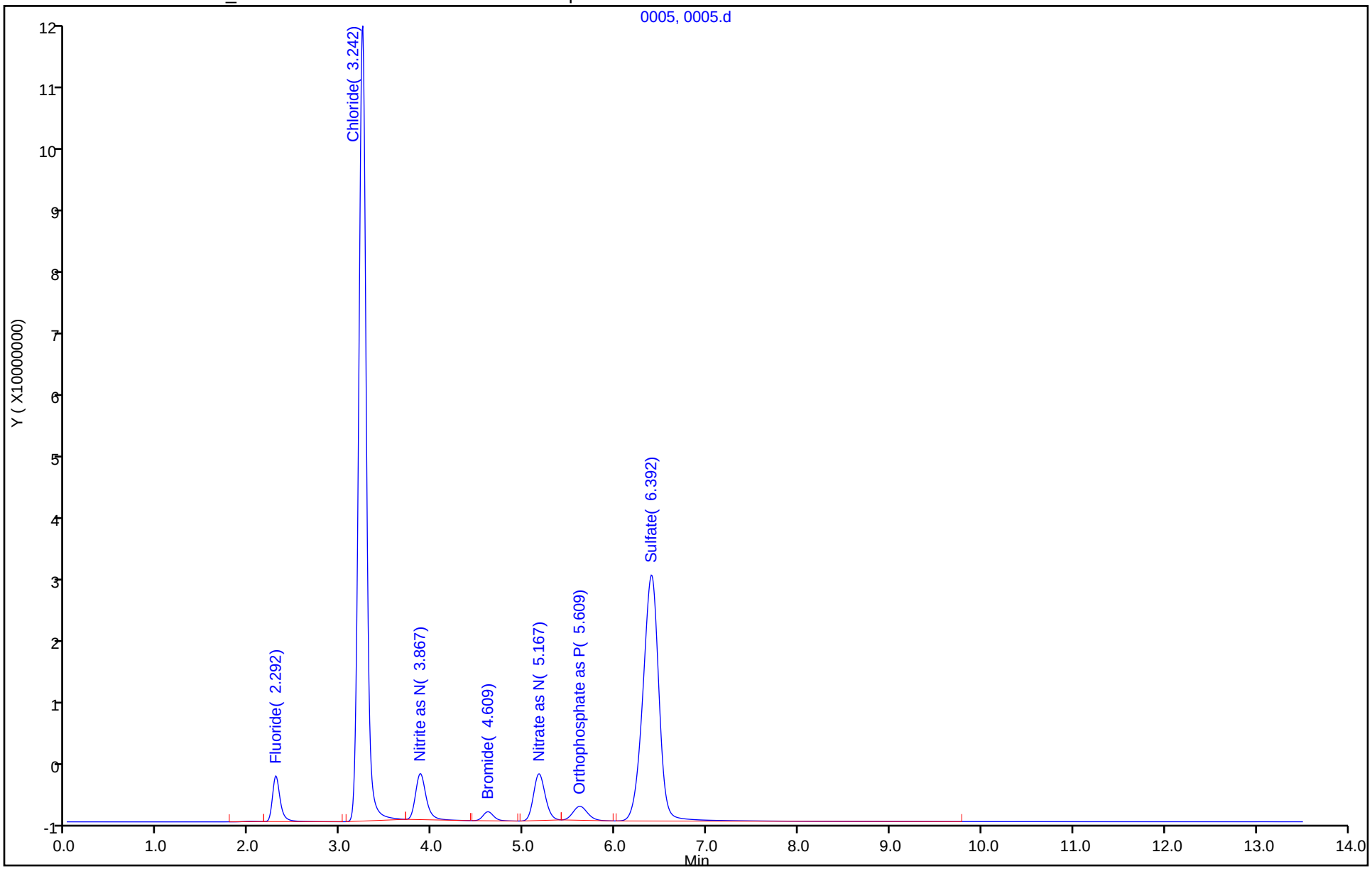
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:29 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0005.d

Injection Date:	17-May-2019 10:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 17-May-2019 11:08:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:54:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.709	2.292	0.417	20711		NC	M
2 Chloride	3.225	3.242	-0.017	23519		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.642	5.659	-0.017	114145		0.0197	
6 Sulfate	5.909	6.434	-0.525	104185		NC	

QC Flag Legend

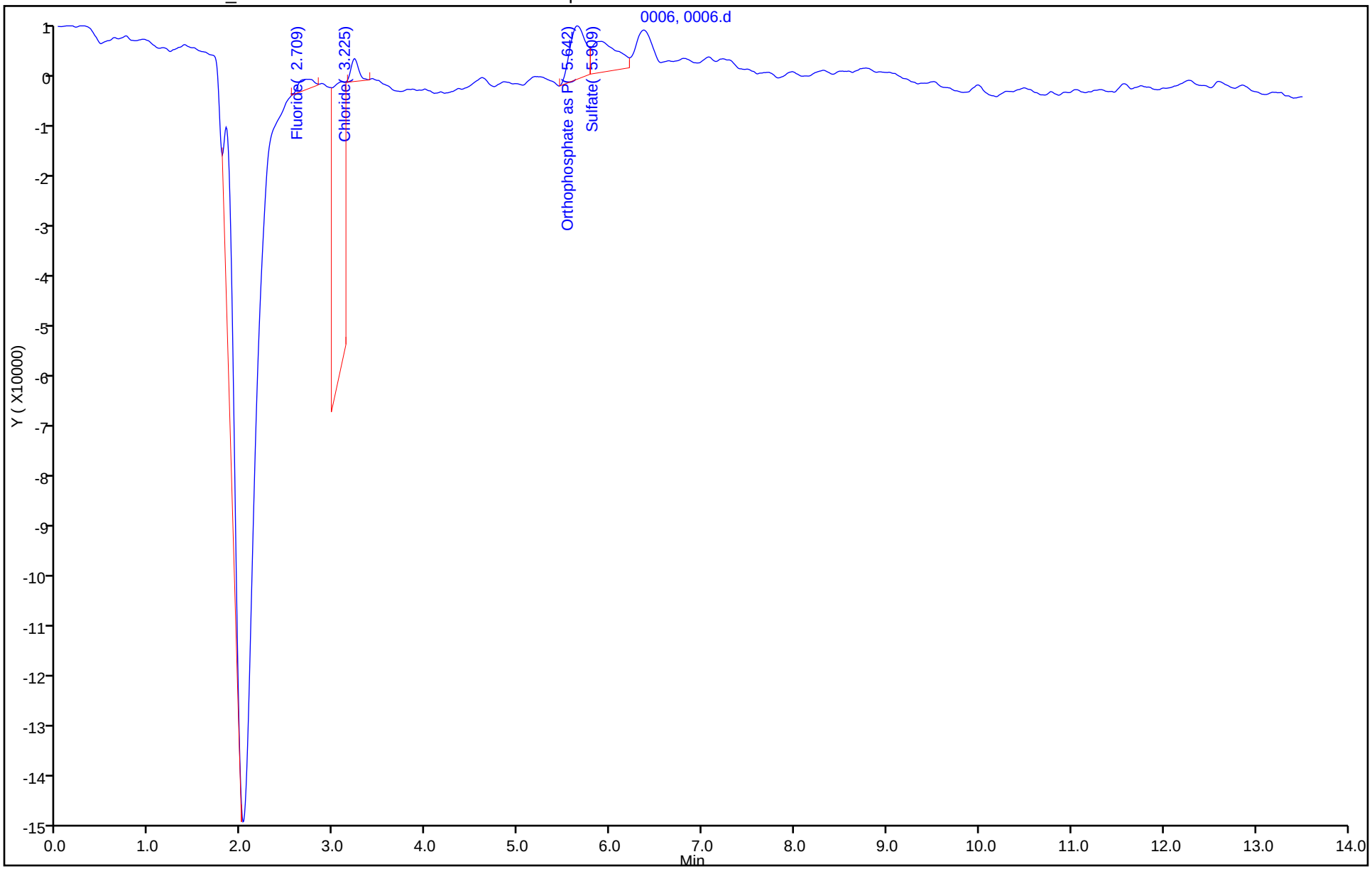
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d

Injection Date:	17-May-2019 11:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 17-May-2019 11:08:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:26 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:54:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.709	2.292	0.417	20711		-0.1517	M
2 Chloride	3.225	3.242	-0.017	23519		0.6207	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.642	5.659	-0.017	114145		NC	
6 Sulfate	5.909	6.434	-0.525	104185		0.4606	

QC Flag Legend

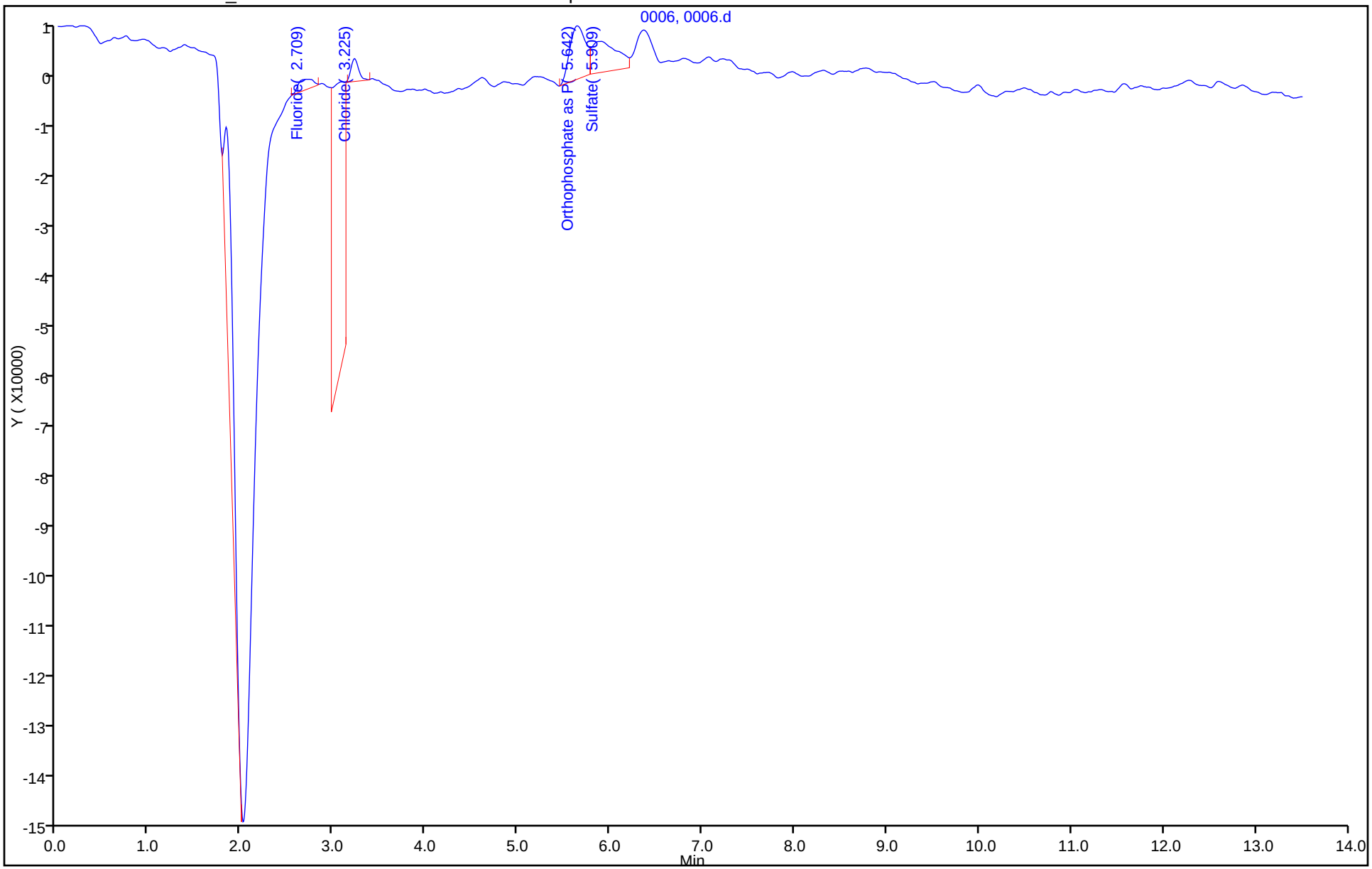
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:30 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d

Injection Date:	17-May-2019 11:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

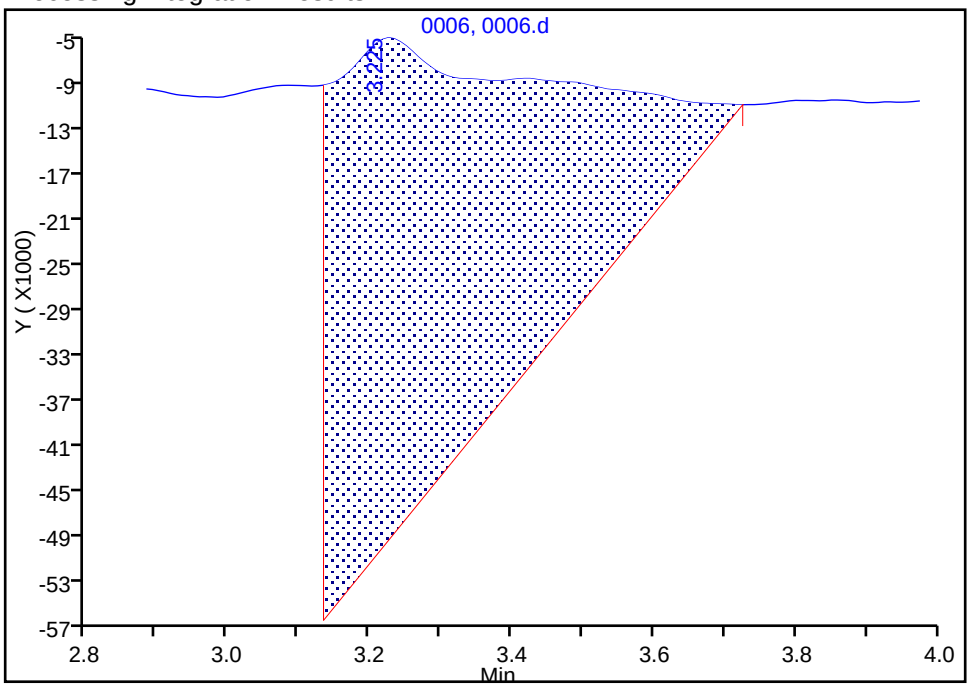
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0006.d
Injection Date: 17-May-2019 11:08:00 Instrument ID: WC_IonChrom11
Lims ID: MB
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

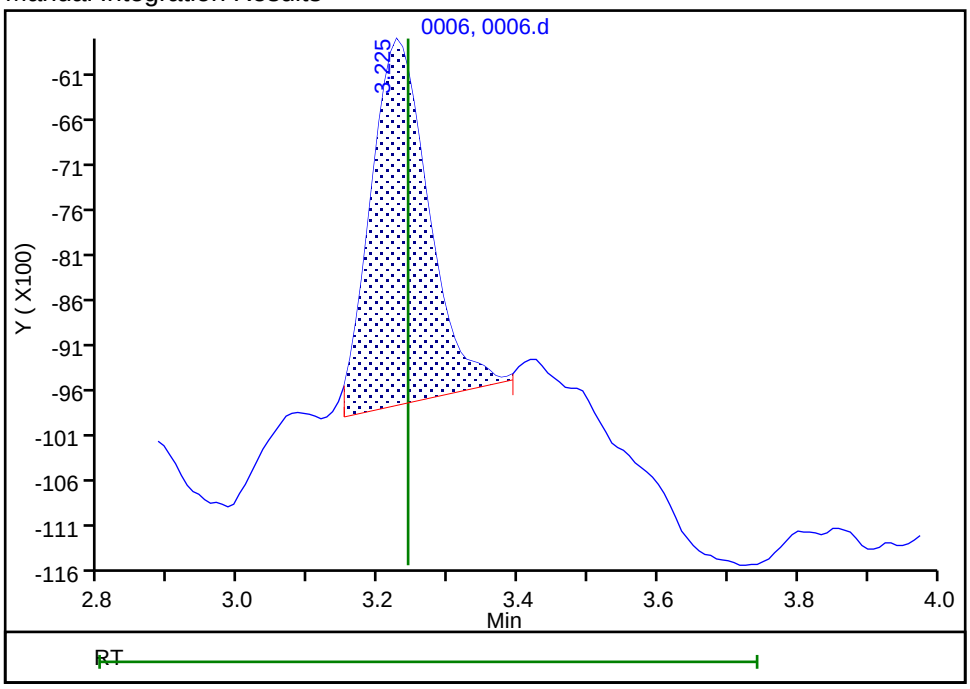
Processing Integration Results

RT: 3.23
Area: 876237
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 23519
Amount: 0.620685
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 07:54:13
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 21:14:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-017
Misc. Info.: 11605 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	38084969	NC	NC	
2 Chloride	3.234	3.242	-0.008	644920282	NC	NC	
3 Nitrite as N	3.859	3.892	-0.033	52024684	5.00	4.98	
4 Bromide	4.592	4.634	-0.042	10284595	NC	NC	
5 Nitrate as N	5.142	5.200	-0.058	58800537	5.00	5.10	
7 Orthophosphate as P	5.609	5.659	-0.050	21838921	5.00	5.26	
6 Sulfate	6.400	6.434	-0.034	422005317	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

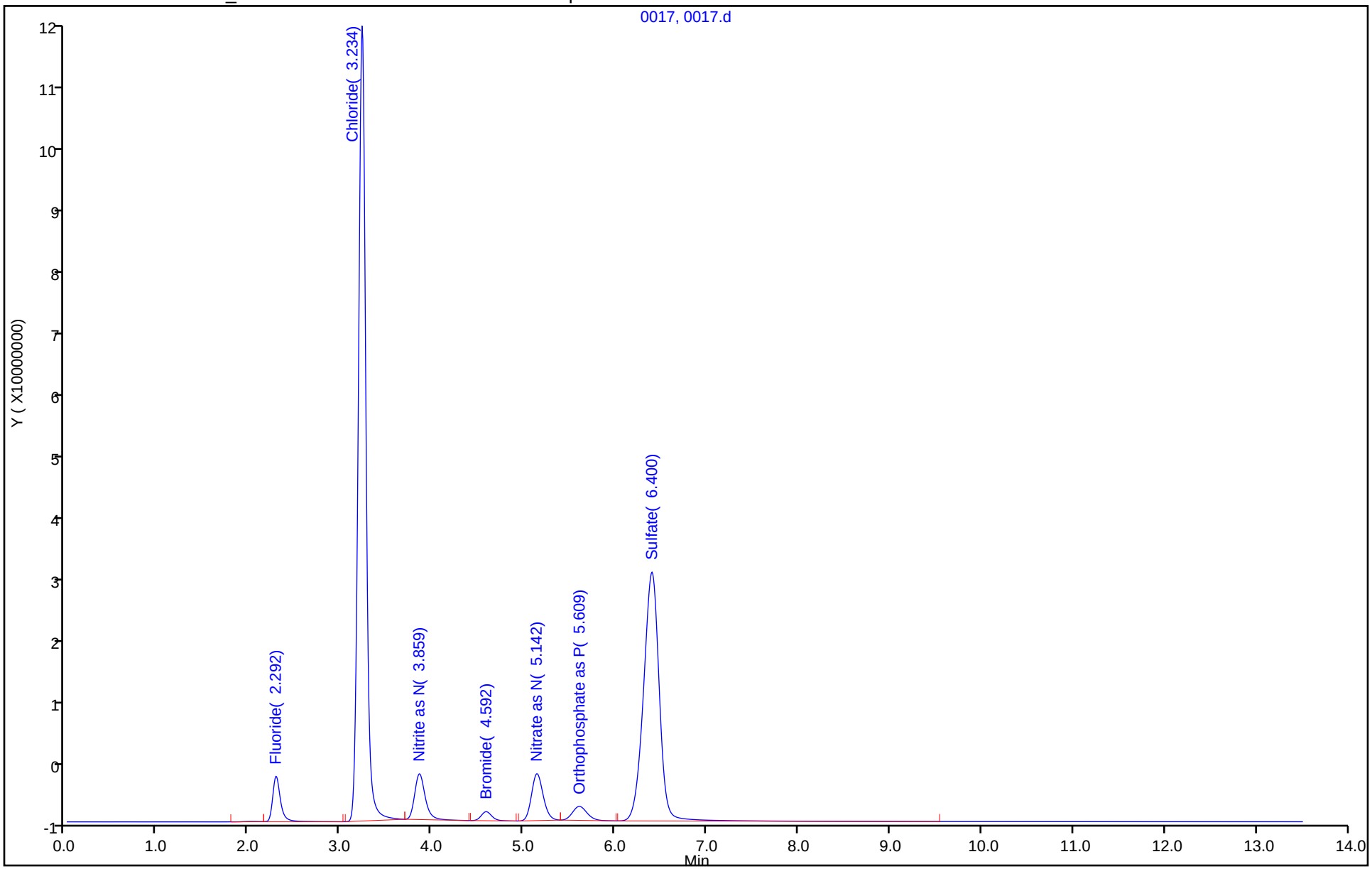
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d

Injection Date:	17-May-2019 21:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2019 21:14:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-017
Misc. Info.: 11605 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	38084969	5.00	5.10	
2 Chloride	3.234	3.242	-0.008	644920282	100.0	96.5	
3 Nitrite as N	3.859	3.892	-0.033	52024684	NC	NC	
4 Bromide	4.592	4.634	-0.042	10284595	5.00	5.31	
5 Nitrate as N	5.142	5.200	-0.058	58800537	NC	NC	
7 Orthophosphate as P	5.609	5.659	-0.050	21838921	NC	NC	
6 Sulfate	6.400	6.434	-0.034	422005317	100.0	94.8	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

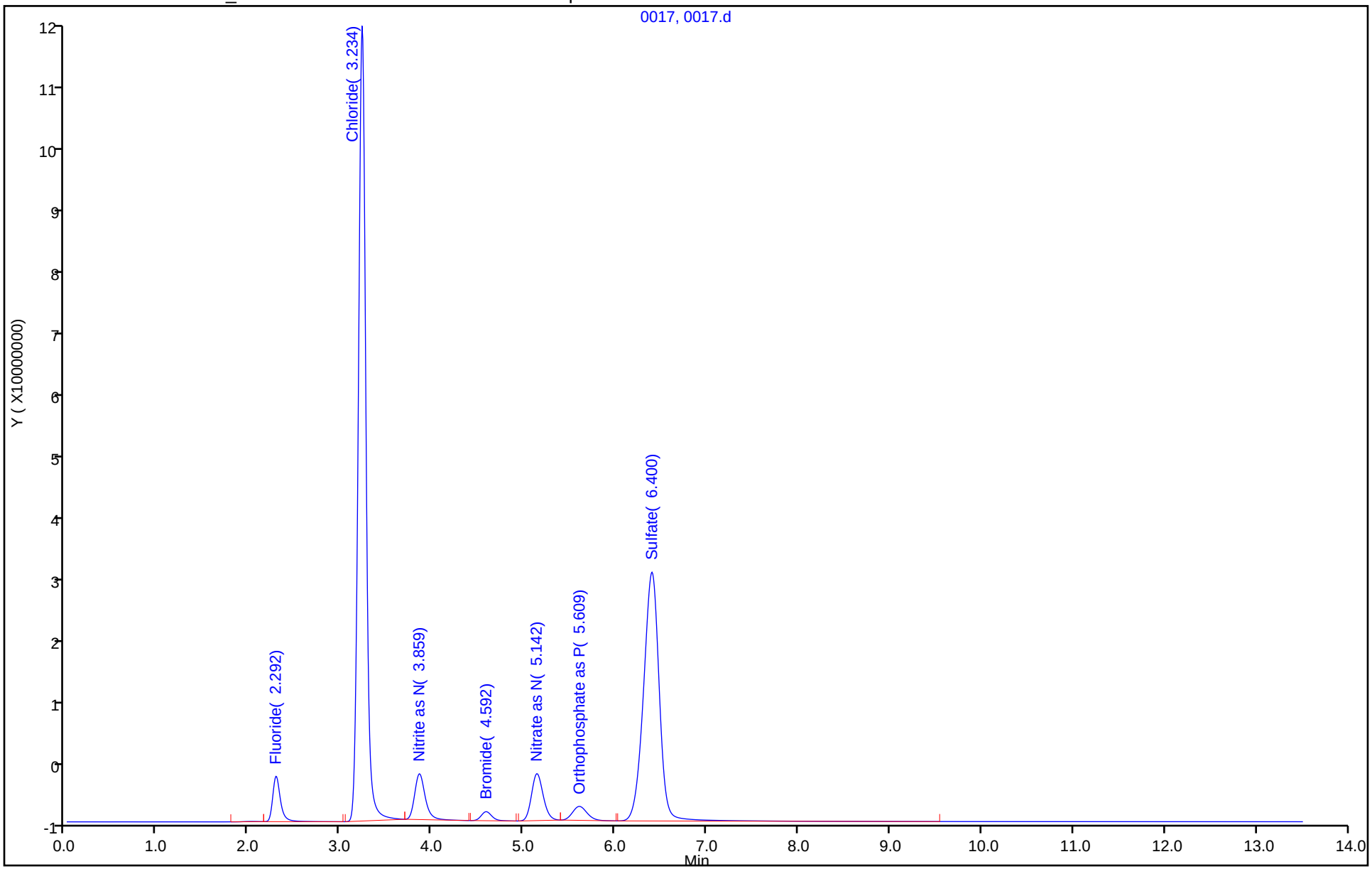
IC LCS_01578 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0017.d

Injection Date:	17-May-2019 21:14:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 21:30:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-018
Misc. Info.: 31545 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:56:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.692	2.292	0.400	33350		NC	M
2 Chloride	3.225	3.242	-0.017	83529		NC	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.667	5.659	0.008	363632		0.0799	
6 Sulfate	6.375	6.434	-0.059	237941		NC	

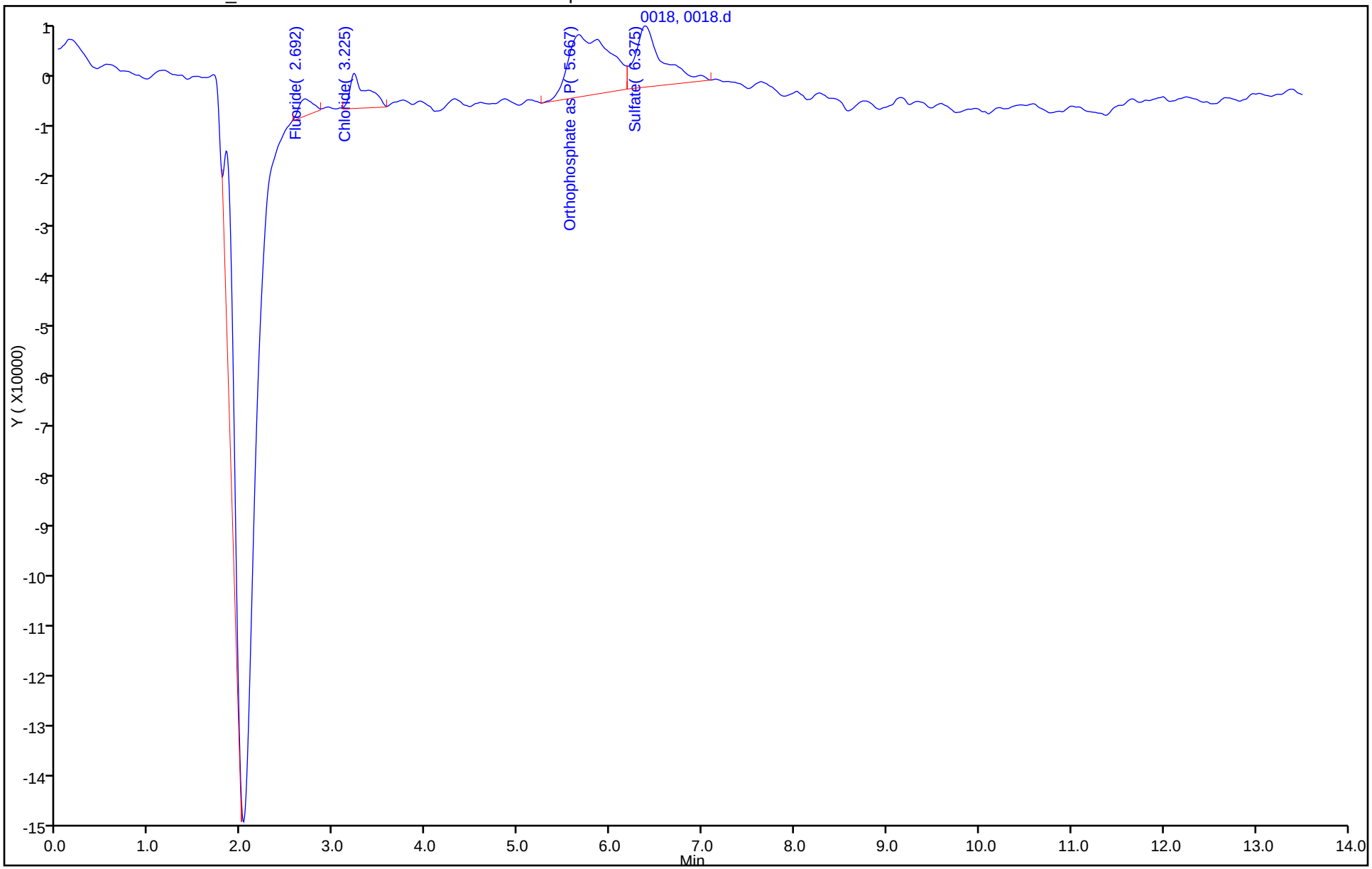
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:40 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d				
Injection Date:	17-May-2019 21:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-May-2019 21:30:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-018
Misc. Info.: 31545 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:39 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 07:56:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.692	2.292	0.400	33350		-0.1500	M
2 Chloride	3.225	3.242	-0.017	83529		0.6296	M
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.667	5.659	0.008	363632		NC	
6 Sulfate	6.375	6.434	-0.059	237941		0.4905	

QC Flag Legend

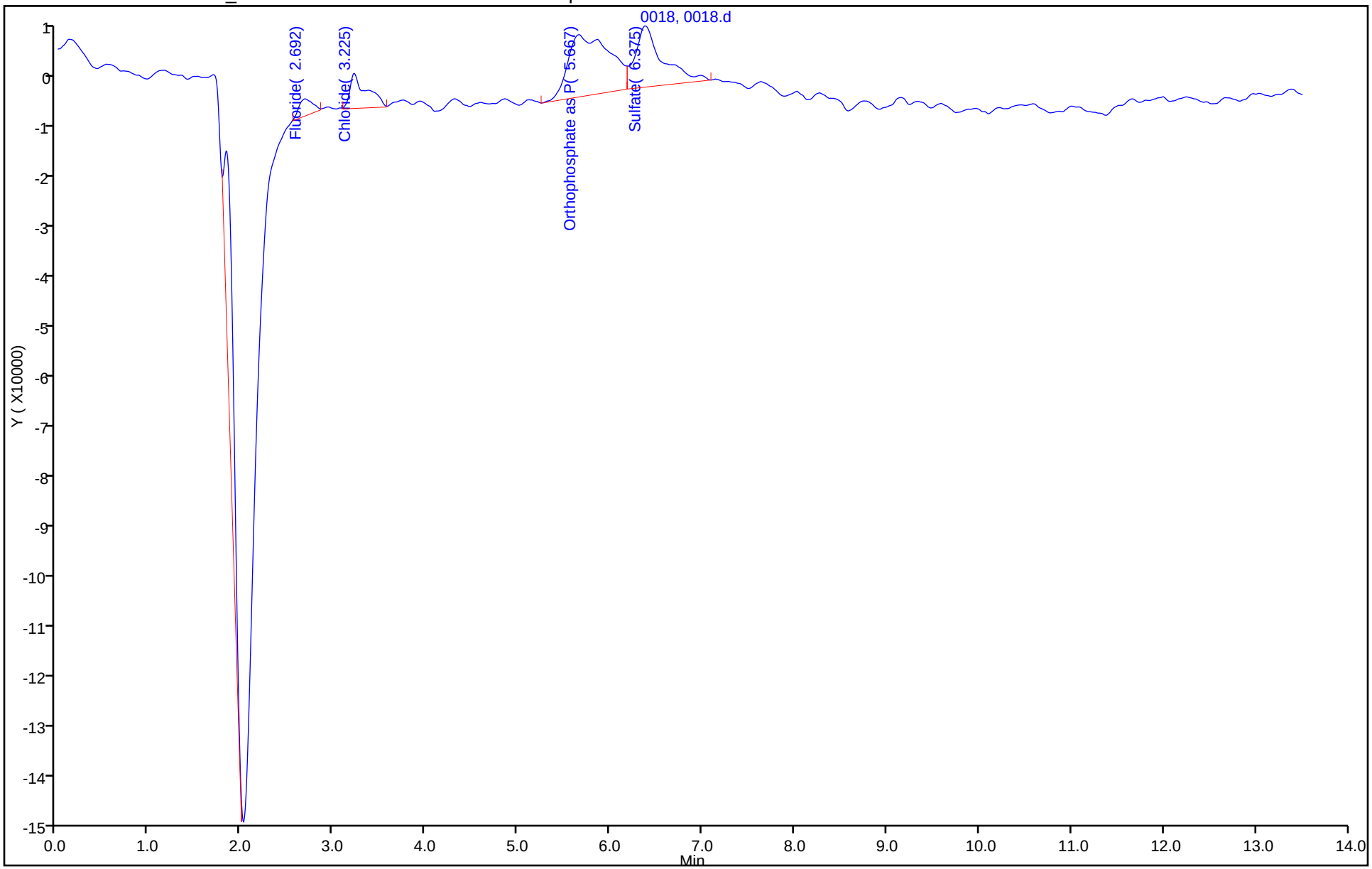
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:09:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d

Injection Date:	17-May-2019 21:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

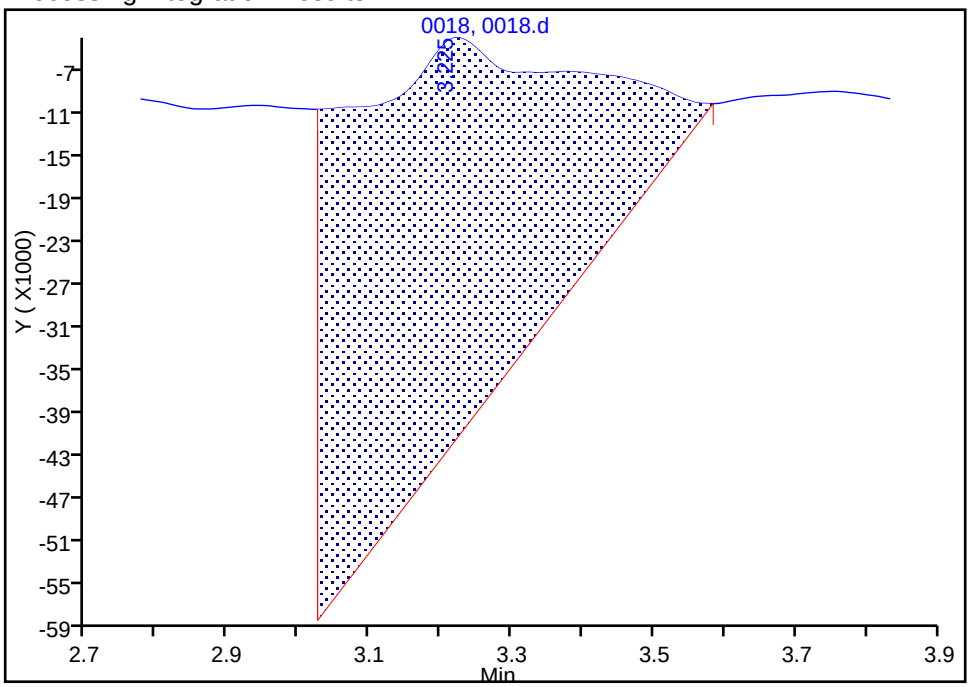
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0018.d				
Injection Date:	17-May-2019 21:30:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ccb				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

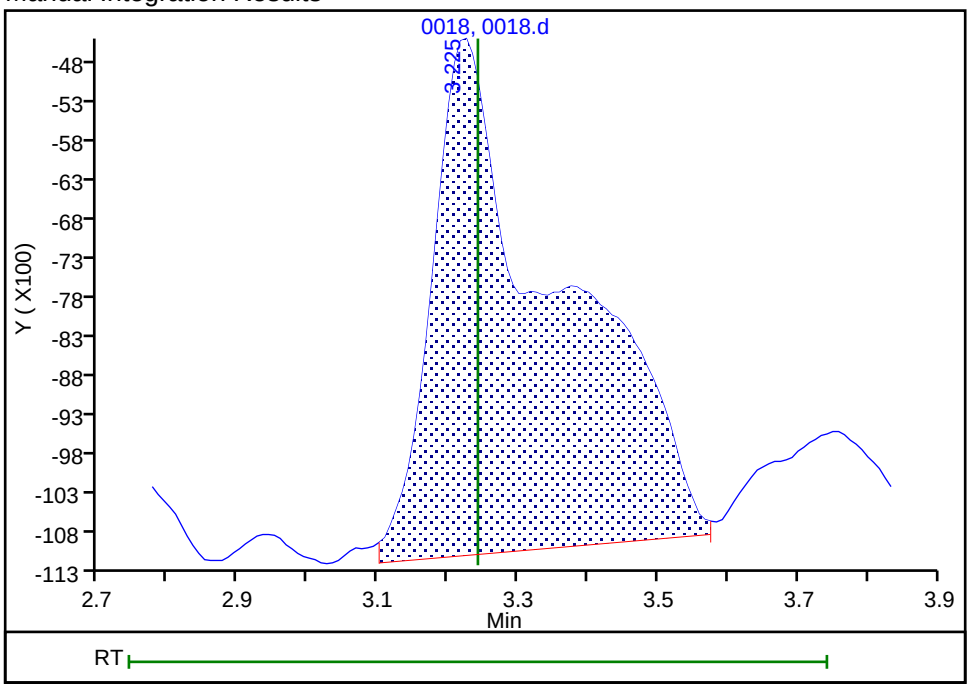
Processing Integration Results

RT: 3.23
Area: 878883
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.23
Area: 83529
Amount: 0.629610
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 07:56:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	18-May-2019 03:31:00	ALS Bottle#:	0	Worklist Smp#:	40
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-040				
Misc. Info.:	12043 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	20-May-2019 08:09:56	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	34148076	NC	NC	
2 Chloride	3.234	3.242	-0.008	630538189	NC	NC	
3 Nitrite as N	3.867	3.892	-0.025	49504869	5.00	4.74	
4 Bromide	4.600	4.634	-0.034	9806141	NC	NC	
5 Nitrate as N	5.150	5.200	-0.050	55299211	5.00	4.80	
7 Orthophosphate as P	5.600	5.659	-0.059	22885698	5.00	5.52	
6 Sulfate	6.392	6.434	-0.042	412076222	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

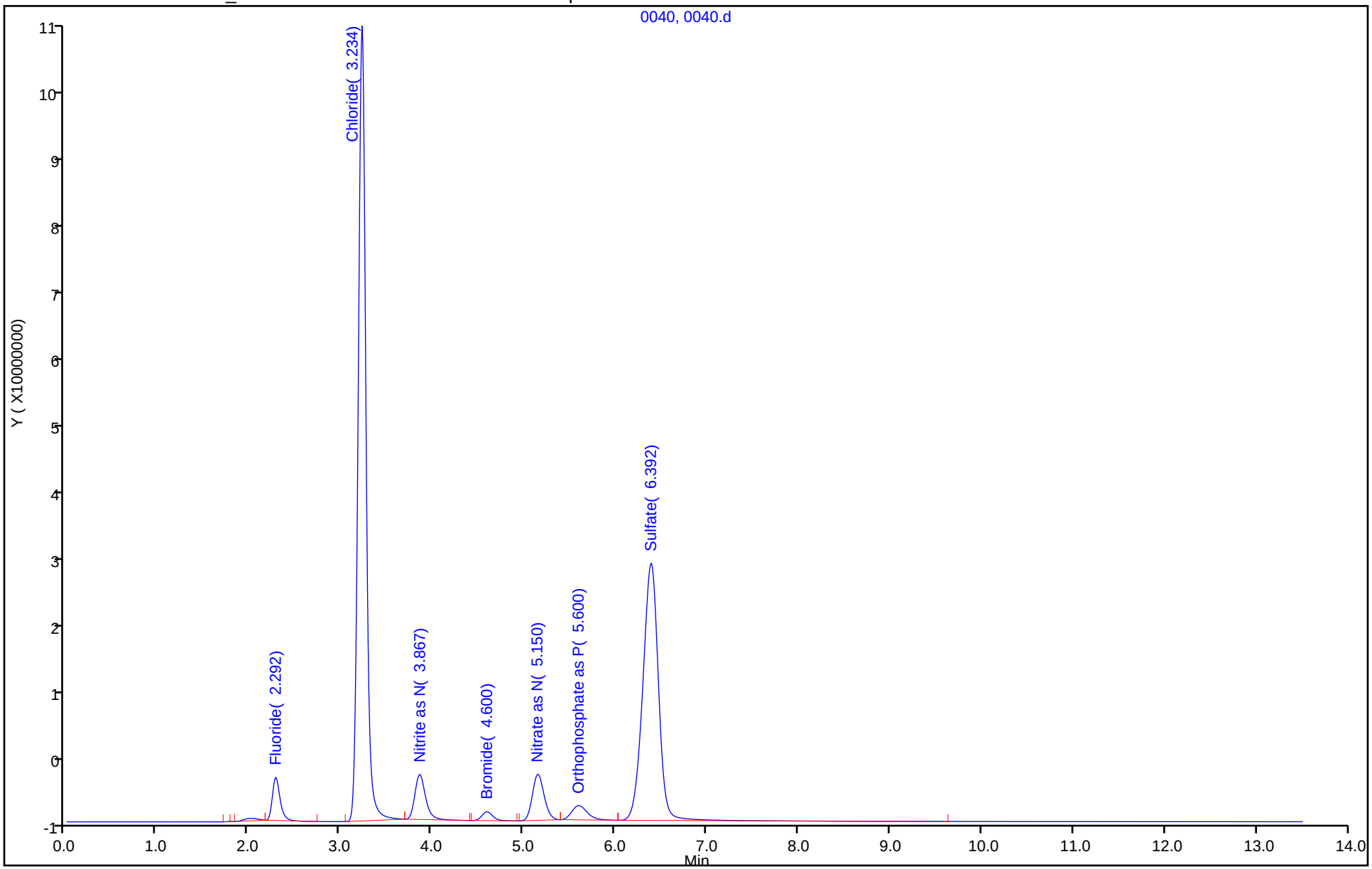
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d

Injection Date:	18-May-2019 03:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	18-May-2019 03:31:00	ALS Bottle#:	0	Worklist Smp#:	40
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-040				
Misc. Info.:	12043 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	20-May-2019 08:09:56	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	34148076	5.00	4.55	
2 Chloride	3.234	3.242	-0.008	630538189	100.0	94.4	
3 Nitrite as N	3.867	3.892	-0.025	49504869	NC	NC	
4 Bromide	4.600	4.634	-0.034	9806141	5.00	5.06	
5 Nitrate as N	5.150	5.200	-0.050	55299211	NC	NC	
7 Orthophosphate as P	5.600	5.659	-0.059	22885698	NC	NC	
6 Sulfate	6.392	6.434	-0.042	412076222	100.0	92.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

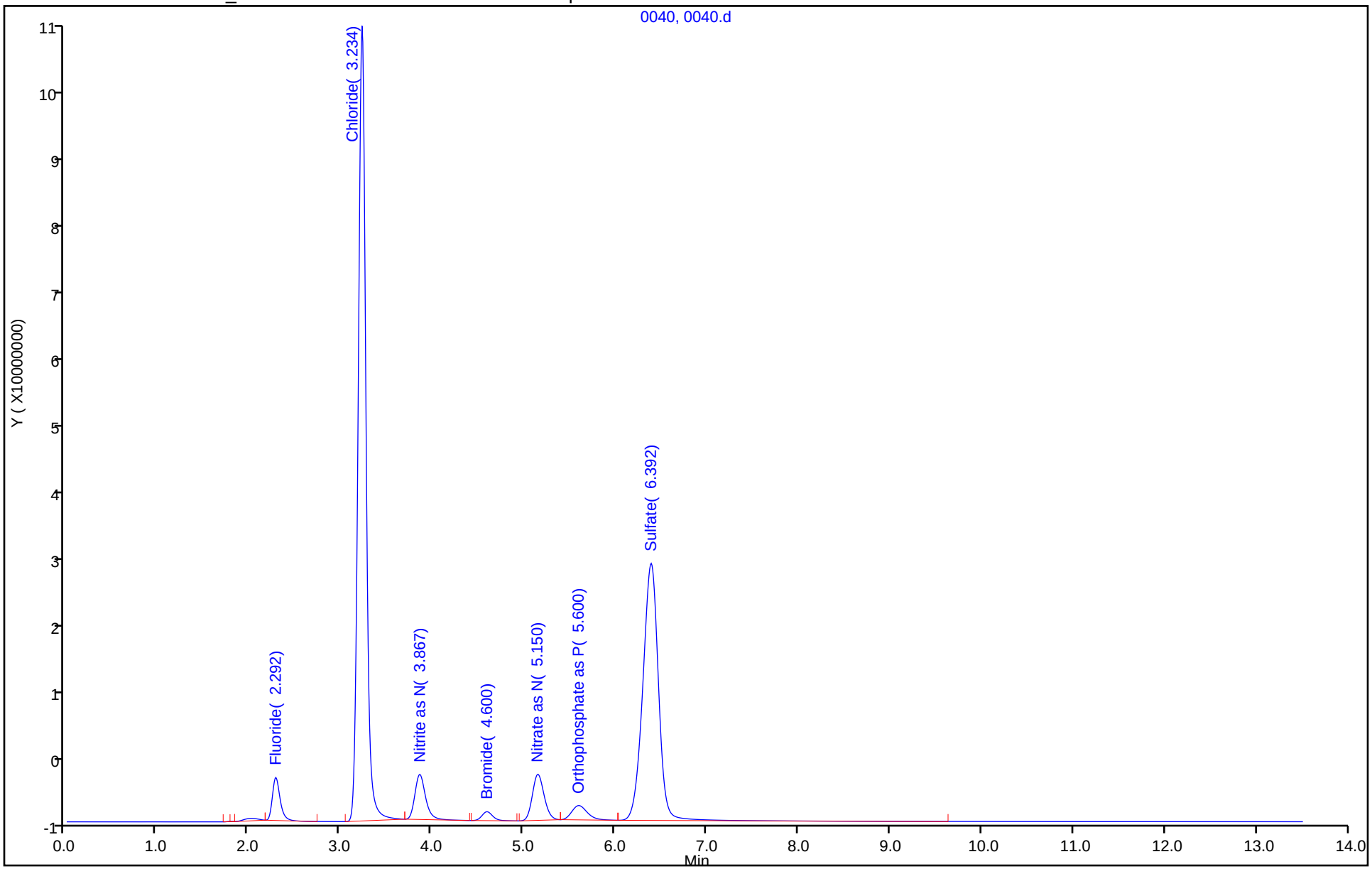
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:09:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0040.d

Injection Date:	18-May-2019 03:31:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 03:48:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-041
Misc. Info.: 31086 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	5101652		NC	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.759	5.659	0.100	537628		0.1219	
6 Sulfate		6.434				ND	

QC Flag Legend

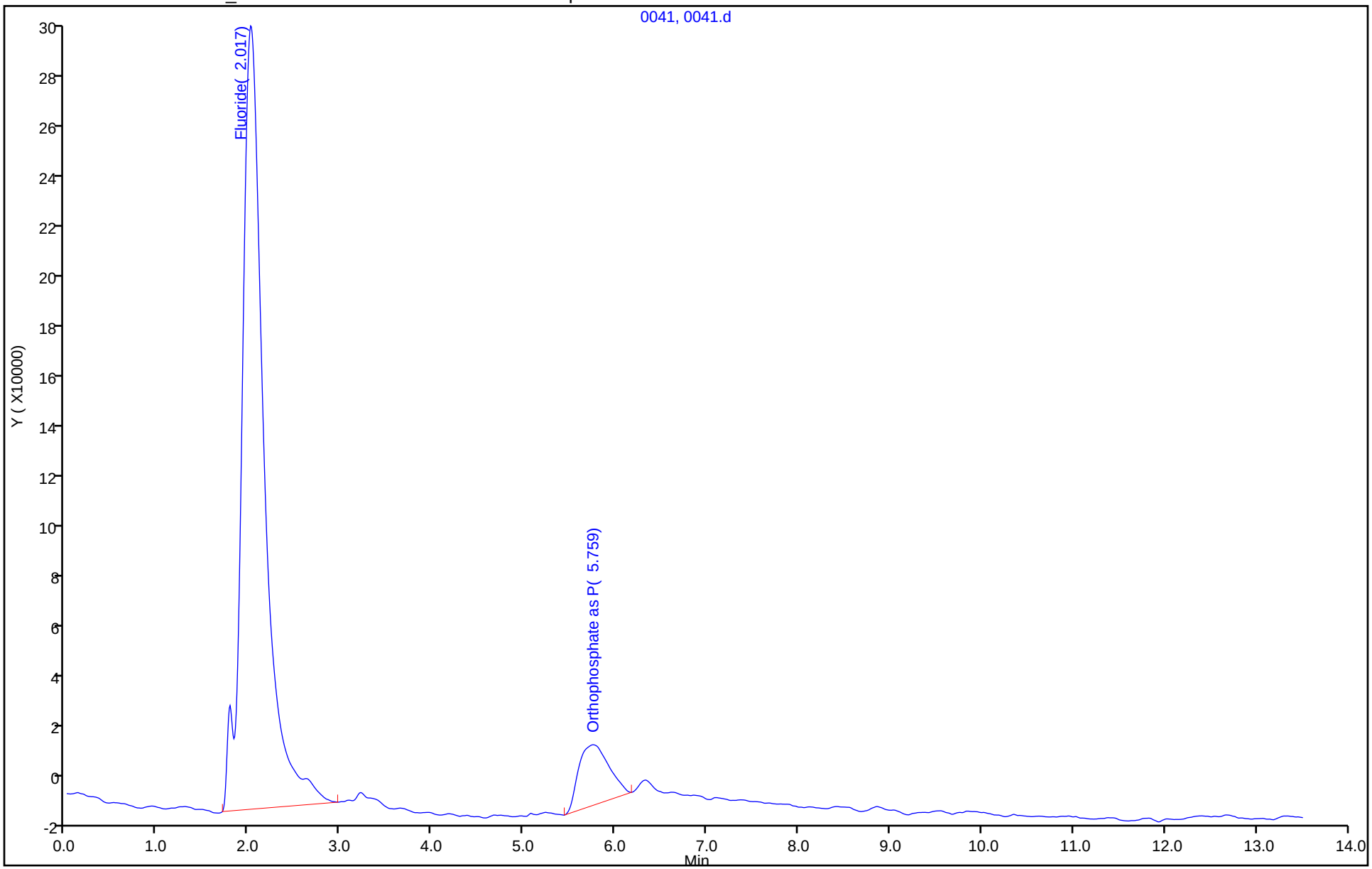
Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d

Injection Date:	18-May-2019 03:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 03:48:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-041
Misc. Info.: 31086 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	5101652		0.5487	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.759	5.659	0.100	537628		NC	
6 Sulfate		6.434				ND	

QC Flag Legend

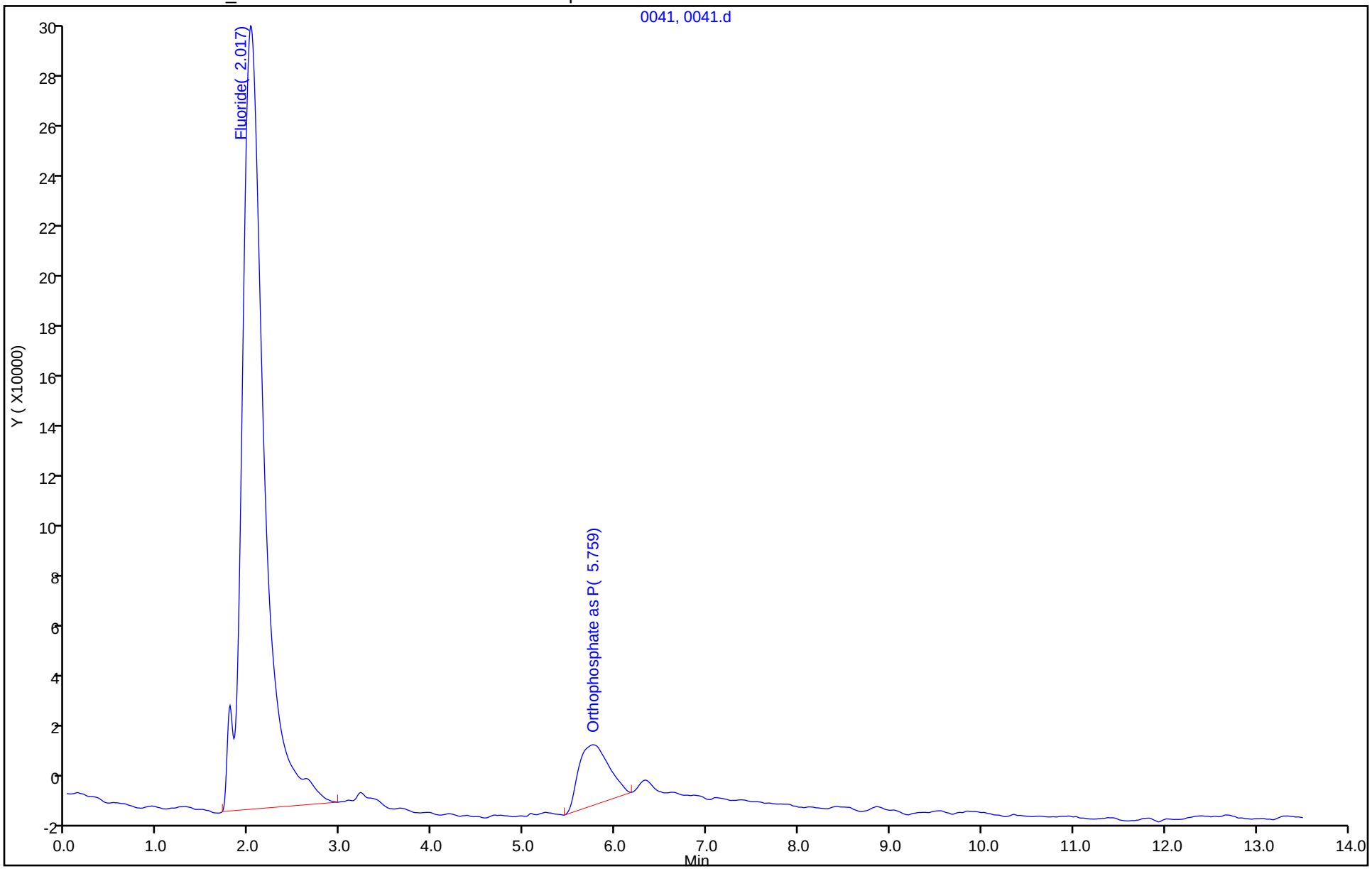
Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:09:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0041.d

Injection Date:	18-May-2019 03:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	41
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0048.d
Lims ID: 280-123924-H-1
Client ID: LF6VMW-22_0519
Sample Type: Client
Inject. Date: 18-May-2019 05:43:00 ALS Bottle#: 0 Worklist Smp#: 48
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-048
Misc. Info.: 3362 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.292	0.008	352496	NC	
2 Chloride	3.217	3.242	-0.025	27531599	NC	
3 Nitrite as N	4.100	3.892	0.208	234666	0.0475	
4 Bromide		4.634			ND	
5 Nitrate as N	5.175	5.200	-0.025	6944206	0.6361	
7 Orthophosphate as P	5.734	5.659	0.075	1377154	0.3246	
6 Sulfate	6.367	6.434	-0.067	35185248	NC	

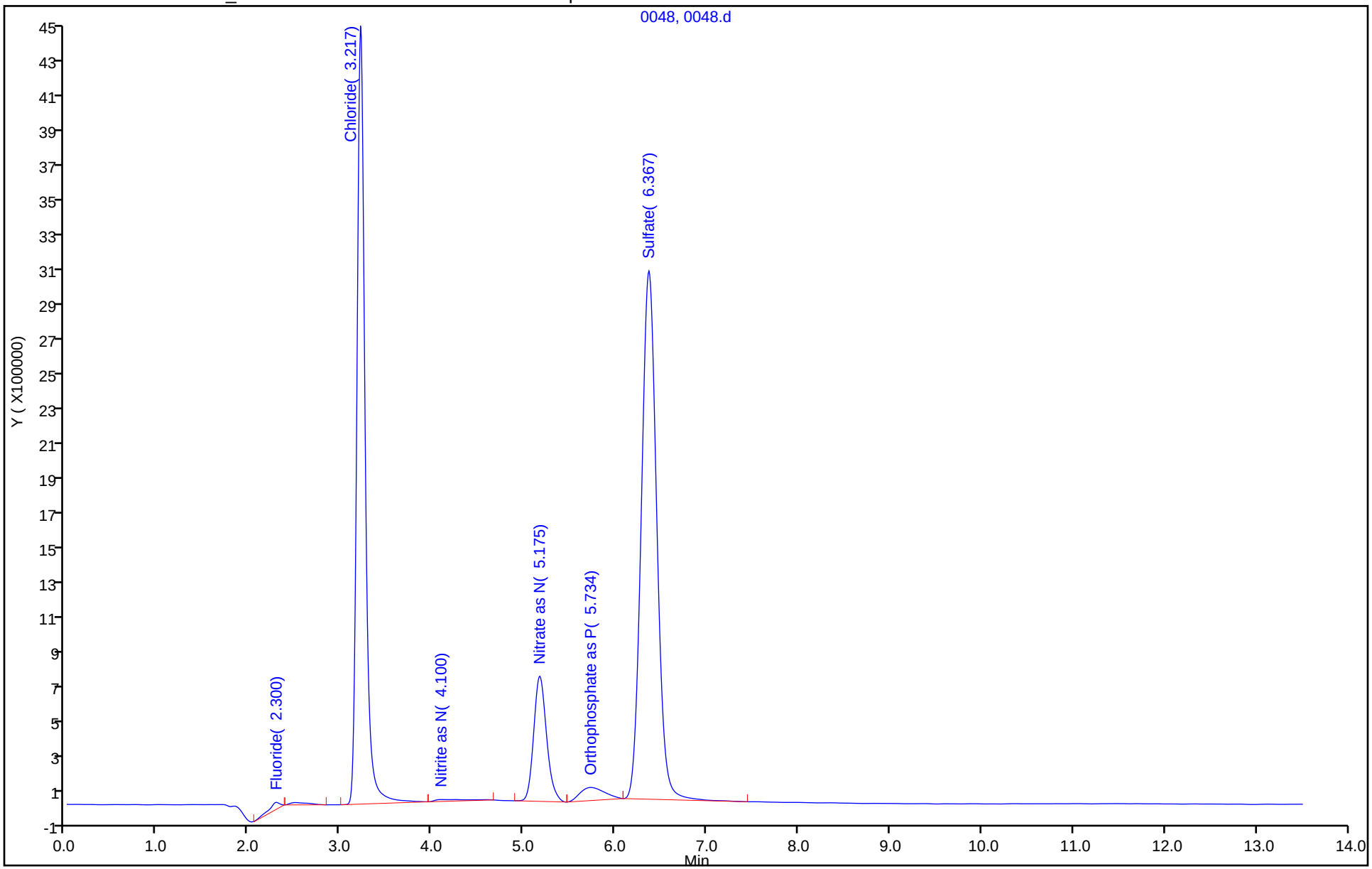
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:10:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0048.d				
Injection Date:	18-May-2019 05:43:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-1	Lab Sample ID:	280-123924-1	Worklist Smp#:	48
Client ID:	LF6VMW-22_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0048.d
Lims ID: 280-123924-H-1
Client ID: LF6VMW-22_0519
Sample Type: Client
Inject. Date: 18-May-2019 05:43:00 ALS Bottle#: 0 Worklist Smp#: 48
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-048
Misc. Info.: 3362 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.300	2.292	0.008	352496	-0.1060	
2 Chloride	3.217	3.242	-0.025	27531599	4.71	
3 Nitrite as N	4.100	3.892	0.208	234666	NC	
4 Bromide		4.634			ND	
5 Nitrate as N	5.175	5.200	-0.025	6944206	NC	
7 Orthophosphate as P	5.734	5.659	0.075	1377154	NC	
6 Sulfate	6.367	6.434	-0.067	35185248	8.30	

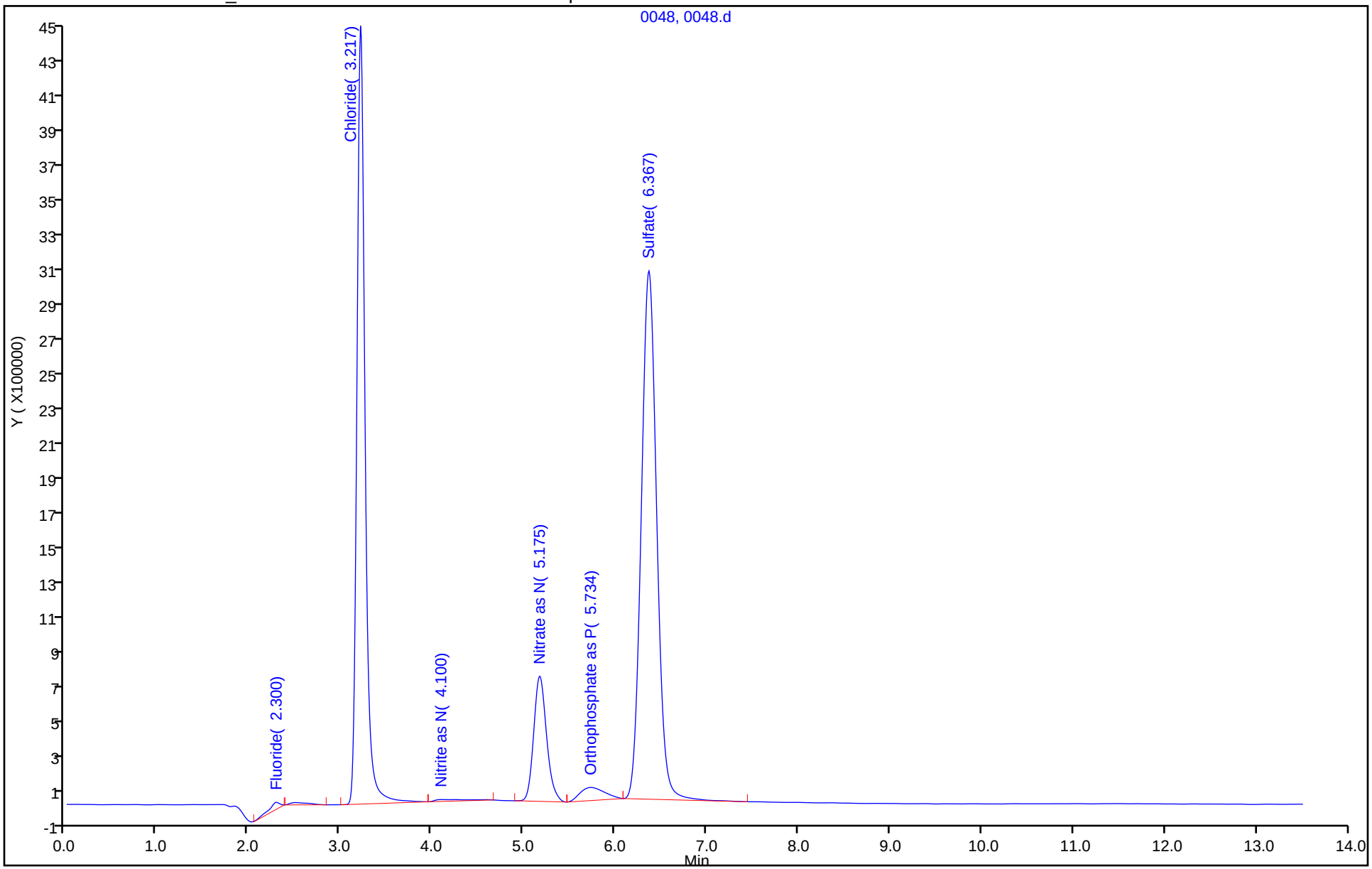
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:10:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0048.d				
Injection Date:	18-May-2019 05:43:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-1	Lab Sample ID:	280-123924-1	Worklist Smp#:	48
Client ID:	LF6VMW-22_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0049.d
Lims ID: 280-123924-J-3
Client ID: LF6VMW-26_0519
Sample Type: Client
Inject. Date: 18-May-2019 05:59:00 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-049
Misc. Info.: 12149 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	206124	NC	
2 Chloride	3.242	3.242	0.000	1121120402	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.592	4.634	-0.042	4010047	NC	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.684	5.659	0.025	2200192	0.5233	
6 Sulfate	6.384	6.434	-0.050	105141379	NC	

QC Flag Legend

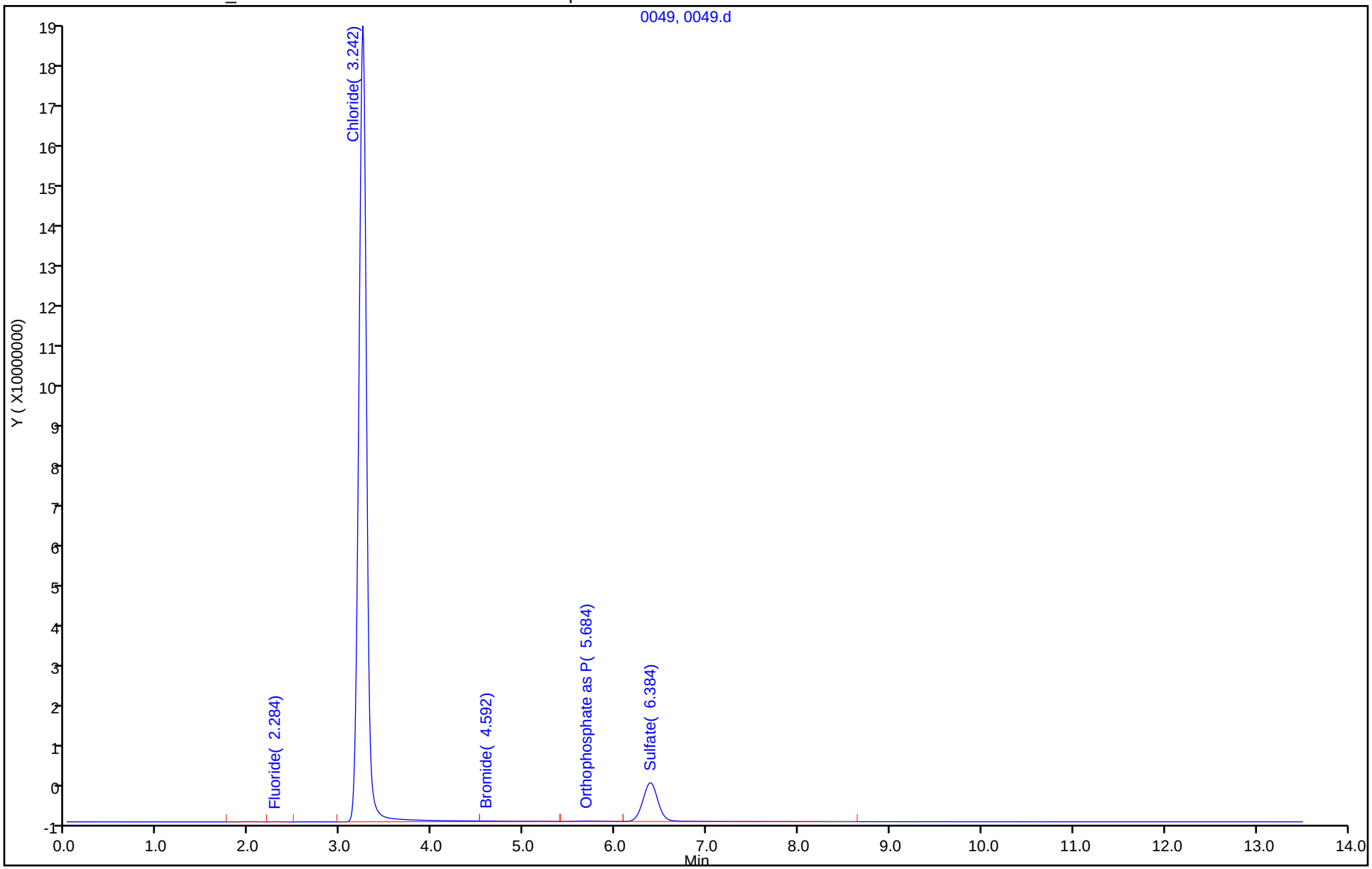
Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:10:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0049.d

Injection Date:	18-May-2019 05:59:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-3	Lab Sample ID:	280-123924-3	Worklist Smp#:	49
Client ID:	LF6VMW-26_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0049.d
Lims ID: 280-123924-J-3
Client ID: LF6VMW-26_0519
Sample Type: Client
Inject. Date: 18-May-2019 05:59:00 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-049
Misc. Info.: 12149 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	206124	-0.1262	
2 Chloride	3.242	3.242	0.000	1121120402	167.3	
3 Nitrite as N		3.892			ND	
4 Bromide	4.592	4.634	-0.042	4010047	2.08	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.684	5.659	0.025	2200192	NC	
6 Sulfate	6.384	6.434	-0.050	105141379	23.9	

QC Flag Legend

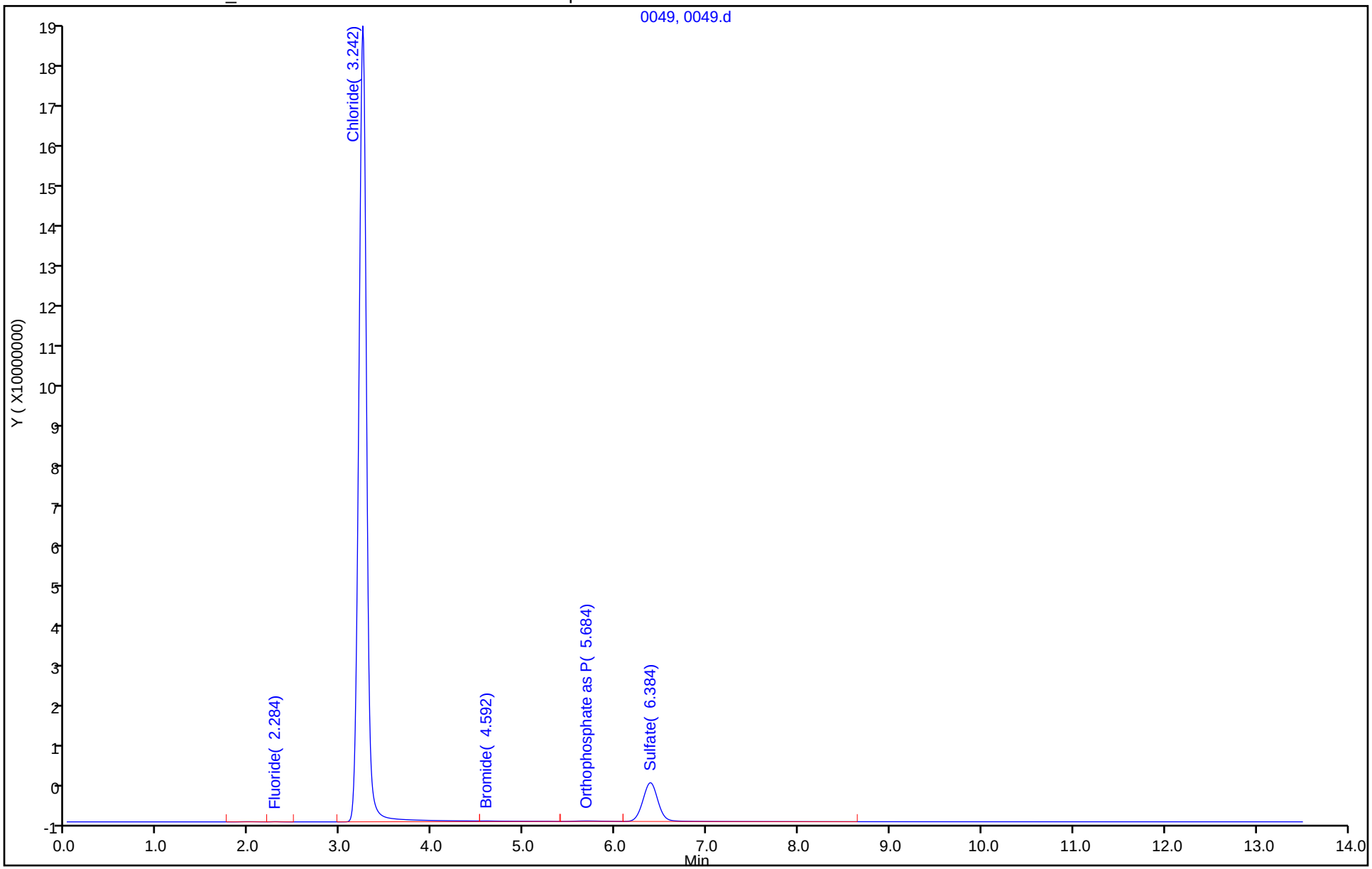
Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:10:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0049.d

Injection Date:	18-May-2019 05:59:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-3	Lab Sample ID:	280-123924-3	Worklist Smp#:	49
Client ID:	LF6VMW-26_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0051.d
Lims ID: 280-123924-J-2
Client ID: LF6VMW-10R2_0519
Sample Type: Client
Inject. Date: 18-May-2019 06:32:00 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-051
Misc. Info.: 8914 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:03:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.292	0.009	180068	NC	M
2 Chloride	3.217	3.242	-0.025	22671161	NC	M
3 Nitrite as N		3.892			ND	U
4 Bromide		4.634			ND	U
5 Nitrate as N	5.167	5.200	-0.033	7135646	0.6526	M
7 Orthophosphate as P	5.759	5.659	0.100	1100501	0.2578	
6 Sulfate	6.367	6.434	-0.067	42884757	NC	

QC Flag Legend

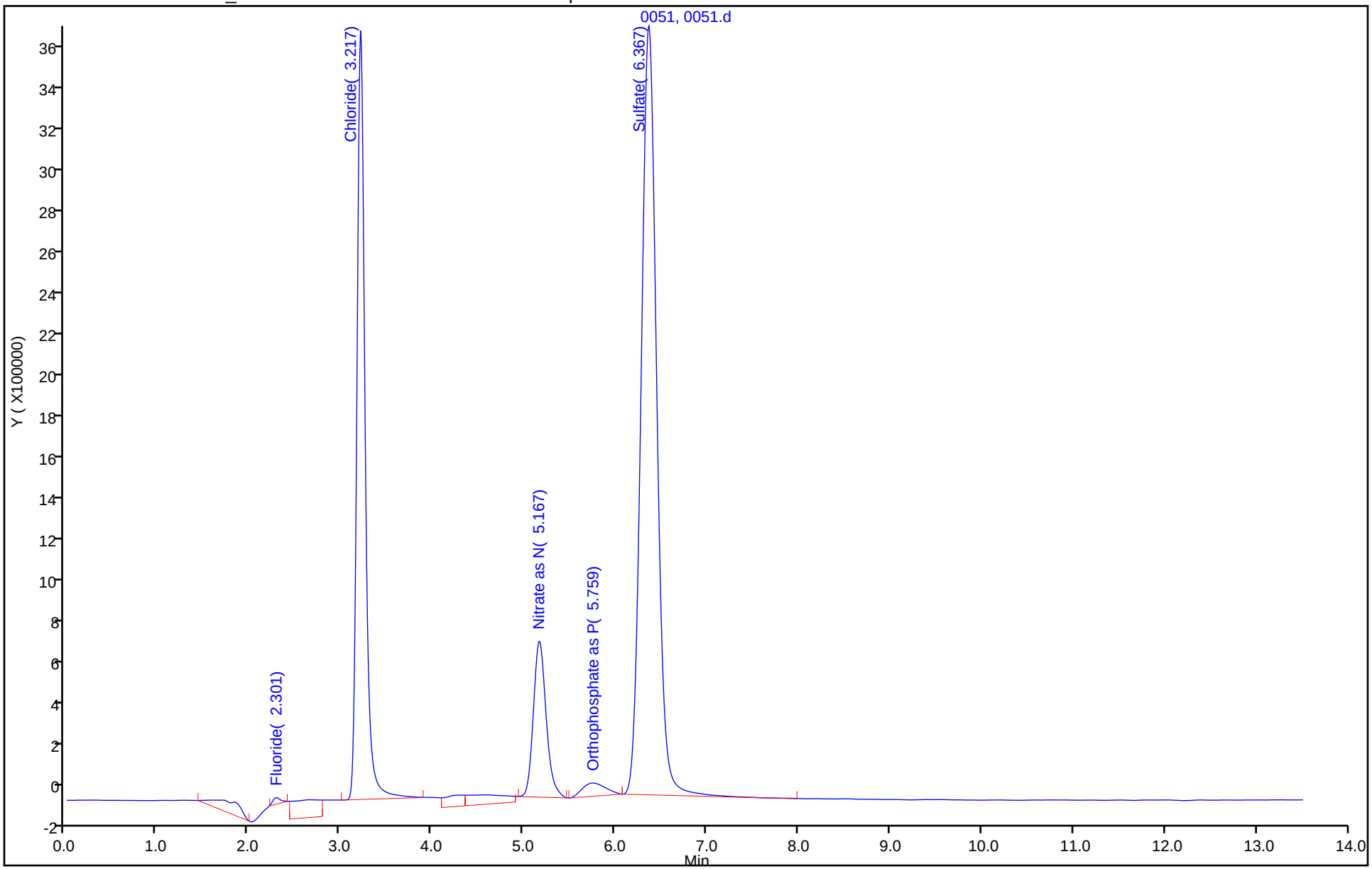
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 20-May-2019 08:10:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0051.d

Injection Date:	18-May-2019 06:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-2	Lab Sample ID:	280-123924-2	Worklist Smp#:	51
Client ID:	LF6VMW-10R2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

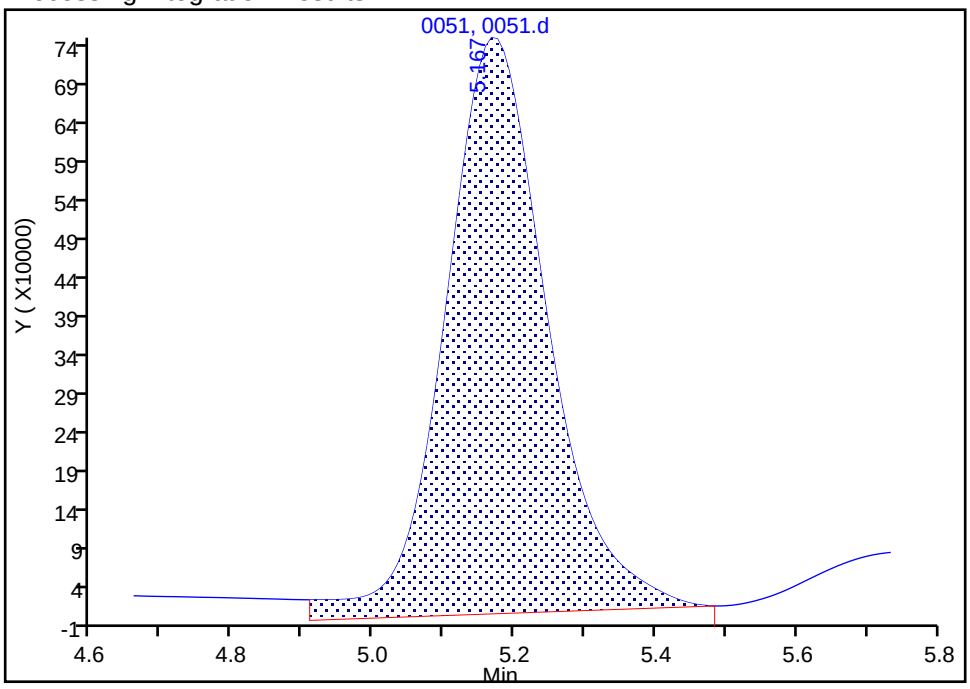
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0051.d				
Injection Date:	18-May-2019 06:32:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-J-2	Lab Sample ID:	280-123924-2		
Client ID:	LF6VMW-10R2_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	51
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

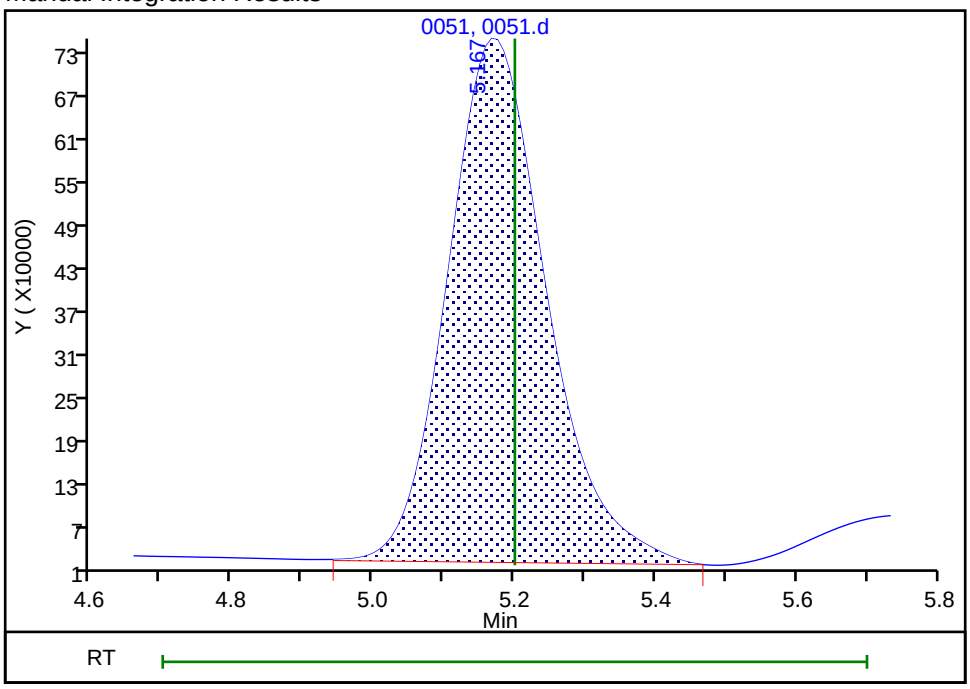
Processing Integration Results

RT: 5.17
Area: 7591011
Amount: 0.691830
Amount Units: ug/ml



Manual Integration Results

RT: 5.17
Area: 7135646
Amount: 0.652622
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:03:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

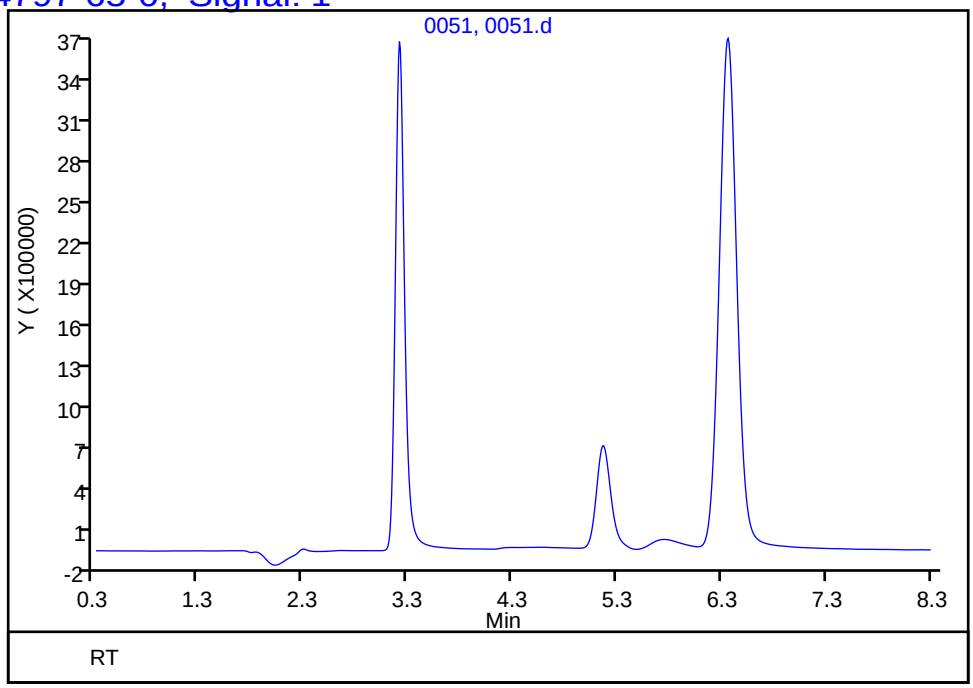
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0051.d				
Injection Date:	18-May-2019 06:32:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-J-2	Lab Sample ID:	280-123924-2		
Client ID:	LF6VMW-10R2_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	51
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

3 Nitrite as N, CAS: 14797-65-0, Signal: 1

RT: 4.31
Response: 774398
Amount: 0.098981



Reviewer: pedrickj, 20-May-2019 08:03:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0051.d
Lims ID: 280-123924-J-2
Client ID: LF6VMW-10R2_0519
Sample Type: Client
Inject. Date: 18-May-2019 06:32:00 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-051
Misc. Info.: 8914 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:09:56 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:03:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.301	2.292	0.009	180068	-0.1298	M
2 Chloride	3.217	3.242	-0.025	22671161	3.99	M
3 Nitrite as N		3.892			ND	U
4 Bromide		4.634			ND	U
5 Nitrate as N	5.167	5.200	-0.033	7135646	NC	M
7 Orthophosphate as P	5.759	5.659	0.100	1100501	NC	
6 Sulfate	6.367	6.434	-0.067	42884757	10.0	

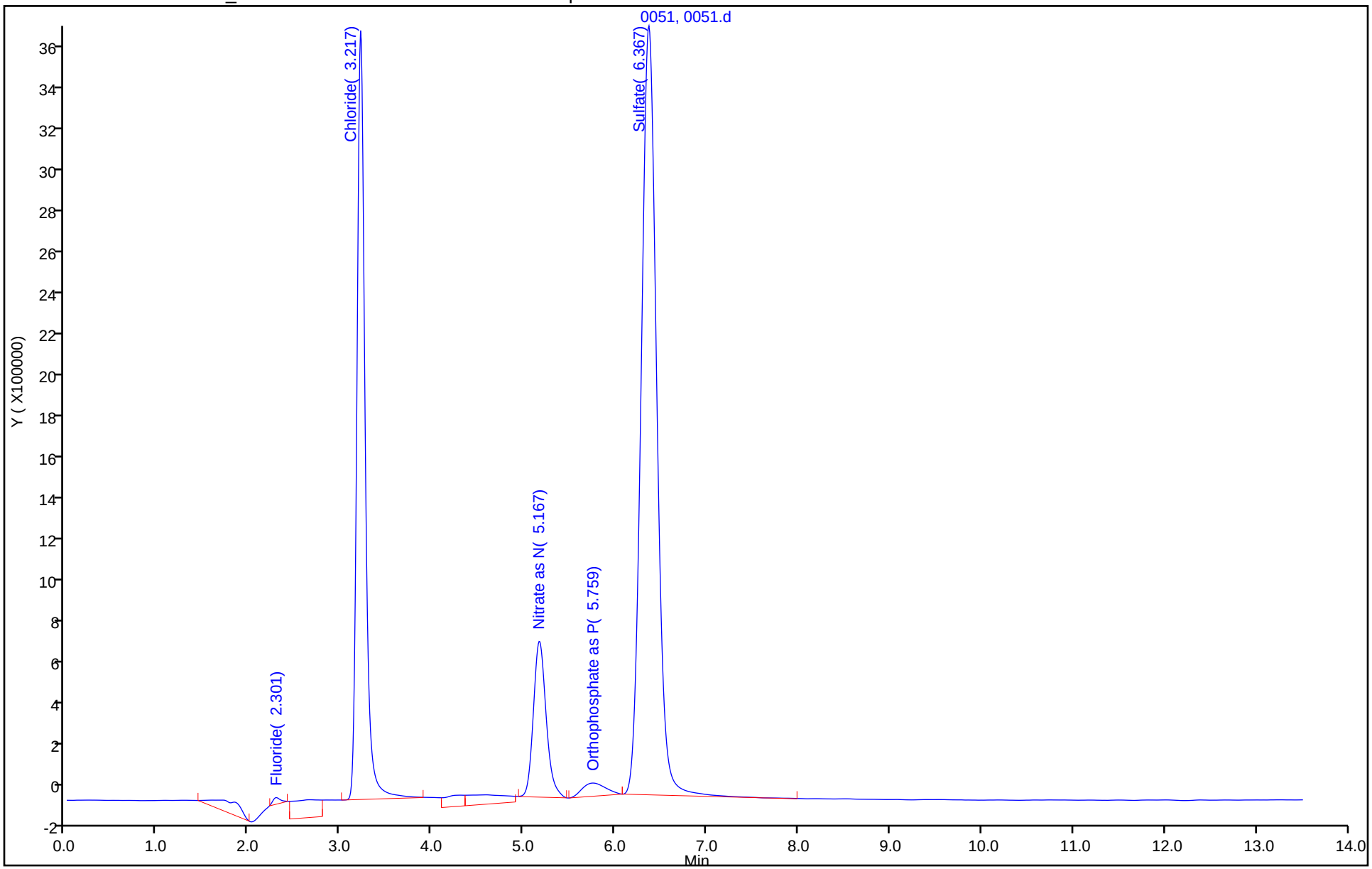
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 20-May-2019 08:10:05 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0051.d				
Injection Date:	18-May-2019 06:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-2	Lab Sample ID:	280-123924-2	Worklist Smp#:	51
Client ID:	LF6VMW-10R2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



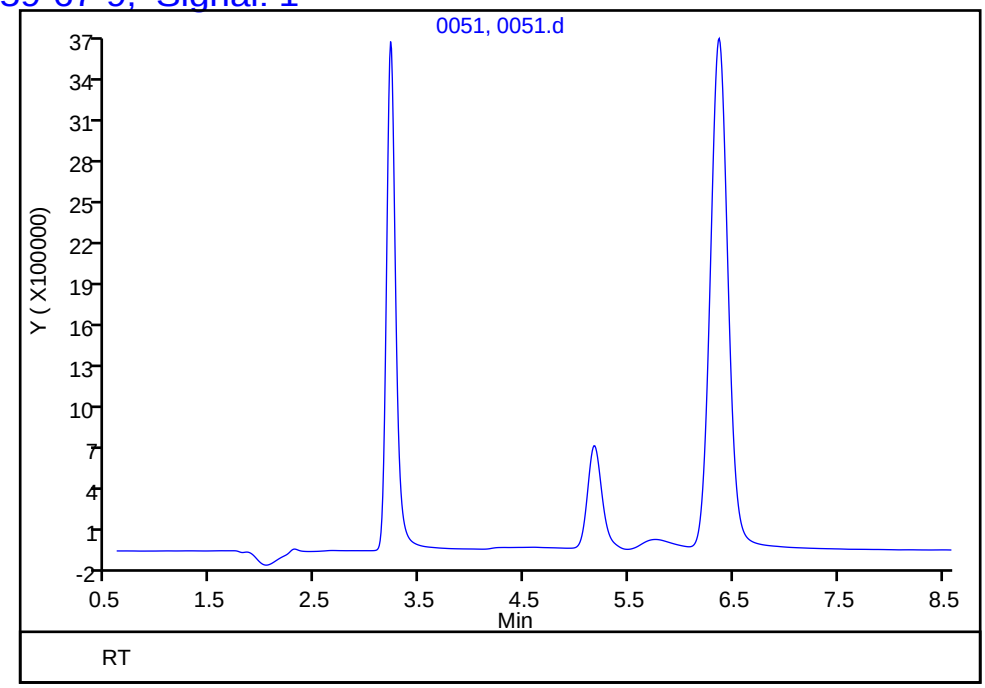
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0051.d				
Injection Date:	18-May-2019 06:32:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-J-2	Lab Sample ID:	280-123924-2		
Client ID:	LF6VMW-10R2_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	51
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

4 Bromide, CAS: 24959-67-9, Signal: 1

RT: 4.59
Response: 1324029
Amount: 0



Reviewer: pedrickj, 20-May-2019 08:03:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

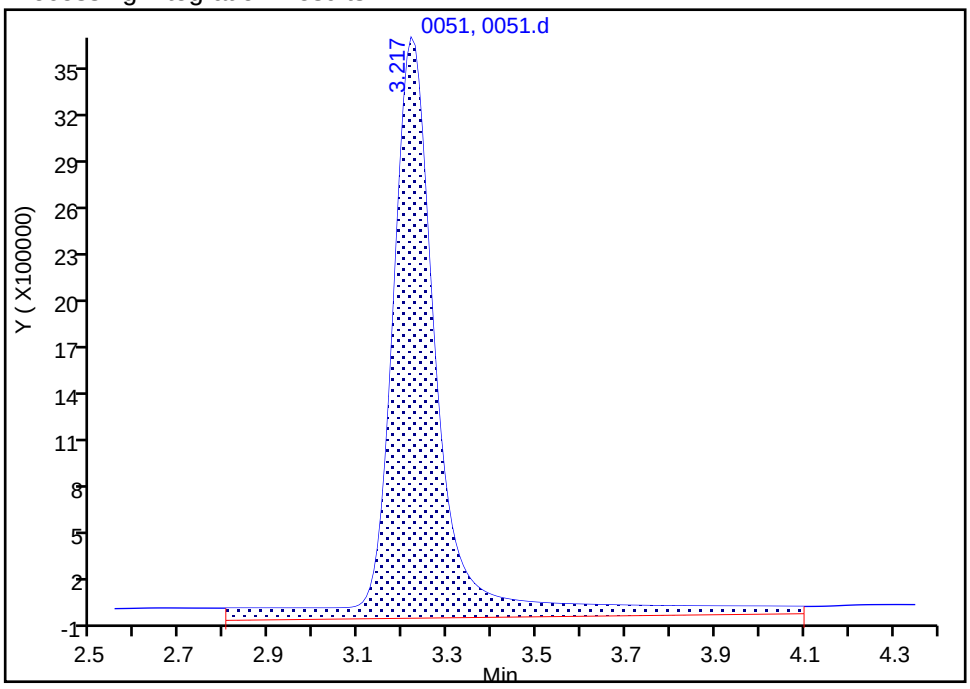
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0051.d				
Injection Date:	18-May-2019 06:32:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-J-2	Lab Sample ID:	280-123924-2		
Client ID:	LF6VMW-10R2_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	51
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

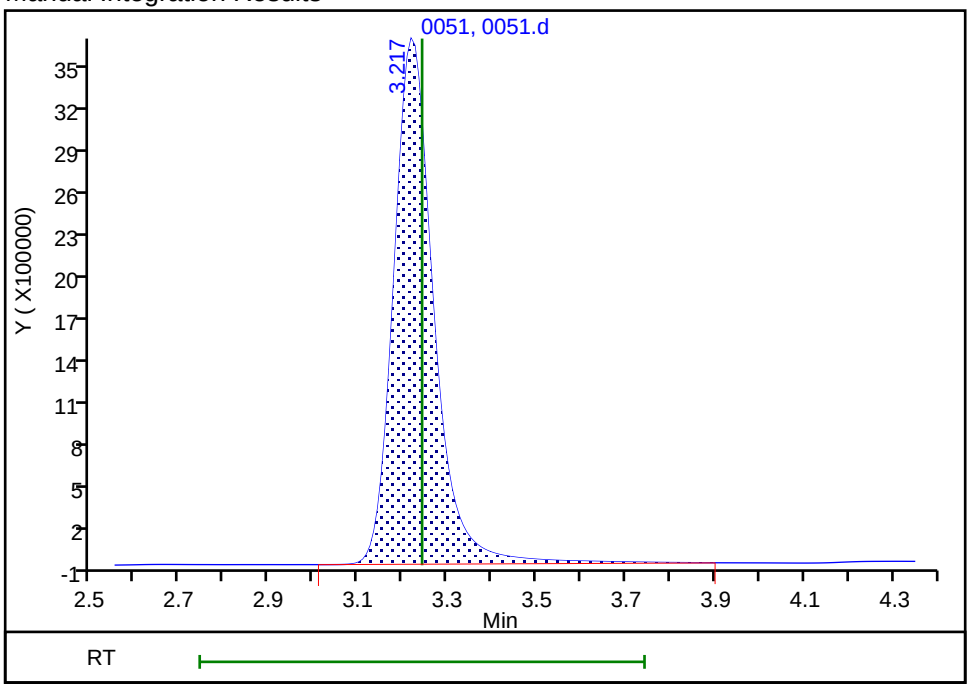
Processing Integration Results

RT: 3.22
Area: 27537611
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.22
Area: 22671161
Amount: 3.988819
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:03:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0052.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	18-May-2019 06:48:00	ALS Bottle#:	0	Worklist Smp#:	52
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082000-052				
Misc. Info.:	19644 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	20-May-2019 08:10:05	Calib Date:	15-May-2019 18:54:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0312				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37226261	NC	NC	
2 Chloride	3.234	3.242	-0.008	653178767	NC	NC	
3 Nitrite as N	3.859	3.892	-0.033	51138250	5.00	4.90	
4 Bromide	4.592	4.634	-0.042	10111016	NC	NC	
5 Nitrate as N	5.151	5.200	-0.049	57204907	5.00	4.96	
7 Orthophosphate as P	5.601	5.659	-0.058	23147997	5.00	5.58	
6 Sulfate	6.392	6.434	-0.042	425268869	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

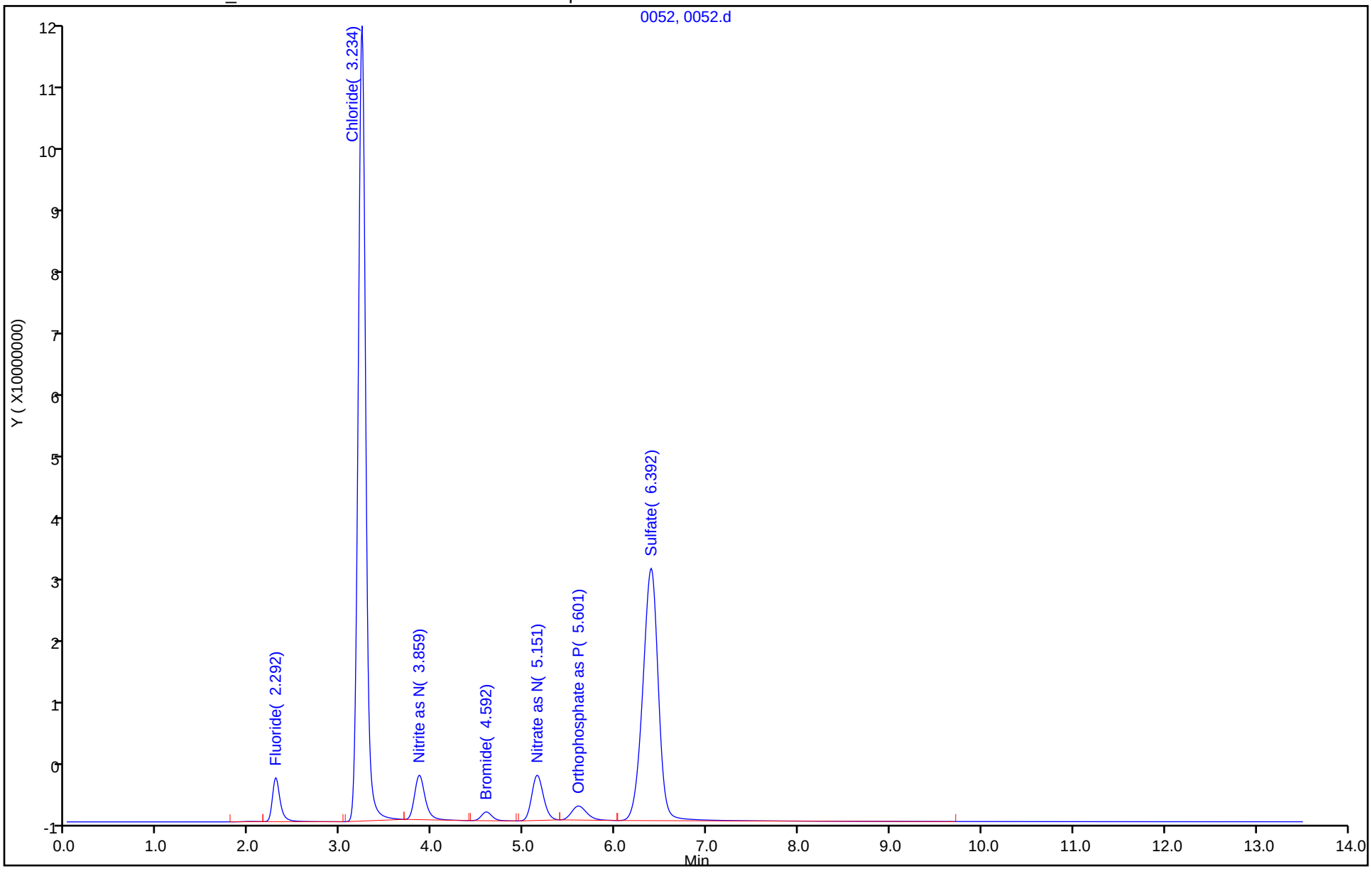
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:10:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0052.d

Injection Date:	18-May-2019 06:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	52
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0052.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 06:48:00 ALS Bottle#: 0 Worklist Smp#: 52
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-052
Misc. Info.: 19644 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	37226261	5.00	4.98	
2 Chloride	3.234	3.242	-0.008	653178767	100.0	97.8	
3 Nitrite as N	3.859	3.892	-0.033	51138250	NC	NC	
4 Bromide	4.592	4.634	-0.042	10111016	5.00	5.22	
5 Nitrate as N	5.151	5.200	-0.049	57204907	NC	NC	
7 Orthophosphate as P	5.601	5.659	-0.058	23147997	NC	NC	
6 Sulfate	6.392	6.434	-0.042	425268869	100.0	95.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

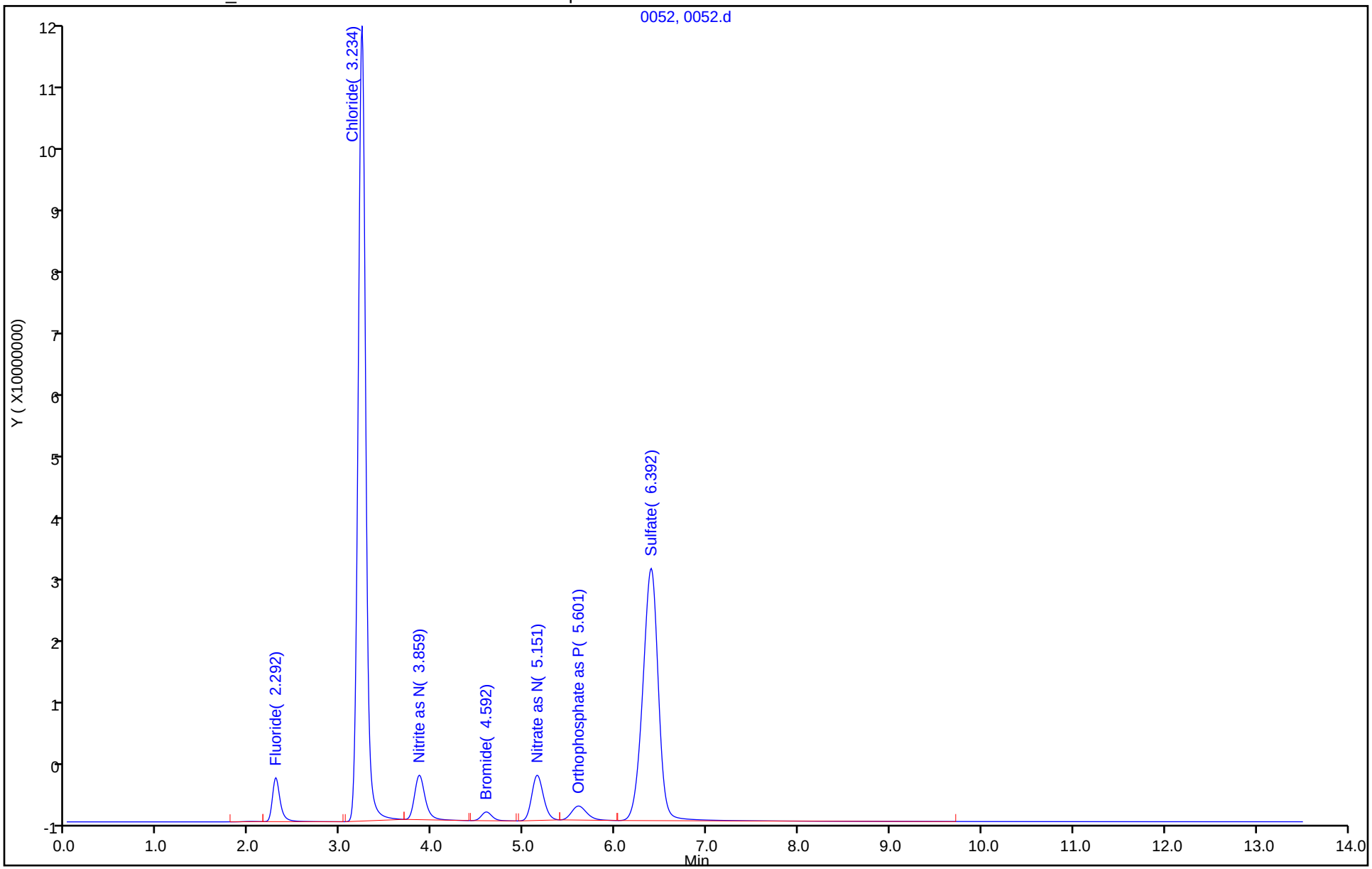
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:10:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0052.d

Injection Date:	18-May-2019 06:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	52
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0053.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 07:05:00 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-053
Misc. Info.: 26797 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:03:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.659	2.292	0.367	26611		NC	M
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.825	5.659	0.166	561408		0.1277	
6 Sulfate	6.375	6.434	-0.059	189440		NC	

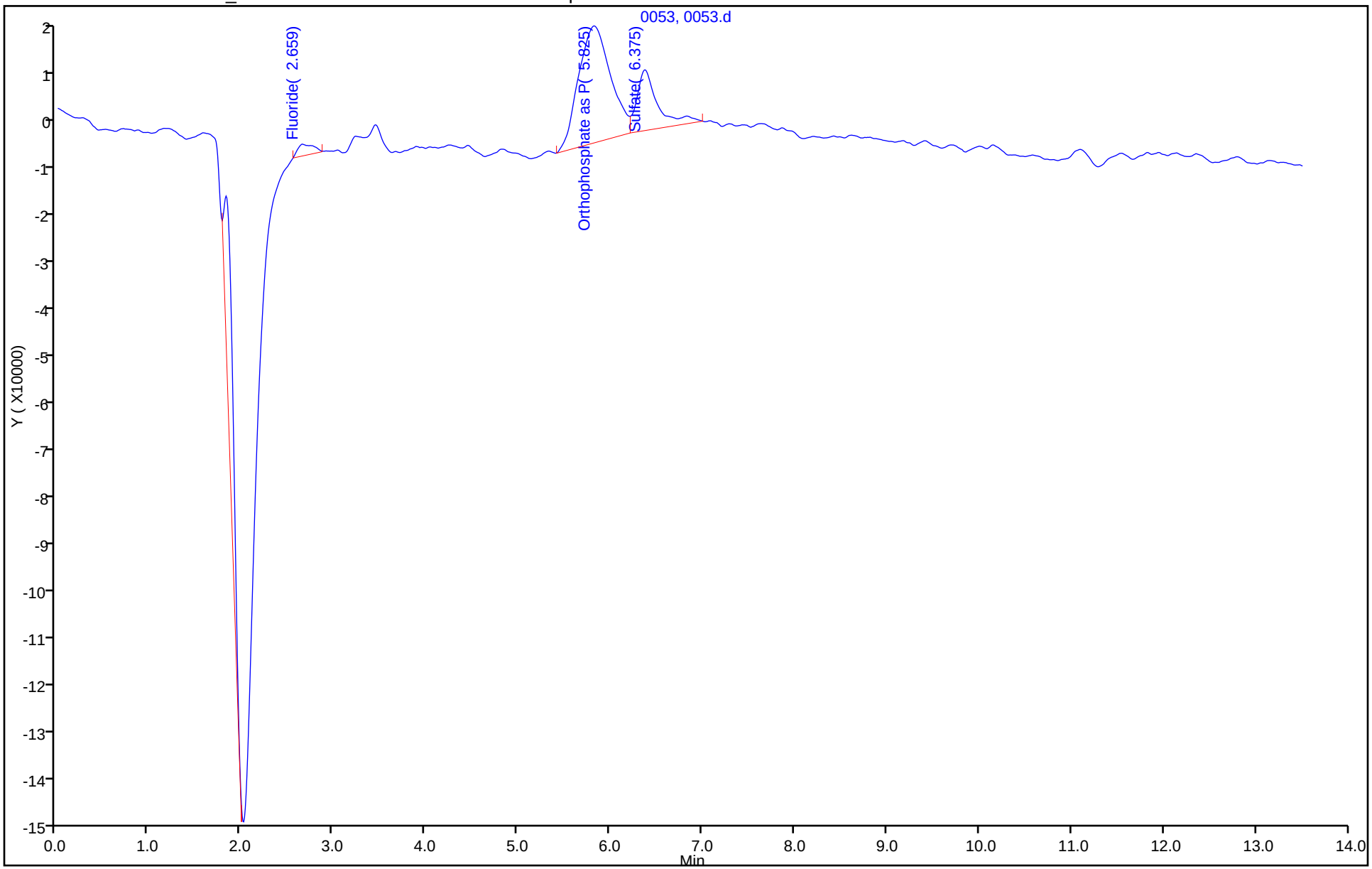
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:10:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0053.d				
Injection Date:	18-May-2019 07:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	53
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0053.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 07:05:00 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-053
Misc. Info.: 26797 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:03:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.659	2.292	0.367	26611		-0.1509	M
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P	5.825	5.659	0.166	561408		NC	
6 Sulfate	6.375	6.434	-0.059	189440		0.4797	

QC Flag Legend

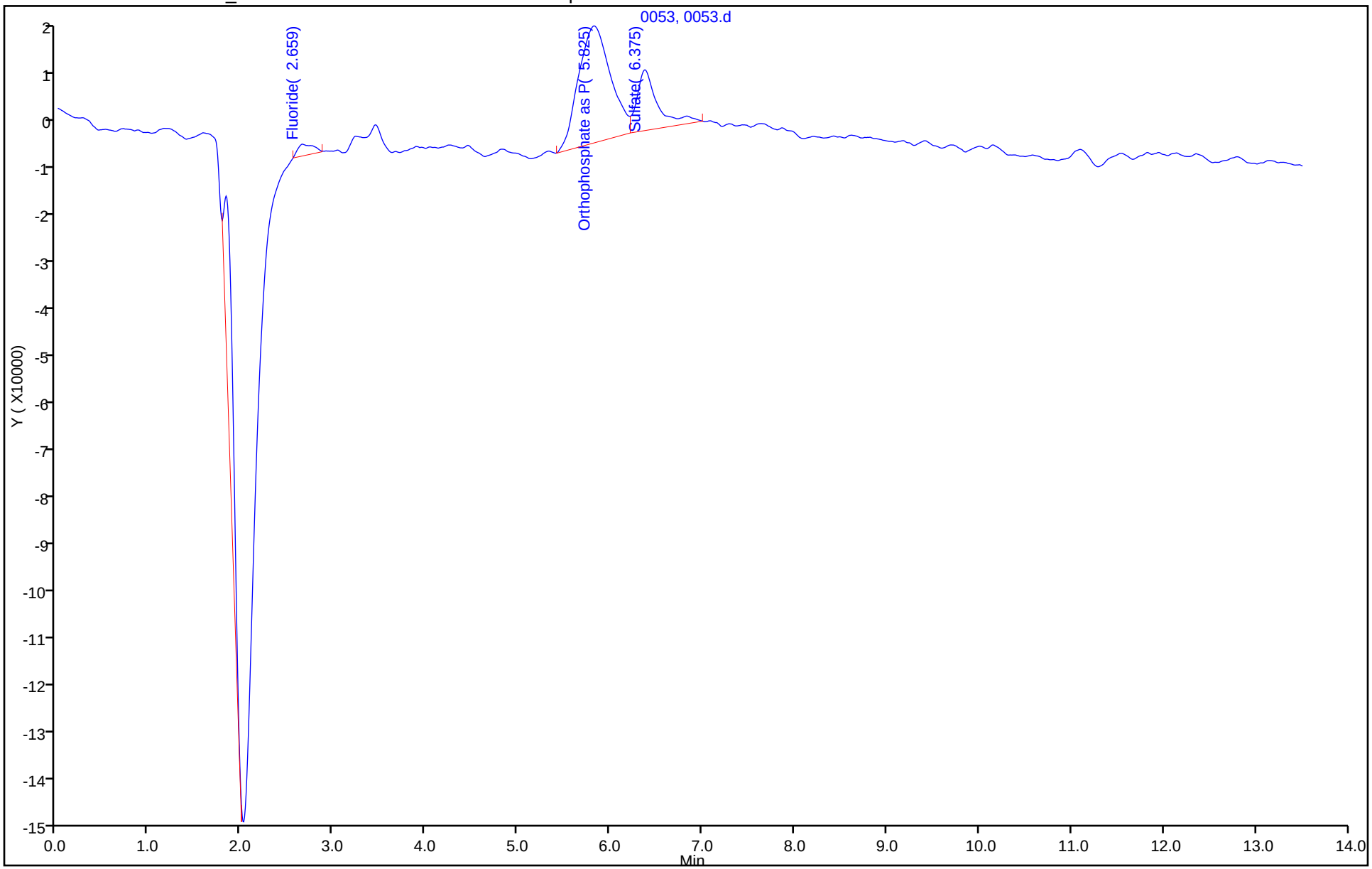
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:10:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0053.d

Injection Date:	18-May-2019 07:05:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	53
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0054.d
Lims ID: 280-123924-J-2 DU
Client ID:
Sample Type: DU
Inject. Date: 18-May-2019 07:21:00 ALS Bottle#: 0 Worklist Smp#: 54
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-054
Misc. Info.: 13370 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	5318510		NC	
2 Chloride	3.217	3.242	-0.025	21614644		NC	
3 Nitrite as N		3.892				ND	
4 Bromide	4.600	4.634	-0.034	109909		NC	
5 Nitrate as N	5.167	5.200	-0.033	6744153		0.6189	
7 Orthophosphate as P	5.734	5.659	0.075	1148768		0.2695	
6 Sulfate	6.359	6.434	-0.075	40806243		NC	

QC Flag Legend

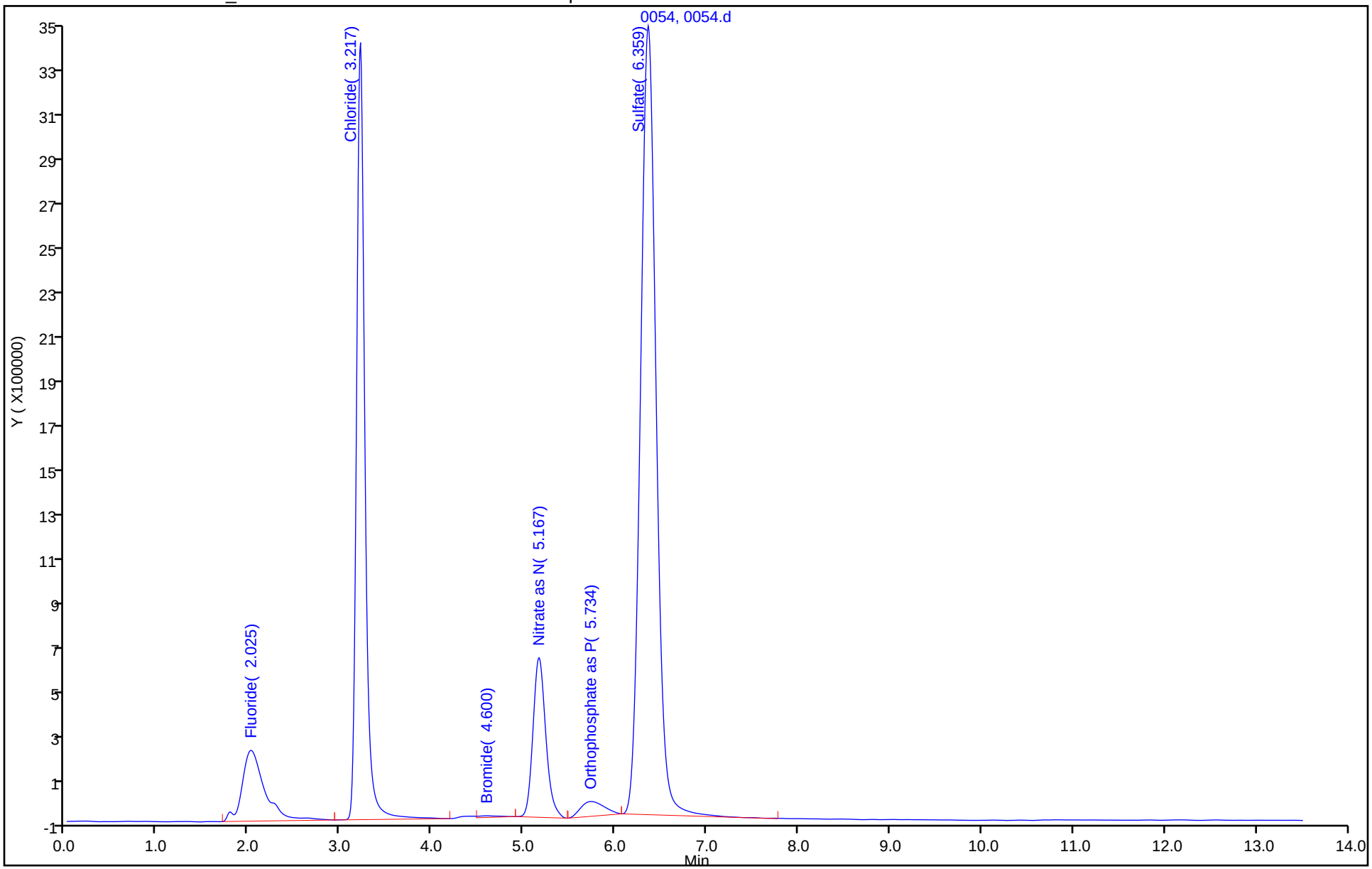
Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:10:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0054.d

Injection Date:	18-May-2019 07:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-2 DU			Worklist Smp#:	54
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0054.d
Lims ID: 280-123924-J-2 DU
Client ID:
Sample Type: DU
Inject. Date: 18-May-2019 07:21:00 ALS Bottle#: 0 Worklist Smp#: 54
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-054
Misc. Info.: 13370 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.292	-0.267	5318510		0.5786	
2 Chloride	3.217	3.242	-0.025	21614644		3.83	
3 Nitrite as N		3.892				ND	
4 Bromide	4.600	4.634	-0.034	109909		0.0643	
5 Nitrate as N	5.167	5.200	-0.033	6744153		NC	
7 Orthophosphate as P	5.734	5.659	0.075	1148768		NC	
6 Sulfate	6.359	6.434	-0.075	40806243		9.56	

QC Flag Legend

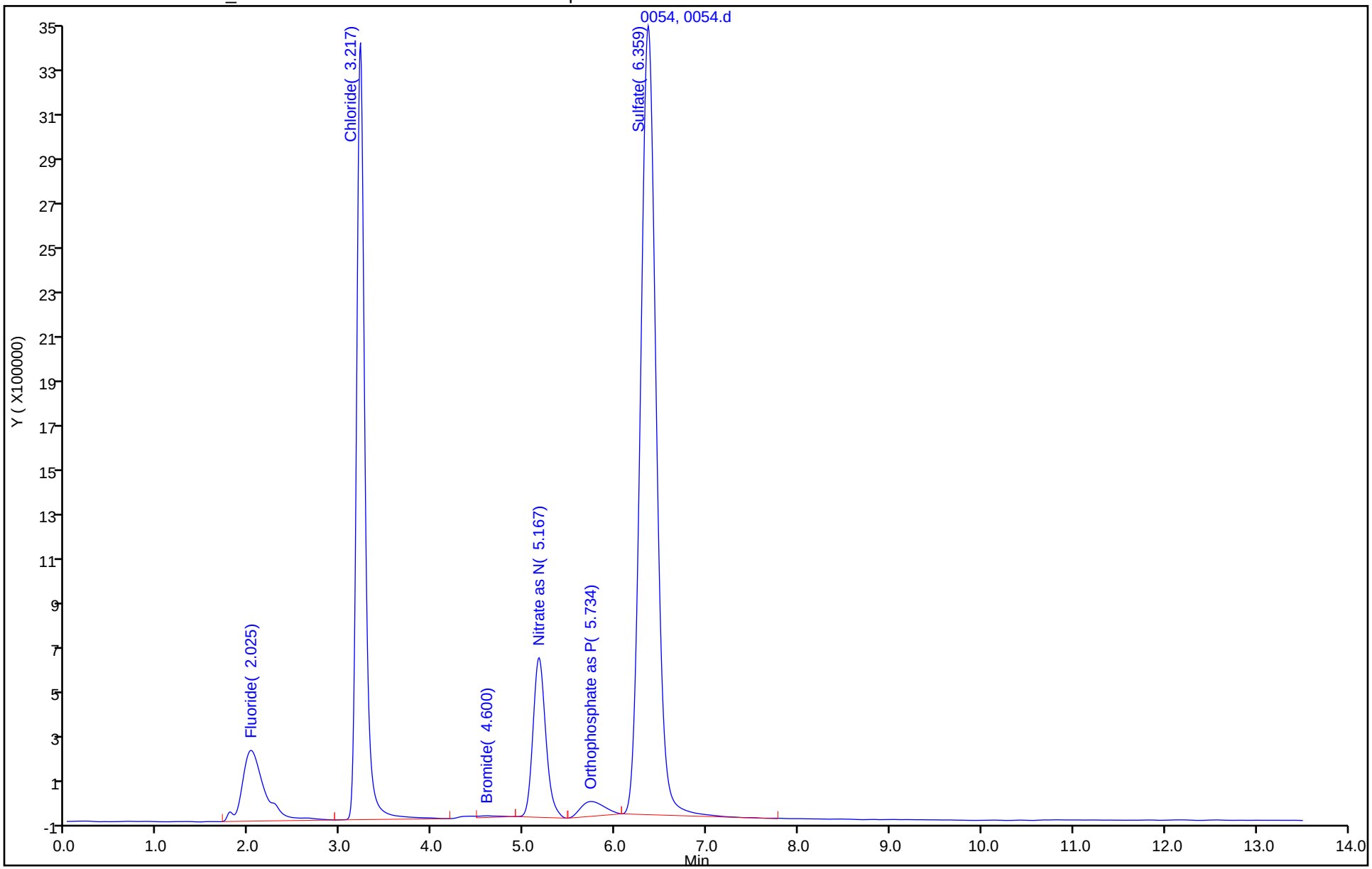
Processing Flags
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Report Date: 20-May-2019 08:10:07 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0054.d

Injection Date:	18-May-2019 07:21:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-2 DU			Worklist Smp#:	54
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0055.d
Lims ID: 280-123924-J-2 MS
Client ID:
Sample Type: MS
Inject. Date: 18-May-2019 07:38:00 ALS Bottle#: 0 Worklist Smp#: 55
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-055
Misc. Info.: 28198 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	34008548	NC	NC	
2 Chloride	3.217	3.242	-0.025	162340581	NC	NC	
3 Nitrite as N	3.859	3.892	-0.033	50671447	5.00	4.85	
4 Bromide	4.592	4.634	-0.042	10002221	NC	NC	
5 Nitrate as N	5.150	5.200	-0.050	64718742	5.00	5.61	
7 Orthophosphate as P	5.650	5.659	-0.009	22005744	5.00	5.30	
6 Sulfate	6.375	6.434	-0.059	139869993	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

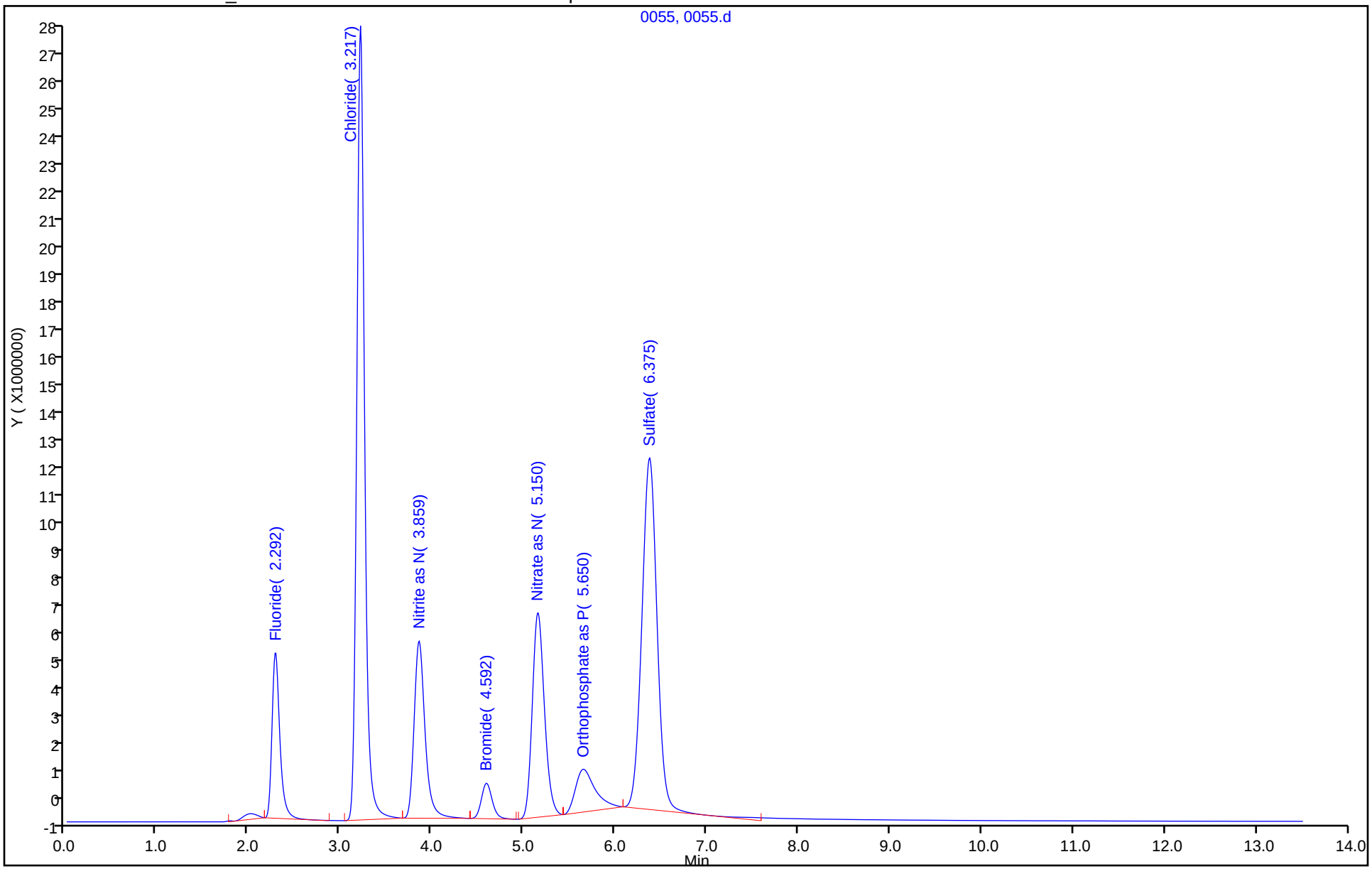
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 20-May-2019 08:10:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0055.d

Injection Date:	18-May-2019 07:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-2 MS			Worklist Smp#:	55
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0055.d
Lims ID: 280-123924-J-2 MS
Client ID:
Sample Type: MS
Inject. Date: 18-May-2019 07:38:00 ALS Bottle#: 0 Worklist Smp#: 55
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-055
Misc. Info.: 28198 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	34008548	5.00	4.53	
2 Chloride	3.217	3.242	-0.025	162340581	25.0	24.8	
3 Nitrite as N	3.859	3.892	-0.033	50671447	NC	NC	
4 Bromide	4.592	4.634	-0.042	10002221	5.00	5.17	
5 Nitrate as N	5.150	5.200	-0.050	64718742	NC	NC	
7 Orthophosphate as P	5.650	5.659	-0.009	22005744	NC	NC	
6 Sulfate	6.375	6.434	-0.059	139869993	25.0	31.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

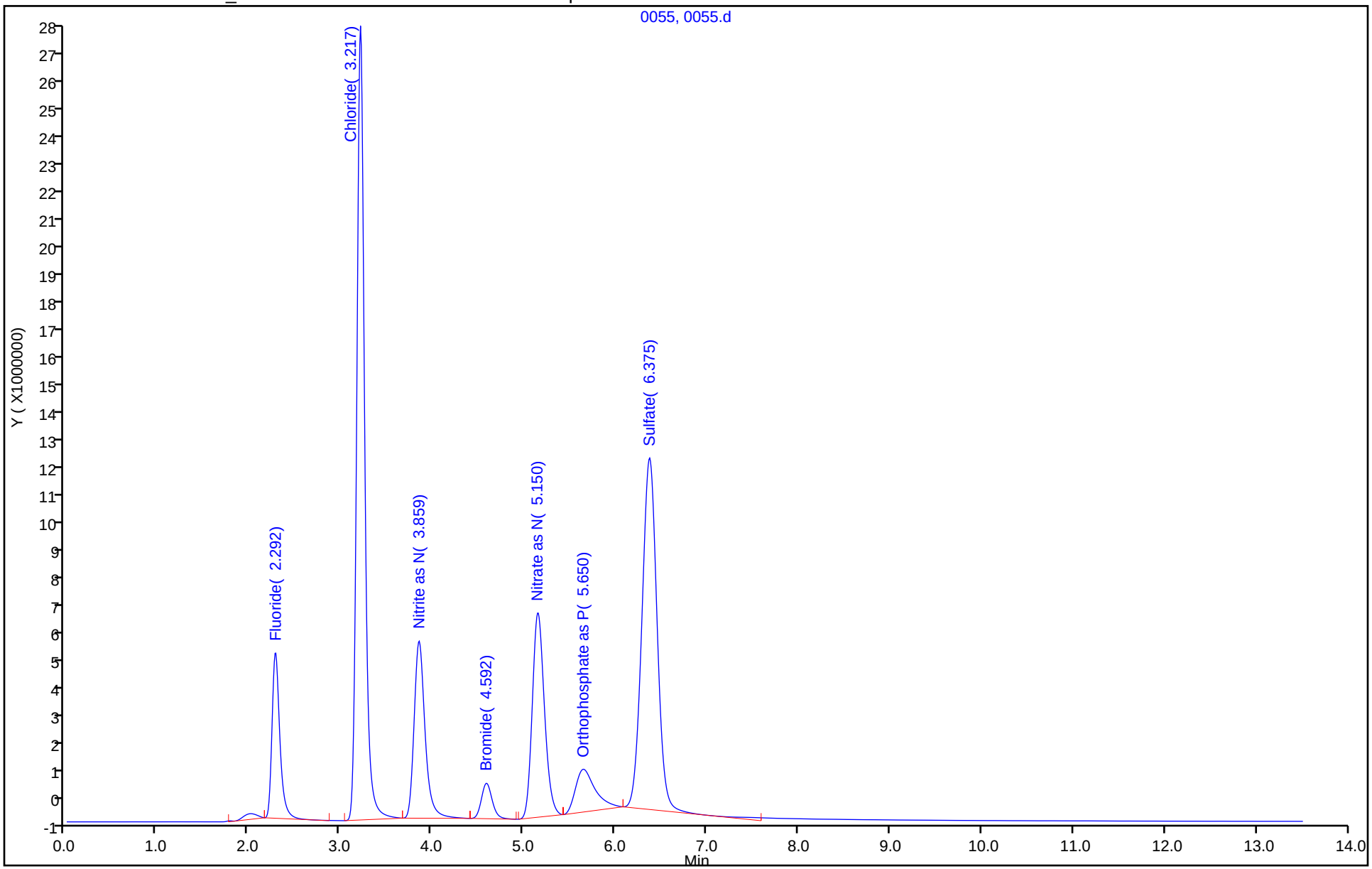
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 20-May-2019 08:10:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0055.d

Injection Date:	18-May-2019 07:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-2 MS			Worklist Smp#:	55
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0056.d
Lims ID: 280-123924-J-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 18-May-2019 07:54:00 ALS Bottle#: 0 Worklist Smp#: 56
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-056
Misc. Info.: 15001 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	33817755	NC	NC	
2 Chloride	3.217	3.242	-0.025	162382472	NC	NC	
3 Nitrite as N	3.859	3.892	-0.033	50902234	5.00	4.88	
4 Bromide	4.592	4.634	-0.042	10024681	NC	NC	
5 Nitrate as N	5.150	5.200	-0.050	64664676	5.00	5.61	
7 Orthophosphate as P	5.650	5.659	-0.009	26997882	5.00	6.51	
6 Sulfate	6.367	6.434	-0.067	138462878	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

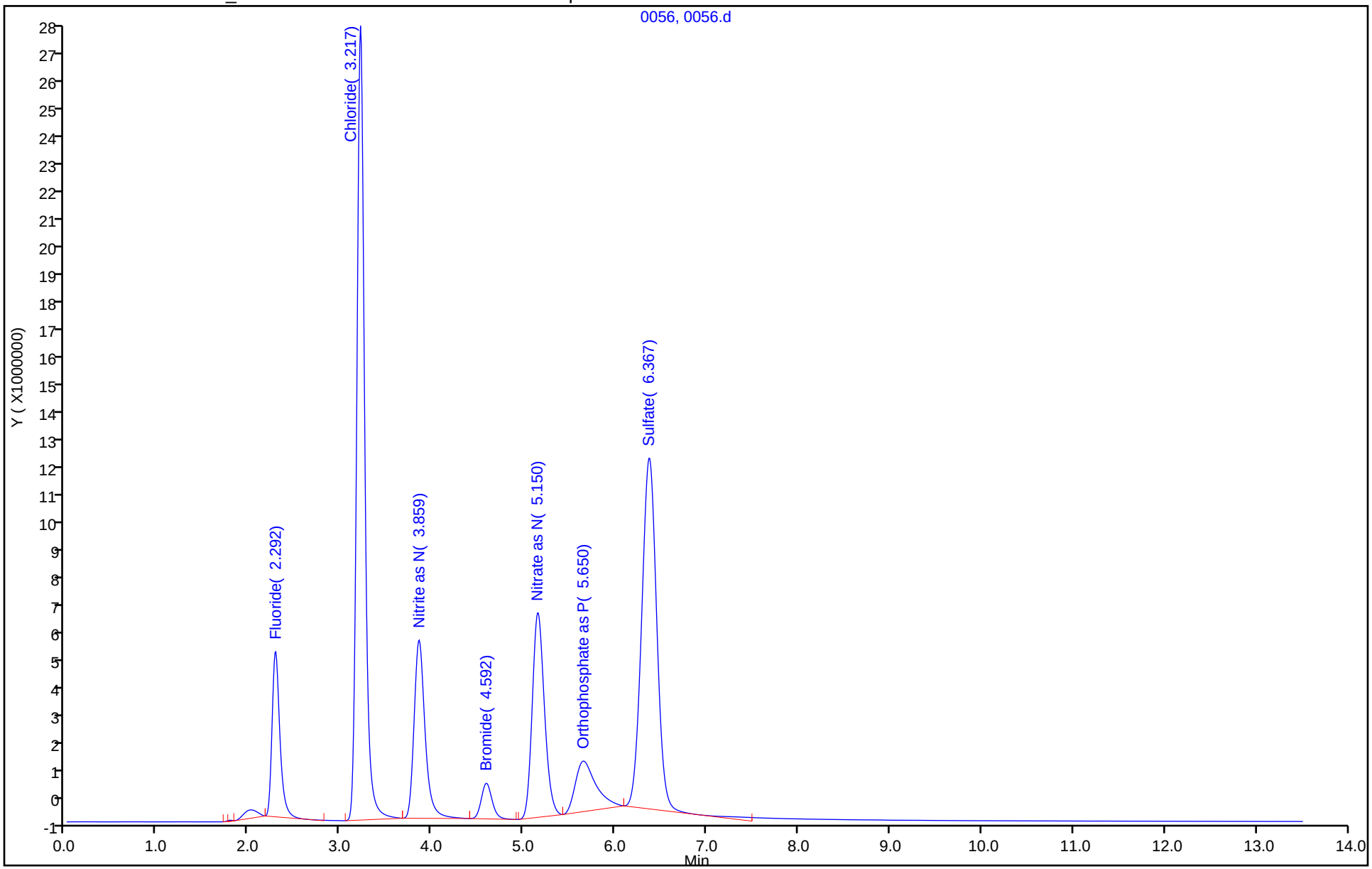
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 20-May-2019 08:10:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0056.d

Injection Date:	18-May-2019 07:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-2 MSD			Worklist Smp#:	56
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0056.d
Lims ID: 280-123924-J-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 18-May-2019 07:54:00 ALS Bottle#: 0 Worklist Smp#: 56
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-056
Misc. Info.: 15001 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	33817755	5.00	4.51	
2 Chloride	3.217	3.242	-0.025	162382472	25.0	24.8	
3 Nitrite as N	3.859	3.892	-0.033	50902234	NC	NC	
4 Bromide	4.592	4.634	-0.042	10024681	5.00	5.18	
5 Nitrate as N	5.150	5.200	-0.050	64664676	NC	NC	
7 Orthophosphate as P	5.650	5.659	-0.009	26997882	NC	NC	
6 Sulfate	6.367	6.434	-0.067	138462878	25.0	31.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

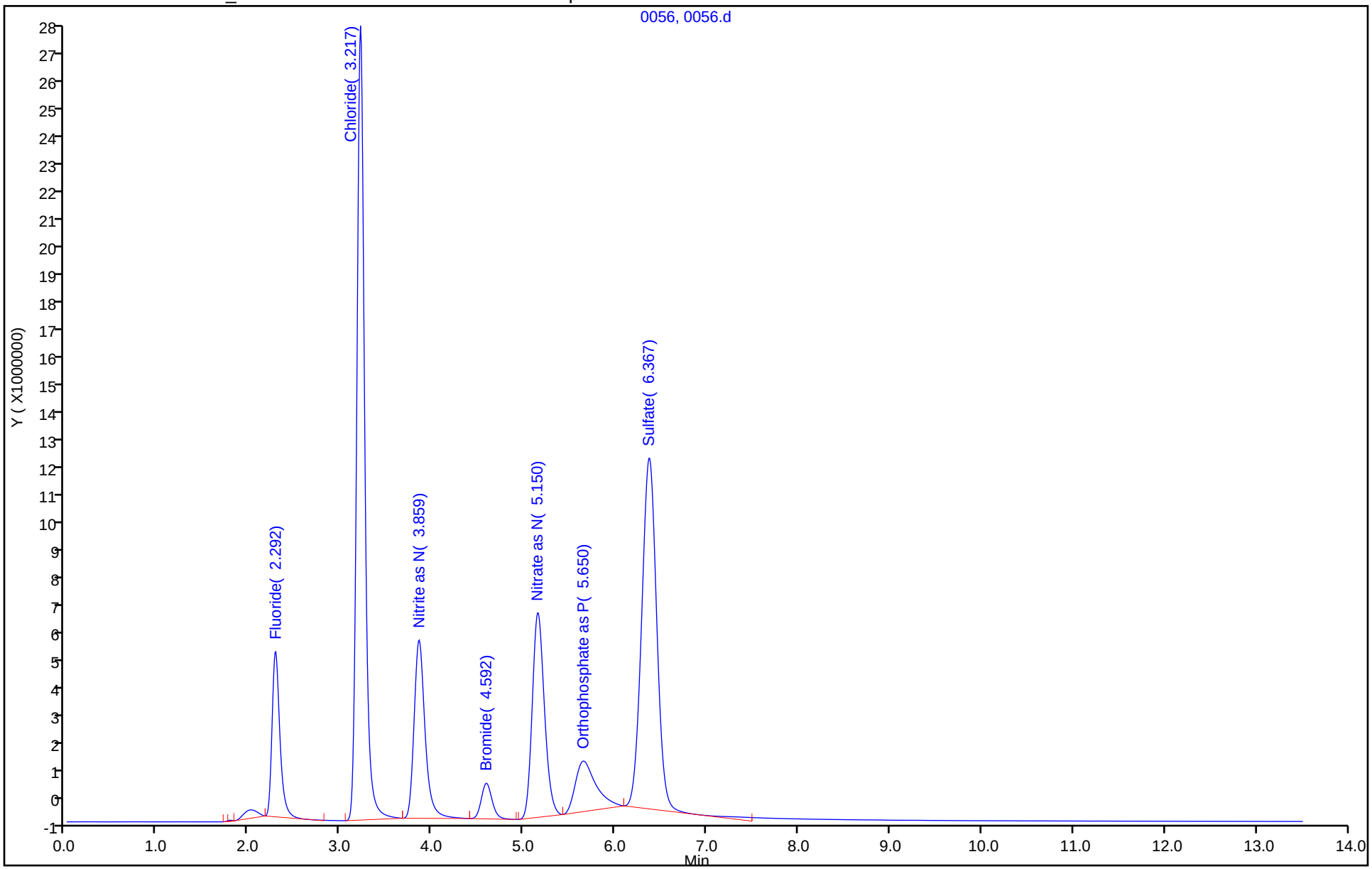
ICMS/MSD WEEK_00592 Amount Added: 0.05 Units: mL

Report Date: 20-May-2019 08:10:08 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0056.d

Injection Date:	18-May-2019 07:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-2 MSD			Worklist Smp#:	56
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0057.d
Lims ID: 280-123924-H-4
Client ID: LF6VMW-12_0519
Sample Type: Client
Inject. Date: 18-May-2019 13:29:00 ALS Bottle#: 0 Worklist Smp#: 57
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-057
Misc. Info.: 14028 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:04:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.292	-0.283	3562770	NC	
2 Chloride	3.250	3.242	0.008	803048879	NC	
3 Nitrite as N		3.892			ND	
4 Bromide	4.659	4.634	0.025	3334018	NC	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.642	5.659	-0.017	6981485	1.68	
6 Sulfate	6.384	6.434	-0.050	54263848	NC	M

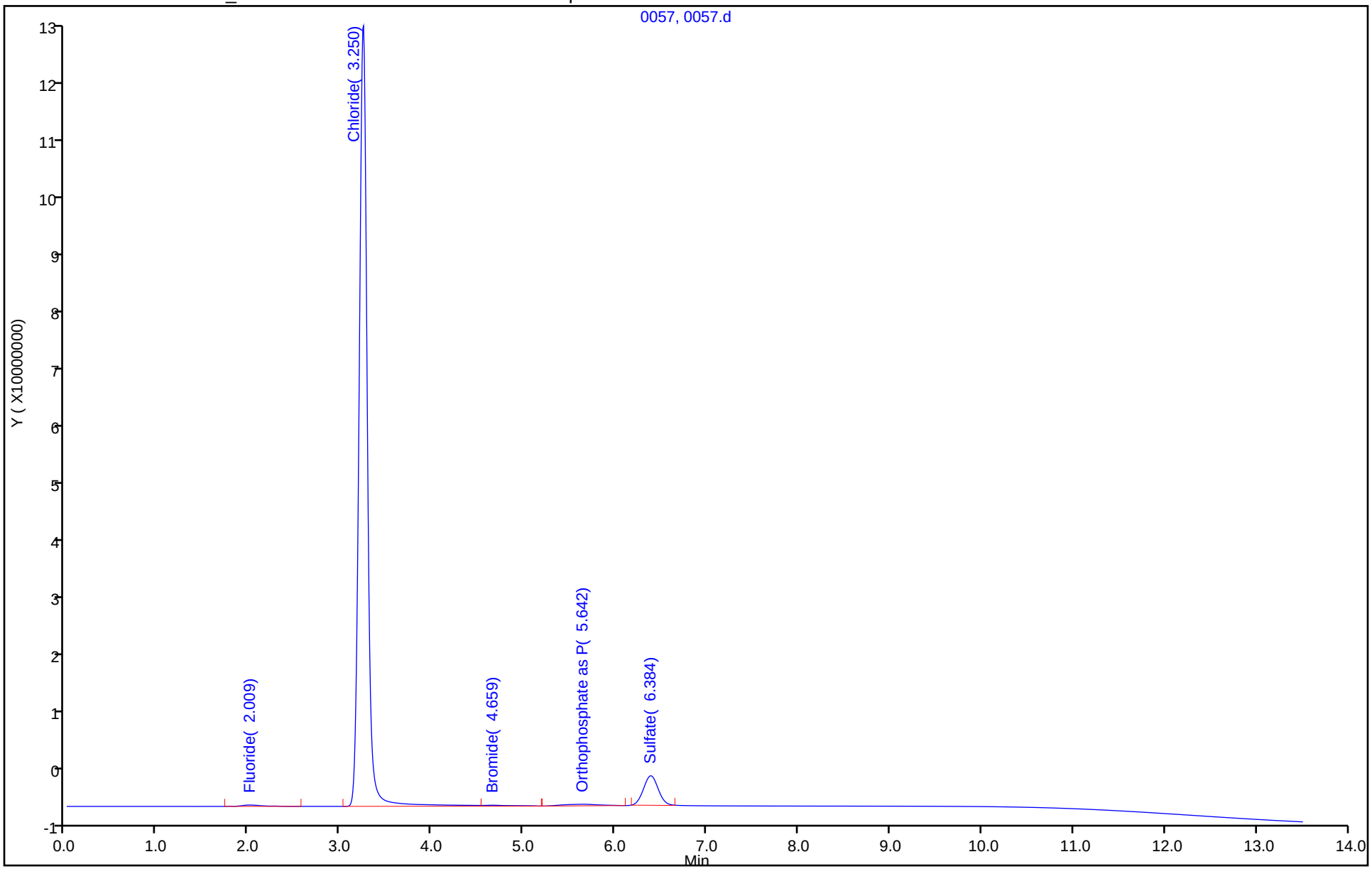
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:10:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0057.d				
Injection Date:	18-May-2019 13:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-4	Lab Sample ID:	280-123924-4	Worklist Smp#:	57
Client ID:	LF6VMW-12_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0057.d
Lims ID: 280-123924-H-4
Client ID: LF6VMW-12_0519
Sample Type: Client
Inject. Date: 18-May-2019 13:29:00 ALS Bottle#: 0 Worklist Smp#: 57
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-057
Misc. Info.: 14028 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:04:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.292	-0.283	3562770	0.3365	
2 Chloride	3.250	3.242	0.008	803048879	120.0	
3 Nitrite as N		3.892			ND	
4 Bromide	4.659	4.634	0.025	3334018	1.73	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	5.642	5.659	-0.017	6981485	NC	
6 Sulfate	6.384	6.434	-0.050	54263848	12.6	M

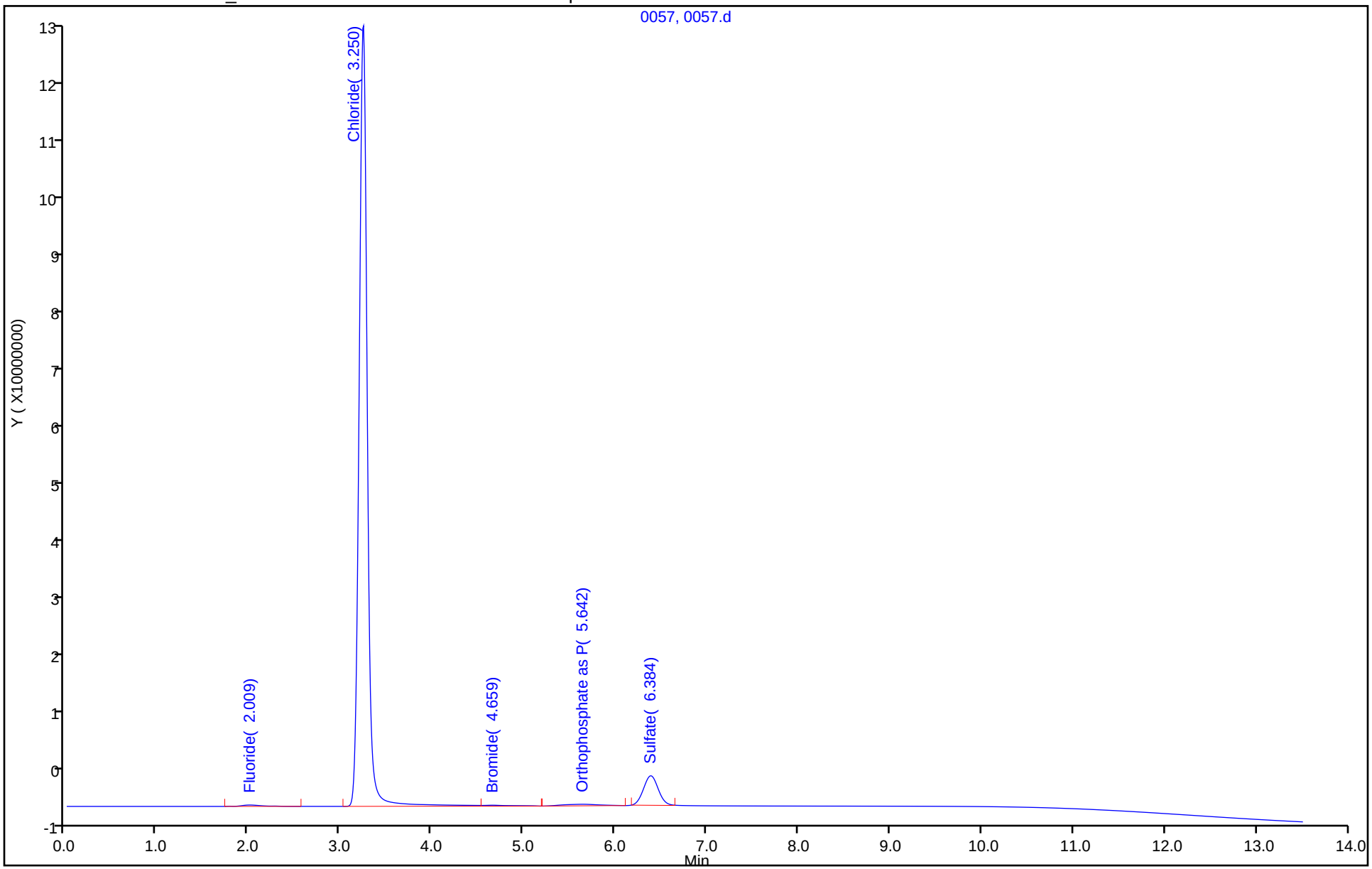
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 20-May-2019 08:10:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0057.d				
Injection Date:	18-May-2019 13:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-4	Lab Sample ID:	280-123924-4	Worklist Smp#:	57
Client ID:	LF6VMW-12_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

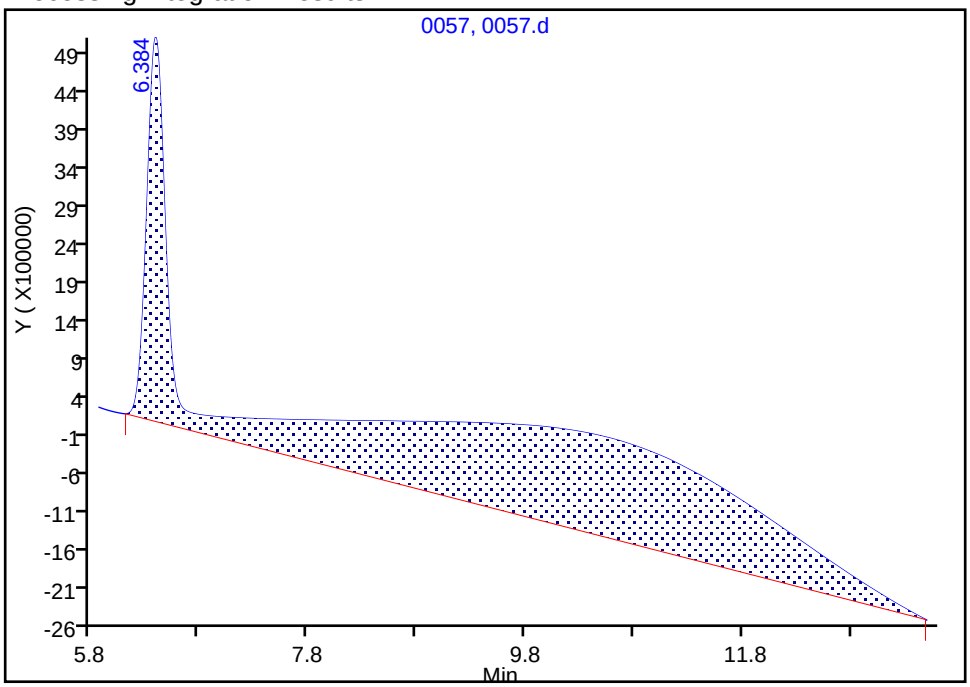
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0057.d				
Injection Date:	18-May-2019 13:29:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-H-4	Lab Sample ID:	280-123924-4		
Client ID:	LF6VMW-12_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	57
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

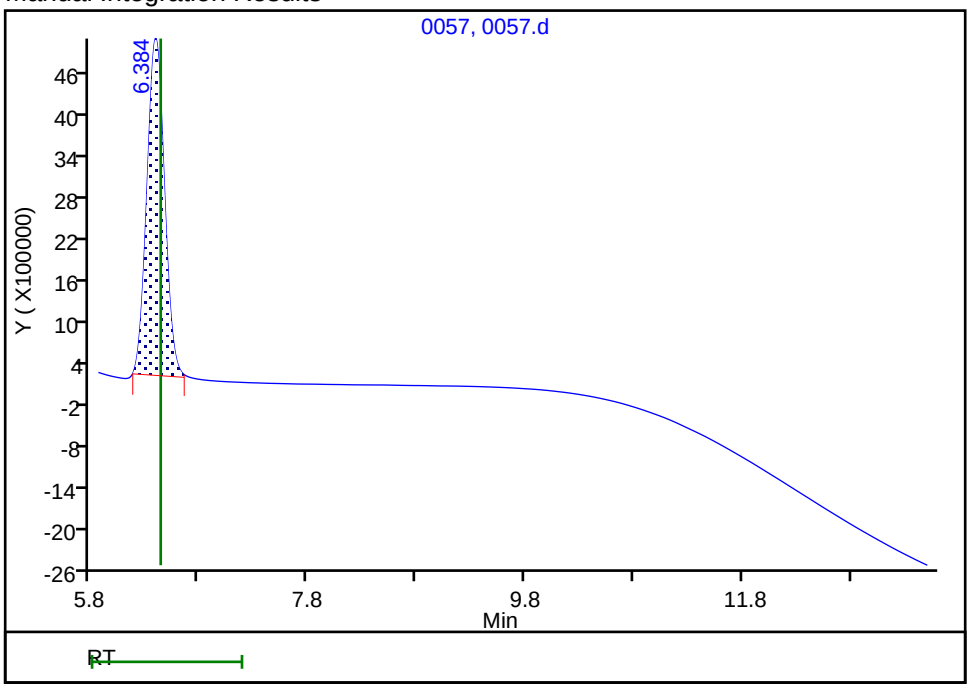
Processing Integration Results

RT: 6.38
Area: 376567764
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 6.38
Area: 54263848
Amount: 12.570157
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:04:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0059.d
Lims ID: 280-123924-I-5
Client ID: LF6VMW-24_0519
Sample Type: Client
Inject. Date: 18-May-2019 14:01:00 ALS Bottle#: 0 Worklist Smp#: 59
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-059
Misc. Info.: 7106 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:04:33

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.292	0.092	242550	NC	
2 Chloride	3.584	3.242	0.342	2237289603	NC	a
3 Nitrite as N		3.892			ND	a
4 Bromide		4.634			ND	
5 Nitrate as N	5.159	5.200	-0.041	10273621	0.9228	
7 Orthophosphate as P	6.909	5.659	1.250	2836832	0.6770	a
6 Sulfate	8.492	6.434	2.058	80006232	NC	a

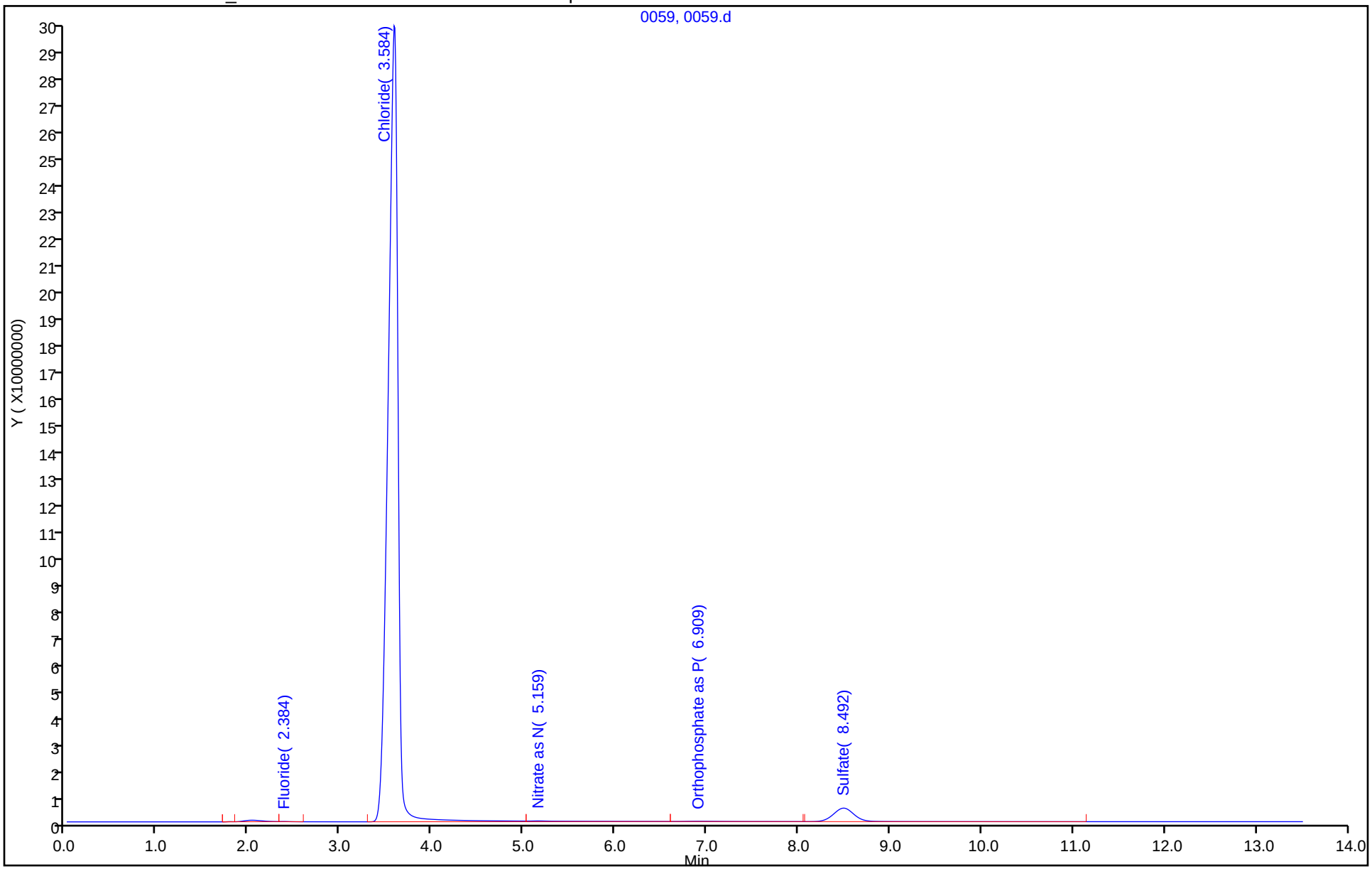
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0059.d				
Injection Date:	18-May-2019 14:01:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-5	Lab Sample ID:	280-123924-5	Worklist Smp#:	59
Client ID:	LF6VMW-24_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0059.d
Lims ID: 280-123924-I-5
Client ID: LF6VMW-24_0519
Sample Type: Client
Inject. Date: 18-May-2019 14:01:00 ALS Bottle#: 0 Worklist Smp#: 59
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-059
Misc. Info.: 7106 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:04:33

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.292	0.092	242550	-0.1211	
2 Chloride	3.584	3.242	0.342	2237289603	333.3	Ea
3 Nitrite as N		3.892			ND	a
4 Bromide		4.634			ND	
5 Nitrate as N	5.159	5.200	-0.041	10273621	NC	
7 Orthophosphate as P	6.909	5.659	1.250	2836832	NC	a
6 Sulfate	8.492	6.434	2.058	80006232	18.3	a

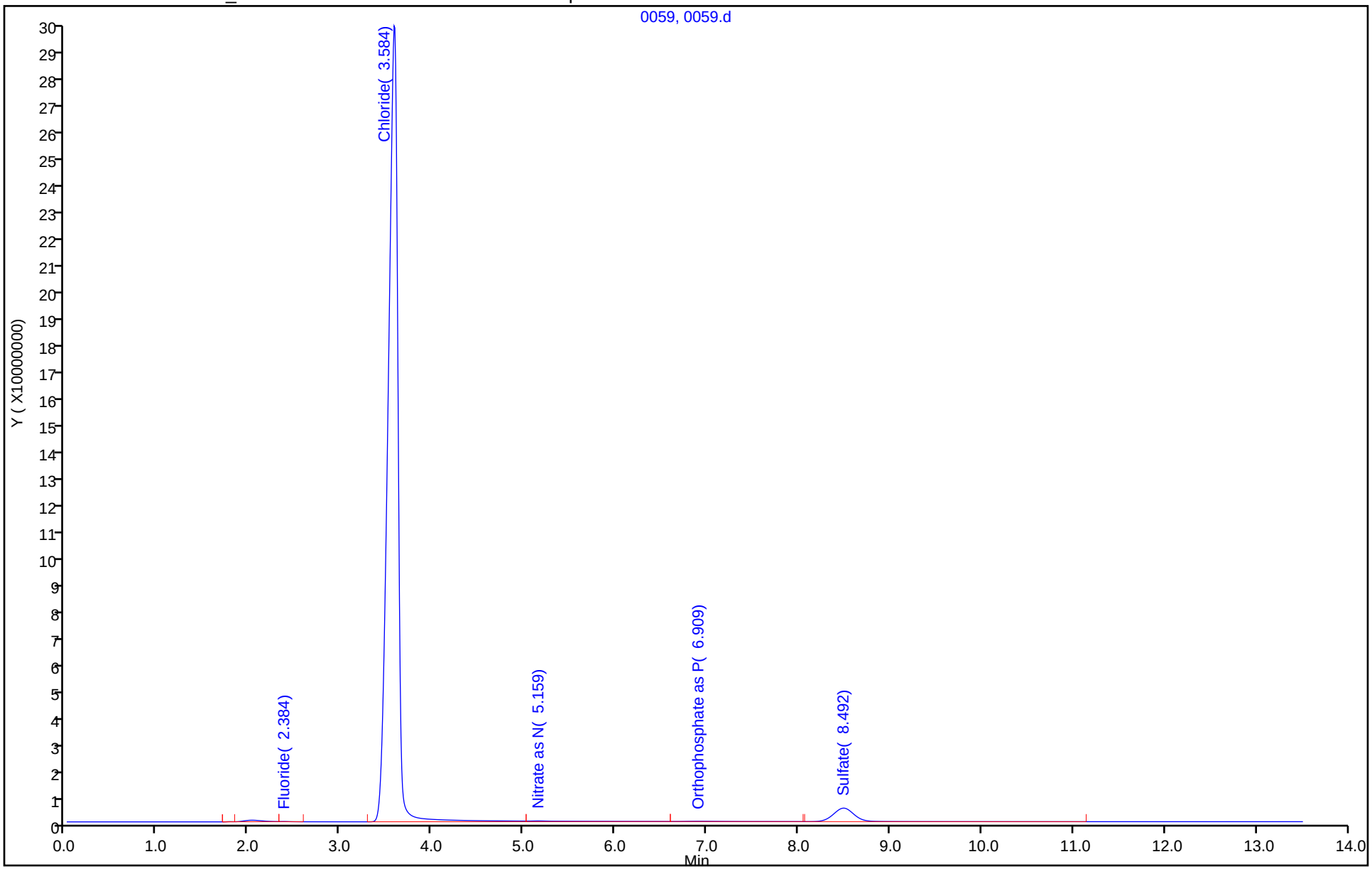
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:10 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0059.d				
Injection Date:	18-May-2019 14:01:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-5	Lab Sample ID:	280-123924-5	Worklist Smp#:	59
Client ID:	LF6VMW-24_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

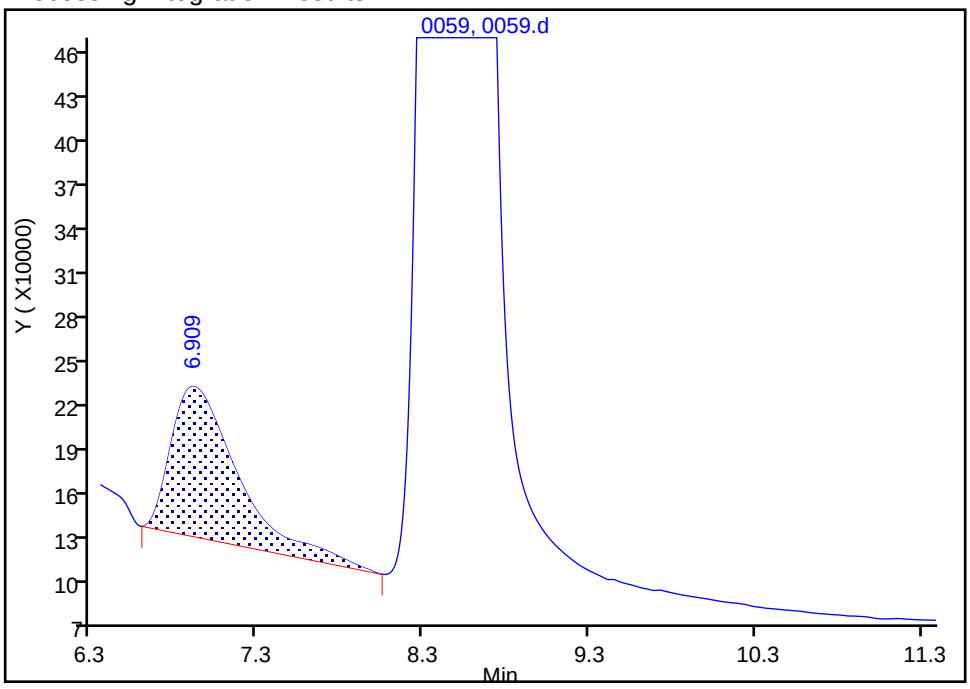
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0059.d				
Injection Date:	18-May-2019 14:01:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-I-5	Lab Sample ID:	280-123924-5		
Client ID:	LF6VMW-24_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	59
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

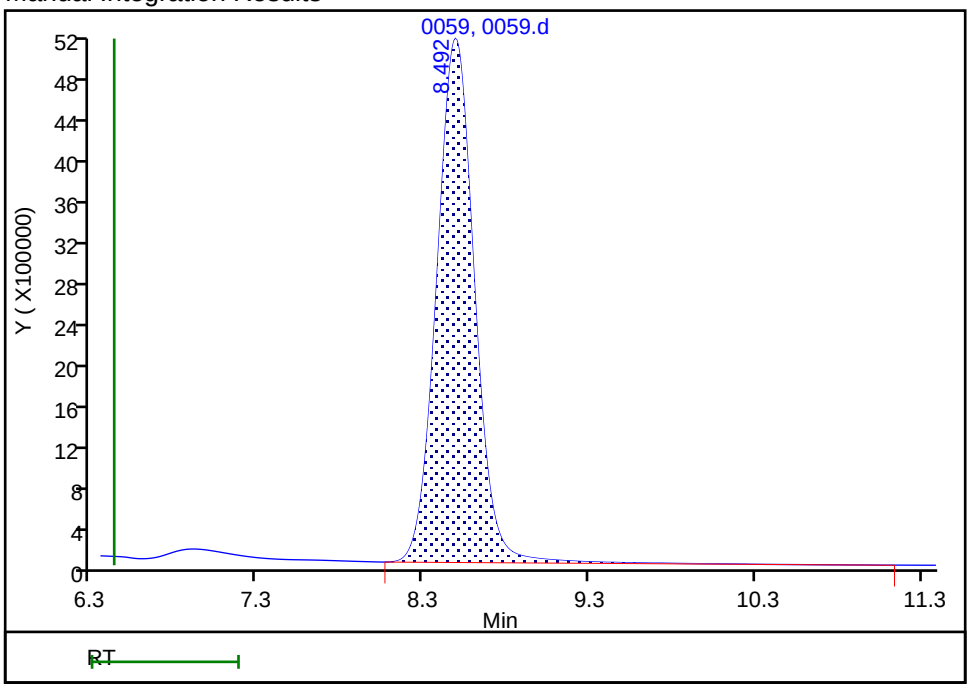
Processing Integration Results

RT: 6.91
Area: 2836832
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 8.49
Area: 80006232
Amount: 18.325901
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:05:25
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0060.d
Lims ID: 280-123924-I-5
Client ID: LF6VMW-24_0519
Sample Type: Client
Inject. Date: 18-May-2019 14:18:00 ALS Bottle#: 0 Worklist Smp#: 60
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0082000-060
Misc. Info.: 26206 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:05:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.292	-0.258	1387432	NC	
2 Chloride	3.517	3.242	0.275	381155544	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.142	5.200	-0.058	1789795	0.1923	
7 Orthophosphate as P	7.017	5.659	1.358	991820	0.2316	a
6 Sulfate	8.459	6.434	2.025	15550534	NC	a

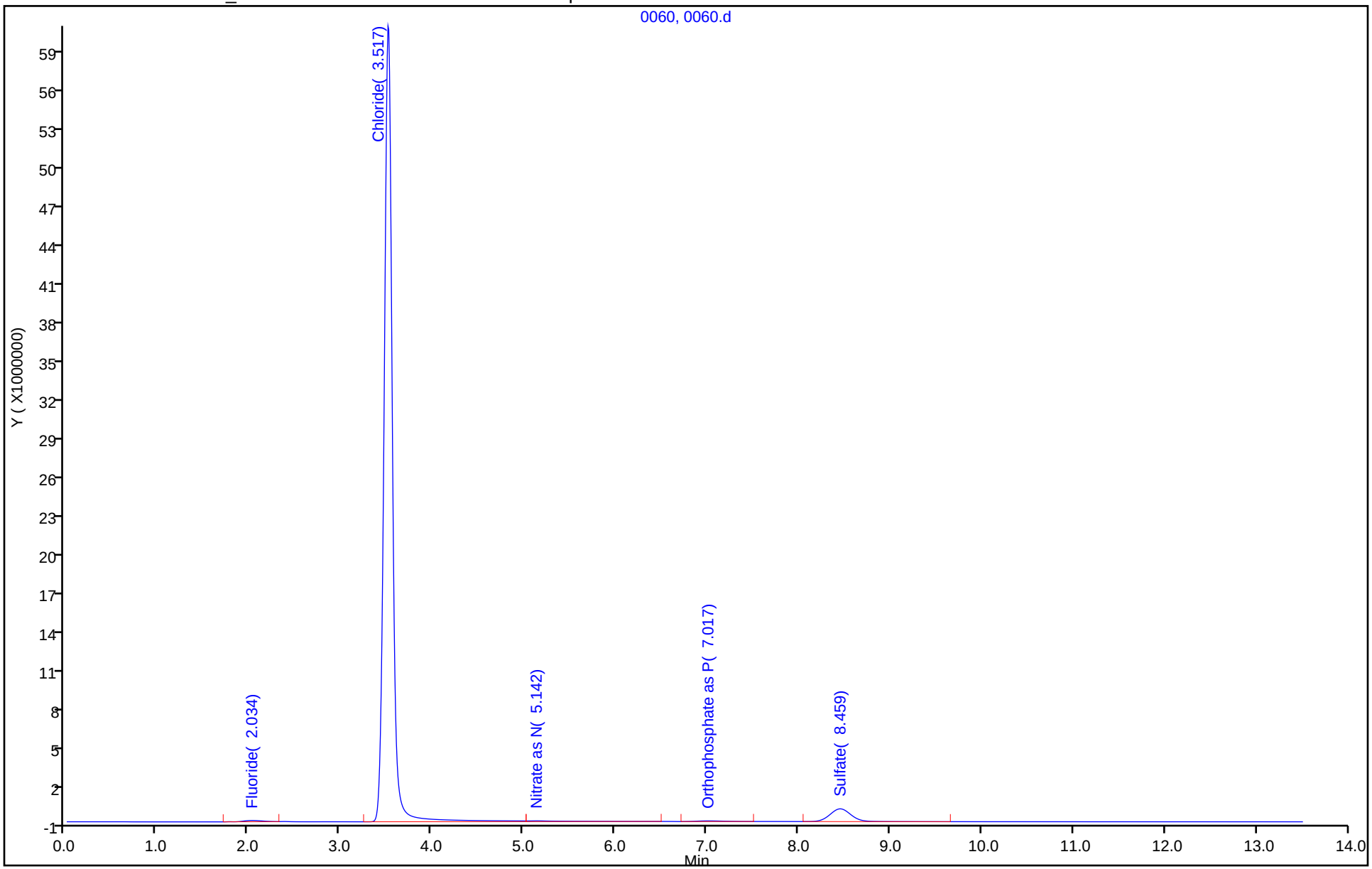
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0060.d				
Injection Date:	18-May-2019 14:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-5	Lab Sample ID:	280-123924-5	Worklist Smp#:	60
Client ID:	LF6VMW-24_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

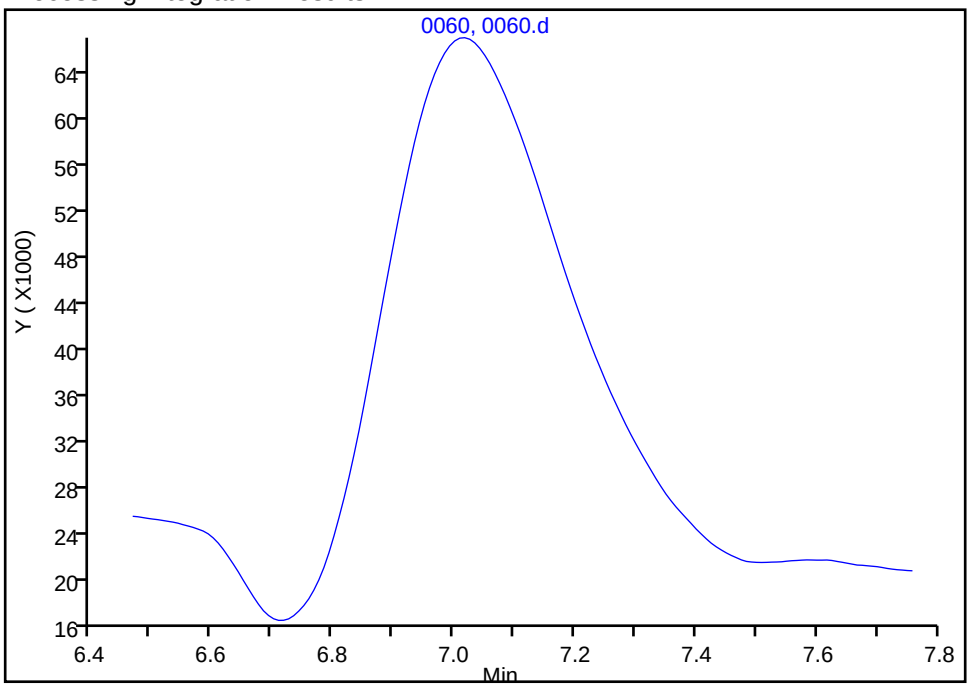
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0060.d				
Injection Date:	18-May-2019 14:18:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-I-5	Lab Sample ID:	280-123924-5		
Client ID:	LF6VMW-24_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	60
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

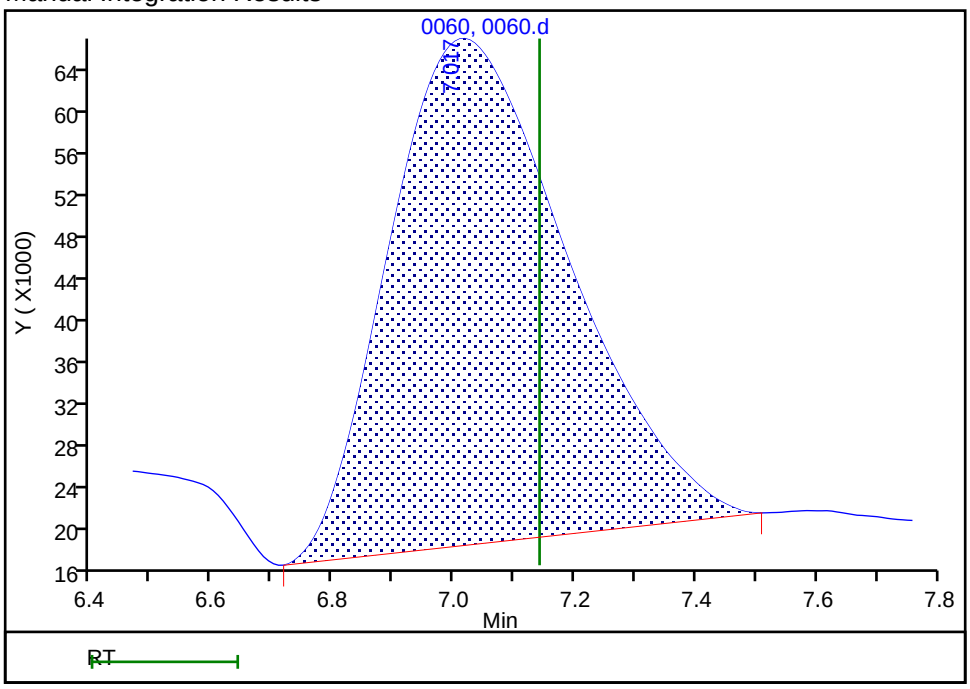
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 7.02
Area: 991820
Amount: 0.231577
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:05:33
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0060.d
Lims ID: 280-123924-I-5
Client ID: LF6VMW-24_0519
Sample Type: Client
Inject. Date: 18-May-2019 14:18:00 ALS Bottle#: 0 Worklist Smp#: 60
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0082000-060
Misc. Info.: 26206 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:05:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.292	-0.258	1387432	0.0367	
2 Chloride	3.517	3.242	0.275	381155544	57.3	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.142	5.200	-0.058	1789795	NC	
7 Orthophosphate as P	7.017	5.659	1.358	991820	NC	a
6 Sulfate	8.459	6.434	2.025	15550534	3.91	a

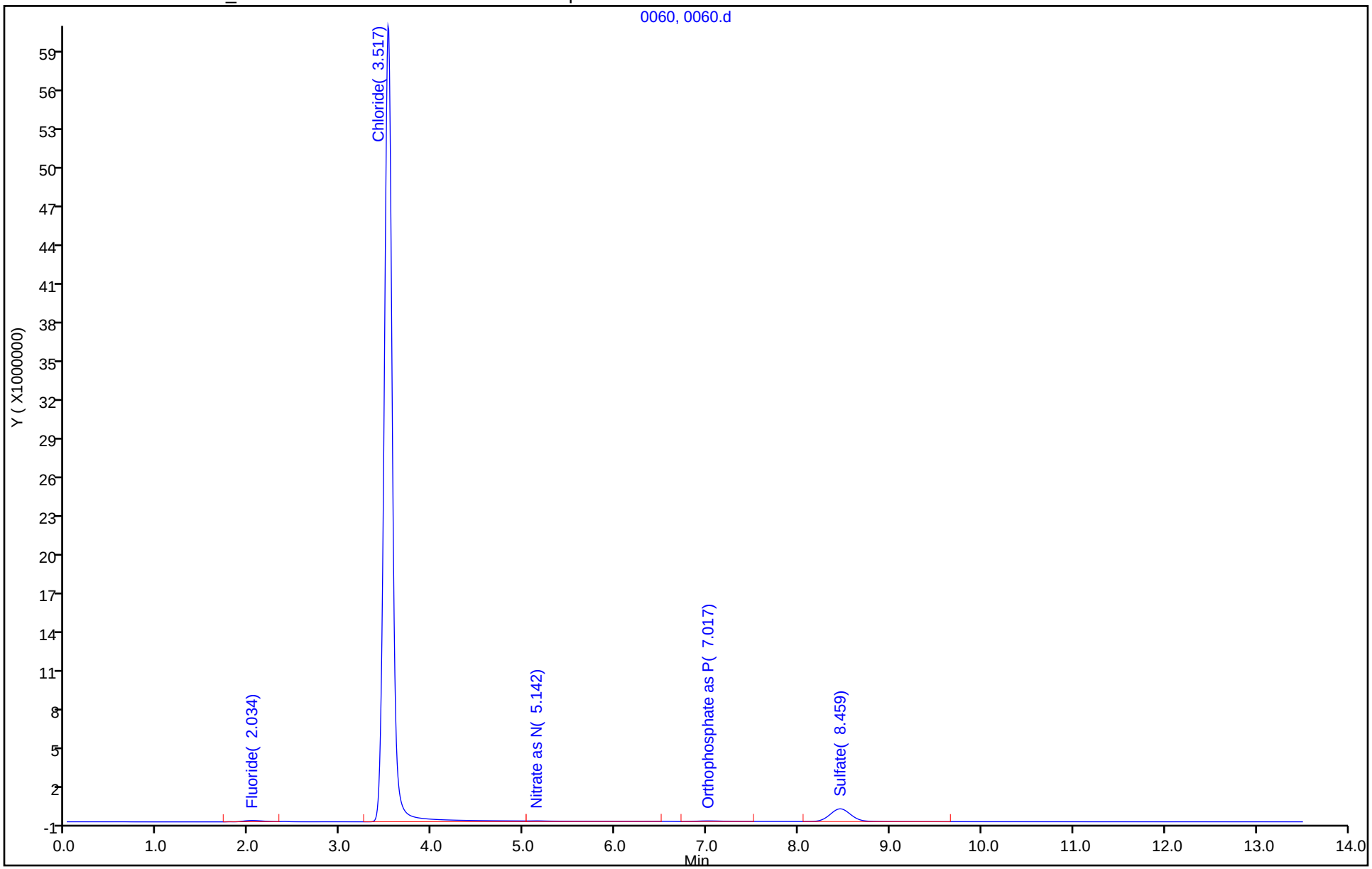
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0060.d				
Injection Date:	18-May-2019 14:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-5	Lab Sample ID:	280-123924-5	Worklist Smp#:	60
Client ID:	LF6VMW-24_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0061.d
Lims ID: 280-123924-I-6
Client ID: TMCMW-9_0519
Sample Type: Client
Inject. Date: 18-May-2019 14:34:00 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-061
Misc. Info.: 24815 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:05:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.292	-0.283	1645539	NC	
2 Chloride	3.517	3.242	0.275	225448817	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.892	5.200	0.692	8503680	0.7704	a
7 Orthophosphate as P	6.750	5.659	1.091	6915029	1.66	a
6 Sulfate	8.509	6.434	2.075	194557451	NC	a

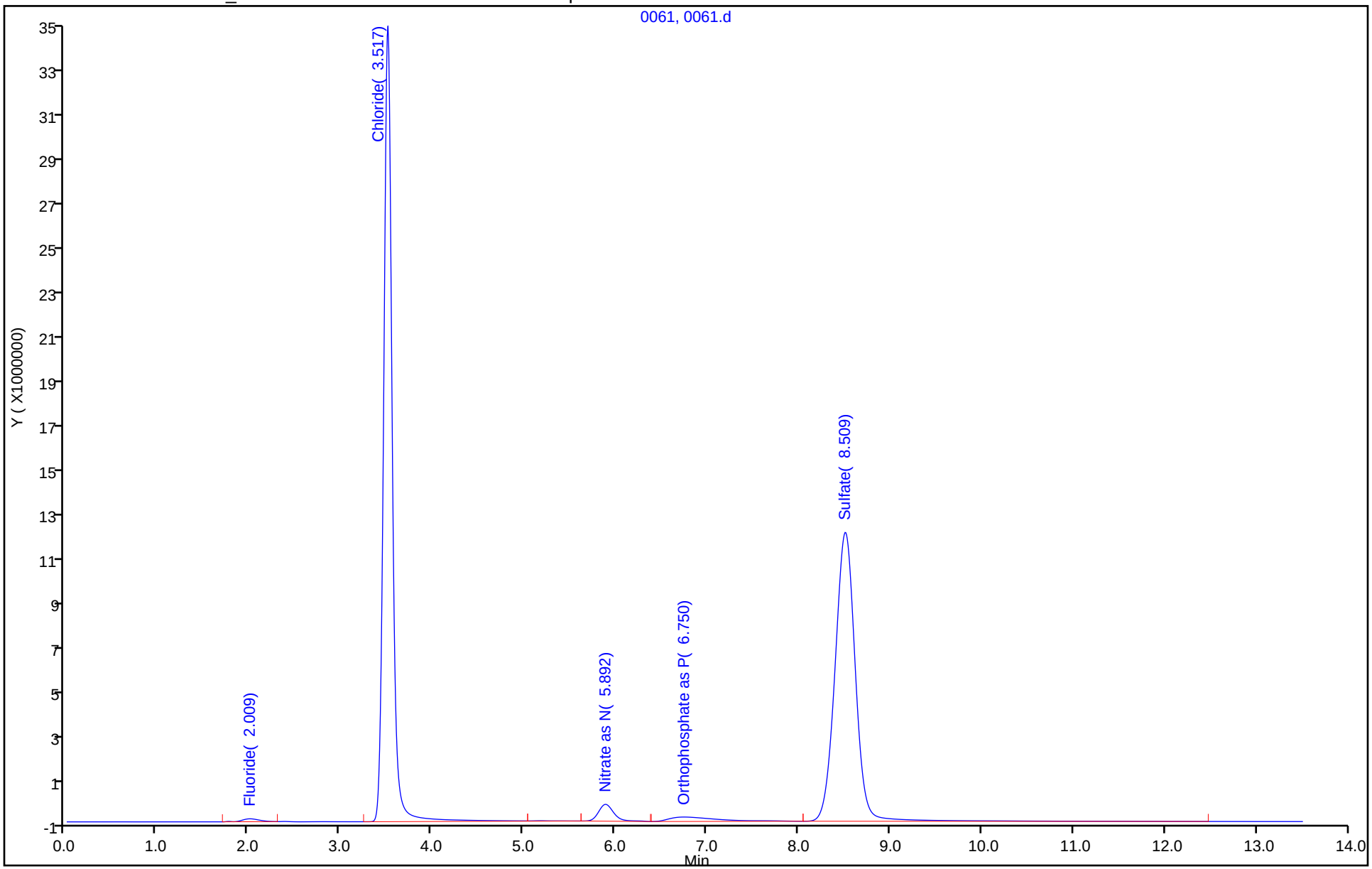
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0061.d				
Injection Date:	18-May-2019 14:34:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-6	Lab Sample ID:	280-123924-6	Worklist Smp#:	61
Client ID:	TMCMW-9_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

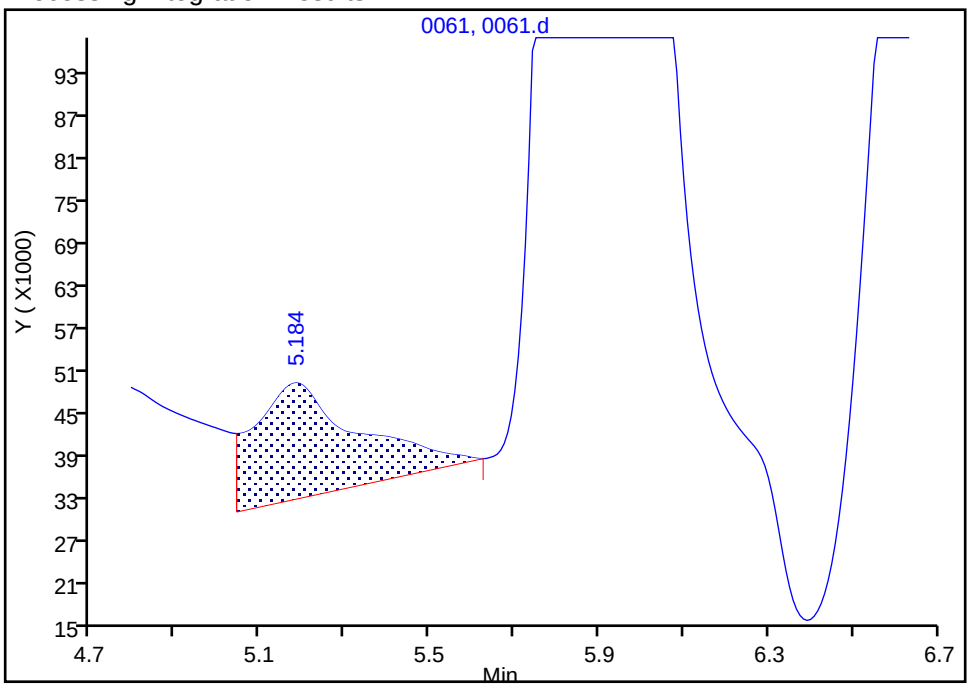
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0061.d				
Injection Date:	18-May-2019 14:34:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-I-6	Lab Sample ID:	280-123924-6		
Client ID:	TMCMW-9_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	61
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

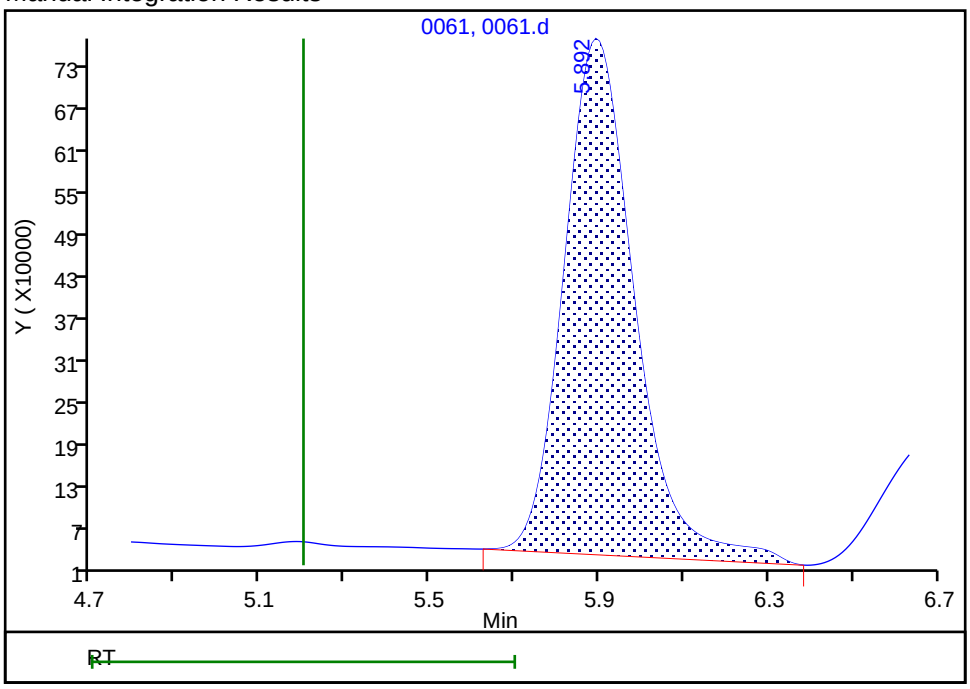
Processing Integration Results

RT: 5.18
Area: 278952
Amount: 0.062243
Amount Units: ug/ml



Manual Integration Results

RT: 5.89
Area: 8503680
Amount: 0.770413
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:06:11
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0061.d
Lims ID: 280-123924-I-6
Client ID: TMCMW-9_0519
Sample Type: Client
Inject. Date: 18-May-2019 14:34:00 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-061
Misc. Info.: 24815 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:05:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.292	-0.283	1645539	0.0723	
2 Chloride	3.517	3.242	0.275	225448817	34.1	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.892	5.200	0.692	8503680	NC	a
7 Orthophosphate as P	6.750	5.659	1.091	6915029	NC	a
6 Sulfate	8.509	6.434	2.075	194557451	43.9	a

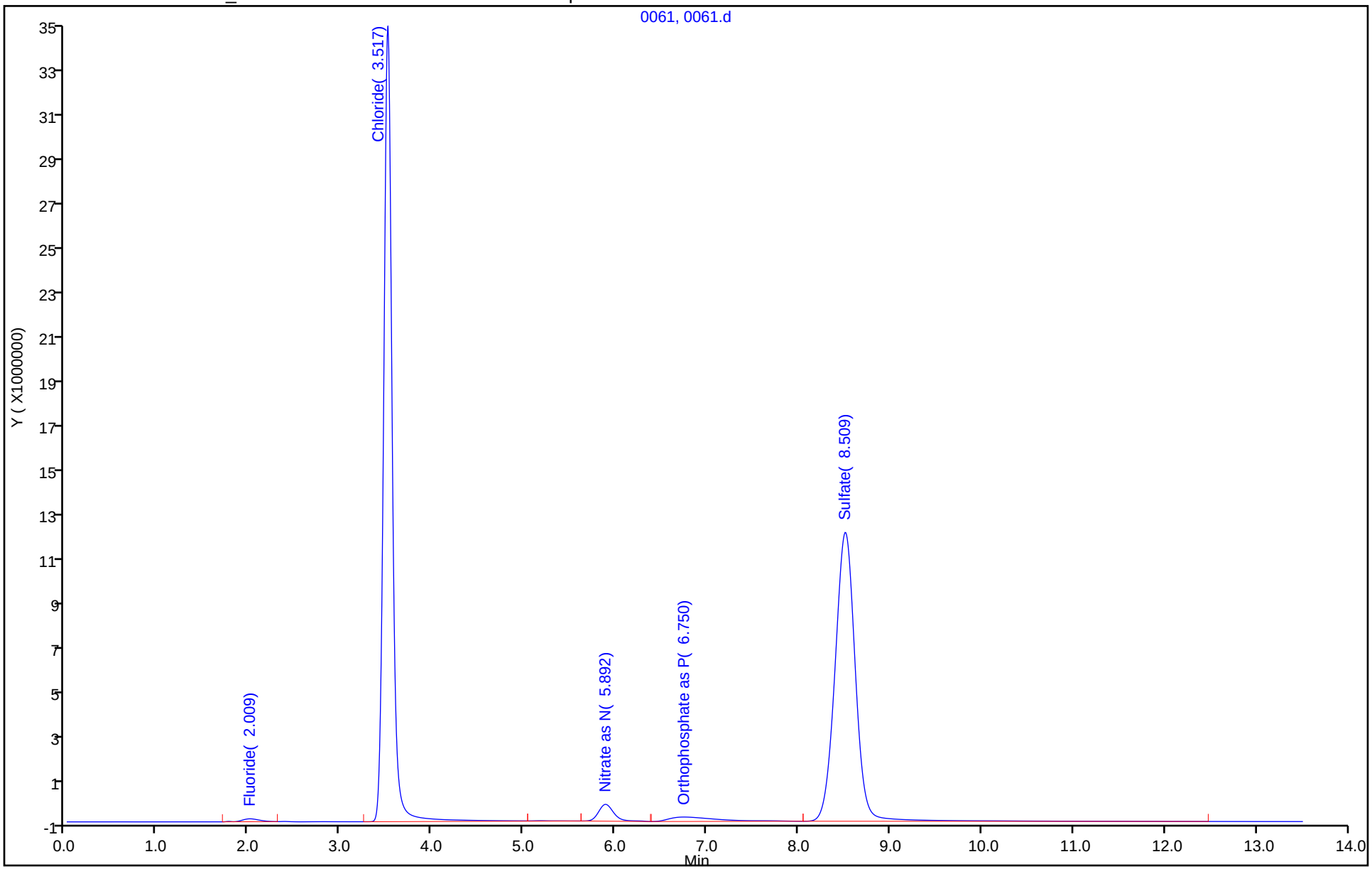
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0061.d				
Injection Date:	18-May-2019 14:34:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-6	Lab Sample ID:	280-123924-6	Worklist Smp#:	61
Client ID:	TMCMW-9_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

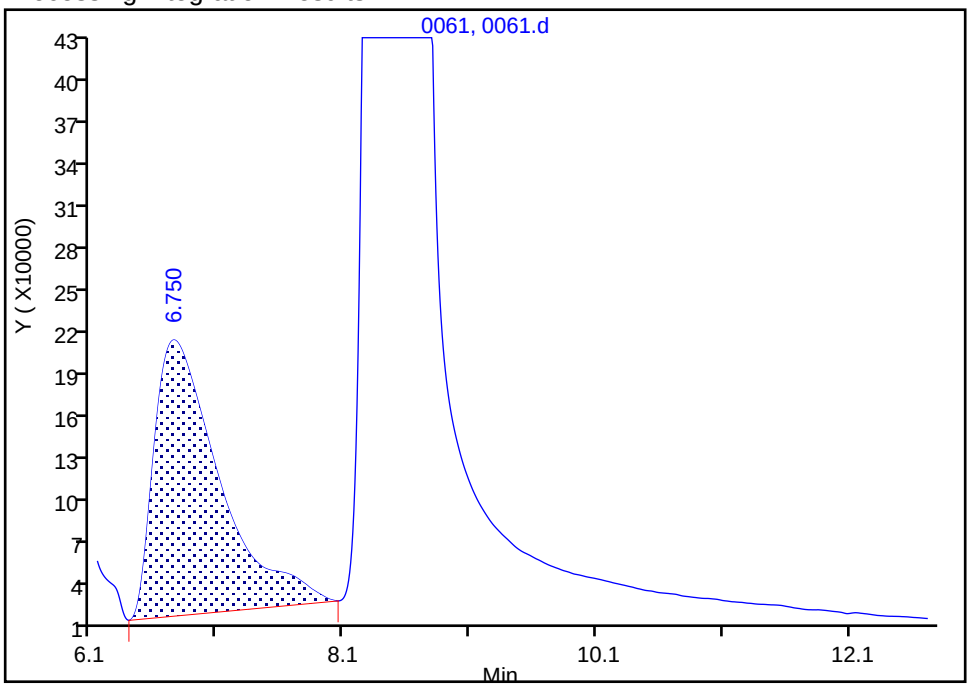
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0061.d				
Injection Date:	18-May-2019 14:34:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-I-6	Lab Sample ID:	280-123924-6		
Client ID:	TMCMW-9_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	61
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

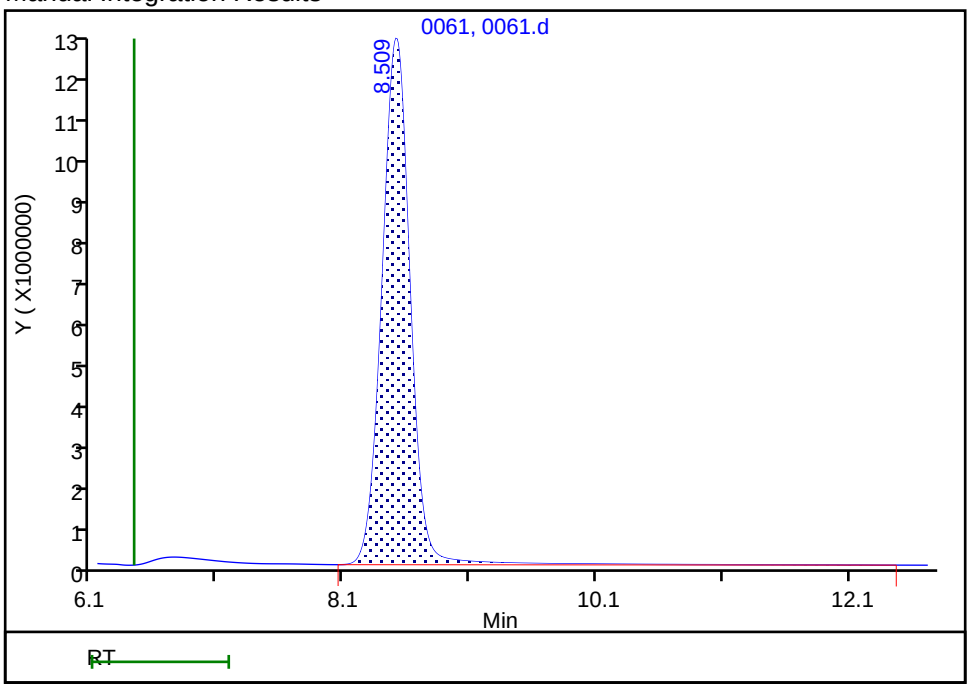
Processing Integration Results

RT: 6.75
Area: 6915029
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 8.51
Area: 194557451
Amount: 43.938428
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:05:40
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0063.d
Lims ID: 280-123924-I-7
Client ID: LF6/TMCSW-1_0519
Sample Type: Client
Inject. Date: 18-May-2019 15:07:00 ALS Bottle#: 0 Worklist Smp#: 63
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-063
Misc. Info.: 14541 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:06:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.292	0.092	294808	NC	
2 Chloride		3.242			ND	
3 Nitrite as N	3.584	3.892	-0.308	2144931557	204.5	E
4 Bromide		4.634			ND	
5 Nitrate as N	5.150	5.200	-0.050	2283150	0.2348	
7 Orthophosphate as P	5.850	5.659	0.191	8420098	2.02	
6 Sulfate	8.484	6.434	2.050	104711022	NC	a

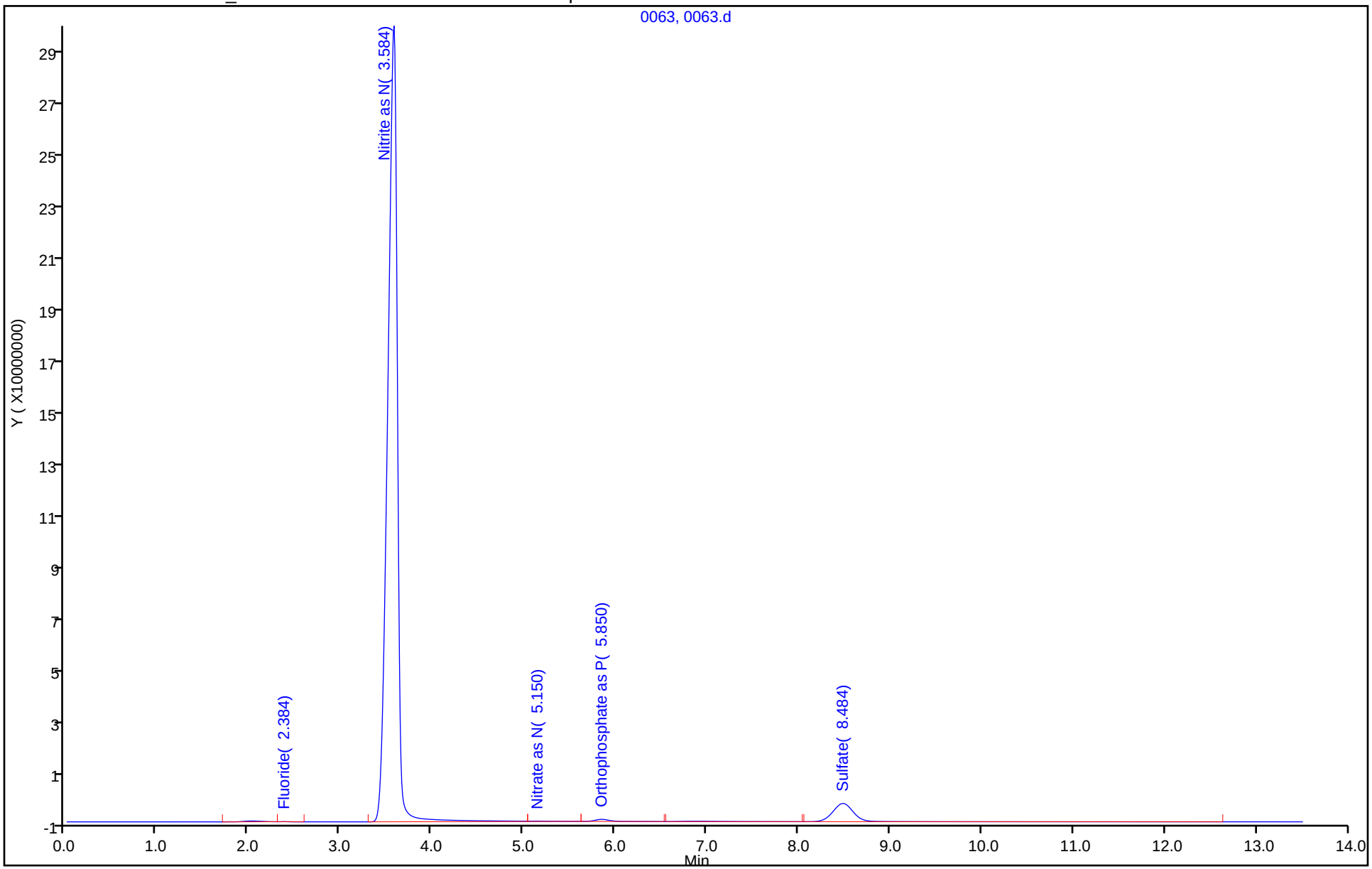
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0063.d				
Injection Date:	18-May-2019 15:07:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-7	Lab Sample ID:	280-123924-7	Worklist Smp#:	63
Client ID:	LF6/TMCSW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0063.d
Lims ID: 280-123924-I-7
Client ID: LF6/TMCSW-1_0519
Sample Type: Client
Inject. Date: 18-May-2019 15:07:00 ALS Bottle#: 0 Worklist Smp#: 63
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-063
Misc. Info.: 14541 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:05 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:06:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.292	0.092	294808	-0.1139	
2 Chloride		3.242			ND	
3 Nitrite as N	3.584	3.892	-0.308	2144931557	NC	
4 Bromide		4.634			ND	
5 Nitrate as N	5.150	5.200	-0.050	2283150	NC	
7 Orthophosphate as P	5.850	5.659	0.191	8420098	NC	
6 Sulfate	8.484	6.434	2.050	104711022	23.8	a

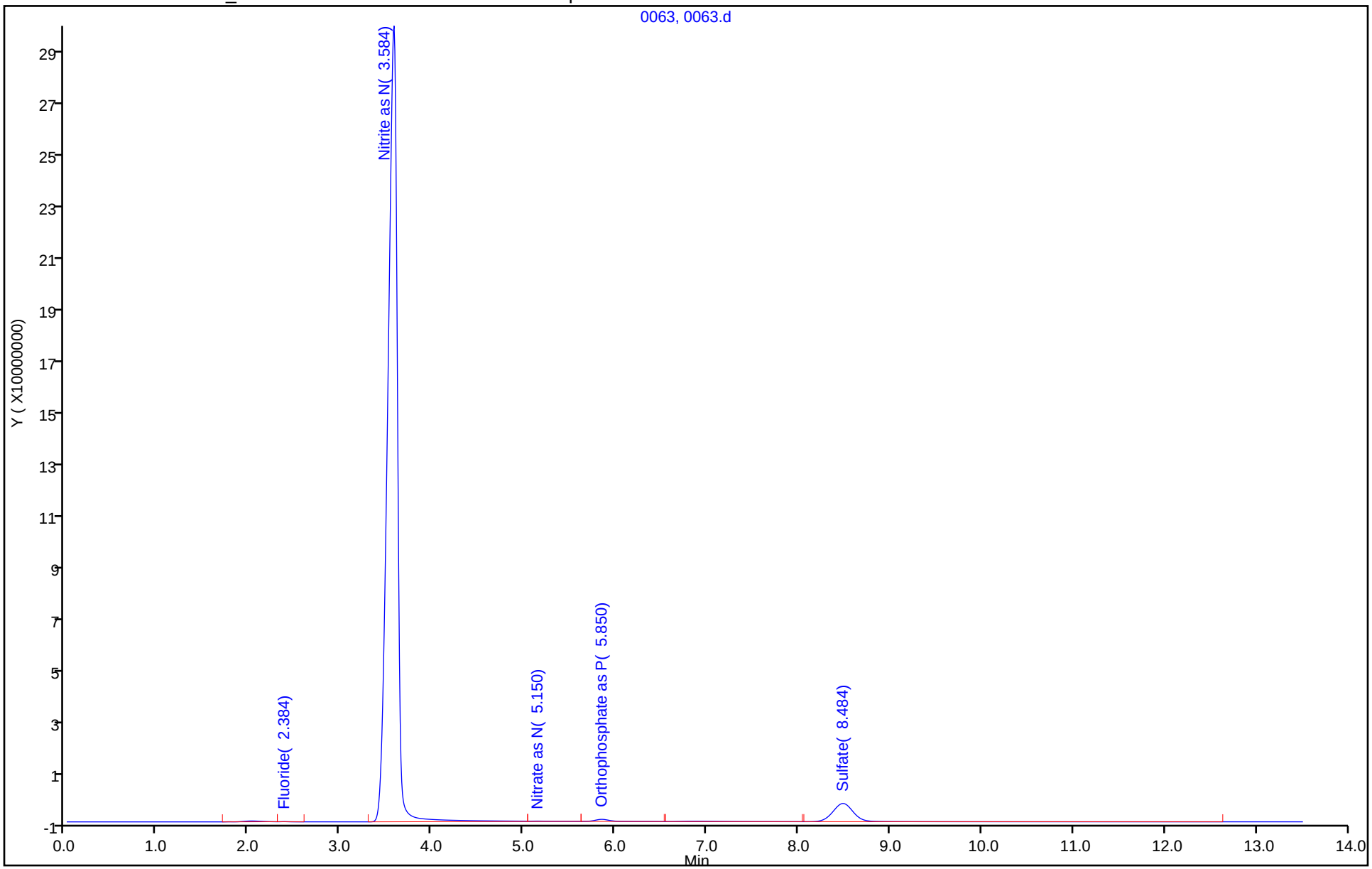
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:13 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0063.d				
Injection Date:	18-May-2019 15:07:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-7	Lab Sample ID:	280-123924-7	Worklist Smp#:	63
Client ID:	LF6/TMCSW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

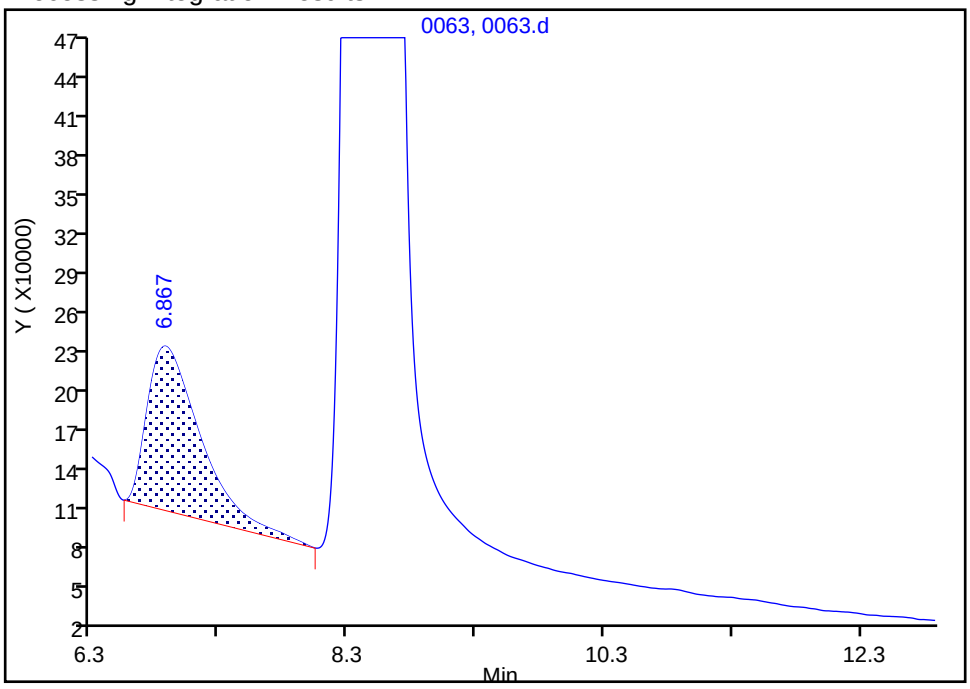
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0063.d				
Injection Date:	18-May-2019 15:07:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-I-7	Lab Sample ID:	280-123924-7		
Client ID:	LF6/TMCSW-1_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	63
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

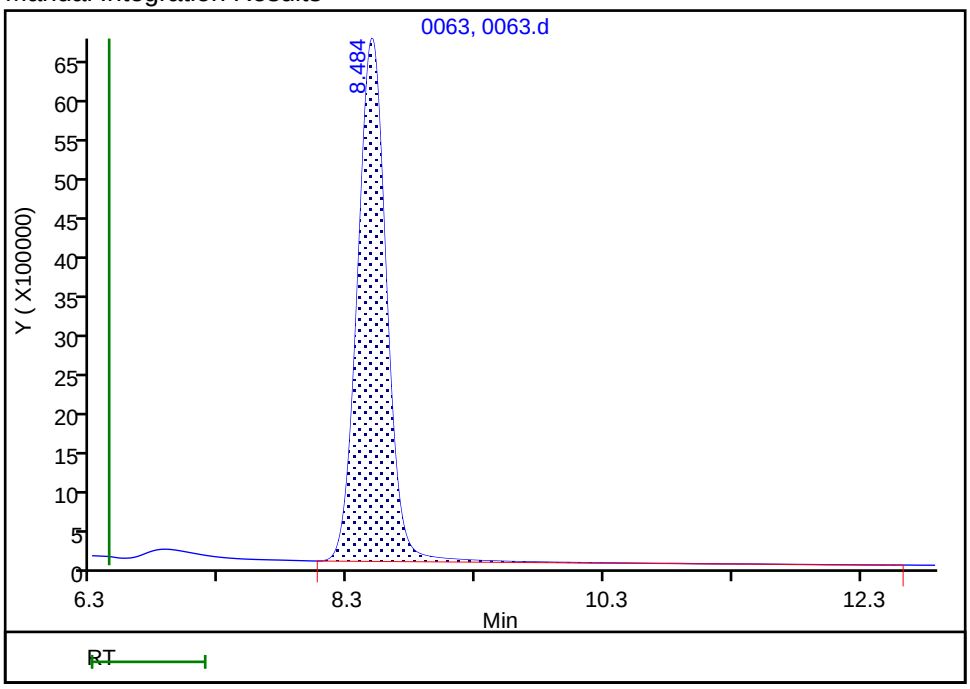
Processing Integration Results

RT: 6.87
Area: 3579521
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 8.48
Area: 104711022
Amount: 23.849650
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:06:23
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0064.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 15:23:00 ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-064
Misc. Info.: 29927 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:06:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	38041199	NC	NC	
2 Chloride	3.534	3.242	0.292	668352188	NC	NC	
3 Nitrite as N	4.267	3.892	0.375	53101174	5.00	5.09	a
4 Bromide	5.150	4.634	0.516	10222840	NC	NC	a
5 Nitrate as N	5.817	5.200	0.617	61080720	5.00	5.30	a
7 Orthophosphate as P	7.584	5.659	1.925	25214342	5.00	6.08	a
6 Sulfate	8.509	6.434	2.075	424206982	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

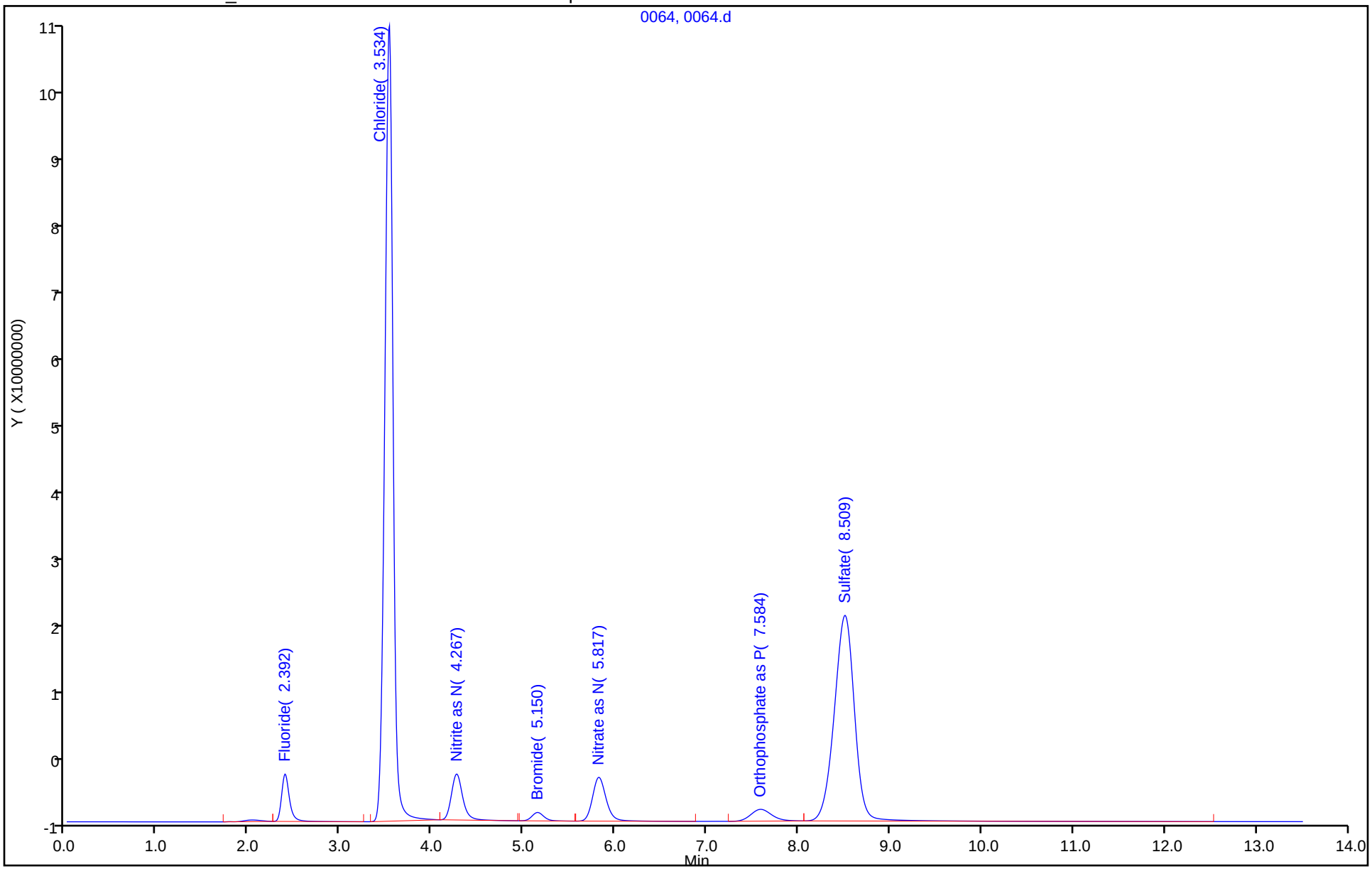
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:10:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0064.d

Injection Date:	18-May-2019 15:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	64
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

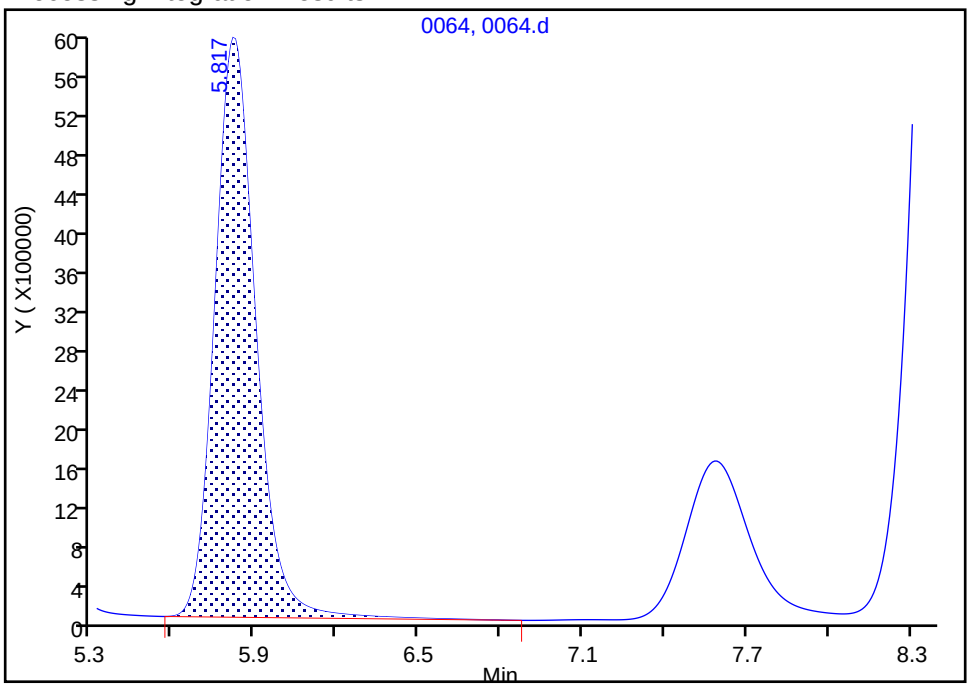
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0064.d
Injection Date: 18-May-2019 15:23:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

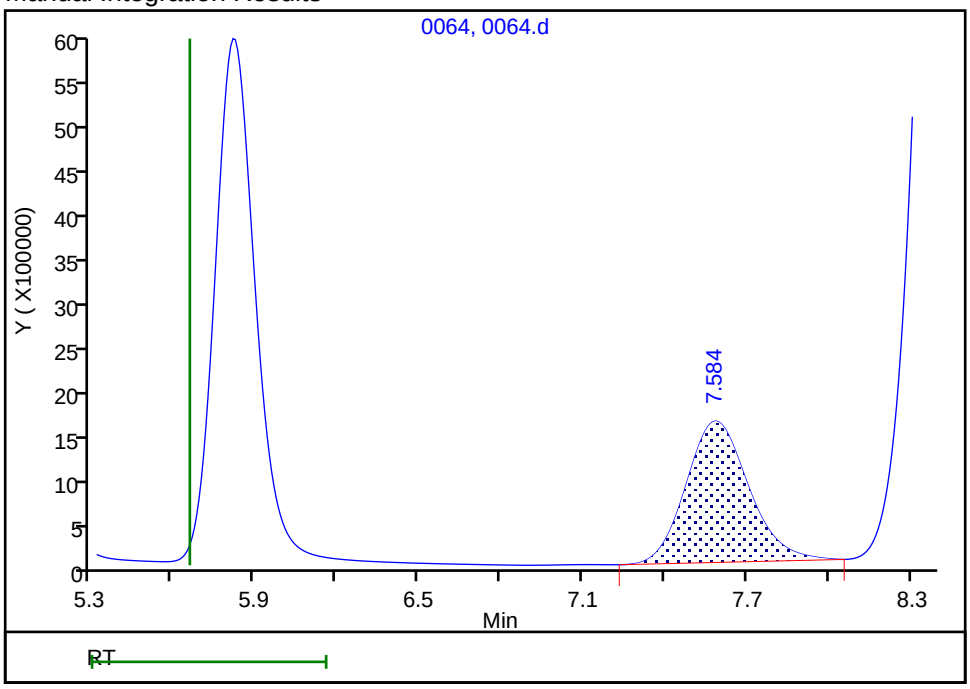
Processing Integration Results

RT: 5.82
Area: 61080720
Amount: 14.738310
Amount Units: ug/ml



Manual Integration Results

RT: 7.58
Area: 25214342
Amount: 6.079407
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:06:33
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

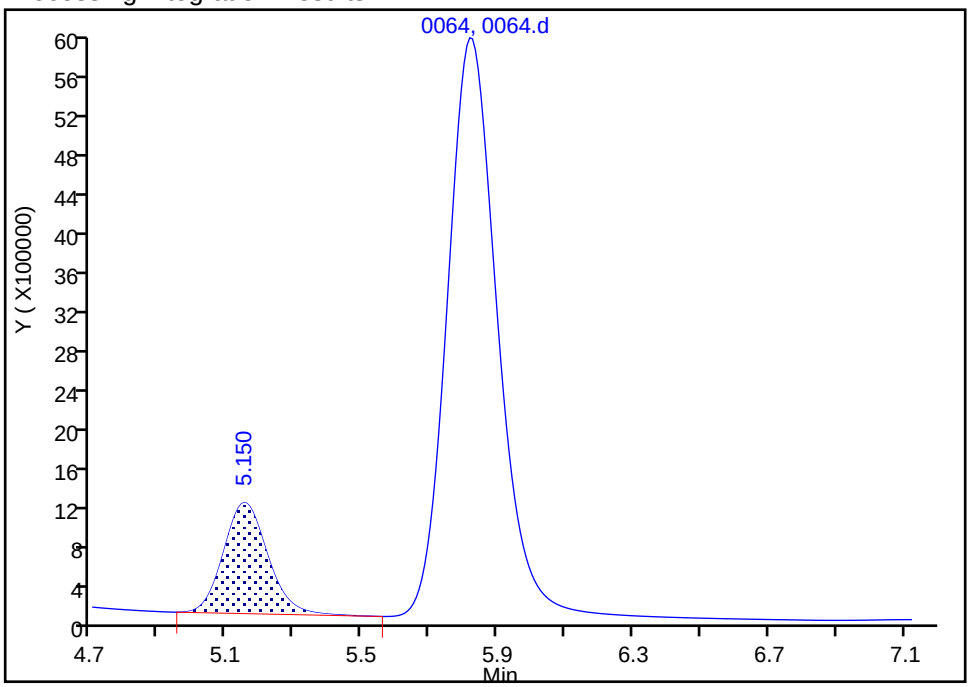
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0064.d
Injection Date: 18-May-2019 15:23:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

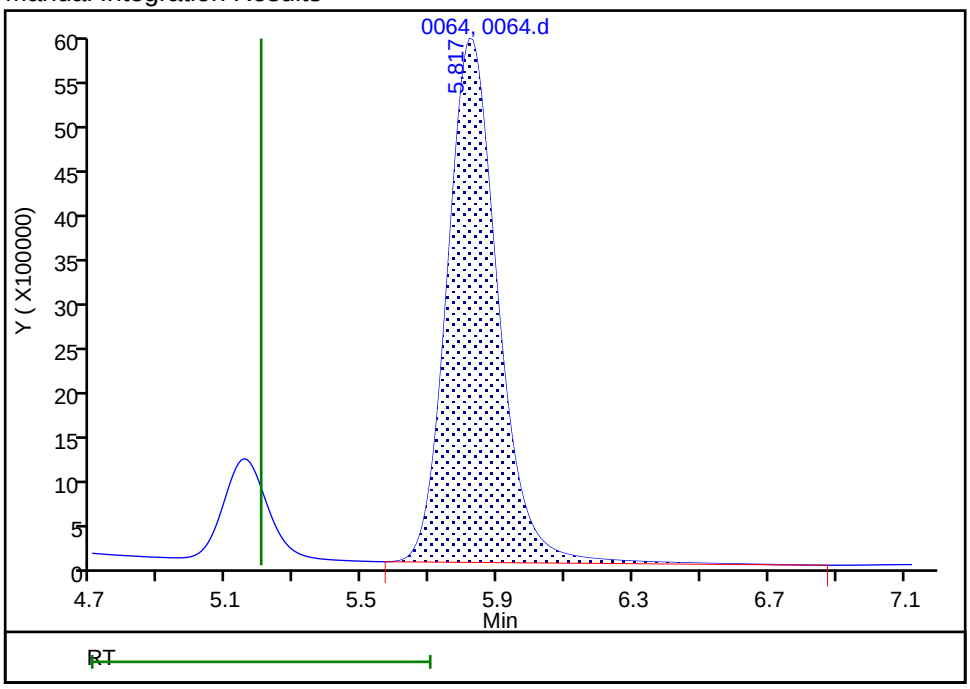
Processing Integration Results

RT: 5.15
Area: 10222840
Amount: 0.918437
Amount Units: ug/ml



Manual Integration Results

RT: 5.82
Area: 61080720
Amount: 5.297433
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:06:38
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

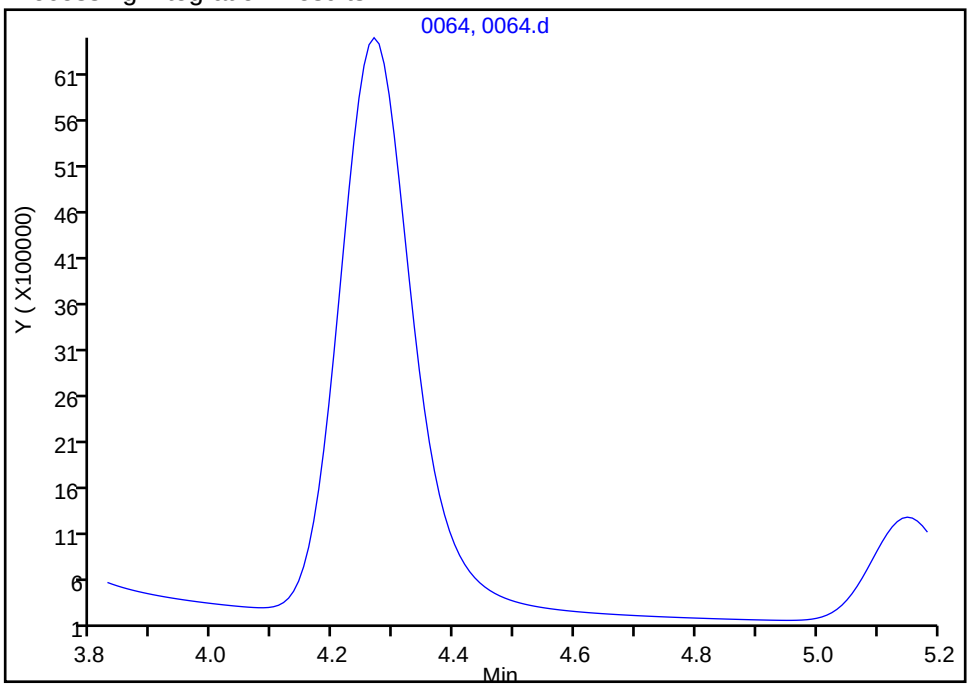
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0064.d
Injection Date: 18-May-2019 15:23:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

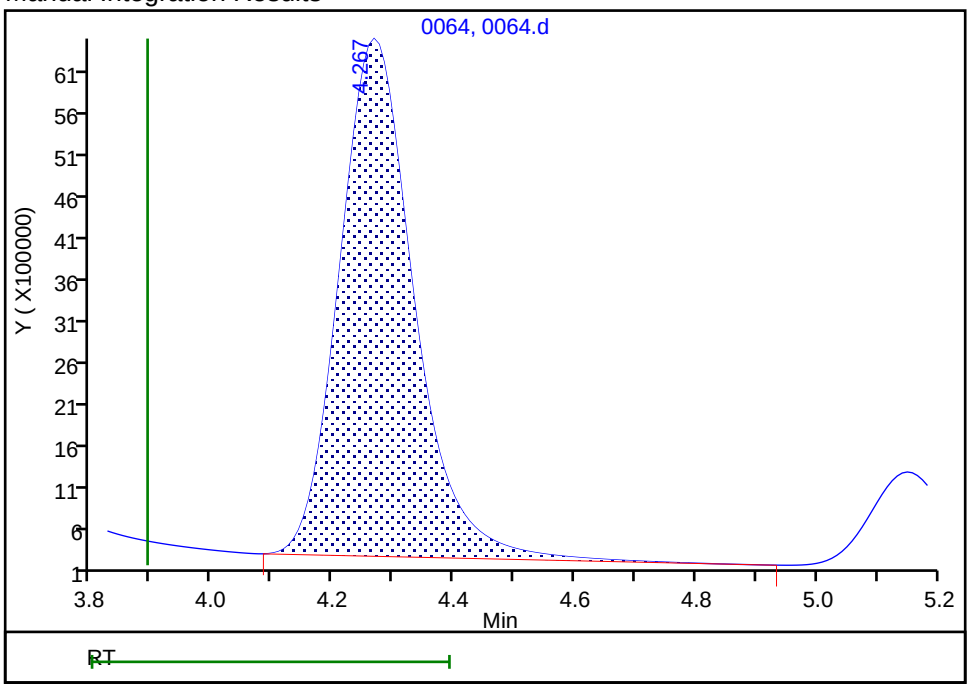
Not Detected
Expected RT: 3.89

Processing Integration Results



Manual Integration Results

RT: 4.27
Area: 53101174
Amount: 5.086303
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:06:44
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0064.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 15:23:00 ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-064
Misc. Info.: 29927 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:06:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	38041199	5.00	5.09	
2 Chloride	3.534	3.242	0.292	668352188	100.0	100.0	
3 Nitrite as N	4.267	3.892	0.375	53101174	NC	NC	a
4 Bromide	5.150	4.634	0.516	10222840	5.00	5.28	a
5 Nitrate as N	5.817	5.200	0.617	61080720	NC	NC	a
7 Orthophosphate as P	7.584	5.659	1.925	25214342	NC	NC	a
6 Sulfate	8.509	6.434	2.075	424206982	100.0	95.3	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

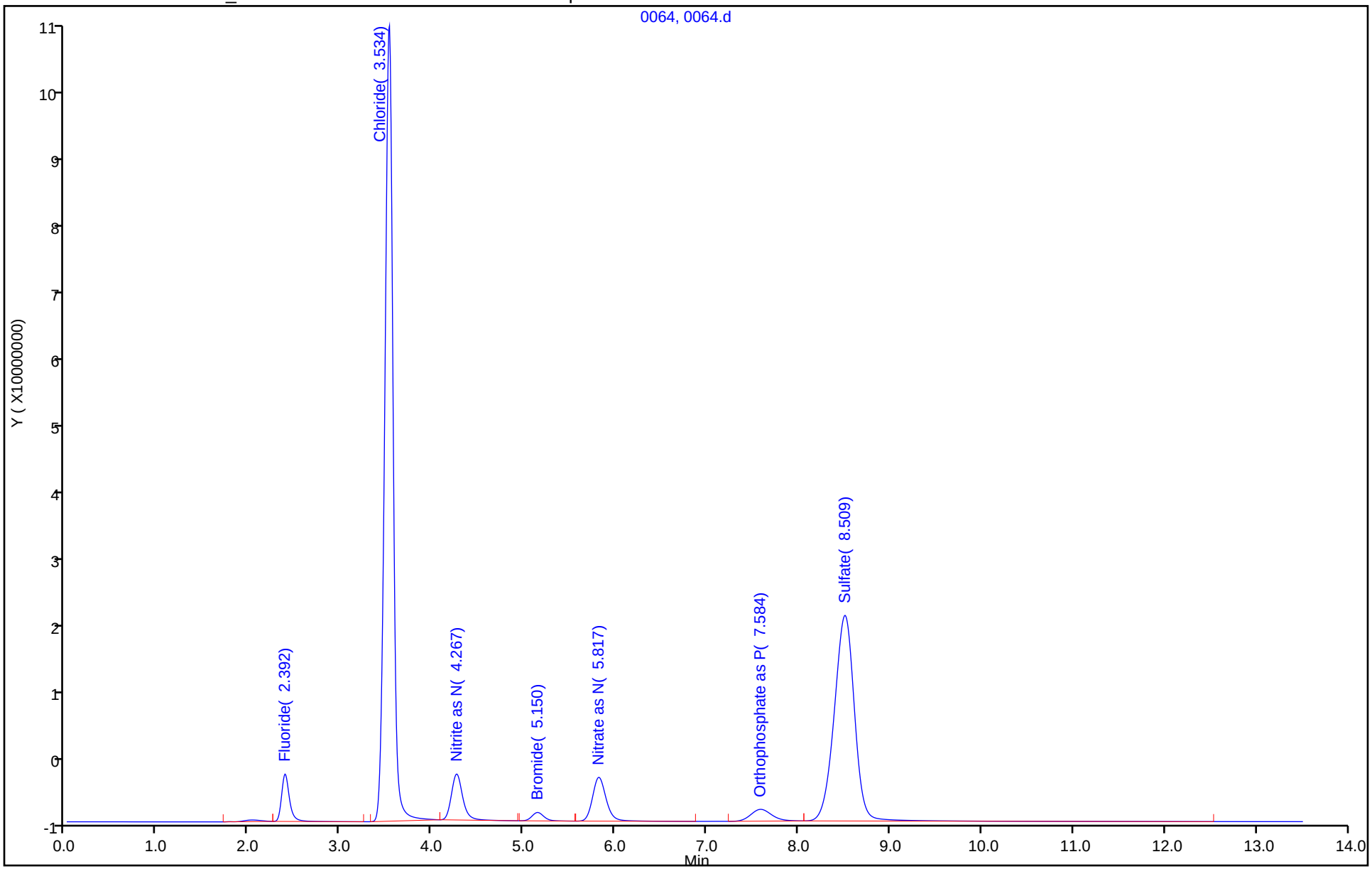
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:10:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0064.d

Injection Date:	18-May-2019 15:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	64
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

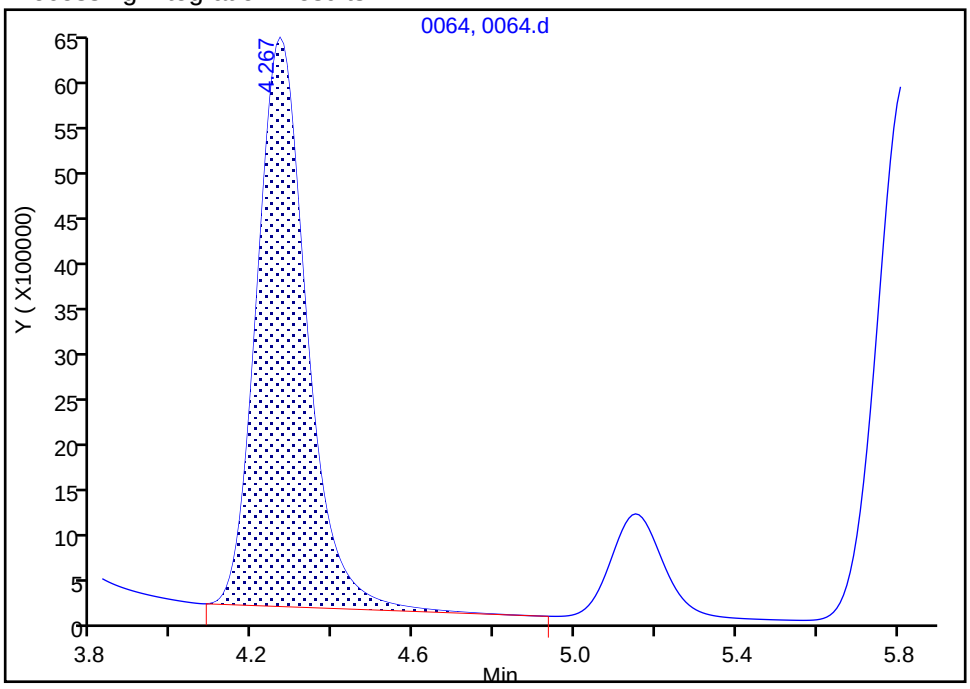
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0064.d
Injection Date: 18-May-2019 15:23:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

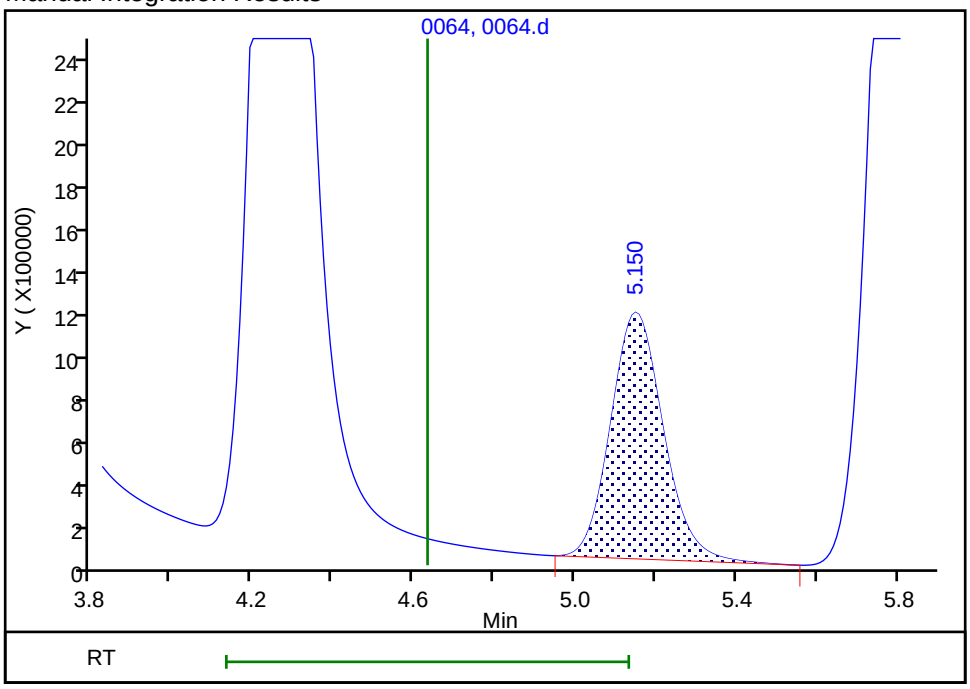
Processing Integration Results

RT: 4.27
Area: 53101174
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.15
Area: 10222840
Amount: 5.279781
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:06:41
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

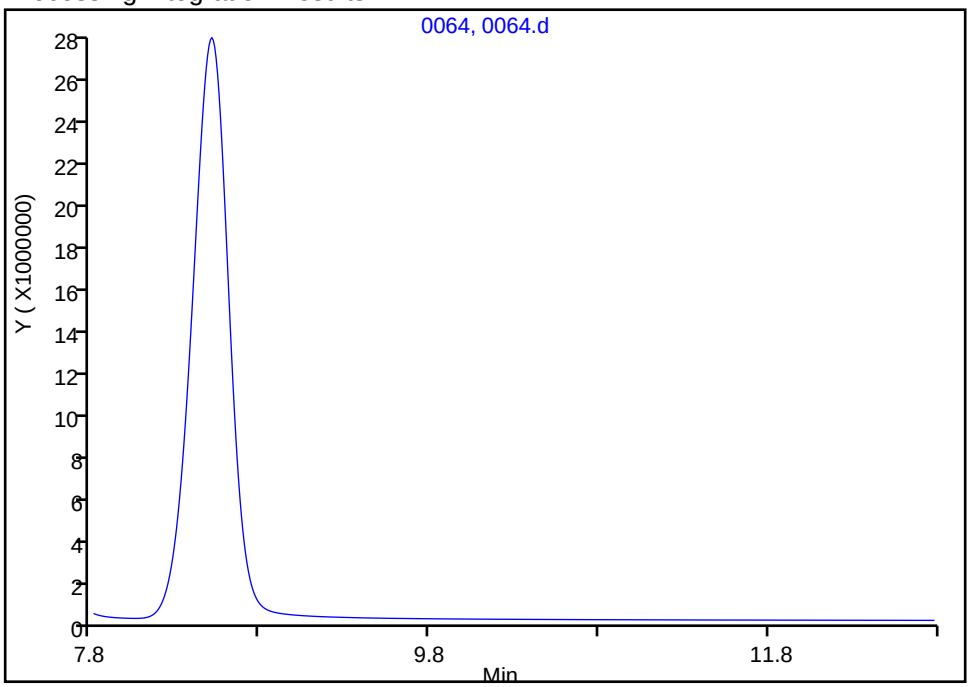
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0064.d				
Injection Date:	18-May-2019 15:23:00	Instrument ID:	WC_IonChrom11		
Lims ID:	ccv				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	64
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

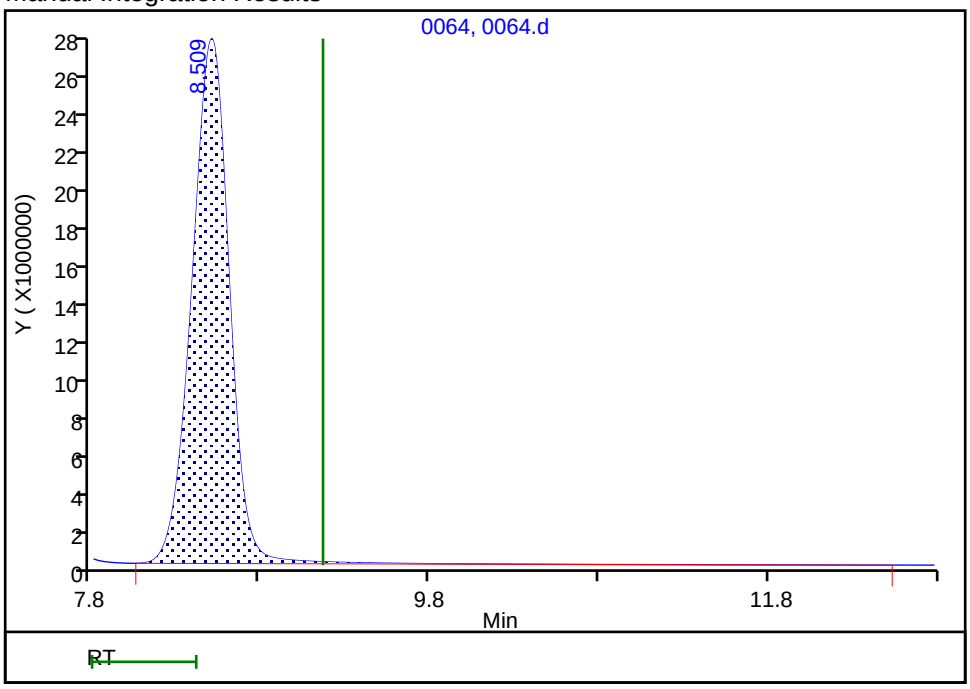
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 8.51
Area: 424206982
Amount: 95.285807
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:06:30
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0065.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 15:40:00 ALS Bottle#: 0 Worklist Smp#: 65
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-065
Misc. Info.: 21396 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	302866		NC	
2 Chloride		3.242			ND		
3 Nitrite as N		3.892			ND		
4 Bromide		4.634			ND		
5 Nitrate as N		5.200			ND		
7 Orthophosphate as P		5.659			ND		
6 Sulfate	7.059	6.434	0.625	602025		NC	

QC Flag Legend

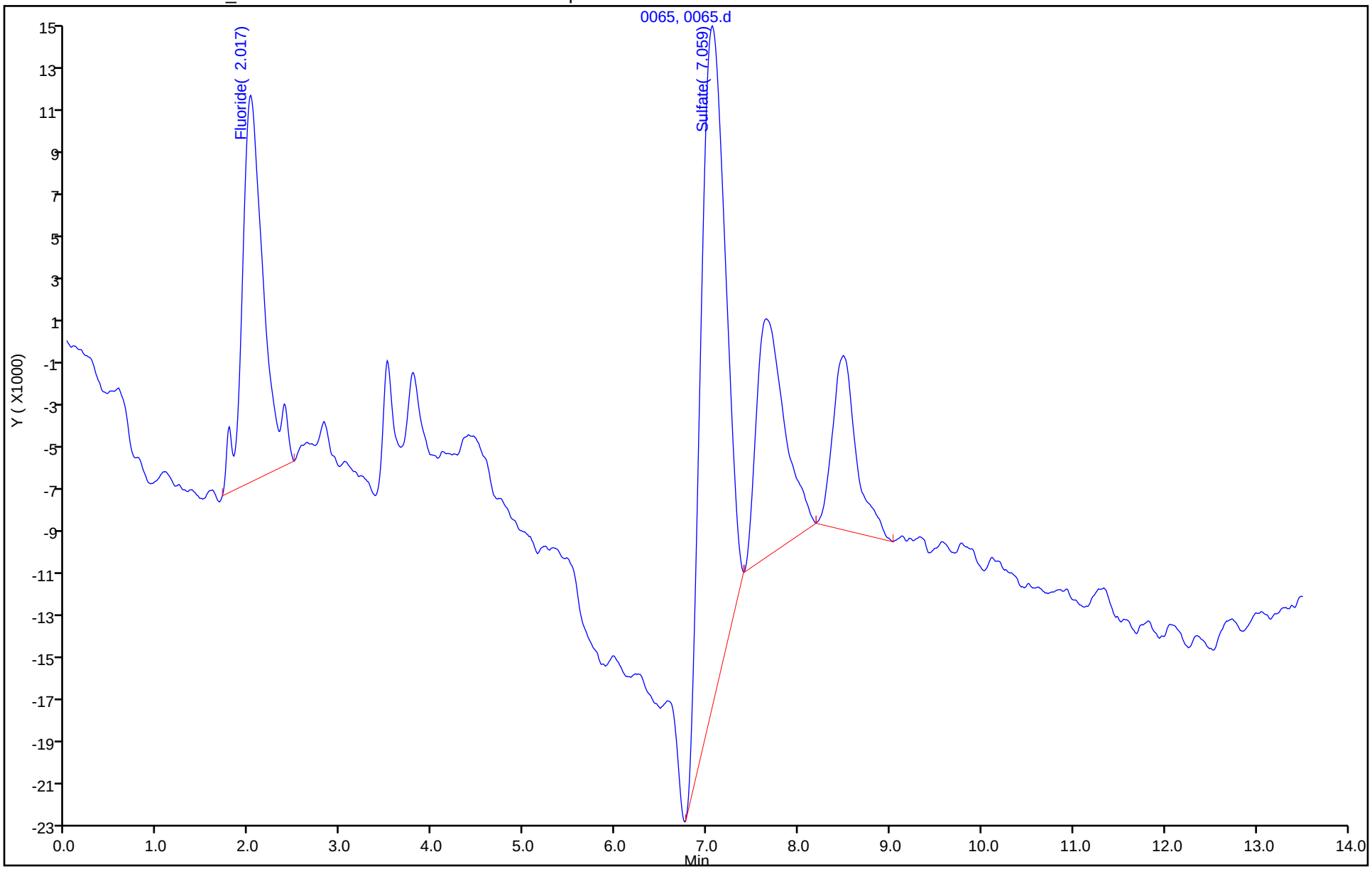
Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:10:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0065.d

Injection Date:	18-May-2019 15:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	65
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0065.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 15:40:00 ALS Bottle#: 0 Worklist Smp#: 65
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-065
Misc. Info.: 21396 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

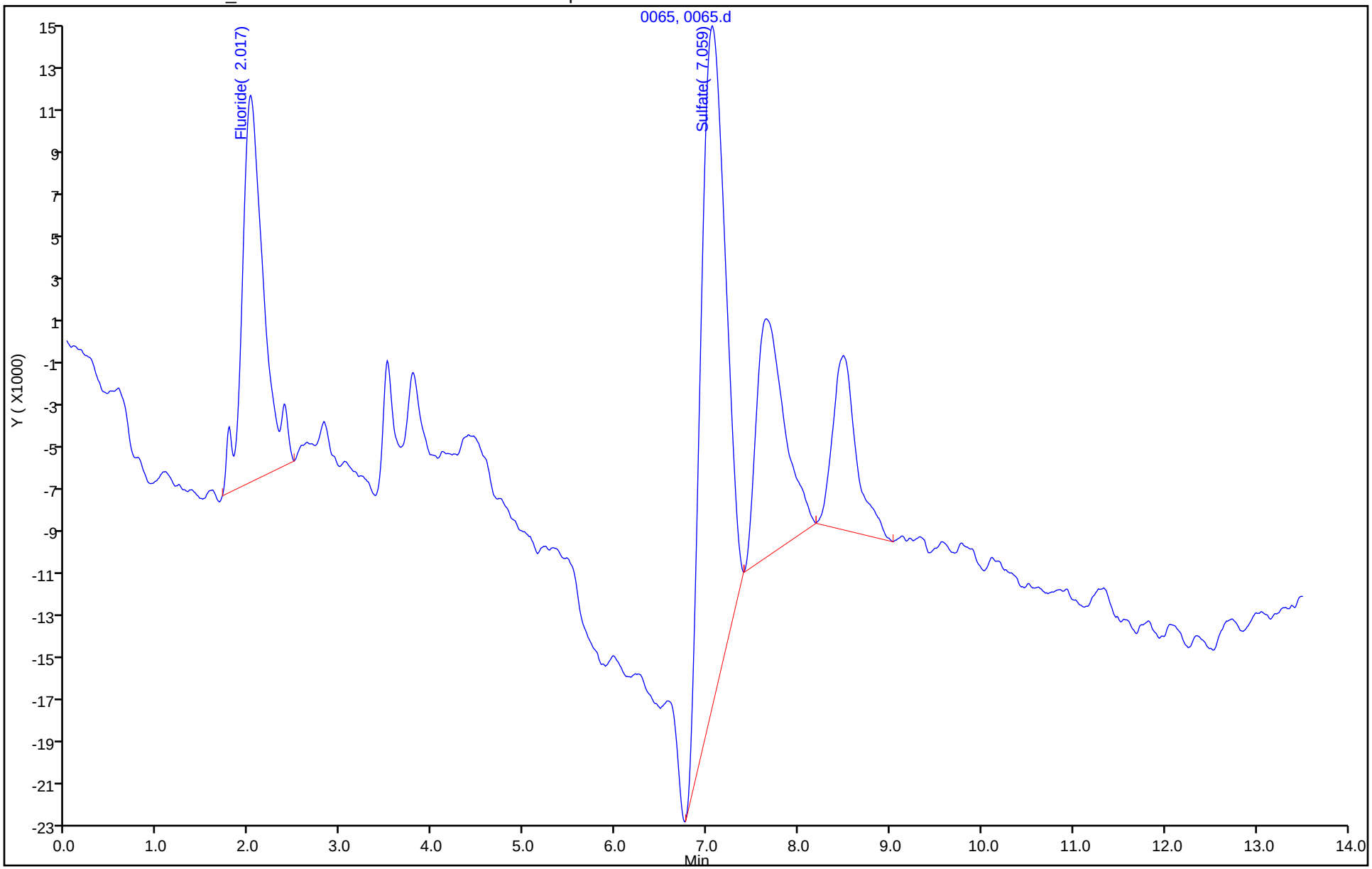
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	302866		-0.1128	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P		5.659				ND	
6 Sulfate	7.059	6.434	0.625	602025		0.5719	

Report Date: 20-May-2019 08:10:15 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0065.d

Injection Date:	18-May-2019 15:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	65
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0066.d
Lims ID: 280-123924-I-7
Client ID: LF6/TMCSW-1_0519
Sample Type: Client
Inject. Date: 18-May-2019 15:56:00 ALS Bottle#: 0 Worklist Smp#: 66
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0082000-066
Misc. Info.: 25614 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:07:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.292	-0.250	1168195	NC	
2 Chloride	3.517	3.242	0.275	358056366	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.834	5.200	0.634	1806229	0.1937	a
7 Orthophosphate as P		5.659			ND	a
6 Sulfate	8.459	6.434	2.025	19931673	NC	a

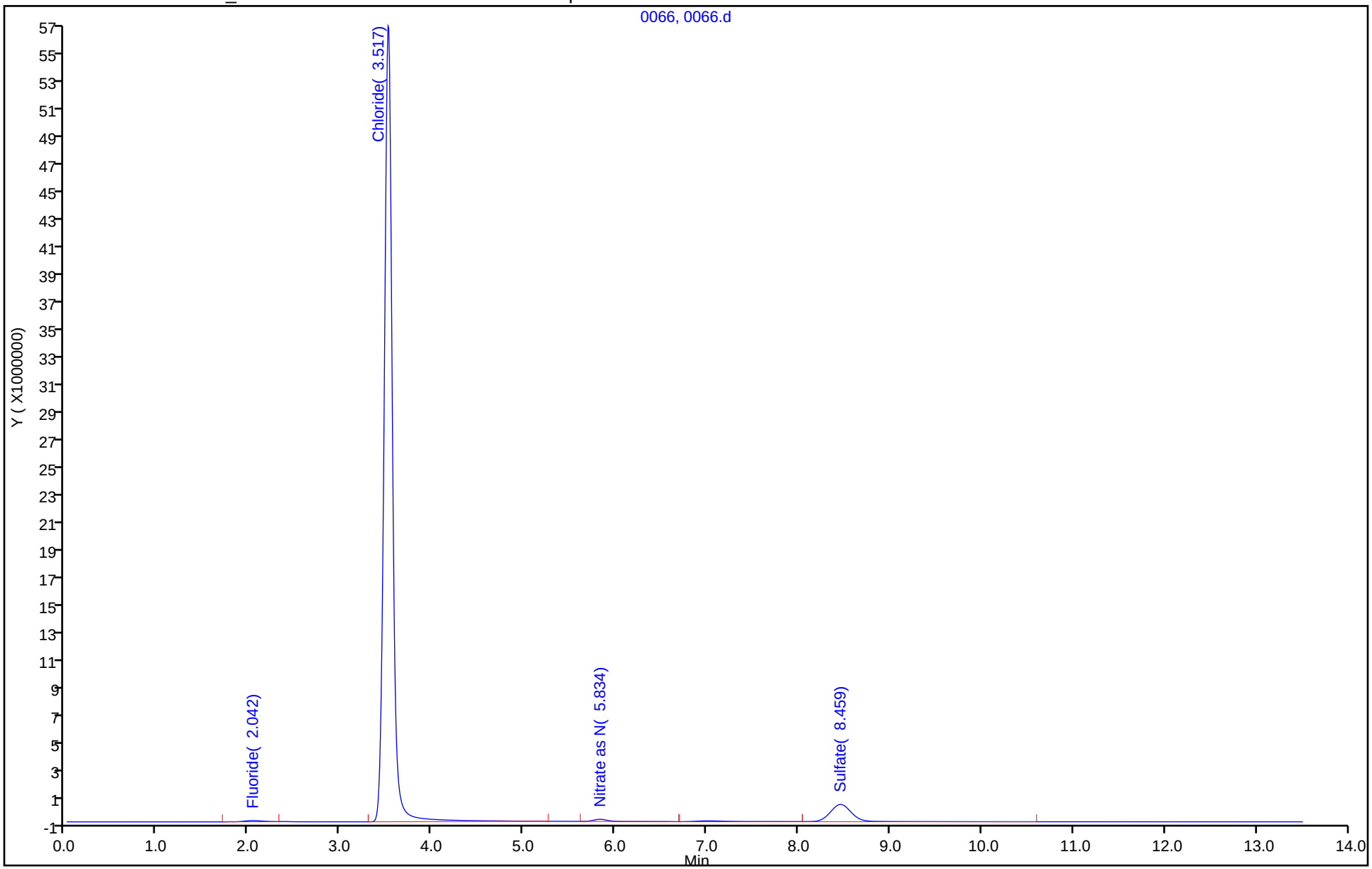
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0066.d				
Injection Date:	18-May-2019 15:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-7	Lab Sample ID:	280-123924-7	Worklist Smp#:	66
Client ID:	LF6/TMCSW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0067.d
Lims ID: 280-123924-H-8
Client ID: LF6/TMCSW-2_0519
Sample Type: Client
Inject. Date: 18-May-2019 16:13:00 ALS Bottle#: 0 Worklist Smp#: 67
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-067
Misc. Info.: 15569 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:07:23

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.292	0.092	285479	NC	
2 Chloride		3.242			ND	
3 Nitrite as N	3.584	3.892	-0.308	2015685615	192.1	E
4 Bromide		4.634			ND	
5 Nitrate as N	5.850	5.200	0.650	7840386	0.7133	a
7 Orthophosphate as P		5.659			ND	a
6 Sulfate	8.484	6.434	2.050	101564801	NC	a

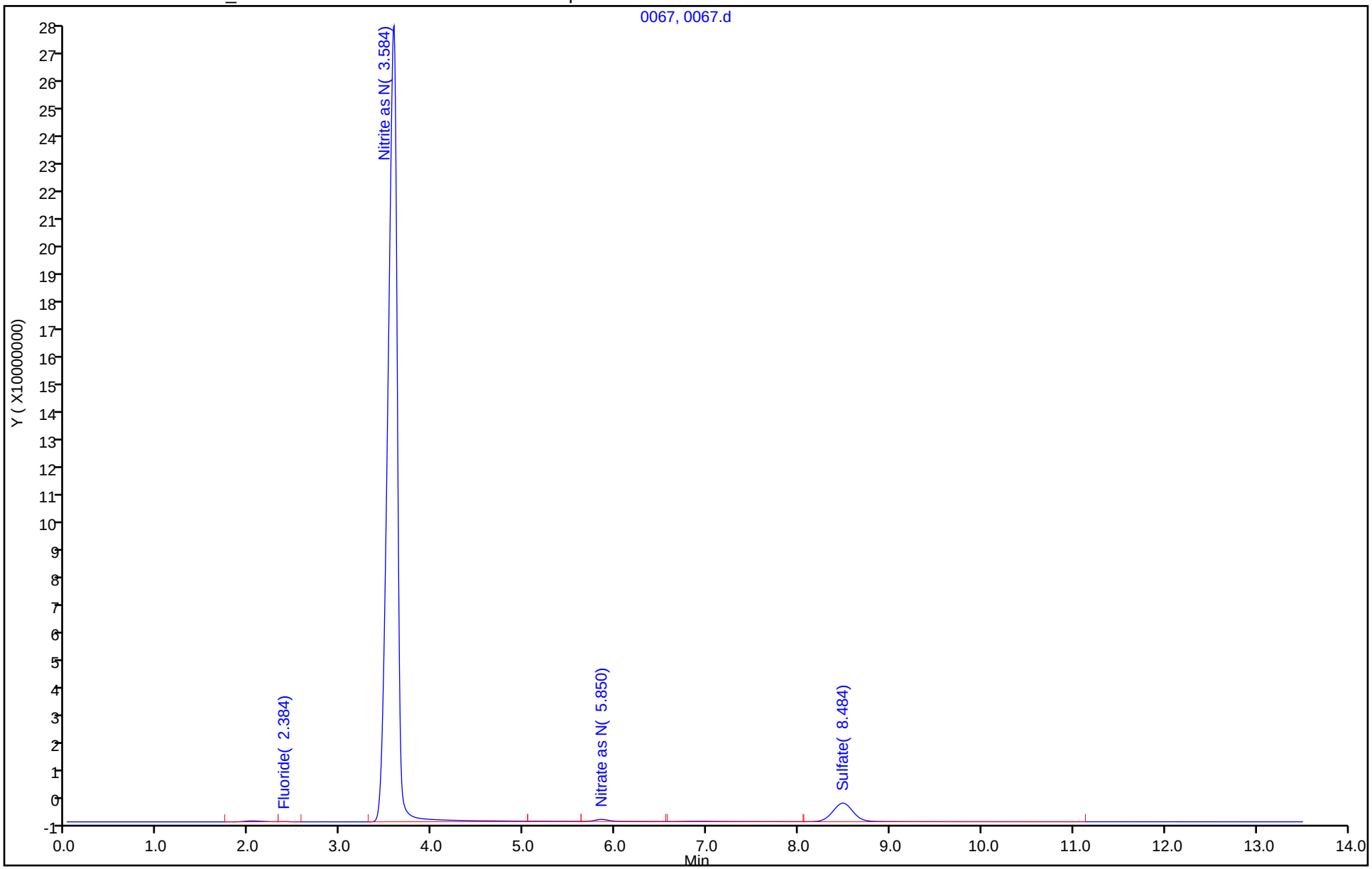
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0067.d				
Injection Date:	18-May-2019 16:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-8	Lab Sample ID:	280-123924-8	Worklist Smp#:	67
Client ID:	LF6/TMCSW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

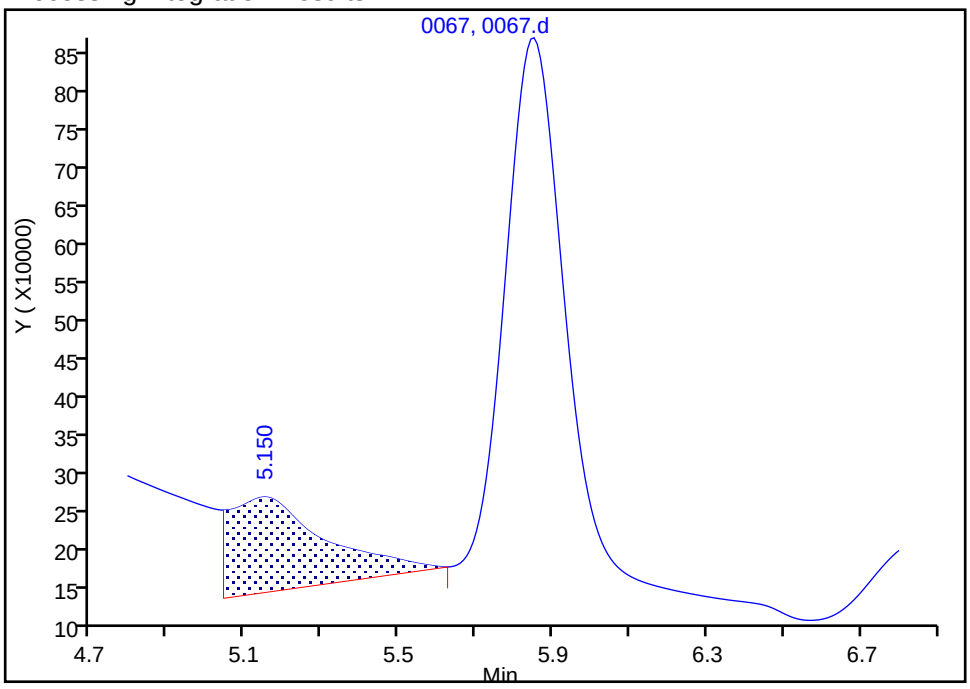
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0067.d				
Injection Date:	18-May-2019 16:13:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-H-8	Lab Sample ID:	280-123924-8		
Client ID:	LF6/TMCSW-2_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	67
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

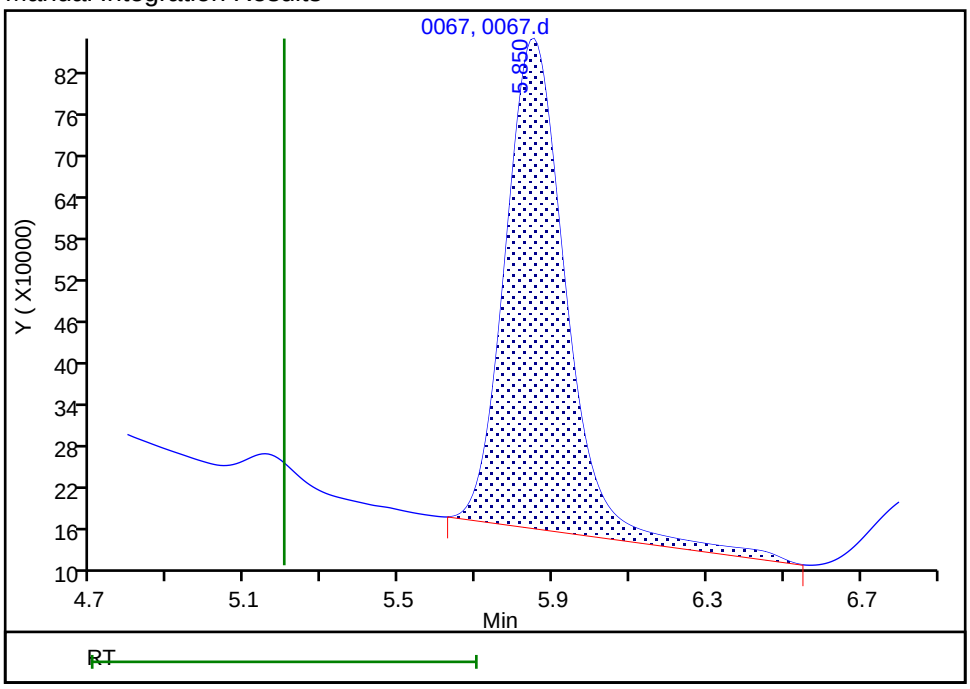
Processing Integration Results

RT: 5.15
Area: 2121971
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.85
Area: 7840386
Amount: 0.713302
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:07:22
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0067.d
Lims ID: 280-123924-H-8
Client ID: LF6/TMCSW-2_0519
Sample Type: Client
Inject. Date: 18-May-2019 16:13:00 ALS Bottle#: 0 Worklist Smp#: 67
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-067
Misc. Info.: 15569 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:07:23

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.292	0.092	285479	-0.1152	
2 Chloride		3.242			ND	
3 Nitrite as N	3.584	3.892	-0.308	2015685615	NC	
4 Bromide		4.634			ND	
5 Nitrate as N	5.850	5.200	0.650	7840386	NC	a
7 Orthophosphate as P		5.659			ND	a
6 Sulfate	8.484	6.434	2.050	101564801	23.1	a

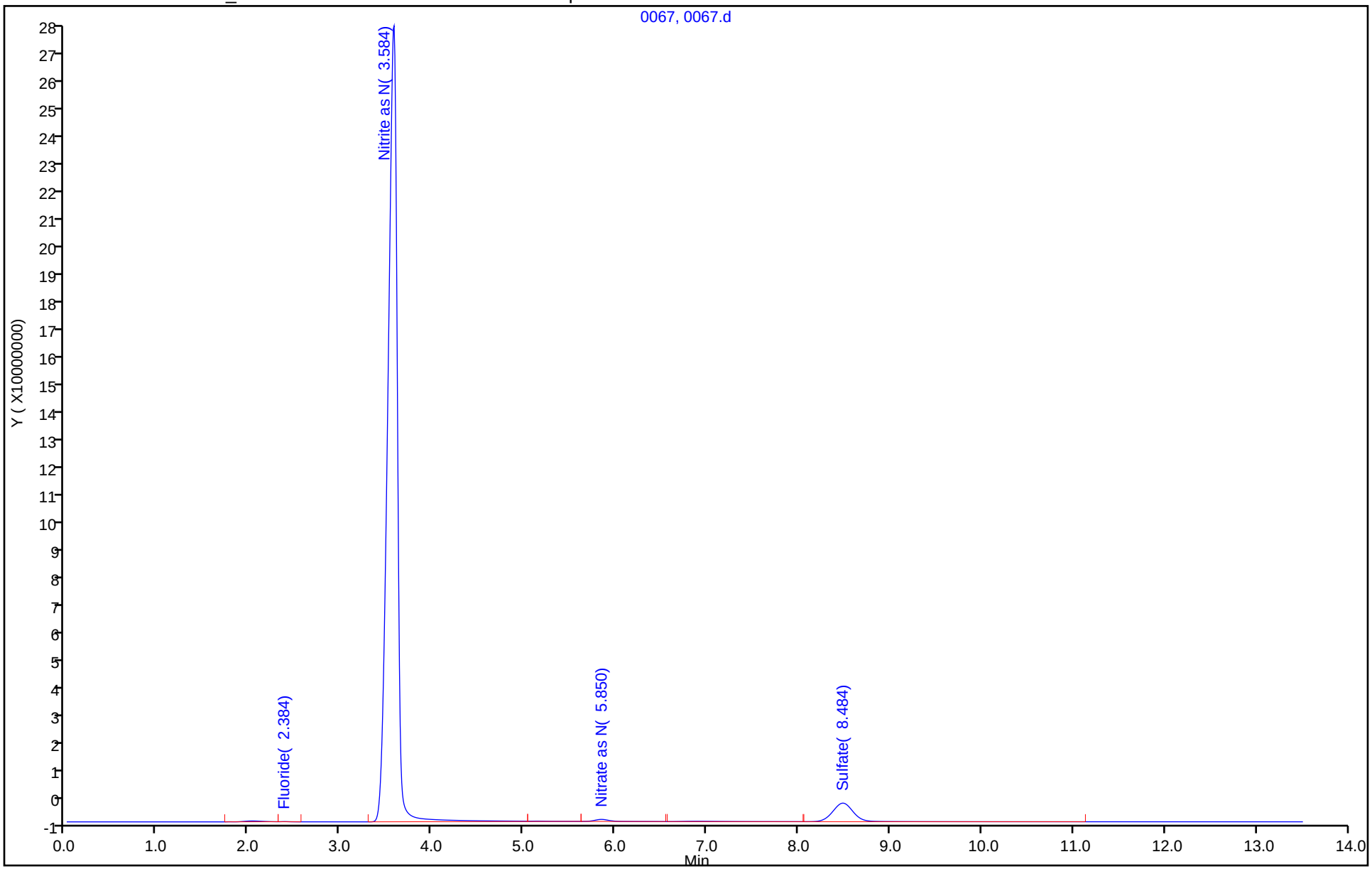
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:16 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0067.d				
Injection Date:	18-May-2019 16:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-8	Lab Sample ID:	280-123924-8	Worklist Smp#:	67
Client ID:	LF6/TMCSW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

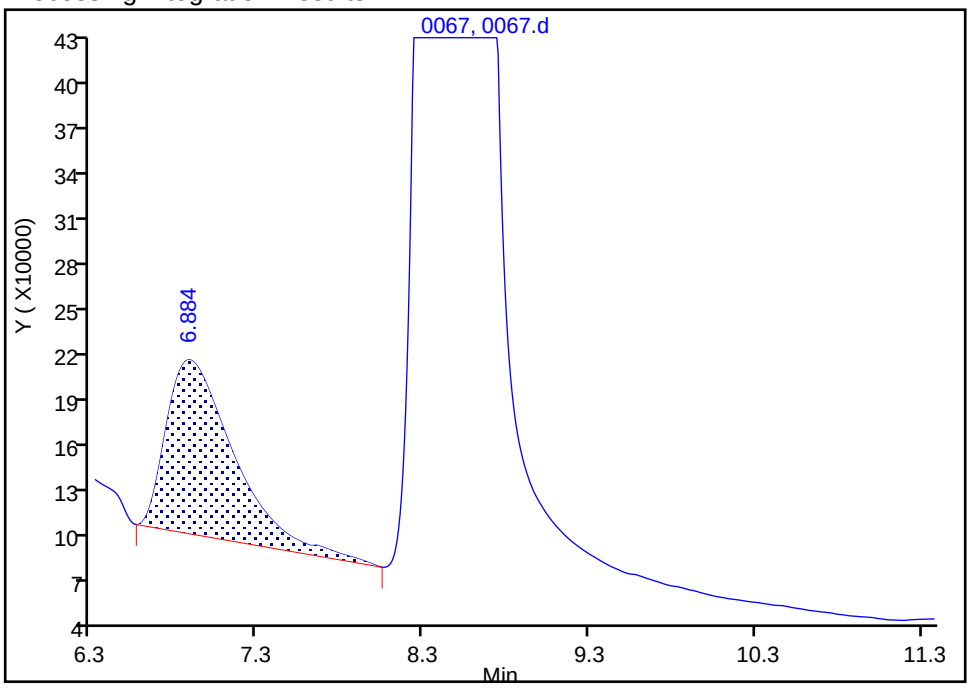
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0067.d		
Injection Date:	18-May-2019 16:13:00	Instrument ID:	WC_IonChrom11
Lims ID:	280-123924-H-8	Lab Sample ID:	280-123924-8
Client ID:	LF6/TMCSW-2_0519		
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 67
Injection Vol:	10.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

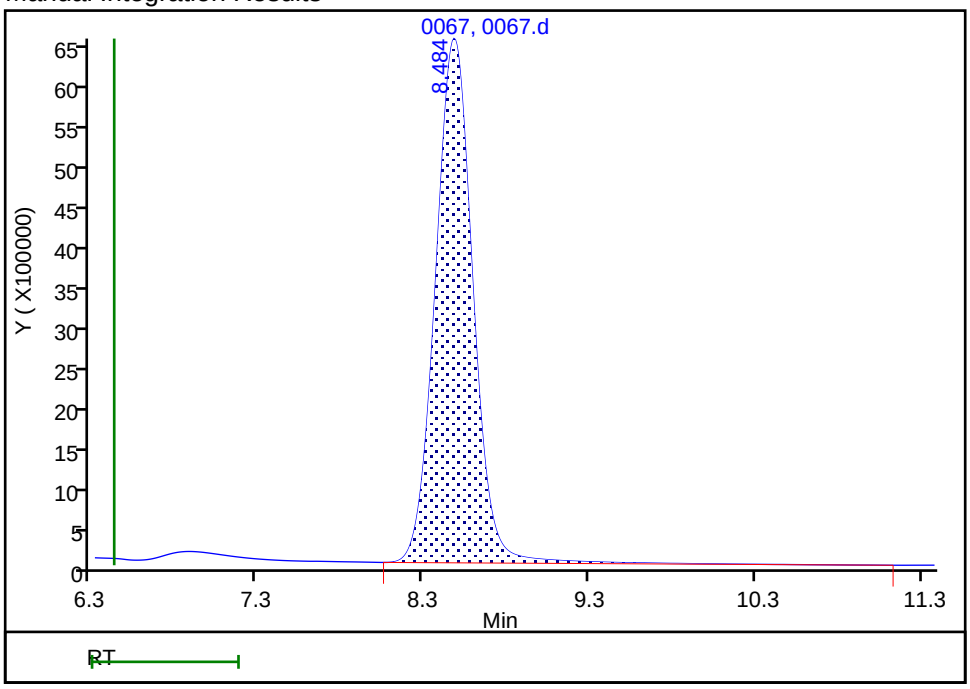
Processing Integration Results

RT: 6.88
Area: 3244643
Amount: 1.162764
Amount Units: ug/ml



Manual Integration Results

RT: 8.48
Area: 101564801
Amount: 23.146185
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:07:18
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0068.d
Lims ID: 280-123924-H-8
Client ID: LF6/TMCSW-2_0519
Sample Type: Client
Inject. Date: 18-May-2019 16:29:00 ALS Bottle#: 0 Worklist Smp#: 68
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0082000-068
Misc. Info.: 9449 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:07:33

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.292	-0.258	1121186	NC	
2 Chloride	3.517	3.242	0.275	328697784	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.825	5.200	0.625	1609804	0.1768	a
7 Orthophosphate as P		5.659			ND	a
6 Sulfate	8.459	6.434	2.025	19055675	NC	a

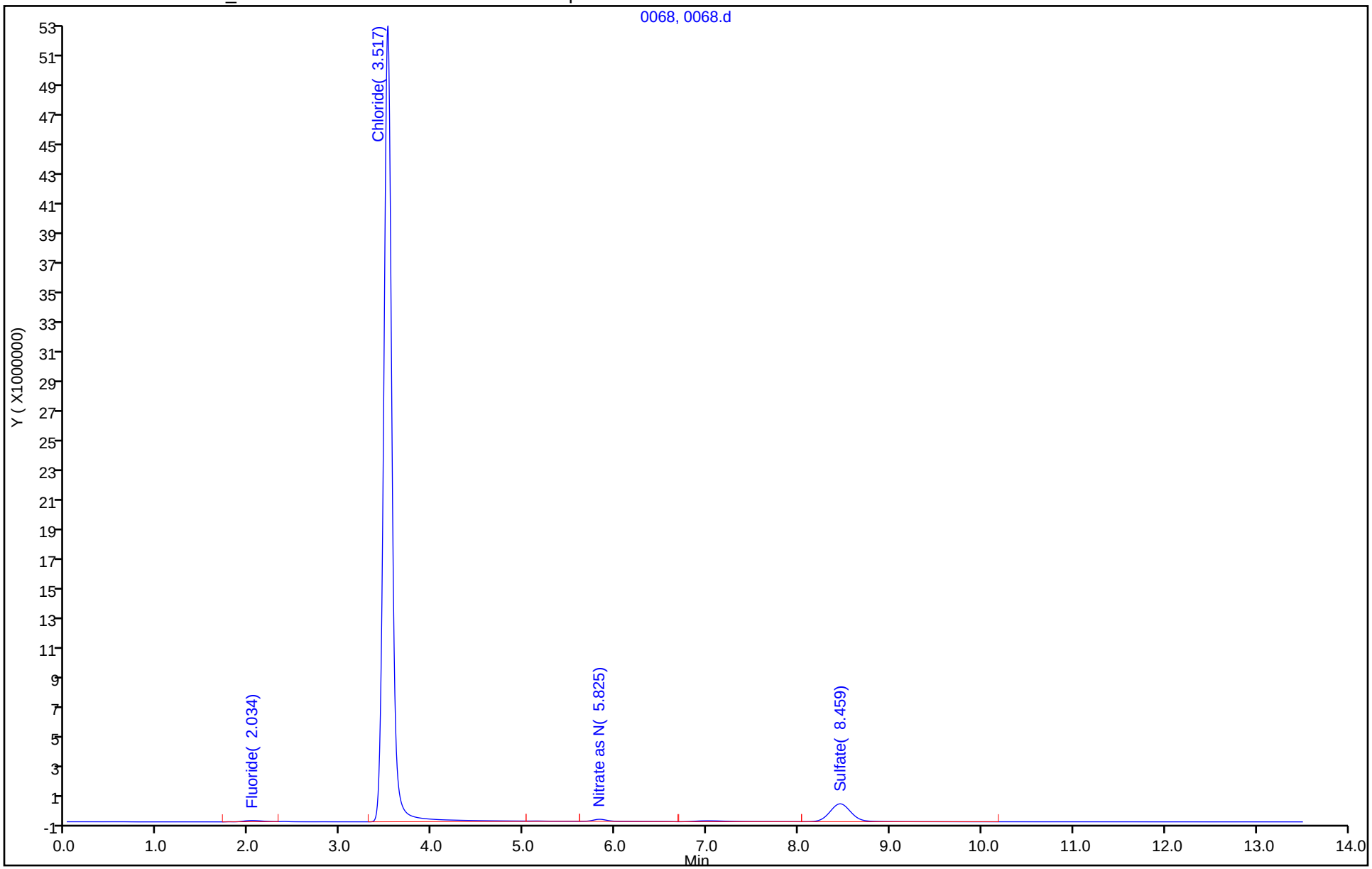
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:17 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0068.d				
Injection Date:	18-May-2019 16:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-8	Lab Sample ID:	280-123924-8	Worklist Smp#:	68
Client ID:	LF6/TMCSW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0069.d
Lims ID: 280-123924-H-9
Client ID: LF6/TMCSW-2_0519-9
Sample Type: Client
Inject. Date: 18-May-2019 16:46:00 ALS Bottle#: 0 Worklist Smp#: 69
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-069
Misc. Info.: 8876 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:07:42

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.292	0.092	306592	NC	
2 Chloride		3.242			ND	
3 Nitrite as N	3.584	3.892	-0.308	2010367298	191.6	E
4 Bromide		4.634			ND	
5 Nitrate as N	5.859	5.200	0.659	7791026	0.7091	a
7 Orthophosphate as P		5.659			ND	a
6 Sulfate	8.492	6.434	2.058	101632883	NC	a

QC Flag Legend

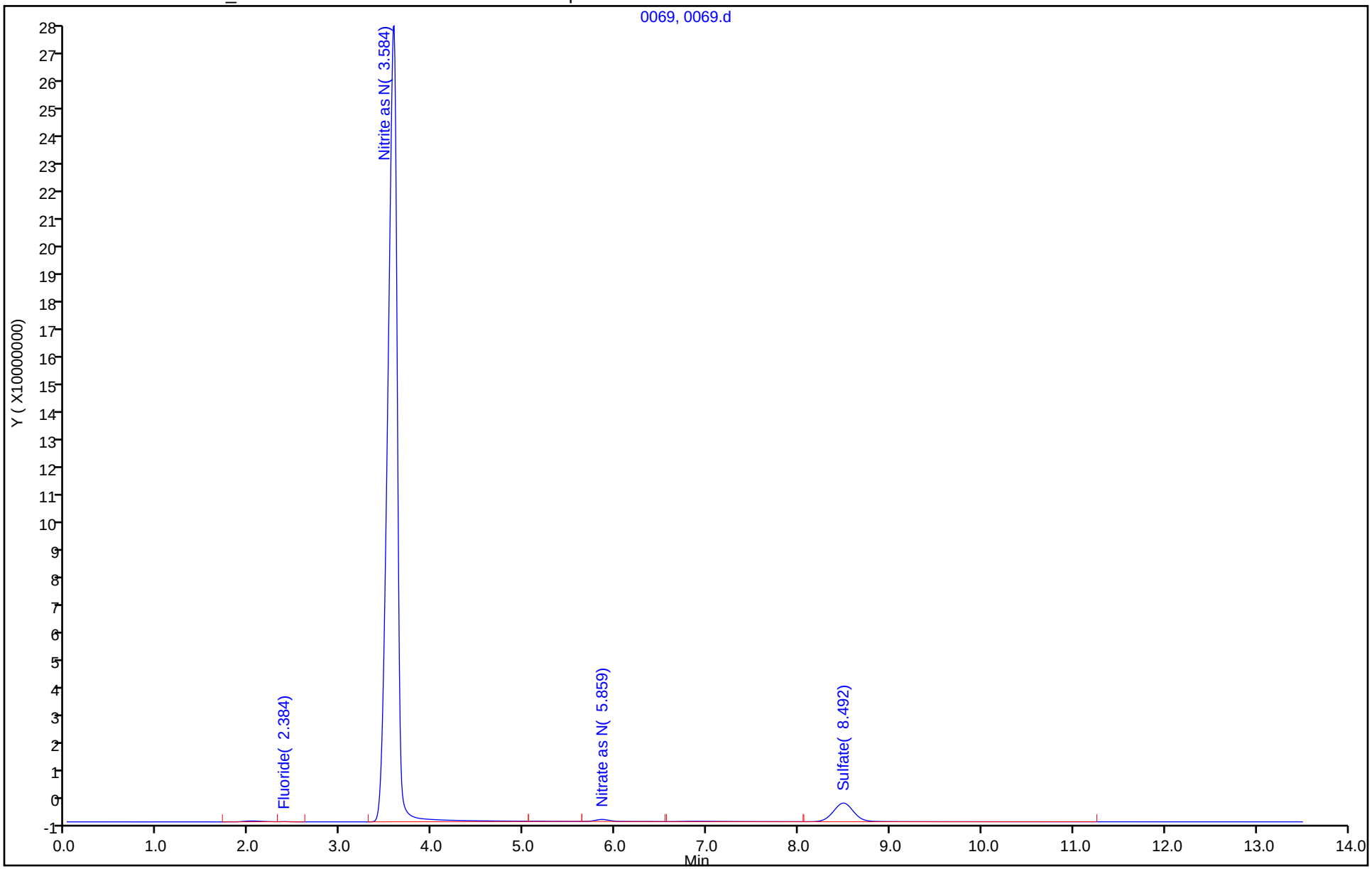
Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0069.d

Injection Date:	18-May-2019 16:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-9	Lab Sample ID:	280-123924-9	Worklist Smp#:	69
Client ID:	LF6/TMCSW-2_0519-9				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

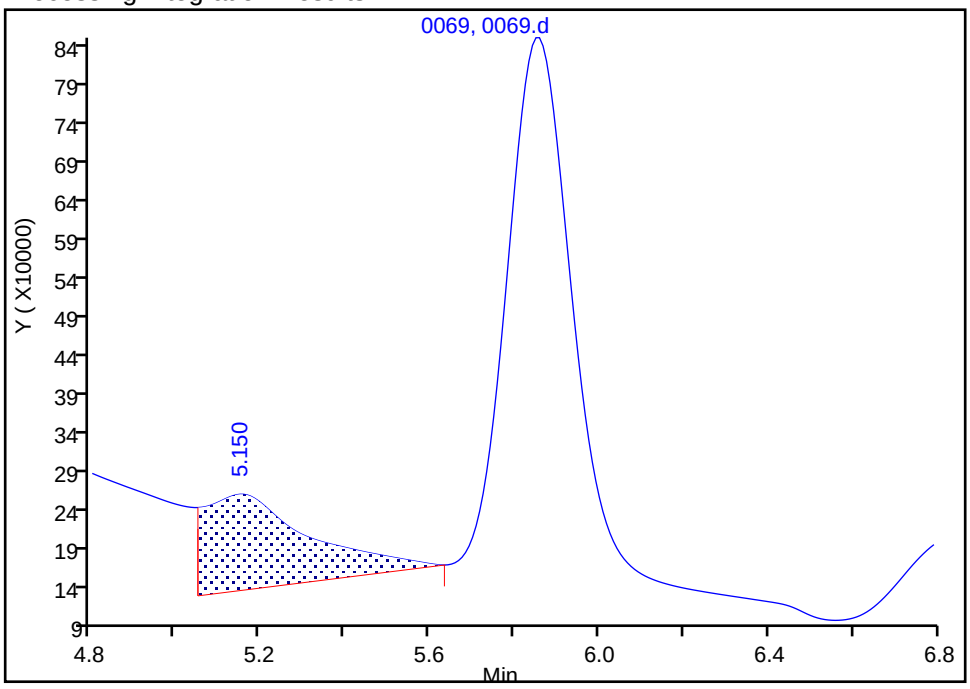
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0069.d				
Injection Date:	18-May-2019 16:46:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-H-9	Lab Sample ID:	280-123924-9		
Client ID:	LF6/TMCSW-2_0519-9				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	69
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

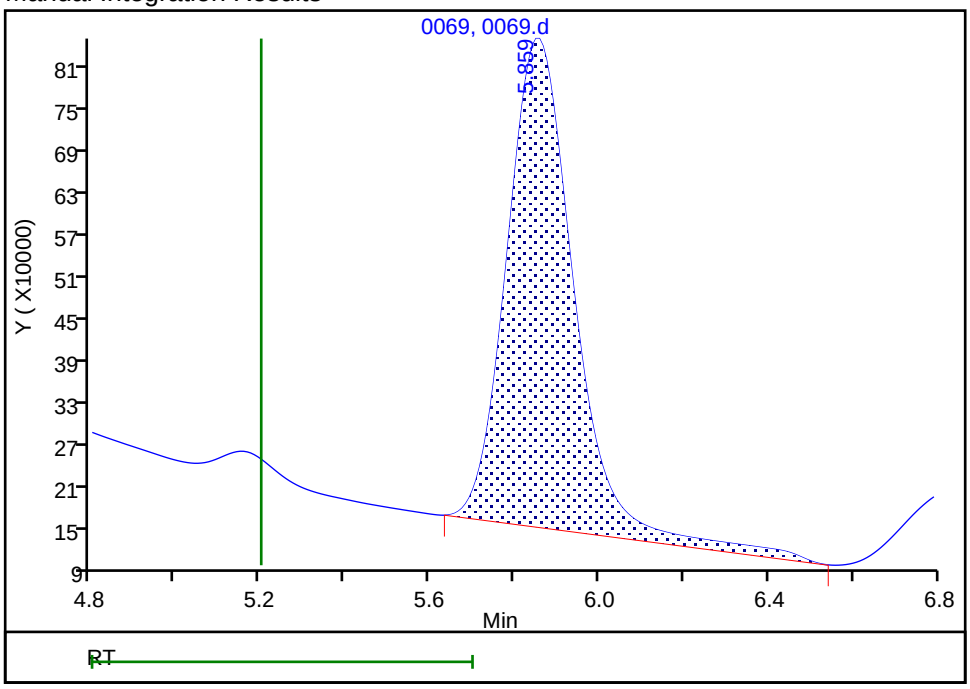
Processing Integration Results

RT: 5.15
Area: 2115552
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.86
Area: 7791026
Amount: 0.709052
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:07:41
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0069.d
Lims ID: 280-123924-H-9
Client ID: LF6/TMCSW-2_0519-9
Sample Type: Client
Inject. Date: 18-May-2019 16:46:00 ALS Bottle#: 0 Worklist Smp#: 69
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-069
Misc. Info.: 8876 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:07:42

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.292	0.092	306592	-0.1123	
2 Chloride		3.242			ND	
3 Nitrite as N	3.584	3.892	-0.308	2010367298	NC	
4 Bromide		4.634			ND	
5 Nitrate as N	5.859	5.200	0.659	7791026	NC	a
7 Orthophosphate as P		5.659			ND	a
6 Sulfate	8.492	6.434	2.058	101632883	23.2	a

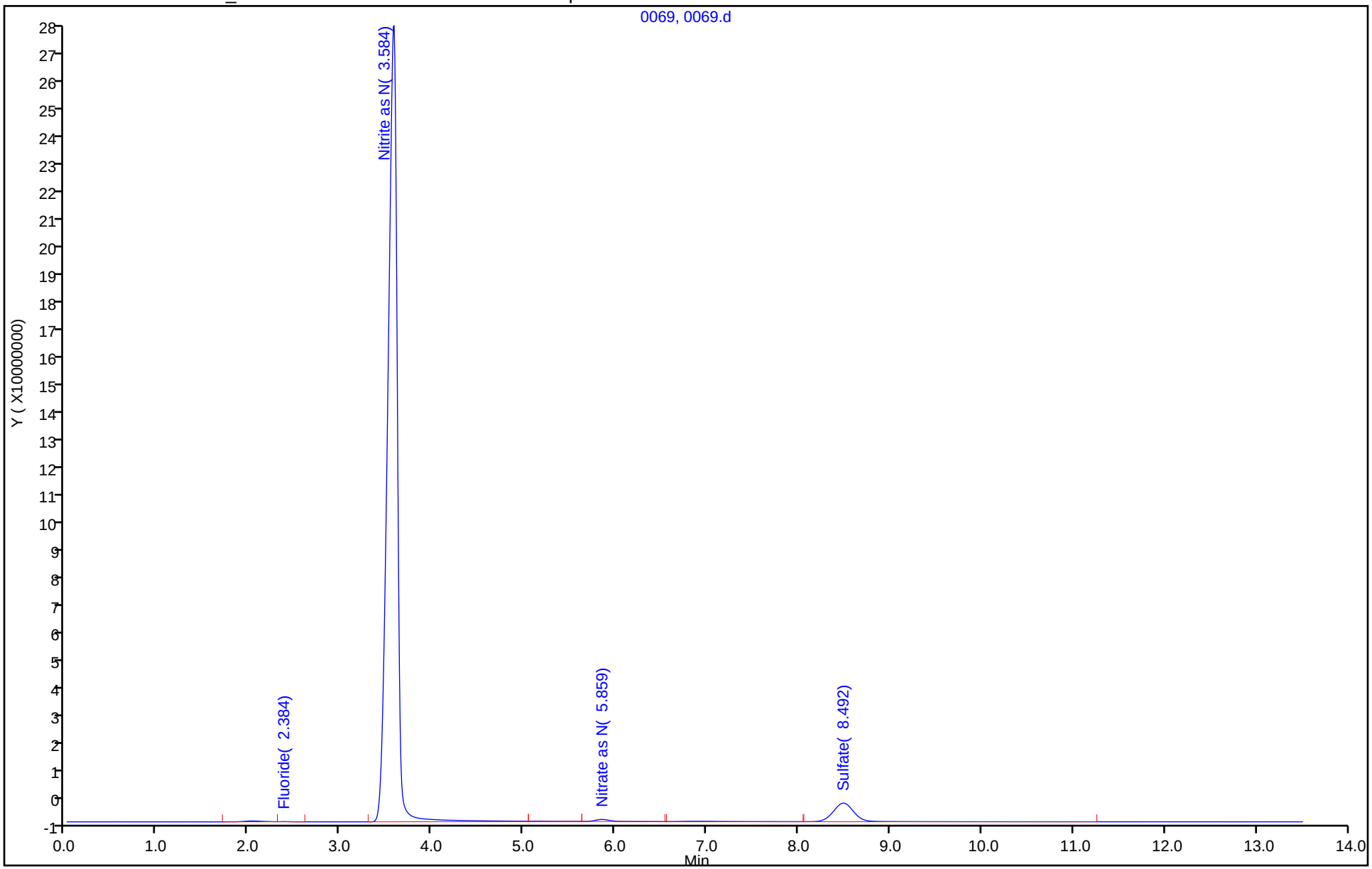
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:18 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0069.d				
Injection Date:	18-May-2019 16:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-9	Lab Sample ID:	280-123924-9	Worklist Smp#:	69
Client ID:	LF6/TMCSW-2_0519-9				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

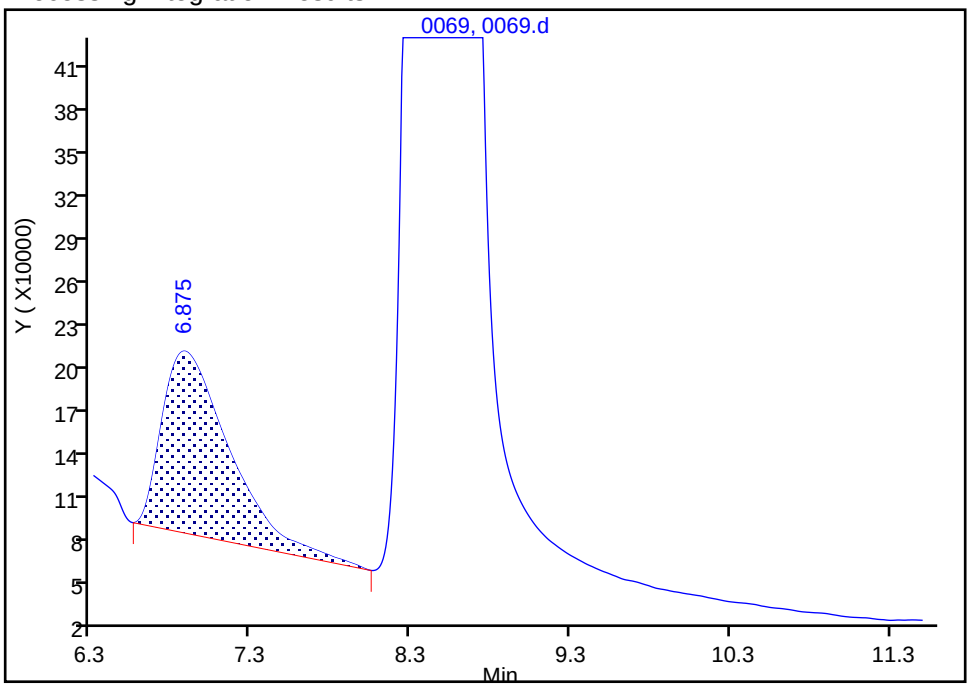
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0069.d				
Injection Date:	18-May-2019 16:46:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-H-9	Lab Sample ID:	280-123924-9		
Client ID:	LF6/TMCSW-2_0519-9				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	69
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

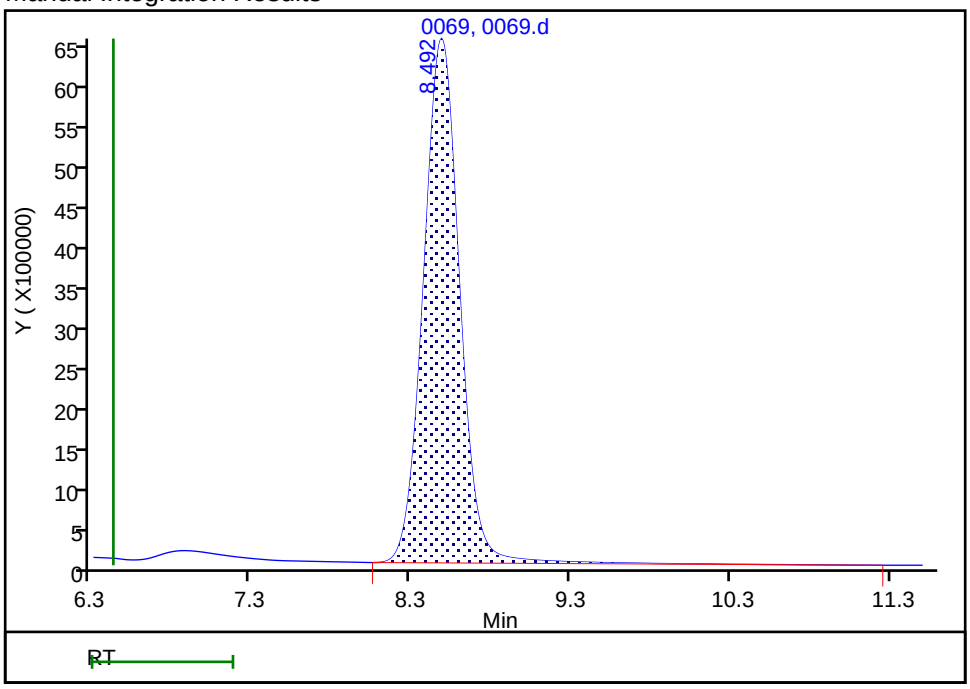
Processing Integration Results

RT: 6.88
Area: 3610659
Amount: 1.244602
Amount Units: ug/ml



Manual Integration Results

RT: 8.49
Area: 101632883
Amount: 23.161408
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:07:38
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0070.d
Lims ID: 280-123924-H-9
Client ID: LF6/TMCSW-2_0519-9
Sample Type: Client
Inject. Date: 18-May-2019 17:02:00 ALS Bottle#: 0 Worklist Smp#: 70
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0082000-070
Misc. Info.: 8112 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:07:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.292	-0.258	1092105	NC	
2 Chloride	3.517	3.242	0.275	334861507	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.834	5.200	0.634	1633692	0.1789	a
7 Orthophosphate as P		5.659			ND	a
6 Sulfate	8.467	6.434	2.033	19298440	NC	a

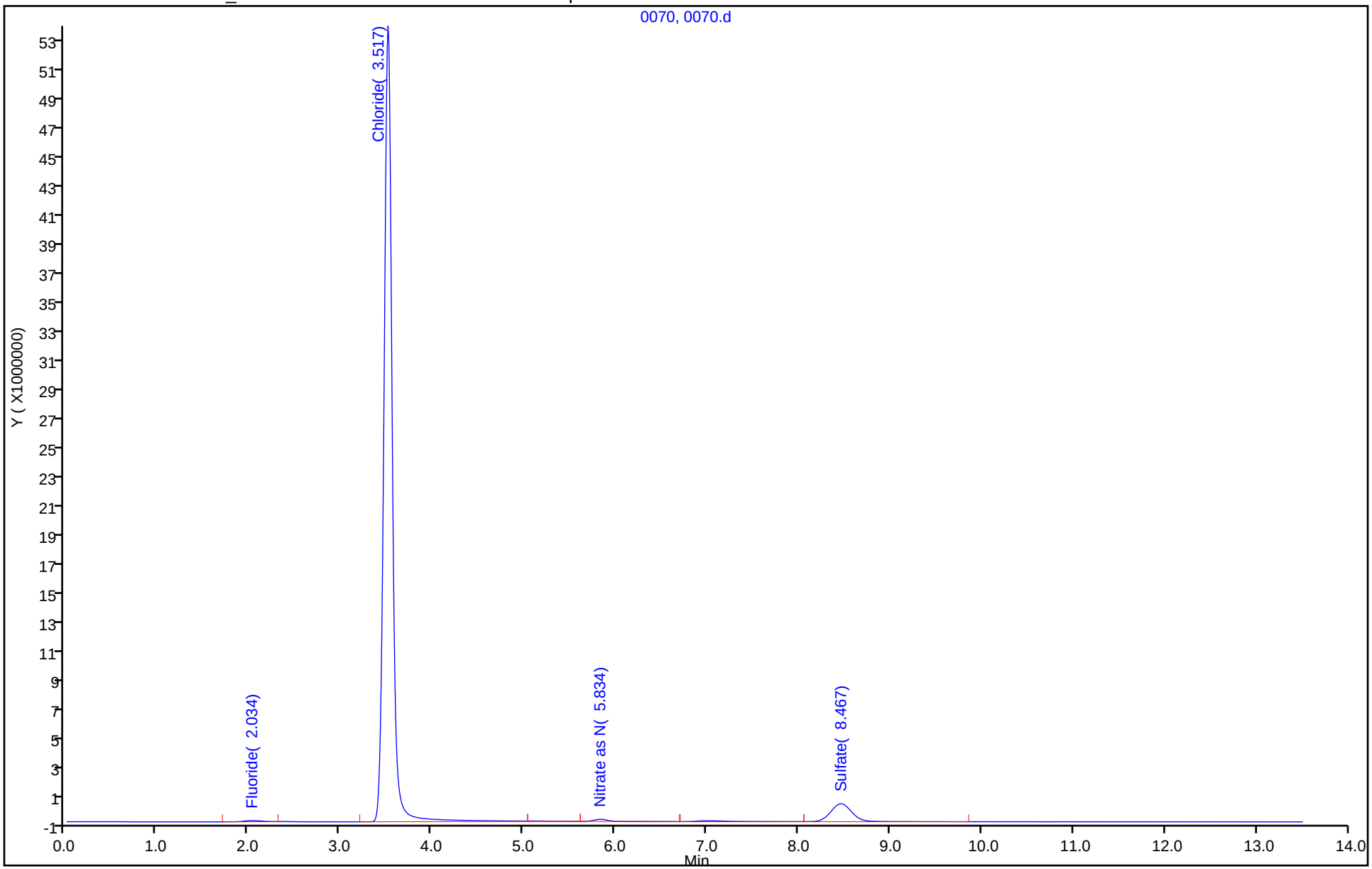
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0070.d				
Injection Date:	18-May-2019 17:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-9	Lab Sample ID:	280-123924-9	Worklist Smp#:	70
Client ID:	LF6/TMCSW-2_0519-9				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0071.d
Lims ID: 280-123924-I-10
Client ID: LF6W-1_0519
Sample Type: Client
Inject. Date: 18-May-2019 17:18:00 ALS Bottle#: 0 Worklist Smp#: 71
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-071
Misc. Info.: 15468 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:08:05

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	421739	NC	
2 Chloride	3.509	3.242	0.267	3347398	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	6.959	5.659	1.300	2811842	0.6710	a
6 Sulfate	8.476	6.434	2.042	3581011	NC	a

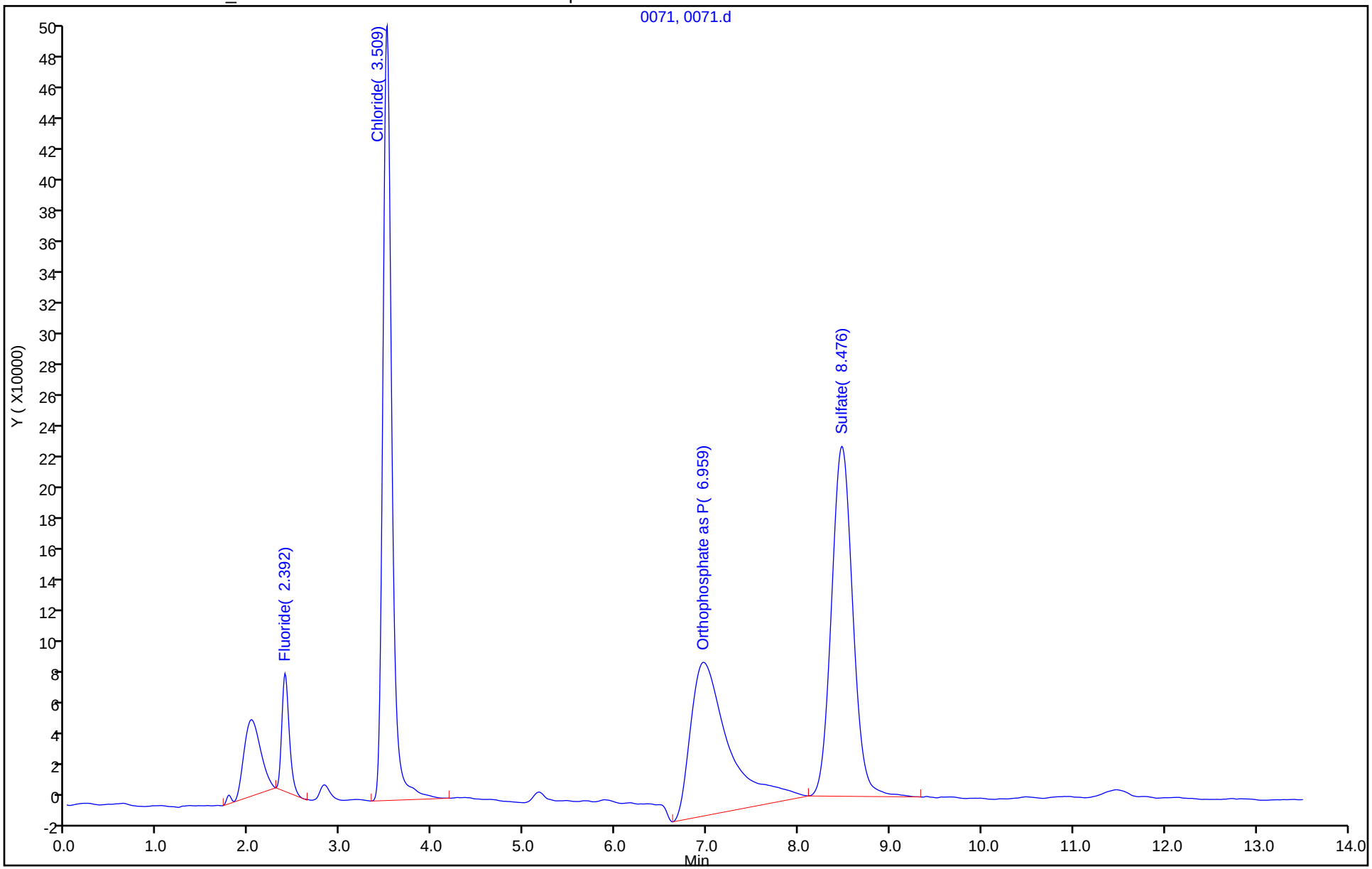
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0071.d				
Injection Date:	18-May-2019 17:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-10	Lab Sample ID:	280-123924-10	Worklist Smp#:	71
Client ID:	LF6W-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0071.d
Lims ID: 280-123924-I-10
Client ID: LF6W-1_0519
Sample Type: Client
Inject. Date: 18-May-2019 17:18:00 ALS Bottle#: 0 Worklist Smp#: 71
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-071
Misc. Info.: 15468 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:08:05

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	421739	-0.0964	
2 Chloride	3.509	3.242	0.267	3347398	1.12	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	6.959	5.659	1.300	2811842	NC	a
6 Sulfate	8.476	6.434	2.042	3581011	1.24	a

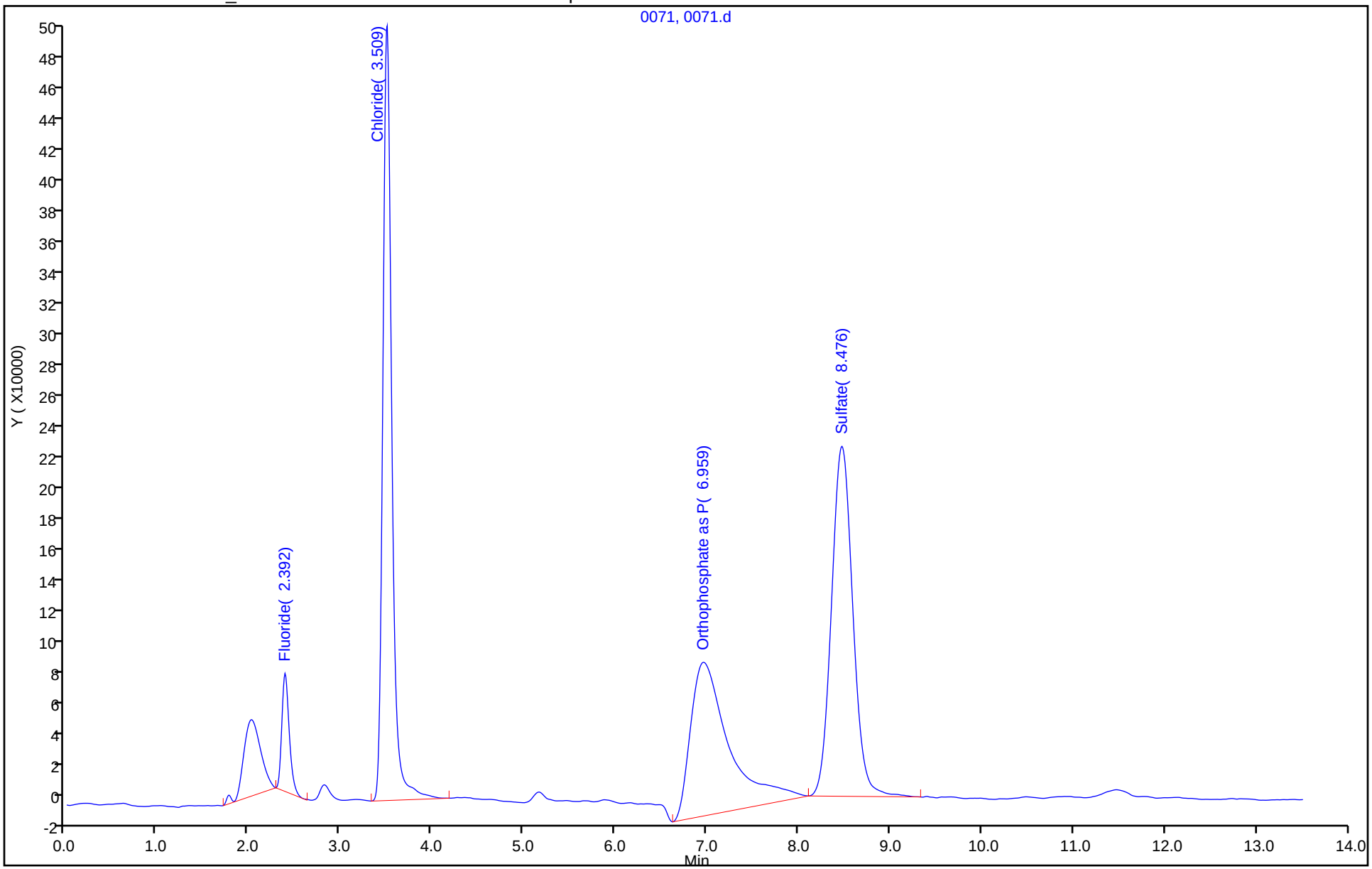
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:19 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0071.d				
Injection Date:	18-May-2019 17:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-10	Lab Sample ID:	280-123924-10	Worklist Smp#:	71
Client ID:	LF6W-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

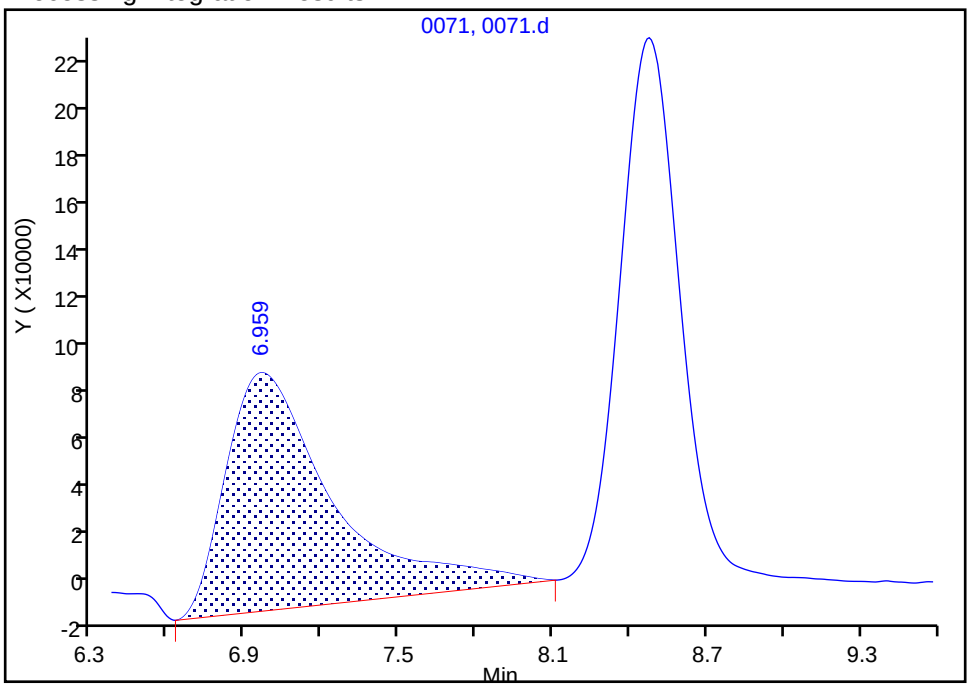
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0071.d				
Injection Date:	18-May-2019 17:18:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-I-10	Lab Sample ID:	280-123924-10		
Client ID:	LF6W-1_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	71
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

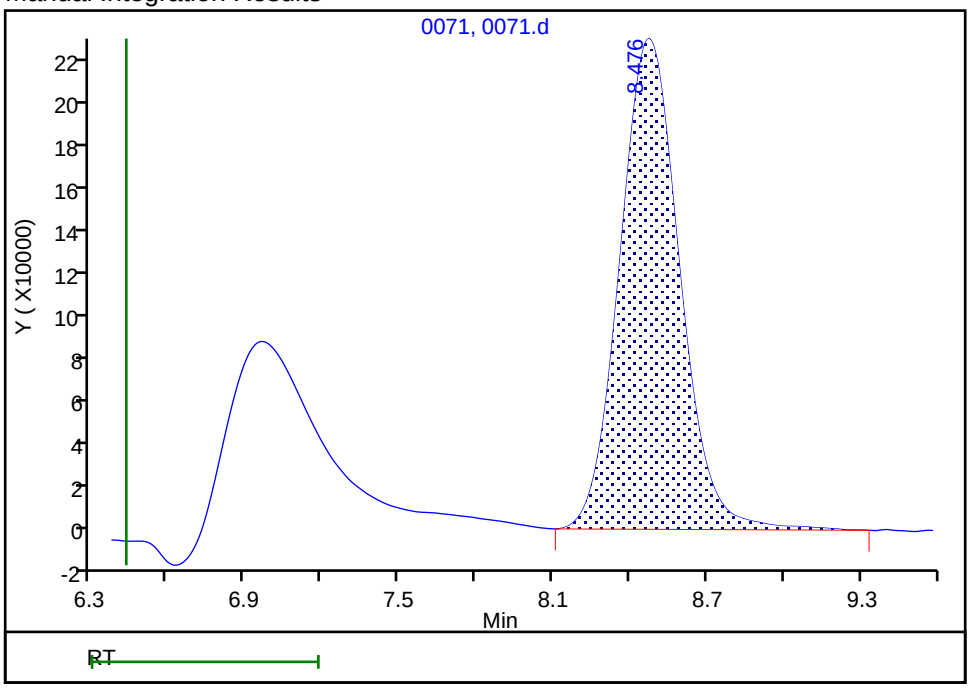
Processing Integration Results

RT: 6.96
Area: 2811842
Amount: 1.065994
Amount Units: ug/ml



Manual Integration Results

RT: 8.48
Area: 3581011
Amount: 1.237973
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:07:59
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0072.d
Lims ID: 280-123924-H-11
Client ID: LF6H-1_0519
Sample Type: Client
Inject. Date: 18-May-2019 17:35:00 ALS Bottle#: 0 Worklist Smp#: 72
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-072
Misc. Info.: 1749 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:08:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	405434	NC	
2 Chloride	3.501	3.242	0.259	7302360	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	7.009	5.659	1.350	1610789	0.3810	a
6 Sulfate	8.467	6.434	2.033	28230656	NC	a

QC Flag Legend

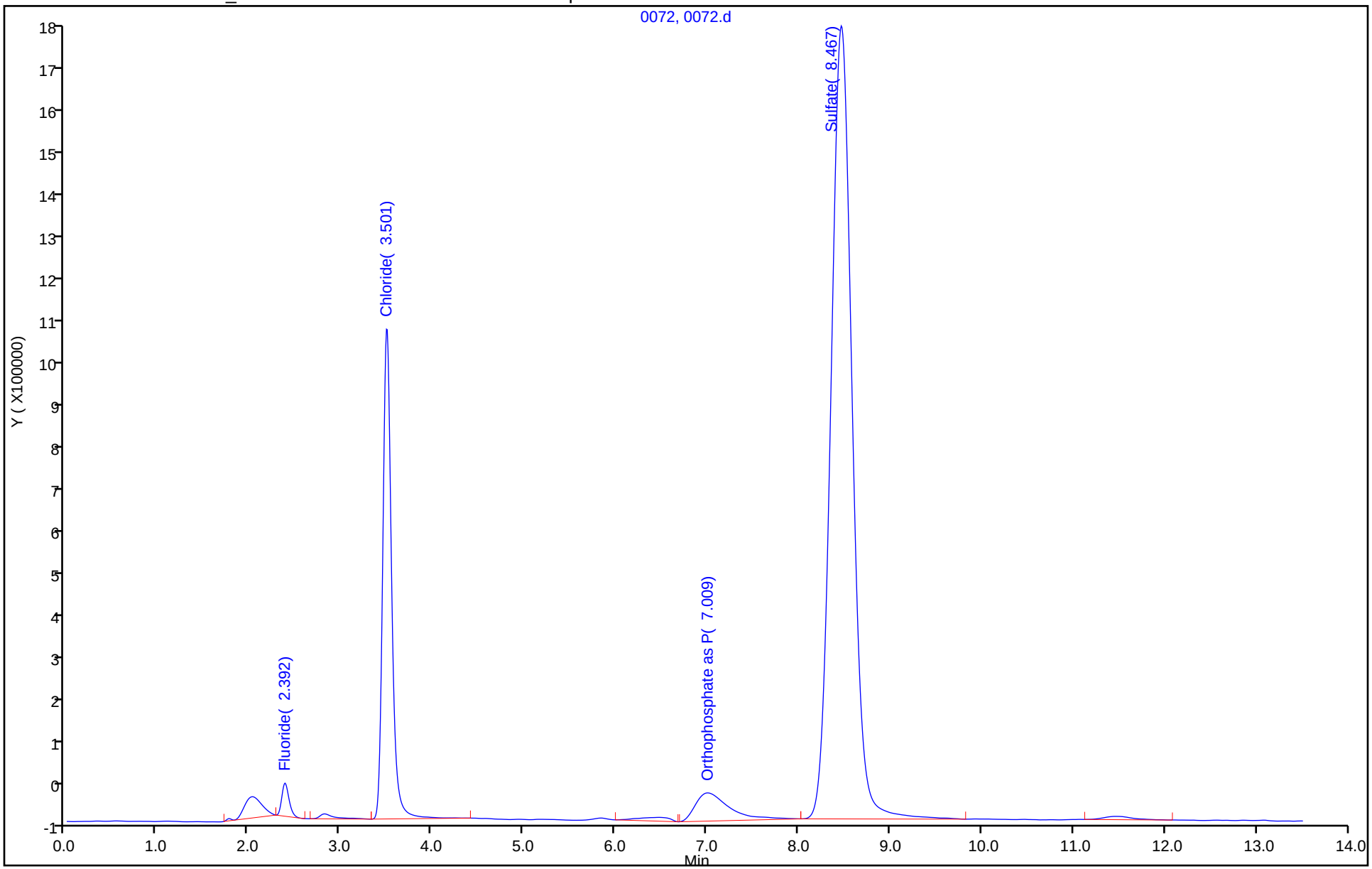
Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0072.d

Injection Date:	18-May-2019 17:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-11	Lab Sample ID:	280-123924-11	Worklist Smp#:	72
Client ID:	LF6H-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

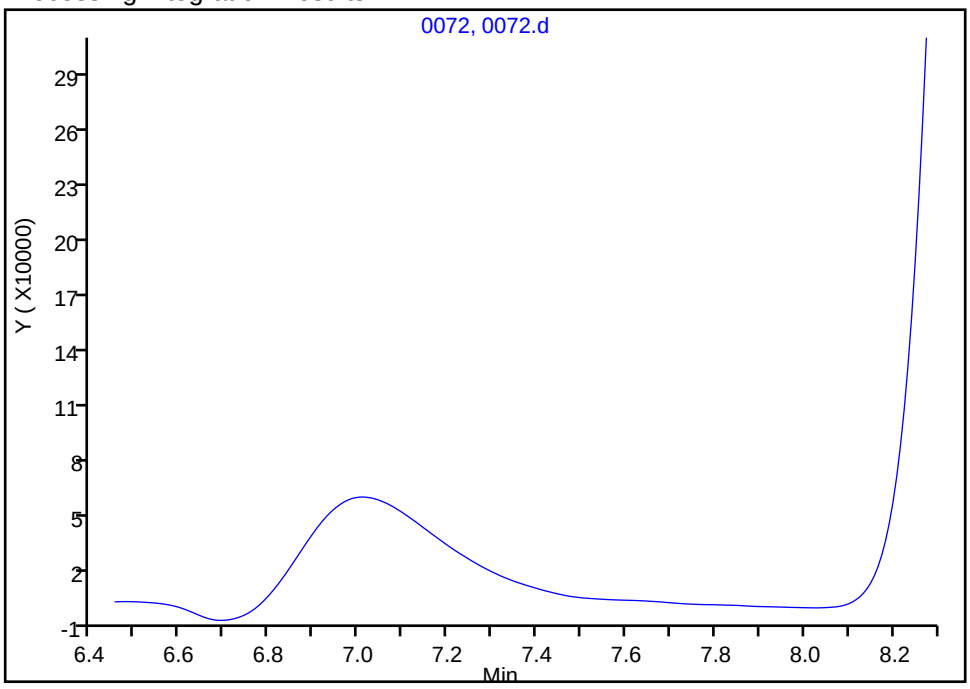
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0072.d				
Injection Date:	18-May-2019 17:35:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-H-11	Lab Sample ID:	280-123924-11		
Client ID:	LF6H-1_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	72
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

7 Orthophosphate as P, CAS: STL00599

Signal: 1

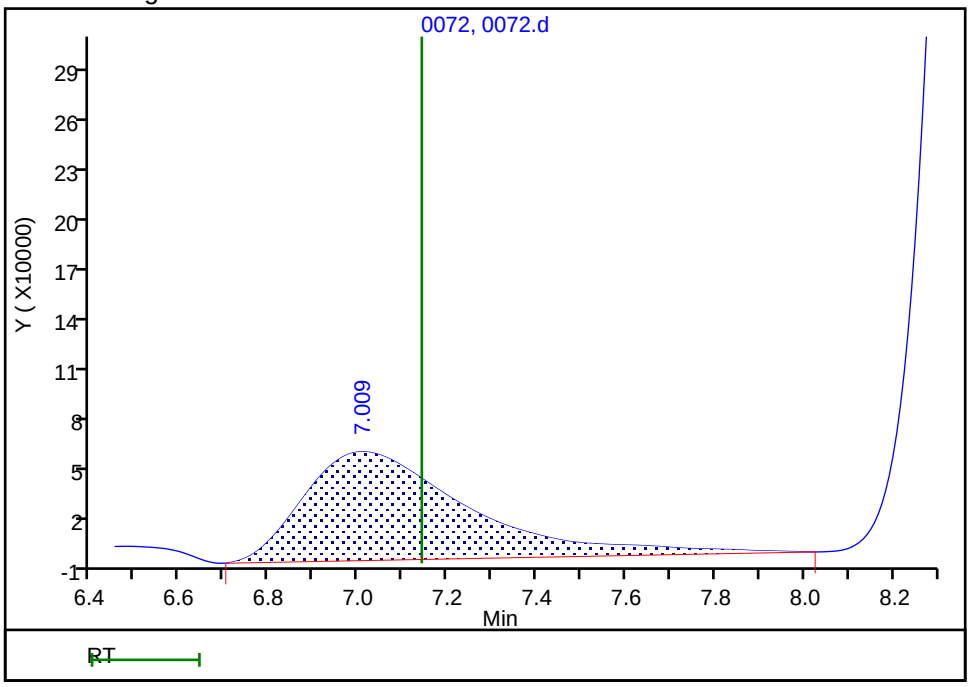
Not Detected
Expected RT: 5.66

Processing Integration Results



Manual Integration Results

RT: 7.01
Area: 1610789
Amount: 0.381009
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:08:13
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0072.d
Lims ID: 280-123924-H-11
Client ID: LF6H-1_0519
Sample Type: Client
Inject. Date: 18-May-2019 17:35:00 ALS Bottle#: 0 Worklist Smp#: 72
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-072
Misc. Info.: 1749 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:08:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	405434	-0.0987	
2 Chloride	3.501	3.242	0.259	7302360	1.70	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N		5.200			ND	
7 Orthophosphate as P	7.009	5.659	1.350	1610789	NC	a
6 Sulfate	8.467	6.434	2.033	28230656	6.75	a

QC Flag Legend

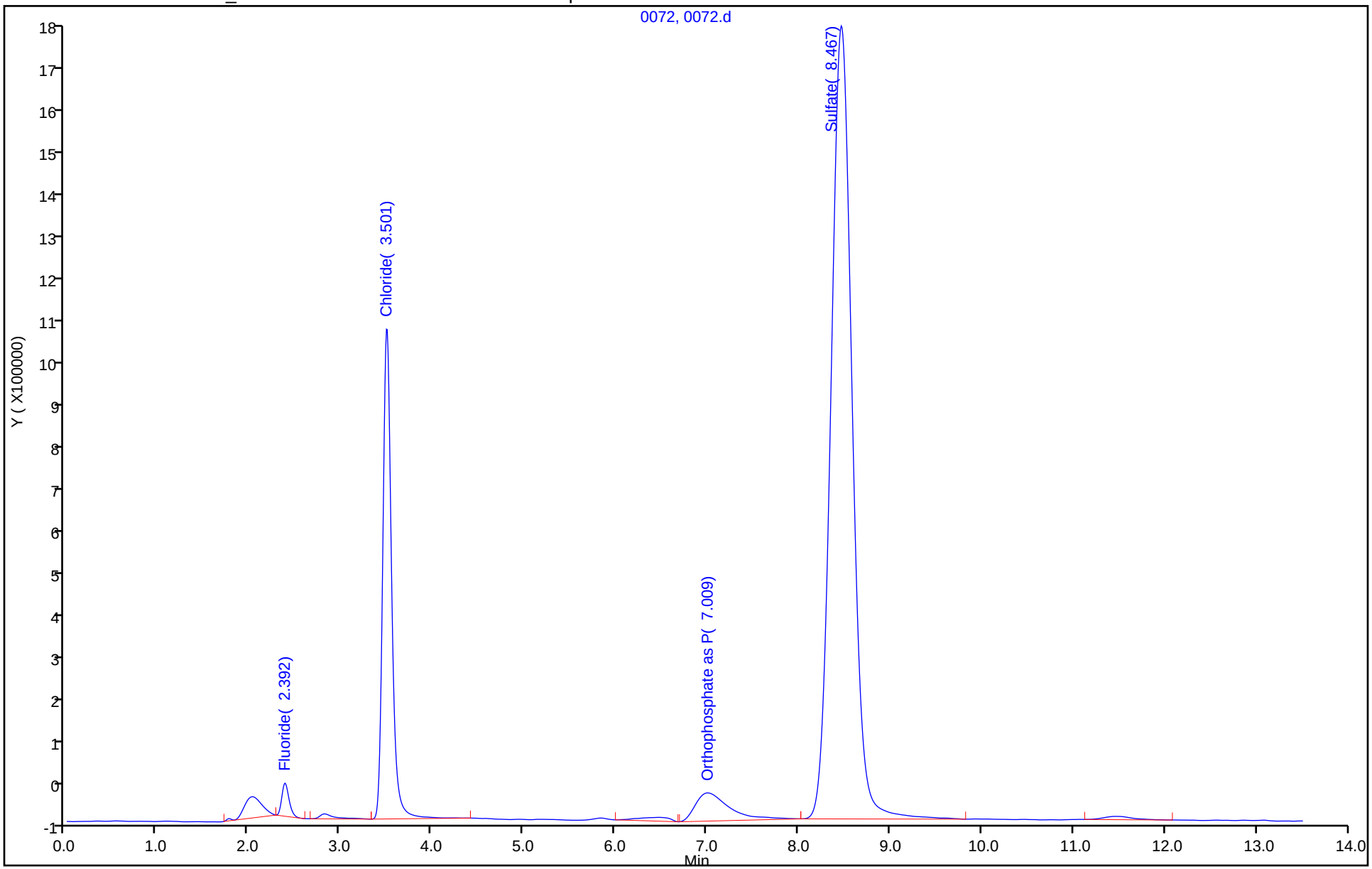
Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:20 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0072.d

Injection Date:	18-May-2019 17:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-11	Lab Sample ID:	280-123924-11	Worklist Smp#:	72
Client ID:	LF6H-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

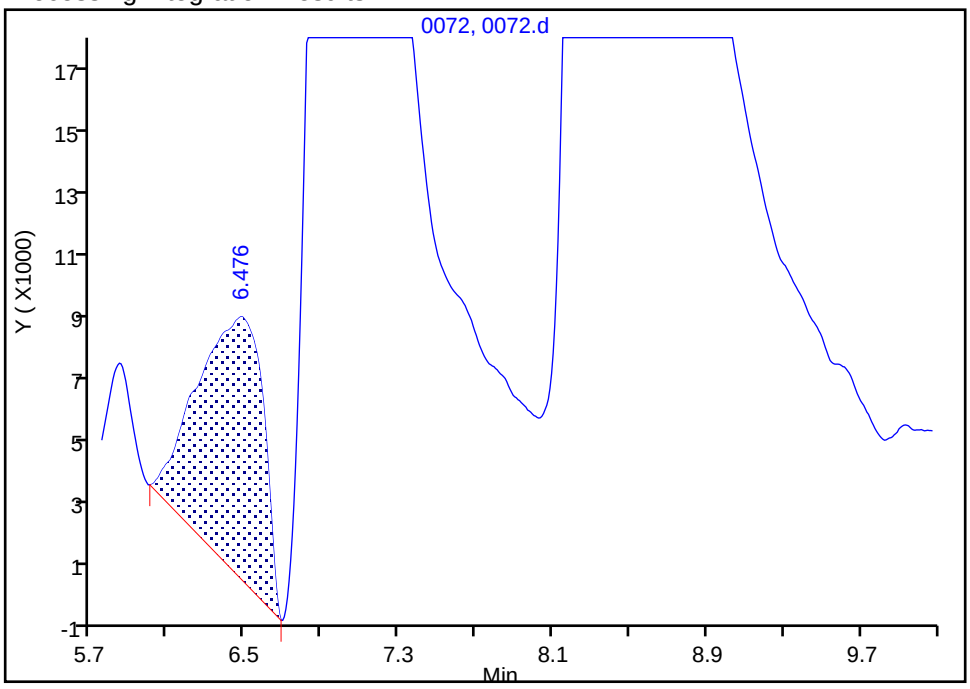
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0072.d				
Injection Date:	18-May-2019 17:35:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-H-11	Lab Sample ID:	280-123924-11		
Client ID:	LF6H-1_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	72
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

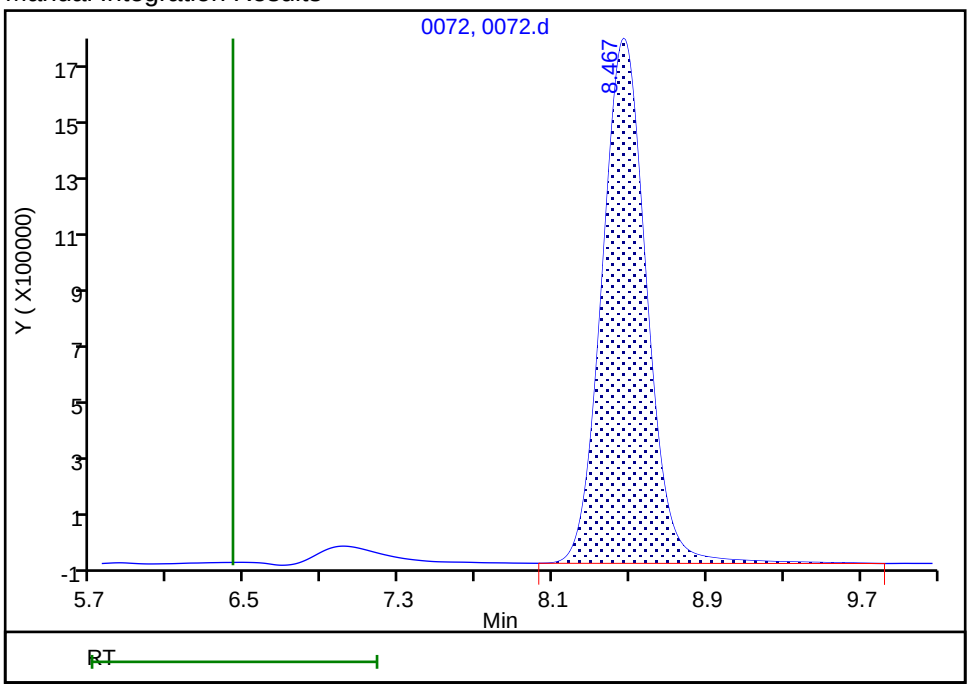
Processing Integration Results

RT: 6.48
Area: 195436
Amount: 0.480992
Amount Units: ug/ml



Manual Integration Results

RT: 8.47
Area: 28230656
Amount: 6.749391
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:08:10
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0073.d
Lims ID: 280-123924-J-12
Client ID: LF6H-2_0519
Sample Type: Client
Inject. Date: 18-May-2019 17:51:00 ALS Bottle#: 0 Worklist Smp#: 73
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-073
Misc. Info.: 29170 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:08:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	286829	NC	
2 Chloride		3.242			ND	
3 Nitrite as N	3.584	3.892	-0.308	2012949654	191.9	E
4 Bromide		4.634			ND	
5 Nitrate as N	5.859	5.200	0.659	7747315	0.7053	a
7 Orthophosphate as P		5.659			ND	a
6 Sulfate	8.492	6.434	2.058	103248476	NC	a

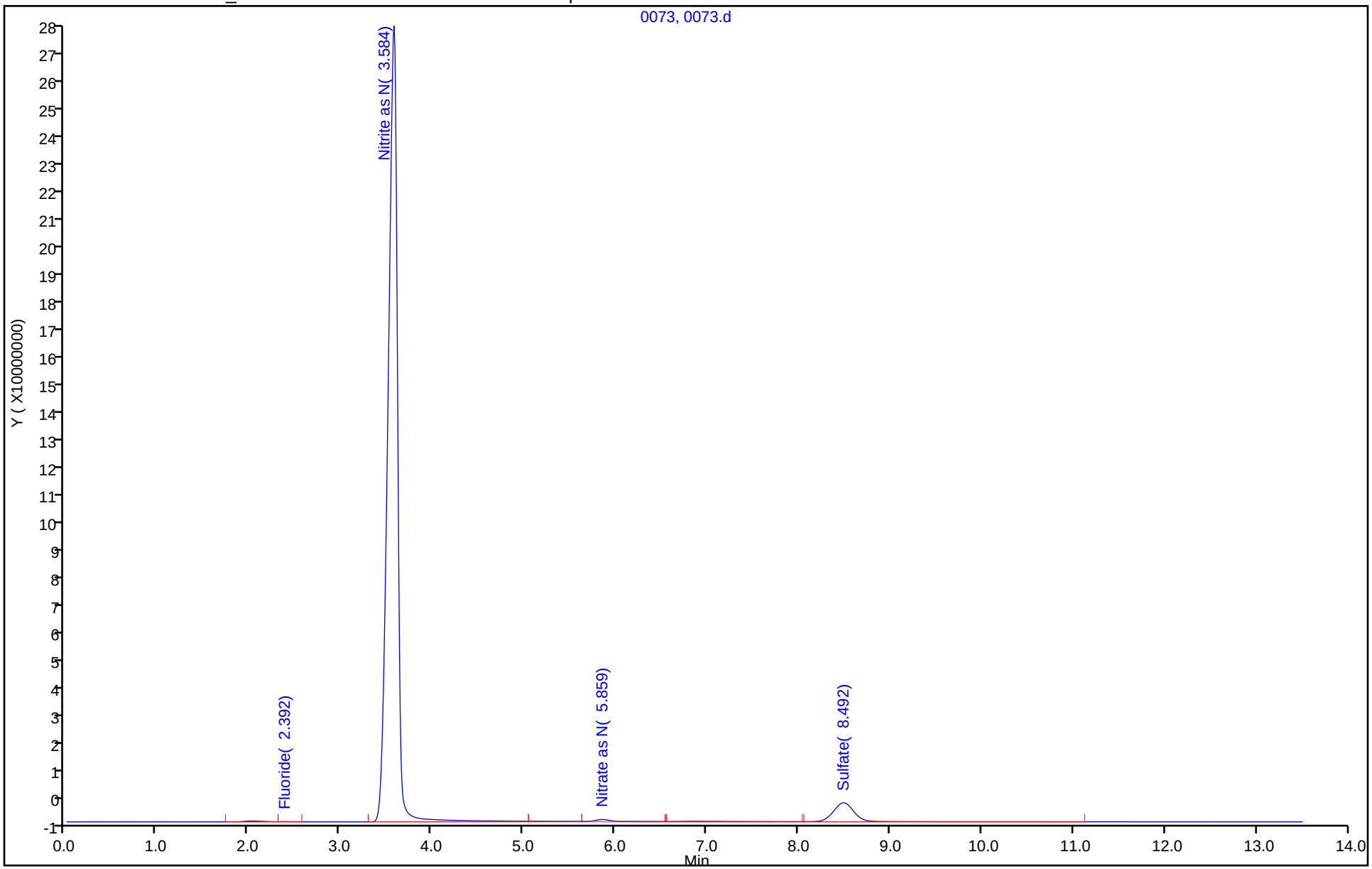
QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0073.d				
Injection Date:	18-May-2019 17:51:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-12	Lab Sample ID:	280-123924-12	Worklist Smp#:	73
Client ID:	LF6H-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

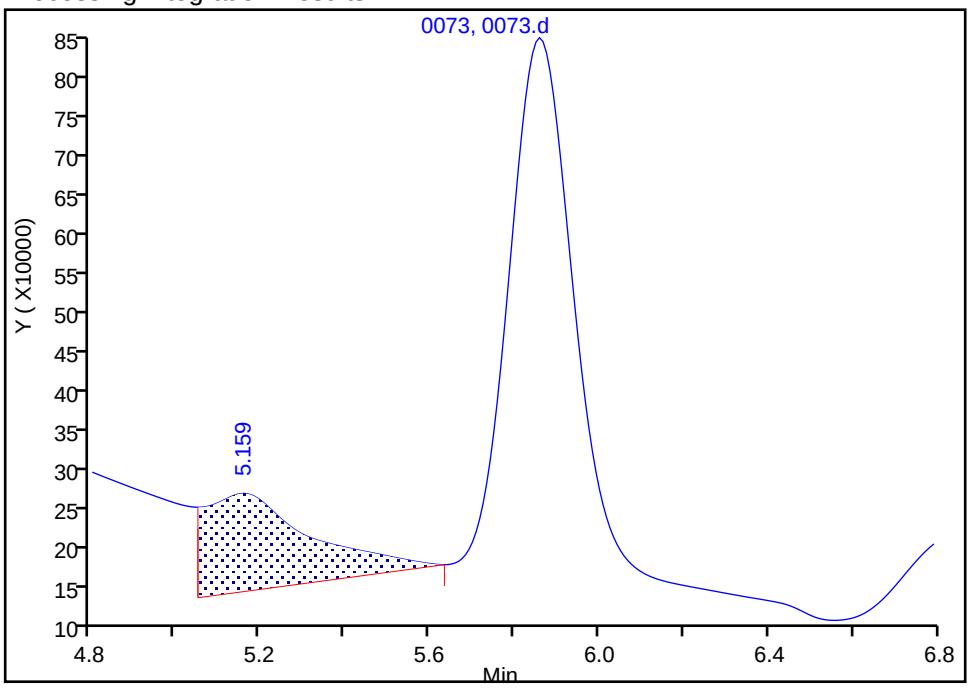
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0073.d				
Injection Date:	18-May-2019 17:51:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-J-12	Lab Sample ID:	280-123924-12		
Client ID:	LF6H-2_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	73
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions		
Column:		Detector	0005		

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

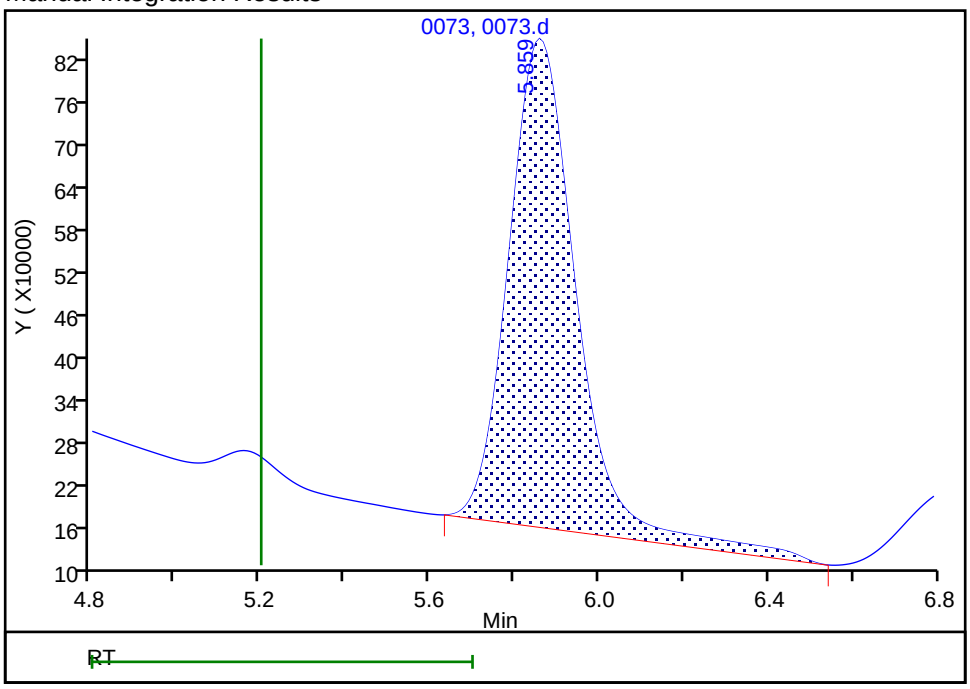
Processing Integration Results

RT: 5.16
Area: 2151105
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.86
Area: 7747315
Amount: 0.705288
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:08:26
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0073.d
Lims ID: 280-123924-J-12
Client ID: LF6H-2_0519
Sample Type: Client
Inject. Date: 18-May-2019 17:51:00 ALS Bottle#: 0 Worklist Smp#: 73
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-073
Misc. Info.: 29170 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:08:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	286829	-0.1150	
2 Chloride		3.242			ND	
3 Nitrite as N	3.584	3.892	-0.308	2012949654	NC	
4 Bromide		4.634			ND	
5 Nitrate as N	5.859	5.200	0.659	7747315	NC	a
7 Orthophosphate as P		5.659			ND	a
6 Sulfate	8.492	6.434	2.058	103248476	23.5	a

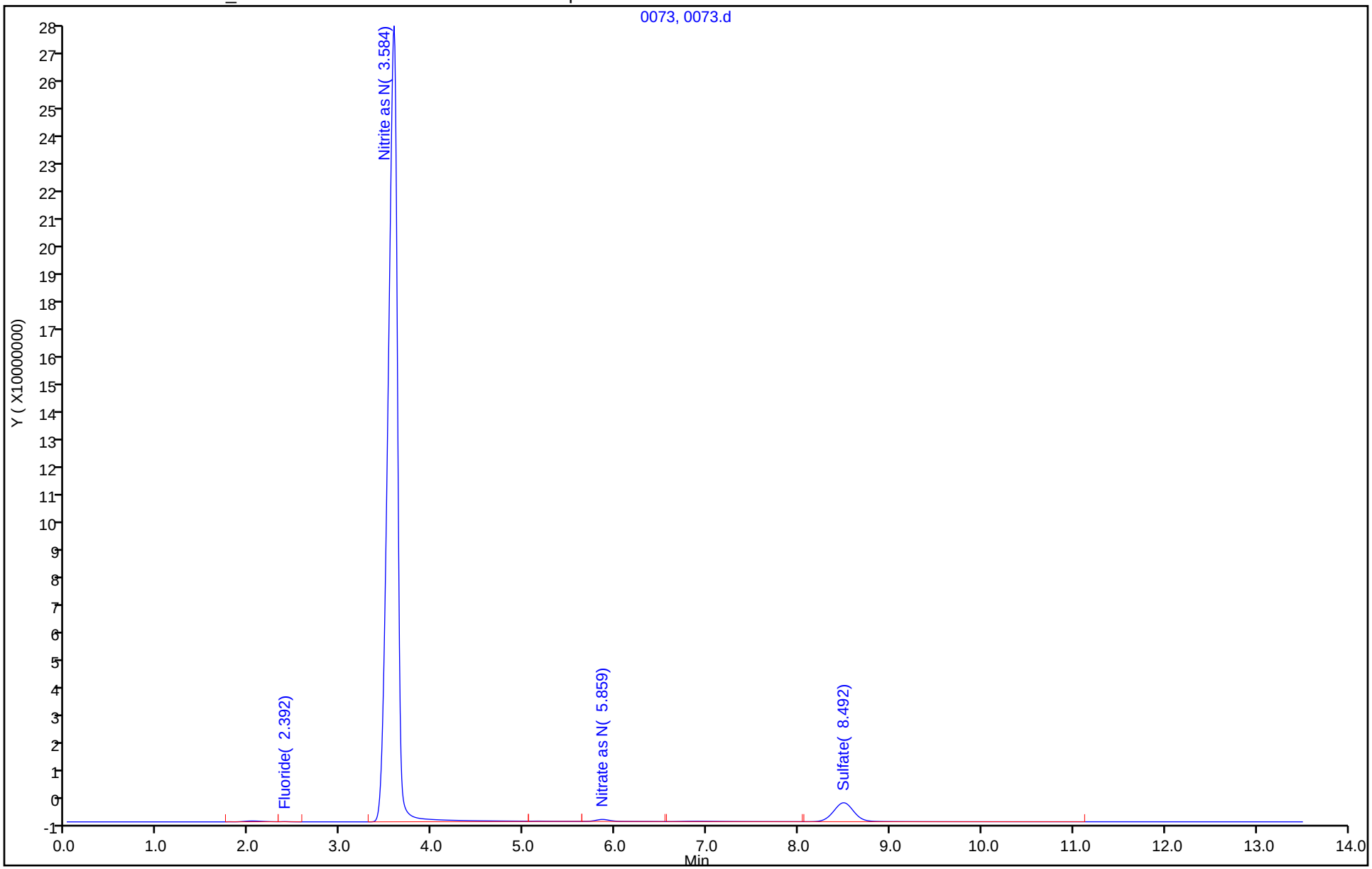
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:21 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0073.d				
Injection Date:	18-May-2019 17:51:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-12	Lab Sample ID:	280-123924-12	Worklist Smp#:	73
Client ID:	LF6H-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

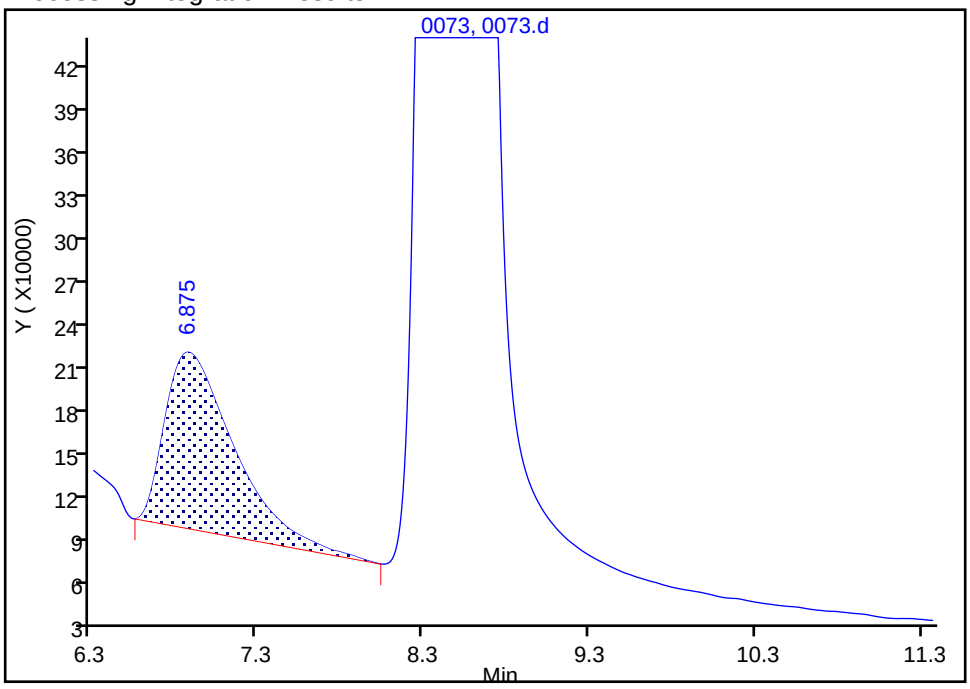
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0073.d				
Injection Date:	18-May-2019 17:51:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-123924-J-12	Lab Sample ID:	280-123924-12		
Client ID:	LF6H-2_0519				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	73
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

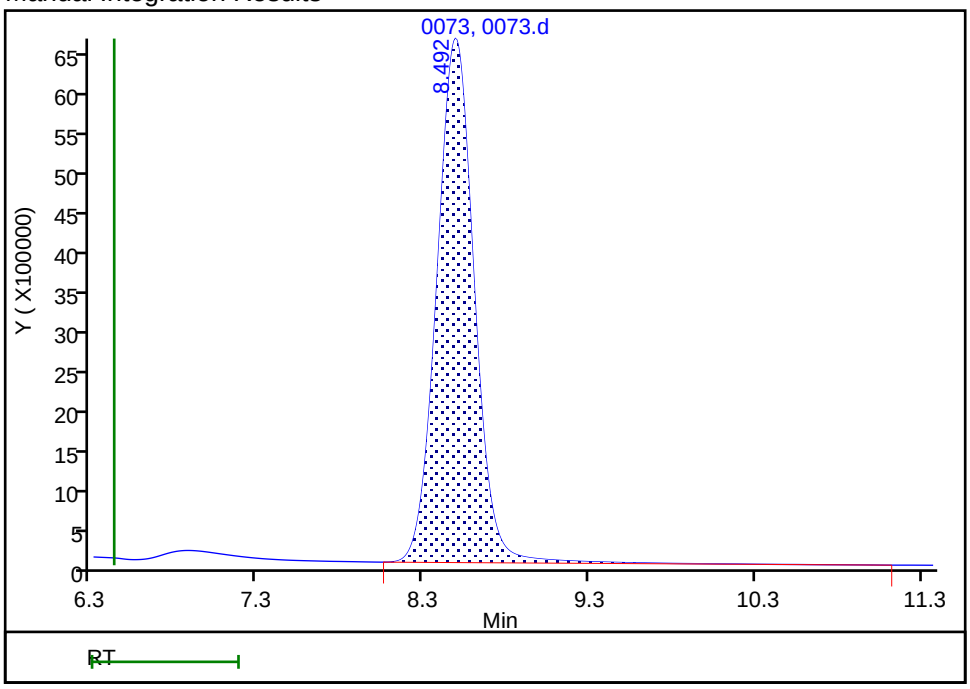
Processing Integration Results

RT: 6.88
Area: 3576546
Amount: 1.236974
Amount Units: ug/ml



Manual Integration Results

RT: 8.49
Area: 103248476
Amount: 23.522639
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:08:21
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0074.d
Lims ID: 280-123924-J-12
Client ID: LF6H-2_0519
Sample Type: Client
Inject. Date: 18-May-2019 18:08:00 ALS Bottle#: 0 Worklist Smp#: 74
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0082000-074
Misc. Info.: 3331 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:14 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:08:34

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.292	-0.258	1112945	NC	
2 Chloride	3.525	3.242	0.283	334042412	NC	
3 Nitrite as N		3.892			ND	
4 Bromide		4.634			ND	
5 Nitrate as N	5.150	5.200	-0.050	459282	0.0778	
7 Orthophosphate as P	5.842	5.659	0.183	1614024	0.3818	
6 Sulfate	8.467	6.434	2.033	19598516	NC	a

QC Flag Legend

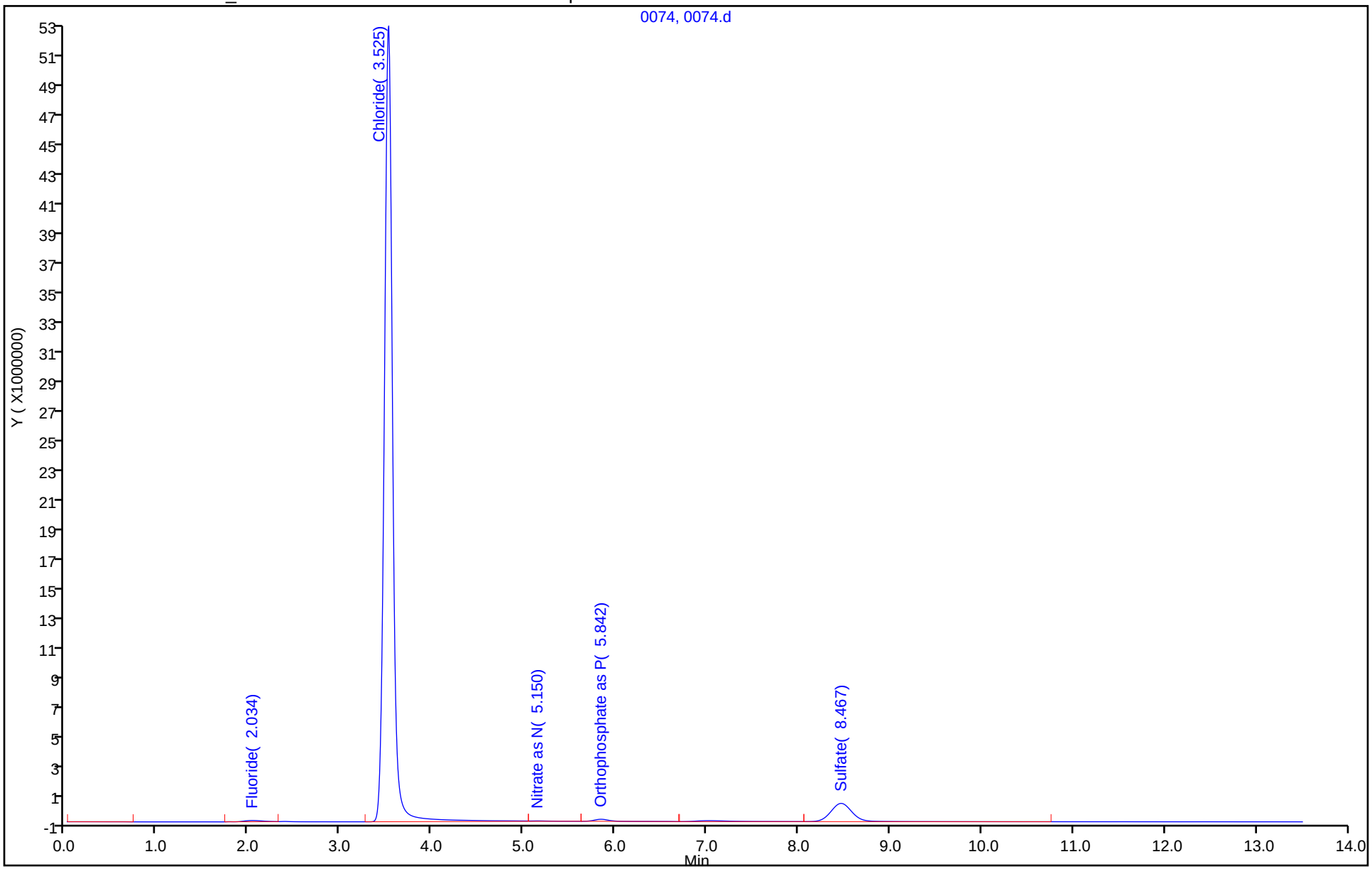
Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 20-May-2019 08:10:22 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0074.d

Injection Date:	18-May-2019 18:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-12	Lab Sample ID:	280-123924-12	Worklist Smp#:	74
Client ID:	LF6H-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0075.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 18:24:00 ALS Bottle#: 0 Worklist Smp#: 75
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-075
Misc. Info.: 13384 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:22 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:08:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	38037650	NC	NC	
2 Chloride	3.534	3.242	0.292	667357379	NC	NC	
3 Nitrite as N	4.267	3.892	0.375	53056387	5.00	5.08	a
4 Bromide	5.150	4.634	0.516	10209654	NC	NC	a
5 Nitrate as N	5.825	5.200	0.625	61223903	5.00	5.31	a
7 Orthophosphate as P	7.592	5.659	1.933	24644254	5.00	5.94	a
6 Sulfate	8.509	6.434	2.075	424305057	NC	NC	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

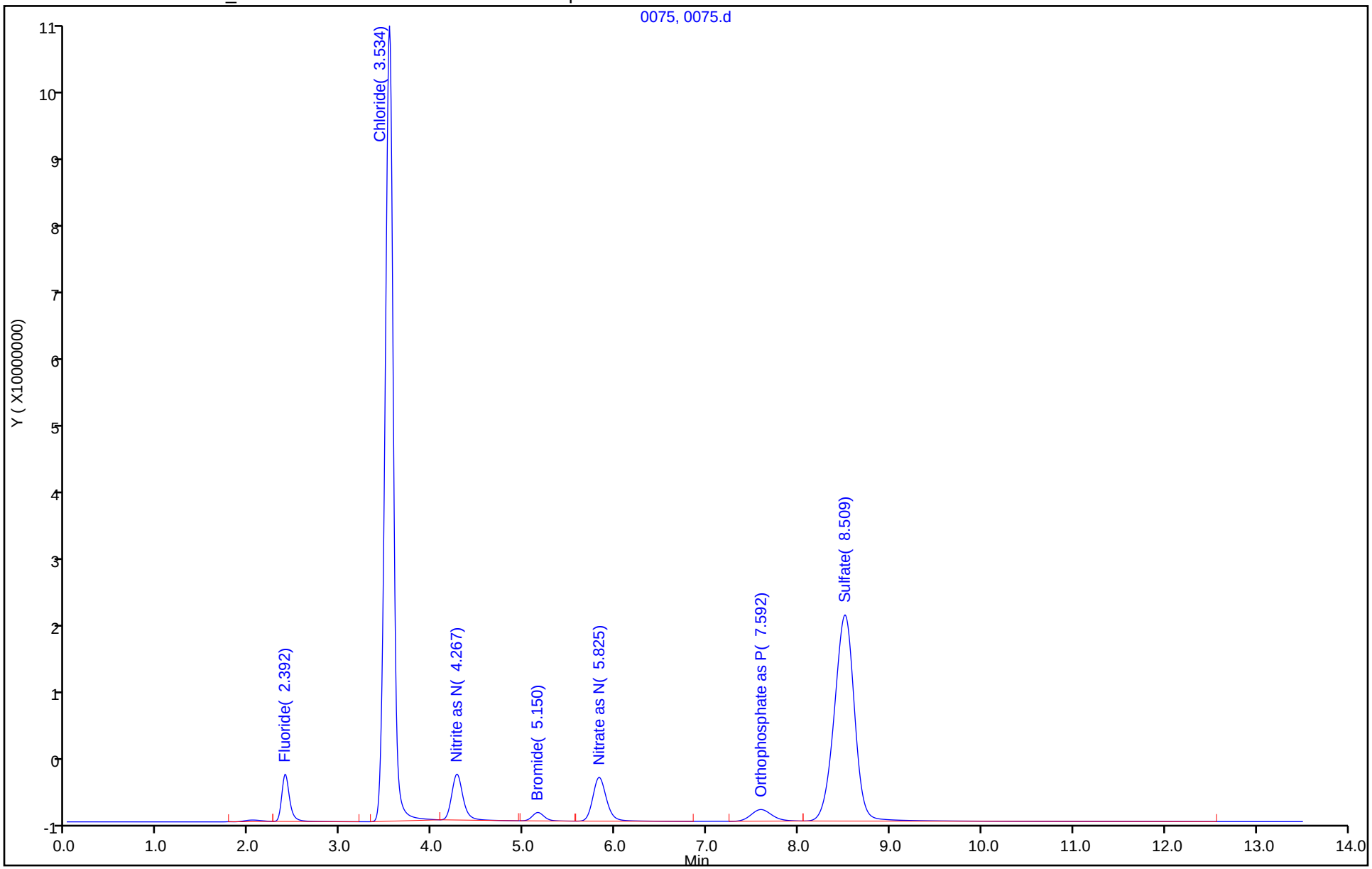
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:10:23 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0075.d

Injection Date:	18-May-2019 18:24:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	75
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

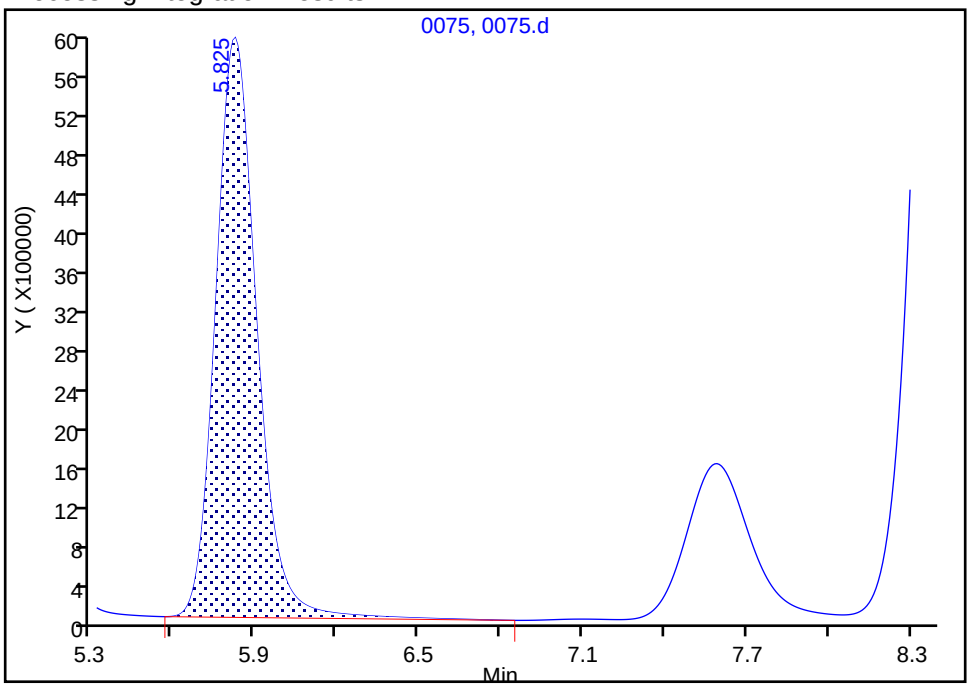
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0075.d
Injection Date: 18-May-2019 18:24:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 75
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

7 Orthophosphate as P, CAS: STL00599

Signal: 1

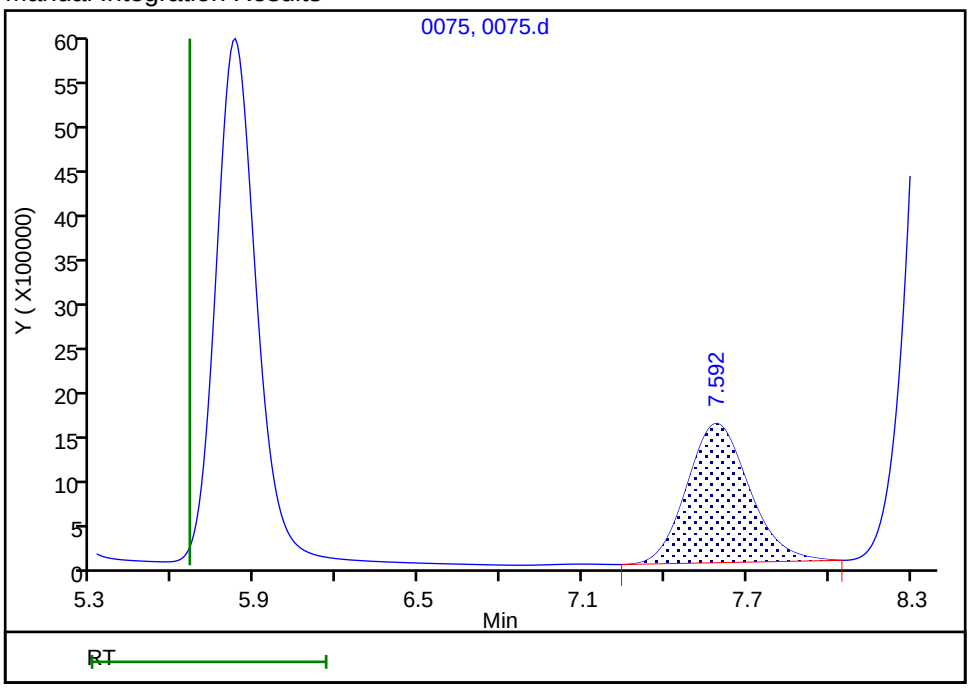
Processing Integration Results

RT: 5.83
Area: 61223903
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 7.59
Area: 24644254
Amount: 5.941775
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:08:41
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

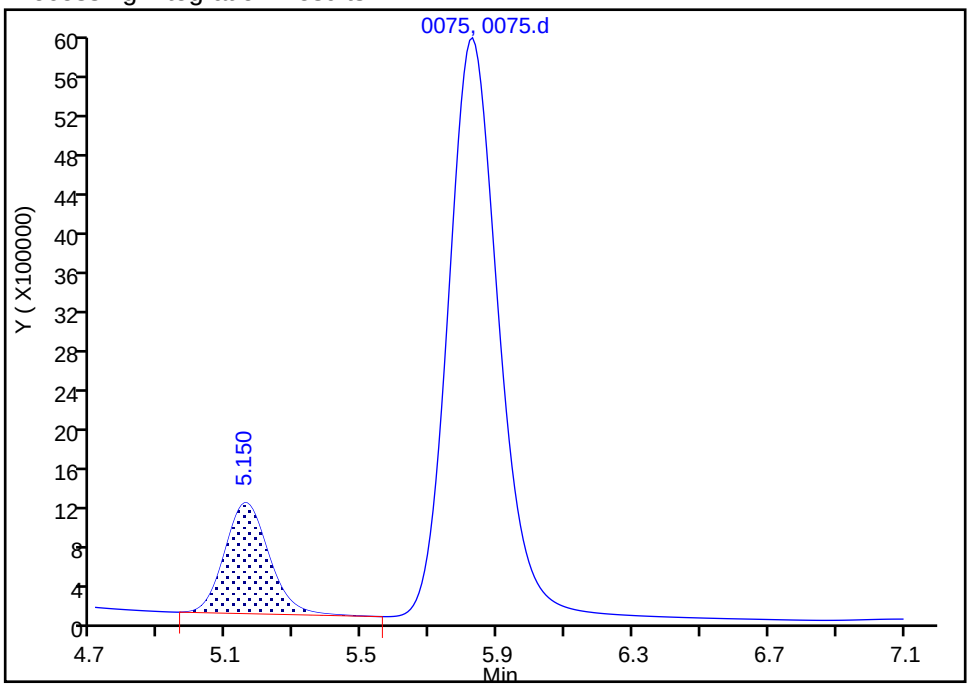
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0075.d
Injection Date: 18-May-2019 18:24:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 75
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

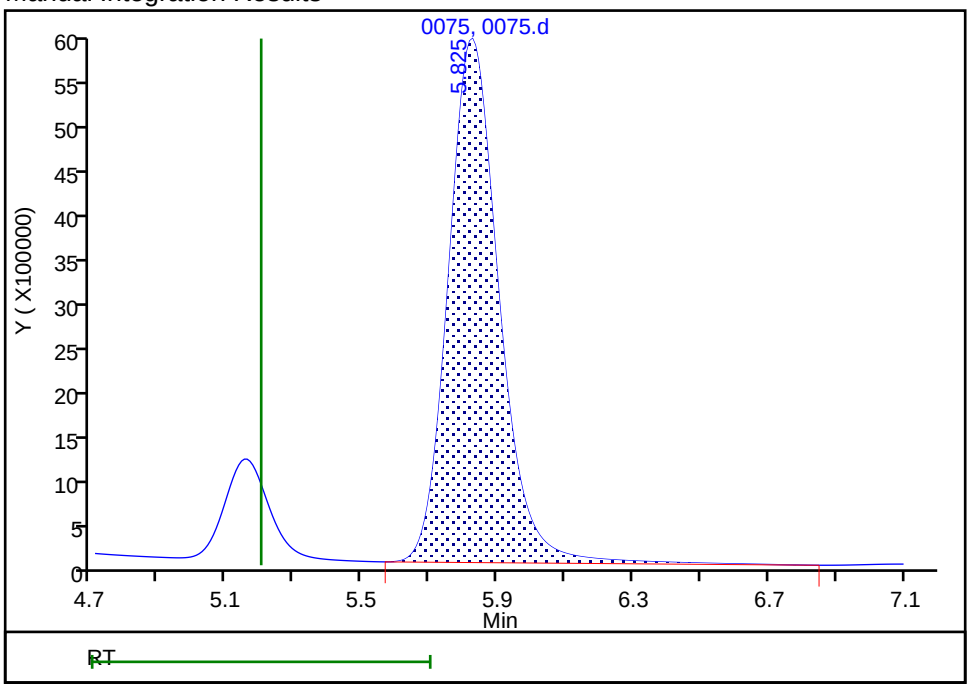
Processing Integration Results

RT: 5.15
Area: 10209654
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 5.83
Area: 61223903
Amount: 5.309762
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:08:45
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

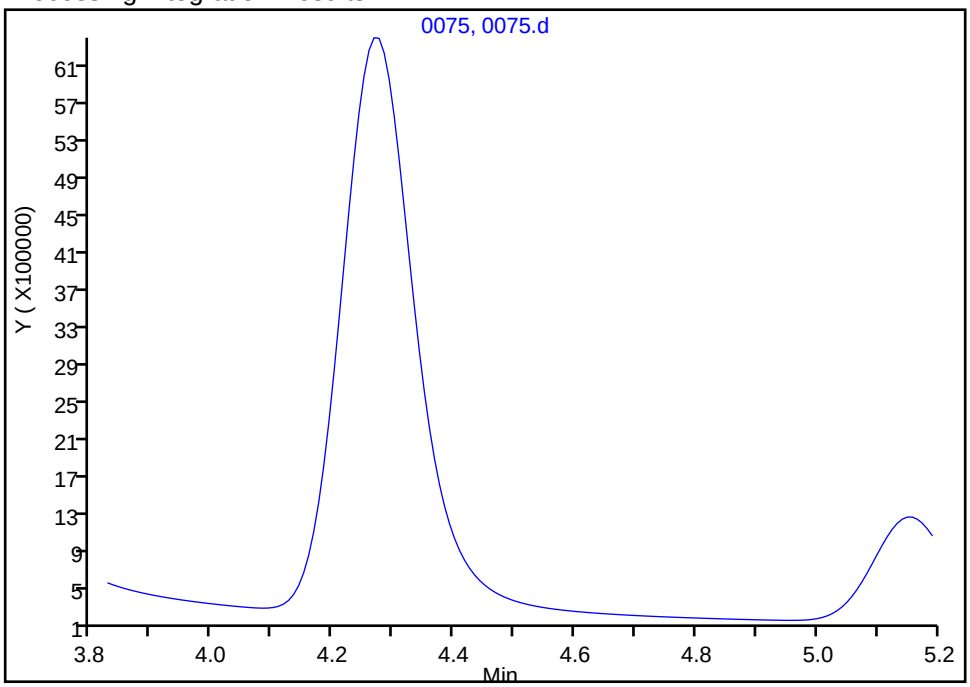
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0075.d
Injection Date: 18-May-2019 18:24:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 75
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions
Column: Detector 0005

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

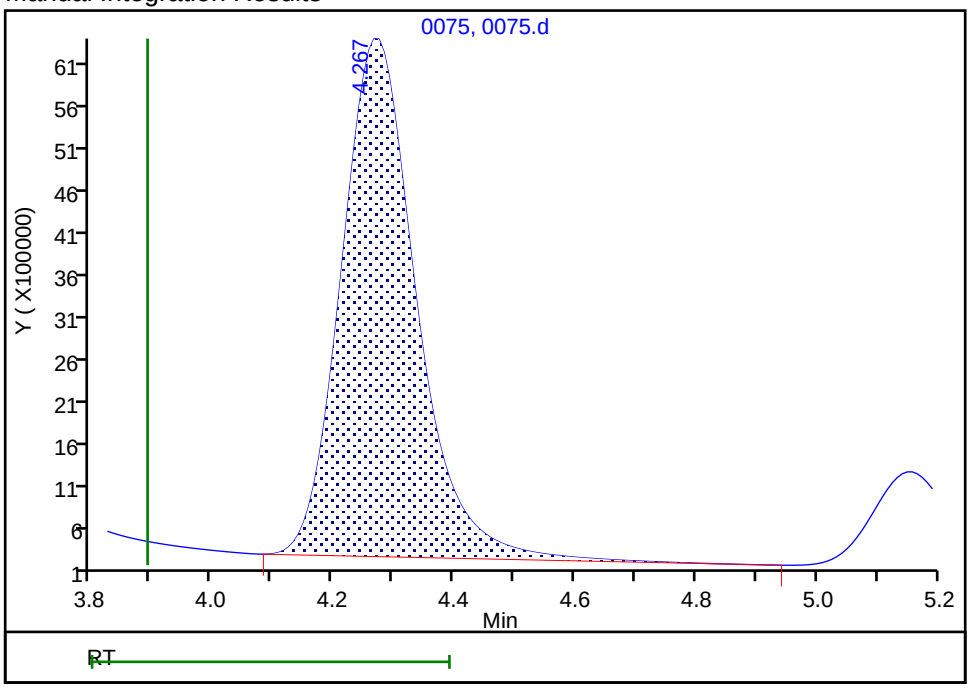
Not Detected
Expected RT: 3.89

Processing Integration Results



Manual Integration Results

RT: 4.27
Area: 53056387
Amount: 5.082034
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:08:50
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0075.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2019 18:24:00 ALS Bottle#: 0 Worklist Smp#: 75
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-075
Misc. Info.: 13384 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:22 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

First Level Reviewer: pedrickj Date: 20-May-2019 08:08:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.392	2.292	0.100	38037650	5.00	5.09	
2 Chloride	3.534	3.242	0.292	667357379	100.0	99.9	
3 Nitrite as N	4.267	3.892	0.375	53056387	NC	NC	a
4 Bromide	5.150	4.634	0.516	10209654	5.00	5.27	a
5 Nitrate as N	5.825	5.200	0.625	61223903	NC	NC	a
7 Orthophosphate as P	7.592	5.659	1.933	24644254	NC	NC	a
6 Sulfate	8.509	6.434	2.075	424305057	100.0	95.3	a

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

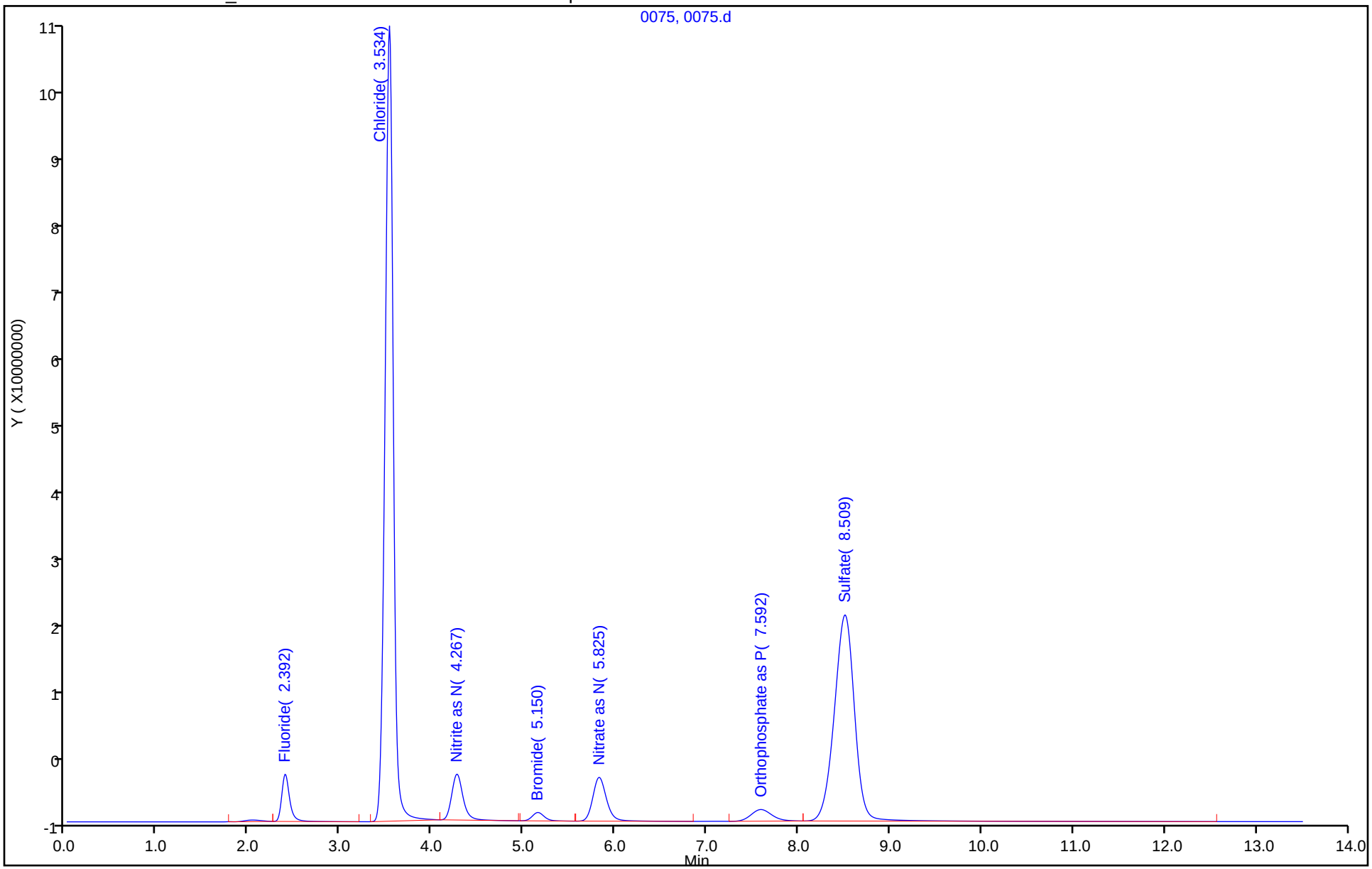
IC LCS_01579 Amount Added: 5.00 Units: mL

Report Date: 20-May-2019 08:10:23 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0075.d

Injection Date:	18-May-2019 18:24:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	75
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

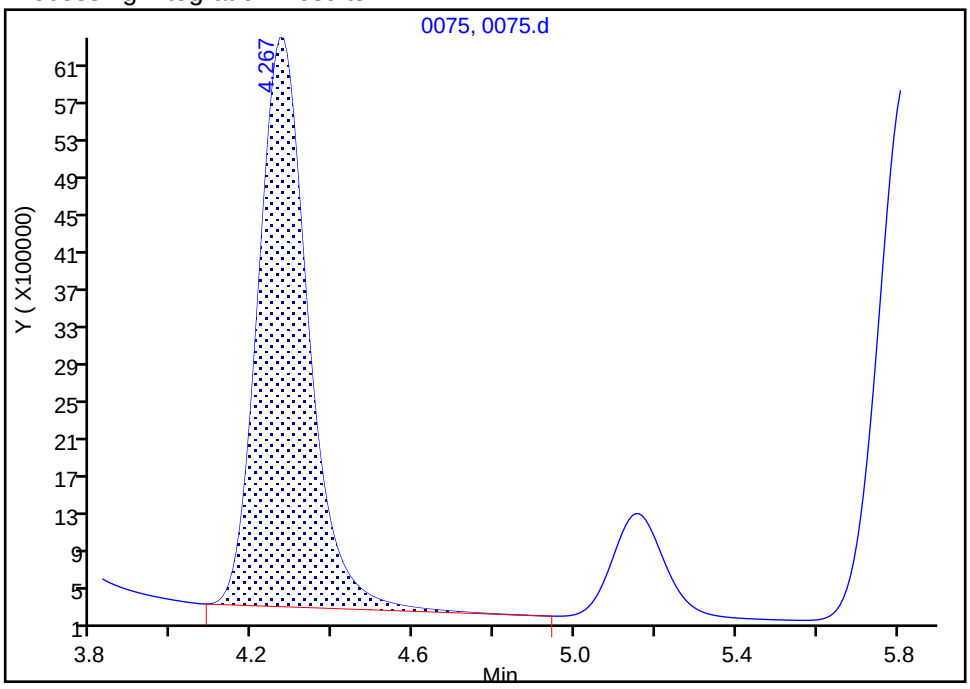
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0075.d
Injection Date: 18-May-2019 18:24:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 75
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

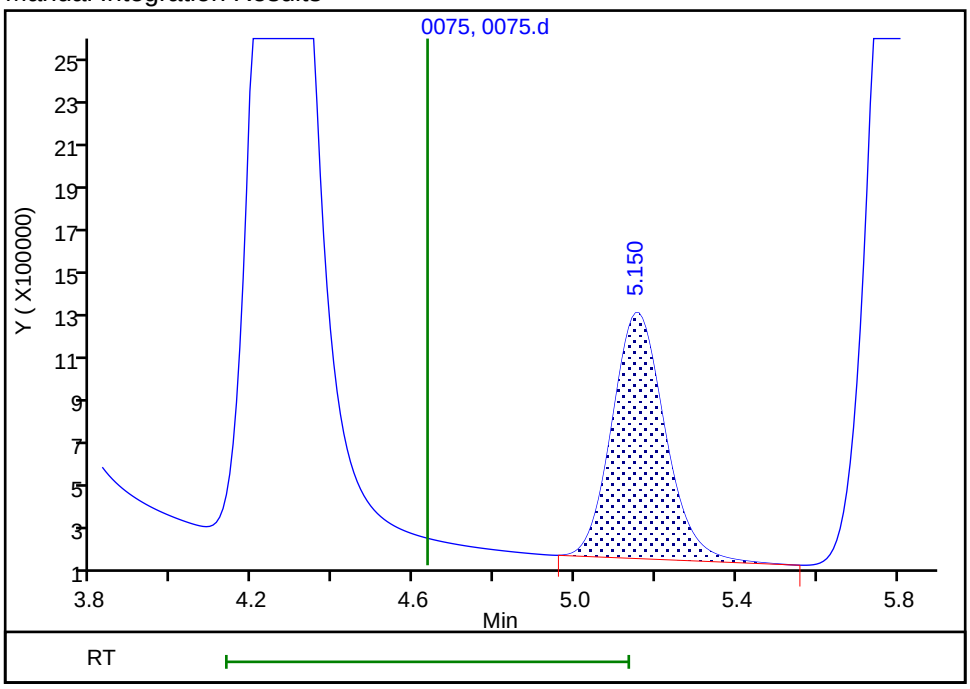
Processing Integration Results

RT: 4.27
Area: 53056387
Amount: 27.369944
Amount Units: ug/ml



Manual Integration Results

RT: 5.15
Area: 10209654
Amount: 5.272980
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:08:47
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

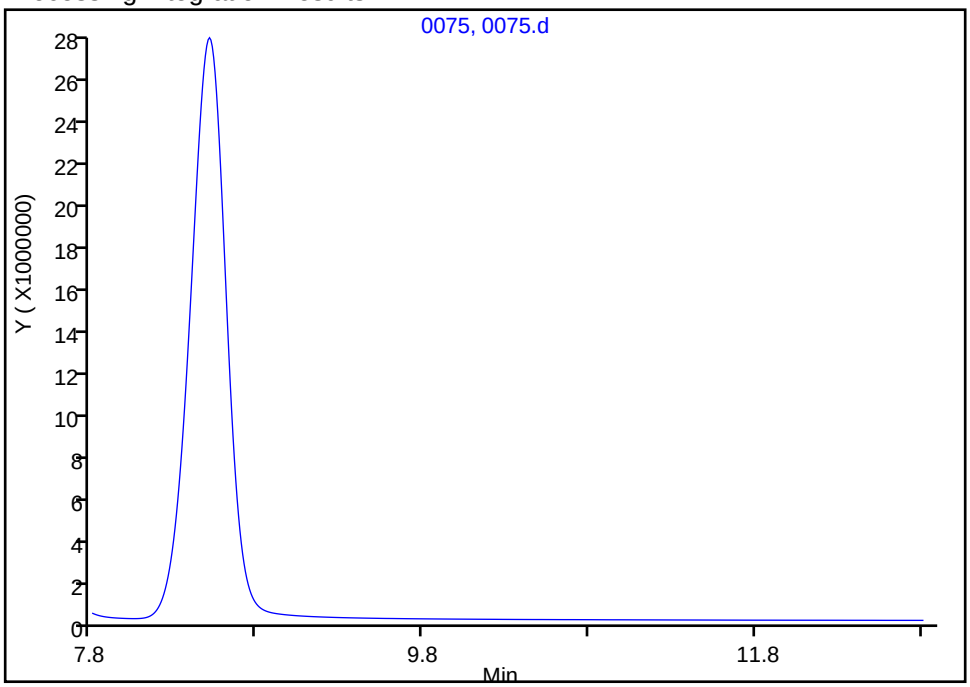
Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0075.d
Injection Date: 18-May-2019 18:24:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 75
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

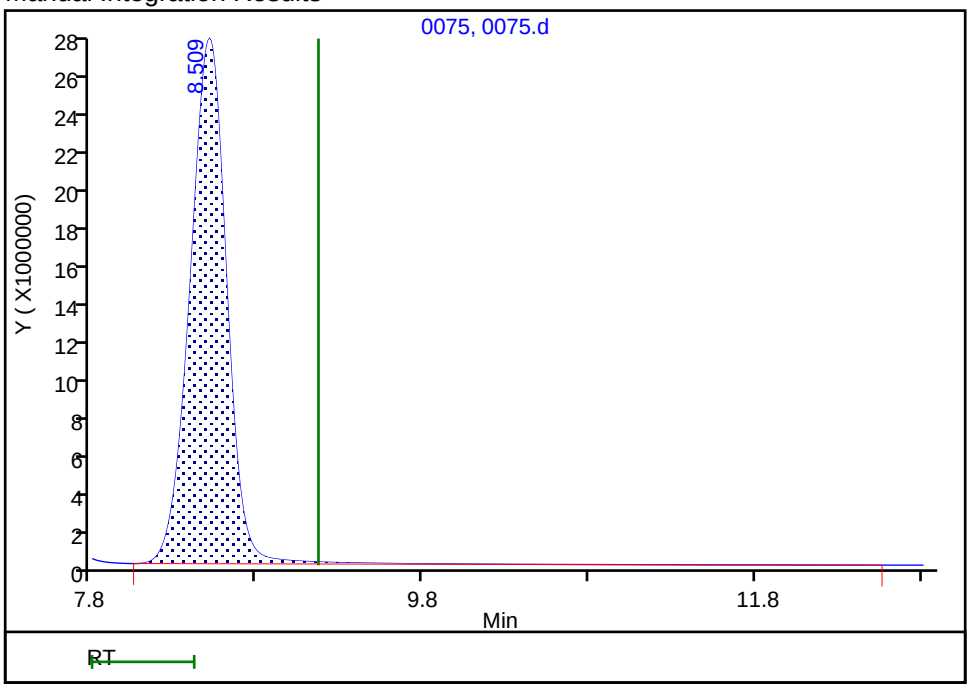
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 8.51
Area: 424305057
Amount: 95.307735
Amount Units: ug/ml



Reviewer: pedrickj, 20-May-2019 08:08:39
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0076.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 18:40:00 ALS Bottle#: 0 Worklist Smp#: 76
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-076
Misc. Info.: 27647 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 20-May-2019 08:10:22 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.292	-0.283	336322		NC	
2 Chloride		3.242			ND		
3 Nitrite as N		3.892			ND		
4 Bromide		4.634			ND		
5 Nitrate as N		5.200			ND		
7 Orthophosphate as P		5.659			ND		
6 Sulfate	7.059	6.434	0.625	683952		NC	

QC Flag Legend

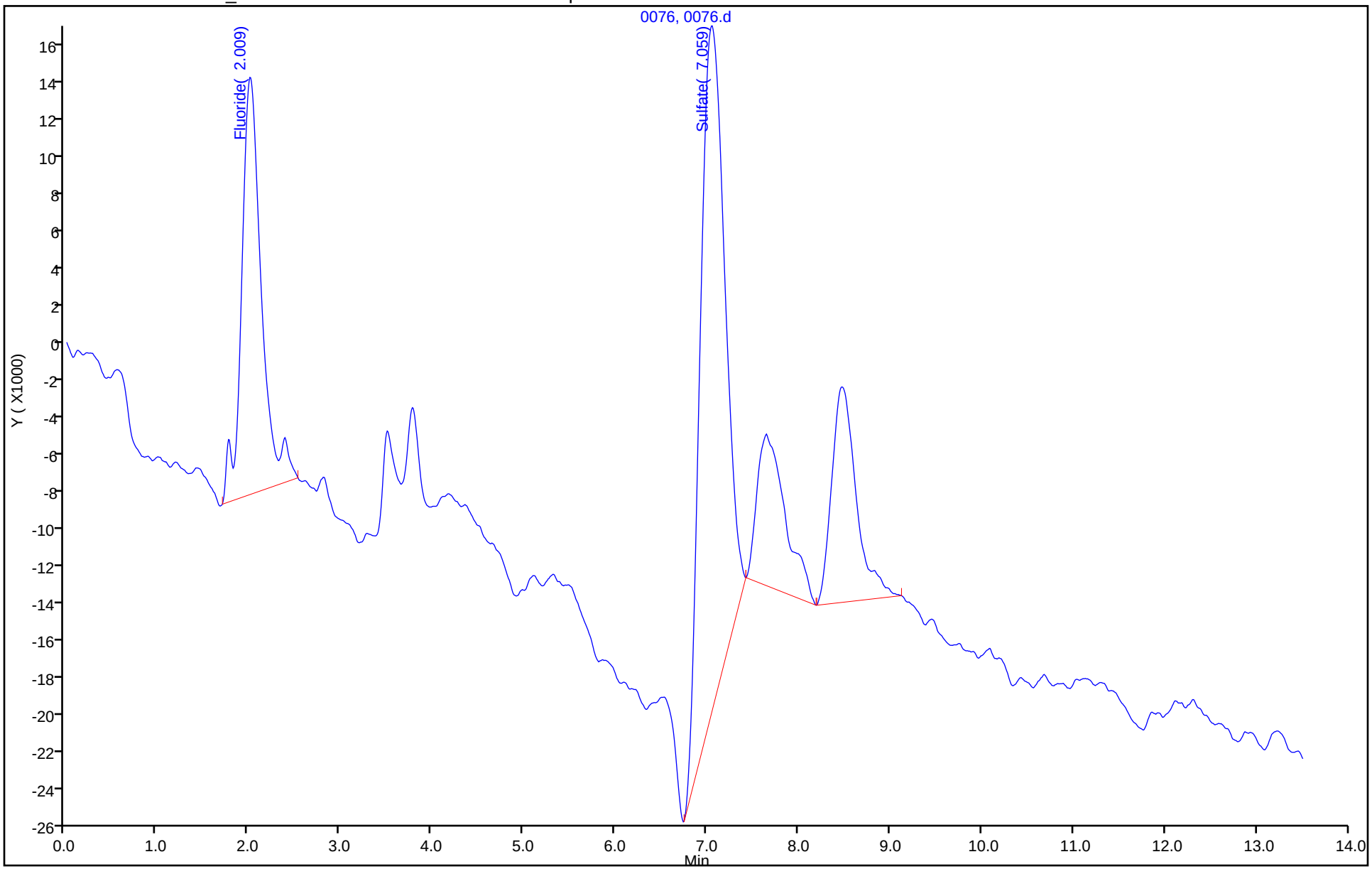
Processing Flags
NC - Not Calibrated

Report Date: 20-May-2019 08:10:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0076.d

Injection Date:	18-May-2019 18:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	76
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0076.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 18-May-2019 18:40:00 ALS Bottle#: 0 Worklist Smp#: 76
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082000-076
Misc. Info.: 27647 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 20-May-2019 08:10:22 Calib Date: 15-May-2019 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190515-81929.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0312

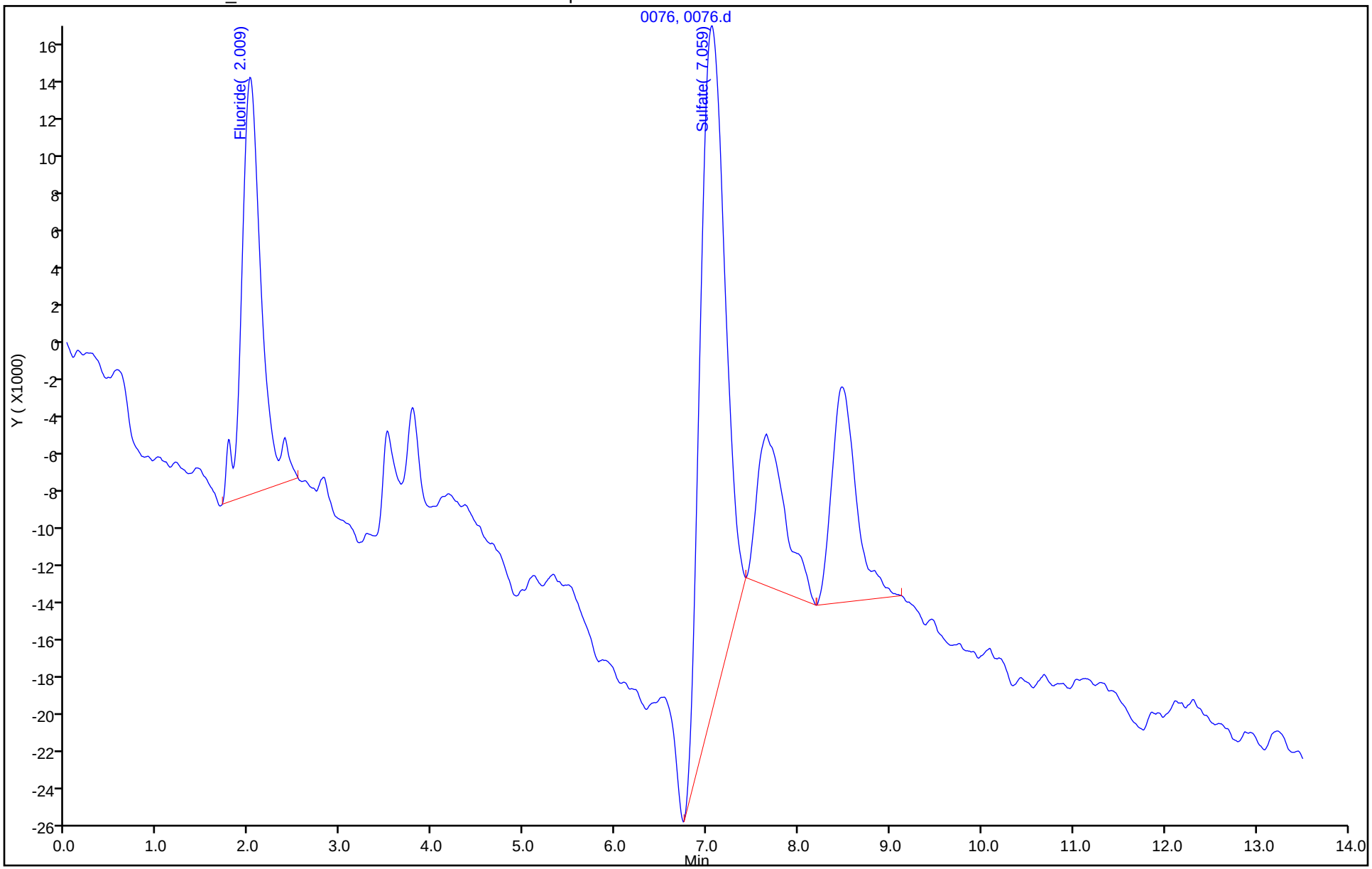
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.292	-0.283	336322		-0.1082	
2 Chloride		3.242				ND	
3 Nitrite as N		3.892				ND	
4 Bromide		4.634				ND	
5 Nitrate as N		5.200				ND	
7 Orthophosphate as P		5.659				ND	
6 Sulfate	7.059	6.434	0.625	683952		0.5902	

Report Date: 20-May-2019 08:10:24 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190517-82000.b\0076.d

Injection Date:	18-May-2019 18:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	76
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-May-2019 15:30:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:56 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	1366393	NC	NC	
2 Chloride	3.209	3.225	-0.016	4569363	NC	NC	
3 Nitrite as N	3.842	3.850	-0.008	1909782	0.2000	0.2135	
4 Bromide	4.576	4.575	0.001	400482	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	2221862	0.2000	0.2220	
7 Orthophosphate as P	5.642	5.634	0.008	1282877	0.2000	0.2159	
6 Sulfate	6.359	6.409	-0.050	3422980	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

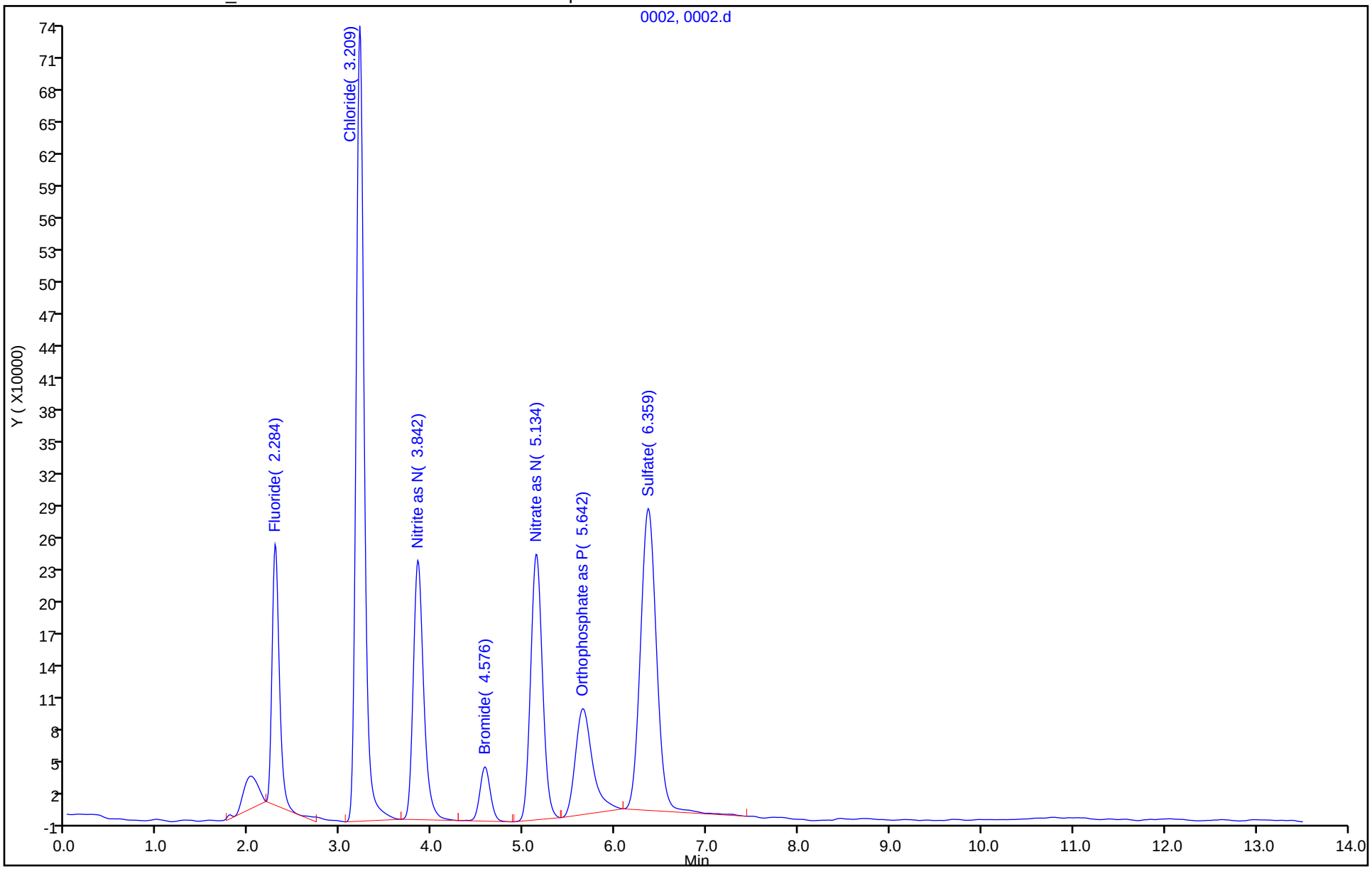
IC CAL cl/so4_00257 Amount Added: 0.02 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d

Injection Date:	20-May-2019 15:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-May-2019 15:30:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:56 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	1366393	0.2000	0.2154	
2 Chloride	3.209	3.225	-0.016	4569363	1.00	1.32	
3 Nitrite as N	3.842	3.850	-0.008	1909782	NC	NC	
4 Bromide	4.576	4.575	0.001	400482	0.2000	0.2052	
5 Nitrate as N	5.134	5.134	0.000	2221862	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	1282877	NC	NC	
6 Sulfate	6.359	6.409	-0.050	3422980	1.00	1.24	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

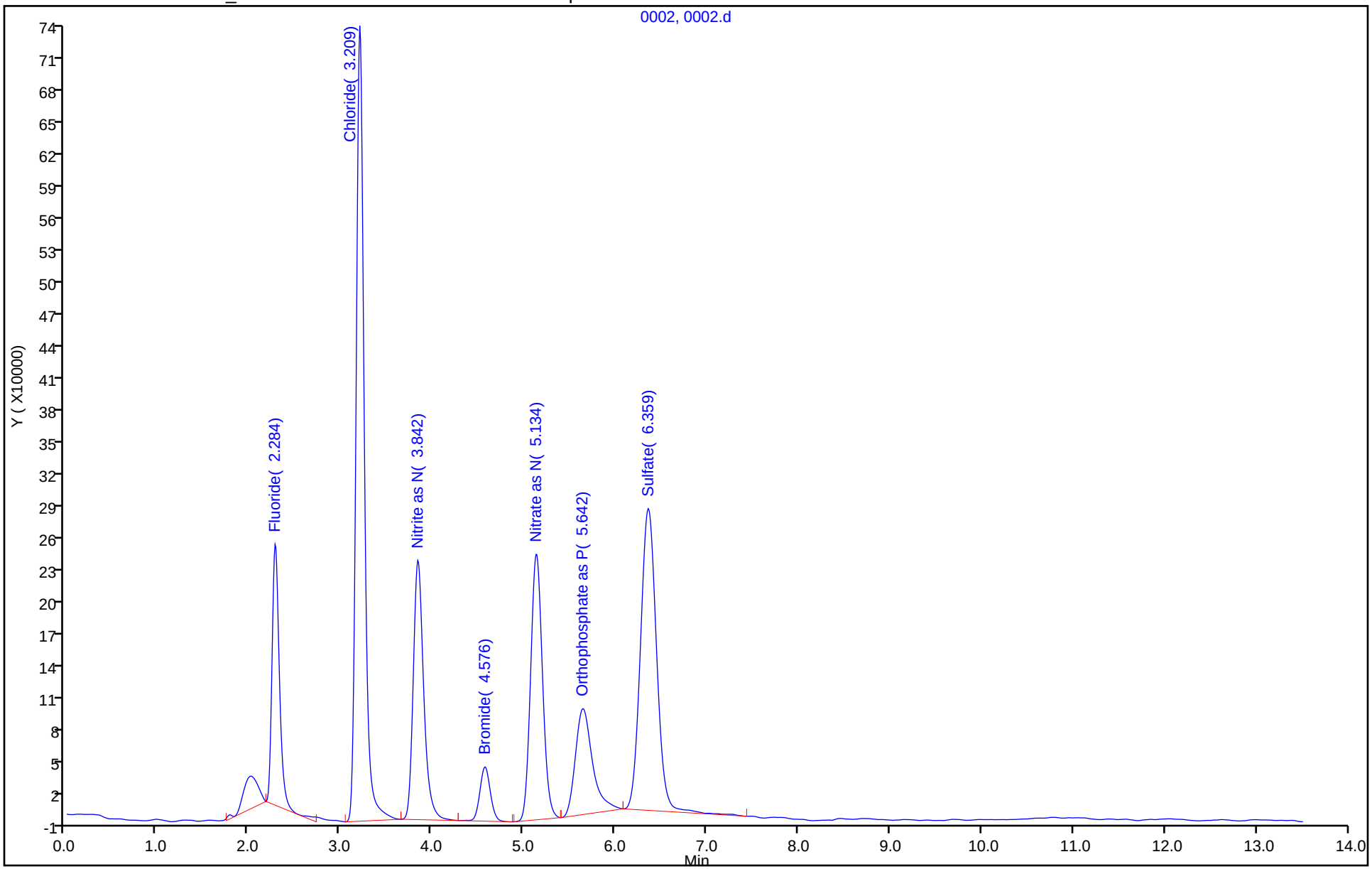
IC CAL cl/so4_00257 Amount Added: 0.02 Units: mL
IC Cal low_00459 Amount Added: 0.02 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d

Injection Date:	20-May-2019 15:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-May-2019 15:47:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:57 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3430647	NC	NC	
2 Chloride	3.217	3.225	-0.008	11169540	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	4883590	0.5000	0.4916	
4 Bromide	4.575	4.575	0.000	1010337	NC	NC	
5 Nitrate as N	5.142	5.134	0.008	5516108	0.5000	0.4876	
7 Orthophosphate as P	5.642	5.634	0.008	2559825	0.5000	0.4883	
6 Sulfate	6.367	6.409	-0.042	8373202	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

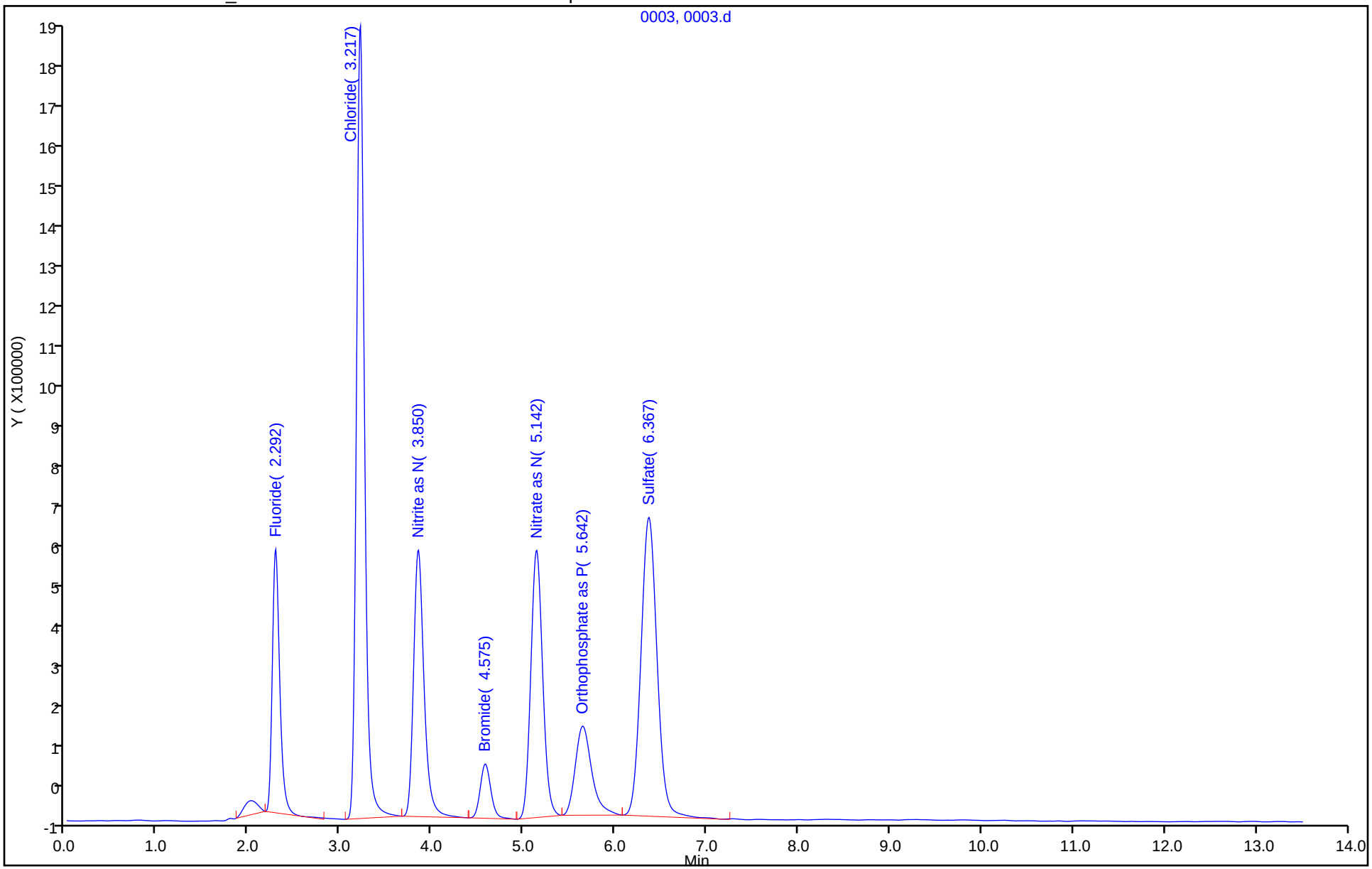
Reagents:

IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d				
Injection Date:	20-May-2019 15:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-May-2019 15:47:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 22-May-2019 07:58:57 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	3430647	0.5000	0.4876	
2 Chloride	3.217	3.225	-0.008	11169540	2.50	2.33	
3 Nitrite as N	3.850	3.850	0.000	4883590	NC	NC	
4 Bromide	4.575	4.575	0.000	1010337	0.5000	0.4998	
5 Nitrate as N	5.142	5.134	0.008	5516108	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	2559825	NC	NC	
6 Sulfate	6.367	6.409	-0.042	8373202	2.50	2.40	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

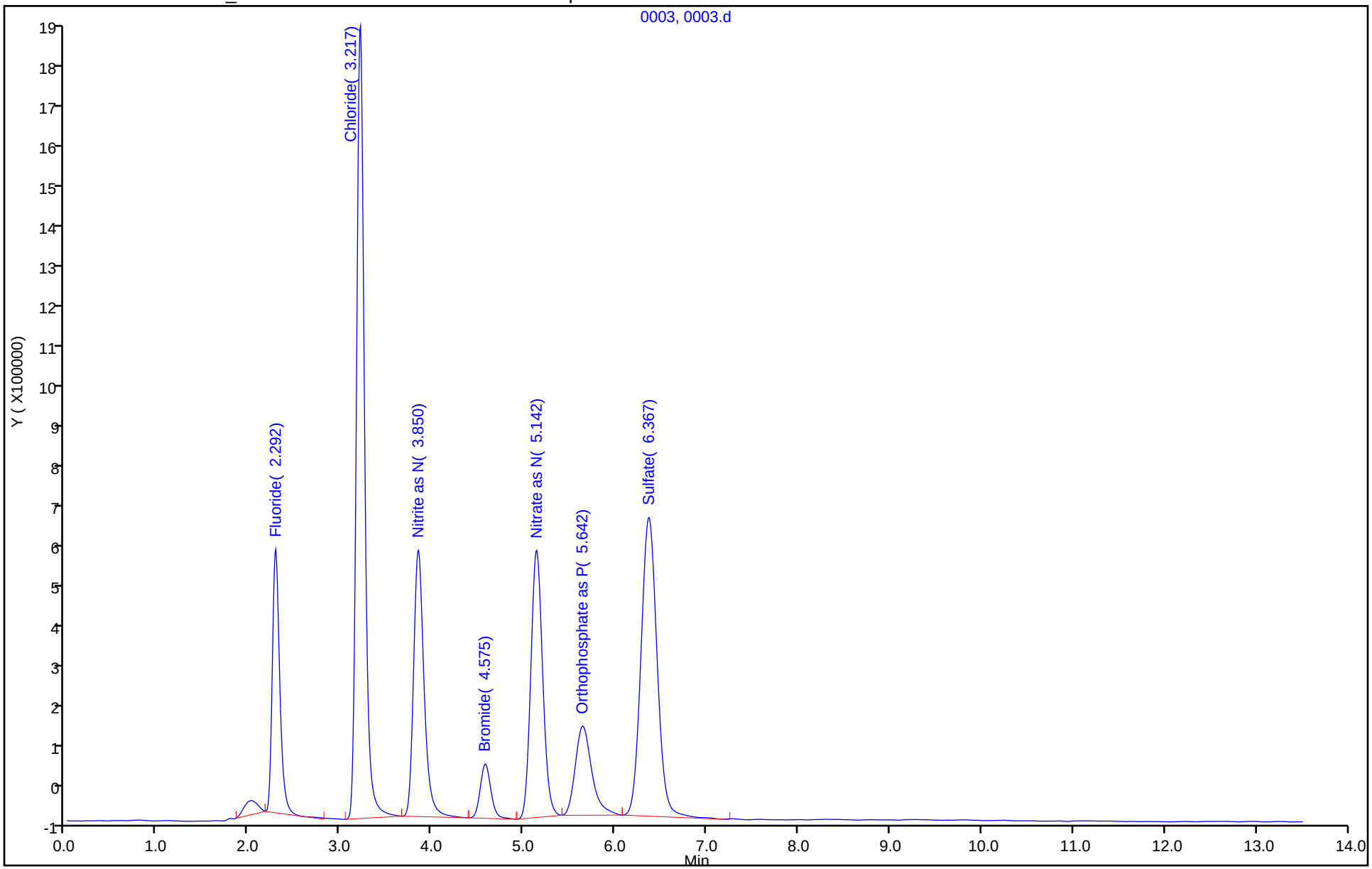
IC CAL cl/so4_00257 Amount Added: 0.05 Units: mL
IC Cal low_00459 Amount Added: 0.05 Units: mL

Report Date: 22-May-2019 07:58:57 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d

Injection Date:	20-May-2019 15:47:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-May-2019 16:03:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	7044898	NC	NC	
2 Chloride	3.209	3.225	-0.016	22624207	NC	NC	
3 Nitrite as N	3.842	3.850	-0.008	9975765	1.00	0.9678	
4 Bromide	4.575	4.575	0.000	2013985	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	11156305	1.00	0.9423	
7 Orthophosphate as P	5.642	5.634	0.008	4766974	1.00	0.9591	
6 Sulfate	6.359	6.409	-0.050	16706402	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

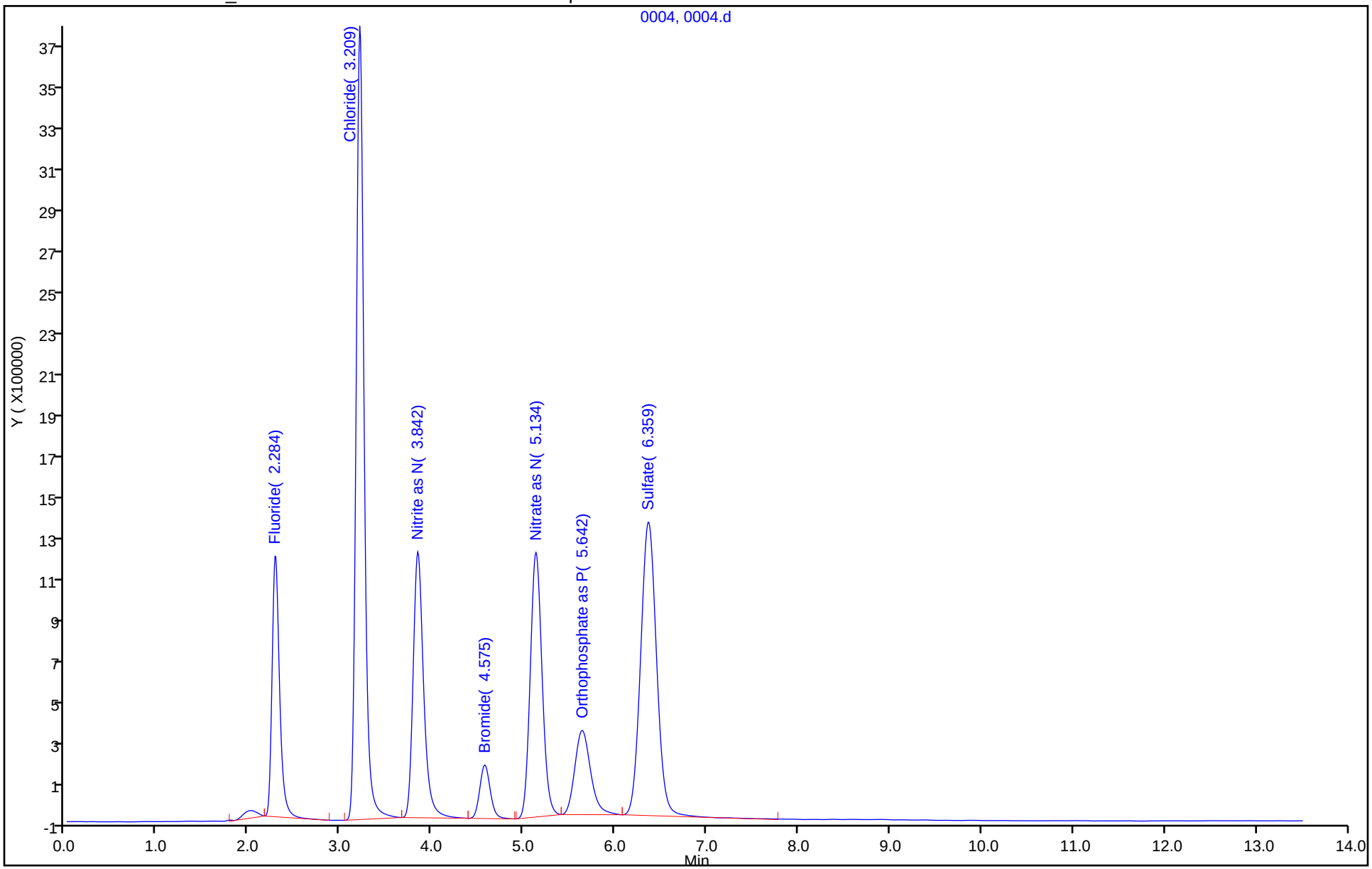
IC CAL cl/so4_00257	Amount Added:	0.10	Units: mL
IC Cal low_00459	Amount Added:	0.10	Units: mL

Report Date: 22-May-2019 07:58:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d

Injection Date:	20-May-2019 16:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-May-2019 16:03:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.284	2.292	-0.008	7044898	1.00	0.9642	
2 Chloride	3.209	3.225	-0.016	22624207	5.00	4.08	
3 Nitrite as N	3.842	3.850	-0.008	9975765	NC	NC	
4 Bromide	4.575	4.575	0.000	2013985	1.00	0.9847	
5 Nitrate as N	5.134	5.134	0.000	11156305	NC	NC	
7 Orthophosphate as P	5.642	5.634	0.008	4766974	NC	NC	
6 Sulfate	6.359	6.409	-0.050	16706402	5.00	4.34	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

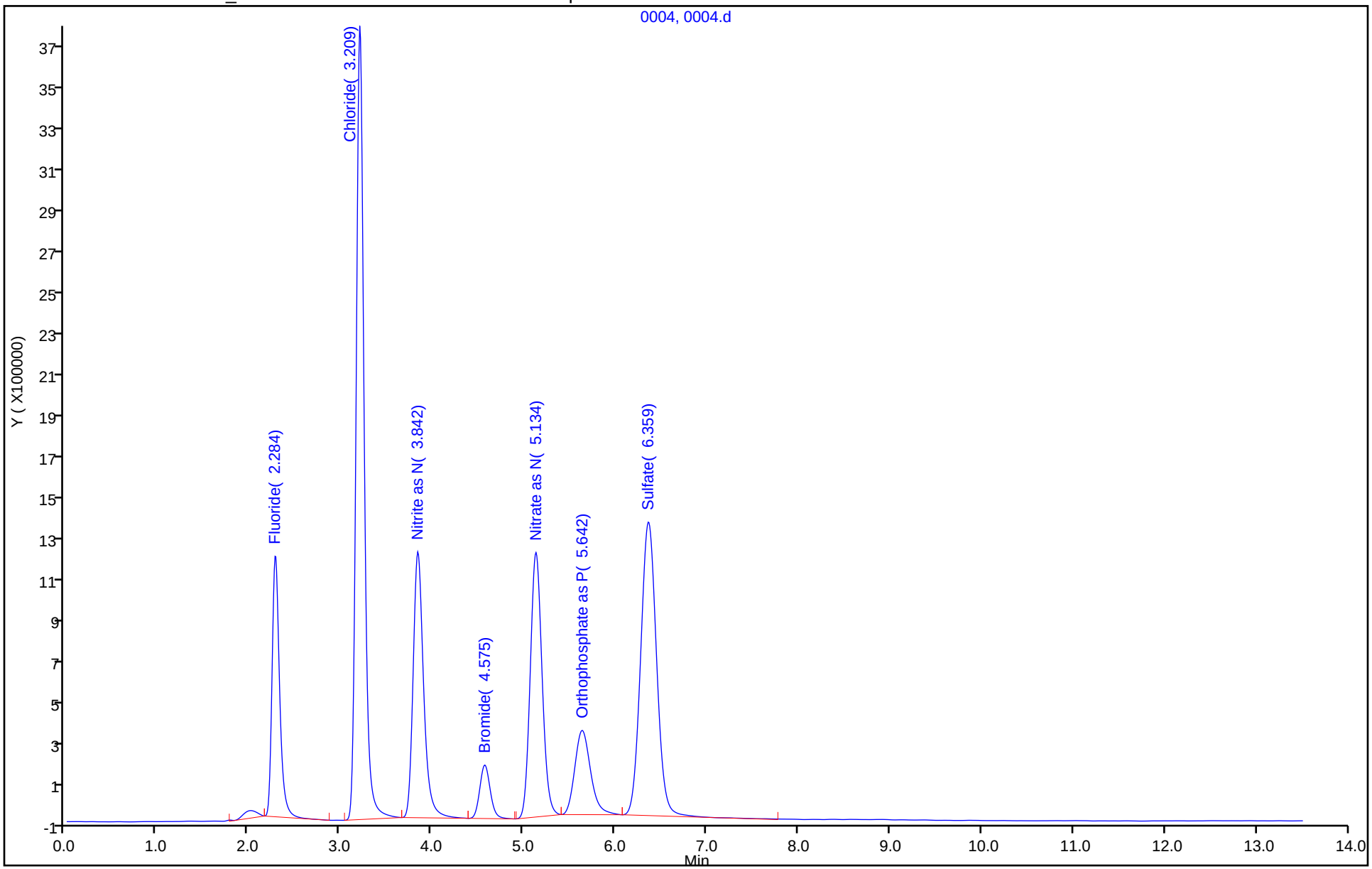
IC CAL cl/so4_00257	Amount Added:	0.10	Units: mL
IC Cal low_00459	Amount Added:	0.10	Units: mL

Report Date: 22-May-2019 07:58:58 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d

Injection Date:	20-May-2019 16:03:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-May-2019 16:20:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:58 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29030461	NC	NC	
2 Chloride	3.225	3.225	0.000	351737681	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	40862664	4.00	3.86	
4 Bromide	4.575	4.575	0.000	8108630	NC	NC	
5 Nitrate as N	5.134	5.134	0.000	46444411	4.00	3.79	
7 Orthophosphate as P	5.634	5.634	0.000	18453992	4.00	3.88	
6 Sulfate	6.392	6.392	0.000	231352897	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

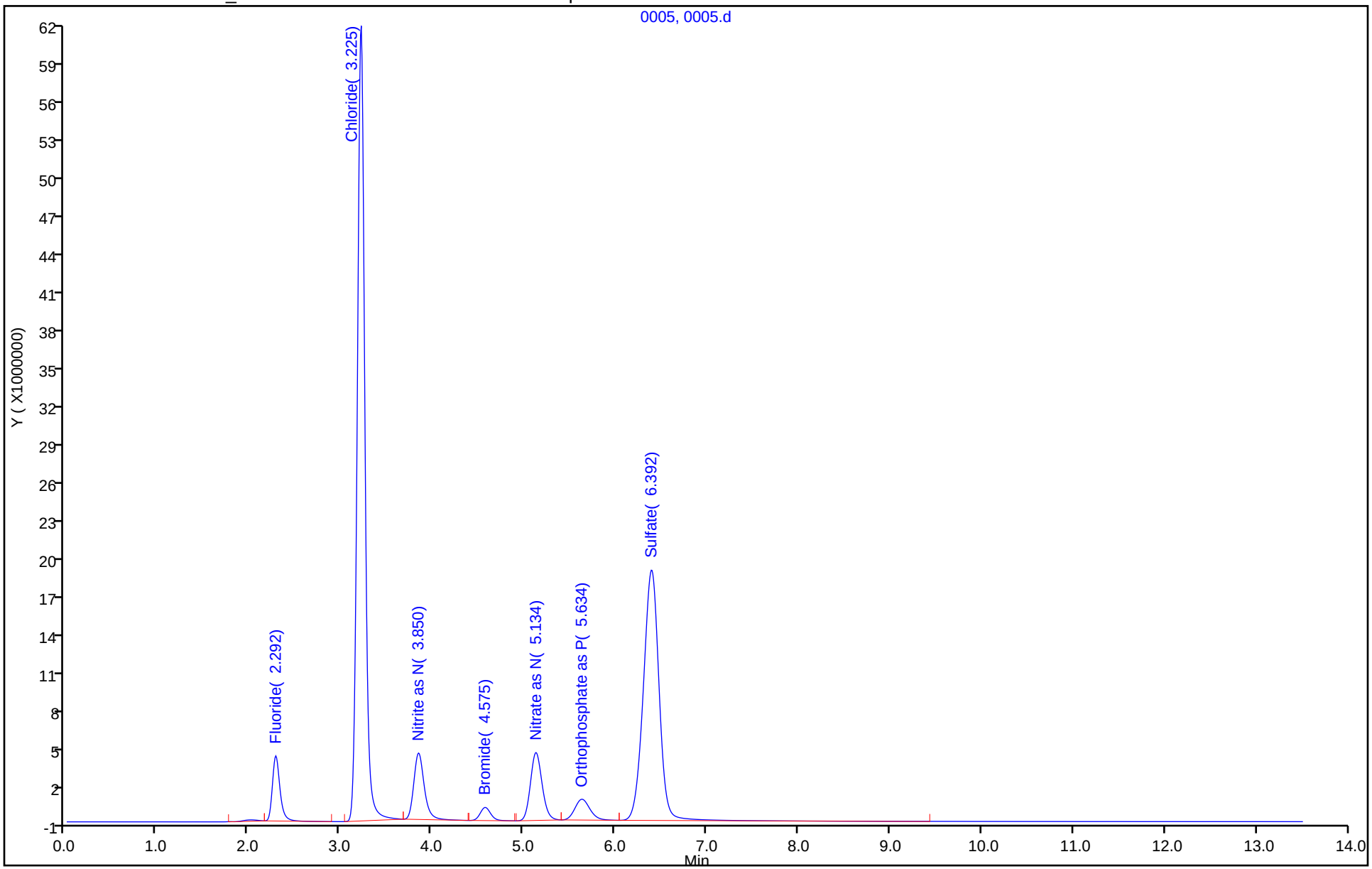
IC CAL cl/so4_00257 Amount Added: 1.20 Units: mL
IC Cal low_00459 Amount Added: 0.40 Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d

Injection Date:	20-May-2019 16:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d				
Lims ID:	std L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	20-May-2019 16:20:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-005				
Misc. Info.:	5 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:58	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	29030461	4.00	3.86	
2 Chloride	3.225	3.225	0.000	351737681	60.0	54.5	
3 Nitrite as N	3.850	3.850	0.000	40862664	NC	NC	
4 Bromide	4.575	4.575	0.000	8108630	4.00	3.93	
5 Nitrate as N	5.134	5.134	0.000	46444411	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	18453992	NC	NC	
6 Sulfate	6.392	6.392	0.000	231352897	60.0	54.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

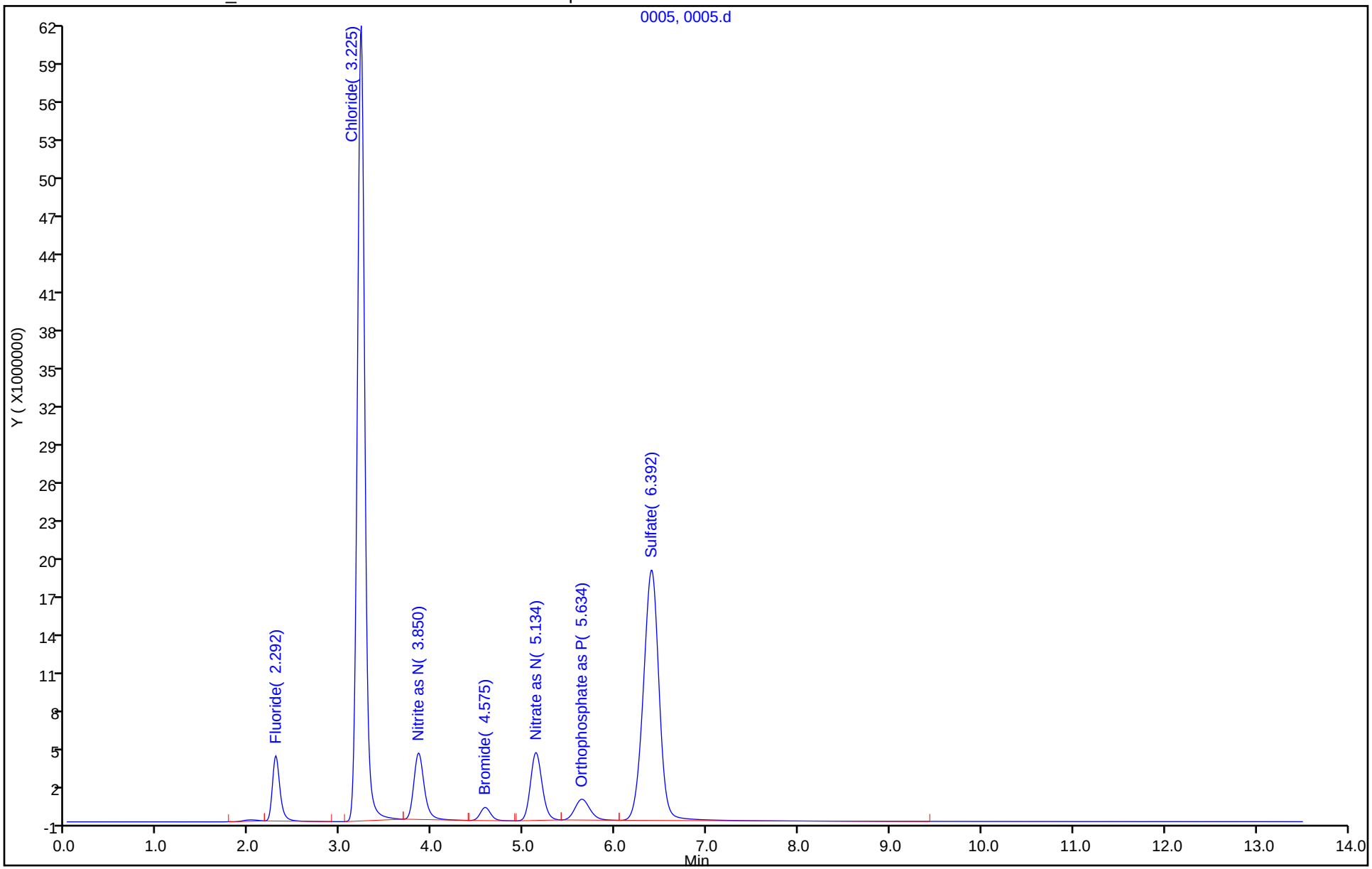
IC CAL cl/so4_00257	Amount Added:	1.20	Units: mL
IC Cal low_00459	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d

Injection Date:	20-May-2019 16:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-May-2019 16:36:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082062-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 22-May-2019 07:58:59 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	60687106	NC	NC	
2 Chloride	3.225	3.225	0.000	767710112	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	85254927	8.00	8.01	
4 Bromide	4.575	4.575	0.000	16491045	NC	NC	
5 Nitrate as N	5.117	5.134	-0.017	98595023	8.00	7.99	
7 Orthophosphate as P	5.625	5.634	-0.009	37609857	8.00	7.96	
6 Sulfate	6.417	6.392	0.025	499759358	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

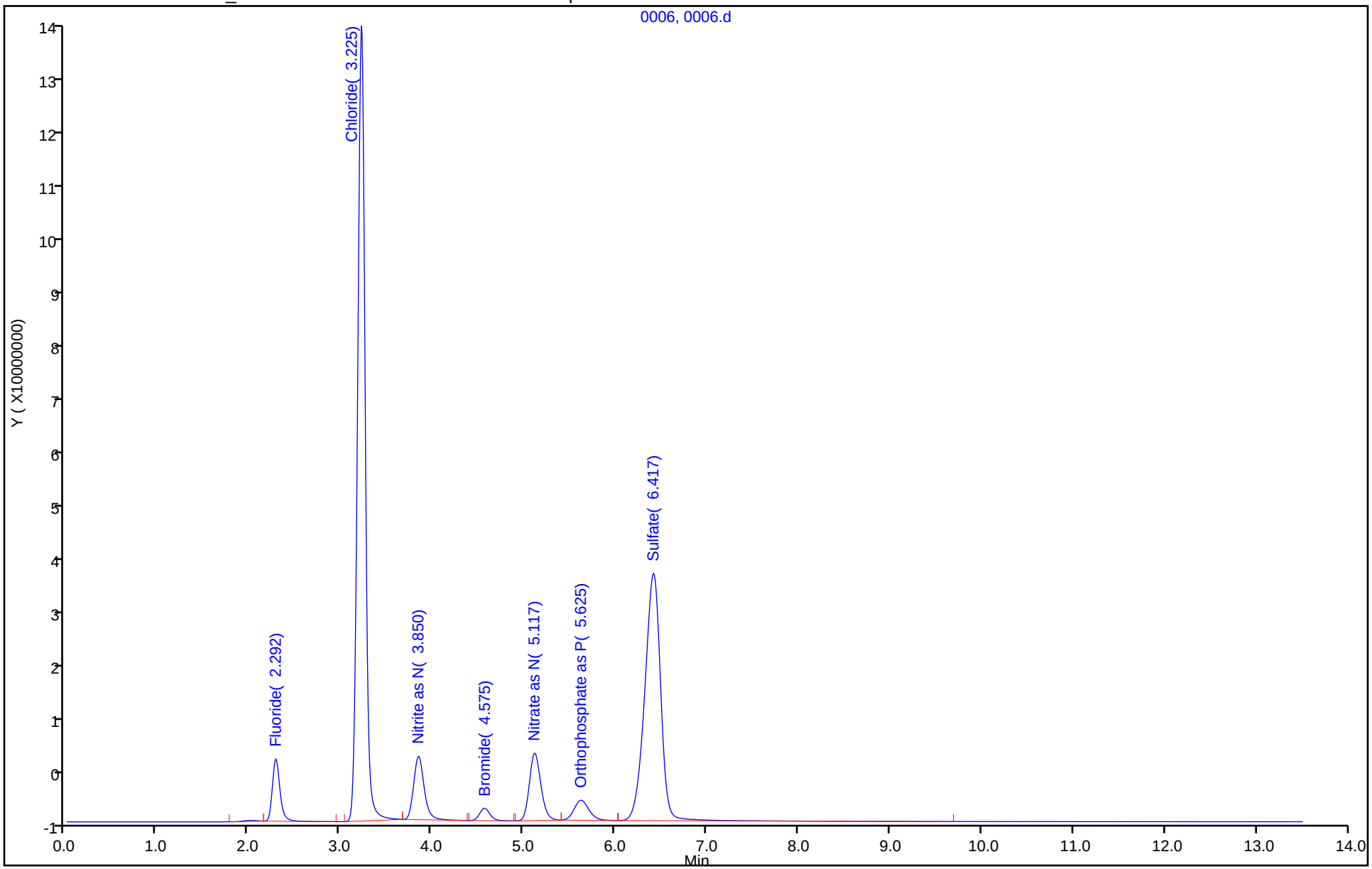
IC CAL cl/so4_00257 Amount Added: 2.40 Units: mL
IC Cal low_00459 Amount Added: 0.80 Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d

Injection Date:	20-May-2019 16:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d				
Lims ID:	std L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	20-May-2019 16:36:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:58:59	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	60687106	8.00	8.04	
2 Chloride	3.225	3.225	0.000	767710112	120.0	118.2	
3 Nitrite as N	3.850	3.850	0.000	85254927	NC	NC	
4 Bromide	4.575	4.575	0.000	16491045	8.00	7.98	
5 Nitrate as N	5.117	5.134	-0.017	98595023	NC	NC	
7 Orthophosphate as P	5.625	5.634	-0.009	37609857	NC	NC	
6 Sulfate	6.417	6.392	0.025	499759358	120.0	117.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

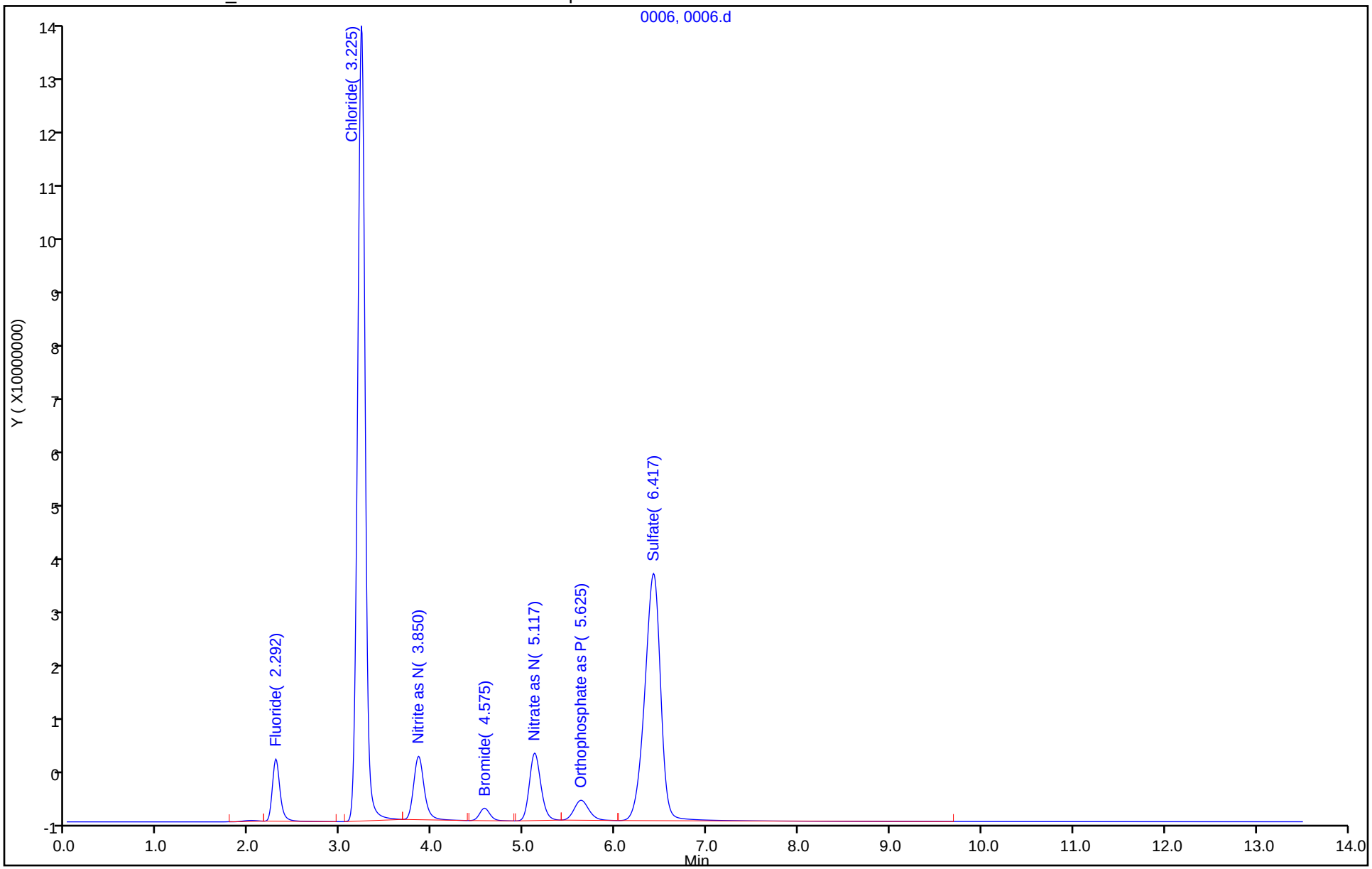
IC CAL cl/so4_00257	Amount Added:	2.40	Units: mL
IC Cal low_00459	Amount Added:	0.80	Units: mL

Report Date: 22-May-2019 07:58:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d

Injection Date:	20-May-2019 16:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	20-May-2019 16:52:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-007				
Misc. Info.:	7 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:00	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	76568117	NC	NC	
2 Chloride	3.242	3.225	0.017	1354016260	NC	NC	
3 Nitrite as N	3.851	3.850	0.001	108323395	10.0	10.2	
4 Bromide	4.567	4.575	-0.008	20888090	NC	NC	
5 Nitrate as N	5.117	5.134	-0.017	126834114	10.0	10.3	
7 Orthophosphate as P	5.626	5.634	-0.008	48062818	10.0	10.2	
6 Sulfate	6.442	6.392	0.050	892937706	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

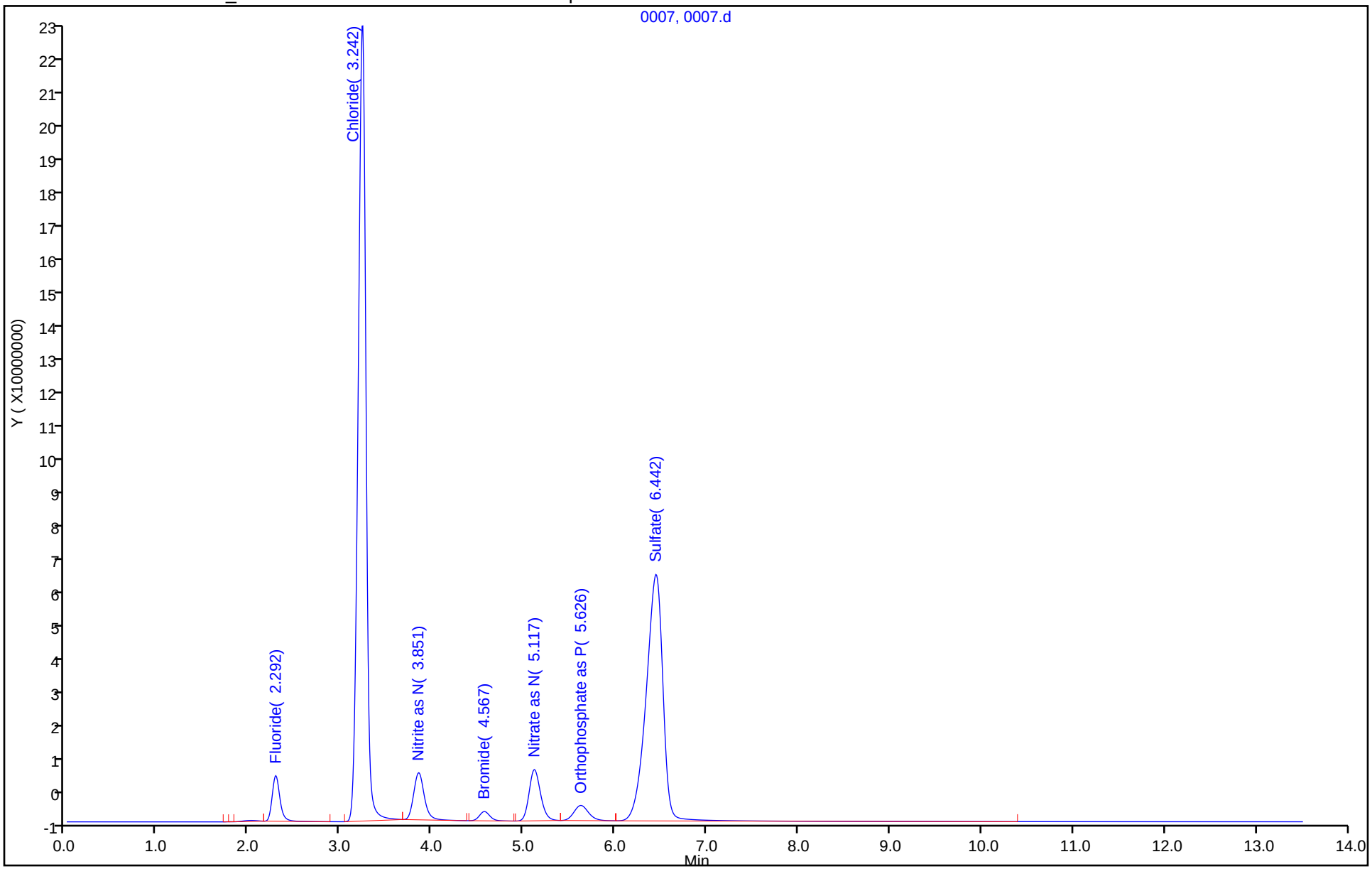
IC CAL cl/so4_00257	Amount Added:	4.00	Units: mL
IC Cal low_00459	Amount Added:	1.00	Units: mL

Report Date: 22-May-2019 07:59:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Injection Date:	20-May-2019 16:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	20-May-2019 16:52:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-007				
Misc. Info.:	7 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:00	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	76568117	10.0	10.1	
2 Chloride	3.242	3.225	0.017	1354016260	200.0	208.0	
3 Nitrite as N	3.851	3.850	0.001	108323395	NC	NC	
4 Bromide	4.567	4.575	-0.008	20888090	10.0	10.1	
5 Nitrate as N	5.117	5.134	-0.017	126834114	NC	NC	
7 Orthophosphate as P	5.626	5.634	-0.008	48062818	NC	NC	
6 Sulfate	6.442	6.392	0.050	892937706	200.0	208.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

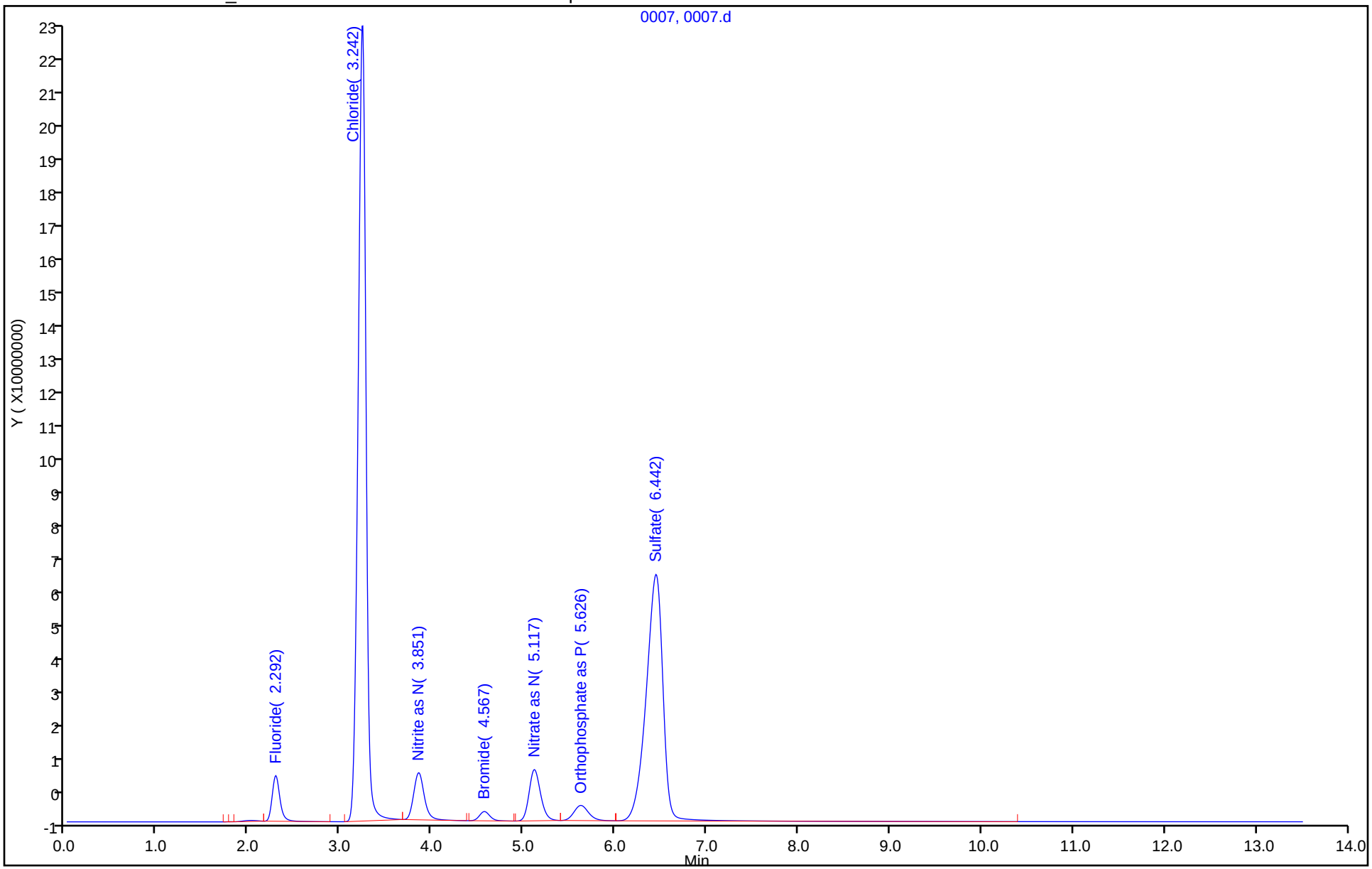
IC CAL cl/so4_00257	Amount Added:	4.00	Units: mL
IC Cal low_00459	Amount Added:	1.00	Units: mL

Report Date: 22-May-2019 07:59:00 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Injection Date:	20-May-2019 16:52:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Q598776/ 459779

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82062 Inst ID: 11 Analysis Date: 05/20/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123961	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	u
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3,4,5,6,7,8,9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total → ☐	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3,4,5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phurdyna 5/23/19

IC Instrument Information

WL: 82062 **Inst ID:** II **Analysis Date:** 05/20/19 **Analyst:** TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123960	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	1 & 6 II
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3, 4, 5, 6, 7, 8, 9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053 -	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	124043 -	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total →	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
- 123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
- 123959	3,4,5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 22-May-2019 00:40:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

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8/13/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	22-May-2019 00:40:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	20-May-2019 17:09:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-008				
Misc. Info.:	8 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	30124346	NC	NC	
2 Chloride	3.225	3.225	0.000	514674081	NC	NC	
3 Nitrite as N	3.850	3.850	0.000	40475725	4.00	3.82	
4 Bromide	4.575	4.575	0.000	8642735	NC	NC	
5 Nitrate as N	5.125	5.125	0.000	50555562	4.00	4.12	
7 Orthophosphate as P	5.634	5.634	0.000	19556051	4.00	4.11	
6 Sulfate	6.400	6.400	0.000	336664856	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

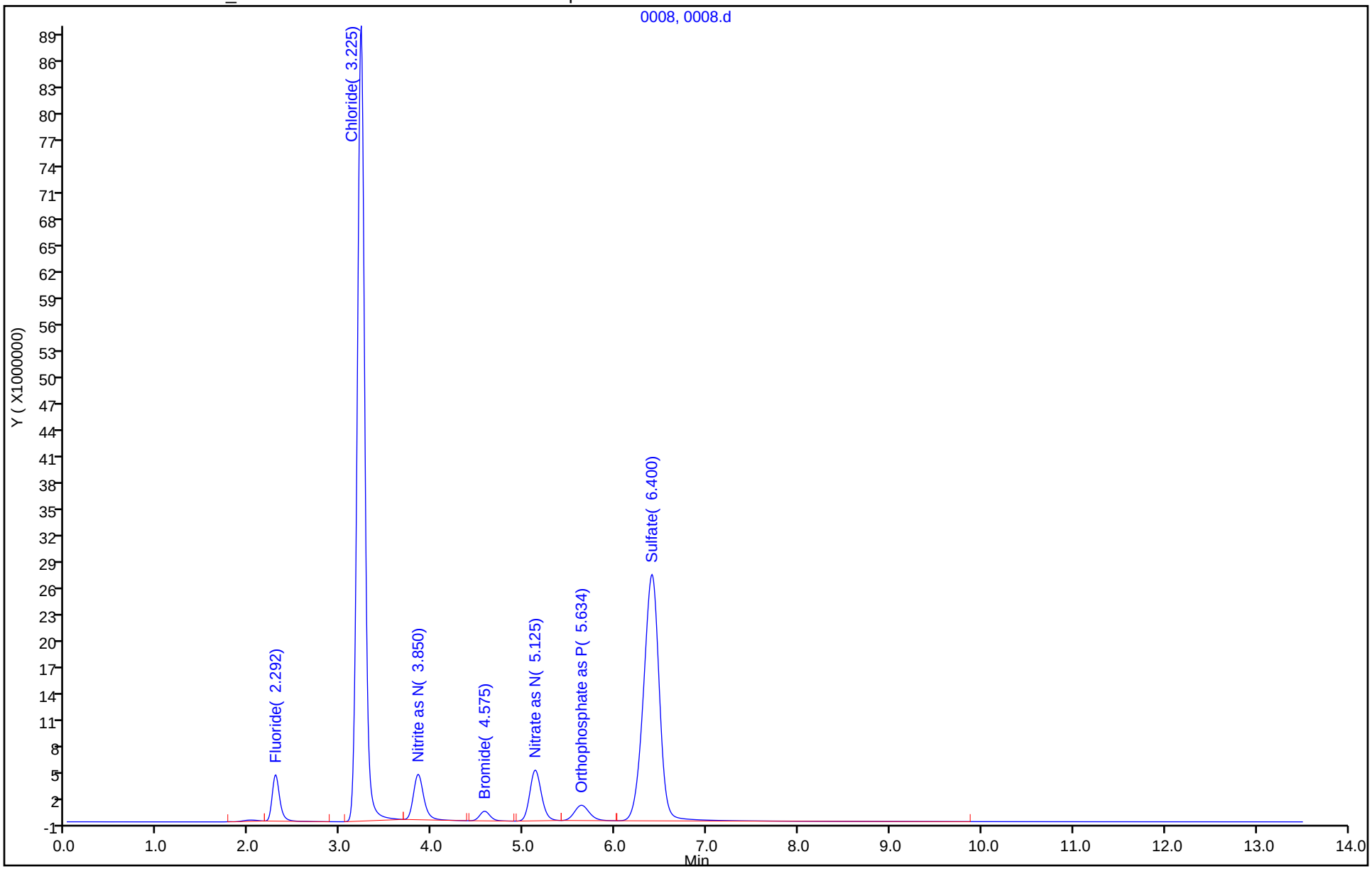
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00234	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:59:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d

Injection Date:	20-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Q598776/4598777

TestAmerica Denver

TestAmerica

IC Instrument Information

WL: 82062 Inst ID: 11 Analysis Date: 05/20/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123961	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	u
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3,4,5,6,7,8,9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total ☐ →	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
123959	3,4,5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Phurdyna 5/23/19

IC Instrument Information

WL: 82062 **Inst ID:** II **Analysis Date:** 05/20/19 **Analyst:** TT

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123960	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	Expired when received
☐	123959	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	1 & 6 II
☐	123981	9	F Cl NO2 Br NO3 PO4 SO4	MS/D	#3, 4, 5, 6, 7, 8, 9 rerun
☐	123983	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	to confirm PO4
☐	124053 -	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Dissolved →	124043 -	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
Total →	124043	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
- 123960	1	F Cl NO2 Br NO3 PO4 SO4	5x	Cond.
- 123959	3, 4, 5	F Cl NO2 Br NO3 PO4 SO4	2x, 5x	Cond.
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 22-May-2019 00:40:15
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

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8/13/19

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	22-May-2019 00:40:15

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	20-May-2019 17:09:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-008				
Misc. Info.:	8 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:					
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.292	2.292	0.000	30124346	4.00	4.01	
2 Chloride	3.225	3.225	0.000	514674081	80.0	79.5	
3 Nitrite as N	3.850	3.850	0.000	40475725	NC	NC	
4 Bromide	4.575	4.575	0.000	8642735	4.00	4.19	
5 Nitrate as N	5.125	5.125	0.000	50555562	NC	NC	
7 Orthophosphate as P	5.634	5.634	0.000	19556051	NC	NC	
6 Sulfate	6.400	6.400	0.000	336664856	80.0	79.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

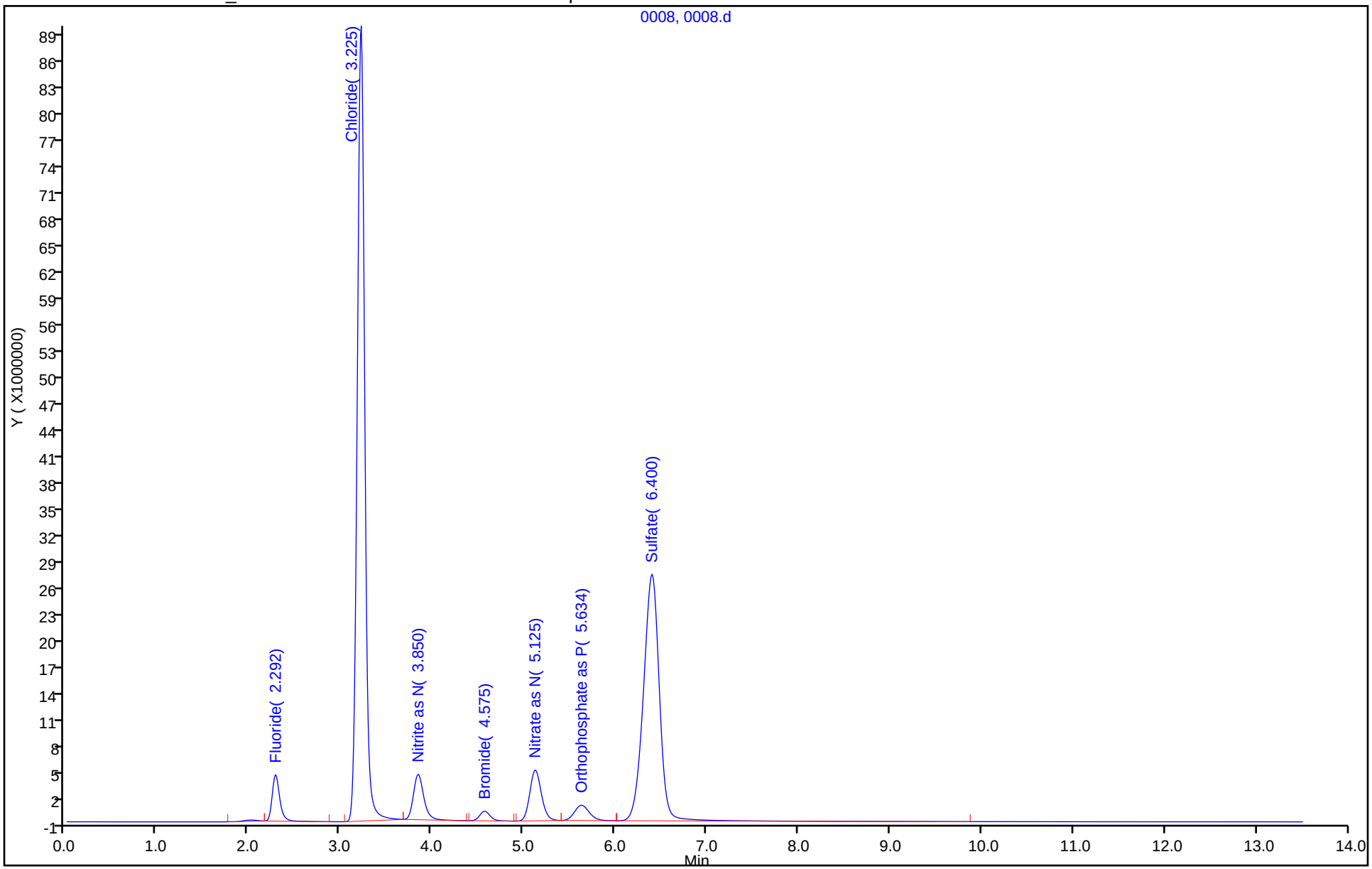
IC SO4 ICV_00017	Amount Added:	0.40	Units: mL
IC ICV 5_00234	Amount Added:	0.40	Units: mL
IC CL ICV_00016	Amount Added:	0.40	Units: mL

Report Date: 22-May-2019 07:59:01 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0008.d

Injection Date:	20-May-2019 17:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	20-May-2019 17:25:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-009				
Misc. Info.:	9 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1286779		NC	
2 Chloride	3.225	3.225	0.000	112223		NC	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.709	5.634	0.075	318026		0.0102	
6 Sulfate		6.392				ND	

QC Flag Legend

Processing Flags

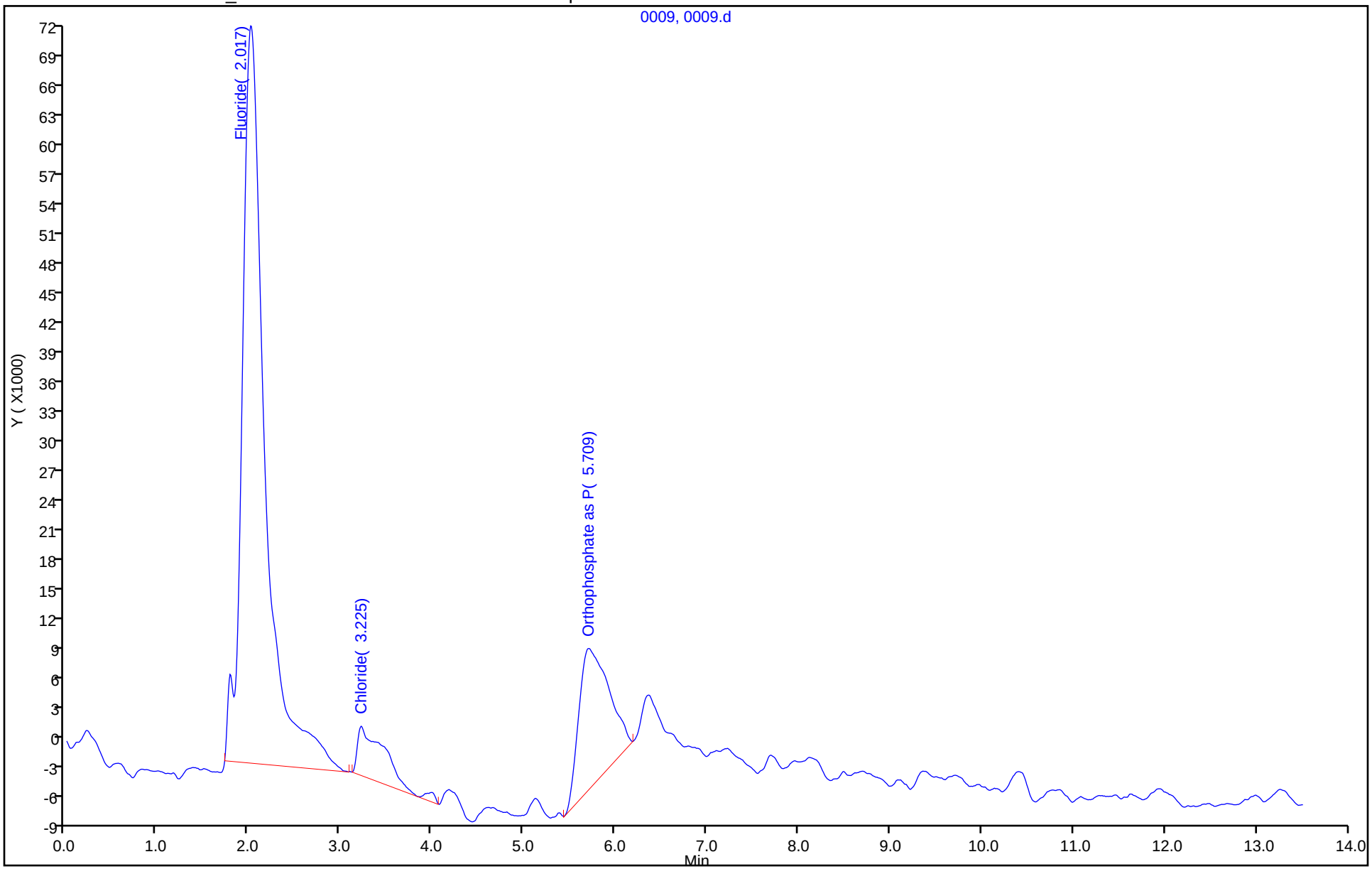
NC - Not Calibrated

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d

Injection Date:	20-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	20-May-2019 17:25:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082062-009				
Misc. Info.:	9 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	22-May-2019 07:59:01	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.292	-0.275	1286779		0.2049	
2 Chloride	3.225	3.225	0.000	112223		0.6351	
3 Nitrite as N		3.850				ND	
4 Bromide		4.575				ND	
5 Nitrate as N		5.134				ND	
7 Orthophosphate as P	5.709	5.634	0.075	318026		NC	
6 Sulfate		6.392				ND	

QC Flag Legend

Processing Flags

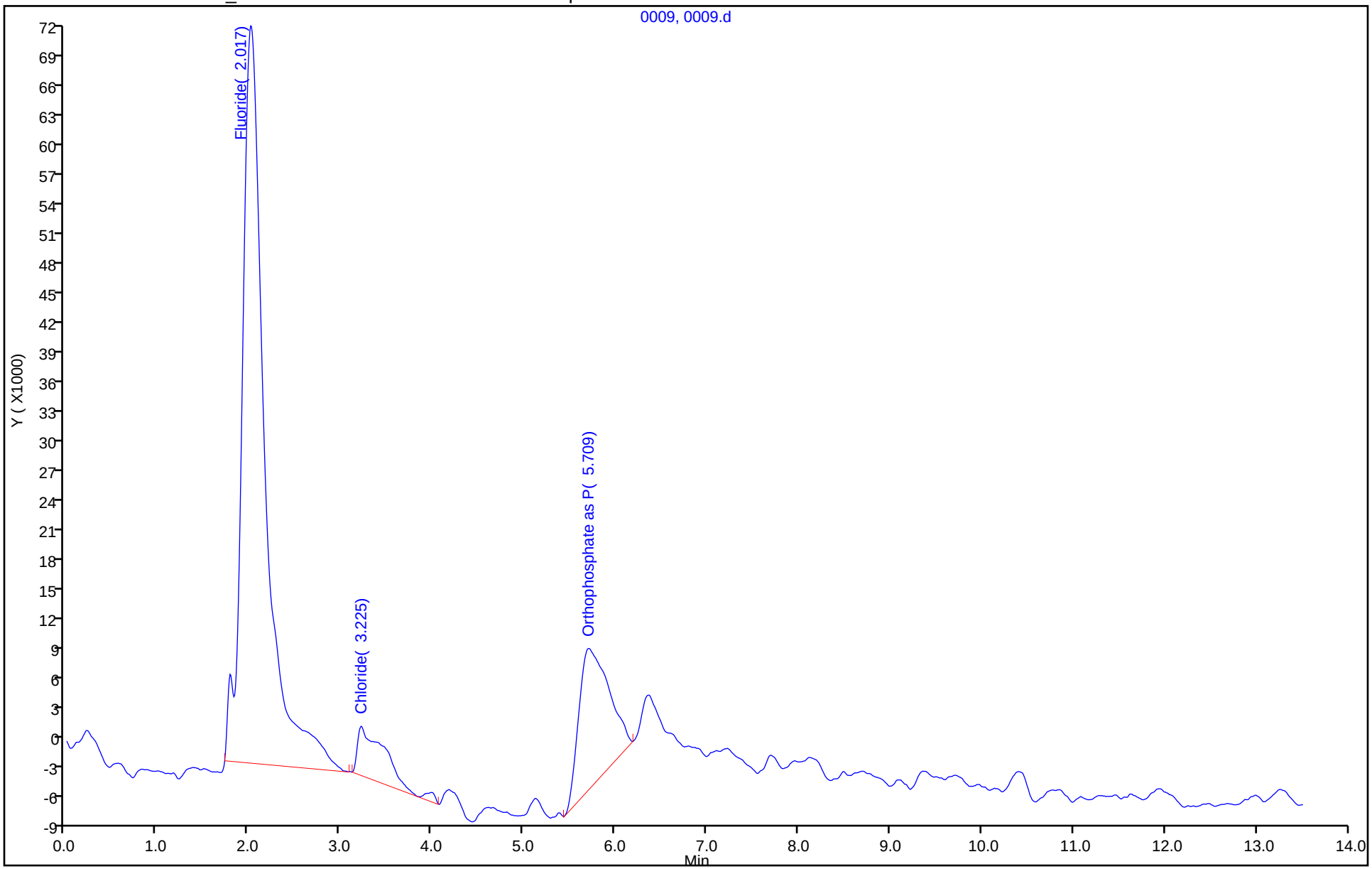
NC - Not Calibrated

Report Date: 22-May-2019 07:59:02 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0009.d

Injection Date:	20-May-2019 17:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 82479 Inst ID: 11 Analysis Date: 06/03/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123930	4	F Cl NO2 Br NO3 (PO4) SO4	(MS/D) 2	2 rerun for PO4 because
☐	123924	12	F Cl NO2 Br NO3 (PO4) SO4	(MS/D) 1	ICCV failed in
Pantex ☐→	122314	2	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D) 4	batch 458552
☐	123491	1	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	~~123531~~	06/03/19 TP	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
~~123491~~	~~1~~	~~F Cl NO2 Br NO3 PO4 SO4~~	~~5x~~	~~wrong~~ 06/03/19 TP
~~06/03/19 TP~~		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2019 08:22:34
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2019 08:22:34
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Inj Date: 20-May-2019 15:30:00 Worklist: 82062 Sample#: 2
Level: 2 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Inj Date: 20-May-2019 15:47:00 Worklist: 82062 Sample#: 3
Level: 3 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d
Inj Date: 20-May-2019 16:03:00 Worklist: 82062 Sample#: 4
Level: 4 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d
Inj Date: 20-May-2019 16:20:00 Worklist: 82062 Sample#: 5
Level: 5 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d
Inj Date: 20-May-2019 16:36:00 Worklist: 82062 Sample#: 6
Level: 6 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d
Inj Date: 20-May-2019 16:52:00 Worklist: 82062 Sample#: 7

Start Cal Date: 20-May-2019 15:30:00 End Cal Date: 03-Jun-2019 17:04:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
9548910	9767180	9975765	10215666	10656866	10832340	-373888			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		10694239		
1909782	4883590	9975765	40862664	85254927	108323395				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				
5 Nitrate as N				Signal: 1					
11109310	11032216	11156305	11611103	12324378	12683411	-531250			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		12403178		
2221862	5516108	11156305	46444411	98595023	126834114				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				
7 Orthophosphate as P				Signal: 1					
6414385	5119650	4766974	4613498	4701232	4806282	270439			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		4688342		
1282877	2559825	4766974	18453992	37609857	48062818				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 03-Jun-2019 17:04:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34945986	NC	NC	
2 Chloride	3.459	3.492	-0.033	695312518	NC	NC	
3 Nitrite as N	4.176	4.217	-0.041	56246982	5.00	5.29	
4 Bromide	5.009	5.075	-0.066	10774228	NC	NC	
5 Nitrate as N	5.651	5.725	-0.074	66398624	5.00	5.40	
7 Orthophosphate as P	7.351	7.442	-0.091	24492990	5.00	5.17	
6 Sulfate	8.317	8.400	-0.083	449357616	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

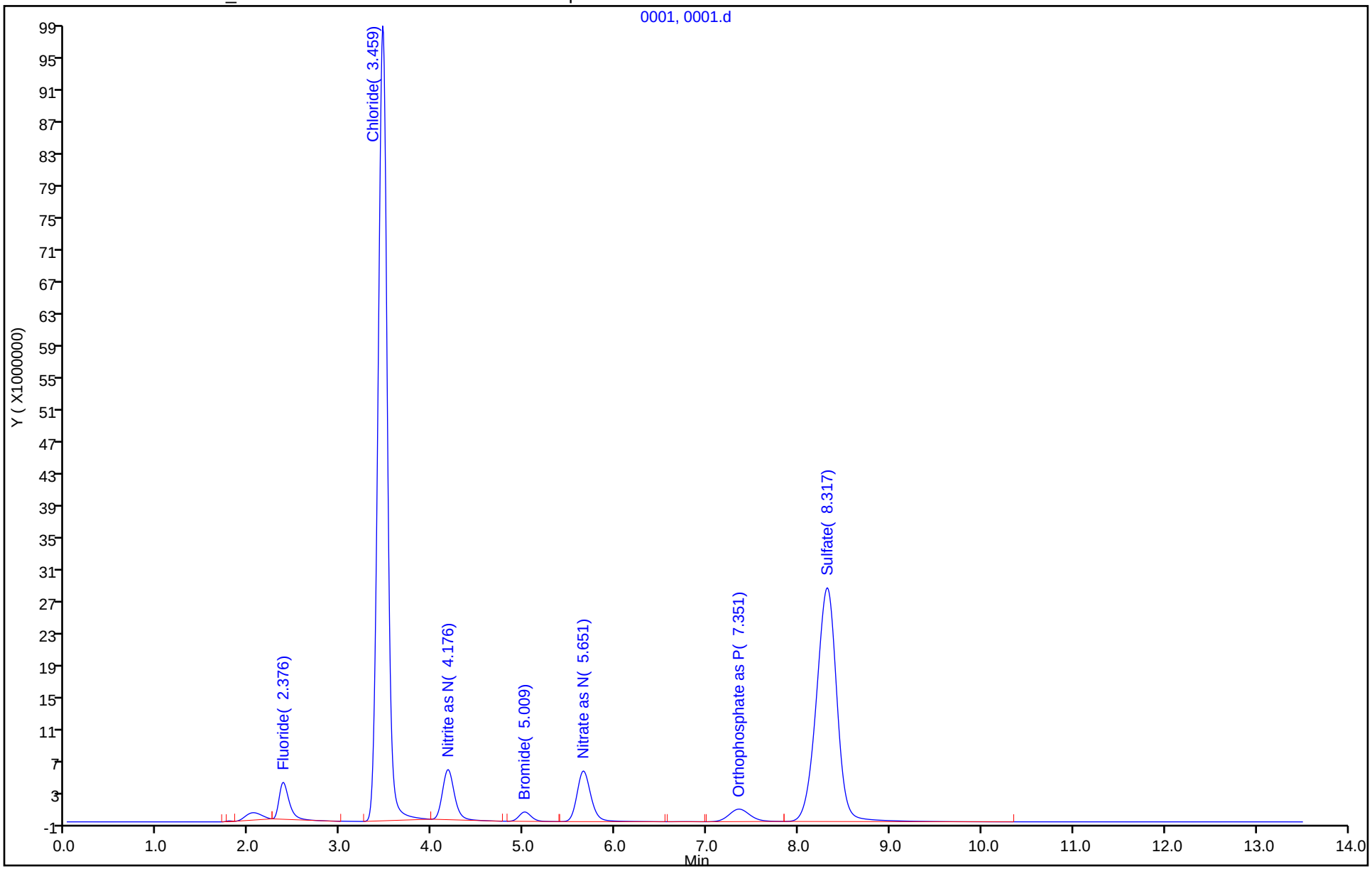
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:03:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0001.d

Injection Date:	03-Jun-2019 17:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



IC Instrument Information

WL: 82479 Inst ID: 11 Analysis Date: 06/03/19 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	123930	4	F Cl NO2 Br NO3 (PO4) SO4	(MS/D) 2	2 rerun for PO4 because
☐	123924	12	F Cl NO2 Br NO3 (PO4) SO4	(MS/D) 1	ICCV failed in
Pantex ☐→	122314	2	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D) 4	batch 458552
☐	123491	1	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	~~123531~~	06/03/19 TP	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
~~123491~~	~~1~~	~~F Cl NO2 Br NO3 PO4 SO4~~	~~5x~~	~~wrong~~ 06/03/19 TP
~~06/03/19 TP~~		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2019 08:22:34
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b
Inj Date : 20-May-2019 15:30:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-266982	7583524		1.000
2 Chloride					-403341	6527742		0.997
3 Nitrite as N	-373888	1069423		0.999				
4 Bromide					-24225	2069955		1.000
5 Nitrate as N	-531250	1240317		0.999				
7 Orthophosphate as P	270439	4688342		0.999				
6 Sulfate					-190152	4283042		0.997

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2019 08:22:34
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0002.d
Inj Date: 20-May-2019 15:30:00 Worklist: 82062 Sample#: 2
Level: 2 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0003.d
Inj Date: 20-May-2019 15:47:00 Worklist: 82062 Sample#: 3
Level: 3 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0004.d
Inj Date: 20-May-2019 16:03:00 Worklist: 82062 Sample#: 4
Level: 4 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0005.d
Inj Date: 20-May-2019 16:20:00 Worklist: 82062 Sample#: 5
Level: 5 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0006.d
Inj Date: 20-May-2019 16:36:00 Worklist: 82062 Sample#: 6
Level: 6 \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d
Inj Date: 20-May-2019 16:52:00 Worklist: 82062 Sample#: 7

Start Cal Date: 20-May-2019 15:30:00 End Cal Date: 03-Jun-2019 17:04:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
9548910	9767180	9975765	10215666	10656866	10832340	-373888			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		10694239		
1909782	4883590	9975765	40862664	85254927	108323395				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				
5 Nitrate as N				Signal: 1					
11109310	11032216	11156305	11611103	12324378	12683411	-531250			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		12403178		
2221862	5516108	11156305	46444411	98595023	126834114				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				
7 Orthophosphate as P				Signal: 1					
6414385	5119650	4766974	4613498	4701232	4806282	270439			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		4688342		
1282877	2559825	4766974	18453992	37609857	48062818				
82062(2)	82062(3)	82062(4)	82062(5)	82062(6)	82062(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 03-Jun-2019 17:04:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34945986	5.00	4.64	
2 Chloride	3.459	3.492	-0.033	695312518	100.0	107.1	
3 Nitrite as N	4.176	4.217	-0.041	56246982	NC	NC	
4 Bromide	5.009	5.075	-0.066	10774228	5.00	5.22	
5 Nitrate as N	5.651	5.725	-0.074	66398624	NC	NC	
7 Orthophosphate as P	7.351	7.442	-0.091	24492990	NC	NC	
6 Sulfate	8.317	8.400	-0.083	449357616	100.0	105.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

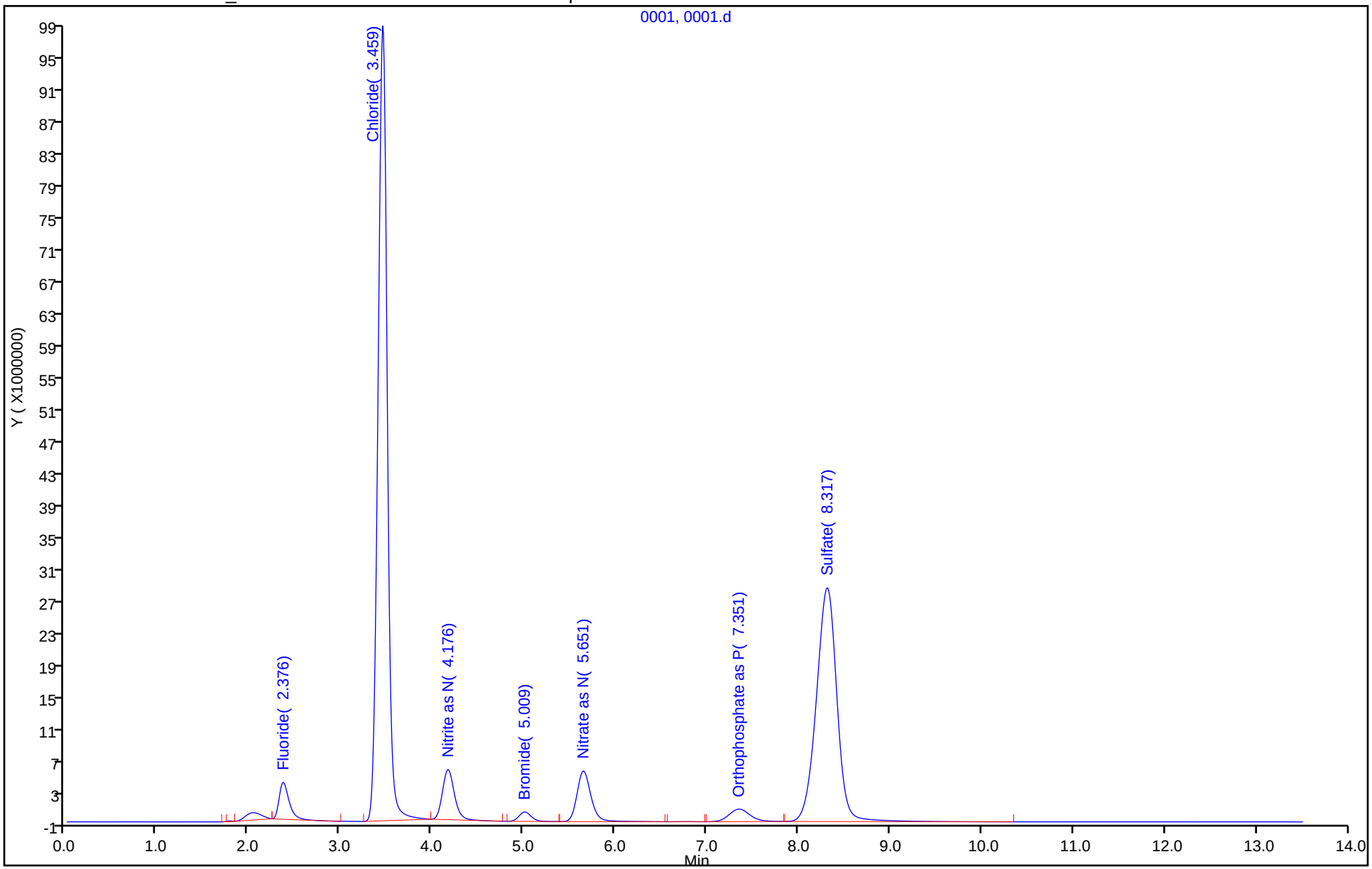
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:03:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0001.d

Injection Date:	03-Jun-2019 17:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 03-Jun-2019 17:20:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1828198		NC	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.417	7.442	-0.025	236056		-0.007334	
6 Sulfate		8.400				ND	

QC Flag Legend

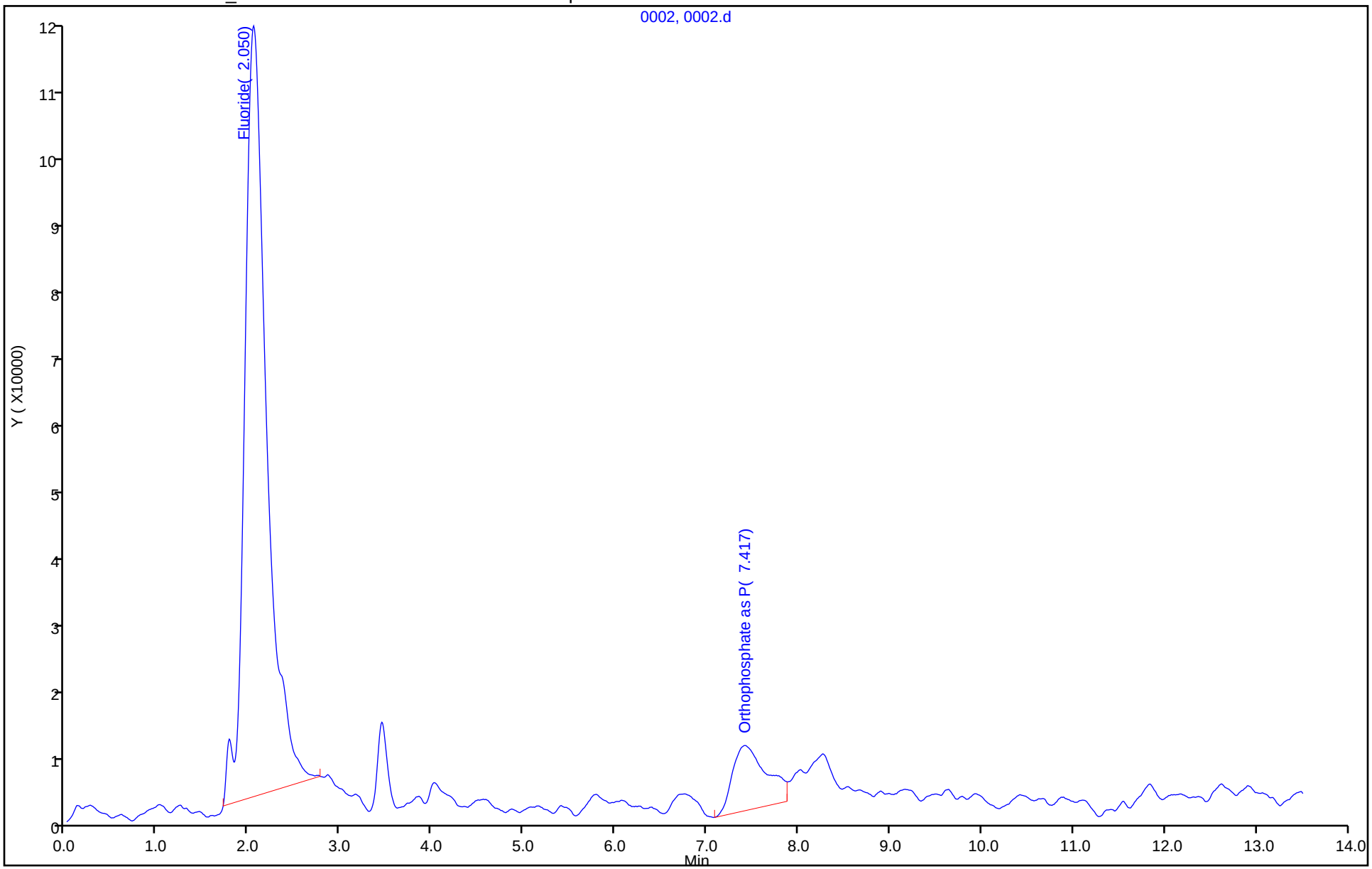
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:03 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0002.d

Injection Date:	03-Jun-2019 17:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 03-Jun-2019 17:20:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1828198		0.2763	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.417	7.442	-0.025	236056		NC	
6 Sulfate		8.400				ND	

QC Flag Legend

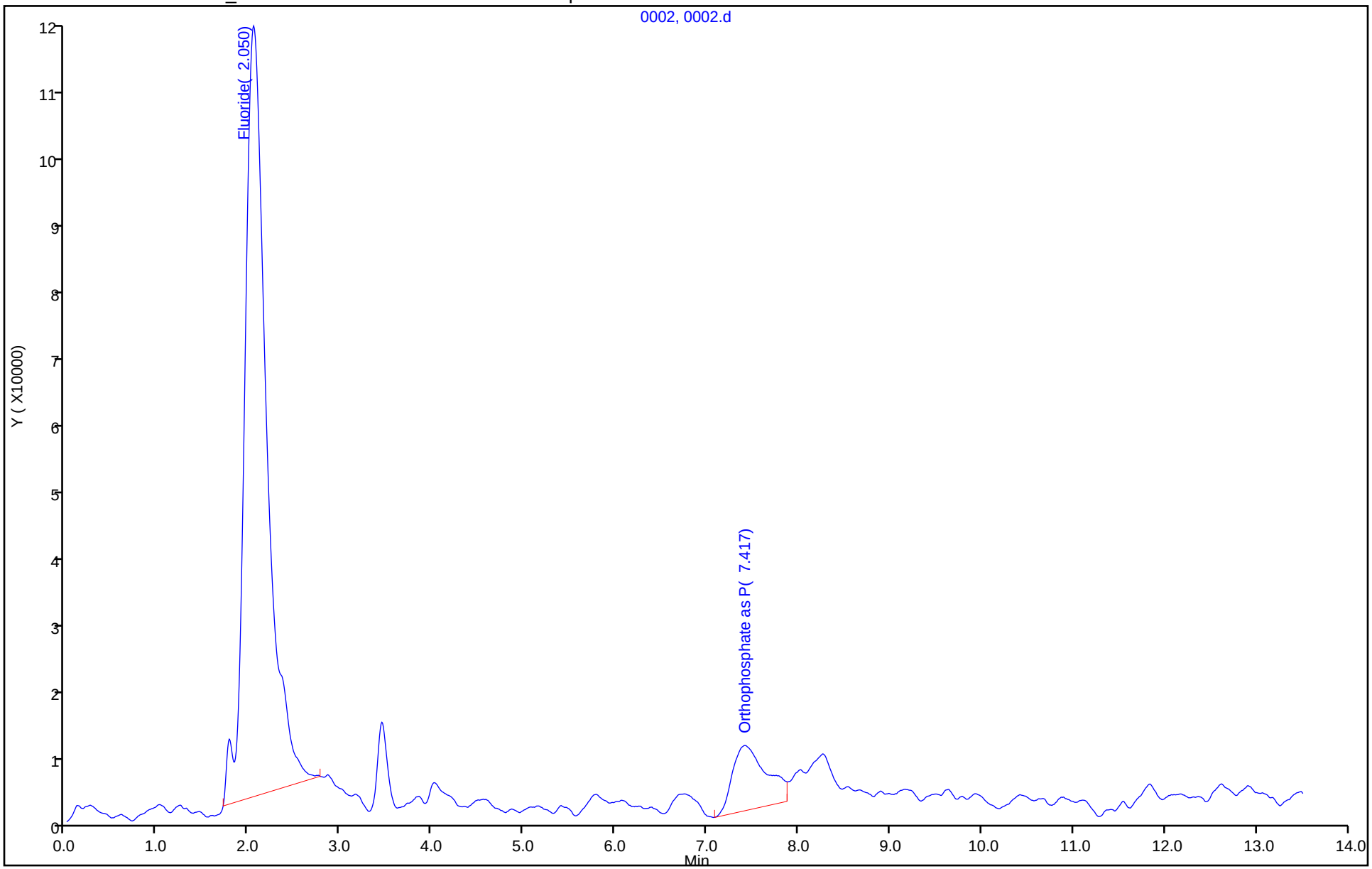
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:04 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0002.d

Injection Date:	03-Jun-2019 17:20:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 03-Jun-2019 17:36:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	1595665	NC	NC	
2 Chloride	3.451	3.492	-0.041	12465856	NC	NC	
3 Nitrite as N	4.176	4.217	-0.041	2275270	0.2000	0.2477	
4 Bromide	5.026	5.075	-0.049	462792	NC	NC	
5 Nitrate as N	5.676	5.725	-0.049	2625529	0.2000	0.2545	
7 Orthophosphate as P	7.384	7.442	-0.058	1080212	0.2000	0.1727	
6 Sulfate	8.292	8.400	-0.108	9463286	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

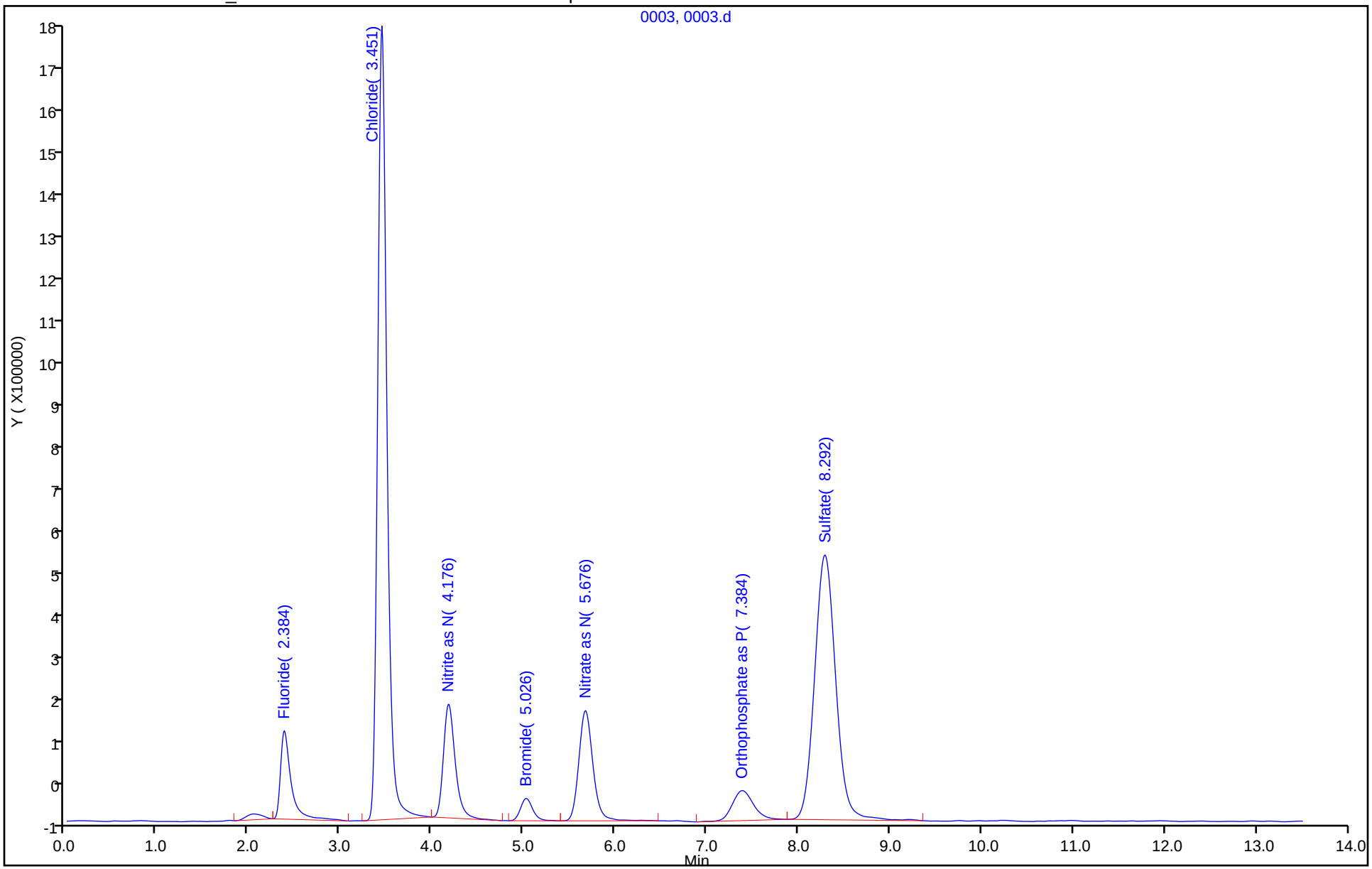
Reagents:

IC CAL cl/so4_00259 Amount Added: 0.05 Units: mL
IC Cal low_00462 Amount Added: 0.02 Units: mL

Report Date: 04-Jun-2019 17:04:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0003.d				
Injection Date:	03-Jun-2019 17:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 03-Jun-2019 17:36:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	1595665	0.2000	0.2456	
2 Chloride	3.451	3.492	-0.041	12465856	2.50	2.53	
3 Nitrite as N	4.176	4.217	-0.041	2275270	NC	NC	
4 Bromide	5.026	5.075	-0.049	462792	0.2000	0.2353	
5 Nitrate as N	5.676	5.725	-0.049	2625529	NC	NC	
7 Orthophosphate as P	7.384	7.442	-0.058	1080212	NC	NC	
6 Sulfate	8.292	8.400	-0.108	9463286	2.50	2.65	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

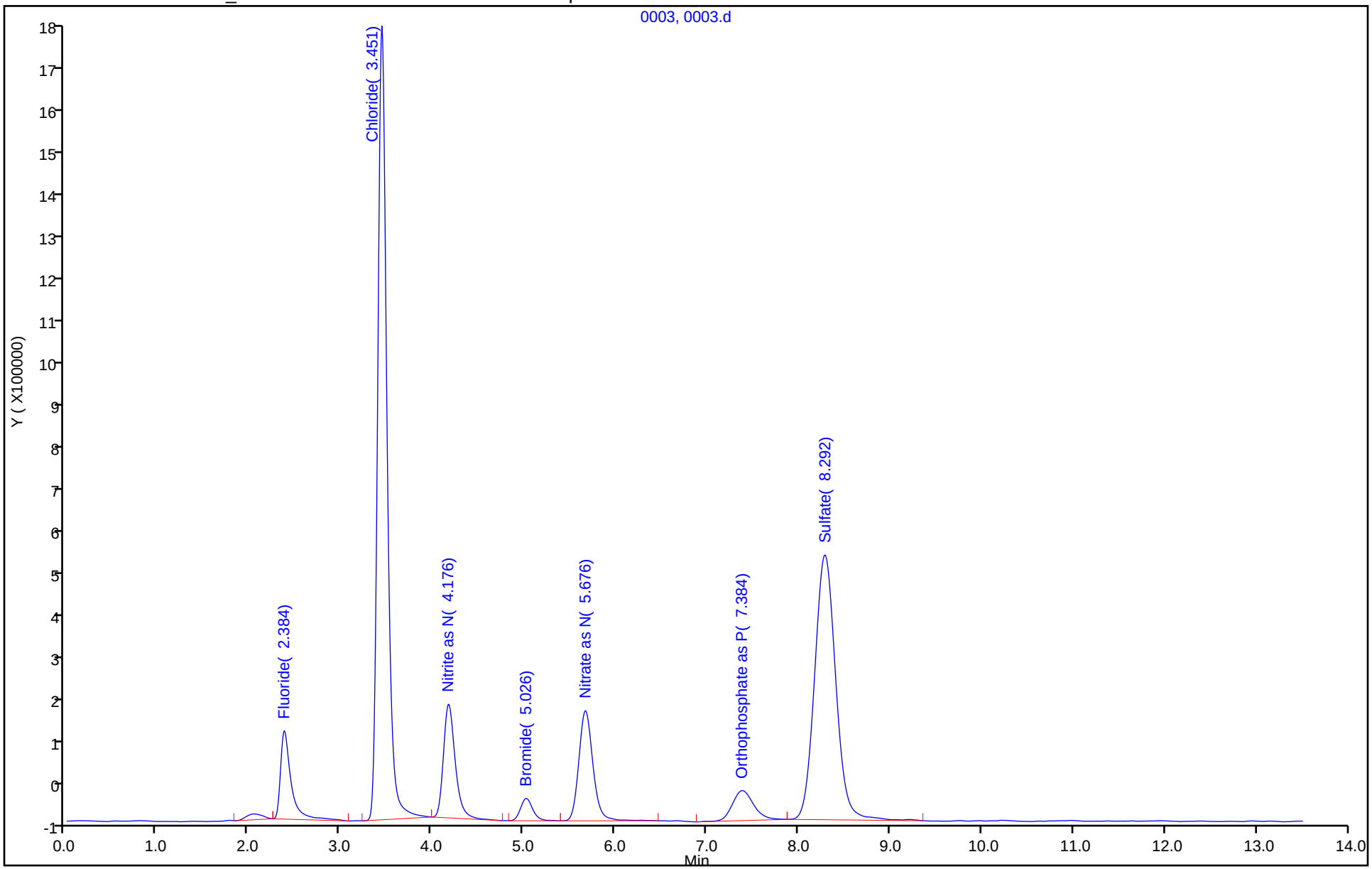
IC CAL cl/so4_00259 Amount Added: 0.05 Units: mL
IC Cal low_00462 Amount Added: 0.02 Units: mL

Report Date: 04-Jun-2019 17:04:06 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0003.d

Injection Date:	03-Jun-2019 17:36:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 03-Jun-2019 17:53:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	34254859	NC	NC	
2 Chloride	3.459	3.492	-0.033	689905144	NC	NC	
3 Nitrite as N	4.175	4.217	-0.042	56208620	5.00	5.29	
4 Bromide	5.017	5.075	-0.058	10755576	NC	NC	
5 Nitrate as N	5.659	5.725	-0.066	65947409	5.00	5.36	
7 Orthophosphate as P	7.350	7.442	-0.092	24401840	5.00	5.15	
6 Sulfate	8.317	8.400	-0.083	446466449	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

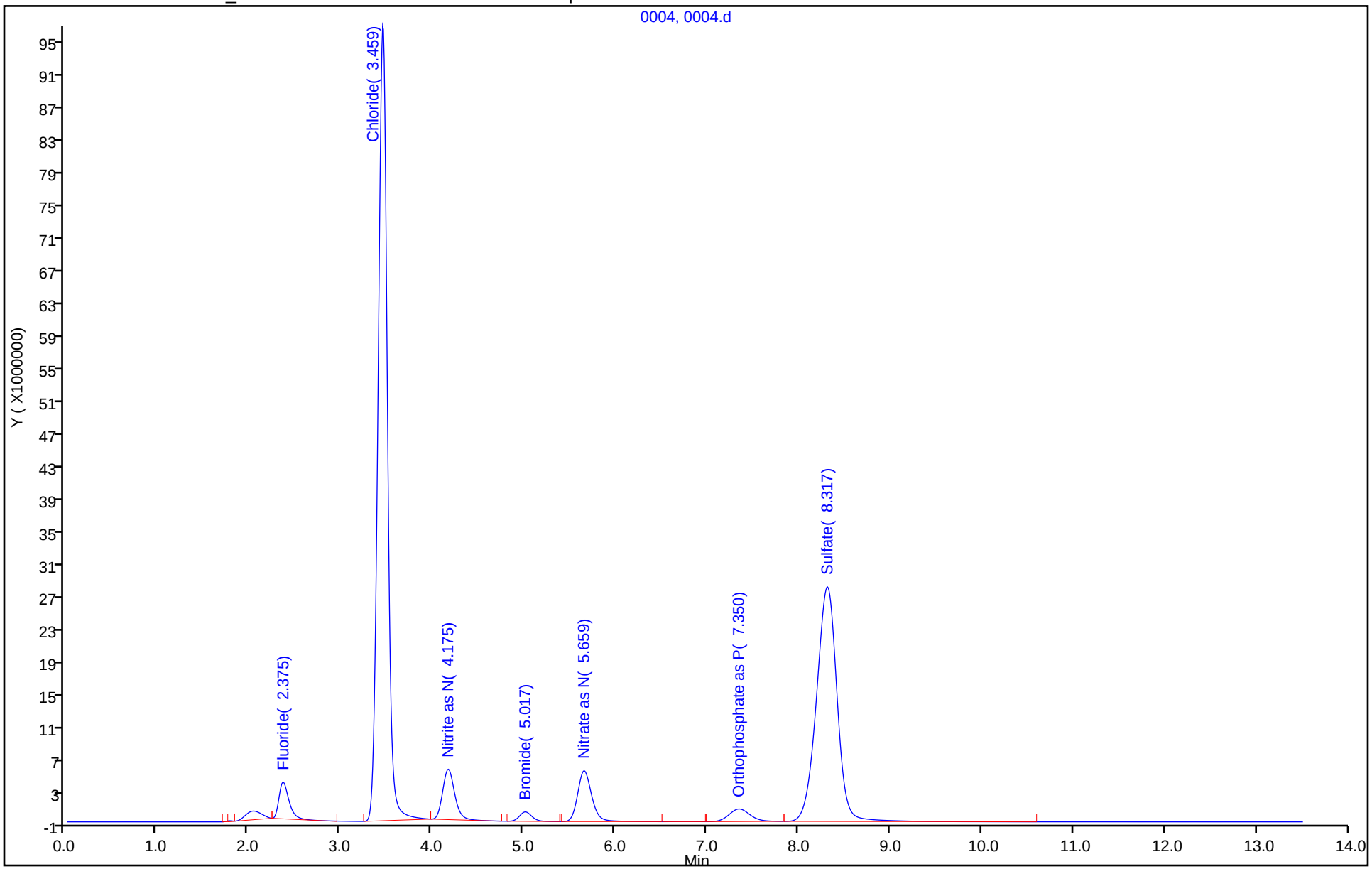
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0004.d

Injection Date:	03-Jun-2019 17:53:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 03-Jun-2019 17:53:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	34254859	5.00	4.55	
2 Chloride	3.459	3.492	-0.033	689905144	100.0	106.3	
3 Nitrite as N	4.175	4.217	-0.042	56208620	NC	NC	
4 Bromide	5.017	5.075	-0.058	10755576	5.00	5.21	
5 Nitrate as N	5.659	5.725	-0.066	65947409	NC	NC	
7 Orthophosphate as P	7.350	7.442	-0.092	24401840	NC	NC	
6 Sulfate	8.317	8.400	-0.083	446466449	100.0	104.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

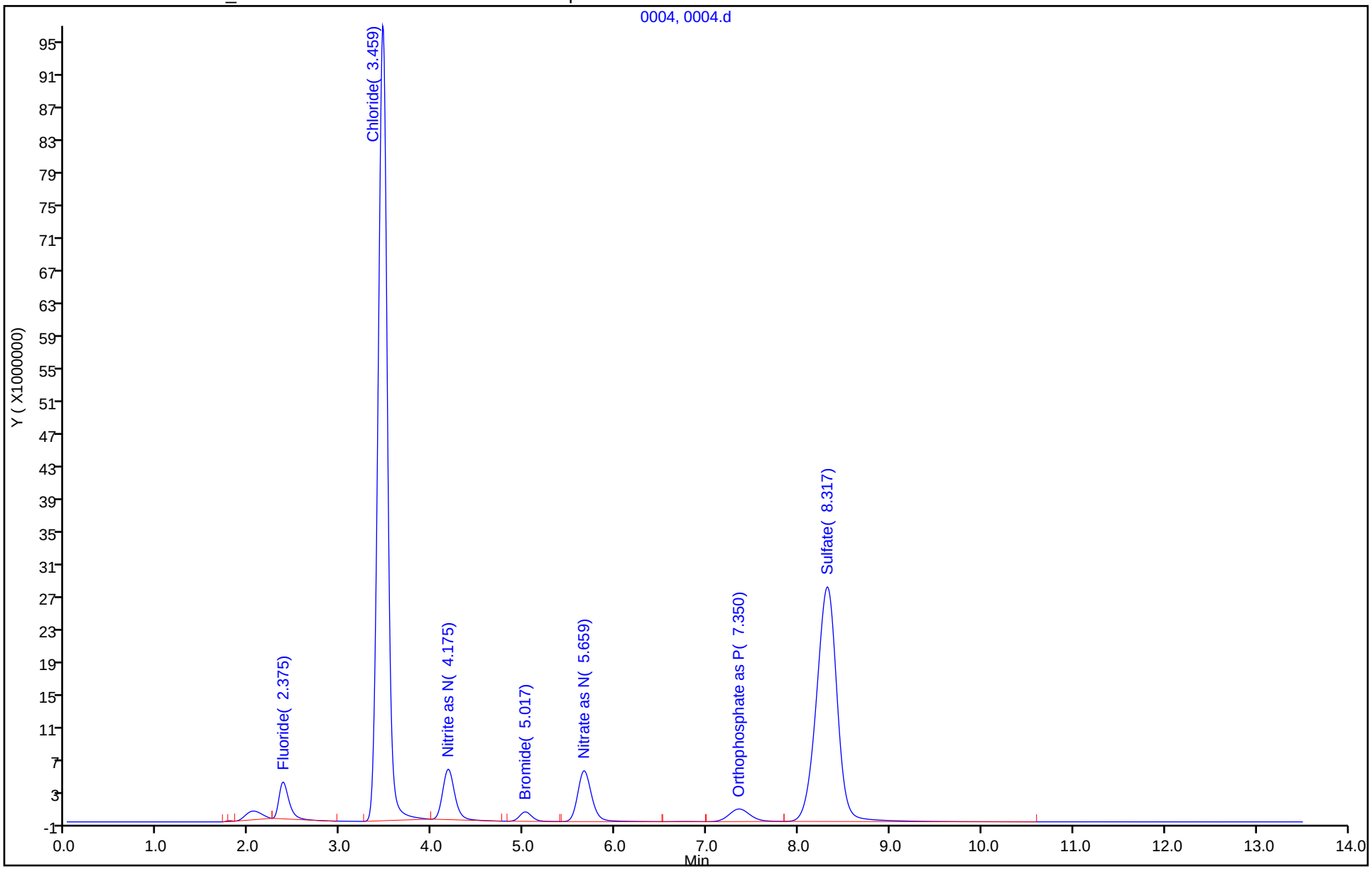
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:09 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0004.d

Injection Date:	03-Jun-2019 17:53:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 03-Jun-2019 18:09:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34907120	NC	NC	
2 Chloride	3.467	3.492	-0.025	693791329	NC	NC	
3 Nitrite as N	4.176	4.217	-0.041	56368553	5.00	5.31	
4 Bromide	5.017	5.075	-0.058	10780588	NC	NC	
5 Nitrate as N	5.659	5.725	-0.066	66343326	5.00	5.39	
7 Orthophosphate as P	7.359	7.442	-0.083	24612223	5.00	5.19	
6 Sulfate	8.317	8.400	-0.083	448593439	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

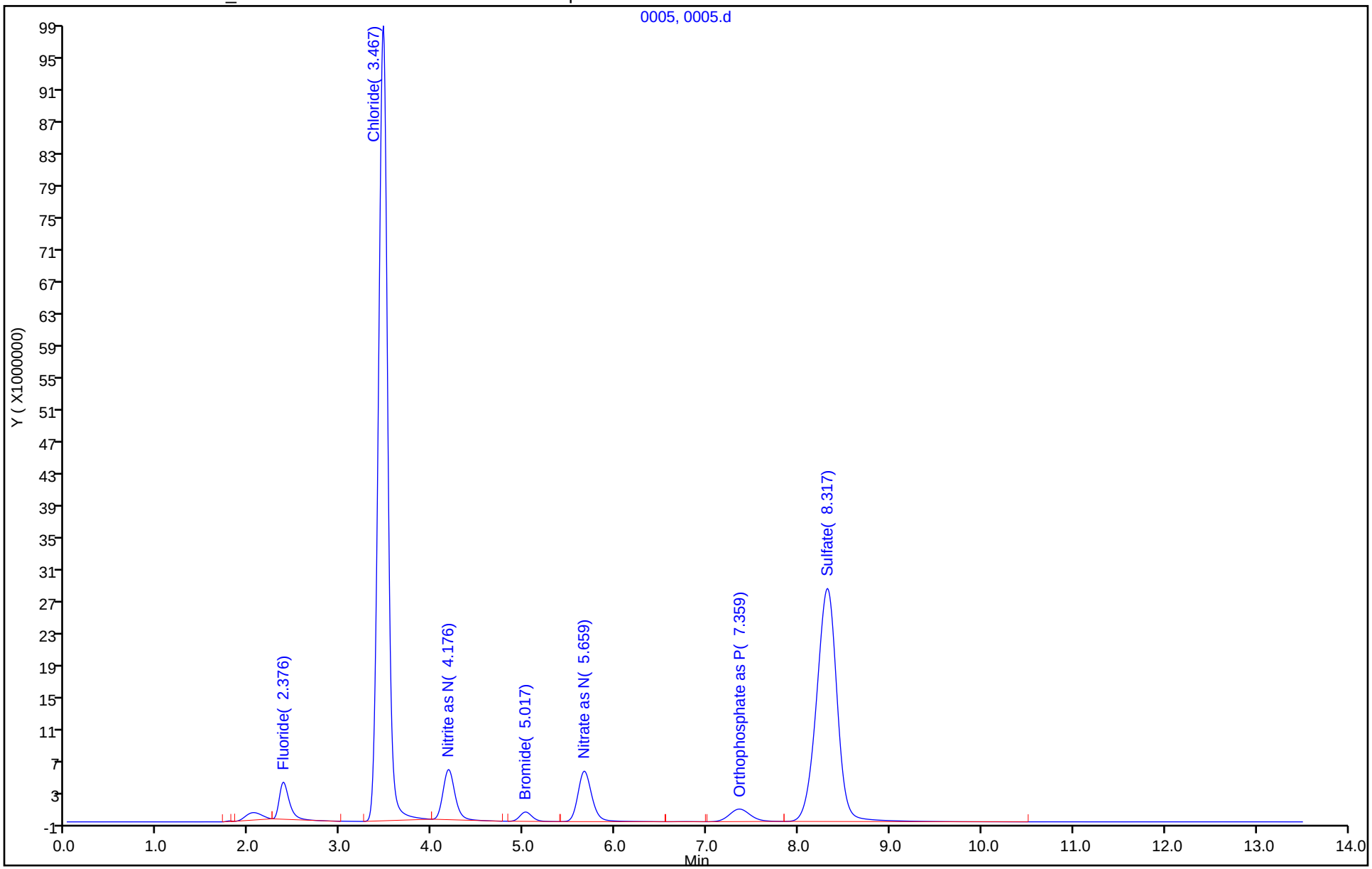
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:11 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0005.d

Injection Date:	03-Jun-2019 18:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 03-Jun-2019 18:09:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34907120	5.00	4.64	
2 Chloride	3.467	3.492	-0.025	693791329	100.0	106.9	
3 Nitrite as N	4.176	4.217	-0.041	56368553	NC	NC	
4 Bromide	5.017	5.075	-0.058	10780588	5.00	5.22	
5 Nitrate as N	5.659	5.725	-0.066	66343326	NC	NC	
7 Orthophosphate as P	7.359	7.442	-0.083	24612223	NC	NC	
6 Sulfate	8.317	8.400	-0.083	448593439	100.0	105.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

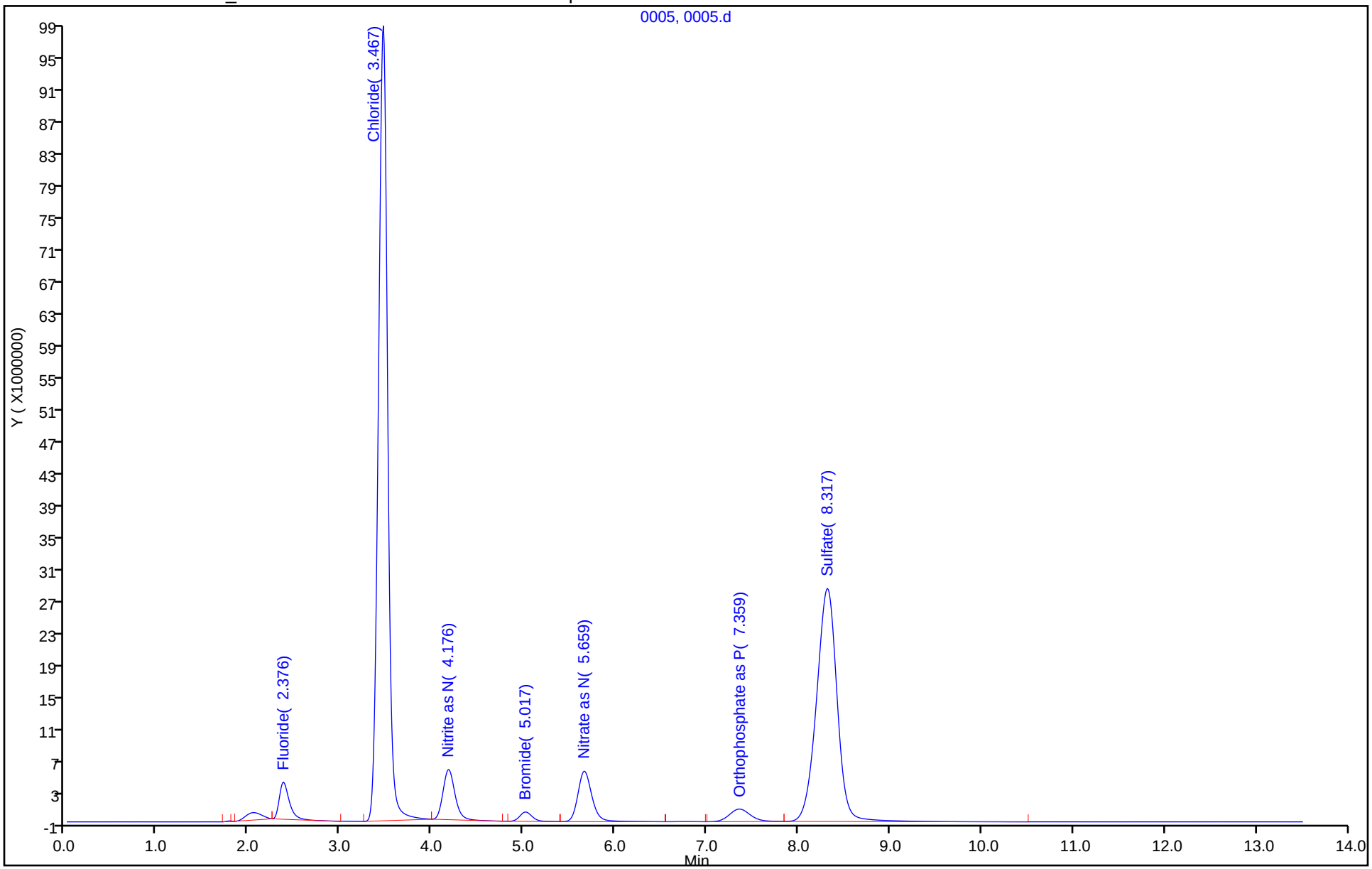
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:12 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0005.d

Injection Date:	03-Jun-2019 18:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 03-Jun-2019 18:26:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1738770		NC	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.417	7.442	-0.025	147704		-0.0262	
6 Sulfate		8.400				ND	

QC Flag Legend

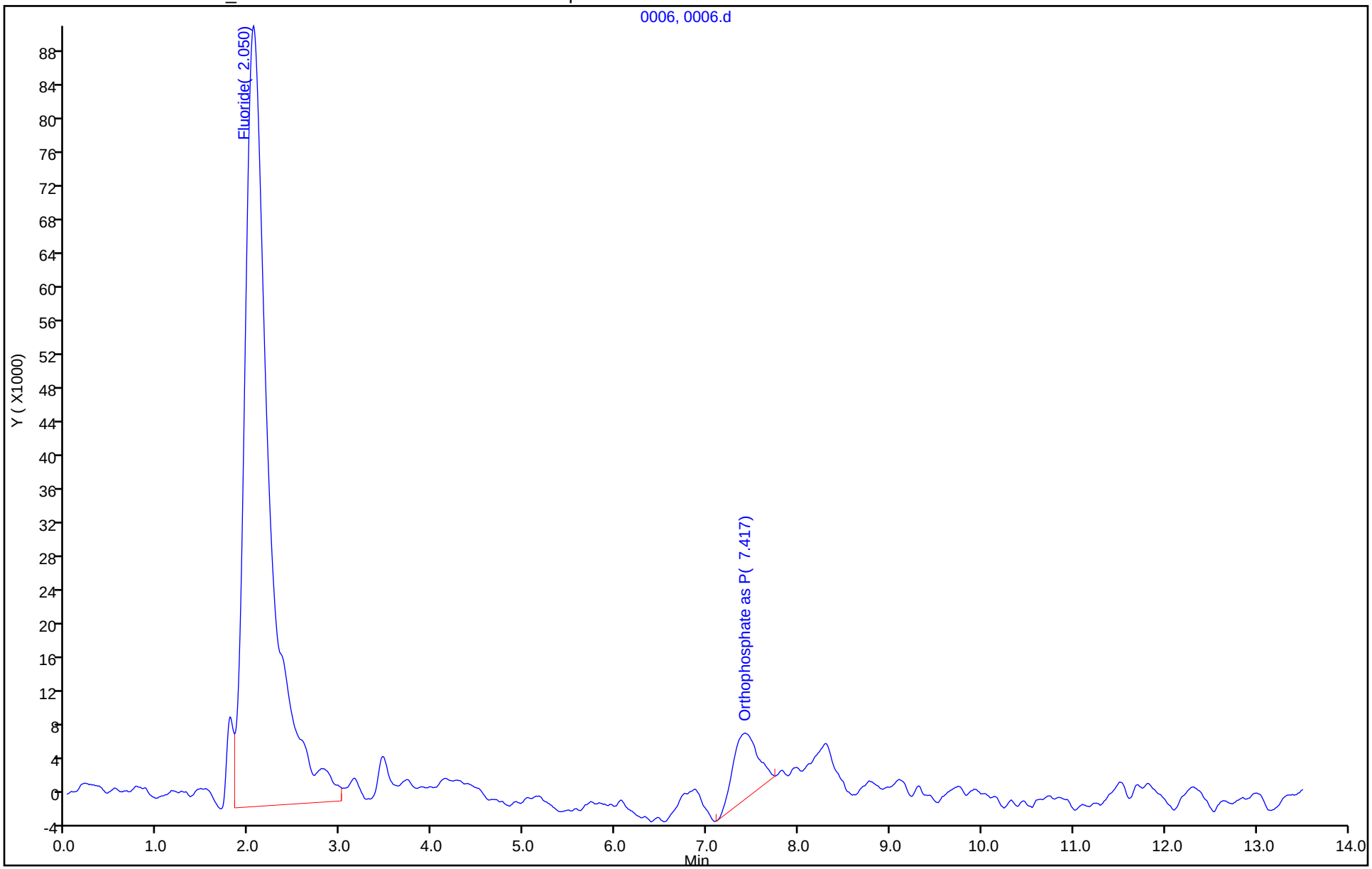
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0006.d

Injection Date:	03-Jun-2019 18:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0006.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 03-Jun-2019 18:26:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-006
Misc. Info.: 6 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1738770		0.2645	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.417	7.442	-0.025	147704		NC	
6 Sulfate		8.400				ND	

QC Flag Legend

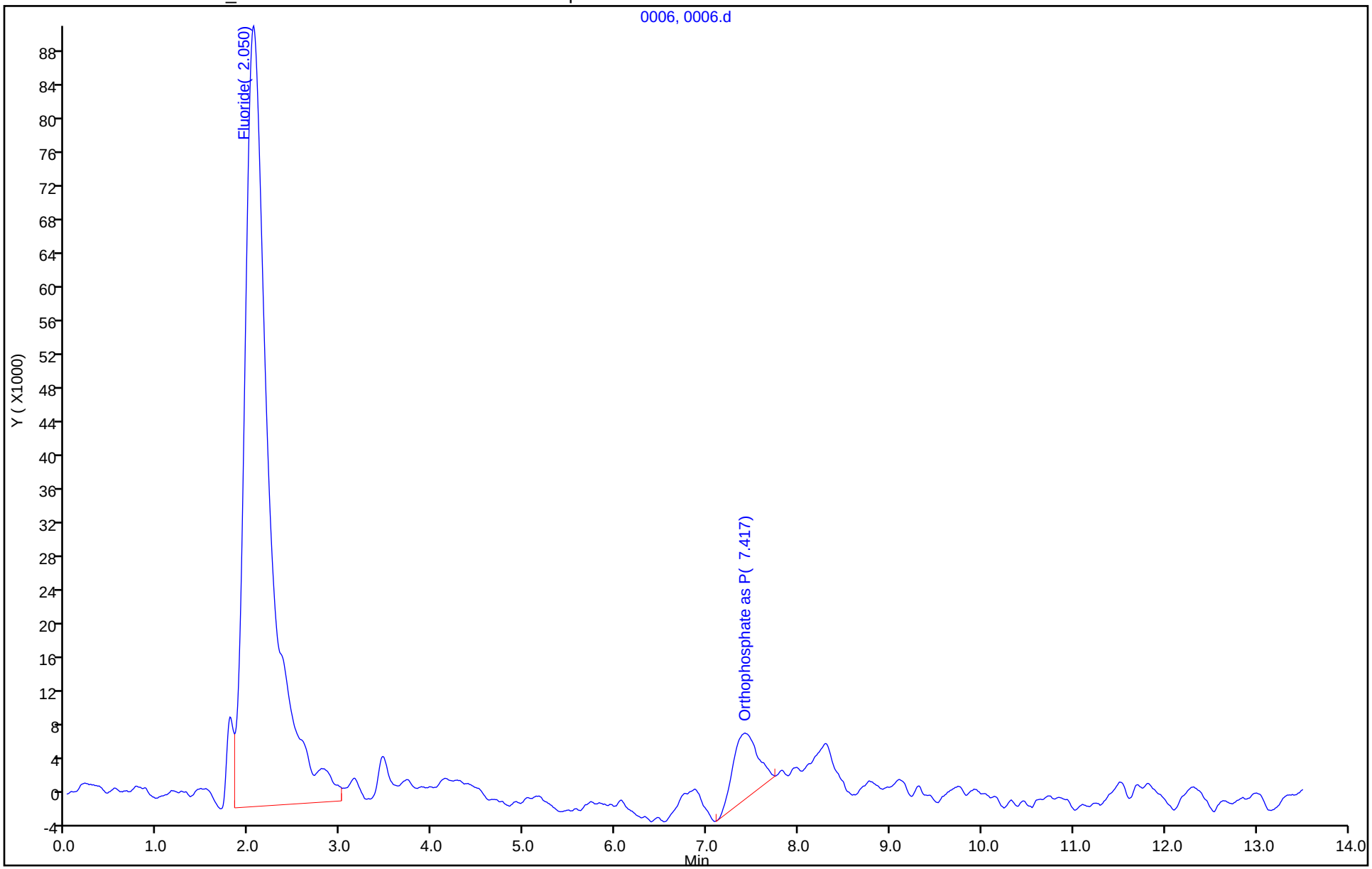
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:14 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0006.d

Injection Date:	03-Jun-2019 18:26:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0014.d
Lims ID: 280-123924-H-1
Client ID: LF6VMW-22_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 21:01:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-014
Misc. Info.: 18035 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	130262	0.0524	
2 Chloride	3.450	3.492	-0.042	27571970	4.84	
3 Nitrite as N		4.217			ND	
4 Bromide		5.075			ND	
5 Nitrate as N	5.700	5.725	-0.025	7969187	NC	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.309	8.400	-0.091	38758288	9.49	

QC Flag Legend

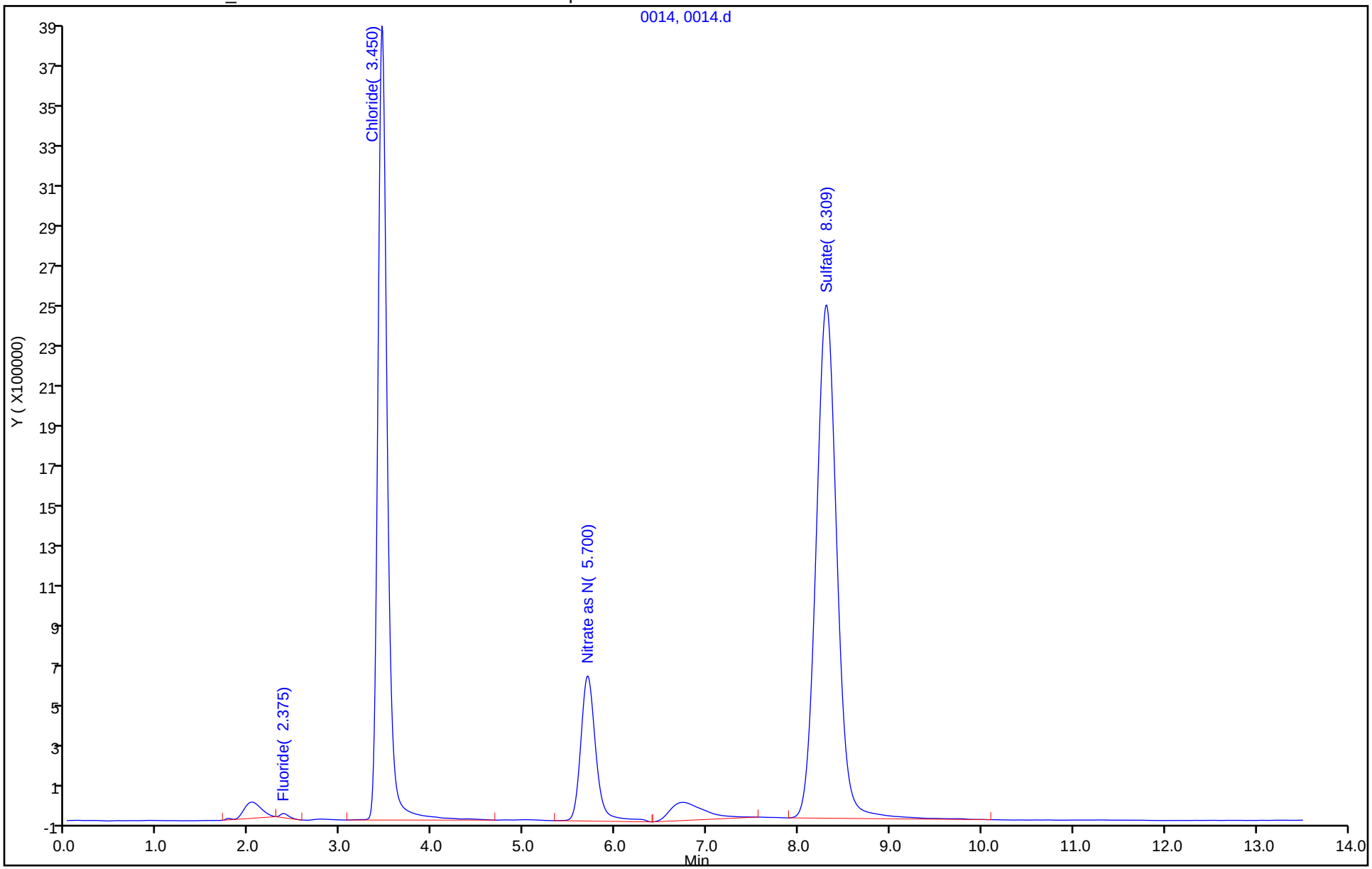
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:31 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0014.d

Injection Date:	03-Jun-2019 21:01:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-1	Lab Sample ID:	280-123924-1	Worklist Smp#:	14
Client ID:	LF6VMW-22_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0015.d
Lims ID: 280-123924-H-1 DU
Client ID:
Sample Type: DU
Inject. Date: 03-Jun-2019 21:17:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-015
Misc. Info.: 13144 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	133825		NC	
2 Chloride	3.459	3.492	-0.033	27868281		NC	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N	5.701	5.725	-0.024	7939035		0.6829	
7 Orthophosphate as P		7.442				ND	
6 Sulfate	8.309	8.400	-0.091	38389209		NC	

QC Flag Legend

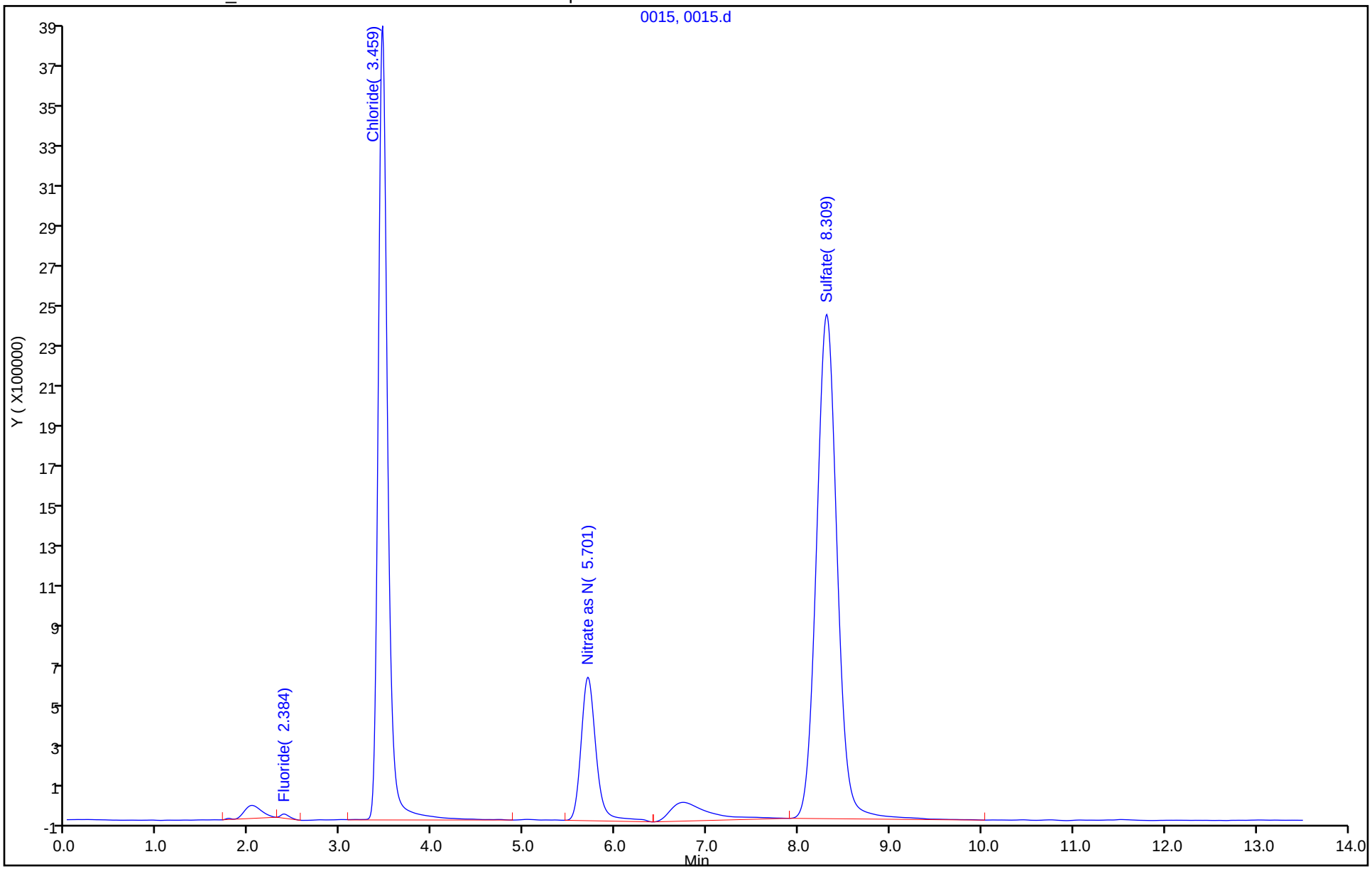
Processing Flags
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Report Date: 04-Jun-2019 17:04:33 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0015.d

Injection Date:	03-Jun-2019 21:17:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-1 DU			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0015.d
Lims ID: 280-123924-H-1 DU
Client ID:
Sample Type: DU
Inject. Date: 03-Jun-2019 21:17:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-015
Misc. Info.: 13144 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	133825		0.0529	
2 Chloride	3.459	3.492	-0.033	27868281		4.89	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N	5.701	5.725	-0.024	7939035		NC	
7 Orthophosphate as P		7.442				ND	
6 Sulfate	8.309	8.400	-0.091	38389209		9.41	

QC Flag Legend

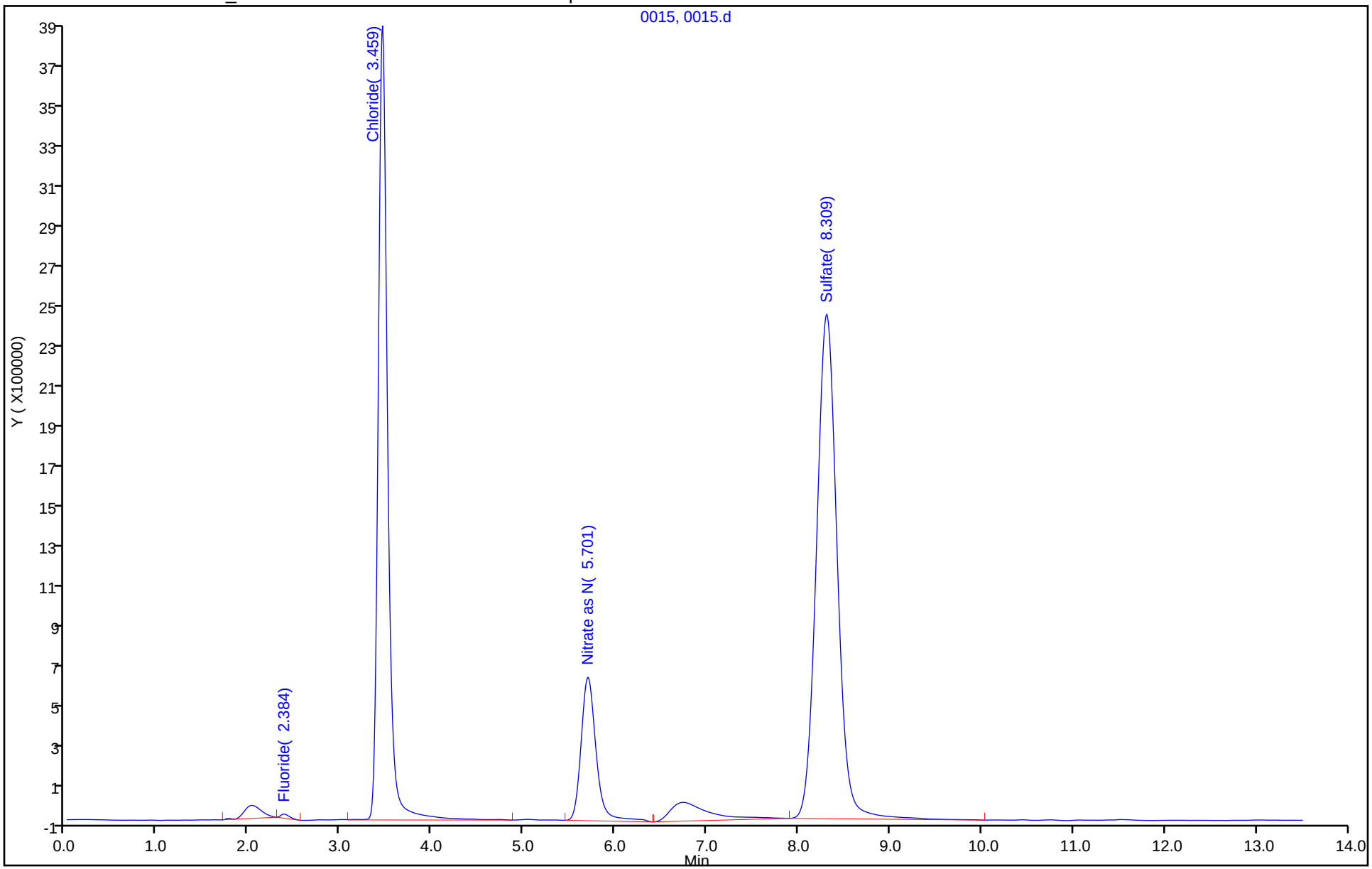
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:33 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0015.d

Injection Date:	03-Jun-2019 21:17:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-1 DU			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0016.d
Lims ID: 280-123924-H-1 MS
Client ID:
Sample Type: MS
Inject. Date: 03-Jun-2019 21:34:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-016
Misc. Info.: 13801 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	40211403	NC	NC	
2 Chloride	3.459	3.492	-0.033	192347145	NC	NC	
3 Nitrite as N	4.192	4.217	-0.025	58864703	5.00	5.54	
4 Bromide	5.042	5.075	-0.033	11306763	NC	NC	
5 Nitrate as N	5.692	5.725	-0.033	77929757	5.00	6.33	
7 Orthophosphate as P	7.542	7.442	0.100	27680337	5.00	5.85	
6 Sulfate	8.317	8.400	-0.083	151692921	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

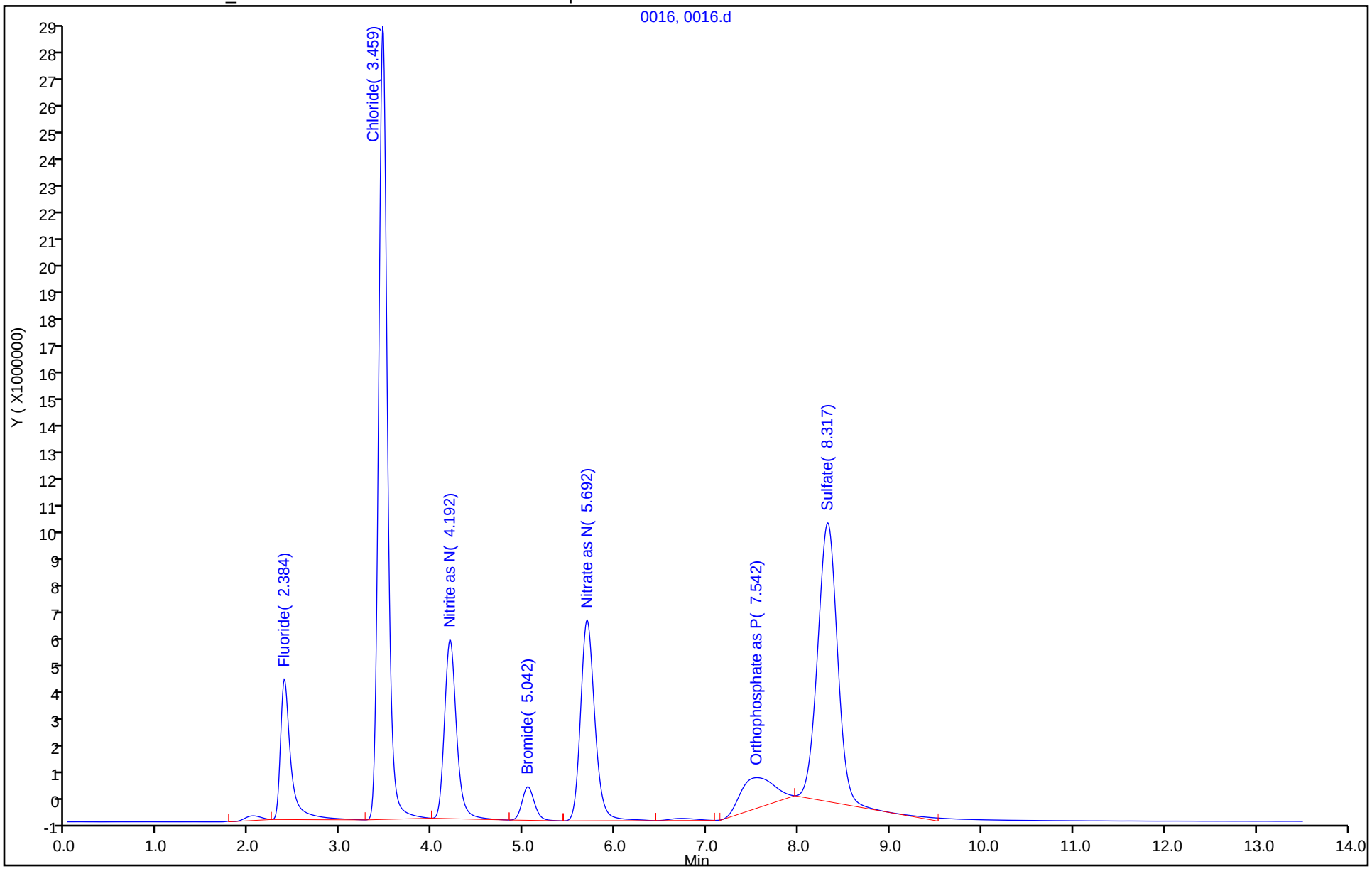
ICMS/MSD WEEK_00595 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2019 17:04:35 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0016.d

Injection Date:	03-Jun-2019 21:34:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-1 MS			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0016.d
Lims ID: 280-123924-H-1 MS
Client ID:
Sample Type: MS
Inject. Date: 03-Jun-2019 21:34:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-016
Misc. Info.: 13801 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:03:51 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	40211403	5.00	5.34	
2 Chloride	3.459	3.492	-0.033	192347145	25.0	30.1	
3 Nitrite as N	4.192	4.217	-0.025	58864703	NC	NC	
4 Bromide	5.042	5.075	-0.033	11306763	5.00	5.47	
5 Nitrate as N	5.692	5.725	-0.033	77929757	NC	NC	
7 Orthophosphate as P	7.542	7.442	0.100	27680337	NC	NC	
6 Sulfate	8.317	8.400	-0.083	151692921	25.0	35.9	

QC Flag Legend

Processing Flags
NC - Not Calibrated

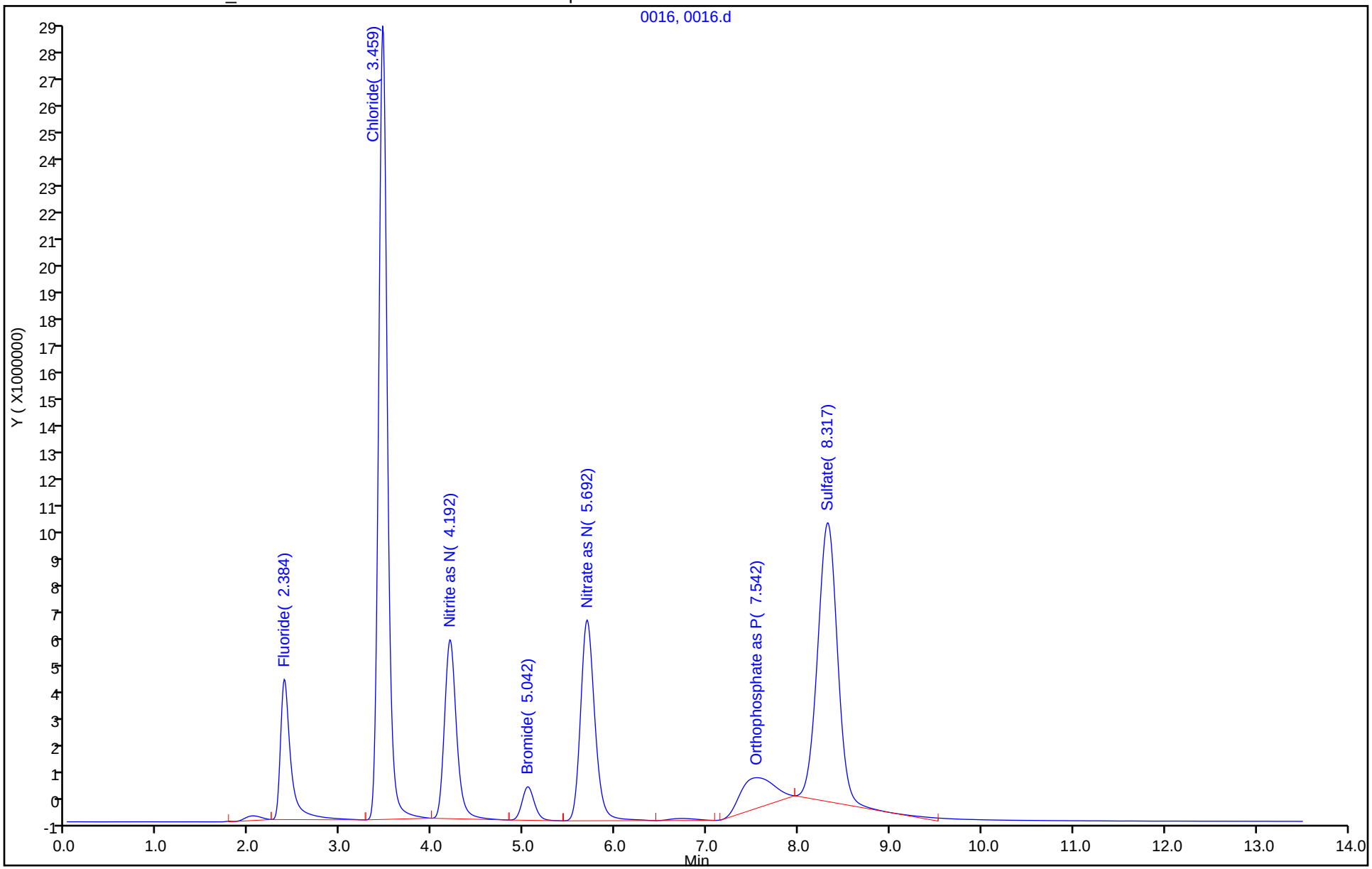
Reagents:

ICMS/MSD WEEK_00595 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2019 17:04:35 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0016.d				
Injection Date:	03-Jun-2019 21:34:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-1 MS			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 03-Jun-2019 21:50:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-017
Misc. Info.: 10406
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.367	2.392	-0.025	34635226	NC	NC	
2 Chloride	3.467	3.492	-0.025	690909679	NC	NC	
3 Nitrite as N	4.184	4.217	-0.033	56243985	5.00	5.29	
4 Bromide	5.034	5.075	-0.041	10752559	NC	NC	
5 Nitrate as N	5.675	5.725	-0.050	66161931	5.00	5.38	
7 Orthophosphate as P	7.350	7.442	-0.092	25440110	5.00	5.37	
6 Sulfate	8.309	8.400	-0.091	446734636	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

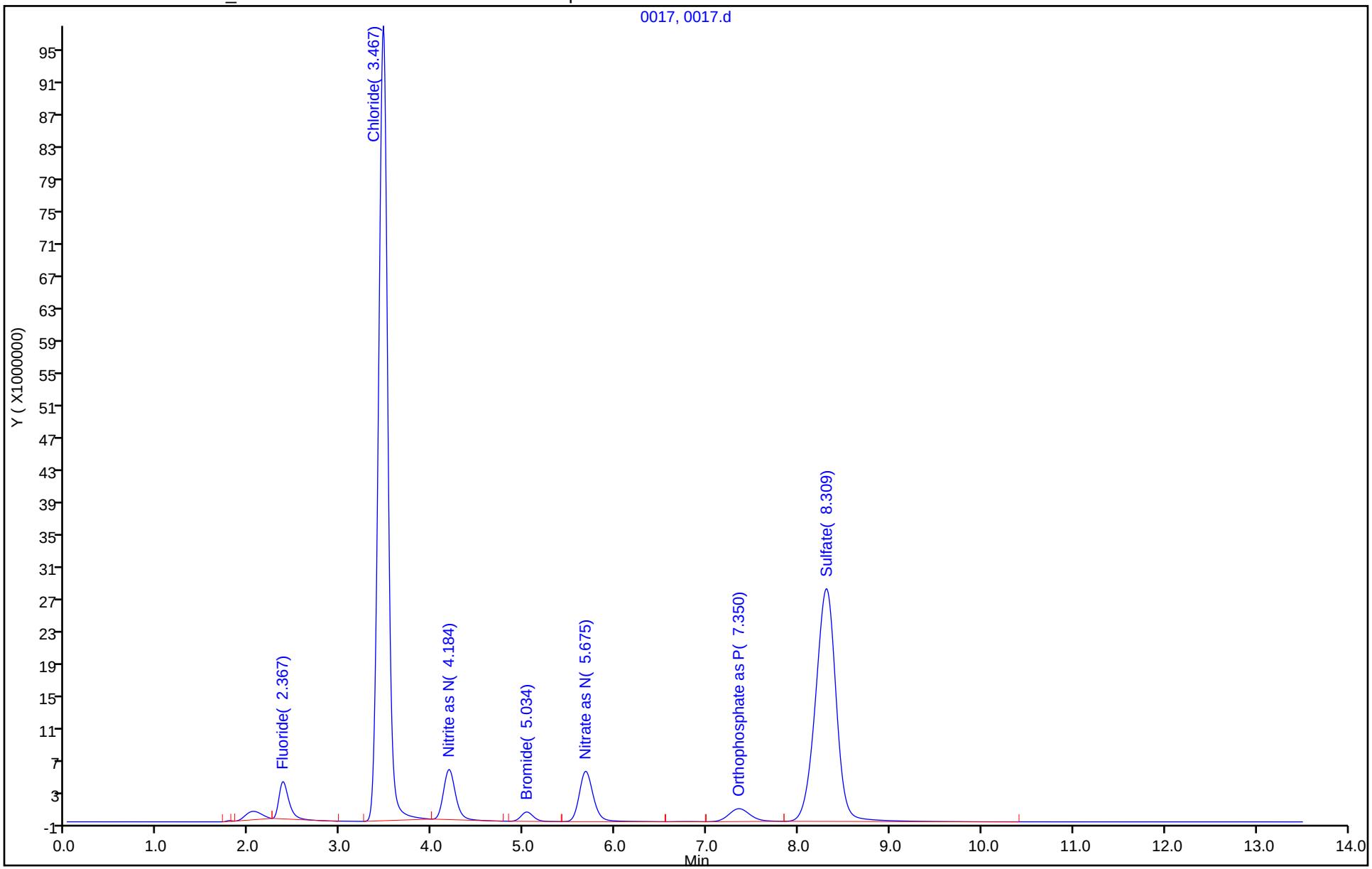
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:37 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0017.d

Injection Date:	03-Jun-2019 21:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 03-Jun-2019 21:50:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-017
Misc. Info.: 10406
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.367	2.392	-0.025	34635226	5.00	4.60	
2 Chloride	3.467	3.492	-0.025	690909679	100.0	106.5	
3 Nitrite as N	4.184	4.217	-0.033	56243985	NC	NC	
4 Bromide	5.034	5.075	-0.041	10752559	5.00	5.21	
5 Nitrate as N	5.675	5.725	-0.050	66161931	NC	NC	
7 Orthophosphate as P	7.350	7.442	-0.092	25440110	NC	NC	
6 Sulfate	8.309	8.400	-0.091	446734636	100.0	104.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

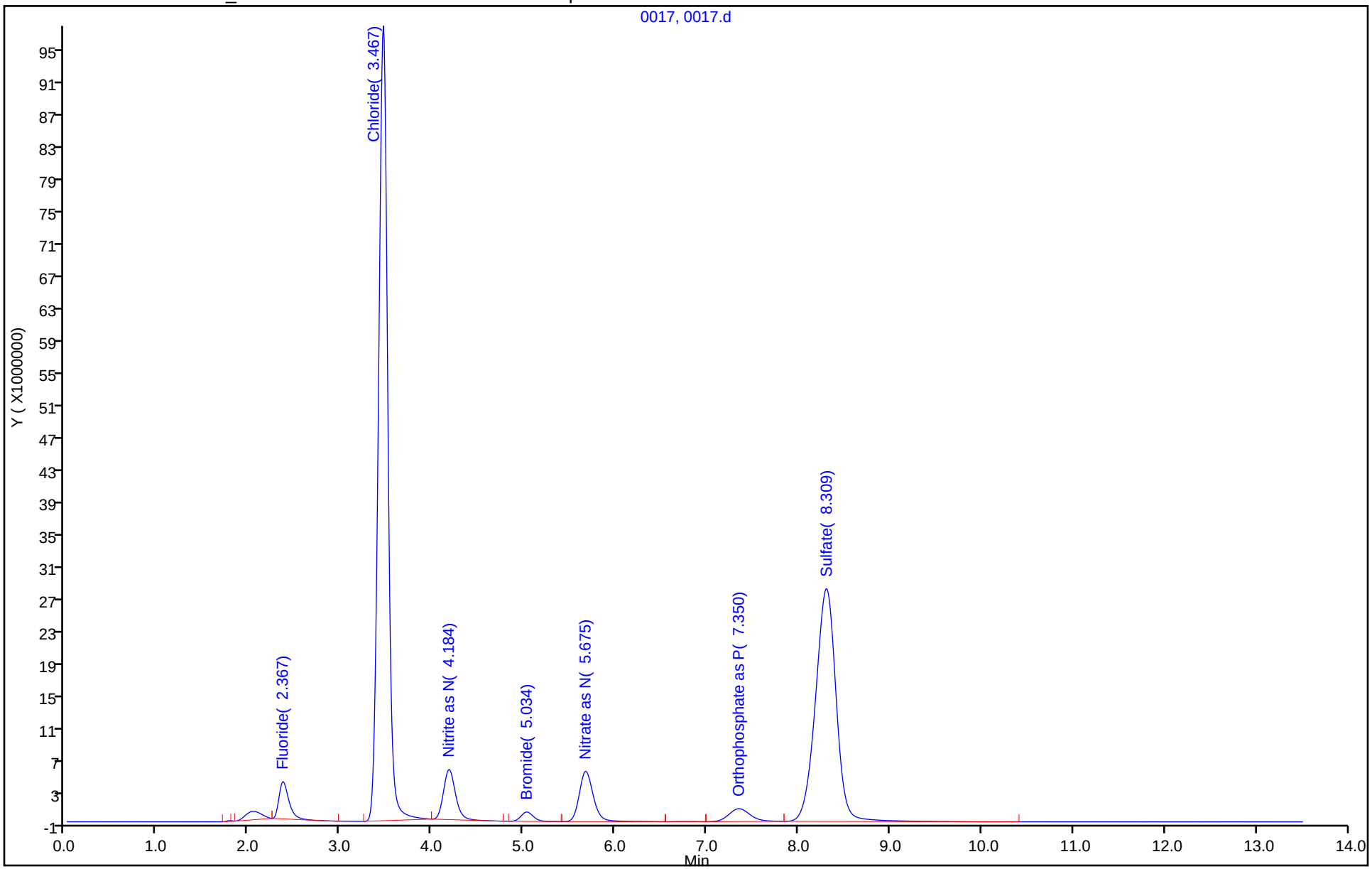
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:36 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0017.d

Injection Date:	03-Jun-2019 21:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0018.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 03-Jun-2019 22:06:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-018
Misc. Info.: 7822
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1170302		NC	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.400	7.442	-0.042	391905		0.0259	
6 Sulfate	8.250	8.400	-0.150	130074		NC	

QC Flag Legend

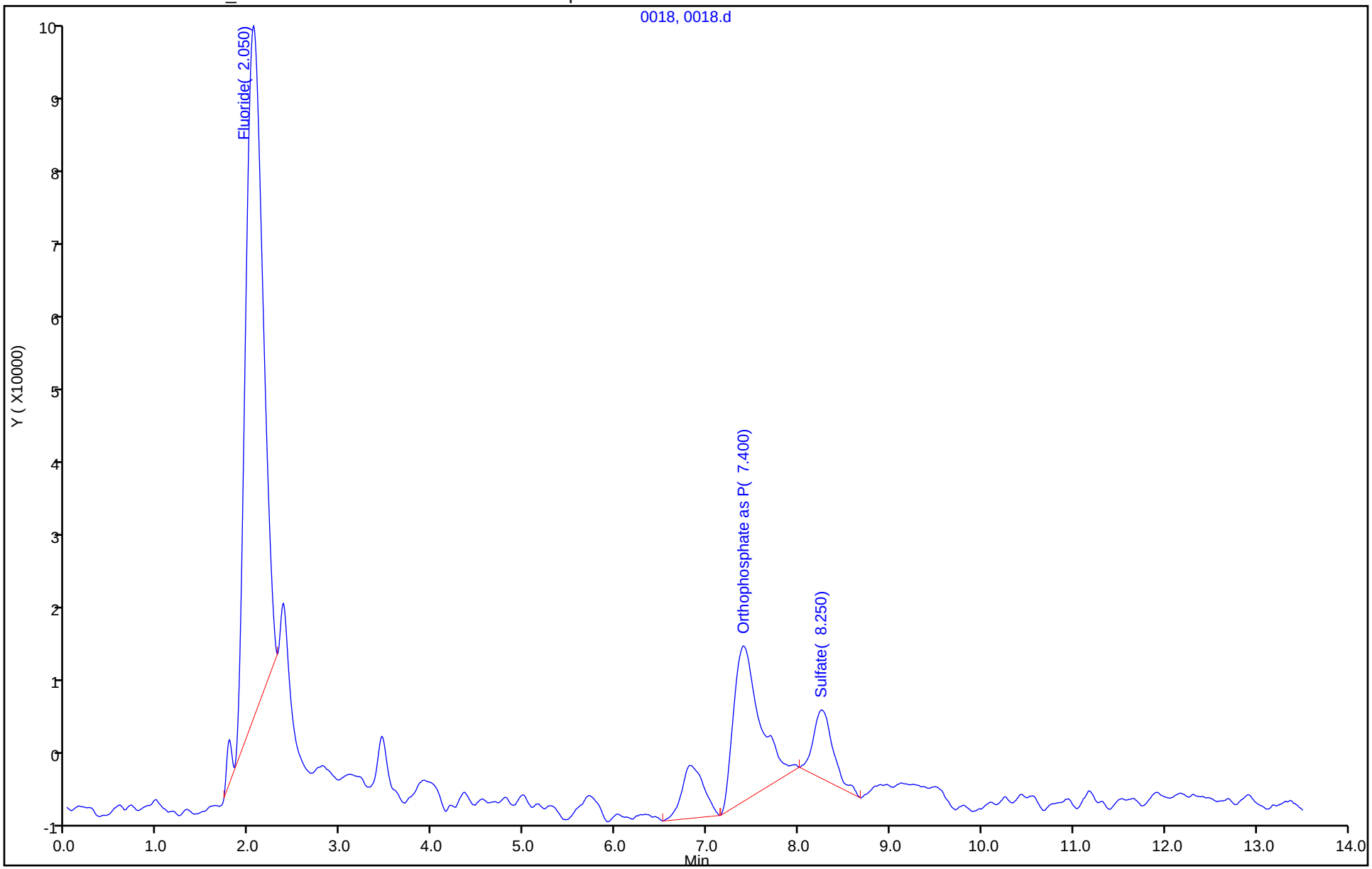
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0018.d

Injection Date:	03-Jun-2019 22:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0018.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	03-Jun-2019 22:06:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-018				
Misc. Info.:	7822				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2019 17:04:36	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1170302		0.1895	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.400	7.442	-0.042	391905		NC	
6 Sulfate	8.250	8.400	-0.150	130074		0.4743	

QC Flag Legend

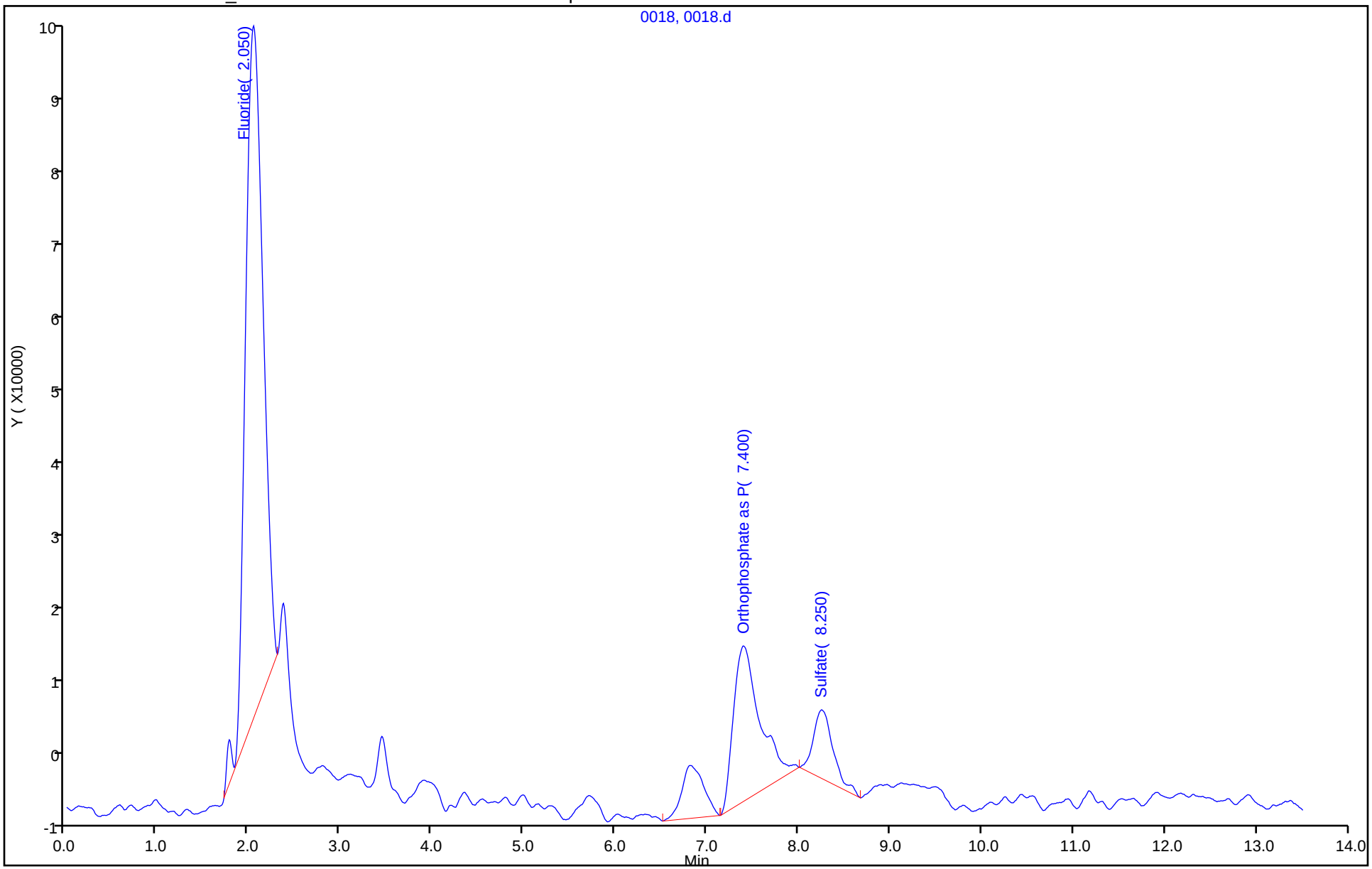
Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:38 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0018.d

Injection Date:	03-Jun-2019 22:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0019.d
Lims ID: 280-123924-H-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 03-Jun-2019 22:23:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-019
Misc. Info.: 23084 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	40432021	NC	NC	
2 Chloride	3.467	3.492	-0.025	193000351	NC	NC	
3 Nitrite as N	4.201	4.217	-0.016	59108225	5.00	5.56	
4 Bromide	5.051	5.075	-0.024	11316656	NC	NC	
5 Nitrate as N	5.692	5.725	-0.033	78047601	5.00	6.34	
7 Orthophosphate as P	7.576	7.442	0.134	28060851	5.00	5.93	
6 Sulfate	8.326	8.400	-0.074	153620543	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

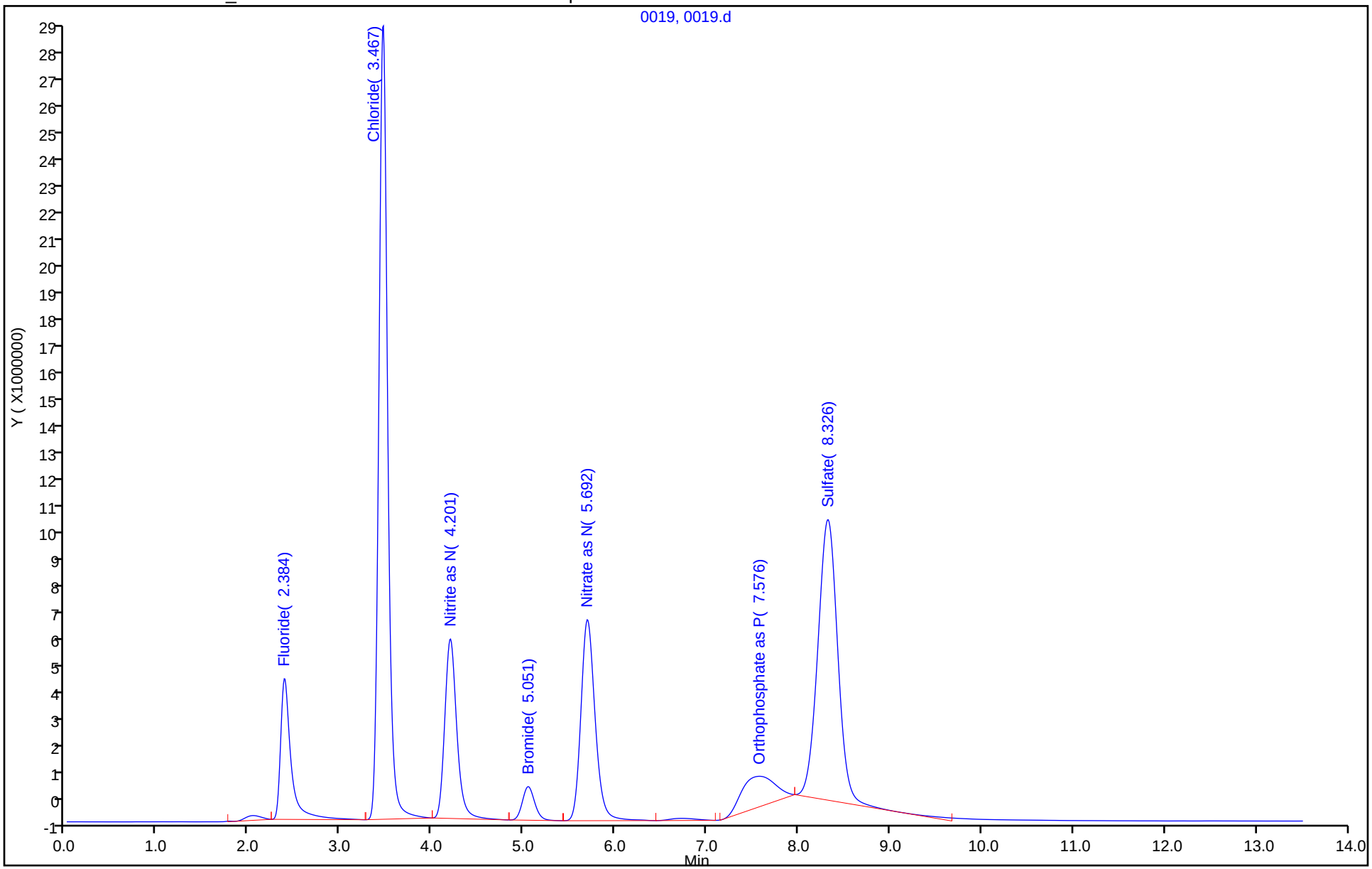
Reagents:

ICMS/MSD WEEK_00595 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2019 17:04:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0019.d				
Injection Date:	03-Jun-2019 22:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-1 MSD			Worklist Smp#:	19
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0019.d
Lims ID: 280-123924-H-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 03-Jun-2019 22:23:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-019
Misc. Info.: 23084 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	40432021	5.00	5.37	
2 Chloride	3.467	3.492	-0.025	193000351	25.0	30.2	
3 Nitrite as N	4.201	4.217	-0.016	59108225	NC	NC	
4 Bromide	5.051	5.075	-0.024	11316656	5.00	5.48	
5 Nitrate as N	5.692	5.725	-0.033	78047601	NC	NC	
7 Orthophosphate as P	7.576	7.442	0.134	28060851	NC	NC	
6 Sulfate	8.326	8.400	-0.074	153620543	25.0	36.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

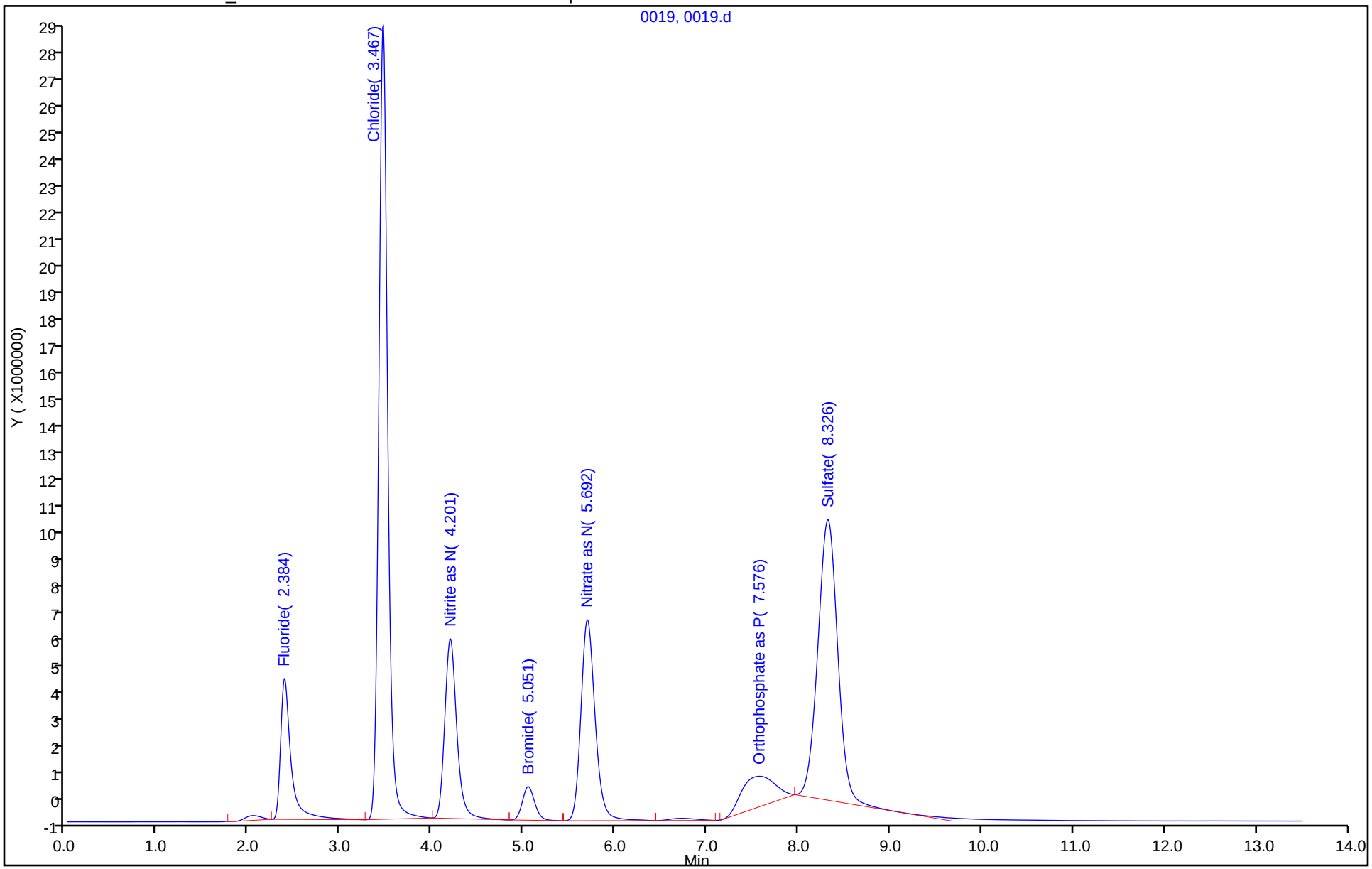
ICMS/MSD WEEK_00595 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2019 17:04:39 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0019.d

Injection Date:	03-Jun-2019 22:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-1 MSD			Worklist Smp#:	19
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0020.d
Lims ID: 280-123924-J-2
Client ID: LF6VMW-10R2_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 22:39:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-020
Misc. Info.: 30787 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	232082	0.0658	
2 Chloride	3.459	3.492	-0.033	27068268	4.76	
3 Nitrite as N		4.217			ND	
4 Bromide		5.075			ND	
5 Nitrate as N	5.700	5.725	-0.025	8003938	NC	
7 Orthophosphate as P	7.534	7.442	0.092	2413783	NC	
6 Sulfate	8.300	8.400	-0.100	46724384	11.4	

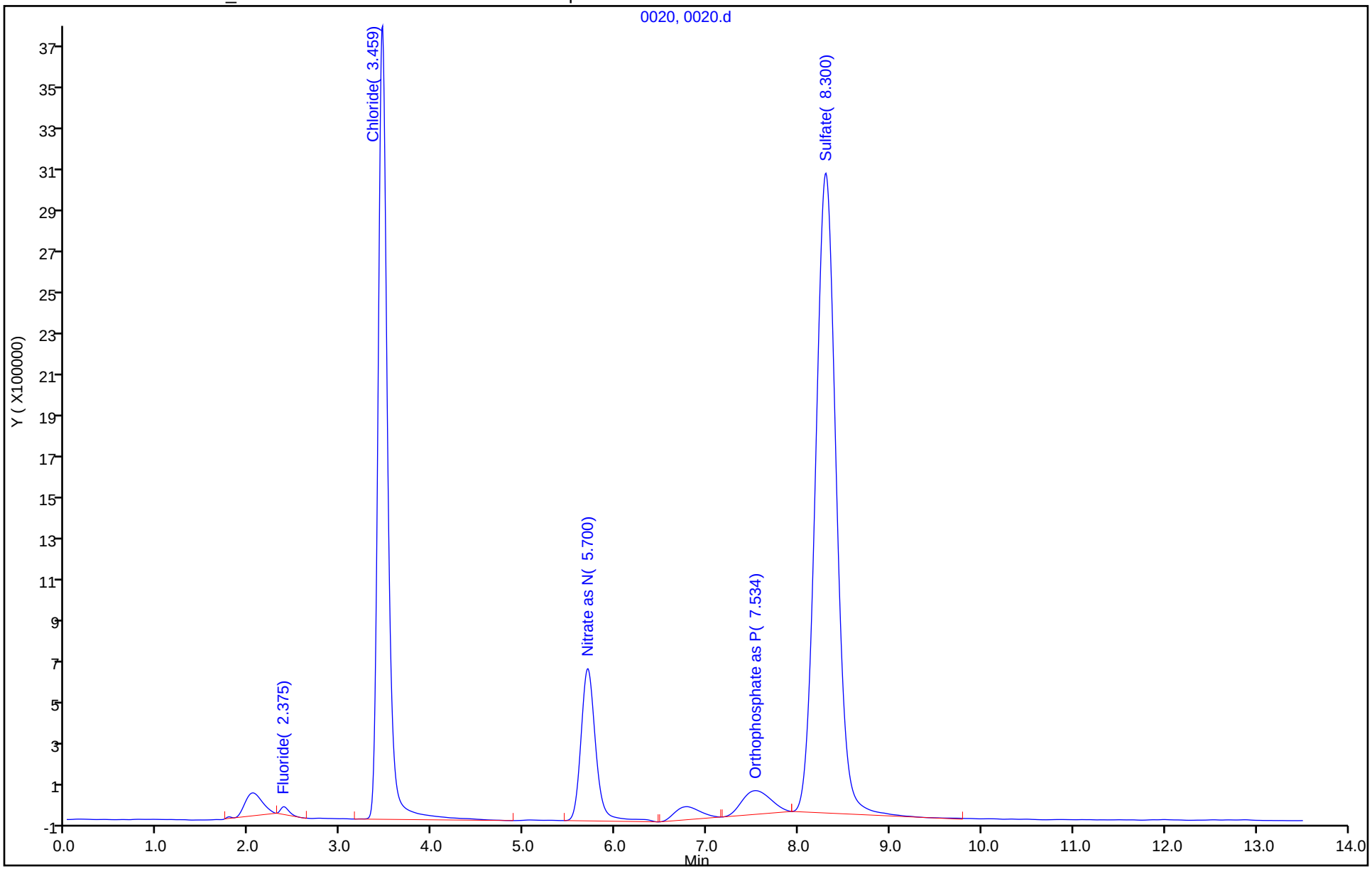
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:40 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0020.d				
Injection Date:	03-Jun-2019 22:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-2	Lab Sample ID:	280-123924-2	Worklist Smp#:	20
Client ID:	LF6VMW-10R2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0021.d
Lims ID: 280-123924-J-3
Client ID: LF6VMW-26_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 22:56:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-021
Misc. Info.: 28767 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.392	-0.350	4789749	NC	
2 Chloride	3.500	3.492	0.008	1231827281	NC	
3 Nitrite as N		4.217			ND	
4 Bromide	5.042	5.075	-0.033	543196	NC	
5 Nitrate as N	6.192	5.725	0.467	253726	0.0633	
7 Orthophosphate as P	7.542	7.442	0.100	370537	0.0214	
6 Sulfate	8.325	8.400	-0.075	115354736	NC	

QC Flag Legend

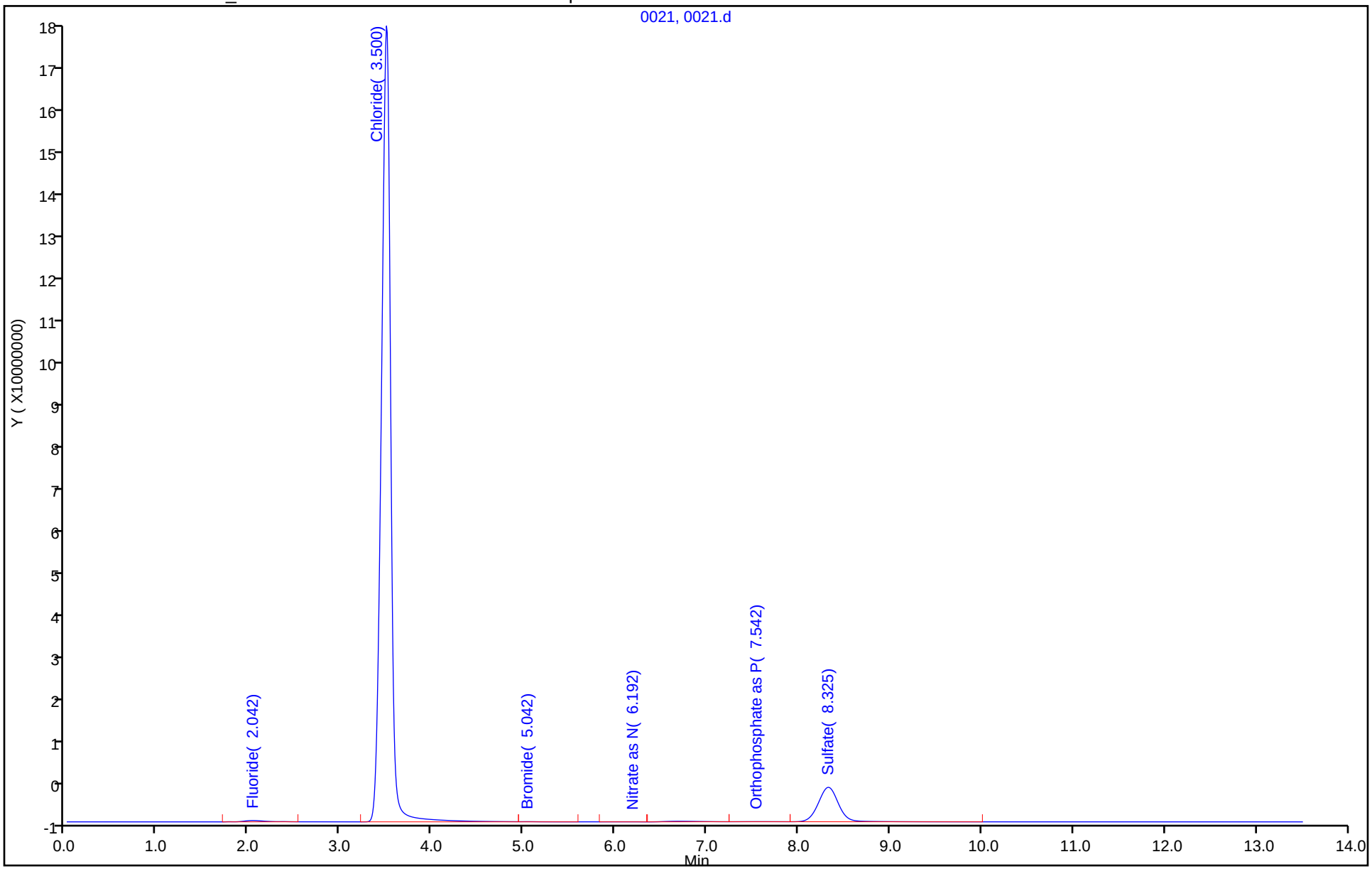
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NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:42 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0021.d

Injection Date:	03-Jun-2019 22:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-3	Lab Sample ID:	280-123924-3	Worklist Smp#:	21
Client ID:	LF6VMW-26_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0021.d
Lims ID: 280-123924-J-3
Client ID: LF6VMW-26_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 22:56:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-021
Misc. Info.: 28767 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.392	-0.350	4789749	0.6668	
2 Chloride	3.500	3.492	0.008	1231827281	189.3	
3 Nitrite as N		4.217			ND	
4 Bromide	5.042	5.075	-0.033	543196	0.2741	
5 Nitrate as N	6.192	5.725	0.467	253726	NC	
7 Orthophosphate as P	7.542	7.442	0.100	370537	NC	
6 Sulfate	8.325	8.400	-0.075	115354736	27.4	

QC Flag Legend

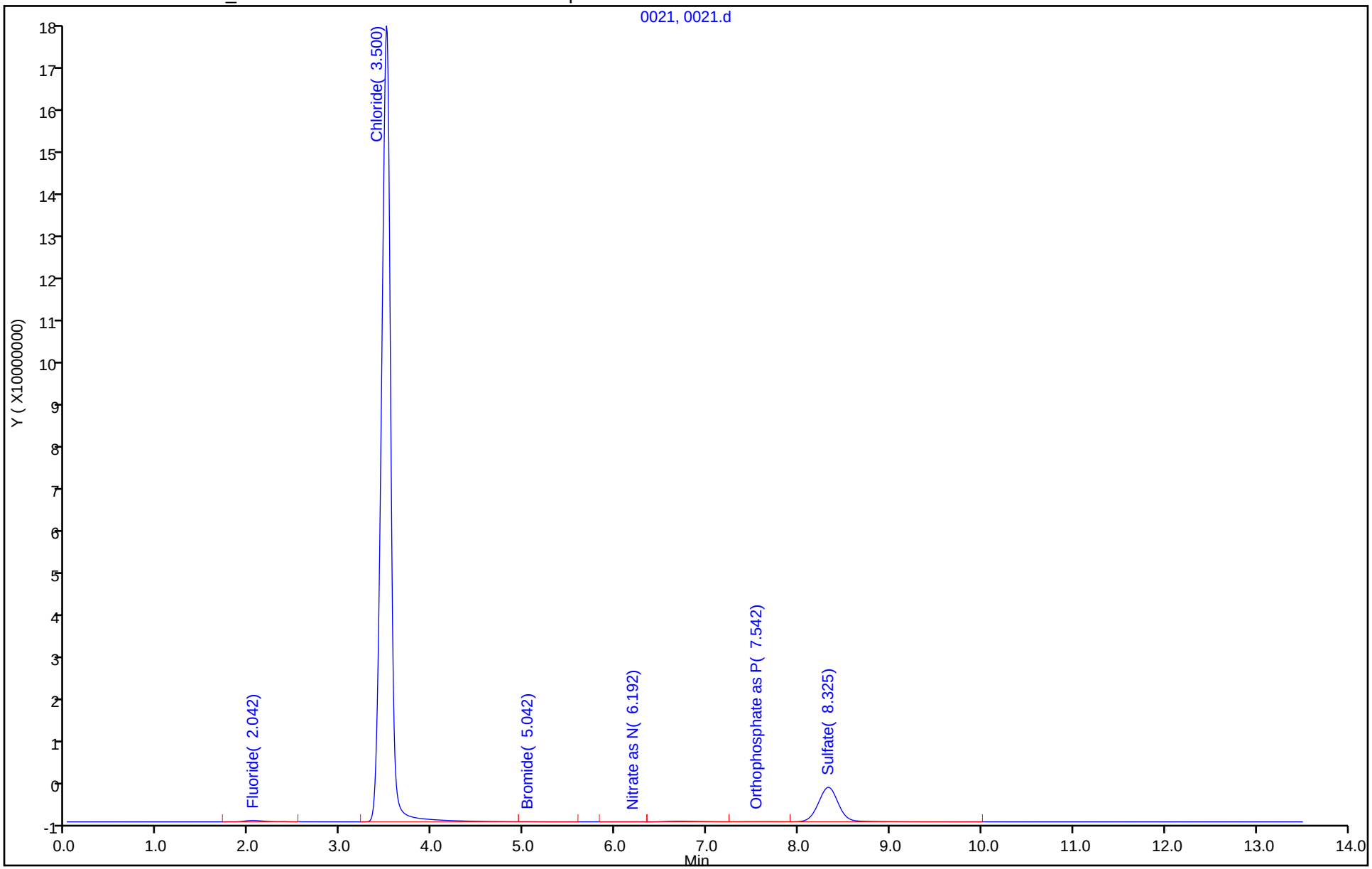
Processing Flags
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Report Date: 04-Jun-2019 17:04:42 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0021.d

Injection Date:	03-Jun-2019 22:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-3	Lab Sample ID:	280-123924-3	Worklist Smp#:	21
Client ID:	LF6VMW-26_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0022.d
Lims ID: 280-123924-H-4
Client ID: LF6VMW-12_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 23:12:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-022
Misc. Info.: 342 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	4169522	NC	
2 Chloride	3.492	3.492	0.000	936663492	NC	
3 Nitrite as N		4.217			ND	
4 Bromide	5.109	5.075	0.034	407305	NC	
5 Nitrate as N	5.842	5.725	0.117	264239	0.0641	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.359	8.400	-0.041	98979047	NC	

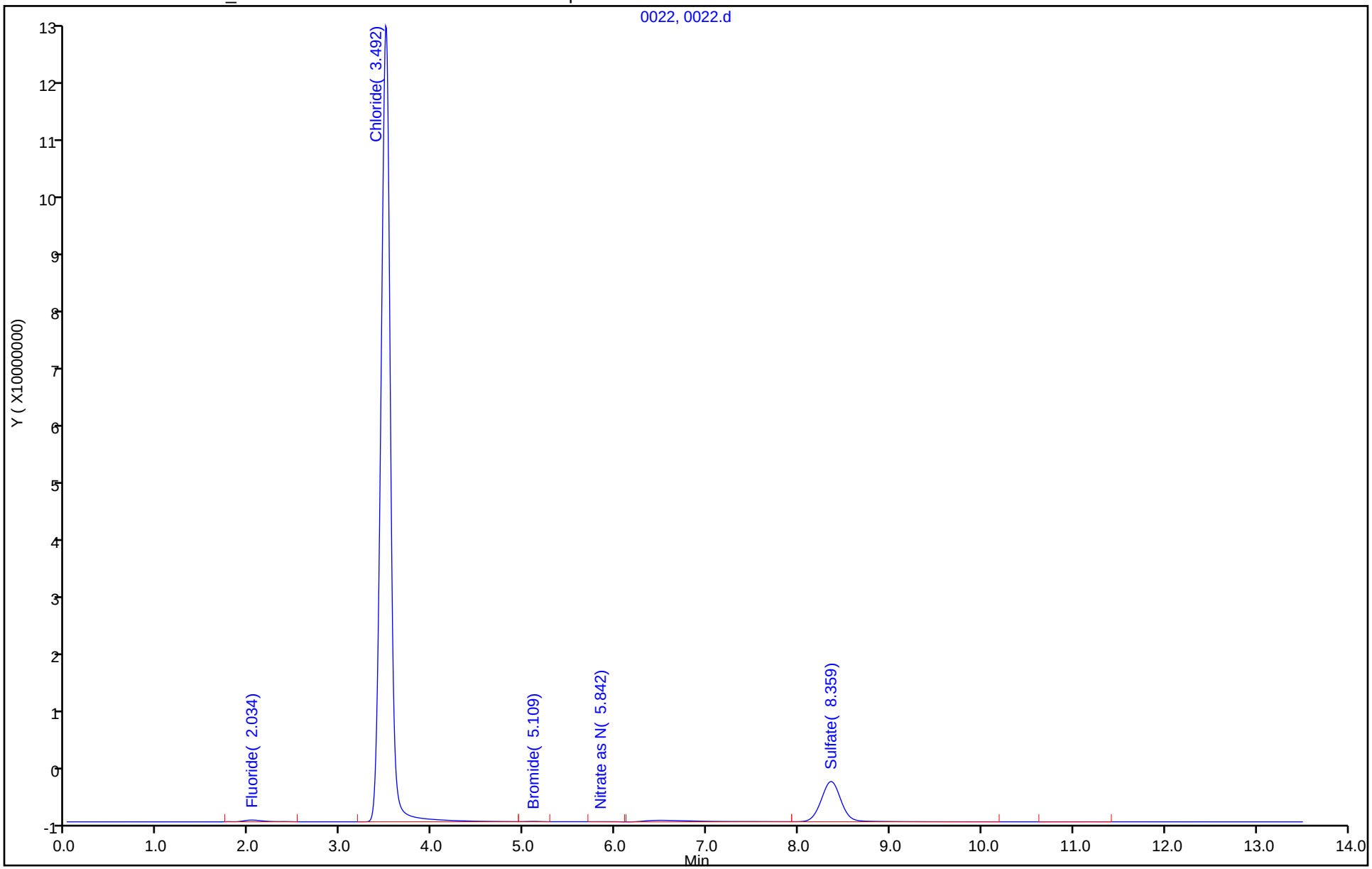
QC Flag Legend

Processing Flags
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Report Date: 04-Jun-2019 17:04:43 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0022.d				
Injection Date:	03-Jun-2019 23:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-4	Lab Sample ID:	280-123924-4	Worklist Smp#:	22
Client ID:	LF6VMW-12_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0022.d
Lims ID: 280-123924-H-4
Client ID: LF6VMW-12_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 23:12:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-022
Misc. Info.: 342 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.392	-0.358	4169522	0.5850	
2 Chloride	3.492	3.492	0.000	936663492	144.1	
3 Nitrite as N		4.217			ND	
4 Bromide	5.109	5.075	0.034	407305	0.2085	
5 Nitrate as N	5.842	5.725	0.117	264239	NC	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.359	8.400	-0.041	98979047	23.6	

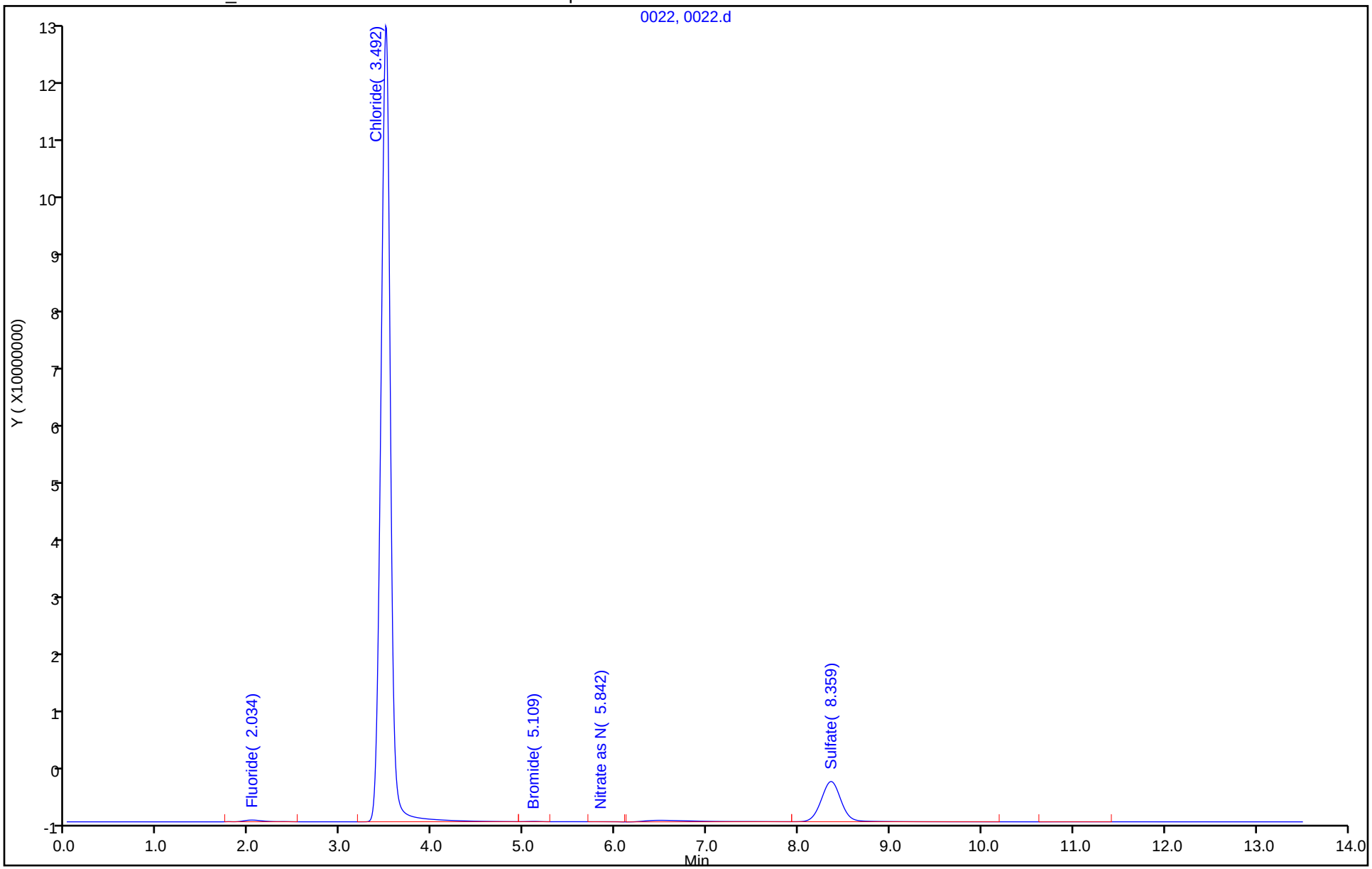
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:43 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0022.d				
Injection Date:	03-Jun-2019 23:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-4	Lab Sample ID:	280-123924-4	Worklist Smp#:	22
Client ID:	LF6VMW-12_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0023.d
Lims ID: 280-123924-I-5
Client ID: LF6VMW-24_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 23:28:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-023
Misc. Info.: 20796 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.392	-0.350	7196622	0.9842	
2 Chloride	3.542	3.492	0.050	2503711996	384.2	E
3 Nitrite as N		4.217			ND	
4 Bromide	5.042	5.075	-0.033	631185	0.3166	
5 Nitrate as N		5.725			ND	
7 Orthophosphate as P	7.475	7.442	0.033	571178	NC	
6 Sulfate	8.317	8.400	-0.083	93261413	22.2	

QC Flag Legend

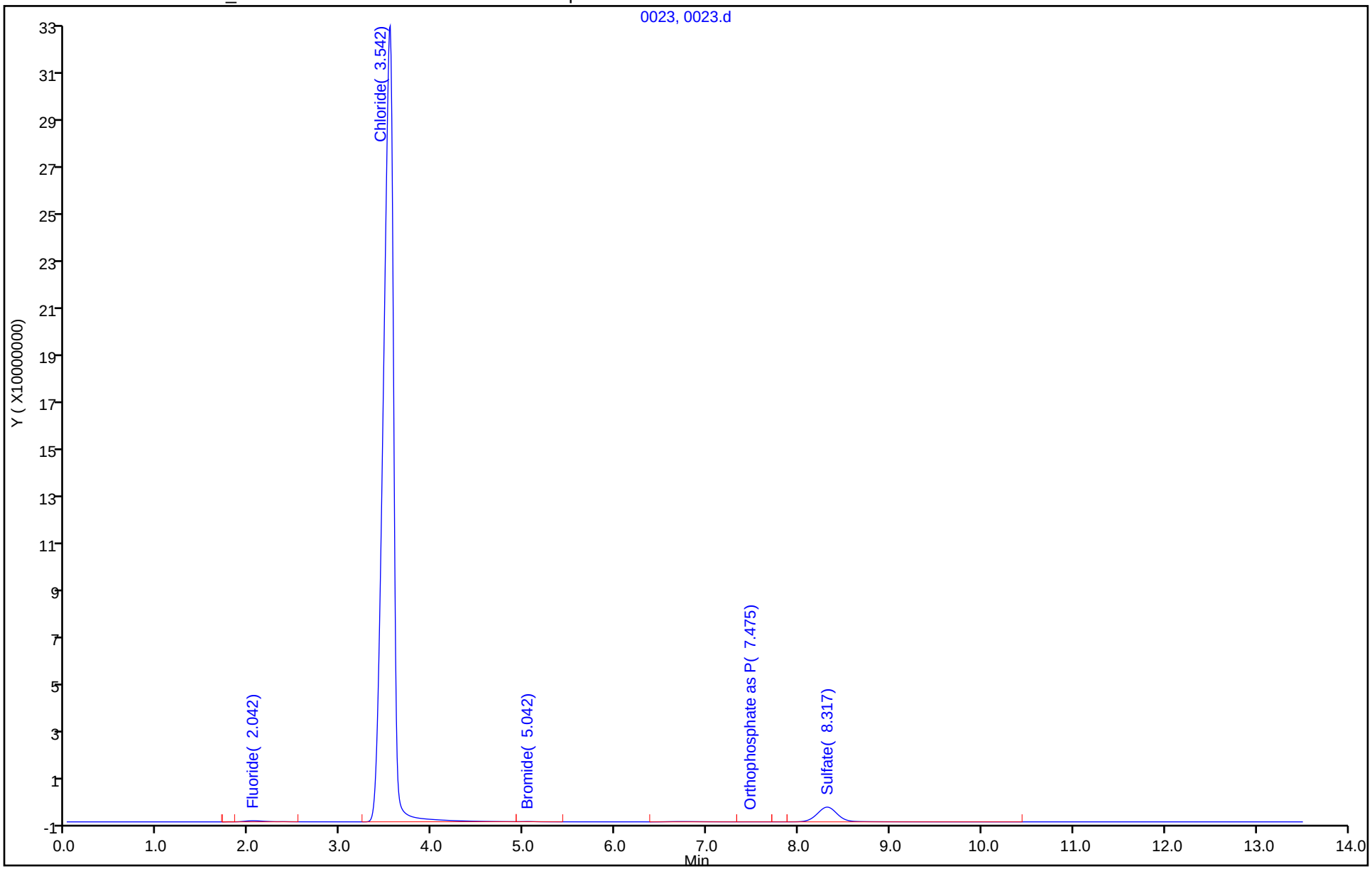
Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 04-Jun-2019 17:04:44 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0023.d

Injection Date:	03-Jun-2019 23:28:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-5	Lab Sample ID:	280-123924-5	Worklist Smp#:	23
Client ID:	LF6VMW-24_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0024.d
Lims ID: 280-123924-H-6
Client ID: TMCMW-9_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 23:45:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-024
Misc. Info.: 19734 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.392	-0.367	3211426	NC	
2 Chloride	3.467	3.492	-0.025	245253566	NC	
3 Nitrite as N		4.217			ND	
4 Bromide		5.075			ND	
5 Nitrate as N	5.775	5.725	0.050	10841850	0.9170	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.359	8.400	-0.041	211640818	NC	

QC Flag Legend

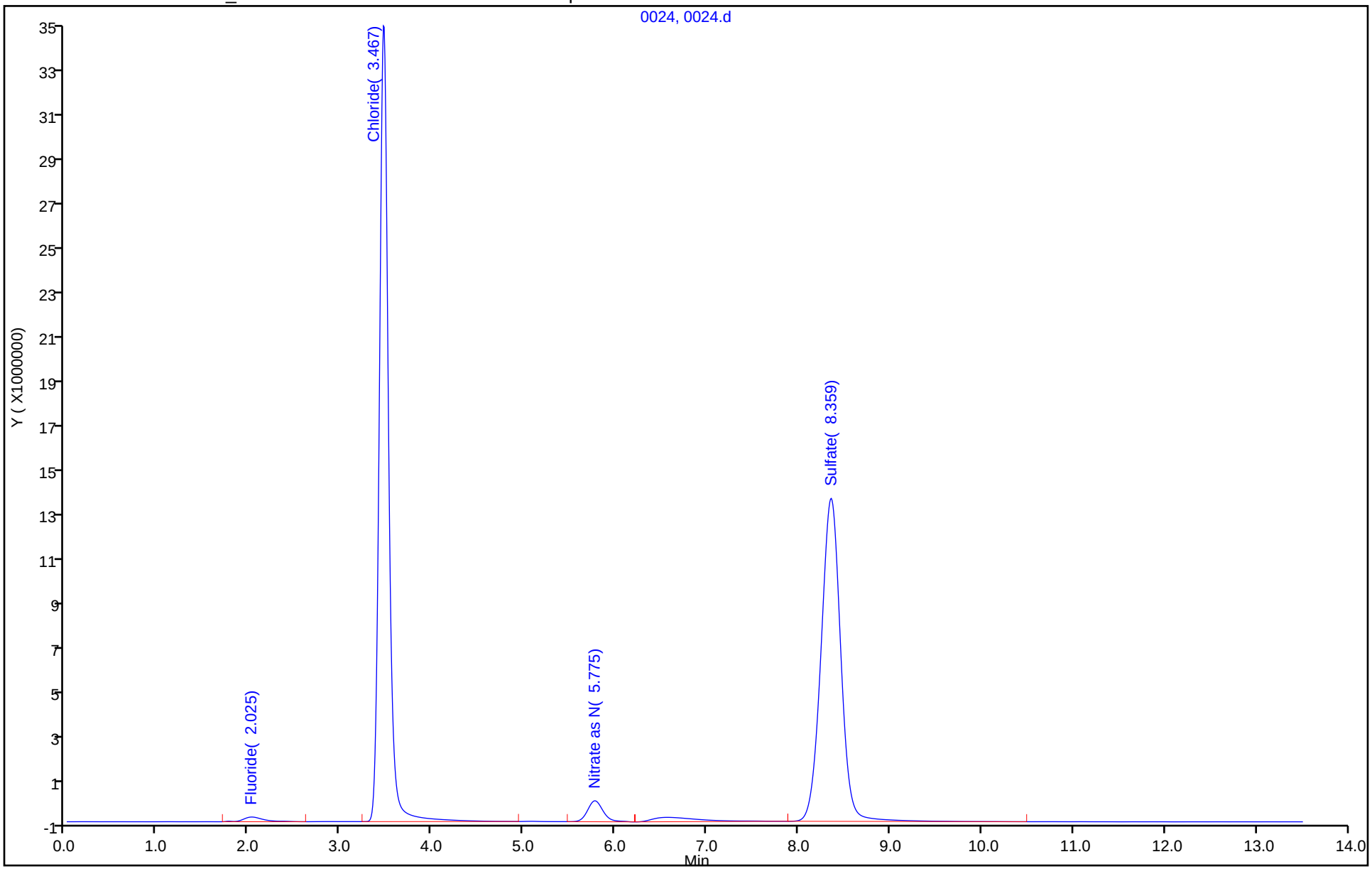
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Report Date: 04-Jun-2019 17:04:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0024.d

Injection Date:	03-Jun-2019 23:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-6	Lab Sample ID:	280-123924-6	Worklist Smp#:	24
Client ID:	TMCMW-9_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0024.d
Lims ID: 280-123924-H-6
Client ID: TMCMW-9_0519
Sample Type: Client
Inject. Date: 03-Jun-2019 23:45:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-024
Misc. Info.: 19734 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.392	-0.367	3211426	0.4587	
2 Chloride	3.467	3.492	-0.025	245253566	38.2	
3 Nitrite as N		4.217			ND	
4 Bromide		5.075			ND	
5 Nitrate as N	5.775	5.725	0.050	10841850	NC	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.359	8.400	-0.041	211640818	49.9	

QC Flag Legend

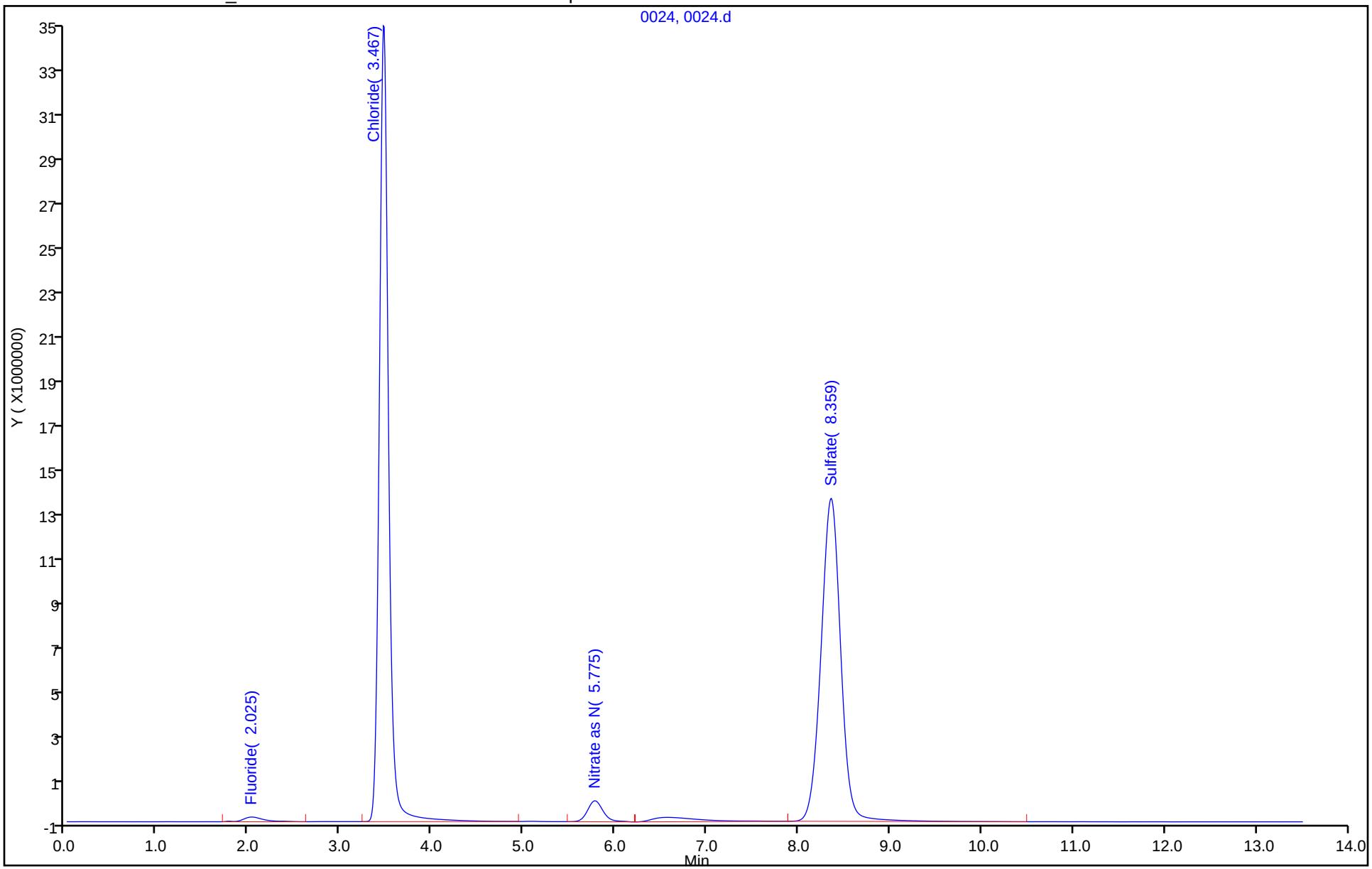
Processing Flags
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Report Date: 04-Jun-2019 17:04:45 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0024.d

Injection Date:	03-Jun-2019 23:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-6	Lab Sample ID:	280-123924-6	Worklist Smp#:	24
Client ID:	TMCMW-9_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0025.d
Lims ID: 280-123924-I-7
Client ID: LF6/TMCSW-1_0519
Sample Type: Client
Inject. Date: 04-Jun-2019 00:01:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-025
Misc. Info.: 31511 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	193589	0.0607	
2 Chloride	3.542	3.492	0.050	2336017573	358.5	E
3 Nitrite as N		4.217			ND	
4 Bromide	5.050	5.075	-0.025	304338	0.1587	
5 Nitrate as N	5.725	5.725	0.000	9059228	NC	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.325	8.400	-0.075	114992946	27.3	

QC Flag Legend

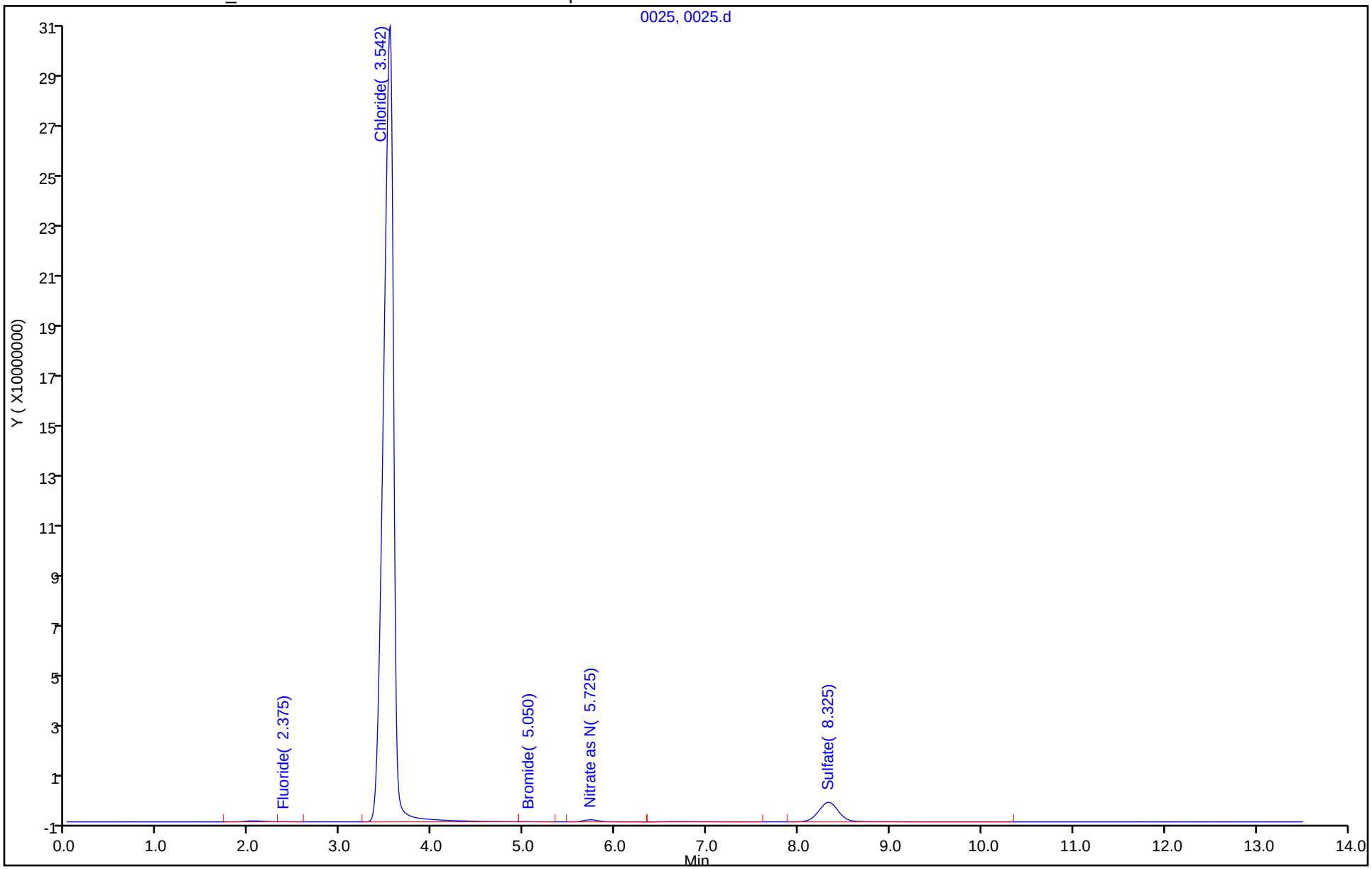
Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 04-Jun-2019 17:04:46 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0025.d

Injection Date:	04-Jun-2019 00:01:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-7	Lab Sample ID:	280-123924-7	Worklist Smp#:	25
Client ID:	LF6/TMCSW-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0026.d
Lims ID: 280-123924-H-8
Client ID: LF6/TMCSW-2_0519
Sample Type: Client
Inject. Date: 04-Jun-2019 00:18:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-026
Misc. Info.: 8152 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	219758	0.0642	
2 Chloride	3.534	3.492	0.042	2196528382	337.1	E
3 Nitrite as N		4.217			ND	
4 Bromide	5.051	5.075	-0.024	288201	0.1509	
5 Nitrate as N	5.726	5.725	0.001	8385694	NC	
7 Orthophosphate as P	7.526	7.442	0.084	413376	NC	
6 Sulfate	8.326	8.400	-0.074	112761693	26.8	

QC Flag Legend

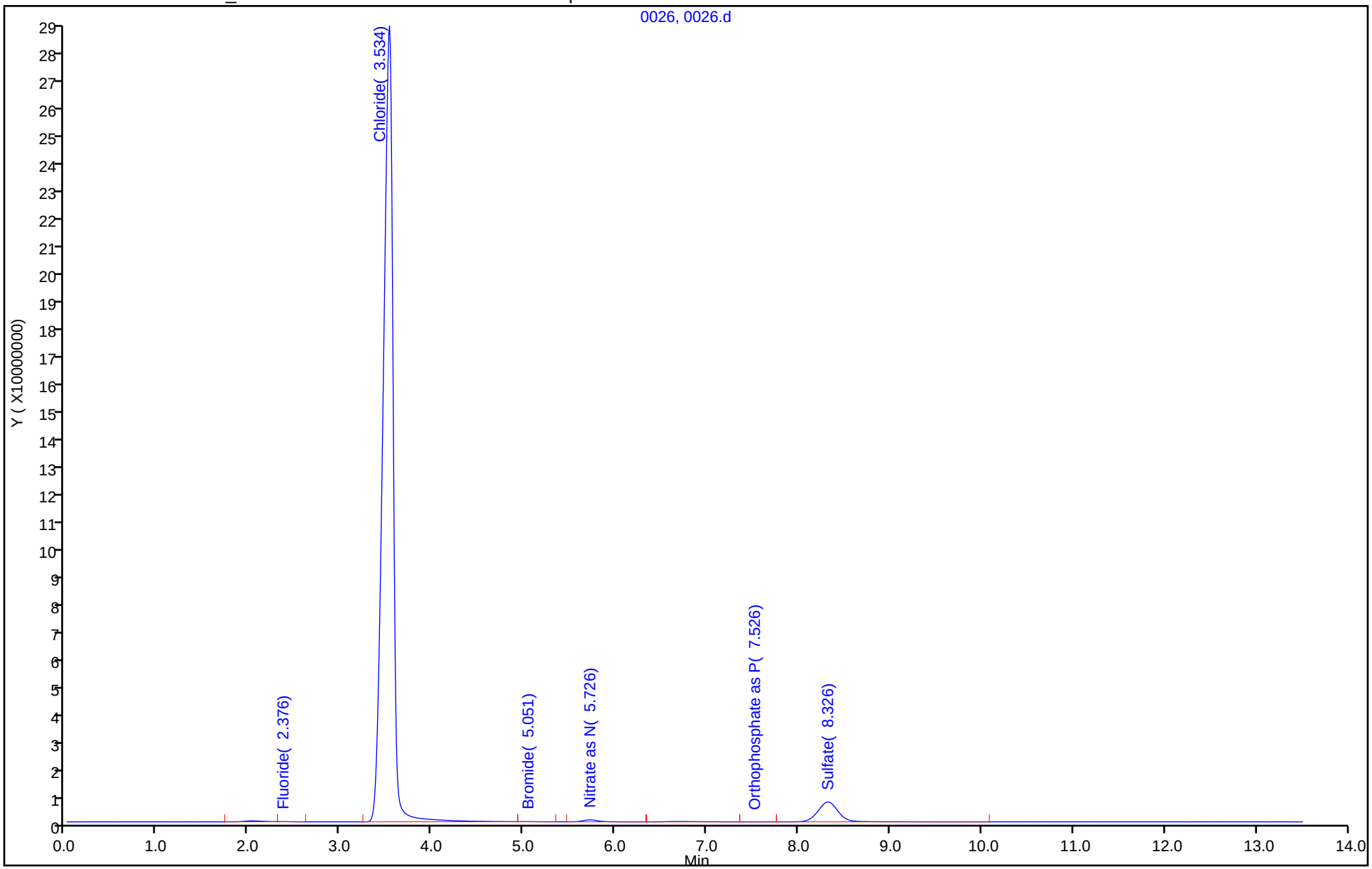
Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 04-Jun-2019 17:04:47 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0026.d

Injection Date:	04-Jun-2019 00:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-8	Lab Sample ID:	280-123924-8	Worklist Smp#:	26
Client ID:	LF6/TMCSW-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0027.d
Lims ID: 280-123924-H-9
Client ID: LF6/TMCSW-2_0519-a
Sample Type: Client
Inject. Date: 04-Jun-2019 00:34:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-027
Misc. Info.: 10997 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.042	2.392	-0.350	6288081	0.8644	
2 Chloride	3.534	3.492	0.042	2204830560	338.4	E
3 Nitrite as N		4.217			ND	
4 Bromide	5.059	5.075	-0.016	290593	0.1521	
5 Nitrate as N	5.734	5.725	0.009	8432362	NC	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.325	8.400	-0.075	111104368	26.4	

QC Flag Legend

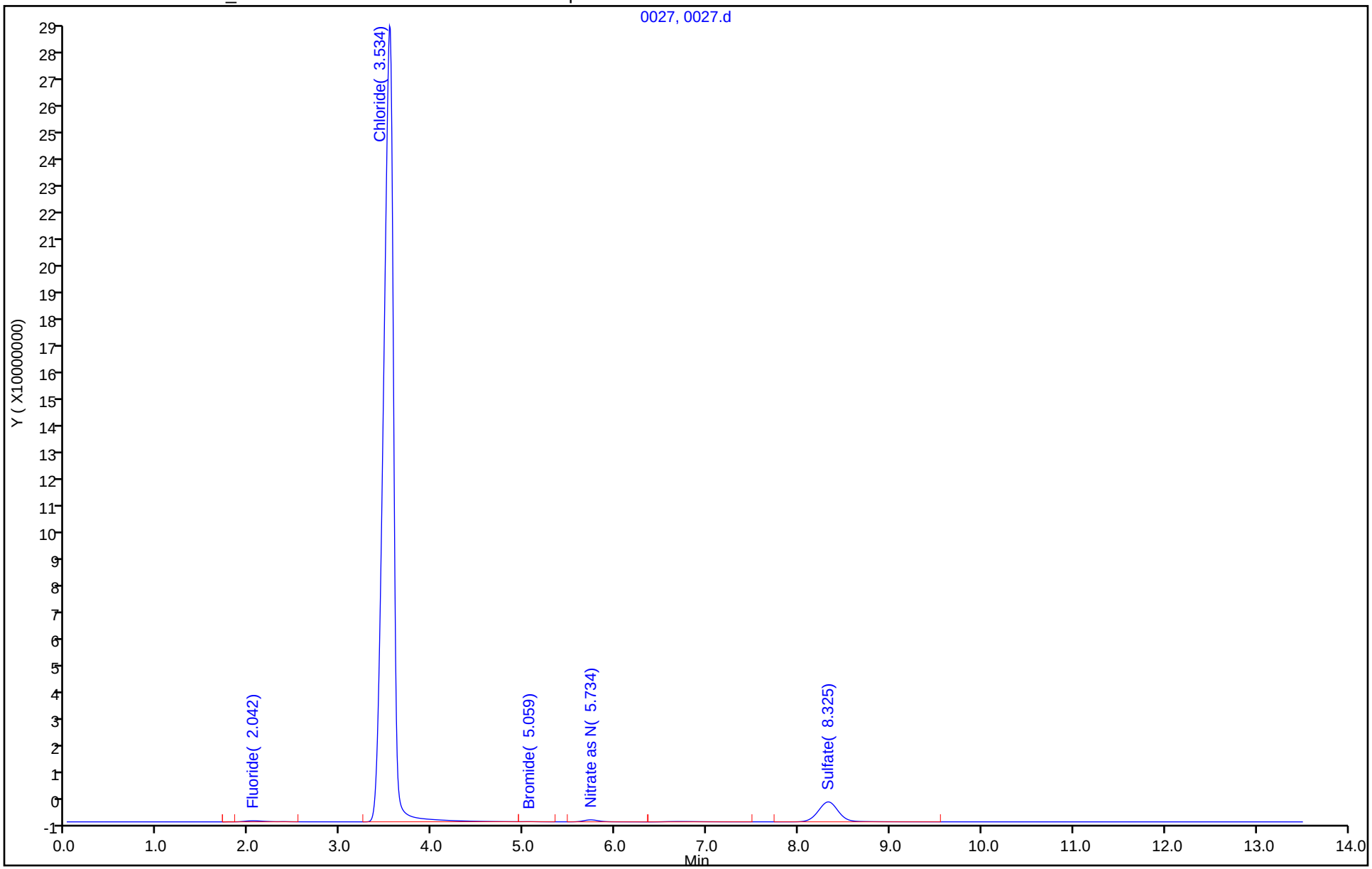
Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 04-Jun-2019 17:04:48 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0027.d

Injection Date:	04-Jun-2019 00:34:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-9	Lab Sample ID:	280-123924-9	Worklist Smp#:	27
Client ID:	LF6/TMCSW-2_0519-a				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0028.d				
Lims ID:	280-123924-I-10				
Client ID:	LF6W-1_0519				
Sample Type:	Client				
Inject. Date:	04-Jun-2019 00:50:00	ALS Bottle#:	0	Worklist Smp#:	28
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-028				
Misc. Info.:	19568 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	04-Jun-2019 17:04:36	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	401863	NC	
2 Chloride	3.459	3.492	-0.033	3630684	NC	
3 Nitrite as N		4.217			ND	
4 Bromide		5.075			ND	
5 Nitrate as N		5.725			ND	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.300	8.400	-0.100	4109867	NC	

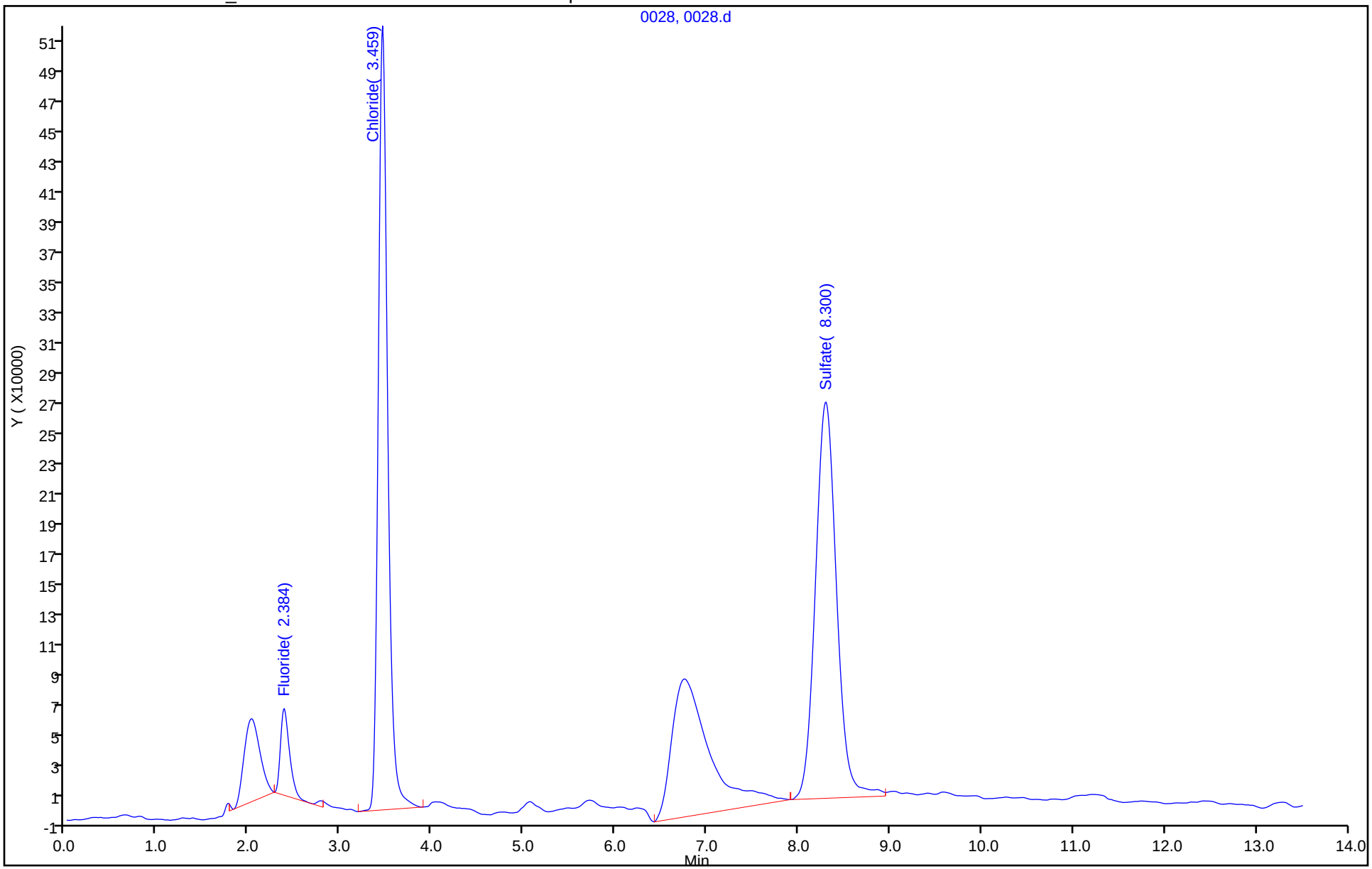
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0028.d				
Injection Date:	04-Jun-2019 00:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-10	Lab Sample ID:	280-123924-10	Worklist Smp#:	28
Client ID:	LF6W-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0028.d
Lims ID: 280-123924-I-10
Client ID: LF6W-1_0519
Sample Type: Client
Inject. Date: 04-Jun-2019 00:50:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-028
Misc. Info.: 19568 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:36 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

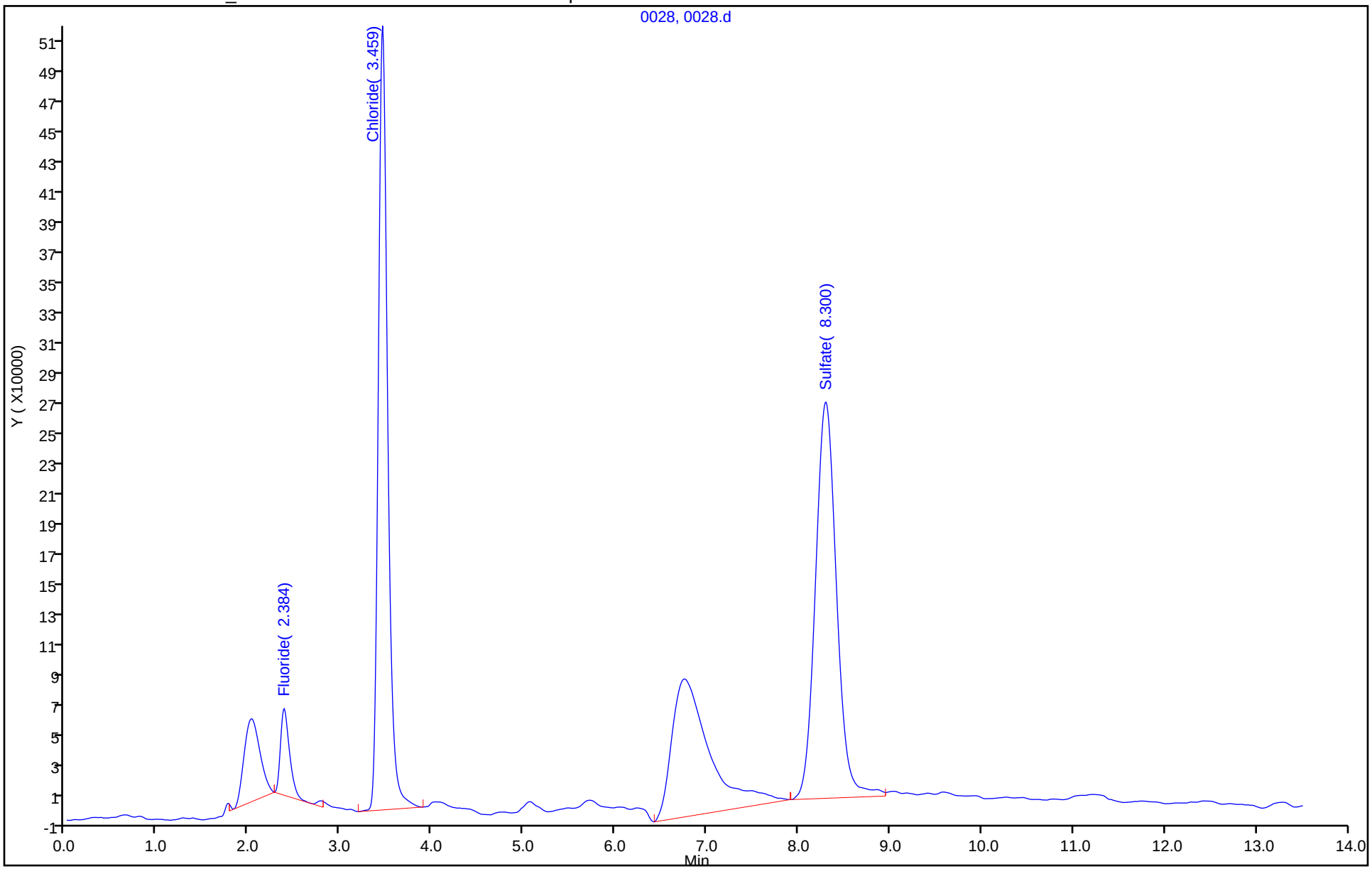
Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	401863	0.0882	
2 Chloride	3.459	3.492	-0.033	3630684	1.17	
3 Nitrite as N		4.217			ND	
4 Bromide		5.075			ND	
5 Nitrate as N		5.725			ND	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.300	8.400	-0.100	4109867	1.40	

Report Date: 04-Jun-2019 17:04:49 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0028.d				
Injection Date:	04-Jun-2019 00:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-I-10	Lab Sample ID:	280-123924-10	Worklist Smp#:	28
Client ID:	LF6W-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0029.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	04-Jun-2019 01:07:00	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-029				
Misc. Info.:	21176				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	04-Jun-2019 17:04:50	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34404059	NC	NC	
2 Chloride	3.467	3.492	-0.025	691890294	NC	NC	
3 Nitrite as N	4.192	4.217	-0.025	56266984	5.00	5.30	
4 Bromide	5.042	5.075	-0.033	10757506	NC	NC	
5 Nitrate as N	5.692	5.725	-0.033	66064956	5.00	5.37	
7 Orthophosphate as P	7.351	7.442	-0.091	24367489	5.00	5.14	
6 Sulfate	8.301	8.400	-0.099	447539724	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

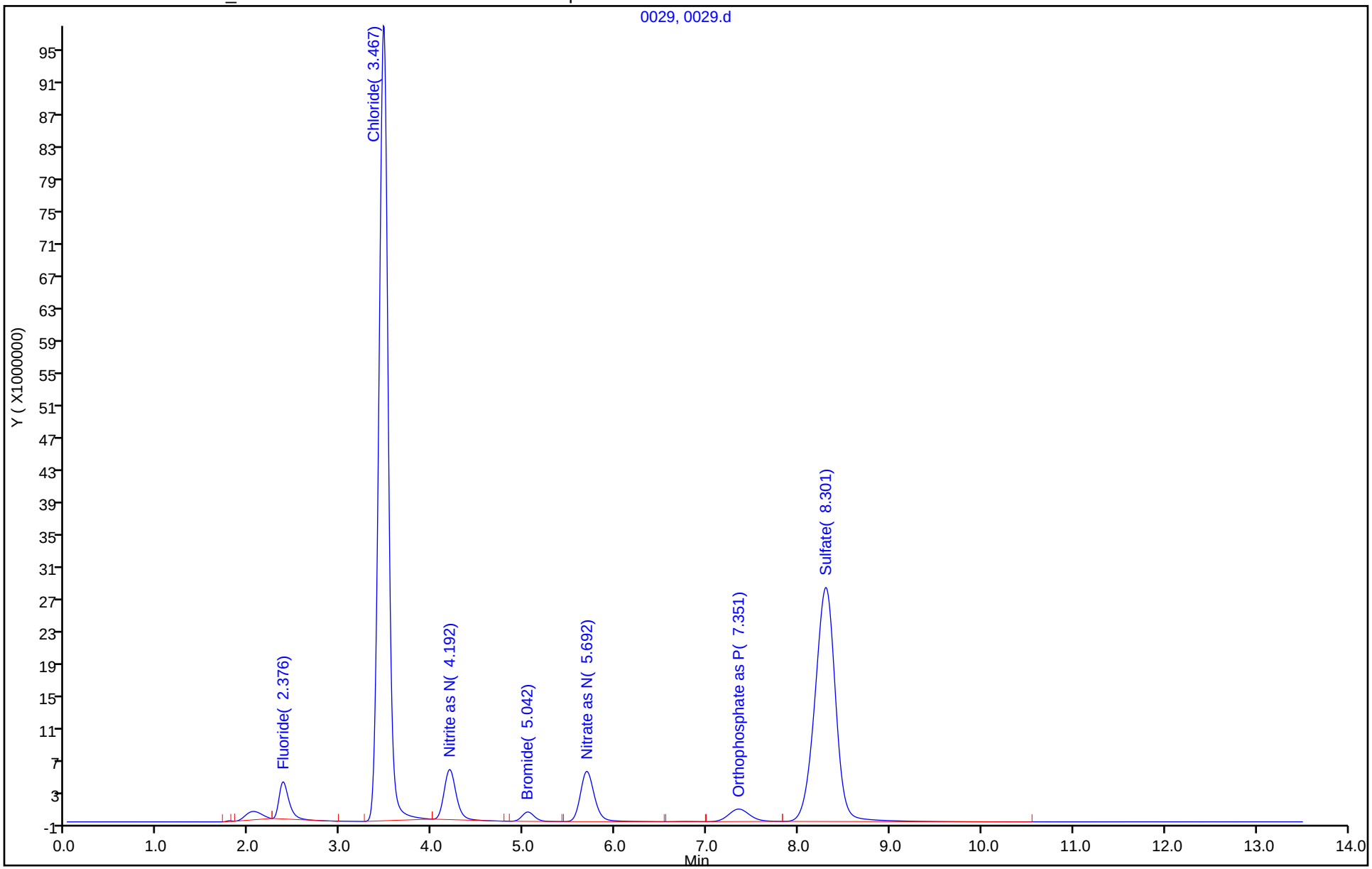
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0029.d

Injection Date:	04-Jun-2019 01:07:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0029.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Jun-2019 01:07:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-029
Misc. Info.: 21176
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:50 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.376	2.392	-0.016	34404059	5.00	4.57	
2 Chloride	3.467	3.492	-0.025	691890294	100.0	106.6	
3 Nitrite as N	4.192	4.217	-0.025	56266984	NC	NC	
4 Bromide	5.042	5.075	-0.033	10757506	5.00	5.21	
5 Nitrate as N	5.692	5.725	-0.033	66064956	NC	NC	
7 Orthophosphate as P	7.351	7.442	-0.091	24367489	NC	NC	
6 Sulfate	8.301	8.400	-0.099	447539724	100.0	104.9	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

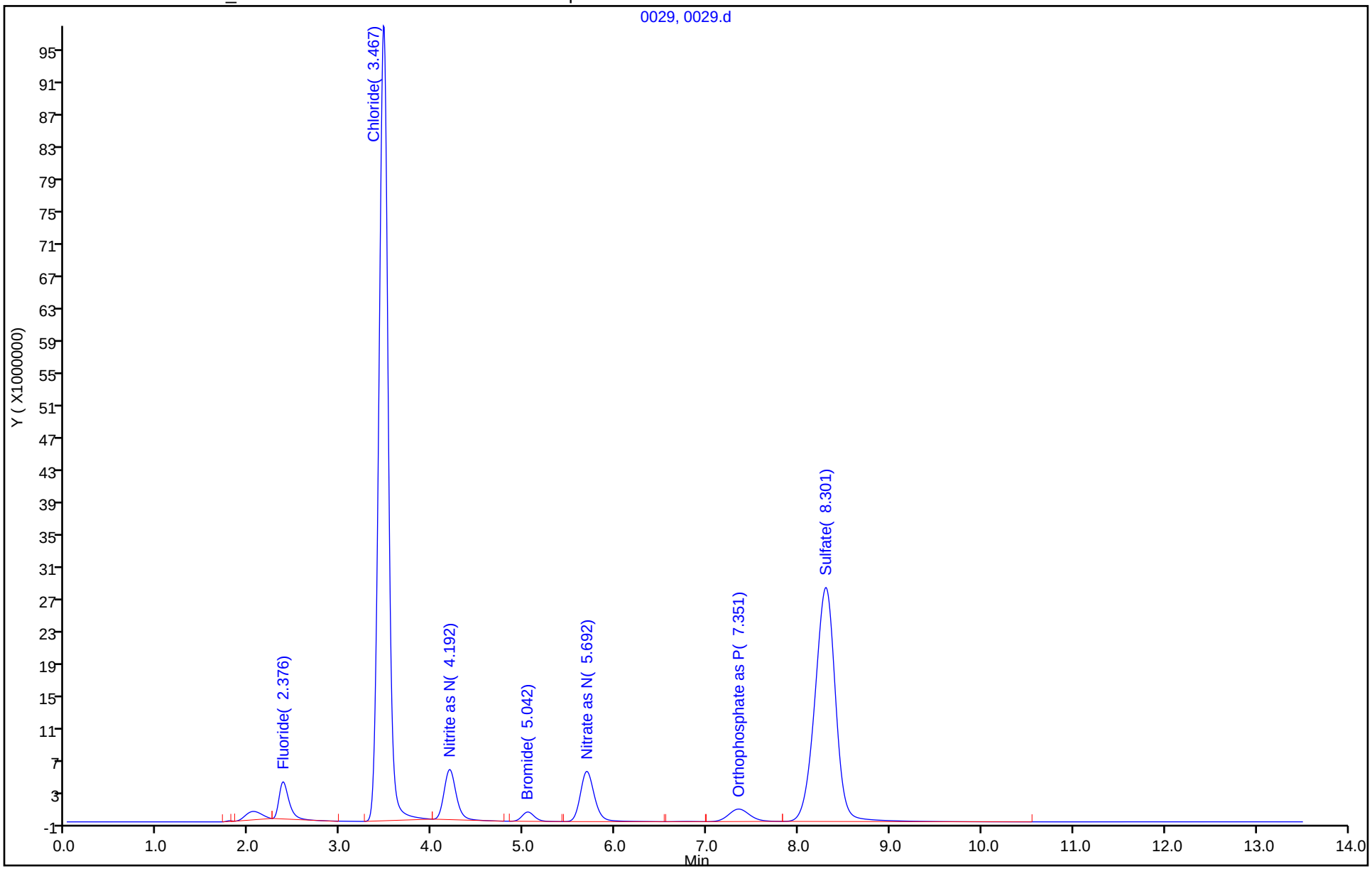
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:50 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0029.d

Injection Date:	04-Jun-2019 01:07:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0030.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	04-Jun-2019 01:23:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-030				
Misc. Info.:	9770				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	04-Jun-2019 17:04:50	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	2585848		NC	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.400	7.442	-0.042	270842		0.00008603	
6 Sulfate		8.400				ND	

QC Flag Legend

Processing Flags

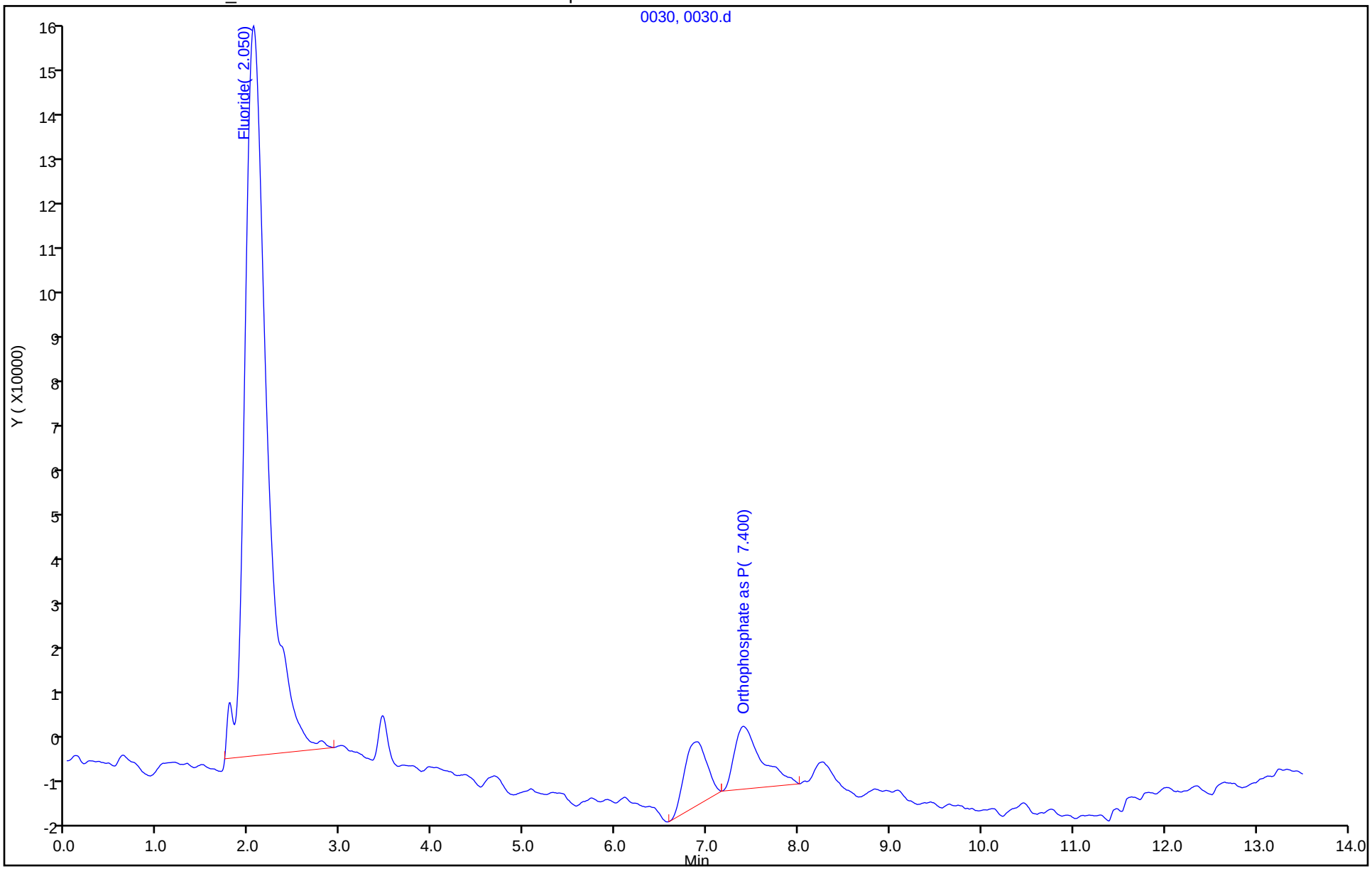
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0030.d

Injection Date:	04-Jun-2019 01:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	30
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0030.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	04-Jun-2019 01:23:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-030				
Misc. Info.:	9770				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2019 17:04:50	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	2585848		0.3762	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.400	7.442	-0.042	270842		NC	
6 Sulfate		8.400				ND	

QC Flag Legend

Processing Flags

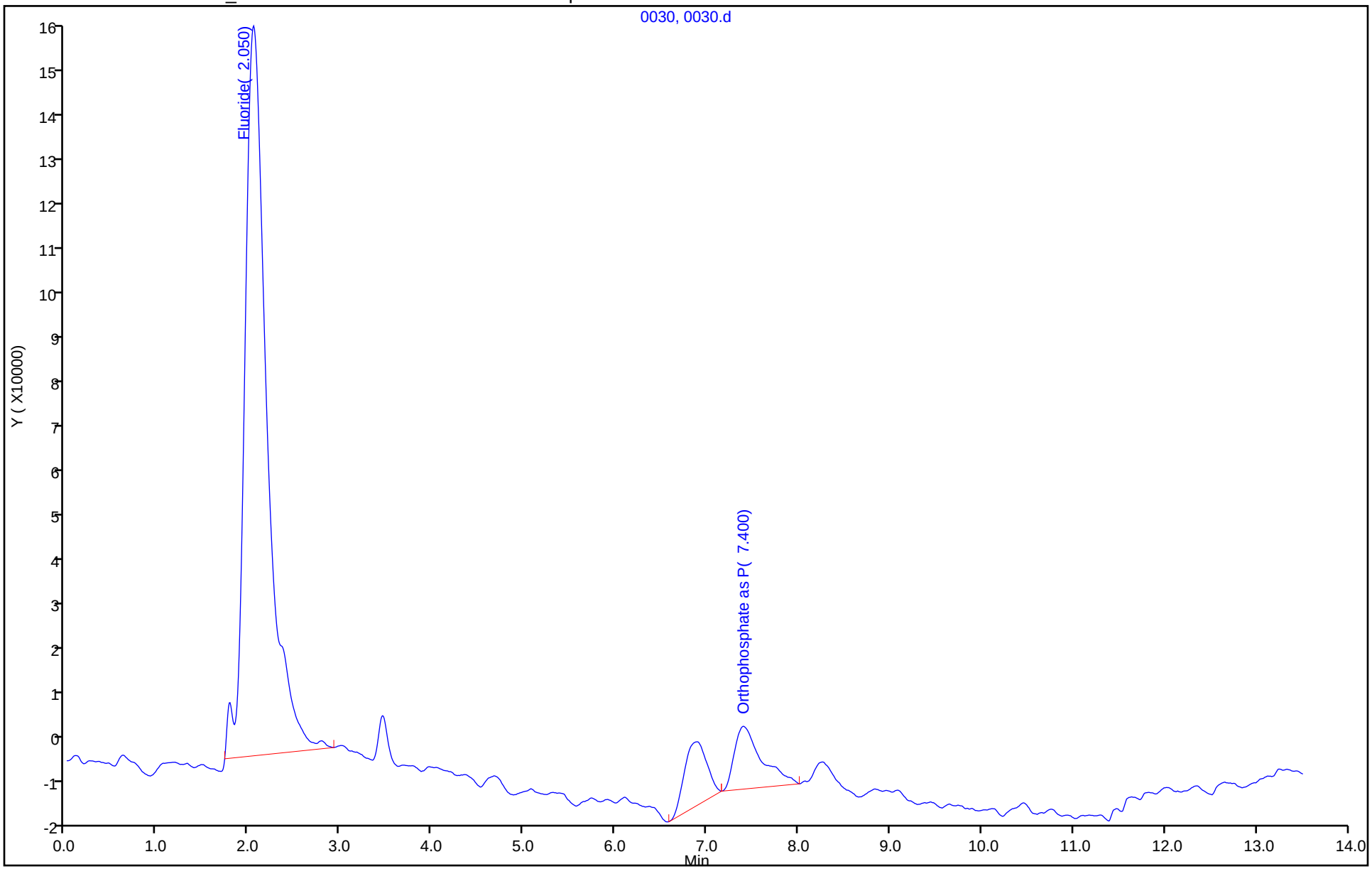
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:51 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0030.d

Injection Date:	04-Jun-2019 01:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	30
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0031.d				
Lims ID:	280-123924-H-11				
Client ID:	LF6LH-1_0519				
Sample Type:	Client				
Inject. Date:	04-Jun-2019 01:40:00	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-031				
Misc. Info.:	17825 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2019 17:04:50	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.384	2.392	-0.008	378163	0.0851	
2 Chloride	3.459	3.492	-0.033	8163794	1.87	
3 Nitrite as N		4.217			ND	
4 Bromide		5.075			ND	
5 Nitrate as N	5.717	5.725	-0.008	102838	NC	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.284	8.400	-0.116	31400722	7.78	

QC Flag Legend

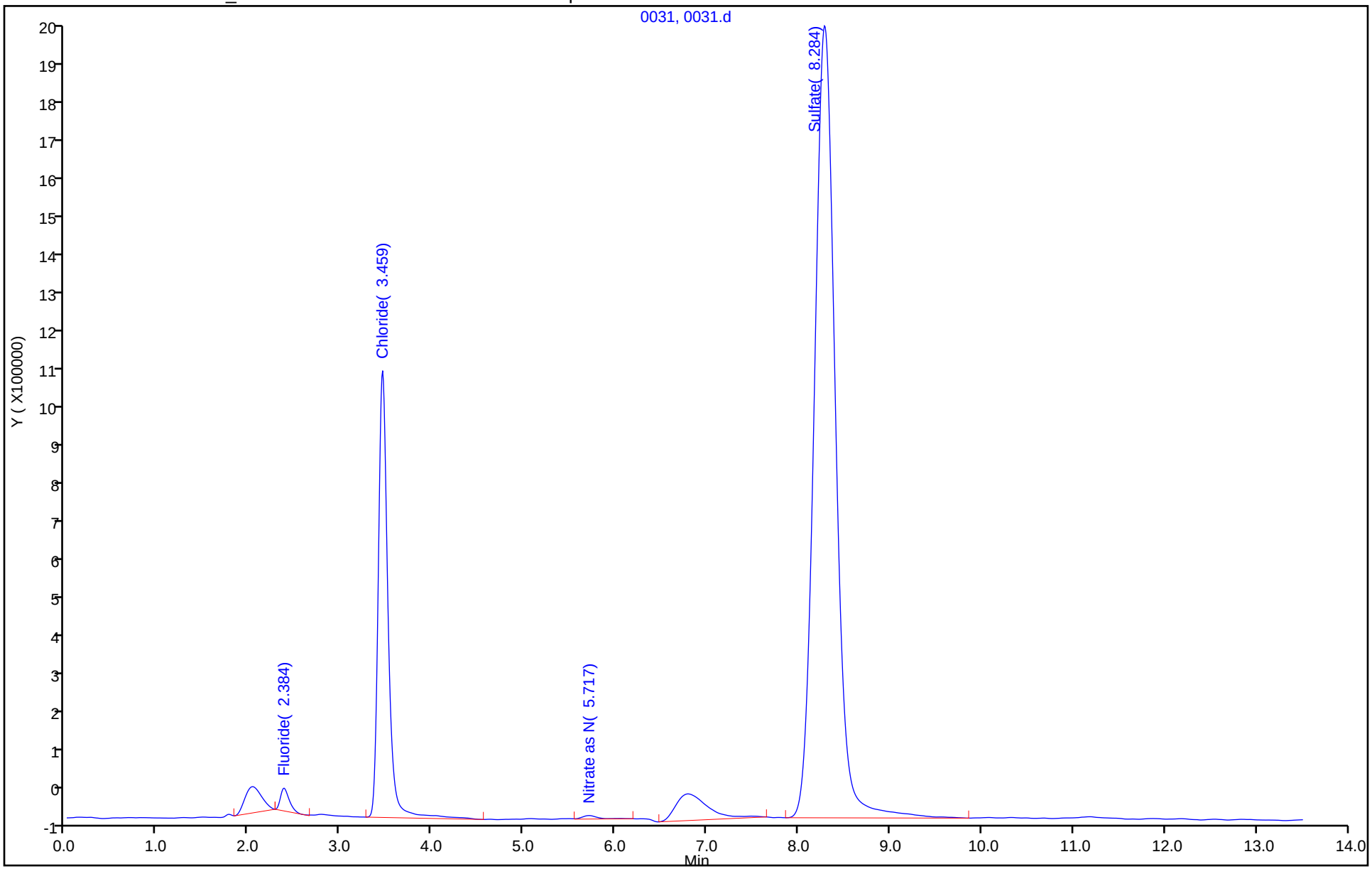
Processing Flags

NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:53 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0031.d				
Injection Date:	04-Jun-2019 01:40:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-H-11	Lab Sample ID:	280-123924-11	Worklist Smp#:	31
Client ID:	LF6LH-1_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0032.d
Lims ID: 280-123924-J-12
Client ID: LF6LH-2_0519
Sample Type: Client
Inject. Date: 04-Jun-2019 01:56:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-032
Misc. Info.: 29635 F
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2019 17:04:50 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	231015	0.0657	
2 Chloride	3.534	3.492	0.042	2193651734	336.7	E
3 Nitrite as N		4.217			ND	
4 Bromide	5.059	5.075	-0.016	265948	0.1402	
5 Nitrate as N	5.734	5.725	0.009	8384565	NC	
7 Orthophosphate as P		7.442			ND	
6 Sulfate	8.317	8.400	-0.083	113813853	27.0	

QC Flag Legend

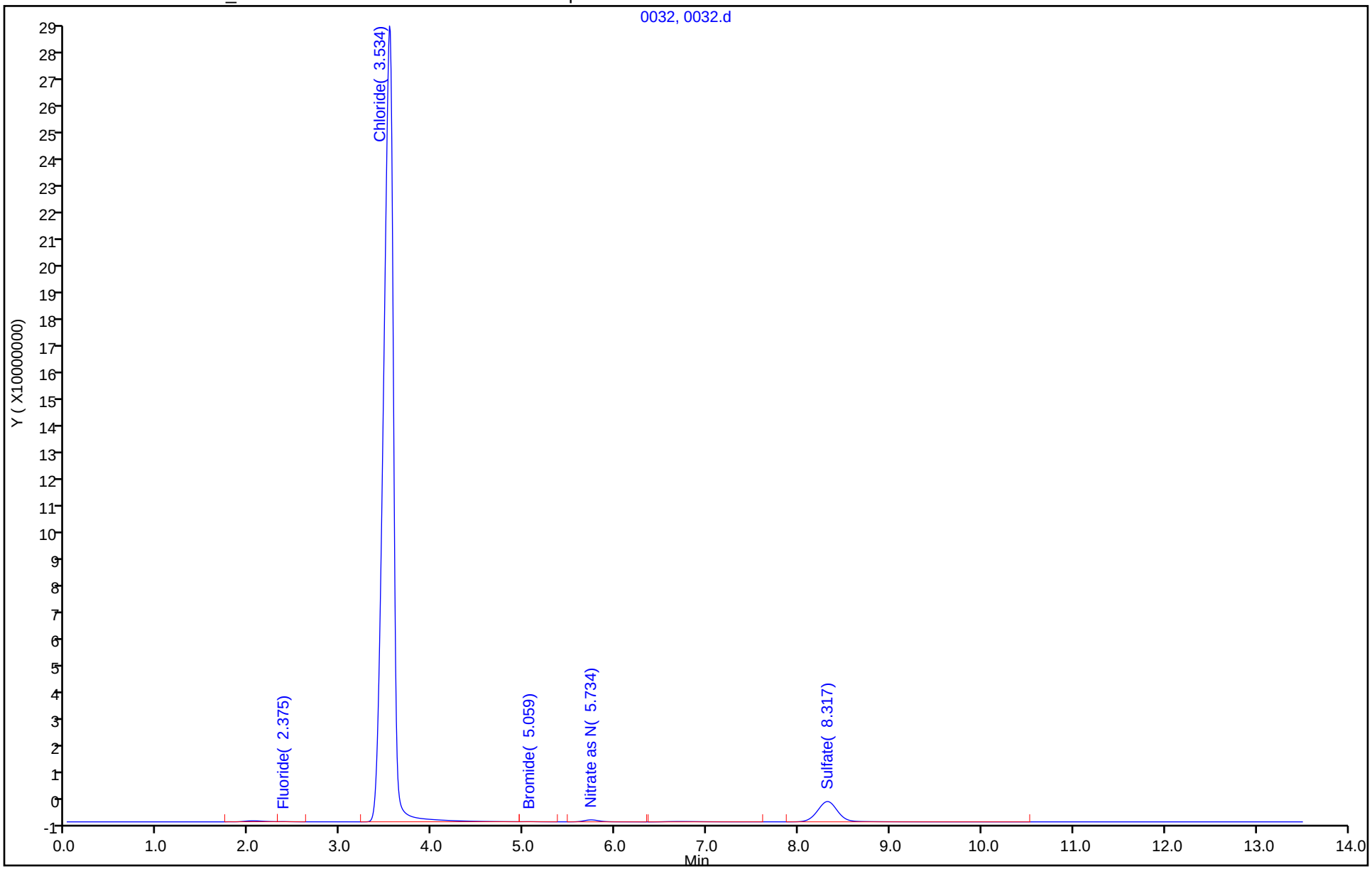
Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount

Report Date: 04-Jun-2019 17:04:54 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0032.d

Injection Date:	04-Jun-2019 01:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-123924-J-12	Lab Sample ID:	280-123924-12	Worklist Smp#:	32
Client ID:	LF6LH-2_0519				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0033.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Jun-2019 02:13:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0082479-033
Misc. Info.: 30201
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m
Limit Group: Wet - Anions
Last Update: 04-Jun-2019 17:04:55 Calib Date: 20-May-2019 16:52:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0311

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	34915731	NC	NC	
2 Chloride	3.475	3.492	-0.017	694407265	NC	NC	
3 Nitrite as N	4.200	4.217	-0.017	56493311	5.00	5.32	
4 Bromide	5.059	5.075	-0.016	10802974	NC	NC	
5 Nitrate as N	5.700	5.725	-0.025	66362593	5.00	5.39	
7 Orthophosphate as P	7.359	7.442	-0.083	24526626	5.00	5.17	
6 Sulfate	8.309	8.400	-0.091	448742082	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

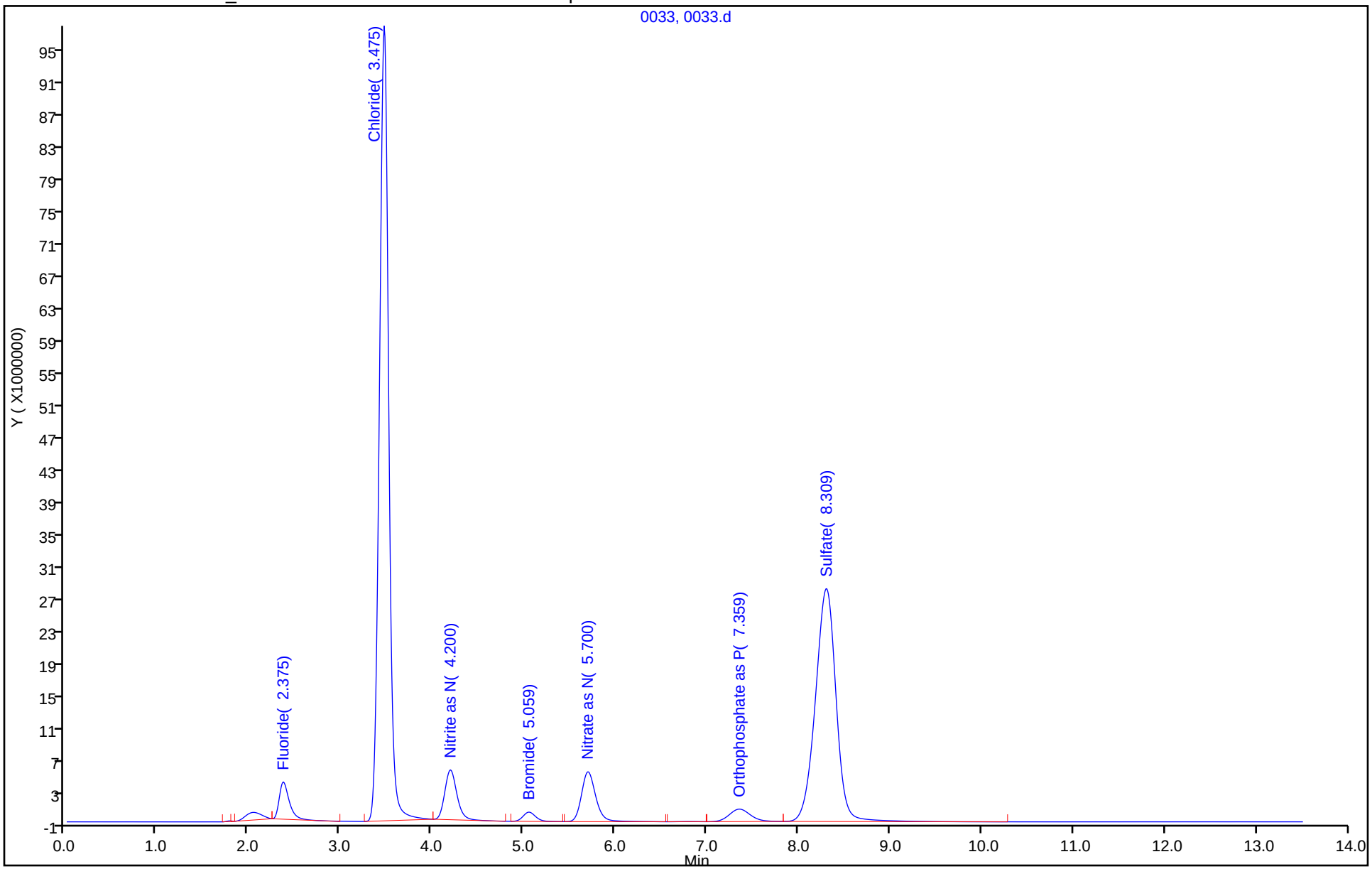
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0033.d

Injection Date:	04-Jun-2019 02:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	33
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0033.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	04-Jun-2019 02:13:00	ALS Bottle#:	0	Worklist Smp#:	33
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-033				
Misc. Info.:	30201				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2019 17:04:55	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.375	2.392	-0.017	34915731	5.00	4.64	
2 Chloride	3.475	3.492	-0.017	694407265	100.0	107.0	
3 Nitrite as N	4.200	4.217	-0.017	56493311	NC	NC	
4 Bromide	5.059	5.075	-0.016	10802974	5.00	5.23	
5 Nitrate as N	5.700	5.725	-0.025	66362593	NC	NC	
7 Orthophosphate as P	7.359	7.442	-0.083	24526626	NC	NC	
6 Sulfate	8.309	8.400	-0.091	448742082	100.0	105.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

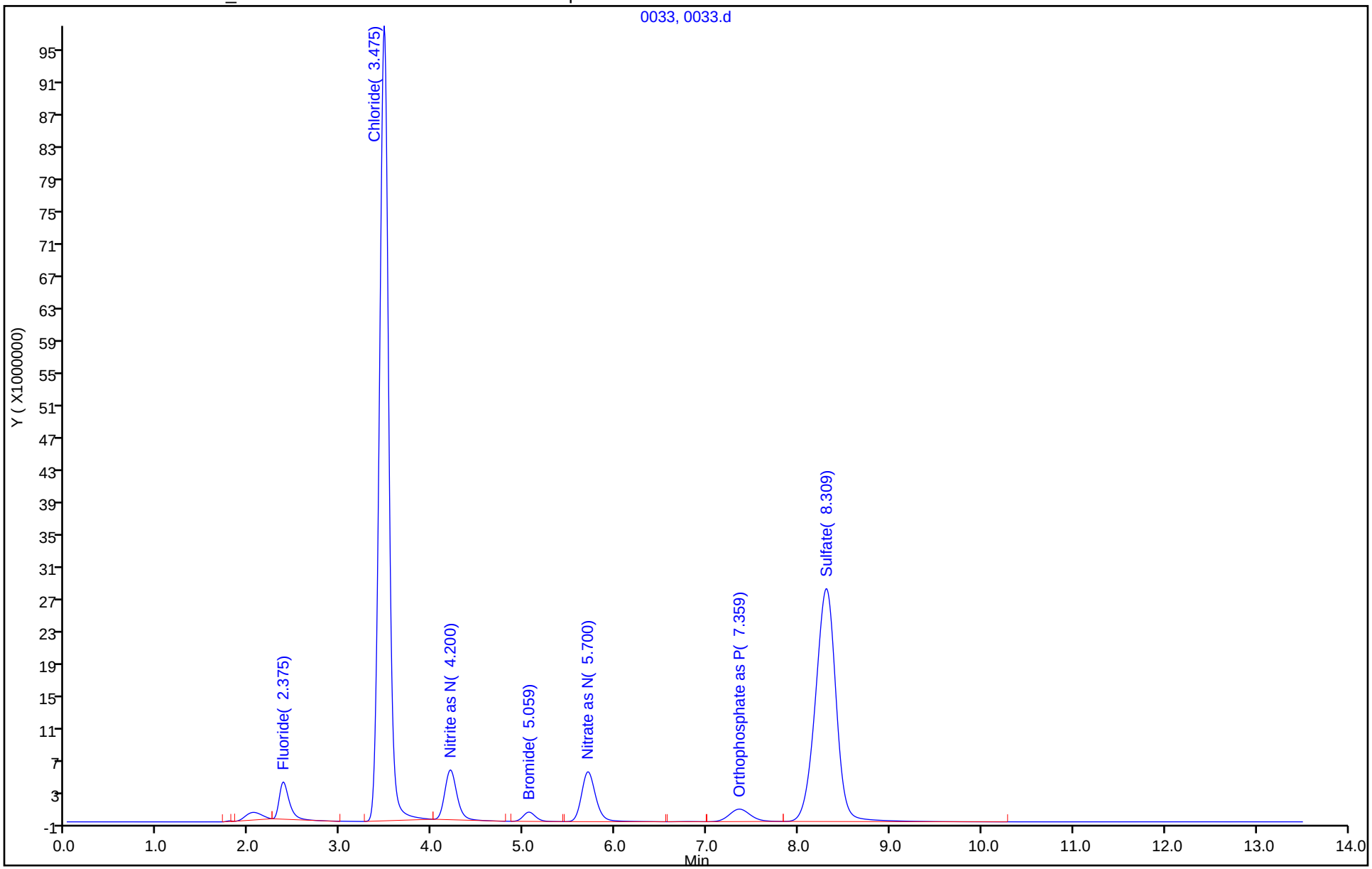
IC LCS_01593 Amount Added: 5.00 Units: mL

Report Date: 04-Jun-2019 17:04:55 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0033.d

Injection Date:	04-Jun-2019 02:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	33
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0034.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	04-Jun-2019 02:29:00	ALS Bottle#:	0	Worklist Smp#:	34
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-034				
Misc. Info.:	29428				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions				
Last Update:	04-Jun-2019 17:04:55	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1753445		NC	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.425	7.442	-0.017	231884		-0.008224	
6 Sulfate	8.259	8.400	-0.141	123035		NC	

QC Flag Legend

Processing Flags

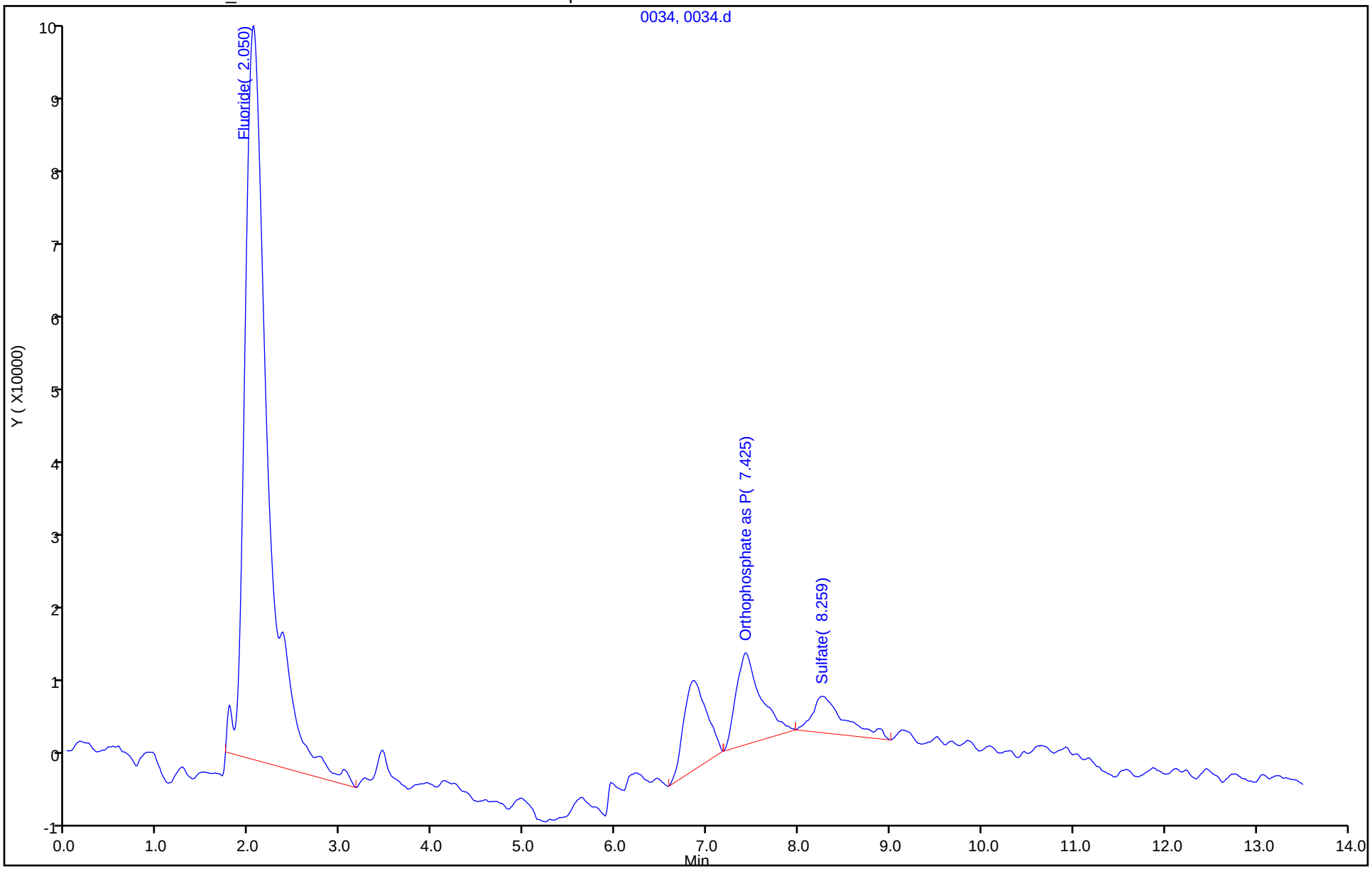
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0034.d

Injection Date:	04-Jun-2019 02:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	34
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0034.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	04-Jun-2019 02:29:00	ALS Bottle#:	0	Worklist Smp#:	34
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0082479-034				
Misc. Info.:	29428				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2019 17:04:55	Calib Date:	20-May-2019 16:52:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20190520-82062.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0311				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.050	2.392	-0.342	1753445		0.2664	
2 Chloride		3.492				ND	
3 Nitrite as N		4.217				ND	
4 Bromide		5.075				ND	
5 Nitrate as N		5.725				ND	
7 Orthophosphate as P	7.425	7.442	-0.017	231884		NC	
6 Sulfate	8.259	8.400	-0.141	123035		0.4727	

QC Flag Legend

Processing Flags

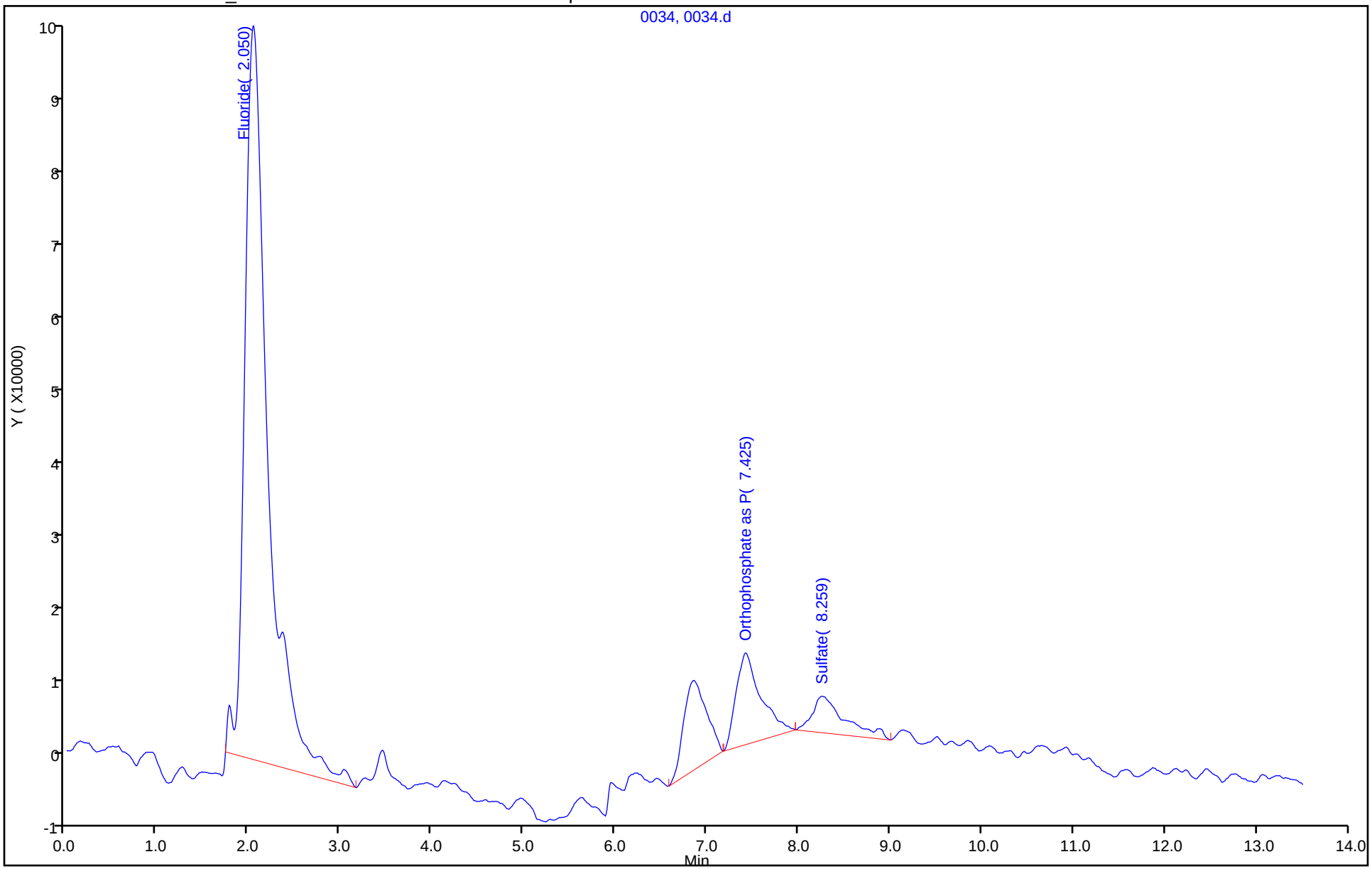
NC - Not Calibrated

Report Date: 04-Jun-2019 17:04:56 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20190603-82479.b\0034.d

Injection Date:	04-Jun-2019 02:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	34
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



pH 6/10/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	CL			1
2*	NPOC	ICB	1.000	CL			2
3*	NPOC	lcs 280-461049/1-a	1.000	CL			3
4*	NPOC	mb 280-461049/2-a	1.000	CL			4
5*	NPOC	TIC	1.000	CL			5
6*	NPOC	280-123867-g-1-b	1.000	7			6
7*	NPOC	280-123867-g-1-c ms	1.000	7			7
8*	NPOC	280-123867-g-1-d msd	1.000	7			8
9*	NPOC	280-123867-g-2-b	1.000	7			9
10*	NPOC	LCS	1.000	CL			10
11*	NPOC	MB	1.000	CL			11
12*	NPOC	TIC	1.000	CL			12
13*	NPOC	280-123706-d-1	2x ~~1.000~~	CL	Rerun		13
14*	NPOC	280-123820-k-4	1.000	CL			14
15*	NPOC	CCV	1.000	CL			15
16*	NPOC	CCB	1.000	CL			16
17*	NPOC	280-123820-k-5	1.000	CL			17
18*	NPOC	MS 280-123820-k-5	1.000	CL			18
19*	NPOC	MSD 280-123820-k-5	1.000	CL			19
20*	NPOC	280-123822-h-1	10x ~~1.000~~	CL	Rerun		20
21*	NPOC	280-123832-d-7	1.000	CL			21
22*	NPOC	280-123832-d-8	3x ~~1.000~~	CL	Rerun		22
23*	NPOC	280-123832-c-10	1.000	CL			23
24*	NPOC	280-123832-c-11	1.000	CL			24
25*	NPOC	280-123863-d-2	5x ~~1.000~~	CL	Rerun		25
26*	NPOC	280-123863-d-3	20x ~~1.000~~	CL	↓		26
27*	NPOC	CCV	1.000	CL			27
28*	NPOC	CCB	1.000	CL			28
29*	NPOC	280-123863-d-4	1.000	CL			29
30*	NPOC	280-123919-b-5	1.000	CL			30
31*	NPOC	MS 280-123919-b-5	1.000	CL			31
32*	NPOC	MSD 280-123919-b-5	1.000	CL			32
33*	NPOC	280-123919-b-6	1.000	CL			33
34*	NPOC	280-123941-k-2	2x ~~1.000~~	CL	high chloride		34
35*	NPOC	280-123941-k-4	2x ~~1.000~~	CL	high chloride		35
36*	NPOC	280-123941-k-5	1.000	CL			36
37*	NPOC	280-123941-j-6	1.000	CL			37
38*	NPOC	280-123941-k-7	1.000	CL			38
39*	NPOC	CCV	1.000	CL			39
40*	NPOC	CCB	1.000	CL			40
41*	NPOC	LCS	1.000	CL			41
42*	NPOC	MB	1.000	CL			42
43*	NPOC	TIC	1.000	CL			43
44*	NPOC	280-123855-e-3	1.000	CL			44
45*	NPOC	MS 280-123855-e-3	1.000	CL			45
46*	NPOC	MSD 280-123855-e-3	1.000	CL			46
47*	NPOC	280-123855-e-4	1.000	CL			47
48*	NPOC	280-123855-c-5	1.000	CL			48
49*	NPOC	280-123855-c-6	1.000	CL			49
50*	NPOC	280-123959-b-3	5x ~~1.000~~	CL	cloudy/diluted sample		50
51*	NPOC	CCV	1.000	CL			51

pH 6/10/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	CL			52
53*	NPOC	280-123959-c-4	5p 1.000	CL	cloudy/limited sample		53
54*	NPOC	280-123959-b-5	3p 1.000	CL	cloudy/limited sample		54
55*	NPOC	280-123960-c-1	1.000	CL			55
56*	NPOC	320-50340-g-1	1.000	CL			56
57*	NPOC	MS 320-50340-g-1	1.000	CL			57
58*	NPOC	MSD 320-50340-g-1	1.000	CL			58
59*	NPOC	320-50340-f-2	1.000	CL			59
60*	NPOC	320-50340-f-4	1.000	CL			60
61*	NPOC	320-50340-f-5	1.000	CL			61
62*	NPOC	280-123922-g-1	1.000	CL			62
63*	NPOC	CCV	1.000	CL			63
64*	NPOC	CCB	1.000	CL			64
65*	NPOC	280-123922-g-2	1.000	CL			65
66*	NPOC	280-123922-g-3	1.000	CL			66
67*	NPOC	280-123924-g-1	1.000	CL			67
68*	NPOC	280-123924-g-2	1.000	CL			68
69*	NPOC	280-123924-g-3	1.000	CL			69
70*	NPOC	280-123924-g-4	1.000	CL			70
71*	NPOC	280-123924-g-5	1.000	CL			71
72*	NPOC	CCV	1.000	CL			72
73*	NPOC	CCB	1.000	CL			73

Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	ICV
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

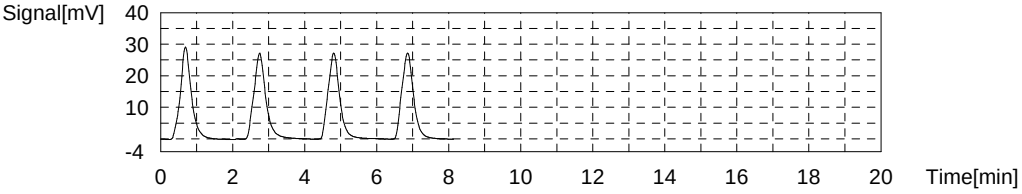
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.76	21.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:09:37 PM
2	63.30	21.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:11:51 PM
3	61.54	20.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:14:04 PM
4	62.58	21.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:16:10 PM

Mean Area 62.80
Mean Conc. 21.19mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

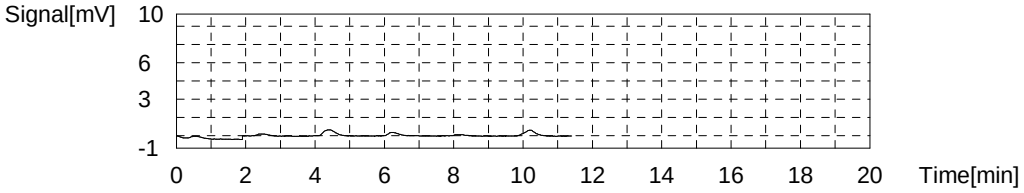
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03304mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3242	0.02793mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:24:41 PM
2	0.3186	0.02603mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:26:45 PM
3	1.115	0.2958mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:28:49 PM
4	0.5177	0.09348mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:30:53 PM
5	0.1967	-0.01527mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:32:57 PM
6	1.094	0.2887mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:35:00 PM

Mean Area 0.3393
Mean Conc. 0.03304mg/L



Sample

Sample Name: lcs 280-461049/1-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

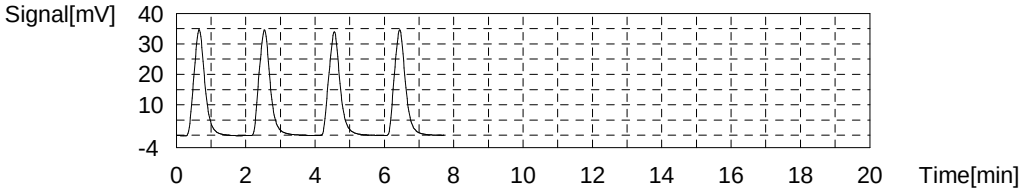
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.50	26.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:43:26 PM
2	77.90	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:45:36 PM
3	77.91	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:47:40 PM
4	77.59	26.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:49:45 PM

Mean Area 77.72
Mean Conc. 26.25mg/L



Sample

Sample Name: mb 280-461049/2-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

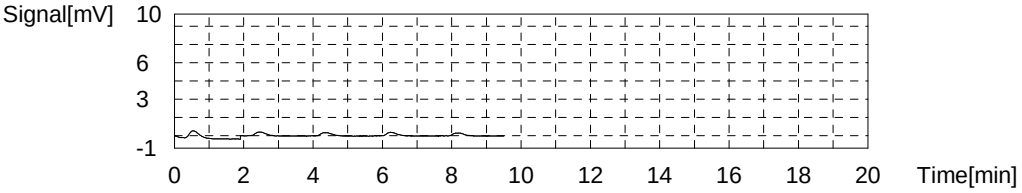
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1090mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.124	0.2989mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 5:58:16 PM
2	0.6274	0.1306mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:00:20 PM
3	0.5792	0.1143mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:02:24 PM
4	0.5449	0.1027mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:04:28 PM
5	0.5025	0.08833mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:06:32 PM

Mean Area 0.5635
Mean Conc. 0.1090mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

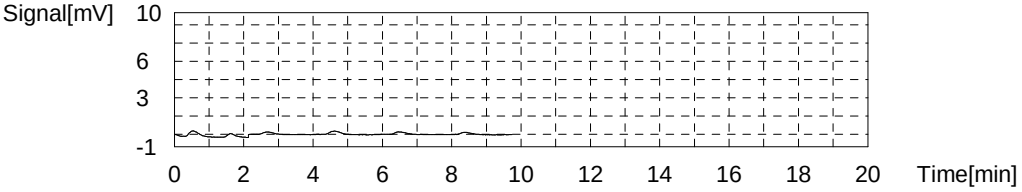
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06685mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.213	0.3290mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:15:16 PM
2	0.3970	0.05259mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:17:20 PM
3	0.5763	0.1133mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:19:24 PM
4	0.4099	0.05696mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:21:28 PM
5	0.3732	0.04453mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:23:32 PM

Mean Area 0.4391
Mean Conc. 0.06685mg/L



Sample

Sample Name: 280-123867-g-1-b
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

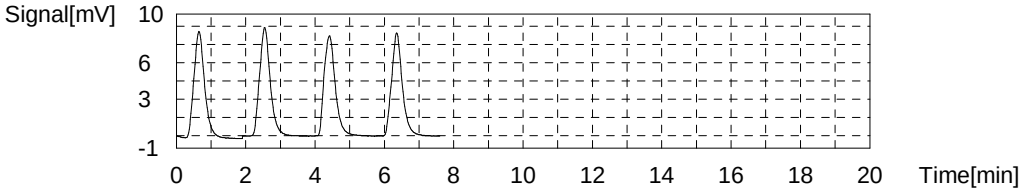
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.247mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.81	6.291mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:32:02 PM
2	19.07	6.379mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:34:06 PM
3	18.51	6.189mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:36:10 PM
4	18.34	6.131mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:38:14 PM

Mean Area 18.68
Mean Conc. 6.247mg/L



Sample

Sample Name: 280-123867-g-1-c ms
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

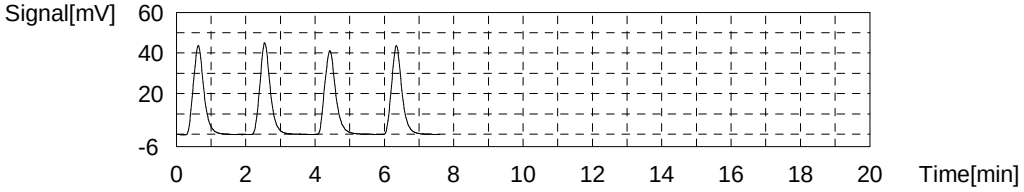
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	93.69	31.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:46:45 PM
2	94.09	31.79mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:48:49 PM
3	92.09	31.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:50:53 PM
4	91.70	30.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 6:52:57 PM

Mean Area 92.89
Mean Conc. 31.39mg/L



Sample

Sample Name: 280-123867-g-1-d msd
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

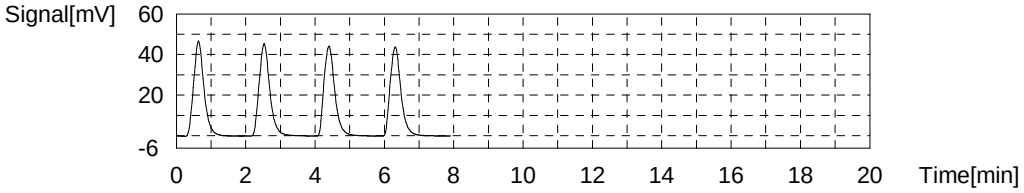
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.82mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.50	33.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:01:28 PM
2	97.64	33.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:03:32 PM
3	96.39	32.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:05:36 PM
4	95.98	32.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:07:58 PM

Mean Area 97.13
Mean Conc. 32.82mg/L



Sample

Sample Name: 280-123867-g-2-b
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

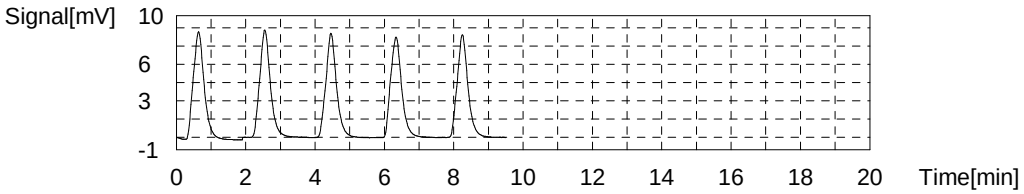
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.170mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.37	6.480mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:16:30 PM
2	18.84	6.301mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:18:34 PM
3	18.47	6.175mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:20:38 PM
4	18.35	6.135mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:22:42 PM
5	18.16	6.070mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:24:46 PM

Mean Area 18.46
Mean Conc. 6.170mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

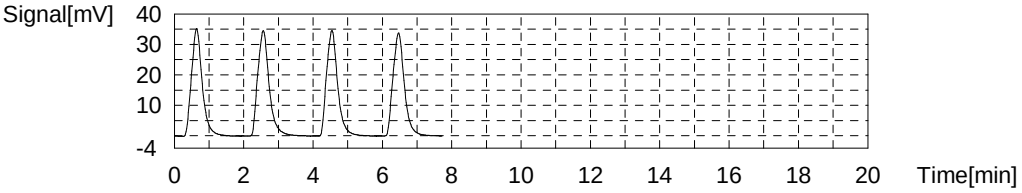
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.50	26.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:33:18 PM
2	79.67	26.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:35:27 PM
3	77.89	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:37:31 PM
4	77.54	26.19mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:39:35 PM

Mean Area 78.15
Mean Conc. 26.39mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

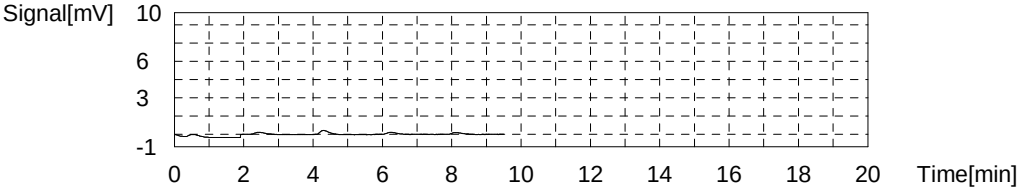
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02124mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3664	0.04222mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:48:07 PM
2	0.3217	0.02708mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:50:11 PM
3	0.6020	0.1220mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:52:15 PM
4	0.2741	0.01095mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:54:19 PM
5	0.2556	0.00469mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 7:56:23 PM

Mean Area 0.3045
Mean Conc. 0.02124mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

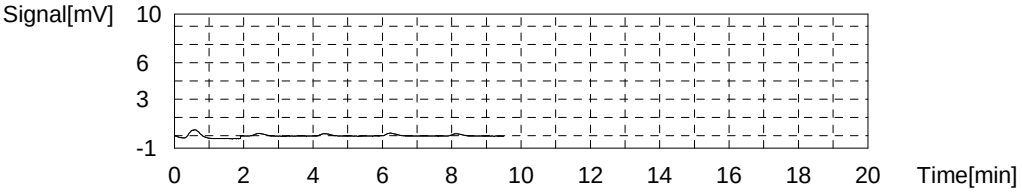
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04273mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.457	0.4117mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:04:53 PM
2	0.3806	0.04703mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:06:57 PM
3	0.3522	0.03741mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:09:01 PM
4	0.4200	0.06038mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:11:05 PM
5	0.3188	0.02610mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:13:09 PM

Mean Area 0.3679
Mean Conc. 0.04273mg/L



Sample

Sample Name: 280-123706-d-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

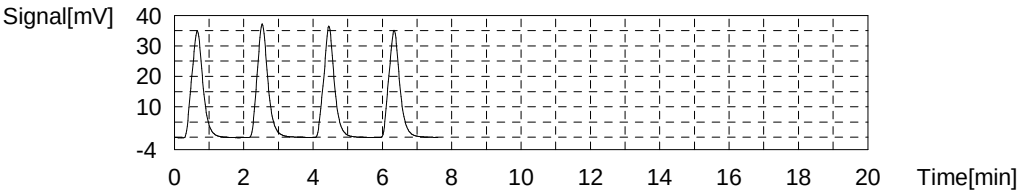
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:53.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.87	53.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:21:39 PM
2	80.79	54.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:23:43 PM
3	78.63	53.11mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:25:47 PM
4	78.14	52.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:27:51 PM

Mean Area 79.36
Mean Conc. 53.61mg/L



Sample

Sample Name: 280-123820-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

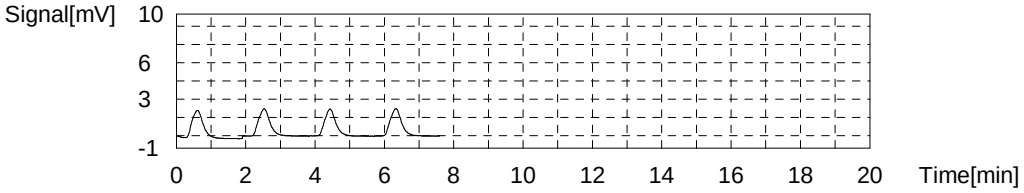
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.601mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.981	1.606mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:36:23 PM
2	5.030	1.622mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:38:27 PM
3	4.824	1.552mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:40:31 PM
4	5.036	1.624mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:42:35 PM

Mean Area 4.968
Mean Conc. 1.601mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

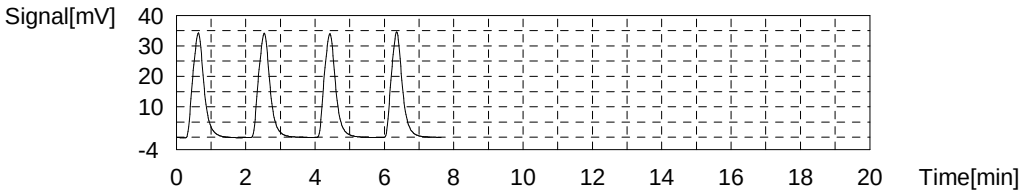
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.56	26.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:51:06 PM
2	78.96	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:53:10 PM
3	77.99	26.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:55:16 PM
4	77.05	26.02mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 8:57:20 PM

Mean Area 78.14
Mean Conc. 26.39mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

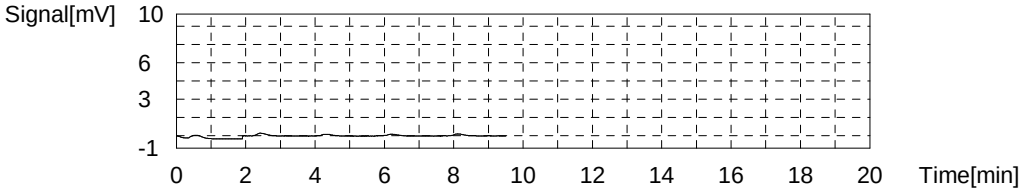
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00972mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4514	0.07102mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:05:51 PM
2	0.3900	0.05022mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:07:55 PM
3	0.2379	-0.00131mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:09:59 PM
4	0.1997	-0.01425mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:12:03 PM
5	0.2542	0.00421mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:14:07 PM

Mean Area 0.2705
Mean Conc. 0.00972mg/L



Sample

Sample Name: 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

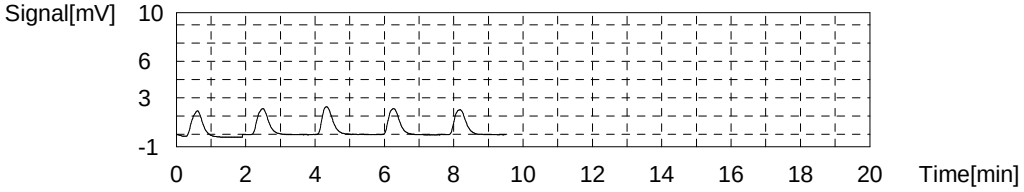
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.519mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.536	1.455mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:22:37 PM
2	4.778	1.537mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:24:41 PM
3	4.787	1.540mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:26:45 PM
4	4.701	1.511mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:28:49 PM
5	4.638	1.489mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:30:53 PM

Mean Area 4.726
Mean Conc. 1.519mg/L



Sample

Sample Name: MS 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

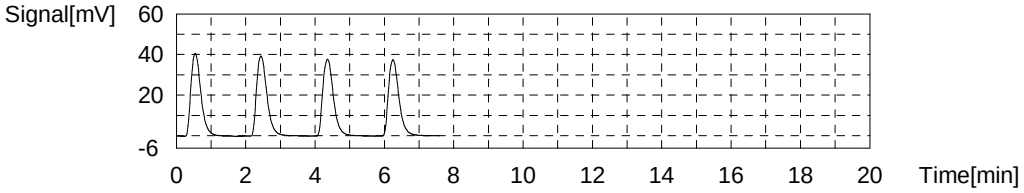
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.06	28.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:39:23 PM
2	82.36	27.82mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:41:27 PM
3	81.23	27.44mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:43:31 PM
4	79.39	26.81mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:45:35 PM

Mean Area 81.51
Mean Conc. 27.53mg/L



Sample

Sample Name: MSD 280-123820-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

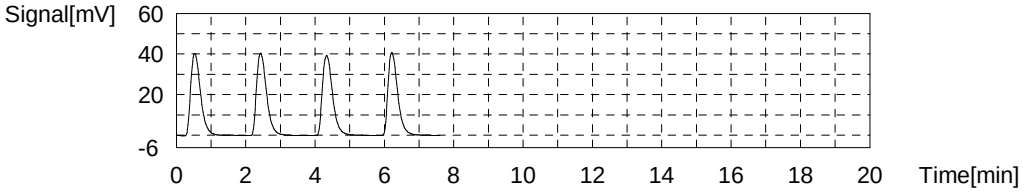
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.38mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.75	27.27mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:54:06 PM
2	82.04	27.71mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:56:10 PM
3	81.11	27.40mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 9:58:14 PM
4	80.39	27.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:00:18 PM

Mean Area 81.07
Mean Conc. 27.38mg/L



Sample

Sample Name: 280-123822-h-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

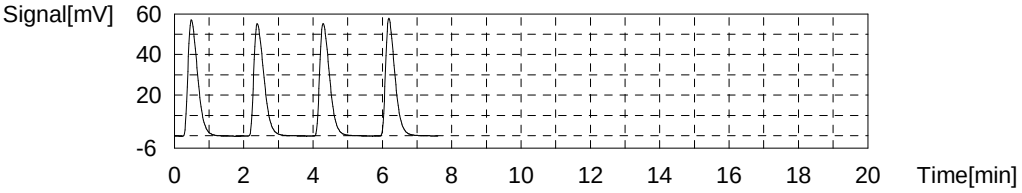
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:753.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	112.7	762.0mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:08:49 PM
2	113.0	764.0mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:10:53 PM
3	110.2	745.0mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:12:57 PM
4	110.0	743.7mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:15:01 PM

Mean Area 111.5
Mean Conc. 753.7mg/L



Sample

Sample Name: 280-123832-d-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

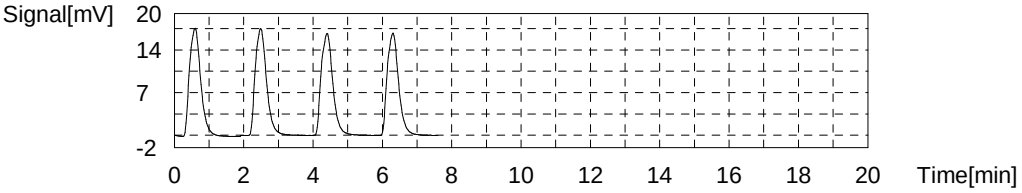
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.50	13.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:23:32 PM
2	39.81	13.40mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:25:36 PM
3	39.23	13.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:27:40 PM
4	38.88	13.09mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:29:44 PM

Mean Area 39.61
Mean Conc. 13.34mg/L



Sample

Sample Name: 280-123832-d-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

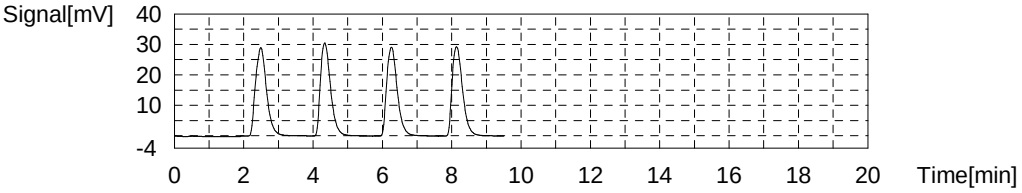
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:105.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2294	-0.02094mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:38:15 PM
2	64.30	108.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:40:19 PM
3	62.58	105.6mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:42:23 PM
4	62.30	105.1mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:44:27 PM
5	61.93	104.5mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:46:30 PM

Mean Area 62.78
Mean Conc. 105.9mg/L



Sample

Sample Name: 280-123832-c-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

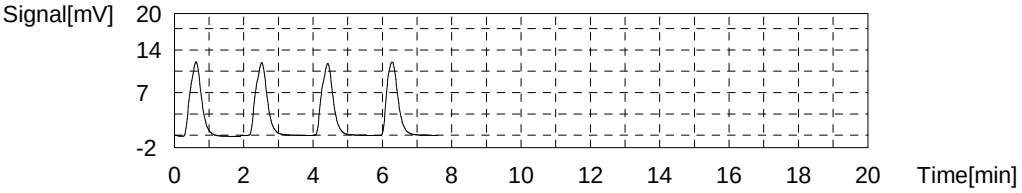
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.206mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.90	9.370mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:55:01 PM
2	27.66	9.289mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:57:05 PM
3	27.07	9.089mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 10:59:09 PM
4	27.03	9.075mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:01:13 PM

Mean Area 27.41
Mean Conc. 9.206mg/L



Sample

Sample Name: 280-123832-c-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

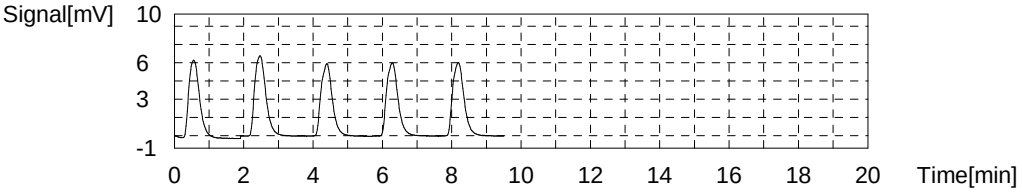
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.548mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.87	4.617mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:09:45 PM
2	14.82	4.939mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:11:49 PM
3	13.38	4.451mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:13:53 PM
4	13.70	4.559mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:15:57 PM
5	13.72	4.566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:18:01 PM

Mean Area 13.67
Mean Conc. 4.548mg/L



Sample

Sample Name: 280-123863-d-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

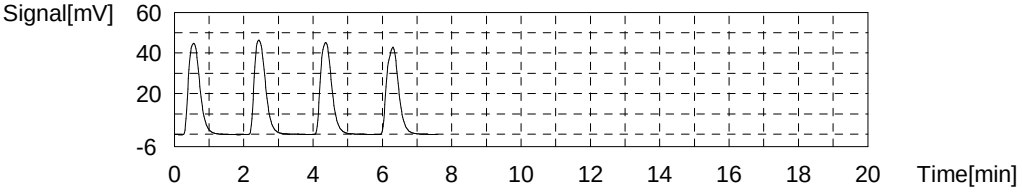
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:175.5mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	104.2	176.1mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:26:31 PM
2	104.5	176.6mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:28:35 PM
3	103.3	174.6mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:30:39 PM
4	103.5	174.9mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:32:43 PM

Mean Area 103.9
Mean Conc. 175.5mg/L



Sample

Sample Name: 280-123863-d-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

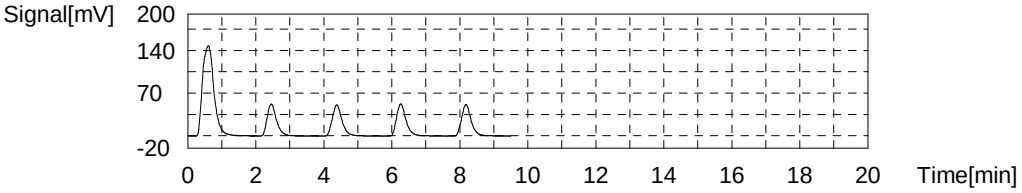
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:2157mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	348.6	2360mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:41:14 PM
2	101.7	2152mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:43:18 PM
3	101.9	2156mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:45:22 PM
4	102.6	2171mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:47:25 PM
5	101.6	2150mg/L	16uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:49:29 PM

Mean Area 102.0
Mean Conc. 2157mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

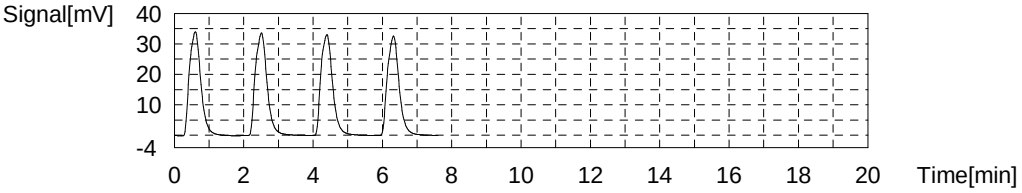
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.50mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.72	26.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/10/2019 11:58:00 PM
2	79.27	26.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:00:04 AM
3	77.76	26.26mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:02:08 AM
4	77.16	26.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:04:12 AM

Mean Area 78.48
Mean Conc. 26.50mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

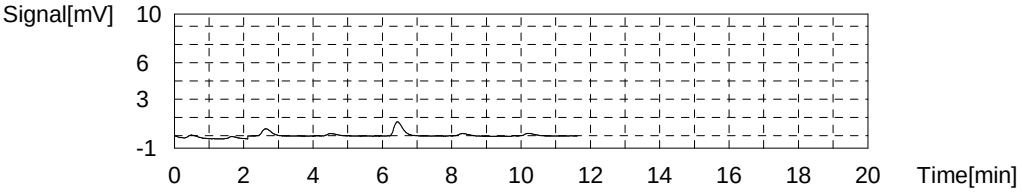
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04701mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4149	0.05865mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:12:56 AM
2	1.060	0.2772mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:15:00 AM
3	0.3445	0.03480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:17:04 AM
4	2.121	0.6366mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:19:08 AM
5	0.3690	0.04310mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:21:12 AM
6	0.3937	0.05147mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:23:15 AM

Mean Area 0.3805
Mean Conc. 0.04701mg/L



Sample

Sample Name: 280-123863-d-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

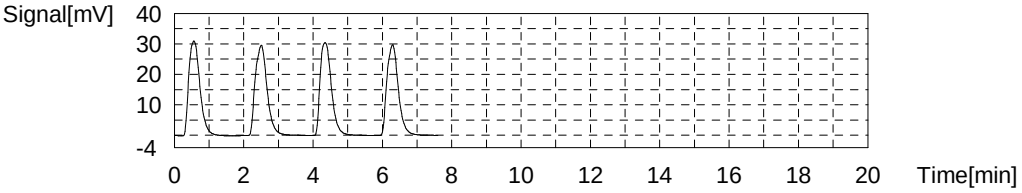
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.58mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	70.60	23.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:31:41 AM
2	70.71	23.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:33:45 AM
3	69.29	23.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:35:49 AM
4	68.75	23.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:37:53 AM

Mean Area 69.84
Mean Conc. 23.58mg/L



Sample

Sample Name: 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

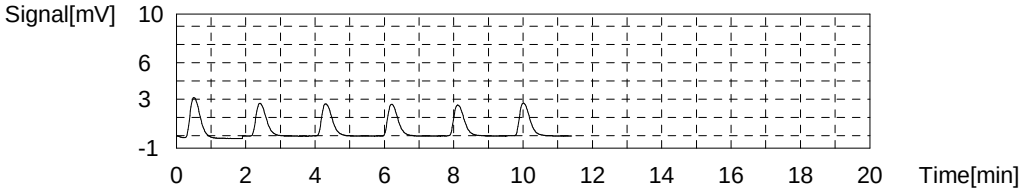
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.753mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.664	2.176mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:46:24 AM
2	5.590	1.812mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:48:28 AM
3	5.500	1.781mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:50:32 AM
4	5.353	1.732mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:52:36 AM
5	5.320	1.720mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:54:39 AM
6	5.494	1.779mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:56:43 AM

Mean Area 5.417
Mean Conc. 1.753mg/L



Sample

Sample Name: MS 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

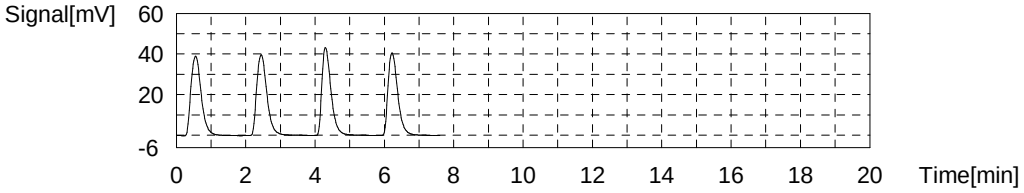
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.31mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.94	27.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:05:09 AM
2	81.71	27.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:07:13 AM
3	79.85	26.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:09:17 AM
4	79.94	27.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:11:21 AM

Mean Area 80.86
Mean Conc. 27.31mg/L



Sample

Sample Name: MSD 280-123919-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

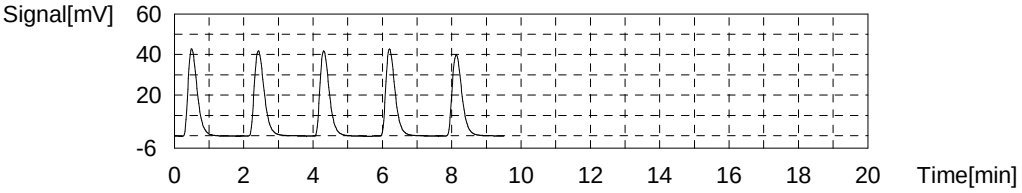
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.09mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.94	27.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:19:53 AM
2	84.38	28.50mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:21:57 AM
3	79.69	26.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:24:01 AM
4	80.28	27.12mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:26:05 AM
5	79.88	26.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:28:09 AM

Mean Area 80.20
Mean Conc. 27.09mg/L



Sample

Sample Name: 280-123919-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

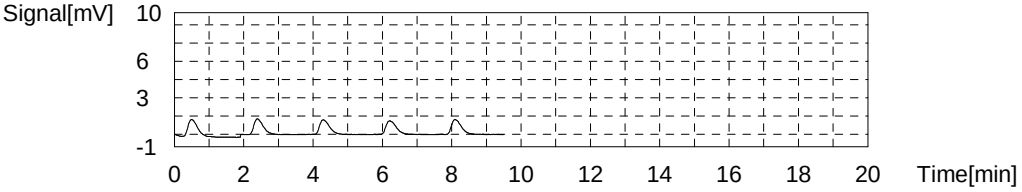
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7242mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.677	0.8250mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:36:40 AM
2	2.431	0.7417mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:38:44 AM
3	2.361	0.7180mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:40:48 AM
4	2.297	0.6963mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:42:51 AM
5	2.429	0.7410mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:44:55 AM

Mean Area 2.380
Mean Conc. 0.7242mg/L



Sample

Sample Name: 280-123941-k-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

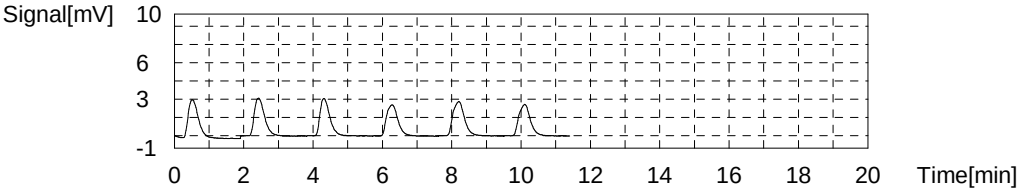
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:4.110mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.416	4.183mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:53:27 AM
2	6.343	4.134mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:55:31 AM
3	6.000	3.902mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:57:35 AM
4	5.826	3.784mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 1:59:39 AM
5	6.473	4.222mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:01:42 AM
6	5.896	3.831mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:03:46 AM

Mean Area 6.308
Mean Conc. 4.110mg/L



Sample

Sample Name: 280-123941-k-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

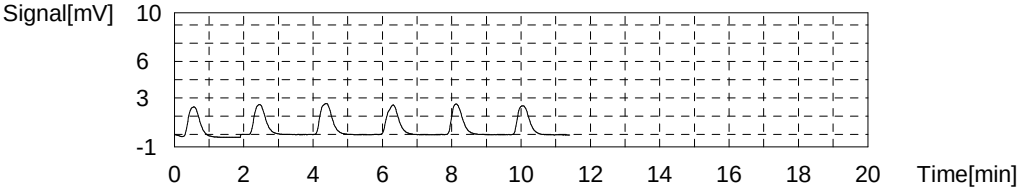
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:3.548mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.530	3.583mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:12:13 AM
2	5.548	3.595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:14:17 AM
3	6.078	3.954mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:16:21 AM
4	5.713	3.707mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:18:25 AM
5	5.378	3.480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:20:29 AM
6	5.458	3.534mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:22:32 AM

Mean Area 5.479
Mean Conc. 3.548mg/L



Sample

Sample Name: 280-123941-k-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

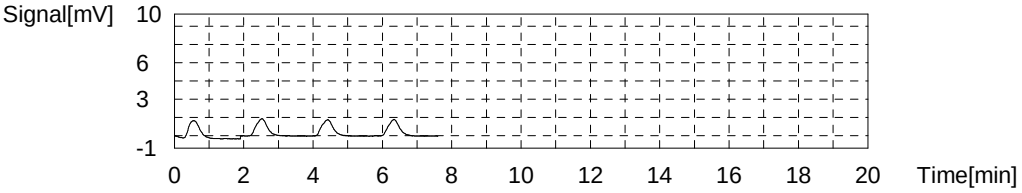
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9505mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.005	0.9361mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:30:59 AM
2	3.145	0.9836mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:33:03 AM
3	3.037	0.9470mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:35:07 AM
4	3.003	0.9354mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:37:11 AM

Mean Area 3.048
Mean Conc. 0.9505mg/L



Sample

Sample Name: 280-123941-j-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

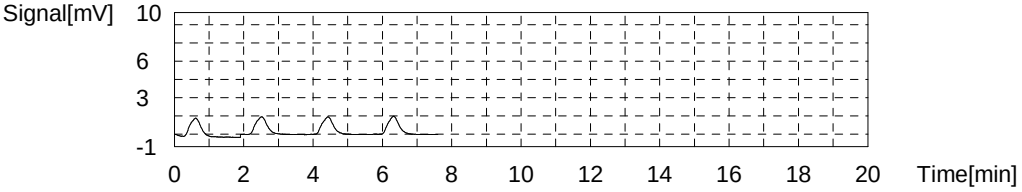
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.031mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.271	1.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:45:43 AM
2	3.354	1.054mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:47:47 AM
3	3.225	1.011mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:49:51 AM
4	3.288	1.032mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 2:51:55 AM

Mean Area 3.285
Mean Conc. 1.031mg/L



Sample

Sample Name: 280-123941-k-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

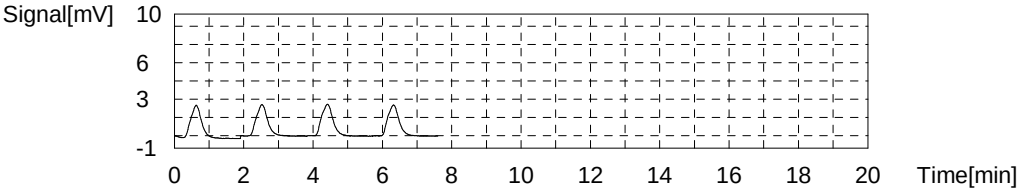
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.875mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.766	1.871mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:00:27 AM
2	5.794	1.881mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:02:31 AM
3	5.865	1.905mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:04:35 AM
4	5.683	1.843mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:06:38 AM

Mean Area 5.777
Mean Conc. 1.875mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

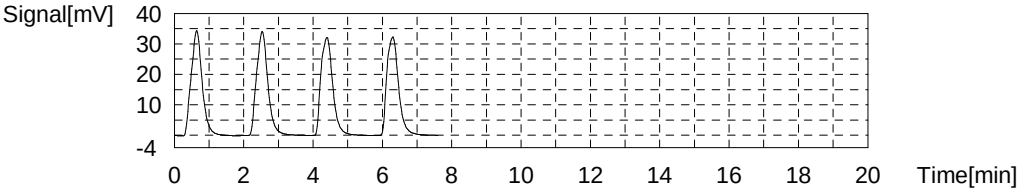
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.13mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.91	26.31mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:15:11 AM
2	78.15	26.39mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:17:15 AM
3	76.76	25.92mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:19:19 AM
4	76.62	25.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:21:23 AM

Mean Area 77.36
Mean Conc. 26.13mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

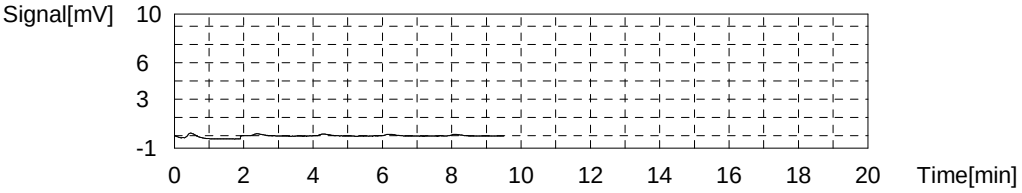
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00427mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6654	0.1435mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:29:55 AM
2	0.3002	0.01980mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:31:59 AM
3	0.2646	0.00774mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:34:03 AM
4	0.2428	0.00035mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:36:07 AM
5	0.2099	-0.01079mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:38:11 AM

Mean Area 0.2544
Mean Conc. 0.00427mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

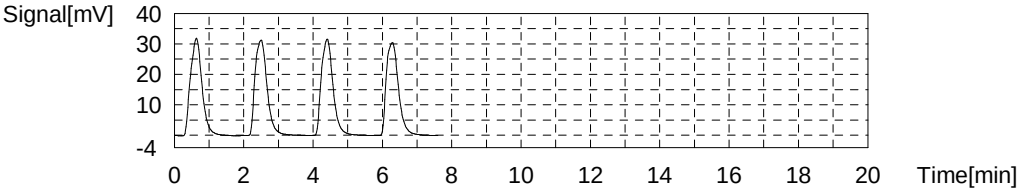
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.53	25.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:46:42 AM
2	75.80	25.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:48:46 AM
3	74.65	25.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:50:50 AM
4	75.01	25.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 3:52:54 AM

Mean Area 75.25
Mean Conc. 25.41mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

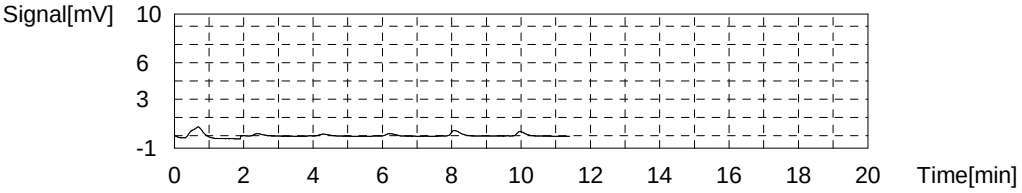
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04991mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.112	0.6336mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:01:26 AM
2	0.3316	0.03043mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:03:30 AM
3	0.2659	0.00818mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:05:34 AM
4	0.3745	0.04497mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:07:38 AM
5	0.8231	0.1969mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:09:41 AM
6	0.5844	0.1161mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:11:45 AM

Mean Area 0.3891
Mean Conc. 0.04991mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

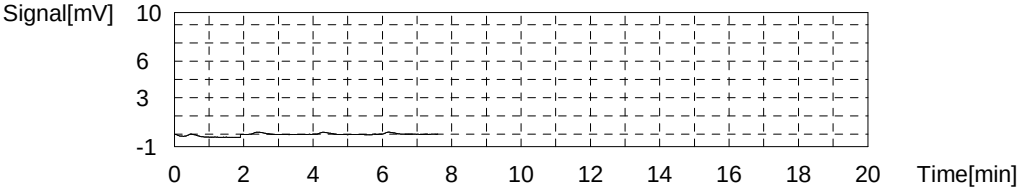
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02668mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3102	0.02318mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:20:12 AM
2	0.3614	0.04053mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:22:16 AM
3	0.3085	0.02261mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:24:20 AM
4	0.3020	0.02041mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:26:24 AM

Mean Area 0.3205
Mean Conc. 0.02668mg/L



Sample

Sample Name: 280-123855-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

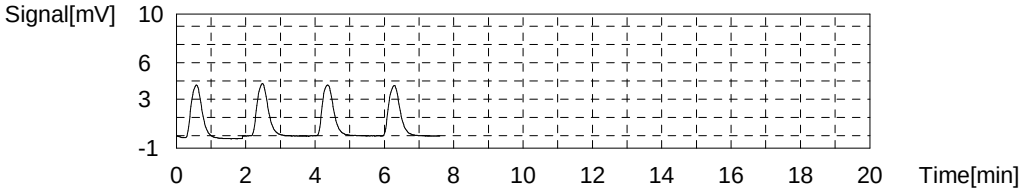
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.117mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.542	3.151mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:34:57 AM
2	9.540	3.150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:37:01 AM
3	9.308	3.071mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:39:05 AM
4	9.378	3.095mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:41:09 AM

Mean Area 9.442
Mean Conc. 3.117mg/L



Sample

Sample Name: MS 280-123855-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

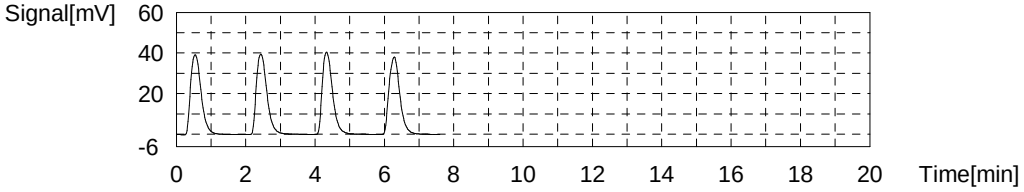
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.63	28.59mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:49:41 AM
2	84.50	28.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:51:45 AM
3	83.94	28.36mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:53:49 AM
4	83.50	28.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 4:55:53 AM

Mean Area 84.14
Mean Conc. 28.42mg/L



Sample

Sample Name: MSD 280-123855-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

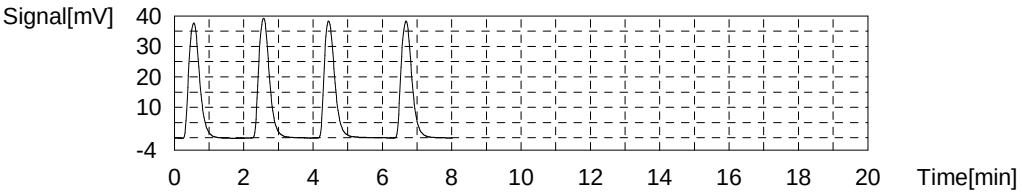
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.35	28.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:04:32 AM
2	84.60	28.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:06:36 AM
3	81.65	27.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:08:58 AM
4	83.40	28.17mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:11:02 AM

Mean Area 83.25
Mean Conc. 28.12mg/L



Sample

Sample Name: 280-123855-e-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

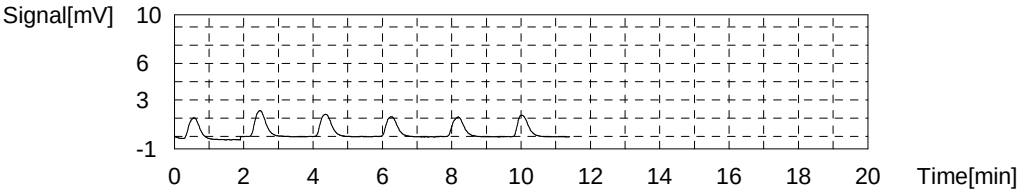
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.163mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.690	1.168mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:19:34 AM
2	4.643	1.491mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:21:38 AM
3	4.075	1.299mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:23:42 AM
4	3.629	1.148mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:25:46 AM
5	3.637	1.150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:27:49 AM
6	3.739	1.185mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:29:53 AM

Mean Area 3.674
Mean Conc. 1.163mg/L



Sample

Sample Name: 280-123855-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

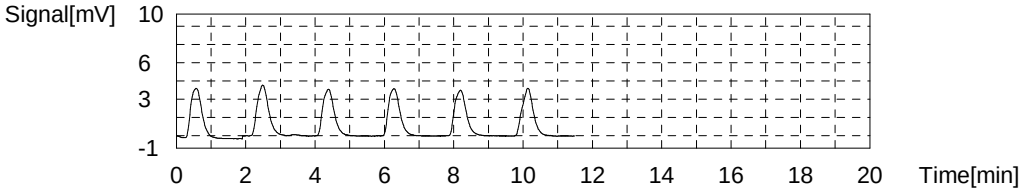
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.904mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.131	3.011mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:38:19 AM
2	9.716	3.210mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:40:23 AM
3	8.757	2.885mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:42:27 AM
4	8.901	2.934mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:44:30 AM
5	8.737	2.878mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:46:34 AM
6	8.865	2.921mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:48:43 AM

Mean Area 8.815
Mean Conc. 2.904mg/L



Sample

Sample Name: 280-123855-c-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

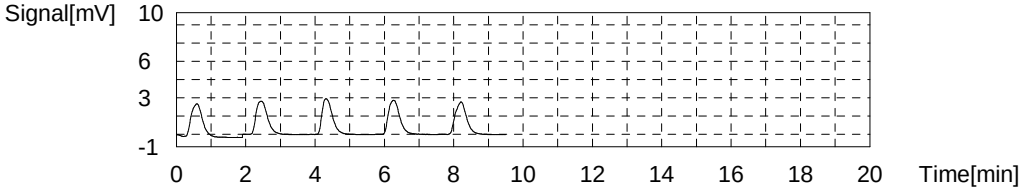
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.986mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.090	1.981mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:57:09 AM
2	6.223	2.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:59:13 AM
3	6.034	1.962mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:01:17 AM
4	6.329	2.062mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:03:20 AM
5	6.065	1.973mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:05:24 AM

Mean Area 6.103
Mean Conc. 1.986mg/L



Sample

Sample Name: 280-123959-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

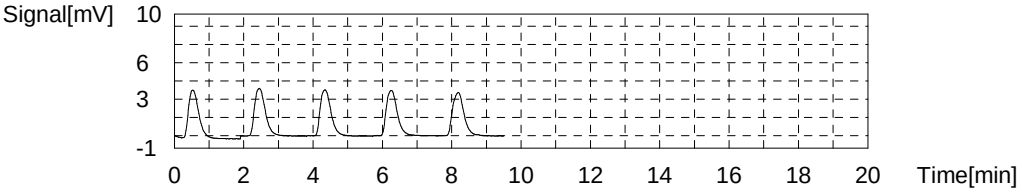
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:13.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.081	13.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:13:56 AM
2	8.452	13.91mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:16:00 AM
3	8.106	13.32mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:18:04 AM
4	8.060	13.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:20:08 AM
5	8.086	13.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:22:11 AM

Mean Area 8.083
Mean Conc. 13.28mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

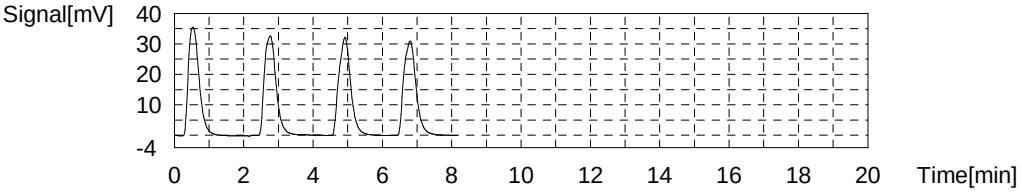
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.16mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.52	26.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:31:00 AM
2	77.29	26.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:33:16 AM
3	77.07	26.03mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:35:20 AM
4	77.00	26.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:37:27 AM

Mean Area 77.47
Mean Conc. 26.16mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

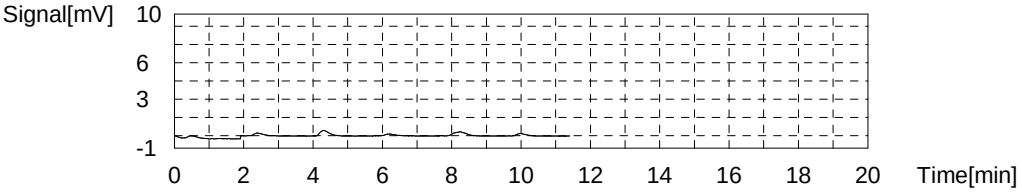
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02421mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3085	0.02261mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:46:00 AM
2	0.3703	0.04355mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:48:04 AM
3	0.8305	0.1995mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:50:08 AM
4	0.2463	0.00154mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:52:12 AM
5	0.8237	0.1971mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:54:15 AM
6	0.3278	0.02915mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:56:19 AM

Mean Area 0.3132
Mean Conc. 0.02421mg/L



Sample

Sample Name: 280-123959-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

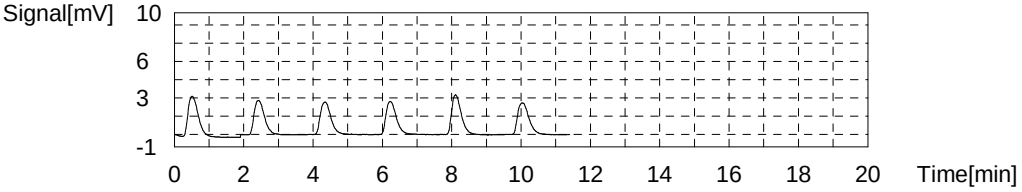
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:9.321mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.793	11.10mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:04:46 AM
2	5.889	9.566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:06:50 AM
3	5.641	9.146mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:08:54 AM
4	5.577	9.037mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:10:57 AM
5	6.367	10.38mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:13:01 AM
6	5.872	9.537mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:15:05 AM

Mean Area 5.745
Mean Conc. 9.321mg/L



Sample

Sample Name: 280-123959-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

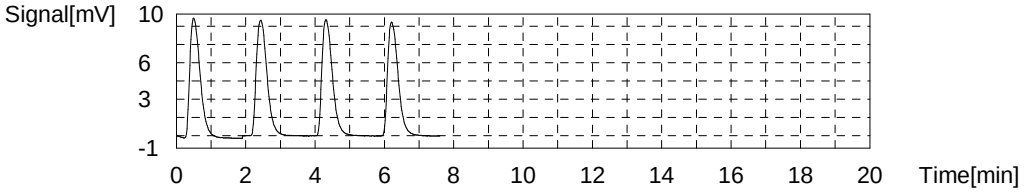
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:33.72mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.36	34.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:23:32 AM
2	20.41	34.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:25:36 AM
3	20.01	33.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:27:40 AM
4	19.82	33.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:29:43 AM

Mean Area 20.15
Mean Conc. 33.72mg/L



Sample

Sample Name: 280-123960-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

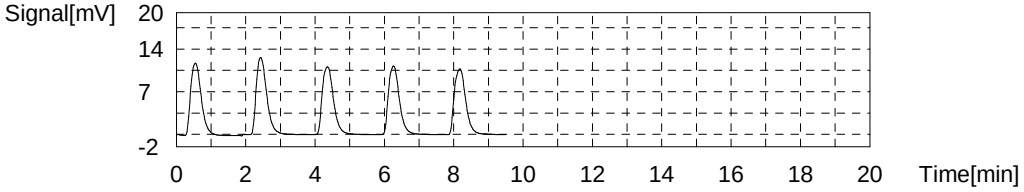
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:8.405mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.50	8.557mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:38:17 AM
2	26.78	8.991mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:40:21 AM
3	25.17	8.445mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:42:25 AM
4	24.76	8.306mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:44:29 AM
5	24.78	8.313mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:46:32 AM

Mean Area 25.05
Mean Conc. 8.405mg/L



Sample

Sample Name: 320-50340-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

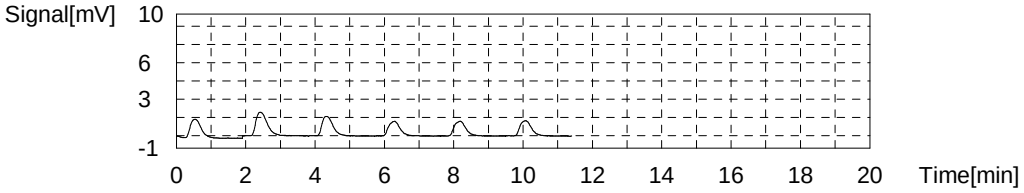
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8943mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.251	1.019mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:55:05 AM
2	4.321	1.382mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:57:09 AM
3	3.431	1.080mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:59:13 AM
4	2.706	0.8348mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:01:16 AM
5	2.765	0.8548mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:03:20 AM
6	2.804	0.8680mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:05:24 AM

Mean Area 2.882
Mean Conc. 0.8943mg/L



Sample

Sample Name: MS 320-50340-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

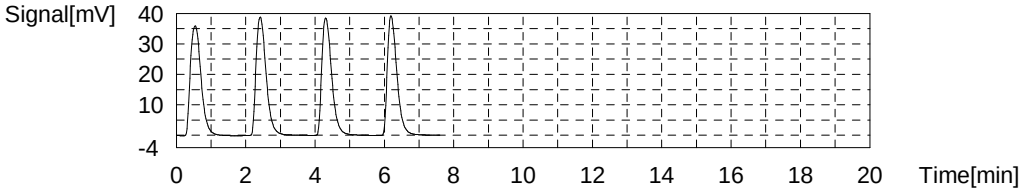
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.50	26.51mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:13:51 AM
2	78.88	26.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:15:55 AM
3	76.88	25.96mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:17:59 AM
4	75.92	25.64mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:20:02 AM

Mean Area 77.55
Mean Conc. 26.19mg/L



Sample

Sample Name: MSD 320-50340-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

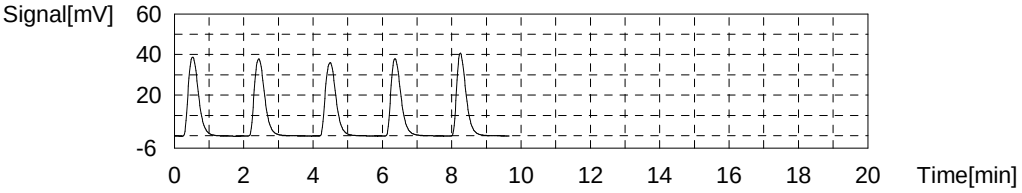
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.40	27.49mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:28:36 AM
2	79.62	26.89mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:30:49 AM
3	77.98	26.34mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:32:53 AM
4	77.43	26.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:34:56 AM
5	77.00	26.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:37:00 AM

Mean Area 78.01
Mean Conc. 26.35mg/L



Sample

Sample Name: 320-50340-f-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

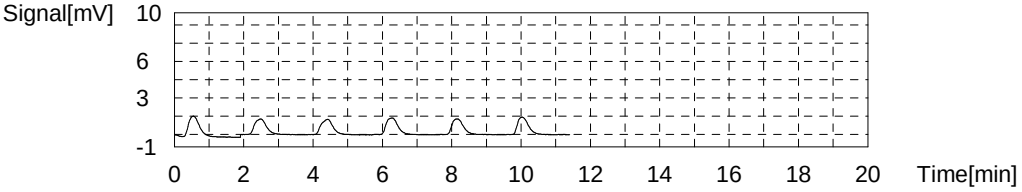
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9328mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.634	1.149mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:45:33 AM
2	2.996	0.9331mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:47:37 AM
3	2.945	0.9158mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:49:41 AM
4	3.188	0.9981mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:51:45 AM
5	2.942	0.9148mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:53:48 AM
6	3.098	0.9676mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:55:52 AM

Mean Area 2.995
Mean Conc. 0.9328mg/L



Sample

Sample Name: 320-50340-f-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

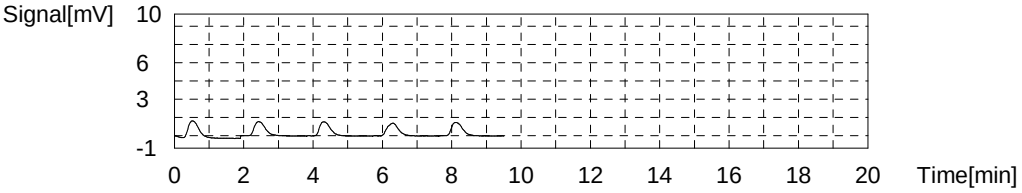
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7462mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.872	0.8911mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:04:19 AM
2	2.501	0.7654mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:06:23 AM
3	2.475	0.7566mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:08:26 AM
4	2.395	0.7295mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:10:30 AM
5	2.407	0.7335mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:12:34 AM

Mean Area 2.445
Mean Conc. 0.7462mg/L



Sample

Sample Name: 320-50340-f-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

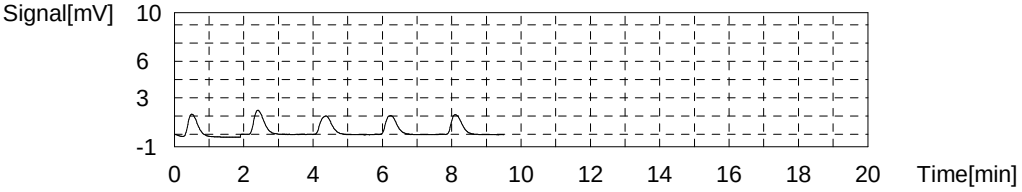
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.099mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.523	1.112mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:21:07 AM
2	4.013	1.278mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:23:11 AM
3	3.502	1.104mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:25:15 AM
4	3.464	1.092mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:27:18 AM
5	3.450	1.087mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:29:22 AM

Mean Area 3.485
Mean Conc. 1.099mg/L



Sample

Sample Name: 280-123922-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

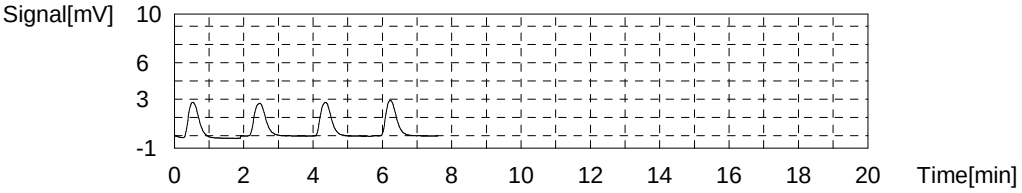
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.983mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.094	1.983mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:37:55 AM
2	6.129	1.994mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:39:59 AM
3	6.039	1.964mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:42:03 AM
4	6.115	1.990mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:44:06 AM

Mean Area 6.094
Mean Conc. 1.983mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

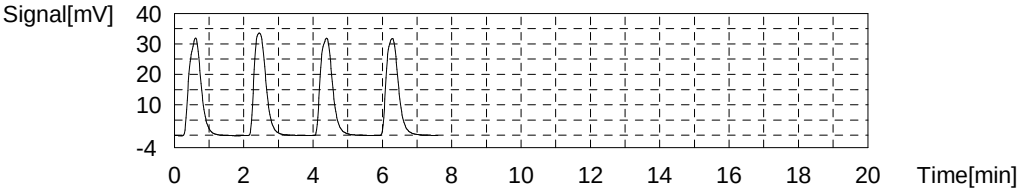
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.83	26.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:52:40 AM
2	79.29	26.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:54:44 AM
3	78.08	26.37mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:56:48 AM
4	77.60	26.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:58:52 AM

Mean Area 78.20
Mean Conc. 26.41mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

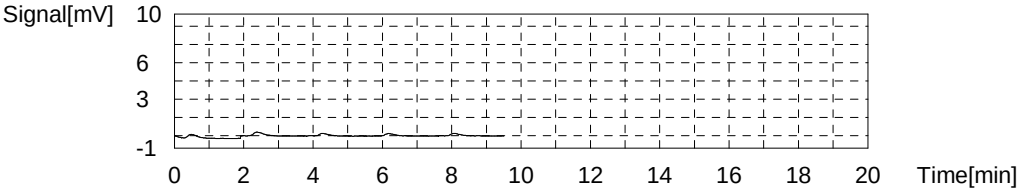
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04570mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4889	0.08372mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:07:25 AM
2	0.5913	0.1184mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:09:29 AM
3	0.3493	0.03643mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:11:33 AM
4	0.3411	0.03365mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:13:36 AM
5	0.3274	0.02901mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:15:40 AM

Mean Area 0.3767
Mean Conc. 0.04570mg/L



Sample

Sample Name: 280-123922-g-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

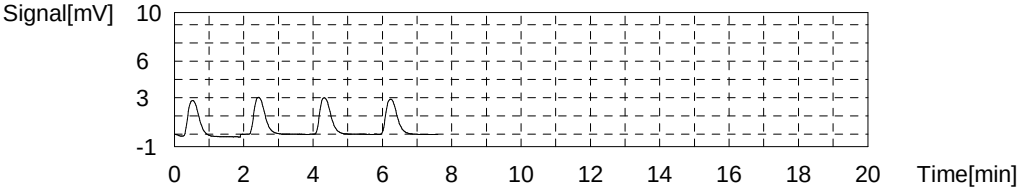
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.130mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.471	2.110mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:24:13 AM
2	6.609	2.157mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:26:17 AM
3	6.532	2.131mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:28:20 AM
4	6.501	2.120mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:30:24 AM

Mean Area 6.528
Mean Conc. 2.130mg/L



Sample

Sample Name: 280-123922-g-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

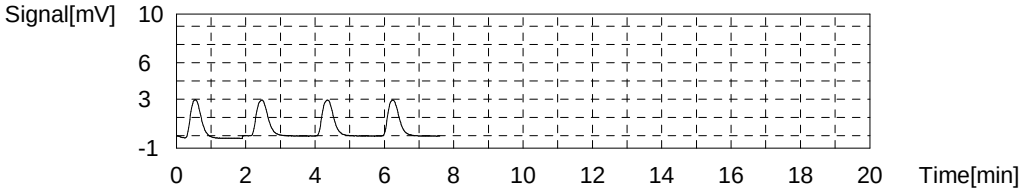
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.174mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.620	2.161mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:38:58 AM
2	6.776	2.214mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:41:02 AM
3	6.664	2.176mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:43:06 AM
4	6.572	2.145mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:45:09 AM

Mean Area 6.658
Mean Conc. 2.174mg/L



Sample

Sample Name: 280-123924-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

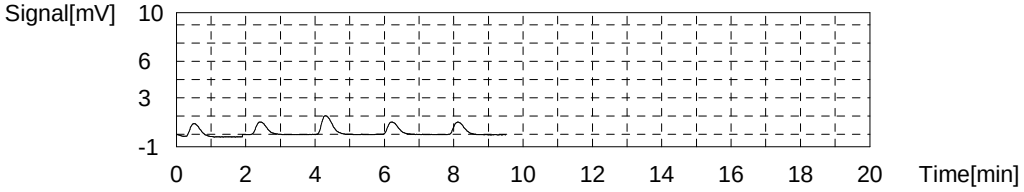
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6557mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.122	0.6370mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:53:43 AM
2	2.210	0.6668mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:55:47 AM
3	3.239	1.015mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:57:50 AM
4	2.192	0.6607mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:59:54 AM
5	2.185	0.6583mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:01:58 AM

Mean Area 2.177
Mean Conc. 0.6557mg/L



Sample

Sample Name: 280-123924-g-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

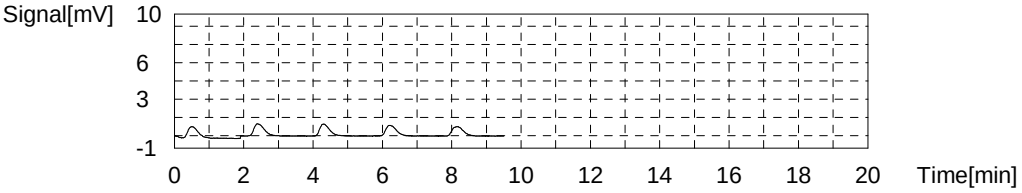
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5330mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.836	0.5401mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:10:31 AM
2	2.067	0.6184mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:12:35 AM
3	1.884	0.5564mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:14:39 AM
4	1.801	0.5282mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:16:42 AM
5	1.739	0.5072mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:18:46 AM

Mean Area 1.815
Mean Conc. 0.5330mg/L



Sample

Sample Name: 280-123924-g-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

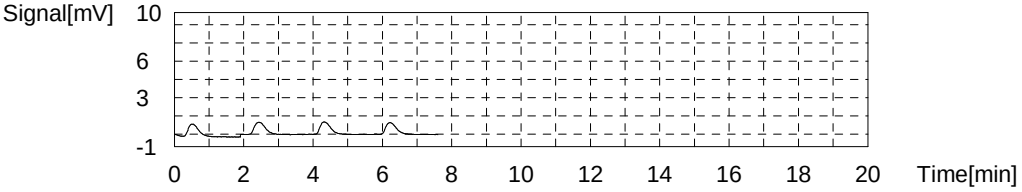
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6311mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.023	0.6034mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:27:19 AM
2	2.206	0.6654mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:29:23 AM
3	2.161	0.6502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:31:27 AM
4	2.029	0.6055mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:33:30 AM

Mean Area 2.105
Mean Conc. 0.6311mg/L



Sample

Sample Name: 280-123924-g-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

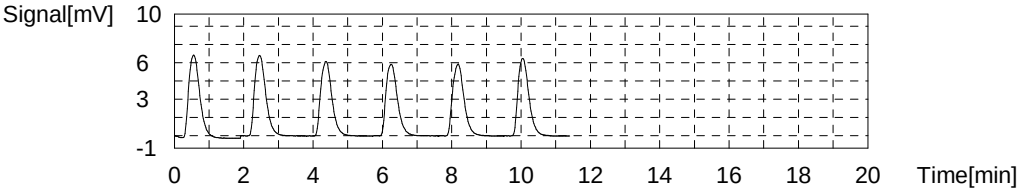
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.552mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.12	5.040mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:42:04 AM
2	14.84	4.946mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:44:08 AM
3	13.82	4.600mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:46:11 AM
4	13.47	4.481mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:48:15 AM
5	13.48	4.485mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:50:19 AM
6	13.94	4.641mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:52:23 AM

Mean Area 13.68
Mean Conc. 4.552mg/L



Sample

Sample Name: 280-123924-g-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

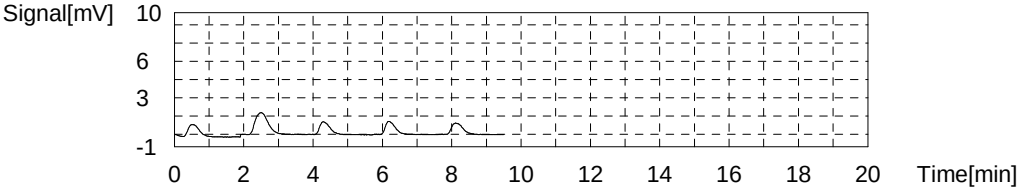
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6367mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.170	0.6532mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:00:50 PM
2	4.610	1.480mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:02:54 PM
3	2.136	0.6417mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:04:58 PM
4	2.086	0.6248mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:07:01 PM
5	2.093	0.6272mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:09:05 PM

Mean Area 2.121
Mean Conc. 0.6367mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

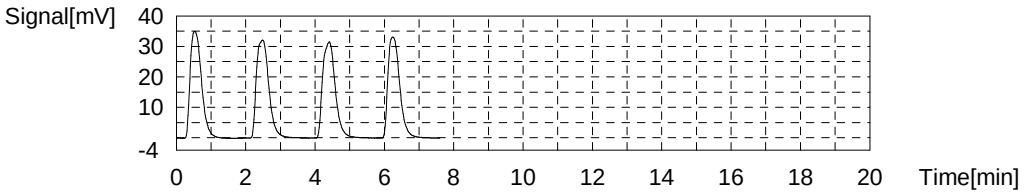
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.00mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.82	27.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:17:38 PM
2	80.38	27.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:19:42 PM
3	80.12	27.06mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:21:46 PM
4	78.45	26.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:23:49 PM

Mean Area 79.94
Mean Conc. 27.00mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

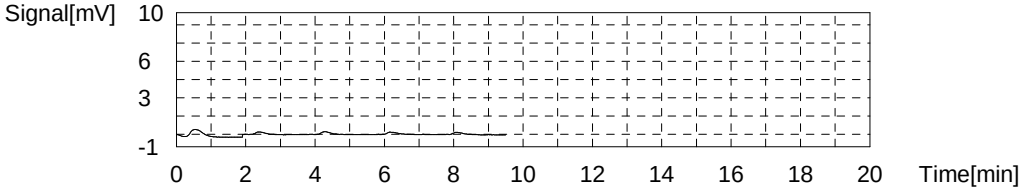
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04400mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.380	0.3856mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:32:24 PM
2	0.3790	0.04649mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:34:28 PM
3	0.4006	0.05381mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:36:32 PM
4	0.3732	0.04453mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:38:35 PM
5	0.3338	0.03118mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 12:40:39 PM

Mean Area 0.3717
Mean Conc. 0.04400mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

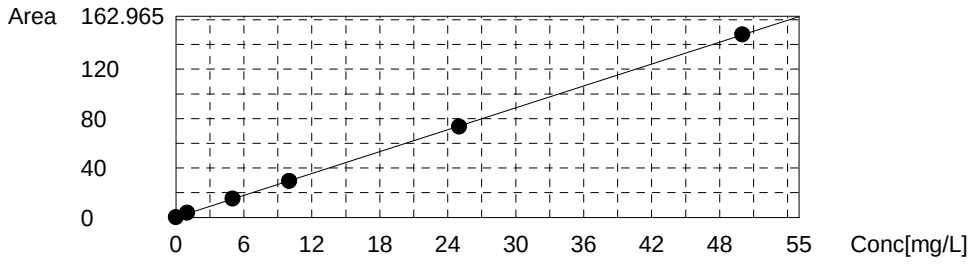
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



pH 6/11/19

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
1*	NPOC	ICV	1.000	cc			1
2*	NPOC	ICB	1.000	cc			2
3*	NPOC	LCS	1.000	cc			3
4*	NPOC	MB	1.000	cc			4
5*	NPOC	TIC	1.000	cc			5
6*	NPOC	280-123867-b-1	1.000	cc			6
7*	NPOC	MS 280-123867-b-1	1.000	cc			7
8*	NPOC	MSD 280-123867-b-1	1.000	cc			8
9*	NPOC	280-123867-b-2	1.000	cc			9
10*	NPOC	280-124036-e-1	1.000	cc			10
11*	NPOC	280-124036-f-2	1.000	cc			11
12*	NPOC	280-123941-j-9	1.000	cc			12
13*	NPOC	280-124034-e-1	5x ~~1.000~~	cc	cloudy/stinky		13
14*	NPOC	280-124036-e-3	5x ~~1.000~~	cc	cloudy/stinky		14
15*	NPOC	CCV	1.000	cc			15
16*	NPOC	CCB	1.000	cc			16
17*	NPOC	280-124036-e-4	5x ~~1.000~~	cc	cloudy		17
18*	NPOC	280-124036-e-6	1.000	cc			18
19*	NPOC	280-123947-b-2	1.000	cc			19
20*	NPOC	280-123963-c-1	1.000	cc			20
21*	NPOC	MS 280-123963-c-1	1.000	cc			21
22*	NPOC	MSD 280-123963-c-1	1.000	cc			22
23*	NPOC	280-123963-c-2	1.000	cc			23
24*	NPOC	280-123941-k-10	1.000	cc			24
25*	NPOC	280-123941-j-11	1.000	cc			25
26*	NPOC	280-124055-b-1	1.000	cc			26
27*	NPOC	CCV	1.000	cc			27
28*	NPOC	CCB	1.000	cc			28
29*	NPOC	280-124055-b-2	1.000	cc			29
30*	NPOC	280-124055-b-3	1.000	cc			30
31*	NPOC	280-124055-b-4	1.000	cc			31
32*	NPOC	280-124055-b-5	1.000	cc			32
33*	NPOC	280-124055-b-6	1.000	cc			33
34*	NPOC	LCS	1.000	cc			34
35*	NPOC	MB	1.000	cc			35
36*	NPOC	TIC	1.000	cc			36
37*	NPOC	280-123924-g-6	1.000	cc			37
38*	NPOC	280-123924-e-7	1.000	cc			38
39*	NPOC	CCV	1.000	cc			39
40*	NPOC	CCB	1.000	cc			40
41*	NPOC	280-123924-e-8	1.000	cc			41
42*	NPOC	MS 280-123924-e-8	1.000	cc			42
43*	NPOC	MSD 280-123924-e-8	1.000	cc			43
44*	NPOC	280-123924-d-9	1.000	cc			44
45*	NPOC	280-123924-d-10	1.000	cc			45
46*	NPOC	280-123924-c-11	1.000	cc			46
47*	NPOC	280-123924-d-12	1.000	cc			47
48*	NPOC	280-123930-g-1	1.000	cc			48
49*	NPOC	280-123930-g-2	1.000	cc			49
50*	NPOC	280-123930-g-3	1.000	cc			50
51*	NPOC	CCV	1.000	cc			51

5310 C
1060

	Analysis	Sample Name	Manual Diluti	~~Result~~	Notes	Date / Time	Vial
52*	NPOC	CCB	1.000	"			52
53*	NPOC	280-123930-g-4	1.000	"			53
54*	NPOC	280-123930-c-5	1.000	"			54
55*	NPOC	320-50447-g-1	1.000	"			55
56*	NPOC	MS 320-50447-g-1	1.000	"			56
57*	NPOC	MSD 320-50447-g-1	1.000	"			57
58*	NPOC	280-123981-g-1	1.000	"			58
59*	NPOC	280-123981-e-2	1.000	"			59
60*	NPOC	280-123981-e-3	1.000	"			60
61*	NPOC	280-123981-c-4	1.000	"			61
62*	NPOC	280-123981-e-5	1.000	"			62
63*	NPOC	CCV	1.000	"			63
64*	NPOC	CCB	1.000	"			64
65*	NPOC	280-123981-g-6	1.000	"			65
66*	NPOC	280-123981-g-7	1.000	"			66
67*	NPOC	CCV	1.000	"			67
68*	NPOC	CCB	1.000	"			68

Instr.Information

System TOC-V cpn 3
Instrument Options TOC/ASI/
Catalyst Regular Sensitivity

Sample

Sample Name: ICV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

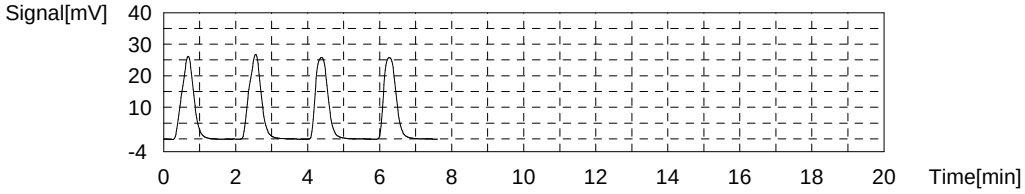
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.90mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.20	20.65mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:26:19 PM
2	62.89	21.22mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:28:22 PM
3	62.22	21.00mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:30:26 PM
4	61.43	20.73mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:32:30 PM

Mean Area 61.94
Mean Conc. 20.90mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

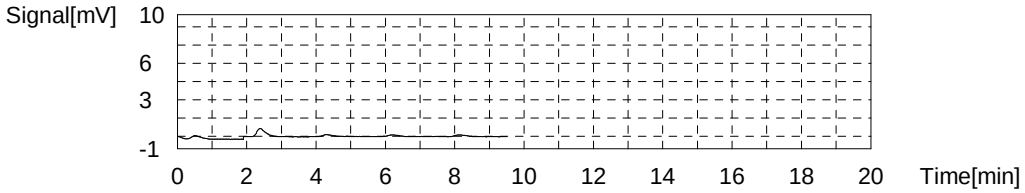
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01686mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4218	0.06099mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:41:02 PM
2	1.162	0.3118mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:43:06 PM
3	0.2553	0.00459mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:45:09 PM
4	0.2134	-0.00961mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:47:13 PM
5	0.2756	0.01146mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:49:17 PM

Mean Area 0.2915
Mean Conc. 0.01686mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

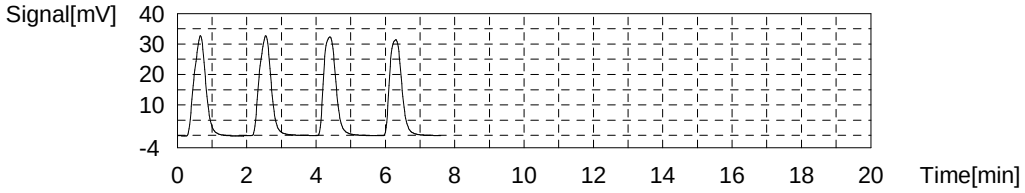
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.25	26.09mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:57:48 PM
2	77.70	26.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 5:59:52 PM
3	78.96	26.67mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:01:56 PM
4	76.34	25.78mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:03:59 PM

Mean Area 77.56
Mean Conc. 26.19mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

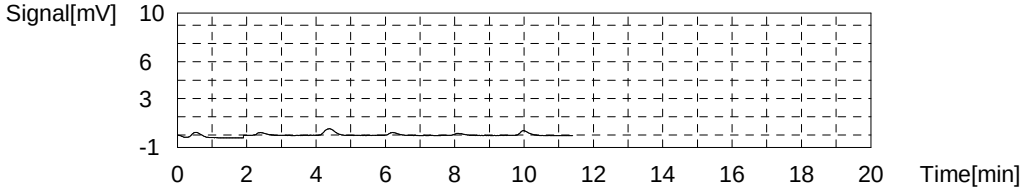
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06376mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7427	0.1697mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:12:32 PM
2	0.3859	0.04883mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:14:35 PM
3	1.128	0.3002mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:16:39 PM
4	0.3803	0.04693mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:18:43 PM
5	0.2769	0.01190mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:20:47 PM
6	0.6768	0.1474mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:22:51 PM

Mean Area 0.4300
Mean Conc. 0.06376mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

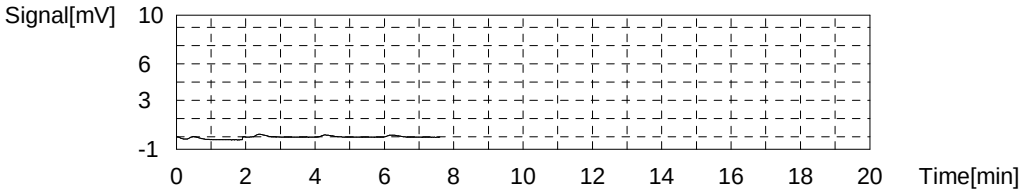
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04760mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3879	0.04951mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:31:17 PM
2	0.4132	0.05808mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:33:21 PM
3	0.3595	0.03989mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:35:24 PM
4	0.3685	0.04294mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:37:28 PM

Mean Area 0.3823
Mean Conc. 0.04760mg/L



Sample

Sample Name: 280-123867-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

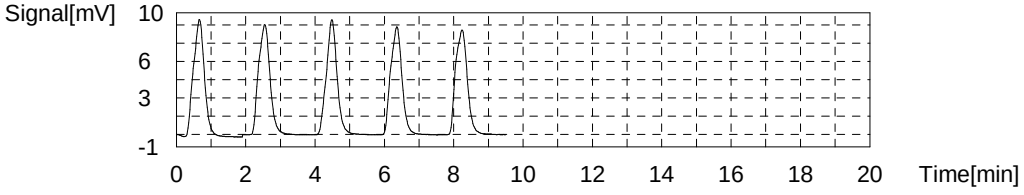
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.854mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.45	7.185mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:46:00 PM
2	20.86	6.985mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:48:03 PM
3	20.42	6.836mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:50:07 PM
4	20.30	6.795mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:52:11 PM
5	20.31	6.799mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 6:54:15 PM

Mean Area 20.47
Mean Conc. 6.854mg/L



Sample

Sample Name: MS 280-123867-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

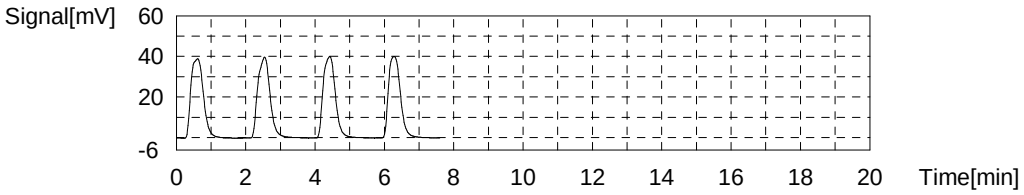
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.99	33.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:02:46 PM
2	98.37	33.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:04:50 PM
3	98.18	33.18mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:06:54 PM
4	96.42	32.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:08:58 PM

Mean Area 97.99
Mean Conc. 33.12mg/L



Sample

Sample Name: MSD 280-123867-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

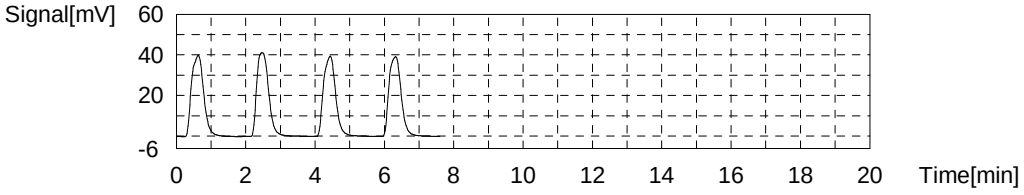
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.93mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.53	33.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:17:30 PM
2	98.53	33.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:19:33 PM
3	96.33	32.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:21:37 PM
4	96.37	32.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:23:41 PM

Mean Area 97.44
Mean Conc. 32.93mg/L



Sample

Sample Name: 280-123867-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

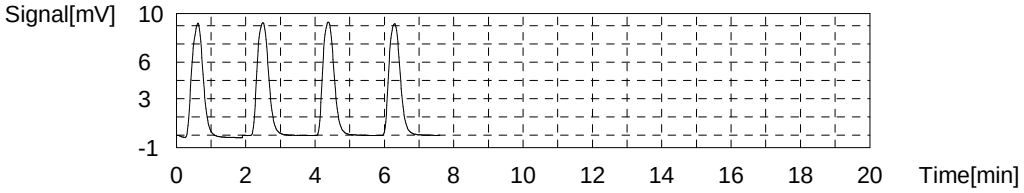
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.051mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.12	7.073mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:32:14 PM
2	21.26	7.121mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:34:17 PM
3	20.98	7.026mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:36:21 PM
4	20.86	6.985mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:38:25 PM

Mean Area 21.06
Mean Conc. 7.051mg/L



Sample

Sample Name: 280-124036-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

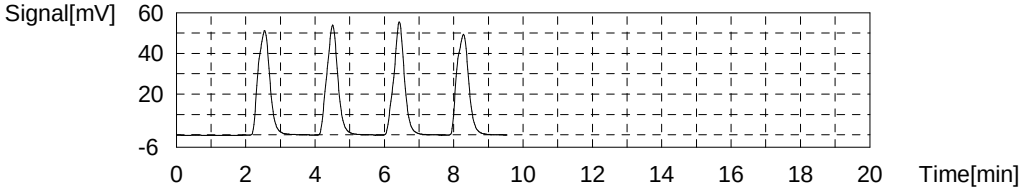
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:40.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3180	0.02583mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:46:57 PM
2	120.9	40.88mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:49:03 PM
3	120.8	40.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:51:06 PM
4	119.8	40.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:53:10 PM
5	119.2	40.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 7:55:14 PM

Mean Area 120.2
Mean Conc. 40.63mg/L



Sample

Sample Name: 280-124036-f-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

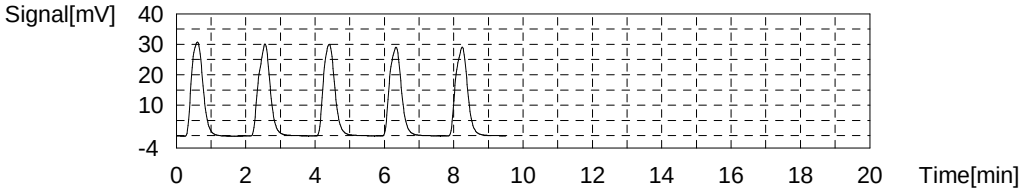
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.47mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	71.96	24.30mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:03:45 PM
2	70.67	23.86mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:05:48 PM
3	68.57	23.15mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:07:52 PM
4	69.40	23.43mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:09:56 PM
5	69.45	23.45mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:12:00 PM

Mean Area 69.52
Mean Conc. 23.47mg/L



Sample

Sample Name: 280-123941-j-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

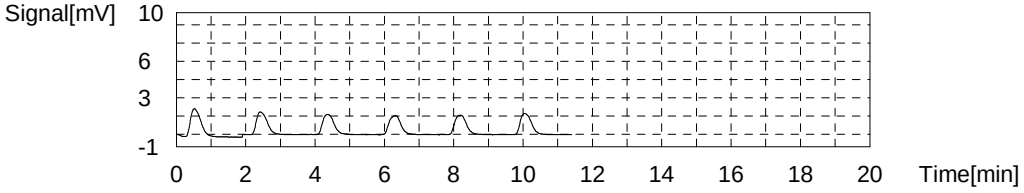
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.180mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.763	1.532mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:20:31 PM
2	3.995	1.272mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:22:35 PM
3	3.769	1.195mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:24:38 PM
4	3.636	1.150mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:26:42 PM
5	3.685	1.166mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:28:46 PM
6	3.807	1.208mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:30:50 PM

Mean Area 3.724
Mean Conc. 1.180mg/L



Sample

Sample Name: 280-124034-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

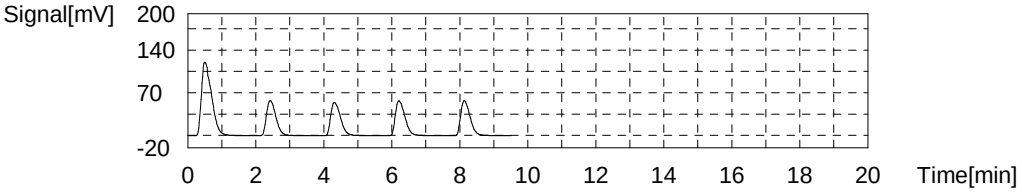
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:410.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	253.0	428.1mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:39:16 PM
2	112.1	412.4mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:41:19 PM
3	109.9	404.3mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:43:23 PM
4	112.7	414.6mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:45:28 PM
5	111.1	408.7mg/L	23uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:47:32 PM

Mean Area 111.5
Mean Conc. 410.0mg/L



Sample

Sample Name: 280-124036-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

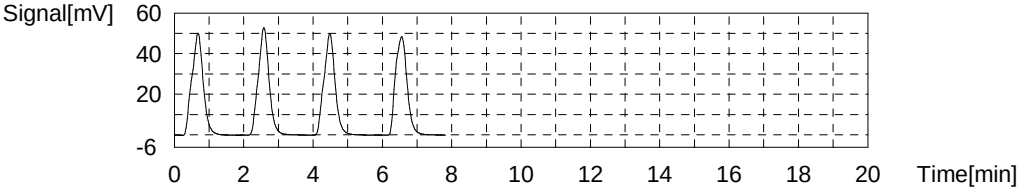
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:193.8mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	116.1	196.3mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:56:03 PM
2	115.6	195.4mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 8:58:07 PM
3	112.9	190.8mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:00:23 PM
4	114.0	192.7mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:02:27 PM

Mean Area 114.7
Mean Conc. 193.8mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

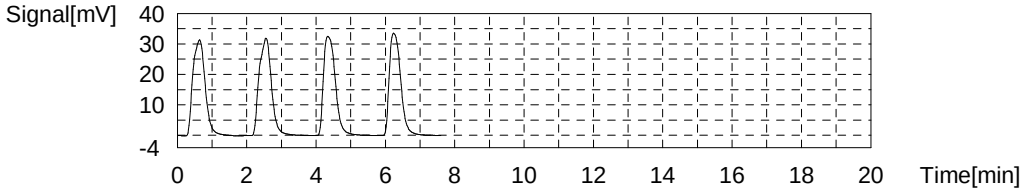
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.43mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.65	26.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:11:00 PM
2	79.22	26.76mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:13:04 PM
3	77.84	26.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:15:07 PM
4	77.29	26.10mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:17:11 PM

Mean Area 78.25
Mean Conc. 26.43mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

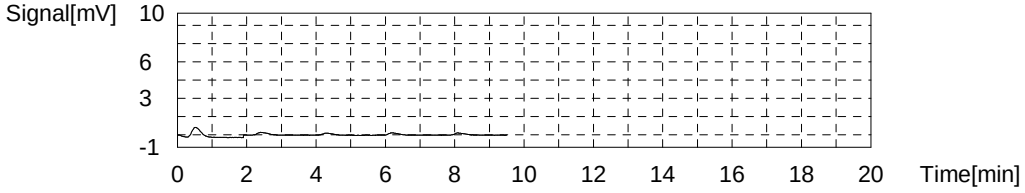
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03580mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.410	0.3958mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:25:43 PM
2	0.4172	0.05943mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:27:47 PM
3	0.3004	0.01986mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:29:50 PM
4	0.3568	0.03897mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:31:54 PM
5	0.3154	0.02495mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:33:58 PM

Mean Area 0.3475
Mean Conc. 0.03580mg/L



Sample

Sample Name: 280-124036-e-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

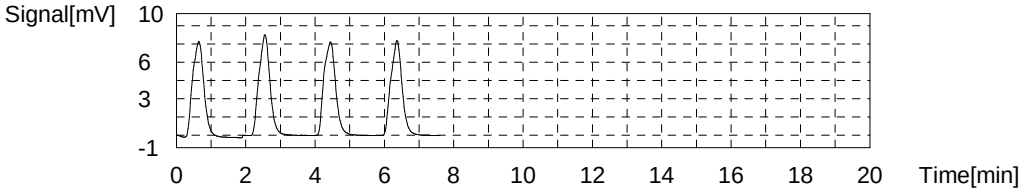
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:30.23mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.08	30.22mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:42:29 PM
2	18.34	30.66mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:44:33 PM
3	18.25	30.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:46:36 PM
4	17.68	29.54mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:48:40 PM

Mean Area 18.09
Mean Conc. 30.23mg/L



Sample

Sample Name: 280-124036-e-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

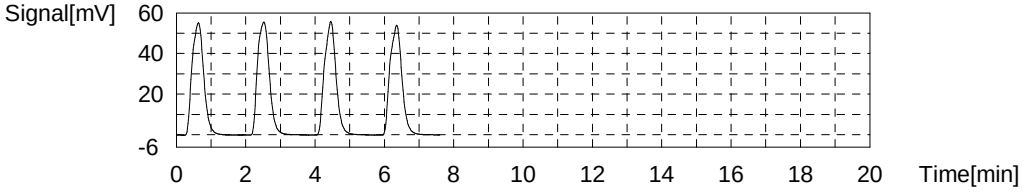
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:44.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	131.1	44.33mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:57:13 PM
2	132.9	44.94mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 9:59:16 PM
3	130.1	43.99mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:01:20 PM
4	130.6	44.16mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:03:24 PM

Mean Area 131.2
Mean Conc. 44.36mg/L



Sample

Sample Name: 280-123947-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

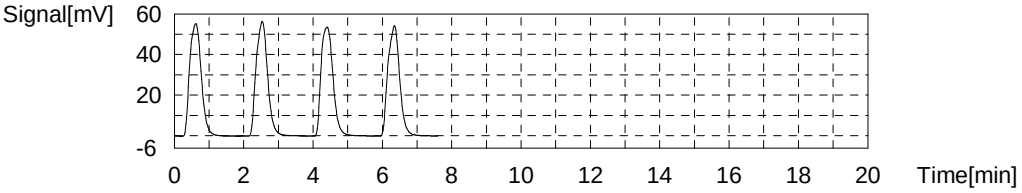
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:43.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	130.8	44.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:11:57 PM
2	130.7	44.20mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:14:00 PM
3	128.8	43.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:16:04 PM
4	128.7	43.52mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:18:08 PM

Mean Area 129.8
Mean Conc. 43.87mg/L



Sample

Sample Name: 280-123963-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

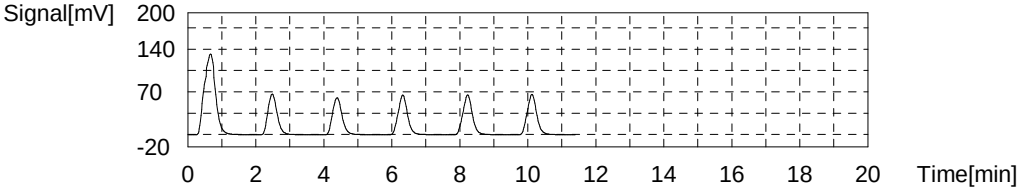
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:112.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	307.4	104.1mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:26:40 PM
2	126.4	112.6mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:28:43 PM
3	118.5	105.6mg/L	19uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:30:47 PM
4	124.8	111.2mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:32:51 PM
5	126.5	112.7mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:34:55 PM
6	129.1	115.0mg/L	19uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:36:59 PM

Mean Area 126.7
Mean Conc. 112.9mg/L



Sample

Sample Name: MS 280-123963-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

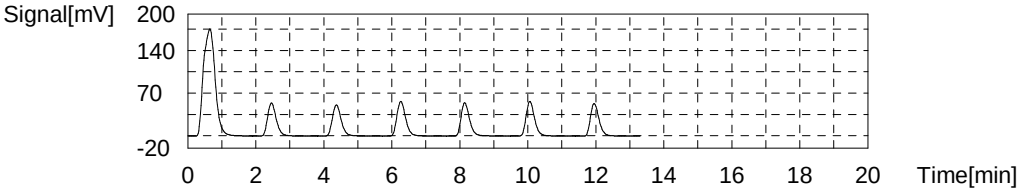
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:123.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	423.4	143.4mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:45:53 PM
2	96.70	125.9mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:47:56 PM
3	92.33	120.2mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:50:00 PM
4	102.2	133.1mg/L	13uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:52:04 PM
5	94.77	123.4mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:54:08 PM
6	98.62	128.4mg/L	13uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 10:56:12 PM
7	94.52	123.1mg/L	13uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:00:35 PM

Mean Area 94.58
Mean Conc. 123.2mg/L



Sample

Sample Name: MSD 280-123963-c-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

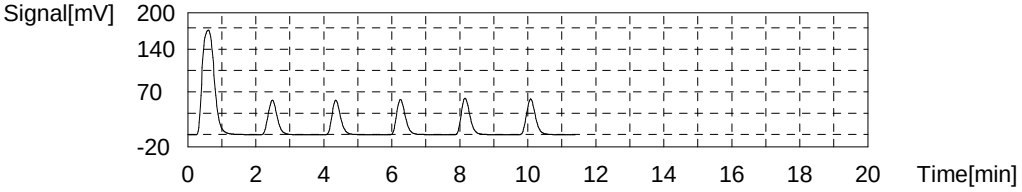
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:128.3mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	420.7	142.4mg/L	50uL	1	R	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:09:01 PM
2	105.4	127.4mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:11:04 PM
3	98.95	119.6mg/L	14uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:13:08 PM
4	103.9	125.6mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:15:12 PM
5	107.3	129.7mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:17:16 PM
6	107.7	130.2mg/L	14uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:19:20 PM

Mean Area 106.1
Mean Conc. 128.3mg/L



Sample

Sample Name: 280-123963-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

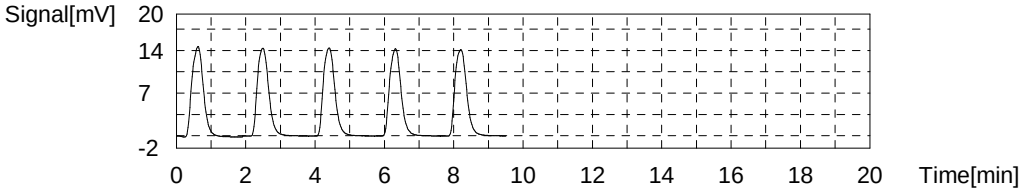
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.40	11.57mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:27:45 PM
2	32.74	11.01mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:29:48 PM
3	33.32	11.21mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:31:52 PM
4	32.85	11.05mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:33:56 PM
5	33.23	11.18mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:36:00 PM

Mean Area 33.03
Mean Conc. 11.11mg/L



Sample

Sample Name: 280-123941-k-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

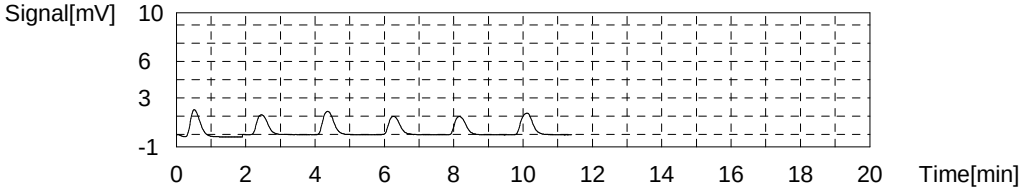
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.278mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.219	1.347mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:44:31 PM
2	3.554	1.122mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:46:34 PM
3	4.198	1.340mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:48:38 PM
4	3.331	1.047mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:50:42 PM
5	3.325	1.045mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:52:46 PM
6	4.090	1.304mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/11/2019 11:54:50 PM

Mean Area 4.015
Mean Conc. 1.278mg/L



Sample

Sample Name: 280-123941-j-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

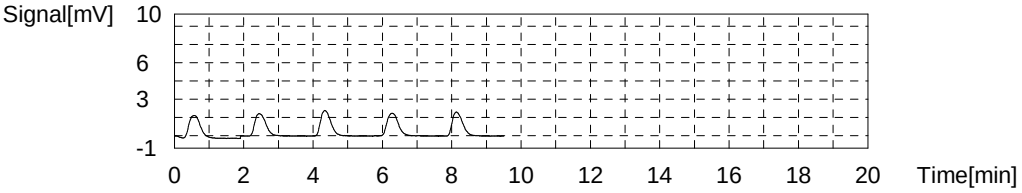
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.300mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.072	1.298mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:03:16 AM
2	4.011	1.277mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:05:20 AM
3	4.287	1.370mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:07:23 AM
4	4.129	1.317mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:09:27 AM
5	4.103	1.308mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:11:31 AM

Mean Area 4.079
Mean Conc. 1.300mg/L



Sample

Sample Name: 280-124055-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

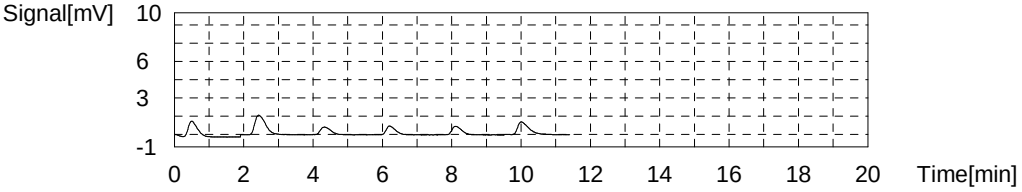
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4374mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.284	0.6919mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:20:02 AM
2	3.411	1.074mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:22:05 AM
3	1.269	0.3480mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:24:09 AM
4	1.297	0.3575mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:26:13 AM
5	1.315	0.3636mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:28:17 AM
6	2.250	0.6803mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:30:21 AM

Mean Area 1.533
Mean Conc. 0.4374mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

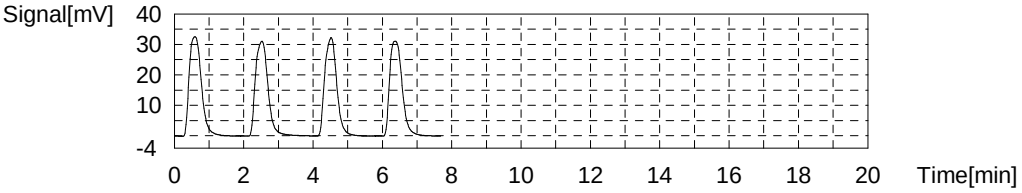
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.69mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.82	27.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:38:47 AM
2	78.38	26.47mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:40:55 AM
3	78.42	26.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:42:59 AM
4	78.43	26.49mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:45:03 AM

Mean Area 79.01
Mean Conc. 26.69mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

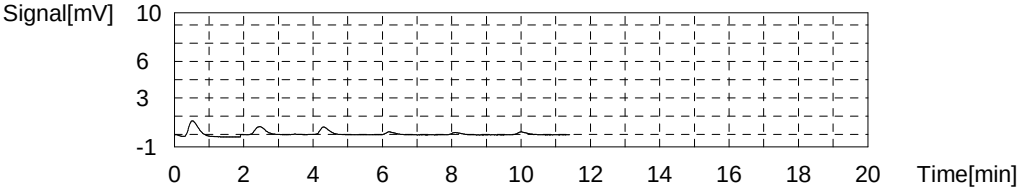
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1086mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.559	0.7850mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:53:35 AM
2	1.379	0.3853mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:55:39 AM
3	1.088	0.2867mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:57:43 AM
4	0.4048	0.05523mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:59:47 AM
5	0.3285	0.02938mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:01:51 AM
6	0.4282	0.06316mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:03:55 AM

Mean Area 0.5624
Mean Conc. 0.1086mg/L



Sample

Sample Name: 280-124055-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

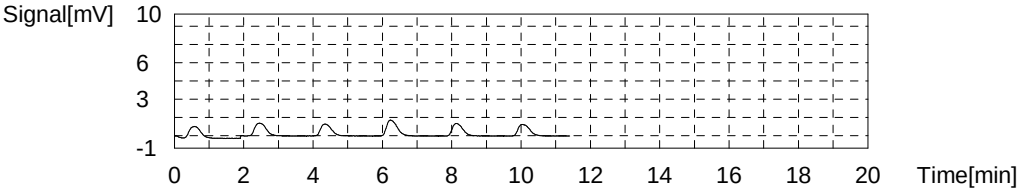
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6398mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.128	0.6390mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:12:21 AM
2	2.359	0.7173mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:14:24 AM
3	2.064	0.6173mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:16:28 AM
4	2.747	0.8487mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:18:32 AM
5	2.143	0.6441mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:20:36 AM
6	2.186	0.6587mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:22:40 AM

Mean Area 2.130
Mean Conc. 0.6398mg/L



Sample

Sample Name: 280-124055-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

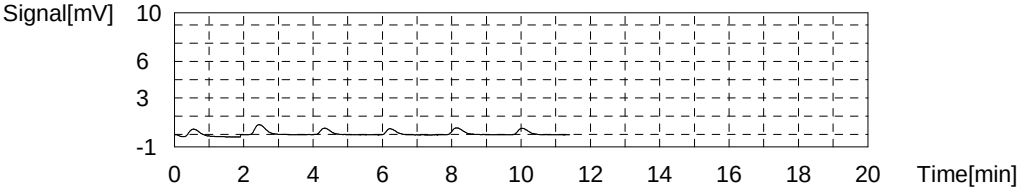
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2774mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.370	0.3822mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:31:06 AM
2	1.753	0.5120mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:33:09 AM
3	1.014	0.2616mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:35:13 AM
4	0.9642	0.2447mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:37:17 AM
5	1.193	0.3223mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:39:21 AM
6	1.071	0.2809mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:41:25 AM

Mean Area 1.061
Mean Conc. 0.2774mg/L



Sample

Sample Name: 280-124055-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

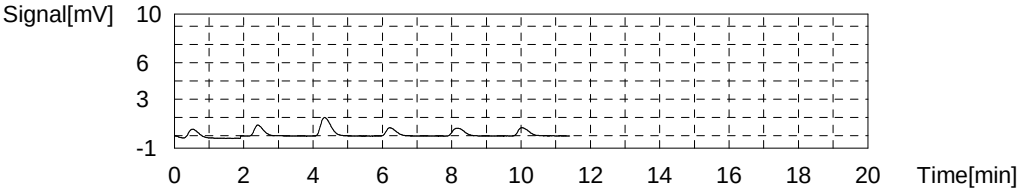
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3997mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.428	0.4019mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:49:51 AM
2	1.636	0.4723mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:51:54 AM
3	3.135	0.9802mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:53:58 AM
4	1.348	0.3748mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:56:02 AM
5	1.510	0.4297mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 1:58:06 AM
6	1.400	0.3924mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:00:10 AM

Mean Area 1.422
Mean Conc. 0.3997mg/L



Sample

Sample Name: 280-124055-b-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

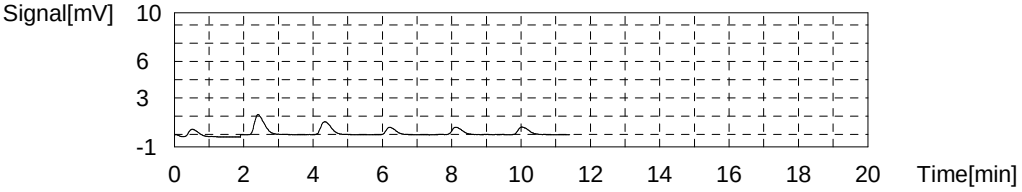
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3273mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.145	0.3060mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:08:36 AM
2	3.240	1.016mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:10:40 AM
3	2.179	0.6563mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:12:44 AM
4	1.177	0.3168mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:14:48 AM
5	1.192	0.3219mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:16:52 AM
6	1.318	0.3646mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:18:56 AM

Mean Area 1.208
Mean Conc. 0.3273mg/L



Sample

Sample Name: 280-124055-b-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

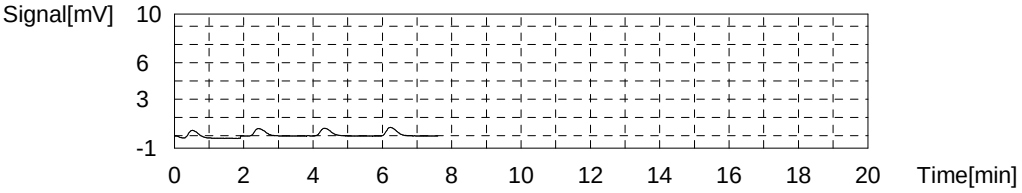
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3646mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.241	0.3385mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:27:22 AM
2	1.302	0.3592mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:29:25 AM
3	1.303	0.3595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:31:29 AM
4	1.426	0.4012mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:33:33 AM

Mean Area 1.318
Mean Conc. 0.3646mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

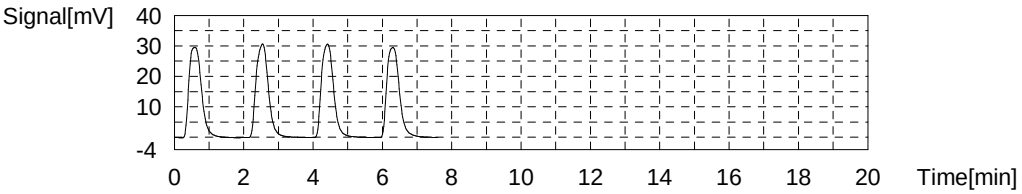
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.38	25.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:42:06 AM
2	76.03	25.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:44:09 AM
3	74.75	25.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:46:13 AM
4	74.93	25.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:48:17 AM

Mean Area 75.27
Mean Conc. 25.42mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

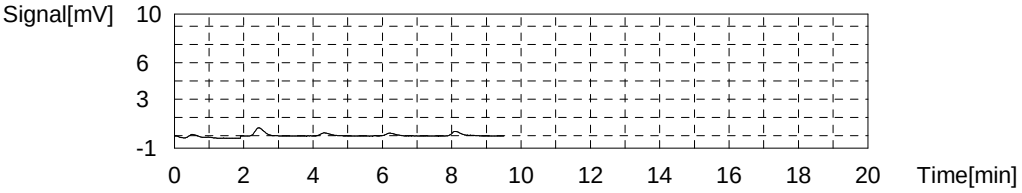
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09629mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5867	0.1169mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:56:49 AM
2	1.220	0.3314mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 2:58:53 AM
3	0.4959	0.08610mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:00:57 AM
4	0.4095	0.05683mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:03:01 AM
5	0.6119	0.1254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:05:05 AM

Mean Area 0.5260
Mean Conc. 0.09629mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

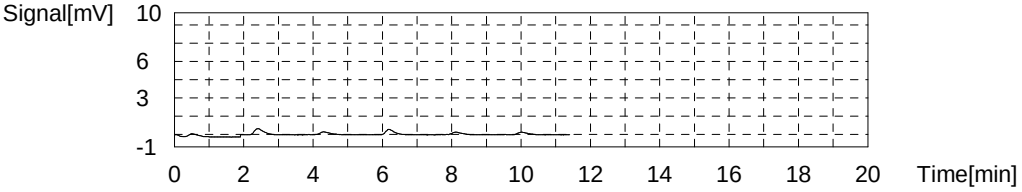
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05280mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4313	0.06421mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:13:37 AM
2	0.9287	0.2327mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:15:40 AM
3	0.4194	0.06018mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:17:44 AM
4	0.7335	0.1666mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:19:48 AM
5	0.3402	0.03335mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:21:52 AM
6	0.3996	0.05347mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:23:56 AM

Mean Area 0.3976
Mean Conc. 0.05280mg/L



Sample

Sample Name: 280-123924-g-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

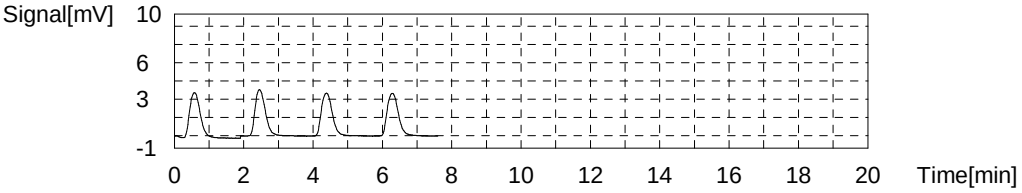
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.550mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.887	2.590mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:32:23 AM
2	7.770	2.550mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:34:26 AM
3	7.619	2.499mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:36:30 AM
4	7.797	2.560mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:38:34 AM

Mean Area 7.768
Mean Conc. 2.550mg/L



Sample

Sample Name: 280-123924-e-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

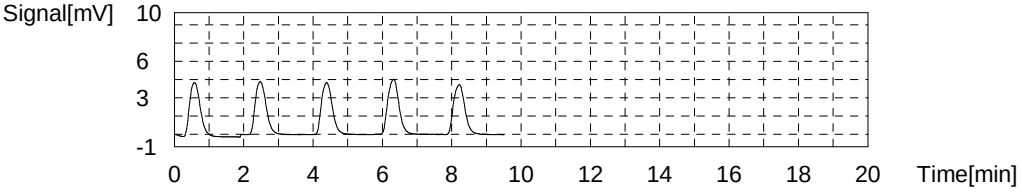
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.107mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.513	3.141mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:47:07 AM
2	9.498	3.136mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:49:10 AM
3	9.303	3.070mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:51:14 AM
4	10.18	3.367mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:53:18 AM
5	9.339	3.082mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 3:55:22 AM

Mean Area 9.413
Mean Conc. 3.107mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

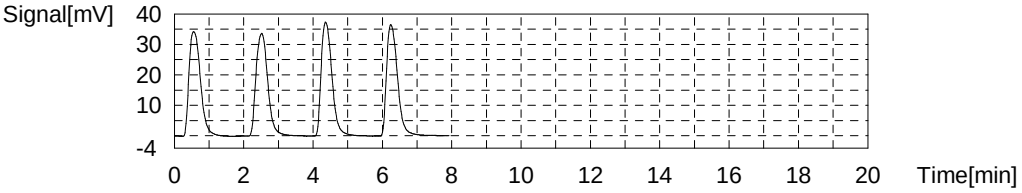
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.24mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.87	26.98mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:03:54 AM
2	79.86	26.97mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:05:57 AM
3	81.50	27.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:08:01 AM
4	81.31	27.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:10:24 AM

Mean Area 80.64
Mean Conc. 27.24mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

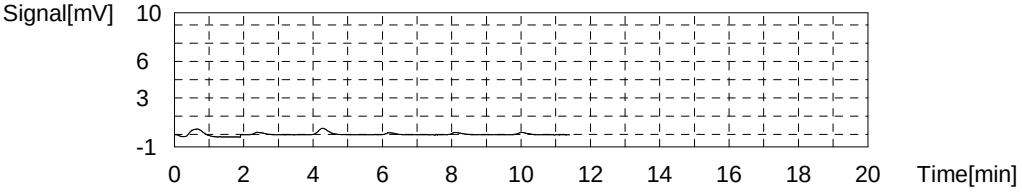
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02569mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.629	0.4700mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:18:56 AM
2	0.3505	0.03684mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:21:00 AM
3	1.056	0.2758mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:23:04 AM
4	0.2732	0.01065mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:25:08 AM
5	0.3070	0.02210mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:27:12 AM
6	0.3397	0.03318mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:29:16 AM

Mean Area 0.3176
Mean Conc. 0.02569mg/L



Sample

Sample Name: 280-123924-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

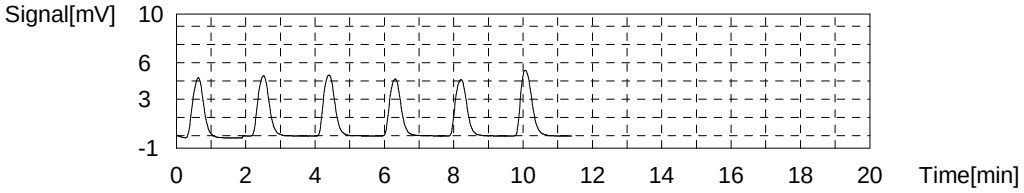
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.584mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.93	3.621mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:37:41 AM
2	11.16	3.699mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:39:45 AM
3	11.33	3.756mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:41:49 AM
4	10.58	3.502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:43:53 AM
5	10.61	3.513mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:45:57 AM
6	12.20	4.051mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:48:01 AM

Mean Area 10.82
Mean Conc. 3.584mg/L



Sample

Sample Name: MS 280-123924-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

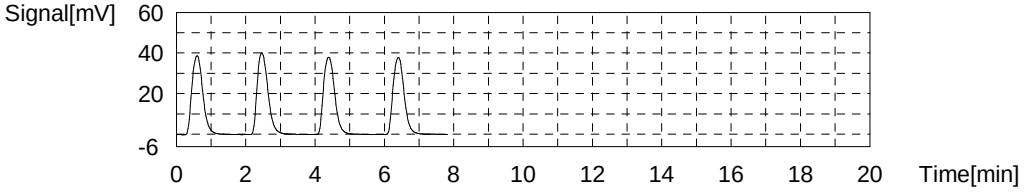
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:29.06mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.07	29.08mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:56:28 AM
2	87.49	29.56mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 4:58:31 AM
3	85.64	28.93mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:00:41 AM
4	84.89	28.68mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:02:52 AM

Mean Area 86.02
Mean Conc. 29.06mg/L



Sample

Sample Name: MSD 280-123924-e-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

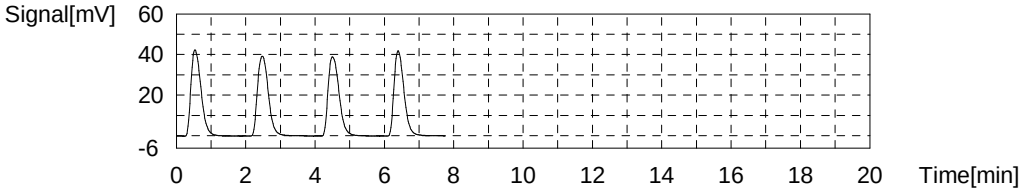
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:29.15mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.40	29.53mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:11:24 AM
2	86.56	29.24mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:13:37 AM
3	86.48	29.22mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:15:41 AM
4	84.67	28.60mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:17:45 AM

Mean Area 86.28
Mean Conc. 29.15mg/L



Sample

Sample Name: 280-123924-d-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

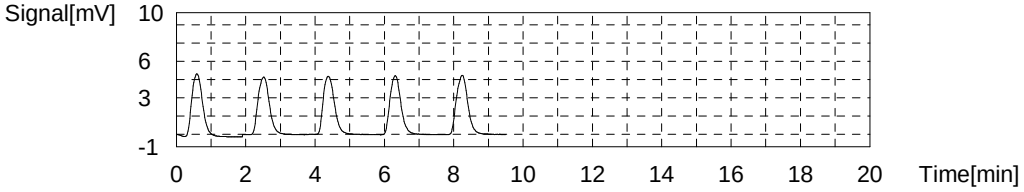
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.568mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.15	3.695mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:26:17 AM
2	10.70	3.543mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:28:21 AM
3	10.67	3.533mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:30:25 AM
4	10.64	3.523mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:32:29 AM
5	11.08	3.672mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:34:33 AM

Mean Area 10.77
Mean Conc. 3.568mg/L



Sample

Sample Name: 280-123924-d-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

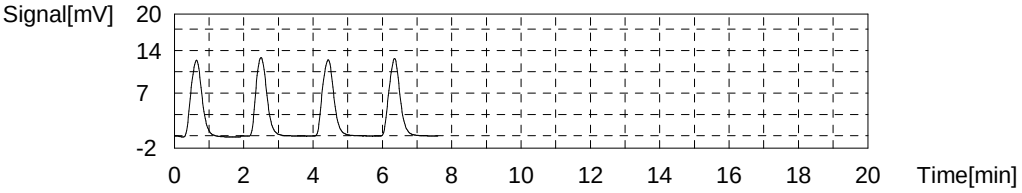
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.542mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.19	9.468mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:43:04 AM
2	28.33	9.516mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:45:08 AM
3	28.67	9.631mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:47:12 AM
4	28.44	9.553mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:49:16 AM

Mean Area 28.41
Mean Conc. 9.542mg/L



Sample

Sample Name: 280-123924-c-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

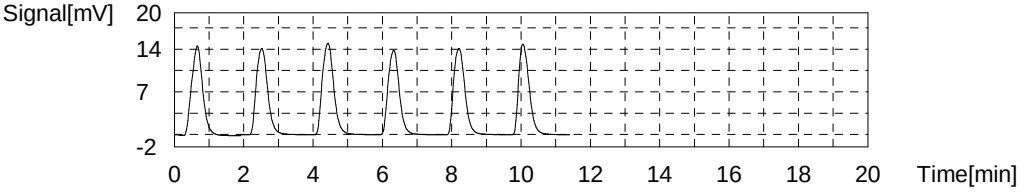
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.69mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.95	11.08mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:57:49 AM
2	32.32	10.87mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 5:59:52 AM
3	34.66	11.66mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:01:56 AM
4	31.23	10.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:04:00 AM
5	32.15	10.81mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:06:04 AM
6	31.47	10.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:08:08 AM

Mean Area 31.79
Mean Conc. 10.69mg/L



Sample

Sample Name: 280-123924-d-12
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

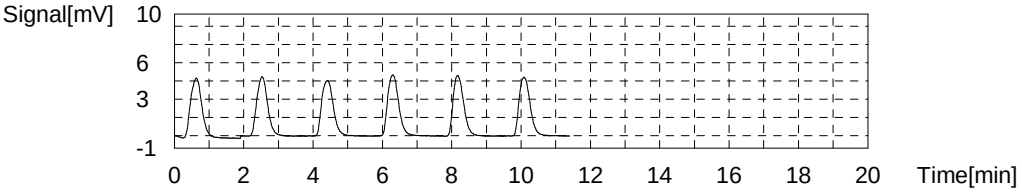
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.513mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.14	3.692mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:16:35 AM
2	10.62	3.516mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:18:38 AM
3	10.58	3.502mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:20:42 AM
4	11.08	3.672mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:22:46 AM
5	10.59	3.506mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:24:50 AM
6	10.65	3.526mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:26:54 AM

Mean Area 10.61
Mean Conc. 3.513mg/L



Sample

Sample Name: 280-123930-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

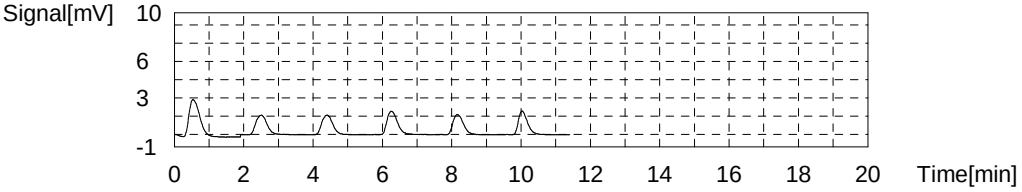
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.112mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.565	2.142mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:35:21 AM
2	3.536	1.116mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:37:24 AM
3	3.517	1.110mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:39:28 AM
4	4.013	1.278mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:41:32 AM
5	3.483	1.098mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:43:36 AM
6	3.559	1.124mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:45:40 AM

Mean Area 3.524
Mean Conc. 1.112mg/L



Sample

Sample Name: 280-123930-g-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

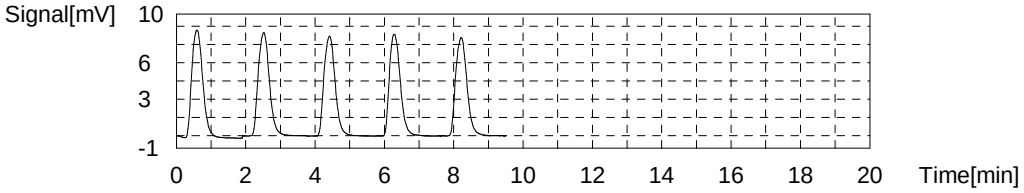
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.200mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.50	6.524mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:54:06 AM
2	19.02	6.362mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:56:10 AM
3	18.37	6.141mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 6:58:14 AM
4	18.42	6.158mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:00:18 AM
5	18.36	6.138mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:02:22 AM

Mean Area 18.54
Mean Conc. 6.200mg/L



Sample

Sample Name: 280-123930-g-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

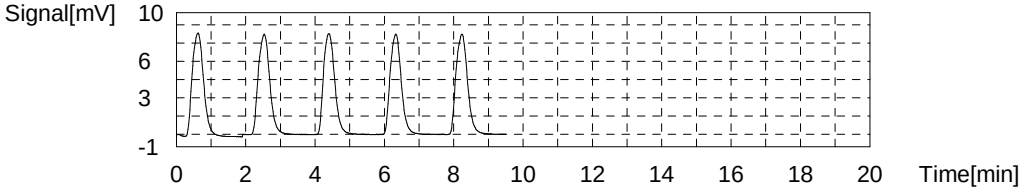
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.291mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.45	6.507mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:10:53 AM
2	19.00	6.355mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:12:57 AM
3	18.65	6.236mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:15:01 AM
4	18.47	6.175mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:17:05 AM
5	19.13	6.399mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:19:09 AM

Mean Area 18.81
Mean Conc. 6.291mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

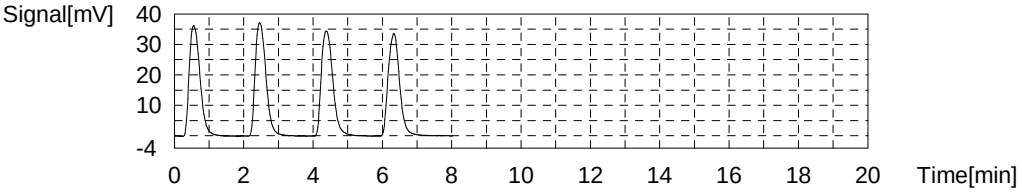
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.47	26.84mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:27:41 AM
2	80.63	27.23mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:29:44 AM
3	80.06	27.04mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:31:48 AM
4	78.11	26.38mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:34:17 AM

Mean Area 79.57
Mean Conc. 26.87mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

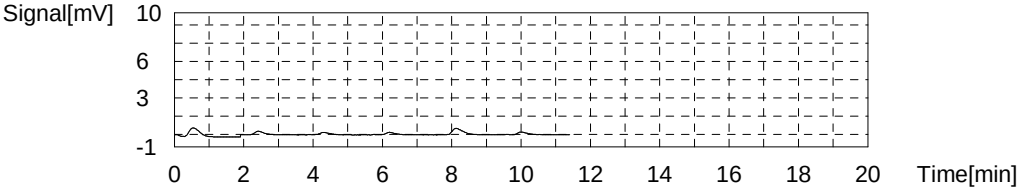
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04448mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.468	0.4154mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:42:49 AM
2	0.4979	0.08677mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:44:53 AM
3	0.3135	0.02430mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:46:57 AM
4	0.3113	0.02356mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:49:01 AM
5	1.062	0.2779mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:51:05 AM
6	0.3695	0.04327mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 7:53:09 AM

Mean Area 0.3730
Mean Conc. 0.04448mg/L



Sample

Sample Name: 280-123930-g-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

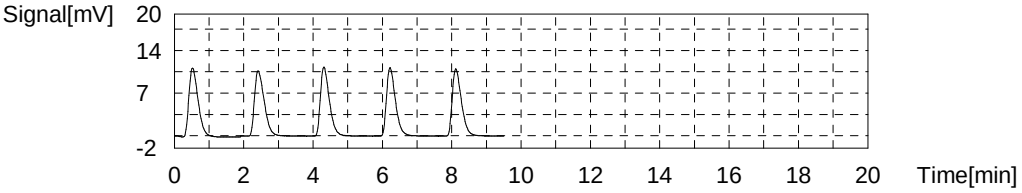
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.867mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.22	7.107mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:01:35 AM
2	20.94	7.012mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:03:39 AM
3	20.41	6.833mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:05:43 AM
4	20.30	6.795mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:07:47 AM
5	20.40	6.829mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:09:51 AM

Mean Area 20.51
Mean Conc. 6.867mg/L



Sample

Sample Name: 280-123930-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

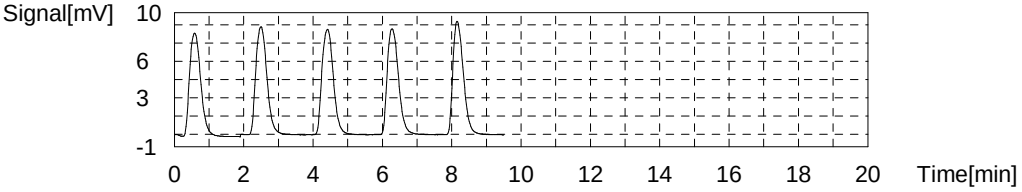
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.615mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.97	6.345mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:18:22 AM
2	19.83	6.636mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:20:26 AM
3	19.87	6.650mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:22:30 AM
4	19.71	6.595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:24:34 AM
5	19.66	6.578mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:26:38 AM

Mean Area 19.77
Mean Conc. 6.615mg/L



Sample

Sample Name: 320-50447-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

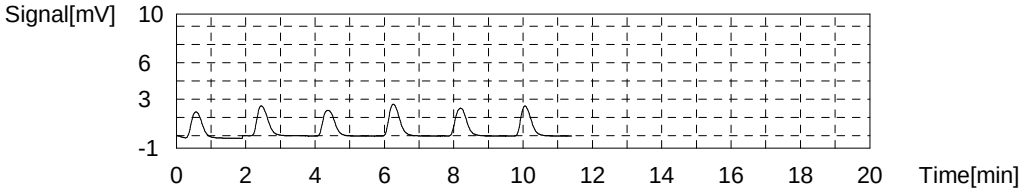
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.649mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.519	1.449mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:35:10 AM
2	5.270	1.703mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:37:13 AM
3	4.908	1.581mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:39:17 AM
4	5.559	1.801mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:41:21 AM
5	5.179	1.673mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:43:25 AM
6	5.081	1.639mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:45:29 AM

Mean Area 5.110
Mean Conc. 1.649mg/L



Sample

Sample Name: MS 320-50447-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

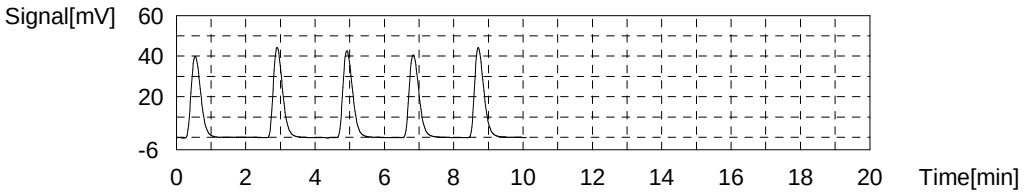
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.17mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.39	26.81mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:54:23 AM
2	84.58	28.57mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:56:34 AM
3	83.77	28.30mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 8:58:38 AM
4	81.65	27.58mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:00:42 AM
5	83.63	28.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:02:46 AM

Mean Area 83.41
Mean Conc. 28.17mg/L



Sample

Sample Name: MSD 320-50447-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

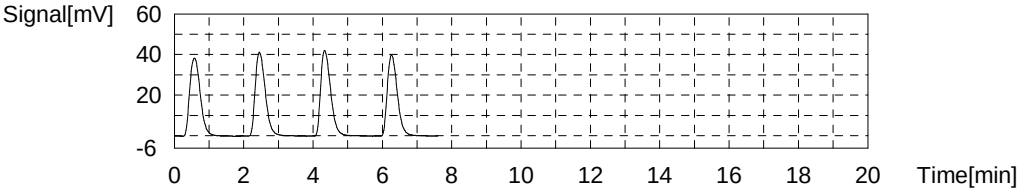
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.98mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.63	27.91mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:11:18 AM
2	83.63	28.25mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:13:22 AM
3	84.25	28.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:15:26 AM
4	80.78	27.28mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:17:30 AM

Mean Area 82.82
Mean Conc. 27.98mg/L



Sample

Sample Name: 280-123981-g-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

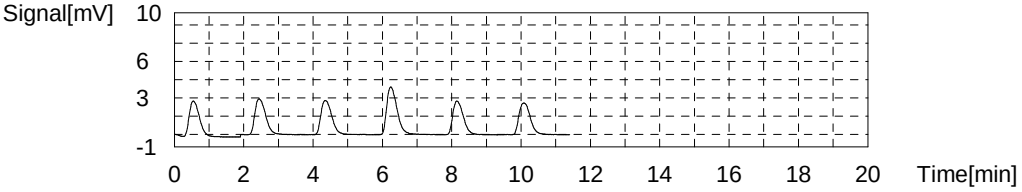
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.923mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.875	1.908mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:26:03 AM
2	6.333	2.064mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:28:07 AM
3	6.075	1.976mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:30:11 AM
4	8.184	2.691mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:32:15 AM
5	5.830	1.893mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:34:19 AM
6	5.898	1.916mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:36:23 AM

Mean Area 5.920
Mean Conc. 1.923mg/L



Sample

Sample Name: 280-123981-e-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

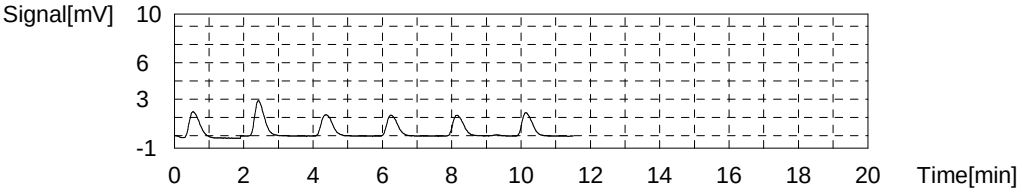
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.222mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.519	1.449mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:44:49 AM
2	5.556	1.800mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:46:53 AM
3	3.929	1.249mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:48:57 AM
4	3.696	1.170mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:51:01 AM
5	3.778	1.198mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:53:11 AM
6	3.991	1.270mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 9:55:15 AM

Mean Area 3.849
Mean Conc. 1.222mg/L



Sample

Sample Name: 280-123981-e-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

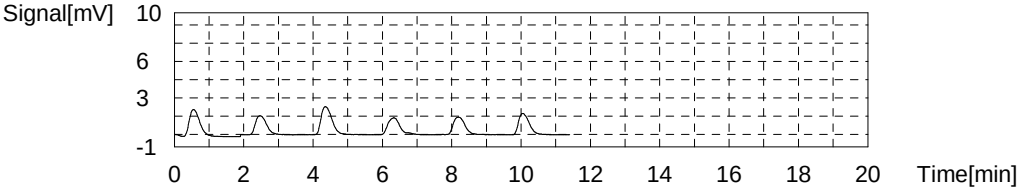
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.099mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.598	1.476mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:03:41 AM
2	3.485	1.099mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:05:45 AM
3	5.015	1.617mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:07:49 AM
4	3.428	1.079mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:09:53 AM
5	3.294	1.034mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:11:57 AM
6	3.738	1.184mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:14:01 AM

Mean Area 3.486
Mean Conc. 1.099mg/L



Sample

Sample Name: 280-123981-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

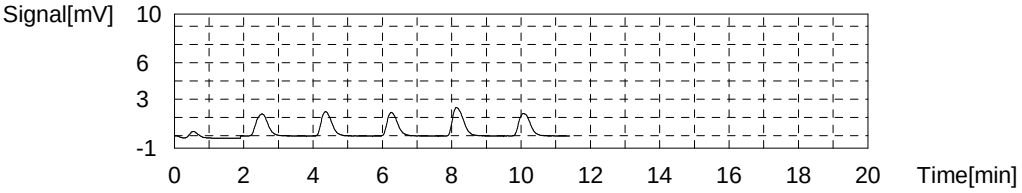
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.331mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8932	0.2207mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:22:27 AM
2	4.191	1.338mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:24:31 AM
3	4.213	1.345mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:26:35 AM
4	4.070	1.297mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:28:39 AM
5	5.130	1.656mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:30:43 AM
6	4.206	1.343mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:32:47 AM

Mean Area 4.170
Mean Conc. 1.331mg/L



Sample

Sample Name: 280-123981-e-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

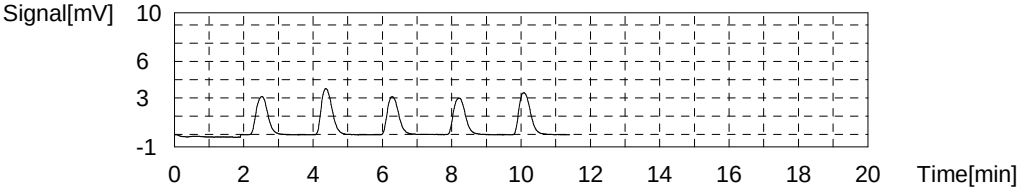
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.407mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.08190mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:41:13 AM
2	7.286	2.386mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:43:17 AM
3	8.284	2.725mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:45:21 AM
4	7.075	2.315mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:47:25 AM
5	7.122	2.331mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:49:29 AM
6	7.903	2.595mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 10:51:33 AM

Mean Area 7.347
Mean Conc. 2.407mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

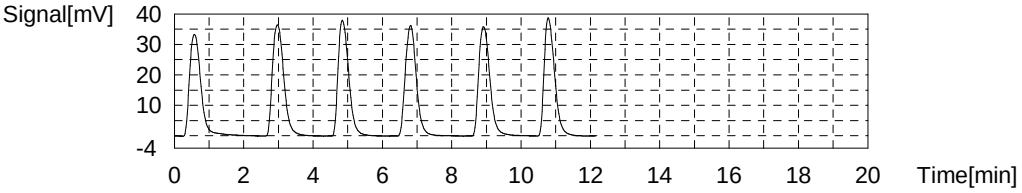
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.44mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.67	26.23mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:00:28 AM
2	84.43	28.52mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:02:32 AM
3	81.43	27.50mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:04:36 AM
4	80.80	27.29mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:06:55 AM
5	80.96	27.35mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:08:59 AM
6	81.77	27.62mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:11:03 AM

Mean Area 81.24
Mean Conc. 27.44mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

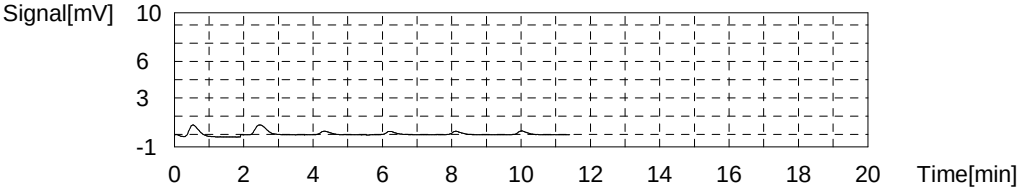
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09190mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.866	0.5503mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:19:29 AM
2	1.795	0.5262mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:21:33 AM
3	0.5541	0.1058mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:23:37 AM
4	0.4931	0.08515mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:25:41 AM
5	0.4854	0.08254mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:27:45 AM
6	0.5195	0.09409mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:29:49 AM

Mean Area 0.5130
Mean Conc. 0.09190mg/L



Sample

Sample Name: 280-123981-g-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

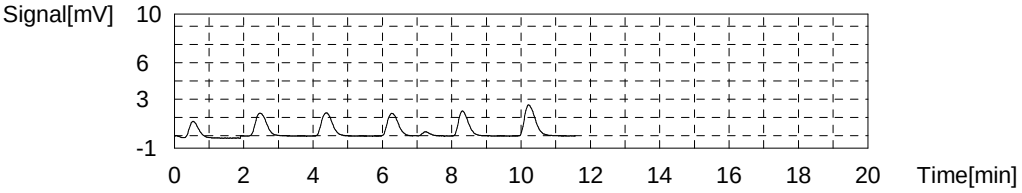
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.361mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.473	0.7559mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:38:15 AM
2	4.127	1.316mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:40:19 AM
3	4.177	1.333mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:42:23 AM
4	4.686	1.506mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:44:37 AM
5	4.047	1.289mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:46:41 AM
6	5.462	1.769mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:48:45 AM

Mean Area 4.259
Mean Conc. 1.361mg/L



Sample

Sample Name: 280-123981-g-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

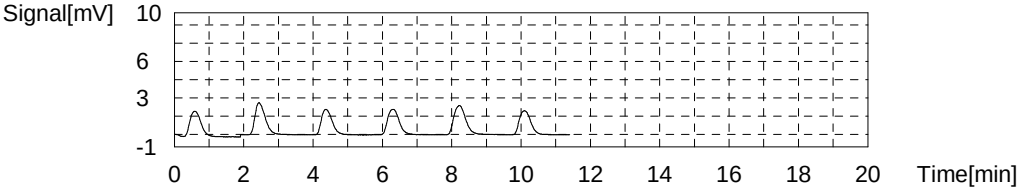
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.470mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.512	1.447mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:57:11 AM
2	5.378	1.740mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 11:59:15 AM
3	4.500	1.443mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:01:19 PM
4	4.827	1.553mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:03:23 PM
5	5.654	1.834mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:05:27 PM
6	4.482	1.437mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:07:31 PM

Mean Area 4.580
Mean Conc. 1.470mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

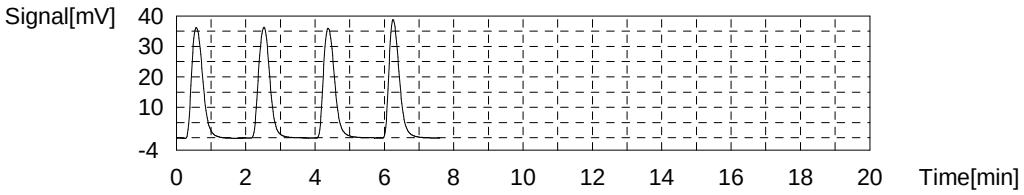
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.68mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.20	27.77mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:15:57 PM
2	82.74	27.95mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:18:01 PM
3	81.29	27.46mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:20:05 PM
4	81.56	27.55mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:22:09 PM

Mean Area 81.95
Mean Conc. 27.68mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

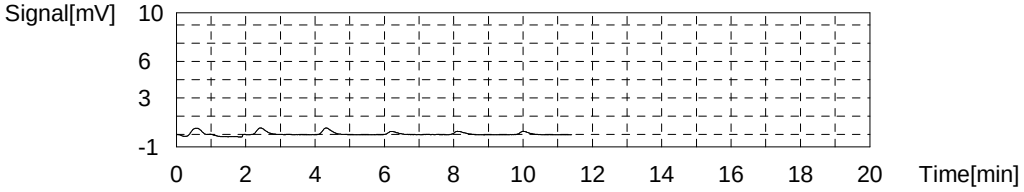
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1287mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.691	0.4910mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:30:42 PM
2	1.013	0.2613mg/L	50uL	1	E	TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:32:46 PM
3	0.9979	0.2562mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:34:50 PM
4	0.4732	0.07841mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:36:54 PM
5	0.5450	0.1027mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:38:58 PM
6	0.4702	0.07739mg/L	50uL	1		TOC3.2019_06_04_16_57_54.cal	6/12/2019 12:41:02 PM

Mean Area 0.6216
Mean Conc. 0.1287mg/L



TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2019_06_04_16_57_54.cal

Date of Creation 6:07:36 PM 6/4/2019
User cj
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-134158C2373D-0000
Cal. Curve: TOC3.2019_06_04_16_57_54.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		6/4/2019 5:05:35 PM
2	0.3850	50uL	1	*******		6/4/2019 5:07:39 PM
3	1.009	50uL	1	*******	E	6/4/2019 5:10:42 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.1925
SD Area 0.2722
CV Area 141.42%
Vial 1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.713	50uL	1	*******		6/4/2019 5:19:31 PM
2	3.707	50uL	1	*******		6/4/2019 5:21:35 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.710
SD Area 0.00424
CV Area 0.11%
Vial 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.15	50uL	1	*******		6/4/2019 5:30:27 PM
2	15.11	50uL	1	*******		6/4/2019 5:32:31 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 15.13
SD Area 0.02828
CV Area 0.19%
Vial 3

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.11	50uL	1	*******	E	6/4/2019 5:41:24 PM
2	29.16	50uL	1	*******		6/4/2019 5:43:28 PM
3	29.59	50uL	1	*******		6/4/2019 5:45:32 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 29.38
SD Area 0.3041
CV Area 1.04%
Vial 4

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		6/4/2019 5:54:19 PM
2	73.02	50uL	1	*******		6/4/2019 5:56:23 PM

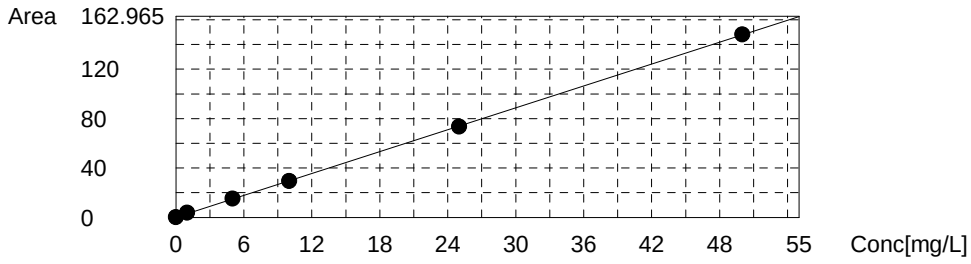
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 73.51
SD Area 0.6859
CV Area 0.93%
Vial 5

Conc: 50.00mg/L

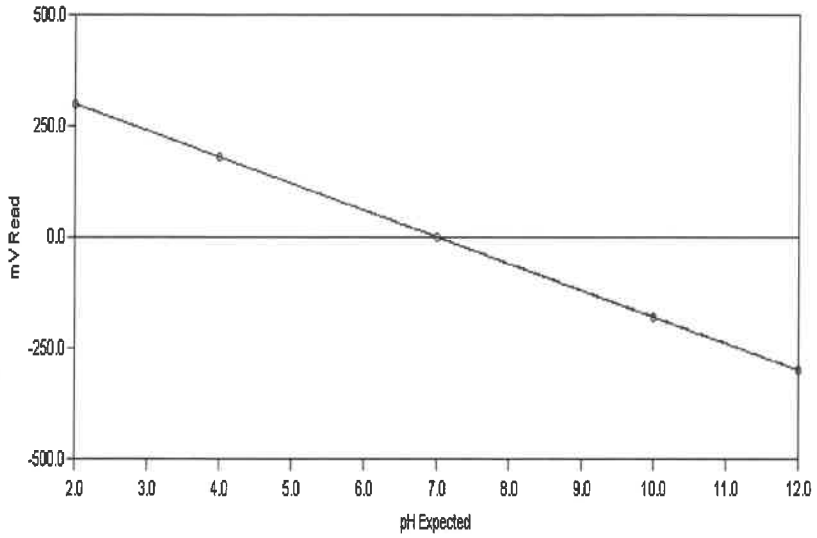
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	148.2	50uL	1	*******		6/4/2019 6:05:20 PM
2	148.1	50uL	1	*******		6/4/2019 6:07:36 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 148.2
SD Area 0.07071
CV Area 0.05%
Vial 6

Slope: 2.952
Intercept 0.2418
r^2 0.9999
r 1.0000
Zero Shift No



Calibration Record # 458



Calibration Settings

Calibration ID	PH	Date	5/22/2019
Channel	1	Time	9:42 AM
Probe Type	pH	Temperature	295.49 K 22.34 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.839	CorrCoeff	1.0000
Intercept	-0.050	Equation: Y = (-59.839) X + (-0.050)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.839	-65.00	-54.00
Intercept	-0.050	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	298.58
	4.00	180.05
	7.00	0.48
	10.00	-180.41
	12.00	-298.95

Test America
Water Analysis Report

Analyst: S&B

Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
rinse	5/22/2019	6:11 PM	23.15	-1.00	5.79	-1.00	-1.00	-1.00	.00	1.17	1.17	.00	.00	.00	.03	.05	.02
check	5/22/2019	6:18 PM	22.57	-1.00	10.48	-1.00	-1.00	-1.00	95.61	194.75	3.53	191.23	.00	.96	1.95	-1.00	.02
b7	5/22/2019	6:19 PM	22.08	-1.00	7.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
lcs	5/22/2019	6:26 PM	22.02	-1.00	10.50	-1.00	-1.00	-1.00	96.23	195.53	3.06	192.46	.00	.96	1.96	-1.00	.02
mb	5/22/2019	6:31 PM	22.13	-1.00	7.64	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-123715-B-4	5/22/2019	6:36 PM	21.85	-1.00	7.87	-1.00	-1.00	-1.00	.00	95.91	95.91	.00	.00	.00	.96	-1.00	.02
280-123715-B-4	5/22/2019	6:42 PM	21.74	-1.00	7.95	-1.00	-1.00	-1.00	.00	97.45	97.45	.00	.00	.00	.97	-1.00	.02
280-123715-B-5	5/22/2019	6:46 PM	21.74	-1.00	6.24	-1.00	-1.00	-1.00	.00	.75	.75	.00	.00	.00	.02	.04	.02
280-123692-B-1	5/22/2019	6:52 PM	21.82	-1.00	7.42	-1.00	-1.00	-1.00	.00	201.76	201.76	.00	.00	.00	2.02	-1.00	.02
280-123692-B-2	5/22/2019	7:02 PM	22.66	-1.00	7.79	-1.00	-1.00	-1.00	.00	132.96	132.96	.00	.00	.00	1.33	-1.00	.02
280-123693-B-4	5/22/2019	7:06 PM	22.42	-1.00	6.19	-1.00	-1.00	-1.00	.00	1.11	1.11	.00	.00	.00	.03	.04	.02
280-123693-A-1	5/22/2019	7:11 PM	21.86	-1.00	7.84	-1.00	-1.00	-1.00	.00	173.75	173.75	.00	.00	.00	1.74	-1.00	.02
280-123693-A-2	5/22/2019	7:17 PM	21.63	-1.00	7.92	-1.00	-1.00	-1.00	.00	173.47	173.47	.00	.00	.00	1.73	-1.00	.02
280-123693-A-3	5/22/2019	7:22 PM	21.51	-1.00	7.00	-1.00	-1.00	-1.00	.00	98.75	98.75	.00	.00	.00	.99	-1.00	.02
280-123706-A-1	5/22/2019	7:31 PM	21.41	-1.00	7.73	-1.00	-1.00	-1.00	.00	650.29	650.29	.00	.00	.00	6.50	-1.00	.02
ccv	5/22/2019	7:36 PM	21.48	-1.00	10.52	-1.00	-1.00	-1.00	96.16	196.14	3.82	192.32	.00	.96	1.96	-1.00	.02
ccb	5/22/2019	7:41 PM	21.60	-1.00	6.56	-1.00	-1.00	-1.00	.00	.77	.77	.00	.00	.00	.02	.04	.02
280-123714-A-1	5/22/2019	7:48 PM	21.54	-1.00	7.48	-1.00	-1.00	-1.00	.00	314.39	314.39	.00	.00	.00	3.14	-1.00	.02
280-123761-H-3	5/22/2019	7:54 PM	21.89	-1.00	7.98	-1.00	-1.00	-1.00	.00	344.27	344.27	.00	.00	.00	3.44	-1.00	.02
280-123761-I-4	5/22/2019	8:01 PM	22.17	-1.00	7.92	-1.00	-1.00	-1.00	.00	372.63	372.63	.00	.00	.00	3.73	-1.00	.02
280-123761-I-2	5/22/2019	8:07 PM	22.23	-1.00	7.95	-1.00	-1.00	-1.00	.00	343.86	343.86	.00	.00	.00	3.44	-1.00	.02
280-123814-B-3	5/22/2019	8:12 PM	22.05	-1.00	6.51	-1.00	-1.00	-1.00	.00	41.08	41.08	.00	.00	.00	.41	-1.00	.02
280-123814-B-1	5/22/2019	8:18 PM	21.77	-1.00	7.15	-1.00	-1.00	-1.00	.00	205.07	205.07	.00	.00	.00	2.05	-1.00	.02
280-123814-B-2	5/22/2019	8:22 PM	21.69	-1.00	6.54	-1.00	-1.00	-1.00	.00	38.89	38.89	.00	.00	.00	.39	-1.00	.02
280-123820-I-2	5/22/2019	8:30 PM	21.66	-1.00	7.80	-1.00	-1.00	-1.00	.00	560.22	560.22	.00	.00	.00	5.60	-1.00	.02
280-123820-I-3	5/22/2019	8:38 PM	21.89	-1.00	8.04	-1.00	-1.00	-1.00	.00	470.66	470.66	.00	.00	.00	4.71	-1.00	.02
280-123820-I-4	5/22/2019	8:48 PM	22.00	-1.00	8.04	-1.00	-1.00	-1.00	.00	777.04	777.04	.00	.00	.00	7.77	-1.00	.02

PC-TitratION PLUS by Man-Tech Associates, Inc.

GENERAL RESULTS REPORT.SRW
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Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
ccv	5/22/2019	8:54 PM	22.20	-1.00	10.45	-1.00	-1.00	-1.00	94.65	196.93	7.63	189.30	.00	.95	1.97	-1.00	.02
ccb	5/22/2019	8:59 PM	22.23	-1.00	6.50	-1.00	-1.00	-1.00	.00	1.24	1.24	.00	.00	.00	.03	.04	.02
lcs	5/22/2019	9:05 PM	22.37	-1.00	10.44	-1.00	-1.00	-1.00	94.96	197.74	7.83	189.91	.00	.95	1.98	-1.00	.02
mb	5/22/2019	9:10 PM	22.57	-1.00	6.67	-1.00	-1.00	-1.00	.00	1.25	1.25	.00	.00	.00	.03	.04	.02
280-123820-I-5	5/22/2019	9:18 PM	22.37	-1.00	7.75	-1.00	-1.00	-1.00	.00	682.57	682.57	.00	.00	.00	6.83	-1.00	.02
du	5/22/2019	9:28 PM	22.40	-1.00	7.77	-1.00	-1.00	-1.00	.00	708.79	708.79	.00	.00	.00	7.09	-1.00	.02
280-123843-A-1	5/22/2019	9:34 PM	22.42	-1.00	7.89	-1.00	-1.00	-1.00	.00	302.34	302.34	.00	.00	.00	3.02	-1.00	.02
280-123843-A-2	5/22/2019	9:42 PM	22.25	-1.00	7.44	-1.00	-1.00	-1.00	.00	569.30	569.30	.00	.00	.00	5.69	-1.00	.02
280-123843-A-3 Leak	5/22/2019	9:48 PM	22.35	-1.00	7.93	-1.00	-1.00	-1.00	.00	286.08	286.08	.00	.00	.00	2.86	-1.00	.02
280-123843-A-4	5/22/2019	9:55 PM	22.35	-1.00	7.95	-1.00	-1.00	-1.00	.00	352.28	352.28	.00	.00	.00	3.52	-1.00	.02
280-123843-A-5	5/22/2019	10:01 PM	22.43	-1.00	7.96	-1.00	-1.00	-1.00	.00	300.76	300.76	.00	.00	.00	3.01	-1.00	.02
280-123844-A-1	5/22/2019	10:08 PM	22.54	-1.00	8.38	-1.00	-1.00	-1.00	4.60	325.16	315.96	9.19	.00	.05	3.25	-1.00	.02
280-123845-D-2	5/22/2019	10:15 PM	22.70	-1.00	7.55	-1.00	-1.00	-1.00	.00	424.55	424.55	.00	.00	.00	4.25	-1.00	.02
280-123845-C-6	5/22/2019	10:23 PM	22.99	-1.00	7.56	-1.00	-1.00	-1.00	.00	585.11	585.11	.00	.00	.00	5.85	-1.00	.02
ccv	5/22/2019	10:30 PM	22.87	-1.00	10.41	-1.00	-1.00	-1.00	92.22	198.25	13.80	184.45	.00	.92	1.98	-1.00	.02
ccb	5/22/2019	10:34 PM	22.69	-1.00	6.42	-1.00	-1.00	-1.00	.00	1.09	1.09	.00	.00	.00	.03	.04	.02
280-123845-C-8	5/22/2019	10:42 PM	22.52	-1.00	7.76	-1.00	-1.00	-1.00	.00	454.07	454.07	.00	.00	.00	4.54	-1.00	.02
280-123845-C-10	5/22/2019	10:48 PM	22.58	-1.00	7.81	-1.00	-1.00	-1.00	.00	357.65	357.65	.00	.00	.00	3.58	-1.00	.02
280-123845-A-11	5/22/2019	10:56 PM	22.57	-1.00	7.72	-1.00	-1.00	-1.00	.00	526.16	526.16	.00	.00	.00	5.26	-1.00	.02
280-123845-C-13	5/22/2019	11:05 PM	22.70	-1.00	7.59	-1.00	-1.00	-1.00	.00	623.65	623.65	.00	.00	.00	6.24	-1.00	.02
280-123845-C-14	5/22/2019	11:13 PM	22.78	-1.00	7.64	-1.00	-1.00	-1.00	.00	621.85	621.85	.00	.00	.00	6.22	-1.00	.02
280-123845-C-15	5/22/2019	11:19 PM	22.89	-1.00	7.85	-1.00	-1.00	-1.00	.00	360.91	360.91	.00	.00	.00	3.61	-1.00	.02
280-123845-A-21	5/22/2019	11:26 PM	22.89	-1.00	7.89	-1.00	-1.00	-1.00	.00	304.50	304.50	.00	.00	.00	3.05	-1.00	.02
280-123845-A-24	5/22/2019	11:32 PM	22.95	-1.00	7.88	-1.00	-1.00	-1.00	.00	348.47	348.47	.00	.00	.00	3.48	-1.00	.02
280-123846-D-2	5/22/2019	11:35 PM	23.17	-1.00	3.29	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-123853-H-1	5/22/2019	11:42 PM	22.95	-1.00	7.94	-1.00	-1.00	-1.00	.00	270.00	270.00	.00	.00	.00	2.70	-1.00	.02
ccv	5/22/2019	11:48 PM	22.95	-1.00	10.37	-1.00	-1.00	-1.00	89.33	201.11	22.45	178.66	.00	.89	2.01	-1.00	.02
ccb	5/22/2019	11:53 PM	22.90	-1.00	6.55	-1.00	-1.00	-1.00	.00	1.07	1.07	.00	.00	.00	.03	.04	.02
280-123853-J-2	5/22/2019	11:58 PM	22.75	-1.00	7.95	-1.00	-1.00	-1.00	.00	149.89	149.89	.00	.00	.00	1.50	-1.00	.02
280-123853-J-3	5/23/2019	12:04 AM	22.75	-1.00	8.10	-1.00	-1.00	-1.00	.00	160.57	160.57	.00	.00	.00	1.61	-1.00	.02

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Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123853-H-4	5/23/2019	12:10 AM	22.75	-1.00	7.99	-1.00	-1.00	-1.00	.00	70.20	70.20	.00	.00	.00	.70	-1.00	.02
280-123853-H-5	5/23/2019	12:16 AM	22.84	-1.00	8.00	-1.00	-1.00	-1.00	.00	70.76	70.76	.00	.00	.00	.71	-1.00	.02
280-123853-J-6	5/23/2019	12:22 AM	22.87	-1.00	8.11	-1.00	-1.00	-1.00	.00	199.68	199.68	.00	.00	.00	2.00	-1.00	.02
280-123863-B-4	5/23/2019	12:30 AM	22.90	-1.00	8.12	-1.00	-1.00	-1.00	.00	639.93	639.93	.00	.00	.00	6.40	-1.00	.02
280-123924-B-1	5/23/2019	12:36 AM	23.04	-1.00	8.11	-1.00	-1.00	-1.00	.00	157.18	157.18	.00	.00	.00	1.57	-1.00	.02
280-123924-B-2	5/23/2019	12:42 AM	23.31	-1.00	8.16	-1.00	-1.00	-1.00	.00	112.35	112.35	.00	.00	.00	1.12	-1.00	.02
280-123924-A-3	5/23/2019	12:47 AM	23.25	-1.00	8.12	-1.00	-1.00	-1.00	.00	215.31	215.31	.00	.00	.00	2.15	-1.00	.02
280-123924-A-4	5/23/2019	12:55 AM	23.17	-1.00	7.52	-1.00	-1.00	-1.00	.00	374.00	374.00	.00	.00	.00	3.74	-1.00	.02
ccv	5/23/2019	1:01 AM	23.12	-1.00	10.36	-1.00	-1.00	-1.00	88.82	198.65	21.01	177.64	.00	.89	1.99	-1.00	.02
ccb	5/23/2019	1:06 AM	23.11	-1.00	6.37	-1.00	-1.00	-1.00	.00	1.03	1.03	.00	.00	.00	.03	.04	.02
lcs	5/23/2019	1:11 AM	22.86	-1.00	10.37	-1.00	-1.00	-1.00	90.45	198.58	17.68	180.91	.00	.90	1.99	-1.00	.02
mb	5/23/2019	1:16 AM	22.96	-1.00	6.46	-1.00	-1.00	-1.00	.00	1.21	1.21	.00	.00	.00	.03	.04	.02
280-123924-A-5	5/23/2019	1:22 AM	22.90	-1.00	8.15	-1.00	-1.00	-1.00	.00	161.43	161.43	.00	.00	.00	1.61	-1.00	.02
du	5/23/2019	1:26 AM	23.12	-1.00	6.63	-1.00	-1.00	-1.00	.00	10.35	10.35	.00	.00	.00	.12	.13	.02
280-123924-B-6	5/23/2019	1:33 AM	23.01	-1.00	7.97	-1.00	-1.00	-1.00	.00	407.87	407.87	.00	.00	.00	4.08	-1.00	.02
280-123924-B-7	5/23/2019	1:39 AM	23.07	-1.00	8.17	-1.00	-1.00	-1.00	.00	214.31	214.31	.00	.00	.00	2.14	-1.00	.02
280-123924-B-8	5/23/2019	1:45 AM	23.11	-1.00	8.18	-1.00	-1.00	-1.00	.00	209.97	209.97	.00	.00	.00	2.10	-1.00	.02
280-123924-B-9	5/23/2019	1:51 AM	23.35	-1.00	8.18	-1.00	-1.00	-1.00	.00	210.20	210.20	.00	.00	.00	2.10	-1.00	.02
280-123924-A-10	5/23/2019	1:56 AM	23.25	-1.00	7.48	-1.00	-1.00	-1.00	.00	85.80	85.80	.00	.00	.00	.86	-1.00	.02
280-123924-A-11	5/23/2019	2:02 AM	23.17	-1.00	7.85	-1.00	-1.00	-1.00	.00	88.82	88.82	.00	.00	.00	.89	-1.00	.02
280-123924-B-12	5/23/2019	2:08 AM	23.15	-1.00	8.09	-1.00	-1.00	-1.00	.00	209.29	209.29	.00	.00	.00	2.09	-1.00	.02
280-123955-A-1	5/23/2019	2:16 AM	23.14	-1.00	7.81	-1.00	-1.00	-1.00	.00	436.20	436.20	.00	.00	.00	4.36	-1.00	.02
ccv	5/23/2019	2:21 AM	23.09	-1.00	10.35	-1.00	-1.00	-1.00	88.99	200.53	22.56	177.97	.00	.89	2.01	-1.00	.02
ccb	5/23/2019	2:24 AM	23.01	-1.00	3.73	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
lcs	5/23/2019	2:30 AM	22.86	-1.00	10.30	-1.00	-1.00	-1.00	85.04	196.74	26.65	170.09	.00	.85	1.97	-1.00	.02
mb	5/23/2019	2:35 AM	23.04	-1.00	7.04	-1.00	-1.00	-1.00	.00	1.25	1.25	.00	.00	.00	.03	.05	.02
280-123955-A-2	5/23/2019	2:39 AM	23.03	-1.00	6.65	-1.00	-1.00	-1.00	.00	1.51	1.51	.00	.00	.00	.03	.05	.02
du	5/23/2019	2:44 AM	23.06	-1.00	6.58	-1.00	-1.00	-1.00	.00	1.34	1.34	.00	.00	.00	.03	.05	.02
280-123955-A-3	5/23/2019	2:52 AM	23.38	-1.00	7.76	-1.00	-1.00	-1.00	.00	615.92	615.92	.00	.00	.00	6.16	-1.00	.02
280-123955-A-4	5/23/2019	3:01 AM	23.43	-1.00	7.73	-1.00	-1.00	-1.00	.00	650.48	650.48	.00	.00	.00	6.50	-1.00	.02

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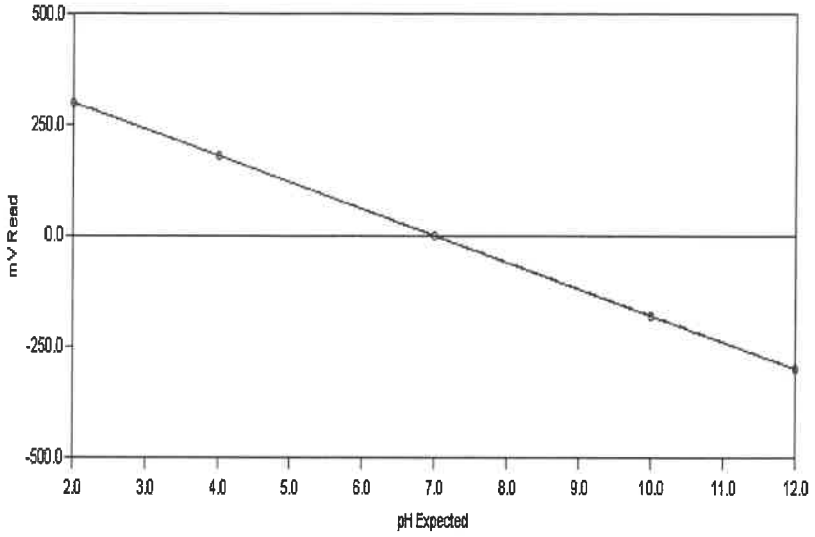
Run Number 1918 **Order Number** 20190522-4

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123955-A-5	5/23/2019	3:08 AM	23.44	-1.00	7.86	-1.00	-1.00	-1.00	.00	511.51	511.51	.00	.00	.00	5.12	-1.00	.02
280-123955-A-6	5/23/2019	3:16 AM	23.39	-1.00	7.89	-1.00	-1.00	-1.00	.00	380.89	380.89	.00	.00	.00	3.81	-1.00	.02
280-123955-A-7	5/23/2019	3:22 AM	23.33	-1.00	7.98	-1.00	-1.00	-1.00	.00	342.38	342.38	.00	.00	.00	3.42	-1.00	.02
280-123955-A-8	5/23/2019	3:29 AM	23.30	-1.00	7.86	-1.00	-1.00	-1.00	.00	480.25	480.25	.00	.00	.00	4.80	-1.00	.02
280-123955-A-9	5/23/2019	3:37 AM	23.25	-1.00	7.91	-1.00	-1.00	-1.00	.00	453.90	453.90	.00	.00	.00	4.54	-1.00	.02
280-123955-A-10	5/23/2019	3:45 AM	23.23	-1.00	7.72	-1.00	-1.00	-1.00	.00	629.93	629.93	.00	.00	.00	6.30	-1.00	.02
ccv	5/23/2019	3:51 AM	23.28	-1.00	10.28	-1.00	-1.00	-1.00	84.05	200.32	32.22	168.09	.00	.84	2.00	-1.00	.02
ccb	5/23/2019	3:56 AM	23.27	-1.00	5.44	-1.00	-1.00	-1.00	.00	.30	.30	.00	.00	.00	.02	.04	.02

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MANTECH INC.
Calibration Report

Calibration Record # 461



Calibration Settings

Calibration ID	PH	Date	5/24/2019
Channel	1	Time	5:27 PM
Probe Type	pH	Temperature	295.78 K 22.63 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.670	CorrCoeff	1.0000
Intercept	0.124	Equation: Y = (-59.670) X + (0.124)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.670	-65.00	-54.00
Intercept	0.124	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	297.85
	4.00	179.93
	7.00	0.61
	10.00	-180.17
	12.00	-297.60

Report Date: 5/25/2019 : 9:14 AM

Test America
Water Analysis Report

Analyst: SGB

Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
rinse	5/24/2019	5:32 PM	22.20	-1.00	9.22	-1.00	-1.00	-1.00	2.72	8.38	2.94	5.45	.00	.03	.11	.14	.02
check	5/24/2019	5:40 PM	22.08	-1.00	10.51	-1.00	-1.00	-1.00	92.81	198.94	13.33	185.61	.00	.93	1.99	-1.00	.02
b7	5/24/2019	5:42 PM	21.92	-1.00	7.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
lcs	5/24/2019	5:48 PM	21.76	-1.00	10.51	-1.00	-1.00	-1.00	93.68	195.97	8.62	187.35	.00	.94	1.96	-1.00	.02
mb	5/24/2019	6:12 PM	22.39	-1.00	7.30	-1.00	-1.00	-1.00	.00	2.43	2.43	.00	.00	.00	.05	.07	.02
280-123986-A-11	5/24/2019	6:18 PM	21.73	-1.00	7.41	-1.00	-1.00	-1.00	.00	187.14	187.14	.00	.00	.00	1.87	-1.00	.02
280-123986-A-11	5/24/2019	6:23 PM	21.48	-1.00	7.43	-1.00	-1.00	-1.00	.00	189.84	189.84	.00	.00	.00	1.90	-1.00	.02
280-123986-A-12	5/24/2019	6:29 PM	21.45	-1.00	7.52	-1.00	-1.00	-1.00	.00	192.48	192.48	.00	.00	.00	1.92	-1.00	.02
280-123986-A-1	5/24/2019	6:34 PM	21.51	-1.00	7.69	-1.00	-1.00	-1.00	.00	122.93	122.93	.00	.00	.00	1.23	-1.00	.02
280-123986-A-6	5/24/2019	6:39 PM	21.67	-1.00	7.80	-1.00	-1.00	-1.00	.00	149.83	149.83	.00	.00	.00	1.50	-1.00	.02
280-123986-A-7	5/24/2019	6:45 PM	21.61	-1.00	7.94	-1.00	-1.00	-1.00	.00	124.83	124.83	.00	.00	.00	1.25	-1.00	.02
280-123986-A-8	5/24/2019	6:52 PM	21.38	-1.00	7.60	-1.00	-1.00	-1.00	.00	532.96	532.96	.00	.00	.00	5.33	-1.00	.02
280-123842-A-1	5/24/2019	7:01 PM	21.44	-1.00	7.21	-1.00	-1.00	-1.00	.00	646.84	646.84	.00	.00	.00	6.47	-1.00	.02
280-123815-G-1	5/24/2019	7:07 PM	21.48	-1.00	8.11	-1.00	-1.00	-1.00	.00	180.90	180.90	.00	.00	.00	1.81	-1.00	.02
280-123291-B-1	5/24/2019	7:16 PM	21.31	-1.00	7.32	-1.00	-1.00	-1.00	.00	796.65	796.65	.00	.00	.00	7.97	-1.00	.02
ccv	5/24/2019	7:22 PM	21.31	-1.00	10.46	-1.00	-1.00	-1.00	95.91	199.19	7.37	191.82	.00	.96	1.99	-1.00	.02
ccb	5/24/2019	7:27 PM	21.35	-1.00	6.56	-1.00	-1.00	-1.00	.00	1.15	1.15	.00	.00	.00	.03	.05	.02
280-123843-A-2	5/24/2019	7:35 PM	21.31	-1.00	7.47	-1.00	-1.00	-1.00	.00	567.21	567.21	.00	.00	.00	5.67	-1.00	.02
280-123855-H-5	5/24/2019	7:40 PM	21.53	-1.00	7.98	-1.00	-1.00	-1.00	.00	218.11	218.11	.00	.00	.00	2.18	-1.00	.02
280-123855-J-4	5/24/2019	7:46 PM	21.69	-1.00	7.98	-1.00	-1.00	-1.00	.00	219.58	219.58	.00	.00	.00	2.20	-1.00	.02
280-123855-J-6	5/24/2019	7:52 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	216.63	216.63	.00	.00	.00	2.17	-1.00	.02
280-123855-I-1	5/24/2019	7:59 PM	21.56	-1.00	7.26	-1.00	-1.00	-1.00	.00	235.07	235.07	.00	.00	.00	2.35	-1.00	.02
280-123855-J-2	5/24/2019	8:04 PM	21.28	-1.00	10.56	-1.00	-1.00	-1.00	80.82	111.02	.00	60.41	50.61	.81	1.11	-1.00	.02
280-123855-J-3	5/24/2019	8:10 PM	21.31	-1.00	7.80	-1.00	-1.00	-1.00	.00	367.77	367.77	.00	.00	.00	3.68	-1.00	.02
280-123868-B-2	5/24/2019	8:16 PM	21.37	-1.00	7.96	-1.00	-1.00	-1.00	.00	138.62	138.62	.00	.00	.00	1.39	-1.00	.02
280-123868-B-1	5/24/2019	8:22 PM	21.32	-1.00	7.96	-1.00	-1.00	-1.00	.00	141.52	141.52	.00	.00	.00	1.42	-1.00	.02
280-123868-B-3	5/24/2019	8:25 PM	21.37	-1.00	4.09	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02

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GENERAL RESULTS REPORT.SRW
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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
ccv	5/24/2019	8:31 PM	21.31	-1.00	10.41	-1.00	-1.00	-1.00	91.66	196.42	13.11	183.32	.00	.92	1.96	-1.00	.02
ccb	5/24/2019	8:36 PM	21.64	-1.00	7.13	-1.00	-1.00	-1.00	.00	1.71	1.71	.00	.00	.00	.04	.05	.02
lcs	5/24/2019	8:42 PM	21.73	-1.00	10.42	-1.00	-1.00	-1.00	94.43	198.96	10.10	188.87	.00	.94	1.99	-1.00	.02
mb	5/24/2019	8:47 PM	21.87	-1.00	7.25	-1.00	-1.00	-1.00	.00	1.70	1.70	.00	.00	.00	.04	.05	.02
280-123882-B-1	5/24/2019	8:52 PM	21.63	-1.00	7.92	-1.00	-1.00	-1.00	.00	168.53	168.53	.00	.00	.00	1.69	-1.00	.02
du	5/24/2019	8:58 PM	21.50	-1.00	7.96	-1.00	-1.00	-1.00	.00	168.56	168.56	.00	.00	.00	1.69	-1.00	.02
280-123919-C-2	5/24/2019	9:03 PM	21.44	-1.00	6.66	-1.00	-1.00	-1.00	.00	1.60	1.60	.00	.00	.00	.03	.05	.02
280-123919-C-6	5/24/2019	9:08 PM	21.40	-1.00	7.65	-1.00	-1.00	-1.00	.00	185.45	185.45	.00	.00	.00	1.85	-1.00	.02
280-123919-C-5	5/24/2019	9:17 PM	21.38	-1.00	7.35	-1.00	-1.00	-1.00	.00	546.93	546.93	.00	.00	.00	5.47	-1.00	.02
280-123919-C-4	5/24/2019	9:22 PM	21.54	-1.00	7.63	-1.00	-1.00	-1.00	.00	185.98	185.98	.00	.00	.00	1.86	-1.00	.02
280-123922-J-1	5/24/2019	9:29 PM	21.51	-1.00	7.31	-1.00	-1.00	-1.00	.00	423.12	423.12	.00	.00	.00	4.23	-1.00	.02
280-123922-I-3	5/24/2019	9:36 PM	21.64	-1.00	7.35	-1.00	-1.00	-1.00	.00	377.60	377.60	.00	.00	.00	3.78	-1.00	.02
280-123922-H-2	5/24/2019	9:43 PM	21.86	-1.00	7.38	-1.00	-1.00	-1.00	.00	420.73	420.73	.00	.00	.00	4.21	-1.00	.02
280-123924-A-5	5/24/2019	9:48 PM	22.11	-1.00	8.11	-1.00	-1.00	-1.00	.00	163.70	163.70	.00	.00	.00	1.64	-1.00	.02
ccv	5/24/2019	9:55 PM	21.90	-1.00	10.39	-1.00	-1.00	-1.00	91.87	199.99	16.25	183.74	.00	.92	2.00	-1.00	.02
ccb	5/24/2019	9:59 PM	21.80	-1.00	6.37	-1.00	-1.00	-1.00	.00	.84	.84	.00	.00	.00	.03	.05	.02
280-123924-B-6	5/24/2019	10:06 PM	21.58	-1.00	7.89	-1.00	-1.00	-1.00	.00	410.82	410.82	.00	.00	.00	4.11	-1.00	.02
280-123924-B-7	5/24/2019	10:13 PM	21.66	-1.00	8.11	-1.00	-1.00	-1.00	.00	217.84	217.84	.00	.00	.00	2.18	-1.00	.02
280-123924-B-8	5/24/2019	10:18 PM	21.57	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.48	212.48	.00	.00	.00	2.12	-1.00	.02
280-123924-B-9	5/24/2019	10:24 PM	21.53	-1.00	8.09	-1.00	-1.00	-1.00	.00	212.16	212.16	.00	.00	.00	2.12	-1.00	.02
280-123924-A-10	5/24/2019	10:30 PM	21.51	-1.00	7.30	-1.00	-1.00	-1.00	.00	86.68	86.68	.00	.00	.00	.87	-1.00	.02
280-123924-A-11	5/24/2019	10:35 PM	21.51	-1.00	7.77	-1.00	-1.00	-1.00	.00	89.64	89.64	.00	.00	.00	.90	-1.00	.02
280-123924-B-12	5/24/2019	10:41 PM	21.71	-1.00	8.03	-1.00	-1.00	-1.00	.00	209.92	209.92	.00	.00	.00	2.10	-1.00	.02
280-123930-I-1	5/24/2019	10:47 PM	21.89	-1.00	7.26	-1.00	-1.00	-1.00	.00	248.54	248.54	.00	.00	.00	2.49	-1.00	.02
280-123930-H-2	5/24/2019	10:54 PM	22.16	-1.00	7.38	-1.00	-1.00	-1.00	.00	492.40	492.40	.00	.00	.00	4.92	-1.00	.02
280-123930-I-3	5/24/2019	11:01 PM	22.07	-1.00	7.35	-1.00	-1.00	-1.00	.00	491.92	491.92	.00	.00	.00	4.92	-1.00	.02
ccv	5/24/2019	11:07 PM	21.95	-1.00	10.41	-1.00	-1.00	-1.00	86.66	197.59	24.28	173.31	.00	.87	1.98	-1.00	.02
ccb	5/24/2019	11:12 PM	21.85	-1.00	6.31	-1.00	-1.00	-1.00	.00	.99	.99	.00	.00	.00	.03	.05	.02
lcs	5/24/2019	11:18 PM	21.64	-1.00	10.38	-1.00	-1.00	-1.00	90.31	202.44	21.82	180.62	.00	.90	2.02	-1.00	.02
mb	5/24/2019	11:23 PM	21.70	-1.00	6.27	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.05	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123930-H-4	5/24/2019	11:30 PM	21.63	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.17	484.17	.00	.00	.00	4.84	-1.00	.02
du	5/24/2019	11:38 PM	21.73	-1.00	7.29	-1.00	-1.00	-1.00	.00	484.73	484.73	.00	.00	.00	4.85	-1.00	.02
280-123930-J-5	5/24/2019	11:43 PM	21.79	-1.00	7.69	-1.00	-1.00	-1.00	.00	155.17	155.17	.00	.00	.00	1.55	-1.00	.02
280-123941-I-2	5/24/2019	11:50 PM	21.79	-1.00	8.28	-1.00	-1.00	-1.00	.00	362.95	362.95	.00	.00	.00	3.63	-1.00	.02
280-123941-I-4	5/24/2019	11:57 PM	21.95	-1.00	8.58	-1.00	-1.00	-1.00	25.24	424.38	373.91	50.48	.00	.25	4.24	-1.00	.02
280-123941-I-5	5/25/2019	12:05 AM	22.39	-1.00	7.94	-1.00	-1.00	-1.00	.00	576.32	576.32	.00	.00	.00	5.76	-1.00	.02
280-123941-I-6	5/25/2019	12:13 AM	22.32	-1.00	7.90	-1.00	-1.00	-1.00	.00	551.79	551.79	.00	.00	.00	5.52	-1.00	.02
280-123941-I-7	5/25/2019	12:21 AM	22.11	-1.00	7.60	-1.00	-1.00	-1.00	.00	582.27	582.27	.00	.00	.00	5.82	-1.00	.02
280-123941-I-9	5/25/2019	12:27 AM	22.02	-1.00	8.10	-1.00	-1.00	-1.00	.00	171.96	171.96	.00	.00	.00	1.72	-1.00	.02
280-123941-I-10	5/25/2019	12:34 AM	21.86	-1.00	7.94	-1.00	-1.00	-1.00	.00	410.36	410.36	.00	.00	.00	4.10	-1.00	.02
ccv	5/25/2019	12:40 AM	21.71	-1.00	10.37	-1.00	-1.00	-1.00	89.84	200.21	20.54	179.67	.00	.90	2.00	-1.00	.02
ccb	5/25/2019	12:44 AM	21.71	-1.00	6.54	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-123941-I-11	5/25/2019	12:53 AM	21.69	-1.00	8.03	-1.00	-1.00	-1.00	.00	488.04	488.04	.00	.00	.00	4.88	-1.00	.02
280-123942-C-1	5/25/2019	12:58 AM	21.71	-1.00	7.75	-1.00	-1.00	-1.00	.00	146.69	146.69	.00	.00	.00	1.47	-1.00	.02
280-123947-A-2	5/25/2019	1:08 AM	21.69	-1.00	7.64	-1.00	-1.00	-1.00	.00	845.54	845.54	.00	.00	.00	8.46	-1.00	.02
280-123955-A-1	5/25/2019	1:15 AM	21.79	-1.00	7.81	-1.00	-1.00	-1.00	.00	432.94	432.94	.00	.00	.00	4.33	-1.00	.02
280-123969-A-2	5/25/2019	1:21 AM	21.73	-1.00	9.91	-1.00	-1.00	-1.00	59.22	157.92	39.48	118.44	.00	.59	1.58	-1.00	.02
280-123969-C-4	5/25/2019	1:32 AM	21.96	-1.00	7.68	-1.00	-1.00	-1.00	.00	931.00	931.00	.00	.00	.00	9.31	-1.00	.02
280-123969-A-3	5/25/2019	1:40 AM	21.87	-1.00	8.14	-1.00	-1.00	-1.00	.00	561.64	561.64	.00	.00	.00	5.62	-1.00	.02
280-123969-C-5	5/25/2019	1:47 AM	21.64	-1.00	7.80	-1.00	-1.00	-1.00	.00	521.66	521.66	.00	.00	.00	5.22	-1.00	.02
280-123981-J-8	5/25/2019	1:53 AM	21.51	-1.00	8.02	-1.00	-1.00	-1.00	.00	202.09	202.09	.00	.00	.00	2.02	-1.00	.02
280-123981-J-3	5/25/2019	1:59 AM	21.37	-1.00	7.99	-1.00	-1.00	-1.00	.00	217.95	217.95	.00	.00	.00	2.18	-1.00	.02
ccv	5/25/2019	2:04 AM	21.25	-1.00	10.34	-1.00	-1.00	-1.00	89.34	200.92	22.25	178.67	.00	.89	2.01	-1.00	.02
ccb	5/25/2019	2:09 AM	21.32	-1.00	6.39	-1.00	-1.00	-1.00	.00	1.24	1.24	.00	.00	.00	.03	.05	.02
lcs	5/25/2019	2:15 AM	21.25	-1.00	10.32	-1.00	-1.00	-1.00	87.49	199.56	24.58	174.98	.00	.87	2.00	-1.00	.02
mb	5/25/2019	2:19 AM	21.30	-1.00	6.43	-1.00	-1.00	-1.00	.00	1.01	1.01	.00	.00	.00	.03	.04	.02
280-123981-H-4	5/25/2019	2:26 AM	21.31	-1.00	7.90	-1.00	-1.00	-1.00	.00	333.37	333.37	.00	.00	.00	3.33	-1.00	.02
du	5/25/2019	2:33 AM	21.41	-1.00	7.92	-1.00	-1.00	-1.00	.00	336.92	336.92	.00	.00	.00	3.37	-1.00	.02
280-123981-J-9	5/25/2019	2:39 AM	21.92	-1.00	8.14	-1.00	-1.00	-1.00	.00	211.07	211.07	.00	.00	.00	2.11	-1.00	.02
280-123981-I-6	5/25/2019	2:45 AM	21.82	-1.00	7.98	-1.00	-1.00	-1.00	.00	238.01	238.01	.00	.00	.00	2.38	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-123981-I-2	5/25/2019	2:50 AM	21.71	-1.00	8.16	-1.00	-1.00	-1.00	.00	151.85	151.85	.00	.00	.00	1.52	-1.00	.02
280-123981-J-7	5/25/2019	2:57 AM	21.64	-1.00	7.88	-1.00	-1.00	-1.00	.00	318.00	318.00	.00	.00	.00	3.18	-1.00	.02
280-123981-I-1	5/25/2019	3:04 AM	21.57	-1.00	7.83	-1.00	-1.00	-1.00	.00	480.47	480.47	.00	.00	.00	4.80	-1.00	.02
280-123981-J-5	5/25/2019	3:10 AM	21.57	-1.00	8.18	-1.00	-1.00	-1.00	.00	168.22	168.22	.00	.00	.00	1.68	-1.00	.02
280-123983-H-1	5/25/2019	3:15 AM	21.56	-1.00	7.68	-1.00	-1.00	-1.00	.00	80.51	80.51	.00	.00	.00	.81	-1.00	.02
280-123983-I-2	5/25/2019	3:21 AM	21.51	-1.00	7.97	-1.00	-1.00	-1.00	.00	157.17	157.17	.00	.00	.00	1.57	-1.00	.02
ccv	5/25/2019	3:27 AM	21.50	-1.00	10.31	-1.00	-1.00	-1.00	88.23	200.79	24.34	176.45	.00	.88	2.01	-1.00	.02
ccb	5/25/2019	3:31 AM	21.63	-1.00	6.41	-1.00	-1.00	-1.00	.00	1.07	1.07	.00	.00	.00	.03	.05	.02
280-123983-H-3	5/25/2019	3:37 AM	21.66	-1.00	7.48	-1.00	-1.00	-1.00	.00	133.40	133.40	.00	.00	.00	1.33	-1.00	.02
280-124012-C-2	5/25/2019	3:43 AM	21.79	-1.00	8.21	-1.00	-1.00	-1.00	.00	154.14	154.14	.00	.00	.00	1.54	-1.00	.02
280-124006-B-1	5/25/2019	3:49 AM	22.10	-1.00	8.17	-1.00	-1.00	-1.00	.00	187.63	187.63	.00	.00	.00	1.88	-1.00	.02
280-124014-A-1	5/25/2019	3:55 AM	22.02	-1.00	8.04	-1.00	-1.00	-1.00	.00	260.05	260.05	.00	.00	.00	2.60	-1.00	.02
280-124014-A-2	5/25/2019	4:02 AM	21.93	-1.00	7.99	-1.00	-1.00	-1.00	.00	471.35	471.35	.00	.00	.00	4.71	-1.00	.02
280-124036-D-1	5/25/2019	4:16 AM	21.90	-1.00	7.31	-1.00	-1.00	-1.00	.00	1,354.27	1,354.27	.00	.00	.00	13.54	-1.00	.02
280-124036-C-2	5/25/2019	4:34 AM	21.98	-1.00	7.80	-1.00	-1.00	-1.00	.00	1,920.50	1,920.50	.00	.00	.00	19.20	-1.00	.02
280-124036-C-3	5/25/2019	4:56 AM	22.07	-1.00	8.01	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124036-D-4	5/25/2019	5:12 AM	22.14	-1.00	8.09	-1.00	-1.00	-1.00	.00	1,605.88	1,605.88	.00	.00	.00	16.06	-1.00	.02
280-124036-C-6	5/25/2019	5:23 AM	22.16	-1.00	7.92	-1.00	-1.00	-1.00	.00	1,030.71	1,030.71	.00	.00	.00	10.31	-1.00	.02
ccv	5/25/2019	5:28 AM	22.08	-1.00	10.23	-1.00	-1.00	-1.00	84.01	201.28	33.25	168.03	.00	.84	2.01	-1.00	.02
ccb	5/25/2019	5:33 AM	22.03	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.11	1.11	.00	.00	.00	.03	.04	.02
lcs	5/25/2019	5:40 AM	21.98	-1.00	10.24	-1.00	-1.00	-1.00	85.95	205.96	34.06	171.90	.00	.86	2.06	-1.00	.02
mb	5/25/2019	5:45 AM	22.49	-1.00	6.46	-1.00	-1.00	-1.00	.00	1.41	1.41	.00	.00	.00	.03	.05	.02
280-124036-D-7	5/25/2019	5:55 AM	22.39	-1.00	7.87	-1.00	-1.00	-1.00	.00	994.91	994.91	.00	.00	.00	9.95	-1.00	.02
du	5/25/2019	6:06 AM	22.40	-1.00	7.88	-1.00	-1.00	-1.00	.00	1,000.38	1,000.38	.00	.00	.00	10.00	-1.00	.02
280-124036-D-8	5/25/2019	6:18 AM	22.39	-1.00	7.83	-1.00	-1.00	-1.00	.00	1,001.71	1,001.71	.00	.00	.00	10.02	-1.00	.02
280-124036-C-9	5/25/2019	6:23 AM	22.40	-1.00	6.30	-1.00	-1.00	-1.00	.00	1.28	1.28	.00	.00	.00	.03	.05	.02
280-124036-C-10	5/25/2019	6:44 AM	22.23	-1.00	8.74	-1.00	-1.00	-1.00	121.48	.00	-242.97	242.97	.00	1.21	.00	.00	.02
280-124053-F-3	5/25/2019	6:51 AM	22.42	-1.00	7.96	-1.00	-1.00	-1.00	.00	397.73	397.73	.00	.00	.00	3.98	-1.00	.02
280-124053-E-2	5/25/2019	6:57 AM	22.31	-1.00	7.92	-1.00	-1.00	-1.00	.00	284.93	284.93	.00	.00	.00	2.85	-1.00	.02
280-124070-F-5	5/25/2019	7:04 AM	22.28	-1.00	7.90	-1.00	-1.00	-1.00	.00	301.09	301.09	.00	.00	.00	3.01	-1.00	.02

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Run Number 1922 **Order Number** 20190524-1

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-124070-F-6	5/25/2019	7:10 AM	22.26	-1.00	7.96	-1.00	-1.00	-1.00	.00	213.13	213.13	.00	.00	.00	2.13	-1.00	.02
280-124070-F-3	5/25/2019	7:16 AM	22.32	-1.00	8.01	-1.00	-1.00	-1.00	.00	336.89	336.89	.00	.00	.00	3.37	-1.00	.02
ccv	5/25/2019	7:23 AM	22.40	-1.00	10.23	-1.00	-1.00	-1.00	82.94	206.67	40.79	165.88	.00	.83	2.07	-1.00	.02
ccb	5/25/2019	7:27 AM	22.70	-1.00	6.35	-1.00	-1.00	-1.00	.00	1.18	1.18	.00	.00	.00	.03	.05	.02
280-124070-F-4	5/25/2019	7:33 AM	22.55	-1.00	7.95	-1.00	-1.00	-1.00	.00	266.39	266.39	.00	.00	.00	2.66	-1.00	.02
280-124070-F-1	5/25/2019	7:40 AM	22.49	-1.00	7.91	-1.00	-1.00	-1.00	.00	355.63	355.63	.00	.00	.00	3.56	-1.00	.02
280-124070-F-2	5/25/2019	7:46 AM	22.46	-1.00	7.98	-1.00	-1.00	-1.00	.00	246.93	246.93	.00	.00	.00	2.47	-1.00	.02
280-124156-E-1	5/25/2019	7:57 AM	22.43	-1.00	8.62	-1.00	-1.00	-1.00	36.56	1,039.07	965.95	73.12	.00	.37	10.39	-1.00	.02
280-123939-A-3	5/25/2019	8:02 AM	22.52	-1.00	8.14	-1.00	-1.00	-1.00	.00	82.75	82.75	.00	.00	.00	.83	-1.00	.02
280-123939-A-3 du	5/25/2019	8:07 AM	22.39	-1.00	8.21	-1.00	-1.00	-1.00	.00	83.01	83.01	.00	.00	.00	.83	-1.00	.02
280-123939-A-4	5/25/2019	8:12 AM	22.42	-1.00	6.28	-1.00	-1.00	-1.00	.00	.92	.92	.00	.00	.00	.03	.04	.02
280-124055-A-1	5/25/2019	8:17 AM	22.42	-1.00	7.08	-1.00	-1.00	-1.00	.00	71.71	71.71	.00	.00	.00	.72	-1.00	.02
280-124055-A-2	5/25/2019	8:23 AM	22.46	-1.00	8.05	-1.00	-1.00	-1.00	.00	197.82	197.82	.00	.00	.00	1.98	-1.00	.02
280-124055-A-3	5/25/2019	8:26 AM	22.54	-1.00	4.07	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
ccv	5/25/2019	8:32 AM	22.89	-1.00	10.11	-1.00	-1.00	-1.00	78.99	202.48	44.50	157.98	.00	.79	2.02	-1.00	.02
ccb	5/25/2019	8:37 AM	22.96	-1.00	6.88	-1.00	-1.00	-1.00	.00	1.91	1.91	.00	.00	.00	.04	.06	.02
lcs	5/25/2019	8:43 AM	22.98	-1.00	10.13	-1.00	-1.00	-1.00	77.19	200.11	45.73	154.37	.00	.77	2.00	-1.00	.02
mb	5/25/2019	8:48 AM	22.92	-1.00	6.71	-1.00	-1.00	-1.00	.00	1.63	1.63	.00	.00	.00	.03	.05	.02
280-124055-A-4	5/25/2019	8:53 AM	22.83	-1.00	7.37	-1.00	-1.00	-1.00	.00	40.22	40.22	.00	.00	.00	.40	-1.00	.02
280-124055-A-5	5/25/2019	8:56 AM	22.81	-1.00	3.81	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-124055-A-6	5/25/2019	9:01 AM	22.80	-1.00	7.22	-1.00	-1.00	-1.00	.00	37.84	37.84	.00	.00	.00	.38	-1.00	.02
ccv	5/25/2019	9:07 AM	22.78	-1.00	10.18	-1.00	-1.00	-1.00	79.97	201.90	41.96	159.94	.00	.80	2.02	-1.00	.02
ccb	5/25/2019	9:12 AM	22.77	-1.00	6.57	-1.00	-1.00	-1.00	.00	1.75	1.75	.00	.00	.00	.03	.05	.02

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2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-459057 Analyst: Setjoadi, Mayori J Batch Open: 5/22/2019 12:03:00PM

Batch End:

Solids, Total Dissolved (TDS)

Conductivity MJS 5/22/19

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~280-459057/1 N/A	N/A			0.41	N/A	N/A	N/A		
2	LCS~280-459057/2 N/A	N/A				N/A	N/A	N/A		
3	280-123924-B-1 (2540C_Calcd)	N/A (280-123924-1)	Water	100	315	6/5/19	12_Days	4		
4	280-123924-B-1 (2540C_Calcd)	N/A (280-123924-1)	Water	100	315	6/5/19	12_Days	4		
5	280-123924-B-2 (2540C_Calcd)	N/A (280-123924-1)	Water	100	241	6/5/19	12_Days	4		
6	280-123924-A-3 (2540C_Calcd)	N/A (280-123924-1)	Water	100	922	6/5/19	12_Days	4		
7	280-123924-A-4 (2540C_Calcd)	N/A (280-123924-1)	Water	100	1025	6/5/19	12_Days	4		
8	280-123924-A-5 (2540C_Calcd)	N/A (280-123924-1)	Water	50	1259	6/5/19	12_Days	4		
9	280-123924-B-6 (2540C_Calcd)	N/A (280-123924-1)	Water	100	890	6/5/19	12_Days	4		
10	280-123924-B-7 (2540C_Calcd)	N/A (280-123924-1)	Water	MJS 5/22/19 ~~250~~ 50	1310	6/5/19	12_Days	4		
11	280-123924-B-8 (2540C_Calcd)	N/A (280-123924-1)	Water	50	1283	6/5/19	12_Days	4		
12	280-123924-B-9 (2540C_Calcd)	N/A (280-123924-1)	Water	50	1272	6/5/19	12_Days	4		
13	280-123924-A-10 (2540C_Calcd)	N/A (280-123924-1)	Water	100	162.0	6/5/19	12_Days	4		
14	280-123924-A-11 (2540C_Calcd)	N/A (280-123924-1)	Water	100	181.2	6/5/19	12_Days	4		

(2)

2540C_Calcd Analysis Sheet

In 14:54

(To Accompany Samples to Instruments)

06/25/2019

Batch Number: 280-459057

Analyst: Setjoadi, Mayori J

Batch Open: 5/22/2019 12:03:00PM

Batch End:

15	280-124082-D-1 N/A	N/A		50	2064	N/A	N/A	N/A	
16	280-124082-E-2 N/A	N/A		25	3160	N/A	N/A	N/A	
17	280-124082-D-3 N/A	N/A		50	1914	N/A	N/A	N/A	
18	280-124082-D-4 N/A	N/A		50	1711	N/A	N/A	N/A	
19	280-124082-D-5 N/A	N/A		50	1795	N/A	N/A	N/A	
20	280-124082-D-6 N/A	N/A		50	2635	N/A	N/A	N/A	
21	280-124082-E-7 N/A	N/A		100	606	N/A	N/A	N/A	
22	280-124082-E-8 N/A	N/A		100	585	N/A	N/A	N/A	
23	280-123924-B-12 (2540C_Calcd)	N/A (280-123924-1)	Water	50	1269	6/5/19	12_Days	4	
24	280-123924-B-12 (2540C_Calcd)	N/A (280-123924-1)	Water	50	1269	6/5/19	12_Days	4	

Page 1401 of 1484

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

06/25/2019

Batch Number: 280-461044

Analyst: Larson, Eric C

Batch Open: 6/10/2019 1:58:00PM

Batch End:

Solids, Total Dissolved (TDS)

Conductivity EQ 6-10-19

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~280-461044/1 N/A	N/A		100mL	146	N/A	N/A	N/A		
2	LCS~280-461044/2 N/A	N/A		100mL	—	N/A	N/A	N/A		
3	280-123698-D-1~MS (2540C_Calcd)	N/A (280-123698-1)	Water	100mL	717	5/28/19	12_Days	2		
4	280-123698-D-1~MS (2540C_Calcd)	N/A (280-123698-1)	Water	100mL	717	5/28/19	12_Days	2		
4	280-123698-D-1~MS (2540C_Calcd)	N/A (280-123924-1)	Water			6/5/19	12_Days	4		
4	280-123698-D-1~MS (2540C_Calcd)	N/A (280-124626-1)	Water			6/14/19	8_Days	2		
4	280-123698-D-1~MS (2540C_Calcd)	N/A (280-124827-1)	Water			6/25/19	12_Day_Rush	2		
5	280-123971-D-1~MSD (2540C_Calcd)	N/A (280-123924-1)	Water	50mL	2793	6/5/19	12_Days	4		
5	280-123971-D-1~MSD (2540C_Calcd)	N/A (280-123971-1)	Water			6/3/19	12_Days	2		
5	280-123971-D-1~MSD (2540C_Calcd)	N/A (280-124626-1)	Water			6/14/19	8_Days	2		
5	280-123971-D-1~MSD (2540C_Calcd)	N/A (280-124827-1)	Water			6/25/19	12_Day_Rush	2		
6	280-123924-B-2 (2540C_Calcd)	N/A (280-123924-1)	Water	100mL	239	6/5/19	12_Days	4		
7	280-123924-A-10 (2540C_Calcd)	N/A (280-123924-1)	Water	100mL	150	6/5/19	12_Days	4		
8	280-123924-A-11 (2540C_Calcd)	N/A (280-123924-1)	Water	100mL	168	6/5/19	12_Days	4		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-461044 Analyst: Larson, Eric C Batch Open: 6/10/2019 1:58:00PM

Batch End:

06/25/2019

9	280-124746-C-2 N/A	N/A		100mL →	552	N/A	N/A	N/A	
10	280-124746-C-3 N/A	N/A		50mL →	1437	N/A	N/A	N/A	
11	280-124746-C-4 N/A	N/A		50mL →	2046	N/A	N/A	N/A	
12	280-124746-E-5 N/A	N/A		25mL →	3350	N/A	N/A	N/A	
13	280-124827-A-1 (2540C_Calcd)	N/A (280-124827-1)	Water	25mL	Hist	6/25/19	12_Day_Rush	2	
14	280-124827-A-3 (2540C_Calcd)	N/A (280-124827-1)	Water	50mL	Hist	6/25/19	12_Day_Rush	2	
15	280-124827-A-4 (2540C_Calcd)	N/A (280-124827-1)	Water	~~1400~~ 50mL	Hist	6/25/19	12_Day_Rush	2	
16	280-124827-A-5 (2540C_Calcd)	N/A (280-124827-1)	Water	50mL	Hist	6/25/19	12_Day_Rush	2	
17	280-124827-A-6 (2540C_Calcd)	N/A (280-124827-1)	Water	50mL	Hist	6/25/19	12_Day_Rush	2	
18	280-124827-A-7 (2540C_Calcd)	N/A (280-124827-1)	Water	25mL	Hist	6/25/19	12_Day_Rush	2	
19	280-124685-A-1 N/A	N/A		100mL	1002	N/A	N/A	N/A	
20	280-124685-A-2 N/A	N/A		100mL	1097	N/A	N/A	N/A	
21	280-124685-A-3 N/A	N/A		100mL	1065	N/A	N/A	N/A	
22	280-124685-A-4 N/A	N/A		100mL	1107	N/A	N/A	N/A	
23	280-124626-A-3 (2540C_Calcd)	N/A (280-124626-1)	Water	100mL	Hist	6/14/19	8_Days	2	
24	280-124626-A-3 (2540C_Calcd)	N/A (280-124626-1)	Water	100mL	Hist	6/14/19	8_Days	2	

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COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.466	149.1	-13.4408	-8.06448

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.478	149.1	-17.6264	-10.57584

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.459	149.1	-10.9992	-6.59952

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
5	-348.8	0.353	149.1	25.9736	77.9208

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.467	149.1	-13.7896	-8.27376

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.106	149.1	112.1272	67.27632

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.396	149.1	10.9752	6.58512

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.438	149.1	-3.6744	-2.20464

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.460	149.1	-11.348	-6.8088

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.478	149.1	-17.6264	-10.57584

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.032	149.1	137.9384	82.76304

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.440	149.1	-4.372	-2.6232

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.445	149.1	-6.116	-3.6696

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.435	149.1	-2.628	-1.5768

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.427	149.1	0.1624	0.09744

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.441	149.1	-4.7208	-2.83248

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.449	149.1	-7.5112	-4.50672

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.417	149.1	3.6504	2.19024

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.434	149.1	-2.2792	-1.36752

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.406	149.1	7.4872	4.49232

COD dilution	Slope	instrument response	intercept	COD result	estimated BOD result
1	-348.8	0.441	149.1	-4.7208	-2.83248

TALS Raw Data Report

Job Number: 280-123922-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	777777777	mg/L	0.611 J mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	366666667	mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen	366666666	mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 22 Lab ID: **280-123922-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		1.8494 mg/L	2.3 J mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 23 Lab ID: **280-123922-B-2** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		1.5694 mg/L	2.0 J mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 24 Lab ID: **280-123922-A-3** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123923-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen		366666666 mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	mg/L			NC	20

RS# 25 Lab ID: **280-123923-C-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		3.1491 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123924-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	777777777	mg/L	0.611 J mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	366666667	mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen	366666666	mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 10 Lab ID: **280-123924-A-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 11 Lab ID: **280-123924-A-2** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 12 Lab ID: **280-123924-B-3** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 13 Lab ID: **280-123924-A-4** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		4.76395 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 14 Lab ID: **280-123924-A-5** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 15 Lab ID: **280-123924-B-6** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 16 Lab ID: **280-123924-B-7** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 17 Lab ID: **280-123924-B-8** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 18 Lab ID: **280-123924-B-9** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 19 Lab ID: **280-123924-B-10** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		2.2094 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 20 Lab ID: **280-123924-B-11** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 21 Lab ID: **280-123924-A-12** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-123930-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	777777777	mg/L	0.611 J mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen	366666667	mg/L	0.59 U mg/L				

RS# 3 Lab ID: **LCS 280-458606/3** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		
Biochemical Oxygen	366666666	mg/L	mg/L	102	85 115		

RS# 4 Lab ID: **MB 280-458606/4** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 5 Lab ID: **280-123930-B-1** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		ND mg/L	0.59 U mg/L				

RS# 6 Lab ID: **280-123930-B-1 DU** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				20
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20

RS# 7 Lab ID: **280-123930-B-2** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 8 Lab ID: **280-123930-B-3** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 9 Lab ID: **280-123930-A-4** Inj Date: 5/17/2019 3:43:09PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		3.4391 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 26 Lab ID: **LCS 280-458606/26** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		333333334 mg/L	mg/L	98	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 27 Lab ID: **MB 280-458606/27** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 28 Lab ID: **280-123930-B-5** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 29 Lab ID: **280-123930-B-5 DU** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	0.59 U mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

TALS Raw Data Report

Job Number: 280-123945-1
LIMS Batch: 458606
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **SCB 280-458606/1** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		777777777 mg/L	mg/L	76	75 125		

RS# 2 Lab ID: **USB 280-458606/2** Inj Date: 5/17/2019 3:43:00PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Carbonaceous Bioch		mg/L	mg/L				
Biochemical Oxygen		366666667 mg/L	mg/L				

RS# 26 Lab ID: **LCS 280-458606/26** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		333333334 mg/L	mg/L	98	85 115		
Carbonaceous Bioch		mg/L	mg/L	NaN	58 128		

RS# 27 Lab ID: **MB 280-458606/27** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 28 Lab ID: **280-123930-B-5** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

RS# 29 Lab ID: **280-123930-B-5 DU** Inj Date: 5/17/2019 6:30:20PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		ND mg/L	mg/L			NC	20
Carbonaceous Bioch		mg/L	mg/L				20

RS# 30 Lab ID: **280-123945-A-1** Inj Date: 5/17/2019 6:30:35PM Dil: 1.0 Meth: SM5210B_BODCa

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Biochemical Oxygen		3.9041 mg/L	mg/L				
Carbonaceous Bioch		mg/L	mg/L				

Shipping and Receiving Documents

Login Sample Receipt Checklist

Client: Bhate Environmental

Job Number: 280-123924-1

Login Number: 123924
List Number: 1
Creator: Gomez, Alyssa I

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Marcia Olive, Bhate Environmental Associates, Inc., Denver, Colorado.

Introduction

This data validation report covers samples taken from Griffiss Air Force Base, New York, on May 16, 2019. Two aqueous samples, one field duplicate and quality control (QC) blank were collected as part of the biennial long term monitoring event at LF001. All analyses were performed by Eurofins TestAmerica, Denver, in Arvada, Colorado. The specific samples included in this validation were:

Sample Identification*	Matrix	Collection Date	Lab Package	Analyses (USEPA Method Number)
LF1MW-5_0519	Water	5/16/19	280-123922	VOCs (SW8260B), Anions (SW9056A), Alkalinity (SM2320B), Ammonia (E350.1), TKN (E351.2), COD (E410.4), TOC (SW9060A), BOD (SM5210B), Phenols (SW9066), TDS (SM2540C), Color (SM2120B), Hardness (SM2340C), Total Boron (SW6010C)
LF1MW-5_0519-a				
LF1P-5_0519				Anions (SW9056A), Alkalinity (SM2320B), Ammonia (E350.1), TKN (E351.2), COD (E410.4), TOC (SW9060A), BOD (SM5210B), Phenols (SW9066), TDS (SM2540C), Color (SM2120B), Hardness (SM2340C), Total Boron (SW6010C)
LF1-TB1_051619				VOCs (SW8260B)

Notes – USEPA = United States Environmental Protection Agency; SM = Standard Method; SW = Solid Waste;
E = Environmental Protection Agency method; TKN = Total Kjeldahl Nitrogen; COD = Chemical Oxygen Demand; BOD = Biochemical Oxygen Demand; TDS = Total Dissolved Solids; TOC = Total Organic Carbon; VOCs = Volatile Organic Compounds;
-a = field duplicate; TB – trip blank
*Samples LF1MW-1R and LF1MW-6 were missing due to the well not being located and the well not being accessible for sampling, respectively.

This data was validated against the laboratory's quality assurance (QA)/QC limits using the guidelines and practices published in the *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (USEPA, January 2017), *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (USEPA, January 2017), and per requirements of the Department of Defense (DOD) Quality Systems Manual (QSM), Version 5.0, as specified in the project-specific Quality Assurance Project Plan (QAPP).

Sample Handling and Holding Times

The samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis and analyzed within the required holding times.

Method Blank

BOD was detected in the seeded control blank. It was detected in samples LF1MW-5_0519 and LF1MW-5_0519-a at a concentration < 5x the blank. Therefore, these two results were considered artifacts of blank contamination and flagged "UB".

Blank Spike Sample (Laboratory Control Sample)/Surrogates

The laboratory control sample (LCS) recoveries for 1,2,3-trichloropropane (124%) and acetone (164%) were above control limits. These compounds were not detected in the samples and required no qualification.

Matrix Spike/Matrix Spike Duplicates (MS/MSD)

In the spiked sample LF1P-5_0519, the MS and MSD recoveries of orthophosphate (14%/13%) were below control limits. In spiked sample LF1MW-5_0519, the MS of chloride (113%) was above control limits. These detections were qualified as estimated "J".

Project Specific Quality Assurance/Quality Control

One field duplicate was collected with this sample package. The duplicate relative percent difference (RPD) for color was outside project defined control limits. These compounds were qualified as estimated, "J", in both sample and duplicate.

Calibration Verification Data

The continuing calibration verification recovery of vinyl acetate; 2-butanone; 2,2-dichloropropane; 1,2-dichloroethane; cis-1,3-dichloropropene; 4-methyl-2-pentanone; trans-1,3-dichloropropene; 2-hexanone; 1,1,2,2-tetrachloroethane; and naphthalene were outside control limits. These compounds were qualified and flagged "UJ".

Overall Assessment of Data

All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

Summary of Qualified Results

Sample Identification	Compound	Result and Qualifier (VOCs -µg/L, general chemistry – mg/L, color - PCU)	Reason Code
LF1MW-5_0519	BOD	2.3 UB	Blank
	Chloride	7.5 J	MS >
	Color	100 J	FD RPD
	Vinyl acetate	2.0 UJ	CCV
	2-Butanone	4.0 UJ	CCV
	2,2-Dichloropropane	0.80 UJ	CCV
	1,2-Dichloroethane	0.40 UJ	CCV
	cis-1,3-Dichloropropene	0.40 UJ	CCV
	4-Methyl-2-pentanone	3.2 UJ	CCV
	trans-1,3-dichloropropene	0.40 UJ	CCV
	2-Hexanone	4.0 UJ	CCV
	1,1,2,2-Tetrachloroethane	0.80 UJ	CCV
	Naphthalene	0.80 UJ	CCV

Sample Identification	Compound	Result and Qualifier (VOCs -µg/L, general chemistry – mg/L, color - PCU)	Reason Code
LF1MW-5_0519-a	BOD	2.0 UB	Blank
	Color	150 J	FD RPD
	Vinyl acetate	2.0 UJ	CCV
	2-Butanone	4.0 UJ	CCV
	2,2-Dichloropropane	0.80 UJ	CCV
	1,2-Dichloroethane	0.40 UJ	CCV
	cis-1,3-Dichloropropene	0.40 UJ	CCV
	4-Methyl-2-pentanone	3.2 UJ	CCV
	trans-1,3-Dichloropropene	0.40 UJ	CCV
	2-Hexanone	4.0 UJ	CCV
	1,1,2,2-Tetrachloroethane	0.80 UJ	CCV
	Naphthalene	0.80 UJ	CCV
LFIP-5_0519	Orthophosphate	1.4 J	MS/MSD <

Notes: FD RPD – field duplicate relative percent different outside control limits; MS/MSD<> - matrix spike/duplicate below/above control limits; CCV – continuing calibration verification outside control limits; UB – artifact of blank contamination; J – estimated; UJ – estimated non-detect; µg/L – micrograms per liter; mg/L – milligrams per liter; PCU – Platinum-Cobalt Units

Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Marcia Olive, Bhate Environmental Associates, Inc., Denver, Colorado.

Introduction

This data validation report covers samples taken from Griffiss Air Force Base, New York, on May 16-17, 2019. Seven aqueous samples and one field duplicate were collected for the long term monitoring event at LF002 (sampled every 5 years). All analyses were performed by Eurofins TestAmerica, Denver, in Arvada, Colorado. The specific samples included in this validation were:

Sample Identification	Matrix	Collection Date	Lab Package	Analyses (USEPA Method Number)
LF2MW2-1_0519	Water	5/16/19	280-123930	Anions (SW9056A), Alkalinity (SM2320B), Ammonia (E350.1), TKN (E351.2), COD (E410.4), TOC (SW9060A), BOD (SM5210B), Phenols (SW9066), TDS (SM2540C), Color (SM2120B), Hardness (SM2340C), Total Boron (SW6010C)
LF2MW-12_0519				
LF2MW-12_0519-a				
LF2MW-4_0519				
LF2MW-13_0519				
LF2SW-1_0519		5/17/19	280-123983	
LF2SW-2_0519				
LF2SW-3_0519				
Notes – USEPA = United States Environmental Protection Agency; SM = Standard Method; SW = Solid Waste; E = Environmental Protection Agency; TKN = Total Kjeldahl Nitrogen; COD = Chemical Oxygen Demand; BOD = Biochemical Oxygen Demand; TDS = Total Dissolved Solids; TOC = Total Organic Carbon; -a = field duplicate				

This data was validated against the laboratory's quality assurance (QA)/quality control (QC) limits using the guidelines and practices published in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (USEPA, January 2017) and per requirements of the Department of Defense (DOD) Quality Systems Manual (QSM), Version 5.0, as specified in the project-specific Quality Assurance Project Plan (QAPP).

Sample Handling and Holding Times

The samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis and analyzed within the required holding times with the following exception:

- The re-analysis of orthophosphate exceeded the requisite hold time for samples LF2MW-4_0519, LF2MW-13_0519, LF2SW-1_0519, LF2SW-2_0519 and LF2SW-3_0519. The samples were flagged as estimated non-detects "UJ".

Method Blank

BOD was detected in the seeded control blank. Either the associated samples reported no detections or detections >5x the blank concentration. Therefore, no qualification was necessary.

Fluoride was detected in the method blank of both packages. All samples that reported detections <5x the blank concentration were considered artifacts of blank contamination. Therefore, they were qualified and flagged "UB".

TOC was detected in a method blank of package 280-123983. The associated samples reported detections >5x the blank concentration. Therefore, no qualification was required.

Total phenols and BOD were detected in the method blanks. Only associated samples LF2SW-1_0519 and LF2SW-2_0519 reported detections <5x the blank concentration and were qualified "UB".

Blank Spike Sample (Laboratory Control Sample)/Surrogates

The laboratory control sample (LCS)/LCS duplicate (LCSD) recoveries of orthophosphate were above control limits. Only associated sample LF2SW-3_0519 reported a detection and was qualified as estimated, "J".

The surrogate recoveries were within control limits.

Matrix Spike/Matrix Spike Duplicates (MS/MSD)

The MS and/or MSD recoveries for TKN, COD, orthophosphate, sulfate and nitrite were outside control limits. If the recovery was above control limits, the detections were qualified as estimated, "J". If the recovery was below control limits, either the detected or non-detected compound was qualified as estimated, "J/UJ". Only the sample used for spiking required qualification.

Project Specific Quality Assurance/Quality Control

One field duplicate was collected with this sample package. The relative percent difference (RPD) for fluoride was outside project defined control limits. This compound was qualified as estimated, "J", in both sample and duplicate.

Calibration Verification Data

The continuing calibration verification for orthophosphate was recovered above control limits associated with samples LF2MW-12_0519-a, LF2MW-4_0519, LF2MW-13_0519, LF2SW-1_0519, LF2SW-2_0519 and LF2SW-3_0519. This data was qualified as estimated, "J/UJ".

Overall Assessment of Data

All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

Summary of Qualified Results

Sample Identification	Compound	Result and Qualifier (mg/L)	Reason Code
LF2MW2-1_0519	Fluoride COD	0.12 UB 26 J	MB MS/MSD <

Sample Identification	Compound	Result and Qualifier (mg/L)	Reason Code
LF2MW-12_0519	Fluoride Orthophosphate	0.067 UB* 2.2 J	FD RPD/MB MS /MSD >
LF2MW-12_0519-a	Fluoride TKN Orthophosphate	0.10 UB* 0.50 UJ 0.20 UJ	FD RPD/MB MS/MSD < CCV
LF2MW-4_0519	Fluoride Orthophosphate	0.47 UB 0.20 UJ	MB HT/CCV
LF2MW-13_0519	Fluoride Orthophosphate	0.079 UB 0.20 UJ	MB HT/CCV
LF2SW-1_0519	Orthophosphate Sulfate Total Phenols BOD	0.20 UJ 1.8 J 0.027 UB 3.0 UB	HT/CCV MS/MSD < MB MB
LF2SW-2_0519	Orthophosphate Fluoride Total Phenols BOD	0.20 UJ 0.074 UB 0.012 UB 2.0 UB	HT/CCV MB MB MB
LF2SW-3_0519	Orthophosphate Fluoride	0.35 J 0.067 UB	HT/LCS/LCSD >/CCV MB

Notes: FD RPD – field duplicate relative percent different outside control limits; MS/MSD<> - matrix spike/duplicate below/above control limits; LCS/LCSD> - lab control spike/duplicate above control limits; MB –method blank contamination; CCV – continuing calibration verification outside control limits; HT – hold time exceedance; UB – artifact of blank contamination; J – estimated; UJ – estimated non-detect; *UB flag supersedes other flags; mg/L – milligrams per liter

Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Marcia Olive, Bhate Environmental Associates, Inc., Denver, Colorado.

Introduction

This data validation report covers samples taken from Griffiss Air Force Base, New York, on May 17, 2019. Eight aqueous samples and one field duplicate were collected for the long term monitoring event at LF003 (sampled every 5 years). All analyses were performed by Eurofins TestAmerica, Denver, in Arvada, Colorado. The specific samples included in this validation were:

Sample Identification	Matrix	Collection Date	Lab Package	Analyses (USEPA Method Number)
LF7MW-22_0519	Water	5/17/19	280-123981	Anions (SW9056A), Alkalinity (SM2320B), Ammonia (E350.1), TKN (E351.2), COD (E410.4), TOC (SW9060A), BOD (SM5210B), Phenols (SW9066), TDS (SM2540C), Color (SM2120B), Hardness (SM2340C), Total Boron (SW6010C)
LF7MW-23_0519				
LF7MW-26_0519				
LF7MW-26_0519-a				
LF7MW-27_0519				
LF7MW-28_0519				
LF7MW-30_0519				
LF7WL-3_0519				
LF7WL-4_0519				
Notes - USEPA = United States Environmental Protection Agency; SM = Standard Method; SW = Solid Waste; E = Environmental Protection Agency method; TKN = Total Kjeldahl Nitrogen; COD = Chemical Oxygen Demand; BOD = Biochemical Oxygen Demand; TDS = Total Dissolved Solids; TOC = Total Organic Carbon; -a = field duplicate				

This data was validated against the laboratory's quality assurance (QA)/quality control (QC) limits using the guidelines and practices published in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (USEPA, January 2017) and per requirements of the Department of Defense (DOD) Quality Systems Manual (QSM), Version 5.0, as specified in the project-specific Quality Assurance Project Plan (QAPP).

Sample Handling and Holding Times

The samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis and analyzed within the required holding times with the following exception:

- The re-analysis of orthophosphate exceeded the requisite hold time. The effected samples were flagged as estimated, "J".

Method Blank

BOD was detected in the seeded control blank. Only sample LF7WL-4_0519 reported a detection <5x the blank concentration. This compound was considered an artifact of blank contamination and flagged "UB".

Fluoride and total phenols were detected in the method blanks. Those samples that reported detections <5x the blank concentration were considered artifacts of blank contamination. Therefore, they were qualified and flagged "UB".

Blank Spike Sample (Laboratory Control Sample)/Surrogates

The laboratory control sample (LCS) and LCS duplicate (LCSD) recoveries for orthophosphate (119%/119%) were above control limits. Those compounds with detections were qualified as estimated, "J".

Matrix Spike/Matrix Spike Duplicates (MS/MSD)

The MS and/or MSD recoveries for nitrate, bromide and orthophosphate were outside control limits. If the recovery was above control limits, the detections were qualified as estimated, "J". If the recovery was below control limits, either the detected or non-detected compound was qualified as estimated, "J/UJ". Only the sample used for spiking required qualification.

Project Specific Quality Assurance/Quality Control

One field duplicate was collected with this sample package. The relative percent difference (RPD) for nitrate nitrite as N, orthophosphate, color, alkalinity, TDS and nitrate were outside project defined control limits. These compounds were qualified as estimated, "J", in both sample and duplicate.

The laboratory duplicate of nitrate nitrite as N exceeded control limits. The result in sample LF7MW-26_0519 was qualified as estimated, "J".

Calibration Verification Data

The continuing calibration verification for orthophosphate was recovered above control limits associated with all samples. This data was qualified as estimated, "J/UJ".

Overall Assessment of Data

All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

Summary of Qualified Results

Sample Identification	Compound	Result and Qualifier (mg/L, color in PCU)	Reason Code
LF7MW-22_0519	Orthophosphate	0.30 J	LCS/LCSD >/CCV
LF7MW-23_0519	Orthophosphate	0.20 UJ	CCV
	Fluoride	0.071 UB	MB
	Total Phenols	0.013 UB	MB
LF7MW-26_0519	Orthophosphate	0.43 J	LCS/LCSD >/MS/MSD >/FD RPD/CCV/HT
	Fluoride	0.086 UB	MB
	Total Phenols	0.011 UB	MB
	Nitrate nitrite as N	0.11 J	FD RPD/lab dup RPD
	Nitrate	0.11 J	FD RPD
	Color	5 J	FD RPD
	Alkalinity	220 J	FD RPD
	TDS	230 J	FD RPD
LF7MW-26_0519-a	Orthophosphate	0.85 J	LCS/LCSD >/FD RPD/CCV/HT

Sample Identification	Compound	Result and Qualifier (mg/L, color in PCU)	Reason Code
	Fluoride	0.071 UB	MB
	Total Phenols	0.012 UB	MB
	Nitrate nitrite as N	0.052 J	FD RPD
	Nitrate	0.052 J	FD RPD
	Color	15 J	FD RPD
	Alkalinity	330 J	FD RPD
	TDS	340 J	FD RPD
LF7MW-27_0519	Orthophosphate	0.38 J	LCS/LCSD >/CCV/HT
	Fluoride	0.089 UB	MB
	Total Phenols	0.0099 UB	MB
LF7MW-28_0519	Orthophosphate	0.58 J	LCS/LCSD >/MSD </CCV/HT
	Fluoride	0.084 UB	MB
	Total Phenols	0.0099 UB	MB
LF7MW-30_0519	Orthophosphate	0.44 J	LCS/LCSD >/CCV/HT
	Fluoride	0.086 UB	MB
	Total Phenols	0.011 UB	MB
LF7WL-3_0519	Orthophosphate	0.50 J	LCS/LCSD >/CCV/HT
	Fluoride	0.069 UB	MB
	Total Phenols	0.010 UB	MB
LF7WL-4_0519	Orthophosphate	0.48 J	LCS/LCSD >/CCV/HT
	Total Phenols	0.0080 UB	MB
	BOD	1.9 UB	Blank

Notes: FD RPD – field duplicate relative percent different outside control limits; MS/MSD<> - matrix spike/duplicate below/above control limits; LCS/LCSD> - lab control spike/duplicate above control limits; MB – method blank contamination; CCV – continuing calibration verification outside control limits; HT – hold time exceedance; UB – artifact of blank contamination; J – estimated; UJ – estimated non-detect; mg/L – milligrams per liter; PCU – Platinum-Cobalt Units

Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Marcia Olive, Bhate Environmental Associates, Inc., Denver, Colorado.

Introduction

This data validation report covers samples taken from Griffiss Air Force Base, New York, on May 14-15, 2019. Eight aqueous samples and one field duplicate were collected for the long term monitoring event at LF007 (sampled every 5 years). All analyses were performed by Eurofins TestAmerica, Denver, in Arvada, Colorado. The specific samples included in this validation were:

Sample Identification	Matrix	Collection Date	Lab Package	Analyses (USEPA Method Number)
LF5MW-3_0519	Water	5/14/19	280-123814	Anions (SW9056A), Alkalinity (SM2320B), Ammonia (E350.1), TKN (E351.2), COD (E410.4), TOC (SW9060A), BOD (SM5210B), Phenols (SW9066), TDS (SM2540C), Color (SM2120B), Hardness (SM2340C), Total Boron (SW6010C)
LF5MW-5_0519				
LF5MW-5_0519-a				
LF5MW-1A_0519				
LF5MW-100R_0519		5/15/19	280-123855	
MW49D07_0519				
LF5SW-1_0519				
LF5SW-2_0519				
LF5SW-3_0519				
Notes – USEPA = United States Environmental Protection Agency; SM = Standard Method; SW = Solid Waste; E = Environmental Protection Agency method; TKN = Total Kjeldahl Nitrogen; COD = Chemical Oxygen Demand; BOD = Biochemical Oxygen Demand; TDS = Total Dissolved Solids; TOC = Total Organic Carbon; -a = field duplicate				

This data was validated against the laboratory's quality assurance (QA)/quality control (QC) limits using the guidelines and practices published in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (USEPA, January 2017) and per requirements of the Department of Defense (DOD) Quality Systems Manual (QSM), Version 5.0, as specified in the project-specific Quality Assurance Project Plan (QAPP).

Sample Handling and Holding Times

The samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis and analyzed within the required holding times.

Method Blank

BOD was detected in the seeded control blank. It was not detected in any sample and required no qualification.

Fluoride was detected in the method blank but not in the associated samples. No qualification was necessary.

Blank Spike Sample (Laboratory Control Sample)/Surrogates

The laboratory control sample (LCS) recoveries were within control limits.

Matrix Spike/Matrix Spike Duplicates (MS/MSD)

In the spiked sample, LF5MW-5_0519-a, the MS and/or MSD recoveries of orthophosphate, chloride and sulfate were outside control limits. The detections were qualified as estimated, "J".

In spike sample MW49D07_0519, the MS and MSD recoveries for TKN were below control limits. This non-detect compound was qualified as estimated and flagged "UJ".

Project Specific Quality Assurance/Quality Control

One field duplicate was collected with this sample package. The duplicate relative percent different (RPD) for nitrate nitrite as N and nitrate were outside project defined control limits. These compounds were qualified as estimated, "J", in both sample and duplicate.

Calibration Verification Data

All calibration data were within control limits.

Overall Assessment of Data

All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

Summary of Qualified Results

Sample Identification	Compound	Result and Qualifier (mg/L)	Reason Code
LF5MW-5_0519	Nitrate Nitrite as N Nitrate	1.2 J 1.2 J	Dup RPD Dup RPD
LF5MW-5_0519-a	Orthophosphate Chloride Sulfate Nitrate Nitrite as N Nitrate	0.32 J 1.8 J 5.4 J 0.090 J 0.090 J	MS/MSD > MS/MSD < MS < Dup RPD Dup RPD
MW49D07_0519	TKN	0.50 UJ	MS/MSD <<
Notes: Dup RPD – field duplicate relative percent different outside control limits; MS/MSD<> - matrix spike/duplicate below/above control limits; J – estimated; UJ – estimated non-detect; mg/L – milligrams per liter			

Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Marcia Olive, Bhate Environmental Associates, Inc., Denver, Colorado.

Introduction

This data validation report covers samples taken from Griffiss Air Force Base, New York, on May 15-16, 2019. Sixteen aqueous samples and two field duplicates were collected for the long term monitoring event at LF009 (sampled every 5 years). All analyses were performed by Eurofins TestAmerica, Denver, in Arvada, Colorado. The specific samples included in this validation were:

Sample Identification	Matrix	Collection Date	Lab Package	Analyses (USEPA Method Number)
LF6MW-1_0519	Water	5/15/19	280-123853	Anions (SW9056A), Alkalinity (SM2320B), Ammonia (E350.1), TKN (E351.2), COD (E410.4), TOC (SW9060A), BOD (SM5210B), Phenols (SW9066), TDS (SM2540C), Color (SM2120B), Hardness (SM2340C), Total Boron (SW6010C)
775VMW-18R_0519				
TMC-USGS-2_0519				
LF6VMW-21_0519				
LF6VMW-21_0519-a				
LF6/TMCSW-3_0519				
LF6VMW-22_0519		5/16/19	280-123924	
LF6VMW-10R2_0519				
LF6VMW-26_0519				
LF6MW-12_0519				
LF6VMW-24_0519				
TMCMW-9_0519				
LF6/TMCSW-1_0519				
LF6/TMCSW-2_0519				
LF6/TMCSW-2_0519-a				
LF6W-1_0519				
LF6LH-1_0519				
LF6LH-2_0519				

Notes – USEPA = United States Environmental Protection Agency; SM = Standard Method; SW = Solid Waste; E = Environmental Protection Agency method; TKN = Total Kjeldahl Nitrogen; COD = Chemical Oxygen Demand; BOD = Biochemical Oxygen Demand; TDS = Total Dissolved Solids; TOC = Total Organic Carbon; -a = field duplicate

This data was validated against the laboratory's quality assurance (QA)/quality control (QC) limits using the guidelines and practices published in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (USEPA, January 2017) and per requirements of the Department of Defense (DOD) Quality Systems Manual (QSM), Version 5.0, as specified in the project-specific Quality Assurance Project Plan (QAPP).

Sample Handling and Holding Times

The samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis and analyzed within the required holding times with the following exception:

- Reanalysis for orthophosphate, TDS, nitrate, nitrite and nitrate nitrite as N was required either due to failing initial continuing calibration verification (CCV) or

laboratory error for most samples in package 280-123924. Those effected samples were qualified as estimated, “J/UJ”.

Method Blank

Fluoride was detected in the method blank and various continuing calibration blanks and BOD was detected in the seeded control blanks. Total phenols and TDS were also detected in the method blanks associated with those samples in package 280-123924. BOD was only detected in sample LF6W-1_0519 (<5x the blank concentration) and flagged “UB”. The remaining analytes detected at a concentration <5x the blank concentration were considered artifacts of blank contamination and flagged “UB”.

Blank Spike Sample (Laboratory Control Sample)/Surrogates

The laboratory control sample (LCS) recoveries were within control limits.

Matrix Spike/Matrix Spike Duplicates (MS/MSD)

In the spiked sample LF6VMW-21_0519-a, the MS and MSD recoveries of ammonia were above control limits. The compound was not detected in the sample and required no qualification. In spiked sample LF6MW-12_0519, TKN recoveries for the MS and MSD were below control limits and qualified as estimated, non-detected “UJ”. In spike sample LF6VMW-22_0519, the MS and MSD recoveries for nitrate and orthophosphate were above control limits and qualified as estimated “J”. Finally, spiked sample LF6VMW-10R2_0519 reported the MS and/or MSD recoveries of chloride, orthophosphate and sulfate outside control limits. These compounds were flagged as estimated, “J”.

Project Specific Quality Assurance/Quality Control

Two field duplicates were collected with these sample packages. The relative percent difference (RPD), between LF6VMW-21_0519 and its duplicate, for color was outside project defined control limits. The RPD between LF6/TMCWS-2_0519 and its duplicate were outside control limits for fluoride and total phenols. There were qualified estimated “J” in both sample and duplicate.

Calibration Verification Data

The CCV for orthophosphate was above control limits associated with all samples in package 280-123924. This compound was qualified and flagged either “J/UJ”.

Overall assessment of Data

All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

Summary of Qualified Results

Sample Identification	Compound	Result and Qualifier (mg/L, color - PCU)	Reason Code
LF6MW-1_0519	Fluoride	0.94 UB	MB
775VMW-18R_0519	Fluoride	0.90 UB	MB
LF6VMW-21_0519	Color	20 J	FD RPD
LF6VMW-21_0519-a	Color	30 J	FD RPD
LF6VMW-22_0519	Orthophosphate	0.32 J	MS/MSD >/CCV
	Nitrate	0.64 J	MS/MSD >
	Total Phenols	0.0075 UB	MB
LF6VMW-10R2_0519	Chloride	4.0 J	MS/MSD <
	Orthophosphate	0.26 J	MSD >/CCV
	Fluoride	0.066 UB	MB
	Sulfate	10 J	MSD <
	Total Phenols	0.0095 UB	MB
	TDS	160 J	HT
LF6VMW-26_0519	Fluoride	0.67 UB	MB
	Orthophosphate	0.20 UJ	HT/CCV
	Total phenols	0.026 UB	MB
LF6MW-12_0519	Fluoride	0.59 UB	MB
	Nitrate	0.10 UJ	HT
	Nitrite	0.10 UJ	HT
	Nitrate Nitrite as N	0.10 UJ	HT
	Orthophosphate	0.20 UJ	HT/CCV
	Total Phenols	0.021 UB	MB
	TKN	0.50 UJ	MS/MSD <
LF6VMW-24_0519	Fluoride	0.98 UB	MB
	Nitrate	0.92 J	HT
	Nitrite	0.10 UJ	HT
	Nitrate Nitrite as N	0.92 J	HT
	Orthophosphate	1.2 J	HT/CCV
	Total Phenols	0.015 UB	MB
TMCMW-9_0519	Fluoride	0.46 UB	MB
	Nitrate	0.77 J	HT
	Nitrite	0.10 UJ	HT
	Nitrate Nitrite as N	0.77 J	HT
	Orthophosphate	0.20 UJ	HT/CCV
	Total Phenols	0.015 UB	MB
LF6/TMCSW-1_0519	Fluoride	0.061 UB	MB
	Nitrate	0.23 J	HT
	Nitrite	0.50 UJ	HT
	Nitrate/Nitrite as N	200 J	HT
	o-Phosphate	1.0 UJ	HT/CCV
	total Phenols	0.012 UB	MB
LF6/TMCSW-2_0519	Fluoride	0.064 UB*	FD RPD/MB
	Total Phenols	0.015 UB*	FD RPD/MB
	Nitrate	0.71 J	HT
	Nitrite	0.50 UJ	HT
	Nitrate Nitrite as N	190 J	HT
	Orthophosphate	0.20 UJ	HT
LF6/TMCSW-2_0519-a	Fluoride	0.86 UB*	FD RPD/MB
	Total Phenols	0.010 UB*	FD RPD/MB
	Nitrate	0.71 J	HT
	Nitrite	0.50 UJ	HT
	Nitrate Nitrite as N	190 J	HT
	Orthophosphate	0.20 UJ	HT/CCV
LF6W-1_0519	BOD	2.8 UB	Blank
	Fluoride	0.088 UB	MB
	Total Phenols	0.012 UB	MB
	Nitrate	0.10 UJ	HT
	Nitrite	0.10 UJ	HT
	Nitrate Nitrite as N	0.10 UJ	HT
	Orthophosphate	0.20 UJ	HT/CCV
	TDS	100 J	HT

Sample Identification	Compound	Result and Qualifier (mg/L, color - PCU)	Reason Code
LF6LH-1_0519	Fluoride	0.085 UB	MB
	Total Phenols	0.0071 UB	MB
	Nitrate	0.10 UJ	HT
	Nitrite	0.10 UJ	HT
	Nitrate Nitrite as N	0.10 UJ	HT
	Orthophosphate	0.38 J	HT/CCV
	TDS	120 J	HT
LF6LH-2_0519	Fluoride	0.066 UB	MB
	Total Phenols	0.0094 UB	MB
	Nitrate	0.71 J	HT
	Nitrite	0.50 UJ	HT
	Nitrate Nitrite as N	190 J	HT
	Orthophosphate	0.20 UJ	HT/CCV

Notes: FD RPD – field duplicate relative percent different outside control limits; MS/MSD<> - matrix spike/duplicate below/above control limits; CCV – continuing calibration verification outside control limits; MB – Method blank contamination; HT –hold time exceedance; UB – artifact of blank contamination; J – estimated; UJ – estimated non-detect; mg/L – milligrams per liter; PCU – Platinum-Cobalt Units; *UB flag supersedes other flags

Landfill Inspection ~~2018~~ 2019

Gas Vent Monitoring

LANDFILL : 1

Date: 10/2/19

Barometric Pressure 29.88 From Griffiss Airport

29.34 - 29.38 From meter

Vent#	O2	CH4	H2S	CO	Time	LEL%	CO_2
~~OFF~~							
LFIGMP-10	20.8	00.1	0.0	0.0	12:58	2	0
12	20.9	00.1	0.0	0.0	13:03	2	0
9	20.9	00.1	0.0	0.0	13:07	2	0
6	20.9	00.1	0.0	0.0	13:11	2	0
4	21.0	00.1	0.0	0.0	13:14	2	0
GMP-02	8.9	23.4	0.0	0.0	13:18	>>>	5.6
GMP-01	21.0	00.1	0.0	0.0	13:22	3	0.1
3	21.2	00.1	0.0	0.0	13:28	2	0
2	21.2	00.1	0.0	0.0	13:36	2	0
1	21.3	00.1	0.0	0.0	13:39	2	0
GMP-03	21.2	00.1	0.0	0.0	13:43	2	0
24	21.2	00.1	0.0	0.0	13:49	2	0
* 25	21.1	00.1	0.0	0.0	13:58	2	0
5	21.1	00.1	0.0	0.0	14:03	2	0
7	21.1	00.1	0.0	0.0	14:05	2	0
GMP-04	2.6	56.2	0.0	0.0	14:10	>>>	5.6
27	21.1	00.1	0.0	0.0	14:12	2	0
8	21.1	00.1	0.0	0.0	14:17	2	0
11	21.1	00.1	0.0	0.0	14:20	2	0
10	21.1	00.1	0.0	0.0	14:24	2	0
GMP-13	19.2	00.1	0.0	0.0	14:45	1	1.4
GMP-09	20.6	00.3	0.0	0.0	14:49	7	0.2
20	20.9	00.1	0.0	0.0	14:53	2	0
21	21.0	00.1	0.0	0.0	14:57	2	0
19	21.0	00.1	0.0	0.0	15:00	2	0
18	21.1	00.1	0.0	0.0	15:05	2	0
14	21.1	00.1	0.0	0.0	15:07	2	0
13	21.1	00.1	0.0	0.0	15:11	2	0

* spinner jammed with "fat sticks"

Landfill Inspection ~~2018~~ 2019

Gas Vent Monitoring

LANDFILL : 1

Date: 10/2/19

Barometric Pressure 29.08 from Griffiss

29.34-29.38 from meter

Vent#	O2	CH4	H2S	CO PPM	Time	LEL%	<O2
17	21.1	00.1	0.0	0.0	15:16	2	0
22	21.2	00.1	0.0	0.0	15:19	2	0
GMP-06	10.3	20.0	0.0	0.0	15:32	>>>	4.1
GMP-06	8.2	24.6	0.0	0.0	15:35	>>>	4.7
GMP-16	21.0	00.1	0.0	0001	15:47	2	0

Landfill Inspection 2018
Gas Vent Monitoring
LANDFILL : LF002 (landfill 2/3 Age)
Date: 10/2/19

Barometric Pressure 29.83 in Hg ← from Griffiss airport

CO_2 %	Vent#	O_2 %	CH_4 %	H_2S ppm	CO ppm	Time	% LEL	inHg Bar
0	Vent-01	20.6	00.1	"Low"	0.00	11:12	20	29.22
0.9	Vent-04	20.~~0~~	1.5	"low"	0.00	11:45	31	29.23
1.8	Vent-05	19.0	2.2	"low"	0.00	11:40	43	29.23
0.1	Vent-06	20.8	00.4	"low"	0.00	12:24	8	29.24
0	Vent-07	20.8	00.1	"low"	0.00	11:30	2	29.23
0.2	Vent-12	20.6	00.3	"low"	0.00	12:27	7	29.24
0	Vent-13	20.6	00.1	0.00	0.00	11:03	0028	29.22
0	Vent-14	20.8	00.1	"low"	0.00	11:35	2	29.23
1.7	GMP-02	18.7	00.8	"low"	0.00	11:25	17	29.23
3.0	GMP-05	13.6	3.6	"low"	0.00	11:55	73	"
0	GMP-06	21.1	00.1	"low"	0.00	12:14	2	29.25
0.8	GMP-08	20.5	00.1	"low"	0.00	12:00	2	29.25

Landfill Inspection 2018

Gas Vent Monitoring

LANDFILL : LF6

Date: 10/2/19

Barometric Pressure 29.88 from Griffiss Airport

CO2	Vent#	O2 %	CH4 %	H2S ppm	CO ppm	Time	LEL	inHg
0	Vent-02	20.8	00.1	00.0	00.0	1434	2	29.38
0	Vent-03	20.6	00.1	00.0	00.0	1430	2	29.38
0	Vent-04	20.7	00.1	00.0	00.0	1424	2	29.38
0	Vent-06	20.7	00.1	00.0	00.0	1414	2	29.38

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GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: Griffiss FAFB	Location ID: LF1P-5	Date: 5/16/19
	Project Name: LF001	Project No./Phase:	Recorded By: J. Dawud
EQUIPMENT	Pump Type/ID#: geopump (Peri) 1913	Water Quality Meter/ID#: Horiba 30863	PID Type/ID#: —
	Water Level Indicator Type/ID#:	Other Equipment/ID#: —	Decon Method: replace tubing
	Tubing Type/Diameter (in): LDPE	Other Equipment/ID#: —	PPE: D plus hip waders
WELL INFO	Casing Type / ID (in): 4" PVC	Unit Casing Volume (gal/lin ft) (A):	Initial Depth to Water (ft) (B): 2.10
	Total Well Depth (ft) (C):	Water Column Thickness (ft) (C-B):	Well Volume (gal) (A*(C-B)):
	Ambient PID (ppm): —	Well Mouth PID (ppm): —	System Volume (gal):
	Weather: Partly cloudy 62°F	Well Condition: Good. lock. pump is rusty	Comments:

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	1510		<1		9.33	7.15	0.566	5.96	2.0	38	clear
	1520		1.5		9.19	7.09	0.568	4.03	4.2	23	clear
	1530		2.5		9.08	7.25	0.569	3.72	0.0	-1	clear
	1540		3.5		9.10	7.10	0.614	1.52	0.0	-98	clear
	1550		4.5		9.22	6.95	0.635	0.33	0.0	-127	clear
	1600		5.5		9.28	6.96	0.640	0.00	0.0	-136	clear
	1610		6.5		9.39	7.00	0.648	0.00	0.0	-146	clear

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	2	250	Plastic	—		2320 B / 2120 B	
					1	250	"	—		9056 A_28D B_48H	
					1	500	"	nitric		2340 C / 6010 C	
					1	500	Amber glass	sulfuric		350.1	Ammonia
Conversions	**Stabilization Criteria**				1	500	"			351.2	TKN
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%	1	500	"			410.4	COD
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%	1	250	"			9060A / 9066	
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF1P-5_0519				Sample Time: 1620		

1 1000 Plastic —
1 1000 plastic —

Sm 5210 B - BOD calc - BOD
2540 C - calc'd - TDS

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GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: Griffiss FAFB	Location ID: LFIMW-5	Date: 5/16/19
	Project Name: LF001	Project No./Phase:	Recorded By: J. Dawud
EQUIPMENT	Pump Type/ID#: Geopump(PPM) 19173	Water Quality Meter/ID#: Horiba 30863	PID Type/ID#: —
	Water Level Indicator Type/ID#:	Other Equipment/ID#: —	Decon Method: replace tubing
	Tubing Type/Diameter (in): LDPE	Other Equipment/ID#: —	PPE: D Plus hip waders
WELL INFO	Casing Type / ID (in): 4" PVC	Unit Casing Volume (gal/lin ft) (A):	Initial Depth to Water (ft) (B): 46.5 inches
	Total Well Depth (ft) (C):	Water Column Thickness (ft) (C-B):	Well Volume (gal) (A*(C-B)):
	Ambient PID (ppm): —	Well Mouth PID (ppm): —	System Volume (gal):
	Weather: Partly cloudy 57°F	Well Condition: good. lock rusted & replaced	Comments: no pump, old tubing present.

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	1140		<1		9.40	6.28	0.738	1.83	136	-43	initial was reddish then clear
	1150		1.5		9.16	6.50	0.724	0.20	10.2	-84	clear
	1200		2.5		9.21	6.54	0.721	0.00	2.8	-91	clear
	1210		3.5		9.29	6.61	0.718	0.00	1.3	-98	clear
	1220		4.5		9.24	6.72	0.716	0.00	0.7	-105	clear
	1230		5.5		9.29	6.73	0.715	0.00	0.0	-107	clear
	1240		6.5		9.23	6.69	0.714	0.00	0.0	-106	clear

Colorimeter Results

Time	Analyte	Dilution	Result	Units

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
2	250	Plastic	—		320B / 2320B	Alk/color
1	250	"	—		9056A	28D & 48H Anions
1	500	"	nitric		2340C	Hardness 6010C - total Boron
1	500	Amber glass	H_2SO_4		350.1	Ammonia
1	500	"	"		351.2	TKN
1	500	"	"		410.4	COD
1	250	"	"		9060A	TOC-Quad 9065-Phenolics
Sample ID: LFIMW-5_0519 & LFIMW-5				Sample Time: 1250		
1	1000	Plastic	— 0519-9		SM5210B	BOD(calc - BOD)
1	1000	Plastic	—		2540C	Calcd TDS
3	40	glass	HCl		8260B	total VOCs 0 APP list

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GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF002 LF#2	Location ID: LF2MW-12	Date: 5/16/19
	Project Name: Griffiss	Project No./Phase:	Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Peristaltic - Geotech 5430	Water Quality Meter/ID#: Horiba U-52 BDDTDOLM	PID Type/ID#: -
	Water Level Indicator Type/ID#: Solinst 60722	Other Equipment/ID#: -	Decon Method: Distilled Water, Alconox
	Tubing Type/Diameter (in): -	Other Equipment/ID#: -	PPE: Level D
WELL INFO	Casing Type / ID (in): 2" Steel	Unit Casing Volume (gal/lin ft) (A): -	Initial Depth to Water (ft) (B): 7.93
	Total Well Depth (ft) (C): 20.00	Water Column Thickness (ft) (C-B): 12.07	Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -	Well Mouth PID (ppm): -	System Volume (gal): -
	Weather: Sunny 60°F	Well Condition: Good	Comments: Pump start 1510; pulled bailer out of well - will replace when finished WP collected @ this location

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	1515	7.94	1.5	300	16.94	6.18	.558	.33	128	-14	pale yellow
↓	1520	7.96	3	300	14.18	6.08	.593	0.0	73.1	-20	↓
	1525	7.95	4.5	300	13.16	6.07	.593	0.0	60.3	-23	pale yellow
	1530	7.95	6	300	12.23	6.06	.589	0.0	8.2	-21	clear
	1535	7.95	7.5	300	11.79	6.07	.588	0.0	10.3	-21	↓
↓	1540	7.95	9	300	11.57	6.09	.589	0.0	9.4	-22	clear

Colorimeter Results

Time	Analyte	Dilution	Result	Units

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers	Volume	Type	Preserv.	Filter (Y/N)	Method	Parameter(s)
3	250ml	Poly	NONE	N		Alkalinity, Anions, Color
2	1L	↓	↓			TDS, BOD
1	500ml	↓	HNO_3			Total Boron, Hardness
3	500ml	Amber	H_2SO_4			Ammonia, TKN, COD
1	250ml	↓	↓	↓		TOC, Phenolics

Sample ID: LF2MW-12_0519

LF2MW-12_0519-a

Sample Time: 1545

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: GRIFFIS (Project Site)		Location ID: LF2MW2-1		Date: 5/16/19
	Project Name: LF002 LF#2 (Project #)		Project No./Phase:		Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: Proactive Peri Pump 105693		Water Quality Meter/ID#: HORIBA U52 VP2Y6B98T / P4BVHE7L		PID Type/ID#: -
	Water Level Indicator Type/ID#: Solonist 331891		Other Equipment/ID#: -		Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: LWI D
WELL INFO	Casing Type / ID (in): 4" PVC stick-up		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): 14.69
	Total Well Depth (ft) (C): 33.09		Water Column Thickness (ft) (C-B): 18.40		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Sunny 60s		Well Condition: GOOD		Comments: Started purging @ 15:05

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ L	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	15:15	14.74	4	400	10.82	6.63	0.489	1.91	166	-9	light orange
	15:20	14.74	6	400	10.31	6.11	0.498	1.10	112	-27	↓
	15:25	14.74	8	400	10.18	6.05	0.503	0.83	87.5	-34	↓
	15:30	14.74	10	400	10.13	6.05	0.509	0.79	74.8	-43	clear
	15:35	14.74	12	400	10.08	6.05	0.511	0.78	58.9	-49	↓
	15:40	14.74	14	400	10.06	6.08	0.514	0.76	54.2	-50	↓
↓	15:45	14.74	16	400	10.04	6.09	0.516	0.75	54.6	-52	↓

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly	NONE	N		Alkalinity, Color, Anions, BOD, TDS
					2	1L	↓	↓	↓		Hardness, Total Boron, COD, TKN, Ammonia, TOC, Phenolics
					1	500mL	↓	HNO_3	↓		
					3	500mL	amber	H_2SO_4	↓		
Conversions	Stabilization Criteria				1	250mL	↓	↓	↓		
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF2MW2-1-0519				Sample Time: 15:46		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: GRIFFIS (Project No. SITE)		Location ID: LF2MW-4-0519	Date: 5/16/19
	Project Name: LF002 LF#2 (Project No.)		Project No./Phase:	Recorded By: H. Cavanaugh
EQUIPMENT	Pump Type/ID#: Proactive Peri Pump 105687		Water Quality Meter/ID#: HORIBA U-52 (VP216-B46 PHBW27)	PID Type/ID#: —
	Water Level Indicator Type/ID#: Solinst 336396		Other Equipment/ID#: —	Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): —		Other Equipment/ID#: —	PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC stick-up		Unit Casing Volume (gal/lin ft) (A): —	Initial Depth to Water (ft) (B): 27.69
	Total Well Depth (ft) (C): 38.70		Water Column Thickness (ft) (C-B): 11.01	Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —		Well Mouth PID (ppm): —	System Volume (gal): —
	Weather: Sunny 60s		Well Condition: Good	Comments: Started purging @ 16:25 Used waterra valve w/ pump

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	16:30	27.70	2	400	12.27	6.64	1.01	2.59	19.6	-119	Clear
	16:35	27.70	4	400	12.10	6.69	1.03	1.54	15.1	-130	
	16:40	27.70	6	400	12.01	6.70	1.01	1.01	18.2	-135	
	16:45	27.70	8	400	11.88	6.71	1.00	0.99	17.1	-139	
	16:50	27.70	10	400	11.91	6.74	0.999	0.97	16.7	-141	
	16:55	27.70	12	400	11.89	6.75	0.998	0.95	15.9	-145	
	17:00	27.70	14	400	11.91	6.77	0.998	0.94	15.2	-145	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1L	↓	↓			BOD, TDS
					1	500mL	↓	HNO_3			Hardness, Total Boron
					3	500mL	amber	H_2SO_4			COD, TKN, Ammonia
Conversions	Stabilization Criteria				1	250mL	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF2MW-4-0519				Sample Time: 17:02		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF202 LF #2		Location ID: LF2MW-13		Date: 5/16/19
	Project Name: Griffiss 5430		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Peristaltic - Geotech		Water Quality Meter/ID#: Horiba U-52		PID Type/ID#: —
	Water Level Indicator Type/ID#: Solinst 60722		Other Equipment/ID#: —		Decon Method: Distilled Water, Alconox
	Tubing Type/Diameter (in): —		Other Equipment/ID#: —		PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC		Unit Casing Volume (gal/lin ft) (A): —		Initial Depth to Water (ft) (B): 2.60
	Total Well Depth (ft) (C): 14.30		Water Column Thickness (ft) (C-B): 12.7		Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —		Well Mouth PID (ppm): —		System Volume (gal): —
	Weather: Sunny 60°F		Well Condition: Good		Comments: pump start 1635

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ Liters	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	1640	2.35	2	400	13.9	6.76	.201	.14	59.9	-9	clear
↓	1645	2.25	4	400	13.26	6.71	.203	0.0	43.7	-31	↓
	1650	2.25	6	400	12.76	6.62	.205	0.0	23.0	-43	
	1655	2.25	8	400	12.46	6.55	.206	0.0	8.4	-46	
	1700	2.25	10	400	12.41	6.52	.206	0.0	4.9	-52	
↓	1705	2.25	12	400	12.44	6.50	.206	0.0	0.0	-54	↓

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250ml	Poly	NONE	N		Alkalinity, Color, Anions
					2	1L	↓	↓	↓		TDS, BOD
					1	500ml	↓	HNO_3			Total Boron, Hardness
					3	500ml	Amber	H_2SO_4			TKN, COD, Ammonia
Conversions	Stabilization Criteria				1	250ml	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF2MW-13-0519				Sample Time: 1710		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF002 LF#2		Location ID: SW-1		Date: 5/17/19
	Project Name: Griffiss		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: -		Water Quality Meter/ID#: Horiba U-52 SDDTU2M		PID Type/ID#: -
	Water Level Indicator Type/ID#: -		Other Equipment/ID#: -		Decon Method: -
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: Level D
WELL INFO	Casing Type / ID (in): -		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): -
	Total Well Depth (ft) (C): -		Water Column Thickness (ft) (C-B): -		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Cloudy 65°F		Well Condition: -		Comments:

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17/19	1325	-	-	-	18.37	6.93	.111	7.07	0.0	105	

Colorimeter Results

Time	Analyte	Dilution	Result	Units

Conversions	**Stabilization Criteria**			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers	Volume	Type	Preserv.	Filter (Y/N)	Method	Parameter(s)
3	250ml	Poly	NONE	N		Alkalinity, Color, Anion
2	1L	↓	↓			TDS, BOD
1	500ml	↓	HNO_3			Total Boron, Hardness
3	500ml	Amber	H_2SO_4			TKN, COD, Ammonia
1	250ml	↓	↓	↓		TOC, Phenolics

Sample ID: LF2SW-1-0519

Sample Time: 1330

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF002 LE#2		Location ID: LF2SW-2 [SURFACE WATER]		Date: 5/17/19
	Project Name: GRIFFIS		Project No./Phase:		Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: -		Water Quality Meter/ID#: HORIBA U52 VP2x6B#6/ pH BUH 2 7L		PID Type/ID#: -
	Water Level Indicator Type/ID#: -		Other Equipment/ID#: -		Decon Method: Alconox, Distilled water
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: Level D
WELL INFO	Casing Type / ID (in): -		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): -
	Total Well Depth (ft) (C): -		Water Column Thickness (ft) (C-B): -		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Partly Sunny, 60s		Well Condition: -		Comments: -

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17/19	13:50	-	-	-	16.63	7.10	0.203	2.23	0.0	-124	clear

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly NONE-HC	NONE	N		Alkalinity, Color, Anions
					2	1L	↓ HC	↓	↓		BOD, TDS
					1	500mL	↓ HNO3	HNO3			Hardness, Total Boron
					3	500mL	Amber	H2SO4			COD, TKN, Ammonia
Conversions	Stabilization Criteria				1	250mL	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF2SW-2-0519				Sample Time: 13:55		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project: GRIFFIS Site: LF002 LL#2		Location ID: LF2SW-3-051 #1C [SURFACE WATER]		Date: 5/17/19
	Project Name:		Project No./Phase:		Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: -		Water Quality Meter/ID#: HORIBA U52 UP2XGB98 pHBUH27L		PID Type/ID#: -
	Water Level Indicator Type/ID#: -		Other Equipment/ID#: -		Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: Level D
WELL INFO	Casing Type / ID (in): -		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): -
	Total Well Depth (ft) (C): -		Water Column Thickness (ft) (C-B): -		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Partly Sunny, 60s		Well Condition: -		Comments: -

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17/19	13:25	-	-	-	14.60	6.67	0.269	5.55	573	0	dark BROWN

Colorimeter Results				
Time	Analyte	Dilution	Result	Units

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
3	250mL	poly	NONE	N		Alkalinity, Color, Anions BOD, TDS
2	1L	↓	↓	↓		Hardness, Total Boron COD, TKN, Ammonia TOC, Phenolics
1	500mL	↓	HNO_3			
3	500mL	amber	H_2SO_4			
1	250mL	↓	↓			

Sample ID: LF2SW-3-0519 Sample Time: 13:30

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GROUNDWATER SAMPLE COLLECTION FORM

Page 1 of 1

LOCATION	Site: LF003 LF #7		Location ID: MW-27		Date: 5/17/19
	Project Name: Griffiss		Project No./Phase: 54300		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Peristaltic Geotech		Water Quality Meter/ID#: Horiba U-52 8DDTUOLM		PID Type/ID#: --
	Water Level Indicator Type/ID#: Solinst 100722		Interface Probe Type/ID#: —		Decon Method: Distilled Water, Alconox
	Tubing Type/Diameter (in): —		Other Equipment/ID#: —		PPE: Level D
WELL INFO	Casing Type / ID (in): 2" Steel		Unit Casing Volume (gal/lin ft) (A): —		Initial Depth to Water (ft) (B): 5.60
	Total Well Depth (ft) (C): 14.12		Water Column Thickness (ft) (C-B): 8.52		Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —		Well Mouth PID (ppm): —		System Volume (gal): —
	Weather: Cloudy 50s		Well Condition: good		Comments: Pump start @0905

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~Gals~~ liters	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17	0910	5.60	1.5	~300	11.41	5.85	.210	7.93	112	189	cloudy
↓	0915	5.71	3	300	11.19	6.39	.210	7.00	78.9	175	↓
	0920	5.74	4.5	300	11.08	6.63	.212	6.70	41.8	171	
	0925	5.80	6	300	10.92	6.89	.211	6.48	14.9	164	clear
	0930	5.82	7.5	300	10.92	6.96	.214	6.35	3.1	160	↓
	0935	5.82	9	300	10.94	7.00	.214	6.24	0.0	198	
↓	0940	5.82	10.5	300	10.92	7.02	.216	6.09	0.0	155	↓

Colorimeter Results

Time	Analyte	Dilution	Result	Units

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers	Volume	Type	Preserv.	Filter (Y/N)	Method	Parameter(s)
3	250ml	Poly	NONE	N		Alkalinity, Color, Anions
2	1L	↓	↓			TDS, BOD
1	500ml	↓	HNO_3			Total Boron Hardness
3 or	250ml + 500ml	Amber	H_2SO_4			TKN, COD, Ammonia
1	250ml	↓	↓	↓		TOC, Phenolics

Sample ID: LF7MW-27_0519 Sample Time: 0945

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project Site: GRIFFIS		Location ID: LF7MW-23_0519		Date: 5/17/19
SITE	Project Name: LF003 LF#7		Project No./Phase:		Recorded By: H. Gwanagh
EQUIPMENT	Pump Type/ID#: Proactive Peri pump 105687		Water Quality Meter/ID#: HORIBA U52		PID Type/ID#: -
	Water Level Indicator Type/ID#: Solonist 336391		Other Equipment/ID#: -		Decon Method: Alconox, Distilled H2O
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: level D
WELL INFO	Casing Type / ID (in): 2" PVC FLUSHMOUNT		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): 0.0
	Total Well Depth (ft) (C): 13.34		Water Column Thickness (ft) (C-B): 13.34		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Overcast 60s muggy		Well Condition: Good, Red stake/MARKER		Comments: started purging @ 7:09

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17/19	9:14	0.0	2	400	9.42	6.04	0.268	2.34	0.0	85	clear
	9:19	0.0	4	400	9.49	6.33	0.264	1.88	0.0	104	
	9:24	0.0	6	400	9.86	6.96	0.289	1.51	0.0	116	
	9:29	0.0	8	400	10.00	7.13	0.302	1.41	0.0	-19	
	9:34	0.0	10	400	10.19	7.26	0.314	1.47	0.0	-22	
	9:39	0.0	12	400	10.21	7.29	0.319	1.51	0.0	-26	
	9:44	0.0	14	400	10.25	7.30	0.320	1.49	0.0	-31	
	9:49	0.0	16	400	10.28	7.32	0.321	1.51	0.0	-34	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250 mL	poly	NONE	N		Alkalinity, Color, Anions, BOD, TDS, Hardness, Total Boron, COD, TKN, Ammonia, TOC, Phenolics
					2	1L	↓	↓	↓		
					1	500 mL	↓	HNO_3			
					3	500 mL	amber	H_2SO_4			
Conversions	Stabilization Criteria				1	250 mL	↓	↓			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF7MW-23-0519				Sample Time: 9:50		

+ Well located in wetland, DTW: 0.0'

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF003 LF#7		Location ID: MW-26		Date: 5/17/19
	Project Name: Griffiss		Project No./Phase: 5438 8DOTVOLM		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Peristaltic - Geotech		Water Quality Meter/ID#: Horiba U-52		PID Type/ID#: —
	Water Level Indicator Type/ID#: Solinst 60722		Other Equipment/ID#: —		Decon Method: —
	Tubing Type/Diameter (in): —		Other Equipment/ID#: —		PPE: Level D
WELL INFO	Casing Type / ID (in): 2" Steel		Unit Casing Volume (gal/lin ft) (A): —		Initial Depth to Water (ft) (B): 10.75
	Total Well Depth (ft) (C): 17.05		Water Column Thickness (ft) (C-B):		Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —		Well Mouth PID (ppm): —		System Volume (gal): —
	Weather: Cloudy 50°F		Well Condition: Good		Comments: Pump start 1025; DUP collected at this location

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17/19	1030	10.87	1.5	300	11.43	7.38	.253	7.61	0.0	118	clear
↓	1035	10.88	3	300	10.77	7.28	.248	5.92	0.0	126	↓
	1040	10.89	4.5	300	10.64	7.24	.249	5.90	0.0	129	
	1045	10.89	6	300	10.63	7.21	.250	6.06	0.0	131	
↓	1050	10.89	7.5	300	10.55	7.25	.252	5.96	0.0	130	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250ml	Poly	None	N		Alkalinity, Color, Anions
					2	1L	↓	↓			TDS, BOD
					1	500ml	↓	HNO_3			Total Boron, Hardness
					3	500ml	Amber	H_2SO_4			COD, TKN, Ammonia
Conversions	Stabilization Criteria				1	250ml	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF7 MW-26_0519				Sample Time: 1055		

LF 7 MW-26_0519-a

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project: GRIFFIS	Location ID: LF7MW-28	Date: 5/17/19
	Site: ~~Project~~ Name: LF003 LF#7	Project No./Phase:	Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: Proactive Peristaltic pump 105687	Water Quality Meter/ID#: Horiba U52 VP2X6B98 / P4JBV1127L	PID Type/ID#: –
	Water Level Indicator Type/ID#: Solinist 336391	Other Equipment/ID#: –	Decon Method: Alconox, Distilled water
	Tubing Type/Diameter (in): –	Other Equipment/ID#: –	PPE: Level D
WELL INFO	Casing Type / ID (in): 2" Steel FLUSH MOUNT	Unit Casing Volume (gal/lin ft) (A): –	Initial Depth to Water (ft) (B): 0.28
	Total Well Depth (ft) (C): 6.43	Water Column Thickness (ft) (C-B): 6.15	Well Volume (gal) (A*(C-B)): –
	Ambient PID (ppm): –	Well Mouth PID (ppm): –	System Volume (gal): –
	Weather: overcast, muggy, 60s	Well Condition: GOOD	Comments: started purging @ 10:29

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ L	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17/19	10:34	0.48	2	400	12.84 *~~13.84~~	6.89	0.601	2.28	16.1	-75	clear
	10:39	0.57	4	400	12.08	6.72	0.630	1.17	12.3	-91	
	10:44	0.57	6	400	11.85	6.75	0.630	1.05	12.2	-99	
	10:49	0.57	8	400	11.64	6.85	0.626	0.95	9.8	-110	
	10:54	0.57	10	400	11.63	6.86	0.625	0.91	0.7	-113	
	10:59	0.57	12	400	11.60	6.84	0.625	0.89	0.0	-113	
	11:04	0.57	14	400	11.58	6.83	0.624	0.87	0.0	-111	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly	NONE	N		Alkalinity, Color, Anions, BOD, TDS
					2	1L	↓	↓			
					1	500mL	↓	HNO_3			Hardness, Total Boron,
					3	500mL	amber	H_2SO_4			COD, TKN, Ammonia
Conversions	Stabilization Criteria				1	250mL	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF7MW-28_0519				Sample Time: 11:05		

*IN LINE w/ Airport operation sign and well LF7MW-100

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF003 LF#7		Location ID: MW-30		Date: 5/17/19
	Project Name: Griffiss		Project No./Phase:		Recorded By: G Carmichael
EQUIPMENT	Pump Type/ID#: Peristaltic - Geotech 5430		Water Quality Meter/ID#: Horiba U-52		PID Type/ID#: —
	Water Level Indicator Type/ID#: Solinst 60722		Interface Probe/ID#: —		Decon Method: Distilled water, Alconox
	Tubing Type/Diameter (in): —		Other Equipment/ID#: —		PPE: Level D
WELL INFO	Casing Type / ID (in): 2" steel		Unit Casing Volume (gal/lin ft) (A): —		Initial Depth to Water (ft) (B): 3.02
	Total Well Depth (ft) (C): 12.44		Water Column Thickness (ft) (C-B): 9.42		Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —		Well Mouth PID (ppm): —		System Volume (gal): —
	Weather: Sunny, 60°F		Well Condition: good		Comments: Pump start 1140; Removed bladder pump

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17	1145	3.09	1.5	300	12.58	6.93	.434	2.93	41.1	157	clear w/ black flecks
↓	1150	3.10	3	300	11.51	6.78	.437	2.52	25.4	156	↓
	1155	3.10	4.5	300	11.30	6.72	0.435	2.69	15.1	154	
	1200	3.10	6	300	11.21	6.80	.434	2.88	16.1	146	clear
	1205	3.10	7.5	300	11.22	6.83	.433	2.93	15.4	133	↓
↓	1210	3.10	9	300	11.25	6.88	.434	2.95	15.2	140	clear

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250ml	Poly	NONE	N		Alkalinity, Color, Anions
					2	1L	↓	↓			TDS, BOD
					1	500ml	↓	HNO_3			Total Boron Hardness
					3	500ml	Amber	H_2SO_4			TKN, COD, Ammonia
Conversions	Stabilization Criteria				1	250ml	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF7MW-30_05A				Sample Time: 1215		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project: ~~Site~~: GRIFFIS	Location ID: LF7MW-22	Date: 5/17/19
	SITE ~~Project Name~~: LF003 LE#7 NC	Project No./Phase:	Recorded By: H. Cavenaugh
EQUIPMENT	Pump Type/ID#: Proactive Peri Pump 105687	Water Quality Meter/ID#: HORIBA U52 VP2X6898/ P48W1127L	PID Type/ID#: —
	Water Level Indicator Type/ID#: Solinst 33639	Other Equipment/ID#: —	Decon Method: Alconox, Distilled water
	Tubing Type/Diameter (in): -	Other Equipment/ID#: —	PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC FLUSHMOUNT	Unit Casing Volume (gal/lin ft) (A): —	Initial Depth to Water (ft) (B): 0.42
	Total Well Depth (ft) (C): ~~NC~~ NC	Water Column Thickness (ft) (C-B):	Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —	Well Mouth PID (ppm): —	System Volume (gal): —
	Weather: overcast, muggy 60s	Well Condition: Good, Replaced Plug	Comments: Started purging @ 11:48

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ L	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17/19	11:53	1.30	1.5	300	10.91	6.67	1.08	2.44	35.8	-122	clear w/brown specks
	11:58	1.49	3	300	10.63	6.66	1.08	2.04	31.2	-122	"
	12:03	1.54	4.5	300	10.25	6.63	1.08	1.02	19.1	-122	"
	12:08	1.54	6	300	10.35	6.63	1.08	0.93	17.2	-123	"
	12:13	1.54	~~NC~~ 7.5	300	10.21	6.63	1.08	0.80	0.0	-124	clear
	12:18	1.54	9	300	10.15	6.63	1.07	0.79	0.0	-124	"
	12:23	1.54	10.5	300	10.20	6.62	1.06	0.78	0.0	-125	"

Colorimeter Results				
Time	Analyte	Dilution	Result	Units

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
3	250mL	NONE		N		Alkalinity, Color, Anions
2	1L					BOD, TDS
1	500mL	HNO_3				Hardness, Total Boron
3	500mL	H_2SO_4				COD, TKN, Ammonia
1	250mL					TOC, Phenolics

Sample ID: LF27MW-22-0519 Sample Time: 12:25

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF003 LF#7	Location ID: WL-4	Date: 5/17/19
	Project Name: Griffiss	Project No./Phase:	Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: —	Water Quality Meter/ID#: Horiba U-52 BDS100/M	PID Type/ID#: —
	Water Level Indicator Type/ID#: —	Other Equipment/ID#: —	Decon Method: —
	Tubing Type/Diameter (in): —	Other Equipment/ID#: —	PPE: Level D
WELL INFO	Casing Type / ID (in): —	Unit Casing Volume (gal/lin ft) (A): —	Initial Depth to Water (ft) (B): —
	Total Well Depth (ft) (C): —	Water Column Thickness (ft) (C-B): —	Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —	Well Mouth PID (ppm): —	System Volume (gal): —
	Weather: Cloudy 50°F	Well Condition: —	Comments:

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17/19	1010	-	-	-	15.55	7.11	.266	6.96	0.0	84	

Colorimeter Results

Time	Analyte	Dilution	Result	Units

Conversions	**Stabilization Criteria**			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers	Volume	Type	Preserv.	Filter (Y/N)	Method	Parameter(s)
3	250ml	Poly	NONE	N		Alkalinity, Color, Anions
2	1L	↓	↓			TDS, BOD
1	500ml	↓	HNO_3			Total Boron, Hardness
3	500ml	Amber	H_2SO_4			Ammonia, COD, TKN
1	250ml	↓	↓	↓		TOC, Phenolics

Sample ID: LF7WL-4-0519 Sample Time: 1015

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project: Site: GRIFFIS		Location ID: LF7WL-3 [SURFACE WATER]		Date: 5/17/19
	~~Project~~ SITE Name: LF003 LF007 HC		Project No./Phase:		Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: ~~Peristaltic Peri Pump~~ HC		Water Quality Meter/ID#: HORIBA U52 VP2XGB98 P4BVH2SL		PID Type/ID#: –
	Water Level Indicator Type/ID#: –		Other Equipment/ID#: –		Decon Method: Alconox, Distilled water
	Tubing Type/Diameter (in): –		Other Equipment/ID#: –		PPE: level D
WELL INFO	Casing Type / ID (in): –		Unit Casing Volume (gal/lin ft) (A): –		Initial Depth to Water (ft) (B): –
	Total Well Depth (ft) (C): –		Water Column Thickness (ft) (C-B): –		Well Volume (gal) (A*(C-B)): –
	Ambient PID (ppm): –		Well Mouth PID (ppm): –		System Volume (gal): –
	Weather: Overcast, muggy, 60s		Well Condition: –		Comments:

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/17/19 ~~12:55~~ HC	12:55	–	–	–	15.09	7.03	0.440	4.21	4.8	-134	clear w/ brown specks

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1L	↓	↓	↓		BOD, TDS
					1	500mL	↓	HNO_3			Hardness, Total Boron
					3	500mL	amber	H_2SO_4			COD, TKN, Ammonia
Conversions	Stabilization Criteria				1	250mL	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF7WL-3_0519				Sample Time: 13:60		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF007 landfill 5	Location ID: LF5MW-3	Date: 5/14/19
	Project Name: GRIFFIS	Project No./Phase:	Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: Proactive Peri pump 105687	Water ~~Quality Meter~~ Level Indicator/ID#: Solinist 101 336724	PID Type/ID#: -
	Water ~~Level Indicator~~ Quality Meter Type/ID#: HORIBA U52	Other Equipment/ID#: -	Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): VPZx6848/PVHZ7L	Other Equipment/ID#: -	PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC stick-up	Unit Casing Volume (gal/lin ft) (A): -	Initial Depth to Water (ft) (B): 4.65
	Total Well Depth (ft) (C): 15.55	Water Column Thickness (ft) (C-B): 10.90	Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -	Well Mouth PID (ppm): -	System Volume (gal): -
	Weather: Rainy, 40s	Well Condition: GOOD	Comments: started purging @ 15:20

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ L	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
14MAY19	15:25	5.21	1	200	9.03	6.12	0.866	7.99	123	216	light Brown
	15:30	5.28	2	200	8.70	6.07	0.867	7.99	78.7	227	↓
	15:35	5.30	3	200	8.55	6.07	0.864	8.01	71.8	234	↓
	15:40	5.32	4	200	8.46	6.09	0.864	8.02	34.7	243	clear
	15:45	5.33	5	200	8.41	6.10	0.869	7.99	23.1	244	↓
	15:50	5.34	6	200	8.40	6.11	0.873	7.94	14.3	244	
	15:55	5.34	7	200	8.40	6.12	0.874	7.87	6.7	244	
	16:00	5.34	8	200	8.41	6.13	0.875	7.83	6.4	243	
↓	16:05	5.34	9	200	8.41	6.14	0.876	7.83	6.3	243	↓

Colorimeter Results

Time	Analyte	Dilution	Result	Units

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
3	250mL	poly	NONE	N		Alkalinity, color, anions
2	1L	poly	NONE	↓		TDS, BOD
1	500mL	poly	HNO_3			Hardness, Total Boron
3	500mL	amber	H_2SO_4			Ammonia, TKN, COD
1	250mL	amber	H_2SO_4	↓		TOC, Phenolics

Sample ID: LFMW-3-0519 Sample Time: 16:10

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: Griffiss LF5 (LF007)		Location ID: MW-5		Date: 5/14/19
	Project Name: Griffiss 5430		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Peristaltic - Geotech		Water Quality Meter/ID#: Horiba U-52 8DDTVQLM		PID Type/ID#: -
	Water Level Indicator Type/ID#: Solinst 66728		Other Equipment/ID#: -		Decon Method: Water, Alconox
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): 3.07
	Total Well Depth (ft) (C): 14.32'		Water Column Thickness (ft) (C-B): 11.25		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm):		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Rain, 48°F		Well Condition: Good		Comments: Bladder pump in well, pulled before beginning DUP collected at this location pump start @ 1530

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ liters	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/14/19	1535	3.52	~~2~~ 1	200	9.56	4.67	.065	3.417	4.1	283	pale yellow
	1540	3.62	2	200	9.42	4.81	.067	3.19	.3	279	
	1545	3.70	3	200	9.36	4.97	.067	3.01	0	270	
	1550	3.68	4	200	9.36	5.08	.067	2.83	.2	265	
	1555	3.66	5	200	9.34	5.24	.070	2.5	0	254	
	1600	3.66	6	200	9.31	5.41	.073	2.17	0	242	
	1605	3.66	7	200	9.32	5.46	0.074	2.18	0	240	
	1610	3.68	8	206	9.33	5.55	.073	1.91	0	230	
	1615	3.68	9	200	9.36	5.65	.074	1.6	0	223	clear

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250 ml	Poly	-	N		Alkalinity, Color, Anions
					2	1L	Poly	-			TDS, BOD
					1	500 ml	Poly	HNO_3			Total Boron, Hardness
					3	500 ml	Amber	H_2SO_4			Ammonia, TKN, COD
					1	250 ml	Amber	H_2SO_4			TOC, Phenolics

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

Sample ID: LF5MW-5_0519 Sample Time: 1640

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF5 LF007	Location ID: MW-5	Date: 5/14/19
	Project Name: Griffiss	Project No./Phase:	Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#:	Water Quality Meter/ID#:	PID Type/ID#:
	Water Level Indicator Type/ID#:	Other Equipment/ID#:	Decon Method:
	Tubing Type/Diameter (in):	Other Equipment/ID#:	PPE:
WELL INFO	Casing Type / ID (in):	Unit Casing Volume (gal/lin ft) (A):	Initial Depth to Water (ft) (B):
	Total Well Depth (ft) (C):	Water Column Thickness (ft) (C-B):	Well Volume (gal) (A*(C-B)):
	Ambient PID (ppm):	Well Mouth PID (ppm):	System Volume (gal):
	Weather:	Well Condition:	Comments:

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/14/19	1620	3.71	10	200	9.37	5.73	.075	1.36	0	217	clear
↓	1625	3.71	11	200	9.44	5.76	.075	1.21	0	214	↓
	1630	3.7	12	200	9.47	5.78	.075	1.17	0	213	
↓	1635	3.7	13	200	9.48	5.81	.075	1.12	0	210	↓

Colorimeter Results					**No. Containers/Volume/Type**			**Preserv.**	**Filter (Y/N)**	**Method**	**Parameter(s)**
Time	**Analyte**	**Dilution**	**Result**	**Units**							

Conversions	**Stabilization Criteria**										
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF5MW-5_0519				Sample Time: 1640		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project: Site: GRIFFIS		Location ID: LF5MW-1A		Date: 5/15/19
SITE	Project Name: LF007 LF#5		Project No./Phase:		Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: Proactive Peri Pump 105607		Water Quality Meter/ID#: HORIBA U52 UP2XGB98/P4BVH1272		PID Type/ID#: -
	Water Level Indicator Type/ID#: Solonist 101 33639		Other Equipment/ID#: -		Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC stick-up		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): 19.75
	Total Well Depth (ft) (C): 21.60		Water Column Thickness (ft) (C-B): 1.85		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Overcast 40s		Well Condition: GOOD		Comments: started purging @ 8:42

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (~~Gals~~ L)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	8:47	19.81	1.5	300	11.67	5.35	0.307	1.78	24.5	23	clear
	8:52	19.82	3	300	10.98	5.39	0.404	1.30	19.3	14	
	8:57	19.82	4.5	300	10.94	5.41	0.444	1.16	17.1	10	
	9:02	19.82	6	300	10.76	5.49	0.542	0.92	16.4	4	
	9:07	19.82	7.5	300	10.73	5.56	0.600	0.81	15.9	0	
	9:12	19.82	9	300	10.75	5.57	0.606	0.79	14.9	0	
	9:17	19.82	10.5	300	10.72	5.59	0.672	0.76	12.3	0	
	9:22	19.82	12	300	10.70	5.61	0.720	0.62	12.7	0	
	9:27	19.82	13.5	300	10.60	5.68	0.764	0.58	12.1	0	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1L	poly	NONE	N		TDS, BOD, metal
					1	500mL	poly	HNO_3	N		Hardness, Total Boron
					3	500mL	amber	H_2SO_4	N		Ammonia, TKN, COD
Conversions	Stabilization Criteria				1	250mL	amber	H_2SO_4	N		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF5MW-1A-0519				Sample Time: 9:50		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project: Site: GRIFFIS		Location ID: LF5MW-1A		Date: 5/15/19
	SITE Project Name: LF007 LF#5		Project No./Phase:		Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: See Page 1		Water Quality Meter/ID#: SEE Page 1		PID Type/ID#: —
	Water Level Indicator Type/ID#: See page 1		Other Equipment/ID#: —		Decon Method:
	Tubing Type/Diameter (in): —		Other Equipment/ID#: —		PPE: Level D
WELL INFO	Casing Type / ID (in):		Unit Casing Volume (gal/lin ft) (A):		Initial Depth to Water (ft) (B):
	Total Well Depth (ft) (C): SEE PAGE 1		Water Column Thickness (ft) (C-B): SEE PAGE 1		Well Volume (gal) (A*(C-B)): SEE PAGE 1
	Ambient PID (ppm):		Well Mouth PID (ppm):		System Volume (gal):
	Weather:		Well Condition:		Comments:

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	9:32	19.82	15	300	10.55	5.72	0.841	0.54	11.7	-1	CLEAR
↓	9:37	19.81	16.5	300	10.54	5.78	0.849	0.52	9.6	-5	↓
	9:42	19.82	18	300	10.52	5.79	0.850	0.51	9.9	-8	
	9:47	19.82	19.5	300	10.51	5.79	0.851	0.50	10.0	-9	

Colorimeter Results					No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	SEE PAGE 1				

Conversions	Stabilization Criteria								
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%					
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%					
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF5MW-1A-0519		Sample Time: 9:50		

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GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF007 LF#5 MW100R	Location ID: LF5MW-100R	Date: 5/15/19
	Project Name: Griffiss RI808A6220	Project No./Phase:	Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Grundfos Redi-Flo	Water Quality Meter/ID#: Horiba U-52 BODTOOLM	PID Type/ID#: —
	Water Level Indicator Type/ID#: Solinst 60722	Other Equipment/ID#: —	Decon Method: Distilled Water, Alconox
	Tubing Type/Diameter (in): PE	Other Equipment/ID#: —	PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC SS	Unit Casing Volume (gal/lin ft) (A): —	Initial Depth to Water (ft) (B): 7.83'
	Total Well Depth (ft) (C): 70.3'	Water Column Thickness (ft) (C-B): 62.47	Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —	Well Mouth PID (ppm): —	System Volume (gal): —
	Weather: Cloudy 45°F	Well Condition: good	Comments: started pump @ 0850

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	0855	8.22	.0026	100	10.98	11.32	7.82	3.4	4.4	11	Clear
	0905	8.78	.0078	200	9.65	10.85	8.77	1.99	5.7	6	↓
	0910	9.0	.013	200	9.84	10.84	8.66	1.84	6	3	↓
	0915	9.47	.018	200	9.27	10.86	8.76	1.79	40.2	-2	Control box stopped → purging delayed
	0945	10.8	.028	300	9.87	11.31	8.25	4.89	24.3	-15	resumed purging
	0950	11.65	.038	300	9.89	11.41	8.28	3.1	20	-24	Clear
	0955	12.15	.036	300	9.63	11.45	8.34	2.8	13.5	-32	↓
	1000	13.19	0.041	200	9.47	11.51	8.31	2.26	6.1	-41	↓
↓	1005	13.75	0.046	200	9.47	11.53	8.32	1.94	5.6	-46	↓

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	1	500ml	Poly	HNO_3	N		Metals, Hardness
					3	250ml	Poly	—	↓		Anions, Color, Alkalinity
					2	1L	Poly	—			TDS, BOD
					3	500ml	Amber	H_2SO_4			TKN, COD, Ammonia
Conversions	Stabilization Criteria				1	250ml	Amber	H_2SO_4	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF5MW-100R_0519				Sample Time: 1015		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF007 LF#5		Location ID: MW-100R		Date: 5/15/19
	Project Name: Griffiss		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#:		Water Quality Meter/ID#:		PID Type/ID#:
	Water Level Indicator Type/ID#:		Other Equipment/ID#:		Decon Method:
	Tubing Type/Diameter (in):		Other Equipment/ID#:		PPE:
WELL INFO	Casing Type / ID (in):		Unit Casing Volume (gal/lin ft) (A):		Initial Depth to Water (ft) (B):
	Total Well Depth (ft) (C):		Water Column Thickness (ft) (C-B):		Well Volume (gal) (A*(C-B)):
	Ambient PID (ppm):		Well Mouth PID (ppm):		System Volume (gal):
	Weather:		Well Condition:		Comments:

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	1010	4.2	.05	250	9.51	11.54	8.31	1.92	3.1	-49	clear

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	1	500 ml	Poly	HNO_3	N		Metals, Hardness
					3	250 ml	Poly	—			Alkalinity, Anions, Color
					2	1 L	Poly	—			TDS, BOD
					3	500 ml	Amber	H_2SO_4			TKN, COD, Ammonia
Conversions	Stabilization Criteria				1	250 ml	Amber	H_2SO_4			TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF5 MW-100R_0519				Sample Time: 1015		

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GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: GRIFFIS		Location ID: MW49D07		Date: 5/15/19
	Project Name: LF007 LF#5		Project No./Phase:		Recorded By: H. Cavanaugh
EQUIPMENT	Pump Type/ID#: Geotech PeriPump 5430		Water Quality Meter/ID#: HORIBA U52 VP2X6B98/ P4BVH27L		PID Type/ID#: —
	Water Level Indicator Type/ID#: Solonist 101 331699		Other Equipment/ID#: —		Decon Method: Alconox, Distilled water
	Tubing Type/Diameter (in): —		Other Equipment/ID#: —		PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC stick-up		Unit Casing Volume (gal/lin ft) (A): —		Initial Depth to Water (ft) (B): 3.10
	Total Well Depth (ft) (C): 17.65		Water Column Thickness (ft) (C-B): 14.55		Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —		Well Mouth PID (ppm): —		System Volume (gal): —
	Weather: Sunny 50s		Well Condition: GOOD		Comments: started purging @ 10:48

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	~~10:53~~ HC										
	10:53	5.82	1 800 HC	200	10.24	6.64	0.864	2.81	267	-102	ORANGE
5/15/19	10:58	6.09	2	200	9.61	6.68	0.865	1.70	238	-109	↓
↓	11:03	6.38	3	200	9.71	6.57	0.858	1.15	178	-106	↓
	11:08	6.52	4	200	9.74	6.48	0.846	0.9	133	-102	light orange
	11:13	6.61	5	200	9.71	6.43	0.844	0.7	91.9	-101	↓
	11:19	6.69	6	200	9.72	6.43	0.835	0.65	57.4	-102	clear
	11:23	6.72	7	200	9.75	6.47	0.830	0.64	36.5	-105	↓
	11:28	6.77	8	200	9.76	6.49	0.829	0.62	35.1	-108	
↓	11:33	6.80	9	200	9.77	6.49	0.829	0.61	35.5	-109	↓

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly	NONE	N		Alkalinity, Color, anions TDS, BOD
					2	1L	poly	NONE	↓		
					1	500mL	poly	HNO_3			Hardness, Total Metals Boron
					3	500mL	amber	H_2SO_4			Ammonia, TKN, COD
Conversions	Stabilization Criteria				1	250mL	amber	H_2SO_4	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: MW49D07-0519				Sample Time: 11:35		

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GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: GRIFFIS	Location ID: LF5SW-1 [SURFACE WATER]	Date: 5/15/19
	Project Name: LF007 LF#5	Project No./Phase:	Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: –	Water Quality Meter/ID#: HORIBA U52 BDDTUOLA	PID Type/ID#: –
	Water Level Indicator Type/ID#: –	Other Equipment/ID#: –	Decon Method: –
	Tubing Type/Diameter (in): –	Other Equipment/ID#: –	PPE: level D
WELL INFO	Casing Type / ID (in): –	Unit Casing Volume (gal/lin ft) (A): –	Initial Depth to Water (ft) (B): –
	Total Well Depth (ft) (C): –	Water Column Thickness (ft) (C-B): –	Well Volume (gal) (A*(C-B)): –
	Ambient PID (ppm): –	Well Mouth PID (ppm): –	System Volume (gal): –
	Weather: ~~overcast~~ mc SUNNY 50s	Well Condition: –	Comments: –

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	1125	–	–	–	14.72	8.99	1.04	10.02	41.2	66	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units							
					3	250mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1L	poly	NONE	N		TDS, BOD
					1	500mL	poly	HNO_3	N		Hardness, Total Metal Boron
					3	500mL	amber	H_2SO_4	N		Ammonia, TKN, COD
Conversions	Stabilization Criteria				1	250mL	amber	H_2SO_4	N		TOC, Phenolic S
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF5SW-1-0519				Sample Time: 1130		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: GRIFFIS	Location ID: LF5SW-2 [SURFACE WATER]	Date: 5/15/19
	Project Name: LF007 LF#5	Project No./Phase:	Recorded By: S Carmichael
EQUIPMENT	Pump Type/ID#: –	Water Quality Meter/ID#: HORIBA U52 BDS UOLM	PID Type/ID#: –
	Water Level Indicator Type/ID#: –	Other Equipment/ID#: –	Decon Method: –
	Tubing Type/Diameter (in): –	Other Equipment/ID#: –	PPE: Level D
WELL INFO	Casing Type / ID (in): –	Unit Casing Volume (gal/lin ft) (A): –	Initial Depth to Water (ft) (B): –
	Total Well Depth (ft) (C): –	Water Column Thickness (ft) (C-B): –	Well Volume (gal) (A*(C-B)): –
	Ambient PID (ppm): –	Well Mouth PID (ppm): –	System Volume (gal): –
	Weather: ~~Overcast 40s~~ etc sunny 50s	Well Condition: –	Comments:

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	1140	–	–	–	16.01	8.83	1.0	8.13	55.7	66	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250 mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1L	poly	NONE	N		TDS, BOD
					1	500 mL	poly	HNO_3	N		Hardness, Total Metal Boron
					3	500 mL	amber	H_2SO_4	N		Ammonia, TKN, COD
					1	250 mL	amber	H_2SO_4	N		TOC, Phenolics

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

Sample ID: LF5SW-2-0519 Sample Time: 1145

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: GRIFFIS			Location ID: LF5SW-3 [SURFACE WATER]					Date: 5/15/19			
	Project Name: LF007 LF#5			Project No./Phase:					Recorded By: G. Carmichael			
EQUIPMENT	Pump Type/ID#: –			Water Quality Meter/ID#: HORIBA U52 8DDTOOLM					PID Type/ID#: –			
	Water Level Indicator Type/ID#: –			Other Equipment/ID#: –					Decon Method:			
	Tubing Type/Diameter (in): –			Other Equipment/ID#: –					PPE: Level D			
WELL INFO	Casing Type / ID (in): –			Unit Casing Volume (gal/lin ft) (A): –					Initial Depth to Water (ft) (B): –			
	Total Well Depth (ft) (C): –			Water Column Thickness (ft) (C-B): –					Well Volume (gal) (A*(C-B)): –			
	Ambient PID (ppm): –			Well Mouth PID (ppm): –					System Volume (gal): –			
	Weather: sunny 50s			Well Condition: –					Comments:			

CASING INFO	Casing ID (in) –	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	1155	–	–	–	15.67	8.33	1.01	7.59	0	160	
						–					

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1L	poly	NONE			TDS, BOD
					1	500mL	poly	HNO3			Hardness, Total Metals/Boron
					3	500mL	amber	H_2SO_4			Ammonia, TKN, COD
Conversions	Stabilization Criteria				1	250mL	amber	H_2SO_4	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF5SW-3_0519				Sample Time: 1200		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF009 Landfill #6		Location ID: LF6MW-1		Date: 5/15/19
	Project Name: Griffiss FAFB R180		Project No./Phase: 60220		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Grundfos Red:-Flo		Water Quality Meter/ID#: Horiba U-52		PID Type/ID#: -
	Water Level Indicator Type/ID#: Solinst 60722		Sampling Equipment/ID#: -		Decon Method: -
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: Level D
WELL INFO	Casing Type / ID (in): 2 in PVC		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): 61.15
	Total Well Depth (ft) (C): 69.40		Water Column Thickness (ft) (C-B): 8.25		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Sunny 58°F		Well Condition: good - lock needs replacing		Comments: Removed bladder pump - will replace after purging

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals) Liters	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	1350	61.50	2	400	13.8	7.66	2.92	6.22	20.7	42	clear
	1355	61.40	4	400	15.15	7.46	2.91	5.72	10.2	53	
	1400	61.55	5	800	15.95	7.41	2.85	5.11	5.8	66	
	1405	61.40	6	200	16.41	7.38	2.85	5.41	8.7	58	
	1410	61.40	7	200	16.45	7.31	2.87	5.48	8.2	58	

5/17 Replaced lock

pump start @ 1345

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250ml	Poly	NONE	N		Alkalinity, Anions, Color
					2	1L					BOD, TDS
					1	500ml		HNO_3			Total Boron, Hardness,
					3	500ml	Amber	H_2SO_4			Ammonia, BOD, TKN
Conversions	Stabilization Criteria				1	250ml					TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6MW1-0519				Sample Time: 1415		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project: Site: GRIFFIS	Location ID: 775YMW-18R	Date: 5/15/19
SITE	Project Name: LF009 LF #6	Project No./Phase:	Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: GRUNDFOS SUBPUMP RI205A2053	Water Quality Meter/ID#: HORIBA U52 VP2GB98 P4BYH2F6L	PID Type/ID#: -
	Water Level Indicator Type/ID#: SOLINST 101 33639	Other Equipment/ID#: -	Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): -	Other Equipment/ID#: -	PPE: LEVEL D
WELL INFO	Casing Type / ID (in): 2" PVC stick-up	Unit Casing Volume (gal/lin ft) (A): -	Initial Depth to Water (ft) (B): 50.99
	Total Well Depth (ft) (C): 97.40	Water Column Thickness (ft) (C-B): 46.41	Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -	Well Mouth PID (ppm): -	System Volume (gal): -
	Weather: SUNNY 60s	Well Condition: GOOD	Comments: started purging @ 13:35

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ L	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	13:40	51.27	2	400	14.12	7.45	2.90	8.21	269	105	light BROWN
	13:45	51.27	4	400	14.39	7.34	2.96	8.15	184	104	
	13:50	51.27	6	400	14.97	7.43	2.93	7.68	139	90	
	13:55	51.28	8	400	15.07	7.49	2.94	7.58	144	82	
	14:00	51.28	10	400	14.99	7.52	2.93	7.58	148	80	
	14:05	51.28	12	400	14.97	7.54	2.94	7.53	145	80	
	14:10	51.28	14	400	14.95	7.55	2.94	7.51	143	80	
	14:15	51.28	18	400	14.94	7.54	2.94	7.53	141	81	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1L	poly	NONE			TDS, BOD
					1	500mL	poly	HNO_3			Hardness, Total Metals, Boron
					3	500mL	amber	H_2SO_4			Ammonia, TKN, COD
Conversions	Stabilization Criteria				1	250mL	amber	H_2SO_4			TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: 775YMW-18R-0519				Sample Time: 14:18		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: GRIFFIS (Project: SITE / Project Name: LF009 LF #6)	Location ID: LF6VMW-21	Date: 5/15/19
		Project No./Phase:	Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: GRUNFOS SUBPUMP RI 805 H2053	Water Quality Meter/ID#: HORIBA U52 VP2XB598J PHBVH27L	PID Type/ID#: —
	Water Level Indicator Type/ID#: Solinst 101 336391	Other Equipment/ID#: —	Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): —	Other Equipment/ID#: —	PPE: LW | D
WELL INFO	Casing Type / ID (in): 2" steel stick-up	Unit Casing Volume (gal/lin ft) (A): —	Initial Depth to Water (ft) (B): 41.40
	Total Well Depth (ft) (C): 74.45	Water Column Thickness (ft) (C-B): 33.05	Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —	Well Mouth PID (ppm): —	System Volume (gal): —
	Weather: Partly cloudy 60s	Well Condition: GOOD	Comments: started purging @ 15:05, VERY TURBID

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ L	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	15:25	41.50	8	400	14.72	7.37	0.625	8.49	>1000	48	ORange-brown
	15:30	41.50	10	400	14.69	7.28	0.621	8.19	807	41	↓
	15:35	41.50	12	400	14.77	7.31	0.630	7.78	765	46	
	15:40	41.50	14	400	14.48	7.36	0.635	7.79	530	53	
	15:45	41.50	16	400	14.62	7.40	0.641	7.78	315	59	light brown
	15:50	41.50	18	400	14.71	7.46	0.647	7.79	225	62	↓
	15:55	41.50	20	400	14.74	7.50	0.653	7.83	186	62	
	16:00	41.50	22	400	14.70	7.58	0.662	7.84	153	63	
↓	16:05	41.50	24	400	14.64	7.62	0.663	7.83	105	63	↓

Colorimeter Results					No.-Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250 mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1L	poly	NONE	↓		TDS, BOD
					1	500 mL	poly	HNO_3			Hardness, Total Boron
					3	500 mL	amber	H_2SO_4			Ammonia, TKN, COD
Conversions	Stabilization Criteria				1	250 mL	amber	H_2SO_4	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6VMW-21_0519				Sample Time: 16:38		

LF6VMW-21_0519-9 [DUPLICATE collected] - SAME PARAMETERS

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	~~Project:~~ Site: GRIFFIS	Location ID: LF6VMW-21	Date: 5/15/19
SITE	~~Project~~ Name: LF009 LF#6	Project No./Phase:	Recorded By: H. Cavanaugh
EQUIPMENT	Pump Type/ID#: SEE PAGE 1	Water Quality Meter/ID#:	PID Type/ID#:
	Water Level Indicator Type/ID#:	Other Equipment/ID#: SEE PAGE 1	Decon Method: SEE PAGE 1
	Tubing Type/Diameter (in):	Other Equipment/ID#:	PPE:
WELL INFO	Casing Type / ID (in):	Unit Casing Volume (gal/lin ft) (A):	Initial Depth to Water (ft) (B):
	Total Well Depth (ft) (C): SEE PAGE 1	Water Column Thickness (ft) (C-B): SEE PAGE 1	Well Volume (gal) (A*(C-B)):
	Ambient PID (ppm):	Well Mouth PID (ppm):	System Volume (gal): SEE PAGE 1
	Weather:	Well Condition:	Comments:

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ L	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	16:10	40.50	26	400	14.59	7.73	0.665	7.86	70.3	60	clear
	16:15	41.50	28	400	14.57	7.79	0.668	7.89	56.9	56	"
	16:20	41.50	30	400	14.55	7.80	0.669	7.91	45.8	51	
	16:25	41.50	32	400	14.53	7.80	0.670	7.98	40.3	50	
	16:30	41.50	34	400	14.53	7.81	0.671	7.99	39.7	48	
↓	16:35	41.50	36	400	14.52	7.82	0.672	8.00	38.1	47	↓

Colorimeter Results					No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	SEE PAGE 1				

Conversions	Stabilization Criteria								
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%					
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%					
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6VMW-21_0519		Sample Time: 16:38		

LF6VMW-21-0519-9 [DUPLICATE collected]

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF009 LF#6		Location ID: TMC-USGS-2_0519		Date: 5/15/19
	Project Name: Griffiss 5430		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Peristaltic - Geotech		Water Quality Meter/ID#: Horiba U-52 8DDT		PID Type/ID#: -
	Water Level Indicator Type/ID#: Solinst 60722		Other Equipment/ID#: -		Decon Method: Distilled Water, Alconox
	Tubing Type/Diameter (in): ✓		Other Equipment/ID#: ✓		PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): 5.72
	Total Well Depth (ft) (C): 29.35		Water Column Thickness (ft) (C-B): 23.62'		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Sunny 58°F		Well Condition: Good		Comments: Removed bladder pump → will replace after purging Pump start @ 1525

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ Liters	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	1530	7.13	1	200	18.41	7.84	.223	3.51	968	115	very cloudy
↓	1535	7.98	2	200	13.22	7.8	.236	4.33	856	119	↓
	1540	8.88	3	200	12.54	7.79	.236	4.36	765	119	
	1545	9.87	4	200	12.14	7.78	.239	4.29	602	119	
	1550	10.57	5	200	12.11	7.76	.244	4.04	535	117	
	1555	11.52	6	200	11.97	7.74	.255	3.76	467	112	
	1600	1211	7	200	11.93	7.74	.260	3.62	442	107	
	1605	12.74	8	200	11.70	7.73	.265	3.46	400	101	
↓	1610	13.25	9	200	11.60	7.72	.270	3.30	388	94	↓

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250ml	Poly	NONE	N		Alkalinity, Color, Anions
					2	1L	↓	↓			BOD, TDS
					1	500ml	↓	HNO3			Total Boron, Hardness
					3	500ml	Amber	H2SO4			Ammonia TKN, COD
Conversions	Stabilization Criteria				1	250ml	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: TMC-USGS-2_0519				Sample Time: 1700		

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GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF009 LF#6		Location ID: TMC-USGS-2_0519		Date: 5/15/19
	Project Name: Griffis		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#:		Water Quality Meter/ID#:		PID Type/ID#:
	Water Level Indicator Type/ID#:		Other Equipment/ID#:		Decon Method:
	Tubing Type/Diameter (in):		Other Equipment/ID#:		PPE:
WELL INFO	Casing Type / ID (in):		Unit Casing Volume (gal/lin ft) (A):		Initial Depth to Water (ft) (B):
	Total Well Depth (ft) (C):		Water Column Thickness (ft) (C-B):		Well Volume (gal) (A*(C-B)):
	Ambient PID (ppm):		Well Mouth PID (ppm):		System Volume (gal):
	Weather:		Well Condition:		Comments:

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	1615	13.78	10	200	11.55	7.73	.277	3.15	369	85	Very Cloudy
	1620	14.26	11	200	11.51	7.71	.282	3.01	329	76	
	1625	14.76	12	200	11.39	7.71	.287	2.95	292	66	
	1630	15.11	13	200	11.42	7.72	.297	2.63	279	54	
	1635	15.47	14	200	11.45	7.70	.304	2.45	266	39	
	1640	15.79	15	200	11.42	7.68	.312	2.22	232	21	Cloudy
	1645	16.05	16	200	11.46	7.68	.316	2.12	223	18	
	1650	16.38	17	200	11.43	7.67	.318	2.11	222	15	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units							

Conversions	Stabilization Criteria										
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: TMC-USGS-2_0519				Sample Time: 1700		

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GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	~~Project:~~ Site: GRIFFIS		Location ID: LF6VMW-22		Date: 5/16/19
SITE	~~Project~~ Name: LF009 LF #6		Project No./Phase:		Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: Proactive Peri Pump 105687		Water Quality Meter/ID#: YSI PROPLUS 19B101		PID Type/ID#: -
	Water Level Indicator Type/ID#: Solinst 101		Other Equipment/ID#: -		Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: Level D
WELL INFO	Casing Type / ID (in): 2" Steel stick-up		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): 12.32
	Total Well Depth (ft) (C): 41.20		Water Column Thickness (ft) (C-B): 28.88		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Cloudy 50s		Well Condition: GOOD		Comments: started purging @ 8:27

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ L	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
					10.08						
5/16/19	8:32	12.35	2	400	~~10.08~~	6.45	0.313	7.88	548	213	light BROWN
	8:37	12.35	4	400	9.62	6.56	0.317	6.40	314	179	
	8:42	12.35	6	400	9.47	6.90	0.327	6.19	164	168	
	8:47	12.35	8	400	9.38	7.04	0.339	6.01	98.9	163	
	8:57	12.35	12	400	9.41	7.18	0.343	6.01	83.7	156	clear
	9:02	12.35	14	400	9.37	7.22	0.342	5.99	76.9	154	
	9:07	12.35	16	400	9.36	7.23	0.341	5.97	74.1	151	
	9:12	12.35	18	400	9.34	7.25	0.340	5.97	71.6	150	

Colorimeter Results					No. Containers/Volume/Type		Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250 mL poly	NONE →	N		Alkalinity, Color, Anions, BOD, TDS, Hardness, Total Boron, COD, TKN, Ammonia, TOC, Phenolics
					2	1L poly	NONE →			
					1	500 mL poly	HNO3 →			
					3	500 mL amber/clear	H2SO4 →			
					1	250 mL amber/clear	H2SO4 →			

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

Sample ID: LF6VMW-22-0519 Sample Time: 9:15

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF009 LF #6		Location ID: LF6VMW-26		Date: 5/16/19
	Project Name: Griffiss		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Grundfos-R1808A6P220		Water Quality Meter/ID#: Horiba U-52 8DDTVQLM		PID Type/ID#: -
	Water Level Indicator Type/ID#: Solinst 60722		Flow Equipment/ID#: -		Decon Method: Alconox 3 Distilled H_2O
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: LEVEL D
WELL INFO	Casing Type / ID (in): 2" PVC		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): 3.65
	Total Well Depth (ft) (C): 55.75		Water Column Thickness (ft) (C-B): 52.10		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Cloudy 50°F		Well Condition: good		Comments: Removed bladder pump → will replace when finished pump start @0840

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ Liters	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16	0845	3.65	2	400	10.33	5.91	.639	1.42	140	62	clear
1	0850	3.65	4	400	10.28	6.45	.661	.72	94.5	-73	
	0855	3.65	6	400	10.45	6.82	.664	.61	85.5	-112	
	0900	3.65	8	400	10.49	7.04	.665	.49	79.4	-131	
	0905	3.65	10	400	10.52	7.28	.665	.30	73.4	-149	
	0910	3.65	12	400	10.54	7.36	.667	.16	69.1	-156	
	0915	3.65	14	400	10.58	7.41	.668	.03	64.5	-161	
↓	0920	3.65	16	400	10.64	7.42	.668	.00	63.8	-164	↓

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250 ml	Poly	NONE	N		Alkalinity, Color, Anions
					2	1 L	↓	↓			TDS, BOD
					1	500 ml	↓	HNO_3			Total Boron, Hardness
					3	500 ml	Amber	H_2SO_4			TKN, Ammonia, COD
Conversions	Stabilization Criteria				1	250 ml	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6VMW-26-0519				Sample Time: 0925		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: GRIFFIS (Project: MC MC)	Location ID: LF6VMW-10R2	Date: 5/16/19
SITE	Project Name: LF009 LF#6	Project No./Phase:	Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: Proactive PeriPump 105697	Water Quality Meter/ID#: HORIBA U52 U72X6898/ P4BVH22L	PID Type/ID#: -
	Water Level Indicator Type/ID#: Solonist 386391	Other Equipment/ID#: -	Decon Method: alconox, distilled water
	Tubing Type/Diameter (in): -	Other Equipment/ID#: -	PPE: level D
WELL INFO	Casing Type / ID (in): 2" PVC stick-up	Unit Casing Volume (gal/lin ft) (A): -	Initial Depth to Water (ft) (B): 11.89
	Total Well Depth (ft) (C): 36.91	Water Column Thickness (ft) (C-B): 25.02	Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -	Well Mouth PID (ppm): -	System Volume (gal): -
	Weather: Cloudy 50s	Well Condition: GOOD	Comments: started purging @ 9:45

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	9:55	12.09	4	400	10.58	7.80	0.257	8.13	114	125	light brown
	10:00	12.30	6	400	10.01	7.86	0.260	7.65	92.9	123	
	10:05	12.39	8	400	9.50	7.91	0.264	7.43	86.5	121	
	10:10	12.45	10	400	9.59	7.93	0.263	7.14	77.9	120	
	10:15	12.46	12	400	9.63	7.94	0.261	6.92	50.3	119	clear
	10:20	12.46	14	400	9.60	7.95	0.263	6.90	49.8	118	
	10:25	12.46	16	400	9.62	7.96	0.261	6.85	48.4	116	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250 mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1 L	poly	NONE			BOD, TDS
					1	500 mL	poly	HNO_3			Hardness, Total Boron
					3	500 mL	amber	H_2SO_4			COD, TKN, Ammonia
					1	250 mL	amber	H_2SO_4			TOC, Phenolics

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

Sample ID: LF6VMW-10R2-0519 Sample Time: 10:28

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF009 LF #6	Location ID: MW-12	Date: 5/16/19
	Project Name: Griffiss R1808A6228	Project No./Phase:	Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: Grundfos Redi-Flo	Water Quality Meter/ID#: Horiba U-52 8DDTUQLM	PID Type/ID#: —
	Water Level Indicator Type/ID#: Solinst 60722	Sonic Equipment/ID#: —	Decon Method: Distilled Water, Alconox
	Tubing Type/Diameter (in): —	Other Equipment/ID#: —	PPE: Level D
WELL INFO	Casing Type / ID (in): 2" PVC	Unit Casing Volume (gal/lin ft) (A): —	Initial Depth to Water (ft) (B): 2.33
	Total Well Depth (ft) (C): 53.35	Water Column Thickness (ft) (C-B): 51.02	Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —	Well Mouth PID (ppm): —	System Volume (gal): —
	Weather: Sunny 65°F	Well Condition: Good	Comments: Removed bladder pump → will replace when finished pump start @ 1010

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ Liters	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	1015	2.95	2	400	11.15	6.36	.754	.24	40.4	-112	clear w/ black specks
↓	1020	3.01	4	400	10.92	6.56	.760	0.0	21.2	-149	↓
	1025	3.05	6	400	11.47	6.53	.763	0.0	20.5	-157	
↓	1030	3.07	8	400	11.56	6.53	.760	0.0	20.2	-157	↓

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250ml	Poly	None	N		Alkalinity, Color, Anions
					2	1L	↓	↓			TDS, BOD
					1	500ml	↓	HNO_3			Total Boron, Hardness
					3	500ml	Amber	H_2SO_4			Ammonia, TKN, COD
Conversions	Stabilization Criteria				1	250ml	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6MW-12_0519				Sample Time: 1035		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project Site: GRIFFIS	Location ID: LF6VMW-24	Date: 5/16/19
	SITE Project Name: LF009 LF#6	Project No./Phase:	Recorded By: H. Cavanagh
EQUIPMENT	Pump Type/ID#: Grundfos Submump RI80SR2053	Water Quality Meter/ID#: HORIBA U-52 VP2GB98/ P4BVH27L	PID Type/ID#: -
	Water Level Indicator Type/ID#: Solinst 336391	Other Equipment/ID#: -	Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): -	Other Equipment/ID#: -	PPE: Level D
WELL INFO	Casing Type / ID (in): 2" steel stick-up	Unit Casing Volume (gal/lin ft) (A): -	Initial Depth to Water (ft) (B): 10.45
	Total Well Depth (ft) (C): 53.95	Water Column Thickness (ft) (C-B): 43.50	Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -	Well Mouth PID (ppm): -	System Volume (gal): -
	Weather: Sunny 50s	Well Condition: GOOD	Comments: started purging @ 11:06

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	11:11	10.46	2	400	10.67	7.70	1.38	2.12	151	41	light gray
	11:16	10.47	4	400	11.02	7.92	1.39	1.31	126	-113	↓
	11:21	10.47	6	400	11.05	7.91	1.39	1.08	89.4	-135	↓
	11:26	10.47	8	400	11.09	7.93	1.40	0.92	40.7	-146	clear
	11:31	10.47	10	400	11.15	7.96	1.40	0.80	35.2	-153	↓
	11:36	10.47	12	400	11.17	7.98	1.40	0.74	34.9	-155	
	11:41	10.47	14	400	11.19	7.99	1.40	0.72	33.8	-157	
↓	11:46	10.47	16	400	11.20	7.97	1.40	0.71	32.5	-157	↓

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	poly	NONE	N		Alkalinity, Color, Anions, BOD, TDS
					2	1L	poly	↓	↓		Hardness, Total Boron
					1	500mL	poly	HNO_3			COD, TKN, Ammonia
					3	500mL	amber	H_2SO_4			TOC, Phenolics
Conversions	Stabilization Criteria				1	250mL	amber	↓	↓		
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6VMW-24-0519				Sample Time: 11:50		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project Site: GRIFFIS	Location ID: TMCMW-9-0519	Date: 5/16/19
	Project Name: LF009 LF#6	Project No./Phase:	Recorded By: H. Cavanaugh
EQUIPMENT	Pump Type/ID#: Proactive PeriPump 105187	Water Quality Meter/ID#: HORIBA U-52 VP2146898/ P4BVH271L	PID Type/ID#: –
	Water Level Indicator Type/ID#: Solonist 33639	Other Equipment/ID#: –	Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): –	Other Equipment/ID#: –	PPE: LEWLD
WELL INFO	Casing Type / ID (in): 4" PVC stick-up	Unit Casing Volume (gal/lin ft) (A): –	Initial Depth to Water (ft) (B): 1.49
	Total Well Depth (ft) (C): 25.12	Water Column Thickness (ft) (C-B): 23.63	Well Volume (gal) (A*(C-B)): –
	Ambient PID (ppm): –	Well Mouth PID (ppm): –	System Volume (gal): –
	Weather: Sunny 60s	Well Condition: GOOD	Comments: Started purging @ 12:20

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed ~~(Gals)~~ L	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	12:25	1.90	1.5	300	10.13	6.81	0.981	2.15	0.0	59	clear w/ black specks
	12:30	2.01	3	300	10.05	6.87	0.980	1.40	0.0	46	
	12:35	2.10	4.5	300	10.01	6.86	0.980	0.98	0.0	36	
	12:40	2.19	6	300	9.79	6.86	0.981	0.77	0.0	30	
	12:45	2.21	7.5	300	9.68	6.85	0.981	0.68	0.0	27	
	12:50	2.24	9	300	9.72	6.85	0.982	0.64	0.0	26	
	12:55	2.26	10.5	300	9.69	6.84	0.983	0.64	0.0	24	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250 mL	poly	NONE	N		Alkalinity, Color, Anions
					2	1L	↓	↓	↓		BOD, TDS
					1	500 mL	↓	HNO_3			Hardness, Total Boron
					3	500 mL	amber	H_2SO_4	↓		COD, TKN, Ammonia
Conversions	Stabilization Criteria				1	250 mL	↓	↓			TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: TMCMW-9-0519			Sample Time: 12:58			

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF069 LF #6		Location ID: LF6/TMCSW-3 Surface Water		Date: 5/15/19
	Project Name: Griffiss		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: –		Water Quality Meter/ID#: Horiba U-52 8DDTVQM		PID Type/ID#: –
	Water Level Indicator Type/ID#: –		Other Equipment/ID#: –		Decon Method: –
	Tubing Type/Diameter (in): –		Other Equipment/ID#: –		PPE: Level D
WELL INFO	Casing Type / ID (in): –		Unit Casing Volume (gal/lin ft) (A): –		Initial Depth to Water (ft) (B): –
	Total Well Depth (ft) (C): –		Water Column Thickness (ft) (C-B): –		Well Volume (gal) (A*(C-B)): –
	Ambient PID (ppm): –		Well Mouth PID (ppm): –		System Volume (gal): –
	Weather: Sunny 58°F		Well Condition: –		Comments:

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/15/19	1725	–	–	–	15.28	7.56	.831	4.63	94.1	94	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250ml	Poly	NONE	N		Alkalinity, Color, Anions
					2	1L	↓	↓	↓		TSS, TDS
					1	500ml	↓	HNO_3	↓		Total Boron, Hardness
					3	500ml	Amber	H_2SO_4	↓		Ammonia, COD, TKN
Conversions	Stabilization Criteria				1	250ml	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6/TMCSW-3_0519				Sample Time: 1710		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF009 LF #6		Location ID: LF6/TMCSW-1 [Surface]		Date: 5/16/19
	Project Name: Griffiss		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: —		Water Quality Meter/ID#: Horiba-52 BDDTOOLM		PID Type/ID#: —
	Water Level Indicator Type/ID#: —		Other Equipment/ID#: —		Decon Method: —
	Tubing Type/Diameter (in): —		Other Equipment/ID#: —		PPE: Level D
WELL INFO	Casing Type / ID (in): —		Unit Casing Volume (gal/lin ft) (A): —		Initial Depth to Water (ft) (B): —
	Total Well Depth (ft) (C): —		Water Column Thickness (ft) (C-B): —		Well Volume (gal) (A*(C-B)): —
	Ambient PID (ppm): —		Well Mouth PID (ppm): —		System Volume (gal): —
	Weather: Sunny 65°F		Well Condition:		Comments:

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	1110	—	—	—	14.63	6.78	.960	11.98	0	3	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250ml	Poly	NONE	N		Alkalinity, Color, Anions
					2	1L	↓	↓	↓		TDS, BOD
					1	500ml	↓	HNO_3	↓		Total Boron, Hardness
					3	500ml	Amber	H_2SO_4	↓		TKN, COD, Ammonia
Conversions	Stabilization Criteria				1	250ml	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6/TMCSW-1_0519				Sample Time: 1115		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF009 LF #6	Location ID: LF6/TMCSW-2[Surface]	Date: 5/16/19
	Project Name: Griffiss	Project No./Phase:	Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: —	Water Quality Meter/ID#: Horiba U-52 8DDTU6LM	PID Type/ID#: —
	Water Level Indicator Type/ID#: —	Other Equipment/ID#: —	Decon Method: —
	Tubing Type/Diameter (in): —	Other Equipment/ID#: —	PPE: Level D
WELL INFO	Casing Type / ID (in):	Unit Casing Volume (gal/lin ft) (A):	Initial Depth to Water (ft) (B):
	Total Well Depth (ft) (C):	Water Column Thickness (ft) (C-B):	Well Volume (gal) (A*(C-B)):
	Ambient PID (ppm):	Well Mouth PID (ppm):	System Volume (gal):
	Weather: Sunny 65°F	Well Condition:	Comments: DUP collected at this location

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	1140	—	—	—	15.69	7.14	.916	11.38	0	33	

Colorimeter Results

Time	Analyte	Dilution	Result	Units

Conversions	Stabilization Criteria			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers	Volume	Type	Preserv.	Filter (Y/N)	Method	Parameter(s)
3	250ml	Poly	NONE	N		Alkalinity, Anions, Color
2	1L	↓	↓			TDS, BOD
1	500ml	↓	HNO3			Total Boron, Hardness
3	500ml	Amber	H2SO4			COD, TKN, Ammonia
1	250ml	↓	↓	↓		TOC, Phenolics

Sample ID: LF6/TMCSW-2_0519

Sample Time: 1145

DUP ⇒ LF6/TMCSW-2_0519-a

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF009 LF #6		Location ID: LF6LH-1 [Leachate]		Date: 5/16/19
	Project Name: Griffiss		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: -		Water Quality Meter/ID#: Horiba U-52 8DDTVQLM		PID Type/ID#: -
	Water Level Indicator Type/ID#: -		Other Equipment/ID#: -		Decon Method: -
	Tubing Type/Diameter (in): -		Other Equipment/ID#: -		PPE: Level D
WELL INFO	Casing Type / ID (in): -		Unit Casing Volume (gal/lin ft) (A): -		Initial Depth to Water (ft) (B): -
	Total Well Depth (ft) (C): -		Water Column Thickness (ft) (C-B): -		Well Volume (gal) (A*(C-B)): -
	Ambient PID (ppm): -		Well Mouth PID (ppm): -		System Volume (gal): -
	Weather: Sunny 65°F		Well Condition: -		Comments: -

CASING INFO											
Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	1245	-	-	-	17.07	7.26	.787	9.68	0	-22	

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units							
					3	250 ml	Poly	NONE	N		Alkalinity, Color, Anions
					2	1 L	↓	↓	↓		TDS, BOD
					1	500 ml	↓	HNO3	↓		Total Boron
					3 gc	250 ml + 500 ml	Amber	H2SO4	↓		COD, TKN, Ammonia
Conversions	Stabilization Criteria				1	250 ml	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6LH-1-0519				Sample Time: 1250		

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Site: LF009 LF#6		Location ID: LF6LH-2		Date: 5/16/19
	Project Name: Griffiss		Project No./Phase:		Recorded By: G. Carmichael
EQUIPMENT	Pump Type/ID#: –		Water Quality Meter/ID#: Horiba 8DDTUXM		PID Type/ID#: –
	Water Level Indicator Type/ID#: –		Other Equipment/ID#: –		Decon Method: –
	Tubing Type/Diameter (in): –		Other Equipment/ID#: –		PPE: Level D
WELL INFO	Casing Type / ID (in):		Unit Casing Volume (gal/lin ft) (A):		Initial Depth to Water (ft) (B):
	Total Well Depth (ft) (C):		Water Column Thickness (ft) (C-B):		Well Volume (gal) (A*(C-B)):
	Ambient PID (ppm):		Well Mouth PID (ppm):		System Volume (gal):
	Weather:		Well Condition:		Comments:

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	1215	–	–	–	16.56	7.22	.912	11.88	0	29	

Colorimeter Results

Time	Analyte	Dilution	Result	Units

Conversions	**Stabilization Criteria**			
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%
	Cond	+/- 10%	ORP	+/- 10

No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
3	250ml	Poly	NONE	N		Alkalinity, Anions, Color
2	1L	↓	↓	↓		BOD, TDS
1	500ml	↓	HNO_3	↓		Total Boron, Hardness
3	500ml	Amber	H_2SO_4	↓		COD, TKN, Ammonia
1	250ml	↓	↓	↓		TOC, Phenolics

Sample ID: LF6LH-2_0519 Sample Time: 1220

bhate

GROUNDWATER SAMPLE COLLECTION FORM

LOCATION	Project Site: GRIFFIS	Location ID: LF6W-1-0519 [WETLAND SAMPLE]	Date: 5/16/19
	SITE Project Name: LF009 LF#6	Project No /Phase:	Recorded By: H. Cavanagh II
EQUIPMENT	Pump Type/ID#: –	Water Quality Meter/ID#: HORIBA U-52 U92X6B98/ PUBV1127L	PID Type/ID#: –
	Water Level Indicator Type/ID#: –	Other Equipment/ID#: –	Decon Method: Alconox, Distilled Water
	Tubing Type/Diameter (in): –	Other Equipment/ID#: –	PPE: Level D
WELL INFO	Casing Type / ID (in): –	Unit Casing Volume (gal/lin ft) (A): –	Initial Depth to Water (ft) (B): –
	Total Well Depth (ft) (C): –	Water Column Thickness (ft) (C-B): –	Well Volume (gal) (A*(C-B)): –
	Ambient PID (ppm): –	Well Mouth PID (ppm): –	System Volume (gal): –
	Weather: SUNNY 60s	Well Condition: –	Comments: –

CASING INFO	Casing ID (in)	0.5	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
	Unit Casing Volume (gal/lin ft)	0.016	0.020	0.043	0.103	0.160	0.378	0.652	1.03	1.48	2.57

DATE	TIME (24 Hr)	Water Level (BTOC)	Volume Removed (Gals)	Pumping Rate (ml/min)	Temp (C)	pH	Cond (mS/cm)	DO (mg/l)	Turb (NTU)	ORP (mV)	Remarks (odor, clarity, etc.)
5/16/19	13:15	–	–	–	14.58	6.63	0.185	7.29	5.1	78	CLEAR W/ debris (pieces of leaves & reeds)

Colorimeter Results					No. Containers/Volume/Type			Preserv.	Filter (Y/N)	Method	Parameter(s)
Time	Analyte	Dilution	Result	Units	3	250mL	Poly	NONE	N		Alkalinity, Color, Anions
					2	1L	↓	↓	↓		BOD, TDS
					1	500mL	↓	HNO_3			Hardness, Total Boron
					3	500mL	amber	H_2SO_4			COD, TKN, Ammonia
Conversions	Stabilization Criteria				1	250mL	↓	↓	↓		TOC, Phenolics
1 L = 0.26 gals	Temp	+/- 10%	DO	+/- 10%							
1 gal = 3.79 L	pH	+/- 0.1	Turb	+/- 10%							
	Cond	+/- 10%	ORP	+/- 10	Sample ID: LF6W-1-0519				Sample Time: 13:20		